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Research Triangle Park NC 27711

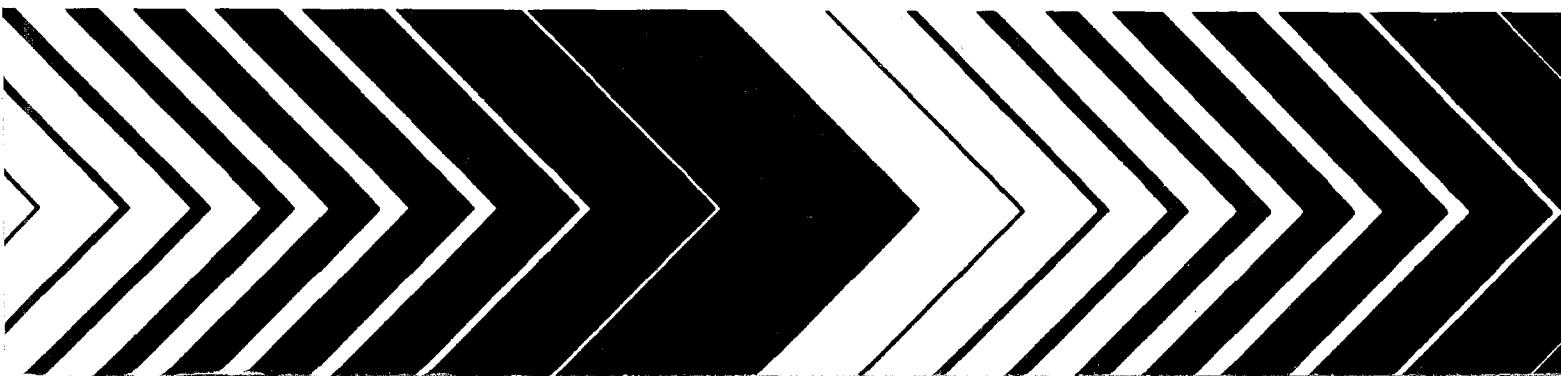
EPA/600/4-88/037
August 1988

Research and Development



Precision and Accuracy Assessments for State and Local Air Monitoring Networks 1981-1986

Supplement to EPA/600/4-88/007



EPA/600/4-88/037
August 1988

PRECISION AND ACCURACY ASSESSMENTS
FOR STATE AND LOCAL AIR MONITORING NETWORKS
1981-1986

Supplement to EPA-600/4-88-007

by

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OFFICE OF RESEARCH AND DEVELOPMENT
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ABSTRACT

Precision and accuracy assessments of air quality data obtained from State and local air monitoring agencies during the six years, 1981-1986, are summarized in graphical form for each reporting organization. For most reporting organizations, the graphs show an improvement in data quality during the six-year period. Comparisons across reporting organizations for the same pollutant measurements reveal persistent significant differences.

The data quality assessments are also summarized and shown graphically for each EPA Region and for the Nation. Persistent significant differences are evident among the Regions. Investigation to identify the causes of these persistent significant differences and implementation of appropriate corrective actions are recommended to further improve data quality. The importance of the originating agencies plotting of quality control charts for the individual site results is emphasized. Examples of the charts included in Florida's quarterly quality assurance report are presented and discussed.

This report covers the period from 1981 through 1986, and work was completed as of July 1988. This report is a supplement to EPA-600/4-88-007.



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A special thanks is given to Mr. Don Stuart and Mr. Dick Arbes of the Quality Assurance Section, Bureau of Air Quality Management, State of Florida for permission to use some of the precision and accuracy graphs presented in their Quarterly Quality Assurance Report.



SECTION 1

INTRODUCTION

Federal regulations promulgated on May 10, 1979 (40 CFR Part 58)¹ require the State and local air monitoring agencies to perform special checks to assess the accuracy and precision of their ambient air measurement systems for the criteria pollutants. The special checks have been required since January 1, 1981, and a summarized form of the results is reported to the EPA, Environmental Monitoring Systems Laboratory (EMSL), Research Triangle Park (RTP), North Carolina for further summarization and evaluation.

Details concerning the performance of the special checks, and the reporting of the results have been presented in annual reports for the years 1981 through 1986.²⁻⁷ The annual results for each reporting organization were tabulated in the reports, and graphical presentations were made to show time trends from year-to-year for the EPA Regions and the Nation.

The purpose of this report is to present graphs of the results for each reporting organization for the six-year period, 1981-1986, so that time trends and other relationships can be shown.

Revised regulations of March 19, 1986 (40 CFR Part 58)¹ require that the special checks for accuracy and precision be continued and that all of the raw data rather than summarized results be reported to EMSL/RTP for all special checks made after December 31, 1986. Because the more detailed reporting of data for 1987 and beyond will enable a more detailed summarization, analysis, and evaluation to be made, it was deemed appropriate to provide this six-year graphical summary for each reporting organization to the States and EPA Regional Offices. Sections 2 and 3 contain discussions of these summaries and explanations of how they are presented.

Also included in this report is some discussion of the need for the originating agencies to maintain quality control charts for each site. Examples of charts that the State of Florida includes in their quarterly quality assurance report are presented and discussed in Section 4.

SECTION 2

RESULTS BY REPORTING ORGANIZATION

Air monitoring data quality assessments, as 95 percent probability limits, are shown graphically for each reporting organization by year, 1981-1986, in Appendix G.*

Figures 1 and 2 illustrate the form and arrangement of the graphs for each reporting organization. The example, Kentucky, Jefferson County Air Pollution Control District, was selected because it shows the reporting for all possible measurement methods. The first page shows the graphs for Continuous Methods, while the second shows the graphs for Manual Methods. The Continuous Methods are presented in the following order, from top to bottom: CO, SO₂, NO₂, and O₃. The Manual Methods are presented in the following order, from top to bottom: Total Suspended Particulates (TSP), SO₂, NO₂, and Pb.

Precision is always shown as the left-most graph followed by Accuracy, Levels 1, 2, and 3 from left to right. All 3 levels for accuracy are shown for all methods except for TSP, where only a single level (reported as level 2) was required, and for Pb where only two levels (reported as levels 1 and 2) were required. The results of level 4 for episode continuous monitors are not shown in this report because a large number of reporting organizations do not have episode monitors. It should be noted that the scales for all corresponding graphs are the same throughout to enable visual comparisons to be made from reporting organization to reporting organization.

The upper and lower extremes of the vertical bars shown for each year represent the upper and lower 95 percent probability limits, respectively, for all of the precision and accuracy checks made during the year in the reporting organization. It is expected that 5 percent of the results of the individual precision or accuracy checks would exceed these limits. The mid-points of the vertical bars are connected to better show trends and biases. In all cases, the vertical scales on each chart are the percent deviation of an observed precision and accuracy result from a test or reference value.

For more detail concerning the actual precision and accuracy checks and the computations of the 95 percent probability limits, the reader is referred to any of the documents listed as references for this report.

*Originally, the graphs in this report were planned to be included in the 1986 report, which contains Appendices A-F. However, because of the large number of pages, this separate report was prepared. Thus, the first appendix in this report is Appendix G.

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04
STATE : 18 KENTUCKY
REPORG: 002 KY, JEFFERSON CO. AIR POLL. CONTROL DIST

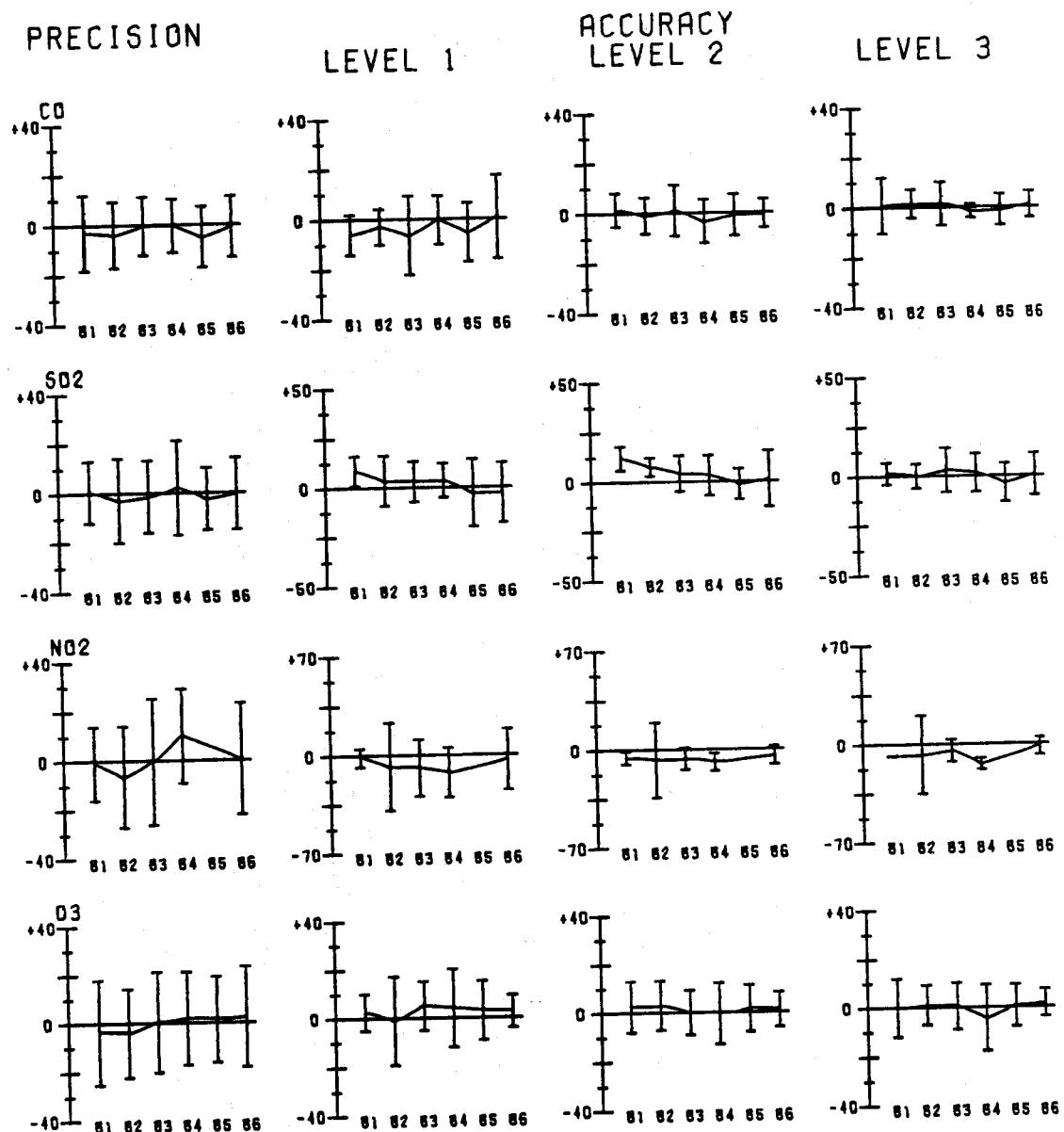


Figure 1. Example graphs for a reporting organization, continuous method results.

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

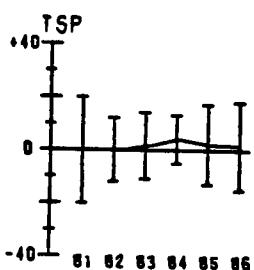
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STATE : 18 KENTUCKY

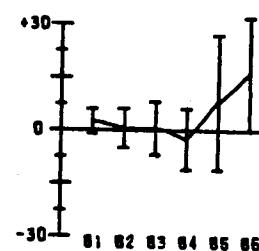
REPORG: 002 KY, JEFFERSON CO. AIR POLL. CONTROL DIST

PRECISION

LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

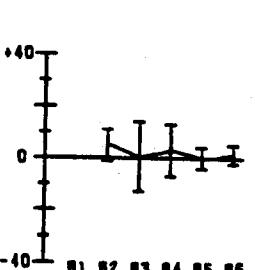
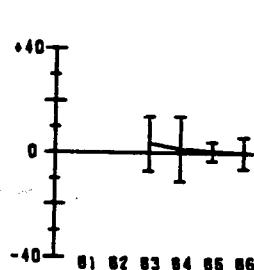
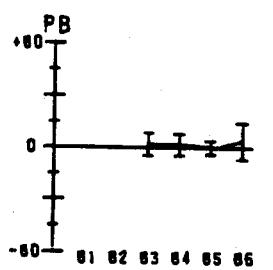
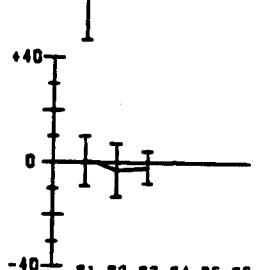
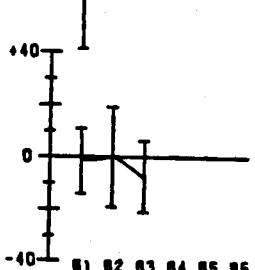
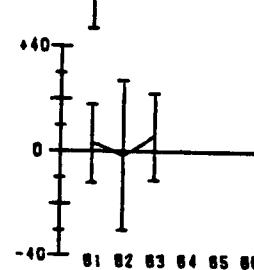
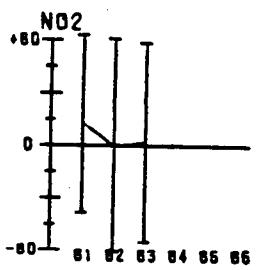
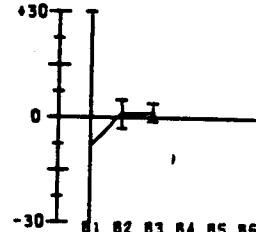
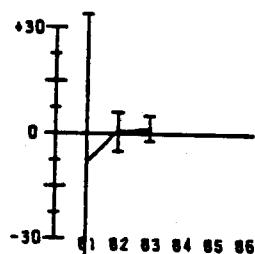
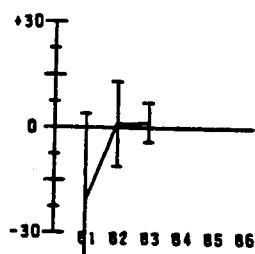
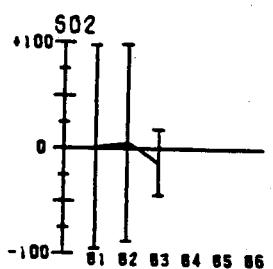


Figure 2. Example graphs for a reporting organization, manual method results.

As can be seen in Figures 1 and 2, the scale ranges (%) are as follows:

Precision	Accuracy <u>All Levels</u>
<u>Continuous Methods</u>	
CO	-40 to +40
SO ₂	-40 to +40
NO ₂	-40 to +40
O ₃	-40 to +40
<u>Manual Methods</u>	
TSP	-40 to +40
SO ₂	-100 to +100
NO ₂	-80 to +80
Pb	-80 to +80
	-30 to +30
	-30 to +30
	-20 to +40
	-40 to +40

Figures 1 and 2 also show that although the graphs for the continuous SO₂ and NO₂ and the manual SO₂ and NO₂ are located in the same positions on the page for comparison purposes, the scales are different. Whenever a reporting organization has not reported for a given method for any year, that portion of the page is left blank. Always shown at the top of each page is the EPA Region number, the state number and name, and the reporting organization number and name.

ORDER OF PRESENTATION

To avoid the need to provide a detailed table of contents for each state or reporting organization, the graphs in Appendix G are presented in the following order:

1. By Region, in numerical order;
2. Within Region by State, in alphabetical and numerical order;
3. Within State by Reporting Organization, in numerical order.

Thus, the graphs appear in the order shown below.

Region	State		Reporting Organization	
	No.	Name	No.	Name
01	07	CONNECTICUT	001	AIR MONIT. SEC. DEPT. OF ENV. PROTECT.
01	20	MAINE	001	BUREAU OF A.Q.C. DEPT. OF ENV. PROTECT.
01	20	MAINE	101	S.D. WARREN CO., WESTBROOK
01	20	MAINE	102	S.D. WARREN CO., HINCKLEY
01	20	MAINE	103	INTERNATIONAL PAPER CO., JAY
01	20	MAINE	104	BOISE CASCADE CO., RUMFORD
01	20	MAINE	106	DRAGON PRODUCTS, THOMASTON
01	20	MAINE	107	SCOTT PAPER CO., WINSLOW

Region	No.	State Name	No.	Reporting Organization Name
01	20	MAINE	108	CHAMPION INTERNATIONAL CORP., BUCKSPORT
01	20	MAINE	109	LINCOLN PULP AND PAPER CO., LINCOLN
01	20	MAINE	110	GREAT NORTHERN PAPER CO., MILLINOCHE
01	20	MAINE	112	GEORGIA PACIFIC CO., WOODLAND
01	22	MASSACHUSETTS	001	DIV. OF AQC. DEPT. OF ENV. QUAL. ENG.
01	30	NEW HAMPSHIRE	001	AIR RESOURCES AGENCY
01	41	RHODE ISLAND	001	DIV. OF A. HAZ. MAT. DEPT. OF ENV. MANAGE.
01	47	VERMONT	001	AIR & SOLID WASTE PROGRAMS
02	31	NEW JERSEY	001	DEPT. OF ENV. PROT., DIV. OF ENV. QUAL.
02	33	NEW YORK	001	DEPT. OF ENV. CONSERV., DIV. OF AIR
02	40	PUERTO RICO	001	ENVIRONMENTAL QUALITY BOARD
02	55	VIRGIN ISLANDS	001	DEPT. OF CONS. AND CULTURAL AFFAIRS
02	55	VIRGIN ISLANDS	017	MARTIN MARIETTA
03	08	DELaware	001	STATE OF DELAWARE, DNR & EC
03	09	DISTRICT OF COLUMBIA	001	WASHINGTON, DC DC & RA
03	21	MARYLAND	001	STATE OF MARYLAND
03	21	MARYLAND	002	ALLEGANY COUNTY
03	21	MARYLAND	003	ANNE ARUNDEL COUNTY
03	21	MARYLAND	004	BALTIMORE CITY
03	21	MARYLAND	005	BALTIMORE COUNTY
03	21	MARYLAND	006	PRINCE GEORGE'S COUNTY
03	39	PENNSYLVANIA	001	PENNSYLVANIA DER
03	39	PENNSYLVANIA	002	ALLEGHENY CO. BAPC
03	39	PENNSYLVANIA	003	PHILADELPHIA AMS
03	48	VIRGINIA	001	VIRGINIA STATE AIR POLL. CONTROL BOARD
03	48	VIRGINIA	002	CITY OF ALEXANDRIA
03	48	VIRGINIA	003	FAIRFAX COUNTY
03	48	VIRGINIA	004	ROANOKE COUNTY
03	48	VIRGINIA	005	TENNESSEE VALLEY AUTHORITY - VA
03	48	VIRGINIA	006	TENNESSEE VALLLEY AUTHORITY - VA
03	50	WEST VIRGINIA	001	STATE OF WEST VIRGINIA
03	50	WEST VIRGINIA	002	WVA NORTHERN PANHANDLE REGIONAL OFFICE
04	01	ALABAMA	011	ALABAMA DEPT. OF ENVIRONMENTAL MGT.
04	01	ALABAMA	012	AL, JEFFERSON CNTY. BUREAU OF ENV. HLTH.
04	01	ALABAMA	013	AL DEPT. OF ENV. MANAGEMENT - MOBILE
04	01	ALABAMA	014	AL, HUNTSVILLE AIR POLL. CONTROL DEPT.
04	01	ALABAMA	015	AL, TRICOUNTY DIV. OF AIR POLL. CONTROL
04	01	ALABAMA	016	TENNESSEE VALLEY AUTHORITY - ALABAMA
04	10	FLORIDA	001	FDER, NORTHWEST DISTRICT
04	10	FLORIDA	002	FDER, NORTHEAST DISTRICT
04	10	FLORIDA	003	FDER, ST. JOHNS RIVER DISTRICT
04	10	FLORIDA	004	FDER, SOUTHWEST DISTRICT
04	10	FLORIDA	005	FDER, SOUTH FLORIDA DISTRICT
04	10	FLORIDA	006	FDER, SOUTHEAST FLORIDA DISTRICT
04	10	FLORIDA	007	FDER, NORTHEAST DISTRICT BRANCH OFFICE
04	10	FLORIDA	011	FL, JACKSONVILLE BIO-ENV. SERVICES DIV.
04	10	FLORIDA	012	FL, HILLSBOROUGH CO., ENV. SERVICES DIV.

Region	No.	State Name	Reporting Organization	
			No.	Name
04	10	FLORIDA	013	FL, PINELLAS CO. DEPT. OF ENV. MANAGEMENT
04	10	FLORIDA	014	FL, MANATEE COUNTY HEALTH DEPARTMENT
04	10	FLORIDA	015	FL, SARASOTA CO. AIR POLL. CONTROL DIV.
04	10	FLORIDA	016	FL, PALM BEACH COUNTY HEALTH DEPARTMENT
04	10	FLORIDA	017	FL, BROWARD CO. ENV. QUAL. CONTROL BOARD
04	10	FLORIDA	018	FL, DADE CO. DEPT OF ENV. RESOURCES MGT.
04	10	FLORIDA	020	FL, ORANGE CO. ENV. PROTECTION DEPT.
04	10	FLORIDA	022	EVERGLADES NATIONAL PARK
04	11	GEORGIA	010	GEORGIA AIR QUAL. EVALUATION SECTION EPD
04	18	KENTUCKY	001	KENTUCKY DIV. OF AIR POLL. CONTROL
04	18	KENTUCKY	002	KY, JEFFERSON CO. AIR POLL. CONTROL DIST.
04	18	KENTUCKY	003	TENNESSEE VALLEY AUTHORITY - KENTUCKY
04	25	MISSISSIPPI	100	MISSISSIPPI BUREAU OF POLLUTION CONTROL
04	34	NORTH CAROLINA	001	NC NATURAL RESOURCES & COMMUNITY-devel.
04	34	NORTH CAROLINA	002	NC, FORSYTH COUNTY ENV. AFFAIRS DEPT.
04	34	NORTH CAROLINA	003	NC, MECKLENBURG CO. DEPT. OF ENV. HEALTH
04	34	NORTH CAROLINA	004	NC, WESTERN REGIONAL AIR POLL. CONTROL
04	42	SOUTH CAROLINA	001	SC DEPT. OF HEALTH & ENV. CONTROL
04	44	TENNESSEE	001	TENNESSEE DIV. OF AIR POLL. CONTROL
04	44	TENNESSEE	002	TN, MEMPHIS-SHELBY CO. HEALTH DEPARTMENT
04	44	TENNESSEE	003	METRO HEALTH DEPT. NASHVILLE-DAVIDSON CO.
04	44	TENNESSEE	004	TN, KNOX COUNTY DEPT. OF AIR POLL. CONTROL
04	44	TENNESSEE	005	TN, CHATTANOOGA-HAMILTON CO. AIR POLL. CONT.
04	44	TENNESSEE	006	TENNESSEE VALLEY AUTHORITY - TENNESSEE
05	14	ILLINOIS	001	DIV. OF AIR POLL. CONT., ILLINOIS EPA
05	14	ILLINOIS	002	CHICAGO DEPT. OF CONSUMER SERVICES
05	14	ILLINOIS	003	COOK COUNTY DEPT. OF ENVIRONMENTAL CONT.
05	15	INDIANA	001	AIR POLL. CONT. DIV. OF INDIANA STATE
05	15	INDIANA	002	DIV. OF AIR POLL. CONT., EVANSVILLE
05	15	INDIANA	003	ST. JOSEPH COUNTY
05	15	INDIANA	004	DIV. OF AIR POLLUTION CONTROL, GARY
05	15	INDIANA	005	AIR POLL. CONT. DIV., VIGO COUNTY
05	15	INDIANA	006	DIV. OF AIR QUALITY, EAST CHICAGO
05	15	INDIANA	007	AIR POLLUTION CONTROL DIV., HAMMOND
05	15	INDIANA	008	INDIANAPOLIS APC DIVISION
05	15	INDIANA	009	ANDERSON LOCAL AGENCY
05	15	INDIANA	010	PORTER COUNTY HEALTH DEPARTMENT
05	15	INDIANA	100	LAKE COUNTY CONSOLDTD. AQ MONIT. WRK. GRP.
05	15	INDIANA	101	PUBLIC SERVICE OF INDIANA
05	23	MICHIGAN	001	AIR QUAL. DIV., MI DEPT. OF NAT. RES.
05	23	MICHIGAN	002	AIR POLL. CONT. DIV., WAYNE COUNTY
05	24	MINNESOTA	001	MINNESOTA POLL. CONT. AGENCY, AIR MO
05	36	OHIO	001	OHIO EPA, CENTRAL DISTRICT OFFICE
05	36	OHIO	002	OHIO EPA, NORTHEAST DISTRICT OFFICE
05	36	OHIO	003	OHIO EPA, NORTHWEST DISTRICT OFFICE
05	36	OHIO	004	OHIO EPA, SOUTHEAST DISTRICT OFFICE
05	36	OHIO	005	OHIO EPA, SOUTHWEST DISTRICT OFFICE
05	36	OHIO	006	AKRON AIR POLLUTION CONTROL

Region	No.	State Name	No.	Reporting Organization
				Name
05	36	OHIO	007	AIR POLL. CONT. DIV., CANTON CITY
05	36	OHIO	008	SOUTHWESTERN OHIO AIR POLL. AGENCY
05	36	OHIO	009	CLEVELAND DIV. OF AIR POLL. AGENCY
05	36	OHIO	010	REGIONAL APC AGENCY, DAYTON
05	36	OHIO	012	AIR POLL. CONT. DIV. OF LAKE COUNTY
05	36	OHIO	013	AIR POLL. UNIT, PORTSMOUTH CITY
05	36	OHIO	014	NORTH OHIO VALLEY AIR AUTHORITY
05	36	OHIO	015	TOLEDO POLL. CONTROL AGENCY
05	36	OHIO	016	MAHONING TRUMBULL AIR POLL. CONTROL
05	51	WISCONSIN	001	WI. DEPT. OF NAT. RES., AIR MONIT. UNIT
06	04	ARKANSAS	001	DEPT. OF POLL. CONT. & ECOLOGY CONT. MON
06	04	ARKANSAS	002	DEPT. OF POLL. CONT. & ECOLOGY
06	19	LOUISIANA	001	DEPT. OF NATURAL RESOURCES, NEW ORLEANS
06	19	LOUISIANA	002	KEMRON ENV. SERVICES, BATON ROUGE
06	32	NEW MEXICO	001	ENV. IMPROVEMENT DIV., SANTA FE
06	32	NEW MEXICO	002	CITY OF ALBUQUERQUE ENV. HEALTH DIV.
06	37	OKLAHOMA	101	OK STATE DEPT. OF HEALTH
06	37	OKLAHOMA	102	OKLAHOMA CITY-CNTY. HEALTH DEPT.
06	37	OKLAHOMA	103	TULSA CITY-CNTY. HEALTH DEPT.
06	45	TEXAS	001	TEXAS AIR CONTROL BOARD
06	45	TEXAS	002	DALLAS ENV. HEALTH & CONSERVATION DEPT.
06	45	TEXAS	003	EL PASO CITY-CNTY. HEALTH DEPT.
06	45	TEXAS	004	FT. WORTH PUBLIC HEALTH DEPT.
06	45	TEXAS	005	GALVESTON COUNTY HEALTH DISTRICT
06	45	TEXAS	006	HOUSTON DEPT. OF PUBLIC HEALTH
06	45	TEXAS	007	SAN ANTONIO METRO. HEALTH DISTRICT
07	16	IOWA	001	POLK COUNTY PHYSICAL PLANNING
07	16	IOWA	002	LINN COUNTY HEALTH DEPARTMENT
07	16	IOWA	003	UNIVERSITY HYGIENIC LABORATORY
07	17	KANSAS	001	STATE OF KANSAS
07	26	MISSOURI	001	LABORATORY SERVICES PROGRAM
07	26	MISSOURI	002	ST. LOUIS COUNTY
07	26	MISSOURI	003	ST. LOUIS CITY
07	26	MISSOURI	004	KANSAS CITY
07	26	MISSOURI	005	SPRINGFIELD
07	26	MISSOURI	006	AMAX LEAD CO. OF MO, BOSS, MO
07	26	MISSOURI	007	ST. JOE LEAD CO., HERCULANEUM, MO
07	28	NEBRASKA	001	STATE OF NEBRASKA
07	28	NEBRASKA	002	LINCOLN
07	28	NEBRASKA	003	OMAHA
08	06	COLORADO	001	DEPARTMENT OF HEALTH
08	27	MONTANA	001	MT AIR QUAL. BUREAU, DEPT. OF H&ENV.
08	27	MONTANA	002	YELLOWSTONE CNTY. AIR POLL. CONT. AGY.
08	27	MONTANA	003	GREAT FALLS CITY-CNTY. HEALTH DEPT.
08	27	MONTANA	004	MISSOULA CITY-CNTY HEALTH DEPT.
08	35	NORTH DAKOTA	001	STATE DEPARTMENT OF HEALTH
08	43	SOUTH DAKOTA	001	DEPT. OF HEALTH, DIV. OF ENV. HEALTH
08	46	UTAH	001	STATE BUREAU OF AIR QUALITY

Region	No.	State Name	Reporting Organization	
			No.	Name
08	52	WYOMING	001	DEPT. OF ENV. QUAL., AIR QUAL. DIV.
09	03	ARIZONA	100	ARIZONA DEPT. OF HEALTH SERVICES
09	03	ARIZONA	200	MARICOPA COUNTY
09	03	ARIZONA	300	PIMA COUNTY
09	05	CALIFORNIA	001	CALIFORNIA AIR RESOURCES BOARD
09	05	CALIFORNIA	004	BAY AREA AIR QUAL. MANAGEMENT DISTRICT
09	05	CALIFORNIA	036	SAN DIEGO AIR POLL. CONTROL DISTRICT
09	05	CALIFORNIA	061	SOUTH COAST AIR QUAL. MANAGEMENT DIST.
09	12	HAWAII	120	STATE OF HAWAII, DEPT. OF HEALTH
09	29	NEVADA	100	NEVADA DIV. OF ENV. PROTECTION
09	29	NEVADA	200	WASHOE COUNTY
09	29	NEVADA	300	CLARK COUNTY
09	54	GUAM	100	GUAM EPA
10	02	ALASKA	020	DEPT. OF ENVIRONMENTAL CONSERVATION
10	13	IDAHO	001	DEPARTMENT OF HEALTH AND WELFARE
10	13	IDAHO	002	ENGINEERING SCI., INC. (CONTRACTOR)
10	38	OREGON	001	DEPT. OF ENVIRONMENTAL QUALITY
10	49	WASHINGTON	001	DEPT. OF ECOLOGY

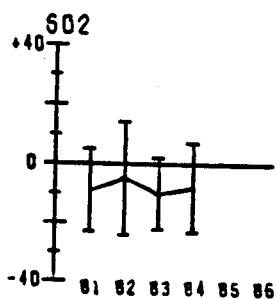
OBSERVATIONS FROM THE GRAPHICAL PRESENTATIONS

A number of trends or effects can be readily perceived by a visual review of the graphs. Examples of some of these trends or effects are given below. The discussions of the various examples given in the figures are not intended to be complete. A critical review of particular graphs may reveal other significant patterns.

Negative or Positive Bias. A slight negative bias for the continuous SO₂ method has been noted from the Regional graphs of all of the annual reports, 1981-1986 (see Figure 3). Possible explanations for these negative biases, given in the annual reports, have been the negative instrument drift of the analyzers or degradation of the precision/accuracy check materials. An example of these negative biases for reporting organizations is given below. The negative bias for precision and accuracy is about 10 percent. A few reporting organizations show a positive bias.

PRECISION

LEVEL 1



ACCURACY LEVEL 2

LEVEL 3

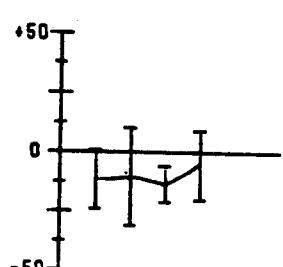
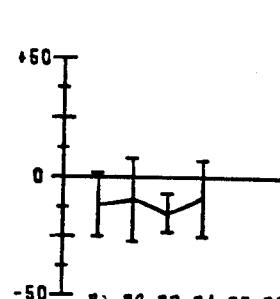
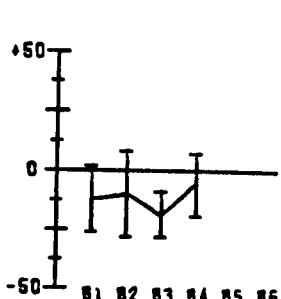
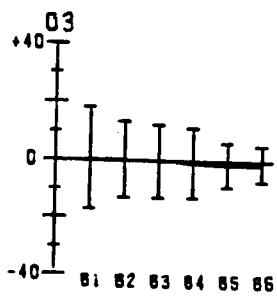


Figure 3. Example of negative bias reported for SO₂ continuous method.

Time Trends. For many of the reporting organizations, improvement is very evident as shown by decreasing widths of the probability limits (Figure 4). However, some reporting organizations show either no improvement or a negative improvement (worsening).

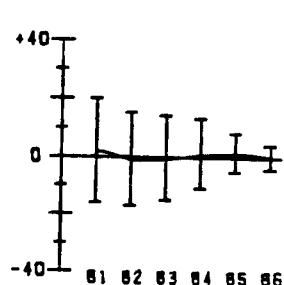
PRECISION

LEVEL 1



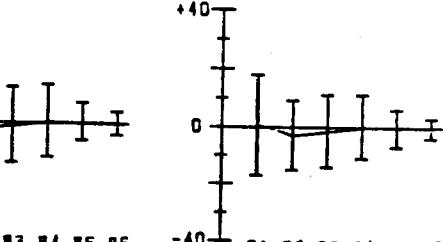
ACCURACY LEVEL 2

LEVEL 3



ACCURACY LEVEL 2

LEVEL 3



LEVEL 3

Figure 4. Example of improvement in precision and accuracy over time.

Wide Limits, Narrow Limits. Some reporting organizations have considerably wider probability limits than others, indicating much poorer precision or accuracy. Such reporting organizations should perform a thorough review of their measurement systems to determine the causes of the excessive variability and to take appropriate corrective actions to improve their results. Something may also be gained from discussions with those reporting organizations which seem to do much better than most. The graphs for Figure 5 show consistently wide or narrow limits.

PRECISION

LEVEL 1

ACCURACY LEVEL 2

LEVEL 3

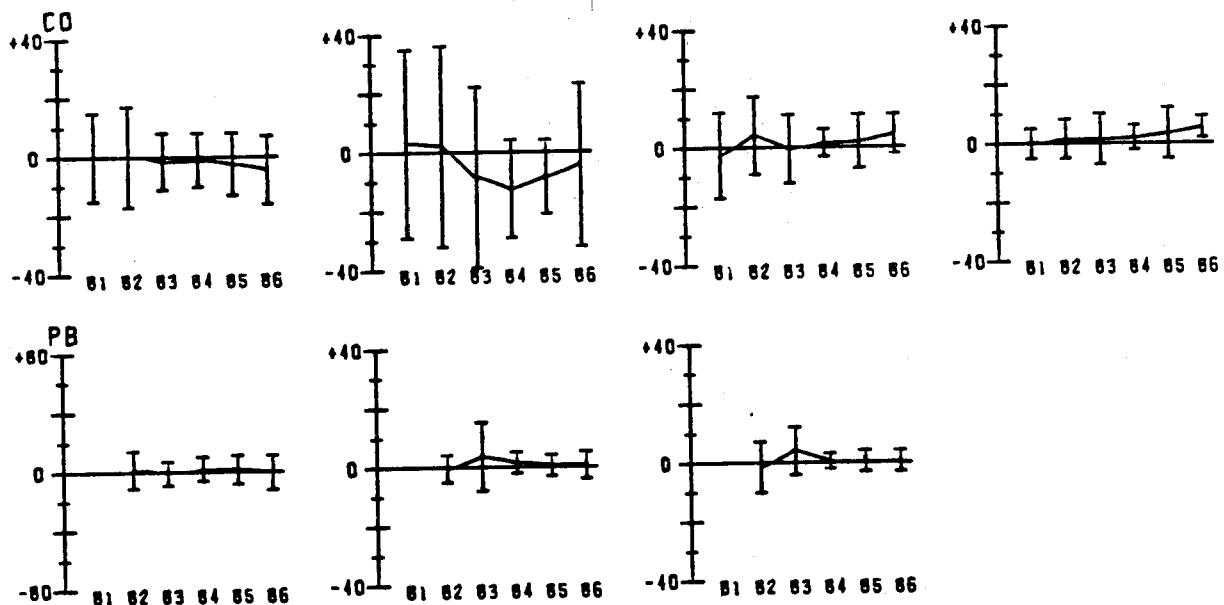


Figure 5. Examples of consistently wide and narrow probability limits.

Similar Patterns of Variability. Normally, if biases occur at one level of accuracy, they also occur at the other levels as well. These conditions would exist where all of the limits are too wide, too narrow, show the same trend over time, etc. Several examples of such patterns are shown in Figure 6. In other cases, however, the patterns from level to level may not be uniform or smooth, but may vary considerably in a similar pattern from year to year.

PRECISION

LEVEL 1

ACCURACY LEVEL 2

LEVEL 3

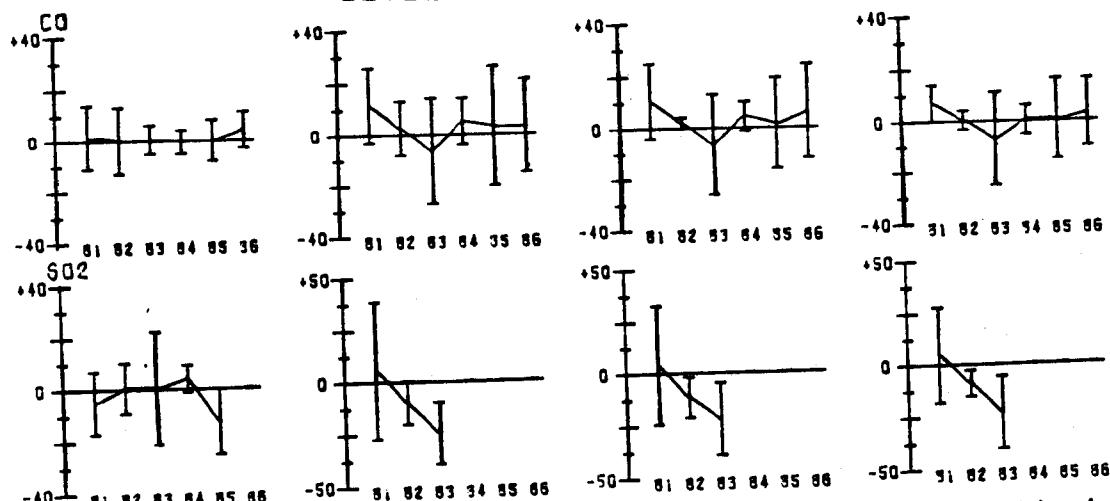


Figure 6. Examples of graphs showing results that vary considerably in a similar pattern from year to year.

Trends Across Accuracy Levels. The probability limits, which are in terms of percentages, are generally wider for level 1 than level 2 and wider for level 2 than level 3. In other words, the length of the vertical bars decreases with increasing level. This is the usual relationship for most measurement methods.

The decreasing limits with increasing level is particularly evident in Figure 7.

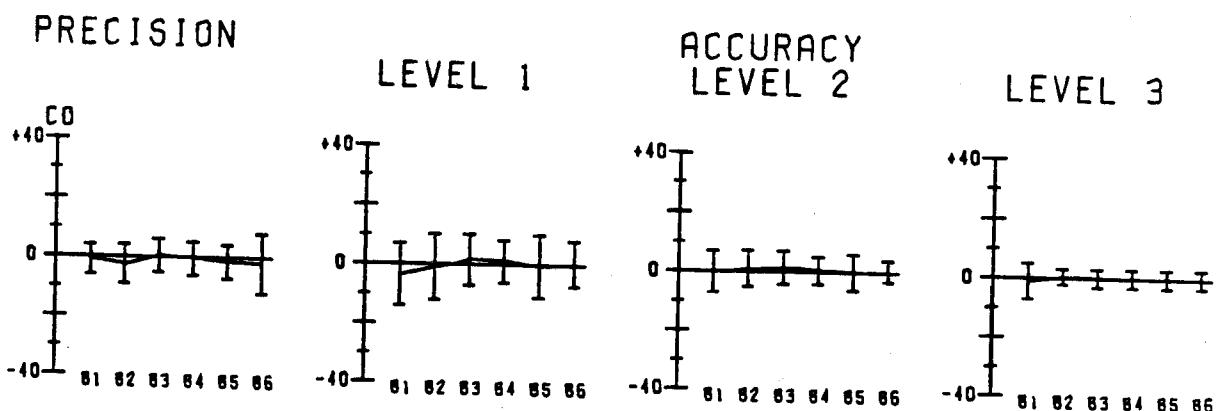


Figure 7. Example graphs showing decreasing limits with increasing accuracy levels.

In many of the other charts, the above relationship may not be evident visually, but would be shown from the actual numerical values. This relationship is more evident from the regional and national charts (Appendices H and I, respectively) which result from a much larger amount of data.

Zero Limits. Some of the charts show the upper and lower probability limits as zeros (Figure 8). Such instances represent years when no data were reported.

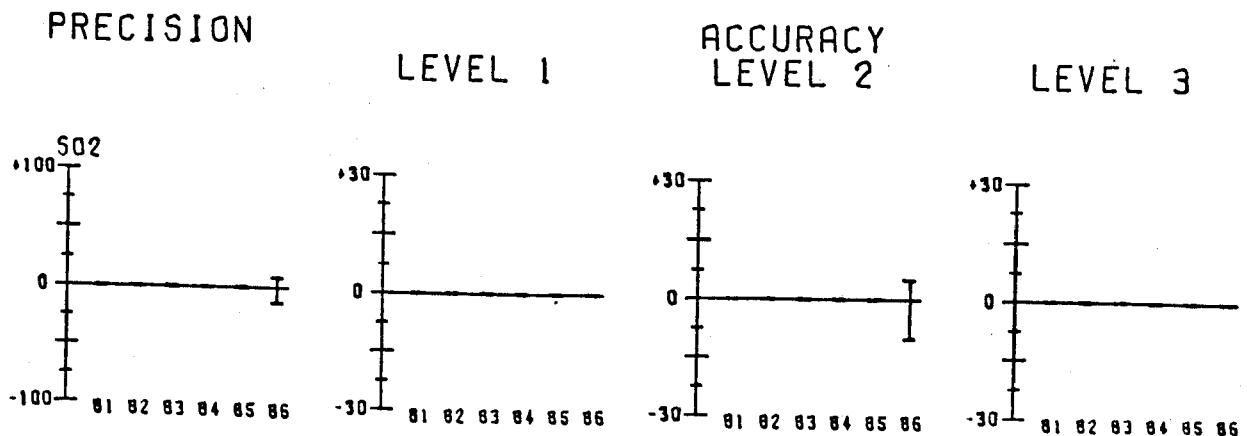


Figure 8. Example graphs for years when no data were reported.

SECTION 3

RESULTS BY REGION AND FOR THE NATION

The results for the EPA Regions are shown in Appendix H (graph sets H-1 through H-20) and for the Nation in Appendix I (graph sets I-1 and I-2).

The results are presented in the same form, arrangement, and scales as described in the preceding section.

The 95 percent probability limits for the EPA Regions and the Nation were calculated according to the same formulas as were used for the annual reports.⁵⁻⁷ See Appendix B, "Formulas for Combining Probability Limits," of the annual reports for 1984, 1985, or 1986.

Although Regional comparisons and trends are discussed in considerable detail in the annual reports, a visual review of the charts in Appendix H reveals the following observations.

1. Region I charts do not show much improvement over the six-year period, except perhaps for O₃ precision. However, the widths of their probability intervals are generally smaller than for most other regions.
2. Region III charts for NO₂ (continuous) and O₃ show improvement over the six-year period.
3. Region IV charts show negative bias for continuous SO₂ and NO₂ and manual SO₂. Considerable improvements in precision for both manual SO₂ and NO₂ are evident for Region IV.
4. Region VI charts for precision of the manual SO₂ method and for accuracy of the manual NO₂ method show little variability.
5. Region IX charts for accuracy for the manual SO₂ method also show little variability.
6. All the Regional and National charts show the reduced variability with increasing level for accuracy.
7. The National chart for manual SO₂ accuracy shows the negative bias very similar to Region IV.
8. Except for 1986 manual NO₂, the precision data for the manual methods for the Nation shows improvement during the six-year period.

SECTION 4

CONTROL CHARTS FOR PRECISION AND ACCURACY DATA

The precision and accuracy assessments required by 40 CFR Part 58, Appendix A,¹ have several purposes. One use of the data is to provide the users of the ambient air monitoring data in the Aerometric Information Retrieval System (AIRS), formerly the National Air Data Bank (NADB) estimates of the quality of the data. These estimates are provided to the users of monitoring data whenever they request data from the NADB. Printouts of the precision and accuracy assessments for the corresponding geographical region (reporting organization) and time period (calendar quarter) are provided, along with the monitoring data. For monitoring data collected during the years 1981-1986, the precision and accuracy assessments reported are provided on a reporting-organization basis. However, beginning with 1987 data, the precision and accuracy assessments are obtained and can be provided on an individual-site basis.

Another use of the precision and accuracy data is to provide additional quality control information to the originating State and local air monitoring agencies. In addition to the normal routine quality control checks and procedures, these internal-but-independent precision and accuracy checks provide useful supplementary information for local quality control. Instructions on how statistical control charts can be prepared, maintained, and used are given in the "Guideline on the Meaning and Use of Precision and Accuracy Data Required by 40 CFR Part 58, Appendices A and B," EPA-600/4-83-023, June 1983.⁸ These instructions were given on pages 38-39 of the guideline and were summarized in Table G on page 41. Reference in that document is also made to Appendix H of the "Quality Assurance Handbook for Air Pollution Measurement Systems, Volume I, Principles," EPA 600/9-76-005⁹ for further details.

An important advantage to the state and local agencies of using the precision and accuracy data is that control charts can be maintained on an individual site basis for most of the checks. The only exception is for the accuracy audits of the analytical portion of the manual methods, when the data only exists on a laboratory bias.

Timely plotting and use of the precision and accuracy data can detect out-of-control conditions (excessive variation or significant biases), which should be investigated and for which corrective measures should be taken to maintain closer control of the measurement systems, thereby providing more accurate and precise monitoring data.

Some states have been using the precision and accuracy data by plotting the individual results in chart form, similar to control charts but without statistical control limits. Other states may even compute and maintain their statistical control limits. However, EMSL/RTP does not receive copies of reports of the state and local agencies and does not observe the operations of these agencies; thus, the extent to which the local agencies actually use the precision and accuracy data as an adjunct to their routine quality control is not known. EMSL/RTP does routinely receive, by request, a copy of Florida's quarterly quality assurance report titled "The Confidence Limits of Measurements."¹⁰ In this report, they present in graphical form the individual precision and accuracy results for some of the individual sites.

Some of the pages of the Florida quarterly report are presented in Figures 9-16 to illustrate some of the visual indications or conclusions that can be gained, even though the charts contain no statistical control limits. The charts would be even more useful if they included statistical control limits based on past performance under controlled conditions.

Figure 9 shows the quarterly probability limits for precision and accuracy for the TSP and CO methods for each quarter from the first quarter of 1981 through the second quarter of 1987. The limits shown are the combined limits of all the reporting organizations in the State of Florida. Note for TSP that the precision limits are always wider than the accuracy limits. This relationship results because the precision data obtained from collocated samplers involve most all of the sources of variability of the measurement process, whereas the accuracy audit reflects only the errors of the flow measurement portion of the measurement process. In contrast, the accuracy limits for CO are wider than the precision limits for practically all quarters since the third quarter of 1982. Prior to that time, the precision limits were wider than the accuracy limits for some reason. Over the entire six and one-half years, the precision limits have improved, whereas the accuracy limits have not.

Figure 10 shows similar graphical plots of the precision and accuracy data for the O₃ and SO₂ continuous methods. Some general trends and relationships are evident from these charts. For O₃, a general improvement in both precision and accuracy is evident. On the SO₂ chart, the negative bias of both precision and accuracy is evident because the midpoints of the bars are below zero in most cases. And, accuracy limits are wider in most cases than precision limits, for both O₃ and SO₂ as expected because the accuracy results include both bias and precision.

All four of the charts in Figures 9 and 10 include the following Goals for Precision and Accuracy Limits:

	<u>Precision</u>	<u>Accuracy</u>
TSP	+ 15%	+ 15%
CO	+ 15%	+ 20%
O ₃	+ 15%	+ 20%
SO ₂	+ 15%	+ 20%

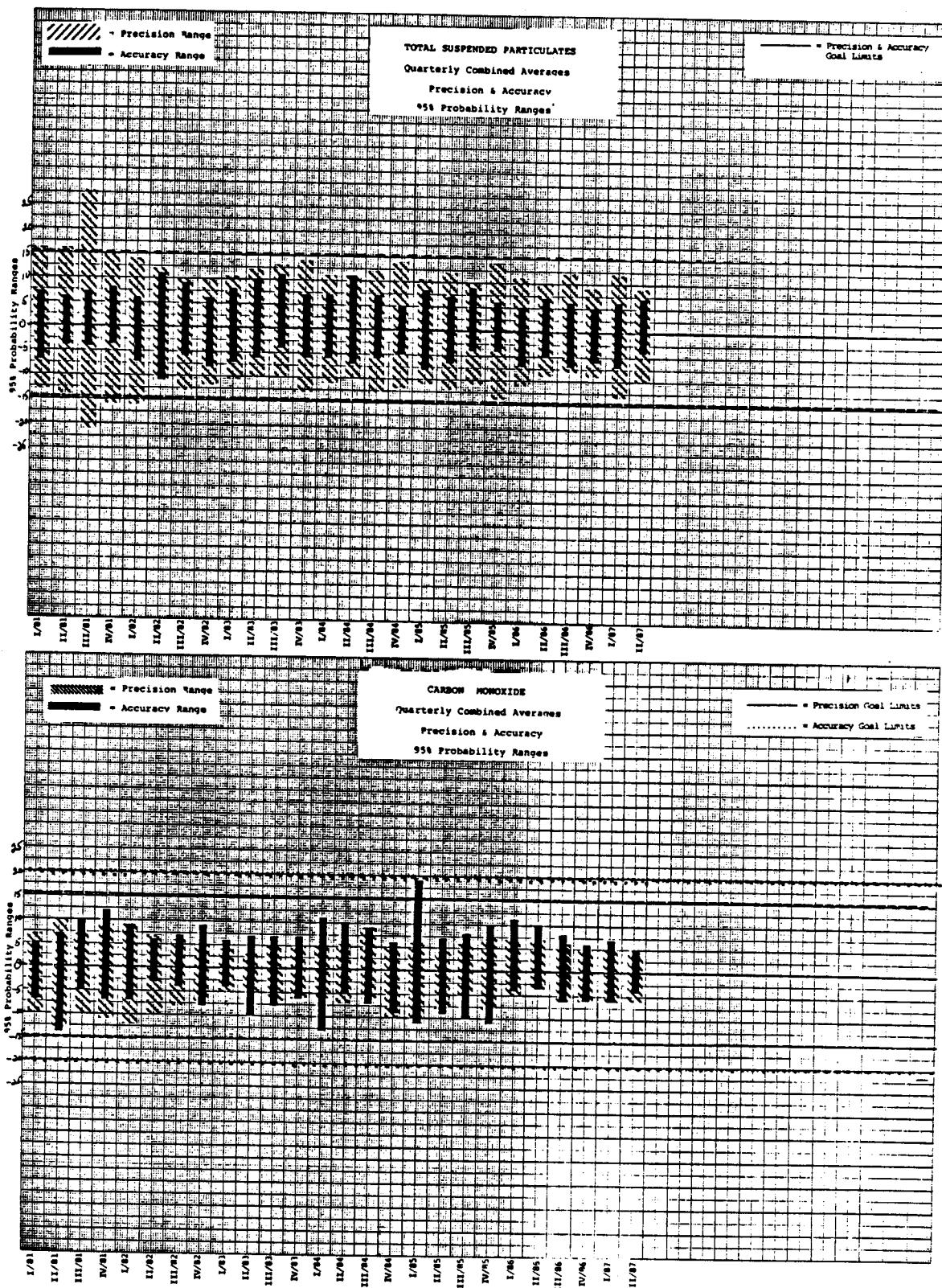


Figure 9. Example of Florida's quarterly report, probability limits for precision and accuracy of the TSP and CO methods.

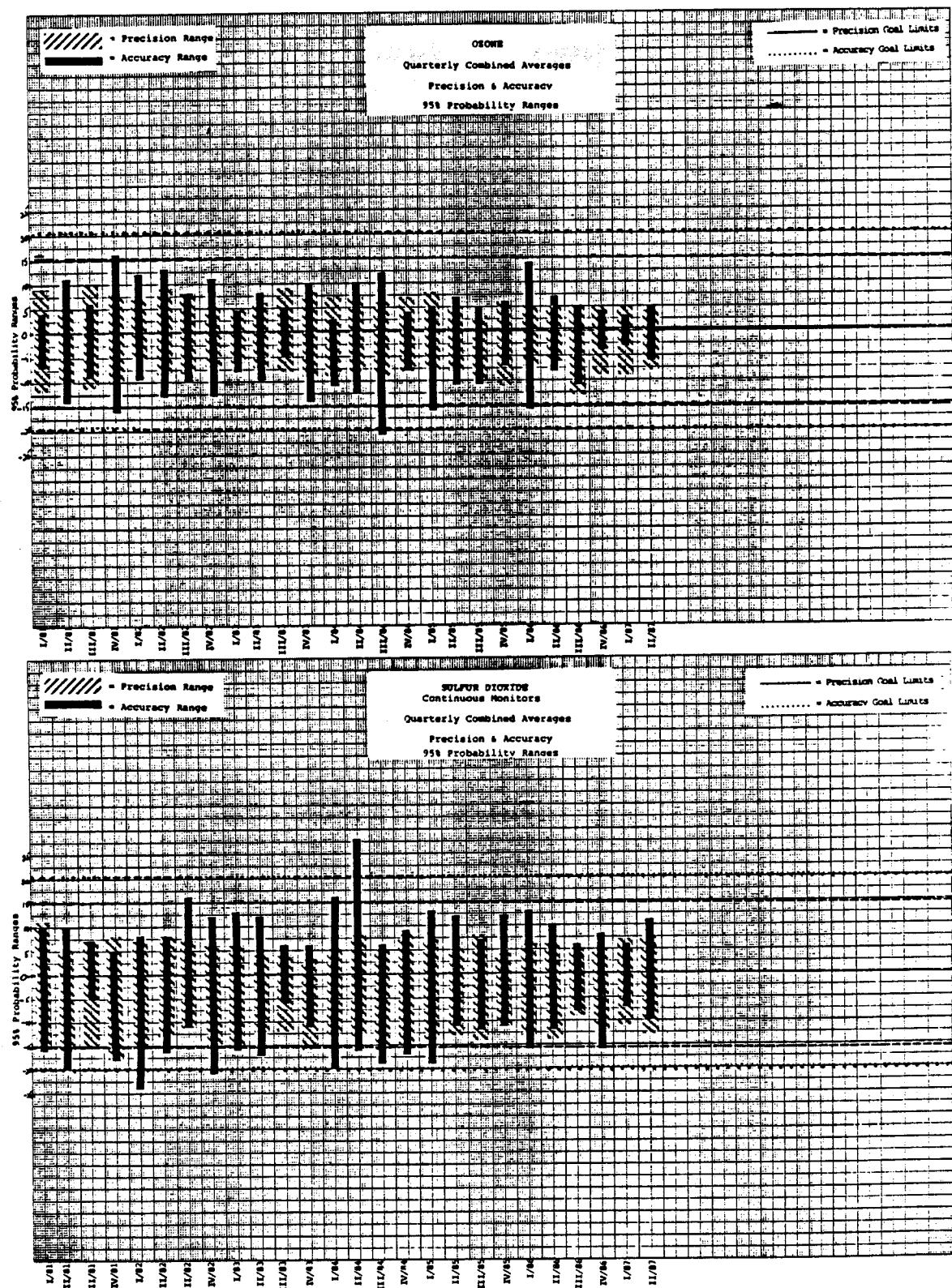


Figure 10. Example of Florida's quarterly report, probability limits for precision and accuracy of the O₃ and SO₂ continuous methods.

These are the somewhat arbitrary limits given in Section 2.0.11 of the "Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, Ambient Air Specific Methods," EPA 600/4-77-027a.¹¹

Figure 11 shows the individual precision check results for two TSP sites, 1200-005-F02 and 1200-009-F02, for 1987. On both charts a negative bias is clearly indicated. This bias results because the duplicate samplers gave lower values than the designated samplers at both sites. Such biases should be investigated and corrected, if possible. The charts further show that the results of site 1200-005-F02 are considerably more variable than those for site 1200-009-F02.

Figure 12 shows a decided shift in the precision data for TSP from the first quarter to the second quarter of 1987 for site 2860-003-F02. The 95% probability limits for the two quarters do not overlap, indicating some drastic shift in level.

Figure 13 shows the results of the accuracy audits for flow rate at seven TSP sites in the Florida Northeast District. The raw data results are shown at the top of the page, and a chart plot of all the TSP accuracy data is shown at the bottom. In most cases, the 95% probability interval includes zero, the desired result.

Figure 14 shows O₃ precision data for two sites for the first and second quarters of 1987. A decided improvement can be seen in the second quarter data over the first quarter data for the bottom chart. It would be good to have a note on the chart to explain why the improvement occurred.

Figure 15 shows continuous SO₂ precision data for two sites. On the bottom chart, the decided shift or trend to a negative bias indicates that some corrective action is needed.

Figure 16 also shows the precision data for continuous SO₂ at two sites. Because most of the data for site 1200-005-F02 and all of the data for site 1200-009-F02 are below zero, negative biases are indicated that should be investigated and corrected.

The State of Florida has agreed to send sample copies of their report to any agency that desires a copy. Such requests should be addressed to:

Mr. Don Stuart
Administrator
Quality Assurance Section
Bureau of Air Quality Management
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

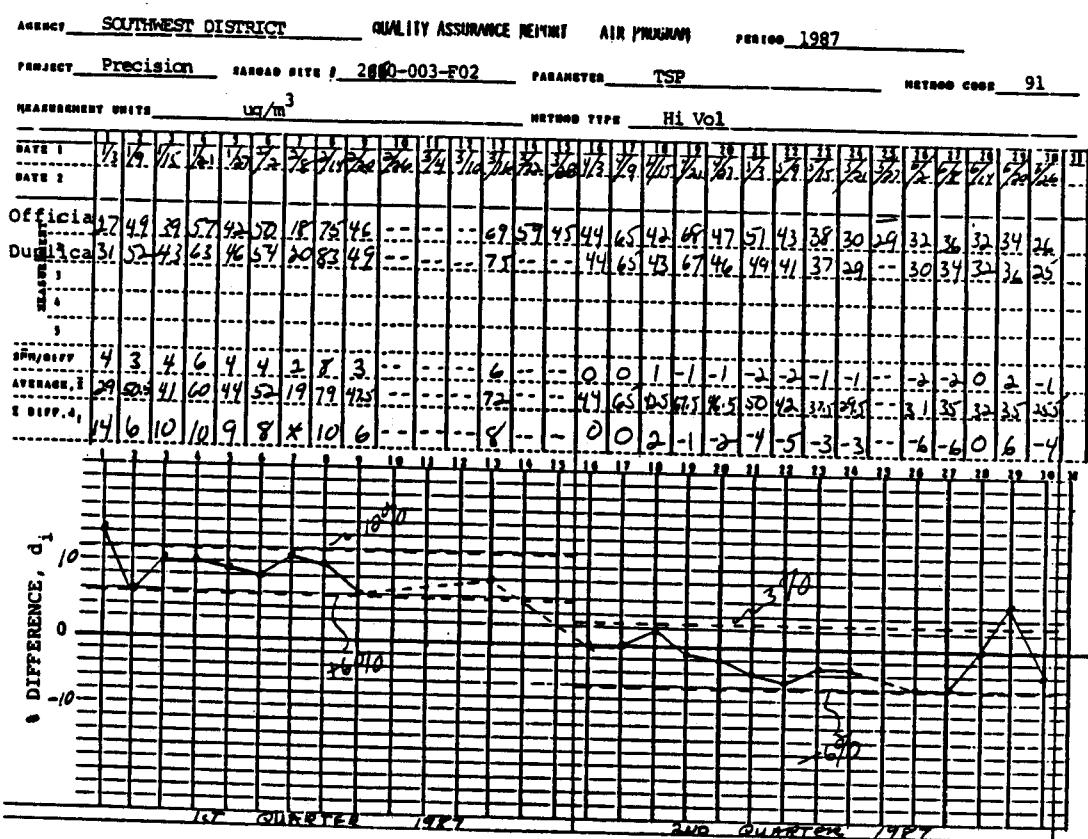
ANALYST: NORTHEAST DISTRICT QUALITY ASSURANCE REVIEW: AIR PRECISEM 1987

PRECISION: MEASUREMENT SITE: 1200-005-E02 PARAMETER: TSP

MEASUREMENT CODE: 91

MEASUREMENT UNIT: ug/m³ METERS TYPE: HI VOL

DATE	1/4	1/5	1/6	1/7	1/8	1/9	1/10	1/11	1/12	1/13	1/14	1/15	1/16	1/17	1/18	1/19	1/20	1/21	1/22	1/23	1/24	1/25	1/26	1/27	1/28	1/29	1/30	1/31					
DATE 1	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52				
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Dual Scale	39.35	39.57	39.44	39.24	39.57	39.32	39.61	39.42	39.33	39.21	39.69	39.32	39.67	39.48	39.73	39.57	39.22	39.73	39.53	39.41	39.62	39.49	39.57	39.45	39.62	39.49	39.57	39.45	39.62	39.49			
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Range	1	2	3	4																													



AGENCY NORTHEAST DISTRICT

PERIOD 1986-1987

PROJECT ACCURACY PARAMETER PARTICULATES METHOD CODE 91 MEASUREMENT UNITS m^3/min METHOD TYPE HI VOL/FLOW RATE AUDIT

SAROAD# 1200-003-F02				SAROAD# 1200-005-F02				SAROAD# 1200-005-F09				SAROAD# 1200-008-F02				SAROAD# 1200-009-F02			
DATE	KNOWN	DIFF±	ZDIFF±	DATE	KNOWN	DIFF±	ZDIFF±	DATE	KNOWN	DIFF±	ZDIFF±	DATE	KNOWN	DIFF±	ZDIFF±	DATE	KNOWN	DIFF±	ZDIFF±
3-7-86	0.98	.05	4.9	7/21 7/26	1.23 1.99	-.09 0	-3.3 0					7/26 8/6	1.30	.03	2.3	7/18 1.86	1.23 1.50	-.007 .010	-5.7 -7.8
11-20-86	1.45	.10	6.9	4/21 4/22 4/27	1.25 1.26 1.39	.04 -.003 -.05	-3.2 -2.3 -3.6									7/21 7/27 7/31	1.16 1.24 1.37	.05 .03 .01	-4.3 -4.7 0
					1.45	.001	-0.7												

SAROAD# 1200-009-F09				SAROAD# 3780-001-F02				SAROAD# 3780-006-F02				SAROAD# 3900-004-F03						
DATE	KNOWN	DIFF±	ZDIFF±	DATE	KNOWN	DIFF±	ZDIFF±	DATE	KNOWN	DIFF±	ZDIFF±	DATE	KNOWN	DIFF±	ZDIFF±			
				7/21 7/26	1.22 1.35	-.005 -.009	-4.1 -6.7	7/24 7/26	1.55 1.55	.07	-5.8	7/18 7/26	1.30	.04	3.1			
				4/24 4/26	1.26	.08	-6.4					7/15 7/26	1.14 1.18	.07 .0	6.1			
															7/21 7/27	1.44	.05	-3.5

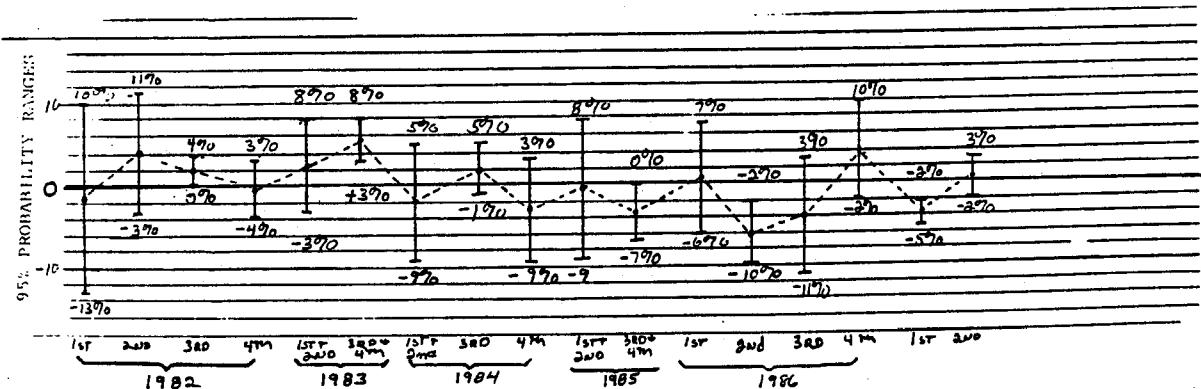


Figure 13. Accuracy data for flow rate at seven TSP sites.

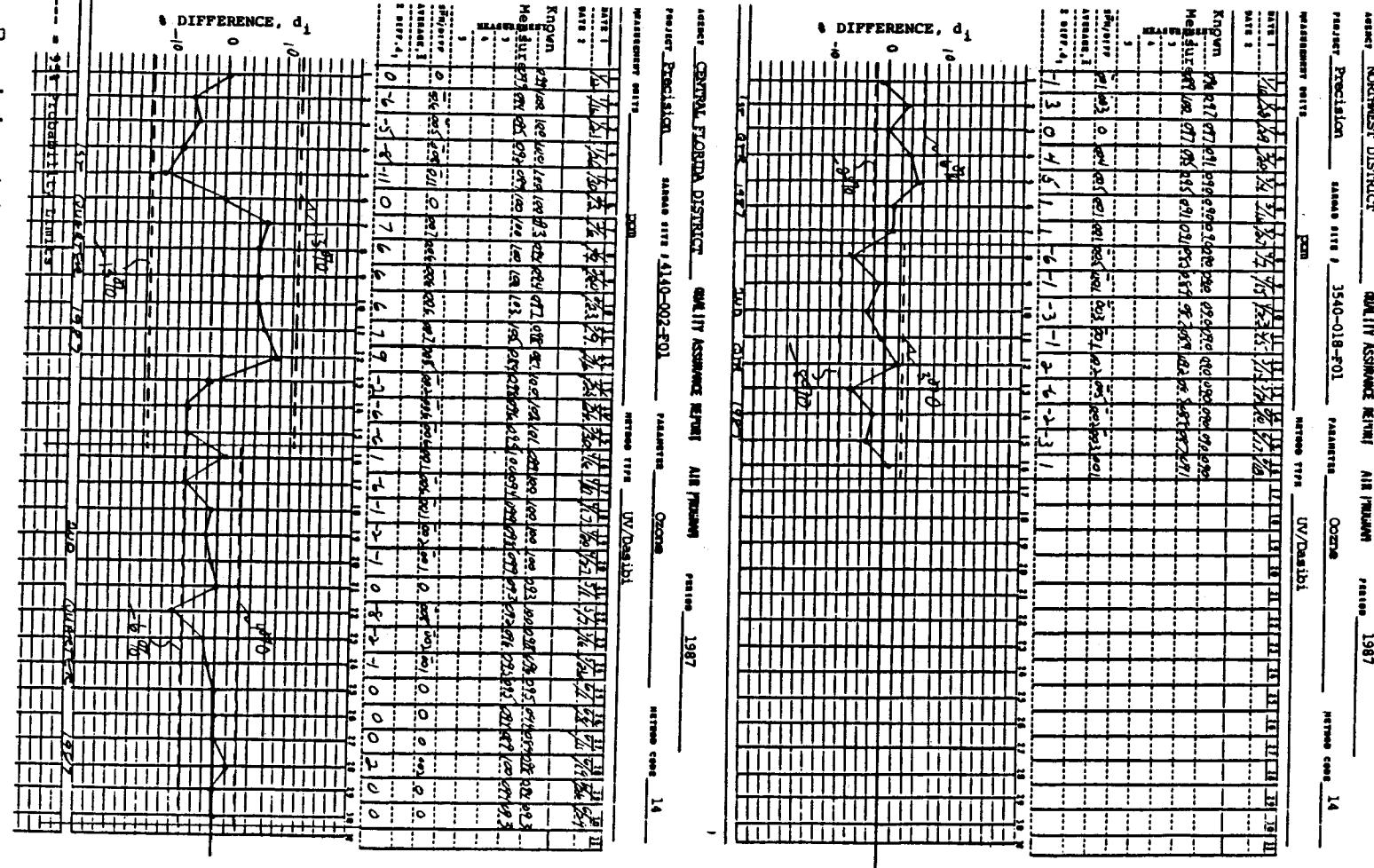


Figure 14. Precision data for O_3 at two sites during two quarters of 1987.

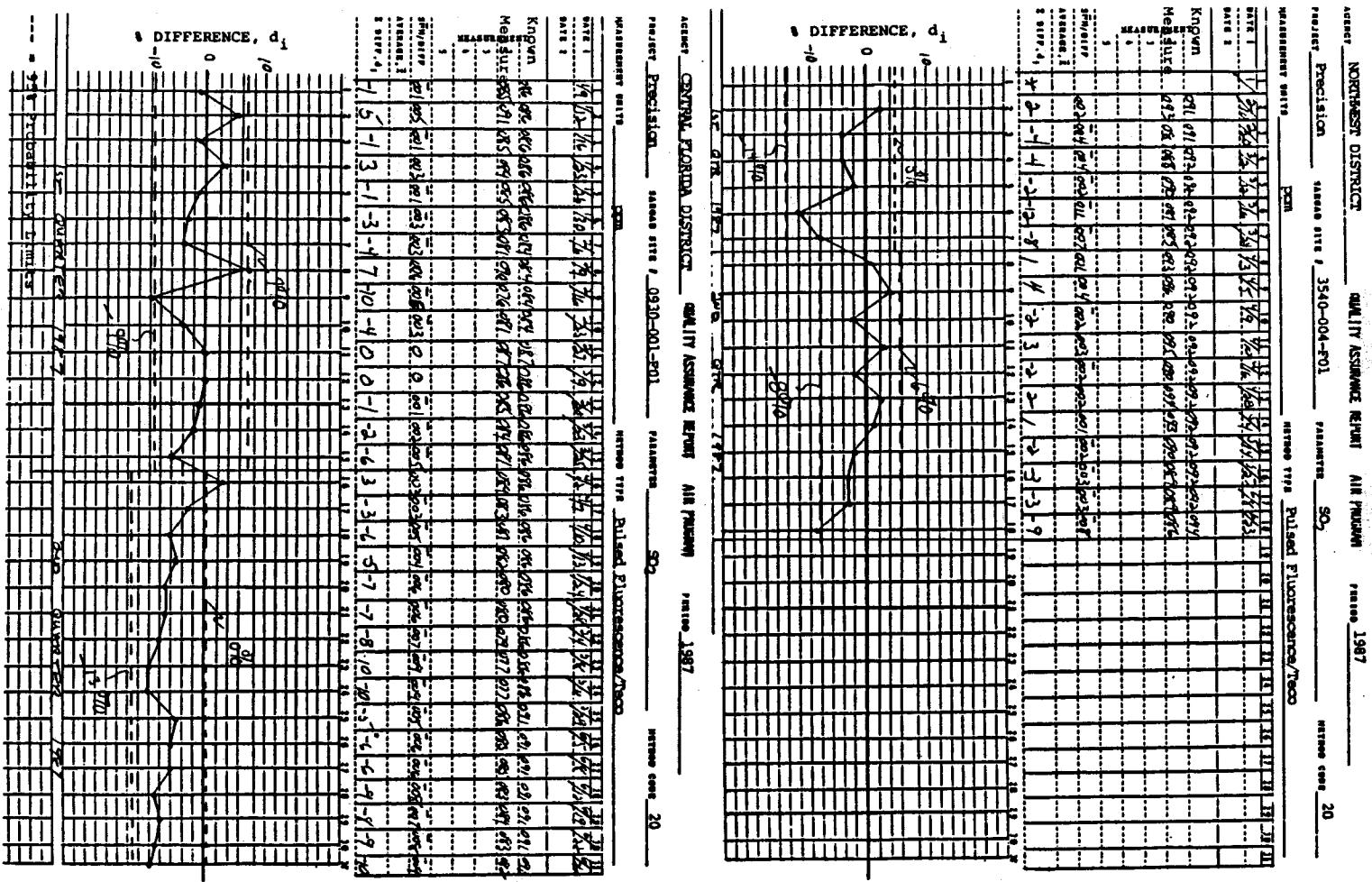


Figure 15. Continuous SO₂ precision data for two sites showing a shift to a negative bias.

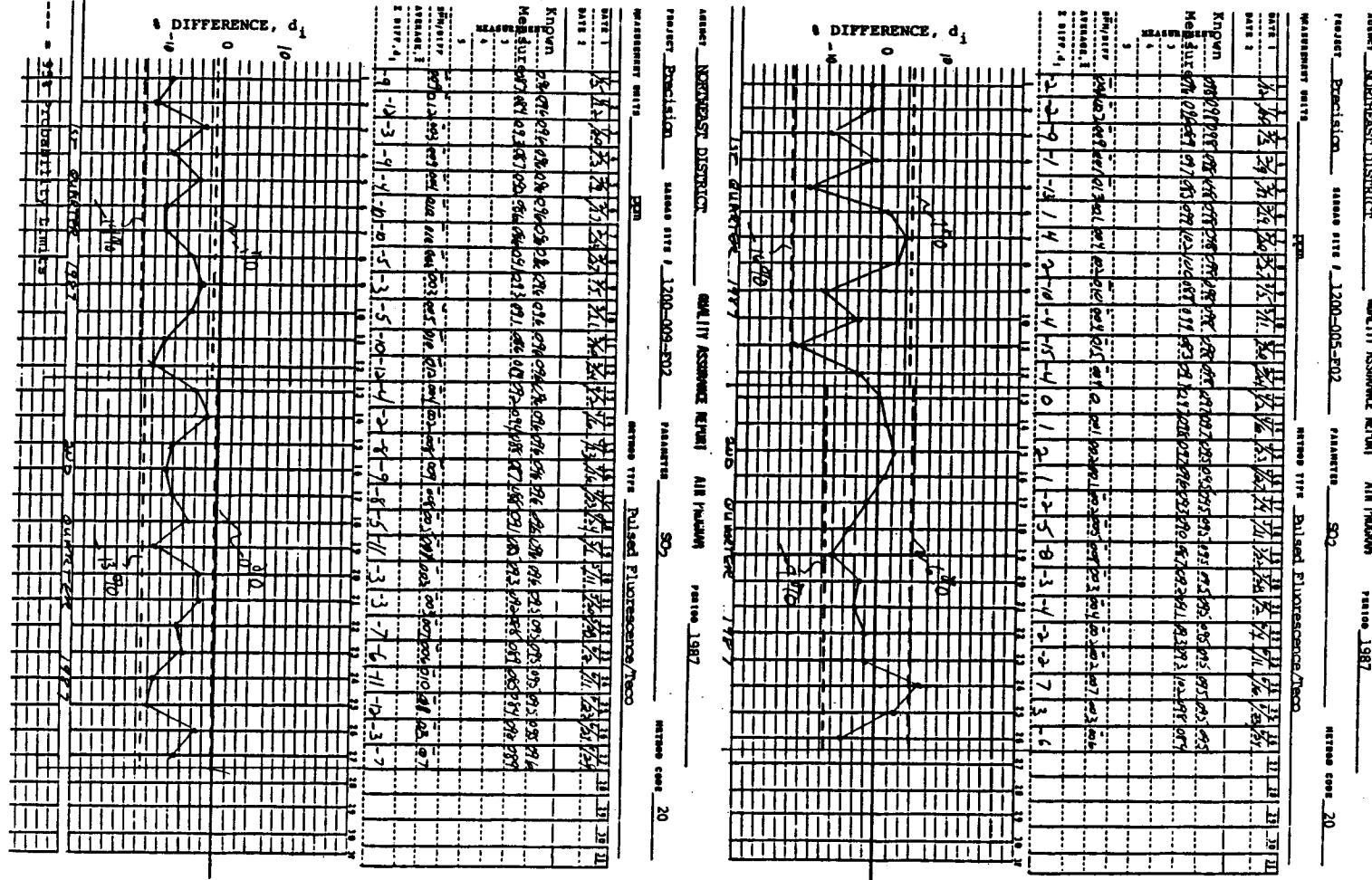


Figure 16. Continuous SO₂ precision data indicating bias that should be corrected.

SECTION 5

CONCLUSIONS AND RECOMMENDATIONS

The charts in the appendices show in graphical form the yearly results of precision checks and accuracy audits for each of the years 1981-1986 for each reporting organization in the nation and reveal a number of persistent and significant trends and relationships. A general improvement in monitoring data quality during these years is indicated. However, significant differences exist among reporting organizations and EPA Regions. These differences warrant continued investigation by the Regional Offices to further improve and make more uniform the quality of data obtained by the ambient air monitoring networks of the nation.

Recommendations are again made that quality control charts, as described and recommended in "Guideline on the Meaning and Use of Precision and Accuracy Data Required by 40 CFR Part 58, Appendices A and B," EPA 600/4-83-023, June 1983,² be prepared and maintained in a timely manner for each monitoring site to detect as soon as possible significant trends, biases, and out-of-control conditions. Corrective actions resulting from the appropriate use of control charts for the precision and accuracy data will further improve data quality.

Examples of charts maintained by the State of Florida (included in their quality assurance report) are provided to illustrate how these charts are made and used to detect significant trends and biases that should be investigated and corrected. It is recommended that all the States prepare and issue a quarterly (or annual) quality assurance report similar to that issued by the State of Florida.

REFERENCES

1. Code of Federal Regulations, Title 40, Part 58, "Ambient Air Quality and Surveillance, Appendix A, Quality Assurance Requirements for SLAMS."
2. Evans, E.G., R.C. Rhodes, W.J. Mitchell and J.C. Puzak. "Summary of Precision and Accuracy Assessments for the State and Local Air Monitoring Networks, 1981." Unpublished. U.S. Environmental Protection Agency Report. Research Triangle Park, NC.
3. Evans, E.G., R.C. Rhodes, W.J. Mitchell and J.C. Puzak. "Summary of Precision and Accuracy Assessments for the State and Local Air Monitoring Networks, 1982." EPA-600/4-85-031. U.S. Environmental Protection Agency, Research Triangle Park, NC, April 1985.
4. Rhodes, R.C. and E.G. Evans. "Precision and Accuracy Assessments for State and Local Air Monitoring Networks, 1983." EPA-600/4-86-012. U.S. Environmental Protection Agency, Research Triangle Park, NC, February 1986.
5. Rhodes, R.C. and E.G. Evans. "Precision and Accuracy Assessments for State and Local Air Monitoring Networks, 1984." EPA-600/4-86-031. U.S. Environmental Protection Agency, Research Triangle Park, NC, August 1986.
6. Rhodes, R.C. and E.G. Evans. "Precision and Accuracy Assessments for State and Local Air Monitoring Networks, 1985." EPA-600/4-87-003. U.S. Environmental Protection Agency, Research Triangle Park, NC, January 1987.
7. Rhodes, R.C. and E.G. Evans. "Precision and Accuracy Assessments for State and Local Air Monitoring Networks, 1986." EPA-600/4-88-007. U.S. Environmental Protection Agency, Research Triangle Park, NC, January 1988.
8. Rhodes, R.C. "Guideline on the Meaning and Use of Precision and Accuracy Data Required by 40 CFR Part 58, Appendices A and B." EPA-450/4-84-006. U.S. Environmental Protection Agency, Research Triangle Park, NC, June 1983.
9. "Quality Assurance Handbook for Air Pollution Measurement Systems, Volume I, Principles." EPA-600/9-76-005. U.S. Environmental Protection Agency, Research Triangle Park, NC.
10. State of Florida. "The Confidence Limits of Measurements."
11. "Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, Ambient Air Specific Methods." EPA-600/4-77-027a. U.S. Environmental Protection Agency, Research Triangle Park, NC.

APPENDIX G

PRECISION AND ACCURACY GRAPHS FOR EACH REPORTING ORGANIZATION



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

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STATE : 07 CONNECTICUT

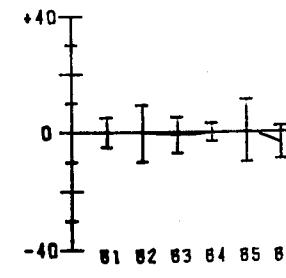
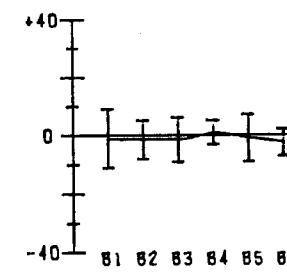
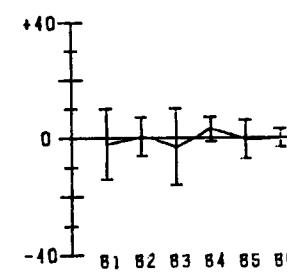
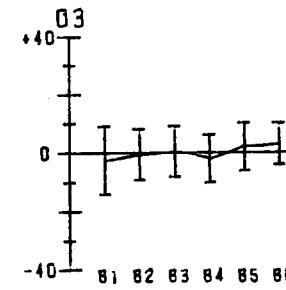
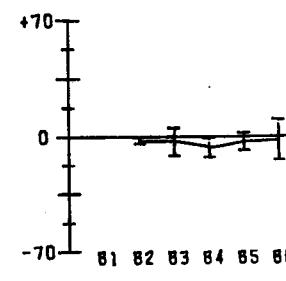
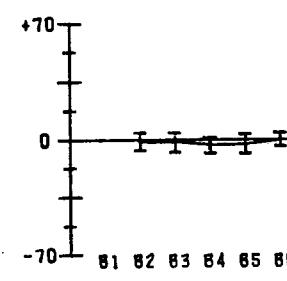
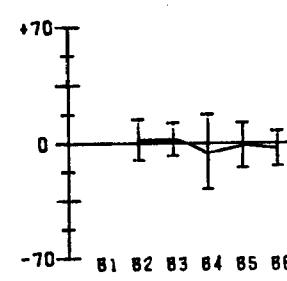
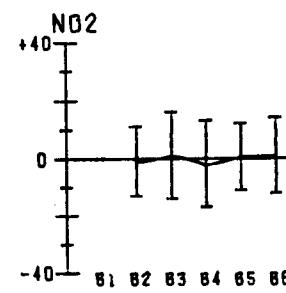
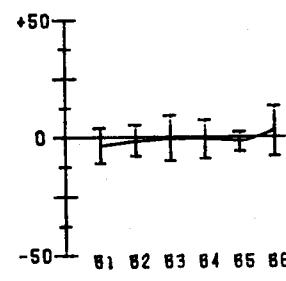
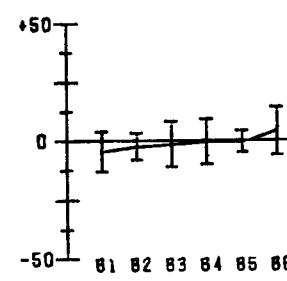
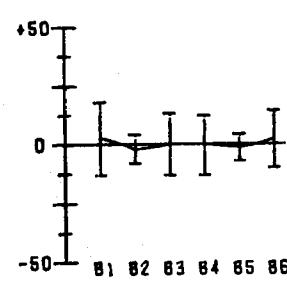
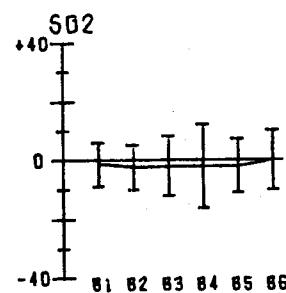
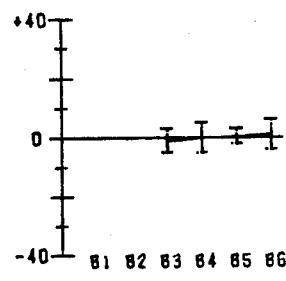
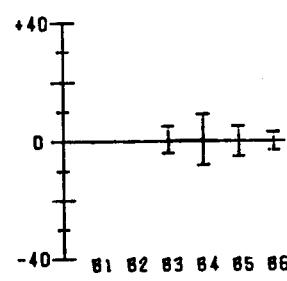
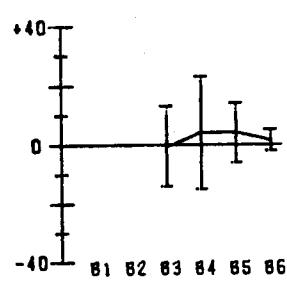
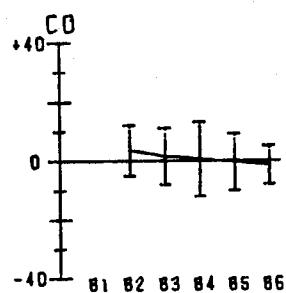
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PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

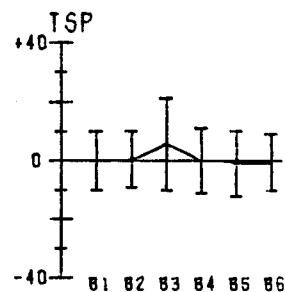


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

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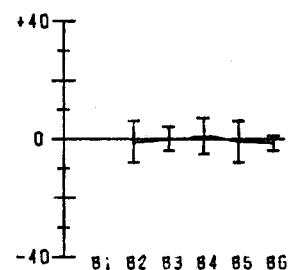
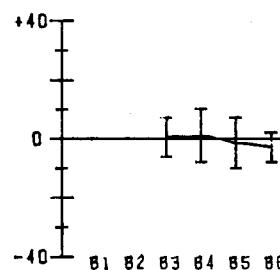
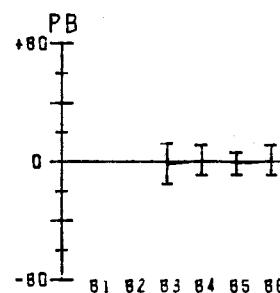
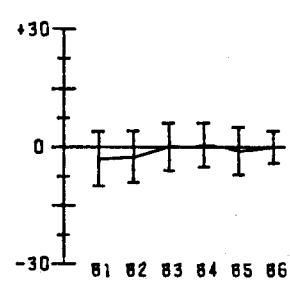
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LEVEL 1



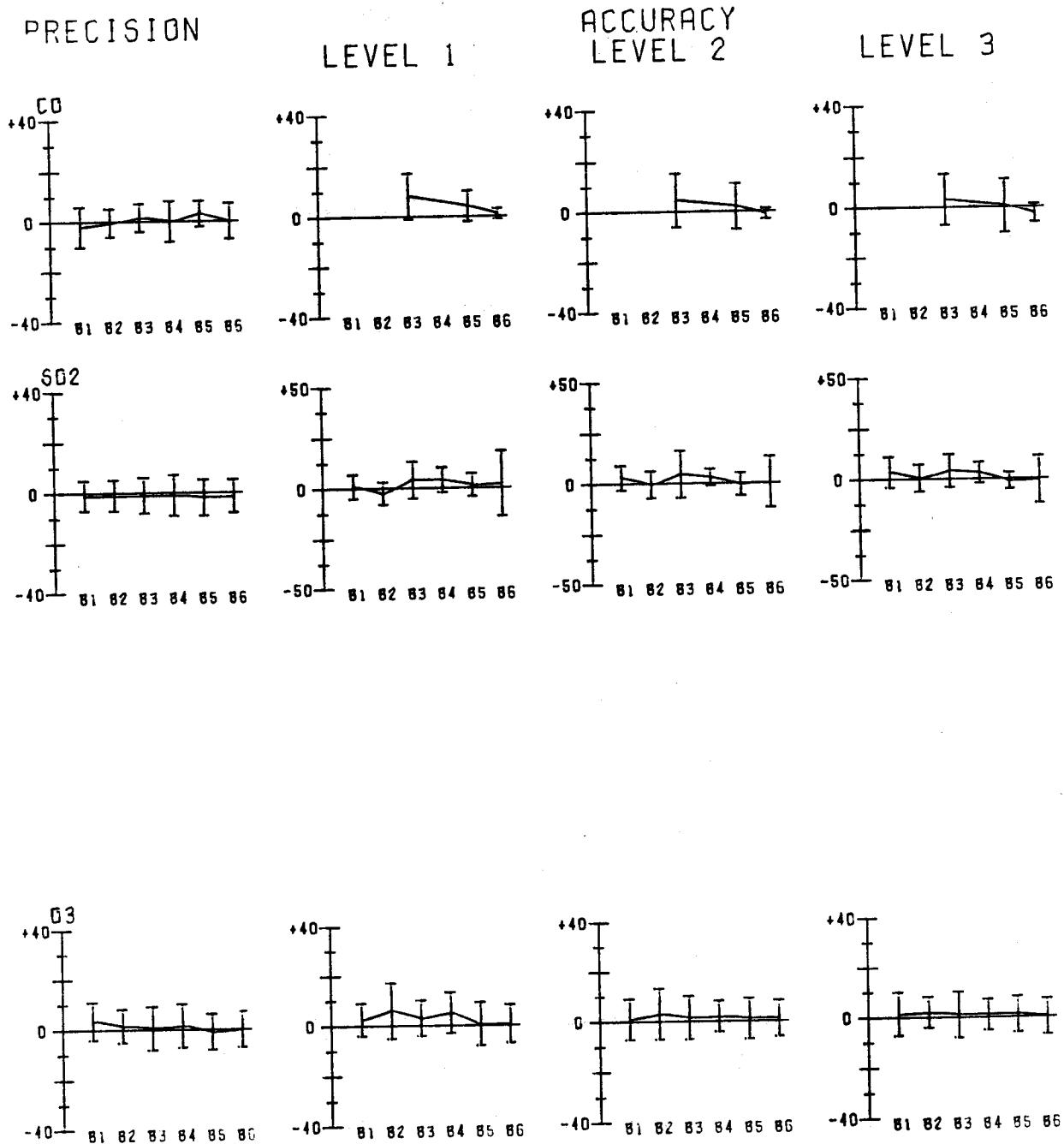
ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-85
CONTINUOUS METHODS

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REPORG: 001 BUREAU OF A. Q. C. DEPT. OF ENV. PROTECT



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

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STATE : 20 MAINE

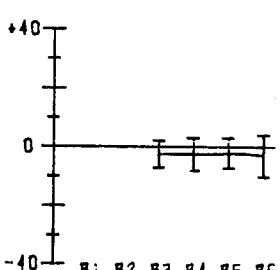
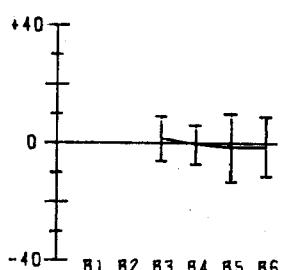
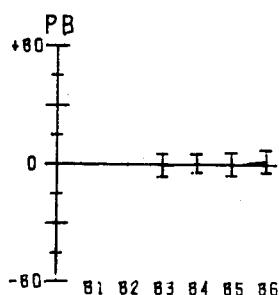
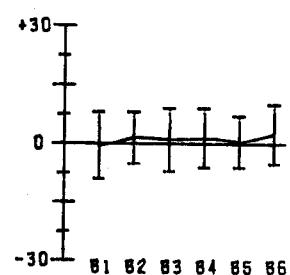
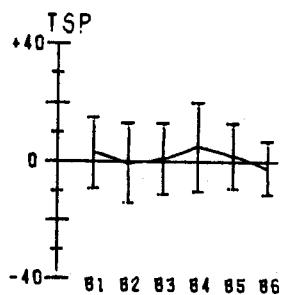
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PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

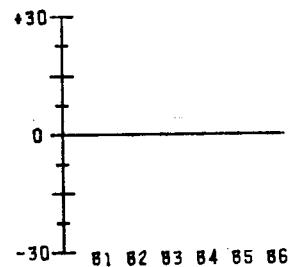
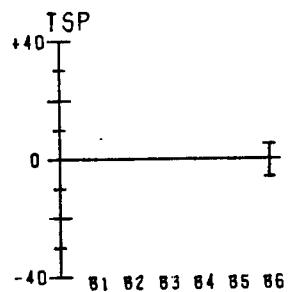
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PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

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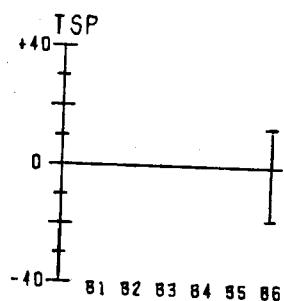
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REPORG: 102

MAINE

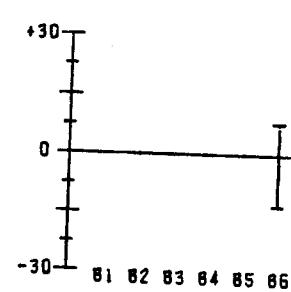
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PRECISION



LEVEL 1

ACCURACY
LEVEL 2



LEVEL 3

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

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STATE : 20
REPORG: 103

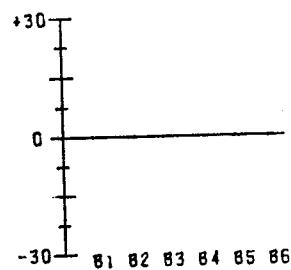
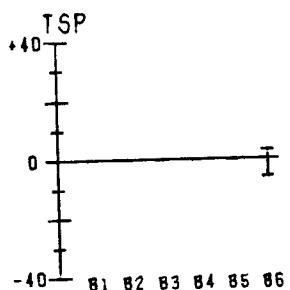
MAINE
INTERNATIONAL PAPER CO., JAY

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

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STATE : 20
REPORT: 104

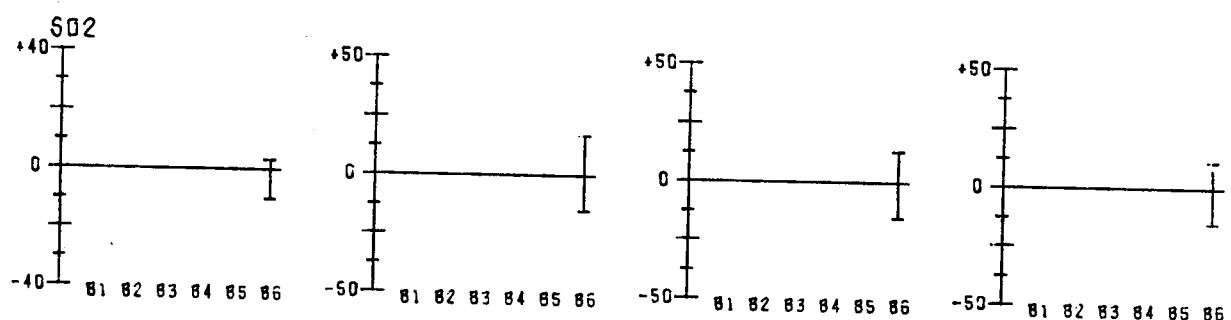
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PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

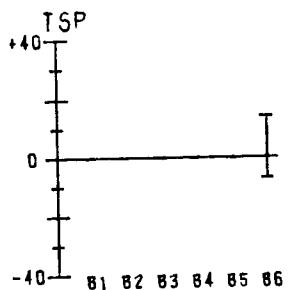


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

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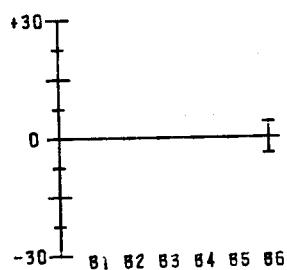
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3

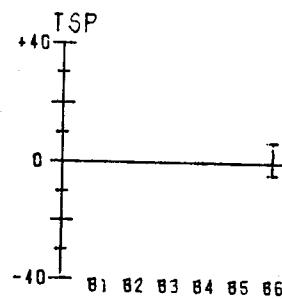


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MANUAL METHODS

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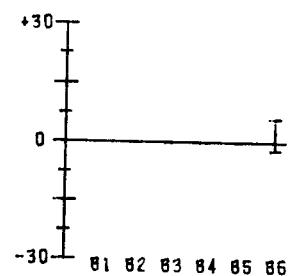
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DRAGON PRODUCTS, THOMASTON

PRECISION



LEVEL 1

ACCURACY
LEVEL 2



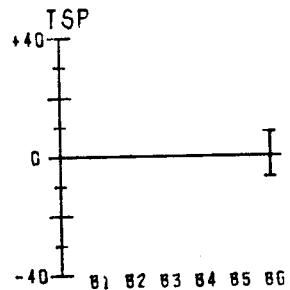
LEVEL 3

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

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REPORT: 107 MAINE
 SCOTT PAPER CO., WINSLOW

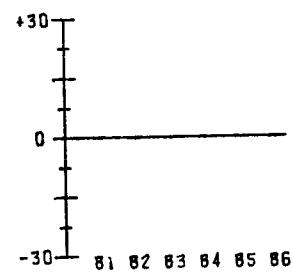
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 01

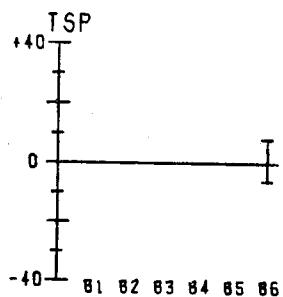
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REPORG: 108 MAINE

CHAMPION INTERNATIONAL CORP., BUCKSPORT

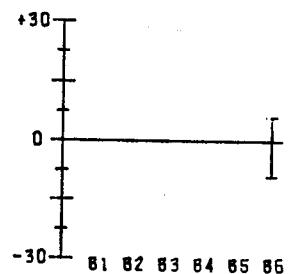
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-85
CONTINUOUS METHODS

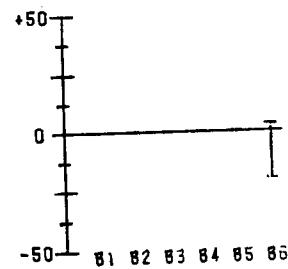
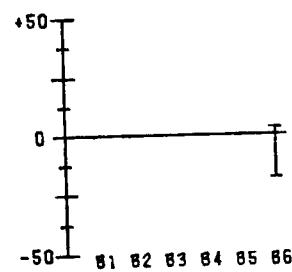
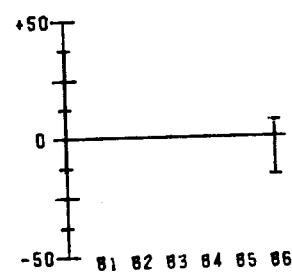
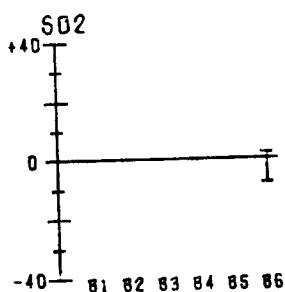
PEG : 01
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REPOPG: 109 LINCOLN PULP AND PAPER CO., LINCOLN

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



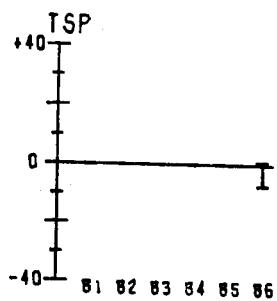
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 01
STATE : 20
REPOPG: 100

MAINE
LINCOLN PULP AND PAPER CO., LINCOLN

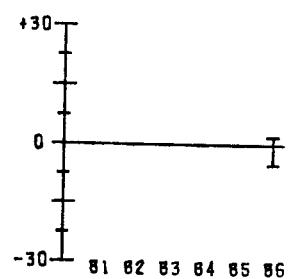
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 31-86
CONTINUOUS METHODS

REG : 01
STATE : 20
PEPCPG: 110

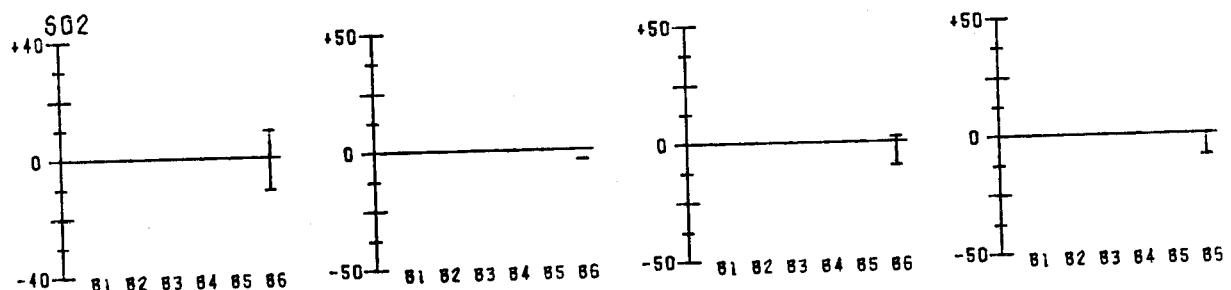
MAINE
GREAT NORTHERN PAPER CO., MILLINOCKET

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 01

STATE : 20

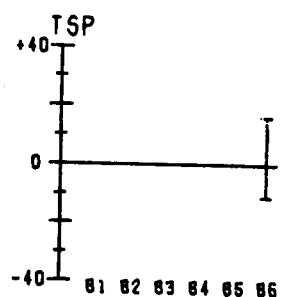
MAINE

REPORG: 110

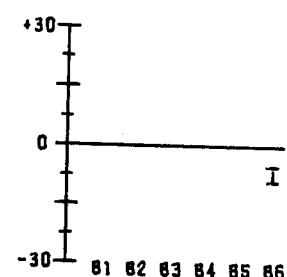
GREAT NORTHERN PAPER CO., MILLINOCHE

PRECISION

LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

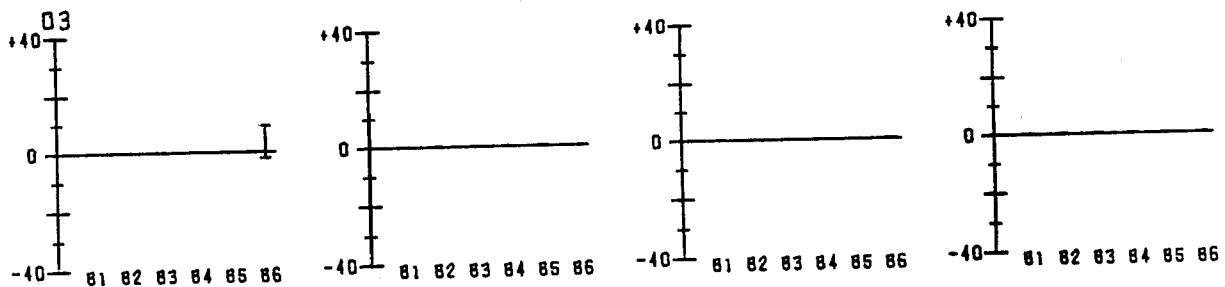
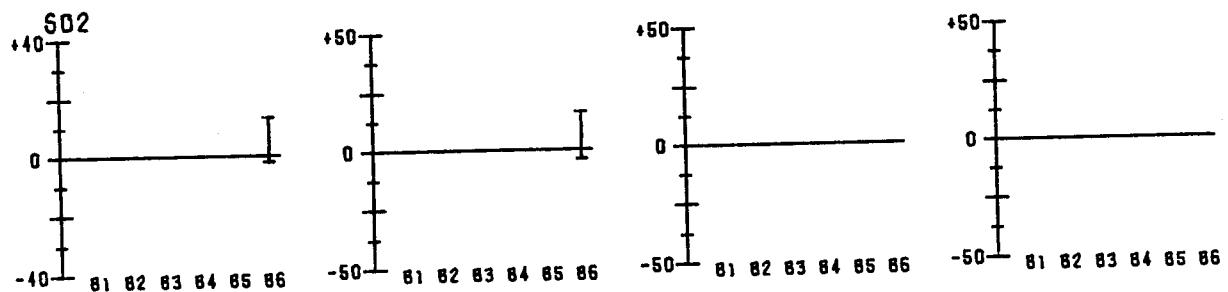
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STATE : 20 MAINE
REPORG: 112 GEORGIA PACIFIC CO., WOODLAND

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



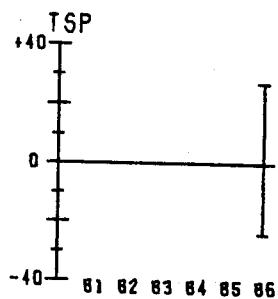
G-17

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 01
STATE : 20
REPORG: 112

MAINE
GEORGIA PACIFIC CO., WOODLAND

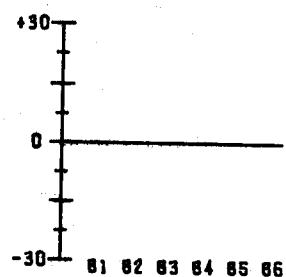
PRECISION



LEVEL 1

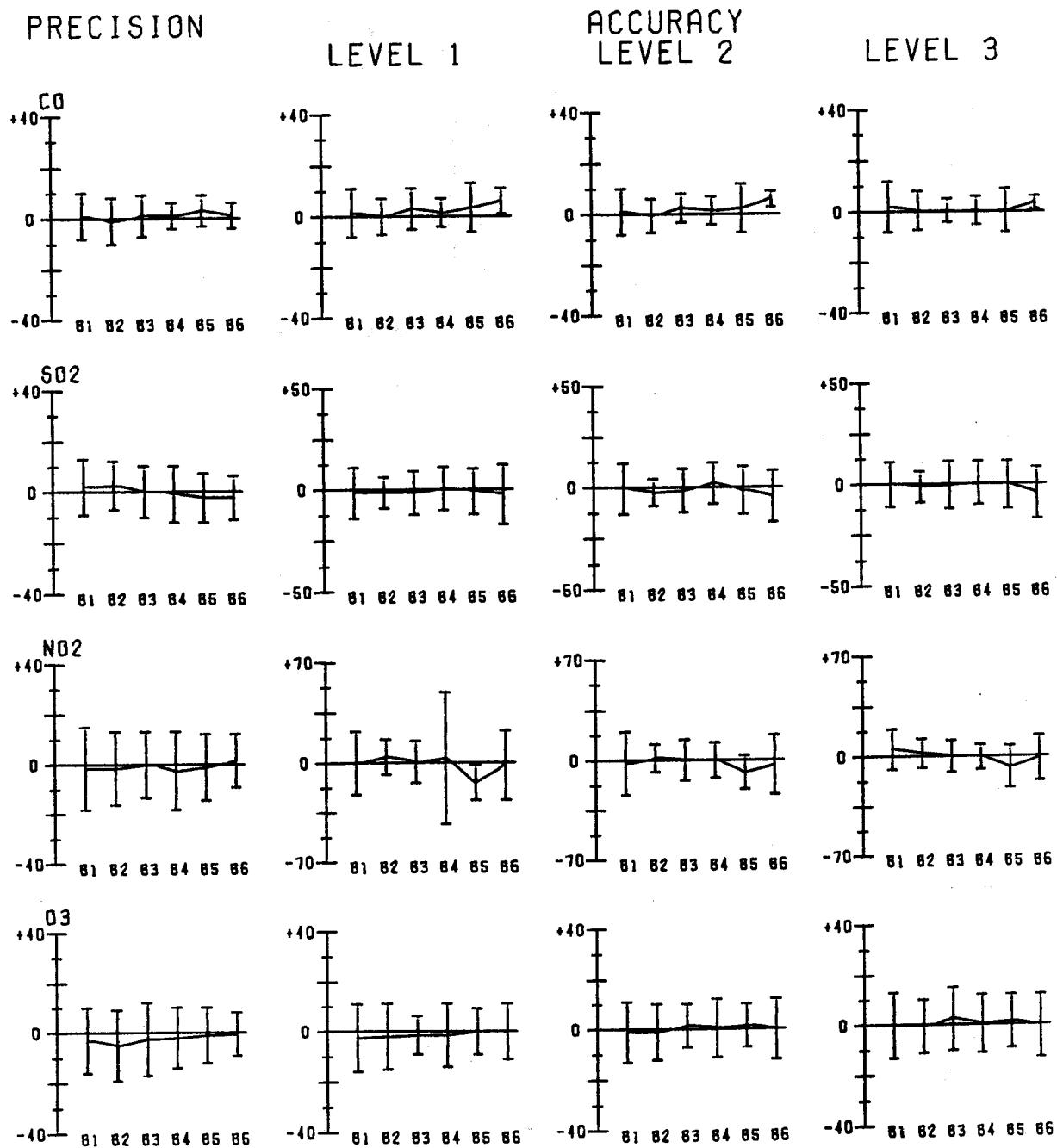
ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 01
STATE : 22 MASSACHUSETTS
REPORG: 001 DEPARTMENT OF ENV. QUALITY ENGINEERING

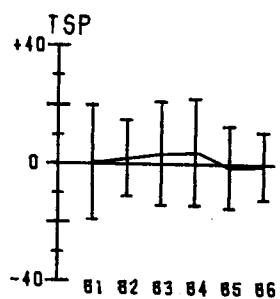


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

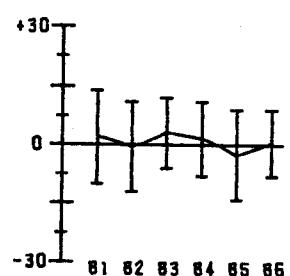
REG : 01
STATE : 22 MASSACHUSETTS
REPORG: 001 DEPARTMENT OF ENV. QUALITY ENGINEERING

PRECISION

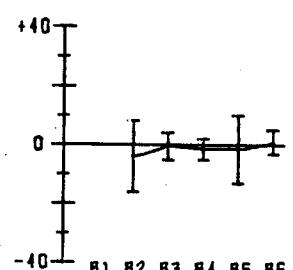
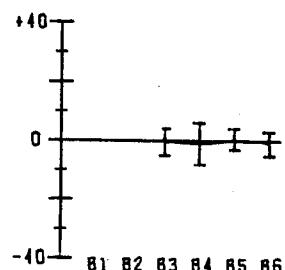
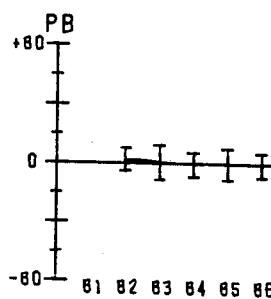
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

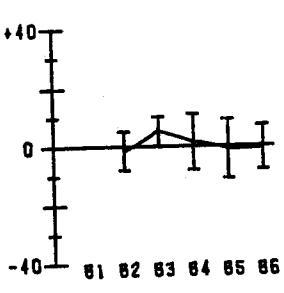
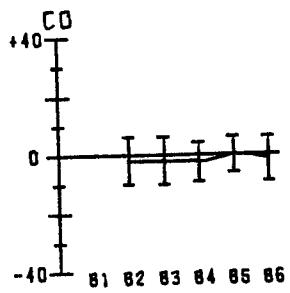


95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

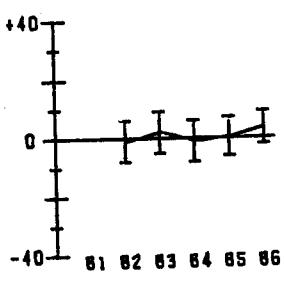
REG : 01
STATE : 30 NEW HAMPSHIRE
REPORG: 001 AIR RESOURCES AGENCY

PRECISION

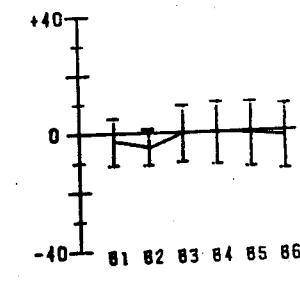
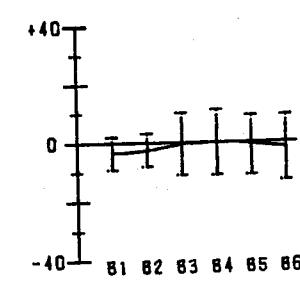
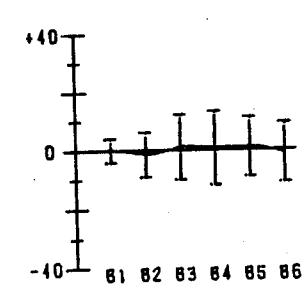
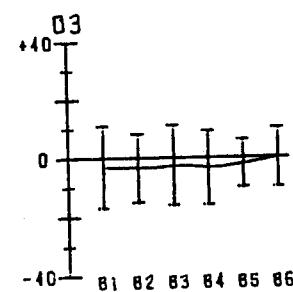
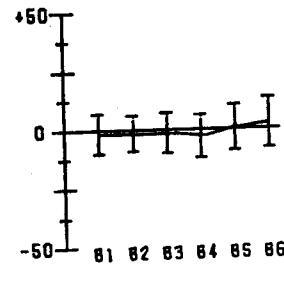
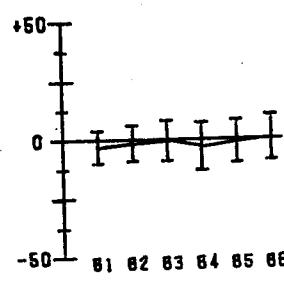
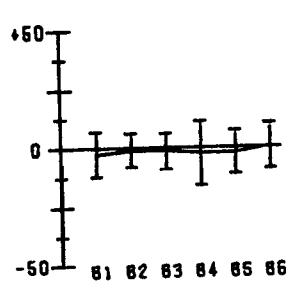
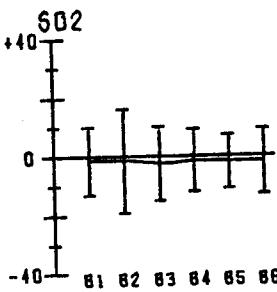
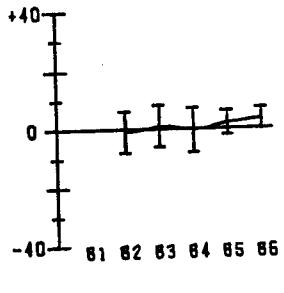
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

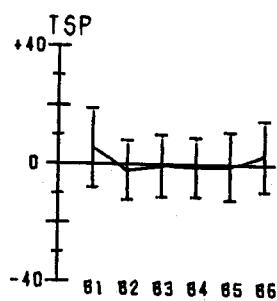


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

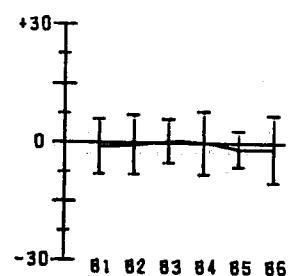
REG : 01
STATE : 30 NEW HAMPSHIRE
REPORG: 001 AIR RESOURCES AGENCY

PRECISION

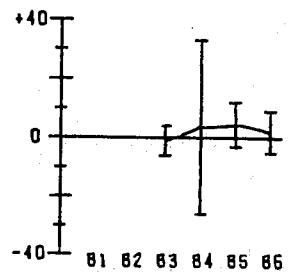
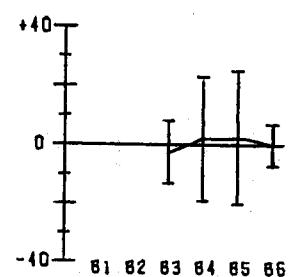
LEVEL 1



ACCURACY
LEVEL 2

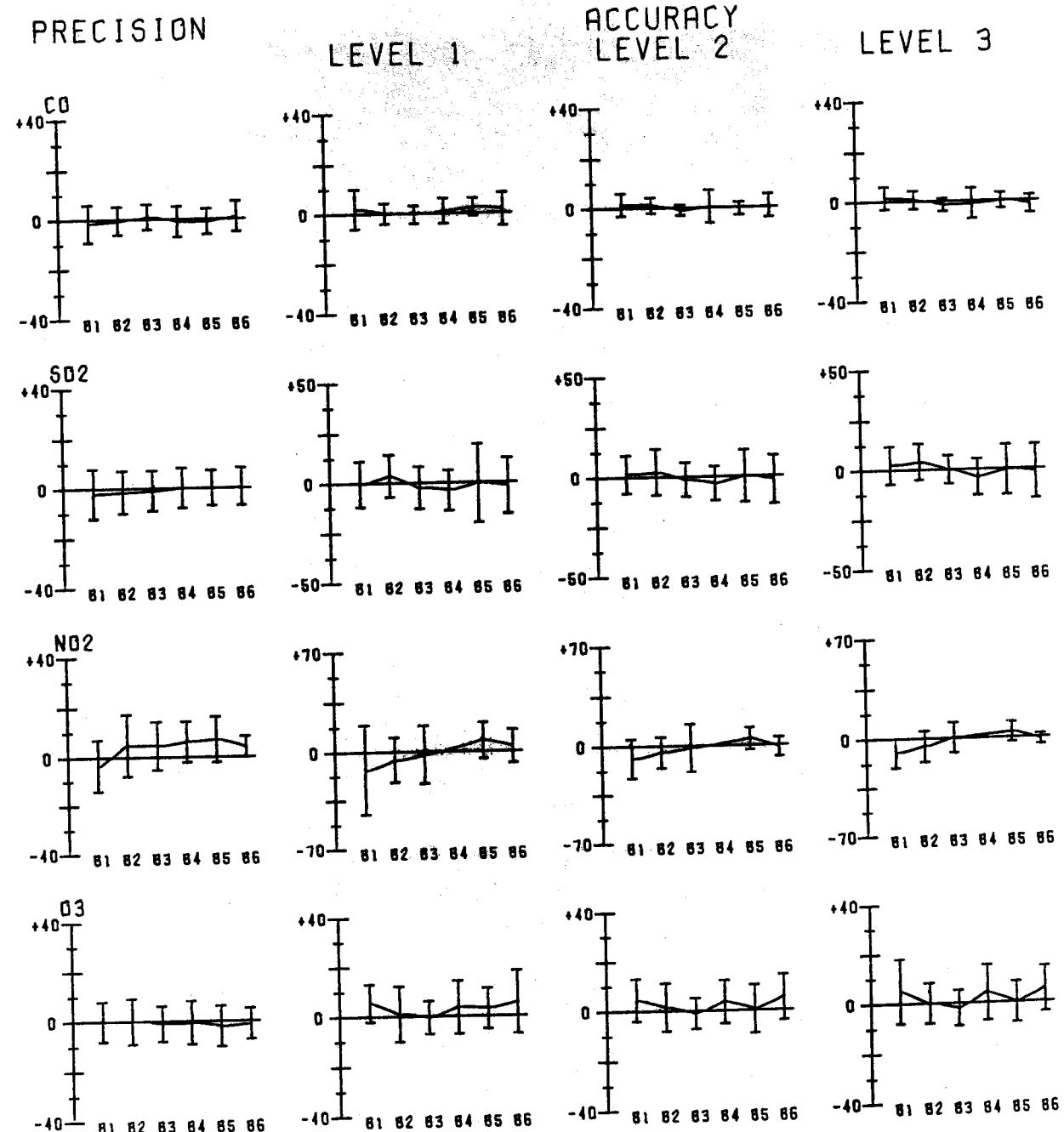


LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 01
STATE : 41 RHODE ISLAND
REPORG: 001 DIV. OF A. HAZ. MAT. DEPT OF ENV. MANAGE



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

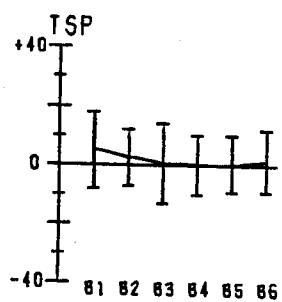
REG : 01

STATE : 41 RHODE ISLAND

REPORG: 001 DIV. OF A. HAZ. MAT. DEPT OF ENV. MANAGE

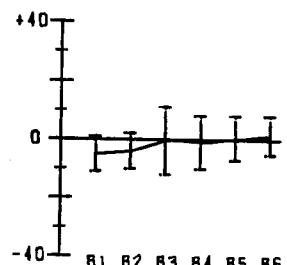
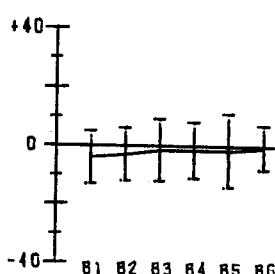
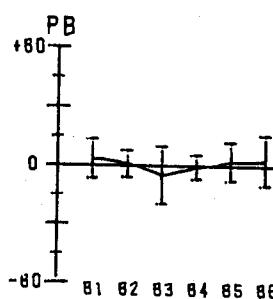
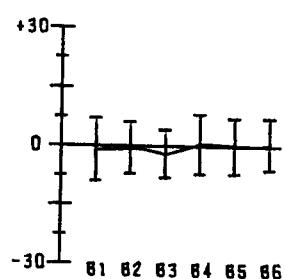
PRECISION

LEVEL 1



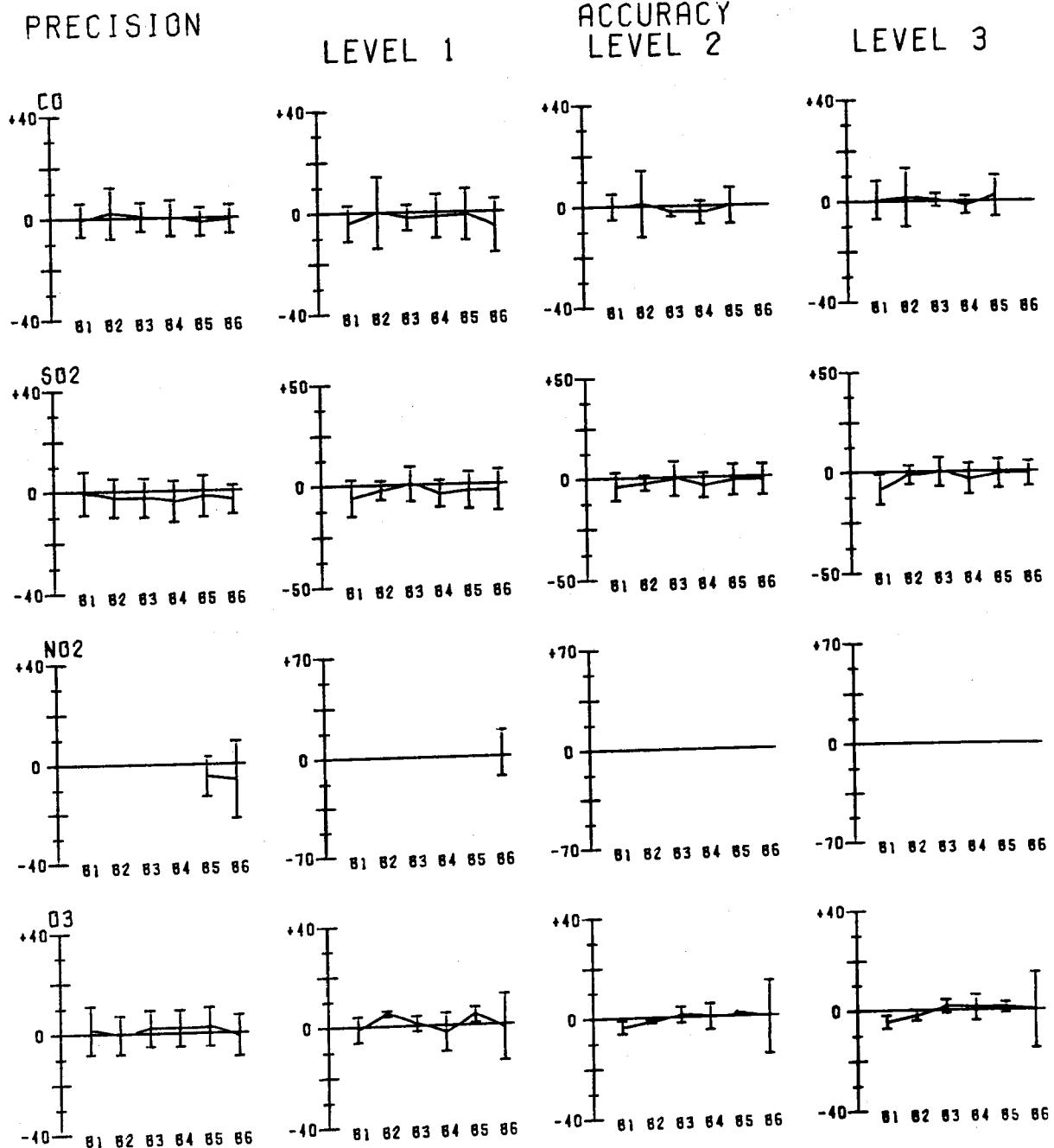
ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 01
STATE : 47 VERMONT
REPORG: 001 AIR & SOLID WASTE PROGRAMS



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

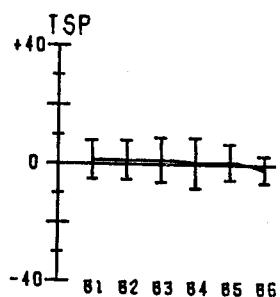
REG : 01

STATE : 47 VERMONT

REPORG: 001 AIR & SOLID WASTE PROGRAMS

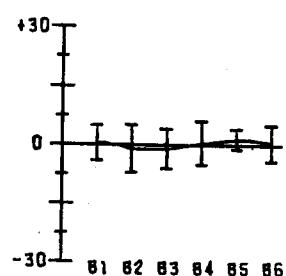
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

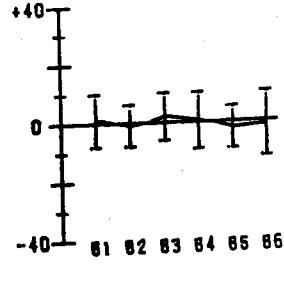
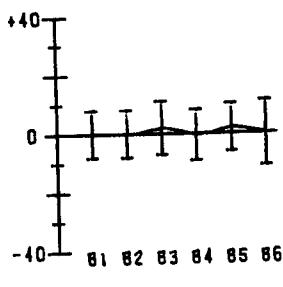
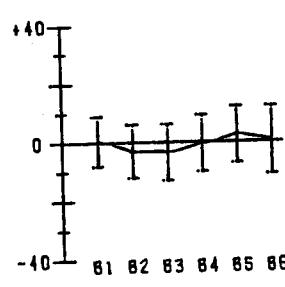
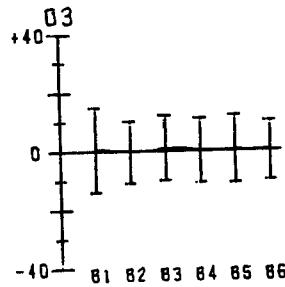
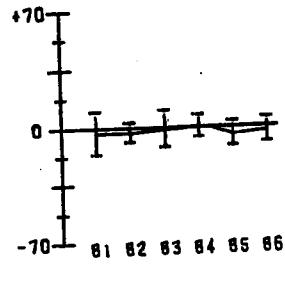
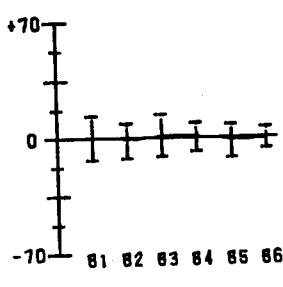
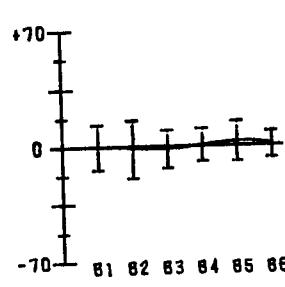
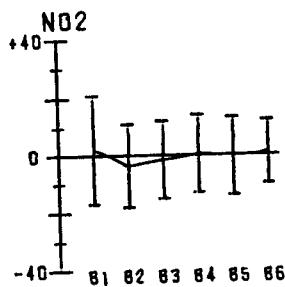
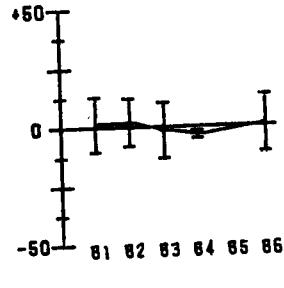
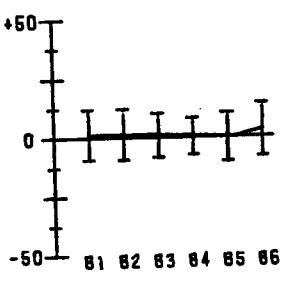
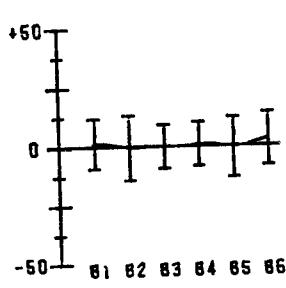
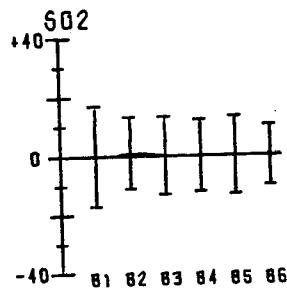
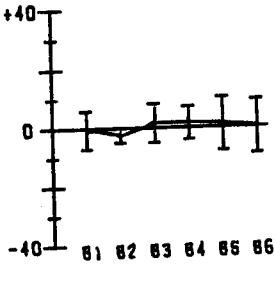
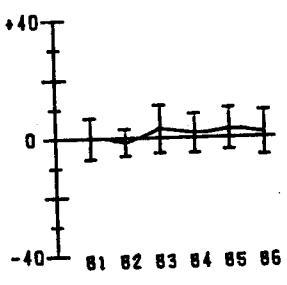
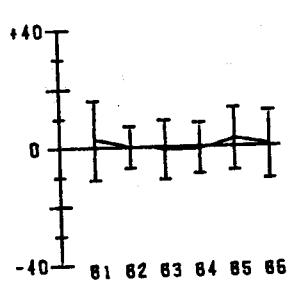
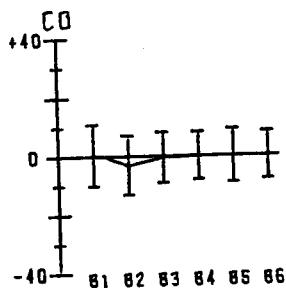
REG : 02
STATE : 31 NEW JERSEY
REPORG: 001 DEPT. OF ENV.PROT., DIV. OF ENV. QUAL.

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

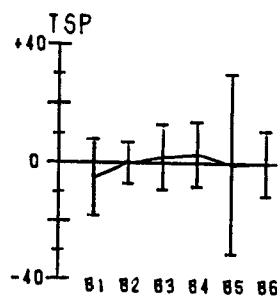
REG : 02

STATE : 31 NEW JERSEY

REPORG: 001 DEPT. OF ENV.PROT., DIV. OF ENV. QUAL.

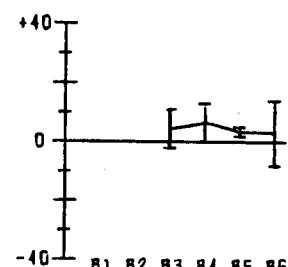
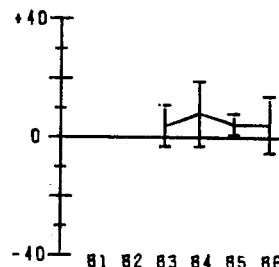
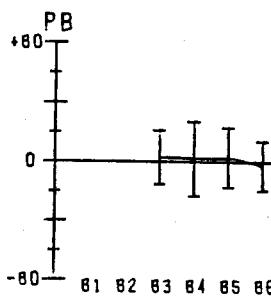
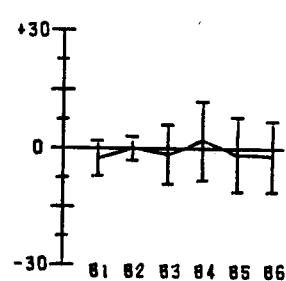
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3

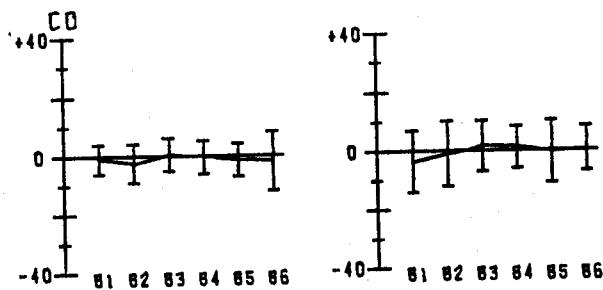


95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

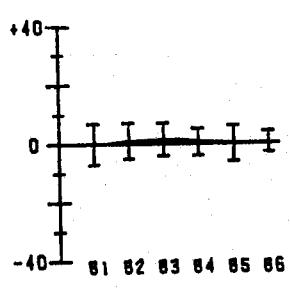
REG : 02
STATE : 33 NEW YORK
REPORG: 001 DEPT. OF ENV. CONSERV. DIV. OF AIR

PRECISION

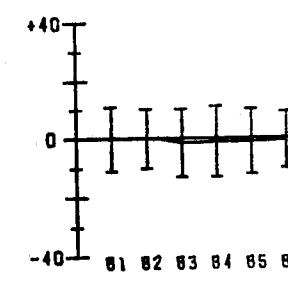
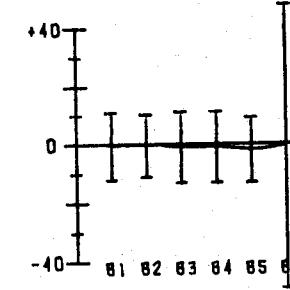
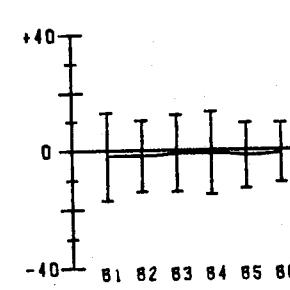
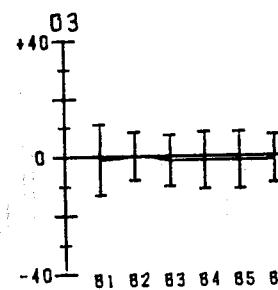
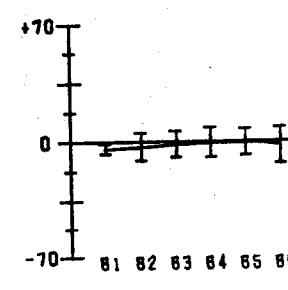
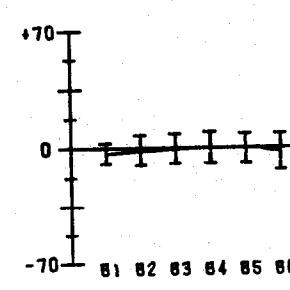
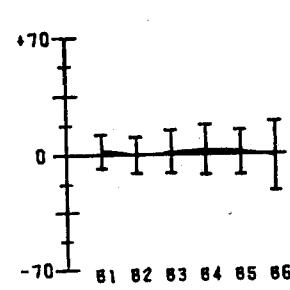
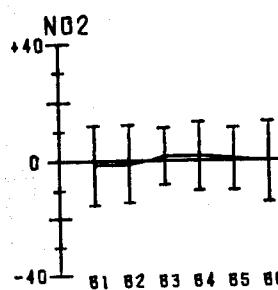
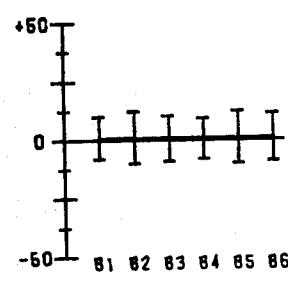
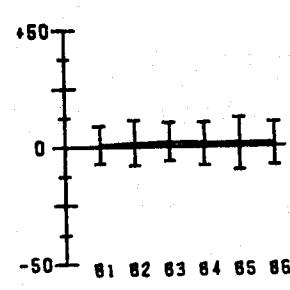
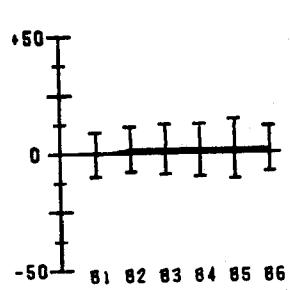
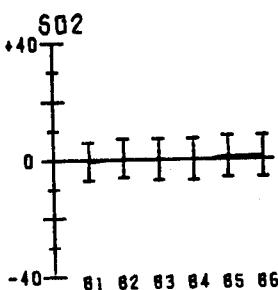
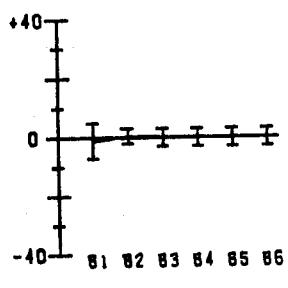
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

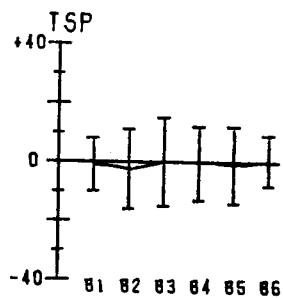
REG : 02

STATE : 33 NEW YORK

REPORG: 001 DEPT. OF ENV. CONSERV. DIV. OF AIR

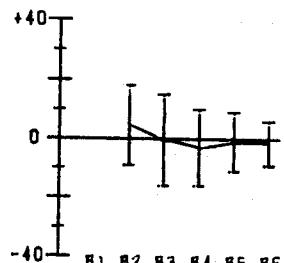
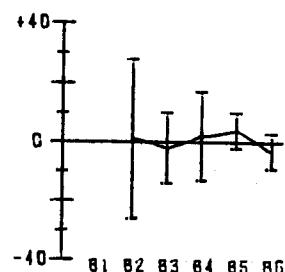
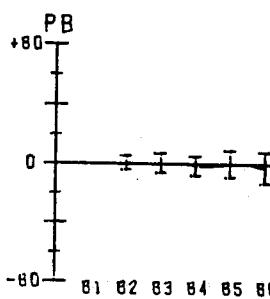
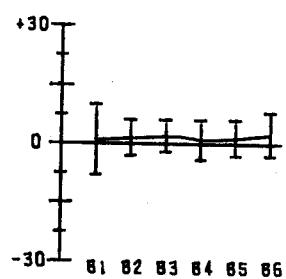
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3

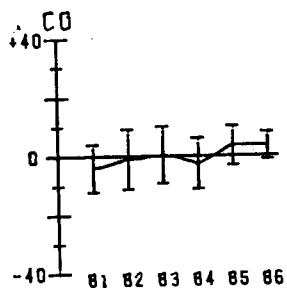


95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

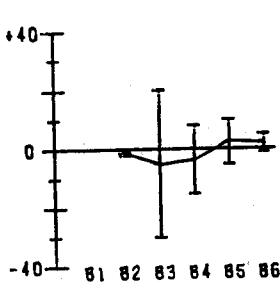
REG : 02
STATE : 40 PUERTO RICO
REPORG: 001 ENVIRONMENTAL QUALITY BOARD.

PRECISION

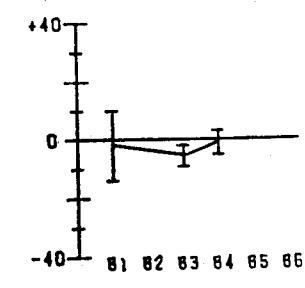
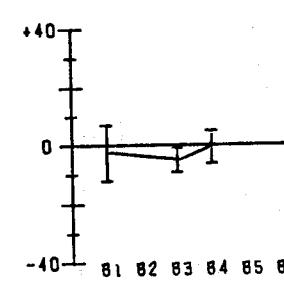
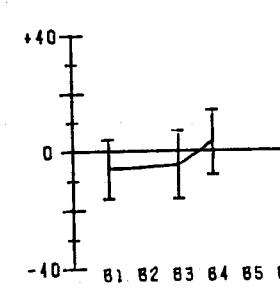
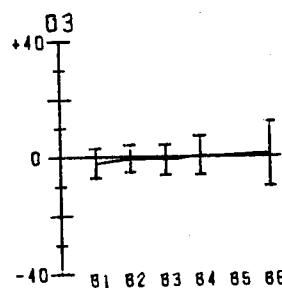
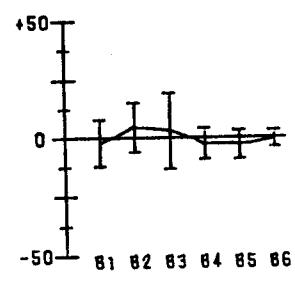
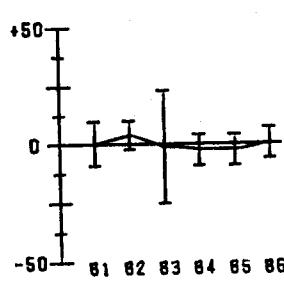
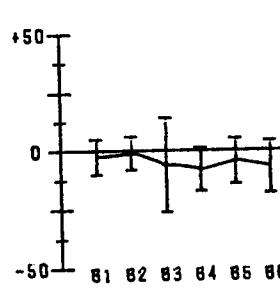
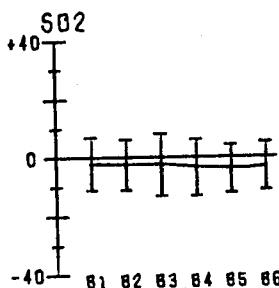
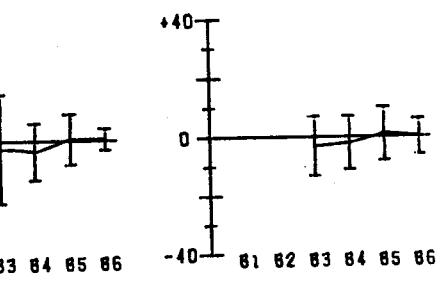
LEVEL 1



ACCURACY
LEVEL 2

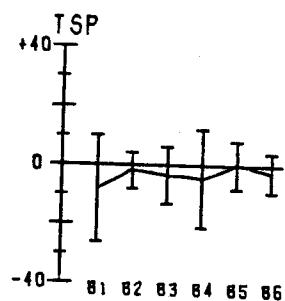


LEVEL 3



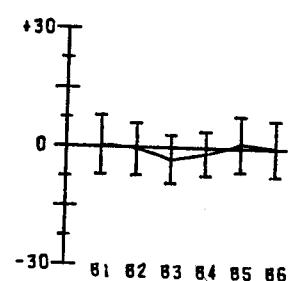
95% PROBABILITY LIMITS 81-86
MANUAL METHODS
REG : 02
STATE : 40 PUERTO RICO
REPORG: 001 ENVIRONMENTAL QUALITY BOARD.

PRECISION

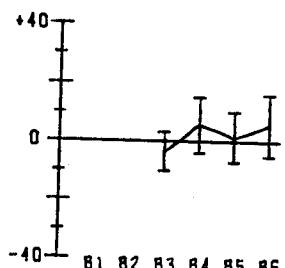
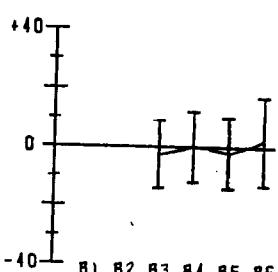
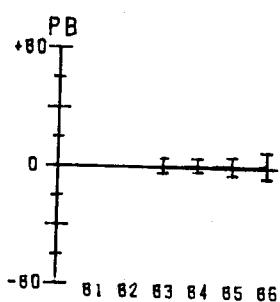


LEVEL 1

ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 02

STATE : 55 VIRGIN ISLANDS

REPORG: 001 DEPT. OF CONS. AND CULTURAL AFFAIRS

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

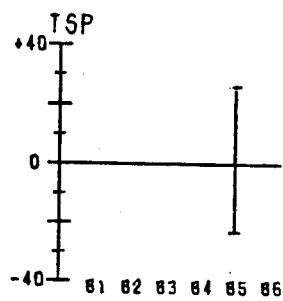
LEVEL 3

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 02
STATE : 55 VIRGIN ISLANDS
REPORG: 001 DEPT. OF CONS. AND CULTURAL AFFAIRS

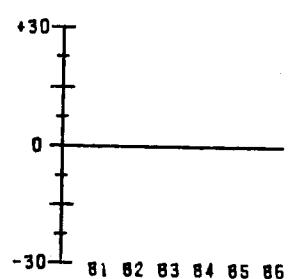
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

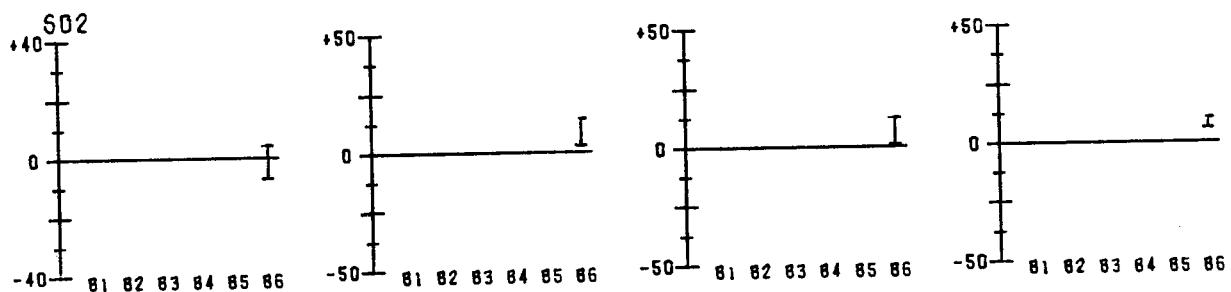
REG : 02
STATE : 55 VIRGIN ISLANDS
REPORG: 002 MARTIN MARIETTA

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 03

STATE : 08 DELAWARE

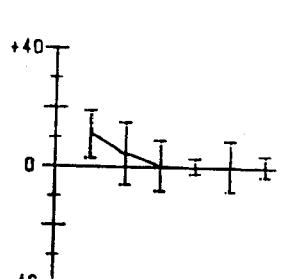
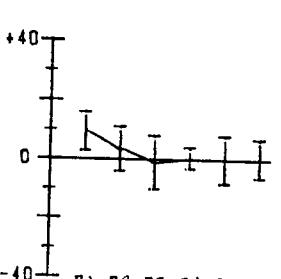
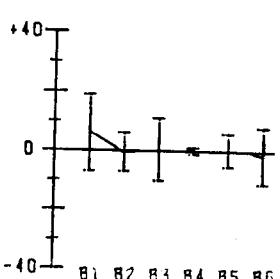
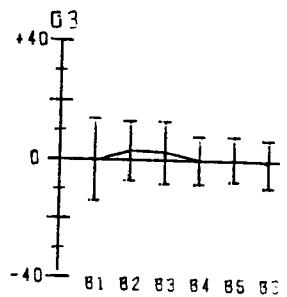
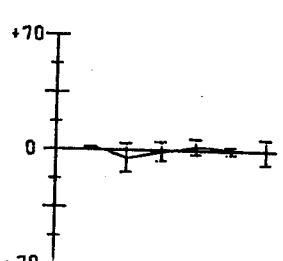
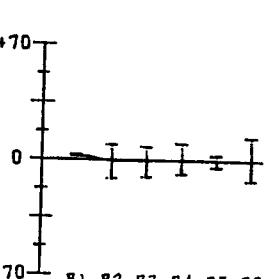
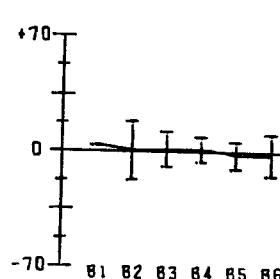
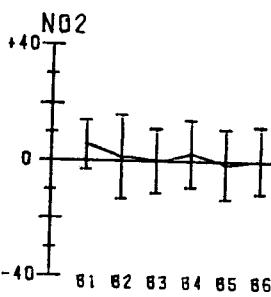
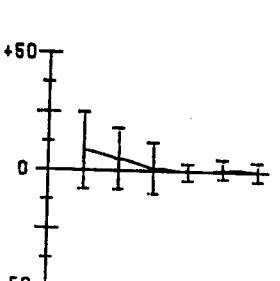
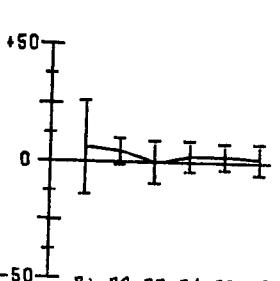
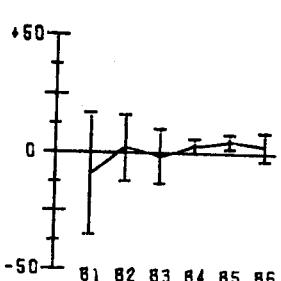
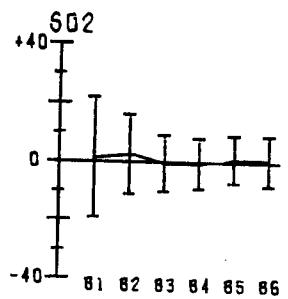
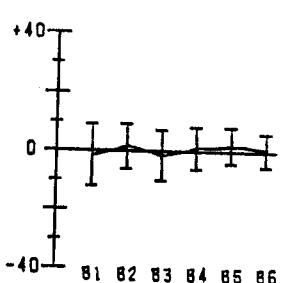
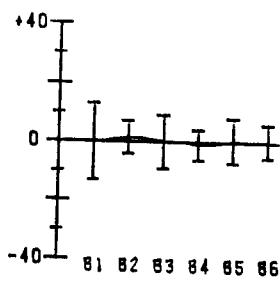
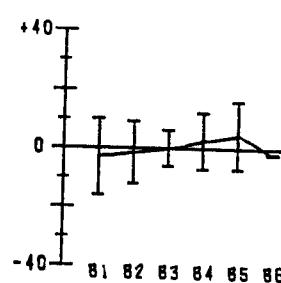
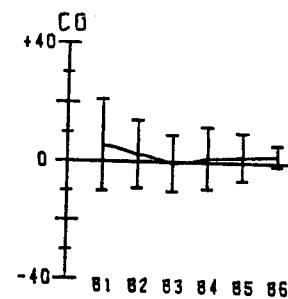
REPORG: 001 STATE OF DELAWARE DNR & EC

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

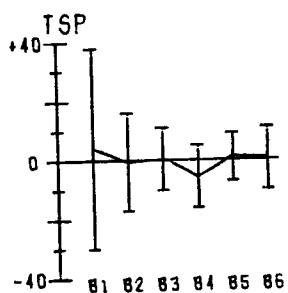


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 03
STATE : 08 DELAWARE
REPORG: 001 STATE OF DELAWARE DNR & EC

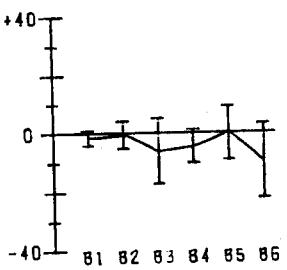
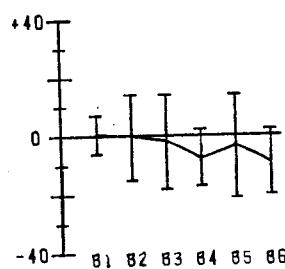
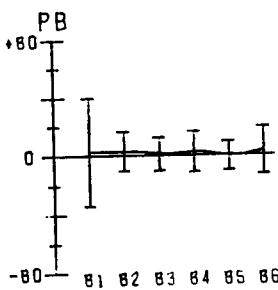
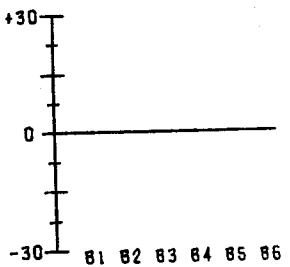
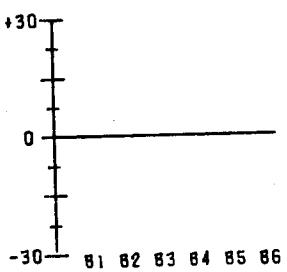
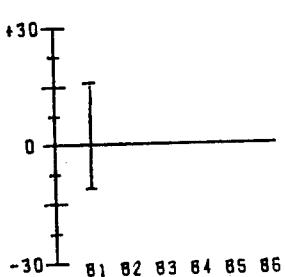
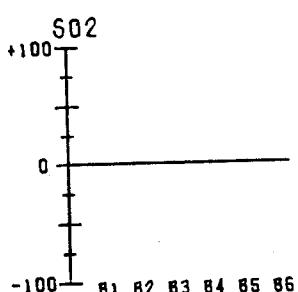
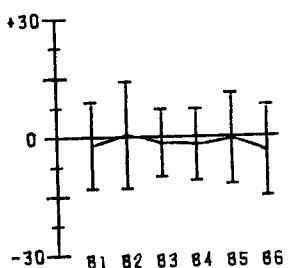
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



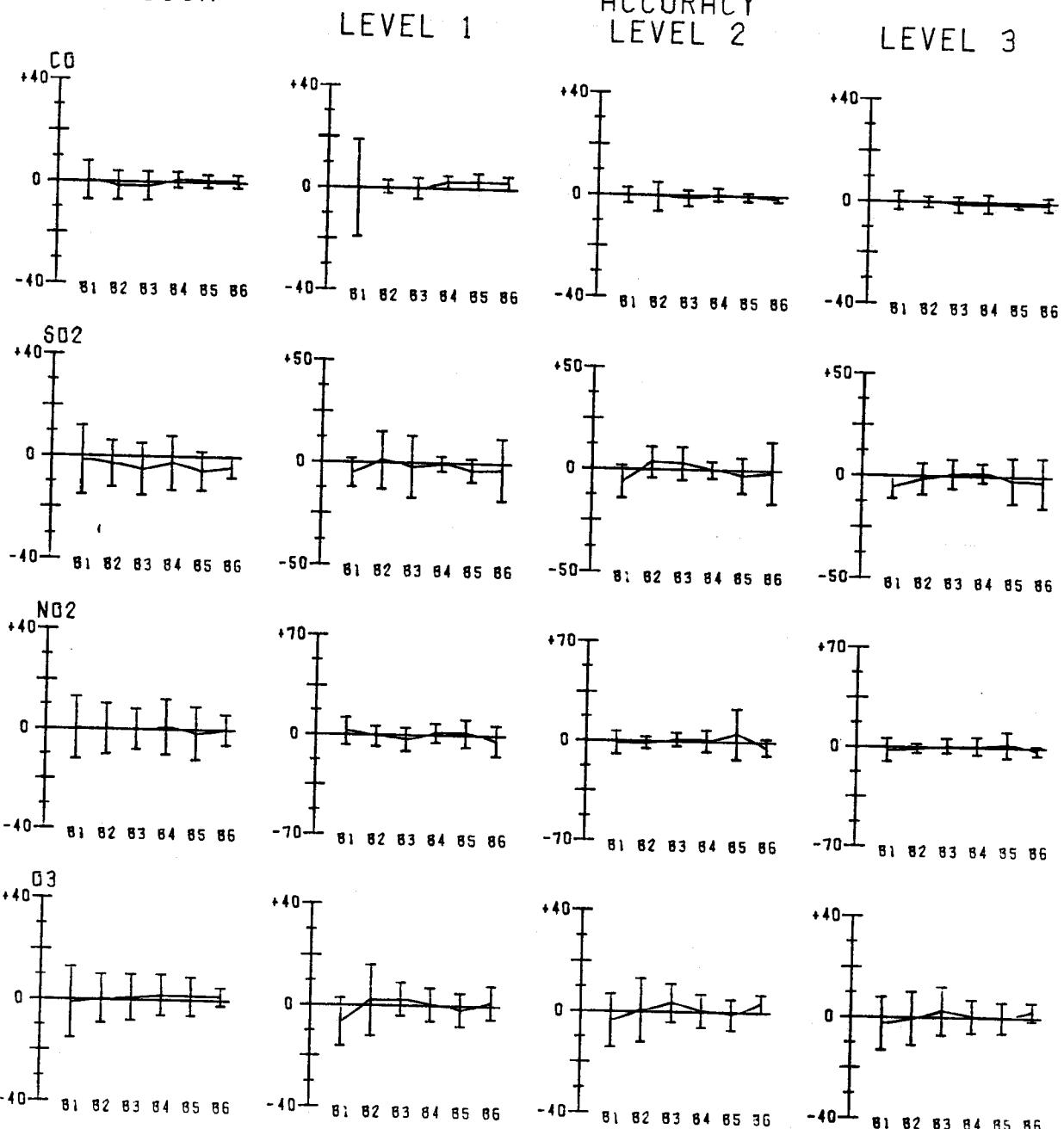
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 03

STATE : 09 DST. OF COLUMB.

REPORG: 001 WASHINGTON, DC DC & RA

PRECISION

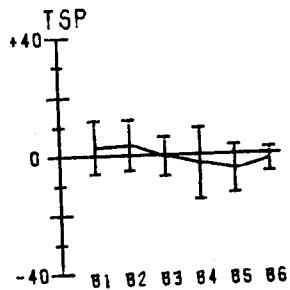


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 03
STATE : 09 DST. OF COLUMB.
REPORG: 001 WASHINGTON, DC DC & RA

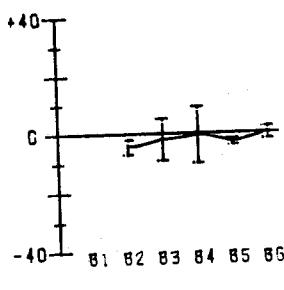
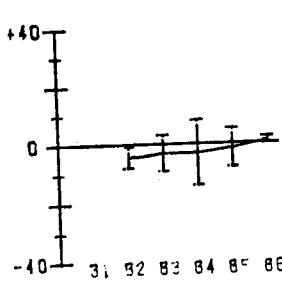
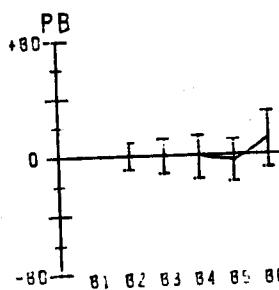
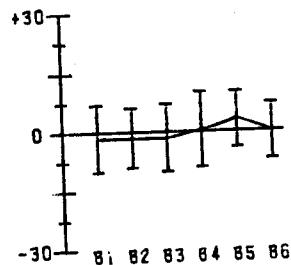
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3

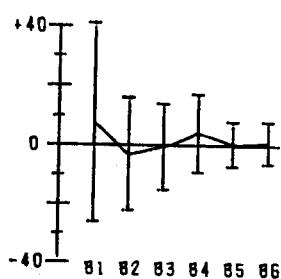
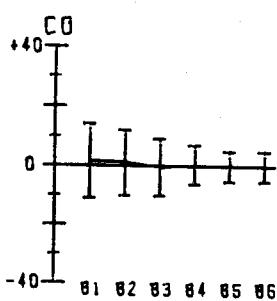


95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

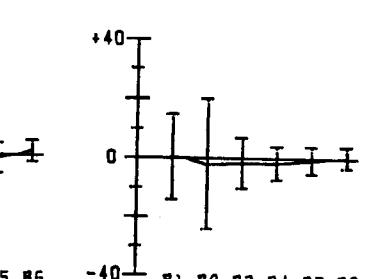
REG : 03
STATE : 21 MARYLAND
REPORG: 001 STATE OF MARYLAND

PRECISION

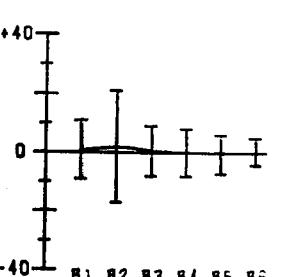
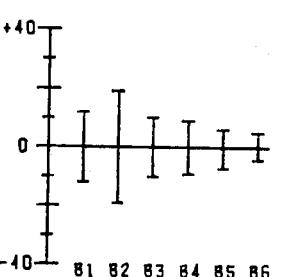
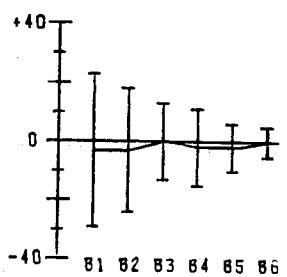
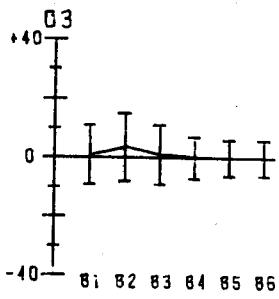
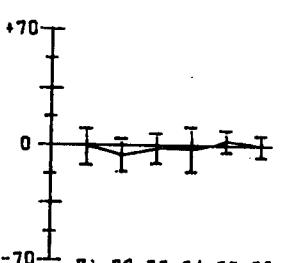
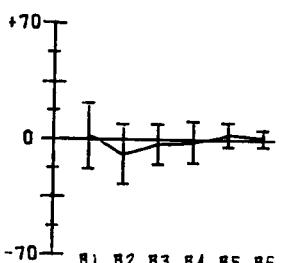
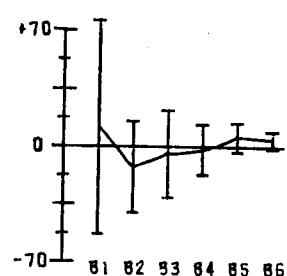
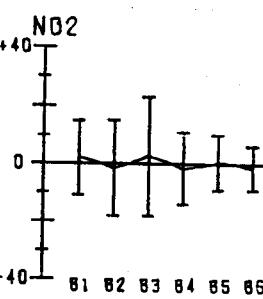
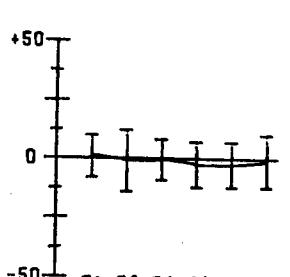
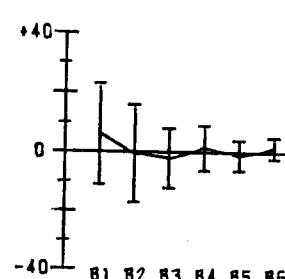
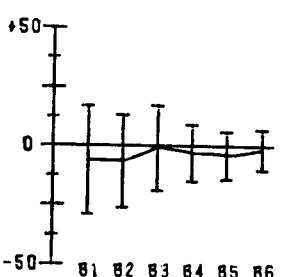
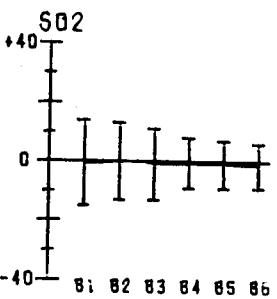
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

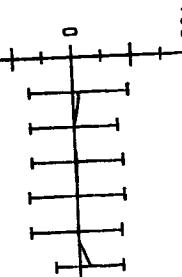
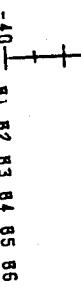
REG : 03
STATE : 21 MARYLAND
REPORG : 001 STATE OF MARYLAND

PRECISION

LEVEL 1

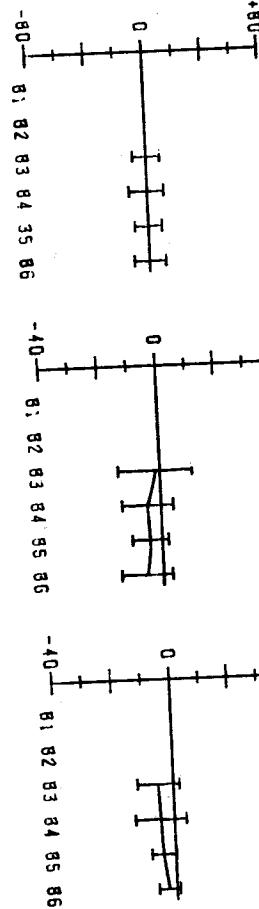
ACCURACY
LEVEL 2

LEVEL 3



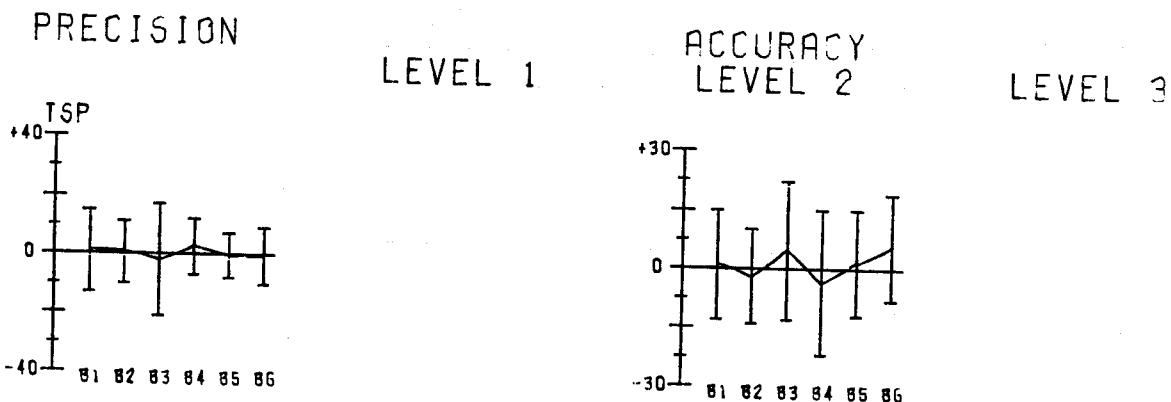
ISP

PB



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 03
STATE : 21 MARYLAND
REPCPG: 002 ALLEGANY COUNTY



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

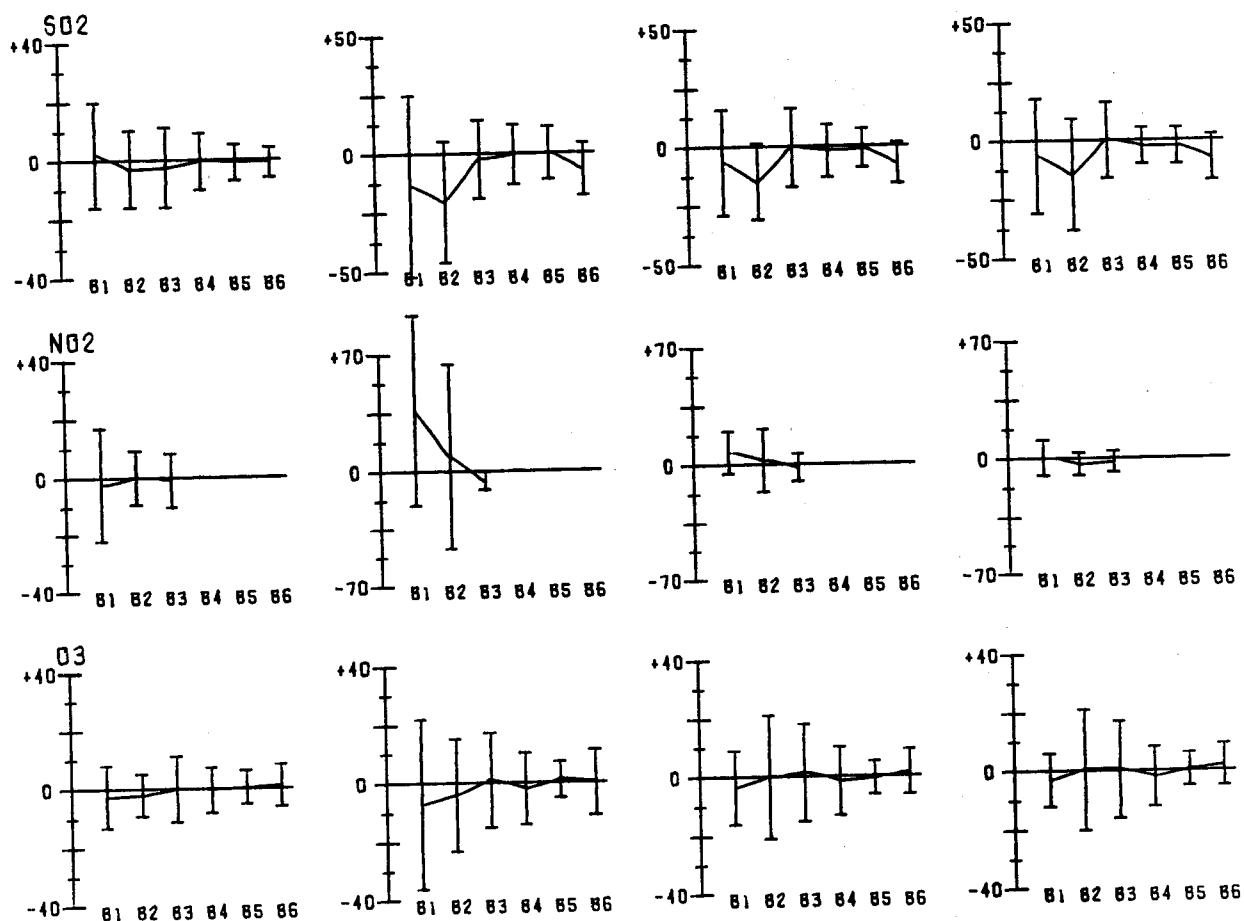
REG : 03
STATE : 21 MARYLAND
REPORG: 003 ANNE ARUNDEL COUNTY

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

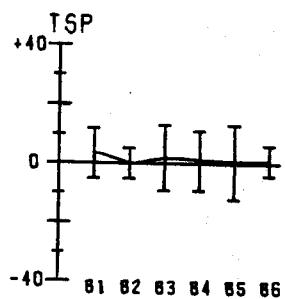


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 03
STATE : 21 MARYLAND
REPORG: 003 ANNE ARUNDEL COUNTY

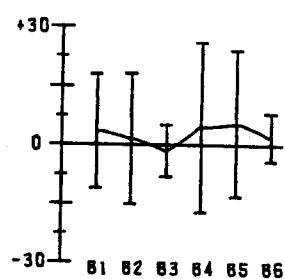
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3

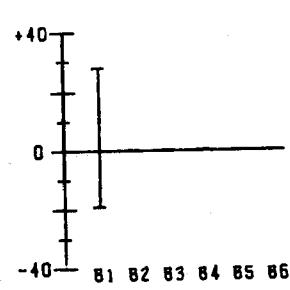
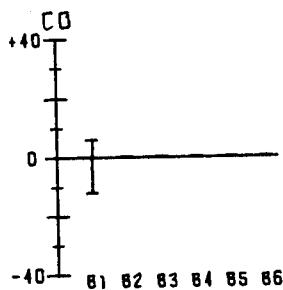


95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 03
STATE : 21 MARYLAND
REPORG: 004 BALTIMORE CITY (DISC. 1/82)

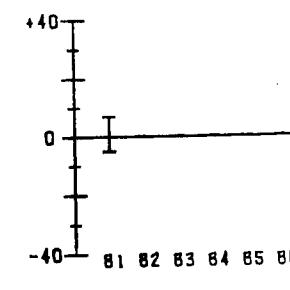
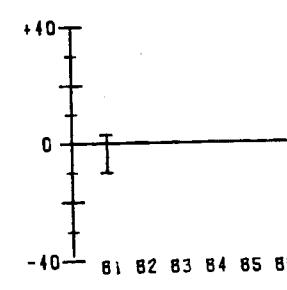
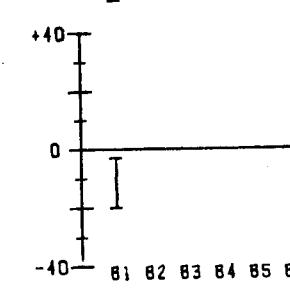
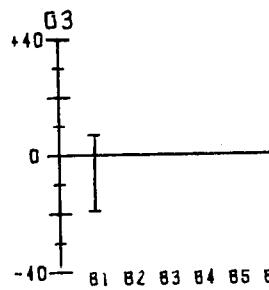
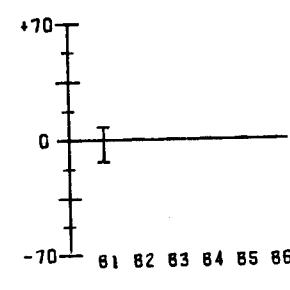
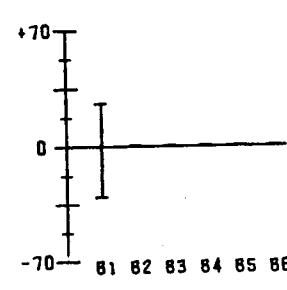
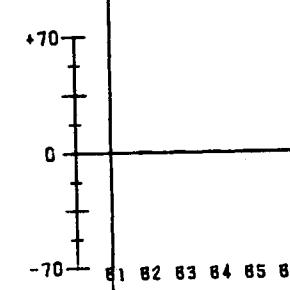
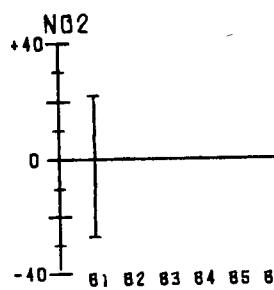
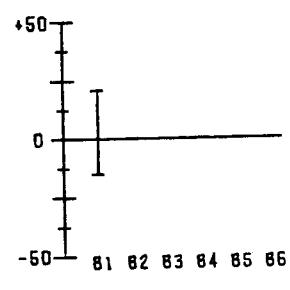
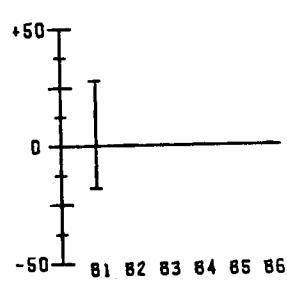
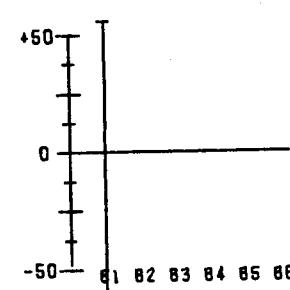
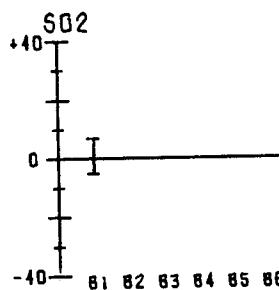
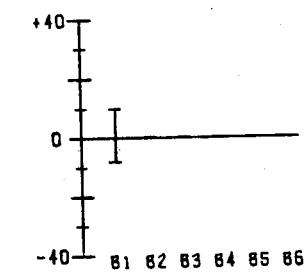
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

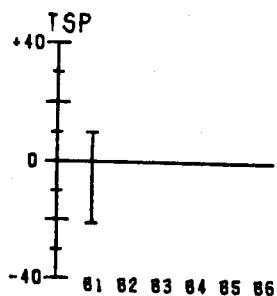
LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

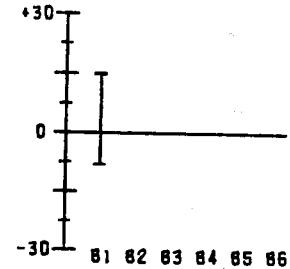
REG : 03
STATE : 21 MARYLAND
REPORG: 004 BALTIMORE CITY (DISC. 1/82)

PRECISION



LEVEL 1

ACCURACY
LEVEL 2



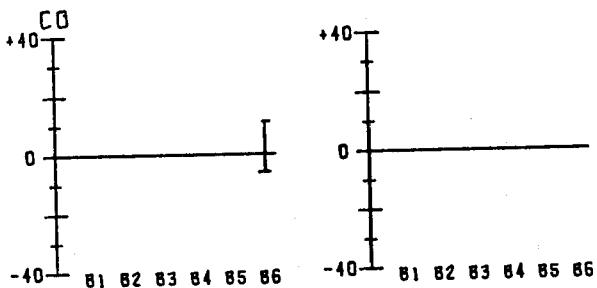
LEVEL 3

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

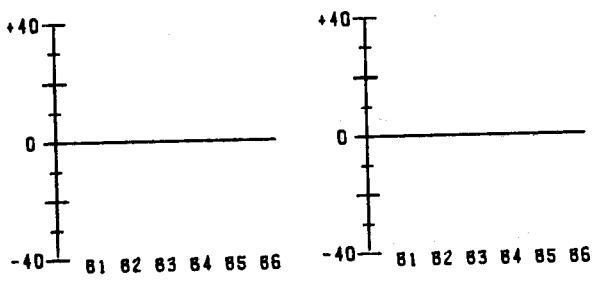
REG : 03
STATE : 21 MARYLAND
REPORG: 005 BALTIMORE COUNTY

PRECISION

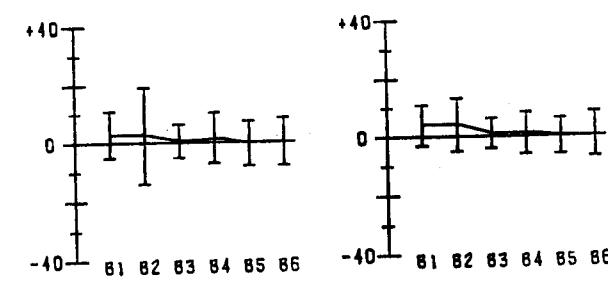
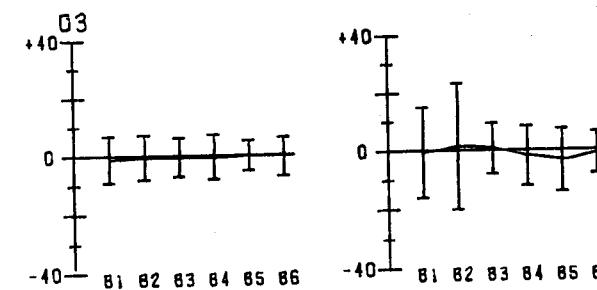
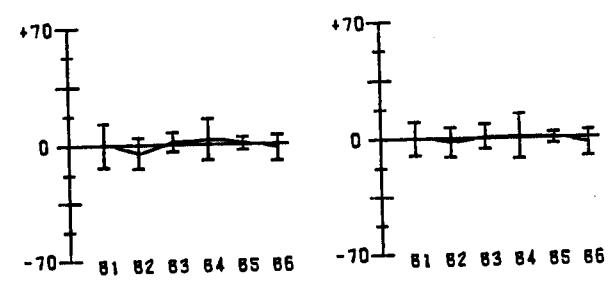
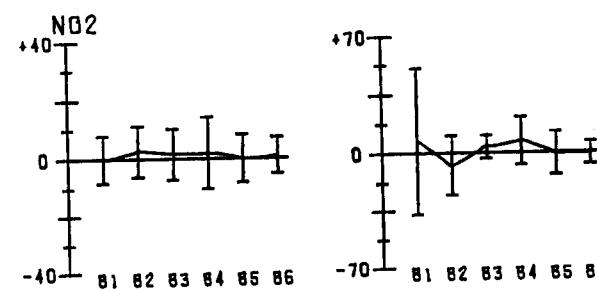
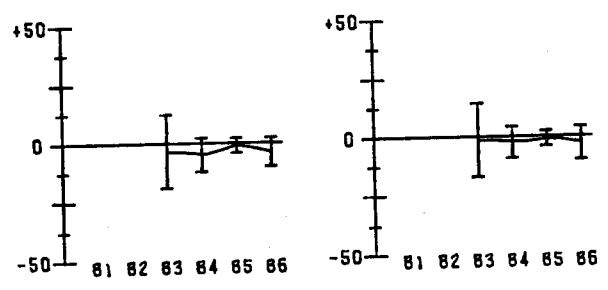
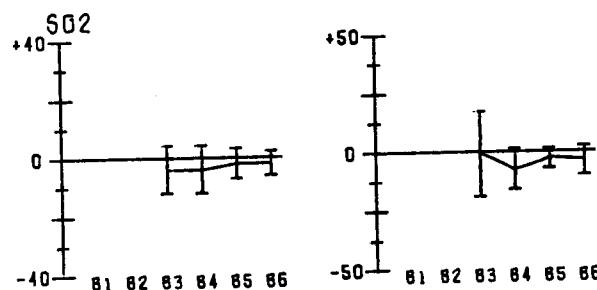
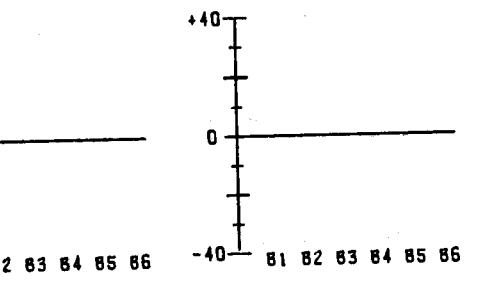
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

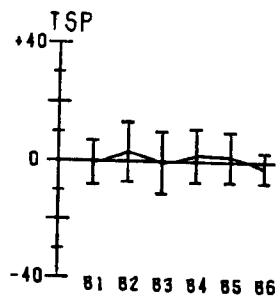


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 03
STATE : 21 MARYLAND
REPORG: 005 BALTIMORE COUNTY

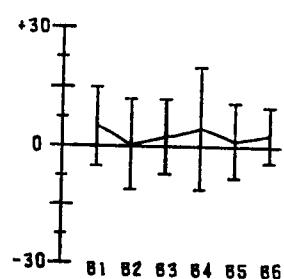
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



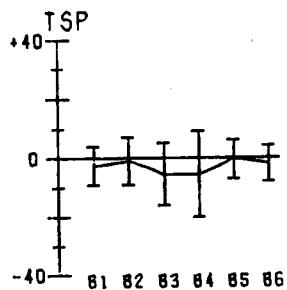
C-48

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 03
STATE : 21 MARYLAND
REPORG: 006 PRINCE GEORGE'S COUNTY

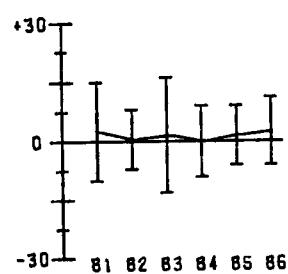
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

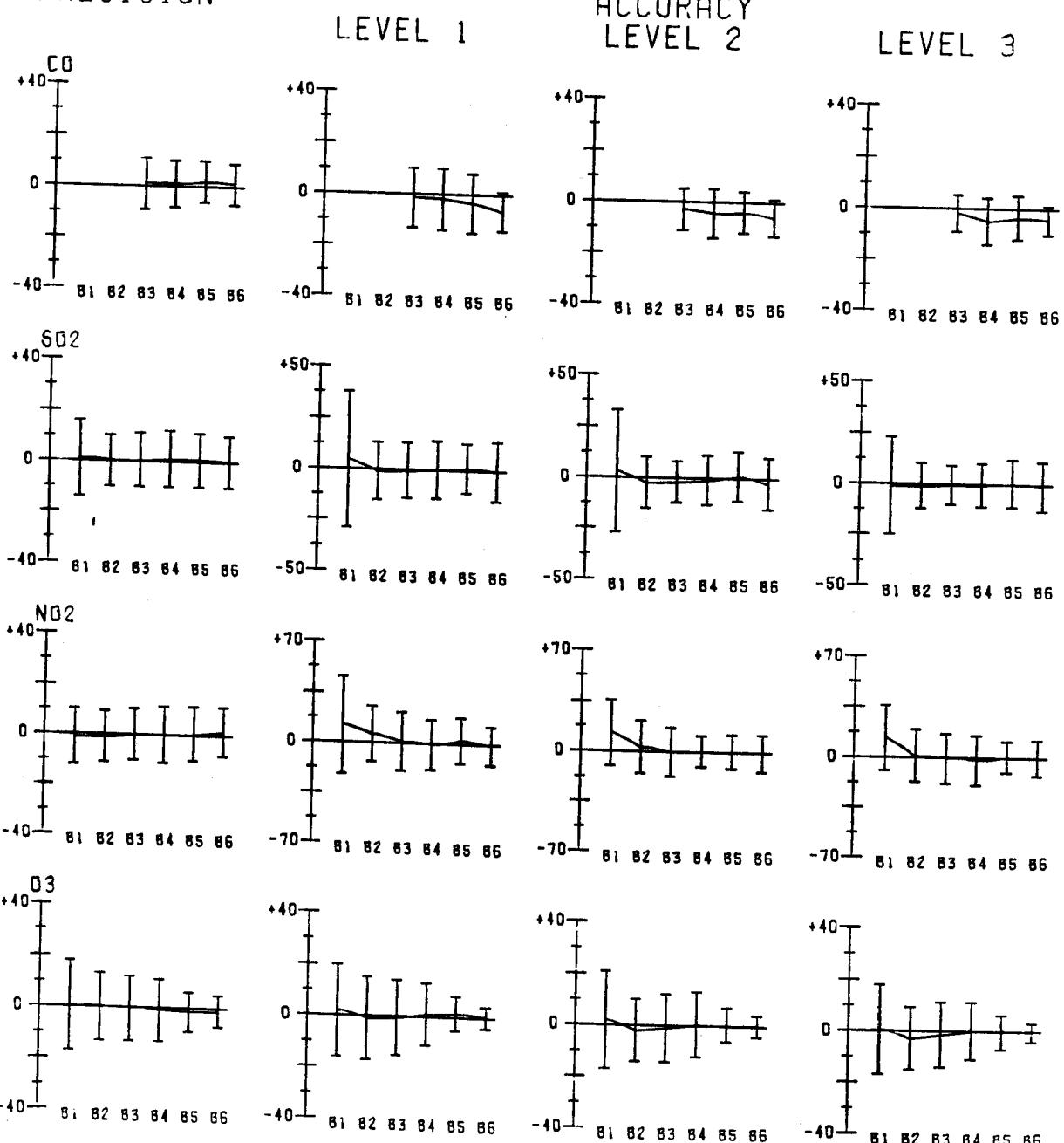
LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 03
STATE : 39 PENNSYLVANIA
REPORG: 001 PENNSYLVANIA DER

PRECISION

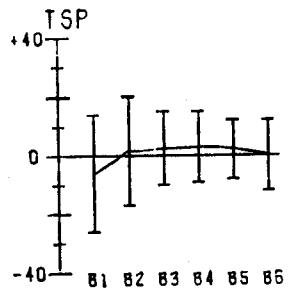


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

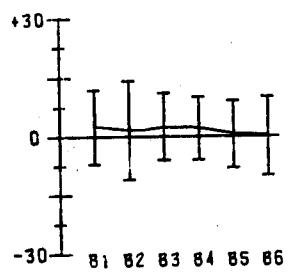
REG : 03
STATE : 39 PENNSYLVANIA
REPORG: 001 PENNSYLVANIA DER

PRECISION

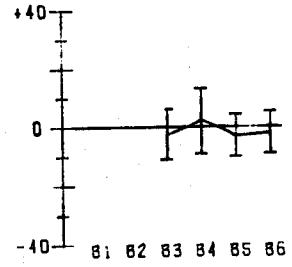
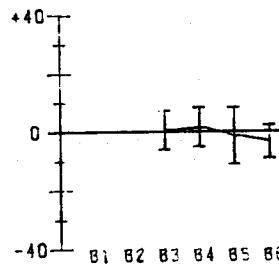
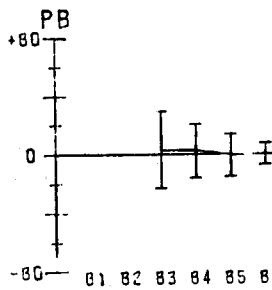
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

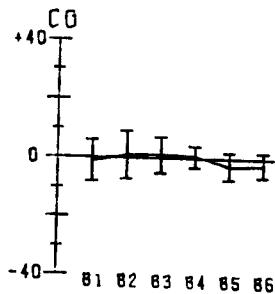
REG : 03

STATE : 30 PENNSYLVANIA

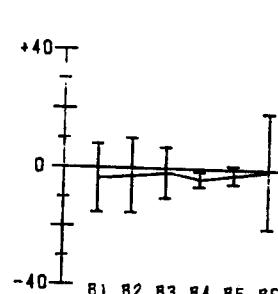
REPORG: 002 ALLEGHENY CO. BAPC

PRECISION

LEVEL 1

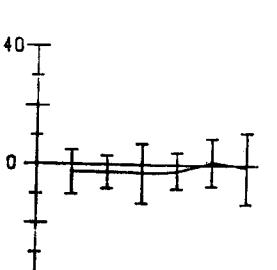
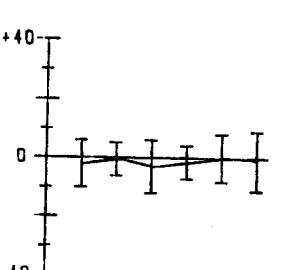
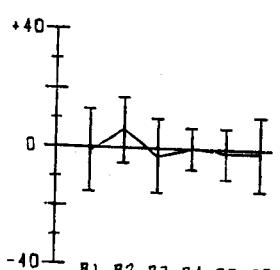
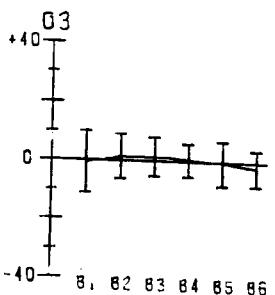
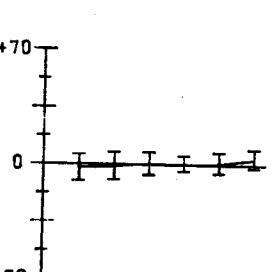
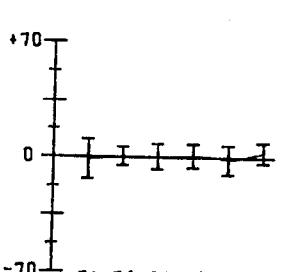
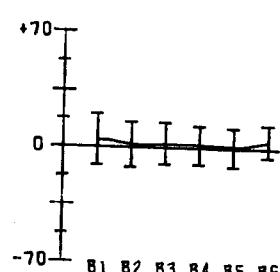
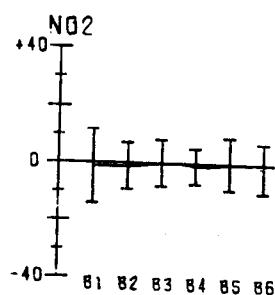
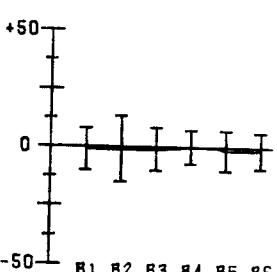
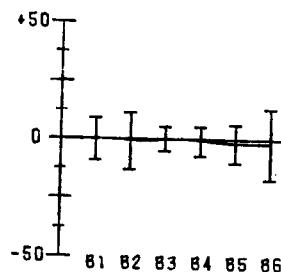
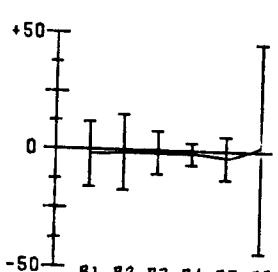
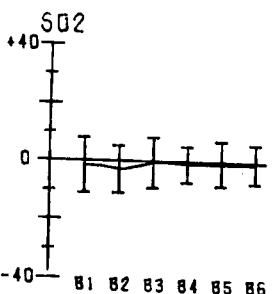
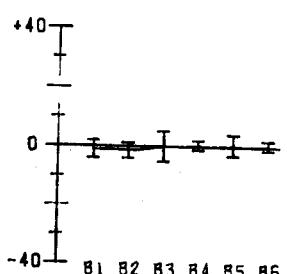


ACCURACY
LEVEL 2



ACCURACY
LEVEL 2

LEVEL 3

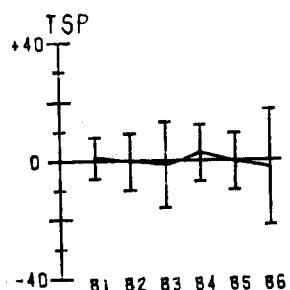


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 03
STATE : 39 PENNSYLVANIA
REPORT: 002 ALLEGHENY CO. BAPC

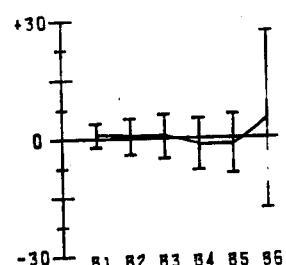
PRECISION

LEVEL 1

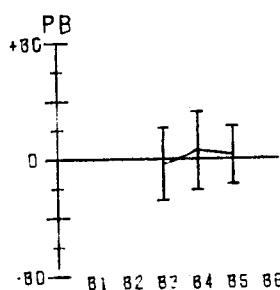


ACCURACY
LEVEL 2

LEVEL 3



PB



+40

0

-40

81 82 83 84 85 86

+40

0

-40

81 82 83 84 85 86

+40

0

-40

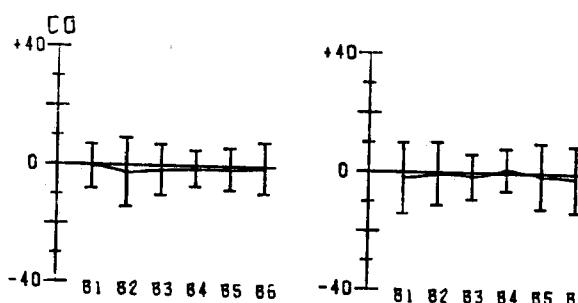
81 82 83 84 85 86

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

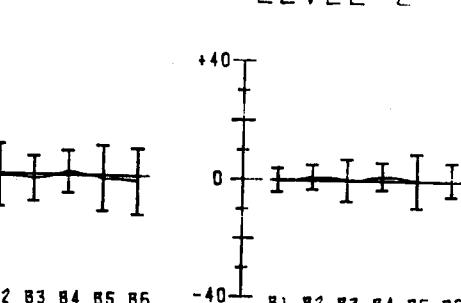
REG : 03
STATE : 30 PENNSYLVANIA
REPORG: 003 PHILADELPHIA RMS

PRECISION

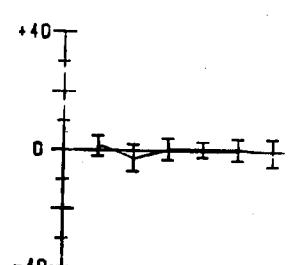
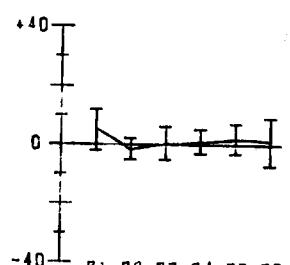
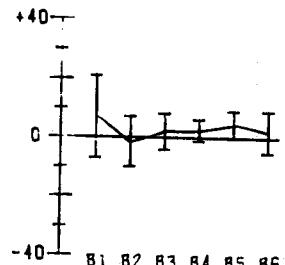
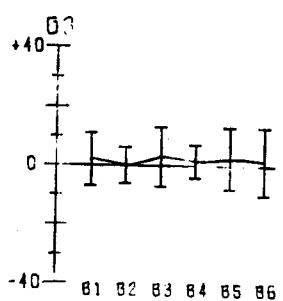
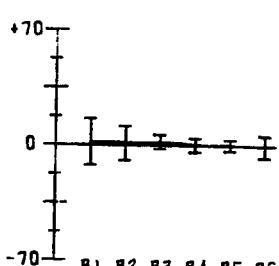
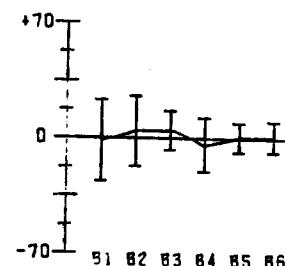
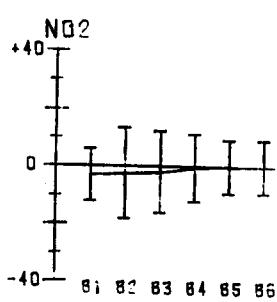
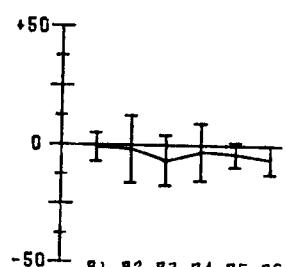
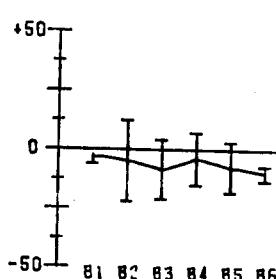
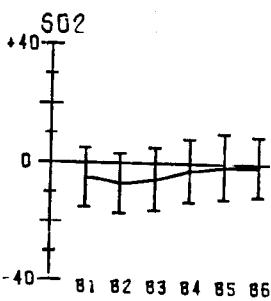
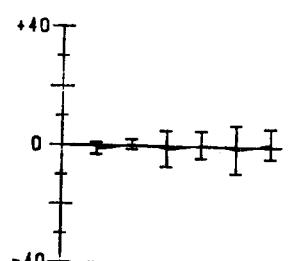
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

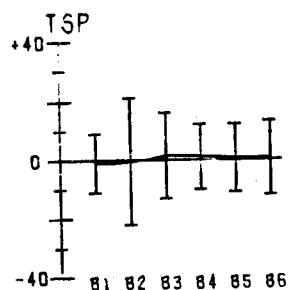


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

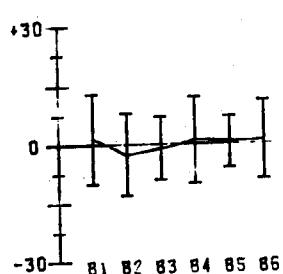
REG : 03
STATE : 30 PENNSYLVANIA
REPORTRG: 002 PHILADELPHIA PMS

PRECISION

LEVEL 1

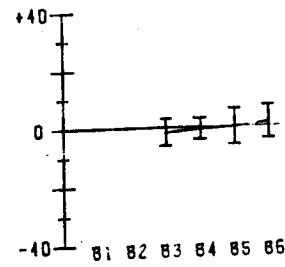
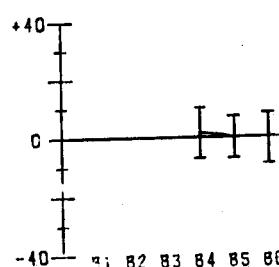
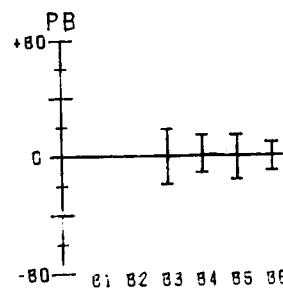


ACCURACY
LEVEL 2



LEVEL 3

ACCURACY
LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 03

STATE : 48 VIRGINIA

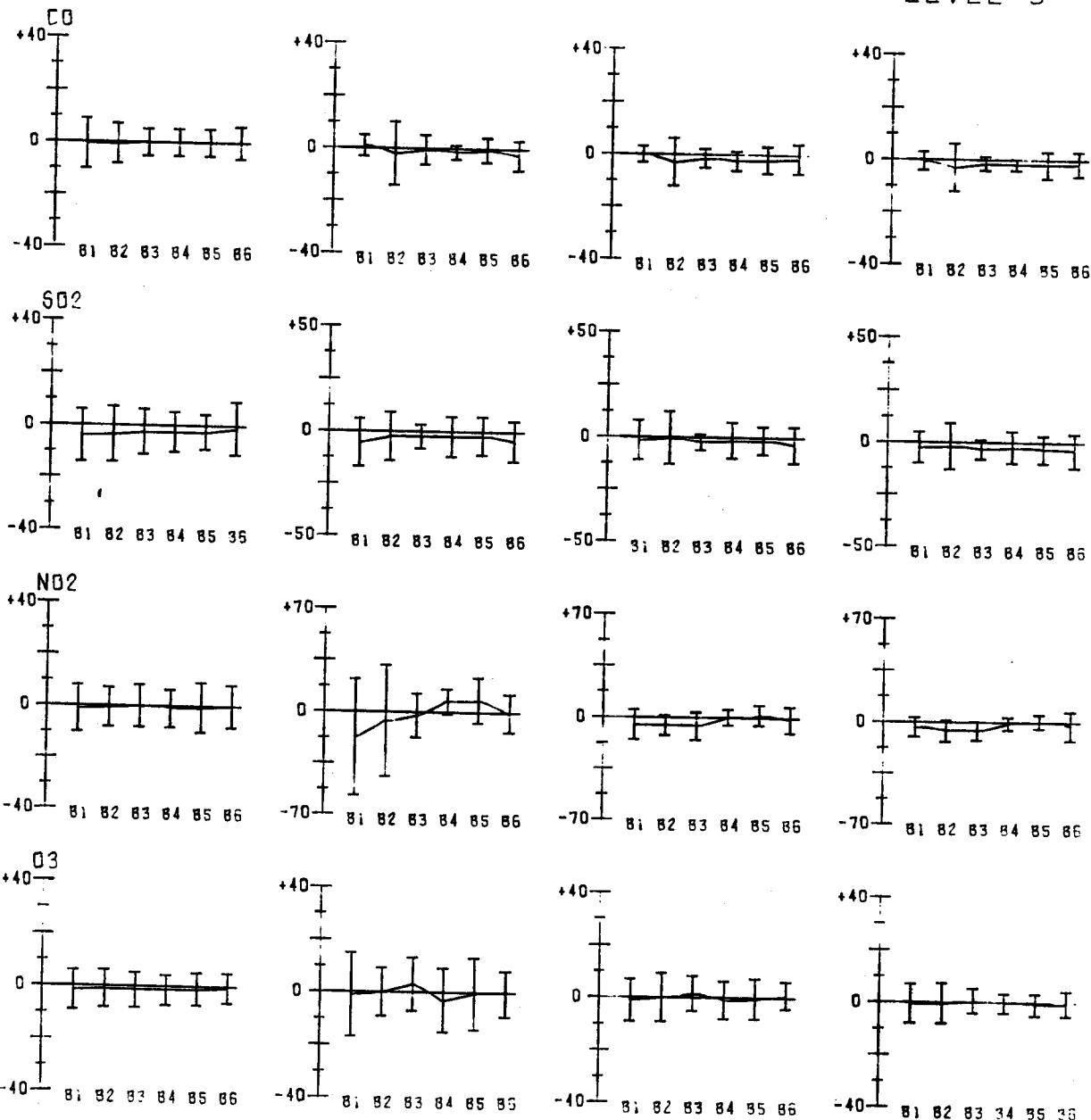
REPORT: 001 VIRGINIA STATE AIR POLL. CONTROL BOARD

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

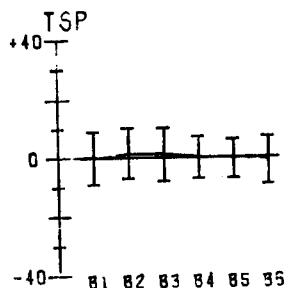


95% PROBABILITY LIMITS 81-86
MANUPL METHODS

REG : 03
STATE : 48 VIRGINIA
REPORT #: 001 VIRGINIA STATE AIR POLL. CONTROL BOARD

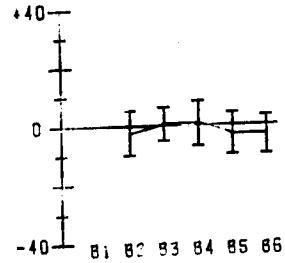
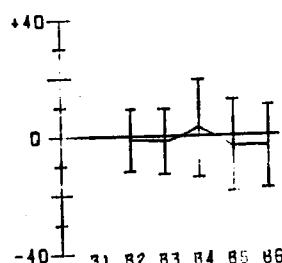
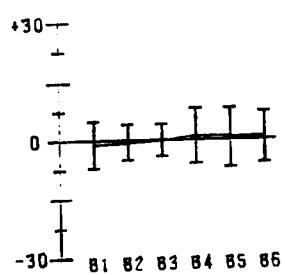
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 03

STATE : 43 VIRGINIA

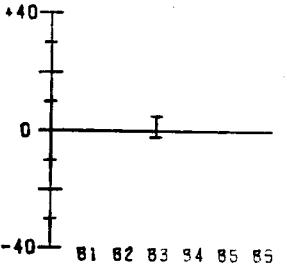
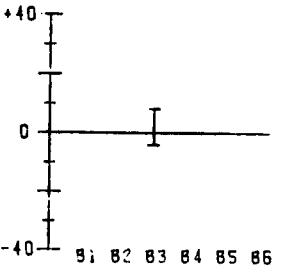
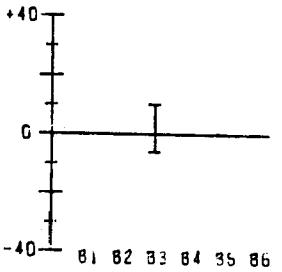
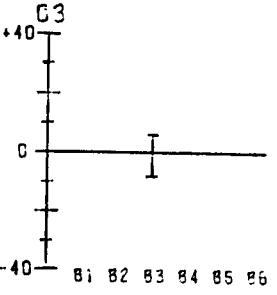
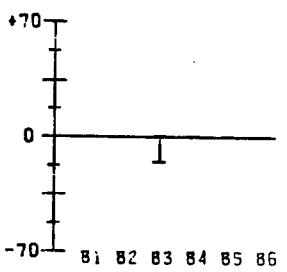
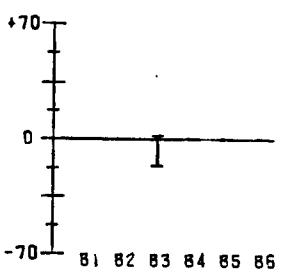
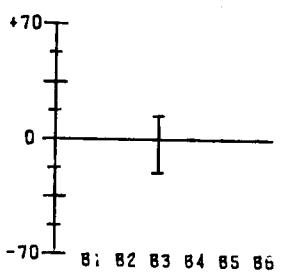
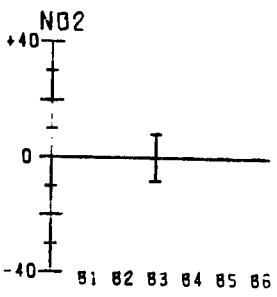
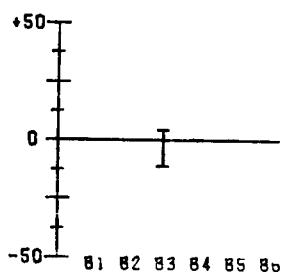
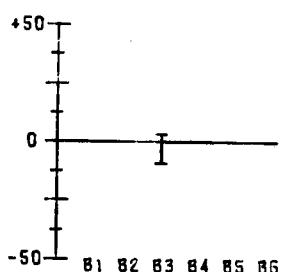
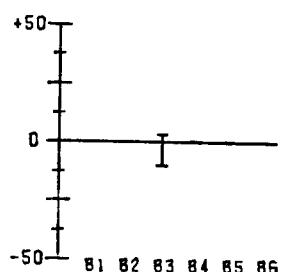
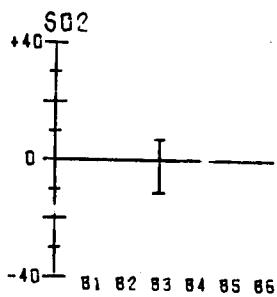
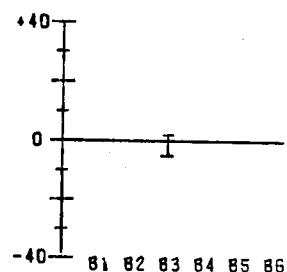
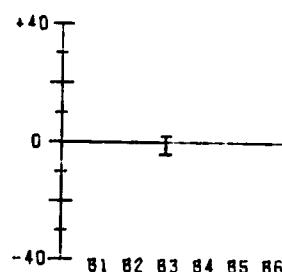
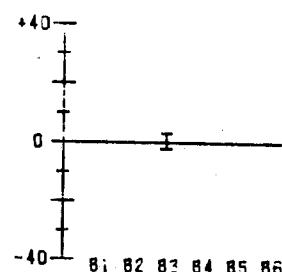
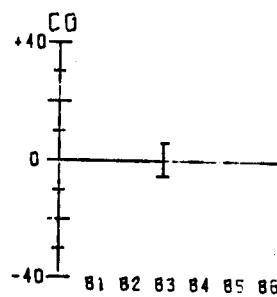
REPORT: 000 CITY OF ALEXANDRIA

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

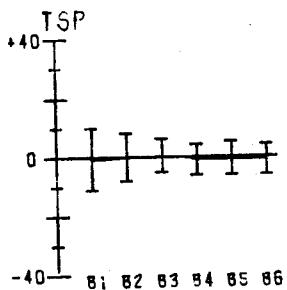


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 03
STATE : 48 VIRGINIA
REPORT: 002 CITY OF ALEXANDRIA

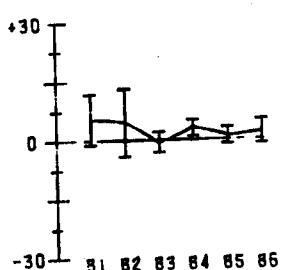
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

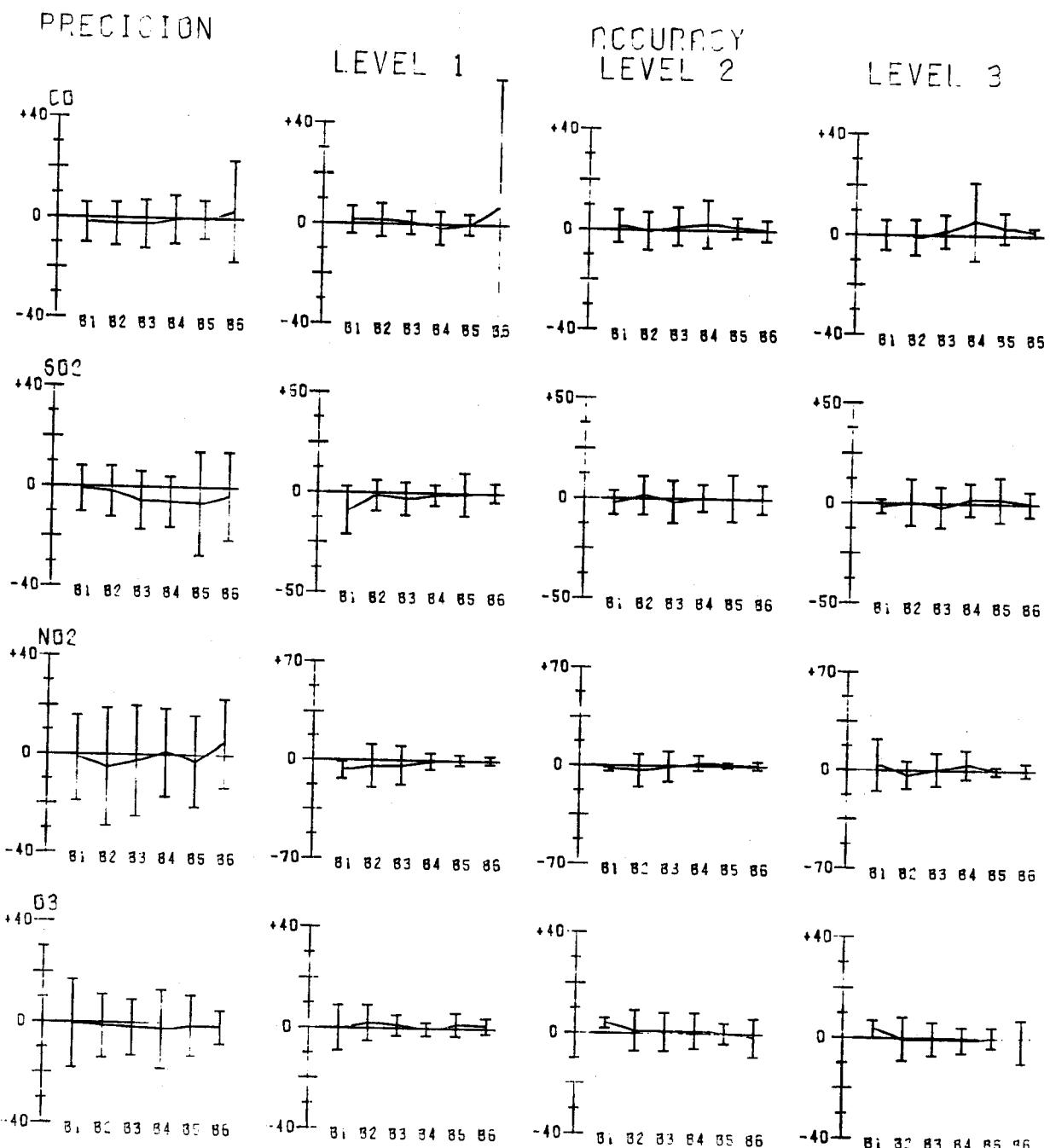
LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 02
STATE : 42 VIRGINIA
REPCRG: 003 FAIRFAX COUNTY

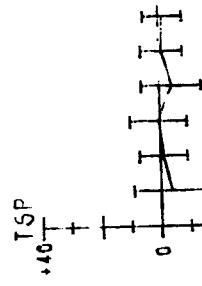
PRECISION



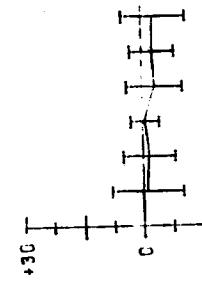
0.5% PROBABILITY LIMITS 21-25
MATERIAL MEASURED

PERCENT VAPOR IN
REFRIG. G.G.
REFRACTORY COUNT

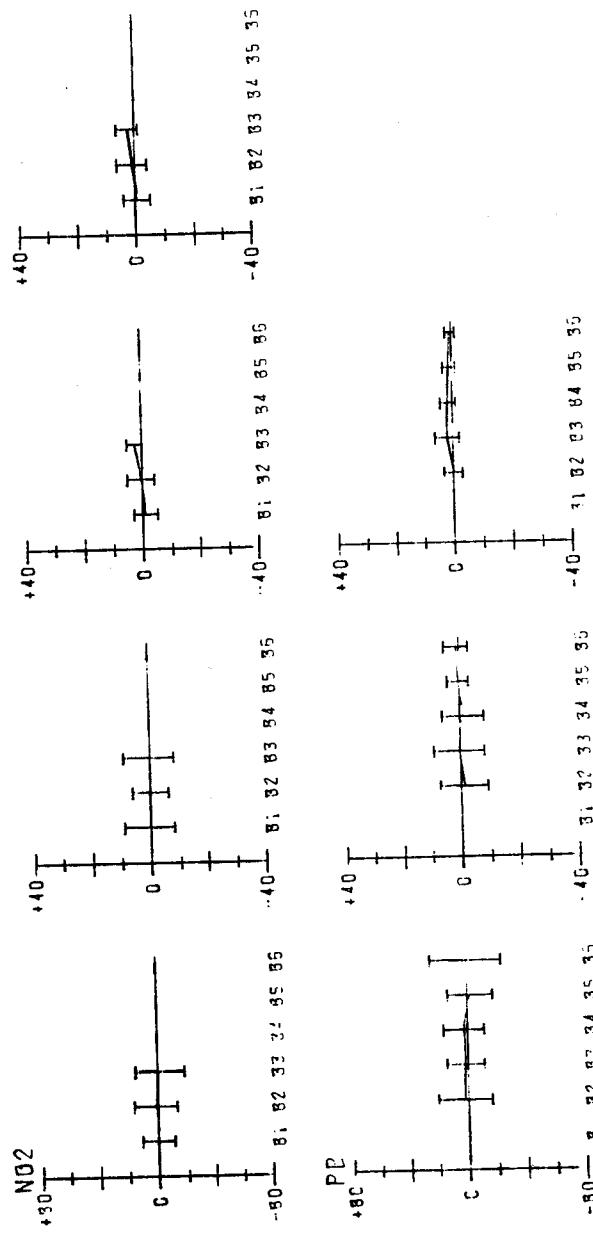
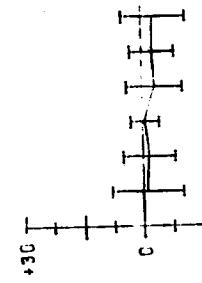
PERCENT LEVEL 1



PERCENT LEVEL 2



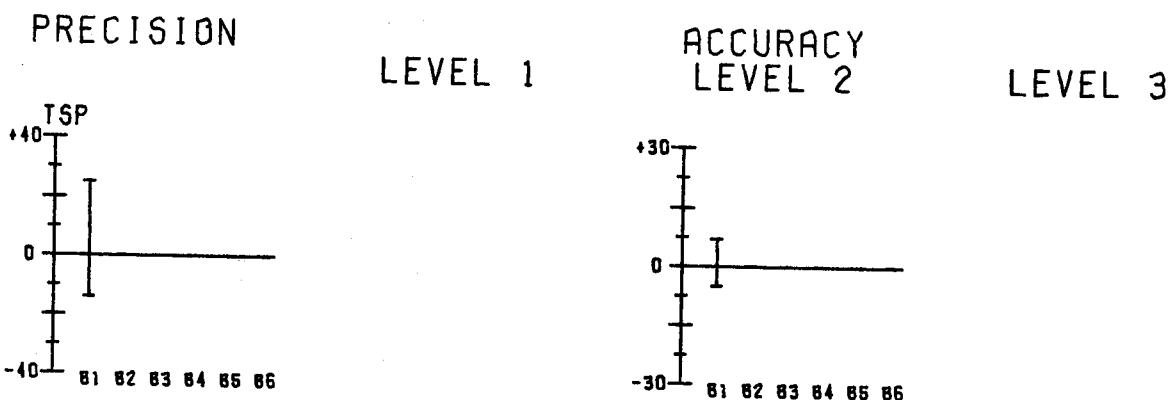
PERCENT LEVEL 3



G-61

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 03
STATE : 48 VIRGINIA
REPORG: 004 ROANOKE COUNTY



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

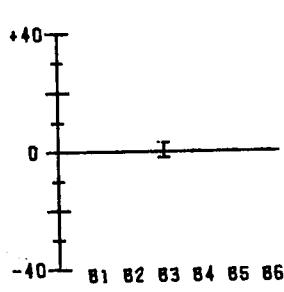
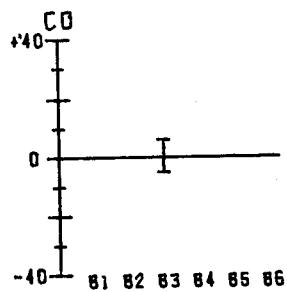
REG : 03

STATE : 48 VIRGINIA

REPORG: 005 TENNESSEE VALLEY AUTHORITY - VIRGINIA

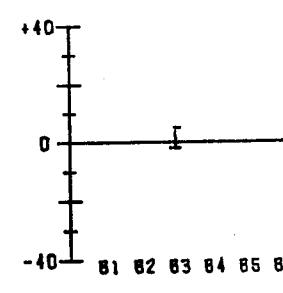
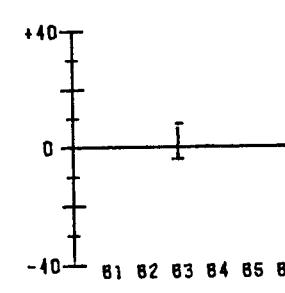
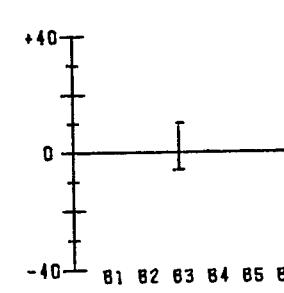
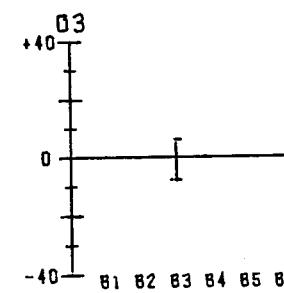
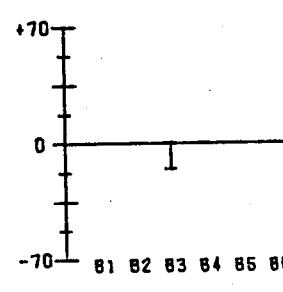
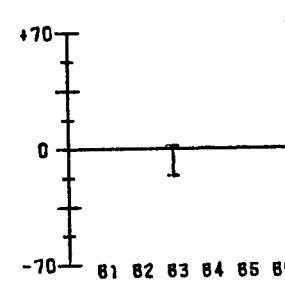
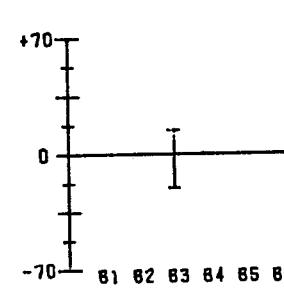
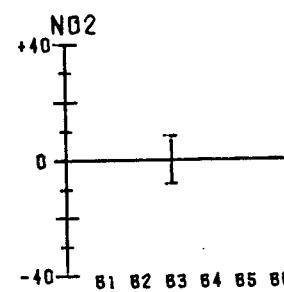
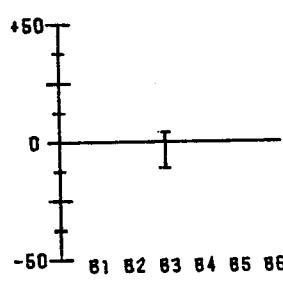
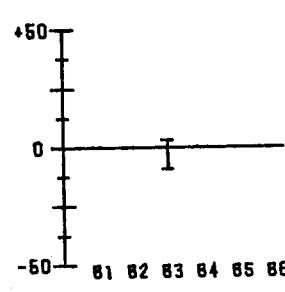
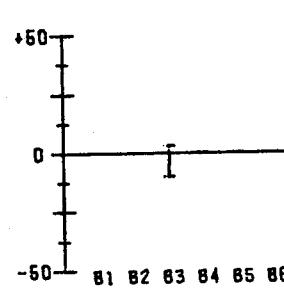
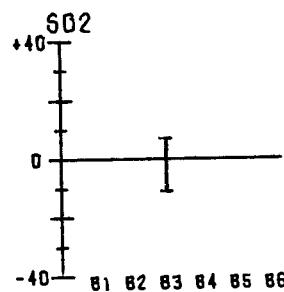
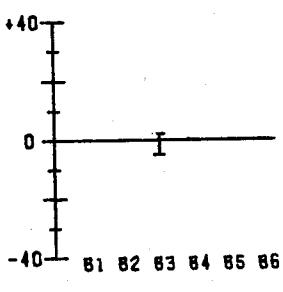
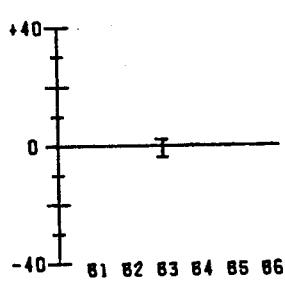
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



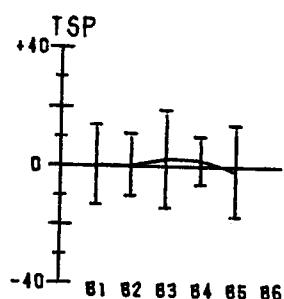
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 03

STATE : 48 VIRGINIA

REPORG: 005 TENNESSEE VALLEY AUTHORITY - VIRGINIA

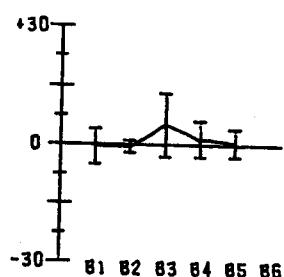
PRECISION



LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 03

STATE : 48

VIRGINIA

REPORG: 006

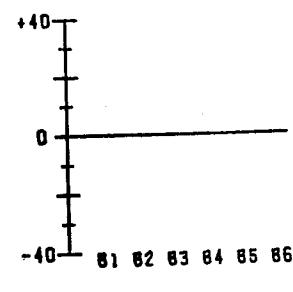
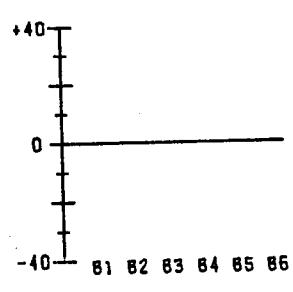
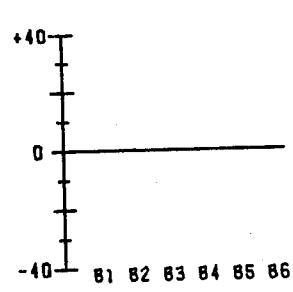
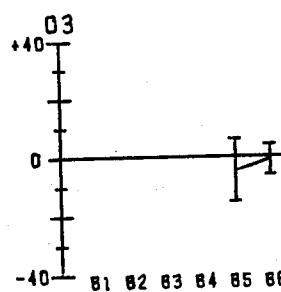
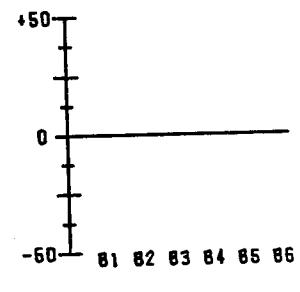
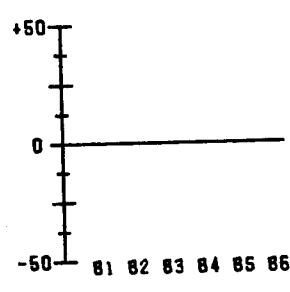
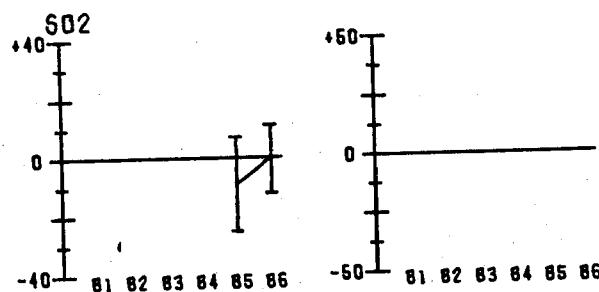
TVA-VA (SAME AS 005)

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



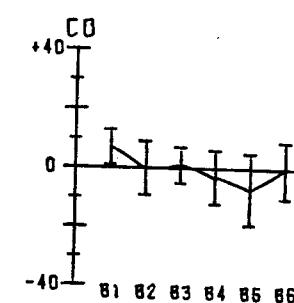
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 03

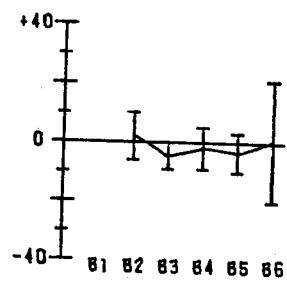
STATE : 50 WEST VIRGINIA

REPORG: 001 STATE OF WEST VIRGINIA

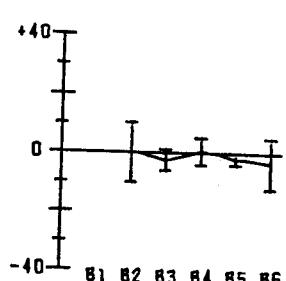
PRECISION



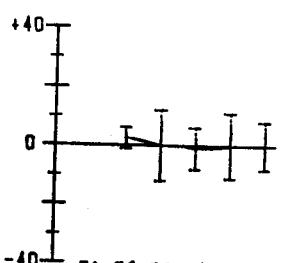
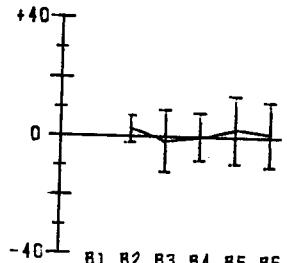
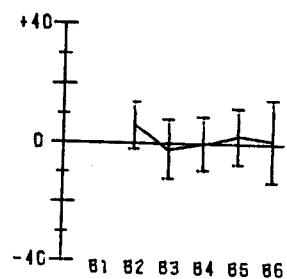
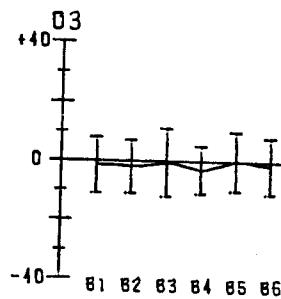
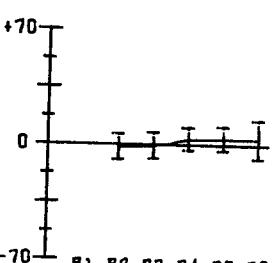
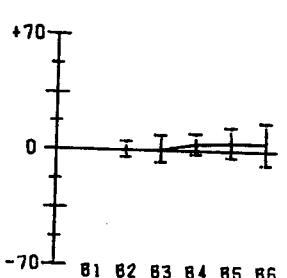
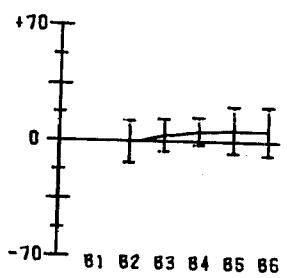
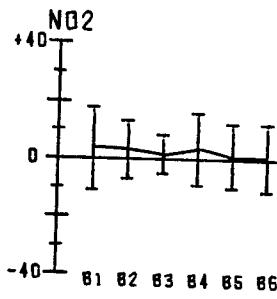
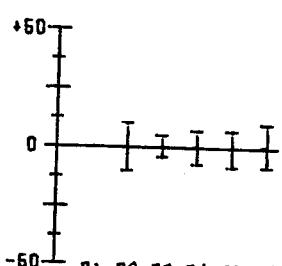
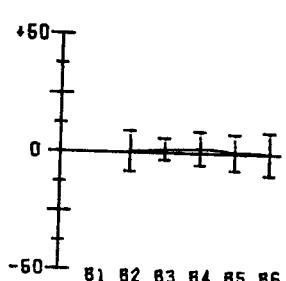
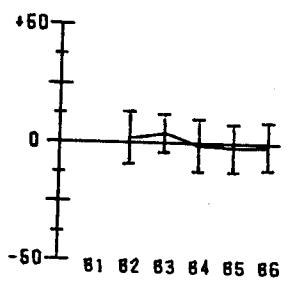
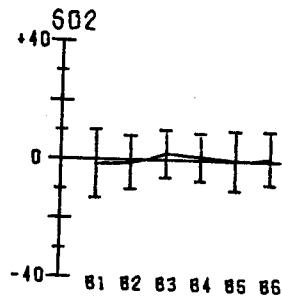
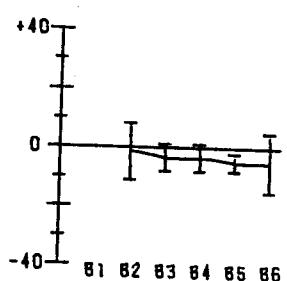
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

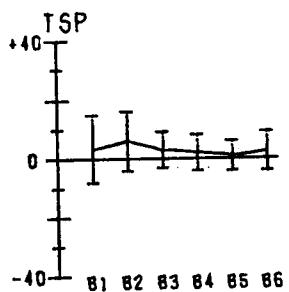


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

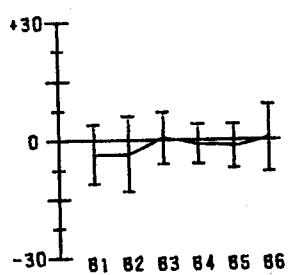
REG : 03
STATE : 50 WEST VIRGINIA
REPORG: 001 STATE OF WEST VIRGINIA

PRECISION

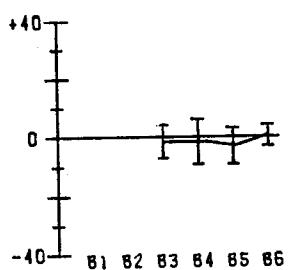
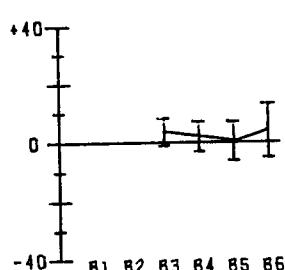
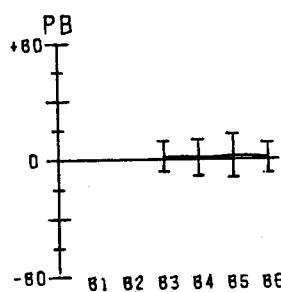
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REC : 03

STATE : 50 WEST VIRGINIA

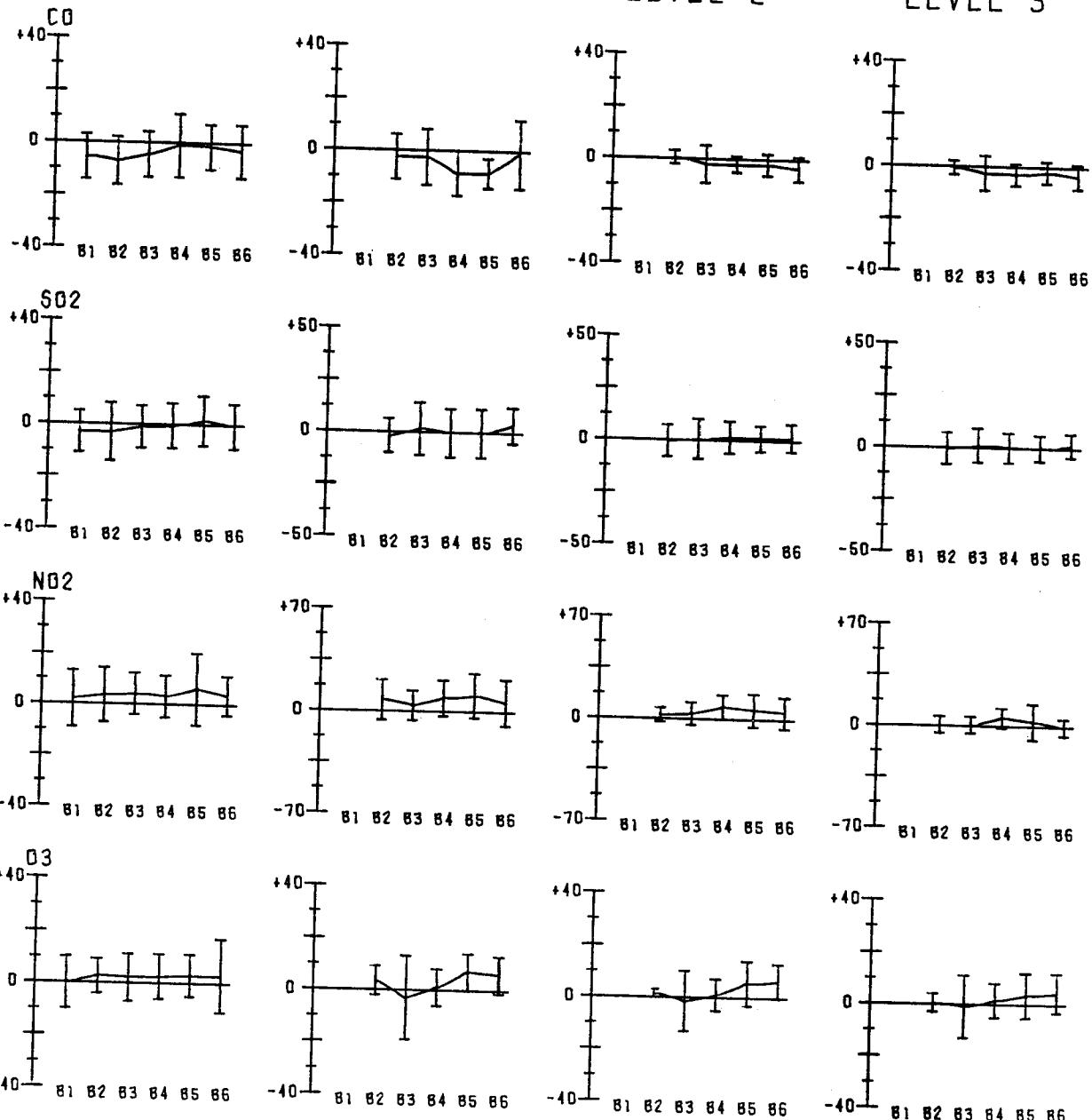
REPORG: 002 WVA NORTHERN PANHANDLE REGIONAL OFFICE

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

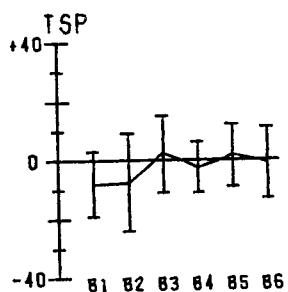


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 03
STATE : 50 WEST VIRGINIA
REPORG: 002 WVA NORTHERN PANHANDLE REGIONAL OFFICE

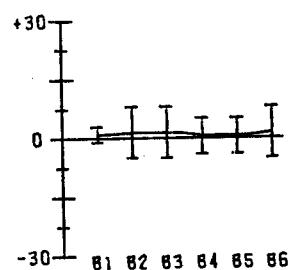
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



G-69

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04

STATE : 01 ALABAMA

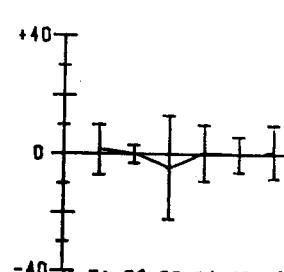
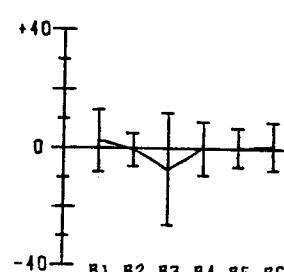
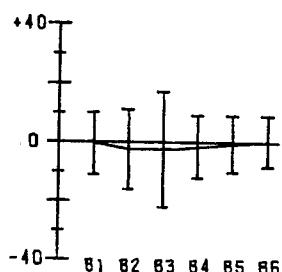
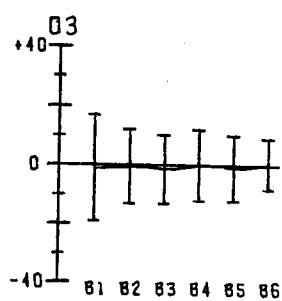
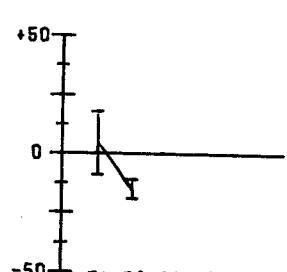
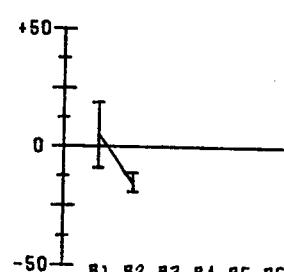
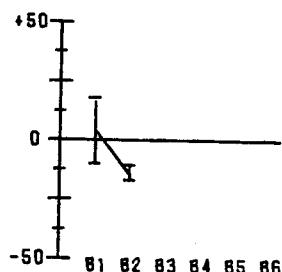
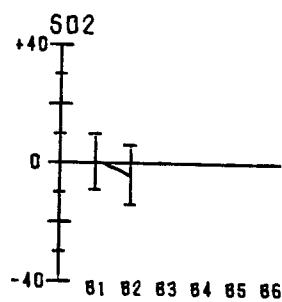
REPORG: 011 ALABAMA DEPT OF ENVIRONMENTAL MANAGEMENT

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

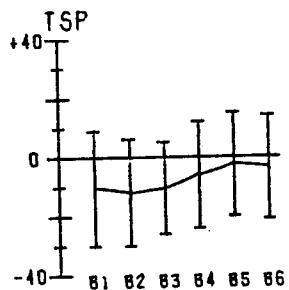


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 04
STATE : 01 ALABAMA
REPORT: 011 ALABAMA DEPT OF ENVIRONMENTAL MANAGEMENT

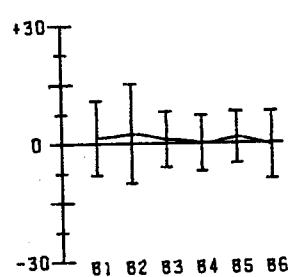
PRECISION

LEVEL 1

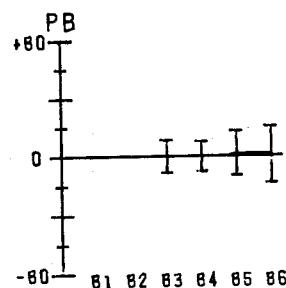


ACCURACY
LEVEL 2

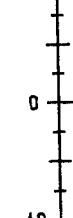
LEVEL 3



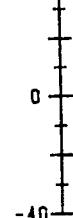
PB



+40



+40



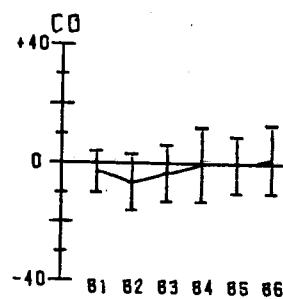
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04

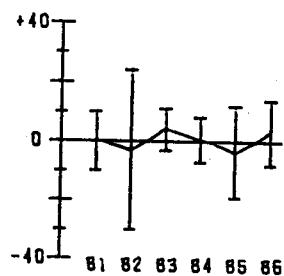
STATE : 01 ALABAMA

REPORG: 012 AL, JEFFERSON CNTY BUREAU OF ENV. HEALTH

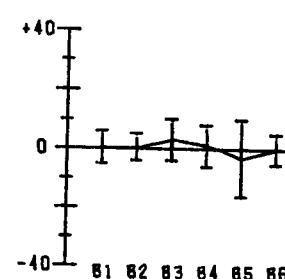
PRECISION



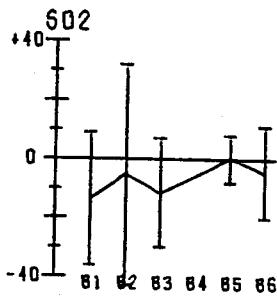
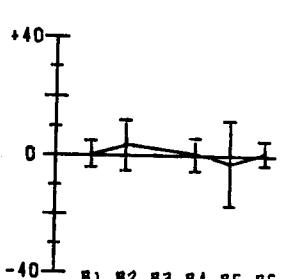
LEVEL 1



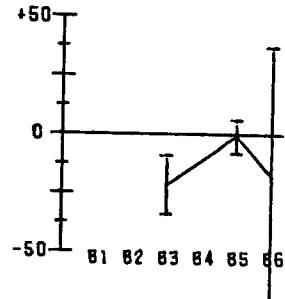
ACCURACY
LEVEL 2



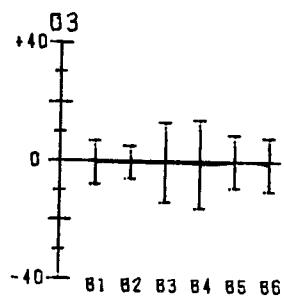
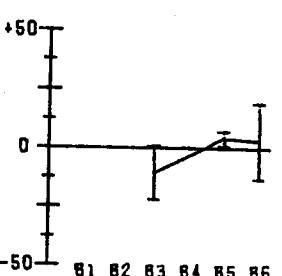
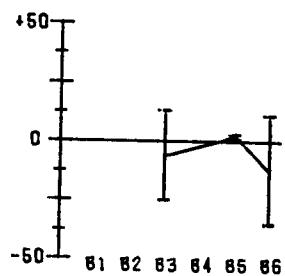
LEVEL 3



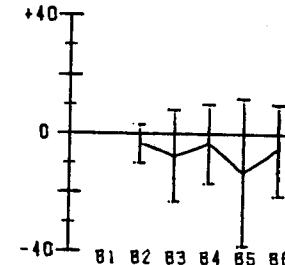
LEVEL 1



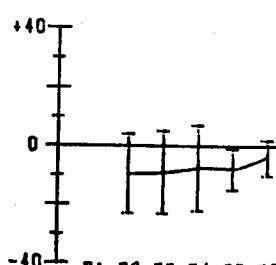
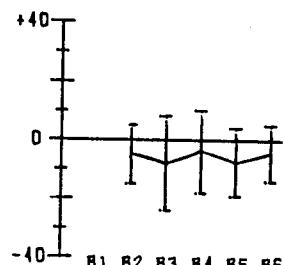
LEVEL 2



LEVEL 1



LEVEL 2

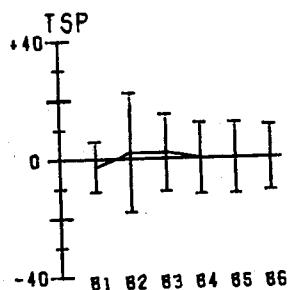


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 04
STATE : 01 ALABAMA
REPORG: 012 AL, JEFFERSON CNTY BUREAU OF ENV. HEALTH

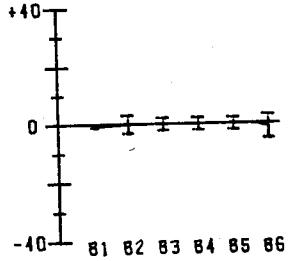
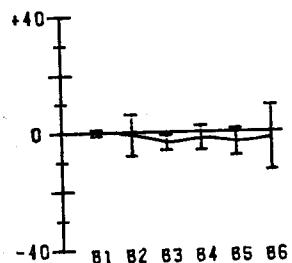
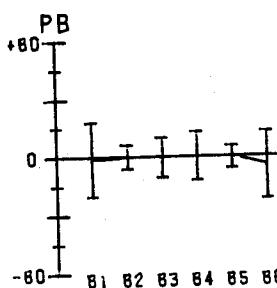
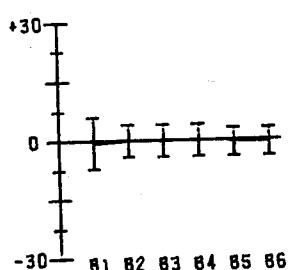
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04

STATE : 01 ALABAMA

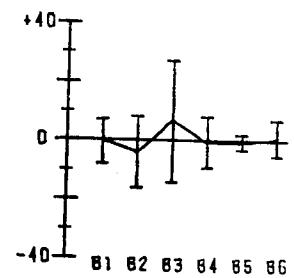
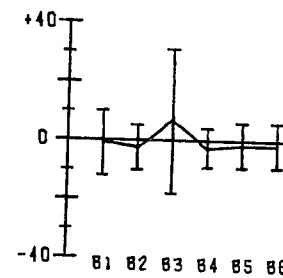
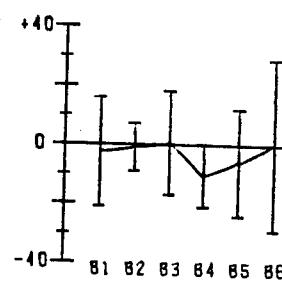
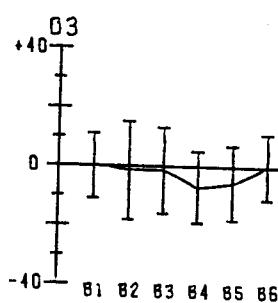
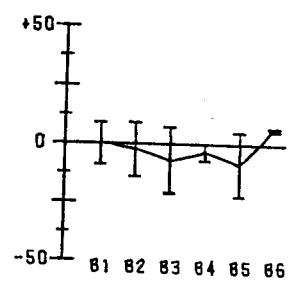
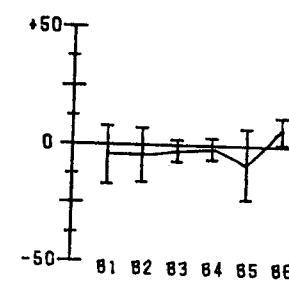
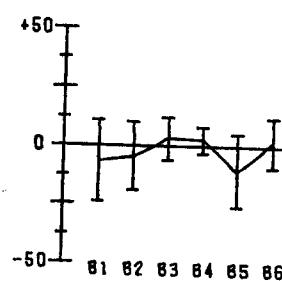
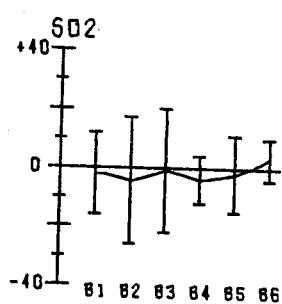
REPORG: 013 ALABAMA DEPT. OF ENV. MANAGEMENT MOBILE

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

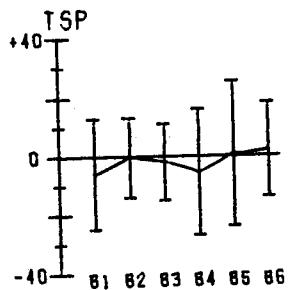


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 04
STATE : 01 ALABAMA
REPORT: 013 ALABAMA DEPT. OF ENV. MANAGEMENT MOBILE

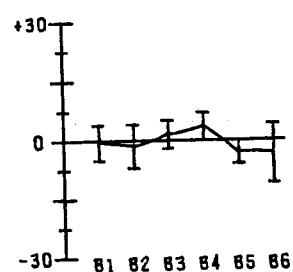
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04

STATE : 01 ALABAMA

REPORG: 014 AL, HUNTSVILLE AIR POLL. CONTROL DEPT.

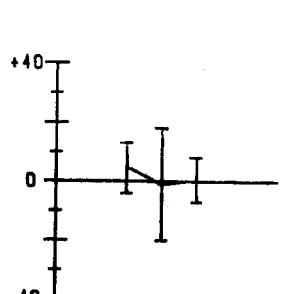
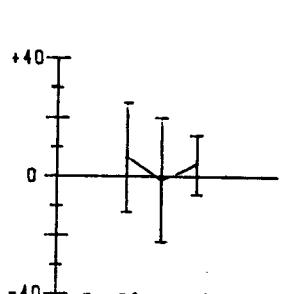
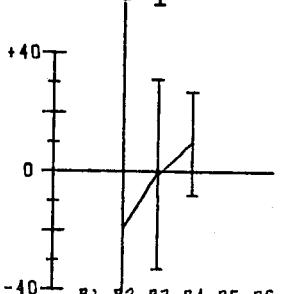
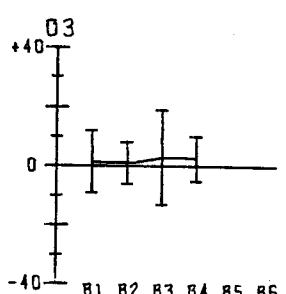
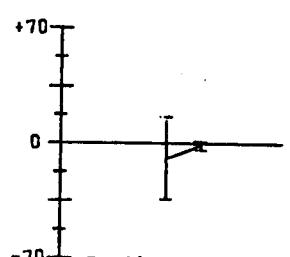
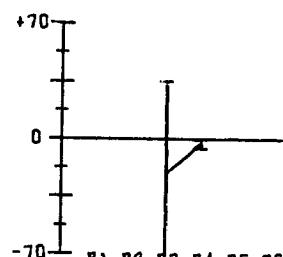
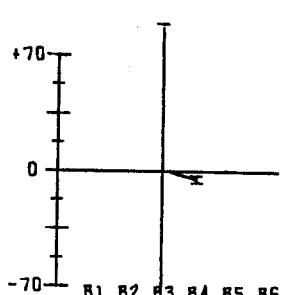
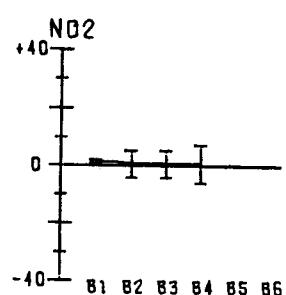
PRECISION

LEVEL 1

ACCURACY

LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

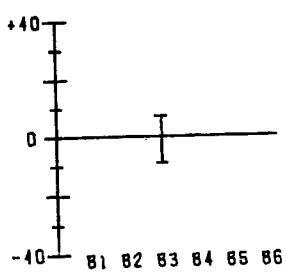
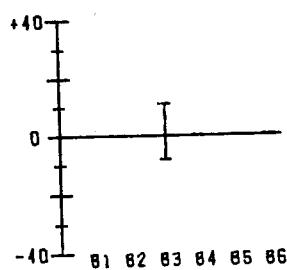
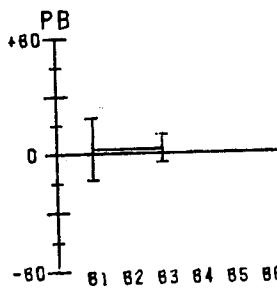
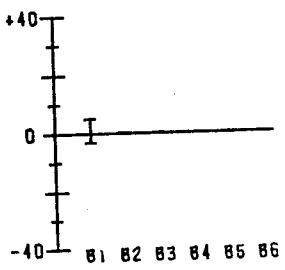
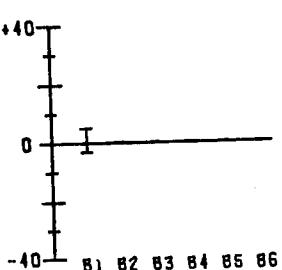
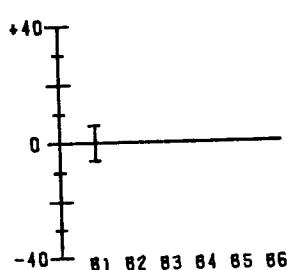
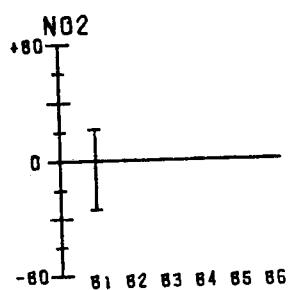
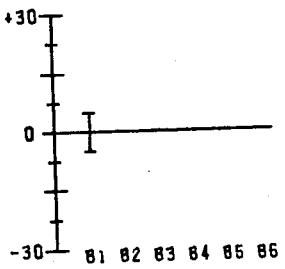
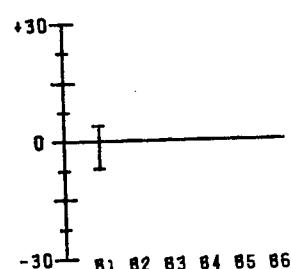
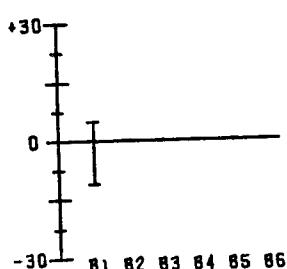
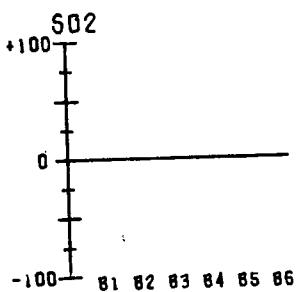
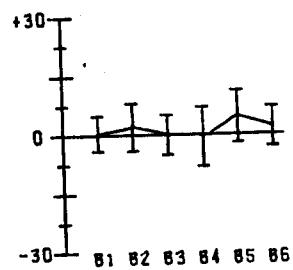
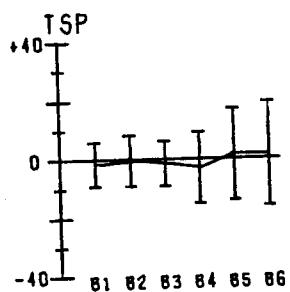
REG : 04
STATE : 01 ALABAMA
REPORG: 014 AL, HUNTSVILLE AIR POLL. CONTROL DEPT.

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04

STATE : 01 ALABAMA

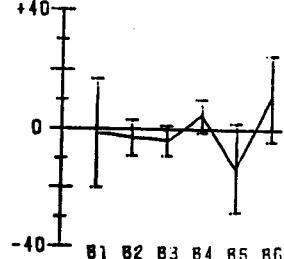
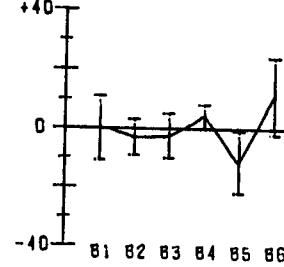
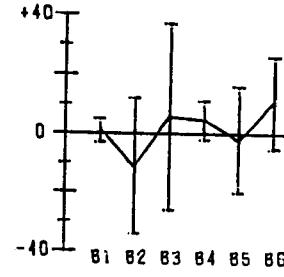
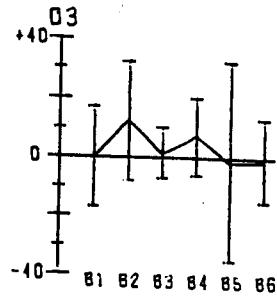
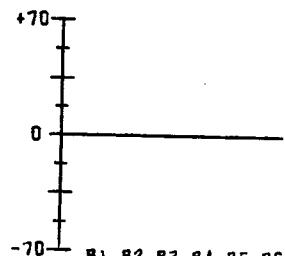
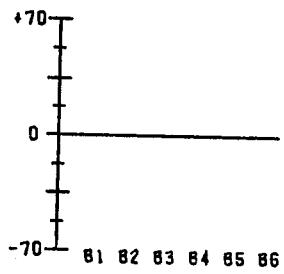
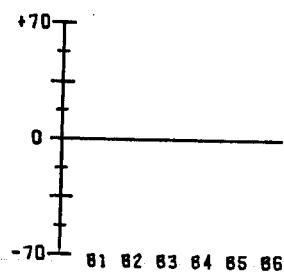
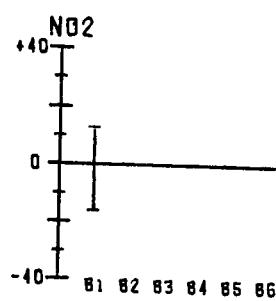
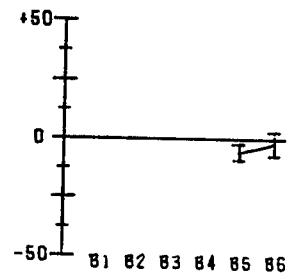
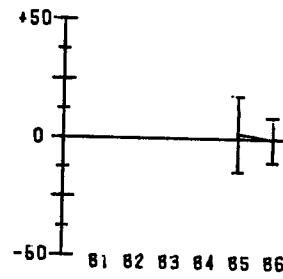
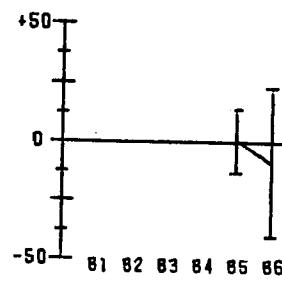
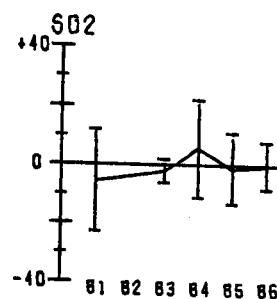
REPORG: 015 AL, TRICOUNTY DIV. OF AIR POLL. CONTROL

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

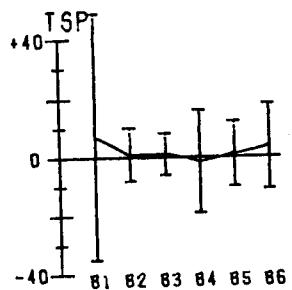


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 04
STATE : 01 ALABAMA
REPORG: 015 AL, TRICOUNTY DIV. OF AIR POLL. CONTROL

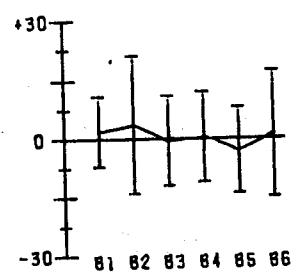
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04

STATE : 01 ALABAMA

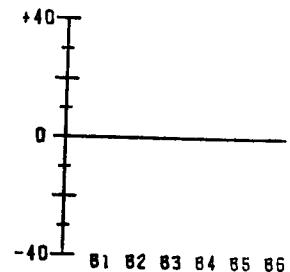
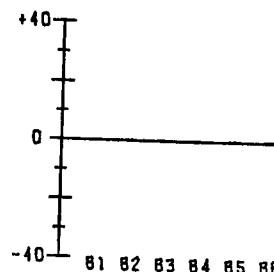
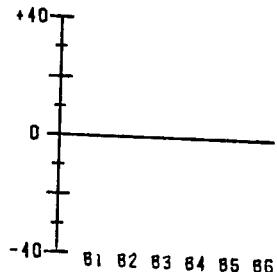
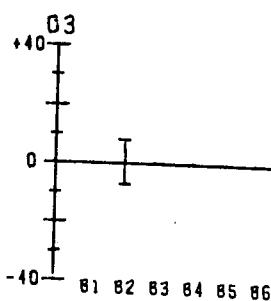
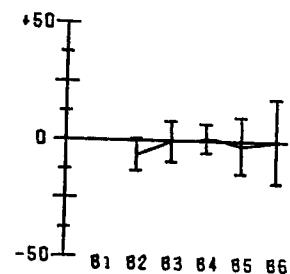
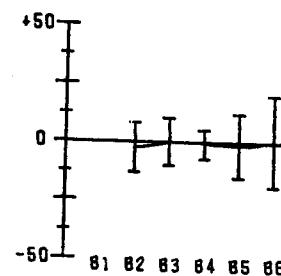
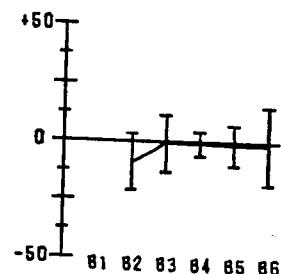
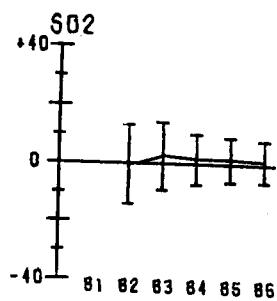
REPORG: 016 TENNESSEE VALLEY AUTHORITY - ALABAMA

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

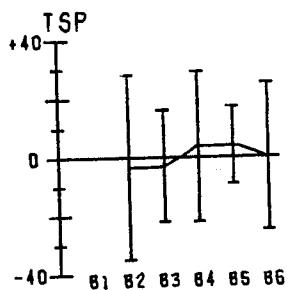


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 04
STATE : 01 ALABAMA
REPORG: 016 TENNESSEE VALLEY AUTHORITY - ALABAMA

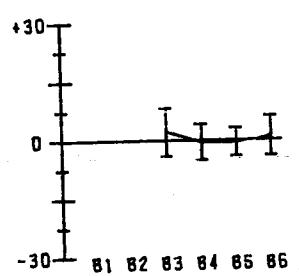
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



C-81

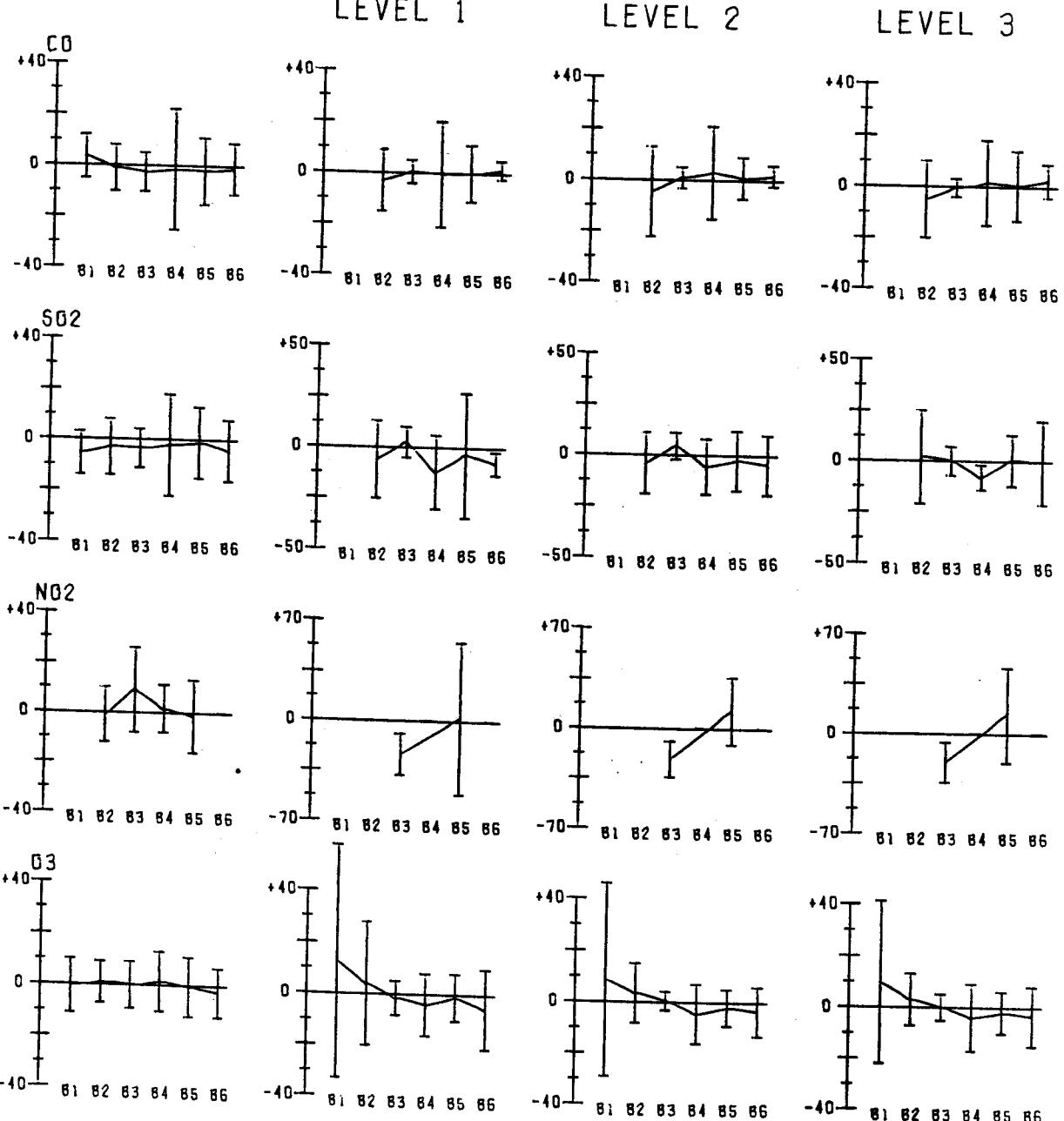
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04

STATE : 10 FLORIDA

REPORC: 001 FDER, NORTHWEST DISTRICT

PRECISION

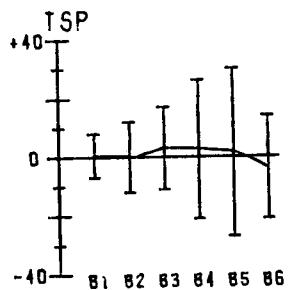


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

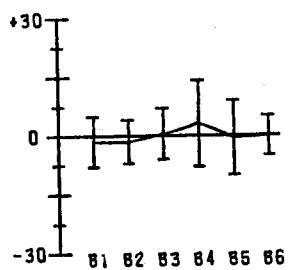
REG : 04
STATE : 10 FLORIDA
REPORG: 001 FDER, NORTHWEST DISTRICT

PRECISION

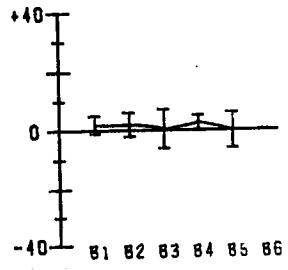
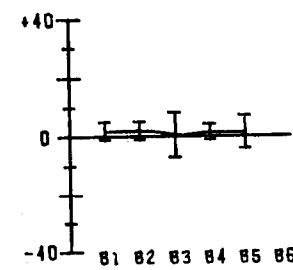
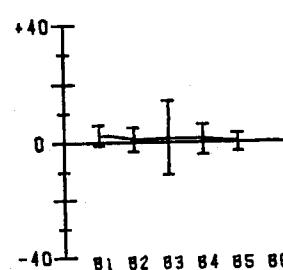
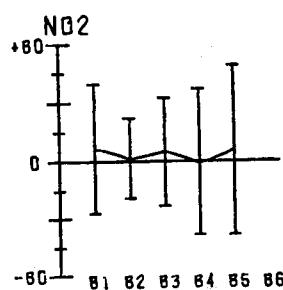
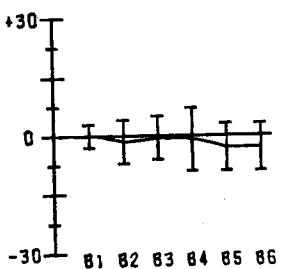
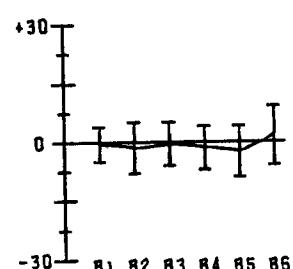
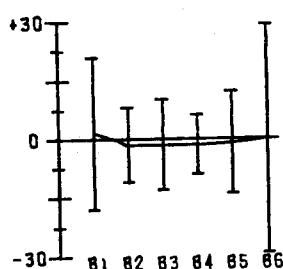
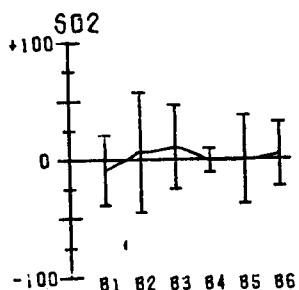
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

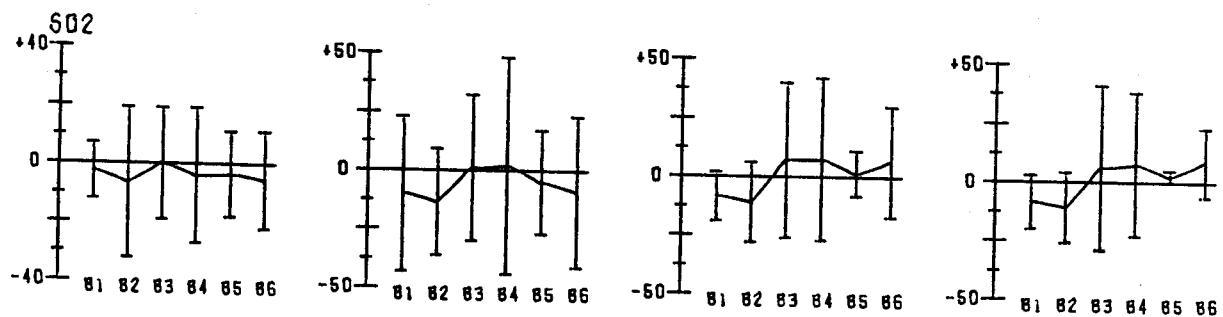
REG : 04
STATE : 10 FLORIDA
REPORG: 002 FDER, NORTHEAST DISTRICT

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

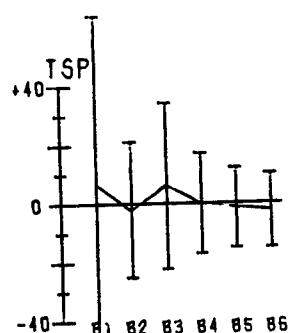
LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 04
STATE : 10 FLORIDA
REPCRG: 002 FDER, NORTHEAST DISTRICT

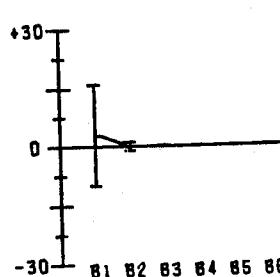
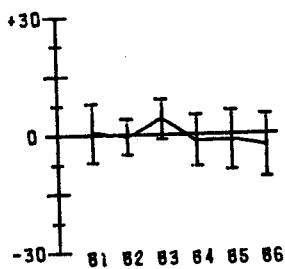
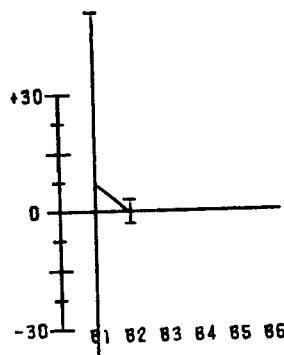
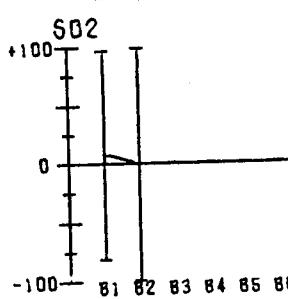
PRECISION



LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04

STATE : 10 FLORIDA

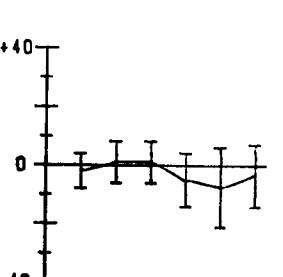
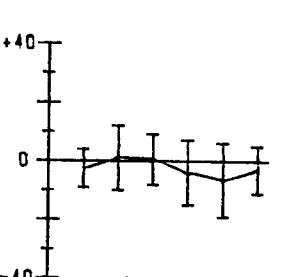
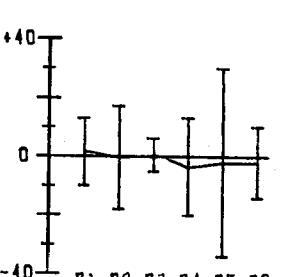
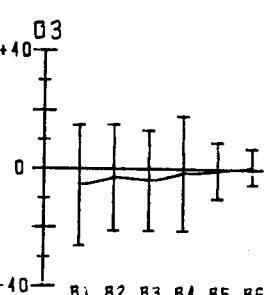
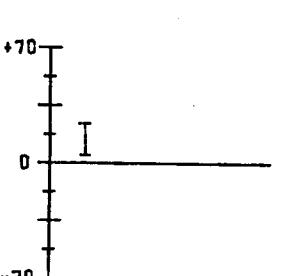
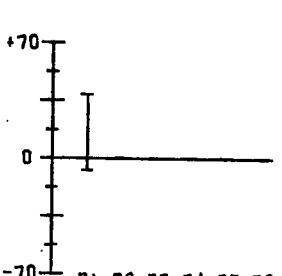
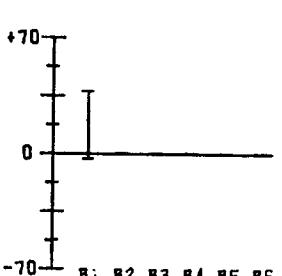
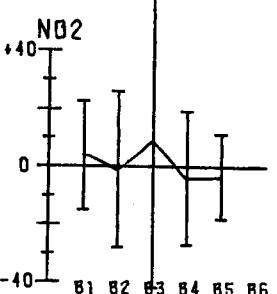
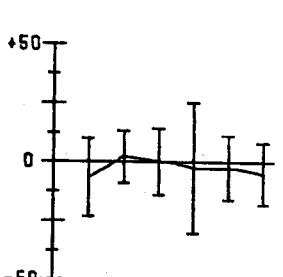
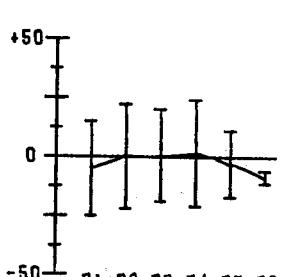
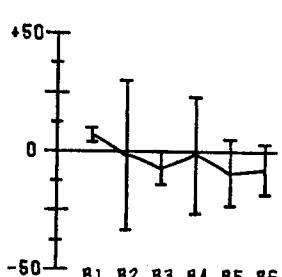
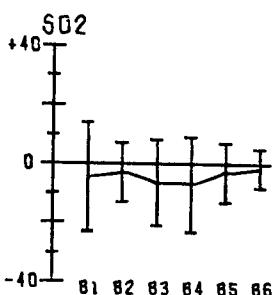
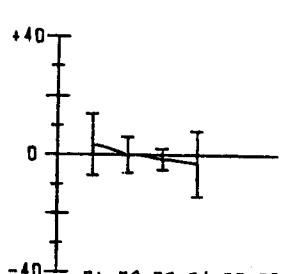
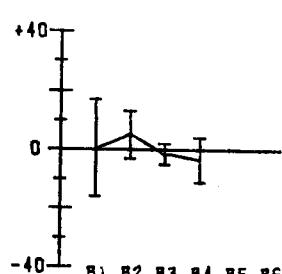
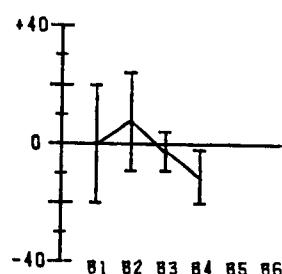
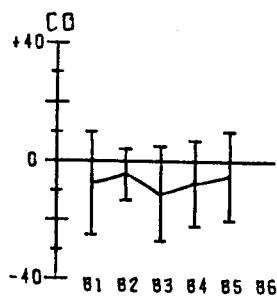
REPORT: 003 FDER, ST. JOHNS RIVER DISTRICT

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

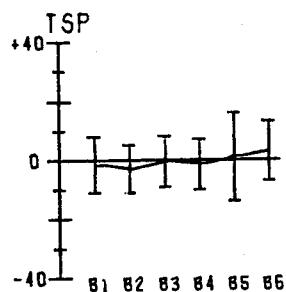
REG : 04

STATE : 10 FLORIDA

REPORT: 003 FDER, ST. JOHNS RIVER DISTRICT

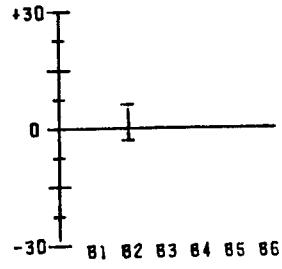
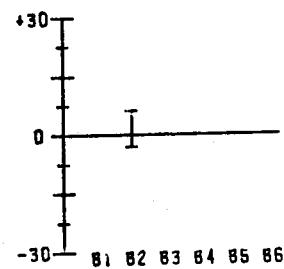
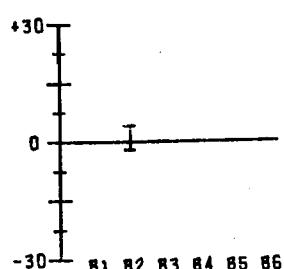
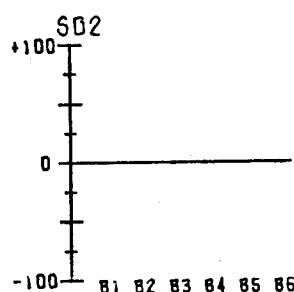
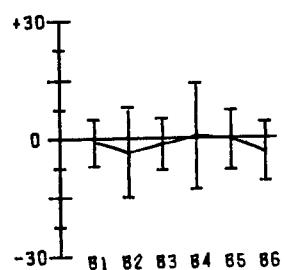
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04

STATE : 10 FLORIDA

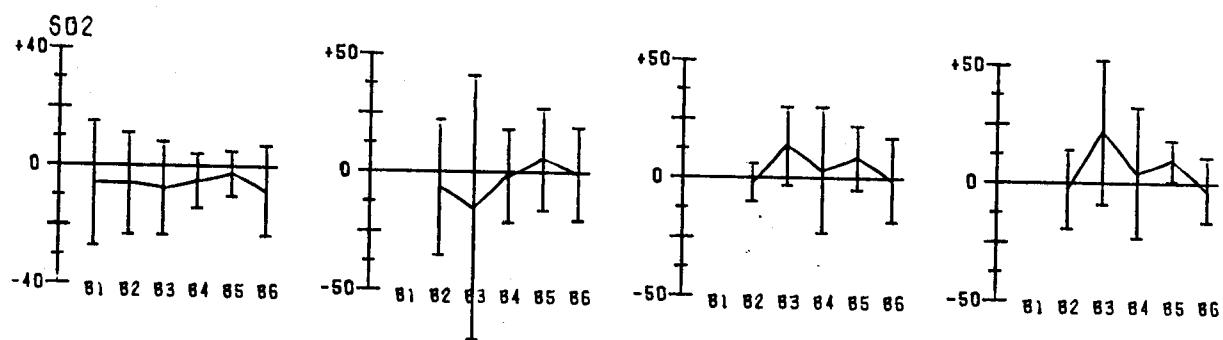
REPORT: 004 FDER, SOUTHWEST DISTRICT

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

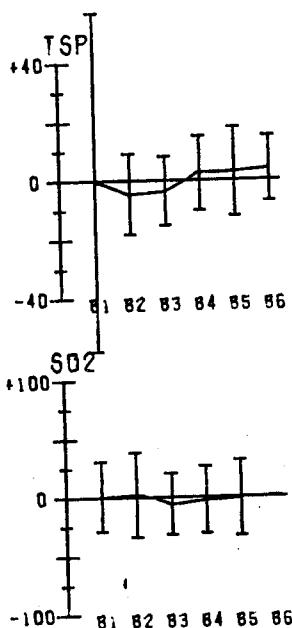


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

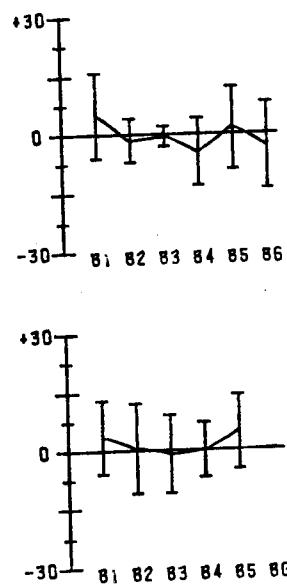
REG : 04
STATE : 10 FLORIDA
REPORG: 004 FDER, SOUTHWEST DISTRICT

PRECISION

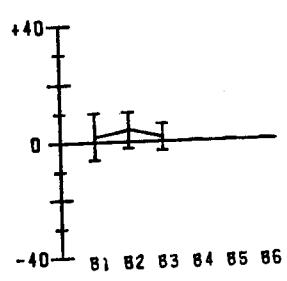
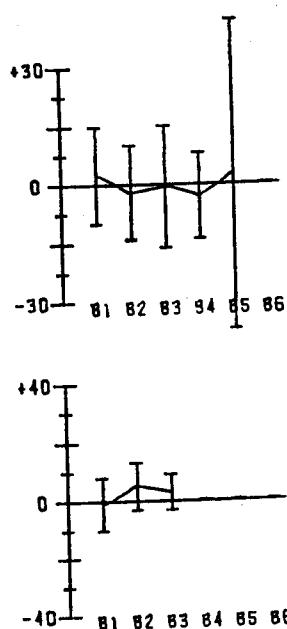
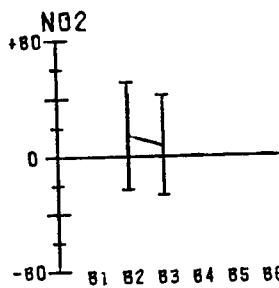
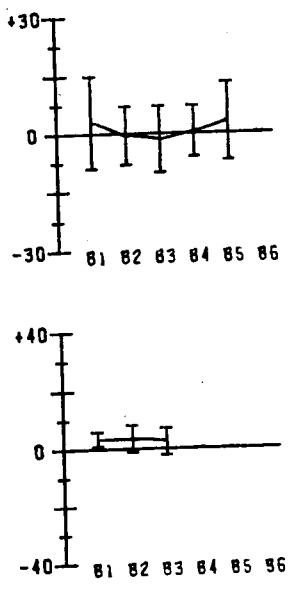
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04

STATE : 10 FLORIDA

REPORG: 005 FDER, SOUTH FLORIDA DISTRICT

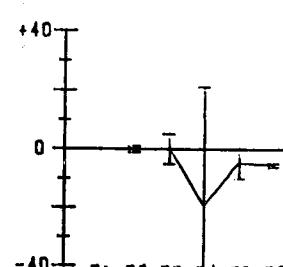
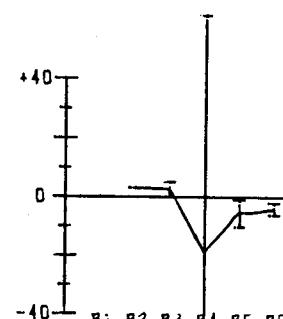
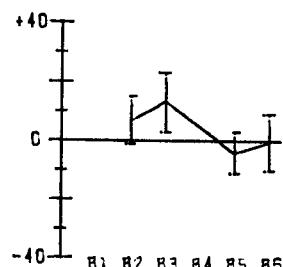
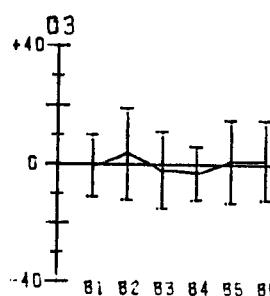
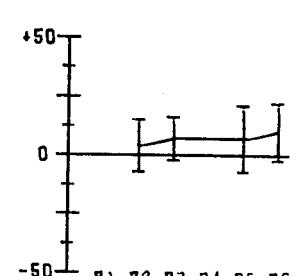
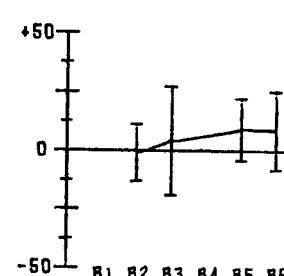
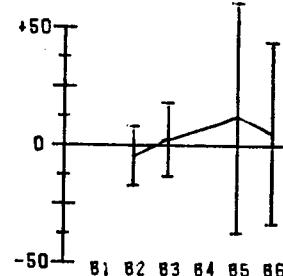
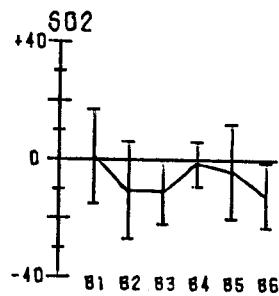
PRECISION

LEVEL 1

ACCURACY

LEVEL 2

LEVEL 3



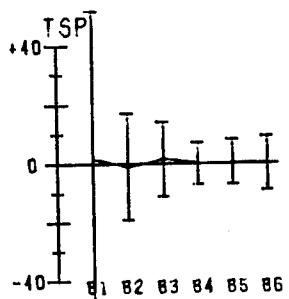
C-90

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

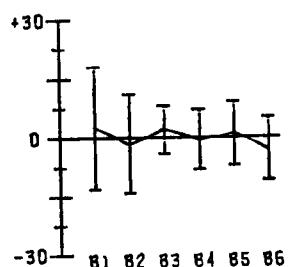
REG : G4
STATE : 10 FLORIDA
REPORT: 005 FDER, SOUTH FLORIDA DISTRICT

PRECISION

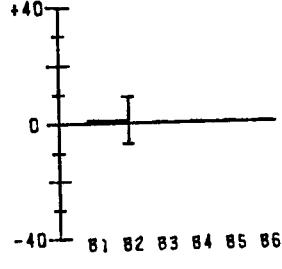
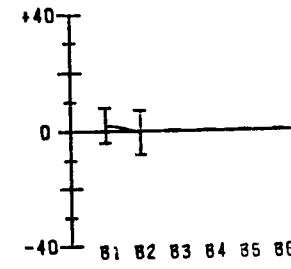
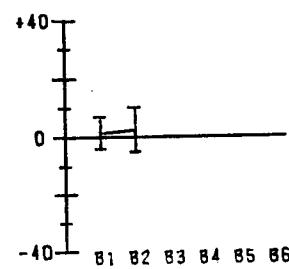
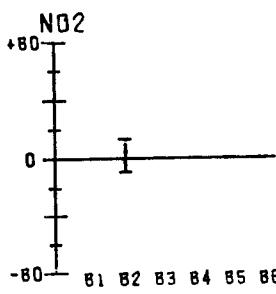
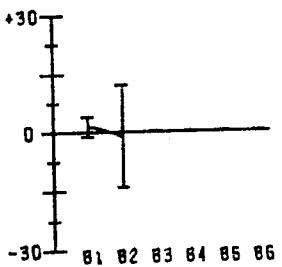
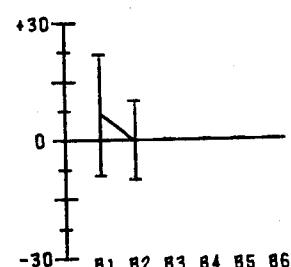
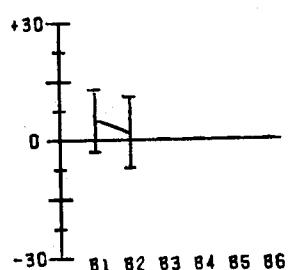
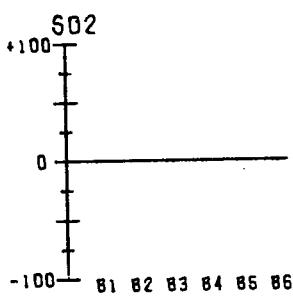
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04

STATE : 10 FLORIDA

REPORG: 006 FDER, SOUTHEAST FLORIDA DISTRICT

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

95% PROBABILITY LIMITS 31-86
MANUAL METHODS

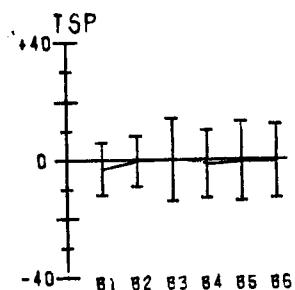
REG : 04

STATE : 10 FLORIDA

REPORT: 006 FDER, SOUTHEAST FLORIDA DISTRICT

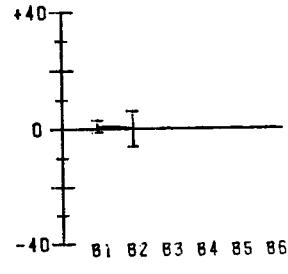
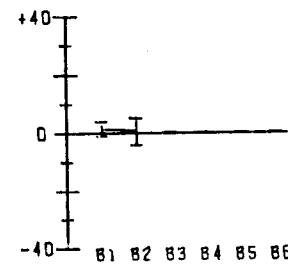
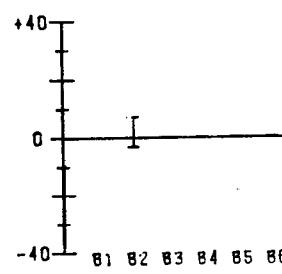
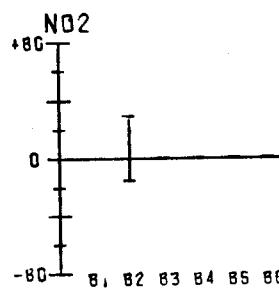
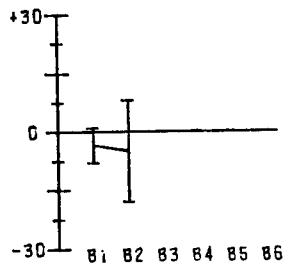
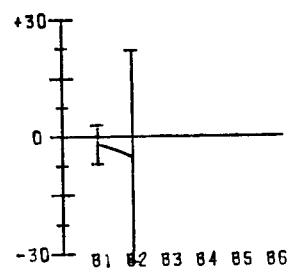
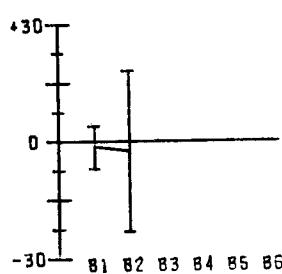
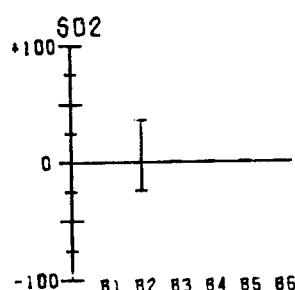
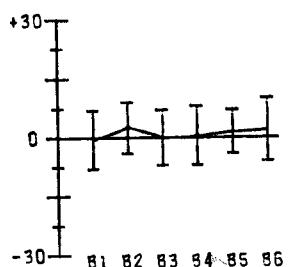
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-85
CONTINUOUS METHODS

REG : 04

STATE : 10 FLORIDA

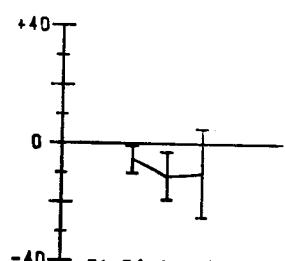
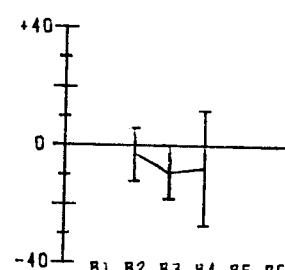
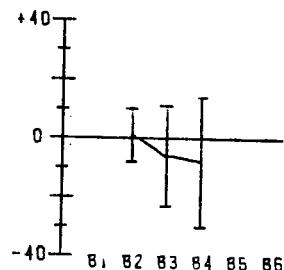
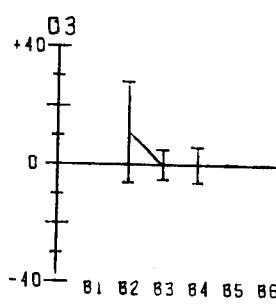
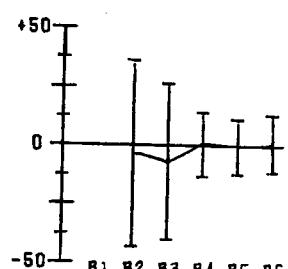
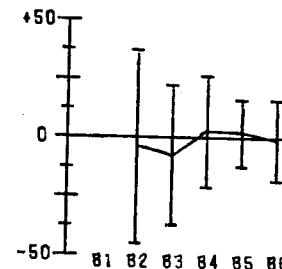
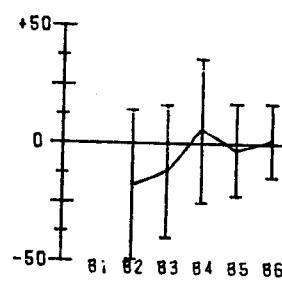
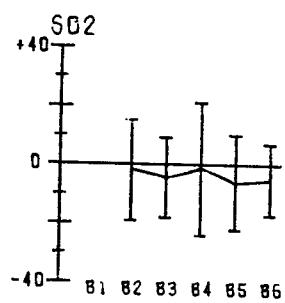
REPCRG: 007 FDER, NORTHEAST DISTRICT BRANCH OFFICE

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

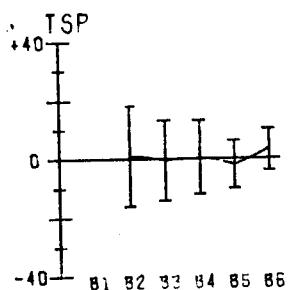
REG : 04

STATE : 10 FLORIDA

REPORT: 007 FDER, NORTHEAST DISTRICT BRANCH OFFICE

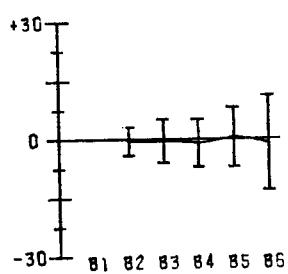
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

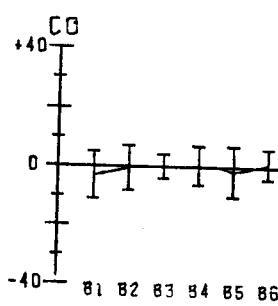
REG : 04

STATE : 10 FLORIDA

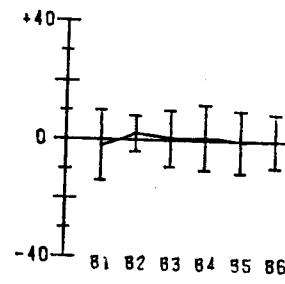
REPORT: 011 FL, JACKSONVILLE BIO-ENV. SERVICES DIV.

PRECISION

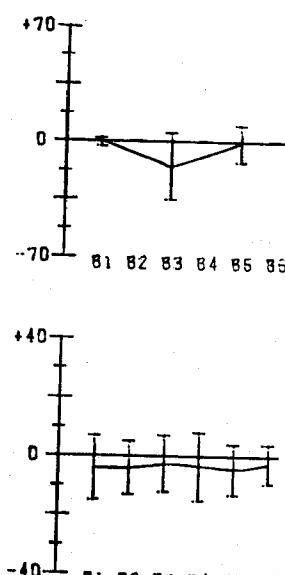
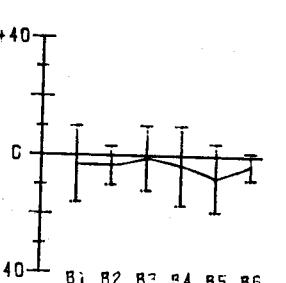
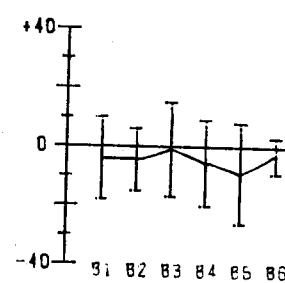
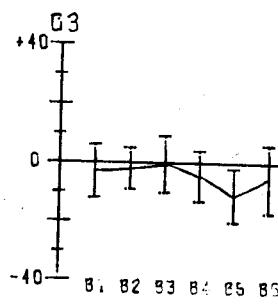
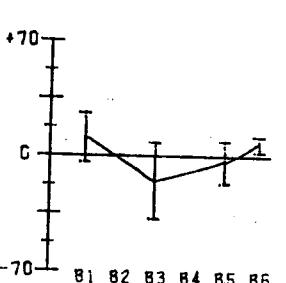
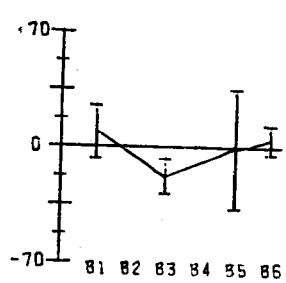
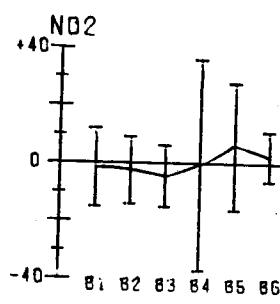
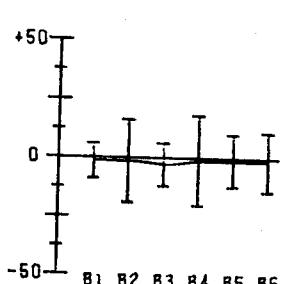
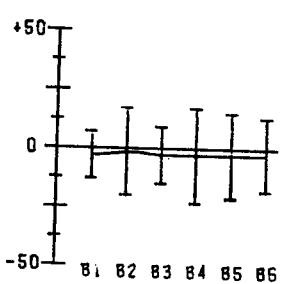
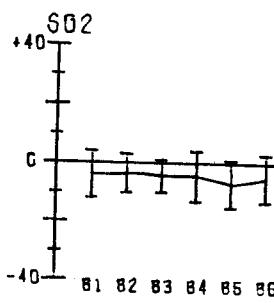
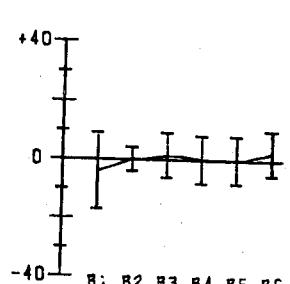
LEVEL 1



ACCURACY
LEVEL 2



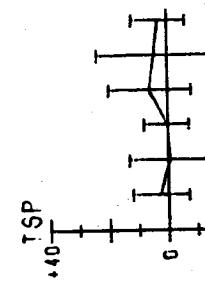
LEVEL 3



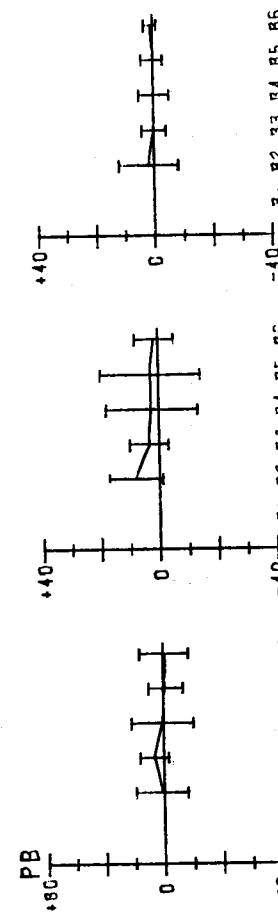
95% PROBABILITY LIMITS 21-86

REG: 64
STATE: 10 FLORIDA
REPORT: 611 JACKSONVILLE BIO-ENV. SERVICES DIV.

PRECISION LEVEL 1



ACCURACY LEVEL 2 LEVEL 3



G-97

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04

STATE : 10 FLORIDA

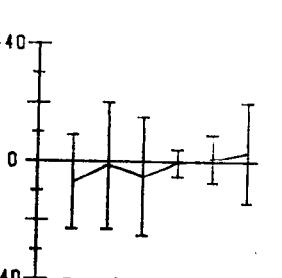
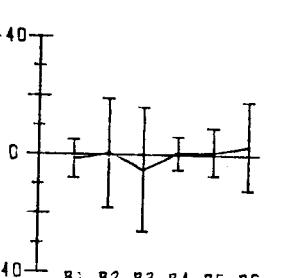
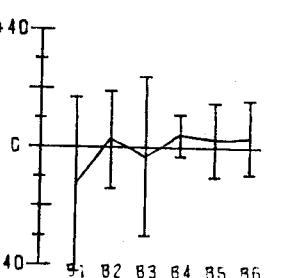
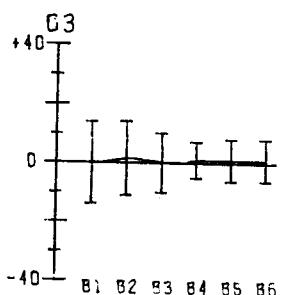
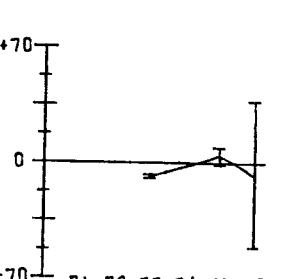
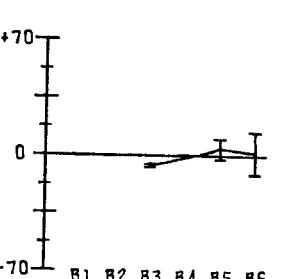
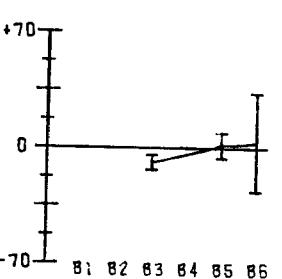
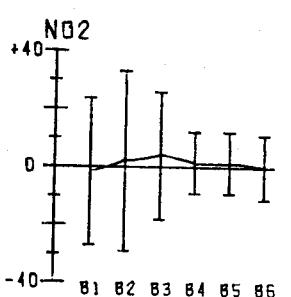
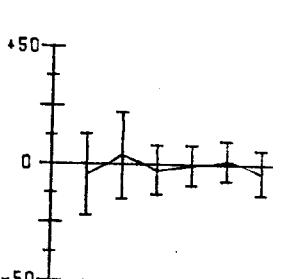
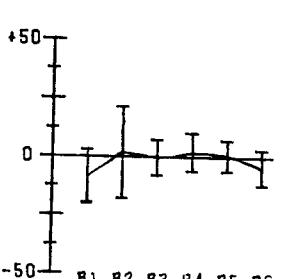
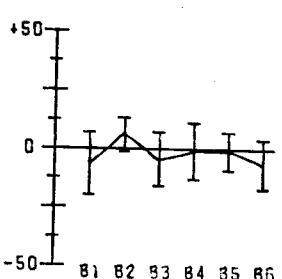
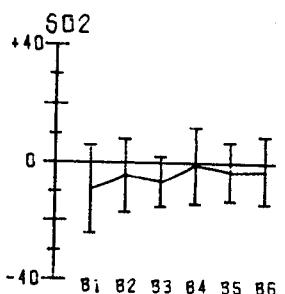
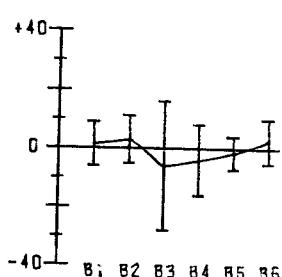
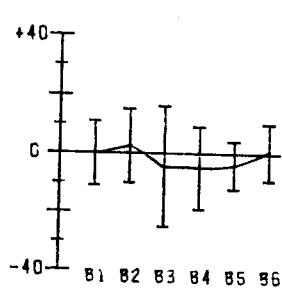
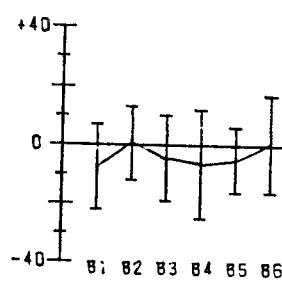
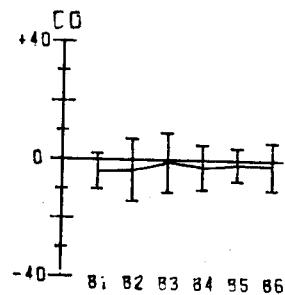
REPORT: 012 FL, HILLSBOROUGH CO., ENV. SERVICES DIV.

PRECISION

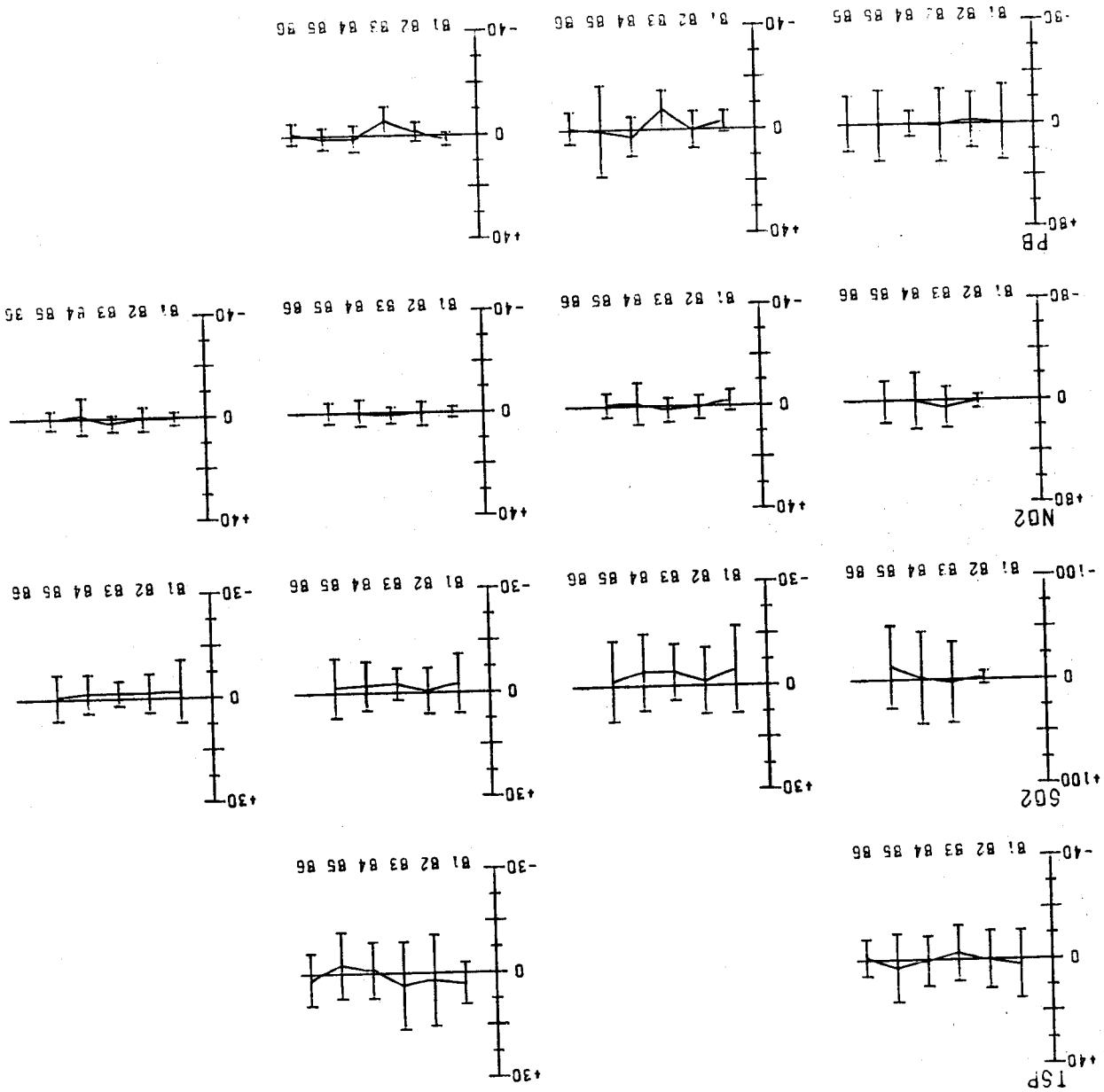
LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



C-99



REC : 04 STDE : 10 REPGR5 : G12 FL, HILLSBOROUGH CO., ENV. SERVICES DIV.
95% PROBABILITY LIMITS B1-B6 MRNUPL METHODS

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

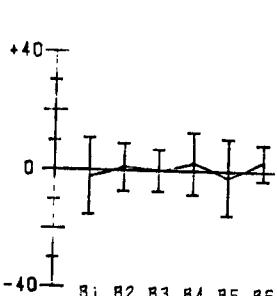
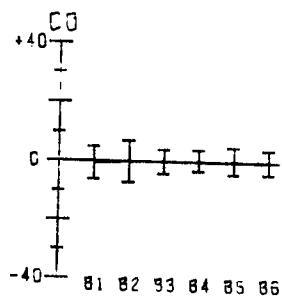
REG : 04

STATE : 10 FLORIDA

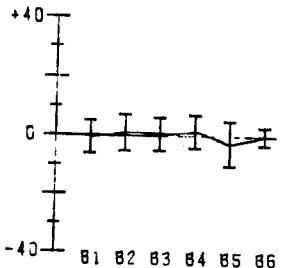
REPORT: 010 FL, PINELAS CO. DEPT OF ENV. MANAGEMENT

PRECISION

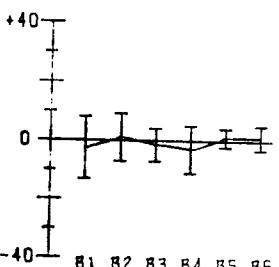
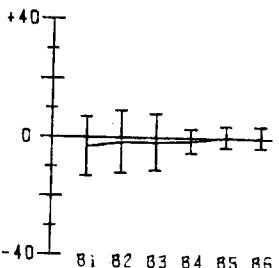
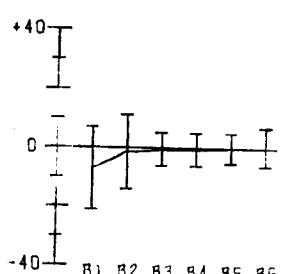
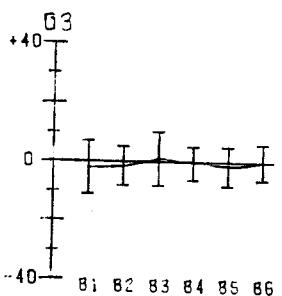
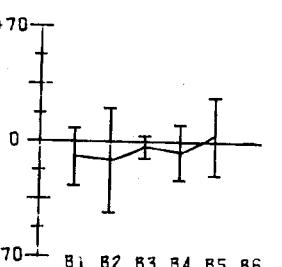
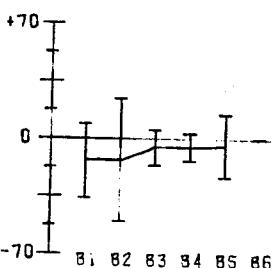
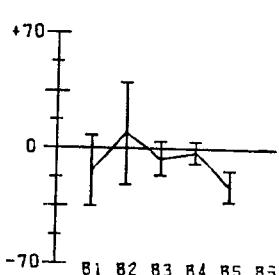
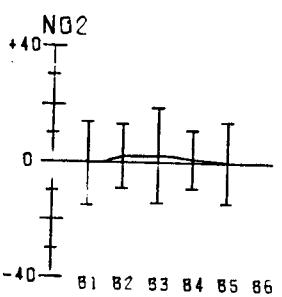
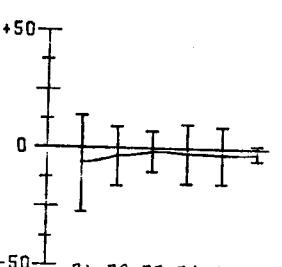
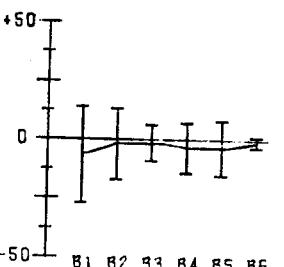
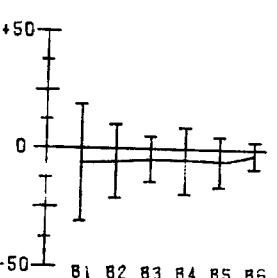
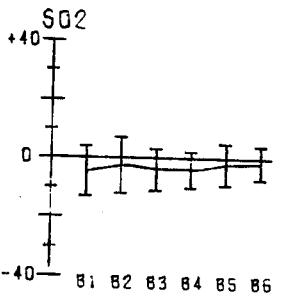
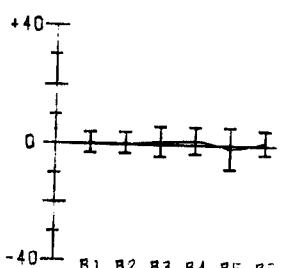
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

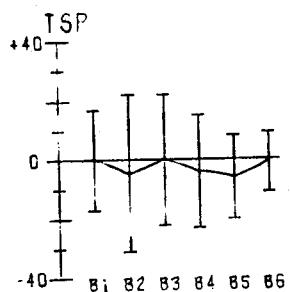
REG : 04

STATE : 10 FLORIDA

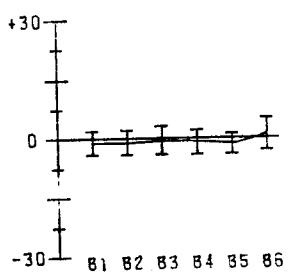
REPORT: 013 FL, PINELLAS CO. DEPT OF ENV. MANAGEMENT

PRECISION

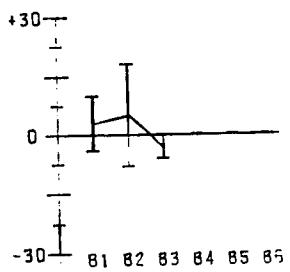
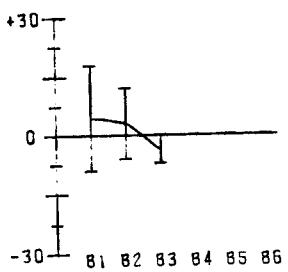
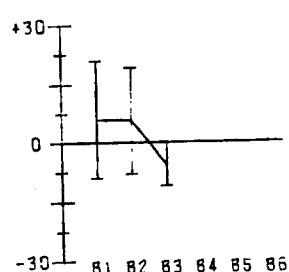
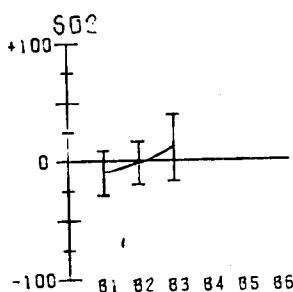
LEVEL 1



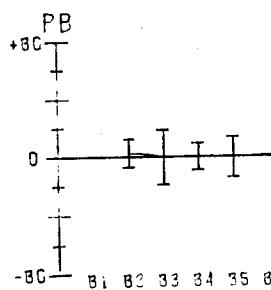
ACCURACY
LEVEL 2



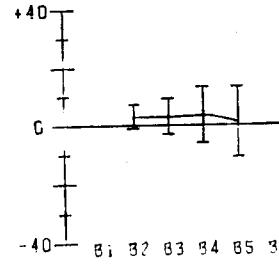
LEVEL 3



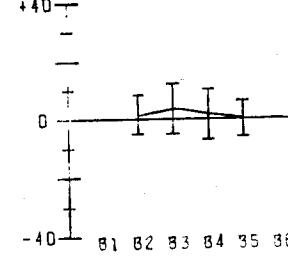
PB



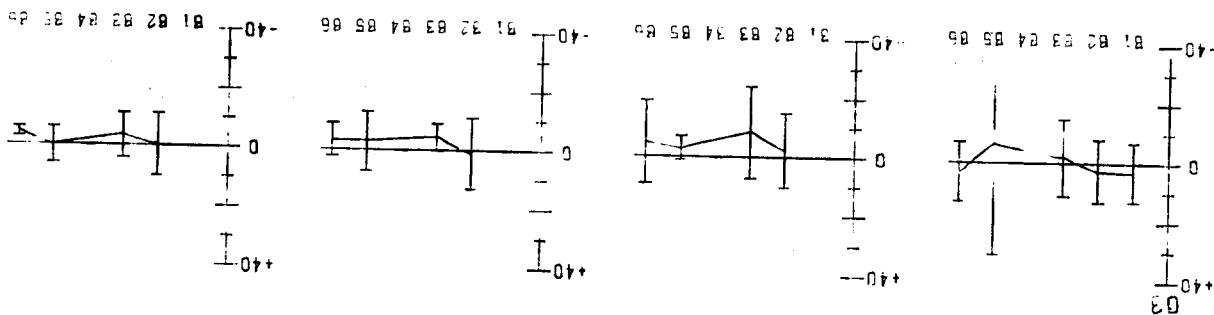
PB



PB



C-100

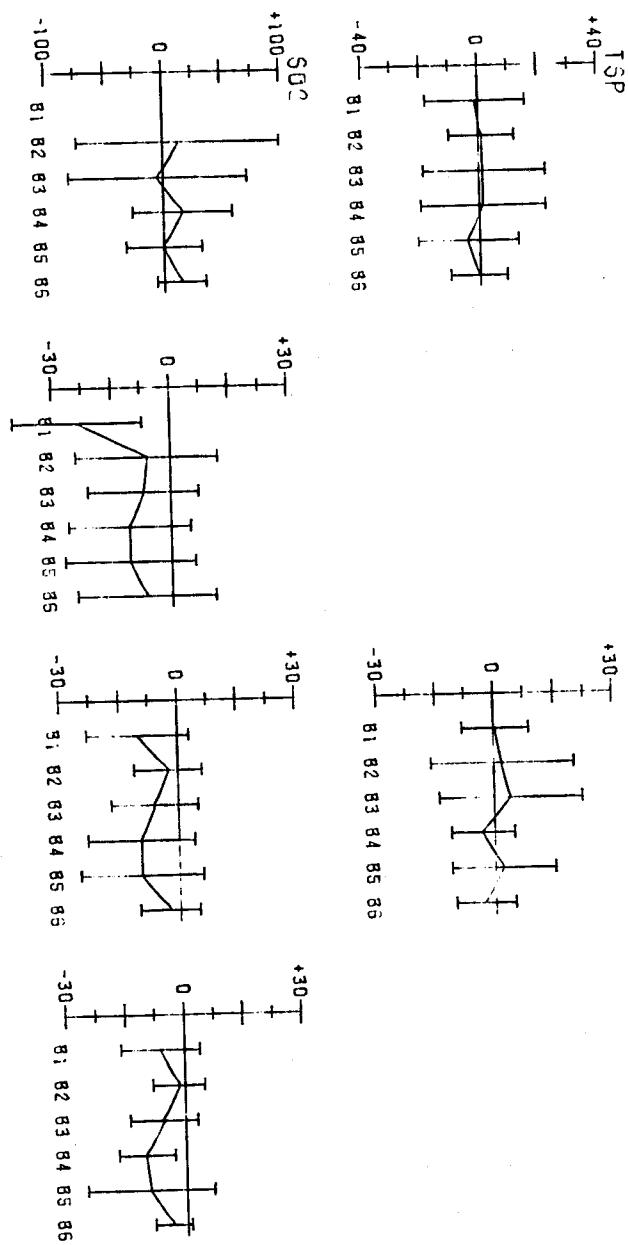


PRECISION
LEVEL 3
LEVEL 2
LEVEL 1
DECUPPLY
REG : 04
CONTINUOUS METHODS
95% PROBABILITY LIMITS 81-85
STCIE : 10 FLORIDA
REPORT #: 014 FDL, MUNICIPAL COUNTY HEALTH DEPARTMENT

35% PROBABILITY LIMITS 31-95
MUNICIPAL METHODS

REG : 34
STATE : FLORIDA
REPORT : 014
FL., MUNICIPAL COUNTY HEALTH DEPARTMENT

PRECISION LEVEL 1 ACCURACY LEVEL 2 LEVEL 3



95% PROBABILITY LIMITS 81-85
CONTINUOUS METHODS

REG : 04

STATE : 10 FLORIDA

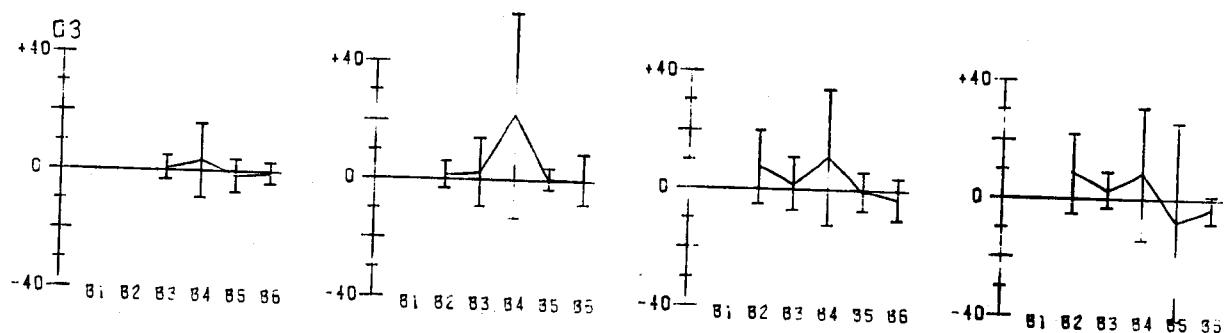
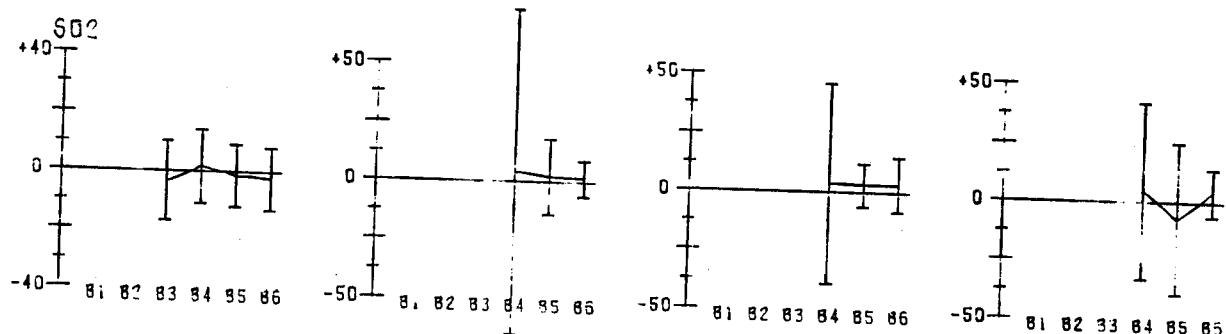
REPORT #: 015 FL, SARACUTA CO. AIR POLL. CONTROL DIV.

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



G-104

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

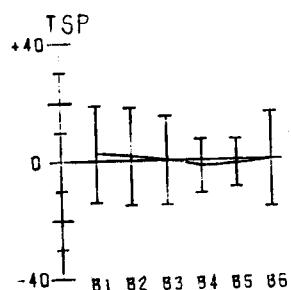
REG : 04

STATE : 10 FLORIDA

REPORT: 015 FL, SORRASUTR CO. AIR POLL. CONTROL DIV.

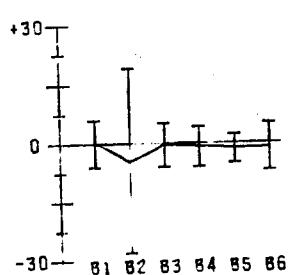
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



0-105

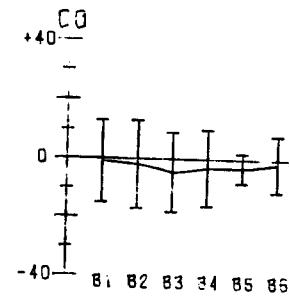
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04

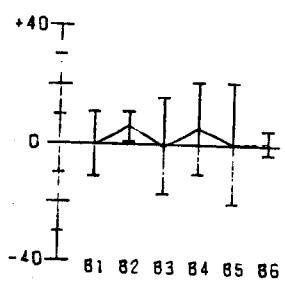
STATE : 10 FLORIDA

REPORT: 015 FL, PALM BEACH COUNTY HEALTH DEPARTMENT

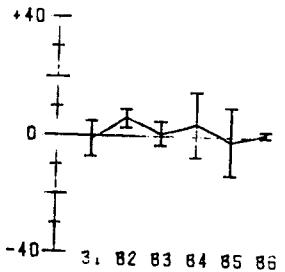
PRECISION



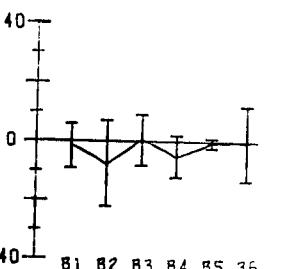
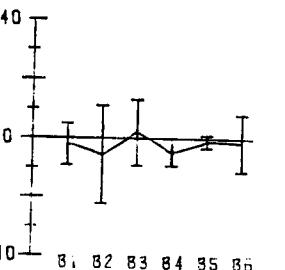
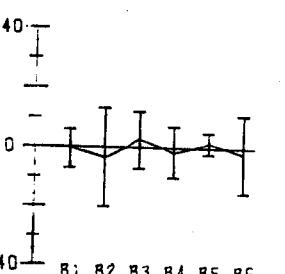
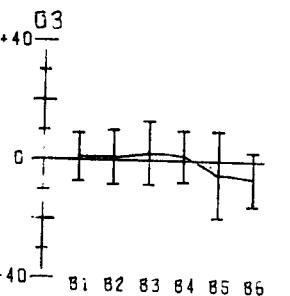
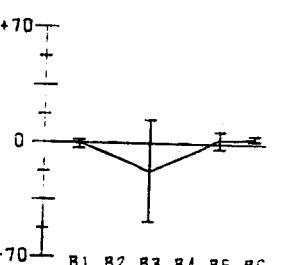
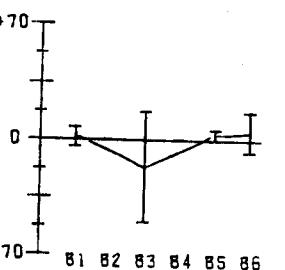
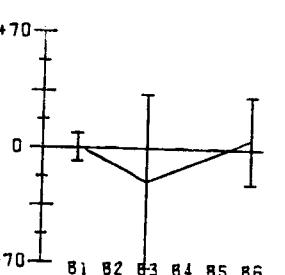
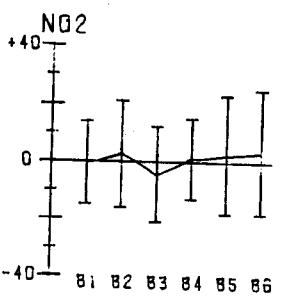
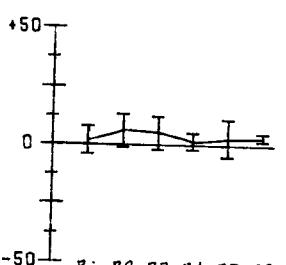
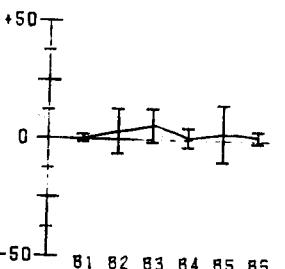
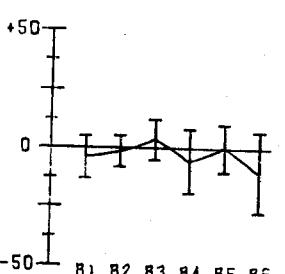
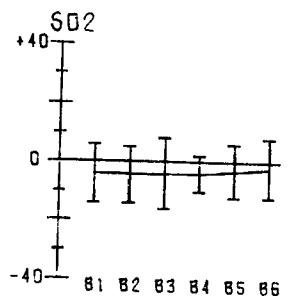
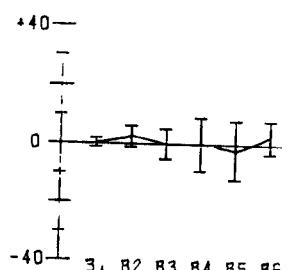
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

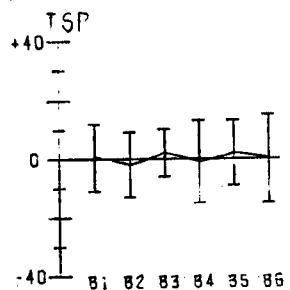


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 04
STATE : 10 FLORIDA
REPORT: 015 FL, PALM BEACH COUNTY HEALTH DEPARTMENT

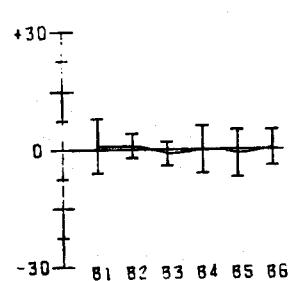
PRECISION

LEVEL 1

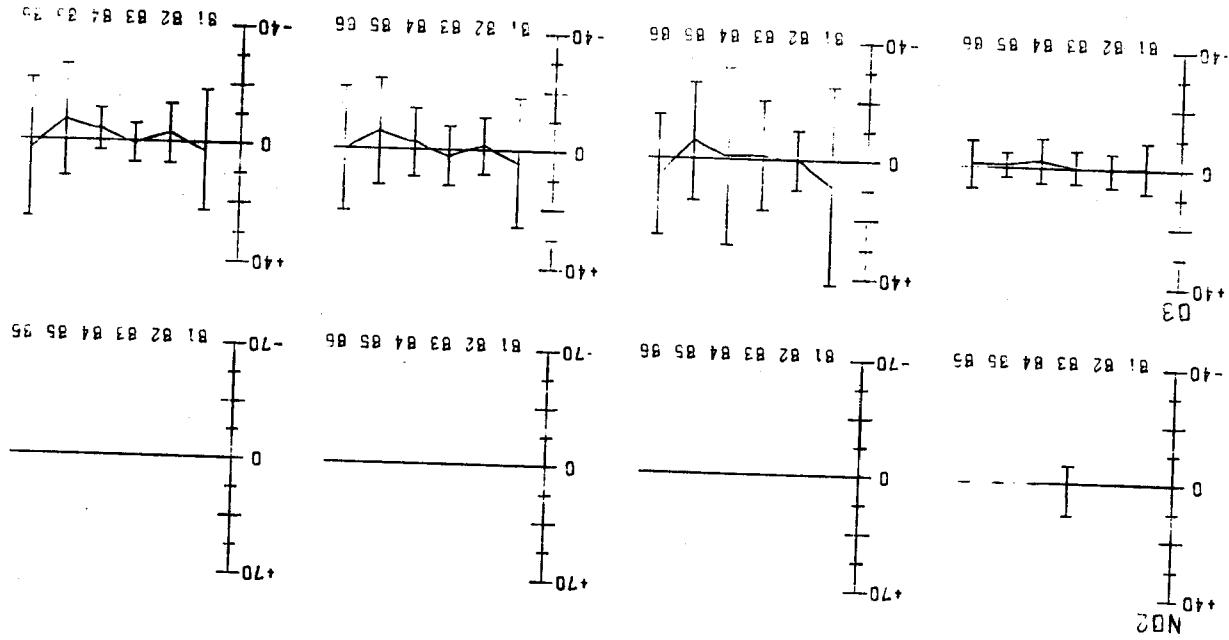


ACCURACY
LEVEL 2

LEVEL 3



G-108

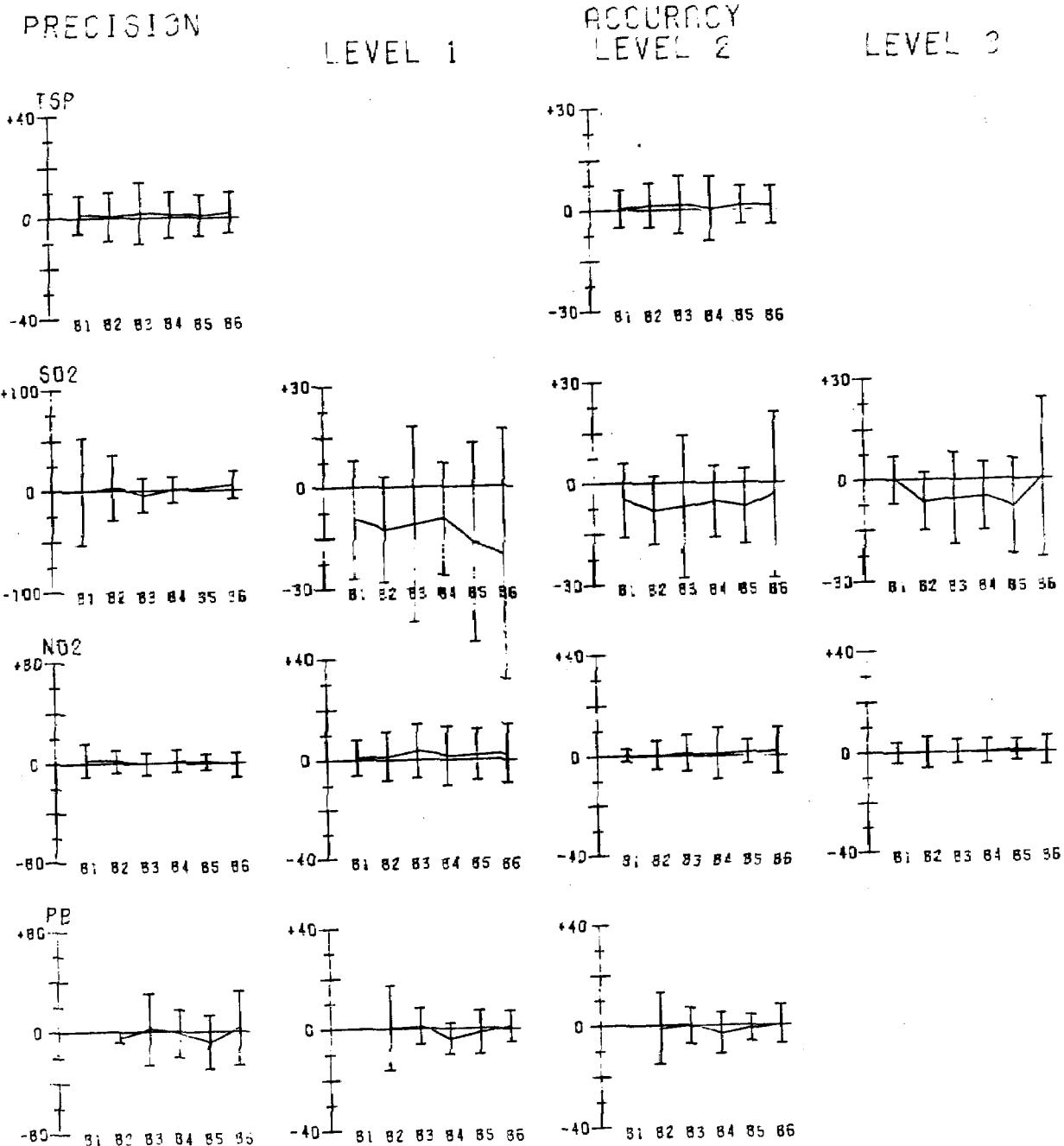


The figure consists of four vertically aligned line graphs, each with a y-axis labeled from -40 to +40 and an x-axis labeled from 81 to 86. The graphs are arranged from left to right as LEVEL 3, LEVEL 2, LEVEL 1, and CG. Each graph shows a series of points connected by a line, with vertical error bars extending above and below each point. In LEVEL 3, the points are clustered around zero. In LEVEL 2, the points show a slight downward trend. In LEVEL 1, the points are more scattered, with one notable outlier at approximately (-35, 40). In CG, the points are clustered around zero.

REG : 04 CONTINUOUS METHODS 31-85
65% PROBABILITY LIMITS 31-85
REF : 04 ELOFTIDC . 10 FLD, GROUPED CS. ENV. SURF. CONTROL BOARD
REPORTS: 017

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 04
STATE : 10 FLORIDA
REPORT: 017 FL, BROWARD CO. ENV. QUAL. CONTROL BOARD



C-109

95% PROBABILITY LIMITS 81-85
CONTINUOUS METHODS

REC : 04

STATE : 10 FLORIDA

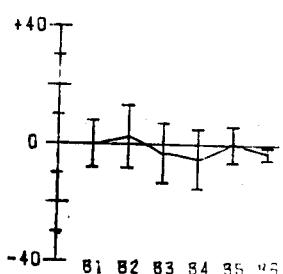
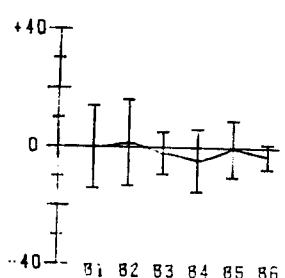
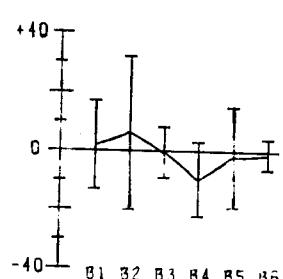
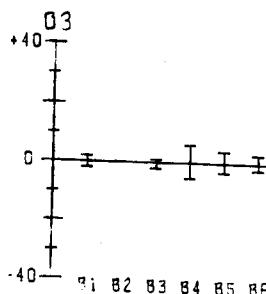
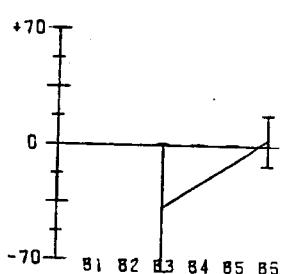
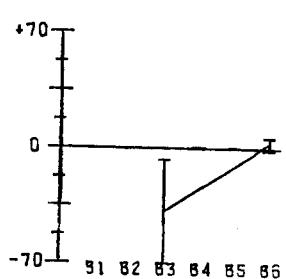
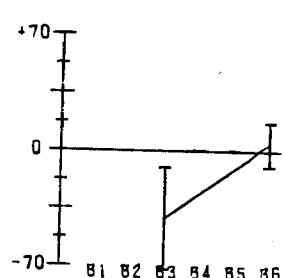
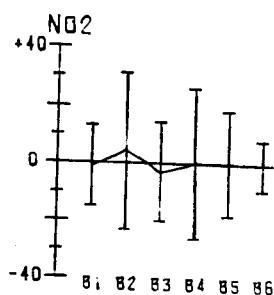
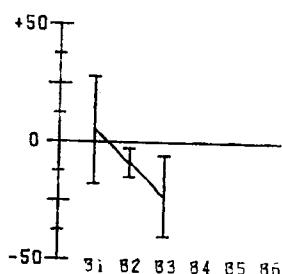
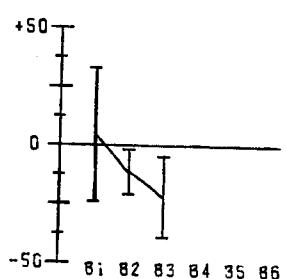
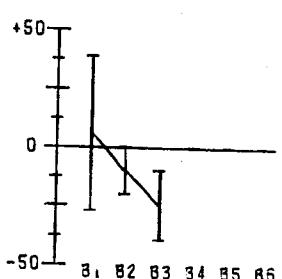
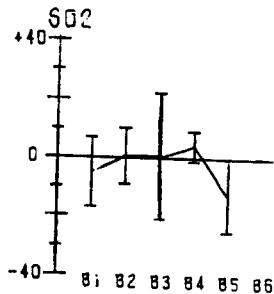
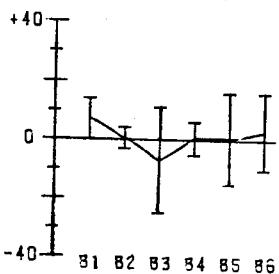
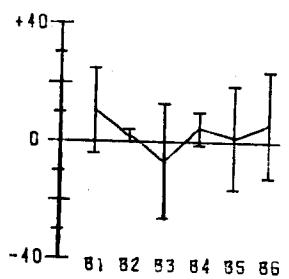
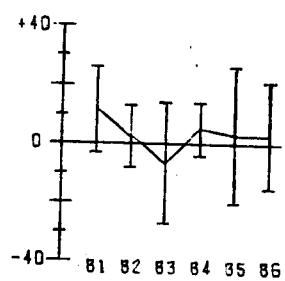
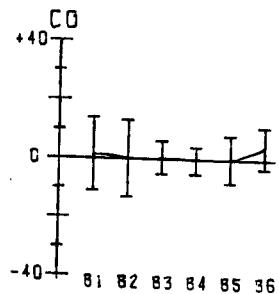
REPORT: 013 FL, DDOE CO. DEPT OF ENV. RESOURCES MGMT

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-85
MANUAL METHODS

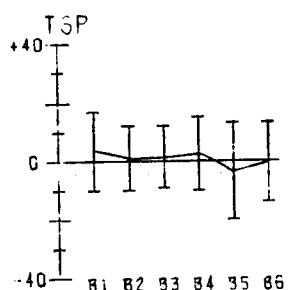
REG. NO. 04

STATE: 10 FLORIDA

REPORT #: 012 FL, DADE CO. DEPT OF ENV. RESOURCES MGMT

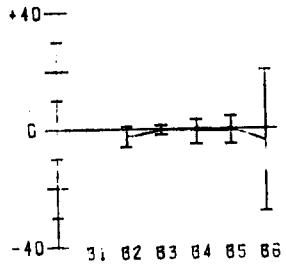
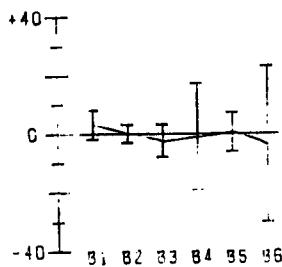
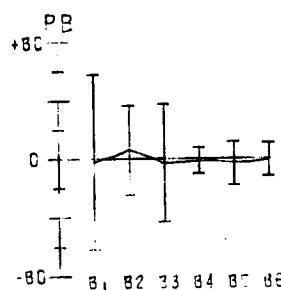
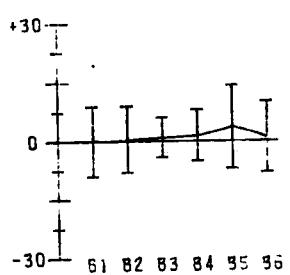
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



C-111

35% PROBABILITY LIMITS 21-35
CONTINUOUS METHODS

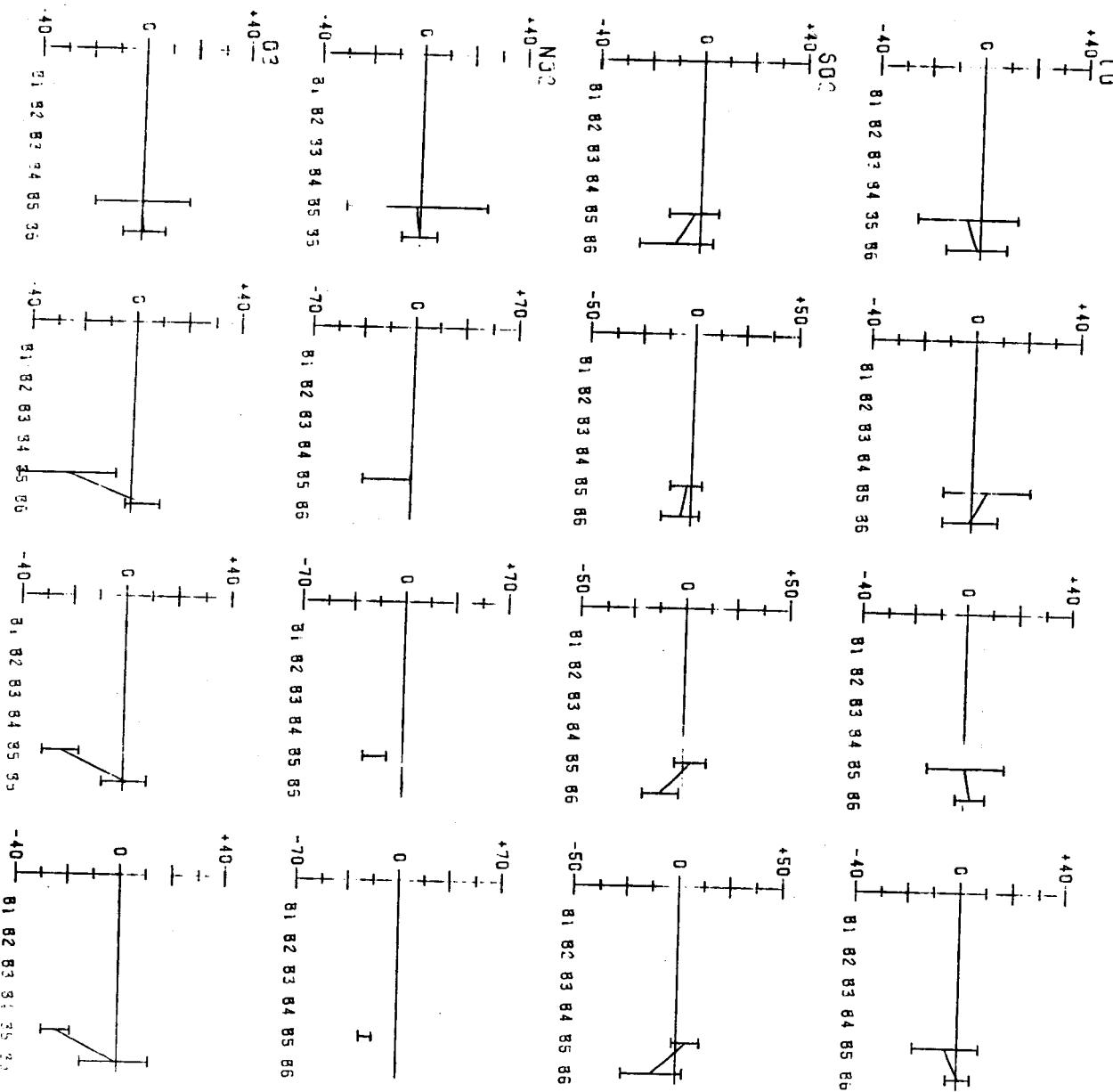
REC. : 54
CHIEF : 19
REPORTS: 620
FLGRIDGE
ORANGE COUNTY HEALTH DEPARTMENT

PREDICTION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-35
MANUAL METHODS

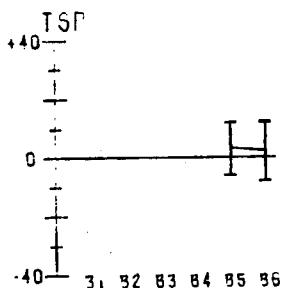
REG : 04

STATE : 10 FLORIDA

REPORT: 020 ORANGE COUNTY HEALTH DEPARTMENT

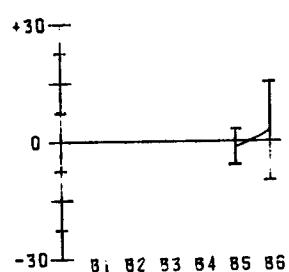
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-85
CONTINUOUS METHOD

REG : 04
STATE : 10
REPORT: 002

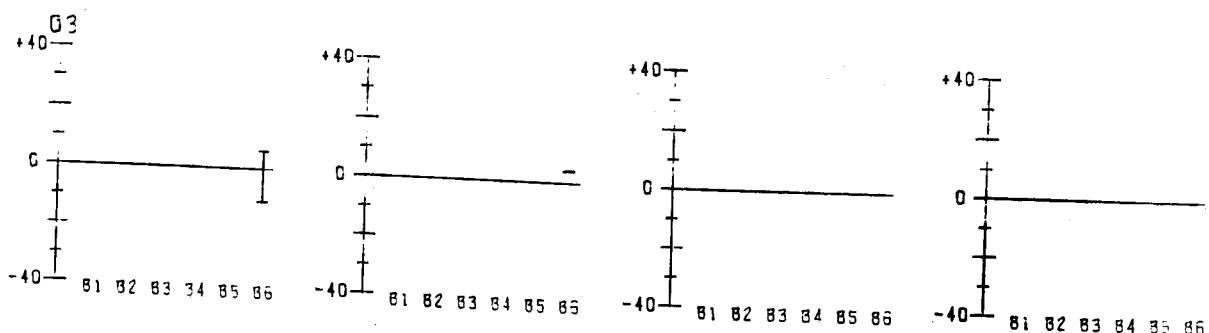
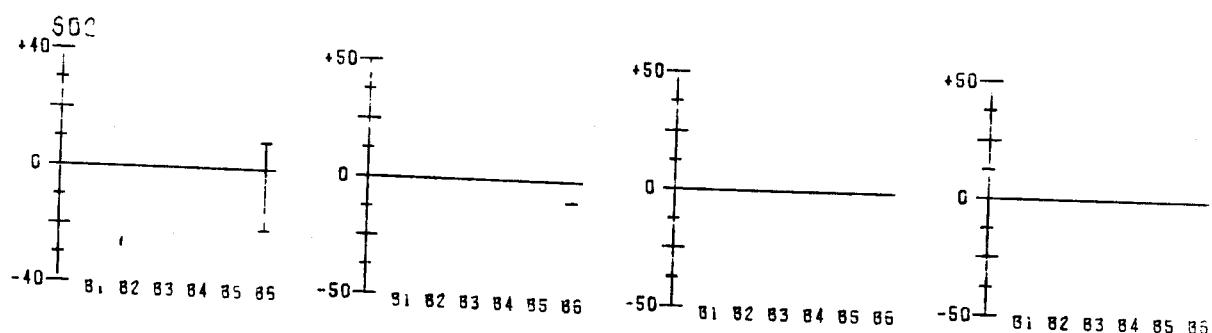
FLORIDA
EVERGLADES NATIONAL PARK

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



C-114

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04

STATE : 11 GEORGIA

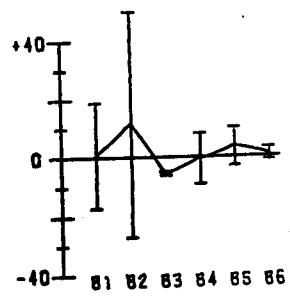
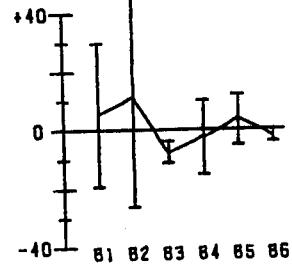
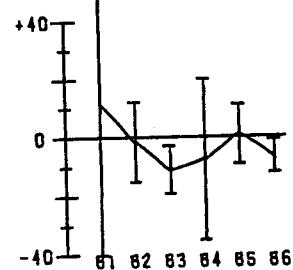
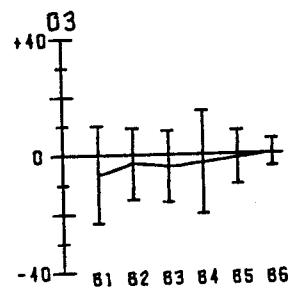
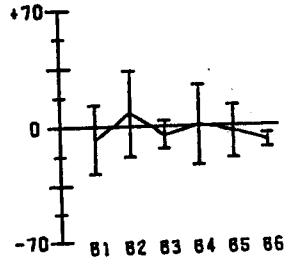
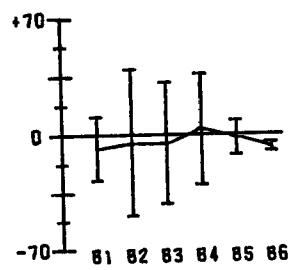
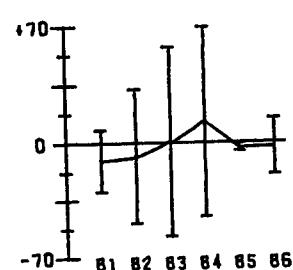
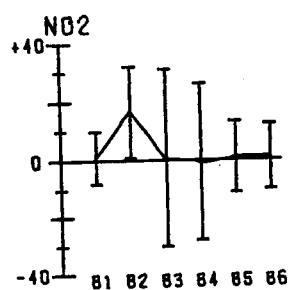
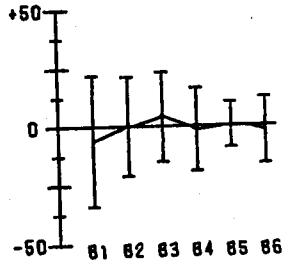
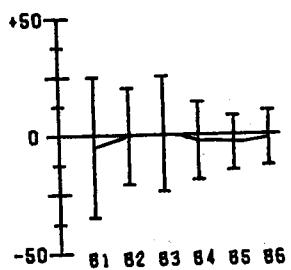
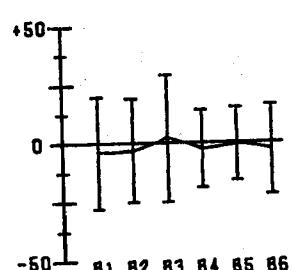
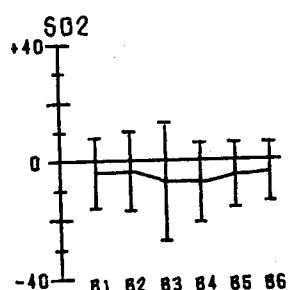
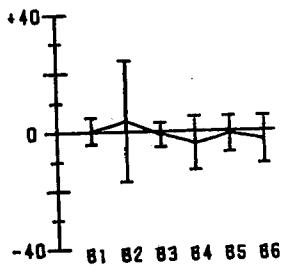
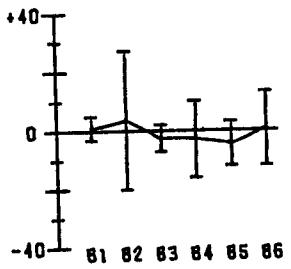
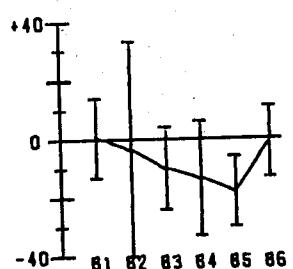
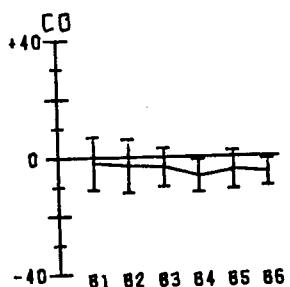
REPORG: 010 GEORGIA AIR QUAL. EVALUATION SECTION EPD

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

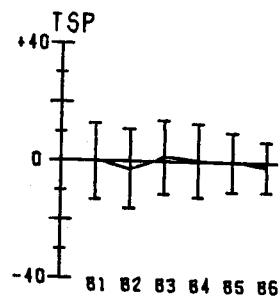
REG : 04

STATE : 11 GEORGIA

REPORG: 010 GEORGIA AIR QUAL. EVALUATION SECTION EPD

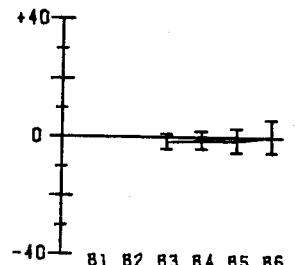
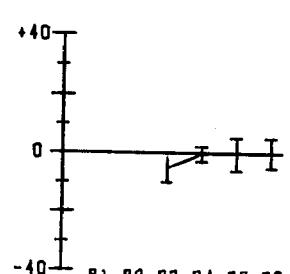
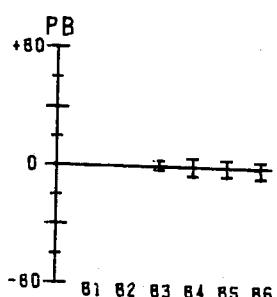
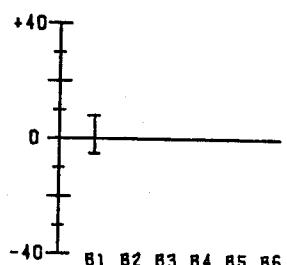
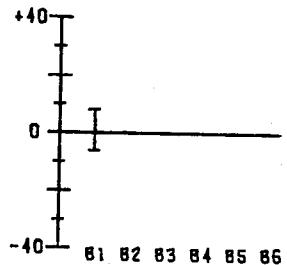
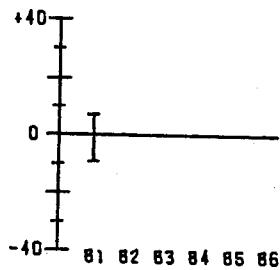
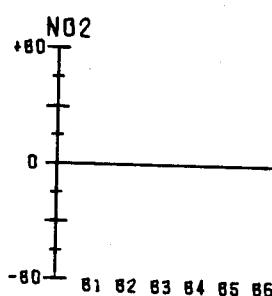
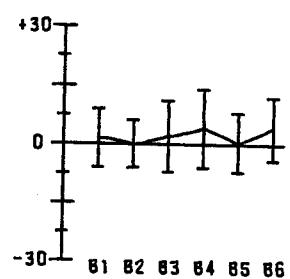
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



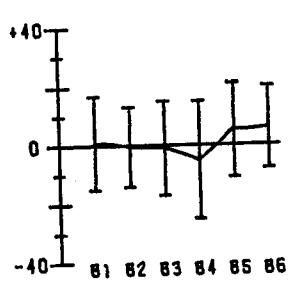
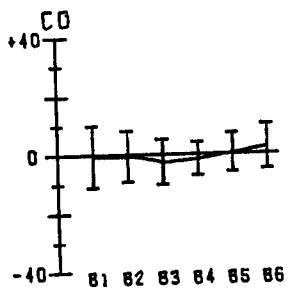
G-116

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04
STATE : 18 KENTUCKY
REPORG: 001 KENTUCKY DIV. OF AIR POLL. CONTROL

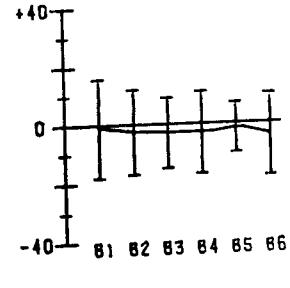
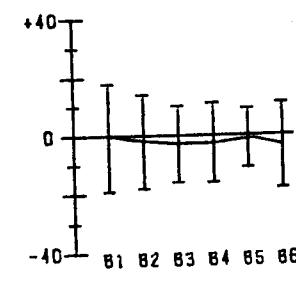
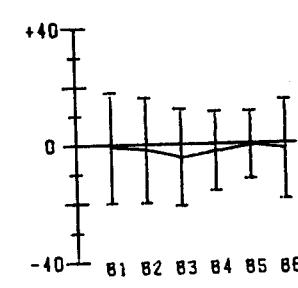
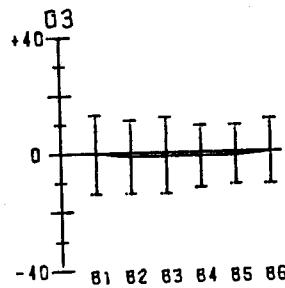
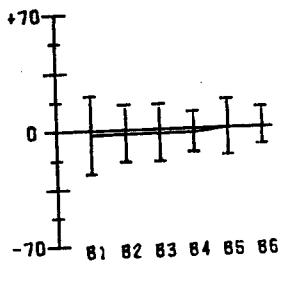
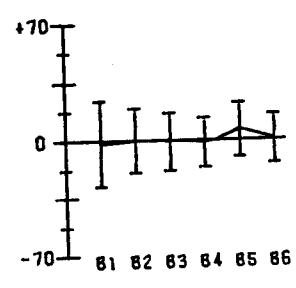
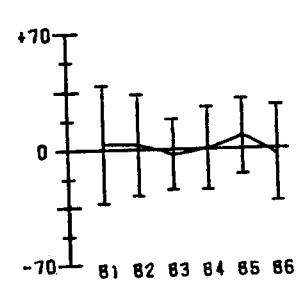
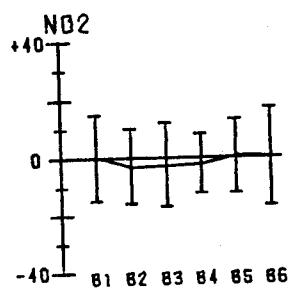
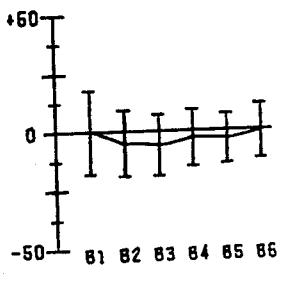
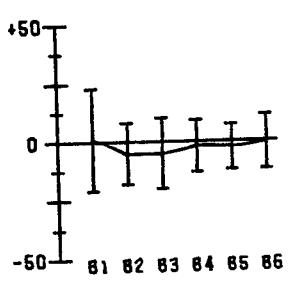
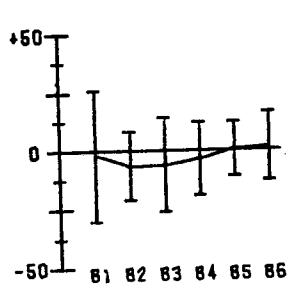
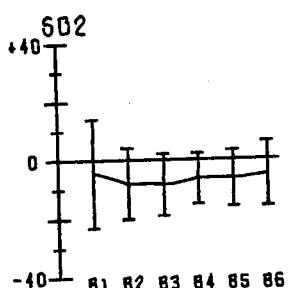
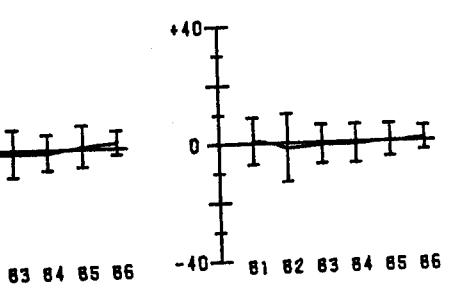
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

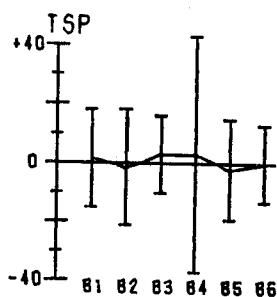
REG : 04

STATE : 18 KENTUCKY

REPORG: 001 KENTUCKY DIV. OF AIR POLL. CONTROL

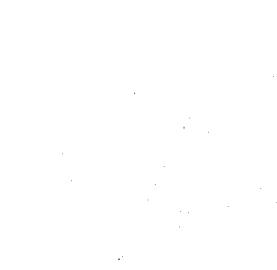
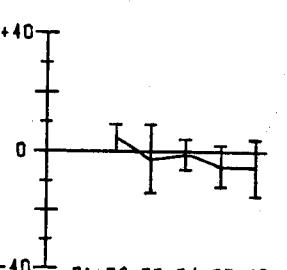
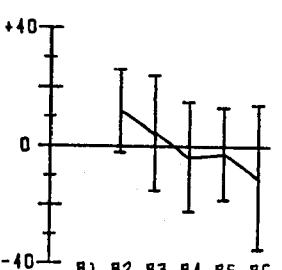
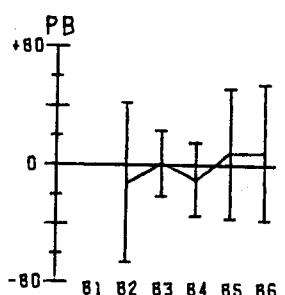
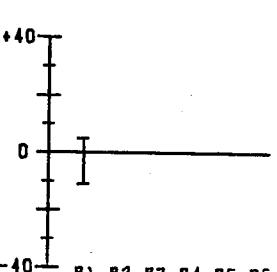
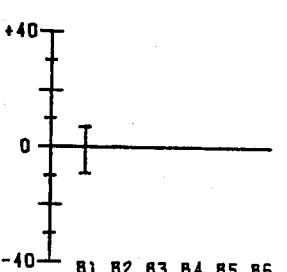
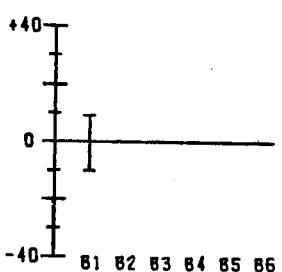
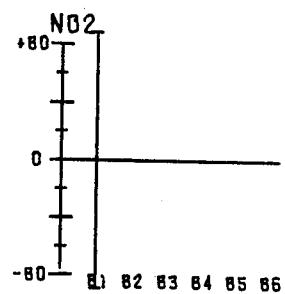
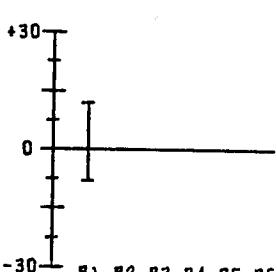
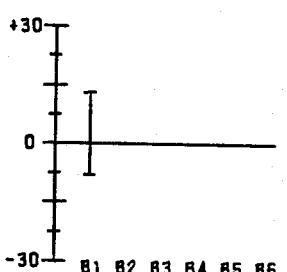
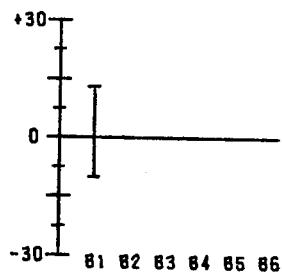
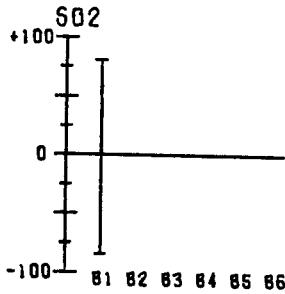
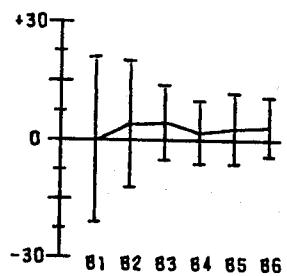
PRECISION

LEVEL 1



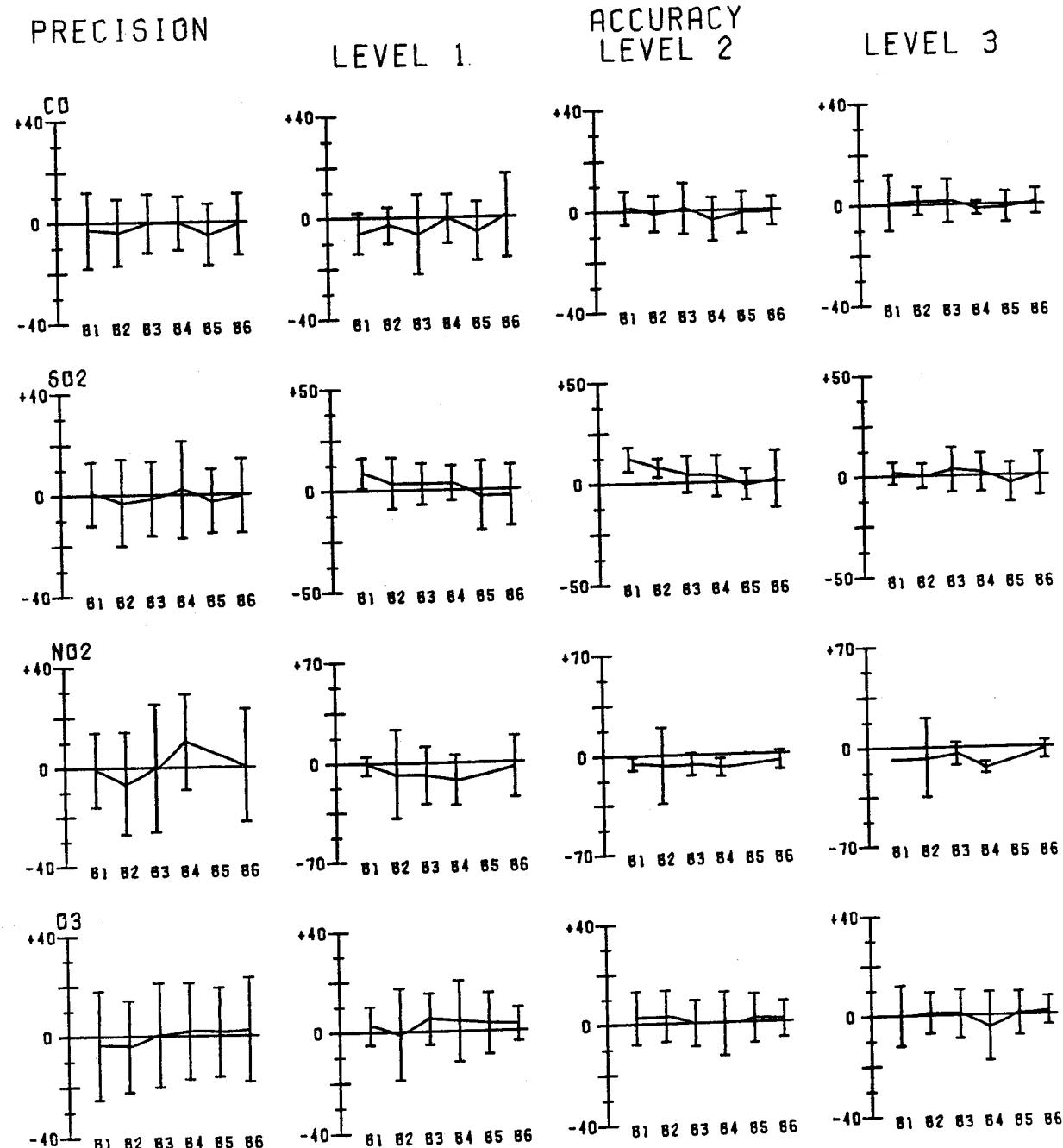
ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04
STATE : 18 KENTUCKY
REPORG: 002 KY, JEFFERSON CO. AIR POLL. CONTROL DIST



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

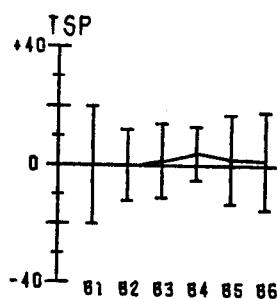
REG : 04

STATE : 18 KENTUCKY

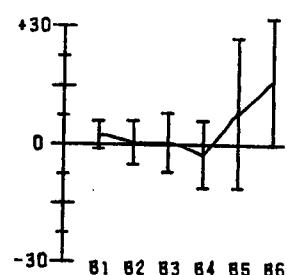
REPORG: 002 KY, JEFFERSON CO. AIR POLL. CONTROL DIST

PRECISION

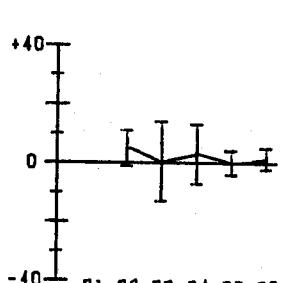
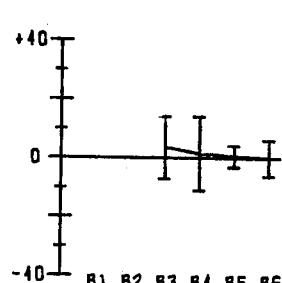
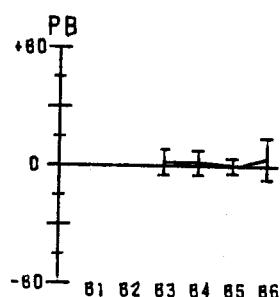
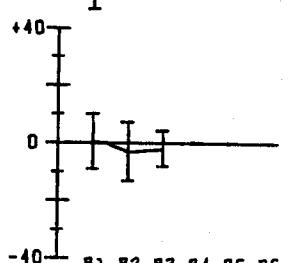
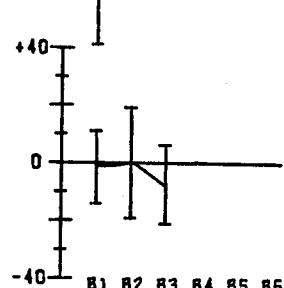
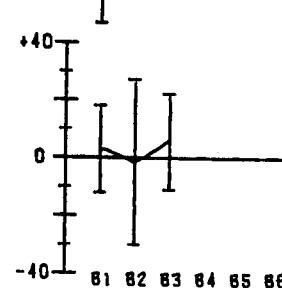
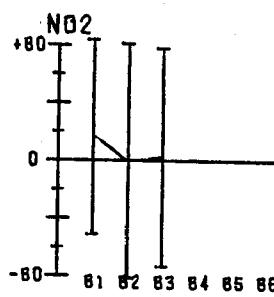
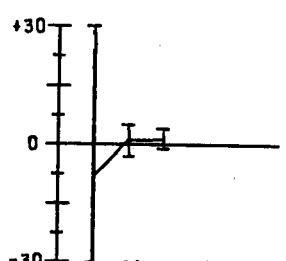
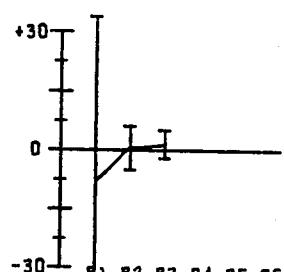
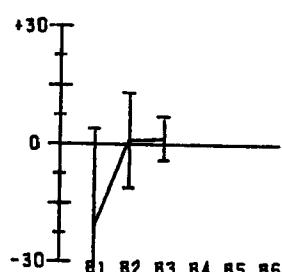
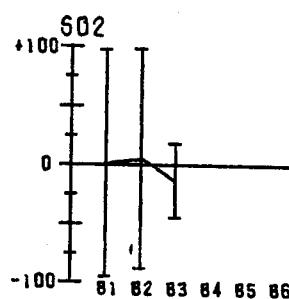
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

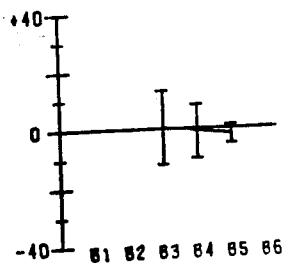
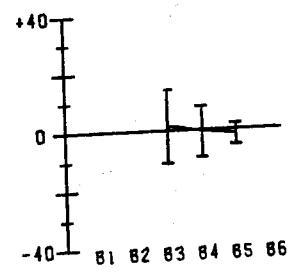
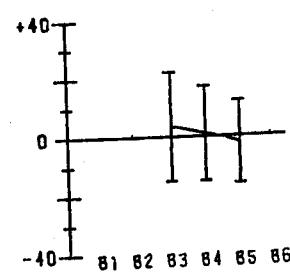
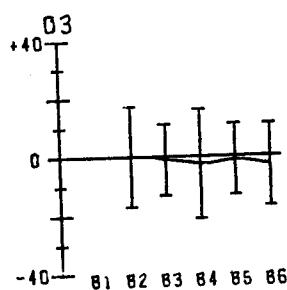
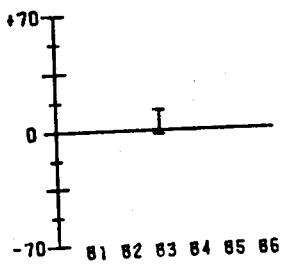
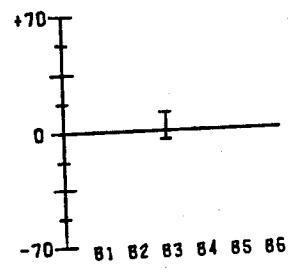
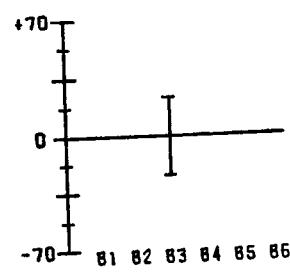
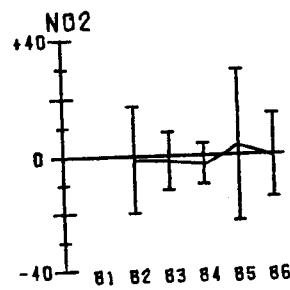
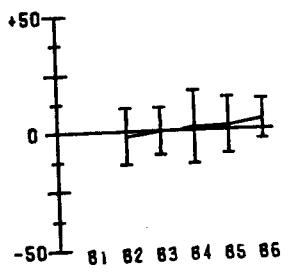
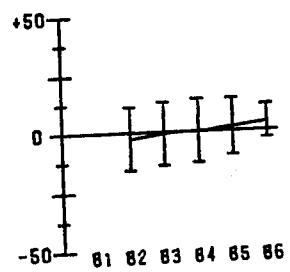
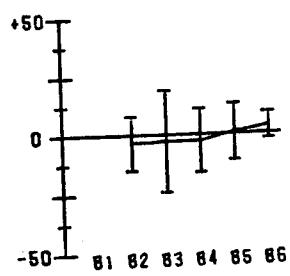
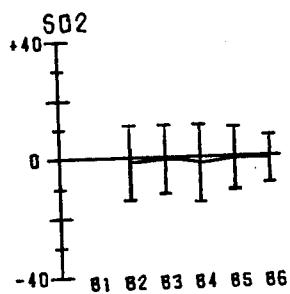
REG : 04
STATE : 18 KENTUCKY
REPORG: 003 TENNESSEE VALLEY AUTHORITY - KENTUCKY

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



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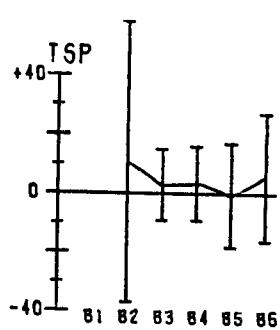
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 04

STATE : 18 KENTUCKY

REPORT: 003 TENNESSEE VALLEY AUTHORITY - KENTUCKY

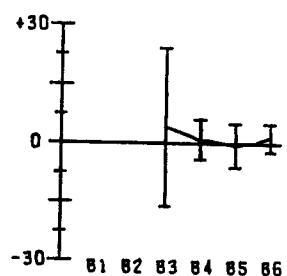
PRECISION



LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



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95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

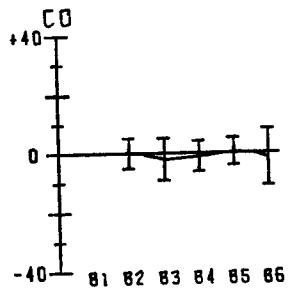
REG : 04

STATE : 25 MISSISSIPPI

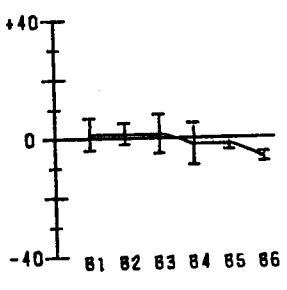
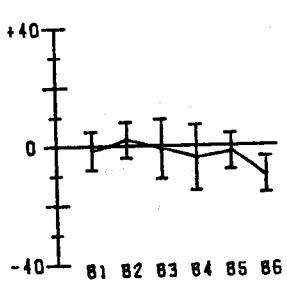
REPORT: 100 MISSISSIPPI BUREAU OF POLLUTION CONTROL

PRECISION

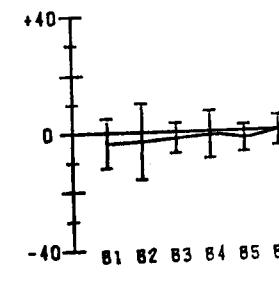
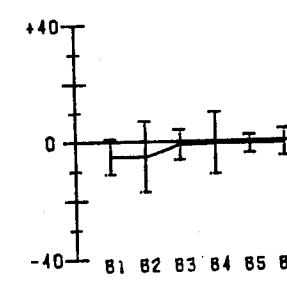
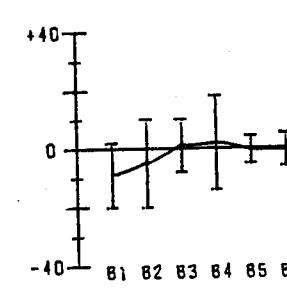
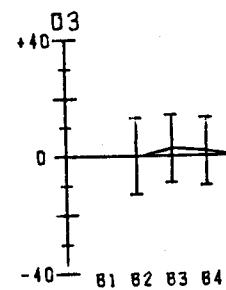
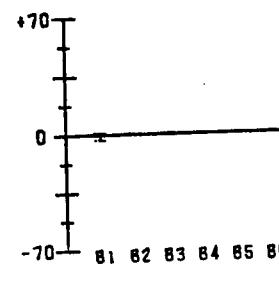
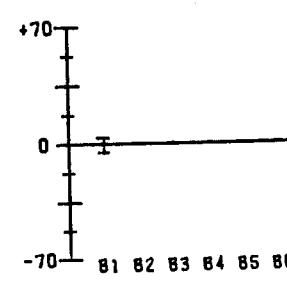
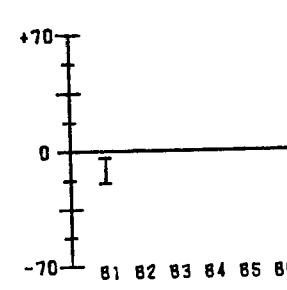
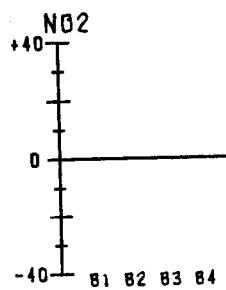
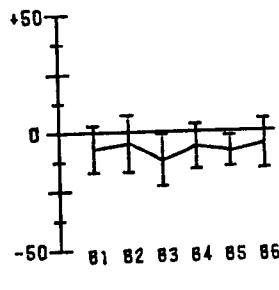
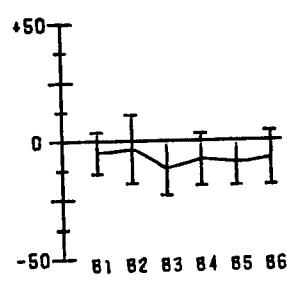
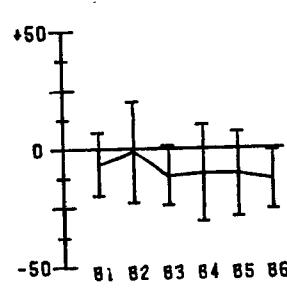
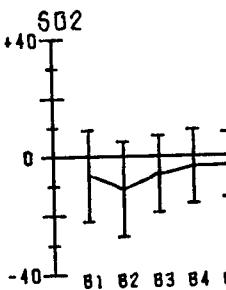
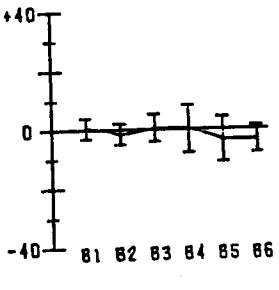
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



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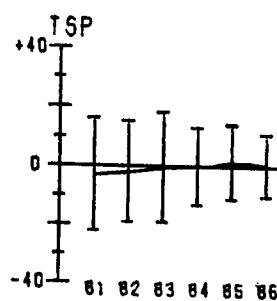
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 04

STATE : 25 MISSISSIPPI

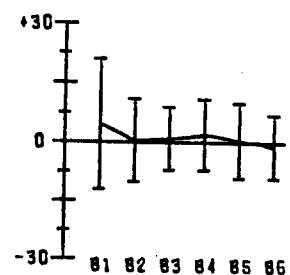
REPORT: 100 MISSISSIPPI BUREAU OF POLLUTION CONTROL

PRECISION

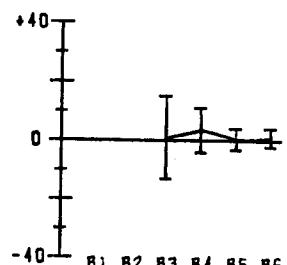
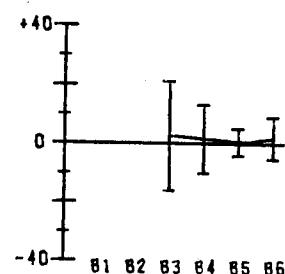
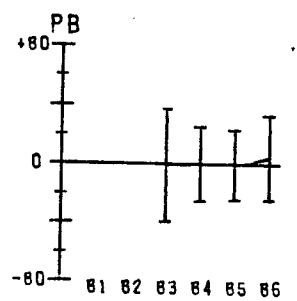


LEVEL 1

ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

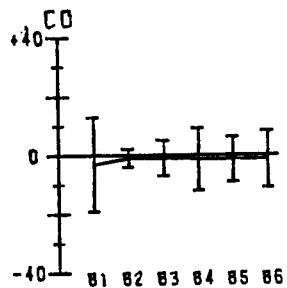
REG : 04

STATE : 34 NORTH CAROLINA

REPORT: 001 NC NATURAL RESOURCES & COMMUNITY DEVEL.

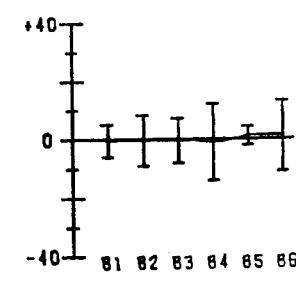
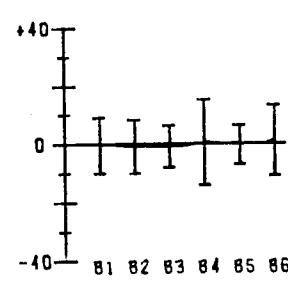
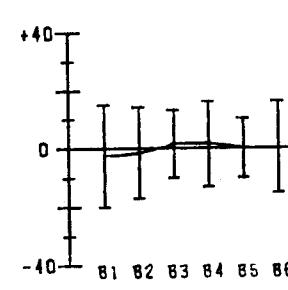
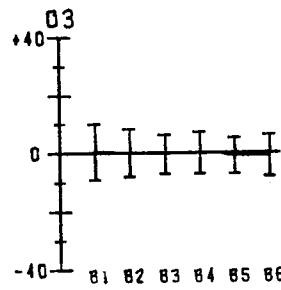
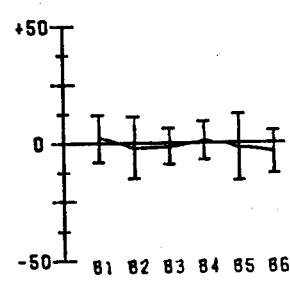
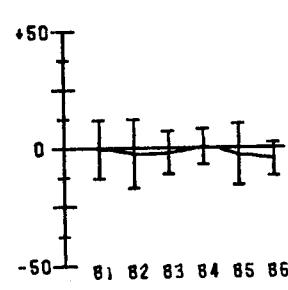
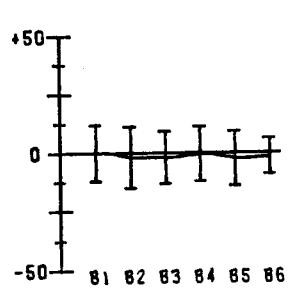
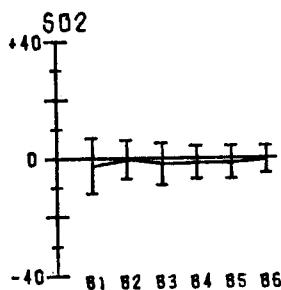
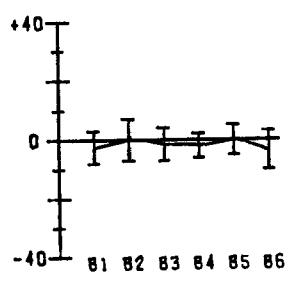
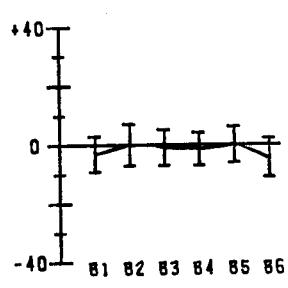
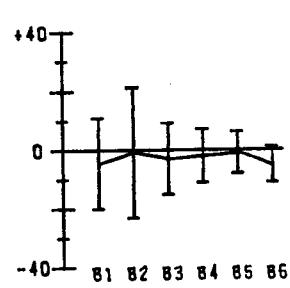
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



G-125

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 04

STATE : 34 NORTH CAROLINA

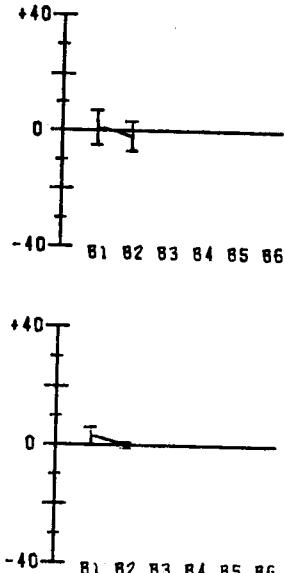
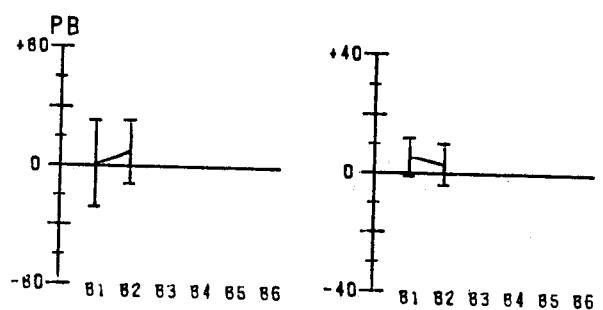
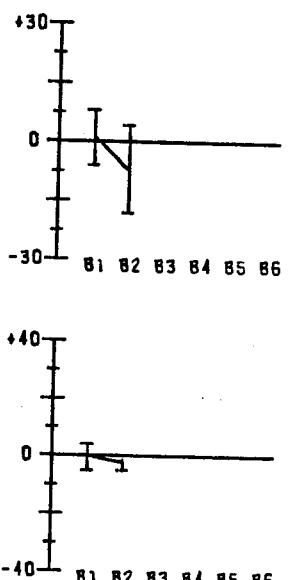
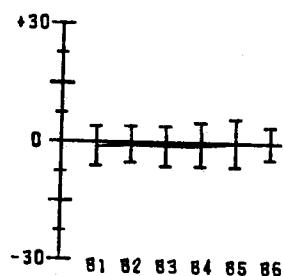
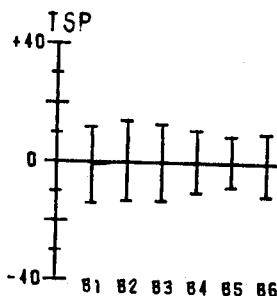
REPORG: 001 NC NATURAL RESOURCES & COMMUNITY DEVEL.

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04

STATE : 34 NORTH CAROLINA

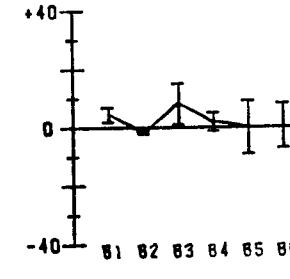
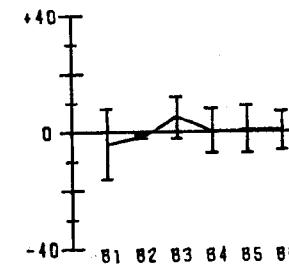
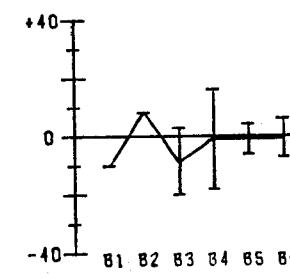
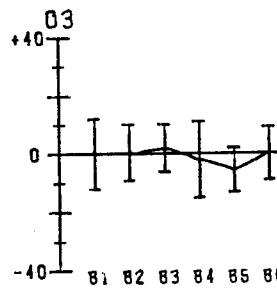
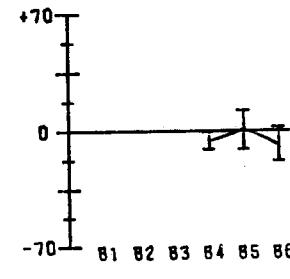
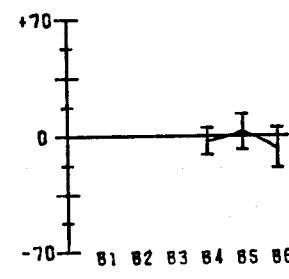
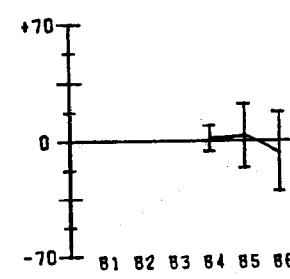
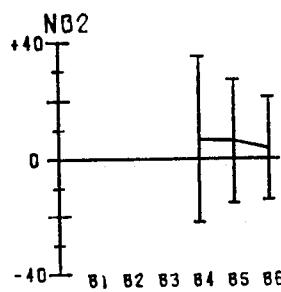
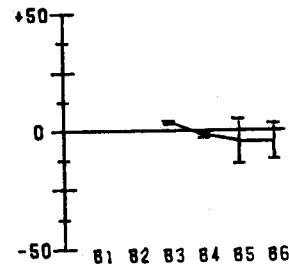
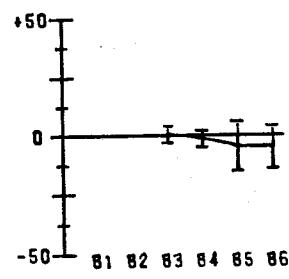
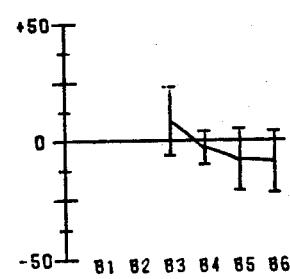
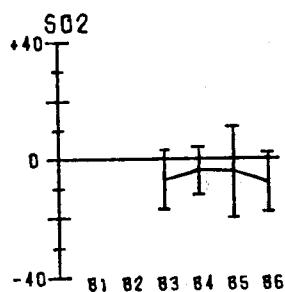
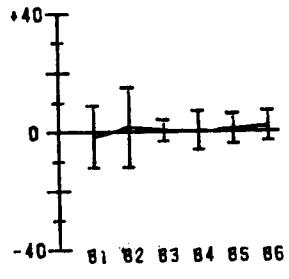
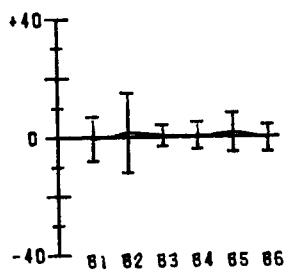
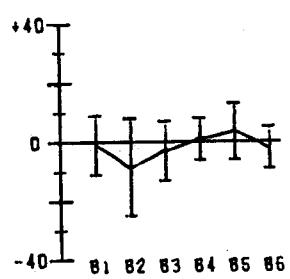
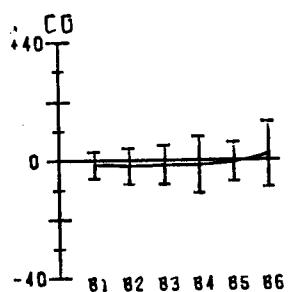
REPORG: 002 NC, FORSYTH COUNTY ENV. AFFAIRS DEPT.

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

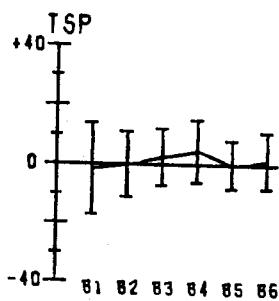


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 04
STATE : 34 NORTH CAROLINA
REPORG: 002 NC, FORSYTH COUNTY ENV. AFFAIRS DEPT.

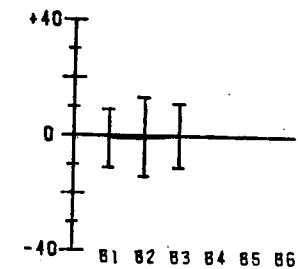
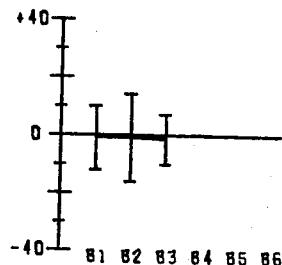
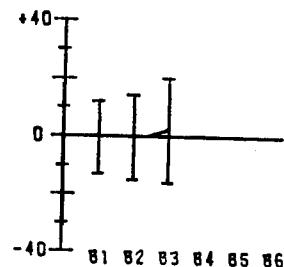
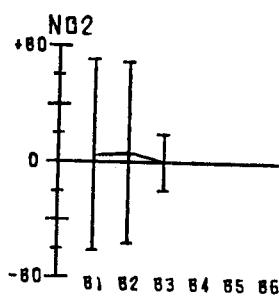
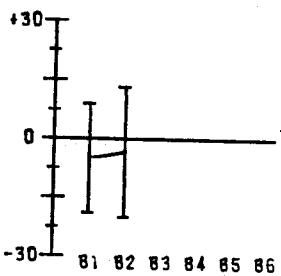
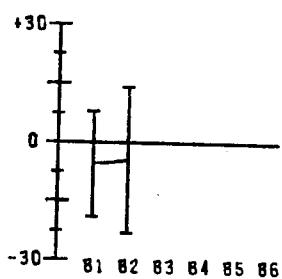
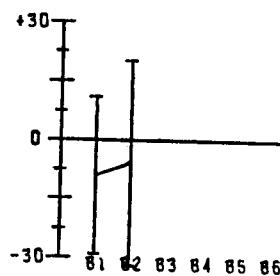
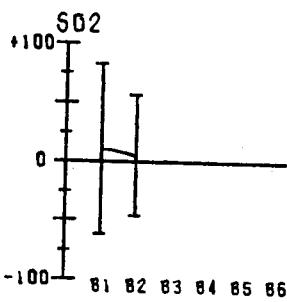
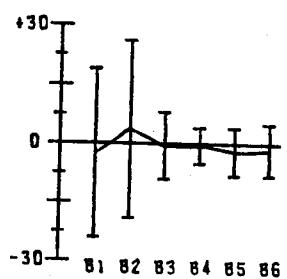
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3

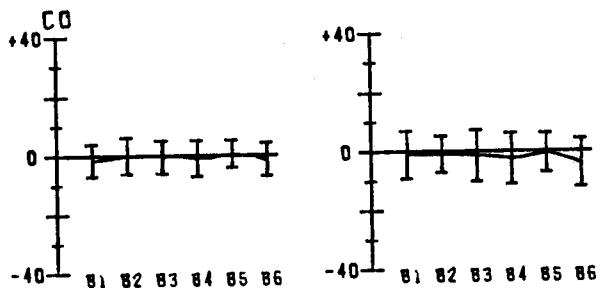


95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

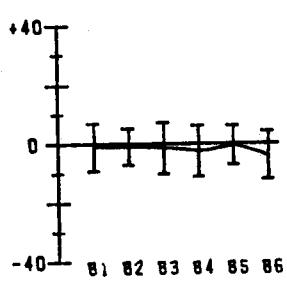
REG : 04
STATE : 34 NORTH CAROLINA
REPORT: 003 NC, MECKLENBURG CO. DEPT. OF ENV. HEALTH

PRECISION

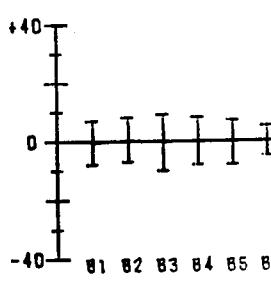
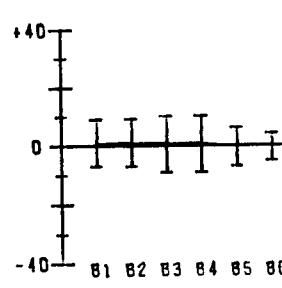
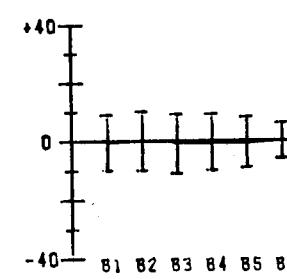
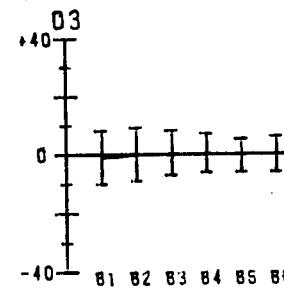
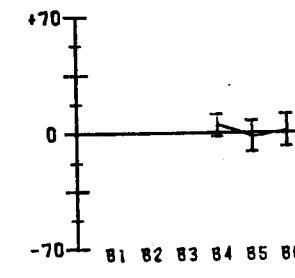
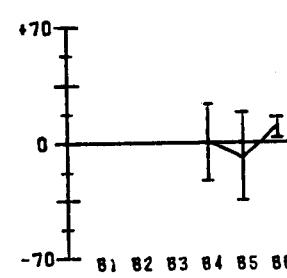
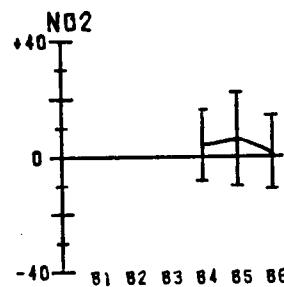
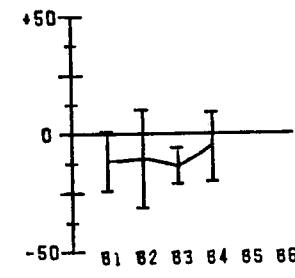
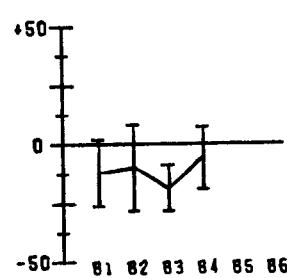
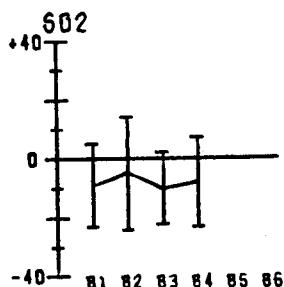
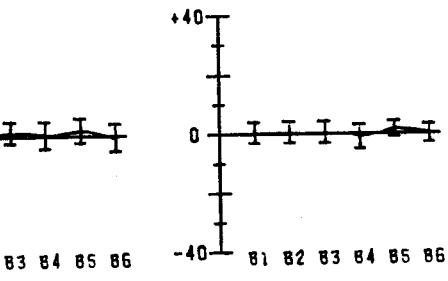
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



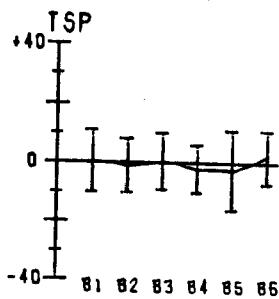
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 04

STATE : 34 NORTH CAROLINA

REPORT: 003 NC, MECKLENBURG CO. DEPT. OF ENV. HEALTH

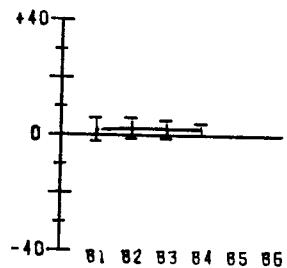
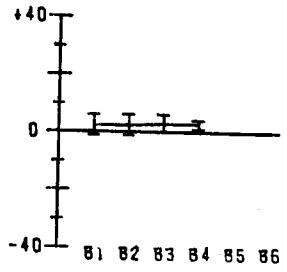
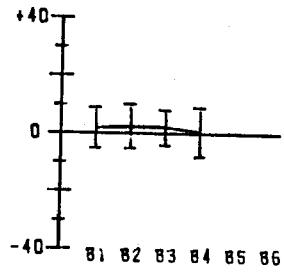
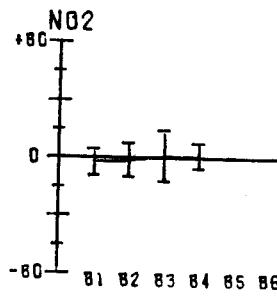
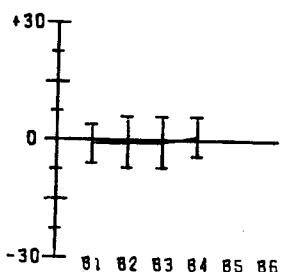
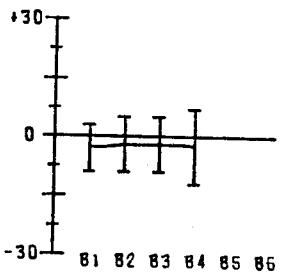
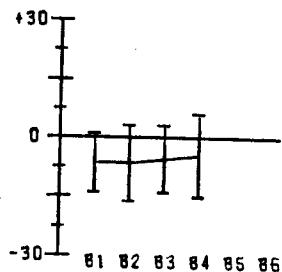
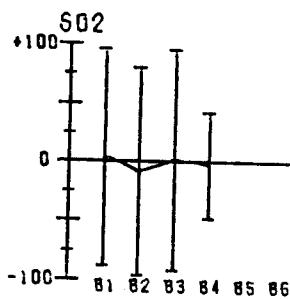
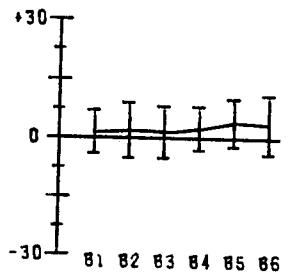
PRECISION



LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

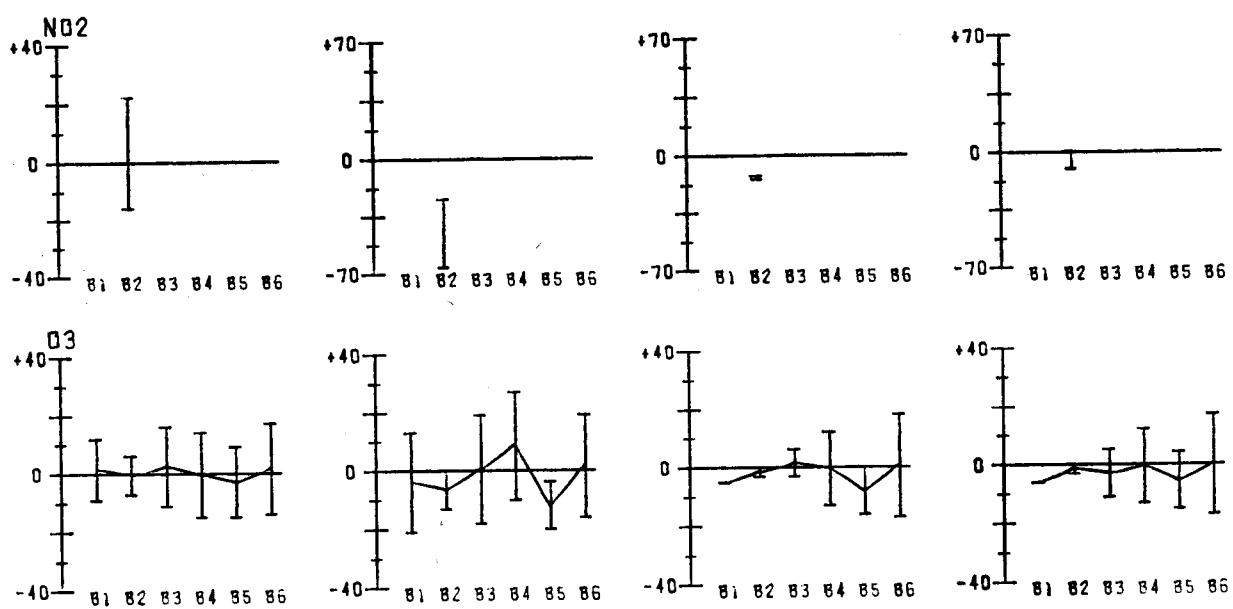
REG : 04
STATE : 34 NORTH CAROLINA
REPORT: 004 NC, WESTERN REGIONAL AIR POLL. CONTROL

PRECISION

LEVEL 1

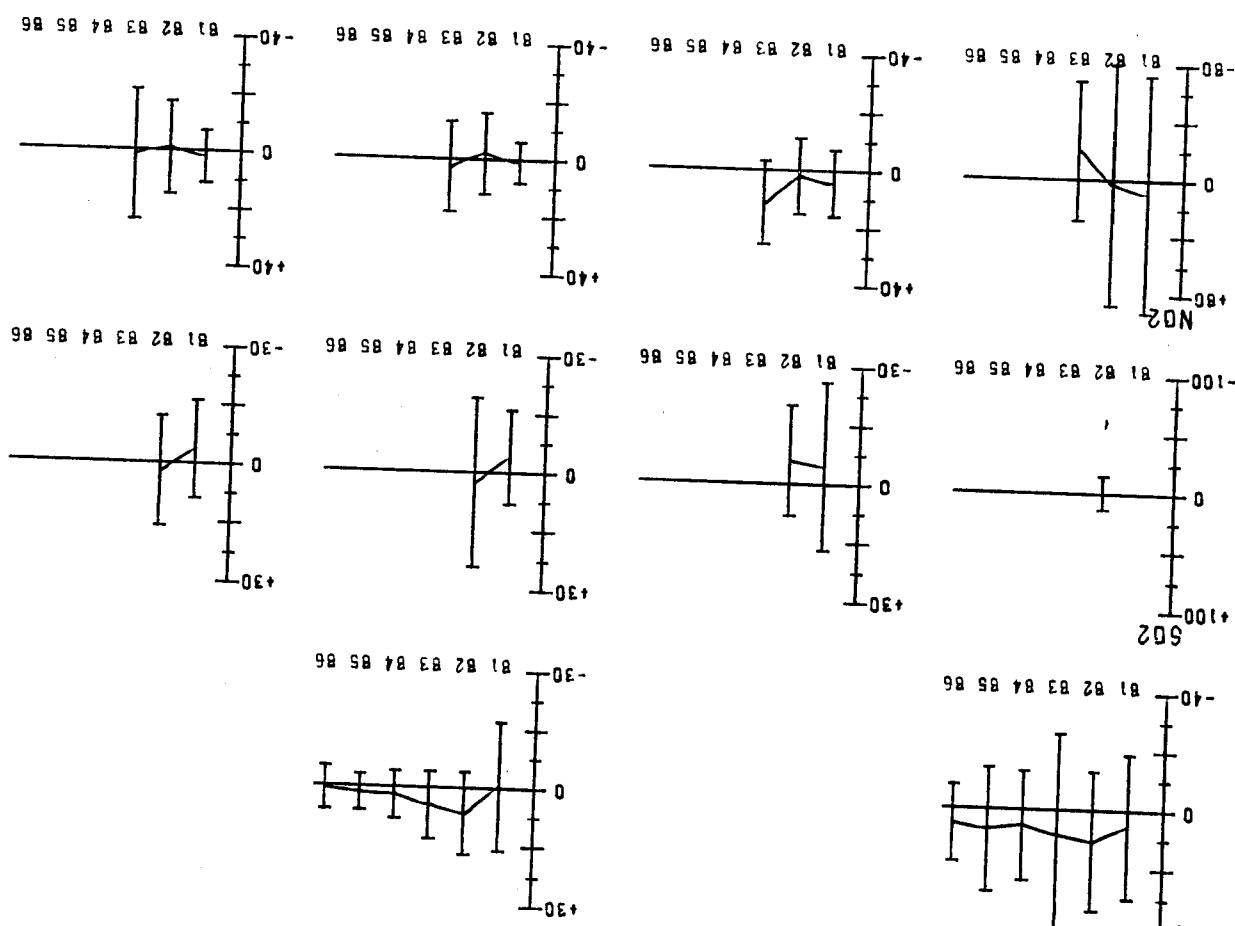
ACCURACY
LEVEL 2

LEVEL 3



G-131

C-132



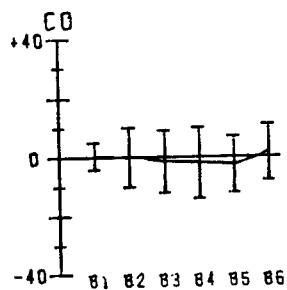
REG : 04 STATE : 34 REPORT: 004 NC, WESTERN REGIONAL AIR POLL. CONTROL
PRECISION : 95% PROBABILITY LIMITS 81-86
MANUAL METHODS
REG : 04 STATE : 34 NORTH CARGLINING
REPORT: 004 NC, WESTERN REGIONAL AIR POLL. CONTROL

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

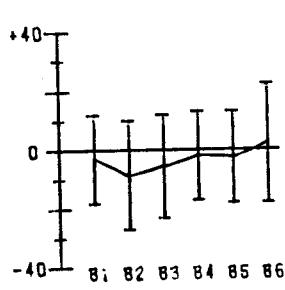
REG : 04
STATE : 42 SOUTH CAROLINA
REPORC : 001 SC DEPARTMENT OF HEALTH & ENV. CONTROL

PRECISION

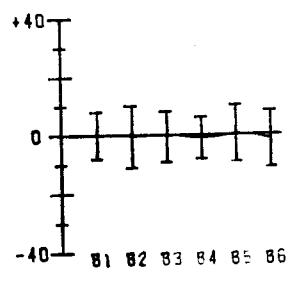
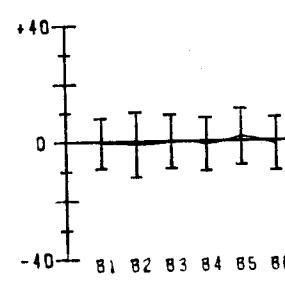
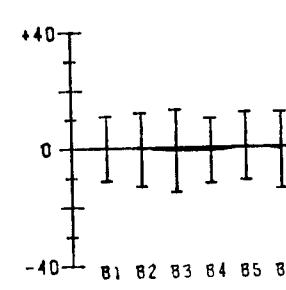
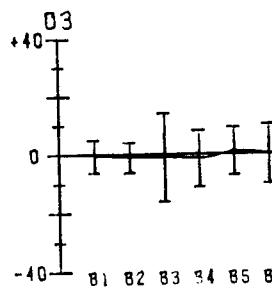
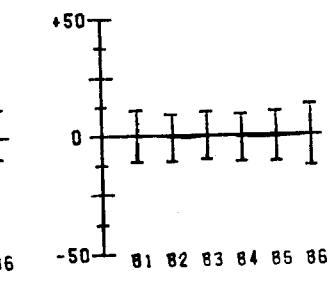
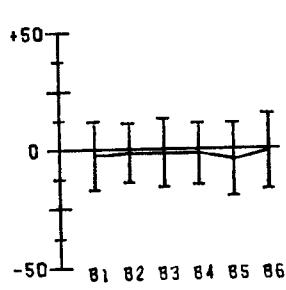
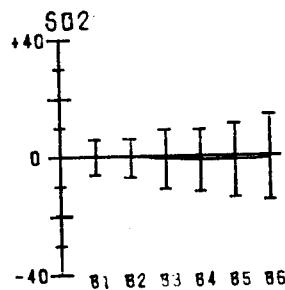
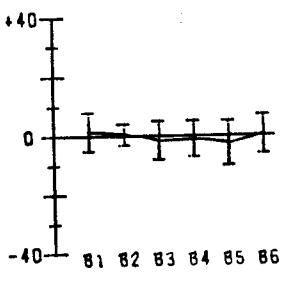
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



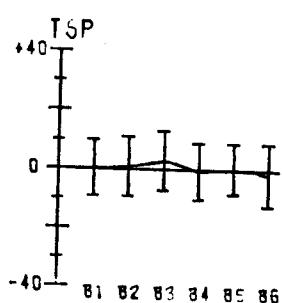
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 04

STATE : 42 SOUTH CAROLINA

REPORC: 001 SC DEPARTMENT OF HEALTH & ENV. CONTROL

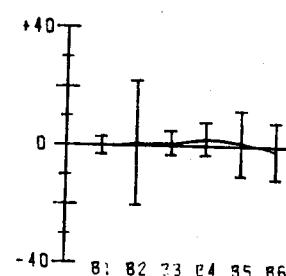
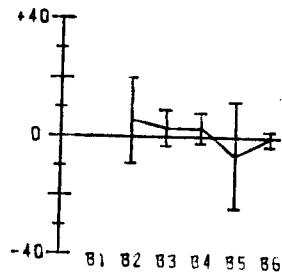
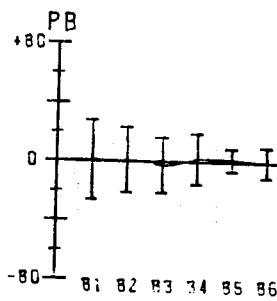
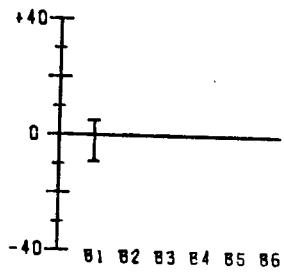
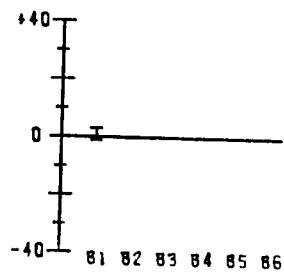
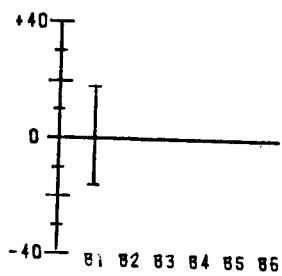
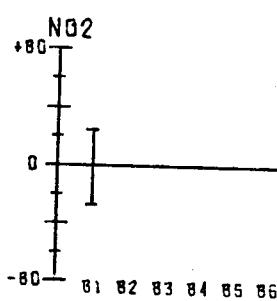
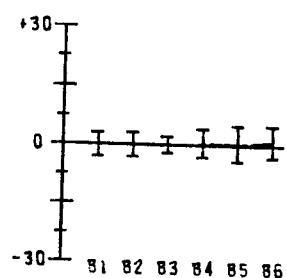
PRECISION



LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04

STATE : 44 TENNESSEE

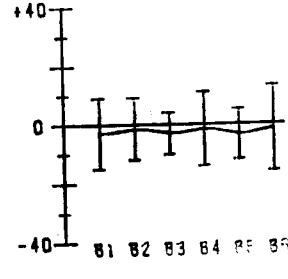
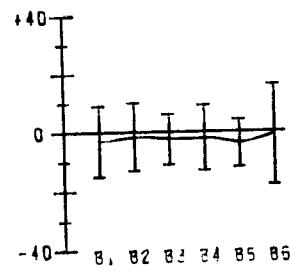
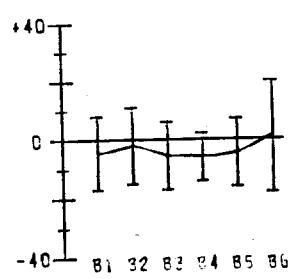
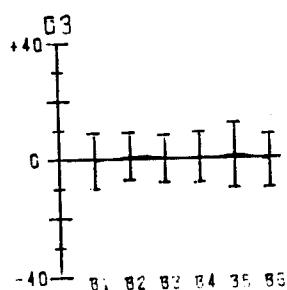
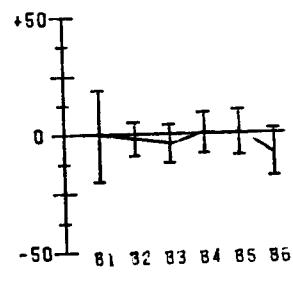
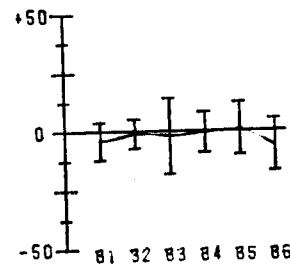
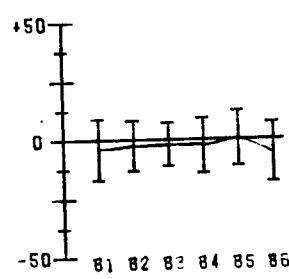
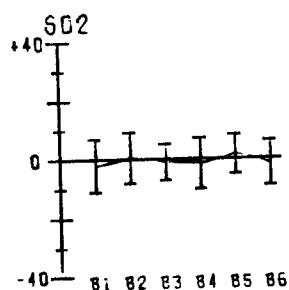
REPORG: 001 TENNESSEE DIV. OF AIR POLL. CONTROL

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

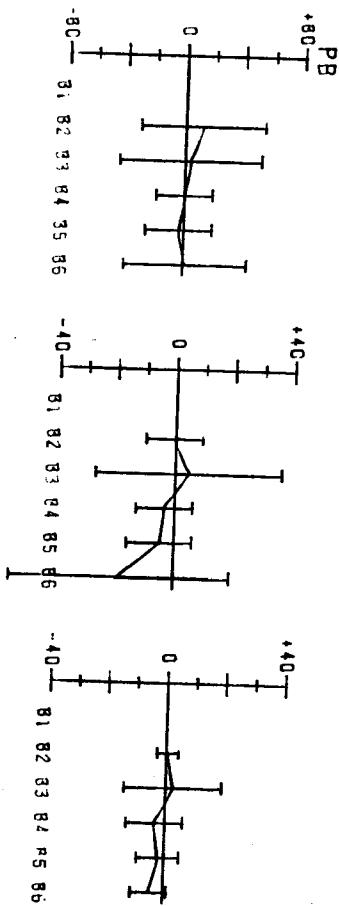
REC : 04 STATE : 44 REPGRG: COI TENNESSEE TENNESSEE DIV. OF AIR POLL. CONTROL

PRECISION

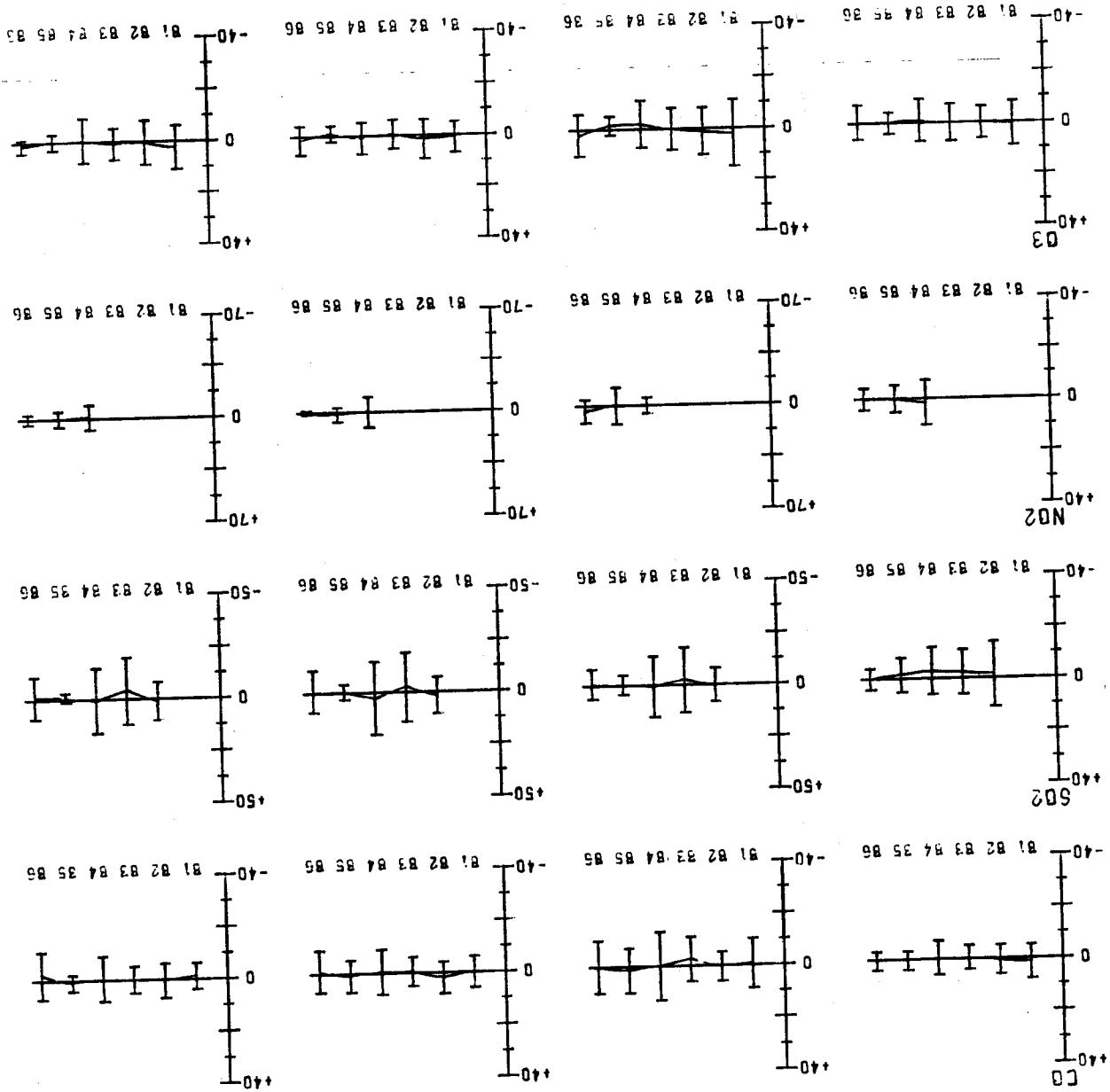
LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



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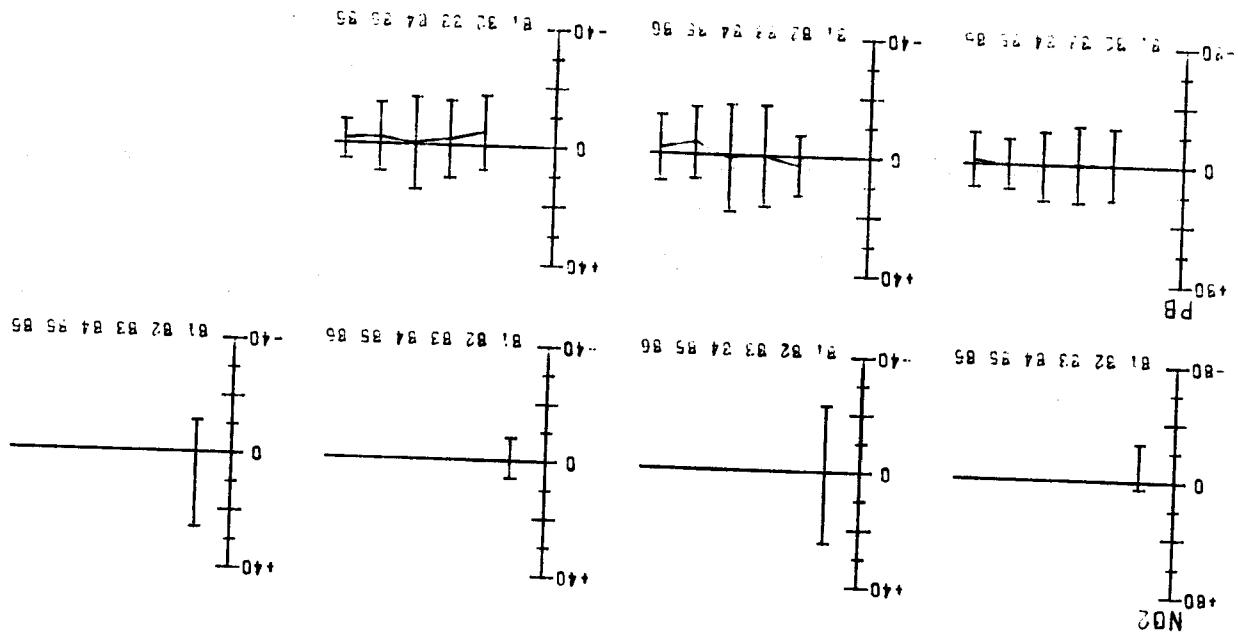


PRECISION LEVEL 1 LEVEL 2 LEVEL 3

REPORT : 04 STATE : 44 TENNESSEE CO. METEOROLOGY DEPARTMENT

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

C-138



PRECISION
LEVEL 1
ACCURACY
LEVEL 2
LEVEL 3
TSP
NO2
PB
LEVEL 4
LEVEL 5
LEVEL 6
PEPREG. 002 TN, MEMPHIS-HFLG CO. HEALTH DEPARTMENT
STRIKE : 44 TENNESSEE
PEG : 04 MUNICIPAL METERS
95% PROGRAMMABILITY LIMITS 81-85

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

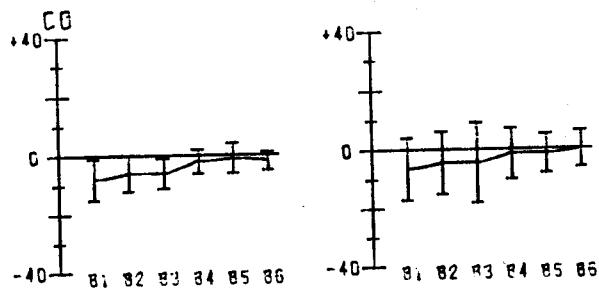
REG : 04

STATE : 44 TENNESSEE

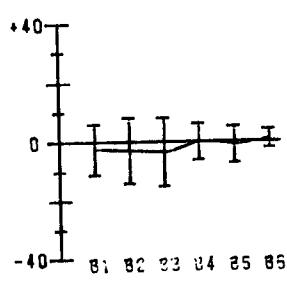
REPORT: 003 METRO HEALTH DEPT NASHVILLE-DAVIDSON CO.

PRECISION

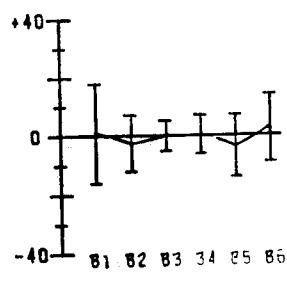
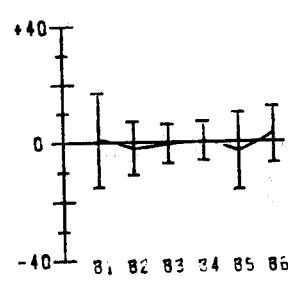
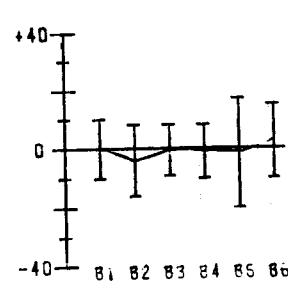
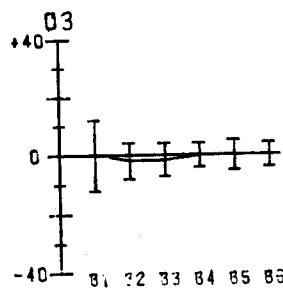
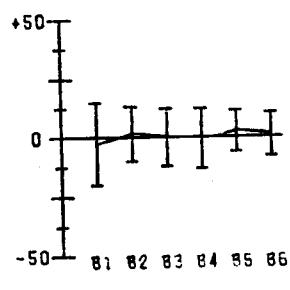
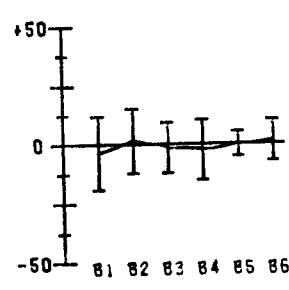
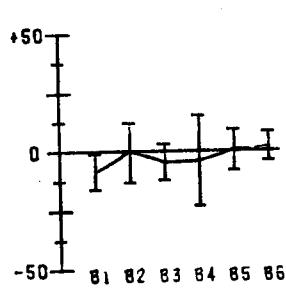
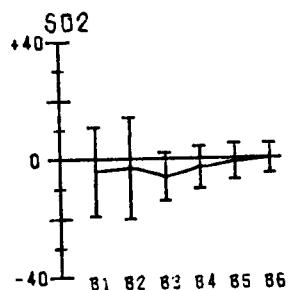
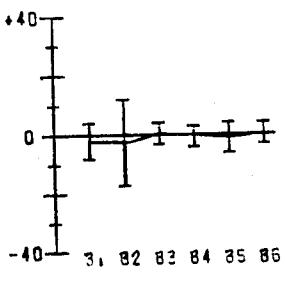
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



STATE : 04
REPORT #: 009 METRO HEALTH DEPT NASHVILLE-DAVIDSON C.J.

95% PROBABILITY LIMITS 81-85
MANUAL METHODS

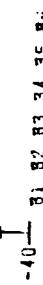
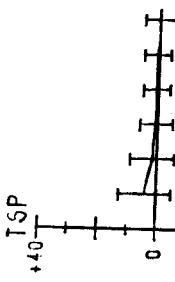
PRECISION

LEVEL 1

ACCURACY

LEVEL 2

LEVEL 3



31 82 83 84 85 86

-30 31 82 83 84 85 86

31 82 83 84 85 86

-30 31 82 83 84 85 86

31 82 83 84 85 86

-30 31 82 83 84 85 86

31 82 83 84 85 86

-30 31 82 83 84 85 86

31 82 83 84 85 86

-30 31 82 83 84 85 86

31 82 83 84 85 86

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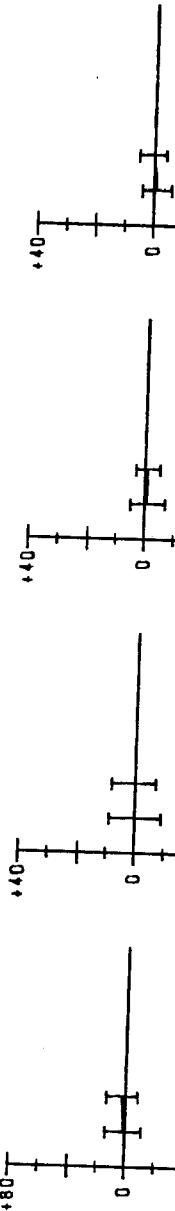
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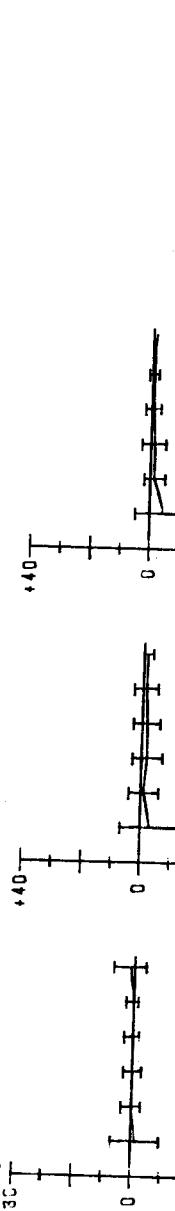
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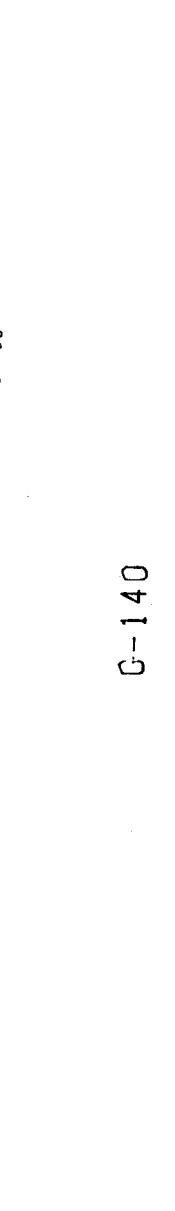
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PE

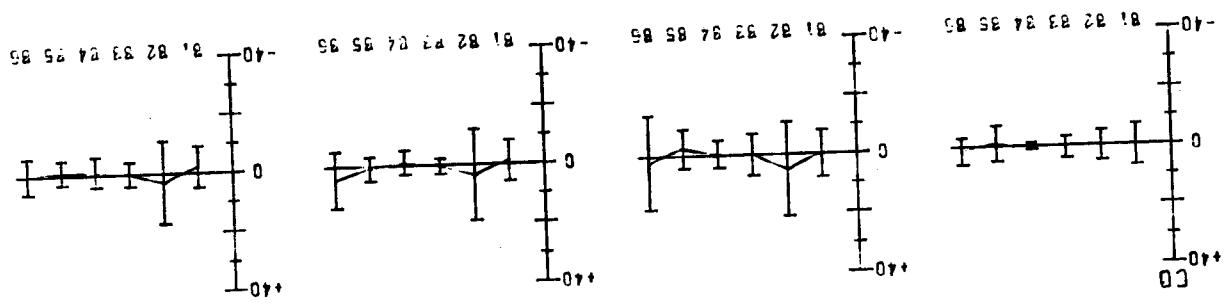
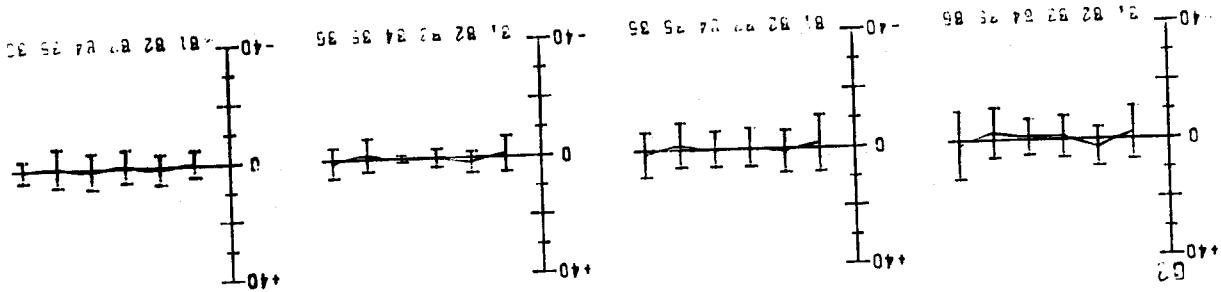


SO₂



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PRECISION LEVEL 1 LEVEL 2 LEVEL 3 LEVEL 4

DEPT : 04 TENNESSEE COUNTY DEPT OF FIRE POLL CONTROL
DEPT : 04 TENNESSEE COUNTY DEPT OF FIRE POLL CONTROL

95% PROBABILITY LIMITS 01-85
CONTINUOUS METHODS

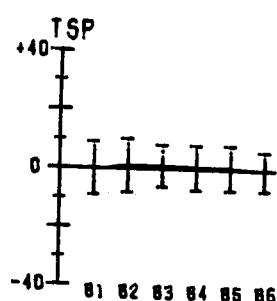
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 04

STATE : 44 TENNESSEE

REPORG: 004 TN, KNOX COUNTY DEPT OF AIR POLL CONTROL

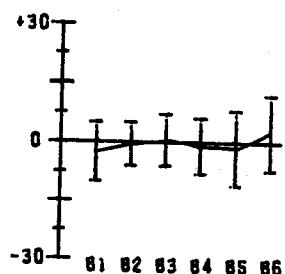
PRECISION



LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



G-142

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

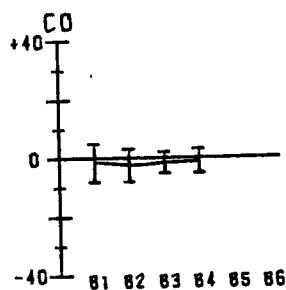
REG : 04

STATE : 44 TENNESSEE

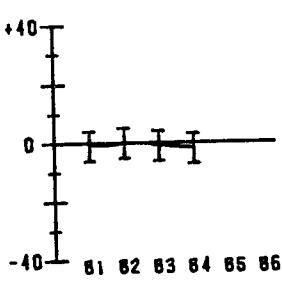
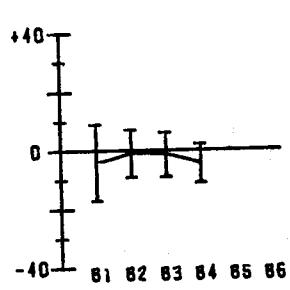
REPORG: 005 TN, CHATTANOOGA-HAMILTON CO AIR POL CONT

PRECISION

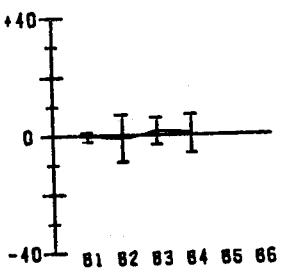
LEVEL 1



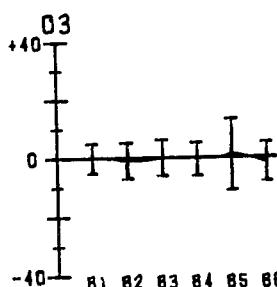
ACCURACY
LEVEL 2



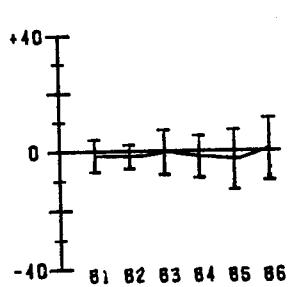
LEVEL 3



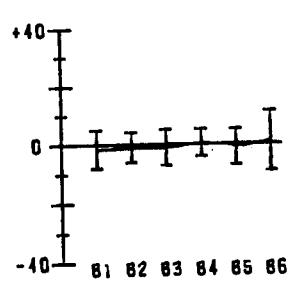
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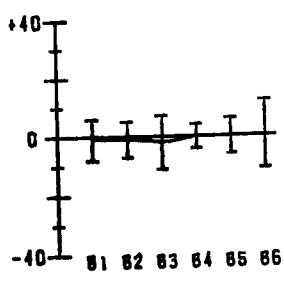
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03



03



G-143

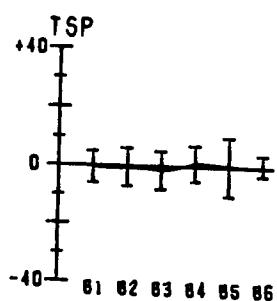
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 04

STATE : 44 TENNESSEE

REPORG: 005 TN, CHATTANOOGA-HAMILTON CO AIR POL CONT

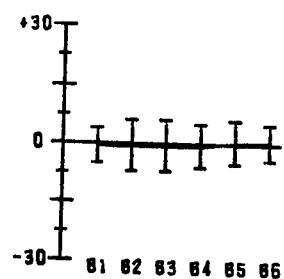
PRECISION



LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



G-144

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

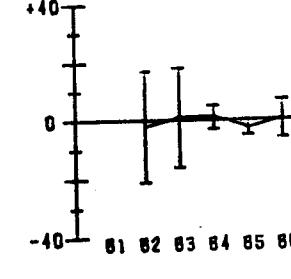
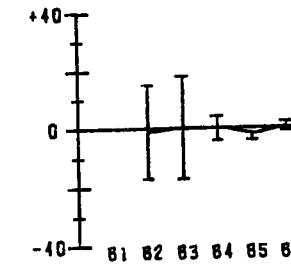
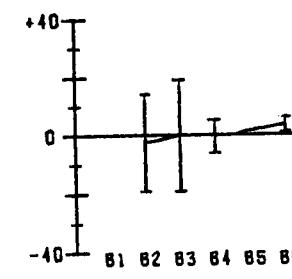
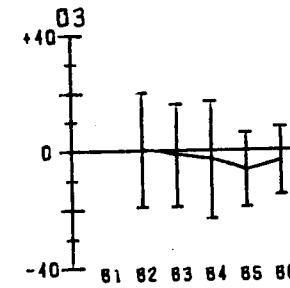
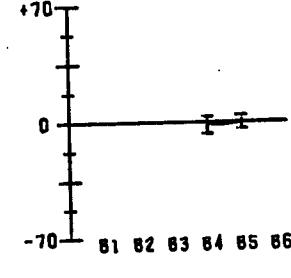
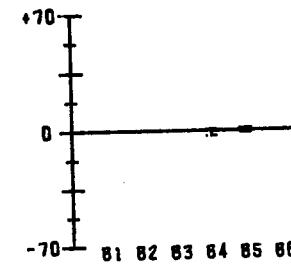
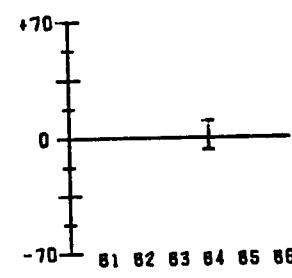
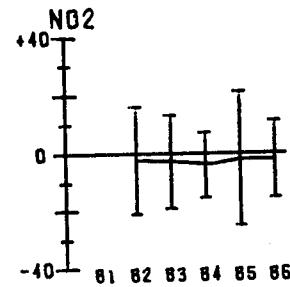
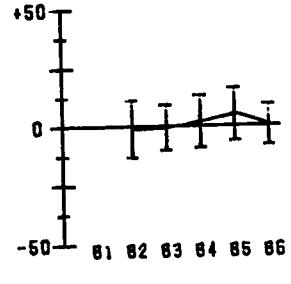
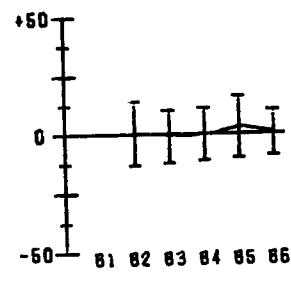
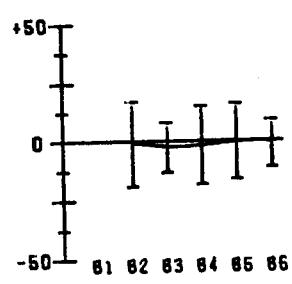
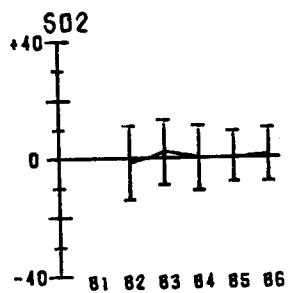
REG : 04
STATE : 44 TENNESSEE
REPORG: 006 TENNESSEE VALLEY AUTHORITY - TENNESSEE

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

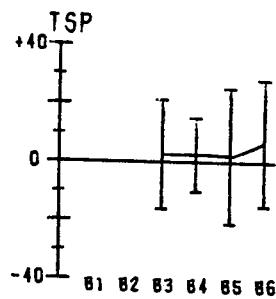
REG : 04

STATE : 44 TENNESSEE

REPORG: 006 TENNESSEE VALLEY AUTHORITY - TENNESSEE

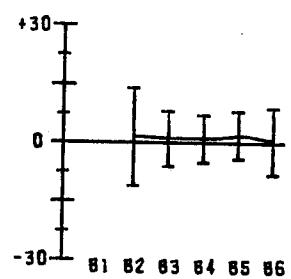
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3

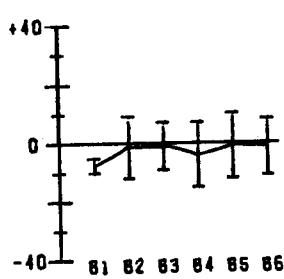
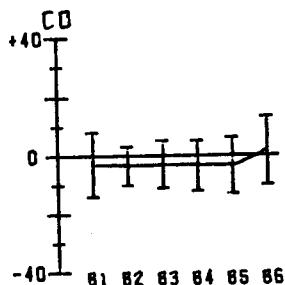


95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

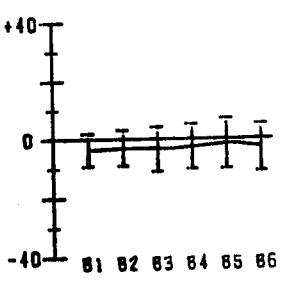
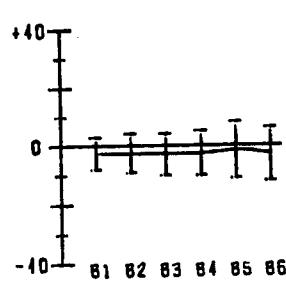
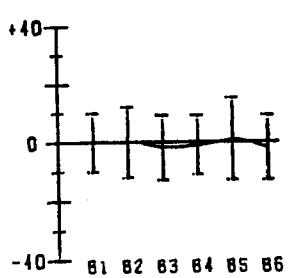
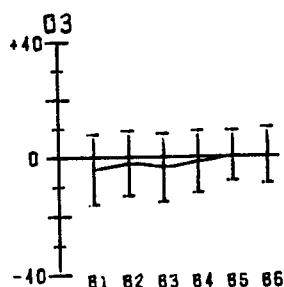
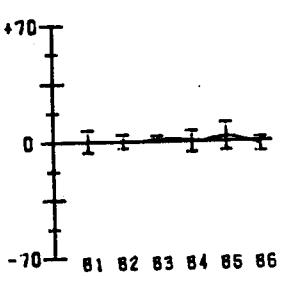
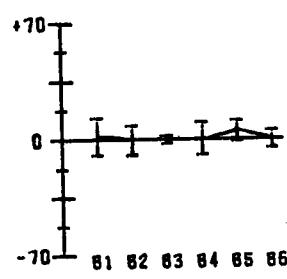
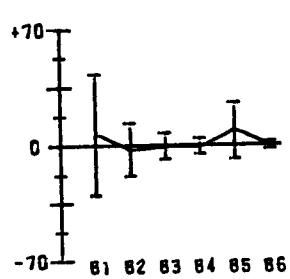
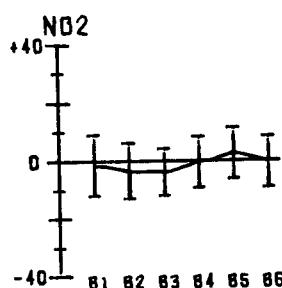
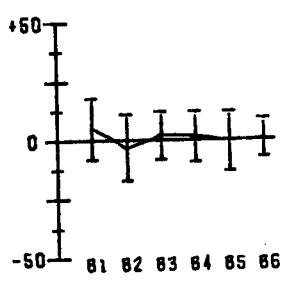
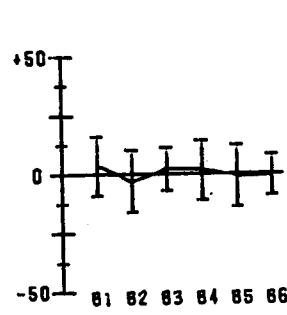
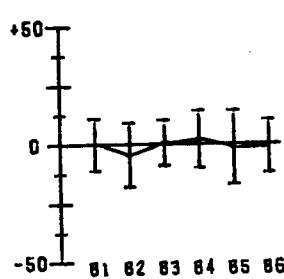
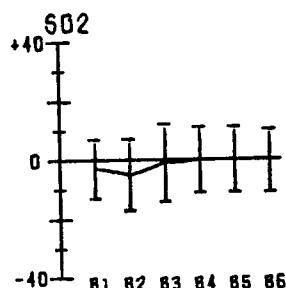
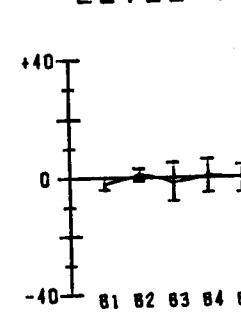
REG : 05
STATE : 14 ILLINOIS
REPORG: 001 DIV. OF AIR POLL. CONT., ILLINOIS EPA

PRECISION

LEVEL 1



ACCURACY
LEVEL 2



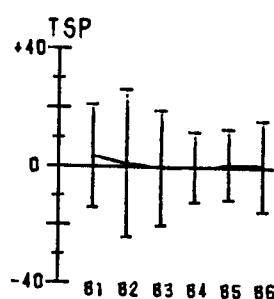
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 05

STATE : 14 ILLINOIS

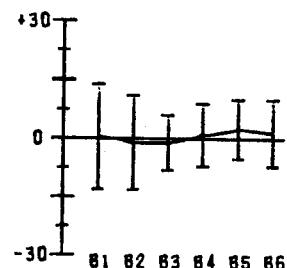
REPORT: 001 DIV. OF AIR POLL. CONT., ILLINOIS EPA

PRECISION

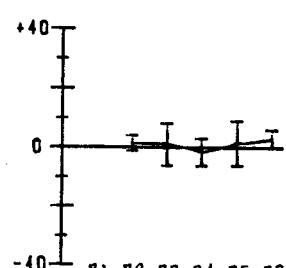
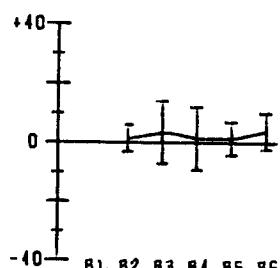
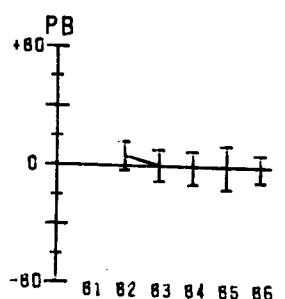


LEVEL 1

ACCURACY
LEVEL 2



LEVEL 3



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95% PROBABILITY LIMITS 81-86
MANUAL METHODS

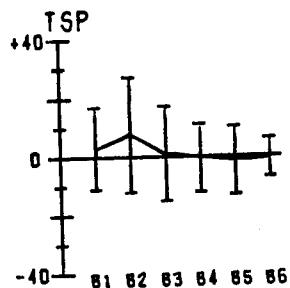
REG : 05

STATE : 14 ILLINOIS

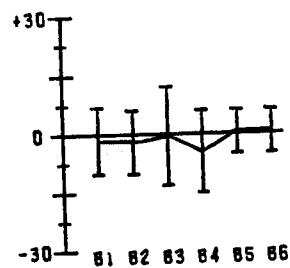
REPORT: 002 CHICAGO DEPT. OF CONSUMER SERVICES

PRECISION

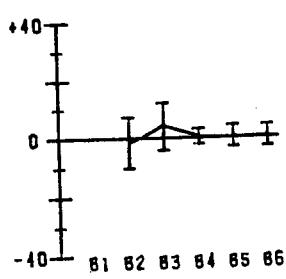
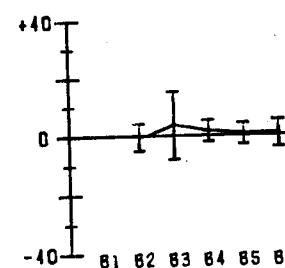
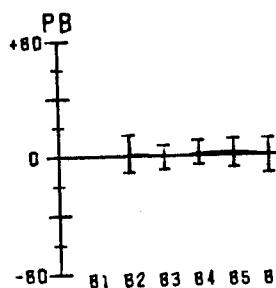
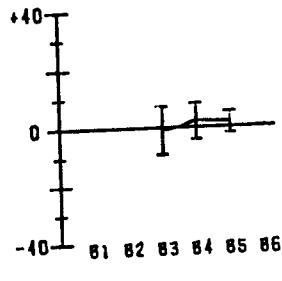
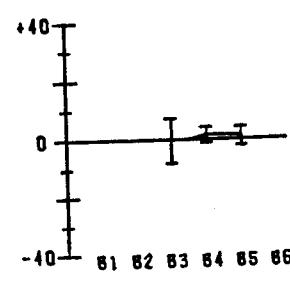
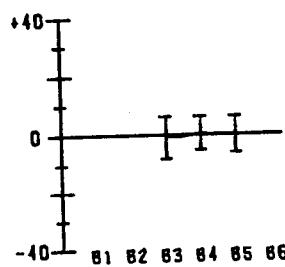
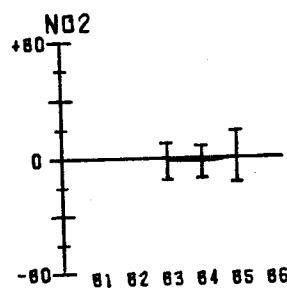
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



G-149

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 05

STATE : 14 ILLINOIS

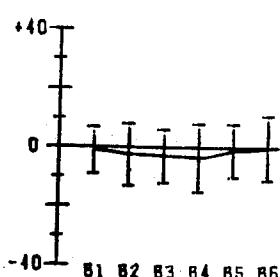
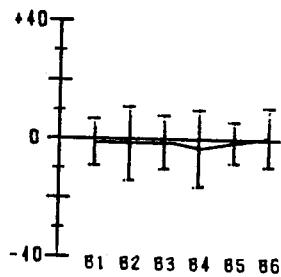
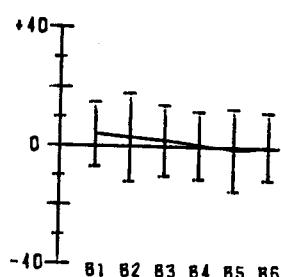
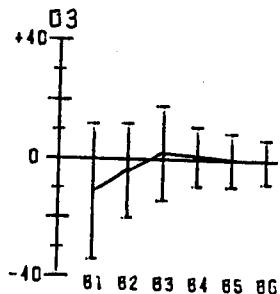
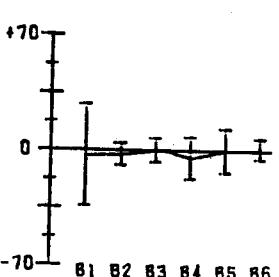
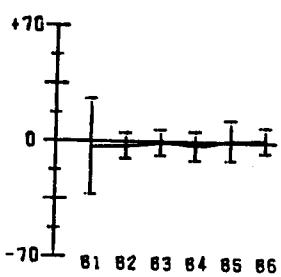
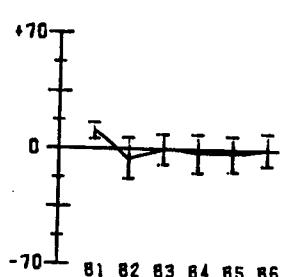
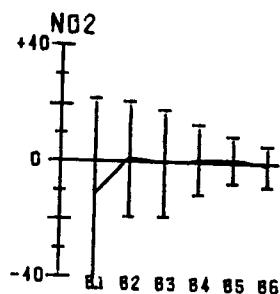
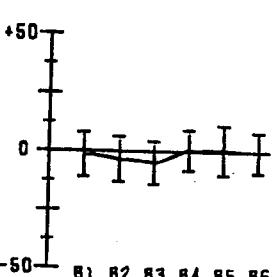
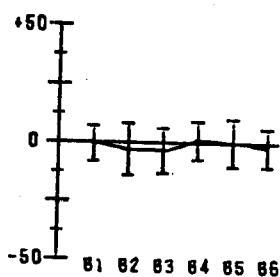
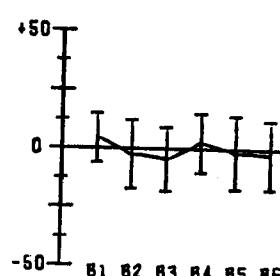
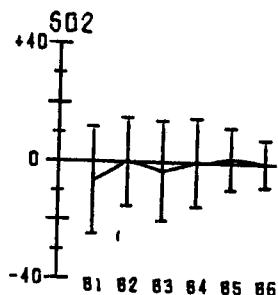
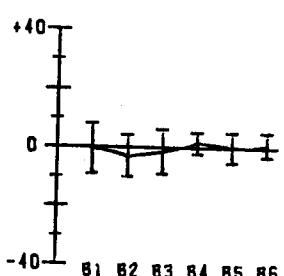
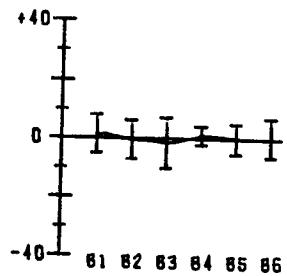
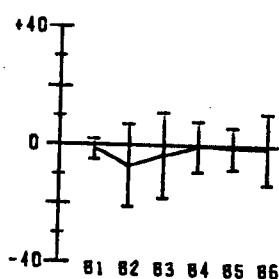
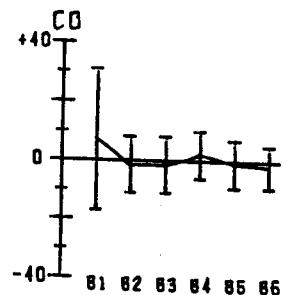
REPORT: 003 COOK COUNTY DEPT. OF ENVIRONMENTAL CONT

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

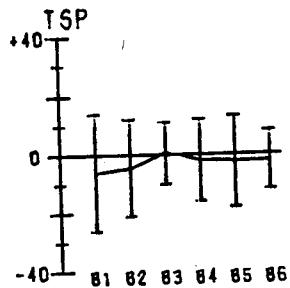


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 05
STATE : 14 ILLINOIS
REPORT: 003 COOK COUNTY DEPT. OF ENVIRONMENTAL CONT

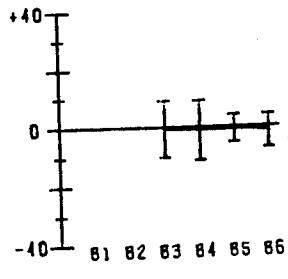
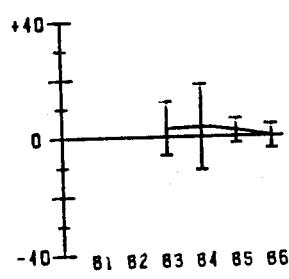
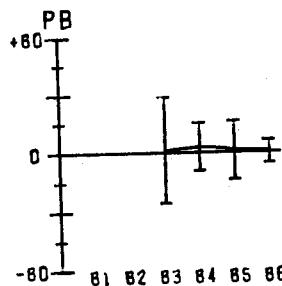
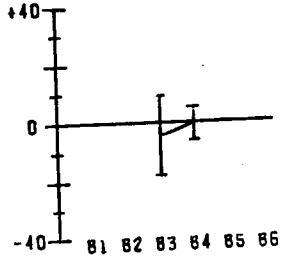
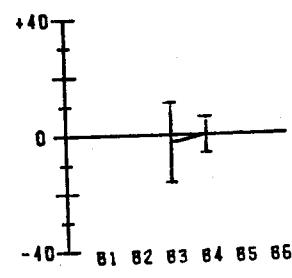
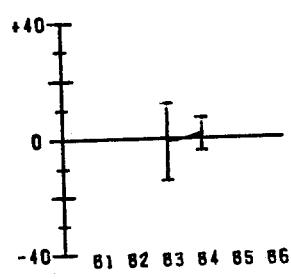
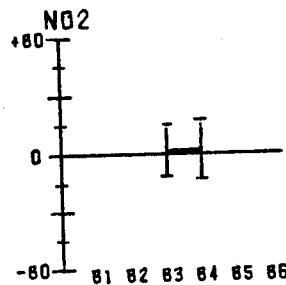
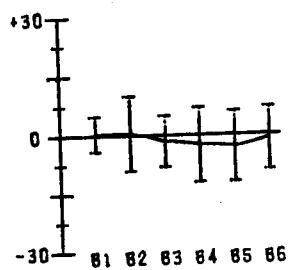
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 05

STATE : 15 INDIANA

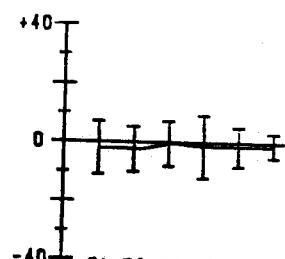
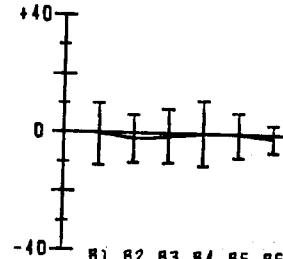
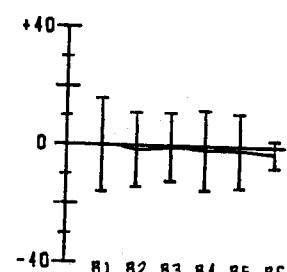
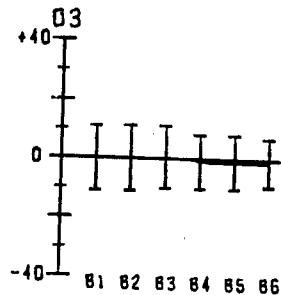
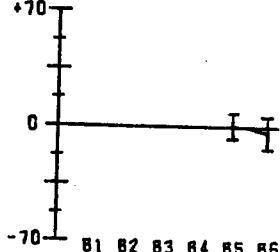
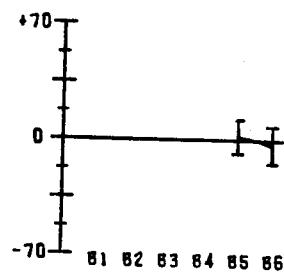
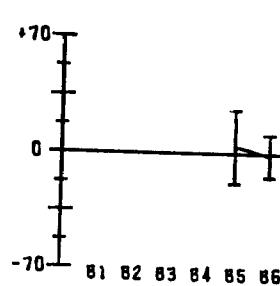
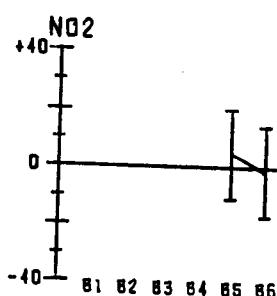
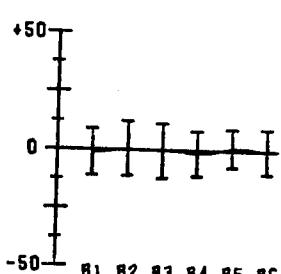
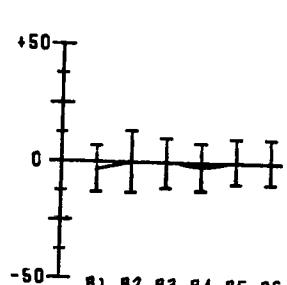
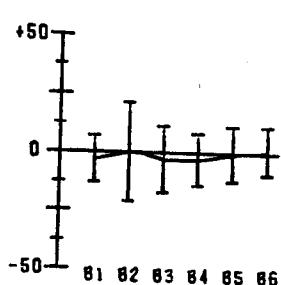
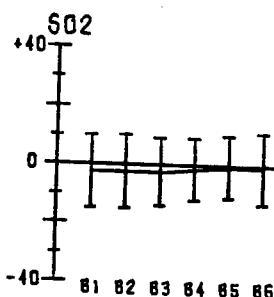
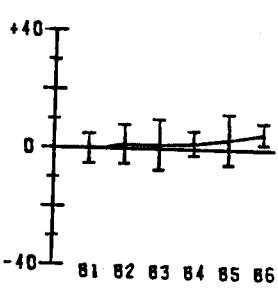
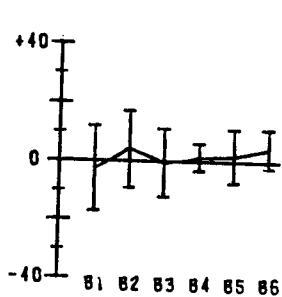
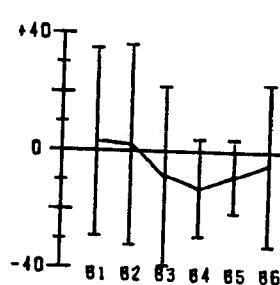
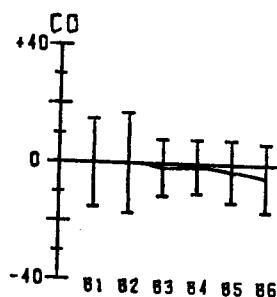
REPORG: 001 AIR POLL. CONT. DIV. INDIANA STATE

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

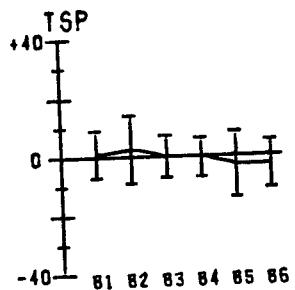


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 05
STATE : 15 INDIANA
REPORG: 001 AIR POLL. CONT. DIV. INDIANA STATE

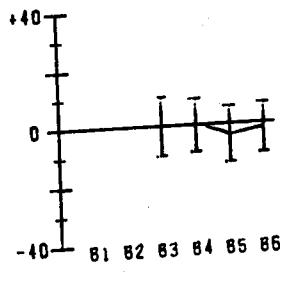
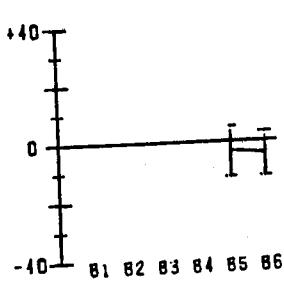
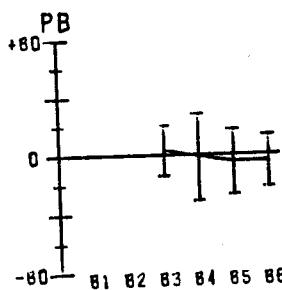
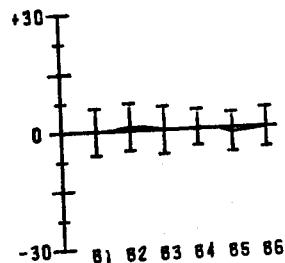
PRECISION

LEVEL 1



ACCURACY LEVEL 2

LEVEL 3



G-153

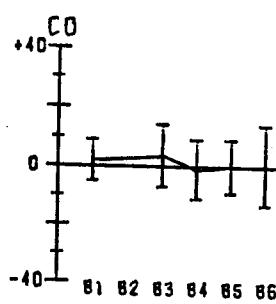
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 05

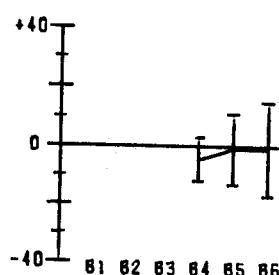
STATE : 15 INDIANA

REPORT: 002 DIV. OF AIR POLL. CONT., EVANSVILLE

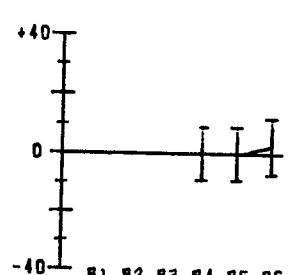
PRECISION



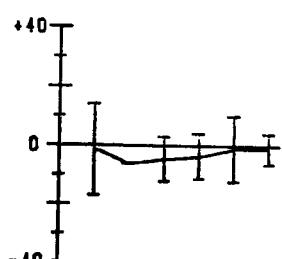
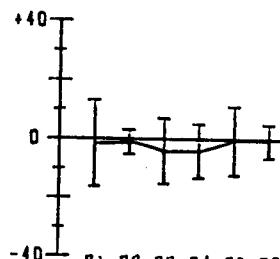
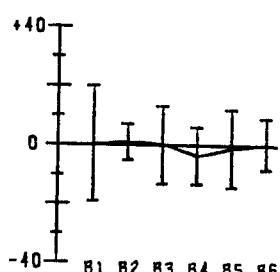
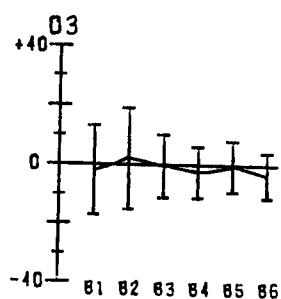
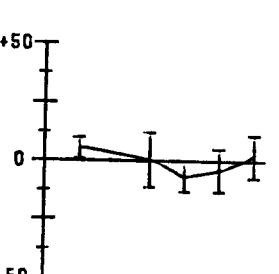
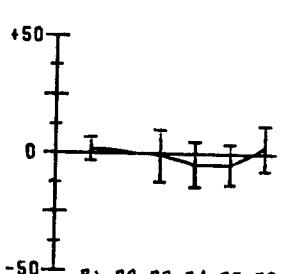
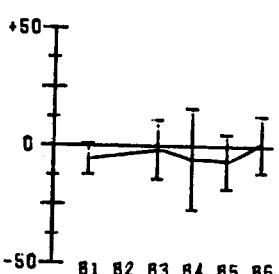
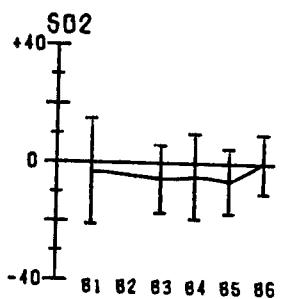
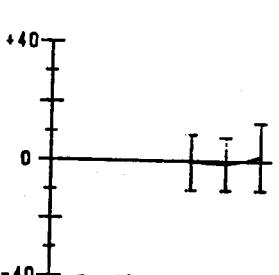
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

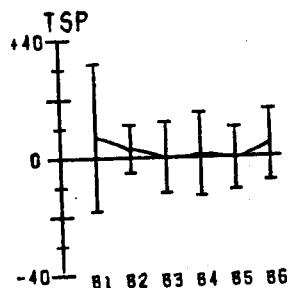
REG : 05

STATE : 15 INDIANA

REPORG: 002 DIV. OF AIR POLL. CONT., EVANSCVILLE

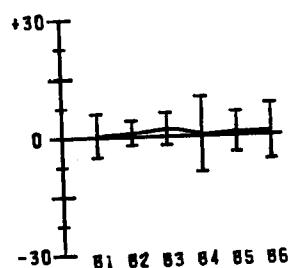
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



G-155

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

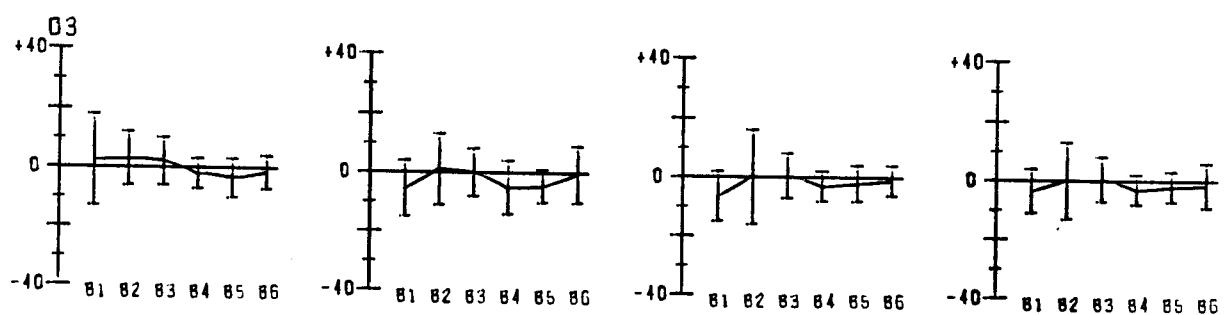
REG : 05
STATE : 15 INDIANA
REPORG: 003 ST. JOSEPH COUNTY

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



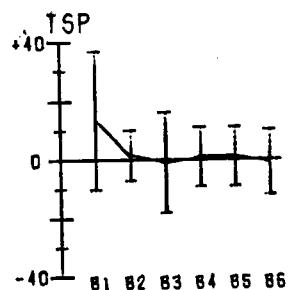
C-156

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 05
STATE : 15 INDIANA
REPORT: 003 ST. JOSEPH COUNTY

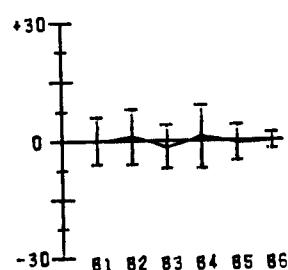
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



G-157

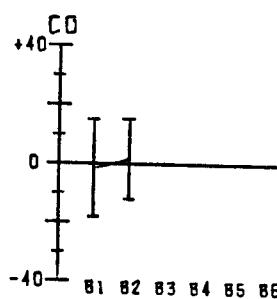
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 05

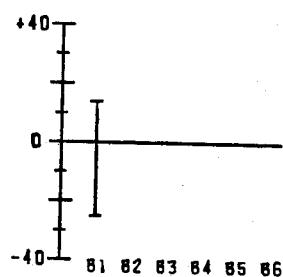
STATE : 15 INDIANA

REPORG: 004 DIV. OF AIR POLLUTION CONTROL, GARY

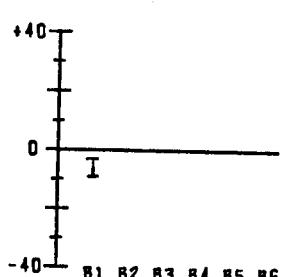
PRECISION



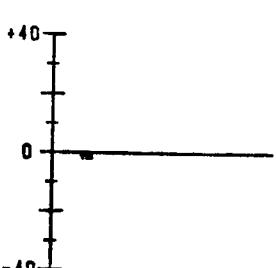
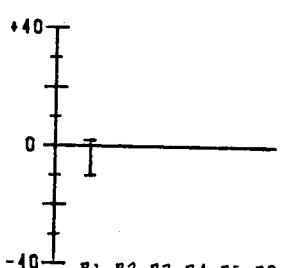
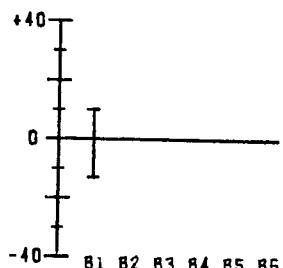
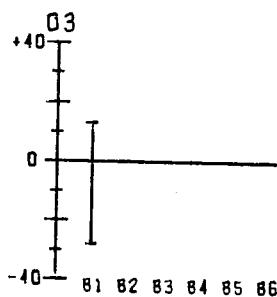
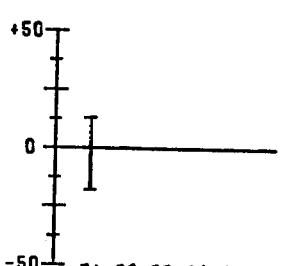
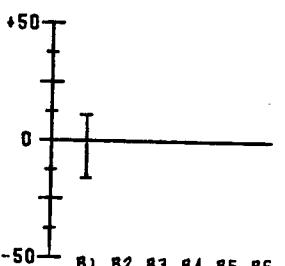
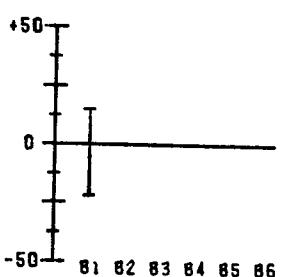
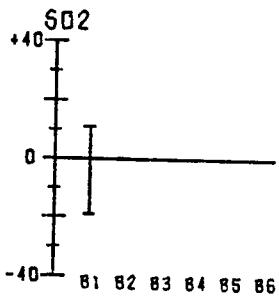
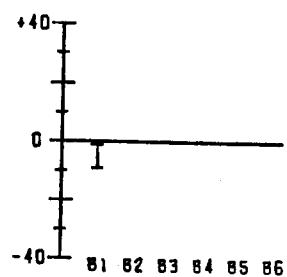
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

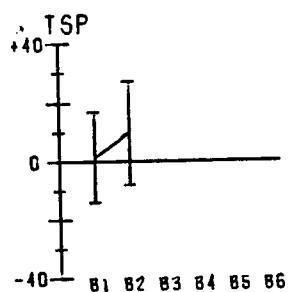
REG : 05

STATE : 15 INDIANA

REPORC: 004 DIV. OF AIR POLLUTION CONTROL, GARY

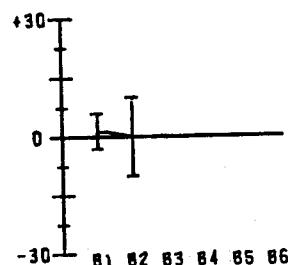
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



G-159

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 05

STATE : 15 INDIANA

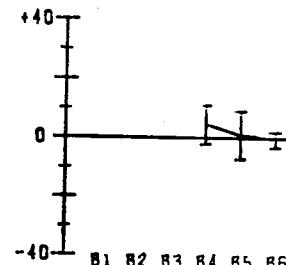
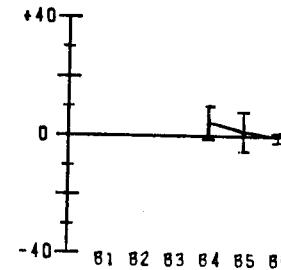
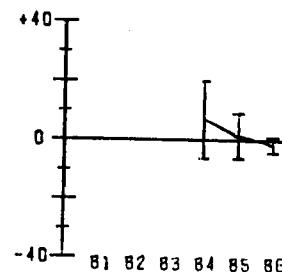
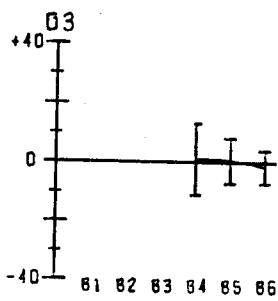
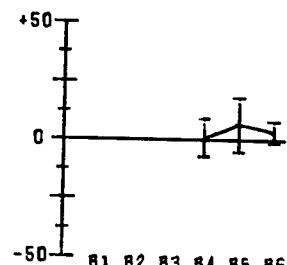
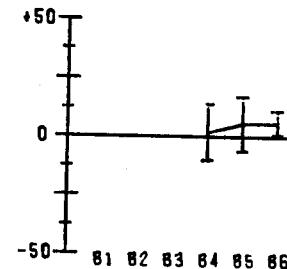
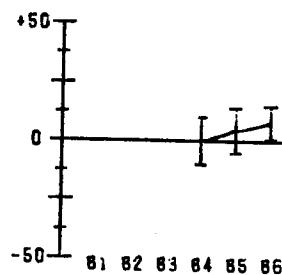
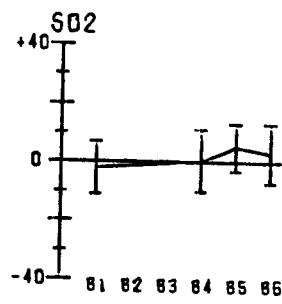
REPORT: 005 AIR POLL. CONT. DIV., VIGO COUNTY

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



G-160

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

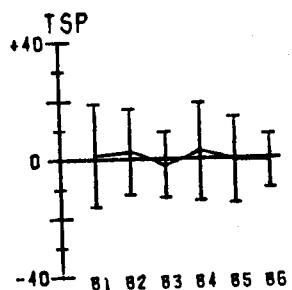
REG : 05

STATE : 15 INDIANA

REPORT: 005 AIR POLL. CONT. DIV., VIGO COUNTY

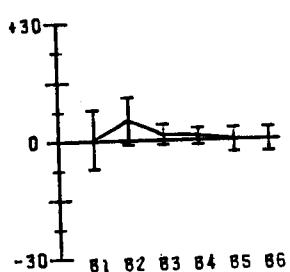
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



C-161

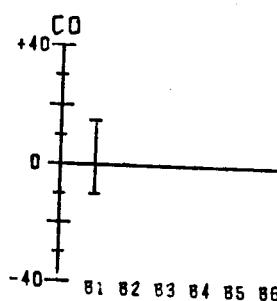
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 05

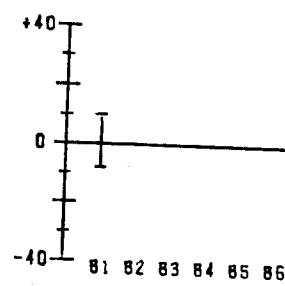
STATE : 15 INDIANA

REPORC: 006 DIV. OF AIR QUALITY, EAST CHICAGO

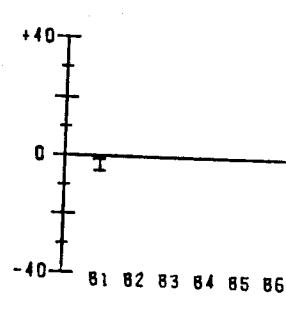
PRECISION



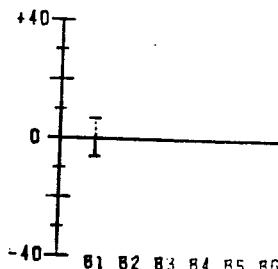
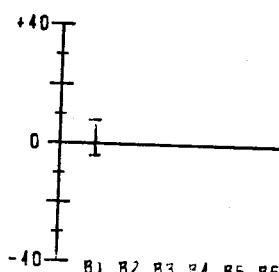
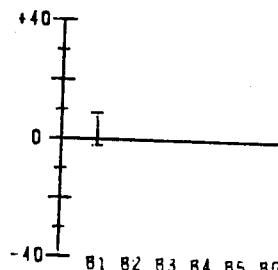
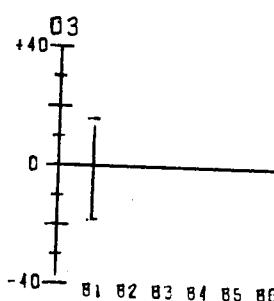
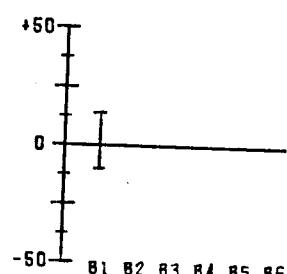
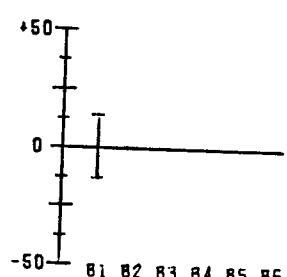
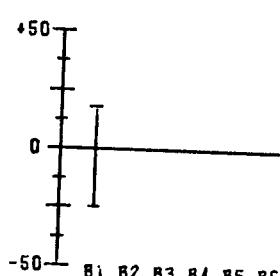
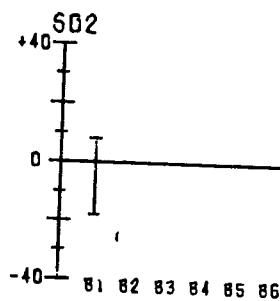
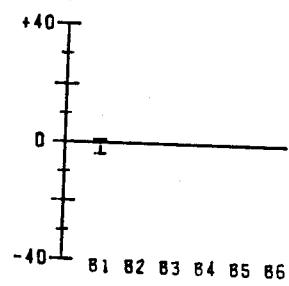
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



C-162

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

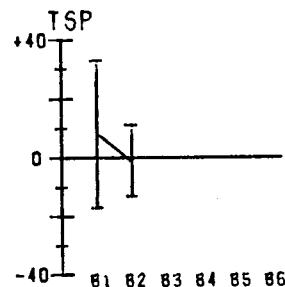
REG : 05

STATE : 15 INDIANA

REPORT #: 006 DIV. OF AIR QUALITY, EAST CHICAGO

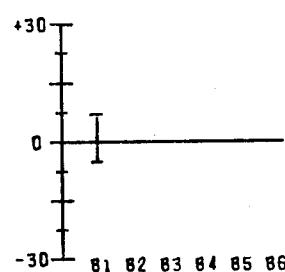
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-85
CONTINUOUS METHODS

REG : 05

STATE : 15 INDIANA

REPORG: 007 AIR POLL. CONT. DIV., HAMMOND

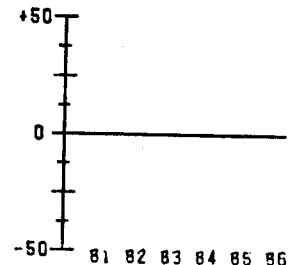
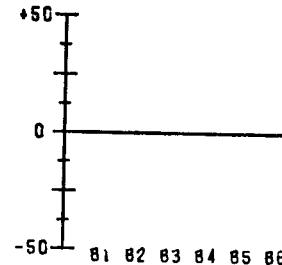
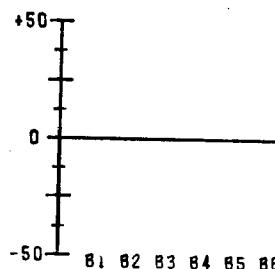
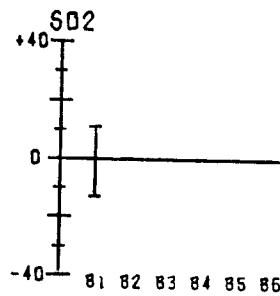
PRECISION

LEVEL 1

ACCURACY

LEVEL 2

LEVEL 3

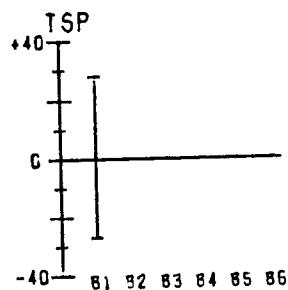


95% PROBABILITY LIMITS 81-85
MANUAL METHODS

REG : 05
STATE : 15 INDIANA
REPORT: 007 AIR POLL. CONT. DIV., HAMMOND

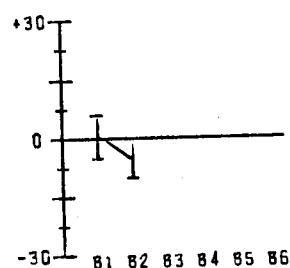
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



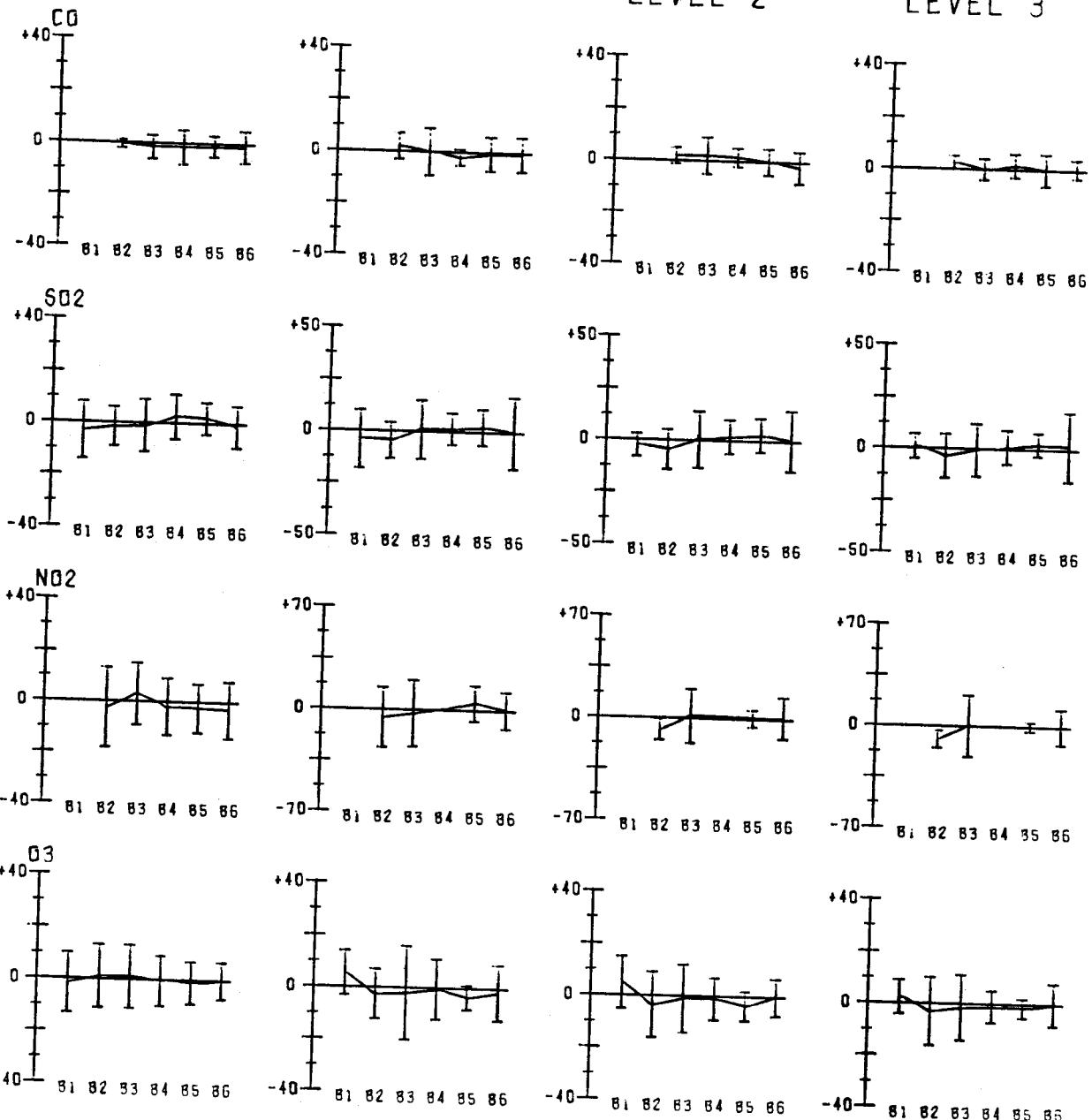
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS
REG : 05
STATE : 15 INDIANA
REPORG: 008 INDIANAPOLIS APC DIVISION

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

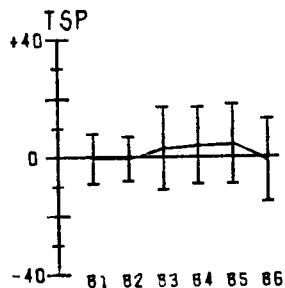


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

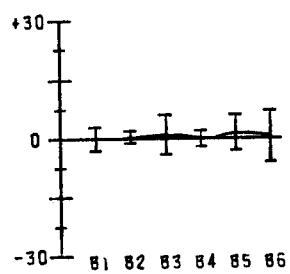
REG : 05
STATE : 15 INDIANA
REPORG: 008 INDIANAPOLIS APC DIVISION

PRECISION

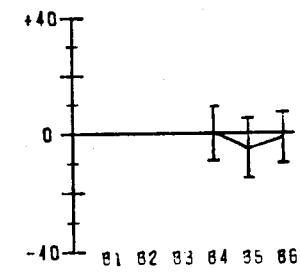
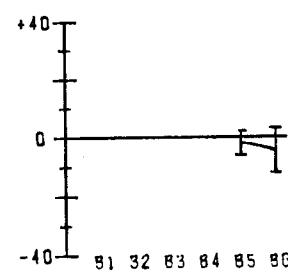
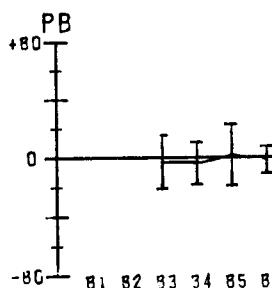
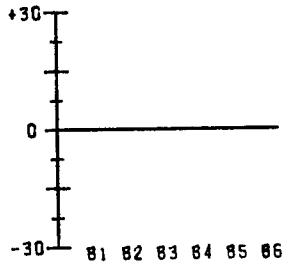
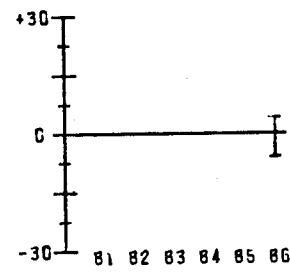
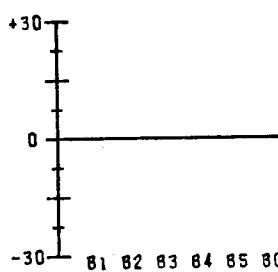
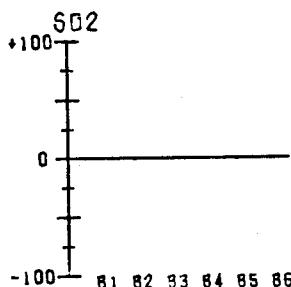
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

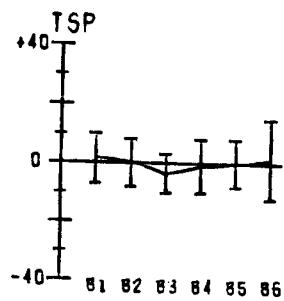


95% PROBABILITY LIMITS P1-96
MANUAL METHODS

REG : 05
STATE : 15 INDIANA
REPCRG: 009 ANDERSON LOCAL AGENCY

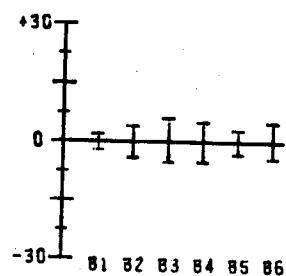
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



C-168

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

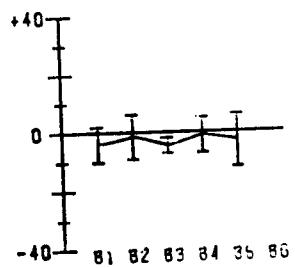
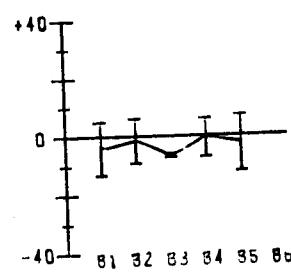
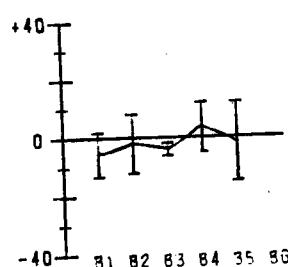
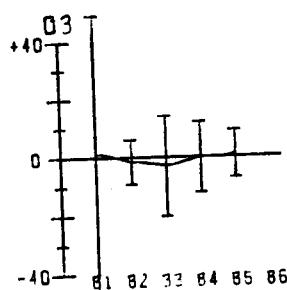
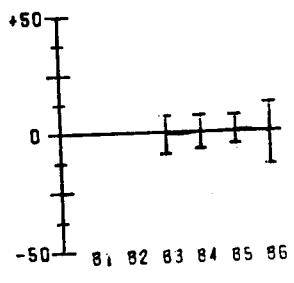
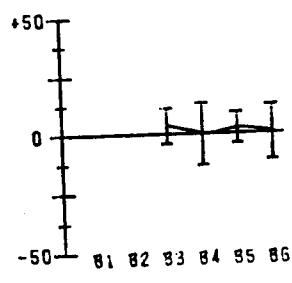
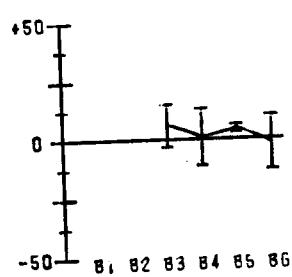
REG : 05
STATE : 15 INDIANA
REPORT: 010 PORTER COUNTY HEALTH DEPARTMENT

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



G-169

95% PROBABILITY LIMITS 31-RS
MANUAL METHODS

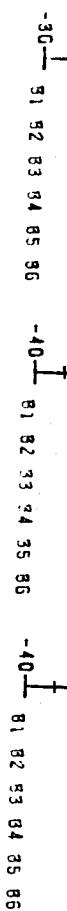
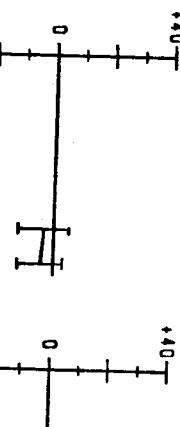
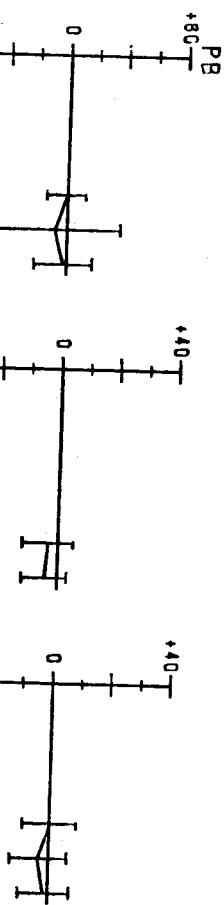
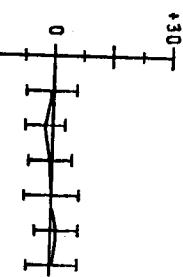
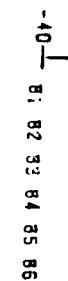
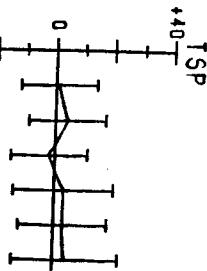
REG : 05
STATE : IN
REPORT: GIO
INDIANA
PORTER COUNTY HEALTH DEPARTMENT

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

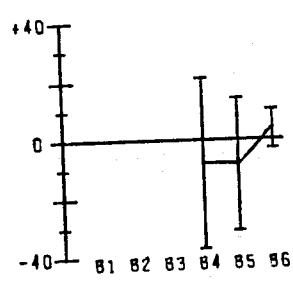
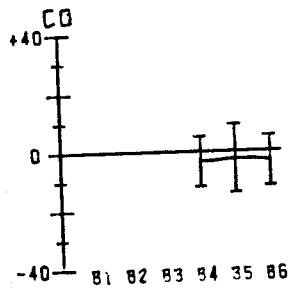
REG : 05

STATE : 15 INDIANA

REPORT #: 100 LAKE COUNTY CONSOLIDATED A Q MONIT WRK GRP

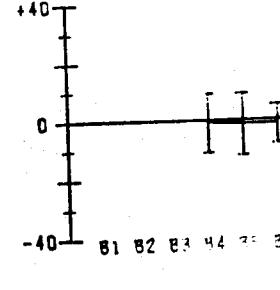
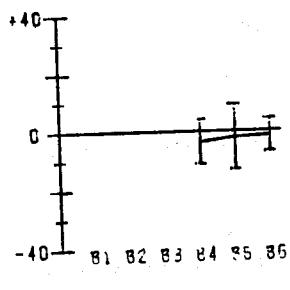
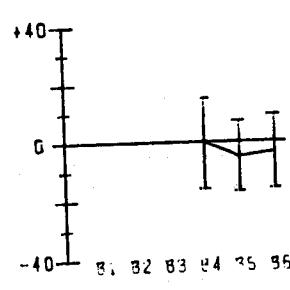
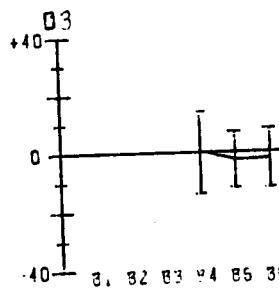
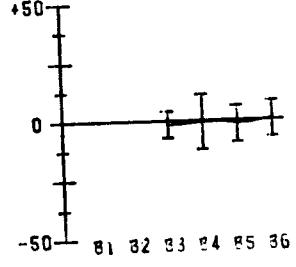
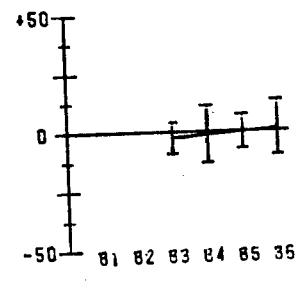
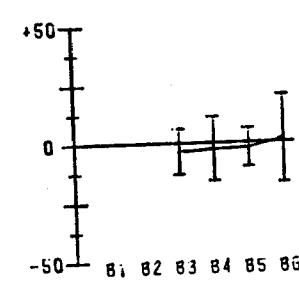
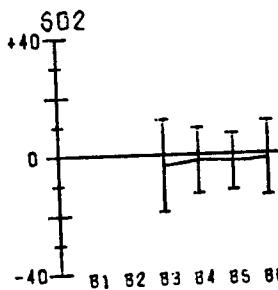
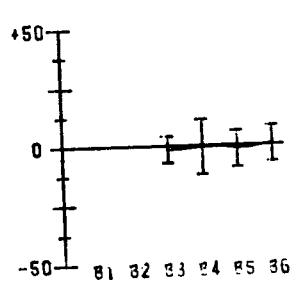
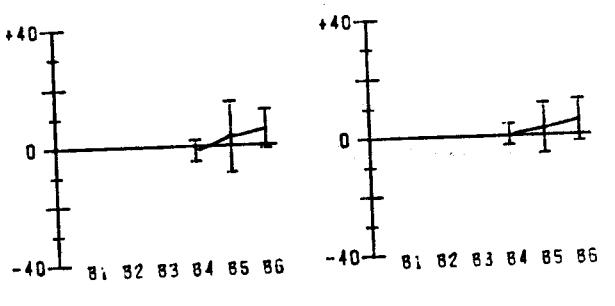
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



G-171

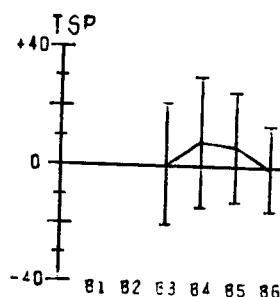
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 05

STATE : 15 INDIANA

REPCRG: 100 LAKE COUNTY CONSOLDTD A Q MONIT WRK GRP

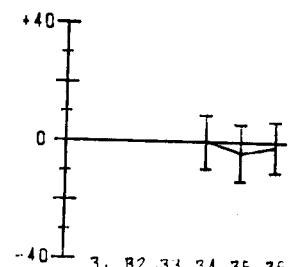
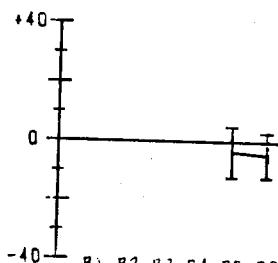
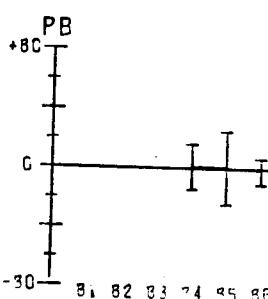
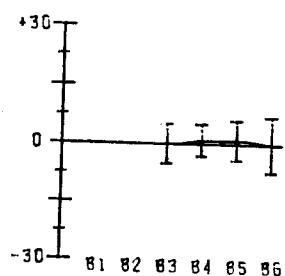
PRECISION



LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-85
CONTINUOUS METHODS

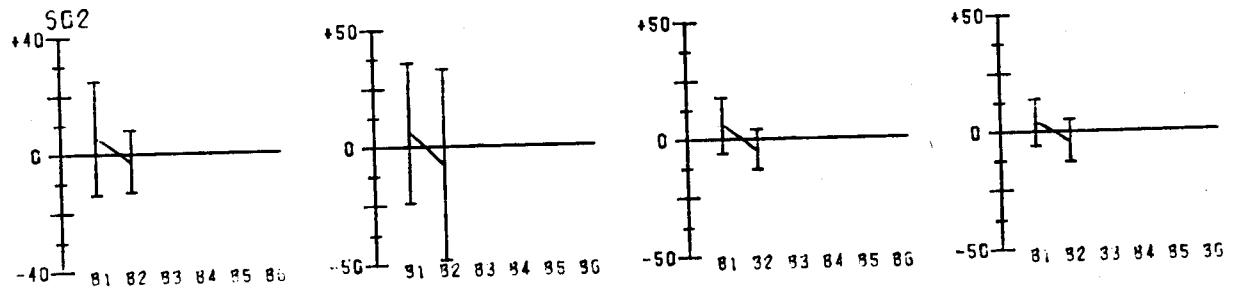
REG : 05
STATE : 15
REFCPG: 101 INDIANA
 PUBLIC SERVICE OF INDIANA

PPECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



G-173

95% PROBABILITY LIMITS 81-85
MANUAL METHODS

REG : 05

STATE : 15

REPCRS: 101

INDIANA

PUBLIC SERVICE OF INDIANA

PRECISION

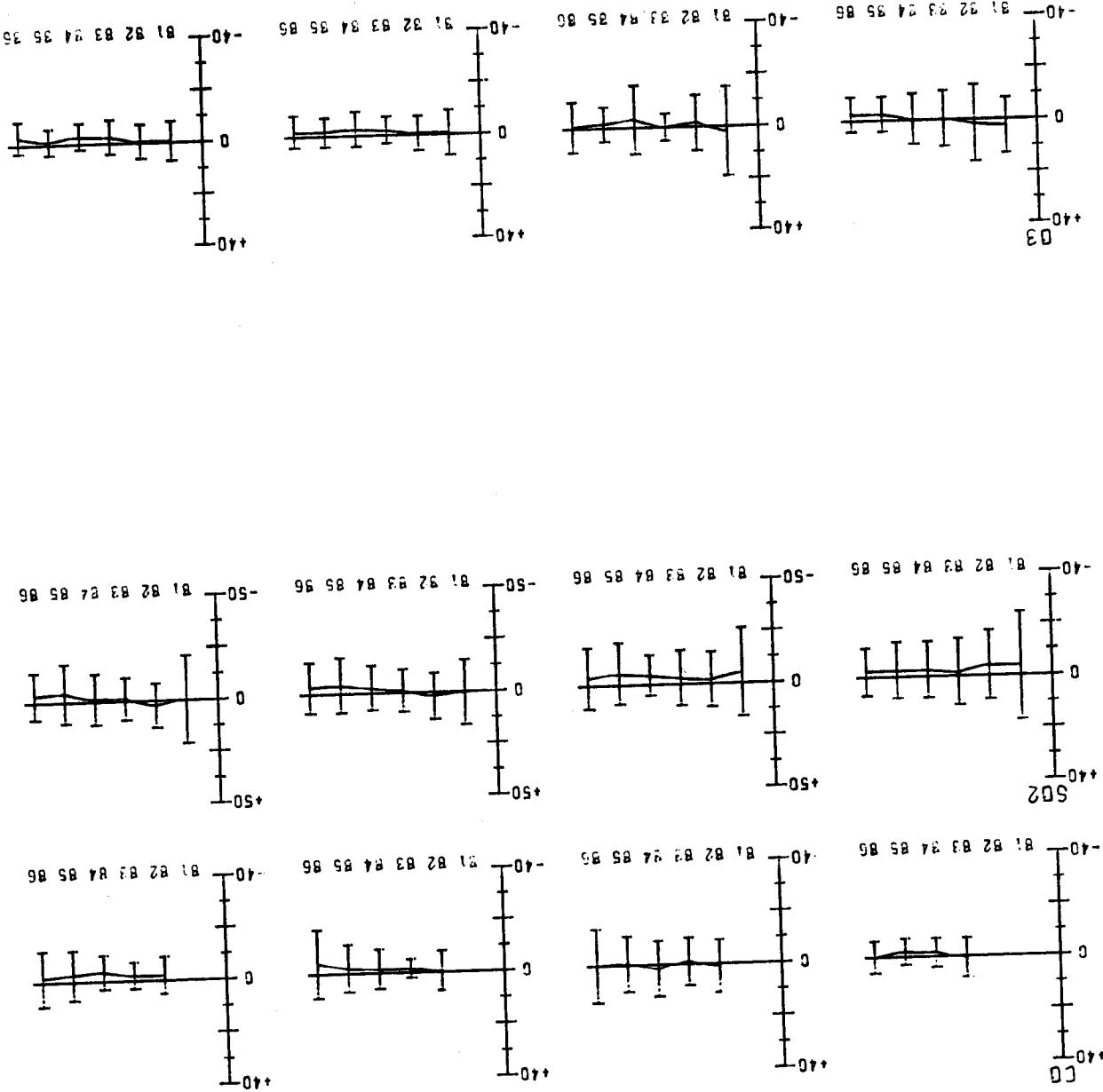
LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

C-174

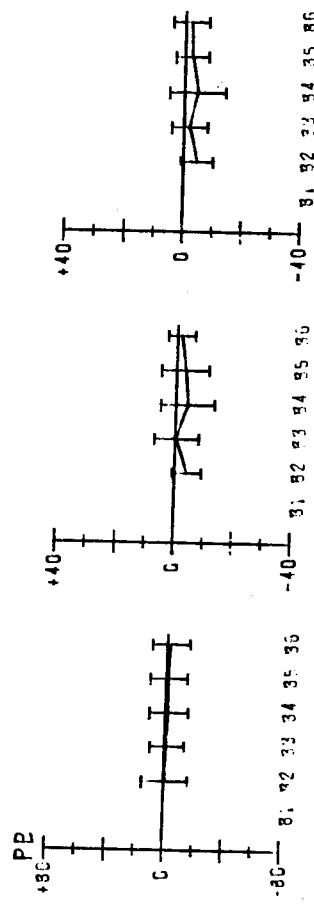
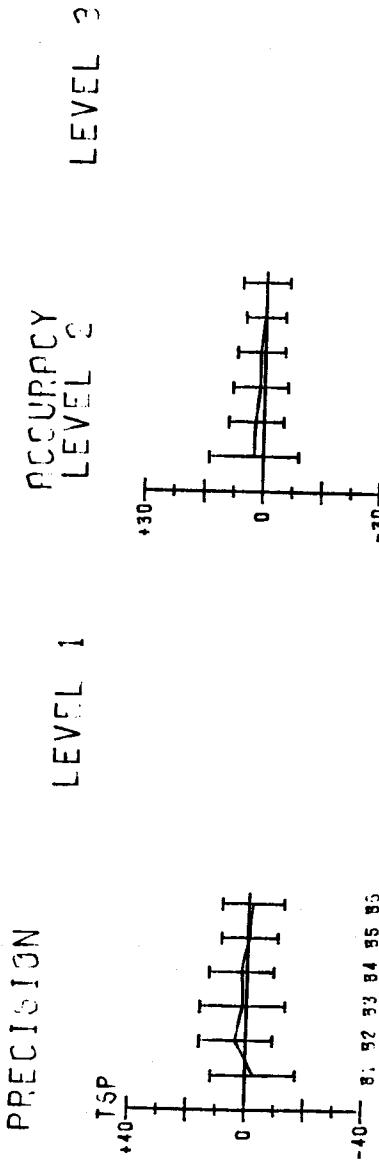
G-175



PRECISION : 0.6
PREC : 0.6
STPTE : 23 MICHIGAN
PFPGRG: 001 PIR OUTL. DIV., MI. GAPT. GE NAT. RES.

95% PRECISIBILITY LIMITS 91-85
CONTINUOUS METHODS

REG : 65
STFTF : 22
REPORT #: 001
95% PROCEDILTY LIMITS PI-36
MANUPL METHODS
MICHIGAN
NIR QPL. DIV., MI. DEPT. SF NAT. REG.



G-176

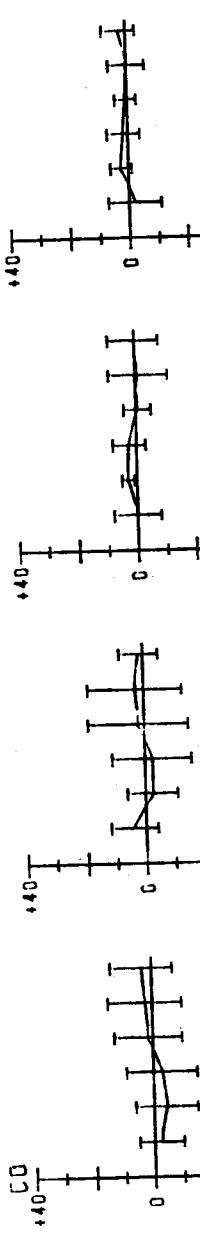
95% PROBABILITY LIMITS 81-85
CONTINUOUS MFTGDS

DEG : 05
STATE : MI
CITY : KIRKLAND
PROJ : 302

MICHIGAN MFTGDS CO., DIV., KIRKLAND COUNTY

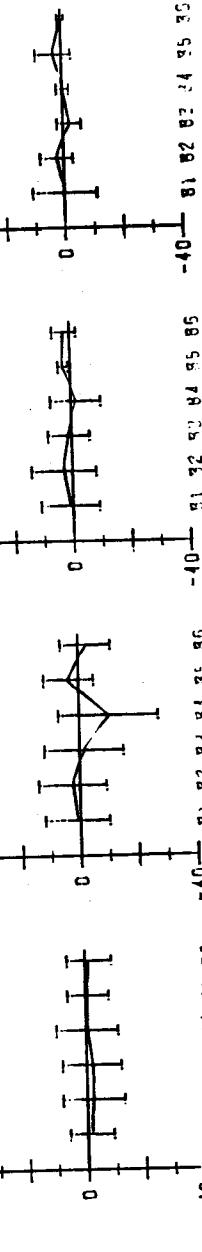
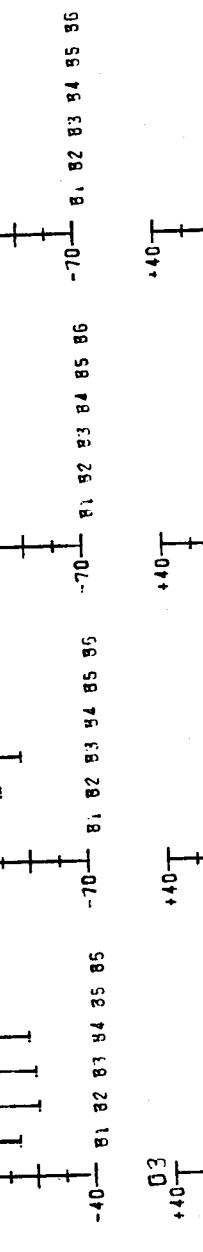
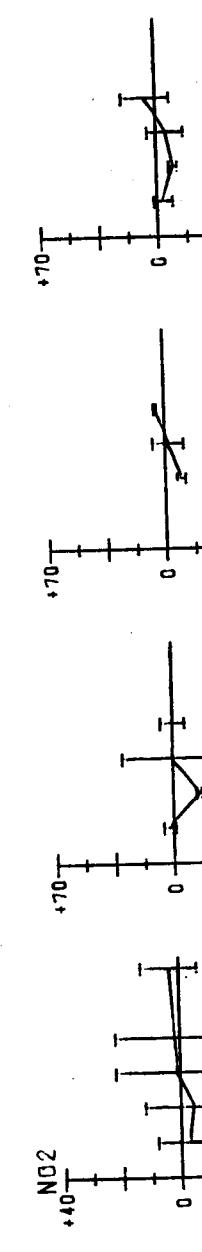
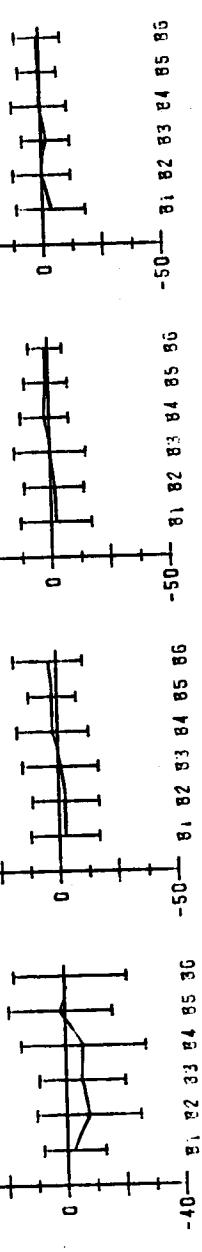
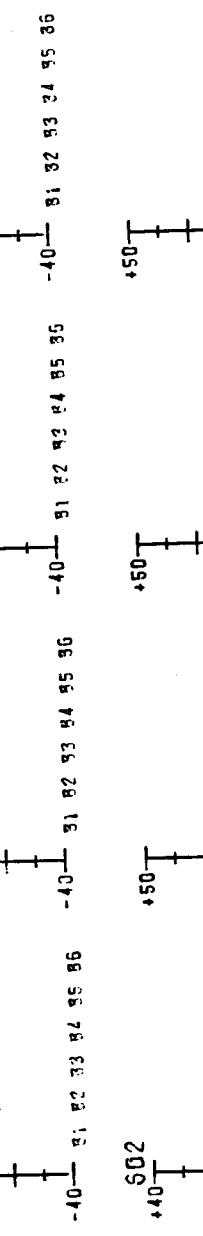
PRECISION

LEVEL 1



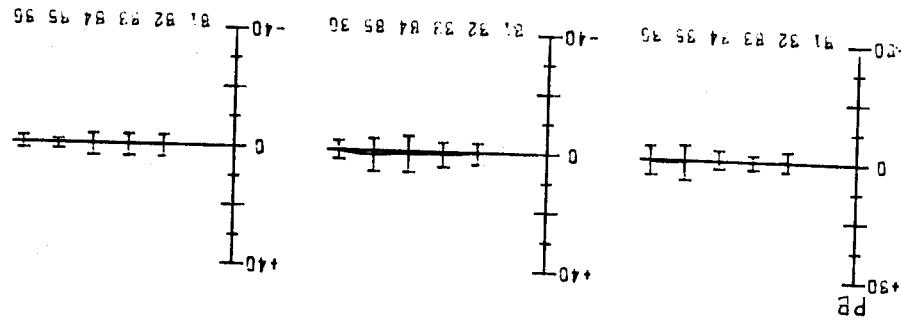
ACCURACY

LEVEL 2



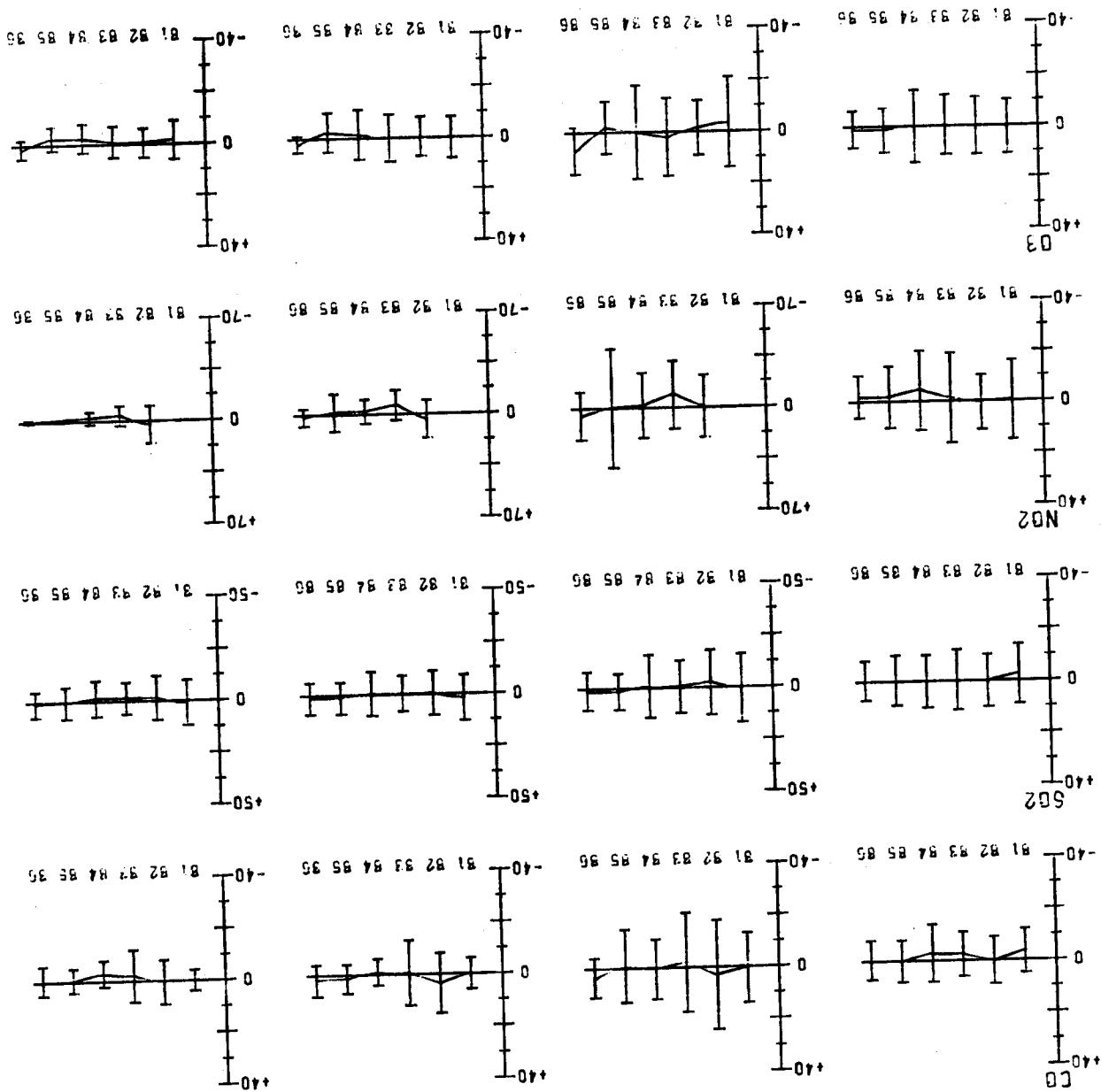
C-177

G-178



95% PROBABILITY LIMITS 81-85
MNUML METHODS : 05
STRT : 23 MICHIGAN
REFGREG: 002 AIR POLL. CNT. DIV., WYNE COUNTY
PRECISION
ACCURACY
LEVEL C
LEVEL 1
LEVEL C
LEVEL C
-30 -20 -10 0 +10 +20 +30
-40 -30 -20 -10 0 +10 +20 +30
-40 -30 -20 -10 0 +10 +20 +30
+30 +20 +10 0 +10 +20 +30
PP

C-179



PRECISION LEVEL 1 LEVEL 2 LEVEL 3 LEVEL 4

REF : 05 TITR : 24 MINN500TR PREC : 001

95% PRECISELLITY LIMITS 81-85 CONTINUOUS METHODS

95% PROBABILITY LIMITS 81-85
MANUAL METHOD

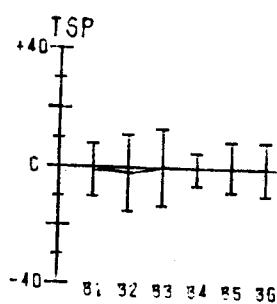
REG : 05

STATE : 24 MINNESOTA

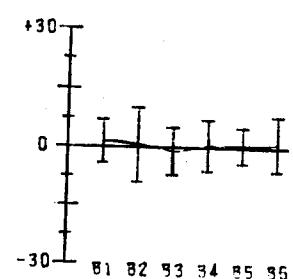
REPORG: 001 MINNESOTA POLL. CONT. AGENCY, AIR M0

PRECISION

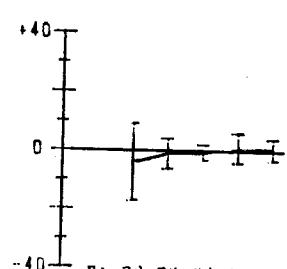
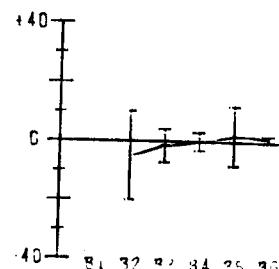
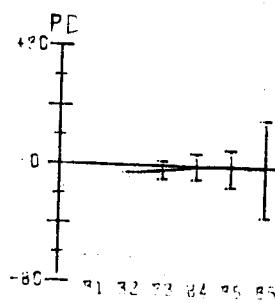
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



C-180

35% PROBABILITY LIMITS $\rho_1 = 25$
CONTINUOUS METHODS

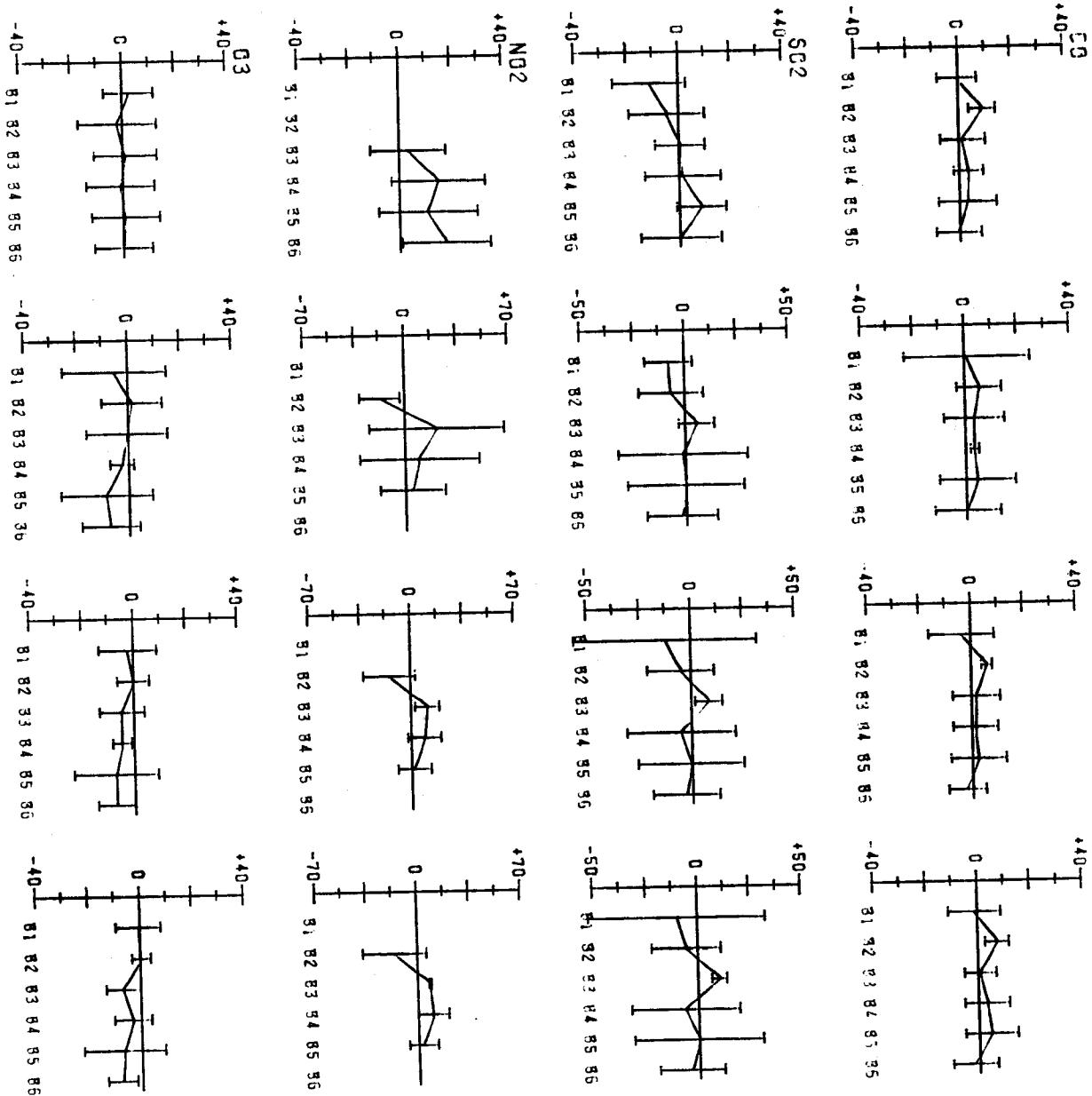
PUB : 65
STATE : 26 OHIO
PERIOD : 601 6013 EPA, CENTRPL DIST. OFFICE

PRECISION

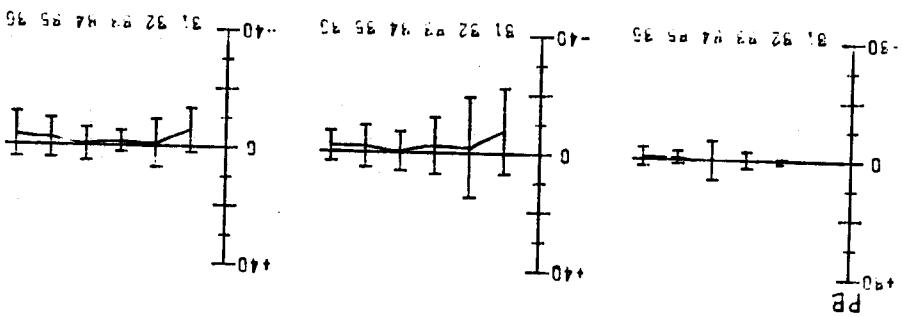
LEVEL 1

ACQUISITION
LEVEL 2

LEVEL 3



G-192



95% PROCEDURALITY LIMITS 01-05
PES : 05
STEPS : 3, HIGH
PERIOD: 001 HIGH FPO, CENTRAL DIGIT, OFFICE
PRECISION
LEVEL 1
ACCURACY
LEVEL 3

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 05

STATE : 36 OHIO

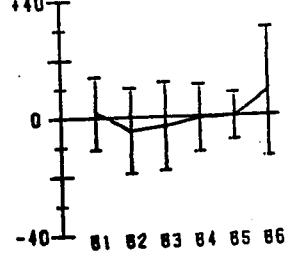
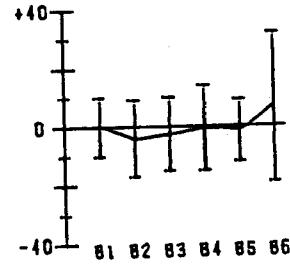
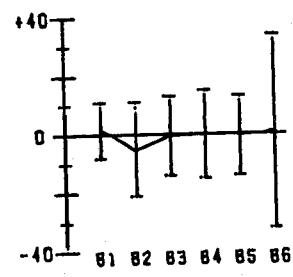
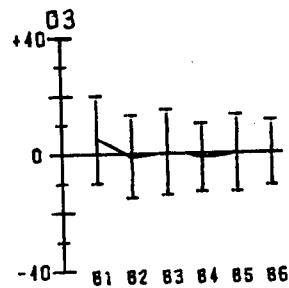
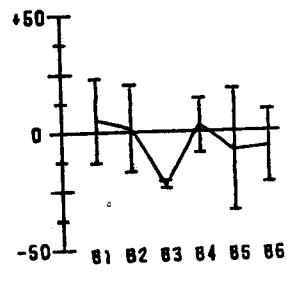
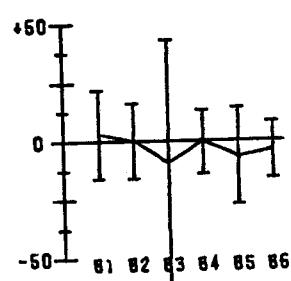
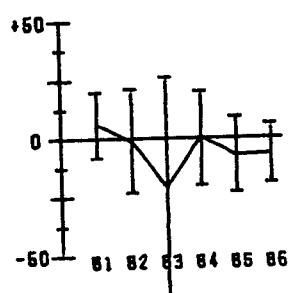
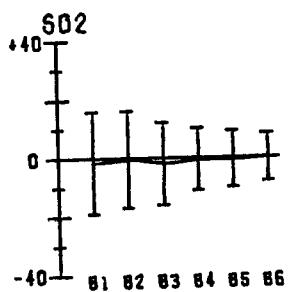
REPORG: 002 OHIO EPA, NORTHEAST DIST. OFFICE

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



G-183

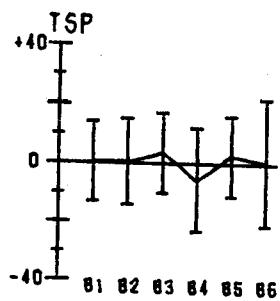
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 05

STATE : 36 OHIO

REPORT: 002 OHIO EPA, NORTHEAST DIST. OFFICE

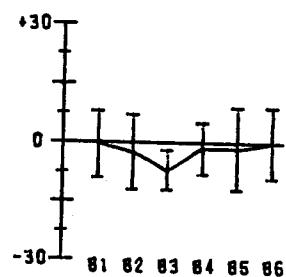
PRECISION



LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



G-184

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

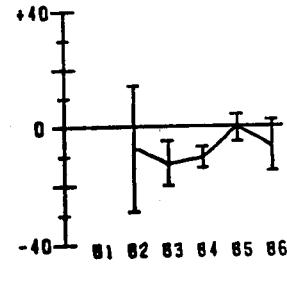
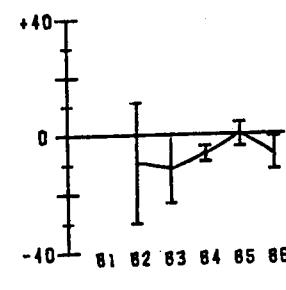
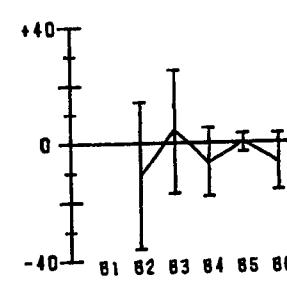
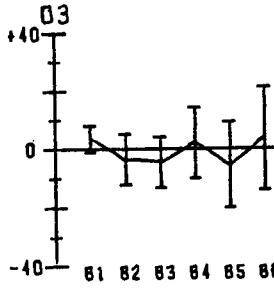
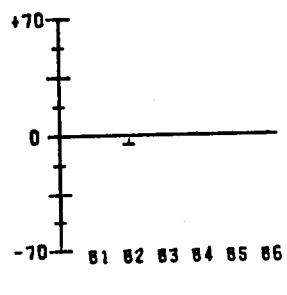
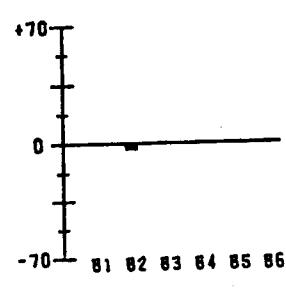
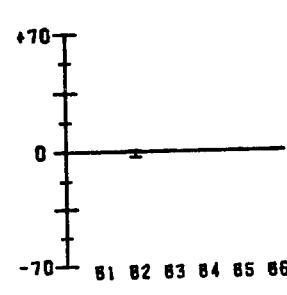
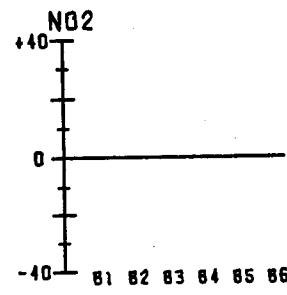
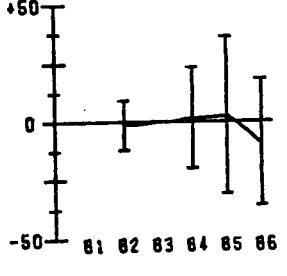
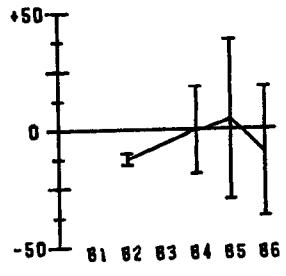
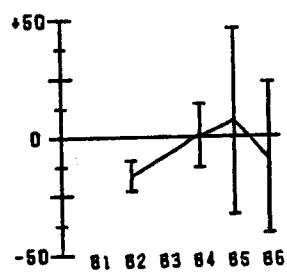
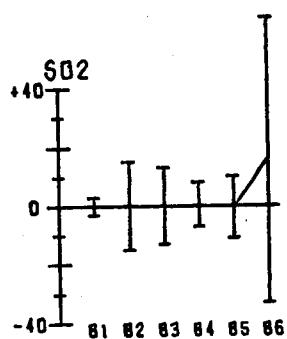
REG : 05
STATE : 36 OHIO
REPORT: 003 OHIO EPA, NORTHWEST DIST. OFFICE

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



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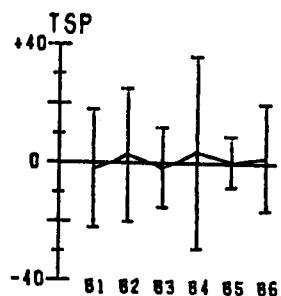
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 05

STATE : 36 OHIO

REPORT: 003 OHIO EPA, NORTHWEST DIST. OFFICE

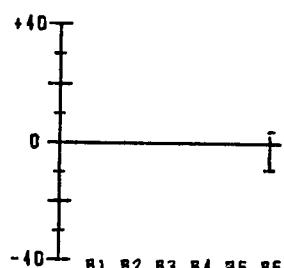
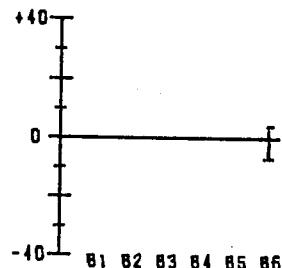
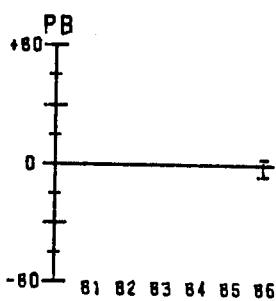
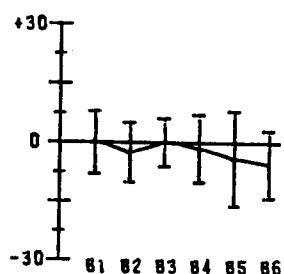
PRECISION



LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

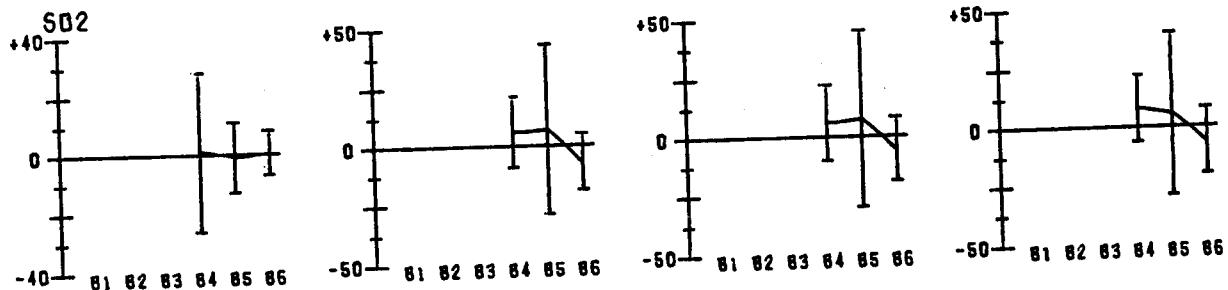
REG : 05
STATE : 36 OHIO
REPORG: 004 OHIO EPA, SOUTHEAST DIST. OFFICE

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



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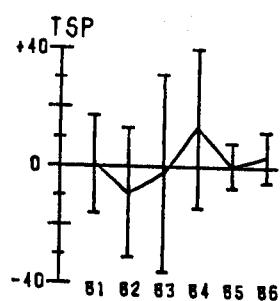
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 05

STATE : 36 OHIO

REPORG: 004 OHIO EPA, SOUTHEAST DIST. OFFICE

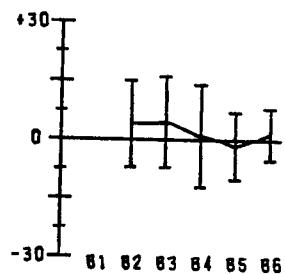
PRECISION



LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



G-188

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 05

STATE : 36 OHIO

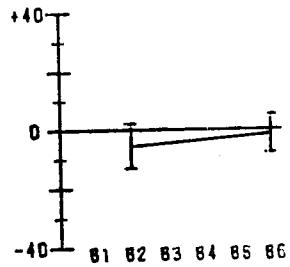
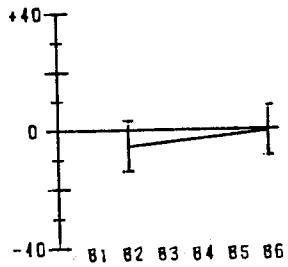
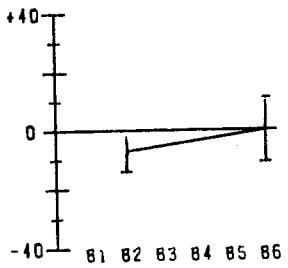
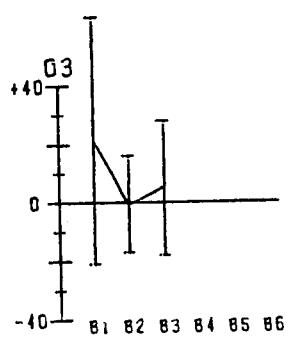
REPORG: 005 OHIO EPA, SOUTHWEST DIST. OFFICE

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

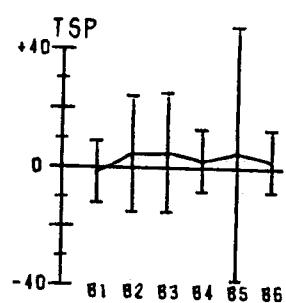


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95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 05
STATE : 36 OHIO
REPORG: 005 OHIO EPA, SOUTHWEST DIST. OFFICE

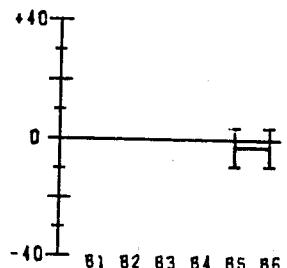
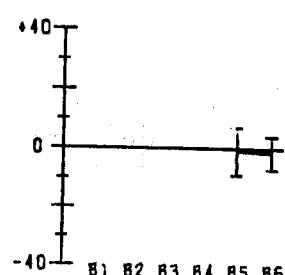
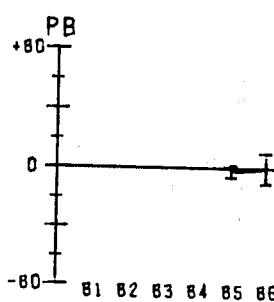
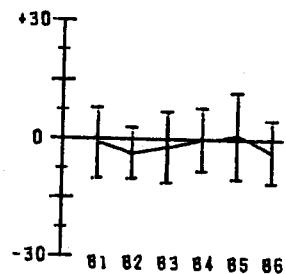
PRECISION



LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



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95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 05

STATE : 36 OHIO

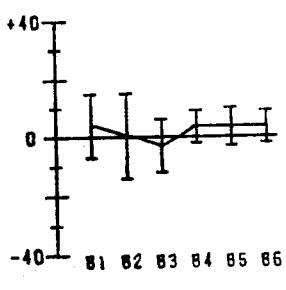
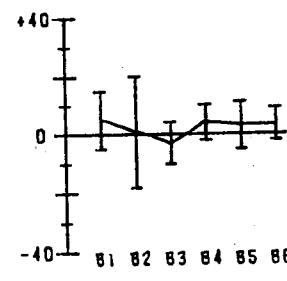
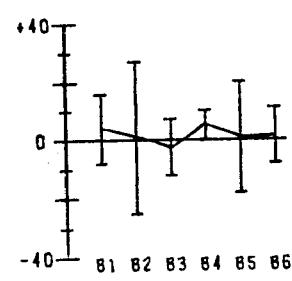
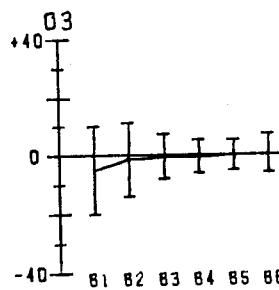
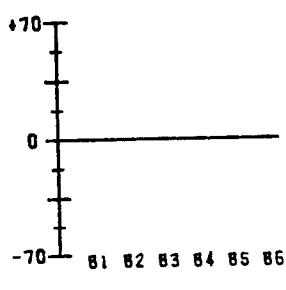
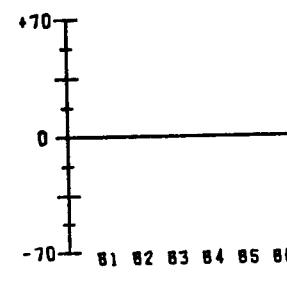
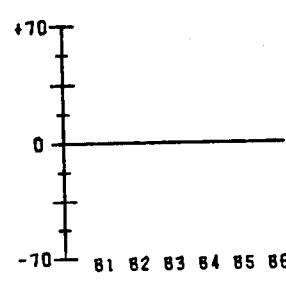
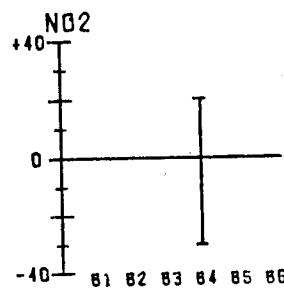
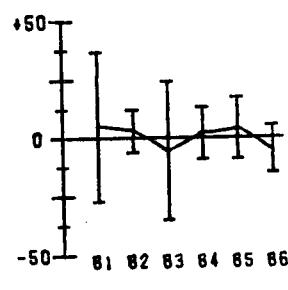
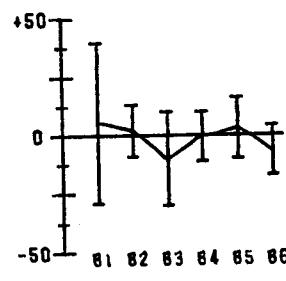
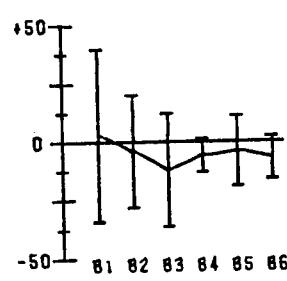
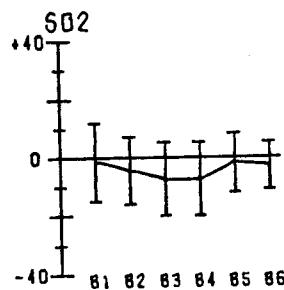
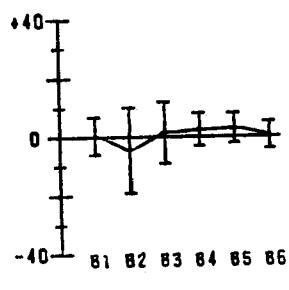
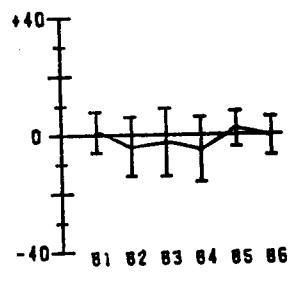
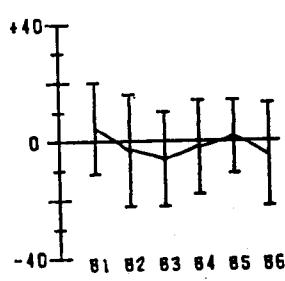
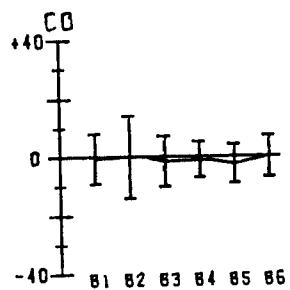
REPORT: 006 AKRON AIR POLL. CONTROL

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



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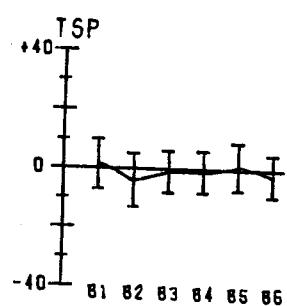
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 05

STATE : 36 OHIO

REPORG: 006 AKRON AIR POLL. CONTROL

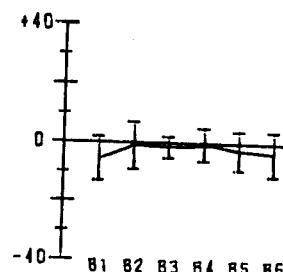
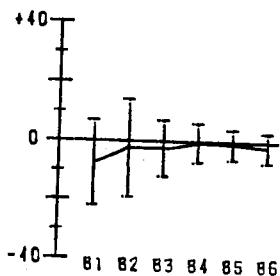
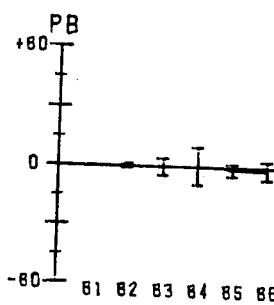
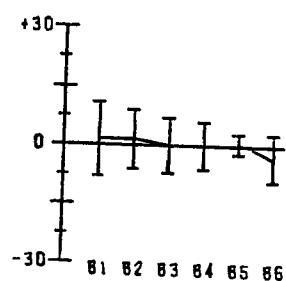
PRECISION



LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

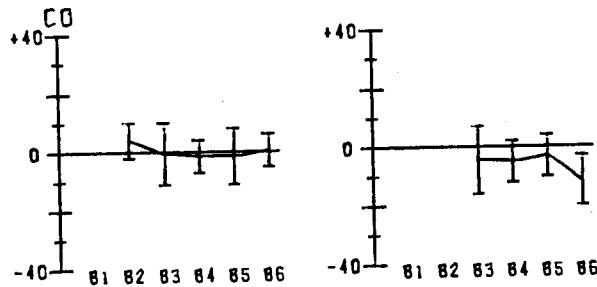


95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

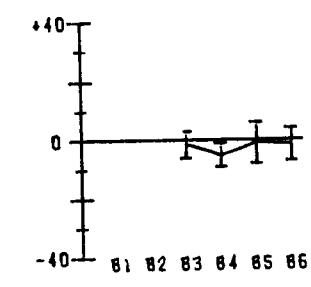
REG : 05
STATE : 36 OHIO
REPORG: 007 AIR POLL. CONT. DIV., CANTON CITY

PRECISION

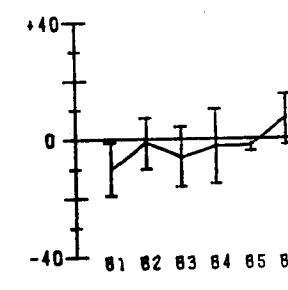
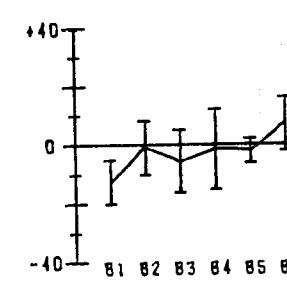
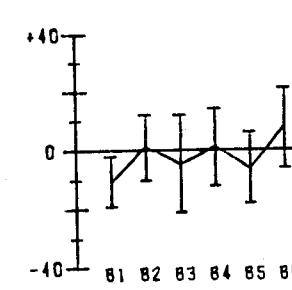
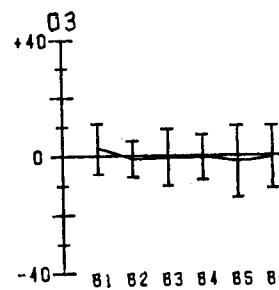
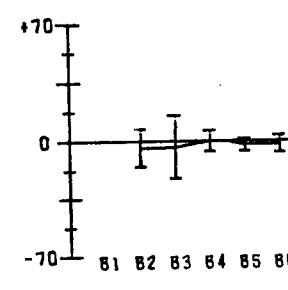
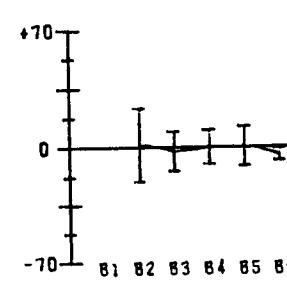
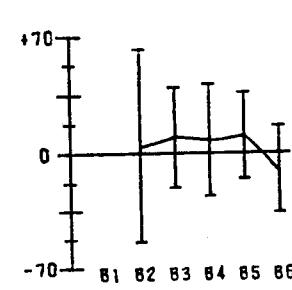
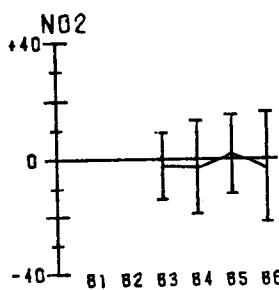
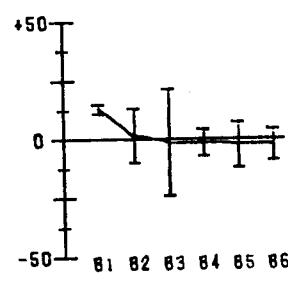
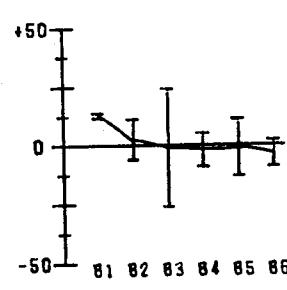
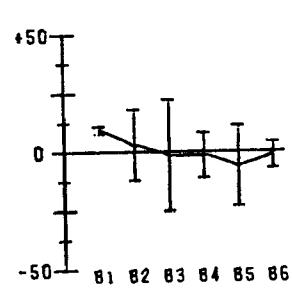
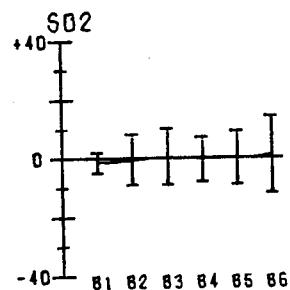
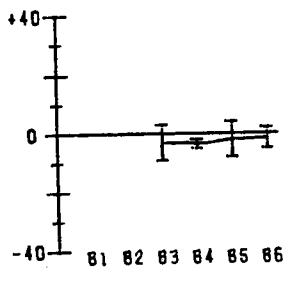
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

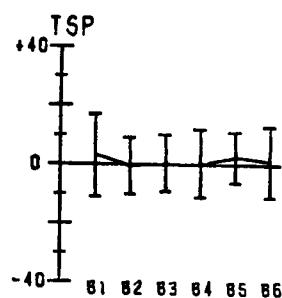
REG : 05

STATE : 36 OHIO

REPORG: 007 AIR POLL. CONT. DIV., CANTON CITY

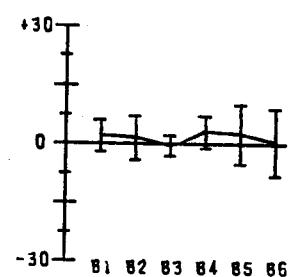
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



C-194

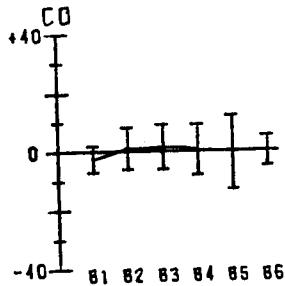
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 05

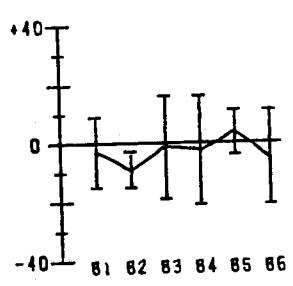
REO : 55
STATE : 36 OHIO

STATE : 38 CITY :
REPORG: 008 SOUTHWESTERN OHIO AIR POLL. AGENCY

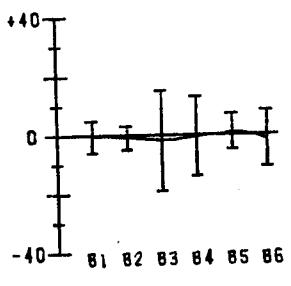
PRECISION



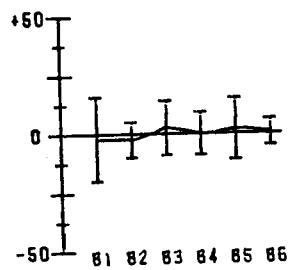
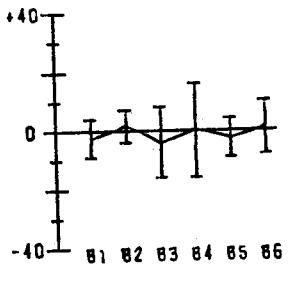
LEVEL 1



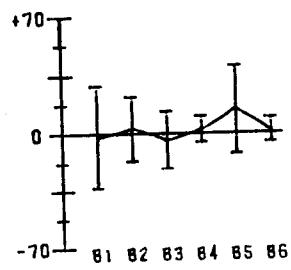
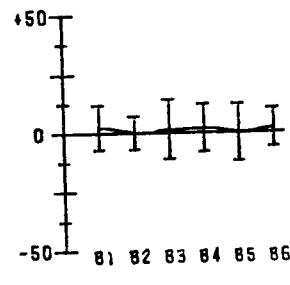
ACCURACY
LEVEL 2



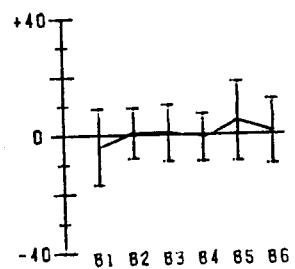
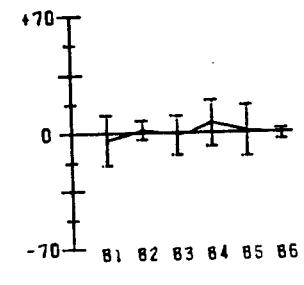
LEVEL 3



Year	Mean Difference (%)
81	0
82	-5
83	0
84	2
85	5
86	10



Year	Mean Difference (approx.)
81	-10
82	-5
83	0
84	10
85	15
86	10



Year	Mean Difference (approx.)
81	-5
82	0
83	0
84	0
85	10
86	10

Year	Error (approx.)
81	-10
82	0
83	0
84	0
85	15
86	0

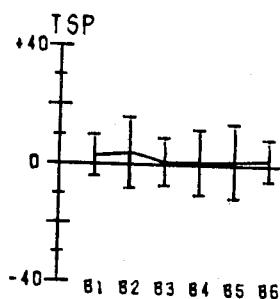
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 05

STATE : 36 OHIO

REPORG: 008 SOUTHWESTERN OHIO AIR POLL. AGENCY

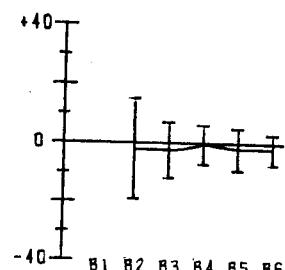
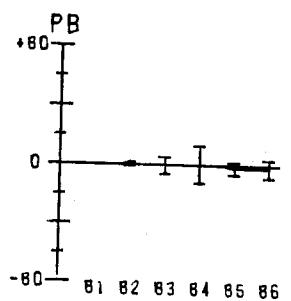
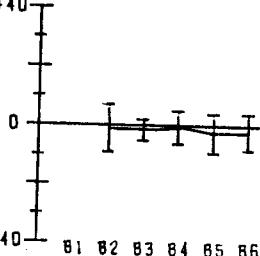
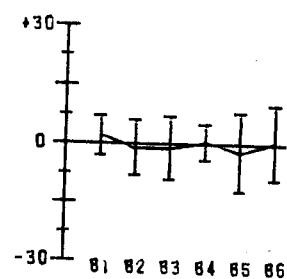
PRECISION



LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



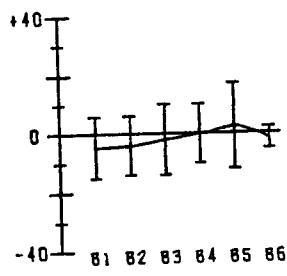
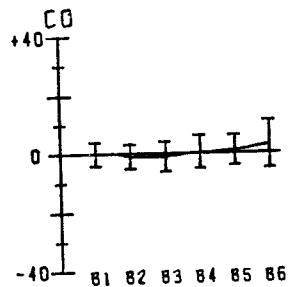
G-196

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

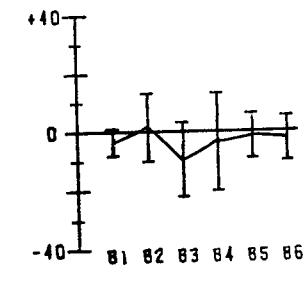
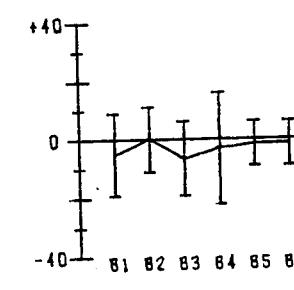
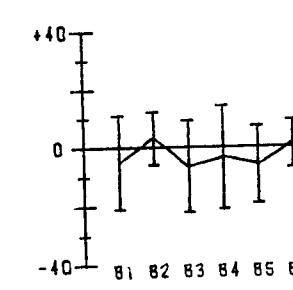
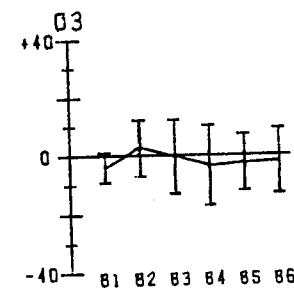
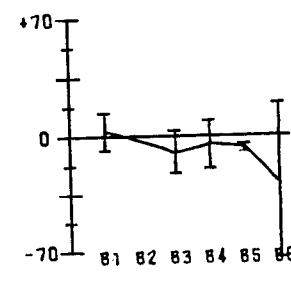
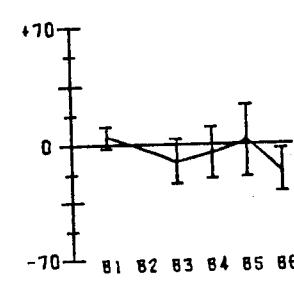
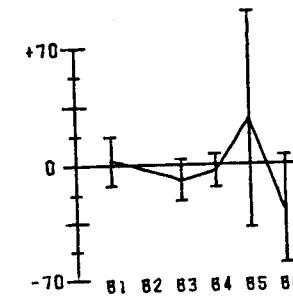
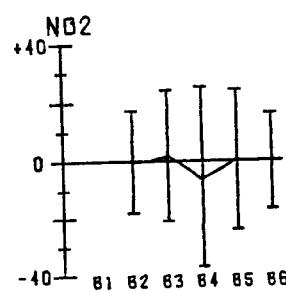
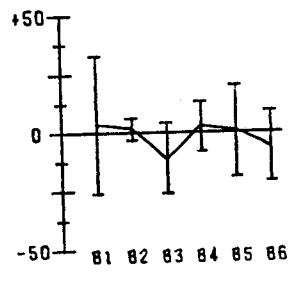
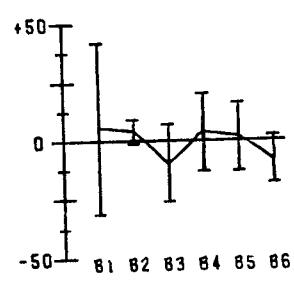
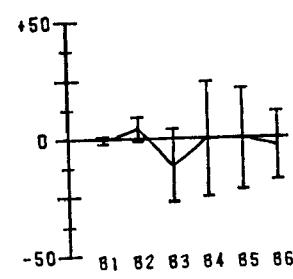
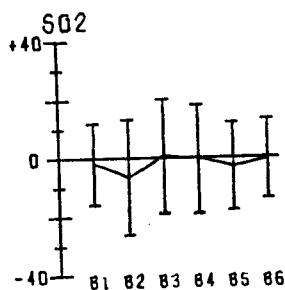
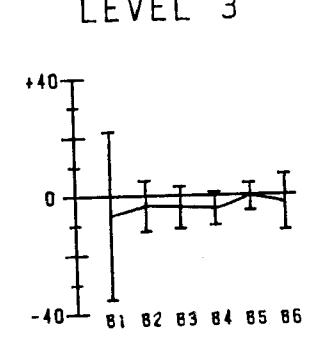
REG : 05
STATE : 36 OHIO
REPORG: 009 CLEVELAND DIV. OF AIR POLL. AGENCY

PRECISION

LEVEL 1



ACCURACY
LEVEL 2



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 05

STATE : 36 OHIO

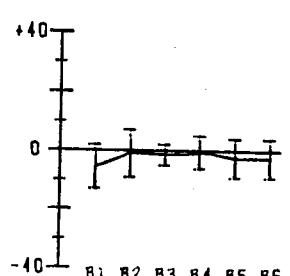
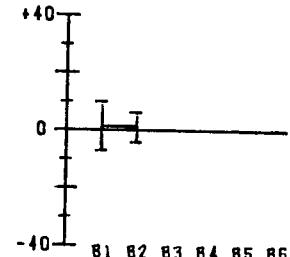
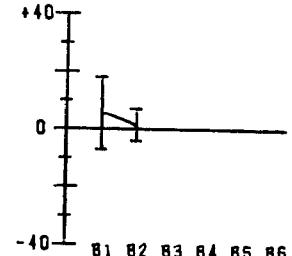
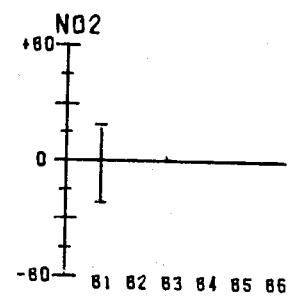
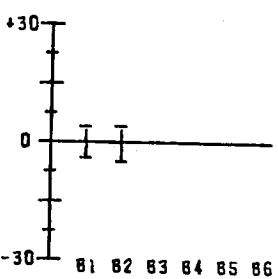
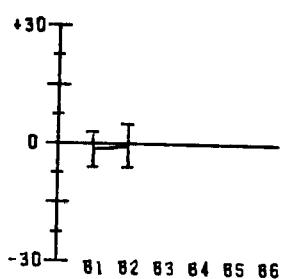
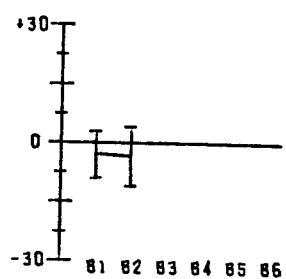
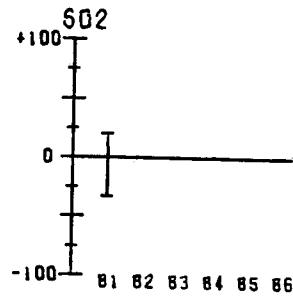
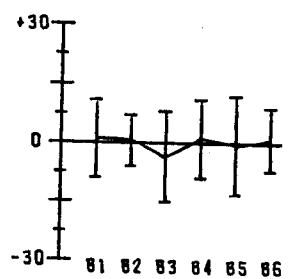
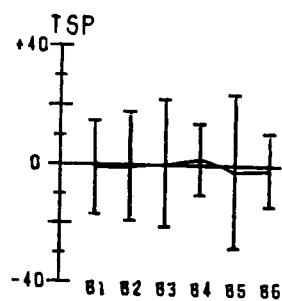
REPORG: 009 CLEVELAND DIV. OF AIR POLL. AGENCY

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

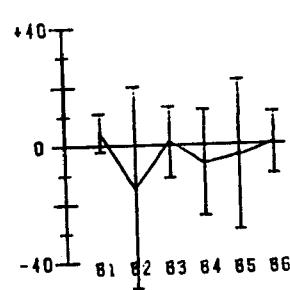
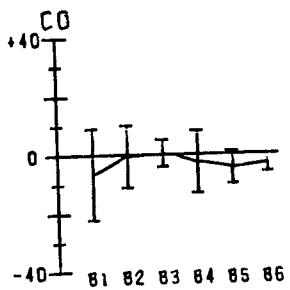


95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

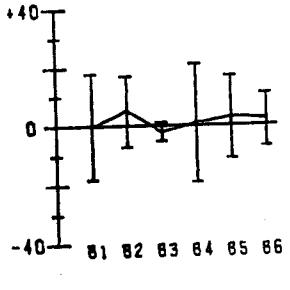
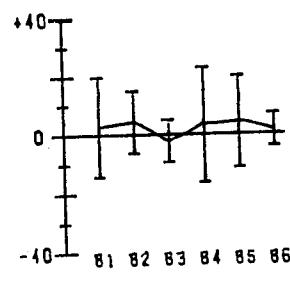
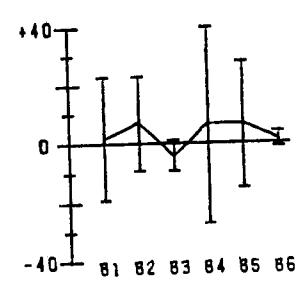
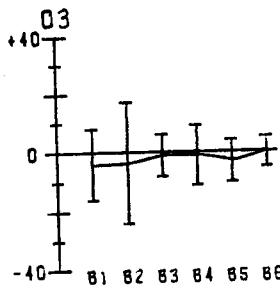
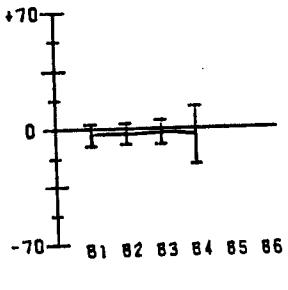
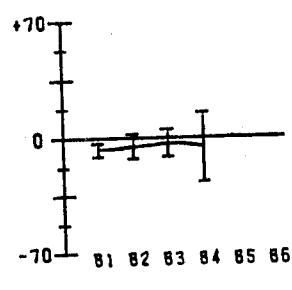
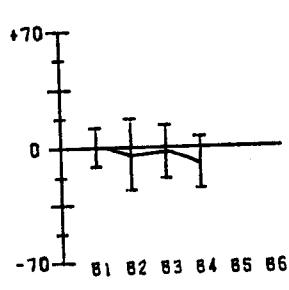
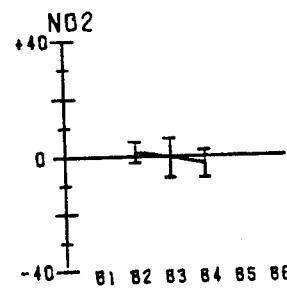
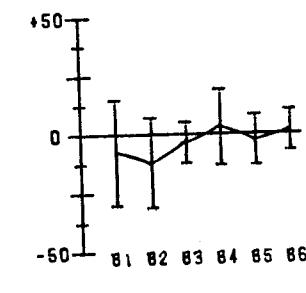
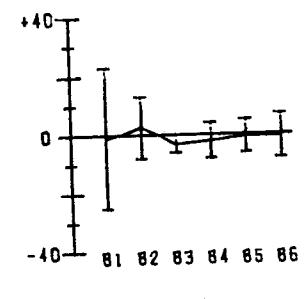
REG : 05
STATE : 36 OHIO
REPORG: 010 REGIONAL APC AGENCY DAYTON

PRECISION

LEVEL 1



ACCURACY
LEVEL 2



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

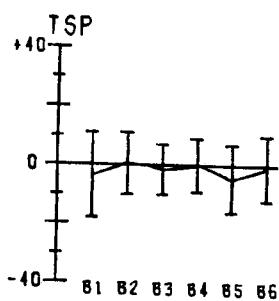
REG : 05

STATE : 36 OHIO

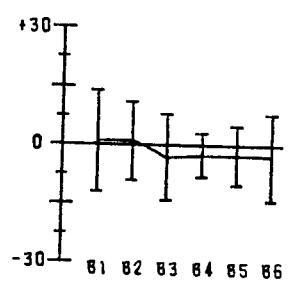
REPORG: 010 REGIONAL APC AGENCY DAYTON

PRECISION

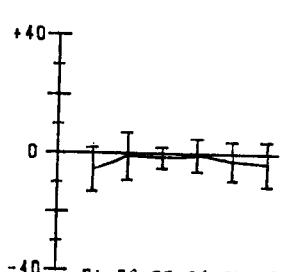
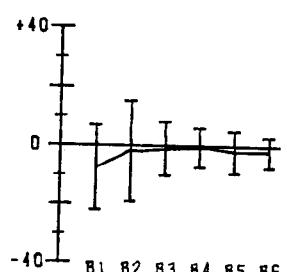
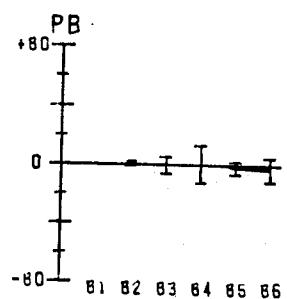
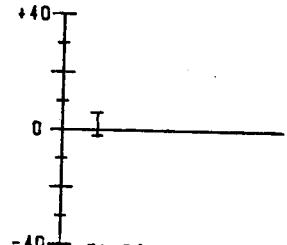
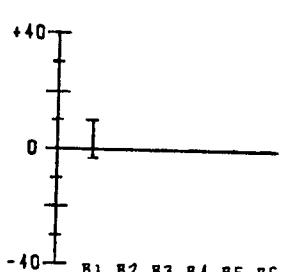
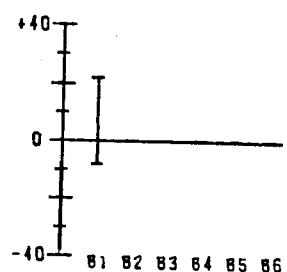
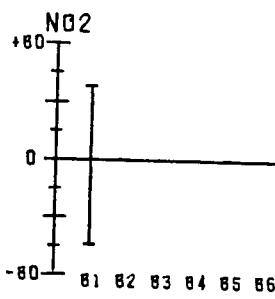
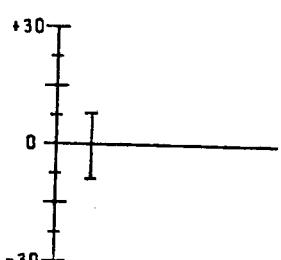
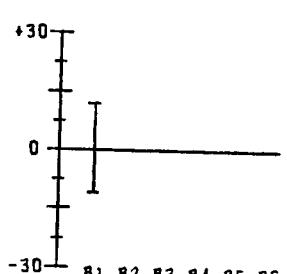
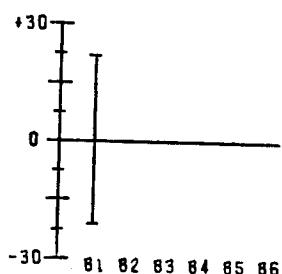
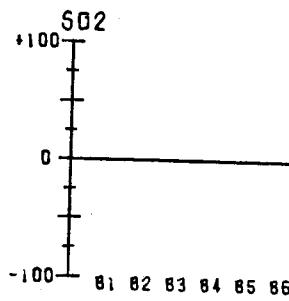
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

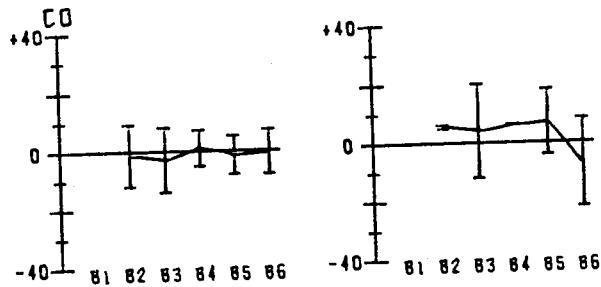
REG : 05

STATE : 36 OHIO

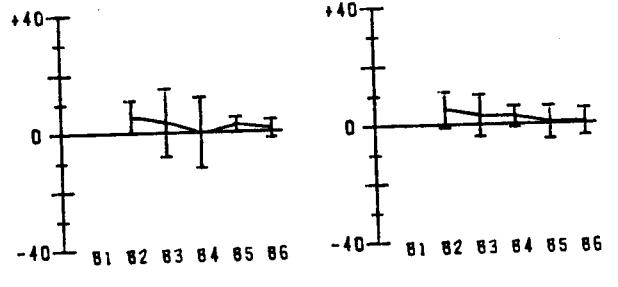
REPORG: 012 AIR POLL. CONT. DIV. OF LAKE CNTY.

PRECISION

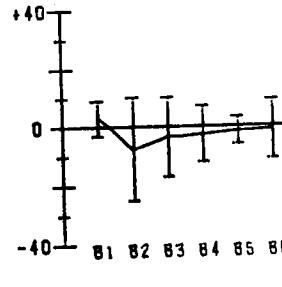
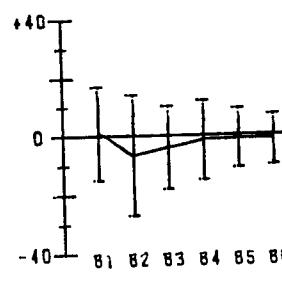
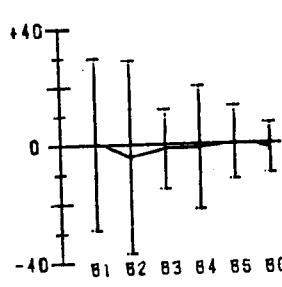
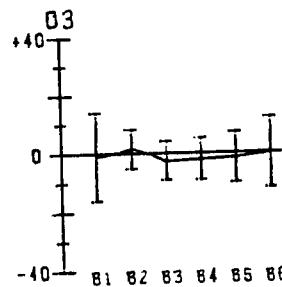
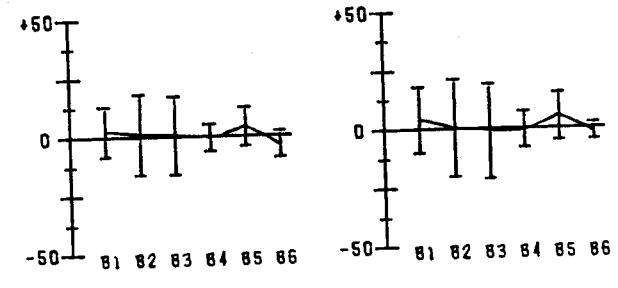
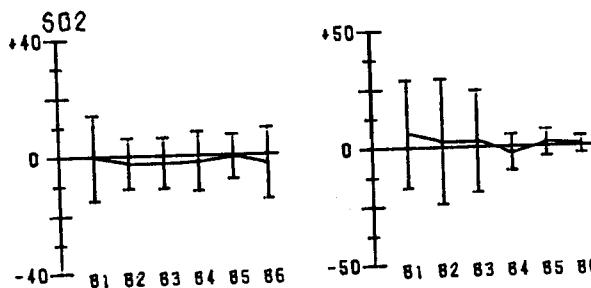
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

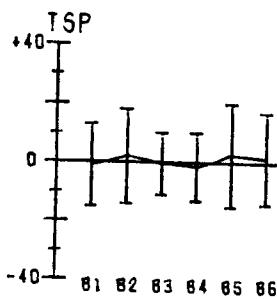
REG : 05

STATE : 36 OHIO

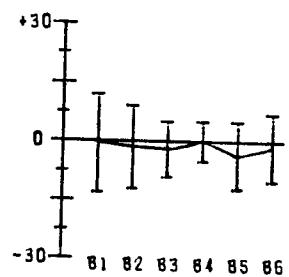
REPORT: 012 AIR POLL. CONT. DIV. OF LAKE CNTY.

PRECISION

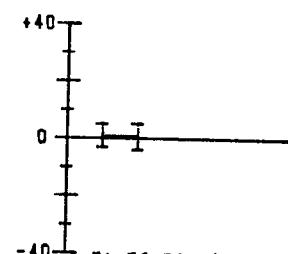
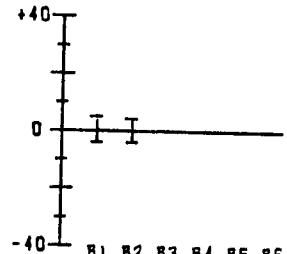
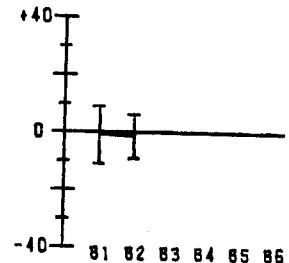
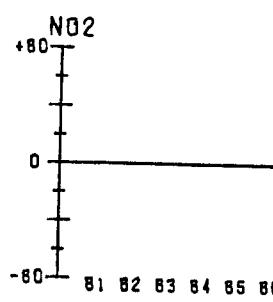
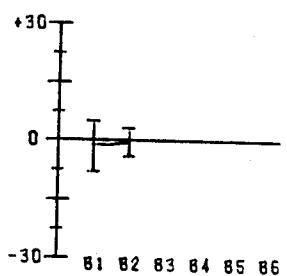
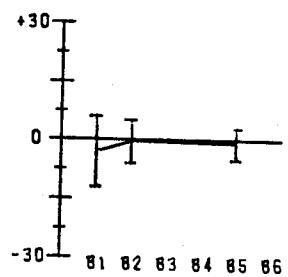
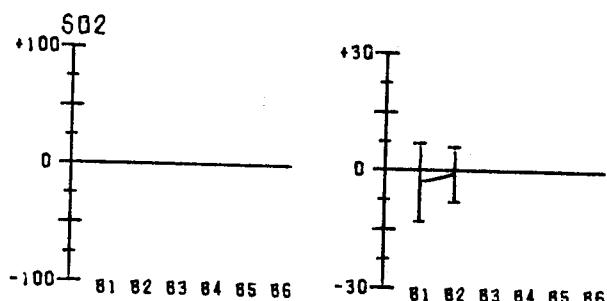
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

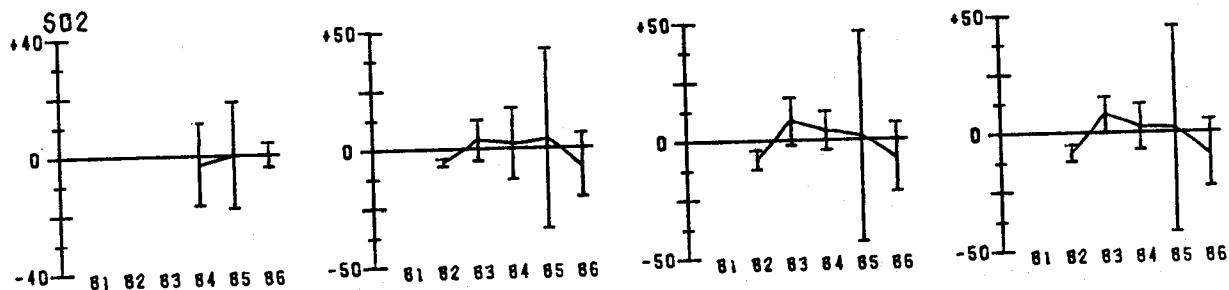
REG : 05
STATE : 36 OHIO
REPORG: 013 AIR POLL. UNIT, PORTSMOUTH CITY

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

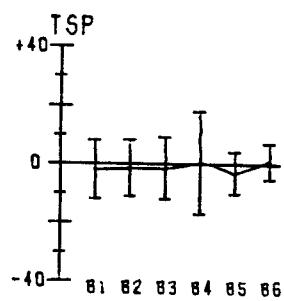
REG : 05

STATE : 36 OHIO

REPORT: 013 AIR POLL. UNIT, PORTSMOUTH CITY

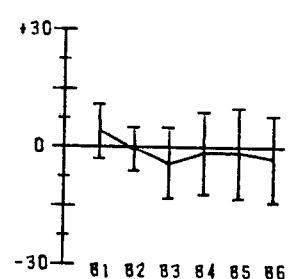
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 05

STATE : 36 OHIO

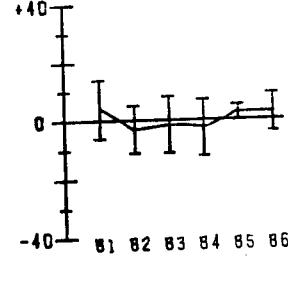
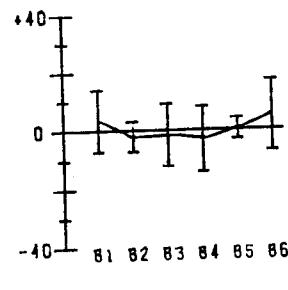
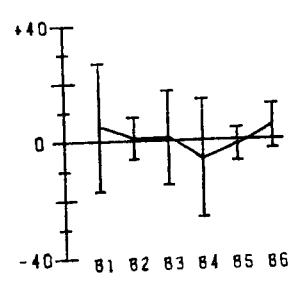
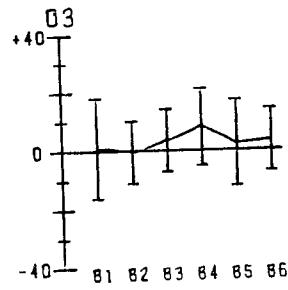
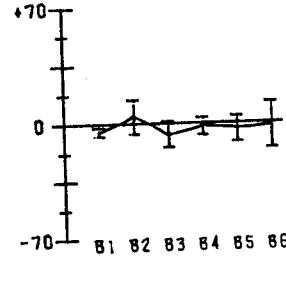
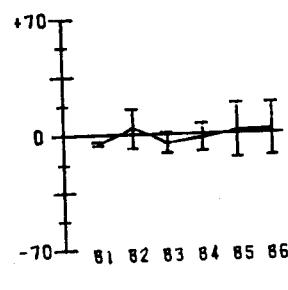
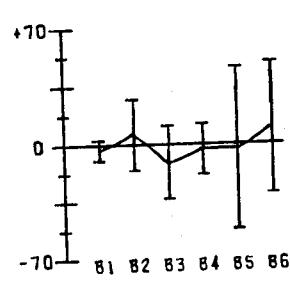
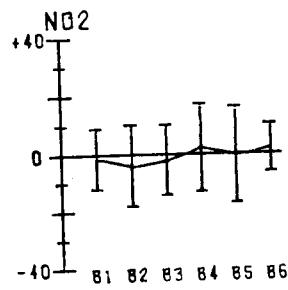
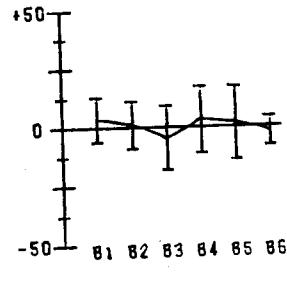
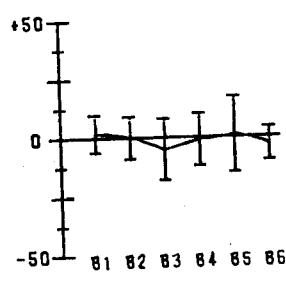
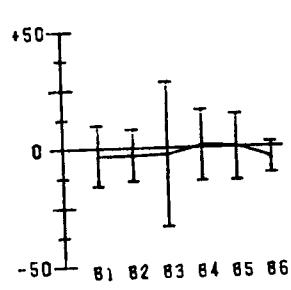
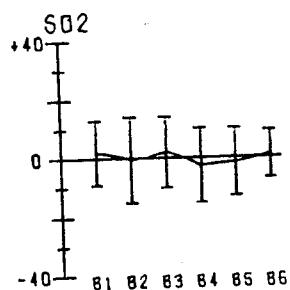
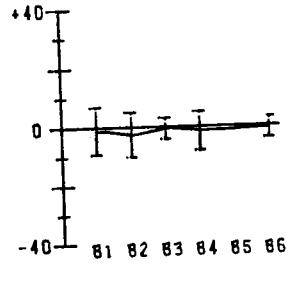
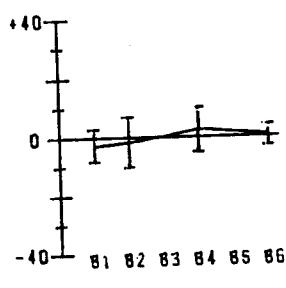
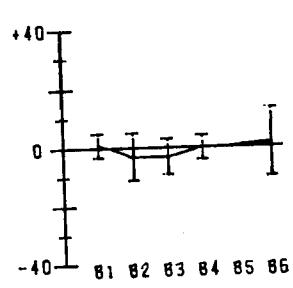
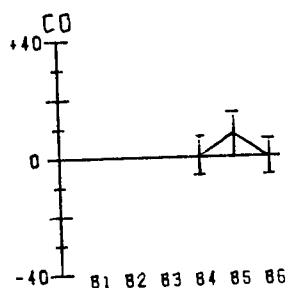
REPORT: 014 NORTH OHIO VALLEY AIR AUTHORITY

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

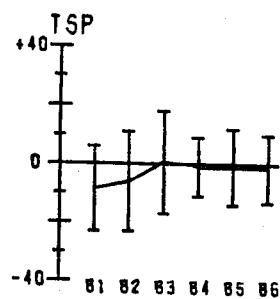
REG : 05

STATE : 36 OHIO

REPORG: 014 NORTH OHIO VALLEY AIR AUTHORITY

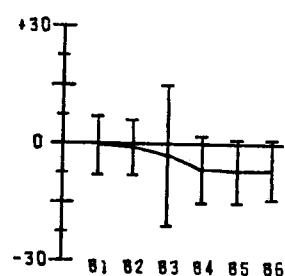
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3

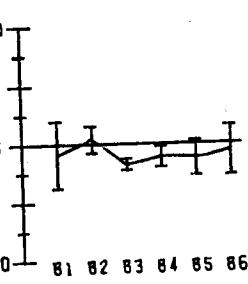
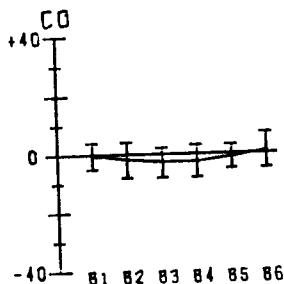


95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 05
STATE : 36 OHIO
REPORG: 015 TOLEDO POLL. CONTROL AGENCY

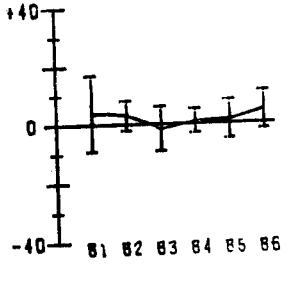
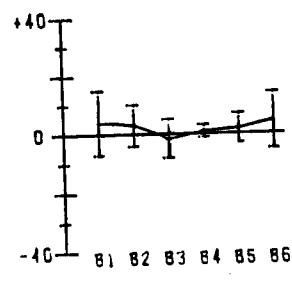
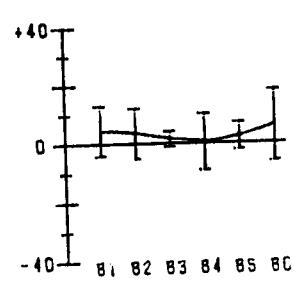
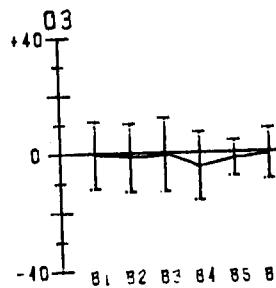
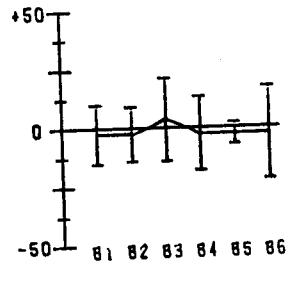
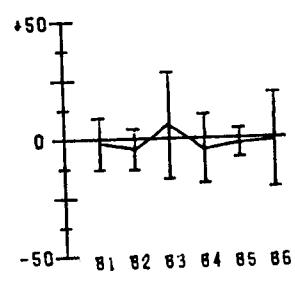
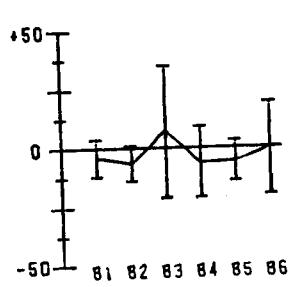
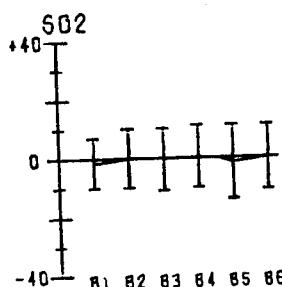
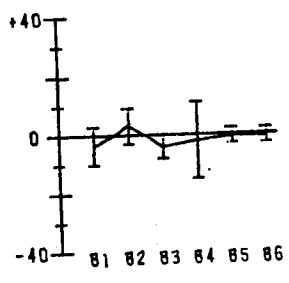
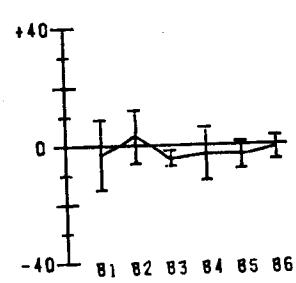
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



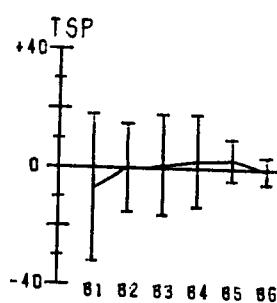
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 05

STATE : 36 OHIO

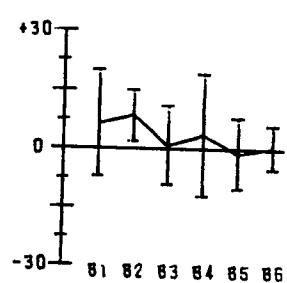
REPORT: 015 TOLEDO POLL. CONTROL AGENCY

PRECISION



LEVEL 1

ACCURACY
LEVEL 2



LEVEL 3

G-208

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 05

STATE : 36 OHIO

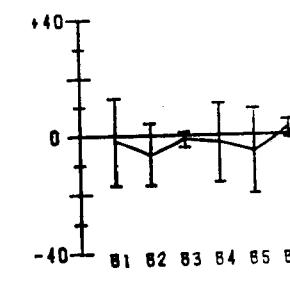
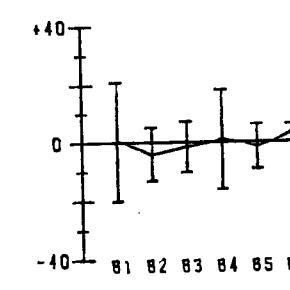
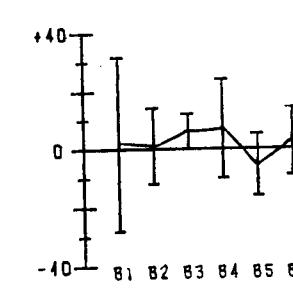
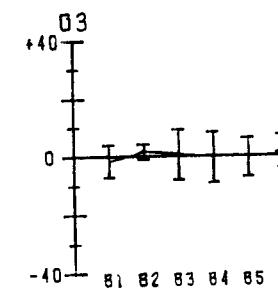
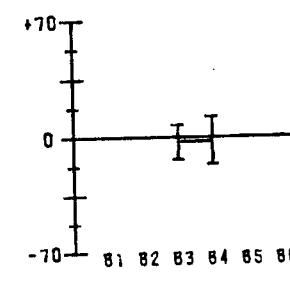
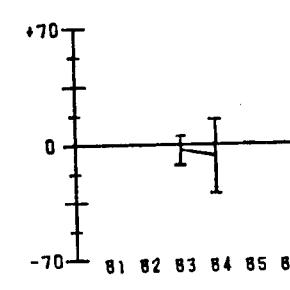
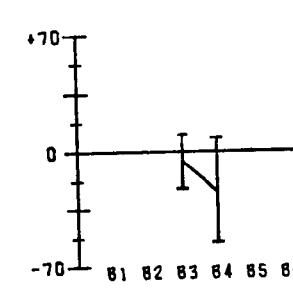
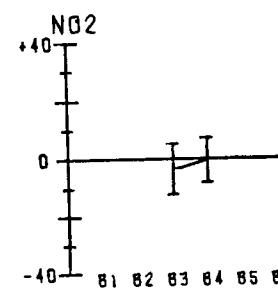
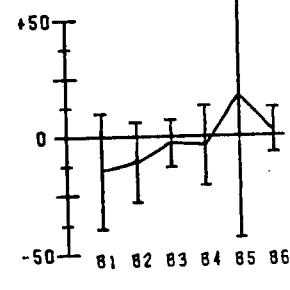
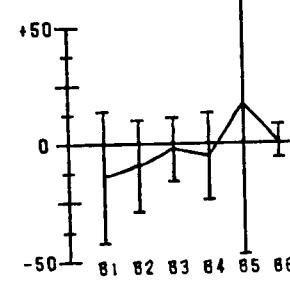
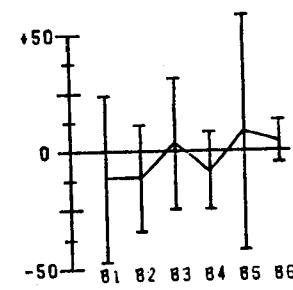
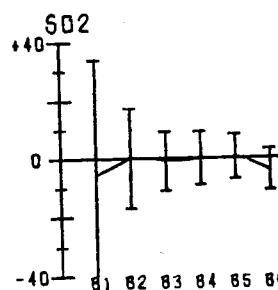
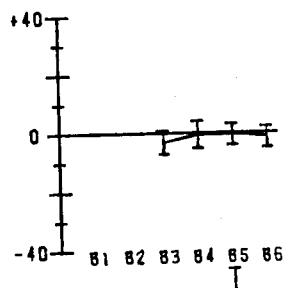
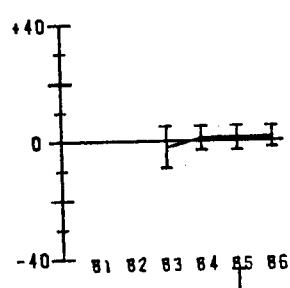
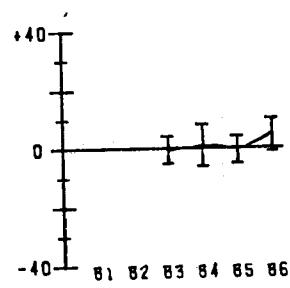
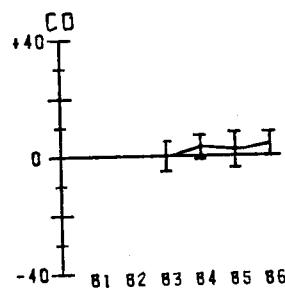
REPORT: 016 MAHONING TRUMBULL AIR POLL. CONTROL

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

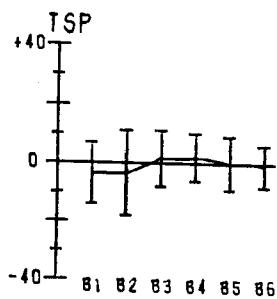
REG : 05

STATE : 36 OHIO

REPORG: 016 MAHONING TRUMBULL AIR POLL. CONTROL

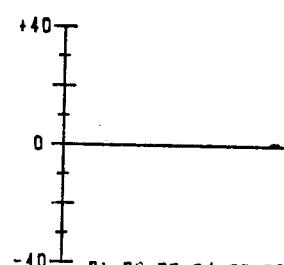
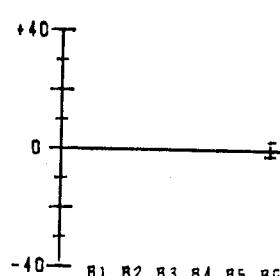
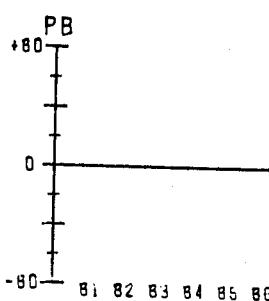
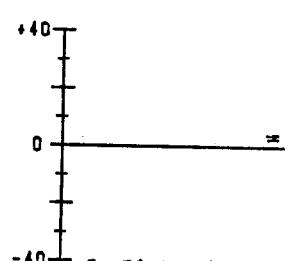
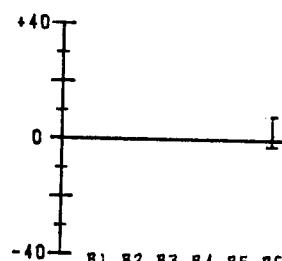
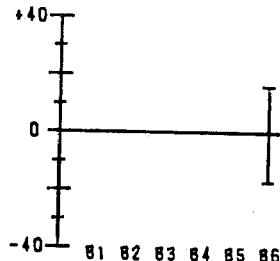
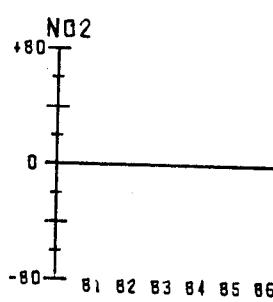
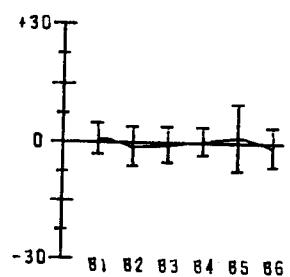
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

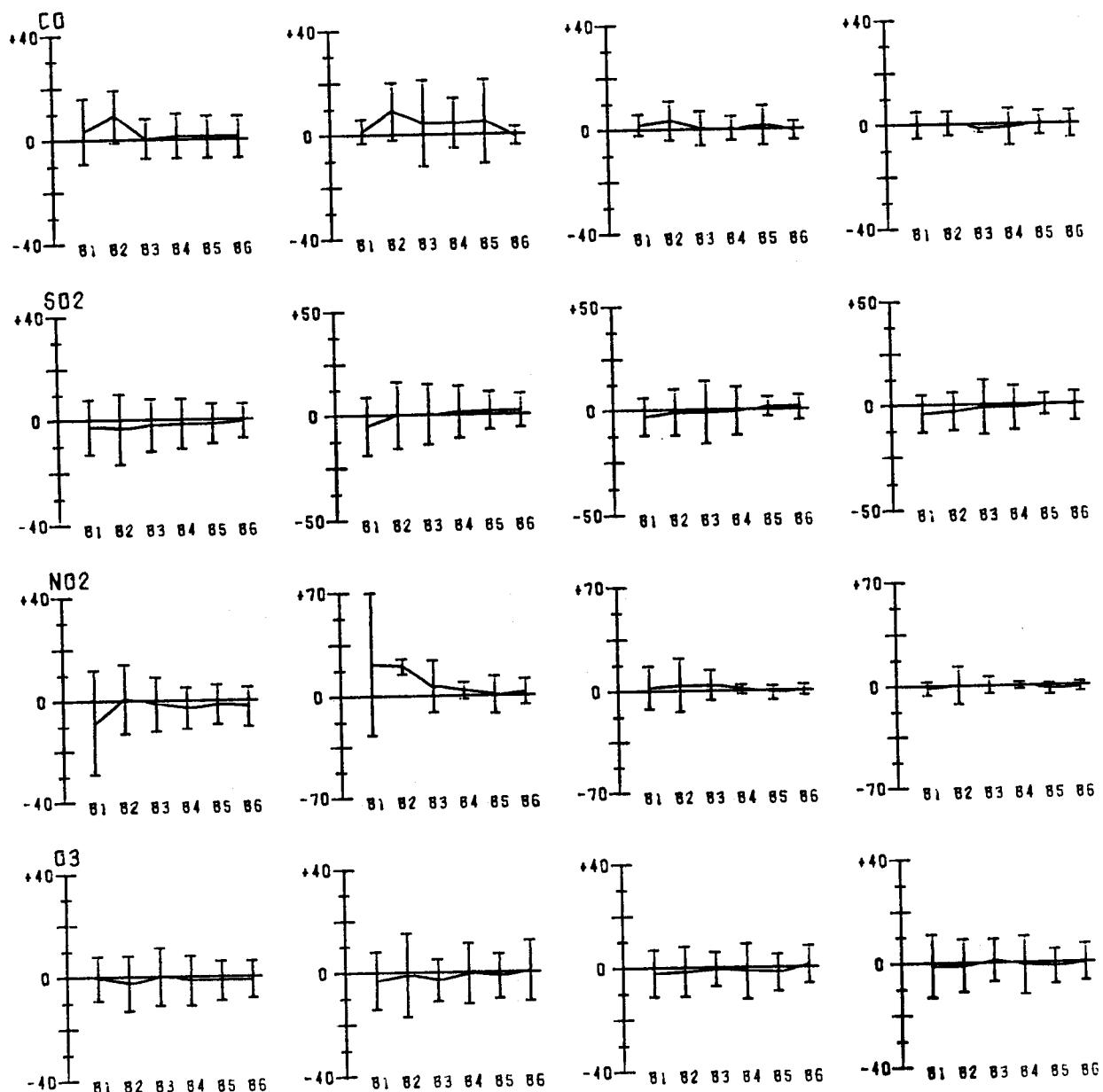
REG : 05
STATE : 51 WISCONSIN
REPGRG: 001 WI. DEPT. OF NAT. RES.. AIR MONIT. UNIT

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

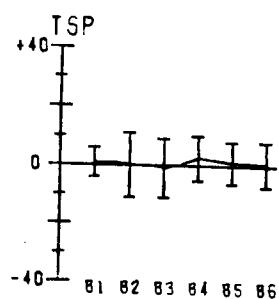
REG : 05

STATE : 51 WISCONSIN

REPORC: 001 WI. DEPT. OF NAT. RES.. AIR MONIT. UNIT

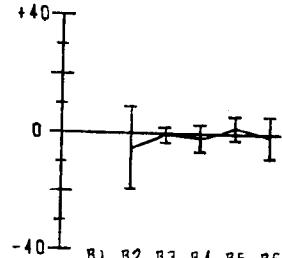
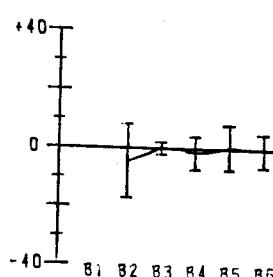
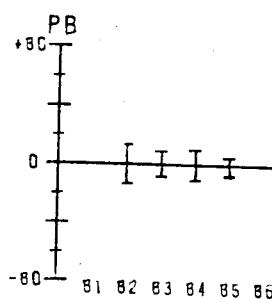
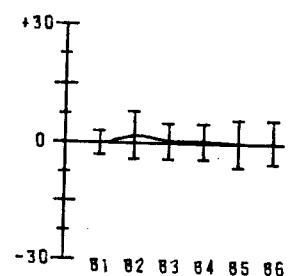
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



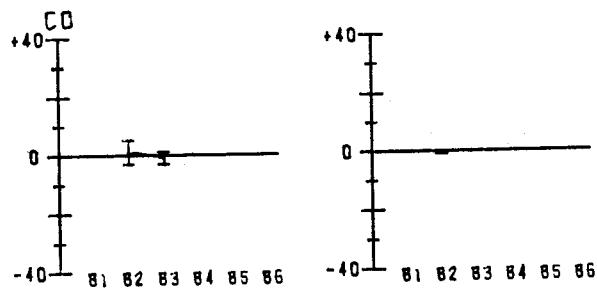
G-212

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

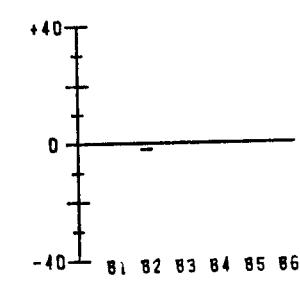
REG : 06
STATE : 04 ARKANSAS
REPORG: 001 DEPT. OF POLL. CONT. & ECOLOGY CONT. MCN

PRECISION

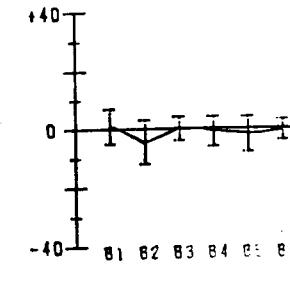
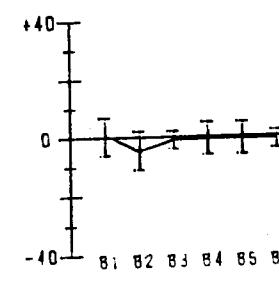
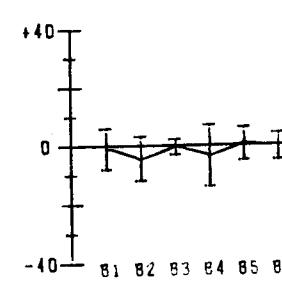
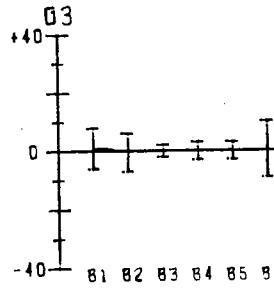
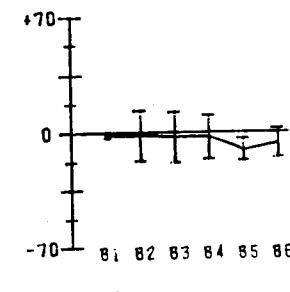
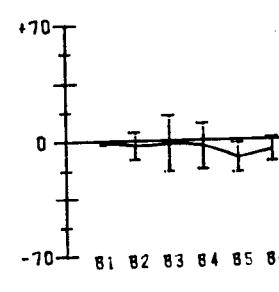
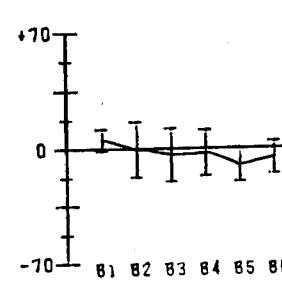
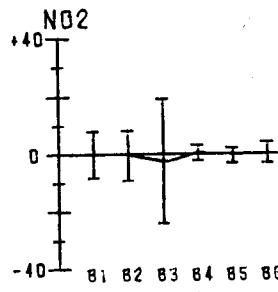
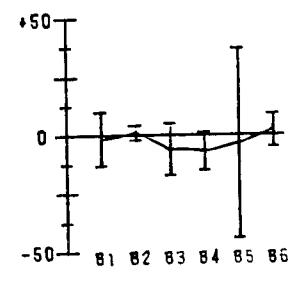
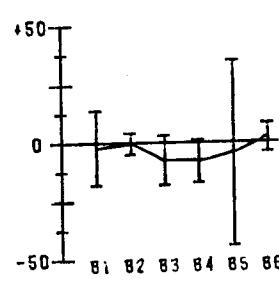
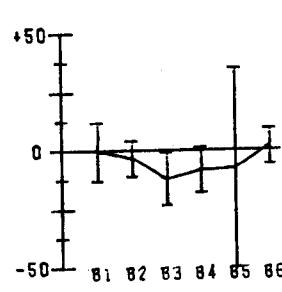
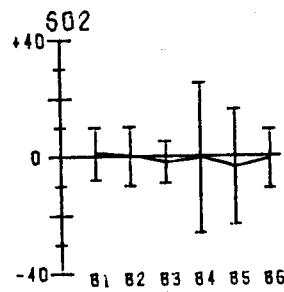
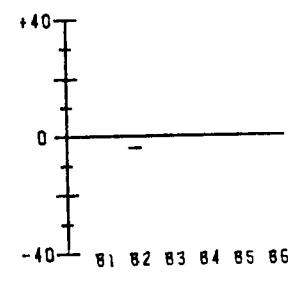
LEVEL 1



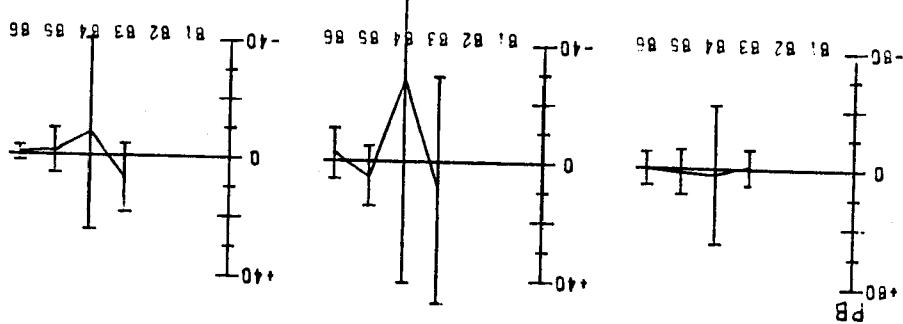
ACCURACY
LEVEL 2



LEVEL 3



G-214



The figure consists of six separate line graphs arranged in two rows of three. Each graph plots a variable against age groups 81 through 86. The y-axis for all graphs ranges from -30 to +100.

- Top Row:**
 - Graph 1 (left): Y-axis ranges from -30 to +30. A horizontal line is at 0.
 - Graph 2 (middle): Y-axis ranges from -30 to +30. A horizontal line is at 0.
 - Graph 3 (right): Y-axis ranges from -30 to +100. A horizontal line is at 0.
- Bottom Row:**
 - Graph 4 (left): Y-axis ranges from -30 to +30. A horizontal line is at 0. Data points are scattered around the zero line.
 - Graph 5 (middle): Y-axis ranges from -30 to +100. A horizontal line is at 0. Data points are scattered around the zero line.
 - Graph 6 (right): Y-axis ranges from -40 to +40. A horizontal line is at 0. Data points show a slight upward trend from approximately -35 at age 81 to -25 at age 86.

REG : 06 95% PROBABILITY LIMITS 81-86
MANUAL METHODS
REPCRG: CO2 DEPT. OF POLL. CONT. & ECOLOGY
STATE : 04 ARKANSAS

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

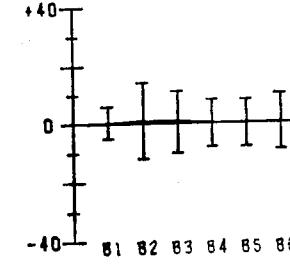
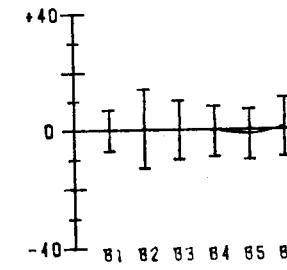
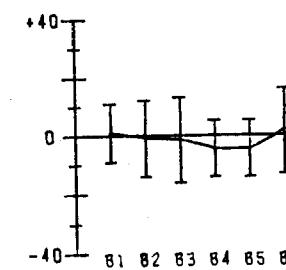
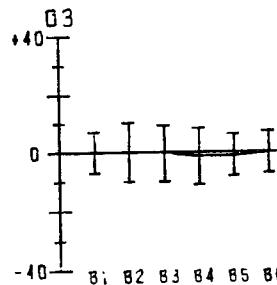
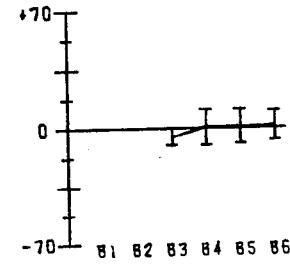
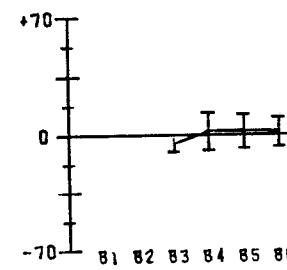
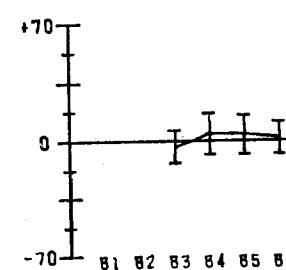
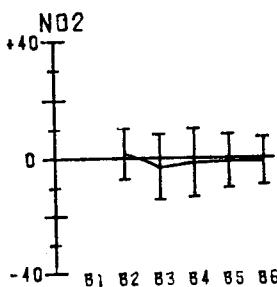
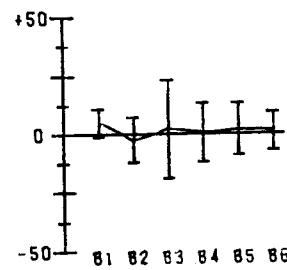
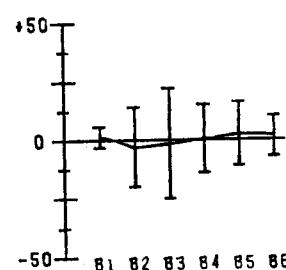
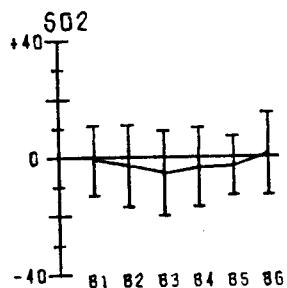
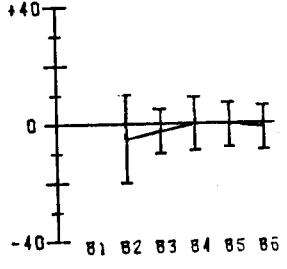
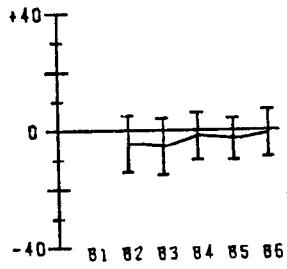
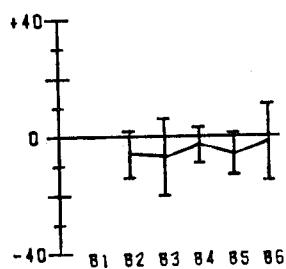
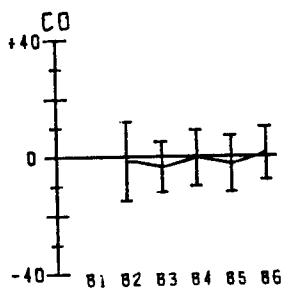
REG : 06
STATE : 19 LOUISIANA
REPORT: 001 LOUISIANA DEPT. OF ENVIRONMENTAL QUALITY

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 06

STATE : 19 LOUISIANA

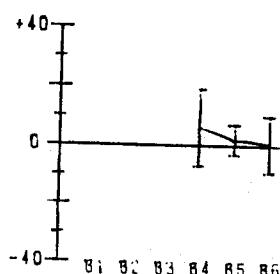
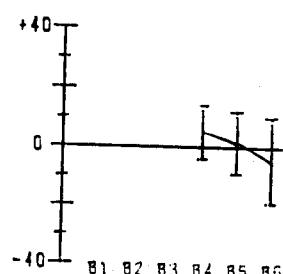
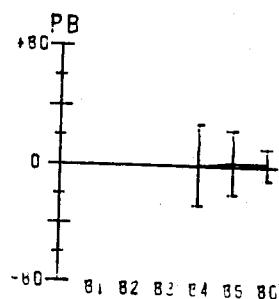
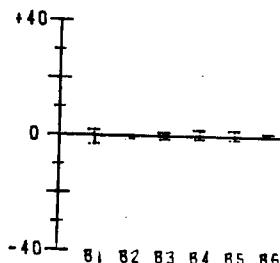
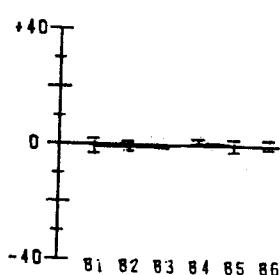
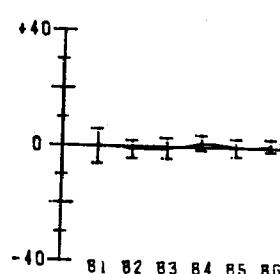
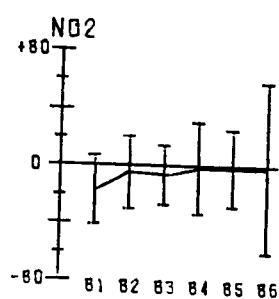
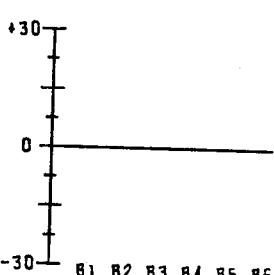
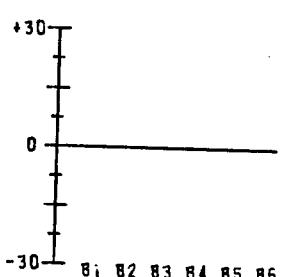
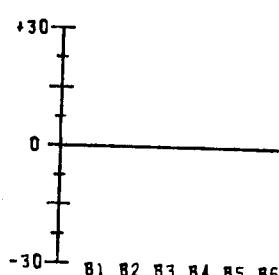
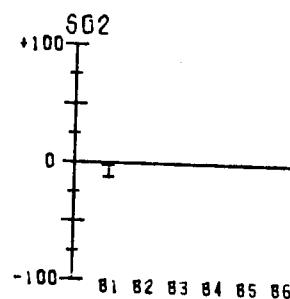
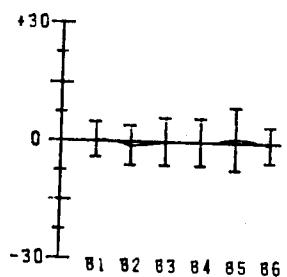
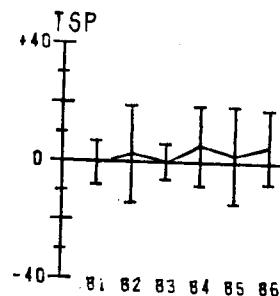
REPORT: 001 LOUISIANA DEPT. OF ENVIRONMENTAL QUALITY

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REC : 06

STATE : 19 LOUISIANA

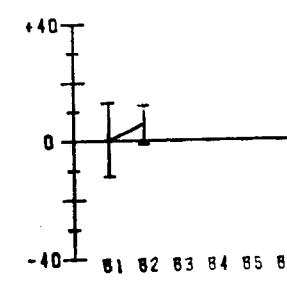
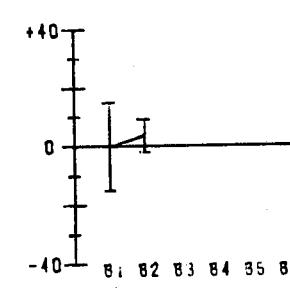
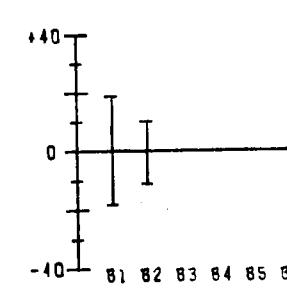
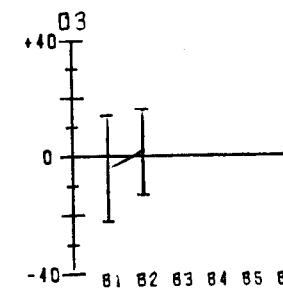
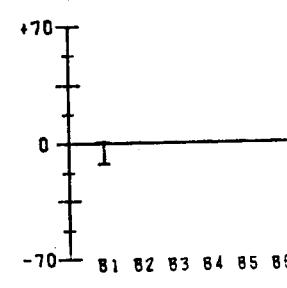
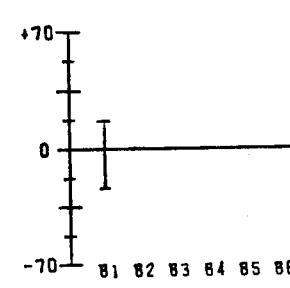
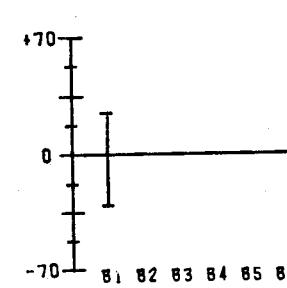
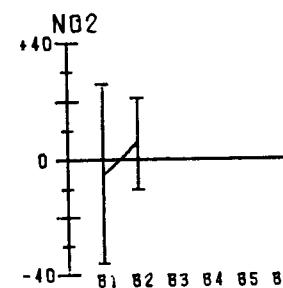
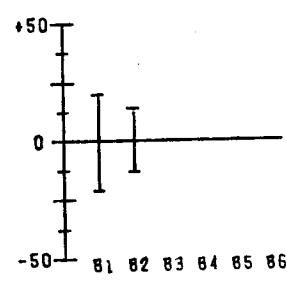
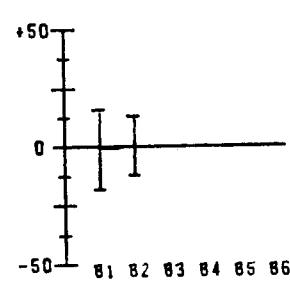
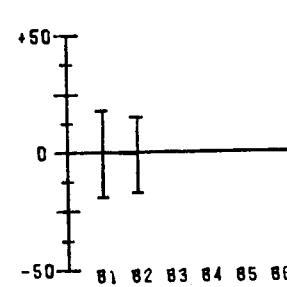
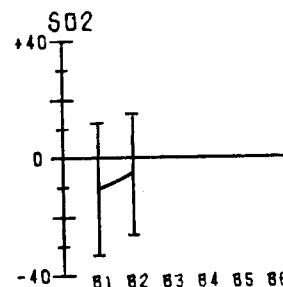
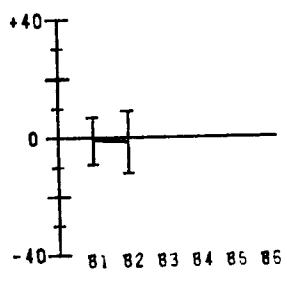
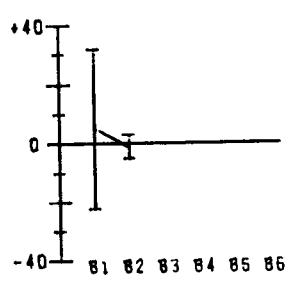
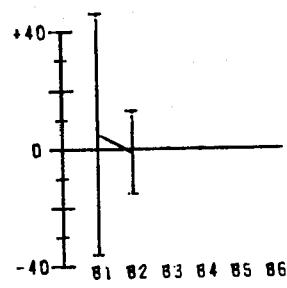
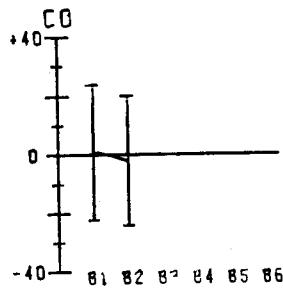
REPORT #: 002 KEMRON ENV. SERVICES, BATON ROUGE

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



G-217

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 06

STATE : 32 NEW MEXICO

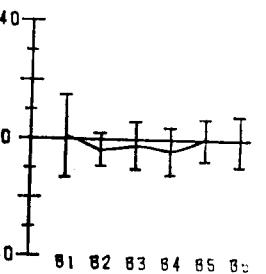
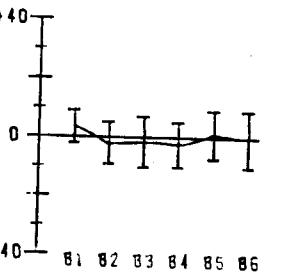
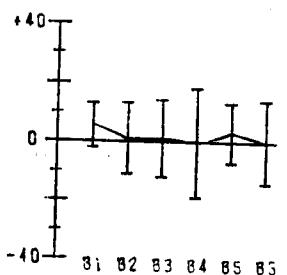
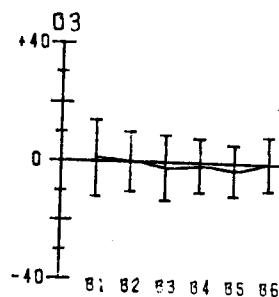
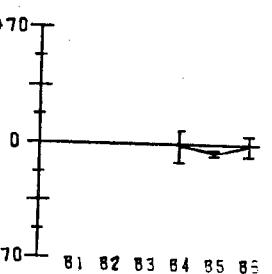
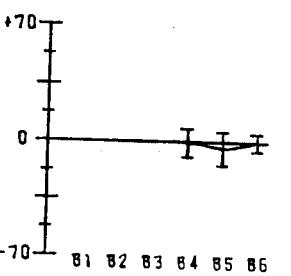
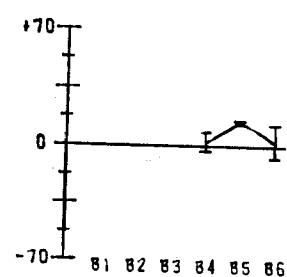
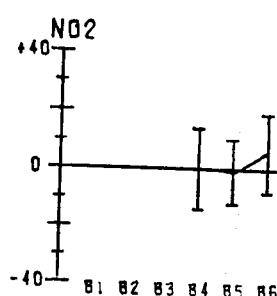
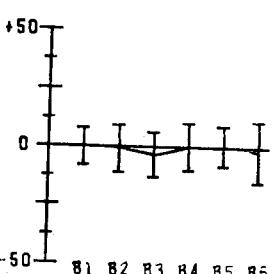
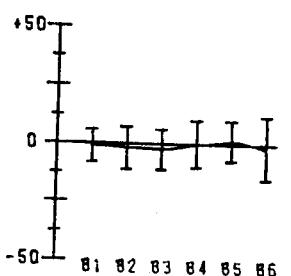
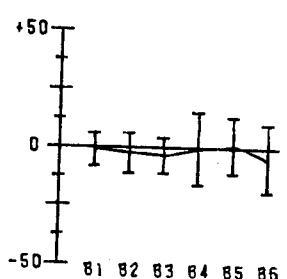
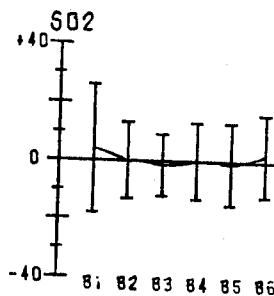
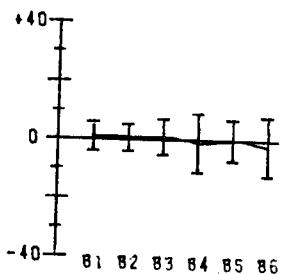
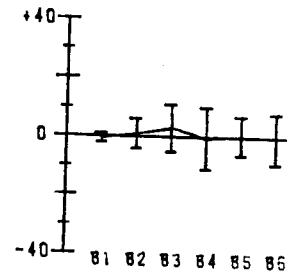
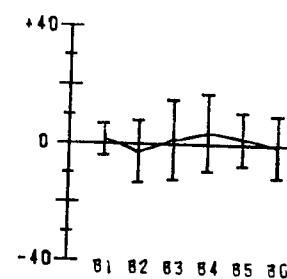
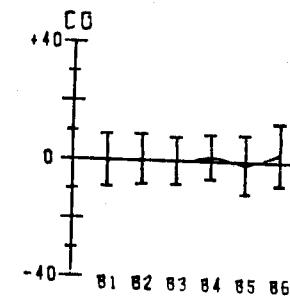
REPORT: 001 ENV. IMPROVEMENT DIV., SANTA FE

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



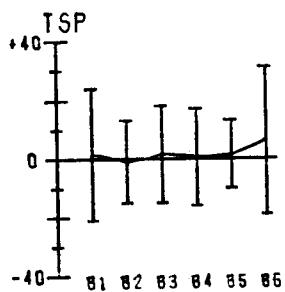
C-218

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

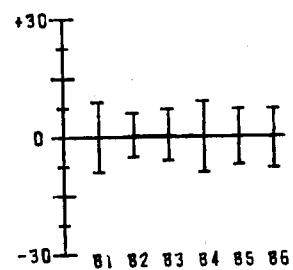
REG : 06
STATE : 32 NEW MEXICO
PEPORG: 001 ENV. IMPROVEMENT DIV., SANTA FE

PRECISION

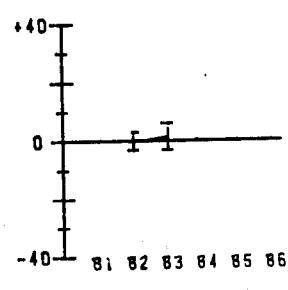
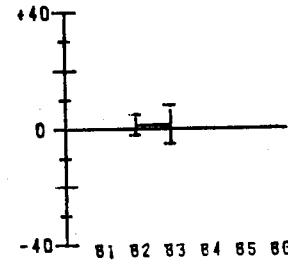
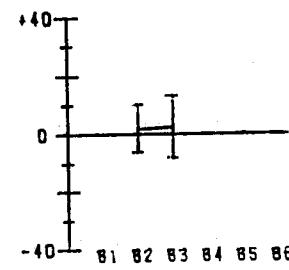
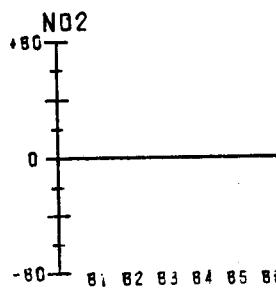
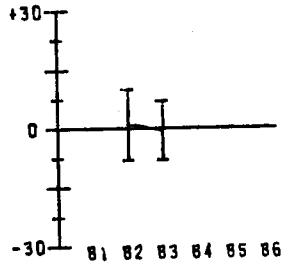
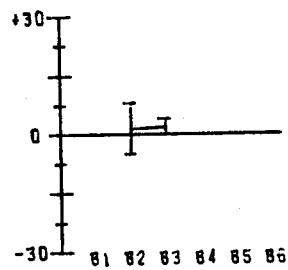
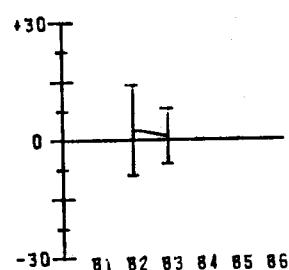
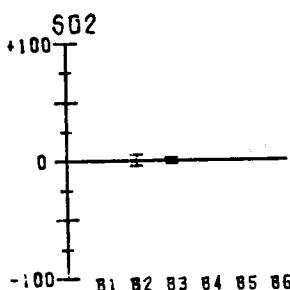
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 91-96
CONTINUOUS METHODS

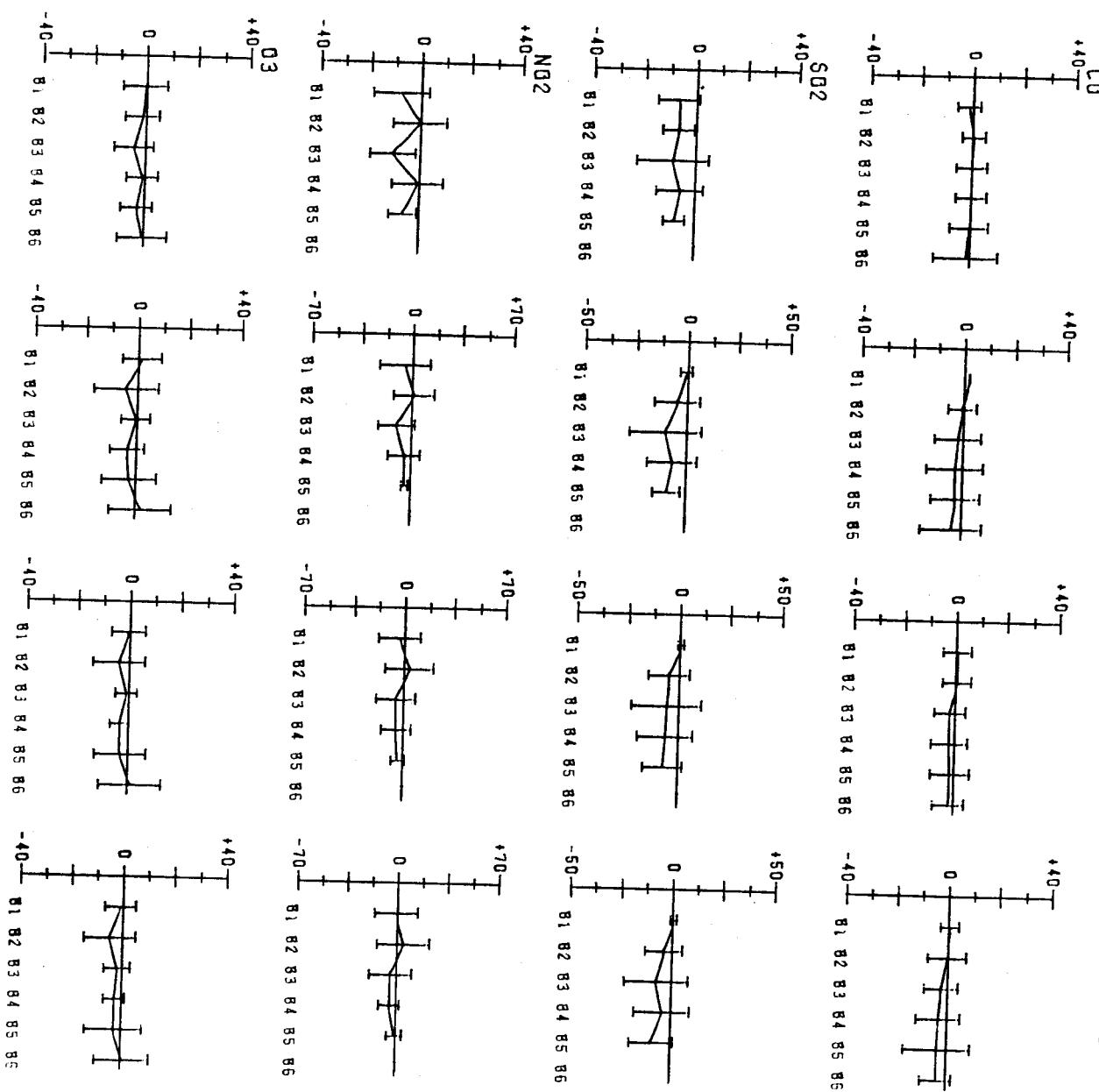
REG : 66 STATE : 32 NEW MEXICO
REP/RG : 602 CITY OF ALBUQUERQUE ENV. HEALTH DIV.

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

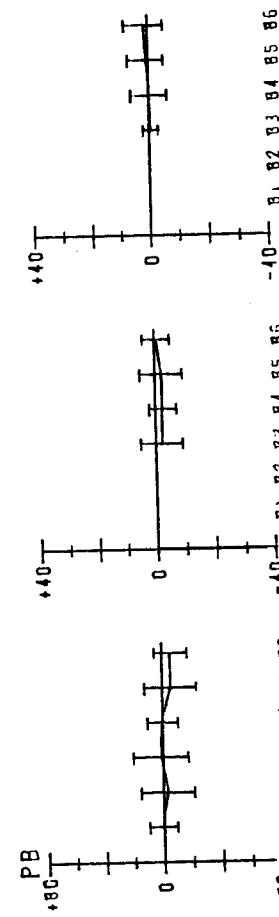
LEVEL 3



95% PROBABILITY LIMITS 81-85
MANUAL METHODS

PES : 06 STATE : 32 NEW MEXICO
REPORT #: 002 CITY OF ALBUQUERQUE ENV. HEALTH DIV.

PRECISION LEVEL 1 ACCURACY LEVEL 2 LEVEL 3



G-221

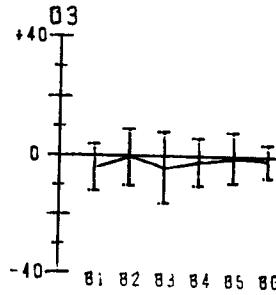
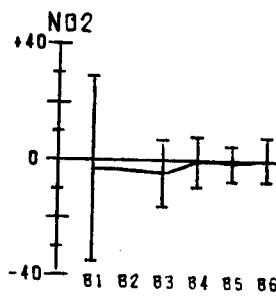
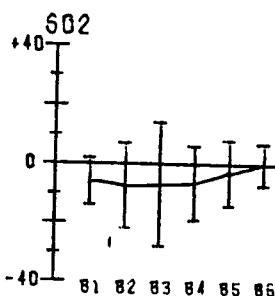
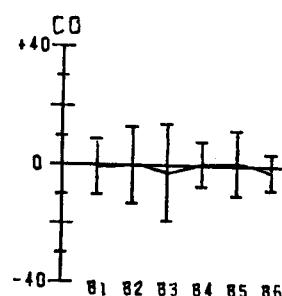
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 06

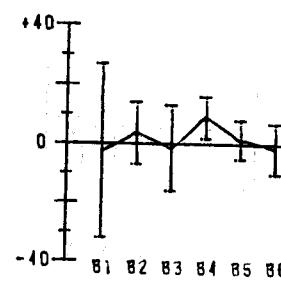
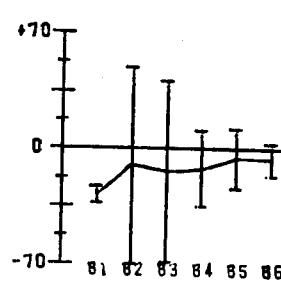
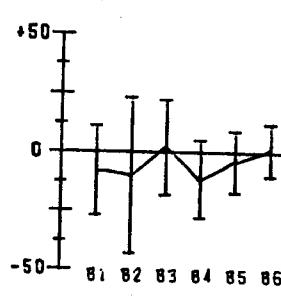
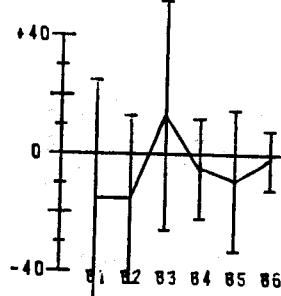
STATE : 37 OKLAHOMA

REPORT: 101 OK STATE DEPT. OF HEALTH

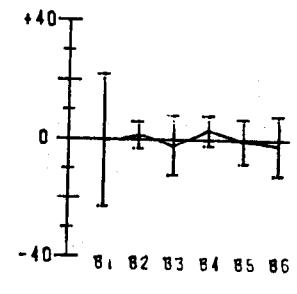
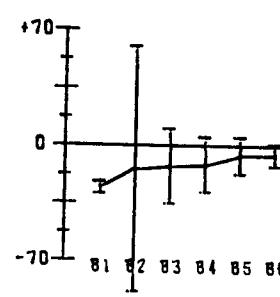
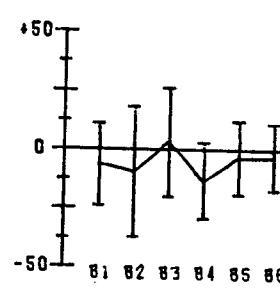
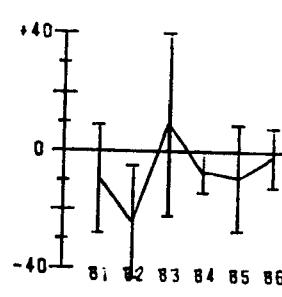
PRECISION



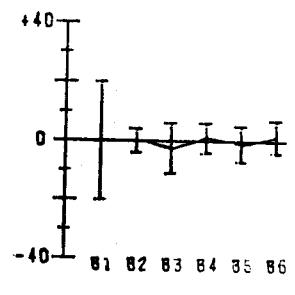
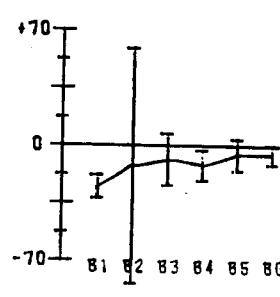
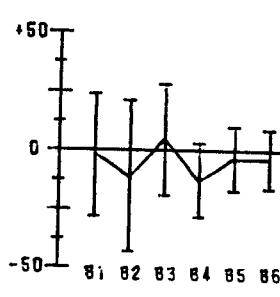
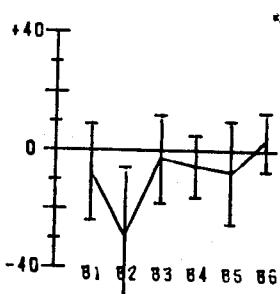
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

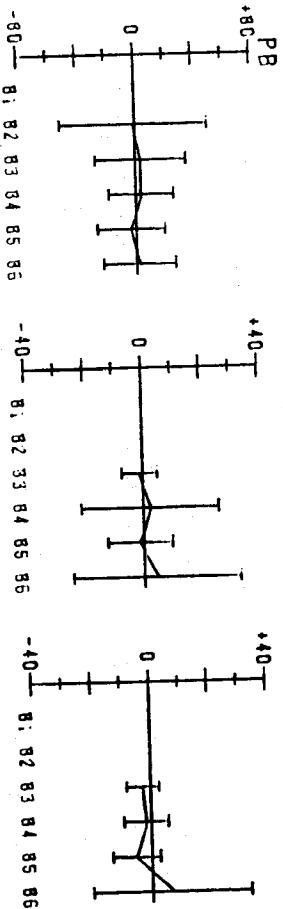
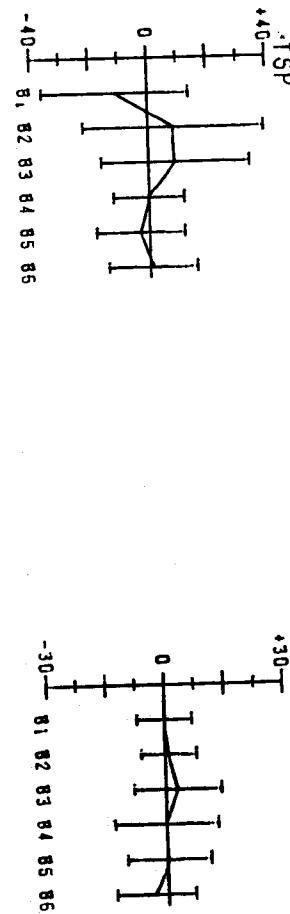


G-222

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 66
STATE : 37 OKLAHOMA
REPORT: 101 OK STATE DEPT. OF HEALTH

PRECISION LEVEL 1 ACCURACY LEVEL 2 LEVEL 3



C-223

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

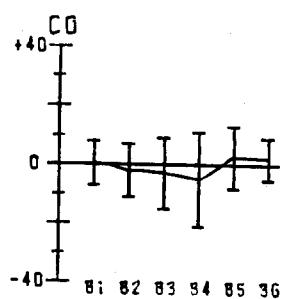
REG : 06

STATE : 37 OKLAHOMA

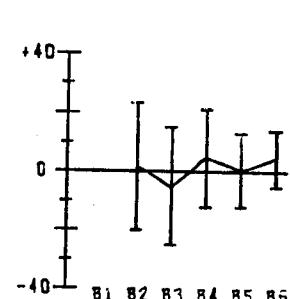
REPORT: 102 OKLAHOMA CITY-CNTY. HEALTH DEPT.

PRECISION

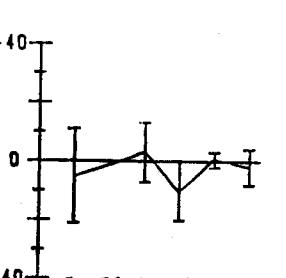
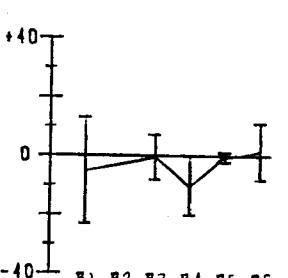
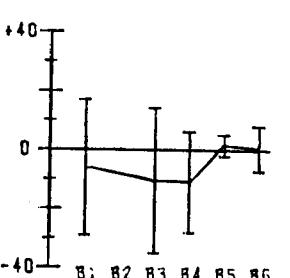
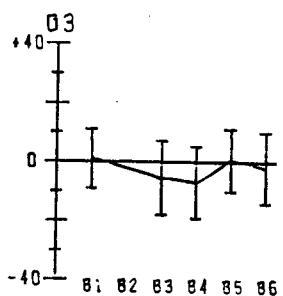
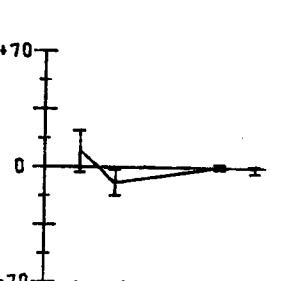
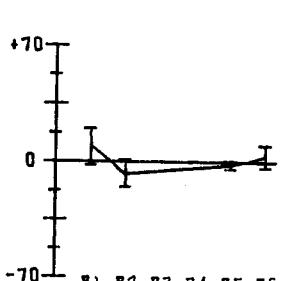
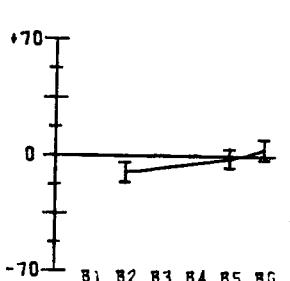
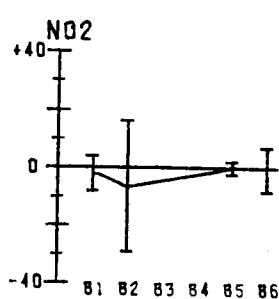
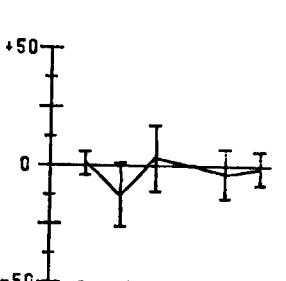
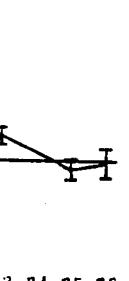
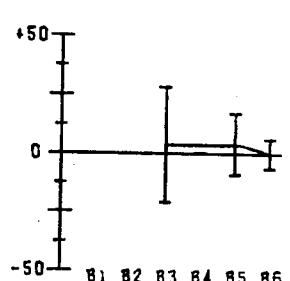
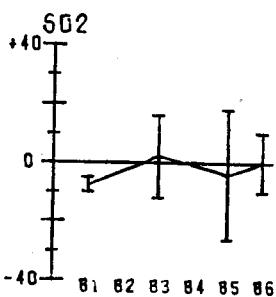
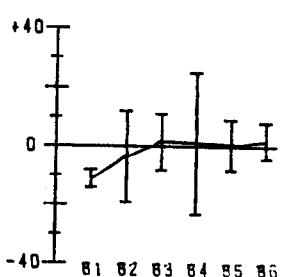
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



05% PROBABILITY LIMITS 81-86
MANUAL METHODS

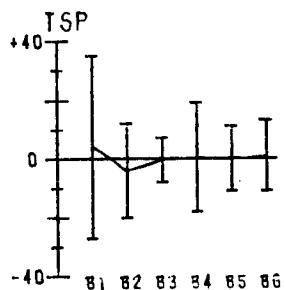
REG : 06

STATE : 37 OKLAHOMA

REPORT #: 102 OKLAHOMA CITY-CNTY. HEALTH DEPT.

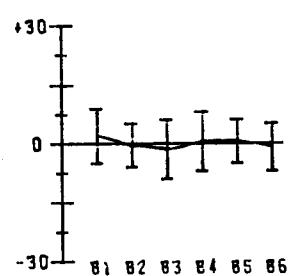
PPECISION

LEVEL 1

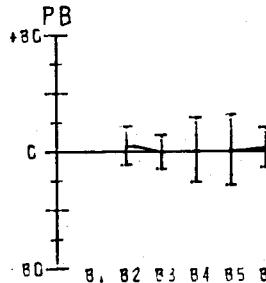


PCCURACY
LEVEL 2

LEVEL 3



PB



+40

-40

81 82 83 84 85 86

+40

-40

81 82 83 84 85 86

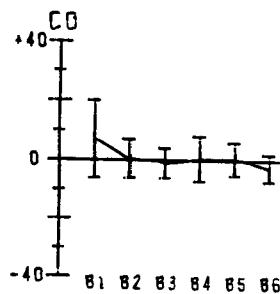
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 06

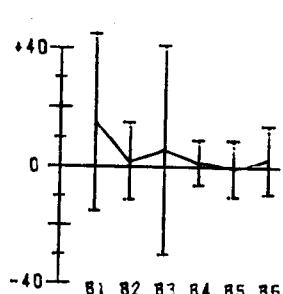
STATE : 37 OKLAHOMA

REPORT: 103 TULSA CITY-CNTY. HEALTH DEPT.

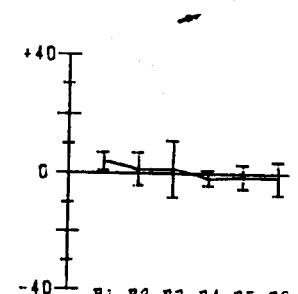
PRECISION



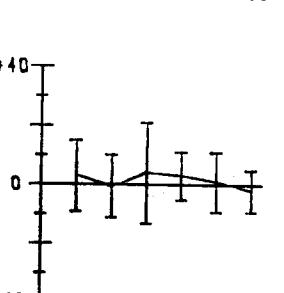
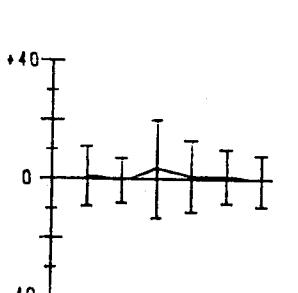
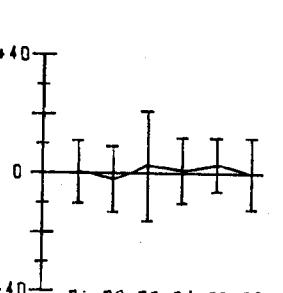
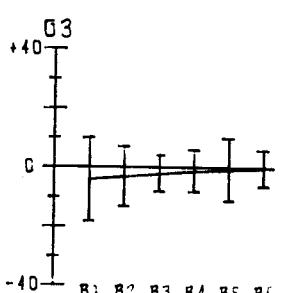
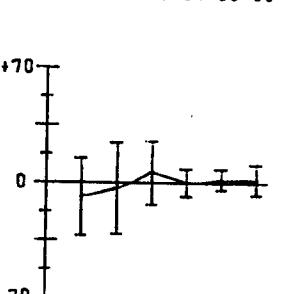
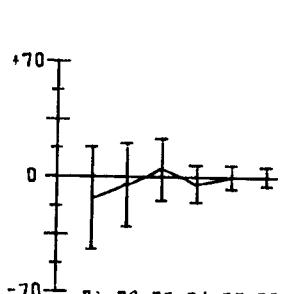
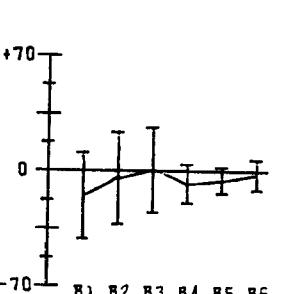
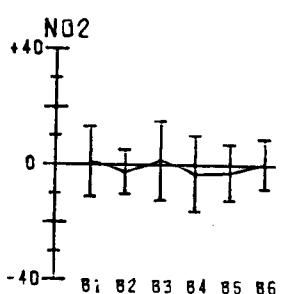
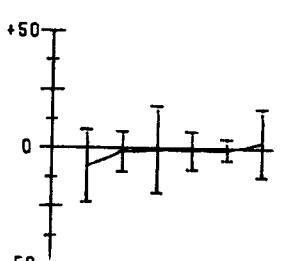
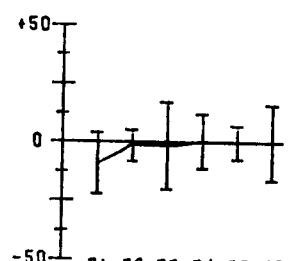
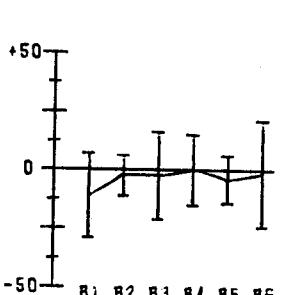
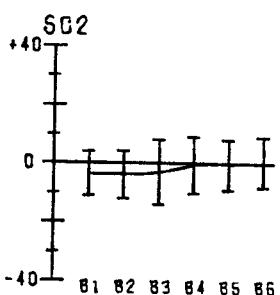
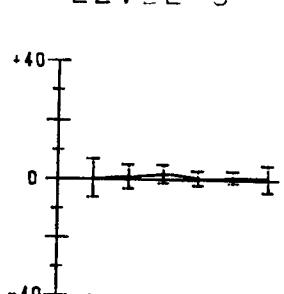
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 31-86
MANUAL METHODS

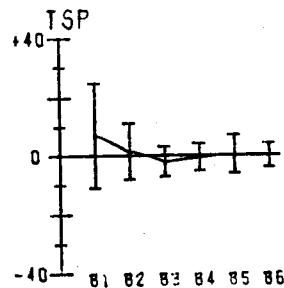
REG : 05

STATE : 37 OKLAHOMA

REPORT #: 103 TULSA CITY-CNTY. HEALTH DEPT.

PRECISION

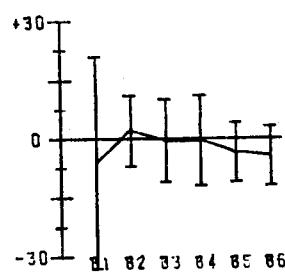
LEVEL 1



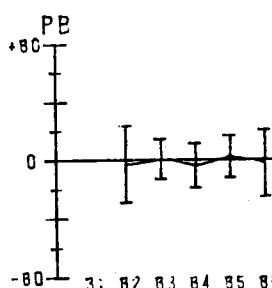
ACCURACY

LEVEL 2

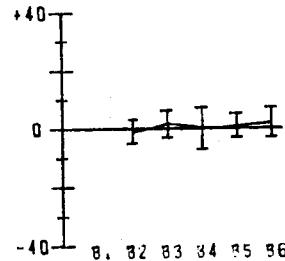
LEVEL 3



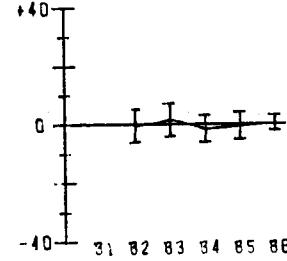
PB



PB



PB



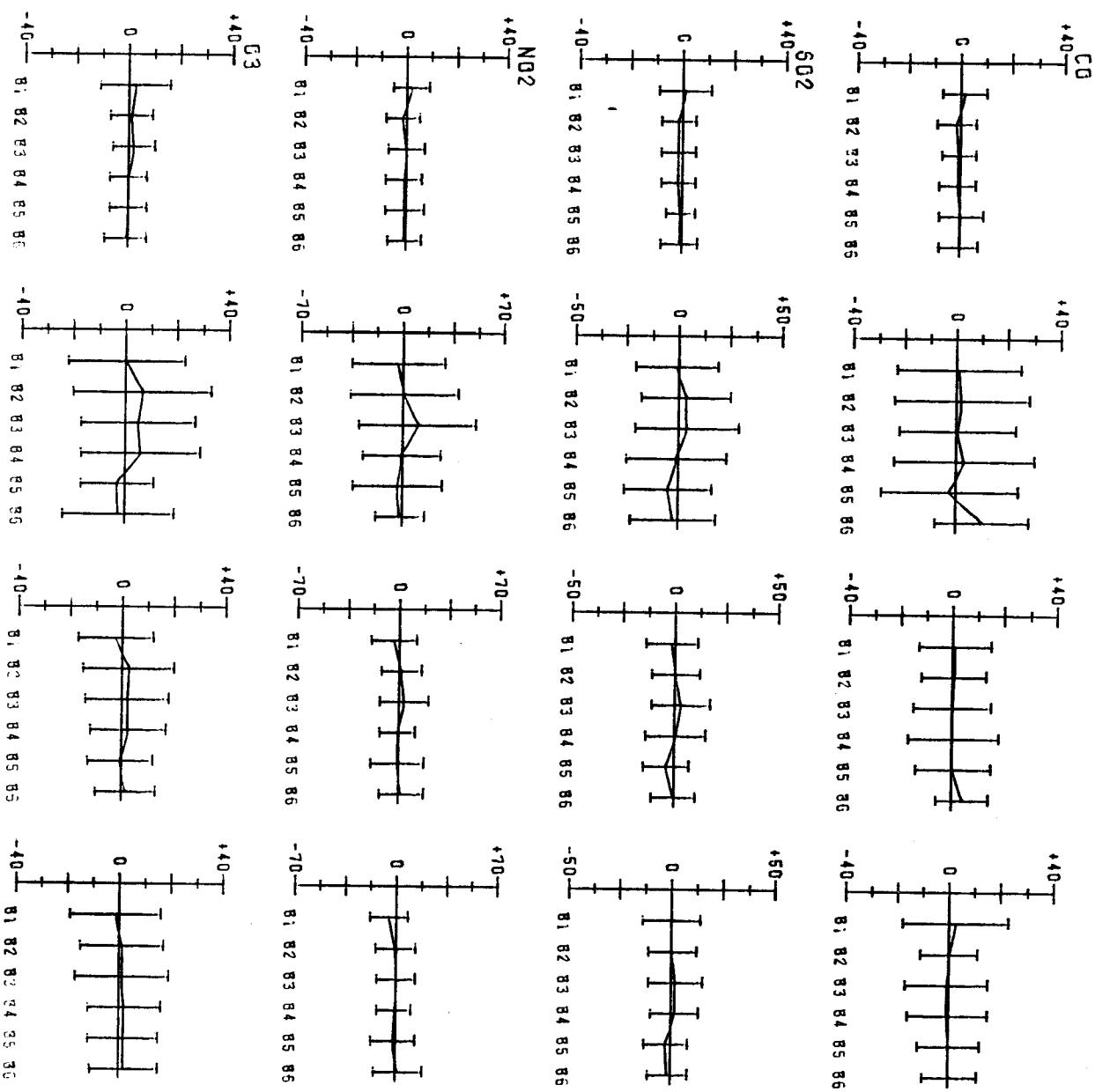
C-227

35% PROBABILITY LIMITS 31-35
CONTINUOUS METHODS

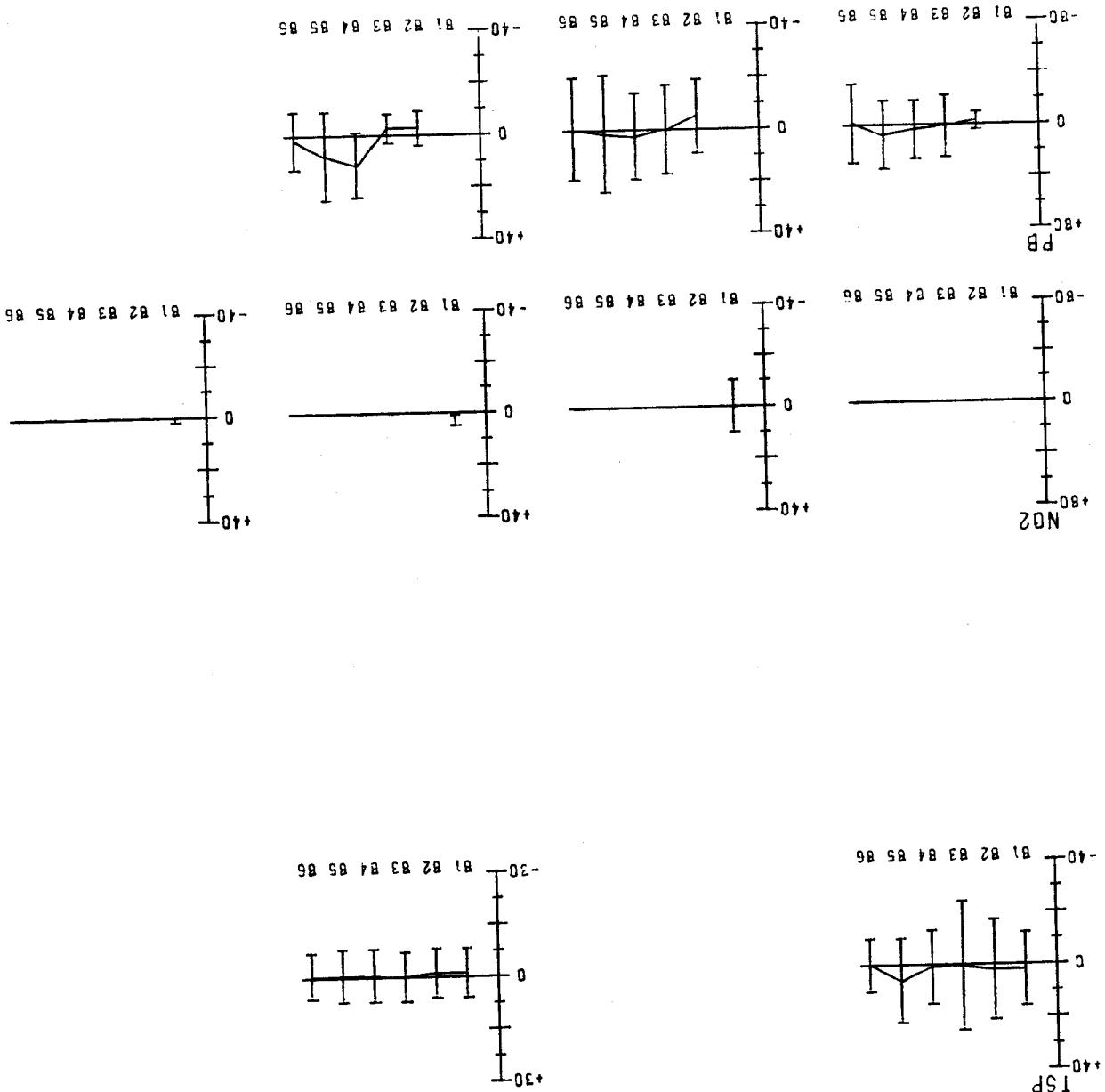
REG : 05 STATE : 45 REPORT : 001 TEXAS AIR CONTROL CORPO

PRECISION

LEVEL 1 ACCURACY LEVEL 2 LEVEL 3

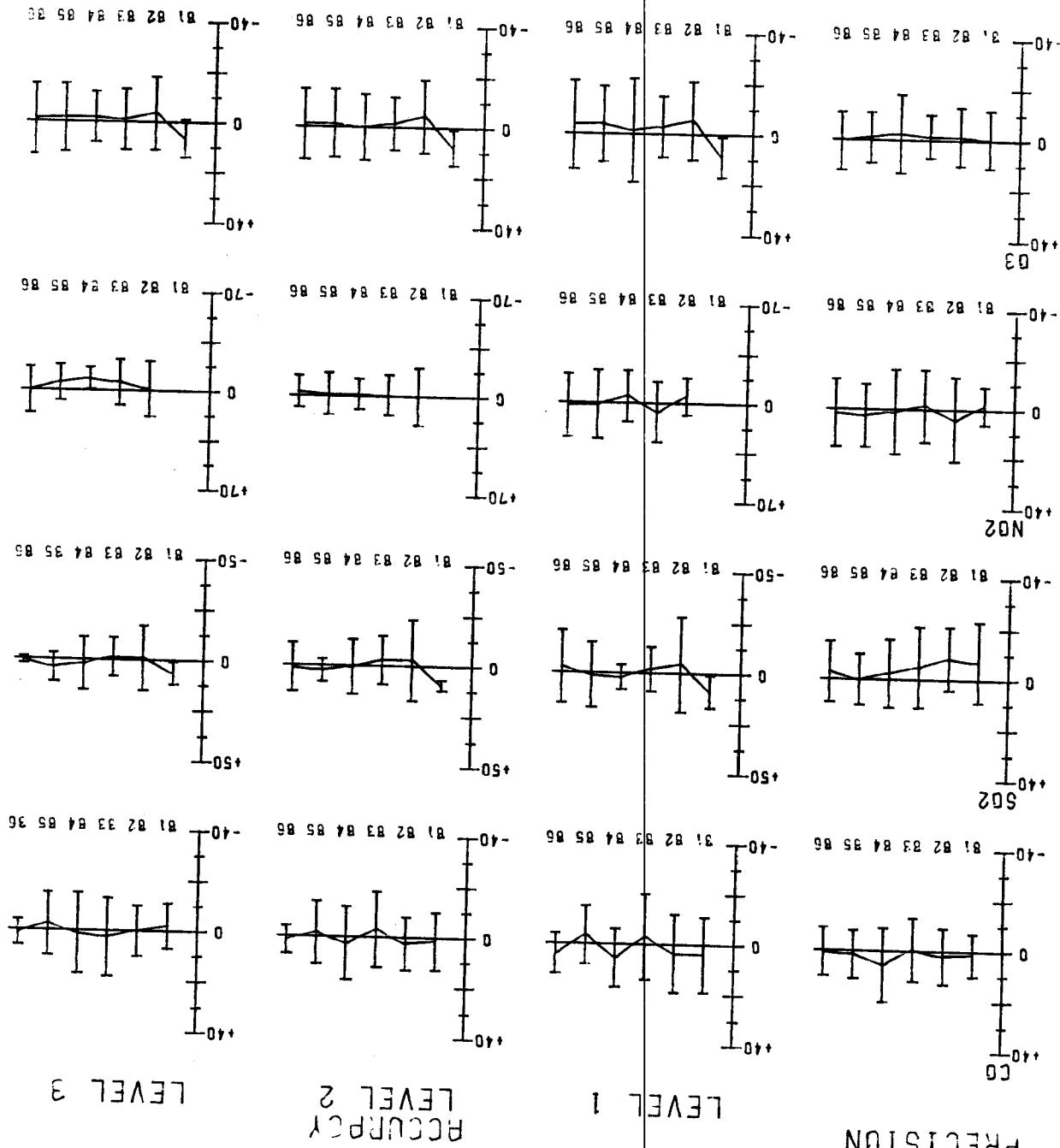


G-229

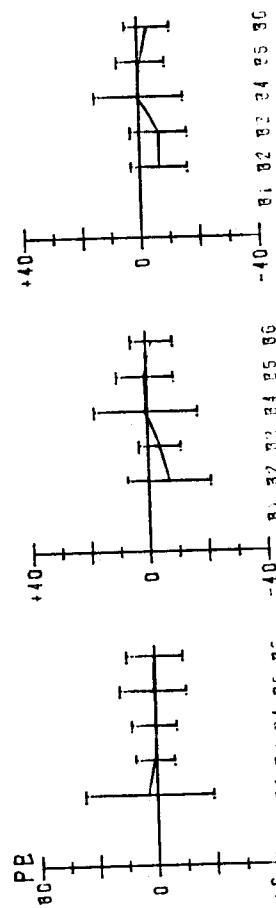
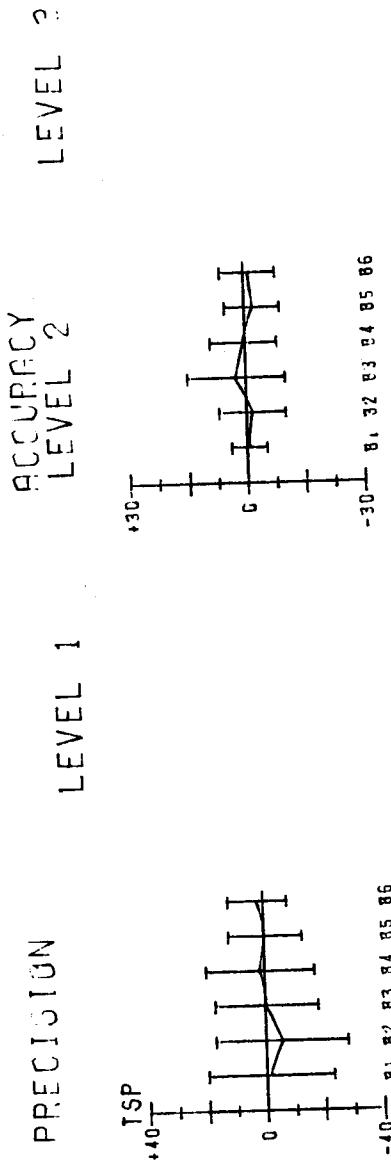


REG : 05
STRT E : 45 TEXAS AIR CONTROL GROUP
REPGRG : 001 TEXAS AIR CONTROL GROUP
95% PROBABILITY LIMITS 81-85
MANUPL METHODS

G-230



35% PROBABILITY LIMITS 21-25
STATE: 05 TEXAS
REPORT #: 002 DALLAS ENV. HEALTH & CONSERVATION DEPT.



C-231

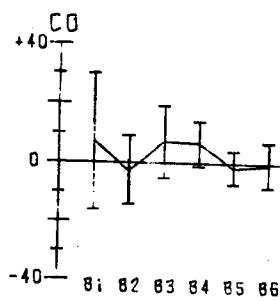
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 06

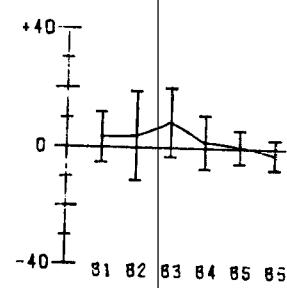
STATE : 45 TEXAS

REPORT: 007 EL PASO CITY-CNTY. HEALTH DEPT.

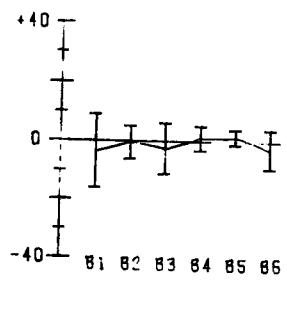
PRECISION



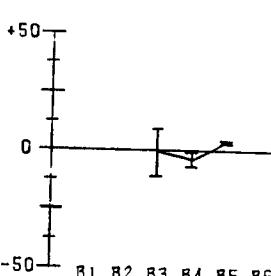
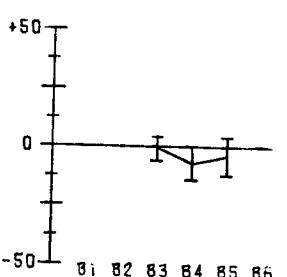
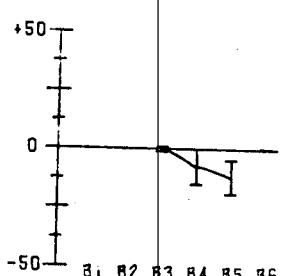
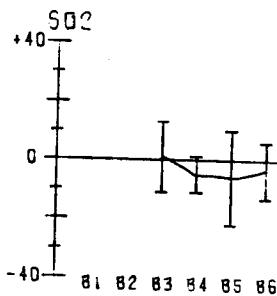
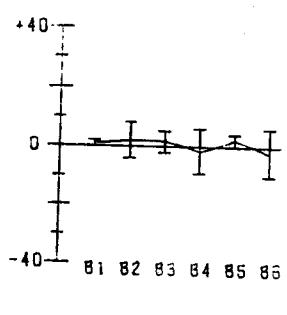
LEVEL 1



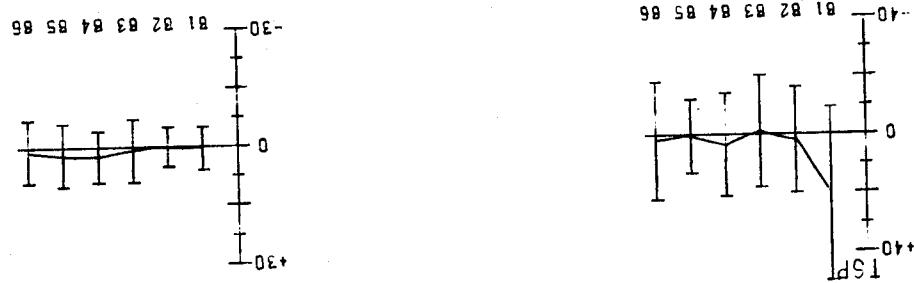
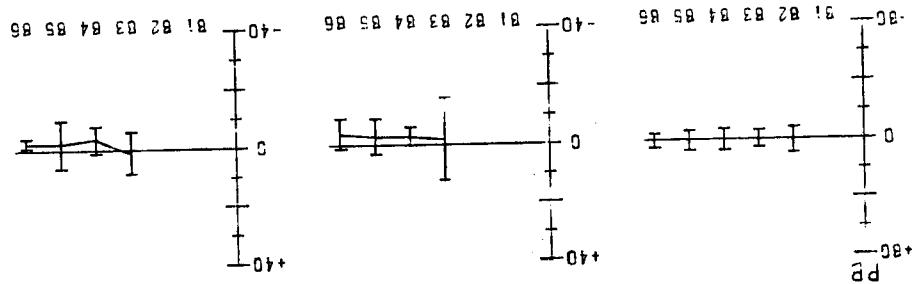
ACCURACY
LEVEL 2



LEVEL 3



C-233

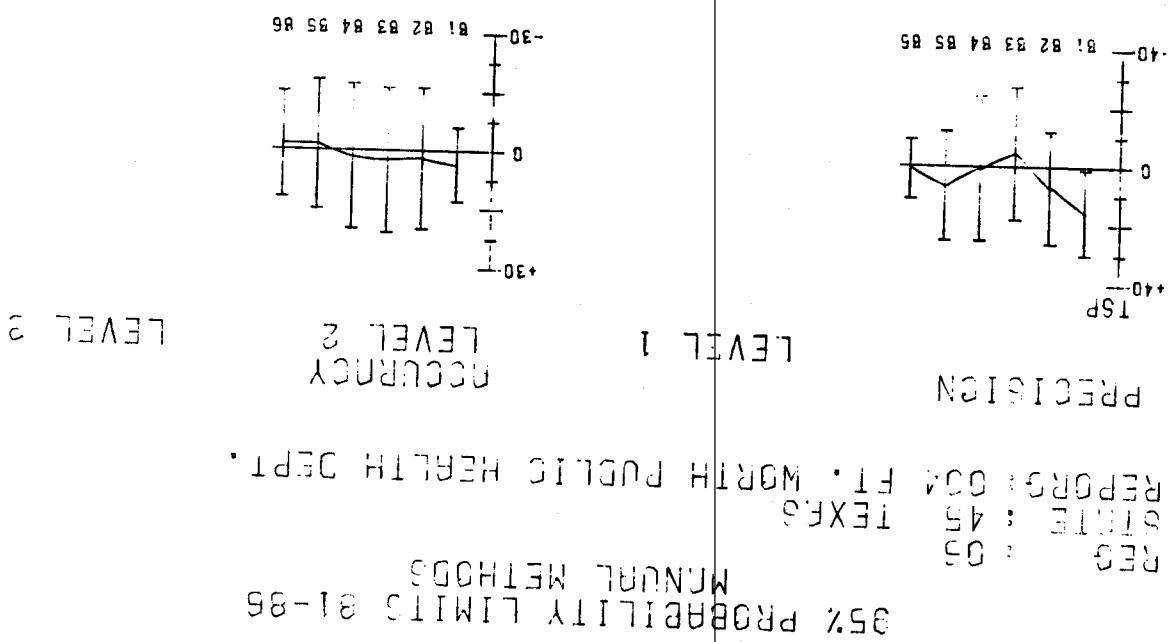


PRECISION ACCURACY LEVEL 1 LEVEL 2 LEVEL 3

REG : 05 STATE : 45 TEXAS REGRS : 000 EL PASO CITY-CNTY. HERTH DEPT.

95% PROBABILITY LIMITS E1-E6 MUNICIPAL METHODS

C-234

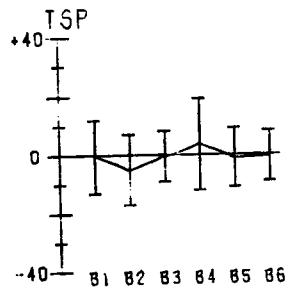


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

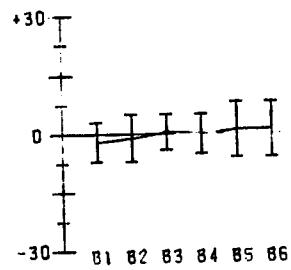
REG : 06
STATE : 45 TEXAS
REPORT: 005 GALVESTON COUNTY HEALTH DISTRICT

PRECISION

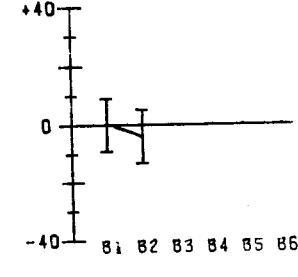
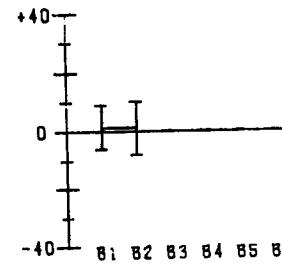
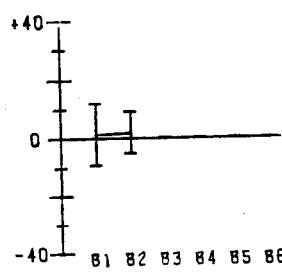
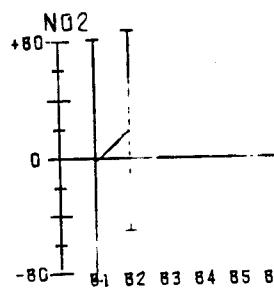
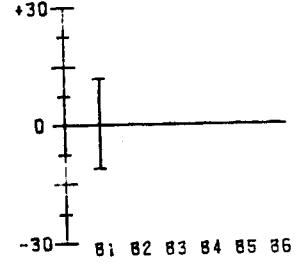
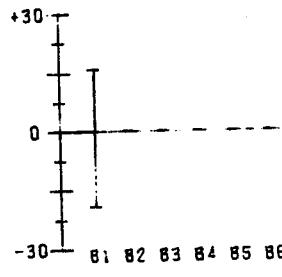
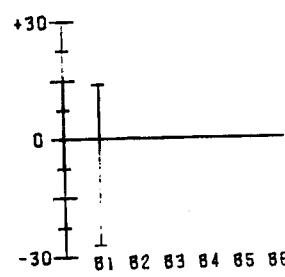
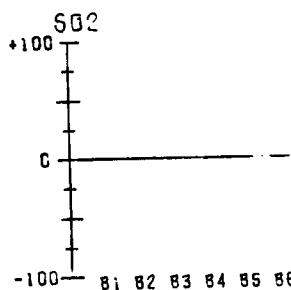
LEVEL 1



ACCURACY
LEVEL 2



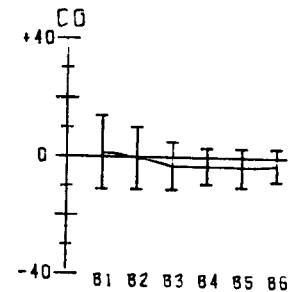
LEVEL 3



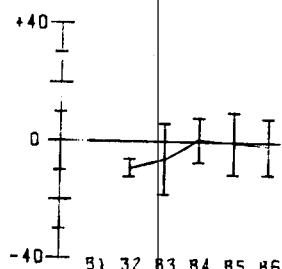
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 05
STATE : 45 TEXAS
REPORT: 006 HOUSTON DEPT. OF PUBLIC HEALTH

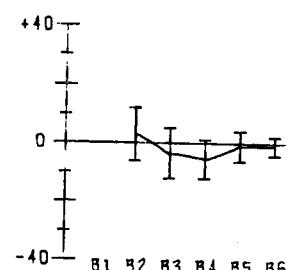
PRECISION



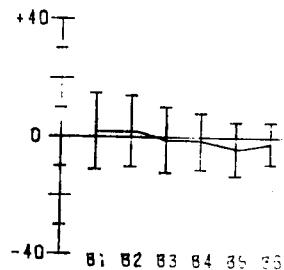
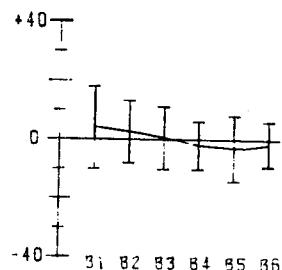
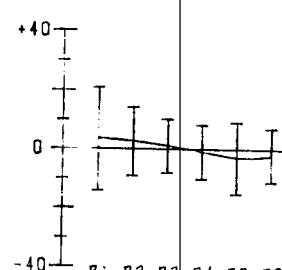
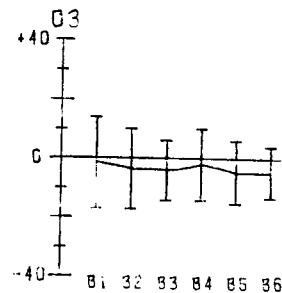
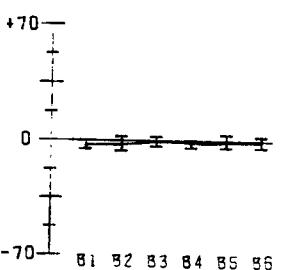
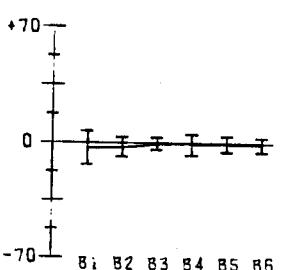
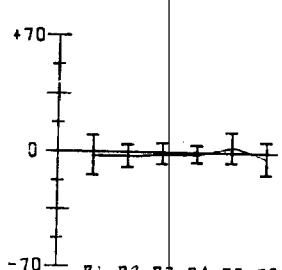
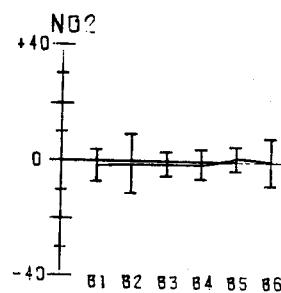
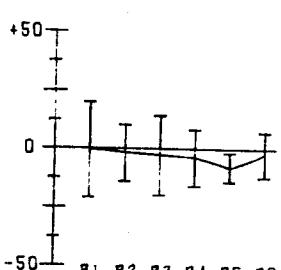
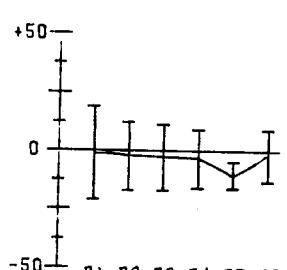
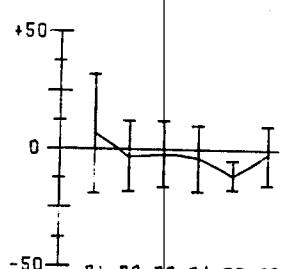
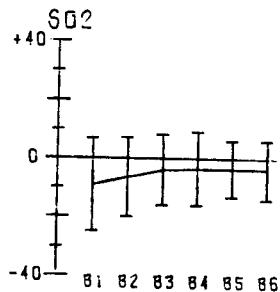
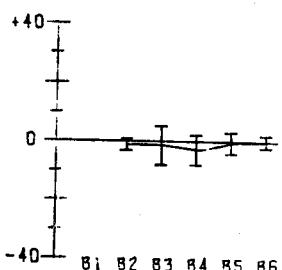
LEVEL 1



ACCURACY
LEVEL 2

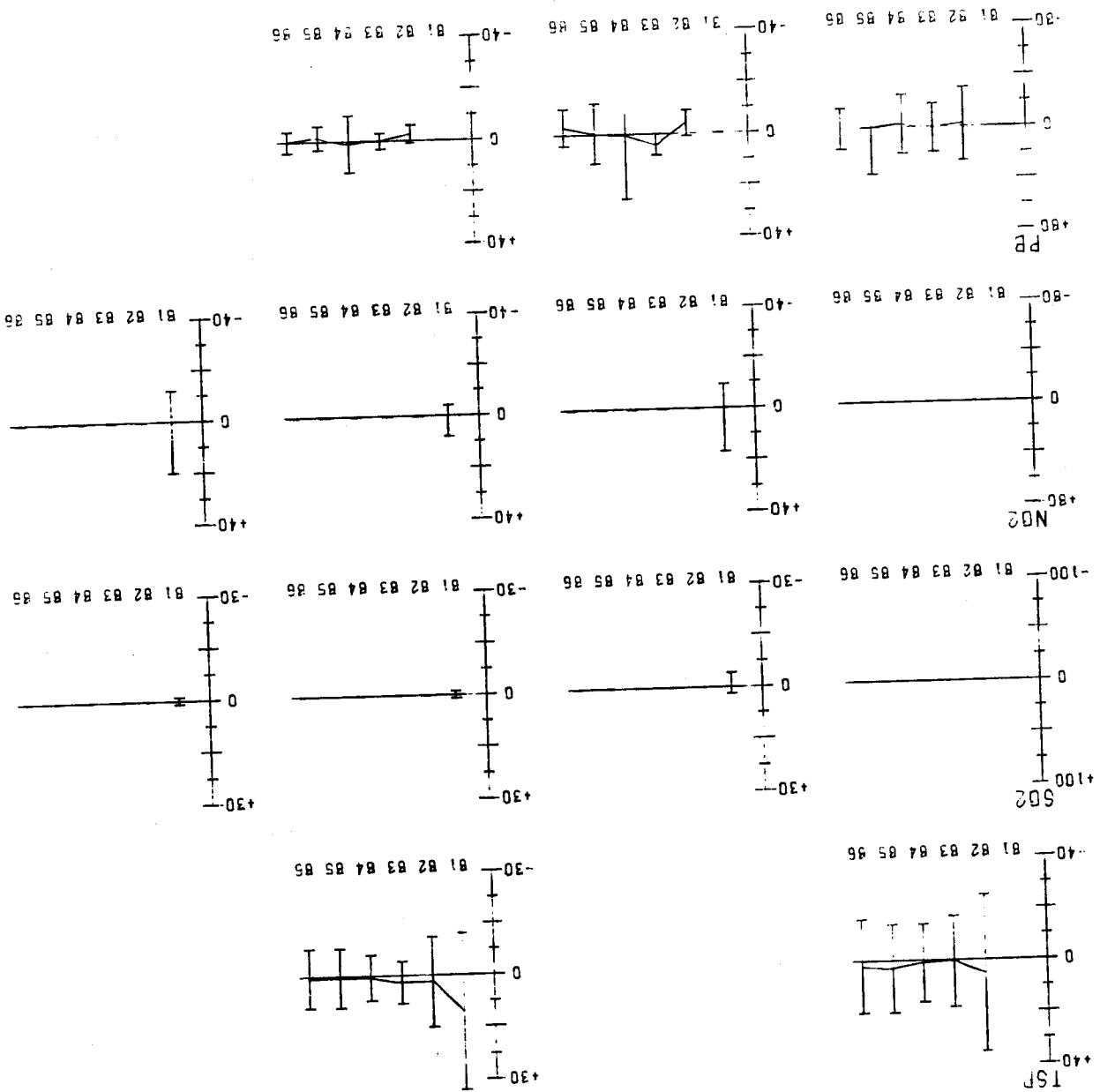


LEVEL 3



C-236

C-237



REG : 05 REG : 05
SFTF : 45 SFTF : 005
TEXDS TEHDS
PRGMS : 005 PRGMS : 005
LEVEL 1 LEVEL 2
ACCURACY ACCURACY
LEVEL 3 LEVEL 3
PRECISION PRECISION
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

95% PROBABILITY LIMITS 81-85
MANUEL METHODS

REG : 35 STATE : 45
REPORT : 33 TEXAS

SAN JUAN COUNTY METRO. HEALTH DISTRICT

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

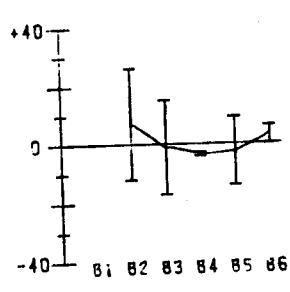
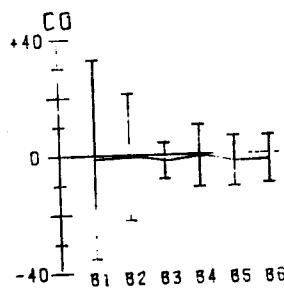


95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

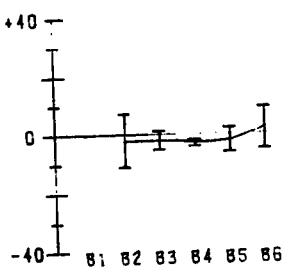
REG : 07
STATE : IA IOWA
REPORT: 001 POLK COUNTY PHYSICAL PLANNING

PRECISION

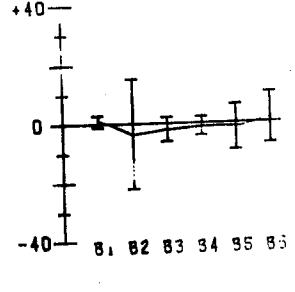
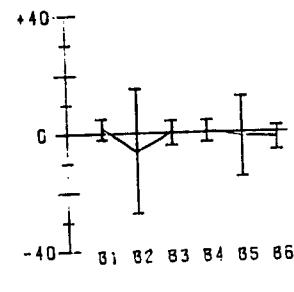
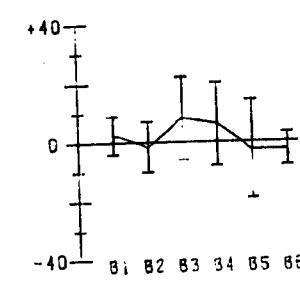
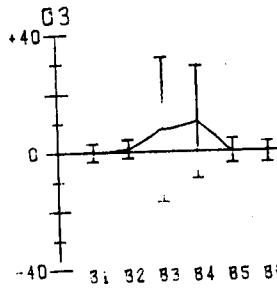
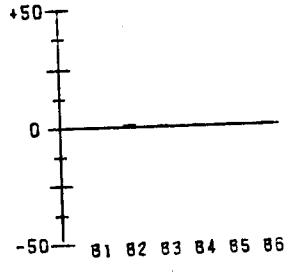
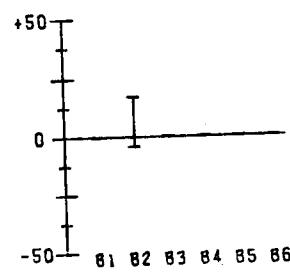
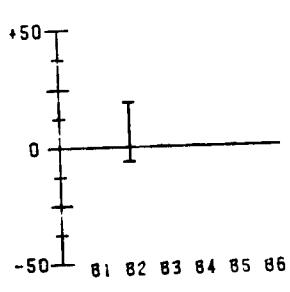
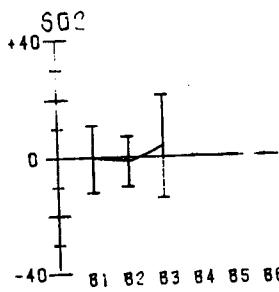
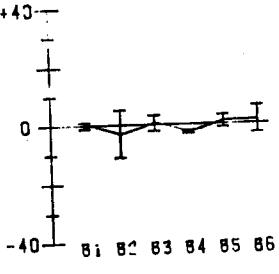
LEVEL 1



ACCURACY
LEVEL 2

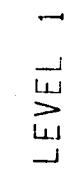
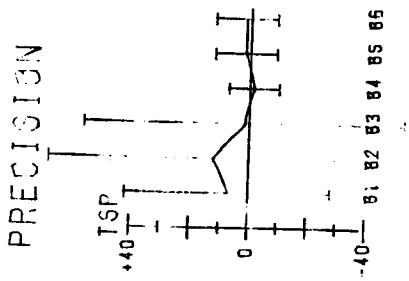


LEVEL 3



REGT
DEFITE
ORIGIN
REPROG

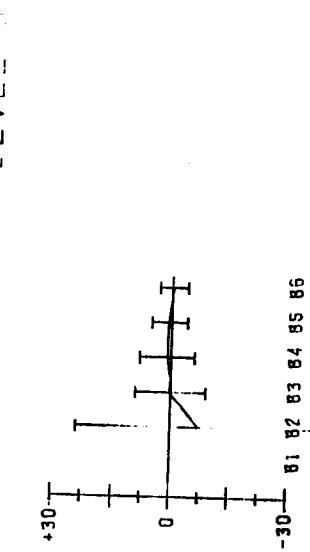
**195% PROBABILITY LIMITS 21-26
PARK COUNTY PHYSICAL FLOORING
MATERIAL METHODS**



ACCURACY LEVEL 2



LEVEL 2



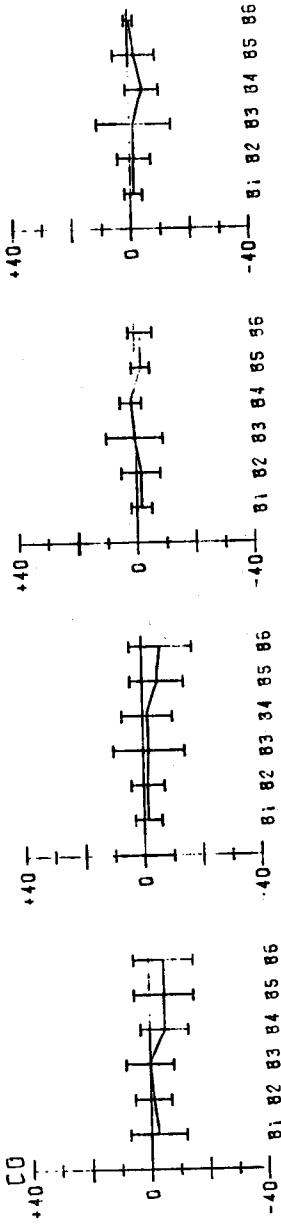
C-240

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG: 07
STATE: ID
REPORT: 66
LINE COUNTY HEALTH DEPARTMENT

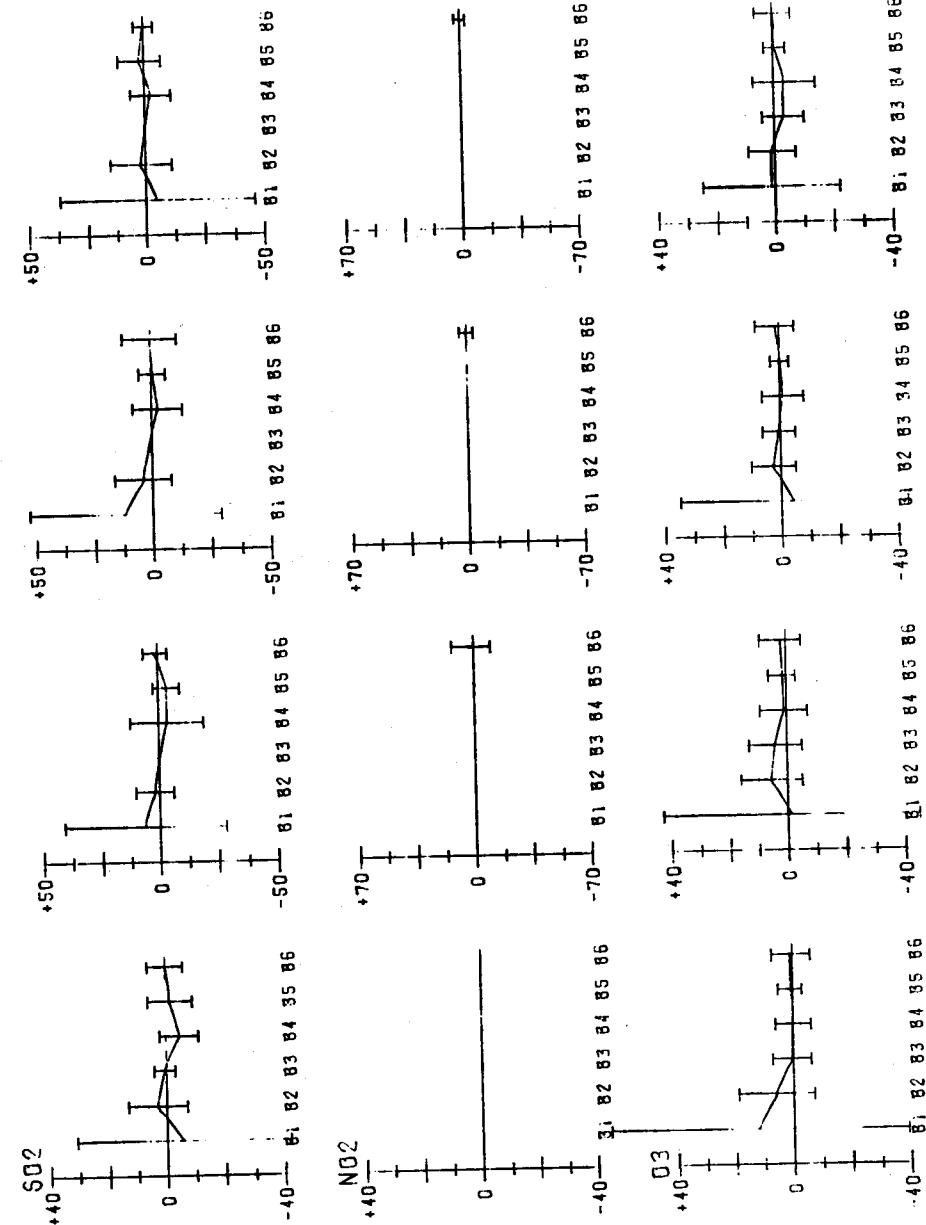
PRECISION

LEVEL 1



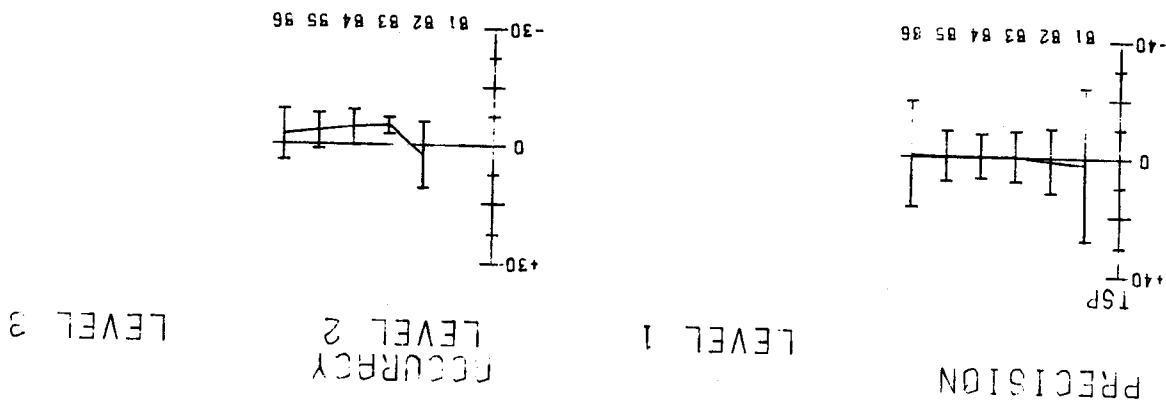
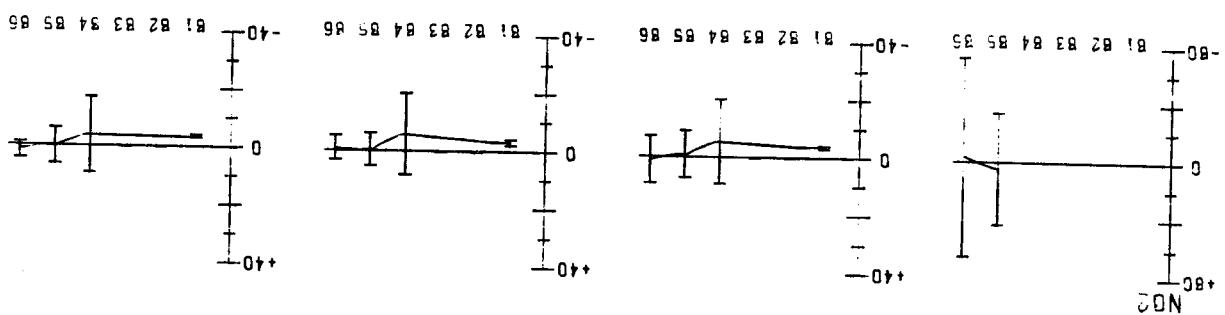
FREQUENCY
LEVEL 2

LEVEL ~



G-241

C-242



REPORT #: 002 LINN COUNTY HEALTH DEPARTMENT
SHEET #: 15 19MG
REG #: 07
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

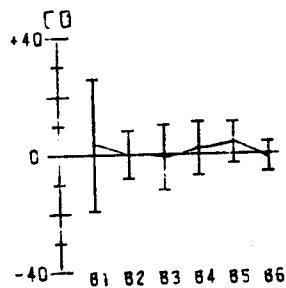
REG : 07

SAMPLE : 15 IOWA

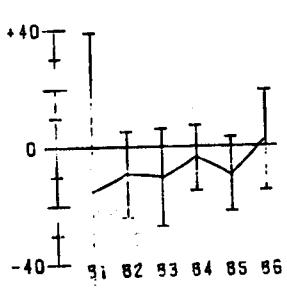
REPORT #: 000 UNIVERSITY HYGIENIC LABORATORY

PRECISION

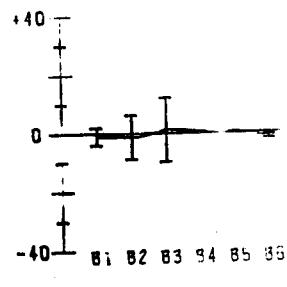
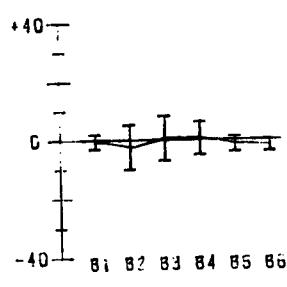
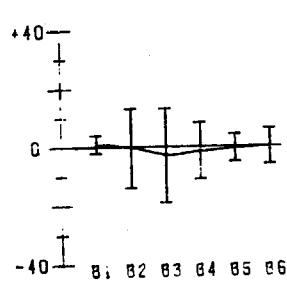
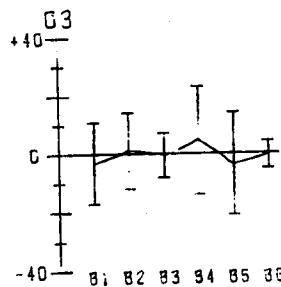
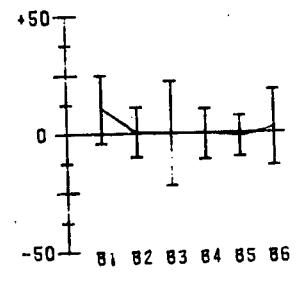
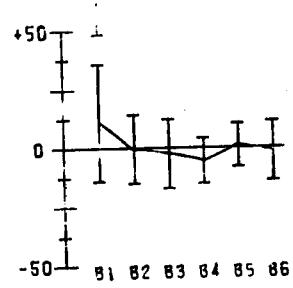
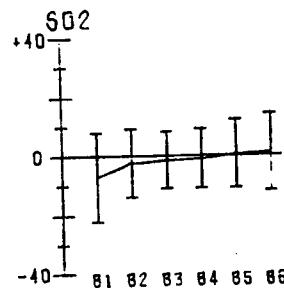
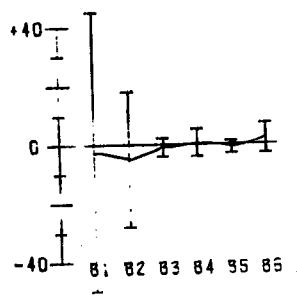
LEVEL 1



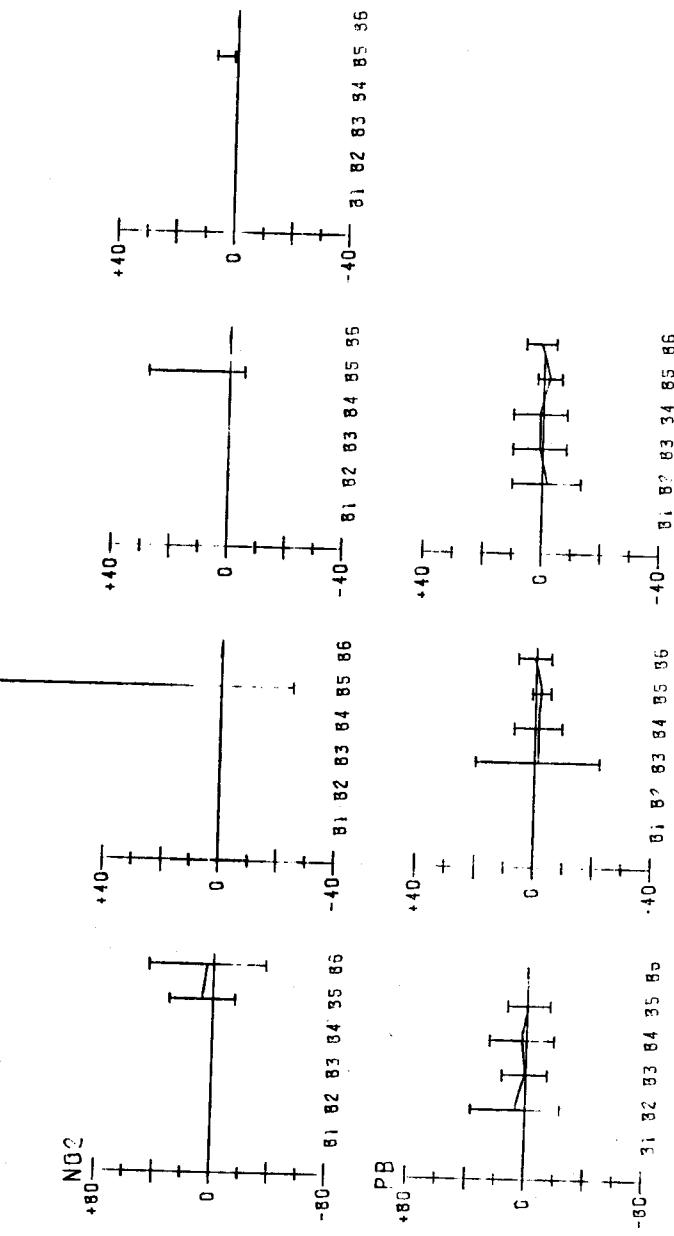
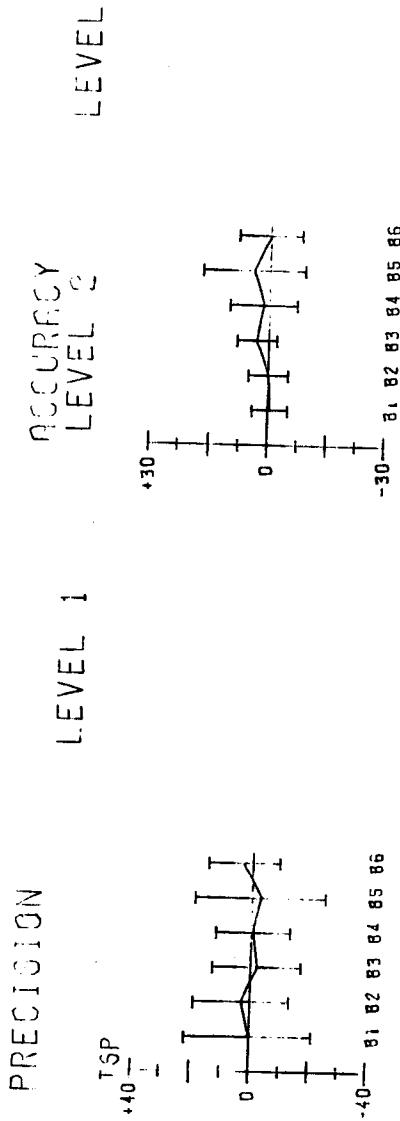
ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS - 81-85
 MANUAL METHODS
 STATE: IOWA
 REPORT: 000 UNIVERSITY HYGIENIC LABORATORY



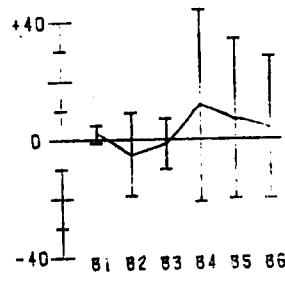
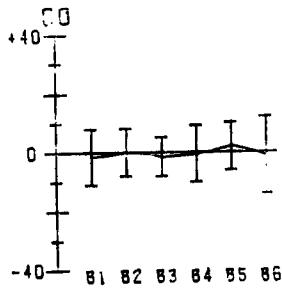
G-244

95% PROBABILITY LIMITS 31-25
CONTINUOUS METHODS

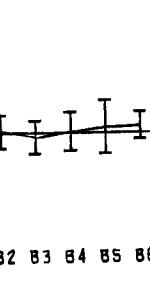
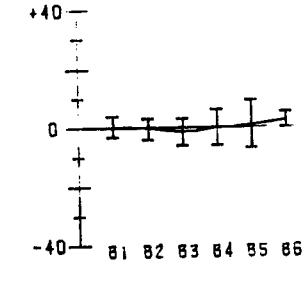
REG : 07
STATE : 17 KANSAS
REPORG: 001 STATE OF KANSAS

PRECISION

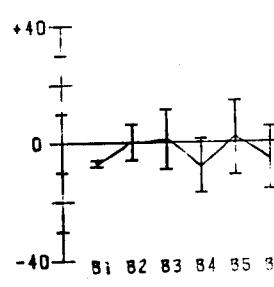
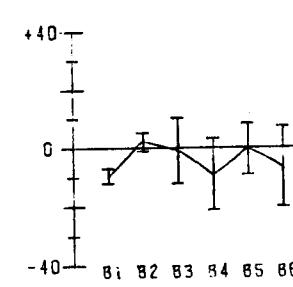
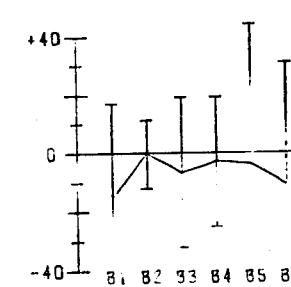
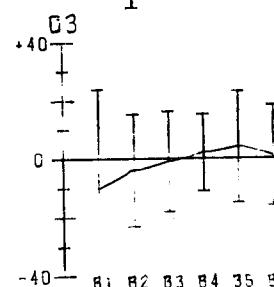
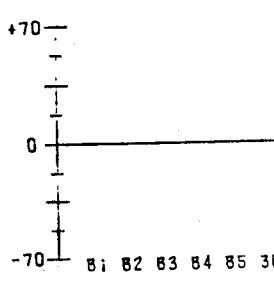
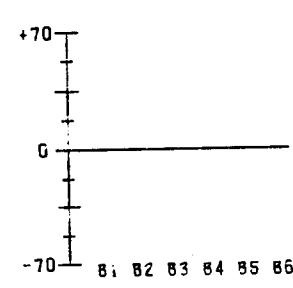
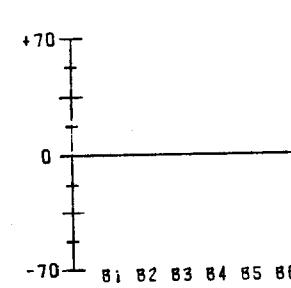
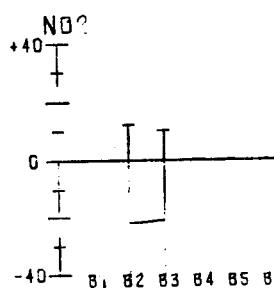
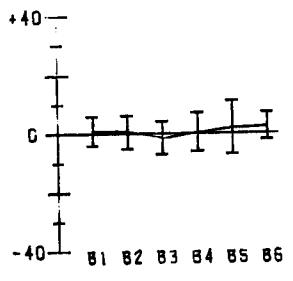
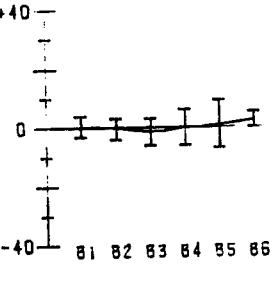
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

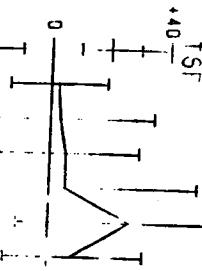


95% PROBABILITY LIMITS 31-23
MANUAL METHODS

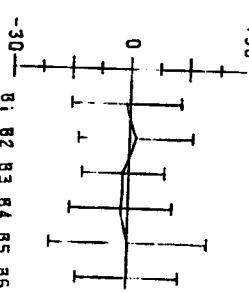
REF. : U
STATE : 12 KRNRS
REF ID : 551 STATE JF KRNRS

PRECISION

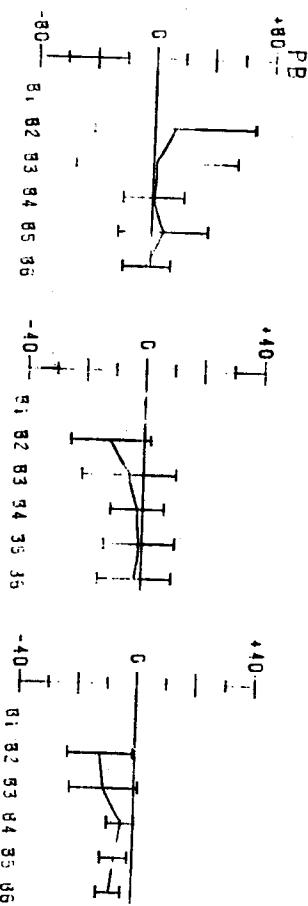
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



35% PROBABILITY LIMITS 81-35
CONTINUOUS METHODS

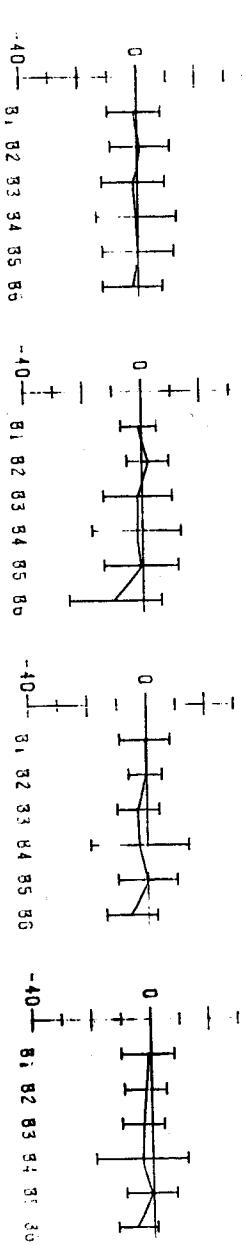
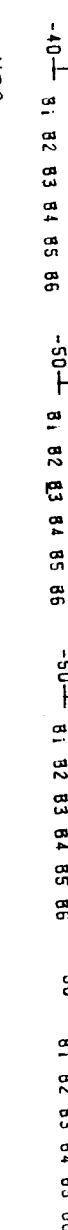
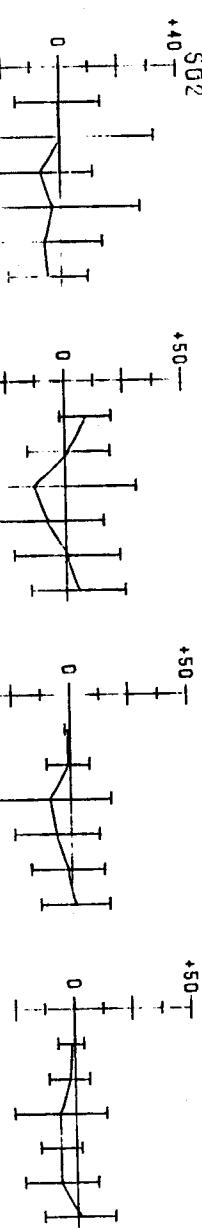
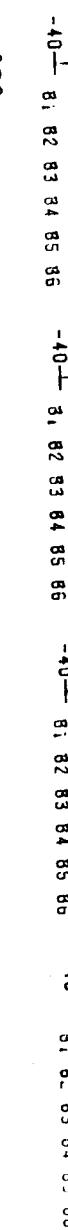
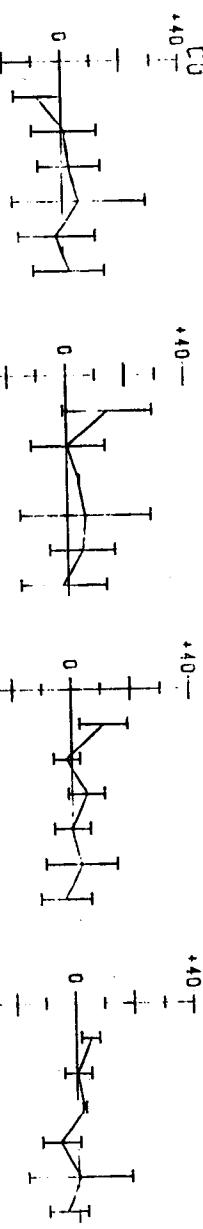
REG : 67
SERIAL : 25
REPORT : 601
MISSOURI SURVEY SERVICES PROGRAM

PRECISION

LEVEL 1

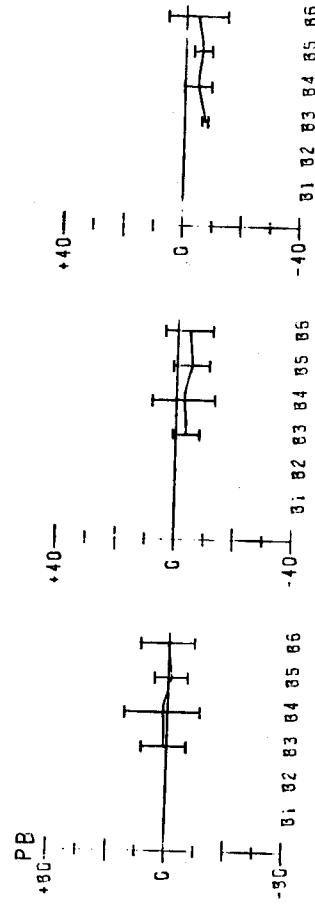
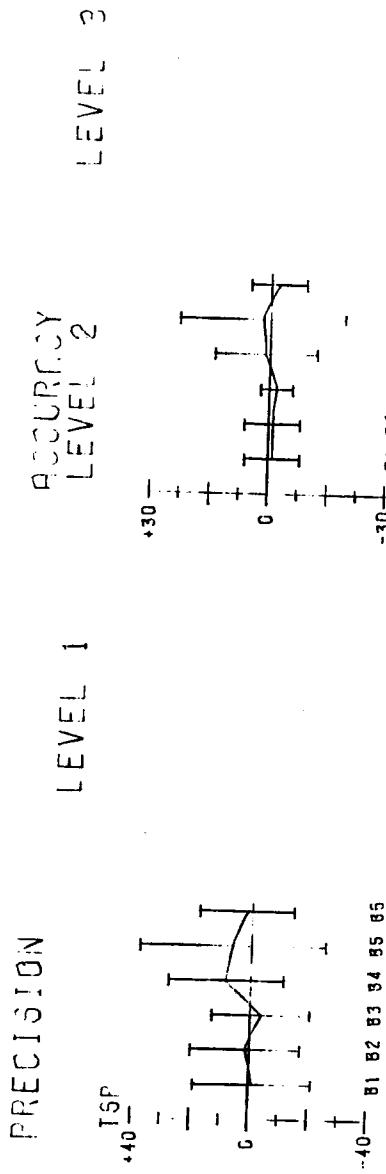
OCCUPANCY
LEVEL 2

LEVEL 3



REGISTRE : 67
SÉRIE : 25 MISCELLANÉE
REPORTER : GUY LEBOURGUEY JOURNALISTE PROGRAMMATEUR

95% PROBABILITY LIMITS 81-85 MINIMUM METHODS



95% PROBABILITY LIMITS 31-85
CONTINUOUS METHODS

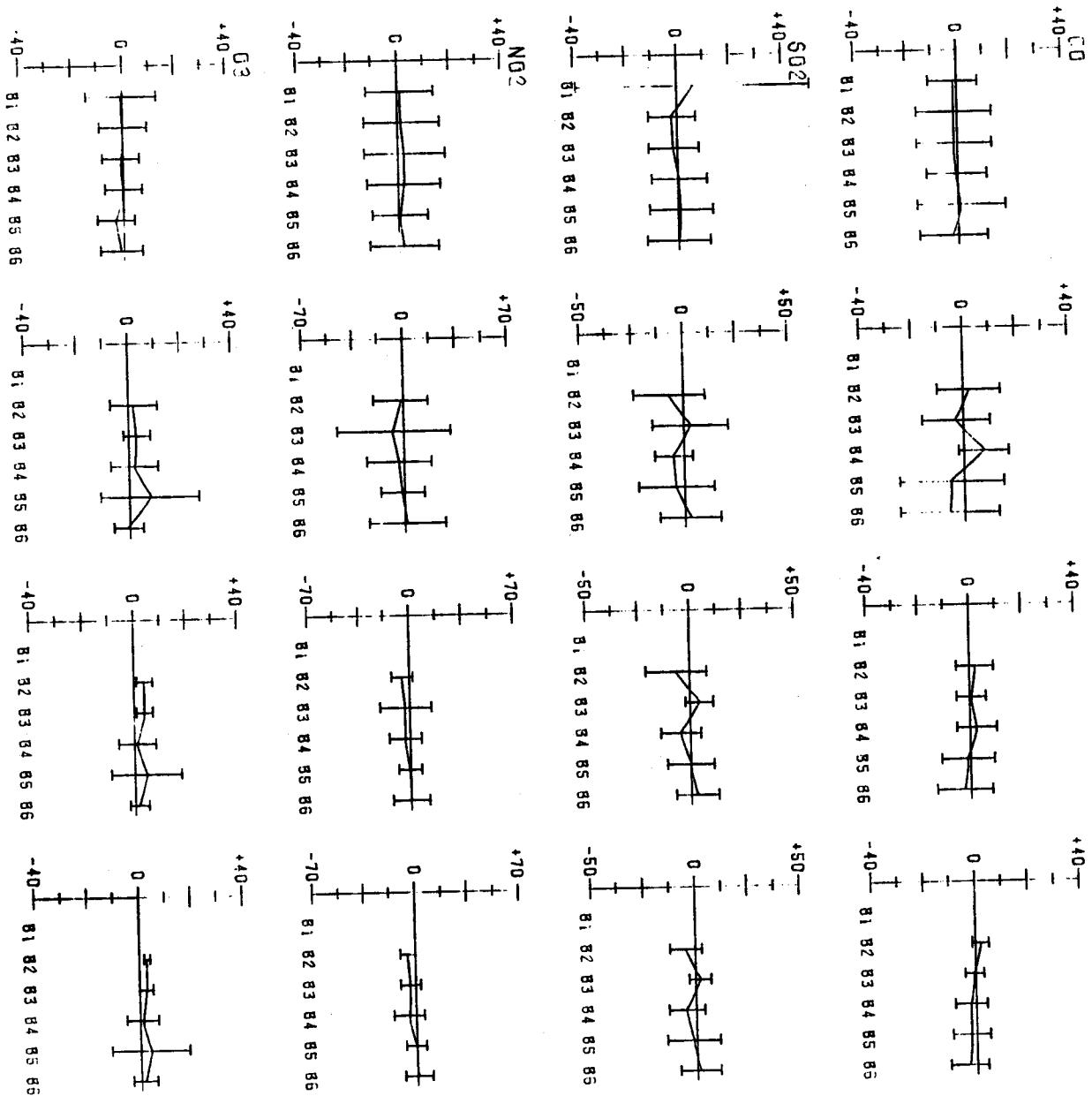
PERIOD: 07
STATE: 25
REPORT: 002 ST. LOUIS COUNTY

PRECISION

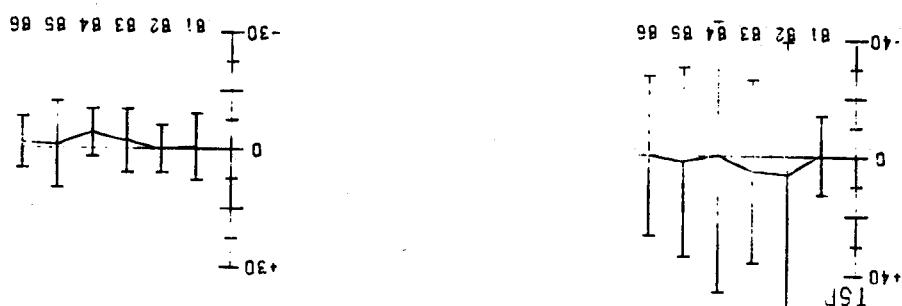
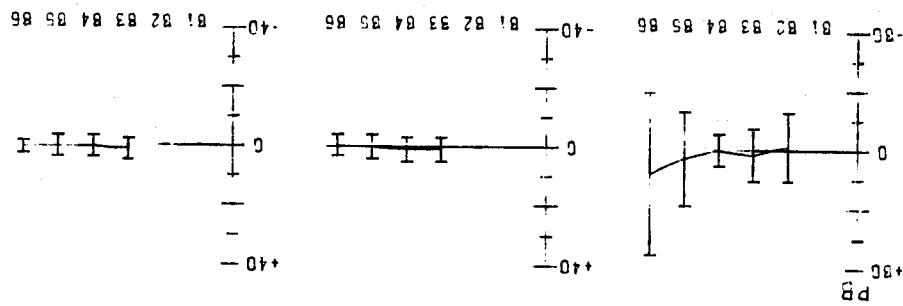
LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



C-250



PRECISION LEVEL 3 LEVEL 2 LEVEL 1 PRECISION

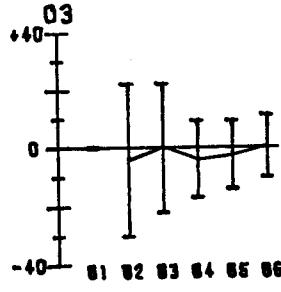
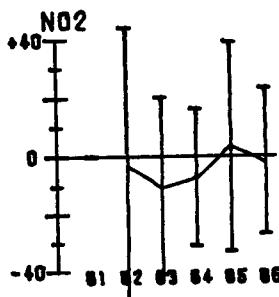
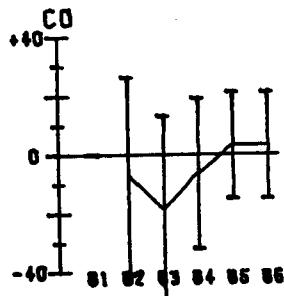
REF : 07 MNUMBER : 003 STAB : 25 REFGS: 003 CT. 13010 GCLNY
95% PROBABILITY LIMITS SI-35

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

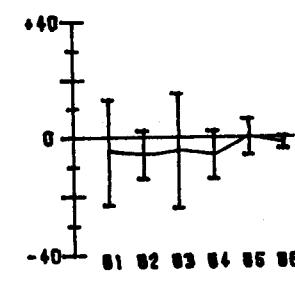
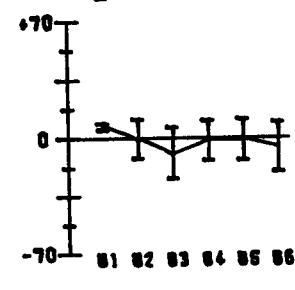
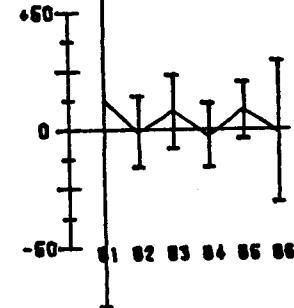
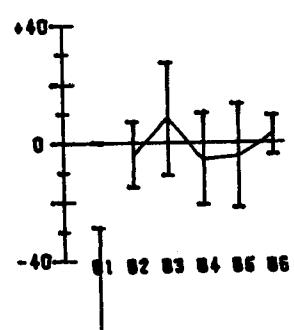
REG : 07
STATE : 26 MISSOURI
REPORT #: 003 ST. LOUIS CITY

PRECISION

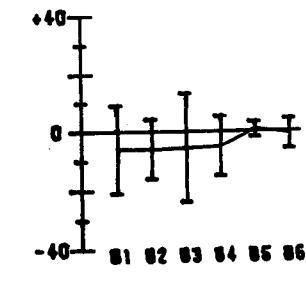
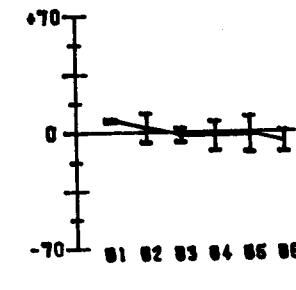
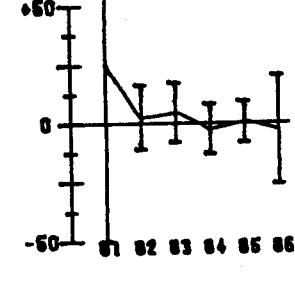
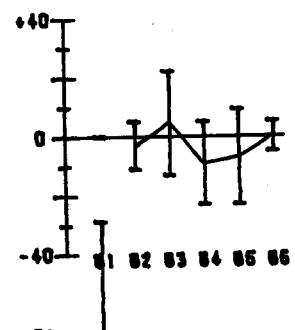
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

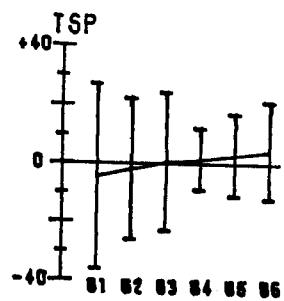


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 07
STATE : 26 MISSOURI
REPORG: 003 ST. LOUIS CITY

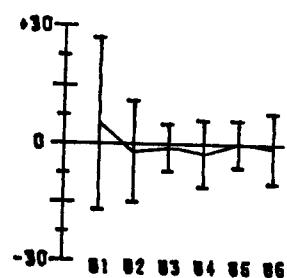
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

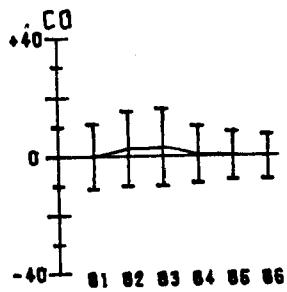
LEVEL 3



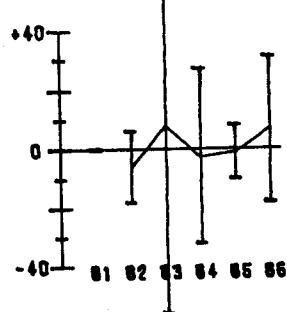
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 07
STATE : 26 MISSOURI
REPORG: 004 KANSAS CITY

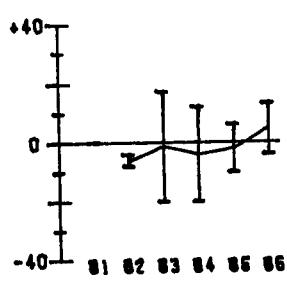
PRECISION



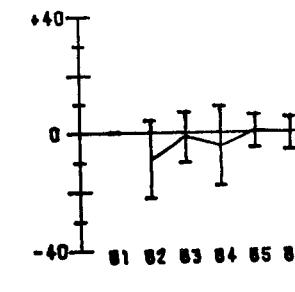
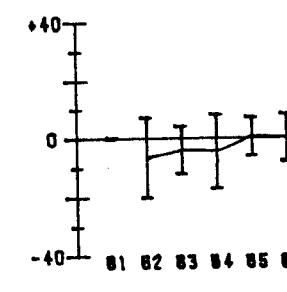
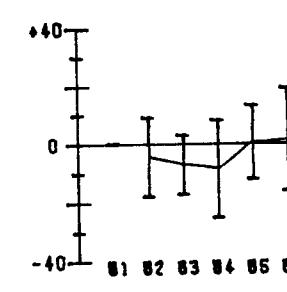
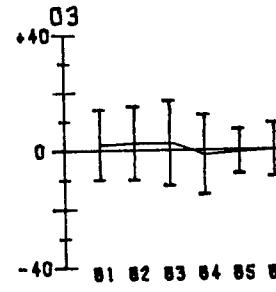
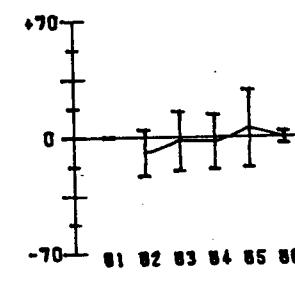
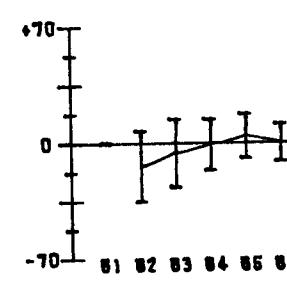
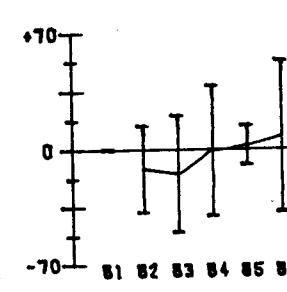
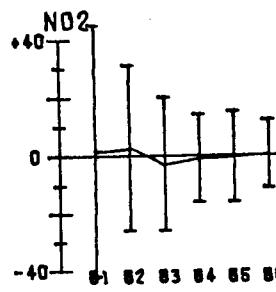
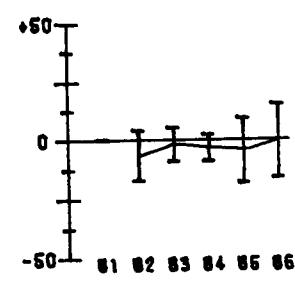
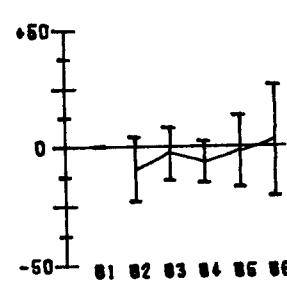
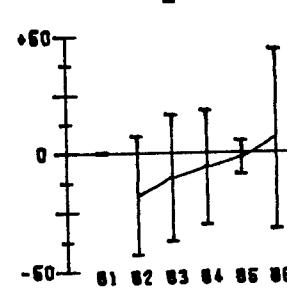
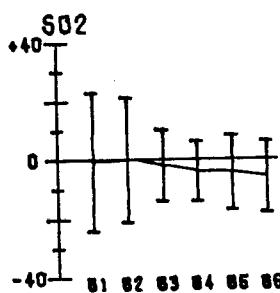
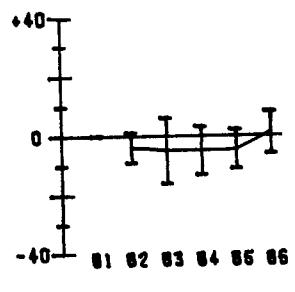
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

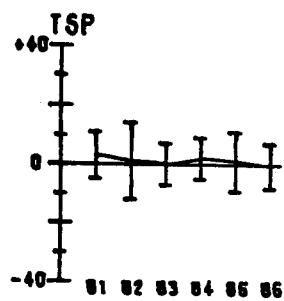


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 07
STATE : 26 MISSOURI
REPORG: 004 KANSAS CITY

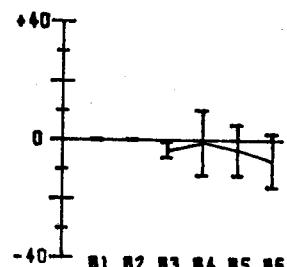
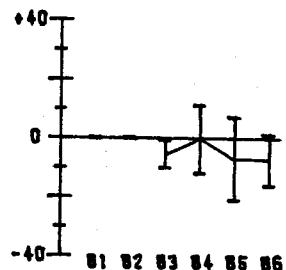
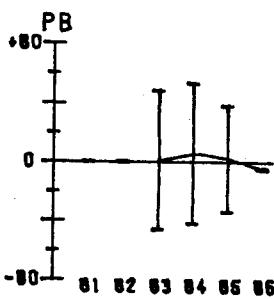
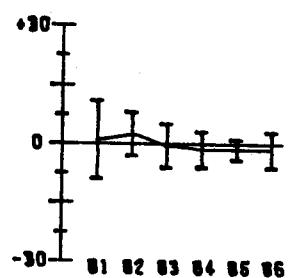
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



G-254

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

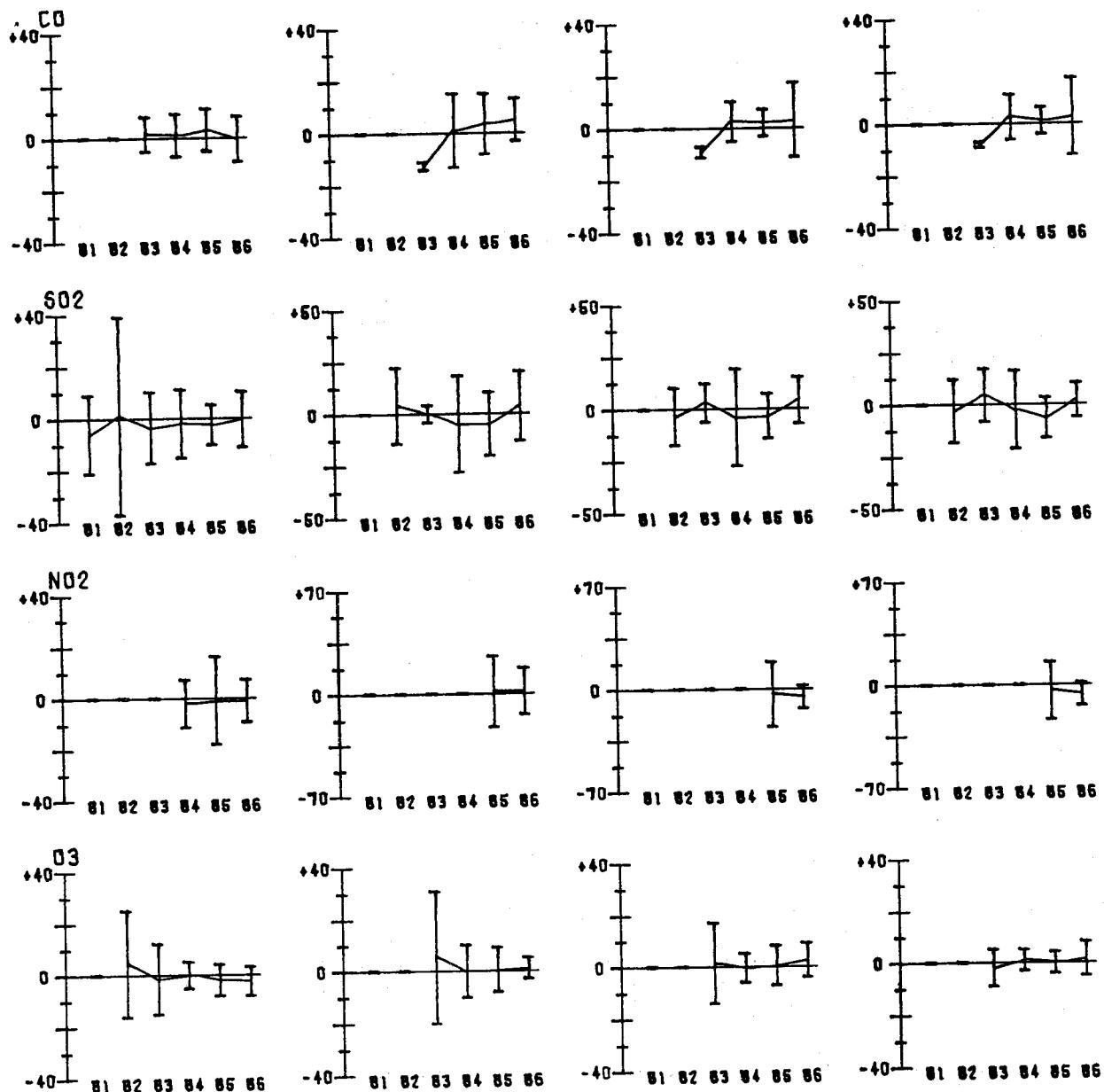
REG : 07
STATE : 26 MISSOURI
REPORG: 005 SPRINGFIELD

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

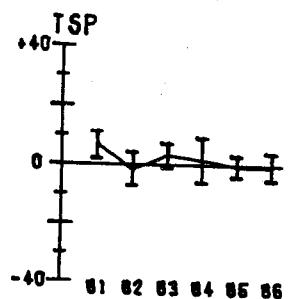
LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

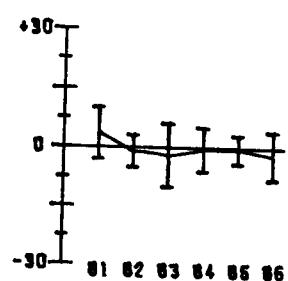
REG : 07
STATE : 26 MISSOURI
REPORG: 005 SPRINGFIELD

PRECISION



LEVEL 1

ACCURACY
LEVEL 2



LEVEL 3

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

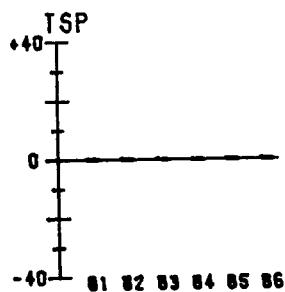
REG : 07

STATE : 26 MISSOURI

REPORG: 006 AMAX LEAD COMPANY OF MISSOURI, BOSS, MO

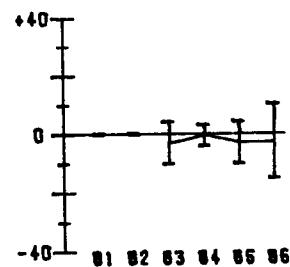
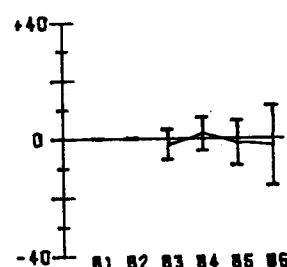
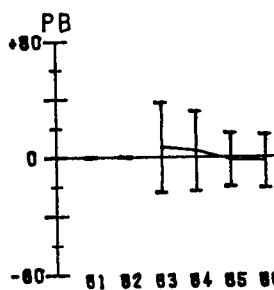
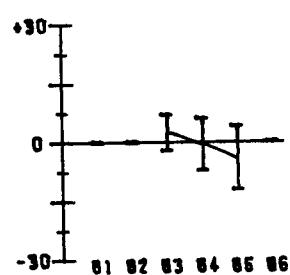
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



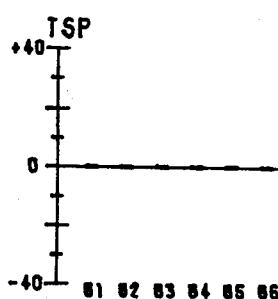
95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 07

STATE : 26 MISSOURI

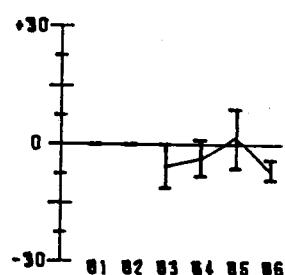
REPORG: 007 ST. JOE LEAD COMPANY, HERCULANEUM, MO

PRECISION

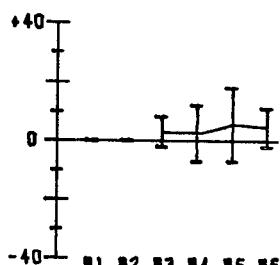
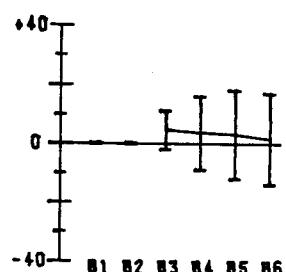
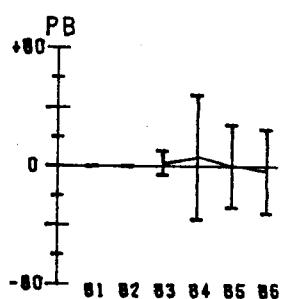


LEVEL 1

ACCURACY
LEVEL 2



LEVEL 3

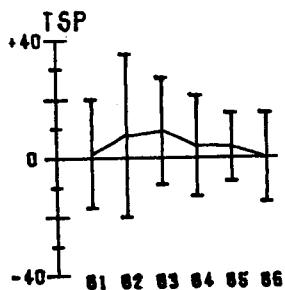


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 07
STATE : 28 NEBRASKA
REPORG: 001 STATE OF NEBRASKA

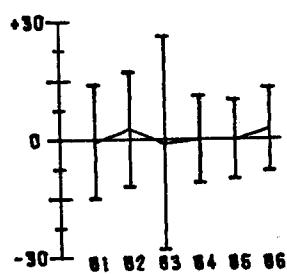
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3

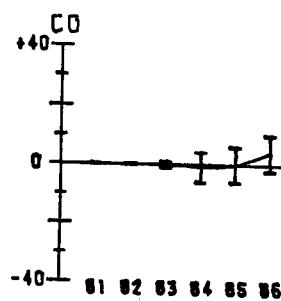


95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

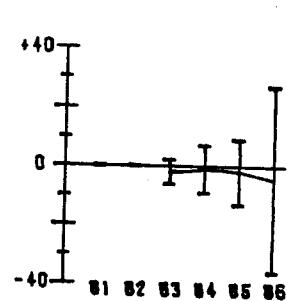
REG : 07
STATE : 28 NEBRASKA
REPORG: 002 LINCOLN

PRECISION

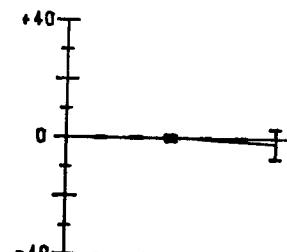
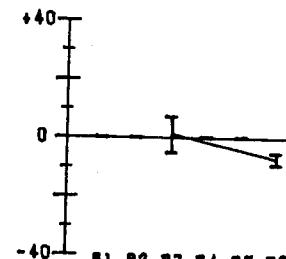
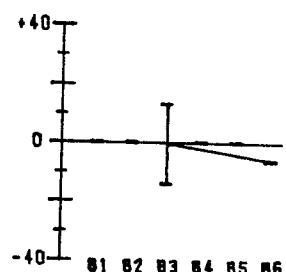
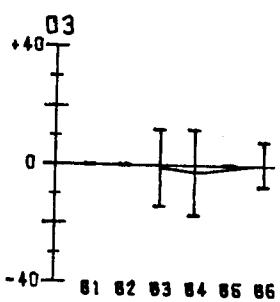
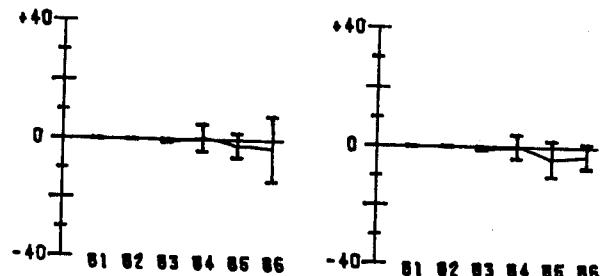
LEVEL 1



ACCURACY
LEVEL 2



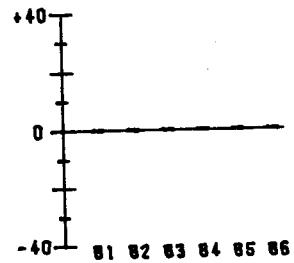
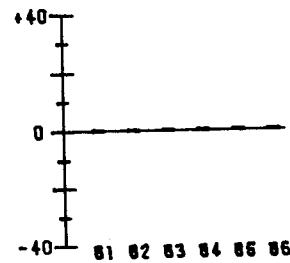
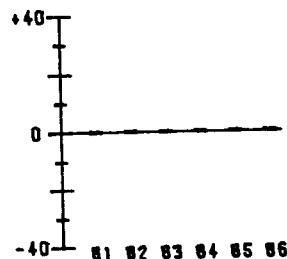
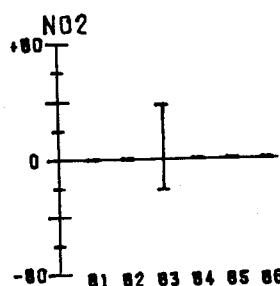
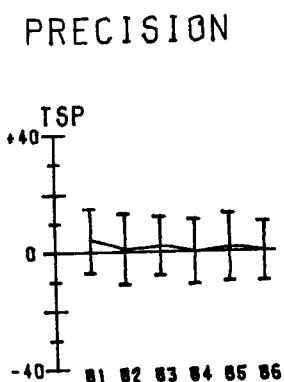
LEVEL 3



G-260

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 07
STATE : 28 NEBRASKA
REPORG: 002 LINCOLN

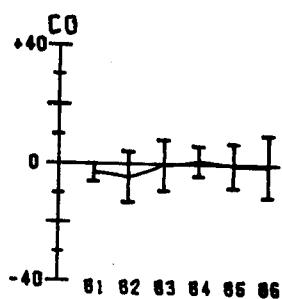


95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

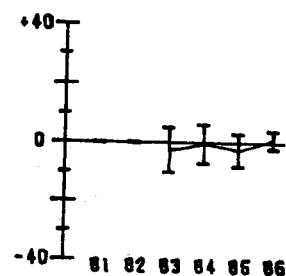
REG : 07
STATE : 28 NEBRASKA
REPORG: 003 OMAHA

PRECISION

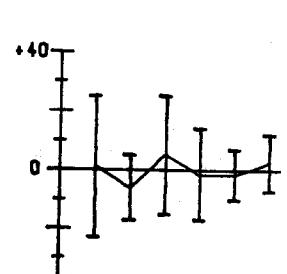
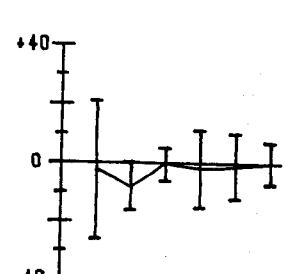
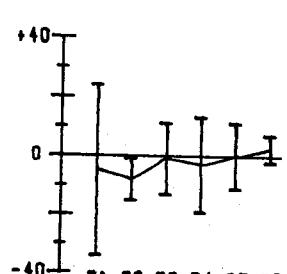
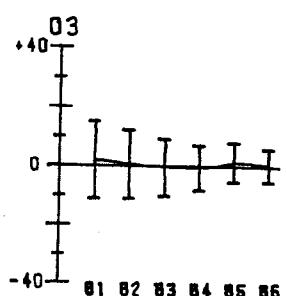
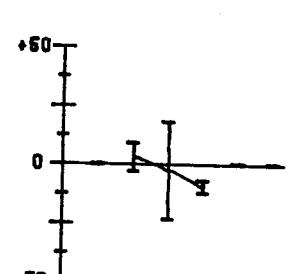
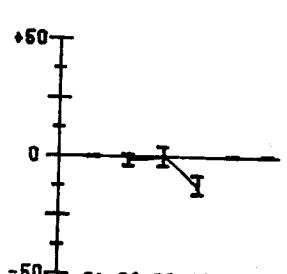
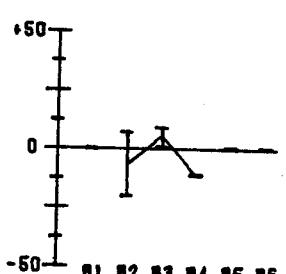
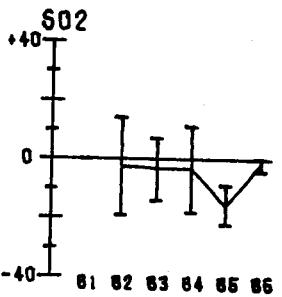
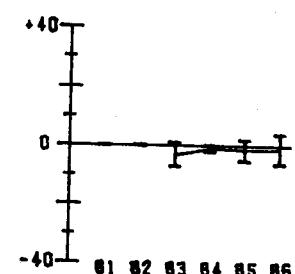
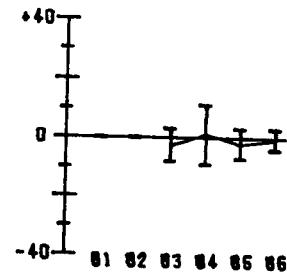
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

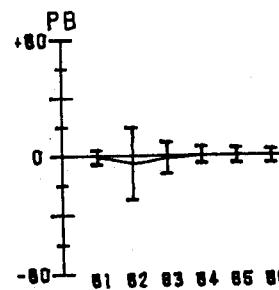
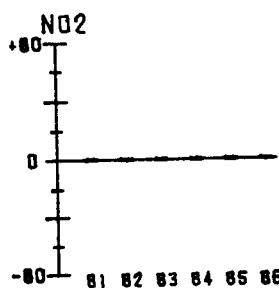
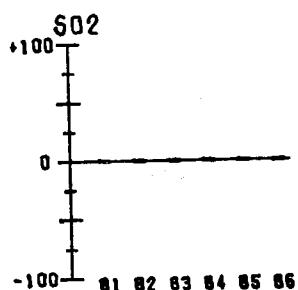
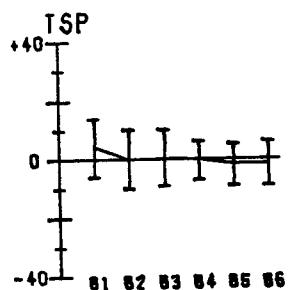


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

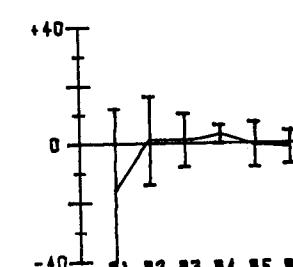
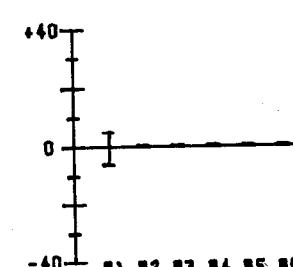
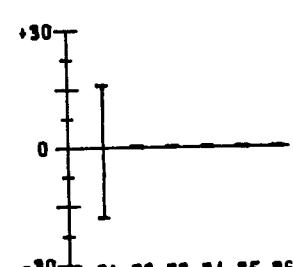
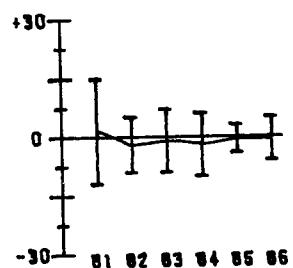
REG : 07
STATE : 28 NEBRASKA
REPORG: 003 OMAHA

PRECISION

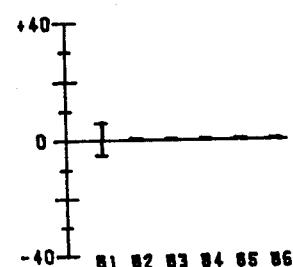
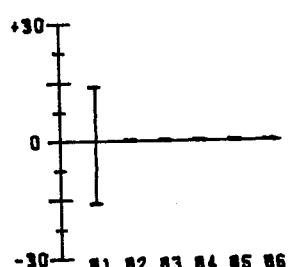
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



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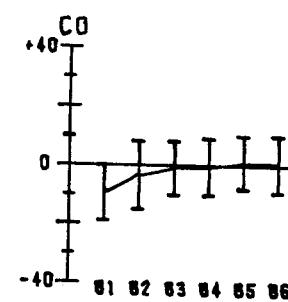
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 08

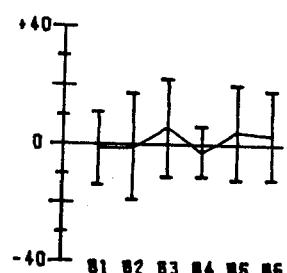
STATE : 06 COLORADO

REPORG: 001 DEPARTMENT OF HEALTH

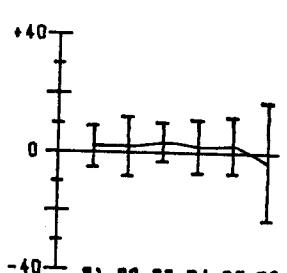
PRECISION



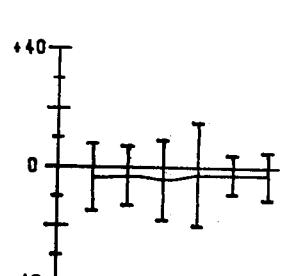
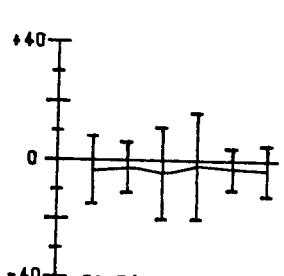
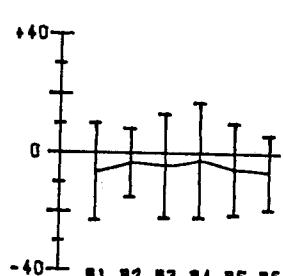
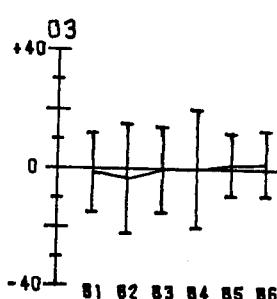
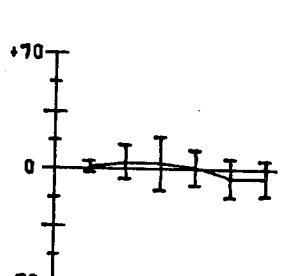
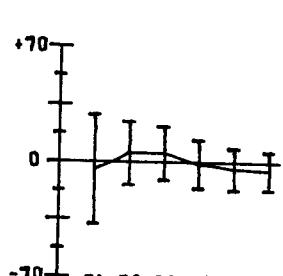
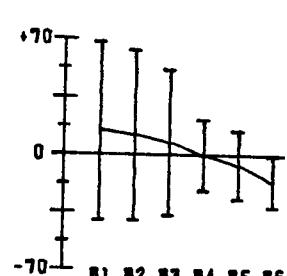
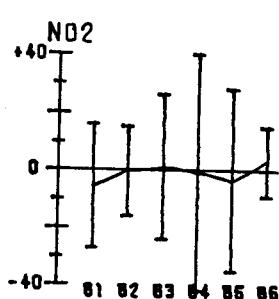
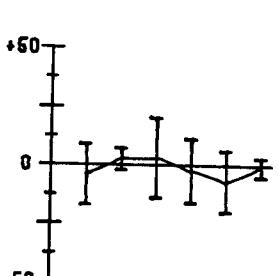
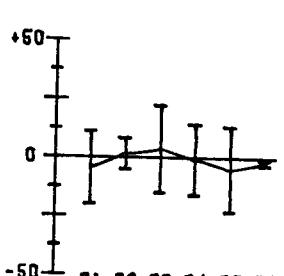
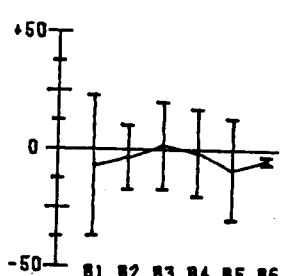
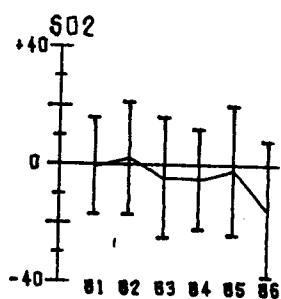
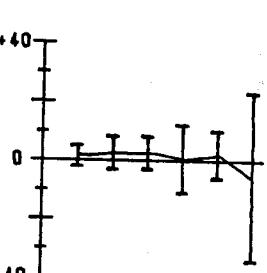
LEVEL 1



ACCURACY
LEVEL 2



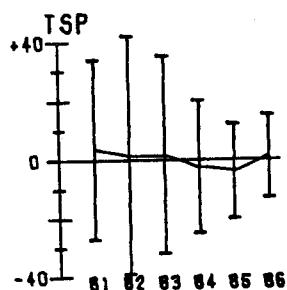
LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

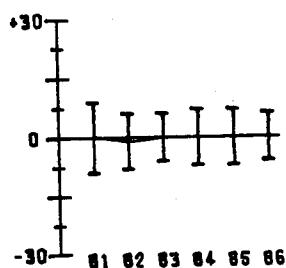
REG : 08
STATE : 06 COLORADO
REPORG: 001 DEPARTMENT OF HEALTH

PRECISION

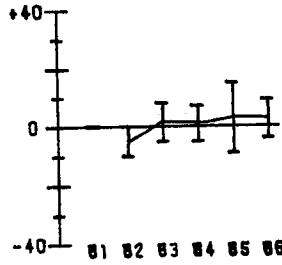
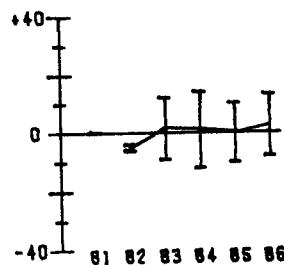
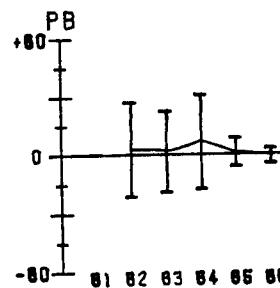


LEVEL 1

ACCURACY
LEVEL 2



LEVEL 3



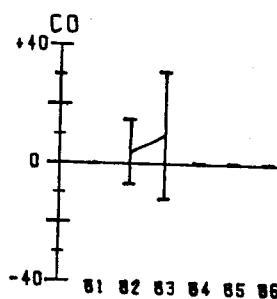
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 08

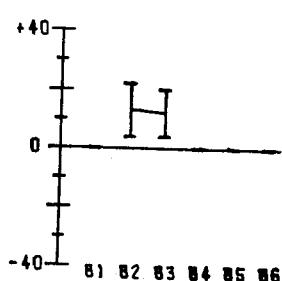
STATE : 27 MONTANA

REPORG: 001 MT AIR QUAL. BUREAU, DEPT. OF H&ENV.

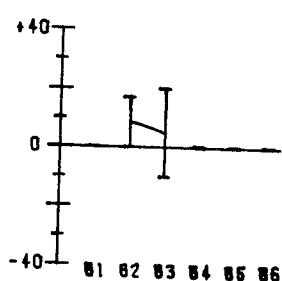
PRECISION



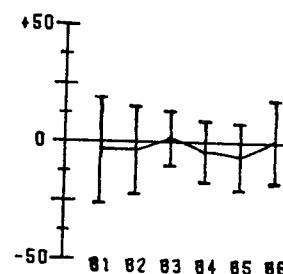
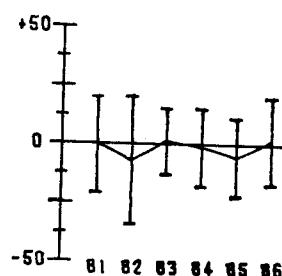
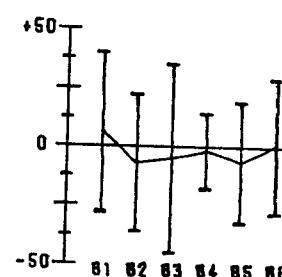
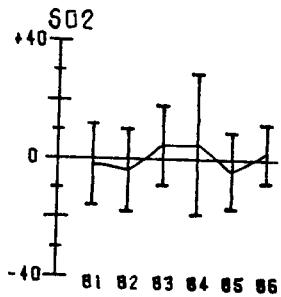
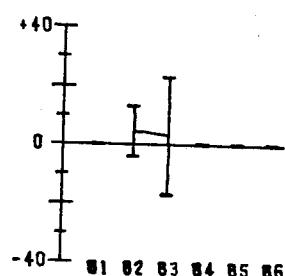
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

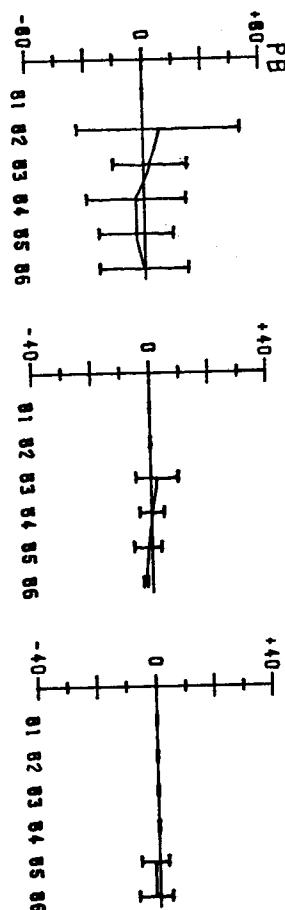
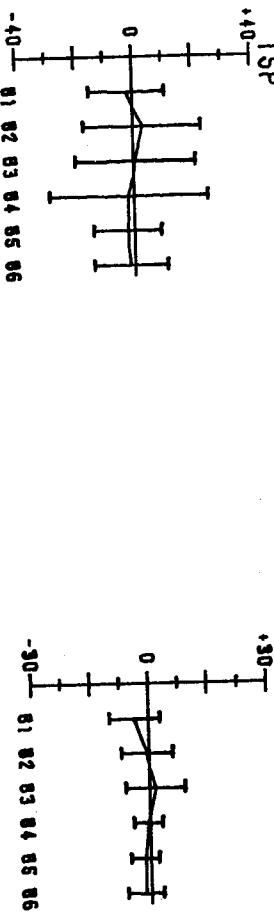
REG : 08
STATE : 27 MONTANA
REPORG: 001 MT AIR QUAL. BUREAU, DEPT. OF H&ENV.

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3



G-267

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

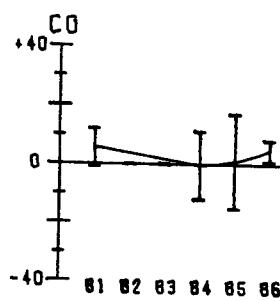
REG : 08

STATE : 27 MONTANA

REPORG: 002 YELLOWSTONE CNTY. AIR POLL. CONT. AGENCY

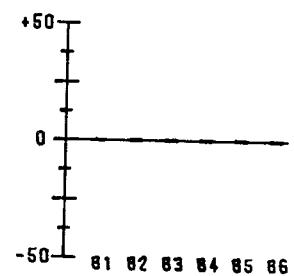
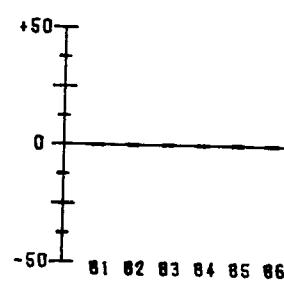
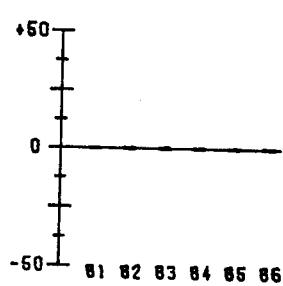
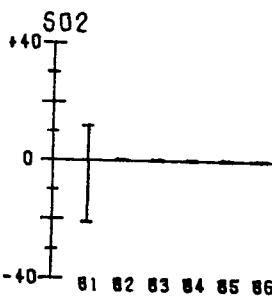
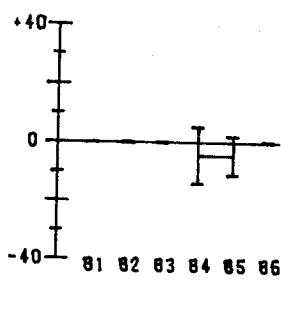
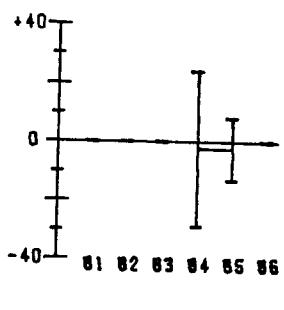
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



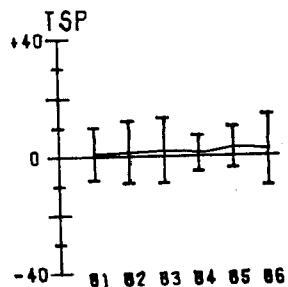
G-268

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 08
STATE : 27 MONTANA
REPORG: 002 YELLOWSTONE CNTY. AIR POLL. CONT. AGENCY

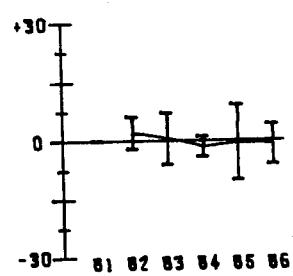
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



G-269

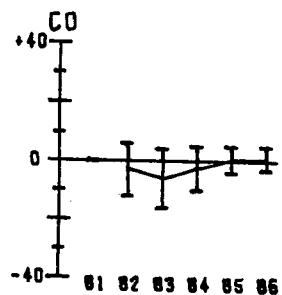
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 08

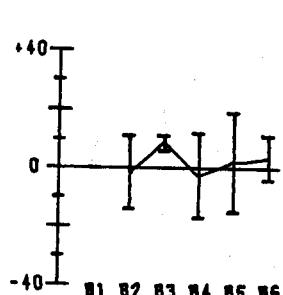
STATE : 27 MONTANA

REPORG: 003 GREAT FALLS CITY-CNTY. HEALTH DEPT.

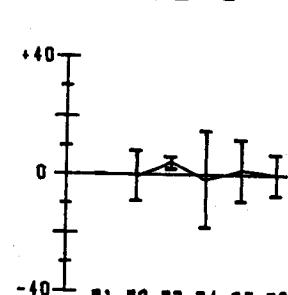
PRECISION



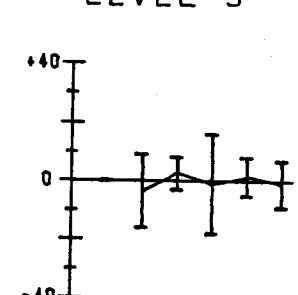
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

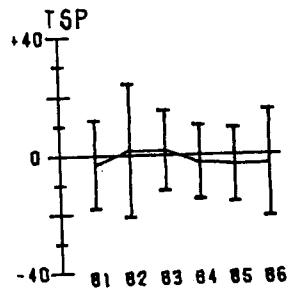
REG : 08

STATE : 27 MONTANA

REPORG: 003 GREAT FALLS CITY-CNTY. HEALTH DEPT.

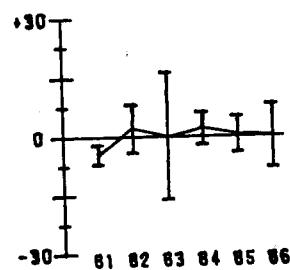
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



G-271

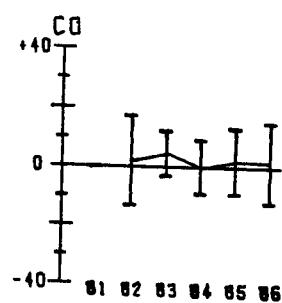
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 08

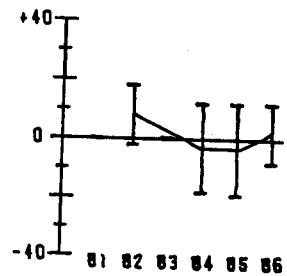
STATE : 27 MONTANA

REPORG: 004 MISSOULA CITY-CNTY HEALTH DEPT.

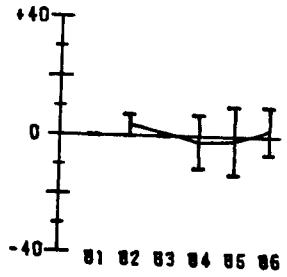
PRECISION



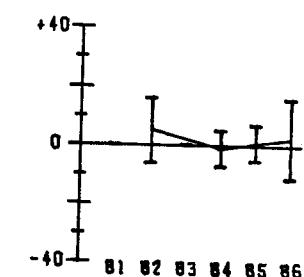
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



G-272

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

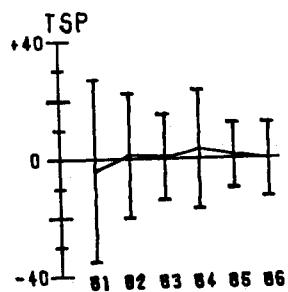
REG : 08

STATE : 27 MONTANA

REPORT: 004 MISSOULA CITY-CNTY HEALTH DEPT.

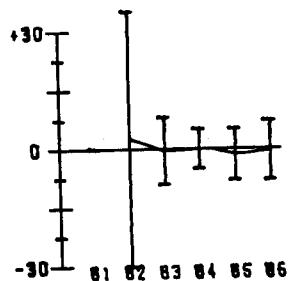
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



0-273

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 08

STATE : 35 NORTH DAKOTA

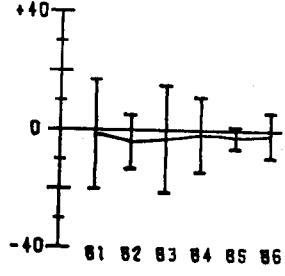
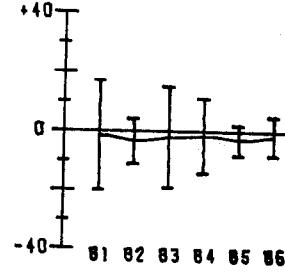
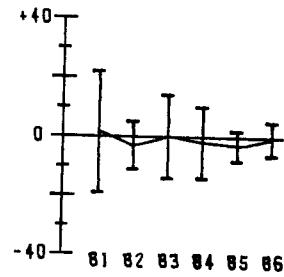
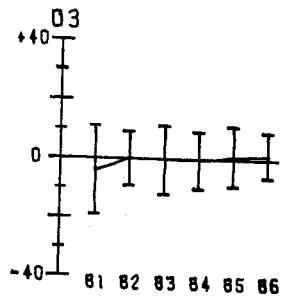
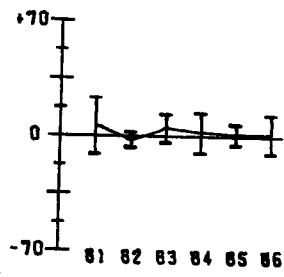
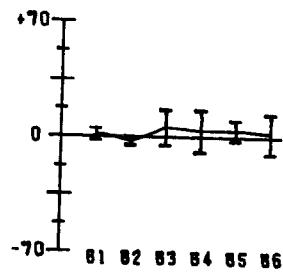
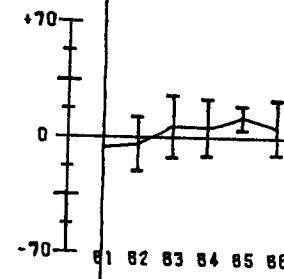
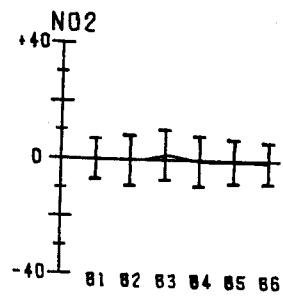
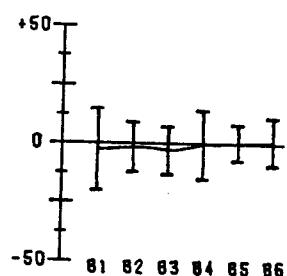
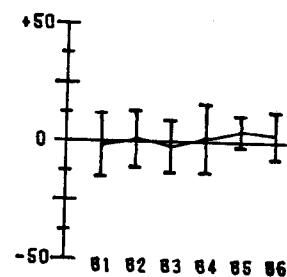
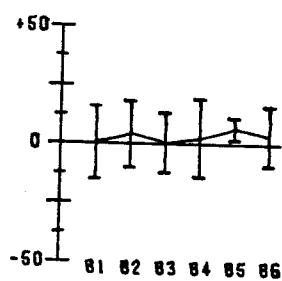
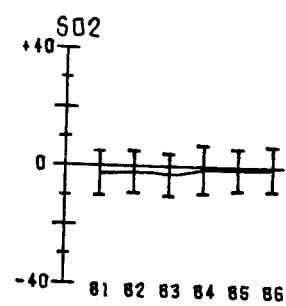
REPORG: 001 STATE DEPARTMENT OF HEALTH

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

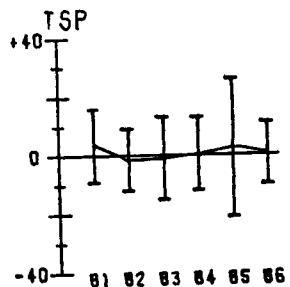


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 08
STATE : 35 NORTH DAKOTA
REPORG: 001 STATE DEPARTMENT OF HEALTH

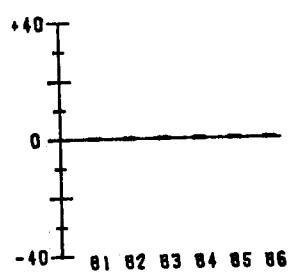
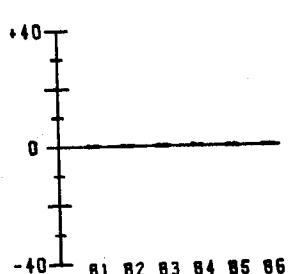
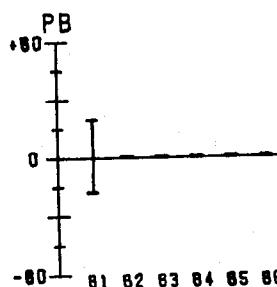
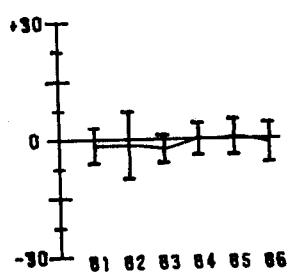
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

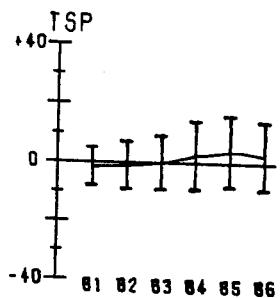
REG : 08

STATE : 43 SOUTH DAKOTA

REPORG: 001 DEPT. OF HEALTH, DIV. OF ENV. HEALTH

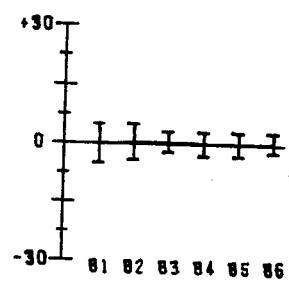
PRECISION

LEVEL 1



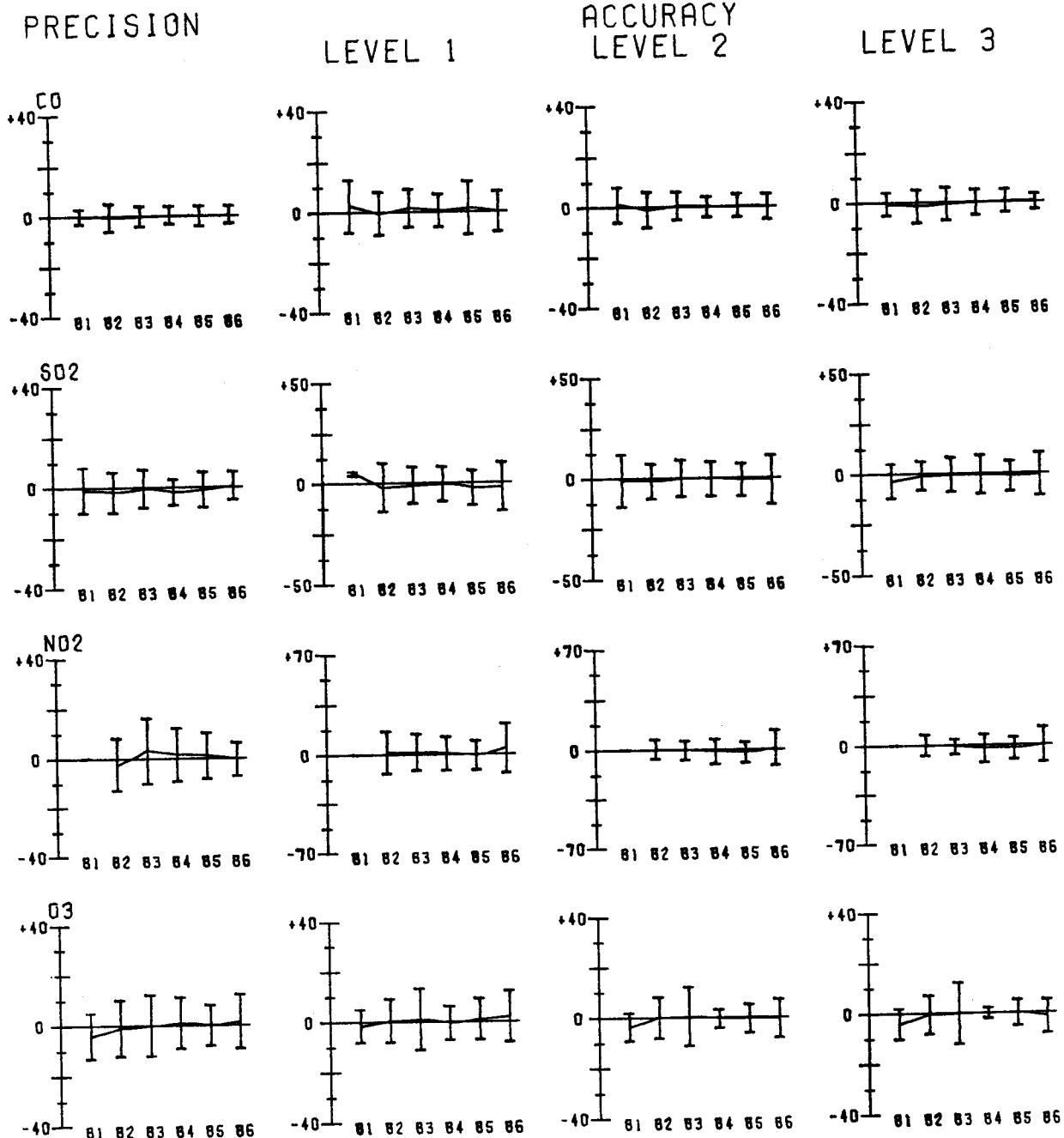
ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 08
STATE : 46 UTAH
REPORG: 001 STATE BUREAU OF AIR QUALITY



95% PROBABILITY LIMITS 81-86,
MANUAL METHODS

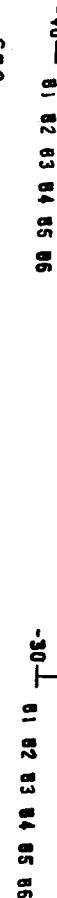
REG : 08 STATE : 46 UTAH
REPORG: 001 STATE BUREAU OF AIR QUALITY

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

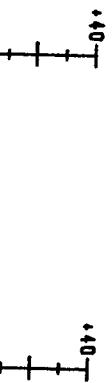
LEVEL 3



TSP



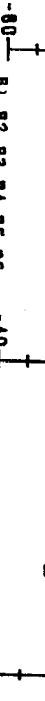
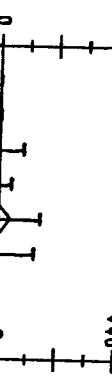
NO₂



NO₂



PB



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

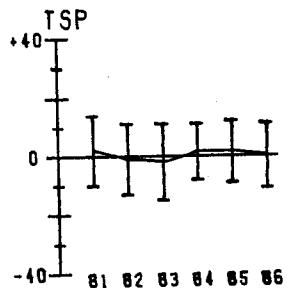
REG : 08

STATE : 52 WYOMING

REPORTG: 001 DEPT. OF ENV. QUAL., AIR QUAL DIV

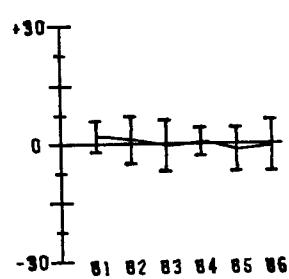
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



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95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

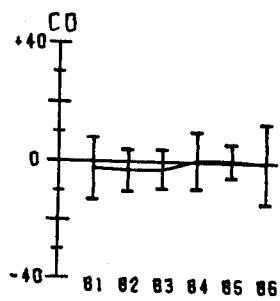
REG : 09

STATE : 03 ARIZONA

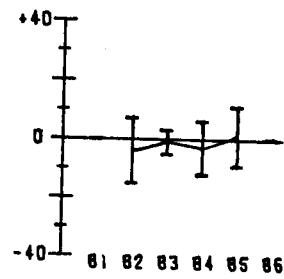
REPORG: 100 ARIZONA DEPT. OF HEALTH SERVICES

PRECISION

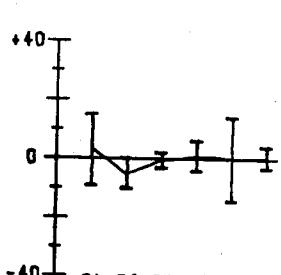
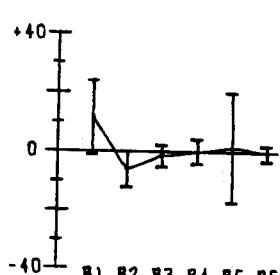
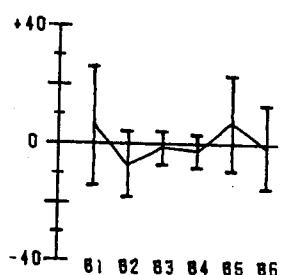
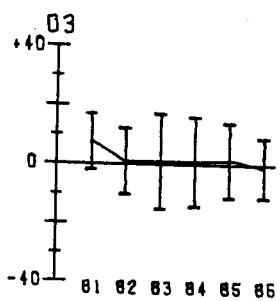
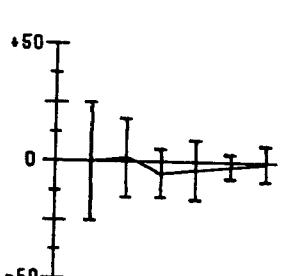
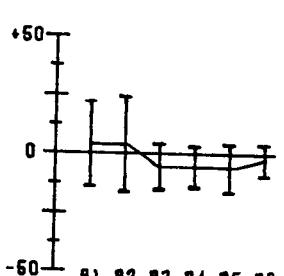
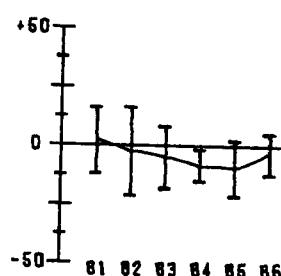
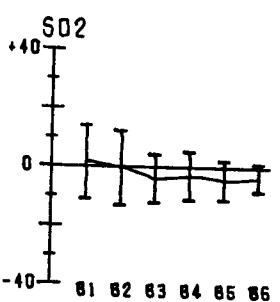
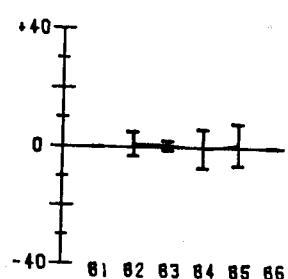
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



G-280

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

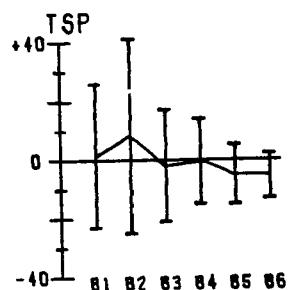
REG : 09

STATE : 03 ARIZONA

REPORG: 100 ARIZONA DEPT. OF HEALTH SERVICES

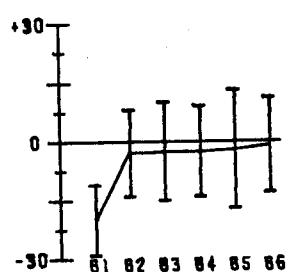
PRECISION

LEVEL 1

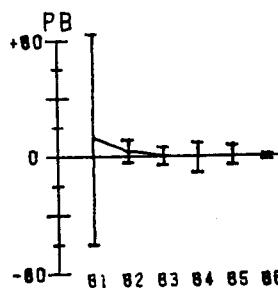


ACCURACY
LEVEL 2

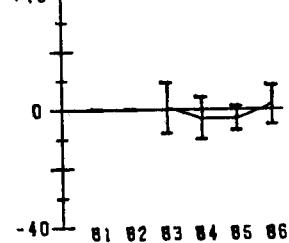
LEVEL 3



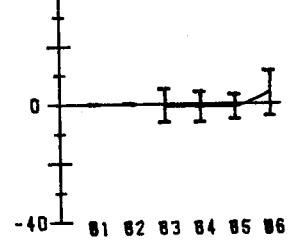
PB



+40



+40



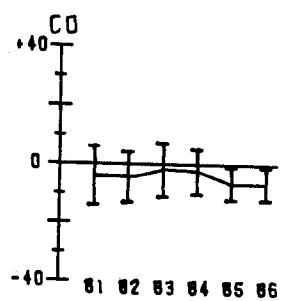
G-281

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

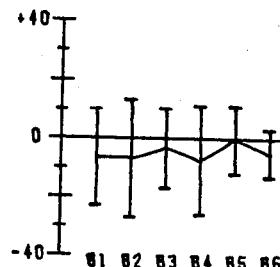
REG : 09
STATE : 03 ARIZONA
REPORG: 200 MARICOPA COUNTY

PRECISION

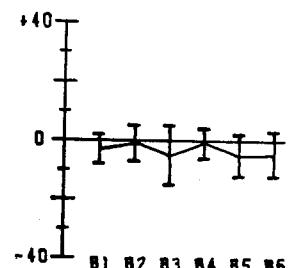
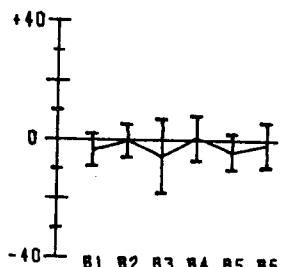
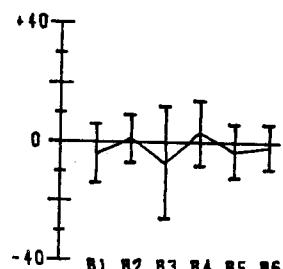
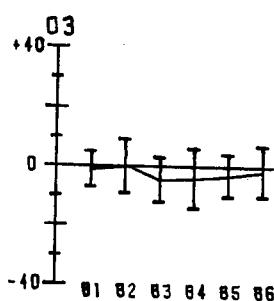
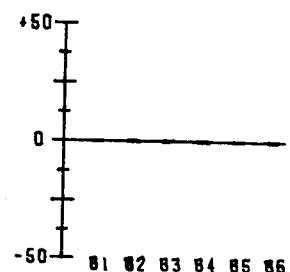
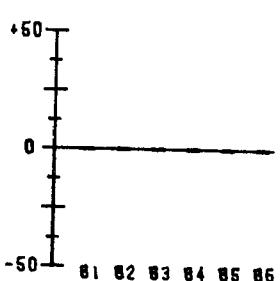
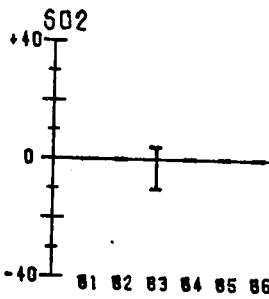
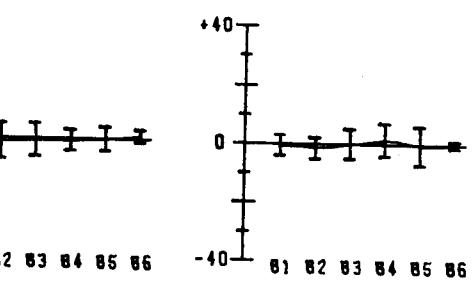
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



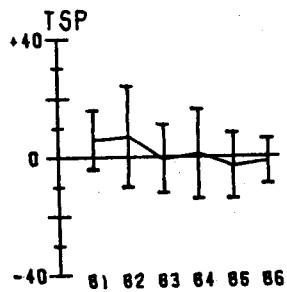
G-282

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 09
STATE : 03 ARIZONA
REPORG: 200 MARICOPA COUNTY

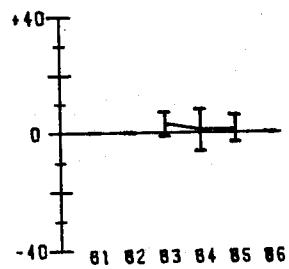
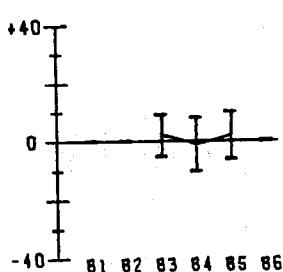
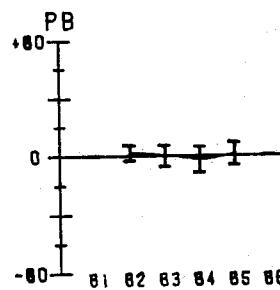
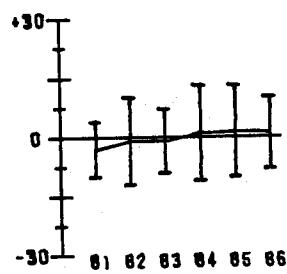
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3

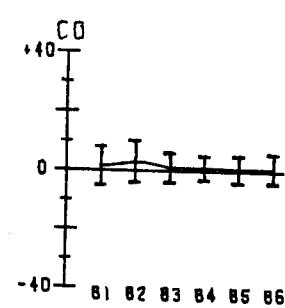


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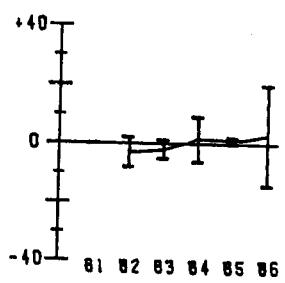
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 09
STATE : 03 ARIZONA
REPORG: 300 PIMA COUNTY

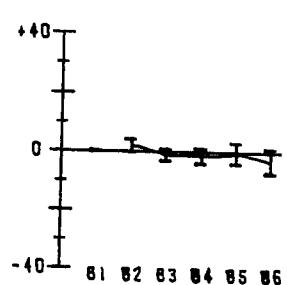
PRECISION



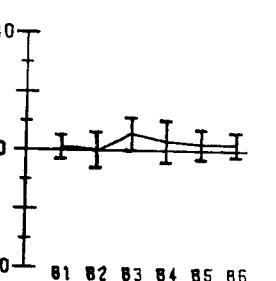
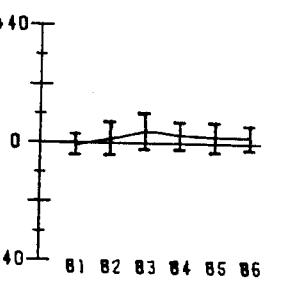
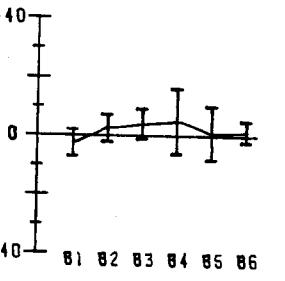
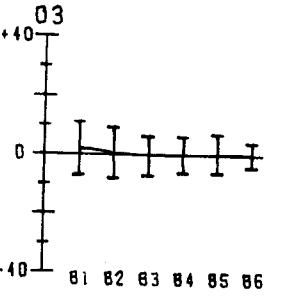
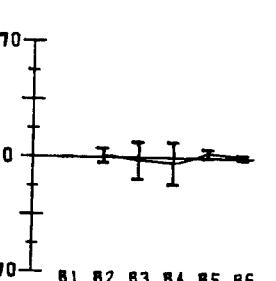
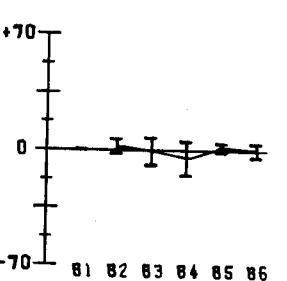
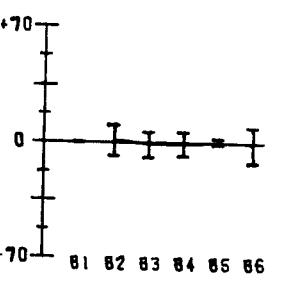
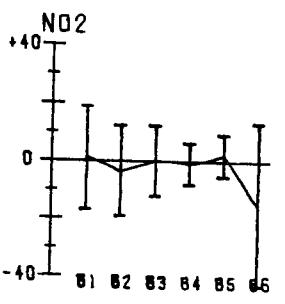
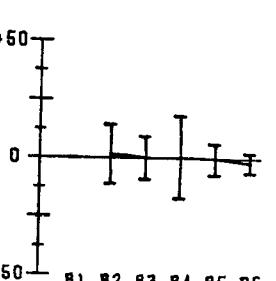
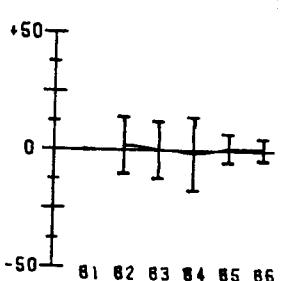
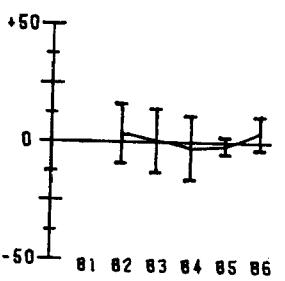
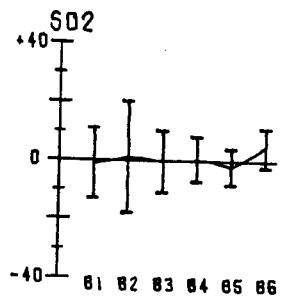
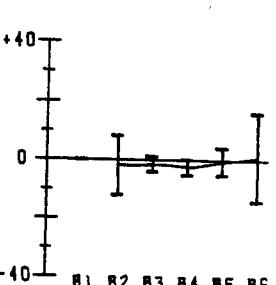
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

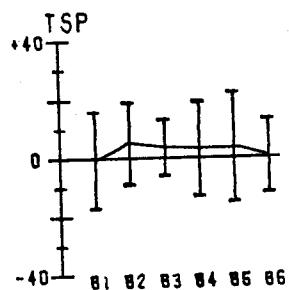


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 09
STATE : 03 ARIZONA
REPORG: 300 PIMA COUNTY

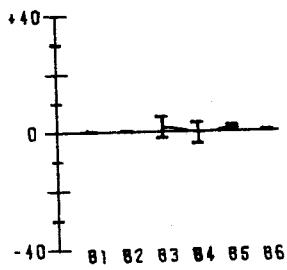
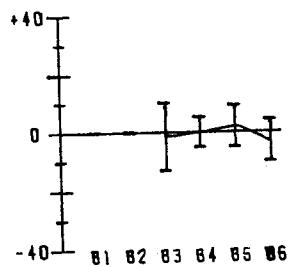
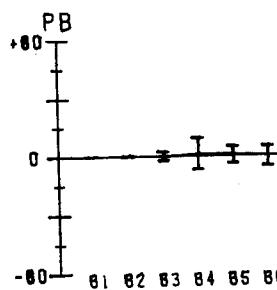
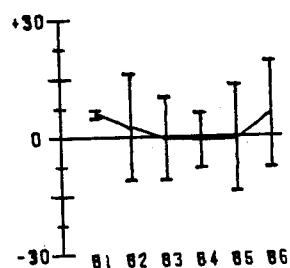
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



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95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 09

STATE : 05 CALIFORNIA

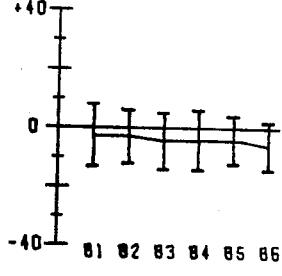
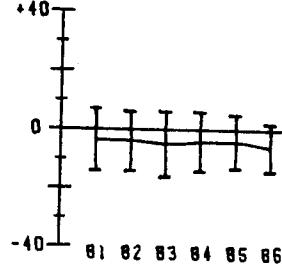
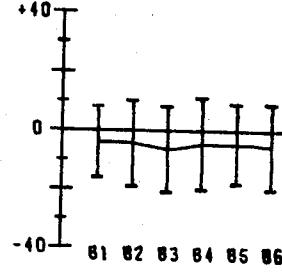
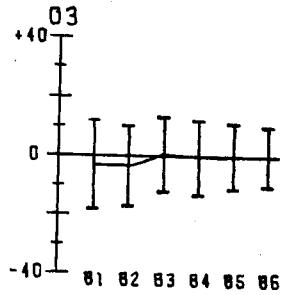
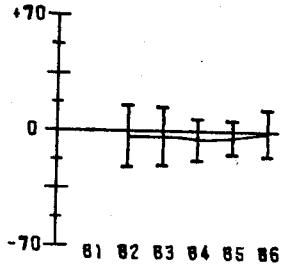
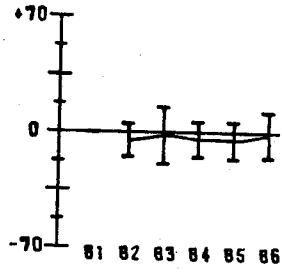
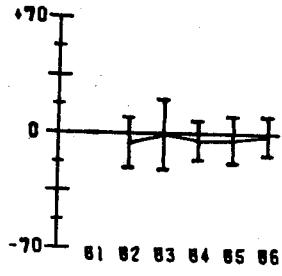
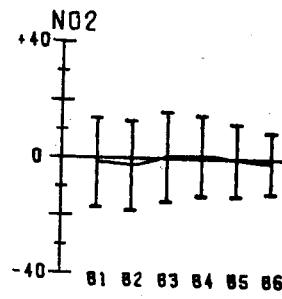
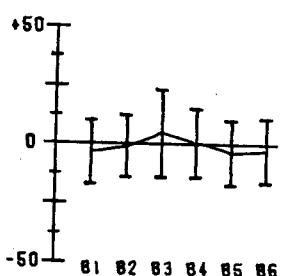
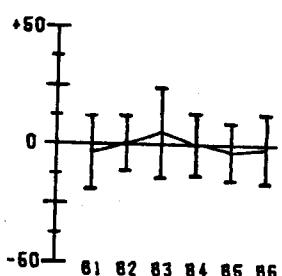
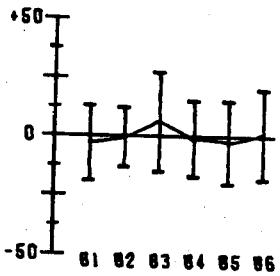
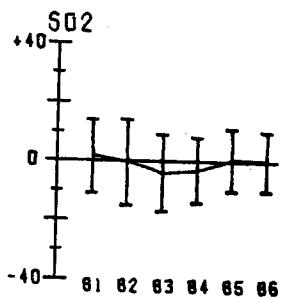
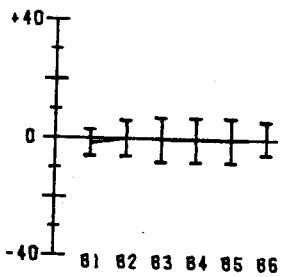
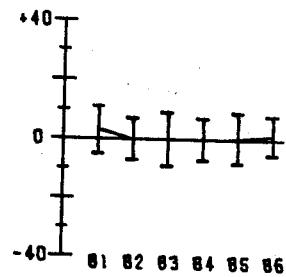
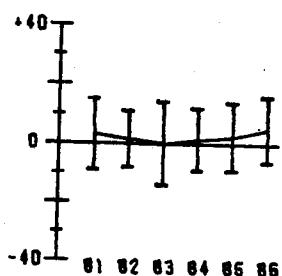
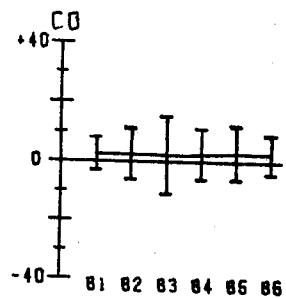
REPORG: 001 CALIFORNIA AIR RESOURCES BOARD

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

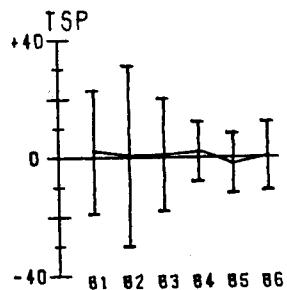


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 09
STATE : 05 CALIFORNIA
REPORG: 001 CALIFORNIA AIR RESOURCES BOARD

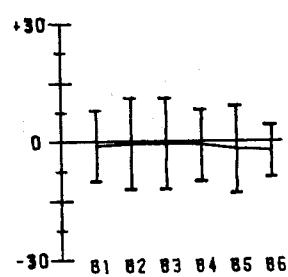
PRECISION

LEVEL 1

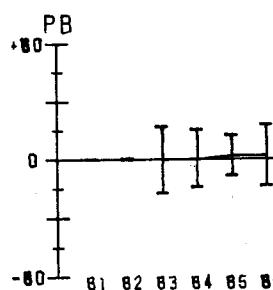


ACCURACY
LEVEL 2

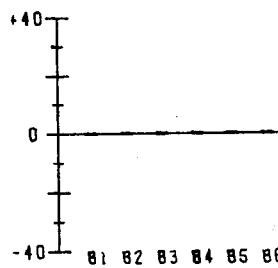
LEVEL 3



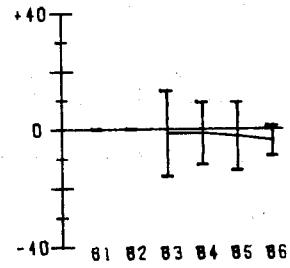
PB



LEVEL 1



LEVEL 2

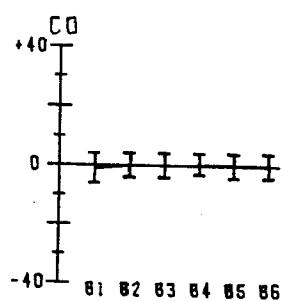


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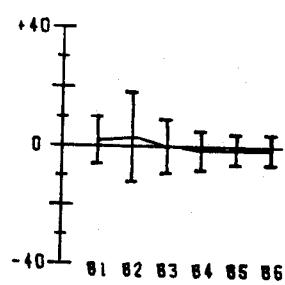
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 09
STATE : 05 CALIFORNIA
REPORG: 004 BAY AREA AIR QUAL. MANAGEMENT DISTRICT

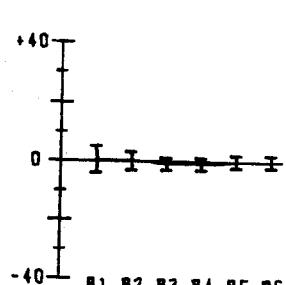
PRECISION



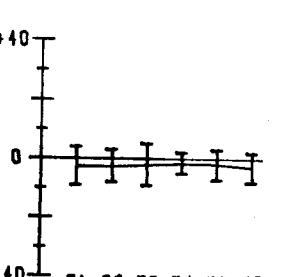
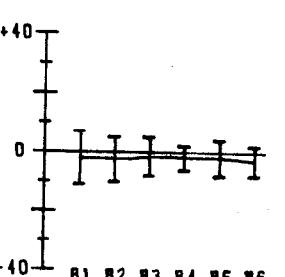
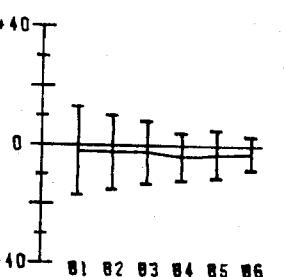
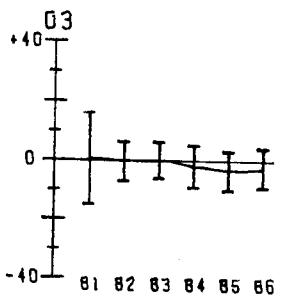
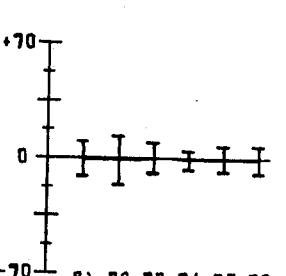
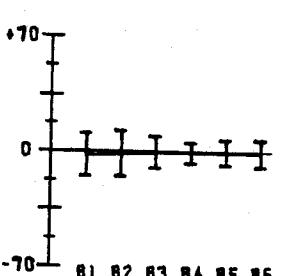
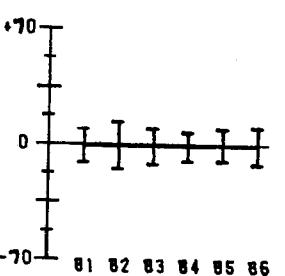
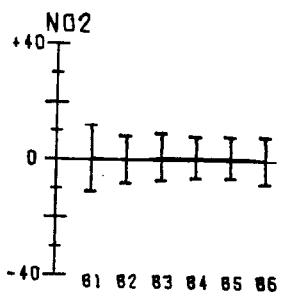
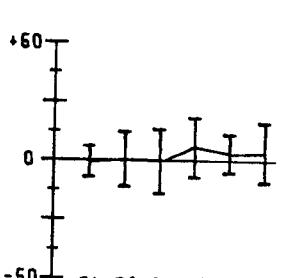
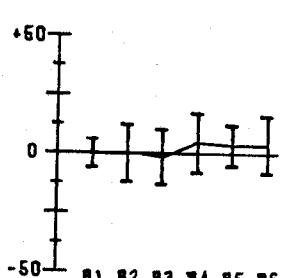
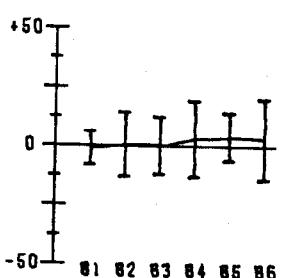
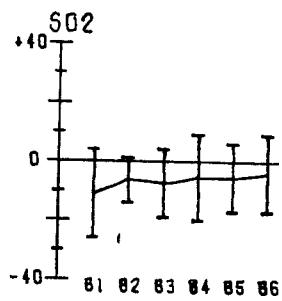
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

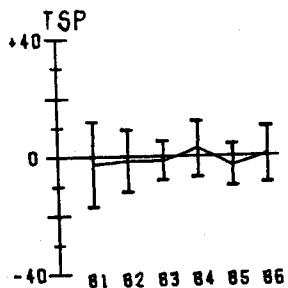


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 09
STATE : 05 CALIFORNIA
REPORT: 004 BAY AREA AIR QUAL. MANAGEMENT DISTRICT

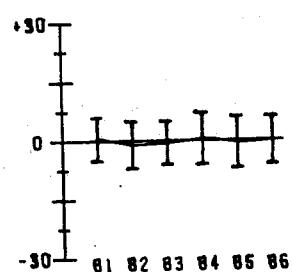
PRECISION

LEVEL 1

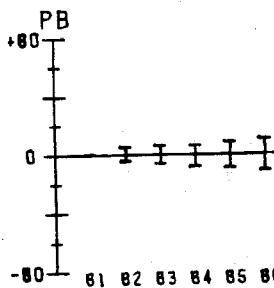


ACCURACY
LEVEL 2

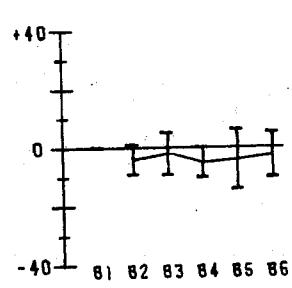
LEVEL 3



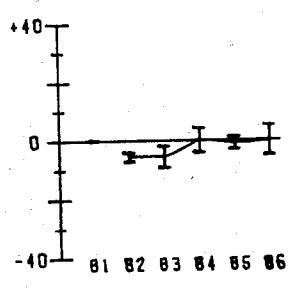
PB



ACCURACY
LEVEL 2



ACCURACY
LEVEL 3

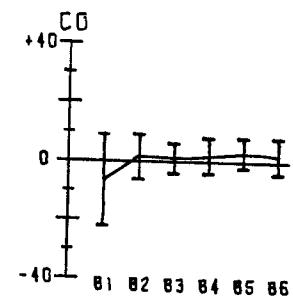


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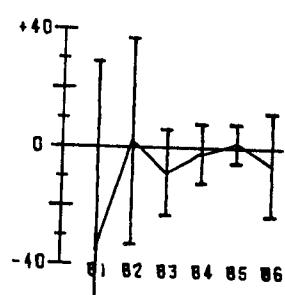
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 09
STATE : 05 CALIFORNIA
REPORG: 036 SAN DIEGO AIR POLL. CONTROL DISTRICT

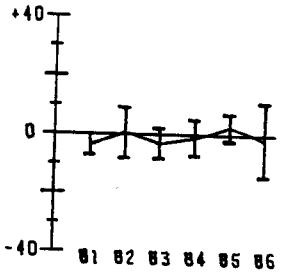
PRECISION



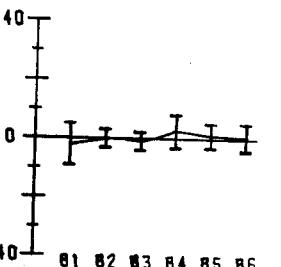
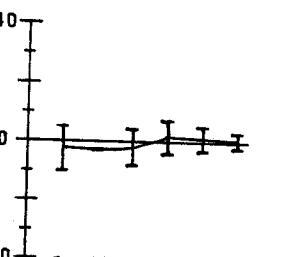
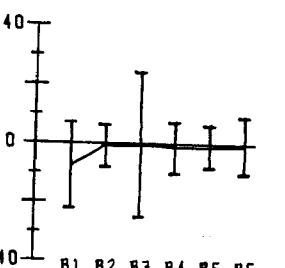
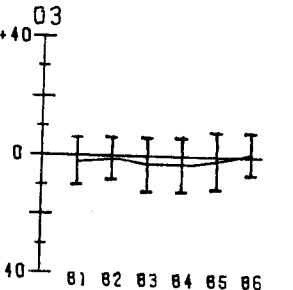
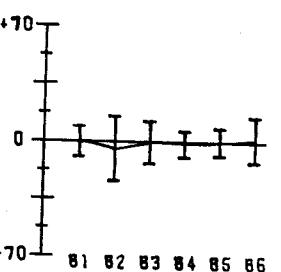
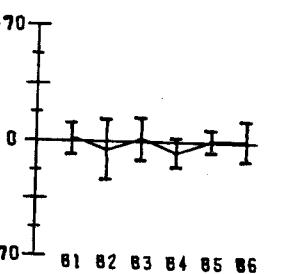
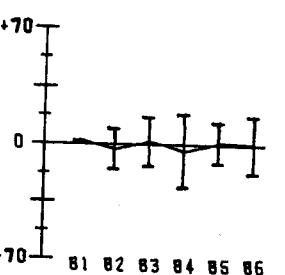
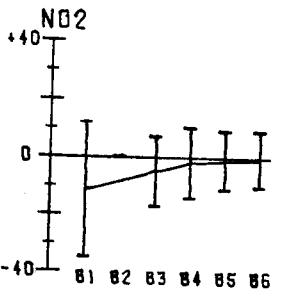
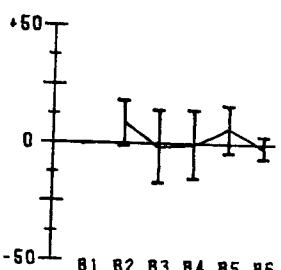
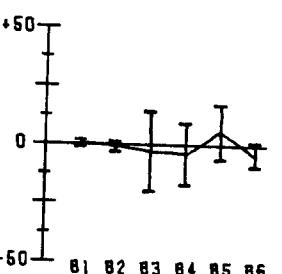
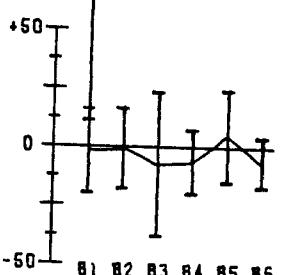
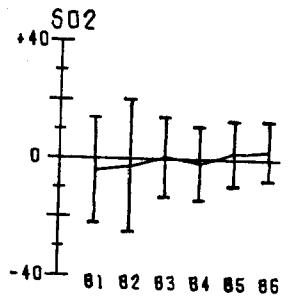
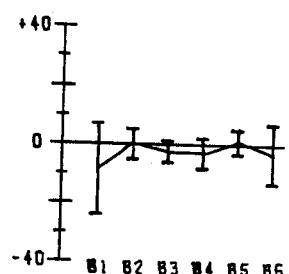
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



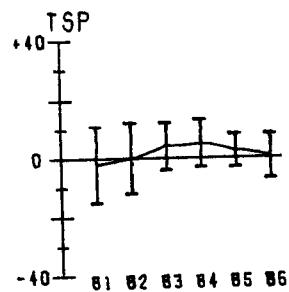
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95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 09
STATE : 05 CALIFORNIA
REPORG: 036 SAN DIEGO AIR POLL. CONTROL DISTRICT

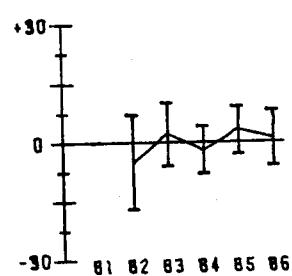
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



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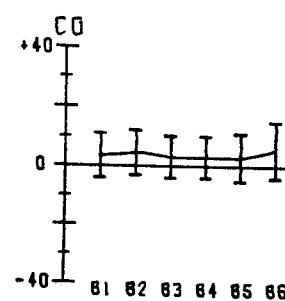
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 09

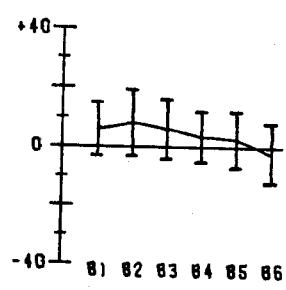
STATE : 05 CALIFORNIA

REPORG: 061 SOUTH COAST AIR QUAL. MANAGEMENT DIST.

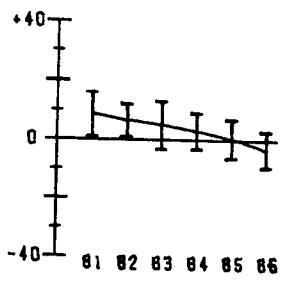
PRECISION



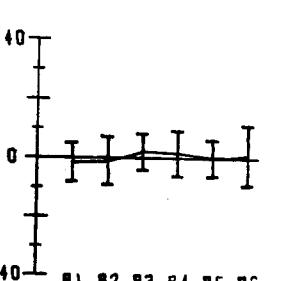
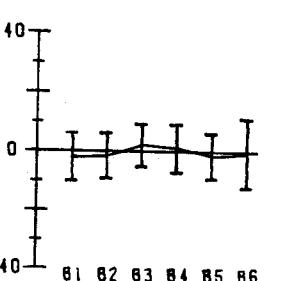
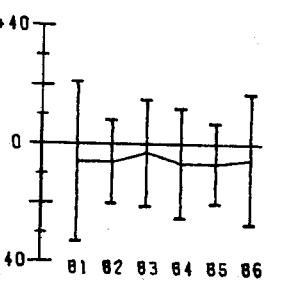
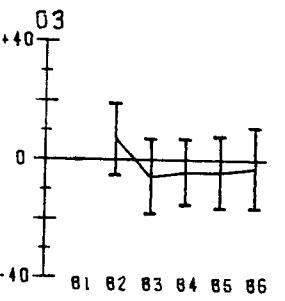
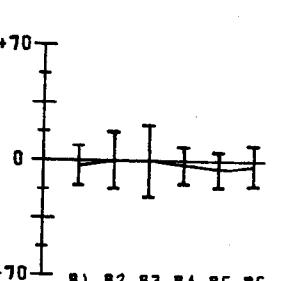
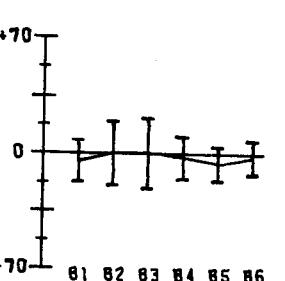
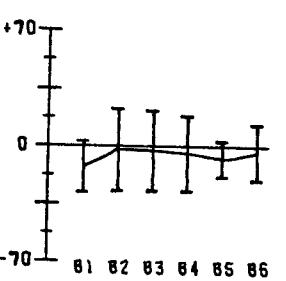
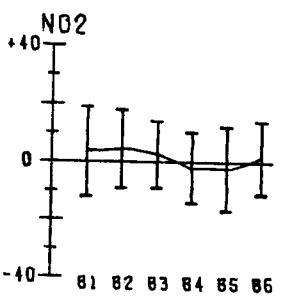
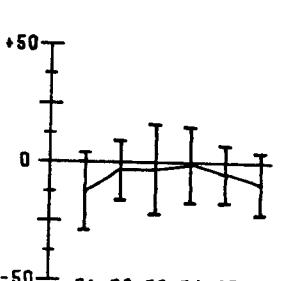
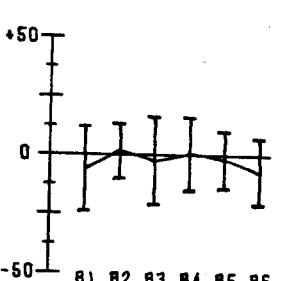
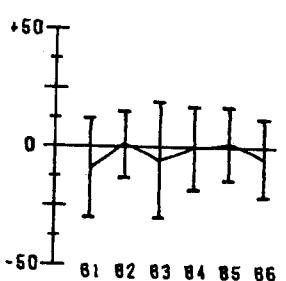
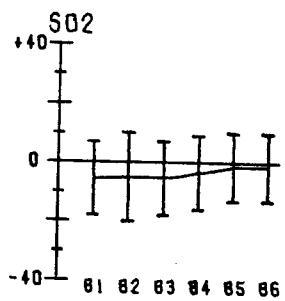
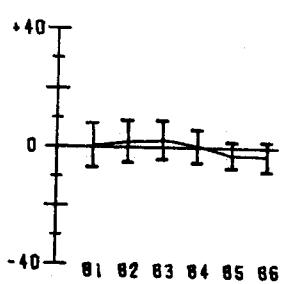
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

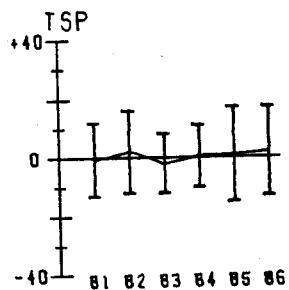


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 09
STATE : 05 CALIFORNIA
REPORG: 061 SOUTH COAST AIR QUAL. MANAGEMENT DIST.

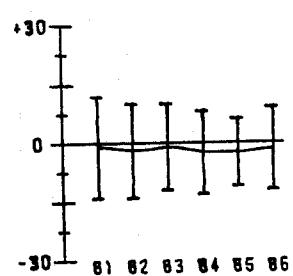
PRECISION

LEVEL 1

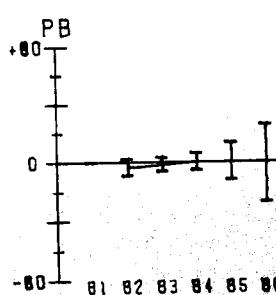


ACCURACY
LEVEL 2

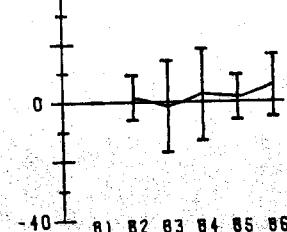
LEVEL 3



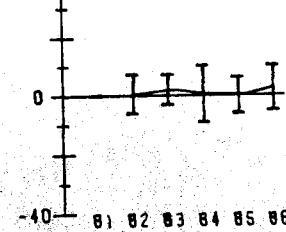
PB



+40



+40



G-293

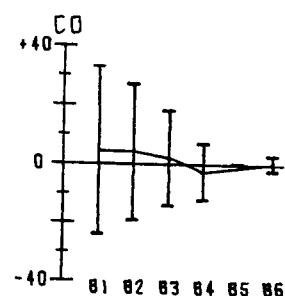
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 09

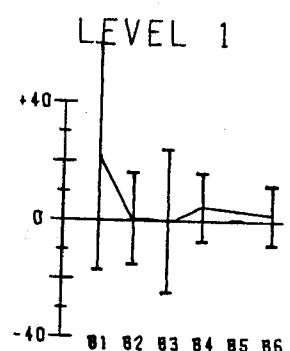
STATE : 12 HAWAII

REPORG: 120 STATE OF HAWAII, DEPT. OF HEALTH

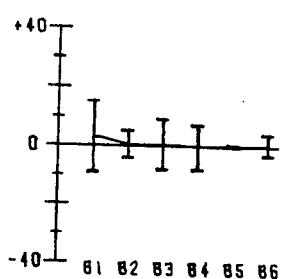
PRECISION



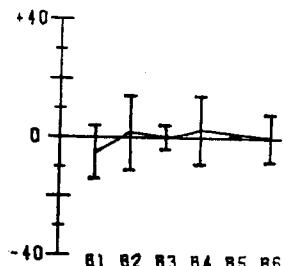
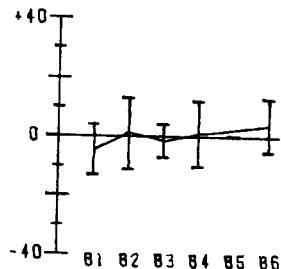
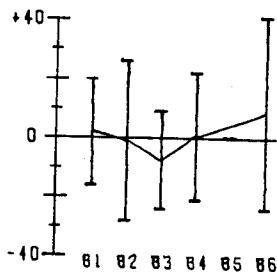
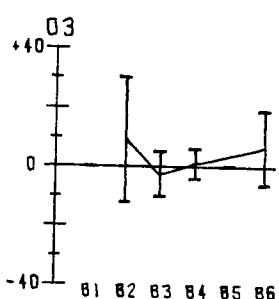
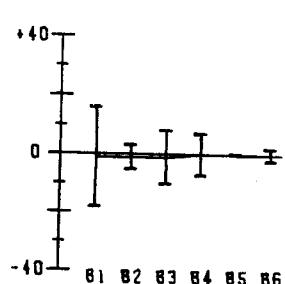
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

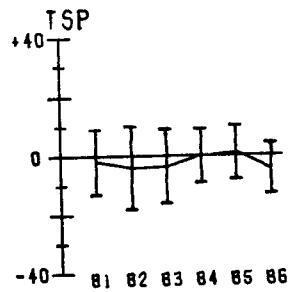
REG : 09

STATE : 12 HAWAII

REPORT: 120 STATE OF HAWAII, DEPT. OF HEALTH

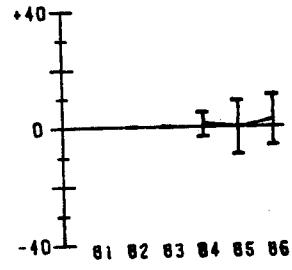
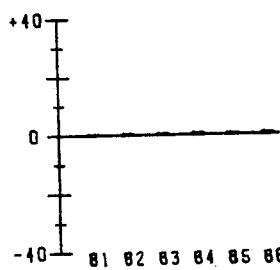
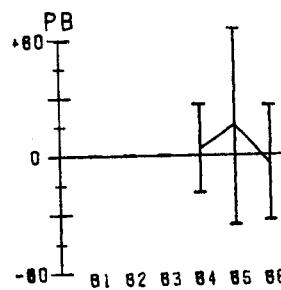
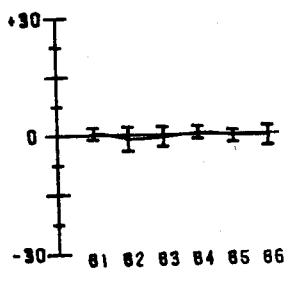
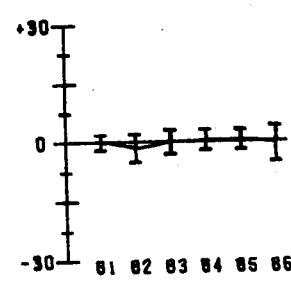
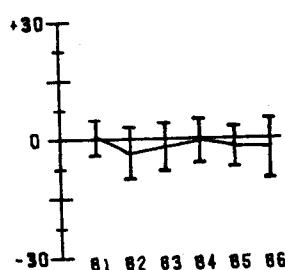
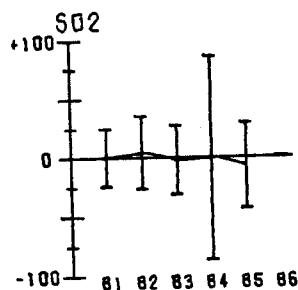
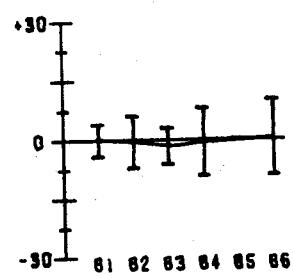
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



C-295

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 09

STATE : 29 NEVADA

REPORT: 100 NEVADA DIV. OF ENV. PROTECTION

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

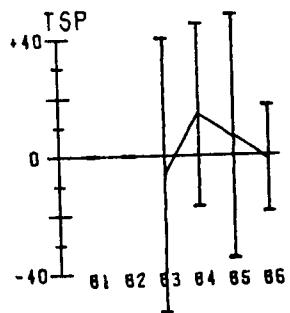
G-296

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 09
STATE : 29 NEVADA
REPORG: 100 NEVADA DIV. OF ENV. PROTECTION

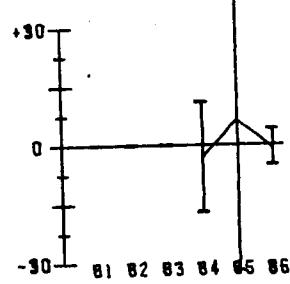
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3

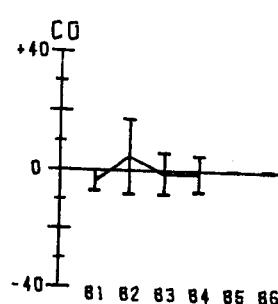


G-297

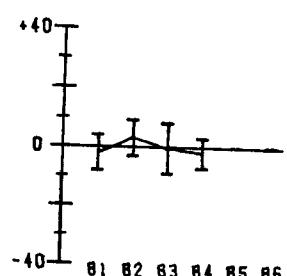
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 09
STATE : 29 NEVADA
REPORT: 200 WASHOE COUNTY

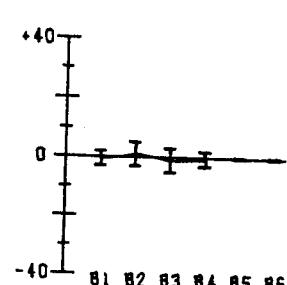
PRECISION



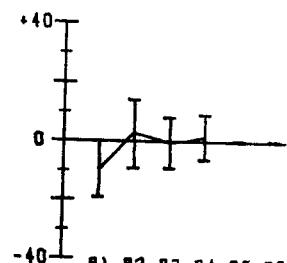
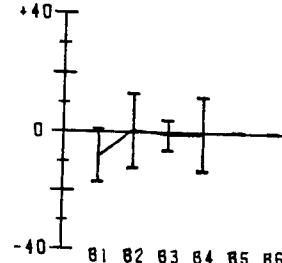
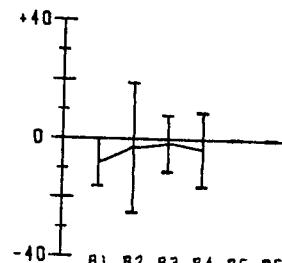
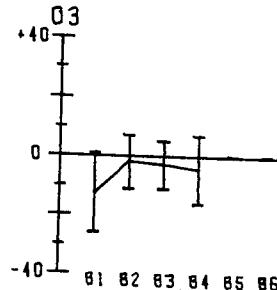
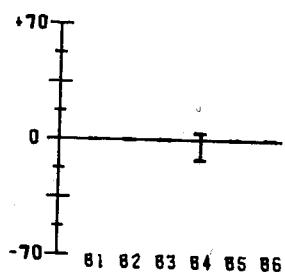
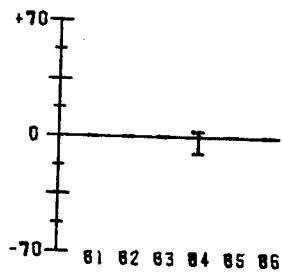
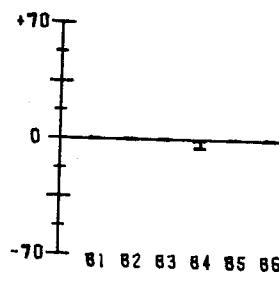
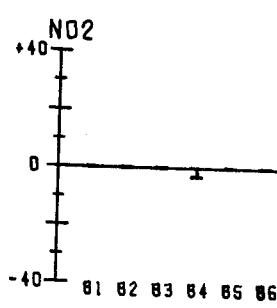
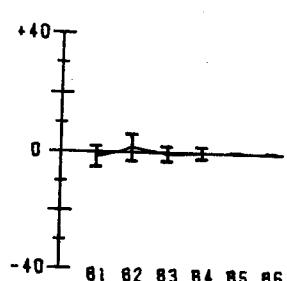
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



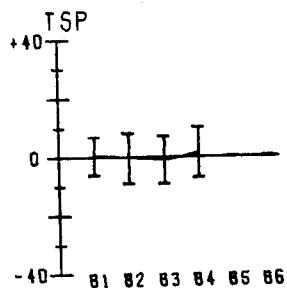
G-298

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 09
STATE : 29 NEVADA
REPORG: 200 WASHOE COUNTY

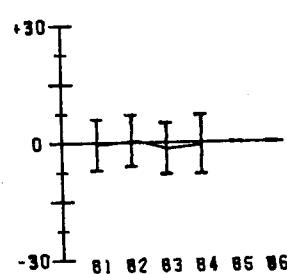
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



G-299

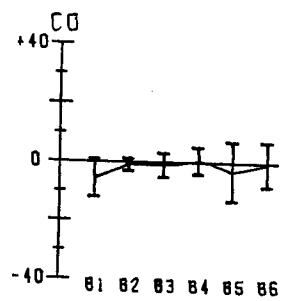
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 09

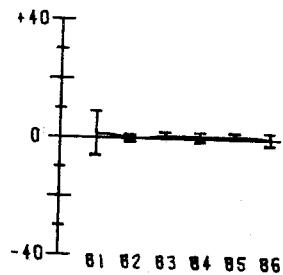
STATE : 29 NEVADA

REPORT: 300 CLARK COUNTY

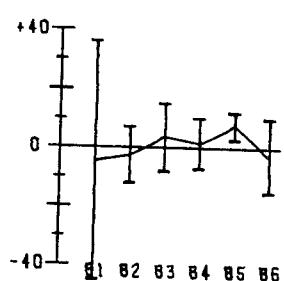
PRECISION



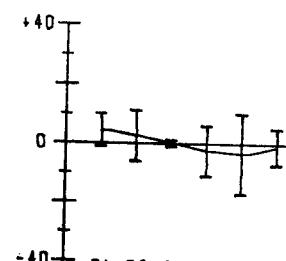
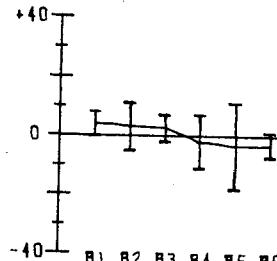
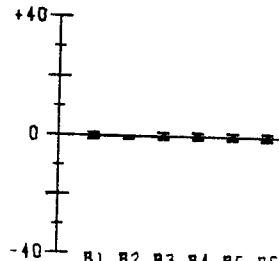
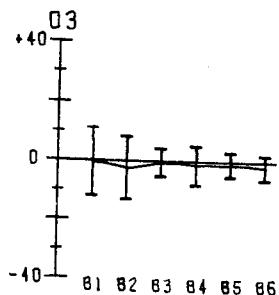
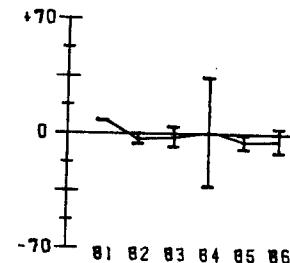
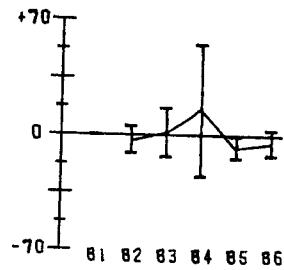
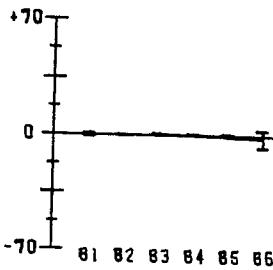
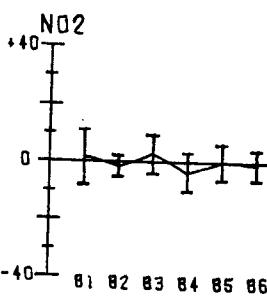
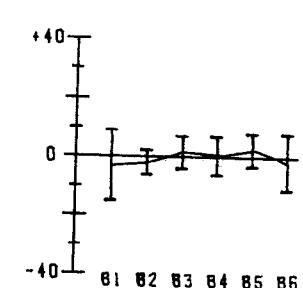
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



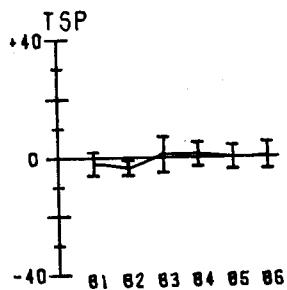
G-300

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 09
STATE : 29 NEVADA
REPORG: 300 CLARK COUNTY

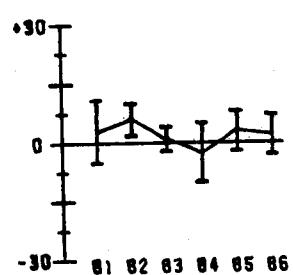
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



G-301

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 09
STATE : 54 GUAM
REPORG: 100 GUAM EPA

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

0-302

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 09
STATE : 54 GUAM
REPORG: 100 GUAM EPA

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

G-303

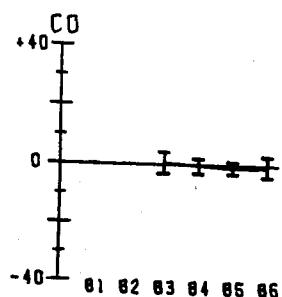
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 10

STATE : 02 ALASKA

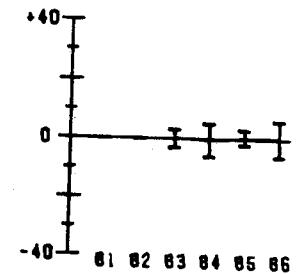
REPORG: 020 DEPT. OF ENVIRONMENTAL CONSERVATION

PRECISION

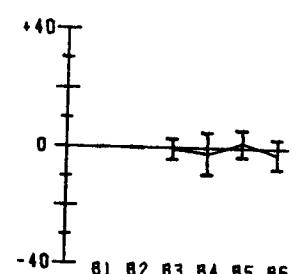


LEVEL 1

ACCURACY
LEVEL 2



LEVEL 3



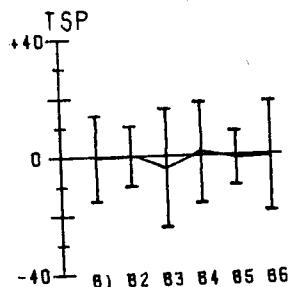
G-304

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 10
STATE : 02 ALASKA
REPORG: 020 DEPT. OF ENVIRONMENTAL CONSERVATION

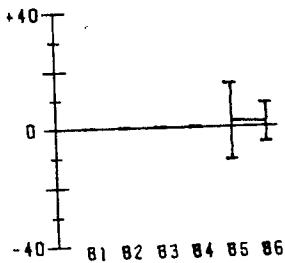
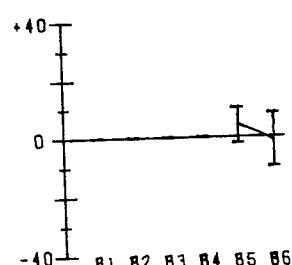
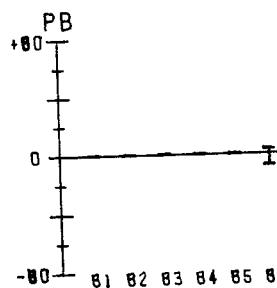
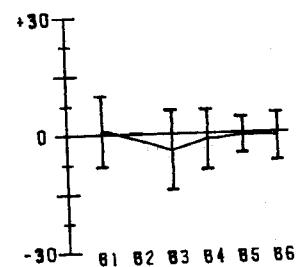
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



G-305

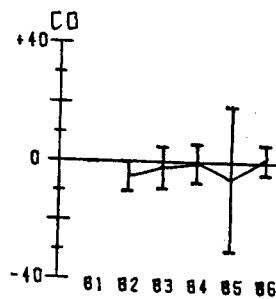
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 10

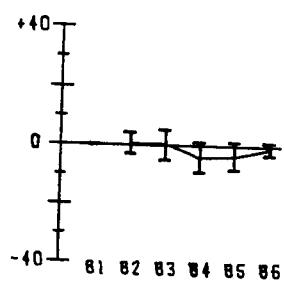
STATE : 13 IDAHO

REPORG: 001 DEPARTMENT OF HEALTH AND WELFARE

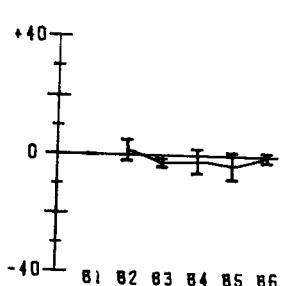
PRECISION



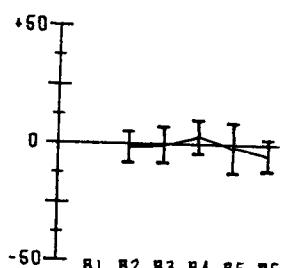
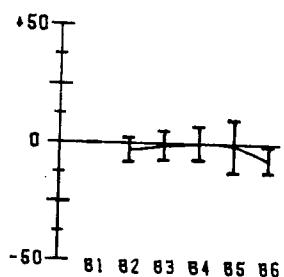
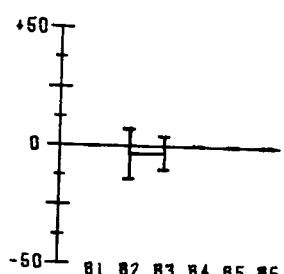
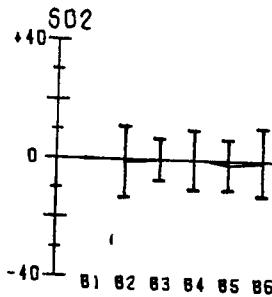
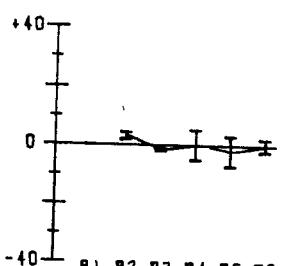
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

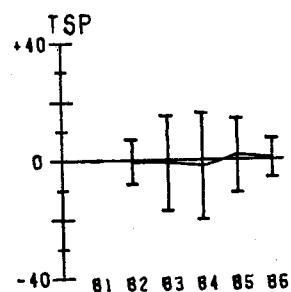
REG : 10

STATE : 13 IDAHO

REPORG: 001 DEPARTMENT OF HEALTH AND WELFARE

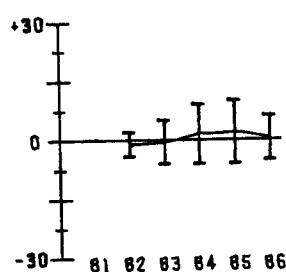
PRECISION

LEVEL 1

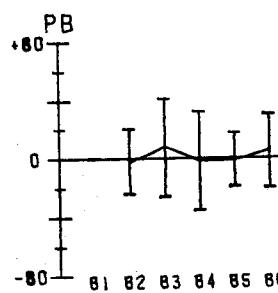


ACCURACY
LEVEL 2

LEVEL 3



PB



+40

-40

-80

81 82 83 84 85 86

+40

-40

-80

81 82 83 84 85 86

+40

-40

G-307

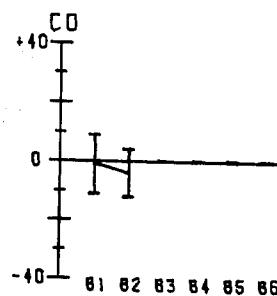
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 10

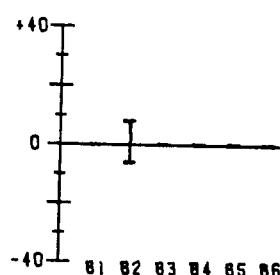
STATE : 13 IDAHO

REPORT: 002 ENGINEERING SCI INC-CONTRACTOR-DISC 1982

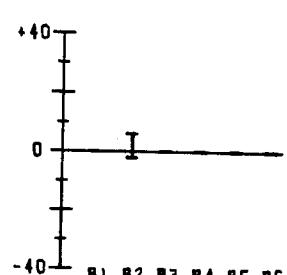
PRECISION



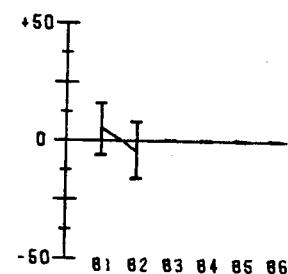
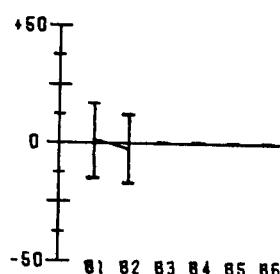
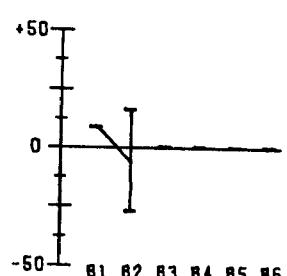
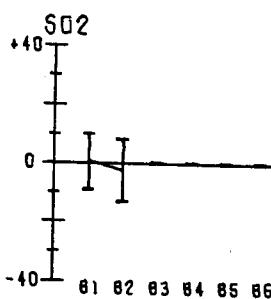
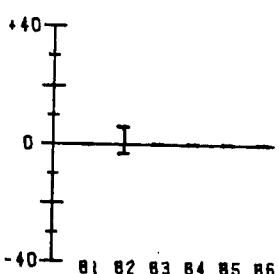
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

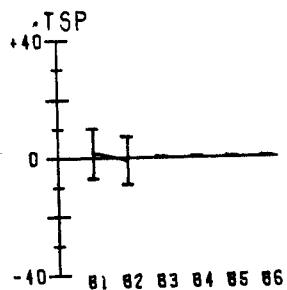


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 10
STATE : 13 IDAHO
REPORT: 002 ENGINEERING SCI INC-CONTRACTOR-DISC 1982

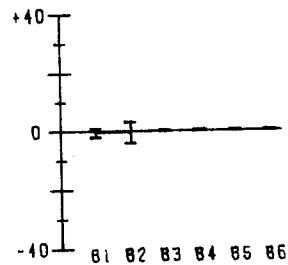
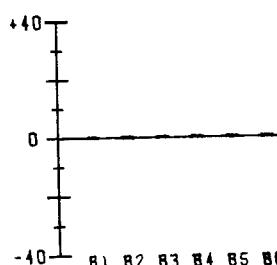
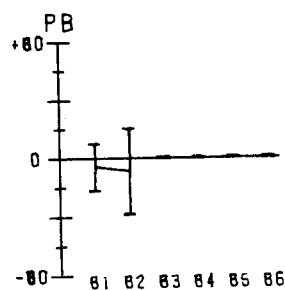
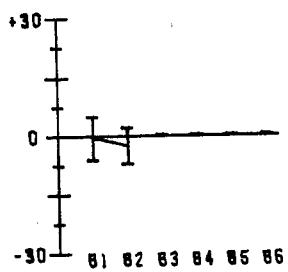
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



G-309

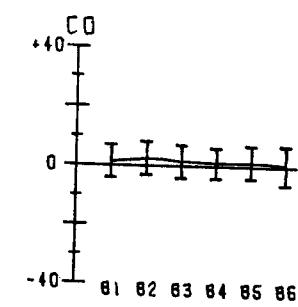
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 10

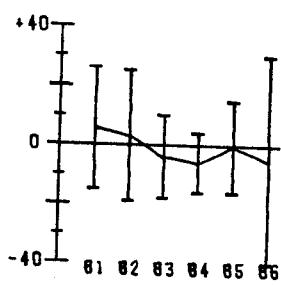
STATE : 38 OREGON

REPORG: 001 DEPT. OF ENVIRONMENTAL QUALITY

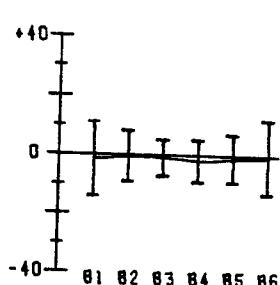
PRECISION



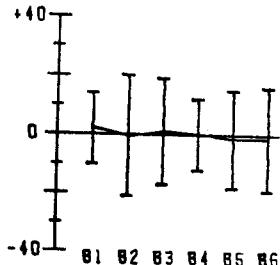
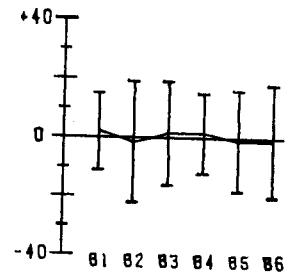
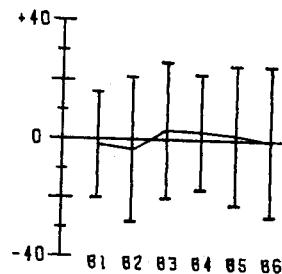
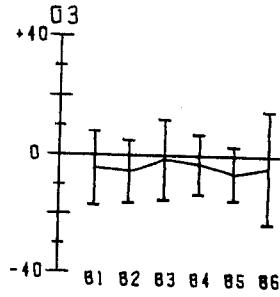
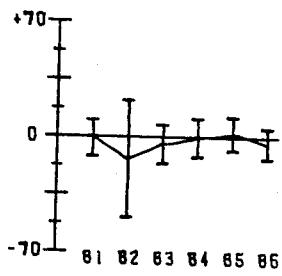
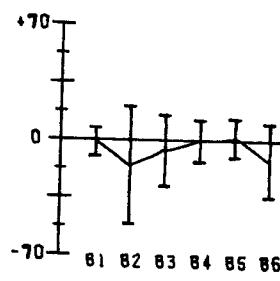
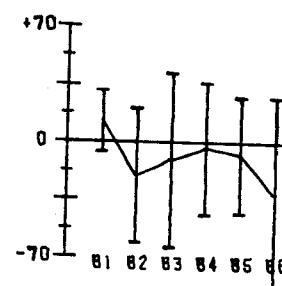
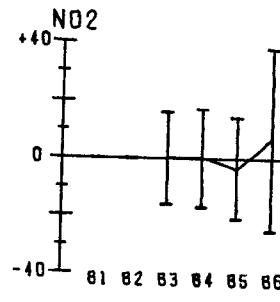
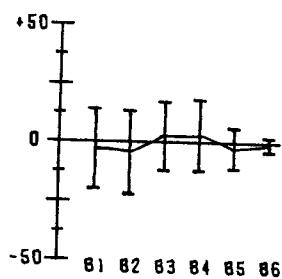
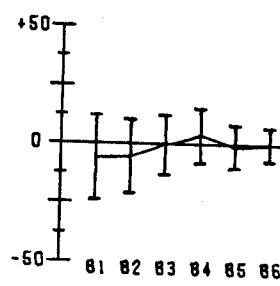
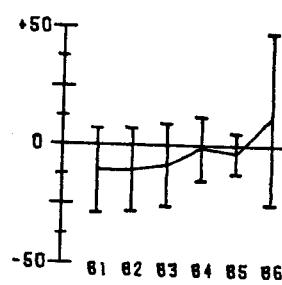
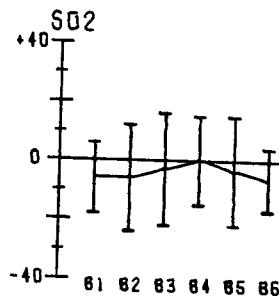
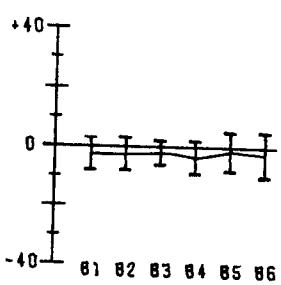
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3

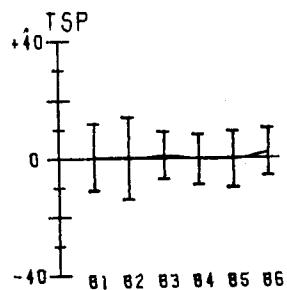


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 10
STATE : 38 OREGON
REPORT: 001 DEPT. OF ENVIRONMENTAL QUALITY

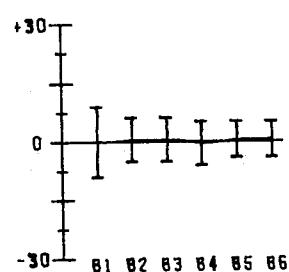
PRECISION

LEVEL 1

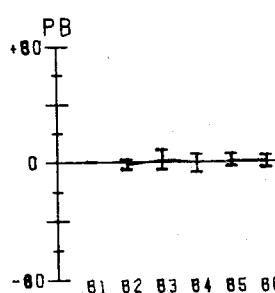


ACCURACY
LEVEL 2

LEVEL 3



PB



+40

-40

-40

+40

-40

-40

81 82 83 84 85 86

81 82 83 84 85 86

81 82 83 84 85 86

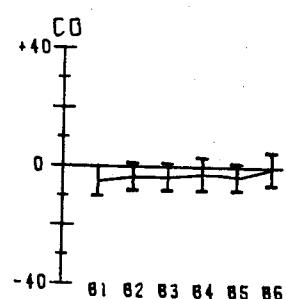
G-311

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

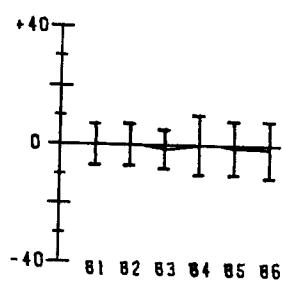
REG : 10
STATE : 49 WASHINGTON
REPORG: 001 DEPT. OF ECOLOGY

PRECISION

LEVEL 1

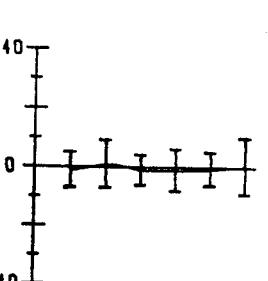
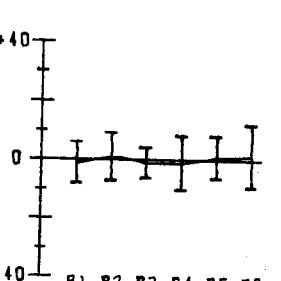
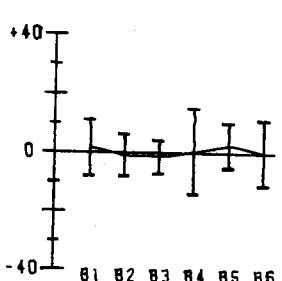
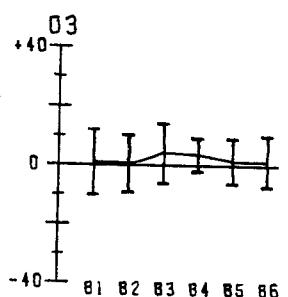
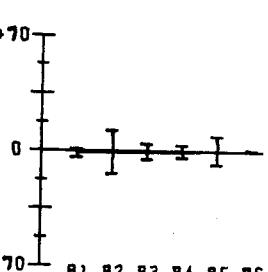
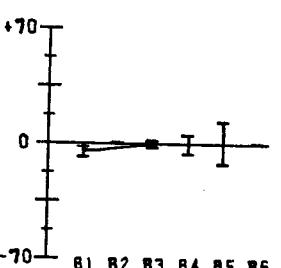
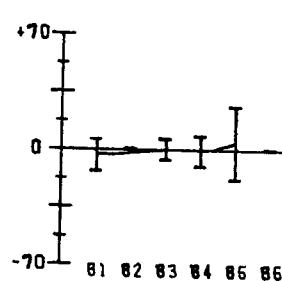
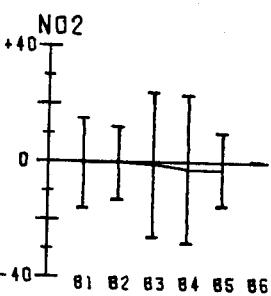
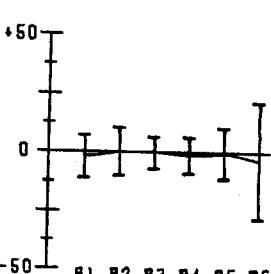
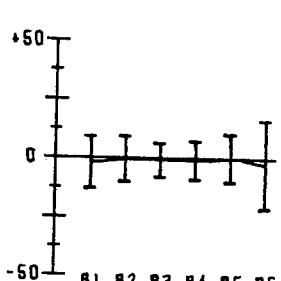
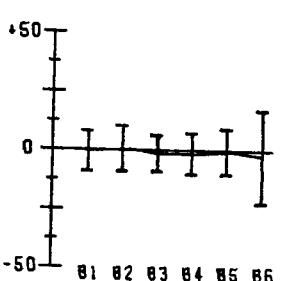
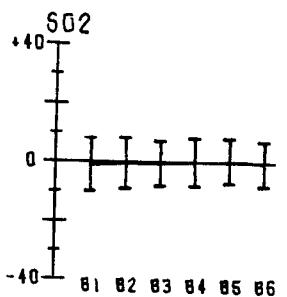
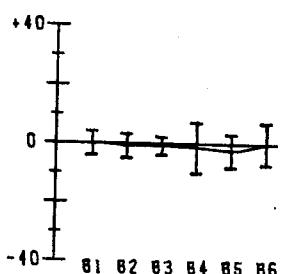


ACCURACY
LEVEL 2



LEVEL 2

LEVEL 3

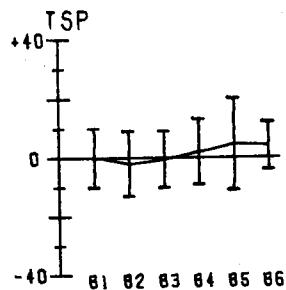


95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 10
STATE : 49 WASHINGTON
REPORG: 001 DEPT. OF ECOLOGY

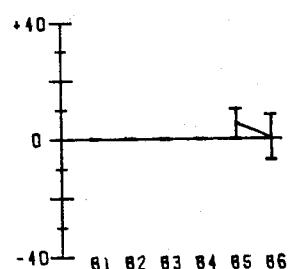
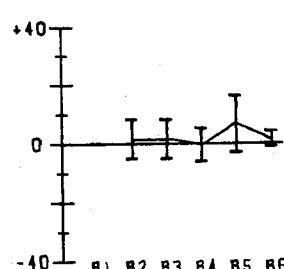
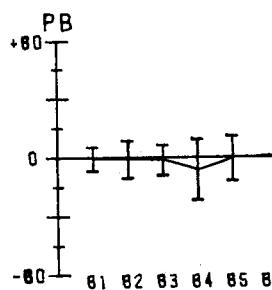
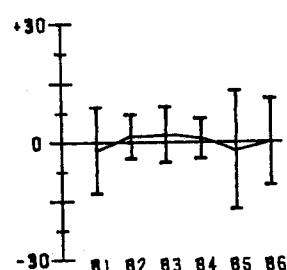
PRECISION

LEVEL 1



ACCURACY
LEVEL 2

LEVEL 3



G-313

APPENDIX H
PRECISION AND ACCURACY GRAPHS FOR EACH EPA REGION

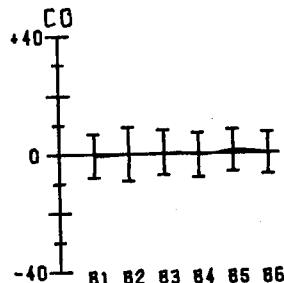
H-0

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

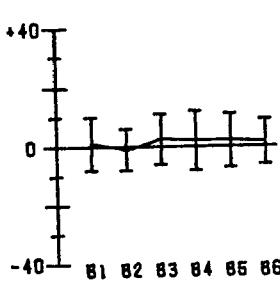
REG : 01

PRECISION

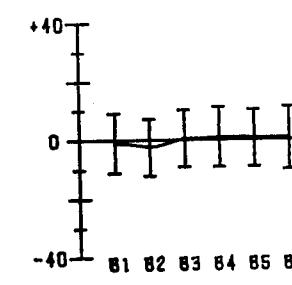
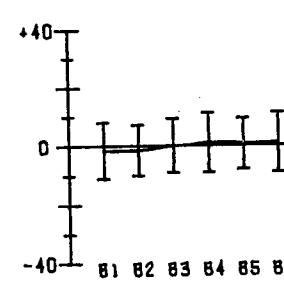
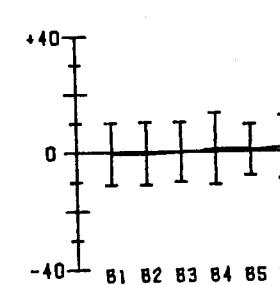
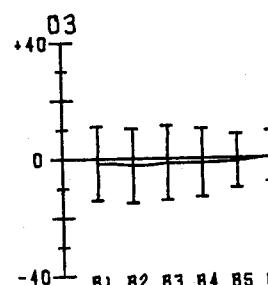
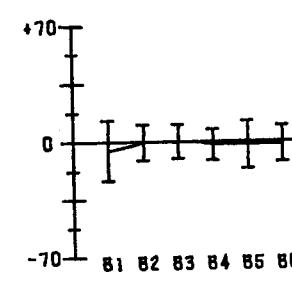
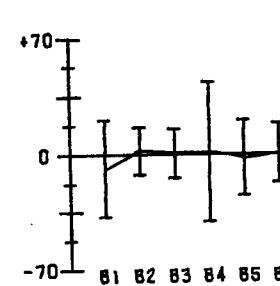
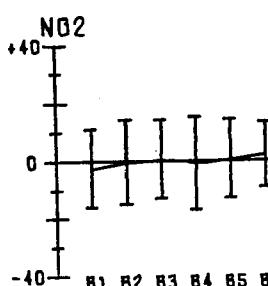
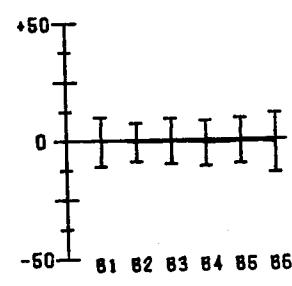
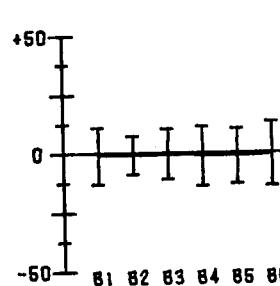
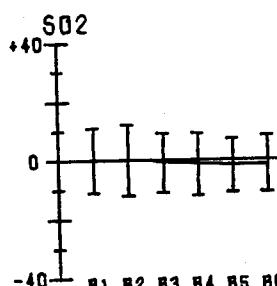
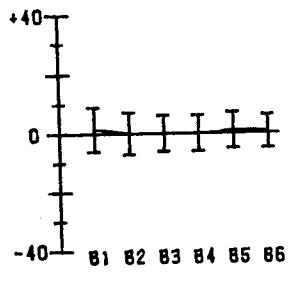
LEVEL 1



ACCURACY
LEVEL 2



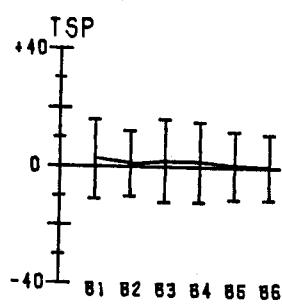
LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 01

PRECISION

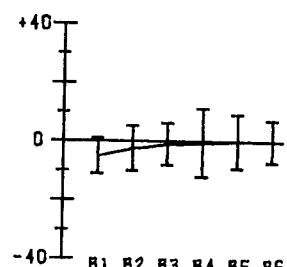
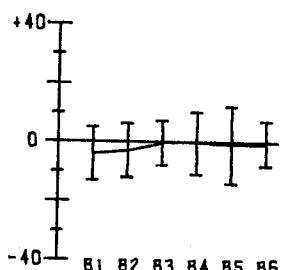
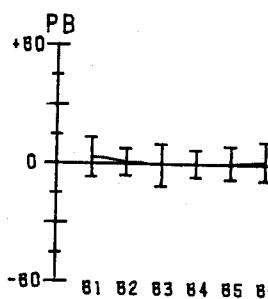
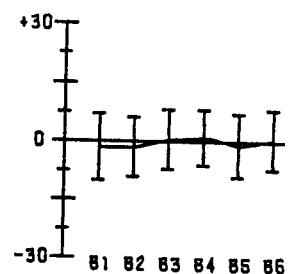


LEVEL 1

ACCURACY

LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

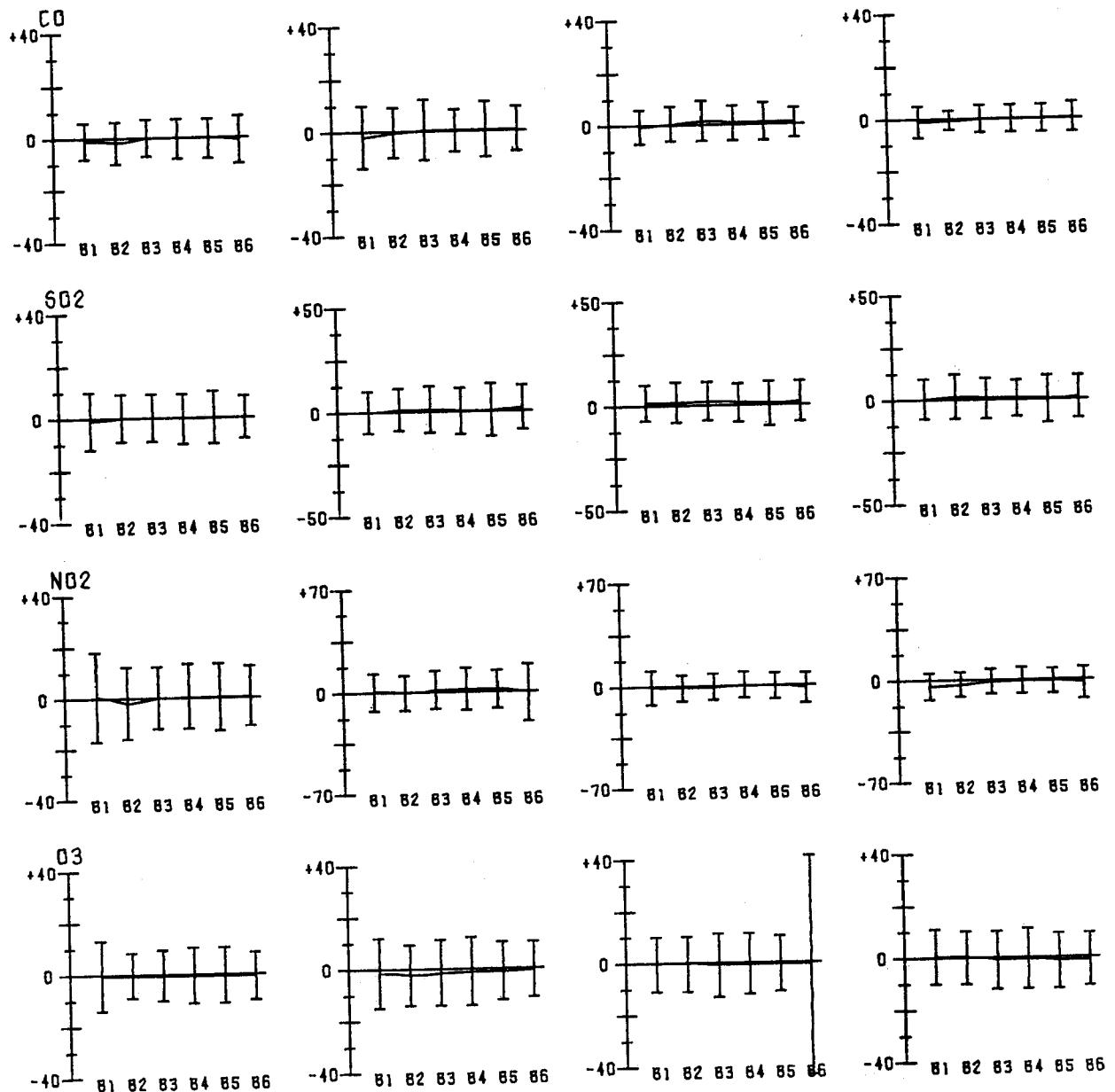
REG : 02

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

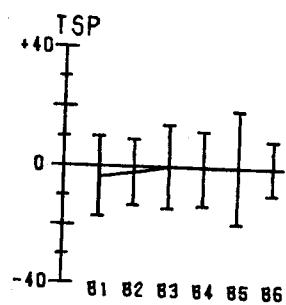
LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

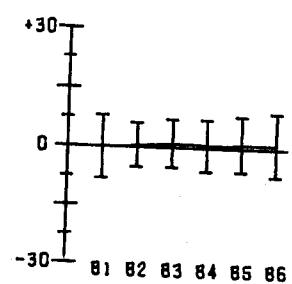
REG : 02

PRECISION

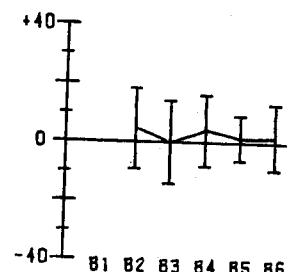
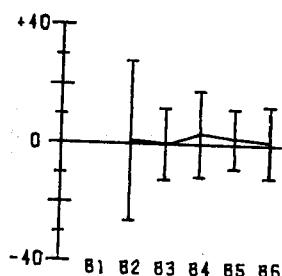
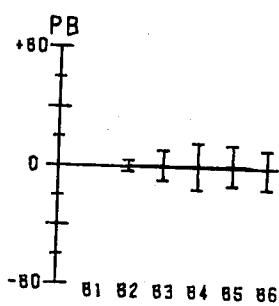


LEVEL 1

ACCURACY
LEVEL 2



LEVEL 3

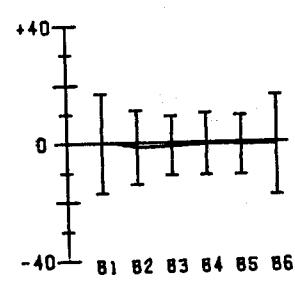
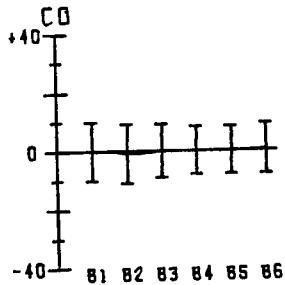


95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

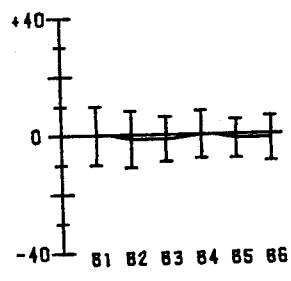
REG : 03

PRECISION

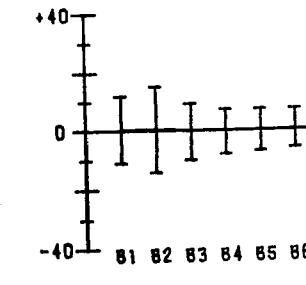
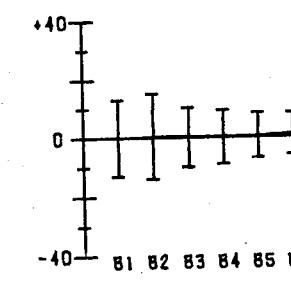
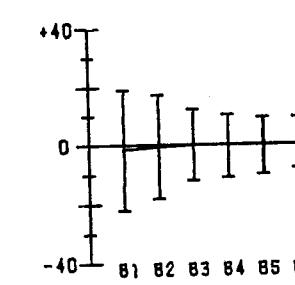
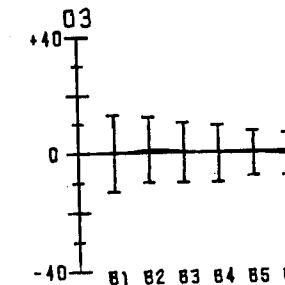
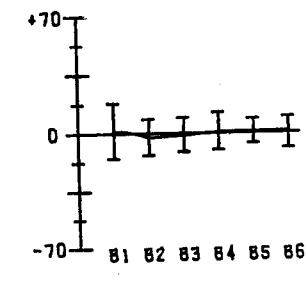
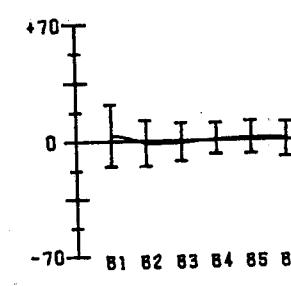
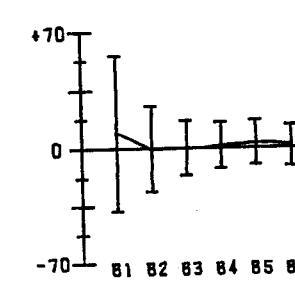
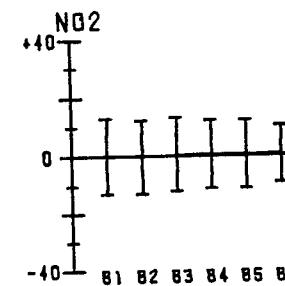
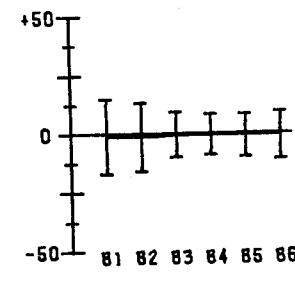
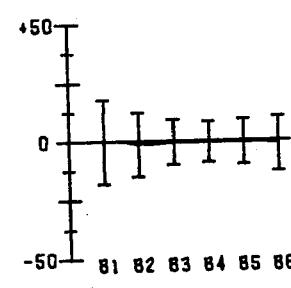
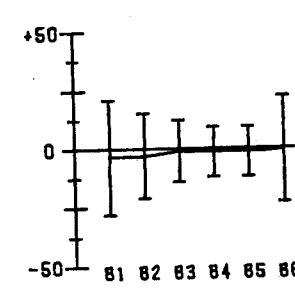
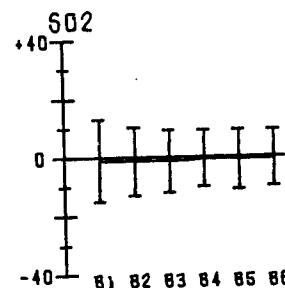
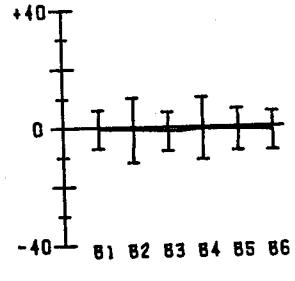
LEVEL 1



ACCURACY
LEVEL 2



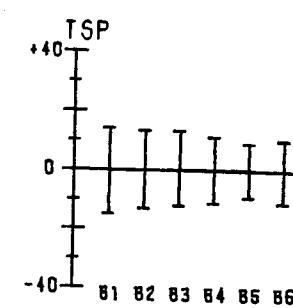
LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 03

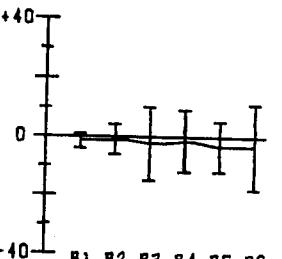
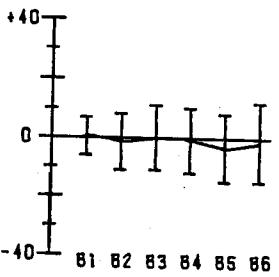
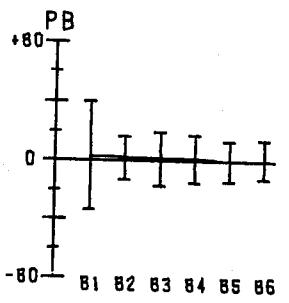
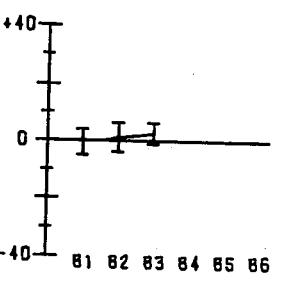
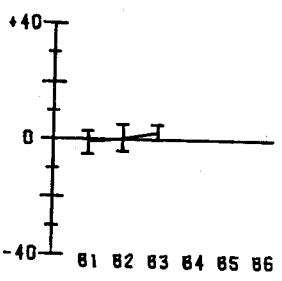
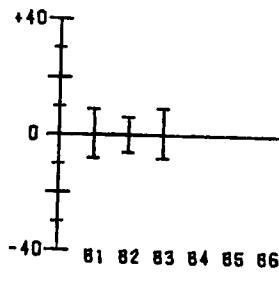
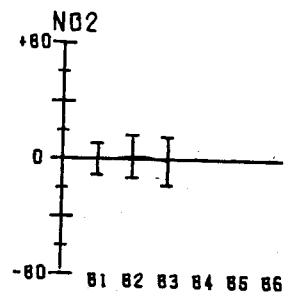
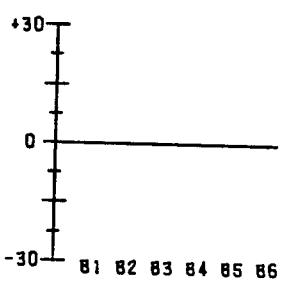
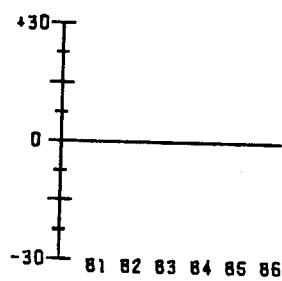
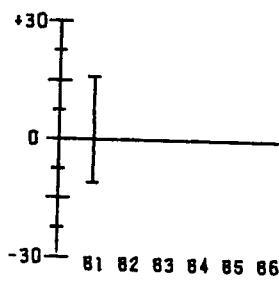
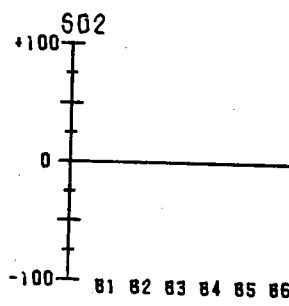
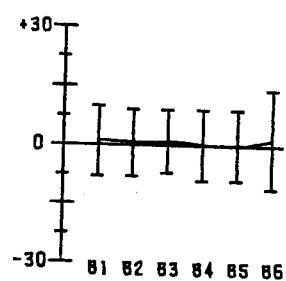
PRECISION



LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

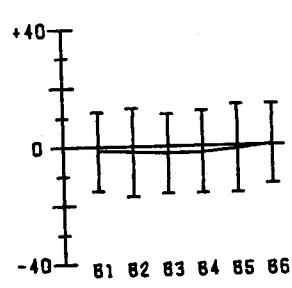
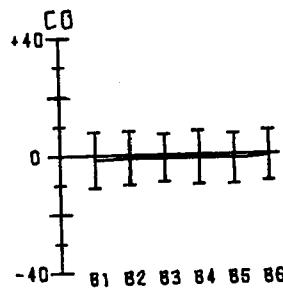


95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 04

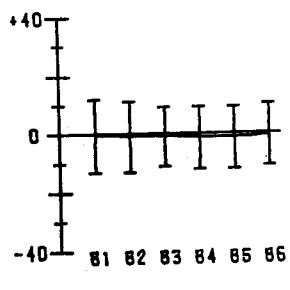
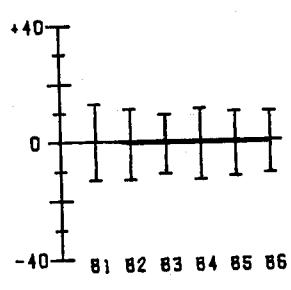
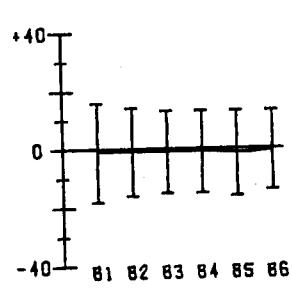
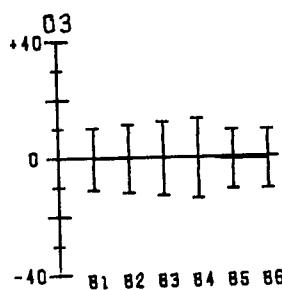
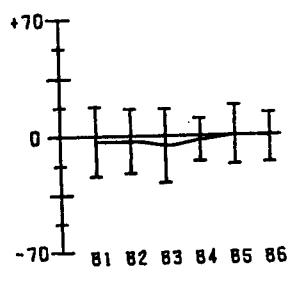
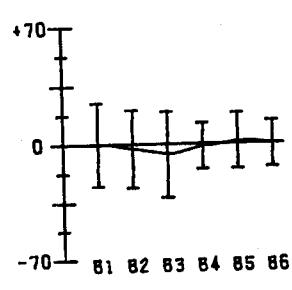
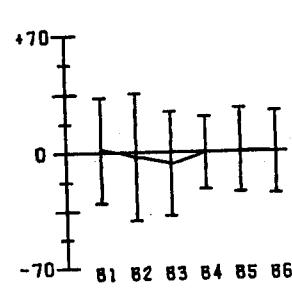
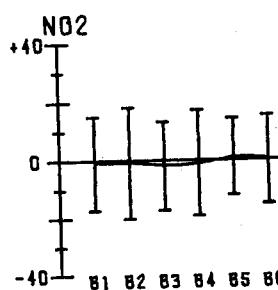
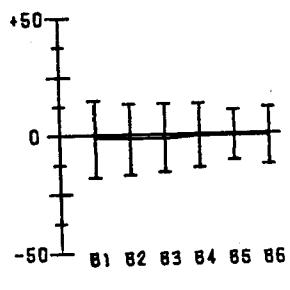
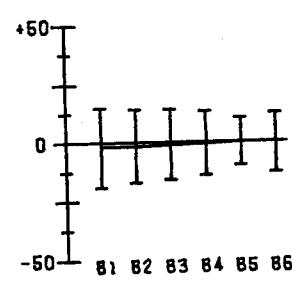
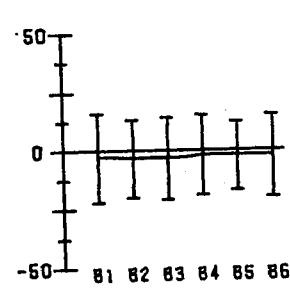
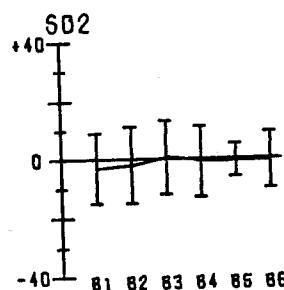
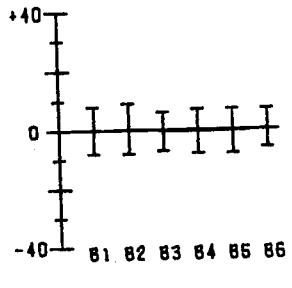
PRECISION

LEVEL 1

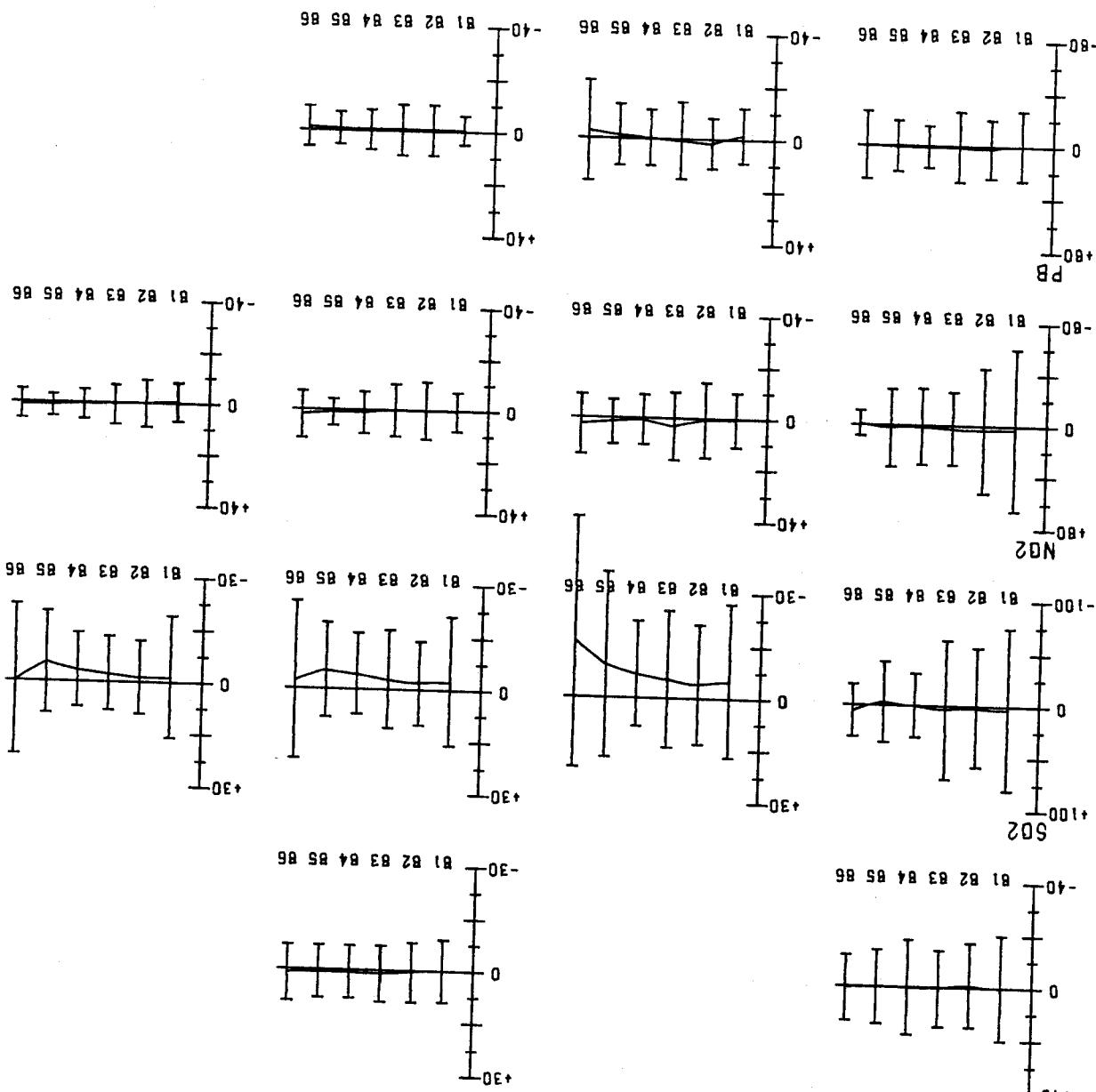


ACCURACY
LEVEL 2

LEVEL 3



H-8

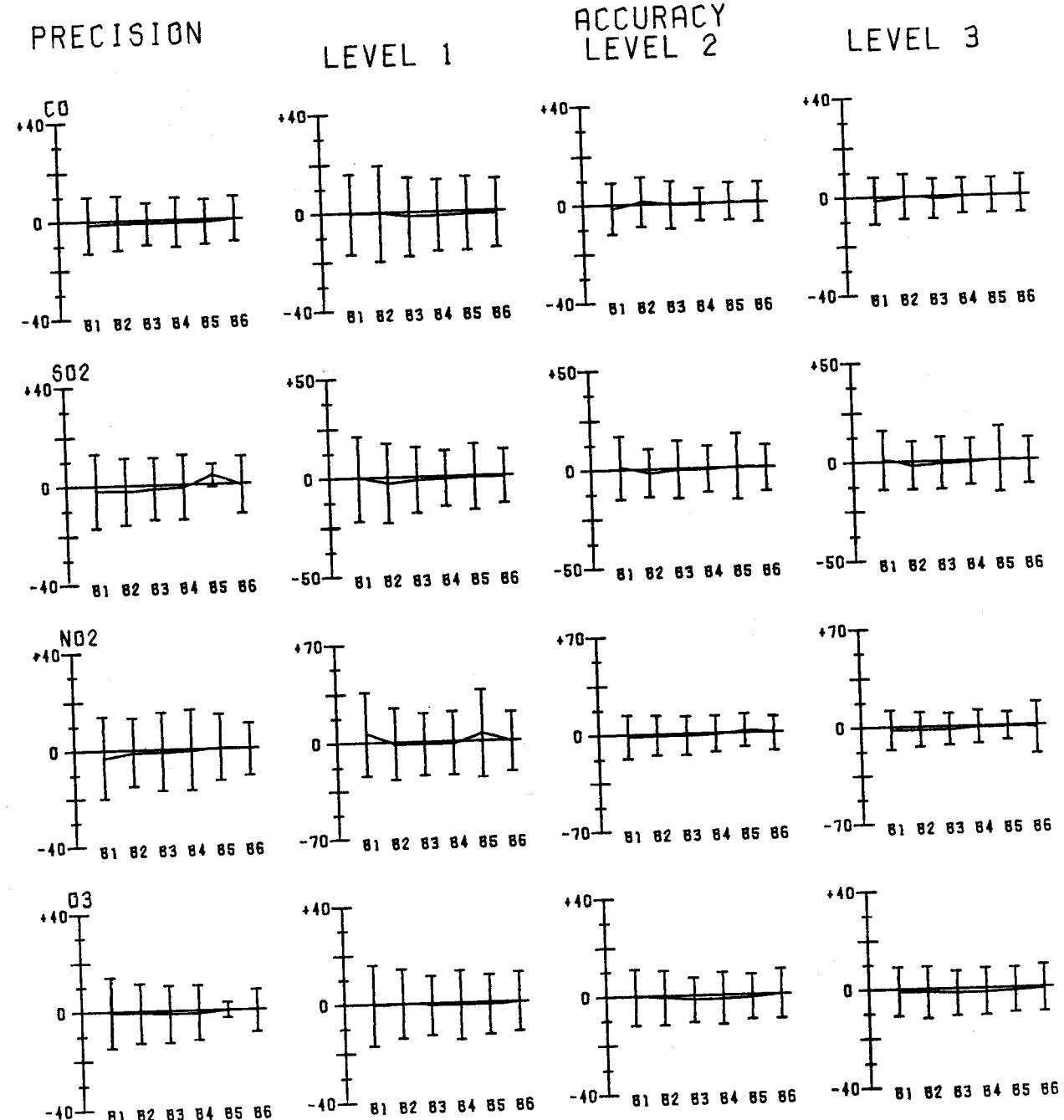


REG : 04

95% PROBABILITY LIMITS 81-86
MANUAL METHODS

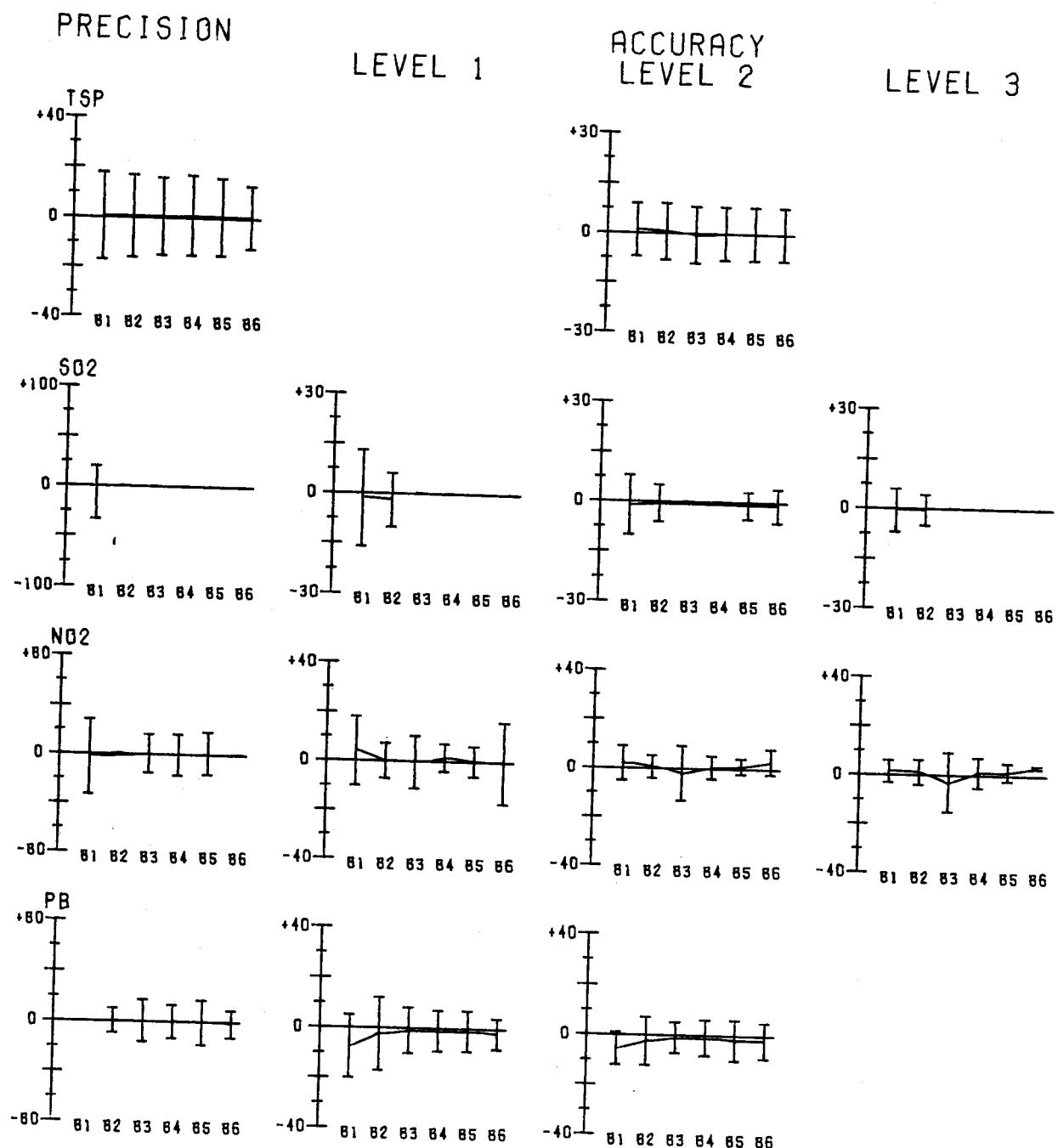
95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 05



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 05

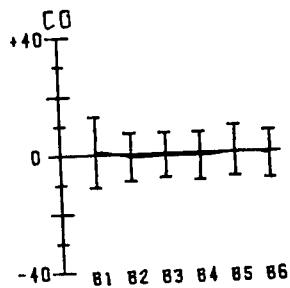


95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

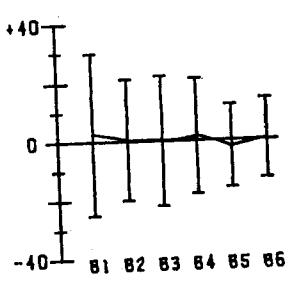
REG : 06

PRECISION

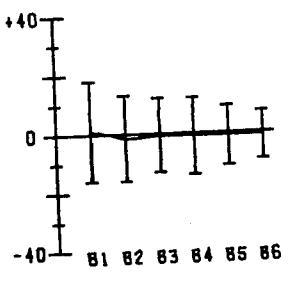
LEVEL 1



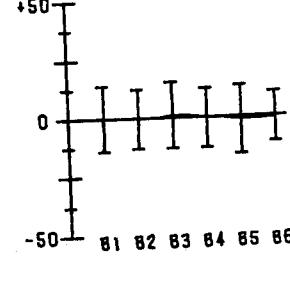
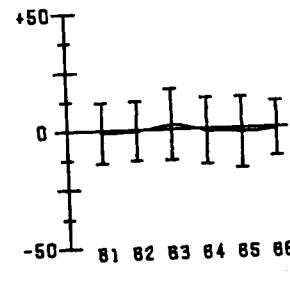
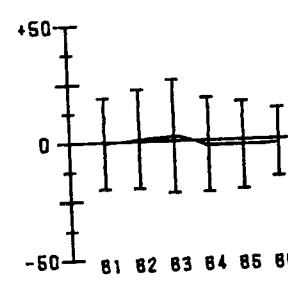
ACCURACY
LEVEL 2



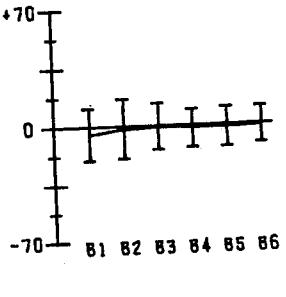
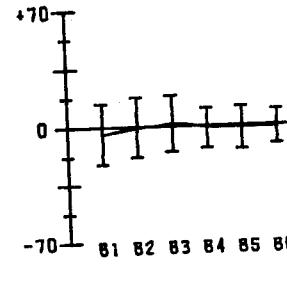
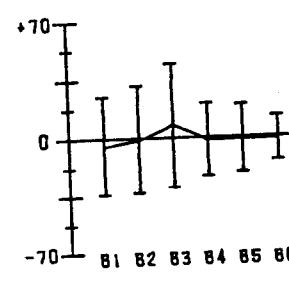
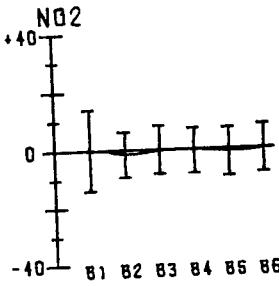
LEVEL 3



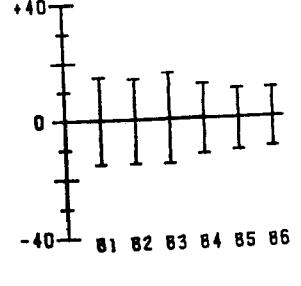
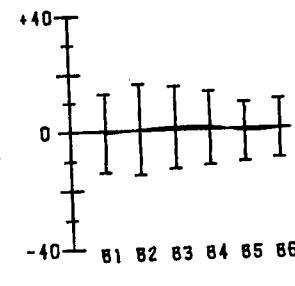
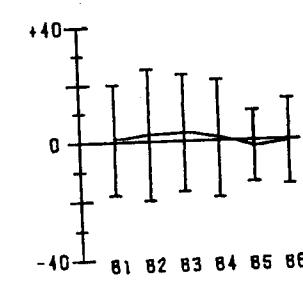
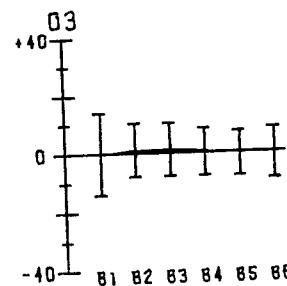
502



N02



03



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

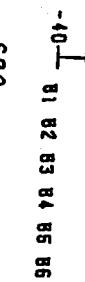
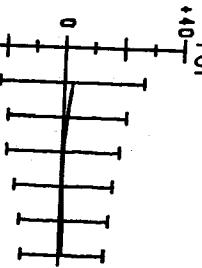
REG : 06

PRECISION

LEVEL 1

**ACCURACY
LEVEL 2**

LEVEL 3



+100
602

+30

-30

+30

-40



+100
NO2

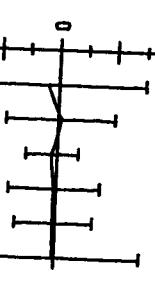
+40

-30

-30

-40

-40



+80
PB

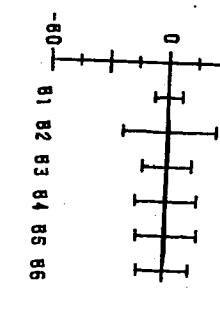
+40

-40

-40

-40

-40



+80
PB

+40

-40

-40

-40

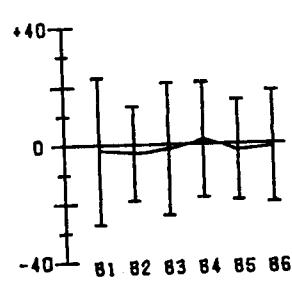
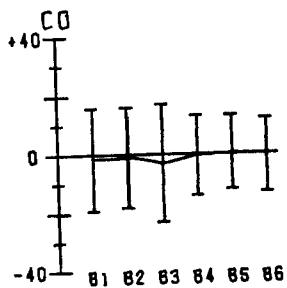
-40

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

REG : 07

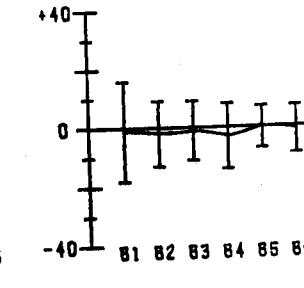
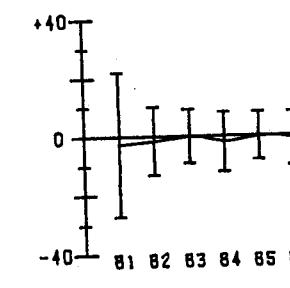
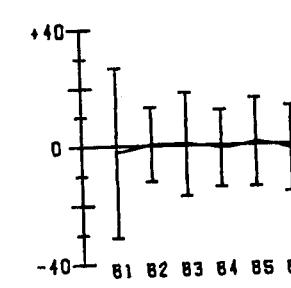
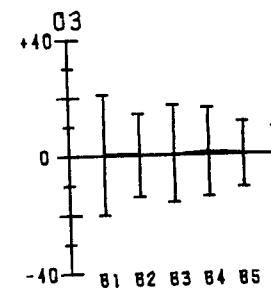
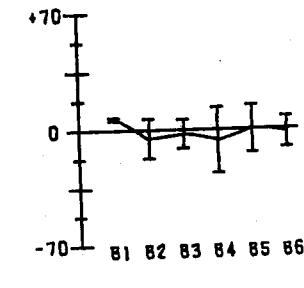
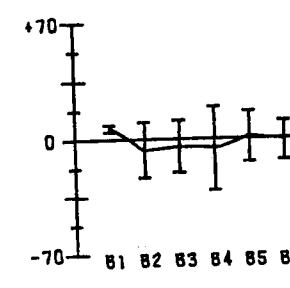
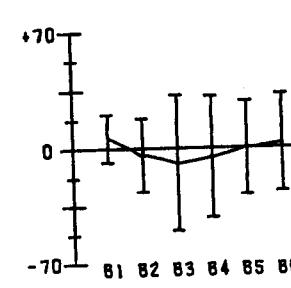
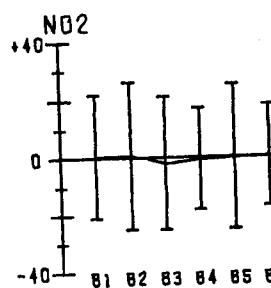
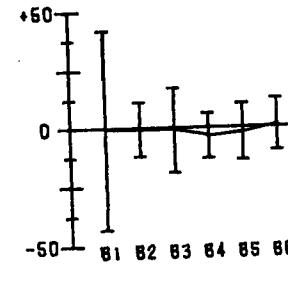
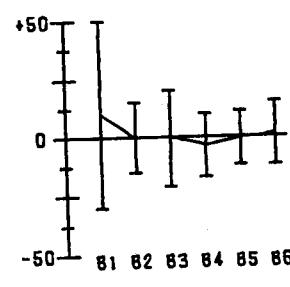
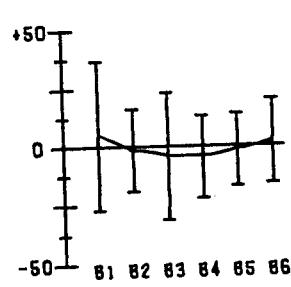
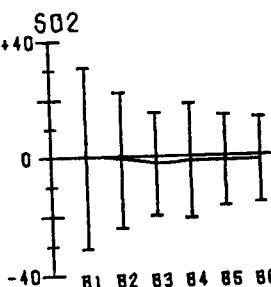
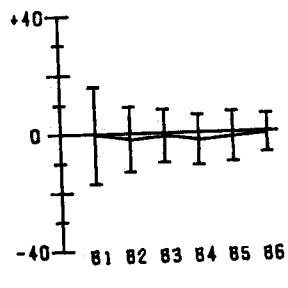
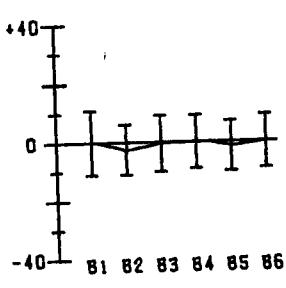
PRECISION

LEVEL 1



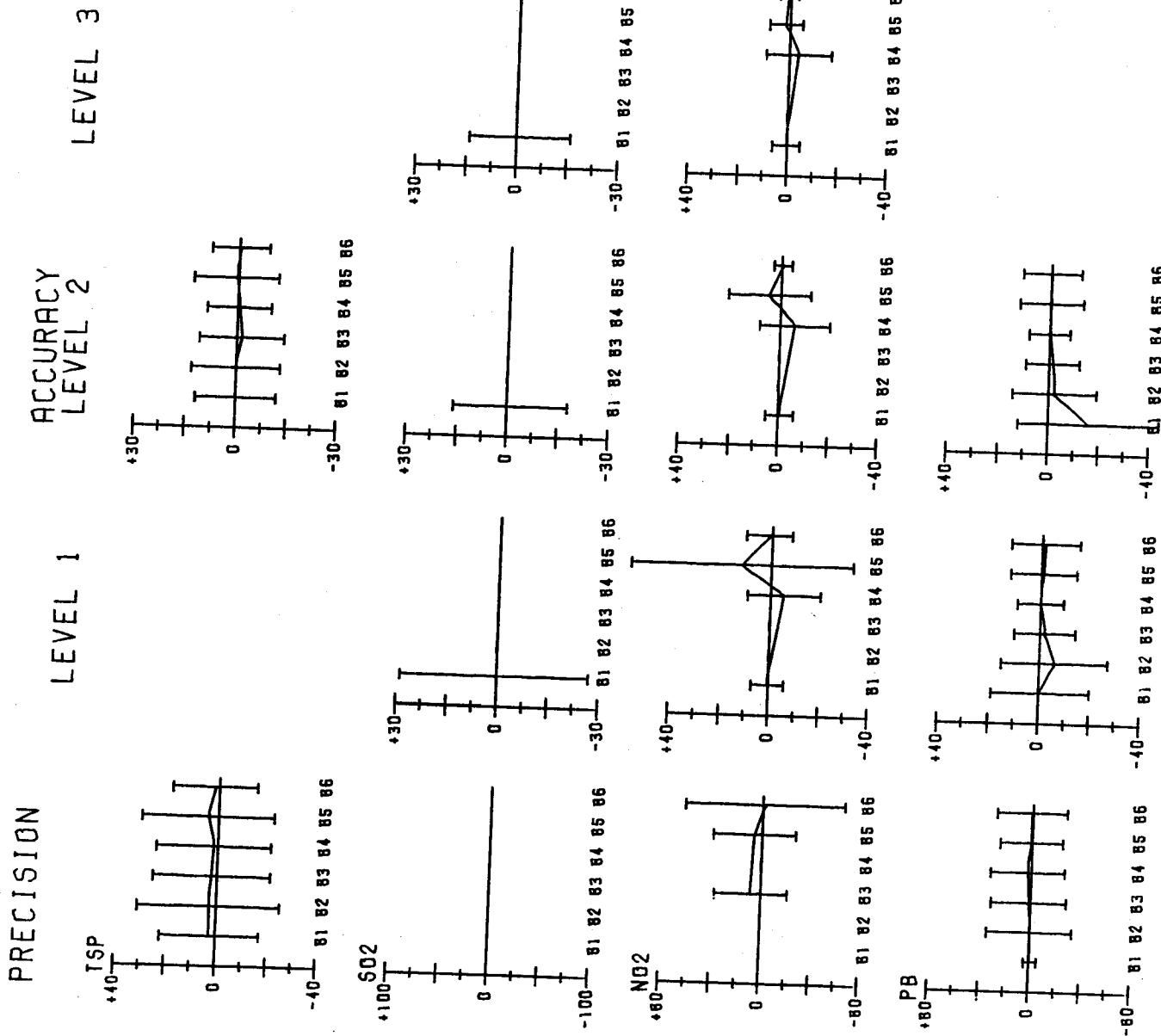
ACCURACY
LEVEL 2

LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 07



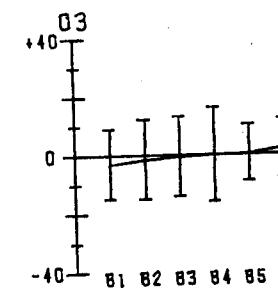
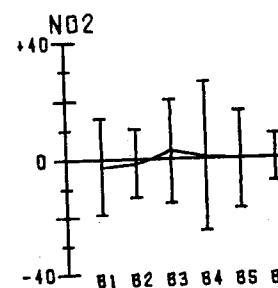
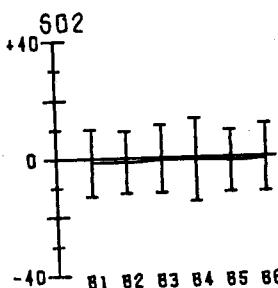
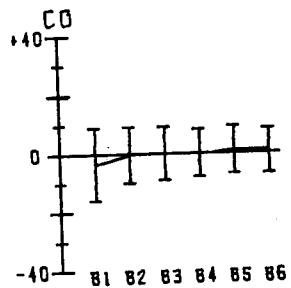
H-14

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

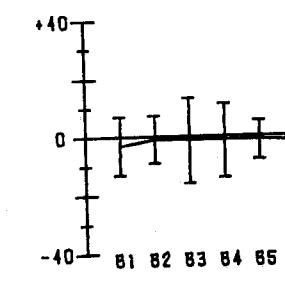
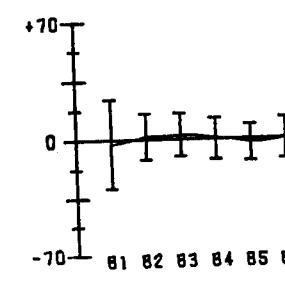
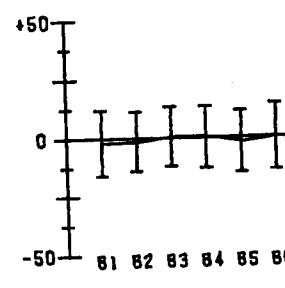
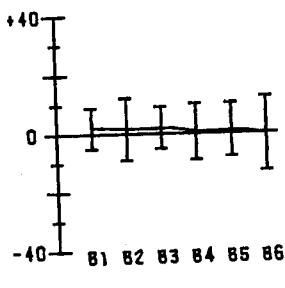
REG : 08

PRECISION

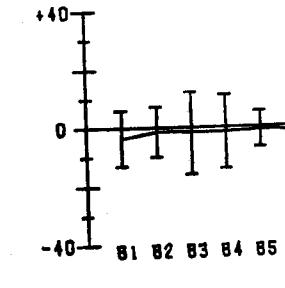
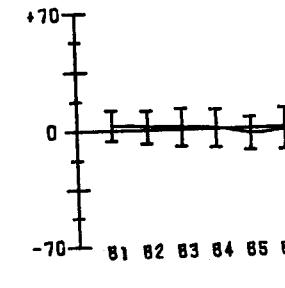
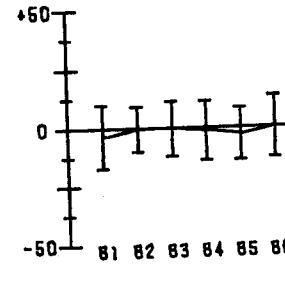
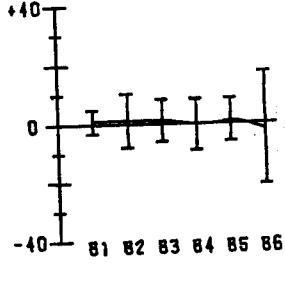
LEVEL 1



ACCURACY
LEVEL 2



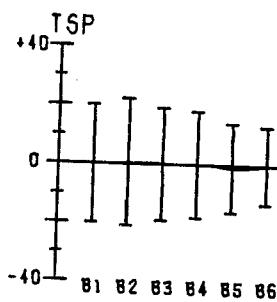
LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

REG : 08

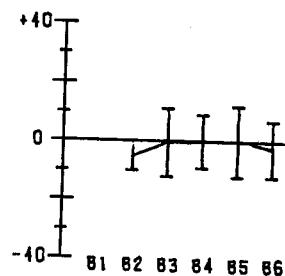
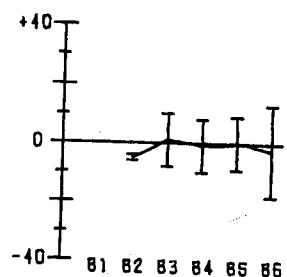
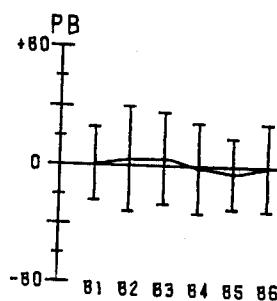
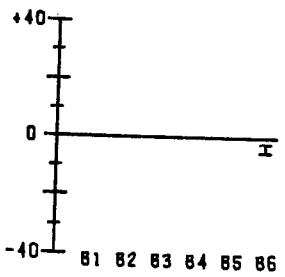
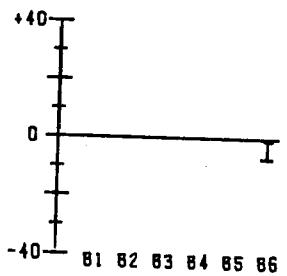
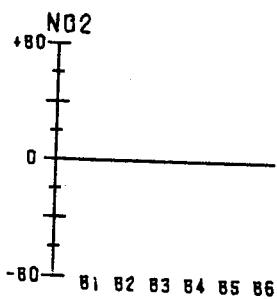
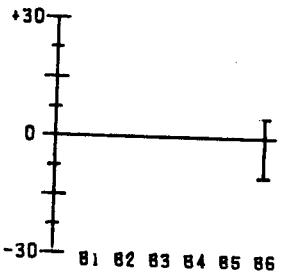
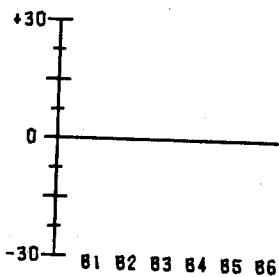
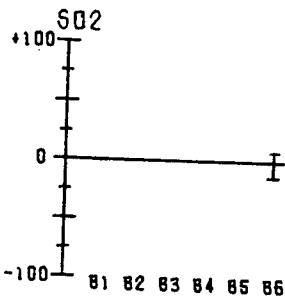
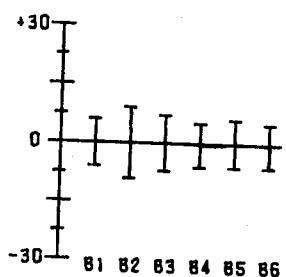
PRECISION



LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

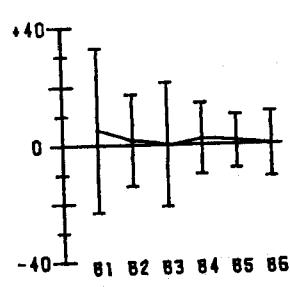
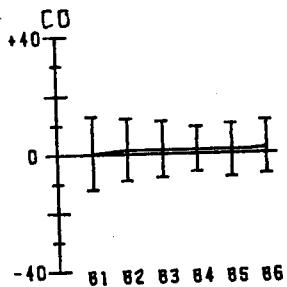


95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

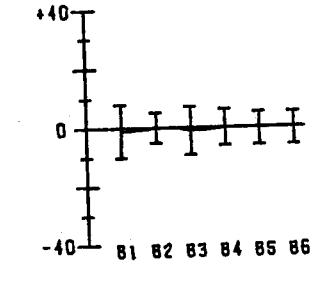
REG : 09

PRECISION

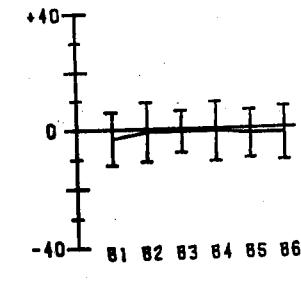
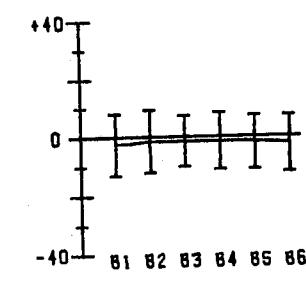
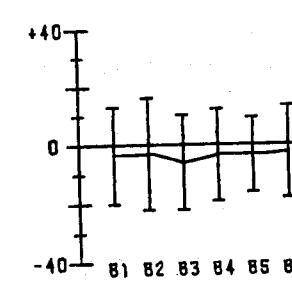
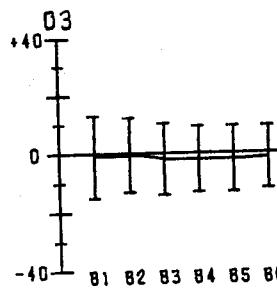
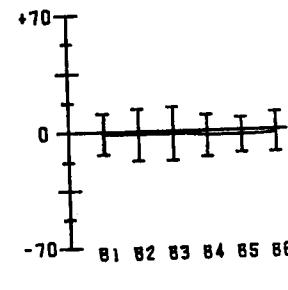
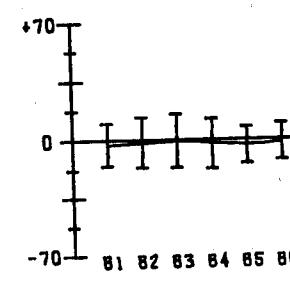
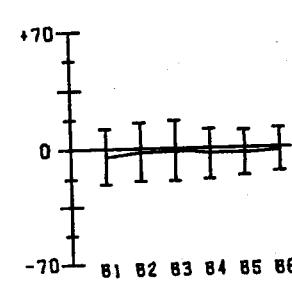
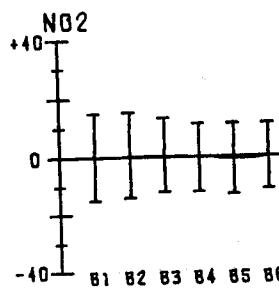
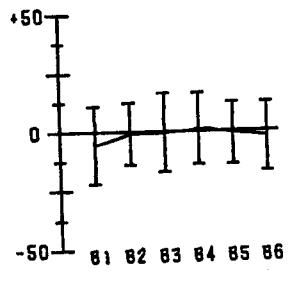
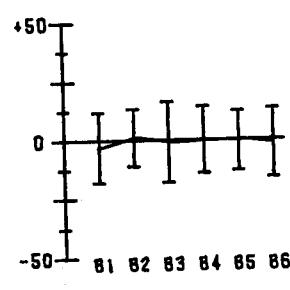
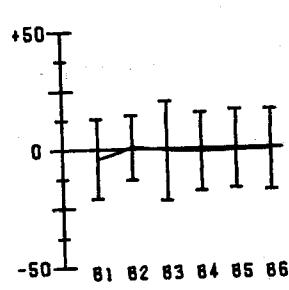
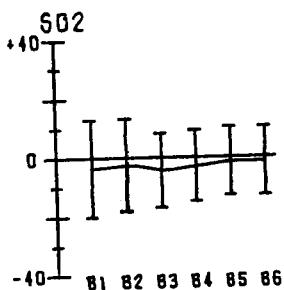
LEVEL 1



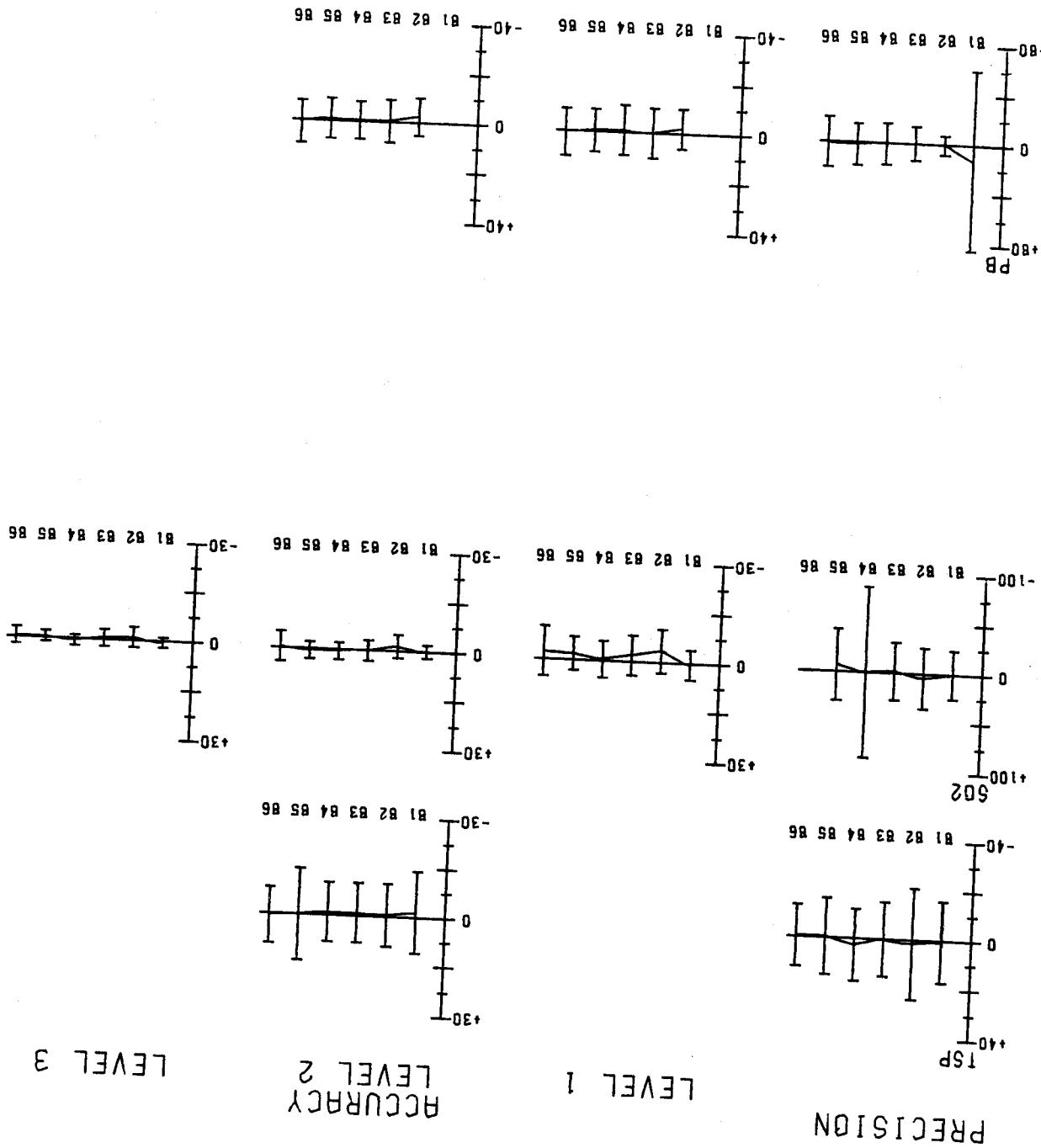
ACCURACY
LEVEL 2



LEVEL 3



H-18



95% PROBABILITY LIMITS B1-B6
MANUAL METHODS

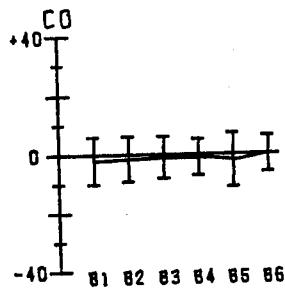
REG : 09

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

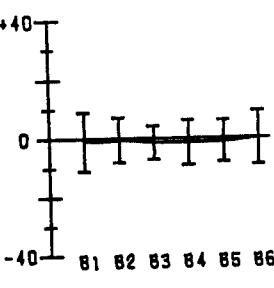
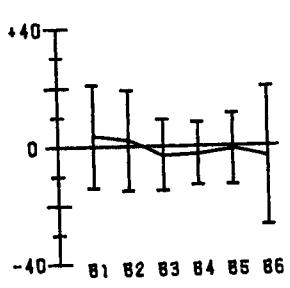
REG : 10

PRECISION

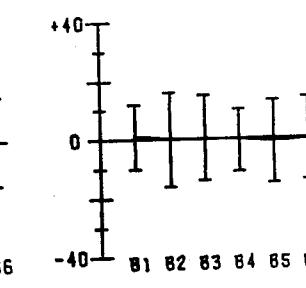
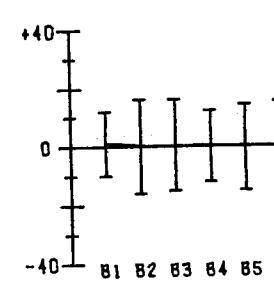
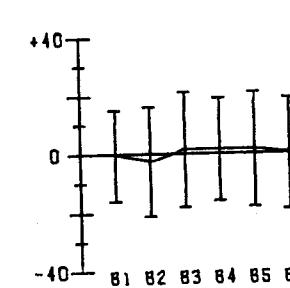
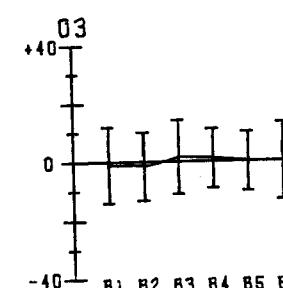
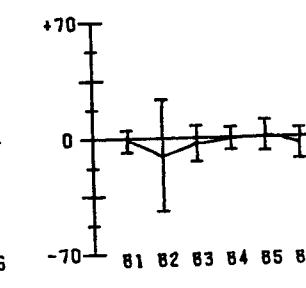
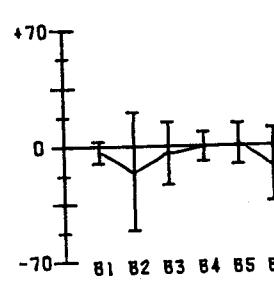
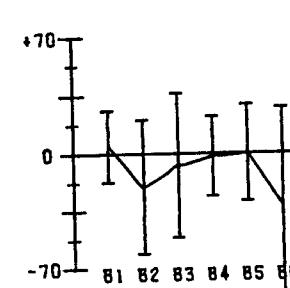
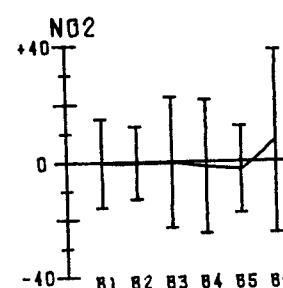
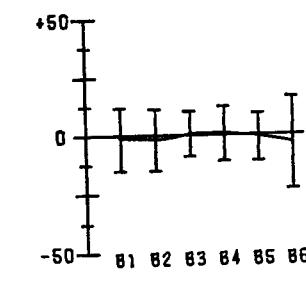
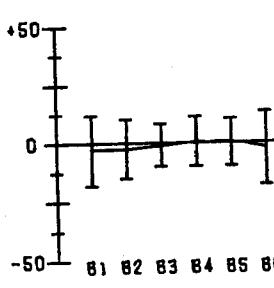
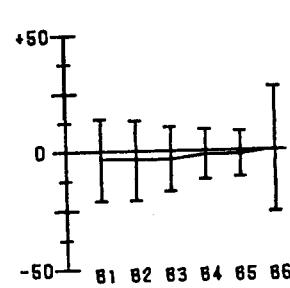
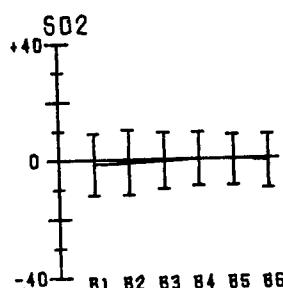
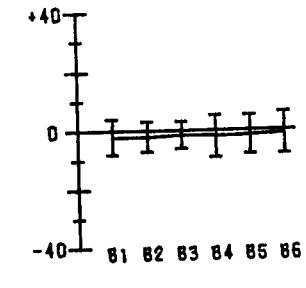
LEVEL 1



ACCURACY
LEVEL 2



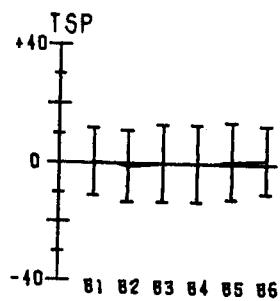
LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

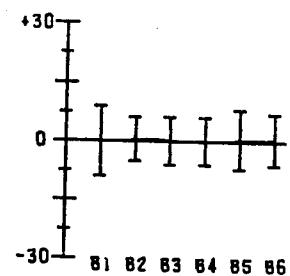
REG : 10

PRECISION

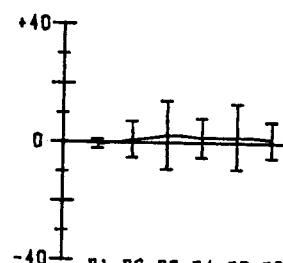
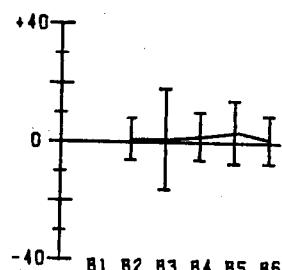
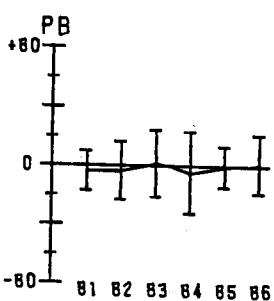


LEVEL 1

ACCURACY
LEVEL 2



LEVEL 3



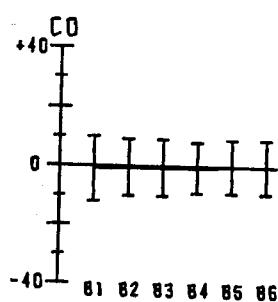
APPENDIX I
PRECISION AND ACCURACY GRAPHS FOR THE NATION

95% PROBABILITY LIMITS 81-86
CONTINUOUS METHODS

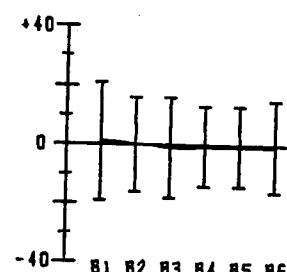
NATIONAL

PRECISION

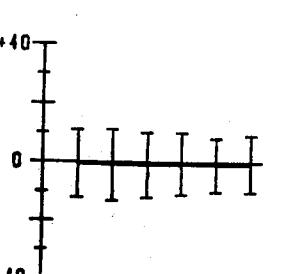
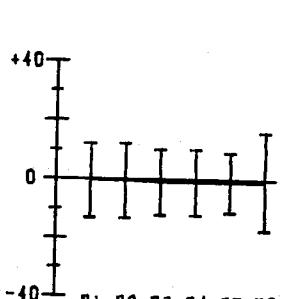
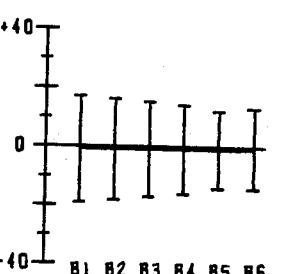
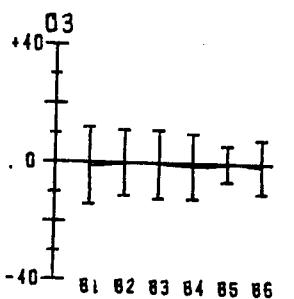
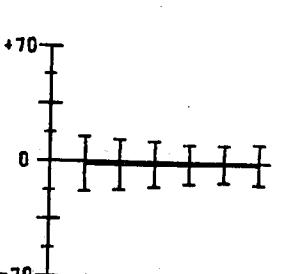
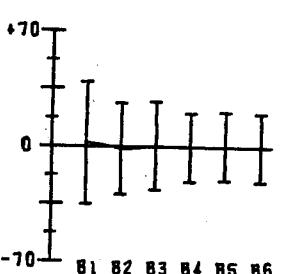
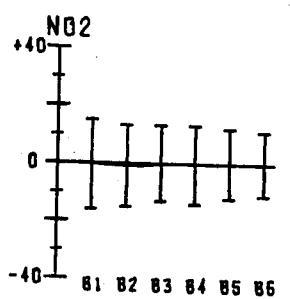
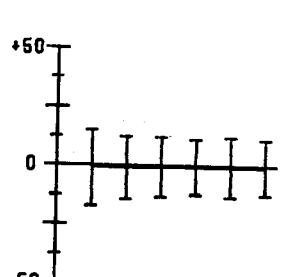
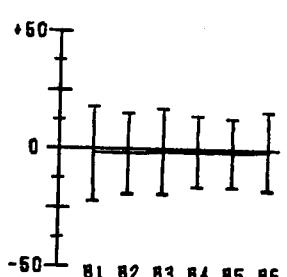
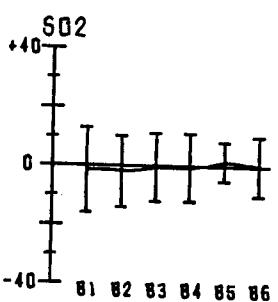
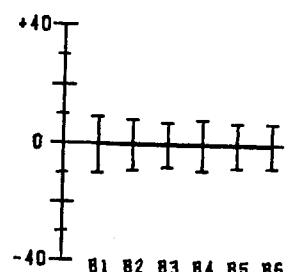
LEVEL 1



ACCURACY
LEVEL 2



LEVEL 3



95% PROBABILITY LIMITS 81-86
MANUAL METHODS

NATIONAL

PRECISION

LEVEL 1

ACCURACY
LEVEL 2

LEVEL 3

