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Office of Air Quality
Planning and Standards
Research Triangle Park, NC 27711

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AIR

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Final Report

Hot Mix Asphalt Plants
Truck Loading and Silo Filling
Manual Methods Testing

Asphalt Plant C
Los Angeles, California

Volume 7 of 8

Office of Air Quality
Clean Air
OAQPS
Planning and Standards

FINAL REPORT

HOT MIX ASPHALT PLANTS
TRUCK LOADING AND SILO FILLING
MANUAL METHODS TESTING
ASPHALT PLANT C, LOS ANGELES, CALIFORNIA

VOLUME 7 OF 8
APPENDIX G.4

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MAY 2000

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GLOSSARY OF TERMS

ASTM – American Society for Testing and Materials
CEMS – Continuous Emissions Monitoring System
CTS – Calibration Transfer Standard
EMC – Emissions Measurement Center
EMAD – Emission Monitoring and Analysis Division
ESP – Electrostatic Precipitator
FID – Flame Ionization Detector
FTIR – Fourier Transform Infrared Spectroscopy
HAP – Hazardous Air Pollutant
MCEM – Methylene Chloride Extractable Matter
MRI – Midwest Research Institute
PES – Pacific Environmental Services
PM – Particulate Matter
PTE – Permanent Total Enclosure
RAP – Recycled Asphalt
RTFOT – Rolling Thin Film Oven Test
SED – Silo Exhaust Duct

GLOSSARY OF TERMS (CONTINUED)

SMTG – Source Measurement Technology Group
SVOHAP – Semi-Volatile Organic Hazardous Air Pollutant
TED – Tunnel Emissions Duct
TFOT – Thin Film Oven Test
THC – Total Hydrocarbons
VOHAP – Volatile Organic Hazardous Air Pollutant
VOST – Volatile Organic Sampling Train

VOLUME 7

APPENDIX G

ANALYTICAL DATA (CONTINUED)

G.4 VOHAPS DATA

1a

APPENDIX G.4

VOHAPS DATA

1c

TRIANGLE LABS

CASE NARRATIVE

Analysis of Samples for the Presence of

Volatile Analytes by

High-Resolution Gas Chromatography / Low-Resolution Mass Spectrometry

METHOD 8260

Date : August 24, 1998

Client ID : Pacific Environmental Services

TLI Project Number : 46297

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Triangle Laboratories, Inc. **August 24, 1998**
Case Narrative **46297**

Objective: Analysis of four VOST tube pairs (T-V-1-1-A&-B, T-V-1-2-A&-B, T-V-1-3-A&-B, T-V-1-4-A&-B) for a client specified list of volatile compounds, using Method 8260.

Method:

Eight VOST tube pairs were received at Triangle Laboratories, Inc. on July 25, 1998 on ice at 6°C in good condition. The samples were stored in a refrigerator at 4°C prior to analysis. The VOST tube sample pairs were analyzed according to the guidelines of Methods 8260 and 5040. * {Per client request, the compounds 1,3-butadiene, vinyl bromide, methyl-t-butylether (MTBE), n-hexane, 1,2-epoxybutane, iso-octane, and ethyl acrylate were additional target compounds. A one point calibration was analyzed for these additional compounds and the resulting response factor used for quantitation.} The internal standards and surrogate standards were added in the amount of 0.25 micrograms (ug) immediately prior to analysis by GC/MS. The internal standards are pentafluorobenzene, 1,4-difluorobenzene, and chlorobenzene-d_5 and 1,4-dichlorobenzene-d_4. The surrogate standards reported are dibromofluoromethane, toluene-d_8, and 4-bromofluorobenzene. The results reported relate only to the items tested.

The GC/MS analysis conditions are listed below:

Purge and trap:	Tekmar LSC-2000
Purge:	11 min.
Desorb Temperature:	250 C
Desorb Time:	4 min.
GC Conditions:	
Column:	30 m x .53 mm x 0.3*u* J&W DB624 0 C hold .5 min, 10 C/min to 45C, 6 C/min to 90C, hold 1.5 min, 50 C/min to 200C.
MS Conditions:	
Instrument:	VG-TRIO-1 Lab Base data system
Scan:	35-350 amu at .6s/scan
Interface:	Jet Separator, 200 C

Report:

Enclosed with the case narrative are copies of the sample identification index, the project summary sheets, client paperwork, sample log-in sheets, and log book pages. A sample identification index summarizes the client sample name, TLI sample number, and analytical file name for each sample and blank. The project summary lists the amounts for detected analytes in gray. The estimated detection limits will be listed in parentheses when the target analytes are not detected.

The data are reported as quantitation reports, chromatograms, interim reports, and spectra of detected target. The quantitation report header lists the TLI project number, analysis method,

instrument sample file name, client sample name, client project number, TLI sample number, calibration file, date received, and analysis date. The response factors used for all calculations are from the calibration file listed in the header. All initial and continuing calibration data are located in the back of the data package. The amount is reported in total ug for the VOST tubes. The retention time (RT) will be listed for all internal standards and analytes which are detected. If a target analyte is not detected, it will be flagged with a "U" and a detection limit will be listed. Estimated detection limits are calculated for all analytes which were not found in the samples by using an area of 2000. The estimated detection limits reported are the average detection limits achievable over time on an instrument type. The actual detection limit for a given compound on a given day may vary from the estimate reported. The quantitation limit for all analytes is half of the low point of the initial calibration. Below this point the calibration cannot be considered to be linear. Any amount reported at a level below the quantitation limit will be flagged with a "J" and should be considered estimated. If any compounds are found at a level above the upper calibration range, the analyte will be flagged with an "E" and the amounts reported should be considered estimated. If any target analytes found in the laboratory blanks are detected in the associated samples, they will be flagged with a "B" on each sample topsheet. All analytes are quantitated against the internal standard preceding them on the target analyte list. Surrogate standards are quantitated against the internal standard with the matching internal standard reference number. For example, toluene-d_8 has 2 in the IS Ref column and would be quantitated against the internal standard which has IS2 listed in the flag column. If an internal standard area is above or below the quality control limits as defined by the continuing calibration, it will be flagged with "High" or "Low" in the flag column.

RESULTS ARE POTENTIALLY BIASED HIGH

Results:

The VOST tube pairs were analyzed ten days outside the fourteen day sampling to analysis holding time. The VOST tubes were analyzed separately per client request.

The surrogate percent recoveries met all quality control criteria for all sample and blank analyses with the exception of samples T-V-1-1-A and T-V-1-2-A. ACCEPTABLE RANGE 50 - 150%
162 % 170 %

The area for internal standard met quality control criteria for all sample and blank analyses with the exception of sample T-V-1-3-B. In this sample the area of pentafluorobenzene was high in comparison to the one point calibration standard.

Sample T-V-1-2-A was analyzed one minute outside the instrument's twelve hour tune time criteria. NO IMPACT ON RESULTS (ONE MINUTE OVER 720 MINUTE WINDOW)

No data was collected for sample T-V-1-4-A, due to GC oven shutting off and not ramping, during the acquisition.

The laboratory blanks contained several target analytes at amounts below the quantitation limit. The target analytes in the laboratory blank should not be considered as truly present in the native samples unless found at a level at least five times the amount found in the associated blank. In the event that the amount of a target analyte found in the samples is twenty times the amount found in the associated blank, the contribution from the blank can be considered negligible.

Sample Calculations:

Response Factor (RF) = $\frac{\text{(area analyte) x (amt IS)}}{\text{(area IS) x (amt analyte)}}$

Amount (ug) = $\frac{\text{(area analyte in sample) x (amt IS)}}{\text{(area IS) x (avg ical RF)}}$

Where:

amt IS = amount of internal standard = 0.25 ug
ical = initial calibration

The data in this package has been judged to be valid according to the guidelines of Methods 8260 and 5040 except as noted above. Should you have any questions, please feel free to contact our Project Scientist, Deb. Smith, at (919) 544-5729, ext. 267.

For Triangle Laboratories, Inc.,

Report Preparation:

Valgena Respass

Valgena Respass
Report Preparation Chemist

Quality Control:

Penny A. Brock

Penny A. Brock
Report Preparation Chemist

The total number of pages in this data package is 203.

Triangle Laboratories, Inc.
Sample Identification Index for Project: 46297

Client Id:	TLI Id:	File Name:
T-V-1-1-A T	214-1-6A	FX883
T-V-1-1-B TC	214-1-6B	FX879
T-V-1-2-A T	214-1-7A	FX895
T-V-1-2-B TC	214-1-7B	FX880
T-V-1-3-A T	214-1-8A	HW713
T-V-1-3-B TC	214-1-8B	FX882
T-V-1-4-B TC	214-1-9B	FX881
VOSTBLK081798	VOSTBLK08179	FX878
VOSTBLK081898	VOSTBLK08189	FX894
VOSTBLK081998	VOSTBLK08199	HW705

Triangle Laboratories, Inc.

Project Summary for Project 46297

Client ID:	T-V-1-1-A	T-V-1-1-B	T-V-1-2-A	T-V-1-2-B	T-V-1-3-A
	T	TC	T	TC	T
Filename :	FX883	FX879	FX895	FX880	HW713
TLI Id :	214-1-6A	214-1-6B	214-1-7A	214-1-7B	214-1-8A
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Chloromethane	(0.001)	**0.075**	(0.001)	**0.080**	(0.001)
Vinyl Chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromomethane	(0.001)	**0.056**	**0.007**	**0.068**	**0.005**
Chloroethane	(0.001)	(0.001)	(0.001)	(0.001)	**0.007**
Trichlorofluoromethane	**0.008**	(0.001)	(0.001)	(0.001)	**0.009**
1,1-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Methylene chloride	**0.303**	**0.153**	**0.078**	**0.248**	**0.058**
trans-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chloroform	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,1-Trichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Iodomethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Carbon disulfide	**0.015**	(0.001)	**0.013**	**0.004**	**0.012**
Acetone	**0.137**	(0.004)	**0.204**	**0.039**	**0.589**
Allyl chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Acrylonitrile	(0.015)	(0.016)	(0.017)	(0.015)	(0.003)
Vinyl acetate	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)
2-Butanone	**0.061**	(0.004)	(0.004)	(0.004)	**0.509**
Carbon tetrachloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Benzene	**0.106**	(0.001)	**0.129**	(0.001)	**0.516**
1,2-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dichloropropane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromodichloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Toluene	**0.360**	**0.020**	**0.377**	**0.059**	**0.455**
trans-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,2-Trichloroethane	(0.001)	(0.002)	(0.002)	(0.001)	(0.001)
Methyl methacrylate	(0.005)	(0.006)	(0.006)	(0.006)	(0.001)
4-Methyl-2-pentanone	(0.004)	(0.004)	(0.005)	(0.004)	(0.001)
Tetrachloroethene	(0.001)	(0.001)	**0.054**	(0.001)	**0.038**
Dibromochloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dibromoethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chlorobenzene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
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Triangle Laboratories, Inc.
Project Summary for Project 46297

Client ID:	T-V-1-1-A T	T-V-1-1-B TC	T-V-1-2-A T	T-V-1-2-B TC	T-V-1-3-A T
Filename :	FX883	FX879	FX895	FX880	HW713
TLI Id :	214-1-6A	214-1-6B	214-1-7A	214-1-7B	214-1-8A
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Ethylbenzene	**0.137**	(0.001)	**0.128**	(0.001)	**0.105**
m-/p-Xylene	**0.720**	(0.001)	**0.677**	**0.001**	**0.758**
o-Xylene	**0.251**	(0.001)	**0.235**	(0.001)	**0.181**
Styrene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromoform	(0.002)	(0.003)	(0.003)	(0.003)	(0.001)
2-Hexanone	(0.005)	(0.006)	(0.006)	(0.006)	(0.001)
Cumene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,2,2-Tetrachloroethane	(0.002)	(0.003)	(0.002)	(0.002)	(0.001)

( )-Estimated Detection Limit

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Triangle Laboratories, Inc.

Project Summary for Project 46297

Client ID:	T-V-1-3-B TC	T-V-1-4-B TC	VOSTBLK081 798	VOSTBLK081 898	VOSTBLK081 998
Filename :	FX882	FX881	FX878	FX894	HW705
TLI Id :	214-1-8B	214-1-9B	VOSTBLK08179	VOSTBLK08189	VOSTBLK08199
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Chloromethane	**0.083**	**0.073**	(0.001)	(0.001)	**0.003**
Vinyl Chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromomethane	**0.109**	**0.045**	(0.001)	(0.001)	(0.001)
Chloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trichlorofluoromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Methylene chloride	**0.026**	**0.048**	(0.001)	(0.001)	**0.002**
trans-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chloroform	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,1-Trichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Iodomethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Carbon disulfide	**0.006**	(0.001)	(0.001)	(0.001)	(0.001)
Acetone	**0.077**	**0.092**	(0.004)	(0.006)	(0.004)
Allyl chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Acrylonitrile	(0.016)	(0.016)	(0.016)	(0.021)	(0.006)
Vinyl acetate	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)
2-Butanone	(0.004)	(0.004)	(0.004)	(0.005)	(0.003)
Carbon tetrachloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Benzene	(0.001)	(0.001)	**0.013**	**0.023**	(0.001)
1,2-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dichloropropane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromodichloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Toluene	**0.005**	**0.017**	**0.005**	**0.008**	**0.003**
trans-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)
1,1,2-Trichloroethane	(0.002)	(0.002)	(0.001)	(0.002)	(0.001)
Methyl methacrylate	(0.006)	(0.006)	(0.006)	(0.007)	(0.002)
4-Methyl-2-pentanone	(0.005)	(0.005)	(0.004)	(0.006)	(0.001)
Tetrachloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Dibromochloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dibromoethane	(0.002)	(0.001)	(0.001)	(0.002)	(0.001)
Chlorobenzene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
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Triangle Laboratories, Inc.

Project Summary for Project 46297

Client ID:	T-V-1-3-B TC	T-V-1-4-B TC	VOSTBLK081 798	VOSTBLK081 898	VOSTBLK081 998
Filename :	FX882	FX881	FX878	FX894	HW705
TLI Id :	214-1-8B	214-1-9B	VOSTBLK08179	VOSTBLK08189	VOSTBLK08199
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Ethylbenzene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
m-/p-Xylene	(0.001)	(0.001)	(0.001)	(0.001)	0.001
o-Xylene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Styrene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromoform	(0.003)	(0.002)	(0.003)	(0.004)	(0.001)
2-Hexanone	(0.006)	(0.006)	(0.006)	(0.008)	(0.002)
Cumene	(0.001)	(0.001)	(0.001)	(0.001)	0.001
1,1,2,2-Tetrachloroethane	(0.003)	(0.002)	(0.003)	(0.004)	(0.001)

( )-Estimated Detection Limit

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Triangle Laboratories, Inc.

Project Summary for Project 46297

Client ID:	T-V-1-1-A TC	T-V-1-1-B TC	T-V-1-2-A T	T-V-1-2-B TC	T-V-1-3-A T
Filename :	FX883	FX879	FX895	FX880	HW713
TLI Id :	214-1-6A	214-1-6B	214-1-7A	214-1-7B	214-1-8A
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
1,3-Butadiene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Vinyl bromide	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
MTBE	(0.001)	(0.001)	(0.001)	(0.001)	**0.019**
n-Hexane	**0.127**	**0.001**	**0.147**	**0.001**	**0.111**
1,2-Epoxybutane	(0.010)	(0.011)	(0.015)	(0.010)	(0.011)
Iso-Octane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Ethyl acrylate	(0.002)	(0.003)	(0.004)	(0.002)	(0.001)

( )-Estimated Detection Limit

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Project Summary for Project 46297

Client ID:	T-V-1-3-B TC	T-V-1-4-B TC	VOSTBLK081 798	VOSTBLK081 898	VOSTBLK081 998
Filename :	FX882	FX881	FX878	FX894	HW705
TLI Id :	214-1-8B	214-1-9B	VOSTBLK08179	VOSTBLK08189	VOSTBLK08199
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
1,3-Butadiene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Vinyl bromide	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
MTBE	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
n-Hexane	0.001	0.004	(0.001)	(0.001)	0.001
1,2-Epoxybutane	(0.011)	(0.011)	(0.011)	(0.020)	(0.017)
Iso-Octane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Ethyl acrylate	(0.003)	(0.003)	(0.002)	(0.004)	(0.001)

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( )-Estimated Detection Limit

Triangle Laboratories, Inc.
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TRIANGLE LABORATORIES, INC.

LIST OF CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

American Association for Laboratory Accreditation. Accredidation pending. Certificate Number 0226-01. Accreditation for technical competence in Environmental Testing. (Including Waste Water, Sol/Haz Waste, Pulp/Paper, and Air Matrices) Parameters are AOX/TOX, and Dioxin/Furan. Method 1613 for Drinking Water **Currently re-applying.**.

State of Alabama, Department of Environmental Management. Expires December 31, 1998. Laboratory I.D. # 40950. Dioxin in drinking water.

State of Alaska, Department of Environmental Conservation. Expires December 21, 1998. Certificate number OS-006-98. Dioxin in drinking water.

State of Arizona, Department of Health Services. Expires May 26, 1998. Certificate #AZ0423. Drinking Water for Dioxin, Dioxin in WW and S/H Waste. Currently appying for renewal.

State of Arkansas, Department of Pollution Control and Ecology. Expires February 19, 1999. Pulp/paper, soil, water, and Hazardous Waste for Dioxin/Furan; AOX/TOX, Volatiles, Semi-volatiles, and Metals.

State of California, Department of Health Services. Expires August 31, 1999. Certificate #1922. Selected Metals in Waste Water; Volatiles, Semi-volatiles, and Dioxin/furan in WW and Sol/Haz Waste. Dioxin in drinking water.

State of Connecticut, Department of Health Services. Expires September 30, 1999. Registration # PH-0117. Dioxin in drinking water.

Delaware Health and Social Services. Expires December 31, 1998. Certificate #NC 140. Dioxin in drinking water.

Florida Department of Health and Rehabilitative Services. Expires June 30, 1998. Dioxin in SDW. Drinking Water ID HRS# 87424. Pending new certificate.

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Durham, NC 27713-4411
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Research Triangle Park, NC 2770
Fax # 919-544-5491

Hawaii Department of Health. Expires March 1, 1999. Dioxin in drinking water. "Accepted" status for regulatory purposes.

Idaho Department of Health and Welfare. Expires December 31, 1998. Dioxin in drinking water.

State of Kansas, Department of Health and Environment. Expires January 31, 1999. Method 1613 for drinking water. ID #'s - Drinking water and/or pollution control - E-10215. Solid or Hazardous Waste - E-101209.

Commonwealth of Kentucky, Department for Environmental Protection. Expires December 31, 1998. ID#90060. Dioxin in drinking water.

Maryland Department of Health and Mental Hygiene. Expires September 30, 1998. Certification #235 Drinking water by Method 1613A. Currently applying for renewal.

State of Michigan, Department of Public Health. Expires June 30, 1999. Drinking water by Method 1613. Current certification is extended, based on New York certificate renewal.

Mississippi State Department of Health. No expiration date. Dioxin in drinking water.

Montana Department of Health and Environmental Services. Expires December 31, 1998. Dioxin in drinking water.

State of New Jersey, Department of Environmental Protection and Energy. Expires June 30, 1998. Extended until July 31, 1998 per letter dated May 29, 1998. ID #67851. BNAs and Volatiles. Dioxin in drinking water. Currently applying for renewal.

State of New Mexico, Environment Department. Still certified, awaiting information from A2LA Dioxin in drinking water.

New York State Department of Health. Received updated certificates. ID #11026. Environmental Analyses of potable water, non-potable Water, Solid and Hazardous Waste. Method 1613 in DW.

State of North Carolina, Department of Environment Health and Natural Resources Expires. August 31, 1998. Certificate # 37751. Dioxin in drinking water.

State of North Carolina, Department of Environment, Health, and Natural Resources, Division of Environmental Management. Expires December 31, 2000. Certificate # 485. Metals, pesticides & PCBs, semi-volatiles and volatiles; TCLP.

Revised 8/3/98 dss
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North Dakota State Department of Health and Consolidated Laboratories. Expires December 31, 1998. Certificate # R-076. Effective October 4, 1993. Dioxin in drinking water.

Oklahoma Department of Environmental Quality. Expires August 31, 1998. Laboratory #9612. Dioxin by 1613A, 8290 and 8280. Submitted renewal application 7/1.

State of South Carolina, Department of Health and Environmental Control. Expires June 30, 1998. Extended August 31, 1999. Certificate number #99040001 (drinking water). Expires August 31, 1999. Certificate number #99040002 (other parameters). Dioxin/Furans, BNA, Volatiles, and PCBs/pesticides under Clean Water Act, 2,3,7,8-TCDD for Drinking Water, and Organic extractables for Solid and Hazardous Waste.

State of Tennessee. Department of Environment and Conservation. Expires February 5, 1999. ID #02992. Method 1613 Drinking water only.

U.S. Department of Agriculture Soil Permit. Expires September 30, 2001. Permit No. S-3790. Under the authority of the Federal Plant Pest Act, permission is granted to receive foreign soil samples for use in laboratory analysis.

U.S. Army Corps of Engineers. Expires October 19, 1999. Validated to perform analyses for the Fort Belvoir, VA (Contract Number DACA31-97-D-0029), Vint Hill Farms Station, Vint Hill, VA (Contract Number DACA31-95-D-0083), and Selma Pressure Treating Superfund Site, Selma, CA (Contract number DACW45-94-D-0054).

U.S. EPA Region V. Expires November 14, 1999. Dioxin in drinking water.

U.S. EPA Region VIII, for the State of Wyoming. Expires November 12, 1998. Dioxin in drinking water.

State of Utah, Department of Health. Expires May 30,2000. Certificate Number E-166. Certification for the following parameters: Semi-Volatiles and Volatiles under RCRA; Volatiles under Clean Water Act; Dioxin/furans by Method 8280; Drinking water for Dioxin by Method 1613; Metals including Mercury and Microwave Digestion.

Commonwealth of Virginia, Department of General Services, Division of Consolidated Laboratory Services. Expires June 30, 1999. ID # 00341. Dioxin in drinking water.

State of Washington, Department of Ecology. Expires September 11, 1998. Lab Accreditation Number C067. Scope of Accreditation applies to water analyses for

Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans, BNA Extr (Semivolatile) Organics and Purgeable (Volatile) Organics.
State of Washington, Department of Health. Expires April 30, 1999. Dioxin in drinking water. Lab I.D. 129.

State of West Virginia, Department of Health. Expires December 31, 1998. Certificate No. 9923(C). Dioxin in drinking water.

State of Wisconsin, Department of Natural Resources. Expires August 31, 1998. Laboratory ID Number 999869530. Certification for the following categories of Organics: Purgeable, Base/Neutral, Acid, PCBs, and Dioxin. Expires November 14, 1999. Laboratory ID 999869530. Dioxin in drinking water.

PHARMACEUTICAL

Drug Enforcement Agency (DEA). Expires November 30, 1998. Registration number RT01195835. Controlled substance registration for schedules 1,2,3,3N,4,5.

N.C. Department of Human Resources. Expires October 31, 1998. Registration number NC-PT 0000 0031. North Carolina controlled substances registration. Application submitted for renewal.

Food & Drug Administration (FDA) Registration. Expires June 1998. ID #'s 001500 1053481. Annual registration of drug establishment.

OTHER

Clinical Laboratory Improvement Amendments (CLIA) Registration. Expires May 30, 1999. ID # 34D0705123. Department of Health & Human Services, Health Care Financing Administration.

U.S. EPA Large Quantity Hazardous Waste Generator. No expiration date. EPA ID #NCD982156879. Permit indicates that the laboratory is a large generator of hazardous waste.

North Carolina General License for Radiation Protection. No expiration date. No License. 032-875-OG. The general license applies only to radioactive material contained in devices which have been manufactured and labeled in accordance with specific requirements.

TRIANGLE LABS

DOCUMENT CONTROL

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729

P.O. Box 13485
Research Triangle Park, NC 277
Fax # 919-544-5491

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PACIFIC ENVIRONMENTAL SERVICES, INC.

Central Park West
5001 South Miami Boulevard, P.O. Box 12077
Research Triangle Park, North Carolina 27709-2077
(919) 941-0333 FAX: (919) 941-0234

Sample Chain of Custody Record

Sample Identification	Collection Date	Collection Time	Sample Name	Number of Containers	Analytical Request: Volatile organics per FP					Comments
S-V-1-1-A	7/24/98		Silo 2 Run 1 Set1	1	X					Tenax
S-V-1-1-B	7/24/98		Silo 2 Run 1 Set1	1	X					Tenax/Charcoal
S-V-1-2-A	7/24/98		Silo 2 Run 1 Set2	1	X					Tenax
S-V-1-2-B	7/24/98		Silo 2 Run 1 Set2	1	X					Tenax/Charcoal
S-V-1-3-A	7/24/98		Silo 2 Run 1 Set3	1	X					Tenax
S-V-1-3-B	7/24/98		Silo 2 Run 1 Set3	1	X					Tenax/Charcoal
S-V-1-4-A	7/24/98		Silo 2 Run 1 Set4	1	X					Tenax
S-V-1-4-B	7/24/98		Silo 2 Run 1 Set4	1	X					Tenax/Charcoal
T-V-1-1-A	7/24/98		Tunnel Run 1 Set 1	1	X					Tenax
T-V-1-1-B	7/24/98		Tunnel Run 1 Set 1	1	X					Tenax/Charcoal
T-V-1-2-A	7/24/98		Tunnel Run 1 Set 2	1	X					Tenax
T-V-1-2-B	7/24/98		Tunnel Run 1 Set 2	1	X					Tenax/Charcoal
T-V-1-3-A	7/24/98		Tunnel Run 1 Set 3	1	X					Tenax
T-V-1-3-B	7/24/98		Tunnel Run 1 Set 3	1	X					Tenax/Charcoal
T-V-1-4-A	7/24/98		Tunnel Run 1 Set 4	1	X					Tenax
T-V-1-4-B	7/24/98		Tunnel Run 1 Set 4	1	X					Tenax/Charcoal

Relinquished by	Date	Time	Received by:
[illegible]	7/24/98	1437	
Relinquished by	**Date**	**Time**	**Received for Lab by.**
	7/25/98	1000	[illegible]

TRIANGLE LABORATORIES, INC. -- LOG IN RECORD/CHAIN OF CUSTODY

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A

Sample Seals: Absent
Container...: Intact

COPY
MM 7/25/98

TLI Project Number 46297
Client: PES03 - Pacific Environmental Services

Book 214

Date Received 07/25/98 By

Page 1

Ice Chest ICE/ICE PACKS Temp 6.0 C

Carrier and Number FedEx/

TLI Number.. mR/H:CPM.	Client Sample ID..... Client COC ID..... *	Location.....	Matrix	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	DISPOSED Date/Init
214-1-1A	S-V-1-1-A		TENAX									
	S-V-1-1-A	R03										
214-1-1B	S-V-1-1-B		TNX/CHAR									
	S-V-1-1-B	R03										
214-1-2A	S-V-1-2-A		TENAX									
	S-V-1-2-A	R03										
214-1-2B	S-V-1-2-B		TNX/CHAR									
	S-V-1-2-B	R03										
214-1-3A	S-V-1-3-A		TENAX									
	S-V-1-3-A	R03										
214-1-3B	S-V-1-3-B		TNX/CHAR									
	S-V-1-3-B	R03										
214-1-4A	S-V-1-4-A		TENAX									
	S-V-1-4-A	R03										
214-1-4B	S-V-1-4-B		TNX/CHAR									
	S-V-1-4-B	R03										
214-1-5A	S-V-1-3-A (Typed label)		TENAX									
	S-V-1-3-A (Typed label)	R03										
214-1-5B	S-V-1-3-B (Typed label)		TNX/CHAR									
	S-V-1-3-B (Typed label)	R03										
214-1-6A	T-V-1-1-A		TENAX									
	T-V-1-1-A	R03										
214-1-6B	T-V-1-1-B		TNX/CHAR									
	T-V-1-1-B	R03										
214-1-7A	T-V-1-2-A		TENAX									
	T-V-1-2-A	R03										
214-1-7B	T-V-1-2-B		TNX/CHAR									
	T-V-1-2-B	R03										

Receiving Remarks: 2 set of samples labelled S-V-1-3-A & S-V-1-3-B arrived.ID`S were hand printed on 1 set and Typed on the other.

Archive Remarks:

TRIANGLE LABORATORIES, INC. -- LOG IN RECORD/CHAIN OF CUSTODY

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A

Sample Seals: Absent
Container ..: Intact

TLI Project Number 46297
Client: PES03 - Pacific Environmental Services

Date Received 07/25/98 By

Carrier and Number FedEx/

Book 214

Page 1

Ice Chest ICE/ICE PACKS Temp 6.0 C

TLI Number.. mR/H:CPM.	Client Sample ID..... Client COC ID.....*	Location.	Matrix	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	DISPOSED Date/Init
214-1-8A	T-V-1-3-A T-V-1-3-A	 R03	TENAX									
214-1-8B	T-V-1-3-B T-V-1-3-B	 R03	TNX/CHAR									
214-1-9A	T-V-1-4-A T-V-1-4-A	 R03	TENAX									
214-1-9B	T-V-1-4-B T-V-1-4-B	 R03	TNX/CHAR									

Receiving Remarks: 2 set of samples labelled S-V-1-3-A & S-V-1-3-B arrived.ID`S were hand printed on 1 set and Typed on the other.

Archive Remarks:

Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	6252663	8260	VOA	VOA3	8260B	

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSG-92-3 exp. 8/22/98 @ 25ug/ml	VSG-92-2 exp. 8/20/98	

Extract / Sample volume _____ µL mL (Circle unit)

Tony C. Hunell 8/14
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/12/98	13:39	—	2ml VSG-92-3 exp 8/22/98	BFB	FX850	n/a			16	
8/13/98	00:01	—	2ml VSG-92-3 exp 8/22/98	BFB	FX851	n/a	16 8/13/98		16	
8/13/98	00:40	—	10ml VSG-93-1 exp 8/22/98	VOSTD0.10 T/TC	FX852	n/a	16 8/13/98		16	
8/13/98	1:25	—	10ml VSG-93-1 exp 8/22/98	VOSTD0.10 T/TC	FX853	n/a	16 8/13/98		16	Ical pt.
8/13/98	3:02	—	10ml VSG-93-2 exp 8/22/98	VOSTD0.25 T/TC	FX854	n/a	16 8/13/98		16	Ical pt.
8/13/98	3:50	—	10ml VSG-93-3 exp 8/22/98	VOSTD0.50 T/TC	FX855	n/a	16 8/13/98		16	Ical pt.
8/13/98	4:51	—	10ml VSG-93-4 exp 8/22/98	VOSTD0.75 T/TC	FX856	n/a	16 8/13/98		16	Ical pt.
8/13/98	5:34	—	10ml VSG-94-1 exp 8/22/98	VOSTD1.00 T/TC	FX857	n/a	16 8/13/98		16	Ical pt.
8/13/98		—	10ml VSG-92-2 exp 8/20/98	VOSTBLK T/TC	FX858	n/a	16 8/13/98		16	
8/13/98		—	10ml VSG-94-1 exp 8/22/98	VOSTD1.00 T/TC	FX859	n/a	16 8/13/98		16	

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Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	652663	8260	VOA	VOA3	8260B	

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSG-92-3 exp. 8/22/98 @ 25ug/ml	VSG-92-2 exp. 8/20/98 @ 25ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Lowry C. Spurell 8/17/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/17/98	08:58	—	2.0ml VSG-92-3 exp 8/22/98	BFB	FX870	N/A	LL 8/17/98	LL 8/18/98	LL	only 95/75-ions displayed reduced multiplier LL 8/17/98
8/17/98	09:48	—	2.0ml VSG-92-3 exp. 8/22/98	BFB	FX871	N/A	LL 8/17/98		LL	OK Scan # 483. LL 8/17/98
8/17/98	10:23	—	10ml VSG-92-4 exp. 8/22/98	VOSTD0.25 T/TC	FX872	N/A	LL 8/17/98		LL	bb22TCA<.3 OK per D. Harvey 8/17/98 VK
8/17/98	11:24	—	10ml VSG-92-3 exp. 8/22/98	VOSTD0.10 T/TC	FX873	N/A	LL 8/17/98		LL	TCAL point not used
8/17/98	12:07	—	10ml 2.0ml VSG-93-1 exp. 8/22/98	VOSTD0.50 T/TC	FX874	N/A	LL 8/17/98		LL	TCAL point not used
8/17/98	13:33	—	10ml VSG-92-3 exp 8	VOSTBLK	FX875	N/A	VR 8/17/98		VR	heated during purge cycle
8/17/98	14:12	10ml VSG-90-2 exp 8/20/98	10ml VSG-94-3 exp. 8/26/98	Additionals VOSTD0.50	FX876	N/A	VR 8/17/98		LL	single pt
8/17/98	15:01	—	10ml VSG-94-3 exp. 8/26/98	VOSTBLK T/TC	FX877	N/A	LL 8/17/98		LL	
8/17/98	1551	—	10ml VSG-94-3 exp 8/26/98	VOSTBLK T/TC	FX878	N/A	VR 8/17/98		VR	
8/17/98	1647	46297	214-1-6B	T-V-1-1-B	FX879	N/A	VR 8/17/98	LL 8/18/98	VR	

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Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	625266-3	8260	VOA	VOA3	8260B	8260BX

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VS9-92-3 @25ug/ml exp 8/22/98	~~VSTD~~ 16 8/17/98 VS9-92-2 exp 8/20/98 @25ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Signature _____ Date _____

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/17/98	1730	46297	214-1-7B	T-V-1-2-B	FX880	N/A	MC 8/17/98	8/18/98	YR	
8/17/98	1830	46297	214-1-9B	T-V-1-4-B	FX881	N/A	MC 8/17/98		YR	
8/17/98	1917	46297	214-1-8B	T-V-1-3B	FX882	N/A	MC 8/17/98		YR	
8/17/98	1955	46297	214-1-6A	T-V-1-1-A	FX883	N/A	MC 8/17/98		16	
8/18/98	00:19	—	20ul VS9-92-3 exp 8/26/98	16 8/18/98 ~~BFB~~ VBLK	FX884	N/A	16 8/18/98		16	
8/18/98	00:47	—	16ul VS9-92-1 exp 8/22/98	VSTD200	FX885	N/A	16 8/18/98		16	
8/18/98	1:24	—	10ul VS9-92-3 exp 8/26/98	VBLK	FX886	N/A	16 8/18/98		16	
8/18/98	2:16	—	2ul VS9-92-3 exp 8/22/98	BFB	FX887	N/A	16 8/18/98		16	
8/18/98	3:02	—	10ul VS9-92-4 exp 8/22/98	VOSTD0.25 T/TC	FX888	N/A	16 8/18/98		16	tube leak 16 8/20/98
8/18/98	3:52	—	10ul VS9-92-4 exp 8/22/98	VOSTD0.25 T/TC	FX889	N/A	16 8/18/98	8/18/98	16	~~Gases low~~ 16 8/18/98 16 8/18/98

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Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	6252663	8260	VOA	VOA3	8260B	

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSG-92-3 exp 8/22/98 @ 25 ug/ml	VSG-94-3 exp 8/26/98 @ 25 ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Larry Gall 8/18/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/18/98	4:44	—	10ul VSG-94-3 exp 8/26/98	VOSTBLK T/TC	FX890	N/A	LG 8/18/98	LG 8/18/98	LG	
8/18/98	5:26	10ul VSG-90-2 exp 8/20/98	10ul VSG-94-3 exp 8/26/98	Additionals VOSTD050 T/TC	FX891	N/A	LG 8/18/98		LG	
8/18/98	7:03	—	10ul VSG-94-3 exp 8/26/98	VOSTBLK T/TC	FX892	N/A	LG 8/18/98		LG	
8/18/98	7:47	—	10ul VSG-94-3 exp 8/26/98	VOSTBLK T/TC	FX893	N/A	LG 8/18/98		L	
8/18/98	12:46	—	10ul VSG-94-3 exp. 8/26/98	VOSTBLK T/TC	FX894	N/A	LG 8/18/98		LG	Had to replace fitting and line on cryo valve
8/18/98	14:17	46297	214-1-7A	@ LG 8/18/98 T-V-1-2A T	FX895	N/A	LG 8/18/98	LG 8/18/98	LG	Clock and instrument off. Analysis started 1 min outside of clock time LG 8/18/98
8/18/98	23:59	—	10ul VSG-94-3 exp 8/26/98	VBLK	FX896	N/A	LG 8/18/98		LG	
8/19/98	1:15	—	10ul VSG-94-1 exp 8/22/98	VSTD200	FX897	N/A	LG 8/19/98		LG	
8/19/98	1:46	—	2ul VSG-92-3 exp 8/22/98	BFB	FX898	N/A	LG 8/19/98		LG	
8/19/98	3:35	—	10ul VSG-92-4 exp 8/22/98	VOSTD0.25 T/TC	FX900	N/A	LG 8/19/98		LG	Sensitivity too low LG 8/19/98

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Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	3274056	8260	VOA	VOA3	8260B	8260X

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSG-92-3 exp. 8/22/98 @ 25ug/ml	VSG-92-2 exp. 8/20/98 @ 25ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Tony C. Hynell 8/9/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/9/98	01:57	—	2.0ul VSG-92-3 exp. 8/22/98	BFB	HW549	N/A	Jl 8/9/98	16 8/10/98	Jl	
8/9/98	02:26	—	10ul VSG-92-4 exp. 8/22/98	VOSTD0.10 TITC	HW550	N/A	Jl 8/9/98		Jl	
8/9/98	03:17	—	10ul VSG-92-4 exp. 8/22/98	VOSTD0.10 TITC	HW551	N/A	Jl 8/9/98		Jl	
8/9/98	03:52	—	10ul VSG-93-2 exp. 8/22/98	VOSTD0.25 TITC	HW552	N/A	Jl 8/9/98		Jl	
8/9/98	04:23	—	10ul VSG-93-2 exp. 8/22/98	VOSTD0.50 TITC	HW553	N/A	Jl 8/9/98		Jl	
8/9/98	04:55	—	10ul VSG-93-4 exp. 8/22/98	VOSTD0.75 TITC	HW554	N/A	Jl 8/9/98		Jl	
8/9/98	05:27	—	10ul VSG-94-1 exp. 8/22/98	VOSTD1.00 TITC	HW555	N/A	Jl 8/9/98		Jl	
8/9/98	06:01	—	10ul VSG-92-2 exp. 8/20/98	VBIK	HW556	N/A	Jl 8/9/98		Jl	
8/9/98	06:40	—	10ul VSG-92-2 exp. 8/20/98	VOSTD0.50 Addl. Header TITC	HW557	N/A	Jl 8/9/98		Jl	Single Pt.
8/9/98	07:49	—	10ul VSG-92-2 exp. 8/20/98	VOSTBIK TITC	HW558	N/A	Jl 8/9/98	16 8/10/98	Jl	

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Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	3274056	8260	VOA	VOA3	8260B	

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSG-92-3 exp. 8/22/98 @ 25ug/ml	VSG-94-3 exp. 8/26/98 @ 25ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Tony C. Spinelli 8/18/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/18/98	10:47	46415A	215-19-8A	Con1-M0030-TX-R2C	HW698	N/A	Tal 8/18/98	Tal 8/18/98	Tal	moisture from Tube Tal 8/18/98
8/18/98	12:22	—	10ul VSG 94-3 exp. 8/26/98	VOSTBLK T/TC	HW699	N/A	Tal 8/18/98		Tal	
8/18/98	13:45	46415A	215-19-9B	Con1-M0030-TX-R2D TC	HW700	N/A	Tal 8/18/98		Tal	Archive analysis moisture from tube Tal 8/18/98
8/18/98	14:25	46415A	215-19-9A	Con1-M0030-TX-R2D T	HW701	N/A	Tal 8/18/98	Tal 8/18/98	Tal	Archive Analysis moisture from reduction in flow Tal 8/18/98
8/19/98	00:47	—	2ul VSG-92-3 exp 8/22/98	BFB	HW702	N/A	LG 8/19/98	Tal 8/12/98	LG	
8/19/98	1:18	—	10ul VSG-93 2 exp 8/22/98	VOSTD0.25 T/TC	HW703	N/A	LG 8/19/98		LG	
8/19/98	1:57	—	10ul VSG 94-3 exp 8/26/98	VOSTBLK T/TC	HW704	N/A	LG 8/19/98		LG	
8/19/98	2:36	—	10ul VSG 94-3 exp 8/26/98	VOSTBLK T/TC	HW705	N/A	LG 8/19/98		LG	
8/19/98	3:58	5ul VSG-94-2 exp 8/23/98	10ul VSG-94-3 exp 8/26/98	LCS T/TC	HW706	N/A	LG 8/19/98		LG	
8/19/98		5ul VSG-94-2 exp 8/23/98	10ul VSG-94-3 exp 8/26/98	LCSD T/TC	HW707	N/A	LG 8/19/98	Tal 8/24/98	LG	Did not Acquire 8/19/98

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Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	3274056	8260	VOA	VOA3	8260B	

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSA-92-3 exp 8/22/98 @ 25ug/ml	VSA-94-3 exp 8/26/98 @ 25ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Tracy Gall 8/19/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/19/98	5:20	10ul VSA-94-2 exp 8/20/98	10ul VSA-94-3 exp 8/26/98	Additionals VOSTD0.50 T/TC	HW708	N/A	LG 8/19/98	8/24/98	LG	
8/19/98	6:27	5ul VSA-94-2 exp 8/23/98	10ul VSA-94-3 exp 8/26/98	LCSD T/TC	HW709	N/A	LG 8/19/98		LG	
8/19/98	07:17	5ul VSC-94-2 exp. 8/23/98	10ul VSS-94-3 exp. 8/26/98	LCSD T/TC	HW710	N/A	AL 8/19/98		AL	
8/19/98	08:14	—	10ul VSS-94-3 exp. 8/26/98	VOSTB/K T/TC	HW711	N/A	AL 8/19/98		AL	
8/19/98	08:55	—	10ul VSS-94-3 exp. 8/26/98	VOSTD/K T/TC	HW712	N/A	AL 8/19/98		AL	
8/19/98	10:06	46297	214-1-8A	T-V-1-3-A T	HW713	N/A	AL 8/19/98		AL	
8/19/98	10:56	46297	214-1-9A	T-V-1-4-A T	HW714	N/A	AL 8/19/98	8/24/98	AL	aquisition default NO peaks-for IS AL 8/19/98 sample lost to instrument failure
										AL 8/19/98

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SAMPLE DATA

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729
P.O. Box 13485
Research Triangle Park, NC 27709-
Fax # 919-544-5491

Pacific Environmental Services

Project Number: 46297
Sample File: FX883

Method 8260 VOST
Sample ID: T-V-1-1-A T

Client Project: Hotmix
TLI ID: 214-1-6A

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane		U		0.001	0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.008	J	2.03		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.015	J	2.77		0.05
Acetone	0.137		2.82		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.303		3.26		0.05
Acrylonitrile		U		0.015	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone	0.061		4.75		0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.106	B	5.52		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
301 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 17:46 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX883

Method 8260 VOST
Sample ID: T-V-1-1-A T

Client Project: Hotmix
TLI ID: 214-1-6A

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.005	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.004	0.05
Toluene	0.360	B	8.09		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.35		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.005	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.137		10.68		0.05
m-/p-Xylene	0.720		10.92		0.10
o-Xylene	0.251		11.63		0.05
Styrene		U		0.001	0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.73		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.002	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

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Printed: 17:46 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX883

Method 8260 VOST
Sample ID: T-V-1-1-A T

Client Project: Hotmix
TLI ID: 214-1-6A

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.231	5.18	1	92
Toluene-d_8	0.339	8.00	2	136
4-Bromofluorobenzene	0.404	12.65	2	162

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar
Printed: 17:46 08/24/1

30

Pacific Environmental Services

Project Number: 46297
Sample File: FX883

Method 8260 VOST
Sample ID: T-V-1-1-A TC

Client Project: Hotmix
TLI ID: 214-1-6A

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF817

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ng
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane	0.127	J	3.88		0.25
1,2-Epoxybutane		U		0.010	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.002	0.25

Reviewed by YR Date 8/24/98

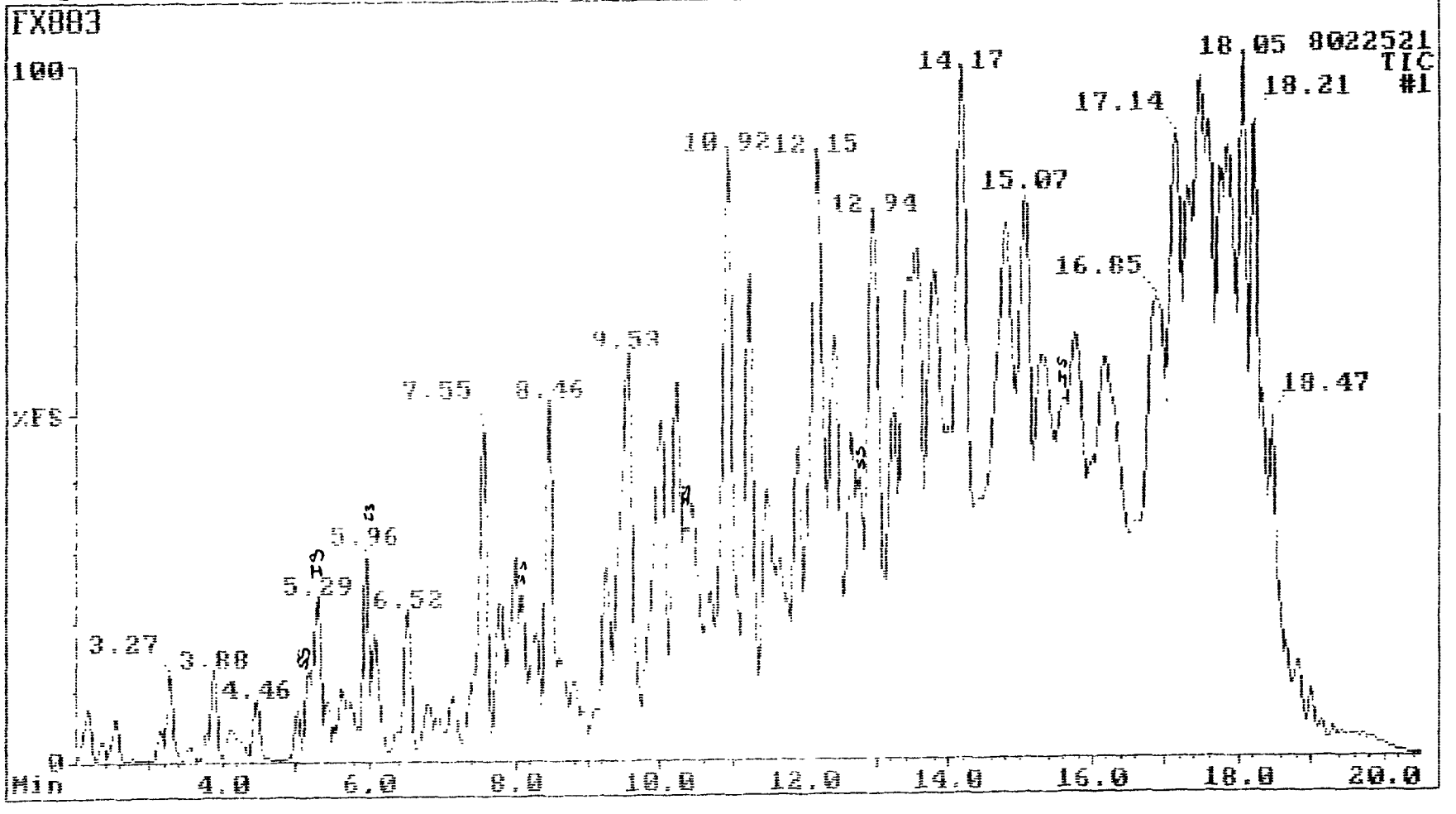
NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 18:00 08/24/1998

17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-A T 214-1-6A TLJ#46297 Instrument F



Data Review: YK
Date: 8/10/98

32

QUAN DB : FX88.D LAB-BASE QUAN 13-Aug-98 [illegible]

No	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	92	54	93	1	2785456	bb	5.301	168	Pentafluorobenzene
2	100	80	95	0	3023020	bv	6.071	114	1,4-Difluorobenzene
3	81	54	76	0	2567544	bv	10.351	117	Chlorobenzene-d5
4	57	13	77	2	1463755	bv	15.733	152	1,4-Dichlorobenzene-d4
5	95	50	99	0	1083223	bb	5.181	113	Dibromofluoromethane
6	95	68	87	1	4134235	bv	8.001	98	Toluene-d8
7	61	36	61	0	1659302	vv	12.651	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	85	Dichlorodifluoromethane
9	0	0	0	0	0		0.000	50	Chloromethane
10	0	0	0	0	0		0.000	62	Vinyl Chloride
11	0	0	0	0	0		0.000	94	Bromomethane
12	0	0	0	0	0		0.000	64	Chloroethane
13	73	40	85	-2	2[illegible]	bb	[illegible]	101	Trichlorofluoromethane
14	0	0	0	0	0		0.000	96	1,1-Dichloroethene
15	0	0	0	0	0		0.000	141	Methylene chloride
16	73	51	73	0	1417601	bb	[illegible]	76	Carbon disulfide
17	45	47	92	-1	70390	A	[illegible]	45	Acetone
18	0	0	0	0	7991060	M 8/19/98	0.000	91	Allyl chloride
19	30	47	66	-1	[illegible]	bb	3.262	84	Methyl acetate
20	99	1[illegible]	79	-1	[illegible]	[illegible]	[illegible] FP	57	Acrylonitrile
21	0	0	0	0	0		0.000	96	Trans-1,2-Dichloroethene
22	0	0	0	0	0		0.000	63	1,1-Dichloroethane
23	0	0	0	0	0		0.000	43	Vinyl acetate
24	0	0	0	0	0		0.000	77	2,2-Dichloropropane
25	0	0	0	0	0		0.000	96	Cis-1,2-Dichloroethene
26	59	44	57	2	33804	[illegible]	4.7[illegible]	43	2-Butanone
27	0	0	0	0	0		0.000	83	Chloroform
28	0	0	0	0	0		0.000	128	Bromochloromethane
29	0	0	0	0	0		0.000	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.000	117	Carbon tetrachloride
31	0	0	0	0	0		0.000	75	1,1-Dichloropropene
32	100	91	99	0	1253466	bv	5.521	78	Benzene
33	0	0	0	0	0		0.000	62	1,2-Dichloroethane
34	0	0	0	0	0		0.000	130	Trichloroethene
35	0	0	0	0	0		0.000	63	1,2-Dichloropropane
36	0	0	0	0	0		0.000	93	Dibromomethane
37	47	45	56	-11	~~[illegible]~~	~~A~~	~~[illegible]~~ FP	41	Methyl methacrylate
38	0	0	0	0	0		0.000	83	Bromodichloromethane
39	0	0	0	0	0		0.000	75	cis-1,3-Dichloropropene
40	34	15	47	5	~~[illegible]~~	~~A~~	~~[illegible]~~ FP	43	4-Methyl-2-pentanone
41	100	87	98	0	3128788	vv	8.091	92	Toluene
42	0	0	0	0	0		0.000	75	trans-1,3-Dichloropropene
43	0	0	0	0	0		0.000	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.000	69	Ethyl methacrylate
45	0	0	0	0	0		0.000	164	Tetrachloroethene
46	0	0	0	0	0		0.000	76	1,3-Dichloropropane
47	42	24	64	-10	~~[illegible]~~	~~vv~~	~~[illegible]~~ FP	43	2-Hexanone
48	0	0	0	0	0		0.000	129	Dibromochloromethane
49	0	0	0	0	0		0.000	107	1,2-Dibromoethane
50	0	0	0	0	0		0.000	112	Chlorobenzene

Data Review: MC
Date: 8/19/98

No	MAT	FOR	REV	Delta	Area	P	Flags	RT	Qn	Name
51	0	0	0	0	0			0.000	131	1,1,1,2-Tetrachloroeth
52	87	53	86	0	861070	bv		10.681	106	Ethylbenzene
53	97	65	89	0	5567136	vv		10.921	106	m-+p-Xylene
54	92	61	89	0	1619648	bv		11.631	106	o-Xylene
55	0	0	0	0	0			0.000	104	Styrene
56	0	0	0	0	0			0.000	173	Bromoform
57	0	0	0	0	0			0.000	105	Cumene
58	0	0	0	0	0			0.000	117	1,1,2,2-Tetrachloroeth
59	0	0	0	0	0			0.000	156	Bromobenzene
60	0	0	0	0	0			0.000	75	1,2,3-Trichloropropan
61	0	0	0	0	0			0.000	120	o-Propylbenzene
62	0	0	0	0	0			0.000	75	trans-1,4-Dichloro-2-bu
63	0	0	0	0	0			0.000	126	2-Chlorotoluene
64	0	0	0	0	0			0.000	126	4-Chlorotoluene
65	40	46	9	-29	4975965	vv		13.571	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0			0.000	134	tert-Butylbenzene
67	90	51	95	0	10594000	vv		14.307	105	1,2,4-Trimethylbenzene
68	0	0	0	0	0			0.000	105	sec-Butylbenzene
69	0	0	0	0	0			0.000	134	p-Isopropyltoluene
70	0	0	0	0	0			0.000	146	1,3-Dichlorobenzene
71	0	0	0	0	0			0.000	146	1,4-Dichlorobenzene
72	0	0	0	0	0			0.000	91	Benzyl chloride
73	0	0	0	0	0			0.000	91	n-Butylbenzene
74	0	0	0	0	0			0.000	146	1,2-Dichlorobenzene
75	0	0	0	0	0			0.000	75	1,2-Dibromo-3-chloropro
76	0	0	0	0	0			0.000	180	1,2,4-Trichlorobenzene
77	0	0	0	0	0			0.000	215	Hexachlorobutadiene
78	0	0	0	0	0			0.000	128	Naphthalene
79	0	0	0	0	0			0.000	180	1,2,3-Trichlorobenzene

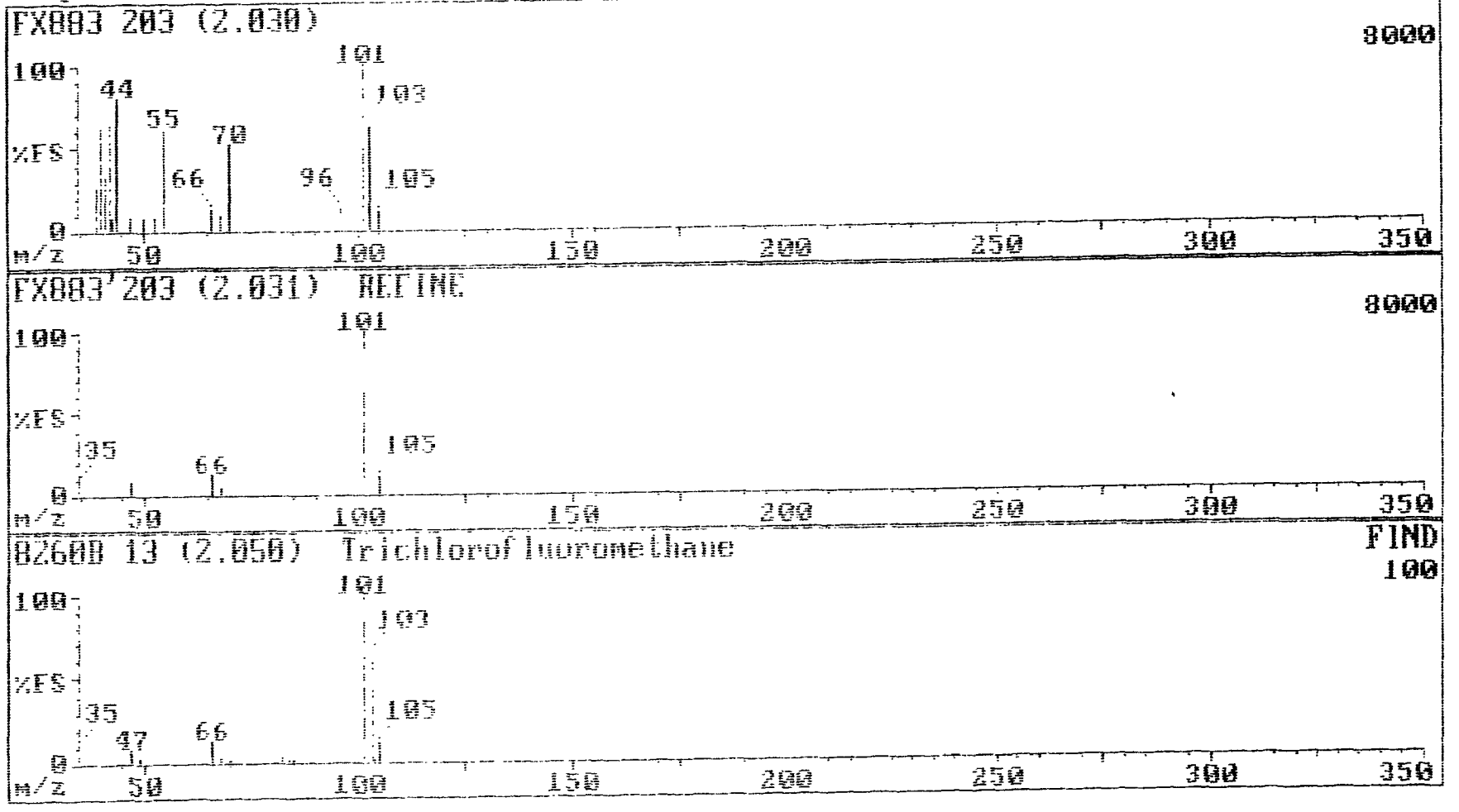
QUAN OR [illegible] GAR-BASE QUAN 13-Aug-98 01:55

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	92	54	97	1	2785456	bb	5.301	168	Pentafluorobenzene
2	100	80	93	0	3023020	bv	6.071	114	1,4-Difluorobenzene
3	81	54	76	-1	2569344	bv	10.351	117	Chlorobenzene-d5
4	63	15	77	0	1463755	bv	15.732	152	1,4-Dichlorobenzene-d4
5	93	50	99	0	1083228	bb	5.181	113	Dibromofluoromethane
6	97	68	87	0	4134035	bv	8.001	98	Toluene-d8
7	59	36	61	-1	1659809	vv	12.651	95	4-Bromofluorobenzene
8	85	41	72	5	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ FP	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	83	50	59	0	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ FP	73	MTBE
11	100	95	99	0	1217343	bv	3.380	57	n-Hexane
12	54	40	57	7	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ FP	42	1,2-Epoxybutane
13	61	43	64	0	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ FP	57	Iso-Octane
14	43	[illegible]	70	-13	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ FP	55	Ethyl acrylate

M 8/14/98

17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

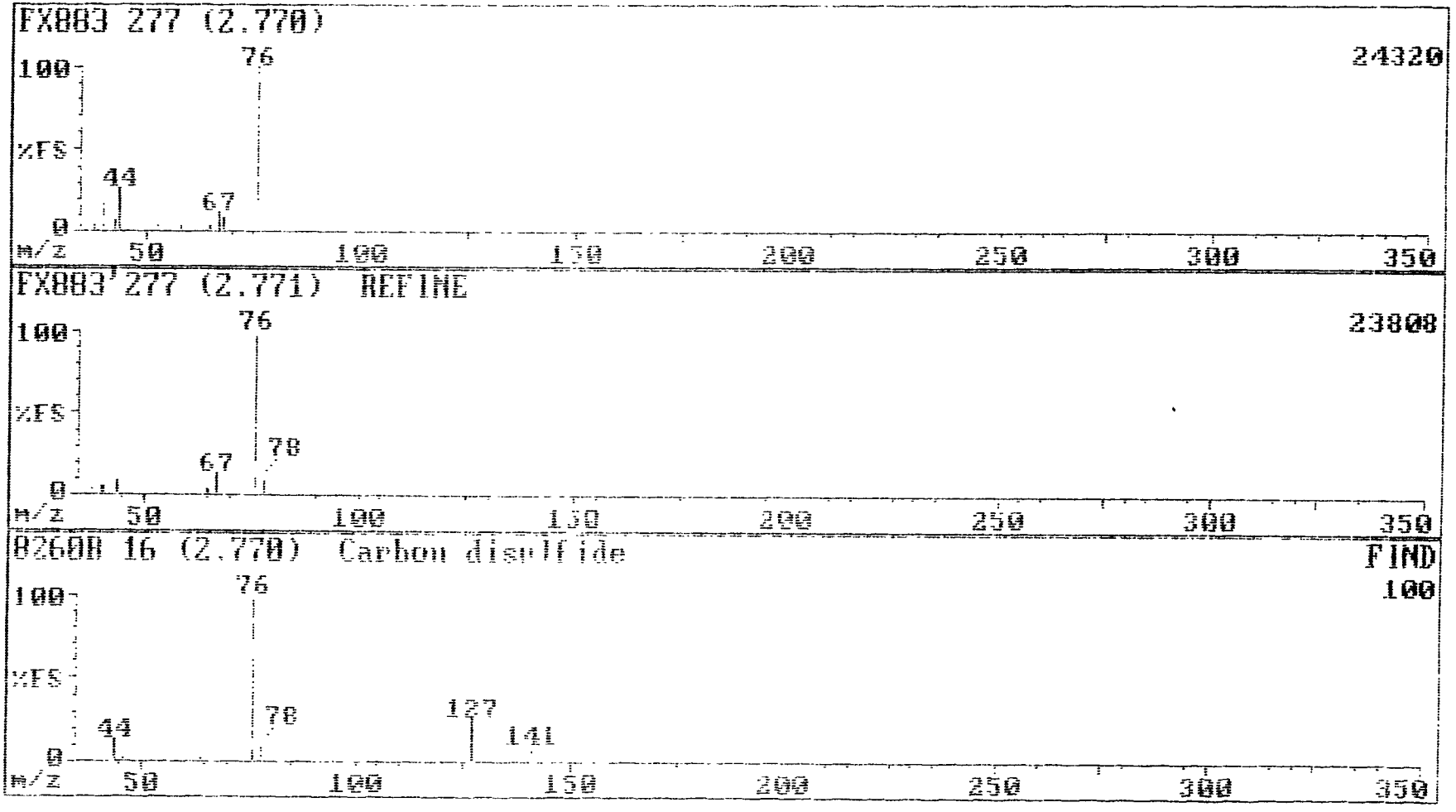
Sample: T-V-1-1-A T 214-1-GA TLI#46297 Instrument F



36

17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

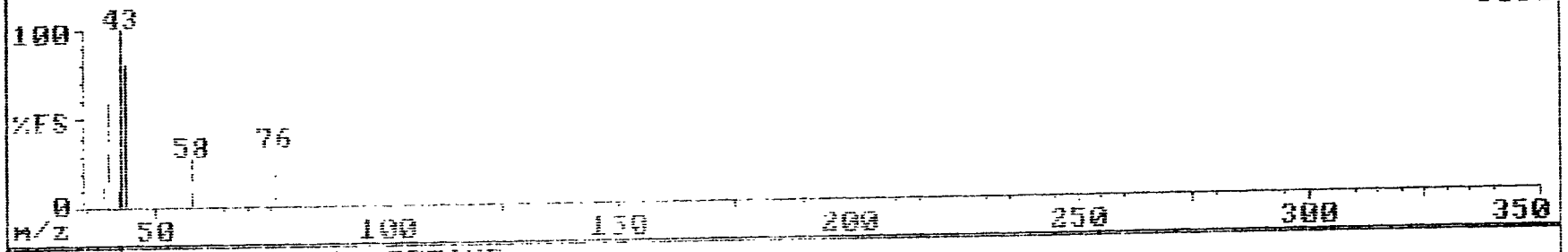
Sample: T-V-1-1-0 T 214-1-60 TL1#46297 Instrument F



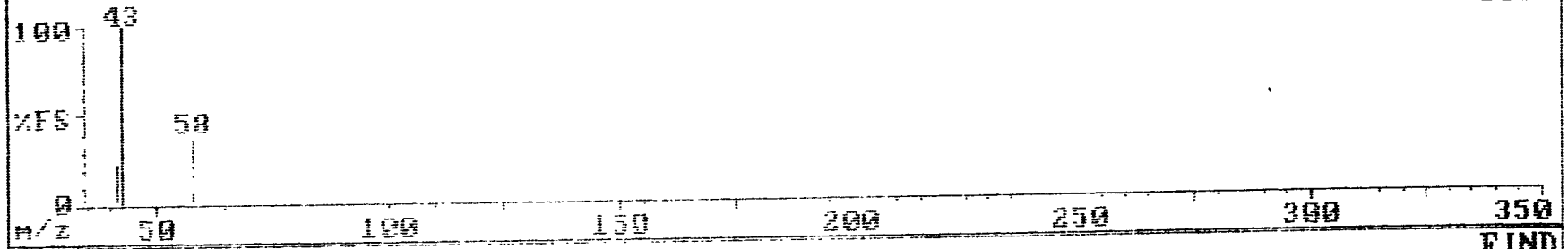
17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-A T 214-1-CA TLI#46297 Instrument F

FX883 282 (2.820) 6080

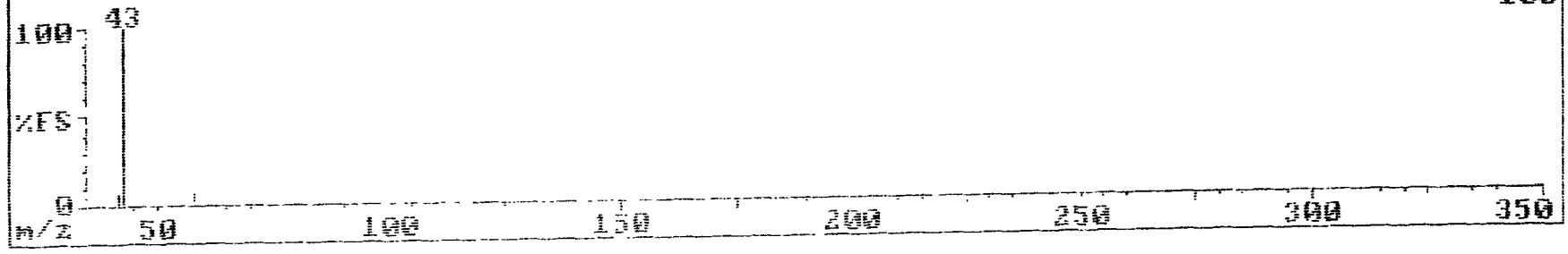


FX883' 282 (2.821) REFINE 3392



FIND

82680 17 (2.820) Acetone 100

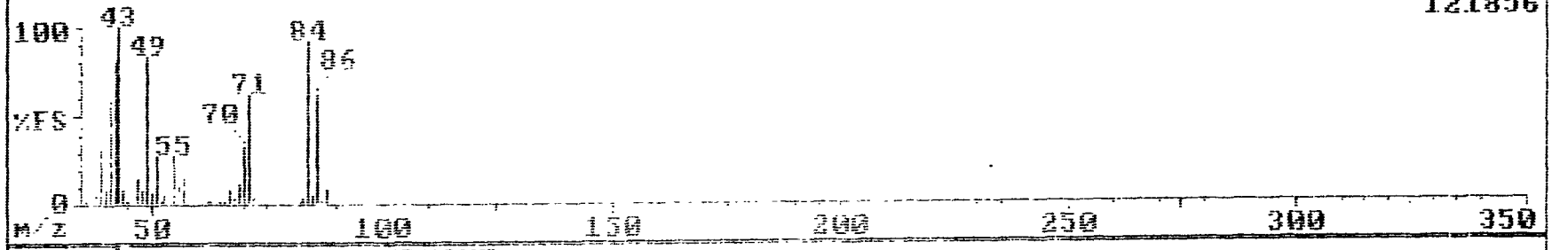


38

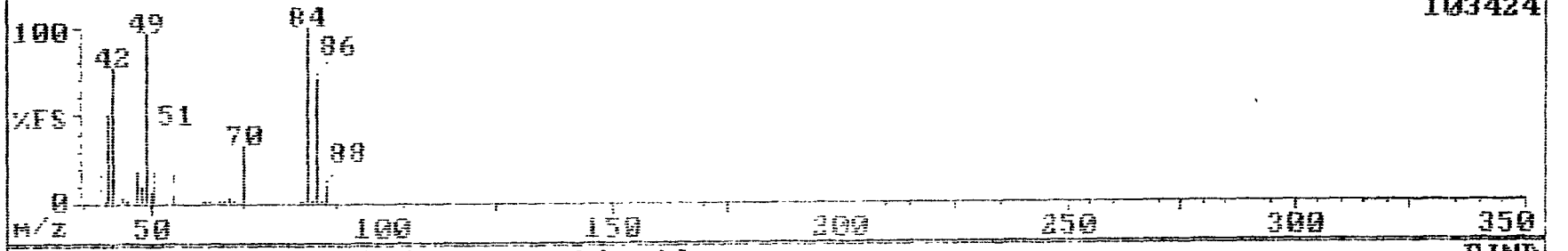
17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-A I 214-1-6A TLI#16297 Instrument F

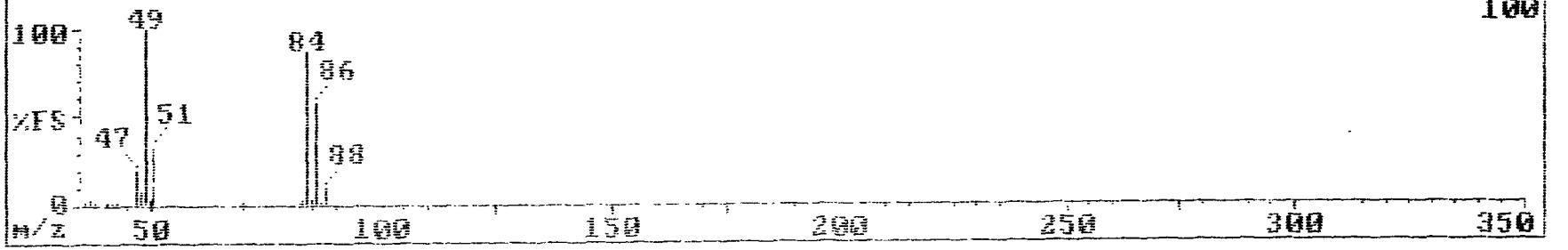
FX883 326 (3.260) 121856



FX883' 326 (3.261) REFINE 103424



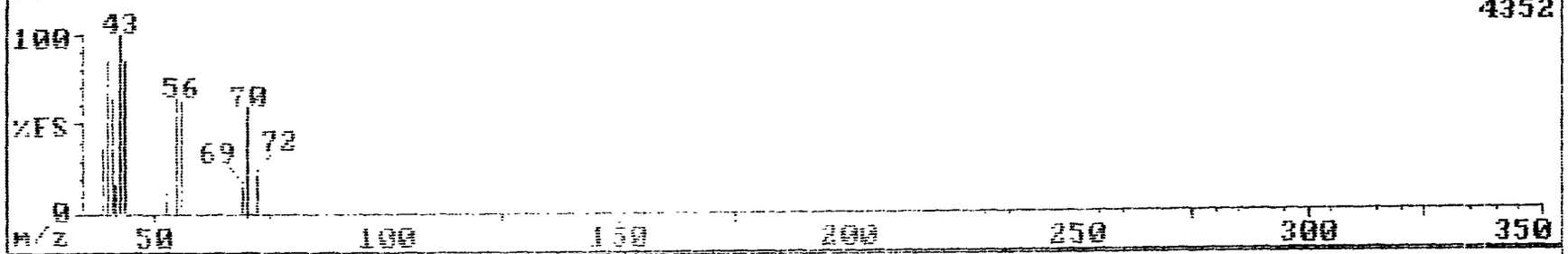
8260B 19 (3.260) Methylene chloride FIND 100



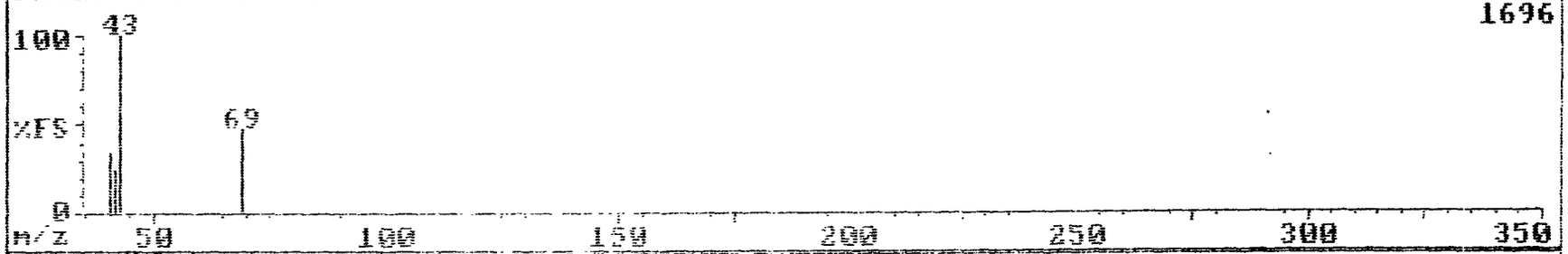
17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-0 T 214-1-60 TL1U46297 Instrument F

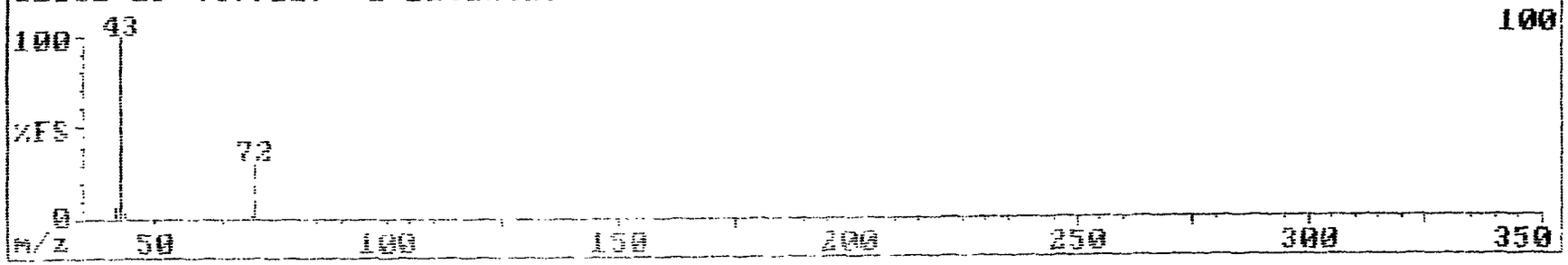
FX883 475 (4.751) 4352



FX883'475 (4.751) REFINE 1696



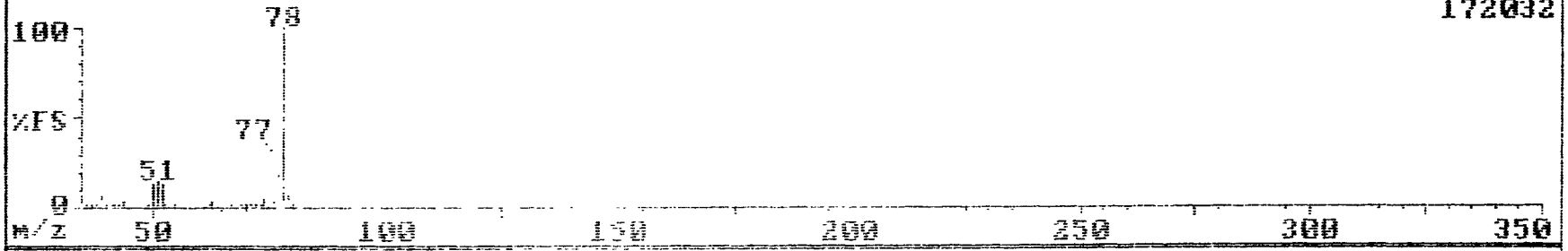
8260B 26 (4.711) 2-Butanone FIND 100



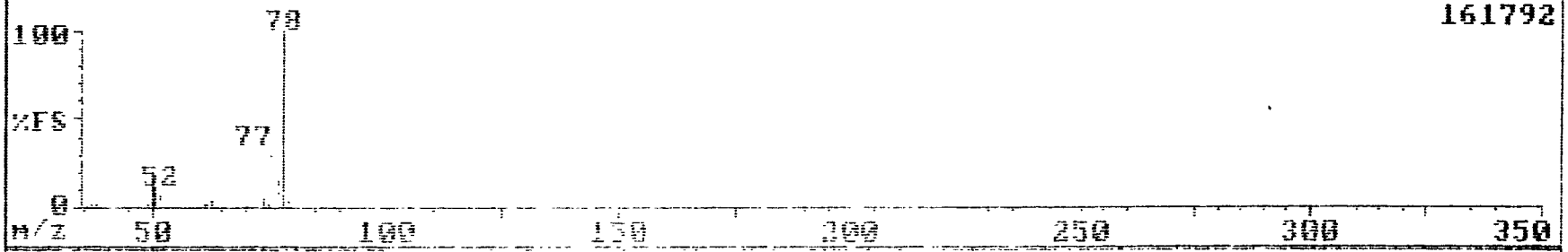
17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-A T 214-1-(A TL(#16297 Instrument F

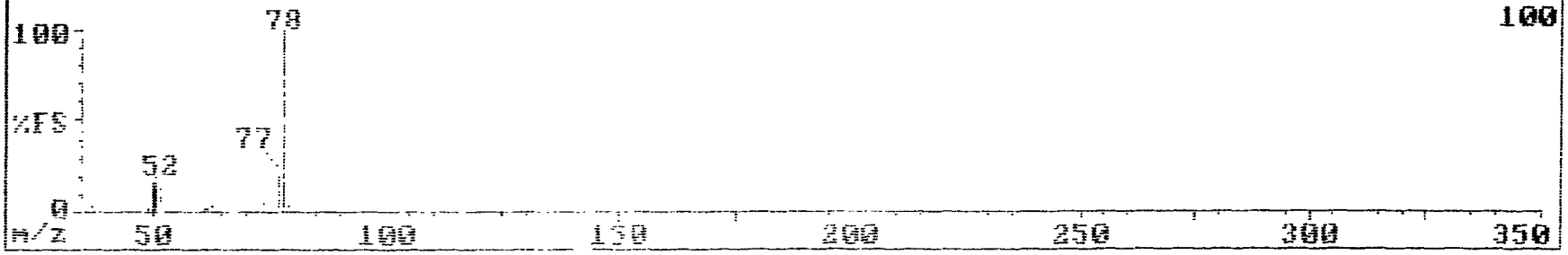
FX883 552 (5.521) 172032



FX883'552 (5.521) REFINE 161792



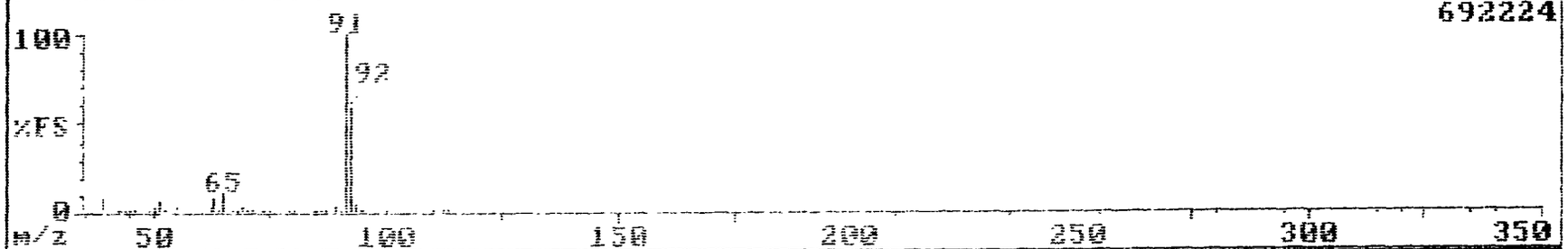
8260B 32 (5.511) Benzene FIND 100



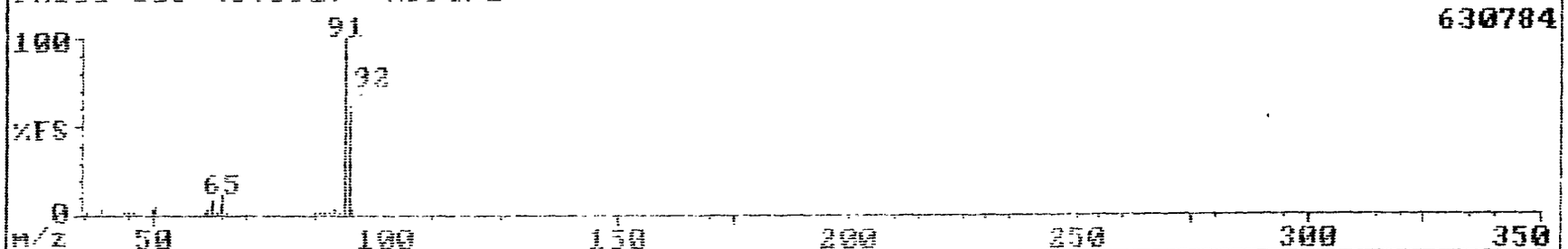
17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-A T 214-1-6A TLI#46297 Instrument F

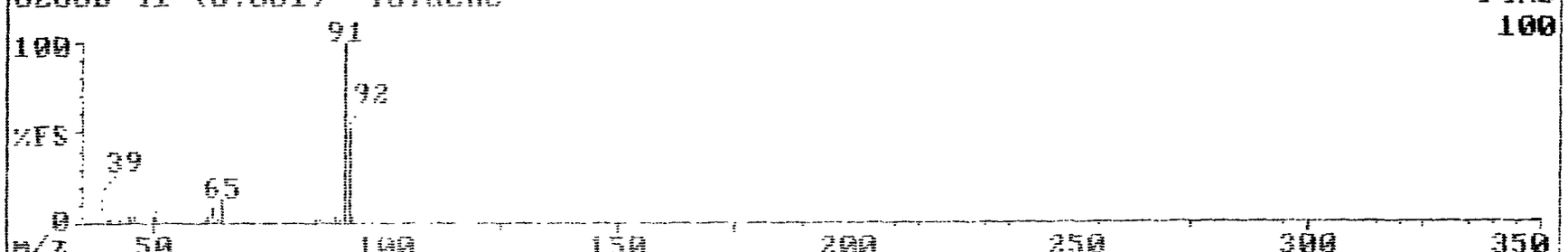
FX883 809 (8.091) 692224



FX883'809 (8.091) REFINE 630784

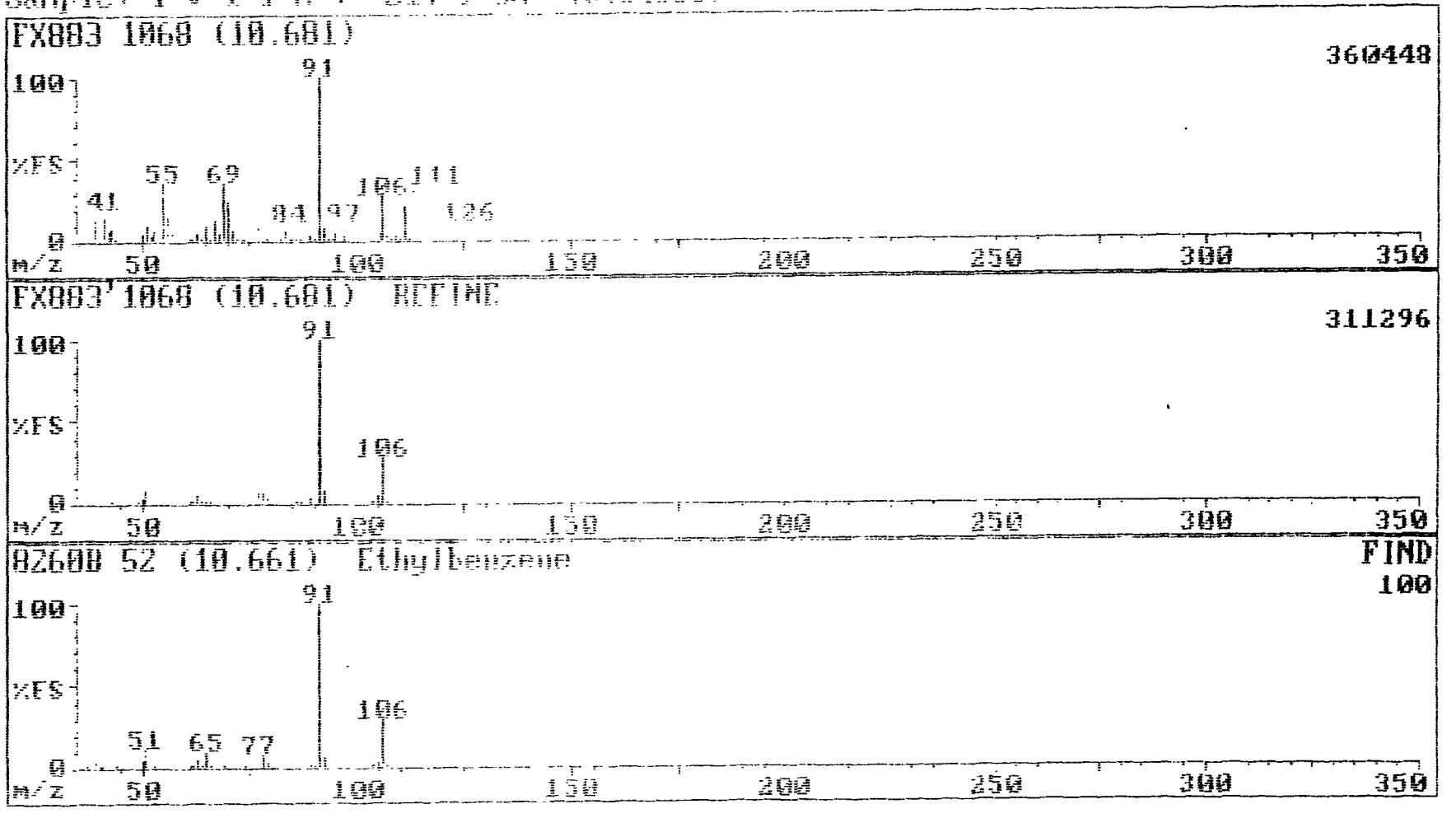


8260B 41 (8.081) Toluene FIND 100



17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

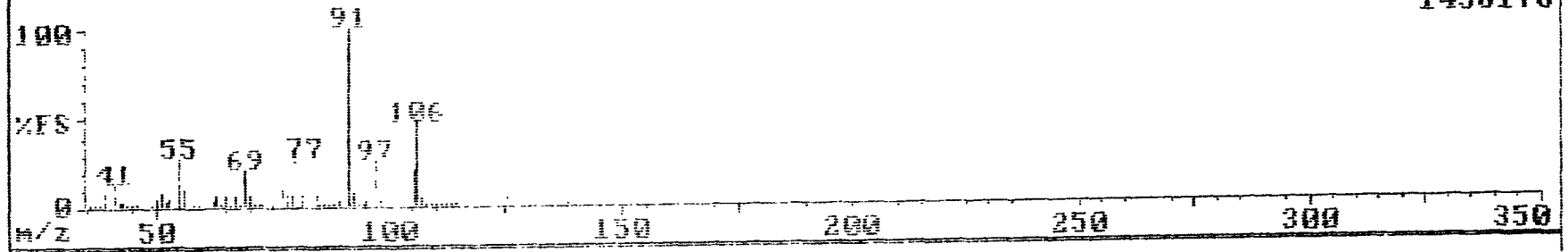
Sample: T-V-1-1-A T 214-1-60 TLI#46297 Instrument F



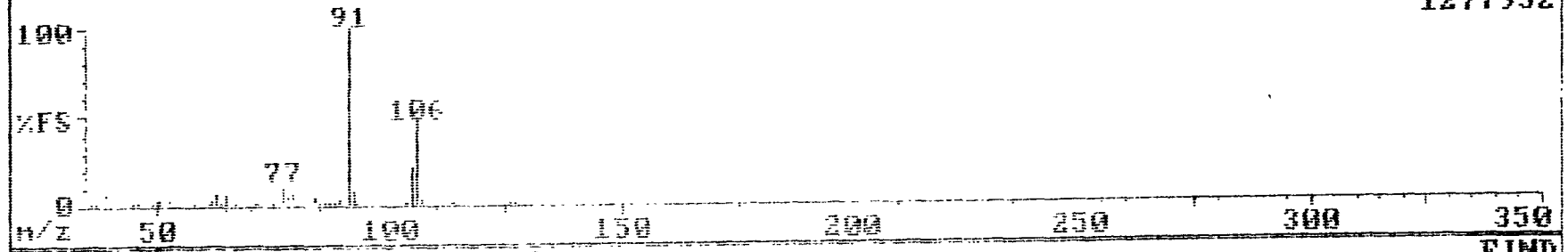
17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-A T 214-1-60 TLI#46297 Instrument F

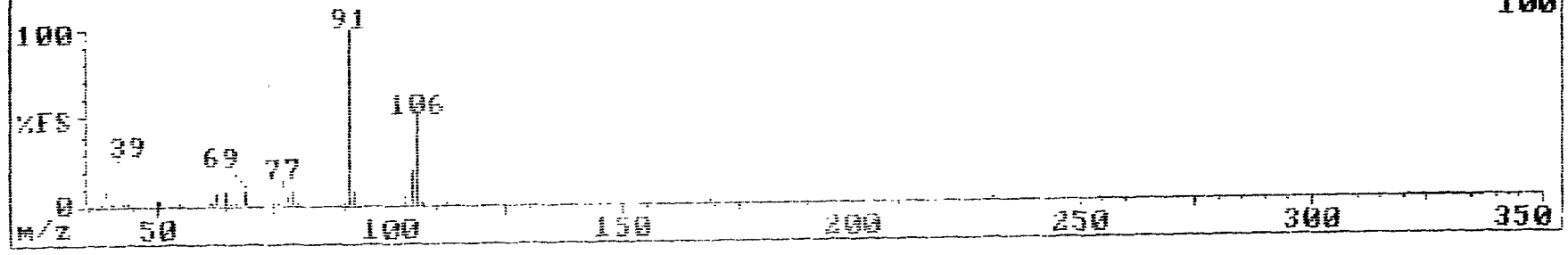
FX883 1092 (10.921) 1458176



FX883 1092 (10.921) REFINE 1277952



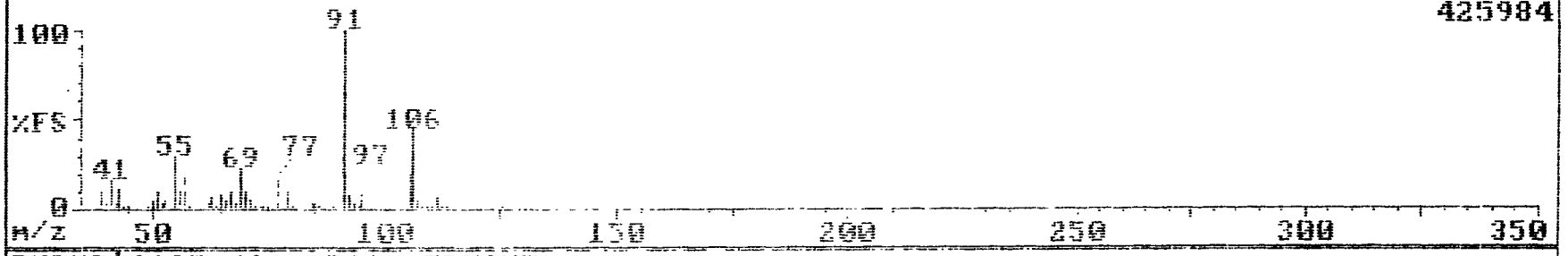
B2608 53 (10.981) m-/p-Xylene FIND 100



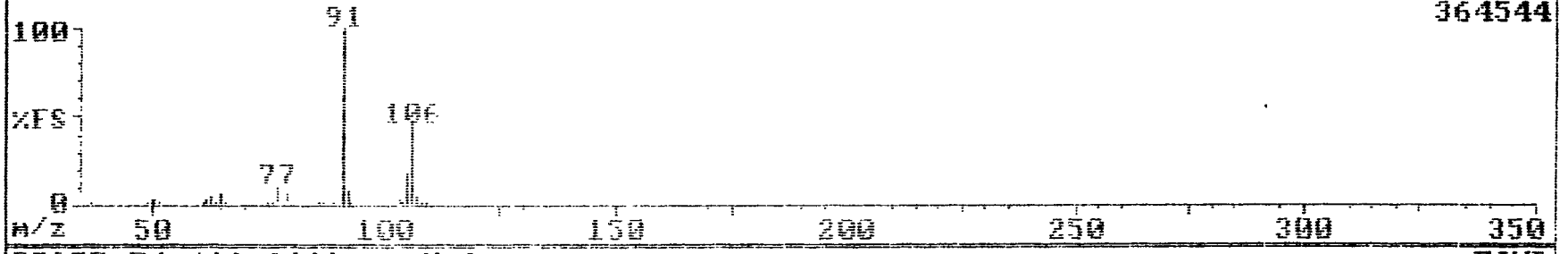
17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-A T 214-1-GA TLI#46297 Instrument F

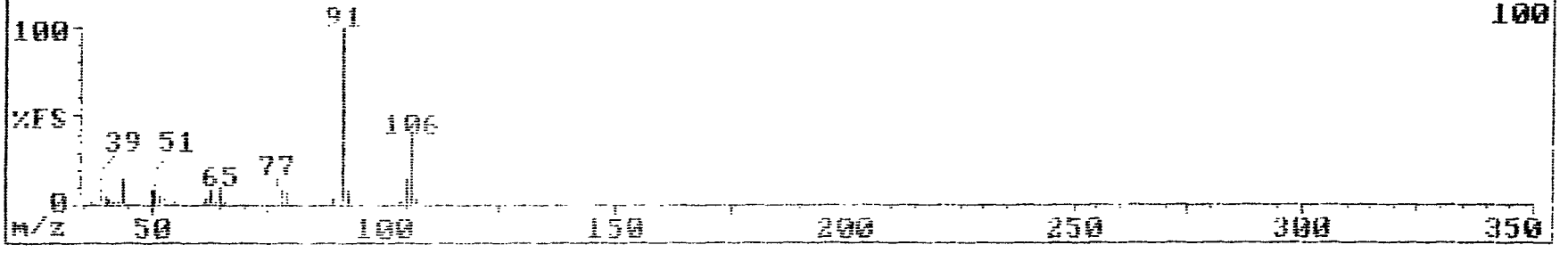
FX883 1163 (11.631)



FX883' 1163 (11.631) REFINE



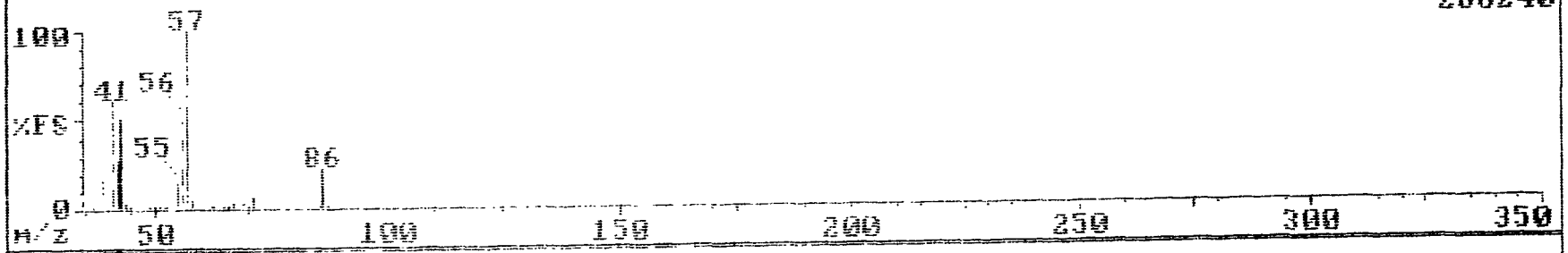
8260B 54 (11.611) o-Xylene FIND 100



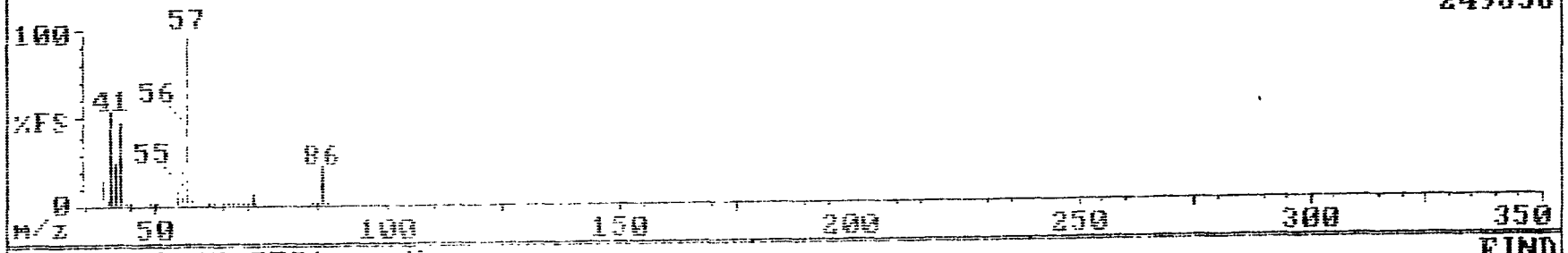
17-Aug-98 19:55 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-U-1-1-A T 214-1-6A TLI#46297 Instrument F

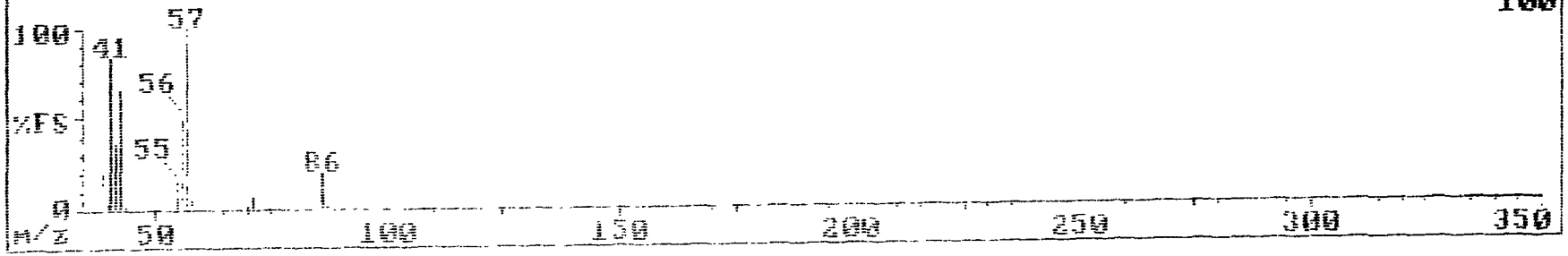
FX883 380 (3.880) 266240



FX883 380 (3.881) REFINE 249856



826BX 11 (3.870) n-Hexane FIND 100



Pacific Environmental Services

Project Number: 46297 | **Method 8260 VOST**
Sample File: FX879 | **Sample ID: T-V-1-1-B TC**

Client Project: Hotmix | **Date Received: 07/25/98** | **Response File: ICALF814**
TLI ID: 214-1-6B
Date Analyzed : 08/17/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane	0.075		1.08		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.056		1.65		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone		U		0.004	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.153		3.27		0.05
Acrylonitrile		U		0.016	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene		U		0.001	0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46297
Sample File: FX879

Method 8260 VOST
Sample ID: T-V-1-1-B TC

Client Project: Hotmix
TLI ID: 214-1-6B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.004	0.05
Toluene	0.020	BJ	8.09		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.002	0.05
Chlorobenzene-d_5		IS 3	10.35		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.006	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.003	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.71		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.003	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Pacific Environmental Services

Project Number: 46297 | **Method 8260 VOST**
Sample File: FX879 | **Sample ID: T-V-1-1-B TC**

Client Project: Hotmix | **Date Received: 07/25/98** | **Response File: ICALF814**
TLI ID: 214-1-6B
Date Analyzed : 08/17/98

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.249	5.18	1	100
Toluene-d_8	0.305	8.00	2	122
4-Bromofluorobenzene	0.282	12.65	2	113

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX879

Method 8260 VOST
Sample ID: T-V-1-1-B TC

Client Project: Hotmix
TLI ID: 214-1-6B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF817

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane	0.001	J	3.90		0.25
1,2-Epoxybutane		U		0.011	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.003	0.25

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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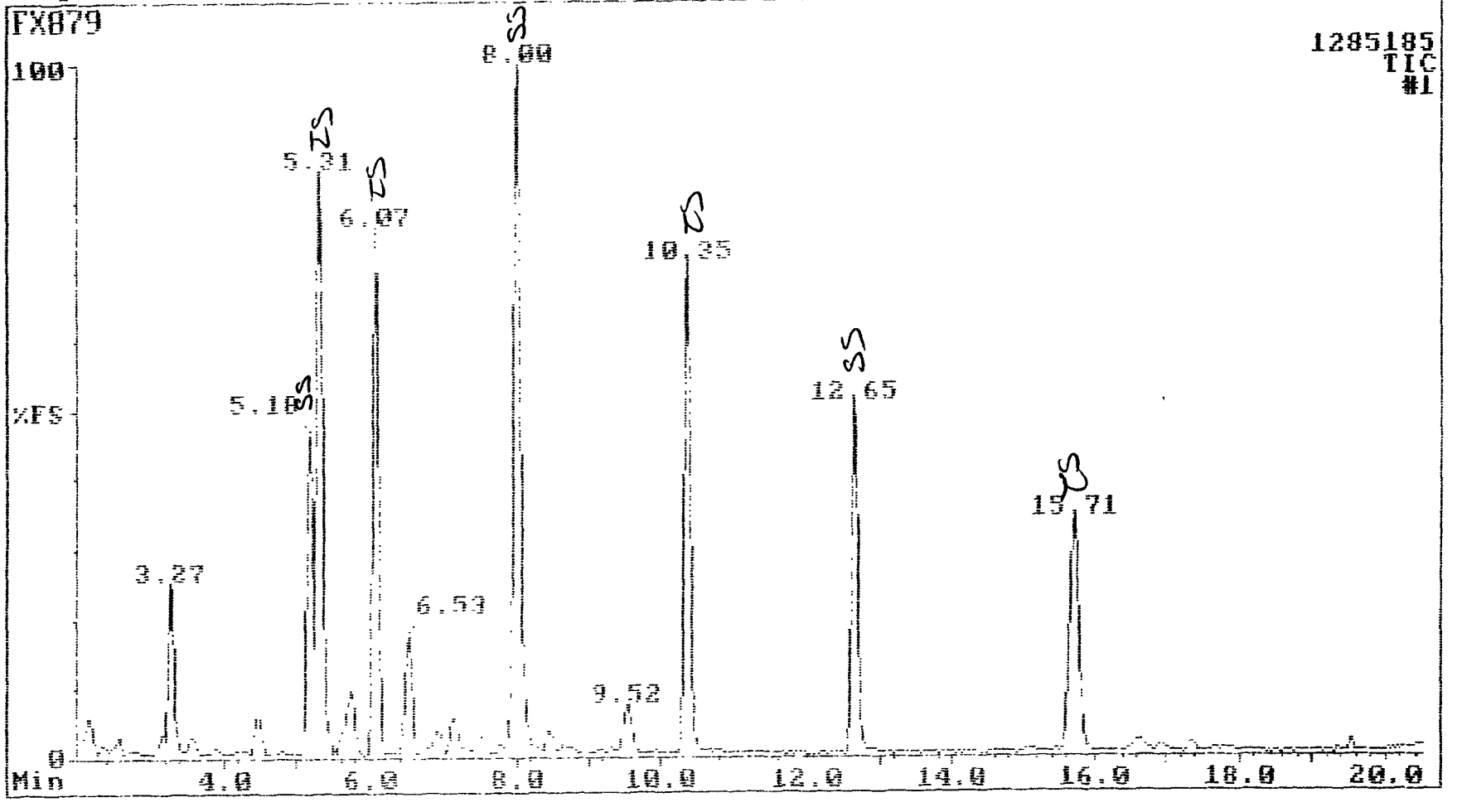
Savar
Printed: 18:00 08/24/

17-Aug-98 16:47 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-B TC 214-1-6B TLI#46297 Instrument F



Data Review: YL
Date: 8/19/98

QUAN DB F6379 LAB-BASE QUAN! 17-Aug-98 17:

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QN	Name
1	100	78	99	1	2574448	bb	5.301	168	Pentafluorobenzene
2	100	97	99	0	2726140	bv	6.071	114	1,4-Difluorobenzene
3	100	95	95	0	2355716	bv	10.351	117	Chlorobenzene-d5
4	100	76	100	0	860176	bv	15.712	15	1,4-Dichlorobenzene-d4
5	100	84	99	0	1077964	bv	5.181	113	Dibromofluoromethane
6	100	91	97	1	3394004	bv	8.001	98	Toluene-d8
7	100	91	93	0	1044408	bv	12.651	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	85	Dichlorodifluoromethane
9	97	77	81	1	263316	a	1.080	50	Chloromethane
10	0	0	0	0	0		0.000	62	Vinyl chloride
11	86	62	86	3	101590	bv	1.630	94	Bromomethane
12	0	0	0	0	0		0.000	64	Chloroethane
13	0	0	0	0	0		0.000	101	Trichlorofluoromethane
14	0	0	0	0	0		0.000	96	1,1-Dichloroethene
15	0	0	0	0	0		0.000	147	Iodomethane
16	0	0	0	0	0		0.000	76	Carbon disulfide
17	99	12	89	2	~~[illegible]~~		~~[illegible]~~ FP	43	Acetone
18	0	0	0	0	0		0.000	49	Allyl chloride
19	100	76	99	0	372588	bv	3.330	84	Methylene chloride
20	7	1	9	-1	~~[illegible]~~		~~[illegible]~~ FP	1	Acrylonitrile
21	0	0	0	0	0		0.000	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.000	94	1,1-Dichloroethane
23	0	0	0	0	0		0.000	43	Vinyl acetate
24	0	0	0	0	0		0.000	77	2,2-Dichloropropane
25	0	0	0	0	0		0.000	96	cis-1,2-Dichloroethene
26	71	13	18	4	~~[illegible]~~	MC 8/17/98	~~[illegible]~~ FP	43	2-Butanone
27	0	0	0	0	0		0.000	83	Chloroform
28	0	0	0	0	0		0.000	128	Bromochloromethane
29	0	0	0	0	0		0.000	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.000	117	Carbon tetrachloride
31	0	0	0	0	0		0.000	75	1,1-Dichloropropene
32	0	0	0	0	0		0.000	78	Benzene
33	0	0	0	0	0		0.000	62	1,2-Dichloroethane
34	0	0	0	0	0		0.000	130	Trichloroethene
35	0	0	0	0	0		0.000	63	1,2-Dichloropropane
36	0	0	0	0	0		0.000	93	Dibromomethane
37	0	0	0	0	0		0.000	41	Methyl methacrylate
38	0	0	0	0	0		0.000	83	Bromodichloromethane
39	0	0	0	0	0		0.000	75	cis-1,3-Dichloropropen
40	36	4	61	5	~~21340~~ vv		~~8.011~~ FP	43	4-Methyl-2-pentanone
41	100	74	92	0	158852	bb	8.091	92	Toluene
42	0	0	0	0	0		0.000	75	trans-1,3-Dichloropro
43	0	0	0	0	0		0.000	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.000	69	Ethyl methacrylate
45	0	0	0	0	0		0.000	164	Tetrachloroethene
46	0	0	0	0	0		0.000	76	1,3-Dichloropropane
47	0	0	0	0	0		0.000	43	2-Hexanone
48	0	0	0	0	0		0.000	129	Dibromochloromethane
49	0	0	0	0	0		0.000	107	1,2-Dibromoethane
50	0	0	0	0	0		0.000	112	Chlorobenzene

Data Review: M
Date: 8/19/98

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.000	131	1,1,1,2-Tetrachloroethane
52	0	0	0	0	0		0.000	106	Ethylbenzene
53	0	0	0	0	0		0.000	106	m-/p-Xylene
54	0	0	0	0	0		0.000	106	o-Xylene
55	0	0	0	0	0		0.000	104	Styrene
56	0	0	0	0	0		0.000	173	Bromoform
57	0	0	0	0	0		0.000	105	Cumene
58	0	0	0	0	0		0.000	83	1,1,2,2-Tetrachloroethane
59	0	0	0	0	0		0.000	156	Bromobenzene
60	0	0	0	0	0		0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.000	120	n-Propylbenzene
62	0	0	0	0	0		0.000	75	trans-1,4-Dichloro-2-butene
63	0	0	0	0	0		0.000	126	2-Chlorotoluene
64	0	0	0	0	0		0.000	126	4-Chlorotoluene
65	0	0	0	0	0		0.000	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.000	119	tert-Butylbenzene
67	0	0	0	0	0		0.000	105	1,2,4-Trimethylbenzene
68	0	0	0	0	0		0.000	105	sec-Butylbenzene
69	0	0	0	0	0		0.000	119	p-Cymene
70	0	0	0	0	0		0.000	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.000	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.000	91	Benzyl chloride
73	0	0	0	0	0		0.000	91	n-Butylbenzene
74	0	0	0	0	0		0.000	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.000	75	1,2-Dibromo-3-chloropropan
76	0	0	0	0	0		0.000	180	1,2,4-Trichlorobenzene
77	78	50	87	-4	18946	bb	19.[illegible]2	225	Hexachlorobutadiene
78	0	0	0	0	0		0.000	128	Naphthalene
79	0	0	0	0	0		0.000	180	1,2,3-Trichlorobenzene

53

QUAN DB : FX879 LAB-BASE QUAN 13-Aug-98 001

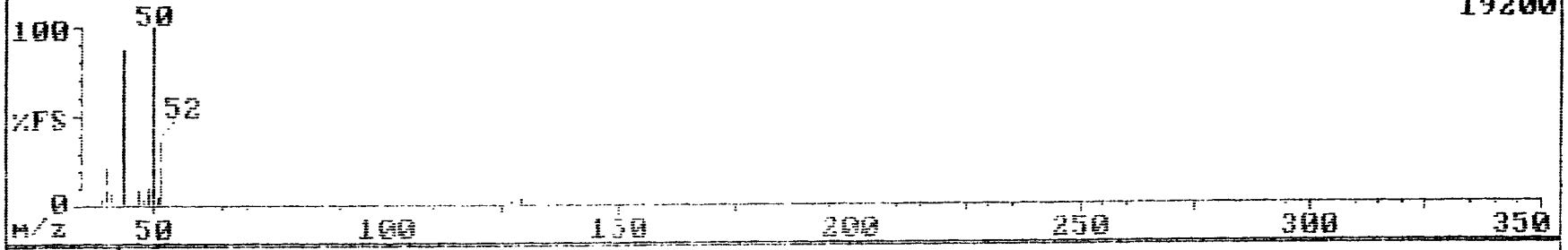
No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	78	99	1	2574448	bb	5.301	168	Pentafluorobenzene
2	100	97	99	0	2726140	bv	6.071	114	1,4-Difluorobenzene
3	100	96	99	-1	2555716	bv	10.351	117	Chlorobenzene-d5
4	100	76	100	-2	860176	bv	15.712	152	1,4-Dichlorobenzene-d4
5	100	84	99	0	1077964	bv	5.181	113	Dibromofluoromethane
6	100	91	97	0	3394004	bv	8.001	98	Toluene-d8
7	100	91	93	-1	1044408	bv	12.651	95	4-Bromofluorobenzene
8	57	33	66	5	~~[illegible]~~	~~[illegible]~~	~~1.270~~ FP	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	57	40	55	4	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ FP	73	MTBE
11	69	57	59	2	17896	bb	3.900	57	n-Hexane
12	55	46	62	17	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ FP	43	1,2-Epoxybutane
13	61	47	57	1	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ FP	57	Isopentane
14	44	36	[illegible]	-1	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ FP	35	Ethyl [illegible]

WC 8/19/98

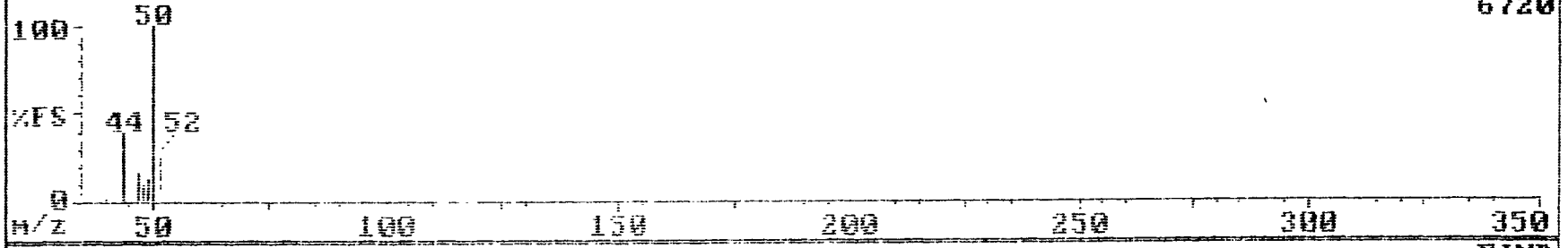
17-Aug-98 16:47 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-B TC 214-1-6B TLI#46297 Instrument F

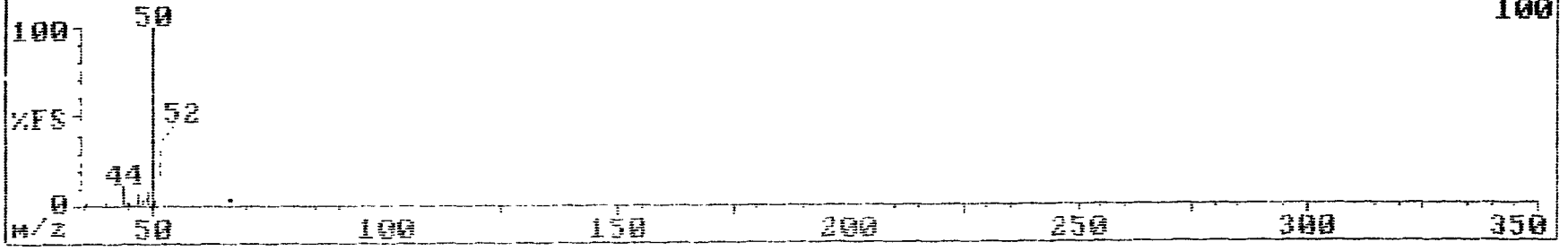
FX879 108 (1.080) 19200



FX879' 108 (1.081) REFINE 6720



8260B 9 (1.070) Chloromethane FIND 100



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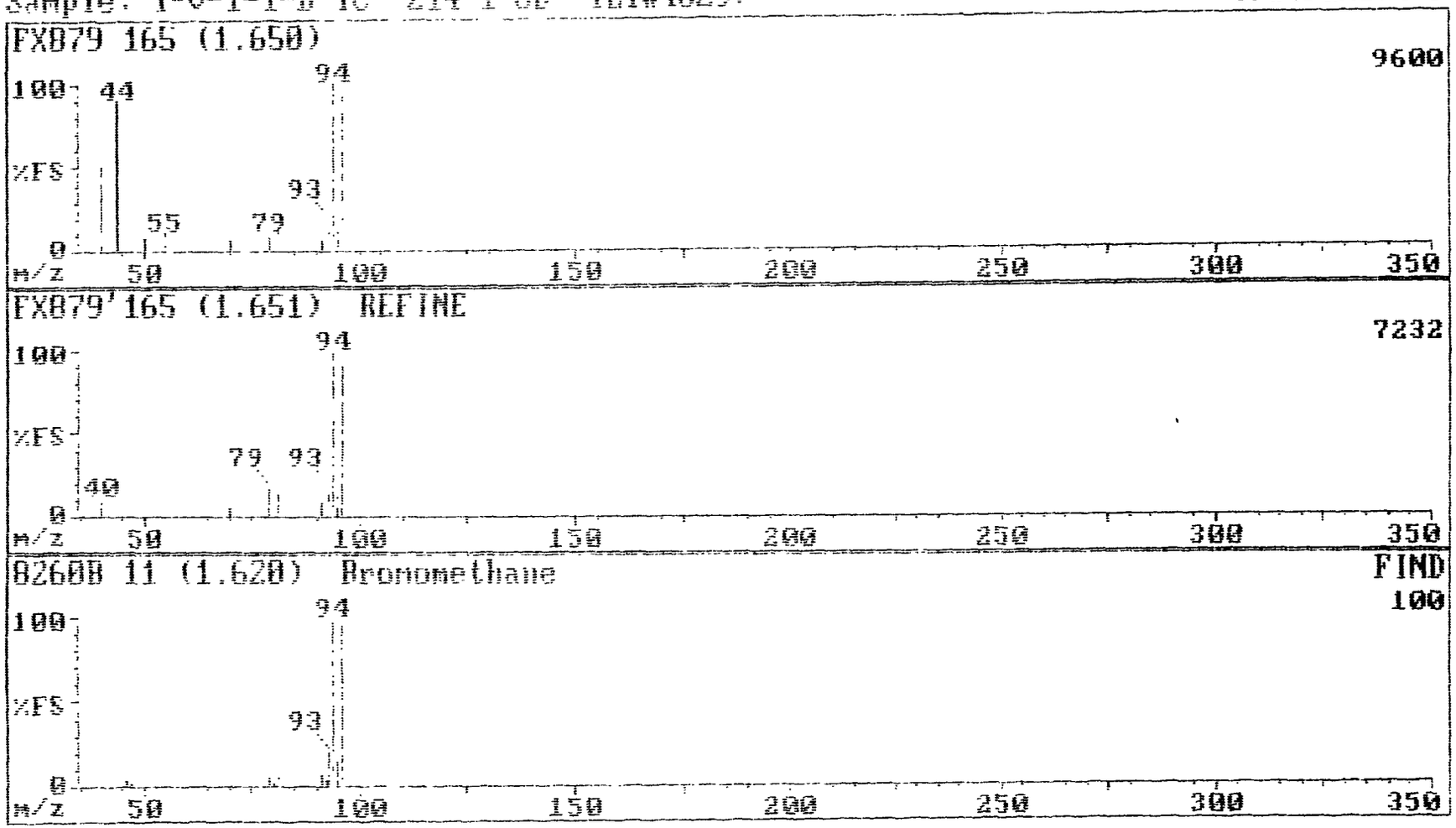
Sample: T-V-1-1-B TC 214-1-6B TLI#46297 Instrument F

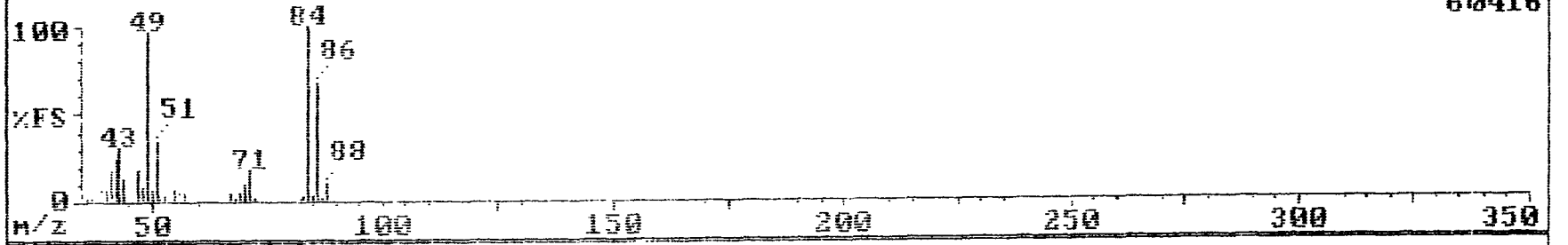


95

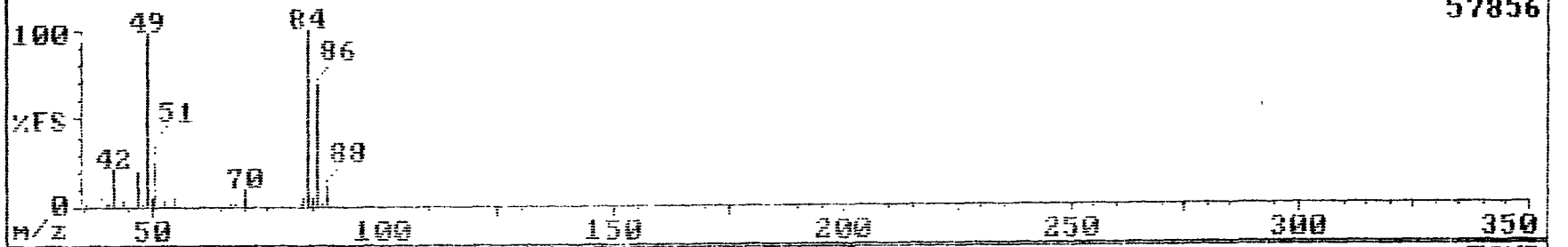
17-Aug-98 16:47 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-B TC 214-1-6B TLI#46297 Instrument F

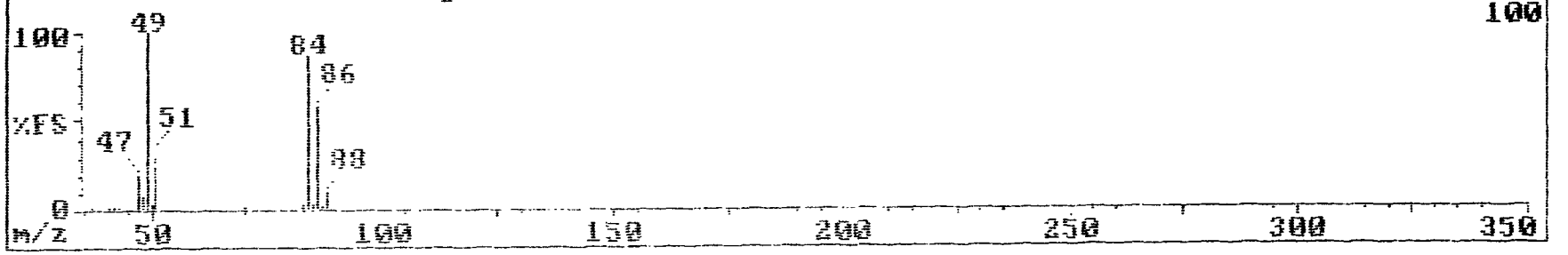
FX879 327 (3.270) 60416



FX879'327 (3.271) REFINE 57856



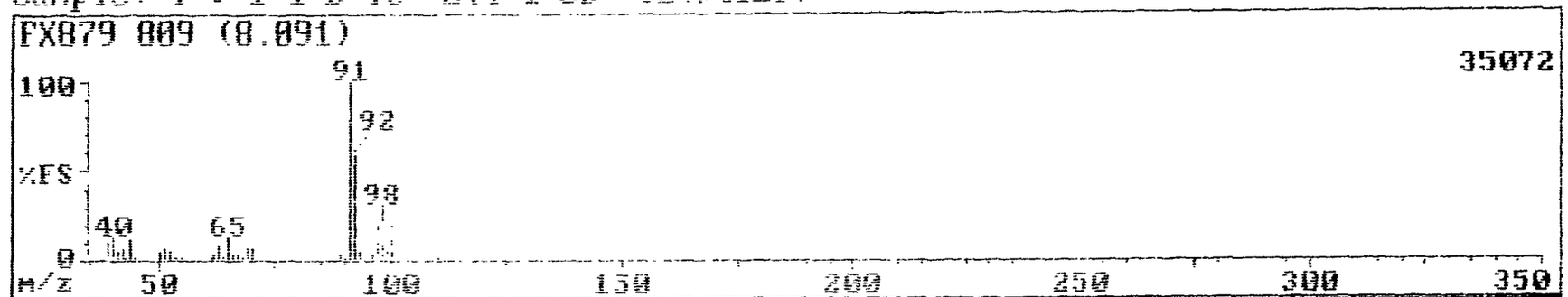
8260B 19 (3.260) Methylene chloride FIND 100

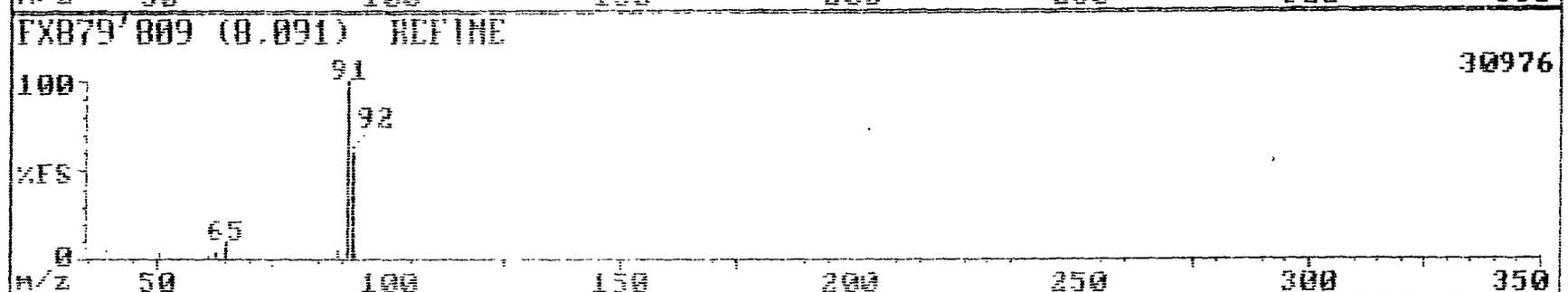


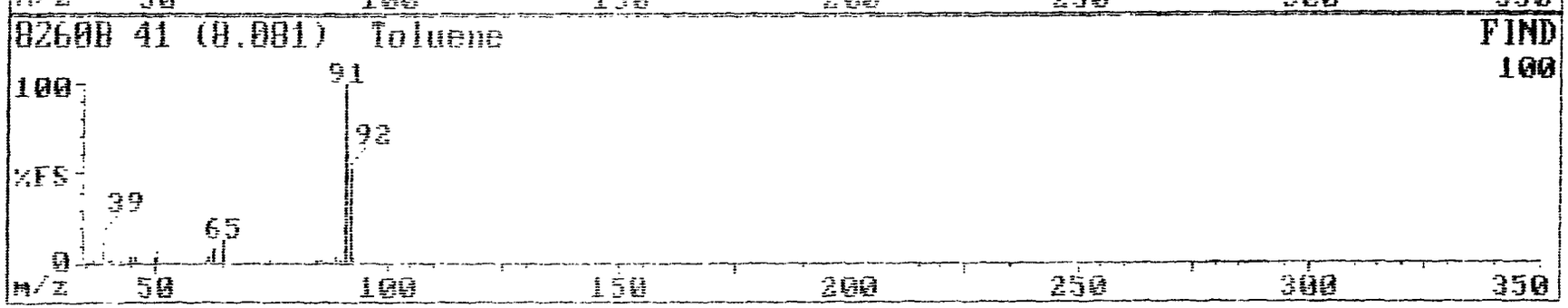
57

17-Aug-98 16:47 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-B TC 214-1-6B TL(#46297 Instrument F



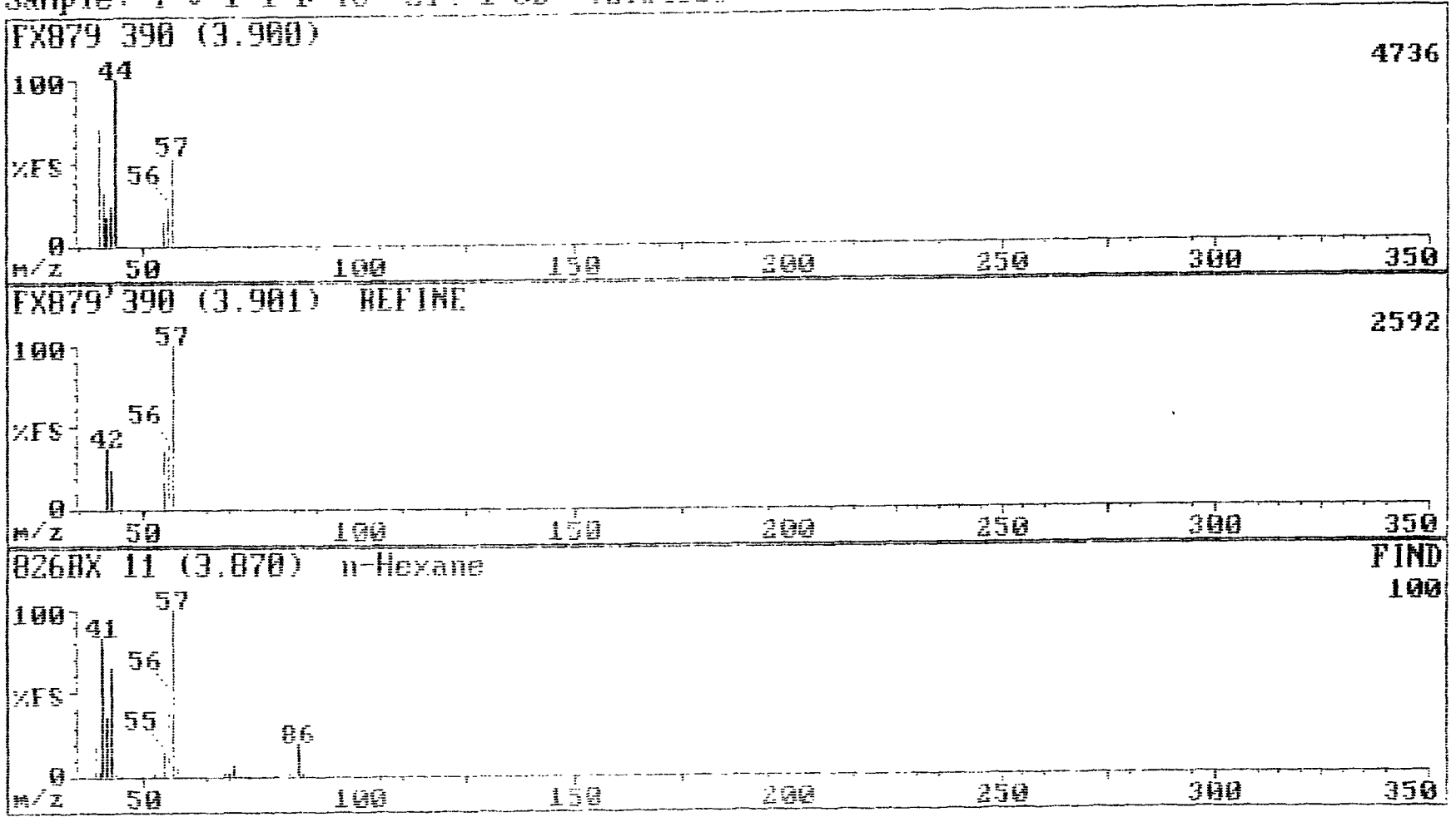




50

17-Aug-98 16:47 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-1-B TC 214-1-6B TLIM6297 Instrument F



Pacific Environmental Services

Project Number: 46297
Sample File: FX895

Method 8260 VOST
Sample ID: T-V-1-2-A T

Client Project: Hotmix
TLI ID: 214-1-7A

Date Received: 07/25/98
Date Analyzed : 08/18/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane		U		0.001	0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.007	J	1.61		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.013	J	2.78		0.05
Acetone	0.204		2.82		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.078		3.27		0.05
Acrylonitrile		U		0.017	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.129	B	5.52		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 18:03 08/24/1

Pacific Environmental Services

Project Number: 46297
Sample File: FX895

Method 8260 VOST
Sample ID: T-V-1-2-A T

Client Project: Hotmix
TLI ID: 214-1-7A

Date Received: 07/25/98
Date Analyzed : 08/18/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.005	0.05
Toluene	0.377	B	8.10		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.002	0.05
Chlorobenzene-d_5		IS 3	10.36		
Tetrachloroethene	0.054		8.93		0.05
2-Hexanone		U		0.006	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.128		10.68		0.05
m-/p-Xylene	0.677		10.92		0.10
o-Xylene	0.235		11.64		0.05
Styrene		U		0.001	0.05
Bromoform		U		0.003	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.77		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.002	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

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Printed: 18:03 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX895

Method 8260 VOST
Sample ID: T-V-1-2-A T

Client Project: Hotmix
TLI ID: 214-1-7A

Date Received: 07/25/98
Date Analyzed : 08/18/98

Response File: ICALF814

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.229	5.18	1	92
Toluene-d_8	0.350	8.00	2	140
4-Bromofluorobenzene	0.425	12.66	2	170

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar
Printed: 18:03 08/24/

Pacific Environmental Services

Project Number: 46297
Sample File: FX895

Method 8260 VOST
Sample ID: T-V-1-2-A T

Client Project: Hotmix
TLI ID: 214-1-7A

Date Received: 07/25/98
Date Analyzed : 08/18/98

Response File: ICALF818

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane	0.147	J	3.89		0.25
1,2-Epoxybutane		U		0.015	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.004	0.25

Reviewed by VR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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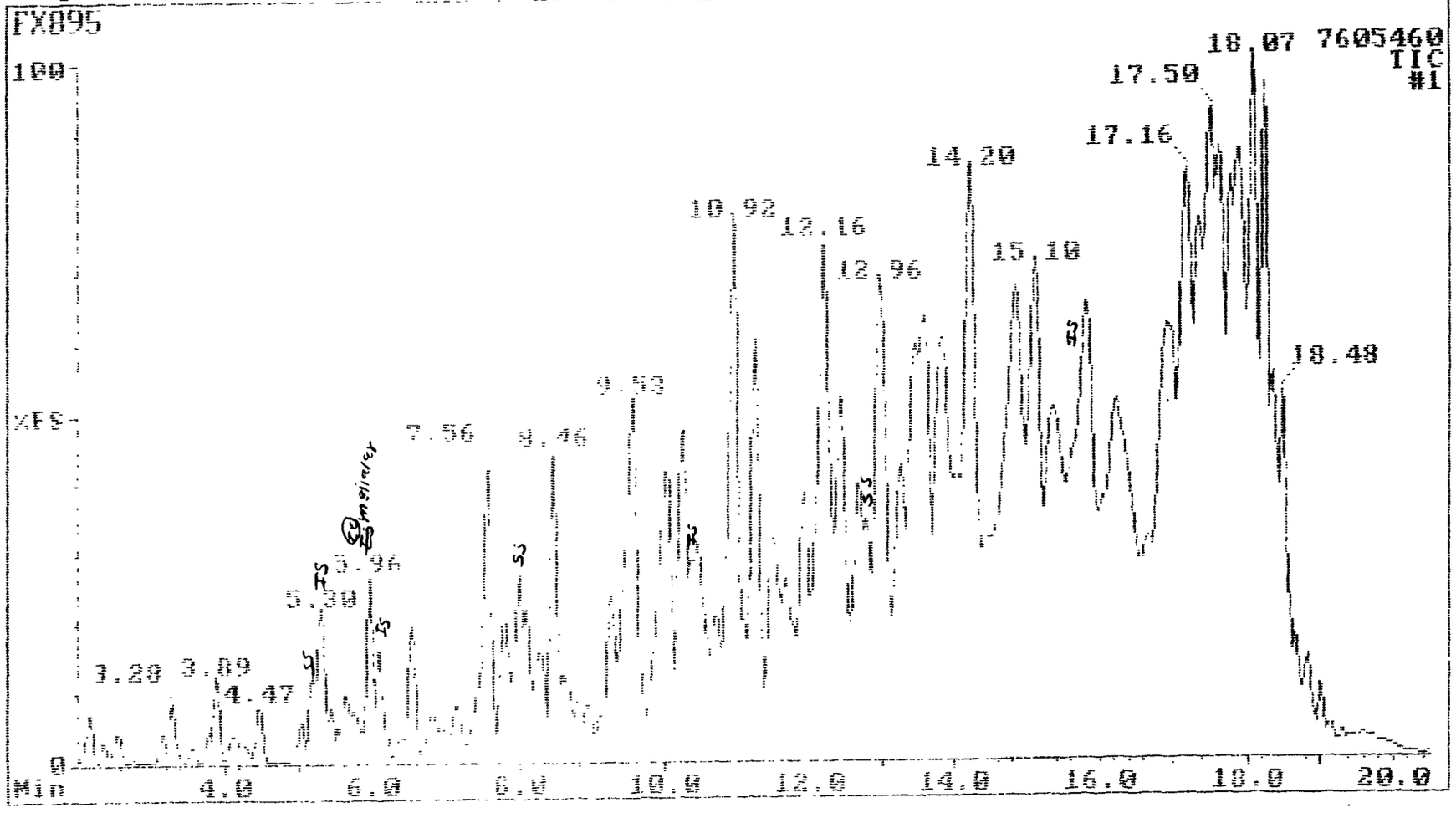
Savar v3.7
Printed: 18:00 08/24/1998

18-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-0 T A14-1 70 TL1146297 Instrument F



Data Review: YR
Date: 8/18/98

IAI FOR : FX8?5 LOB-BASE QUAL Lo-Range 4 [illegible]

No	MAT	FOR	REV	Delta	Area	P.Flags	RT	OM	Name
1	93	[illegible]	98	1	2483712	bb	5.301	168	Pentafluorobenzene
2	100	85	95	0	2639904	bv	6.17[illegible]	114	1,4-Difluorobenzene
3	93	57	79	1	2522196	bv	10.[illegible]	117	Chlorodifluoromethane
4	52	14	71	4	1211712	bv	15.7[illegible]	192	1,4-Dichlorobenzene-d4
5	93	49	94	0	956300	bv	5.1[illegible]	1[illegible]3	Dibromofluoromethane
6	96	70	88	1	3770672	bv	8.001	98	Toluene-d8
7	67	38	67	1	1535129	vv	1[illegible]	[illegible]	1-Bromofluorobenzene
8	0	0	0	0	0		0.000	85	Dichlorodifluoromethane
9	0	0	0	0	0		0.000	50	Chloromethane
10	0	0	0	0	0		0.000	[illegible]	Vinyl chloride
11	93	3[illegible]	90	-1	1[illegible]	a	1.[illegible]	9[illegible]	Bromomethane
12	0	0	0	0	0		0.000	[illegible]	Chloroethane
13	0	0	0	0	0		0.000	15[illegible]	[illegible]
14	0	0	0	0	0		0.000	[illegible]	[illegible]
15	0	0	0	0	0		0.000	[illegible]	[illegible]
16	67	40	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	0		0	1	0		0.000	[illegible]	[illegible]
19	0	0	0	1	181336		~~[illegible]~~ 327	[illegible]	[illegible]
20	30	[illegible]		-1	~~[illegible]~~		~~[illegible]~~ FP	[illegible]	[illegible]
21	0	0	0	0			[illegible]	[illegible]	[illegible]
22	0	0	0	0	0		0.000	3	1,1-Dichloroethene
23	0	0	0	0	0		0.000	[illegible]	Vinyl acetate
24	0	0	0	0	0		0.000	7[illegible]	[illegible]
25	0	0	0	0	0		0.000	[illegible]	[illegible]
26	72	9	76	1	~~[illegible]~~	bv	~~[illegible]~~ FP	43	[illegible]
27	0	0	0	0	0		0.000	3[illegible]	Chloroform
28	0	0	0	0	0		0.000	127	Bromochloromethane
29	0	0	0	0	0		0.000	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.000	117	Carbon tetrachloride
31	0	0	0	0	0		0.000	75	1,1-Dichloropropene
32	100	92	99	0	1323264	bv	5.521	78	Benzene
33	0	0	0	0	0		0.000	62	1,2-Dichloroethane
34	0	0	0	0	0		0.000	130	Trichloroethene
35	0	0	0	0	0		0.000	63	1,2-Dichloropropane
36	0	0	0	0	0		0.000	93	Dibromomethane
37	47	45	56	-11	~~[illegible]~~		~~[illegible]~~ FP	41	methyl methacrylate
38	0	0	0	0	0		0.000	83	Bromodichloromethane
39	0	0	0	0	0		0.000	75	cis-1,3-Dichloropropene
40	35	32	68	-19	~~[illegible]~~	vv	~~[illegible]~~ FP	43	4-Methyl-2-pentanone
41	100	83	99	1	2860720	vv	8.101	92	Toluene
42	0	0	0	0	0		0.000	75	trans-1,3-Dichloropropene
43	0	0	0	0	0		0.000	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.000	69	Ethyl methacrylate
45	67	35	77	-1	236300	bb	8.931	164	Tetrachloroethene
46	0	0	0	0	0		0.000	76	1,3-Dichloropropane
47	47	24	64	-10	~~[illegible]~~	vv	~~[illegible]~~ FP	43	2-Hexanone
48	0	0	0	0	0		0.000	129	Dibromochloromethane
49	0	0	0	0	0		0.000	107	1,2-Dibromoethane
50	0	0	0	0	0		0.000	112	Chlorobenzene

Data Review: M
Date: 8/19/98

,5

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No	MAT	FOR	REV	Delta	Area	P.F. Lag	RT	Qu Name
50	0	0	0	0	0		0.000	131 1,1,2-Tetrachloroethan
51	85	54	86	-1	726255	bv	10.[illegible]	136 Ethylbenzene
52	96	97	96	-1	17[illegible]6,32	vv	10.[illegible]	136 m/p-Xylene
53	91	[illegible]	89	0	136[illegible]74	bv	11.[illegible]	136 o-Xylene
55	0	0	0	0	0		0.000	104 Styrene
56	0	0	0	0	0		0.000	1[illegible] Bromoform
57	0	0	0	0	0		0.000	1[illegible] Cumene
58	0	0	0	0	0		0.000	[illegible] 1,1,2,2-Tetrachloroethane
59	0	0	0	0	0		0.000	1[illegible] Bromobenzene
60	0	0	0	0	0		0.000	[illegible] 1,2,3-Trichloropropane
61	0	0	0	0	0		0.000	120 n-Propylbenzene
62	0	0	0	0	0		0.000	[illegible] 2-Chlorotoluene
63	0	0	0	0	0		0.000	[illegible] 4-Chlorotoluene
64	98	[illegible]	[illegible]	-15	[illegible]	bv	[illegible]	1[illegible] 1,3,5-Trimethylbenzene
65	0	0	0	0	0		0.000	[illegible] tert-Butylbenzene
66	77	0	94	-1	[illegible]	bv	[illegible]	[illegible] 1,2,4-Trimethylbenzene
67	99	100	99	-1	[illegible]		[illegible]	FP [illegible] sec-Butylbenzene
69	0	0	0	0	0		0.000	[illegible] p-Isopropyltoluene
70	0	0	0	0	0		0.000	[illegible] 1,3-Dichlorobenzene
71	0	0	0	0	0		0.000	[illegible] 1,4-Dichlorobenzene
72	0	0	0	0	0		[illegible]	[illegible] n-Butylbenzene
73	0	0	0	0	0		[illegible]	[illegible] 1,2-Dichlorobenzene
74	0	0	0	0	0		0.000	[illegible] 1,2-Dibromo-3-chloropropane
75	0	0	0	0	0		[illegible]	[illegible] 1,2,4-Trichlorobenzene
76	0	0	0	0	0		[illegible]	180 1,3,5-Trichlorobenzene
77	0	0	0	0	0		0.000	[illegible] Hexachlorobutadiene
78	0	0	0	0	0		0.000	1[illegible] Naphthalene
79	0	0	0	0	0		0.000	1[illegible] 1,2,3-Trichlorobenzene

VR 8/19/98

QUAN DR : F.005 LAB-BASE QUAN 13-Aug-98 [illegible]

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	97	56	94	1	2483712	bb	5.501	98	Pentafluorobenzene
2	100	83	95	0	26339904	bv	6.071	114	1,4-Difluorobenzene
3	85	57	79	0	2302196	bv	10.361	117	Chlorobenzene-d5
4	57	14	71	3	1711712	bv	15.772	152	1,4-Dichlorobenzene-d4
5	93	49	99	0	956260	bv	5.181	113	Dibromofluoromethane
6	99	71	88	0	3770602	bv	8.001	98	Toluene-d8
7	63	38	63	0	1325120	vv	17.661	95	4-Bromofluorobenzene
8	53	36	63	7	[illegible]	[illegible]	[illegible]	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	79	53	63	1	[illegible]	bb	[illegible] FP	73	MTBE
11	100	95	99	1	1076232	bm	3.290	57	n-Hexane
12	59	45	64	3	[illegible]	bv	[illegible] FP	43	1,1-Dimethylbutane
13	62	45	67	2	[illegible]	[illegible]	[illegible] FP	57	Isooctane
14	43	13	70	-13	[illegible]	[illegible]	[illegible] FP	[illegible]	Ethyl acrylate

MR 8/19/98

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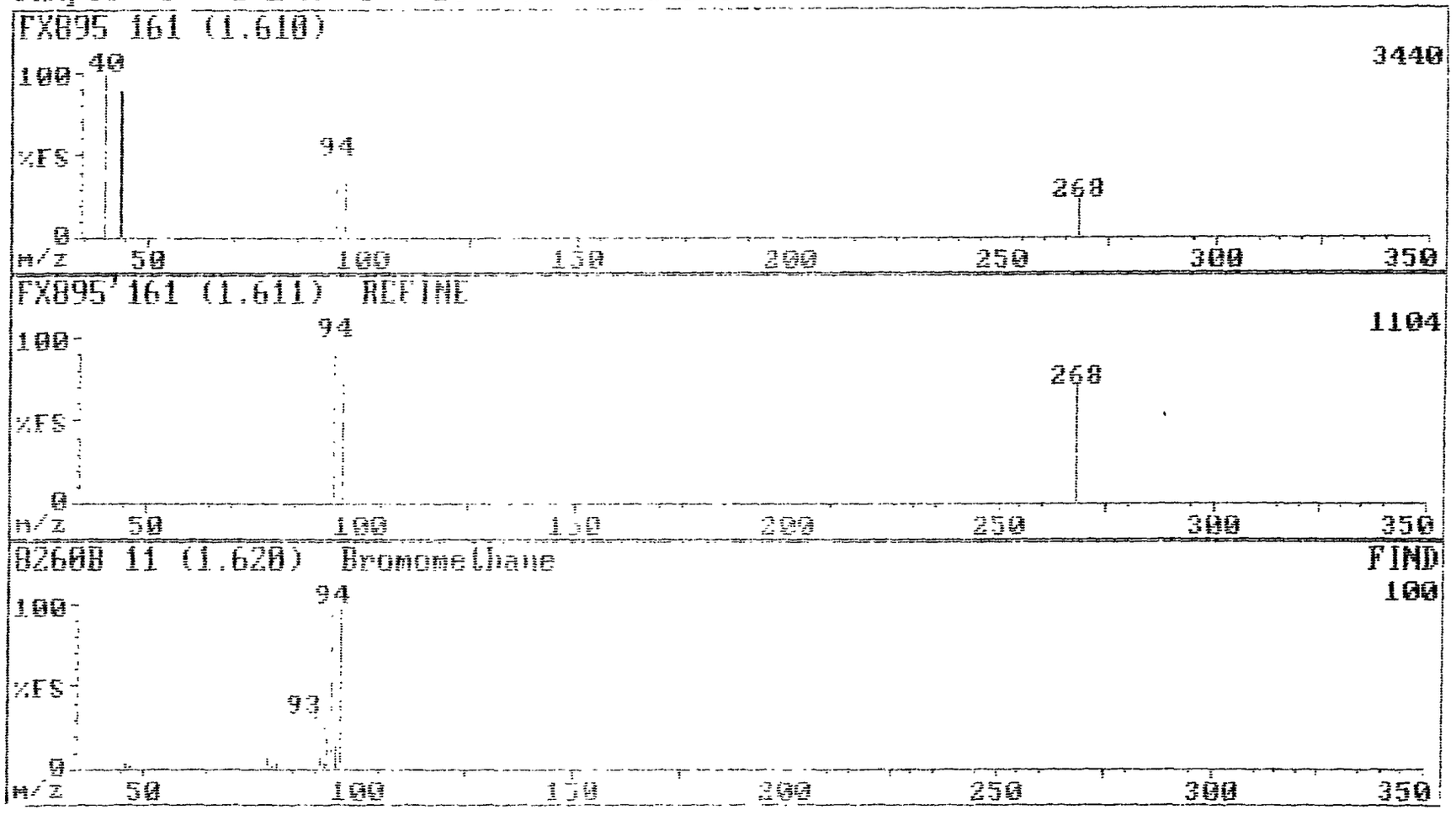
18-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

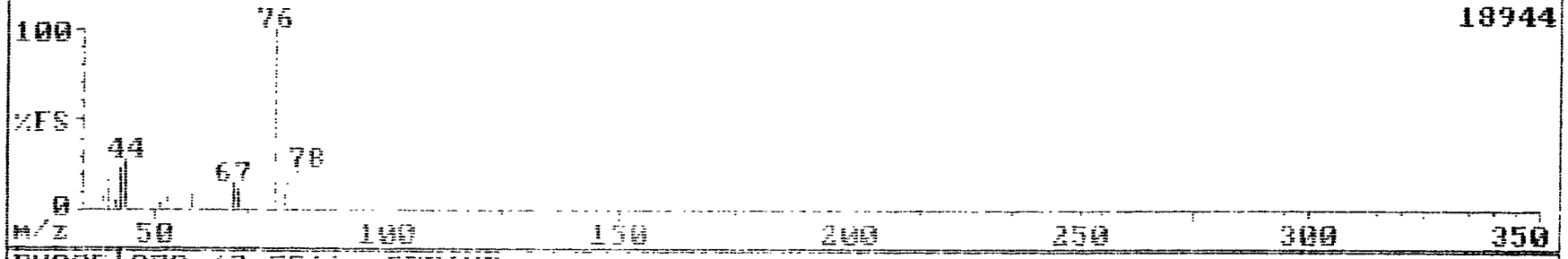
Sample: T-V-1-2-A T 214-1-70 TU046297 Instrument F



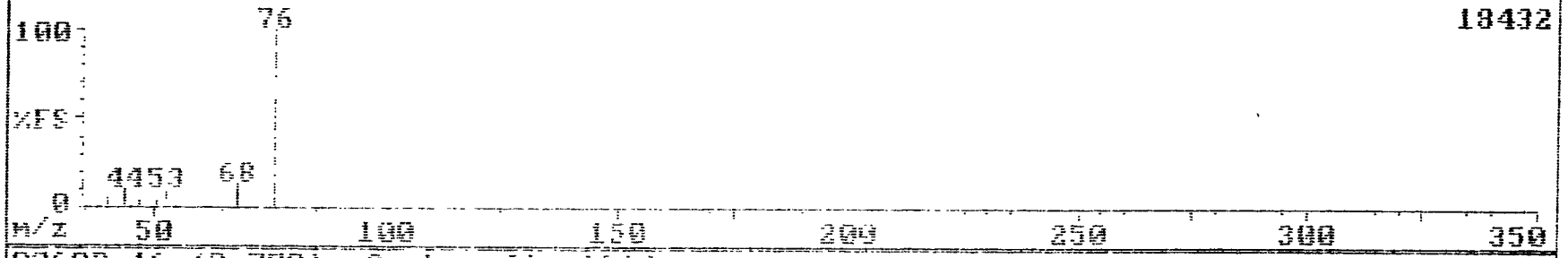
18-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-A T 214-1-7A TLI#46297 Instrument F

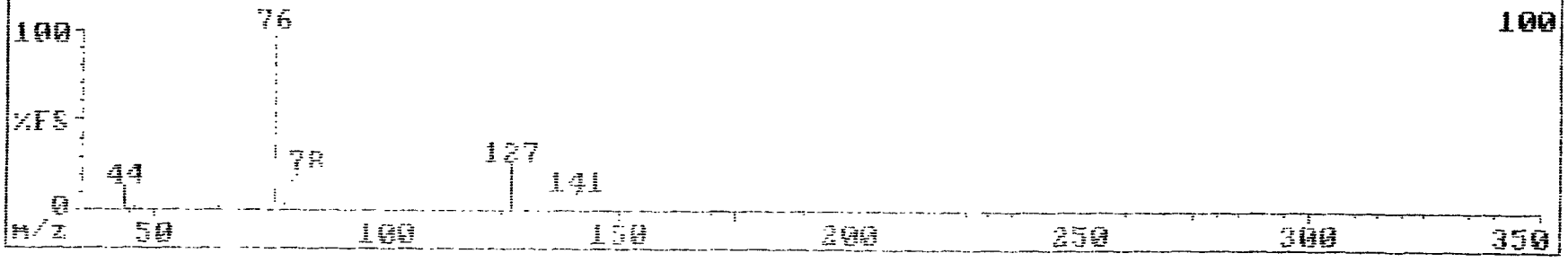
FX895 278 (2.780) 18944



FX895 278 (2.781) REFINE 18432



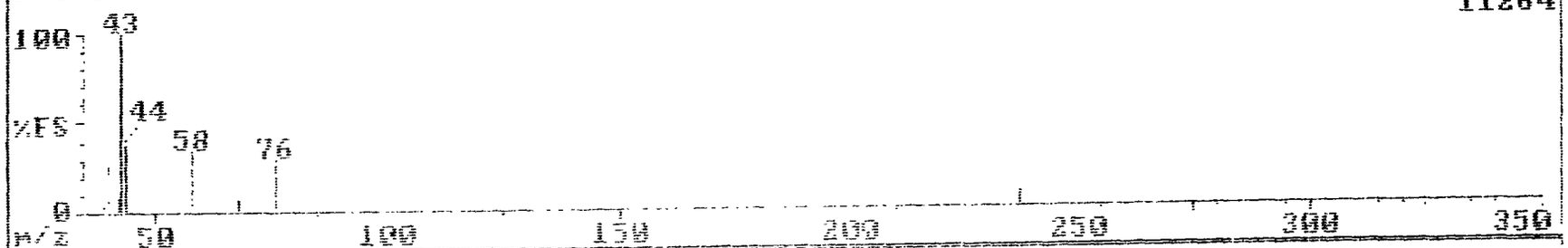
8260B 16 (2.770) Carbon disulfide FIND 100



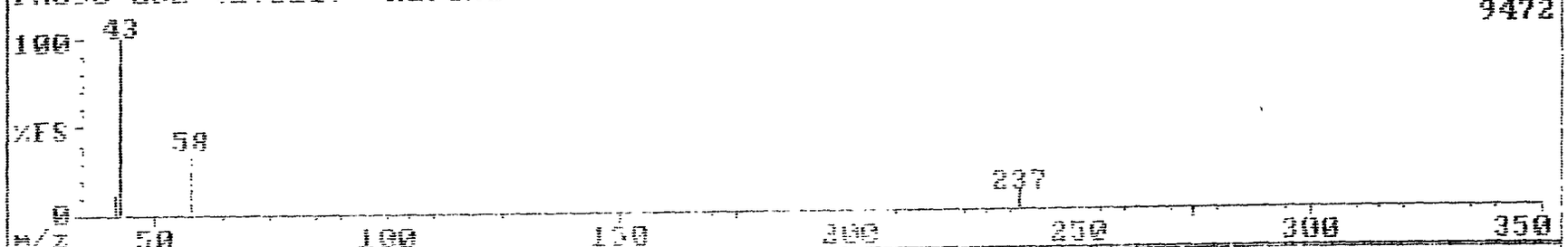
10-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-A T 214-1-70 TL1146297 Instrument F

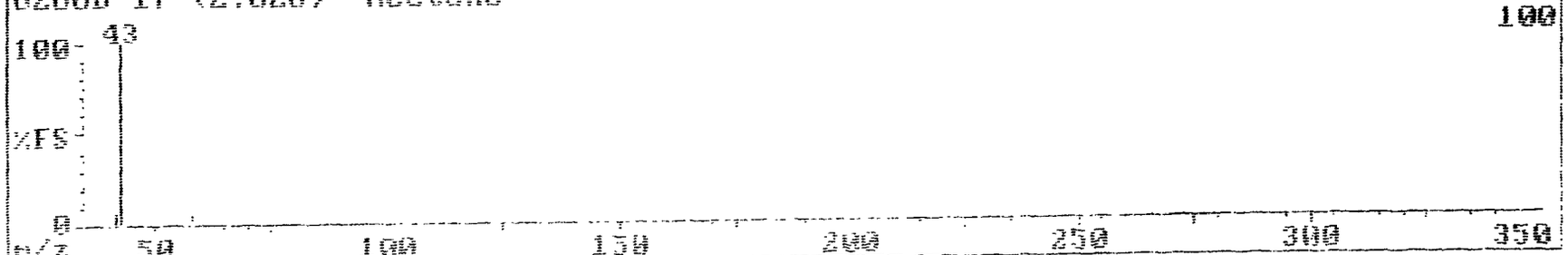
FX895 282 (2.820) 11264



FX895'282 (2.821) REFINE 9472



0268B 17 (2.820) Acetone FIND 100

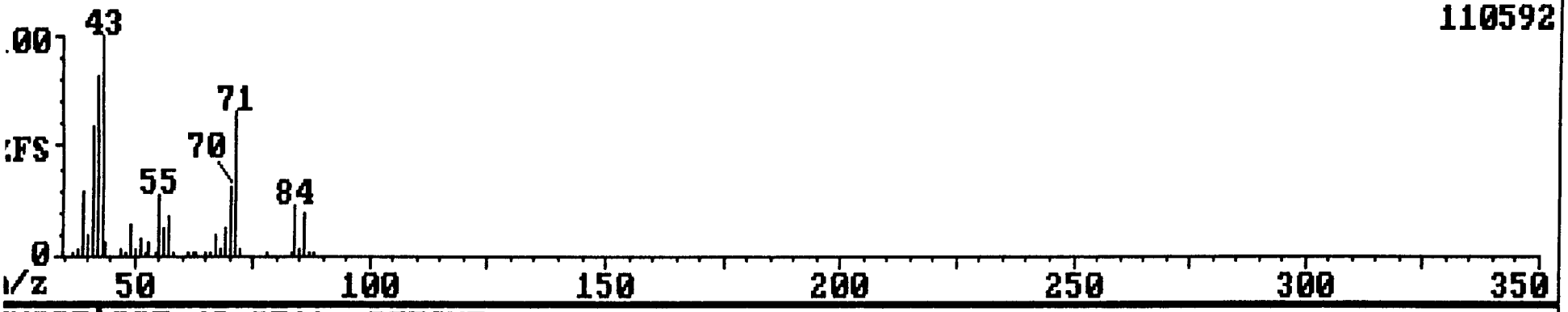


70

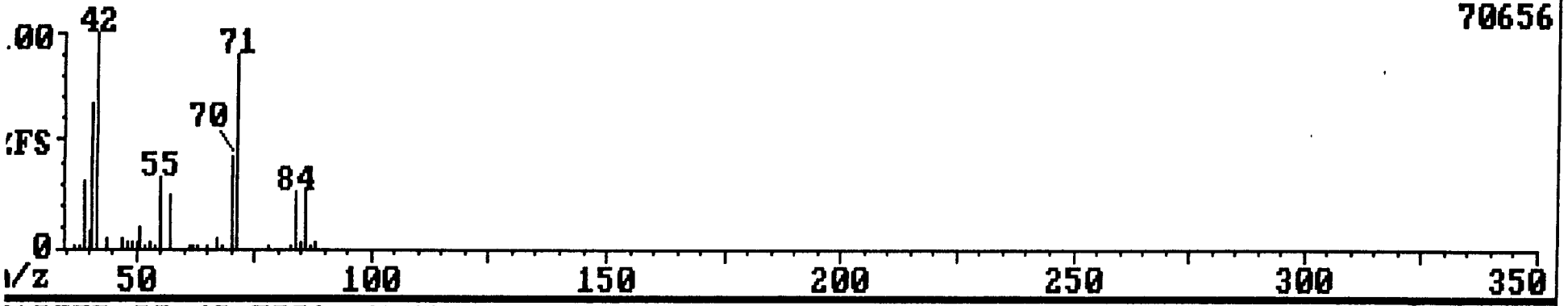
8-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

ample: T-V-1-2-A T 214-1-7A TLI#46297 Instrument F

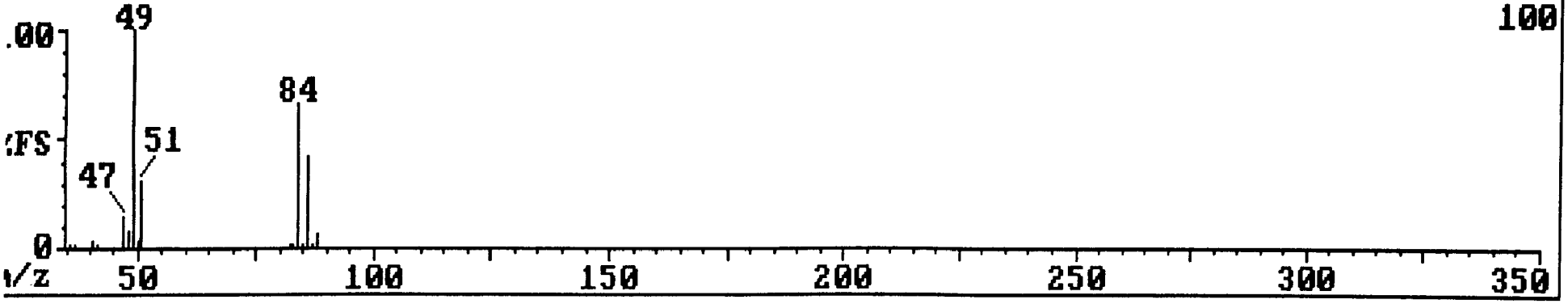
'X895 327 (3.270)



'X895 327 (3.271) REFINE



IASTER 22 (3.590) Methylene chloride FIND



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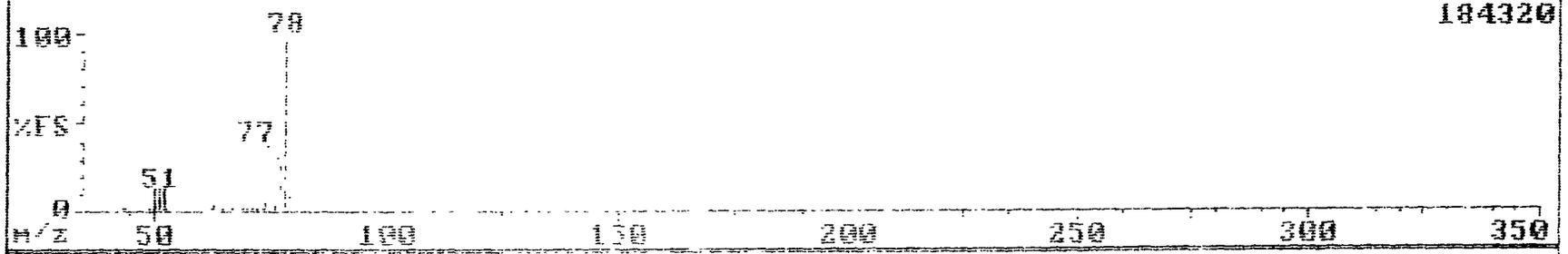
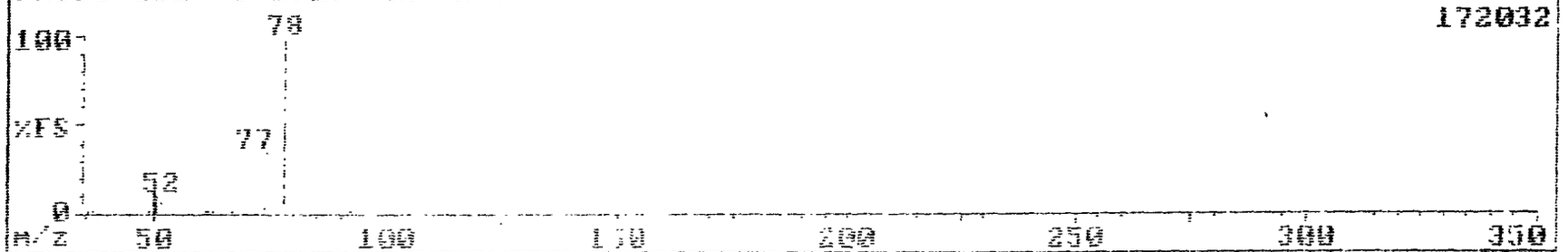
18-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-0 T 214-1-70 TL146297 Instrument F

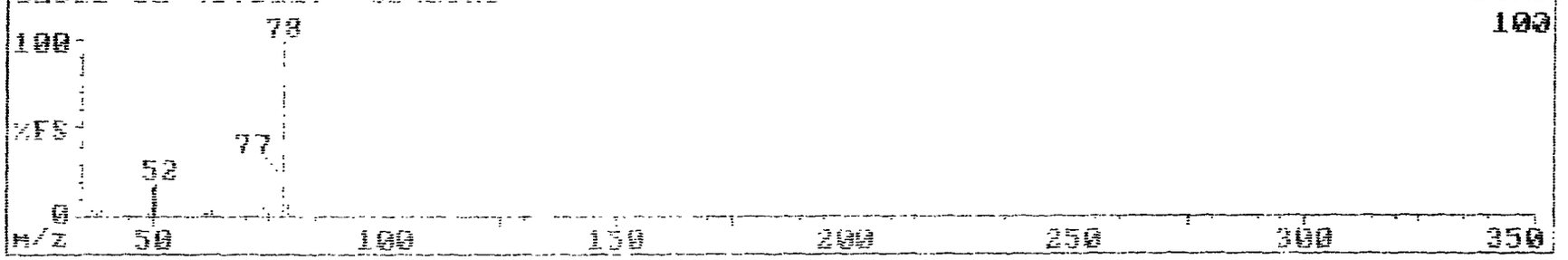
FX895 552 (5.521) 184320



FX895'552 (5.521) REFLINE 172032



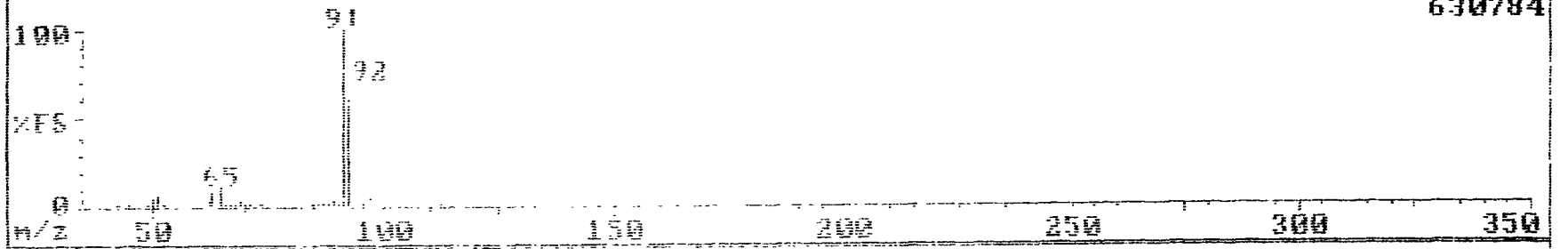
8260B 32 (5.511) Benzene FIND 100



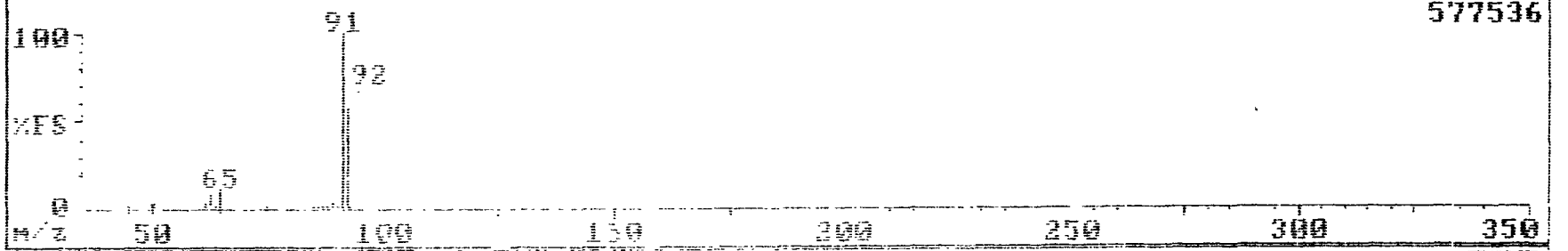
18-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-U-1-2-A I 214-1-Th TL1#46297 Instrument F

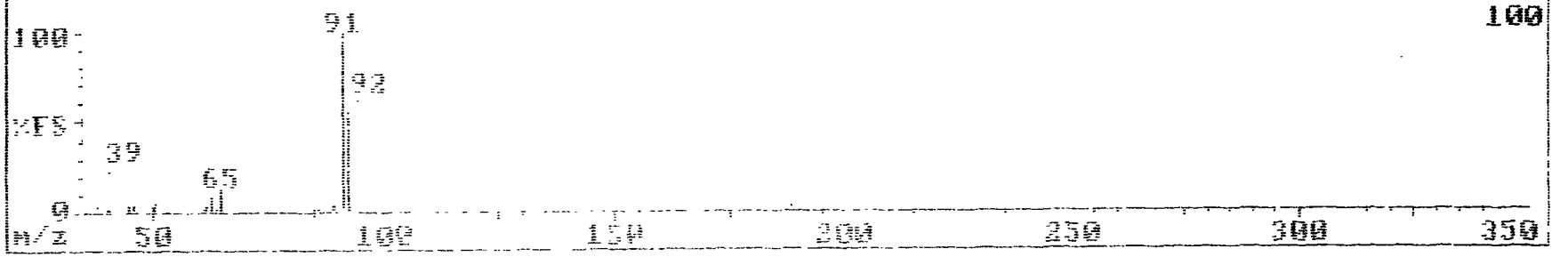
FX895 B1A (0.10L) 630784



FX895 B1A (0.10L) RETIME 577536

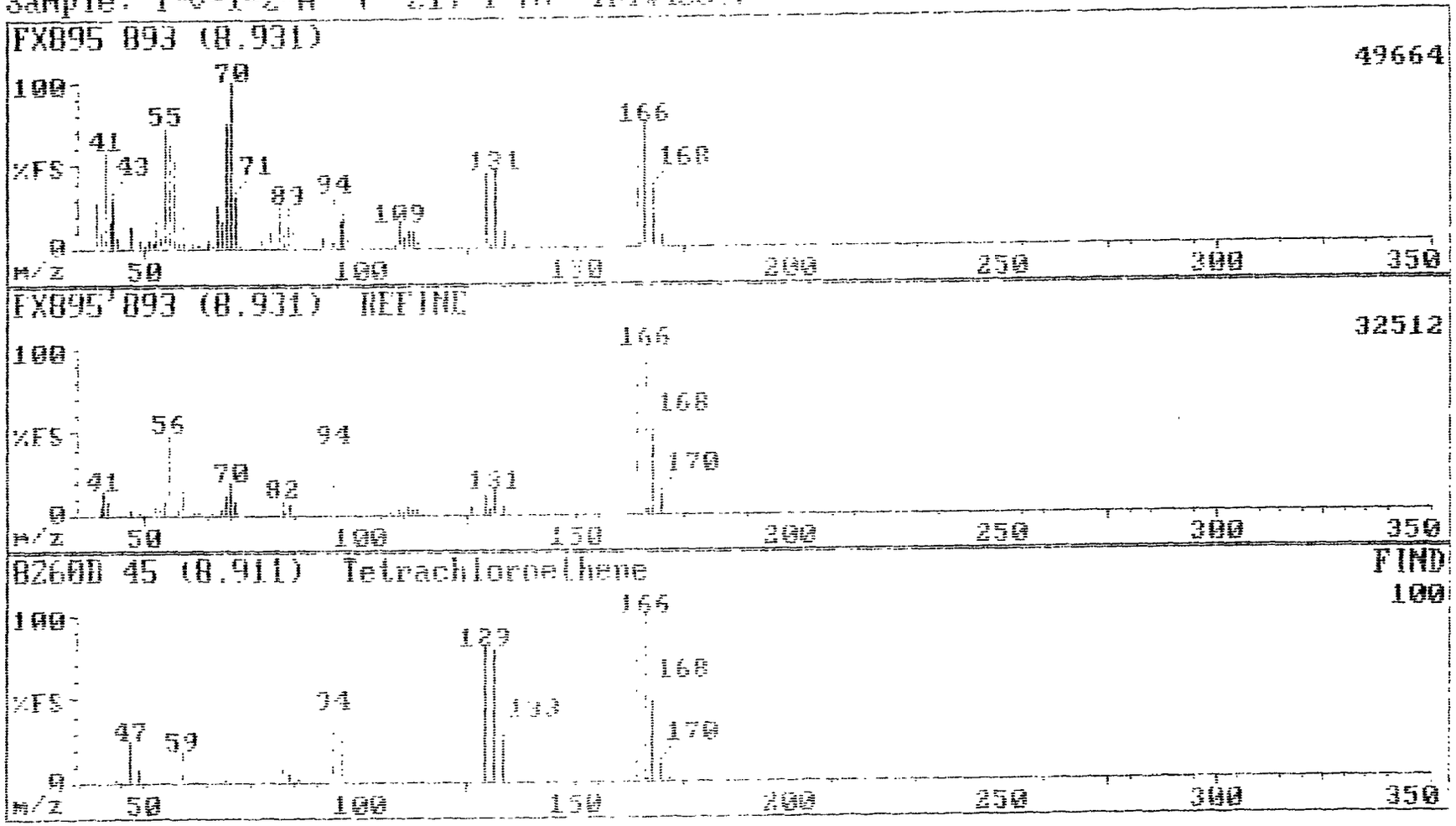


8260B 41 (0.00L) Toluene FIND 100



18-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

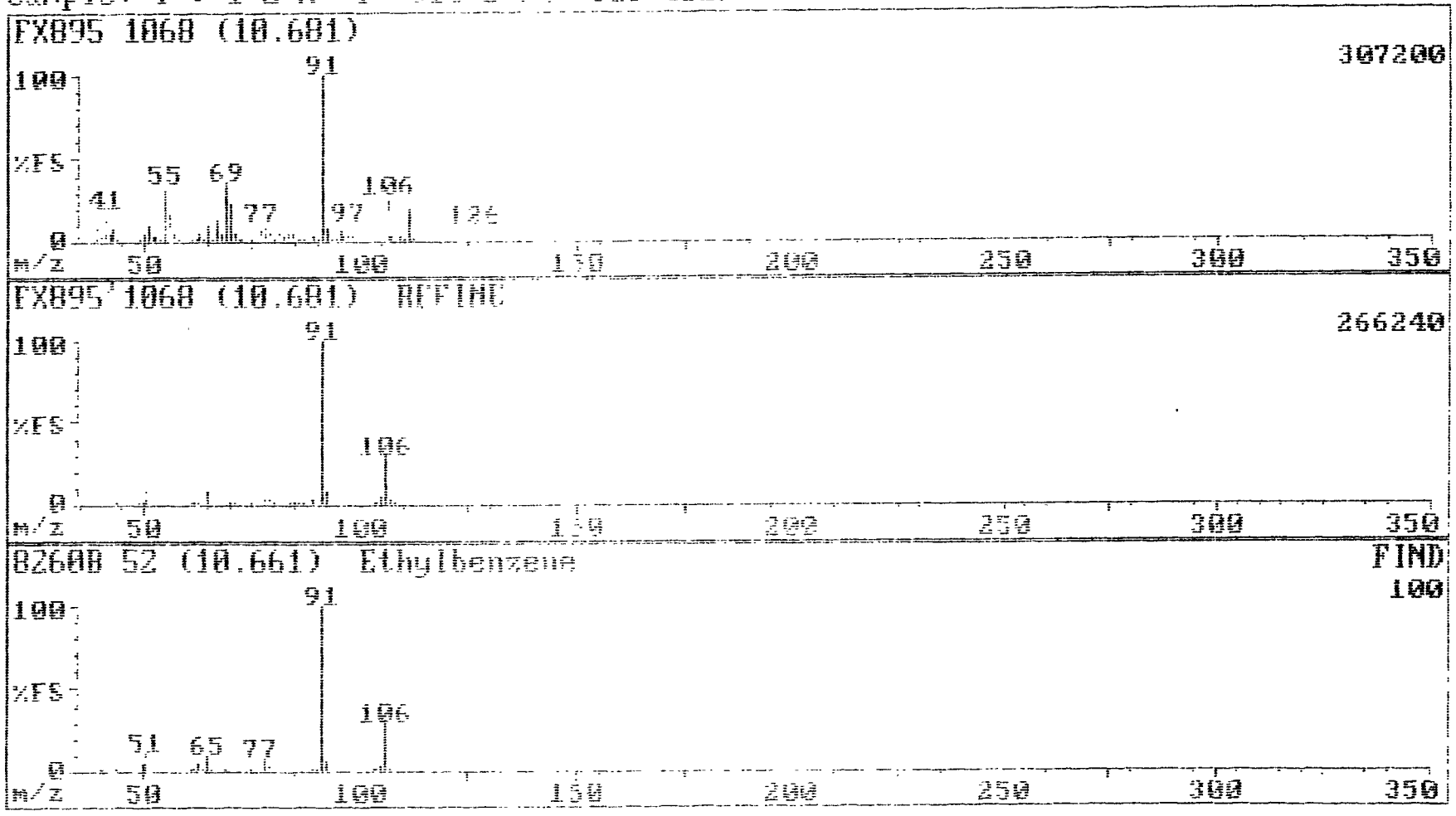
Sample: T-V-1-2-A T 214-1-7A TLI#46297 Instrument F



74

18-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

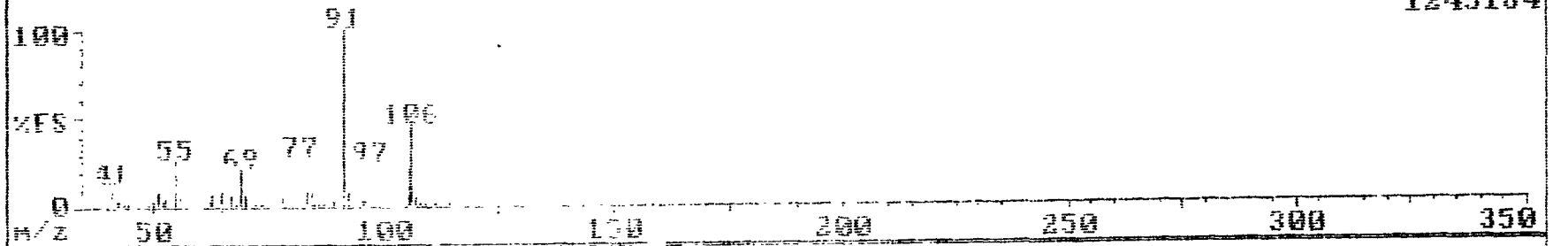
Sample: T-V-1-2-A I 214-1-74 TLI#46297 Instrument F



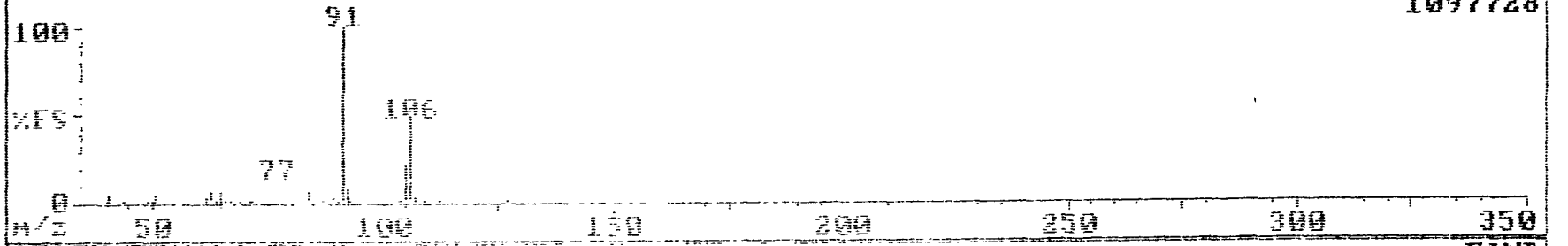
10-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1 2 n T [illegible] Instrument F

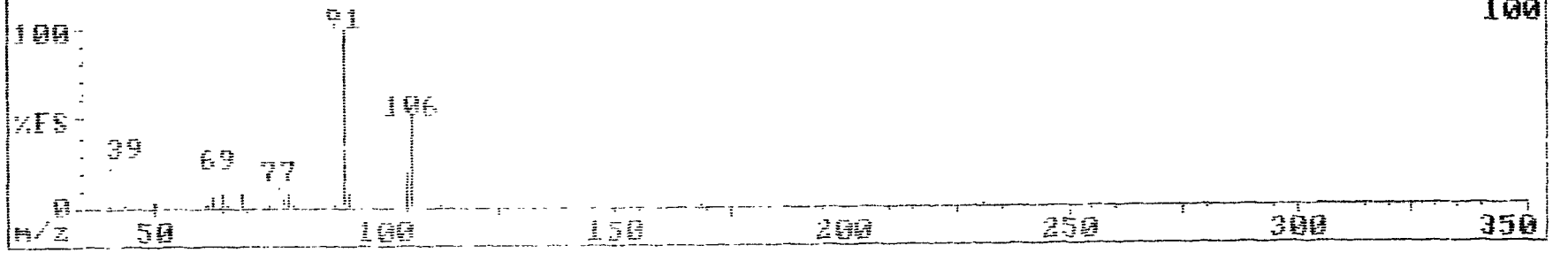
FX895 1092 (10.921) 1245184



FX895 1092 (10.921) REFINE 1097728



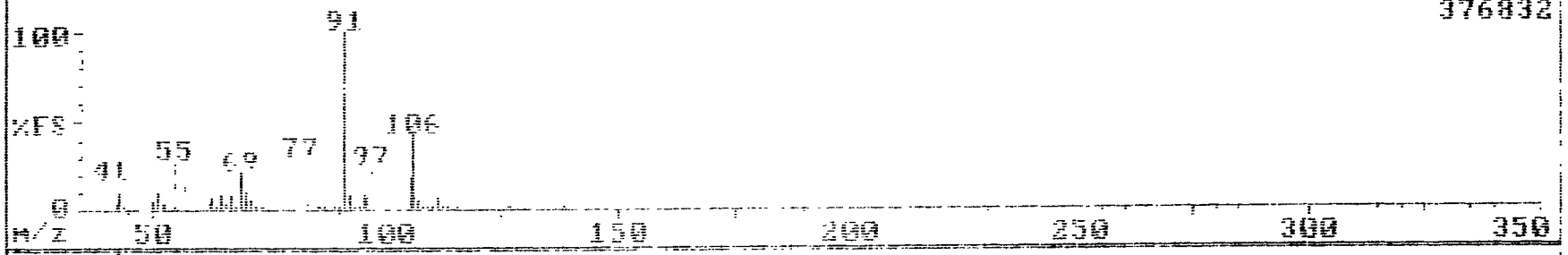
BZ6AB 53 (10.981) m/p-Xylene FIND 100



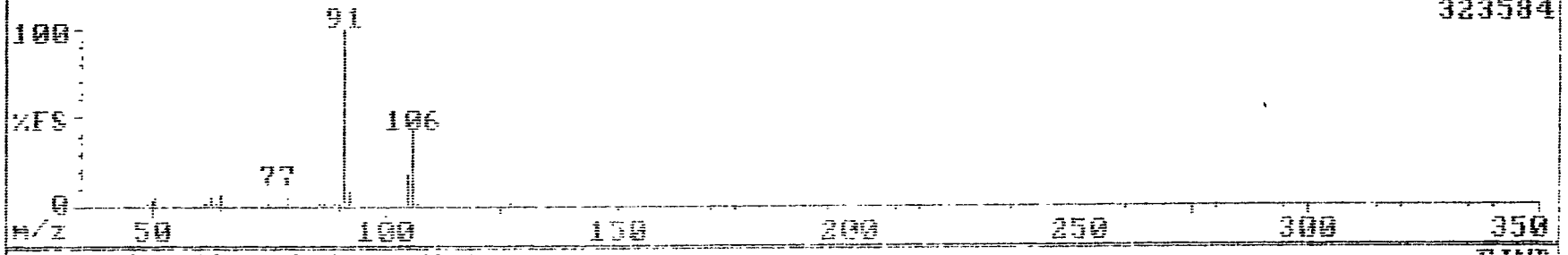
10-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-0 I 214-1-70 TLI#46297 Instrument F

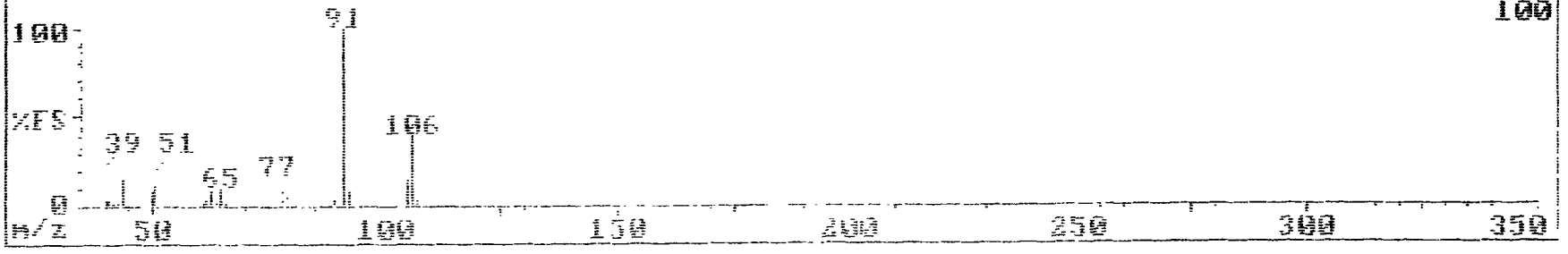
FX895 1164 (11.641)



FX895'1164 (11.641) REFINE

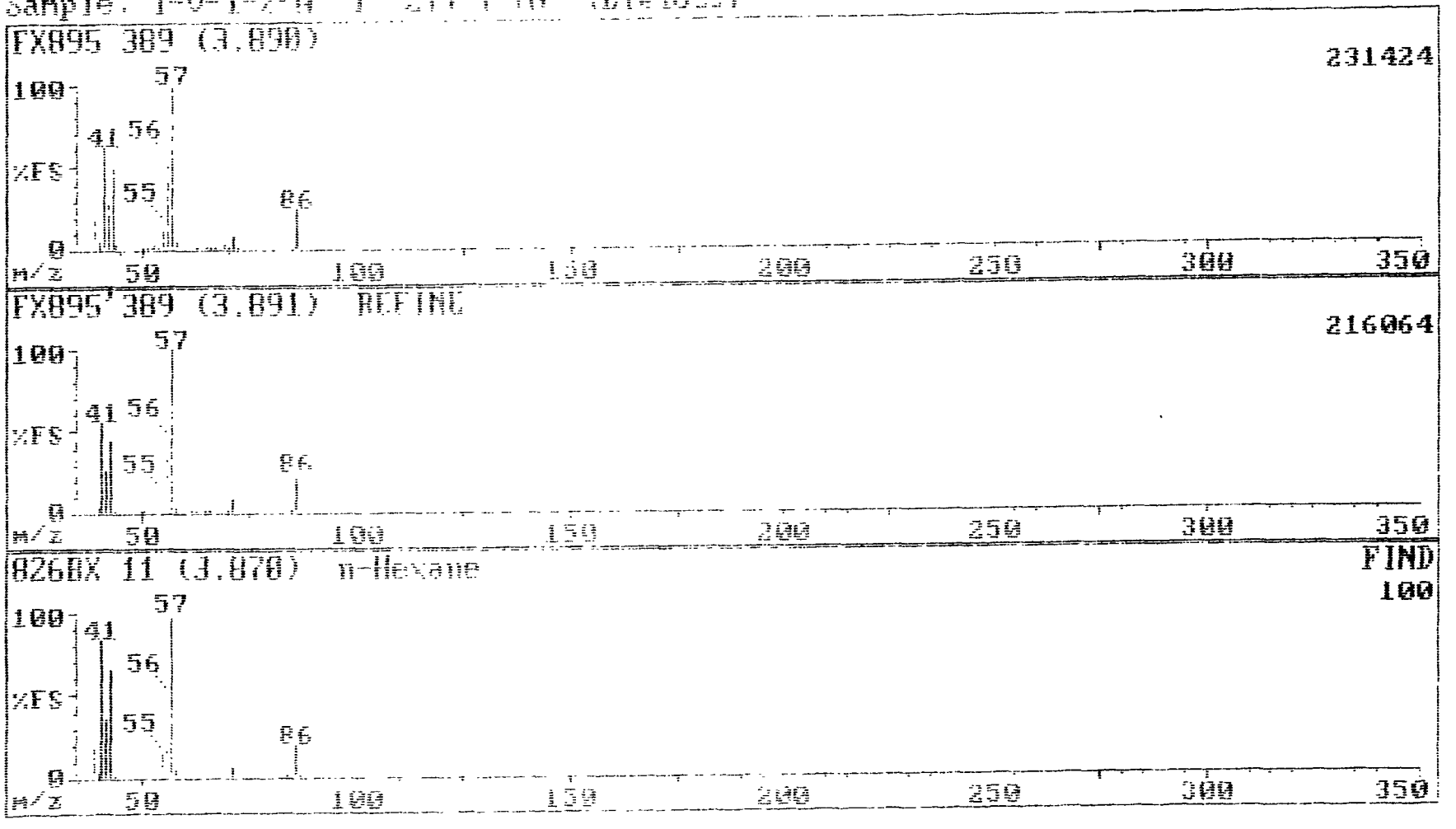


8260B 54 (11.611) o-Xylene FIND 100



18-Aug-98 14:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-0 I 211-1-70 TL1#46297 Instrument F



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Pacific Environmental Services

Project Number: 46297
Sample File: FX880

Method 8260 VOST
Sample ID: T-V-1-2-B TC

Client Project: Hotmix
TLI ID: 214-1-7B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane	0.080		1.09		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.068		1.65		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.004	J	2.78		0.05
Acetone	0.039	J	2.86		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.248		3.27		0.05
Acrylonitrile		U		0.015	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene		U		0.001	0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX880

Method 8260 VOST
Sample ID: T-V-1-2-B TC

Client Project: Hotmix
TLI ID: 214-1-7B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.004	0.05
Toluene	0.059	B	8.09		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.35		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.006	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene	0.001	J	10.91		0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.003	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.71		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.002	0.0

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range.

Pacific Environmental Services

Project Number: 46297
Sample File: FX880

Method 8260 VOST
Sample ID: T-V-1-2-B TC

Client Project: Hotmix
TLI ID: 214-1-7B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.246	5.18	1	98
Toluene-d_8	0.315	8.00	2	126
4-Bromofluorobenzene	0.278	12.65	2	111

Reviewed by _____ Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX880

Method 8260 VOST
Sample ID: T-V-1-2-B TC

Client Project: Hotmix
TLI ID: 214-1-7B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF817

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane	0.001	J	3.90		0.25
1,2-Epoxybutane		U		0.010	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.002	0.25

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar
Printed: 18:00 08/24/1

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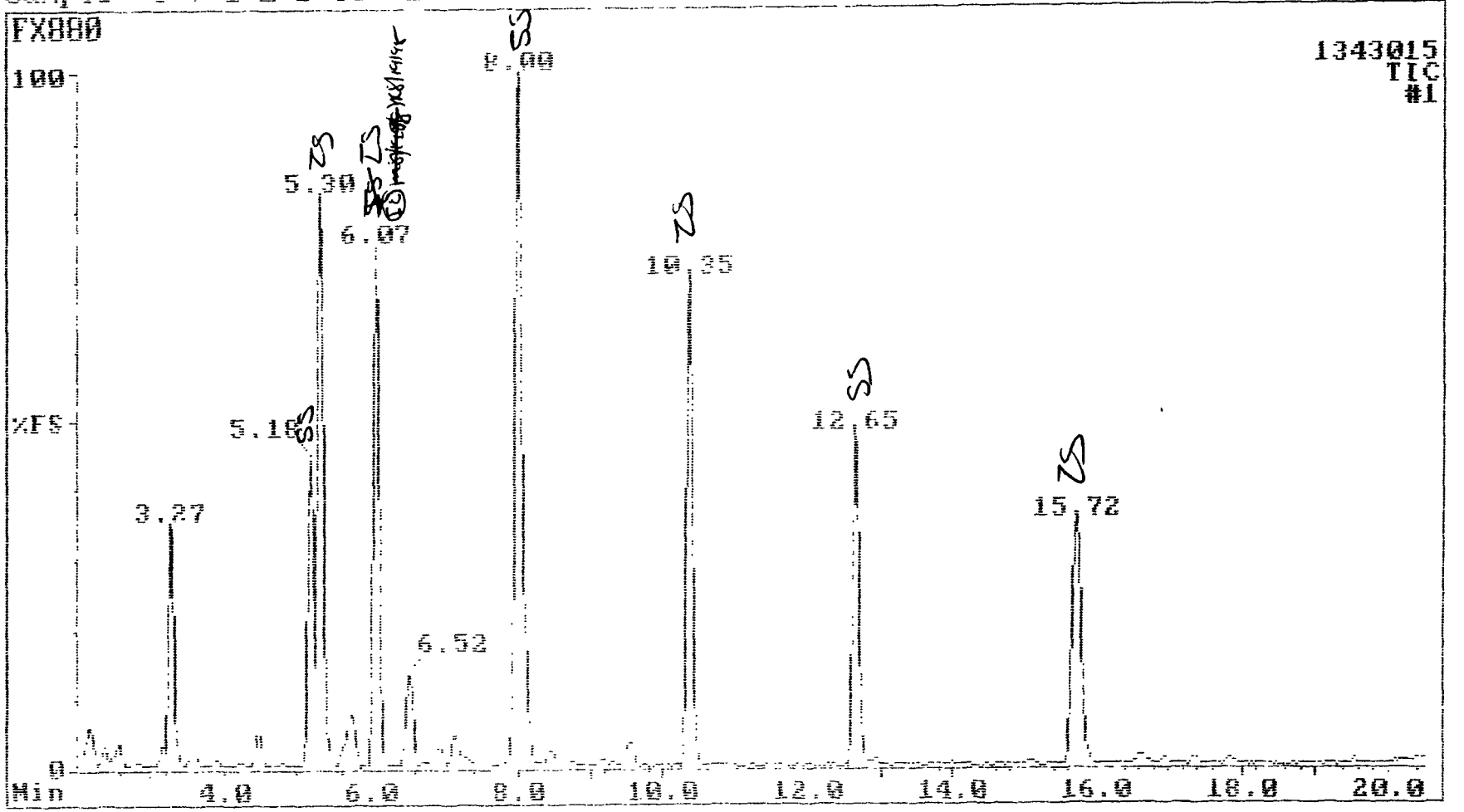
17 Aug-90 17:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-B TC Z14-1-7B TLI#46297 Instrument F



Data Review: MK
Date:

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No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	79	99	1	2703112	bb	5.301	168	Pentafluorobenzene
2	100	97	99	0	2784526	bv	6.071	114	1,4-Difluorobenzene
3	100	95	95	0	2355776	bv	10.351	117	Chlorobenzene-d5
4	100	77	99	0	947784	bv	15.712	152	1,4-Dichlorobenzene-d4
5	100	86	99	0	1120164	bv	5.181	113	Dibromofluoromethane
6	100	91	97	1	3581751	bv	8.001	98	Toluene-d8
7	100	91	93	0	1052804	bv	12.051	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	85	Dichlorodifluoromethane
9	91	73	79	2	297726	A	1.090	50	Chloromethane
10	0	0	0	0	0		0.000	62	Vinyl Chloride
11	84	50	85	3	129598	a	1.571	94	Bromomethane
12	0	0	0	0	0		0.000	64	Chloroethane
13	0	0	0	0	0		0.000	101	Trichlorofluoromethane
14	0	0	0	0	0		0.000	96	1,1-Dichloroethene
15	0	0	0	0	0		0.000	142	Iodomethane
16	60	41	37	1	347126	bb	2.780	76	Carbon disulfide
17	64	20	90	3	19264	bv	2.360	43	Acetone
18	0	0	0	0	0		0.000	91	Allyl chloride
19	100	86	95	0	676016	bb	3.170	[illegible]	Methylene chloride
20	7	[illegible]	10	-4	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~ FP	[illegible]	Acrylonitrile
21	0	0	0	0	0		0.000	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.000	63	1,1-Dichloroethane
23	0	0	0	0	0		0.000	43	Vinyl acetate
24	0	0	0	0	0		0.000	77	2,2-Dichloropropane
25	0	0	0	0	0		0.000	96	cis-1,2-Dichloroethene
26	15	17	17	3	~~[illegible]~~	~~bb~~	~~4.311~~ FP	43	2-Butanone
27	0	0	0	0	0		0.000	83	Chloroform
28	0	0	0	0	0		0.000	128	Bromochloromethane
29	0	0	0	0	0		0.000	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.000	117	Carbon tetrachloride
31	0	0	0	0	0		0.000	75	1,1-Dichloropropene
32	0	0	0	0	0		0.000	78	Benzene
33	0	0	0	0	0		0.000	62	1,2-Dichloroethane
34	0	0	0	0	0		0.000	130	Trichloroethene
35	0	0	0	0	0		0.000	63	1,2-Dichloropropane
36	0	0	0	0	0		0.000	93	Dibromomethane
37	0	0	0	0	0		0.000	41	Methyl methacrylate
38	0	0	0	0	0		0.000	83	Bromodichloromethane
39	0	0	0	0	0		0.000	75	cis-1,3-Dichloroprope
40	39	4	62	3	~~14208~~	~~bv~~	~~7.991~~ FP	43	4-Methyl-2-pentanone
41	100	88	98	0	473704	bb	8.091	92	Toluene
42	0	0	0	0	0		0.000	75	trans-1,3-Dichloropro
43	0	0	0	0	0		0.000	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.000	69	Ethyl methacrylate
45	0	0	0	0	0		0.000	164	Tetrachloroethene
46	0	0	0	0	0		0.000	76	1,3-Dichloropropane
47	0	0	0	0	0		0.000	43	2-Hexanone
48	0	0	0	0	0		0.000	129	Dibromochloromethane
49	0	0	0	0	0		0.000	107	1,2-Dibromoethane
50	0	0	0	0	0		0.000	112	Chlorobenzene

Data Review: M
Date: 8/19/98

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.000	131	1,1,1,2-Tetrachloroethane
52	20	34	34	23	~~37,[illegible]~~	~~A~~	~~10.651~~ FP	106	Ethylbenzene
53	0	0	0	0	10524	A	10.711	106	m-/p-Xylene
54	0	0	0	0	0		0.000	106	o-Xylene
55	0	0	0	0	0		0.000	104	Styrene
56	0	0	0	0	0		0.000	173	Bromoform
57	0	0	0	0	0		0.000	105	Cumene
58	0	0	0	0	0		0.000	83	1,1,2,2-Tetrachloroethane
59	0	0	0	0	0		0.000	156	Bromobenzene
60	0	0	0	0	0		0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.000	120	n-Propylbenzene
62	0	0	0	0	0		0.000	75	trans-1,4-Dichloro-2-butene
63	0	0	0	0	0		0.000	126	2-Chlorotoluene
64	0	0	0	0	0		0.000	126	4-Chlorotoluene
65	0	0	0	0	0		0.000	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.000	119	tert-Butylbenzene
67	0	0	0	0	0		0.000	105	1,2,4-Trimethylbenzene
68	0	0	0	0	0		0.000	105	sec-Butylbenzene
69	0	0	0	0	0		0.000	119	p-Isopropyltoluene
70	0	0	0	0	0		0.000	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.000	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.000	91	n-Butylbenzene
73	0	0	0	0	0		0.000	91	n-Butylbenzene
74	0	0	0	0	0		0.000	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.000	75	1,2-Dibromo-3-chloropropane
76	0	0	0	0	0		0.000	180	1,2,4-Trichlorobenzene
77	46	22	37	-3	10363	bb	19.553	225	Hexachlorobutadiene
78	0	0	0	0	0		0.000	128	Naphthalene
79	0	0	0	0	0		0.000	180	1,2,3-Trichlorobenzene

VR 8/19/98

QUAN DO : FX330 LAB-BASE QUAN 18-Aug-96 01.

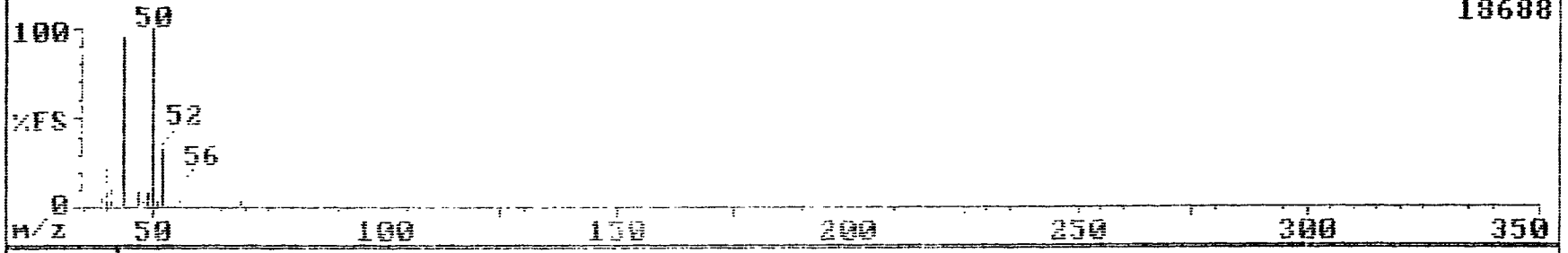
No	MAT	FOR	REV	Delta	Area	P	Flags	RT	QM	Name
1	100	79	99	1	2703112	bb		5.301	168	Pentafluorobenzene
2	100	97	99	0	2784596	bv		6.071	114	1,4-Difluorobenzene
3	100	95	95	-1	2355776	bv		10.351	117	Chlorobenzene-d5
4	100	77	99	-2	947784	bv		15.712	152	1,4-Dichlorobenzene-d4
5	100	86	99	0	1120164	bv		5.181	113	Dibromofluoromethane
6	100	91	97	0	3581752	bv		8.001	98	Toluene-d8
7	100	91	95	-1	1052304	bv		12.651	95	4-Bromofluorobenzene
8	56	72	64	4	[illegible]	[illegible]		[illegible]	39	1,3-Butadiene FP
9	0	11	11	0	0			0.000	106	Vinyl bromide
10	55	38	54	3	[illegible]	bv		[illegible]	[illegible]	MTBE FP
11	76	6	62	2	12408	bb		7.900	57	n-Hexane
12	55	40	61	8	[illegible]	[illegible]		[illegible]	12	1,2-Propadiene FP
13	63	47	51	[illegible]	[illegible]	bv		[illegible]	57	Iso-Octane FP
14	45	27	69	[illegible]	[illegible]	bb		[illegible]	45	Ethyl [illegible] FP

MS 19/8

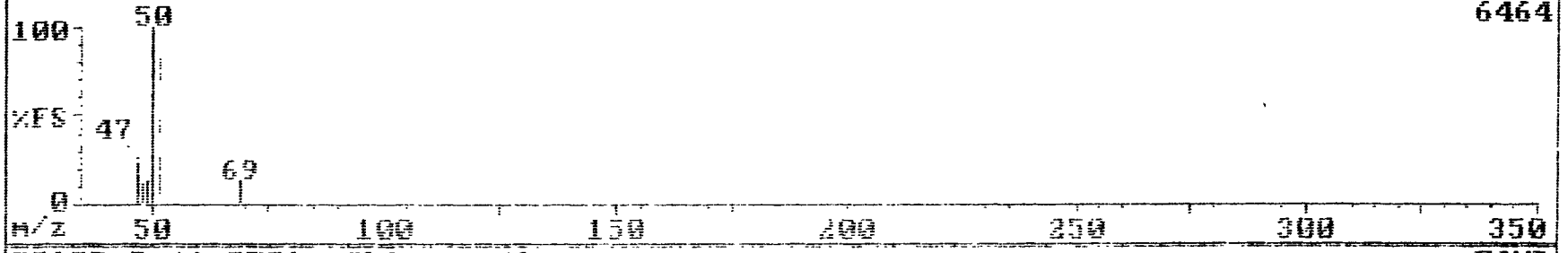
17-Aug-98 17:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-B TC 214-1-7B TLI#46297 Instrument F

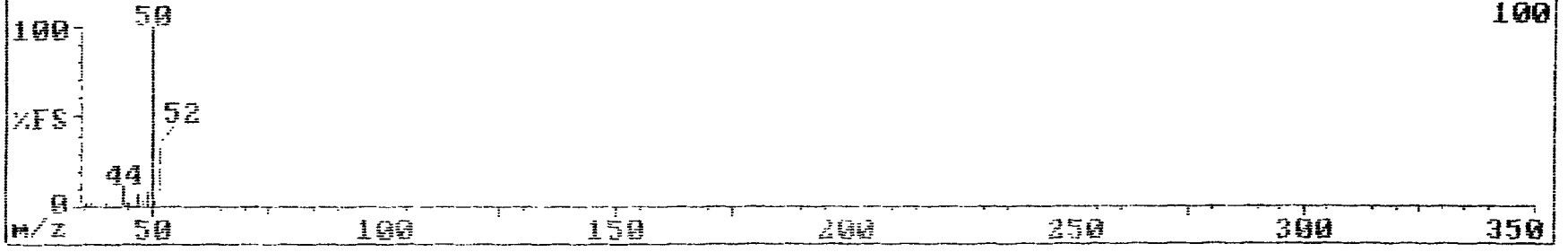
FX880 109 (1.090) 18688



FX880'109 (1.091) REFINE 6464

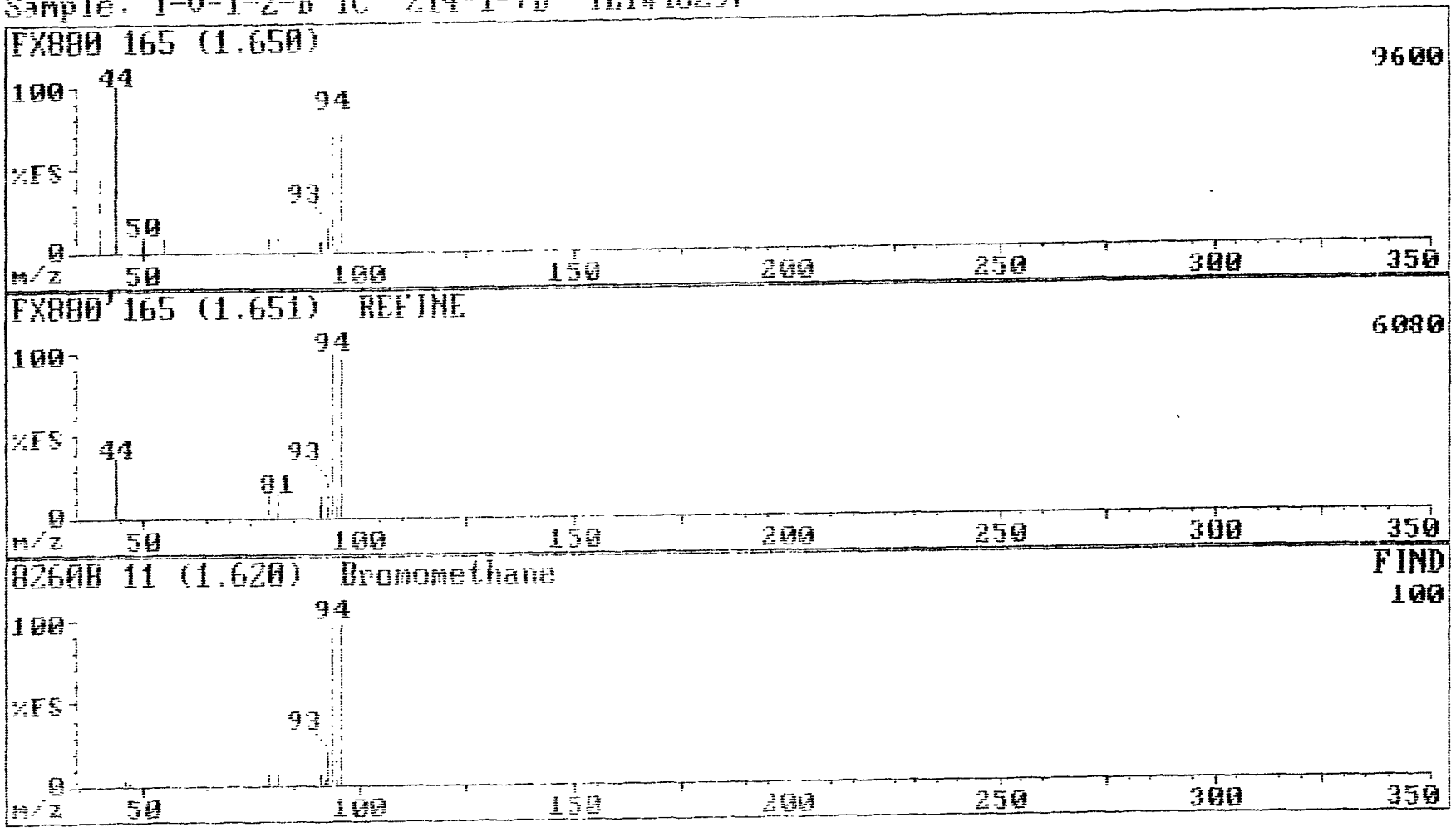


8260B 9 (1.070) Chloromethane FIND 100



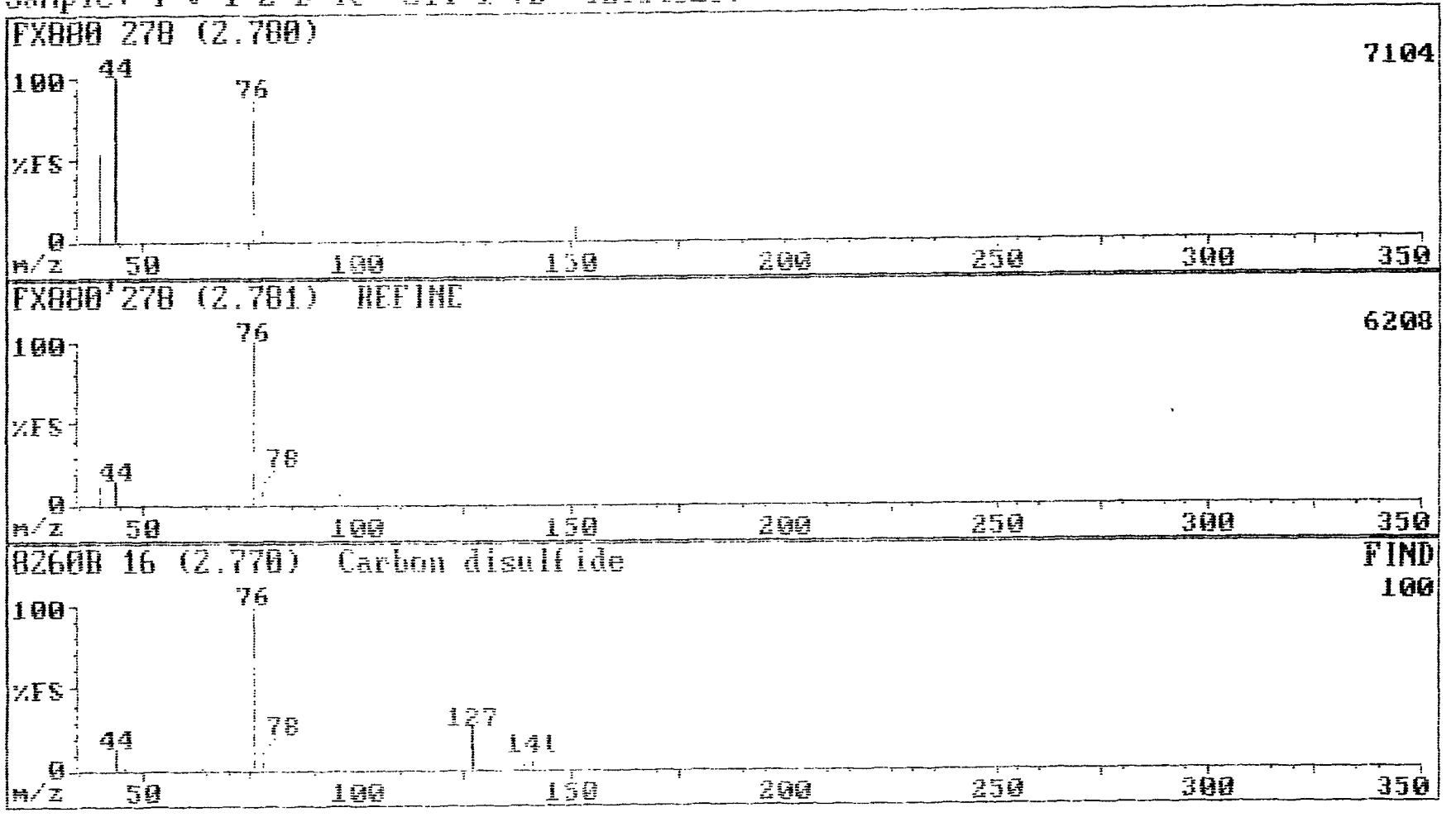
17-Aug-98 17:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-B TC 214-1-7B TLI#46297 Instrument F



17-Aug-90 17:30 Triangle Laboratories, Inc. (919) 544-5729

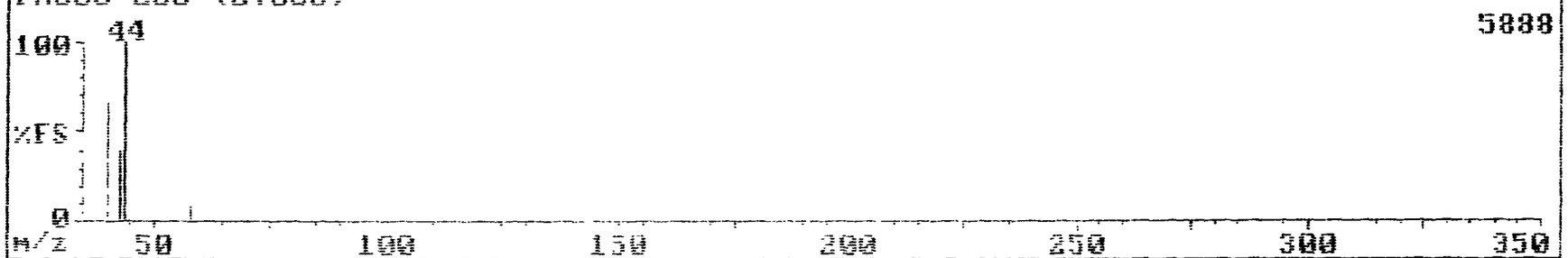
Sample: T-V-1-2-B TC 214-1-7B TLI#46297 Instrument F



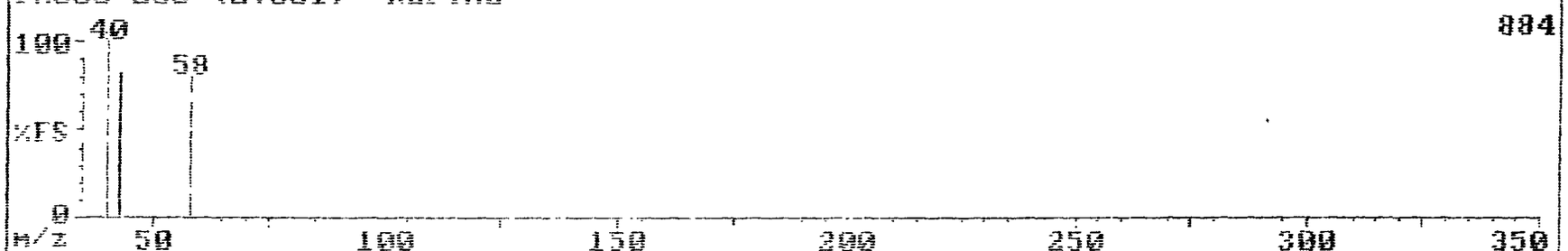
17-Aug-98 17:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-B TC 214-1-7B TLI#46297 Instrument F

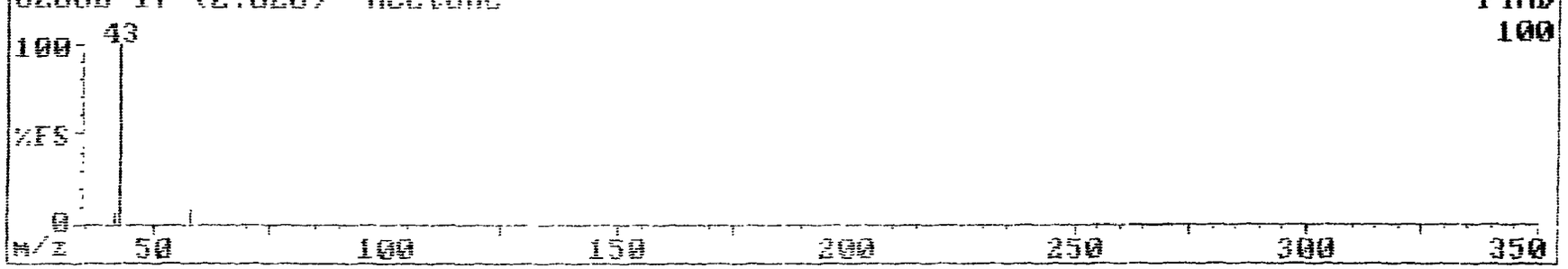
FX800 286 (2.860)



FX800' 286 (2.861) REFINE



82600 17 (2.820) Acetone FIND

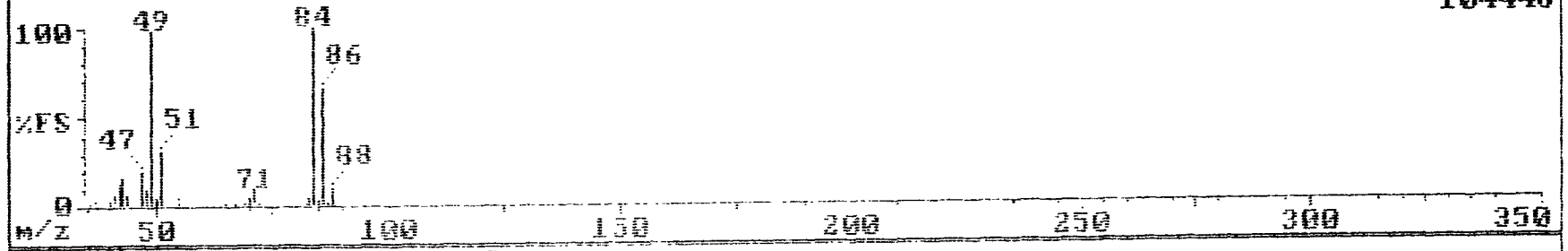


90

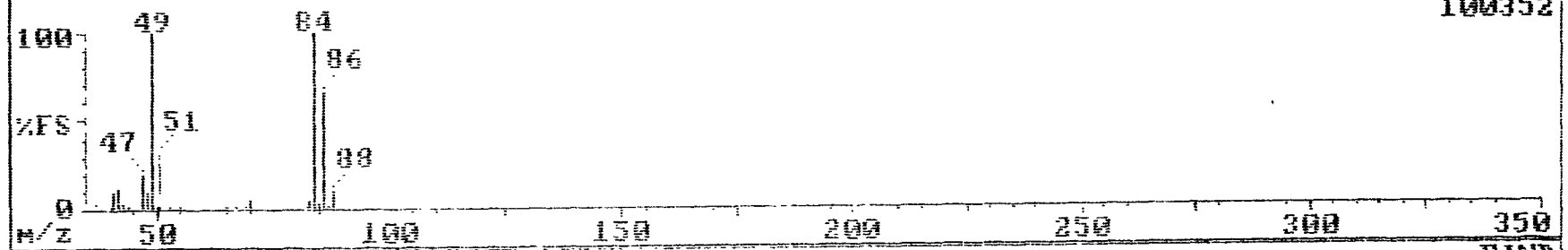
17-Aug-98 17:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-B TC 214-1-7D TLI#46297 Instrument F

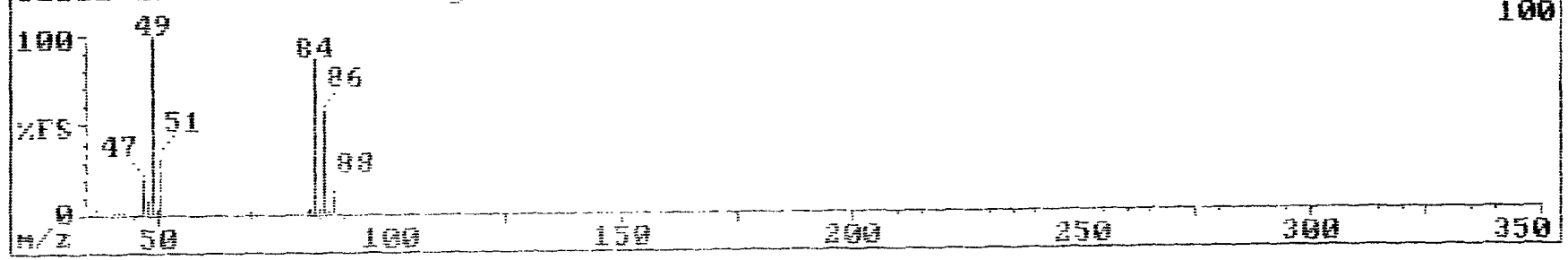
FX880 327 (3.270) 104448



FX880' 327 (3.271) REFINE 100352

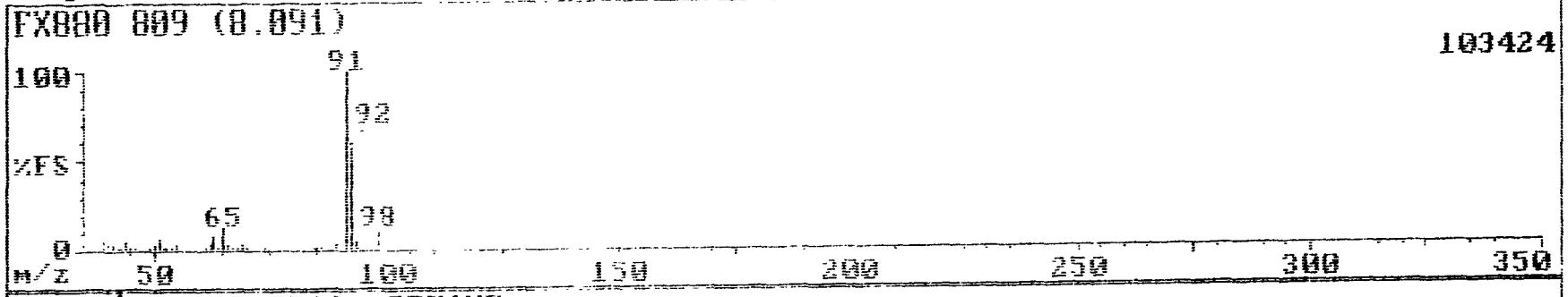


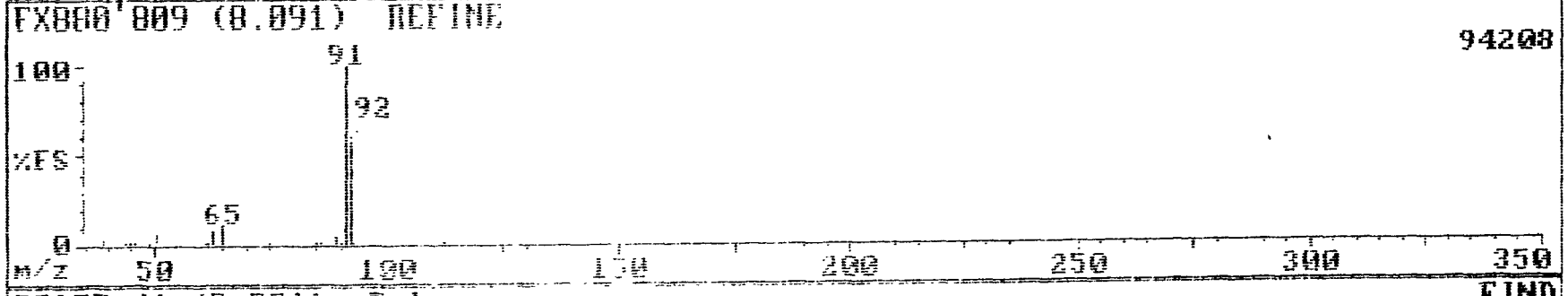
8260B 19 (3.260) Methylene chloride FIND 100

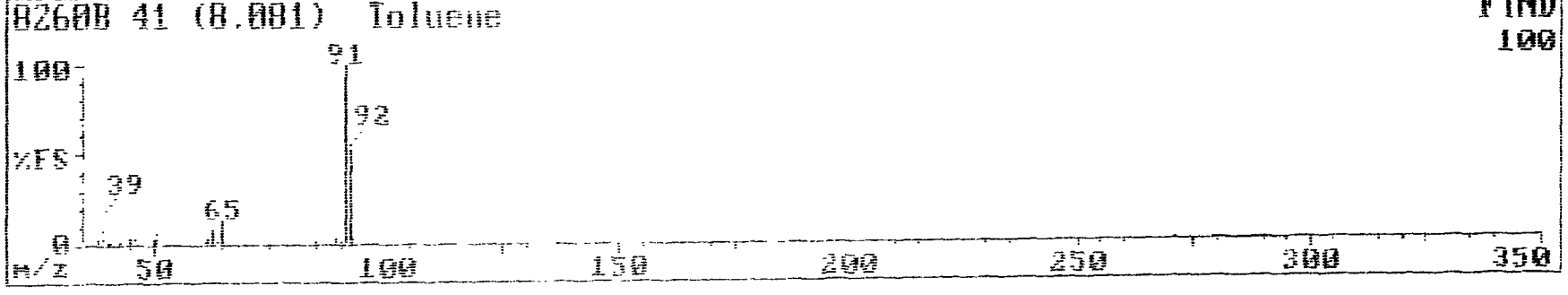


17-Aug-98 17:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-B TC 214-1 7D DLI#4C297 Instrument F



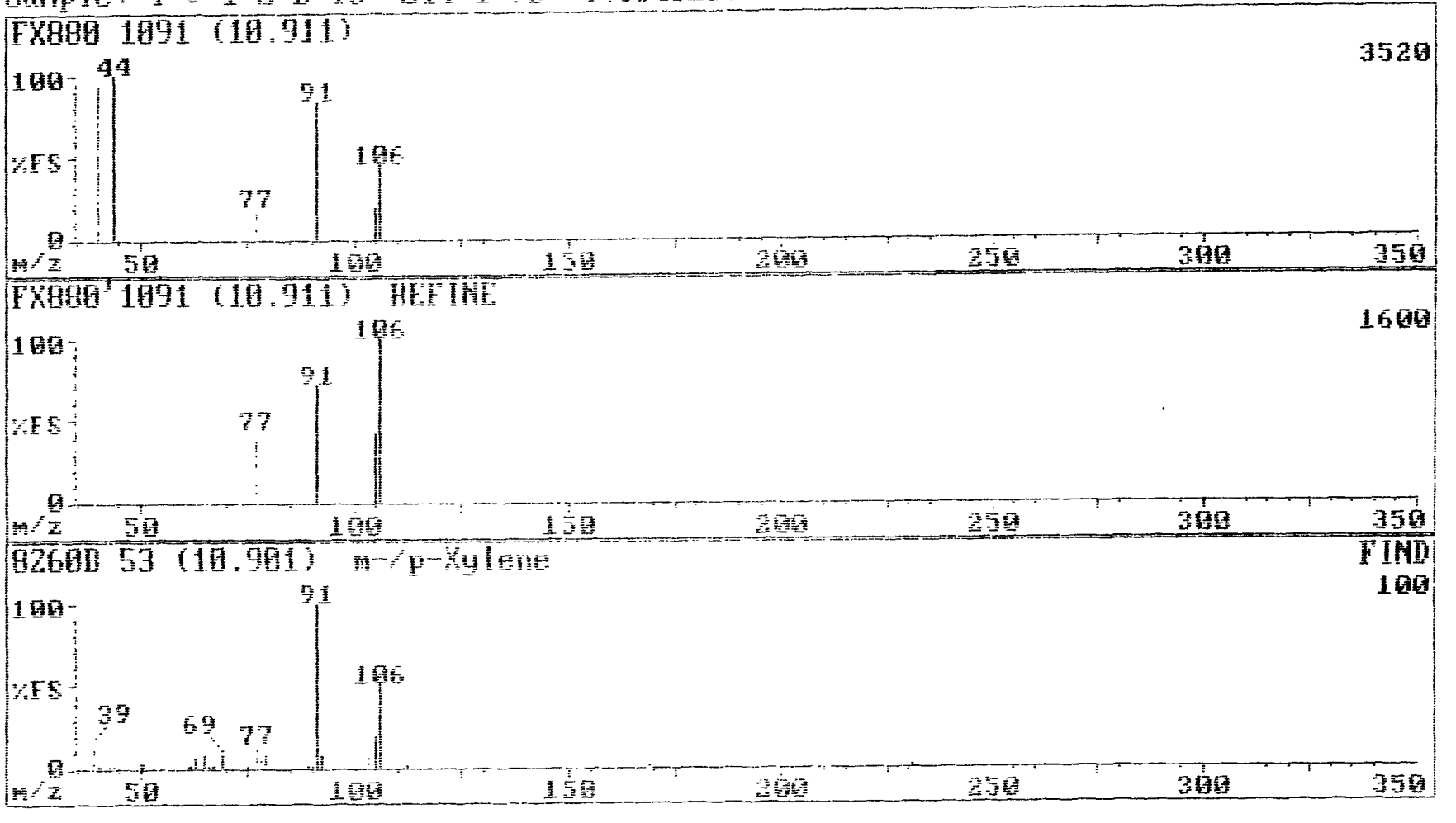




26

17-Aug-98 17:30 Triangle Laboratories, Inc. (919) 544-5729

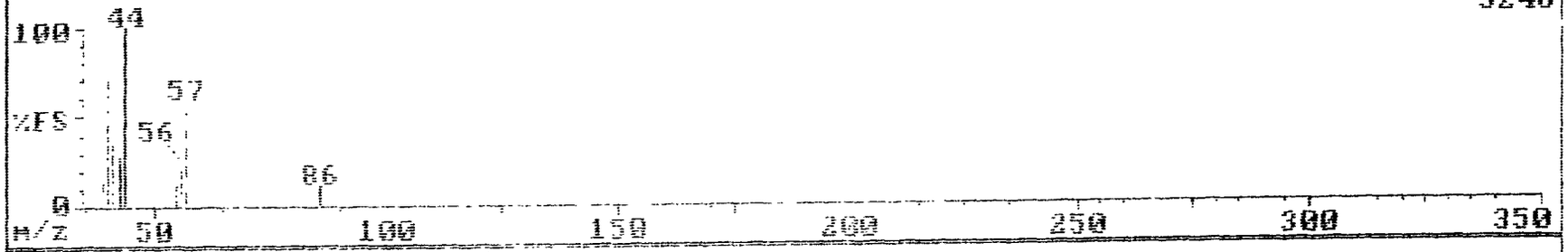
Sample: T-V-1-2-B TC 214-1-7B TLI#46297 Instrument F



17-Aug-98 17:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-2-B TC 214-1-7B TLI#46297 Instrument F

FX800 390 (3.900) 5248



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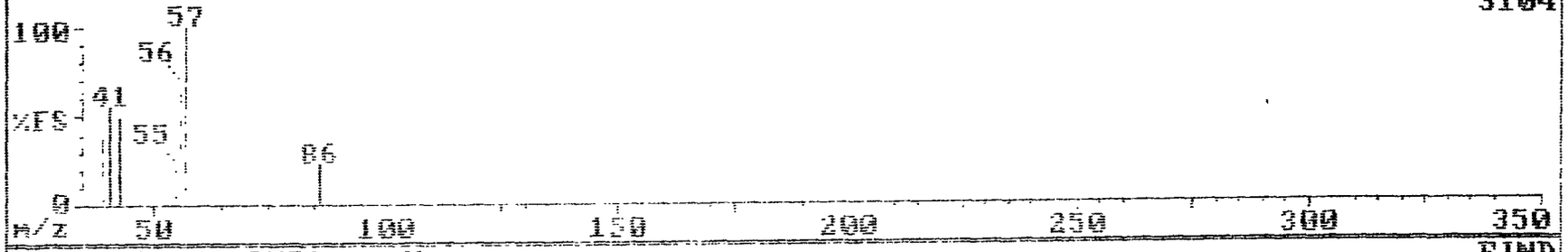
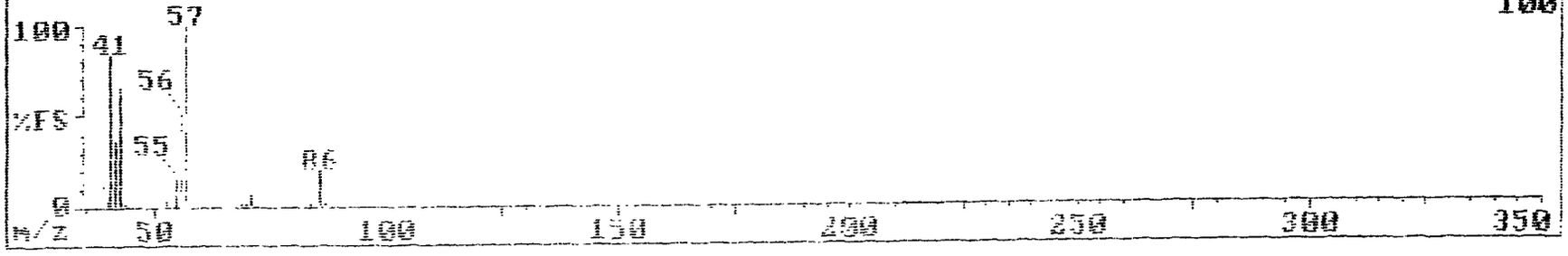


826BX 11 (3.870) n-Hexane FIND 100



43

Pacific Environmental Services

Project Number: 46297 | **Method 8260 VOST**
Sample File: HW713 | **Sample ID: T-V-1-3-A T**

Client Project: Hotmix | **Date Received: 07/25/98** | **Response File: ICALH809**
TLI ID: 214-1-8A
Date Analyzed : 08/19/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.05		
Chloromethane		U		0.001	0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.005	J	1.47		0.05
Chloroethane	0.007	J	1.59		0.05
Trichlorofluoromethane	0.009	J	1.89		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.012	J	2.58		0.05
Acetone	0.589		2.73		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.058	B	3.06		0.05
Acrylonitrile		U		0.003	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone	0.509		4.52		0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	5.78		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.516		5.25		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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Savar v3.7
Printed: 18:03 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: HW713

Method 8260 VOST
Sample ID: T-V-1-3-A T

Client Project: Hotmix
TLI ID: 214-1-8A

Date Received: 07/25/98
Date Analyzed : 08/19/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.001	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.001	0.05
Toluene	0.455	B	7.76		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.00		
Tetrachloroethene	0.038	J	8.59		0.05
2-Hexanone		U		0.001	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.105		10.33		0.05
m-/p-Xylene	0.758	B	10.57		0.10
o-Xylene	0.181		11.28		0.05
Styrene		U		0.001	0.05
Bromoform		U		0.001	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.18		
Cumene		U		0.001	0.0
1,1,2,2-Tetrachloroethane		U		0.001	0.0

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Pacific Environmental Services

Project Number: 46297
Sample File: HW713

Method 8260 VOST
Sample ID: T-V-1-3-A T

Client Project: Hotmix
TLI ID: 214-1-8A

Date Received: 07/25/98
Date Analyzed : 08/19/98

Response File: ICALH809

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.258	4.92	1	103
Toluene-d_8	0.338	7.67	2	135
4-Bromofluorobenzene	0.341	12.29	2	136

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 18:03 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: HW713

Method 8260 VOST
Sample ID: T-V-1-3-A T

Client Project: Hotmix
TLI ID: 214-1-8A

Date Received: 07/25/98
Date Analyzed : 08/19/98

Response File: ICALH819

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1 High	5.05		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.019	J	3.41		0.25
n-Hexane	0.111	BJ	3.67		0.25
1,2-Epoxybutane		U		0.011	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	5.78		
Ethyl acrylate		U		0.001	0.25

Reviewed by ___M___ Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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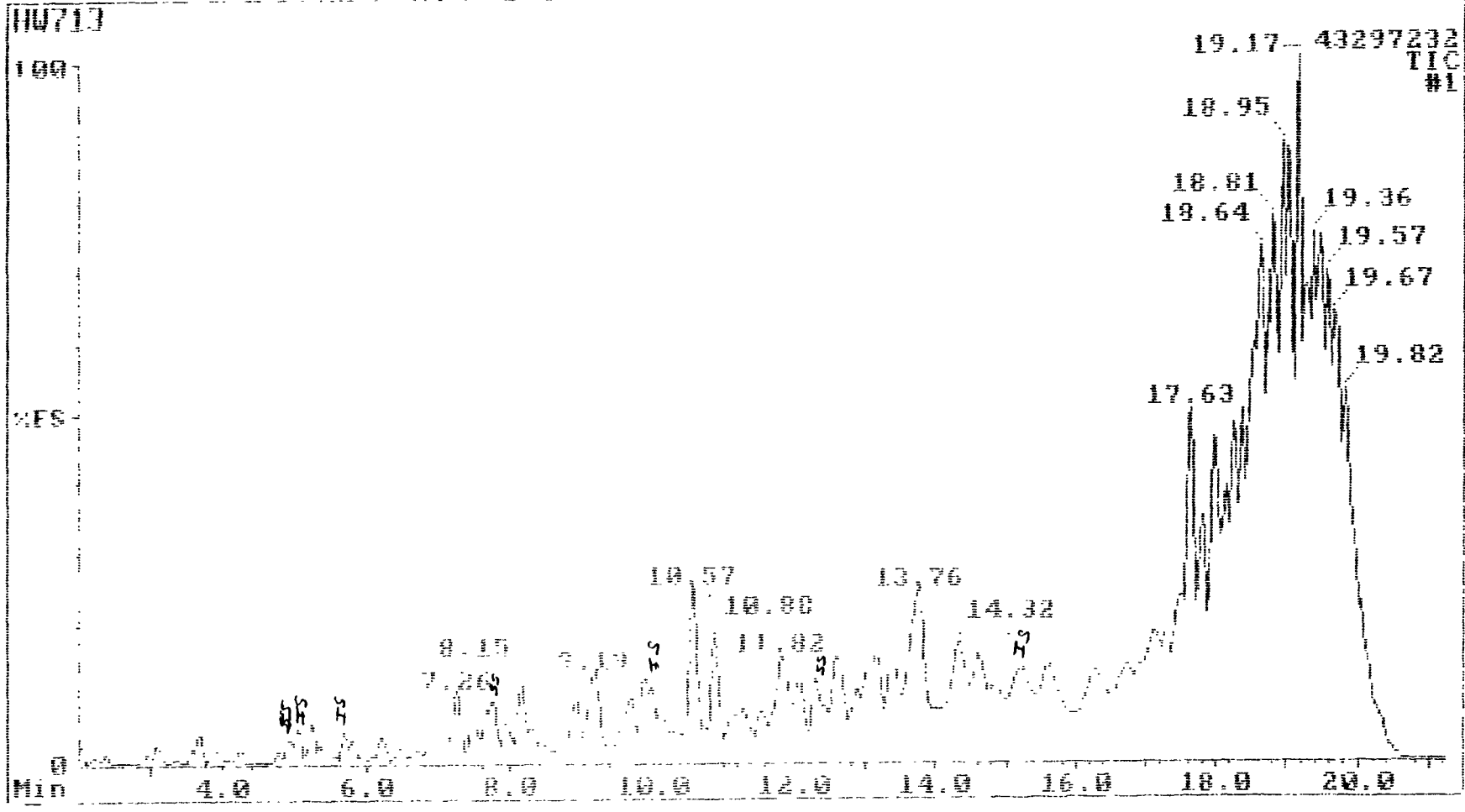
Sava
Printed: 18:34 08/24

98

08-19-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-U-1-3-A T 2H 1.00 TLIB46797 Instrument II



Data Review: ML
Date: 8/19/98

No	Mat	Fnp	RPV	Delta	Area	R	Flags	RT	Qn	Name
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6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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35	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
36	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
37	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	FP	[illegible]
38	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
39	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
40	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	FP	[illegible]
41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Toluene
42	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
43	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
44	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
46	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	FP	2-Hexanone
48	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
49	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Data Review: M
Date: 8/19/97

No	MAT	FOR	REV	Delta	Area	P	Flags	RT	QM	Name
51	0	0	0	0	0			0.000	130	1,1,2,2-Tetrachloroethane
52	81	57	983	-1	1249120	bv		10.77	106	Ethylbenzene
53	100	74	991	-1	11298750	vv		10.57	106	m,p-Xylene
54	72	64	17	0	2551873	vv		11.23	106	o-Xylene
55	0	0	0	0	0			0.000	104	Styrene
56	0	0	0	0	0			0.000	173	Bromoform
57	0	0	0	0	0			0.000	105	Cumene
58	0	0	0	0	0			0.000	83	1,1,2,2-Tetrachloroethane
59	0	0	0	0	0			0.000	136	Bromobenzene
60	0	0	0	0	0			0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0			0.000	120	n-Propylbenzene
62	0	0	0	0	0			0.000	77	Butane-1,4-bis(thiocyanate)
63	0	0	0	0	0			0.000	120	2-Chlorotoluene
64	0	0	0	0	0			0.000	120	4-Chlorotoluene
65	41	41	7	-24	1242919	vv		[illegible]	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0			0.000	120	[illegible]
67	96	90	99	0	1502170	vv		[illegible]	106	[illegible]
68	79	60	75	-1	[illegible]		FP	[illegible]	120	[illegible]
69	85	71	76	1	6726024	v		12.45	119	[illegible]
70	0	0	0	0	0			0.000	146	[illegible]
71	0	0	0	0	0			0.000	146	[illegible]
72	0	0	0	0	0			0.000	134	[illegible]
73	0	0	0	0	0			0.000	134	[illegible]
74	0	0	0	0	0			0.000	134	[illegible]
75	0	0	0	0	0			0.000	75	[illegible]
76	0	0	0	0	0			0.000	146	[illegible]
77	0	0	0	0	0			0.000	95	Hexachlorocyclopentadiene
78	0	0	0	0	0			0.000	120	Naphthalene
79	0	0	0	0	0			0.000	130	[illegible]

VR8/19/95

101

QUAN DB . HW7L3 LAB-BASE QUAN 08-10-9 1.

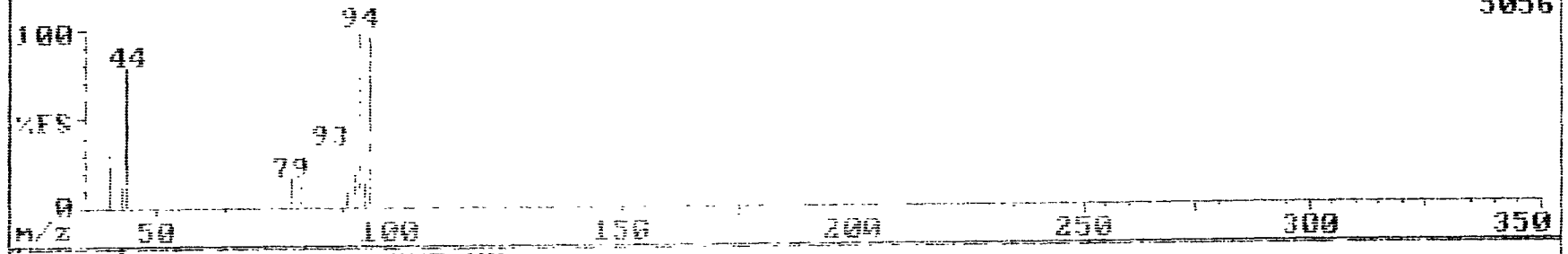
No.	MAT	FOR	REV	Delta	Area	P Flags	RT	QM	Name
1	99	94	96	1	3484272	bb	5.[illegible]	168	Pentafluorobenzene
2	100	99	94	1	3448100	bv	5.7[illegible]	114	1,4-difluorobenzene
3	94	97	77	3	3106642	bv	10.00	117	Chlorobenzene-[illegible]
4	69	95	89	7	2011178	bv	17.15	152	1,4-Dichlorobenzene-d4
5	98	83	99	1	2137728	bv	1.92	113	Bromofluorobenzene
6	100	71	39	0	6526836	ob	2.67	98	Toluene-d8
7	92	49	75	4	3534592	vv	12.29	95	4-Bromofluorobenzene
8	66	47	74	0	[illegible]	vv	[illegible] FP	59	1,2-Butadiene
9	0	0	0	0	0		0.00	106	Vinyl bromide
10	95	7[illegible]	7[illegible]	0	903[illegible]	bv	[illegible].41	75	MTBE
11	100	97	100	0	7996291	vv	7.07	57	n-Butane
12	81	99	75	[illegible]	[illegible]	bv	[illegible] FP	41	1,1-Dichloroethene
13	70	51	54	1	[illegible]	[illegible]	[illegible] FP	67	[illegible]
14	41	30	69	-11	[illegible]	bv	[illegible] FP	55	[illegible]

MC 8/19/98

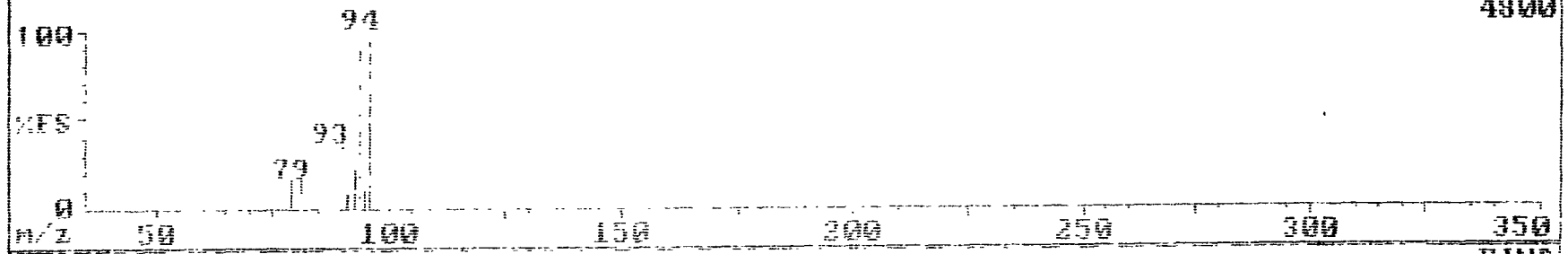
AUG-19 98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A I X14-1-00 TLI#46297 Instrument H

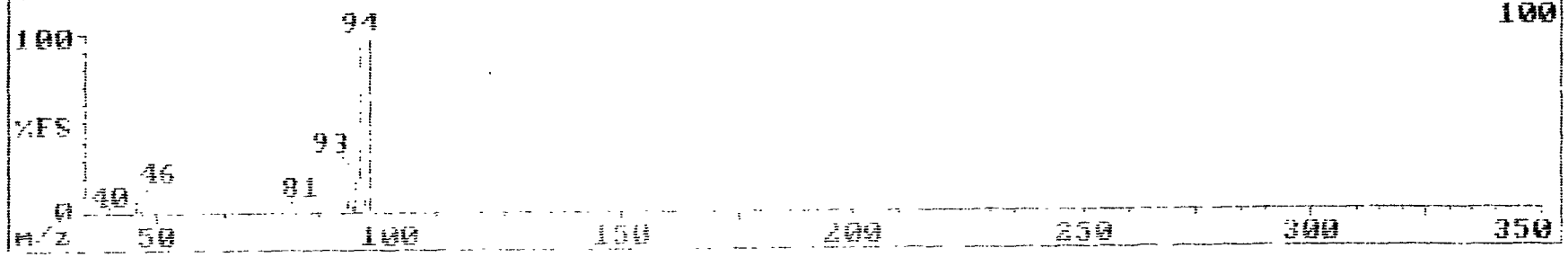
HW713 147 (1.470) 5056



HW713' 147 (1.471) BCFINC 4800



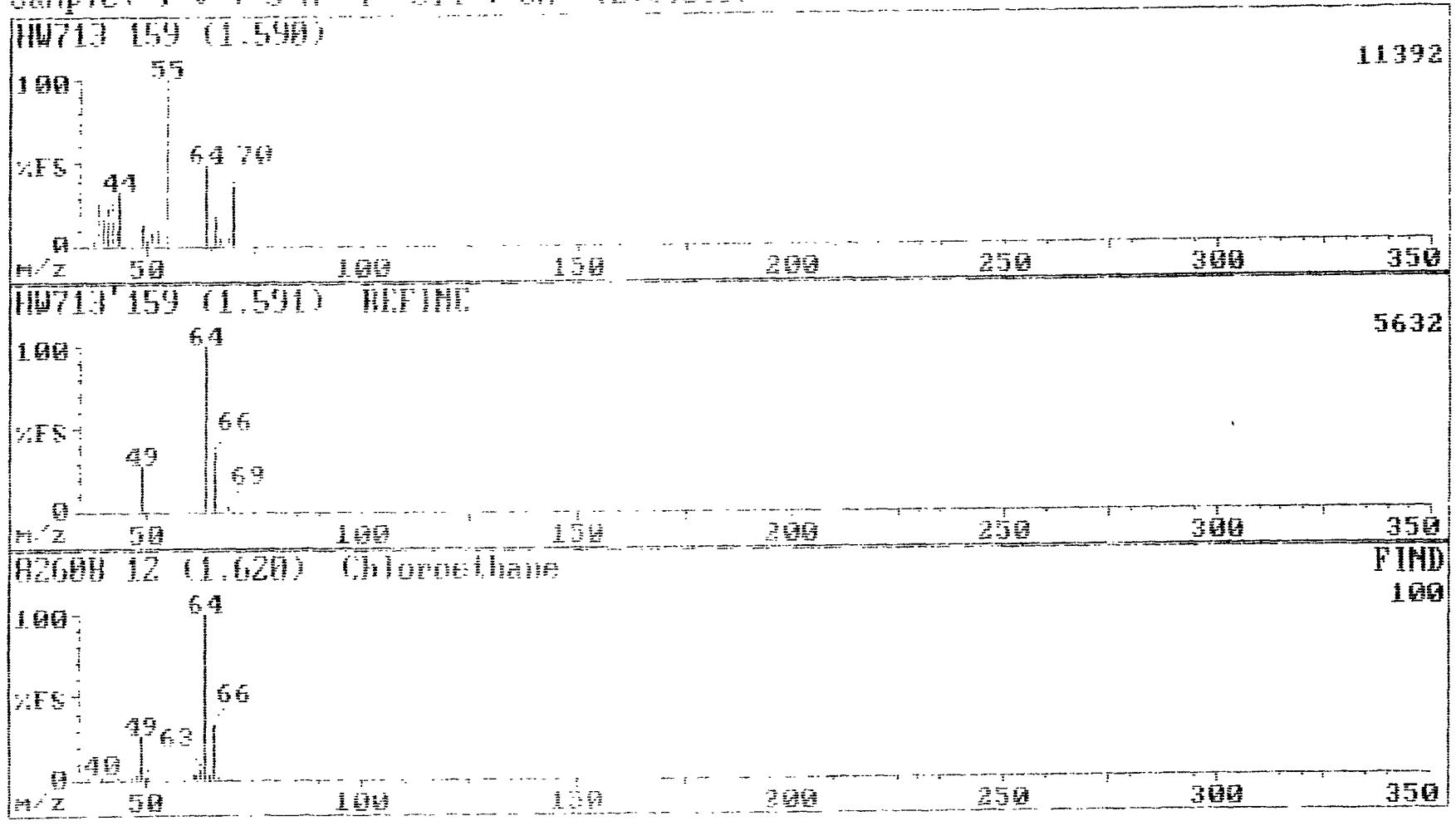
82600 11 (1.490) Bromomethane FIND 100



103

08-19-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T 214-1-00 TL1#46297 Instrument H

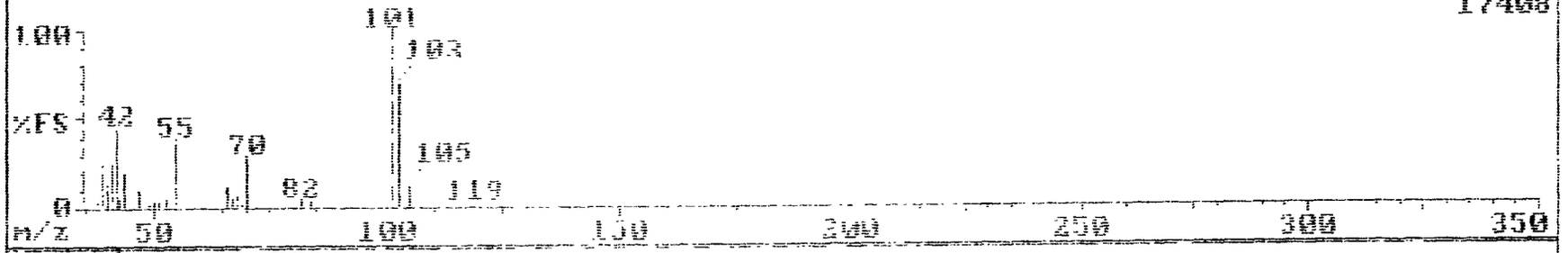


104

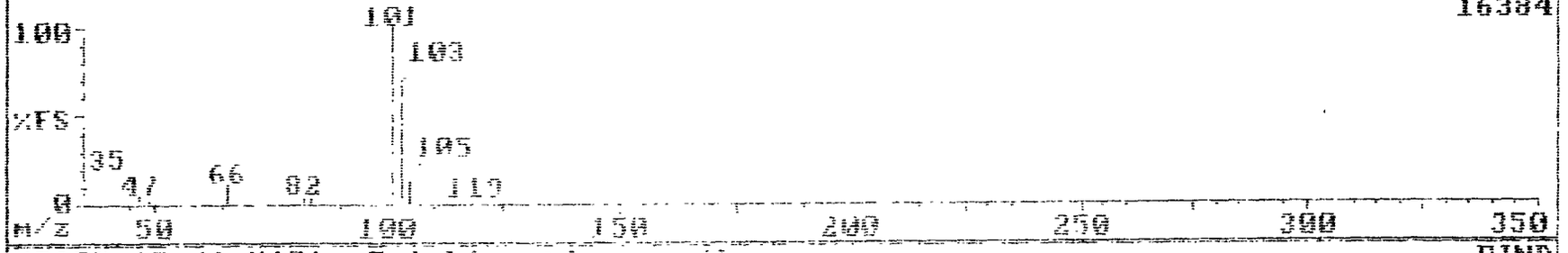
08-19-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V 1-3-A T 211 1-98 DLI#46297 Instrument H

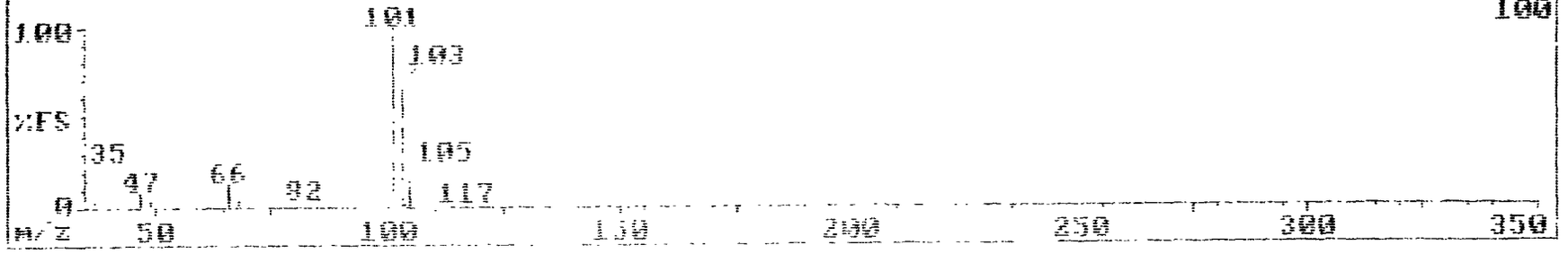
HW713 189 (1.898) 17408



HW713' 189 (1.891) REFINE 16384



B2688 13 (1.910) Trichlorofluoromethane FIND 100

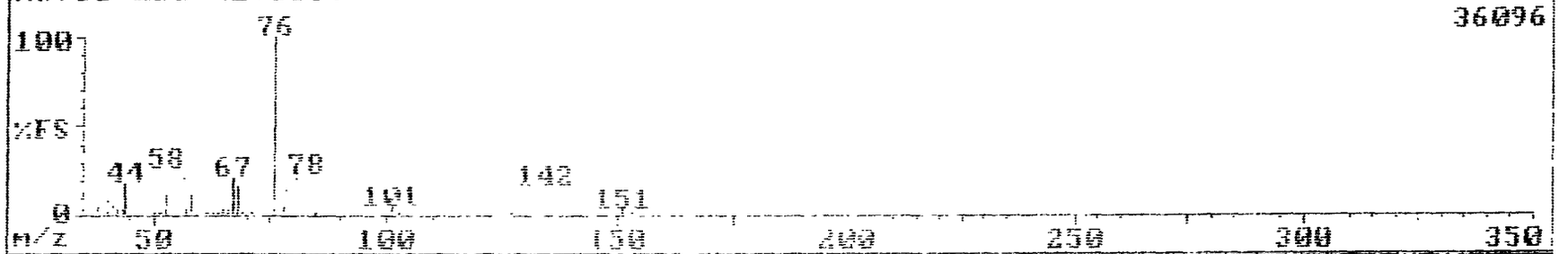


105

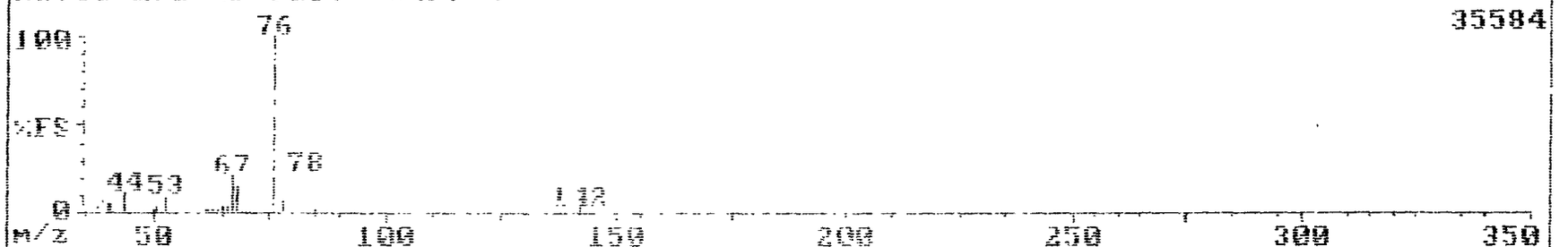
08 19 98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T 214-1 80 TL1046/97 Instrument H

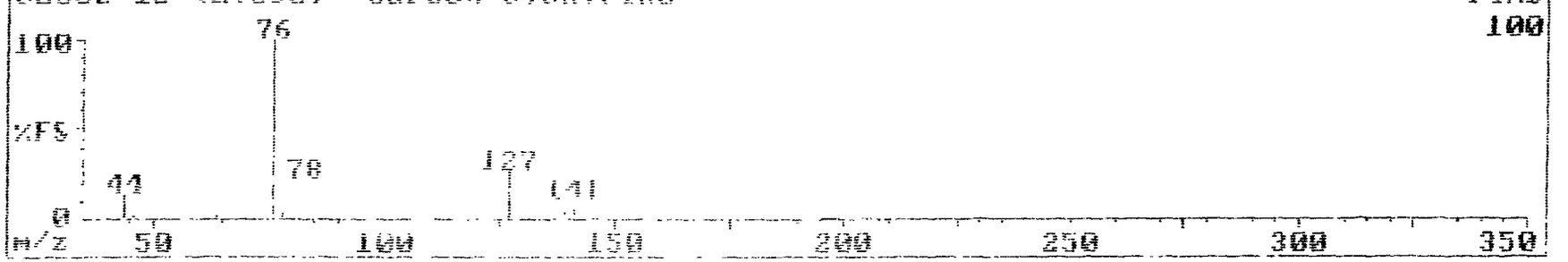
HW713 250 (2.580)



HW713 250 (2.581) METHNL



82680 16 (2.590) Carbon disulfide

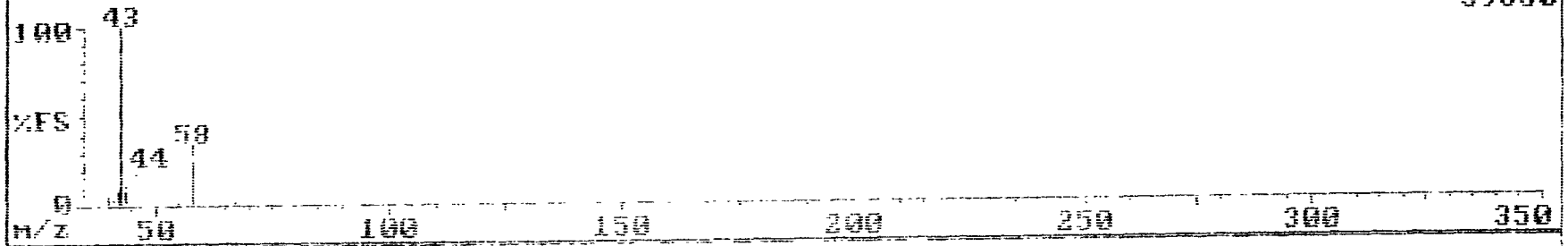


106

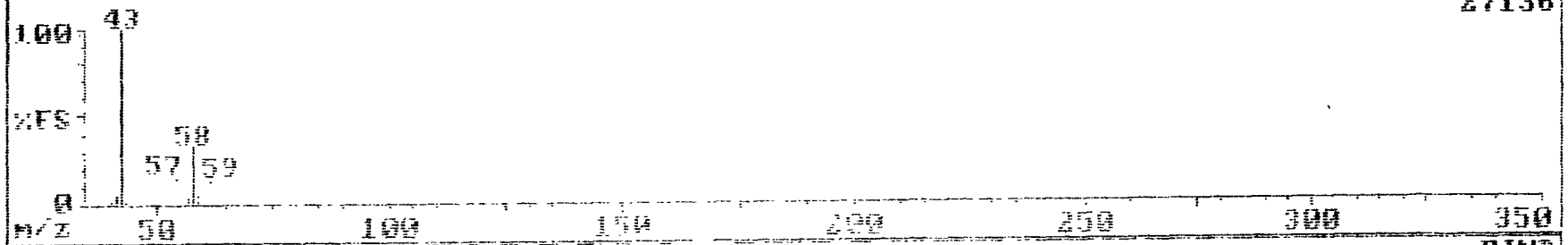
08-19-90 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T 214-1-90 TLI#46297 Instrument H

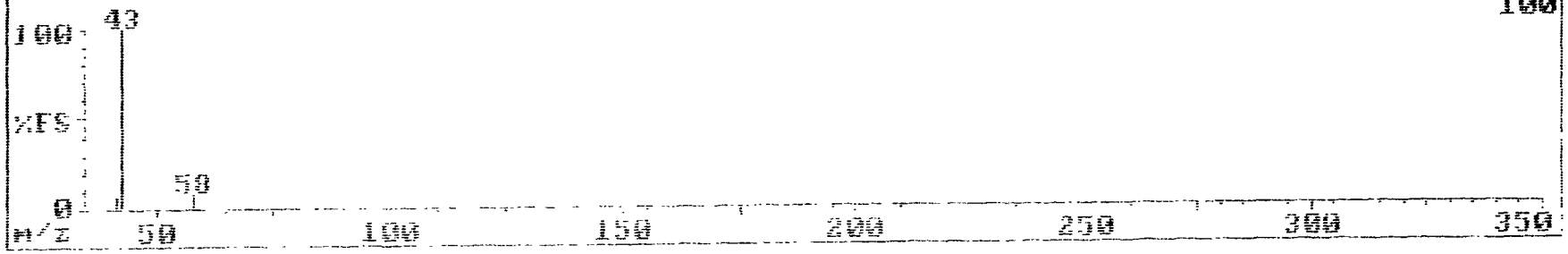
HW713 273 (2.730) 39680



HW713 273 (2.731) REFINE 27136



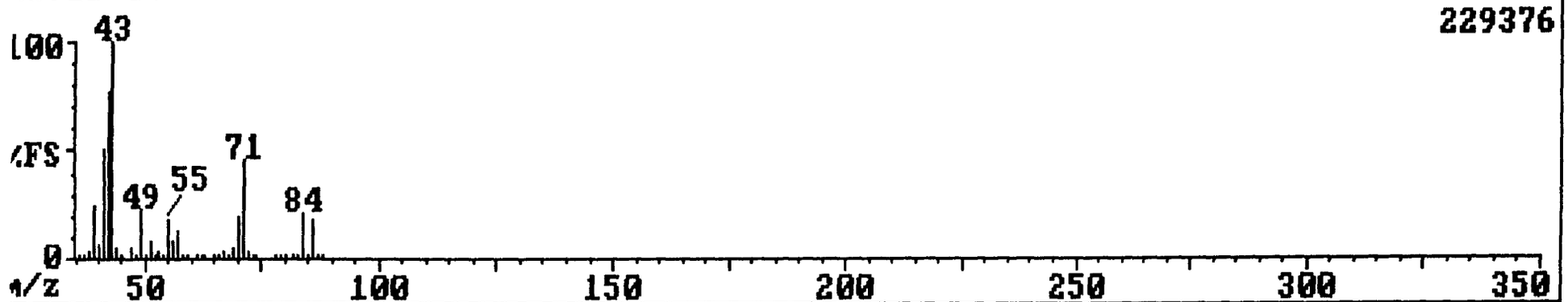
8260B 17 (2.670) Acetone FIND 100



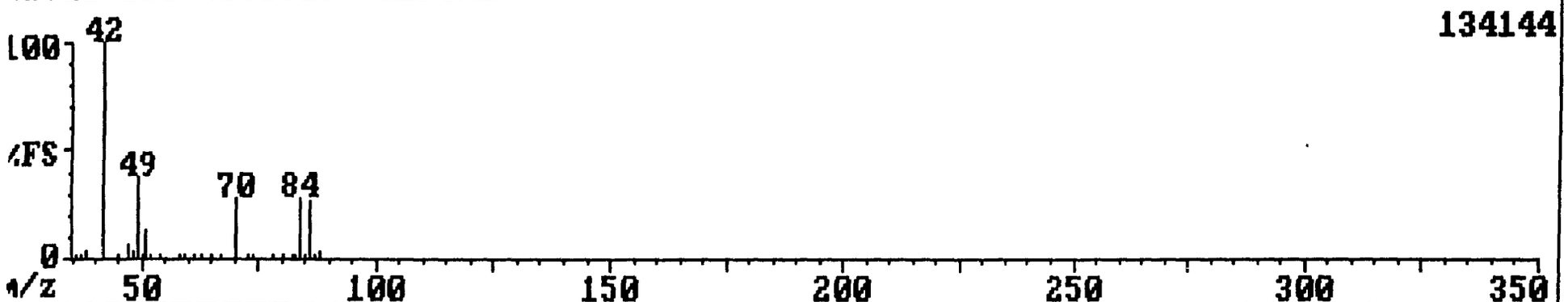
.9-Aug-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T 214-1-8A TLI#46297 Instrument H

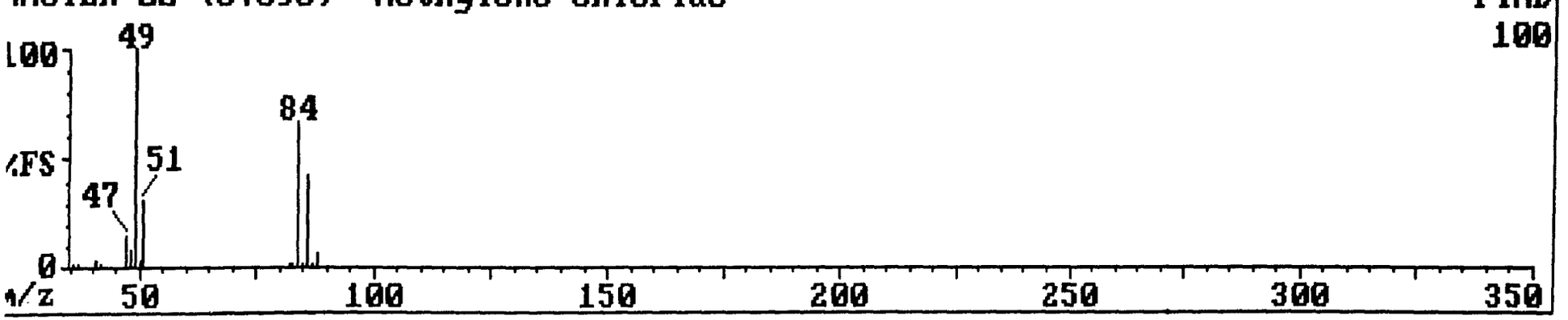
HW713 306 (3.060)



HW713 306 (3.061) REFINE



MASTER 22 (3.590) Methylene chloride FIND

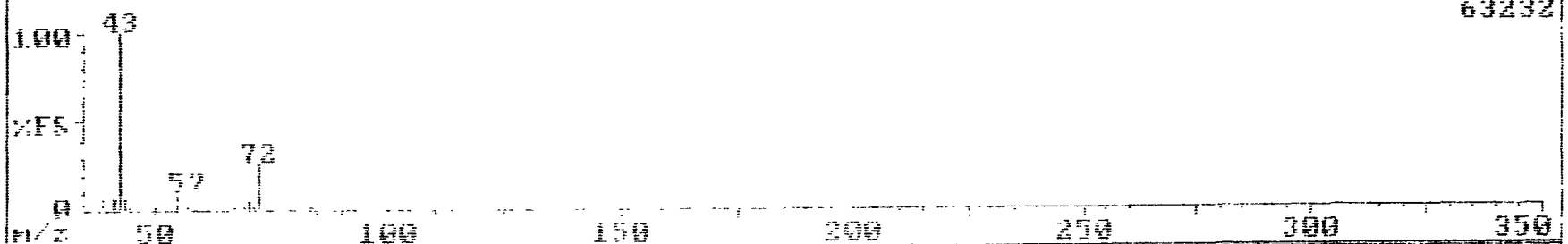


108

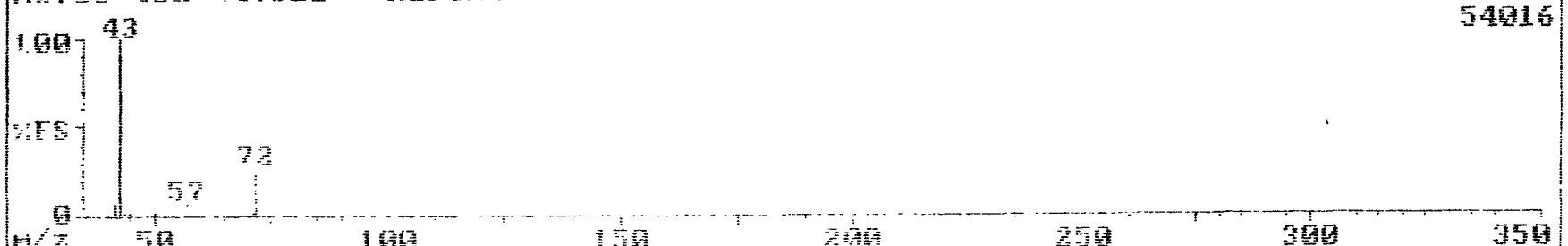
08-19-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T 214 1 Gn TLI#46297 Instrument H

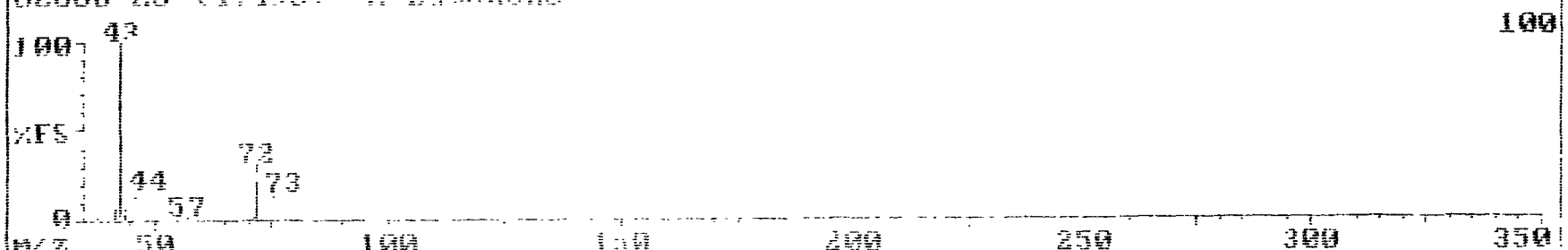
HW713 452 (4.521) 63232



HW713 452 (4.521) REFINE 54016



HZ600 26 (4.490) 2-Butanone FIND 100

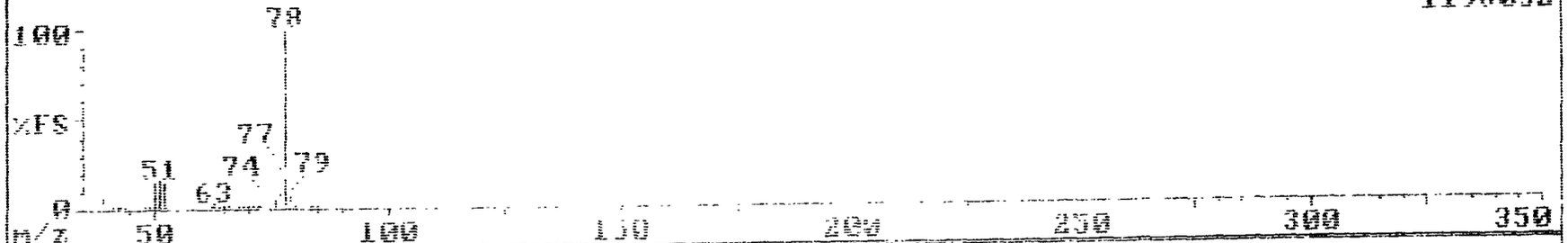


101

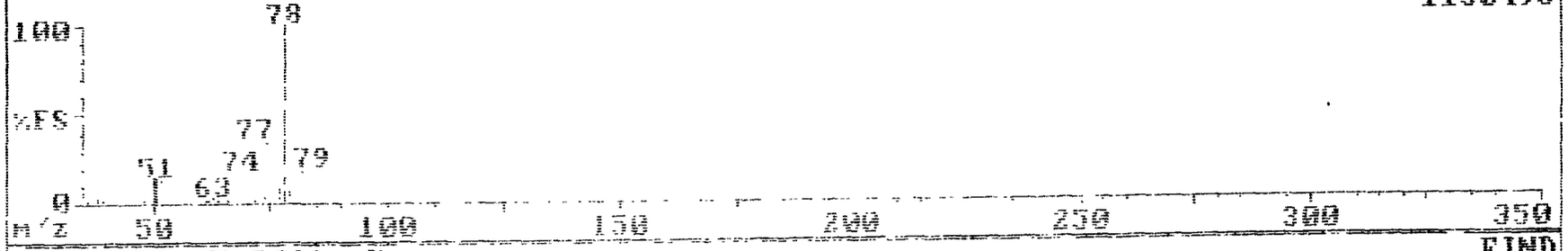
08-19-98 18:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T 214 1-90 TL1446297 Instrument H

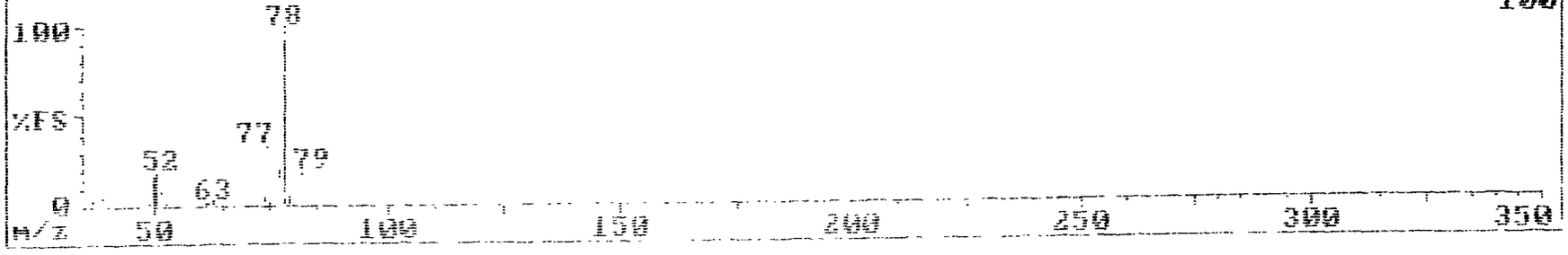
HW713 525 (5.251) 1196032



HW713'525 (5.251) REFINE 1130496



B2608 32 (5.231) Benzene FIND 100

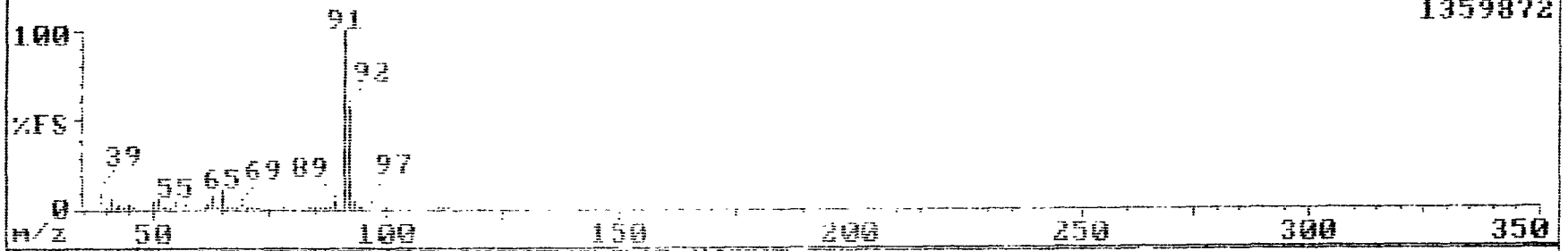


110

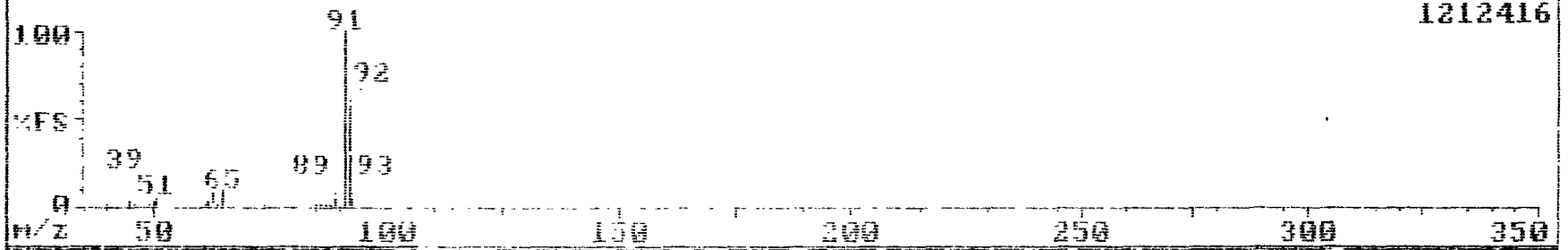
08-19-90 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T 214 1-80 TL1846297 Instrument H

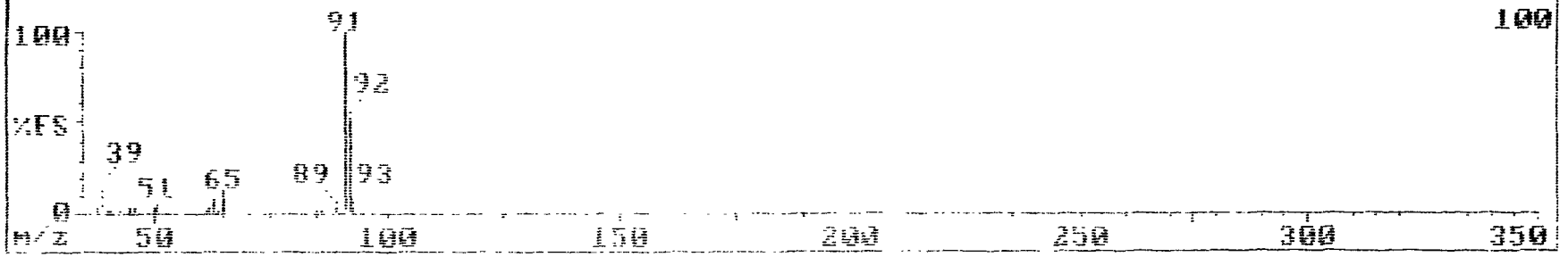
HW713 776 (7.761) 1359872



HW713 776 (7.761) REFINE 1212416



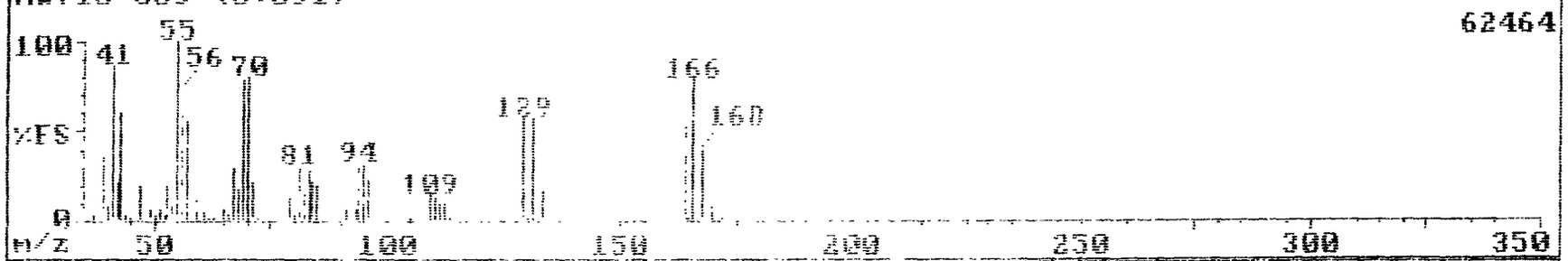
8260B 41 (7.751) Toluene FIND 100



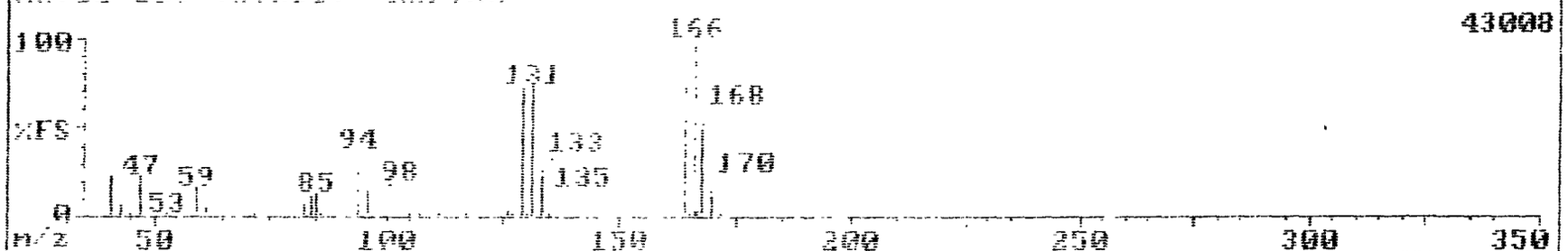
08-19-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3 A T 214-1-HA TLJ#46297 Instrument H

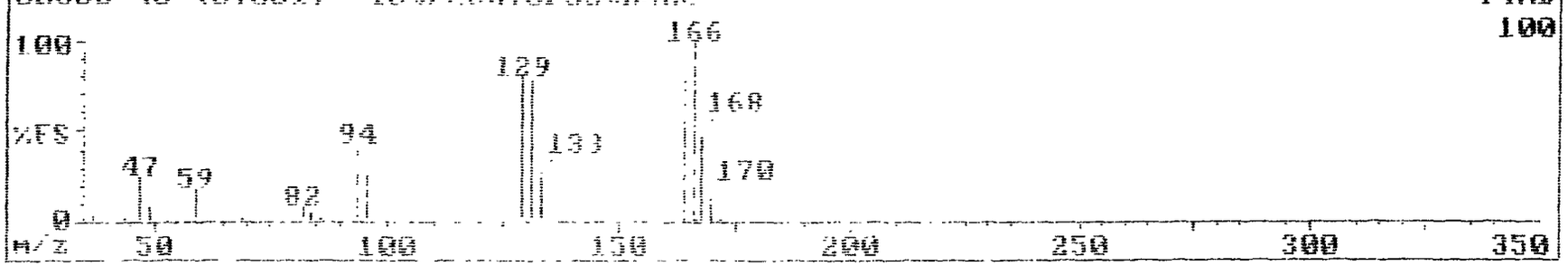
HW713 859 (8.591) 62464



HW713 859 (8.591) REFINE 43008



8260B 45 (8.561) Tetrachloroethene FIND 100



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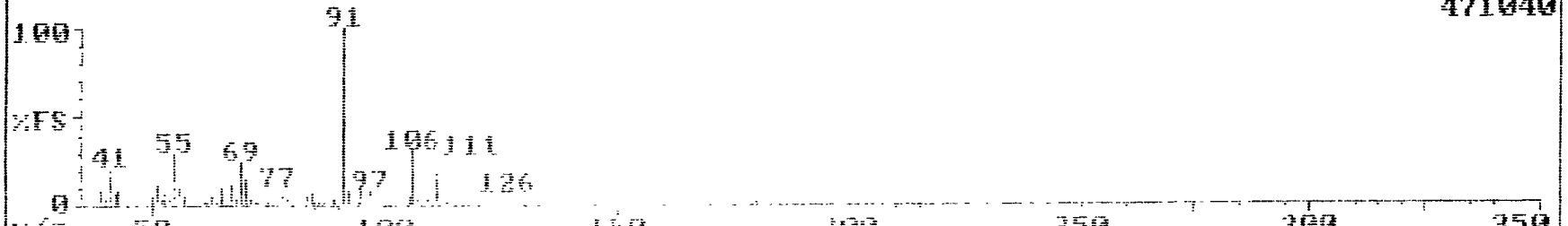
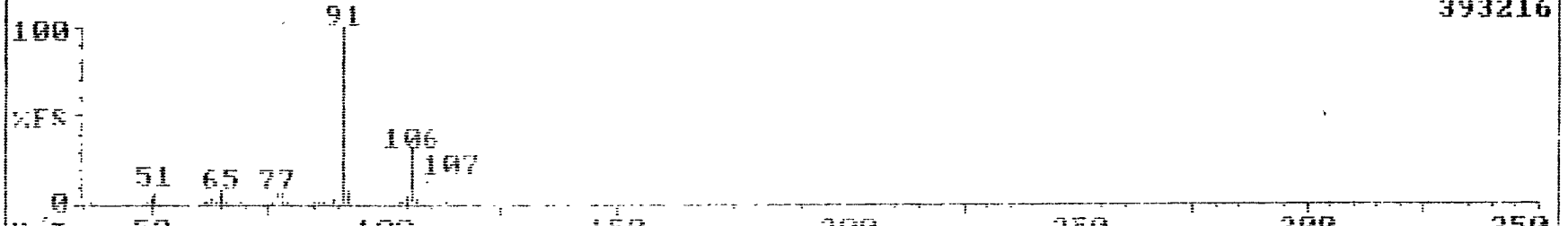
08-19-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T 214-1 0A 11.0046297 Instrument H

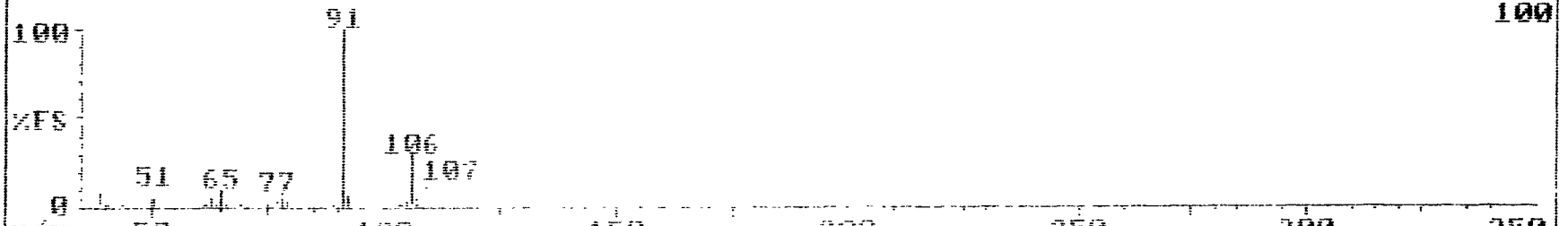
HW713 1033 (10.331) 471040



HW713' 1033 (10.331) REFINE 393216



02600 52 (10.301) Ethylbenzene FIND 100



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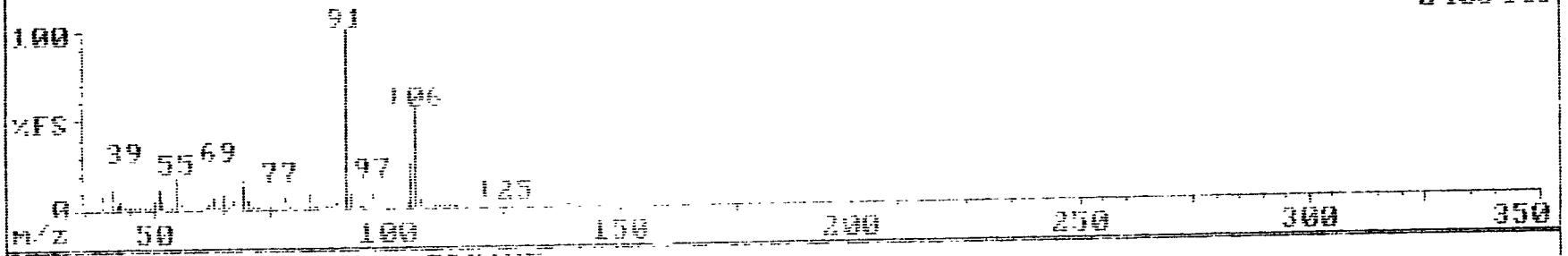
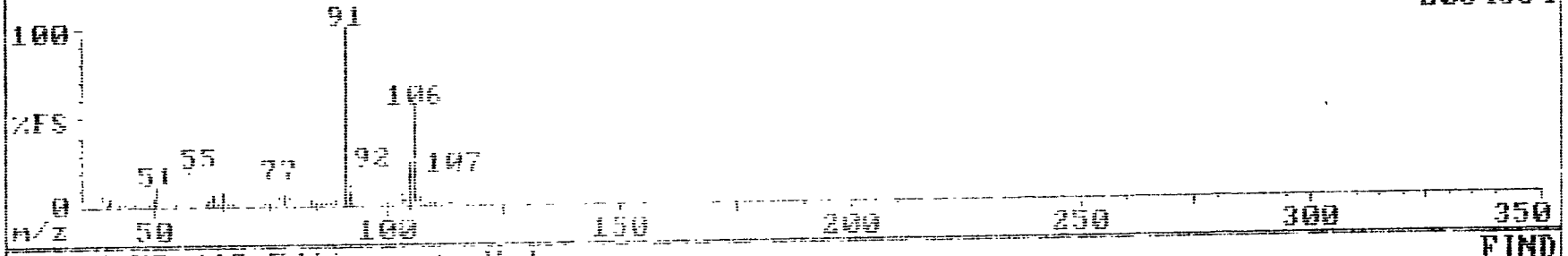
08-19-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A I 21H 1-06 ID:H46297 Instrument H

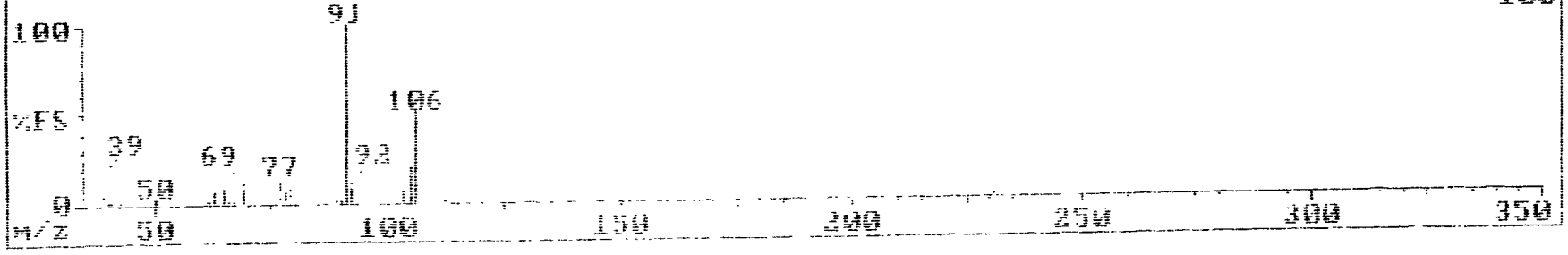
HW713 1057 (10.571) 2408448



HW713' 1057 (10.571) REFINE 2064384



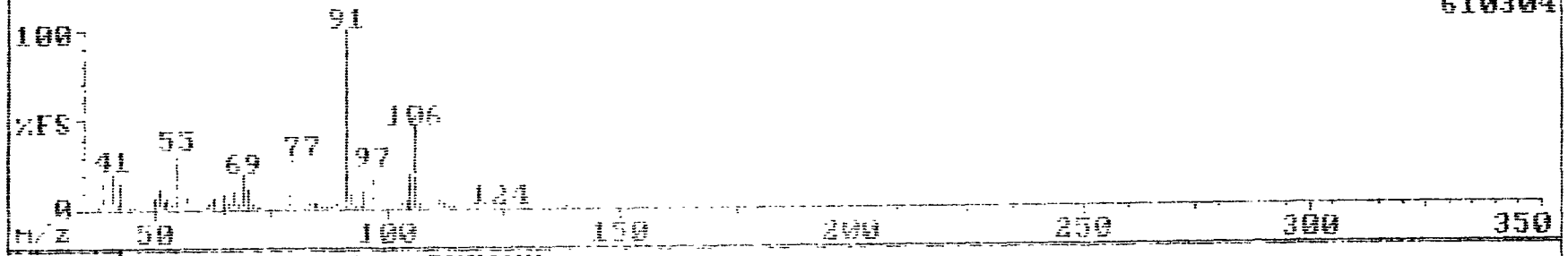
02600 53 (10.541) m-/p-Xylene FIND 100



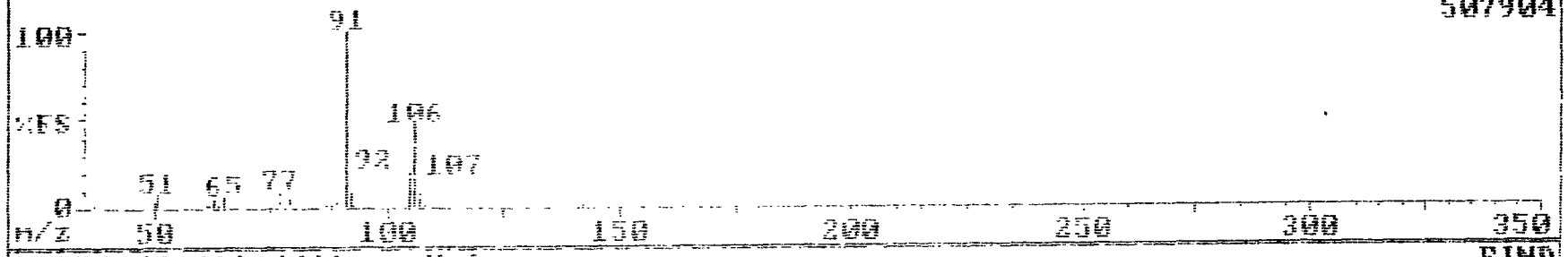
08-19-90 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3 A T 214 1 (0) TL1846297 Instrument H

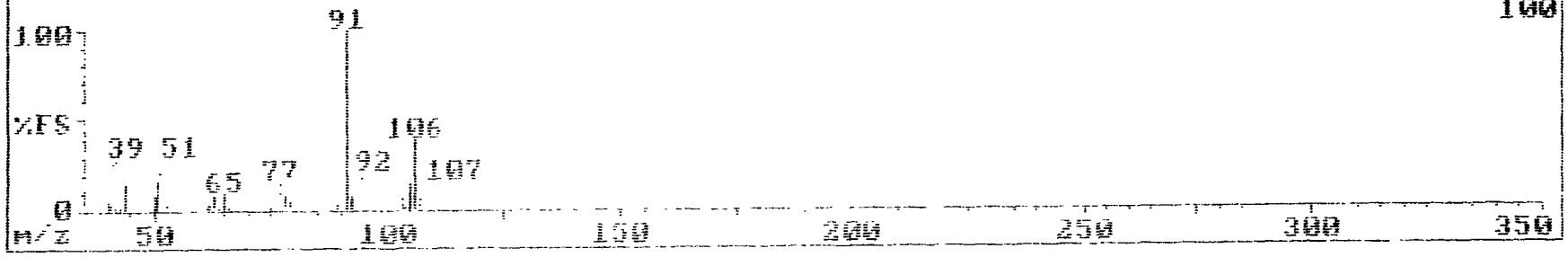
HW713 1128 (11.281) 610304



HW713' 1128 (11.281) BUTINC 507904



8260B 54 (11.241) o-Xylene FIND 100



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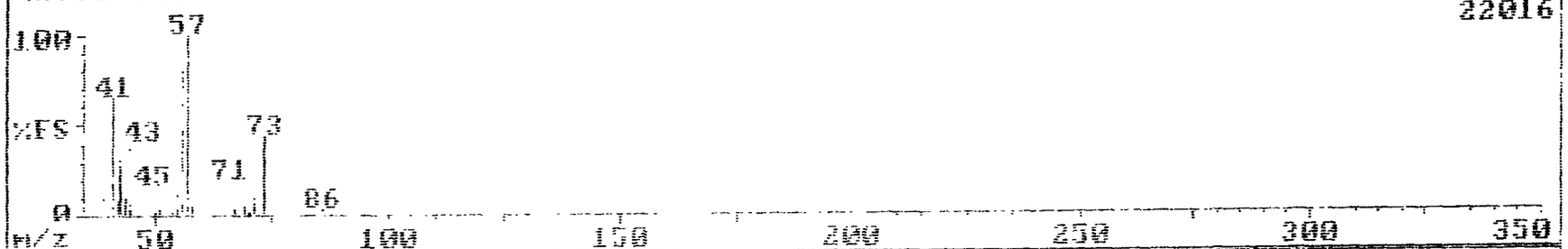
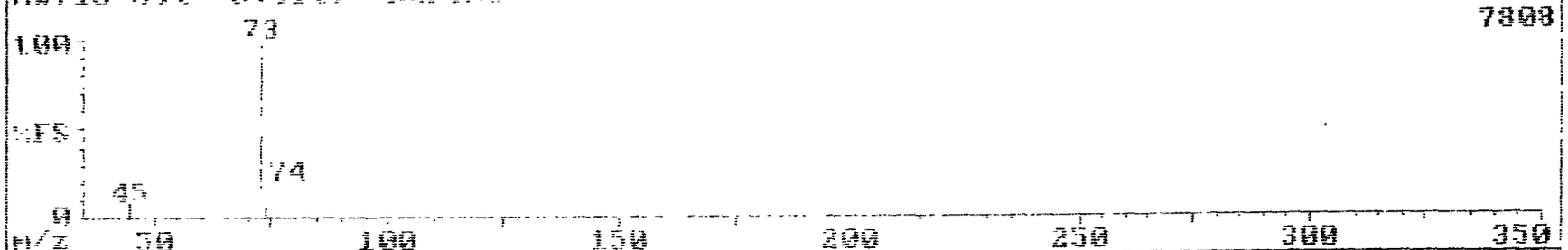
08-19-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: I V-1-3-A I 214 1-UA TL1N46297 Instrument H

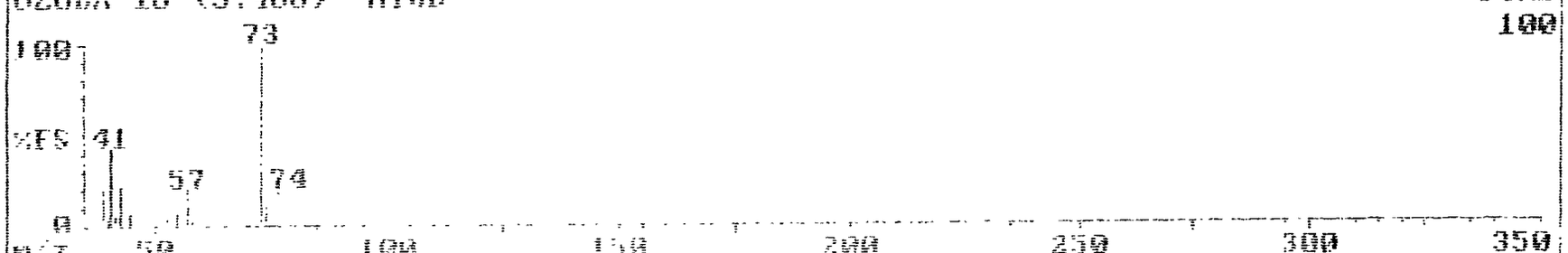
HW713 341 (3.410) 22016



HW713'341 (3.411) REFINE 7808



826BX 10 (3.400) MTHE FIND 100



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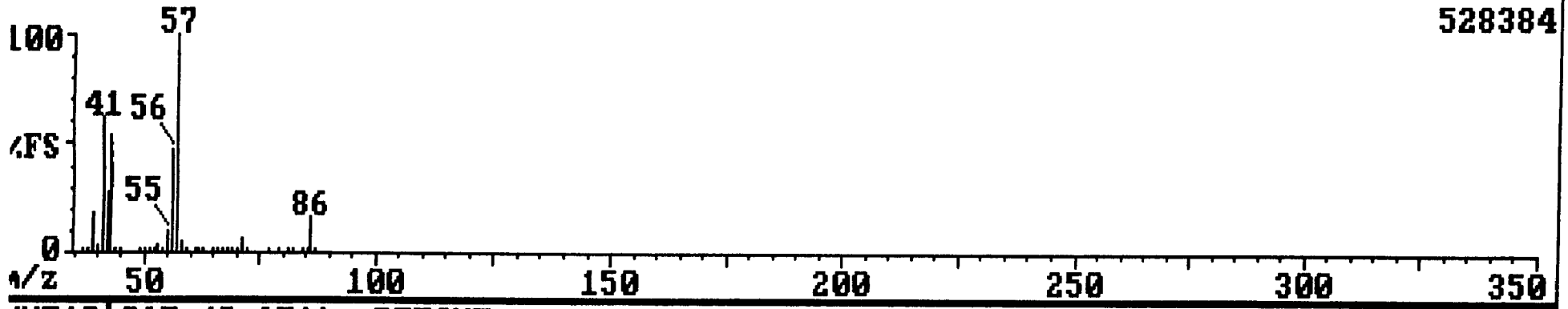
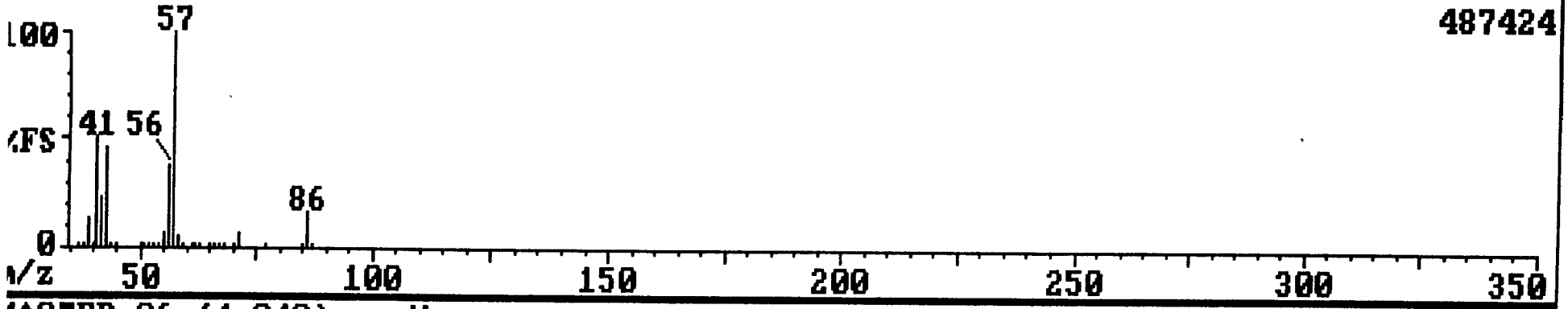
19-Aug-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-A T 214-1-8A TLI#46297 Instrument H

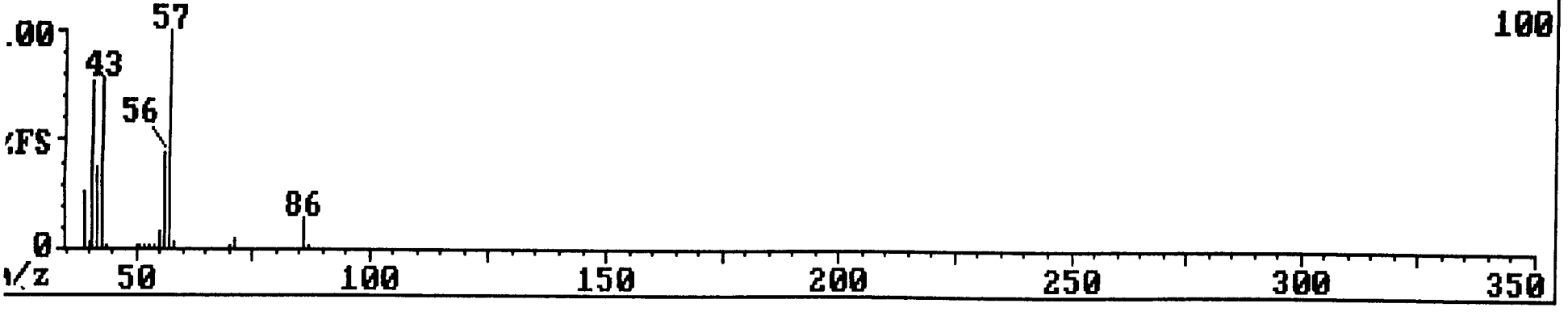
HW713 367 (3.670)



HW713 367 (3.671) REFINE



MASTER 26 (4.240) n-Hexane FIND



Pacific Environmental Services

Project Number: 46297
Sample File: FX882

Method 8260 VOST
Sample ID: T-V-1-3-B TC

Client Project: Hotmix
TLI ID: 214-1-8B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane	0.083		1.12		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.109		1.64		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.006	J	2.76		0.05
Acetone	0.077		2.83		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.026	J	3.26		0.05
Acrylonitrile		U		0.016	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene		U		0.001	0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Pacific Environmental Services

Project Number: 46297 | **Method 8260 VOST**
Sample File: FX882 | **Sample ID: T-V-1-3-B TC**

Client Project: Hotmix | **Date Received: 07/25/98** | **Response File: ICALF814**
TLI ID: 214-1-8B
Date Analyzed : 08/17/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.005	0.05
Toluene	0.005	BJ	8.08		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.002	0.05
Chlorobenzene-d_5		IS 3	10.35		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.006	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.002	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.003	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.72		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.003	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

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Pacific Environmental Services

Project Number: 46297
Sample File: FX882

Method 8260 VOST
Sample ID: T-V-1-3-B TC

Client Project: Hotmix
TLI ID: 214-1-8B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Surrogate Summary	Amount (ng)	RT	IS Ref	%REC
Dibromofluoromethane	0.242	5.18	1	97
Toluene-d_8	0.312	8.00	2	125
4-Bromofluorobenzene	0.284	12.65	2	114

Reviewed by _____ Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
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Printed: 17:44 08/24/1

Pacific Environmental Services

Project Number: 46297
Sample File: FX882

Method 8260 VOST
Sample ID: T-V-1-3-B TC

Client Project: Hotmix
TLI ID: 214-1-8B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF817

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane	0.001	J	3.88		0.25
1,2-Epoxybutane		U		0.011	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.003	0.25

Reviewed by VR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
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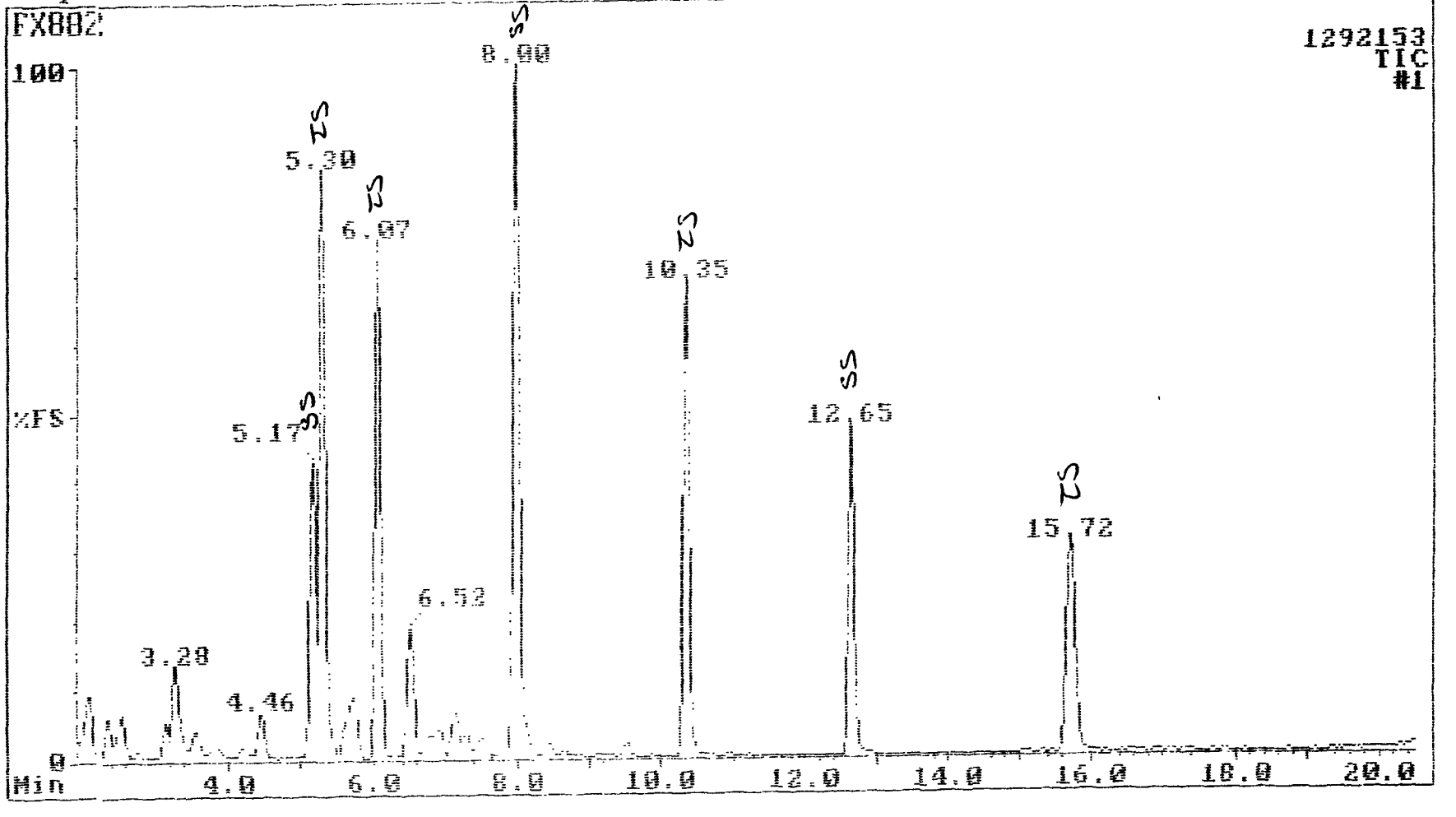
Printed: 18:00 08/24/1998

17-Aug-98 19:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-B TC 214-1-8B TLI#46297 Instrument F



Data Review: YK
Date: 8/19/9 ✓

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No.	MAT	FOR	REV	Delta	Area	P	Flags	RT	Qm	Name
1	100	77	99	1	2565370	bv		5.301	168	Pentafluorobenzene
	100	97	99	0	2643408	bv		[illegible]	114	1,4-Difluorobenzene
3	100	95	93	0	2211964	bv		10.[illegible]	117	Chlorobenzene-d5
4	100	79	[illegible]	1	836188	bv		13.[illegible]	152	1,4-Dichlorobenzene-d4
5	100	87	99	0	1043964	bb		5.161	113	Dibromofluoromethane
6	100	93	97	1	3367014	bv		8.041	98	Toluene-d8
7	100	91	93	0	1021344	bv		12.[illegible]51	95	4-Bromofluorobenzene
8	0	0	0	0	0			0.000	85	Dichlorodifluoromethane
9	0	0	0	0	291176	A		1.120	50	Chloromethane
10	0	0	0	0	0			0.000	62	Vinyl Chloride
11	49	60	90	3	197520	A		1.[illegible]	94	Bromomethane
12	0	0	0	0	0			0.000	64	Chloroethane
13	0	0	0	0	0			0.000	101	Trichlorofluoromethane
14	0	0	0	0	0			0.000	[illegible]	1,1-Dichloroethene
15	0	0	0	0	0			0.000	[illegible]	Iodomethane
16	77	93	95	-1	[illegible]	bb		[illegible]	[illegible]	Carbon disulfide
17	71	93	87	0	[illegible]	[illegible]		[illegible]	[illegible]	Acetone
18	0	0	0	0	0			[illegible]	[illegible]	Ethyl Ether
19	0	0	0	0	6344 m			3.26	[illegible]	[illegible]
20	[illegible]	1	0	-3	[illegible]			[illegible]	FP [illegible]	[illegible]
21	0	0	0	0	0			[illegible]	[illegible]	[illegible]
22	0	0	0	0	0			[illegible]	[illegible]	1,1-Dichloroethane
23	0	0	0	1	0			[illegible]	43	Vinyl acetate
24	0	0	0	0	0			0.000	77	[illegible]-Dichloroethene
25	0	0	0	0	0			0.000	[illegible]	cis-1,[illegible]-Dichloroethene
26	18	16	10	8	[illegible]	bb		[illegible]	FP 43	2-Butanone
27	0	0	0	0	0		Mother	[illegible]	[illegible]	Chloroform
28	0	0	0	0	0			0.000	[illegible]	Bromochloromethane
29	0	0	0	0	0			0.000	97	1,1,1-Trichloroethane
30	0	0	0	0	0			0.000	117	Carbon tetrachloride
31	0	0	0	0	0			0.000	75	1,1-Dichloropropene
32	0	0	0	0	0			0.000	78	Benzene
33	0	0	0	0	0			0.000	62	1,2-Dichloroethane
34	0	0	0	0	0			0.000	130	Trichloroethene
35	0	0	0	0	0			0.000	63	1,2-Dichloropropane
36	0	0	0	0	0			0.000	93	Dibromomethane
37	0	0	0	0	0			0.000	41	Methyl methacrylate
38	0	0	0	0	0			0.000	83	Bromodichloromethane
39	0	0	0	0	0			0.000	75	cis-1,3-Dichloropropene
40	38	3	64	4	~~18780~~	~~A~~		~~[illegible]~~	FP 43	4-Methyl-2-pentanone
41	70	42	73	-1	41356	bb		8.081	92	Toluene
42	0	0	0	0	0			0.000	75	trans-1,3-Dichloropropene
43	0	0	0	0	0			0.000	97	1,1,2-Trichloroethane
44	0	0	0	0	0			0.000	69	Ethyl methacrylate
45	0	0	0	0	0			0.000	164	Tetrachloroethene
46	0	0	0	0	0			0.000	76	1,3-Dichloropropane
47	0	0	0	0	0			0.000	43	2-Hexanone
48	0	0	0	0	0			0.000	129	Dibromochloromethane
49	0	0	0	0	0			0.000	107	1,2-Dibromoethane
50	0	0	0	0	0			0.000	112	Chlorobenzene

Data Review: [illegible]
Date: 8/19/[illegible]

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.000	131	1,1,1,2-Tetrachloroethan
52	0	0	0	0	0		0.000	106	Ethylbenzene
53	0	0	0	0	0		0.000	106	m-/p-Xylene
54	0	0	0	0	0		0.000	106	o-Xylene
55	0	0	0	0	0		0.000	104	Styrene
56	0	0	0	0	0		0.000	173	Bromoform
57	0	0	0	0	0		0.000	105	Cumene
58	0	0	0	0	0		0.000	83	1,1,2,2-Tetrachloroethan
59	0	0	0	0	0		0.000	156	Bromobenzene
60	0	0	0	0	0		0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.000	120	n-Propylbenzene
62	0	0	0	0	0		0.000	75	trans-1,4-Dichloro-2-bu
63	0	0	0	0	0		0.000	126	2-Chlorotoluene
64	0	0	0	0	0		0.000	126	4-Chlorotoluene
65	0	0	0	0	0		0.000	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.000	119	tert-Butylbenzene
67	0	0	0	0	0		0.000	105	1,2,4-Trimethylbenzene
68	0	0	0	0	0		0.000	105	sec-Butylbenzene
69	0	0	0	0	0		0.000	114	p-Cymene
70	0	0	0	0	0		0.000	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.000	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.000	91	Benzyl chloride
73	0	0	0	0	0		0.000	91	n-Butylbenzene
74	0	0	0	0	0		0.000	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.000	75	1,1-Dibromo-3-chloropro
76	0	0	0	0	0		0.000	180	1,2,4-Trichlorobenzene
77	39	17	51	-4	9316	hb	19.517	225	Hexachlorobutadiene
78	0	0	0	0	0		0.000	128	Naphthalene
79	0	0	0	0	0		0.000	180	1,2,3-Trichlorobenzene

IAN OR : FX382 LAB-BASE QUAN 18-Aug-98 01:20

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	77	99	1	2565532	bv	5.301	168	Pentafluorobenzene
2	100	97	99	0	3643408	bv	6.071	114	1,4-Difluorobenzene
3	100	95	95	-1	2211964	bv	10.351	117	Chlorobenzene-d5
4	100	79	98	-1	836188	bv	15.722	152	1,4-Dichlorobenzene-d4
5	100	87	99	0	1043964	bb	5.181	113	Dibromofluoromethane
6	100	92	97	0	3367004	bv	3.001	98	Toluene-d8
7	100	91	97	-1	1031744	bv	12.651	95	4-Bromofluorobenzene
8	66	40	75	4	[illegible]	[illegible]	[illegible] FP	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	79	60	70	2	[illegible]	[illegible]	[illegible] FP	73	MTBE
11	83	64	69	0	173868	bv	5.880	57	n-Hexane
12	59	41	67	6	[illegible]	[illegible]	[illegible] FP	41	1,2-Epoxybutane
13	86	64	76	-1	167952	bm	5.671	57	Isooctane
14	44	35	89	-13	[illegible]	[illegible]	[illegible] FP	55	Ethyl acrylate

MR 8/19/98

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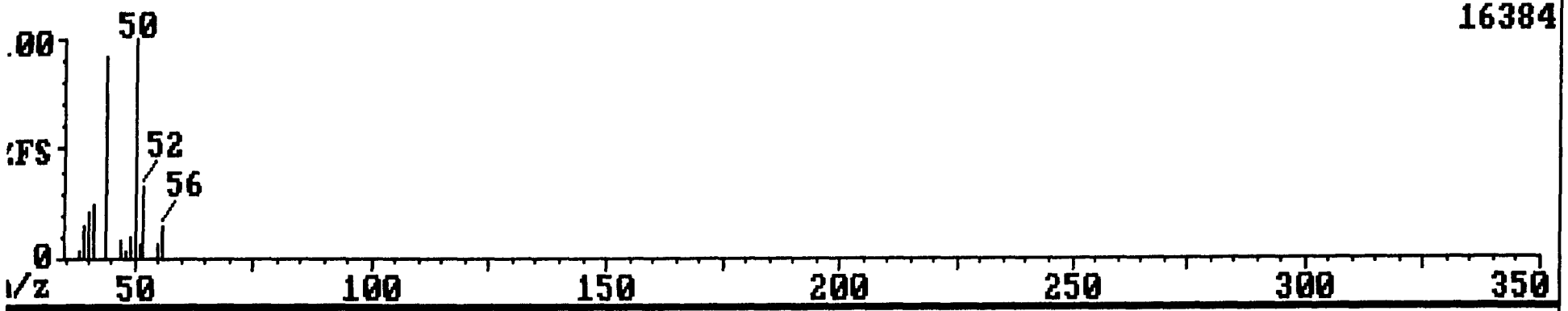
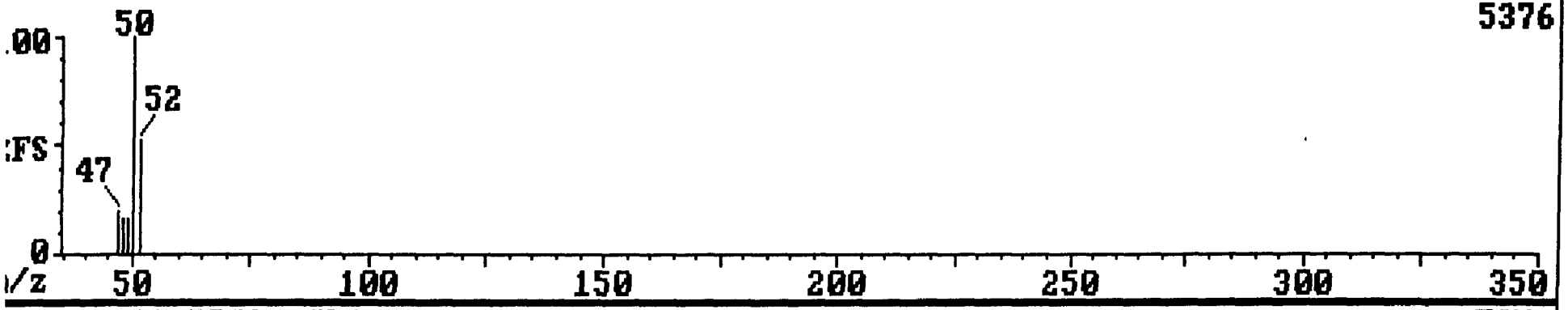
7-Aug-98 19:17 Triangle Laboratories, Inc. (919) 544-5729

ample: T-V-1-3-B TC 214-1-8B TLI#46297 Instrument F

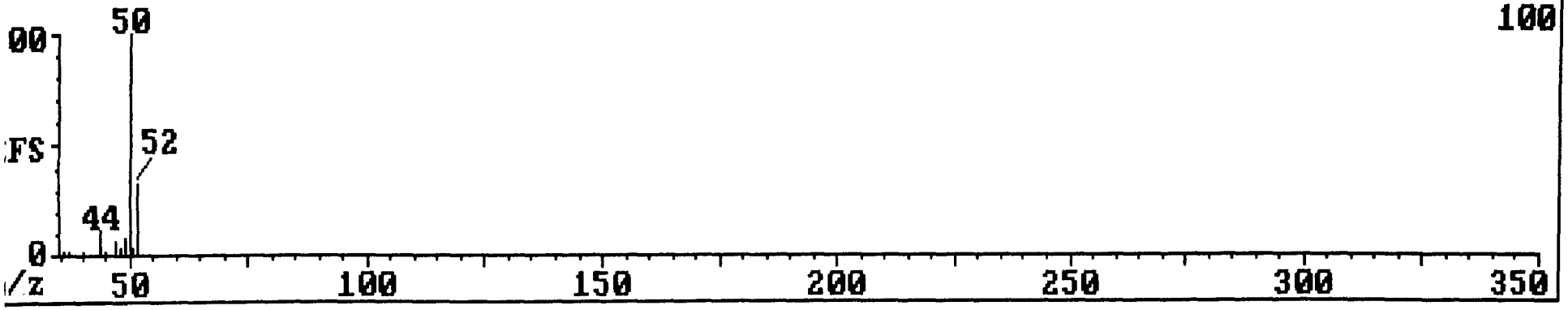
'X882 108 (1.080)



'X882' 108 (1.081) REFINE



260 9 (1.230) Chloromethane FIND



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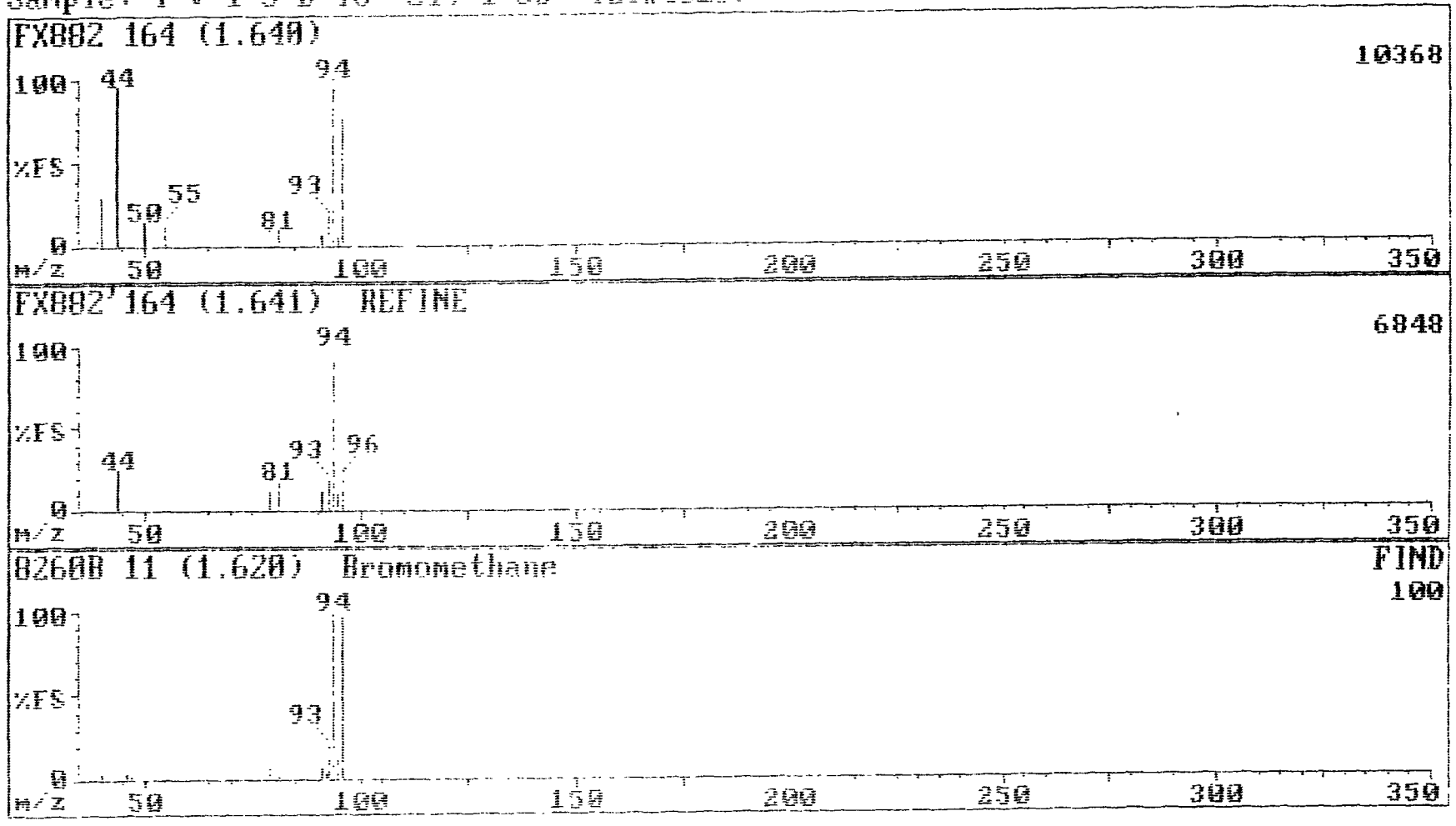
17-Aug-98 19:17 Triangle Laboratories, Inc. (919) 544-5729

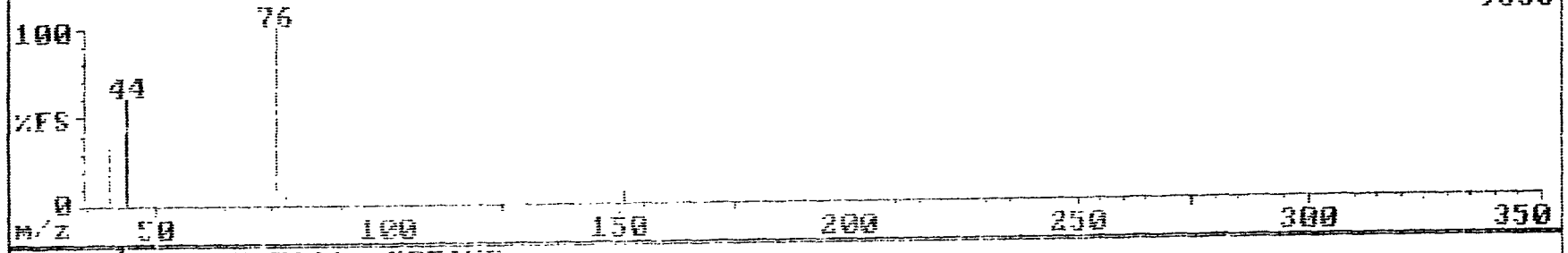
Sample: T-V-1-3-B TC 214-1 0B TLI#46297 Instrument F



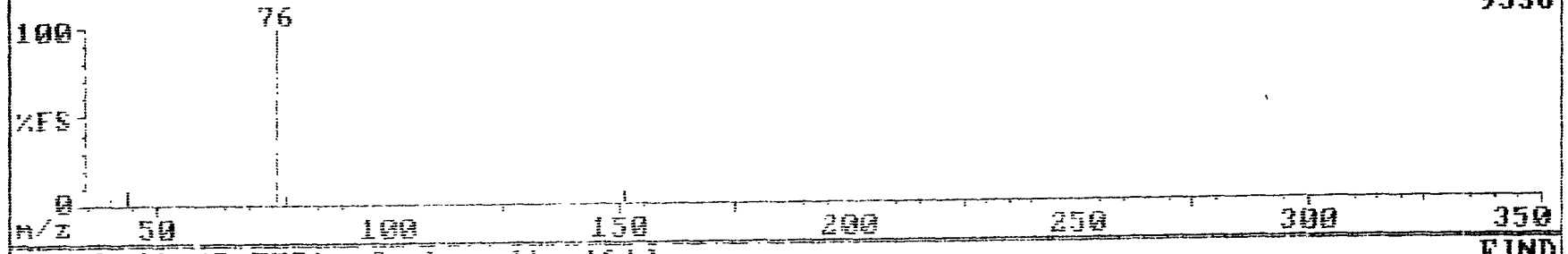
17-Aug-98 13:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-B TC 214-1-8B TLI#46297 Instrument F

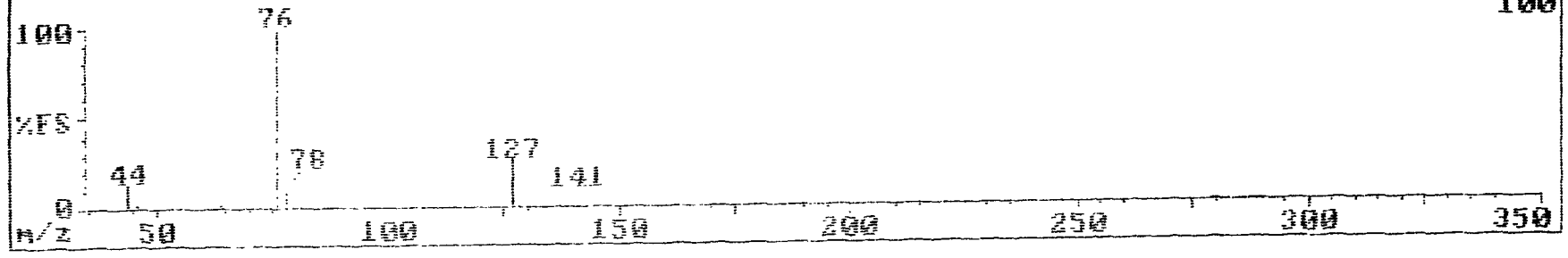
FX882 Z76 (2.760) 9856



FX882 Z76 (2.761) REFINE 9536



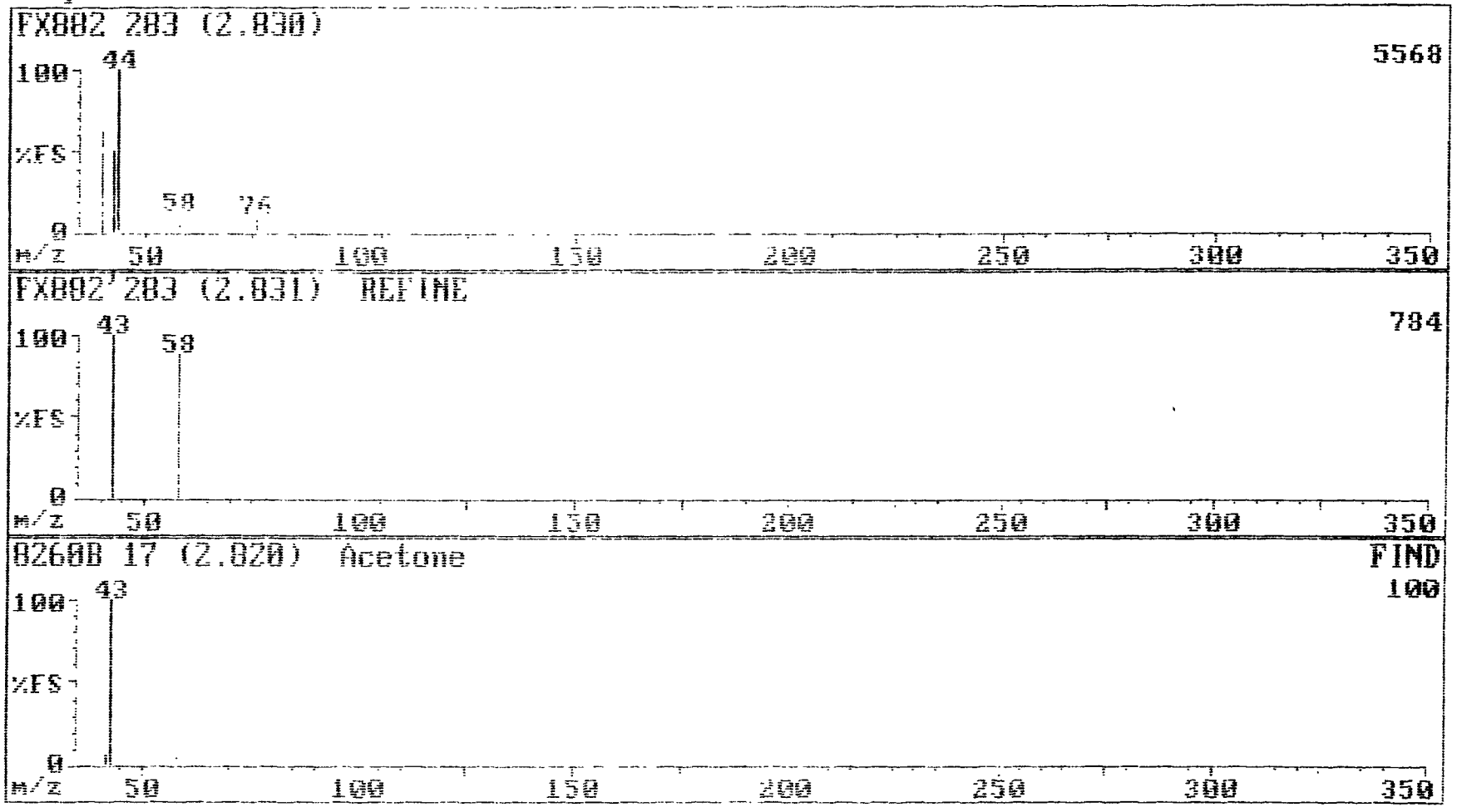
8260B 16 (2.770) Carbon disulfide FIND 100



128

17-Aug-98 19:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-B IC 214 1-8B TLI#46297 Instrument F



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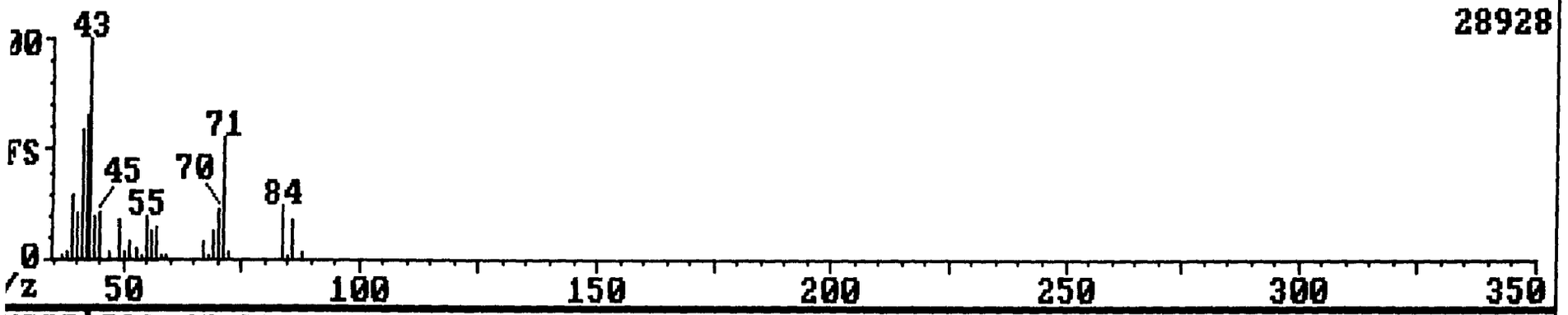
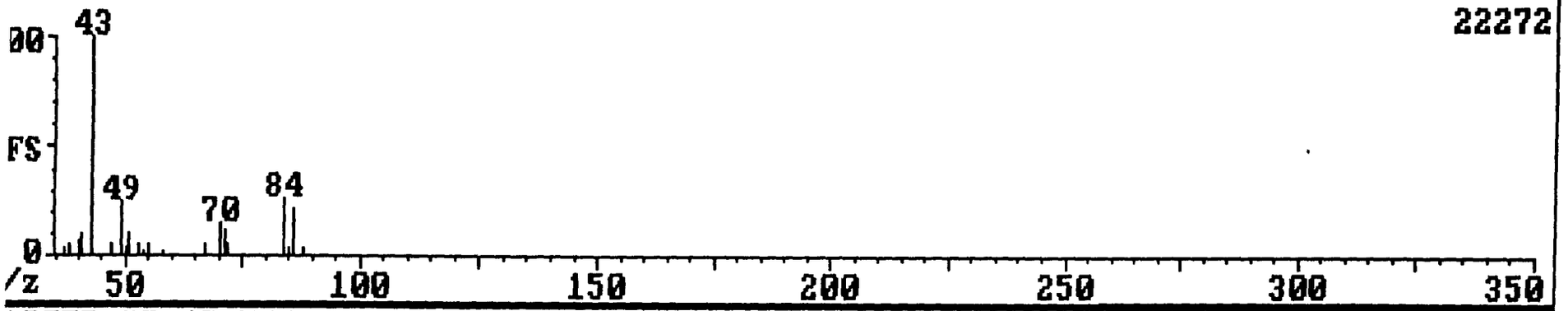
ımple: T-V-1-3-B TC 214-1-8B TLI#46297 Instrument F

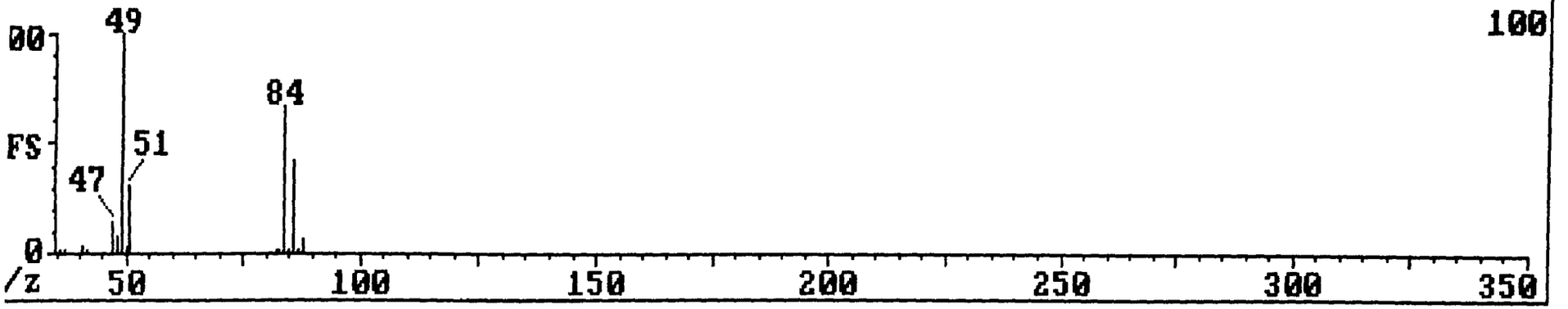
X882 326 (3.260)



X882'326 (3.261) REFINE



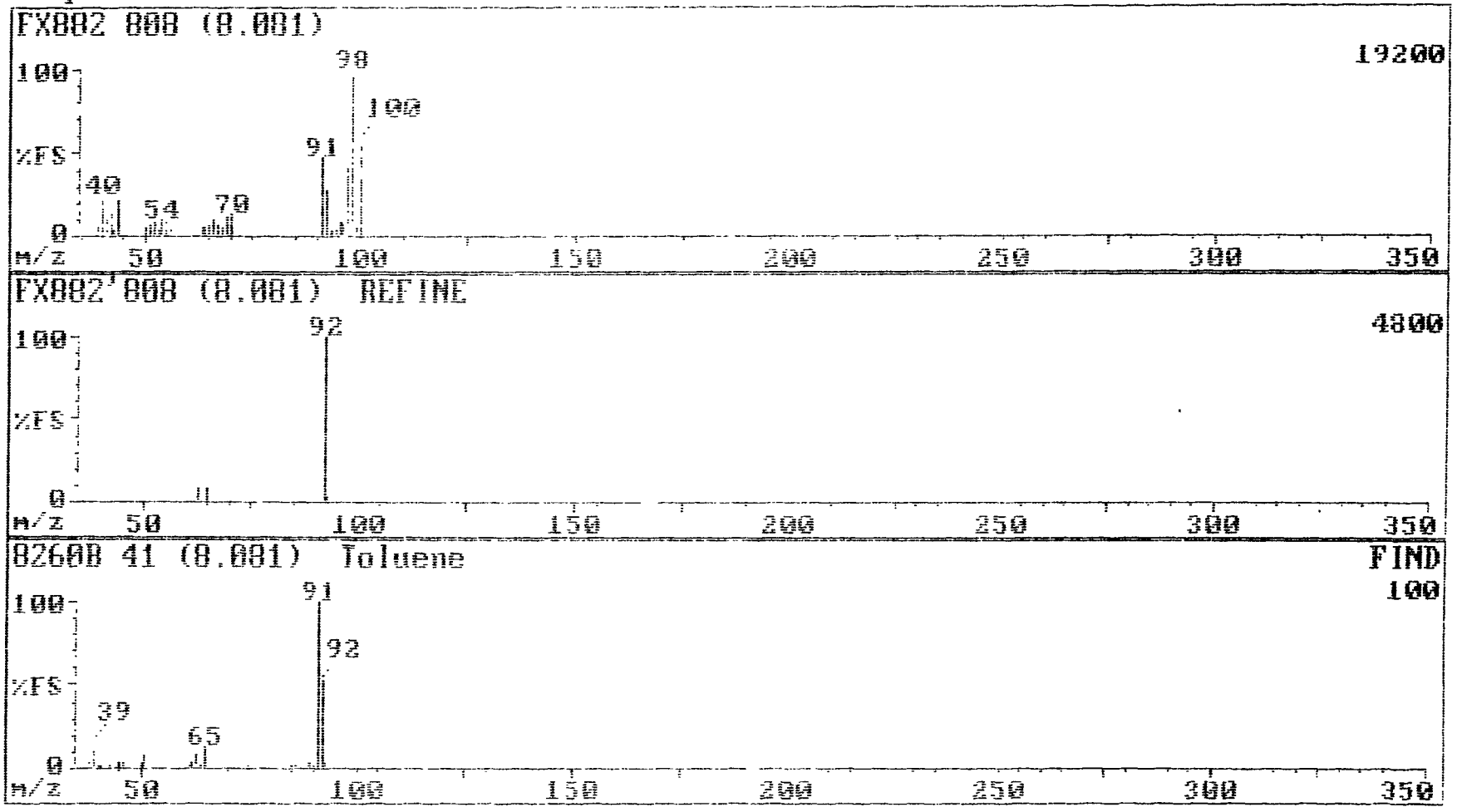
ASTER 22 (3.590) Methylene chloride FIND



130

17-Aug-98 19:17 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-3-B TC 214-1-0B TLI#46297 Instrument F



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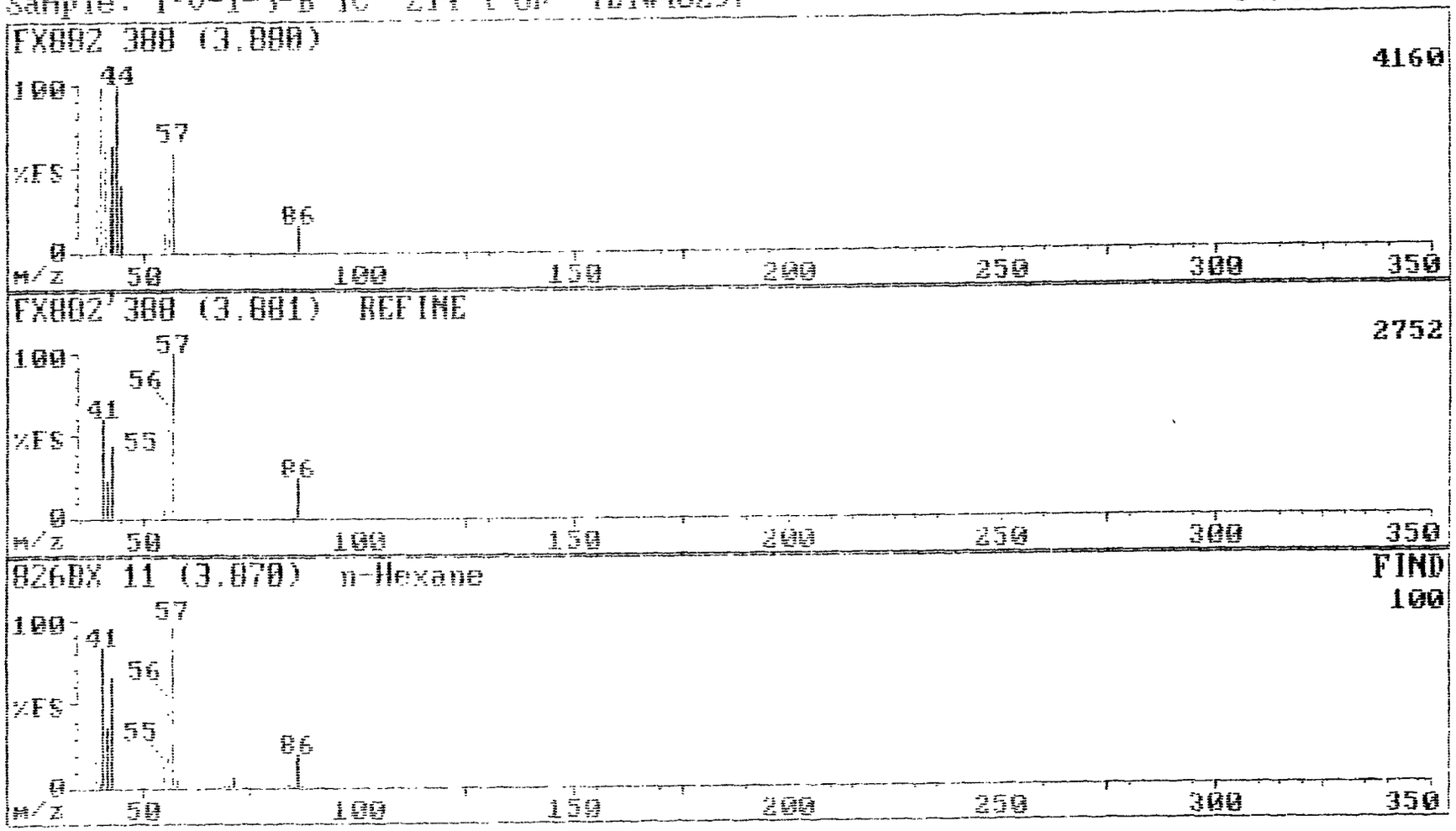
Sample: T-V-1-3-B TC 214-1-8P TLI#46297 Instrument F



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Pacific Environmental Services

Project Number: 46297 | **Method 8260 VOST**
Sample File: FX881 | **Sample ID: T-V-1-4-B TC**

Client Project: Hotmix | **Date Received: 07/25/98** | **Response File: ICALF814**
TLI ID: 214-1-9B
Date Analyzed : 08/17/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.31		
Chloromethane	0.073		1.08		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.045	J	1.64		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone	0.092		2.86		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.048	J	3.27		0.05
Acrylonitrile		U		0.016	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene		U		0.001	0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX881

Method 8260 VOST
Sample ID: T-V-1-4-B TC

Client Project: Hotmix
TLI ID: 214-1-9B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.005	0.05
Toluene	0.017	BJ	8.09		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.002	0.05
Chlorobenzene-d_5		IS 3	10.35		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.006	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.002	0.0
1,4-Dichlorobenzene-d_4		IS 4	15.72		
Cumene		U		0.001	0.0
1,1,2,2-Tetrachloroethane		U		0.002	0.0

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Pacific Environmental Services

Project Number: 46297 | **Method 8260 VOST**
Sample File: FX881 | **Sample ID: T-V-1-4-B TC**

Client Project: Hotmix | **Date Received: 07/25/98** | **Response File: ICALF814**
TLI ID: 214-1-9B
Date Analyzed : 08/17/98

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.240	5.18	1	96
Toluene-d_8	0.320	8.00	2	128
4-Bromofluorobenzene	0.326	12.65	2	130

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX881

Method 8260 VOST
Sample ID: T-V-1-4-B TC

Client Project: Hotmix
TLI ID: 214-1-9B

Date Received: 07/25/98
Date Analyzed : 08/17/98

Response File: ICALF817

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.31		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane	0.004	J	3.88		0.25
1,2-Epoxybutane		U		0.011	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.003	0.25

Reviewed by VR Date 8/24/98

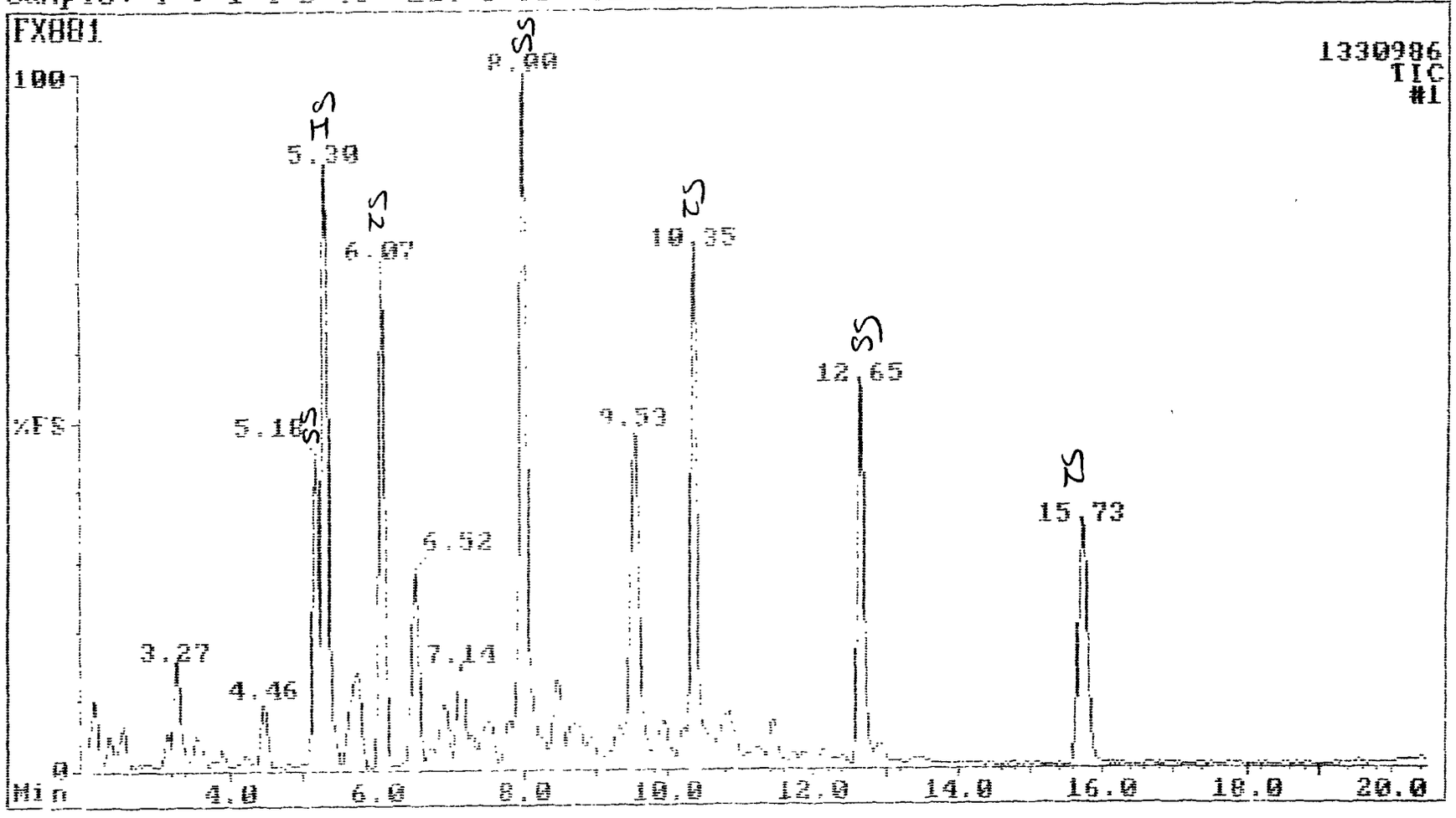
NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar
Printed: 18:00 08/24/

17-Aug-98 10:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-4-B TC Z14-1-9B TLI#46297 Instrument F



Data Review: YM
Date: 8/19/98

137

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	76	98	2	2638980	bb	5.311	168	Pentafluorobenzene
2	100	97	99	-1	2692040	bb	6.071	114	1,4-Difluorobenzene
3	100	94	96	0	2459930	bv	10.351	117	Chlorobenzene-d5
4	100	79	98	1	977776	a	15.772	152	1,4-Dichlorobenzene-d4
5	100	83	99	-1	1066710	bv	5.141	117	Dibromofluoromethane
6	100	90	97	1	3511416	bv	8.001	98	Toluene-d8
7	100	91	94	0	1195316	bv	12.651	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	50	Dichlorodifluoromethane
9	95	75	82	1	364480	a	1.000	50	Chloromethane
10	0	0	0	0	0		0.000	62	Vinyl chloride
11	97	62	87	1	83571	bv	1.440	94	Bromomethane
12	0	0	0	0	0		0.000	64	Chloroethane
13	0	0	0	0	0		0.000	101	Trichlorofluoromethane
14	0	0	0	0	0		0.000	96	1,1-Dichloroethene
15	0	0	0	0	0		0.000	[illegible]	Methylene chloride
16	0	0	0	0	0		0.000	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	Acetone
18	0	0	0	0	0		0.000	[illegible]	[illegible]
19	0	0	0	0	118388 m		~~[illegible]~~ 3.27	[illegible]	[illegible]
20	10	[illegible]	13		~~[illegible]~~		~~[illegible]~~ FP	[illegible]	[illegible]
21	0	0	0	0	0		0.000	[illegible]	[illegible]
22	0	0	0	0	0		0.000	63	1,1-Dichloroethane
23	0	0	0	0	0		0.000	43	Vinyl acetate
24	0	0	0	0	0		0.000	77	2-Butanone
25	0	0	0	0	0		0.000	[illegible]	[illegible]
26	20	10	21	5	~~[illegible]~~		~~[illegible]~~ FP	43	2-Butanone
27	0	0	0	0	0		0.000	[illegible]	[illegible]
28	0	0	0	0	0		0.000	173	Bromochloromethane
29	0	0	0	0	0		0.000	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.000	117	Carbon tetrachloride
31	0	0	0	0	0		0.000	75	1,1-Dichloropropene
32	0	0	0	0	0		0.000	78	Benzene
33	0	0	0	0	0		0.000	62	1,2-Dichloroethane
34	0	0	0	0	0		0.000	131	Trichloroethene
35	0	0	0	0	0		0.000	[illegible]	1,2-Dichloropropane
36	0	0	0	0	0		0.000	93	Dibromomethane
37	0	0	0	0	0		0.000	41	Methyl methacrylate
38	0	0	0	0	0		0.000	83	Bromodichloromethane
39	0	0	0	0	0		0.000	75	cis-1,3-Dichloropropen
40	35	5	57	4	~~[illegible]~~		~~[illegible]~~ FP	43	4-Methyl-2-pentanone
41	92	59	88	0	129620	a	8.091	92	Toluene
42	0	0	0	0	0		0.000	75	trans-1,3-Dichloropro
43	0	0	0	0	0		0.000	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.000	69	Ethyl methacrylate
45	0	0	0	0	0		0.000	164	Tetrachloroethene
46	0	0	0	0	0		0.000	76	1,3-Dichloropropane
47	0	0	0	0	0		0.000	43	2-Hexanone
48	0	0	0	0	0		0.000	129	Dibromochloromethane
49	0	0	0	0	0		0.000	107	1,2-Dibromoethane
50	0	0	0	0	0		0.000	112	Chlorobenzene

Data Review: WL
Date: 8/19/98

#	MAT	FOR	REV	Delta	Area	P Flags	RT	Qn	Name
51	0	0	0	0	0		0.000	131	1,1,1,2-Tetrachloroethane
52	0	0	0	0	0		0.000	106	Ethylbenzene
53	0	0	0	0	0		0.000	106	m-/p-Xylene
54	0	0	0	0	0		0.000	106	o-Xylene
55	0	0	0	0	0		0.000	104	Styrene
56	0	0	0	0	0		0.000	173	Bromoform
57	0	0	0	0	0		0.000	105	Cumene
58	0	0	0	0	0		0.000	[illegible]	1,1,2,2-Tetrachloroethane
59	0	0	0	0	0		0.000	156	Bromobenzene
60	0	0	0	0	0		0.000	75	1,2,3-Trichloropropane
[illegible]	0	0	0	0	0		0.000	120	n-Propylbenzene
62	45	16	[illegible]	-3	[illegible]		[illegible]	75	Bromo[illegible]-2-butan[illegible]
63	0	0	0	0	0		0.000	126	2-Chlorotoluene
64	0	0	0	0	0		0.000	126	4-Chlorotoluene
65	0	0	0	0	0		0.000	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.000	[illegible]	tert-Butylbenzene
67	0	0	0	0	0		0.000	105	1,2,4-Trimethylbenzene
68	0	0	0	0	0		0.000	105	sec-Butylbenzene
69	0	0	0	0	0		0.000	[illegible]	p-Cymene
70	0	0	0	0	0		0.000	[illegible]	1,3-Dichlorobenzene
71	0	0	0	0	0		0.000	[illegible]	1,4-Dichlorobenzene
72	0	0	0	0	0		0.000	91	Benzyl chloride
73	0	0	0	0	0		0.000	91	[illegible]
74	0	0	0	0	0		0.000	146	1,[illegible]-Dichlorobenzene
75	0	0	0	0	0		0.000	75	1,[illegible]-Dibromo[illegible]-chloropropan[illegible]
76	0	0	0	0	0		0.000	180	1,[illegible]4-Trichlorobenzene
77	45	[illegible]	[illegible]	-4	85[illegible]		[illegible]	[illegible]	Hexachlorobutadiene
78	0	0	0	0	0		0.000	128	Naphthalene
79	0	0	0	0	0		0.000	180	1,2,3-Trichlorobenzene

FP

M8/19/98

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No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.000	131	1,1,1,2-Tetrachloroethan
52	0	0	0	0	0		0.000	106	Ethylbenzene
53	0	0	0	0	0		0.000	106	m-/p-Xylene
54	0	0	0	0	0		0.000	106	o-Xylene
55	0	0	0	0	0		0.000	104	Styrene
56	0	0	0	0	0		0.000	173	Bromoform
57	0	0	0	0	0		0.000	105	Cumene
58	0	0	0	0	0		0.000	83	1,1,2,2-Tetrachloroethan
59	0	0	0	0	0		0.000	156	Bromobenzene
60	0	0	0	0	0		0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.000	120	n-Propylbenzene
62	43	10	63	-8	[illegible]	[illegible]	[illegible]	75	trans-1,4-Dichloro-2-but
63	0	0	0	0	0	M8/17/98	0.000	126	2-Chlorotoluene
64	0	0	0	0	0		0.000	126	4-Chlorotoluene
65	0	0	0	0	0		0.000	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.000	[illegible]	tert-Butylbenzene
67	0	0	0	0	0		0.000	105	1,2,4-Trimethylbenzene
68	0	0	0	0	0		0.000	105	sec-Butylbenzene
69	0	0	0	0	0		0.000	119	p-Cymene
70	0	0	0	0	0		0.000	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.000	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.000	91	Benzyl chloride
73	0	0	0	0	0		0.000	91	n-Butylbenzene
74	0	0	0	0	0		0.000	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.000	75	1,2-Dibromo-3-chloropro
76	0	0	0	0	0		0.000	180	1,2,4-Trichlorobenzene
77	48	21	61	-4	8504	bb	19.[illegible]	225	Hexachlorobutadiene
78	0	0	0	0	0		0.000	128	Naphthalene
79	0	0	0	0	0		0.000	180	1,2,3-Trichlorobenzene

IAN 08 : FX881 LAB-BASE QUAN 13-Aug-98 01:[illegible]

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	76	98	2	2628980	bb	5.311	168	Pentafluorobenzene
2	100	97	99	-1	2692040	bb	6.071	114	1,4-Difluorobenzene
3	100	94	96	-1	2433926	bv	10.351	117	Chlorobenzene-d5
4	100	79	98	-1	977776	a	15.722	152	1,4-Dichlorobenzene-d4
5	100	82	99	-1	1061712	bv	5.181	113	Dibromofluoromethane
6	100	90	97	0	3511416	bv	8.071	98	Toluene-d8
7	100	90	94	-1	1195316	bv	12.651	95	4-Bromofluorobenzene
8	60	35	67	4	[illegible]	[illegible]	[illegible] FP	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	31	61	75	3	[illegible]	bb	[illegible] FP	73	MTBE
11	100	81	83	0	506[illegible]	bb	3.840	57	n-Hexane
12	56	38	61	6	[illegible]	bv	[illegible] FP	43	1,2-Epoxybutane
13	87	65	76	0	[illegible]	bb	[illegible] FP	57	Iso-Octane
14	41	18	70	-13	[illegible]	bb	[illegible] FP	55	Ethyl acrylate

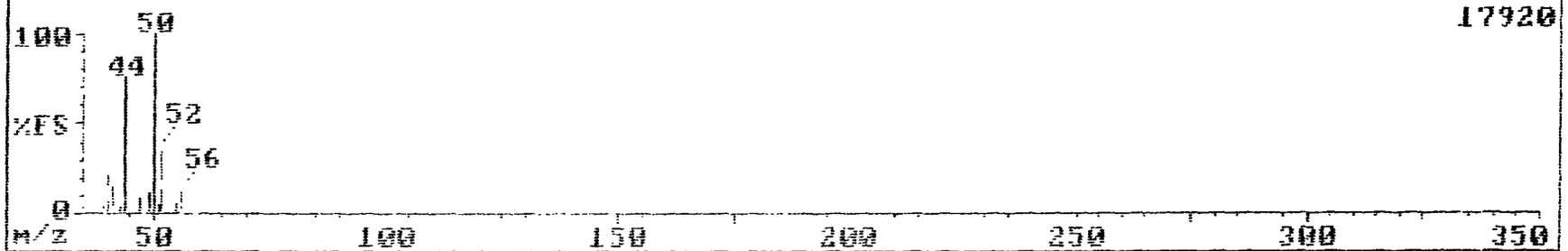
MS 19/8

141

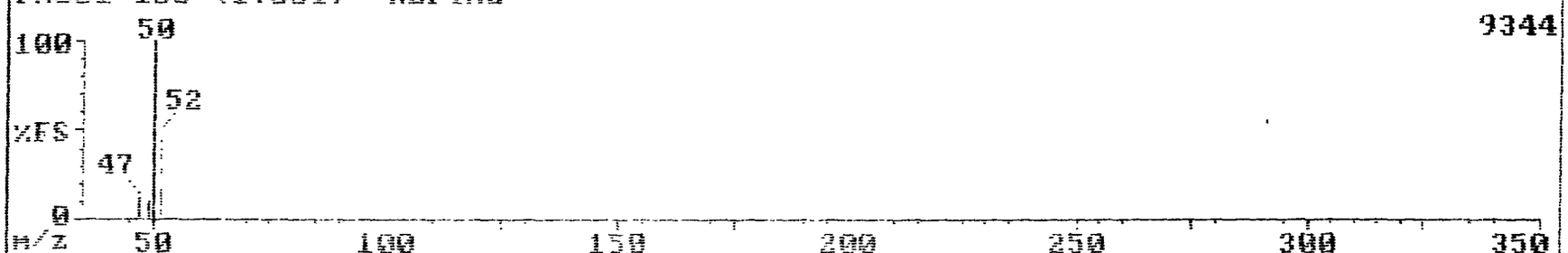
17-Aug-98 18:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-4-B TC Z14-1-9R TLI#46297 Instrument F

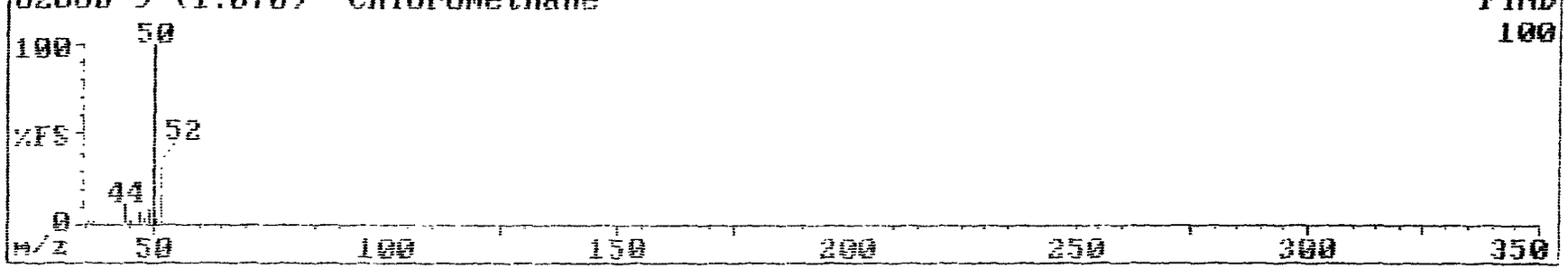
FX881 108 (1.080) 17920



FX881 108 (1.081) REFINE 9344



8260B 9 (1.070) Chloromethane FIND 100

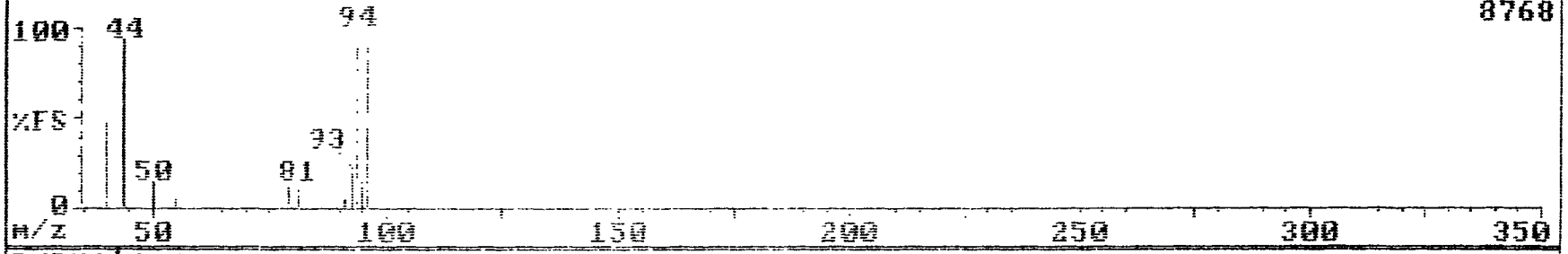


142

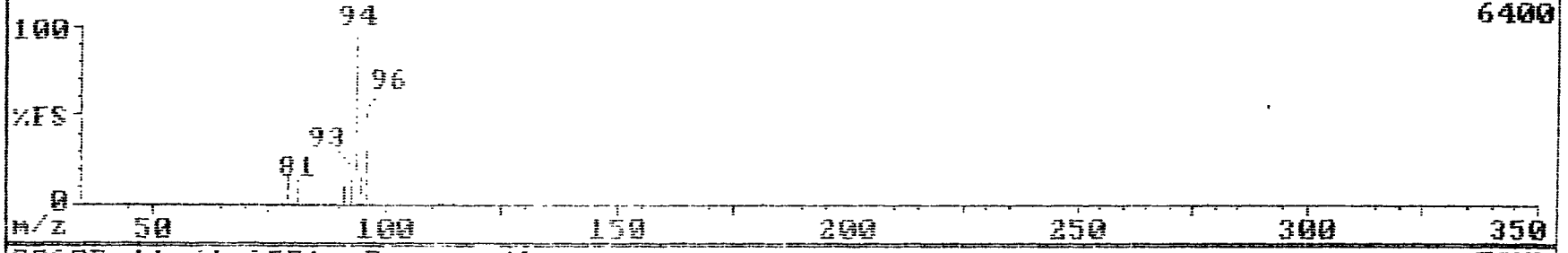
17-Aug-90 18:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-4-B TC 214-1-9B TLI#46297 Instrument F

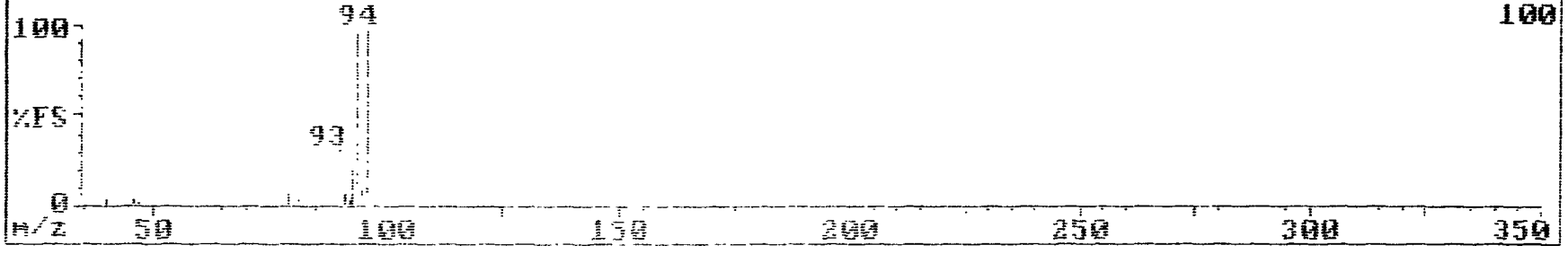
FX881 164 (1.640) 8768



FX881' 164 (1.641) REFINE 6400

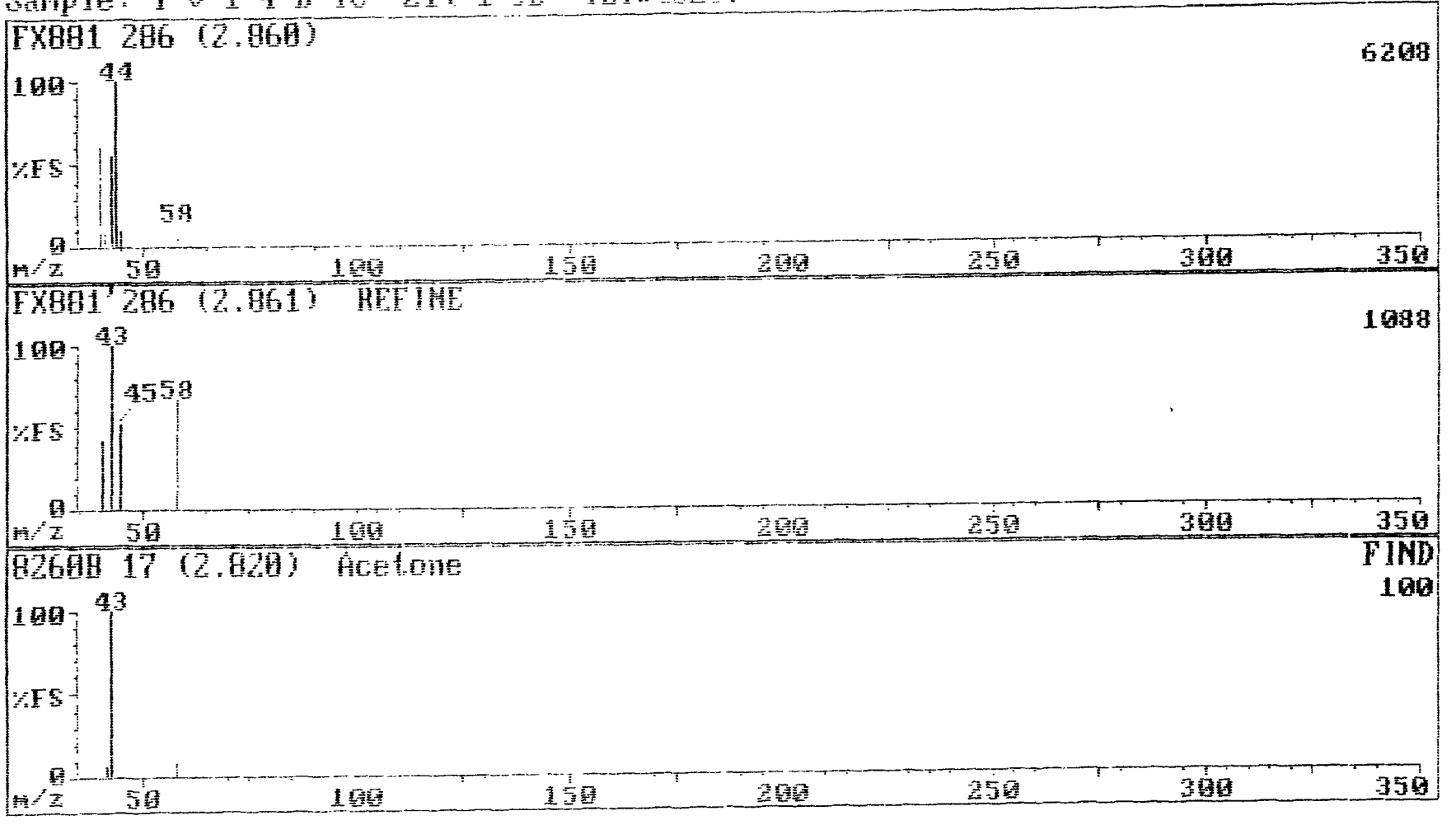


8260B 11 (1.620) Bromomethane FIND 100



17-Aug-98 18:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-4-B TC 214-1-9B TLI#46297 Instrument F

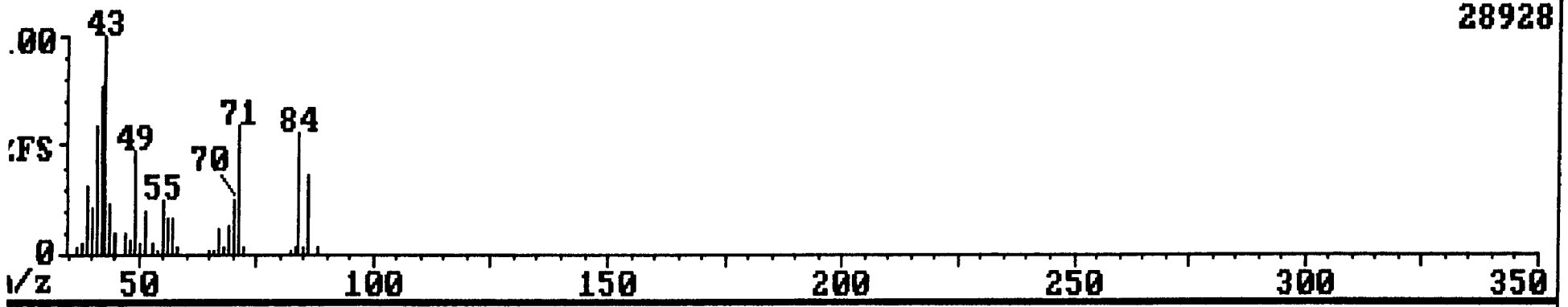


141

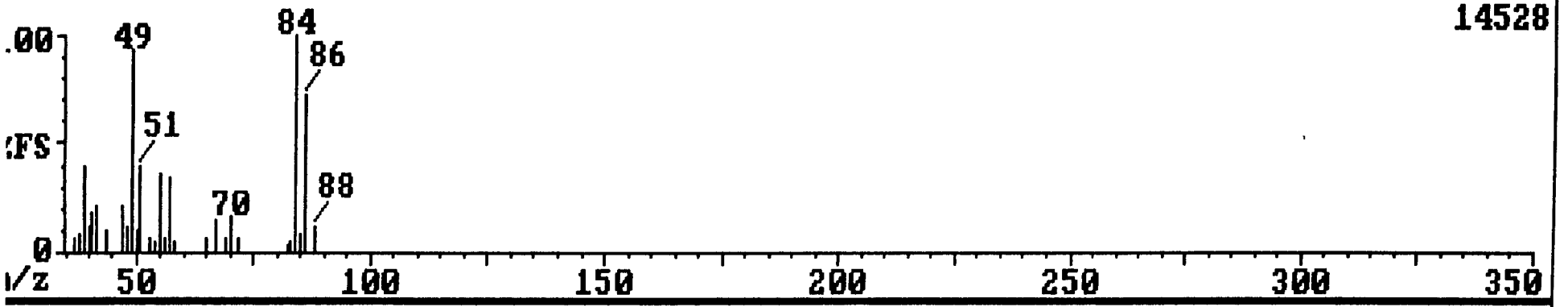
7-Aug-98 18:30 Triangle Laboratories, Inc. (919) 544-5729

ample: T-V-1-4-B TC 214-1-9B TLI#46297 Instrument F

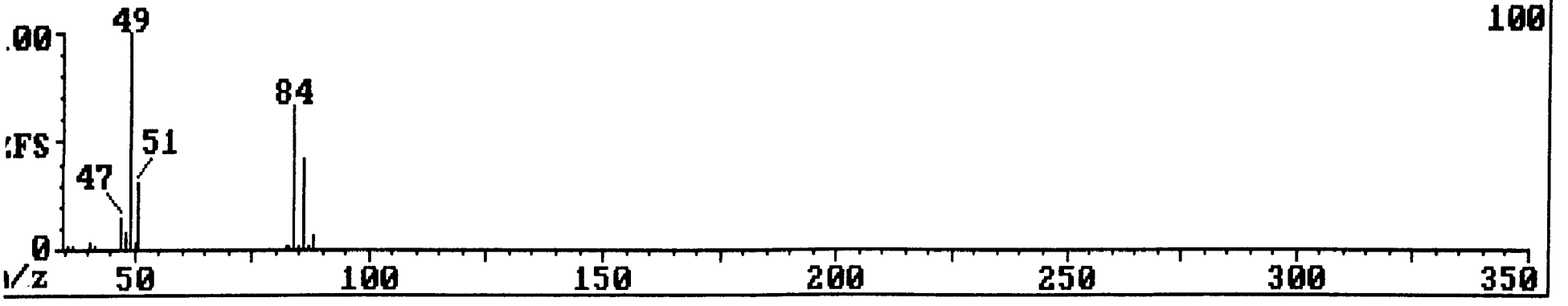
'X881 327 (3.270)



'X881 327 (3.271) REFINE



IASTER 22 (3.590) Methylene chloride FIND

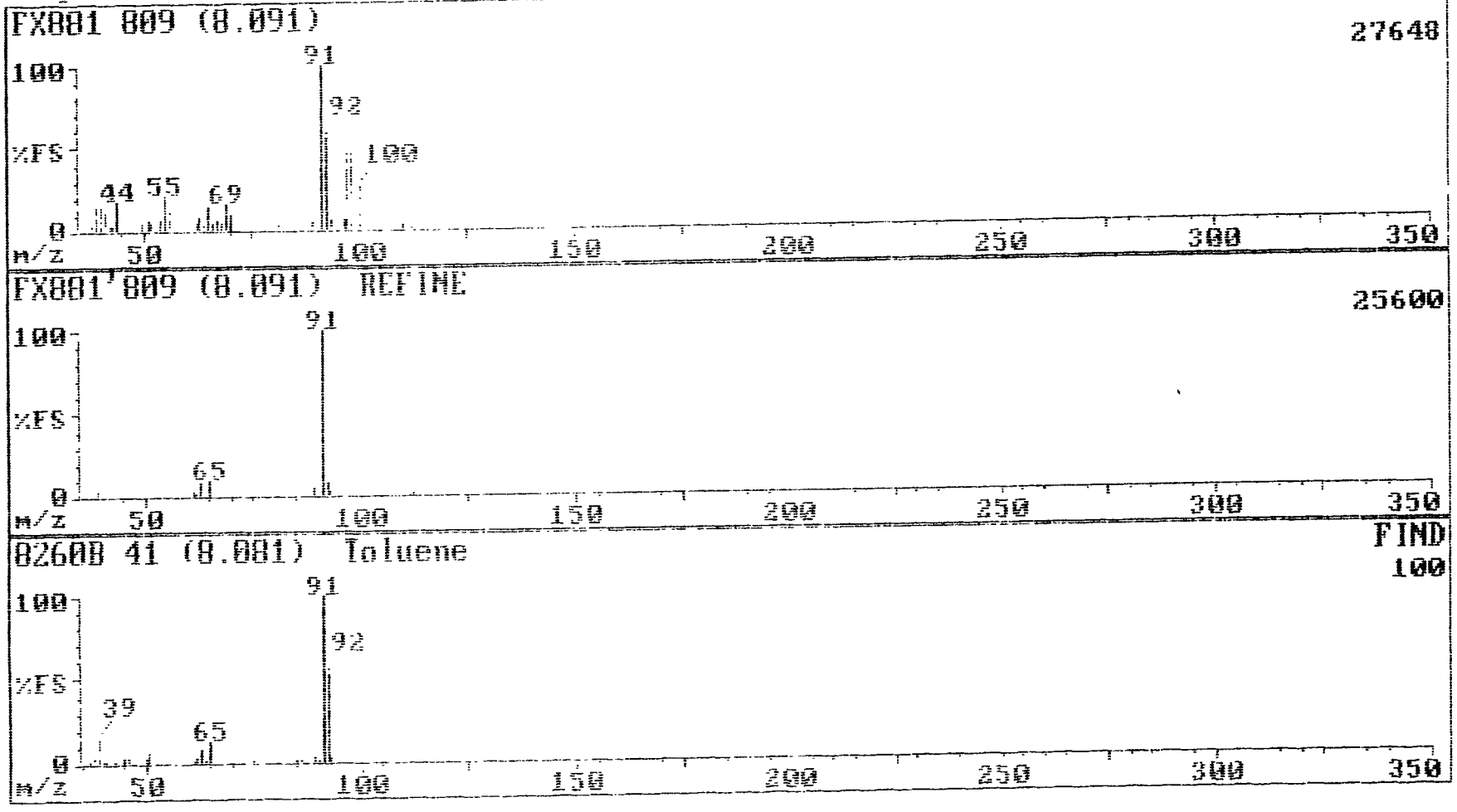


14

145

17-Aug-98 18:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-4-B TC 214-1-9R TLI#46297 Instrument F

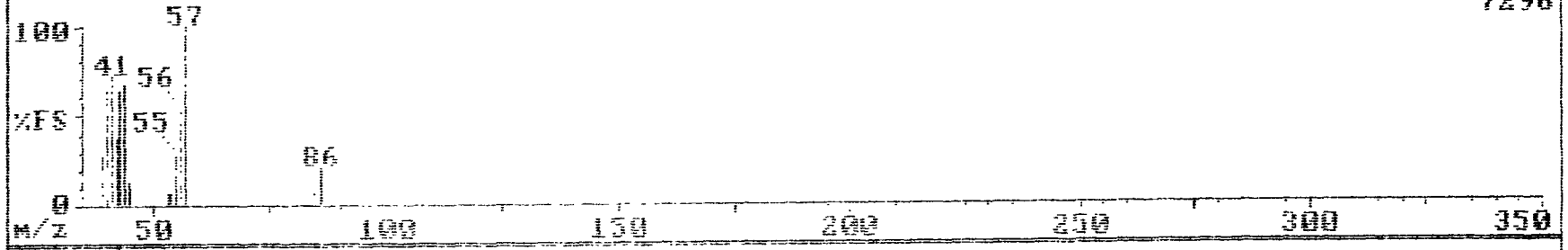


146

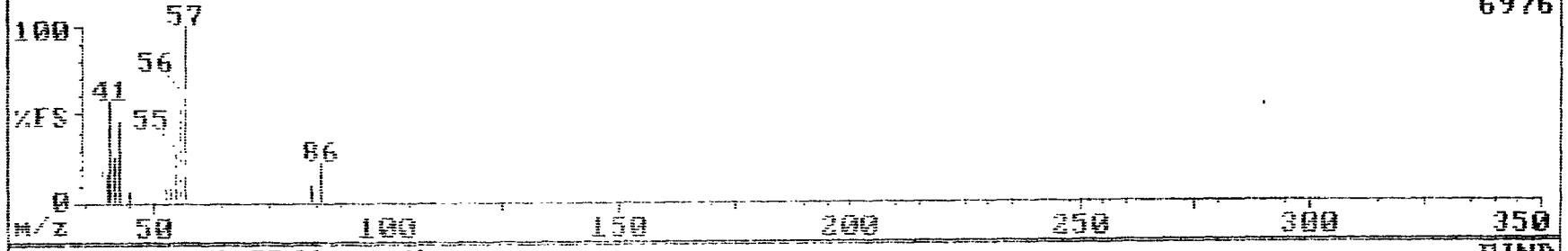
17-Aug-98 18:30 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-1-4-B TC 214-1-98 TLI#46297 Instrument F

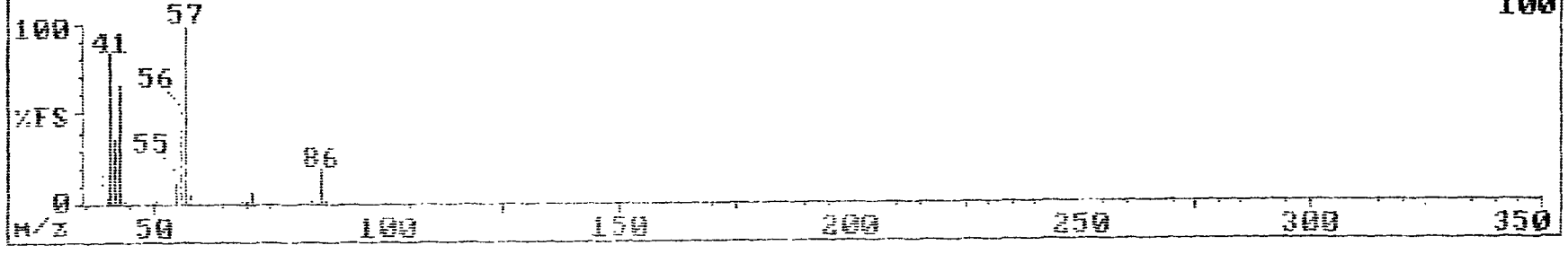
FX881 388 (3.880) 7296



FX881' 388 (3.881) REFINE 6976



826BX 11 (3.870) n-Hexane FIND 100



Pacific Environmental Services

Project Number: 46297
Sample File: FX878

Method 8260 VOST
Sample ID: VOSTBLK08179

Client Project: Hotmix
TLI ID: VOSTBLK081798

Date Received: / /
Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.32		
Chloromethane		U		0.001	0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone		U		0.004	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride		U		0.001	0.05
Acrylonitrile		U		0.016	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.08		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.013	J	5.54		0.0
1,2-Dichloroethane		U		0.001	0.0
Trichloroethene		U		0.001	0.0
1,2-Dichloropropane		U		0.001	0.0

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Pacific Environmental Services

Project Number: 46297
Sample File: FX878

Method 8260 VOST
Sample ID: VOSTBLK081798

Client Project: Hotmix
TLI ID: VOSTBLK081798

Date Received: / /
Date Analyzed : 08/17/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.004	0.05
Toluene	0.005	J	8.10		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.36		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.006	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.003	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.73		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.003	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX878

Method 8260 VOST
Sample ID: VOSTBLK081798

Client Project: Hotmix
TLI ID: VOSTBLK081798

Date Received: / /

Date Analyzed : 08/17/98

Response File: ICALF814

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.267	5.19	1	107
Toluene-d_8	0.296	8.01	2	118
4-Bromofluorobenzene	0.256	12.66	2	102

Reviewed by VR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 17:44 08/24/199

Pacific Environmental Services

Project Number: 46297
Sample File: FX878

Method 8260 VOST
Sample ID: VOSTBLK081798

Client Project: Hotmix
TLI ID: VOSTBLK081798

Date Received: / /
Date Analyzed : 08/17/98

Response File: ICALF817

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.32		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane		U		0.001	0.25
1,2-Epoxybutane		U		0.011	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.08		
Ethyl acrylate		U		0.002	0.25

eviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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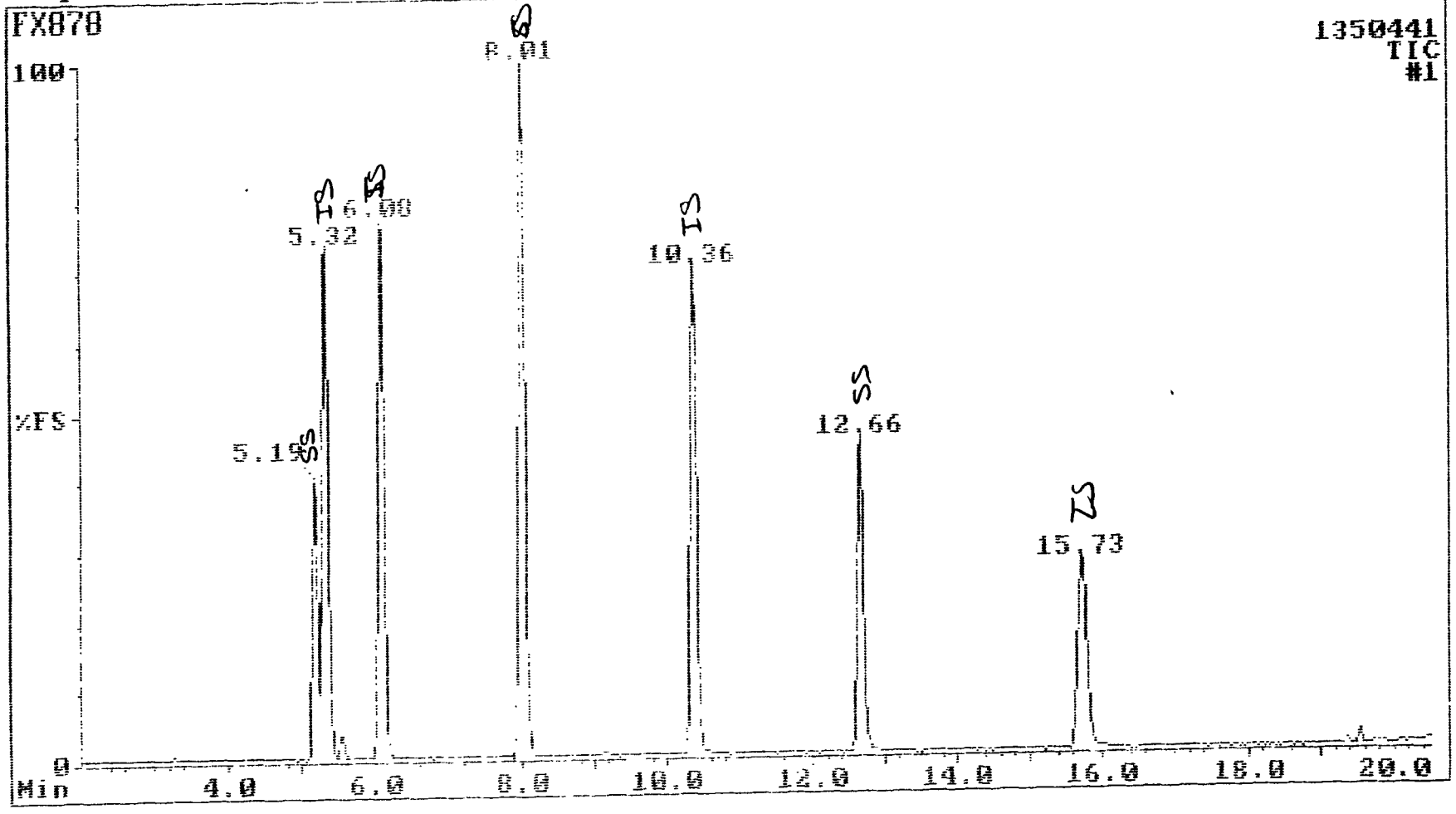
Printed: 18:00 08/24/1998

17-Aug-98 15:51 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument F



Data Review: MC
Date: 8/19/98

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QAN DB : FX878 LAB-BASE QUAN 17-Aug-98 16:31

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	85	99	3	2578248	bv	5.321	168	Pentafluorobenzene
2	100	97	99	-1	2921264	bv	6.081	114	1,4-Difluorobenzene
3	100	95	96	0	2425024	bv	10.361	117	Chlorobenzene-d5
4	100	79	98	0	799240	bv	15.751	152	1,4-Dichlorobenzene-d4
5	100	97	99	-1	1157096	bb	5.191	113	Dibromofluoromethane
6	100	92	97	0	3332432	bv	8.011	98	Toluene-d8
7	100	91	93	-1	1017440	bv	12.661	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	85	Dichlorodifluoromethane
9	0	0	0	0	0		0.000	50	Chloromethane
10	0	0	0	0	0		0.000	62	Vinyl Chloride
11	0	0	0	0	0		0.000	94	Bromomethane
12	0	0	0	0	0		0.000	64	Chloroethane
13	0	0	0	0	0		0.000	101	Trichlorofluoromethane
14	0	0	0	0	0		0.000	96	1,1-Dichloroethene
15	0	0	0	0	0		0.000	142	Iodomethane
16	0	0	0	0	0		0.000	76	Carbon disulfide
17	0	0	0	0	0		0.000	43	Acetone
18	0	0	0	0	0		0.000	41	Allyl chloride
19	0	0	0	0	0		0.000	84	Methylene chloride
20	0	0	0	0	0		0.000	53	Acrylonitrile
21	0	0	0	0	0		0.000	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.000	63	1,1-Dichloroethane
23	0	0	0	0	0		0.000	43	Vinyl acetate
24	0	0	0	0	0		0.000	77	2,2-Dichloropropane
25	0	0	0	0	0		0.000	96	cis-1,2-Dichloroethene
26	17	15	15	3	~~1[illegible] bb~~		~~1.77[illegible]~~ FP	43	2-Butanone
27	0	0	0	0	0		0.000	83	Chloroform
28	0	0	0	0	0		0.000	128	Bromochloromethane
29	0	0	0	0	0		0.000	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.000	117	Carbon tetrachloride
31	0	0	0	0	0		0.000	75	1,1-Dichloropropene
32	100	79	95	1	146244	bb	5.541	78	Benzene
33	0	0	0	0	0		0.000	62	1,2-Dichloroethane
34	0	0	0	0	0		0.000	130	Trichloroethene
35	0	0	0	0	0		0.000	63	1,2-Dichloropropane
36	0	0	0	0	0		0.000	93	Dibromomethane
37	0	0	0	0	0		0.000	41	Methyl methacrylate
38	0	0	0	0	0		0.000	83	Bromodichloromethane
39	0	0	0	0	0		0.000	75	cis-1,3-Dichloropropene
40	39	3	66	4	~~14176~~	~~bv~~	~~3.021~~ FP	43	4-Methyl-2-pentanone
41	66	34	72	-1	38368	bb	8.101	92	Toluene
42	0	0	0	0	0		0.000	75	trans-1,3-Dichloropropene
43	0	0	0	0	0		0.000	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.000	69	Ethyl methacrylate
45	0	0	0	0	0		0.000	164	Tetrachloroethene
46	0	0	0	0	0		0.000	76	1,3-Dichloropropane
47	0	0	0	0	0		0.000	43	2-Hexanone
48	0	0	0	0	0		0.000	129	Dibromochloromethane
49	0	0	0	0	0		0.000	107	1,2-Dibromoethane
50	0	0	0	0	0		0.000	112	Chlorobenzene

Data Review: MC
Date: 8/1998

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No.	MAT	FOR	REV	Delta	Area	P	Flags	RT	QM	Name
51	0	0	0	0	0			0.000	131	1,1,1,2-Tetrachloroethan
52	0	0	0	0	0			0.000	106	Ethylbenzene
53	0	0	0	0	0			0.000	106	m-/p-Xylene
54	0	0	0	0	0			0.000	106	o-Xylene
55	0	0	0	0	0			0.000	104	Styrene
56	0	0	0	0	0			0.000	173	Bromoform
57	0	0	0	0	0			0.000	105	Cumene
58	0	0	0	0	0			0.000	83	1,1,2,2-Tetrachloroethan
59	0	0	0	0	0			0.000	156	Bromobenzene
60	0	0	0	0	0			0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0			0.000	120	n-Propylbenzene
62	0	0	0	0	0			0.000	75	trans-1,4-Dichloro-2-but
63	0	0	0	0	0			0.000	126	2-Chlorotoluene
64	0	0	0	0	0			0.000	126	4-Chlorotoluene
65	0	0	0	0	0			0.000	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0			0.000	119	tert-Butylbenzene
67	0	0	0	0	0			0.000	105	1,2,4-Trimethylbenzene
68	0	0	0	0	0			0.000	105	sec-Butylbenzene
69	0	0	0	0	0			0.000	119	p-Cymene
70	0	0	0	0	0			0.000	146	1,3-Dichlorobenzene
71	0	0	0	0	0			0.000	146	1,4-Dichlorobenzene
72	0	0	0	0	0			0.000	91	Benzyl chloride
73	0	0	0	0	0			0.000	91	n-Butylbenzene
74	0	0	0	0	0			0.000	146	1,2-Dichlorobenzene
75	0	0	0	0	0			0.000	75	1,2-Dibromo-3-chloroprop
76	57	33	65	-3	16904	hv		19.352	180	1,2,4-Trichlorobenzene
77	76	51	87	-5	17800	bb		19.532	225	Hexachlorobutadiene
78	0	0	0	0	0			0.000	128	Naphthalene
79	0	0	0	0	19356 ~~0~~ m			19.762 ~~0.000~~	180	1,2,3-Trichlorobenzene

YR 8/19/94

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AN DB : FX878 LAB-BASE QUAN 17-Aug-98 13:04

o.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	78	99	1	2574448	bb	5.301	168	Pentafluorobenzene
2	100	97	99	0	2726140	bv	6.071	114	1,4-Difluorobenzene
3	100	95	95	-1	2355716	bv	10.351	117	Chlorobenzene-d5
4	100	76	100	-2	860176	bv	15.712	152	1,4-Dichlorobenzene-d4
5	100	84	99	0	1077964	bv	5.131	113	Dibromofluoromethane
6	100	91	97	0	3394004	bv	8.001	98	Toluene-d8
7	100	91	93	-1	1044408	bv	12.651	95	4-Bromofluorobenzene
8	67	77	[illegible]	5	[illegible]	vv	[illegible] FP	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	57	40	55	4	[illegible]	m	[illegible] FP	73	MTBE
11	69	57	59	2	[illegible]	bb	[illegible] FP	57	n-Hexane
12	55	45	62	15	[illegible]	m	[illegible] FP	42	1,2-Epoxybutane
13	64	47	57	1	[illegible]	m	[illegible] FP	77	Isooctane
14	44	[illegible]	69	-12	[illegible]	bb	[illegible] FP	55	Ethyl acrylate

MS 8/19/98

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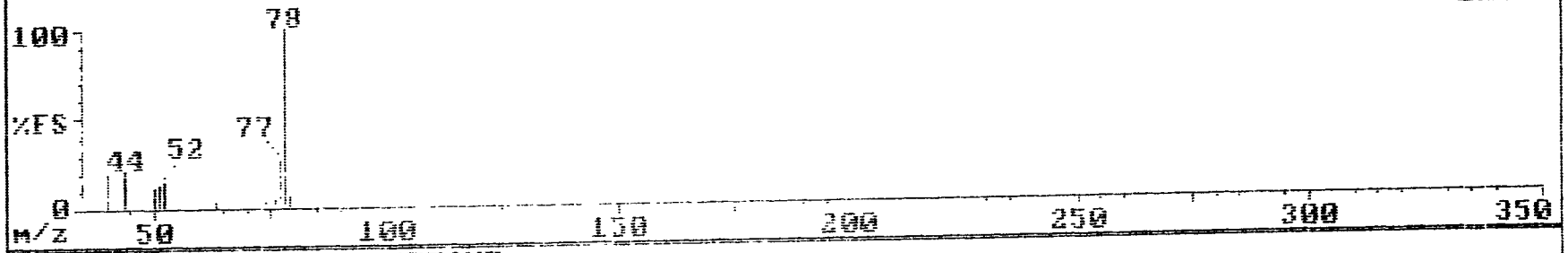
17-Aug-98 15:51 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument F

FX878 554 (5.541) 21760



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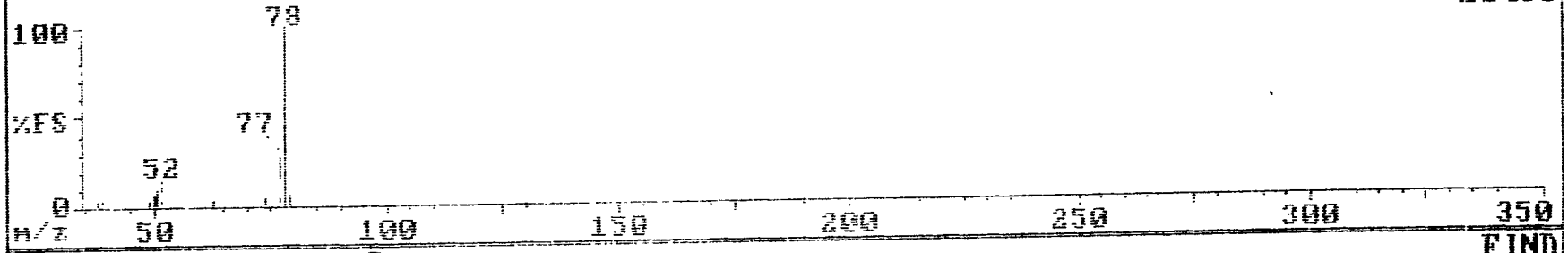
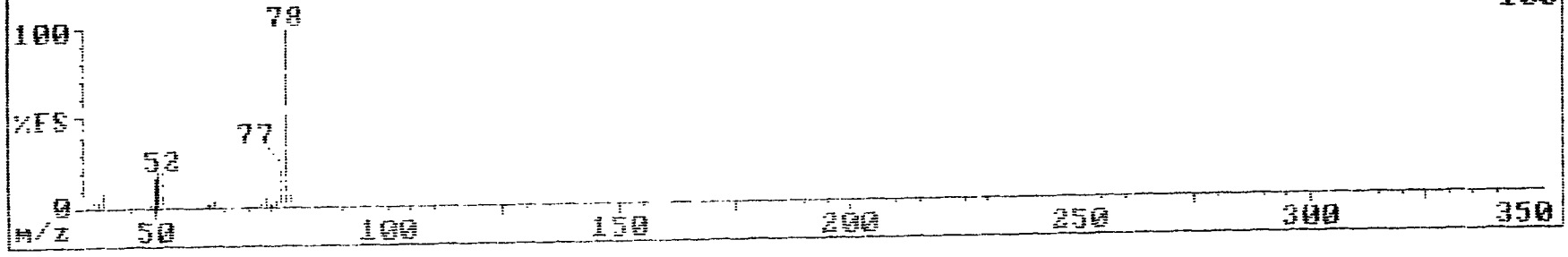
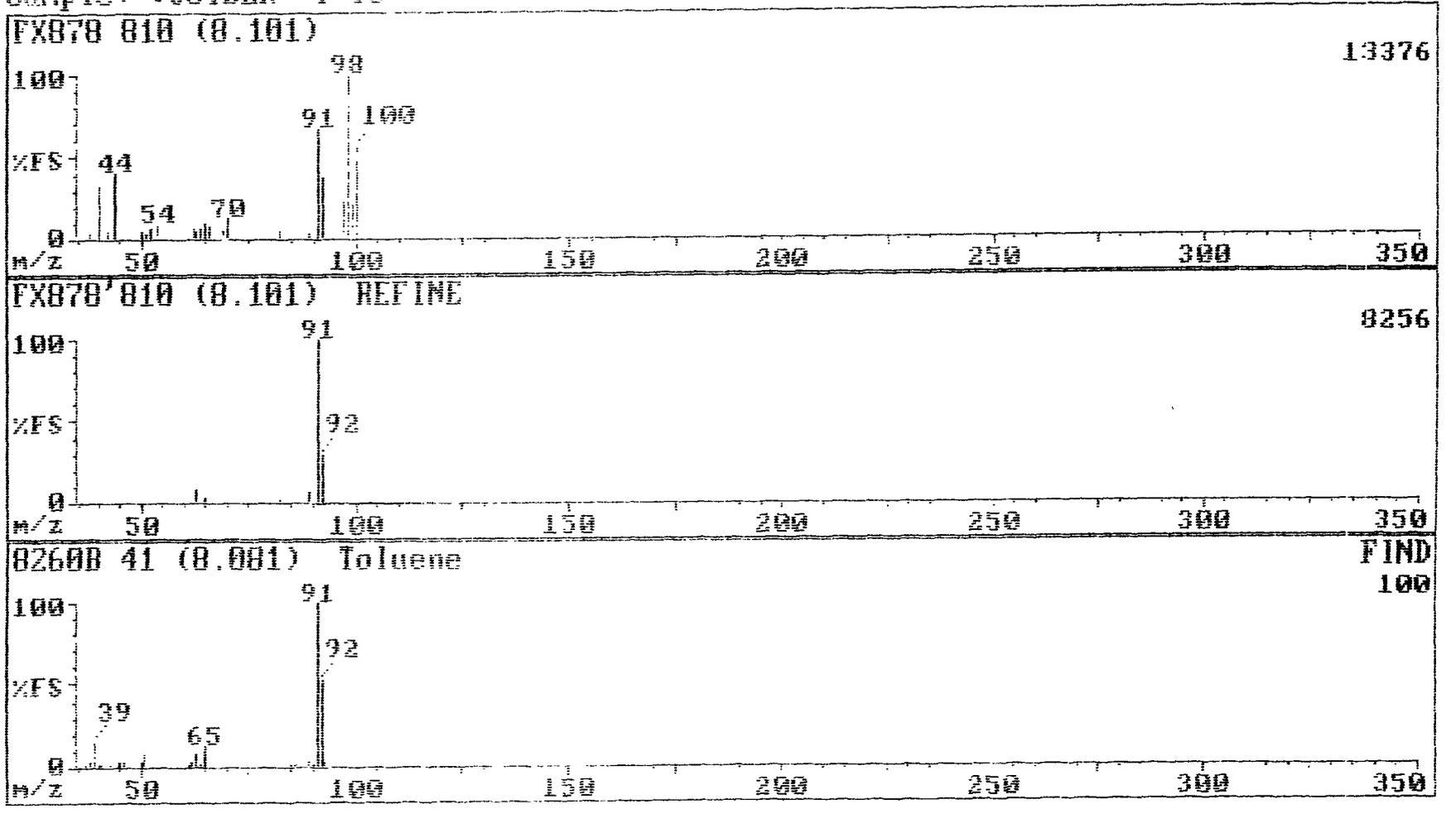


8260B 32 (5.511) Benzene FIND 100



17-Aug-98 15:51 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument F



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Pacific Environmental Services

Project Number: 46297
Sample File: FX894

Method 8260 VOST
Sample ID: VOSTBLK081898

Client Project: Hotmix
TLI ID: VOSTBLK081898

Date Received: / /
Date Analyzed: 08/18/98

Response File: ICALF814

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.29		
Chloromethane		U		0.001	0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone		U		0.006	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride		U		0.001	0.05
Acrylonitrile		U		0.021	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.005	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.06		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.023	J	5.51		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46297 | **Method 8260 VOST**
Sample File: FX894 | **Sample ID: VOSTBLK081898**

Client Project: Hotmix | **Date Received: / /** | **Response File: ICALF814**
TLI ID: VOSTBLK081898
Date Analyzed : 08/18/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.007	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.006	0.05
Toluene	0.008	J	8.07		0.05
trans-1,3-Dichloropropene		U		0.002	0.05
1,1,2-Trichloroethane		U		0.002	0.05
Chlorobenzene-d_5		IS 3	10.33		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.008	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.002	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.004	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.67		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.004	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 17:44 08/24/1998

Pacific Environmental Services

Project Number: 46297
Sample File: FX894

Method 8260 VOST
Sample ID: VOSTBLK081898

Client Project: Hotmix
TLI ID: VOSTBLK081898

Date Received: / /

Date Analyzed : 08/18/98

Response File: ICALF814

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.255	5.16	1	102
Toluene-d_8	0.317	7.98	2	127
4-Bromofluorobenzene	0.265	12.63	2	106

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 17:44 08/24/19

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Pacific Environmental Services

Project Number: 46297 | **Method 8260 VOST**
Sample File: FX894 | **Sample ID: VOSTBLK081898**

Client Project: Hotmix | **Date Received: / /** | **Response File: ICALF818**
TLI ID: VOSTBLK081898
Date Analyzed : 08/18/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.29		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane		U		0.001	0.25
1,2-Epoxybutane		U		0.020	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.06		
Ethyl acrylate		U		0.004	0.25

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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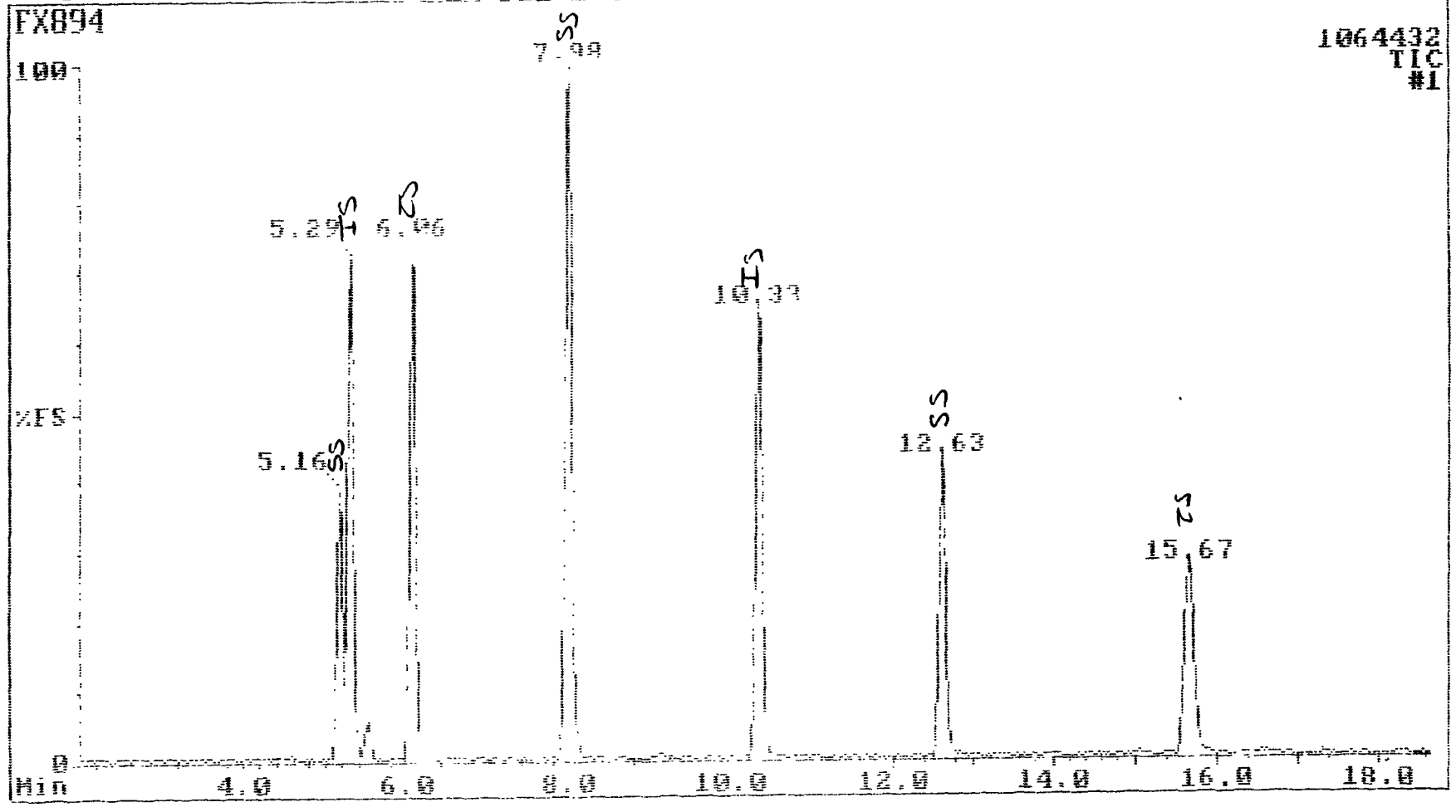
Savar v3.7
Printed: 18:00 08/24/1998

18-Aug-98 12:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument F



Data Review: ML
Date: 8/19/98

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JAN 08 : F[illegible] LAB-BASE QUAN [illegible]-Aug-[illegible] [illegible]

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	UM	Name
1	100	85	79	0	196692	bb	5.[illegible]	168	Pentafluorobenzene
2	100	97	98	0	[illegible]2904	bv	6.[illegible]	114	1,4-Difluorobenzene
3	100	95	95	0	165360	bv	10.[illegible]	117	Chlorobenzene-d5
4	100	77	97	-1	60038[illegible]	bv	15.[illegible]	152	1,4-Dichlorobenzene-d4
5	100	97	99	-1	846772	bb	5.[illegible]	113	Dibromofluoromethane
6	100	95	97	0	779[illegible]248	bv	7.[illegible]	96	Toluene-d8
7	100	91	93	0	7784[illegible]	mv	12.[illegible]	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	85	Dichlorodifluoromethane
9	0	0	0	0	0		0.000	50	Chloromethane
10	0	0	0	0	0		0.000	62	Vinyl Chloride
11	0	0	0	0	0		0.000	94	Bromomethane
12	0	0	0	0	0		0.000	[illegible]	Chloroethane
13	0	0	0	0	0		0.000	100	Trichlorofluoromethane
14	0	0	0	0	0		0.000	96	1,1-Dichloroethene
15	0	0	0	0	0		0.000	[illegible]	Methylene
16	0	0	0	0	0		0.000	76	Carbon Disulfide
17	100	15	35	2	~~[illegible]~~		~~[illegible]~~ FP	43	Acetone
18	0	0	0	0	0		0.000	[illegible]	Ethyl Ether
19	0	0	0	0	0		0.000 ✓	84	Methyl Acetate
20	0	0	0	0	0		0.000	75	Methylene
21	0	0	0	0	0		0.000	96	trans-1,2-Dichloroethene
22	0	0	0	0	0		0.000	63	1,1-Dichloroethane
23	0	0	0	0	0		0.000	43	Vinyl Acetate
24	0	0	0	0	0		0.000	77	2,2-Dichloropropane
25	0	0	0	0	0		0.000	[illegible]	cis-1,2-Dichloroethene
26	0	0	0	0	0		0.000	[illegible]	Methylacetate
27	0	0	0	0	0		0.000	83	Chloroform
28	0	0	0	0	0		0.000	130	Bromochloromethane
29	0	0	0	0	0		0.000	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.000	117	Carbon Tetrachloride
31	0	0	0	0	0		0.000	75	1,1-Dichloropropene
32	100	85	95	0	192064	bb	5.511	78	Benzene
33	0	0	0	0	0		0.000	62	1,2-Dichloroethane
34	0	0	0	0	0		0.000	130	Trichloroethene
35	0	0	0	0	0		0.000	63	1,2-Dichloropropane
36	0	0	0	0	0		0.000	93	Dibromomethane
37	0	0	0	0	0		0.000	41	Methyl methacrylate
38	0	0	0	0	0		0.000	83	Bromodichloromethane
39	0	0	0	0	0		0.000	75	cis-1,3-Dichloropropene
40	79	[illegible]	58	3	~~[illegible]~~	~~bb~~	~~[illegible]~~ FP	43	4-Methyl-2-pentanone
41	70	39	73	-1	51592	bb	8.071	92	Toluene
42	0	0	0	0	0		0.000	75	trans-1,3-Dichloropropene
43	0	0	0	0	0		0.000	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.000	69	Ethyl methacrylate
45	0	0	0	0	0		0.000	164	Tetrachloroethene
46	0	0	0	0	0		0.000	76	1,3-Dichloropropane
47	0	0	0	0	0		0.000	43	2-Hexanone
48	0	0	0	0	0		0.000	129	Dibromochloromethane
49	0	0	0	0	0		0.000	107	1,2-Dibromoethane
50	0	0	0	0	0		0.000	112	Chlorobenzene

Data Review: YM
Date: 8/19/98

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No.	MAT	FOR	RFV	Delta	Area	Flags	RT	QM	Name
51	0	0	0	0	0		0.000	131	1,1,2,2-Tetrachloroethane
52	0	0	0	0	0		0.000	106	Ethylbenzene
53	0	0	0	0	0		0.000	106	m-/p-Xylene
54	0	0	0	0	0		0.000	106	o-Xylene
55	0	0	0	0	0		0.000	104	Styrene
56	0	0	0	0	0		0.000	173	Bromoform
57	0	0	0	0	0		0.000	105	Cumene
58	0	0	0	0	0		0.000	83	1,1,2,2-Tetrachloroethan
59	0	0	0	0	0		0.000	156	Bromobenzene
60	0	0	0	0	0		0.000	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.000	120	n-Propylbenzene
62	0	0	0	0	0		0.000	[illegible]	[illegible]
63	0	0	0	0	0		0.000	[illegible]	2-Chlorotoluene
64	0	0	0	0	0		0.000	[illegible]	4-Chlorotoluene
65	0	0	0	0	0		0.000	[illegible]	[illegible]
66	0	0	0	0	0		0.000	[illegible]	[illegible]
67	0	0	0	0	0		0.000	[illegible]	[illegible]
68	0	0	0	0	0		0.000	[illegible]	[illegible]
69	0	0	0	0	0		0.000	[illegible]	[illegible]
70	0	0	0	0	0		0.000	[illegible]	1,3-Dichlorobenzene
71	0	0	0	0	0		0.000	[illegible]	[illegible]
72	0	0	0	0	0		0.000	[illegible]	[illegible]
73	0	0	0	0	0		0.000	[illegible]	[illegible]
74	0	0	0	0	0		0.000	[illegible]	1,2-Dichlorobenzene
75	0	0	0	0	0		0.000	75	1,2-Dibromo-3-chloropro
76	0	0	0	0	0		0.000	170	1,2,4-Trichlorobenzene
77	0	0	0	0	0		0.000	208	Hexachlorobutadiene
78	0	0	0	0	0		0.000	128	Naphthalene
79	0	0	0	0	0		0.000	170	1,2,3-Trichlorobenzene

DAT OR : FX894 LAB-BASE QUAN 15-aug-96 14:36

No.	MAT	FOR	REV	Delta	area	P.Flags	RT	QN	Name
1	100	85	99	0	1969692	bb	5.291	168	Pentafluorobenzene
2	100	97	98	0	2162974	bv	6.061	114	1,4-Difluorobenzene
3	100	95	95	-1	1665300	bv	10.331	117	Chlorobenzene-d5
4	100	77	97	-3	600866	bv	15.672	152	1,4-Dichlorobenzene-d4
5	100	97	99	-1	84637	bb	5.161	113	Dibromofluoromethane
6	100	97	97	-1	2796244	bv	7.981	98	Toluene-d8
7	100	91	93	-1	778437	bv	12.631	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.000	39	1,3-Butadiene
9	0	0	0	0	0		0.000	106	Vinyl bromide
10	0	0	0	0	0		0.000	77	MTBE
11	31	25	25	-1	[illegible]	[illegible]	[illegible] FP	57	n-Hexane
12	0	0	0	0	0		0.000	[illegible]	1,3-Epoxybutane
13	0	0	0	0	0		0.000	57	Isooctane
14	0	0	0	0	0		0.000	55	Ethyl acrylate

MS 8/19/98

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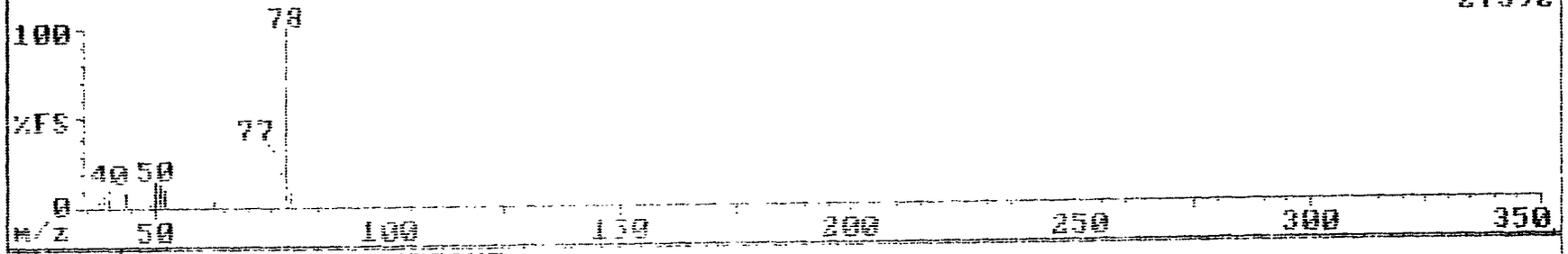
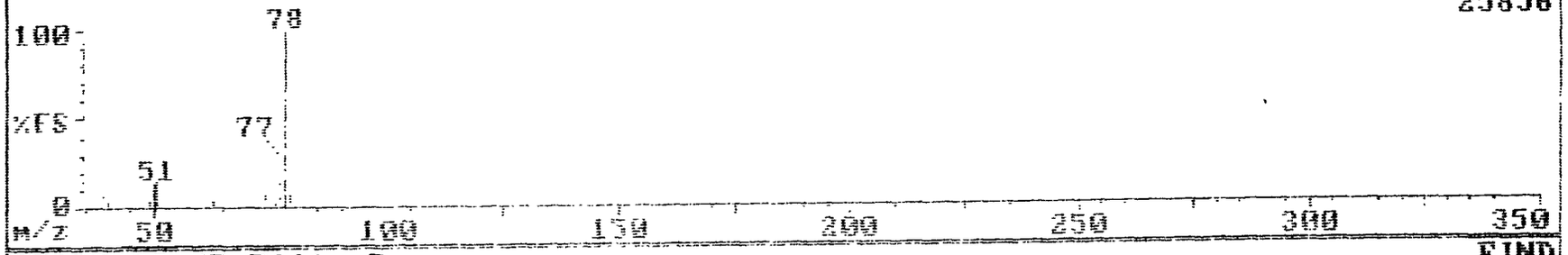
18-Aug-90 12:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument F

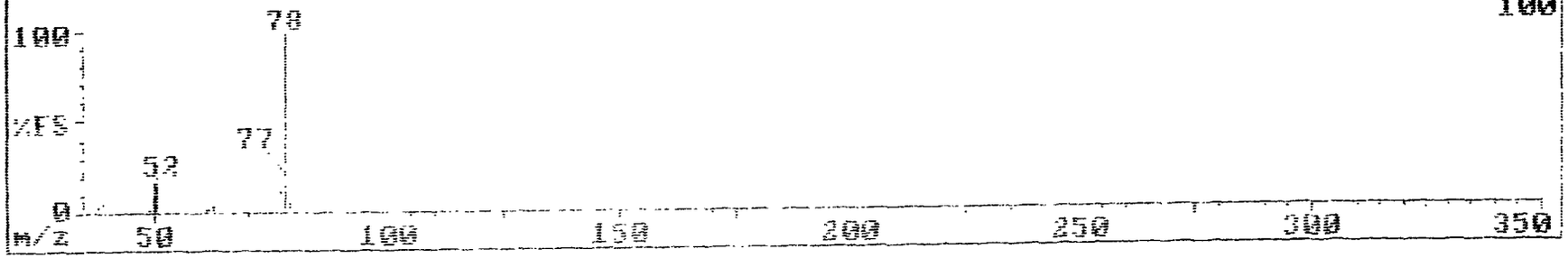
FX894 551 (5.511) 27392



FX894'551 (5.511) RETIME 25856



8260B 32 (5.511) Benzene FIND 100



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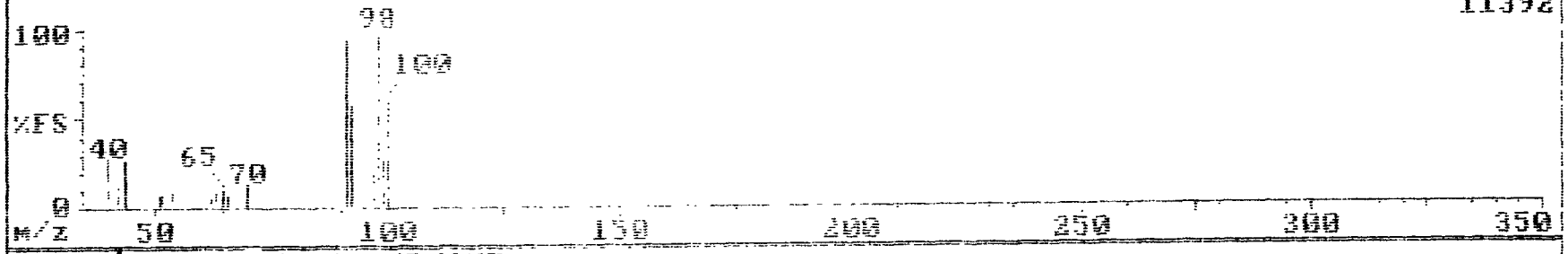
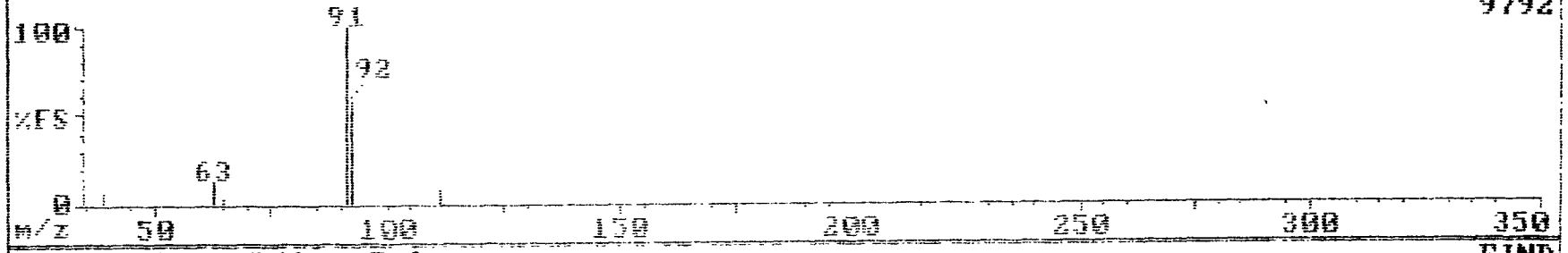
10-Aug-90 12:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument F

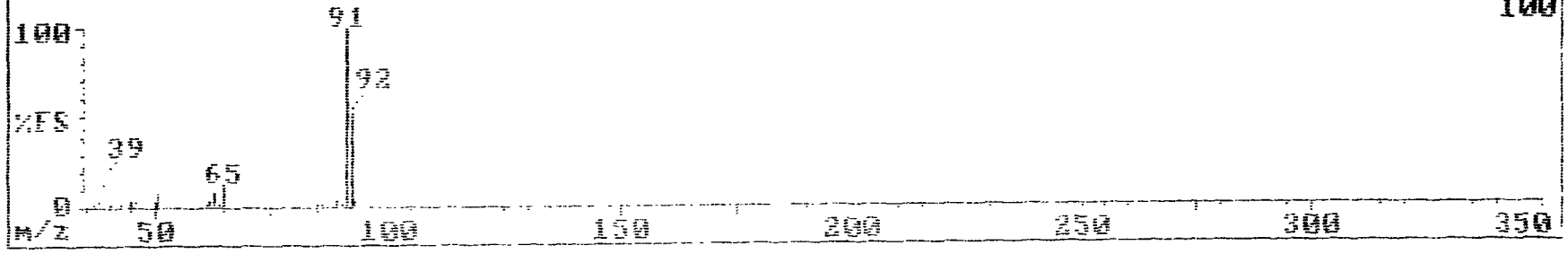
FX894 807 (8.071) 11392



FX894'807 (8.071) REFINE 9792



8260B 41 (8.081) Toluene FIND 100



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Pacific Environmental Services

Project Number: 46297
Sample File: HW705

Method 8260 VOST
Sample ID: VOSTBLK081998

Client Project: Hotmix
TLI ID: VOSTBLK081998

Date Received: / /
Date Analyzed : 08/19/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.04		
Chloromethane	0.003	J	0.96		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone		U		0.004	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.002	J	3.06		0.05
Acrylonitrile		U		0.006	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.003	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	5.77		
Carbon tetrachloride		U		0.001	0.05
Benzene		U		0.001	0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 18:08 08/24/199

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Pacific Environmental Services

Project Number: 46297 | **Method 8260 VOST**
Sample File: HW705 | **Sample ID: VOSTBLK081998**

Client Project: Hotmix | **Date Received: / /** | **Response File: ICALH809**
TLI ID: VOSTBLK081998
Date Analyzed : 08/19/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.002	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.001	0.05
Toluene	0.003	J	7.74		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	9.96		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.002	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene	0.001	J	10.56		0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.001	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.10		
Cumene	0.001	J	12.03		0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46297
Sample File: HW705

Method 8260 VOST
Sample ID: VOSTBLK08199

Client Project: Hotmix
TLI ID: VOSTBLK081998

Date Received: / /
Date Analyzed : 08/19/98

Response File: ICALH809

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.273	4.92	1	109
Toluene-d_8	0.280	7.66	2	112
4-Bromofluorobenzene	0.293	12.25	2	117

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar
Printed: 18:08 08/24/

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Pacific Environmental Services

Project Number: 46297
Sample File: HW705

Method 8260 VOST
Sample ID: VOSTBLK081998

Client Project: Hotmix
TLI ID: VOSTBLK081998

Date Received: / /
Date Analyzed : 08/19/98

Response File: ICALH819

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.04		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane	0.001	J	3.67		0.25
1,2-Epoxybutane		U		0.017	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	5.77		
Ethyl acrylate		U		0.001	0.25

Reviewed by YR Date 8/24/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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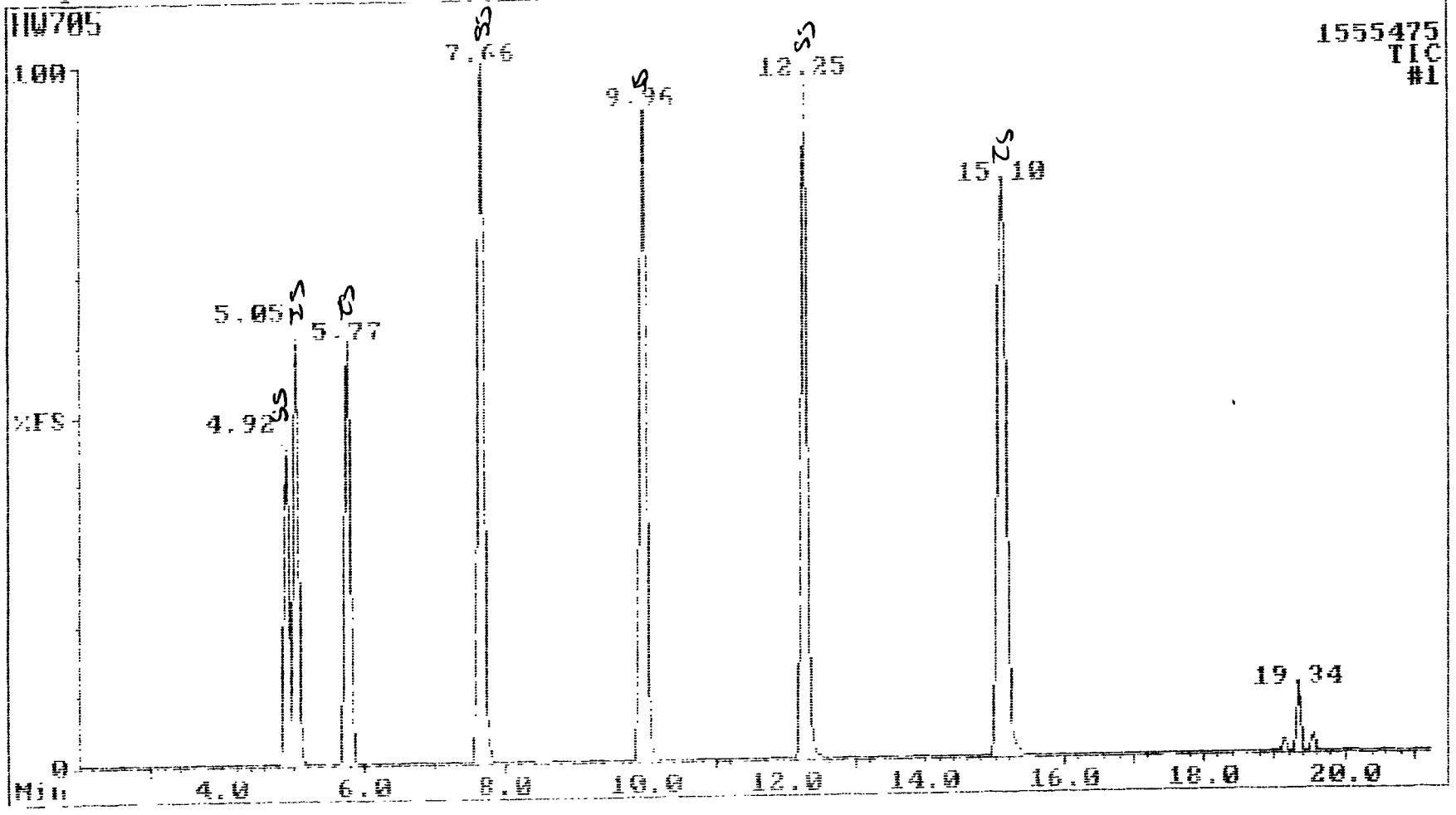
Printed: 18:00 08/24/1998

08-19-90 02:36 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument H



Data Review: YL
Date: 8/19/90

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No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	85	98	0	2415996	bb	5.04	168	Pentafluorobenzene
2	100	97	99	0	3874730	bv	5.77	114	1,4-Difluorobenzene
3	100	95	95	0	4260740	bv	9.96	117	Chlorobenzene-d5
4	100	81	98	2	2872176	bv	11.10	152	1,4-Dichlorobenzene-d4
5	100	98	100	1	1407863	bb	4.91	113	Dibromofluoromethane
6	100	97	97	1	4508104	bv	7.66	98	Toluene-d8
7	100	89	95	0	2533348	bv	12.15	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.00	85	Dichlorodifluoromethane
9	0	0	0	0	10543 m		0.96	50	Chloromethane
10	0	0	0	0	0		0.00	62	Vinyl chloride
11	0	0	0	0	0		0.00	94	Bromomethane
12	0	0	0	0	0		0.00	64	Chloroethane
13	0	0	0	0	0		0.00	101	Trichlorofluoromethane
14	0	0	0	0	0		0.00	96	1,1-Dichloroethene
15	0	0	0	0	0		0.00	142	Iodomethane
16	0	0	0	0	0		0.00	76	Carbon disulfide
17	92	15	85	0	~~[illegible]~~		~~[illegible]~~ FP	43	Acetone
18	0	0	0	0	0		0.00	41	Allyl chloride
19	99	99	100	-1	6250	bb	[illegible]	84	Methylene chloride
20	0	0	0	0	0		0.00	57	Acrylonitrile
21	0	0	0	0	0		0.00	96	Trans-1,2-Dichloroethene
22	0	0	0	0	0		0.00	63	1,1-Dichloroethane
23	0	0	0	0	0		0.00	62	Vinyl acetate
24	0	0	0	0	0		0.00	7	2,2-Dichloropropane
25	0	0	0	0	0		0.00	96	Cis-1,2-Dichloroethene
26	0	0	0	0	0		0.00	43	2-Butanone
27	0	0	0	0	0		0.00	83	Chloroform
28	0	0	0	0	0		0.00	128	Bromochloromethane
29	0	0	0	0	0		0.00	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.00	117	Carbon tetrachloride
31	0	0	0	0	0		0.00	75	1,1-Dichloropropene
32	0	0	0	0	0		0.00	78	Benzene
33	0	0	0	0	0		0.00	62	1,2-Dichloroethane
34	0	0	0	0	0		0.00	130	Trichloroethene
35	0	0	0	0	0		0.00	63	1,2-Dichloropropane
36	0	0	0	0	0		0.00	93	Dibromomethane
37	0	0	0	0	0		0.00	41	Methyl methacrylate
38	0	0	0	0	0		0.00	83	Bromodichloromethane
39	0	0	0	0	0		0.00	75	cis-1,3-Dichloropropene
40	43	3	70	2	~~22432~~ bb		~~7.64~~ FP	43	4-Methyl-2-pentanone
41	76	43	81	-1	33028 bb		7.74	92	Toluene
42	0	0	0	0	0		0.00	75	trans-1,3-Dichloropropene
43	0	0	0	0	0		0.00	97	1,1,2-Trichloroethane
44	0	0	0	0	0		0.00	69	Ethyl methacrylate
45	0	0	0	0	0		0.00	164	Tetrachloroethene
46	0	0	0	0	0		0.00	76	1,3-Dichloropropane
47	0	0	0	0	0		0.00	43	2-Hexanone
48	0	0	0	0	0		0.00	129	Dibromochloromethane
49	0	0	0	0	0		0.00	107	1,2-Dibromoethane
50	0	0	0	0	0		0.00	112	Chlorobenzene

No	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.00	131	1,1,1,2-Tetrachloroet
52	0	0	0	0	0		0.00	106	Ethylbenzene
53	51	47	47	2	7212	bb	10.56	106	m-/p-xylene
54	0	0	0	0	0		0.00	106	o-Xylene
55	0	0	0	0	0		0.00	104	Styrene
56	0	0	0	0	0		0.00	173	Bromoform
57	63	45	59	0	12144	bb	11.03	105	Cumene
58	0	0	0	0	0		0.00	83	1,1,2,2-Tetrachloroe
59	0	0	0	0	0		0.00	156	Bromobenzene
60	0	0	0	0	0		0.00	75	1,2,3-Trichloropropan
61	66	56	56	-2	[illegible]	m	[illegible]	120	n-Propylbenzene
62	16	11	13	-15	[illegible]		[illegible]	75	Bromo[illegible]-Dichlorop
63	57	47	47	0	[illegible]		[illegible]	[illegible]	2-Chlorotoluene
64	0	0	0	0	0		0.00	126	1-Chlorobenzene
65	70	57	57	1	[illegible]		[illegible]	105	1,3,5-Trimethylbenzene
66	66	59	59	1	[illegible]	a	[illegible]	[illegible]	Ethylbenzene
67	63	5[illegible]	52	0	[illegible]	a	[illegible]	[illegible]	1,[illegible]-Trimethylbenzene
68	88	[illegible]	70	0	[illegible]	bv	[illegible]	[illegible]	[illegible]-Ethylbenzene
69	5[illegible]	[illegible]	[illegible]	0	[illegible]	a	[illegible]	[illegible]	[illegible]-Xylene
70	71	5[illegible]	[illegible]	1	[illegible]	a	[illegible]	[illegible]	[illegible]-Dichlorobenzene
71	0	0	0	0	24648	m	15.71	[illegible]	1,4-Dichlorobenzene
72	0	0	0	0	0		0.00	[illegible]	Benzyl [illegible]
73	75	[illegible]	[illegible]	[illegible]	[illegible]	a	[illegible]	91	n-Butylbenzene
74	65	[illegible]	54	[illegible]	[illegible]	a	[illegible]	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.00	7[illegible]	1,2-Dibromo-3-chloropro
76	100	[illegible]	83	-[illegible]	[illegible]	bb	[illegible]	100	1,2,4-Trichlorobenzene
77	89	38	49	-[illegible]	[illegible]	bb	[illegible]	[illegible]	Hexachlorobutadiene
78	94	77	81	-[illegible]	[illegible]	bv	[illegible]	128	Naphthalene
79	100	88	88	-[illegible]	[illegible]	bb	[illegible]	180	1,2,3-Trichlorobenze

MC 8/19/98

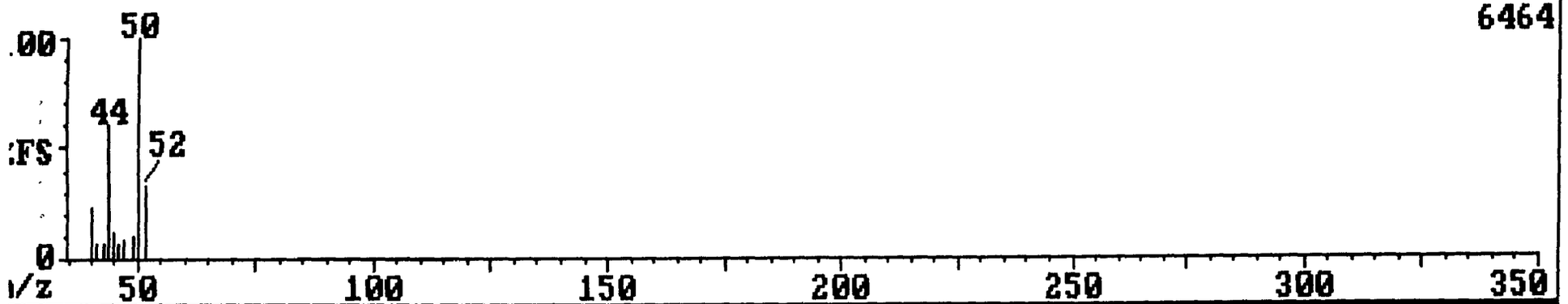
No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	85	98	0	2415976	bb	5.04	108	Pentafluorobenzene
2	100	97	99	1	2874780	bv	5.77	114	1,4-Difluorobenzene
3	100	95	95	0	4260740	bv	9.96	117	Chlorobenzene-d5
4	100	82	98	5	2872176	bv	15.10	152	1,4-Dichlorobenzene-d4
5	100	96	100	2	1407838	bb	4.92	117	Dibromofluoromethane
6	100	93	97	1	4508104	bv	7.66	98	Toluene-d8
7	100	89	93	2	3533343	bv	12.25	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.00	70	1,3-Butadiene
9	0	0	0	0	0		0.00	106	Vinyl bromide
10	0	0	0	0	0		0.00	73	MTBE
11	62	50	50	1	3690	bb	3.67	57	n-Hexane
12	0	0	0	0	0		0.00	41	1,2-Epoxybutane
13	0	0	0	0	0		0.00	57	Isooctane
14	0	0	0	0	0		0.00	57	Ethyl acrylate

175

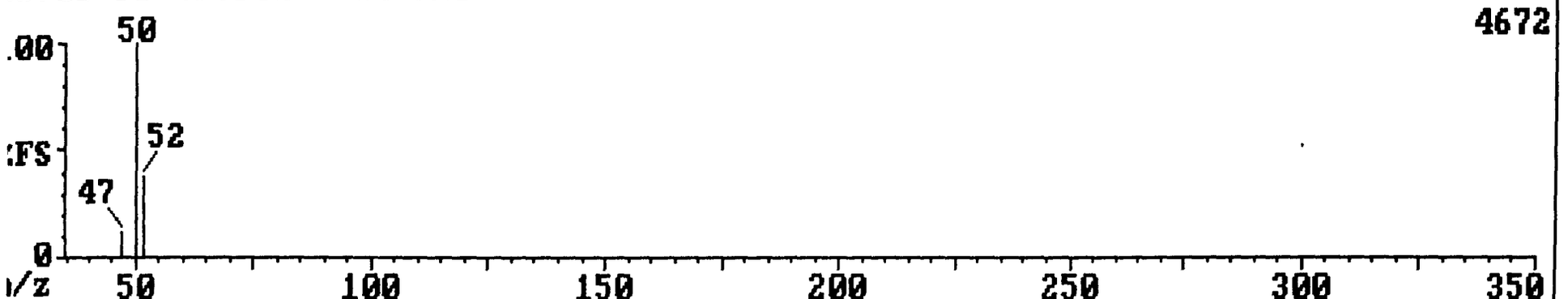
9-Aug-98 10:06 Triangle Laboratories, Inc. (919) 544-5729

ample: T-V-1-3-A T 214-1-8A TLI#46297 Instrument H

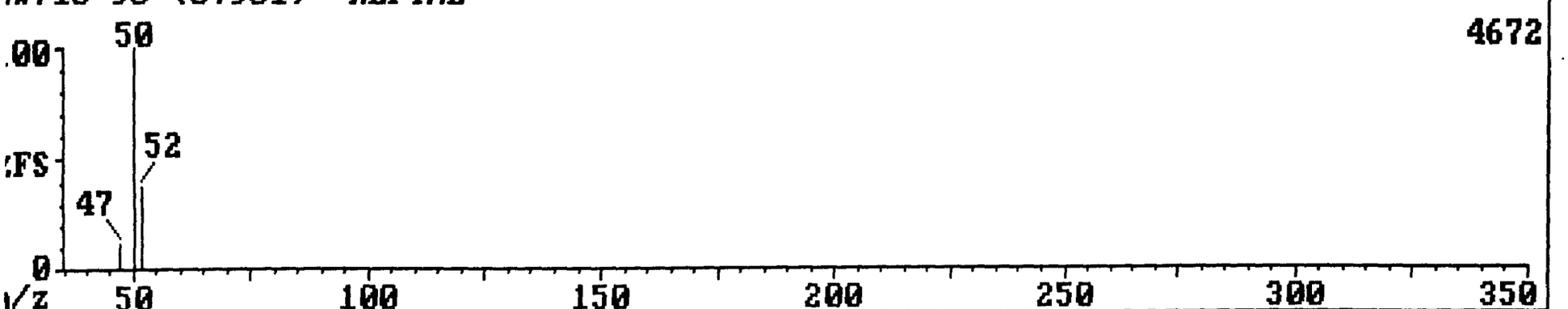
IW713 96 (0.960)



IW713'96 (0.961) REFINE



IW713'96 (0.961) REFINE

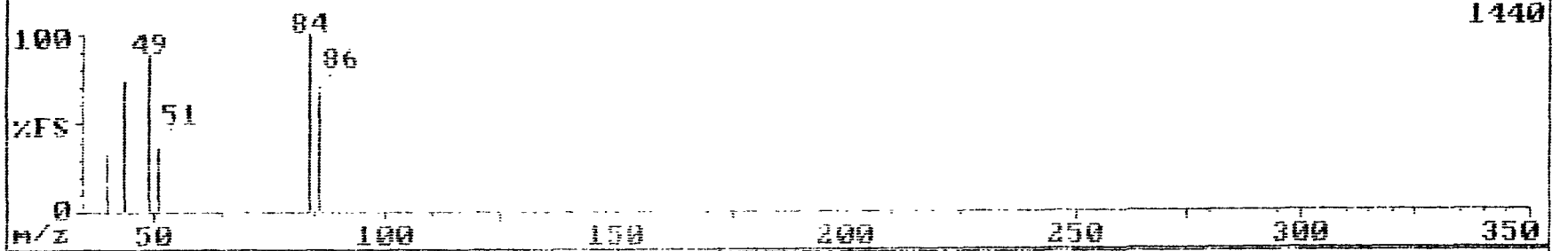


176

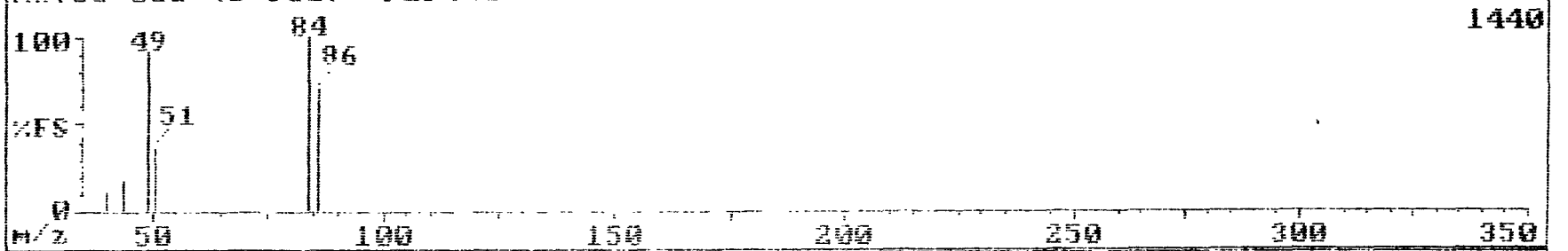
08-19-98 02:36 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument H

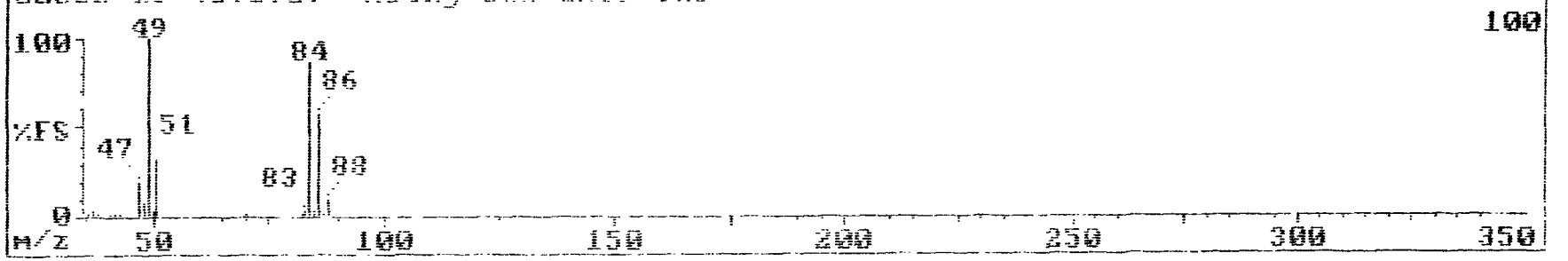
HW705 306 (3.060) 1440



HW705 306 (3.061) REFINE 1440

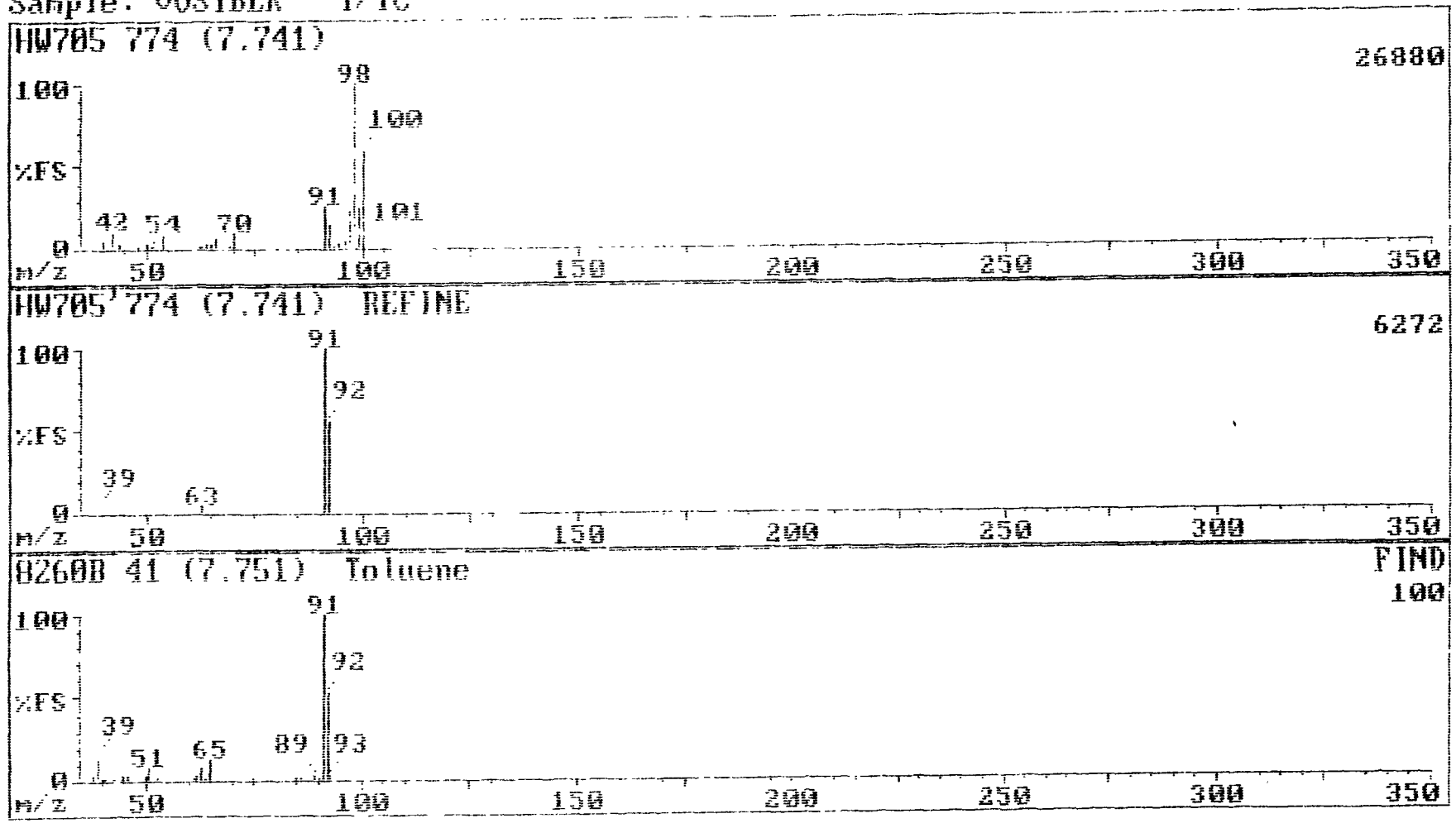


8260B 19 (3.070) Methylene chloride FIND 100



08-19-98 02:36 Triangle Laboratories, Inc. (919) 544-5729

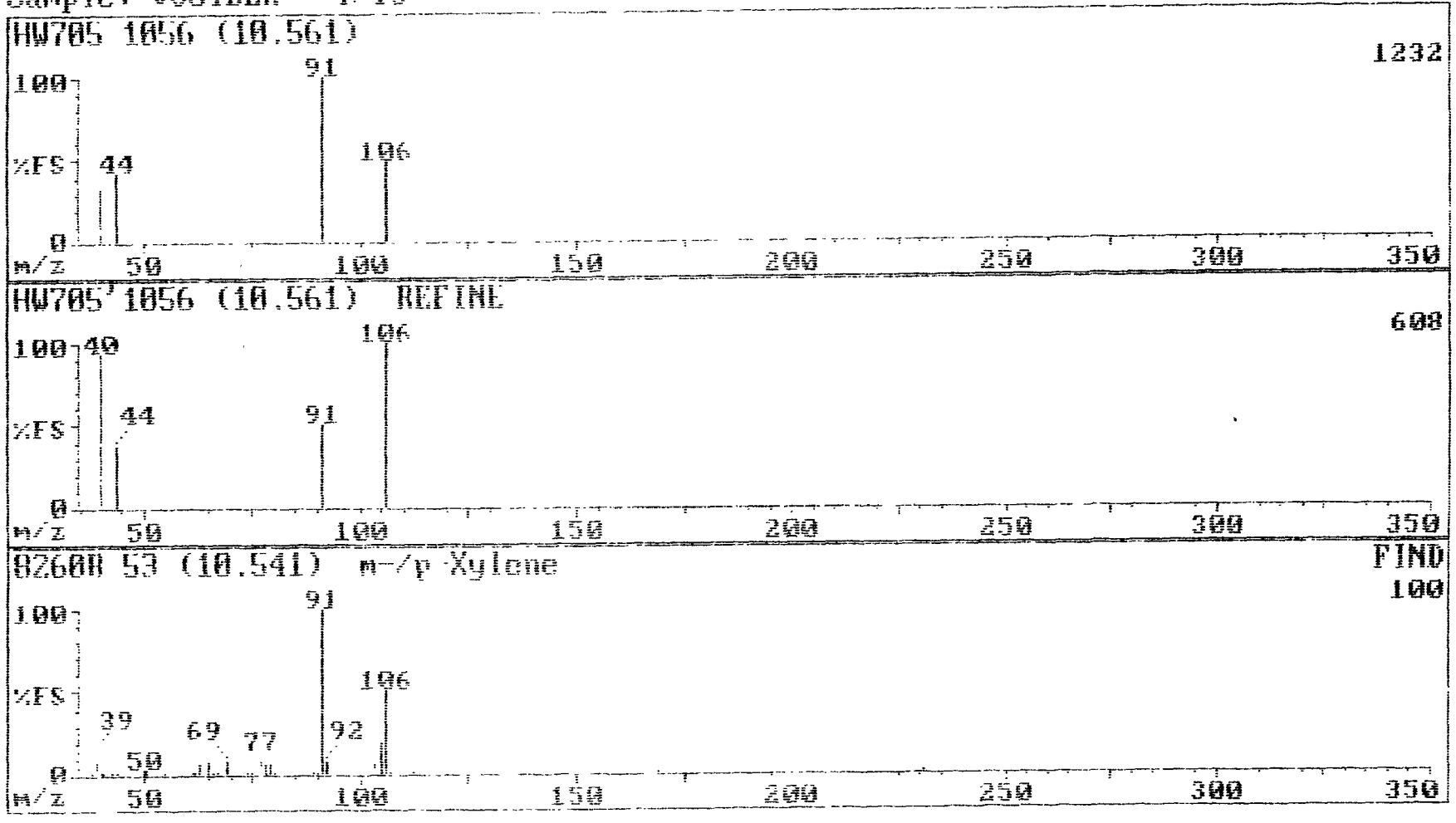
Sample: VOSTBLK T/TC Instrument H



178

08-19-90 02:36 Triangle Laboratories, Inc. (919) 544-5729

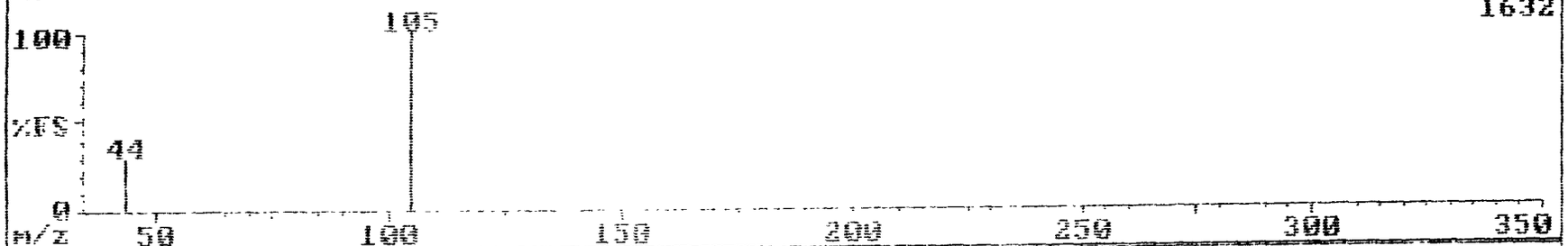
Sample: VOSTBLK T/TC Instrument H



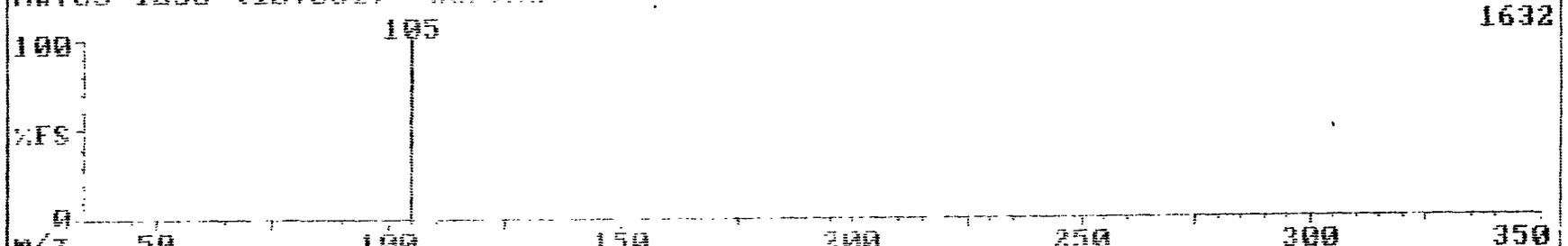
08-19-98 02:36 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument H

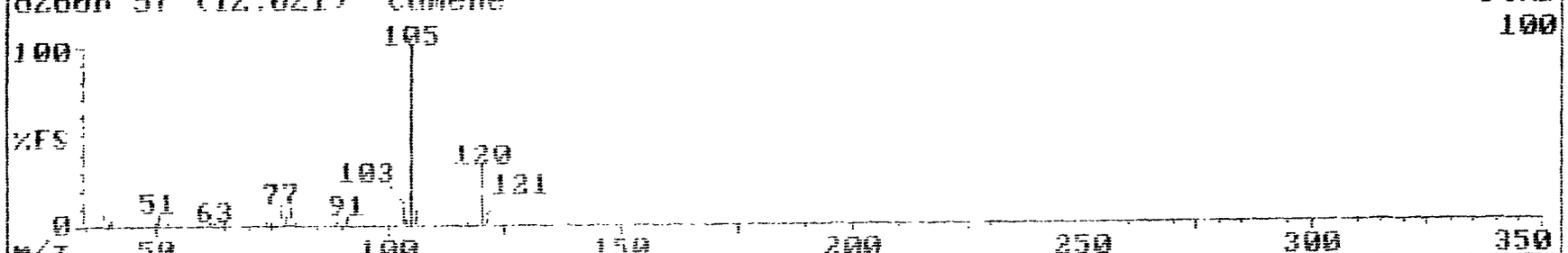
HW705 1203 (12.031) 1632



HW705 1203 (12.031) REFINE 1632



8260B 57 (12.021) Cumene FIND 100

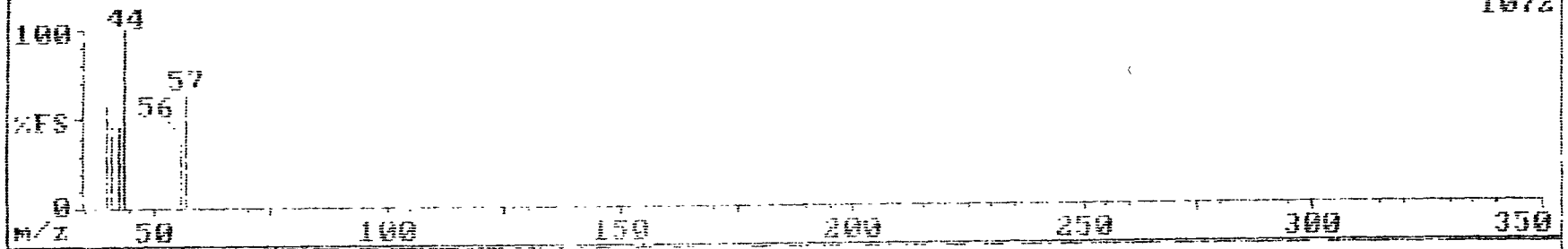


180

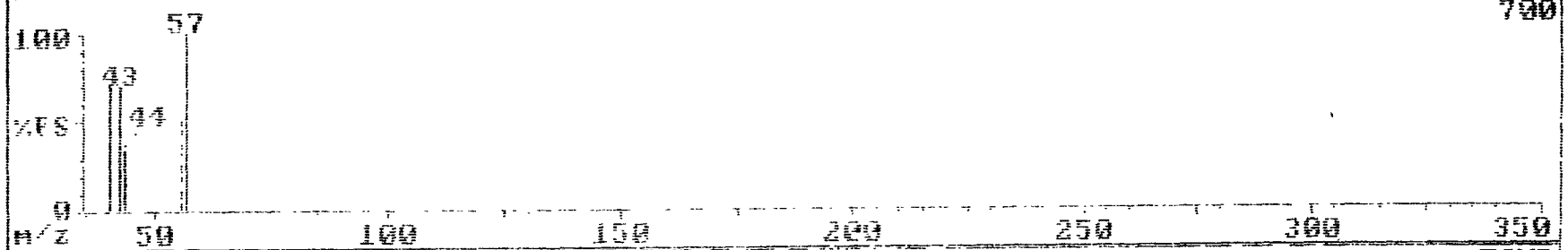
08-19-98 02:36 Triangle Laboratories, Inc. (919) 544-5729

Sample: V08TBLK T/TC Instrument H

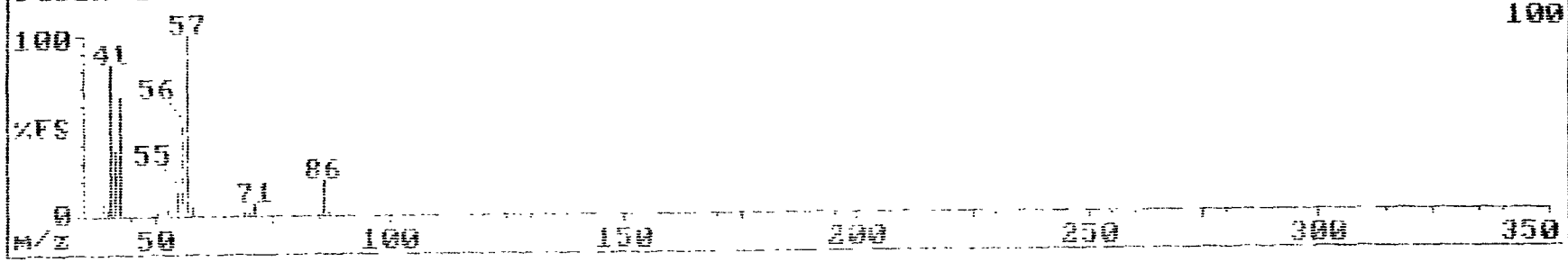
HW705 367 (3.670) 1072



HW705 367 (3.671) REFINE 700



826BX 11 (3.660) n-Hexane FIND 100



TRIANGLE LABS

CALIBRATION DATA

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729

P.O. Box 13485
Research Triangle Park, NC 2770
Fax # 919-544-5491

Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALH809	Date of Analysis :08/09/98	Analyte List: 8260
RF.10 HW551	RF.25 HW552	RF.50 HW553
RF.75 HW554	RF1.00 HW555	

VOST Calibration.

Analyte	Flag	RF.10	RF.25	RF.50	RF.75	RF1.00	MEAN	%RSD
Pentafluorobenzene	I							
Dichlorodifluoromethane		0.617	0.695	0.639	0.610	0.715	0.655	7.2
Chloromethane	P	0.387	0.407	0.363	0.343	0.388	0.377	6.6
Vinyl Chloride	C	0.439	0.497	0.449	0.438	0.517	0.468	7.8
Bromomethane		0.412	0.450	0.351	0.421	0.512	0.429	13.7
Chloroethane		0.248	0.276	0.215	0.239	0.292	0.254	11.9
Trichlorofluoromethane		1.009	1.058	0.965	1.028	1.245	1.061	10.2
1,1-Dichloroethene	C	0.442	0.502	0.482	0.381	0.515	0.464	11.7
Iodomethane		0.950	1.061	1.070	0.881	0.944	0.981	8.3
Carbon disulfide		1.060	1.160	1.129	0.896	1.018	1.053	9.9
Acetone		0.055	0.047	0.049	0.036	0.063	0.050	20.3
Allyl chloride		0.386	0.416	0.415	0.309	0.370	0.379	11.6
Methylene chloride		0.392	0.412	0.388	0.289	0.287	0.354	17.2
Acrylonitrile		0.045	0.039	0.041	0.035	0.026	0.037	19.7
trans-1,2-Dichloroethene		0.463	0.488	0.471	0.437	0.366	0.445	10.8
1,1-Dichloroethane	P	0.739	0.762	0.709	0.730	0.723	0.733	2.7
Vinyl acetate		0.409	0.391	0.405	0.395	0.391	0.398	2.1
2,2-Dichloropropane		0.631	0.686	0.667	0.662	0.686	0.667	3.4
cis-1,2-Dichloroethene		0.429	0.462	0.444	0.448	0.472	0.451	3.6
2-Butanone		0.073	0.059	0.061	0.060	0.064	0.063	8.8
Chloroform	C	0.756	0.799	0.759	0.751	0.790	0.771	2.8
Bromochloromethane		0.227	0.234	0.237	0.233	0.239	0.234	1.8
1,1,1-Trichloroethane		0.699	0.745	0.721	0.717	0.732	0.723	2.4
1,4-Difluorobenzene	I							
Carbon tetrachloride		0.641	0.532	0.501	0.628	0.704	0.601	13.9
1,1-Dichloropropene		0.659	0.513	0.491	0.606	0.673	0.589	14.2
Benzene		1.457	0.985	0.984	1.171	1.270	1.173	17.1
1,2-Dichloroethane		0.328	0.296	0.299	0.360	0.412	0.339	14.2
Trichloroethene		0.436	0.443	0.455	0.496	0.384	0.443	9.1
1,2-Dichloropropane	C	0.450	0.426	0.426	0.480	0.344	0.425	11.9
Dibromomethane		0.290	0.267	0.275	0.317	0.223	0.274	12.5
Methyl methacrylate		0.120	0.111	0.116	0.123	0.063	0.107	23.4
Bromodichloromethane		0.667	0.644	0.667	0.796	0.490	0.653	16.7
cis-1,3-Dichloropropene		0.635	0.623	0.609	0.712	0.509	0.618	11.8
4-Methyl-2-pentanone		0.204	0.150	0.159	0.179	0.166	0.172	12.1
Toluene	C	1.054	0.948	0.938	1.133	1.009	1.016	7.9
trans-1,3-Dichloropropene		0.522	0.462	0.461	0.539	0.552	0.507	8.5
1,1,2-Trichloroethane		0.381	0.321	0.305	0.364	0.362	0.347	9.2

*- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF

Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALH809	Date of Analysis :08/09/98	Analyte List: 8260
RF.10 HW551	RF.25 HW552	RF.50 HW553
RF.75 HW554	RF1.00 HW555	

VOST Calibration.

Analyte	Flag	RF.10	RF.25	RF.50	RF.75	RF1.00	MEAN	%RSD
Ethyl methacrylate		0.394	0.326	0.335	0.387	0.434	0.375	11.9
Chlorobenzene-d5	I							
Tetrachloroethene		0.388	0.381	0.398	0.403	0.347	0.383	5.7
1,3-Dichloropropane		0.408	0.366	0.373	0.361	0.337	0.369	7.0
2-Hexanone	1	0.079	0.061	0.070	0.070	0.081	0.072	11.1
Dibromochloromethane		0.399	0.381	0.408	0.390	0.355	0.387	5.2
1,2-Dibromoethane		0.326	0.297	0.310	0.292	0.277	0.300	6.2
Chlorobenzene	P	0.930	0.929	0.979	0.960	0.978	0.955	2.6
1,1,1,2-Tetrachloroethane		0.393	0.394	0.423	0.429	0.436	0.415	4.9
Ethylbenzene	C	0.509	0.525	0.542	0.555	0.572	0.541	4.5
m-/p-Xylene		0.628	0.646	0.679	0.697	0.730	0.676	6.0
o-Xylene		0.601	0.605	0.641	0.653	0.701	0.640	6.4
Styrene		0.925	0.957	1.012	1.036	1.121	1.010	7.5
Bromoform	P	0.211	0.193	0.205	0.217	0.215	0.208	4.6
1,4-Dichlorobenzene-d4	I							
Cumene		3.195	2.902	3.063	3.038	2.980	3.036	3.6
1,1,2,2-Tetrachloroethane	P	0.518	0.357	0.362	0.368	0.390	0.399	17.0
Bromobenzene		0.853	0.789	0.832	0.838	0.831	0.828	2.9
1,2,3-Trichloropropane		0.369	0.133	0.247	0.241	0.255	0.249	33.7
n-Propylbenzene		0.929	0.879	0.938	0.966	0.994	0.941	4.6
trans-1,4-Dichloro-2-butene		0.363	0.249	0.247	0.241	0.255	0.271	19.0
2-Chlorotoluene		0.803	0.750	0.787	0.803	0.839	0.796	4.1
4-Chlorotoluene		0.784	0.737	0.755	0.759	0.781	0.763	2.5
1,3,5-Trimethylbenzene		2.403	2.315	2.356	2.339	2.414	2.365	1.8
tert-Butylbenzene		2.796	2.638	2.690	2.772	2.753	2.730	2.4
1,2,4-Trimethylbenzene		2.336	2.275	2.358	2.337	2.373	2.336	1.6
sec-Butylbenzene		3.659	3.447	3.569	3.661	3.663	3.600	2.6
p-Cymene		2.902	2.729	2.829	2.977	2.808	2.849	3.3
1,3-Dichlorobenzene		1.485	1.370	1.417	1.473	1.509	1.451	3.9
1,4-Dichlorobenzene		1.505	1.349	1.400	1.431	1.480	1.433	4.4
Benzyl chloride		0.504	0.409	0.452	0.494	0.521	0.476	9.5
n-Butylbenzene		2.839	2.762	2.859	2.978	2.994	2.886	3.4
1,2-Dichlorobenzene		1.223	1.061	1.091	1.149	1.170	1.139	5.6
1,2-Dibromo-3-chloropropane		0.076	0.037	0.040	0.048	0.049	0.050	31.4
1,2,4-Trichlorobenzene		1.195	0.588	0.615	0.767	0.791	0.791	30.7
Hexachlorobutadiene		1.011	0.760	0.911	1.099	1.062	0.969	14.1
Naphthalene		1.639	0.581	0.547	0.768	0.782	0.863	51.7
1,2,3-Trichlorobenzene		1.002	0.394	0.373	0.478	0.478	0.545	47.7
Average %RSD								10.6

***- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF**

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
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Savar

L 24

Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALH809	Date of Analysis :08/09/98	Analyte List: 8260
RF.10 HW551	RF.25 HW552	RF.50 HW553
RF.75 HW554	RF1.00 HW555	

VOST Calibration.

Surrogate	Flag	RF.10	RF.25	RF.50	RF.75	RF1.00	Mean	%RSD
Dibromofluoromethane	S	0.523	0.538	0.522	0.530	0.552	0.533	2.4
Toluene-d8	S	1.422	1.357	1.310	1.625	1.290	1.401	9.7
4-Bromofluorobenzene	S	0.702	0.656	0.636	0.788	0.974	0.751	18.3

Approved by: YR Date 8/24/98

*- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF

'riangle Laboratories, Inc.
01 Capitola Drive • Durham, North Carolina 27713
'hone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7

Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALF814	Date of Analysis :08/13/98	Analyte List: 8260
RF.1 FX853	RF.25 FX854	RF.50 FX855
RF.75 FX856	RF1.0 FX857	

VOST Calibration.

Analyte	Flag	RF.1	RF.25	RF.50	RF.75	RF1.0	MEAN	%RSD
Pentafluorobenzene	I							
Dichlorodifluoromethane		0.354	0.432	0.385	0.326	0.267	0.353	17.5
Chloromethane	P	0.418	0.391	0.321	0.313	0.270	0.343	17.6
Vinyl Chloride	C	0.306	0.339	0.342	0.329	0.310	0.325	5.0
Bromomethane		0.161	0.169	0.197	0.175	0.181	0.176	7.7
Chloroethane		0.267	0.254	0.231	0.232	0.215	0.240	8.7
Trichlorofluoromethane		0.921	0.862	0.777	0.737	0.690	0.797	11.7
1,1-Dichloroethene	C	0.362	0.331	0.305	0.301	0.296	0.319	8.7
Iodomethane		0.559	0.549	0.520	0.535	0.523	0.537	3.1
Carbon disulfide		0.971	0.888	0.861	0.833	0.788	0.868	7.9
Acetone		0.024	0.019	0.028	0.046	0.111	0.046	82.9
Allyl chloride		0.414	0.398	0.421	0.430	0.435	0.420	3.5
Methylene chloride		0.277	0.253	0.230	0.217	0.209	0.237	11.8
Acrylonitrile		0.012	0.012	0.011	0.012	0.012	0.012	3.1
trans-1,2-Dichloroethene		0.387	0.361	0.350	0.335	0.336	0.354	6.0
1,1-Dichloroethane	P	0.827	0.793	0.752	0.731	0.710	0.763	6.2
Vinyl acetate		0.106	0.099	0.104	0.109	0.120	0.108	7.0
2,2-Dichloropropane		0.237	0.280	0.327	0.359	0.387	0.318	19.0
cis-1,2-Dichloroethene		0.340	0.346	0.339	0.331	0.331	0.337	1.9
2-Butanone		0.026	0.020	0.035	0.051	0.120	0.050	80.5
Chloroform	C	0.755	0.701	0.661	0.619	0.597	0.667	9.5
Bromochloromethane		0.148	0.144	0.141	0.129	0.126	0.138	7.1
1,1,1-Trichloroethane		0.777	0.784	0.775	0.743	0.741	0.764	2.7
1,4-Difluorobenzene	I							
Carbon tetrachloride		0.802	0.737	0.718	0.740	0.697	0.739	5.3
1,1-Dichloropropene		0.600	0.562	0.550	0.558	0.533	0.561	4.4
Benzene		0.941	1.001	0.989	1.014	0.923	0.974	4.1
1,2-Dichloroethane		0.271	0.295	0.304	0.281	0.255	0.281	6.9
Trichloroethene		0.402	0.460	0.505	0.520	0.505	0.478	10.1
1,2-Dichloropropane	C	0.285	0.307	0.328	0.329	0.315	0.313	5.8
Dibromomethane		0.105	0.105	0.112	0.101	0.096	0.104	5.8
Methyl methacrylate		0.028	0.028	0.032	0.032	0.033	0.031	8.5
Bromodichloromethane		0.353	0.367	0.386	0.375	0.355	0.367	3.7
cis-1,3-Dichloropropene		0.193	0.236	0.264	0.288	0.293	0.255	16.2
4-Methyl-2-pentanone		0.029	0.034	0.039	0.046	0.054	0.041	23.6
Toluene	C	0.672	0.740	0.725	0.742	0.711	0.718	4.0
trans-1,3-Dichloropropene		0.094	0.119	0.139	0.157	0.159	0.134	20.5
1,1,2-Trichloroethane		0.118	0.117	0.138	0.115	0.111	0.120	8.6

***- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF**

Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALF814	Date of Analysis :08/13/98	Analyte List: 8260
RF.1 FX853	RF.25 FX854	RF.50 FX855
RF.75 FX856	RF1.0 FX857	

VOST Calibration.

Analyte	Flag	RF.1	RF.25	RF.50	RF.75	RF1.0	MEAN	%RSD
Ethyl methacrylate		0.065	0.062	0.074	0.082	0.088	0.074	14.8
Chlorobenzene-d5	I							
Tetrachloroethene		0.401	0.455	0.462	0.533	0.515	0.473	11.1
1,3-Dichloropropane		0.221	0.240	0.251	0.246	0.238	0.239	4.8
2-Hexanone	1	0.009	0.010	0.020	0.040	0.103	0.037	107.5
Dibromochloromethane		0.222	0.228	0.238	0.248	0.240	0.235	4.4
1,2-Dibromoethane		0.143	0.143	0.148	0.147	0.144	0.145	1.6
Chlorobenzene	P	0.989	1.024	0.965	1.031	0.967	0.995	3.1
1,1,1,2-Tetrachloroethane		0.352	0.360	0.340	0.392	0.368	0.363	5.4
Ethylbenzene	C	0.538	0.619	0.611	0.661	0.636	0.613	7.5
m-/p-Xylene		0.700	0.776	0.741	0.817	0.725	0.752	6.1
o-Xylene		0.528	0.646	0.626	0.690	0.645	0.627	9.6
Styrene		0.690	0.840	0.814	0.874	0.847	0.813	8.9
Bromoform	P	0.082	0.074	0.086	0.087	0.083	0.082	6.4
1,4-Dichlorobenzene-d4	I							
Cumene		5.060	5.674	4.650	5.625	4.866	5.175	8.8
1,1,2,2-Tetrachloroethane	P	0.264	0.199	0.213	0.222	0.210	0.221	11.3
Bromobenzene		0.716	0.799	0.686	0.806	0.810	0.763	7.6
1,2,3-Trichloropropane		0.192	0.171	0.178	0.175	0.166	0.176	5.6
n-Propylbenzene		1.404	1.619	1.299	1.660	1.693	1.535	11.3
trans-1,4-Dichloro-2-butene		0.127	0.132	0.107	0.116	0.112	0.119	8.9
2-Chlorotoluene		1.064	1.181	0.884	1.135	1.140	1.081	10.9
4-Chlorotoluene		0.915	1.046	0.867	1.048	1.053	0.986	9.0
1,3,5-Trimethylbenzene		3.783	4.371	3.318	4.220	4.258	3.990	11.0
tert-Butylbenzene		3.908	5.199	3.798	4.955	5.436	4.659	16.2
1,2,4-Trimethylbenzene		3.367	3.736	3.006	3.756	3.798	3.533	9.7
sec-Butylbenzene		5.951	6.596	5.325	6.751	6.395	6.204	9.3
p-Cymene		4.811	5.375	4.431	5.686	5.714	5.203	10.8
1,3-Dichlorobenzene		1.602	1.707	1.427	1.712	1.695	1.629	7.4
1,4-Dichlorobenzene		1.584	1.553	1.360	1.557	1.519	1.514	5.9
Benzyl chloride		0.062	0.043	0.054	0.071	0.083	0.063	24.3
n-Butylbenzene		4.254	4.250	3.673	4.626	4.329	4.226	8.2
1,2-Dichlorobenzene		0.997	0.905	0.983	1.135	1.113	1.027	9.3
1,2-Dibromo-3-chloropropane		0.016	0.006	0.016	0.016	0.016	0.014	32.8
1,2,4-Trichlorobenzene		0.270	0.200	0.309	0.335	0.348	0.293	20.3
Hexachlorobutadiene		1.234	0.808	0.970	1.193	1.180	1.077	16.9
Naphthalene		0.161	0.101	0.191	0.204	0.249	0.181	30.2
1,2,3-Trichlorobenzene		0.157	0.107	0.186	0.203	0.212	0.173	24.5
Average %RSD								13.3

***- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF**

Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALF814	Date of Analysis :08/13/98	Analyte List: 8260
RF.1 FX853	RF.25 FX854	RF.50 FX855
RF.75 FX856	RF1.0 FX857	

VOST Calibration.

Surrogate	Flag	RF.1	RF.25	RF.50	RF.75	RF1.0	Mean	%RSD
Dibromofluoromethane	S	0.458	0.441	0.417	0.403	0.388	0.421	6.7
Toluene-d8	S	0.891	1.036	1.050	1.112	1.011	1.020	8.0
4-Bromofluorobenzene	S	0.308	0.344	0.366	0.354	0.329	0.340	6.7

Approved by: YR Date 8/24/98

***- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF**

Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: FX872 Date of Analysis :08/17/98 Analyte List: 8260
ICAL File: ICALF814
VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Pentafluorobenzene	I			
Dichlorodifluoromethane		0.294	0.353	16.7
Chloromethane	P	0.247	0.343	28.0
Vinyl Chloride	C	0.284	0.325	12.6
Bromomethane		0.208	0.176	-18.2
Chloroethane		0.216	0.240	10.0
Trichlorofluoromethane		0.685	0.797	14.1
1,1-Dichloroethene	C	0.281	0.319	11.9
Iodomethane		0.457	0.537	14.9
Carbon disulfide		0.833	0.868	4.0
Acetone		0.019	0.046	58.7
Allyl chloride		0.283	0.420	32.6
Methylene chloride		0.246	0.237	-3.8
Acrylonitrile		0.009	0.012	25.0
trans-1,2-Dichloroethene		0.335	0.354	5.4
1,1-Dichloroethane	P	0.704	0.763	7.7
Vinyl acetate		0.082	0.108	24.1
2,2-Dichloropropane		0.289	0.318	9.1
cis-1,2-Dichloroethene		0.330	0.337	2.1
2-Butanone		0.017	0.050	66.0
Chloroform	C	0.650	0.667	2.5
Bromochloromethane		0.131	0.138	5.1
1,1,1-Trichloroethane		0.686	0.764	10.2
1,4-Difluorobenzene	I			
Carbon tetrachloride		0.691	0.739	6.5
1,1-Dichloropropene		0.598	0.561	-6.6
Benzene		1.113	0.974	-14.3
1,2-Dichloroethane		0.276	0.281	1.8
Trichloroethene		0.447	0.478	6.5
1,2-Dichloropropane	C	0.341	0.313	-8.9
Dibromomethane		0.115	0.104	-10.6
Methyl methacrylate		0.026	0.031	16.1
Bromodichloromethane		0.415	0.367	-13.1
cis-1,3-Dichloropropene		0.294	0.255	-15.3
4-Methyl-2-pentanone		0.047	0.041	-14.6
Toluene	C	0.839	0.718	-16.9
trans-1,3-Dichloropropene		0.159	0.134	-18.7
1,1,2-Trichloroethane		0.144	0.120	-20.0

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

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Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: FX872	Date of Analysis :08/17/98	Analyte List: 8260
ICAL File: ICALF814		

VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Ethyl methacrylate		0.100	0.074	-35.1
Chlorobenzene-d5	I			
Tetrachloroethene		0.482	0.473	-1.9
1,3-Dichloropropane		0.281	0.239	-17.6
2-Hexanone	1	0.013	0.037	64.9
Dibromochloromethane		0.250	0.235	-6.4
1,2-Dibromoethane		0.157	0.145	-8.3
Chlorobenzene	P	1.006	0.995	-1.1
1,1,1,2-Tetrachloroethane		0.390	0.363	-7.4
Ethylbenzene	C	0.626	0.613	-2.1
m-/p-Xylene		0.812	0.752	-8.0
o-Xylene		0.666	0.627	-6.2
Styrene		0.931	0.813	-14.5
Bromoform	P	0.104	0.082	-26.8
1,4-Dichlorobenzene-d4	I			
Cumene		4.886	5.175	5.6
1,1,2,2-Tetrachloroethane	P	0.269	0.221	-21.7
Bromobenzene		0.803	0.763	-5.2
1,2,3-Trichloropropane		0.203	0.176	-15.3
n-Propylbenzene		1.359	1.535	11.5
trans-1,4-Dichloro-2-butene		0.098	0.119	17.6
2-Chlorotoluene		1.044	1.081	3.4
4-Chlorotoluene		0.901	0.986	8.6
1,3,5-Trimethylbenzene		3.746	3.990	6.1
tert-Butylbenzene		3.981	4.659	14.6
1,2,4-Trimethylbenzene		3.390	3.533	4.0
sec-Butylbenzene		5.714	6.204	7.9
p-Cymene		4.523	5.203	13.1
1,3-Dichlorobenzene		1.639	1.629	-0.6
1,4-Dichlorobenzene		1.545	1.514	-2.0
Benzyl chloride		0.082	0.063	-30.2
n-Butylbenzene		3.954	4.226	6.4
1,2-Dichlorobenzene		1.070	1.027	-4.2
1,2-Dibromo-3-chloropropane		0.012	0.014	14.3
1,2,4-Trichlorobenzene		0.303	0.293	-3.4
Hexachlorobutadiene		0.876	1.077	18.7
Naphthalene		0.124	0.181	31.5
1,2,3-Trichlorobenzene		0.174	0.173	-0.6

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: FX872 Date of Analysis :08/17/98 Analyte List: 8260
ICAL File: ICALF814
VOST Calibration.

Surrogate	Flag	RF0.25	RFMEAN	%D
Dibromofluoromethane	S	0.391	0.421	7.1
Toluene-d8	S	1.115	1.020	-9.3
4-Bromofluorobenzene	S	0.399	0.340	-17.4

Approved by: YR Date 8/24/98

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

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Continuing Calibration Curve

CCAL File: FX889	Date of Analysis :08/18/98	Analyte List: 8260
ICAL File: ICALF814		

VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Pentafluorobenzene	I			
Dichlorodifluoromethane		0.438	0.353	-24.1
Chloromethane	P	0.228	0.343	33.5
Vinyl Chloride	C	0.296	0.325	8.9
Bromomethane		0.207	0.176	-17.6
Chloroethane		0.197	0.240	17.9
Trichlorofluoromethane		0.668	0.797	16.2
1,1-Dichloroethene	C	0.312	0.319	2.2
Iodomethane		0.425	0.537	20.9
Carbon disulfide		0.896	0.868	-3.2
Acetone		0.015	0.046	67.4
Allyl chloride		0.227	0.420	46.0
Methylene chloride		0.242	0.237	-2.1
Acrylonitrile		0.006	0.012	50.0
trans-1,2-Dichloroethene		0.349	0.354	1.4
1,1-Dichloroethane	P	0.623	0.763	18.3
Vinyl acetate		0.050	0.108	53.7
2,2-Dichloropropane		0.379	0.318	-19.2
cis-1,2-Dichloroethene		0.318	0.337	5.6
2-Butanone		0.014	0.050	72.0
Chloroform	C	0.675	0.667	-1.2
Bromochloromethane		0.101	0.138	26.8
1,1,1-Trichloroethane		0.708	0.764	7.3
1,4-Difluorobenzene	I			
Carbon tetrachloride		0.699	0.739	5.4
1,1-Dichloropropene		0.699	0.561	-24.6
Benzene		1.286	0.974	-32.0
1,2-Dichloroethane		0.264	0.281	6.0
Trichloroethene		0.463	0.478	3.1
1,2-Dichloropropane	C	0.301	0.313	3.8
Dibromomethane		0.113	0.104	-8.7
Methyl methacrylate		0.020	0.031	35.5
Bromodichloromethane		0.431	0.367	-17.4
cis-1,3-Dichloropropene		0.314	0.255	-23.1
4-Methyl-2-pentanone		0.031	0.041	24.4
Toluene	C	0.853	0.718	-18.8
trans-1,3-Dichloropropene		0.168	0.134	-25.4
1,1,2-Trichloroethane		0.139	0.120	-15.8

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: FX889 Date of Analysis :08/18/98 Analyte List: 8260
ICAL File: ICALF814
VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Ethyl methacrylate		0.078	0.074	-5.4
Chlorobenzene-d5	I			
Tetrachloroethene		0.606	0.473	-28.1
1,3-Dichloropropane		0.312	0.239	-30.5
2-Hexanone	1	0.010	0.037	73.0
Dibromochloromethane		0.224	0.235	4.7
1,2-Dibromoethane		0.154	0.145	-6.2
Chlorobenzene	P	1.058	0.995	-6.3
1,1,1,2-Tetrachloroethane		0.355	0.363	2.2
Ethylbenzene	C	0.711	0.613	-16.0
m-/p-Xylene		0.914	0.752	-21.5
o-Xylene		0.740	0.627	-18.0
Styrene		0.968	0.813	-19.1
Bromoform	P	0.104	0.082	-26.8
1,4-Dichlorobenzene-d4	I			
Cumene		6.007	5.175	-16.1
1,1,2,2-Tetrachloroethane	P	0.266	0.221	-20.4
Bromobenzene		0.846	0.76[illegible]	-10.9
1,2,3-Trichloropropane		0.219	0.176	-24.4
n-Propylbenzene		1.505	1.535	2.0
trans-1,4-Dichloro-2-butene		0.121	0.119	-1.7
2-Chlorotoluene		1.059	1.081	2.0
4-Chlorotoluene		0.925	0.986	6.2
1,3,5-Trimethylbenzene		4.471	3.990	-12.1
tert-Butylbenzene		4.863	4.659	-4.4
1,2,4-Trimethylbenzene		3.903	3.533	-10.5
sec-Butylbenzene		6.900	6.204	-11.2
p-Cymene		5.056	5.203	2.8
1,3-Dichlorobenzene		1.652	1.629	-1.4
1,4-Dichlorobenzene		1.517	1.514	-0.2
Benzyl chloride		0.063	0.063	0.0
n-Butylbenzene		5.115	4.226	-21.0
1,2-Dichlorobenzene		1.051	1.027	-2.3
1,2-Dibromo-3-chloropropane		0.019	0.014	-35.7
1,2,4-Trichlorobenzene		0.367	0.293	-25.3
Hexachlorobutadiene		1.188	1.077	-10.3
Naphthalene		0.158	0.181	12.7
1,2,3-Trichlorobenzene		0.218	0.173	-26.0

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

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Continuing Calibration Curve

CCAL File: FX889	Date of Analysis :08/18/98	Analyte List: 8260
ICAL File: ICALF814		

VOST Calibration.

Surrogate	Flag	RF0.25	RFMEAN	%D
Dibromofluoromethane	S	0.332	0.421	21.1
Toluene-d8	S	1.041	1.020	-2.1
4-Bromofluorobenzene	S	0.399	0.340	-17.4

Approved by: YR Date 8 / 24 / 98

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: HW703 Date of Analysis :08/19/98 Analyte List: 8260
ICAL File: ICALH809
VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Pentafluorobenzene	I			
Dichlorodifluoromethane		0.758	0.655	-15.7
Chloromethane	P	0.399	0.377	-5.8
Vinyl Chloride	C	0.515	0.468	-10.0
Bromomethane		0.453	0.429	-5.6
Chloroethane		0.304	0.254	-19.7
Trichlorofluoromethane		1.124	1.061	-5.9
1,1-Dichloroethene	C	0.524	0.464	-12.9
Iodomethane		1.009	0.981	-2.9
Carbon disulfide		1.285	1.053	-22.0
Acetone		0.046	0.050	8.0
Allyl chloride		0.354	0.379	6.6
Methylene chloride		0.453	0.354	-28.0
Acrylonitrile		0.028	0.037	24.3
trans-1,2-Dichloroethene		0.508	0.445	-14.2
1,1-Dichloroethane	P	0.770	0.733	-5.0
Vinyl acetate		0.216	0.398	45.7
2,2-Dichloropropane		0.580	0.667	13.0
cis-1,2-Dichloroethene		0.438	0.451	2.9
2-Butanone		0.030	0.063	52.4
Chloroform	C	0.798	0.771	-3.5
Bromochloromethane		0.226	0.234	3.4
1,1,1-Trichloroethane		0.735	0.723	-1.7
1,4-Difluorobenzene	I			
Carbon tetrachloride		0.524	0.601	12.8
1,1-Dichloropropene		0.468	0.589	20.5
Benzene		0.949	1.173	19.1
1,2-Dichloroethane		0.265	0.339	21.8
Trichloroethene		0.451	0.443	-1.8
1,2-Dichloropropane	C	0.385	0.425	9.4
Dibromomethane		0.230	0.274	16.1
Methyl methacrylate		0.059	0.107	44.9
Bromodichloromethane		0.617	0.653	5.5
cis-1,3-Dichloropropene		0.535	0.618	13.4
4-Methyl-2-pentanone		0.101	0.172	41.3
Toluene	C	0.943	1.016	7.2
trans-1,3-Dichloropropene		0.376	0.507	25.8
1,1,2-Trichloroethane		0.289	0.347	16.7

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

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Continuing Calibration Curve

CCAL File: HW703	Date of Analysis :08/19/98	Analyte List: 8260
ICAL File: ICALH809		

VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Ethyl methacrylate		0.195	0.375	48.0
Chlorobenzene-d5	I			
Tetrachloroethene		0.397	0.383	-3.7
1,3-Dichloropropane		0.314	0.369	14.9
2-Hexanone	1	0.031	0.072	56.9
Dibromochloromethane		0.353	0.387	8.8
1,2-Dibromoethane		0.250	0.300	16.7
Chlorobenzene	P	0.966	0.955	-1.2
1,1,1,2-Tetrachloroethane		0.409	0.415	1.4
Ethylbenzene	C	0.517	0.541	4.4
m-/p-Xylene		0.650	0.676	3.8
o-Xylene		0.628	0.640	1.9
Styrene		0.999	1.010	1.1
Bromoform	P	0.165	0.208	20.7
1,4-Dichlorobenzene-d4	I			
Cumene		3.129	3.036	-3.1
1,1,2,2-Tetrachloroethane	P	0.326	0.399	18.3
Bromobenzene		0.794	0.828	4.1
1,2,3-Trichloropropane		0.222	0.249	10.8
n-Propylbenzene		0.962	0.941	-2.2
trans-1,4-Dichloro-2-butene		0.222	0.271	18.1
2-Chlorotoluene		0.840	0.796	-5.5
4-Chlorotoluene		0.817	0.763	-7.1
1,3,5-Trimethylbenzene		2.649	2.365	-12.0
tert-Butylbenzene		2.895	2.730	-6.0
1,2,4-Trimethylbenzene		2.531	2.336	-8.3
sec-Butylbenzene		3.731	3.600	-3.6
p-Cymene		3.096	2.849	-8.7
1,3-Dichlorobenzene		1.518	1.451	-4.6
1,4-Dichlorobenzene		1.506	1.433	-5.1
Benzyl chloride		0.371	0.476	22.1
n-Butylbenzene		3.152	2.886	-9.2
1,2-Dichlorobenzene		1.146	1.139	-0.6
1,2-Dibromo-3-chloropropane		0.029	0.050	42.0
1,2,4-Trichlorobenzene		0.813	0.791	-2.8
Hexachlorobutadiene		1.211	0.969	-25.0
Naphthalene		0.484	0.863	43.9
1,2,3-Trichlorobenzene		0.474	0.545	13.0

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

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Continuing Calibration Curve

:CAL File: HW703 Date of Analysis :08/19/98 Analyte List: 8260
CAL File: ICALH809
/OST Calibration.

Surrogate	Flag	RF0.25	RFMEAN	%D
Dibromofluoromethane	S	0.544	0.533	-2.1
Toluene-d8	S	1.343	1.401	4.1
4-Bromofluorobenzene	S	0.697	0.751	7.2

Approved by: YR Date 8/24/98

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALF817 Date of Analysis :08/17/98 Analyte List: 8260
RF.5 FX876

VOST Calibration.

Analyte	Flag	RF.5	MEAN	%RSD
Pentafluorobenzene	I			
1,3-Butadiene		0.385	0.385	0.0
Vinyl bromide		0.565	0.565	0.0
MTBE		0.599	0.599	0.0
n-Hexane		1.358	1.358	0.0
1,2-Epoxybutane		0.018	0.018	0.0
Iso-Octane		4.663	4.663	0.0
1,4-Difluorobenzene	I			
Ethyl acrylate		0.072	0.072	0.0
Chlorobenzene-d5	I			
1,4-Dichlorobenzene-d4	I			
Average %RSD				0.0

Approved by: YR Date 8/24/98

*- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF

Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALF818 Date of Analysis :08/18/98 Analyte List: 8260
RF.5 FX891

VOST Calibration.

Analyte	Flag	RF.5	MEAN	%RSD
Pentafluorobenzene	I			
1,3-Butadiene		0.353	0.353	0.0
Vinyl bromide		0.610	0.610	0.0
MTBE		0.543	0.543	0.0
n-Hexane		1.159	1.159	0.0
1,2-Epoxybutane		0.013	0.013	0.0
Iso-Octane		4.217	4.217	0.0
1,4-Difluorobenzene	I			
Ethyl acrylate		0.052	0.052	0.0
Chlorobenzene-d5	I			
1,4-Dichlorobenzene-d4	I			
Average %RSD				0.0

Approved by: YR Date 8 / 24/98

*- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF

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Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALH819 Date of Analysis :08/19/98 Analyte List: 8260
RF.5 HW708

VOST Calibration.

Analyte	Flag	RF.5	MEAN	%RSD
Pentafluorobenzene	I			
1,3-Butadiene		1.582	1.582	0.0
Vinyl bromide		1.657	1.657	0.0
MTBE		0.314	0.314	0.0
n-Hexane		2.319	2.319	0.0
1,2-Epoxybutane		0.012	0.012	0.0
Iso-Octane		4.441	4.441	0.0
1,4-Difluorobenzene	I			
Ethyl acrylate		0.364	0.364	0.0
Chlorobenzene-d5	I			
1,4-Dichlorobenzene-d4	I			
Average %RSD				0.0

Approved by: YR Date 8 / 24/98

***- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF**

Triangle Laboratories, Inc.
Continuing Calibration Curve

CAL File: FX876 Date of Analysis :08/17/98 Analyte List: 8260
:AL File: ICALF817
OST Calibration.

nalyte	Flag	RF0.50	RFMEAN	%D
entafluorobenzene	I			
.3-Butadiene		0.385	0.385	0.0
inyl bromide		0.565	0.565	0.0
ITBE		0.599	0.599	0.0
-Hexane		1.358	1.358	0.0
.2-Epoxybutane		0.018	0.018	0.0
o-Octane		4.663	4.663	0.0
4-Difluorobenzene	I			
thyl acrylate		0.072	0.072	0.0
hlorobenzene-d5	I			
.4-Dichlorobenzene-d4	I			

pproved by: YR Date 8/24/98

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: FX891	Date of Analysis :08/18/98	Analyte List: 8260
ICAL File: ICALF818		

VOST Calibration.

Analyte	Flag	RF0.50	RFMEAN	%D
Pentafluorobenzene	I			
1,3-Butadiene		0.353	0.353	0.0
Vinyl bromide		0.610	0.610	0.0
MTBE		0.543	0.543	0.0
n-Hexane		1.159	1.159	0.0
1,2-Epoxybutane		0.013	0.013	0.0
Iso-Octane		4.217	4.217	0.0
1,4-Difluorobenzene	I			
Ethyl acrylate		0.052	0.052	0.0
Chlorobenzene-d5	I			
1,4-Dichlorobenzene-d4	I			

Approved by: YC Date 8/24/98

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

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Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: HW708 Date of Analysis :08/19/98 Analyte List: 8260
ICAL File: ICALH819

VOST Calibration.

Analyte	Flag	RF0.50	RFMEAN	%D
Pentafluorobenzene	I			
1,3-Butadiene		1.582	1.582	0.0
Vinyl bromide		1.657	1.657	0.0
MTBE		0.314	0.314	0.0
n-Hexane		2.319	2.319	0.0
1,2-Epoxybutane		0.012	0.012	0.0
Iso-Octane		4.441	4.441	0.0
1,4-Difluorobenzene	I			
Ethyl acrylate		0.364	0.364	0.0
Chlorobenzene-d5	I			
1,4-Dichlorobenzene-d4	I			

Approved by: YL Date 8 24 98

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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TRIANGLE LABS

CASE NARRATIVE

Analysis of Samples for the Presence of

Volatile Analytes by

High-Resolution Gas Chromatography / Low-Resolution Mass Spectrometry

METHOD 8260 (7/92)

Date :	August 26, 1998
Client ID :	Pacific Environmental Services
TLI Project Number :	46323

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Fax # 919-544-5491

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Triangle Laboratories, Inc. **August 26, 1998**
Case Narrative **46323**

Objective: Analysis of twelve VOST tube pairs for a client-specified list of volatile compounds, using Method 8260.

Method:

Twenty three VOST tube pairs were received at Triangle Laboratories, Inc. on July 29, 1998 at 6°C. Analytical results reported in this data package pertain to the analysis of the "Tunnel" (T) samples. The VOST tube pairs were analyzed according to the guidelines of Methods 8260 and 5040. The internal standards and surrogate standards were added in the amount of 0.25 micrograms (ug) immediately prior to analysis by GC/MS. The internal standards are pentafluorobenzene, 1,4-difluorobenzene, chlorobenzene-d_5 , and 1,4-dichlorobenzene-d_4, and the surrogate standards reported are dibromofluoromethane, toluene-d_8, and 4-bromofluorobenzene. The results reported relate only to the items tested.

The GC/MS analysis conditions are listed below:

Purge and trap:	Tekmar LSC-2000
Purge:	11 min.
Desorb Temperature:	250 C
Desorb Time:	4 min.

GC Conditions:

Column:	30 m x .53 mm x 0.3*u* J&W DB624 0 C hold .5 min, 10 C/min to 45C, 6 C/min to 90C, hold 1.5 min, 50 C/min to 200C.

MS Conditions:

Instrument:	VG-TRIO-1 Lab Base data system
Scan:	35-350 amu at .6s/scan
Interface:	Jet Separator, 200 C

Report:

Enclosed with the case narrative are copies of the sample identification index, the project summary sheets, client paperwork, sample log-in sheets, and log book pages. A sample identification index summarizes the client sample name, TLI sample number, and analytical file name for each sample and blank. The project summary lists the amounts for detected analytes in gray. The estimated detection limits will be listed in parentheses when the target analytes are not detected.

The data are reported as quantitation reports, chromatograms, interim reports, and spectra of detected target analytes. The quantitation report header lists the TLI project number, analysis method, instrument sample file name, client sample name, client project number, TLI sample number, calibration file, date received, and analysis date. The response factors used for all calculations are from the calibration file listed in the header. All initial and continuing calibration

data are located in the back of the data package. The amount is reported in total ug for the VOST tubes. The retention time (RT) will be listed for all internal standards and analytes which are detected. If a target analyte is not detected, it will be flagged with a "U" and a detection limit will be listed. Estimated detection limits are calculated for all analytes which were not found in the samples by using an area of 2000. The estimated detection limits reported are the average detection limits achievable over time on an instrument type. The actual detection limit for a given compound on a given day may vary from the estimate reported. The quantitation limit for all analytes is half of the low point of the initial calibration. Below this point the calibration cannot be considered to be linear. Any amount reported at a level below the quantitation limit will be flagged with a "J" and should be considered estimated. If any compounds are found at a level above the upper calibration range, the analyte will be flagged with an "E" and the amounts reported should be considered estimated. If any target analytes found in the laboratory blanks are detected in the associated samples, they will be flagged with a "B" on each sample topsheet. All analytes are quantitated against the internal standard preceding them on the target analyte list. Surrogate standards are quantitated against the internal standard with the matching internal standard reference number. For example, toluene-d_8 has 2 in the IS Ref column and would be quantitated against the internal standard which has IS2 listed in the flag column. If an internal standard area is above or below the quality control limits as defined by the continuing calibration, it will be flagged with "High" or "Low" in the flag column.

Results:

Two of the VOST tube pairs were analyzed within the fourteen-day sampling to analysis holding time. The remainder of the samples were analyzed thirteen to sixteen days past the last day of the holding time.

As per client request, VOST tube pairs T-V-4-1-A and -B and T-V-4-2-A and -B were analyzed separately. All other VOST tube pairs were analyzed in tandem, with the exception of sample T-V-4-4-A, which was run separately because the tenax/charcoal portion was lost.

COMMUNICATION PROBLEM BETWEEN PURGE & TRAP & DATA ACQUISITION SYSTEM

The following observations were made by the analyst. No data is available for sample T-V-4-3-A,B due to an acquisition failure. The tenax/charcoal tube, sample T-V-4-4-B, was found to be broken. The contents had leaked into the outer container and could not be salvaged.

Each sample was processed twice, once against the calibrations containing compounds that are normally found in our Method 8260 standard solutions, and once against special single point calibrations containing seven compounds. Therefore, each sample reported contains two sets of topsheets and interim reports, as well as a chromatogram and spectra for all analytes. Please note that the surrogate standards have been reported only on the first target analyte list. Results for the seven analytes processed against single point calibrations should be considered estimates.

See Page # 13

Methylene chloride was found at an amount above the upper calibration limit of one microgram in sample T-V-4-2-B. This compound is flagged with "E" and the amount reported should be considered estimated. The field samples also contained very high levels of hydrocarbons.

All internal standard areas were within quality control limits for all samples and blanks, with the exception of a low area for 1,4-dichlorobenzene-d_4 in one laboratory blank.

Surrogate standard percent recoveries were within quality control limits, with the exception of one high recovery for 4-bromofluorobenzene in sample T-V-4-1-A.

The laboratory blanks contained several analytes at amounts below the quantitation limit. The target analytes in a laboratory blank should not be considered as truly present in the native samples unless found at a level at least five times the amount found in the associated blank. In the event that the amount of a target analyte found in the samples is twenty times the amount found in the associated blank, the contribution from the blank can be considered negligible.

Sample Calculations:

Response Factor (RF) = $\frac{\text{(area analyte) x (amt IS)}}{\text{(area IS) x (amt analyte)}}$

Amount (ug) = $\frac{\text{(area analyte in sample) x (amt IS)}}{\text{(area IS) x (avg ical RF)}}$

Where:

amt IS = amount of internal standard = 0.25 ug
ical = initial calibration

The data in this package has been judged to be valid according to the guidelines of Methods 8260 and 5040 except as noted above. Should you have any questions, please feel free to contact our Project Scientist, Deb Smith, at (919) 544-5729, ext. 267.

For Triangle Laboratories, Inc.,

Report Preparation:

Penny A. Brock

Penny A. Brock
Report Preparation Chemist

Quality Control:

Sarah A Hubbard

Sarah A. Hubbard
Report Preparation Chemist

The total number of pages in this data package is 357.

amended data
SAH 9/3/98

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TRIANGLE LABORATORIES, INC.

LIST OF CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

American Association for Laboratory Accreditation. Accredidation pending. Certificate Number 0226-01. Accreditation for technical competence in Environmental Testing. (Including Waste Water, Sol/Haz Waste, Pulp/Paper, and Air Matrices) Parameters are AOX/TOX, and Dioxin/Furan. Method 1613 for Drinking Water **Currently re-applying.**.

State of Alabama, Department of Environmental Management. Expires December 31, 1998. Laboratory I.D. # 40950. Dioxin in drinking water.

State of Alaska, Department of Environmental Conservation. Expires December 21, 1998. Certificate number OS-006-98. Dioxin in drinking water.

State of Arizona, Department of Health Services. Expires May 26, 1998. Certificate #AZ0423. Drinking Water for Dioxin, Dioxin in WW and S/H Waste. Currently appying for renewal.

State of Arkansas, Department of Pollution Control and Ecology. Expires February 19, 1999. Pulp/paper, soil, water, and Hazardous Waste for Dioxin/Furan; AOX/TOX, Volatiles, Semi-volatiles, and Metals.

State of California, Department of Health Services. Expires August 31, 1999. Certificate #1922. Selected Metals in Waste Water; Volatiles, Semi-volatiles, and Dioxin/furan in WW and Sol/Haz Waste. Dioxin in drinking water.

State of Connecticut, Department of Health Services. Expires September 30, 1999. Registration # PH-0117. Dioxin in drinking water.

Delaware Health and Social Services. Expires December 31, 1998. Certificate #NC 140. Dioxin in drinking water.

Florida Department of Health and Rehabilitative Services. Expires June 30, 1998. Dioxin in SDW. Drinking Water ID HRS# 87424. Pending new certificate.

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Hawaii Department of Health. Expires March 1, 1999. Dioxin in drinking water. "Accepted" status for regulatory purposes.

Idaho Department of Health and Welfare. Expires December 31, 1998. Dioxin in drinking water.

State of Kansas, Department of Health and Environment. Expires January 31, 1999. Method 1613 for drinking water. ID #'s - Drinking water and/or pollution control - E-10215. Solid or Hazardous Waste - E-101209.

Commonwealth of Kentucky, Department for Environmental Protection. Expires December 31, 1998. ID#90060. Dioxin in drinking water.

Maryland Department of Health and Mental Hygiene. Expires September 30, 1998. Certification #235 Drinking water by Method 1613A. Currently applying for renewal.

State of Michigan, Department of Public Health. Expires June 30, 1999. Drinking water by Method 1613. Current certification is extended, based on New York certificate renewal.

Mississippi State Department of Health. No expiration date. Dioxin in drinking water.

Montana Department of Health and Environmental Services. Expires December 31, 1998. Dioxin in drinking water.

State of New Jersey, Department of Environmental Protection and Energy. Expires June 30, 1998. Extended until July 31, 1998 per letter dated May 29, 1998. ID #67851. BNAs and Volatiles. Dioxin in drinking water. Currently applying for renewal.

State of New Mexico, Environment Department. Still certified, awaiting information from A2LA Dioxin in drinking water.

New York State Department of Health. Received updated certificates. ID #11026. Environmental Analyses of potable water, non-potable Water, Solid and Hazardous Waste. Method 1613 in DW.

State of North Carolina, Department of Environment Health and Natural Resources Expires. August 31, 1998. Certificate # 37751. Dioxin in drinking water.

State of North Carolina, Department of Environment, Health, and Natural Resources, Division of Environmental Management. Expires December 31, 2000. Certificate # 485. Metals, pesticides & PCBs, semi-volatiles and volatiles; TCLP.

North Dakota State Department of Health and Consolidated Laboratories. Expires December 31, 1998. Certificate # R-076. Effective October 4, 1993. Dioxin in drinking water.

Oklahoma Department of Environmental Quality. Expires August 31, 1998. Laboratory #9612. Dioxin by 1613A, 8290 and 8280. Submitted renewal application 7/1.

State of South Carolina, Department of Health and Environmental Control. Expires June 30, 1998. Extended August 31, 1999. Certificate number #99040001 (drinking water). Expires August 31, 1999. Certificate number #99040002 (other parameters). Dioxin/Furans, BNA, Volatiles, and PCBs/pesticides under Clean Water Act, 2,3,7,8-TCDD for Drinking Water, and Organic extractables for Solid and Hazardous Waste.

State of Tennessee. Department of Environment and Conservation. Expires February 5, 1999. ID #02992. Method 1613 Drinking water only.

U.S. Department of Agriculture Soil Permit. Expires September 30, 2001. Permit No. S-3790. Under the authority of the Federal Plant Pest Act, permission is granted to receive foreign soil samples for use in laboratory analysis.

U.S. Army Corps of Engineers. Expires October 19, 1999. Validated to perform analyses for the Fort Belvoir, VA (Contract Number DACA31-97-D-0029), Vint Hill Farms Station, Vint Hill, VA (Contract Number DACA31-95-D-0083), and Selma Pressure Treating Superfund Site, Selma, CA (Contract number DACW45-94-D-0054).

U.S. EPA Region V. Expires November 14, 1999. Dioxin in drinking water.

U.S. EPA Region VIII, for the State of Wyoming. Expires November 12, 1998. Dioxin in drinking water.

State of Utah, Department of Health. Expires May 30,2000. Certificate Number E-166. Certification for the following parameters: Semi-Volatiles and Volatiles under RCRA; Volatiles under Clean Water Act; Dioxin/furans by Method 8280; Drinking water for Dioxin by Method 1613; Metals including Mercury and Microwave Digestion.

Commonwealth of Virginia, Department of General Services, Division of Consolidated Laboratory Services. Expires June 30, 1999. ID # 00341. Dioxin in drinking water.

State of Washington, Department of Ecology. Expires September 11, 1998. Lab Accreditation Number C067. Scope of Accreditation applies to water analyses for

Polychlorinated Dibenzo-p-dioxins and Polychlorinated Dibenzofurans, BNA Extr (Semivolatile) Organics and Purgeable (Volatile) Organics.
State of Washington, Department of Health. Expires April 30, 1999. Dioxin in drinking water. Lab I.D. 129.

State of West Virginia, Department of Health. Expires December 31, 1998. Certificate No. 9923(C). Dioxin in drinking water.

State of Wisconsin, Department of Natural Resources. Expires August 31, 1998. Laboratory ID Number 999869530. Certification for the following categories of Organics: Purgeable, Base/Neutral, Acid, PCBs, and Dioxin. Expires November 14, 1999. Laboratory ID 999869530. Dioxin in drinking water.

PHARMACEUTICAL

Drug Enforcement Agency (DEA). Expires November 30, 1998. Registration number RT01195835. Controlled substance registration for schedules 1,2,3,3N,4,5.

N.C. Department of Human Resources. Expires October 31, 1998. Registration number NC-PT 0000 0031. North Carolina controlled substances registration. Application submitted for renewal.

Food & Drug Administration (FDA) Registration. Expires June 1998. ID #'s 001500 1053481. Annual registration of drug establishment.

OTHER

Clinical Laboratory Improvement Amendments (CLIA) Registration. Expires May 30, 1999. ID # 34D0705123. Department of Health & Human Services, Health Care Financing Administration.

U.S. EPA Large Quantity Hazardous Waste Generator. No expiration date. EPA ID #NCD982156879. Permit indicates that the laboratory is a large generator of hazardous waste.

North Carolina General License for Radiation Protection. No expiration date. No License. 032-875-OG. The general license applies only to radioactive material contained in devices which have been manufactured and labeled in accordance with specific requirements.

TRIANGLE LABS

DOCUMENT CONTROL

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Triangle Laboratories, Inc.
Sample Identification Index for Project: 46323

Client Id:	TLI Id:	File Name:
T-V-2-1-A,B T/TC	214-27-5A,B	FX975
T-V-2-2-A,B T/TC	214-27-6A,B	FX976
T-V-2-3-A,B T/TC	214-27-7A,B	FX977
T-V-2-4-A,B T/TC	214-27-8A,B	FX978
T-V-3-1-A,B T/TC	214-27-16A,B	FX979
T-V-3-2-A,B T/TC	214-27-17A,B	FX980
T-V-3-3-A,B T/TC	214-27-18A,B	FX981
T-V-4-1-A T	214-27-20A	HW562
T-V-4-1-B TC	214-27-20B	HW560
T-V-4-2-A T	214-27-21A	HW563
T-V-4-2-B TC	214-27-21B	HW561
T-V-4-4-A T	214-27-23A	FX983
T-V-FB-A,B T/TC	214-27-9A,B	FX953
VOSTBLK 080998 T/TC	VOSTBLK 080998	HW559
VOSTBLK 082198 T/TC	VOSTBLK 082198	FX952
VOSTBLK 082498 T/TC	VOSTBLK 082498	FX974

Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	T-V-2-1-A, B T/TC	T-V-2-2-A, B T/TC	T-V-2-3-A, B T/TC	T-V-2-4-A, B T/TC	T-V-3-1-A, B T/TC
Filename :	FX975	FX976	FX977	FX978	FX979
TLI Id :	214-27-5A,B	214-27-6A,B	214-27-7A,B	214-27-8A,B	214-27-16A,B
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Chloromethane	0.056	0.092	0.042	0.040	0.030
Vinyl Chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromomethane	0.036	0.035	0.035	(0.001)	0.005
Chloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trichlorofluoromethane	0.014	0.011	(0.001)	0.009	0.011
1,1-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Methylene chloride	0.488	(0.001)	0.081	0.064	0.508
trans-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chloroform	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,1-Trichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Iodomethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Carbon disulfide	0.104	0.093	0.026	0.044	0.015
Acetone	0.193	0.232	0.137	0.296	0.183
Allyl chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Acrylonitrile	(0.026)	(0.024)	(0.021)	(0.021)	(0.020)
Vinyl acetate	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)
2-Butanone	(0.005)	0.312	0.161	0.342	0.166
Carbon tetrachloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Benzene	0.263	0.238	0.156	0.108	0.096
1,2-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dichloropropane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromodichloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Toluene	0.132	0.247	0.218	0.144	0.212
trans-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,2-Trichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Methyl methacrylate	(0.008)	(0.007)	(0.006)	(0.006)	(0.006)
4-Methyl-2-pentanone	(0.006)	(0.005)	(0.005)	(0.005)	(0.004)
Tetrachloroethene	0.017	0.035	0.035	0.031	0.023
Dibromochloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dibromoethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chlorobenzene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
301 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	T-V-2-1-A, B T/TC	T-V-2-2-A, B T/TC	T-V-2-3-A, B T/TC	T-V-2-4-A, B T/TC	T-V-3-1-A, B T/TC
Filename :	FX975	FX976	FX977	FX978	FX979
TLI Id :	214-27-5A,B	214-27-6A,B	214-27-7A,B	214-27-8A,B	214-27-16A,B
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Ethylbenzene	**0.015**	**0.069**	**0.050**	**0.027**	**0.075**
m-/p-Xylene	**0.078**	**0.428**	**0.255**	**0.149**	**0.335**
o-Xylene	**0.012**	**0.119**	**0.088**	**0.042**	**0.131**
Styrene	(0.001)	**0.052**	**0.038**	**0.017**	**0.029**
Bromoform	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
2-Hexanone	(0.011)	(0.010)	(0.008)	(0.008)	(0.008)
Cumene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,2,2-Tetrachloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

( )-Estimated Detection Limit

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Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	T-V-2-1-A, B T/TC	T-V-2-2-A, B T/TC	T-V-2-3-A, B T/TC	T-V-2-4-A, B T/TC	T-V-3-1-A, B T/TC
Filename :	FX975	FX976	FX977	FX978	FX979
TLI Id :	214-27-5A,B	214-27-6A,B	214-27-7A,B	214-27-8A,B	214-27-16A,B
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
1,3-Butadiene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Vinyl bromide	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
MTBE	**0.033**	**0.022**	**0.039**	**0.036**	**0.028**
n-Hexane	**0.266**	**0.176**	**0.145**	**0.083**	**0.107**
1,2-Epoxybutane	(0.032)	(0.029)	(0.025)	(0.025)	(0.024)
Iso-Octane	**0.029**	**0.016**	**0.019**	**0.021**	**0.012**
Ethyl acrylate	(0.008)	(0.008)	(0.007)	(0.007)	(0.007)

( )-Estimated Detection Limit

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Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	T-V-3-2-A, B T/TC	T-V-3-3-A, B T/TC	T-V-4-1-A T	T-V-4-1-B TC	T-V-4-2-A T
Filename :	FX980	FX981	HW562	HW560	HW563
TLI Id :	214-27-17A,B	214-27-18A,B	214-27-20A	214-27-20B	214-27-21A
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Chloromethane	(0.001)	**0.043**	**0.010**	**0.020**	**0.005**
Vinyl Chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromomethane	(0.001)	(0.001)	**0.010**	**0.003**	**0.006**
Chloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trichlorofluoromethane	**0.011**	**0.006**	**0.009**	**0.015**	(0.001)
1,1-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Methylene chloride	**0.828**	**0.049**	**0.038**	**0.327**	**0.674**
trans-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chloroform	(0.001)	(0.001)	**0.006**	(0.001)	(0.001)
1,1,1-Trichloroethane	(0.001)	(0.001)	**0.012**	(0.001)	(0.001)
Iodomethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Carbon disulfide	**0.017**	**0.020**	(0.001)	(0.001)	(0.001)
Acetone	(0.004)	(0.004)	**0.151**	**0.087**	**0.036**
Allyl chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Acrylonitrile	(0.020)	(0.019)	(0.007)	(0.006)	(0.006)
Vinyl acetate	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
2-Butanone	(0.004)	(0.004)	**0.051**	(0.004)	(0.003)
Carbon tetrachloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Benzene	**0.131**	**0.129**	**0.091**	**0.010**	**0.034**
1,2-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trichloroethene	(0.001)	(0.001)	**0.001**	(0.001)	(0.001)
1,2-Dichloropropane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromodichloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Toluene	**0.200**	**0.217**	**0.133**	**0.016**	**0.010**
trans-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,2-Trichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Methyl methacrylate	(0.006)	(0.006)	(0.003)	(0.002)	(0.002)
4-Methyl-2-pentanone	(0.005)	(0.004)	(0.002)	(0.001)	(0.001)
Tetrachloroethene	**0.015**	**0.028**	**0.016**	(0.001)	(0.001)
Dibromochloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dibromoethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chlorobenzene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
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Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	T-V-3-2-A, B T/TC	T-V-3-3-A, B T/TC	T-V-4-1-A T	T-V-4-1-B TC	T-V-4-2-A T
Filename :	FX980	FX981	HW562	HW560	HW563
TLI Id :	214-27-17A,B	214-27-18A,B	214-27-20A	214-27-20B	214-27-21A
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Ethylbenzene	**0.065**	**0.071**	**0.018**	**0.001**	(0.001)
m-/p-Xylene	**0.314**	**0.378**	**0.056**	**0.002**	(0.001)
o-Xylene	**0.118**	**0.124**	**0.024**	**0.001**	(0.001)
Styrene	**0.036**	**0.037**	**0.025**	**0.002**	**0.003**
Bromoform	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)
2-Hexanone	(0.008)	(0.008)	(0.002)	(0.002)	(0.002)
Cumene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,2,2-Tetrachloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

( )-Estimated Detection Limit

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Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	T-V-3-2-A, B T/TC	T-V-3-3-A, B T/TC	T-V-4-1-A T	T-V-4-1-B TC	T-V-4-2-A T
Filename	FX980	FX981	HW562	HW560	HW563
TLI Id :	214-27-17A,B	214-27-18A,B	214-27-20A	214-27-20B	214-27-21A
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
1,3-Butadiene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Vinyl bromide	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
MTBE	**0.022**	**0.015**	**0.114**	**0.014**	(0.002)
n-Hexane	**0.135**	**0.142**	**0.034**	**0.005**	**0.006**
1,2-Epoxybutane	(0.024)	(0.023)	(0.055)	(0.046)	(0.041)
Iso-Octane	(0.001)	(0.001)	**0.012**	**0.010**	(0.001)
Ethyl acrylate	(0.007)	(0.006)	(0.001)	(0.001)	(0.001)

( )-Estimated Detection Limit

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Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	T-V-4-2-B TC	T-V-4-4-A T	T-V-FB-A,B T/TC	VOSTBLK 08 0998 T/TC	VOSTBLK 08 2198 T/TC
Filename :	HW561	FX983	FX953	HW559	FX952
TLI Id	214-27-21B	214-27-23A	214-27-9A,B	VOSTBLK 0809	VOSTBLK 0821
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Chloromethane	**0.015**	(0.001)	(0.001)	**0.015**	(0.001)
Vinyl Chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromomethane	**0.004**	(0.001)	(0.001)	**0.010**	(0.001)
Chloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Trichlorofluoromethane	**0.003**	(0.001)	(0.001)	(0.001)	(0.001)
1,1-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Methylene chloride	**1.666**	**0.009**	**0.054**	**0.001**	(0.001)
trans-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,2-Dichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chloroform	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,1-Trichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Iodomethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Carbon disulfide	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Acetone	**0.033**	(0.004)	(0.005)	(0.004)	(0.005)
Allyl chloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Acrylonitrile	(0.006)	(0.021)	(0.025)	(0.006)	(0.024)
Vinyl acetate	(0.001)	(0.001)	(0.002)	(0.001)	(0.002)
2-Butanone	(0.004)	(0.004)	(0.005)	(0.003)	(0.004)
Carbon tetrachloride	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Benzene	**0.015**	**0.071**	**0.006**	**0.048**	**0.039**
1,2-Dichloroethane	(0.001)	(0.001)	(0.001)	(0.001) TENTIV CONTAMINATION	(0.001)
Trichloroethene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dichloropropane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Bromodichloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
cis-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Toluene	**0.007**	**0.158**	**0.006**	**0.003**	(0.001)
trans-1,3-Dichloropropene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,2-Trichloroethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Methyl methacrylate	(0.002)	(0.006)	(0.006)	(0.002)	(0.006)
4-Methyl-2-pentanone	(0.001)	(0.005)	(0.004)	(0.001)	(0.004)
Tetrachloroethene	(0.001)	**0.022**	(0.001)	(0.001)	(0.001)
Dibromochloromethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,2-Dibromoethane	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Chlorobenzene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
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Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	T-V-4-2-B TC	T-V-4-4-A T	T-V-FB-A,B T/TC	VOSTBLK 08 0998 T/TC	VOSTBLK 08 2198 T/TC
Filename :	HW561	FX983	FX953	HW559	FX952
TLI Id :	214-27-21B	214-27-23A	214-27-9A,B	VOSTBLK 0809	VOSTBLK 0821
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
Ethylbenzene	(0.001)	0.022	(0.001)	(0.001)	(0.001)
m-/p-Xylene	(0.001)	0.057	(0.001)	(0.001)	(0.001)
o-Xylene	(0.001)	0.024	(0.001)	(0.001)	(0.001)
Styrene	0.001	0.009	(0.001)	0.001	(0.001)
Bromoform	(0.001)	(0.002)	(0.002)	(0.001)	(0.002)
2-Hexanone	(0.002)	(0.008)	(0.008)	(0.002)	(0.009)
Cumene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
1,1,2,2-Tetrachloroethane	(0.001)	(0.002)	(0.001)	(0.001)	(0.003)

( )-Estimated Detection Limit

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Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	T-V-4-2-B TC	T-V-4-~~3~~-4-A T cmc	T-V-FB-A,B T/TC	VOSTBLK 08 0998 T/TC	VOSTBLK 08 2198 T/TC
Filename :	HW561	FX983	FX953	HW559	FX952
TLI Id :	214-27-21B	214-27-23A	214-27-9A,B	VOSTBLK 0809	VOSTBLK 0821
Matrix :	VOST	VOST	VOST	VOST	VOST
Units :	ug	ug	ug	ug	ug
1,3-Butadiene	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Vinyl bromide	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
MTBE	(0.002)	**0.037**	(0.001)	(0.002)	(0.001)
n-Hexane	**0.003**	**0.041**	(0.001)	(0.001)	(0.001)
1,2-Epoxybutane	(0.045)	(0.025)	(0.025)	(0.041)	(0.024)
Iso-Octane	(0.001)	**0.010**	(0.001)	(0.001)	(0.001)
Ethyl acrylate	(0.001)	(0.007)	(0.004)	(0.001)	(0.004)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
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Phone: (919) 544-5729 • Fax: (919) 544-5491

Client ID: VOSTBLK 08
2498 T/TC

Filename : FX974
TLI Id : VOSTBLK 0824
Matrix : VOST
Units : ug

Chloromethane	(0.001)
Vinyl Chloride	(0.001)
Bromomethane	(0.001)
Chloroethane	(0.001)
Trichlorofluoromethane	(0.001)
1,1-Dichloroethene	(0.001)
Methylene chloride	(0.001)
trans-1,2-Dichloroethene	(0.001)
1,1-Dichloroethane	(0.001)
cis-1,2-Dichloroethene	(0.001)
Chloroform	(0.001)
1,1,1-Trichloroethane	(0.001)
Iodomethane	(0.001)
Carbon disulfide	(0.001)
Acetone	(0.006)
Allyl chloride	(0.001)
Acrylonitrile	(0.029)
Vinyl acetate	(0.002)
2-Butanone	(0.005)
Carbon tetrachloride	(0.001)
Benzene	(0.001)
1,2-Dichloroethane	(0.001)
Trichloroethene	(0.001)
1,2-Dichloropropane	(0.001)
Bromodichloromethane	(0.001)
cis-1,3-Dichloropropene	(0.001)
Toluene	(0.001)
trans-1,3-Dichloropropene	(0.001)
1,1,2-Trichloroethane	(0.001)
Methyl methacrylate	(0.008)
4-Methyl-2-pentanone	(0.006)
Tetrachloroethene	(0.001)
Dibromochloromethane	(0.001)
1,2-Dibromoethane	(0.001)
Chlorobenzene	(0.001)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
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Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	VOSTBLK 08
	2498 T/TC
Filename :	FX974
TLI Id :	VOSTBLK 0824
Matrix :	VOST
Units :	ug

Ethylbenzene	(0.001)
m-/p-Xylene	(0.001)
o-Xylene	(0.001)
Styrene	(0.001)
Bromoform	(0.003)
2-Hexanone	(0.013)
Cumene	(0.001)
1,1,2,2-Tetrachloroethane	(0.002)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
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Triangle Laboratories, Inc.
Project Summary for Project 46323

Client ID:	VOSTBLK 08
	2498 T/TC
Filename :	FX974
TLI Id :	VOSTBLK 0824
Matrix :	VOST
Units :	ug

1,3-Butadiene	(0.001)
Vinyl bromide	(0.001)
MTBE	(0.001)
n-Hexane	(0.001)
1,2-Epoxybutane	(0.035)
Iso-Octane	(0.001)
Ethyl acrylate	(0.009)

( )-Estimated Detection Limit

Triangle Laboratories, Inc.
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PACIFIC ENVIRONMENTAL SERVICES, INC.

Central Park West
5001 South Miami Boulevard, P.O. Box 12077
Research Triangle Park, North Carolina 27709-2077
(919) 941-0333 FAX: (919) 941-0234

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Sample Chain of Custody Record

PLANT: US EPA HOT MIX ASPHALT PLANT C	**PROJECT NO.:** R012.001
RECOVERY PERSON: Abernathy, Maret	**SAMPLERS:** Abernathy, Maret

Sample Identification	Collection Date	Collection Time	Sample Name	Number of Containers	Analytical Request					Comments
S-V-2-1-A	7/25/98		Silo 2 Run 2 Set 1	1						Tenax
S-V-2-1-B	7/25/98		Silo 2 Run 2 Set 1	1						Tenax/Charcoal
S-V-2-2-A	7/25/98		Silo 2 Run 2 Set 2	1						Tenax
S-V-2-2-B	7/25/98		Silo 2 Run 2 Set 2	1						Tenax/Charcoal
S-V-2-3-A	7/25/98		Silo 2 Run 2 Set 3	1						Tenax
S-V-2-3-B	7/25/98		Silo 2 Run 2 Set 3	1						Tenax/Charcoal
S-V-2-4-A	7/25/98		Silo 2 Run 2 Set 4	1						Tenax
S-V-2-4-B	7/25/98		Silo 2 Run 2 Set 4	1						Tenax/Charcoal
T-V-2-1-A	7/25/98		Tunnel Run 2 Set 1	1						Tenax
T-V-2-1-B	7/25/98		Tunnel Run 2 Set 1	1						Tenax/Charcoal
T-V-2-2-A	7/25/98		Tunnel Run 2 Set 2	1						Tenax
T-V-2-2-B	7/25/98		Tunnel Run 2 Set 2	1						Tenax/Charcoal
T-V-2-3-A	7/25/98		Tunnel Run 2 Set 3	1						Tenax
T-V-2-3-B	7/25/98		Tunnel Run 2 Set 3	1						Tenax/Charcoal
T-V-2-4-A	7/25/98		Tunnel Run 2 Set 4	1						Tenax
T-V-2-4-B	7/25/98		Tunnel Run 2 Set 4	1						Tenax/Charcoal
T-V-FB-A	7/25/98		Tunnel Field Blank	1						Tenax
T-V-FB-B	7/25/98		Tunnel Field Blank	1						Tenax/Charcoal
S-V-3-1-A	7/27/98		Silo 2 Run 3 Set 1	1						Tenax
S-V-3-1-B	7/27/98		Silo 2 Run 3 Set 1	1						Tenax/Charcoal
S-V-3-2-A	7/27/98		Silo 2 Run 3 Set 2	1						Tenax
S-V-3-2-B	7/27/98		Silo 2 Run 3 Set 2	1						Tenax/Charcoal
S-V-3-3-A	7/27/98		Silo 2 Run 3 Set 3	1						Tenax
S-V-3-3-B	7/27/98		Silo 2 Run 3 Set 3	1						Tenax/Charcoal
S-V-3-4-A	7/27/98		Silo 2 Run 3 Set 4	1						Tenax
S-V-3-4-B	7/27/98		Silo 2 Run 3 Set 4	1						Tenax/Charcoal
S-V-3-5-A	7/27/98		Silo 2 Run 3 Set 5	1						Tenax
S-V-3-5-B	7/27/98		Silo 2 Run 3 Set 5	1						Tenax/Charcoal
S-V-3-6-A	7/27/98		Silo 2 Run 3 Set 6	1						Tenax
S-V-3-6-B	7/27/98		Silo 2 Run 3 Set 6	1						Tenax/Charcoal
T-V-3-1-A	7/27/98		Tunnel Run 3 Set 1	1						Tenax

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PACIFIC ENVIRONMENTAL SERVICES, INC.

Central Park West
5001 South Miami Boulevard, P.O. Box 12077
Research Triangle Park, North Carolina 27709-2077
(919) 941-0333 FAX: (919) 941-0234

Sample Chain of Custody Record

PLANT: US EPA HOT MIX ASPHALT PLANT C	**PROJECT NO.:** R012.001
RECOVERY PERSON: Abernathy, Maret	**SAMPLERS:** Abernathy, Maret

Sample Identification	Collection Date	Collection Time	Sample Name	Number of Containers	Analytical Request					Comments
T-V-3-1-B	7/27/98		Tunnel Run 3 Set 1	1						Tenax/Charcoal
T-V-3-2-A	7/27/98		Tunnel Run 3 Set 2	1						Tenax
T-V-3-2-B	7/27/98		Tunnel Run 3 Set 2	1						Tenax/Charcoal
T-V-3-3-A	7/27/98		Tunnel Run 3 Set 3	1						Tenax
T-V-3-3-B	7/27/98		Tunnel Run 3 Set 3	1						Tenax/Charcoal
S-V-FB-A	7/26/98		Silo Field Blank	1						Tenax
S-V-FB-B	7/26/98		Silo Field Blank	1						Tenax/Charcoal
T-V-4-1-A	7/26/98		Tunnel Run 4 Set 1	1						Tenax
T-V-4-1-B	7/26/98		Tunnel Run 4 Set 1	1						Tenax/Charcoal
T-V-4-2-A	7/26/98		Tunnel Run 4 Set 2	1						Tenax
T-V-4-2-B	7/26/98		Tunnel Run 4 Set 2	1						Tenax/Charcoal
T-V-4-3-A	7/26/98		Tunnel Run 4 Set 3	1						Tenax
T-V-4-3-B	7/26/98		Tunnel Run 4 Set 3	1						Tenax/Charcoal
T-V-4-4-A	7/26/98		Tunnel Run 4 Set 4	1						Tenax
T-V-4-4-B	7/26/98		Tunnel Run 4 Set 4	1						Tenax/Charcoal

Relinquished by: Michael D. Maret	Date 7/28/98 Time 1070	Received by:
Relinquished by:	Date 7/29/98 Time 1000	Received for Lab by: Bill Hurst

227

TRIANGLE LABORATORIES, INC. -- LOG IN RECORD/CHAIN OF CUSTODY

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A

Sample Seals: Absent
Container...: Intact

COPY 7/26/98

TLI Project Number 46323
Client: PES03 - Pacific Environmental Services

Book 214
Page 1
27

Date Received 07/29/98 By

Ice Chest ICE PACKS Temp 6.0 C

Carrier and Number FedEx/

TLI Number.. ....Client Sample ID..... .....Matrix mR/H:CPM. .....Client COC ID.....* Location.....	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	DISPOSED Date/Init
214-27-1A S-V-2-1-A TENAX S-V-2-1-A R026									
214-27-1B S-V-2-1-B TNX/CHAR S-V-2-1-B R026									
214-27-2A S-V-2-2-A TENAX S-V-2-2-A R026									
214-27-2B S-V-2-2-B TNX/CHAR S-V-2-2-B R026									
214-27-3A S-V-2-3-A TENAX S-V-2-3-A R026									
214-27-3B S-V-2-3-B TNX/CHAR S-V-2-3-B R026									
214-27-4A S-V-2-4-A TENAX S-V-2-4-A R026									
214-27-4B S-V-2-4-B TNX/CHAR S-V-2-4-B R026									
214-27-5A T-V-2-1-A TENAX T-V-2-1-A R026									
214-27-5B T-V-2-1-B TNX/CHAR T-V-2-1-B R026									
214-27-6A T-V-2-2-A TENAX T-V-2-2-A R026									
214-27-6B T-V-2-2-B TNX/CHAR T-V-2-2-B R026									
214-27-7A T-V-2-3-A TENAX T-V-2-3-A R026									
214-27-7B T-V-2-3-B TNX/CHAR T-V-2-3-B R026									

Receiving Remarks:

Archive Remarks:

25

228

TRIANGLE LABORATORIES, INC. -- LOG IN RECORD/CHAIN OF CUSTODY

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A

Sample Seals: Absent
Container...: Intact

TLI Project Number 46323
Client: PES03 - Pacific Environmental Services

Date Received 07/29/98 By

Carrier and Number FedEx/

Book 214 Page 27

Ice Chest ICE PACKS Temp 6.0 C

TLI Number.. mR/H:CPM.	Client Sample ID..... Client COC ID.....*	Matrix Location.....	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	DISPOSED Date/Init
214-27-8A	T-V-2-4-A T-V-2-4-A	TENAX R026									
214-27-8B	T-V-2-4-B T-V-2-4-B	TNX/CHAR R026									
214-27-9A	T-V-FB-A T-V-FB-A	TENAX R026									
214-27-9B	T-V-FB-B T-V-FB-B	TNX/CHAR R026									
214-27-10A	S-V-3-1-A S-V-3-1-A	TENAX R026									
214-27-10B	S-V-3-1-B S-V-3-1-B	TNX/CHAR R026									
214-27-11A	S-V-3-2-A S-V-3-2-A	TENAX R026									
214-27-11B	S-V-3-2-B S-V-3-2-B	TNX/CHAR R026									
214-27-12A	S-V-3-3-A S-V-3-3-A	TENAX R026									
214-27-12B	S-V-3-3-B S-V-3-3-B	TNX/CHAR R026									
214-27-13A	S-V-3-4-A S-V-3-4-A	TENAX R026									
214-27-13B	S-V-3-4-B S-V-3-4-B	TNX/CHAR R026									
214-27-14A	S-V-3-5-A S-V-3-5-A	TENAX R026									
214-27-14B	S-V-3-5-B S-V-3-5-B	TNX/CHAR R026									

Receiving Remarks:

Archive Remarks:

729

TRIANGLE LABORATORIES, INC. -- LOG IN RECORD/CHAIN OF CUSTODY

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A

Sample Seals: Absent
Container...: Intact

TLI Project Number 46323
Client: PES03 - Pacific Environmental Services

Date Received 07/29/98 By

Carrier and Number FedEx/

Book 214 Page 27

Ice Chest ICE PACKS Temp 6.0 C

TLI Number.. mR/H:CPM.	Client Sample ID..... Client COC ID.....*	Matrix Location.....	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	DISPOSED Date/Init
214-27-15A	S-V-3-6 A S-V-3-6-A	TENAX R026									
214-27-15B	S-V-3-6-B S-V-3-6-B	TNX/CHAR R026									
214-27-16A	T-V-3-1-A T-V-3-1-A	TENAX R026									
214-27-16B	T-V-3-1-B T-V-3-1-B	TNX/CHAR R026									
214-27-17A	T-V-3-2-A T-V-3-2-A	TENAX R026									
214-27-17B	T-V-3-2-B T-V-3-2-B	TNX/CHAR R026									
214-27-18A	T-V-3-3-A T-V-3-3-A	TENAX R026									
214-27-18B	T-V-3-3-B T-V-3-3-B	TNX/CHAR R026									
214-27-19A	S-V-FB-A S-V-FB-A	TENAX R026									
214-27-19B	S-V-FB-B S-V-FB-B	TNX/CHAR R026									
214-27-20A	T-V-4-1-A T-V-4-1-A	TENAX R026									
214-27-20B	T-V-4-1-B T-V-4-1-B	TNX/CHAR R026									
214-27-21A	T-V-4-2-A T-V-4-2-A	TENAX R026									
214-27-21B	T-V-4-2-B T-V-4-2-B	TNX/CHAR R026									

Receiving Remarks:

Archive Remarks:

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TRIANGLE LABORATORIES, INC

Custody Seal : Absent
Chain of Custody : Present
Sample Tags : Absent
Sample Tag Numbers: Not Listed on Chain of Custody
SMO Forms : N/A

Sample Seals: Absent
Container...: Intact

TLI Project Number 46325
Client: PES03 - Pacific Environmental Services

Date Received 07/29/98 By

Carrier and Number FedEx/

Page 214 27

Ice Chest ICE PACKS Temp 6 0 C

TLI Number.. mR/H:CPM.	Client Sample ID..... Client COC ID..... *	Location.	Matrix	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	DISPOSED Date/Init
214-27-22A	T-V-4-3-A		TENAX									
	T-V-4-3-A	R026										
214-27-22B	T-V-4-3-B		TNX/CHAR									
	T-V-4-3-B	R026										
214-27-23A	T-V-4-4-A		TENAX									
	T-V-4-4-A	R026										
214-27-23B	T-V-4 4-B		TNX/CHAR									
	T-V-4-4-B	R026										

Receiving Remarks:

Archive Remarks:

166

Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	3274056	8260	VOA	VOA3	8260B	8260X

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSG-92-3 exp. 8/22/98 @ 25ug/ml	VSG-92-2 exp. 8/20/98 @ 25ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Tony C. Hynell 8/9/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/9/98	01:57	—	2.0 ul VSG-92-3 exp. 8/22/98	BFB	HW549	N/A	JL 8/9/98	10 8/10/98	JL	
8/9/98	02:26	—	10 ul VSG-92-4 exp. 8/22/98	VOSTD0.10 TITC	HW550	N/A	JL 8/9/98		JL	
8/9/98	03:17	—	10 ul VSG-92-4 exp. 8/22/98	VOSTD0.10 TITC	HW551	N/A	JL 8/9/98		JL	
8/9/98	03:52	—	10 ul VSG-93-2 exp. 8/22/98	VOSTD0.25 TITC	HW552	N/A	JL 8/9/98		JL	
8/9/98	04:23	—	10 ul VSG-93-2 exp. 8/22/98	VOSTD0.50 TITC	HW553	N/A	JL 8/9/98		JL	
8/9/98	04:55	—	10 ul VSG-93-4 exp. 8/22/98	VOSTD0.75 TITC	HW554	N/A	JL 8/9/98		JL	
8/9/98	05:27	—	10 ul VSG-94-1 exp. 8/22/98	VOSTD1.00 TITC	HW555	N/A	JL 8/9/98		JL	
8/9/98	06:01	—	10 ul VSG-92-2 exp. 8/20/98	VBIK	HW556	N/A	JL 8/9/98		JL	
8/9/98	06:40	—	10 ul VSG-92-2 exp. 8/20/98	Additional VOSTD0.50 TITC	HW557	N/A	JL 8/9/98		JL	Single pt.
8/9/98	07:49	—	10 ul VSG-92-2 exp. 8/20/98	VOSTBIK TITC	HW558	N/A	JL 8/9/98	10 8/10/98	JL	

* Volatile Data Only ** Transcribed Data *** Dated Signature/Initials Required

Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	3274056	8260	VOA	VOA3	8260B	8260X

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSG-92-3 exp. 8/22/98 @25ug/ml	VSG 92-2 exp 8/20/98 @25ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Tracey C. Spinell 8/9/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/9/98	08:28	—	VSG-92-2 exp. 8/20/98	VOSTRIK TITC	HW559	N/A	TCL 8/9/98	8/10/98	TCL	
8/9/98	09:11	46323	214-27-20B	T-V-4-1-B TIC	HW560	N/A	TCL 8/9/98		TCL	
8/9/98	09:46	46323	214-27-21B	T-V-4-2-B TIC	HW561	N/A	TCL 8/9/98		TCL	
8/9/98	10:37	46323	214-27-20A	T-V-4-1-A T	HW562	N/A	TCL 8/9/98		TCL	
8/9/98	11:11	46323	214-27-21A	T-V-4-2-A T	HW563	N/A	TCL 8/9/98	8/10/98	TCL	

* Volatile Data Only ** Transcribed Data *** Dated Signature/Initials Required

SRVR4\\APMSRL\LRRUNLOG.DOC (10/16/97)

Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	6252663	8260	VOA	VOA3	8260B	

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSG-92-3 exp 8/22/98 @ 25ug/ml	VSG-94-3 exp 8/26/98 @ 25ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Lenny Gall 8/21/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/21/98	5:22	—	1ml VSG-92-4 exp 8/22/98	VOSTD0.25 T/TC	FX941	N/A	LG 8/21/98		lb	low sensitivity 8/21/98
8/21/98	6:15	—	2ml VSG-92-3 exp 8/22/98	BFB	FX942	N/A	LG 8/21/98		lb	
8/21/98	6:48	—	10ml VSG-92-3 exp 8/22/98	VOSTD0.10 T/TC	FX943	N/A	LG 8/21/98		lb	ICal pt. 8/21/98
8/21/98	07:55	—	10ml VSG-92-2 exp 8/22/98	VOSTD0.25 T/TC	FX944	N/A	LG 8/21/98		lb	ICal pt. 8/21/98
8/21/98	08:58	—	1ml VSG-93-2 exp 8/22/98	VOSTD0.50 T/TC	FX945	N/A	LG 8/21/98		lb	ICal pt. 8/21/98
8/21/98	09:39	—	10ml VSG-93-1 exp 8/22/98	VOSTD0.75 T/TC	FX946	N/A	LG 8/21/98		lb	ICal pt. 8/21/98
8/21/98	10:22	—	10ml VSG-94-1 exp 8/22/98	VOSTD1.00 T/TC	FX947	N/A	LG 8/21/98		lb	
8/21/98	11:10	—	10ml VSG-95-4 exp 9/4/98	VOSTB/K T/TC	FX948	N/A	LG 8/21/98		lb	
8/21/98	11:56	—	10ml VSG-94-1 exp 9/22/98	VOSTD1.00 T/TC	FX949	N/A	LG 8/21/98		lb	ICal pt 8/21/98
8/21/98	12:56	10ml VSG-96-1 exp 9/4/98	10ml VSG-95-4 exp 9/4/98	Additionals VOSTD0.50 T/TC	FX950	N/A	LG 8/21/98		lb	

* Volatile Data Only ** Transcribed Data *** Dated Signature/Initials Required

Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	6252637	8260	UOA	UOA3	8260A	8260X

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSG-93-2 exp 8/22/98 @ 25 µg/ml	VSG-95-4 exp. 9/4/98 @ 75 µg/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Tony C. Spinelli 8/21/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/21/98	13:40	—	10 ul VSG-95-4 exp. 9/4/98	VOSTBLK T/TC	FX951	N/A	TL 8/21/98		TL	
8/21/98	14:23	—	10 ul VSG-95-4 exp. 9/4/98	VOSTBLK T/TC	FX952	N/A	TL 8/21/98		TL	
8/21/98		46323	214-27-9A,B	FV-FB-A,B T/TC	FX953	N/A	TL 8/21/98		TL	
8/22/98	00:36	—	2ul VSG-93-2 exp 8/22/98	BFB	FX954	N/A	16 8/22/98		16	Sensitivity low 16 8/22/98
8/22/98	00:55	—	2ul VSG-93-2 exp 8/22/98	BFB	FX955	N/A	16 8/22/98		16	
8/22/98	1:22	—	10ul VSG-92-4 exp 8/22/98	VOSTD0.25 T/TC	FX956	N/A	16 8/22/98		16	
8/22/98	2:12	—	10ul VSG-92-4 exp 8/22/98	VOSTD0.25 T/TC	FX957	N/A	16 8/22/98		16	
8/22/98	2:54	10ul VSG-96-1 exp 9/4/98	10ul VSG-92-4 exp 8/22/98	Additional VOSTD0.50 T/TC	FX958	N/A	16 8/22/98		16	Sensitivity Dropped out 16 8/22/98
8/22/98	3:39	10ul VSG-96-1 exp 9/4/98	10ul VSG-92-4 exp 8/22/98	VOSTD0.50 T/TC	FX959	N/A	16 8/22/98		16	" " " changed tube " 16 8/22/98
8/22/98	4:20	—	10ul VSG-92-4 exp 8/22/98	VOSTBLK T/TC	FX960	N/A	16 8/22/98		16	

* Volatile Data Only ** Transcribed Data *** Dated Signature/Initials Required

Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	6252663	8260	VOA	VOA3	8260B	

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSG-93-2 exp 8/22/98 @ 25 ug/ml	VSG-95-4 exp 9/4/98 @ 25 ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Lucy Gall 8/22/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/22/98	5:03	—	10ul VSG-95-11 exp 9/4/98	VOSTBLK T/TC	FX961	N/A	LG 8/22/98		LG	Changed lines LG 8/22/98 low sensitivity at end
8/22/98	6:24	—	10ul VSG-95-4 exp 9/4/98	VOSTBLK T/TC	FX962	N/A	LG 8/22/98		LG	checked tekmar - flow ok. maybe electronical LG 8/22/98
8/22/98	7:16	—	10ul VSG-95-4 exp 9/4/98	VOSTBLK T/TC	FX963	N/A	LG 8/22/98		LG	
8/23/98	23:52	—	2ul VSG-96-2 exp 9/7/98	BFB	FX964	N/A	LG 8/23/98		LG	
8/24/98	00:43	—	10ul VSG-95-3 exp 9/2/98	VOSTD0.25 T/TC	FX965	N/A	LG 8/24/98		LG	low sensitivity LG 8/24/98
8/24/98	1:34	—	10ul VSG-95-3 exp 9/2/98	VOSTD0.25 T/TC	FX966	N/A	LG 8/24/98		LG	" " LG 8/24/98
8/24/98	2:28	—	2ul VSG-96-2 exp 9/7/98	BFB	FX967	N/A	LG 8/24/98		LG	
8/24/98	2:59	—	10ul VSG-95-3 exp 9/2/98	VOSTD0.25 T/TC	FX968	N/A	LG 8/24/98		LG	ketones missing LG 8/24/98
8/24/98	3:46	—	10ul VSG-95-3 exp 9/2/98	VOSTD0.25 T/TC	FX969	N/A	LG 8/24/98		LG	
8/24/98	4:42	—	2ul VSG-96-2 exp 9/7/98	BFB	FX970	N/A	LG 8/24/98		LG	

* Volatile Data Only ** Transcribed Data *** Dated Signature/Initials Required

Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	6252663	8260	VOA	VOA3	8260B	826BX

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VS4-96-2 exp 9/7/98 @ 25 ug/ml	VS4-95-4 exp 9/4/98 @ 25 ug/ml	

Extract / Sample volume _____ µL m (Circle unit)

Signature: Lucy Ball Date: 8/24/98

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/24/98	5:12	—	10ul VS4-95-3 exp 9/2/98	VOSTD0.25 T/TC	FX971	N/A	LB 8/24/98		LB	
8/24/98	5:58	10ul VS4-96-1 exp 9/4/98	10ul VS4-95-4 exp 9/4/98	VOSTD0.50 T/TC Additionals	FX972	N/A	LB 8/24/98		LB	
8/24/98		10ul VS4-96-1 exp 9/4/98	10ul VS4-95-4 exp 9/4/98	Additionals VOSTD0.50 T/TC	FX973	N/A	LB 8/24/98		LB	
8/24/98	08:04	—	10ul VS4-95-4 exp 9/4/98	VOSTBLK T/TC	FX974	N/A	LB 8/24/98		LB	
8/24/98	09:15	46323	214-27-5A,B	T-V-2-1-A,B T/TC	FX975	N/A	LB 8/24/98		LB	
8/24/98	10:02	46323	214-27-6A,B	T-V-2-2-A,B T/TC	FX976	N/A	LB 8/24/98		LB	
8/24/98	10:49	46323	214-27-7A,B	T-V-2-3-A,B T/TC	FX977	N/A	LB 8/24/98		LB	
8/24/98	11:35	46323	214-27-8A,B	T-V-2-4A,B T/TC	FX978	N/A	LB 8/24/98		LB	
8/24/98	12:14	46323	214-27-16A,B	T-V-3-1-A,B T/TC	FX979	N/A	LB 8/24/98		LB	
8/24/98	13:02	46323	214-27-17A,B	T-V-3-2-A,B T/TC	FX980	N/A	LB 8/24/98		LB	

* Volatile Data Only ** Transcribed Data *** Dated Signature/Initials Required

Triangle Laboratories, Inc.
Run Log

Column Type	Column #	Analysis*	Acquisition Method	GC Method*	Find DBs*	Other*
DB624	6252663	8260	VOA	VOA3	8260B	826BX

Standards		
Internal / Surrogate / Recovery	Internal / Surrogate / Recovery	Analyte
VSS-96-2 exp. 9/7/98 @ 25ug/ml	VSS-95-4 exp. 9/4/98 @ 25ug/ml	

Extract / Sample volume _____ µL mL (Circle unit)

Lowery C. Hamell 8/24/98
Signature Date

Date**	Time**	Project	Sample#	Client ID	Filename	pH*	Operator/Date	Backup*	Proc	Comments***
8/24/98	13:52	46323	214-27-18A,B	T-V-3-3-A,B TITC	FX981	N/A	JL 8/24/98		JL	
8/24/98	NOT STARTED	46323	214-27-22A,B	T-V-4-3 A,B TITC	FX982	N/A	JL 8/24/98		JL	Acquisition Failure NO DATA
8/24/98	15:31	46323	214-27-23A,B	T-V-4-4 A,B TITC	FX983	N/A	JL 8/24/98		JL	Tenax tube broken will change and reset out in morning JL 8/24/98 Reset (Start end only)

* Volatile Data Only ** Transcribed Data *** Dated Signature/Initials Required

TRIANGLE LABS

SAMPLE DATA

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729

P.O. Box 13485
Research Triangle Park, NC 2
Fax # 919-544-5491

Pacific Environmental Services

Project Number: 46323
Sample File: FX975

Method 8260 VOST
Sample ID: T-V-2-1-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-5A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane	0.056		1.09		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.036	J	1.64		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.014	J	2.06		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.104		2.77		0.05
Acetone	0.193		2.87		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.488		3.26		0.05
Acrylonitrile		U		0.026	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.005	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.263		5.52		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 16:48 08/25/1998

Pacific Environmental Services

Project Number: 46323
Sample File: FX975

Method 8260 VOST
Sample ID: T-V-2-1-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-5A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.008	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.006	0.05
Toluene	0.132		8.10		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.36		
Tetrachloroethene	0.017	J	8.92		0.05
2-Hexanone		U		0.011	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.015	J	10.69		0.05
m-/p-Xylene	0.078	J	10.93		0.10
o-Xylene	0.012	J	11.64		0.05
Styrene		U		0.001	0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.74		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Pacific Environmental Services

Project Number: 46323
Sample File: FX975

Method 8260 VOST
Sample ID: T-V-2-1-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-5A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.219	5.18	1	88
Toluene-d_8	0.277	8.00	2	111
4-Bromofluorobenzene	0.319	12.67	2	128

eviewed by BaB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Pacific Environmental Services

Project Number: 46323
Sample File: FX975

Method 8260 VOST
Sample ID: T-V-2-1-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-5A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF824

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.033	J	3.62		0.25
n-Hexane	0.266		3.87		0.25
1,2-Epoxybutane		U		0.032	0.25
Iso-Octane	0.029	J	5.68		0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.008	0.25

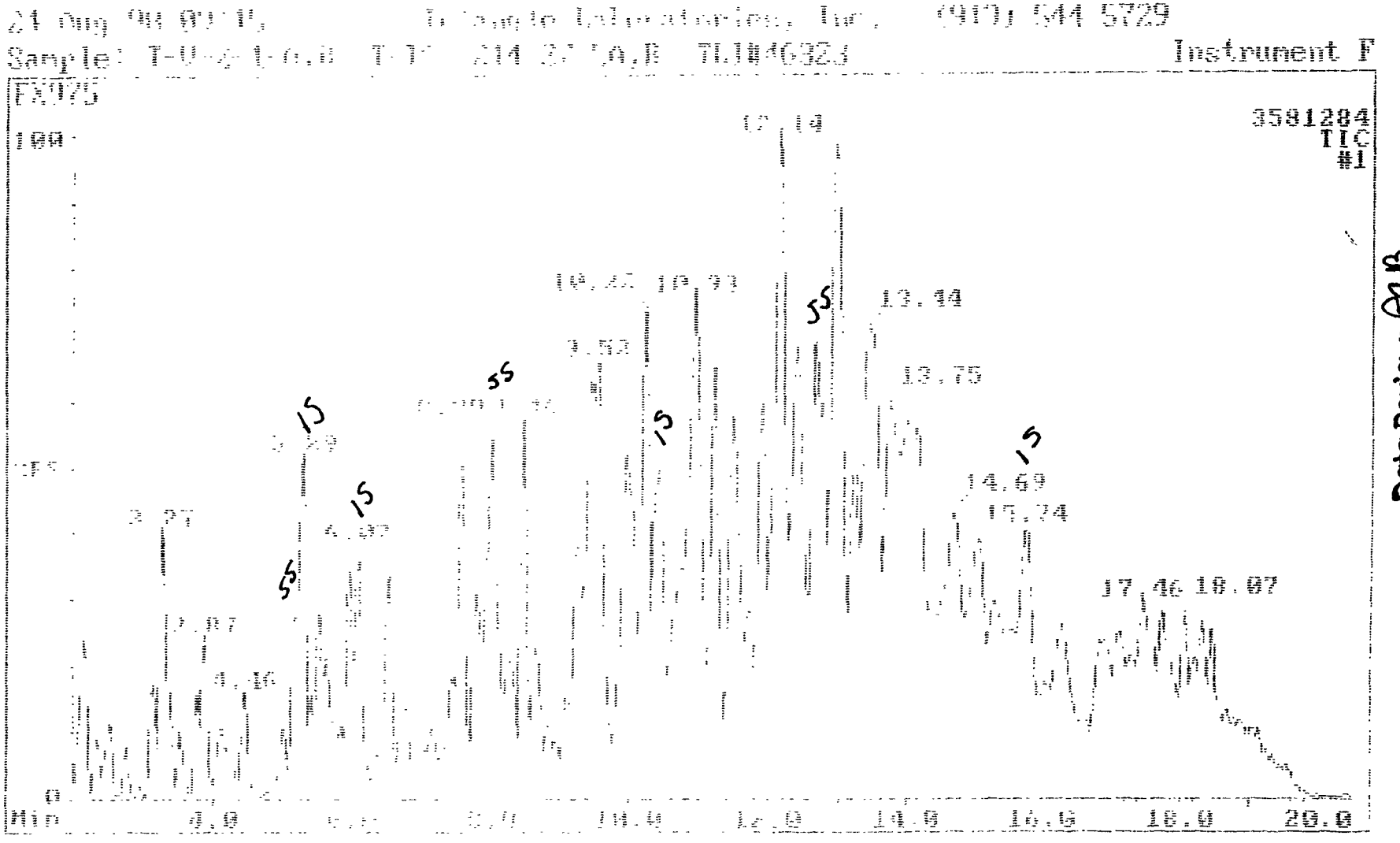
Reviewed by PaB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v
Printed: 17:21 08/25/1



Data Review: GAB
Date: 8/24/98

108609 — (M) PaB — 1.09

140672 — (M) PaB — 2.06

(7P) PaB

(7A) PaB

(7B) PaB

93520 — (M) PaB — 8.92

(7P) PaB

Data Review: PaB
Date: 8/24/98

689472 — (M) PaB — 10.93

92880 — (M) PaB — 11.64

[illegible]	MAT	FOR	MOV	[illegible]	[illegible]	Flags	RT	[illegible]
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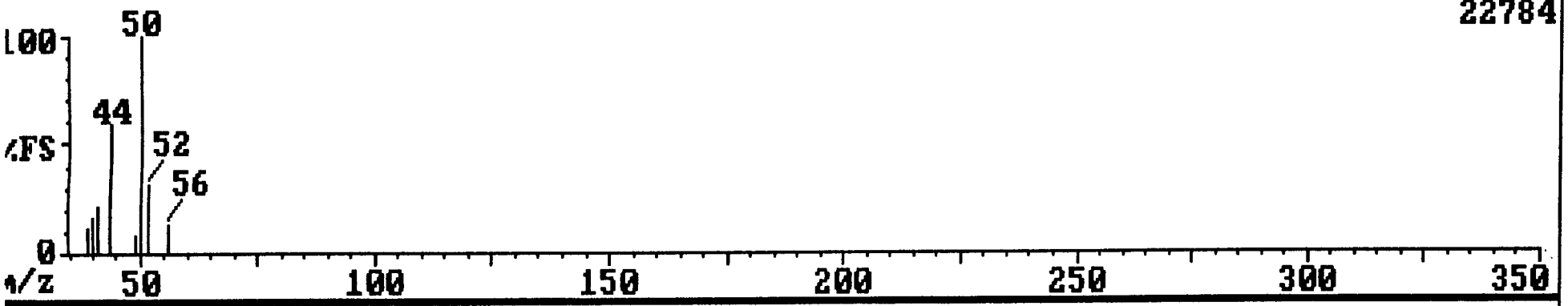
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

247

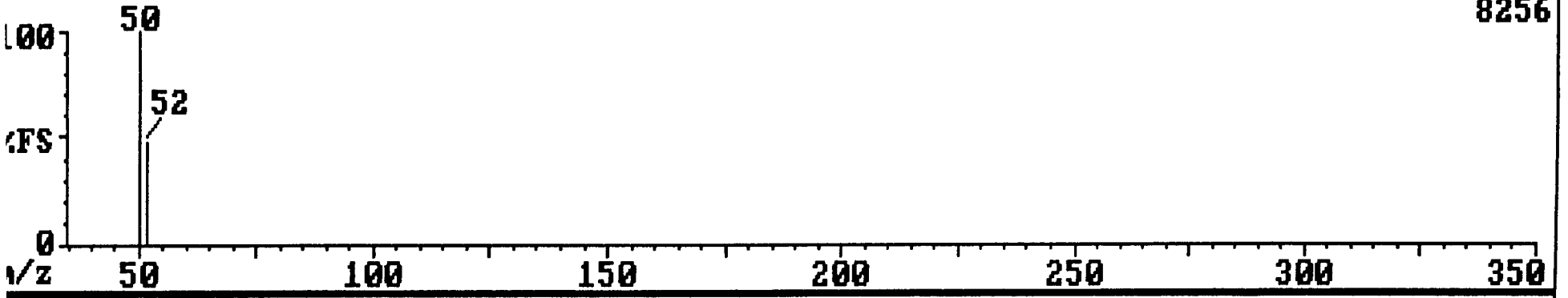
:4-Aug-98 09:15 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-1-A,B T/TC 214-27-5A,B TLI#46323 Instrument F

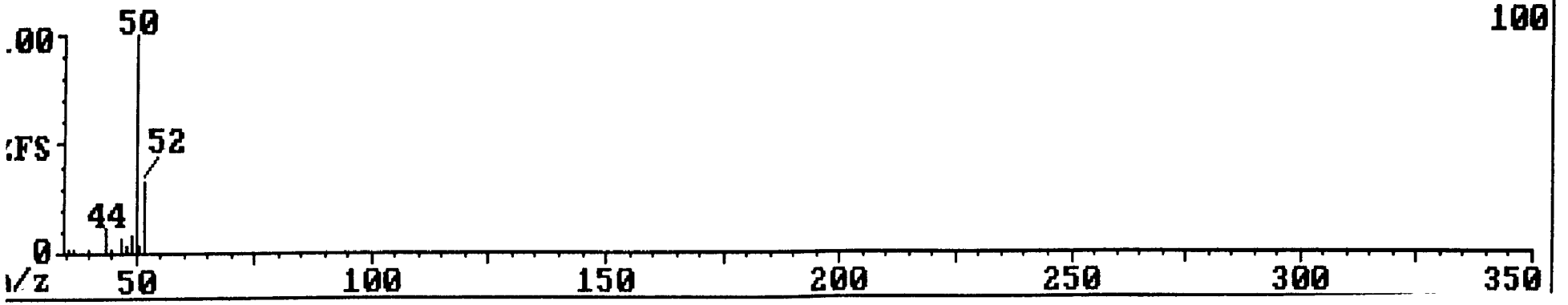
FX975 109 (1.090)



FX975 109 (1.091) REFINE



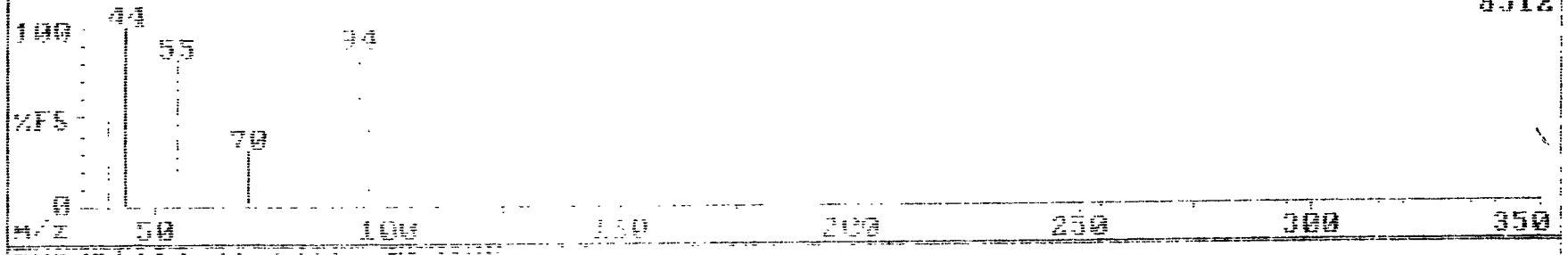
3260 9 (1.230) Chloromethane FIND



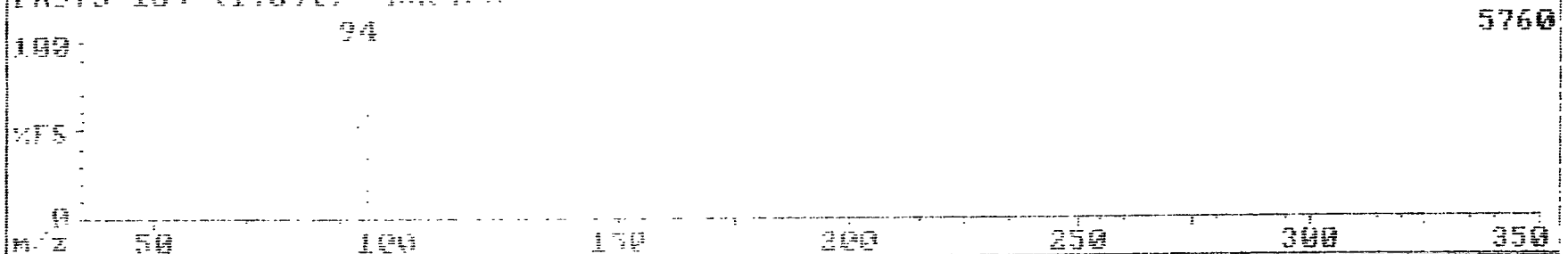
24-Aug '98 04:0[illegible] [illegible] Laboratories, Inc. (919) 544-5729

Sample: T [illegible] Instrument F

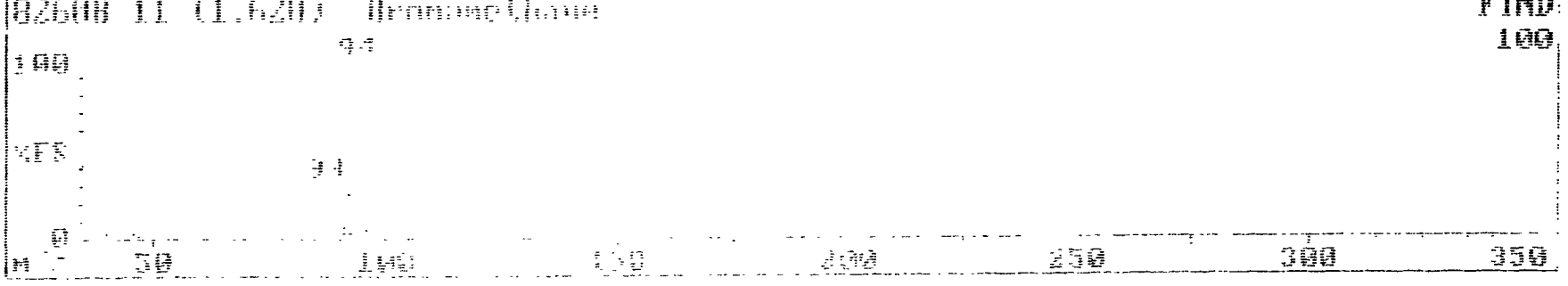
FX975 164 (1.64M)



FX975 164 (1.64D) [illegible]



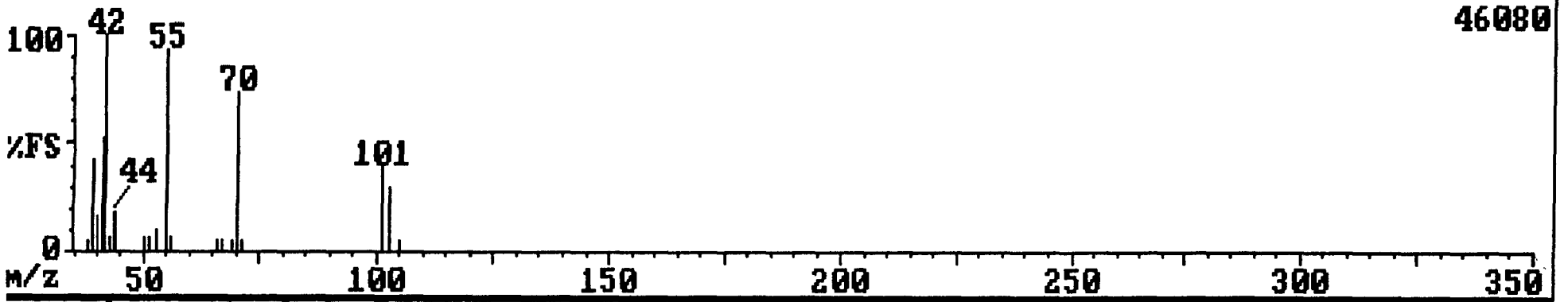
8260B 11 (1.62D) [illegible]



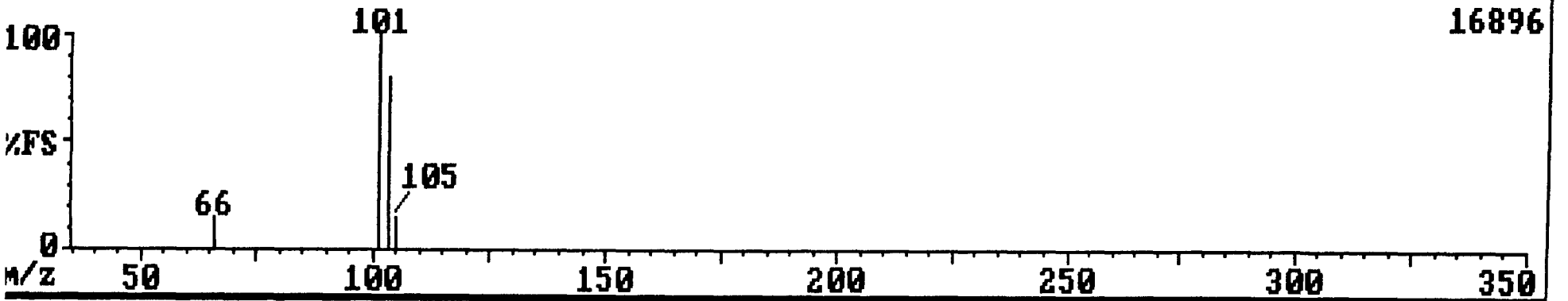
24-Aug-98 09:15 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-1-A,B T/TC 214-27-5A,B TLI#46323 Instrument F

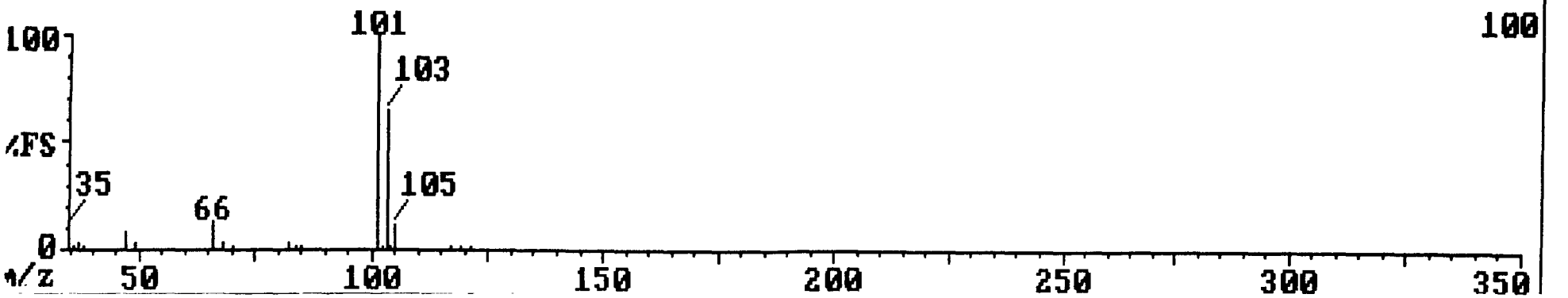
FX975 206 (2.060)



FX975 206 (2.061) REFINE



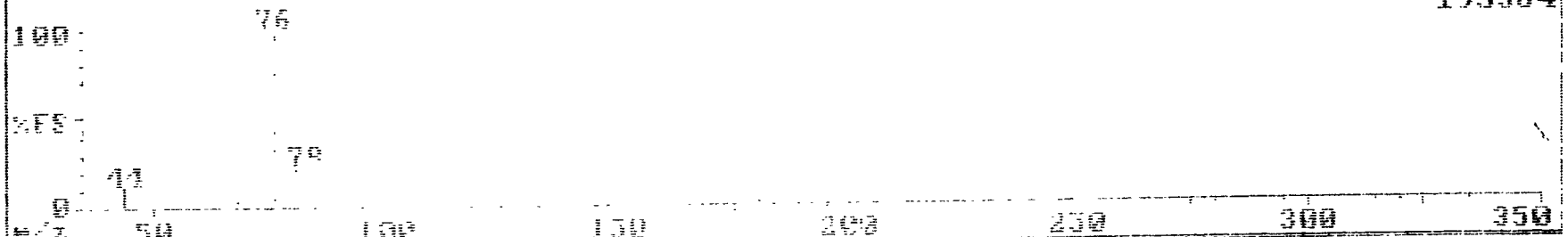
8260 13 (2.300) Trichlorofluoromethane FIND



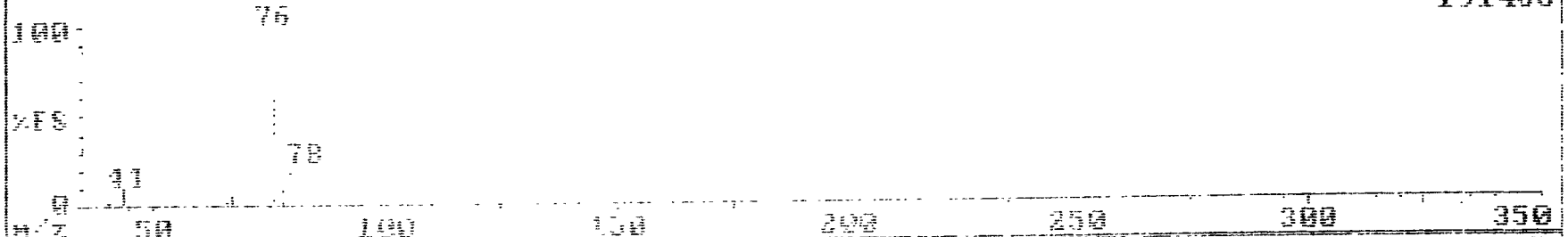
21-Aug-'98 09:15 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-U-2-1 A,M T-TC A11-27-Sa,P TU084323 Instrument F

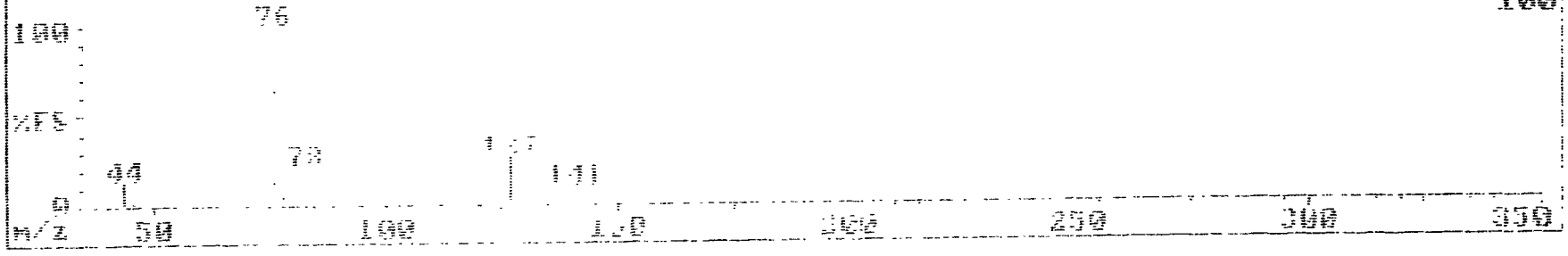
FX975 277 (2.779) 195584



FX975 277 (2.771) RFIND 191488



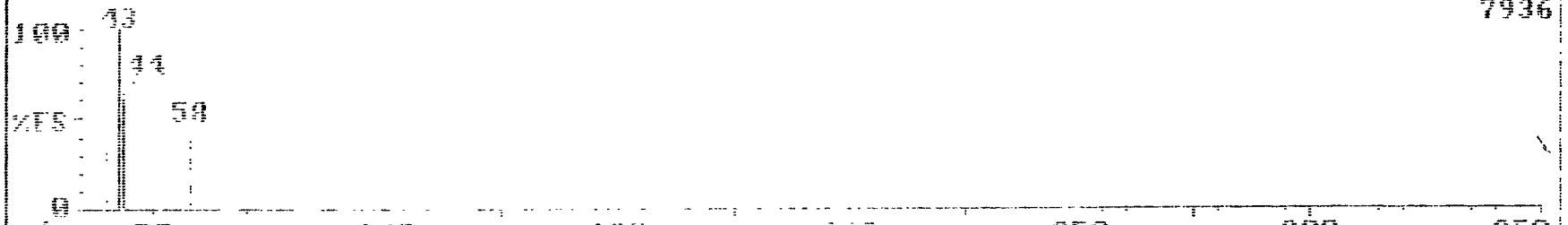
02600 16 (2.800) Carbon Disulfide FIND 100



24-Aug-90 09:15 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-1 n.P [illegible] TIM46323 Instrument P

FX975 287 (2.870)



7936

FX975 287 (2.871) [illegible]

6336

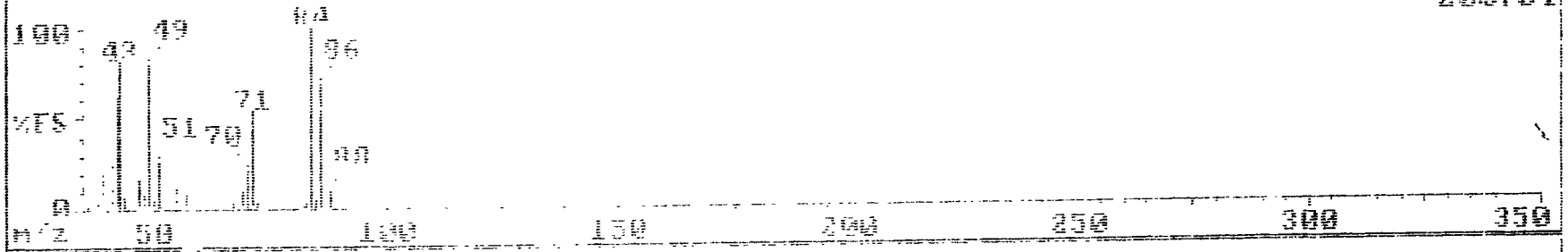
82600 17 (2.870) Acetone

FIND
100

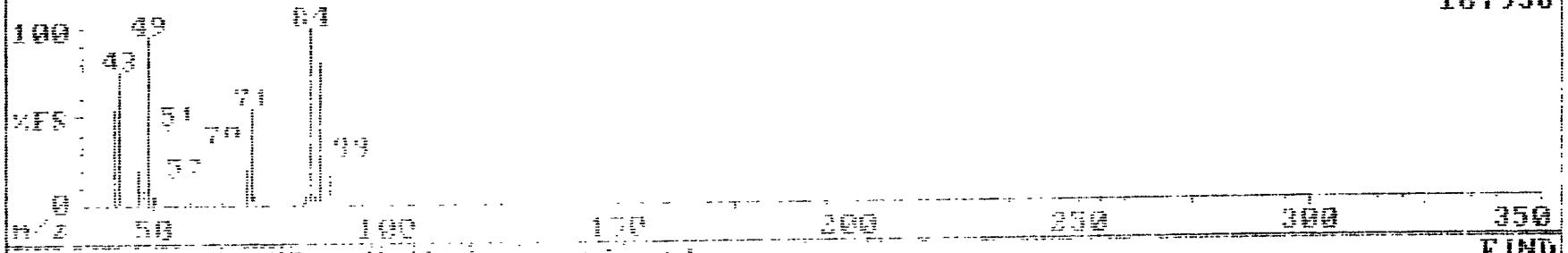
24-Aug-98 09:0[illegible] Triangle Laboratories, Inc. (919) 544-5729

Sample: T-U-2 1-0,D [illegible] 14 77 Wo.R TL[illegible]46373 Instrument F

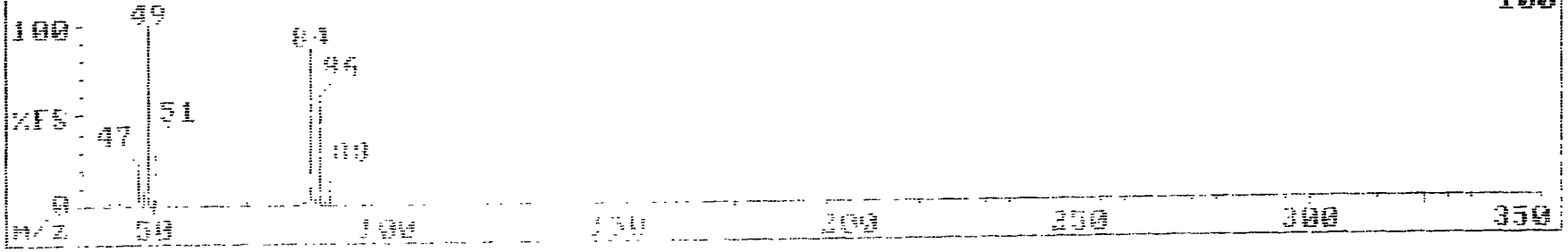
FX975 326 (3.260) 200704



FX975 326 (3.261) REFIND 167936



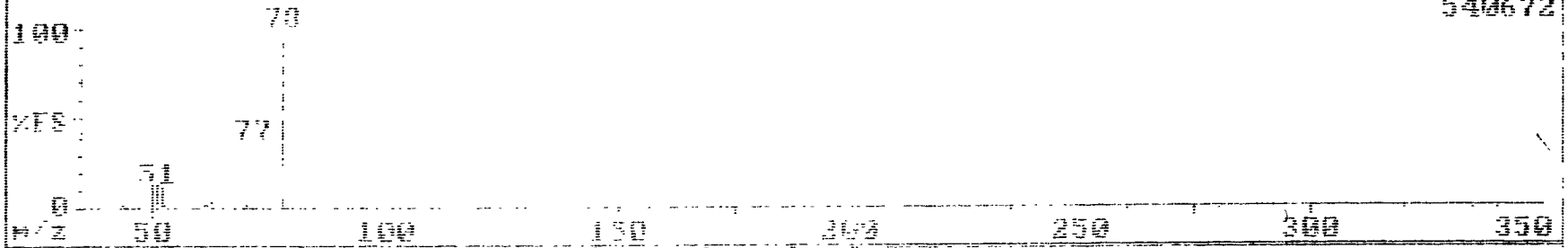
B260R 19 (3.290) Methylene chloride FIND 100



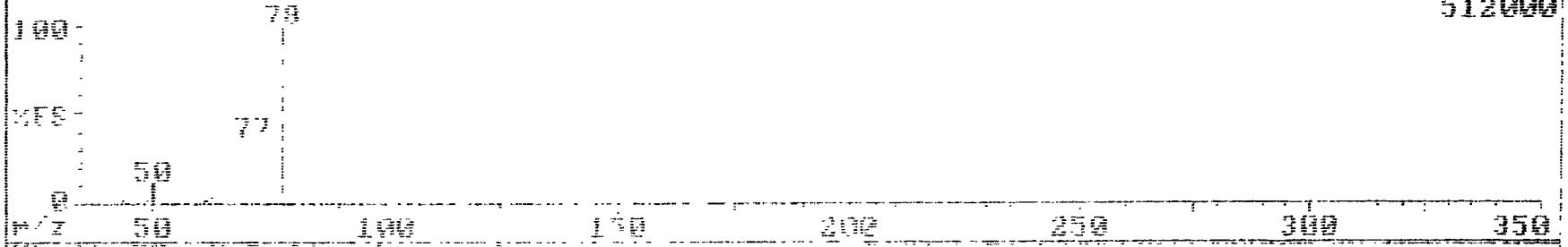
24-Aug-98 09:15 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-1 n,R [illegible] Instrument F

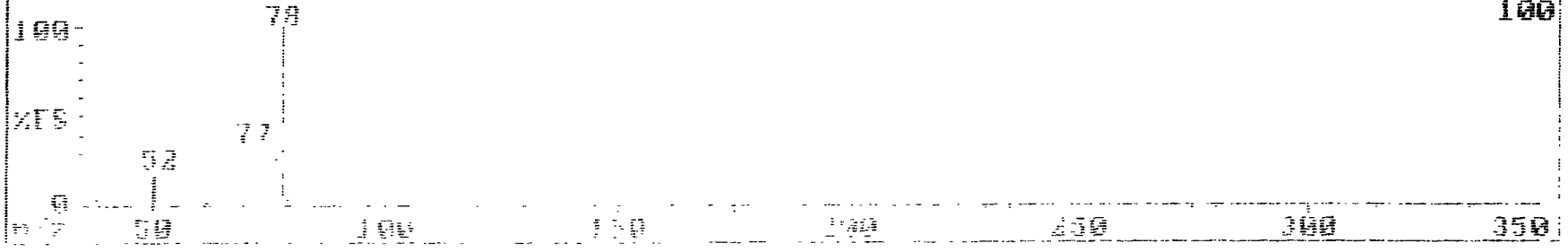
FX975 552 (5.521) 540672



FX975 552 (5.521) NEFTME 512000



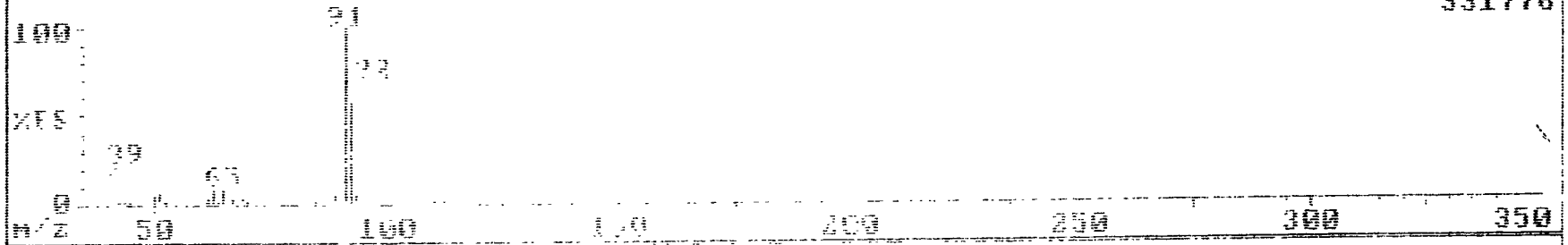
B2600 32 (5.501) Benzene FIND 100



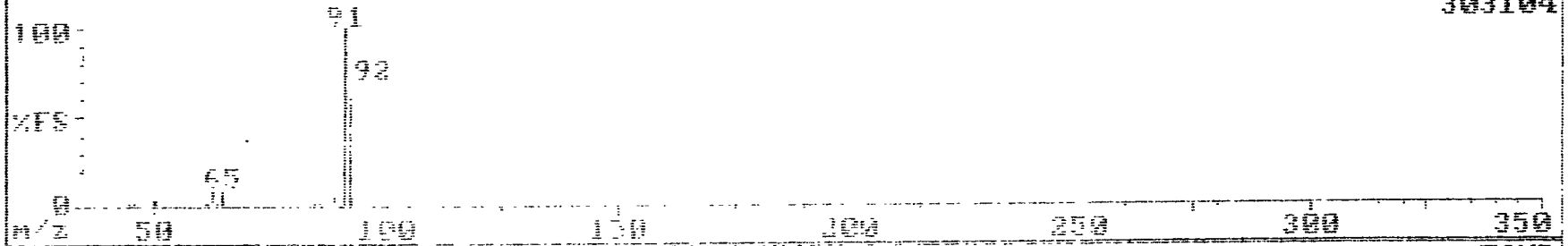
24-Aug-98 00:15 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V 2 1 0.6 [illegible] 50.0 TU016323 Instrument F

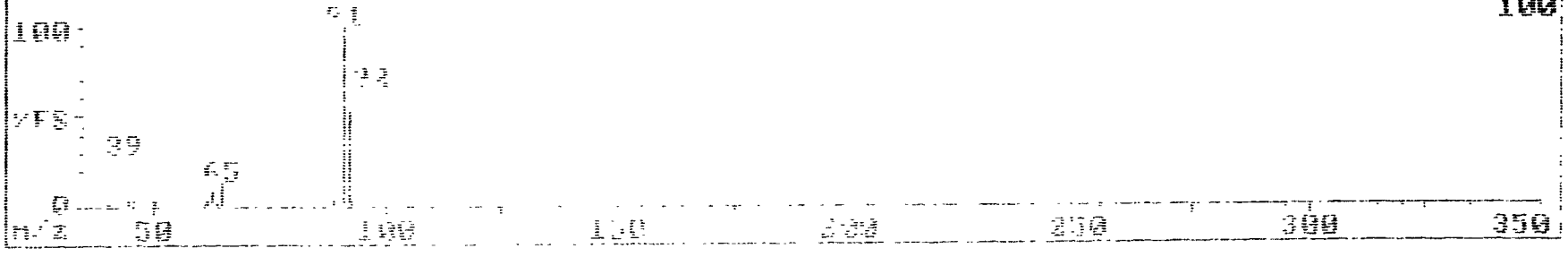
FX975 810 (0.101) 331776



FX975 810 (0.101) REFINE 303104



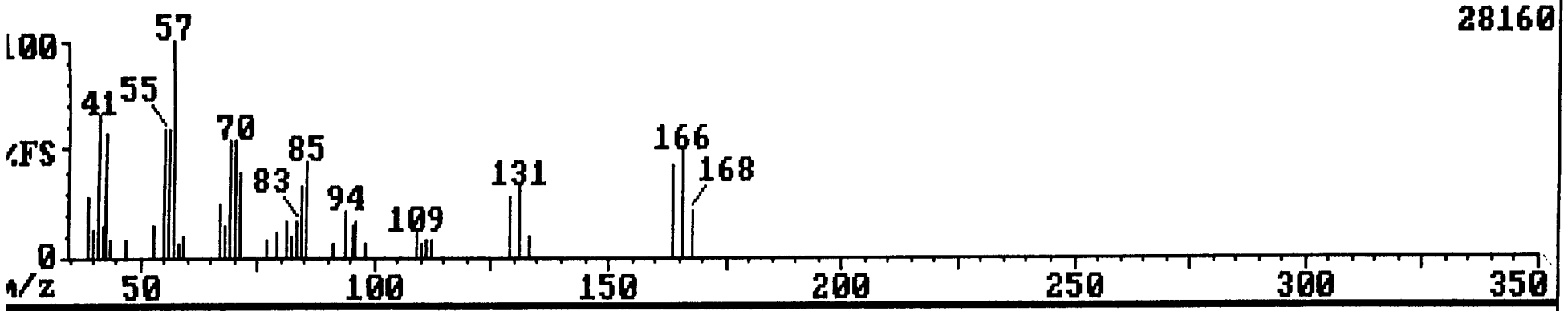
BZ600 41 (8.131) Toluene FIND 100



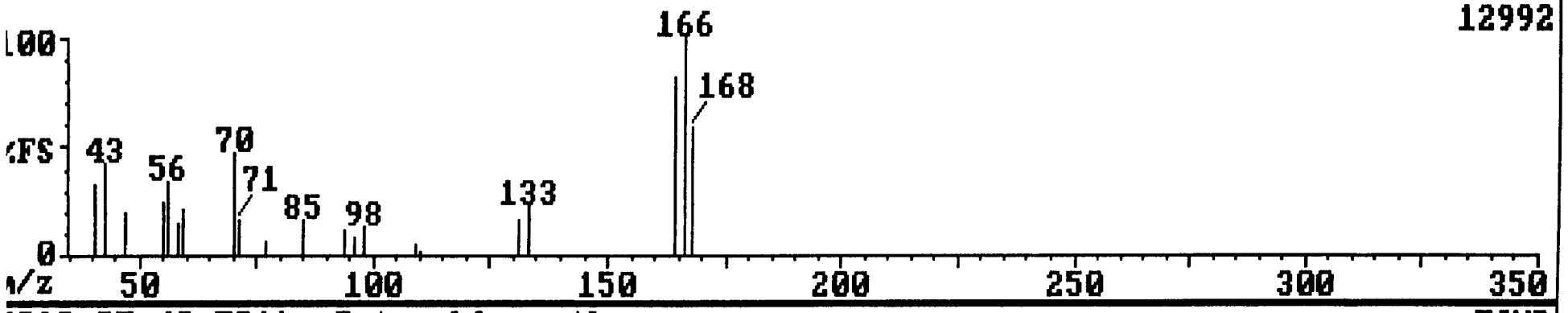
:4-Aug-98 09:15 Triangle Laboratories, Inc. (919) 544-5729

:ample: T-V-2-1-A,B T/TC 214-27-5A,B TLI#46323 Instrument F

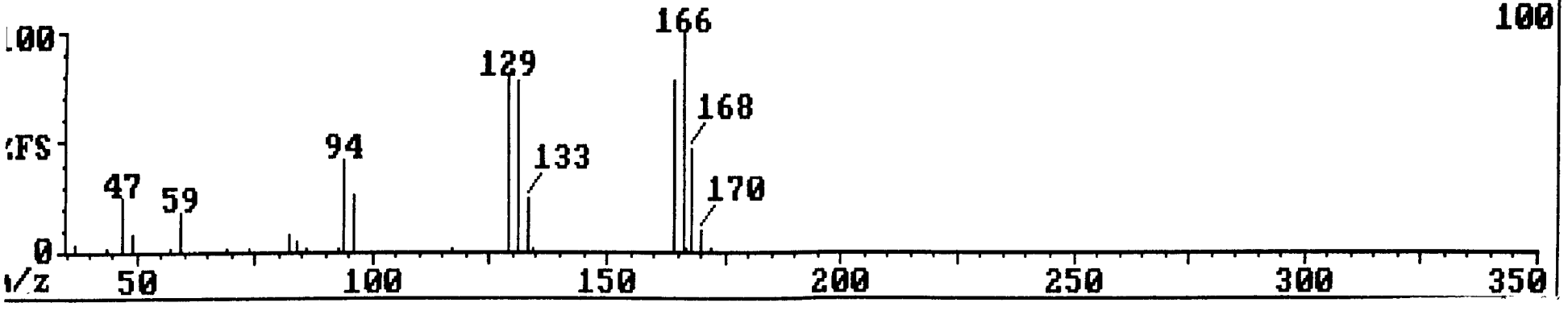
FX975 892 (8.921)



FX975 892 (8.921) REFINE

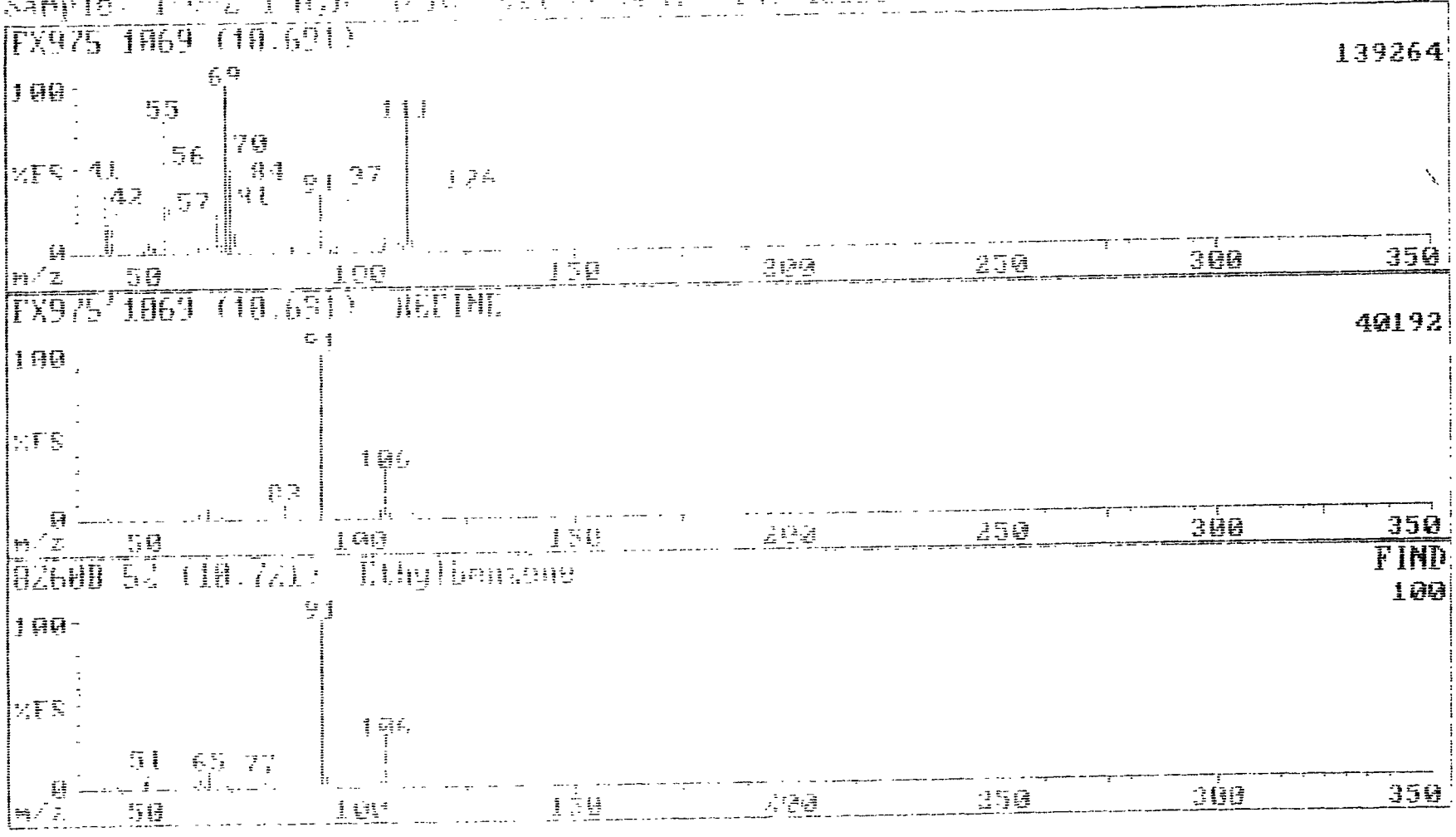


3260 35 (9.531) Tetrachloroethene FIND



24-Aug 98 09:15 Triangle Laboratories, Inc. (919) 544-5729

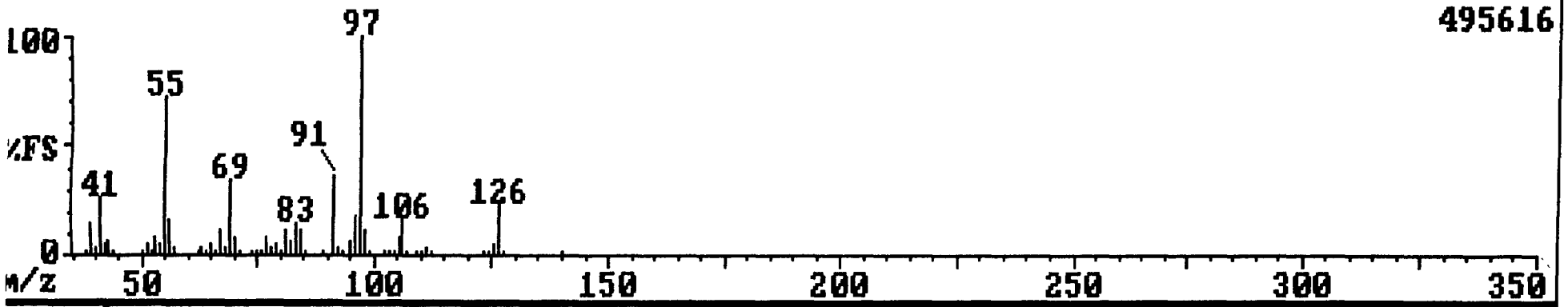
Sample: [illegible] Instrument F



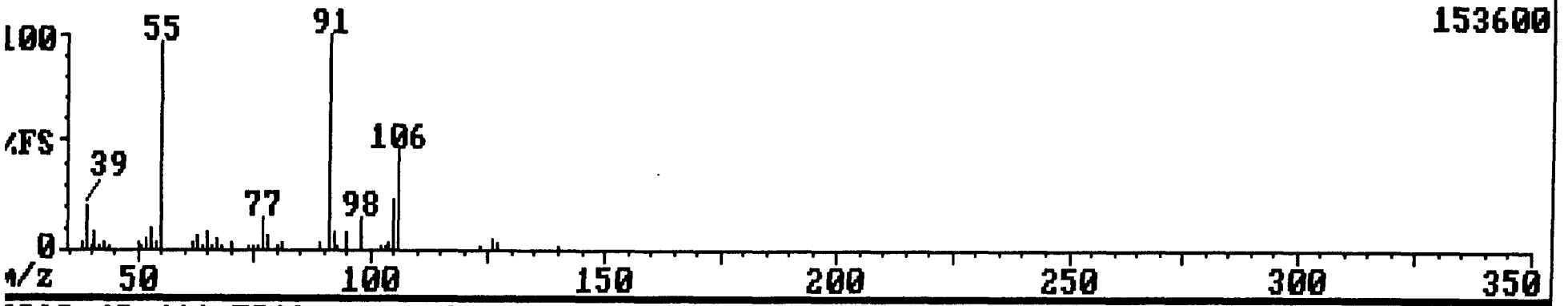
:4-Aug-98 09:15 Triangle Laboratories, Inc. (919) 544-5729

:ample: T-V-2-1-A,B T/TC 214-27-5A,B TLI#46323 Instrument F

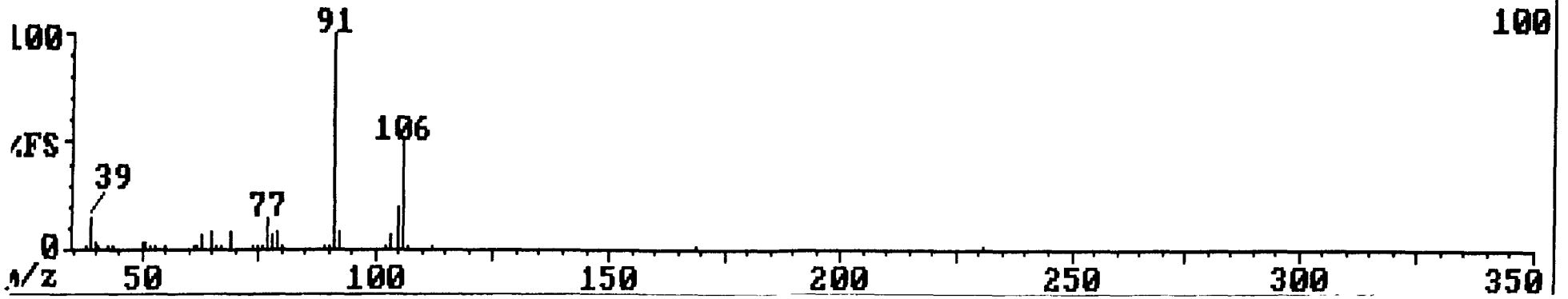
FX975 1093 (10.931)



FX975 1093 (10.931) REFINE



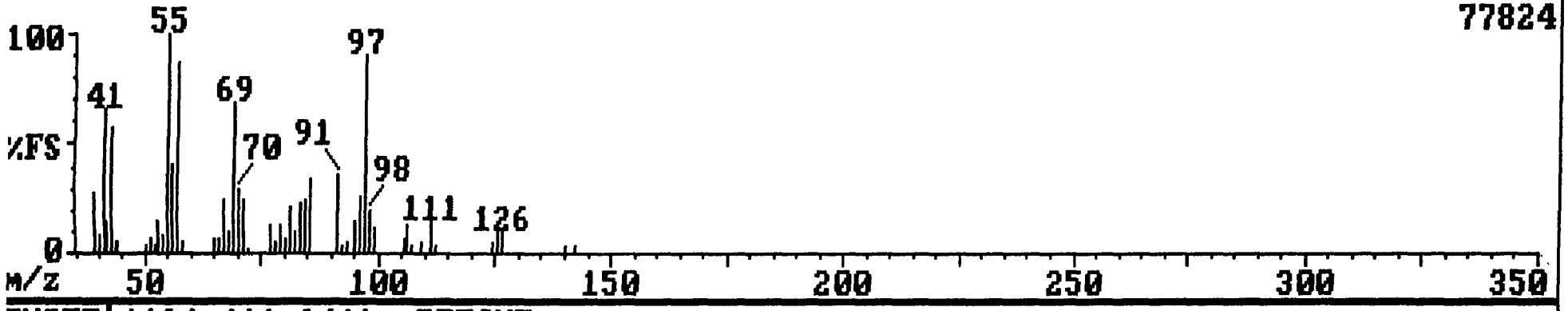
3260 42 (11.581) m-/p-Xylene FIND



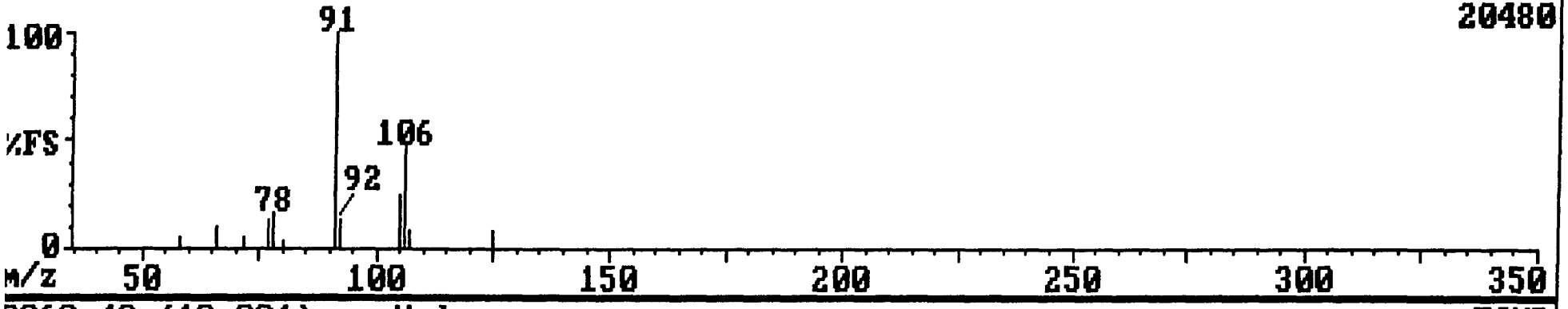
24-Aug-98 09:15 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-1-A,B T/TC 214-27-5A,B TLI#46323 Instrument F

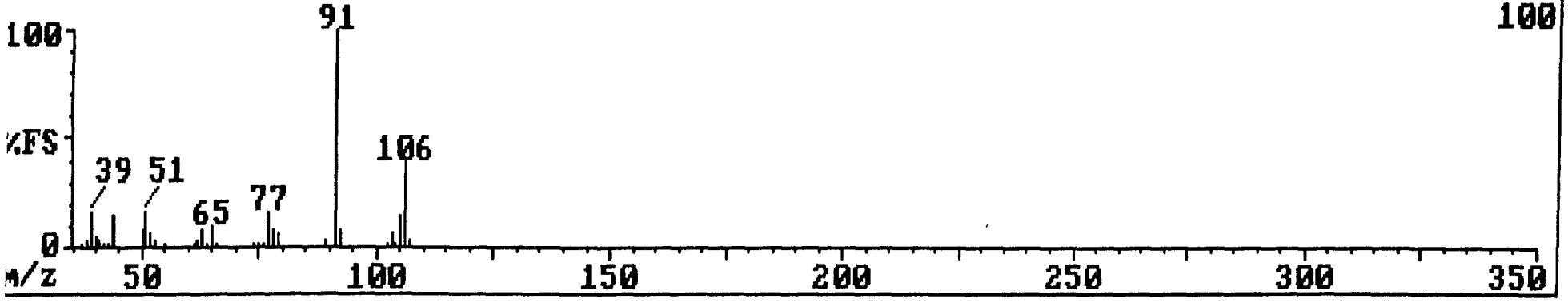
FX975 1164 (11.641) 77824



FX975 1164 (11.641) REFINE 20480

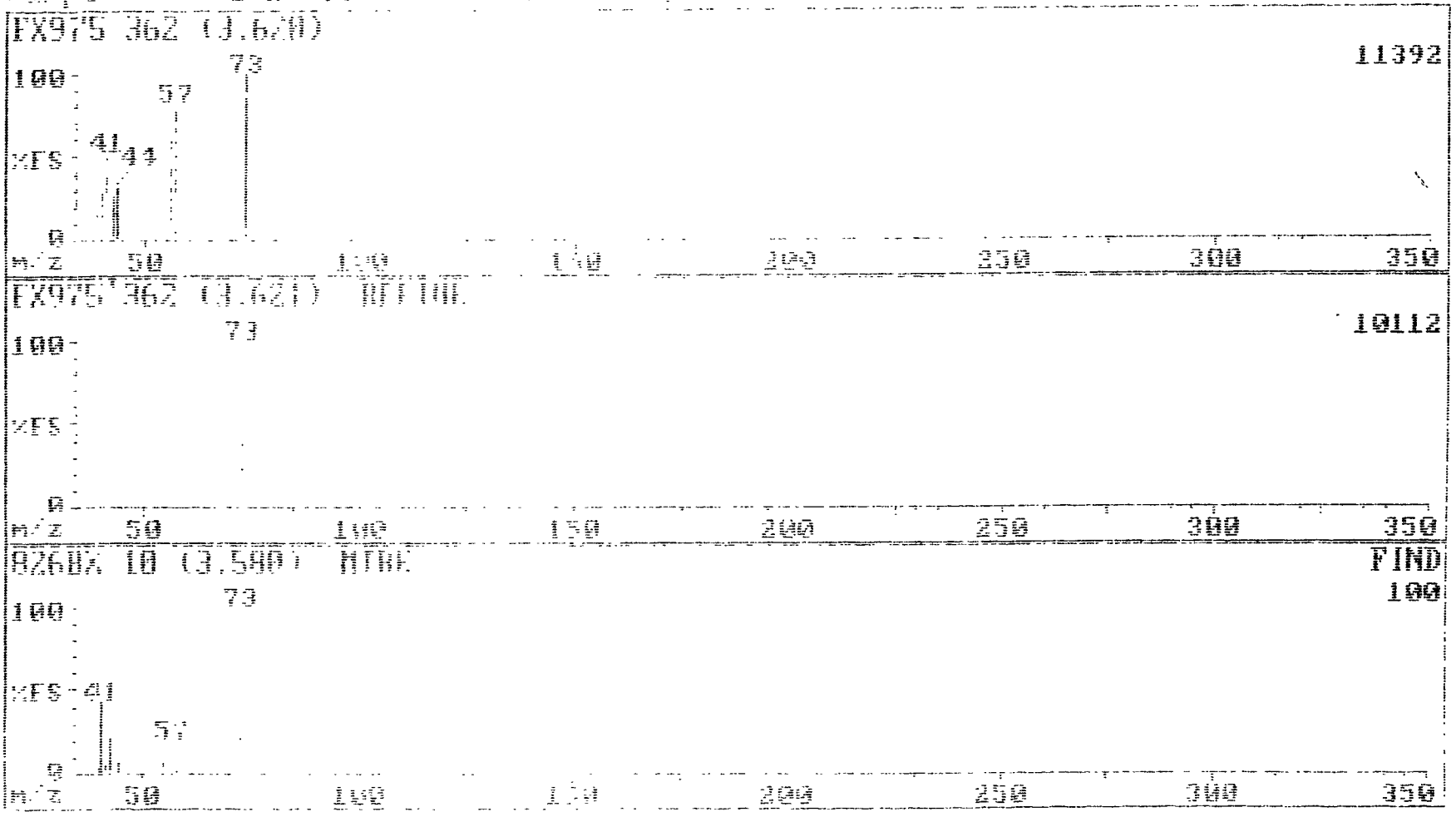


8260 43 (12.321) o-Xylene FIND 100



24-Aug-98 09:15 Triangle Laboratories, Inc. (919) 544-5729

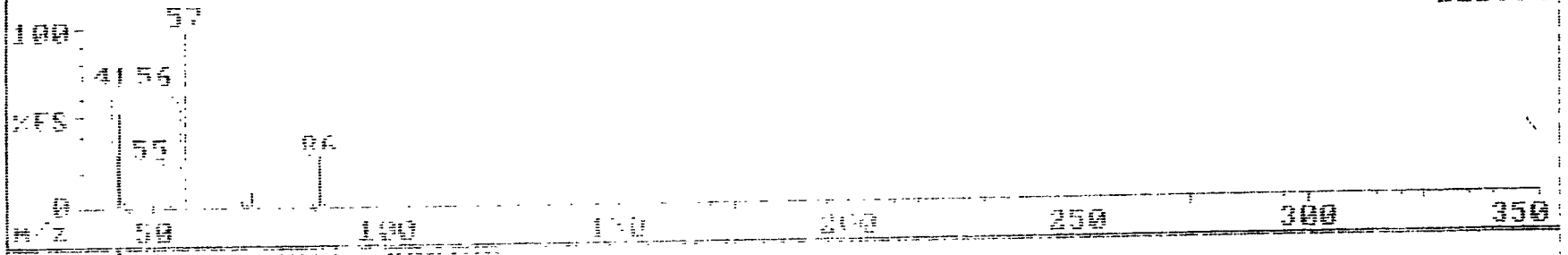
Sample: T-U-2-1 0.8 [illegible] TUI#4373 Instrument F



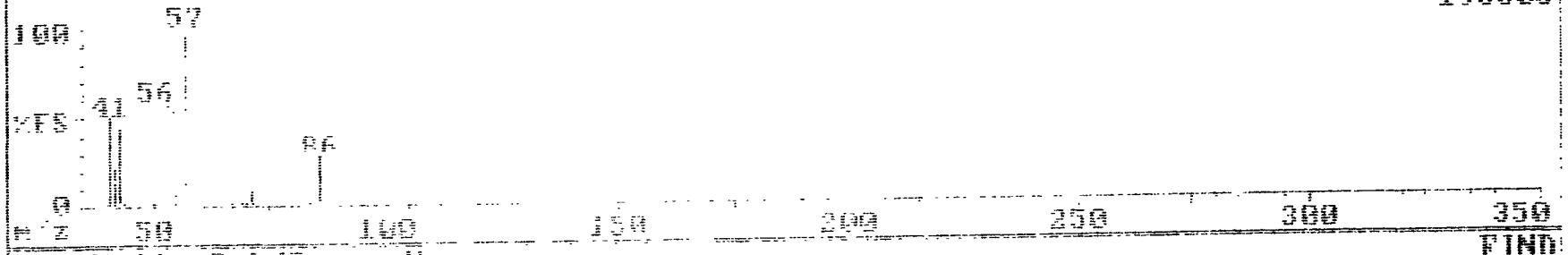
24-Aug-90 09:16 T. Lowell Laboratories, Inc. (919) 944-5729

Sample: T-H-2-1-0,6 [illegible] Instrument F

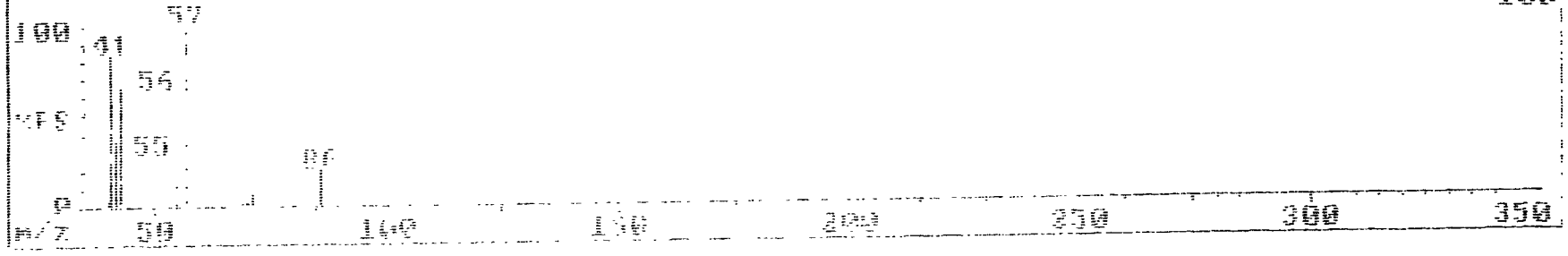
EX975 307 (3.070) 212992



EX975 307 (3.071) BRT INC 196608



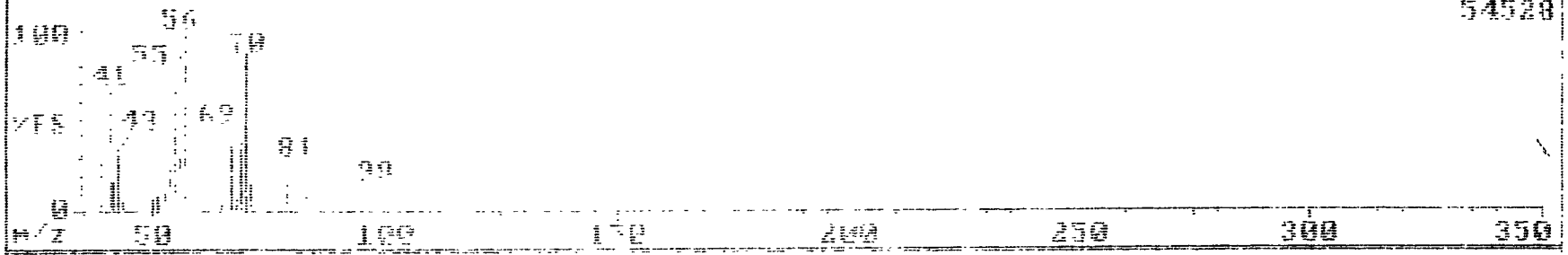
826MX 11 (3.070) n-Hexane FIND 100



24 Aug-90 04:05 Triangle Laboratories, Inc. (919) 544-5729

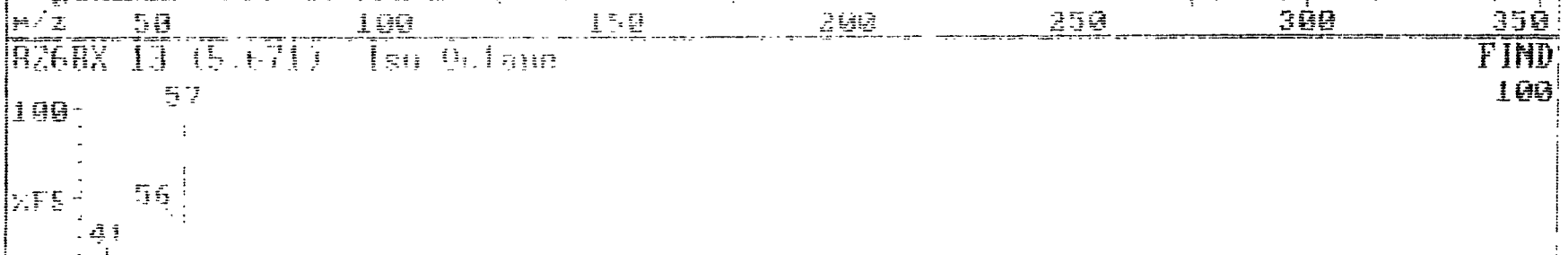
Sample: T-V-2 1 A,B [illegible] Instrument F

FX975 560 (5.681)



FX975 560 (5.681) REFINE

R26BX 13 (5.671) Iso Octane



Pacific Environmental Services

Project Number: 46323 | **Method 8260 VOST**
Sample File: FX976 | **Sample ID: T-V-2-2-A,B T/TC**

Client Project: R012.001 | **Date Received: 07/29/98** | **Response File: ICALF821**
TLI ID: 214-27-6A,B
Date Analyzed : 08/24/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.32		
Chloromethane	0.092		1.09		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.035	J	1.66		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.011	J	2.07		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.093		2.79		0.05
Acetone	0.232		2.87		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride		U		0.001	0.05
Acrylonitrile		U		0.024	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone	0.312		4.74		0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.09		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.238		5.54		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v.
Printed: 16:49 08/25/19

Pacific Environmental Services

Project Number: 46323 | **Method 8260 VOST**
Sample File: FX976 | **Sample ID: T-V-2-2-A,B T/TC**

Client Project: R012.001 | **Date Received: 07/29/98** | **Response File: ICALF821**
TLI ID: 214-27-6A,B
Date Analyzed : 08/24/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.007	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.005	0.05
Toluene	0.247		8.12		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.39		
Tetrachloroethene	0.035	J	8.96		0.05
2-Hexanone		U		0.010	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.069		10.72		0.05
m-/p-Xylene	0.428		10.95		0.10
o-Xylene	0.119		11.68		0.05
Styrene	0.052		11.73		0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.81		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 16:49 08/25/1998

Pacific Environmental Services

Project Number: 46323
Sample File: FX976

Method 8260 VOST
Sample ID: T-V-2-2-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-6A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.212	5.20	1	85
Toluene-d_8	0.268	8.03	2	107
4-Bromofluorobenzene	0.316	12.70	2	126

Reviewed by PaB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Pacific Environmental Services

Project Number: 46323 | **Method 8260 VOST**
Sample File: FX976 | **Sample ID: T-V-2-2-A,B T/TC**

Client Project: R012.001 | **Date Received: 07/29/98** | **Response File: ICALF824**
TLI ID: 214-27-6A,B
Date Analyzed : 08/24/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.32		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.022	J	3.63		0.25
n-Hexane	0.176	J	3.90		0.25
1,2-Epoxybutane		U		0.029	0.25
Iso-Octane	0.016	J	5.70		0.25
1,4-Difluorobenzene		IS 2	6.09		
Ethyl acrylate		U		0.008	0.25

Reviewed by PaB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 17:21 08/25/1998

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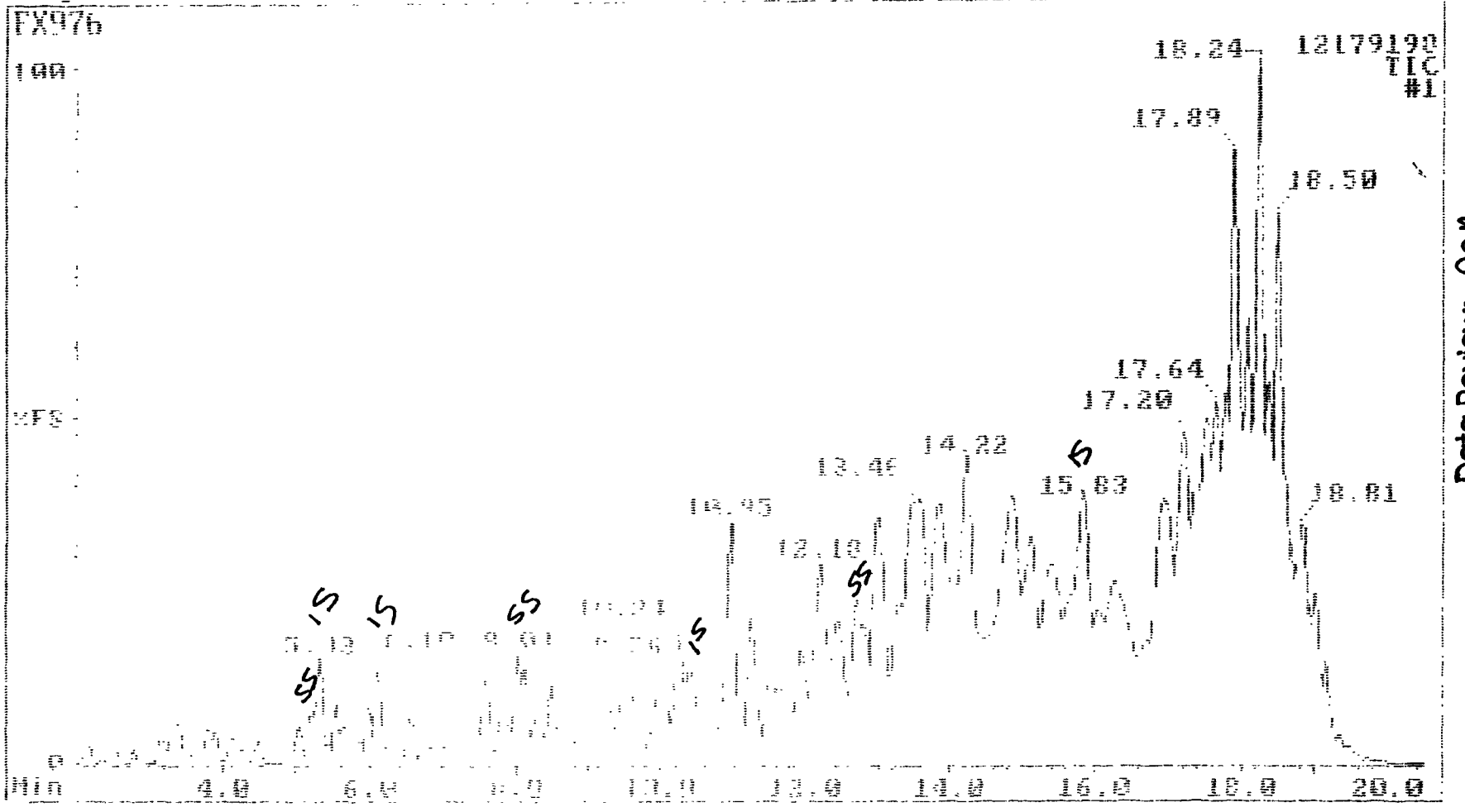
21-Aug-98 10:02 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-2 0.B [illegible] Instrument F



Data Review: RAB
Date: 8/24/98

196794 — (M) PAB — 1.09

117504 — (M) PAB — 2.07

(JP) PAB

(JP) PAB

(JP) PAB

Data Review: PAB
Date: 8/24/98

560928 — (M) PAB — 16.73

PAB

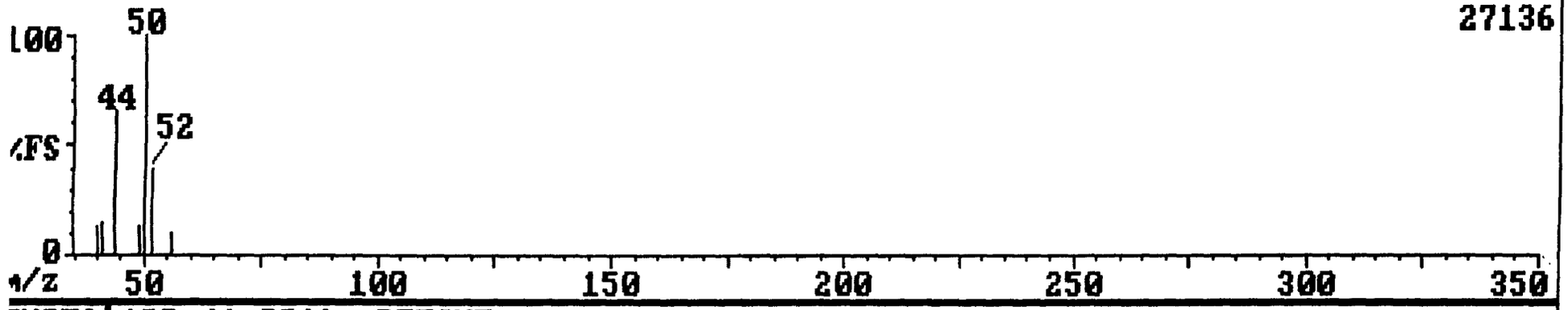
PAB

PAB

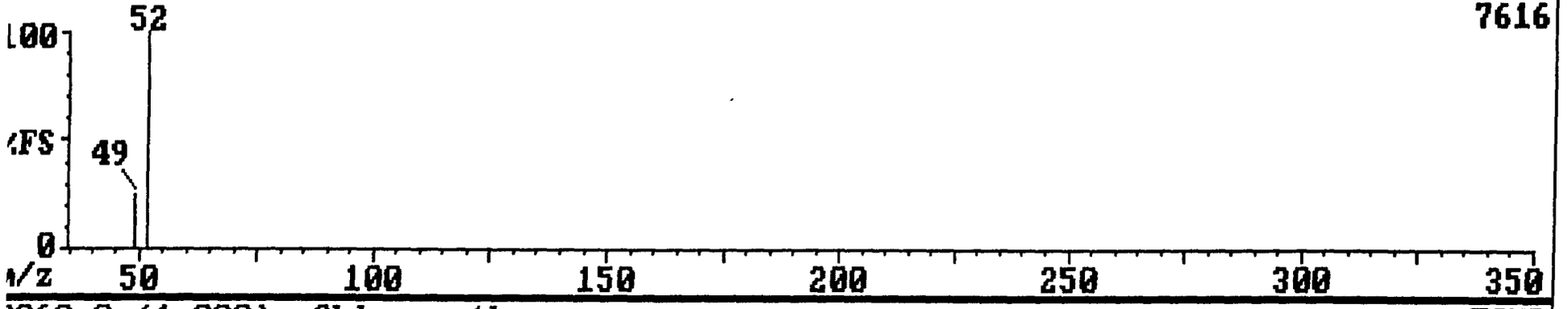
:4-Aug-98 10:02 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-2-A,B T/TC 214-27-6A,B TLI#46323 Instrument F

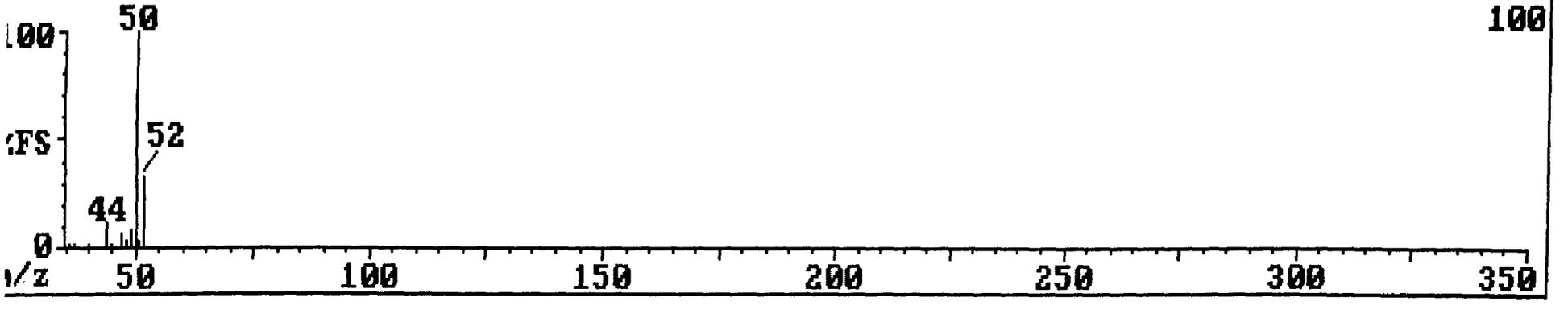
FX976 109 (1.090)



FX976 109 (1.091) REFINE



3260 9 (1.230) Chloromethane FIND

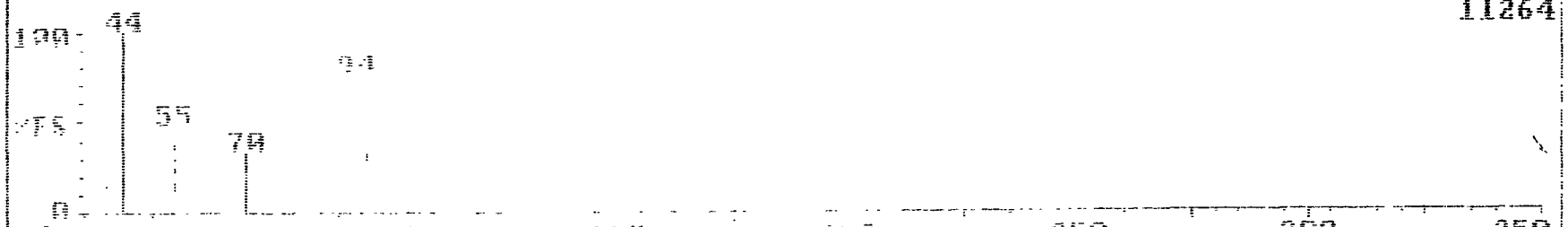


24-Aug-98 10:02 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-3-0.D [illegible] Instrument F

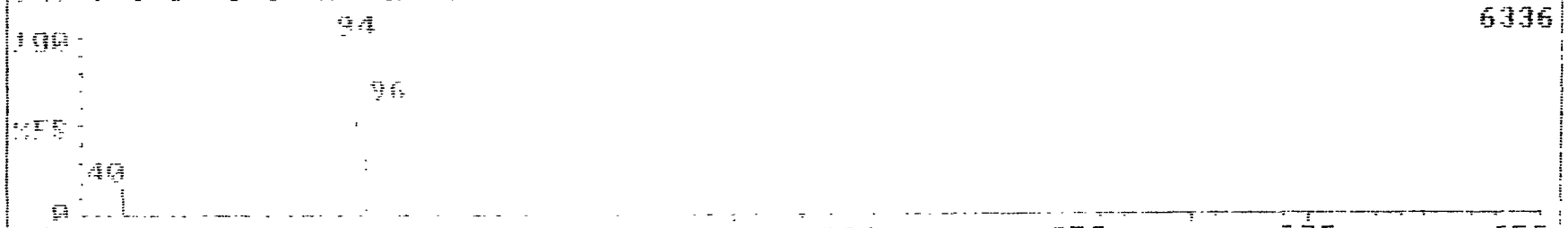
FX976 166 (1.660)

11264



FX976 166 (1.661) [illegible]

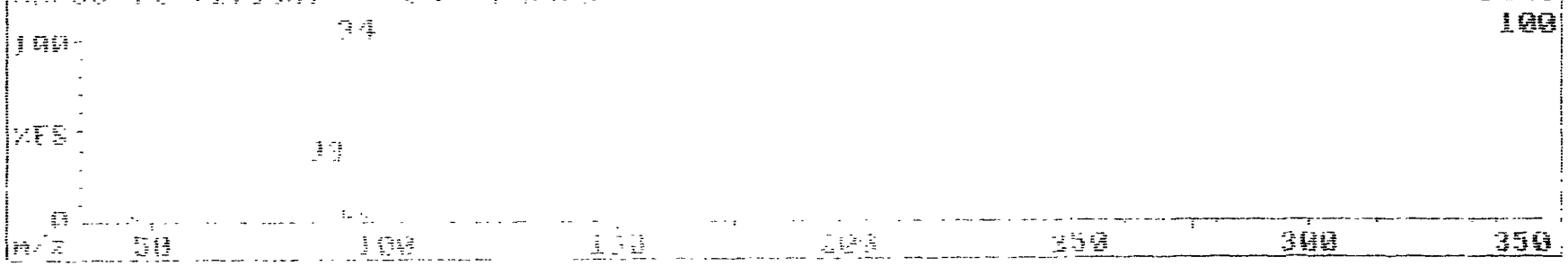
6336



RA-08 11 (1.628) [illegible]

FIND

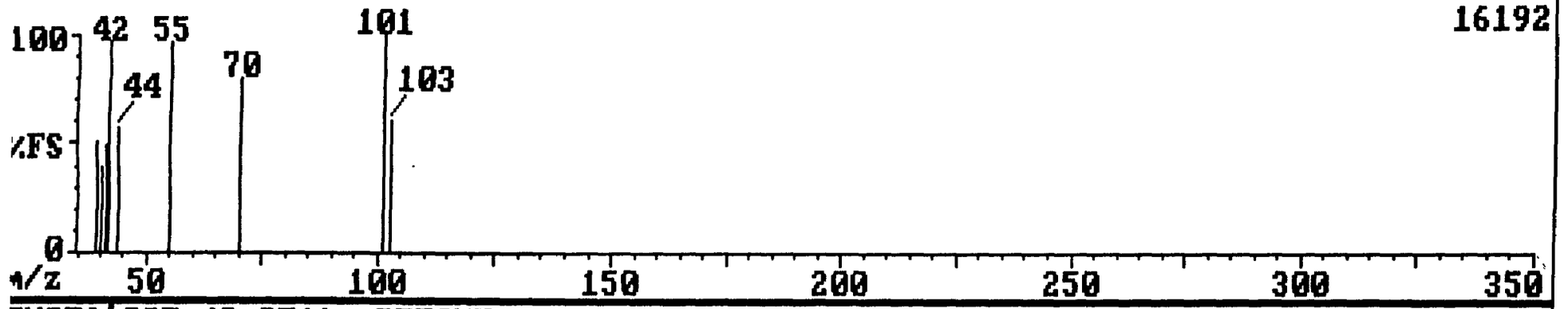
100



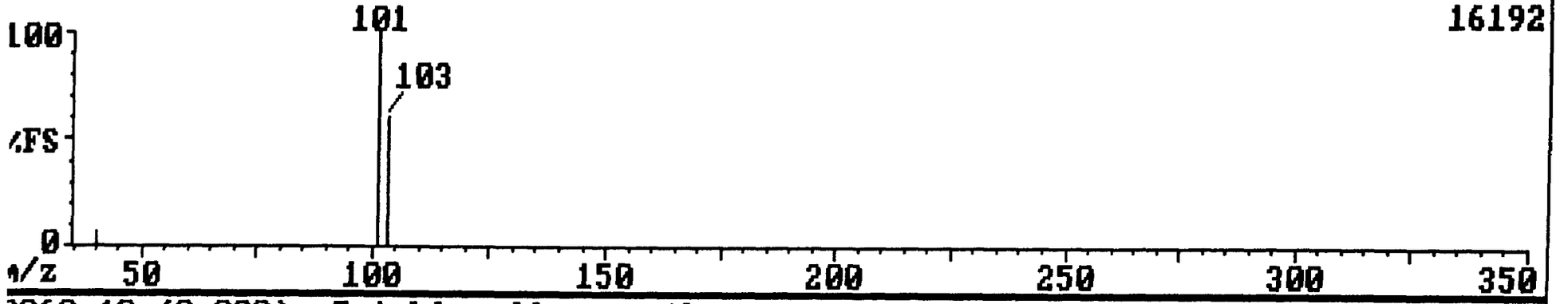
24-Aug-98 10:02 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-2-A,B T/TC Z14-Z7-6A,B TLI#46323 Instrument F

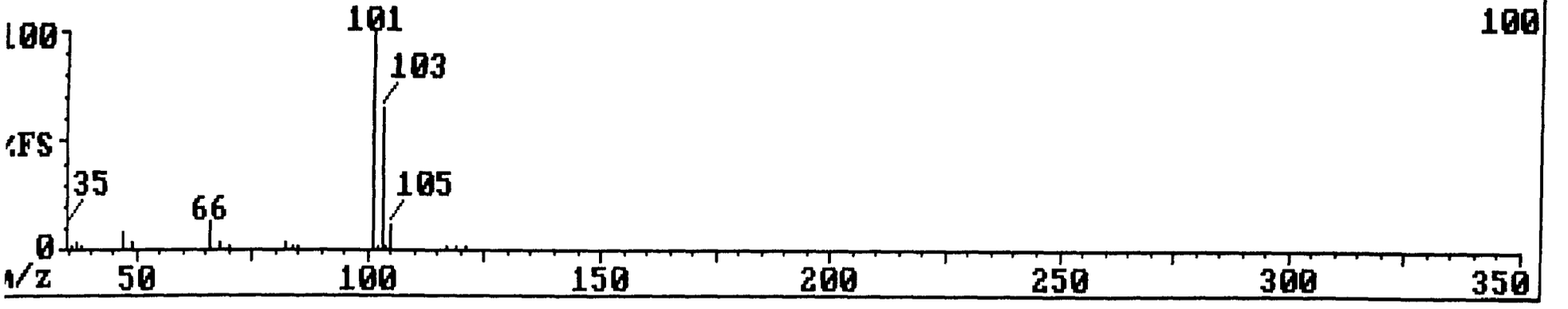
FX976 207 (2.070)



FX976 207 (2.071) REFINE



3260 13 (2.300) Trichlorofluoromethane FIND



273

24-Aug-98 10:07 [illegible] (910) 544-5729

Sample: T-U 2-2-n.R [illegible] Instrument F

FX976 279 (2.790)

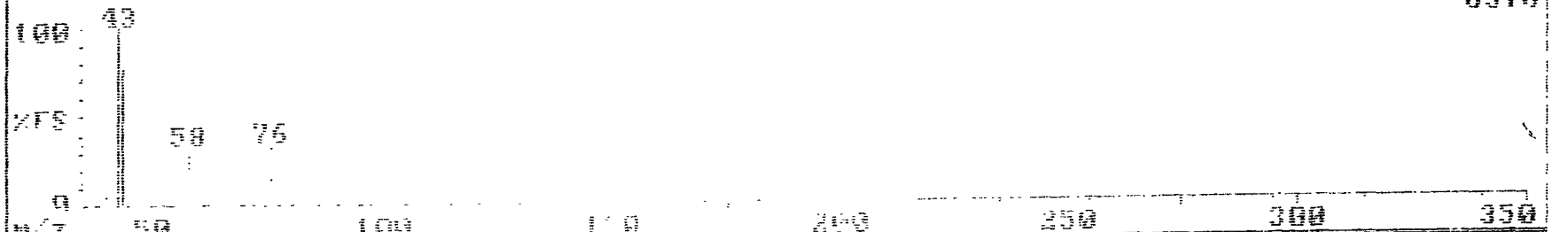
FX976 279 (2.790) [illegible]

B264B 16 (2.800) Carbon dioxide

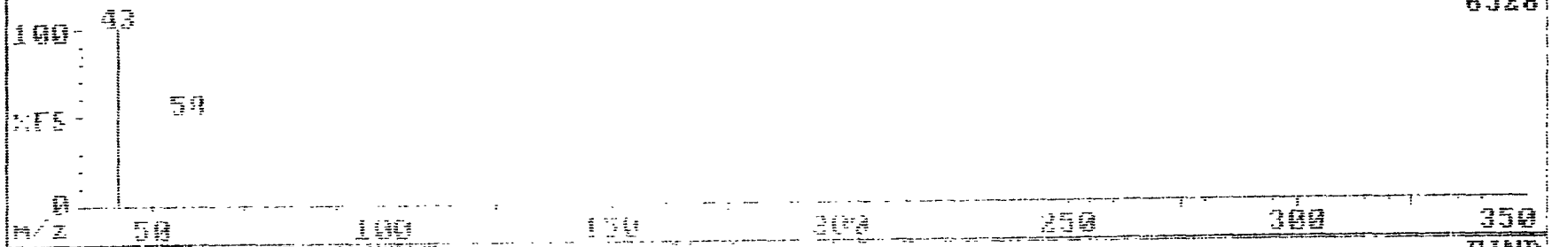
24-Aug-98 10:02 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-U-2 2-A,B [illegible] Instrument F

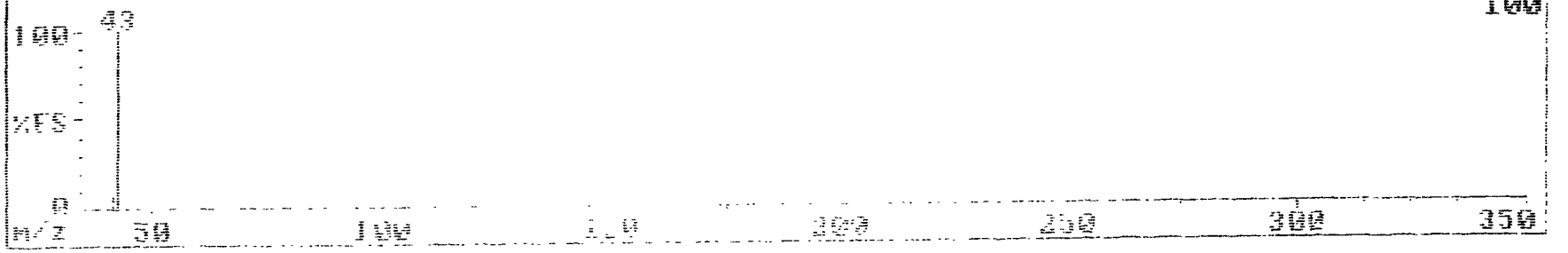
FX976 207 (2.870) 8576



FX976 207 (2.870) BDTMC 6528



B2600 17 (2.870) Acetone FIND 100



21-Aug 98 10:02 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-H-2 2-A,B T.P. H [illegible] TL104633 Instrument P

FX976 474 (4.741) 10944

FX976 474 (4.741) METHOD 7424

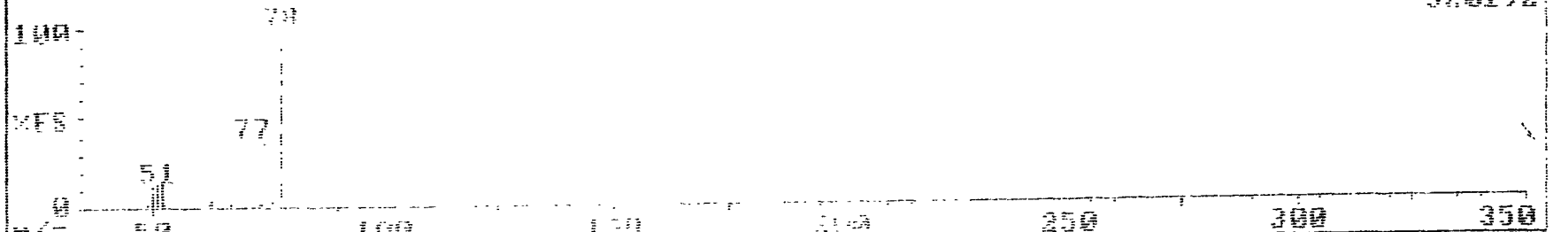
B2600 26 (4.771) 7-Butanone FIND 100

276

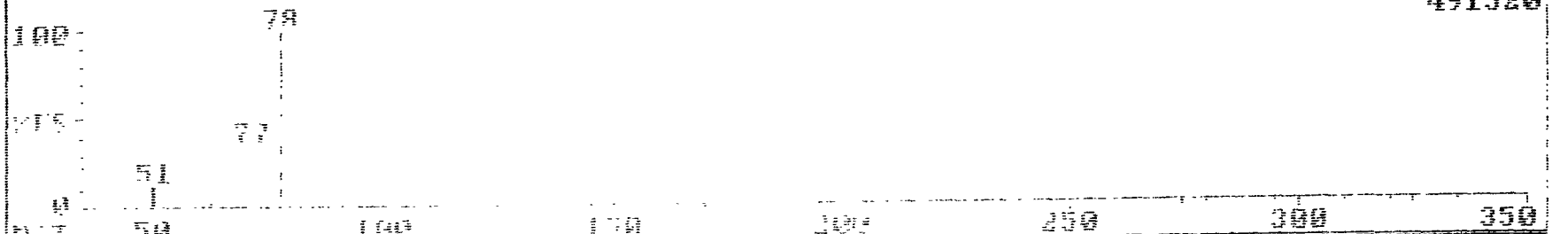
24-Aug-98 10:0[illegible] Triangle Laboratories, Inc. (919) 544-5729

Sample: T-U-2-2 A,M T.T. [illegible] Wt.B [illegible] Instrument F

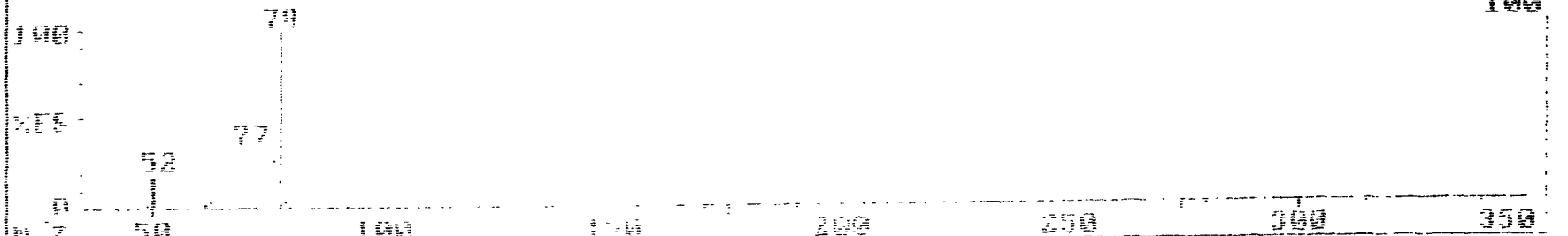
PX976 554 (5.541)



PX976 554 (5.541) ALFINE



R2608 32 (5.551) Donzum



21 Aug 90 10:10 [illegible] (910) 544-5729

Sample: I [illegible] Instrument F

FX976 012 (0.121)

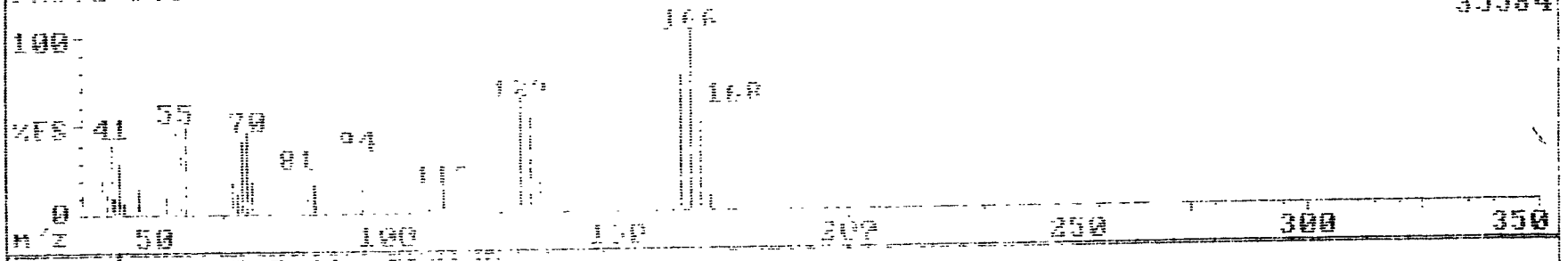
FX976 012 (0.121) [illegible]

02600 41 (0.131) Toluene

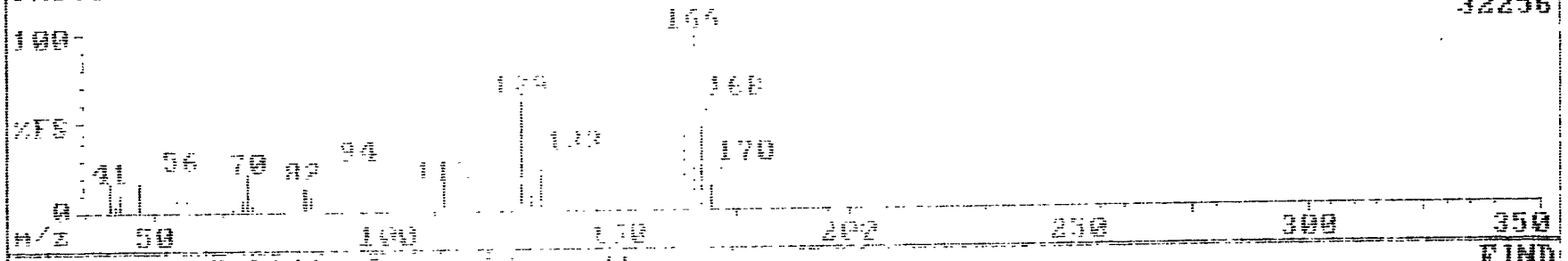
24-Aug-90 10:42 Finnigan Laboratories, Inc. (310) 544-5729

Sample: T-V-2-2-A.D T-T 244-7-10.D TLJB4323 Instrument F

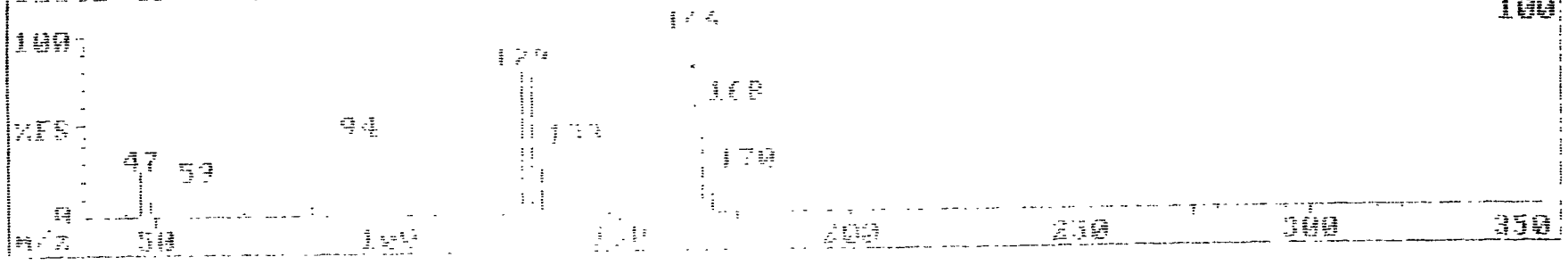
FX976 896 (8.961) 35584



FX976 896 (8.961) DFTHL 32256



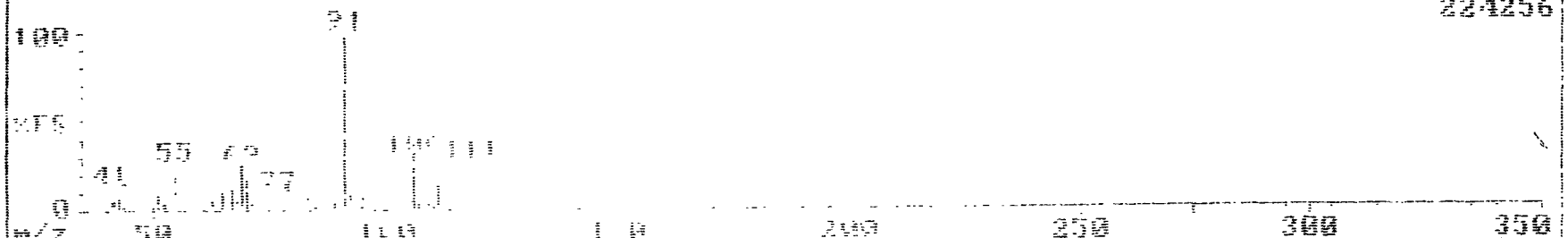
82608 45 (8.961) Tetrachlorophene FIND 100



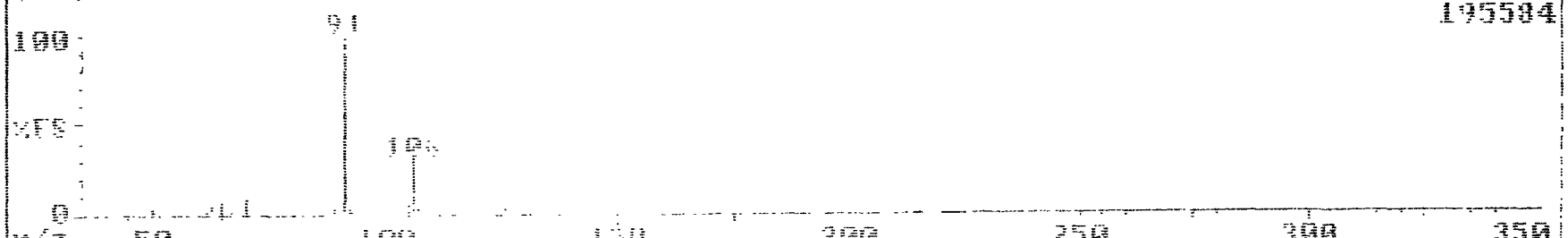
24-Aug-'98 10:07 Intersyde Laboratories, Inc. (919) 544-5729

Sample: T-V-2-2-0.8 [illegible] D:1446323 Instrument F

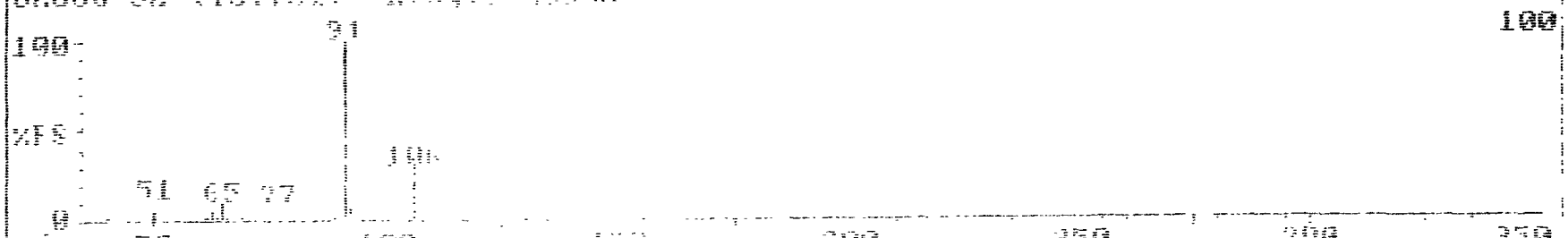
FX976 1072 (18.72D)



FX976 1072 (18.72D) [illegible]

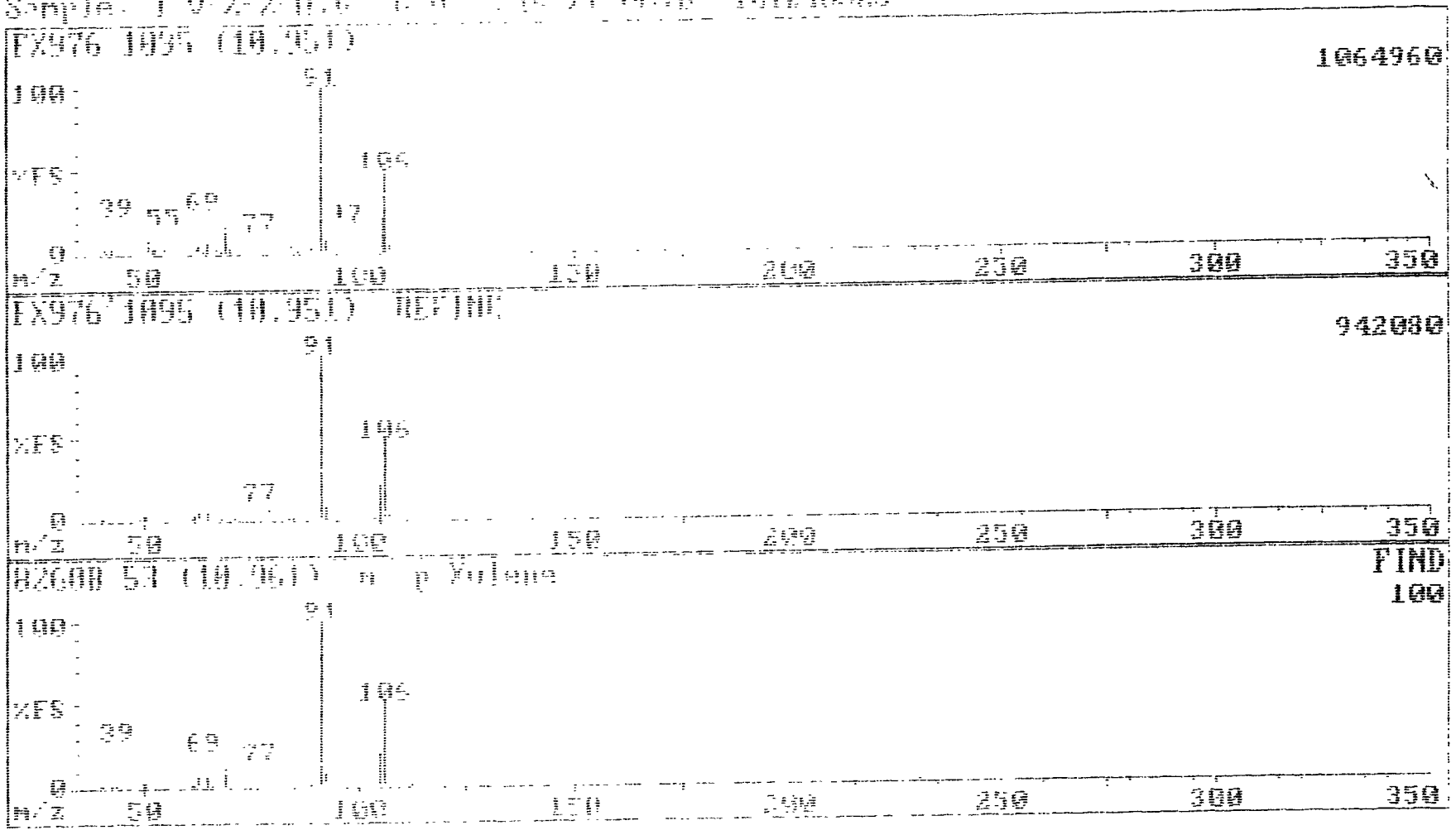


82600 52 (18.72D) Ethylbenzene



21-Dec-90 08:00:00 [illegible] Laboratories, Inc. (919) 544-5729

Sample: T V 4-2 0.0 [illegible] 60.0 D:B46343 Instrument F

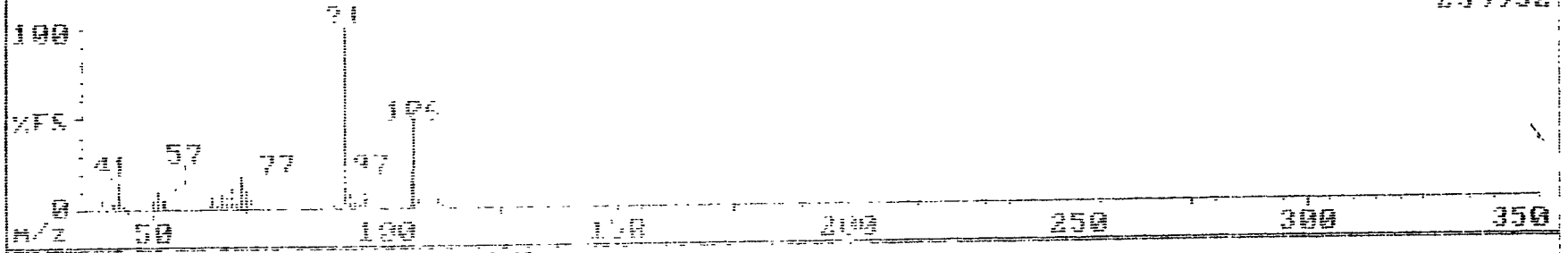


281

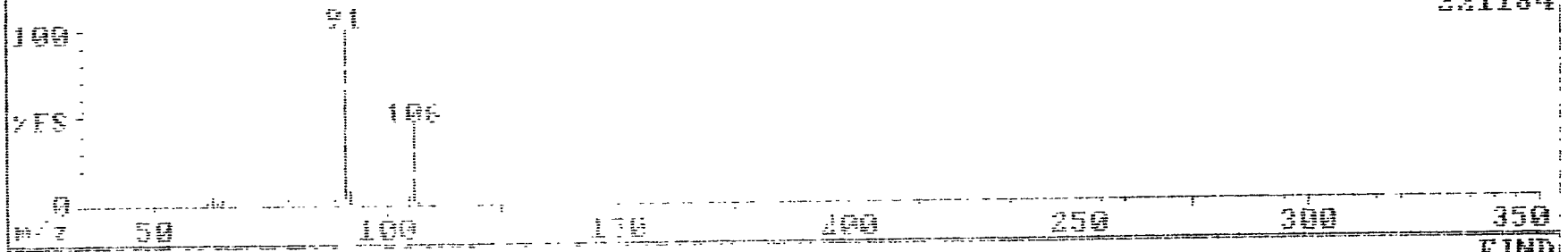
24-Aug-98 10:02 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-U-2-2-0,R T/N: X11 X7-60.D TI 1646323 Instrument F

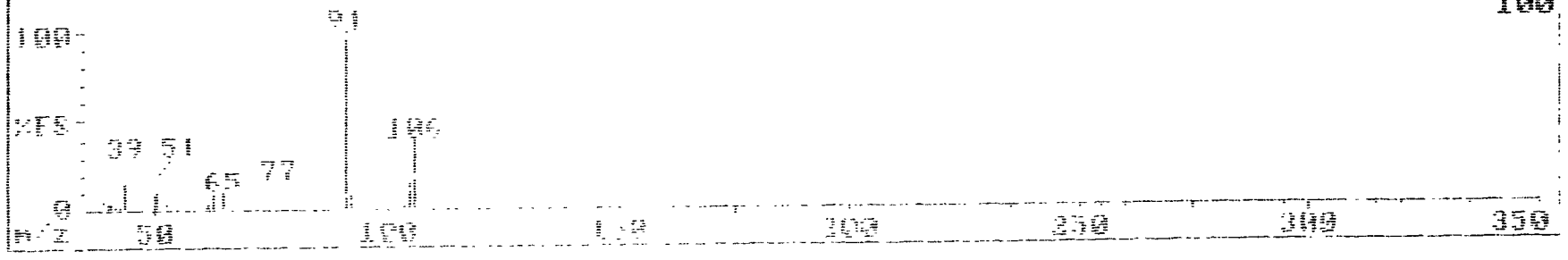
FX976 1160 (11.680)



FX976 1160 (11.680) RETIME



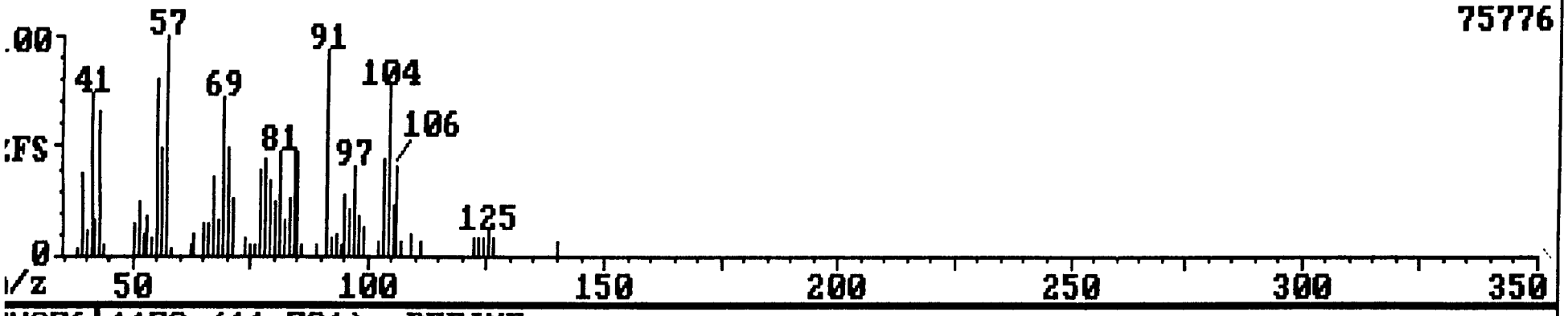
D260B 54 (11.670) o-Xylene



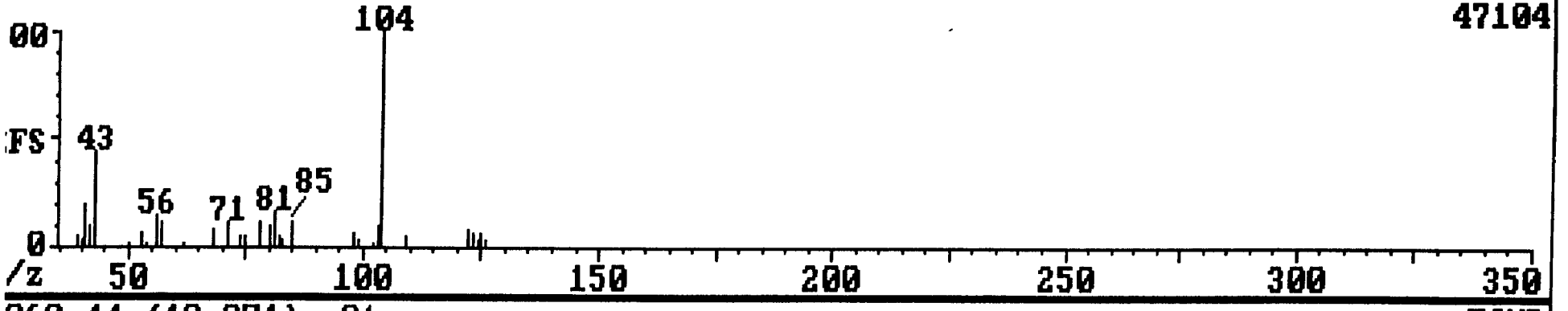
4-Aug-98 10:02 Triangle Laboratories, Inc. (919) 544-5729

ample: T-V-2-2-A,B T/TC 214-27-6A,B TLI#46323 Instrument F

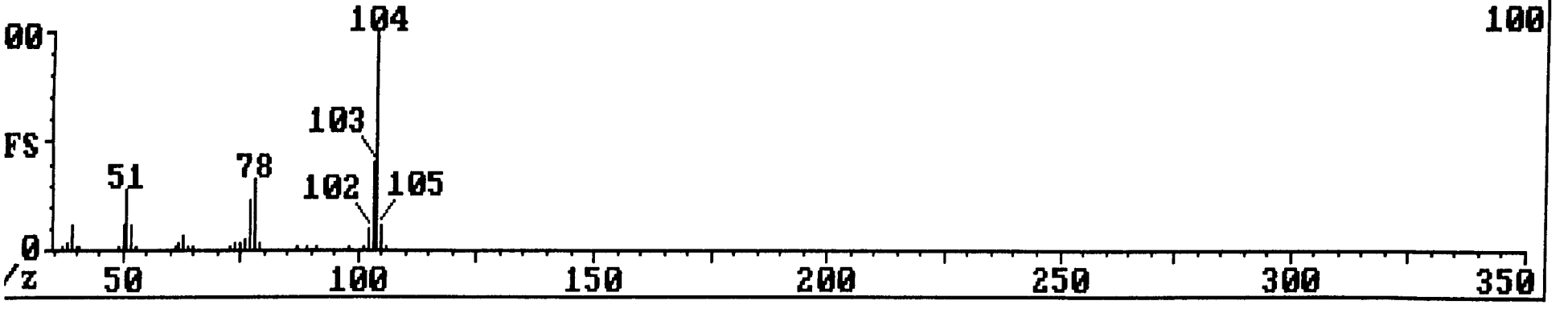
'X976 1173 (11.731)



'X976 1173 (11.731) REFINE

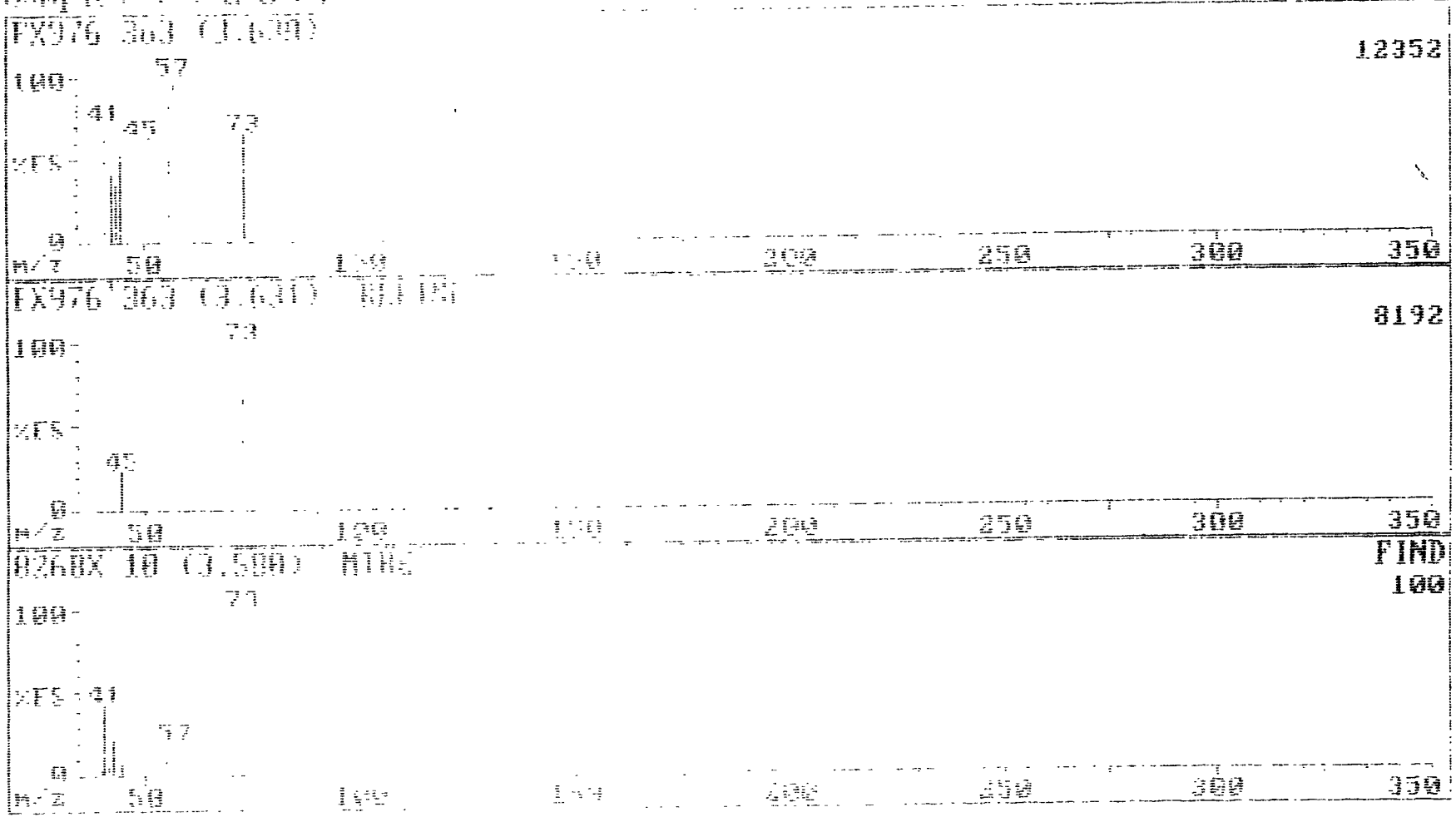


260 44 (12.371) Styrene FIND



21 [illegible] (019) 544-5729

Sample: [illegible] Instrument F



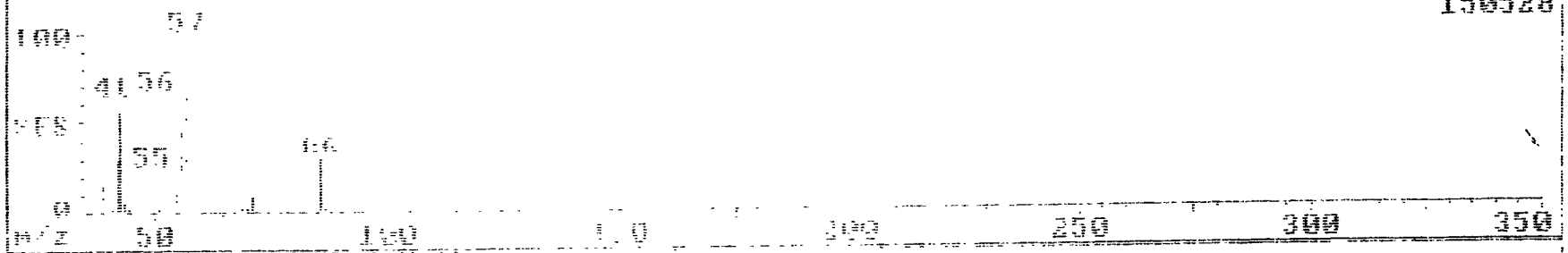
284

24-Aug-'98 19:06 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-U-2-2 n,R [illegible] Y (m/z) TL1046373 Instrument F

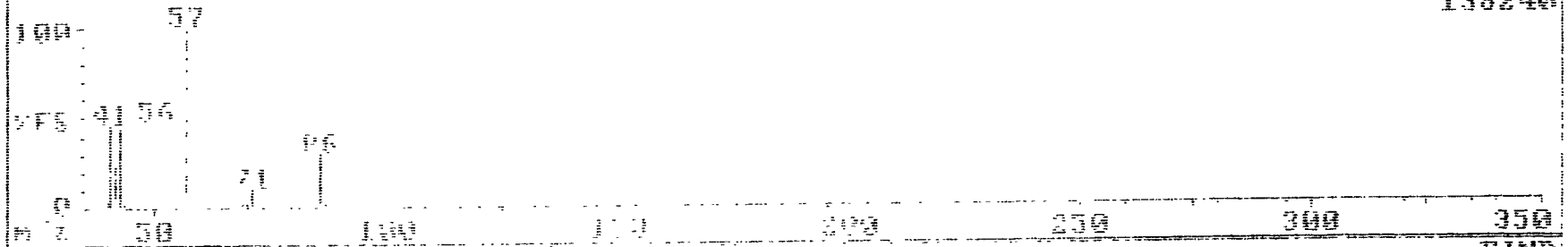
FX976 390 (3.900)

150528



FX976 390 (3.901) REFINE

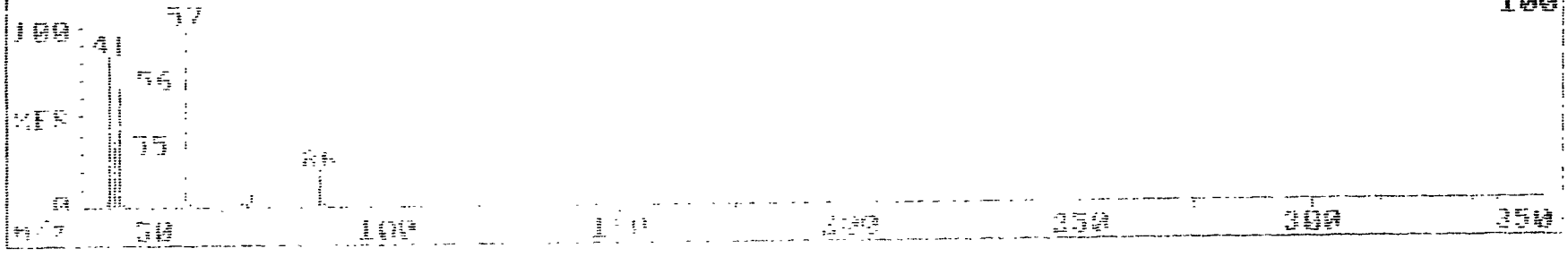
138240



026HX 11 (3.870) n-Hexane

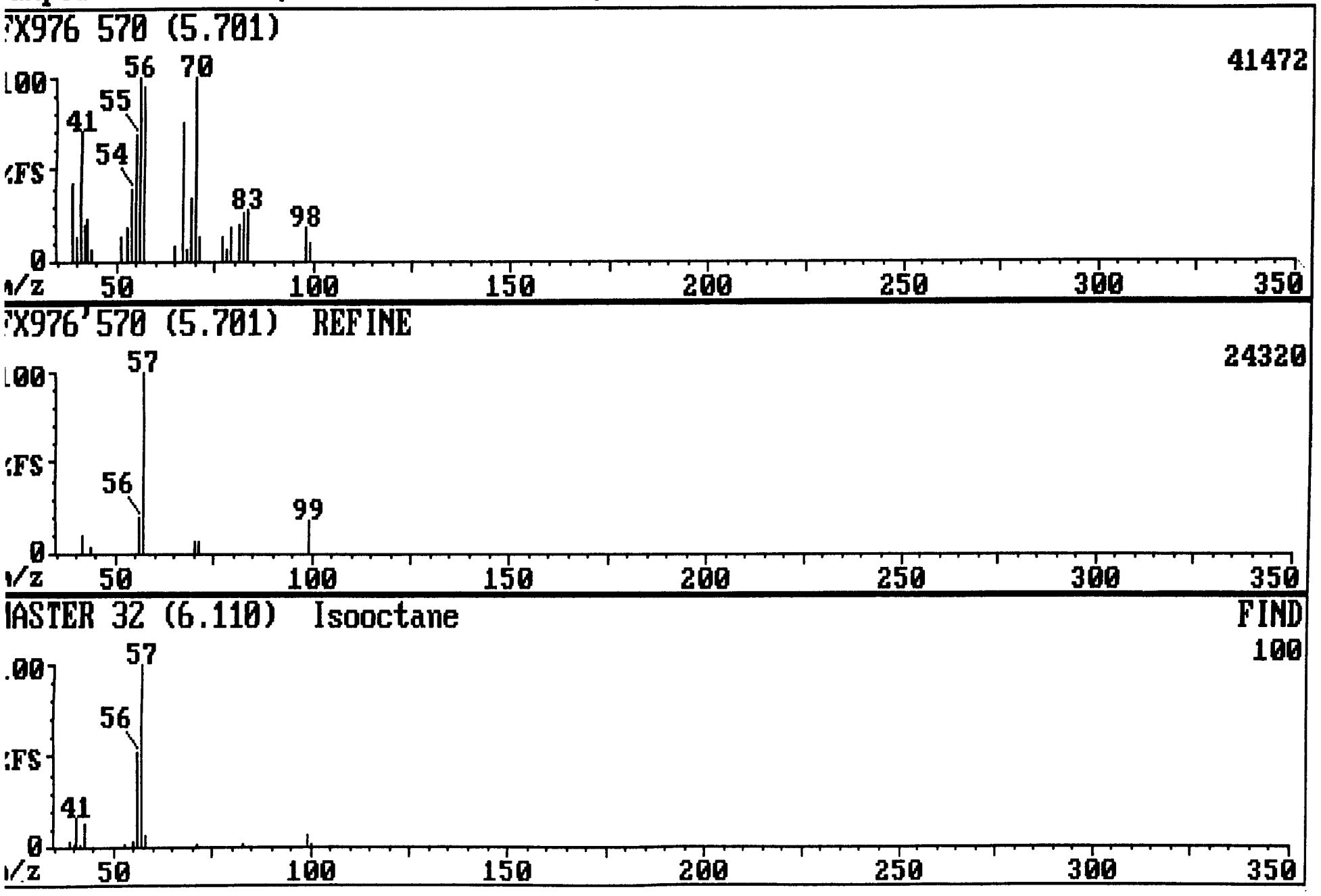
FIND

100



:4-Aug-98 10:02 Triangle Laboratories, Inc. (919) 544-5729

:ample: T-V-2-2-A,B T/TC 214-27-6A,B TLI#46323 Instrument F



Pacific Environmental Services

Project Number: 46323 | **Method 8260 VOST**
Sample File: FX977 | **Sample ID: T-V-2-3-A,B T/TC**

Client Project: R012.001 | **Date Received: 07/29/98** | **Response File: ICALF821**
TLI ID: 214-27-7A,B
Date Analyzed : 08/24/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane	0.042	J	1.08		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.035	J	2.05		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.026	J	2.77		0.05
Acetone	0.137		2.87		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.081		3.26		0.05
Acrylonitrile		U		0.021	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone	0.161		4.73		0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.06		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.156		5.51		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3
Printed: 16:49 08/25/19

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Pacific Environmental Services

Project Number: 46323
Sample File: FX977

Method 8260 VOST
Sample ID: T-V-2-3-A,B T/TC

Client Project: R012.001 **Date Received: 07/29/98** **Response File: ICALF821**
TLI ID: 214-27-7A,B
Date Analyzed : 08/24/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.005	0.05
Toluene	0.218		8.08		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.33		
Tetrachloroethene	0.035	J	8.92		0.05
2-Hexanone		U		0.008	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.050		10.66		0.05
m-/p-Xylene	0.255		10.89		0.10
o-Xylene	0.088		11.62		0.05
Styrene	0.038	J	11.68		0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.70		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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Savar v3.7
Printed: 16:49 08/25/1998

Pacific Environmental Services

Project Number: 46323
Sample File: FX977

Method 8260 VOST
Sample ID: T-V-2-3-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-7A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.208	5.17	1	83
Toluene-d_8	0.261	7.99	2	104
4-Bromofluorobenzene	0.297	12.64	2	119

Reviewed by PAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.
Printed: 16:49 08/25/199

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Pacific Environmental Services

Project Number: 46323 | **Method 8260 VOST**
Sample File: FX977 | **Sample ID: T-V-2-3-A,B T/TC**

Client Project: R012.001 | **Date Received: 07/29/98** | **Response File: ICALF824**
TLI ID: 214-27-7A,B
Date Analyzed : 08/24/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.039	J	3.60		0.25
n-Hexane	0.145	J	3.88		0.25
1,2-Epoxybutane		U		0.025	0.25
Iso-Octane	0.019	J	5.66		0.25
1,4-Difluorobenzene		IS 2	6.06		
Ethyl acrylate		U		0.007	0.25

Reviewed by PAB Date 8/25/98

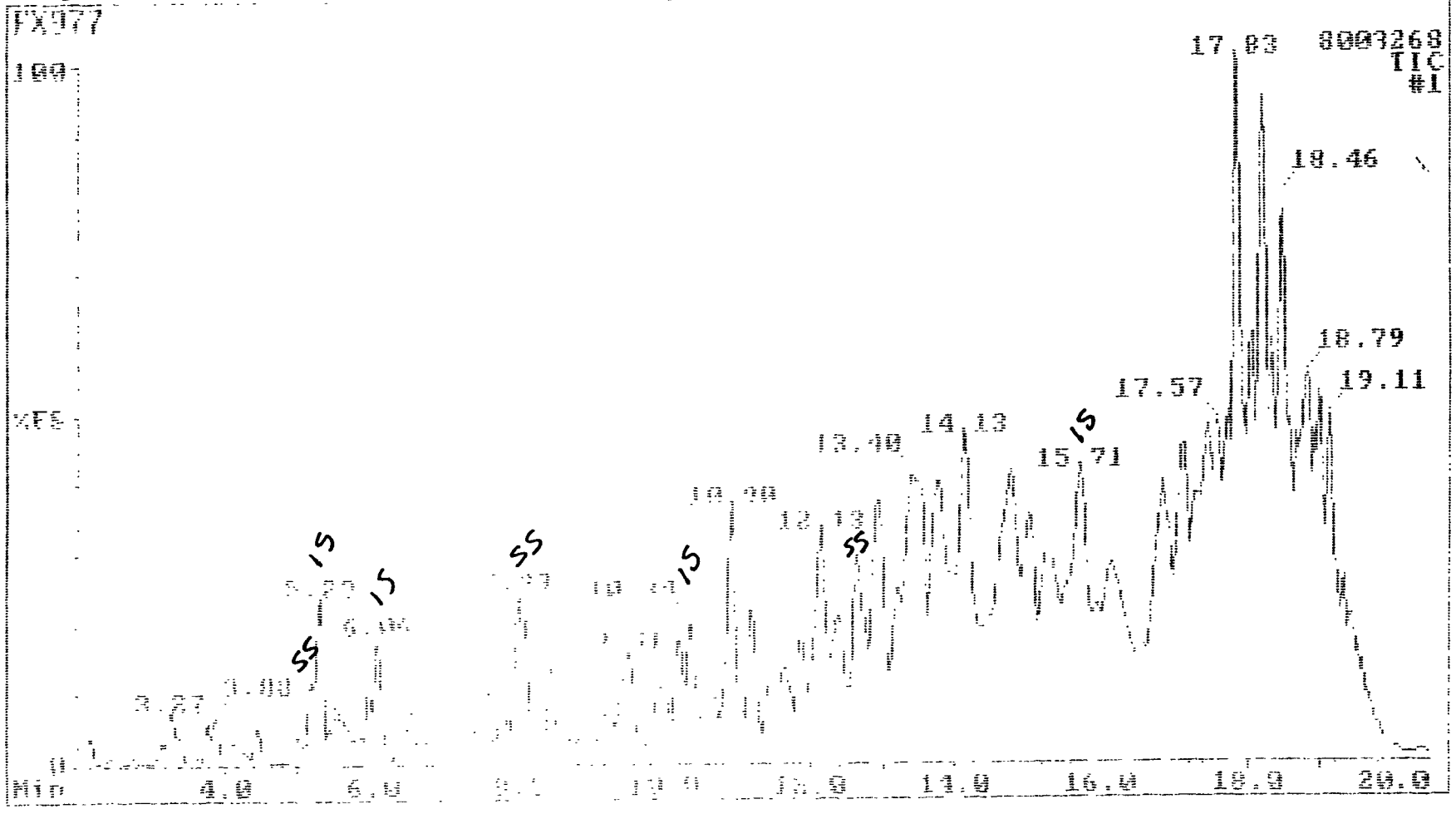
NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 17:21 08/25/1998

24-Aug-98 10:41 Lancaster Laboratories, Inc. (919) 544-5729

Sample: T-U-2-3-0.W T T' 1H 3-10,P TLU#6182 Instrument F



Data Review: PAB
Date: 8/24/98

102440 — (M) PAB — 1.08

128512 — (M) PAB — 2.05

~~(P) PAB~~ Keep PAB

336352 — (M) PAB — 3.26

(P) PAB

(P) PAB

(P) PAB

Data Review: PAB
Date: 8/24/98

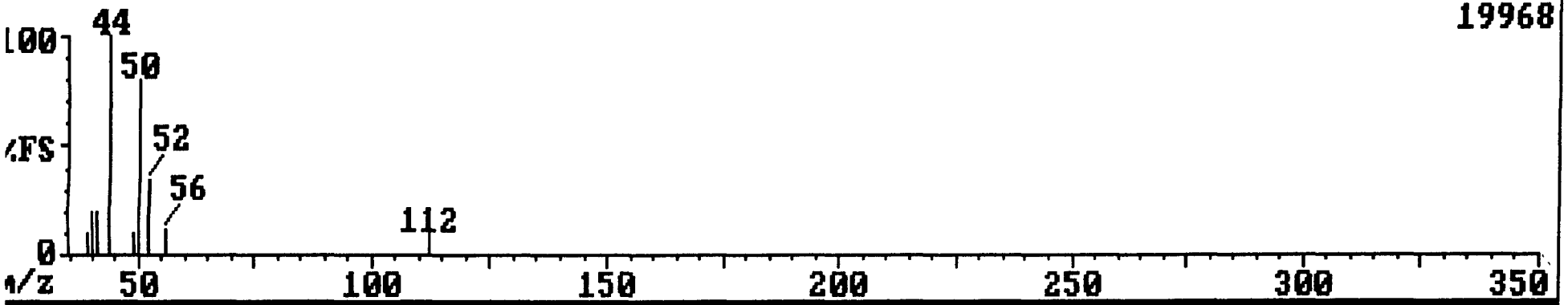
292

474544 → Ⓜ PAIB ——— 11.68

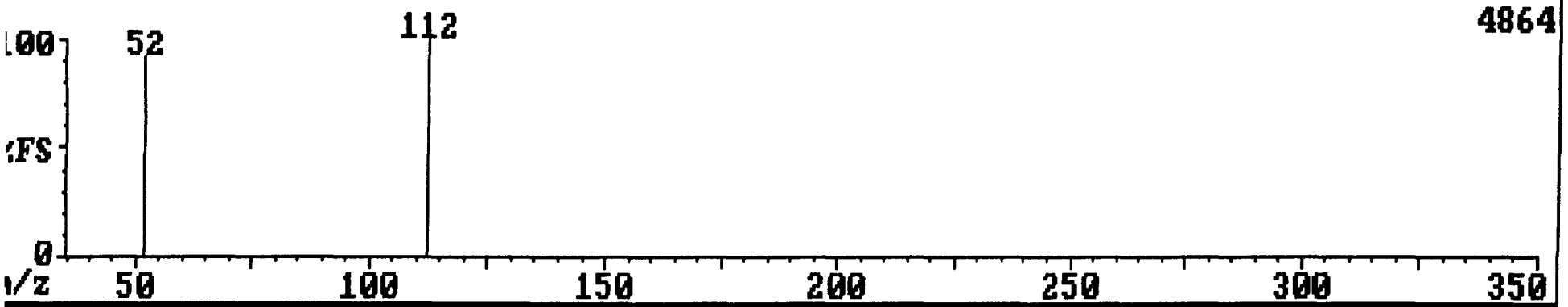
:4-Aug-98 10:49 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-3-A,B T/TC 214-27-7A,B TLI#46323 Instrument F

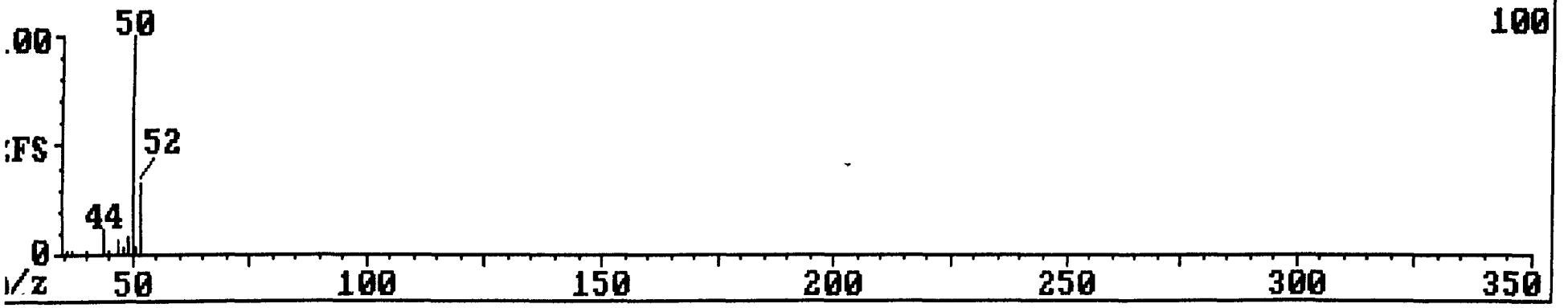
FX977 108 (1.080)



FX977' 108 (1.081) REFINE



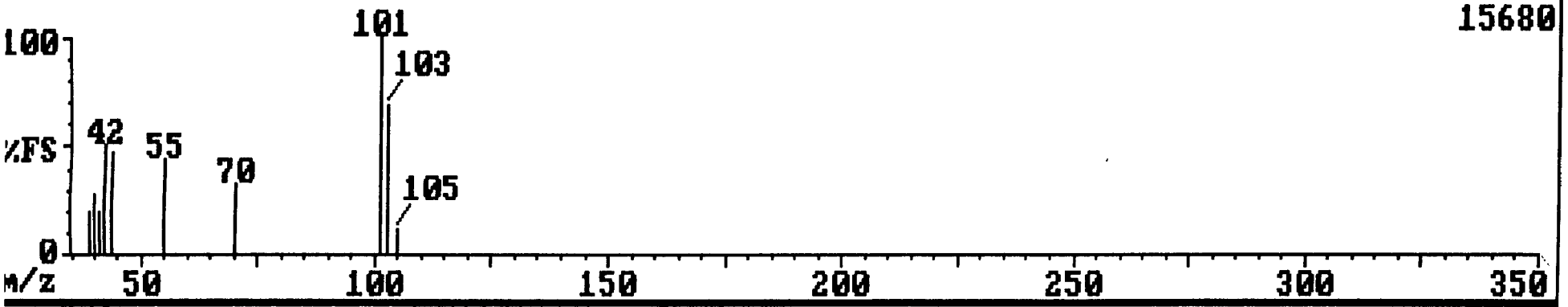
0260 9 (1.230) Chloromethane FIND



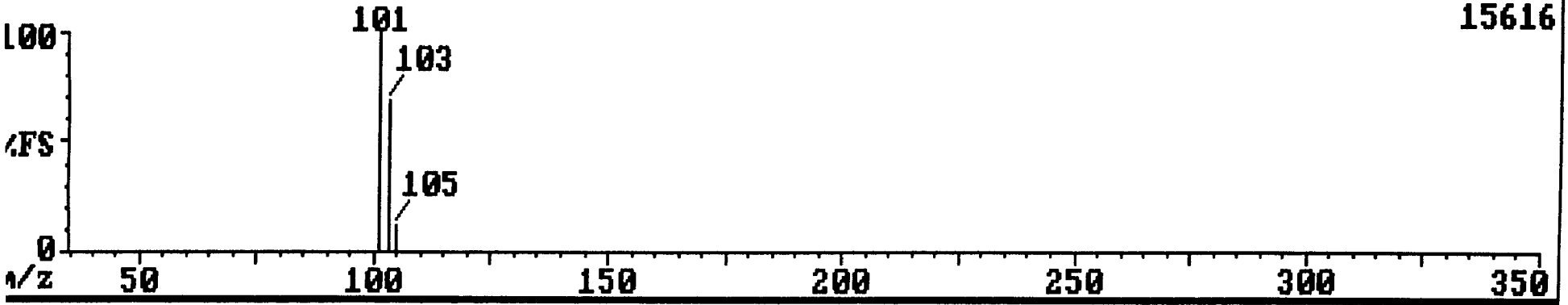
24-Aug-98 10:49 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-3-A,B T/TC 214-27-7A,B TLI#46323 Instrument F

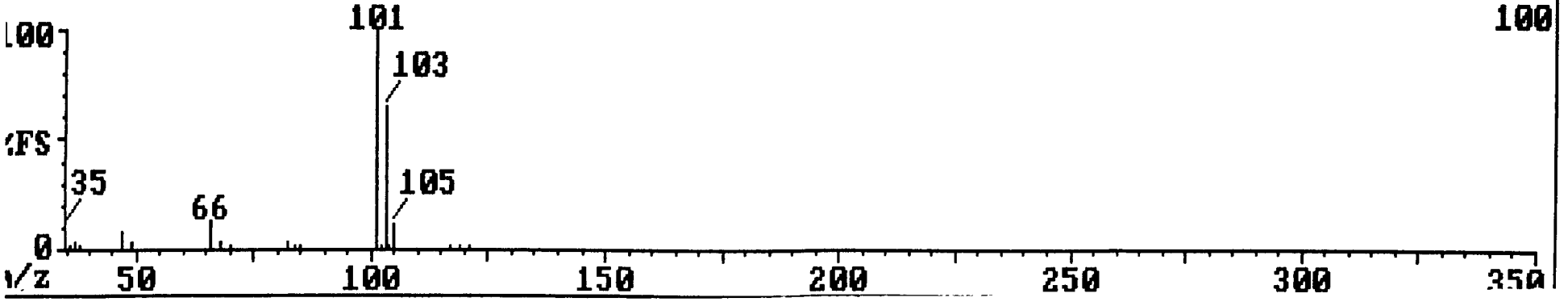
FX977 205 (2.050)



FX977'205 (2.051) REFINE



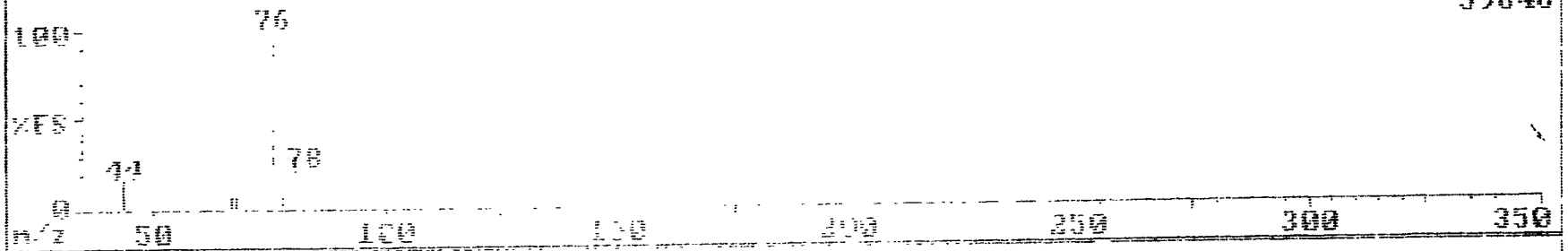
MASTER 15 (2.330) Trichlorofluoromethane FIND



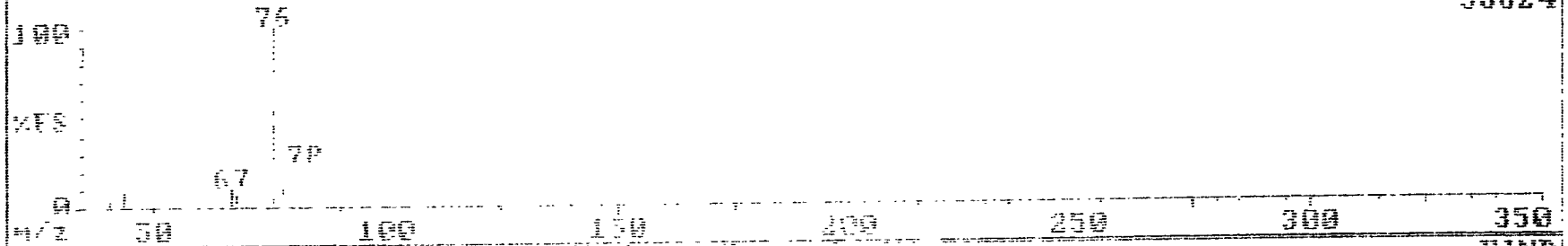
24-Aug-98 10:49 [illegible] Inc. (919) 544-5729

Sample: I-V-2-3-0,8 [illegible] Instrument F

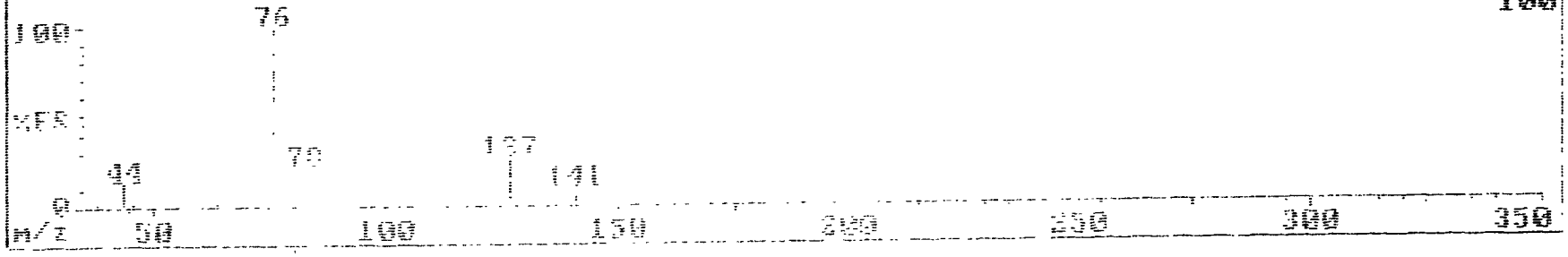
FX977 277 (2.778) 59648



FX977 277 (2.771) DEFINE 58624



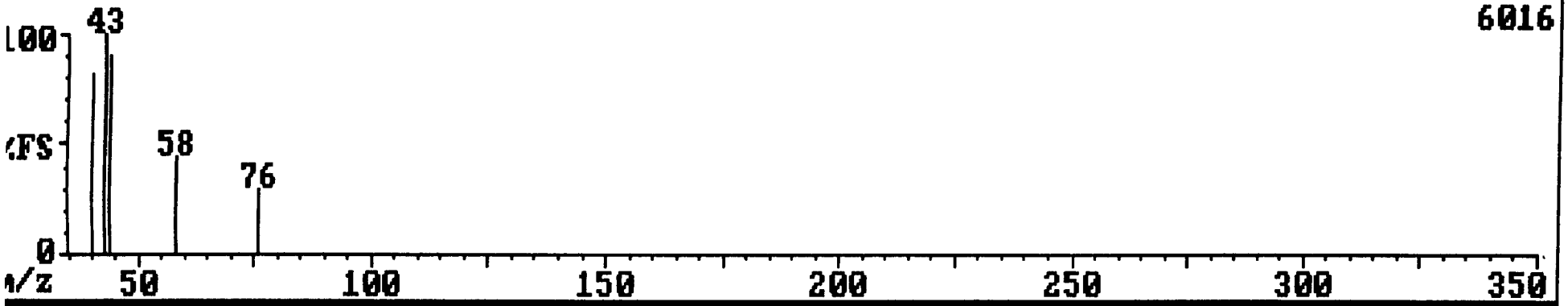
D2608 16 (2.800) Carbon disulfide FIND 100



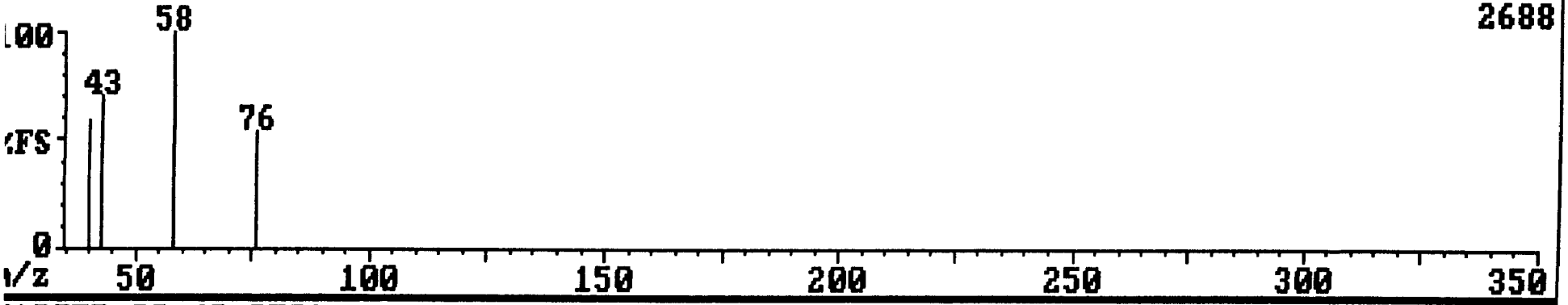
:4-Aug-98 10:49 Triangle Laboratories, Inc. (919) 544-5729

:ample: T-V-2-3-A,B T/TC 214-27-7A,B TLI#46323 Instrument F

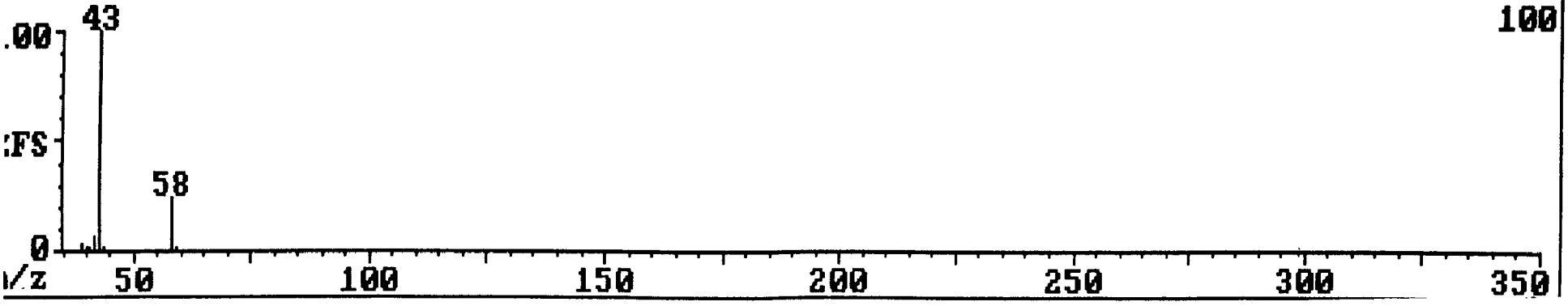
:X977 285 (2.850)



:X977' 285 (2.851) REFINE



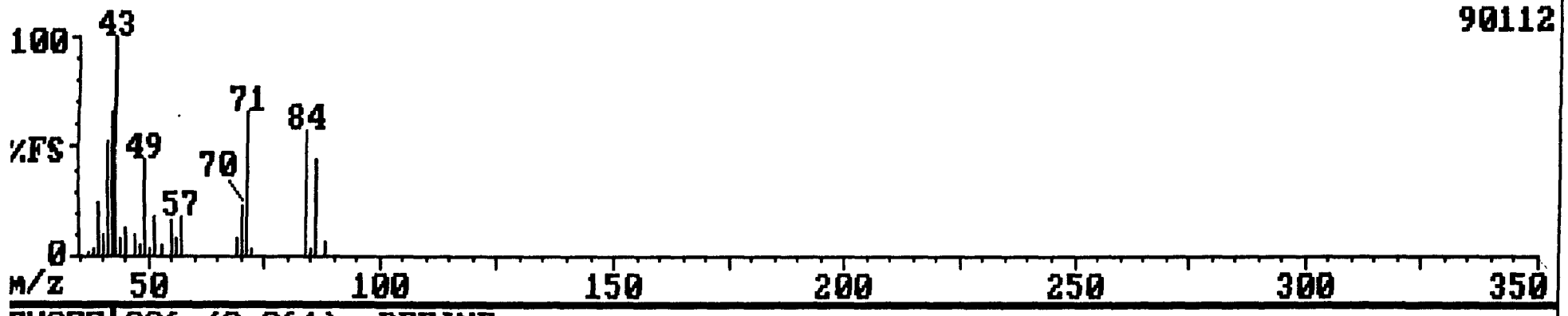
IASTER 20 (3.370) Acetone FIND



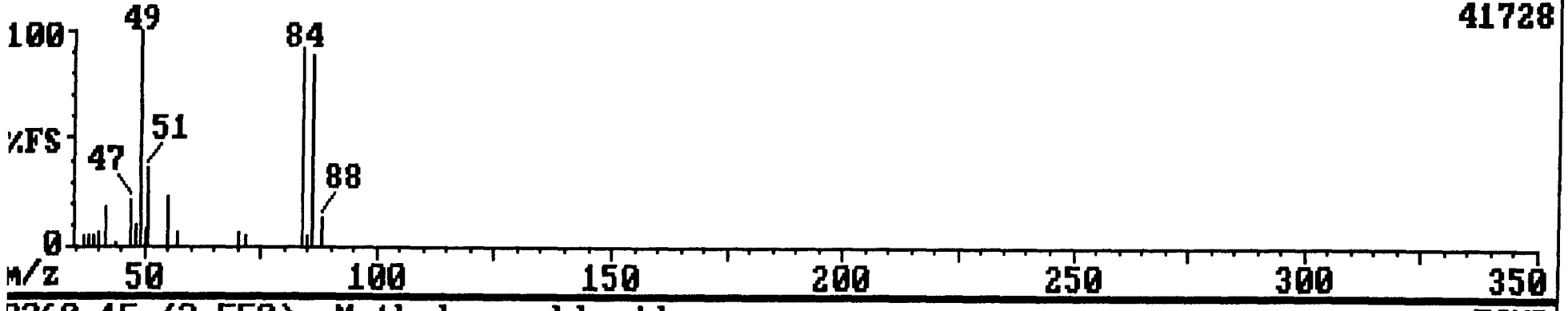
24-Aug-98 10:49 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-3-A,B T/TC 214-27-7A,B TLI#46323 Instrument F

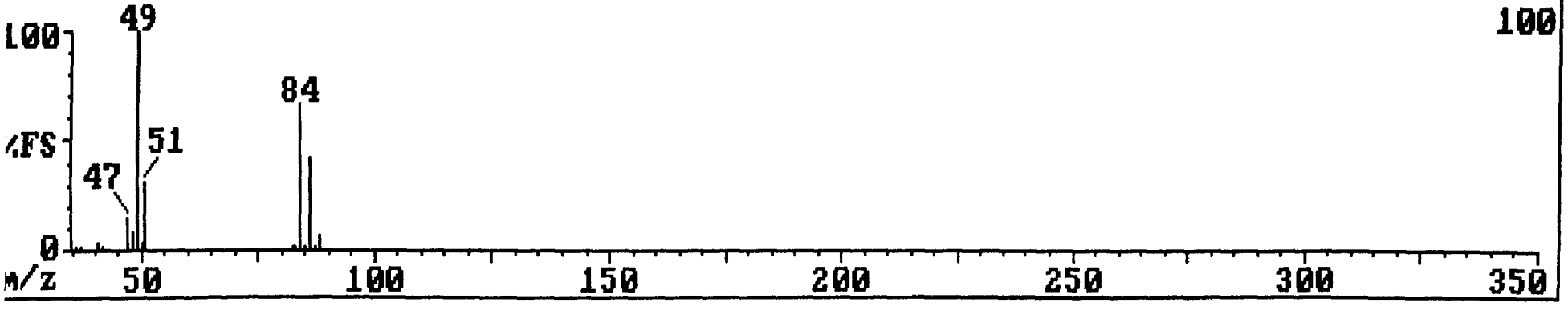
FX977 326 (3.260)



FX977 326 (3.261) REFINE



8260 15 (3.550) Methylene chloride FIND

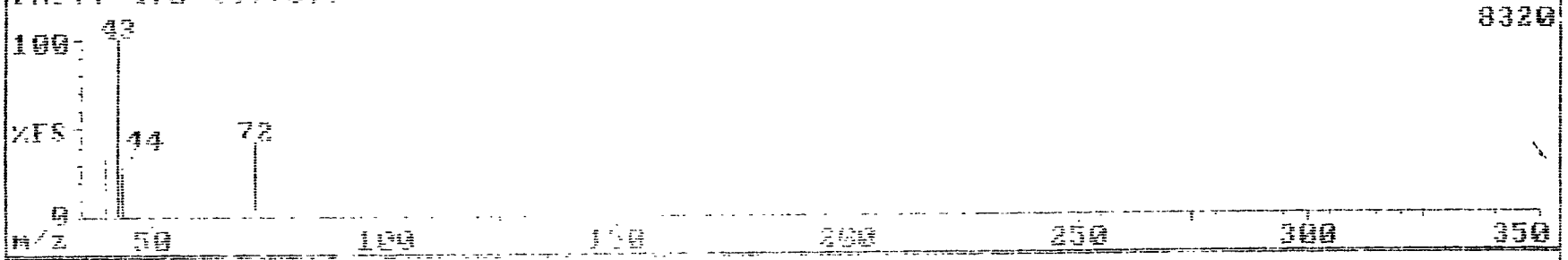


299

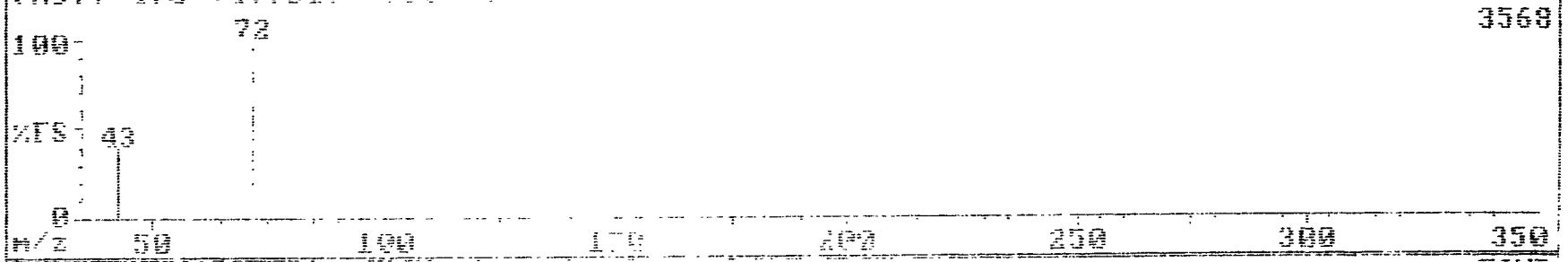
24-Aug-99 10:49 [illegible] Laboratories, Inc. (919) 544-5729

Sample: T-U 2-3-n,k [illegible] Instrument F

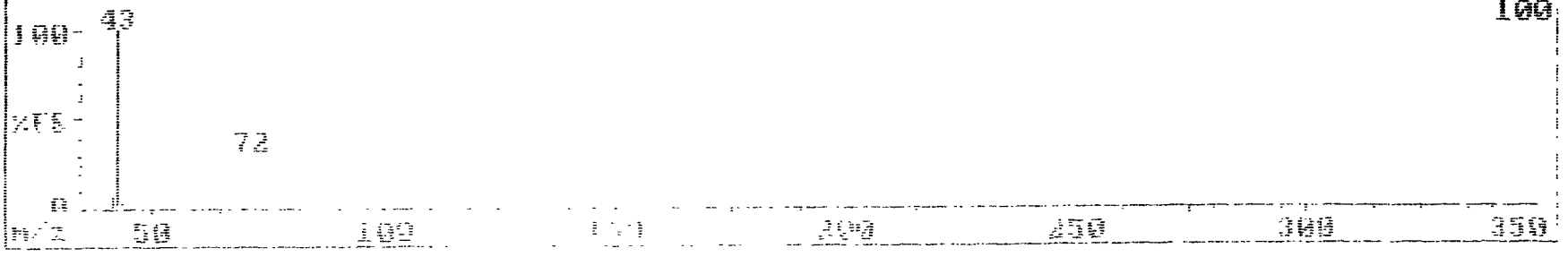
FX977 473 (4.731)



FX977 473 (4.731) RECTIND



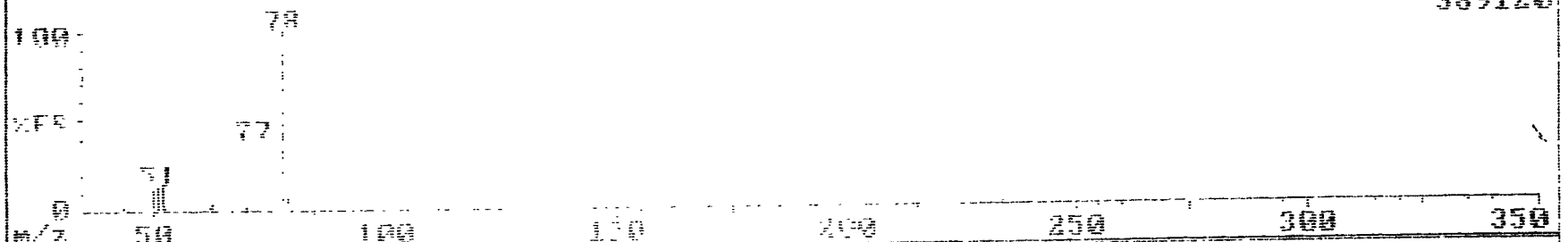
8260B 26 (4.771) 2-Butanone



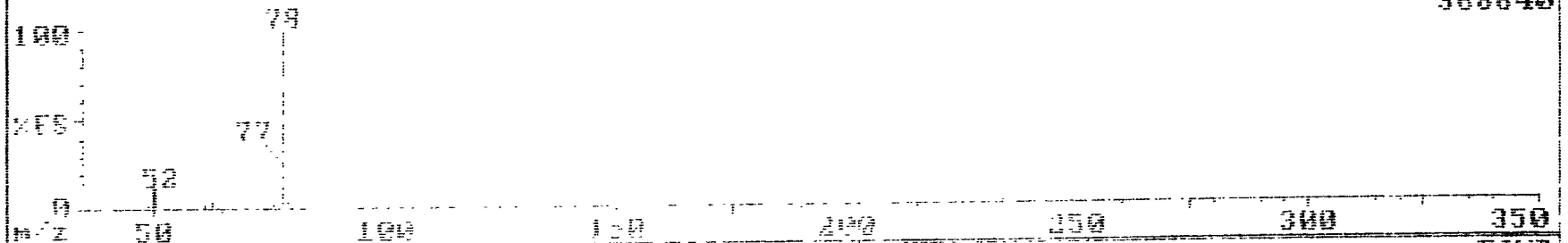
24-Aug-98 10:44 Technical Laboratories, Inc. (919) 544-5729

Sample: T-U 2-3-0.8 T.P [illegible] TL080623 Instrument F

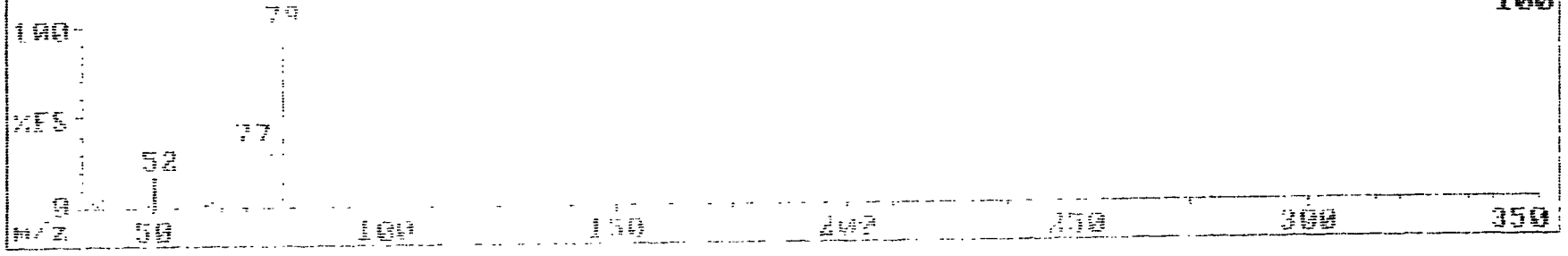
PX977 551 (5.511)



PX977 551 (5.511) NEPTUNE



H2600 72 (5.551) Benzene



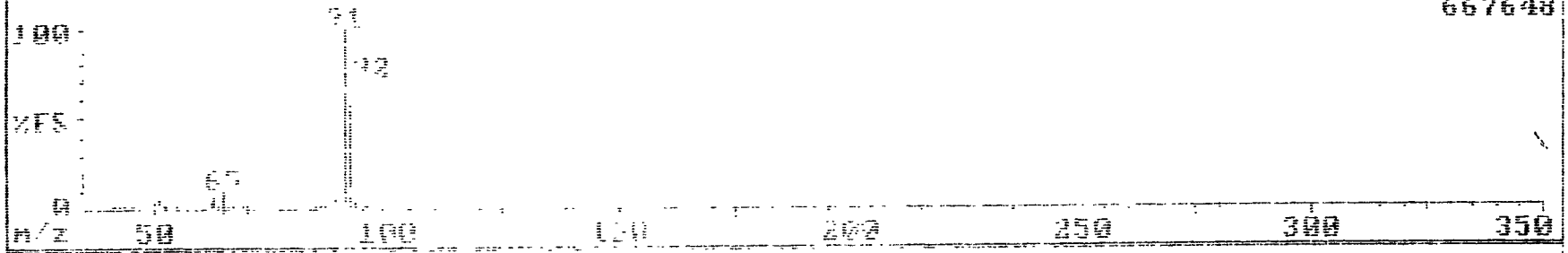
301

24-Aug-98 18:49 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-3-0,B [illegible] Instrument F

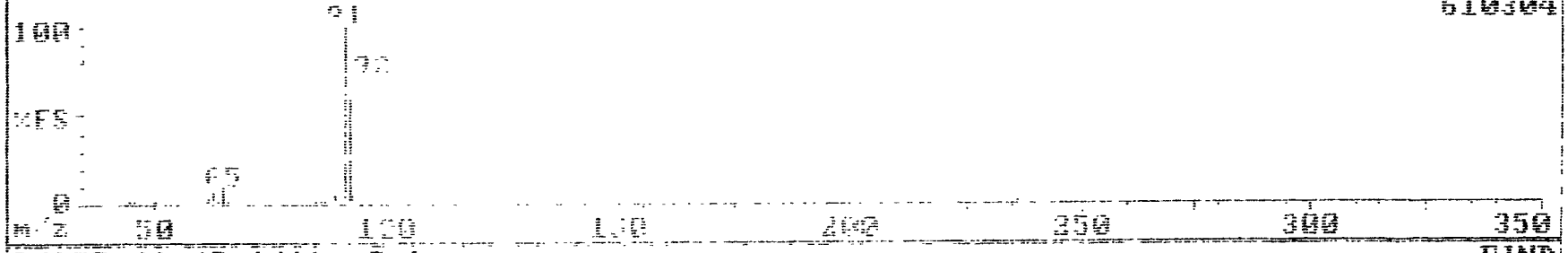
TX977 800 (0.981)

667648



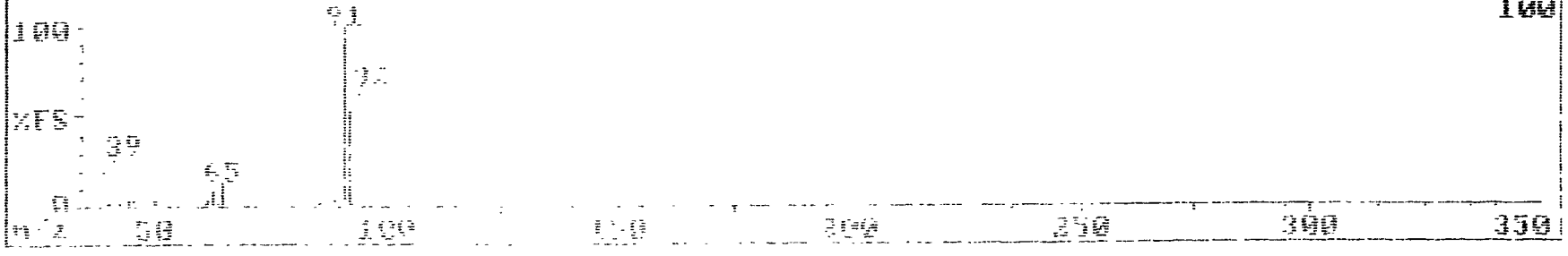
TX977 800 (0.801) [illegible]

610304



82608 41 (8.191) Toluene

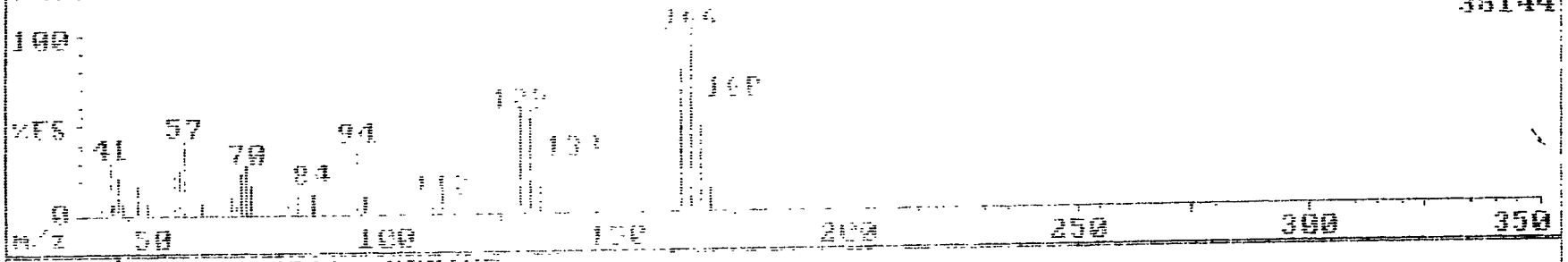
FIND
100



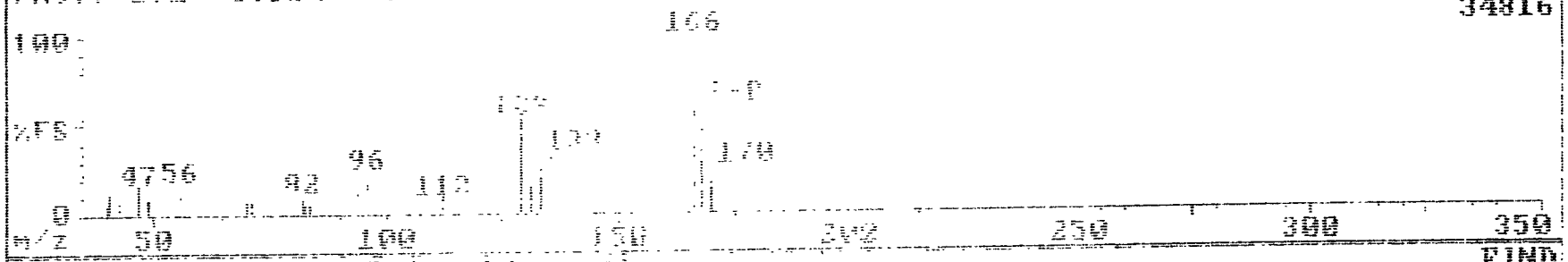
21-Aug-98 10:49 [illegible] (919) 544-5729

Sample: T-U 2-3 n,p [illegible] Instrument F

FX977 092 (8.921) 38144

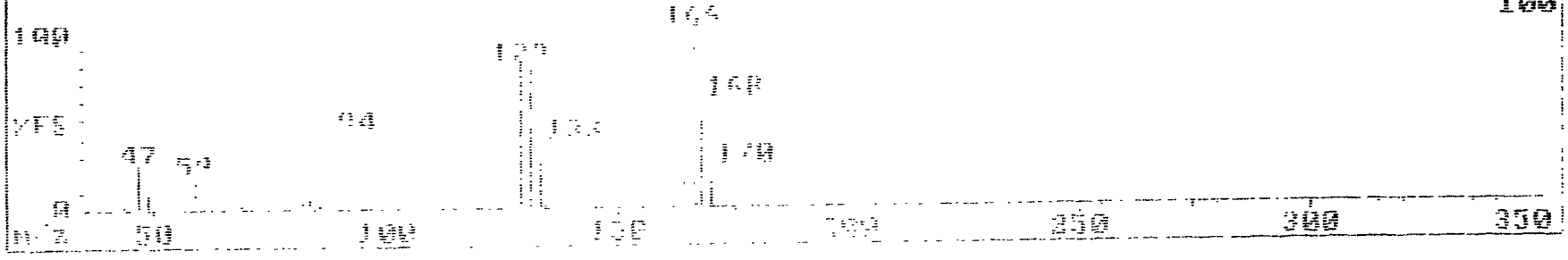


FX977 092 (8.921) [illegible] 34816



FIND

8260B 45 (8.961) Tetrachloroethene 100

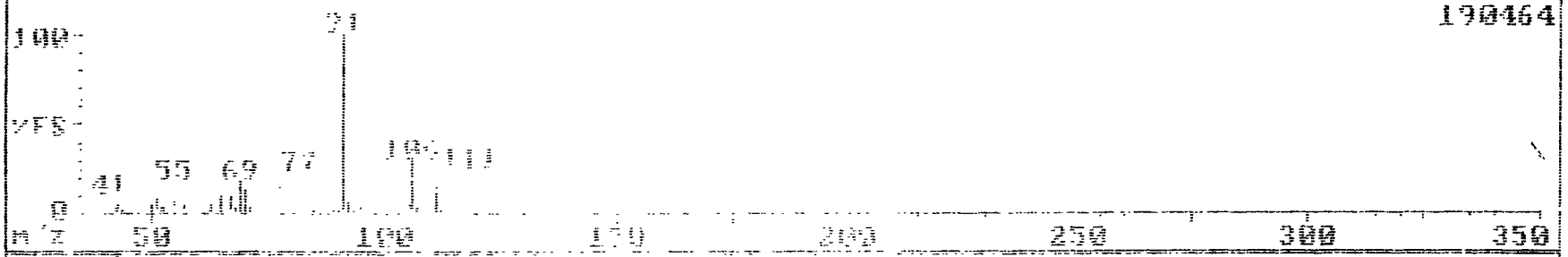


303

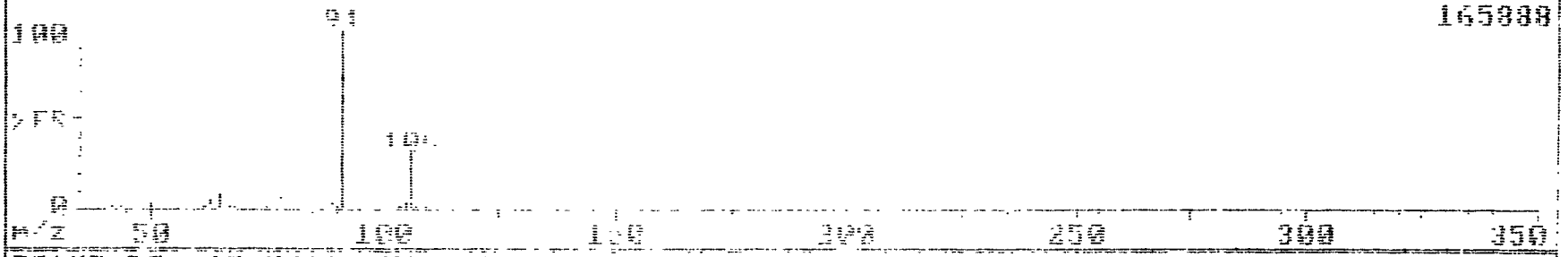
24-Aug 98 10:40 Sample Information, Inc. (919) 544 5729

Sample: T-U-2-3 n,U [illegible] Instrument F

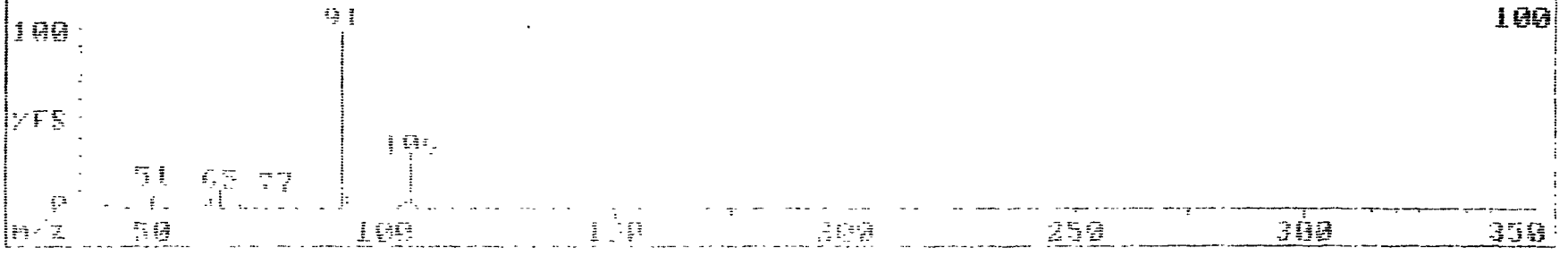
FX977 1066 (10.661)



FX977 1066 (10.661) DEFIND



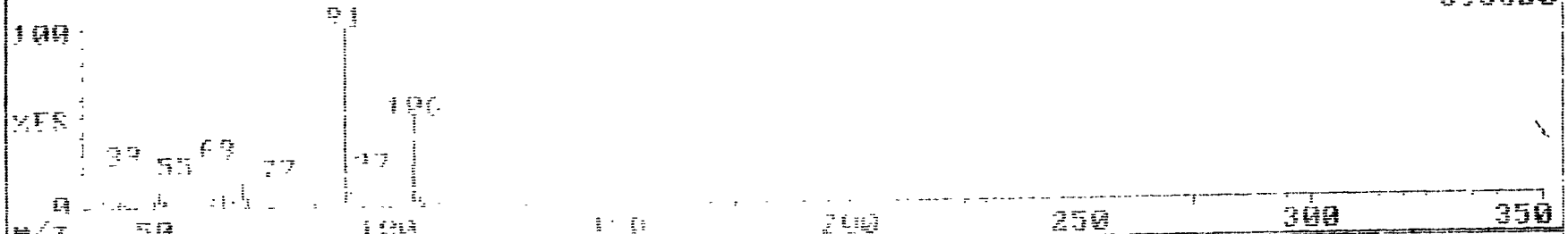
B2640 52 (10.721) Ethylbenzene



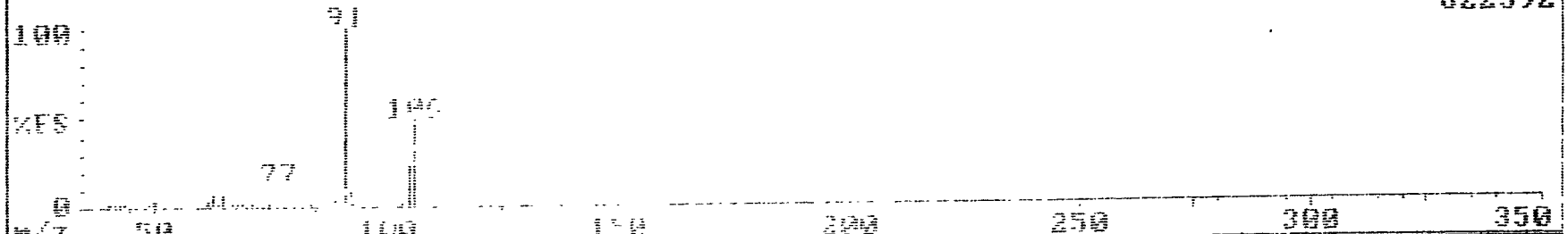
24-Aug-98 10:49 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-U-2-3-6,B [illegible] 70,V TL1846323 Instrument F

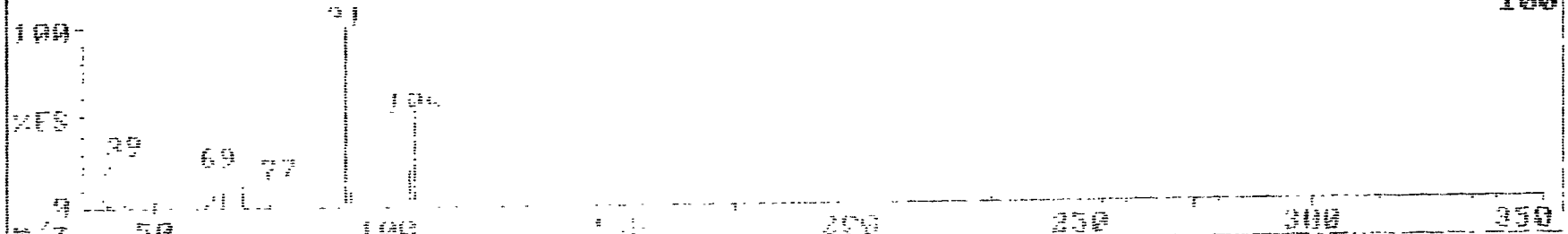
FX977 1089 (10.890) 696320



FX977 1089 (10.890) [illegible] 622592

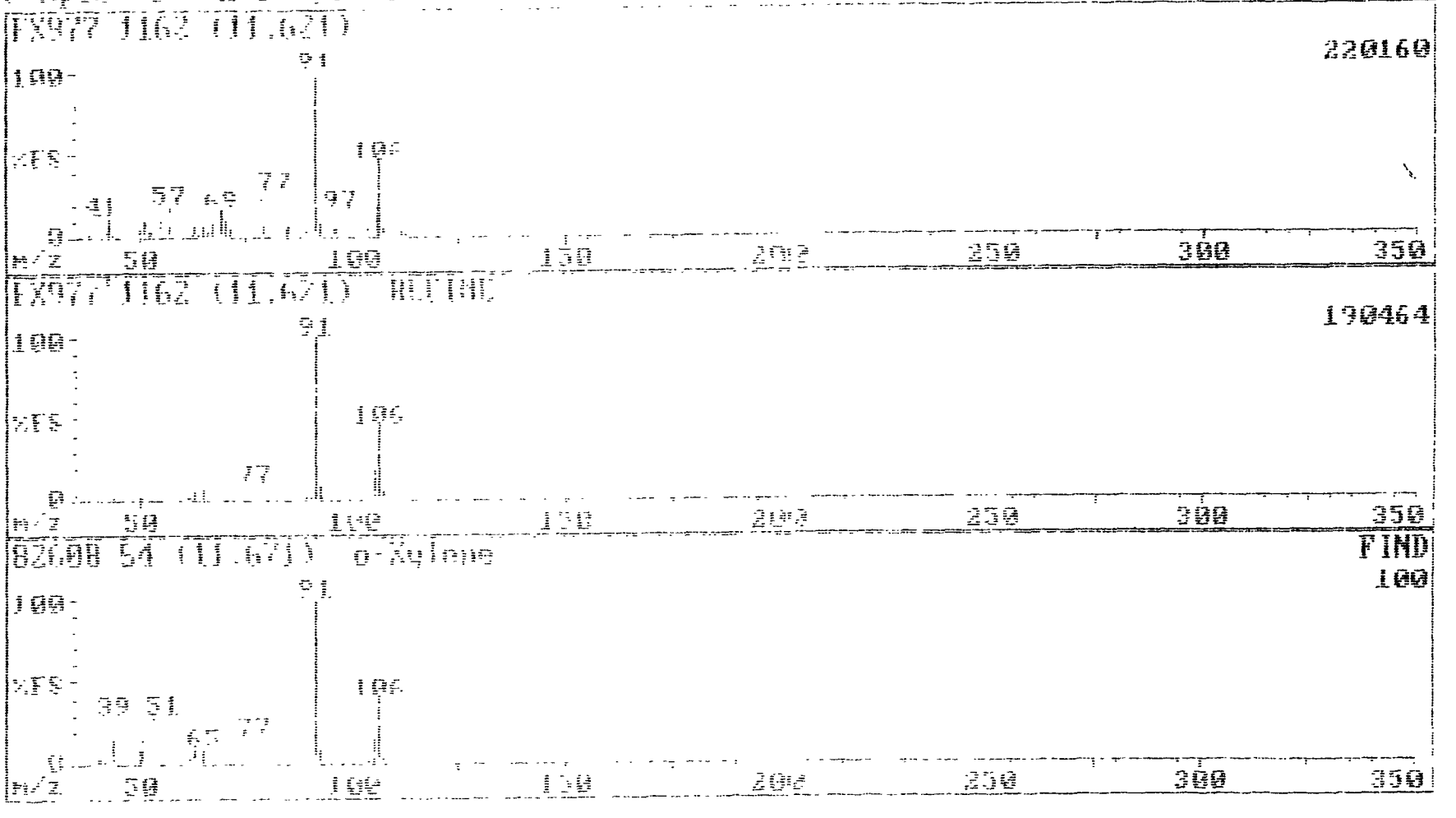


82600 53 (19.961) m-/p-Xylene FIND 100



24-Aug-98 10:49 Triangle Laboratories, Inc. (919) 544-5729

Sample: [illegible] Instrument F

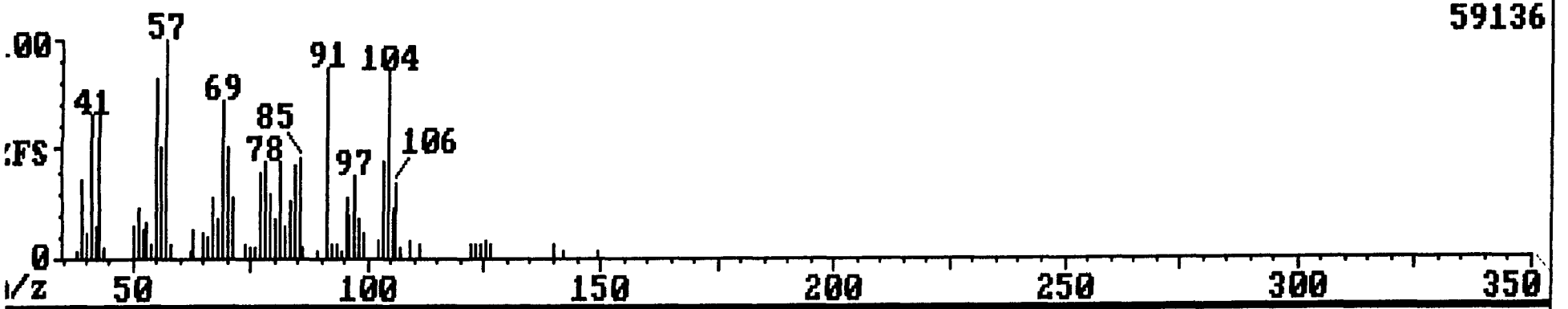


306

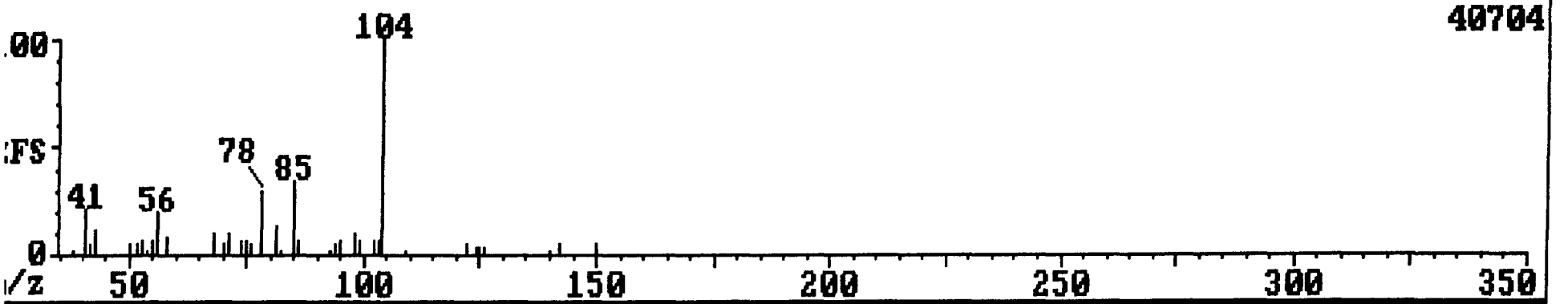
4-Aug-98 10:49 Triangle Laboratories, Inc. (919) 544-5729

ample: T-V-2-3-A,B T/TC 214-27-7A,B TLI#46323 Instrument F

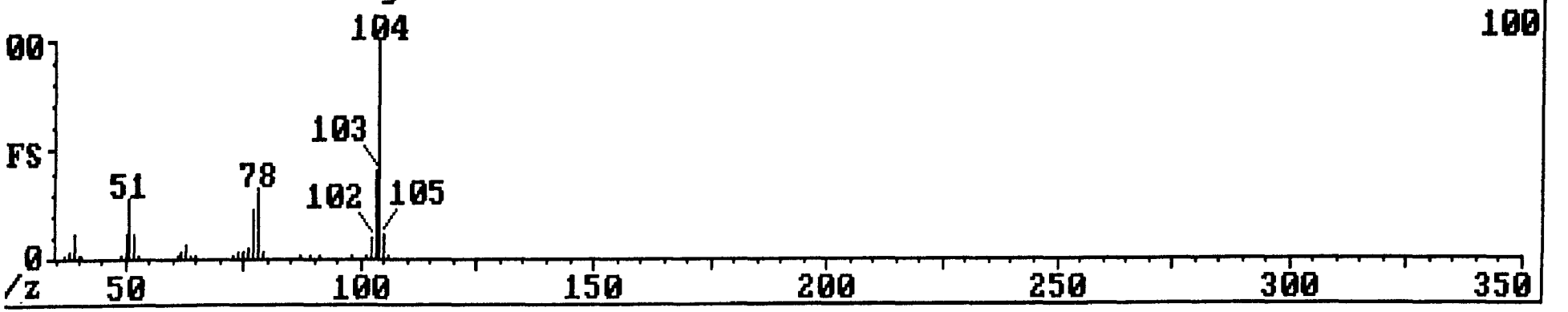
'X977 1168 (11.681)



'X977' 1168 (11.681) REFINE



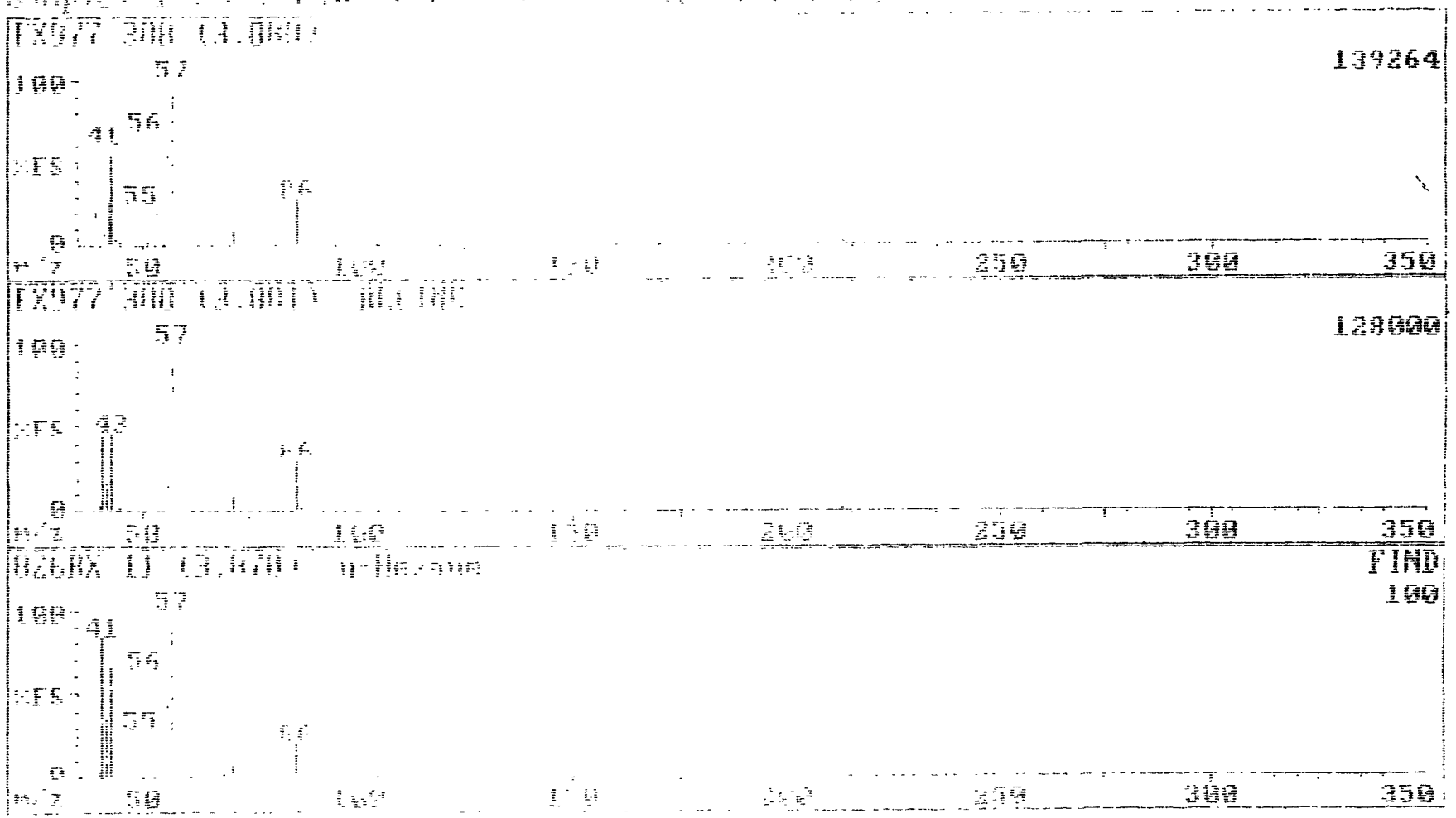
260 44 (12.371) Styrene FIND



307

21 Aug '98 10:49 [illegible] (919) 544-5729

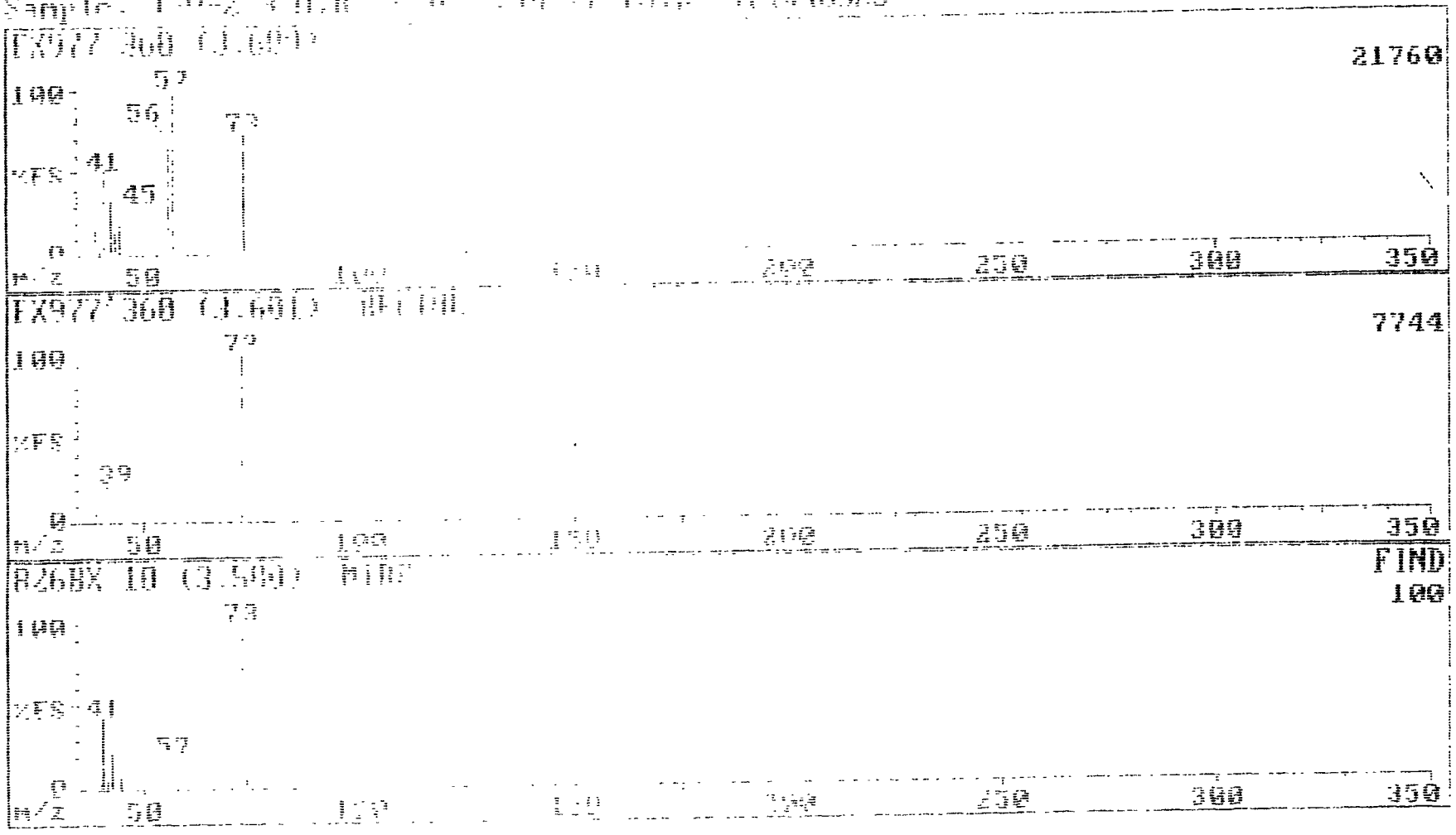
Sample: [illegible] Instrument F



300

24 Aug 90 10:49 [illegible] Inc. (919) 544-5729

Sample: [illegible] Instrument F

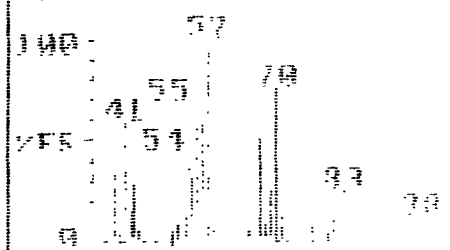


309

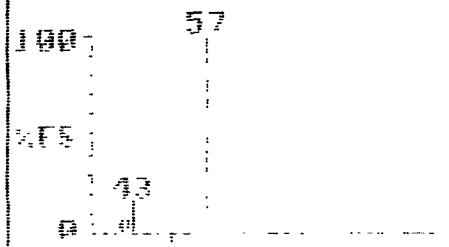
21-May-98 [illegible] (910) 541-5729

Sample: [illegible] Instrument F

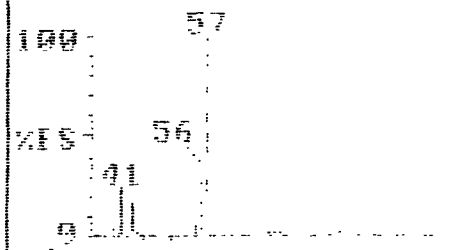
FX977 566 (5.661)



FX977 566 (5.661) BFIND



DZ60X 13 (5.671) [illegible]



Pacific Environmental Services

Project Number: 46323 | **Method 8260 VOST**
Sample File: FX978 | **Sample ID: T-V-2-4-A,B T/TC**

Client Project: R012.001 | **Date Received: 07/29/98** | **Response File: ICALF821**
TLI ID: 214-27-8A,B
Date Analyzed : 08/24/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane	0.040	J	1.09		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.009	J	2.07		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.044	J	2.78		0.05
Acetone	0.296		2.86		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.064		3.27		0.05
Acrylonitrile		U		0.021	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone	0.342		4.73		0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.108		5.52		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Pacific Environmental Services

Project Number: 46323
Sample File: FX978

Method 8260 VOST
Sample ID: T-V-2-4-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-8A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.005	0.05
Toluene	0.144		8.09		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.35		
Tetrachloroethene	0.031	J	8.91		0.05
2-Hexanone		U		0.008	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.027	J	10.67		0.05
m-/p-Xylene	0.149		10.91		0.10
o-Xylene	0.042	J	11.63		0.05
Styrene	0.017	J	11.70		0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.72		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 16:49 08/25/1998

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Pacific Environmental Services

Project Number: 46323
Sample File: FX978

Method 8260 VOST
Sample ID: T-V-2-4-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-8A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.208	5.18	1	83
Toluene-d_8	0.259	8.00	2	104
4-Bromofluorobenzene	0.295	12.65	2	118

Reviewed by PAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3
Printed: 16:49 08/25/19

313

Pacific Environmental Services

Project Number: 46323
Sample File: FX978

Method 8260 VOST
Sample ID: T-V-2-4-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-8A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF824

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.036	J	3.61		0.25
n-Hexane	0.083	J	3.88		0.25
1,2-Epoxybutane		U		0.025	0.25
Iso-Octane	0.021	J	5.68		0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.007	0.25

Reviewed by PaB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
301 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

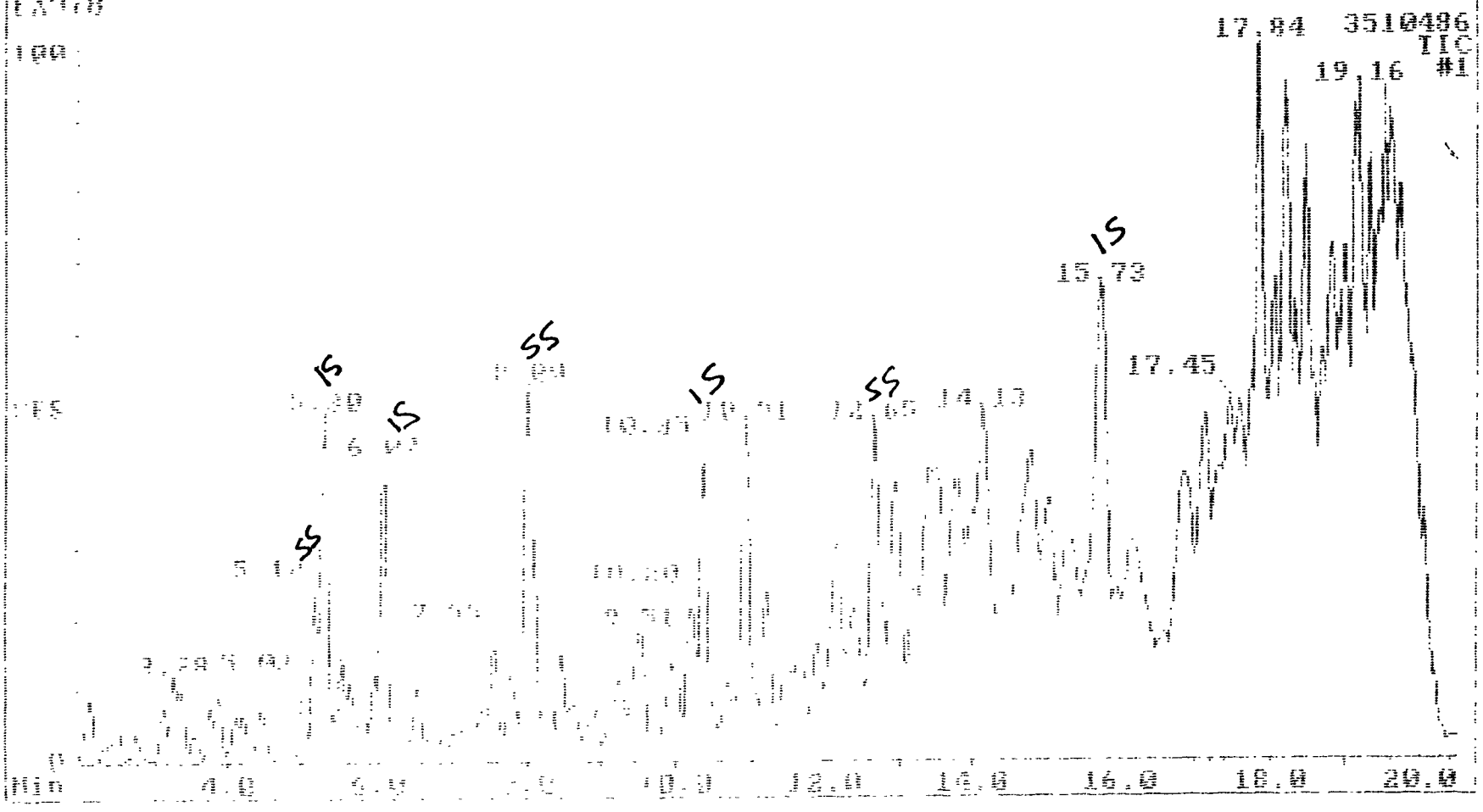
Savar v3.7
Printed: 17:21 08/25/1998

314

24-Aug-98 11:5[illegible] Triangle Laboratories, Inc. (919) 544-5729

Sample: T U 3 4 0.8 [illegible] Instrument F

EX170



Data Review: Pab
Date: 8/24/98

98640 — (M) PAB — 1.09

116992 — (M) PAB — 2.07

271296 — (M) PAB (7P) PAB — 3.27

(7P) PAB

(7P) PAB

(7P) PAB

(7P) PAB

Data Review: PAB
Date: 8/24/98

316

214384 — (M) PAB — 11.70

317

0 11

PAB

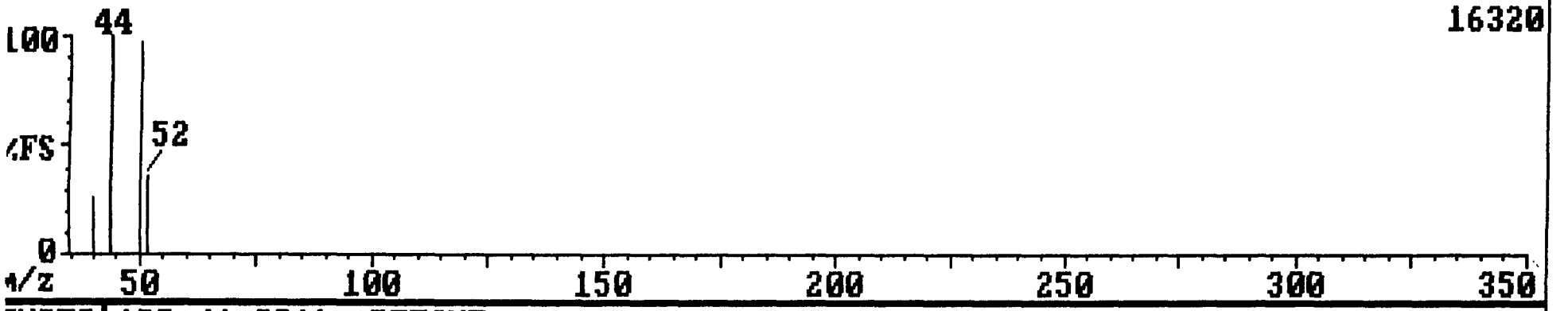
PAB

PAB

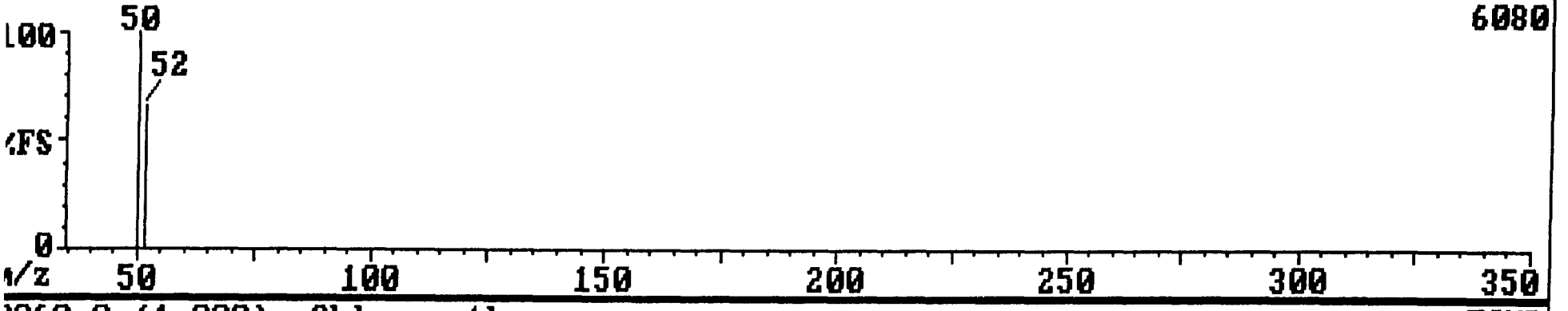
:4-Aug-98 11:35 Triangle Laboratories, Inc. (919) 544-5729

:ample: T-V-2-4-A,B T/TC 214-27-8A,B TLI#46323 Instrument F

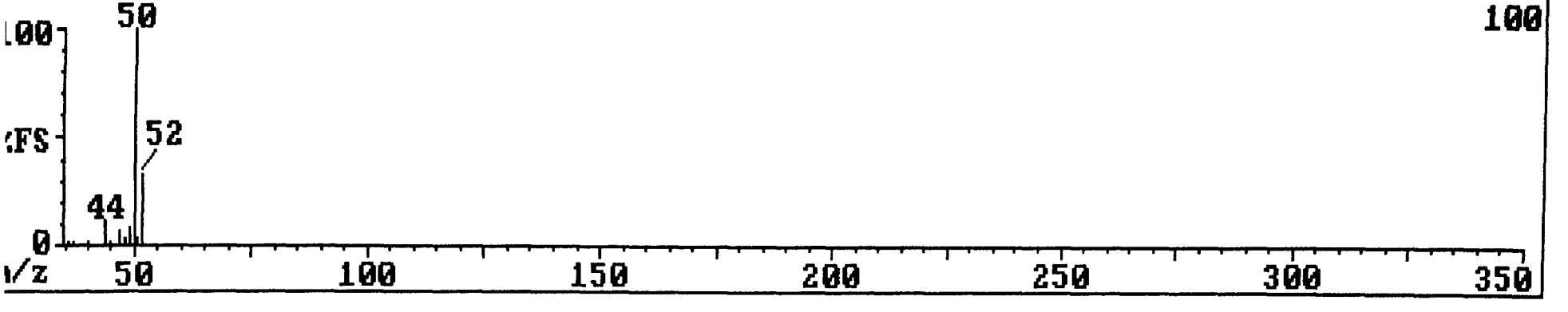
FX978 109 (1.090)



FX978' 109 (1.091) REFINE



3260 9 (1.230) Chloromethane FIND

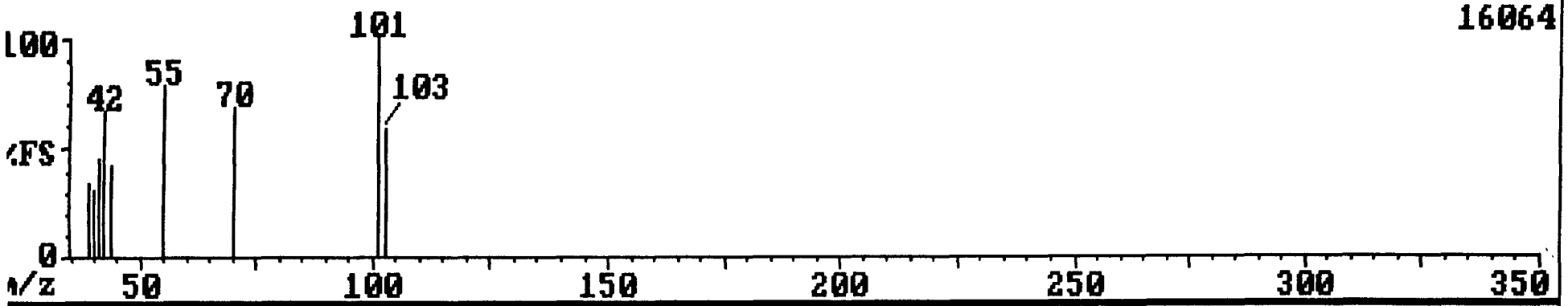


319

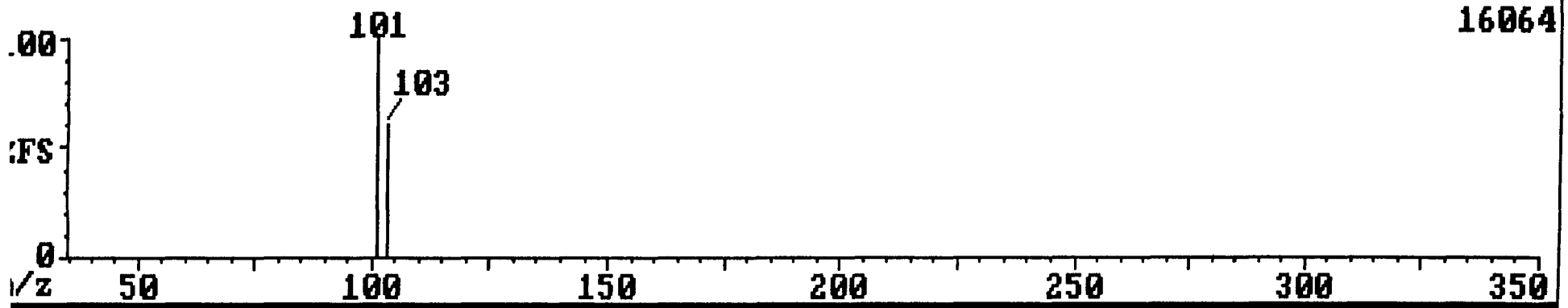
:4-Aug-98 11:35 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-4-A,B T/TC 214-27-8A,B TLI#46323 Instrument F

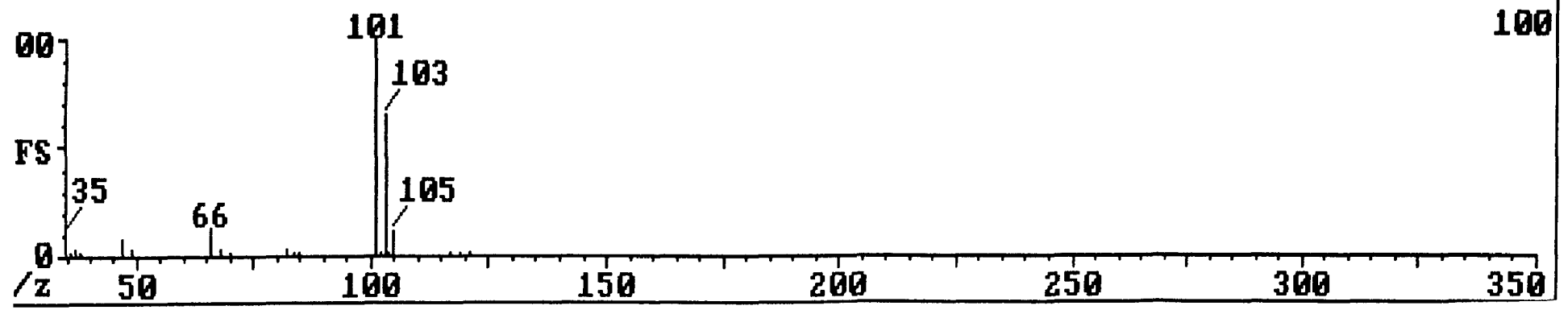
FX978 207 (2.070)



FX978 207 (2.071) REFINE



MASTER 15 (2.330) Trichlorofluoromethane FIND

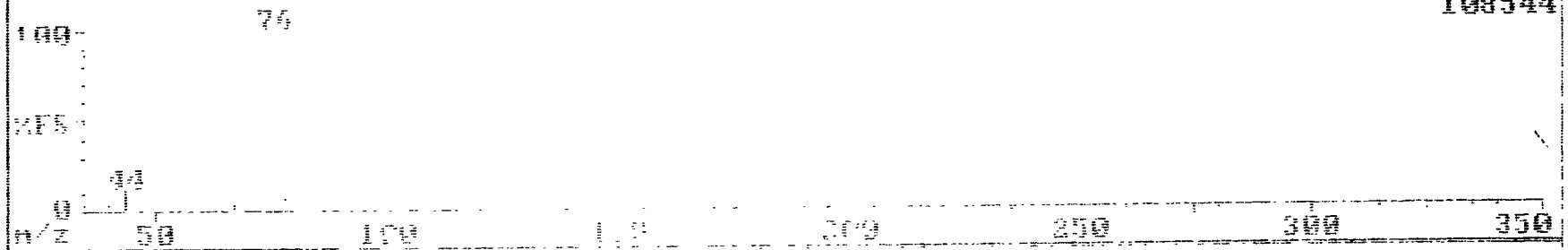


320

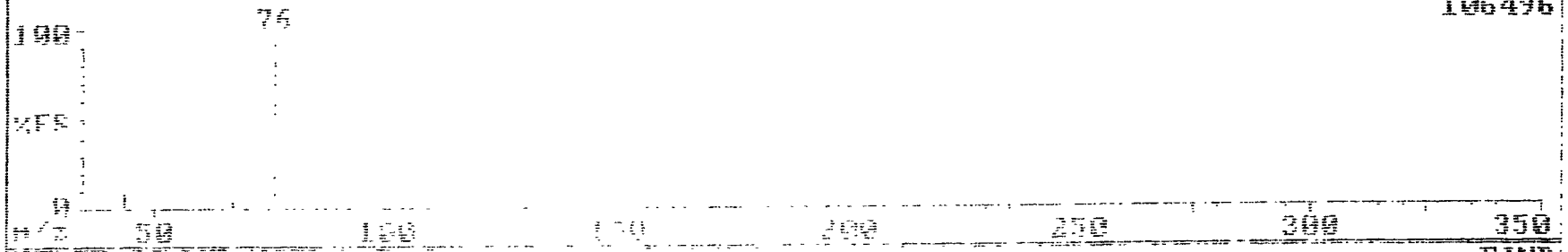
24-May-90 11:[illegible] Tetrad Laboratories, Inc. (919) 544-5729

Sample: T U-3-4-0,P [illegible] Instrument F

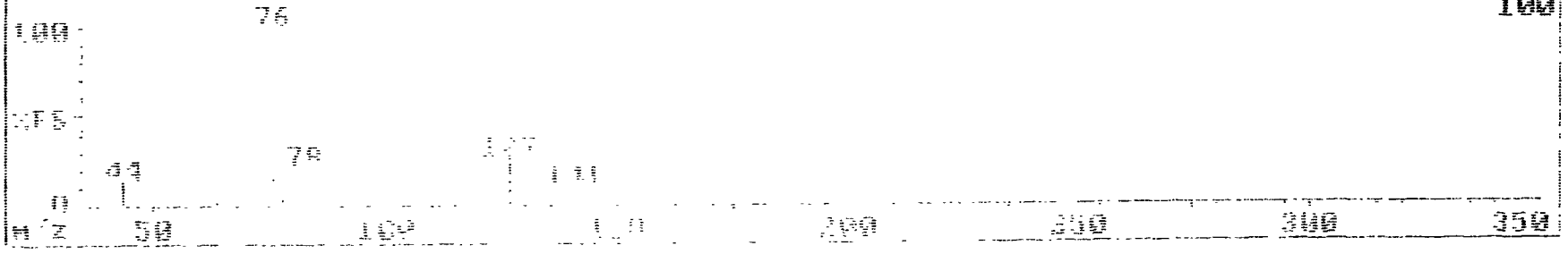
FX978 278 (2.780) 108544

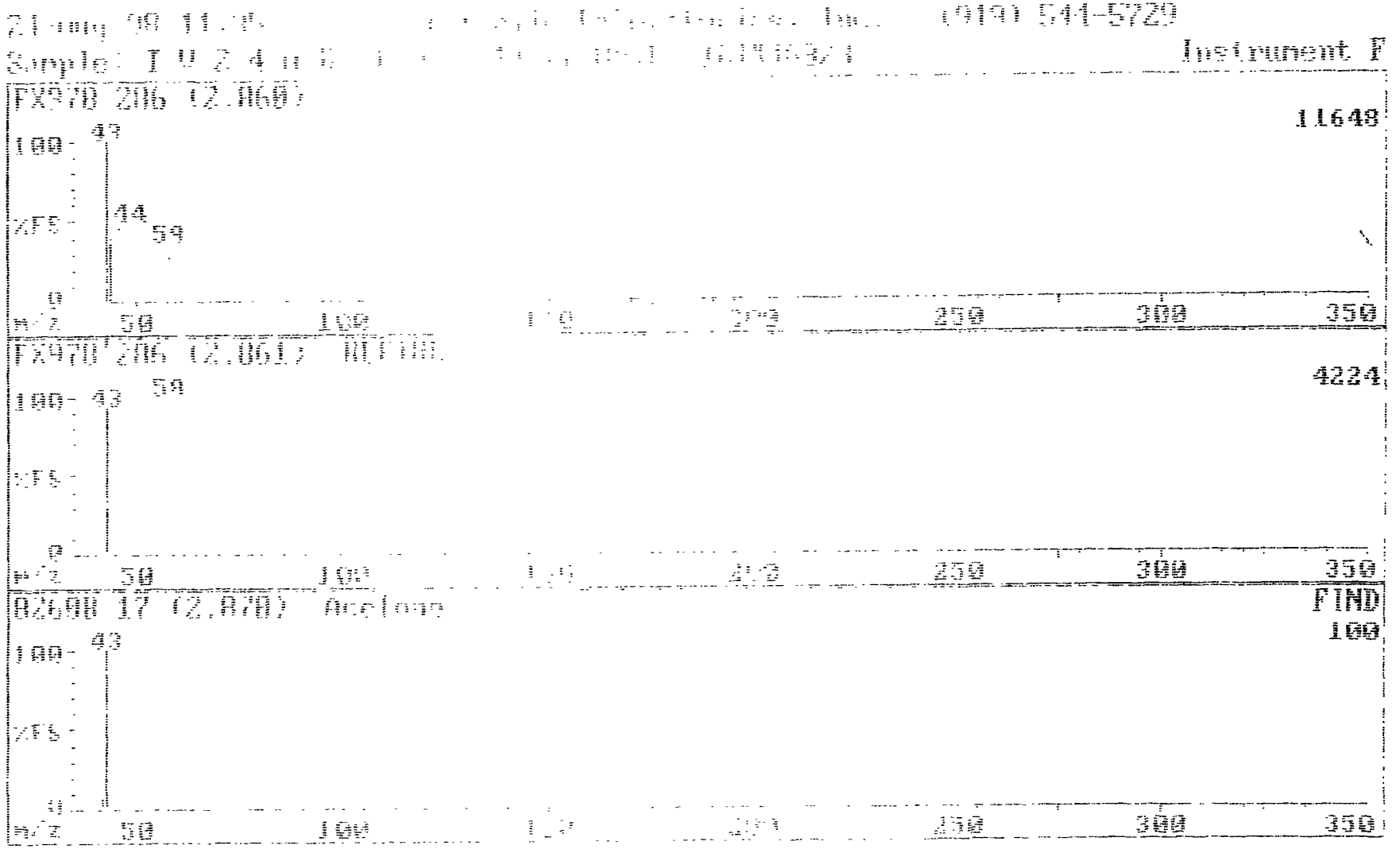


FX978 278 (2.780) REFINE 106496



DZ6AD 16 (2.880) Carbon Dioxide FIND 100

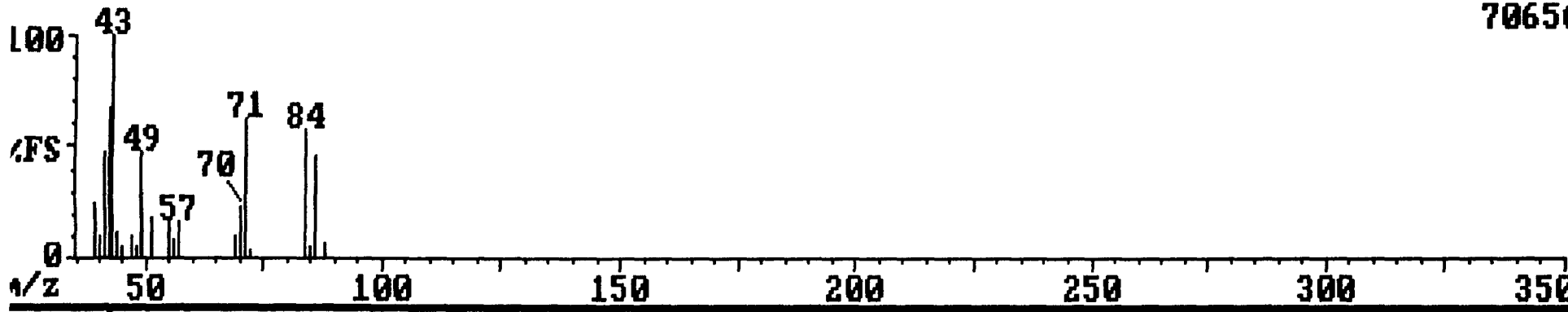



(919) 544-5729
Instrument F
PX970 206 (2.060)
11648
100
%FS
0
m/z
50
100
250
300
350
PX970 206 (2.061)
4224
100
%FS
0
m/z
50
100
250
300
350
FIND
100
100
%FS
0
m/z
50
100
250
300
350

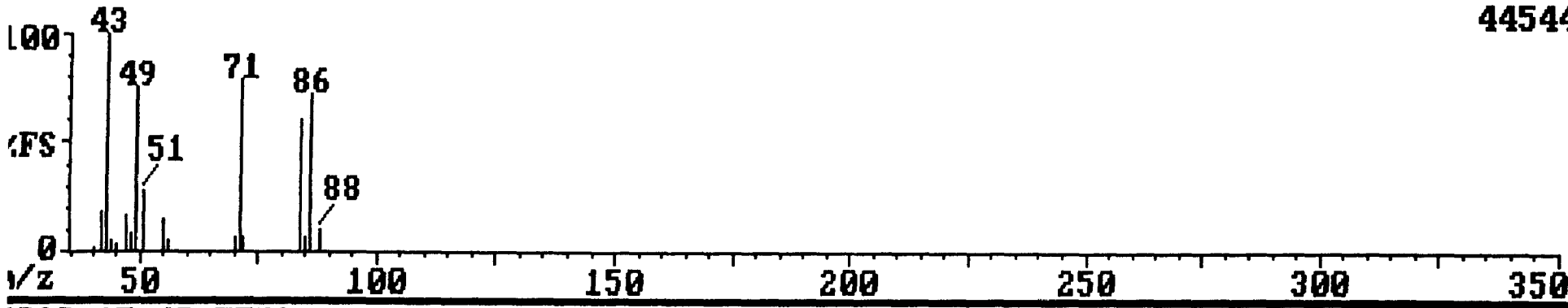
:4-Aug-98 11:35 Triangle Laboratories, Inc. (919) 544-5729

;ample: T-V-2-4-A,B T/TC 214-27-8A,B TLI#46323 Instrument F

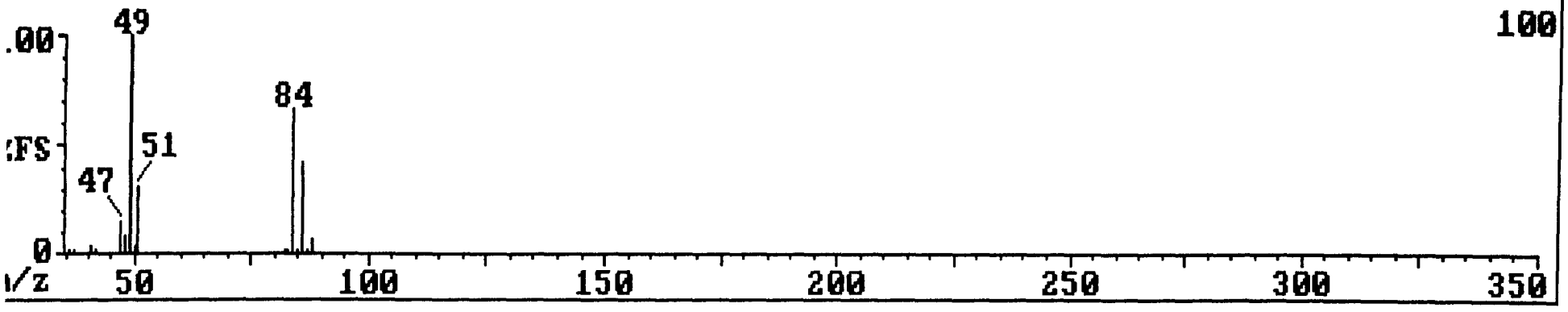
FX978 327 (3.270)



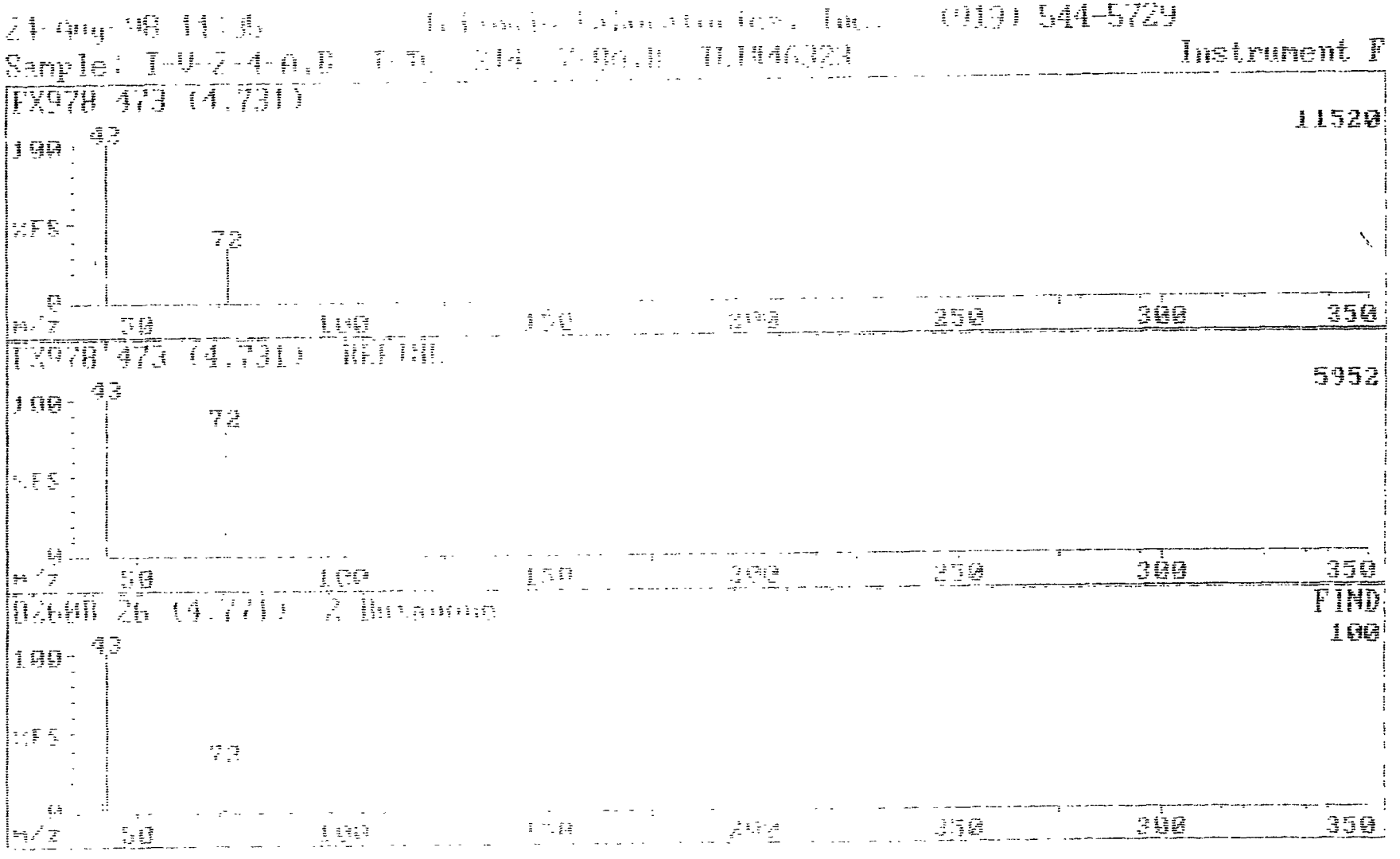
FX978 327 (3.271) REFINE



3260 15 (3.550) Methylene chloride FIND



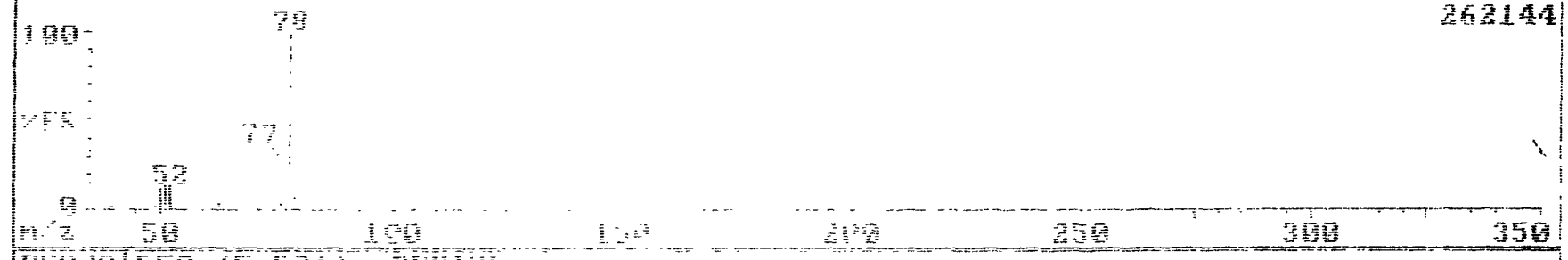
323


(919) 544-5729
Instrument F
11520
5952
FIND
100
43
72
50
100
150
200
250
300
350

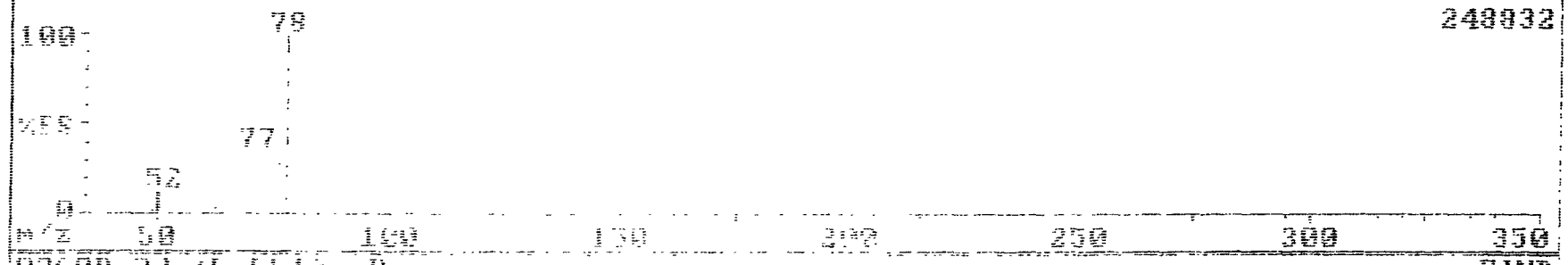
24-Aug-98 11:35 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-4-A,B [illegible] Instrument F

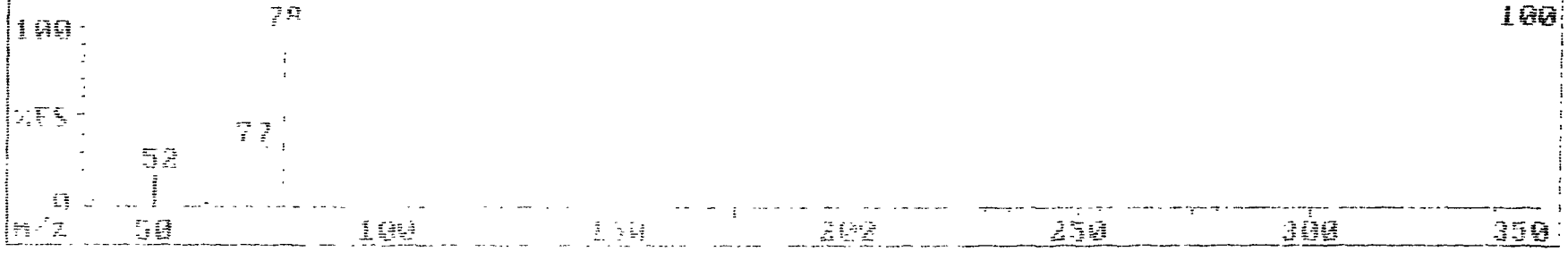
FX978 552 (5.521)



TX978 552 (5.521) RRTUM



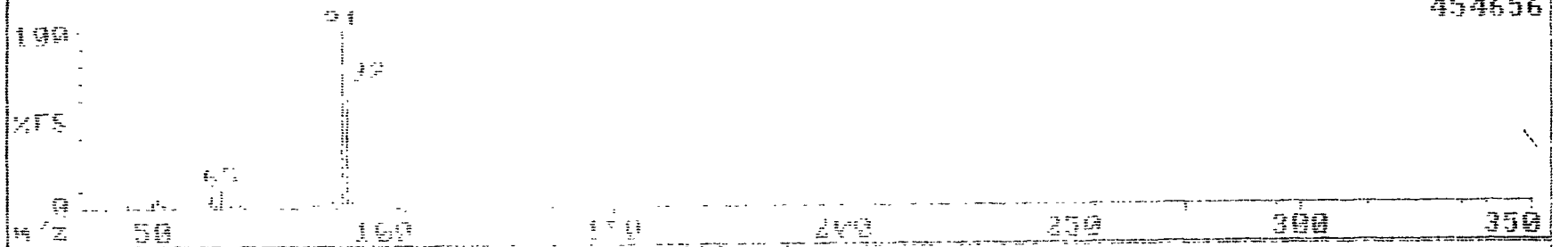
RZ600 32 (5.551) Benzene



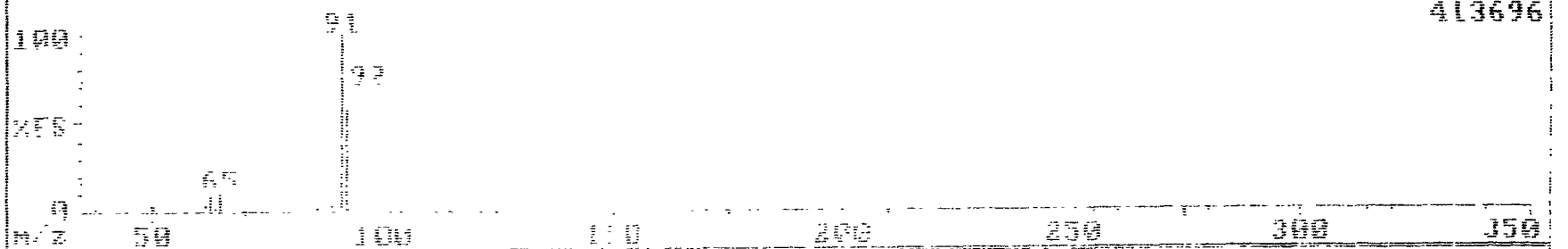
24 Aug 90 11:5[illegible] [illegible] Inc. (919) 544-5729

Sample: I V 2 4 0.0 [illegible] 0.0040.323 Instrument F

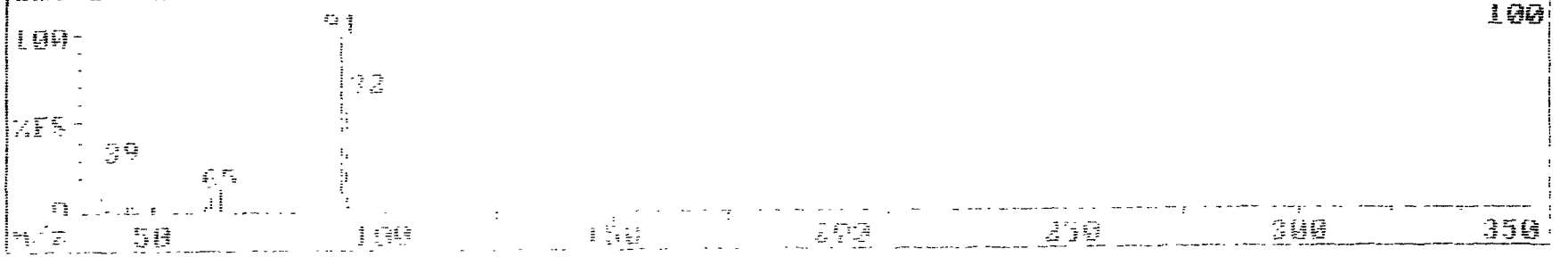
FX97B 800 (0.001)



FX97B'800 (0.000) RUFTUR

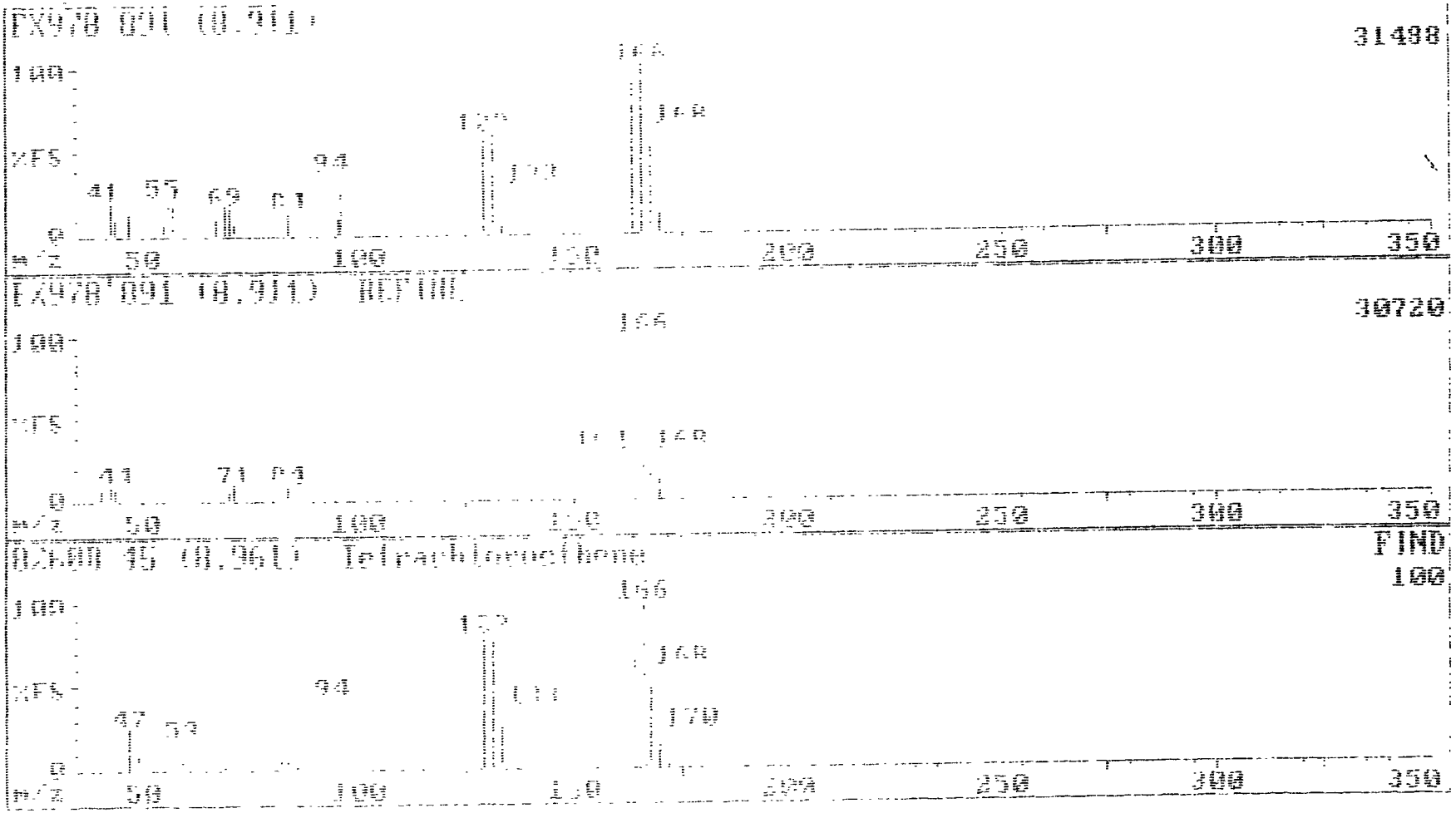


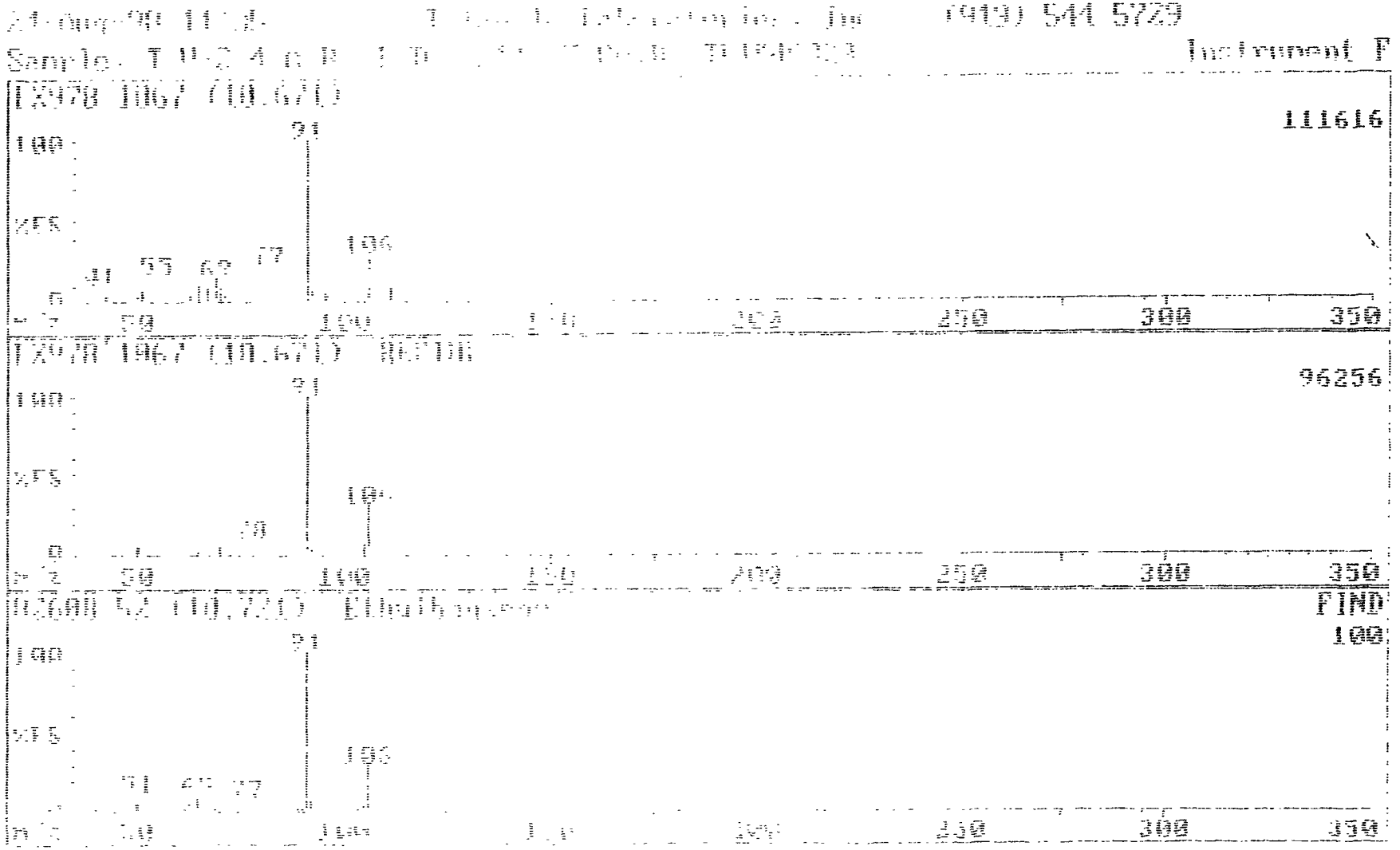
D260B 41 (0.131) Toluene



21 [illegible] 1[illegible] [illegible] Tetrachlorophenol, Inc. (919) 544-5729

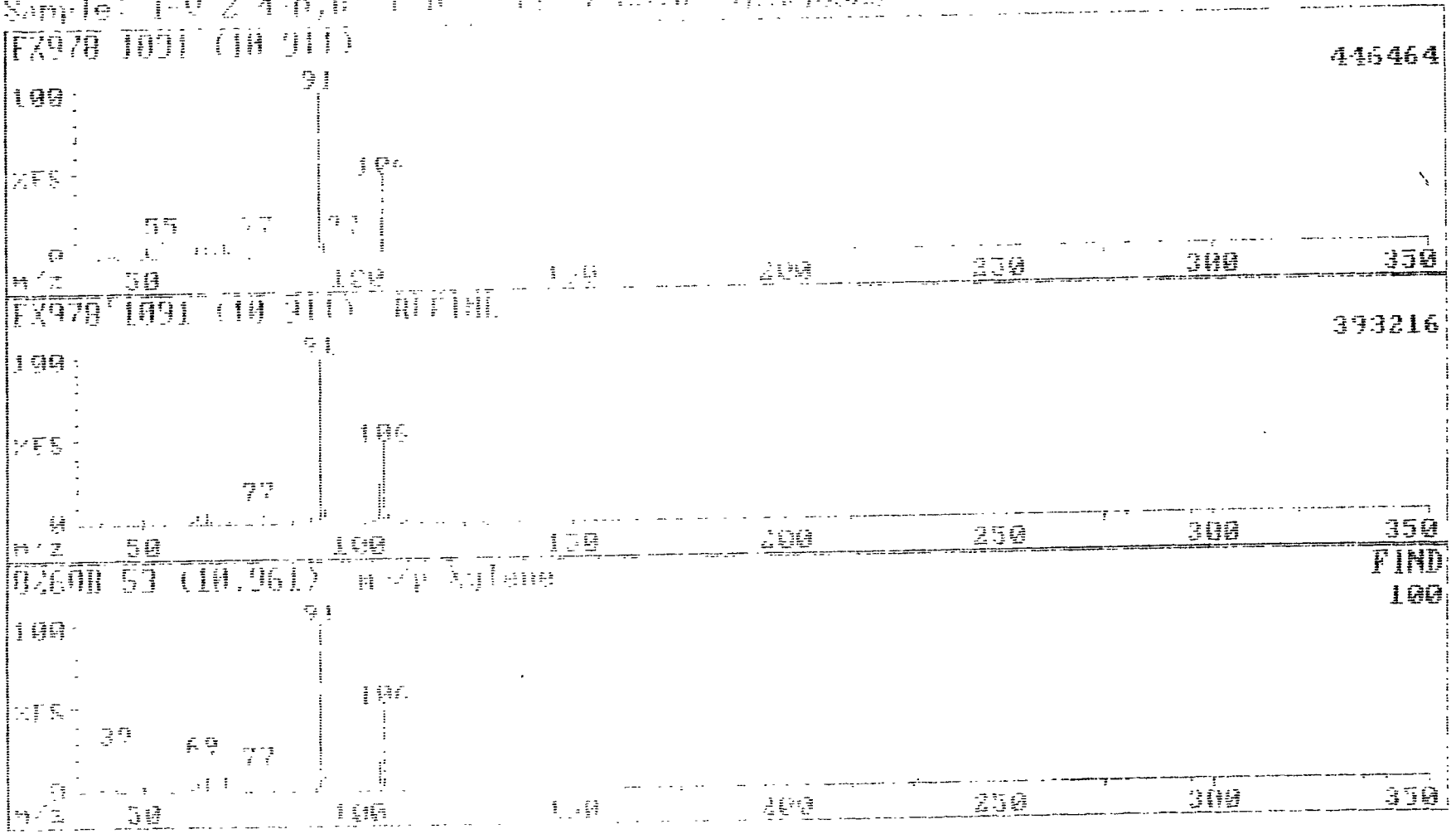
Sample: T-U [illegible] TU 0016703 Instrument F

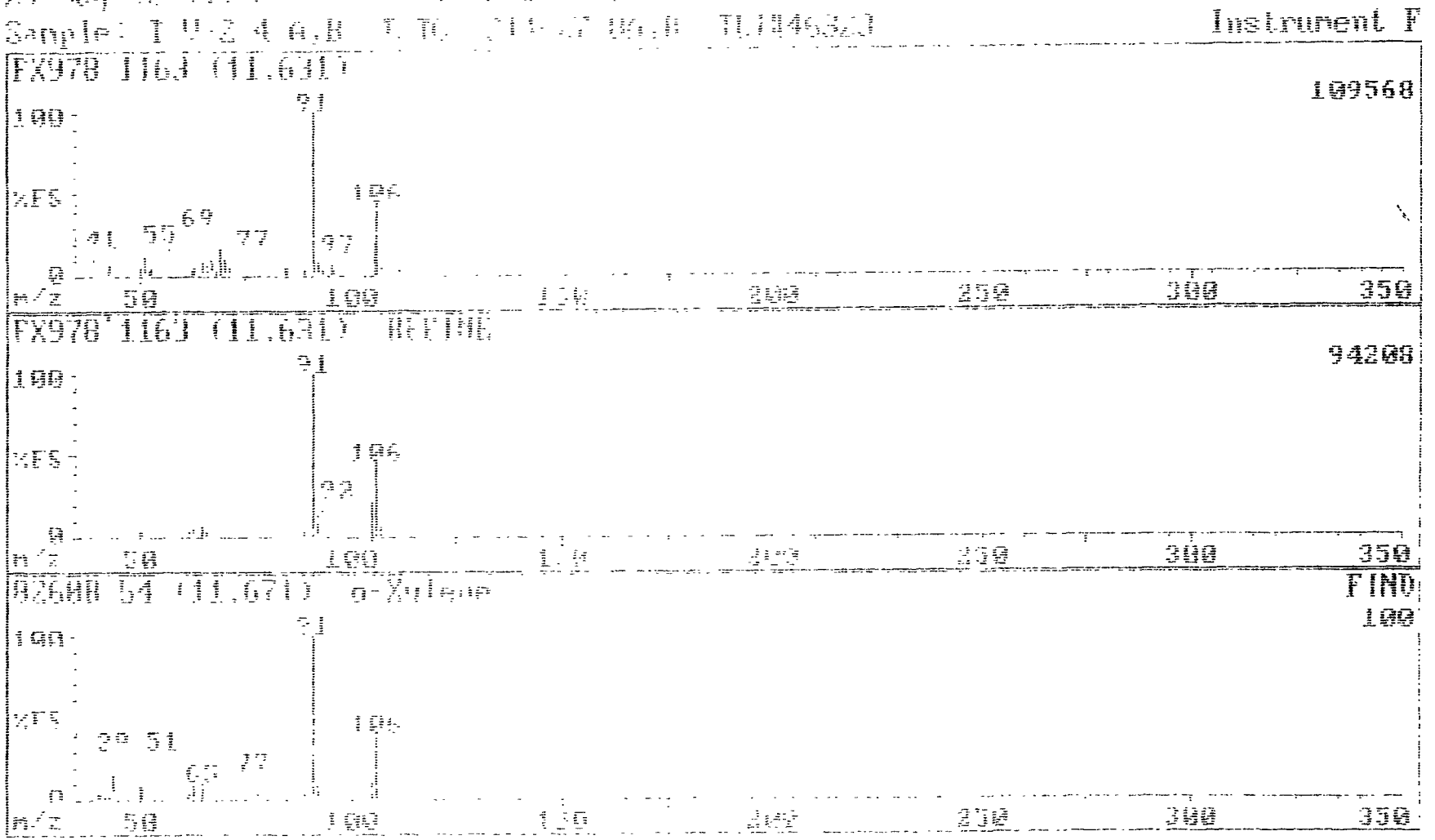



(0910) 544 5729
Instrument F
111616
96256
FIND
100
100
50
150
200
250
300
350

24-Aug-96 11:19: Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V 2 4-0,B T/D 11 V 80.0 TL0840328 Instrument F

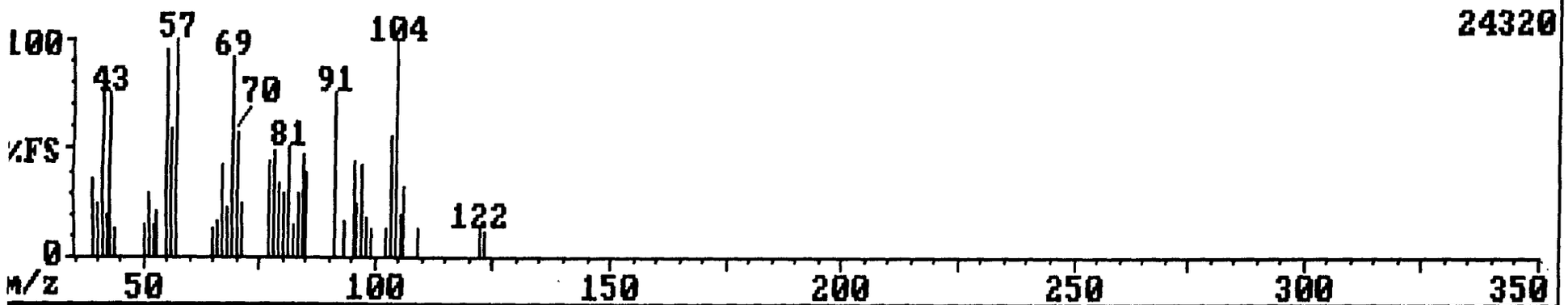



Instrument F
FX970 1163 (11.631)
109568
91
106
41 55 69 77 97
m/z 50 100 150 200 250 300 350
FX970 1163 (11.631) REVMB
94208
91
106
92
m/z 50 100 150 200 250 300 350
FIND
100
91
106
39 51
65 77
m/z 50 100 150 200 250 300 350

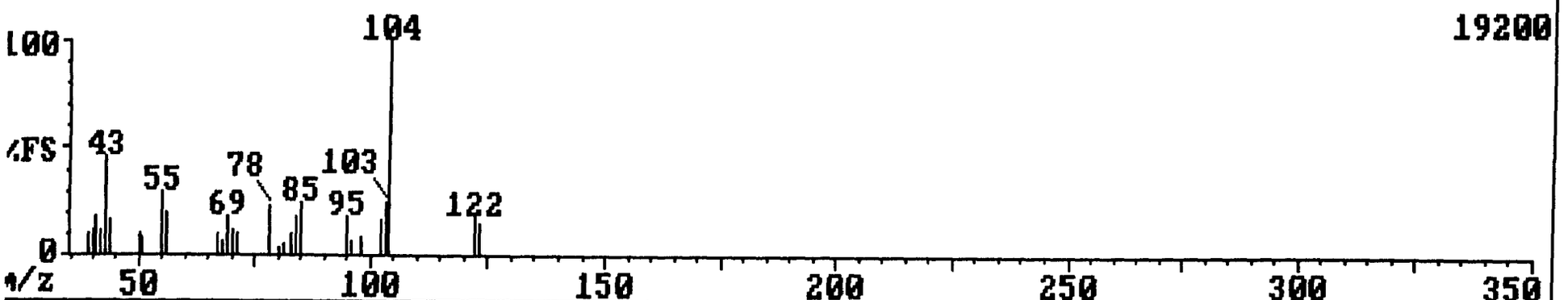
24-Aug-98 11:35 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-2-4-A,B T/TC 214-27-8A,B TLI#46323 Instrument F

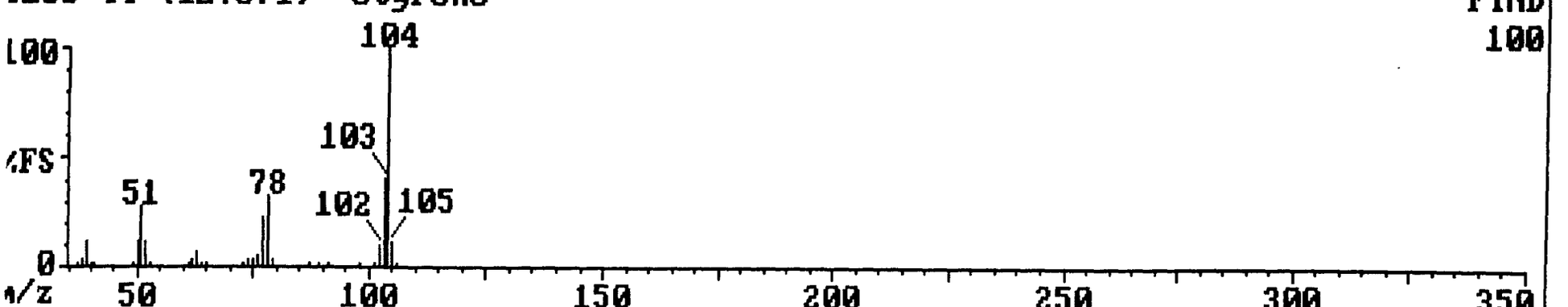
FX978 1170 (11.701)



FX978 1170 (11.701) REFINE

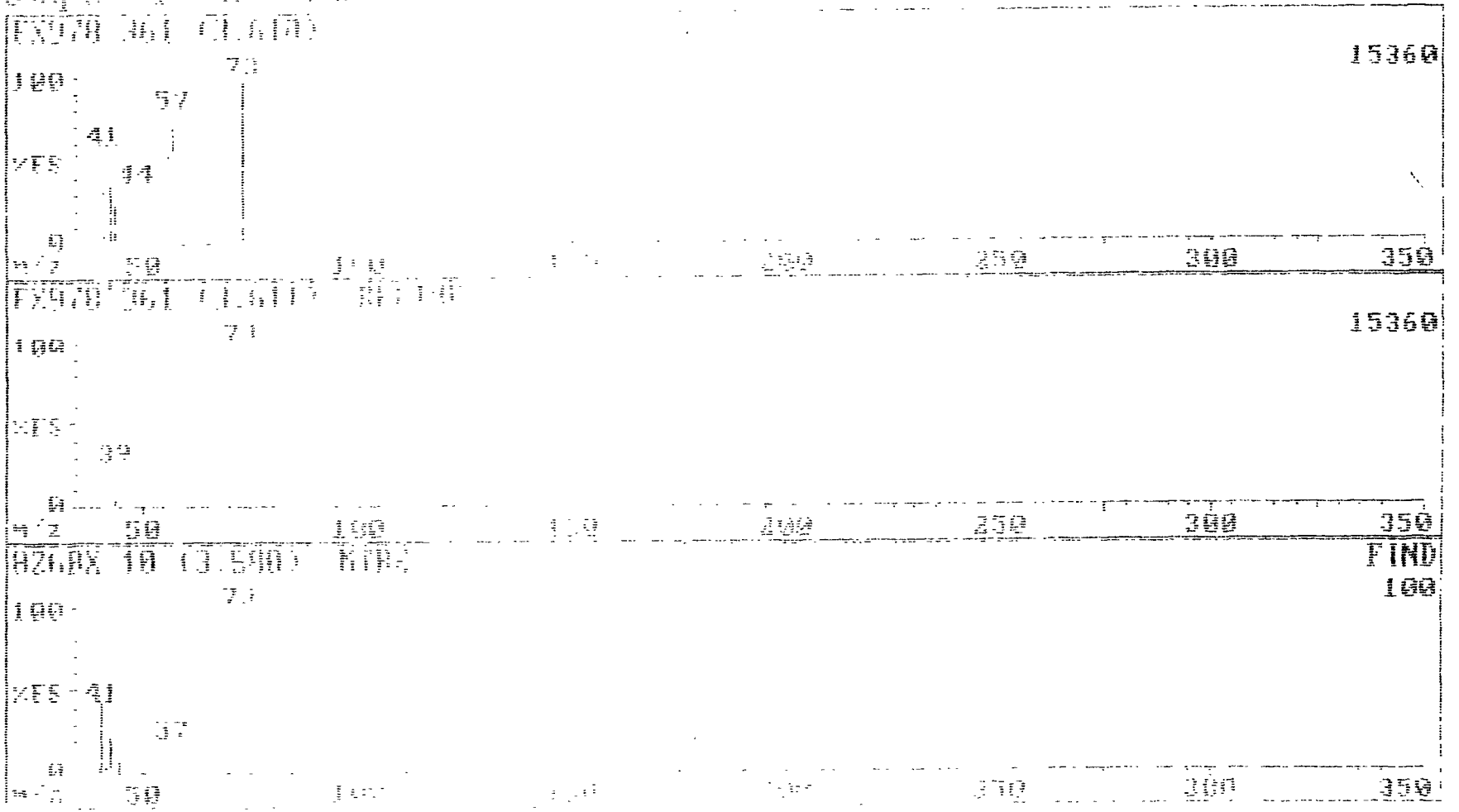


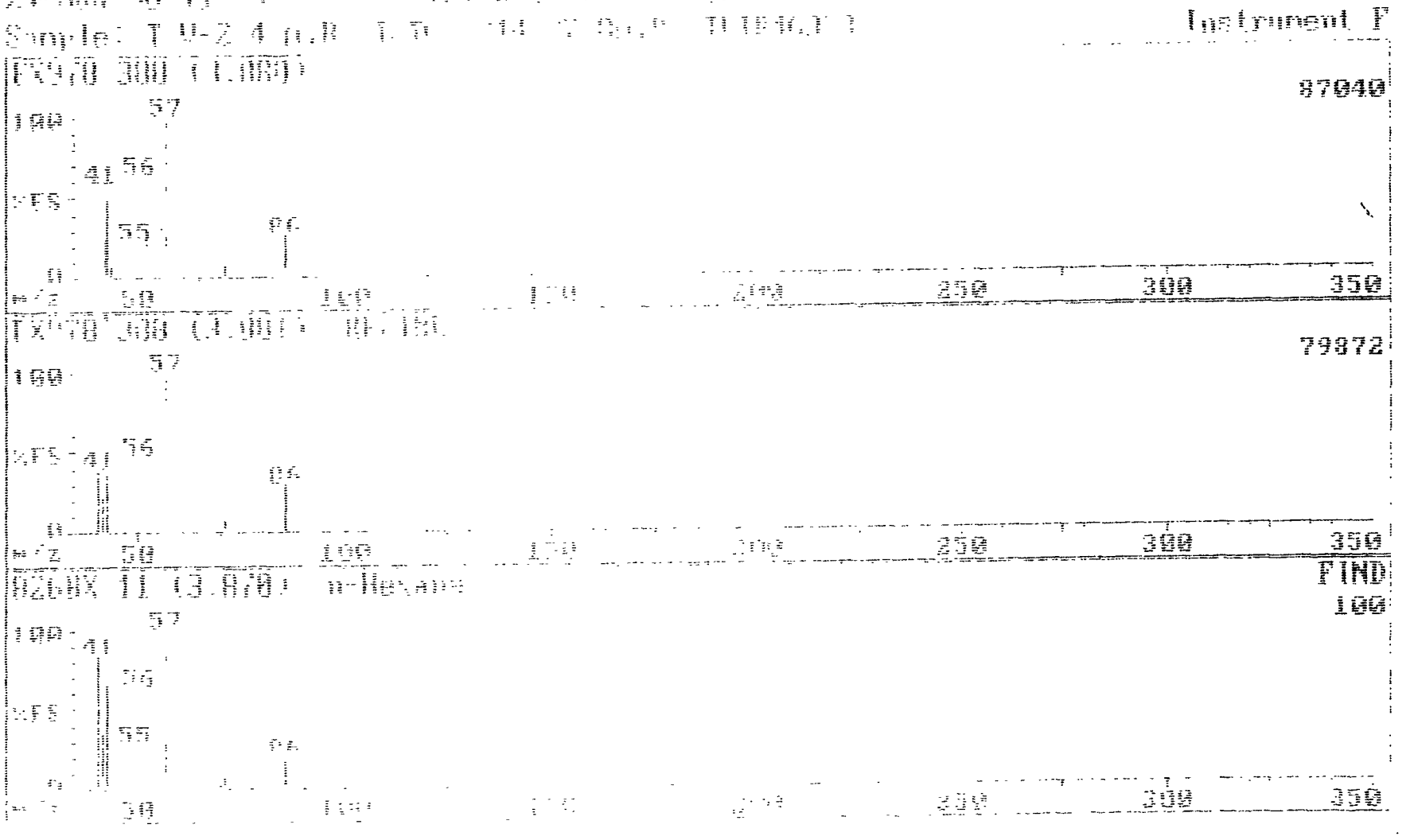
3260 44 (12.371) Styrene

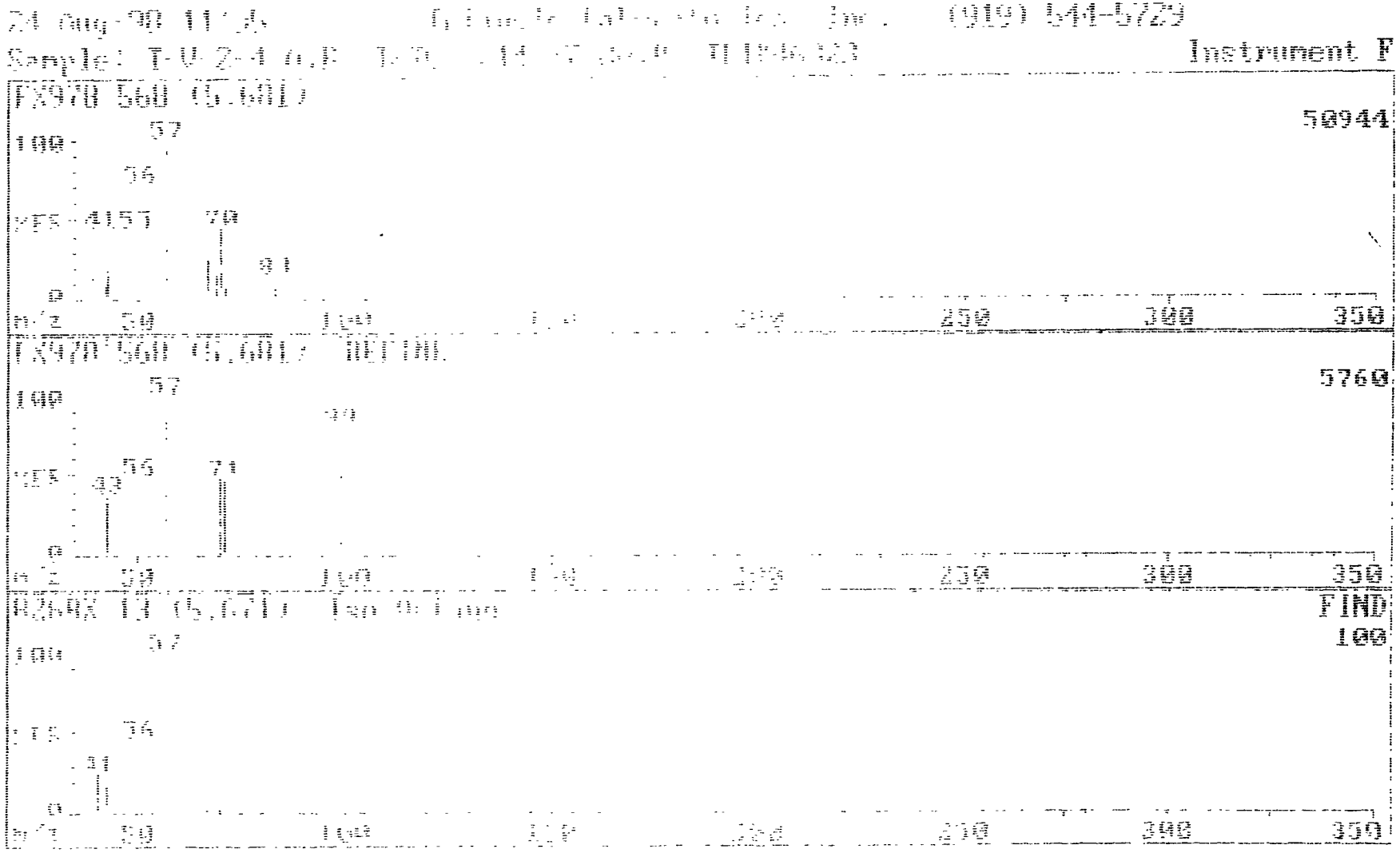


24 May 90 11 [illegible] (410) 544-5729

Sample [illegible] Instrument F




Instrument F
87040
79872
FIND
100
m/z
50
100
150
200
250
300
350
100
%FS
0
57
56
55
41
94


Instrument F
50944
5760
FIND
100
250
300
350

Pacific Environmental Services

Project Number: 46323
Sample File: FX979

Method 8260 VOST
Sample ID: T-V-3-1-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-16A,B

Date Received: 07/29/98

Response File: ICALF821

Date Analyzed : 08/24/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.31		
Chloromethane	0.030	J	1.08		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.005	J	1.66		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.011	J	2.06		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.015	J	2.78		0.05
Acetone	0.183		2.87		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.508		3.27		0.05
Acrylonitrile		U		0.020	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone	0.166		4.75		0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.08		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.096		5.53		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

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Printed: 16:49 08/25/19

335

Pacific Environmental Services

Project Number: 46323 | **Method 8260 VOST**
Sample File: FX979 | **Sample ID: T-V-3-1-A,B T/TC**

Client Project: R012.001 | **Date Received: 07/29/98** | **Response File: ICALF821**
TLI ID: 214-27-16A,B
Date Analyzed : 08/24/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.004	0.05
Toluene	0.212		8.12		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.38		
Tetrachloroethene	0.023	J	8.96		0.05
2-Hexanone		U		0.008	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.075		10.71		0.05
m-/p-Xylene	0.335		10.94		0.10
o-Xylene	0.131		11.66		0.05
Styrene	0.029	J	11.72		0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.78		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 16:49 08/25/1998

Pacific Environmental Services

Project Number: 46323
Sample File: FX979

Method 8260 VOST
Sample ID: T-V-3-1-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-16A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.209	5.19	1	84
Toluene-d_8	0.256	8.02	2	102
4-Bromofluorobenzene	0.283	12.69	2	113

Reviewed by PAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v
Printed: 16:49 08/25/1

Pacific Environmental Services

Project Number: 46323
Sample File: FX979

Method 8260 VOST
Sample ID: T-V-3-1-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-16A,B

Date Received: 07/29/98

Response File: ICALF824

Date Analyzed : 08/24/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.31		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.028	J	3.61		0.25
n-Hexane	0.107	J	3.89		0.25
1,2-Epoxybutane		U		0.024	0.25
Iso-Octane	0.012	J	5.68		0.25
1,4-Difluorobenzene		IS 2	6.08		
Ethyl acrylate		U		0.007	0.25

Reviewed by PAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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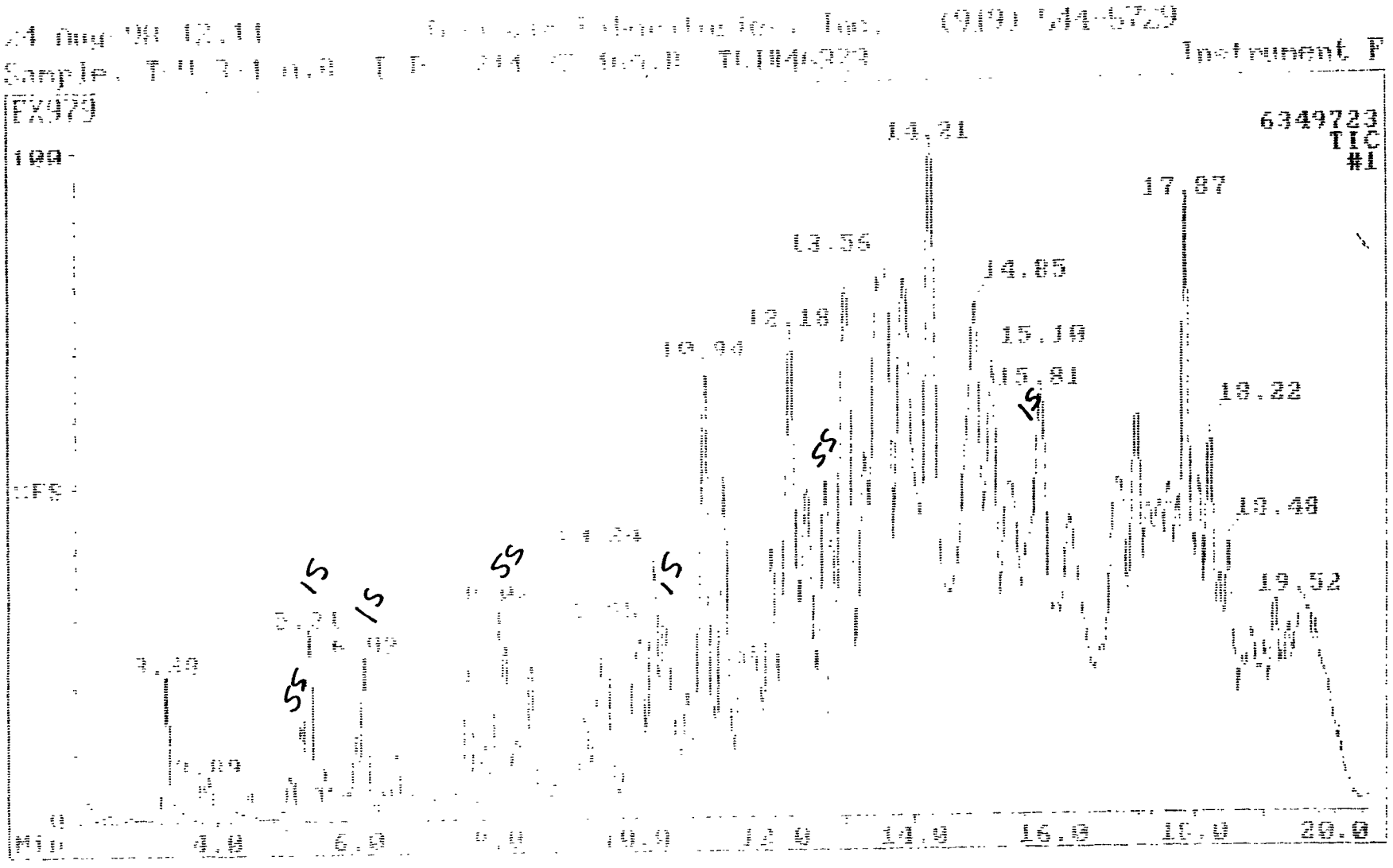
Savar v3.7
Printed: 17:21 08/25/1998



Data Review: GAB
Date: 8/24/98

339

77092 — (M) PAB — 1.08

21136 — (M) PAB — 1.66

(7P) PAB

(7P) PAB

(7P) PAB

(7P) PAB

Data Review: PAB
Date: 8/24/98

340

356320 — (M) PAB —— (L72)

PAB

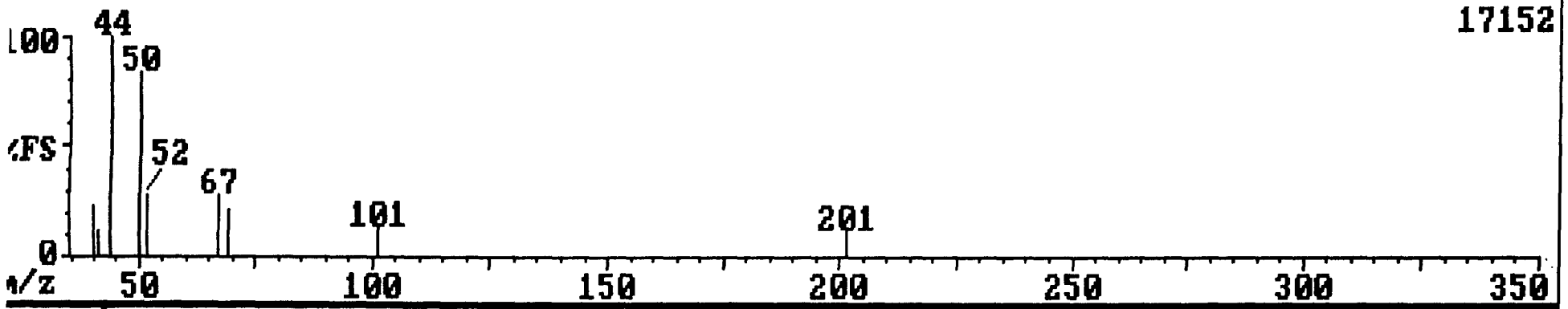
PAB

PAB

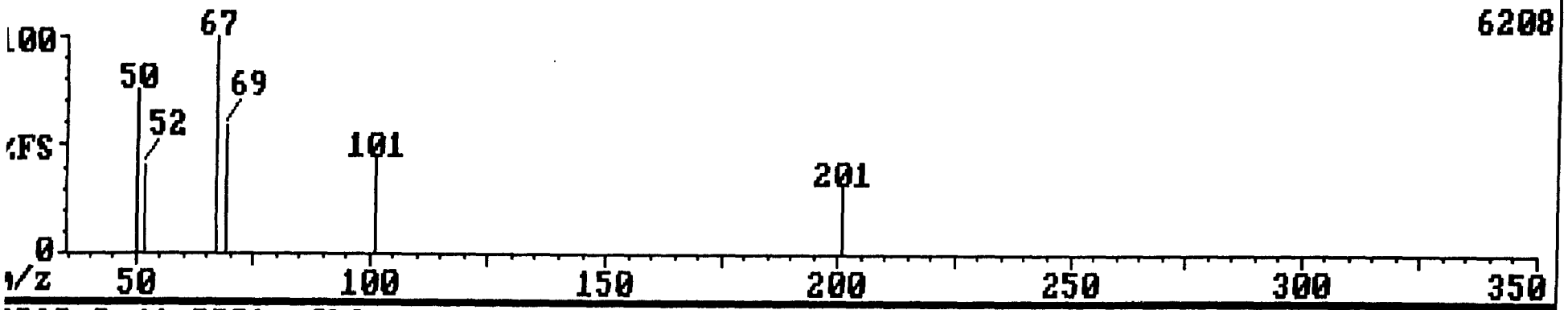
:4-Aug-98 12:14 Triangle Laboratories, Inc. (919) 544-5729

:ample: T-V-3-1-A,B T/TC 214-27-16A,B TLI#46323 Instrument F

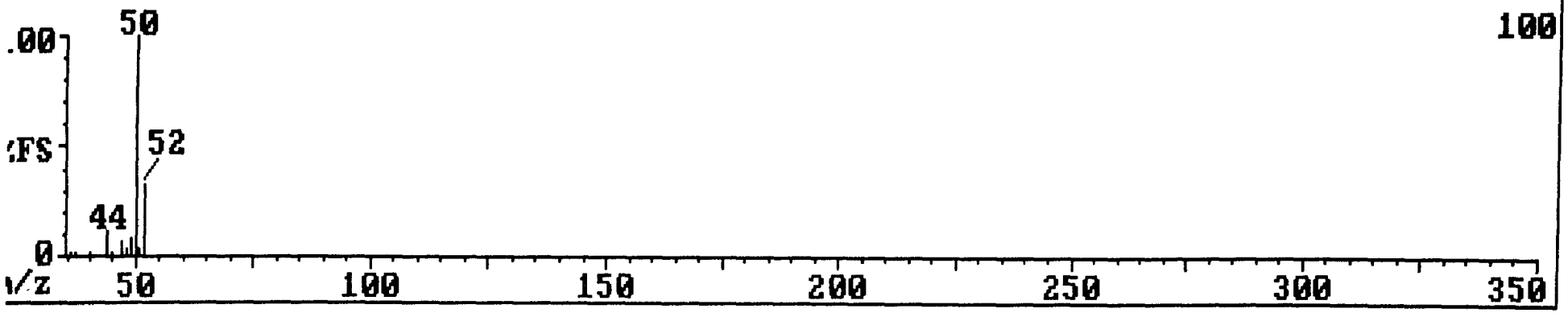
:X979 108 (1.080)



:X979' 108 (1.081) REFINE



3260 9 (1.230) Chloromethane FIND

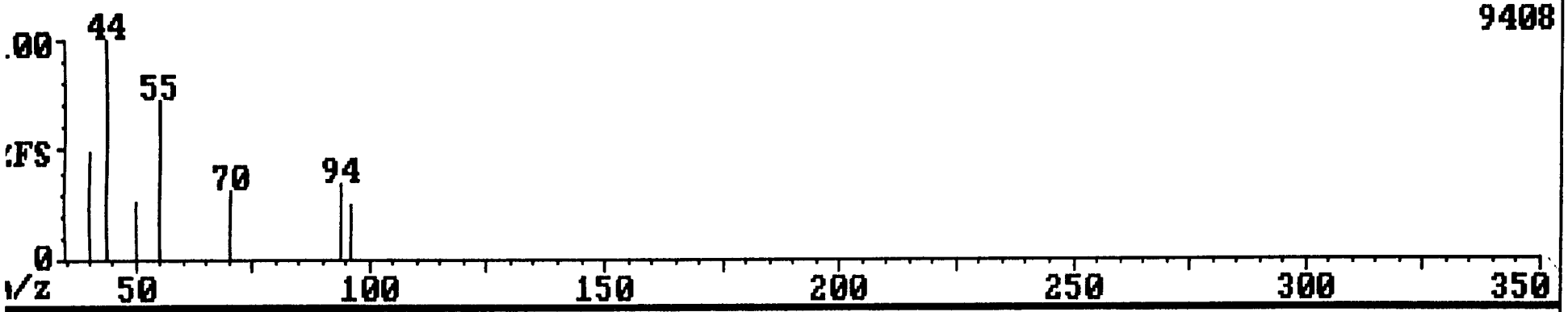


343

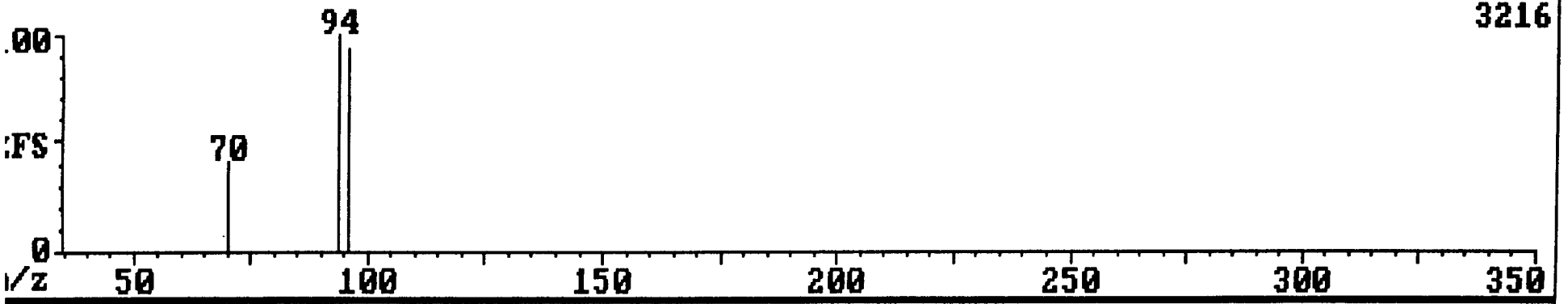
4-Aug-98 12:14 Triangle Laboratories, Inc. (919) 544-5729

ample: T-V-3-1-A,B T/TC 214-27-16A,B TLI#46323 Instrument F

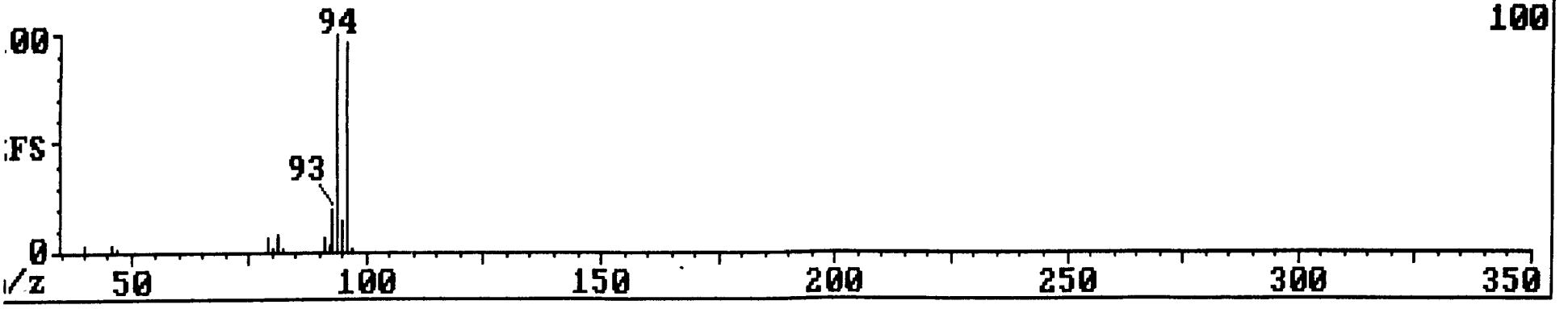
'X979 166 (1.660)



'X979' 166 (1.661) REFINE

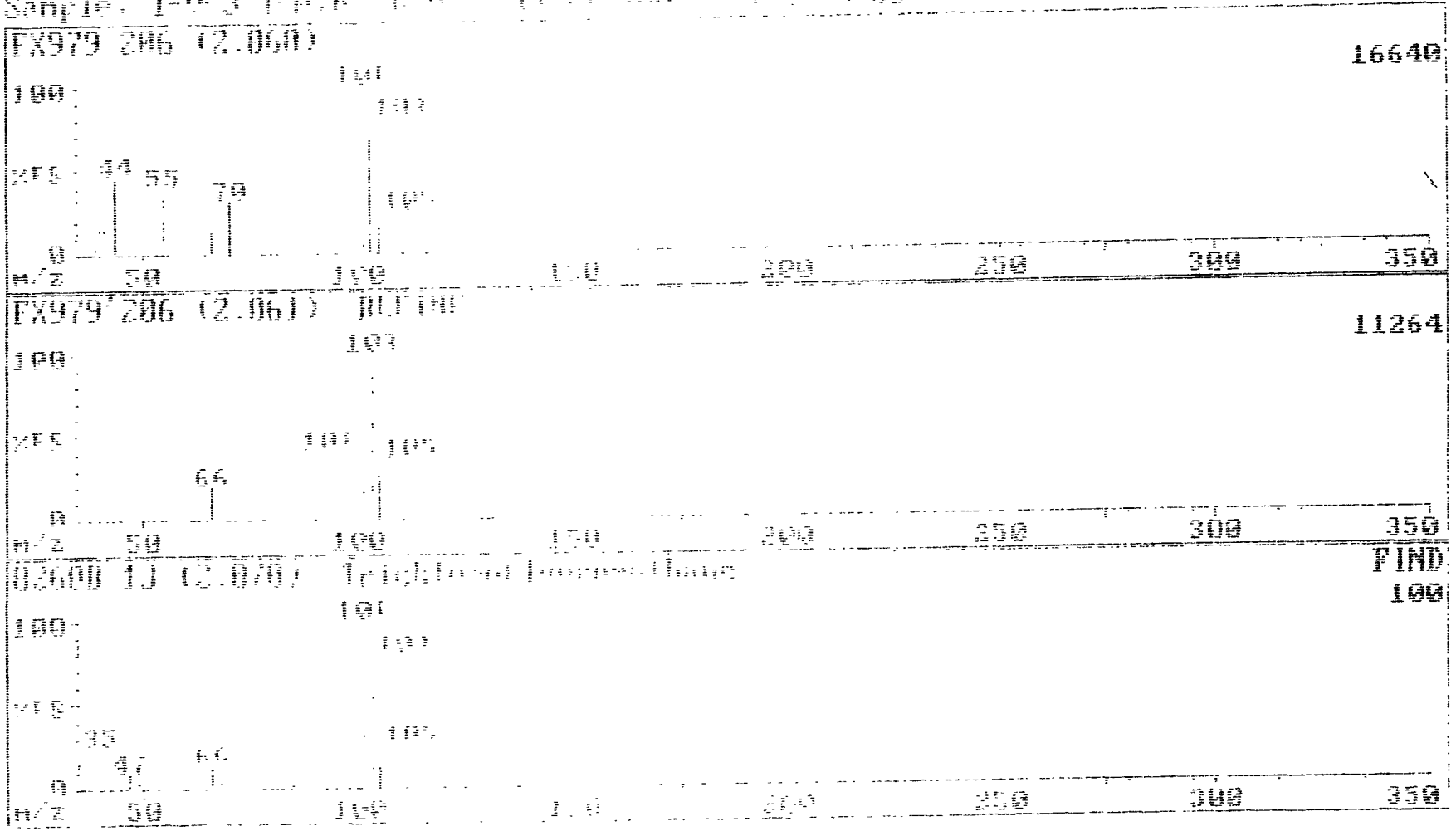


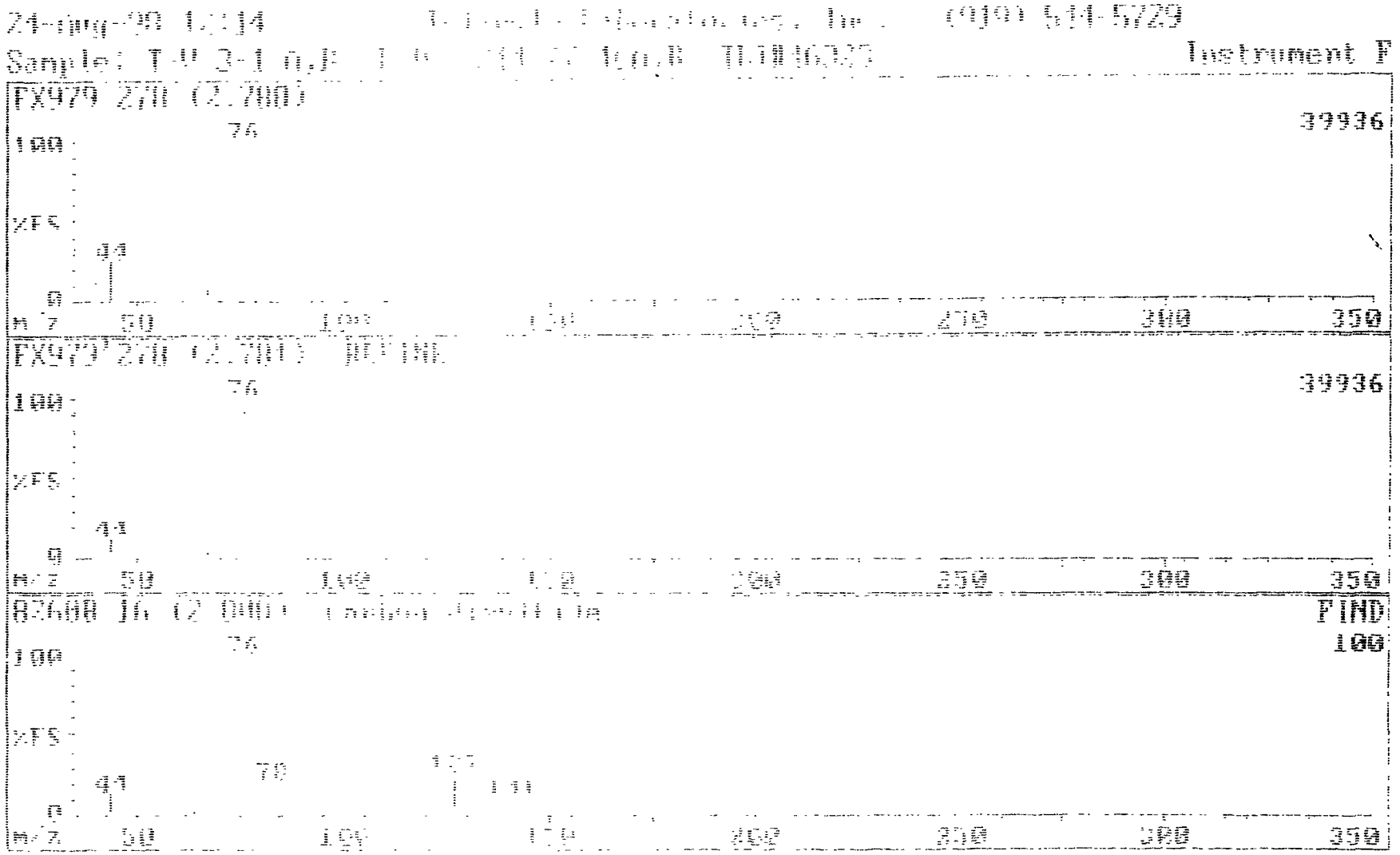
260 11 (1.830) Bromomethane FIND



24-Aug-98 12:11 [illegible] (010) 544-5729

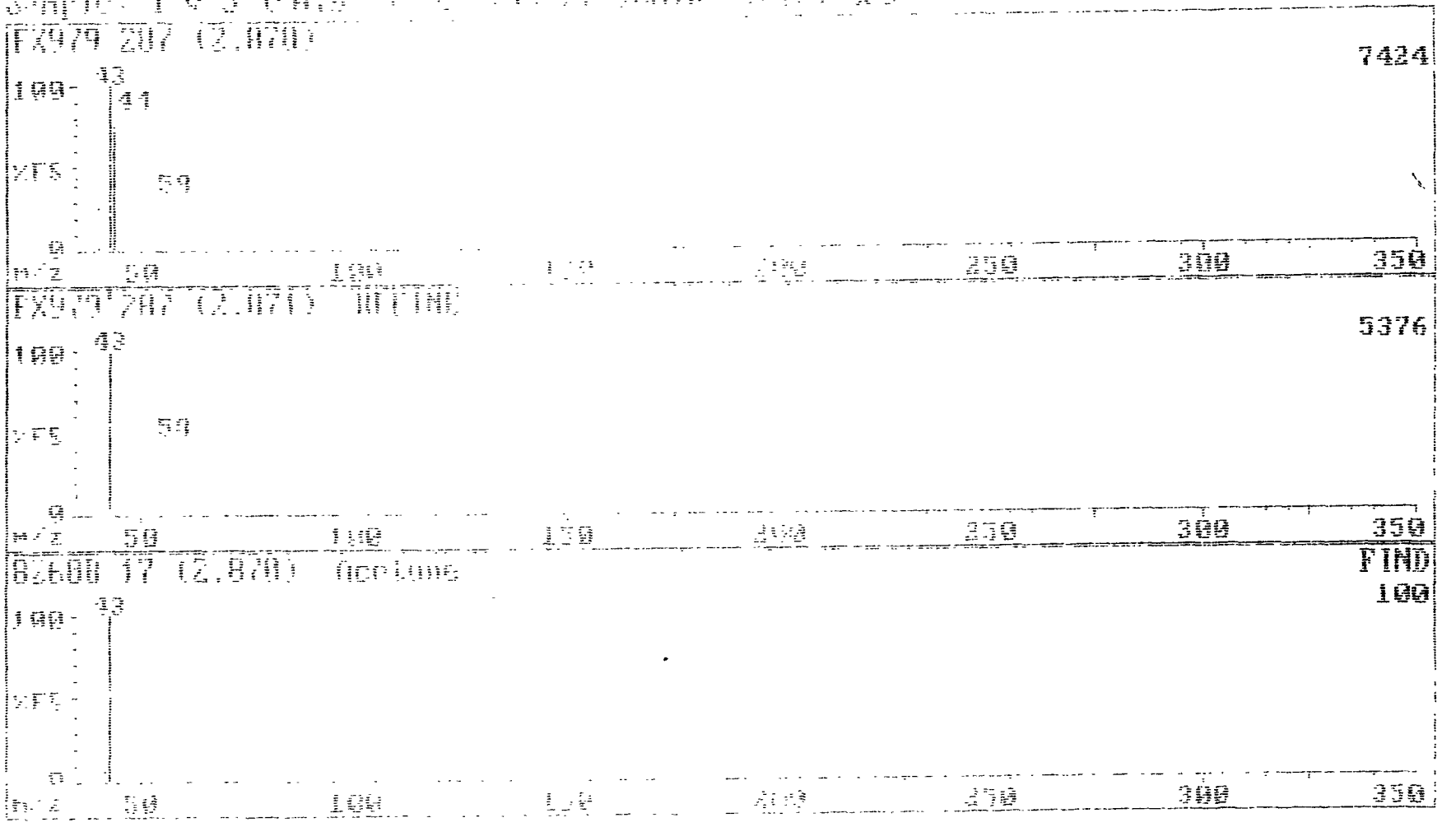
Sample: [illegible] Instrument F




24-Aug-99 12:14
(919) 544-5729
Instrument F
FX979 270 (2.700)
39936
100
XFS
0
m/z 50 100 150 200 250 300 350
FX979 270 (2.700)
39936
100
XFS
0
m/z 50 100 150 200 250 300 350
82600 16 (2.040)
FIND
100
100
XFS
0
m/z 50 100 150 200 250 300 350

(919) 544-5729

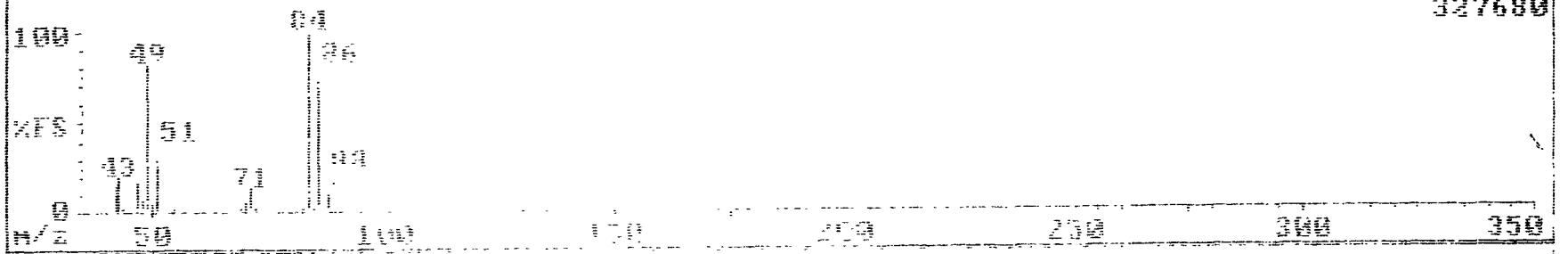
Instrument F



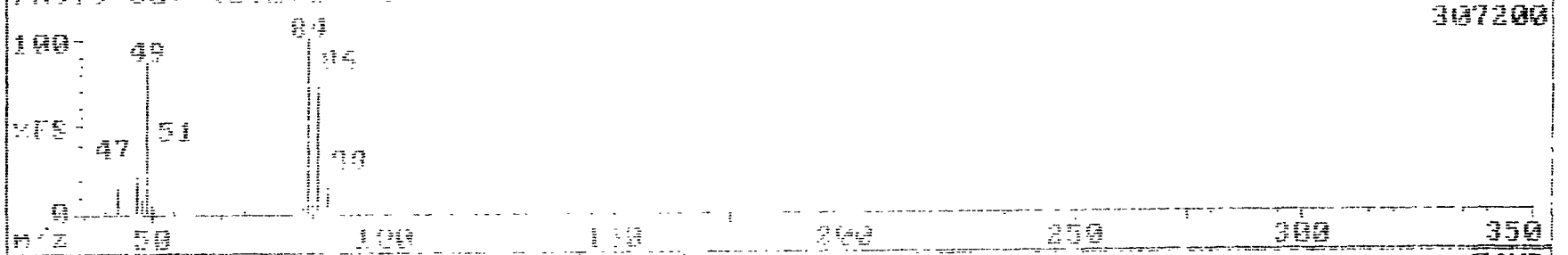
(310) 514-5729

Sample: [illegible] Instrument F

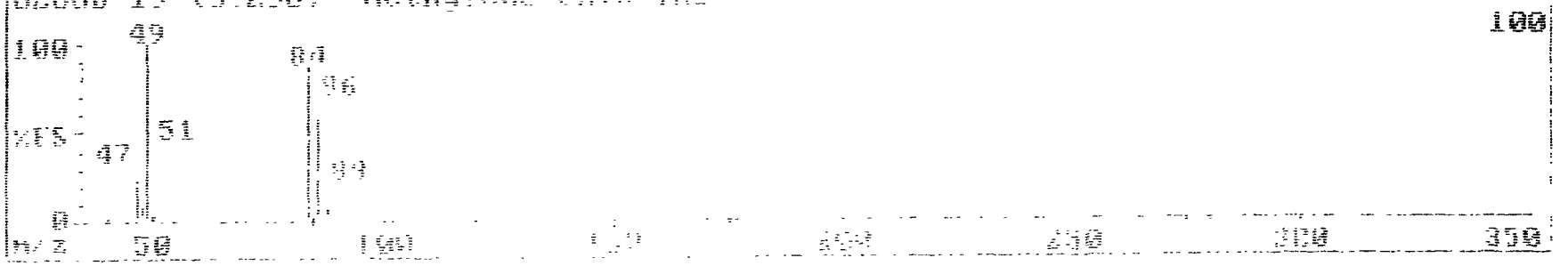
FX979 327 (0.270)



FX979 327 (0.270) [illegible]

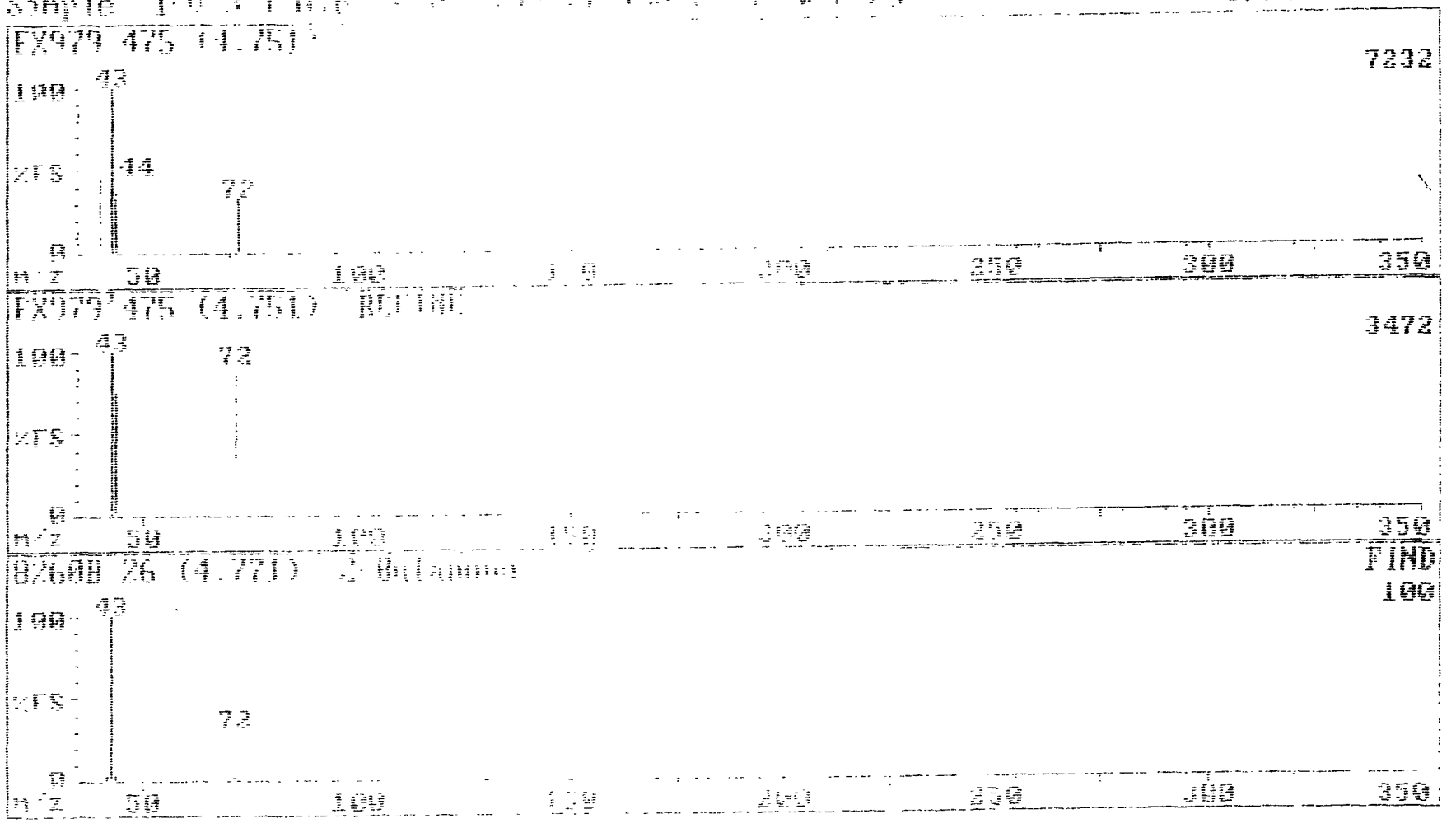


B2600 19 (0.290) Methylene chloride



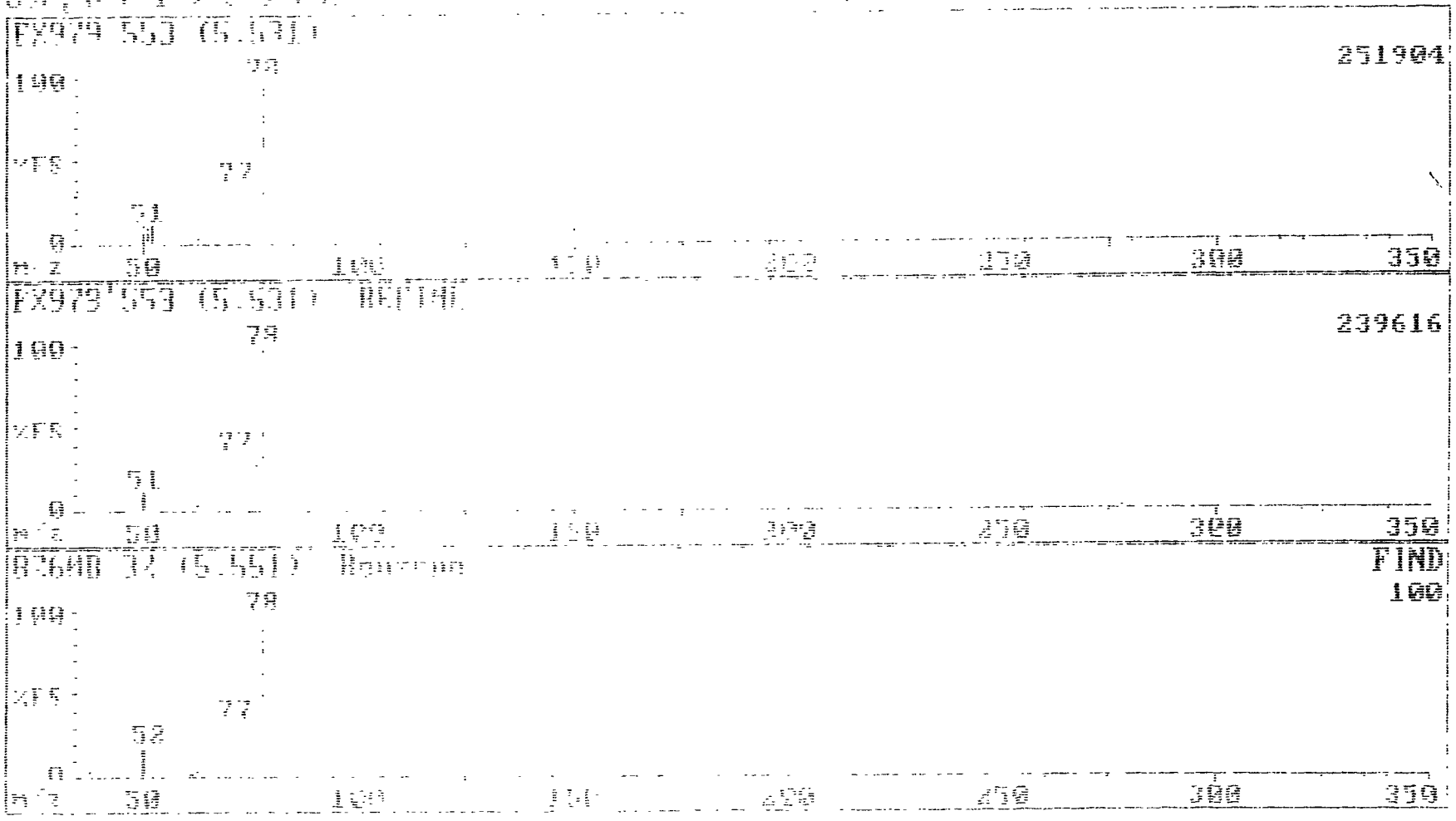
24-Aug-98 12:14 [illegible] Inc. (919) 544-5729

Sample: T-U 3 1 [illegible] Instrument F



21 Aug 98 12:14 Triangle Laboratories, Inc. (919) 544-5729

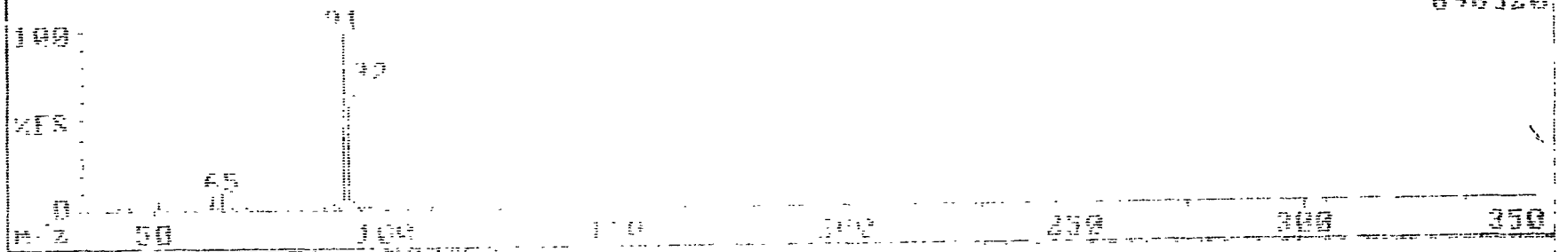
Sample: [illegible] Instrument F



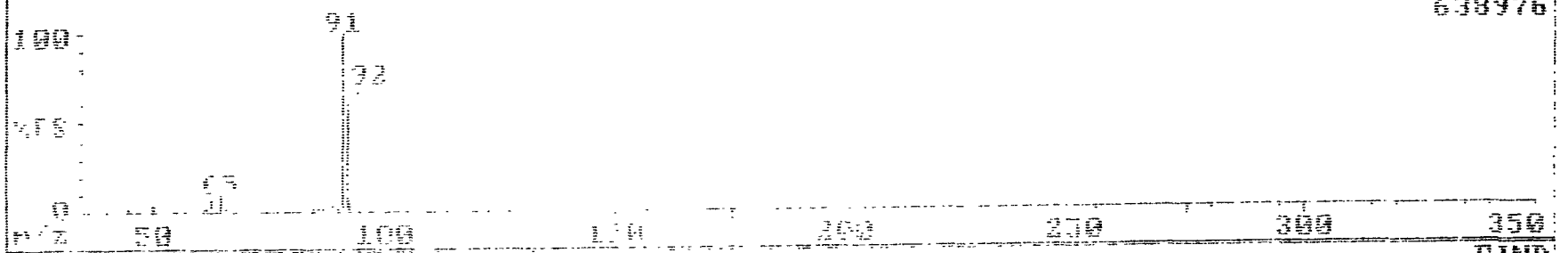
24-Aug-98 12:14 [illegible] Inc. (908) 941-5729

Sample: T-U-3-1 0,B [illegible] Instrument F

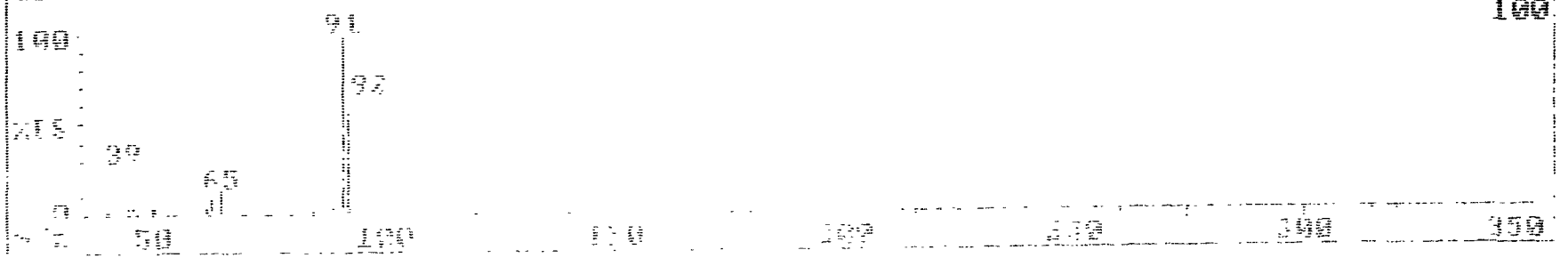
FX979 012 (8.121)



FX979'012 (8.121) OFFMC



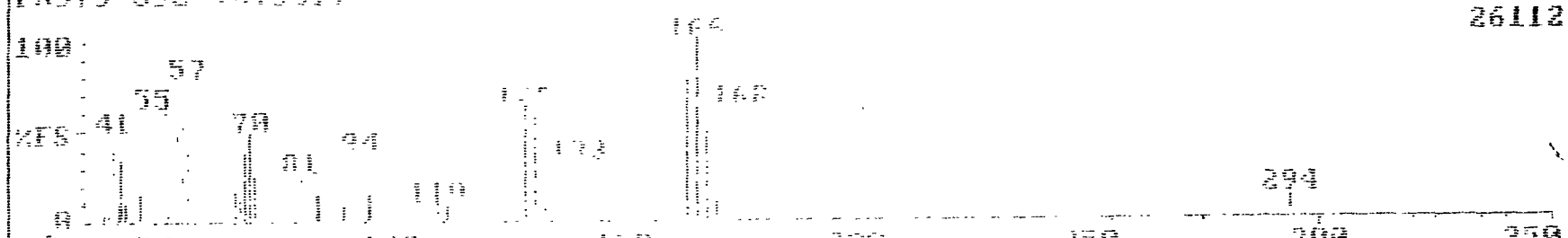
B2600 41 (8.131) Toluene



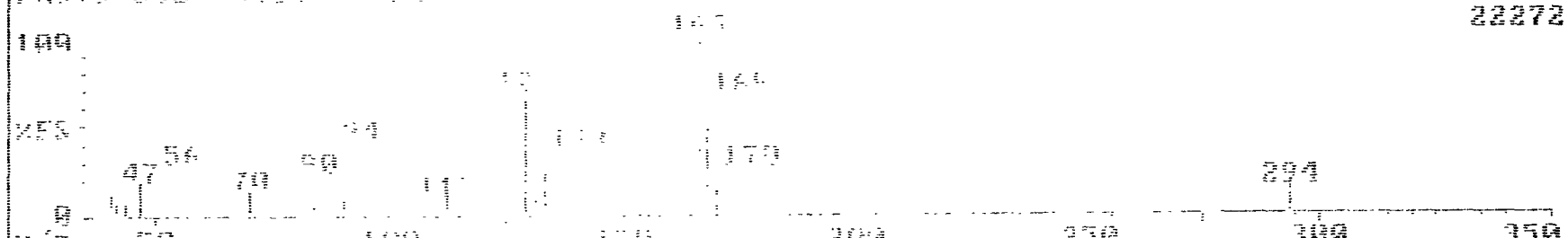
21-Aug-98 [illegible] Intron Laboratories, Inc. (800) 544-5729

Sample: [illegible] Instrument F

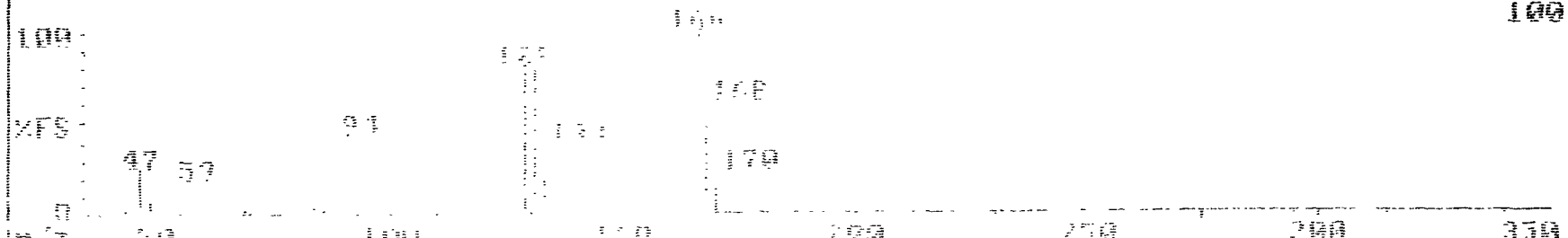
PX979 896 (0.961)



PX979 896 (0.961) [illegible]



D2600 45 (0.961) Tetrachloroethene



U 150

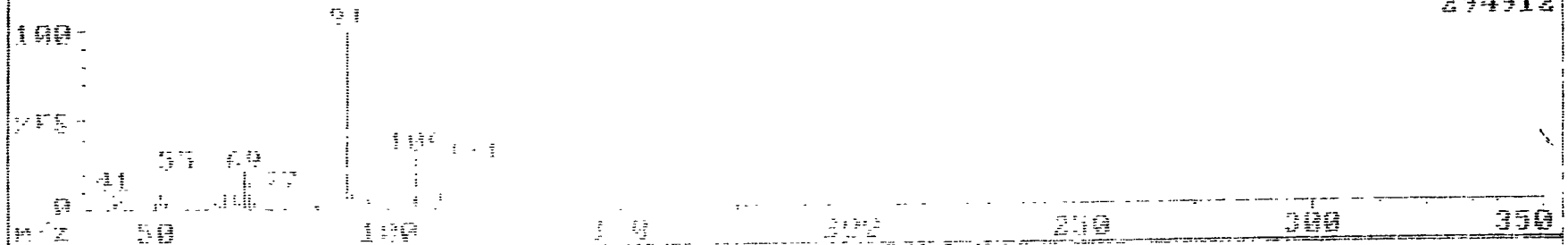
352

24-May 98 12:14 [illegible] (919) 544-5729

Sample: T-U-3-1-0,D [illegible] Instrument F

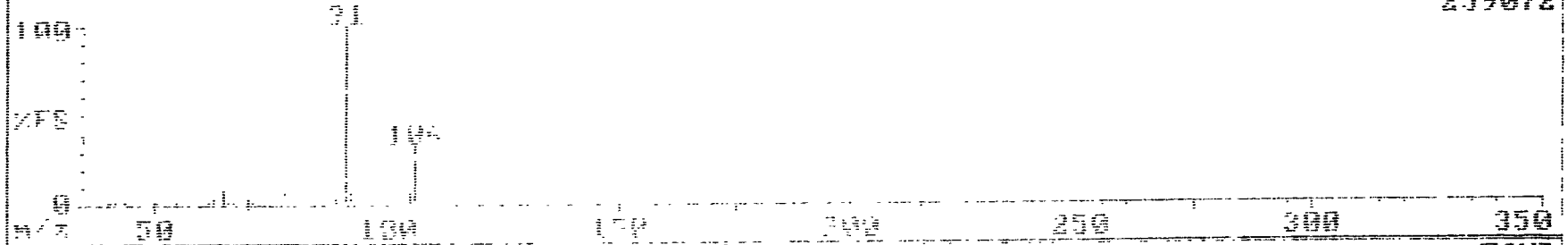
FX979 1071 (10.710)

294912



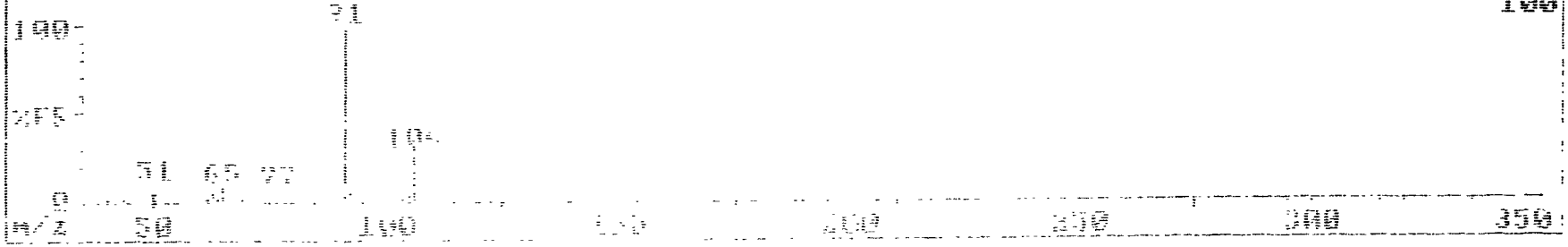
FX979 1071 (10.710) [illegible]

259072



B2608 52 (10.721) Ethylbenzene

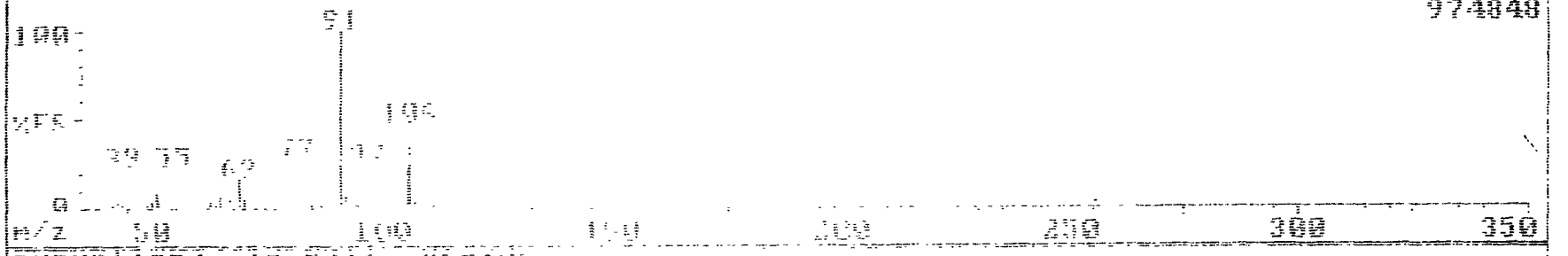
FIND
100



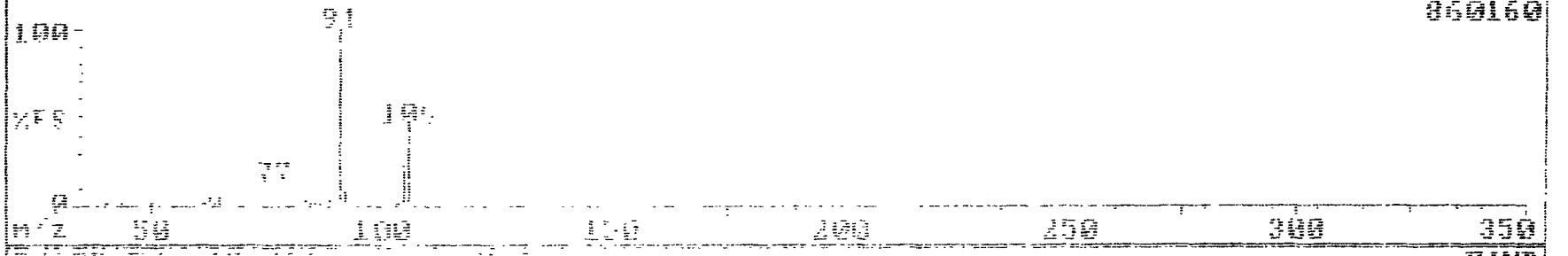
24-Aug-'88 12:14 Analytical Laboratories, Inc. (919) 544-5729

Sample: I-V-)-1-0.8 [illegible] 70.0M46323 Instrument F

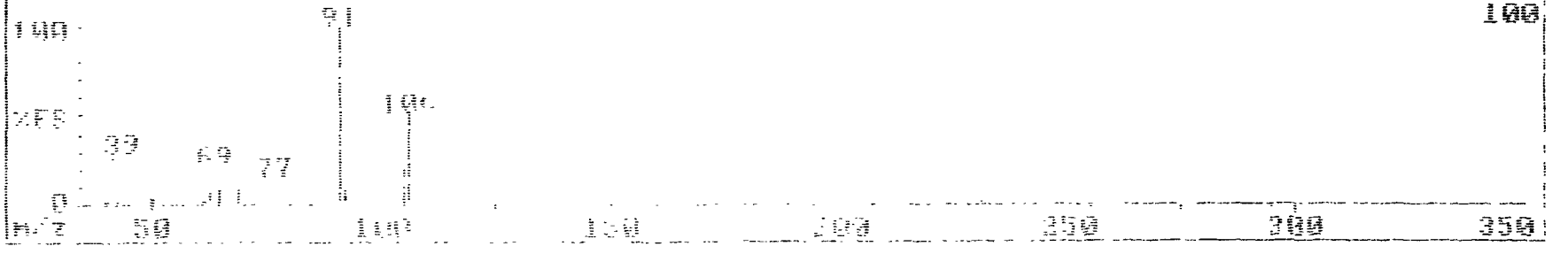
FX979 1094 (10.941)



FX979 1094 (10.941) [illegible]



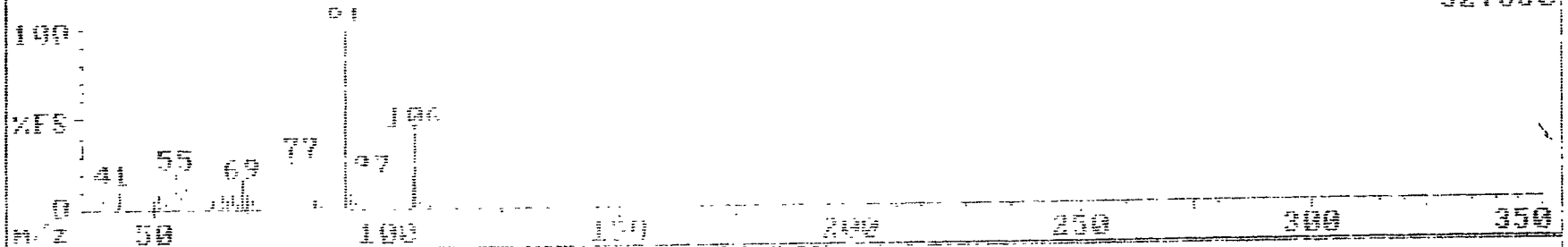
B2648 53 (18.361) n-Tp Xylene



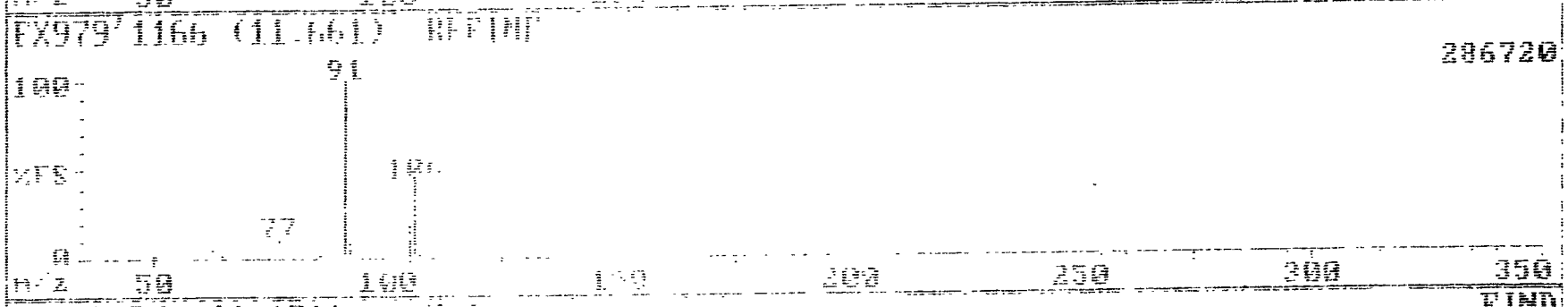
24-Aug-99 12:14 [illegible] (919) 544-5729

Sample: [illegible] Instrument F

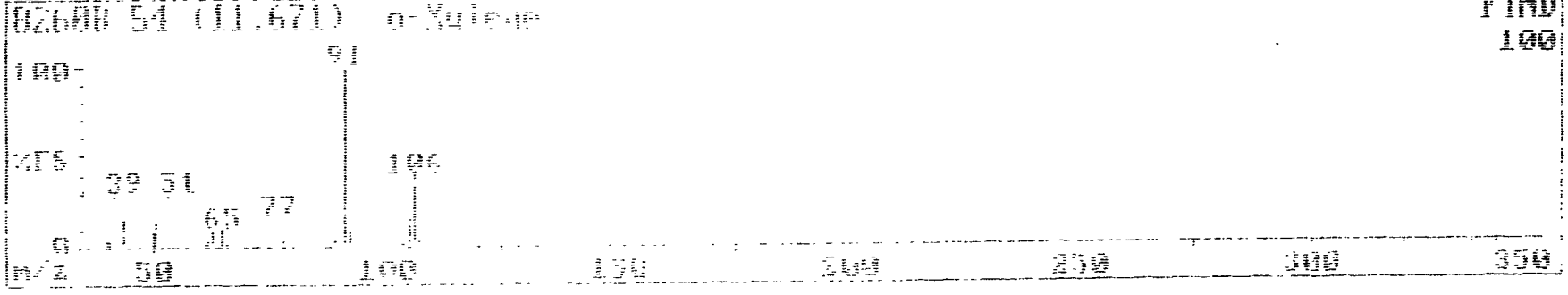
FX979 1166 (11.661)



FX979 1166 (11.661) BPFIMF



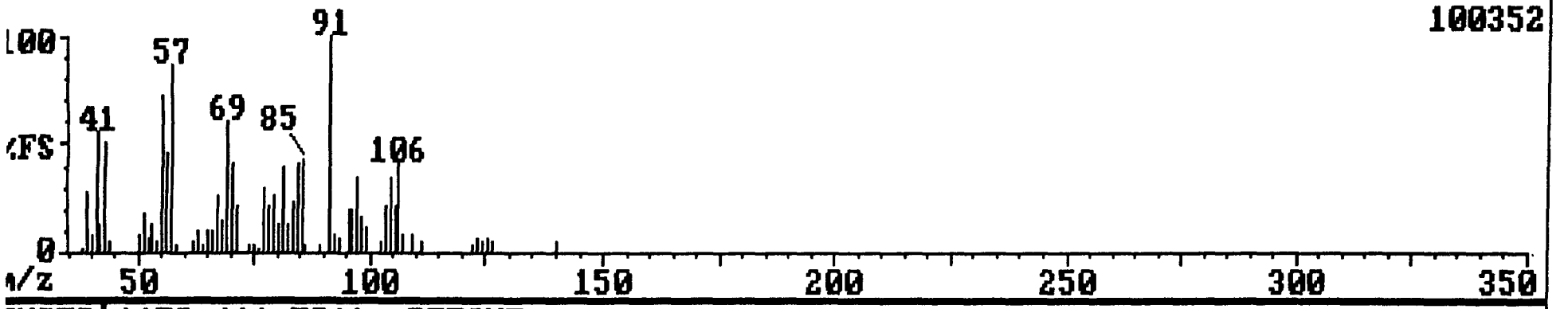
02AAU 54 (11.671) o-Xylene



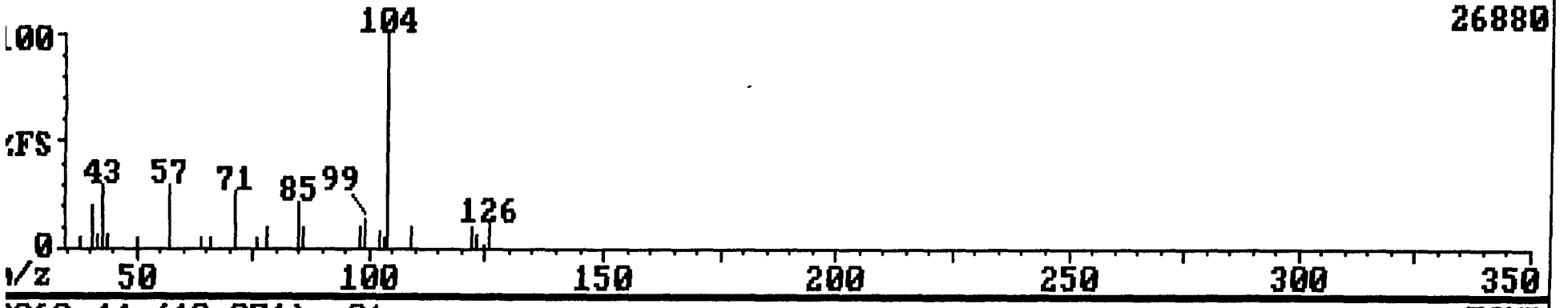
:4-Aug-98 12:14 Triangle Laboratories, Inc. (919) 544-5729

:ample: T-V-3-1-A,B T/TC 214-27-16A,B TLI#46323 Instrument F

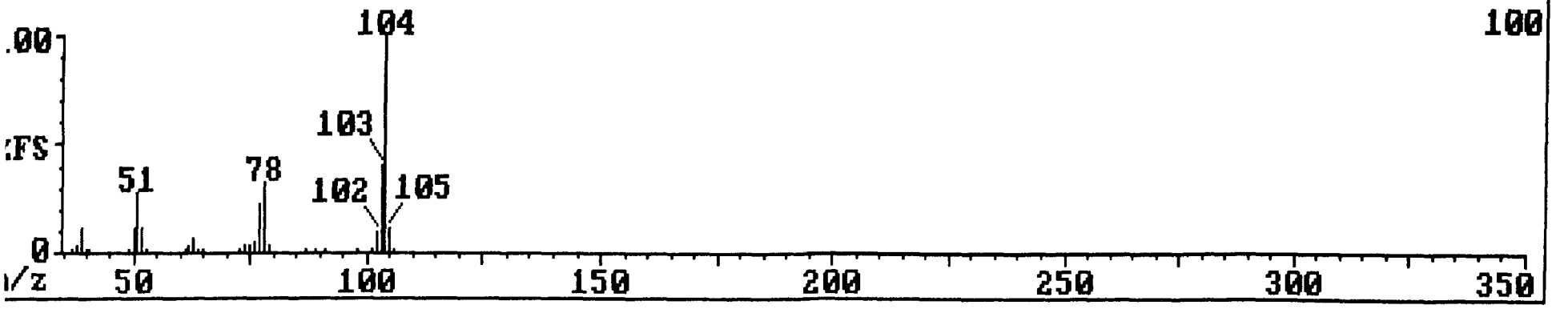
:X979 1172 (11.721)

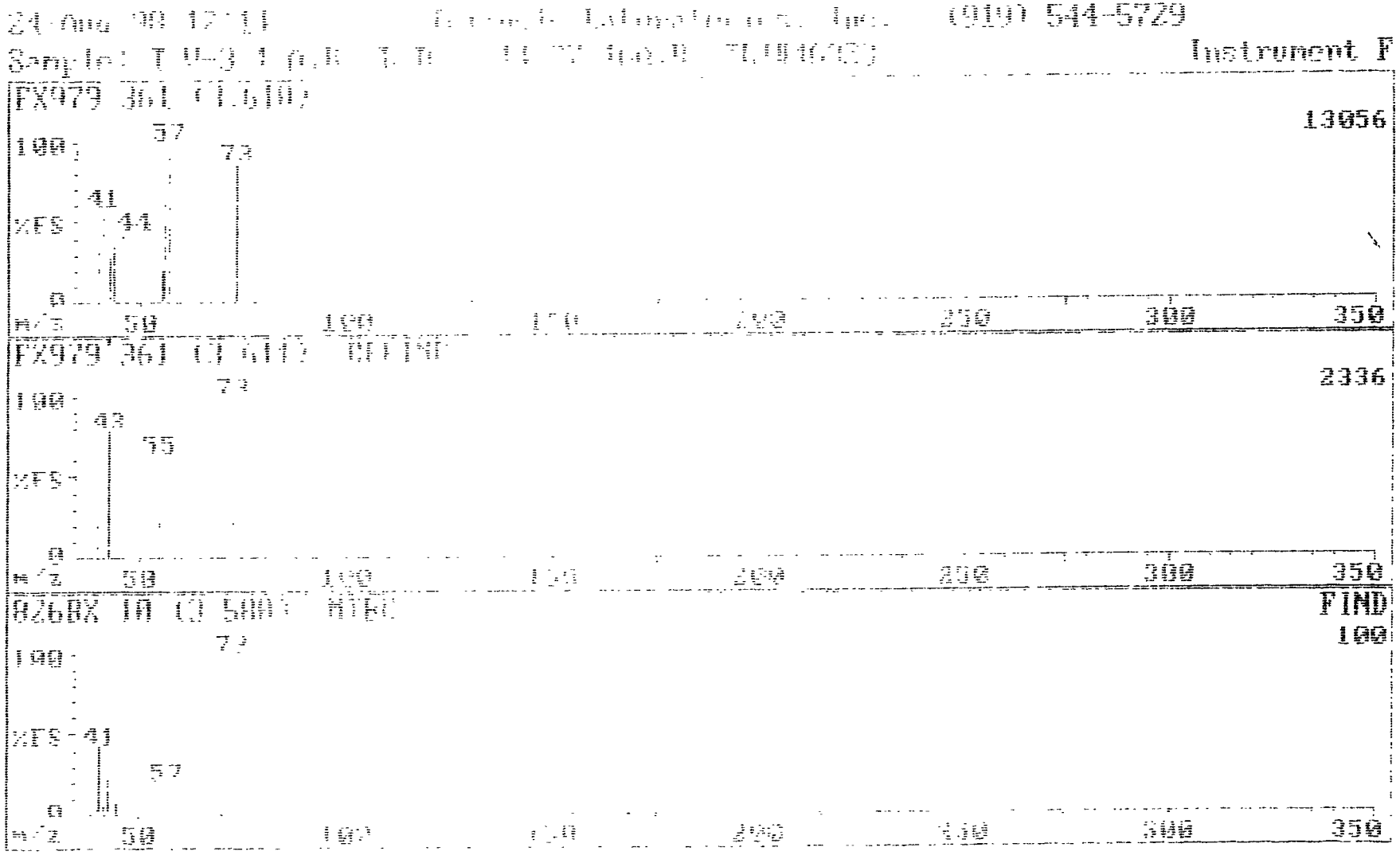


:X979 1172 (11.721) REFINE



)260 44 (12.371) Styrene FIND

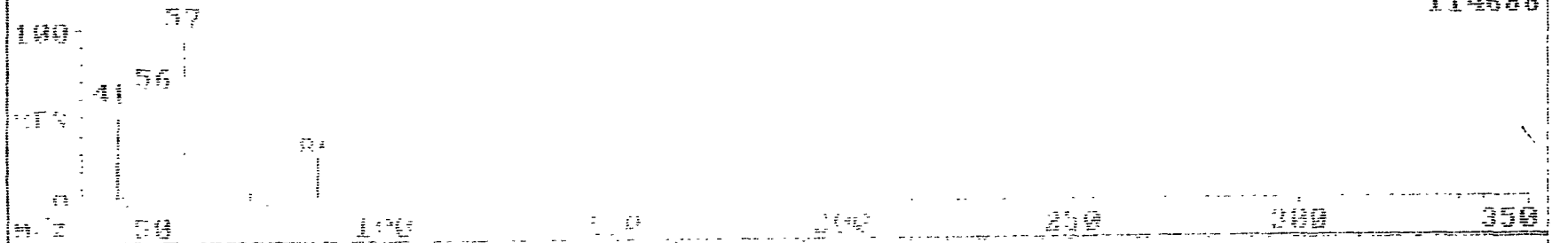



(919) 544-5729
Instrument F
13056
2336
FIND
100
m/z
50
100
150
200
250
300
350
%FS
0
57
73
41
44
75
41
57

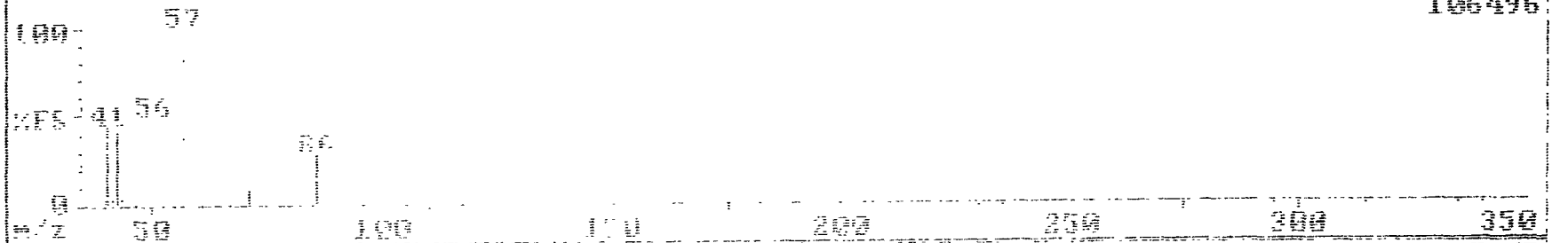
24-Aug-98 [illegible] Instrument (s), Inc. (9100) 944-5729

Sample: [illegible] Instrument F

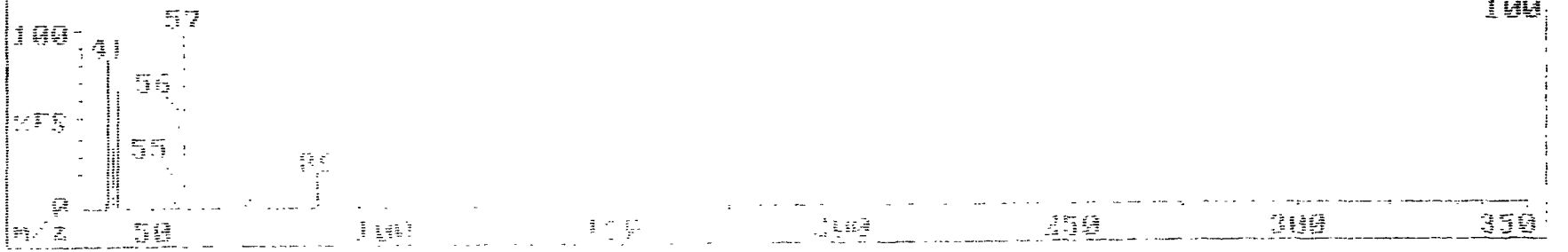
FX979 309 (3.09m) 114688



FX979 309 (3.041) 106496



8260X 11 (3.070) n-Hexane FIND 100



24 Aug-98 [illegible]

Sample: T-V-3-1 0.P [illegible] Instrument F

PX979 560 (5.681)

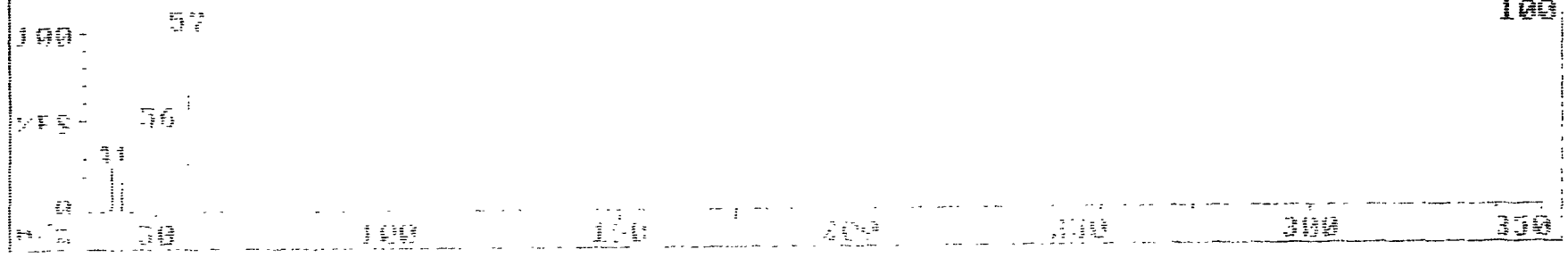
32256

PX979 560 (5.681) [illegible]

7040

B20BX 13 (5.671) Iso [illegible]

FIND
100



Pacific Environmental Services

:oject Number: 46323
ample File: FX980

Method 8260 VOST
Sample ID: T-V-3-2-A,B T/TC

lient Project: R012.001
LI ID: 214-27-17A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

nalyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
entafluorobenzene		IS 1	5.30		
hloromethane		U		0.001	0.05
inyl Chloride		U		0.001	0.05
romomethane		U		0.001	0.05
hloroethane		U		0.001	0.05
richlorofluoromethane	0.011	J	2.07		0.05
,1-Dichloroethene		U		0.001	0.05
odomethane		U		0.001	0.05
arbon disulfide	0.017	J	2.78		0.05
cetone		U		0.004	0.05
llyl chloride		U		0.001	0.05
Methylene chloride	0.828		3.27		0.05
crylonitrile		U		0.020	0.05
rans-1,2-Dichloroethene		U		0.001	0.05
,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
is-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.131		5.52		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Pacific Environmental Services

Project Number: 46323 | Method 8260 VOST
Sample File: FX980 | Sample ID: T-V-3-2-A,B T/TC

Client Project: R012.001 | Date Received: 07/29/98 | Response File: ICALF821
TLI ID: 214-27-17A,B
Date Analyzed : 08/24/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.005	0.05
Toluene	0.200		8.10		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.35		
Tetrachloroethene	0.015	J	8.93		0.05
2-Hexanone		U		0.008	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.065		10.67		0.05
m-/p-Xylene	0.314		10.91		0.10
o-Xylene	0.118		11.63		0.05
Styrene	0.036	J	11.69		0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.73		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Pacific Environmental Services

Project Number: 46323
Sample File: FX980

Method 8260 VOST
Sample ID: T-V-3-2-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-17A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.205	5.18	1	82
Toluene-d_8	0.260	8.00	2	104
4-Bromofluorobenzene	0.333	12.66	2	133

Reviewed by GAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Savar v3.7
Printed: 16:49 08/25/1998

Pacific Environmental Services

Project Number: 46323
Sample File: FX980

Method 8260 VOST
Sample ID: T-V-3-2-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-17A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF824

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.022	J	3.60		0.25
n-Hexane	0.135	J	3.89		0.25
1,2-Epoxybutane		U		0.024	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.007	0.25

Reviewed by RAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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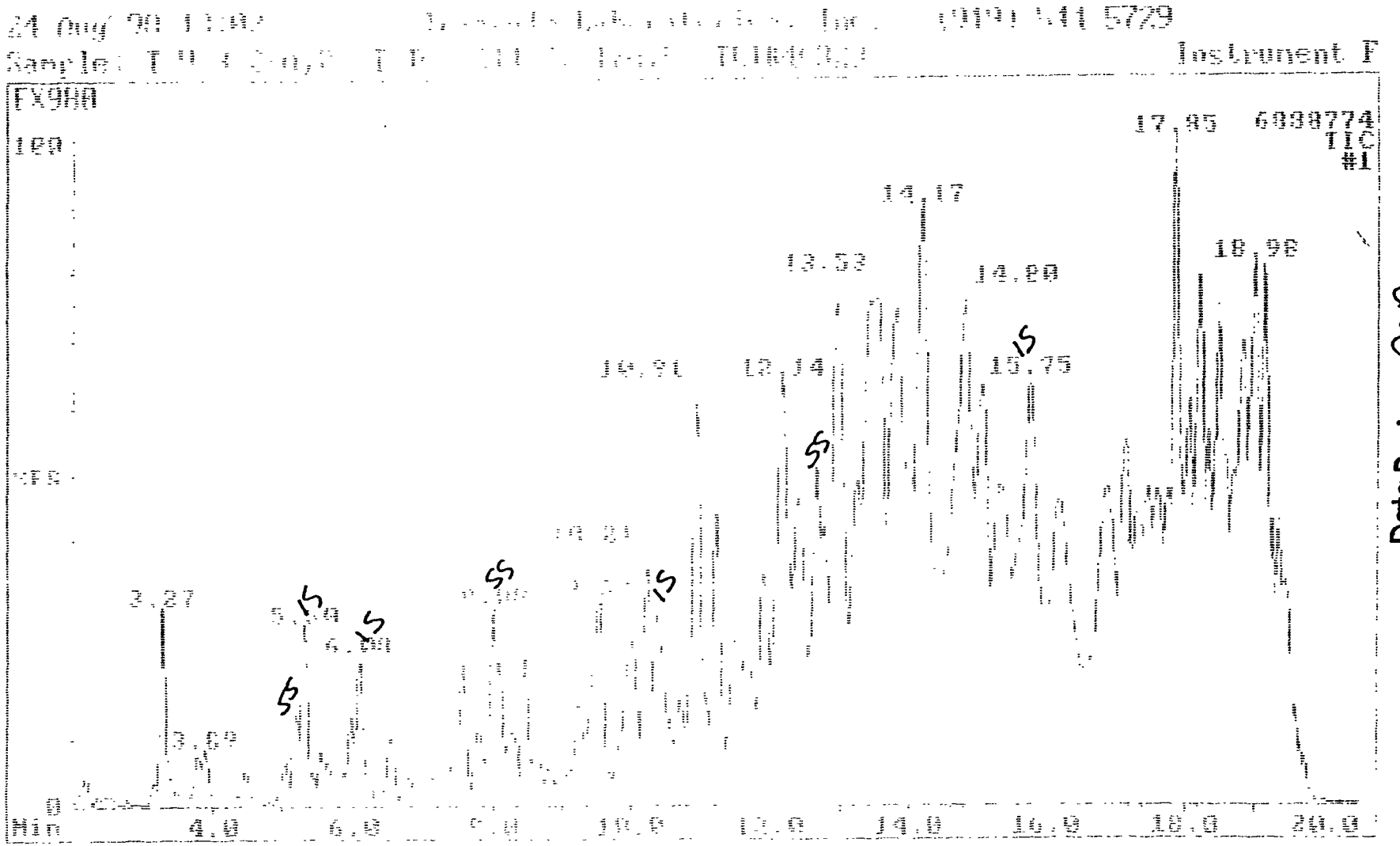


Data Review: BaB
Date: 8/24/98

138560 – PAB ——— 207

PAB

PAB

PAB

PAB

PAB

Data Review: PAB
Date: 8/24/98

461056 ~ Ⓜ PAB ——— 11.69

PAB

PAB

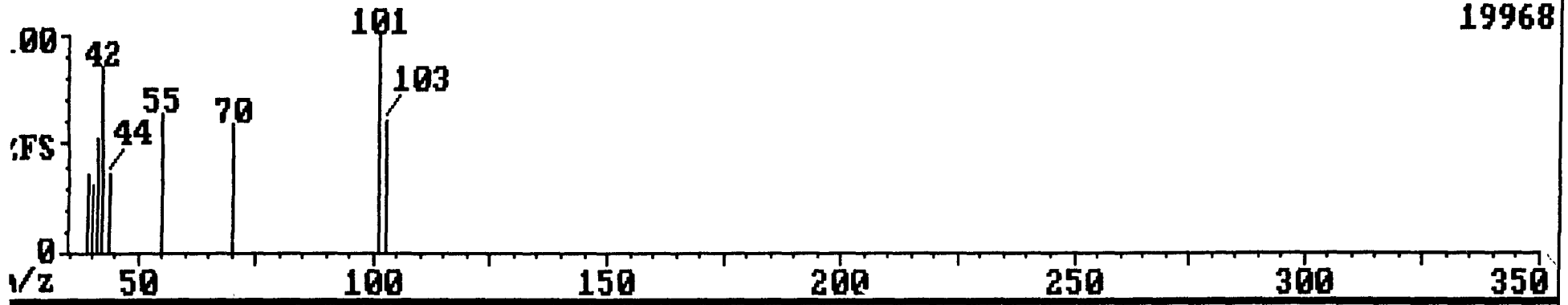
PAB

PAB

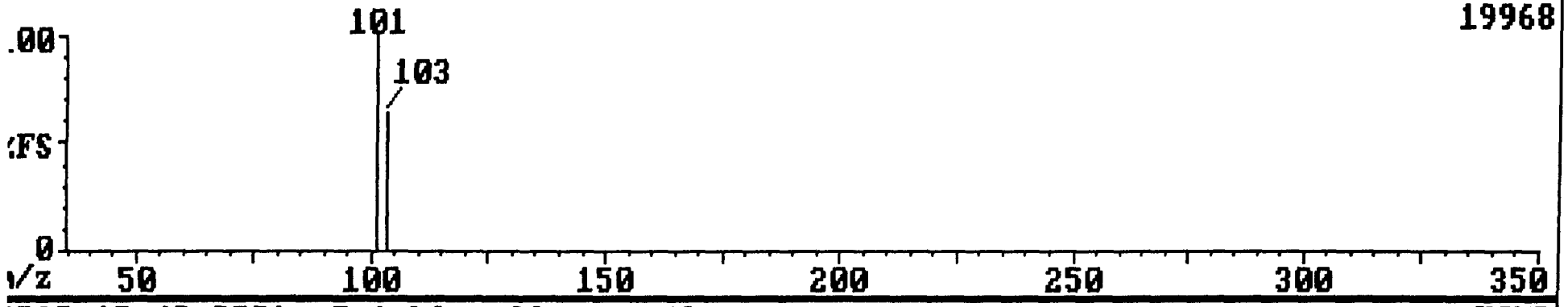
4-Aug-98 13:02 Triangle Laboratories, Inc. (919) 544-5729

ample: T-V-3-2-A,B T/TC 214-27-17A,B TLI#46323 Instrument F

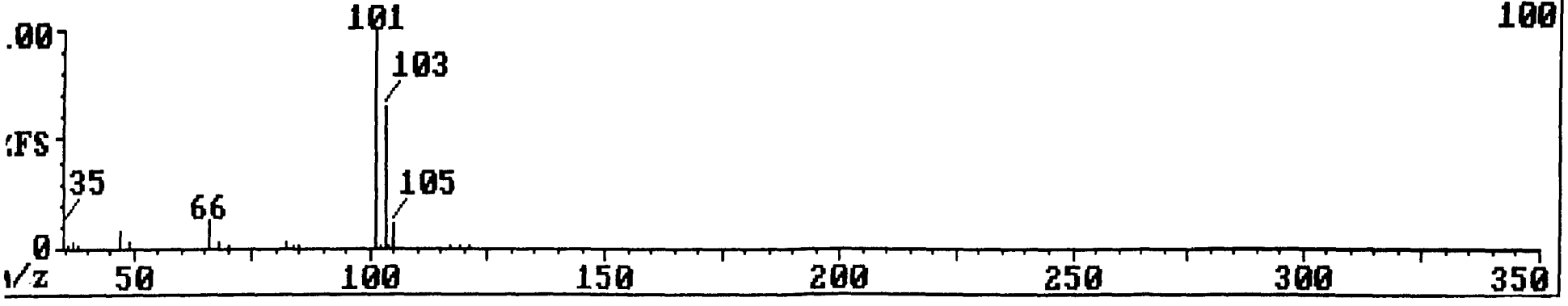
'X980 207 (2.070)



'X980 207 (2.071) REFINE



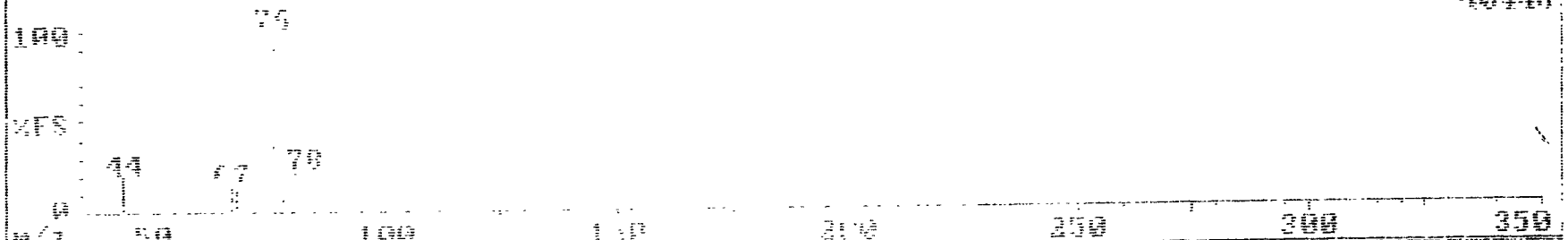
260 13 (2.300) Trichlorofluoromethane FIND



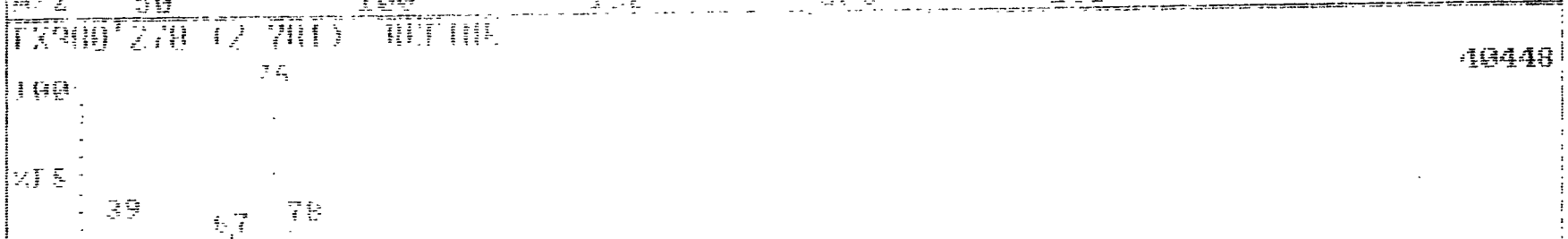
24-Aug-98 11:08 [illegible] (919) 544-5729

Sample: [illegible] Instrument F

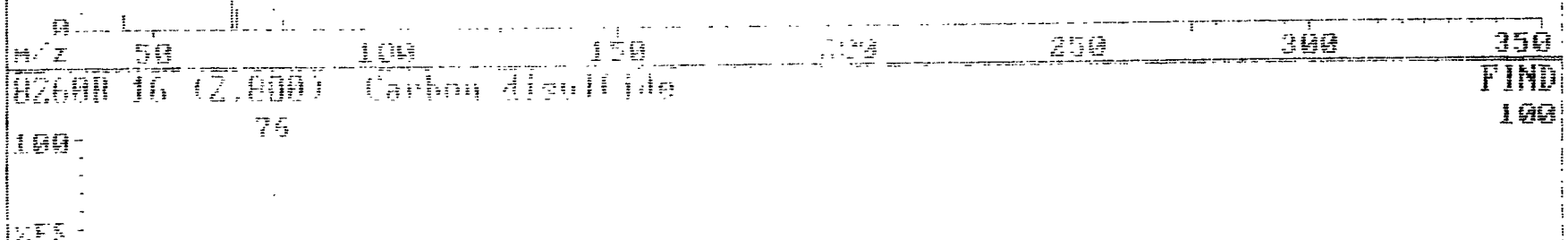
PX900 270 (2.700) 40448



PX900 270 (2.700) BUTUNA 40448



B2600 16 (2.800) Carbon disulfide FIND 100



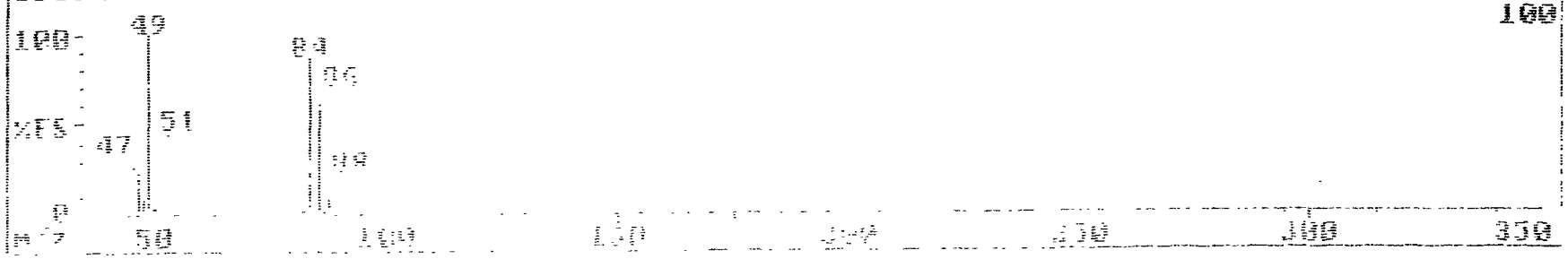
24-Aug 98 11:02 [illegible] (800) 544-5729

Sample: I-V-3-2-0,R [illegible] Instrument F

FX980 327 (3.270) 520192

FX980 327 (3.270) [illegible] 479232

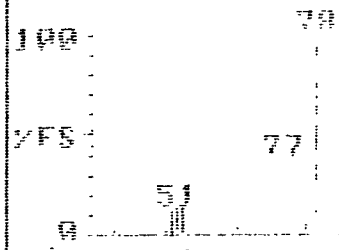
62600 19 (3.200) [illegible] FIND 100



24-Aug-98 13:02 [illegible] Laboratories, Inc. (800) 544-5729

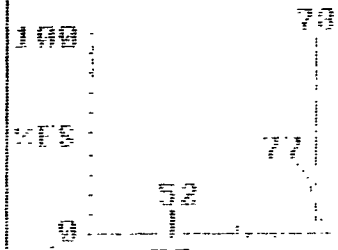
Sample: T-V-3-2-0.M [illegible] Instrument F

PX900 552 (5.521)



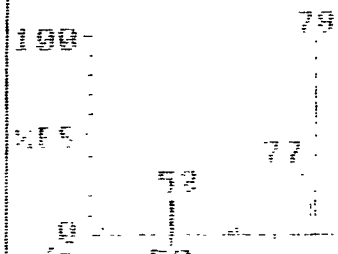
311296

PX900 552 (5.521) MFIND



286720

826HB 32 (5.551) Nonscan

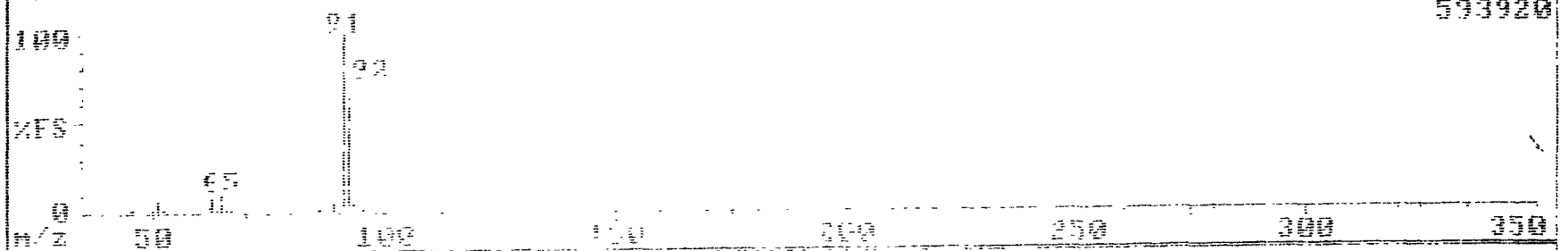


FIND
100

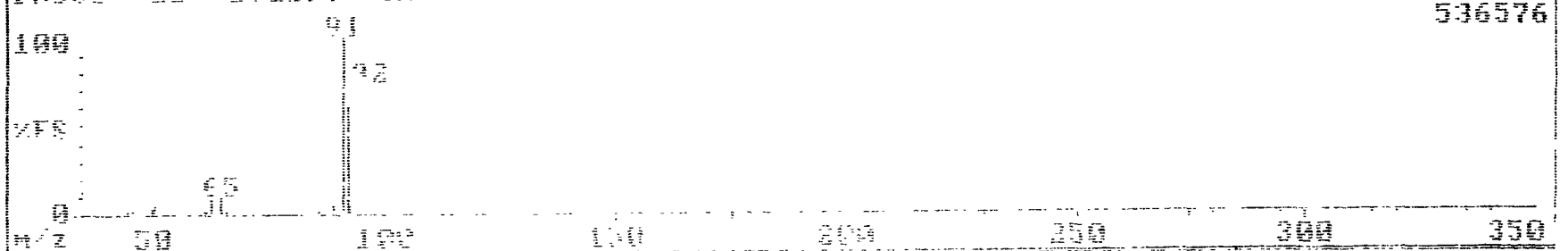
24-Aug-98 13:04 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-U-7 2 0.0 T-0 [illegible] Instrument P

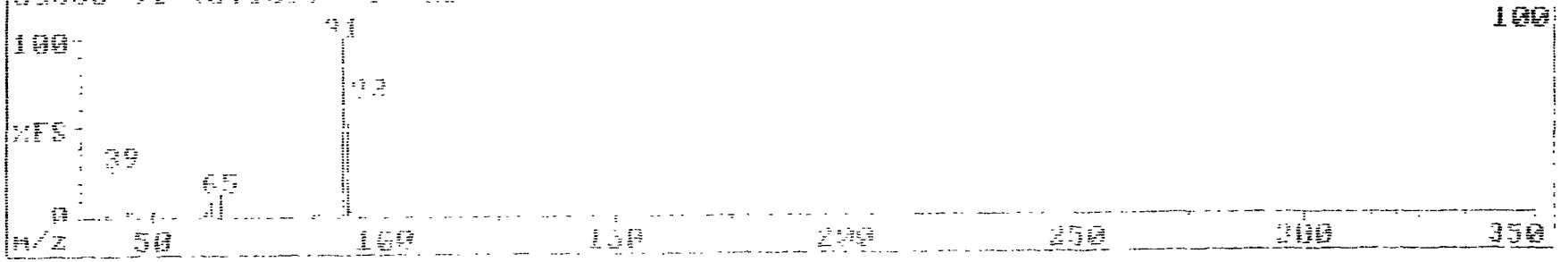
PX900 A10 (0.101)



PX900'A10 (0.101) NEFINE



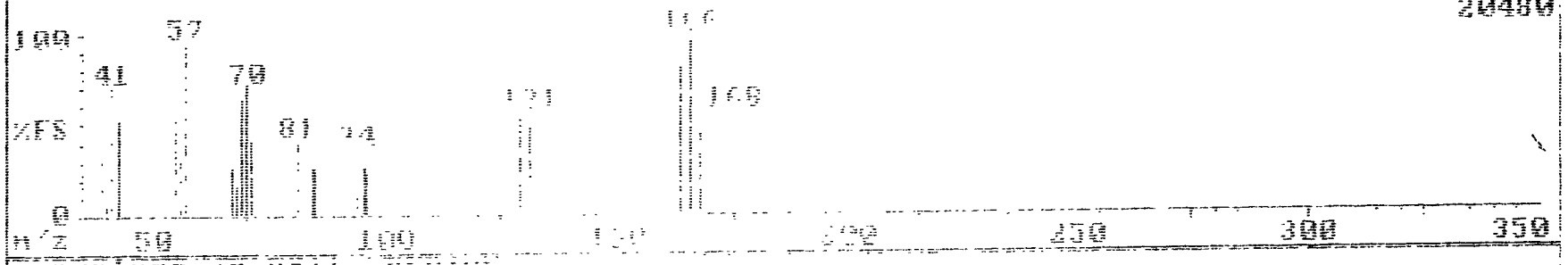
B2600 41 (0.130) Toluene



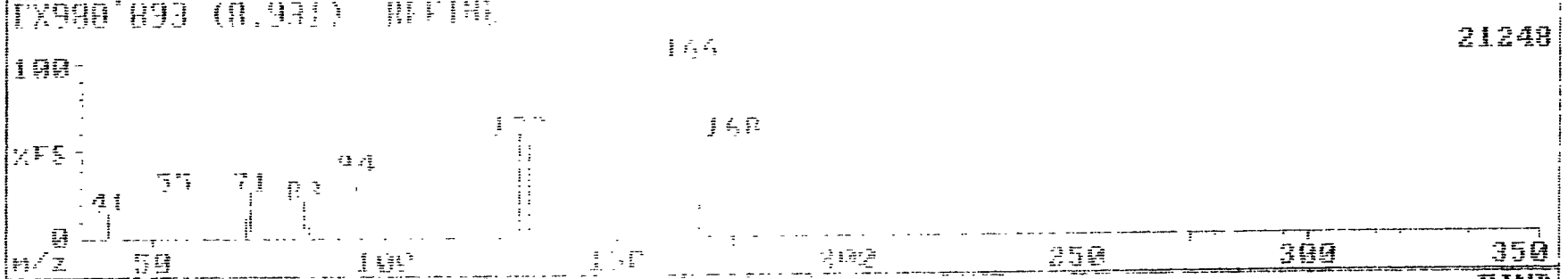
24-[illegible]-90 1:[illegible] [illegible] (910) 544-5729

Sample: T-[illegible] [illegible] Instrument F

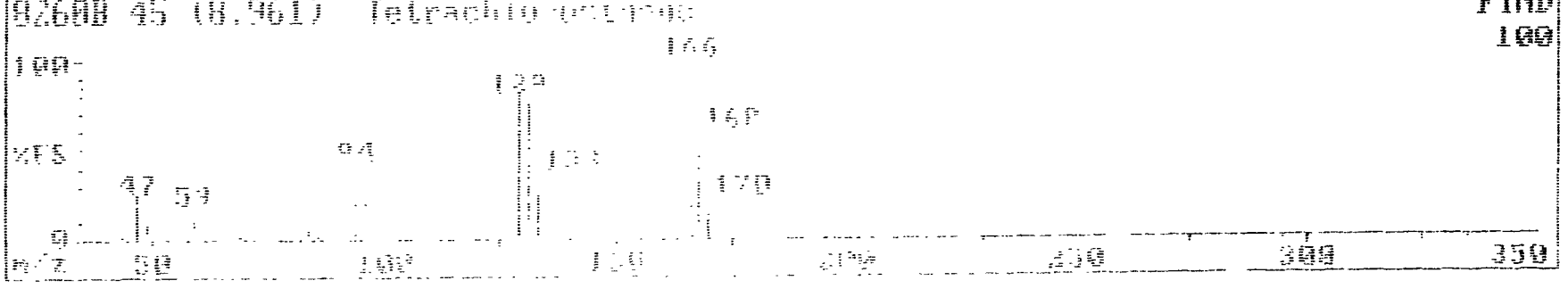
FX900 893 (0.901)



FX900 893 (0.931) MATCH



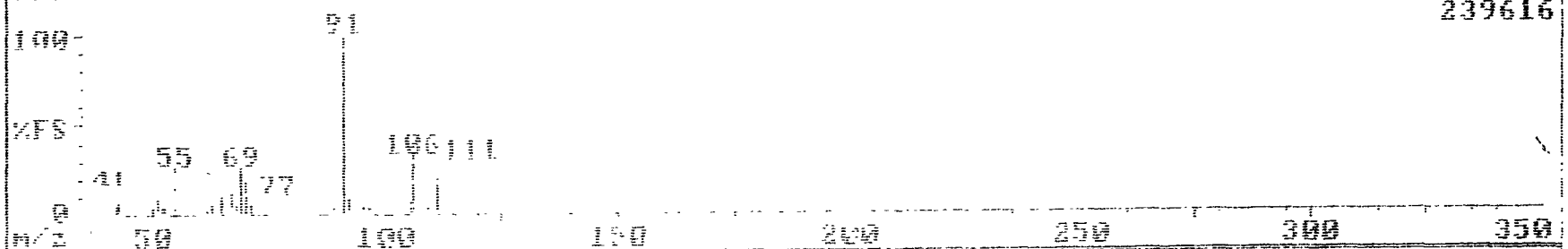
92600 45 (0.961) Tetrachlo[illegible]



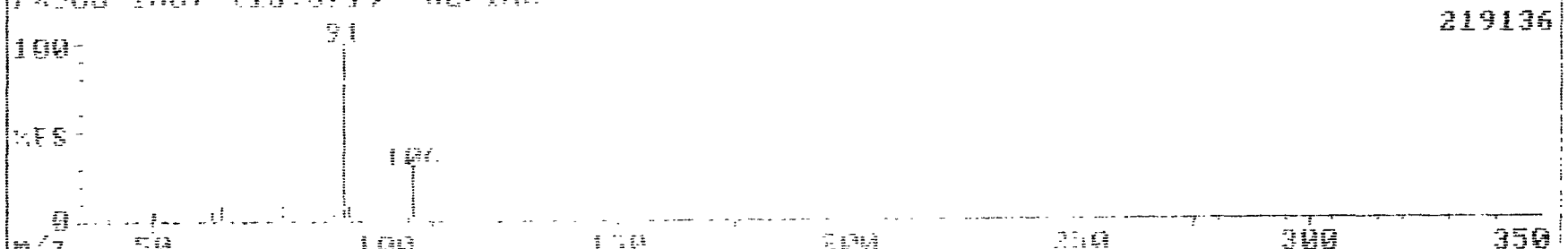
24 Aug 90 11:02 [illegible] Laboratories, Inc. (919) 544-5729

Sample: T U-0-3 0,K [illegible] Instrument F

FX900 1067 (10.671)



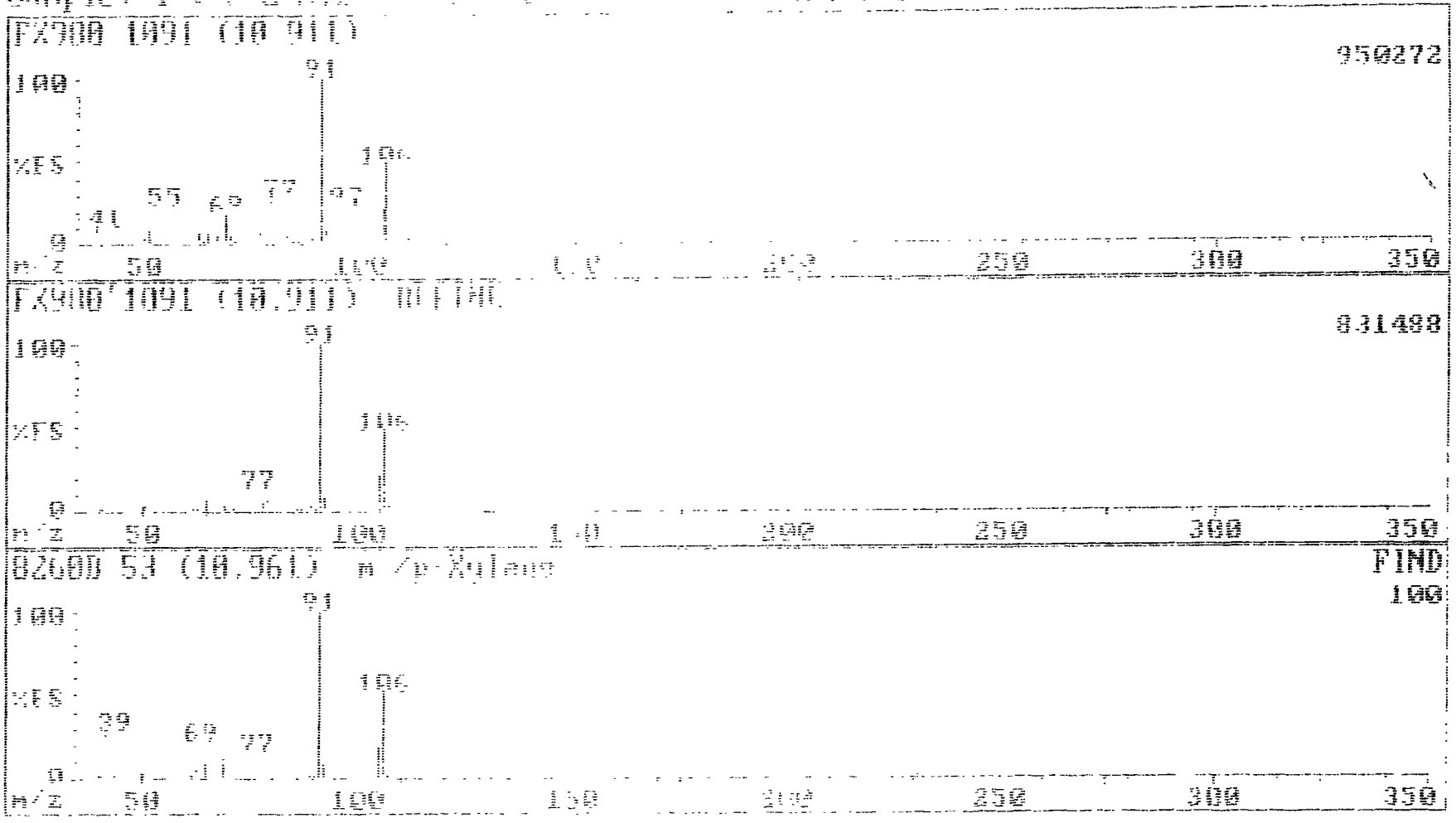
FX900 1067 (10.671) RLFINE



BZ600 52 (10.721) Ethylbenzene

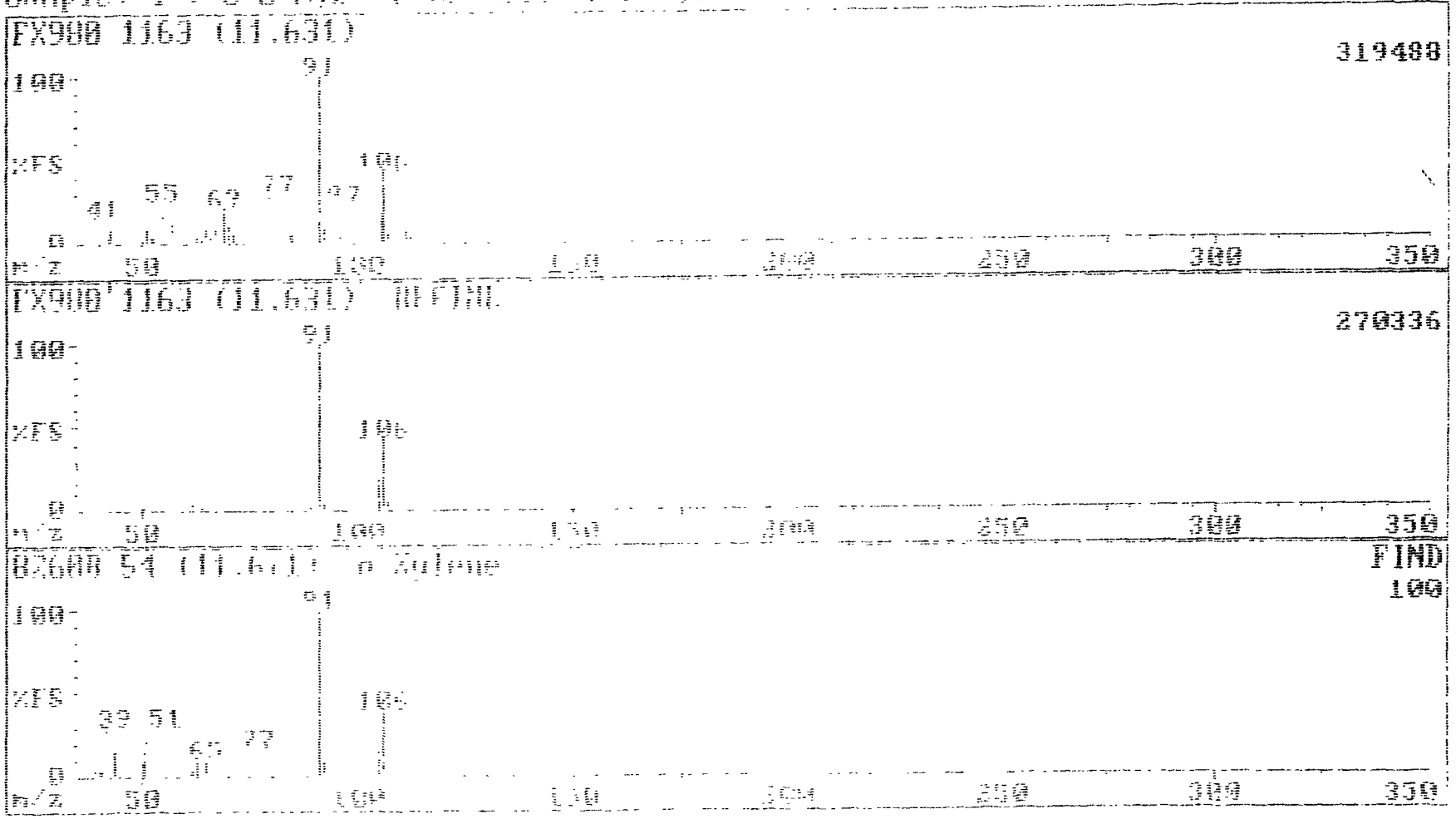
24-Aug 98 13:02 Intertek Laboratories, Inc. (919) 544-5729

Sample: 1-V-3-2 n,p [illegible] Instrument F



24-Aug-98 13:02 Triangle Laboratories, Inc. (919) 544-5729

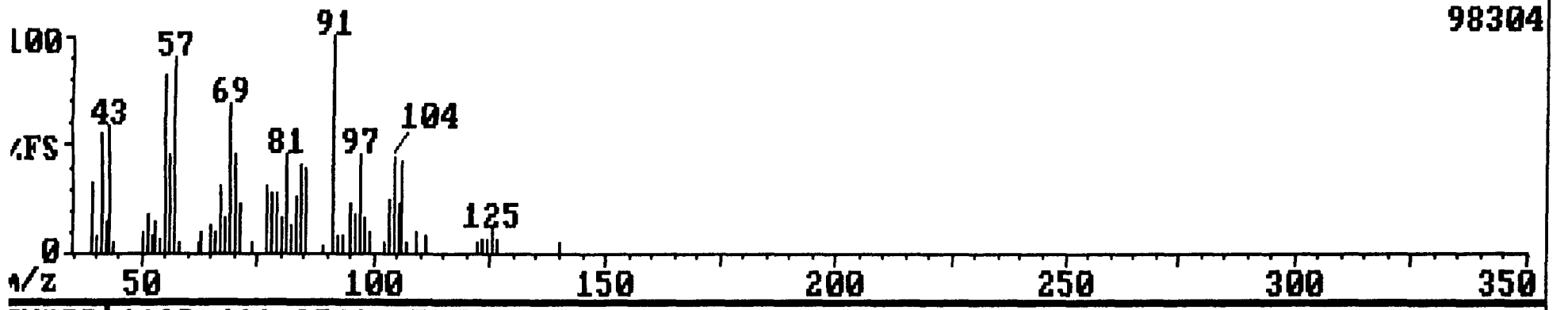
Sample: T-U-3-2-A,B T/TC A/M-A/P 1/0,B TL1#46323 Instrument F



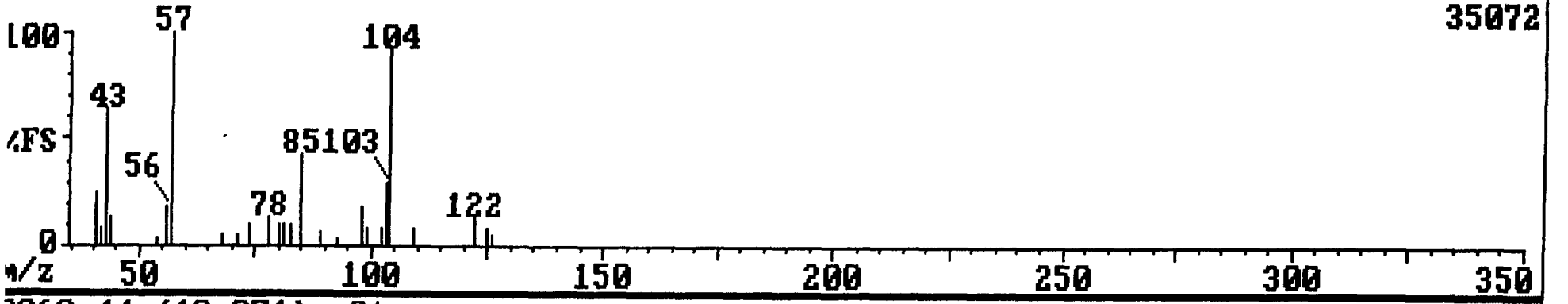
:4-Aug-98 13:02 Triangle Laboratories, Inc. (919) 544-5729

:ample: T-V-3-2-A,B T/TC 214-27-17A,B TLI#46323 Instrument F

FX980 1169 (11.691)

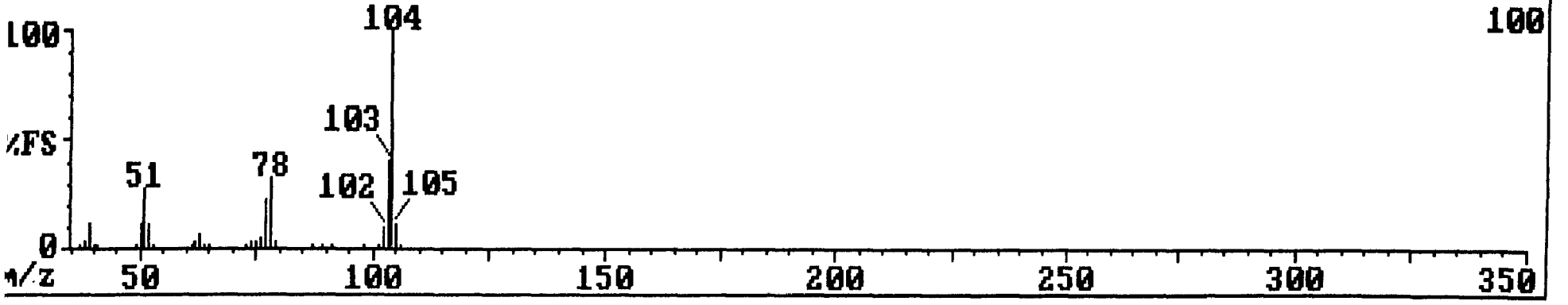


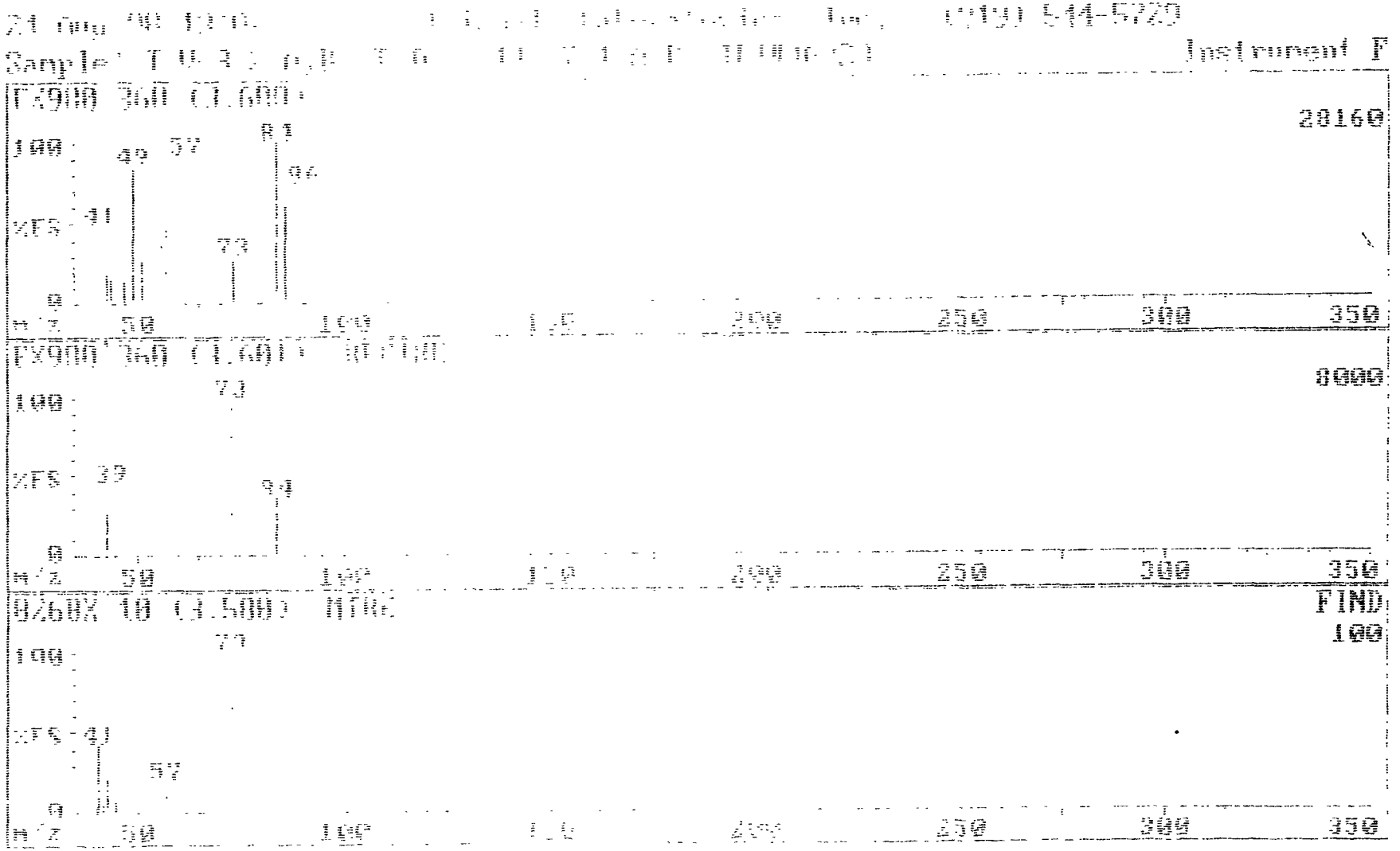
FX980 1169 (11.691) REFINE

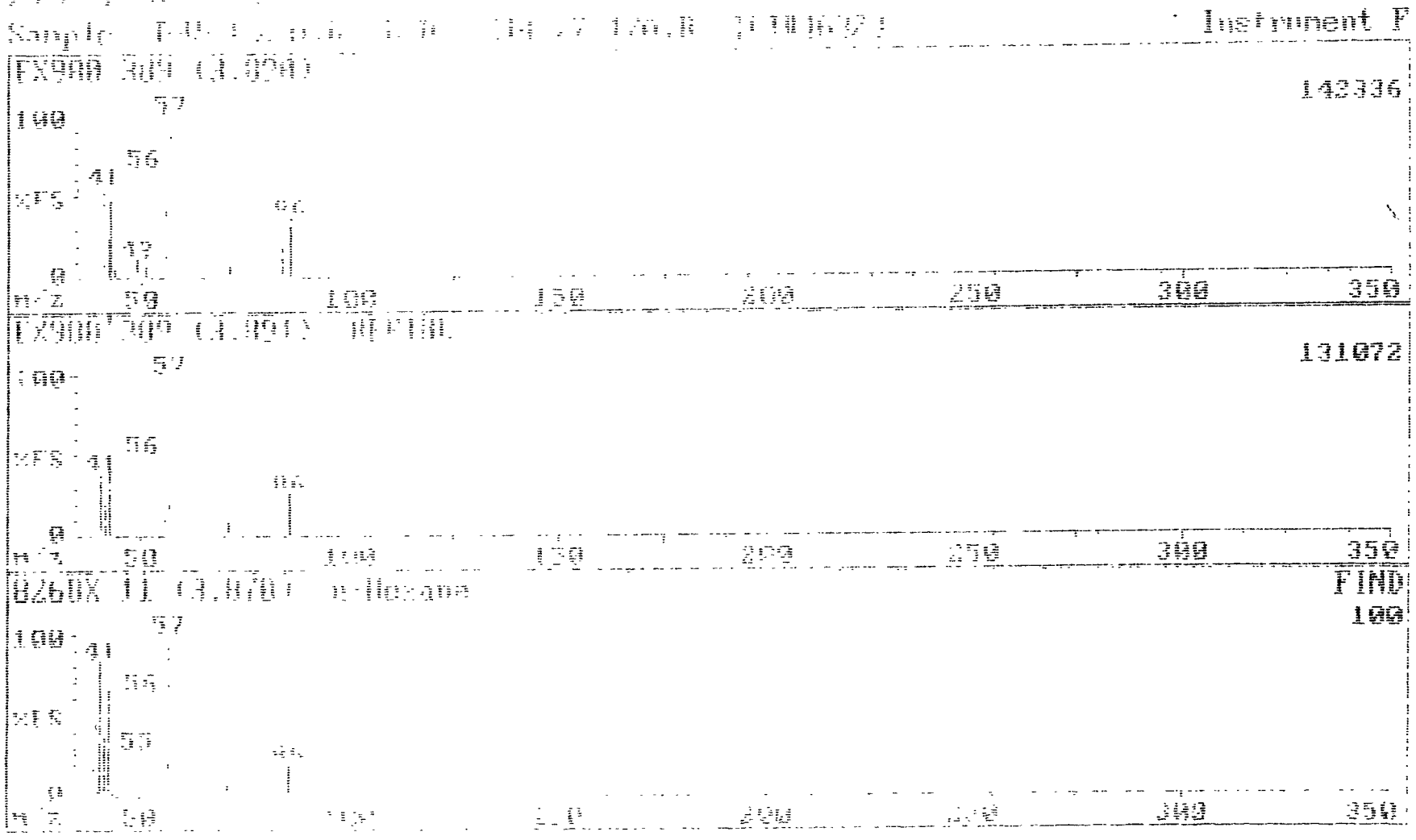


3260 44 (12.371) Styrene

FIND




Instrument F
28160
8000
FIND
100
100
%FS
0
m/z
50
100
150
200
250
300
350
49
57
81
94
91
72
72
39
97
77
41
57


Instrument F
FX900 300 (3.0000)
142336
100
57
56
41
MFS
99
0
m/z 50 100 150 200 250 300 350
FX900 300 (3.0017) MFTBL
131072
100
57
56
41
MFS
99
0
m/z 50 100 150 200 250 300 350
D260X 11 (3.0070) n-Hexane
FIND
100
57
100
41
56
MFS
50
99
0
m/z 50 100 150 200 250 300 350

Pacific Environmental Services

Project Number: 46323
Sample File: FX981

Method 8260 VOST
Sample ID: T-V-3-3-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-18A,B

Date Received: 07/29/98

Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.31		
Chloromethane	0.043	J	1.09		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.006	J	2.08		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide	0.020	J	2.79		0.05
Acetone		U		0.004	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.049	J	3.28		0.05
Acrylonitrile		U		0.019	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.08		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.129		5.53		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: FX981

Method 8260 VOS
Sample ID: T-V-3-3-A,B T/T

Client Project: R012.001
TLI ID: 214-27-18A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.004	0.05
Toluene	0.217		8.11		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.38		
Tetrachloroethene	0.028	J	8.95		0.05
2-Hexanone		U		0.008	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.071		10.70		0.05
m-/p-Xylene	0.378		10.94		0.10
o-Xylene	0.124		11.66		0.05
Styrene	0.037	J	11.73		0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.78		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: FX981

Method 8260 VOST
Sample ID: T-V-3-3-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-18A,B

Date Received: 07/29/98

Response File: ICALF821

Date Analyzed : 08/24/98

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.210	5.19	1	84
Toluene-d_8	0.265	8.02	2	106
4-Bromofluorobenzene	0.268	12.69	2	107

Reviewed by PAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Savar v3.7
Printed: 16:49 08/25/1998

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Pacific Environmental Services

Project Number: 46323
Sample File: FX981

Method 8260 VOST
Sample ID: T-V-3-3-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-18A,B

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF824

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.31		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.015	J	3.63		0.25
n-Hexane	0.142	J	3.90		0.25
1,2-Epoxybutane		U		0.023	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.08		
Ethyl acrylate		U		0.006	0.25

Reviewed by PaB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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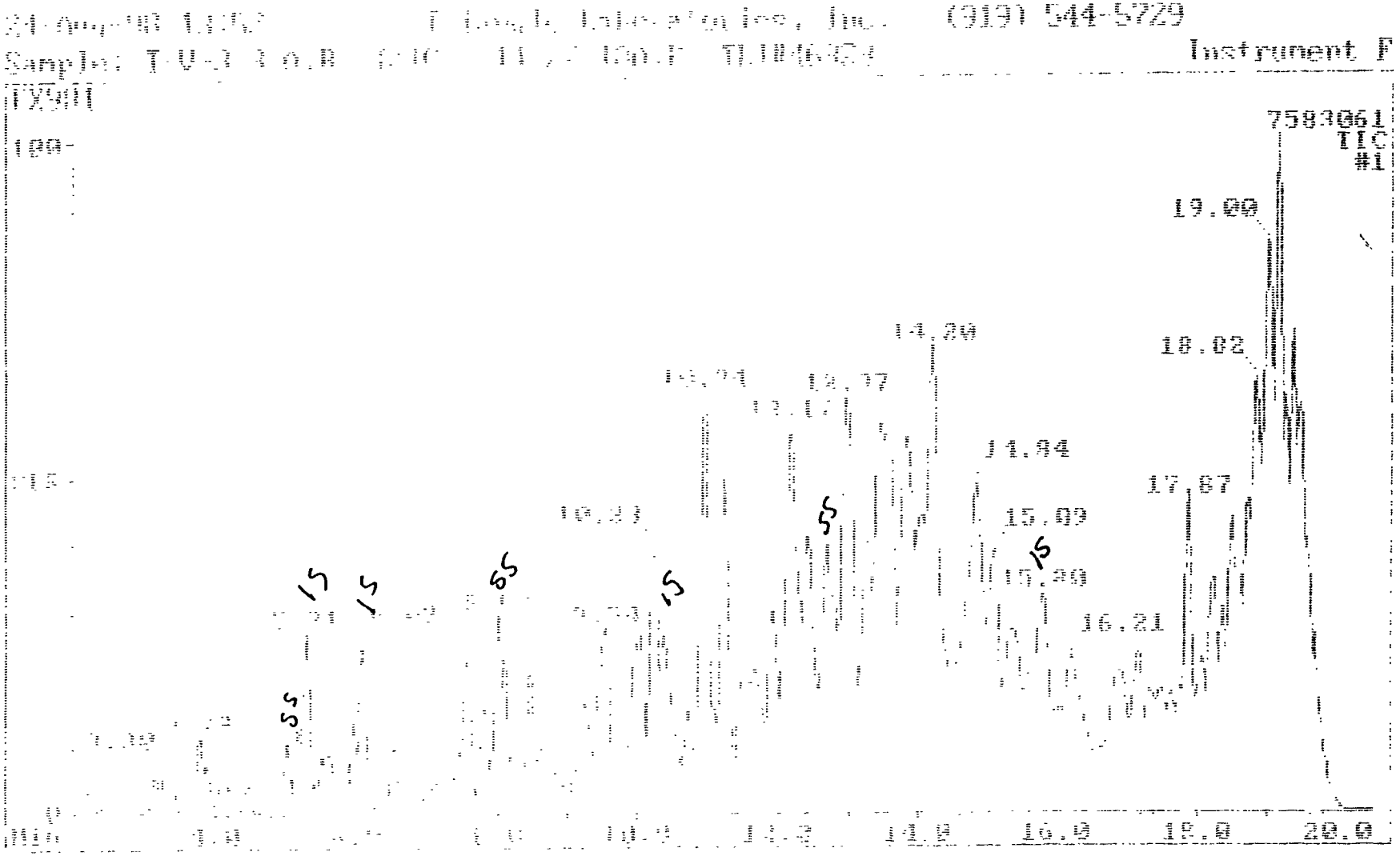


Data Review: PAB
Date: 8/24/98

114797 — (M) PAB — 1.09

88384 — (M) PAB — 2.08

(70) PAB

223744 — (M) PAB — 3.28

(70) PAB

(70) PAB

(70) PAB

(70) PAB

(70) PAB

Data Review: PAB
Date: 8/24/98

385

471680—20 pars ——— 11.73

386

No.	Mat	FOP	VTV	Delta	[illegible]	[illegible]	TF	Qn	Name
1	100	67	95	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	100	30	96	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	100	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	100	1	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	65	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

(70) PAB

(70) PAB

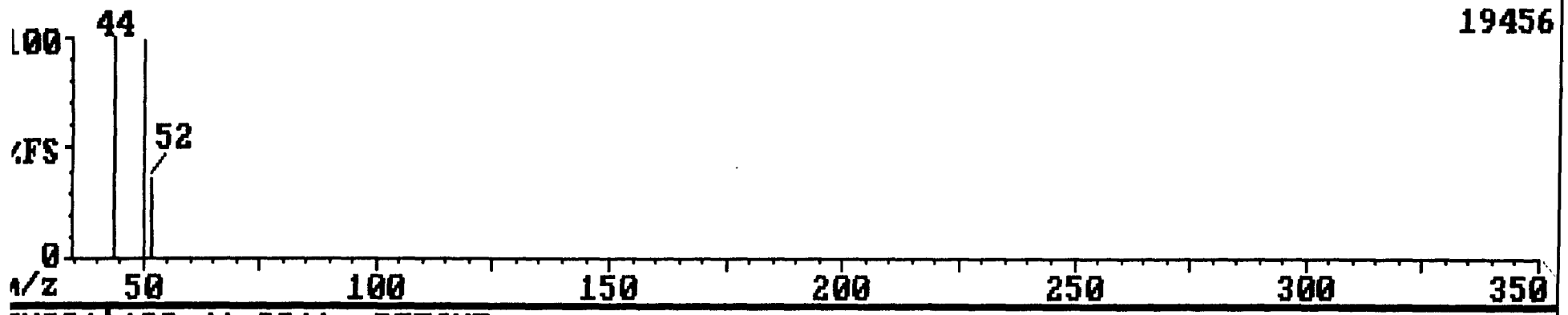
(70) PAB

387

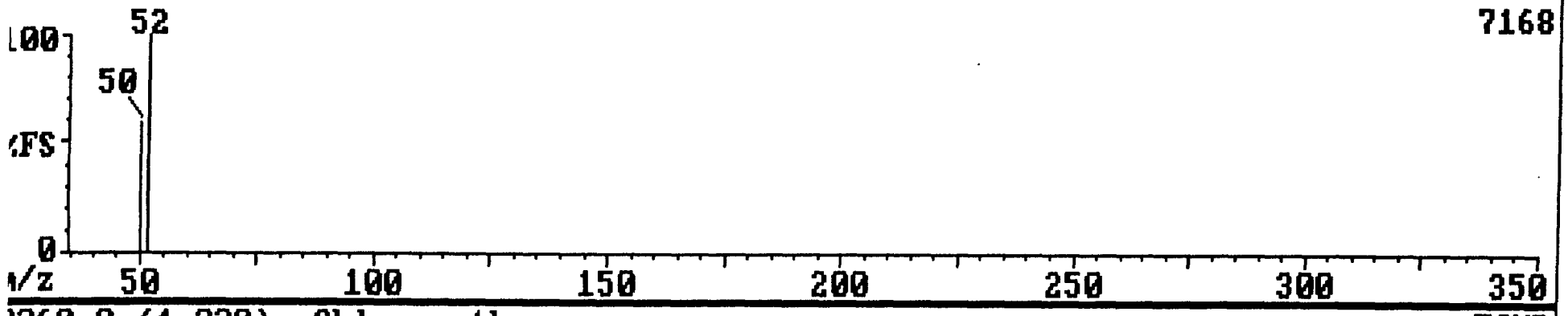
:4-Aug-98 13:52 Triangle Laboratories, Inc. (919) 544-5729

:ample: T-V-3-3-A,B T/TC 214-27-18A,B TLI#46323 Instrument F

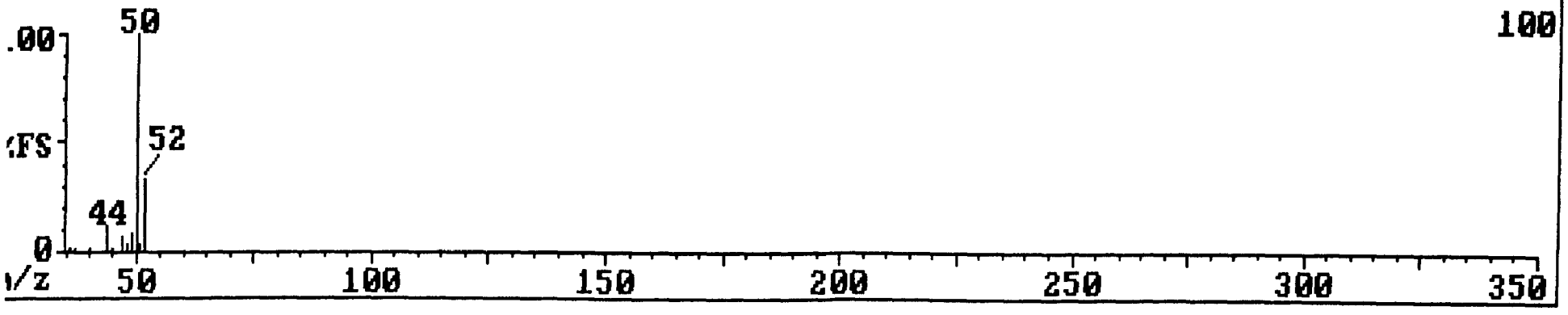
:X981 109 (1.090)



:X981 109 (1.091) REFINE



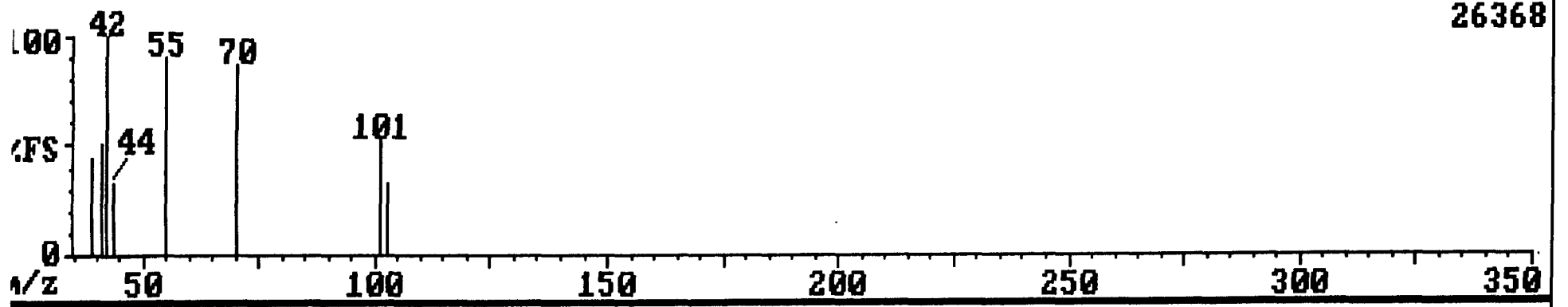
3260 9 (1.230) Chloromethane FIND



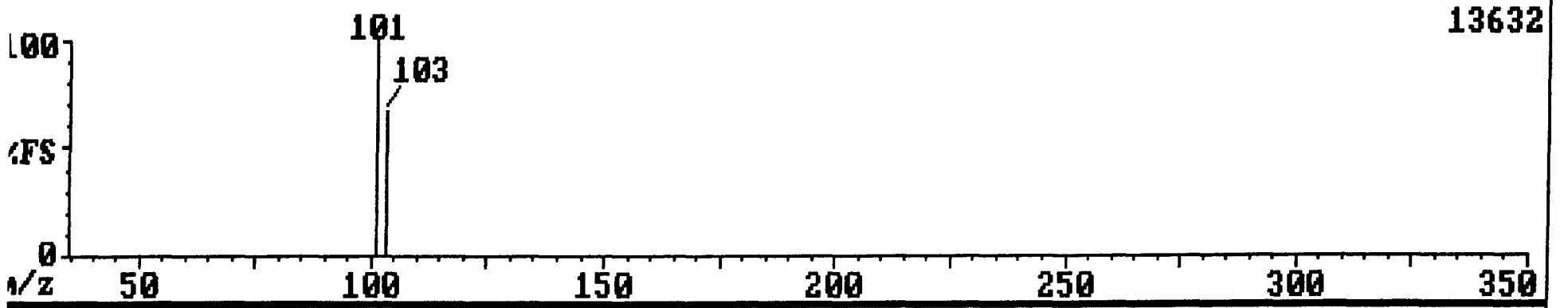
4-Aug-98 13:52 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-3-3-A,B T/TC 214-27-18A,B TLI#46323 Instrument F

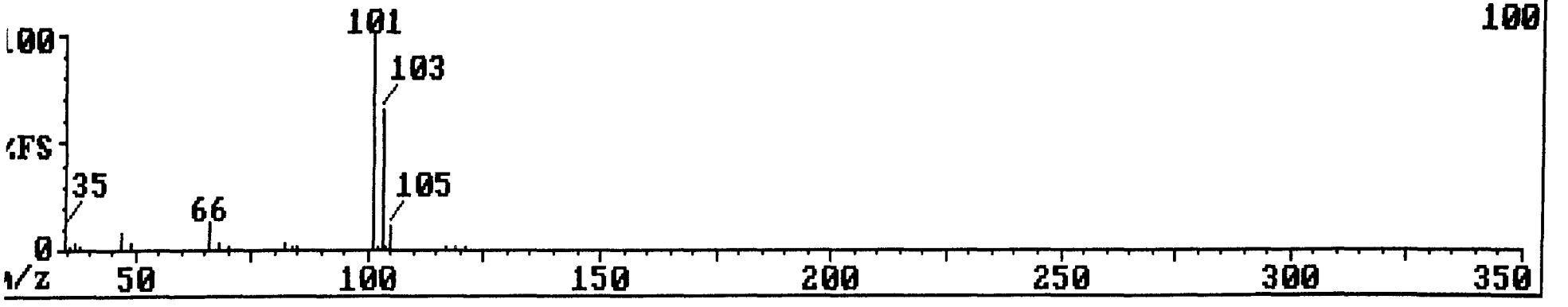
FX981 208 (2.080)



FX981 208 (2.081) REFINE



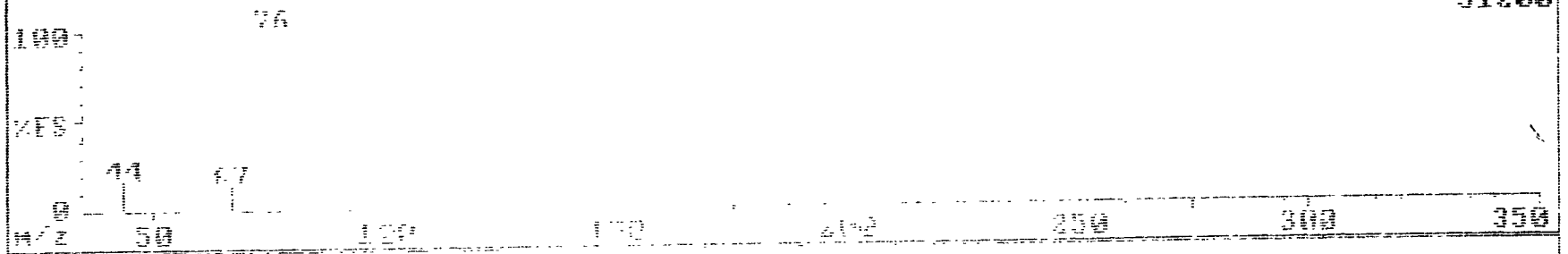
3260 13 (2.300) Trichlorofluoromethane FIND



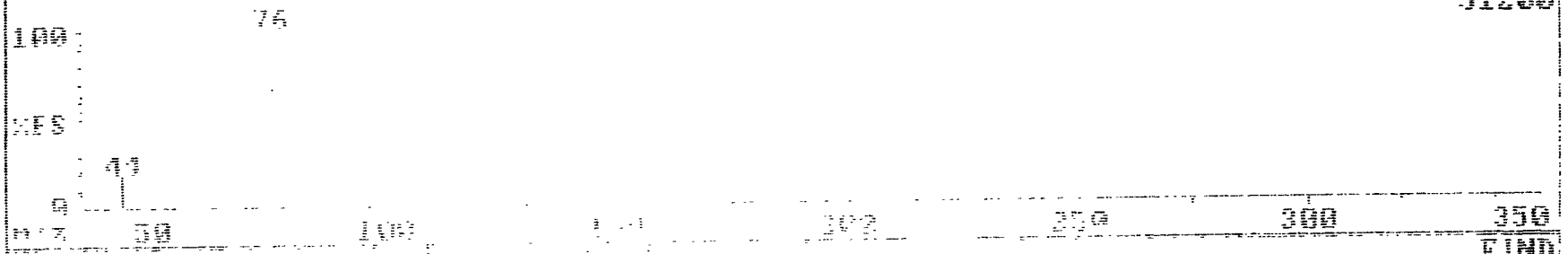
24-Aug-90 [illegible] (410) 544-5729

Sample: [illegible] Instrument F

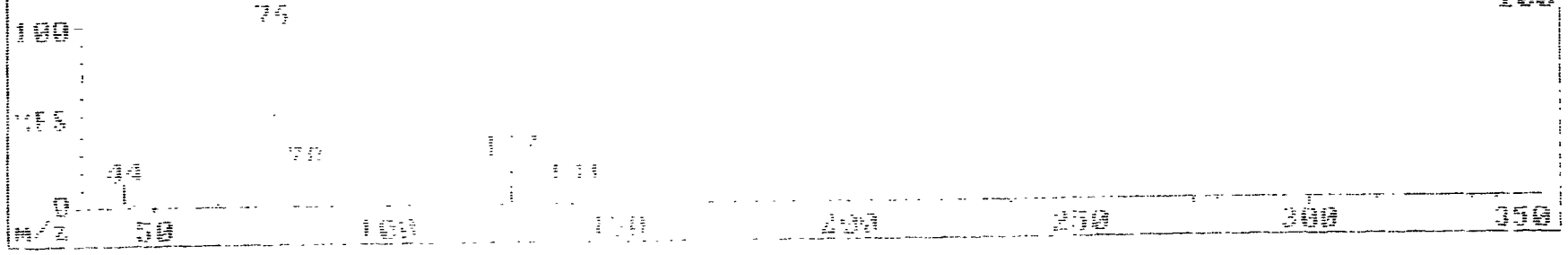
FX981 279 (2.790)



FX981 279 (2.791) [illegible]



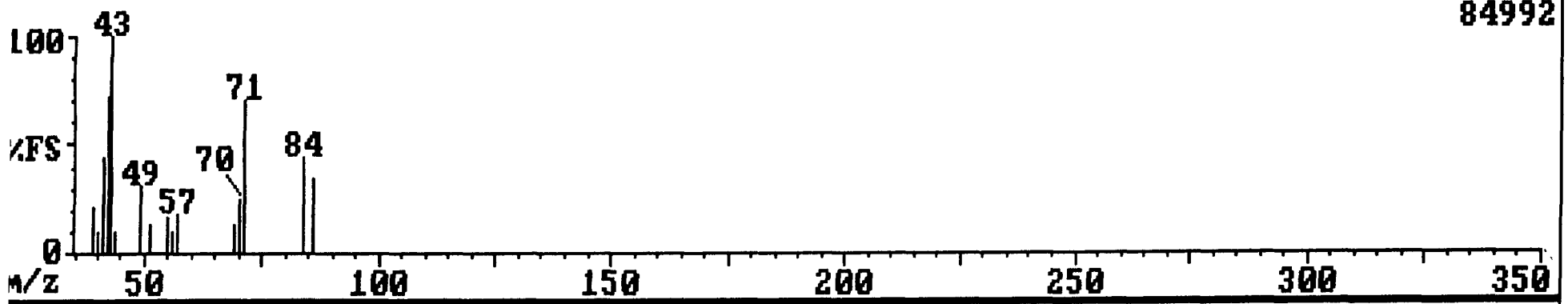
R26MB 16 (2.790) [illegible]



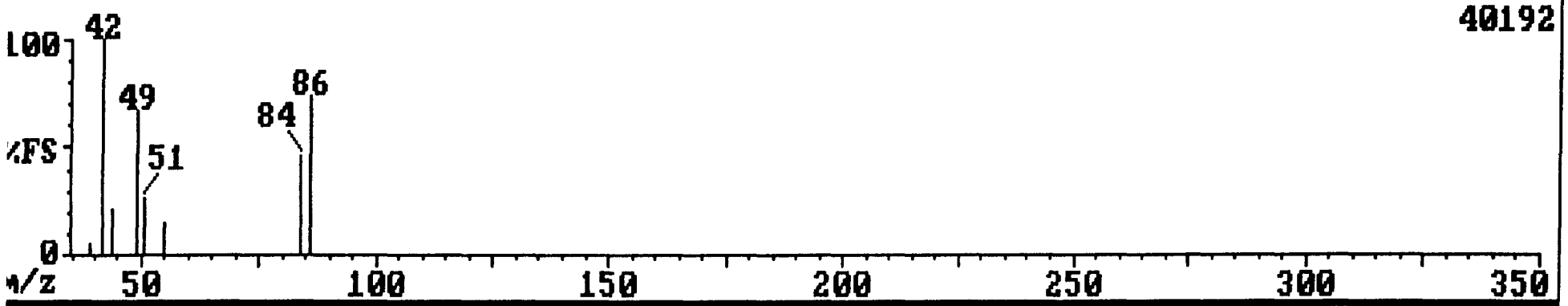
24-Aug-98 13:52 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-3-3-A,B T/TC 214-27-18A,B TLI#46323 Instrument F

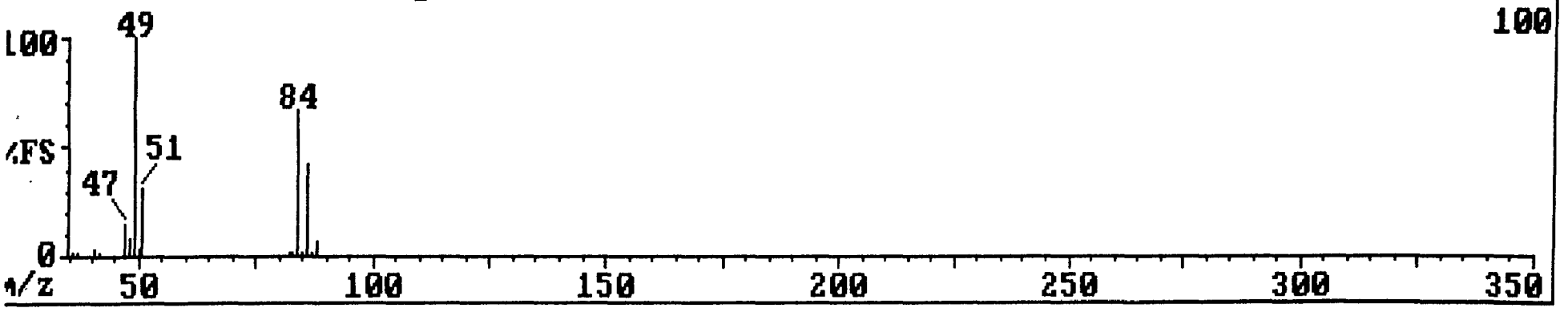
FX981 328 (3.280)



FX981 328 (3.281) REFINE



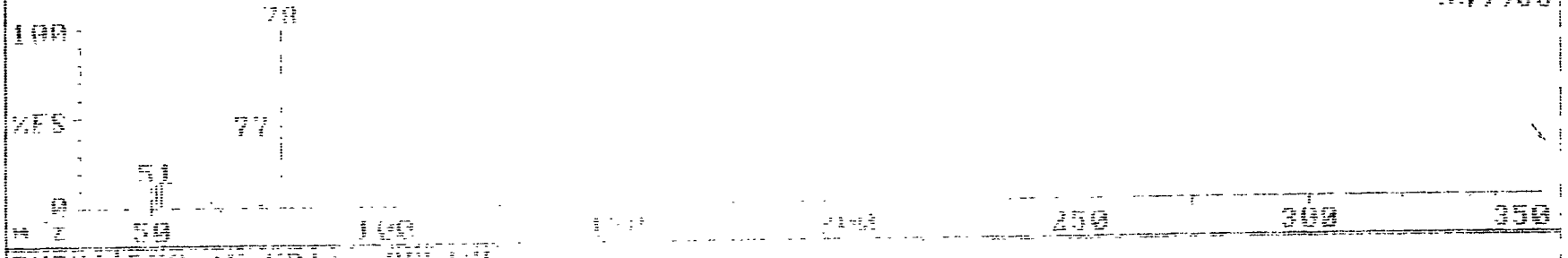
3260 15 (3.550) Methylene chloride FIND



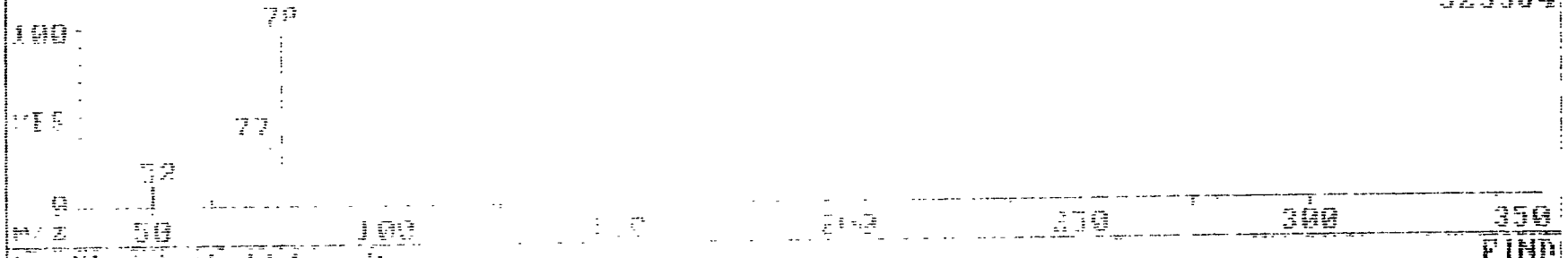
24 Aug 90 11:[illegible] (01[illegible]) 544-5729

Sample: [illegible] Instrument F

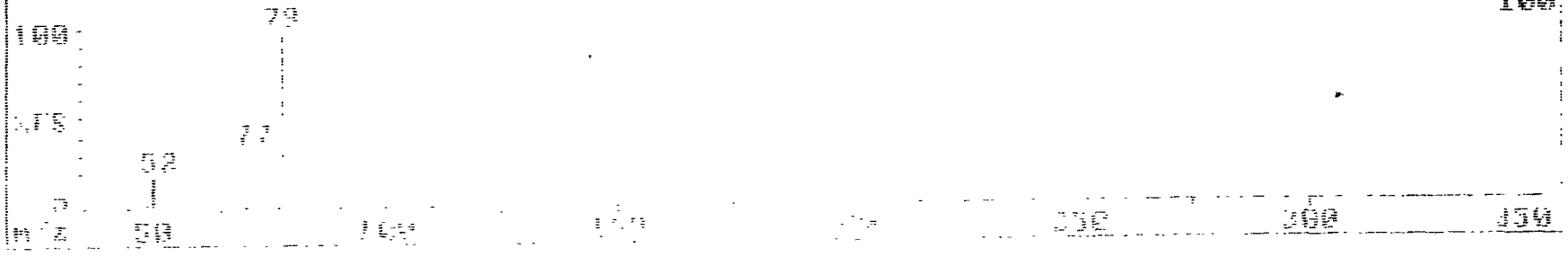
FX901 553 (5.590) 339968



FX901 553 (5.571) 323584



DX6NB 32 (5.551) Neutrons FIND 100

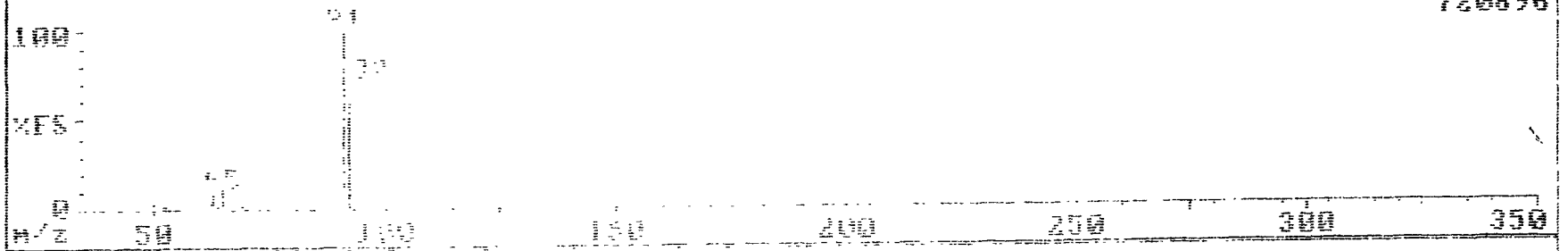


24 Aug-90 17:43 [illegible] (919) 544-5729

Sample: T-V 3-3 [illegible] Instrument F

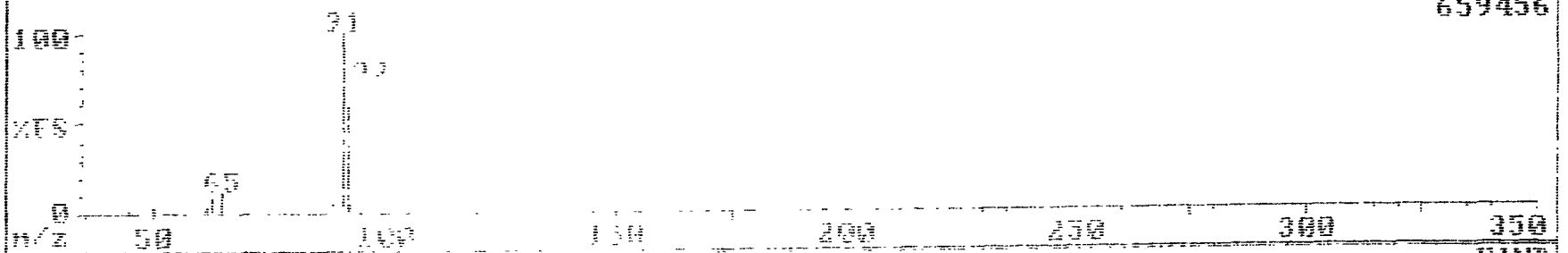
FX981 011 (8.111)

720896



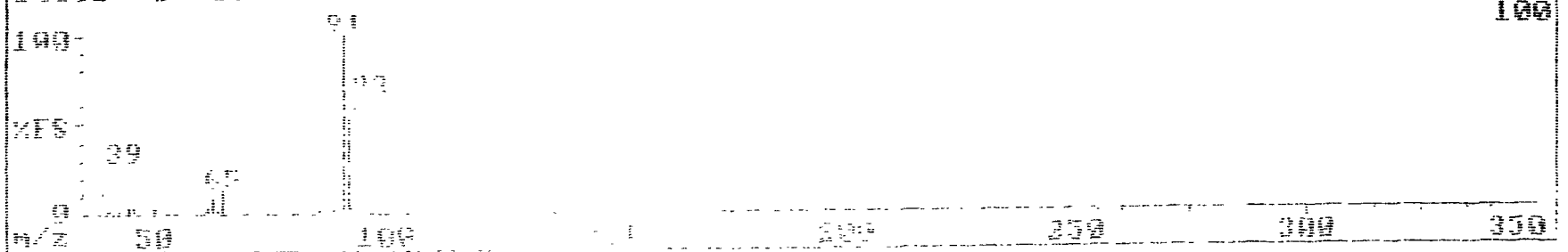
FX981 011 (8.111) [illegible]

659456



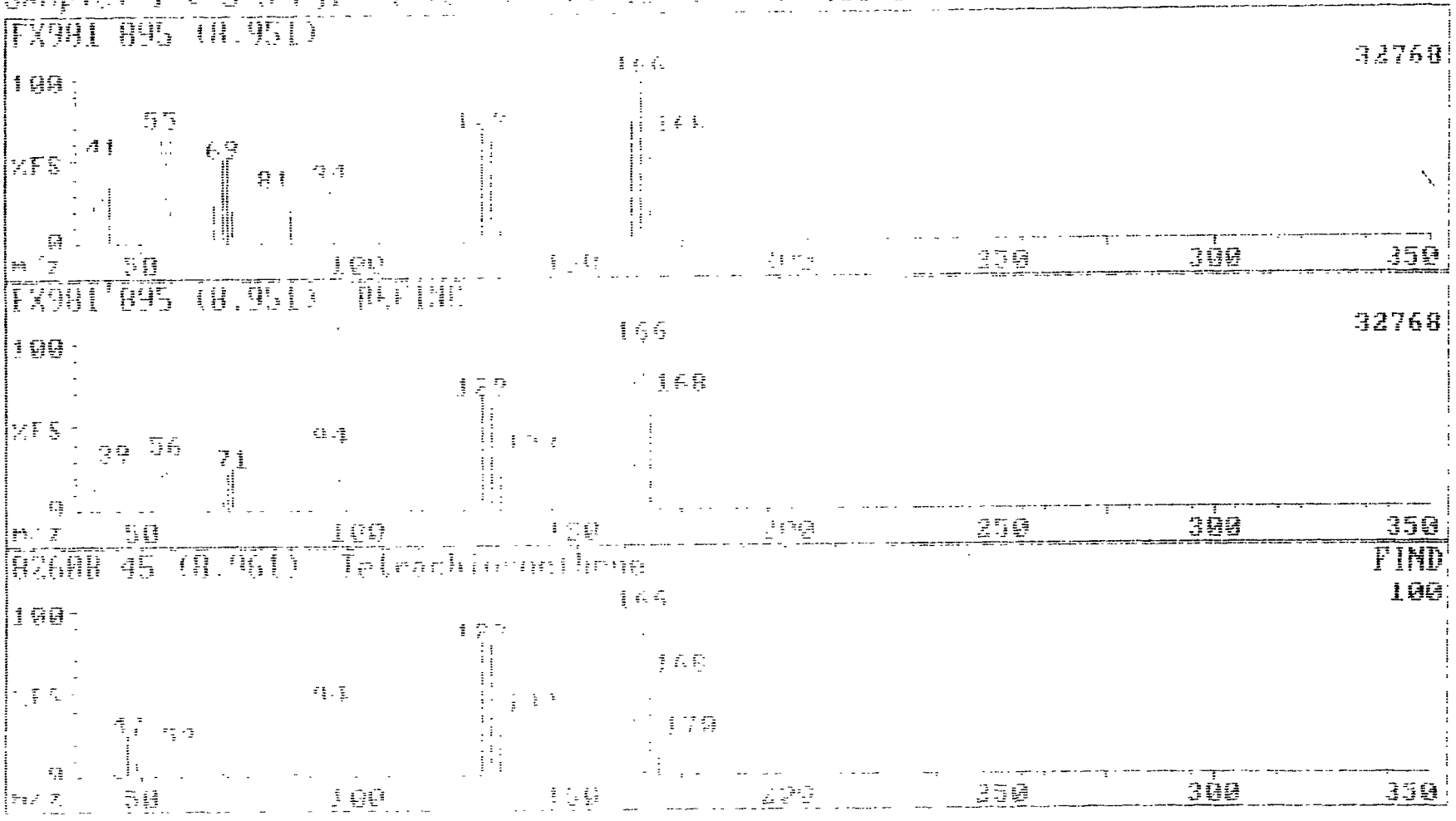
D2690 41 (8.131) Toluene

FIND
100



24 Nov 98 13:52 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-U-3-3 0,P [illegible] Instrument F

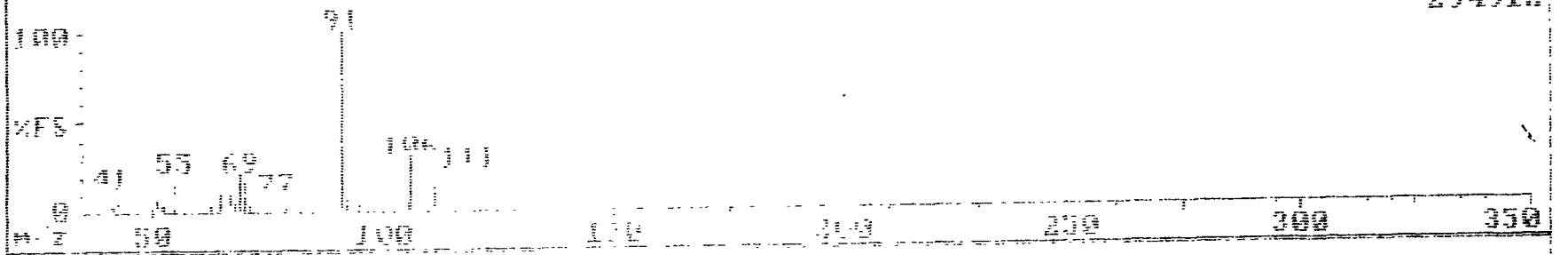


24 Aug 90 [illegible] Triangle Laboratories, Inc. (919) 544-5729

Sample: [illegible] Instrument F

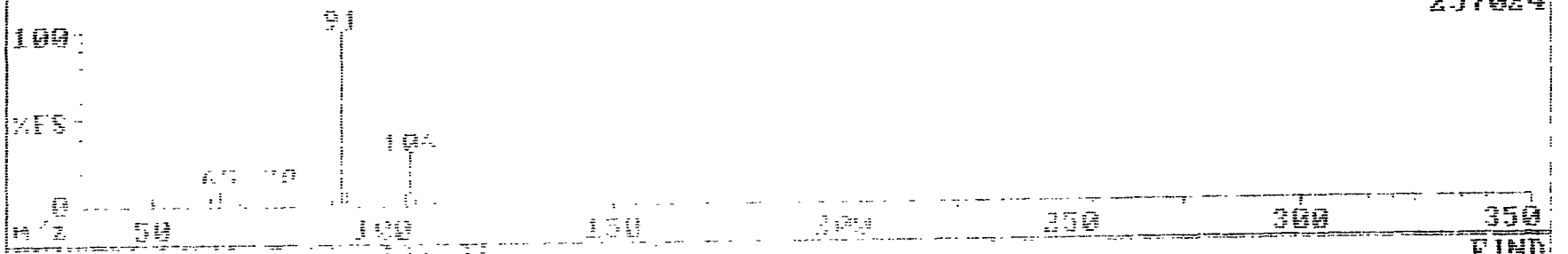
EX901 1070 (10.700)

294912



EX901 1070 (10.700) MFINP

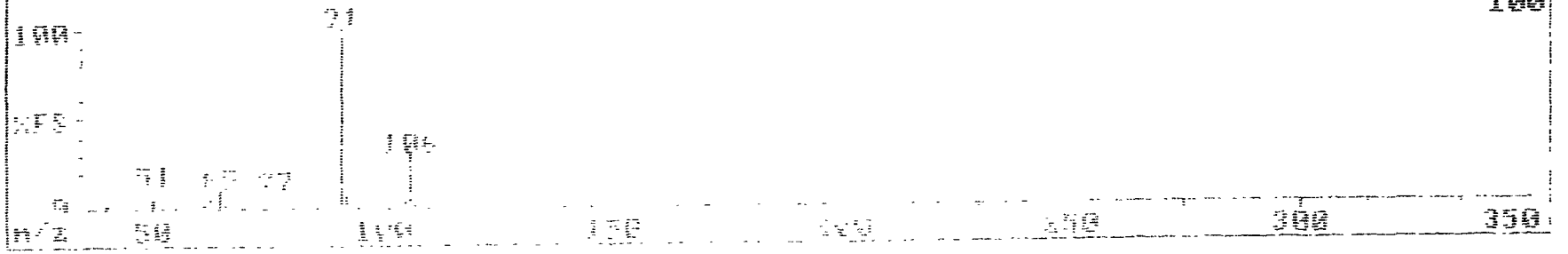
257024



DX600 62 (10.720) Phydlenzene

FIND

100



24-Aug-90 11:55 [illegible] Laboratories, Inc. (949) 544-5729

Sample: [illegible] Instrument F

FX981 1094 (10.941)

1163264

FX981 1094 (10.941) NORMAL

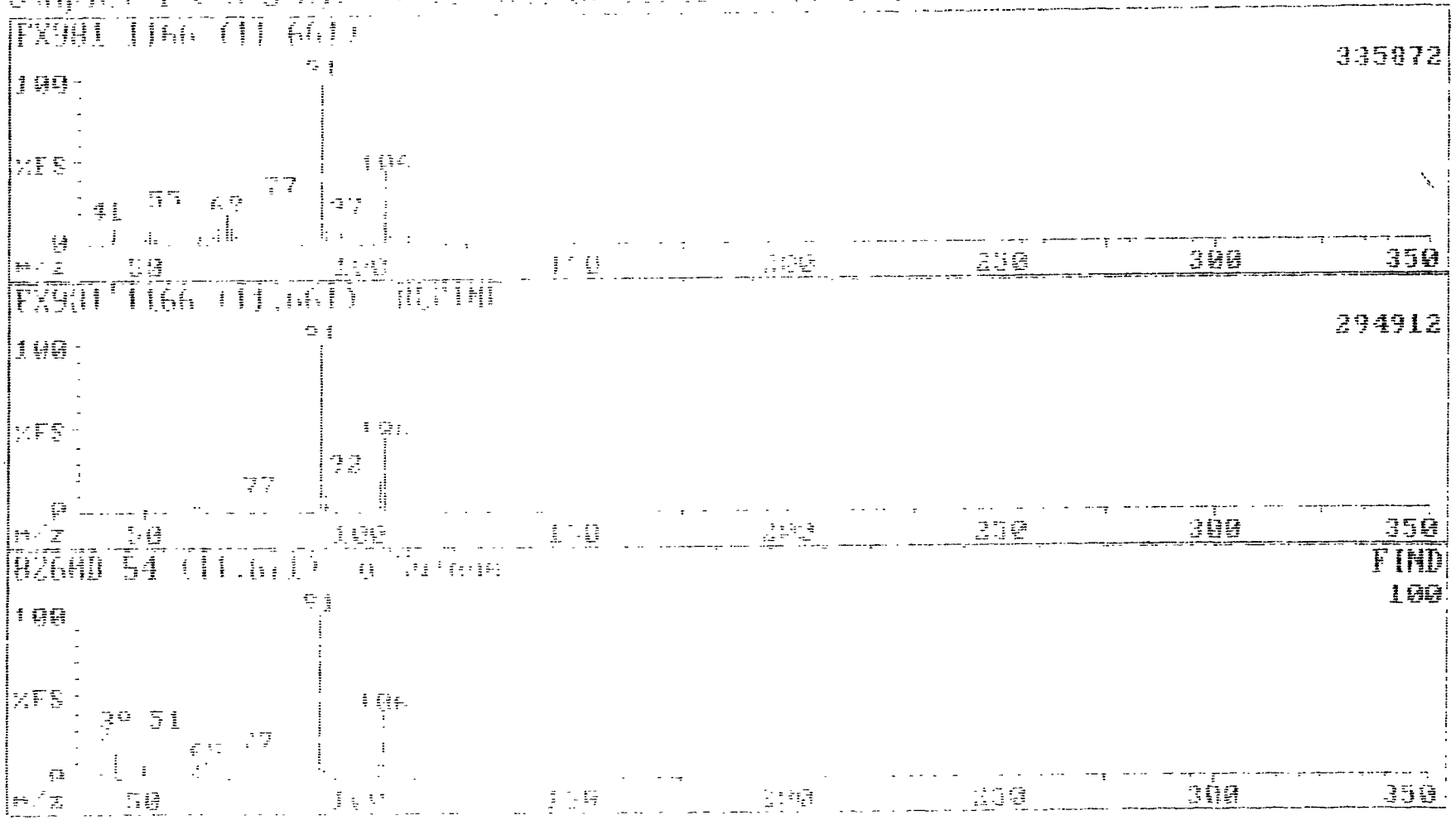
1032192

B2608 53 (10.961) m/p-Xylene

FIND
100

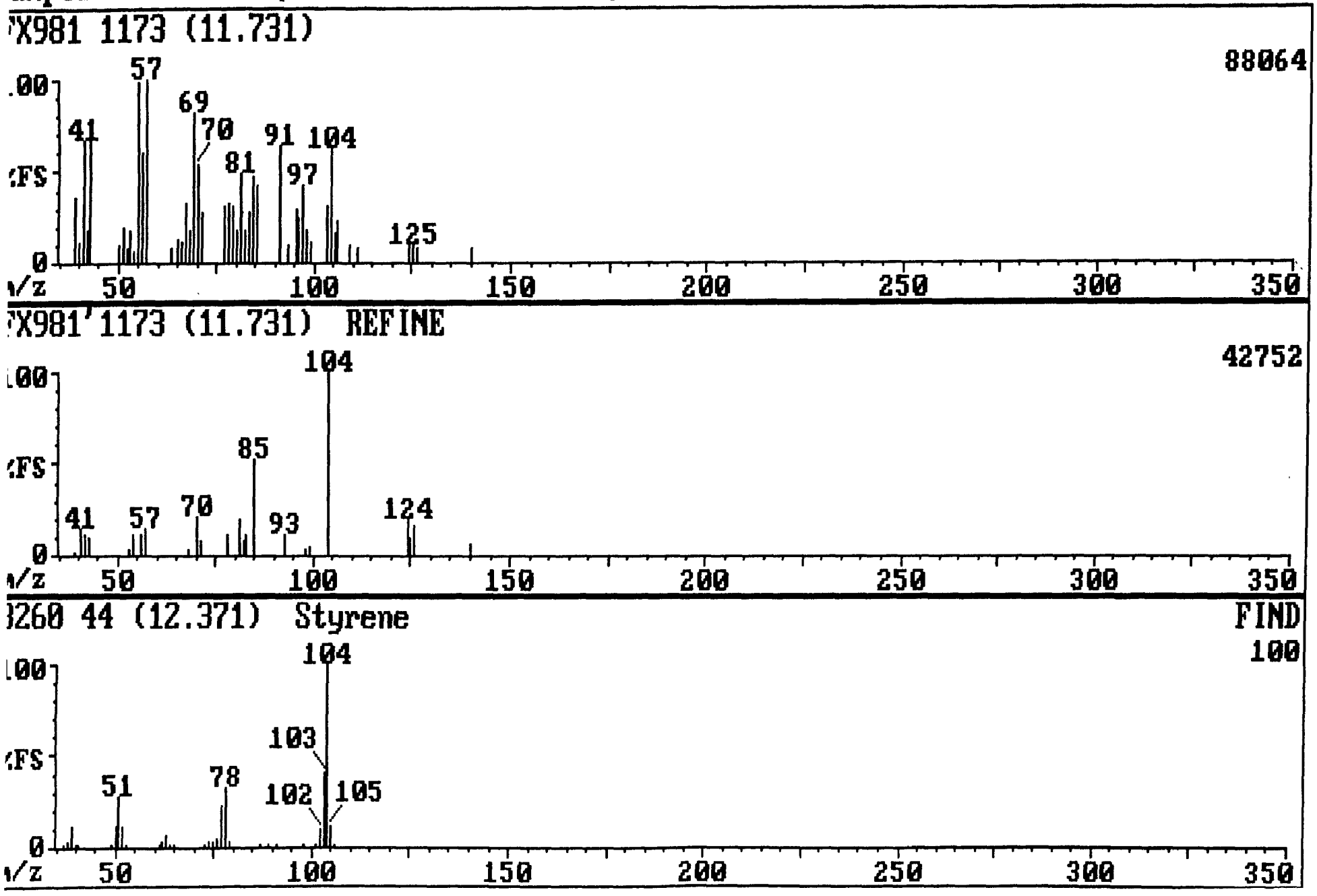
24-Aug-90 11:42 [illegible] Instruments, Inc. (919) 544-5729

Sample: [illegible] Instrument F



4-Aug-98 13:52 Triangle Laboratories, Inc. (919) 544-5729

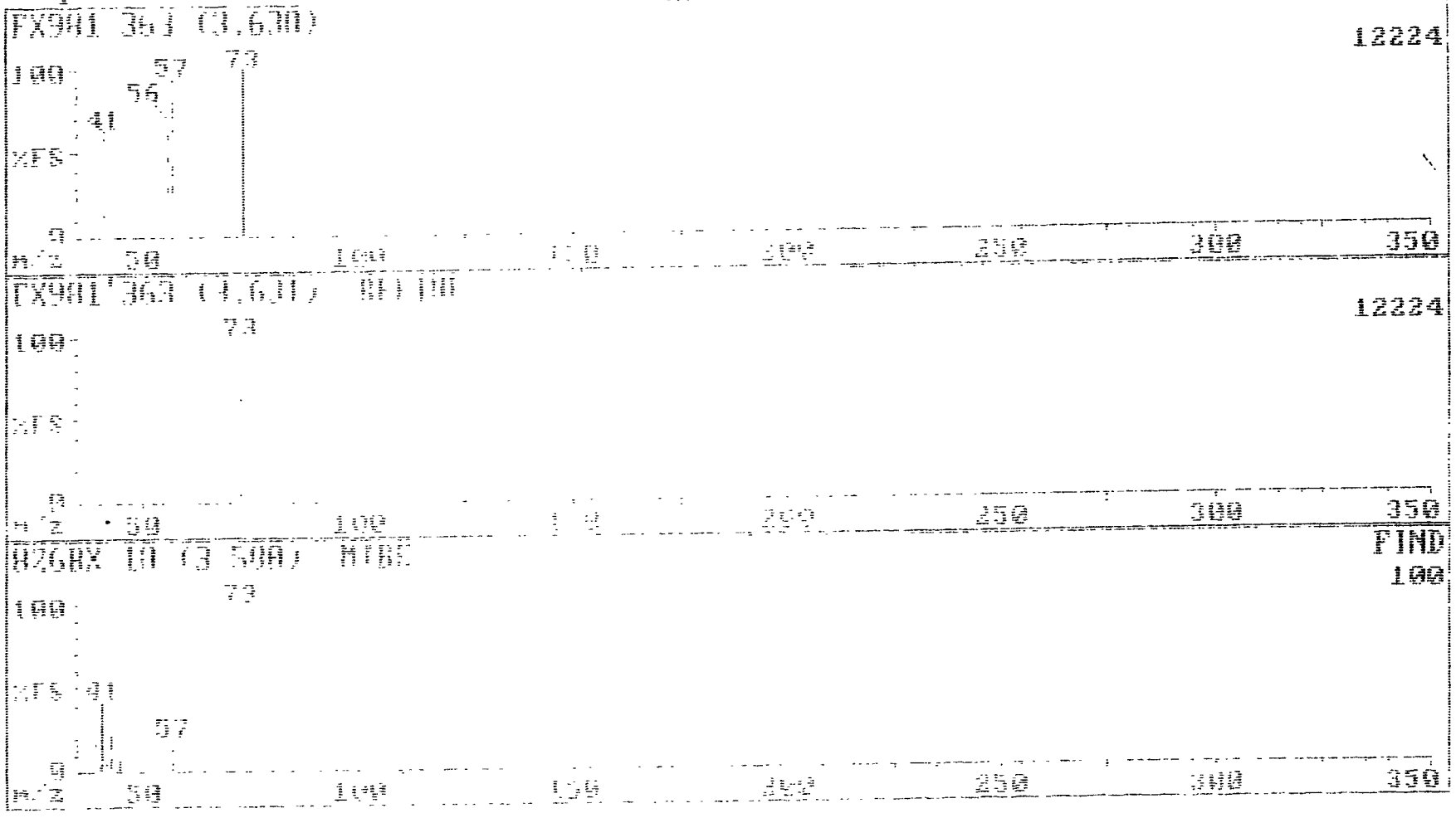
ample: T-V-3-3-A,B T/TC 214-27-18A,B TLI#46323 Instrument F

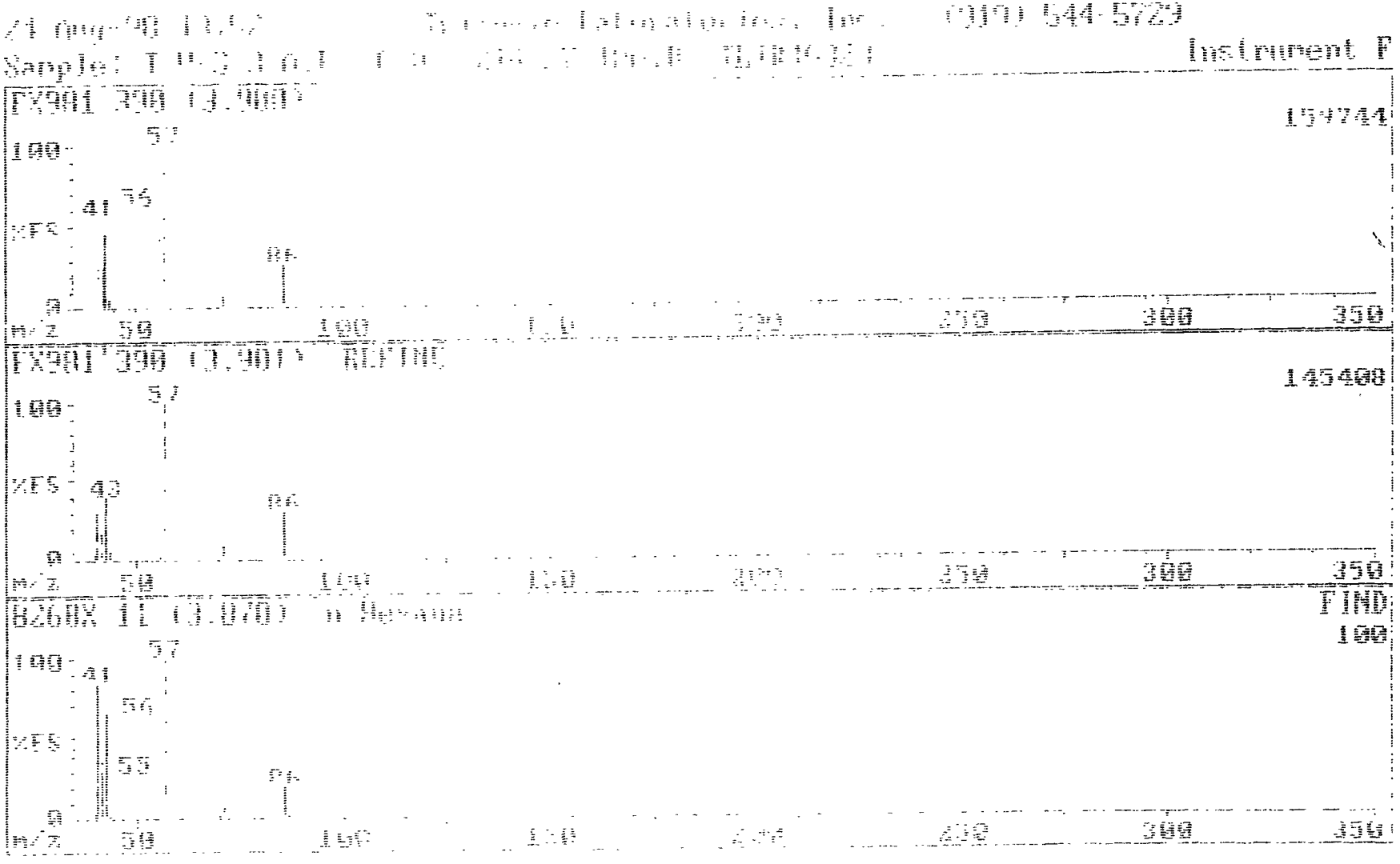


398

24-Aug 98 13:54 [illegible] Laboratories, Inc. (800) 544-5729

Sample: [illegible] Instrument F




(800) 544-5729
Instrument F
FX901 300 (3.900)
154744
100
XFS
0
m/z
50
100
150
200
250
300
350
FX901 300 (3.901) ROFIND
145400
100
XFS
0
m/z
50
100
150
200
250
300
350
B260X 11 (3.070)
FIND
100
100
XFS
0
m/z
50
100
150
200
250
300
350

Pacific Environmental Services

Project Number: 46323 | Method 8260 VOS
Sample File: HW562 | Sample ID: T-V-4-1-A

Client Project: R012.001 | Date Received: 07/29/98 | Response File: ICALH8(
TLI ID: 214-27-20A
Date Analyzed : 08/09/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limi ug
Pentafluorobenzene		IS 1	5.03		
Chloromethane	0.010	BJ	0.97		0.0
Vinyl Chloride		U		0.001	0.0
Bromomethane	0.010	BJ	1.48		0.0
Chloroethane		U		0.001	0.0
Trichlorofluoromethane	0.009	J	1.91		0.0
1,1-Dichloroethene		U		0.001	0.0
Iodomethane		U		0.001	0.0
Carbon disulfide		U		0.001	0.0
Acetone	0.151		2.74		0.0
Allyl chloride		U		0.001	0.0
Methylene chloride	0.038	BJ	3.06		0.0
Acrylonitrile		U		0.007	0.0
trans-1,2-Dichloroethene		U		0.001	0.0
1,1-Dichloroethane		U		0.001	0.0
Vinyl acetate		U		0.001	0.0
cis-1,2-Dichloroethene		U		0.001	0.0
2-Butanone	0.051		4.51		0.0
Chloroform	0.006	J	4.75		0.0
1,1,1-Trichloroethane	0.012	J	4.84		0.0
1,4-Difluorobenzene		IS 2	5.75		
Carbon tetrachloride		U		0.001	0.0
Benzene	0.091	B	5.22		0.0
1,2-Dichloroethane		U		0.001	0.0
Trichloroethene	0.001	J	5.99		0.0
1,2-Dichloropropane		U		0.001	0.0

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 16:11 08/10/

401

Pacific Environmental Services

Project Number: 46323
Sample File: HW562

Method 8260 VOST
Sample ID: T-V-4-1-A T

Client Project: R012.001
TLI ID: 214-27-20A

Date Received: 07/29/98
Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.003	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.002	0.05
Toluene	0.133	B	7.70		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	9.94		
Tetrachloroethene	0.016	J	8.53		0.05
2-Hexanone		U		0.002	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.018	J	10.28		0.05
m-/p-Xylene	0.056	J	10.52		0.10
o-Xylene	0.024	J	11.23		0.05
Styrene	0.025	BJ	11.28		0.05
Bromoform		U		0.001	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.07		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: HW562

Method 8260 VOS
Sample ID: T-V-4-1-A

Client Project: R012.001
TLI ID: 214-27-20A

Date Received: 07/29/98
Date Analyzed : 08/09/98

Response File: ICALH80

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.262	4.91	1	105
Toluene-d_8	0.282	7.60	2	113
4-Bromofluorobenzene	0.384	12.24	2	154

1 PAB 8/10/98

Reviewed by PAB Date 8/10/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 16:11 08/10/1

Pacific Environmental Services

Project Number: 46323
Sample File: HW562

Method 8260 VOST
Sample ID: T-V-4-1-A T

Client Project: R012.001
TLI ID: 214-27-20A

Date Received: 07/29/98
Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.03		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.114	J	3.41		0.25
n-Hexane	0.034	J	3.66		0.25
1,2-Epoxybutane		U		0.055	0.25
Iso-Octane	0.012	J	5.38		0.25
1,4-Difluorobenzene		IS 2	5.75		
Ethyl acrylate		U		0.001	0.25

Reviewed by GAB Date 8/10/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
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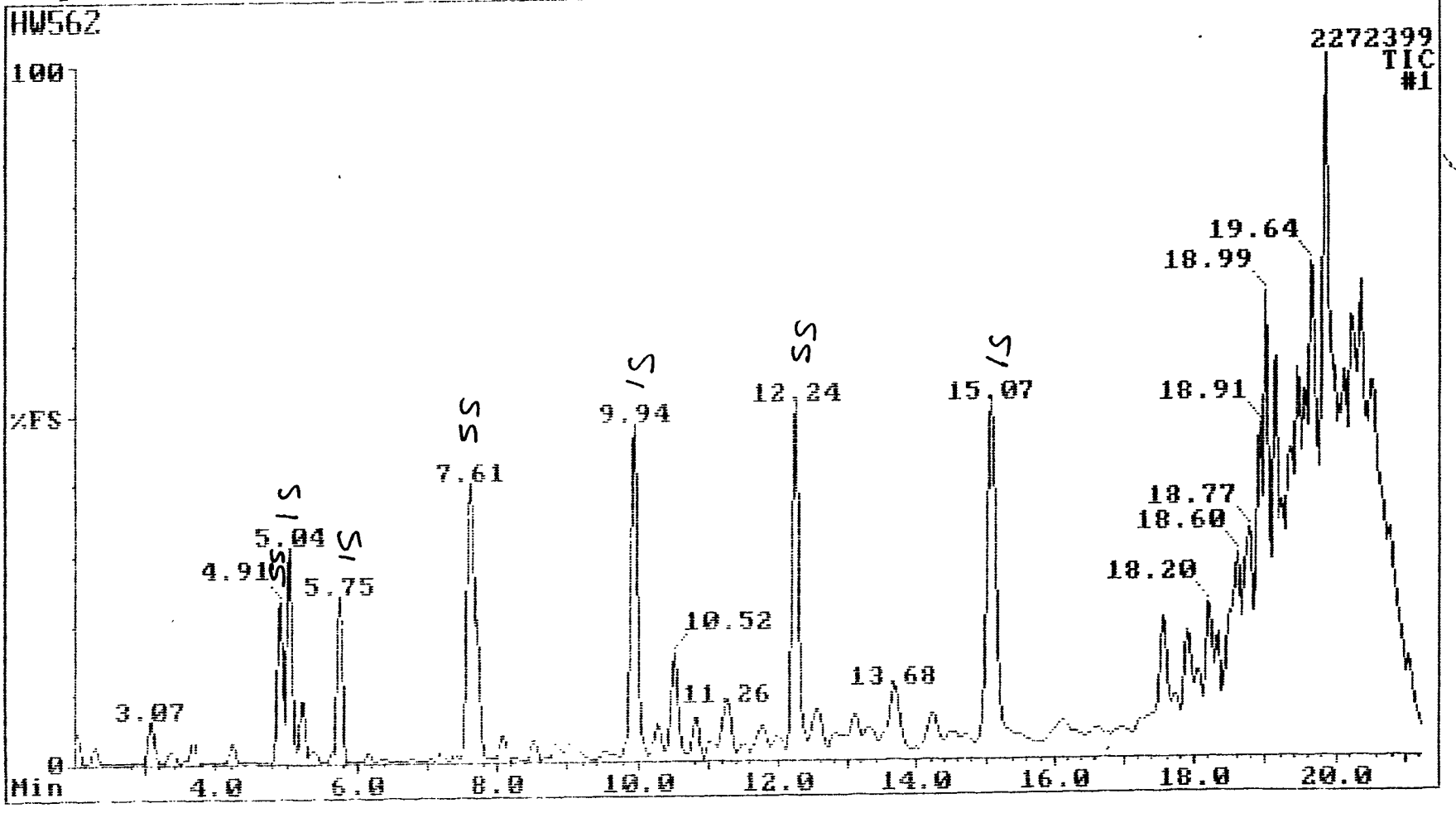
Savar v3.7
Printed: 16:48 08/10/1998

08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



Data Review: [illegible]
Date: 8/10/98

202

405

QUAN DB : HW562 LAB-BASE QUAN 08-09-98 11:14

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	84	99	-6	1824832	bb	5.03	168	Pentafluorobenzene
2	100	97	98	-1	1672116	bv	5.75	114	1,4-Difluorobenzene
3	100	94	95	4	3173136	bv	9.94	117	Chlorobenzene-d5
4	100	75	99	-4	2324848	bv	15.07	152	1,4-Dichlorobenzene-d4
5	100	94	100	1	1018220	bv	4.91	113	Dibromofluoromethane
6	100	91	98	-1	2642836	bv	7.60	98	Toluene-d8
7	96	89	94	7	1931123	vv	12.24	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.00	85	Dichlorodifluoromethane
9	100	82	82	-1	26264	bv	0.97	50	Chloromethane
10	0	0	0	0	0		0.00	62	Vinyl Chloride
11	100	78	91	0	30116	bv	1.48	94	Bromomethane
12	0	0	0	0	0		0.00	64	Chloroethane
13	100	77	91	0	70572	bb	1.91	101	Trichlorofluoromethane
14	0	0	0	0	0		0.00	96	1,1-Dichloroethene
15	0	0	0	0	0		0.00	142	Iodomethane
16	0	0	0	0	0		0.00	76	Carbon disulfide
17	85	74	93	8	55188	bv	2.74	43	Acetone
18	0	0	0	0	0		0.00	41	Allyl chloride
19	81	53	71	0	97924	bv	3.06	84	Methylene chloride
20	~~2~~	~~1~~	~~16~~	~~5~~	~~566~~	~~bb~~	~~3.33~~	53	Acrylonitrile
21	0	0	0	0	0		0.00	96	trans-1,2-Dichloroether
22	0	0	0	0	0		0.00	63	1,1-Dichloroethane
23	0	0	0	0	0		0.00	43	Vinyl acetate
24	0	0	0	0	0		0.00	77	2,2-Dichloropropane
25	0	0	0	0	0		0.00	96	cis-1,2-Dichloroethene
26	100	87	87	2	25632	bv	4.51	43	2-Butanone
27	100	82	92	0	32932	bb	4.75	83	Chloroform
28	0	0	0	0	0		0.00	128	Bromochloromethane
29	81	53	78	-1	65932	bb	4.84	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.00	117	Carbon tetrachloride
31	0	0	0	0	0		0.00	75	1,1-Dichloropropene
32	100	96	98	0	711096	bv	5.22	78	Benzene
33	0	0	0	0	0		0.00	62	1,2-Dichloroethane
34	81	66	66	-1	1604	bb	5.99	130	Trichloroethene
35	0	0	0	0	0		0.00	63	1,2-Dichloropropane
36	0	0	0	0	0		0.00	93	Dibromomethane
37	0	0	0	0	0		0.00	41	Methyl methacrylate
38	0	0	0	0	0		0.00	83	Bromodichloromethane
39	0	0	0	0	0		0.00	75	cis-1,3-Dichloropropene
40	~~50~~	~~2~~	~~73~~	~~1~~	~~38864~~	~~bv~~	~~7.61~~	43	4-Methyl-2-pentanone
41	100	94	99	0	900812	bv	7.70	92	Toluene
42	0	0	0	0	0		0.00	75	trans-1,3-Dichloroprope
43	0	0	0	0	0		0.00	97	1,1,2-Trichloroethane
44	62	51	51	-1	9220	A	8.43	69	Ethyl methacrylate
45	100	84	96	-2	75744	bb	8.53	164	Tetrachloroethene
46	0	0	0	0	0		0.00	76	1,3-Dichloropropane
47	~~34~~	~~15~~	~~56~~	~~-11~~	~~52192~~	~~vv~~	~~8.86~~	43	2-Hexanone
48	0	0	0	0	0		0.00	129	Dibromochloromethane
49	0	0	0	0	0		0.00	107	1,2-Dibromoethane
50	0	0	0	0	0		0.00	112	Chlorobenzene

FP FAB 8/10/98

FP FAB 8/10/98

FP FAB 8/10/98

Data Review: FAB
Date: 8/10/98

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No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.00	131	1,1,1,2-Tetrachloroet
52	100	80	93	0	125776	bv	10.28	106	Ethylbenzene
53	100	83	93	2	480652	vv	10.52	106	m-/p-Xylene
54	100	82	87	1	194588	bv	11.23	106	o-Xylene
55	98	77	88	1	326848	bb	11.28	104	Styrene
56	0	0	0	0	0		0.00	173	Bromoform
57	0	0	0	0	0		0.00	105	Cumene
58	0	0	0	0	0		0.00	83	1,1,2,2-Tetrachloroet
59	0	0	0	0	0		0.00	156	Bromobenzene
60	0	0	0	0	0		0.00	75	1,2,3-Trichloropropan
61	61	38	72	6	37644	bb	12.87	120	n-Propylbenzene
62	0	0	0	0	0		0.00	75	trans-1,4-Dichloro-2-
63	0	0	0	0	0		0.00	126	2-Chlorotoluene
64	0	0	0	0	0		0.00	126	4-Chlorotoluene
65	61	71	92	-17	512200	bv	13.11	105	1,3,5-Trimethylbenzen
66	0	0	0	0	0		0.00	119	tert-Butylbenzene
67	96	69	93	2	447208	bv	14.23	105	1,2,4-Trimethylbenzen
68	46	12	61	-1	53228	A	14.72	105	sec-Butylbenzene
69	71	41	75	0	209044	bv	15.32	119	p-Cymene
70	0	0	0	0	0		0.00	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.00	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.00	91	Benzyl chloride
73	61	35	72	4	110413	vv	16.85	91	n-Butylbenzene
74	0	0	0	0	0		0.00	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.00	75	1,2-Dibromo-3-chloro
76	0	0	0	0	0		0.00	180	1,2,4-Trichlorobenze
77	0	0	0	0	0		0.00	225	Hexachlorobutadiene
78	0	0	0	0	0		0.00	128	Naphthalene
79	0	0	0	0	0		0.00	180	1,2,3-Trichlorobenze

JAN DB : HW562 LAB-BASE QUAN 08-10-98 14:36

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	84	99	-1	1824832	bb	5.03	168	Pentafluorobenzene
2	100	97	98	0	1672116	bv	5.75	114	1,4-Difluorobenzene
3	100	94	95	2	3173136	bv	9.94	117	Chlorobenzene-d5
4	100	75	99	5	2324848	bv	15.07	152	1,4-Dichlorobenzene-d4
5	100	94	100	2	1018220	bv	4.91	113	Dibromofluoromethane
6	100	91	98	-3	2642836	bv	7.60	98	Toluene-d8
7	100	89	94	5	1931123	vv	12.24	95	4-Bromofluorobenzene
8	~~75~~	~~43~~	~~77~~	~~2~~	~~55292~~	~~a~~ PAB	~~1.08~~	39	1,3-Butadiene
9	0	0	0	0	0		0.00	106	Vinyl bromide
10	100	87	90	2	103404	bb	3.41	73	MTBE
11	100	98	98	1	169304	bb	3.66	57	n-Hexane
12	~~62~~	~~44~~	~~57~~	~~-2~~	~~33192~~	~~bb~~ PAB	~~4.22~~	42	1,2-Epoxybutane
13	100	84	87	0	137300	bv	5.38	57	Iso-Octane
14	~~40~~	~~33~~	~~59~~	~~15~~	~~43472~~	~~bb~~ PAB	~~7.17~~	35	Ethyl acrylate

Data Review: PAB
Date: 8/10/98

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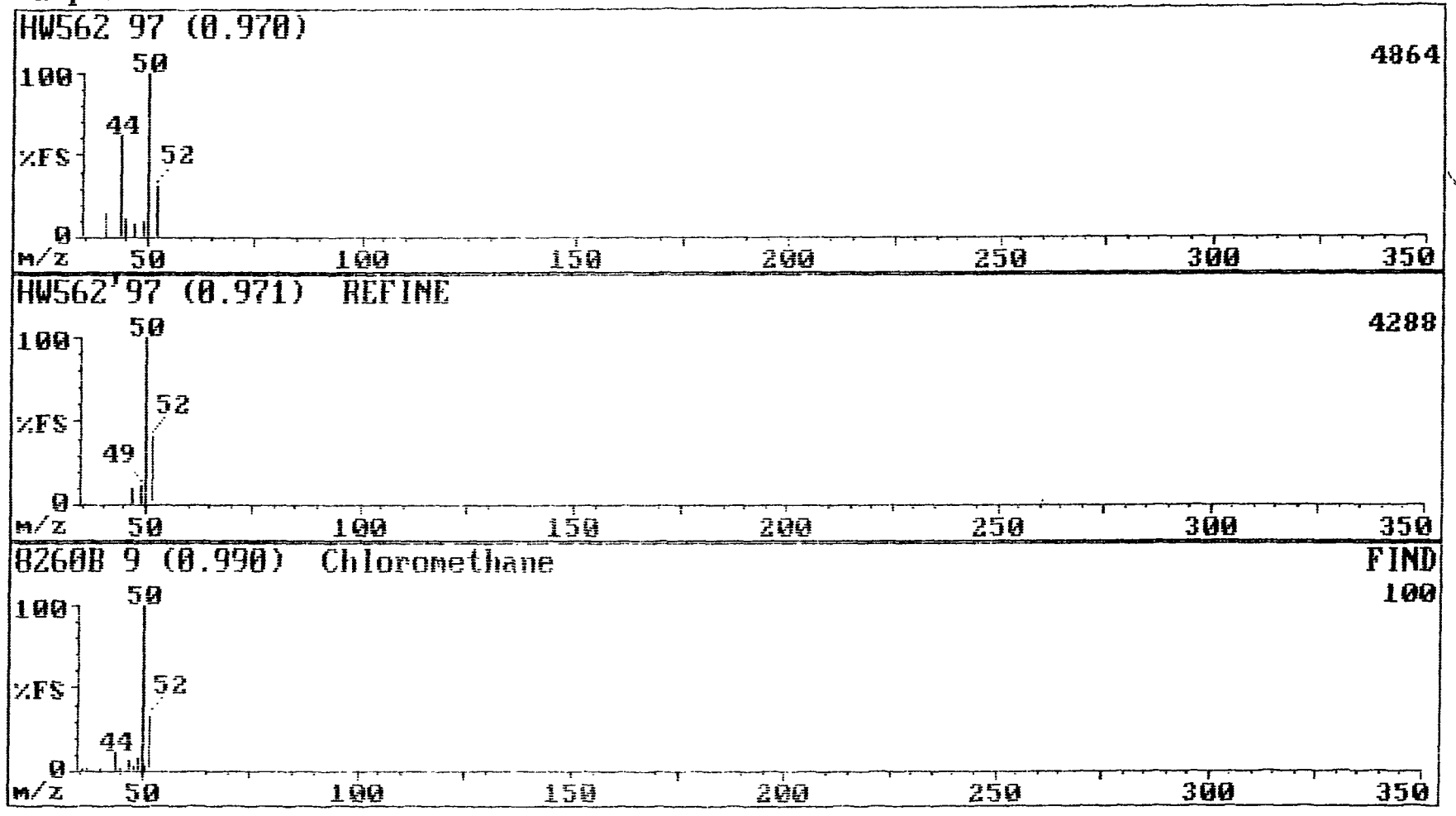
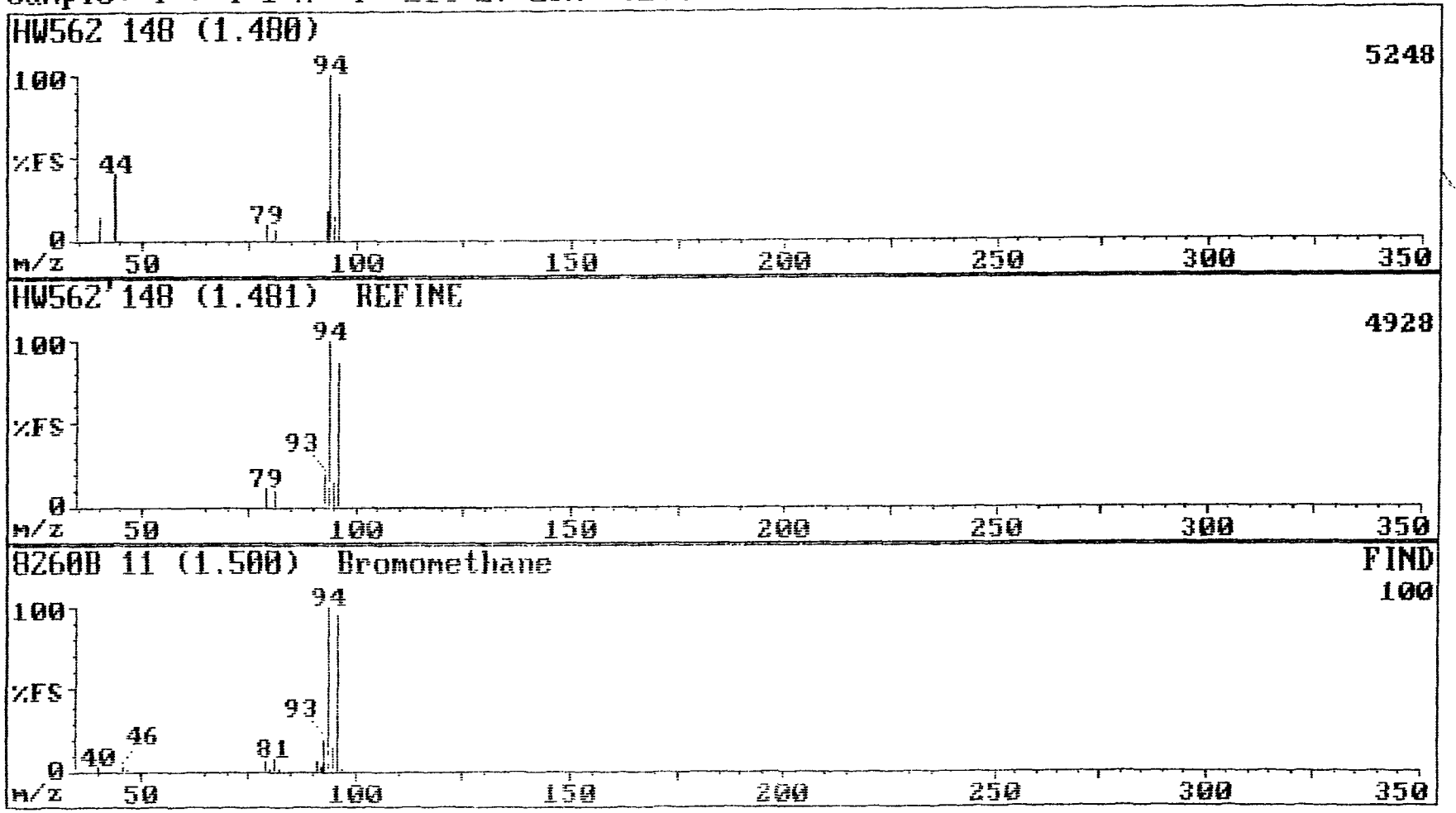
08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



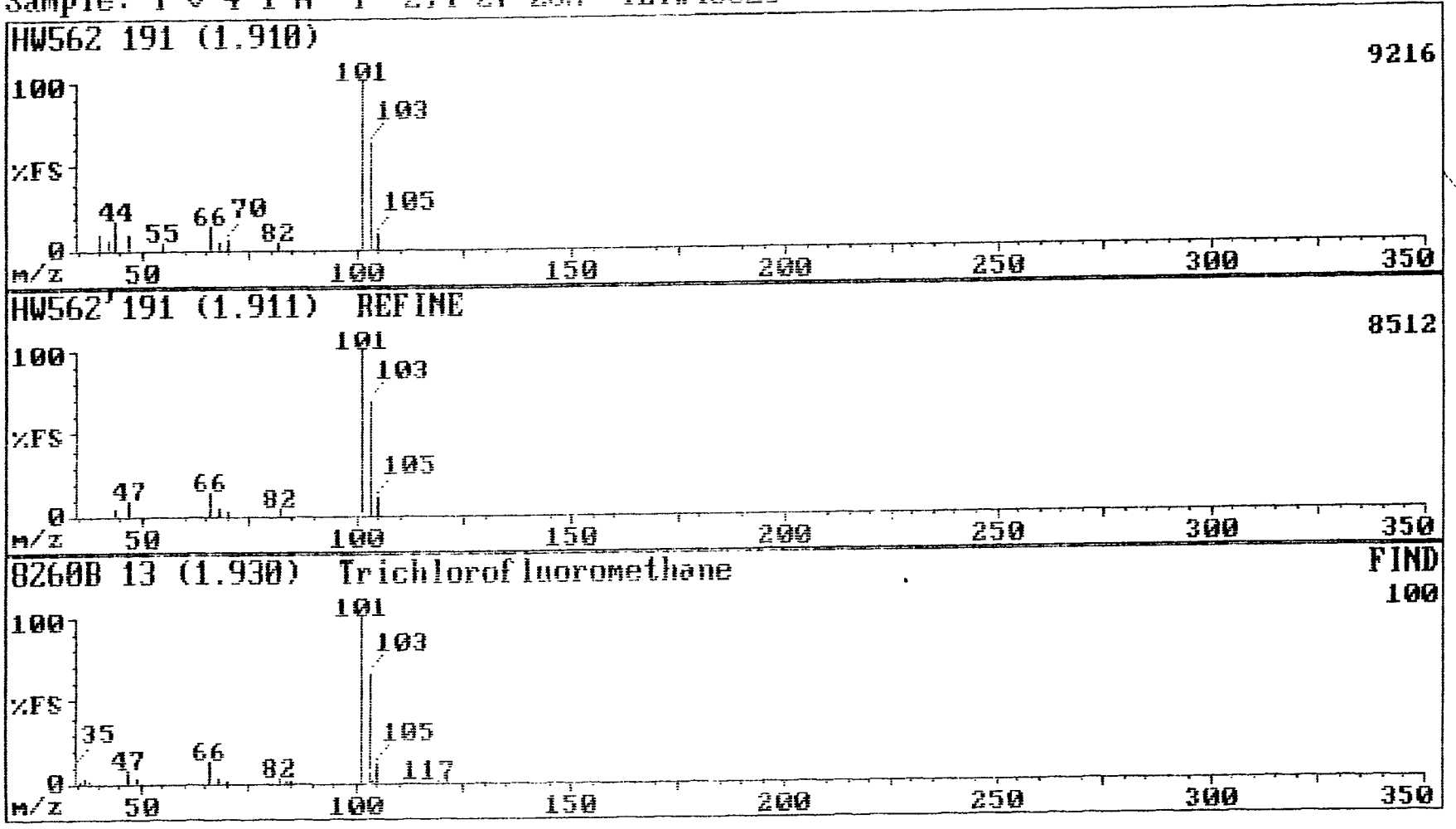
08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



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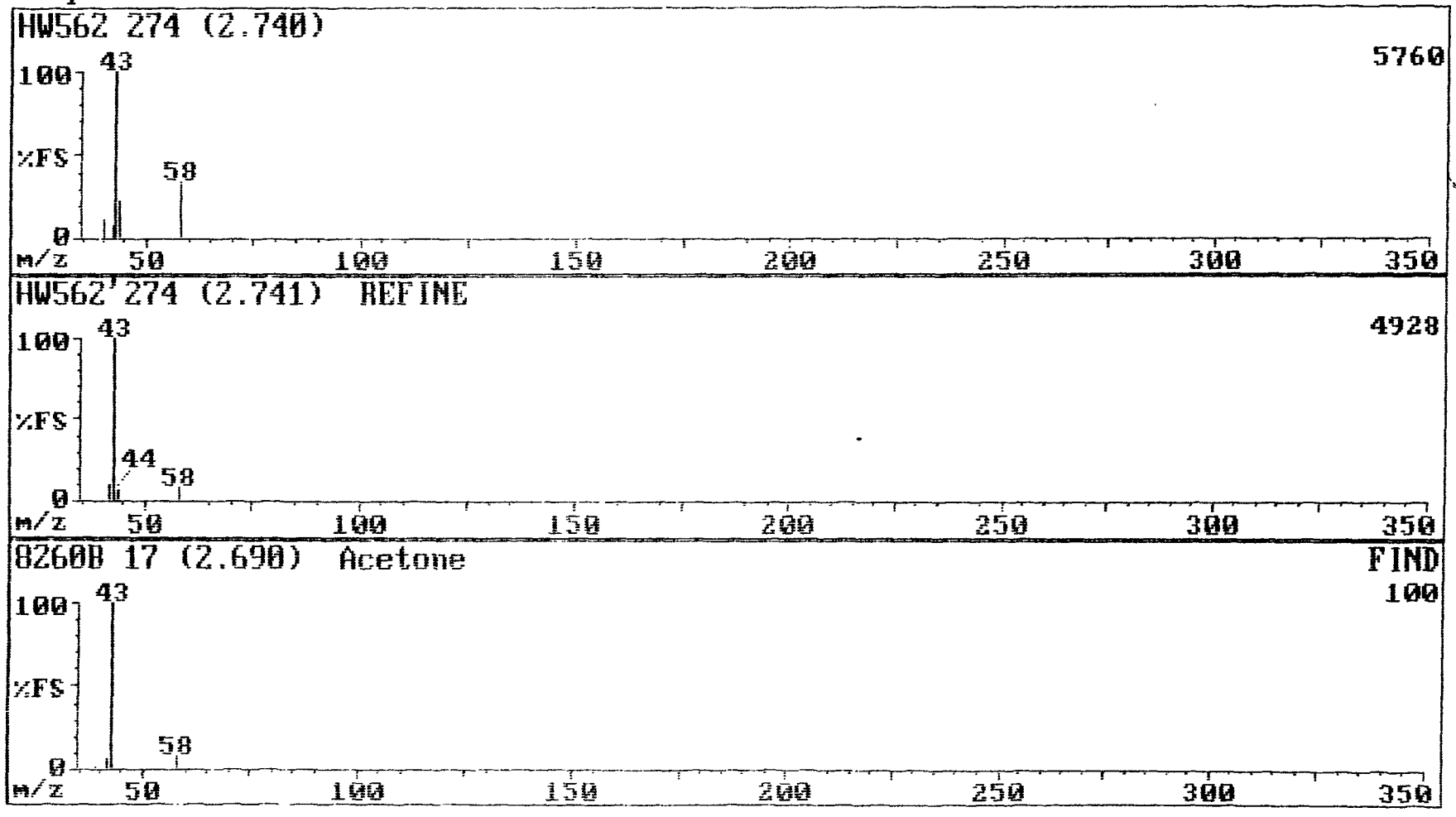
08-09-98 10:37 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-A T Z14-Z7-20A TLI#46323 Instrument H



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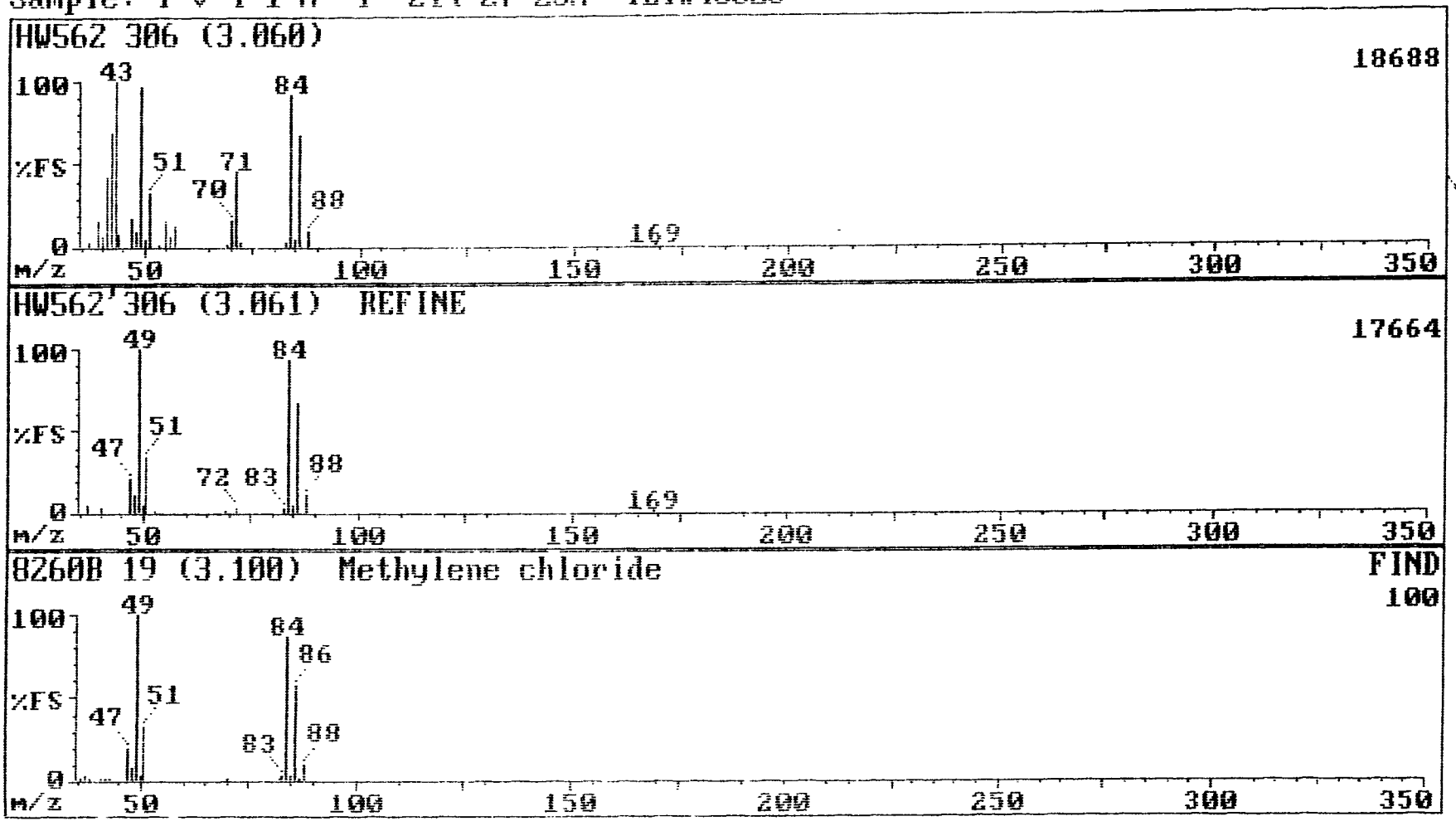
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



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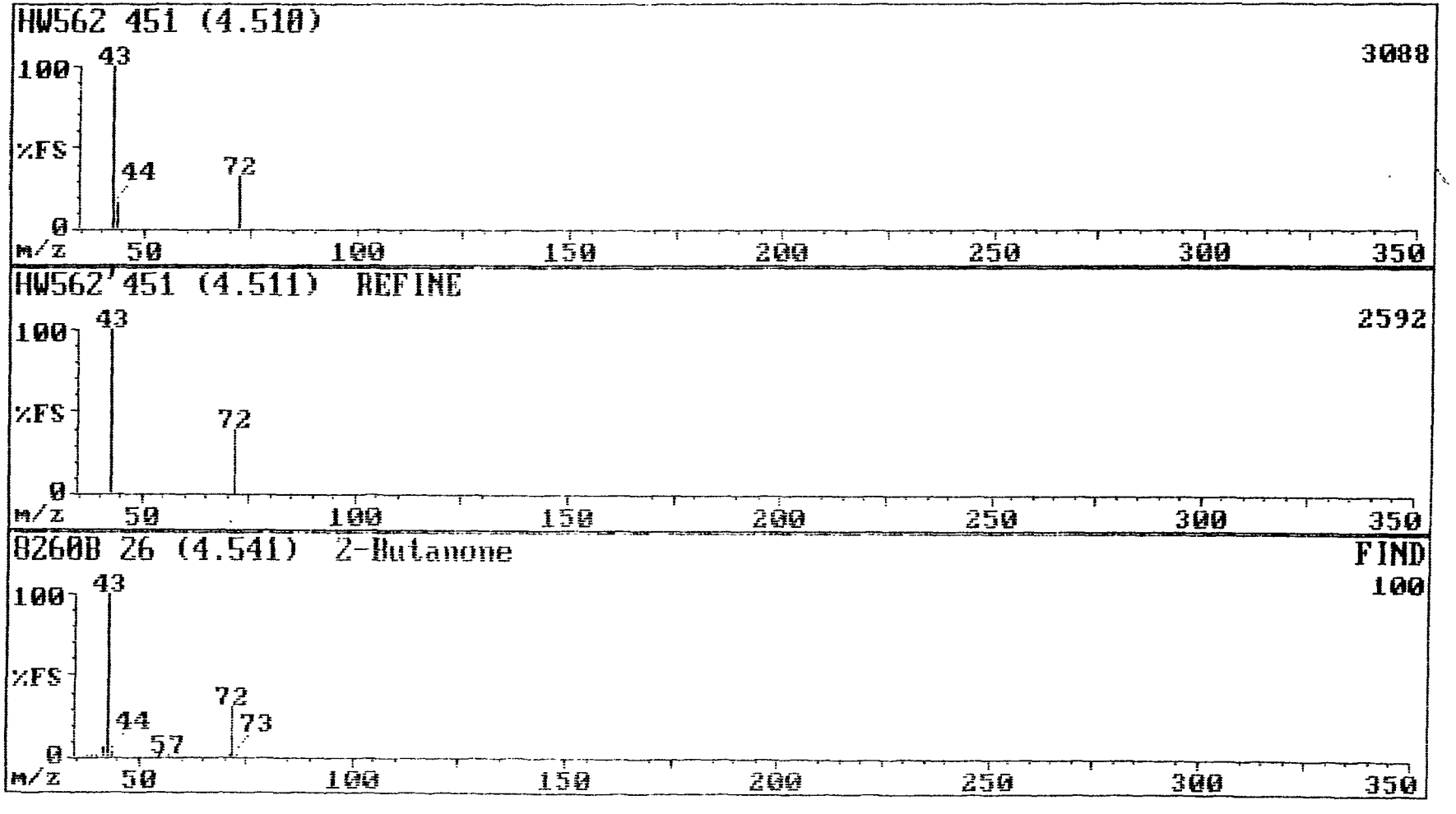

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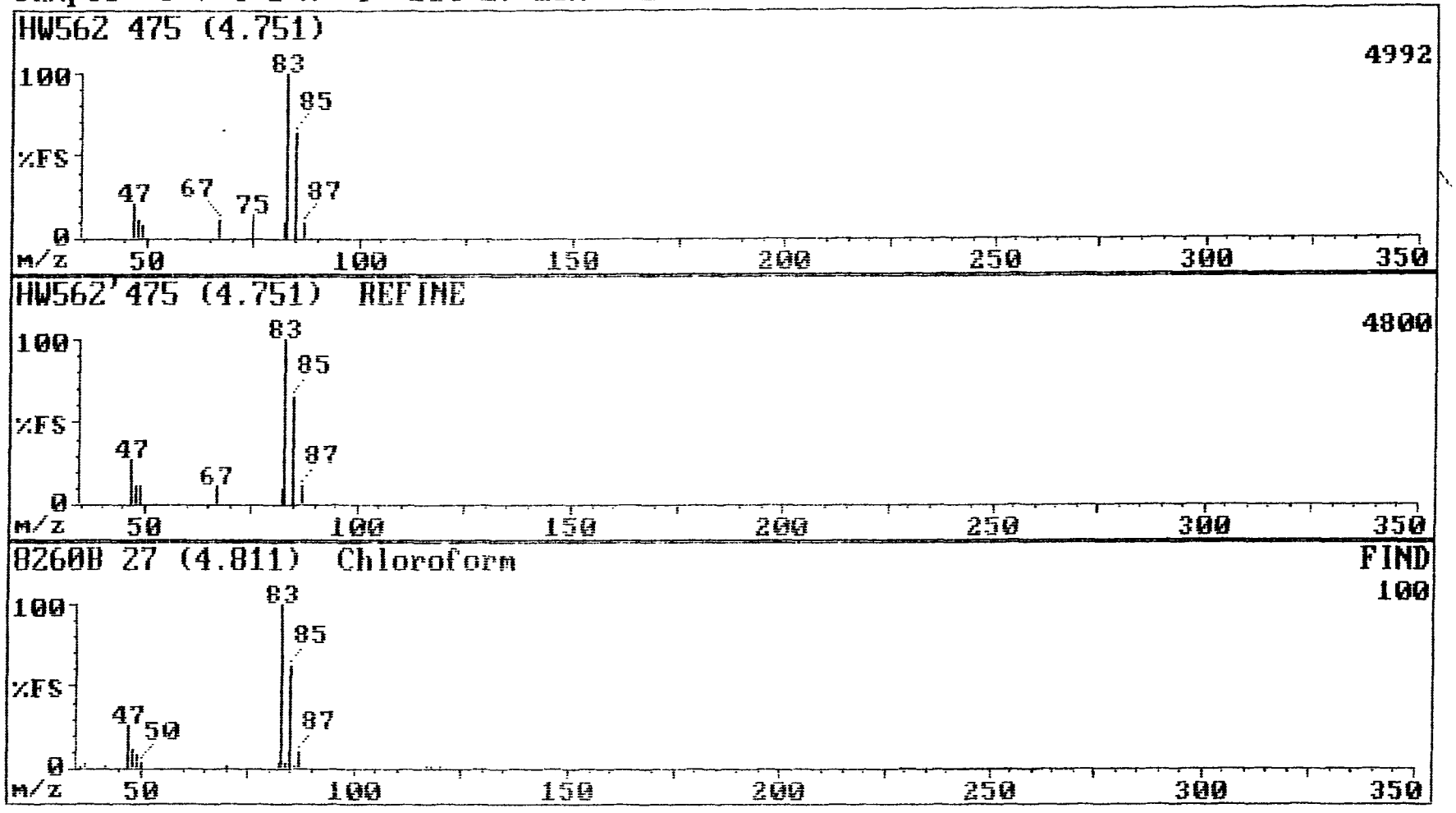
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



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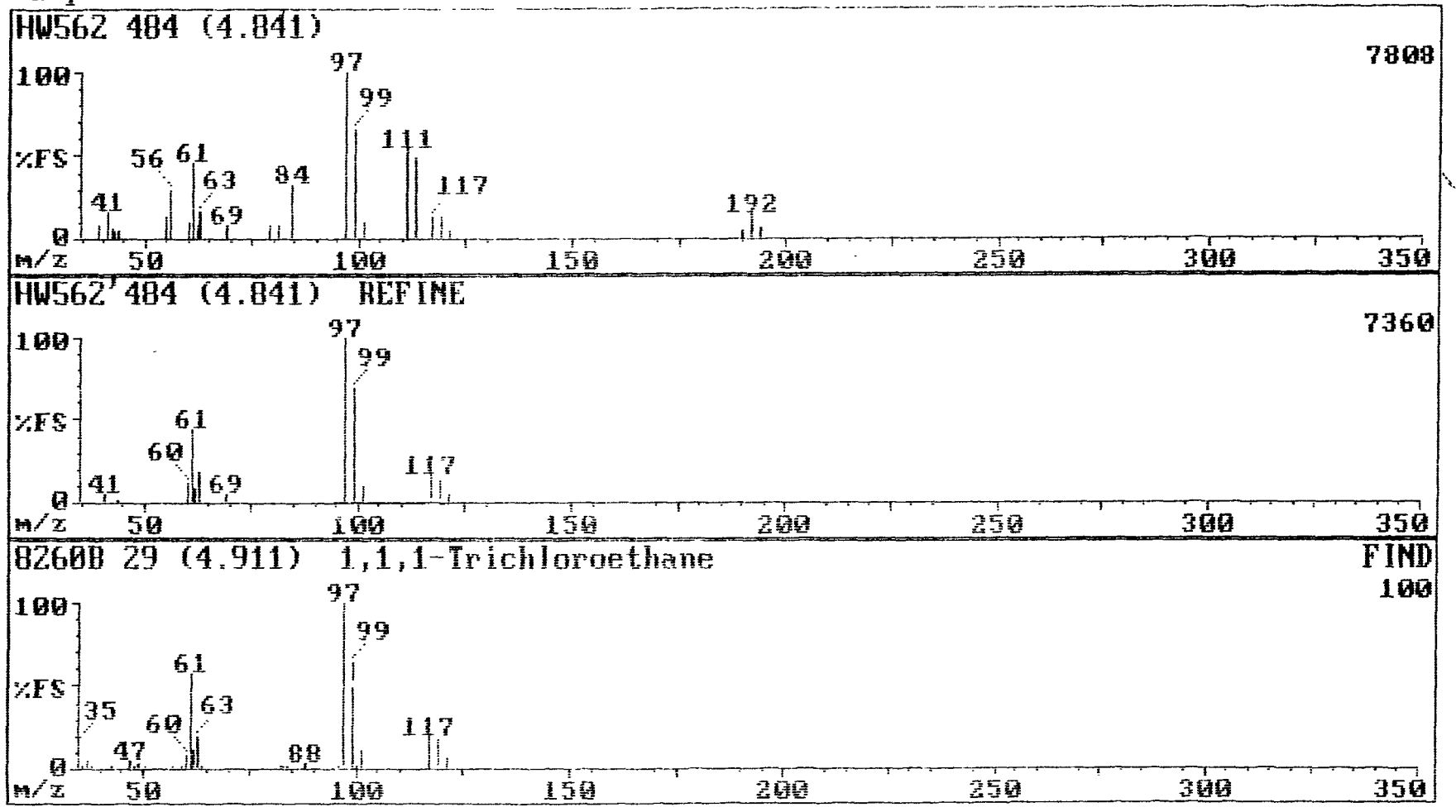
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



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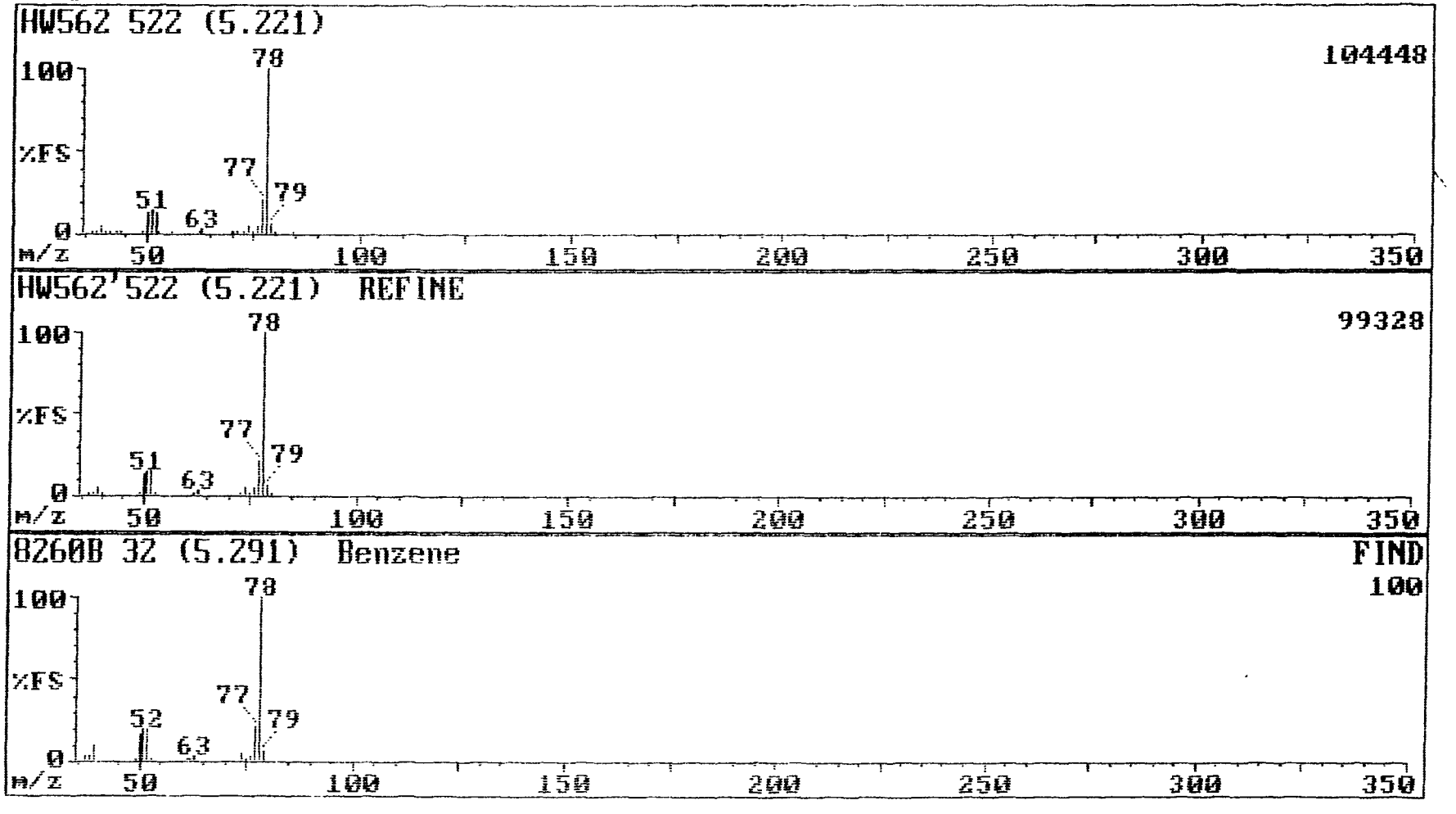
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



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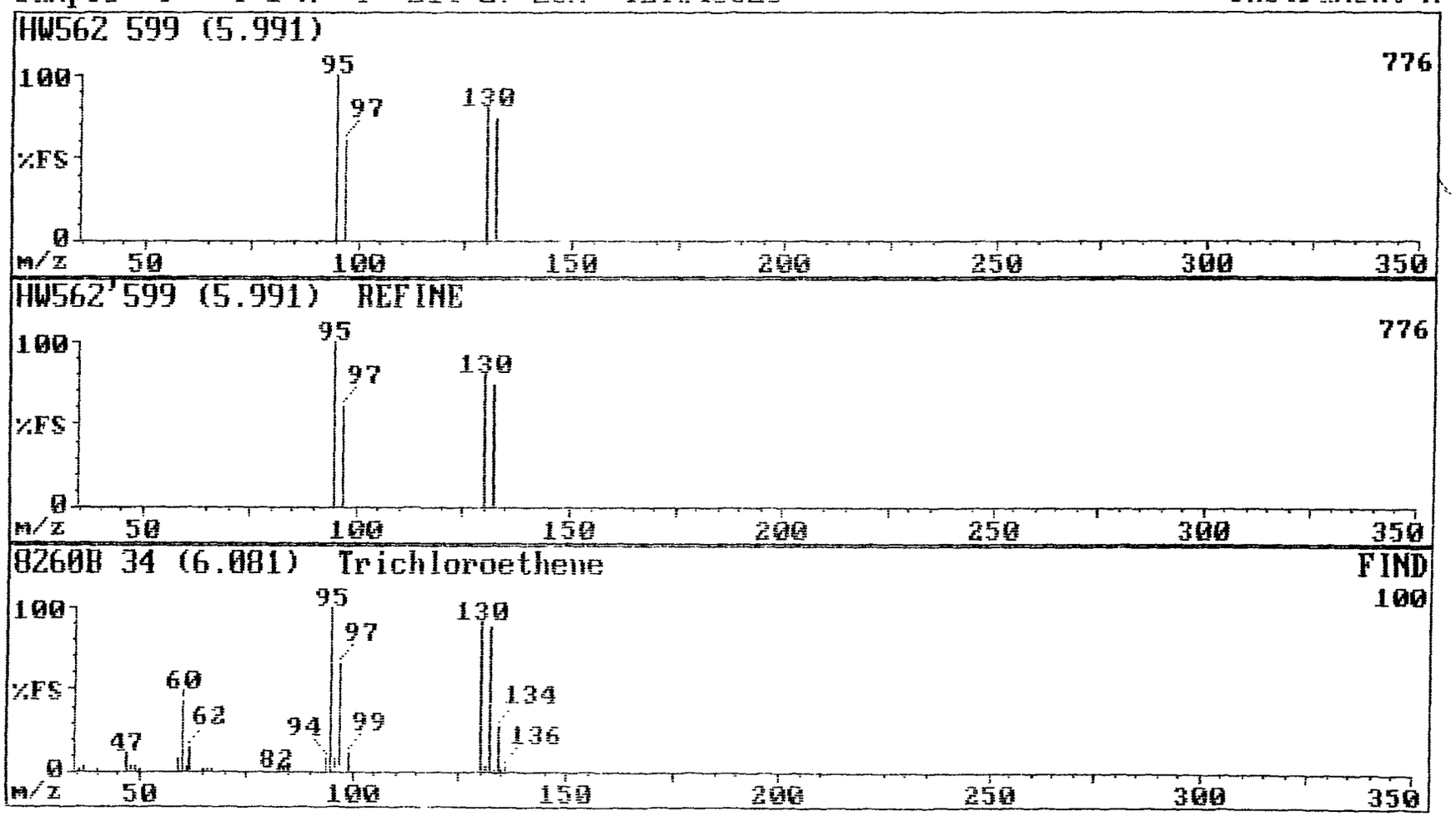
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



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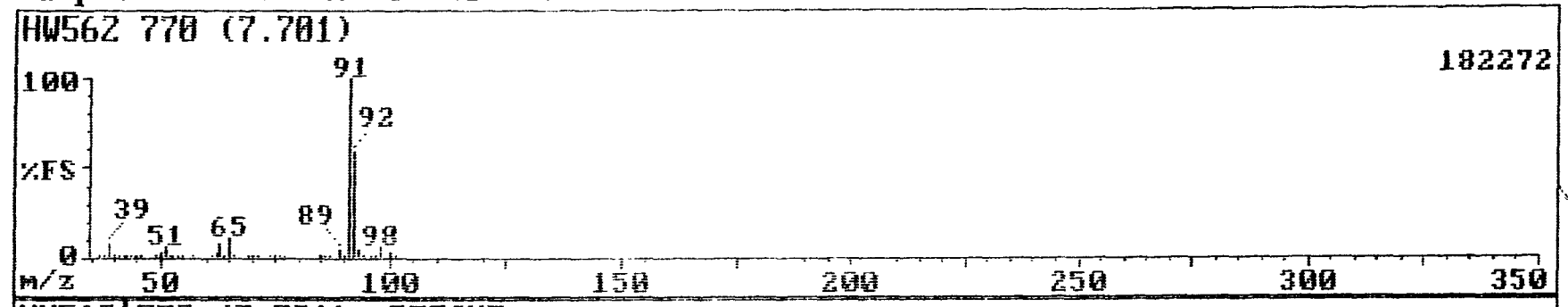
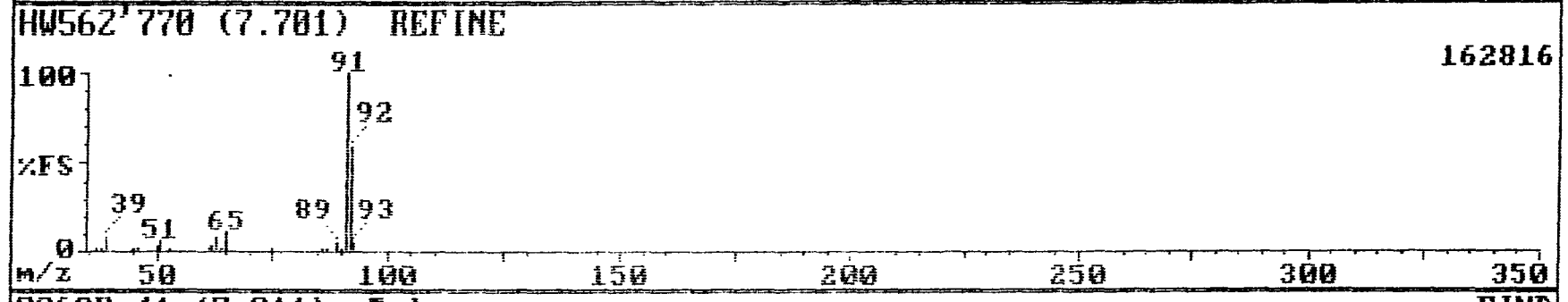
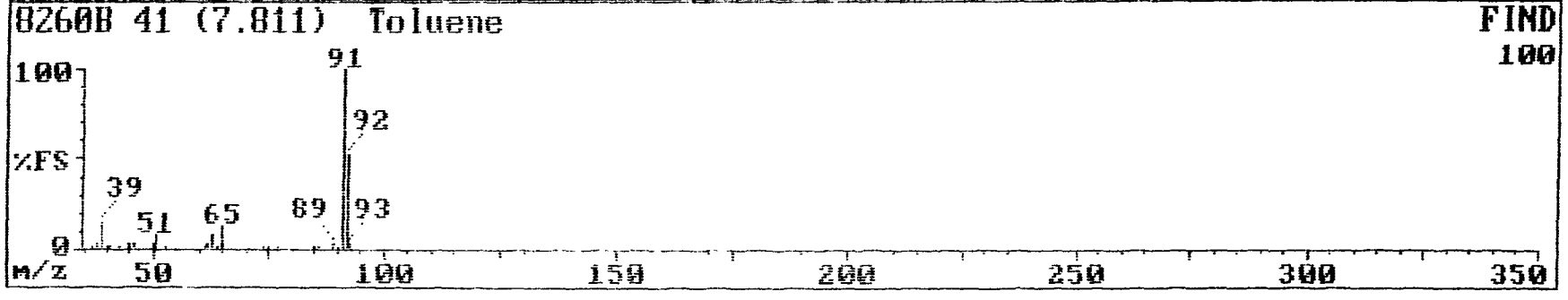
Sample: T-V-4-1-A T Z14-27-20A TLI#46323 Instrument H







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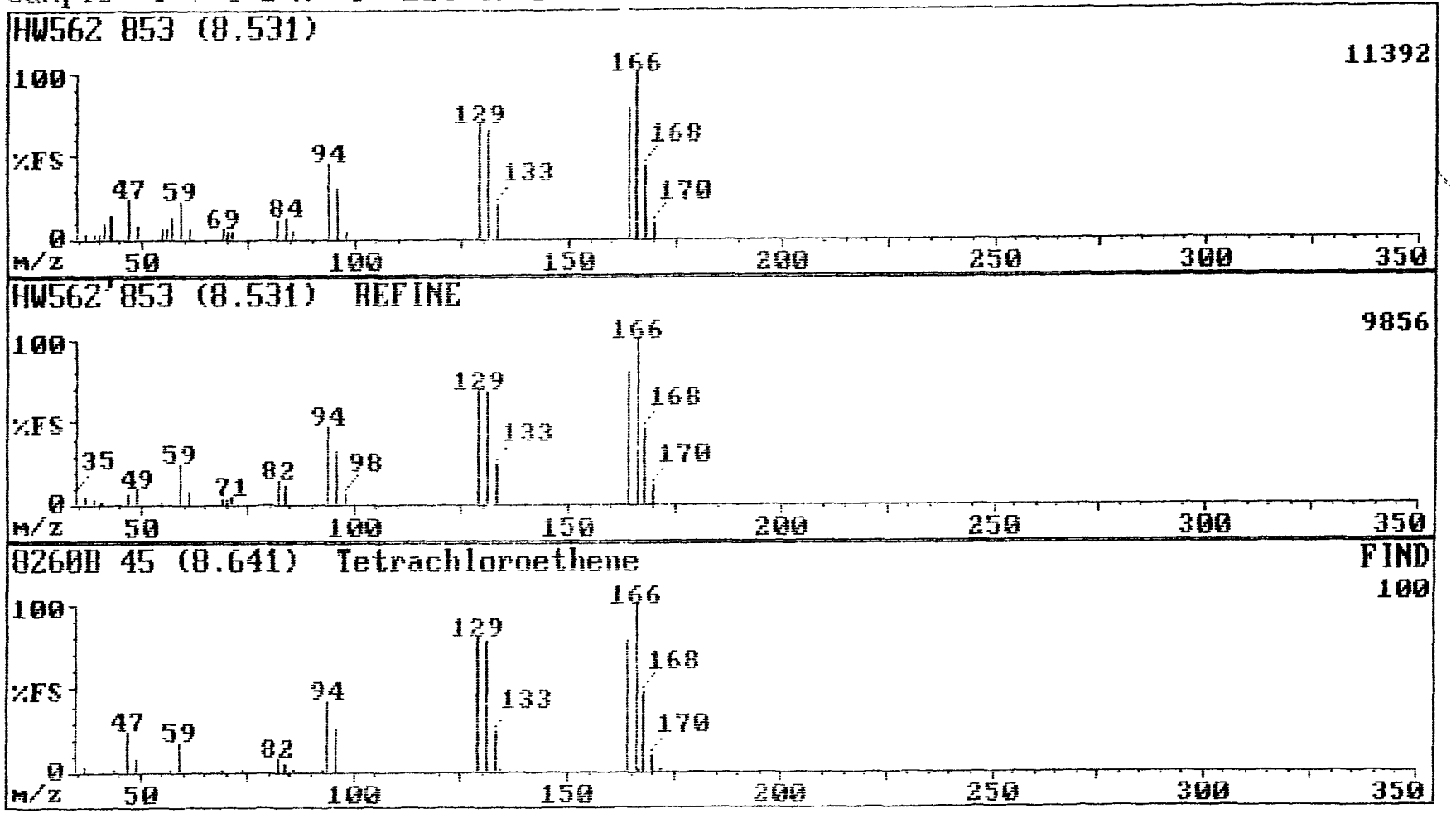
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



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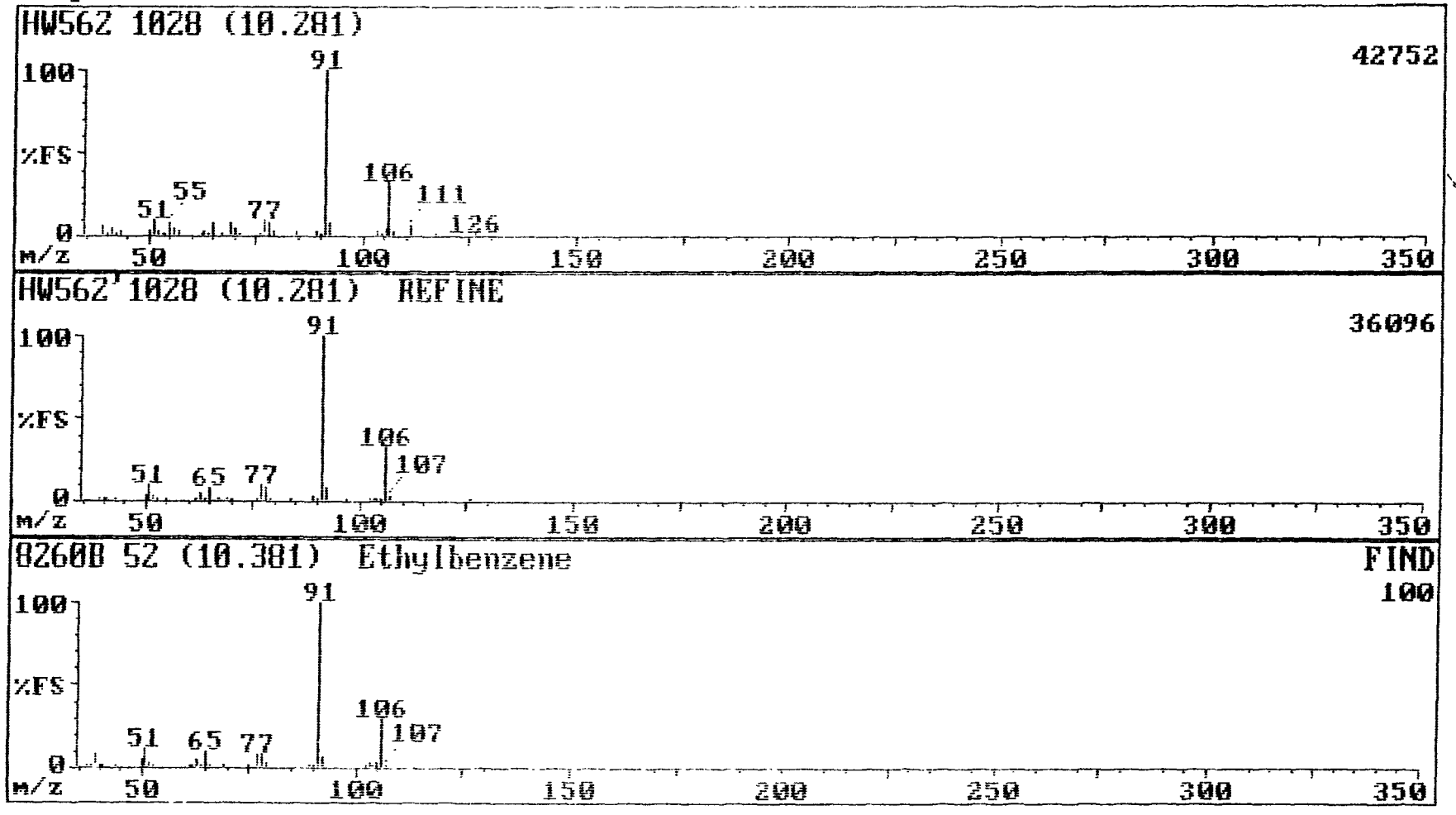
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



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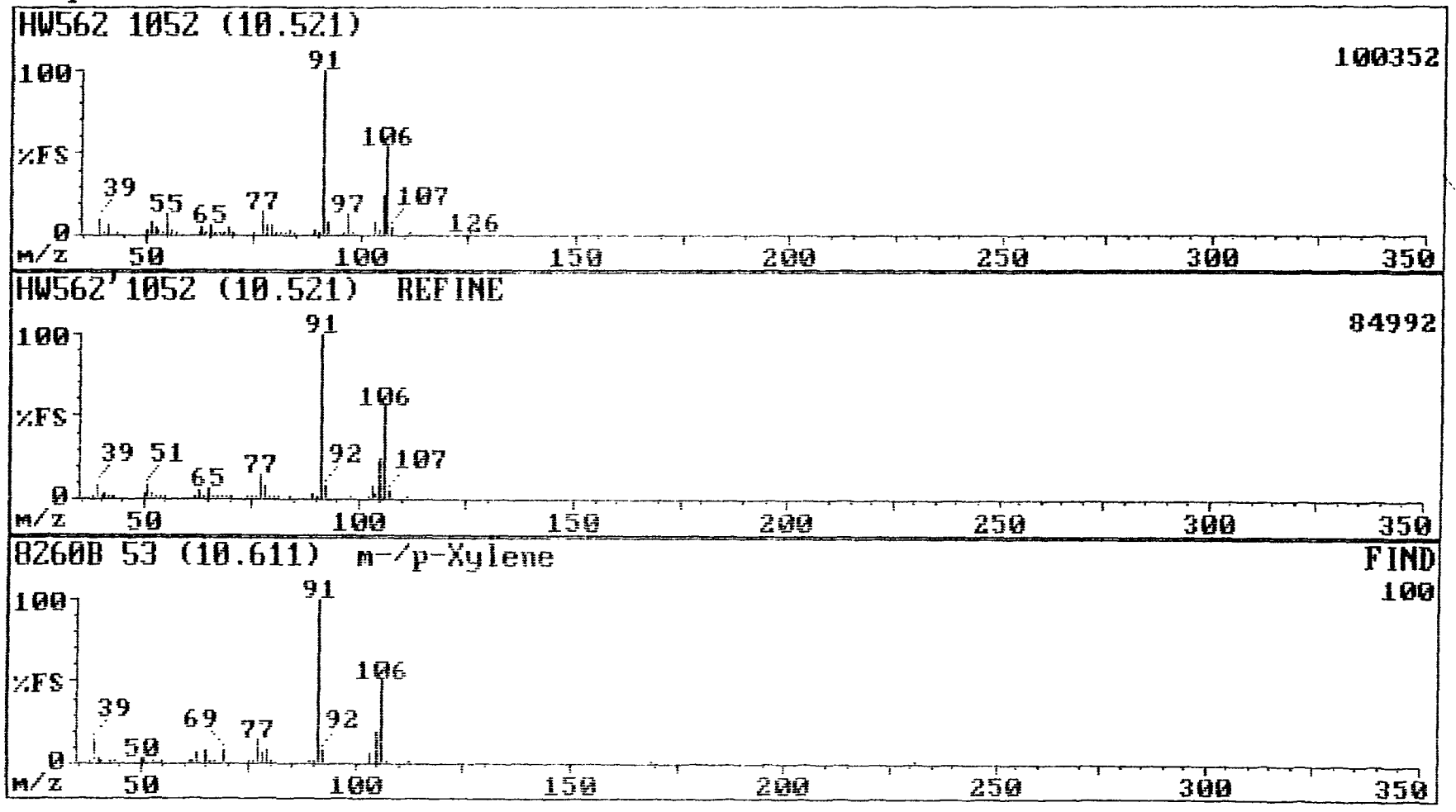
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



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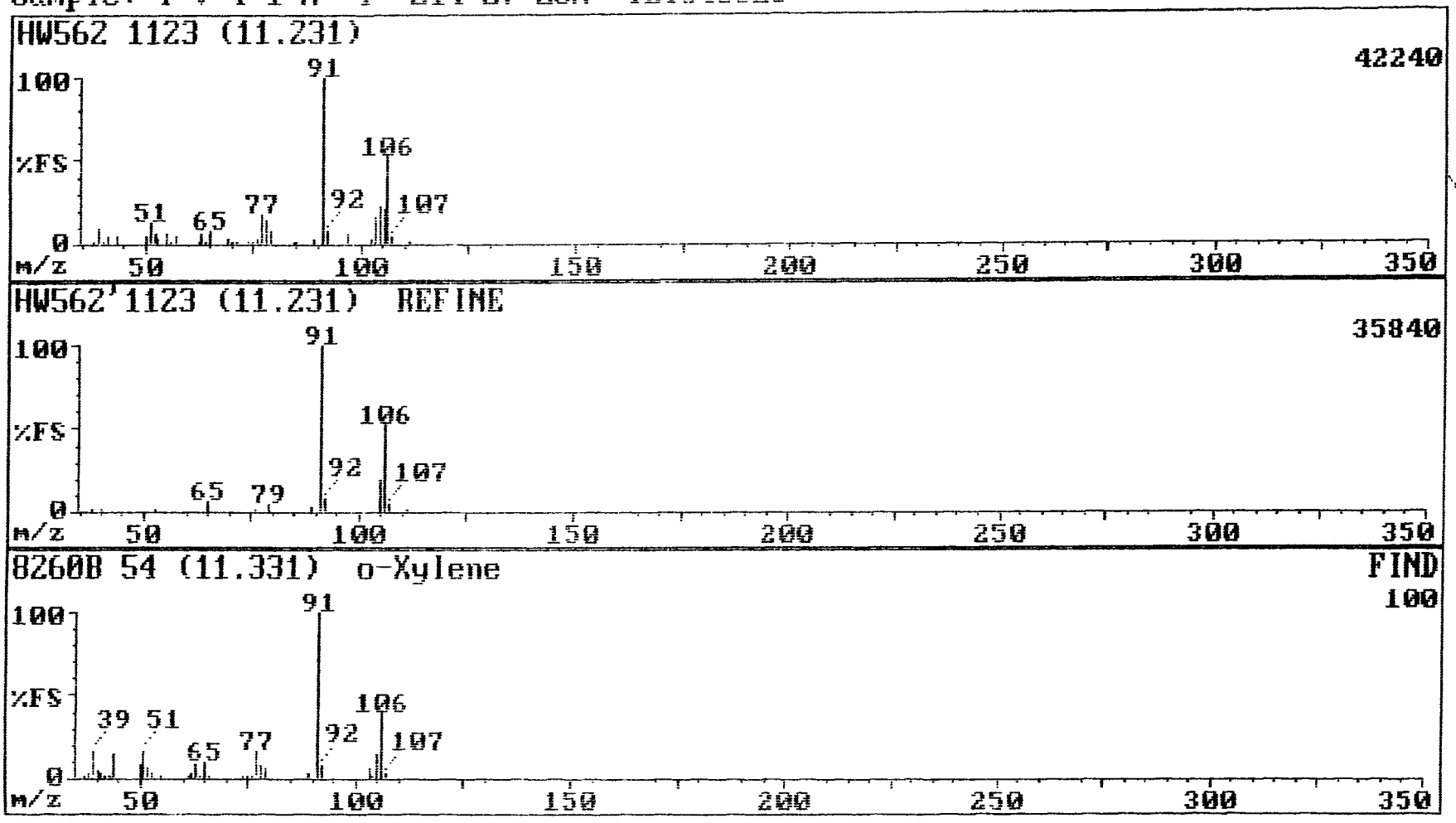
Sample: T-V-4-1-A T Z14-27-20A TLI#46323 Instrument H



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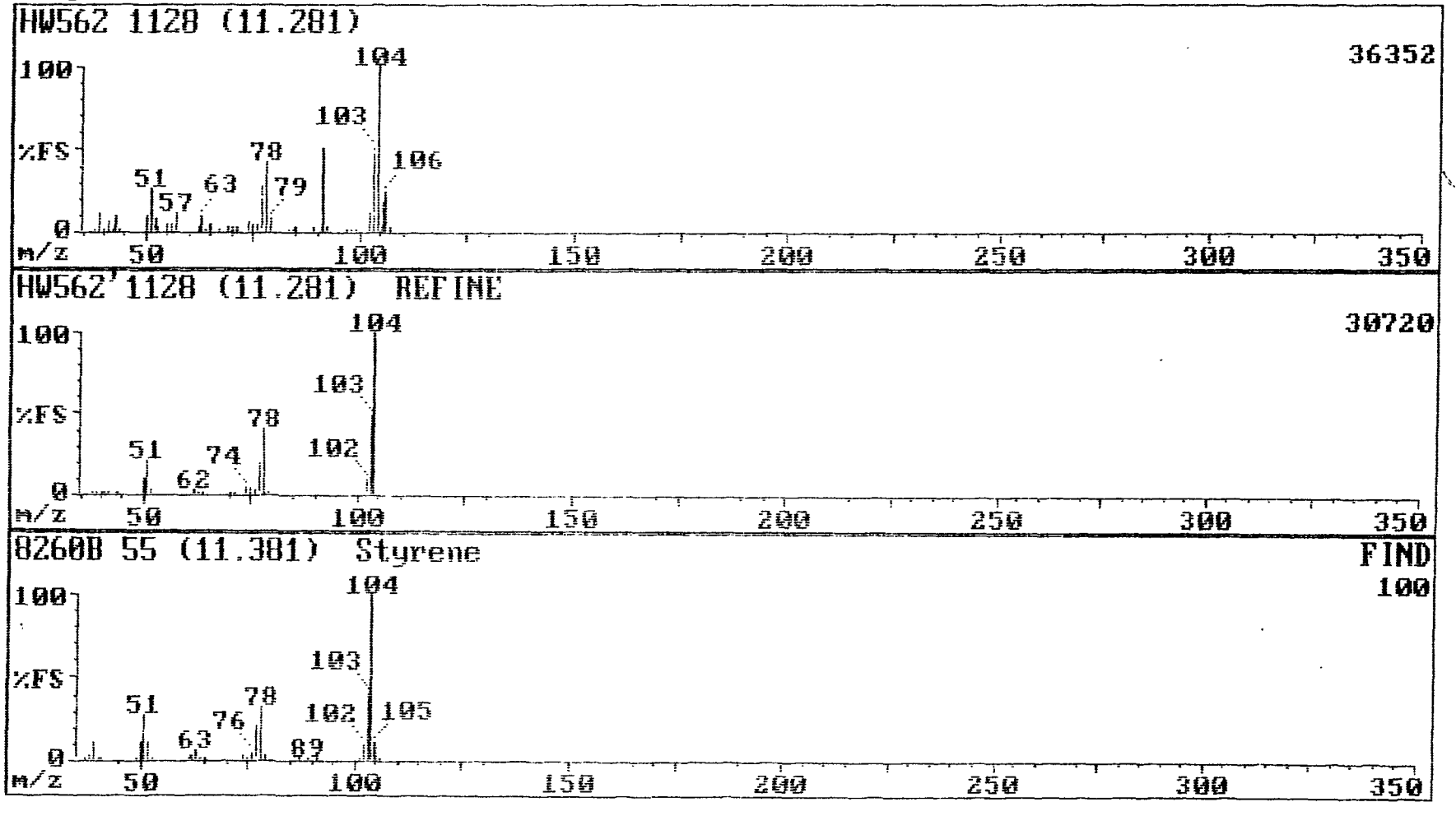
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



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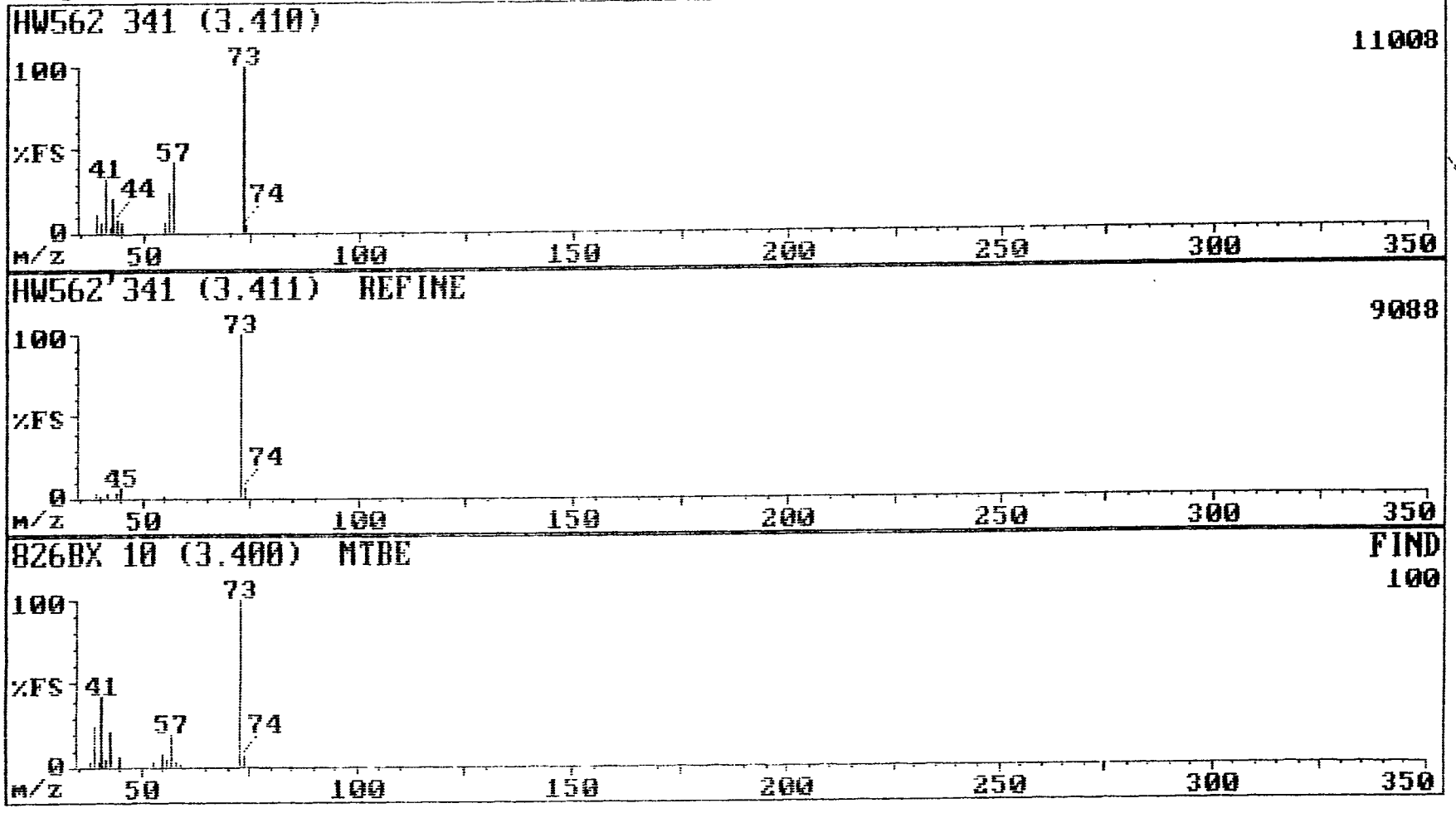
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



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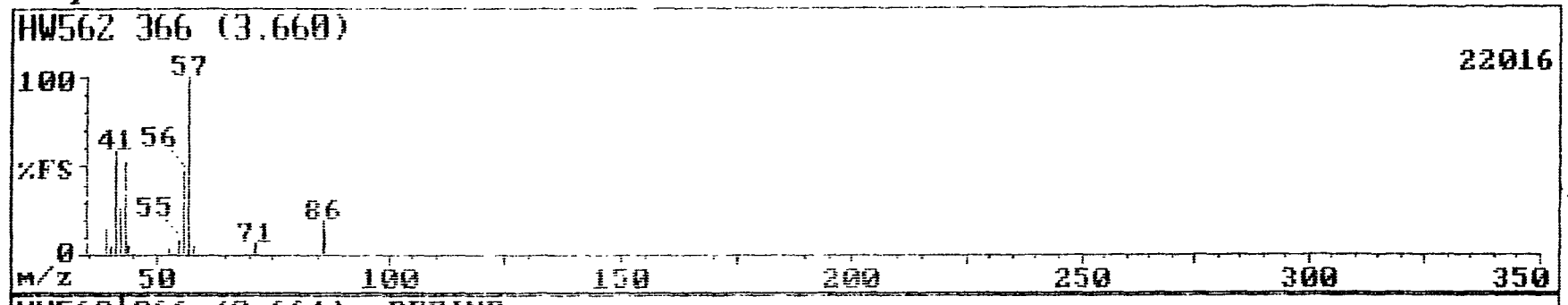
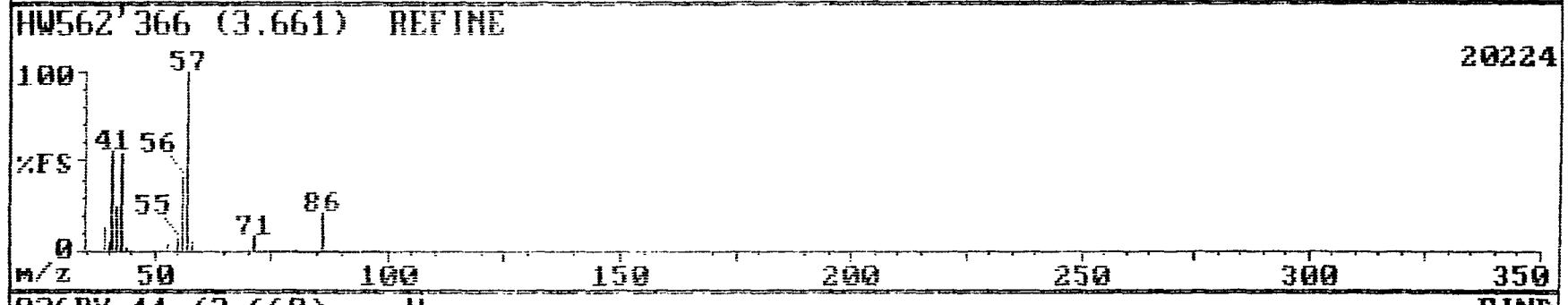
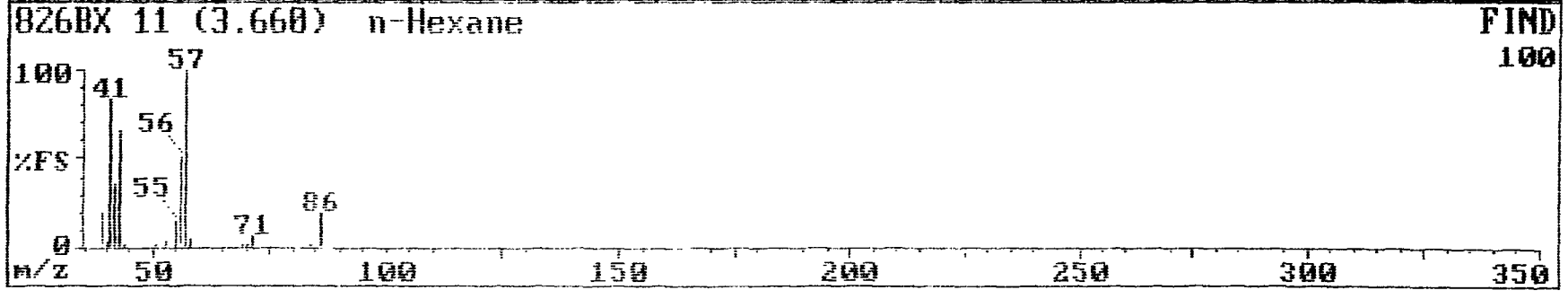
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H







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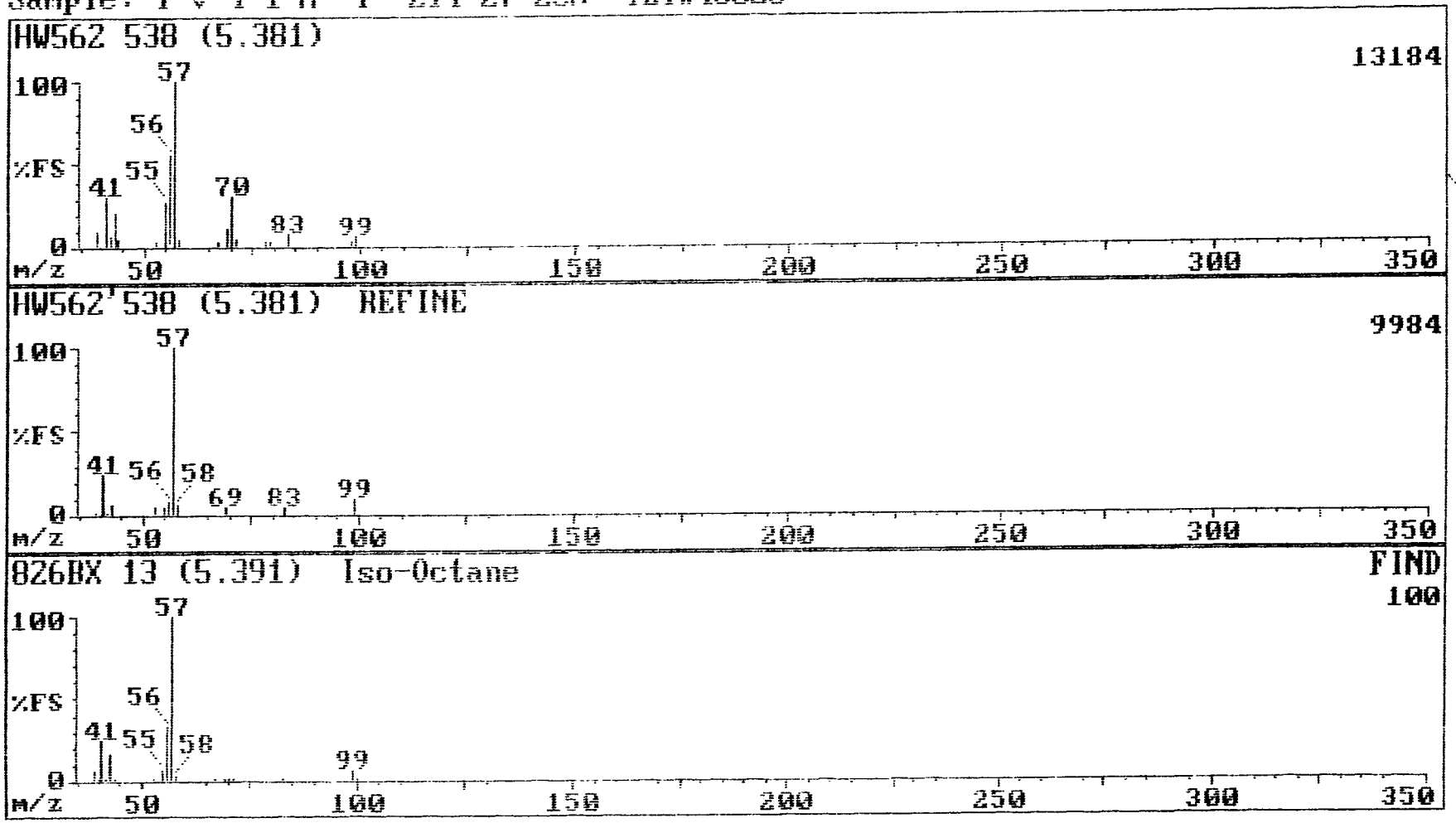
Sample: T-V-4-1-A T 214-27-20A TLI#46323 Instrument H



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Pacific Environmental Services

Project Number: 46323
Sample File: HW560

Method 8260 VOST
Sample ID: T-V-4-1-B TC

Client Project: R012.001
TLI ID: 214-27-20B

Date Received: 07/29/98
Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.04		
Chloromethane	0.020	BJ	0.97		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.003	BJ	1.48		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.015	J	1.90		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone	0.087		2.77		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.327	B	3.06		0.05
Acrylonitrile		U		0.006	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	5.77		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.010	BJ	5.24		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Triangle Laboratories, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

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Printed: 16:11 08/10/1998

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Pacific Environmental Services

Project Number: 46323 | **Method 8260 VOST**
Sample File: HW560 | **Sample ID: T-V-4-1-B TC**

Client Project: R012.001 | **Date Received: 07/29/98** | **Response File: ICALH809**
TLI ID: 214-27-20B
Date Analyzed : 08/09/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.002	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.001	0.05
Toluene	0.016	BJ	7.74		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	9.96		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.002	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.001	J	10.31		0.05
m-/p-Xylene	0.002	J	10.54		0.10
o-Xylene	0.001	J	11.26		0.05
Styrene	0.002	BJ	11.31		0.05
Bromoform		U		0.001	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.08		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

Pacific Environmental Services

Project Number: 46323
Sample File: HW560

Method 8260 VOST
Sample ID: T-V-4-1-B TC

Client Project: R012.001
TLI ID: 214-27-20B

Date Received: 07/29/98
Date Analyzed : 08/09/98

Response File: ICALH809

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.257	4.91	1	103
Toluene-d_8	0.289	7.65	2	116
4-Bromofluorobenzene	0.291	12.25	2	116

Reviewed by PAB Date 8/10/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: HW560

Method 8260 VOST
Sample ID: T-V-4-1-B TC

Client Project: R012.001
TLI ID: 214-27-20B

Date Received: 07/29/98
Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.04		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.014	J	3.41		0.25
n-Hexane	0.005	J	3.67		0.25
1,2-Epoxybutane		U		0.046	0.25
Iso-Octane	0.010	J	5.40		0.25
1,4-Difluorobenzene		IS 2	5.77		
Ethyl acrylate		U		0.001	0.25

Reviewed by PaB Date 8/10/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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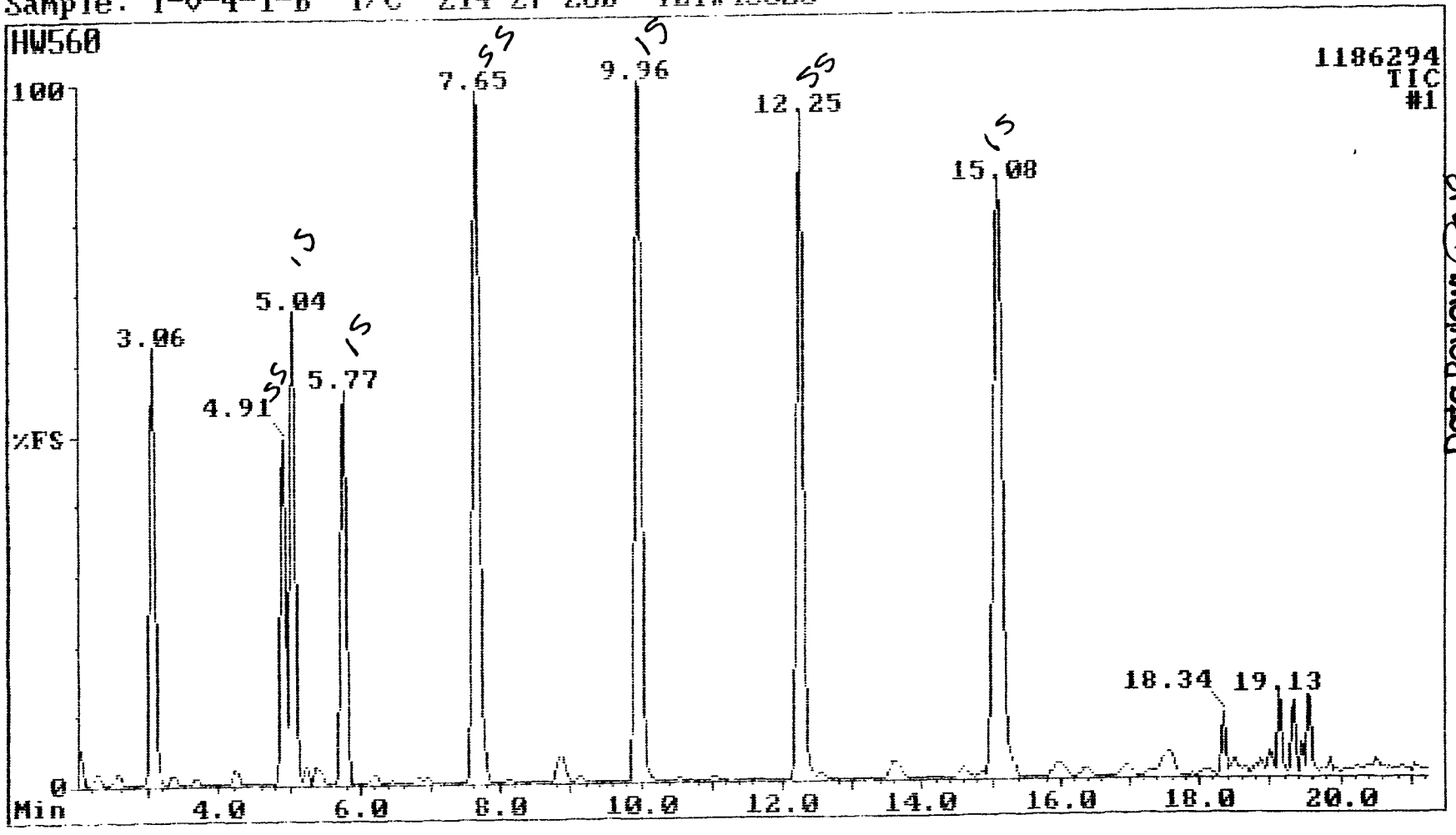
08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-B T/C 214-27-20B TLI#46323 Instrument H



Data Review: GDB
Date: 8/10/98

QUAN DB : HW560 LAB-BASE QUAN 08-09-98 09:

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	85	99	-5	2171720	bb	5.04	168	Pentafluorobenzene
2	100	97	98	0	2135508	bv	5.77	114	1,4-Difluorobenzene
3	100	95	95	2	3400236	bv	9.96	117	Chlorobenzene-d5
4	100	81	99	-6	2191016	bv	15.08	152	1,4-Dichlorobenzene-d
5	100	97	100	0	1187804	bv	4.91	113	Dibromofluoromethane
6	100	93	97	1	3458992	bv	7.65	98	Toluene-d8
7	100	90	93	4	1869376	bv	12.25	95	4-Bromofluorobenzene
8	88	44	96	-1	621716	bv	0.75	85	Dichlorodifluorometha
9	100	85	90	-1	67132	vv	0.97	50	Chloromethane
10	0	0	0	0	0		0.00	62	Vinyl Chloride
11	71	39	74	0	12992	bv	1.48	94	Bromomethane
12	0	0	0	0	0		0.00	64	Chloroethane
13	100	87	96	-1	135796	bb	1.90	101	Trichlorofluoromethan
14	0	0	0	0	0		0.00	96	1,1-Dichloroethene
15	0	0	0	0	0		0.00	142	Iodomethane
16	0	0	0	0	0		0.00	76	Carbon disulfide
17	63	52	34	11	37590	A	2.77	43	Acetone
18	0	0	0	0	0		0.00	41	Allyl chloride
19	100	98	99	-1	1006848	bv	3.06	84	Methylene chloride
20	0	0	0	0	0		0.00	53	Acrylonitrile
21	0	0	0	0	0		0.00	96	trans-1,2-Dichloroeth
22	0	0	0	0	0		0.00	63	1,1-Dichloroethane
23	0	0	0	0	0		0.00	43	Vinyl acetate
24	0	0	0	0	0		0.00	77	2,2-Dichloropropane
25	0	0	0	0	0		0.00	96	cis-1,2-Dichloroethe
26	~~57~~	~~45~~	~~49~~	~~3~~	~~3284~~	~~bb~~ (7P) PAB 8/10/98	~~4.53~~	43	2-Butanone
27	0	0	0	0	0		0.00	83	Chloroform
28	0	0	0	0	0		0.00	128	Bromochloromethane
29	0	0	0	0	0		0.00	97	1,1,1-Trichloroethan
30	0	0	0	0	0		0.00	117	Carbon tetrachloride
31	0	0	0	0	0		0.00	75	1,1-Dichloropropene
32	100	89	92	0	101484	bb	5.24	78	Benzene
33	0	0	0	0	0		0.00	62	1,2-Dichloroethane
34	0	0	0	0	0		0.00	130	Trichloroethene
35	0	0	0	0	0		0.00	63	1,2-Dichloropropane
36	0	0	0	0	0		0.00	93	Dibromomethane
37	0	0	0	0	0		0.00	41	Methyl methacrylate
38	0	0	0	0	0		0.00	83	Bromodichloromethane
39	0	0	0	0	0		0.00	75	cis-1,3-Dichloroprop
40	~~45~~	~~4~~	~~70~~	~~1~~	~~20568~~	~~A~~ (7P) PAB 8/10/98	~~7.64~~	43	4-Methyl-2-pentanone
41	100	86	95	1	139400	bb	7.74	92	Toluene
42	0	0	0	0	0		0.00	75	trans-1,3-Dichloropr
43	0	0	0	0	0		0.00	97	1,1,2-Trichloroethan
44	0	0	0	0	0		0.00	69	Ethyl methacrylate
45	0	0	0	0	0		0.00	164	Tetrachloroethene
46	0	0	0	0	0		0.00	76	1,3-Dichloropropane
47	~~23~~	~~10~~	~~40~~	~~11~~	~~11248~~	~~A~~ (7P) PAB 8/10/98	~~9.13~~	43	2-Hexanone
48	0	0	0	0	0		0.00	129	Dibromochloromethane
49	0	0	0	0	0		0.00	107	1,2-Dibromoethane
50	0	0	0	0	0		0.00	112	Chlorobenzene

Data Review: PAB
Date: 8/10/98

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No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.00	131	1,1,1,2-Tetrachloroethan
52	55	36	56	1	4492	A	10.31	106	Ethylbenzene
53	85	68	72	1	17724	bb	10.54	106	m-/p-Xylene
54	58	49	49	2	5568	A	11.26	106	o-Xylene
55	81	68	68	2	24040	bb	11.31	104	Styrene
56	0	0	0	0	0		0.00	173	Bromoform
57	~~46~~	~~44~~	~~44~~	~~7~~	~~4404~~	~~bb~~ (7p) PAB 8/10/98	~~12.04~~	105	Cumene
58	0	0	0	0	0		0.00	83	1,1,2,2-Tetrachloroetnan
59	0	0	0	0	0		0.00	156	Bromobenzene
60	0	0	0	0	0		0.00	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.00	120	n-Propylbenzene
62	0	0	0	0	0		0.00	75	trans-1,4-Dichloro-2-but
63	0	0	0	0	0		0.00	126	2-Chlorotoluene
64	0	0	0	0	0		0.00	126	4-Chlorotoluene
65	~~61~~	~~57~~	~~57~~	~~3~~	~~7204~~	~~A~~ (7p) PAB 8/10/98	~~13.34~~	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.00	119	tert-Butylbenzene
67	33	41	48	3	20336	A	14.25	105	1,2,4-Trimethylbenzene
68	37	16	46	1	12136	A	14.75	105	sec-Butylbenzene
69	0	0	0	0	0		0.00	119	p-Cymene
70	0	0	0	0	0		0.00	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.00	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.00	91	Benzyl chloride
73	0	0	0	0	0		0.00	91	n-Butylbenzene
74	0	0	0	0	0		0.00	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.00	75	1,2-Dibromo-3-chloropro
76	69	86	97	17	108488	bv	19.13	180	1,2,4-Trichlorobenzene
77	39	20	89	17	14820	bb	19.34	225	Hexachlorobutadiene
78	57	68	84	17	221824	bv	19.33	128	Naphthalene
79	69	88	96	17	105276	bv	19.54	180	1,2,3-Trichlorobenzene

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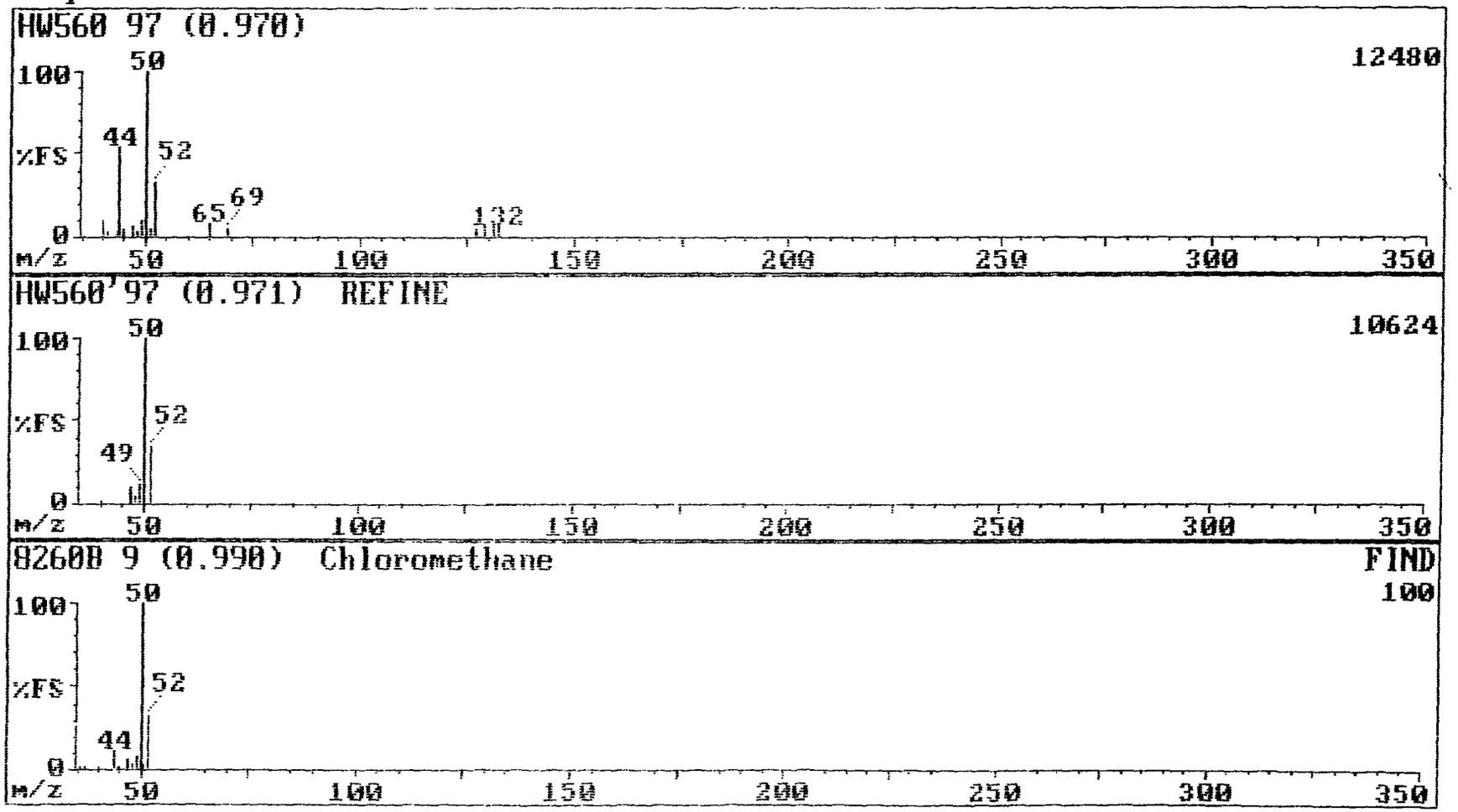
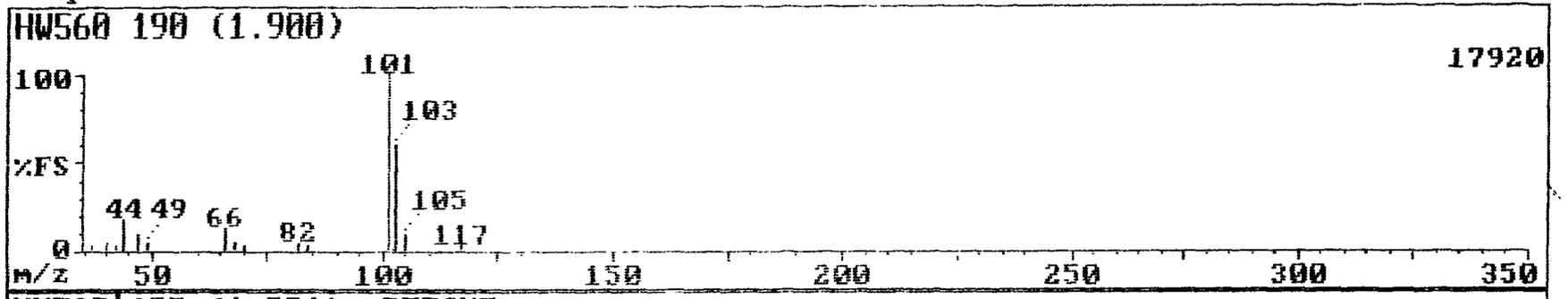
08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

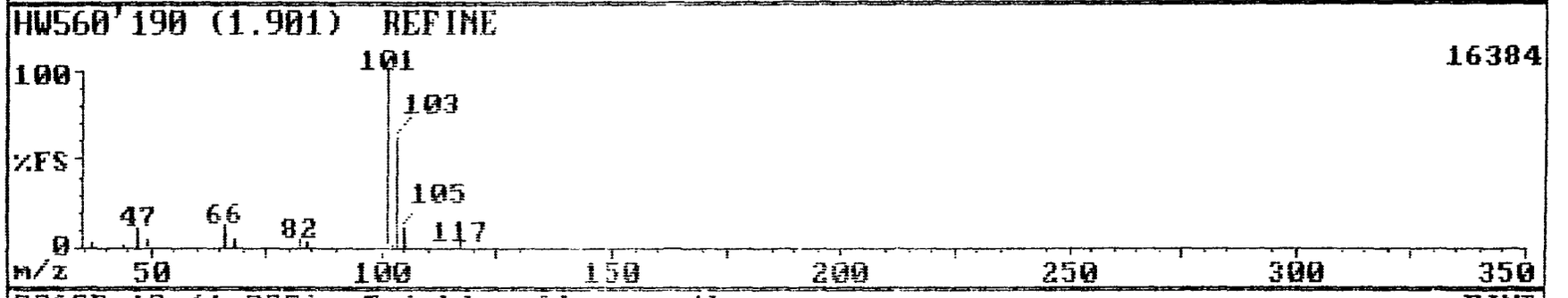
Sample: T-V-4-1-B T/C 214-27-20B TLI#46323 Instrument H

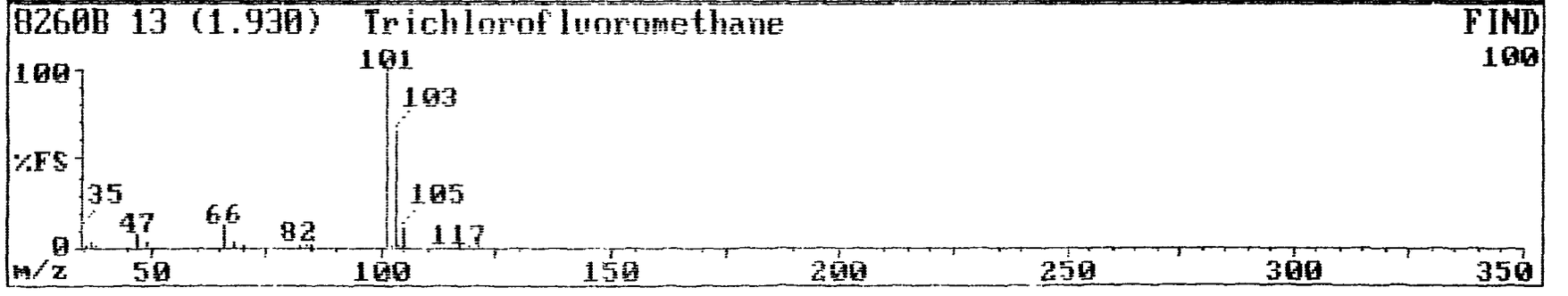


08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-B T/C 214-27-20B TLI#46323 Instrument H

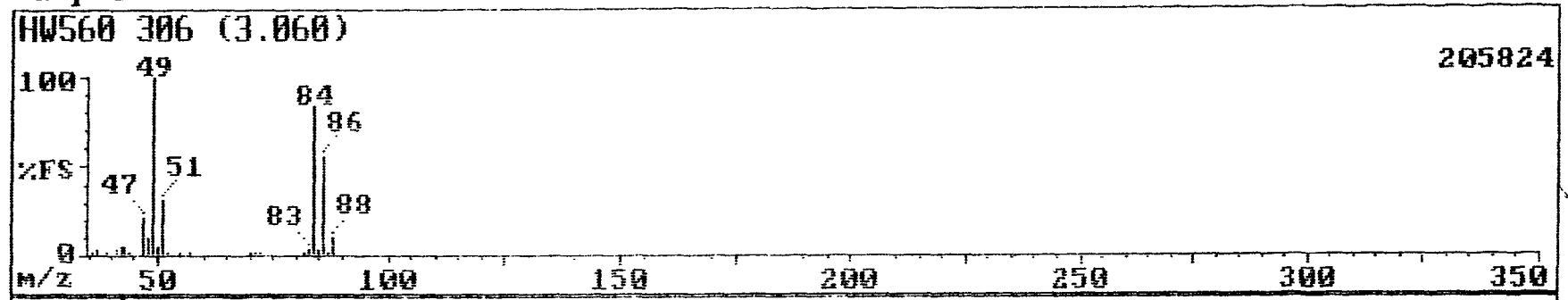


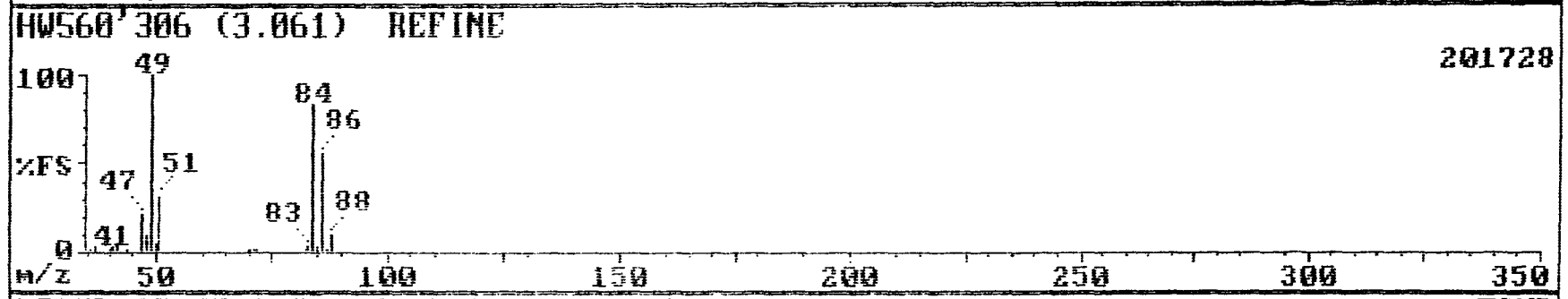


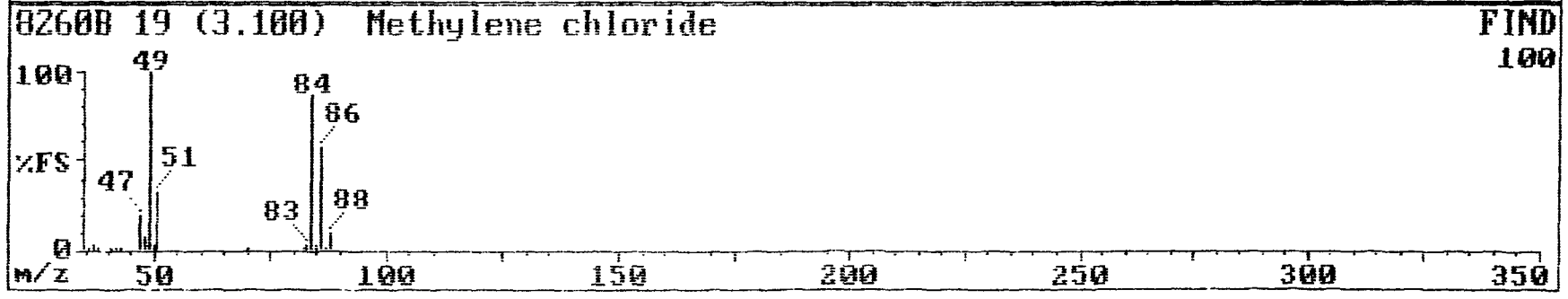


08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-B T/C 214-27-20B TLI#46323 Instrument H



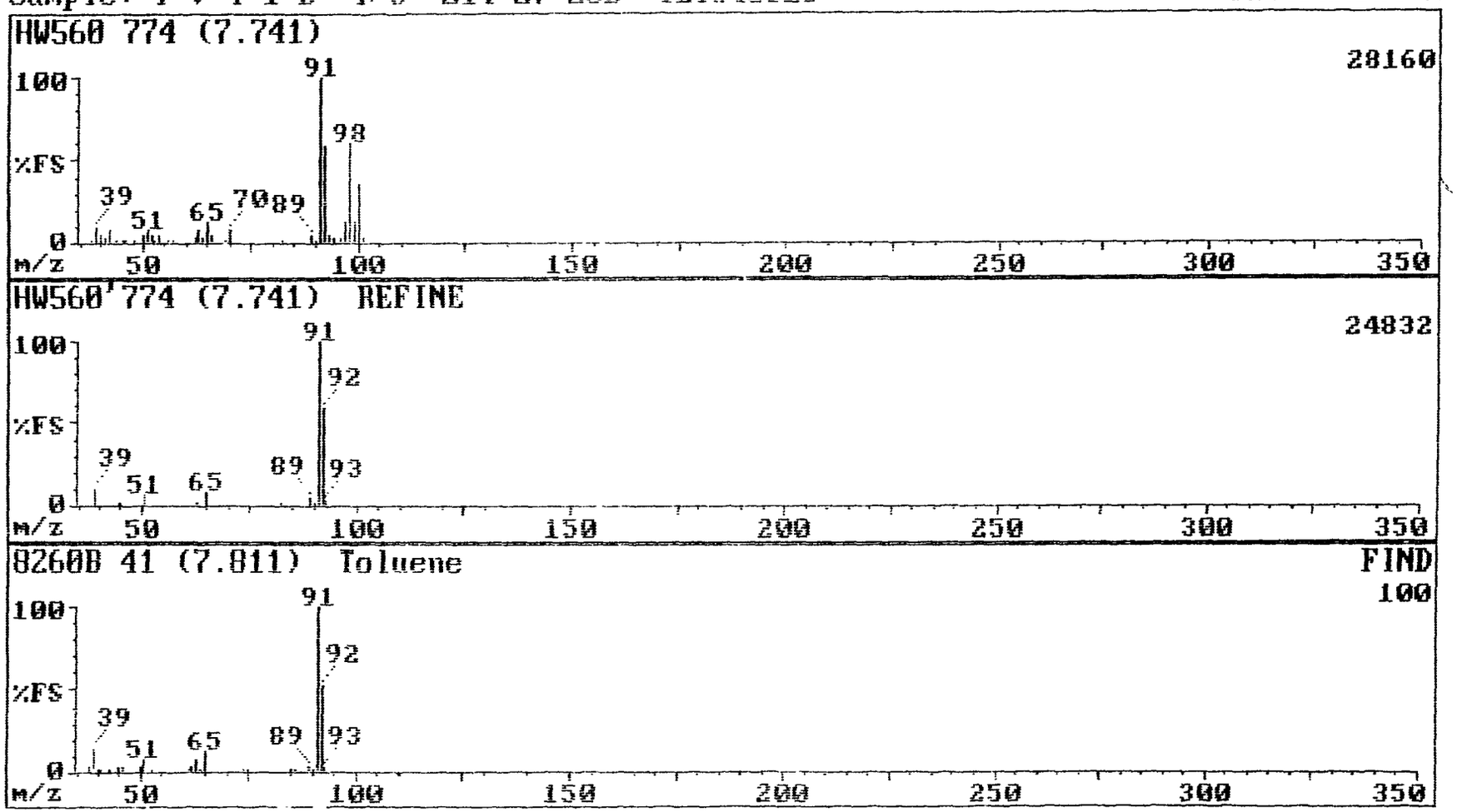




440

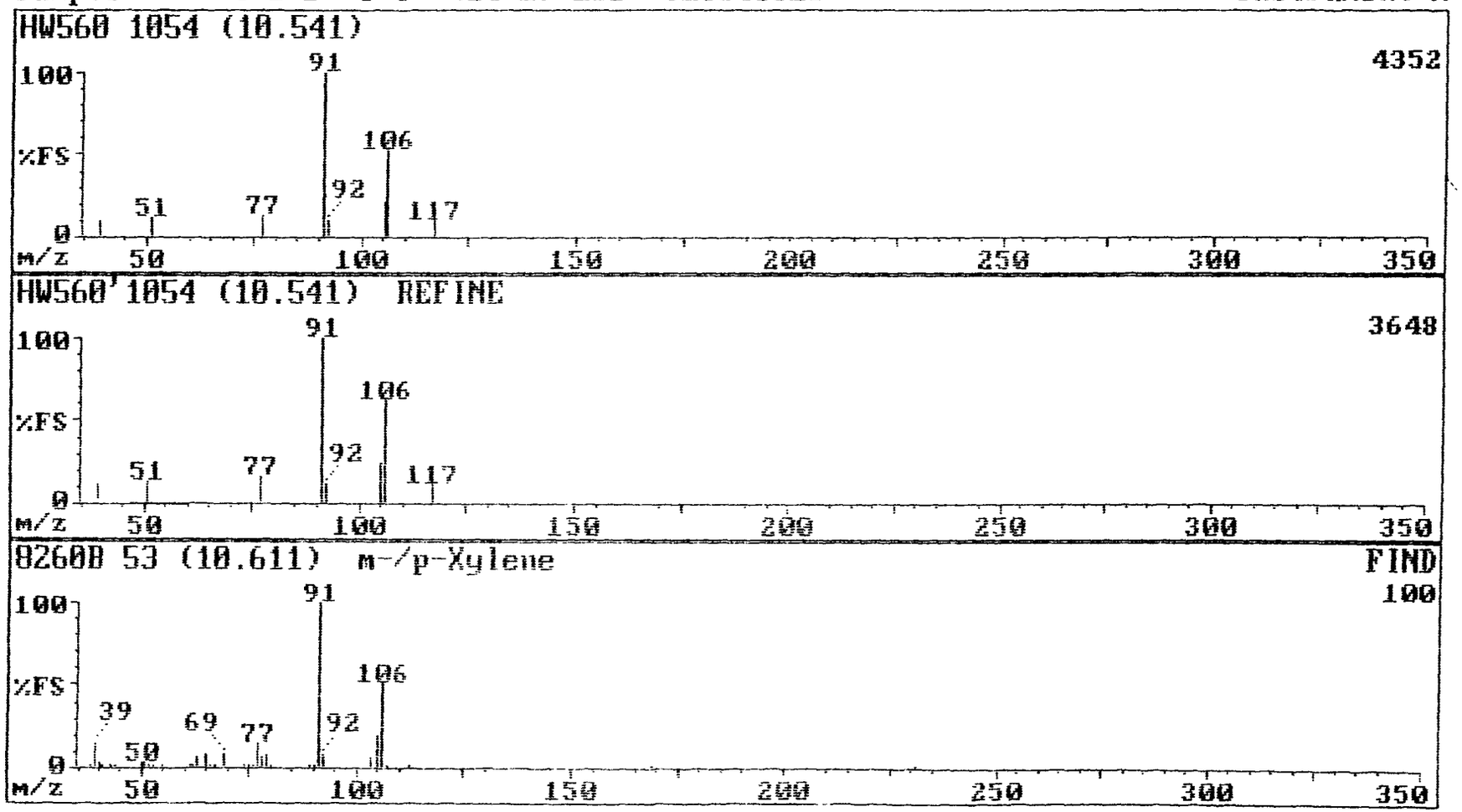
08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-B T/C Z14-27-20B TLI#46323 Instrument H



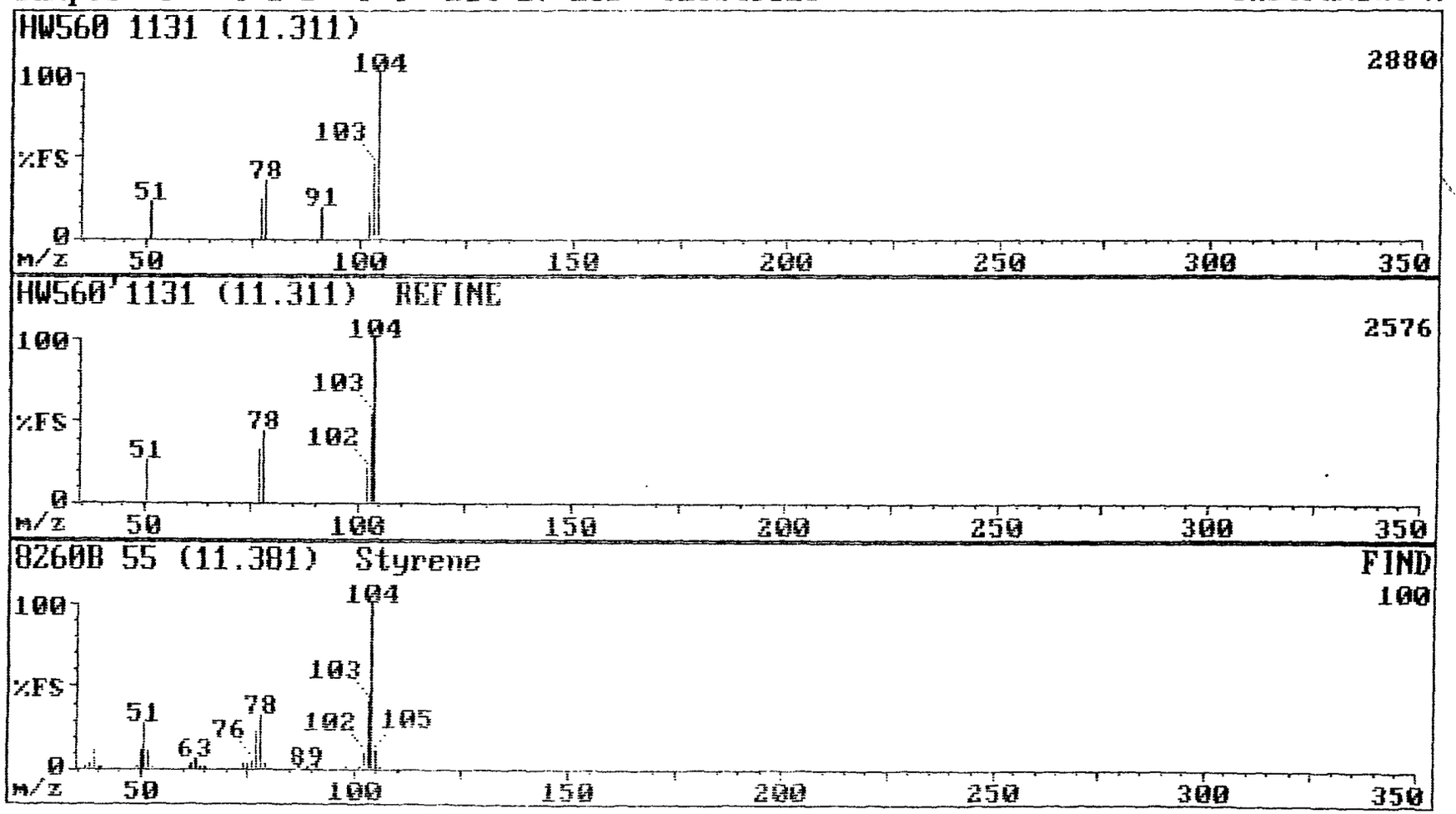
08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-B T/C 214-27-20B TLI#46323 Instrument H



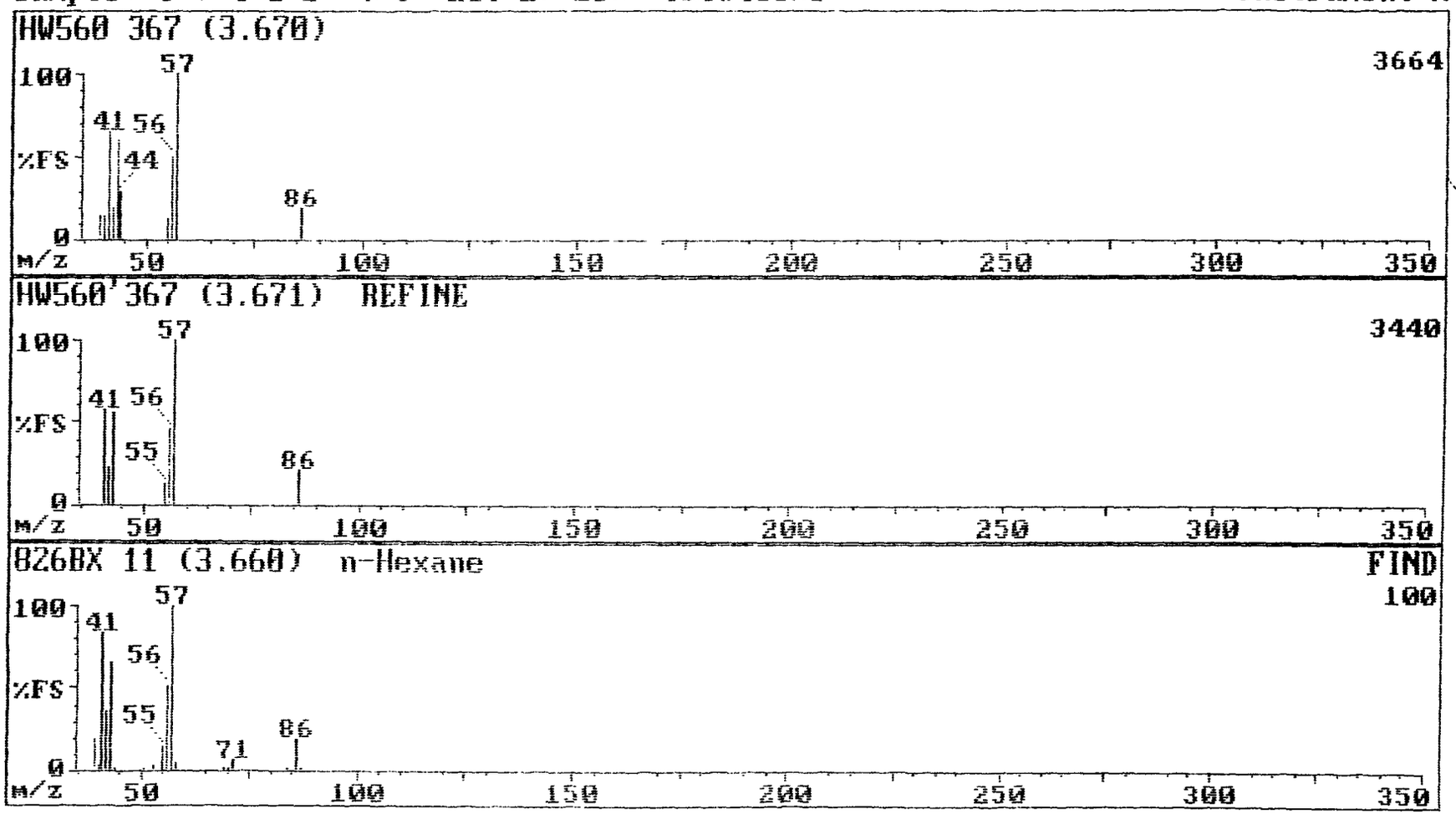
08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-B T/C 214-27-20B TLI#46323 Instrument H



08-09-98 09:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-1-B T/C 214-27-20R TLI#46373 Instrument H



Pacific Environmental Services

Project Number: 46323 | **Method 8260 VOST**
Sample File: HW563 | **Sample ID: T-V-4-2-A T**

Client Project: R012.001 | **Date Received: 07/29/98** | **Response File: ICALH809**
TLI ID: 214-27-21A
Date Analyzed : 08/09/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.02		
Chloromethane	0.005	BJ	0.93		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.006	BJ	1.43		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone	0.036	J	2.69		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.674	B	3.01		0.05
Acrylonitrile		U		0.006	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.003	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	5.74		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.034	BJ	5.21		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: HW563

Method 8260 VOST
Sample ID: T-V-4-2-A T

Client Project: R012.001
TLI ID: 214-27-21A

Date Received: 07/29/98

Date Analyzed : 08/09/98

Response File: ICALH809

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.242	4.89	1	97
Toluene-d_8	0.244	7.62	2	98
4-Bromofluorobenzene	0.271	12.25	2	108

Reviewed by PAB Date 8/10/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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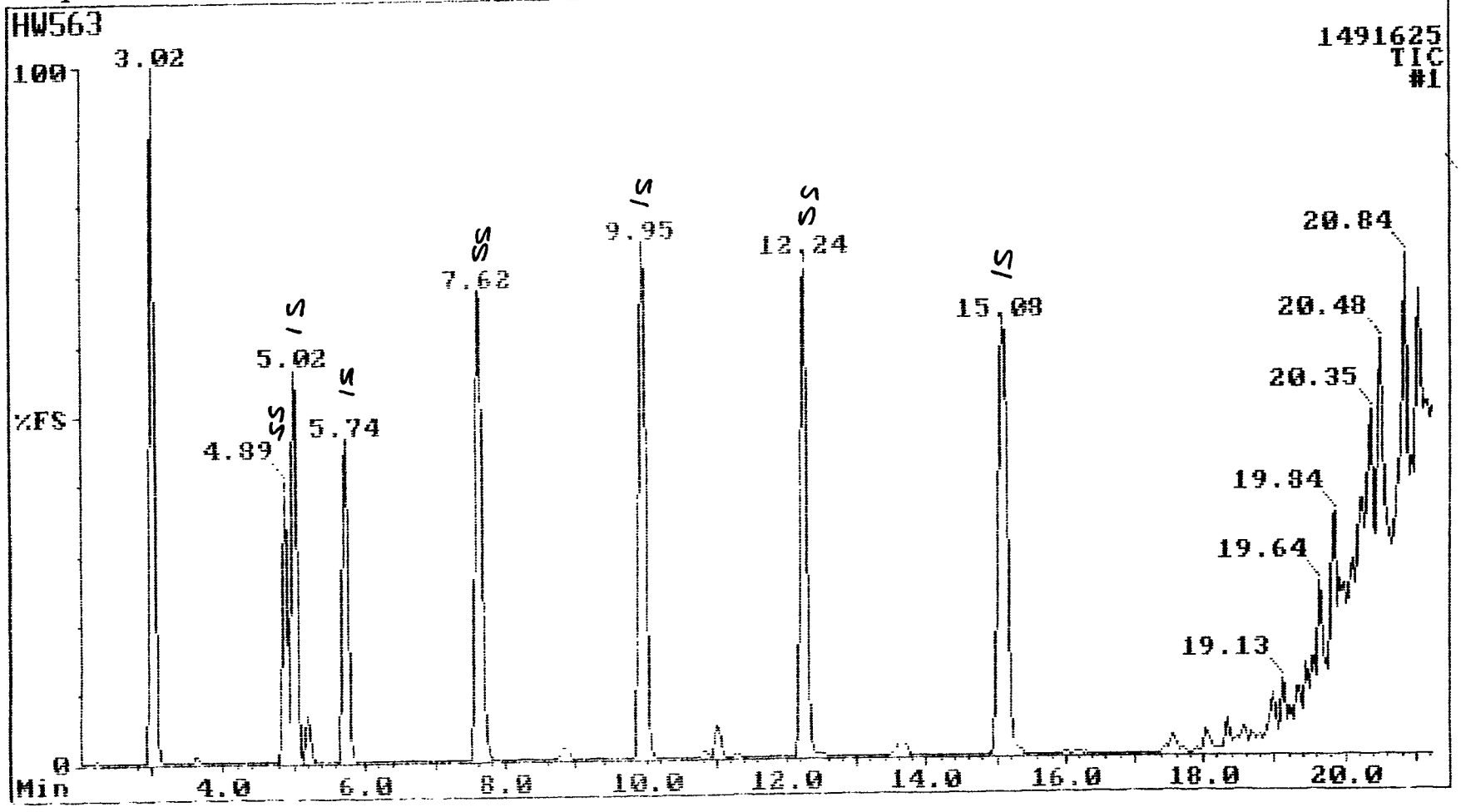
08-09-98 11:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T V-4-2-A T 214-27-21A TLI#46323 Instrument H



Data Review: GAB
Date: 8/10/98

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.00	131	1,1,1,2-Tetrachloroethan
52	~~89~~	~~53~~	~~33~~	~~34~~	~~2628~~	~~bb~~	~~10.53~~	106	Ethylbenzene
53	~~53~~	~~52~~	~~52~~	~~1~~	~~2628~~	~~bb~~	~~10.53~~	106	m-/p-Xylene
54	0	0	0	0	0		0.00	106	o-Xylene
55	98	78	83	2	39804	bb	11.30	104	Styrene
56	0	0	0	0	0		0.00	173	Bromoform
57	0	0	0	0	0		0.00	105	Cumene
58	0	0	0	0	0		0.00	83	1,1,2,2-Tetrachloroethar
59	0	0	0	0	0		0.00	156	Bromobenzene
60	0	0	0	0	0		0.00	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.00	120	n-Propylbenzene
62	23	10	46	-23	932608	A	12.25	75	trans-1,4-Dichloro-2-but
63	0	0	0	0	0		0.00	126	2-Chlorotoluene
64	0	0	0	0	0		0.00	126	4-Chlorotoluene
65	30	39	39	-16	880	bb	13.13	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.00	119	tert-Butylbenzene
67	54	39	50	2	28548	A	14.21	105	1,2,4-Trimethylbenzene
68	0	0	0	0	0		0.00	105	sec-Butylbenzene
69	0	0	0	0	0		0.00	119	p-Cymene
70	0	0	0	0	0		0.00	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.00	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.00	91	Benzyl chloride
73	0	0	0	0	0		0.00	91	n-Butylbenzene
74	0	0	0	0	0		0.00	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.00	75	1,2-Dibromo-3-chloroprop
76	0	0	0	0	0		0.00	180	1,2,4-Trichlorobenzene
77	0	0	0	0	0		0.00	225	Hexachlorobutadiene
78	41	21	73	16	101048	bv	19.32	128	Naphthalene
79	0	0	0	0	0		0.00	180	1,2,3-Trichlorobenzene

PAB 8/10/98

PAB 8/10/98

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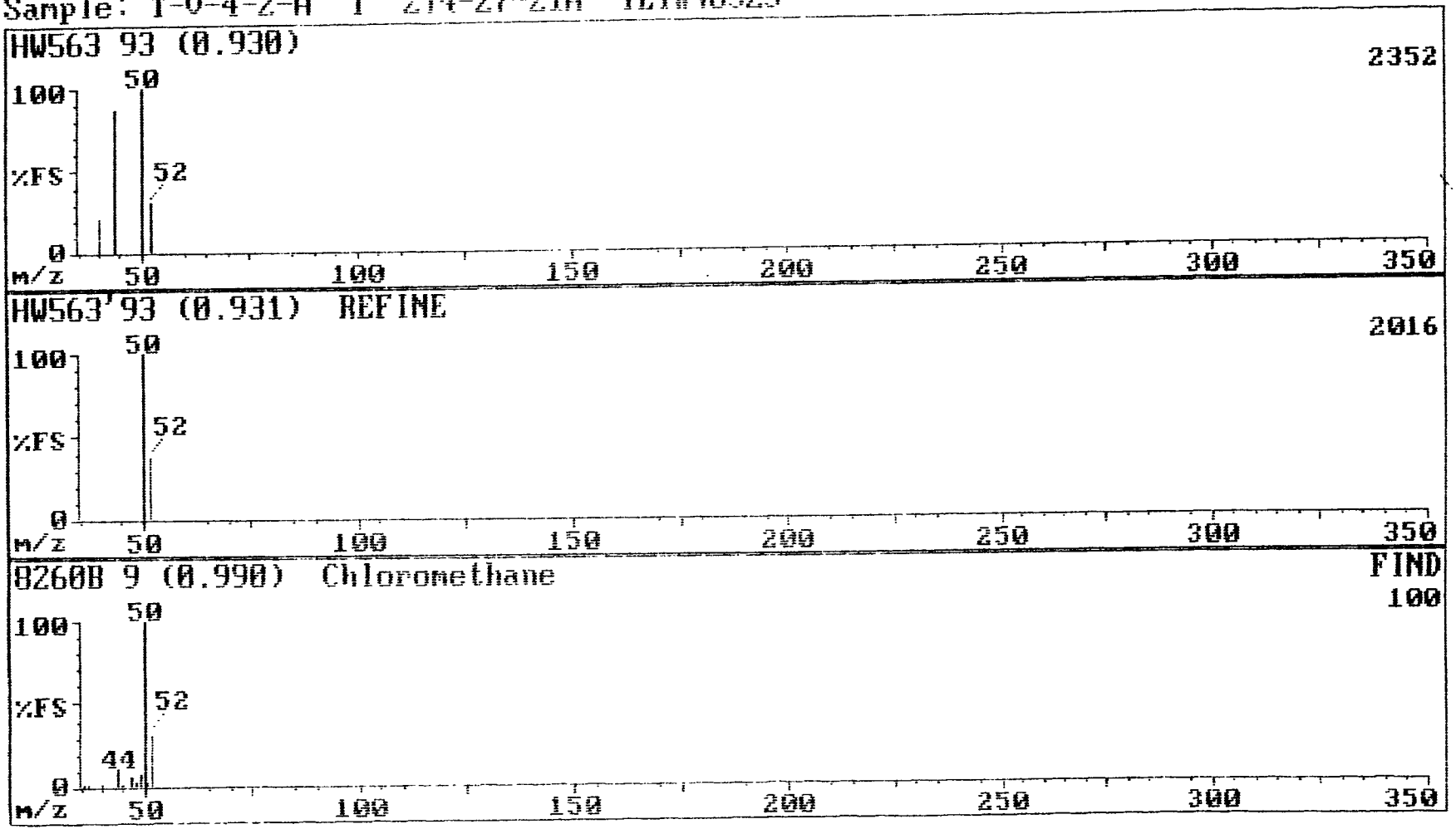
08-09-98 11:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-A T 214-27-21A TLI#46323 Instrument H

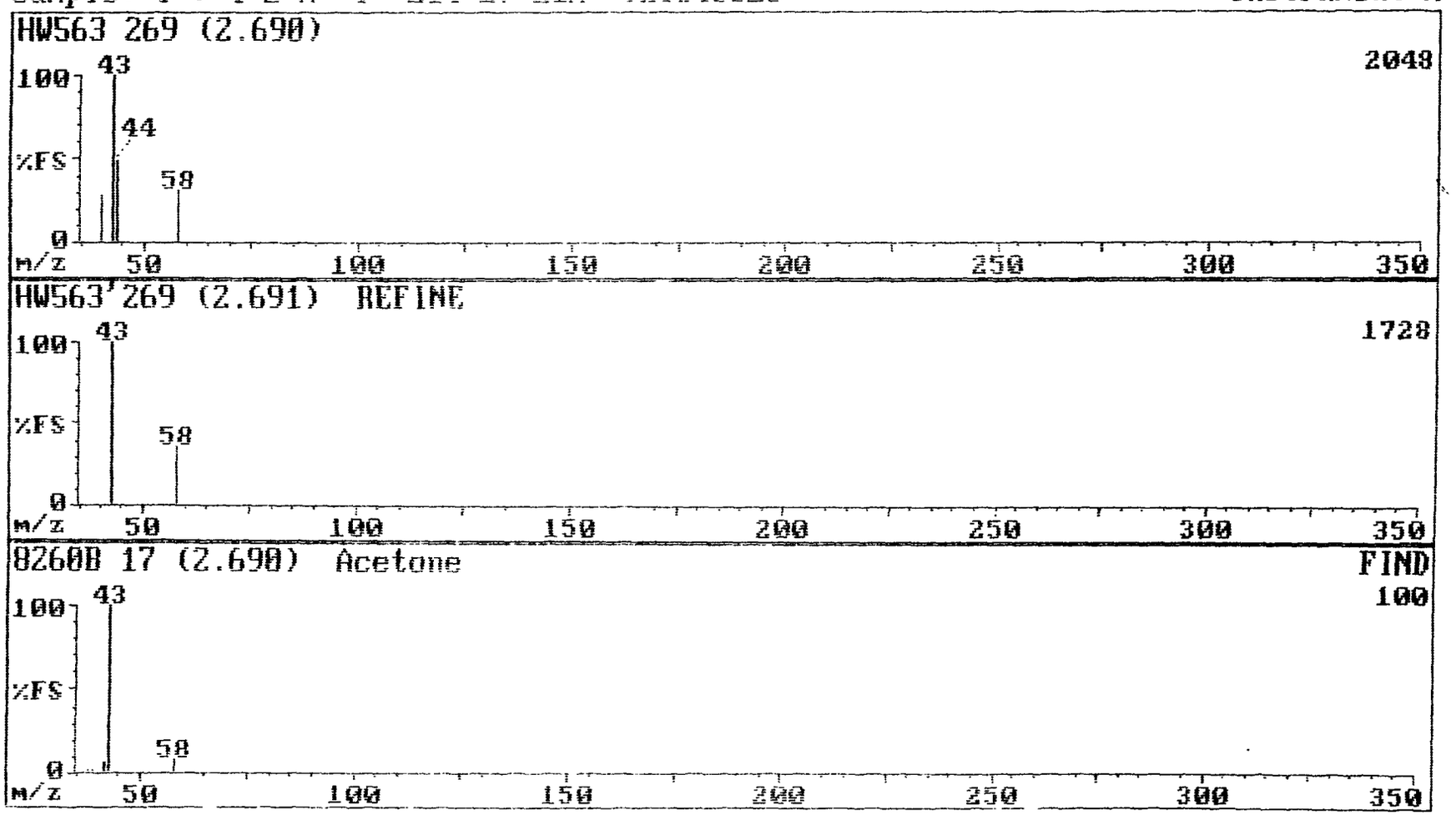


2352

4838

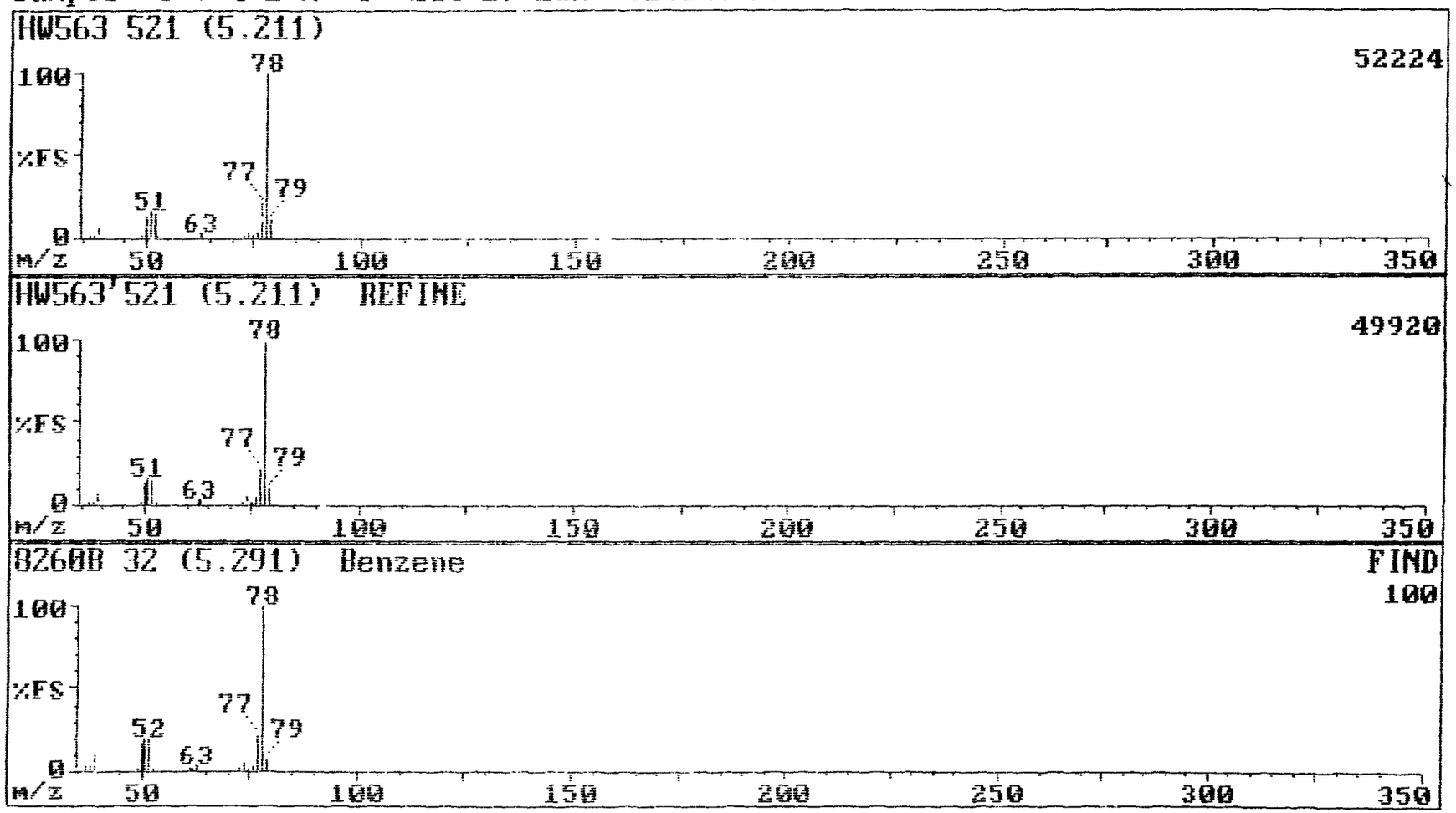
08-09-98 11:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-A T Z14-27-21A TLI#46323 Instrument H



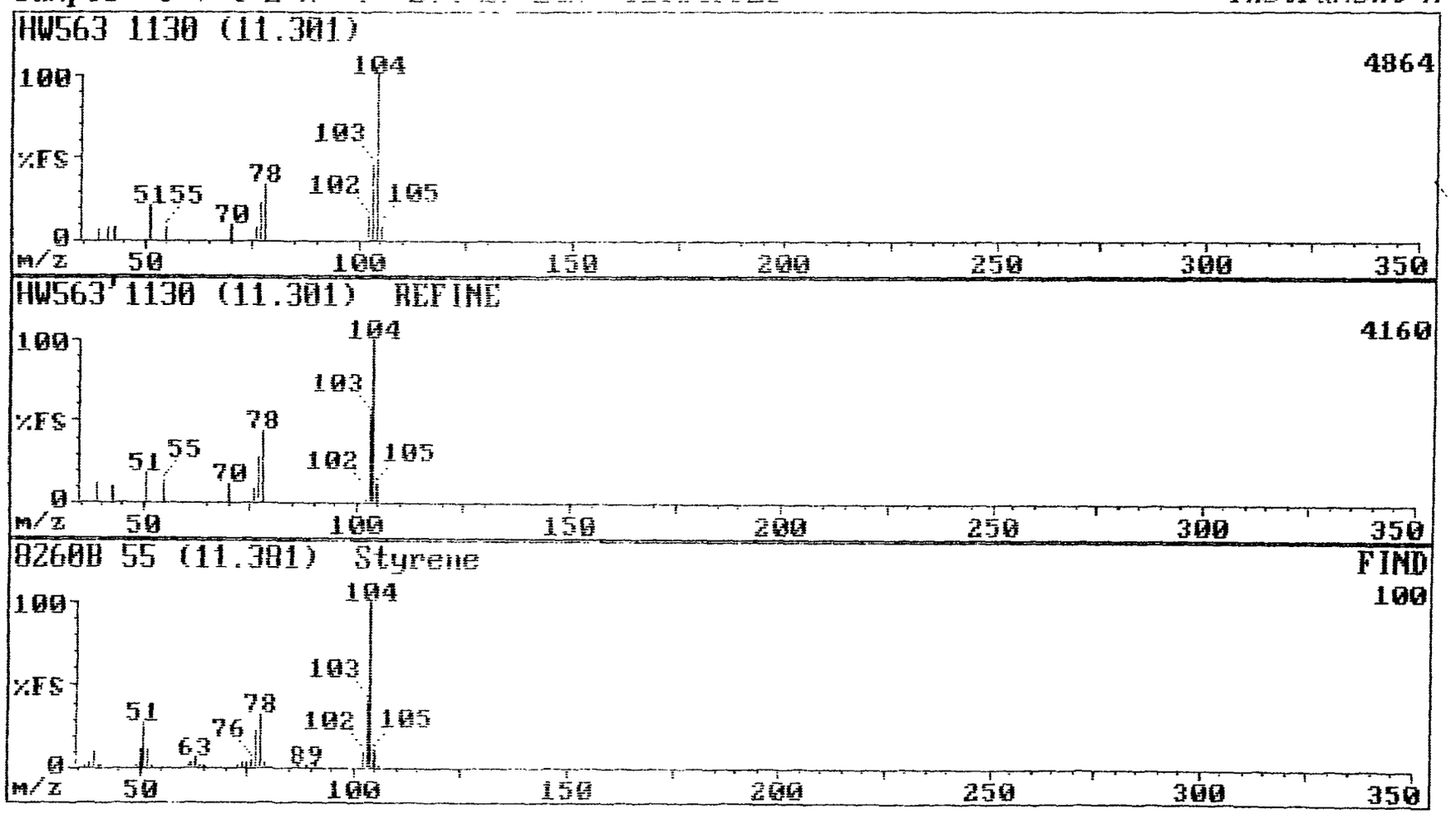
08-09-98 11:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-A T 214-27-21A TL1#46323 Instrument H



08-09-98 11:11 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-Z-A T Z14-27-21A TLI#46323 Instrument H



464

Pacific Environmental Services

Project Number: 46323
Sample File: HW561

Method 8260 VOST
Sample ID: T-V-4-2-B TC

Client Project: R012.001
TLI ID: 214-27-21B

Date Received: 07/29/98
Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.04		
Chloromethane	0.015	BJ	0.97		0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane	0.004	BJ	1.46		0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane	0.003	J	1.90		0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone	0.033	J	2.79		0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	1.666	BE	3.06		0.05
Acrylonitrile		U		0.006	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.001	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.004	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	5.77		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.015	BJ	5.23		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: HW561

Method 8260 VOST
Sample ID: T-V-4-2-B TC

Client Project: R012.001
TLI ID: 214-27-21B

Date Received: 07/29/98
Date Analyzed : 08/09/98

Response File: ICALH809

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.252	4.91	1	101
Toluene-d_8	0.267	7.65	2	107
4-Bromofluorobenzene	0.268	12.24	2	107

Reviewed by PAB Date 8/10/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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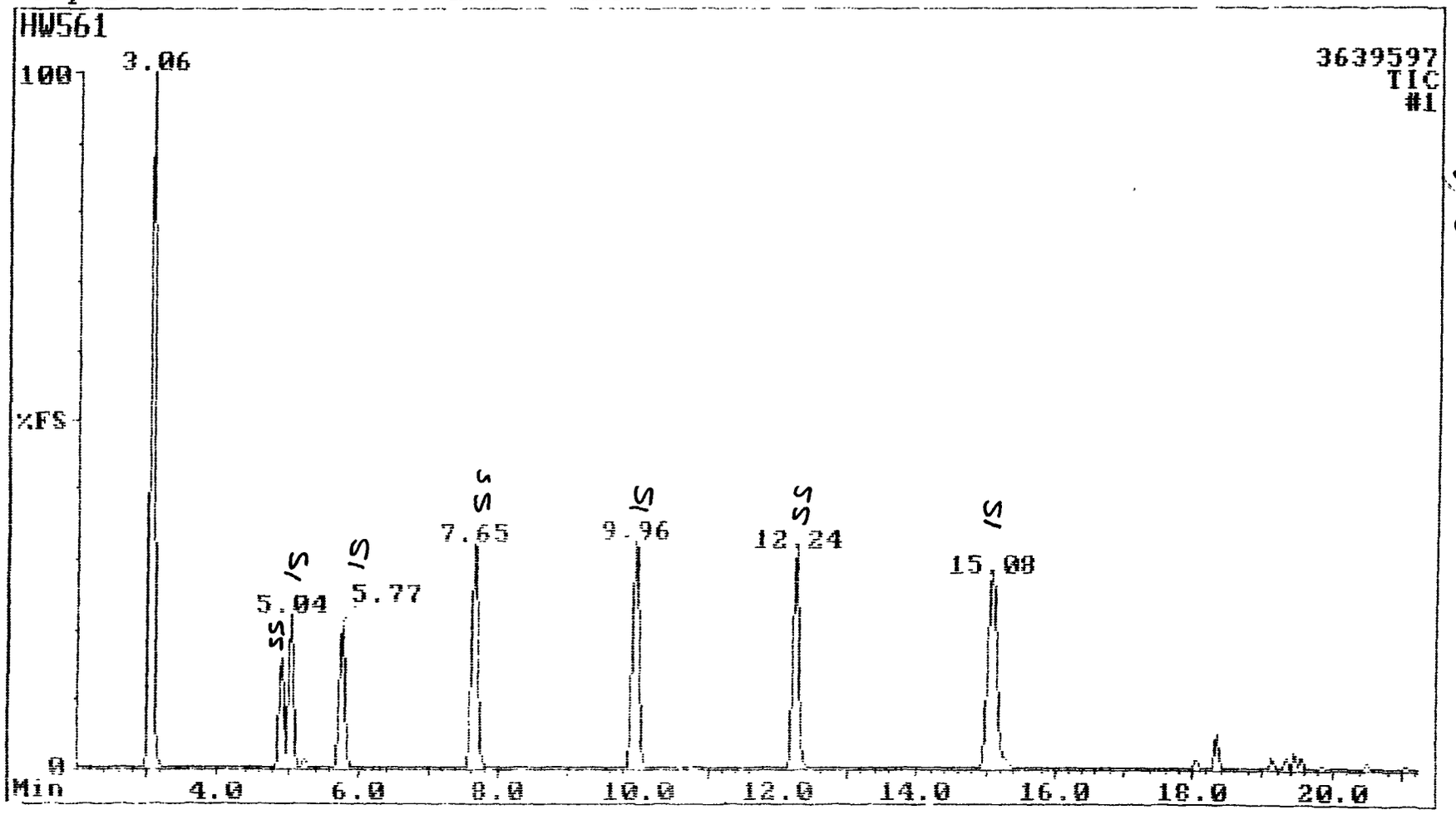
08-09-98 09:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-B T/C 214-27-21B TLI#46323 Instrument H



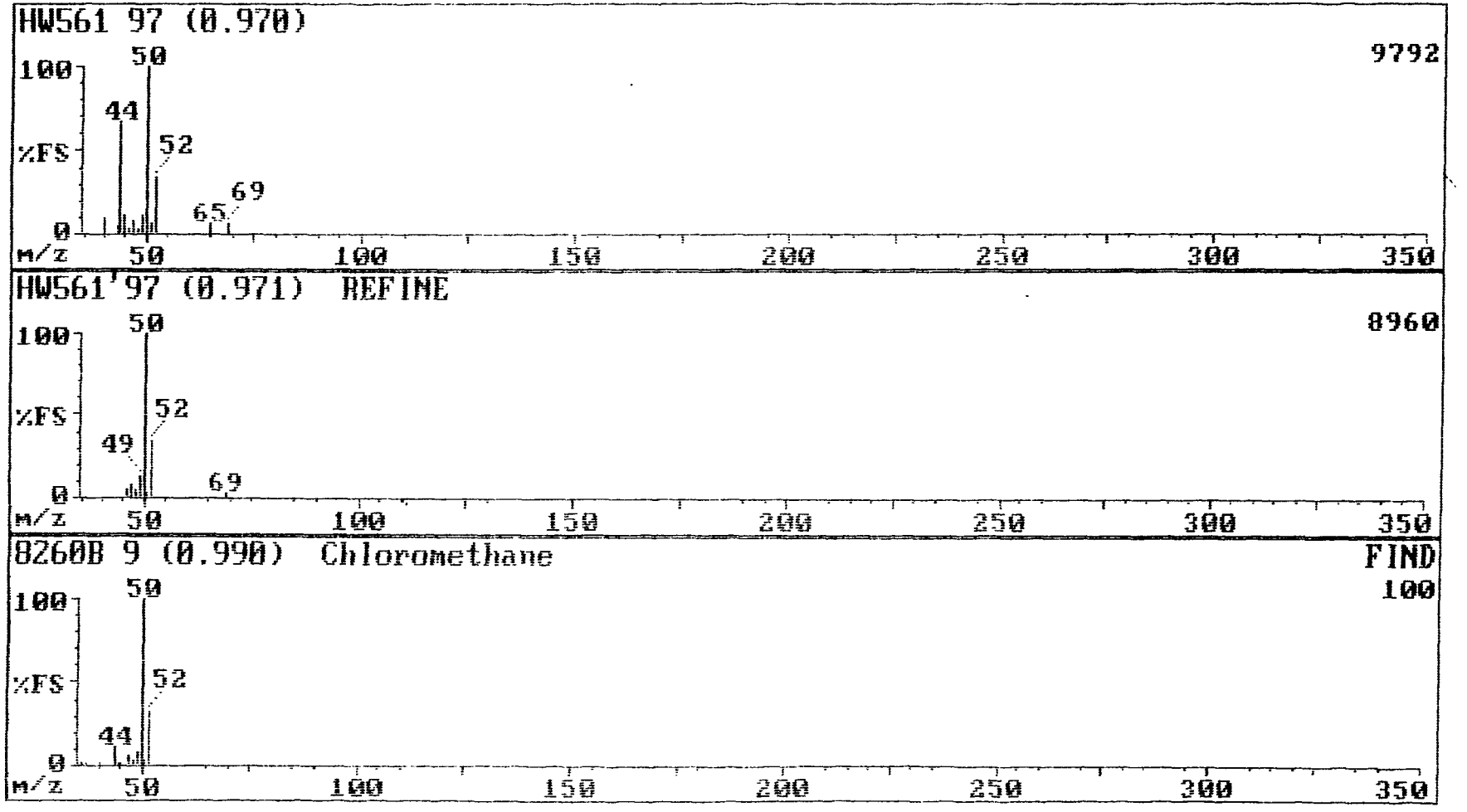
Data Review: PAB
Date: 8/10/98

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
51	0	0	0	0	0		0.00	131	1,1,1,2-Tetrachloroethan
52	~~29~~	~~54~~	~~54~~	~~23~~	~~2152~~	~~A~~ (JP) PAB 8/10/98	~~10.52~~	106	Ethylbenzene
53	~~63~~	~~52~~	~~52~~	~~1~~	~~2152~~	~~a~~ (JP) PAB 8/10/98	~~10.52~~	106	m-/p-Xylene
54	0	0	0	0	0		0.00	106	o-Xylene
55	83	70	70	2	15088	bb	11.31	104	Styrene
56	0	0	0	0	0		0.00	173	Bromoform
57	0	0	0	0	0		0.00	105	Cumene
58	0	0	0	0	0		0.00	83	1,1,2,2-Tetrachloroetha
59	0	0	0	0	0		0.00	156	Bromobenzene
60	0	0	0	0	0		0.00	75	1,2,3-Trichloropropane
61	0	0	0	0	0		0.00	120	n-Propylbenzene
62	0	0	0	0	0		0.00	75	trans-1,4-Dichloro-2-bu
63	0	0	0	0	0		0.00	126	2-Chlorotoluene
64	0	0	0	0	0		0.00	126	4-Chlorotoluene
65	30	39	39	-16	1164	bb	13.12	105	1,3,5-Trimethylbenzene
66	0	0	0	0	0		0.00	119	tert-Butylbenzene
67	60	53	53	4	15736	A	14.21	105	1,2,4-Trimethylbenzene
68	64	54	54	2	408	bb	14.75	105	sec-Butylbenzene
69	0	0	0	0	0		0.00	119	p-Cymene
70	0	0	0	0	0		0.00	146	1,3-Dichlorobenzene
71	0	0	0	0	0		0.00	146	1,4-Dichlorobenzene
72	0	0	0	0	0		0.00	91	Benzyl chloride
73	0	0	0	0	0		0.00	91	n-Butylbenzene
74	0	0	0	0	0		0.00	146	1,2-Dichlorobenzene
75	0	0	0	0	0		0.00	75	1,2-Dibromo-3-chloropro
76	62	81	91	18	56220	bb	19.13	180	1,2,4-Trichlorobenzene
77	31	10	75	18	6272	bb	19.34	225	Hexachlorobutadiene
78	53	63	78	18	135676	bv	19.33	128	Naphthalene
79	61	79	90	18	53196	bb	19.54	180	1,2,3-Trichlorobenzene

472

08-09-98 09:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-B T/C 214-27-21D TLI#46323 Instrument H

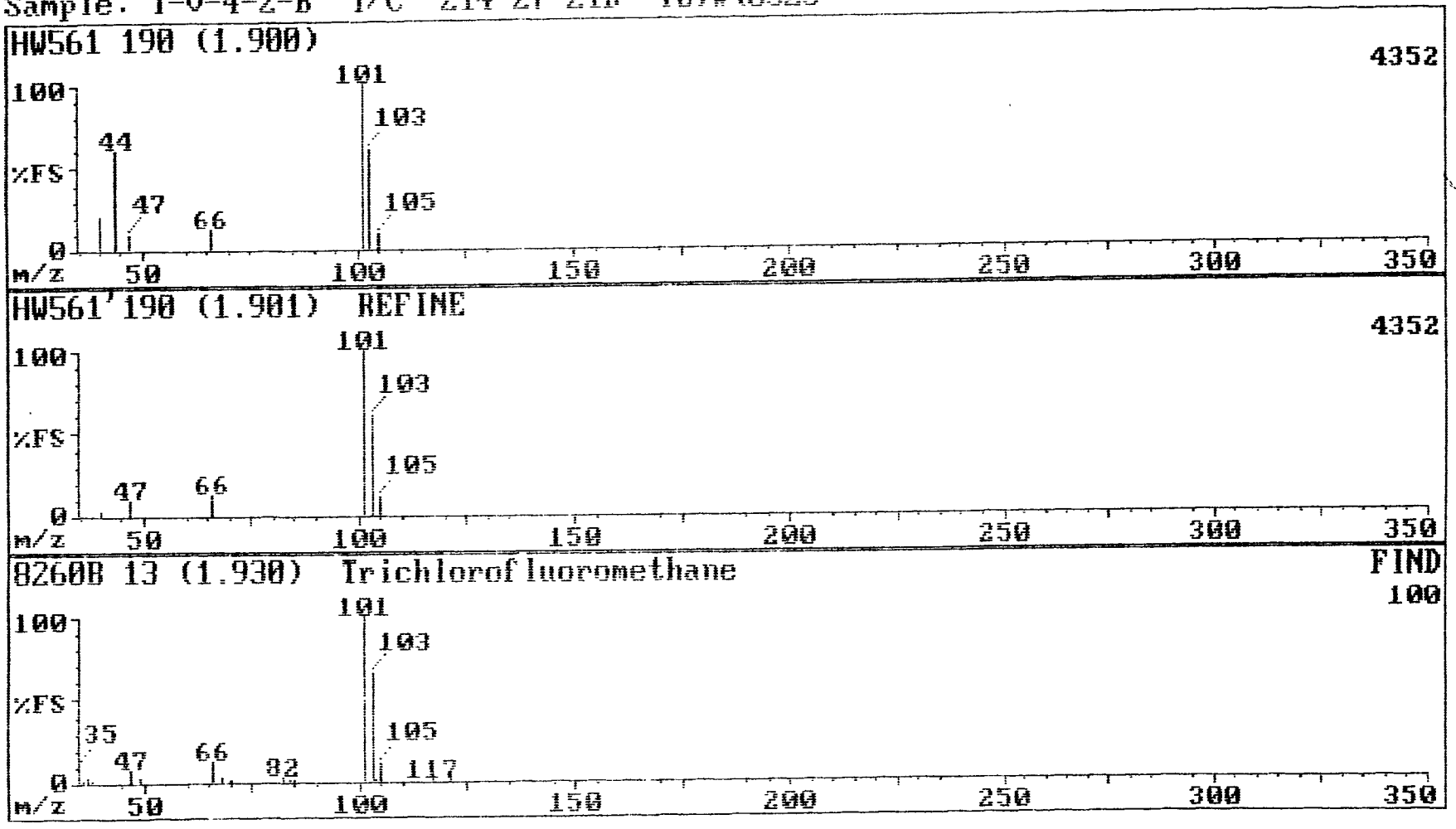


274

444

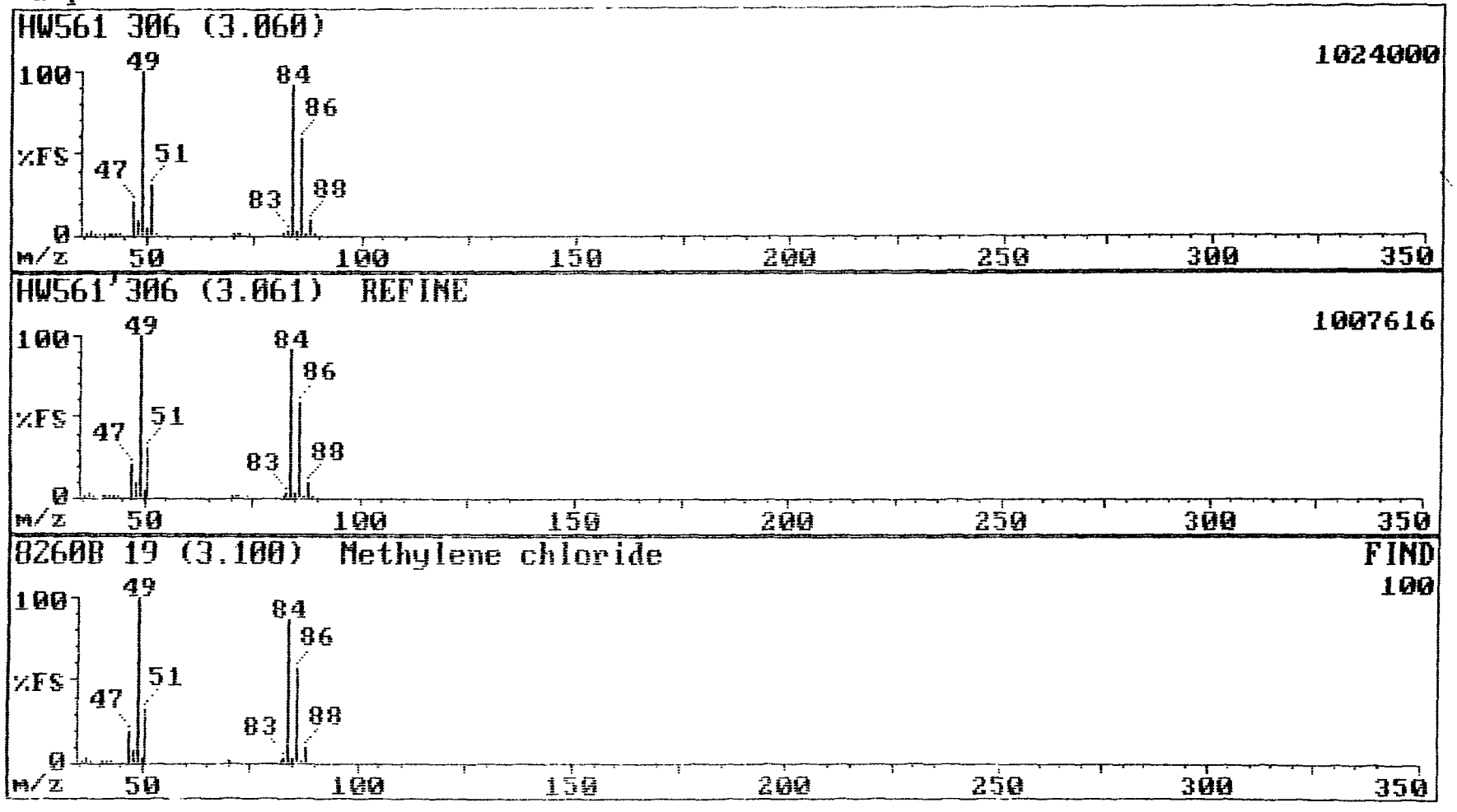
08-09-98 09:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-B T/C 214-27-21B TLI#46323 Instrument H



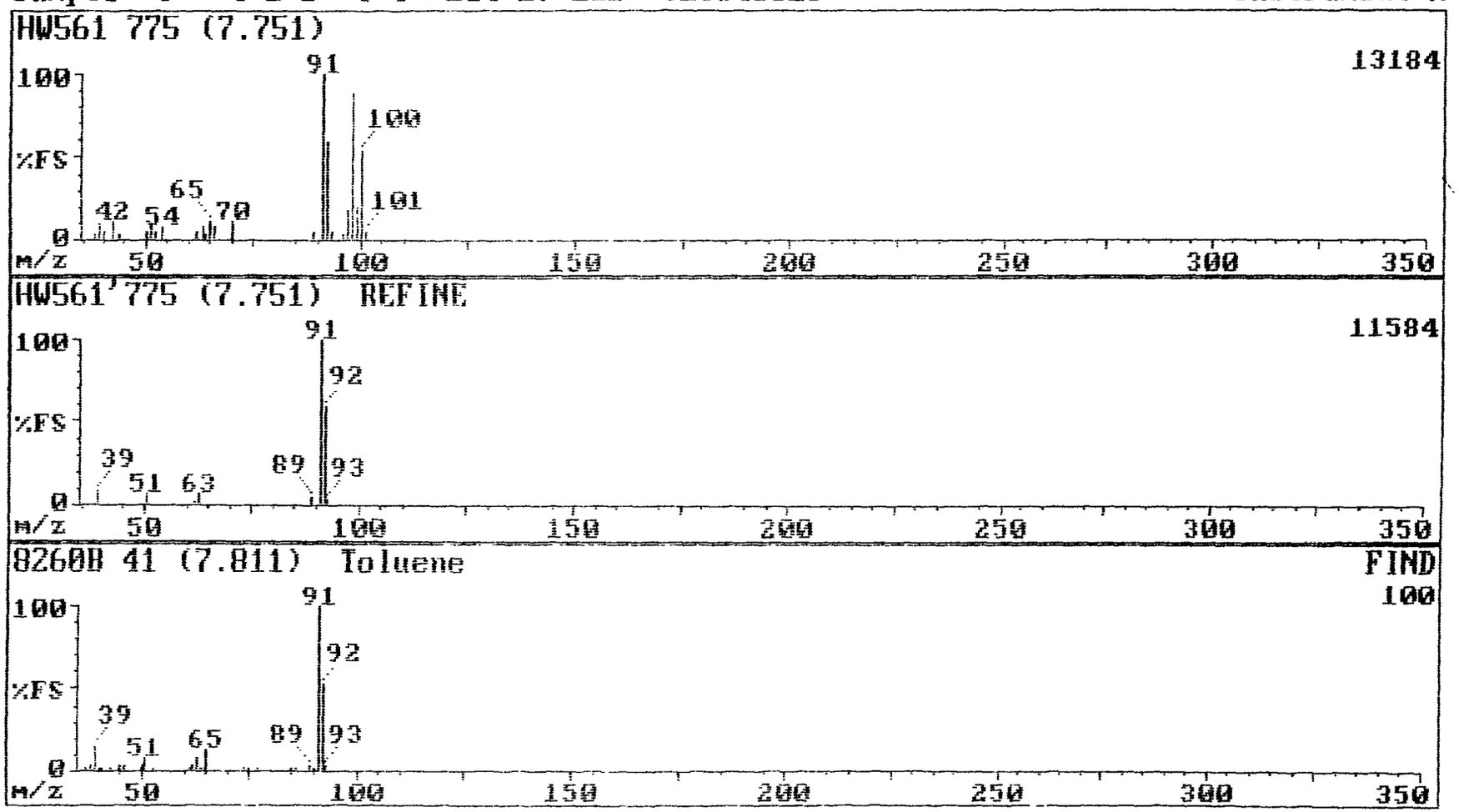
08-09-98 09:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-B T/C 214-27-21B TLI#46323 Instrument H



08-09-98 09:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-Z-B T/C 214-27-21B TLI#46323 Instrument H

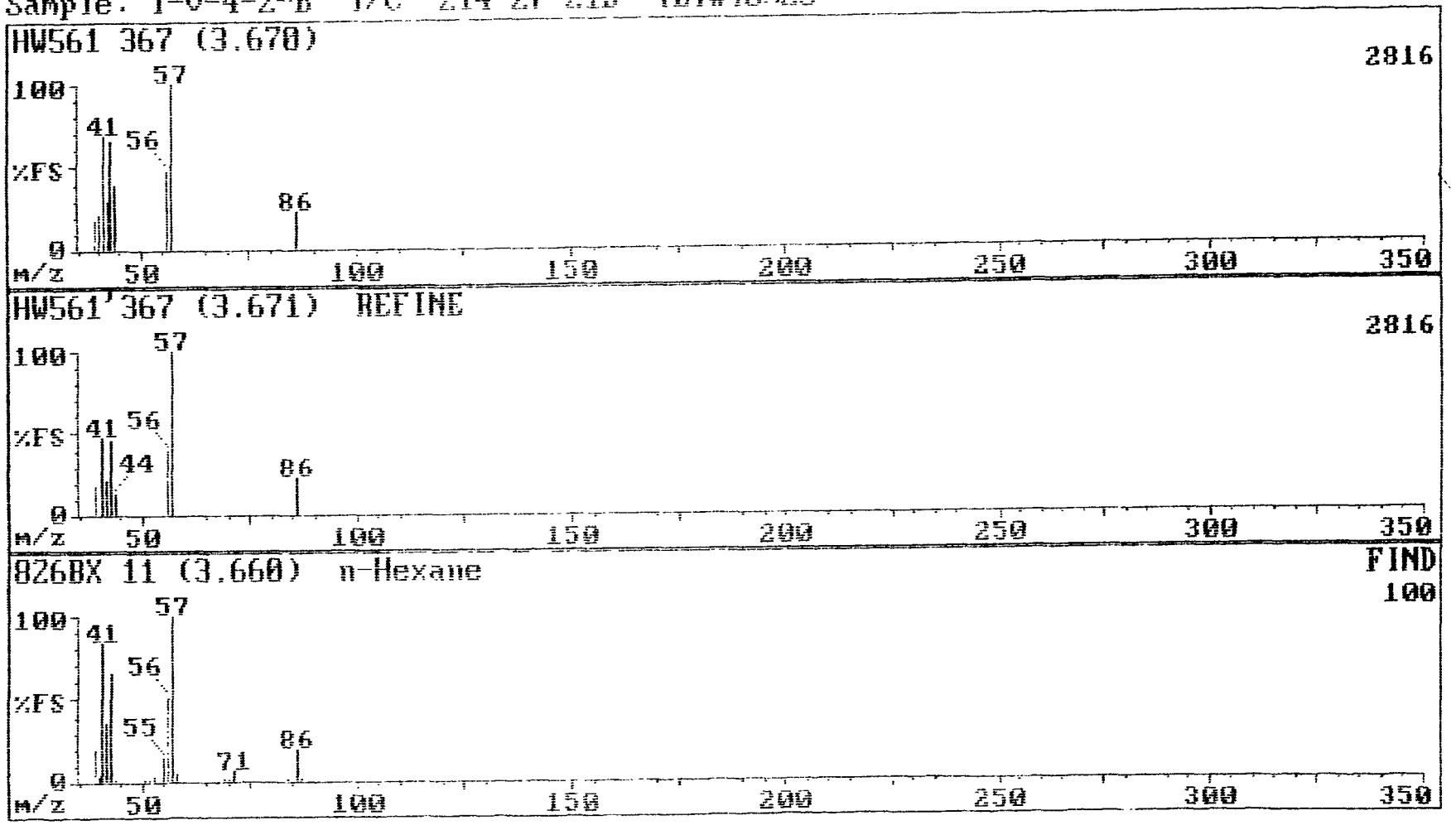


277

080

08-09-98 09:46 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-2-B T/C 214-27-21B TLI#46323 Instrument H



Pacific Environmental Services

Project Number: 46323
Sample File: FX983

Method 8260 VOST
Sample ID: T-V-4-4-A T

Client Project: R012.001
TLI ID: 214-27-23A

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.005	0.05
Toluene	0.158		8.09		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.35		
Tetrachloroethene	0.022	J	8.92		0.05
2-Hexanone		U		0.008	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene	0.022	J	10.67		0.05
m-/p-Xylene	0.057	J	10.91		0.10
o-Xylene	0.024	J	11.62		0.05
Styrene	0.009	J	11.69		0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.71		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.002	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: FX983

Method 8260 VOST
Sample ID: T-V-4-~~3~~-4T (CMC)

Client Project: R012.001
TLI ID: 214-27-23A

Date Received: 07/29/98
Date Analyzed : 08/24/98

Response File: ICALF824

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE	0.037	J	3.63		0.25
n-Hexane	0.041	J	3.90		0.25
1,2-Epoxybutane		U		0.025	0.25
Iso-Octane	0.010	J	5.67		0.25
1,4-Difluorobenzene		IS 2	6.07		
Ethyl acrylate		U		0.007	0.25

Reviewed by PAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 17:27 08/25/1998

PaB

39168 — PaB —— 3.28

PaB

Data Review: PaB
Date: 8/24/98

PAB

PAB

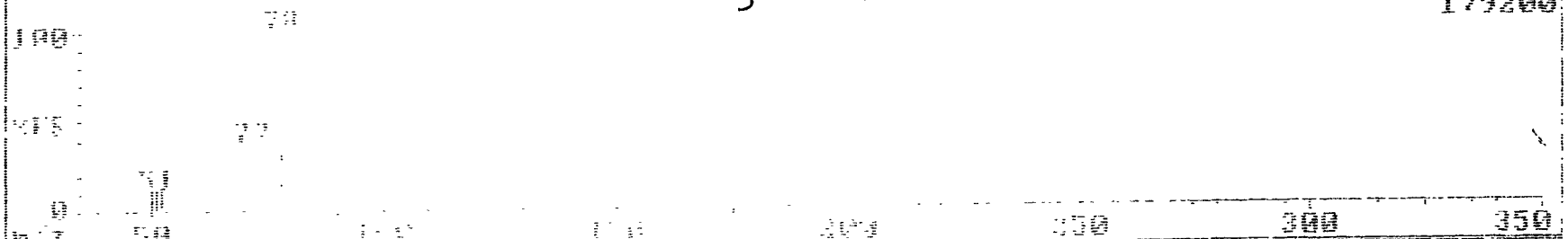
490

24 Aug 98 [illegible] Intersegh Laboratories, Inc. (919) 544-5729

Sample: [illegible] Instrument P

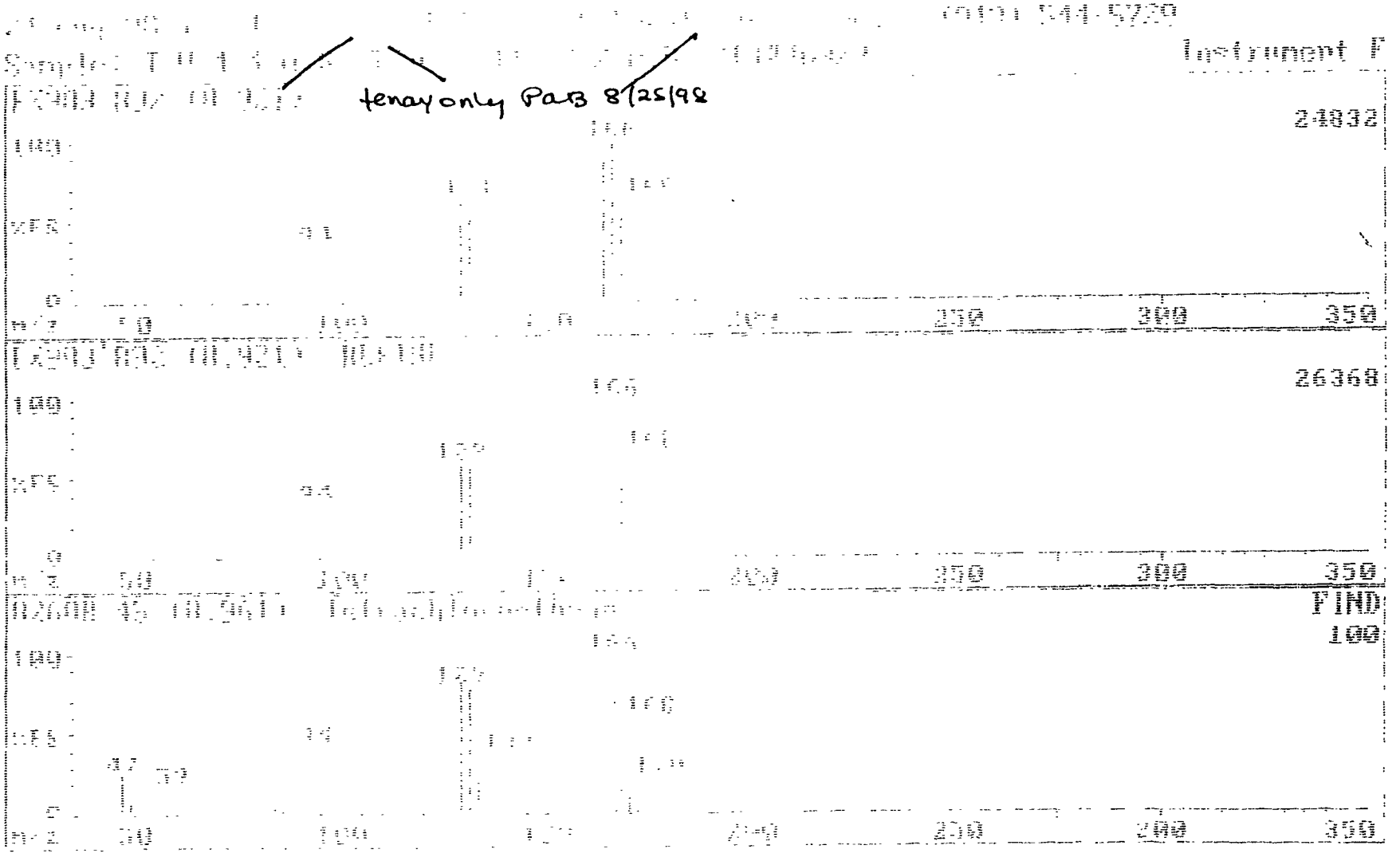
tenax only PaB 8/25/98

[illegible] 179200



[illegible] 171000

[illegible] Benzene FIND 100



tenay only PaB 8/25/98

Texas only PAB 8/25/98

Instrument F

161792

300 350

141312

300 350

FIND

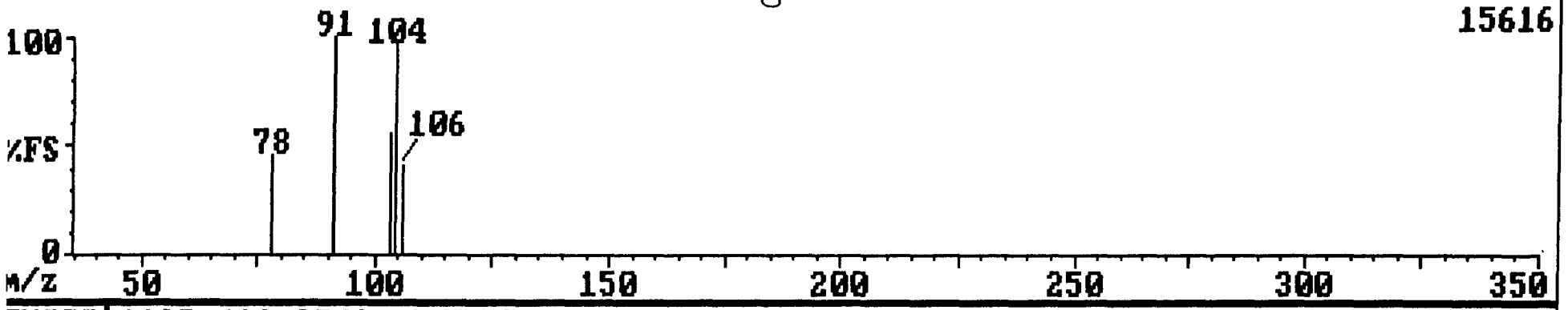
100

300 350

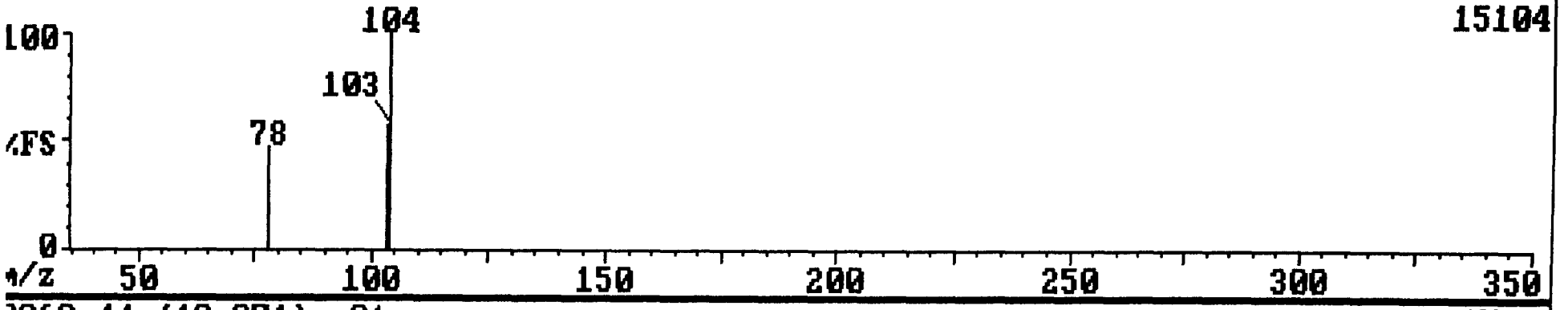
24-Aug-98 15:31 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-V-4-4-A,B T/TC 214-27-23A,B TLI#46323 Instrument F

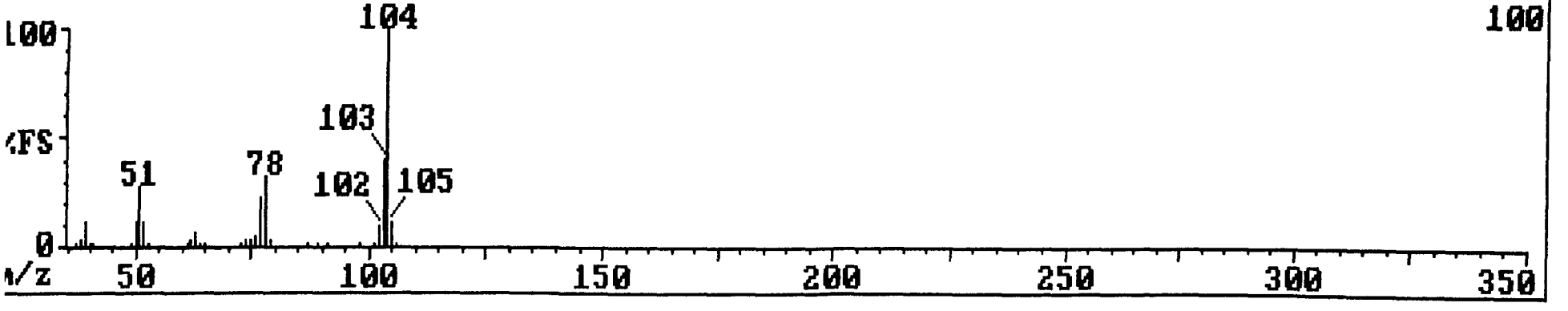
FX983 1169 (11.692) tenax only PAB 8/25/98



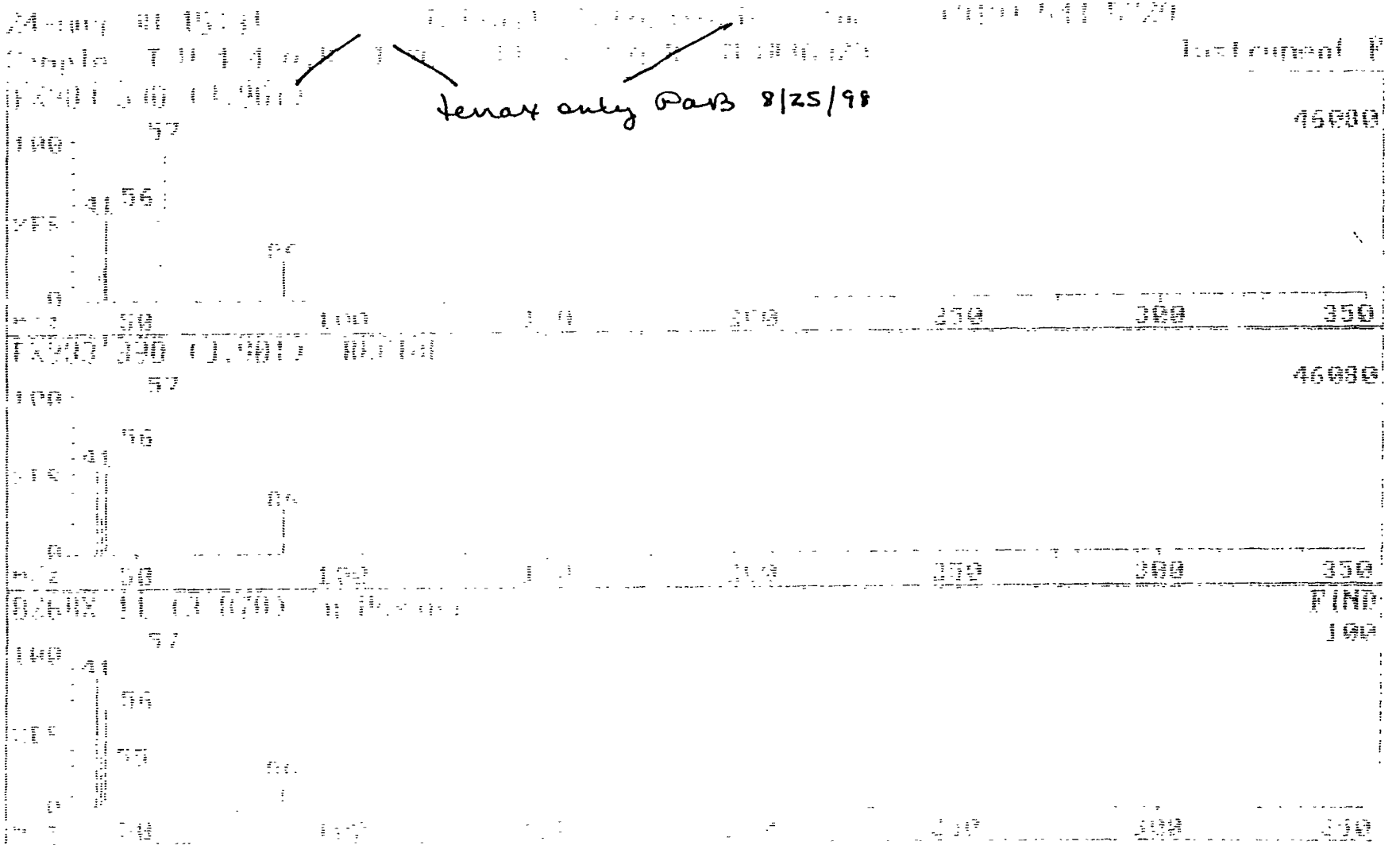
FX983 1169 (11.694) REFINE



3260 44 (12.371) Styrene FIND 100



Tenax only PaB 8/25/98



Pacific Environmental Services

Project Number: 46323 | **Method 8260 VOST**
Sample File: FX953 | **Sample ID: T-V-FB-A,B T/TC**

Client Project: R012.001 | **Date Received: 07/29/98** | **Response File: ICALF821**
TLI ID: 214-27-9A,B
Date Analyzed : 08/21/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.30		
Chloromethane		U		0.001	0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone		U		0.005	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride	0.054		3.27		0.05
Acrylonitrile		U		0.025	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.005	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.07		
Carbon tetrachloride		U		0.001	0.05
Benzene	0.006	BJ	5.52		0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: FX953

Method 8260 VOST
Sample ID: T-V-FB-A,B T/TC

Client Project: R012.001
TLI ID: 214-27-9A,B

Date Received: 07/29/98
Date Analyzed : 08/21/98

Response File: ICALF821

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.293	5.18	1	117
Toluene-d_8	0.263	8.00	2	105
4-Bromofluorobenzene	0.238	12.66	2	95

Reviewed by PAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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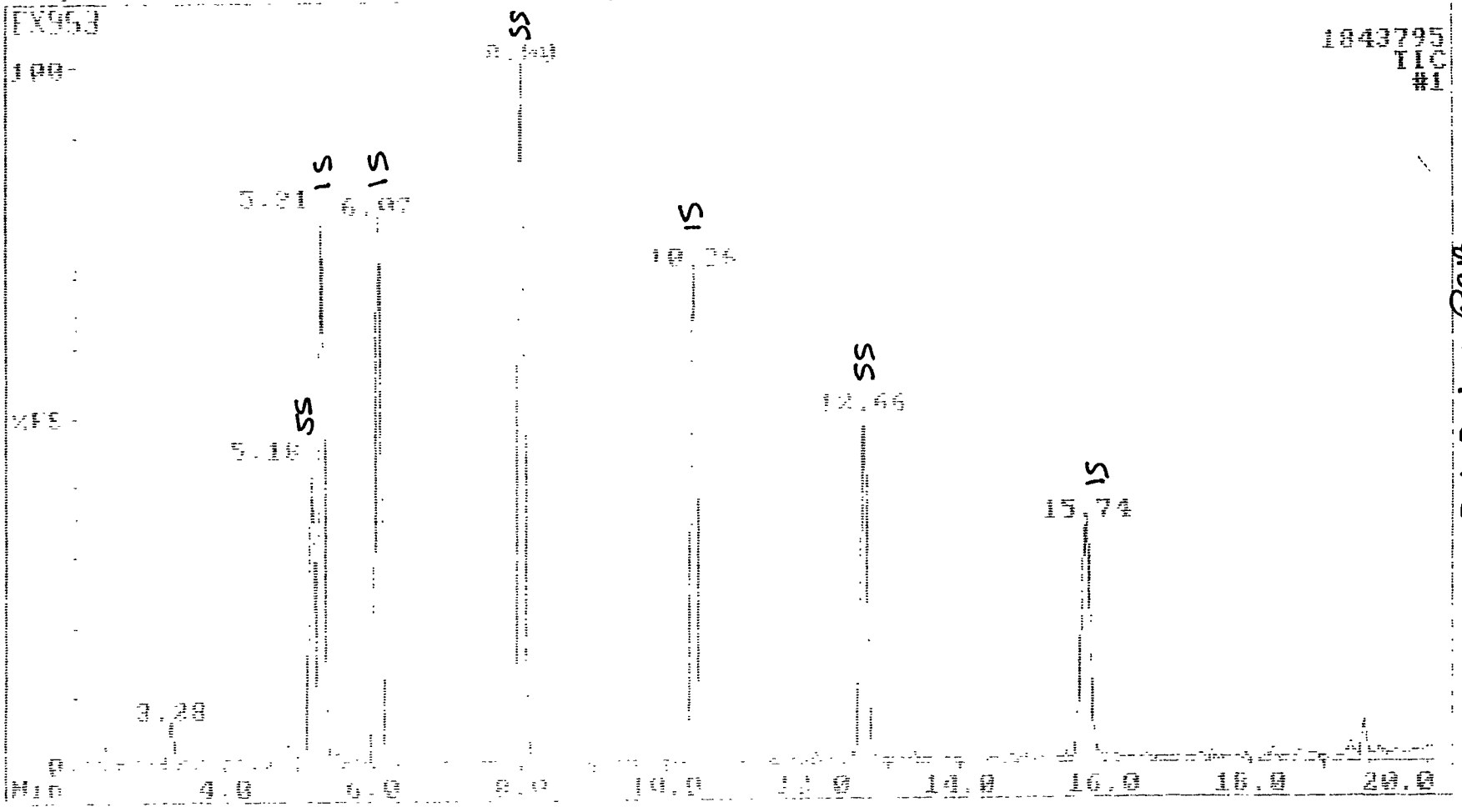
504

21-May-98 0:10 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-U-FD n/P D.F. 211 27-Mar-98 TL#46820 Instrument F

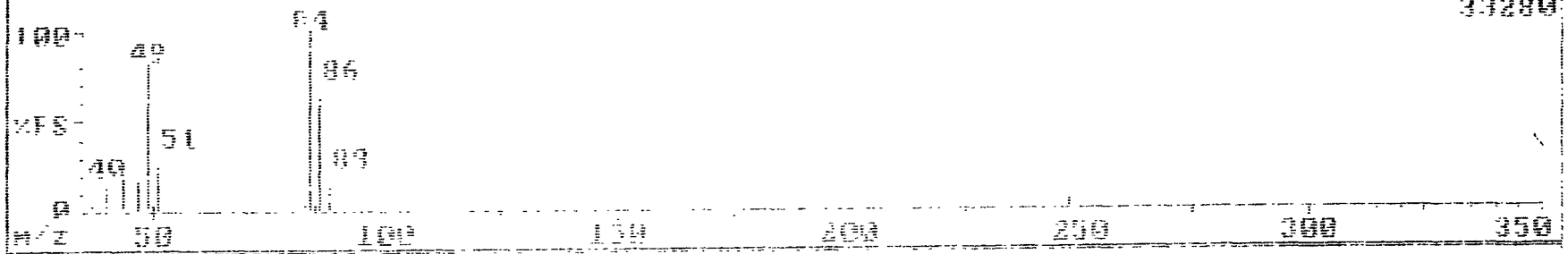


Data Review: GAB
Date: 8/24/98

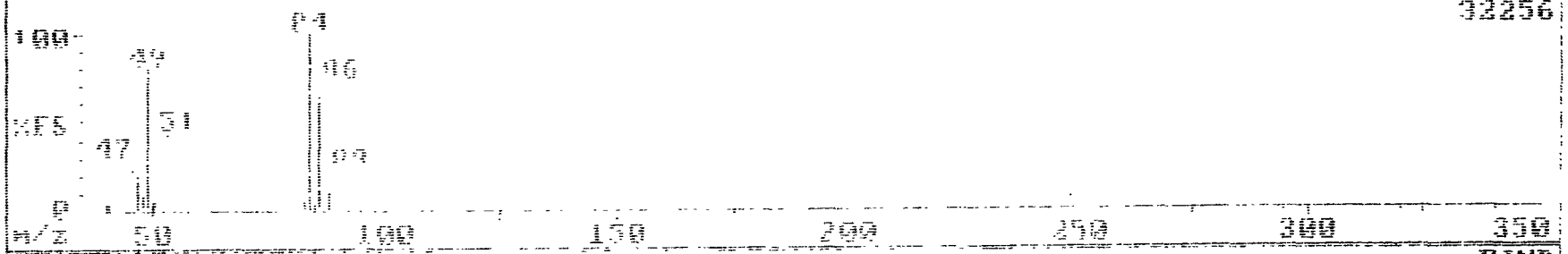
21 Aug 90 15:18 Triangle Laboratories, Inc. (919) 544-5729

Sample: T-4-FB-0/R T.P. 214 27-90-N TL1P40924 Instrument F

FX953 327 (3.270)

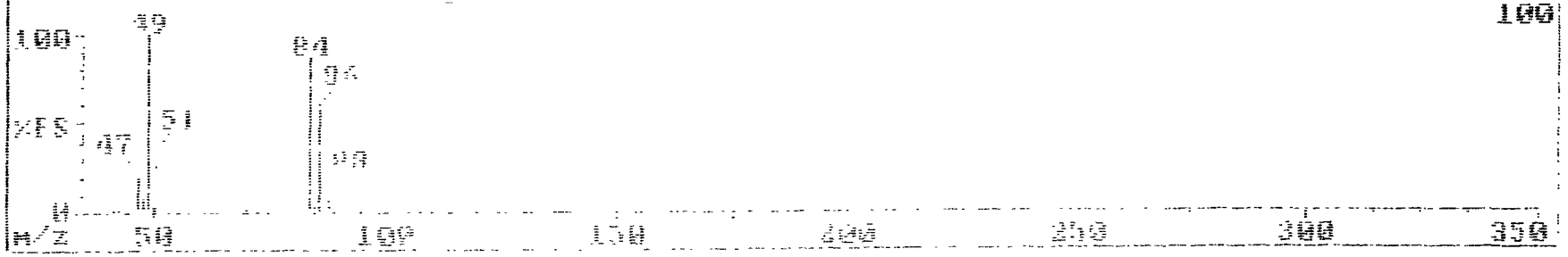


FX953 327 (3.271) MOD INH.

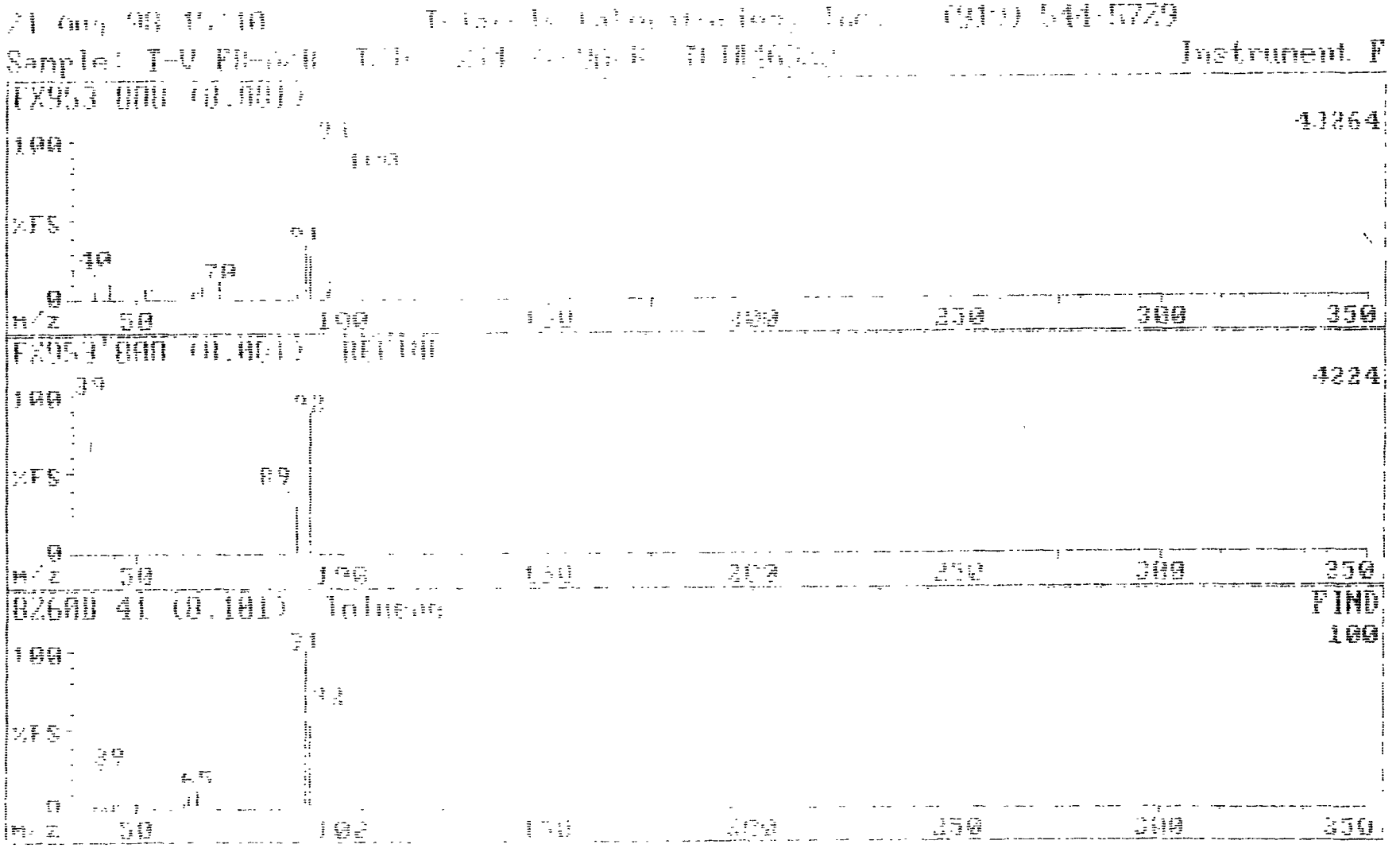


D2600 19 (3.270) Methylene chloride

FIND
100



510


Instrument F
FX953 000 (0.000)
4224
100
%FS
0
m/z
50
100
150
200
250
300
350
FX953 000 (0.000)
4224
100
%FS
0
m/z
50
100
150
200
250
300
350
FIND
100
100
%FS
0
m/z
50
100
150
200
250
300
350

Pacific Environmental Services

Project Number: 46323 | **Method 8260 VOST**
Sample File: HW559 | **Sample ID: VOSTBLK 080998 T/TC**

Client Project: R012.001 | **Date Received: / /** | **Response File: ICALH809**
TLI ID: VOSTBLK080998
Date Analyzed : 08/09/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.002	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.001	0.05
Toluene	0.003	J	7.75		0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	9.97		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.002	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene	0.001	J	11.32		0.05
Bromoform		U		0.001	0.05
1,4-Dichlorobenzene-d_4		IS 4	15.09		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: HW559

Method 8260 VOST
Sample ID: VOSTBLK 080998 T/TC

Client Project: R012.001
TLI ID: VOSTBLK080998

Date Received: / /
Date Analyzed : 08/09/98

Response File: ICALH809

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.04		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.002	0.25
n-Hexane		U		0.001	0.25
1,2-Epoxybutane		U		0.041	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	5.76		
Ethyl acrylate		U		0.001	0.25

Reviewed by PAB Date 8/10/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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QUAN DB : HW559 LAB-BASE QUAN 08-09-98 09:06

No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	86	98	-5	2448904	bv	5.04	168	Pentafluorobenzene
2	100	97	98	-1	2301120	bv	5.76	114	1,4-Difluorobenzene
3	100	94	95	5	3459840	bv	9.97	117	Chlorobenzene-d5
4	100	73	98	-6	2223264	bv	15.09	152	1,4-Dichlorobenzene-d4
5	100	98	100	1	1291580	bb	4.92	113	Dibromofluoromethane
6	100	93	98	2	3344656	bv	7.65	98	Toluene-d8
7	97	89	92	6	1884336	bv	12.25	95	4-Bromofluorobenzene
x 8	0	0	0	0	0		0.00	85	Dichlorodifluoromethane
9	100	83	89	-1	57172	bb	0.97	50	Chloromethane
10	0	0	0	0	0		0.00	62	Vinyl Chloride
11	100	86	94	-1	41628	bb	1.47	94	Bromomethane
12	0	0	0	0	0		0.00	64	Chloroethane
13	0	0	0	0	0		0.00	101	Trichlorofluoromethane
14	0	0	0	0	0		0.00	96	1,1-Dichloroethene
15	~~64~~	~~47~~	~~60~~	~~2~~	~~6668~~	~~bb~~ FP FAB 8/10/98	~~2.59~~	142	Iodomethane –
16	0	0	0	0	0		0.00	76	Carbon disulfide –
17	~~59~~	~~32~~	~~33~~	~~8~~	~~5524~~	~~A~~ FP FAB 8/10/98	~~2.74~~	43	Acetone –
18	0	0	0	0	0		0.00	41	Allyl chloride –
19	73	49	71	-1	3620	bb	3.06	84	Methylene chloride
20	0	0	0	0	0		0.00	53	Acrylonitrile –
21	0	0	0	0	0		0.00	96	trans-1,2-Dichloroethen
22	0	0	0	0	0		0.00	63	1,1-Dichloroethane
23	0	0	0	0	0		0.00	43	Vinyl acetate –
x 24	0	0	0	0	0		0.00	77	2,2-Dichloropropane
25	0	0	0	0	0		0.00	96	cis-1,2-Dichloroethene
26	~~52~~	~~45~~	~~45~~	~~3~~	~~1488~~	~~bb~~ FP FAB 8/10/98	~~4.53~~	43	2-Butanone –
27	0	0	0	0	0		0.00	83	Chloroform
x 28	0	0	0	0	0		0.00	128	Bromochloromethane
29	0	0	0	0	0		0.00	97	1,1,1-Trichloroethane
30	0	0	0	0	0		0.00	117	Carbon tetrachloride
x 31	0	0	0	0	0		0.00	75	1,1-Dichloropropene
32	100	98	98	1	522048	bb	5.24	78	Benzene
33	0	0	0	0	0		0.00	62	1,2-Dichloroethane
34	0	0	0	0	0		0.00	130	Trichloroethene
35	0	0	0	0	0		0.00	63	1,2-Dichloropropane
36	0	0	0	0	0		0.00	93	Dibromomethane
37	0	0	0	0	0		0.00	41	Methyl methacrylate –
38	0	0	0	0	0		0.00	83	Bromodichloromethane
39	0	0	0	0	0		0.00	75	cis-1,3-Dichloropropene
40	~~40~~	~~3~~	~~63~~	~~4~~	~~16648~~	~~bb~~ FP FAB 8/10/98	~~7.66~~	43	4-Methyl-2-pentanone –
41	63	32	79	3	30300	bb	7.75	92	Toluene
42	0	0	0	0	0		0.00	75	trans-1,3-Dichloroprope
43	0	0	0	0	0		0.00	97	1,1,2-Trichloroethane
x 44	0	0	0	0	0		0.00	69	Ethyl methacrylate
45	0	0	0	0	0		0.00	164	Tetrachloroethene
x 46	0	0	0	0	0		0.00	76	1,3-Dichloropropane
47	0	0	0	0	0		0.00	43	2-Hexanone
48	0	0	0	0	0		0.00	129	Dibromochloromethane
49	0	0	0	0	0		0.00	107	1,2-Dibromoethane
50	0	0	0	0	0		0.00	112	Chlorobenzene

Data Review: FAB
Date: 8/10/98

518

UAN DB : HW559 LAB-BASE QUAN 08-10-98 14:31

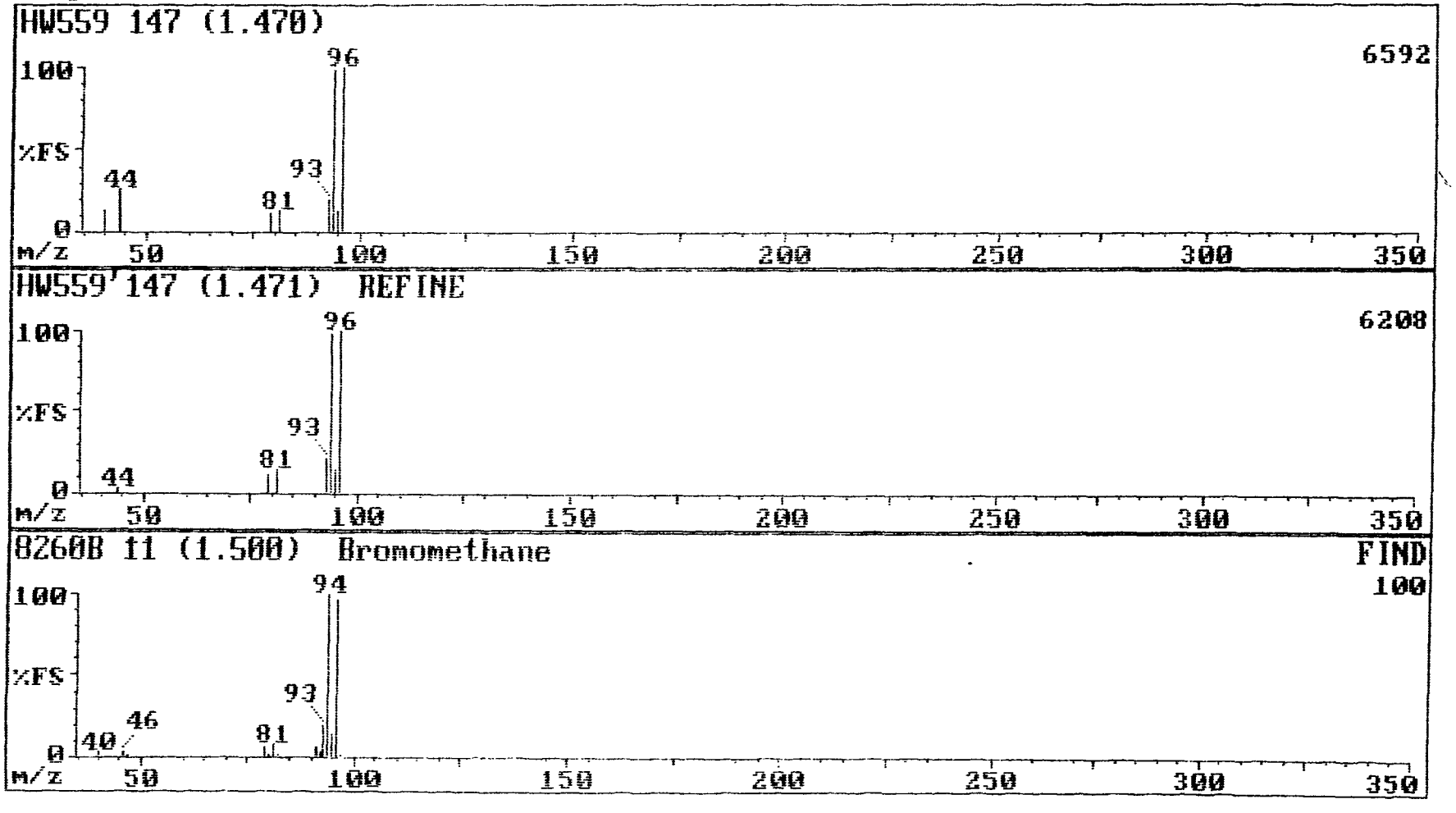
No.	MAT	FOR	REV	Delta	Area	P.Flags	RT	QM	Name
1	100	86	98	0	2448904	bv	5.04	168	Pentafluorobenzene
2	100	97	98	0	2301120	bv	5.76	114	1,4-Difluorobenzene
3	100	94	95	3	3459840	bv	9.97	117	Chlorobenzene-d5
4	100	73	98	2	2223264	bv	15.09	152	1,4-Dichlorobenzene-d4
5	100	98	100	2	1291580	bb	4.92	113	Dibromofluoromethane
6	100	93	98	1	3344656	bv	7.65	98	Toluene-d8
7	100	89	92	4	1884336	bv	12.25	95	4-Bromofluorobenzene
8	0	0	0	0	0		0.00	39	1,3-Butadiene
9	0	0	0	0	0		0.00	106	Vinyl bromide
10	0	0	0	0	0		0.00	73	MTBE
11	~~89~~	~~71~~	~~71~~	~~1~~	~~3568~~	~~bb~~ (7P) PAB 8/10/98	~~3.67~~	57	n-Hexane
12	0	0	0	0	0		0.00	42	1,2-Epoxybutane
13	0	0	0	0	0		0.00	57	Iso-Octane
14	0	0	0	0	0		0.00	55	Ethyl acrylate

Data Review: PAB
Date: 8/10/98

520

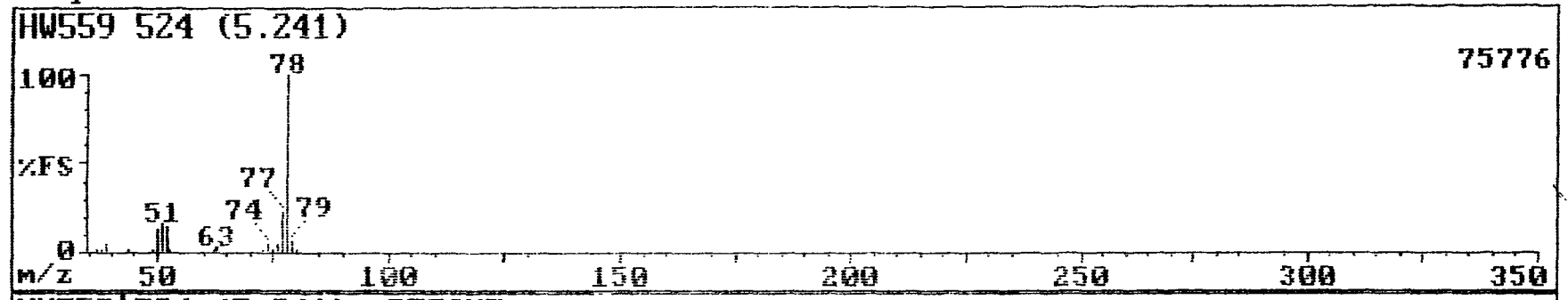
08-09-98 08:28 Triangle Laboratories, Inc. (919) 544-5729

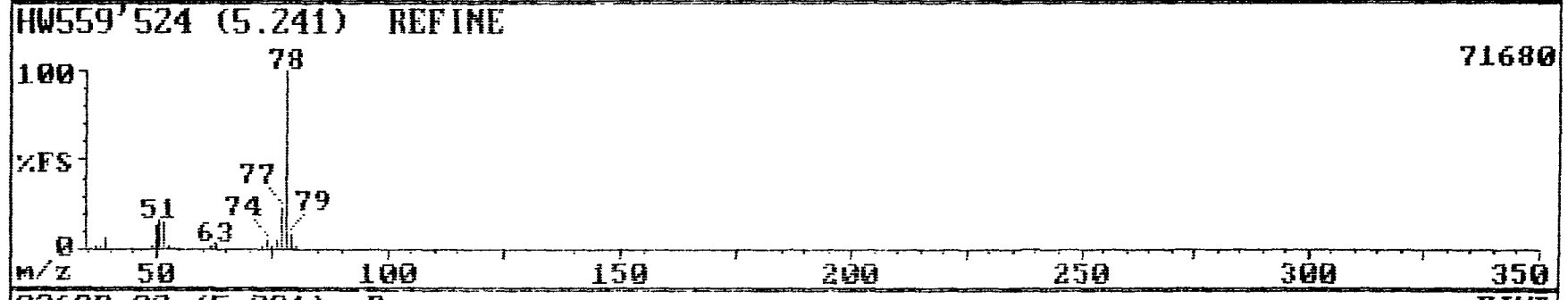
Sample: VOSTBLK T/TC Instrument H

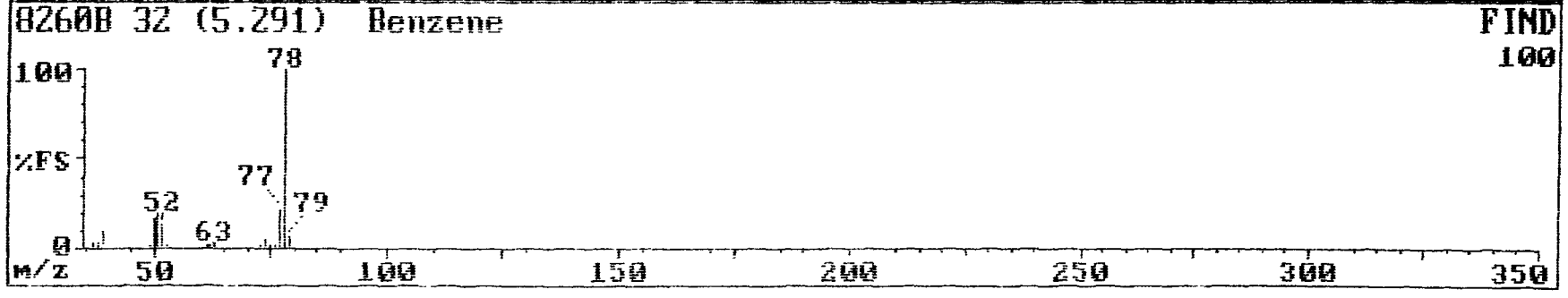


08-09-98 08:28 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument H

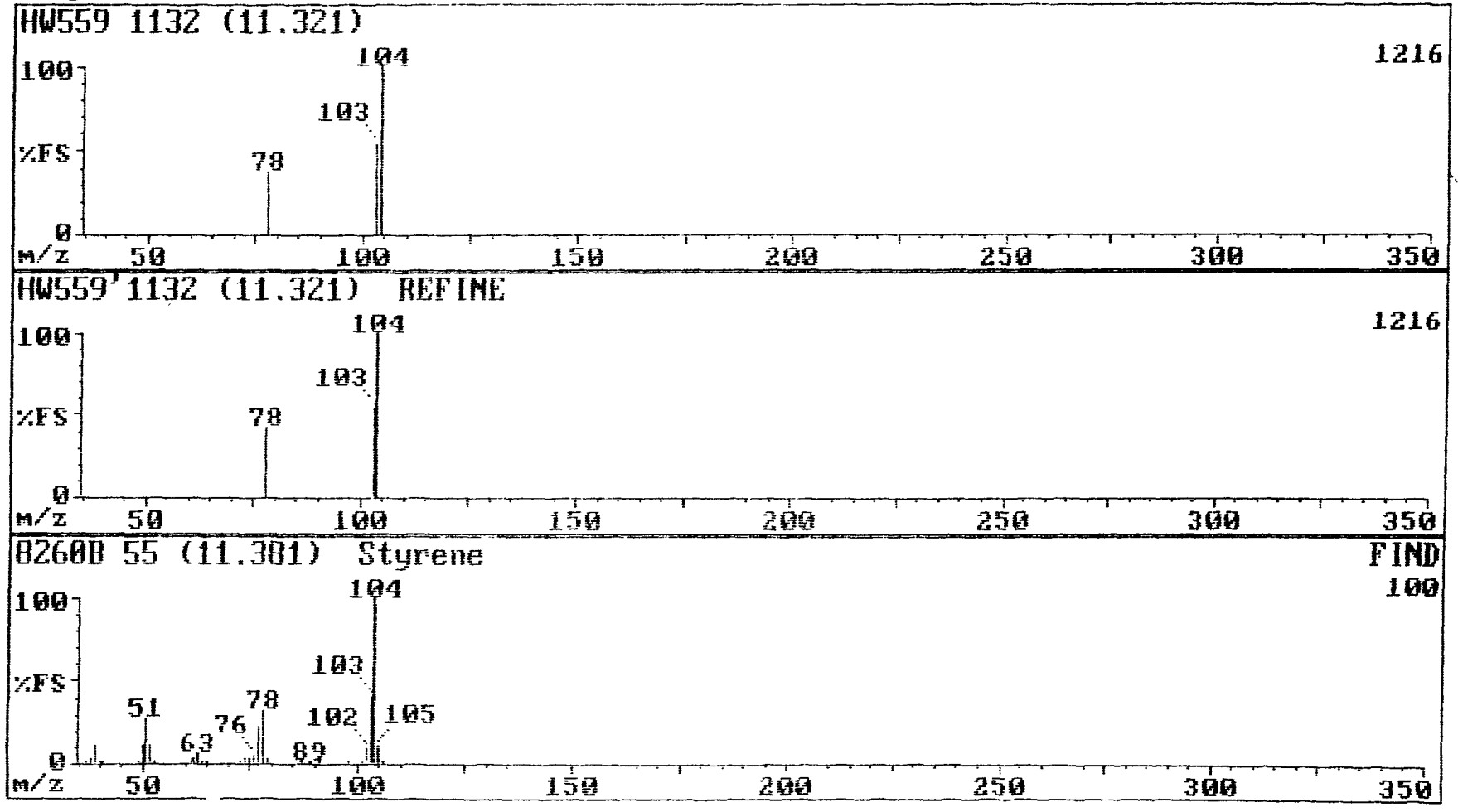






08-09-98 08:28 Triangle Laboratories, Inc. (919) 544-5729

Sample: VOSTBLK T/TC Instrument H



Pacific Environmental Services

Project Number: 46323
Sample File: FX952

Method 8260 VOST
Sample ID: VOSTBLK 082198 T/TC

Client Project: R012.001
TLI ID: VOSTBLK082198

Date Received: / /

Response File: ICALF821

Date Analyzed : 08/21/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Methyl methacrylate		U		0.006	0.05
Bromodichloromethane		U		0.001	0.05
cis-1,3-Dichloropropene		U		0.001	0.05
4-Methyl-2-pentanone		U		0.004	0.05
Toluene		U		0.001	0.05
trans-1,3-Dichloropropene		U		0.001	0.05
1,1,2-Trichloroethane		U		0.001	0.05
Chlorobenzene-d_5		IS 3	10.36		
Tetrachloroethene		U		0.001	0.05
2-Hexanone		U		0.009	0.05
Dibromochloromethane		U		0.001	0.05
1,2-Dibromoethane		U		0.001	0.05
Chlorobenzene		U		0.001	0.05
Ethylbenzene		U		0.001	0.05
m-/p-Xylene		U		0.001	0.10
o-Xylene		U		0.001	0.05
Styrene		U		0.001	0.05
Bromoform		U		0.002	0.05
1,4-Dichlorobenzene-d_4		IS 4 Low	15.73		
Cumene		U		0.001	0.05
1,1,2,2-Tetrachloroethane		U		0.003	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Pacific Environmental Services

Project Number: 46323
Sample File: FX952

Method 8260 VOST
Sample ID: VOSTBLK 082198 T/TC

Client Project: R012.001
TLI ID: VOSTBLK082198

Date Received: / /

Date Analyzed : 08/21/98

Response File: ICALF821

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.31		
1,3-Butadiene		U		0.001	0.25
Vinyl bromide		U		0.001	0.25
MTBE		U		0.001	0.25
n-Hexane		U		0.001	0.25
1,2-Epoxybutane		U		0.024	0.25
Iso-Octane		U		0.001	0.25
1,4-Difluorobenzene		IS 2	6.08		
Ethyl acrylate		U		0.004	0.25

Reviewed by PAB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit

IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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PAB

PAB

PAB

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

(7P) PAB

(7P) PAB

534

Pacific Environmental Services

Project Number: 46323 | **Method 8260 VOST**
Sample File: FX974 | **Sample ID: VOSTBLK 082498 T/TC**

Client Project: R012.001 | **Date Received: / /** | **Response File: ICALF821**
TLI ID: VOSTBLK082498
Date Analyzed : 08/24/98

Analyte	Amount ug	FLAG	RT	Det. Limit ug	Quan. Limit ug
Pentafluorobenzene		IS 1	5.33		
Chloromethane		U		0.001	0.05
Vinyl Chloride		U		0.001	0.05
Bromomethane		U		0.001	0.05
Chloroethane		U		0.001	0.05
Trichlorofluoromethane		U		0.001	0.05
1,1-Dichloroethene		U		0.001	0.05
Iodomethane		U		0.001	0.05
Carbon disulfide		U		0.001	0.05
Acetone		U		0.006	0.05
Allyl chloride		U		0.001	0.05
Methylene chloride		U		0.001	0.05
Acrylonitrile		U		0.029	0.05
trans-1,2-Dichloroethene		U		0.001	0.05
1,1-Dichloroethane		U		0.001	0.05
Vinyl acetate		U		0.002	0.05
cis-1,2-Dichloroethene		U		0.001	0.05
2-Butanone		U		0.005	0.05
Chloroform		U		0.001	0.05
1,1,1-Trichloroethane		U		0.001	0.05
1,4-Difluorobenzene		IS 2	6.10		
Carbon tetrachloride		U		0.001	0.05
Benzene		U		0.001	0.05
1,2-Dichloroethane		U		0.001	0.05
Trichloroethene		U		0.001	0.05
1,2-Dichloropropane		U		0.001	0.05

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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Printed: 12:31 08/25/1998

Pacific Environmental Services

Project Number: 46323
Sample File: FX974

Method 8260 VOST
Sample ID: VOSTBLK 082498 T/TC

Client Project: R012.001
TLI ID: VOSTBLK082498

Date Received: / /
Date Analyzed : 08/24/98

Response File: ICALF821

Surrogate Summary	Amount (ug)	RT	IS Ref	%REC
Dibromofluoromethane	0.232	5.21	1	93
Toluene-d_8	0.256	8.03	2	102
4-Bromofluorobenzene	0.198	12.69	2	79

Reviewed by RaB Date 8/25/98

NA- Not Applicable; Det. Limit: Detection Limit; Quan. Limit: Quantitation Limit
IS: Internal Standard; U: Undetected; B: Present In Blank; J: Estimated- Below Quantitation Limit; E: Estimated- Above Calibration Range

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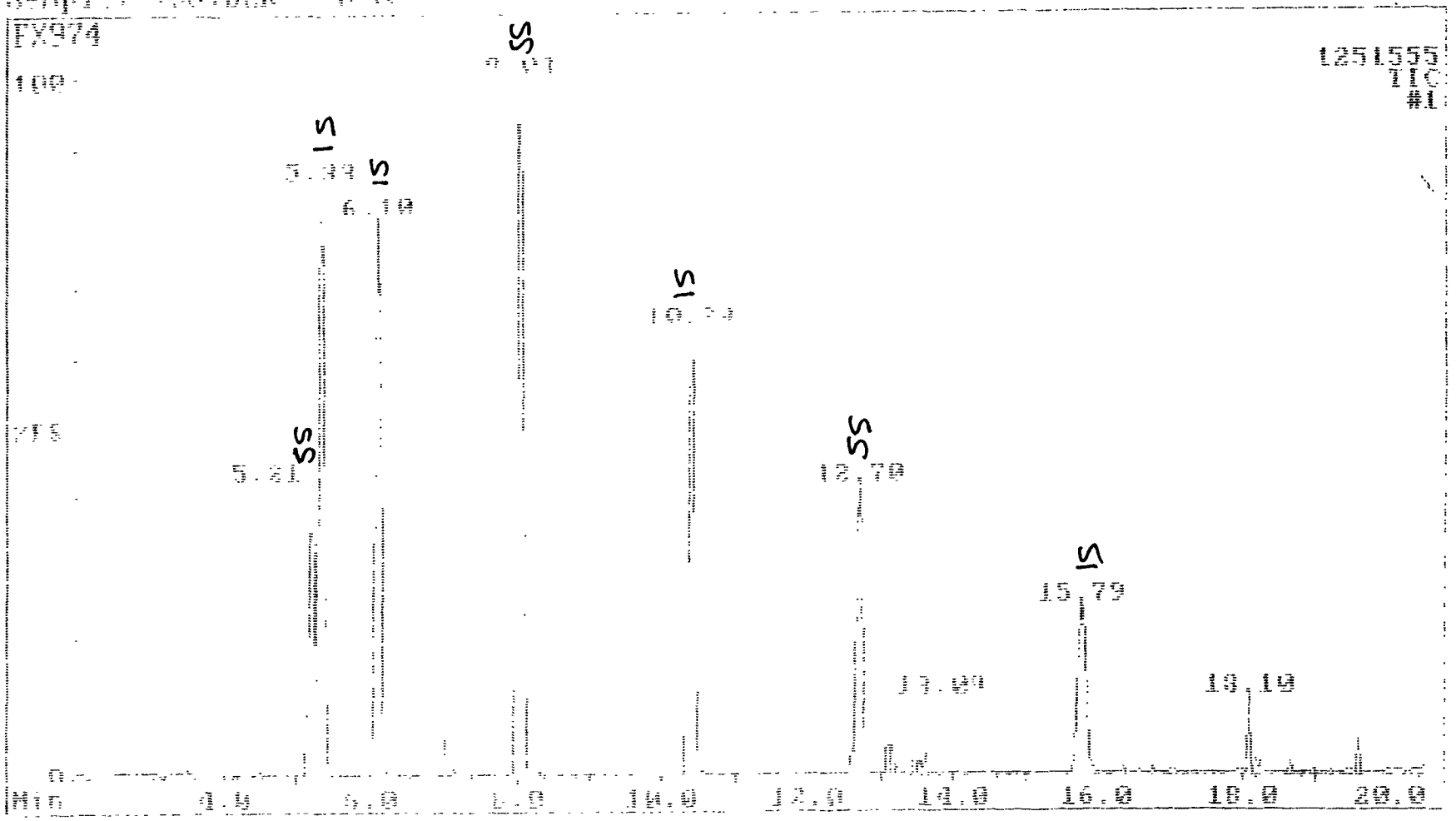
Printed: 12:31 08/25/1998

538

24-Aug-98 09:01 Triangle Laboratories, Inc. (919) 544-5729

Sample: WASTBLK T/IC Instrument F



Data Review: PaB
Date: 8/24/98

TRIANGLE LABS

CALIBRATION DATA

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729

P.O. Box 13485
Research Triangle Park, NC 27709-34
Fax # 919-544-5491

544

Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALH809	Date of Analysis :08/09/98	Analyte List: special
RF0.10 HW551	RF0.25 HW552	RF0.50 HW553
RF0.75 HW554	RF1.00 HW555	

VOST Calibration.

Analyte	Flag	RF0.10	RF0.25	RF0.50	RF0.75	RF1.00	MEAN	%RSD
Chlorobenzene	P	0.930	0.929	0.979	0.960	0.978	0.955	2.6
Ethylbenzene	C	0.509	0.525	0.542	0.555	0.572	0.541	4.5
m-/p-Xylene		0.628	0.646	0.679	0.697	0.730	0.676	6.0
o-Xylene		0.601	0.605	0.641	0.653	0.701	0.640	6.4
Styrene		0.925	0.957	1.012	1.036	1.121	1.010	7.5
Bromoform	P	0.211	0.193	0.205	0.217	0.215	0.208	4.6
1,4-Dichlorobenzene-d4	I							
Cumene		3.195	2.902	3.063	3.038	2.980	3.036	3.6
1,1,2,2-Tetrachloroethane	P	0.518	0.357	0.362	0.368	0.390	0.399	17.0
Average %RSD								9.7

Surrogate	Flag	RF0.10	RF0.25	RF0.50	RF0.75	RF1.00	Mean	%RSD
Dibromofluoromethane	S	0.523	0.538	0.522	0.530	0.552	0.533	2.4
Toluene-d8	S	1.422	1.357	1.310	1.625	1.290	1.401	9.7
4-Bromofluorobenzene	S	0.702	0.656	0.636	0.788	0.974	0.751	18.3

Approved by: BaB Date 8/10/98

***- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF**

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Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: HW552	Date of Analysis :08/09/98	Analyte List: special
ICAL File: ICALH809		

VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Chlorobenzene	P	0.929	0.955	2.7
Ethylbenzene	C	0.525	0.541	3.0
m-/p-Xylene		0.646	0.676	4.4
o-Xylene		0.605	0.640	5.5
Styrene		0.957	1.010	5.2
Bromoform	P	0.193	0.208	7.2
1,4-Dichlorobenzene-d4	I			
Cumene		2.902	3.036	4.4
1,1,2,2-Tetrachloroethane	P	0.357	0.399	10.5

Surrogate	Flag	RF0.25	RFMEAN	%D
Dibromofluoromethane	S	0.538	0.533	-0.9
Toluene-d8	S	1.357	1.401	3.1
4-Bromofluorobenzene	S	0.656	0.751	12.6

Approved by: PAB Date 8/10/98

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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Triangle Laboratories, Inc.
Initial Calibration Curve

ICAL File: ICALF821	Date of Analysis :08/21/98	Analyte List: special
RF0.10 FX943	RF0.25 FX944	RF0.50 FX945
RF0.75 FX946	RF1.00 FX949	

VOST Calibration.

Analyte	Flag	RF0.10	RF0.25	RF0.50	RF0.75	RF1.00	MEAN	%RSD
Chlorobenzene	P	1.092	1.046	1.061	1.063	1.032	1.059	2.1
Ethylbenzene	C	0.660	0.721	0.727	0.719	0.687	0.703	4.1
m-/p-Xylene		0.880	0.897	0.897	0.855	0.731	0.852	8.2
o-Xylene		0.649	0.712	0.755	0.747	0.725	0.718	5.8
Styrene		0.800	0.901	0.946	0.982	0.983	0.922	8.2
Bromoform	P	0.082	0.077	0.084	0.078	0.091	0.082	7.1
1,4-Dichlorobenzene-d4	I							
Cumene		7.662	6.642	6.797	6.157	4.138	6.279	20.9
1,1,2,2-Tetrachloroethane	P	0.360	0.255	0.254	0.267	0.225	0.272	18.9
Average %RSD								15.6

Surrogate	Flag	RF0.10	RF0.25	RF0.50	RF0.75	RF1.00	Mean	%RSD
Dibromofluoromethane	S	0.394	0.391	0.392	0.397	0.392	0.393	0.6
Toluene-d8	S	1.020	1.146	1.236	1.260	1.112	1.155	8.4
4-Bromofluorobenzene	S	0.377	0.362	0.414	0.399	0.427	0.396	6.7

Approved by: PAB Date 8/26/98

*- Fails QC Criteria for %RSD; << - RF less than minimum QC RF; >> - RF greater than maximum QC RF

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CCAL File: FX944	Date of Analysis :08/21/98	Analyte List: special
ICAL File: ICALF821		

VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Chlorobenzene	P	1.046	1.059	1.2
Ethylbenzene	C	0.721	0.703	-2.6
m-/p-Xylene		0.897	0.852	-5.3
o-Xylene		0.712	0.718	0.8
Styrene		0.901	0.922	2.3
Bromoform	P	0.077	0.082	6.1
1,4-Dichlorobenzene-d4	I			
Cumene		6.642	6.279	-5.8
1,1,2,2-Tetrachloroethane	P	0.255	0.272	6.2

Surrogate	Flag	RF0.25	RFMEAN	%D
Dibromofluoromethane	S	0.391	0.393	0.5
Toluene-d8	S	1.146	1.155	0.8
4-Bromofluorobenzene	S	0.362	0.396	8.6

Approved by: BAB Date 8/26/98

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

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Continuing Calibration Curve

CCAL File: FX971	Date of Analysis :08/24/98	Analyte List: special
ICAL File: ICALF821		

VOST Calibration.

Analyte	Flag	RF0.25	RFMEAN	%D
Chlorobenzene	P	1.149	1.059	-8.5
Ethylbenzene	C	0.791	0.703	-12.5
m-/p-Xylene		0.986	0.852	-15.7
o-Xylene		0.801	0.718	-11.6
Styrene		0.998	0.922	-8.2
Bromoform	P	0.109	0.082	-32.9
1,4-Dichlorobenzene-d4	I			
Cumene		6.434	6.279	-2.5
1,1,2,2-Tetrachloroethane	P	0.257	0.272	5.5

Surrogate	Flag	RF0.25	RFMEAN	%D
Dibromofluoromethane	S	0.308	0.393	21.6
Toluene-d8	S	1.230	1.155	-6.5
4-Bromofluorobenzene	S	0.379	0.396	4.3

Approved by: PAB Date 8/26/98

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

Triangle Laboratories, Inc.
Continuing Calibration Curve

CCAL File: HW557 Date of Analysis :08/09/98 Analyte List: short
ICAL File: ICALH809

VOST Calibration.

Analyte	Flag	RF0.50	RFMEAN	%D	
Pentafluorobenzene	I				
1,3-Butadiene		0.446	0.446	0.0	
Vinyl bromide		0.502	0.502	0.0	
MTBE		0.124	0.124	0.0	
n-Hexane		0.692	0.692	0.0	
1,2-Epoxybutane		0.005	0.005	0.0	<<
Iso-Octane		1.536	1.536	0.0	
1,4-Difluorobenzene	I				
Ethyl acrylate		0.230	0.230	0.0	

Approved by: Bab Date 8/10/98

*- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF

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Continuing Calibration Curve

CCAL File: FX950	Date of Analysis :08/21/98	Analyte List: short
ICAL File: ICALF821		

VOST Calibration.

Analyte	Flag	RF0.50	RFMEAN	%D	
Pentafluorobenzene	I				
1,3-Butadiene		0.163	0.163	0.0	
Vinyl bromide		0.321	0.321	0.0	
MTBE		0.362	0.362	0.0	
n-Hexane		0.500	0.500	0.0	
1,2-Epoxybutane		0.006	0.006	0.0	<<
Iso-Octane		1.726	1.726	0.0	
1,4-Difluorobenzene	I				
Ethyl acrylate		0.032	0.032	0.0	
Chlorobenzene-d5	I				
1,4-Dichlorobenzene-d4	I				

Surrogate	Flag	RF0.50	RFMEAN	%D
Dibromofluoromethane	S	0.202	0.202	0.0
Toluene-d8	S	0.593	0.593	0.0
4-Bromofluorobenzene	S	0.091	0.091	0.0

Approved by: PAB Date 8/25/98

***- Fails QC Criteria for %D; << - Rf less than minimum QC RF; >>- RF greater than maximum QC RF**

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TECHNICAL REPORT DATA

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1. REPORT NO. EPA-454/R-00-025G	2.	3. RECIPIENT'S ACCESSION NO.
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7. AUTHOR(S) Frank J. Phoenix		8. PERFORMING ORGANIZATION REPORT NO.
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15. SUPPLEMENTARY NOTES

16. ABSTRACT

The United States Environmental Protection Agency (EPA) Office of Air Quality Planning and Standards (OAQPS) is investigating hot mix asphalt plants to identify and quantify particulate matter (PM), methylene chloride extractable matter (MCEM), and organic hazardous air pollutant (HAP) emissions during asphalt concrete loading operations. In support of this investigation, the OAQPS issued Pacific Environmental Services, Inc. (PES) a series of work assignments to conduct emissions testing at a hot mix asphalt plant during load-out operations.

The primary objective of the emissions testing was to characterize the uncontrolled emissions of PM, MCEM, polynuclear aromatic hydrocarbons (PAHs), semi-volatile organic hazardous air pollutants (SVOHAPS), and volatile organic hazardous air pollutants (VOHAPS) from a hox mix production plant during loading operations. An asphalt plant south of Los Angeles, California was selected by EPA as the host facility. Testing was performed over five consecutive days beginning on July 24, 1998. Testing was performed under two conditions. Under normal operations, testing was performed to characterize load-out emissions from the tunnel exhaust and load-in emissions from the asphalt concrete storage silo. Under background conditions, testing was performed to characterize emissions from the combustion of diesel fuel in transport trucks.

The entire report consists of eight volumes totaling 4,234 pages, Vol. 1 (388 pages), Vol. 2 (308 pages), Vol. 3 (573 pages), Vol. 4 (694 pages), Vol. 5 (606 pages), Vol. 6 (564 pages), Vol. 7 (570 pages), and Vol. 8 (531 pages).

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTIONS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COASTI Field/Group
Hazardous Air Pollutants Methylene Chloride Extractable Matter Particulate Matter Polynuclear Aromatic Hydrocarbons Semi-volatile Organic Hazardous Air Pollutants Volatile Organic Hazardous Air Pollutants		

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