AR TARGET SHEET

The following document was too large to scan as one unit, therefore it has been broken down into sections.

DOCUMENT # B07MK9-TMA-369

EDMC # 0045426

SECTION 3 OF 18

9613492.1100

0045426
5 of 42

E-93-22/2978-62
WESTINGHOUSE HANFORD COMPANY
241-T-106 DATA VALIDATION
DISTRIBUTION FORM

SDG: B07JZ4
Case #: B07JZ4
Fraction: SVOA

Document Title Final QA Record

Document Number: _____ Date: 4/15/94

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Project Files (1=Administrative; 2=Correspondence; 3=Source Data; 4=Technical Data)

1.1 File Index		1.6.6.3 Plans Doc. Log		3.4 Original Chemical Data	
1.2 Distribution Lists		1.6.6.4 Deliverables Doc. Log		3.5 Original Radiochemical Data	
1.3 Project Procedures		1.7 Budget			
1.4 Project Modifications		1.7.1 Downloads		4.1 Task Plan	
1.5 Staff		1.7.2 M-113s			
1.5.1 Staff Resumes		1.7.3 A-208s		4.2 Data Pkg. Completeness Verif. Checklist	
1.5.2 Staff Training		1.7.4 Budget Status		4.3 Data Valididation Calcs./Annotated DP	X
1.5.3 Auth. Former Site Employee		1.7.5 Invoices		4.4 Prelim. QA Records	
1.6 QA		1.8 Requisitions			
1.6.1 QA Manual		1.9 Meeting Minutes		4.5 Data Valid. & Qual. Summary Rpts.	
1.6.2 QA Implementation		1.10 Record of Telecon		4.5.1 Internal Drafts/Comments/Resol.	
1.6.3.1 QA Audits-Deliverables		1.11 Progress Reports		4.5.2 WHC Review Draft Comments/Resol.	
1.6.3.2 QA Audits-Files		1.12 Subcontractor (HC)		4.5.3 Final Report	
1.6.4.1 Audit Resps. - Deliverables				4.6 Weekly Status Reports	
1.6.4.2 Audit Resps. - Files		2.1 Incoming Correspondence		4.7 Weekly Management Reports	
1.6.5 QA Training		2.2 Outgoing Correspondence			
1.6.6.1 QA Manual Document Log		2.3 Internal Correspondence			
1.6.6.2 Procedure Document Log					
		3.1 Task Order			
		3.2 Sample Lists			
		3.3 Data Validation Procedures			

9613492.1101

AS 10/24/93

SEMI-VOLATILE ORGANIC DATA VALIDATION CHECKLIST - FORM A-2

PROJECT: 241-T-106		REVIEWER: AS	DATE: 10/24/93
LABORATORY: PNL		CASE:	SDG: B07JZ4
SAMPLES/MATRIX:	B07JZ4	B07K00	
	B07JZ5	~~B08L02~~	
	B07JZ6	B07JZ8	
	B07JZ7		
	B07JZ9	-soil	

1. DATA PACKAGE COMPLETENESS

Review the data package for completeness and check off the items below. If any data review elements are missing contact the laboratory for submittal.

See attached verification table.

Data Package Item	Present?: Yes	No	N/A
Case Narrative	—	—	—
Data Summary	—	—	—
Chain-of-Custody	—	—	—
QC Summary			
Surrogate report	—	—	—
MS/MSD report	—	—	—
Blank summary report	—	—	—
GC/MS tuning report	—	—	—
Internal standard summary report	—	—	—
Sample Data			
Sample reports	—	—	—
TIC reports for each sample	—	—	—
RIC reports for all samples	—	—	—
Raw and corrected spectra for all detected results	—	—	—
Raw and corrected library search data for all reported TIC	—	—	—
Quantitation and calculation data for all TIC	—	—	—
Standards Data			
Initial calibration report	—	—	—
RIC and quantitation reports for initial calibration	—	—	—
Continuing calibration reports	—	—	—
RIC and quantitation reports for cont. calibrations	—	—	—
Internal standard summary report	—	—	—
Raw QC Data			
Tuning report, spectra and mass lists	—	—	—
Blank analysis reports	—	—	—
TIC reports for all blanks	—	—	—
RIC and quantitation reports for blanks	—	—	—
Raw and corrected spectra for all detected results in blanks	—	—	—
Raw and corrected library search data for all reported TIC	—	—	—
Quantitation and calculation data for all TIC	—	—	—
MS/MSD report forms	—	—	—

Data Package Item	Present?:	Yes	No	N/A
RIC and quantitation reports for MS/MSD		—	—	—
Additional Data				
Moisture/% solids data sheets		—	—	—
Reduction formulae		—	—	—
Instrument time logs		—	—	—
Chemist notebook pages		—	—	—
Sample preparation sheets		—	—	—

2. HOLDING TIMES

Were all samples extracted within holding time?	Yes	No AS	N/A
Were all samples analyzed within holding time?	Yes	No	N/A

ACTION: If any holding times were exceeded, but not by greater than a factor of two, qualify associated samples as estimated (J for detects or UJ for nondetects), otherwise reject all nondetects (R) and qualify all associated detects as estimated (J).

3. INSTRUMENT CALIBRATION, TUNING AND PERFORMANCE CHECKS

3.1 GC/MS TUNING AND PERFORMANCE CHECKS

Is a DFTPP tune report present for each applicable 12h period?	Yes	No	N/A
Do all tunes on all instruments meet the tuning criteria?	Yes	No	N/A
Do all tunes on all instruments meet the expanded criteria?	Yes	No	N/A
Has the laboratory made any calculation or transciption errors?	Yes	No	N/A
Have the proper significant figures been reported?	Yes	No	N/A

ACTION: If the mass calibration is out of specification but within the expanded criteria, qualify associated data as estimated (J for detects and UJ for nondetects). If all tuning criteria are not met, qualify all associated data as unusable (R).

3.2 INITIAL CALIBRATION

Is an initial calibration report provided for all instruments?	Yes	No	N/A
Are all RSD values ≤30% (2/88 SOW)?	Yes	No	N/A
Are all RRF values ≥0.05 (2/88 SOW)?	Yes	No	N/A
Are all applicable RSD values ≤20.5% (3/90 SOW)?	Yes	No	N/A
Are all applicable RSD values ≤40% (3/90 SOW)?	Yes	No	N/A

Are all applicable RRF values within SOW limits (3/90 SOW)? Yes No N/A

Are all erratic performance compound RRF values ≥0.01 (3/90 SOW)? Yes No N/A

ACTION: With the exception of compounds that exhibit erratic performance and making allowances for up to four TCL compounds or surrogates, if any RRF value is out of specification qualify all detected results for the particular compound as estimated (J) and all nondetects as unusable (R). Making allowances for up to four TCL compounds or surrogates, if any RSD value is out of specification qualify all associated data as estimated (J for detects or UJ for nondetects).

3.3. CONTINUING CALIBRATION

Is a continuing calibration report present for all 12-h periods in which associated samples were analyzed? Yes No N/A

Are all RRF values ≥0.05 (2/88 SOW)? Yes No N/A

Are all %D values ≤25% (2/88 or 3/90 SOW)? Yes No N/A

Are all %D values ≤40% (3/90 SOW)? Yes No N/A

Are all RRF values within SOW limits (3/90 SOW)? Yes No N/A

Are all erratic performance compound RRF values ≥0.01 (3/90 SOW)? Yes No N/A

ACTION: With the exception of compounds that exhibit erratic performance and making allowances for up to four TCL compounds or surrogates, if any RRF value is out of specification qualify all associated detected results as estimated and all nondetects as unusable (R). Making allowances for up to four TCL compounds or surrogates, if any %D is out of specification, qualify all associated results as estimated (J for detects or UJ for nondetects).

4. BLANKS

4.1 LABORATORY BLANKS

Has the laboratory conducted a method blank analysis per matrix for every extraction batch? Yes No N/A

Are compounds reported in the laboratory blanks? Yes No N/A

ACTION: Qualify all sample results < 10 times the highest blank concentration for the common laboratory contaminants, as nondetects (U) or at the SQL if the result is < CRQL. Qualify all remaining sample results < 5 times the blank concentration in similar fashion.

4.2. FIELD BLANKS

Are compounds reported in the field blanks? Yes No N/A

ACTION: Qualify all detected sample results ≤5 times the amount in any valid field blank as nondetects (U) and note the results of the field blanks in the validation narrative.

5. ACCURACY

5.1 SURROGATE RECOVERY/SYSTEM MONITORING COMPOUND RECOVERY

Are any surrogate recoveries out of specification? Yes No N/A

Are any surrogate recoveries < 10%? Yes No N/A

Are any method blank surrogate recoveries out of specification? Yes No N/A

ACTION: Qualify all associated data as estimated (J for detects and UJ for nondetects) if at least two semivolatile surrogates are out of specification. If any surrogate is below 10% recovery qualify associated detected results as estimated (J) and associated nondetect results as unusable (R). If method blank surrogates are out of specification and associated sample surrogates are acceptable no qualification is required, however, the laboratory should be contacted for an explanation.

5.2 MATRIX SPIKE RECOVERY

Has an MS/MSD analysis been conducted per matrix in the sample group? Yes No N/A

Are MS/MSD recoveries within specification? Yes No N/A

Are there any calculation errors? Yes No N/A

ACTION: If an MS/MSD analysis has not been conducted contact the laboratory for an explanation. Review the MS/MSD recoveries in conjunction with other QC data such as surrogate recoveries and note the results in the validation narrative. If MS/MSD recoveries are out of specification and sample concentration is >5 times the spike concentration, no qualification is required, otherwise qualify results as follows: Qualify positive results for the specific class of compound (aromatics and non-aromatics) as estimated (J) in all samples if associated surrogates are also out of specification. The qualification shall only be done on samples of similar matrix as the MS/MSD samples. If it is determined from the review that only the spiked samples are affected by low recoveries, qualify only the results for the spiked sample as described above. If it is determined from the review that out of specification MS/MSD recoveries are indicative of systematic problems in the laboratory such as sample preparation or sample-specific matrix interferences this must be noted in the validation narrative along with the potential affect on the sample results.

5.3 PERFORMANCE AUDIT SAMPLES

Are the results for the performance audit samples within the acceptance limits? Yes No N/A

ACTION: Note the results of the performance audit samples in the validation narrative.

6. PRECISION

6.1 MATRIX SPIKE/MATRIX SPIKE DUPLICATES

Are all RPD values within specification? Yes No N/A

Are there any calculation errors? Yes No N/A

ACTION: Review the MS/MSD results in conjunction with other QC data such as field duplicates and note the results in the validation narrative. If MS/MSD RPDs are out of specification and sample results are > 5xCRQL qualify positive results for the specific class of compound (aromatics and non-aromatics) as estimated (J). If it is determined from the review that out of specification MS/MSD results are indicative of systematic problems in the laboratory such as sample preparation or sample-specific matrix interferences this must be noted in the validation narrative along with the potential affect on the sample results.

6.2 FIELD DUPLICATE SAMPLES

Are field duplicate RPD values acceptable? Yes No N/A

ACTION: Note the results of the field duplicate samples in the validation narrative.

6.3 FIELD SPLIT SAMPLES

Are field split RPD values acceptable? Yes No N/A

ACTION: Note the results of the field split samples in the validation narrative.

7. SYSTEM PERFORMANCE

7.1 INTERNAL STANDARDS PERFORMANCE

Are any internal standard area counts outside the acceptance limits? Yes No N/A

Are retention times for any internal standard outside the ±30 second windows established by the most recent calibration check? Yes No N/A

ACTION: If the area counts are outside the acceptance limits qualify all associated results as estimated (J for detects and UJ for nondetects. If it is determined from the review that out of specification area counts and relative retention times are indicative of systematic problems within the laboratory the reviewer may consider rejection of all affected sample data (R).

8. COMPOUND IDENTIFICATION AND QUANTITATION

8.1 COMPOUND IDENTIFICATION

Are detected compounds within ±0.06 relative retention time units of the associated calibration standard?	Yes	No	N/A
Are all ions at a relative intensity of ≥10% in the standard spectra present in the sample spectra?	Yes	No	N/A
Do the relative intensities between the standard and sample spectra agree within 20%?	Yes	No	N/A
Have all ions > 10% in the sample spectra that are not present in the standard spectra been reviewed for possible background contamination?	Yes	No	N/A
Are molecular ions in the reference spectrum present in the sample spectrum?	Yes	No	N/A

Some spectral matches did not match. See form B-7

ACTION: If compound identification is in error and retention time and mass spectral criteria are exceeded qualify all affected positive results as unusable (R). If cross-contamination between analyses is suspected, qualify affected data as unusable (R).

8.2 REPORTED RESULTS AND QUANTITATION LIMITS

Has the laboratory used the correct RRF values and internal standards for quantitation?	Yes	No	N/A
Are results and quantitation limits calculated properly?	Yes	No	N/A
Has the laboratory reported the sample quantitation limits within 5xCRQL values?	Yes	No	N/A

ACTION: If the quantitation limits are in error contact the laboratory for clarification and note in the validation narrative.

8.3 TENTATIVELY IDENTIFIED COMPOUNDS

Has the laboratory conducted a spectral library search on all candidate TIC peaks in accordance with the analytical SOW?	Yes	No	N/A
Has the laboratory properly identified and coded all TIC?	Yes	No	N/A

ACTION: If the laboratory has failed to search the minimum number of TIC peaks in the chromatogram contact the laboratory for submittal of the required data. Qualify as nondetects (U) all TIC compounds present in samples and blanks using the review criteria specified in the validation requirements. If TIC identification is in error sample results should be qualified as nondetects (U) or unusable (R). If TIC identifications are judged valid, qualify the results as presumptive and estimated (JN).

9. OVERALL ASSESSMENT AND SUMMARY

Has the laboratory conducted the analysis in accordance with the analytical SOW? Yes No N/A

Were project specific data quality objectives met for this analysis? Yes No N/A

ACTION: Summarize all the data qualifications and complete the data validation narrative as specified in Section 10.0 of the data validation requirements.

COMMENTS (attach additional sheets as necessary):

TELEPHONE CONTACT SUMMARY

VALIDATOR:	DATE:	TIME:	PAGE 8 OF 10
COMPANY:			
ADDRESS:			
PERSON CONTACTED:			
TELEPHONE:		FAX:	
PROJECT/CASE/SDG:			
REMARKS:			
ACTION:			

HOLDING TIME SUMMARY

SDG: B07JZ4	VALIDATOR: AS	DATE: 10/24/93	PAGE 1 OF 8
COMMENTS:			

FIELD SAMPLE ID	ANALYSIS TYPE	DATE SAMPLED	DATE PREPARED	DATE ANALYZED	PREP. HOLDING TIME, DAYS	ANALYSIS HOLDING TIME, DAYS	QUALIFIER
B07JZ7	SVOA	12/11/92	12/18/92	1/14/93	7	27	—
B07K00	↓	12/16/92	12/18/92	1/14/93	2	27	—
B07JZ8	↓	12/15/92	12/18/92	1/15/93	3	28	—
B07JZ9	↓	12/15/92	12/18/92	1/15/93	3	28	—
B07JZ6	↓	12/8/92	12/18/92	1/15/93	10	28	—
B07JZ4	↓	12/7/92	12/19/92	1/29/93	12	41	J
B07JZ5	↓	12/7/92	12/19/92	1/29/93	12	41	J

CALIBRATION DATA SUMMARY

SDG: B07JZ4	VALIDATOR: AS	DATE: 10/28/93	PAGE 2 OF ~~8~~ 10
COMMENTS:			

CALIB. TYPE:	INITIAL	CONTINUING	INSTRUMENT: BNA 1

	CALIB. DATE	COMPOUND	RF	RSD/%D/%R	SAMPLES AFFECTED	QUALIFIER
	1/14/93, 1/15/93, 1/29/93	All GC/MS tuning criteria met.				
	Note:	No Tuning data for the ical was submitted				
Ical	11/5/92	All %RSD & RRF acceptable				
		Benzoic Acid	0.00	A.S.	J(+)/R(-)	A.S.
		2,4,5-trichlorophenol	0.00	OK!	B07JZ7, B07K00, B07JZ8, B07JZ9, B07JZ6, B07JZ4, B07JZ5	J(+)/R(-)
		2-nitroaniline	0.00			
		3-nitroaniline	0.00			
		2,4-dinitrophenol	0.00			
		4-nitrophenol	0.00			
		4-nitroaniline	0.00			
		4,6-dinitro-2-methylphenol	0.00			
		pentachlorophenol	0.00			
Ccal	1/14/93 10:37	bis(2-chloroisopropyl)ether		71.7%	B07JZ7, B07K00	J(+)/UJ(-) STET
		N-Nitroso-di-n-propylamine		29.2%		
		2-Nitroaniline		29.2%		
		2,4-Dinitrophenol		31.5		

compounds with high CRQL require 4 pt calibration

A.S.

B-2

96J3492. WHC-BD-EN-SPP-002, Rev. 2

CALIBRATION DATA SUMMARY - FORM B-2

SDG: B07JZ4	REVIEWER: AS	DATE: 10/24/93	PAGE 3 OF 10		
COMMENTS:					
CALIB. TYPE:	INITIAL (CONTINUING)	INSTRUMENT: BNA1			
CALIB. DATE	COMPOUND	RF	RSD/%D/%R	SAMPLES AFFECTED	QUALIFIER
ccal 1/29/93	bis(2-chloroisopropyl)ether		46.5%	B07JZ8, B07JZ9, B07JZ6	~~J(+)/UJ~~ STET
	Hexachlorocyclopentadiene		33%	↓	↓
	2,4-Dinitrophenol		26%		
ccal 1/29/93	bis(2-chloroisopropyl)ether		51.8%	B07JZ4, B07JZ5	~~J(+)/UJ~~ STET
	N-Nitroso-di-n-propylamine		25.8%	↓	↓
	Hexachlorocyclopentadiene		35.7%		
	2,4-Dinitrophenol		50.6%		
	~~None of these compounds were detected therefore~~				AS
	~~no data qualifiers were assigned.~~				

BLANK AND SAMPLE DATA SUMMARY

SDG: B07JZ4 | VALIDATOR: AS | DATE: 10/24/93 | PAGE 4 OF 10

COMMENTS:

SAMPLE ID	COMPOUND	RESULT	Q	RT	UNITS	5X RESULT	10X RESULT	SAMPLES AFFECTED	QUALIFIER
SBLK353	bis(2-ethylhexyl)phthalate	26			ug/kg		260	B07JZ7	U at CRQL
								B07K00	
								B07JZ8	
								B07JZ9	
								B07JZ6	
								B07JZ4	
								B07JZ5	
SBLK353	2-pentanone, 4-hydroxy-4-met			500,000		2500000		B07JZ7	U
TICs	~~Ethane, 1,1,2,2-tetrachloro~~			~~140~~		~~700~~		B07K00	
								B07JZ8	
								B07JZ9	
								B07JZ6	
								B07JZ4, B07JZ5	
TIC	Ethane, 1,1,2,2-tetrachloro							B07K00	
								B07JZ8	
All other detected TIC are qualified as "N" with the exception of the unknowns that were detected in the blanks as well (U).									

ACCURACY DATA SUMMARY

SDG: B07JZ4	VALIDATOR: AS	DATE: 10/24/93	PAGE 5 OF 10	
COMMENTS:				
SAMPLE ID	COMPOUND	% RECOVERY	SAMPLE(S) AFFECTED	QUALIFIER REQUIRED
All Surrogate Recoveries acceptable		45-102 %	—	—
All MS/MSD Recoveries acceptable		52-74 %	—	—
All I.S. Recoveries & R.T. acceptable		—	—	—

PRECISION DATA SUMMARY

SDG: B07JZ4	VALIDATOR: AS	DATE: 10/24/93	PAGE 6 OF 10		
COMMENTS:					
COMPOUND	SAMPLE ID:	SAMPLE ID:	RPD	SAMPLES AFFECTED	QUALIFIER
All MS/MSD RPD acceptable 1-10 %			—	—	—
Field dup	B07JZ8	B07JZ9			
Diethylphthalate	34	17	66%	—	—
Di-n-butylphthalate	120	24	133%	—	—
bis(2-ethylhexyl)phthalate	32	27	17%	—	—
Di-n-octylphthalate	13	22 125	51%	—	—
Lab dups -	B07JZ8	B07JZ8 dup		—	
" "	34	ND	—	—	—
" "	120	390 less	105%	B07JZ8	J
" "	32	31	1%	—	—
" "	13	14	1%	—	—
	B07JZ9	B07JZ9 dup			
" "	17	—	—	—	—
" "	24	16 60	40%	—	—
" "	27	36 135	29%	—	—
" "	22	20	9.5%	—	—

Sample concentrations were below CRQL. No qual are required
AS 11/12/93

1m

9613492.1J15

PRECISION DATA SUMMARY - FORM B-5

SDG: B07JZ4	REVIEWER AG	DATE: 10/24/93	PAGE 7 OF 10

COMMENTS:

COMPOUND	SAMPLE ID:	SAMPLE ID:	RPD	SAMPLES AFFECTED	QUALIFIER
	B07JZ6	B07JZ6 dup			
Di-n-butylphthalate	12	22	58%	B07JZ6	J
bis(2-ethylhexyl)phthalate	16	21	27%	—	—
Diethylphthalate	—	20	NC	—	—
	B07JZ4	B07JZ4 dup			
bis(2-ethylhexyl)phthalate	41	39	5%	—	—
Di-n-butylphthalate	—	79	NC	—	—
	B07JZ5	B07JZ5 dup			
Di-n-butylphthalate	110	240	75%	B07JZ5	J
bis(2-ethylhexyl)phthalate	23	23	0	—	—

No qualifiers required since all detects are below the CRQL

DATA QUALIFICATION SUMMARY - FORM B-7

SDG: B07JZ4	REVIEWER: AS	DATE: 10/27/93	PAGE 10 OF 10
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
Di-n-octylphthalate	J	B07JZ7	Detected below the
		B07JZ9	CRQL
Di-n-butylphthalate	J	B07JZ8	
		B07JZ9	
		B07JZ6	
		B07JZ5	
Di-ethylphthalate	J	B07JZ8	
		B07JZ9	
		AS 1/25/94	Not an analytical detection

DATA QUALIFICATION SUMMARY - FORM B-7

SDG: B07JZ4	REVIEWER: AS	DATE: 10/24/93	PAGE 9 OF 80
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
All BNA Compounds	J/UJ	B07JZ4	Exceeded Holding Time.
		B07JZ5	
bis(2-chloroisopropyl) ether	J(+)/	B07JZ7, B07K00	Exceeded Cal 25%D
N-nitroso-di-n-propylamine	UJ(-)		
2-nitroaniline			
2,4-dinitrophenol			
bis(2-chloroisopropyl)ether	J(+)/	B07JZ4, B07JZ5	
hexachlorocyclopentadiene	UJ(-)		
2,4-dinitrophenol			
N-nitroso-di-n-propylamine			
bis(2-ethylhexyl)phthalate		B07JZ7, B07K00,	blank contamination
	U at CRQL	~~B07JZ8,~~ B07JZ9,	
		B07JZ6, B07JZ4	
		B07JZ5, B07JZ8	
		~~B07JZ6~~, B07JZ5	
Di-n-butylphthalate	—	B07JZ8, B07JZ6,	~~high RPD~~ in lab dup
		B07JZ5	
		below CRQL No qual required	
bis(2-chloroisopropyl)ether	J(+)/UJ(-)	B07JZ8, B07JZ9,	Exceeded Cal 40%D
hexachlorocyclopentadiene		B07JZ4	
2,4-Dinitrophenol			

9613492.1119

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07JZ7

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02351-E1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1404

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: not dec.2.6 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH:10.5 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q	
108-95-2	Phenol	340.	U	
111-44-4	bis(2-Chloroethyl)Ether	340.	U	
95-57-8	2-Chlorophenol	340.	U	
541-73-1	1,3-Dichlorobenzene	340.	U	
106-46-7	1,4-Dichlorobenzene	340.	U	
100-51-6	Benzyl alcohol	340.	U	
95-50-1	1,2-Dichlorobenzene	340.	U	
95-48-7	2-Methylphenol	340.	U	
39638-32-9	bis(2-chloroisopropyl)ether	340.	~~U~~	UJ
106-44-5	4-Methylphenol	340.	U	
621-64-7	N-Nitroso-Di-n-propylamine	340.	~~U~~	UJ
67-72-1	Hexachloroethane	340.	U	
98-95-3	Nitrobenzene	340.	U	
78-59-1	Isophorone	340.	U	
88-75-5	2-Nitrophenol	340.	U	
105-67-9	2,4-Dimethylphenol	340.	U	
65-85-0	Benzoic acid	1700.	U	
111-91-1	bis(2-Chloroethoxy)methane	340.	U	
120-83-2	2,4-Dichlorophenol	340.	U	
120-82-1	1,2,4-Trichlorobenzene	340.	U	
91-20-3	Naphthalene	340.	U	
106-47-8	4-Chloroaniline	340.	U	
87-68-3	Hexachlorobutadiene	340.	U	
59-50-7	4-Chloro-3-methylphenol	340.	U	
91-57-6	2-Methylnaphthalene	340.	U	
77-47-4	Hexachlorocyclopentadiene	340.	U	
88-06-2	2,4,6-Trichlorophenol	340.	U	
95-95-4	2,4,5-Trichlorophenol	1700.	U	
91-58-7	2-Chloronaphthalene	340.	U	
88-74-4	2-Nitroaniline	1700.	~~U~~	UJ
131-11-3	Dimethylphthalate	340.	U	
208-96-8	Acenaphthylene	340.	U	
606-20-2	2,6-Dinitrotoluene	340.	U	

9613492.1120

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07JZ7

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02351-E1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1404

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: not dec.2.6 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH: 10.5 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q	
99-09-2	3-Nitroaniline	1700.	U	
83-32-9	Acenaphthene	340.	U	
51-28-5	2,4-Dinitrophenol	1700.	U	U
100-02-7	4-Nitrophenol	1700.	U	
132-64-9	Dibenzofuran	340.	U	
121-14-2	2,4-Dinitrotoluene	340.	U	
84-66-2	Diethylphthalate	340.	U	
7005-72-3	4-Chlorophenyl-phenylether	340.	U	
86-73-7	Fluorene	340.	U	
100-01-6	4-Nitroaniline	1700.	U	
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U	
86-30-6	N-Nitrosodiphenylamine (1)	340.	U	
101-55-3	4-Bromophenyl-phenylether	340.	U	
118-74-1	Hexachlorobenzene	340.	U	
87-86-5	Pentachlorophenol	1700.	U	
85-01-8	Phenanthrene	340.	U	
120-12-7	Anthracene	340.	U	
84-74-2	Di-n-butylphthalate	420.		
206-44-0	Fluoranthene	340.	U	
129-00-0	Pyrene	340.	U	
85-68-7	Butylbenzylphthalate	340.	U	
91-94-1	3,3'-Dichlorobenzidine	680.	U	
56-55-3	Benzo(a)anthracene	340.	U	
218-01-9	Chrysene	340.	U	
117-81-7	bis(2-Ethylhexyl)phthalate	~~25.~~	~~JB~~	340 U
117-84-0	Di-n-octylphthalate	19.	J	
205-99-2	Benzo(b)fluoranthene	340.	U	
207-08-9	Benzo(k)fluoranthene	340.	U	
50-32-8	Benzo(a)pyrene	340.	U	
193-39-5	Indeno(1,2,3-cd)pyrene	340.	U	
53-70-3	Dibenz(a,h)anthracene	340.	U	
191-24-2	Benzo(g,h,i)perylene	340.	U	

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

AS 10/29/93

AS 1/25/94

F03-011

9613492.1121

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07JZ7

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02351-E1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1404

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: not dec. 2.6 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH: 10.5 Dilution Factor: 1.00000

Number TICs found: 8

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	123422	2-Pentanone, 4-hydroxy-4-met	5.42	70000	~~JAB~~	U
2.		Unknown	5.66	480	~~JB~~	U
3.		Unknown	8.24	150	~~J~~	JN
4.		Unknown	8.41	1500	~~JAB~~	U
5.		Unknown	9.50	1200	~~JB~~	U
6.		Unknown	9.87	140	~~J~~	JN
7.		Unknown	11.31	510	~~JB~~	U
8.		Unknown phthalate	25.94	220	~~J~~	JN
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✓ AS 9/28/9

FORM I SV-TIC 1/87 Rev.

F03-012

9613492.1122

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07K00

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02451-E1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1406

Level: (low/med) LOW Date Received: 12/17/92

% Moisture: not dec.6.5 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH: 10.32 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q	
108-95-2	Phenol	360.	U	
111-44-4	bis(2-Chloroethyl)Ether	360.	U	
95-57-8	2-Chlorophenol	360.	U	
541-73-1	1,3-Dichlorobenzene	360.	U	
106-46-7	1,4-Dichlorobenzene	360.	U	
100-51-6	Benzyl alcohol	360.	U	
95-50-1	1,2-Dichlorobenzene	360.	U	
95-48-7	2-Methylphenol	360.	U	
39638-32-9	bis(2-chloroisopropyl)ether	360.	~~U~~	W
106-44-5	4-Methylphenol	360.	U	
621-64-7	N-Nitroso-Di-n-propylamine	360.	~~U~~	W
67-72-1	Hexachloroethane	360.	U	
98-95-3	Nitrobenzene	360.	U	
78-59-1	Isophorone	360.	U	
88-75-5	2-Nitrophenol	360.	U	
105-67-9	2,4-Dimethylphenol	360.	U	
65-85-0	Benzoic acid	1800.	U	
111-91-1	bis(2-Chloroethoxy)methane	360.	U	
120-83-2	2,4-Dichlorophenol	360.	U	
120-82-1	1,2,4-Trichlorobenzene	360.	U	
91-20-3	Naphthalene	360.	U	
106-47-8	4-Chloroaniline	360.	U	
87-68-3	Hexachlorobutadiene	360.	U	
59-50-7	4-Chloro-3-methylphenol	360.	U	
91-57-6	2-Methylnaphthalene	360.	U	
77-47-4	Hexachlorocyclopentadiene	360.	U	
88-06-2	2,4,6-Trichlorophenol	360.	U	
95-95-4	2,4,5-Trichlorophenol	1800.	U	
91-58-7	2-Chloronaphthalene	360.	U	
88-74-4	2-Nitroaniline	1800.	~~U~~	W
131-11-3	Dimethylphthalate	360.	U	
208-96-8	Acenaphthylene	360.	U	
606-20-2	2,6-Dinitrotoluene	360.	U	

FORM I SV-1 1/87 Rev.

AS 10/29/93

F03-016

9613492.1123

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07K00

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02451-E1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1406

Level: (low/med) LOW Date Received: 12/17/92

% Moisture: not dec.6.5 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH: 10.32 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q	
99-09-2	3-Nitroaniline	1800.	U	
83-32-9	Acenaphthene	360.	U	
51-28-5	2,4-Dinitrophenol	1800.	~~U~~	UJ
100-02-7	4-Nitrophenol	1800.	U	
132-64-9	Dibenzofuran	360.	U	
121-14-2	2,4-Dinitrotoluene	360.	U	
84-66-2	Diethylphthalate	360.	U	
7005-72-3	4-Chlorophenyl-phenylether	360.	U	
86-73-7	Fluorene	360.	U	
100-01-6	4-Nitroaniline	1800.	U	
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U	
86-30-6	N-Nitrosodiphenylamine (1)	360.	U	
101-55-3	4-Bromophenyl-phenylether	360.	U	
118-74-1	Hexachlorobenzene	360.	U	
87-86-5	Pentachlorophenol	1800.	U	
85-01-8	Phenanthrene	360.	U	
120-12-7	Anthracene	360.	U	
84-74-2	Di-n-butylphthalate	360.	U	
206-44-0	Fluoranthene	360.	U	
129-00-0	Pyrene	360.	U	
85-68-7	Butylbenzylphthalate	360.	U	
91-94-1	3,3'-Dichlorobenzidine	710.	U	
56-55-3	Benzo(a)anthracene	360.	U	
218-01-9	Chrysene	360.	U	
117-81-7	bis(2-Ethylhexyl)phthalate	~~26.~~	~~JB~~	360 U
117-84-0	Di-n-octylphthalate	360.	U	
205-99-2	Benzo(b)fluoranthene	360.	U	
207-08-9	Benzo(k)fluoranthene	360.	U	
50-32-8	Benzo(a)pyrene	360.	U	
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U	
53-70-3	Dibenz(a,h)anthracene	360.	U	
191-24-2	Benzo(g,h,i)perylene	360.	U	

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

AS 10/29/93

F03-017

9613492.1124

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07K00

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02451-E1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1406

Level: (low/med) LOW Date Received: 12/17/92

% Moisture: not dec. 6.5 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH: 10.32 Dilution Factor: 1.00000

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	123422	2-Pentanone, 4-hydroxy-4-met	5.43	75000	~~JAB~~	U
2.		Unknown	5.68	440	~~JB~~	U
3.		Unknown	8.41	1500	~~JAB~~	U
4.	79345	Ethane, 1,1,2,2-tetrachloro-	8.62	360	~~JB~~	U
5.		Unknown	9.51	1500	~~JB~~	U
6.		Unknown	10.83	330	~~J~~	JN
7.		Unknown	11.30	530	~~JB~~	U
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FORM I SV-TIC 1/87 Rev.

AS
10/22/93

F03-018

9613492.1125

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07JZ8

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02437-E1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1503

Level: (low/med) LOW Date Received: 12/16/92

% Moisture: not dec. 3.8 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH: 10.43 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q	
108-95-2	Phenol	350.	U	
111-44-4	bis(2-Chloroethyl)Ether	350.	U	
95-57-8	2-Chlorophenol	350.	U	
541-73-1	1,3-Dichlorobenzene	350.	U	
106-46-7	1,4-Dichlorobenzene	350.	U	
100-51-6	Benzyl alcohol	350.	U	
95-50-1	1,2-Dichlorobenzene	350.	U	
95-48-7	2-Methylphenol	350.	U	
39638-32-9	bis(2-chloroisopropyl)ether	350.	~~U~~	UJ
106-44-5	4-Methylphenol	350.	U	
621-64-7	N-Nitroso-Di-n-propylamine	350.	U	
67-72-1	Hexachloroethane	350.	U	
98-95-3	Nitrobenzene	350.	U	
78-59-1	Isophorone	350.	U	
88-75-5	2-Nitrophenol	350.	U	
105-67-9	2,4-Dimethylphenol	350.	U	
65-85-0	Benzoic acid	1700.	U	
111-91-1	bis(2-Chloroethoxy)methane	350.	U	
120-83-2	2,4-Dichlorophenol	350.	U	
120-82-1	1,2,4-Trichlorobenzene	350.	U	
91-20-3	Naphthalene	350.	U	
106-47-8	4-Chloroaniline	350.	U	
87-68-3	Hexachlorobutadiene	350.	U	
59-50-7	4-Chloro-3-methylphenol	350.	U	
91-57-6	2-Methylnaphthalene	350.	U	
77-47-4	Hexachlorocyclopentadiene	350.	~~U~~	UJ
88-06-2	2,4,6-Trichlorophenol	350.	U	
95-95-4	2,4,5-Trichlorophenol	1700.	U	
91-58-7	2-Chloronaphthalene	350.	U	
88-74-4	2-Nitroaniline	1700.	U	
131-11-3	Dimethylphthalate	350.	U	
208-96-8	Acenaphthylene	350.	U	
606-20-2	2,6-Dinitrotoluene	350.	U	

AS 1/25/94

FORM I SV-1 1/87 Rev.

F03-026

9613492.1126

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07JZ8

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02437-E1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1503

Level: (low/med) LOW Date Received: 12/16/92

% Moisture: not dec.3.8 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH: 10.43 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q	
99-09-2	3-Nitroaniline	1700.	U	
83-32-9	Acenaphthene	350.	U	
51-28-5	2,4-Dinitrophenol	1700.	~~U~~	UJ
100-02-7	4-Nitrophenol	1700.	U	
132-64-9	Dibenzofuran	350.	U	
121-14-2	2,4-Dinitrotoluene	350.	U	
84-66-2	Diethylphthalate	34.	J	
7005-72-3	4-Chlorophenyl-phenylether	350.	U	
86-73-7	Fluorene	350.	U	
100-01-6	4-Nitroaniline	1700.	U	
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U	
86-30-6	N-Nitrosodiphenylamine (1)	350.	U	
101-55-3	4-Bromophenyl-phenylether	350.	U	
118-74-1	Hexachlorobenzene	350.	U	
87-86-5	Pentachlorophenol	1700.	U	
85-01-8	Phenanthrene	350.	U	
120-12-7	Anthracene	350.	U	
84-74-2	Di-n-butylphthalate	120.	J	
206-44-0	Fluoranthene	350.	U	
129-00-0	Pyrene	350.	U	
85-68-7	Butylbenzylphthalate	350.	U	
91-94-1	3,3'-Dichlorobenzidine	690.	U	
56-55-3	Benzo(a)anthracene	350.	U	
218-01-9	Chrysene	350.	U	
117-81-7	bis(2-Ethylhexyl)phthalate	~~32.~~	~~JB~~	350 U
117-84-0	Di-n-octylphthalate	13.	J	
205-99-2	Benzo(b)fluoranthene	350.	U	
207-08-9	Benzo(k)fluoranthene	350.	U	
50-32-8	Benzo(a)pyrene	350.	U	
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U	
53-70-3	Dibenz(a,h)anthracene	350.	U	
191-24-2	Benzo(g,h,i)perylene	350.	U	

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

AS 10/29/93

F03-027

9613492.1127

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07JZ8

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02437-E1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1503

Level: (low/med) LOW Date Received: 12/16/92

% Moisture: not dec. 3.8 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH: 10.43 Dilution Factor: 1.00000

Number TICs found: 11

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	123422	2-Pentanone, 4-hydroxy-4-met	5.36	66000	~~JAB~~	U
2.		Unknown	5.66	380	~~JB~~	U
3.		Unknown	8.39	1700	~~JAB~~	U
4.	79345	Ethane, 1,1,2,2-tetrachloro-	8.60	140	~~JB~~	U
5.		Unknown	9.48	1300	~~JB~~	U
6.		Unknown	9.86	240	~~J~~	JN
7.		Unknown	11.29	610	~~JB~~	U
8.		Unknown	14.38	200	~~J~~	JN
9.		Unknown	16.77	170	~~JB~~	U
10.		Unknown	25.93	510	~~J~~	JN
11.	123795	Hexanedioic acid, dioctyl es	31.95	270	~~J~~	JN
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FORM I SV-TIC 1/87 Rev.

✓ AS 10/29/93

F03-028

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07JZ9

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02438-E1

Sample wt/vol: 30.4 (g/mL) G Lab File ID: >A1505

Level: (low/med) LOW Date Received: 12/16/92

% Moisture: not dec.3.6 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH: 10.44 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q	
108-95-2	Phenol	340.	U	
111-44-4	bis(2-Chloroethyl)Ether	340.	U	
95-57-8	2-Chlorophenol	340.	U	
541-73-1	1,3-Dichlorobenzene	340.	U	
106-46-7	1,4-Dichlorobenzene	340.	U	
100-51-6	Benzyl alcohol	340.	U	
95-50-1	1,2-Dichlorobenzene	340.	U	
95-48-7	2-Methylphenol	340.	U	
39638-32-9	bis(2-chloroisopropyl)ether	340.	~~U~~	UJ
106-44-5	4-Methylphenol	340.	U	
621-64-7	N-Nitroso-Di-n-propylamine	340.	U	
67-72-1	Hexachloroethane	340.	U	
98-95-3	Nitrobenzene	340.	U	
78-59-1	Isophorone	340.	U	
88-75-5	2-Nitrophenol	340.	U	
105-67-9	2,4-Dimethylphenol	340.	U	
65-85-0	Benzoic acid	1700.	U	
111-91-1	bis(2-Chloroethoxy)methane	340.	U	
120-83-2	2,4-Dichlorophenol	340.	U	
120-82-1	1,2,4-Trichlorobenzene	340.	U	
91-20-3	Naphthalene	340.	U	
106-47-8	4-Chloroaniline	340.	U	
87-68-3	Hexachlorobutadiene	340.	U	
59-50-7	4-Chloro-3-methylphenol	340.	U	
91-57-6	2-Methylnaphthalene	340.	U	
77-47-4	Hexachlorocyclopentadiene	340.	~~U~~	UJ
88-06-2	2,4,6-Trichlorophenol	340.	U	
95-95-4	2,4,5-Trichlorophenol	1700.	U	
91-58-7	2-Chloronaphthalene	340.	U	
88-74-4	2-Nitroaniline	1700.	U	
131-11-3	Dimethylphthalate	340.	U	
208-96-8	Acenaphthylene	340.	U	
606-20-2	2,6-Dinitrotoluene	340.	U	

AS 1/26/94

9613492.1129

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07JZ9

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02438-E1

Sample wt/vol: 30.4 (g/mL) G Lab File ID: >A1505

Level: (low/med) LOW Date Received: 12/16/92

% Moisture: not dec.3.6 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH: 10.44 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q	
99-09-2	3-Nitroaniline	1700.	U	
83-32-9	Acenaphthene	340.	U	
51-28-5	2,4-Dinitrophenol	1700.	~~U~~	UJ
100-02-7	4-Nitrophenol	1700.	U	
132-64-9	Dibenzofuran	340.	U	
121-14-2	2,4-Dinitrotoluene	340.	U	
84-66-2	Diethylphthalate	17.	J	~~U~~ AS 1/25/94
7005-72-3	4-Chlorophenyl-phenylether	340.	U	
86-73-7	Fluorene	340.	U	
100-01-6	4-Nitroaniline	1700.	U	
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U	
86-30-6	N-Nitrosodiphenylamine (1)	340.	U	
101-55-3	4-Bromophenyl-phenylether	340.	U	
118-74-1	Hexachlorobenzene	340.	U	
87-86-5	Pentachlorophenol	1700.	U	
85-01-8	Phenanthrene	340.	U	
120-12-7	Anthracene	340.	U	
84-74-2	Di-n-butylphthalate	24.	J	~~U~~ AS 1/25/94
206-44-0	Fluoranthene	340.	U	
129-00-0	Pyrene	340.	U	
85-68-7	Butylbenzylphthalate	340.	U	
91-94-1	3,3'-Dichlorobenzidine	680.	U	
56-55-3	Benzo(a)anthracene	340.	U	
218-01-9	Chrysene	340.	U	
117-81-7	bis(2-Ethylhexyl)phthalate	~~27.~~	~~JB~~	340 U ~~U~~
117-84-0	Di-n-octylphthalate	22.	J	
205-99-2	Benzo(b)fluoranthene	340.	U	
207-08-9	Benzo(k)fluoranthene	340.	U	AS 1/25/94
50-32-8	Benzo(a)pyrene	340.	U	
193-39-5	Indeno(1,2,3-cd)pyrene	340.	U	
53-70-3	Dibenz(a,h)anthracene	340.	U	
191-24-2	Benzo(g,h,i)perylene	340.	U	

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

AS 10/29/93

F03-033

9613492.1130

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07JZ9

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02438-E1

Sample wt/vol: 30.4 (g/mL) G Lab File ID: >A1505

Level: (low/med) LOW Date Received: 12/16/92

% Moisture: not dec.3.6 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH:10.44 Dilution Factor: 1.00000

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	123422	2-Pentanone, 4-hydroxy-4-met	5.45	75000	~~JAB~~	U
2.		Unknown	5.66	370	~~JB~~	U
3.		Unknown	8.40	1600	~~JAB~~	U
4.		Unknown	9.48	1300	~~JB~~	U
5.		Unknown	11.29	570	~~JB~~	U
6.		Unknown phthalate	25.92	170	~~J~~	JN
7.						
8.						
9.						
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AS 1/29/93

FORM I SV-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07JZ6

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02241-E1

Sample wt/vol: 30.7 (g/mL) G Lab File ID: >A1507

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec.2.8 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH:10.4 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q	
108-95-2	Phenol	340.	U	
111-44-4	bis(2-Chloroethyl)Ether	340.	U	
95-57-8	2-Chlorophenol	340.	U	
541-73-1	1,3-Dichlorobenzene	340.	U	
106-46-7	1,4-Dichlorobenzene	340.	U	
100-51-6	Benzyl alcohol	340.	U	
95-50-1	1,2-Dichlorobenzene	340.	U	
95-48-7	2-Methylphenol	340.	U	
39638-32-9	bis(2-chloroisopropyl)ether	340.	~~U~~	UJ
106-44-5	4-Methylphenol	340.	U	
621-64-7	N-Nitroso-Di-n-propylamine	340.	U	
67-72-1	Hexachloroethane	340.	U	
98-95-3	Nitrobenzene	340.	U	
78-59-1	Isophorone	340.	U	
88-75-5	2-Nitrophenol	340.	U	
105-67-9	2,4-Dimethylphenol	340.	U	
65-85-0	Benzoic acid	1700.	U	
111-91-1	bis(2-Chloroethoxy)methane	340.	U	
120-83-2	2,4-Dichlorophenol	340.	U	
120-82-1	1,2,4-Trichlorobenzene	340.	U	
91-20-3	Naphthalene	340.	U	
106-47-8	4-Chloroaniline	340.	U	
87-68-3	Hexachlorobutadiene	340.	U	
59-50-7	4-Chloro-3-methylphenol	340.	U	
91-57-6	2-Methylnaphthalene	340.	U	
77-47-4	Hexachlorocyclopentadiene	340.	~~U~~	UJ
88-06-2	2,4,6-Trichlorophenol	340.	U	
95-95-4	2,4,5-Trichlorophenol	1700.	U	
91-58-7	2-Chloronaphthalene	340.	U	
88-74-4	2-Nitroaniline	1700.	U	
131-11-3	Dimethylphthalate	340.	U	
208-96-8	Acenaphthylene	340.	U	
606-20-2	2,6-Dinitrotoluene	340.	U	

AE 1/26/94

9613492.1132

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07JZ6

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02241-E1

Sample wt/vol: 30.7 (g/mL) G Lab File ID: >A1507

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec.2.8 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH:10.4 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q	
99-09-2	3-Nitroaniline	1700.	U	
83-32-9	Acenaphthene	340.	U	
51-28-5	2,4-Dinitrophenol	1700.	~~U~~	W
100-02-7	4-Nitrophenol	1700.	U	
132-64-9	Dibenzofuran	340.	U	
121-14-2	2,4-Dinitrotoluene	340.	U	
84-66-2	Diethylphthalate	340.	U	
7005-72-3	4-Chlorophenyl-phenylether	340.	U	
86-73-7	Fluorene	340.	U	
100-01-6	4-Nitroaniline	1700.	U	
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U	
86-30-6	N-Nitrosodiphenylamine (1)	340.	U	
101-55-3	4-Bromophenyl-phenylether	340.	U	
118-74-1	Hexachlorobenzene	340.	U	
87-86-5	Pentachlorophenol	1700.	U	
85-01-8	Phenanthrene	340.	U	
120-12-7	Anthracene	340.	U	
84-74-2	Di-n-butylphthalate	12.	J	~~AS~~ AS 1/25/94
206-44-0	Fluoranthene	340.	U	
129-00-0	Pyrene	340.	U	
85-68-7	Butylbenzylphthalate	340.	U	
91-94-1	3,3'-Dichlorobenzidine	670.	U	
56-55-3	Benzo(a)anthracene	340.	U	
218-01-9	Chrysene	340.	U	
117-81-7	bis(2-Ethylhexyl)phthalate	~~16.~~	~~JB~~	340 U
117-84-0	Di-n-octylphthalate	340.	U	
205-99-2	Benzo(b)fluoranthene	340.	U	
207-08-9	Benzo(k)fluoranthene	340.	U	
50-32-8	Benzo(a)pyrene	340.	U	
193-39-5	Indeno(1,2,3-cd)pyrene	340.	U	
53-70-3	Dibenz(a,h)anthracene	340.	U	
191-24-2	Benzo(g,h,i)perylene	340.	U	

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

AS 10/29/93

F03-039

9613492.1133

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07JZ6

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02241-E1

Sample wt/vol: 30.7 (g/mL) G Lab File ID: >A1507

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. 2.8 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH: 10.4 Dilution Factor: 1.00000

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	123422	2-Pentanone, 4-hydroxy-4-met	5.27	55000	~~JAB~~	U
2.		Unknown	5.67	320	~~JB~~	U
3.		Unknown	8.39	1400	~~JAB~~	U
4.		Unknown	9.49	980	~~JB~~	U
5.		Unknown	9.87	140	~~JB~~	U
6.		Unknown	11.32	460	~~JB~~	U
7.		Unknown	14.41	140	~~J~~	JN
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✓ AS 10/29/94

FORM I SV-TIC 1/87 Rev.

F03-040

9613492.1134

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07JZ4

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02239-E1

Sample wt/vol: 30.3 (g/mL) G Lab File ID: >A3003

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. 6.3 dec. -- Date Extracted: 12/19/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/29/93

GPC Cleanup: (Y/N) N pH: 9.7 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	350.	U
111-44-4	bis(2-Chloroethyl)Ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	350.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
39638-32-9	bis(2-chloroisopropyl)ether	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-Di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	350.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	350.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	1800.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

U)

FORM I SV-1 1/87 Rev.

F03-044

MS 10/27/93

9613492.1135

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07JZ4

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02239-E1

Sample wt/vol: 30.3 (g/mL) G Lab File ID: >A3003

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. 6.3 dec. -- Date Extracted: 12/19/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/29/93

GPC Cleanup: (Y/N) N pH: 9.7 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine (1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	350.	U
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	700.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	~~42~~.	~~JB~~ 350 U
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

F03-045

JAS 10/29/93

9613492.1136

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07JZ4

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02239-E1

Sample wt/vol: 30.3 (g/mL) G Lab File ID: >A3003

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec.6.3 dec. -- Date Extracted: 12/19/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/29/93

GPC Cleanup: (Y/N) N pH: 9.7 Dilution Factor: 1.00000

Number TICs found: 21

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	123422	2-Pentanone, 4-hydroxy-4-met	5.38	78000.	~~JAB~~	U
2.		Unknown	5.54	450.	~~JB~~	U
3.		Unknown	8.34	1900.	~~JAB~~	U
4.	930687	2-Cyclohexen-1-one	8.83	180.	~~J~~	JN
5.		Unknown	9.41	1200.	~~JB~~	U
6.		Unknown	9.79	160.	~~J~~	JN
7.		Unknown	10.76	470.	~~J~~	JN
8.		Unknown	11.24	780.	~~JB~~	U
9.		Unknown	12.34	440.	~~J~~	JN
10.		Unknown alkane	25.15	160.	~~J~~	
11.		Unknown phthalate	25.85	170.	~~J~~	
12.		Unknown alkane	27.58	180.	~~J~~	
13.		Unknown alkane	28.76	250.	~~J~~	
14.		Unknown alkane	30.96	430.	~~J~~	
15.		Unknown alkane	32.01	430.	~~J~~	
16.		Unknown alkane	33.96	370.	~~J~~	
17.		Unknown alkane	34.88	350.	~~J~~	
18.		Unknown alkane	35.78	250.	~~J~~	
19.		Unknown alkane	36.64	250.	~~J~~	
20.		Unknown alkane	37.54	160.	~~J~~	
21.		Unknown alkane	38.55	160.	~~J~~	
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FORM I SV-TIC 1/87 Rev.

KS
10/21/97

F03-046

9613492.1137

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07JZ5

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02240-E1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A3005

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec.4.6 dec. -- Date Extracted: 12/19/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/29/93

GPC Cleanup: (Y/N) N pH: 10.34 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	350.	U
111-44-4	bis(2-Chloroethyl)Ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	350.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
39638-32-9	bis(2-chloroisopropyl)ether	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-Di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	350.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	350.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	1700.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

U

FORM I SV-1 1/87 Rev.

AS 10/29/93

F03-050

9613492.1138

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07JZ5

Lab Name:BATTELLE-PNL Contract:-------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02240-E1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A3005

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec.4.6 dec. -- Date Extracted:12/19/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/29/93

GPC Cleanup: (Y/N) N pH:10.34 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q	
99-09-2	3-Nitroaniline	1700.	U	UJ
83-32-9	Acenaphthene	350.	U	
51-28-5	2,4-Dinitrophenol	1700.	U	
100-02-7	4-Nitrophenol	1700.	U	
132-64-9	Dibenzofuran	350.	U	
121-14-2	2,4-Dinitrotoluene	350.	U	
84-66-2	Diethylphthalate	350.	U	
7005-72-3	4-Chlorophenyl-phenylether	350.	U	
86-73-7	Fluorene	350.	U	
100-01-6	4-Nitroaniline	1700.	U	
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U	
86-30-6	N-Nitrosodiphenylamine (1)	350.	U	
101-55-3	4-Bromophenyl-phenylether	350.	U	
118-74-1	Hexachlorobenzene	350.	U	
87-86-5	Pentachlorophenol	1700.	U	
85-01-8	Phenanthrene	350.	U	
120-12-7	Anthracene	350.	U	
84-74-2	Di-n-butylphthalate	110.	J	~~J~~ AS 1/25/94
206-44-0	Fluoranthene	350.	U	UJ
129-00-0	Pyrene	350.	U	
85-68-7	Butylbenzylphthalate	350.	U	
91-94-1	3,3'-Dichlorobenzidine	700.	U	
56-55-3	Benzo(a)anthracene	350.	U	
218-01-9	Chrysene	350.	U	
117-81-7	bis(2-Ethylhexyl)phthalate	~~23~~.	~~JB~~	350U UJ
117-84-0	Di-n-octylphthalate	350.	U	UJ
205-99-2	Benzo(b)fluoranthene	350.	U	
207-08-9	Benzo(k)fluoranthene	350.	U	
50-32-8	Benzo(a)pyrene	350.	U	
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U	
53-70-3	Dibenz(a,h)anthracene	350.	U	
191-24-2	Benzo(g,h,i)perylene	350.	U	

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

AS 1/29/93

F03-051

9613492.1139

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07JZ5

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02240-E1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A3005

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec.4.6 dec. -- Date Extracted: 12/19/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/29/93

GPC Cleanup: (Y/N) N pH: 10.34 Dilution Factor: 1.00000

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1. 123422	2-Pentanone, 4-hydroxy-4-met	5.28	66000.	~~JAB~~	U
2.	Unknown	5.52	380.	~~JB~~	U
3.	Unknown	8.30	1400.	~~JAB~~	U
4.	Unknown	9.39	960.	~~JB~~	U
5.	Unknown	10.74	420.	~~J~~	JN
6.	Unknown	11.21	470.	~~JB~~	U
7.	Unknown phthalate	25.84	200.	~~J~~	JN
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
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19.					
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27.					
28.					
29.					
30.					

FORM I SV-TIC 1/87 Rev.

F03-052

MS 10/29/97

9613492.1140

Calculations

HARTCROWSER

Page 1 of 34

Job No. 2978-62

Project WHC 241-T-106

Date 10/24/93

Calculations for GC/MS Tunin

Made by MS

1/14/93

m/z 51 = 51.145/100 = 51 %

199 = 7.171/100 = 7 %

442 = 95.421/100 = 95.4 %

1/15/93

m/z

51 = 55.65/100 = 55%

199 = 6.983/100 = 7 %

442 = 79.835/100 = 79 %

1/29/93

51 = 56.063/100 = 56%

199 = 6.571/100 ~ 65%

443 = 15.404/79.055 = 19.5%

Recycled Paper

9613492.1141

Calculations

HARTCROWSER

Page 2 of ~~3~~ 4

Job No. 2978-62

Project WHC

Date 10/24/93

Calculations for ~~B07J24~~ Calculations

Made by AS

B07J37

Di-n-butylphtalate = $\frac{49737(40)(1000)}{98280(30)(.974)(1.035)} = \frac{1989480(1000)}{4695297} = 423.7$

bis(2-ethylhexyl)phthalate = $\frac{2064(40)(1000)}{88426(30)(.974)(1.292)} = \frac{82560000}{3338279} = 24.73$

Di-n-octylphthalate = $\frac{2486(40)(1000)}{91988(30)(.974)(1.931)} = \frac{99440000}{5190314} = 19.15$

~~B07J2~~
B07K00

bis(2-ethylhexyl)phthalate = $\frac{1228(40)(1000)}{83616(30)(.935)(1.292)} = \frac{49120000}{3030294}$
$= 16.21$

non-detect. U

B07J28

Diethylphthalate = $\frac{1947(40)(1000)}{\cancel{138968}\ 52778(30)(.962)(1.492)} = \frac{77880000}{\cancel{5403839}\ 2272574} = \cancel{13.01}$ NO
34.27

Di-n-butylphthalate = $\frac{10993(40)(1000)}{92588(30)(.962)(1.348)} = \frac{439720000}{3601782} = 122.08$

bis(2-ethylhexyl)phthalate = $\frac{2024(40)(1000)}{84428(30)(.962)(1.030)} = \frac{80960000}{2509689} = 32.25$

Di-n-octylphthalate = $\frac{1184(40)(1000)}{86537(30)(.962)(1.499)} = \frac{47360000}{3743689} = 12.65$
Non-detect

Recycled Paper

9613492.1142

Calculations

HARTCROWSER

Page 3 of 4

Job No. 2978-62

Project WHC

Date 10/24/93

Calculations for

Made by BS

3.6%

B07JZ9:

Non-detect

Di-ethylphthalate = $\frac{1015(40)(1000)}{53553(30)(.964)(1.192)} = \frac{40600000}{2310739} = 17.57$

Di-n-butylphthalate = $\frac{2271(40)(1000)}{94894(30)(.964)(1.348)} = \frac{90840000}{3702871} = 24.53$ Non-detect

bis(2-ethylhexyl)phthalate = $\frac{1750(40)(1000)}{87091(30)(.964)(1.030)} = \frac{70000000}{2594231} = 26.98$

Di-n-octylphthalate = $\frac{2162(40)(1000)}{90725(30)(.964)(1.499)} = \frac{86480000}{2831452} = 30.54$

B07JZ6

non-detect

Di-n-butylphthalate = $\frac{1078(40)(1000)}{90891(30)(.972)(1.348)} = \frac{43120000}{3572714} = 12.06$

bis(2-ethylhexyl)phthalate = $\frac{1066(40)(1000)}{84449(30)(.972)(1.030)} = \frac{42640000}{2536408} = 16.81$

6.3%

B07JZ4

bis(2-ethylhexyl)phthalate = $\frac{3600(40)(1000)}{105057(30)(.932)(1.171)} = \frac{144,000,000}{3458141}$

$= 41.64$

B07JZ5 Di-n-butylphthalate = $\frac{12060(40)(1000)}{98811(30)(.954)(1.348)} = \frac{482400000}{3812104}$

$= 126.5$

bis(2-ethylhexyl)phthalate = $\frac{1776(40)(1000)}{90552(30)(.954)(1.030)} = \frac{71040000}{2669346}$

$= 26.61$

Recycled Paper

9613492.1143

Calculations

HARTCROWSER

Page 4 of 4

Job No. 2978-62

Project WHC 241-T-106

Date 10/24/93

Calculations for

Made by AS

	B07JZ7	B07JZ8	B07JZ5
~~B07JZ7~~ NBZ	= 64.67/100 = 65%	91.41/100 = 91%	81.64/100 = 81%
FBP	= 63.92/100 = 65%	87.84/100 = 88%	78.26/100 = 78%
TBH	= 57.71/100 = 58%	80.29/100 = 80%	71.30/100 = 71%
PHL	= 135.36/200 = 68%	187.63/200 = 94%	180.35/200 = 90%
2FP	= 125.96/200 = 63%	172.09/200 = 86%	161.26/200 = 81%
TBP	= 102.45/200 = 51%	155.32/200 = 77%	137.69/200 = 69%

B07K00

Phenol = 4650/6990 = 67%

4-Chloro-3-methylphenol = 4710/6990 = 67%

Pyrene = 2180/3500 = 62%

Recycled Paper

9613492.1144

F3 - SEMI-VOLATILE ORGANIC ANALYSIS

CURRENT DATE: April 14, 1993

QUALITY CONTROL DATA REVIEW

I have reviewed the following data for completeness of the QC data and for compliance with project QC requirements as defined in the TPP 16021 and the QAPjP ALO-003.

Analyte - Semi-VOA

Data Package/Report - T-106

ALO Numbers - 93-02239 93-02240 93-02241 93-02351 93-02437 93-02438 93-02451

Kristine J. Kuhl-Klinger
PNL ACL Quality Representative

4/29/93
Date

ORGANIC COMPOUND ANALYSIS REPORT

SEMIVOLATILE COMPOUNDS

SAMPLE ANALYSIS REPORTED

Analysis of soil samples from T-106 for semivolatile organic compounds by gas chromatography/mass spectrometry (GC/MS) is the subject of this report.

SAMPLE DESCRIPTION AND PREPARATION

Sample ID	ACL Lab Number
B07JZ7	93-02351
B07K00	93-02451
B07JZ8	93-02437
B07JZ9	93-02438
B07JZ6	93-02241
B07JZ4	93-02239
B07JZ5	93-02240

Sample B07JZ7 was received on 12/15/92; B07K00 on 12/17/92; B07JZ8 and B07JZ9 on 12/16/92; B07JZ6, B07JZ4 and B07JZ5 on 12/09/92 . Extractions of both samples and spiked sample were performed.

- Extraction procedure — PNL-ALO-344.
- Extraction location — Lab 306, 325 building
- Extraction type — Sonication, low level, soil
- Sample/Extract storage temperature — 4°C(+/-2°)

ANALYSIS METHOD

- GC/MS procedure: — PNL-ALO-345.
- GC/MS instrumentation: — HP-5890/5970 GC/MS (WB38473)
- GC/MS location: — Lab 325, 325 building.

QUALITY CONTROL

The QC features in the analytical procedure were followed as described below. The following lists the attached CLP forms that relate to QC and summarizes the QC results.

Form	Information	Comments
2D	Surrogate Recovery	Met all requirements (see problems section).
3D	MS/MSD Recovery	Met all requirements.
4B	Method Blank Summary	Met all requirements.
5B	Tune/Mass Calibration	Met all requirements.
6B,C	Initial Calibration	Met all requirements.
7B,C	Daily Calibration	Met all requirements.
8B,C	Internal Standards	Met all requirements.

DATA

The data and calibration are archived on magnetic tape in the 325 building 325 laboratory. The following is the list of the pertinent files.

File Name	Sample Number	Sample Analyzed
>A1401		Mass calibration and tune check
>A1402		Continuing calibration
>A1403		SBLK353 method blank
>A1404	93-02351-E1	B07JZ7
>A1405	93-02351-E2	B07JZ7 duplicate
>A1406	93-02451-E1	B07K00
>A1407	93-02451-E2	B07K00 duplicate
>A1408	93-02451-E3	B07K00 MS
>A1409	93-02451-E4	B07K00 MSD
>A1501		Mass calibration and tune check
>A1502		Continuing calibration
>A1503	93-02437-E1	B07JZ8
>A1504	93-02437-E2	B07JZ8 duplicate
>A1505	93-02438-E1	B07JZ9
>A1506	93-02438-E2	B07JZ9 duplicate
>A1507	93-02241-E1	B07JZ6
>A1508	93-02241-E2	B07JZ6 duplicate
>A3001		Mass calibration and tune check
>A3002		Continuing calibration
>A3003	93-02239-E1	B07JZ4
>A3004	93-02239-E2	B07JZ4 duplicate
>A3005	93-02240-E1	B07JZ5
>A3006	93-02240-E2	B07JZ5 duplicate

Laboratory data is maintained as follows:

Activity	Location
• GC/MS injection log	BNW-53728 pg. 142-145
• Extraction bench sheet:	filed with data in the ACL/ALO records center
• GC/MS data, sample report:	filed with data in the ACL/ALO records center

RESULTS

CLP Target Compounds: As seen in the attached 1B,C Forms, target compounds found were diethylphthalate, di-n-butylphthalate, bis(2-ethylhexyl)phthalate, and di-n-octylphthalate. The bis(2-ethylhexly)phthalate was in the blank, and all were below the quantitation limits except for di-n-butylphthalate in two samples at concentrations barely above the limit.

Tentatively Identified Compounds (TIC): The attached 1F Forms show results for the TIC's. Concentration estimates for the TIC's are made assuming that the response factor for each TIC is one. The peak area for each TIC is then compared to the area of the nearest internal standard (for which concentrations are known) to estimate the TIC concentrations. Identification of the TIC is made by a computer search of the NIST mass spectral library to attempt a match with the spectrum of each of the TIC's. The TIC's reported as "Unknown" did not have satisfactory matches with library spectra. The TIC concentration estimate and identification are reported only if the TIC peak area is 10% or greater than the nearest internal standard peak area.

The TICs in the method blank are from aldol condensation products that are formed in the sample preparation of soil samples, and probably from the vapors from tile laying operations in the building. The TIC 1, 1, 2, 2-Tetrachloroethane is suspected to be a condensation product of Methylene Chloride. The other TICs are mostly oxidized organic compounds unless otherwise noted. Sample B07JZ4 had several alkanes of fairly high molecular weight. Their retention times did not correspond to any of the n-alkanes in the same retention time range, and their mass spectra are too much alike for identification. Their retention times were in the range of C-18 to greater than C-30 for the n-alkanes.

PROBLEMS

As noted in the extraction bench sheet, the samples were inadvertantly spiked with surrogate spiking solution at a level twice that specified in the procedure. The percent recovery data on the form 2D is based on the amount of

surrogate actually added. Samples 93-02239 and 93-02240 were analyzed on January 29, 1993. Since these samples were originally extracted on December 19, 1992 the analysis holding time was exceeded by one day.

The following defines the Q-flags in the Form 1's

"Q" Flag	Definition
U	Indicates the compound was analyzed for but not detected, the U-flagged concentration is the Contract Required Quantitation Limit.
J	Indicates an estimated value for target and tentatively identified compounds, spectra meet criteria but response is below Contract Required Quantitation Limit for the target compounds.
B	Indicates compound was found in the blank.
X	Indicates compound was manually deleted because all requirements were not met.
D	Indicates analysis was performed on a diluted sample.
E	Indicates that quantitation was outside of the calibration range.
A	Aldol condensation product.

ANALYST _____ DATE 4/13/93 REVIEW _____ DATE 4-13-93

4-13-93

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK353

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: METH BLANK

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1403

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec.-- dec. -- Date Extracted: 12/19/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH:---- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	330.	U
111-44-4	bis(2-Chloroethyl)Ether	330.	U
95-57-8	2-Chlorophenol	330.	U
541-73-1	1,3-Dichlorobenzene	330.	U
106-46-7	1,4-Dichlorobenzene	330.	U
100-51-6	Benzyl_alcohol	330.	U
95-50-1	1,2-Dichlorobenzene	330.	U
95-48-7	2-Methylphenol	330.	U
39638-32-9	bis(2-chloroisopropyl)ether	330.	U
106-44-5	4-Methylphenol	330.	U
621-64-7	N-Nitroso-Di-n-propylamine	330.	U
67-72-1	Hexachloroethane	330.	U
98-95-3	Nitrobenzene	330.	U
78-59-1	Isophorone	330.	U
88-75-5	2-Nitrophenol	330.	U
105-67-9	2,4-Dimethylphenol	330.	U
65-85-0	Benzoic_acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	330.	U
120-83-2	2,4-Dichlorophenol	330.	U
120-82-1	1,2,4-Trichlorobenzene	330.	U
91-20-3	Naphthalene	330.	U
106-47-8	4-Chloroaniline	330.	U
87-68-3	Hexachlorobutadiene	330.	U
59-50-7	4-Chloro-3-methylphenol	330.	U
91-57-6	2-Methylnaphthalene	330.	U
77-47-4	Hexachlorocyclopentadiene	330.	U
88-06-2	2,4,6-Trichlorophenol	330.	U
95-95-4	2,4,5-Trichlorophenol	1700.	U
91-58-7	2-Chloronaphthalene	330.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	330.	U
208-96-8	Acenaphthylene	330.	U
606-20-2	2,6-Dinitrotoluene	330.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK353

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: METH BLANK

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1403

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec.-- dec. -- Date Extracted: 12/19/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH:---- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	330.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	330.	U
121-14-2	2,4-Dinitrotoluene	330.	U
84-66-2	Diethylphthalate	330.	U
7005-72-3	4-Chlorophenyl-phenylether	330.	U
86-73-7	Fluorene	330.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine (1)	330.	U
101-55-3	4-Bromophenyl-phenylether	330.	U
118-74-1	Hexachlorobenzene	330.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	330.	U
120-12-7	Anthracene	330.	U
84-74-2	Di-n-butylphthalate	330.	U
206-44-0	Fluoranthene	330.	U
129-00-0	Pyrene	330.	U
85-68-7	Butylbenzylphthalate	330.	U
91-94-1	3,3'-Dichlorobenzidine	670.	U
56-55-3	Benzo(a)anthracene	330.	U
218-01-9	Chrysene	330.	U
117-81-7	bis(2-Ethylhexyl)phthalate	26.	J
117-84-0	Di-n-octylphthalate	330.	U
205-99-2	Benzo(b)fluoranthene	330.	U
207-08-9	Benzo(k)fluoranthene	330.	U
50-32-8	Benzo(a)pyrene	330.	U
193-39-5	Indeno(1,2,3-cd)pyrene	330.	U
53-70-3	Dibenz(a,h)anthracene	330.	U
191-24-2	Benzo(g,h,i)perylene	330.	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK353

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: METH BLANK

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1403

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec.-- dec. -- Date Extracted: 1/19/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH:---- Dilution Factor: 1.00000

Number TICs found: 8

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123422	2-Pentanone, 4-hydroxy-4-met	5.37	500000	JA
2.		Unknown	5.57	360	J
3.		Unknown	8.41	1200	JA
4.	79345	Ethane, 1,1,2,2-tetrachloro-	8.62	140	J
5.		Unknown	9.50	910	J
6.		Unknown	11.32	450	J
7.		Unknown	14.40	150	J
8.		Unknown	16.78	140	J
9.					
10.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BO7JZ7 DUP

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02351-E2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1405

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: not dec.2.6 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH:10.5 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	340.	U
111-44-4	bis(2-Chloroethyl)Ether	340.	U
95-57-8	2-Chlorophenol	340.	U
541-73-1	1,3-Dichlorobenzene	340.	U
106-46-7	1,4-Dichlorobenzene	340.	U
100-51-6	Benzyl alcohol	340.	U
95-50-1	1,2-Dichlorobenzene	340.	U
95-48-7	2-Methylphenol	340.	U
39638-32-9	bis(2-chloroisopropyl)ether	340.	U
106-44-5	4-Methylphenol	340.	U
621-64-7	N-Nitroso-Di-n-propylamine	340.	U
67-72-1	Hexachloroethane	340.	U
98-95-3	Nitrobenzene	340.	U
78-59-1	Isophorone	340.	U
88-75-5	2-Nitrophenol	340.	U
105-67-9	2,4-Dimethylphenol	340.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	340.	U
120-83-2	2,4-Dichlorophenol	340.	U
120-82-1	1,2,4-Trichlorobenzene	340.	U
91-20-3	Naphthalene	340.	U
106-47-8	4-Chloroaniline	340.	U
87-68-3	Hexachlorobutadiene	340.	U
59-50-7	4-Chloro-3-methylphenol	340.	U
91-57-6	2-Methylnaphthalene	340.	U
77-47-4	Hexachlorocyclopentadiene	340.	U
88-06-2	2,4,6-Trichlorophenol	340.	U
95-95-4	2,4,5-Trichlorophenol	1700.	U
91-58-7	2-Chloronaphthalene	340.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	340.	U
208-96-8	Acenaphthylene	340.	U
606-20-2	2,6-Dinitrotoluene	340.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07JZ7 DUP

Lab Name:BATTELLE-PNL Contract:-------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02351-E2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1405

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: not dec.2.6 dec. -- Date Extracted:12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH:10.5 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	340.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	340.	U
121-14-2	2,4-Dinitrotoluene	340.	U
84-66-2	Diethylphthalate	340.	U
7005-72-3	4-Chlorophenyl-phenylether	340.	U
86-73-7	Fluorene	340.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine (1)	340.	U
101-55-3	4-Bromophenyl-phenylether	340.	U
118-74-1	Hexachlorobenzene	340.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	340.	U
120-12-7	Anthracene	340.	U
84-74-2	Di-n-butylphthalate	46.	J
206-44-0	Fluoranthene	340.	U
129-00-0	Pyrene	340.	U
85-68-7	Butylbenzylphthalate	340.	U
91-94-1	3,3'-Dichlorobenzidine	680.	U
56-55-3	Benzo(a)anthracene	340.	U
218-01-9	Chrysene	340.	U
117-81-7	bis(2-Ethylhexyl)phthalate	21.	JB
117-84-0	Di-n-octylphthalate	340.	U
205-99-2	Benzo(b)fluoranthene	340.	U
207-08-9	Benzo(k)fluoranthene	340.	U
50-32-8	Benzo(a)pyrene	340.	U
193-39-5	Indeno(1,2,3-cd)pyrene	340.	U
53-70-3	Dibenz(a,h)anthracene	340.	U
191-24-2	Benzo(g,h,i)perylene	340.	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07JZ7 DUP

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02351-E2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1405

Level: (low/med) LOW Date Received: 12/15/92

% Moisture: not dec. 2.6 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH: 10.5 Dilution Factor: 1.00000

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123422	2-Pentanone, 4-hydroxy-4-met	5.38	65000	JAB
2.		Unknown	5.65	380	JB
3.		Unknown	8.41	1700	JAB
4.		Unknown	9.50	1200	JB
5.		Unknown	9.87	190	J
6.		Unknown	11.31	570	JB
7.		Unknown phthalate	25.94	230	J
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9.					
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FORM I SV-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BO7KO0 DUP

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02451-E2

Sample wt/vol: 30.3 (g/mL) G Lab File ID: >A1407

Level: (low/med) LOW Date Received: 12/17/92

% Moisture: not dec.6.5 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH:10.32 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	350.	U
111-44-4	bis(2-Chloroethyl)Ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl_alcohol	350.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
39638-32-9	bis(2-chloroisopropyl)ether	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-Di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic_acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	350.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	350.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	1800.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BO7KO0 DUP

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02451-E2

Sample wt/vol: 30.3 (g/mL) G Lab File ID: >A1407

Level: (low/med) LOW Date Received: 12/17/92

% Moisture: not dec: 6.5 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH: 10.32 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine (1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	200.	J
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	710.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	24.	JB
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07K00 DUP

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02451-E2

Sample wt/vol: 30.3 (g/mL) G Lab File ID: >A1407

Level: (low/med) LOW Date Received: 12/17/92

% Moisture: not dec.6.5 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH:10.32 Dilution Factor: 1.00000

Number TICs found: 8

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123422	2-Pentanone, 4-hydroxy-4-met	5.39	74000	JAB
2.		Unknown	5.67	500	JB
3.		Unknown	8.41	1600	JAB
4.	79345	Ethane, 1,1,2,2-tetrachloro-	8.62	160	JB
5.		Unknown	9.51	1600	JB
6.		Unknown	10.83	170	J
7.		Unknown	11.31	530	JB
8.		Unknown phalate	25.94	210	J
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FORM I SV-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07K00 MS

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02451-E3

Sample wt/vol: 30.6 (g/mL) G Lab File ID: >A1408

Level: (low/med) LOW Date Received: 12/17/92

% Moisture: not dec.6.5 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH:10.32 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	4600.	
111-44-4	bis(2-Chloroethyl)Ether	350.	U
95-57-8	2-Chlorophenol	4700.	
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	2500.	
100-51-6	Benzyl alcohol	350.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
39638-32-9	bis(2-chloroisopropyl)ether	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-Di-n-propylamine	2500.	
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	2500.	
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	350.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	4700.	
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	1700.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BO7KO0 MS

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02451-E3

Sample wt/vol: 30.6 (g/mL) G Lab File ID: >A1408

Level: (low/med) LOW Date Received: 12/17/92

% Moisture: not dec.6.5 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH:10.32 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	2400.	
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	4700.	
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	2400.	
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine (1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	3600.	
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	68.	J
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	2200.	
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	700.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	29.	JB
117-84-0	Di-n-octylphthalate	16.	J
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07K00 MSD

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02451-E4

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1409

Level: (low/med) LOW Date Received: 12/17/92

% Moisture: not dec.6.5 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH: 10.32 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	5100.	
111-44-4	bis(2-Chloroethyl)Ether	360.	U
95-57-8	2-Chlorophenol	5000.	
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	2600.	
100-51-6	Benzyl alcohol	360.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
39638-32-9	bis(2-chloroisopropyl)ether	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-Di-n-propylamine	2600.	
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	2600.	
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	360.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	5100.	
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	1800.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BO7KO0 MSD

Lab Name:BATTELLE-PNL Contract:-------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02451-E4

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1409

Level: (low/med) LOW Date Received: 12/17/92

% Moisture: not dec.6.5 dec. -- Date Extracted:12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/14/93

GPC Cleanup: (Y/N) N pH:10.32 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	2500.	
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	5300.	
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	2600.	
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine (1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	3900.	
85-01-8	Phenanthrene	360.	U
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	85.	J
206-44-0	Fluoranthene	360.	U
129-00-0	Pyrene	2300.	
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	710.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	20.	JB
117-84-0	Di-n-octylphthalate	13.	J
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07JZ8 DUP

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02437-E2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1504

Level: (low/med) LOW Date Received: 12/16/92

% Moisture: not dec.3.8 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH:10.43 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	350.	U
111-44-4	bis(2-Chloroethyl)Ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl alcohol	350.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
39638-32-9	bis(2-chloroisopropyl)ether	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-Di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	350.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	350.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	1700.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BO7JZ8 DUP

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02437-E2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1504

Level: (low/med) LOW Date Received: 12/16/92

% Moisture: not dec.3.8 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH:10.43 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine (1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	390.	
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	690.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	31.	JB
117-84-0	Di-n-octylphthalate	14.	J
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

9613492.1165

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07JZ8 DUP

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02437-E2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1504

Level: (low/med) LOW Date Received: 12/16/92

% Moisture: not dec. 3.8 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH: 10.43 Dilution Factor: 1.00000

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123422	2-Pentanone, 4-hydroxy-4-met	5.42	78000	JAB
2.		Unknown	5.66	430	JB
3.		Unknown	8.39	1700	JAB
4.	79345	Ethane, 1,1,2,2-tetrachloro-	8.59	150	JB
5.		Unknown	9.48	1400	JB
6.		Unknown	9.86	180	J
7.		Unknown	11.29	550	JB
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FORM I SV-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07JZ9 DUP

Lab Name:BATTELLE-PNL Contract:-------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02438-E2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1506

Level: (low/med) LOW Date Received: 12/16/92

% Moisture: not dec.3.6 dec. -- Date Extracted:12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH:10.44 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	350.	U
111-44-4	bis(2-Chloroethyl)Ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl_alcohol	350.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
39638-32-9	bis(2-chloroisopropyl)ether	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-Di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic_acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	350.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	350.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	1700.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B07JZ9 DUP

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02438-E2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1506

Level: (low/med) LOW Date Received: 12/16/92

% Moisture: not dec.3.6 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH:10.44 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine (1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	16.	J
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	690.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	36.	JB
117-84-0	Di-n-octylphthalate	20.	J
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07JZ9 DUP

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02438-E2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: >A1506

Level: (low/med) LOW Date Received: 12/16/92

% Moisture: not dec.3.6 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH:10.44 Dilution Factor: 1.00000

Number TICs found: 8

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123422	2-Pentanone, 4-hydroxy-4-met	5.47	81000	JAB
2.		Unknown	5.66	480	JB
3.		Unknown	8.41	1700	JAB
4.	79345	Ethane, 1,1,2,2-tetrachloro-	8.60	140	JB
5.		Unknown	9.49	1200	JB
6.		Unknown	10.82	400	J
7.		Unknown	11.29	570	JB
8.		Unknown	14.37	160	J
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FORM I SV-TIC 1/87 Rev.

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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BO7JZ6 DUP

Lab Name:BATTELLE-PNL Contract:-------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02241-E2

Sample wt/vol: 30.3 (g/mL) G Lab File ID: >A1508

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec.2.8 dec. -- Date Extracted:12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH:10.4 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	340.	U
111-44-4	bis(2-Chloroethyl)Ether	340.	U
95-57-8	2-Chlorophenol	340.	U
541-73-1	1,3-Dichlorobenzene	340.	U
106-46-7	1,4-Dichlorobenzene	340.	U
100-51-6	Benzyl_alcohol	340.	U
95-50-1	1,2-Dichlorobenzene	340.	U
95-48-7	2-Methylphenol	340.	U
39638-32-9	bis(2-chloroisopropyl)ether	340.	U
106-44-5	4-Methylphenol	340.	U
621-64-7	N-Nitroso-Di-n-propylamine	340.	U
67-72-1	Hexachloroethane	340.	U
98-95-3	Nitrobenzene	340.	U
78-59-1	Isophorone	340.	U
88-75-5	2-Nitrophenol	340.	U
105-67-9	2,4-Dimethylphenol	340.	U
65-85-0	Benzoic_acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	340.	U
120-83-2	2,4-Dichlorophenol	340.	U
120-82-1	1,2,4-Trichlorobenzene	340.	U
91-20-3	Naphthalene	340.	U
106-47-8	4-Chloroaniline	340.	U
87-68-3	Hexachlorobutadiene	340.	U
59-50-7	4-Chloro-3-methylphenol	340.	U
91-57-6	2-Methylnaphthalene	340.	U
77-47-4	Hexachlorocyclopentadiene	340.	U
88-06-2	2,4,6-Trichlorophenol	340.	U
95-95-4	2,4,5-Trichlorophenol	1700.	U
91-58-7	2-Chloronaphthalene	340.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	340.	U
208-96-8	Acenaphthylene	340.	U
606-20-2	2,6-Dinitrotoluene	340.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BO7JZ6 DUP

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02241-E2

Sample wt/vol: 30.3 (g/mL) G Lab File ID: >A1508

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. 2.8 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH: 10.4 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	340.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	340.	U
121-14-2	2,4-Dinitrotoluene	340.	U
84-66-2	Diethylphthalate	20.	J
7005-72-3	4-Chlorophenyl-phenylether	340.	U
86-73-7	Fluorene	340.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine (1)	340.	U
101-55-3	4-Bromophenyl-phenylether	340.	U
118-74-1	Hexachlorobenzene	340.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	340.	U
120-12-7	Anthracene	340.	U
84-74-2	Di-n-butylphthalate	22.	J
206-44-0	Fluoranthene	340.	U
129-00-0	Pyrene	340.	U
85-68-7	Butylbenzylphthalate	340.	U
91-94-1	3,3'-Dichlorobenzidine	680.	U
56-55-3	Benzo(a)anthracene	340.	U
218-01-9	Chrysene	340.	U
117-81-7	bis(2-Ethylhexyl)phthalate	21.	JB
117-84-0	Di-n-octylphthalate	340.	U
205-99-2	Benzo(b)fluoranthene	340.	U
207-08-9	Benzo(k)fluoranthene	340.	U
50-32-8	Benzo(a)pyrene	340.	U
193-39-5	Indeno(1,2,3-cd)pyrene	340.	U
53-70-3	Dibenz(a,h)anthracene	340.	U
191-24-2	Benzo(g,h,i)perylene	340.	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B07JZ6 DUP

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02241-E2

Sample wt/vol: 30.3 (g/mL) G Lab File ID: >A1508

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. 2.8 dec. -- Date Extracted: 12/18/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/15/93

GPC Cleanup: (Y/N) N pH: 10.4 Dilution Factor: 1.00000

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123422	2-Pentanone, 4-hydroxy-4-met	5.43	77000.	JAB
2.		Unknown	5.65	440.	JB
3.		Unknown	8.40	1700.	JAB
4.		Unknown	9.48	1100.	JB
5.		Unknown	11.29	470.	JB
6.		Unknown	14.38	160.	J
7.		Unknown	16.77	140.	JB
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FORM I SV-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BO7JZ4 DUP

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02239-E2

Sample wt/vol: 30.3 (g/mL) G Lab File ID: >A3004

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec.6.3 dec. -- Date Extracted: 12/19/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/29/93

GPC Cleanup: (Y/N) N pH: 9.7 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	350.	U
111-44-4	bis(2-Chloroethyl)Ether	350.	U
95-57-8	2-Chlorophenol	350.	U
541-73-1	1,3-Dichlorobenzene	350.	U
106-46-7	1,4-Dichlorobenzene	350.	U
100-51-6	Benzyl_alcohol	350.	U
95-50-1	1,2-Dichlorobenzene	350.	U
95-48-7	2-Methylphenol	350.	U
39638-32-9	bis(2-chloroisopropyl)ether	350.	U
106-44-5	4-Methylphenol	350.	U
621-64-7	N-Nitroso-Di-n-propylamine	350.	U
67-72-1	Hexachloroethane	350.	U
98-95-3	Nitrobenzene	350.	U
78-59-1	Isophorone	350.	U
88-75-5	2-Nitrophenol	350.	U
105-67-9	2,4-Dimethylphenol	350.	U
65-85-0	Benzoic_acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	350.	U
120-83-2	2,4-Dichlorophenol	350.	U
120-82-1	1,2,4-Trichlorobenzene	350.	U
91-20-3	Naphthalene	350.	U
106-47-8	4-Chloroaniline	350.	U
87-68-3	Hexachlorobutadiene	350.	U
59-50-7	4-Chloro-3-methylphenol	350.	U
91-57-6	2-Methylnaphthalene	350.	U
77-47-4	Hexachlorocyclopentadiene	350.	U
88-06-2	2,4,6-Trichlorophenol	350.	U
95-95-4	2,4,5-Trichlorophenol	1800.	U
91-58-7	2-Chloronaphthalene	350.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	350.	U
208-96-8	Acenaphthylene	350.	U
606-20-2	2,6-Dinitrotoluene	350.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BO7JZ4 DUP

Lab Name:BATTELLE-PNL Contract:-------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02239-E2

Sample wt/vol: 30.3 (g/mL) G Lab File ID: >A3004

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec.6.3 dec. -- Date Extracted:12/19/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/29/93

GPC Cleanup: (Y/N) N pH:9.7 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	350.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	350.	U
121-14-2	2,4-Dinitrotoluene	350.	U
84-66-2	Diethylphthalate	350.	U
7005-72-3	4-Chlorophenyl-phenylether	350.	U
86-73-7	Fluorene	350.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine (1)	350.	U
101-55-3	4-Bromophenyl-phenylether	350.	U
118-74-1	Hexachlorobenzene	350.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	350.	U
120-12-7	Anthracene	350.	U
84-74-2	Di-n-butylphthalate	79.	J
206-44-0	Fluoranthene	350.	U
129-00-0	Pyrene	350.	U
85-68-7	Butylbenzylphthalate	350.	U
91-94-1	3,3'-Dichlorobenzidine	700.	U
56-55-3	Benzo(a)anthracene	350.	U
218-01-9	Chrysene	350.	U
117-81-7	bis(2-Ethylhexyl)phthalate	39.	JB
117-84-0	Di-n-octylphthalate	350.	U
205-99-2	Benzo(b)fluoranthene	350.	U
207-08-9	Benzo(k)fluoranthene	350.	U
50-32-8	Benzo(a)pyrene	350.	U
193-39-5	Indeno(1,2,3-cd)pyrene	350.	U
53-70-3	Dibenz(a,h)anthracene	350.	U
191-24-2	Benzo(g,h,i)perylene	350.	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

BO7JZ4 DUP

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-02239-E2

Sample wt/vol: 30.3 (g/mL) G Lab File ID: >A3004

Level: (low/med) LOW Date Received: 12/09/92

% Moisture: not dec. 6.3 dec. -- Date Extracted: 12/19/92

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 1/29/93

GPC Cleanup: (Y/N) N pH: 9.7 Dilution Factor: 1.00000

Number TICs found: 16

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123422	2-Pentanone, 4-hydroxy-4-met	5.39	86000.	JAB
2.		Unknown	5.53	520.	JB
3.		Unknown	8.32	1800.	JAB
4.		Unknown	8.82	300.	J
5.		Unknown	9.41	1200.	JB
6.		Unknown	10.75	470.	J
7.		Unknown	11.22	630.	JB
8.		Unknown	12.35	1000.	J
9.		Unknown	14.31	170.	J
10.		Unknown alkane	28.75	180.	J
11.		Unknown alkane	30.96	290.	J
12.		Unknown alkane	31.99	300.	J
13.		Unknown alkane	33.95	250.	J
14.		Unknown alkane	34.87	260.	J
15.		Unknown alkane	35.77	170.	J
16.		Unknown alkane	36.63	180.	J
17.					
18.					
19.					
20.					
21.					
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23.					
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25.					
26.					
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29.					
30.					

9613492.1175

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	OTHER	TOT OUT
01	SBLK353	52	51	45	57	51	49		0
02	BO7JZ7	65 D	64 D	58 D	68 D	63 D	51 D		0
03	BO7JZ7 DUP	70	68	62	72	66	63		0
04	BO7KO0	67	67	61	73	69	67		0
05	BO7KO0 DUP	76	73	64	79	72	67		0
06	BO7KO0 MS	71	67	60	82	80	76		0
07	BO7KO0 MSD	75	71	64	76	72	67		0
08	BO7JZ8	91 D	88 D	80 D	94 D	86 D	78 D		0
09	BO7JZ8 DUP	87	84	77	86	78	63		0
10	BO7JZ9	91	87	78	91	84	61		0
11	BO7JZ9 DUP	89	85	77	91	82	63		0
12	BO7JZ6	73	72	63	83	76	61		0
13	BO7JZ6 DUP	102	96	84	89	81	61		0
14	BO7JZ4	84	79	73	96	88	80		0
15	BO7JZ4 DUP	82	79	71	80	72	64		0
16	BO7JZ5	71	69	64	72	67	62		0
17	BO7JZ5 DUP	82 D	78 D	71 D	90 D	81 D	69 D		0
18									
19									
20									
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28									
29									
30									

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl-d14	(18-137)
S4 (PHL)	= Phenol-d5	(24-113)
S5 (2FP)	= 2-Fluorophenol	(25-121)
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)

✓ AB 10/24/93

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

FORM II SV-2 1/87 Rev.

F03-056

3D
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix Spike - EPA Sample No.: B07K00 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	6990.00	0.00	4650.00	67	26- 90
2-Chlorophenol	6990.00	0.00	4740.00	68	25-102
1,4-Dichlorobenzene	3500.00	0.00	2530.00	72	28-104
N-Nitroso-di-n-prop.(1)	3500.00	0.00	2480.00	71	41-126
1,2,4-Trichlorobenzene	3500.00	0.00	2520.00	72	38-107
4-Chloro-3-methylphenol	6990.00	0.00	4710.00	67	26-103
Acenaphthene	3500.00	0.00	2420.00	69	31-137
4-Nitrophenol	6990.00	0.00	4700.00	67	11-114
2,4-Dinitrotoluene	3500.00	0.00	2400.00	69	28- 89
Pentachlorophenol	6990.00	0.00	3610.00	52	17-109
Pyrene	3500.00	0.00	2180.00	62	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	7130.00	5080.00	71	6	35	26- 90
2-Chlorophenol	7130.00	5040.00	71	4	50	25-102
1,4-Dichlorobenzene	3570.00	2620.00	73	1	27	28-104
N-Nitroso-di-n-prop.(1)	3570.00	2570.00	72	1	38	41-126
1,2,4-Trichlorobenzene	3570.00	2620.00	73	1	23	38-107
4-Chloro-3-methylphenol	7130.00	5100.00	72	7	33	26-103
Acenaphthene	3570.00	2560.00	72	4	19	31-137
4-Nitrophenol	7130.00	5270.00	74	10	50	11-114
2,4-Dinitrotoluene	3570.00	2600.00	73	6	47	28- 89
Pentachlorophenol	7130.00	3870.00	54	4	47	17-109
Pyrene	3570.00	2320.00	65	5	36	35-142

(1) N-Nitroso-di-n-propylamine

HS 10/24/93

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of qc limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS: _____

FORM III SV-2 1/87 Rev.

9613492.1177

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Lab File ID: >A1403 Lab Sample ID: METH BLANK

Date Extracted 12/19/92 Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 1/14/93 Time Analyzed: 14:57

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: BNA1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	BO7JZ7	93-02351-E1	>A1404	1/14/93
02	BO7JZ7 DUP	93-02351-E2	>A1405	1/14/93
03	BO7KO0	93-02451-E1	>A1406	1/14/93
04	BO7KO0 DUP	93-02451-E2	>A1407	1/14/93
05	BO7KO0 MS	93-02451-E3	>A1408	1/14/93
06	BO7KO0 MSD	93-02451-E4	>A1409	1/14/93
07	BO7JZ8	93-02437-E1	>A1503	1/15/93
08	BO7JZ8 DUP	93-02437-E2	>A1504	1/15/93
09	BO7JZ9	93-02438-E1	>A1505	1/15/93
10	BO7JZ9 DUP	93-02438-E2	>A1506	1/15/93
11	BO7JZ6	93-02241-E1	>A1507	1/15/93
12	BO7JZ6 DUP	93-02241-E2	>A1508	1/15/93
13	BO7JZ4	93-02239-E1	>A3003	1/29/93
14	BO7JZ4 DUP	93-02239-E2	>A3004	1/29/93
15	BO7JZ5	93-02240-E1	>A3005	1/29/93
16	BO7JZ5 DUP	93-02240-E2	>A3006	1/29/93
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COMMENTS:

FORM IV SV 1/87 Rev.

F03-058

9613492.1178

5B
SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name:BATTELLE-PNL Contract:-------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Lab File ID: >A1401 DFTPP Injection Date: 1/14/93

Instrument ID:BNA1 DFTPP Injection Time: 9:37

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	51.1
68	Less than 2.0% of mass 69	0.0(0.0)1
69	Mass 69 relative abundance	64.
70	Less than 2.0% of mass 69	0.0(0.0)1
127	40.0 - 60.0% of mass 198	40.4
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	7.2
275	10.0 - 30.0% of mass 198	22.0
365	Greater than 1.00% of mass 198	2.07
441	Present, but less than mass 443	13.9
442	Greater than 40.0% of mass 198	95.4
443	17.0 - 23.0% of mass 442	18.4(19.3)2

1-Value is % mass 69 2-Value is % mass 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	CONT CALIB	>A1402	1/14/93	10:37
02	SBLK353	METH BLANK	>A1403	1/14/93	14:57
03	BO7JZ7	93-02351-E1	>A1404	1/14/93	15:53
04	BO7JZ7 DUP	93-02351-E2	>A1405	1/14/93	16:49
05	BO7KO0	93-02451-E1	>A1406	1/14/93	17:45
06	BO7KO0 DUP	93-02451-E2	>A1407	1/14/93	18:41
07	BO7KO0 MS	93-02451-E3	>A1408	1/14/93	19:37
08	BO7KO0 MSD	93-02451-E4	>A1409	1/14/93	20:34
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22					

AS 10/21/93

FORM V SV 1/87 Rev.

F03-059

9613492.1179

5B
SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name:BATTELLE-PNL Contract:-------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Lab File ID: >A1501 DFTPP Injection Date: 1/15/93

Instrument ID:BNA1 DFTPP Injection Time: 11:31

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	55.6
68	Less than 2.0% of mass 69	0.0(0.0)1
69	Mass 69 relative abundance	69.
70	Less than 2.0% of mass 69	0.1(0.2)1
127	40.0 - 60.0% of mass 198	41.8
197	Less than 1.0% of mass 198	.2
198	Base Peak, 100% relative abundance	100.
199	5.0 - 9.0% of mass 198	7.
275	10.0 - 30.0% of mass 198	21.3
365	Greater than 1.00% of mass 198	1.98
441	Present, but less than mass 443	11.7
442	Greater than 40.0% of mass 198	79.8
443	17.0 - 23.0% of mass 442	15.7(19.7)2

1-Value is % mass 69 2-Value is % mass 442

AS 1/28/93

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	CONT CALIB	>A1502	1/15/93	12:23
02	BO7JZ8	93-02437-E1	>A1503	1/15/93	14:17
03	BO7JZ8 DUP	93-02437-E2	>A1504	1/15/93	15:14
04	BO7JZ9	93-02438-E1	>A1505	1/15/93	16:10
05	BO7JZ9 DUP	93-02438-E2	>A1506	1/15/93	17:06
06	BO7JZ6	93-02241-E1	>A1507	1/15/93	18:02
07	BO7JZ6 DUP	93-02241-E2	>A1508	1/15/93	18:59
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FORM V SV 1/87 Rev.

F03-060

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5B
SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Lab File ID: >A3001 DFTPP Injection Date: 1/29/93

Instrument ID: BNA1 DFTPP Injection Time: 15:17

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	56.1
68	Less than 2.0% of mass 69	0.0(0.0)1
69	Mass 69 relative abundance	69.
70	Less than 2.0% of mass 69	.3(.4)1
127	40.0 - 60.0% of mass 198	42.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.
199	5.0 - 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	21.2
365	Greater than 1.00% of mass 198	2.00
441	Present, but less than mass 443	11.6
442	Greater than 40.0% of mass 198	79.1
443	17.0 - 23.0% of mass 442	15.4(19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

MS 10/24/93

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	CONT CALIB	>A3002	1/29/93	15:50
02	BO7JZ4	93-02239-E1	>A3003	1/29/93	16:46
03	BO7JZ4	93-02239-E2	>A3004	1/29/93	17:43
04	BO7JZ5	93-02240-E1	>A3005	1/29/93	18:39
05	BO7JZ5	93-02240-E2	>A3006	1/29/93	19:35
06					
07					
08					
09					
10					
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17					
18					
19					
20					
21					
22					

FORM V SV 1/87 Rev.

F03-061

9613492.1181

Calculations

HARTCROWSER

Page 1 of 1

Job No. 2978-62

Project WHC

Date 11/24/93

Calculations for

Made by AS

GC/MS Tuning 11/4/92

m/z 51 = 44.978/100 = 44.978 %

m/z 199 = 6.828/100 = 6.828 %

m/z 443 = 19.240/78.022 = 19.33 %

11/5/92

	50	120	160
Phenol	$\frac{33558}{15860}\left(\frac{40}{50}\right) = 1.693$	$\frac{64457}{12626}(.333) = 1.702$	$\frac{96813}{13505}(.25) = 1.792$
Naphthalene	$\frac{67076}{51091}(.8) = 1.0503$	$\frac{126141}{41104}(.333) = 1.023$	$\frac{167825}{43253}(.25) = .970$
Fluorene	$\frac{42937}{25081}(.8) = 1.3695$	$\frac{86622}{19766}(.333) = 1.360$	$\frac{187318}{20904}(.25) = \cancel{2.240}\ 1.283$
Chrysene	$\frac{57047}{37106}(.8) = 1.2298$	$\frac{104070}{28173}(.333) = 1.2333$	$\frac{125641}{26291}(.25) = 1.195$

Recycled Paper

9613492.1182

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name:BATTELLE-PNL Contract:-------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Instrument ID: BNA1 Calibration Date(s):11/05/92 ---- 11/4/92

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 =>KO408 RRF50 =>KO407
RRF80 =>KO409 RRF120=>KO410 RRF160=>KO411

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol *	1.760	1.693	1.739	1.702	1.792	1.737	2.4*
bis(2-Chloroethyl)ether	1.586	1.486	1.526	1.470	1.378	1.489	5.2
2-Chlorophenol	1.447	1.352	1.393	1.332	1.255	1.356	5.3
1,3-Dichlorobenzene	1.616	1.523	1.586	1.496	1.416	1.527	5.1
1,4-Dichlorobenzene *	1.642	1.545	1.616	1.519	1.424	1.549	5.5*
Benzyl alcohol	.828	.847	.879	.862	.852	.854	2.2
1,2-Dichlorobenzene	1.580	1.475	1.517	1.422	1.299	1.458	7.3
2-Methylphenol	1.177	1.140	1.164	1.128	1.080	1.138	3.3
bis(2-chloroisopropyl)ether	1.682	1.730	1.705	1.765	1.810	1.738	2.9
4-Methylphenol	1.294	1.217	1.224	1.129	1.035	1.180	8.5
N-Nitroso-di-n-propylamine #	.860	.895	.890	.872	.838	.871	2.6#
Hexachloroethane	.743	.687	.709	.627	.563	.666	10.7
Nitrobenzene	.488	.469	.480	.473	.465	.475	1.9
Isophorone	.911	.892	.912	.922	.909	.909	1.2
2-Nitrophenol *	.248	.253	.259	.256	.253	.253	1.6*
2,4-Dimethylphenol	.328	.316	.325	.321	.319	.322	1.5
Benzoic acid	0.000	.256	.284	.281	.283	.276	5.0
bis(2-Chloroethoxy)methane	.548	.541	.551	.543	.540	.544	.9
2,4-Dichlorophenol *	.361	.350	.359	.352	.347	.354	1.7*
1,2,4-Trichlorobenzene	.399	.374	.386	.366	.352	.375	4.8
Naphthalene	1.122	1.050	1.072	1.023	.970	1.047	5.4
4-Chloroaniline	.466	.474	.483	.477	.471	.474	1.4
Hexachlorobutadiene *	.233	.217	.224	.211	.202	.217	5.5*
4-Chloro-3-methylphenol *	.369	.360	.368	.357	.352	.361	2.1*
2-Methylnaphthalene	.715	.666	.678	.639	.607	.661	6.2
Hexachlorocyclopentadiene #	.534	.555	.578	.557	.533	.551	3.4#
2,4,6-Trichlorophenol *	.507	.495	.527	.533	.555	.524	4.5*
2,4,5-Trichlorophenol	0.000	.537	.550	.526	.469	.521	6.8
2-Chloronaphthalene	1.391	1.319	1.363	1.309	1.244	1.325	4.2
2-Nitroaniline	0.000	.547	.566	.582	.582	.569	2.9
Dimethylphthalate	1.647	1.604	1.679	1.603	1.432	1.593	6.0
Acenaphthylene	2.152	2.063	2.114	1.986	1.848	2.033	5.9
2,6-Dinitrotoluene	.414	.418	.428	.424	.396	.416	2.9
3-Nitroaniline	0.000	.448	.469	.475	.401	.448	7.5
Acenaphthene *	1.293	1.227	1.272	1.223	1.163	1.235	4.1*
2,4-Dinitrophenol #	0.000	.312	.329	.326	.296	.316	4.8#
4-Nitrophenol #	0.000	.253	.265	.239	.196	.238	12.7#

FORM VI SV-1 1/87 Rev. 10/25/9

F03-618

6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name:BATTELLE-PNL Contract:-------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Instrument ID: BNA1 Calibration Date(s):11/05/92 ----

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 =>KO408 RRF50 =>KO407
RRF80 =>KO409 RRF120=>KO410 RRF160=>KO411

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Dibenzofuran	1.867	1.765	1.806	1.706	1.610	1.751	5.6
2,4-Dinitrotoluene	.585	.605	.633	.610	.544	.595	5.6
Diethylphthalate	1.717	1.688	1.744	1.580	1.317	1.609	10.9
4-Chlorophenyl-phenylether	.725	.692	.714	.688	.654	.695	4.0
Fluorene	1.445	1.369	1.405	1.360	1.283	1.373	4.4
4-Nitroaniline	0.000	.478	.494	.483	.426	.470	6.4
4,6-Dinitro-2-methylphenol	0.000	.212	.213	.207	.206	.209	1.9
N-Nitrosodiphenylamine (1) *	.554	.524	.532	.516	.461	.517	6.7*
4-Bromophenyl-phenylether	.256	.241	.245	.234	.221	.239	5.4
Hexachlorobenzene	.349	.330	.336	.323	.371	.342	5.5
Pentachlorophenol *	0.000	.221	.228	.217	.214	.220	2.8*
Phenanthrene	1.134	1.043	1.071	1.044	1.031	1.065	3.9
Anthracene	1.166	1.062	1.058	.970	.950	1.041	8.3
Di-n-butylphthalate	1.615	1.514	1.524	1.415	1.423	1.498	5.5
Fluoranthene *	1.194	1.109	1.082	1.018	1.013	1.083	6.9*
Pyrene	1.398	1.381	1.422	1.368	1.320	1.378	2.8
Butylbenzylphthalate	.714	.793	.830	.815	.814	.793	5.8
3,3'-Dichlorobenzidine	.368	.416	.442	.458	.465	.430	9.1
Benzo(a)anthracene	1.241	1.247	1.281	1.273	1.246	1.258	1.4
Chrysene	1.254	1.230	1.259	1.231	1.195	1.234	2.1
bis(2-Ethylhexyl)phthalate	1.054	1.135	1.191	1.149	1.125	1.131	4.4
Di-n-octylphthalate *	1.651	1.740	1.803	1.675	1.568	1.687	5.3*
Benzo(b)fluoranthene	1.209	1.141	1.226	1.197	1.200	1.194	2.7
Benzo(k)fluoranthene	1.260	1.158	1.118	.995	.923	1.091	12.2
Benzo(a)pyrene *	1.150	1.101	1.109	1.072	1.040	1.094	3.8*
Indeno(1,2,3-cd)pyrene	1.322	1.315	1.354	1.348	1.354	1.339	1.4
Dibenz(a,h)anthracene	1.014	1.061	1.089	1.069	1.046	1.056	2.7
Benzo(g,h,i)perylene	1.157	1.130	1.175	1.169	1.175	1.161	1.6
Nitrobenzene-d5	.476	.467	.481	.477	.465	.473	1.4
2-Fluorobiphenyl	1.507	1.408	1.443	1.386	1.318	1.413	4.9
Terphenyl-d14	1.036	1.024	1.044	1.028	1.006	1.028	1.4
Phenol-d5	1.645	1.592	1.641	1.600	1.540	1.603	2.7
2-Fluorophenol	1.360	1.337	1.406	1.385	1.334	1.365	2.3
2,4,6-Tribromophenol	.167	.170	.169	.169	.170	.169	.7

(1) Cannot be separated from Diphenylamine

10/25/92

FORM VI SV-2 1/87 Rev.

Date	Lab ID	Data File	Sample Wt. or Vol	Dil	ISTD's x 10^{-5} 1	2	3	4	5
13S 1/27/92	DFTPP	>J2701	DFTPP - passed						
		>J2702	50 ppm 52901-42-11						
		3	20 12						
		4	80 13						
		5	120 14						
		6	160 15						
		7	50 16						
		8	20 17						
		9	80 18						
		10	120 19						
10/28/92		>J2711	160 20						
11/4/92		>K0401	DFTPP - passed						
		2	50 ppm 52901-42-23						
		3	20 24						
		4	80 25						
		5	120 26						
		6	160 27						
		7	50 * 28						
		8	20 * 29						
		9	80 * 30						
		10	120 * 31						
11/5/92		11	160 * 32						
11/6/92		>K0601	DFTPP tune check passed						
		2	Cont. Calib - passed 52901-42-33						
	93-00895	3	method Blank						
	"	4	QB1/93 PE 0020962						
	"	5	" " 0020982						
	"	6	" " 0020962	x2					
		7	" " 0020982	x2					
		8	" " 0020962 - Acid fraction						
		9	" " 0020962 - B/N fraction						
		10	" " water MS						
		11	" " " MSD						
		>L2101	DFTPP - passed						
		>L2102	Continuing Calib - passed 52901-46-3		55	182	83	149	111
		>L2103	METHOD BLANK		47	155	74	127	109
		>L2104	93-1326E1 / C112		43	139	66	111	93
		>L2105	93-1326E2 / C112		41	137	64	111	94

MS 11/29/93

Project No. _____ Date of Work _____

Entered By _____ Date _____

Disclosed To and Understood By

Signed 1. _____ Date _____

2. _____ Date _____

9613492.1185

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	44.98	44.98	Ok
68	Less than 2% of mass 69	1.04	1.70	Ok
69	(reference only)	61.16	61.16	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	45.92	45.92	Ok
197	Less than 1% of mass 198	.54	.54	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.83	6.83	Ok
275	10-30% of mass 198	21.82	21.82	Ok
365	Greater than 1% of mass 198	2.42	2.42	Ok
441	0-100% of mass 443	12.17	79.87	Ok
442	Greater than 40% of mass 198	78.82	78.82	Ok
443	17-23% of mass 442	15.24	19.33	Ok

Injection Date: 11/04/92
Injection Time: 09:25
Data File: >K0401
Scan: 1138

AB
11/24/92

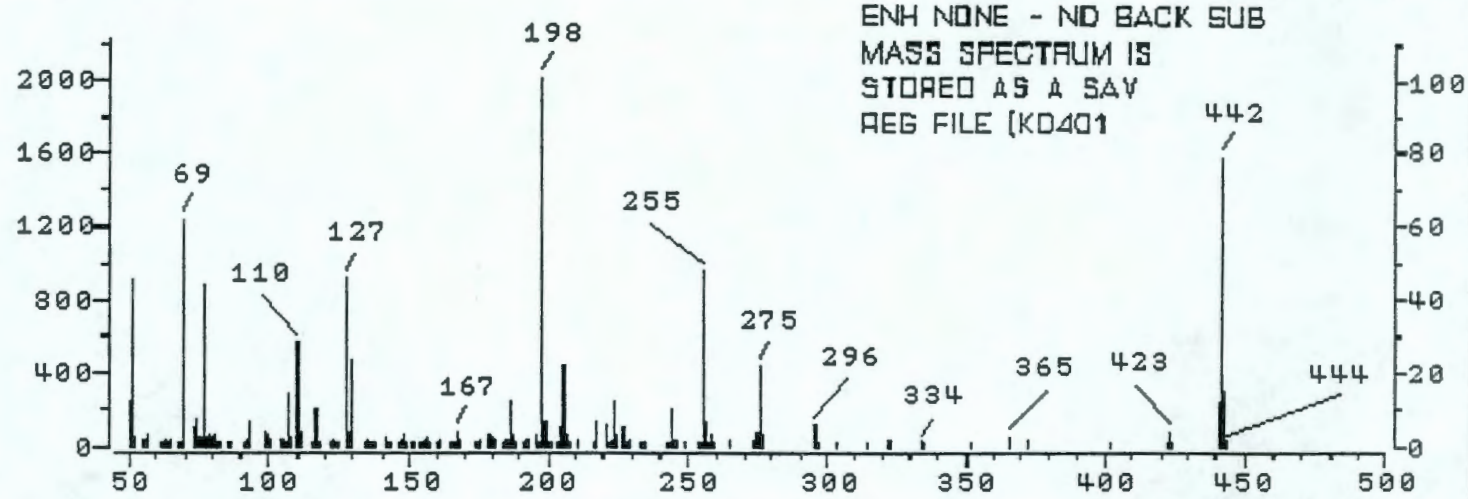
9613492.1186

File >K0401
Bpk Ab 2021.

DFTPP TUNE CHECK

Scan 1138
16.81 min.

ENH NONE - NO BACK SUB
MASS SPECTRUM IS
STORED AS A SAV
REG FILE [K0401



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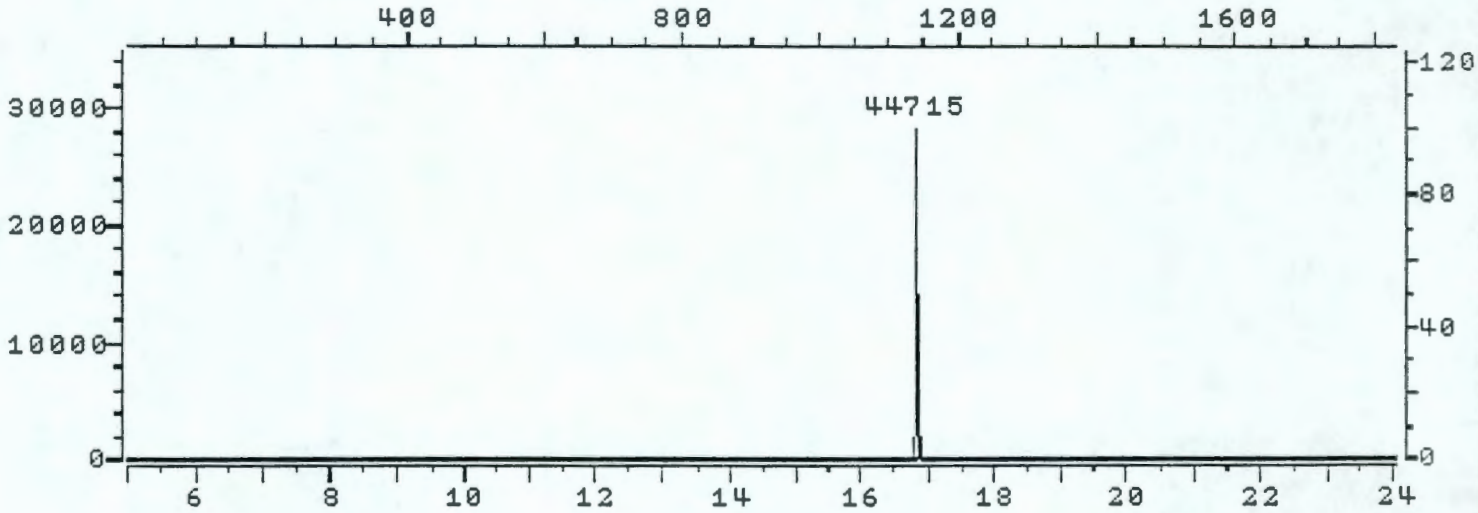
TIC



11/20/92

9613492.1187

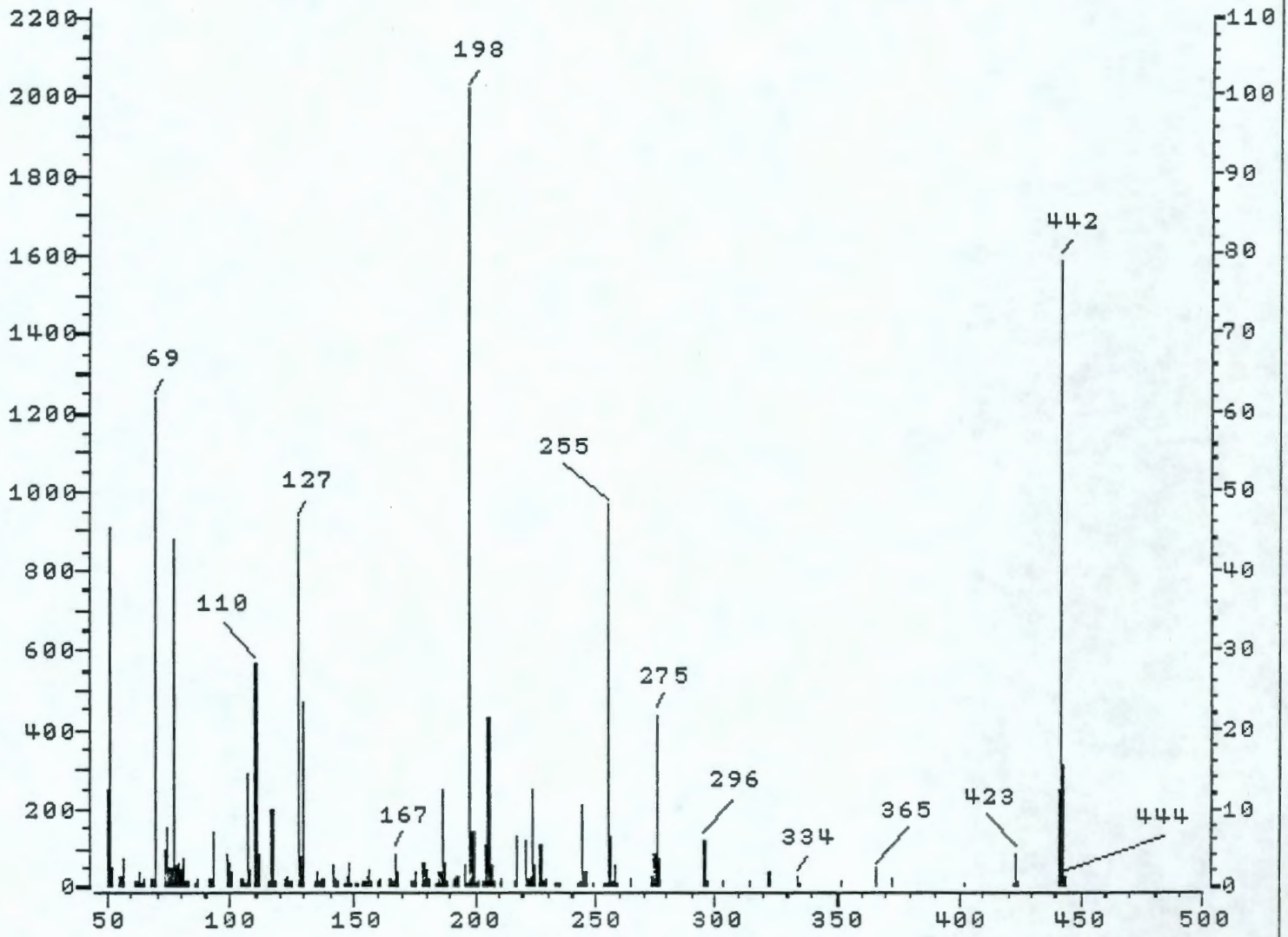
Instrument ID: BNA1 Analyzed on: 11/04/92 9:25

9613492.1188

File >K0401
Bpk Ab 2021.

DFTPP TUNE CHECK

Scan 1138
16.81 min.



MS
11/29/93

9613492.1189

Instrument ID: BNA1 Analyzed on: 11/04/92 9:25

AS
11/20/92

9613492.1190

>K0401 DFTPP TUNE CHECK
1138 NRM

File: >K0401 Scan #: 1138 Retn. time: 16.81

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.10	.693	101.00	1.732	153.10	.792	199.00	6.828	254.10	.297
39.00	3.266	104.00	1.138	154.00	.792	200.10	.544	255.00	48.046
44.00	.792	105.00	1.188	155.00	1.534	201.40	.742	256.00	6.531
50.00	12.172	105.90	.445	156.00	2.227	203.00	.792	257.00	.643
51.10	44.978	107.00	14.151	157.10	.594	204.10	2.771	258.00	2.771
52.00	2.474	108.00	1.979	160.00	.693	205.00	5.146	259.00	.445
56.00	1.385	110.00	28.006	161.00	1.188	206.10	21.277	265.10	1.089
57.00	3.513	111.00	4.206	165.10	.990	207.00	2.820	273.00	1.583
62.00	.891	116.00	.891	166.00	.742	208.00	.643	274.00	4.008
63.10	1.781	117.00	10.045	167.00	4.206	211.00	1.138	275.00	21.821
63.80	.396	117.90	.841	168.00	1.732	215.90	.594	276.00	3.414
65.10	1.138	121.90	.940	173.00	.891	216.10	.594	277.00	1.831
68.10	1.039	123.00	1.583	174.10	.841	217.00	6.531	296.10	5.987
69.00	61.158	124.00	.643	175.10	1.682	217.90	.544	297.00	.841
74.00	4.750	127.00	45.918	175.90	.396	221.00	5.888	303.00	.792
75.00	7.521	128.00	3.711	176.10	.445	221.90	1.039	315.10	.594
76.00	2.524	129.00	23.256	179.00	3.018	223.00	1.534	323.10	1.732
77.00	43.543	130.00	1.880	180.10	2.276	224.00	12.172	334.10	1.336
78.10	2.622	134.00	.792	181.00	1.089	225.10	2.870	335.00	.346
79.00	2.969	135.00	1.831	183.90	.396	227.00	5.146	352.10	.643
80.00	2.128	136.10	.693	185.00	1.831	228.00	.594	365.00	2.425
81.00	3.464	137.10	.940	186.00	12.370	229.00	1.089	372.10	1.138
82.00	.643	141.00	2.672	187.10	3.117	233.90	.544	402.00	.346
85.10	.544	142.00	.940	188.10	.346	235.00	.396	422.00	.445
86.10	1.039	143.00	.742	188.90	.643	242.00	.544	423.10	4.156
87.00	.594	146.00	.495	192.00	.990	243.10	.693	424.10	.792
90.90	.940	147.10	1.385	193.00	1.385	244.10	10.242	441.10	12.172
92.00	1.138	148.00	2.969	196.00	2.771	245.10	1.682	442.10	78.822
93.00	6.680	149.00	.495	196.70	.544	246.00	1.781	443.10	15.240
98.00	4.057	150.90	.346	198.00	100.000	249.10	.346	444.10	1.385
99.00	3.216	151.10	.346						

Instrument ID: BNA1 Analyzed on: 11/04/92 9:25

AS
11/25/93

9613492.1191

QUANT REPORT

Operator ID: BOB
Output File: ^K0407::OF
Data File: >K0407::D1
Name: 50 PPM INIT CALIB
Misc:

Quant Rev: 7
Quant Time: 921104 15:37
Injected at: 921104 14:50
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 6

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Date: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.23	667	15860	40.00	ng/uL	9
2)	2-Fluorophenol	6.29	193	26513	66.88	ng/uL	9
3)	Phenol-d5	10.28	576	31557	61.12	ng/uL	9
4)	Phenol	10.32	580	33550	55.22	ng/uL	8
5)	bis(2-Chloroethyl)ether	10.55	602	29450	50.15	ng/uL	9
6)	2-Chlorophenol	10.53	600	26795	58.86	ng/uL	9
7)	1,3-Dichlorobenzene	11.02	647	30195	60.75	ng/uL	9
8)	1,4-Dichlorobenzene	11.29	673	30635	62.57	ng/uL	9
9)	Benzyl alcohol	11.82	724	16784	57.09	ng/uL	9
10)	1,2-Dichlorobenzene	11.75	717	29240	61.18	ng/uL	9
11)	2-Methylphenol	12.26	766	22594	55.65	ng/uL	9
12)	bis(2-Chloroisopropyl)ether	12.31	771	34297	31.94	ng/uL	9
13)	4-Methylphenol	12.77	815	24135	58.03	ng/uL	9
14)	N-Nitroso-di-n-propylamine	12.73	811	17741	63.99	ng/uL	8
15)	Hexachloroethane	12.80	818	13623	60.33	ng/uL	9
16)	*Naphthalene-d8	15.21	1049	51091	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.04	841	29818	55.96	ng/uL	9
18)	Nitrobenzene	13.11	847	29938	54.72	ng/uL	8
19)	Isophorone	13.92	925	56982	51.87	ng/uL	9
20)	2-Nitrophenol	14.09	941	16165	63.35	ng/uL	8
21)	2,4-Dimethylphenol	14.39	970	20165	58.17	ng/uL	9
22)	Benzoic acid	14.98	1027	16333	58.38	ng/uL	9
23)	bis(2-Chloroethoxy)methane	14.69	999	34558	52.36	ng/uL	9
24)	2,4-Dichlorophenol	14.85	1014	22379	62.91	ng/uL	9
25)	1,2,4-Trichlorobenzene	15.07	1035	23862	62.87	ng/uL	9
26)	Naphthalene	15.27	1055	67076	63.49	ng/uL	9
27)	4-Chloroaniline	15.52	1079	30278	75.17	ng/uL	9
28)	Hexachlorobutadiene	15.72	1098	13843	57.66	ng/uL	9
29)	4-Chloro-3-methylphenol	17.09	1229	22975	53.21	ng/uL	9
30)	2-Methylnaphthalene	17.39	1258	42547	62.63	ng/uL	9
31)	*Acenaphthene-d10	20.47	1554	25081	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	17.88	1305	17397	94.55	ng/uL	9
33)	2,4,6-Trichlorophenol	18.28	1343	15523	64.32	ng/uL	9
34)	2,4,5-Trichlorophenol	18.36	1351	16842	64.52	ng/uL	9
35)	2-Chloronaphthalene	18.83	1396	41346	66.58	ng/uL	9
36)	2-Fluorobiphenyl	18.56	1370	44159	64.75	ng/uL	9
37)	2-Nitroaniline	19.20	1432	17160	49.19	ng/uL	9
38)	Dimethylphthalate	19.88	1497	50285	62.86	ng/uL	9
39)	Acenaphthylene	20.04	1512	64679	69.98	ng/uL	9
40)	2,6-Dinitrotoluene	20.01	1509	13110	58.49	ng/uL	8
41)	3-Nitroaniline	20.45	1552	14032	102.03	ng/uL	9
42)	Acenaphthene	20.58	1564	38451	63.74	ng/uL	9

9615492.1192

QUANT REPORT

Operator ID: BOB
Output File: ^K0407::OF
Data File: >K0407::D1
Name: 50 PPM INIT CALIB
Misc:

Quant Rev: 7
Quant Time: 921104 15:37
Injected at: 921104 14:50
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 6

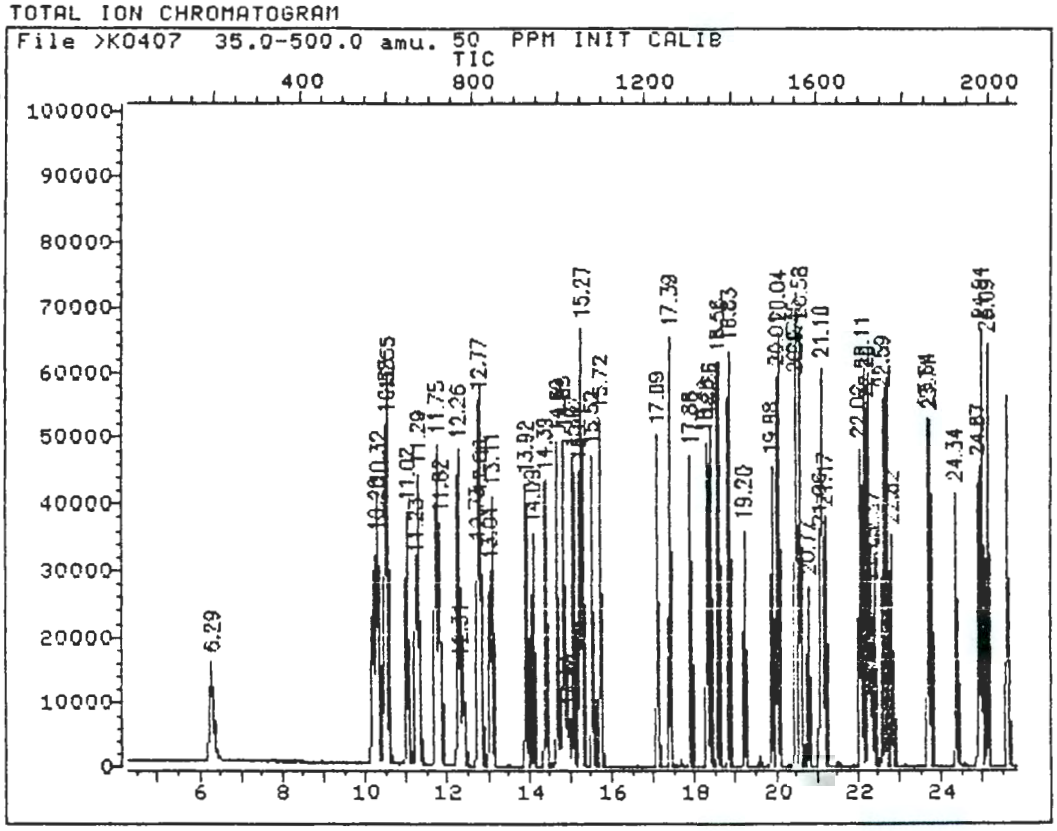
ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Time: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units	c
41)	3-Nitroaniline	20.45	1552	14032	102.03	ng/uL	9
42)	Acenaphthene	20.58	1564	38451	63.74	ng/uL	9
43)	2,4-Dinitrophenol	20.77	1582	9771	125.54	ng/uL	9
44)	4-Nitrophenol	21.06	1610	7942	70.98	ng/uL	9
45)	Dibenzofuran	21.10	1614	55329	63.97	ng/uL	9
46)	2,4-Dinitrotoluene	21.17	1621	18977	60.59	ng/uL	9
47)	Diethylphthalate	22.02	1702	52931	60.42	ng/uL	9
48)	4-Chlorophenyl-phenylether	22.20	1720	21710	62.12	ng/uL	9
49)	Fluorene	22.11	1711	42937	63.65	ng/uL	9
50)	4-Nitroaniline	22.29	1728	14985	354.47	ng/uL	9
51)	*Phenanthrene-d10	24.87	1976	44987	40.00	ng/uL	9
52)	4,6-Dinitro-2-methylphenol	22.37	1736	11907	92.47	ng/uL	8
53)	N-Nitrosodiphenylamine	22.59	1757	29447	59.33	ng/uL	9
54)	2,4,6-Tribromophenol	22.82	1779	9584	54.09	ng/uL	9
55)	4-Bromophenyl-phenylether	23.64	1858	13538	52.50	ng/uL	9
56)	Hexachlorobenzene	23.71	1865	18551	54.85	ng/uL	9
57)	Pentachlorophenol	24.34	1925	12407	54.17	ng/uL	9
58)	Phenanthrene	24.94	1983	58642	58.96	ng/uL	9
59)	Anthracene	25.09	1997	59705	58.57	ng/uL	
60)	Di-n-butylphthalate	26.91	2172	85127	43.26	ng/uL	9
61)	Fluoranthene	28.45	2320	62366	53.54	ng/uL	
62)	*Chrysene-d12	32.70	2729	37105	40.00	ng/uL	
63)	Pyrene	29.10	2382	64043	68.91	ng/uL	
64)	Terphenyl-d14	29.73	2443	47486	65.94	ng/uL	
65)	Butylbenzylphthalate	31.33	2597	36799	55.85	ng/uL	
66)	3,3'-Dichlorobenzidine	32.71	2730	19308	175.02	ng/uL	
67)	Benzo(a)anthracene	32.67	2726	57856	63.53	ng/uL	
68)	Chrysene	32.79	2737	57043	66.86	ng/uL	
70)	*Perylene-d12	36.59	3102	41881	40.00	ng/uL	
71)	Di-n-octylphthalate	34.99	2949	91075	51.02	ng/uL	
72)	Benzo(b)fluoranthene	35.64	3011	59730	59.84	ng/uL	
73)	Benzo(k)fluoranthene	35.72	3019	60643	64.79	ng/uL	
74)	Benzo(a)pyrene	36.44	3088	57621	62.74	ng/uL	
75)	Indeno(1,2,3-cd)pyrene	39.59	3390	68856	63.37	ng/uL	
76)	Dibenz(a,h)anthracene	39.71	3401	55566	62.83	ng/uL	
77)	Benzo(g,h,i)perylene	40.47	3474	59156	63.90	ng/uL	

* Compound is ISTD

9613492.1193

TOTAL ION CHROMATOGRAM



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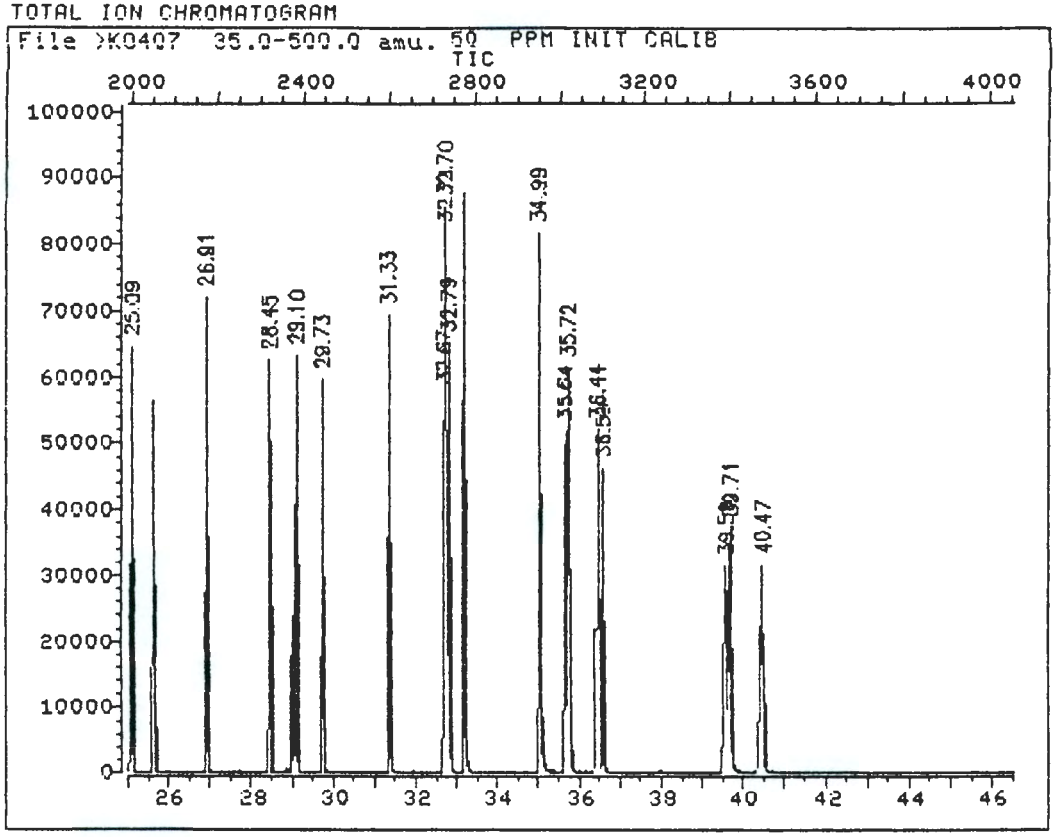
Name: 50 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL# 6

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qcal Time: 920901 10:19

Operator ID: BOB
Quant Time : 921104 15:37
Injected at: 921104 14:50

TOTAL ION CHROMATOGRAM



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Name: 50 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL# 6

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qcal Time: 920901 10:19

Operator ID: BOB
Quant Time : 921104 15:37
Injected at: 921104 14:50

QUANT REPORT

Operator ID: BOB
Output File: ^KD408::OF
Data File: >KD408::D1
Name: 20 PPM INIT CALIB
Misc:

Quant Rev: 7
Quant Time: 921104 16:33
Injected at: 921104 15:46
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 7

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Date: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.22	671	12865	40.00	ng/uL	9
2)	2-Fluorophenol	6.27	195	8749	27.21	ng/uL	9
3)	Phenol-d5	10.24	577	10581	25.27	ng/uL	9
4)	Phenol	10.28	581	11324	22.97	ng/uL	8
5)	bis(2-Chloroethyl)ether	10.52	604	10203	21.42	ng/uL	9
6)	2-Chlorophenol	10.51	603	9308	25.21	ng/uL	9
7)	1,3-Dichlorobenzene	11.00	650	10394	25.78	ng/uL	9
8)	1,4-Dichlorobenzene	11.28	677	10560	26.59	ng/uL	9
9)	Benzyl alcohol	11.79	726	5329	22.35	ng/uL	9
10)	1,2-Dichlorobenzene	11.74	721	10161	26.21	ng/uL	9
11)	2-Methylphenol	12.23	768	7572	22.99	ng/uL	9
12)	bis(2-Chloroisopropyl)ether	12.30	775	10820	12.42	ng/uL	9
13)	4-Methylphenol	12.74	817	8324	24.67	ng/uL	9
14)	N-Nitroso-di-n-propylamine	0.00	812	0	0.00	ng/uL	
15)	Hexachloroethane	12.80	823	4780	26.10	ng/uL	9
16)	*Naphthalene-d8	13.20	1053	41451	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.02	844	9860	22.81	ng/uL	9
18)	Nitrobenzene	13.08	849	10111	22.78	ng/uL	8
19)	Isophorone	13.89	927	18877	21.18	ng/uL	9
20)	2-Nitrophenol	14.07	945	5132	24.79	ng/uL	8
21)	2,4-Dimethylphenol	14.36	973	6790	24.14	ng/uL	9
22)	Benzoic acid	14.75	1010	4445	19.58	ng/uL	9
23)	bis(2-Chloroethoxy)methane	14.67	1002	11351	21.20	ng/uL	9
24)	2,4-Dichlorophenol	14.82	1017	7480	25.92	ng/uL	9
25)	1,2,4-Trichlorobenzene	15.05	1039	8273	26.96	ng/uL	9
26)	Naphthalene	15.26	1059	23246	27.12	ng/uL	9
27)	4-Chloroaniline	15.51	1083	9652	29.53	ng/uL	8
28)	Hexachlorobutadiene	15.72	1103	4830	24.80	ng/uL	9
29)	4-Chloro-3-methylphenol	17.07	1233	7659	21.86	ng/uL	9
30)	2-Methylnaphthalene	17.37	1262	14820	26.89	ng/uL	9
31)	*Acenaphthene-d10	20.47	1559	20731	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	17.87	1310	5531	36.37	ng/uL	8
33)	2,4,6-Trichlorophenol	18.26	1347	5258	26.36	ng/uL	9
34)	2,4,5-Trichlorophenol	18.34	1355	5613	26.02	ng/uL	9
35)	2-Chloronaphthalene	18.81	1400	14418	28.09	ng/uL	9
36)	2-Fluorobiphenyl	18.54	1374	15620	27.71	ng/uL	9
37)	2-Nitroaniline	19.18	1435	5128	17.78	ng/uL	9
38)	Dimethylphthalate	19.85	1500	17069	25.81	ng/uL	8
39)	Acenaphthylene	20.02	1516	22306	29.20	ng/uL	9
40)	2,6-Dinitrotoluene	19.97	1511	4295	23.18	ng/uL	8
41)	3-Nitroaniline	20.42	1555	4498	39.57	ng/uL	[illegible]
42)	Acenaphthene	20.55	1567	13397	26.87	ng/uL	[illegible]

9613492.1196

QUANT REPORT

Operator ID: BOB
Output File: ^K0408::OF
Data File: >K0408::D1
Name: 20 PPM INIT CALIB
Misc:

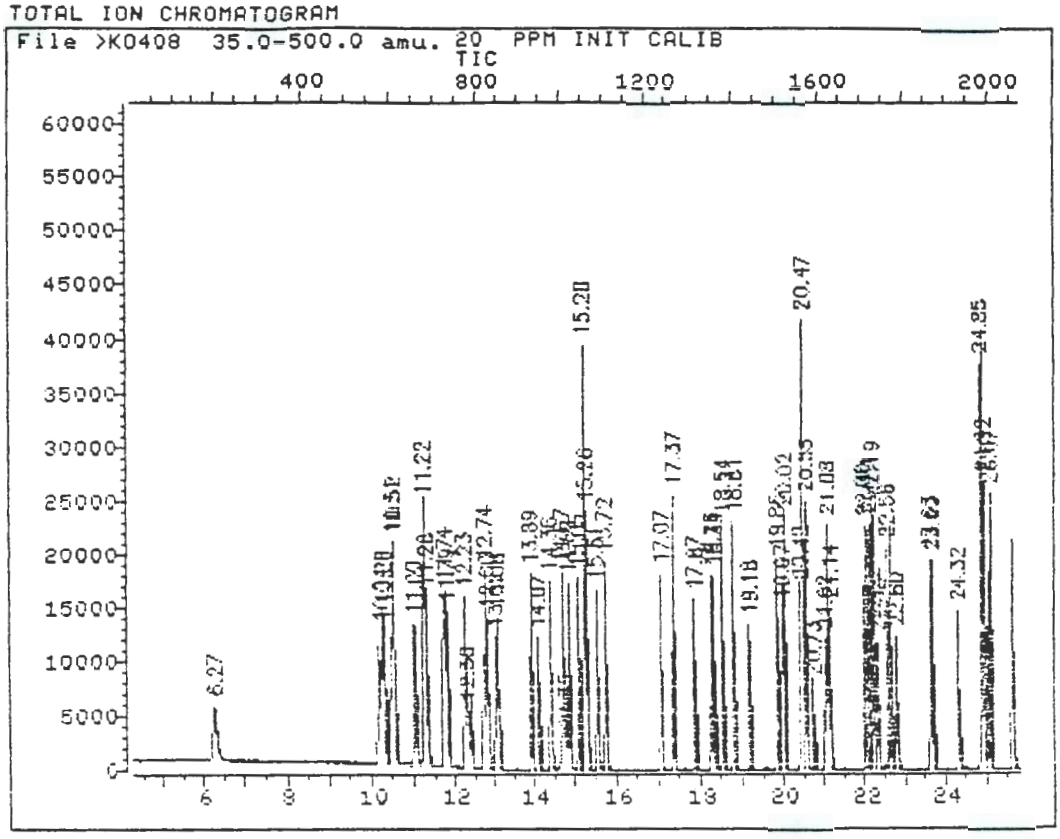
Quant Rev: 7
Quant Time: 921104 16:33
Injected at: 921104 15:46
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 7

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Time: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units
42)	Acenaphthene	20.55	1567	13397	26.87	ng/uL
43)	2,4-Dinitrophenol	20.73	1584	2661	41.36	ng/uL
44)	4-Nitrophenol	21.02	1612	2551	27.58	ng/uL
45)	Dibenzofuran	21.08	1618	19348	27.07	ng/uL
46)	2,4-Dinitrotoluene	21.14	1624	6062	23.41	ng/uL
47)	Diethylphthalate	22.00	1706	17797	24.58	ng/uL
48)	4-Chlorophenyl-phenylether	22.19	1725	7519	26.03	ng/uL
49)	Fluorene	22.10	1716	14976	26.86	ng/uL
50)	4-Nitroaniline	22.22	1728	4592	131.41	ng/uL
51)	*Phenanthrene-d10	24.85	1980	35867	40.00	ng/uL
52)	4,6-Dinitro-2-methylphenol	22.33	1738	3579	34.86	ng/uL
53)	N-Nitrosodiphenylamine	22.56	1760	9934	25.10	ng/uL
54)	2,4,6-Tribromophenol	22.80	1783	2999	21.23	ng/uL
55)	4-Bromophenyl-phenylether	23.63	1863	4582	22.29	ng/uL
56)	Hexachlorobenzene	23.69	1869	6255	23.20	ng/uL
57)	Pentachlorophenol	24.32	1929	3830	20.97	ng/uL
58)	Phenanthrene	24.92	1987	20329	25.63	ng/uL
59)	Anthracene	25.07	2001	20906	25.72	ng/uL
60)	Di-n-butylphthalate	26.89	2177	28961	18.46	ng/uL
61)	Fluoranthene	28.42	2324	21413	23.06	ng/uL
62)	*Chrysene-d12	32.69	2734	31377	40.00	ng/uL
63)	Pyrene	29.07	2386	21924	27.90	ng/uL
64)	Terphenyl-d14	29.71	2448	16246	26.68	ng/uL
65)	Butylbenzylphthalate	31.31	2602	11200	20.10	ng/uL
66)	3,3'-Dichlorobenzidine	32.70	2735	5778	61.94	ng/uL
67)	Benzo(a)anthracene	32.64	2730	19467	25.28	ng/uL
68)	Chrysene	32.75	2740	19672	27.27	ng/uL
70)	*Perylene-d12	36.57	3107	32969	40.00	ng/uL
71)	Di-n-octylphthalate	34.97	2954	27214	19.37	ng/uL
72)	Benzo(b)fluoranthene	35.60	3014	19929	25.36	ng/uL
73)	Benzo(k)fluoranthene	35.68	3022	20777	28.20	ng/uL
74)	Benzo(a)pyrene	36.41	3092	18957	26.22	ng/uL
75)	Indeno(1,2,3-cd)pyrene	39.54	3392	21796	25.48	ng/uL
76)	Dibenz(a,h)anthracene	39.65	3403	16714	24.01	ng/uL
77)	Benzo(g,h,i)perylene	40.39	3474	19064	26.16	ng/uL

* Compound is ISTD

TOTAL ION CHROMATOGRAM



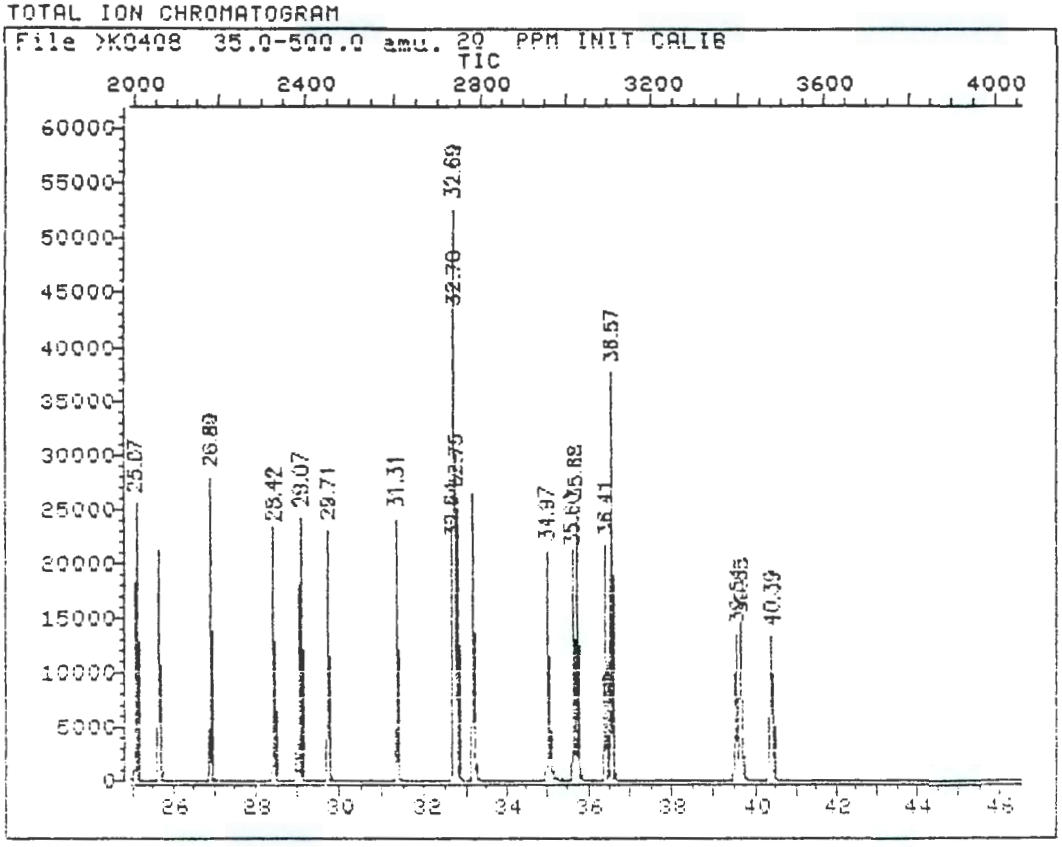
Data File: >K0408::D1 Quant Output File: ^K0408::OF
Name: 20 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL# 7

Id File: ID19NA::QT
Title: ENA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qcal Time: 920901 10:19

Operator ID: BOB
Quant Time : 921104 16:33
Injected at: 921104 15:46

9615492.1198

TOTAL ION CHROMATOGRAM



Data File: >K0408::D1 Quant Output File: ^K0408::OF
Name: 20 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL# 7

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qual Time: 920901 10:19

Operator ID: BDB
Quant Time : 921104 16:37
Injected at: 921104 15:46

Page 2 of 2

9613492.1199

QUANT REPORT

Operator ID: BOB
Output File: ^K0409::OF
Data File: >K0409::D1
Name: 80 PPM INIT CALIB
Misc:

Quant Rev: 7
Quant Time: 921104 17:29
Injected at: 921104 16:41
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 8

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Date: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units	
1)	*1,4-Dichlorobenzene-d4	11.23	666	12183	40.00	ng/uL	9
2)	2-Fluorophenol	6.29	191	34264	112.52	ng/uL	9
3)	Phenol-d5	10.28	575	39983	100.82	ng/uL	9
4)	Phenol	10.34	580	42371	90.77	ng/uL	8
5)	bis(2-Chloroethyl)ether	10.56	601	37170	82.40	ng/uL	9
6)	2-Chlorophenol	10.54	599	33934	97.05	ng/uL	9
7)	1,3-Dichlorobenzene	11.01	645	38644	101.22	ng/uL	9
8)	1,4-Dichlorobenzene	11.29	671	39366	104.67	ng/uL	9
9)	Benzyl alcohol	11.84	724	21418	94.85	ng/uL	9
10)	1,2-Dichlorobenzene	11.75	716	36962	100.67	ng/uL	9
11)	2-Methylphenol	12.27	765	28354	90.91	ng/uL	9
12)	bis(2-Chloroisopropyl)ether	12.32	770	41543	50.37	ng/uL	9
13)	4-Methylphenol	12.79	815	29816	93.32	ng/uL	9
14)	N-Nitroso-di-n-propylamine	12.74	811	21687	101.83	ng/uL	8
15)	Hexachloroethane	12.81	817	17266	99.55	ng/uL	9
16)	*Naphthalene-d8	15.20	1047	39491	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.06	841	37972	92.20	ng/uL	9
18)	Nitrobenzene	13.12	847	37936	89.70	ng/uL	9
19)	Isophorone	13.93	925	72012	84.80	ng/uL	9
20)	2-Nitrophenol	14.09	940	20439	103.63	ng/uL	9
21)	2,4-Dimethylphenol	14.40	970	25690	95.87	ng/uL	
22)	Benzoic acid	15.03	1030	22461	103.87	ng/uL	
23)	bis(2-Chloroethoxy)methane	14.70	999	43500	85.27	ng/uL	
24)	2,4-Dichlorophenol	14.86	1014	28371	103.18	ng/uL	
25)	1,2,4-Trichlorobenzene	15.07	1034	30479	103.89	ng/uL	
26)	Naphthalene	15.28	1054	84676	103.69	ng/uL	
27)	4-Chloroaniline	15.54	1079	38161	122.57	ng/uL	
28)	Hexachlorobutadiene	15.73	1097	17669	95.22	ng/uL	
29)	4-Chloro-3-methylphenol	17.09	1228	29064	87.09	ng/uL	
30)	2-Methylnaphthalene	17.39	1257	53575	102.03	ng/uL	
31)	*Acenaphthene-d10	20.47	1553	19113	40.00	ng/uL	
32)	Hexachlorocyclopentadiene	17.88	1304	22105	157.65	ng/uL	
33)	2,4,6-Trichlorophenol	18.27	1342	20157	109.60	ng/uL	
34)	2,4,5-Trichlorophenol	18.36	1350	21013	105.64	ng/uL	
35)	2-Chloronaphthalene	18.83	1395	52089	110.08	ng/uL	
36)	2-Fluorobiphenyl	18.57	1370	55169	106.15	ng/uL	
37)	2-Nitroaniline	19.21	1432	21640	81.40	ng/uL	
38)	Dimethylphthalate	19.89	1497	64169	105.26	ng/uL	
39)	Acenaphthylene	20.04	1511	80814	114.73	ng/uL	
40)	2,6-Dinitrotoluene	20.01	1509	16353	95.74	ng/uL	
41)	3-Nitroaniline	20.46	1552	17926	171.04	ng/uL	
42)	Acenaphthene	20.58	1563	48625	105.77	ng/uL	

QUANT REPORT

Operator ID: BOB
Output File: ^K0409::OF
Data File: >K0409::D1
Name: 80 PPM INIT CALIB
Misc:

Quant Rev: 7
Quant Time: 921104 17:29
Injected at: 921104 16:41
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 8

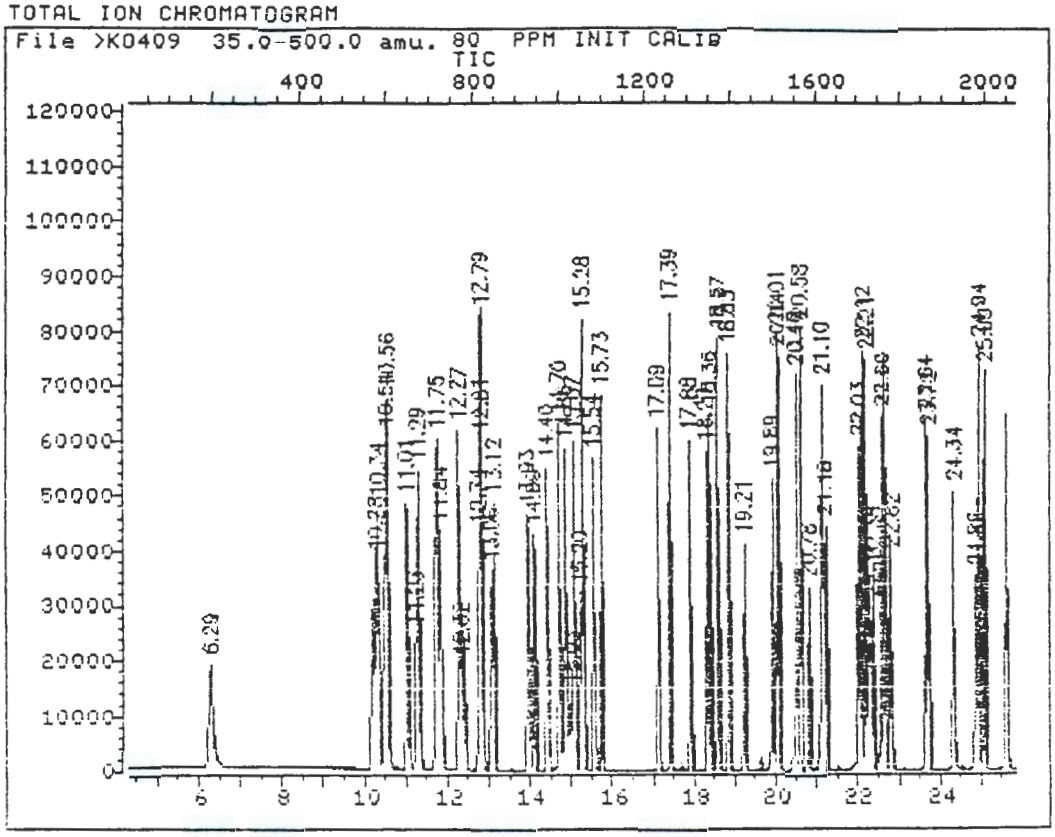
ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Time: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units
41)	3-Nitroaniline	20.46	1552	17926	171.04	ng/uL
42)	Acenaphthene	20.58	1563	48625	105.77	ng/uL
43)	2,4-Dinitrophenol	20.78	1582	12576	212.03	ng/uL
45)	Dibenzofuran	21.10	1613	69021	104.73	ng/uL
46)	2,4-Dinitrotoluene	21.18	1621	24196	101.37	ng/uL
47)	Diethylphthalate	22.03	1702	66669	99.86	ng/uL
48)	4-Chlorophenyl-phenylether	22.21	1720	27298	102.49	ng/uL
49)	Fluorene	22.12	1711	53724	104.51	ng/uL
50)	4-Nitroaniline	22.31	1729	18899	586.64	ng/uL
51)	*Phenanthrene-d10	24.86	1974	35020	40.00	ng/uL
52)	4,6-Dinitro-2-methylphenol	22.38	1736	14957	149.22	ng/uL
53)	N-Nitrosodiphenylamine	22.60	1757	37289	96.51	ng/uL
54)	2,4,6-Tribromophenol	22.82	1778	11830	85.76	ng/uL
55)	4-Bromophenyl-phenylether	23.64	1857	17160	85.48	ng/uL
56)	Hexachlorobenzene	23.72	1864	23562	89.49	ng/uL
57)	Pentachlorophenol	24.34	1924	15973	89.59	ng/uL
58)	Phenanthrene	24.94	1982	75024	96.89	ng/uL
59)	Anthracene	25.09	1996	74117	93.41	ng/uL
60)	Di-n-butylphthalate	26.91	2171	106767	69.70	ng/uL
61)	Fluoranthene	28.45	2319	75751	83.54	ng/uL
62)	*Chrysene-d12	32.71	2728	27939	40.00	ng/uL
63)	Pyrene	29.10	2381	79449	113.54	ng/uL
64)	Terphenyl-d14	29.73	2442	58355	107.62	ng/uL
65)	Butylbenzylphthalate	31.33	2596	46375	93.48	ng/uL
66)	3,3'-Dichlorobenzidine	32.72	2729	24686	297.19	ng/uL
67)	Benzo(a)anthracene	32.68	2725	71594	104.41	ng/uL
68)	Chrysene	32.79	2736	70342	109.51	ng/uL
70)	*Perylene-d12	36.59	3100	32060	40.00	ng/uL
71)	Di-n-octylphthalate	34.99	2947	115602	84.60	ng/uL
72)	Benzo(b)fluoranthene	35.65	3010	78604	102.87	ng/uL
73)	Benzo(k)fluoranthene	35.73	3018	71667	100.02	ng/uL
74)	Benzo(a)pyrene	36.46	3088	71089	101.12	ng/uL
75)	Indeno(1,2,3-cd)pyrene	39.61	3390	86835	104.40	ng/uL
76)	Dibenz(a,h)anthracene	39.73	3401	69837	103.16	ng/uL
77)	Benzo(g,h,i)perylene	40.50	3475	75330	106.29	ng/uL

* Compound is ISTD

9613492.1201

TOTAL ION CHROMATOGRAM



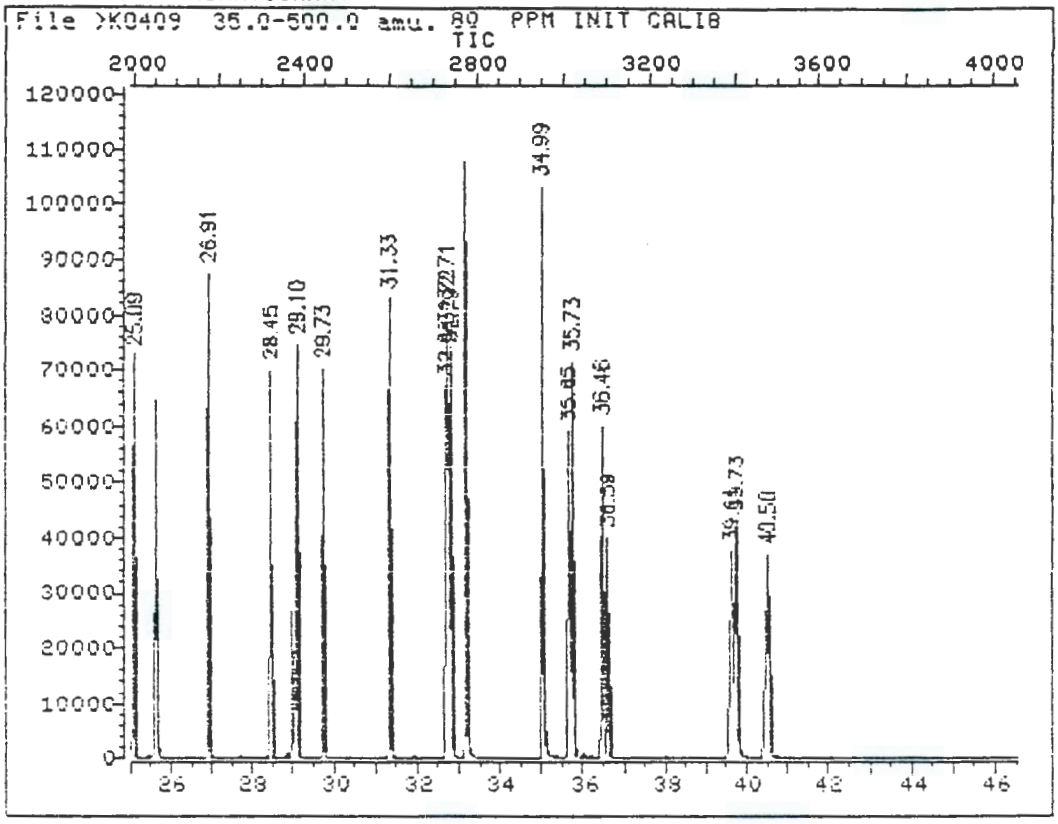
Data File: >K0409::D1 Quant Output File: ^K0409::QF
Name: 80 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL# 8

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qcal Time: 920901 10:19

Operator ID: BOB
Quant Time : 921104 17:29
Injected at: 921104 16:41

9613492.1202

TOTAL ION CHROMATOGRAM



Data File: >K0409::D1 Quant Output File: ^K0409::OF
Name: 80 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL# 8

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qual Time: 920901 10:19

Operator ID: 808
Quant Time : 921104 17:29
Injected at: 921104 16:41

9615492.1205

QUANT REPORT

Operator ID: BOB
Output File: ^K0410::OF
Data File: >K0410::D1
Name: 120 PPM INIT CALIB
Misc:

Quant Rev: 7
Quant Time: 921104 18:25
Injected at: 921104 17:37
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 9

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Date: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units	Q
1)	*1,4-Dichlorobenzene-d4	11.24	666	12626	40.00	ng/uL	9
2)	2-Fluorophenol	6.31	193	52473	166.27	ng/uL	9
3)	Phenol-d5	10.32	578	60609	147.46	ng/uL	9
4)	Phenol	10.37	583	64457	133.24	ng/uL	8
5)	bis(2-Chloroethyl)ether	10.58	603	55696	119.14	ng/uL	9
6)	2-Chlorophenol	10.55	600	50455	139.23	ng/uL	9
7)	1,3-Dichlorobenzene	11.03	646	56651	143.17	ng/uL	9
8)	1,4-Dichlorobenzene	11.30	672	57533	147.61	ng/uL	9
9)	Benzyl alcohol	11.86	726	32659	139.55	ng/uL	9
10)	1,2-Dichlorobenzene	11.76	716	53850	141.52	ng/uL	9
11)	2-Methylphenol	12.28	766	42724	132.18	ng/uL	9
12)	bis(2-Chloroisopropyl)ether	12.32	770	66845	78.21	ng/uL	9
13)	4-Methylphenol	12.81	817	42750	129.11	ng/uL	9
14)	N-Nitroso-di-n-propylamine	12.78	814	30790	139.50	ng/uL	8
15)	Hexachloroethane	12.81	817	23740	132.07	ng/uL	9
16)	*Naphthalene-d8	13.22	1048	41104	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.07	842	58835	137.26	ng/uL	9
18)	Nitrobenzene	13.13	848	58266	132.36	ng/uL	9
19)	Isophorone	13.95	927	113749	128.69	ng/uL	9
20)	2-Nitrophenol	14.10	941	31509	153.49	ng/uL	9
21)	2,4-Dimethylphenol	14.42	972	39612	142.03	ng/uL	9
22)	Benzoic acid	15.15	1041	34699	154.15	ng/uL	9
23)	bis(2-Chloroethoxy)methane	14.72	1000	66917	126.03	ng/uL	9
24)	2,4-Dichlorophenol	14.87	1015	43406	151.67	ng/uL	9
25)	1,2,4-Trichlorobenzene	15.07	1034	45121	147.76	ng/uL	9
26)	Naphthalene	15.29	1055	126141	148.40	ng/uL	9
27)	4-Chloroaniline	15.54	1079	58834	181.55	ng/uL	9
28)	Hexachlorobutadiene	15.73	1097	25972	134.48	ng/uL	9
29)	4-Chloro-3-methylphenol	17.10	1229	43997	126.66	ng/uL	9
30)	2-Methylnaphthalene	17.40	1257	78798	144.18	ng/uL	9
31)	*Acenaphthene-d10	20.48	1552	19766	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	17.88	1303	33008	227.64	ng/uL	9
33)	2,4,6-Trichlorophenol	18.28	1342	31630	166.30	ng/uL	9
34)	2,4,5-Trichlorophenol	18.37	1350	31221	151.77	ng/uL	9
35)	2-Chloronaphthalene	18.84	1395	77590	158.55	ng/uL	9
36)	2-Fluorobiphenyl	18.58	1370	82193	152.92	ng/uL	9
37)	2-Nitroaniline	19.23	1433	34502	125.49	ng/uL	9
38)	Dimethylphthalate	19.91	1498	95070	150.79	ng/uL	9
39)	Acenaphthylene	20.05	1511	117782	161.69	ng/uL	9
40)	2,6-Dinitrotoluene	20.03	1509	25153	142.39	ng/uL	8
41)	3-Nitroaniline	20.49	1553	28156	259.77	ng/uL	9
42)	Acenaphthene	20.59	1563	72524	152.54	ng/uL	9

AG 11/29/92

9613492.1204

QUANT REPORT

Operator ID: BOB
Output File: ^K0410::OF
Data File: >K0410::D1
Name: 120 PPM INIT CALIB
Misc:

Quant Rev: 7
Quant Time: 921104 18:25
Injected at: 921104 17:37
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 9

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Time: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units
41)	3-Nitroaniline	20.49	1553	28156	259.77	ng/uL
42)	Acenaphthene	20.59	1563	72524	152.54	ng/uL
43)	2,4-Dinitrophenol	20.79	1582	19355	315.54	ng/uL
45)	Dibenzofuran	21.11	1613	101181	148.45	ng/uL
46)	2,4-Dinitrotoluene	21.21	1622	36174	146.55	ng/uL
47)	Diethylphthalate	22.04	1702	93716	135.74	ng/uL
48)	4-Chlorophenyl-phenylether	22.22	1719	40798	148.12	ng/uL
49)	Fluorene	22.13	1711	80622	151.65	ng/uL
50)	4-Nitroaniline	22.34	1731	28625	859.19	ng/uL
51)	*Phenanthrene-d10	24.87	1973	37020	40.00	ng/uL
52)	4,6-Dinitro-2-methylphenol	22.42	1738	22962	216.71	ng/uL
53)	N-Nitrosodiphenylamine	22.62	1757	57350	140.42	ng/uL
54)	2,4,6-Tribromophenol	22.84	1778	18798	128.91	ng/uL
55)	4-Bromophenyl-phenylether	23.66	1857	25966	122.36	ng/uL
56)	Hexachlorobenzene	23.73	1864	35902	129.00	ng/uL
57)	Pentachlorophenol	24.35	1923	24069	127.70	ng/uL
58)	Phenanthrene	24.95	1981	115930	141.63	ng/uL
59)	Anthracene	25.11	1996	107698	128.39	ng/uL
60)	Di-n-butylphthalate	26.92	2170	157186	97.07	ng/uL
61)	Fluoranthene	28.46	2318	113010	117.89	ng/uL
62)	*Chrysene-d12	32.71	2726	28173	40.00	ng/uL
63)	Pyrene	29.12	2381	115607	163.34	ng/uL
64)	Terphenyl-d14	29.75	2441	86905	158.94	ng/uL
65)	Butylbenzylphthalate	31.34	2594	68917	137.77	ng/uL
66)	3,3'-Dichlorobenzidine	32.74	2728	38703	462.07	ng/uL
67)	Benzo(a)anthracene	32.68	2723	107607	155.62	ng/uL
68)	Chrysene	32.82	2736	104070	160.67	ng/uL
70)	*Perylene-d12	36.59	3098	34030	40.00	ng/uL
71)	Di-n-octylphthalate	35.01	2946	171030	117.92	ng/uL
72)	Benzo(b)fluoranthene	35.66	3009	122160	150.62	ng/uL
73)	Benzo(k)fluoranthene	35.76	3018	101610	133.60	ng/uL
74)	Benzo(a)pyrene	36.48	3087	109451	146.68	ng/uL
75)	Indeno(1,2,3-cd)pyrene	39.63	3390	137639	155.91	ng/uL
76)	Dibenz(a,h)anthracene	39.77	3403	109181	151.95	ng/uL
77)	Benzo(g,h,i)perylene	40.55	3478	119351	158.66	ng/uL

* Compound is ISTD

AS
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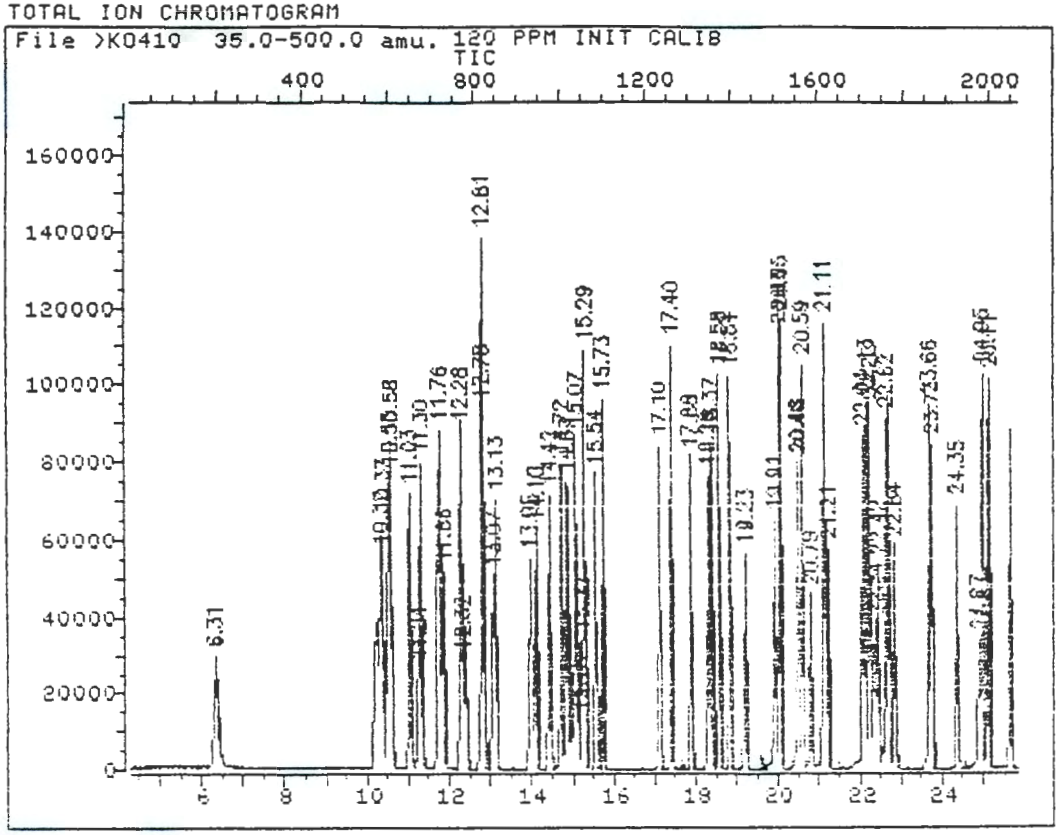
TOTAL ION CHROMATOGRAM



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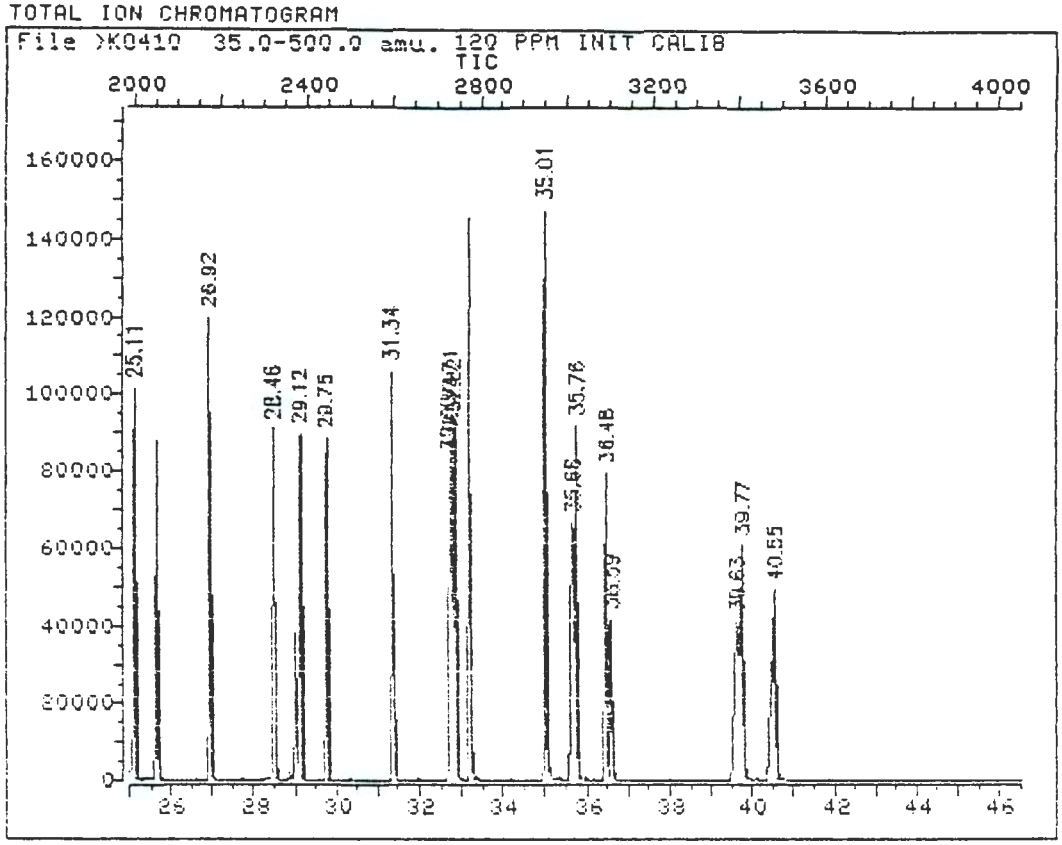
Name: 120 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL# 9

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qual Time: 920901 10:19

Operator ID: BDB
Quant Time : 921104 18:25
Injected at: 921104 17:37

TOTAL ION CHROMATOGRAM



Data File: >K0410::D1 Quant Output File: ^K0410::DF
Name: 120 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL# 9

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qcal Time: 920901 10:19

Operator ID: BDB
Quant Time : 921104 18:29
Injected at: 921104 17:37

9613492.1207

QUANT REPORT

Operator ID: BOB
Output File: ^K0411::OF
Data File: >K0411::D1
Name: 160 PPM INIT CALIB
Misc:

Quant Rev: 7
Quant Time: 921104 19:21
Injected at: 921104 18:33
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL#10

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Date: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units	c
1)	*1,4-Dichlorobenzene-d4	11.24	666	13505	40.00	ng/uL	9
2)	2-Fluorophenol	6.34	196	72079	213.53	ng/uL	9
3)	Phenol-d5	10.35	581	83177	189.20	ng/uL	9
4)	Phenol	10.39	585	96813	187.10	ng/uL	8
5)	bis(2-Chloroethyl)ether	10.60	605	74419	148.83	ng/uL	9
6)	2-Chlorophenol	10.57	602	67805	174.93	ng/uL	9
7)	1,3-Dichlorobenzene	11.04	647	76504	180.76	ng/uL	9
8)	1,4-Dichlorobenzene	11.30	672	76948	184.57	ng/uL	9
9)	Benzyl alcohol	11.89	728	46046	183.95	ng/uL	9
10)	1,2-Dichlorobenzene	11.77	717	70155	172.37	ng/uL	9
11)	2-Methylphenol	12.29	767	58330	168.72	ng/uL	9
12)	bis(2-Chloroisopropyl)ether	12.34	771	97794	106.97	ng/uL	9
13)	4-Methylphenol	12.84	819	55895	157.82	ng/uL	9
14)	N-Nitroso-di-n-propylamine	12.80	815	36255	153.57	ng/uL	8
15)	Hexachloroethane	12.82	817	30424	158.24	ng/uL	9
16)	*Naphthalene-d8	15.23	1048	43253	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.09	843	80492	178.45	ng/uL	9
18)	Nitrobenzene	13.15	849	80431	173.64	ng/uL	9
19)	Isophorone	13.92	923	22602	24.30	ng/uL	9
20)	2-Nitrophenol	14.12	942	43702	202.31	ng/uL	8
21)	2,4-Dimethylphenol	14.44	973	55224	188.17	ng/uL	[illegible]
22)	Benzoic acid	15.19	1045	49020	206.97	ng/uL	
23)	bis(2-Chloroethoxy)methane	14.73	1001	93363	167.10	ng/uL	[illegible]
24)	2,4-Dichlorophenol	14.90	1017	60031	199.34	ng/uL	9
25)	1,2,4-Trichlorobenzene	15.09	1035	60967	189.73	ng/uL	[illegible]
26)	Naphthalene	15.30	1055	167825	187.63	ng/uL	[illegible]
27)	4-Chloroaniline	15.56	1080	81459	238.88	ng/uL	[illegible]
28)	Hexachlorobutadiene	15.74	1097	34931	171.88	ng/uL	[illegible]
29)	4-Chloro-3-methylphenol	17.11	1229	60846	166.46	ng/uL	
30)	2-Methylnaphthalene	17.40	1257	105021	182.62	ng/uL	
31)	*Acenaphthene-d10	20.48	1552	20904	40.00	ng/uL	[illegible]
32)	Hexachlorocyclopentadiene	17.88	1303	44572	290.65	ng/uL	[illegible]
33)	2,4,6-Trichlorophenol	18.30	1343	46431	230.83	ng/uL	[illegible]
34)	2,4,5-Trichlorophenol	18.39	1351	39238	180.36	ng/uL	[illegible]
35)	2-Chloronaphthalene	18.84	1395	104052	201.05	ng/uL	[illegible]
36)	2-Fluorobiphenyl	18.58	1370	110224	193.91	ng/uL	[illegible]
37)	2-Nitroaniline	19.25	1434	48708	167.51	ng/uL	[illegible]
38)	Dimethylphthalate	19.93	1499	119745	179.59	ng/uL	[illegible]
39)	Acenaphthylene	20.07	1512	154487	200.54	ng/uL	
40)	2,6-Dinitrotoluene	20.04	1510	25895	138.61	ng/uL	
41)	3-Nitroaniline	20.50	1554	33512	292.35	ng/uL	
42)	Acenaphthene	20.60	1563	97209	193.33	ng/uL	

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43)	2,4-Dinitrophenol	20.81	1583	24784	382.05	ng/uL
44)	4-Nitrophenol	0.00	1613	0	0.00	ng/uL
45)	Dibenzofuran	21.13	1614	134589	186.72	ng/uL
46)	2,4-Dinitrotoluene	21.23	1623	45517	174.36	ng/uL
47)	Diethylphthalate	22.06	1703	110133	150.83	ng/uL
48)	4-Chlorophenyl-phenylether	22.23	1719	54653	187.62	ng/uL
49)	Fluorene	22.15	1711	107318	190.87	ng/uL
50)	4-Nitroaniline	22.38	1733	35623	1011.03	ng/uL
51)	*Phenanthrene-d10	24.87	1971	33767	40.00	ng/uL
52)	4,6-Dinitro-2-methylphenol	22.44	1739	27752	287.15	ng/uL
53)	N-Nitrosodiphenylamine	22.63	1757	62217	167.01	ng/uL
54)	2,4,6-Tribromophenol	22.85	1778	22983	172.80	ng/uL
55)	4-Bromophenyl-phenylether	23.66	1856	29833	154.13	ng/uL
56)	Hexachlorobenzene	23.74	1863	50139	197.51	ng/uL
57)	Pentachlorophenol	24.35	1922	28929	168.27	ng/uL
58)	Phenanthrene	24.96	1980	139239	186.50	ng/uL
59)	Anthracene	25.12	1995	128358	167.76	ng/uL
60)	Di-n-butylphthalate	26.93	2169	192150	130.09	ng/uL
61)	Fluoranthene	28.47	2317	136825	156.49	ng/uL
62)	*Chrysene-d12	32.73	2724	26291	40.00	ng/uL
63)	Pyrene	29.12	2379	138779	210.75	ng/uL
64)	Terphenyl-d14	29.75	2439	105828	207.40	ng/uL
65)	Butylbenzylphthalate	31.35	2592	85600	183.37	ng/uL
66)	3,3'-Dichlorobenzidine	32.75	2726	48853	625.00	ng/uL
67)	Benzo(a)anthracene	32.70	2721	131058	203.10	ng/uL
68)	Chrysene	32.82	2733	135641	207.85	ng/uL
69)	Bis(2-Ethylhexyl)phthalate	0.00	0	0	0.00	ng/uL
70)	*Perylene-d12	36.60	3095	33706	40.00	ng/uL
71)	Di-n-octylphthalate	35.01	2943	211401	147.15	ng/uL
72)	Benzo(b)fluoranthene	35.69	3008	161815	201.43	ng/uL
73)	Benzo(k)fluoranthene	35.77	3015	124410	165.15	ng/uL
74)	Benzo(a)pyrene	36.50	3085	140222	189.72	ng/uL
75)	Indeno(1,2,3-cd)pyrene	39.63	3386	182574	208.79	ng/uL
76)	Dibenz(a,h)anthracene	39.79	3401	141094	198.25	ng/uL
77)	Benzo(g,h,i)perylene	40.58	3477	158380	212.57	ng/uL

* Compound is ISTD

AS
11/29/93

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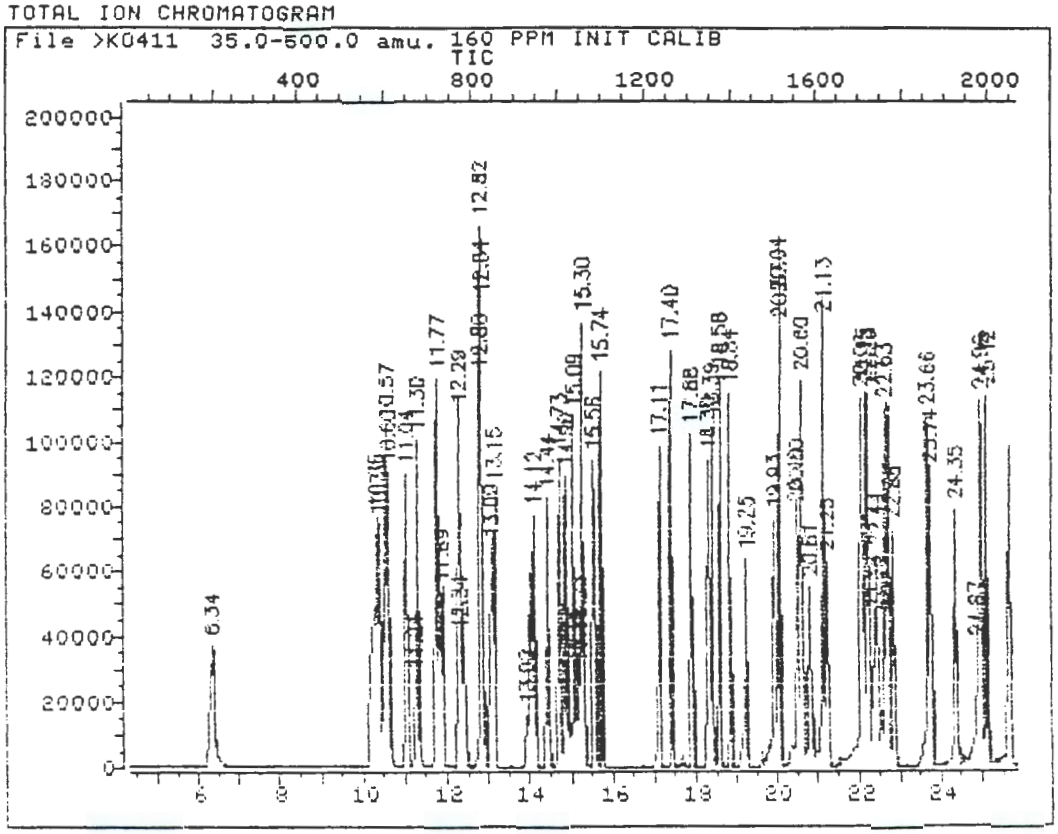
TOTAL ION CHROMATOGRAM



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Name: 160 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL#10

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qual Time: 920901 10:19

Operator ID: BOB
Quant Time : 921104 19:21
Injected at: 921104 18:33

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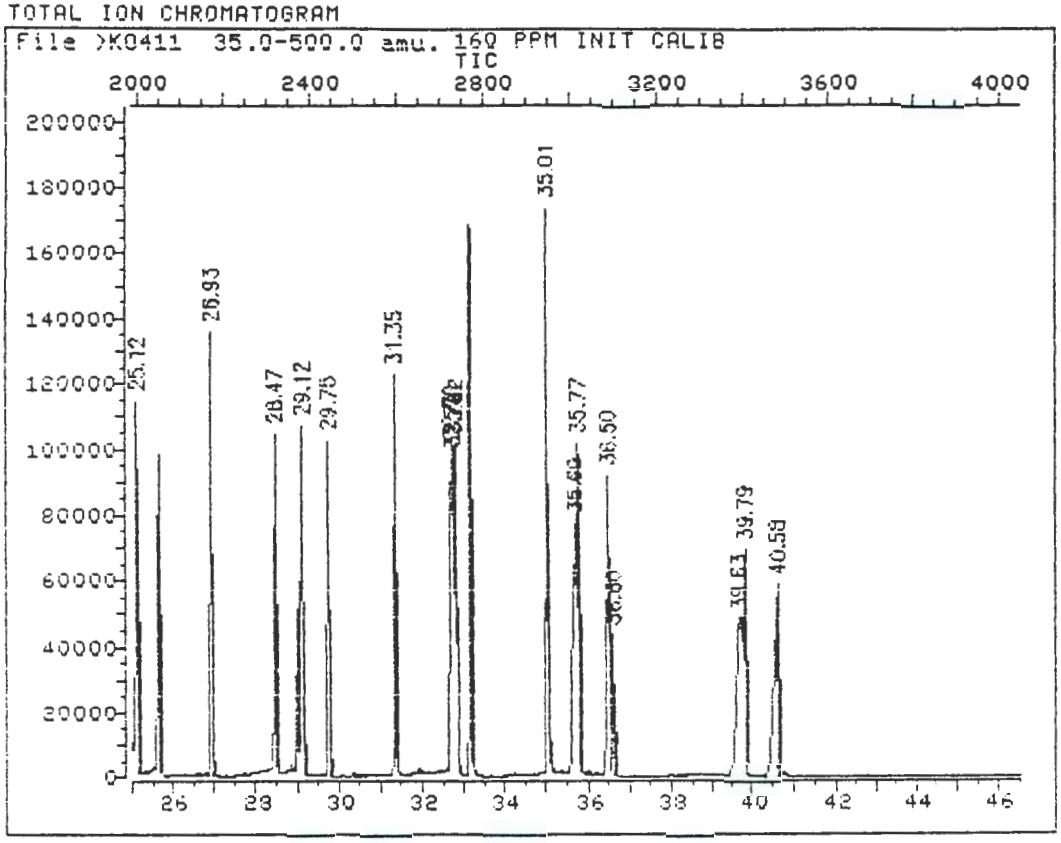
TOTAL ION CHROMATOGRAM



Data File: >K0411::D1 Quant Output File: ^K0411::OF
Name: 160 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL#10

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qcal Time: 920901 10:19

Operator ID: BOB
Quant Time : 921104 19:21
Injected at: 921104 18:33

9613492.1211

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name:BATTELLE-PNL Contract:-------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Instrument ID: BNA1 Calibration Date(s):11/05/92 ----

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 =>K0408 RRF50 =>K0407
RRF80 =>K0409 RRF120=>K0410 RRF160=>K0411

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol *	1.760	1.693	1.739	1.702	1.792	1.737	2.4*
bis(2-Chloroethyl)ether	1.586	1.486	1.526	1.470	1.378	1.489	5.2
2-Chlorophenol	1.447	1.352	1.393	1.332	1.255	1.356	5.3
1,3-Dichlorobenzene	1.616	1.523	1.586	1.496	1.416	1.527	5.1
1,4-Dichlorobenzene *	1.642	1.545	1.616	1.519	1.424	1.549	5.5*
Benzyl alcohol	.828	.847	.879	.862	.852	.854	2.2
1,2-Dichlorobenzene	1.580	1.475	1.517	1.422	1.299	1.458	7.3
2-Methylphenol	1.177	1.140	1.164	1.128	1.080	1.138	3.3
bis(2-chloroisopropyl)ether	1.682	1.730	1.705	1.765	1.810	1.738	2.9
4-Methylphenol	1.294	1.217	1.224	1.129	1.035	1.180	8.5
N-Nitroso-di-n-propylamine #	.860	.895	.890	.872	.838	.871	2.6#
Hexachloroethane	.743	.687	.709	.627	.563	.666	10.7
Nitrobenzene	.488	.469	.480	.473	.465	.475	1.9
Isophorone	.911	.892	.912	.922	.909	.909	1.2
2-Nitrophenol *	.248	.253	.259	.256	.253	.253	1.6*
2,4-Dimethylphenol	.328	.316	.325	.321	.319	.322	1.5
Benzoic acid	0.000	.256	.284	.281	.283	.276	5.0
bis(2-Chloroethoxy)methane	.548	.541	.551	.543	.540	.544	.9
2,4-Dichlorophenol *	.361	.350	.359	.352	.347	.354	1.7*
1,2,4-Trichlorobenzene	.399	.374	.386	.366	.352	.375	4.8
Naphthalene	1.122	1.050	1.072	1.023	.970	1.047	5.4
4-Chloroaniline	.466	.474	.483	.477	.471	.474	1.4
Hexachlorobutadiene *	.233	.217	.224	.211	.202	.217	5.5*
4-Chloro-3-methylphenol *	.369	.360	.368	.357	.352	.361	2.1*
2-Methylnaphthalene	.715	.666	.678	.639	.607	.661	6.2
Hexachlorocyclopentadiene #	.534	.555	.578	.557	.533	.551	3.4#
2,4,6-Trichlorophenol *	.507	.495	.527	.533	.555	.524	4.5*
2,4,5-Trichlorophenol	0.000	.537	.550	.526	.469	.521	6.8
2-Chloronaphthalene	1.391	1.319	1.363	1.309	1.244	1.325	4.2
2-Nitroaniline	0.000	.547	.566	.582	.582	.569	2.9
Dimethylphthalate	1.647	1.604	1.679	1.603	1.432	1.593	6.0
Acenaphthylene	2.152	2.063	2.114	1.986	1.848	2.033	5.9
2,6-Dinitrotoluene	.414	.418	.428	.424	.396	.416	2.9
3-Nitroaniline	0.000	.448	.469	.475	.401	.448	7.5
Acenaphthene *	1.293	1.227	1.272	1.223	1.163	1.235	4.1*
2,4-Dinitrophenol #	0.000	.312	.329	.326	.296	.316	4.8#
4-Nitrophenol #	0.000	.253	.265	.239	.196	.238	12.7#

FORM VI SV-1 1/87 Rev.

10/24/93

F03-062

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6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name:BATTELLE-PNL Contract:-------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Instrument ID: BNA1 Calibration Date(s):11/05/92 ----

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 =>K0408 RRF50 =>K0407
RRF80 =>K0409 RRF120=>K0410 RRF160=>K0411

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Dibenzofuran	1.867	1.765	1.806	1.706	1.610	1.751	5.6
2,4-Dinitrotoluene	.585	.605	.633	.610	.544	.595	5.6
Diethylphthalate	1.717	1.688	1.744	1.580	1.317	1.609	10.9
4-Chlorophenyl-phenylether	.725	.692	.714	.688	.654	.695	4.0
Fluorene	1.445	1.369	1.405	1.360	1.283	1.373	4.4
4-Nitroaniline	0.000	.478	.494	.483	.426	.470	6.4
4,6-Dinitro-2-methylphenol	0.000	.212	.213	.207	.206	.209	1.9
N-Nitrosodiphenylamine (1) *	.554	.524	.532	.516	.461	.517	6.7*
4-Bromophenyl-phenylether	.256	.241	.245	.234	.221	.239	5.4
Hexachlorobenzene	.349	.330	.336	.323	.371	.342	5.5
Pentachlorophenol *	0.000	.221	.228	.217	.214	.220	2.8*
Phenanthrene	1.134	1.043	1.071	1.044	1.031	1.065	3.9
Anthracene	1.166	1.062	1.058	.970	.950	1.041	8.3
Di-n-butylphthalate	1.615	1.514	1.524	1.415	1.423	1.498	5.5
Fluoranthene *	1.194	1.109	1.082	1.018	1.013	1.083	6.9*
Pyrene	1.398	1.381	1.422	1.368	1.320	1.378	2.8
Butylbenzylphthalate	.714	.793	.830	.815	.814	.793	5.8
3,3'-Dichlorobenzidine	.368	.416	.442	.458	.465	.430	9.1
Benzo(a)anthracene	1.241	1.247	1.281	1.273	1.246	1.258	1.4
Chrysene	1.254	1.230	1.259	1.231	1.195	1.234	2.1
bis(2-Ethylhexyl)phthalate	1.054	1.135	1.191	1.149	1.125	1.131	4.4
Di-n-octylphthalate *	1.651	1.740	1.803	1.675	1.568	1.687	5.3*
Benzo(b)fluoranthene	1.209	1.141	1.226	1.197	1.200	1.194	2.7
Benzo(k)fluoranthene	1.260	1.158	1.118	.995	.923	1.091	12.2
Benzo(a)pyrene *	1.150	1.101	1.109	1.072	1.040	1.094	3.8*
Indeno(1,2,3-cd)pyrene	1.322	1.315	1.354	1.348	1.354	1.339	1.4
Dibenz(a,h)anthracene	1.014	1.061	1.089	1.069	1.046	1.056	2.7
Benzo(g,h,i)perylene	1.157	1.130	1.175	1.169	1.175	1.161	1.6
Nitrobenzene-d5	.476	.467	.481	.477	.465	.473	1.4
2-Fluorobiphenyl	1.507	1.408	1.443	1.386	1.318	1.413	4.9
Terphenyl-d14	1.036	1.024	1.044	1.028	1.006	1.028	1.4
Phenol-d5	1.645	1.592	1.641	1.600	1.540	1.603	2.7
2-Fluorophenol	1.360	1.337	1.406	1.385	1.334	1.365	2.3
2,4,6-Tribromophenol	.167	.170	.169	.169	.170	.169	.7

(1) Cannot be separated from Diphenylamine

FORM VI SV-2 1/87 Rev.

F03-063

9613492.1213

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name:BATTELLE-PNL Contract:-----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Instrument ID: BNA1 Calibration Date: 1/14/93 Time: 10:37

Lab File ID: >A1402 Init. Calib. Date(s):11/05/92 01/14/93

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Phenol	*	1.737	2.049	17.9	*
bis(2-Chloroethyl)ether		1.489	1.728	16.1	
2-Chlorophenol		1.356	1.481	9.2	
1,3-Dichlorobenzene		1.527	1.623	6.3	
1,4-Dichlorobenzene	*	1.549	1.635	5.5	*
Benzyl alcohol		.854	1.006	17.9	
1,2-Dichlorobenzene		1.458	1.535	5.3	
2-Methylphenol		1.138	1.317	15.8	
bis(2-chloroisopropyl)ether		1.738	2.984	71.7	
4-Methylphenol		1.180	1.394	18.1	
N-Nitroso-di-n-propylamine	#	.871	1.125	29.2	#
Hexachloroethane		.666	.716	7.5	
Nitrobenzene		.475	.548	15.4	
Isophorone		.909	1.059	16.4	
2-Nitrophenol	*	.253	.259	2.2	*
2,4-Dimethylphenol		.322	.355	10.2	
Benzoic acid		.276	.292	5.7	
bis(2-Chloroethoxy)methane		.544	.619	13.6	
2,4-Dichlorophenol	*	.354	.351	.9	*
1,2,4-Trichlorobenzene		.375	.364	3.0	
Naphthalene		1.047	1.107	5.7	
4-Chloroaniline		.474	.525	10.8	
Hexachlorobutadiene	*	.217	.196	9.9	*
4-Chloro-3-methylphenol	*	.361	.402	11.2	*
2-Methylnaphthalene		.661	.684	3.4	
Hexachlorocyclopentadiene	#	.551	.461	16.3	#
2,4,6-Trichlorophenol	*	.524	.515	1.6	*
2,4,5-Trichlorophenol		.521	.533	2.4	
2-Chloronaphthalene		1.325	1.382	4.3	
2-Nitroaniline		.569	.736	29.2	
Dimethylphthalate		1.593	1.688	6.0	
Acenaphthylene		2.033	2.235	10.0	
2,6-Dinitrotoluene		.416	.435	4.6	
3-Nitroaniline		.448	.496	10.8	
Acenaphthene	*	1.235	1.309	6.0	*
2,4-Dinitrophenol	#	.316	.216	31.5	#
4-Nitrophenol	#	.238	.253	6.1	#

AS
10/21/93

FORM VII SV-1 1/87 Rev

F03-064

9613492.1214

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name:BATTELLE-PNL Contract:-----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Instrument ID: BNA1 Calibration Date: 1/14/93 Time: 10:37

Lab File ID: >A1402 Init. Calib. Date(s):11/05/92 01/14/93

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRF50	%D	
Dibenzofuran	1.751	1.852	5.8	
2,4-Dinitrotoluene	.595	.630	5.7	
Diethylphthalate	1.609	1.794	11.5	
4-Chlorophenyl-phenylether	.695	.698	.5	
Fluorene	1.373	1.449	5.6	
4-Nitroaniline	.470	.503	6.9	
4,6-Dinitro-2-methylphenol	.209	.179	14.4	
N-Nitrosodiphenylamine (1)	* .517	.563	8.8	*
4-Bromophenyl-phenylether	.239	.249	4.2	
Hexachlorobenzene	.342	.327	4.3	
Pentachlorophenol	* .220	.231	4.9	*
Phenanthrene	1.065	1.112	4.4	
Anthracene	1.041	1.139	9.4	
Di-n-butylphthalate	1.498	1.635	9.2	
Fluoranthene	* 1.083	1.164	7.5	*
Pyrene	1.378	1.548	12.4	
Butylbenzylphthalate	.793	.932	17.5	
3,3'-Dichlorobenzidine	.430	.475	10.5	
Benzo(a)anthracene	1.258	1.362	8.3	
Chrysene	1.234	1.363	10.5	
bis(2-Ethylhexyl)phthalate	1.131	1.292	14.2	
Di-n-octylphthalate	* 1.687	1.931	14.4	*
Benzo(b)fluoranthene	1.194	1.220	2.2	
Benzo(k)fluoranthene	1.091	1.163	6.6	
Benzo(a)pyrene	* 1.094	1.138	3.9	*
Indeno(1,2,3-cd)pyrene	1.339	1.374	2.6	
Dibenz(a,h)anthracene	1.056	1.104	4.5	
Benzo(g,h,i)perylene	1.161	1.194	2.9	
Nitrobenzene-d5	.473	.519	9.7	
2-Fluorobiphenyl	1.413	1.463	3.5	
Terphenyl-d14	1.028	1.147	11.6	
Phenol-d5	1.603	1.770	10.4	
2-Fluorophenol	1.365	1.493	9.4	
2,4,6-Tribromophenol	.169	.165	2.2	

AS 10/24/93

(1) Cannot be separated from Diphenylamine

FORM VII SV-2 1/87 Rev

F03-065

9613492.1215

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name:BATTELLE-PNL Contract:-----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Instrument ID: BNA1 Calibration Date: 1/15/93 Time: 12:23

Lab File ID: >A1502 Init. Calib. Date(s):11/05/92 01/15/93

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Phenol	*	1.737	1.720	1.0	*
bis(2-Chloroethyl)ether		1.489	1.444	3.0	
2-Chlorophenol		1.356	1.260	7.1	
1,3-Dichlorobenzene		1.527	1.357	11.1	
1,4-Dichlorobenzene	*	1.549	1.374	11.3	*
Benzyl alcohol		.854	.811	5.0	
1,2-Dichlorobenzene		1.458	1.304	10.6	
2-Methylphenol		1.138	1.084	4.7	
bis(2-chloroisopropyl)ether		1.738	2.547	46.5	
4-Methylphenol		1.180	1.166	1.1	
N-Nitroso-di-n-propylamine	#	.871	.933	7.1	#
Hexachloroethane		.666	.590	11.3	
Nitrobenzene		.475	.442	7.0	
Isophorone		.909	.863	5.1	
2-Nitrophenol	*	.253	.216	14.9	*
2,4-Dimethylphenol		.322	.287	10.8	
Benzoic acid		.276	.236	14.5	
bis(2-Chloroethoxy)methane		.544	.499	8.3	
2,4-Dichlorophenol	*	.354	.289	18.3	*
1,2,4-Trichlorobenzene		.375	.306	18.4	
Naphthalene		1.047	.896	14.5	
4-Chloroaniline		.474	.435	8.3	
Hexachlorobutadiene	*	.217	.166	23.7	*
4-Chloro-3-methylphenol	*	.361	.334	7.5	*
2-Methylnaphthalene		.661	.560	15.2	
Hexachlorocyclopentadiene	#	.551	.370	33.0	#
2,4,6-Trichlorophenol	*	.524	.425	18.8	*
2,4,5-Trichlorophenol		.521	.454	12.8	
2-Chloronaphthalene		1.325	1.137	14.2	
2-Nitroaniline		.569	.607	6.5	
Dimethylphthalate		1.593	1.413	11.3	
Acenaphthylene		2.033	1.823	10.3	
2,6-Dinitrotoluene		.416	.359	13.7	
3-Nitroaniline		.448	.413	7.8	
Acenaphthene	*	1.235	1.073	13.2	*
2,4-Dinitrophenol	#	.316	.234	26.0	#
4-Nitrophenol	#	.238	.213	10.6	#

✓ AS 10/24/93

FORM VII SV-1 1/87 Rev

F03-066

9613492.1216

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name:BATTELLE-PNL Contract:-----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Instrument ID: BNA1 Calibration Date: 1/15/93 Time: 12:23

Lab File ID: >A1502 Init. Calib. Date(s):11/05/92 01/15/93

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND	$\overline{RRF}$	RRF50	%D
Dibenzofuran	1.751	1.545	11.7
2,4-Dinitrotoluene	.595	.536	10.0
Diethylphthalate	1.609	1.492	7.3
4-Chlorophenyl-phenylether	.695	.597	14.1
Fluorene	1.373	1.211	11.8
4-Nitroaniline	.470	.453	3.6
4,6-Dinitro-2-methylphenol	.209	.174	16.7
N-Nitrosodiphenylamine (1) *	.517	.468	9.6 *
4-Bromophenyl-phenylether	.239	.209	12.6
Hexachlorobenzene	.342	.278	18.6
Pentachlorophenol *	.220	.195	11.5 *
Phenanthrene	1.065	.902	15.2
Anthracene	1.041	.934	10.2
Di-n-butylphthalate	1.498	1.348	10.0
Fluoranthene *	1.083	.967	10.7 *
Pyrene	1.378	1.243	9.8
Butylbenzylphthalate	.793	.753	5.1
3,3'-Dichlorobenzidine	.430	.383	10.8
Benzo(a)anthracene	1.258	1.121	10.9
Chrysene	1.234	1.108	10.2
bis(2-Ethylhexyl)phthalate	1.131	1.030	9.0
Di-n-octylphthalate *	1.687	1.499	11.2 *
Benzo(b)fluoranthene	1.194	.992	17.0
Benzo(k)fluoranthene	1.091	.951	12.8
Benzo(a)pyrene *	1.094	.921	15.9 *
Indeno(1,2,3-cd)pyrene	1.339	1.140	14.9
Dibenz(a,h)anthracene	1.056	.919	13.0
Benzo(g,h,i)perylene	1.161	.991	14.7
Nitrobenzene-d5	.473	.419	11.5
2-Fluorobiphenyl	1.413	1.199	15.1
Terphenyl-d14	1.028	.937	8.8
Phenol-d5	1.603	1.461	8.9
2-Fluorophenol	1.365	1.225	10.3
2,4,6-Tribromophenol	.169	.141	16.7

(1) Cannot be separated from Diphenylamine

AS 1/24/92

F03-067

9613492.1217

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name:BATTELLE-PNL Contract:-----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Instrument ID: BNA1 Calibration Date: 1/29/93 Time: 15:50

Lab File ID: >A3002 Init. Calib. Date(s):11/05/92 01/29/93

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Phenol	*	1.737	1.909	9.9	*
bis(2-Chloroethyl)ether		1.489	1.591	6.9	
2-Chlorophenol		1.356	1.393	2.8	
1,3-Dichlorobenzene		1.527	1.512	1.0	
1,4-Dichlorobenzene	*	1.549	1.525	1.6	*
Benzyl alcohol		.854	.954	11.7	
1,2-Dichlorobenzene		1.458	1.450	.6	
2-Methylphenol		1.138	1.204	5.8	
bis(2-chloroisopropyl)ether		1.738	2.639	51.8	
4-Methylphenol		1.180	1.297	9.9	
N-Nitroso-di-n-propylamine	#	.871	1.096	25.8	#
Hexachloroethane		.666	.661	.7	
Nitrobenzene		.475	.500	5.2	
Isophorone		.909	.966	6.3	
2-Nitrophenol	*	.253	.242	4.6	*
2,4-Dimethylphenol		.322	.328	1.9	
Benzoic acid		.276	.229	17.2	
bis(2-Chloroethoxy)methane		.544	.567	4.1	
2,4-Dichlorophenol	*	.354	.329	7.0	*
1,2,4-Trichlorobenzene		.375	.343	8.6	
Naphthalene		1.047	1.036	1.1	
4-Chloroaniline		.474	.491	3.6	
Hexachlorobutadiene	*	.217	.189	13.0	*
4-Chloro-3-methylphenol	*	.361	.386	6.9	*
2-Methylnaphthalene		.661	.638	3.6	
Hexachlorocyclopentadiene	#	.551	.354	35.7	#
2,4,6-Trichlorophenol	*	.524	.474	9.4	*
2,4,5-Trichlorophenol		.521	.517	.6	
2-Chloronaphthalene		1.325	1.294	2.3	
2-Nitroaniline		.569	.683	20.0	
Dimethylphthalate		1.593	1.596	.2	
Acenaphthylene		2.033	2.098	3.2	
2,6-Dinitrotoluene		.416	.403	3.1	
3-Nitroaniline		.448	.466	4.1	
Acenaphthene	*	1.235	1.224	.9	*
2,4-Dinitrophenol	#	.316	.156	50.6	#
4-Nitrophenol	#	.238	.248	3.8	#

F03-068

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name:BATTELLE-PNL Contract:-----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Instrument ID: BNA1 Calibration Date: 1/29/93 Time: 15:50

Lab File ID: >A3002 Init. Calib. Date(s):11/05/92 01/29/93

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND	$\overline{RRF}$	RRF50	%D	
Dibenzofuran	1.751	1.729	1.2	
2,4-Dinitrotoluene	.595	.604	1.4	
Diethylphthalate	1.609	1.698	5.5	
4-Chlorophenyl-phenylether	.695	.660	5.1	
Fluorene	1.373	1.365	.5	
4-Nitroaniline	.470	.507	7.8	
4,6-Dinitro-2-methylphenol	.209	.159	23.9	
N-Nitrosodiphenylamine (1)	.517	.526	1.7	*
4-Bromophenyl-phenylether	.239	.233	2.7	
Hexachlorobenzene	.342	.310	9.3	
Pentachlorophenol	.220	.212	3.7	*
Phenanthrene	1.065	1.025	3.7	
Anthracene	1.041	1.053	1.1	
Di-n-butylphthalate	1.498	1.549	3.4	
Fluoranthene	1.083	1.102	1.7	*
Pyrene	1.378	1.459	5.9	
Butylbenzylphthalate	.793	.836	5.4	
3,3'-Dichlorobenzidine	.430	.423	1.6	
Benzo(a)anthracene	1.258	1.249	.7	
Chrysene	1.234	1.243	.7	
bis(2-Ethylhexyl)phthalate	1.131	1.171	3.5	
Di-n-octylphthalate	1.687	1.730	2.5	*
Benzo(b)fluoranthene	1.194	1.111	7.0	
Benzo(k)fluoranthene	1.091	1.024	6.1	
Benzo(a)pyrene	1.094	1.034	5.5	*
Indeno(1,2,3-cd)pyrene	1.339	1.257	6.1	
Dibenz(a,h)anthracene	1.056	1.021	3.4	
Benzo(g,h,i)perylene	1.161	1.086	6.5	
Nitrobenzene-d5	.473	.476	.6	
2-Fluorobiphenyl	1.413	1.351	4.4	
Terphenyl-d14	1.028	1.018	.9	
Phenol-d5	1.603	1.642	2.4	
2-Fluorophenol	1.365	1.384	1.4	
2,4,6-Tribromophenol	.169	.160	5.6	

(1) Cannot be separated from Diphenylamine

9615492.1219

8B
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name:BATTELLE-PNL Contract:-----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Lab File ID (Standard): >A1402 Date Analyzed: 1/14/93

Instrument ID: BNA1 Time Analyzed: 10:37

		IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
	12 HOUR STD	36480.	11.45	121269.	15.42	57467.	20.70
	UPPER LIMIT	72960.		242538.		114934.	
	LOWER LIMIT	18240.		60635.		28734.	
	EPA SAMPLE NO.						
01	SBLK353	41777.	11.45	137155.	15.42	66690.	20.70
02	BO7JZ7	34648.	11.45	116020.	15.41	56067.	20.70
03	BO7JZ7 DUP	33966.	11.45	112147.	15.40	54094.	20.69
04	BO7KO0	32738.	11.45	109008.	15.41	52352.	20.69
05	BO7KO0 DUP	31595.	11.45	103962.	15.41	50296.	20.69
06	BO7KO0 MS	31439.	11.45	105523.	15.41	52124.	20.69
07	BO7KO0 MSD	31771.	11.45	107199.	15.42	52473.	20.70
08							
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22							

AS 10/24/93

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

UPPER LIMIT = + 100% of internal stansard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-1 1/87 Rev.

F03-070

9613492.1220

8C
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: BATTELLE-PNL Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Lab File ID (Standard): >A1402 Date Analyzed: 1/14/93

Instrument ID: BNA1 Time Analyzed: 10:37

		IS4 (PHN) AREA #	RT	IS5 (CRY) AREA #	RT	IS3 (PRY) AREA #	RT
	12 HOUR STD	101992.	25.12	77858.	33.00	93060.	36.91
	UPPER LIMIT	203984.		155716.		186120.	
	LOWER LIMIT	50996.		38929.		46530.	
	EPA SAMPLE NO.						
01	SBLK353	116153.	25.12	106852.	32.98	110826.	36.89
02	BO7JZ7	98280.	25.11	88426.	32.97	91988.	36.89
03	BO7JZ7 DUP	95414.	25.11	86185.	32.97	89975.	36.88
04	BO7KO0	92226.	25.10	83616.	32.97	84361.	36.88
05	BO7KO0 DUP	88023.	25.10	80065.	32.96	80824.	36.88
06	BO7KO0 MS	91617.	25.10	83106.	32.96	83495.	36.88
07	BO7KO0 MSD	93241.	25.11	84162.	32.97	86639.	36.88
08							
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22							

AS 1/24/93

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100% of internal stansard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-2 1/87 Rev.

F03-071

9613492.1221

8B
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: BATTELLE-PNL Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Lab File ID (Standard): >A1502 Date Analyzed: 1/15/93

Instrument ID: BNA1 Time Analyzed: 12:23

		IS1 (DCB) AREA #	RT	IS2 (NPT) AREA #	RT	IS3 (ANT) AREA #	RT
	12 HOUR STD	42040.	11.42	145283.	15.41	69903.	20.68
	UPPER LIMIT	84080.		290566.		139806.	
	LOWER LIMIT	21020.		72641.		34951.	
	EPA SAMPLE NO.						
01	BO7JZ8	32258.	11.44	107739.	15.39	52778.	20.68
02	BO7JZ8 DUP	31993.	11.43	105463.	15.39	51837.	20.67
03	BO7JZ9	32668.	11.44	110522.	15.39	53553.	20.67
04	BO7JZ9 DUP	32302.	11.44	107345.	15.39	52059.	20.67
05	BO7JZ6	30688.	11.45	102927.	15.42	50322.	20.71
06	BO7JZ6 DUP	32672.	11.44	108677.	15.40	53072.	20.68
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22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

UPPER LIMIT = + 100% of internal stansard area.
LOWER LIMIT = - 50% of internal standard area.

AS 10/24/93

Column used to flag internal standard area values with an asterisk

FORM VIII SV-1 1/87 Rev.

F03-072

9613492.1222

8C
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: BATTELLE-PNL Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Lab File ID (Standard): >A1502 Date Analyzed: 1/15/93

Instrument ID: BNA1 Time Analyzed: 12:23

		IS4 (PHN) AREA #	RT	IS5 (CRY) AREA #	RT	IS3 (PRY) AREA #	RT
	12 HOUR STD	127863.	25.10	100766.	32.98	125861.	36.89
	UPPER LIMIT	255726.		201532.		251722.	
	LOWER LIMIT	63931.		50383.		62930.	
	EPA SAMPLE NO.						
01	BO7JZ8	92588.	25.10	84428.	32.95	86537.	36.88
02	BO7JZ8 DUP	90795.	25.09	84093.	32.94	87841.	36.86
03	BO7JZ9	94894.	25.09	87091.	32.95	90725.	36.87
04	BO7JZ9 DUP	92273.	25.09	84101.	32.95	87833.	36.87
05	BO7JZ6	90891.	25.12	84449.	32.99	89007.	36.90
06	BO7JZ6 DUP	94395.	25.09	86136.	32.95	88941.	36.86
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20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100% of internal stansard area.
LOWER LIMIT = - 50% of internal standard area.

AS 10/24/93

Column used to flag internal standard area values with an asterisk

FORM VIII SV-2 1/87 Rev.

F03-073

9613492.1223

8B
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: BATTELLE-PNL Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Lab File ID (Standard): >A3002 Date Analyzed: 1/29/93

Instrument ID: BNA1 Time Analyzed: 15:50

		IS1 (DCB) AREA #	RT	IS2 (NPT) AREA #	RT	IS3 (ANT) AREA #	RT
	12 HOUR STD	39750.	11.34	135073.	15.33	65573.	20.61
	UPPER LIMIT	79500.		270146.		131146.	
	LOWER LIMIT	19875.		67536.		32786.	
	EPA SAMPLE NO.						
01	BO7JZ4	39221.	11.35	132506.	15.32	64091.	20.60
02	BO7JZ4	36769.	11.35	123076.	15.31	59219.	20.59
03	BO7JZ5	35773.	11.35	118240.	15.30	56224.	20.59
04	BO7JZ5	34849.	11.35	116211.	15.32	55922.	20.60
05							
06							
07							
08							
09							
10							
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12							
13							
14							
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16							
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18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

UPPER LIMIT = + 100% of internal stansard area.
LOWER LIMIT = - 50% of internal standard area.

AS 10/24/93

Column used to flag internal standard area values with an asterisk

FORM VIII SV-1 1/87 Rev.

F03-074

9613492.1224

8C
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: BATTELLE-PNL Contract: -----

Lab Code: ----- Case No.: ----- SAS No.: ----- SDG No.: -----

Lab File ID (Standard): >A3002 Date Analyzed: 1/29/93

Instrument ID: BNA1 Time Analyzed: 15:50

		IS4(PHN) AREA #	RT	IS5(CRY) AREA #	RT	IS3(PRY) AREA #	RT
	12 HOUR STD	120560.	25.02	97759.	32.90	119406.	36.80
	UPPER LIMIT	241120.		195518.		238812.	
	LOWER LIMIT	60280.		48880.		59703.	
	EPA SAMPLE NO.						
01	BO7JZ4	112793.	25.01	105057.	32.87	116780.	36.79
02	BO7JZ4	105695.	25.00	98987.	32.87	108696.	36.79
03	BO7JZ5	98811.	25.00	90552.	32.86	99774.	36.77
04	BO7JZ5	98280.	25.01	90877.	32.87	100248.	36.78
05							
06							
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20							
21							
22							

AS 10/24/93

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100% of internal stansard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-2 1/87 Rev.

F03-075

9613492.1225

ORGANICS ANALYSIS BENCH SHEET

page 1 of ___

BATTELLE Pacific Northwest Laboratory ACL, Organic Analysis Group File Location:	EXTRACTION PROCEDURES: PNL-ALO 344	TEST INSTRUCTIONS: T-106	ANALYSIS PROCEDURES: VOID 8126 1/24/93
WORK PKG: M99277	EXTRACTION ANALYST: MJd		ANALYST:
MATRIX: SOIL	DATE: 12-18-92		DATE:

SAMPLE NUMBER	WEIGHT VOLUME	wt pH	pH	Surr	Spike	FINAL SOLVENT	FINAL VOLUME
9302239	30.3	50.0	9.7	X		CH_2Cl_2	1 ml
2239 Dupe	30.3	—		X			
93-02240	30.0	50.0	10.34	X			
2240 Dupe	30.1	—		X			
93-02241	30.7	50.0	10.4	X			
2241 Dupe	30.3	—		X			
93-02351	30.0	50.0	10.5	X			
2351 Dupe	30.0	—		X			
93-02237 B07JZ8	30.0	50	10.43	X			
~~93-0230~~ 1-11-93 JZ8 Dupe	30.0	—		X			
93-02488 B07JZ9	30.4	50	10.44	X			
JZ9 Dupe	30.0	—		X			
93-02487 B07K00	30.0	50	10.32	X			
K00 Dupe	30.3	—		X			
K00 MS	30.6	—		X	X		
K00 MSD	30.0	—		X	X		
SBLK(3)53	0			X			

SURROGATE NAME	VOLUME (ul)	ID NUMBER 52901	CONC. (ug/ml)	SPIKE NAME	VOLUME (ul)	ID NUMBER 52901	CONC. (ug/ml)
Base Neutral	1000	44-16	1000	Base Neutral	1000	44-17	1000
Acid	1000	44-18	2000	Acid	1000	44-19	2000

COMMENTS: no deviations from standard procedure
Slight particulate in some samples -
used 2X Surrogate from procedure requirements MJd 1-12-93

CHAIN OF CUSTODY

FRACTION & METHOD	SAMPLE TIME OUT DATE/INITIAL	SAMPLE TIME IN DATE/INITIAL	RESIDUE TIME OUT DATE	RESIDUE LOCATION REFRIG. #	ANALYSIS TIME OUT DATE	ANALYSIS TIME IN INITIAL
PNL-ALO-344	12-18-92	12-18-92				
	MJd	15:30	1-7-93	700#16		
	0730	MJd				

F03-076

9613492.1226

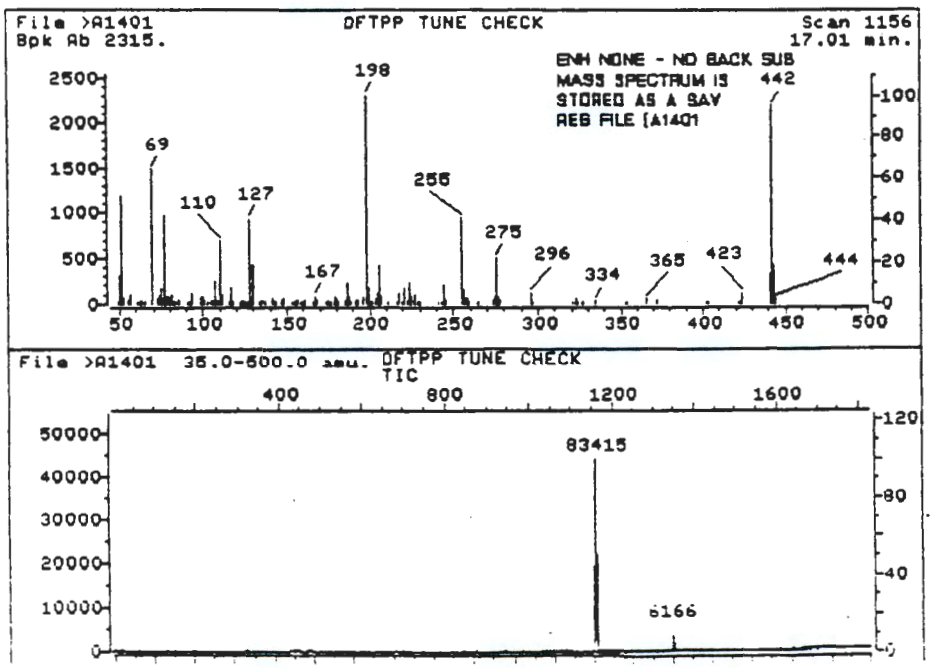
GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

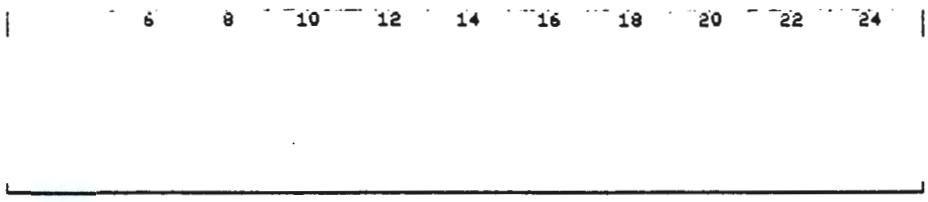
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	51.14	51.14	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	64.02	64.02	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	40.43	40.43	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	7.17	7.17	Ok
275	10-30% of mass 198	22.03	22.03	Ok
365	Greater than 1% of mass 198	2.07	2.07	Ok
441	0-100% of mass 443	13.87	75.18	Ok
442	Greater than 40% of mass 198	95.42	95.42	Ok
443	17-23% of mass 442	18.44	19.33	Ok

Injection Date: 01/14/93
Injection Time: 09:37
Data File: >A1401
Scan: 1156

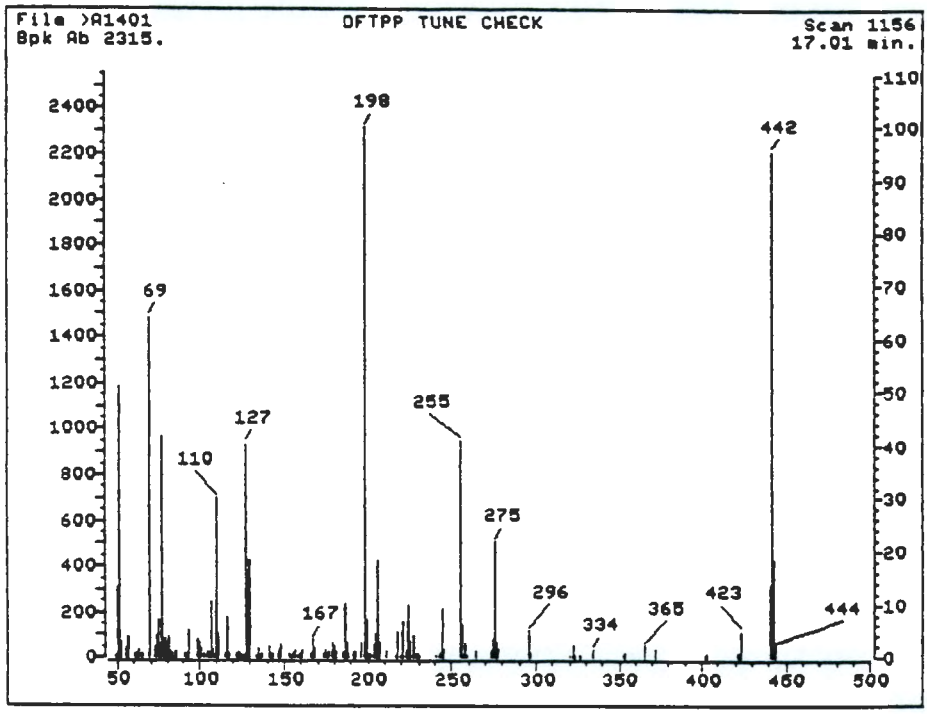
AS 10/22/93



F03-077



Instrument ID: BNA1 Analyzed on: 1/14/93 9:37



Instrument ID: BNA1 Analyzed on: 1/14/93 9:37

✓
RB
10/28/93

9613492.1229

>A1401 DFTPP TUNE CHECK
1156 NRM

File: >A1401 Scan #: 1156 Retn. time: 17.01

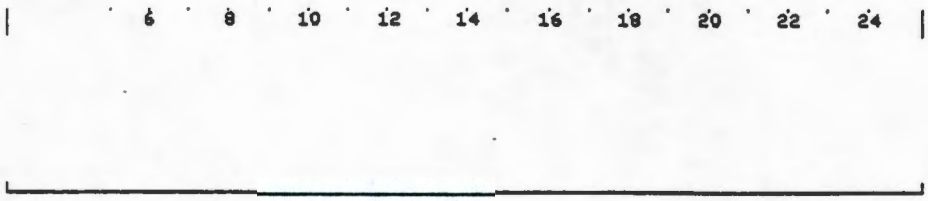
m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.00	1.123	92.90	5.097	143.00	.648	199.00	7.171	258.80	.346
39.00	4.492	98.00	3.413	147.00	1.296	199.80	.302	265.00	.950
40.00	.864	99.00	2.937	148.00	2.289	201.50	.691	273.00	1.555
41.00	.778	101.00	1.641	152.80	.605	203.90	2.592	274.05	3.542
44.00	9.330	103.00	.605	153.80	.389	205.00	4.492	275.05	22.030
48.90	.346	105.10	1.080	155.00	1.080	206.00	18.402	276.05	2.765
50.00	13.175	105.80	.346	156.00	1.296	207.00	2.894	277.05	1.296
51.00	51.145	107.00	10.583	159.00	.432	211.10	.950	296.05	5.097
52.00	2.678	108.00	1.512	160.00	.691	215.90	.432	296.95	.821
56.00	1.685	108.90	.432	161.00	1.382	216.20	.475	320.95	.346
57.00	3.801	110.00	30.022	166.10	.691	217.00	4.881	323.05	2.073
61.00	.605	111.00	4.363	167.00	3.413	218.00	.691	324.05	.432
61.90	.734	116.00	.691	168.00	1.641	220.00	.346	326.75	.346
63.00	1.512	117.00	7.603	173.00	.562	221.00	6.998	333.95	1.339
65.00	.907	118.00	.734	174.00	.691	222.90	1.425	334.95	.432
69.00	64.017	122.00	.821	175.00	1.339	224.00	9.978	352.75	.389
73.10	2.160	122.90	1.166	176.00	.691	225.00	3.024	354.15	.907
74.00	4.276	123.90	.648	177.00	.950	227.00	4.060	365.05	2.073
75.00	7.084	124.90	.562	179.00	2.937	229.00	.778	365.75	.346
76.00	2.289	125.90	.302	180.00	2.160	230.80	.389	372.05	1.339
77.00	41.512	127.00	40.432	181.00	.950	240.70	.302	401.85	.475
78.10	3.499	128.00	3.456	185.00	1.210	242.80	.648	402.15	.432
78.90	3.456	129.00	18.488	186.10	10.151	243.10	.648	403.15	.821
79.90	2.419	130.00	1.469	187.00	2.851	244.10	9.374	421.05	.648
80.90	3.801	134.00	.518	187.90	.346	244.90	1.123	422.15	.605
81.90	1.037	135.00	1.728	188.90	.648	245.90	1.339	423.05	4.968
82.90	.907	137.10	.864	192.00	1.123	255.00	40.821	441.05	13.866
85.10	.907	140.90	2.117	193.00	1.123	256.00	6.263	442.05	95.421
86.00	1.166	141.90	.821	196.00	2.851	256.80	.389	443.05	18.445
91.10	.778	142.30	.475	198.00	100.000	258.00	2.333	444.05	2.117
91.80	.907								

Instrument ID: BNA1 Analyzed on: 1/14/93 9:37

AS
10/24/93

F03-080

9613492.1230



Instrument ID: BNA1 Analyzed on: 1/15/93 11:31

c/4/92

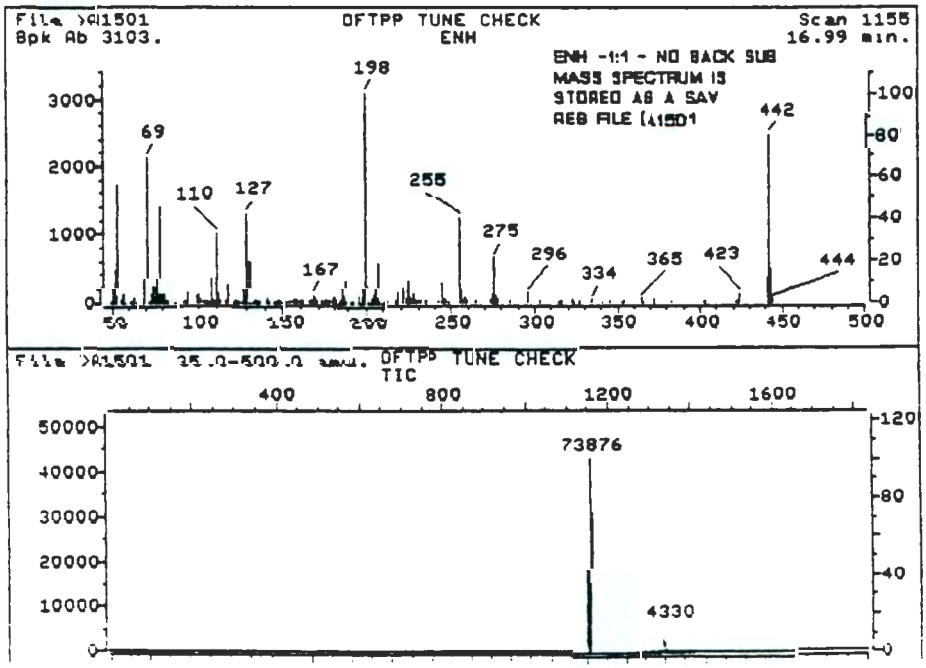
F03-081

GC/MS PERFORMANCE STANDARD

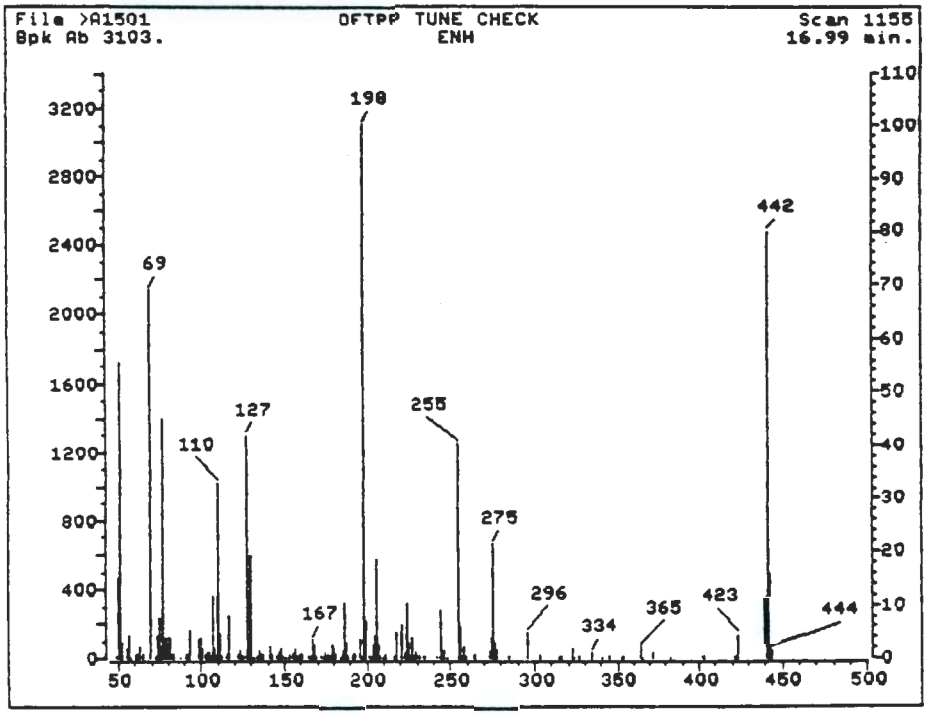
Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	55.57	55.57	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	68.97	68.97	Ok
70	Less than 2% of mass 69	.14	.20	Ok
127	40-60% of mass 198	41.77	41.77	Ok
197	Less than 1% of mass 198	.21	.21	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.98	6.98	Ok
275	10-30% of mass 198	21.32	21.32	Ok
365	Greater than 1% of mass 198	1.98	1.98	Ok
441	0-100% of mass 443	11.66	74.06	Ok
442	Greater than 40% of mass 198	79.83	79.83	Ok
443	17-23% of mass 442	15.74	19.71	Ok

Injection Date: 01/15/93
Injection Time: 11:31
Data File: >A1501
Scan: 1155



AS 10/2-4/93



Instrument ID: BNA1 Analyzed on: 1/15/93 11:31

9615492.1233

>A1501 DFTPP TUNE CHECK
1155 NRM ENH

File: >A1501 Scan #: 1155 Retn. time: 16.99

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.70	.054	101.00	1.794	153.00	.634	201.50	.440	273.00	1.429
39.10	5.436	103.10	.688	155.10	1.107	202.60	.172	274.05	3.653
40.00	.784	103.90	.967	156.10	1.708	203.00	.430	275.05	21.315
44.00	7.048	104.90	.988	156.80	.376	204.00	2.514	276.05	2.954
49.10	.430	105.80	.161	157.80	.516	205.00	4.308	277.05	1.375
50.00	14.890	107.00	11.528	159.90	.623	206.00	18.425	284.85	.258
51.00	55.565	108.00	1.848	161.00	.795	207.10	2.439	296.05	4.684
52.10	2.879	108.90	.150	165.00	.548	208.00	.569	303.05	.763
55.30	.269	110.00	32.757	166.00	.559	210.20	.172	313.95	.204
56.00	1.719	111.00	4.319	167.00	3.416	211.10	.827	315.05	.483
57.00	4.287	111.90	.526	168.00	2.471	215.90	.419	316.05	.376
57.90	.193	116.00	.623	169.10	.462	217.00	4.802	323.15	1.622
60.90	.752	117.00	7.993	172.90	.408	218.00	.548	323.85	.118
62.00	.731	121.90	.666	173.10	.183	221.00	6.296	326.95	.322
63.00	2.020	122.10	.258	174.10	.827	223.10	1.193	334.05	1.096
65.00	.924	122.90	1.332	175.00	1.193	224.00	10.153	341.05	.118
69.00	68.973	124.00	.559	175.80	.526	225.00	2.643	345.65	.290
69.70	.140	124.90	.269	176.20	.161	226.10	.365	352.95	.172
72.90	.258	127.00	41.771	176.90	.655	227.00	3.868	353.25	.150
74.00	4.254	128.00	3.212	178.90	2.611	227.90	.505	353.95	.580
75.00	7.488	129.00	19.113	180.00	1.902	229.10	.945	364.95	1.977
76.00	2.235	130.00	1.934	180.90	.849	230.90	.387	365.95	.150
77.00	44.940	131.60	.054	184.10	.118	235.00	.312	372.15	1.064
78.00	3.126	134.00	.483	185.10	1.375	241.90	.451	382.65	.236
79.00	3.717	135.00	1.472	186.00	10.239	242.10	.172	401.95	.430
80.00	2.568	136.00	.655	187.10	2.869	244.00	8.971	402.95	.559
81.00	3.792	137.10	.655	189.00	.580	245.10	1.300	421.05	.505
82.00	.849	140.90	1.998	191.20	.333	246.00	1.321	422.25	.559
83.00	.870	141.90	.720	192.10	.774	249.00	.150	423.15	4.254
87.90	.150	142.90	.473	193.00	.859	255.00	40.159	423.95	1.021
91.00	.763	146.00	.440	196.00	3.395	256.00	5.909	441.15	11.657
91.90	.827	147.00	.967	196.70	.215	257.10	.462	442.15	79.835
93.00	5.103	148.00	1.837	198.00	100.000	258.00	2.224	443.15	15.739
98.00	3.459	149.00	.580	199.00	6.983	258.80	.322	444.15	1.461
99.00	3.642	151.20	.215	201.00	.344	265.00	.795		

Instrument ID: BNA1 Analyzed on: 1/15/93 11:31

KS
10/24/93

F03-084

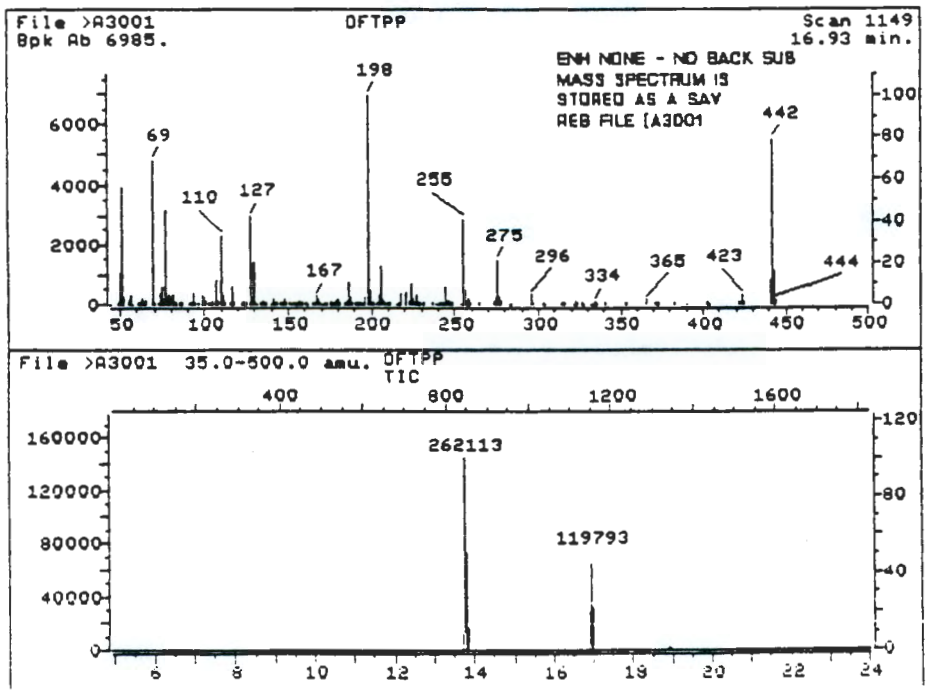
GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	56.06	56.06	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	68.68	68.68	Ok
70	Less than 2% of mass 69	.29	.42	Ok
127	40-60% of mass 198	42.33	42.33	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.57	6.57	Ok
275	10-30% of mass 198	21.17	21.17	Ok
365	Greater than 1% of mass 198	2.00	2.00	Ok
441	0-100% of mass 443	11.55	75.00	Ok
442	Greater than 40% of mass 198	79.06	79.06	Ok
443	17-23% of mass 442	15.40	19.49	Ok

Injection Date: 01/29/93
Injection Time: 15:17
Data File: >A3001
Scan: 1149

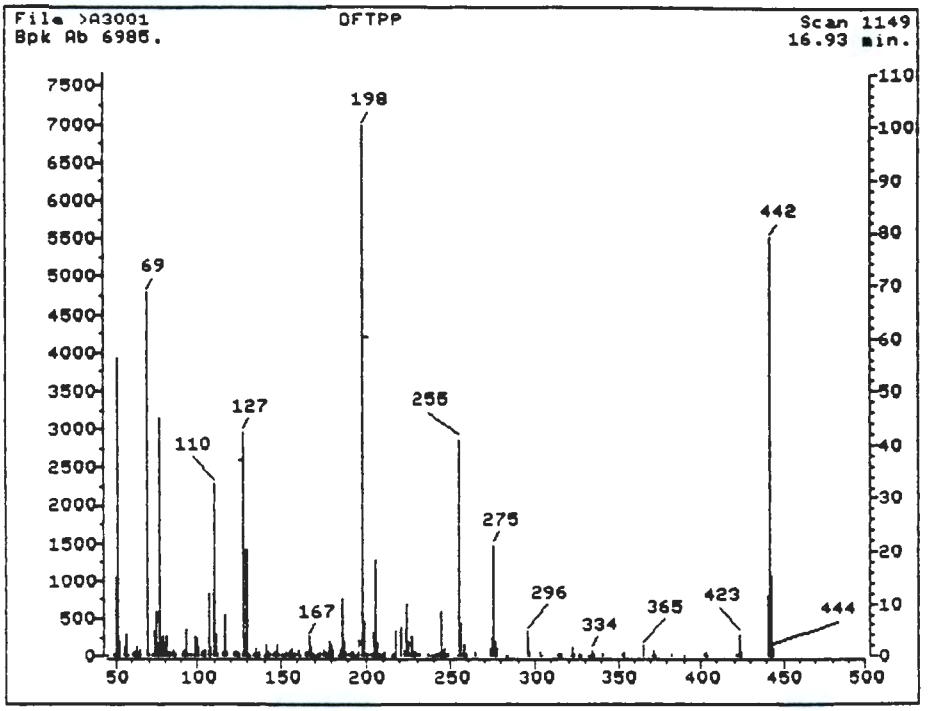
AS 10/24/93



9613492.1235

Instrument ID: BNA1 Analyzed on: 1/29/93 15:17

F03-086



Instrument ID: BNA1 Analyzed on: 1/29/93 15:17

9615492.1257

>A3001 DFTPP
1149 NRM

File: >A3001 Scan #: 1149 Retn. time: 16.93

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.10	.258	98.00	3.722	155.00	1.031	203.10	.501	276.05	2.935
38.10	.830	99.00	3.350	156.00	1.546	204.10	2.362	277.05	1.346
39.10	5.827	100.00	.358	157.10	.358	205.00	4.366	278.05	.315
40.10	.458	101.00	1.804	157.90	.472	206.10	18.368	282.85	.172
41.10	.186	103.00	.644	159.00	.315	207.10	2.319	284.15	.186
43.00	.172	104.00	1.045	160.10	.630	208.00	.544	296.05	4.667
43.20	.172	105.00	1.246	161.10	.931	209.10	.143	297.15	.616
44.00	2.806	107.00	11.825	161.80	.215	210.30	.358	303.15	.630
45.00	.143	108.00	1.646	162.00	.215	211.00	.773	304.05	.200
49.10	.444	110.00	32.799	165.00	.601	215.00	.200	314.05	.315
50.00	15.104	111.00	4.080	166.10	.630	216.00	.429	315.15	.544
51.10	56.063	111.90	.501	167.00	3.636	217.00	4.696	316.15	.344
52.10	2.820	116.00	.716	168.00	1.918	218.00	.644	321.15	.200
55.00	.272	117.00	7.888	169.10	.372	221.00	5.641	323.15	1.732
56.00	1.689	118.00	.759	170.40	.115	223.00	1.059	324.05	.329
57.00	4.080	122.10	.744	171.00	.157	224.00	9.964	326.95	.286
58.10	.172	123.00	1.231	171.90	.372	225.00	2.649	328.05	.186
61.00	.873	124.10	.616	173.00	.372	226.10	.315	332.65	.115
62.00	.773	125.00	.415	174.00	.716	227.00	3.837	333.15	.186
63.00	1.918	127.00	42.334	175.10	1.331	228.00	.630	334.15	1.117
64.00	.329	128.00	3.465	176.00	.558	228.90	.873	335.15	.358
65.00	1.088	129.00	20.315	177.00	.702	231.00	.472	340.95	.301
69.00	68.676	130.00	1.603	178.00	.258	237.10	.329	352.15	.515
69.90	.272	130.90	.387	179.00	2.691	239.10	.172	353.05	.329
70.10	.286	132.00	.143	180.00	1.947	239.90	.086	354.05	.630
73.10	.444	134.00	.472	181.00	.974	240.90	.258	365.05	2.004
74.00	4.696	135.00	1.331	184.10	.243	242.00	.501	365.95	.329
75.00	8.389	136.00	.530	185.10	1.432	243.00	.601	371.25	.229
76.10	2.419	137.10	.759	186.10	10.780	244.10	8.504	372.15	1.016
77.00	45.154	140.10	.200	187.10	2.806	245.00	1.174	373.15	.243
78.10	3.293	141.00	2.090	188.10	.358	246.00	1.475	383.15	.272
79.00	3.851	141.90	.716	189.00	.687	247.00	.286	390.05	.172
80.00	2.591	143.10	.458	191.00	.286	249.10	.315	402.05	.487
81.00	3.765	145.10	.100	192.00	.916	253.80	.200	403.05	.702
82.00	.859	145.90	.301	193.00	.816	255.00	41.002	404.05	.215
83.00	.773	146.10	.301	194.10	.243	256.00	6.213	421.15	.530
85.00	.759	147.00	.888	195.10	.186	256.90	.429	422.25	.558
86.00	1.031	147.90	1.947	196.00	3.264	258.00	2.219	423.15	4.195
87.00	.472	149.00	.472	198.00	100.000	259.10	.315	424.05	.859
91.00	.902	150.90	.200	199.00	6.571	265.00	.888	441.15	11.553
92.00	.959	151.40	.315	200.10	.429	273.00	1.274	442.15	79.055
93.00	5.225	151.90	.186	200.70	.143	274.05	3.522	443.15	15.404
93.90	.401	153.00	.659	201.60	.587	275.05	21.174	444.15	1.503
95.90	.329	154.00	.444						

Instrument ID: BNA1 Analyzed on: 1/29/93 15:17

AS
10/24/93

F03-088

QUANT REPORT

Operator ID: ERIC
Output File: ^A1102::OF
Data File: >A1402::02
Name: CONTINUING CALIB
Misc:

Quant Rev: 7
Quant Time: 930114 11:25
Injected at: 930114 10:37
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 1

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930111 11:02

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.45	684	36480	40.00	ng/uL	98
2)	2-Fluorophenol	6.60	220	136207	104.43	ng/uL	94
3)	Phenol-d5	10.49	592	161420	104.29	ng/uL	95
4)	Phenol	10.53	596	93426	48.00	ng/uL	88
5)	bis(2-Chloroethyl)ether	10.77	619	78818	52.92	ng/uL	99
6)	2-Chlorophenol	10.76	618	67519	51.16	ng/uL	95
7)	1,3-Dichlorobenzene	11.24	664	74011	50.54	ng/uL	97
8)	1,4-Dichlorobenzene	11.50	689	74554	50.44	ng/uL	97
9)	Benzyl alcohol	12.04	740	45880	51.04	ng/uL	97
10)	1,2-Dichlorobenzene	11.96	733	70002	50.60	ng/uL	99
11)	2-Methylphenol	12.45	780	60067	51.39	ng/uL	99
12)	bis(2-Chloroisopropyl)ether	12.52	786	136072	47.77	ng/uL	89
13)	4-Methylphenol	12.97	829	63555	51.96	ng/uL	99
14)	N-Nitroso-di-n-propylamine	12.94	826	51308	51.63	ng/uL	92
15)	Hexachloroethane	13.02	834	32647	51.01	ng/uL	99
16)	*Naphthalene-d8	15.43	1064	121269	40.00	ng/uL	99
17)	Nitrobenzene-d5	13.25	856	78723	51.40	ng/uL	93
18)	Nitrobenzene	13.31	862	83092	51.71	ng/uL	94
19)	Isophorone	14.13	940	160458	51.08	ng/uL	98
20)	2-Nitrophenol	14.30	956	39270	49.31	ng/uL	92
21)	2,4-Dimethylphenol	14.59	984	53779	51.01	ng/uL	97
22)	Benzoic acid	15.15	1038	43722	51.60	ng/uL	95
23)	bis(2-Chloroethoxy)methane	14.89	1013	93776	51.46	ng/uL	98
24)	2,4-Dichlorophenol	15.06	1029	53157	48.94	ng/uL	96
25)	1,2,4-Trichlorobenzene	15.28	1050	55218	49.00	ng/uL	98
26)	Naphthalene	15.49	1070	167760	50.75	ng/uL	98
27)	4-Chloroaniline	15.74	1094	79616	49.76	ng/uL	99
28)	Hexachlorobutadiene	15.94	1113	29675	47.23	ng/uL	97
29)	4-Chloro-3-methylphenol	17.29	1243	60891	50.18	ng/uL	96
30)	2-Methylnaphthalene	17.60	1273	103654	50.23	ng/uL	98
31)	*Acenaphthene-d10	20.70	1570	57467	40.00	ng/uL	98
32)	Hexachlorocyclopentadiene	18.10	1320	33137	47.52	ng/uL	91
33)	2,4,6-Trichlorophenol	18.49	1358	37016	49.03	ng/uL	97
34)	2,4,5-Trichlorophenol	18.58	1366	38305	49.30	ng/uL	91
35)	2-Chloronaphthalene	19.06	1412	99286	49.83	ng/uL	97
36)	2-Fluorobiphenyl	18.78	1386	105055	49.61	ng/uL	91
37)	2-Nitroaniline	19.43	1448	52865	50.47	ng/uL	94
38)	Dimethylphthalate	20.10	1512	121291	48.74	ng/uL	97
39)	Acenaphthylene	20.28	1529	160384	50.09	ng/uL	9[illegible]
40)	2,6-Dinitrotoluene	20.22	1524	31277	48.90	ng/uL	8[illegible]

QUANT REPORT

Operator ID: ERIC
Output File: ^A1102::OF
Data File: >A1402::D2
Name: CONTINUING CALIB
Misc:

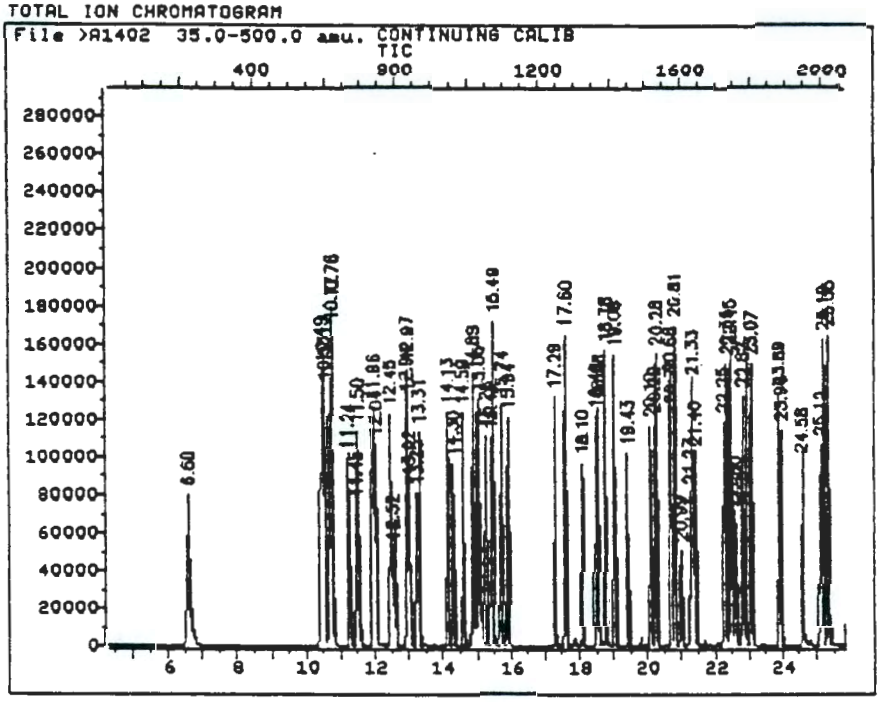
Quant Rev: 7
Quant Time: 930114 11:25
Injected at: 930114 10:37
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 1

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930111 11:02

	Compound	R.T.	Scan#	Area	Conc	Units	q
41)	3-Nitroaniline	20.68	1568	35647	48.93	ng/uL	95
42)	Acenaphthene	20.81	1580	94058	49.61	ng/uL	98
43)	2,4-Dinitrophenol	20.99	1597	15542	32.01	ng/uL	95
44)	4-Nitrophenol	21.27	1624	18172	49.06	ng/uL	86
45)	Dibenzofuran	21.33	1630	133023	48.85	ng/uL	96
46)	2,4-Dinitrotoluene	21.40	1637	45233	47.91	ng/uL	92
47)	Diethylphthalate	22.25	1718	128868	48.76	ng/uL	95
48)	4-Chlorophenyl-phenylether	22.45	1737	50149	47.85	ng/uL	86
49)	Fluorene	22.35	1728	104101	49.14	ng/uL	98
50)	4-Nitroaniline	22.52	1744	36109	44.75	ng/uL	85
51)	*Phenanthrene-d10	25.12	1993	101992	40.00	ng/uL	95
52)	4,6-Dinitro-2-methylphenol	22.60	1752	22848	39.16	ng/uL	86
53)	N-Nitrosodiphenylamine	22.82	1773	71764	49.38	ng/uL	98
54)	2,4,6-Tribromophenol	23.07	1797	42192	98.56	ng/uL	95
55)	4-Bromophenyl-phenylether	23.89	1875	31786	49.57	ng/uL	98
56)	Hexachlorobenzene	23.96	1882	41699	48.14	ng/uL	96
57)	Pentachlorophenol	24.58	1941	29406	49.91	ng/uL	98
58)	Phenanthrene	25.19	2000	141707	50.35	ng/uL	97
59)	Anthracene	25.35	2015	145263	50.25	ng/uL	96
60)	Di-n-butylphthalate	27.16	2188	208513	49.58	ng/uL	96
61)	Fluoranthene	28.72	2338	148412	48.71	ng/uL	94
62)	*Chrysene-d12	33.00	2747	77858	40.00	ng/uL	93
63)	Pyrene	29.37	2400	150633	50.24	ng/uL	92
64)	Terphenyl-d14	30.00	2460	111613	49.69	ng/uL	85
65)	Butylbenzylphthalate	31.60	2613	90681	51.70	ng/uL	95
66)	3,3'-Dichlorobenzidine	33.00	2747	46223	52.20	ng/uL	97
67)	Benzo(a)anthracene	32.96	2743	132598	49.60	ng/uL	99
68)	Chrysene	33.09	2755	132663	49.71	ng/uL	98
69)	Bis(2-Ethylhexyl)phthalate	33.41	2786	125703	51.50	ng/uL	93
70)	*Perylene-d12	36.91	3120	93060	40.00	ng/uL	98
71)	Di-n-octylphthalate	35.26	2963	224627	52.11	ng/uL	91
72)	Benzo(b)fluoranthene	35.94	3028	141954	49.46	ng/uL	93
73)	Benzo(k)fluoranthene	36.03	3036	135242	50.36	ng/uL	91
74)	Benzo(a)pyrene	36.76	3106	132317	50.09	ng/uL	95
75)	Indeno(1,2,3-cd)pyrene	40.06	3421	159838	49.27	ng/uL	91
76)	Dibenz(a,h)anthracene	40.19	3433	128379	49.07	ng/uL	9
77)	Benzo(g,h,i)perylene	41.00	3510	138928	49.06	ng/uL	9

* Compound is ISTD

TOTAL ION CHROMATOGRAM



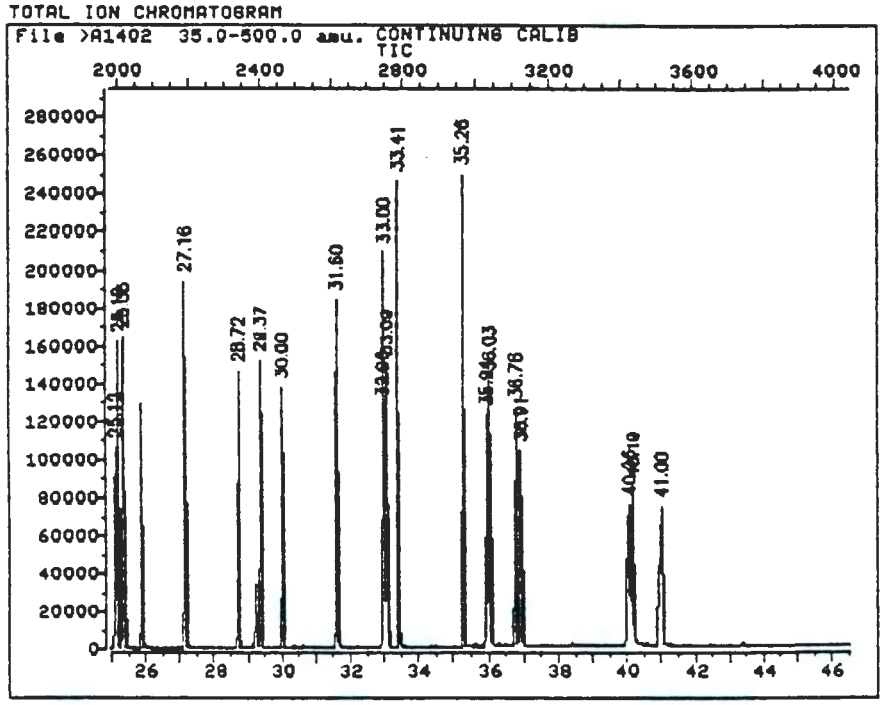
Data File: >A1402::D2 Quant Output File: ^A1102::OF
Name: CONTINUING CALIB Instrument ID: BNA1
Misc: BT-# 1

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930111 11:02

Operator ID: ERIC
Quant Time : 930114 11:25
Injected at: 930114 10:37

Page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >A1402::D2 Quant Output File: ^A1102::OF
Name: CONTINUING CALIB Instrument ID: BNA1
Misc: BTL# 1

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930111 11:02

Operator ID: ERIC
Quant Time : 930114 11:25
Injected at: 930114 10:37

[CCC AND SPCC DAILY CALIBRATION CHECK OPERATOR REPORT BNA'S]

DATA FILE NAME = >A1402::D2
DATE AND TIME OF ANALYSIS = 1/14/93 10:37
SAMPLE = CONTINUING CALIB
MISCELLANEOUS =
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

CCC COMPOUND	DAILY CAL RF	5-POINT AVE RF	%D
Pentachlorophenol	.2307	.2199	4.89
1,4-Dichlorobenzene	1.6350	1.5492	5.54
2-Nitrophenol	.2591	.2535	2.19
2,4-Dichlorophenol	.3507	.3539	.92
Hexachlorobutadiene	.1958	.2172	9.87
4-Chloro-3-methylphenol	.4017	.3612	11.21
2,4,6-Trichlorophenol	.5153	.5237	1.60
Acenaphthene	1.3094	1.2353	6.00
N-Nitrosodiphenylamine	.5629	.5174	8.79
Fluoranthene	1.1641	1.0830	7.49
Di-n-octylphthalate	1.9310	1.6873	14.44
Benzo(a)pyrene	1.1375	1.0943	3.95
Phenol	2.0488	1.7372	17.94

SPCC COMPOUND	DAILY RF
N-Nitroso-di-n-propylamine	1.1252
Hexachlorocyclopentadiene	.4613
2,4-Dinitrophenol	.2164
4-Nitrophenol	.2530

DAILY CALIBRATION FOR BNA'S PASSED ALL CCC AND SPCC CRITERIA

THE RF AND RT VALUES WILL AUTOMATICALLY BE UPDATED IN YOUR IDFILE

[RRT AND RF DAILY CALIBRATION GC/MS OPERATOR REPORT BNA'S PAGE 1]

DATA FILE NAME = >A1402::D2
DATE AND TIME OF ANALYSIS = 1/14/93 10:37
SAMPLE = CONTINUING CALIB
MISCELLANEOUS =
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

Compound Name	Retention Times RRT FOUND	RRT IN THE IDFILE	RT DIFF-ERENCE	Response factors RF FOUND	AVE. RF FROM 5-POINT	RATIO RF FOUND TO RF IN IDFILE
bis(2-Chloroethyl)ether	.94055	.94057	-.0062	1.7285	1.4890	1.0585
1,3-Dichlorobenzene	.98170	.98171	-.0062	1.6230	1.5273	1.0108
Benzyl alcohol	1.0512	1.0512	-.0065	1.0061	.8537	1.0209
1,2-Dichlorobenzene	1.0448	1.0457	-.0170	1.5351	1.4584	1.0120
2-Methylphenol	1.0878	1.0878	-.0066	1.3173	1.1376	1.0278
bis(2-Chloroisopropyl)ether	1.0933	1.0933	-.0066	2.9840	1.7384	.95536
4-Methylphenol	1.1326	1.1326	-.0068	1.3937	1.1797	1.0392
Hexachloroethane	1.1372	1.1381	-.0174	.71594	.6658	1.0202
Nitrobenzene	.86306	.86421	-.0177	.54815	.4749	1.0342
Isophorone	.91588	.91643	-.0084	1.0585	.9092	1.0216
2-Nitrophenol	.92673	.92730	-.0088	.25906	.2535	.98627
2,4-Dimethylphenol	.94570	.94630	-.0092	.35477	.3218	1.0202
Benzoic acid	.98235	.98300	-.0100	.28843	.2762	1.0320
bis(2-Chloroethoxy)methane	.96536	.96600	-.0097	.61863	.5444	1.0293
2,4-Dichlorophenol	.97624	.97620	.00070	.35067	.3539	.97873
Naphthalene	1.0041	1.0048	-.0105	1.1067	1.0474	1.0150
4-Chloroaniline	1.0203	1.0204	-.0004	.52522	.4742	.99528
Hexachlorobutadiene	1.0332	1.0333	-.0007	.19576	.2172	.94469
2-Methylnaphthalene	1.1413	1.1415	-.0040	.68380	.6611	1.0046
Hexachlorocyclopentadiene	.87403	.87387	-.0045	.46130	.5513	.95044
2,4,6-Trichlorophenol	.89316	.89303	-.0052	.51530	.5237	.98069
2,4,5-Trichlorophenol	.89722	.89709	-.0053	.53325	.5207	.98590
2-Chloronaphthalene	.92044	.92033	-.0060	1.3822	1.3251	.99667
2-Nitroaniline	.93856	.93848	-.0067	.73594	.5695	1.0095
Dimethylphthalate	.97076	.97072	-.0079	1.6885	1.5929	.97489
Acenaphthylene	.97935	.97933	-.0081	2.2355	2.0326	1.0018
2,6-Dinitrotoluene	.97682	.97679	-.0080	.43541	.4162	.97790
3-Nitroaniline	.99899	.99899	-.0089	.49624	.4480	.97861
2,4-Dinitrophenol	1.0136	1.0136	-.0093	.21636	.3159	.64013
Dibenzofuran	1.0303	1.0303	-.0098	1.8518	1.7506	.97691
Diethylphthalate	1.0746	1.0741	-.0001	1.7940	1.6094	.97519
4-Chlorophenyl-phenylether	1.0842	1.0843	-.0108	.69813	.6947	.95695
Fluorene	1.0797	1.0797	-.0107	1.4492	1.3726	.98283
4-Nitroaniline	1.0878	1.0883	-.0214	.50267	.4703	.89496
4,6-Dinitro-2-methylphenol	.89982	.90022	-.0215	.17921	.2094	.78330
N-Nitrosodiphenylamine	.90856	.90855	-.0113	.56290	.5174	.98767
4-Bromophenyl-phenylether	.95095	.95053	-.0014	.24932	.2392	.99134
Hexachlorobenzene	.95389	.95388	-.0119	.32708	.3419	.96279
Phenanthrene	1.0029	1.0029	-.0127	1.1115	1.0645	1.0071
Anthracene	1.0092	1.0088	-.0022	1.1394	1.0411	1.0051

[RRT AND RF DAILY CALIBRATION GC/MS OPERATOR REPORT BNA'S PAGE 2]

DATA FILE NAME = >A1402::D2
DATE AND TIME OF ANALYSIS = 1/14/93 10:37
SAMPLE = CONTINUING CALIB
MISCELLANEOUS =
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

Compound Name	Retention Times RRT FOUND	RRT IN THE IDFILE	RT DIFF-ERENCE	Response factors RF FOUND	AVE. RF FROM 5-POINT	RATIO RF FOUND TO RF IN IDFILE
Di-n-butylphthalate	1.0811	1.0810	-.0104	1.6355	1.4982	.99153
Fluoranthene	1.1434	1.1432	-.0078	1.1641	1.0830	.97416
Butylbenzylphthalate	.95751	.95756	-.0132	.93176	.7933	1.0340
3,3'-Dichlorobenzidine	1.0000	1.0000	-.0122	.47495	.4298	1.0440
Benzo(a)anthracene	.99871	.99871	-.0122	1.3625	1.2578	.99195
Chrysene	1.0026	1.0026	-.0123	1.3631	1.2337	.99430
Bis(2-Ethylhexyl)phthalate	1.0124	1.0124	-.0125	1.2916	1.1307	1.0300
Di-n-octylphthalate	.95536	.95540	-.0118	1.9310	1.6873	1.0422
Benzo(b)fluoranthene	.97382	.97384	-.0114	1.2203	1.1945	.98925
Benzo(k)fluoranthene	.97611	.97613	-.0114	1.1626	1.0909	1.0072
Benzo(a)pyrene	.99600	.99600	-.0109	1.1375	1.0943	1.0017
Indeno(1,2,3-cd)pyrene	1.0854	1.0856	-.0178	1.3741	1.3388	.98536
Dibenz(a,h)anthracene	1.0888	1.0890	-.0178	1.1036	1.0561	.98138
Benzo(g,h,i)perylene	1.1107	1.1112	-.0283	1.1943	1.1610	.98112
Phenol	.91947	.92041	-.0166	2.0488	1.7372	.95994
2-Chlorophenol	.93963	.93966	-.0062	1.4807	1.3557	1.0233
1,4-Dichlorobenzene	1.0046	1.0055	-.0168	1.6350	1.5492	1.0089
N-Nitroso-di-n-propylamine	1.1299	1.1298	-.0067	1.1252	.8712	1.0326
1,2,4-Trichlorobenzene	.99049	.99116	-.0102	.36427	.3754	.98010
4-Chloro-3-methylphenol	1.1210	1.1212	-.0034	.40169	.3612	1.0037
Acenaphthene	1.0051	1.0051	-.0090	1.3094	1.2353	.99226
4-Nitrophenol	1.0272	1.0273	-.0097	.25297	.2384	.98114
2,4-Dinitrotoluene	1.0338	1.0339	-.0099	.62969	.5955	.95824
Pentachlorophenol	.97836	.97837	-.0125	.23065	.2199	.99811
Pyrene	.89004	.88991	-.0067	1.5478	1.3775	1.0048
2-Fluorophenol	.57630	.57903	-.0350	1.4935	1.3647	1.0443
Phenol-d5	.91580	.91675	-.0166	1.7700	1.6035	1.0429
Nitrobenzene-d5	.85898	.86013	-.0176	.51933	.4732	1.0281
2-Fluorobiphenyl	.90732	.90721	-.0056	1.4625	1.4126	.99219
2,4,6-Tribromophenol	.91857	.91857	-.0115	.16547	.1692	.98557
Terphenyl-d14	.90906	.90888	-.0052	1.1468	1.0276	.99387

QUANT REPORT

Operator ID: ERIC Quant Rev: 7 Quant Time: 930114 11:25
Output File: ^A1102::OF Injected at: 930114 10:37
Data File: >A1402::D2 Dilution Factor: 1.00000

9613492.1245

QUANT REPORT

Operator ID: ERIC
Output File: ^A1502::OF
Data File: >A1502::D1
Name: CONTINUING CALIB
Misc:

Quant Rev: 7
Quant Time: 930115 13:10
Injected at: 930115 12:23
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 1

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930114 10:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.42	682	42040	40.00	ng/uL	97
2)	2-Fluorophenol	6.58	220	128721	82.01	ng/uL	92
3)	Phenol-d5	10.47	591	153567	82.55	ng/uL	95
4)	Phenol	10.51	595	90379	41.97	ng/uL	88
5)	bis(2-Chloroethyl)ether	10.74	617	75864	41.76	ng/uL	99
6)	2-Chlorophenol	10.73	616	66203	42.54	ng/uL	95
7)	1,3-Dichlorobenzene	11.21	662	71316	41.81	ng/uL	95
8)	1,4-Dichlorobenzene	11.49	688	72210	42.02	ng/uL	97
9)	Benzyl alcohol	12.01	738	42612	40.30	ng/uL	96
10)	1,2-Dichlorobenzene	11.94	731	68544	42.48	ng/uL	98
11)	2-Methylphenol	12.43	778	56983	41.16	ng/uL	97
12)	bis(2-Chloroisopropyl)ether	12.49	784	133857	42.68	ng/uL	89
13)	4-Methylphenol	12.94	827	61282	41.84	ng/uL	98
14)	N-Nitroso-di-n-propylamine	12.91	824	49043	41.47	ng/uL	93
15)	Hexachloroethane	13.00	832	31031	41.24	ng/uL	95
16)	*Naphthalene-d8	15.41	1062	145283	40.00	ng/uL	99
17)	Nitrobenzene-d5	13.23	854	76031	40.31	ng/uL	93
18)	Nitrobenzene	13.29	860	80226	40.30	ng/uL	96
19)	Isophorone	14.11	938	156644	40.74	ng/uL	97
20)	2-Nitrophenol	14.28	954	39161	41.62	ng/uL	94
21)	2,4-Dimethylphenol	14.57	982	52141	40.46	ng/uL	98
22)	Benzoic acid	15.14	1037	44035	42.03	ng/uL	92
23)	bis(2-Chloroethoxy)methane	14.87	1011	90707	40.37	ng/uL	98
24)	2,4-Dichlorophenol	15.03	1026	52535	41.25	ng/uL	97
25)	1,2,4-Trichlorobenzene	15.26	1048	55657	42.07	ng/uL	98
26)	Naphthalene	15.47	1068	162661	40.47	ng/uL	99
27)	4-Chloroaniline	15.71	1091	78995	41.41	ng/uL	97
28)	Hexachlorobutadiene	15.91	1110	30116	42.36	ng/uL	96
29)	4-Chloro-3-methylphenol	17.26	1240	60684	41.59	ng/uL	96
30)	2-Methylnaphthalene	17.58	1270	101785	40.98	ng/uL	97
31)	*Acenaphthene-d10	20.68	1567	69903	40.00	ng/uL	98
32)	Hexachlorocyclopentadiene	18.08	1318	32295	40.06	ng/uL	95
33)	2,4,6-Trichlorophenol	18.46	1355	37145	41.25	ng/uL	98
34)	2,4,5-Trichlorophenol	18.55	1363	39690	42.59	ng/uL	96
35)	2-Chloronaphthalene	19.03	1409	99382	41.14	ng/uL	97
36)	2-Fluorobiphenyl	18.76	1383	104765	40.99	ng/uL	98
37)	2-Nitroaniline	19.40	1445	53008	41.22	ng/uL	95
38)	Dimethylphthalate	20.07	1509	123503	41.85	ng/uL	97
39)	Acenaphthylene	20.24	1525	159272	40.77	ng/uL	95
40)	2,6-Dinitrotoluene	20.20	1521	31373	41.23	ng/uL	85

F03-096

QUANT REPORT

Operator ID: ERIC
Output File: ^A1502::OF
Data File: >A1502::D1
Name: CONTINUING CALIB
Misc:

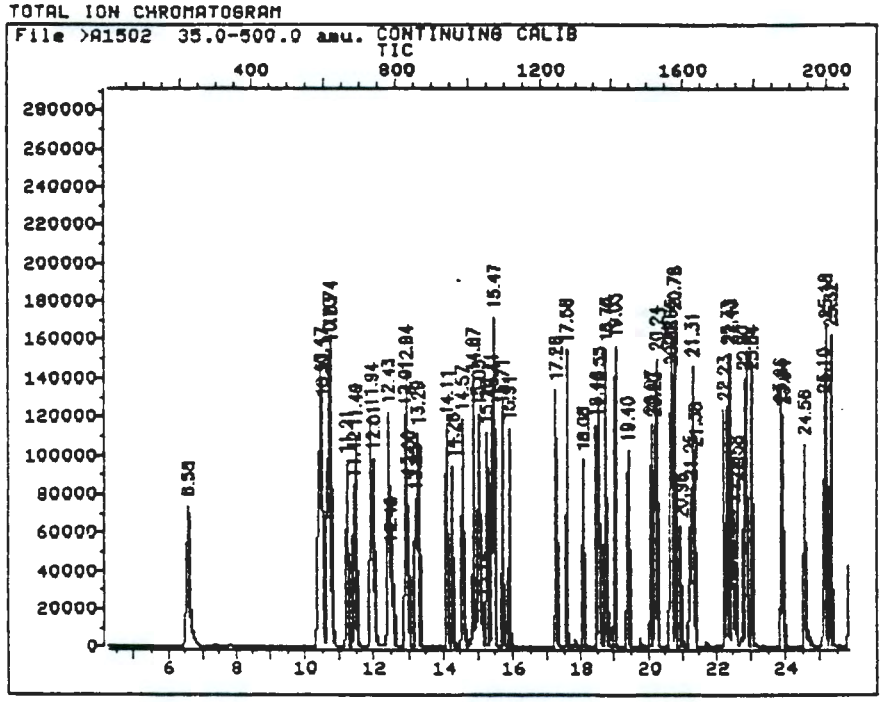
Quant Rev: 7
Quant Time: 930115 13:10
Injected at: 930115 12:23
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 1

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930114 10:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
41)	3-Nitroaniline	20.66	1565	36097	41.62	ng/uL	9
42)	Acenaphthene	20.78	1577	93740	40.97	ng/uL	9
43)	2,4-Dinitrophenol	20.96	1594	20439	54.06	ng/uL	9
44)	4-Nitrophenol	21.25	1622	18627	42.13	ng/uL	8
45)	Dibenzofuran	21.31	1627	135001	41.72	ng/uL	9
46)	2,4-Dinitrotoluene	21.38	1634	46847	42.57	ng/uL	8
47)	Diethylphthalate	22.23	1715	130351	41.58	ng/uL	9
48)	4-Chlorophenyl-phenylether	22.43	1734	52157	42.75	ng/uL	8
49)	Fluorene	22.33	1725	105773	41.77	ng/uL	9
50)	4-Nitroaniline	22.50	1741	39613	45.09	ng/uL	8
51)	*Phenanthrene-d10	25.10	1990	127863	40.00	ng/uL	9
52)	4,6-Dinitro-2-methylphenol	22.58	1749	27880	48.67	ng/uL	8
53)	N-Nitrosodiphenylamine	22.80	1770	74773	41.56	ng/uL	9
54)	2,4,6-Tribromophenol	23.04	1793	45067	85.20	ng/uL	9
55)	4-Bromophenyl-phenylether	23.86	1871	33425	41.94	ng/uL	9
56)	Hexachlorobenzene	23.94	1879	44483	42.55	ng/uL	9
57)	Pentachlorophenol	24.56	1938	31119	42.21	ng/uL	9
58)	Phenanthrene	25.18	1997	144223	40.59	ng/uL	9
59)	Anthracene	25.32	2011	149348	41.00	ng/uL	9
60)	Di-n-butylphthalate	27.14	2185	215434	41.21	ng/uL	9
61)	Fluoranthene	28.70	2334	154592	41.54	ng/uL	9
62)	*Chrysene-d12	32.98	2743	100766	40.00	ng/uL	9
63)	Pyrene	29.35	2396	156501	40.14	ng/uL	9
64)	Terphenyl-d14	29.98	2456	118033	40.86	ng/uL	9
65)	Butylbenzylphthalate	31.58	2609	94785	40.38	ng/uL	9
66)	3,3'-Dichlorobenzidine	32.98	2743	48294	40.36	ng/uL	9
67)	Benzo(a)anthracene	32.93	2739	141239	41.15	ng/uL	9
68)	Chrysene	33.06	2751	139523	40.63	ng/uL	9
69)	Bis(2-Ethylhexyl)phthalate	33.39	2782	129670	39.85	ng/uL	9
70)	*Perylene-d12	36.89	3117	125861	40.00	ng/uL	9
71)	Di-n-octylphthalate	35.24	2959	235795	38.81	ng/uL	9
72)	Benzo(b)fluoranthene	35.92	3024	156062	40.64	ng/uL	9
73)	Benzo(k)fluoranthene	36.00	3032	149604	40.90	ng/uL	8
74)	Benzo(a)pyrene	36.74	3102	144844	40.47	ng/uL	9
75)	Indeno(1,2,3-cd)pyrene	40.03	3417	179310	41.47	ng/uL	9
76)	Dibenz(a,h)anthracene	40.15	3428	144539	41.62	ng/uL	9
77)	Benzo(g,h,i)perylene	40.97	3506	155874	41.48	ng/uL	9

* Compound is ISTD

TOTAL ION CHROMATOGRAM



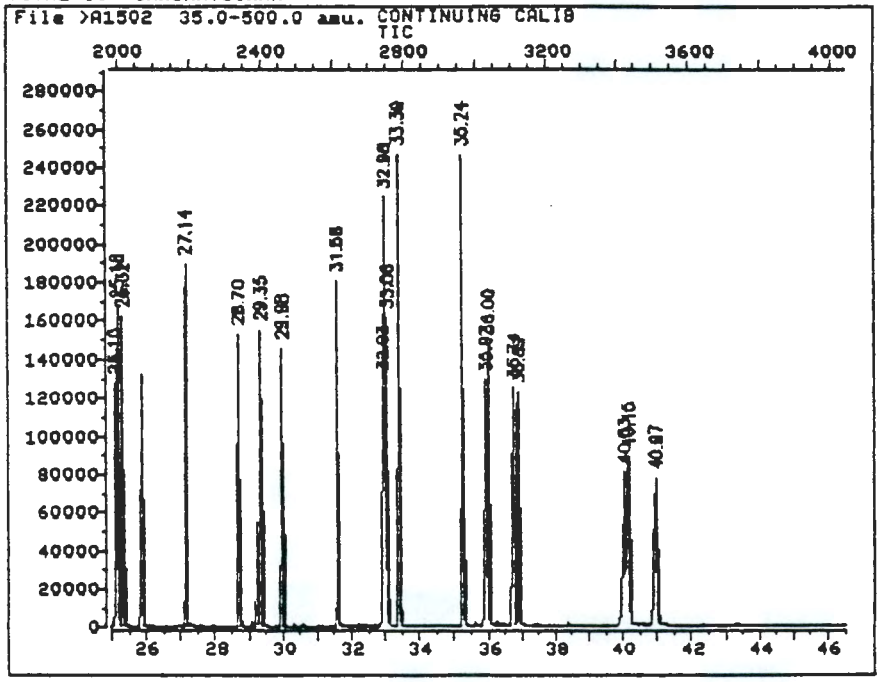
Data File: >A1502::D1 Quant Output File: ^A1502::OF
Name: CONTINUING CALIB Instrument ID: BNA1
Misc: BTL# 1

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930115 13:10
Injected at: 930115 12:23

Page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >A1502::D1 Quant Output File: ^A1502::OF
Name: CONTINUING CALIB Instrument ID: BNA1
Misc: BTL# 1

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930115 13:10
Injected at: 930115 12:23

Page 2 of 2

[CCC AND SPCC DAILY CALIBRATION CHECK OPERATOR REPORT BNA'S]

DATA FILE NAME = >A1502::D1
DATE AND TIME OF ANALYSIS = 1/15/93 12:23
SAMPLE = CONTINUING CALIB
MISCELLANEOUS =
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

CCC COMPOUND	DAILY CAL RF	5-POINT AVE RF	%D
Pentachlorophenol	.1947	.2199	11.46
1,4-Dichlorobenzene	1.3741	1.5492	11.30
2-Nitrophenol	.2156	.2535	14.93
2,4-Dichlorophenol	.2893	.3539	22.34
Hexachlorobutadiene	.1658	.2172	23.65
4-Chloro-3-methylphenol	.3342	.3612	7.49
2,4,6-Trichlorophenol	.4251	.5237	18.83
Acenaphthene	1.0728	1.2353	13.15
N-Nitrosodiphenylamine	.4678	.5174	9.58
Fluoranthene	.9672	1.0830	10.69
Di-n-octylphthalate	1.4988	1.6873	11.17
Benzo(a)pyrene	.9207	1.0943	15.87
Phenol	1.7199	1.7372	1.00

SPCC COMPOUND	DAILY RF
N-Nitroso-di-n-propylamine	.9333
Hexachlorocyclopentadiene	.3696
2,4-Dinitrophenol	.2339
4-Nitrophenol	.2132

DAILY CALIBRATION FOR BNA'S PASSED ALL CCC AND SPCC CRITERIA

THE RF AND RT VALUES WILL AUTOMATICALLY BE UPDATED IN YOUR IDFILE

[RRT AND RF DAILY CALIBRATION GC/MS OPERATOR REPORT BNA'S PAGE 1]

DATA FILE NAME = >A1502::D1
DATE AND TIME OF ANALYSIS = 1/15/93 12:23
SAMPLE = CONTINUING CALIB
MISCELLANEOUS =
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

Compound Name	Retention Times RRT FOUND	RRT IN THE IDFILE	RT DIFF-ERENCE	Response factors RF FOUND	AVE. RF FROM 5-POINT	RATIO RF FOUND TO RF IN IDFILE
bis(2-Chloroethyl)ether	.94030	.94055	-.0271	1.4437	1.4890	.83522
1,3-Dichlorobenzene	.98165	.98170	-.0259	1.3571	1.5273	.83615
Benzyl alcohol	1.0515	1.0512	-.0247	.81088	.8537	.80594
1,2-Dichlorobenzene	1.0450	1.0448	-.0248	1.3044	1.4584	.84967
2-Methylphenol	1.0882	1.0878	-.0236	1.0844	1.1376	.82319
bis(2-Chloroisopropyl)ether	1.0937	1.0933	-.0235	2.5472	1.7384	.85362
4-Methylphenol	1.1332	1.1326	-.0228	1.1662	1.1797	.83671
Hexachloroethane	1.1378	1.1372	-.0226	.59050	.6658	.82479
Nitrobenzene	.86278	.86306	-.0219	.44176	.4749	.80592
Isophorone	.91577	.91588	-.0203	.86256	.9092	.81487
2-Nitrophenol	.92666	.92673	-.0200	.21564	.2535	.83239
2,4-Dimethylphenol	.94567	.94570	-.0197	.28711	.3218	.80929
Benzoic acid	.98301	.98235	-.0098	.24248	.2762	.84068
bis(2-Chloroethoxy)methane	.96534	.96536	-.0200	.49948	.5444	.80739
2,4-Dichlorophenol	.97554	.97624	-.0306	.28928	.3539	.82494
Naphthalene	1.0041	1.0041	-.0204	.89569	1.0474	.80934
4-Chloroaniline	1.0197	1.0203	-.0310	.43499	.4742	.82820
Hexachlorobutadiene	1.0326	1.0332	-.0308	.16583	.2172	.84711
2-Methylnaphthalene	1.1409	1.1413	-.0283	.56048	.6611	.81966
Hexachlorocyclopentadiene	.87418	.87403	-.0174	.36960	.5513	.80121
2,4,6-Trichlorophenol	.89286	.89316	-.0274	.42510	.5237	.82496
2,4,5-Trichlorophenol	.89694	.89722	-.0269	.45423	.5207	.85182
2-Chloronaphthalene	.92020	.92044	-.0265	1.1374	1.3251	.82289
2-Nitroaniline	.93836	.93856	-.0262	.60665	.5695	.82432
Dimethylphthalate	.97065	.97076	-.0252	1.4134	1.5929	.83709
Acenaphthylene	.97875	.97935	-.0355	1.8228	2.0326	.81538
2,6-Dinitrotoluene	.97672	.97682	-.0251	.35905	.4162	.82462
3-Nitroaniline	.99898	.99899	-.0236	.41311	.4480	.83247
2,4-Dinitrophenol	1.0137	1.0136	-.0232	.23391	.3159	1.0811
Dibenzofuran	1.0303	1.0303	-.0228	1.5450	1.7506	.83432
Diethylphthalate	1.0748	1.0746	-.0219	1.4918	1.6094	.83156
4-Chlorophenyl-phenylether	1.0844	1.0842	-.0215	.59691	.6947	.85501
Fluorene	1.0798	1.0797	-.0217	1.2105	1.3726	.83530
4-Nitroaniline	1.0880	1.0878	-.0215	.45335	.4703	.90187
4,6-Dinitro-2-methylphenol	.89965	.89982	-.0213	.17444	.2094	.97334
N-Nitrosodiphenylamine	.90841	.90856	-.0209	.46783	.5174	.83111
4-Bromophenyl-phenylether	.95046	.95095	-.0303	.20913	.2392	.83880
Hexachlorobenzene	.95381	.95389	-.0198	.27832	.3419	.85092
Phenanthrene	1.0029	1.0029	-.0185	.90236	1.0645	.81183
Anthracene	1.0088	1.0092	-.0291	.93443	1.0411	.82010

9615492.1251

[RRT AND RF DAILY CALIBRATION GC/MS OPERATOR REPORT BNA'S PAGE 2]

DATA FILE NAME = >A1502::D1
DATE AND TIME OF ANALYSIS = 1/15/93 12:23
SAMPLE = CONTINUING CALIB
MISCELLANEOUS =
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

Compound Name	Retention Times: RRT FOUND	RRT IN THE IDFILE	RT DIFF-ERENCE	Response factors: RF FOUND	AVE. RF FROM 5-POINT	RATIO RF FOUND TO RF IN IDFILE
Di-n-butylphthalate	1.0812	1.0811	-.0165	1.3479	1.4982	.82414
Fluoranthene	1.1433	1.1434	-.0235	.96724	1.0830	.83088
Butylbenzylphthalate	.95752	.95751	-.0230	.75252	.7933	.80763
3,3'-Dichlorobenzidine	1.0000	1.0000	-.0242	.38341	.4298	.80728
Benzo(a)anthracene	.99871	.99871	-.0242	1.1213	1.2578	.82301
Chrysene	1.0026	1.0026	-.0241	1.1077	1.2337	.81262
Bis(2-Ethylhexyl)phthalate	1.0124	1.0124	-.0240	1.0295	1.1307	.79705
Di-n-octylphthalate	.95509	.95536	-.0248	1.4988	1.6873	.77615
Benzo(b)fluoranthene	.97355	.97382	-.0250	.99196	1.1945	.81287
Benzo(k)fluoranthene	.97584	.97611	-.0250	.95092	1.0909	.81791
Benzo(a)pyrene	.99571	.99600	-.0257	.92066	1.0943	.80939
Indeno(1,2,3-cd)pyrene	1.0850	1.0854	-.0297	1.1397	1.3388	.82946
Dibenz(a,h)anthracene	1.0882	1.0888	-.0403	.91872	1.0561	.83246
Benzo(g,h,i)perylene	1.1104	1.1107	-.0302	.99077	1.1610	.82958
Phenol	.92004	.91947	-.0171	1.7199	1.7372	.83944
2-Chlorophenol	.93938	.93963	-.0271	1.2598	1.3557	.85083
1,4-Dichlorobenzene	1.0055	1.0046	-.0151	1.3741	1.5492	.84046
N-Nitroso-di-n-propylamine	1.1304	1.1299	-.0229	.93326	.8712	.82944
1,2,4-Trichlorobenzene	.99048	.99049	-.0203	.30647	.3754	.84134
4-Chloro-3-methylphenol	1.1206	1.1210	-.0292	.33416	.3612	.83187
Acenaphthene	1.0051	1.0051	-.0234	1.0728	1.2353	.81932
4-Nitrophenol	1.0278	1.0272	-.0125	.21318	.2384	.84268
2,4-Dinitrotoluene	1.0339	1.0338	-.0228	.53614	.5955	.85143
Pentachlorophenol	.97832	.97836	-.0194	.19470	.2199	.84413
Pyrene	.89000	.89004	-.0228	1.2425	1.3775	.80276
2-Fluorophenol	.57631	.57630	-.0146	1.2247	1.3647	.82005
Phenol-d5	.91637	.91580	-.0171	1.4612	1.6035	.82553
Nitrobenzene-d5	.85867	.85898	-.0223	.41866	.4732	.80617
2-Fluorobiphenyl	.90707	.90732	-.0266	1.1990	1.4126	.81983
2,4,6-Tribromophenol	.91800	.91857	-.0315	.14099	.1692	.85202
Terphenyl-d14	.90905	.90906	-.0224	.93709	1.0276	.81711

QUANT REPORT

Operator ID: ERIC
Output File: ^A1502::OF
Data File: >A1502::D1

Quant Rev: 7
Quant Time: 930115 13:23
Injected at: 930115 12:23
Dilution Factor: 1.00000

9613492.1252

Name: CONTINUING CALIB
Misc:

Instrument ID: BNA1
BTL# 1

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Date: 930115 12:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.42	682	42040	40.00	ng/uL	9
2)	2-Fluorophenol	6.58	220	128721	100.00	ng/uL	9
3)	Phenol-d5	10.47	591	153567	100.00	ng/uL	9
4)	Phenol	10.51	595	90379	50.00	ng/uL	8
5)	bis(2-Chloroethyl)ether	10.74	617	75864	50.00	ng/uL	9
6)	2-Chlorophenol	10.73	616	66203	50.00	ng/uL	9
7)	1,3-Dichlorobenzene	11.21	662	71316	50.00	ng/uL	9
8)	1,4-Dichlorobenzene	11.49	688	72210	50.00	ng/uL	9
9)	Benzyl alcohol	12.01	738	42612	50.00	ng/uL	9
10)	1,2-Dichlorobenzene	11.94	731	68544	50.00	ng/uL	9
11)	2-Methylphenol	12.43	778	56983	50.00	ng/uL	9
12)	bis(2-Chloroisopropyl)ether	12.49	784	133868	50.00	ng/uL	8
13)	4-Methylphenol	12.94	827	61282	50.00	ng/uL	9
14)	N-Nitroso-di-n-propylamine	12.91	824	49043	50.00	ng/uL	9
15)	Hexachloroethane	13.00	832	31031	50.00	ng/uL	9
16)	*Naphthalene-d8	15.41	1062	145283	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.23	854	76031	50.00	ng/uL	9
18)	Nitrobenzene	13.29	860	80226	50.00	ng/uL	9
19)	Isophorone	14.11	938	156644	50.00	ng/uL	9
20)	2-Nitrophenol	14.28	954	39161	50.00	ng/uL	9
21)	2,4-Dimethylphenol	14.57	982	52141	50.00	ng/uL	9
22)	Benzoic acid	15.14	1037	42867	48.67	ng/uL	9
23)	bis(2-Chloroethoxy)methane	14.87	1011	90707	50.00	ng/uL	9
24)	2,4-Dichlorophenol	15.03	1026	52535	50.00	ng/uL	9
25)	1,2,4-Trichlorobenzene	15.26	1048	55657	50.00	ng/uL	9
26)	Naphthalene	15.47	1068	162661	50.00	ng/uL	9
27)	4-Chloroaniline	15.71	1091	78995	50.00	ng/uL	9
28)	Hexachlorobutadiene	15.91	1110	30116	50.00	ng/uL	9
29)	4-Chloro-3-methylphenol	17.26	1240	60684	50.00	ng/uL	9
30)	2-Methylnaphthalene	17.58	1270	101785	50.00	ng/uL	9
31)	*Acenaphthene-d10	20.68	1567	69903	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	18.08	1318	32295	50.00	ng/uL	9
33)	2,4,6-Trichlorophenol	18.46	1355	37145	50.00	ng/uL	9
34)	2,4,5-Trichlorophenol	18.55	1363	39690	50.00	ng/uL	9
35)	2-Chloronaphthalene	19.03	1409	99382	50.00	ng/uL	9
36)	2-Fluorobiphenyl	18.76	1383	104765	50.00	ng/uL	9
37)	2-Nitroaniline	19.40	1445	53008	50.00	ng/uL	9
38)	Dimethylphthalate	20.07	1509	123503	50.00	ng/uL	9
39)	Acenaphthylene	20.24	1525	159272	50.00	ng/uL	9
40)	2,6-Dinitrotoluene	20.20	1521	31373	50.00	ng/uL	8
41)	3-Nitroaniline	20.66	1565	36097	50.00	ng/uL	9
42)	Acenaphthene	20.78	1577	93740	50.00	ng/uL	9
43)	2,4-Dinitrophenol	20.96	1594	20439	50.00	ng/uL	9
44)	4-Nitrophenol	21.25	1622	18627	50.00	ng/uL	8
45)	Dibenzofuran	21.31	1627	135001	50.00	ng/uL	9
46)	2,4-Dinitrotoluene	21.38	1634	46847	50.00	ng/uL	8
47)	Diethylphthalate	22.23	1715	130351	50.00	ng/uL	9
48)	4-Chlorophenyl-phenylether	22.43	1734	52157	50.00	ng/uL	8
49)	Fluorene	22.33	1725	105773	50.00	ng/uL	9

50)	4-Nitroaniline	22.50	1741	39613	50.00 ng/uL	89
51)	*Phenanthrene-d10	25.10	1990	127863	40.00 ng/uL	99
52)	4,6-Dinitro-2-methylphenol	22.58	1749	27880	50.00 ng/uL	83
53)	N-Nitrosodiphenylamine	22.80	1770	74773	50.00 ng/uL	96
54)	2,4,6-Tribromophenol	23.04	1793	45067	100.00 ng/uL	99
55)	4-Bromophenyl-phenylether	23.86	1871	33425	50.00 ng/uL	98
56)	Hexachlorobenzene	23.94	1879	44483	50.00 ng/uL	95
57)	Pentachlorophenol	24.56	1938	31119	50.00 ng/uL	98
58)	Phenanthrene	25.18	1997	144223	50.00 ng/uL	96
59)	Anthracene	25.32	2011	149348	50.00 ng/uL	95
60)	Di-n-butylphthalate	27.14	2185	215434	50.00 ng/uL	96
61)	Fluoranthene	28.70	2334	154592	50.00 ng/uL	94
62)	*Chrysene-d12	32.98	2743	100766	40.00 ng/uL	90
63)	Pyrene	29.35	2396	156501	50.00 ng/uL	90
64)	Terphenyl-d14	29.98	2456	118033	50.00 ng/uL	90
65)	Butylbenzylphthalate	31.58	2609	94785	50.00 ng/uL	96
66)	3,3'-Dichlorobenzidine	32.98	2743	48294	50.00 ng/uL	96
67)	Benzo(a)anthracene	32.93	2739	141239	50.00 ng/uL	98
68)	Chrysene	33.06	2751	139523	50.00 ng/uL	98
69)	Bis(2-Ethylhexyl)phthalate	33.39	2782	129670	50.00 ng/uL	92
70)	*Perylene-d12	36.89	3117	125861	40.00 ng/uL	96
71)	Di-n-octylphthalate	35.24	2959	235795	50.00 ng/uL	98
72)	Benzo(b)fluoranthene	35.92	3024	156062	50.00 ng/uL	92
73)	Benzo(k)fluoranthene	36.00	3032	149604	50.00 ng/uL	88
74)	Benzo(a)pyrene	36.74	3102	144844	50.00 ng/uL	94
75)	Indeno(1,2,3-cd)pyrene	40.03	3417	179338	50.01 ng/uL	94
76)	Dibenz(a,h)anthracene	40.15	3428	144539	50.00 ng/uL	98
77)	Benzo(g,h,i)perylene	40.97	3506	155874	50.00 ng/uL	90

* Compound is ISTD

QUANT REPORT

Operator ID: ERIC
Output File: ^A3002::OF
Data File: >A3002::D1
Name: CONTINUING CALIB
Misc:

Quant Rev: 7
Quant Time: 930129 17:01
Injected at: 930129 15:50
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 2

ID File: ID1BNA::QT
Title: BNA 1D QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930129 15:50

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.34	674	39750	40.00	ng/uL	99
2)	2-Fluorophenol	6.50	210	137483	100.00	ng/uL	92
3)	Phenol-d5	10.41	585	163139	100.00	ng/uL	94
4)	Phenol	10.45	589	94852	50.00	ng/uL	88
5)	bis(2-Chloroethyl)ether	10.67	610	79052	50.00	ng/uL	99
6)	2-Chlorophenol	10.65	608	69220	50.00	ng/uL	97
7)	1,3-Dichlorobenzene	11.13	654	75134	50.00	ng/uL	96
8)	1,4-Dichlorobenzene	11.41	680	75775	50.00	ng/uL	95
9)	Benzyl alcohol	11.94	731	47379	50.00	ng/uL	97
10)	1,2-Dichlorobenzene	11.87	724	72054	50.00	ng/uL	99
11)	2-Methylphenol	12.37	772	59822	50.00	ng/uL	97
12)	bis(2-Chloroisopropyl)ether	12.42	777	131127	49.98	ng/uL	90
13)	4-Methylphenol	12.88	821	64429	50.00	ng/uL	99
14)	N-Nitroso-di-n-propylamine	12.84	817	54453	50.00	ng/uL	96
15)	Hexachloroethane	12.92	825	32863	50.00	ng/uL	97
16)	*Naphthalene-d8	15.33	1055	135073	40.00	ng/uL	99
17)	Nitrobenzene-d5	13.15	847	80340	50.00	ng/uL	96
18)	Nitrobenzene	13.22	853	84384	50.00	ng/uL	95
19)	Isophorone	14.03	931	163139	50.00	ng/uL	97
20)	2-Nitrophenol	14.20	947	40850	50.00	ng/uL	92
21)	2,4-Dimethylphenol	14.50	976	55386	50.00	ng/uL	97
22)	Benzoic acid	15.04	1028	38608	48.42	ng/uL	96
23)	bis(2-Chloroethoxy)methane	14.80	1005	95663	50.00	ng/uL	98
24)	2,4-Dichlorophenol	14.97	1021	55572	50.00	ng/uL	96
25)	1,2,4-Trichlorobenzene	15.18	1041	57952	50.00	ng/uL	98
26)	Naphthalene	15.39	1061	174859	50.00	ng/uL	99
27)	4-Chloroaniline	15.64	1085	82927	50.00	ng/uL	98
28)	Hexachlorobutadiene	15.84	1104	31912	50.00	ng/uL	97
29)	4-Chloro-3-methylphenol	17.21	1235	65221	50.00	ng/uL	97
30)	2-Methylnaphthalene	17.51	1264	107654	50.00	ng/uL	98
31)	*Acenaphthene-d10	20.61	1561	65573	40.00	ng/uL	98
32)	Hexachlorocyclopentadiene	18.00	1311	29044	50.00	ng/uL	98
33)	2,4,6-Trichlorophenol	18.40	1349	38881	50.00	ng/uL	99
34)	2,4,5-Trichlorophenol	18.48	1357	42408	50.00	ng/uL	96
35)	2-Chloronaphthalene	18.95	1402	106081	50.00	ng/uL	97
36)	2-Fluorobiphenyl	18.69	1377	110748	50.00	ng/uL	98
37)	2-Nitroaniline	19.34	1439	55996	50.00	ng/uL	96
38)	Dimethylphthalate	20.00	1503	130814	50.00	ng/uL	97
39)	Acenaphthylene	20.17	1519	171950	50.00	ng/uL	99
40)	2,6-Dinitrotoluene	20.13	1515	33051	50.00	ng/uL	8

QUANT REPORT

Operator ID: ERIC
Output File: ^A3002::OF
Data File: >A3002::D1
Name: CONTINUING CALIB
Misc:

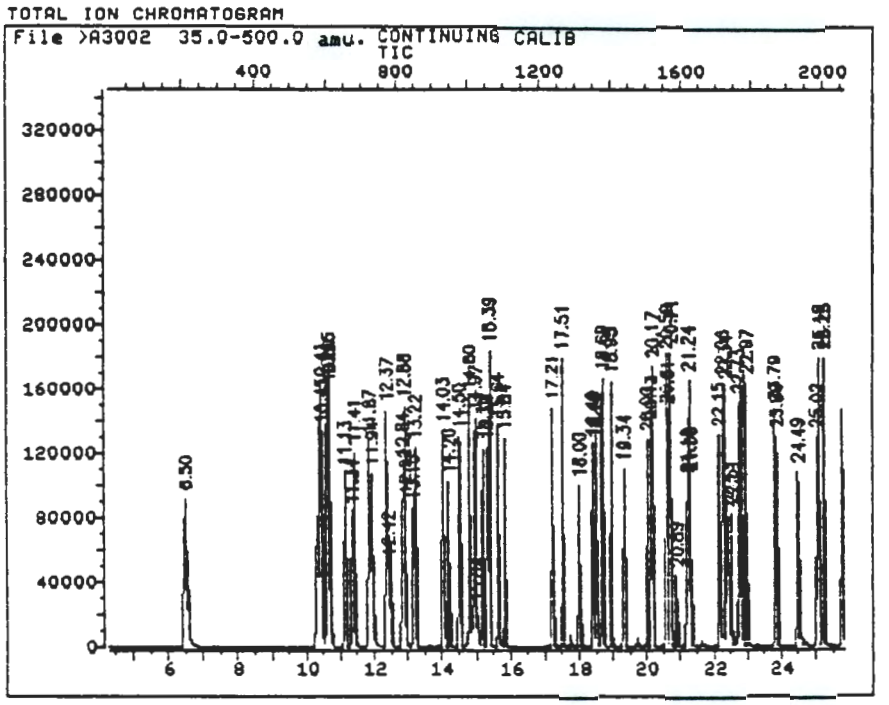
Quant Rev: 7
Quant Time: 930129 17:01
Injected at: 930129 15:50
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 2

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930129 15:50

	Compound	R.T.	Scan#	Area	Conc	Units	q
41)	3-Nitroaniline	20.59	1559	38225	50.00	ng/uL	9
42)	Acenaphthene	20.71	1571	100369	50.00	ng/uL	9
43)	2,4-Dinitrophenol	20.89	1588	12804	50.00	ng/uL	9
44)	4-Nitrophenol	21.19	1617	20288	50.00	ng/uL	9
45)	Dibenzofuran	21.24	1621	141702	50.00	ng/uL	9
46)	2,4-Dinitrotoluene	21.30	1627	49478	50.00	ng/uL	8
47)	Diethylphthalate	22.15	1708	139165	50.00	ng/uL	9
48)	4-Chlorophenyl-phenylether	22.34	1727	54060	50.00	ng/uL	8
49)	Fluorene	22.26	1719	111903	50.00	ng/uL	9
50)	4-Nitroaniline	22.43	1735	41544	50.00	ng/uL	9
51)	*Phenanthrene-d10	25.02	1983	120560	40.00	ng/uL	9
52)	4,6-Dinitro-2-methylphenol	22.51	1743	24025	50.00	ng/uL	9
53)	N-Nitrosodiphenylamine	22.73	1764	79264	50.00	ng/uL	9
54)	2,4,6-Tribromophenol	22.97	1787	48121	100.00	ng/uL	9
55)	4-Bromophenyl-phenylether	23.79	1865	35058	50.00	ng/uL	9
56)	Hexachlorobenzene	23.86	1872	46718	50.00	ng/uL	9
57)	Pentachlorophenol	24.49	1932	31905	50.00	ng/uL	9
58)	Phenanthrene	25.10	1990	154488	50.00	ng/uL	9
59)	Anthracene	25.25	2005	158609	50.00	ng/uL	9
60)	Di-n-butylphthalate	27.06	2178	233424	50.00	ng/uL	9
61)	Fluoranthene	28.63	2328	166043	50.00	ng/uL	9
62)	*Chrysene-d12	32.90	2735	97759	40.00	ng/uL	9
63)	Pyrene	29.27	2389	178315	50.00	ng/uL	9
64)	Terphenyl-d14	29.90	2448	124408	50.00	ng/uL	8
65)	Butylbenzylphthalate	31.50	2601	102174	50.00	ng/uL	9
66)	3,3'-Dichlorobenzidine	32.89	2734	51700	50.00	ng/uL	9
67)	Benzo(a)anthracene	32.86	2731	152638	50.00	ng/uL	9
68)	Chrysene	32.99	2742	151864	50.00	ng/uL	9
69)	Bis(2-Ethylhexyl)phthalate	33.31	2774	143028	50.00	ng/uL	9
70)	*Perylene-d12	36.80	3106	119406	40.00	ng/uL	9
71)	Di-n-octylphthalate	35.16	2950	258235	50.00	ng/uL	9
72)	Benzo(b)fluoranthene	35.84	3015	165796	50.00	ng/uL	9
73)	Benzo(k)fluoranthene	35.92	3023	152913	50.00	ng/uL	8
74)	Benzo(a)pyrene	36.66	3093	154282	50.00	ng/uL	9
75)	Indeno(1,2,3-cd)pyrene	39.91	3402	187615	49.96	ng/uL	9
76)	Dibenz(a,h)anthracene	40.02	3413	152341	50.00	ng/uL	9
77)	Benzo(g,h,i)perylene	40.82	3489	162063	50.00	ng/uL	9

* Compound is ISTD

TOTAL ION CHROMATOGRAM

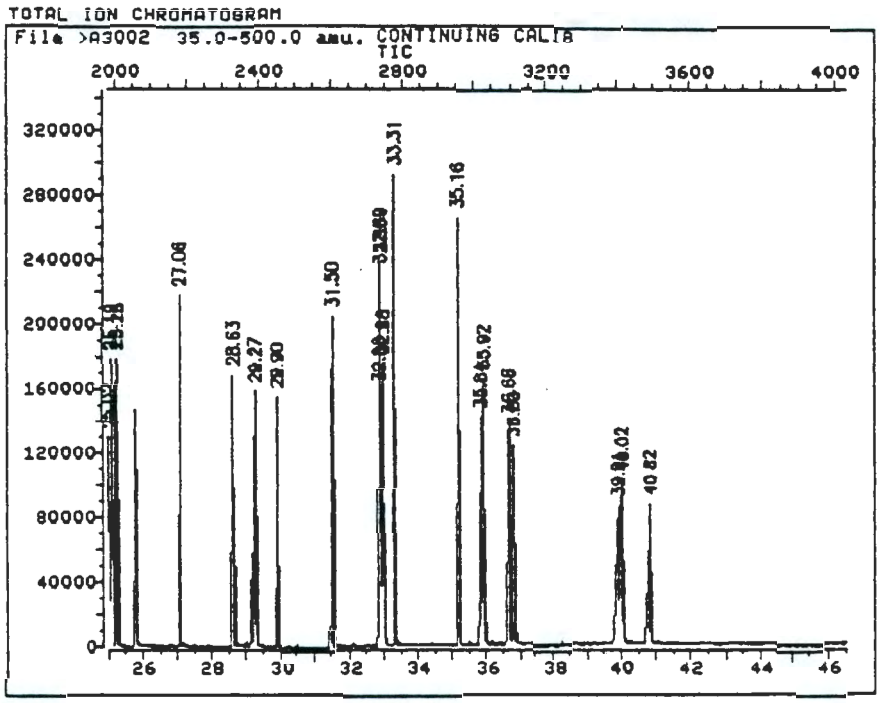


Data File: >A3002::D1 Quant Output File: ^A3002::QF
Name: CONTINUING CALIB Instrument ID: BNA1
Misc: BTL# 2

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930129 15:50

Operator ID: ERIC
Quant Time : 930129 17:01
Injected at: 930129 15:50

Page 1 of 2



Data File: >A3002::D1 Quant Output File: ^A3002::OF
Name: CONTINUING CALIB Instrument ID: BNA1
Misc: BTL# 2

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930129 15:50

Operator ID: ERIC
Quant Time : 930129 17:01
Injected at: 930129 15:50

Page 2 of 2

[CCC AND SPCC DAILY CALIBRATION CHECK OPERATOR REPORT BNA'S]

DATA FILE NAME = >A3002::D1
DATE AND TIME OF ANALYSIS = 1/29/93 15:50
SAMPLE = CONTINUING CALIB
MISCELLANEOUS =
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

CCC COMPOUND	DAILY CAL RF	5-POINT AVE RF	%D
Pentachlorophenol	.2117	.2199	3.72
1,4-Dichlorobenzene	1.5250	1.5492	1.56
2-Nitrophenol	.2419	.2535	4.56
2,4-Dichlorophenol	.3291	.3539	7.52
Hexachlorobutadiene	.1890	.2172	12.98
4-Chloro-3-methylphenol	.3863	.3612	6.95
2,4,6-Trichlorophenol	.4743	.5237	9.42
Acenaphthene	1.2245	1.2353	.87
N-Nitrosodiphenylamine	.5260	.5174	1.66
Fluoranthene	1.1018	1.0830	1.74
Di-n-octylphthalate	1.7301	1.6873	2.54
Benzo(a)pyrene	1.0337	1.0943	5.54
Phenol	1.9090	1.7372	9.89

SPCC COMPOUND	DAILY RF
N-Nitroso-di-n-propylamine	1.0959
Hexachlorocyclopentadiene	.3543
2,4-Dinitrophenol	.1562
4-Nitrophenol	.2475

DAILY CALIBRATION FOR BNA'S PASSED ALL CCC AND SPCC CRITERIA

THE RF AND RT VALUES WILL AUTOMATICALLY BE UPDATED IN YOUR IDFILE

[RRT AND RF DAILY CALIBRATION GC/MS OPERATOR REPORT BNA'S PAGE 1]

DATA FILE NAME = >A3002::D1
DATE AND TIME OF ANALYSIS = 1/29/93 15:50
SAMPLE = CONTINUING CALIB
MISCELLANEOUS =
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

Compound Name	Retention Times RRT FOUND	RRT IN THE IDFILE	RT DIFF-ERENCE	Response factors RF FOUND	AVE. RF FROM 5-POINT	RATIO RF FOUND TO RF IN IDFILE
bis(2-Chloroethyl)ether	.94097	.94097	.00000	1.5910	1.4890	1.0000
1,3-Dichlorobenzene	.98153	.98153	.00000	1.5121	1.5273	1.0000
Benzyl alcohol	1.0526	1.0526	-.0000	.95354	.8537	1.0000
1,2-Dichlorobenzene	1.0462	1.0462	.00000	1.4501	1.4584	1.0000
2-Methylphenol	1.0905	1.0905	.00000	1.2040	1.1376	1.0000
bis(2-Chloroisopropyl)ether	1.0951	1.0951	.00000	2.6390	1.7384	.99957
4-Methylphenol	1.1356	1.1356	.00000	1.2967	1.1797	1.0000
Hexachloroethane	1.1394	1.1394	.00000	.66139	.6658	1.0000
Nitrobenzene	.86227	.86227	.00000	.49978	.4749	1.0000
Isophorone	.91535	.91535	.00000	.96623	.9092	1.0000
2-Nitrophenol	.92627	.92627	.00000	.24194	.2535	1.0000
2,4-Dimethylphenol	.94603	.94603	.00000	.32804	.3218	1.0000
Benzoic acid	.98152	.98152	.00000	.22866	.2762	.96835
bis(2-Chloroethoxy)methane	.96580	.96580	.00000	.56659	.5444	1.0000
2,4-Dichlorophenol	.97673	.97673	.00000	.32914	.3539	1.0000
Naphthalene	1.0041	1.0041	.00000	1.0356	1.0474	1.0000
4-Chloroaniline	1.0205	1.0205	.00000	.49115	.4742	1.0000
Hexachlorobutadiene	1.0335	1.0335	.00000	.18901	.2172	1.0000
2-Methylnaphthalene	1.1423	1.1423	.00000	.63760	.6611	1.0000
Hexachlorocyclopentadiene	.87331	.87331	.00000	.35434	.5513	1.0000
2,4,6-Trichlorophenol	.89255	.89255	.00000	.47435	.5237	1.0000
2,4,5-Trichlorophenol	.89662	.89662	.00000	.51738	.5207	1.0000
2-Chloronaphthalene	.91946	.91946	.00000	1.2942	1.3251	1.0000
2-Nitroaniline	.93817	.93817	.00000	.68316	.5695	1.0000
Dimethylphthalate	.97056	.97056	.00000	1.5959	1.5929	1.0000
Acenaphthylene	.97871	.97871	.00000	2.0978	2.0326	1.0000
2,6-Dinitrotoluene	.97667	.97667	.00000	.40323	.4162	1.0000
3-Nitroaniline	.99897	.99897	.00000	.46635	.4480	1.0000
2,4-Dinitrophenol	1.0137	1.0137	.00000	.15621	.3159	1.0000
Dibenzofuran	1.0304	1.0304	.00000	1.7288	1.7506	1.0000
Diethylphthalate	1.0745	1.0745	.00000	1.6978	1.6094	1.0000
4-Chlorophenyl-phenylether	1.0842	1.0842	.00000	.65954	.6947	1.0000
Fluorene	1.0801	1.0801	.00000	1.3652	1.3726	1.0000
4-Nitroaniline	1.0883	1.0883	.00000	.50684	.4703	1.0000
4,6-Dinitro-2-methylphenol	.89974	.89974	.00000	.15942	.2094	1.0000
N-Nitrosodiphenylamine	.90854	.90854	.00000	.52597	.5174	1.0000
4-Bromophenyl-phenylether	.95070	.95070	.00000	.23263	.2392	1.0000
Hexachlorobenzene	.95365	.95365	.00000	.31001	.3419	1.0000
Phenanthrene	1.0029	1.0029	.00000	1.0251	1.0645	1.0000
Anthracene	1.0092	1.0092	.00000	1.0525	1.0411	1.0000

[RRT AND RF DAILY CALIBRATION GC/MS OPERATOR REPORT BNA'S PAGE 2]

DATA FILE NAME = >A3002::D1
DATE AND TIME OF ANALYSIS = 1/29/93 15:50
SAMPLE = CONTINUING CALIB
MISCELLANEOUS =
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

Compound Name	Retention Times RRT FOUND	RRT IN THE IDFILE	RT DIFF-ERENCE	Response factors RF FOUND	AVE. RF FROM 5-POINT	RATIO RF FOUND TO RF IN IDFILE
Di-n-butylphthalate	1.0815	1.0815	.00000	1.5489	1.4982	1.0000
Fluoranthene	1.1441	1.1441	.00000	1.1018	1.0830	1.0000
Butylbenzylphthalate	.95738	.95738	.00000	.83613	.7933	1.0000
3,3'-Dichlorobenzidine	.99968	.99968	.00000	.42308	.4298	1.0000
Benzo(a)anthracene	.99871	.99871	.00000	1.2491	1.2578	1.0000
Chrysene	1.0023	1.0023	.00000	1.2428	1.2337	1.0000
Bis(2-Ethylhexyl)phthalate	1.0125	1.0125	.00000	1.1705	1.1307	1.0000
Di-n-octylphthalate	.95544	.95544	.00000	1.7301	1.6873	1.0000
Benzo(b)fluoranthene	.97396	.97396	.00000	1.1108	1.1945	1.0000
Benzo(k)fluoranthene	.97626	.97626	.00000	1.0245	1.0909	1.0000
Benzo(a)pyrene	.99625	.99625	.00000	1.0337	1.0943	1.0000
Indeno(1,2,3-cd)pyrene	1.0845	1.0845	.00000	1.2570	1.3388	.99919
Dibenz(a,h)anthracene	1.0877	1.0877	.00000	1.0207	1.0561	1.0000
Benzo(g,h,i)perylene	1.1094	1.1094	.00000	1.0858	1.1610	1.0000
Phenol	.92157	.92157	.00000	1.9090	1.7372	1.0000
2-Chlorophenol	.93912	.93912	.00000	1.3931	1.3557	1.0000
1,4-Dichlorobenzene	1.0056	1.0056	.00000	1.5250	1.5492	1.0000
N-Nitroso-di-n-propylamine	1.1319	1.1319	-.0000	1.0959	.8712	1.0000
1,2,4-Trichlorobenzene	.99040	.99040	.00000	.34323	.3754	1.0000
4-Chloro-3-methylphenol	1.1226	1.1226	.00000	.38629	.3612	1.0000
Acenaphthene	1.0051	1.0051	.00000	1.2245	1.2353	1.0000
4-Nitrophenol	1.0284	1.0284	.00000	.24752	.2384	1.0000
2,4-Dinitrotoluene	1.0335	1.0335	.00000	.60364	.5955	1.0000
Pentachlorophenol	.97867	.97867	.00000	.21171	.2199	1.0000
Pyrene	.88945	.88945	.00000	1.4592	1.3775	1.0000
2-Fluorophenol	.57287	.57287	.00000	1.3835	1.3647	1.0000
Phenol-d5	.91788	.91788	.00000	1.6417	1.6035	1.0000
Nitrobenzene-d5	.85817	.85817	.00000	.47583	.4732	1.0000
2-Fluorobiphenyl	.90679	.90679	.00000	1.3511	1.4126	1.0000
2,4,6-Tribromophenol	.91817	.91817	.00000	.15966	.1692	1.0000
Terphenyl-d14	.90876	.90876	.00000	1.0181	1.0276	1.0000

QUANT REPORT

Operator ID: ERIC
Output File: ^A3002::OF
Data File: >A3002::D1

Quant Rev: 7 Quant Time: 930201 09:55
Injected at: 930129 15:50
Dilution Factor: 1.00000

Name: CONTINUING CALIB
Misc:

Instrument ID: BNA1
BTL# 2

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Date: 930129 15:50

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.34	674	39750	40.00	ng/uL	99
2)	2-Fluorophenol	6.50	210	137483	100.00	ng/uL	92
3)	Phenol-d5	10.41	585	163139	100.00	ng/uL	94
4)	Phenol	10.45	589	94852	50.00	ng/uL	88
5)	bis(2-Chloroethyl)ether	10.67	610	79052	50.00	ng/uL	99
6)	2-Chlorophenol	10.65	608	69220	50.00	ng/uL	97
7)	1,3-Dichlorobenzene	11.13	654	75134	50.00	ng/uL	96
8)	1,4-Dichlorobenzene	11.41	680	75775	50.00	ng/uL	95
9)	Benzyl alcohol	11.94	731	47379	50.00	ng/uL	97
10)	1,2-Dichlorobenzene	11.87	724	72054	50.00	ng/uL	99
11)	2-Methylphenol	12.37	772	59822	50.00	ng/uL	97
12)	bis(2-Chloroisopropyl)ether	12.42	777	131127	50.00	ng/uL	90
13)	4-Methylphenol	12.88	821	64429	50.00	ng/uL	99
14)	N-Nitroso-di-n-propylamine	12.84	817	54453	50.00	ng/uL	96
15)	Hexachloroethane	12.92	825	32863	50.00	ng/uL	97
16)	*Naphthalene-d8	15.33	1055	135073	40.00	ng/uL	99
17)	Nitrobenzene-d5	13.15	847	80340	50.00	ng/uL	96
18)	Nitrobenzene	13.22	853	84384	50.00	ng/uL	95
19)	Isophorone	14.03	931	163139	50.00	ng/uL	97
20)	2-Nitrophenol	14.20	947	40850	50.00	ng/uL	92
21)	2,4-Dimethylphenol	14.50	976	55386	50.00	ng/uL	97
22)	Benzoic acid	15.04	1028	38608	50.00	ng/uL	96
23)	bis(2-Chloroethoxy)methane	14.80	1005	95663	50.00	ng/uL	98
24)	2,4-Dichlorophenol	14.97	1021	55572	50.00	ng/uL	96
25)	1,2,4-Trichlorobenzene	15.18	1041	57952	50.00	ng/uL	98
26)	Naphthalene	15.39	1061	174859	50.00	ng/uL	99
27)	4-Chloroaniline	15.64	1085	82927	50.00	ng/uL	98
28)	Hexachlorobutadiene	15.84	1104	31912	50.00	ng/uL	97
29)	4-Chloro-3-methylphenol	17.21	1235	65221	50.00	ng/uL	97
30)	2-Methylnaphthalene	17.51	1264	107654	50.00	ng/uL	98
31)	*Acenaphthene-d10	20.61	1561	65573	40.00	ng/uL	98
32)	Hexachlorocyclopentadiene	18.00	1311	29044	50.00	ng/uL	98
33)	2,4,6-Trichlorophenol	18.40	1349	38981	50.00	ng/uL	99
34)	2,4,5-Trichlorophenol	18.48	1357	42408	50.00	ng/uL	96
35)	2-Chloronaphthalene	18.95	1402	106081	50.00	ng/uL	97
36)	2-Fluorobiphenyl	18.69	1377	110748	50.00	ng/uL	98
37)	2-Nitroaniline	19.34	1439	55996	50.00	ng/uL	96
38)	Dimethylphthalate	20.00	1503	130814	50.00	ng/uL	97
39)	Acenaphthylene	20.17	1519	171950	50.00	ng/uL	99
40)	2,6-Dinitrotoluene	20.13	1515	33051	50.00	ng/uL	88
41)	3-Nitroaniline	20.59	1559	38225	50.00	ng/uL	94
42)	Acenaphthene	20.71	1571	100369	50.00	ng/uL	98
43)	2,4-Dinitrophenol	20.89	1588	12804	50.00	ng/uL	9[illegible]
44)	4-Nitrophenol	21.19	1617	20288	50.00	ng/uL	9[illegible]
45)	Dibenzofuran	21.24	1621	141702	50.00	ng/uL	99
46)	2,4-Dinitrotoluene	21.30	1627	49478	50.00	ng/uL	89
47)	Diethylphthalate	22.15	1708	139165	50.00	ng/uL	9[illegible]
48)	4-Chlorophenyl-phenylether	22.34	1727	54060	50.00	ng/uL	8[illegible]
49)	Fluorene	22.26	1719	111903	50.00	ng/uL	9[illegible]

50)	4-Nitroaniline	22.43	1735	41544	50.00 ng/uL	9
51)	*Phenanthrene-d10	25.02	1983	120560	40.00 ng/uL	9
52)	4,6-Dinitro-2-methylphenol	22.51	1743	24025	50.00 ng/uL	9
53)	N-Nitrosodiphenylamine	22.73	1764	79264	50.00 ng/uL	9
54)	2,4,6-Tribromophenol	22.97	1787	48121	100.00 ng/uL	9
55)	4-Bromophenyl-phenylether	23.79	1865	35058	50.00 ng/uL	9
56)	Hexachlorobenzene	23.86	1872	46718	50.00 ng/uL	9
57)	Pentachlorophenol	24.49	1932	31905	50.00 ng/uL	9
58)	Phenanthrene	25.10	1990	154488	50.00 ng/uL	9
59)	Anthracene	25.25	2005	158609	50.00 ng/uL	9
60)	Di-n-butylphthalate	27.06	2178	233424	50.00 ng/uL	9
61)	Fluoranthene	28.63	2328	166043	50.00 ng/uL	9
62)	*Chrysene-d12	32.90	2735	97759	40.00 ng/uL	9
63)	Pyrene	29.27	2389	178315	50.00 ng/uL	9
64)	Terphenyl-d14	29.90	2448	124408	50.00 ng/uL	8
65)	Butylbenzylphthalate	31.50	2601	102174	50.00 ng/uL	9
66)	3,3'-Dichlorobenzidine	32.89	2734	51700	50.00 ng/uL	9
67)	Benzo(a)anthracene	32.86	2731	152638	50.00 ng/uL	9
68)	Chrysene	32.98	2742	151864	50.00 ng/uL	9
69)	Bis(2-Ethylhexyl)phthalate	33.31	2774	143028	50.00 ng/uL	9
70)	*Perylene-d12	36.80	3106	119406	40.00 ng/uL	9
71)	Di-n-octylphthalate	35.16	2950	258235	50.00 ng/uL	9
72)	Benzo(b)fluoranthene	35.84	3015	165796	50.00 ng/uL	9
73)	Benzo(k)fluoranthene	35.92	3023	152913	50.00 ng/uL	8
74)	Benzo(a)pyrene	36.66	3093	154282	50.00 ng/uL	9
75)	Indeno(1,2,3-cd)pyrene	39.91	3402	187615	50.00 ng/uL	9
76)	Dibenz(a,h)anthracene	40.02	3413	152341	50.00 ng/uL	9
77)	Benzo(g,h,i)perylene	40.82	3489	162063	50.00 ng/uL	9

* Compound is ISTD

QUANT REPORT

Operator ID: ERIC
Output File: ^A1403::OF
Data File: >A1403::D2
Name: SBLK53
Misc: METHOD BLANK

Quant Rev: 7
Quant Time: 930114 15:45
Injected at: 930114 14:57
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 1

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930114 10:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.45	682	41777	40.00	ng/uL	9
2)	2-Fluorophenol	6.76	234	160386	102.82	ng/uL	8
3)	Phenol-d5	10.52	593	209969	113.58	ng/uL	9
4)	Phenol	0.00	0	0	0.00	ng/uL	
5)	bis(2-Chloroethyl)ether	0.00	0	0	0.00	ng/uL	
6)	2-Chlorophenol	0.00	0	0	0.00	ng/uL	
7)	1,3-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
8)	1,4-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	1,2-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	0	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	0.00	854	0	0.00	ng/uL	
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.42	1061	137155	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.26	854	92731	52.08	ng/uL	9
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	0.00	0	0	0.00	ng/uL	
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	0.00	0	0	0.00	ng/uL	
30)	2-Methylnaphthalene	0.00	0	0	0.00	ng/uL	
31)	*Acenaphthene-d10	20.70	1568	66690	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	18.78	1384	125520	51.48	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	1568	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	0.00	0	0	0.00	ng/uL	

43)	2,4-Dinitrophenol	0.00	0	0	0.00	ng/uL	
44)	4-Nitrophenol	0.00	0	0	0.00	ng/uL	
45)	Dibenzofuran	0.00	0	0	0.00	ng/uL	
46)	2,4-Dinitrotoluene	0.00	0	0	0.00	ng/uL	
47)	Diethylphthalate	0.00	0	0	0.00	ng/uL	
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00	ng/uL	
49)	Fluorene	0.00	0	0	0.00	ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00	ng/uL	
51)	*Phenanthrene-d10	25.12	1992	116153	40.00	ng/uL	98
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00	ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1794	0	0.00	ng/uL	
54)	2,4,6-Tribromophenol	23.05	1794	46717	97.23	ng/uL	99
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00	ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00	ng/uL	
57)	Pentachlorophenol	0.00	0	0	0.00	ng/uL	
58)	Phenanthrene	0.00	0	0	0.00	ng/uL	
59)	Anthracene	0.00	0	0	0.00	ng/uL	
60)	~~Di-n-butylphthalate~~	~~27.14~~	~~2186~~	~~1189~~	~~.250~~	~~ng/uL~~	94
61)	Fluoranthene	0.00	0	0	0.00	ng/uL	
62)	*Chrysene-d12	32.98	2745	106852	40.00	ng/uL	91
63)	Pyrene	0.00	0	0	0.00	ng/uL	
64)	Terphenyl-d14	30.00	2460	138908	45.34	ng/uL	89
65)	Butylbenzylphthalate	0.00	0	0	0.00	ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00	ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00	ng/uL	
68)	Chrysene	0.00	0	0	0.00	ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	33.40	2785	2698	.782	ng/uL	99
70)	*Perylene-d12	36.89	3119	110826	40.00	ng/uL	98
71)	~~Di-n-octylphthalate~~	~~35.25~~	~~2962~~	~~1128~~	~~.211~~	~~ng/uL~~	95
72)	Benzo(b)fluoranthene	0.00	0	0	0.00	ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00	ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00	ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00	ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00	ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00	ng/uL	

2-21-93

2-21-93

* Compound is ISTD

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >A1403
CAL CHECK FILE = >A1402
DATE AND TIME OF ANALYSIS = 1/14/93 14:57
MISCELLANEOUS = METHOD BLANK
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

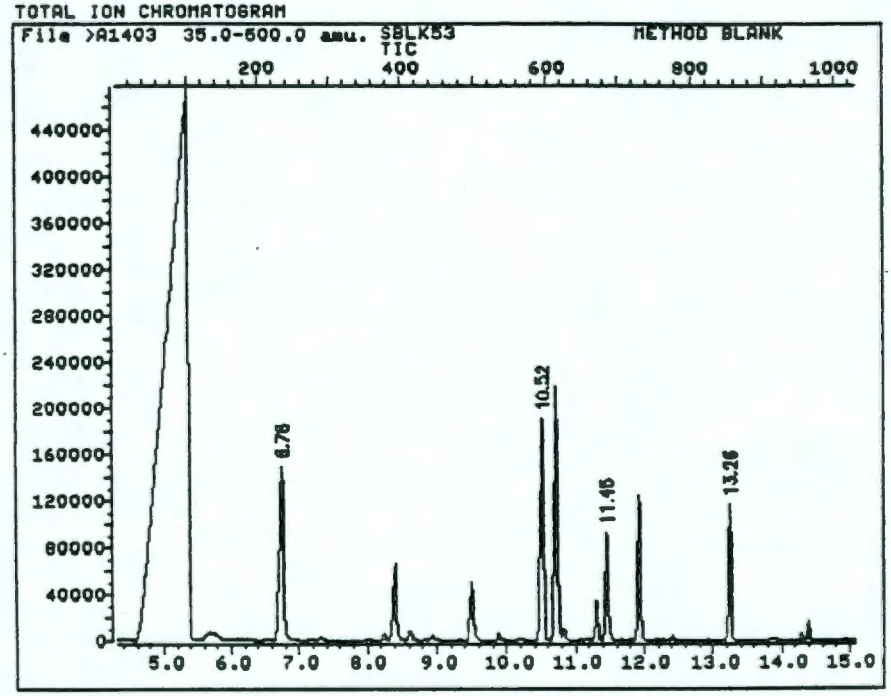
I. Areas

Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	41777	36480	18240	72960	OK
Naphthalene-d8	137155	121269	60635	242538	OK
Acenaphthene-d10	66690	57467	28734	114934	OK
Phenanthrene-d10	116153	101992	50996	203984	OK
Chrysene-d12	106852	77858	38929	155716	OK
Perylene-d12	110826	93060	46530	186120	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.45	11.45	10.95	11.95	OK
Naphthalene-d8	15.42	15.42	14.92	15.92	OK
Acenaphthene-d10	20.70	20.70	20.20	21.20	OK
Phenanthrene-d10	25.12	25.12	24.62	25.62	OK
Chrysene-d12	32.98	33.00	32.50	33.50	OK
Perylene-d12	36.89	36.91	36.41	37.41	OK

TOTAL ION CHROMATOGRAM



Data File: >A1403::D2 Quant Output File: ^A1403::OF
Name: SBLK53 Instrument ID: BNA1
Misc: METHOD BLANK BTL# 1

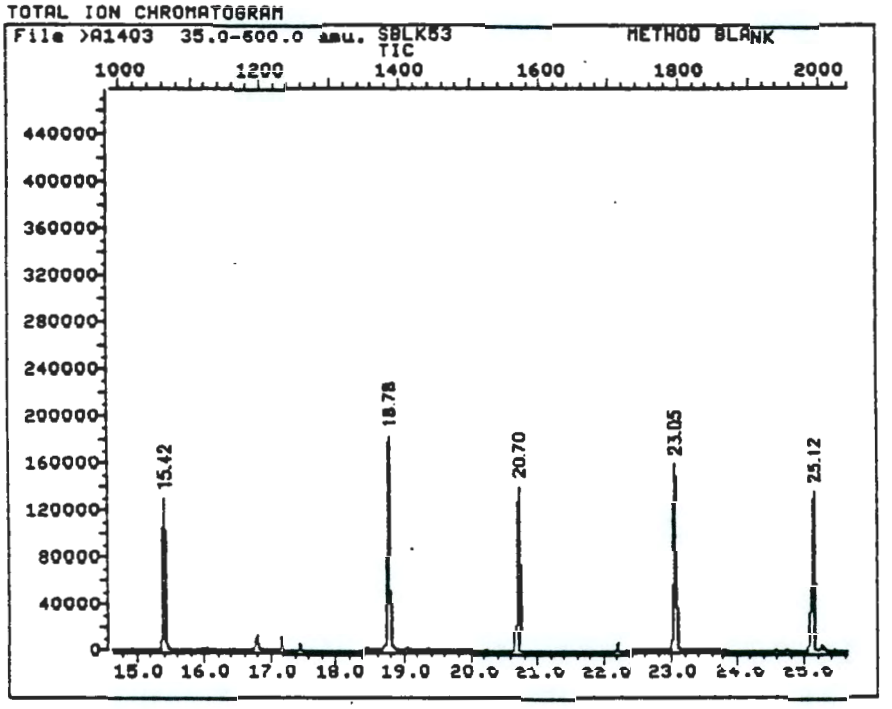
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 15:45
Injected at: 930114 14:57

Page 1 of 4

9613492.1657

TOTAL ION CHROMATOGRAM



Data File: >A1403::D2
Name: SBLK53
Misc: METHOD BLANK

Quant Output File: ^A1403::QF
Instrument ID: BNA1
BTL# 1

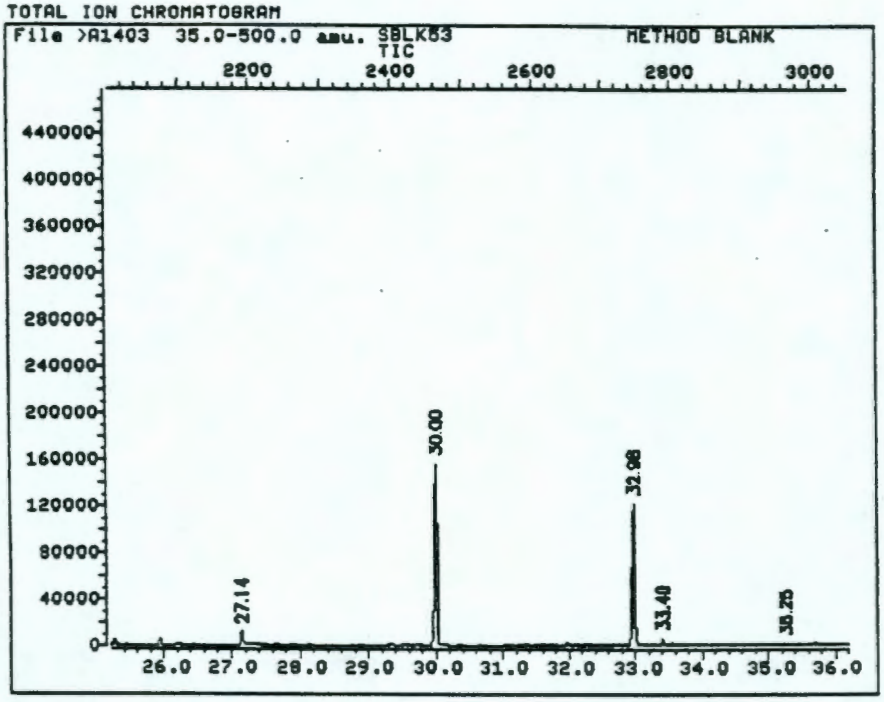
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 15:45
Injected at: 930114 14:57

Page 2 of 4

TOTAL ION CHROMATOGRAM



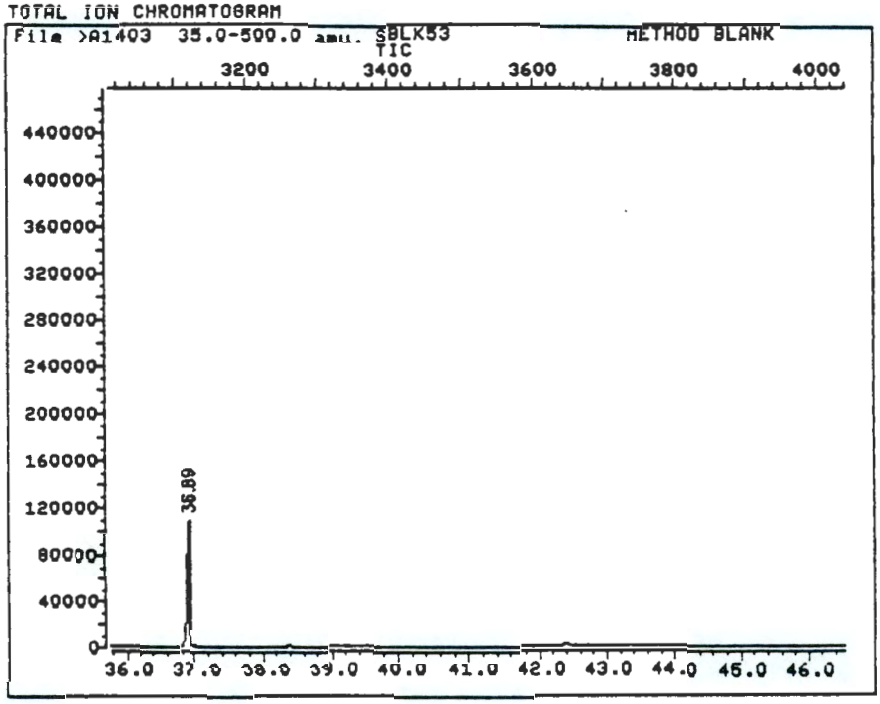
Data File: >A1403::D2 Quant Output File: ^A1403::OF
Name: SBLK53 Instrument ID: BNA1
Misc: METHOD BLANK BTL# 1

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 15:45
Injected at: 930114 14:57

Page 3 of 4

TOTAL ION CHROMATOGRAM



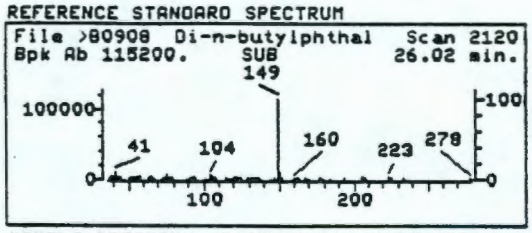
Data File: >A1403::D2 Quant Output File: ^A1403::QF
Name: SBLK53 Instrument ID: BNA1
Misc: METHOD BLANK BTL# 1

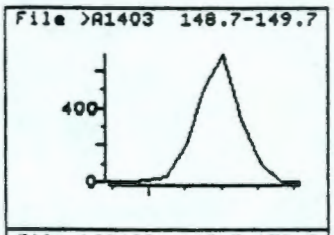
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Quant Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 15:45
Injected at: 930114 14:57

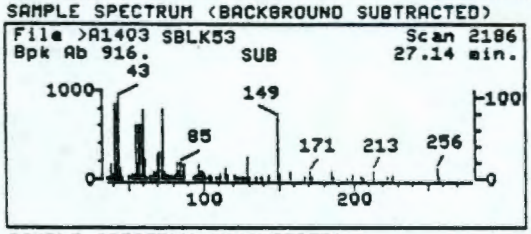
Page 4 of 4

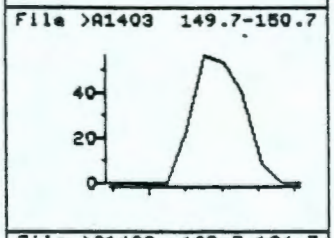
REFERENCE STANDARD SPECTRUM





SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





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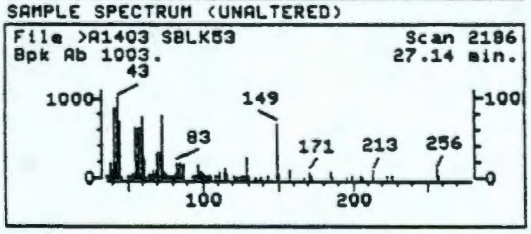
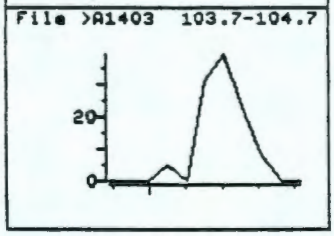




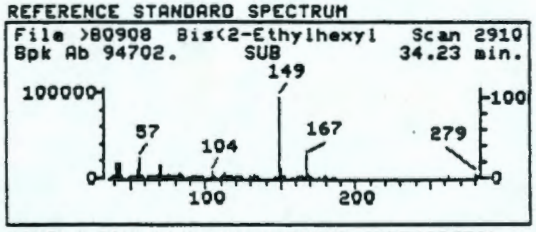
Data File: >A1403::D2
Name: SBLK53
Misc: METHOD BLANK
Quant Time: 930114 15:45
Injected at: 930114 14:57
Last Qcal Time: 930114 10:37

Quant Output File: ^A1403::OF
Instrument ID: BNA1
BTL# 1
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2186
Retention Time: 27.14 min.
Quant Ion : 149.0
Area : 1185
Concentration : .250 ng/uL
q-value : 94

delete

REFERENCE STANDARD SPECTRUM



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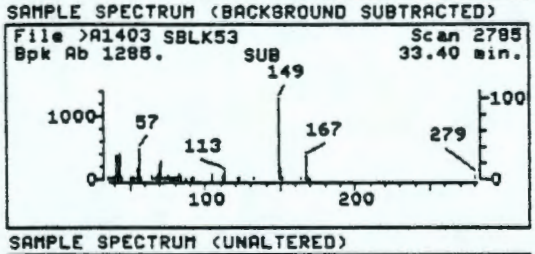

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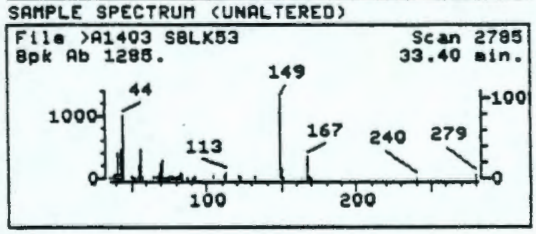
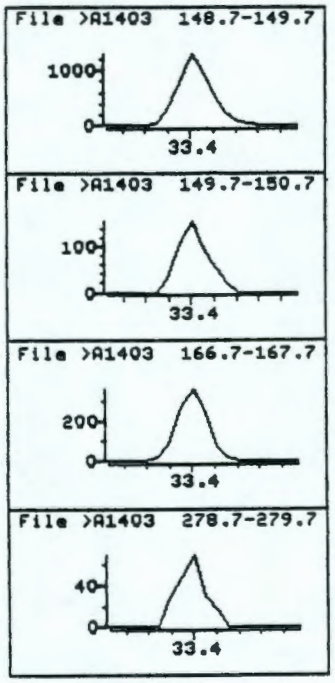


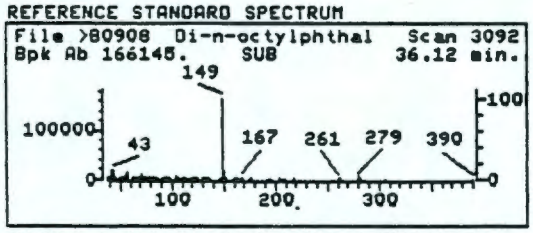


Data File: >A1403::D2
Name: SBLK53
Misc: METHOD BLANK
Quant Time: 930114 15:45
Injected at: 930114 14:57
Last Qcal Time: 930114 10:37

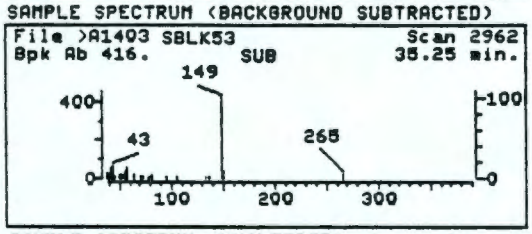
Quant Output File: ^A1403::OF
Instrument ID: BNA1
BTL# 1
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2785
Retention Time: 33.40 min.
Quant Ion : 149.0
Area : 2698
Concentration : .782 ng/uL
q-value : 99

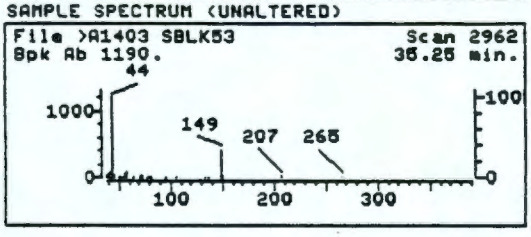
REFERENCE STANDARD SPECTRUM

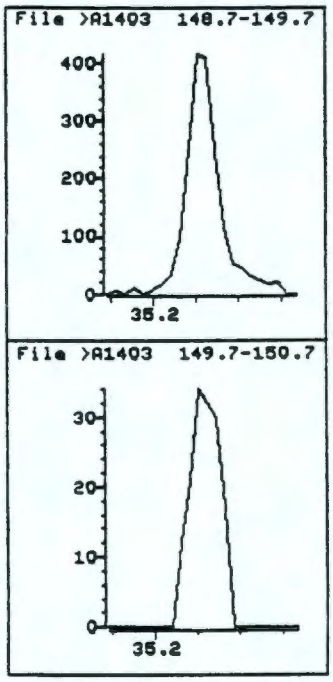


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >A1403::D2
Name: SBLK53
Misc: METHOD BLANK
Quant Time: 930114 15:45
Injected at: 930114 14:57
Last Qcal Time: 930114 10:37

Quant Output File: ^A1403::OF
Instrument ID: BNA1
BTL# 1
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 2962
Retention Time: 35.25 min.
Quant Ion : 149.0
Area : 1128
Concentration : .211 ng/uL
q-value : 95

Delete

MS data file header from : >A1403::D2

Sample: SBLK53 Operator: ERIC SUPER GRP. 1/14/93 14:57
Misc : METHOD BLANK BTL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 1 Equip ID: BNA1
Method file: BNAME1 Tuning file: MTBNA1 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	40.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.5	0.0

>A1403 SBLK53 METHOD BLANK
35.01 500.0 CLP TIC
Upslope: .2000 Area Reject: 27806. Max Peaks: 10 Bunch: -1 Valley >100 %
Onslope: 0.0000 Results File IA1403 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	5.37	26	101	113	476031	10546545	10490280	100.00	85.74
2	5.67	116	130	163	6318	109743	74134*	.71	.60
3	8.41	383	392	405	65741	252104	240130	2.29	1.96
4	8.62	405	412	425	7343	37669	29292	.28	.23
5	9.50	486	496	510	50301	196868	188832	1.80	1.54
6	10.73	605	613	620	218772	696802	692469	6.60	5.66
7	11.32	661	669	674	33666	99832	94690	.90	.77
8	11.92	720	727	739	124478	363244	354336	3.38	2.89
9	14.40	958	963	971	16835	40326	36121	.34	.29
10	16.78	1182	1192	1205	12642	39600	33423	.32	.27

Sum of corrected areas: 12233710.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	278055.	11.45	4.32 - 13.44
2	40.0	320332.	15.42	13.44 - 18.06
3	40.0	323076.	20.70	18.06 - 22.91
4	40.0	331139.	25.12	22.91 - 29.05
5	40.0	336666.	32.98	29.05 - 34.94
6	40.0	342603.	36.89	34.94 - 46.53

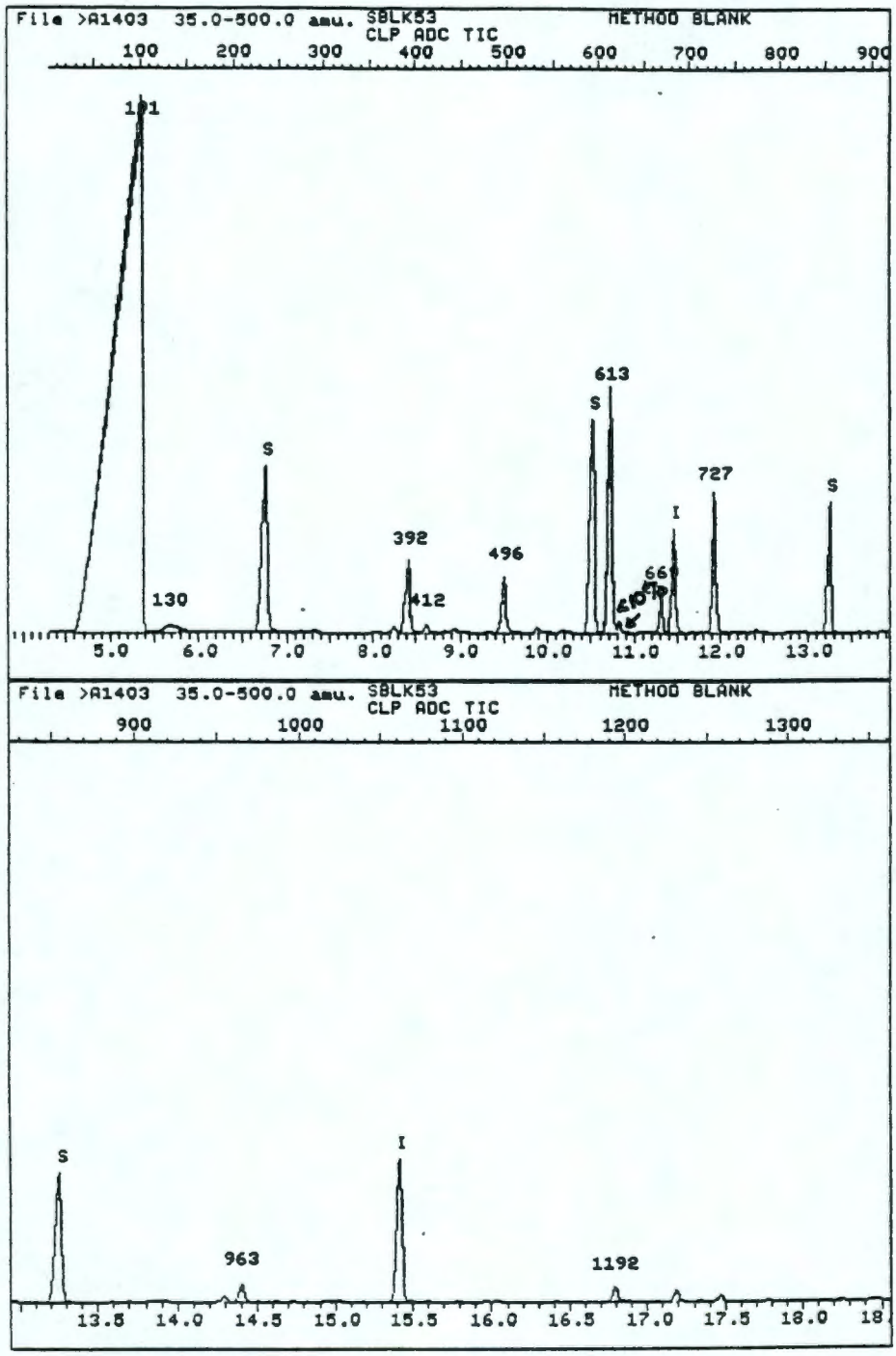
Dilution Factor = 1.00 This sample was 30.0000 g or mL

Correction Factor = 66.73 TIC RESULTS OFF 34 2%, SEE FORM 1E

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std} * \text{Area Unknown}}{\text{Area Int Std}} * \text{Correction Factor}$$

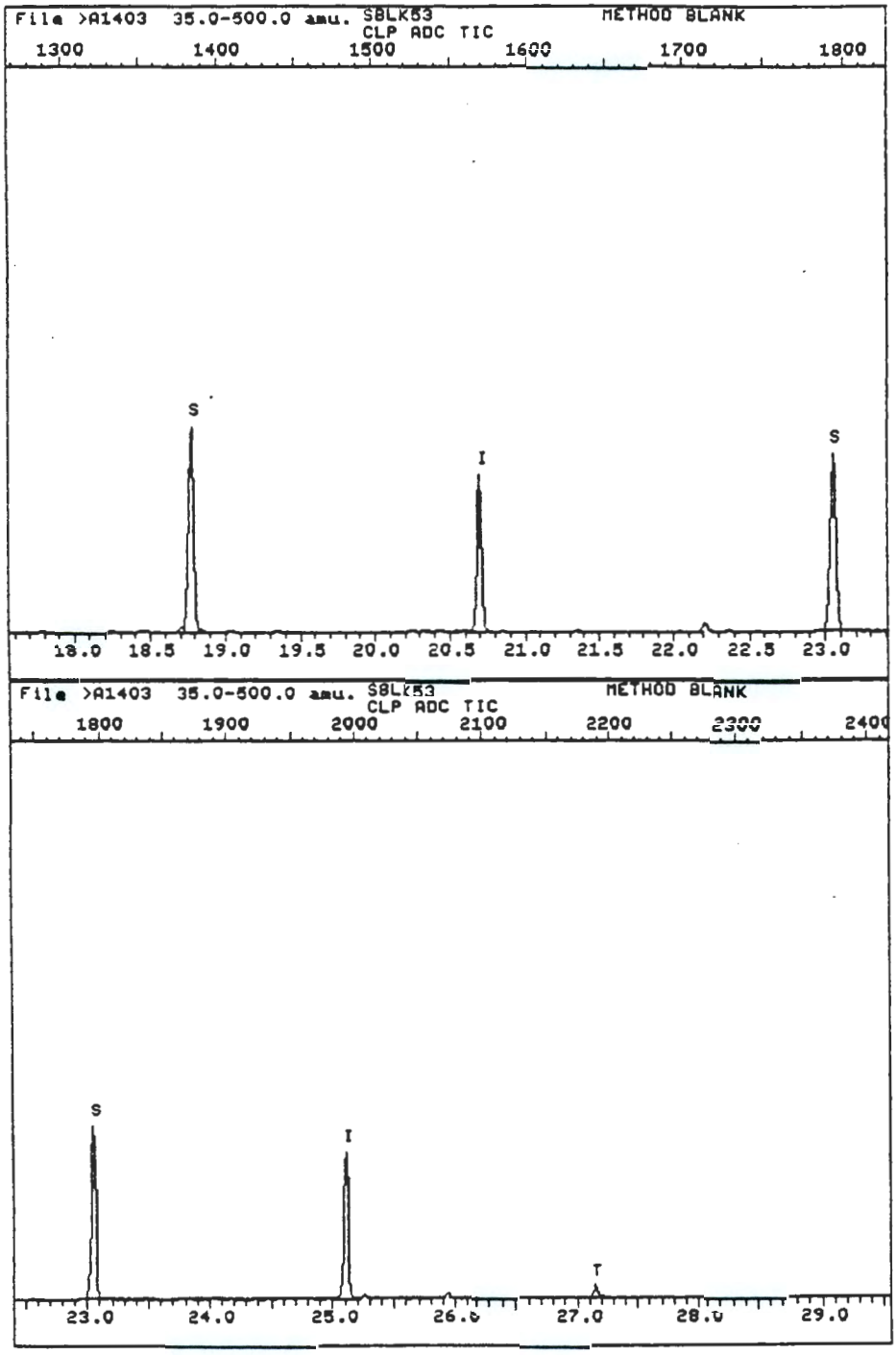
5:02 PM TUE., 23 FEB., 1993

9613492.1274

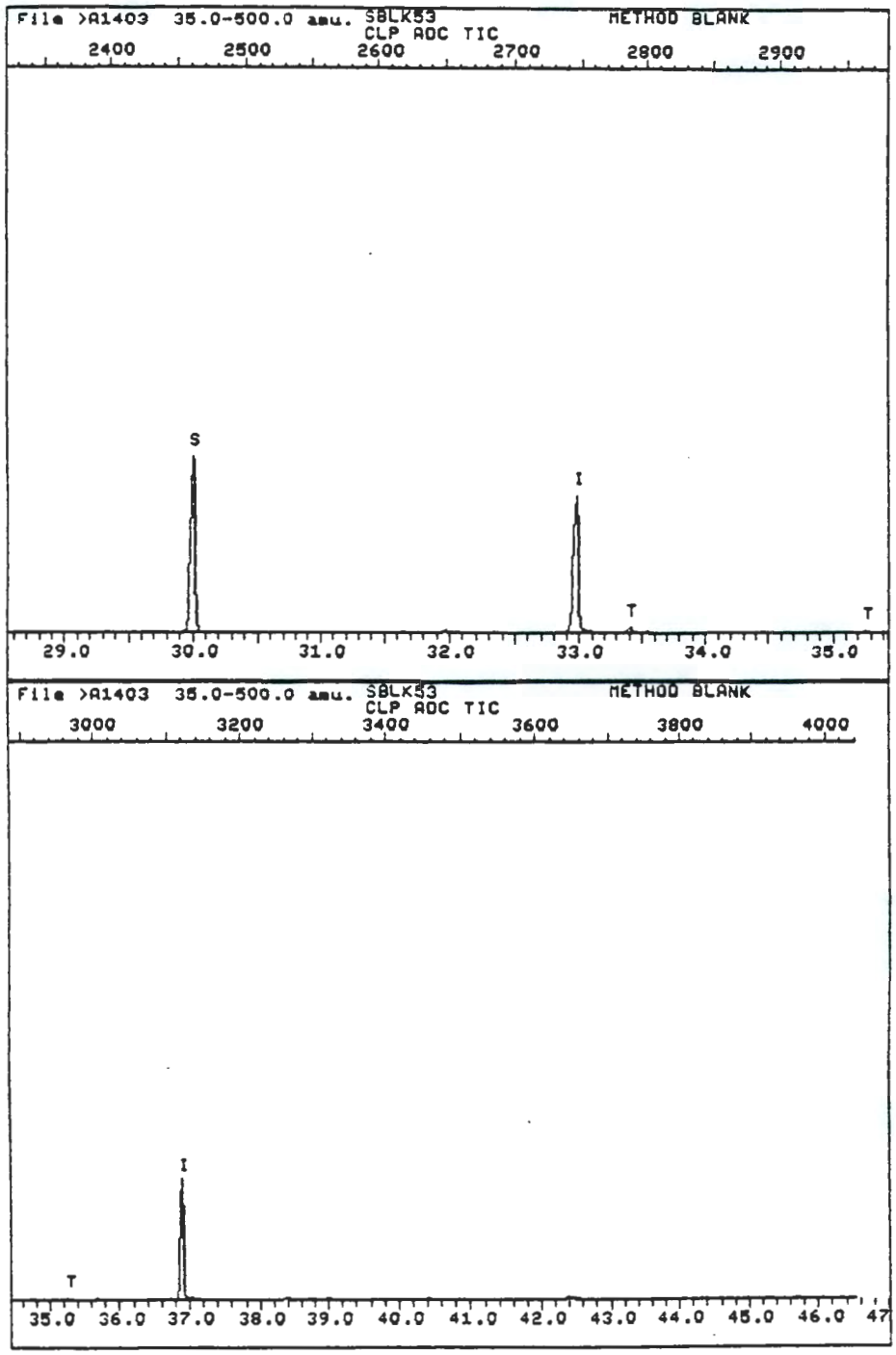


Instrument ID: BNA1 Analyzed on: 1/14/93 14:57

F03-125



Instrument ID: BNA1 Analyzed on: 1/14/93 14:57



Instrument ID: BNA1 Analyzed on: 1/14/93 14:57

9613492.1277

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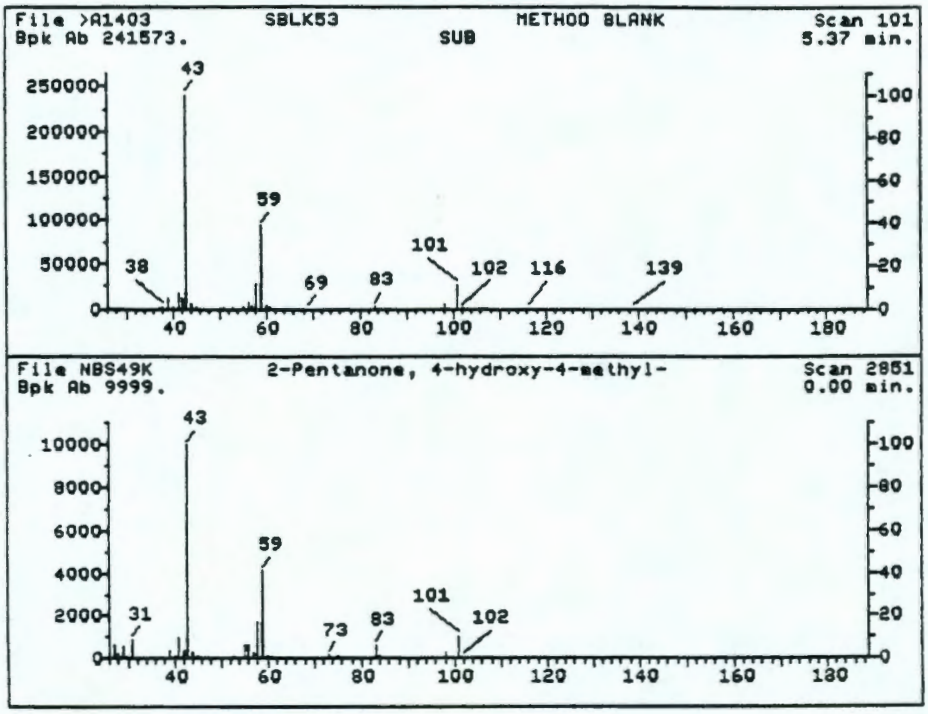


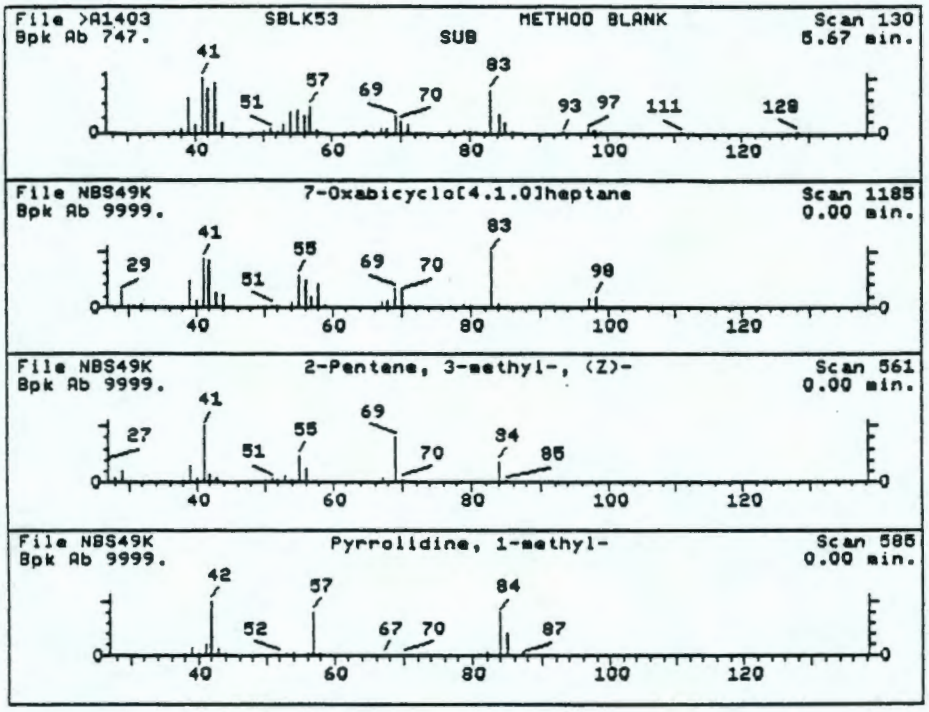
Instrument ID: BNA1 Analyzed on: 1/14/93 14:57
Result 1 in PBM results file: LA1403
Retention Time: 5.37 Area: 10490280 Tentative Conc: 100000.00
The unknown area is 3772.7% of the nearest internal standard

1. 2-Pentanone, 4-hydroxy-4-methyl- 116 C6H12O2

Sample file: >A1403 Spectrum #: 101
Search speed: 3 Tilting option: F No. of ion ranges searched: 57

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1	47	123422	1790	NBS49K	52	31	2	0	74	22	17	18

A



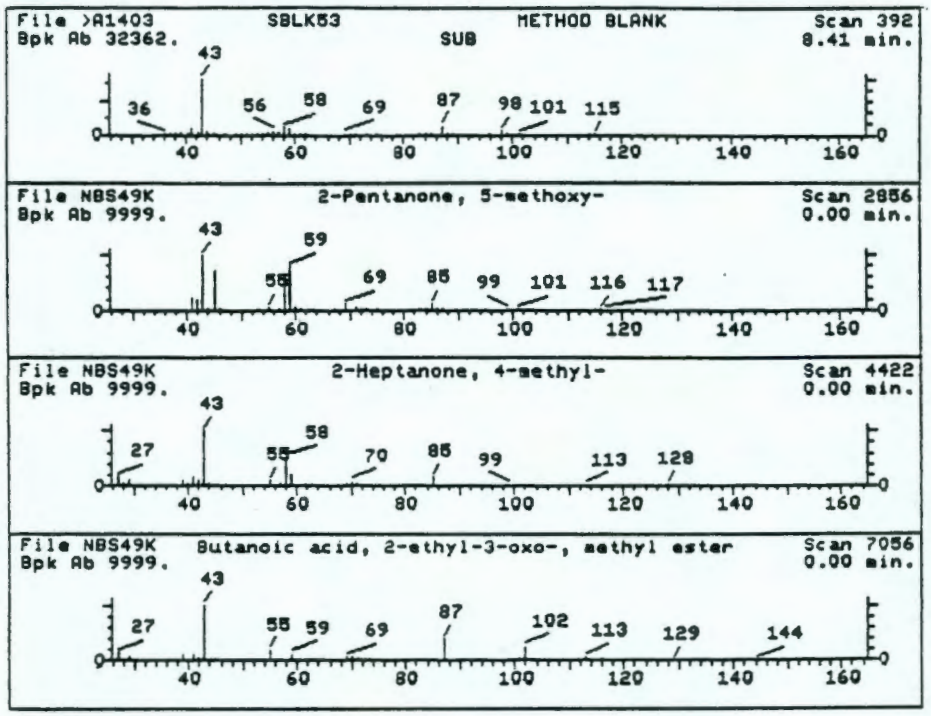
Instrument ID: BNA1 Analyzed on: 1/14/93 14:57
Result 2 in PBM results file: LA1403
Retention Time: 5.67 Area: 74134 Tentative Conc: 710.00
The unknown area is 26.66% of the nearest internal standard

1. 7-Oxabicyclo[4.1.0]heptane	98	C6H10O
2. 2-Pentene, 3-methyl-, (Z)-	84	C6H12
3. Pyrrolidine, 1-methyl-	85	C5H11N
4. 1,3-Diazabicyclo[3.1.0]hexane	84	C4H8N2
5. 2-Oxetanone, 4-methylene-	84	C4H4O2
6. 1,2,4,5-Tetrazine, 1,2,3,6-tetrahydro-3,6-dimethyl-	114	C4H10N4

Sample file: >A1403 Spectrum #: 130
Search speed: 3 Tilting option: F No. of ion ranges searched: 64

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	37	286204	6142	NBS49K	67	48	2	0	64	28	14	14
2.	28*	922623	6303	NBS49K	42	53	2	3	83	36	10	14
3.	25*	120945	6308	NBS49K	41	49	2	4	53	48	7	14
4.	24*	17038287	6268	NBS49K	29	65	0	0	79	54	7	21

unk

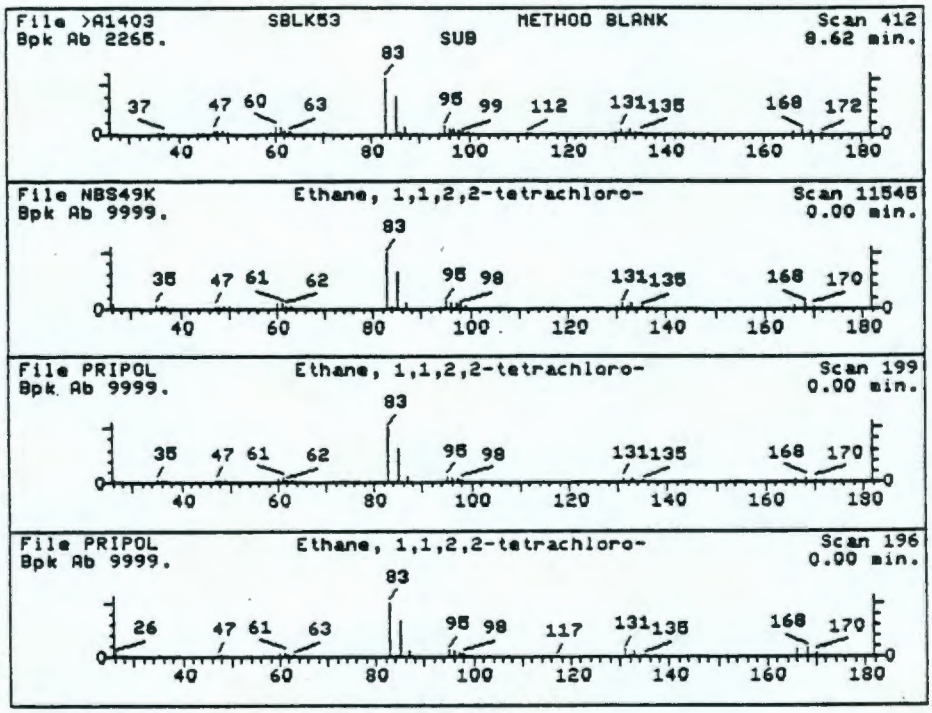


Instrument ID: BNA1 Analyzed on: 1/14/93 14:57
Result 3 in PBM results file: LA1403
Retention Time: 8.41 Area: 240130 Tentative Conc: 2300.00
The unknown area is 86.36% of the nearest internal standard

1. 2-Pentanone, 5-methoxy- 116 C6H12O2
2. 2-Heptanone, 4-methyl- 128 C8H16O
3. Butanoic acid, 2-ethyl-3-oxo-, methyl ester 144 C7H12O3

Sample file: >A1403 Spectrum #: 392
Search speed: 3 Tilting option: F No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	20*	17429048	1791	NBS49K	24	43	2	0	15	52	5	14



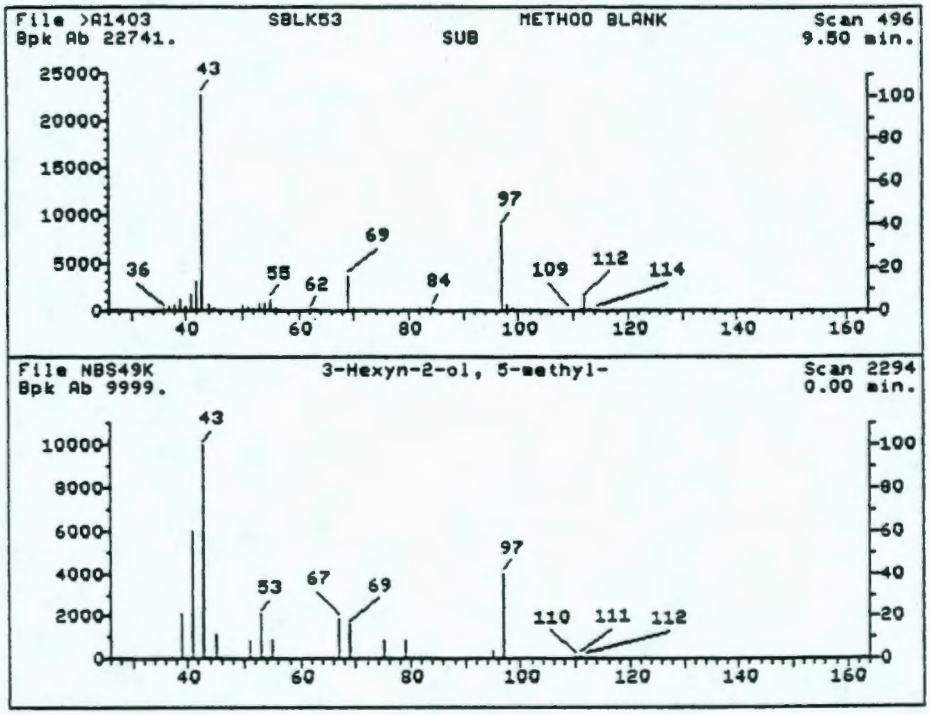
Instrument ID: BNA1 Analyzed on: 1/14/93 14:57
Result 4 in PBM results file: LA1403
Retention Time: 8.62 Area: 29292 Tentative Conc: 280.00
The unknown area is 10.53% of the nearest internal standard

1. Ethane, 1,1,2,2-tetrachloro- 166 C2H2C14
2. Ethane, 1,1,2,2-tetrachloro- 166 C2H2C14
3. Ethane, 1,1,2,2-tetrachloro- 166 C2H2C14
4. Ethane, 1,1,2,2-tetrachloro- 166 C2H2C14
5. Ethane, 1,1,2,2-tetrachloro- 166 C2H2C14
6. Ethane, 1,1,2,2-tetrachloro- 166 C2H2C14

Sample file: >A1403 Spectrum #: 412
Search speed: 3 Tilting option: F No. of ion ranges searched: 62

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	95*	79345	6716	NBS49K	94	9	0	0	86	18	60	96
2.	95*	199	125	PRIPOL	94	9	0	0	86	18	60	96
3.	93*	196	122	PRIPOL	104	7	1	3	99	17	60	93
4.	89*	198	124	PRIPOL	90	19	1	0	73	10	62	89
5.	89*	197	123	PRIPOL	89	27	1	0	79	7	62	89
6.	86*	195	121	PRIPOL	88	36	0	0	52	47	40	96

9613492.1282



Instrument ID: BNA1 Analyzed on: 1/14/93 14:57
Result 5 in PBM results file: LA1403
Retention Time: 9.50 Area: 188832 Tentative Conc: 1800.00
The unknown area is 67.91% of the nearest internal standard

1. 3-Hexyn-2-ol, 5-methyl- 112 C7H12O

Sample file: >A1403 Spectrum #: 496
Search speed: 3 Tilting option: F No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	31*	23293507	9091	NBS49K	26	63	2	0	98	34	12	14

1/25/93 unk

F03-133

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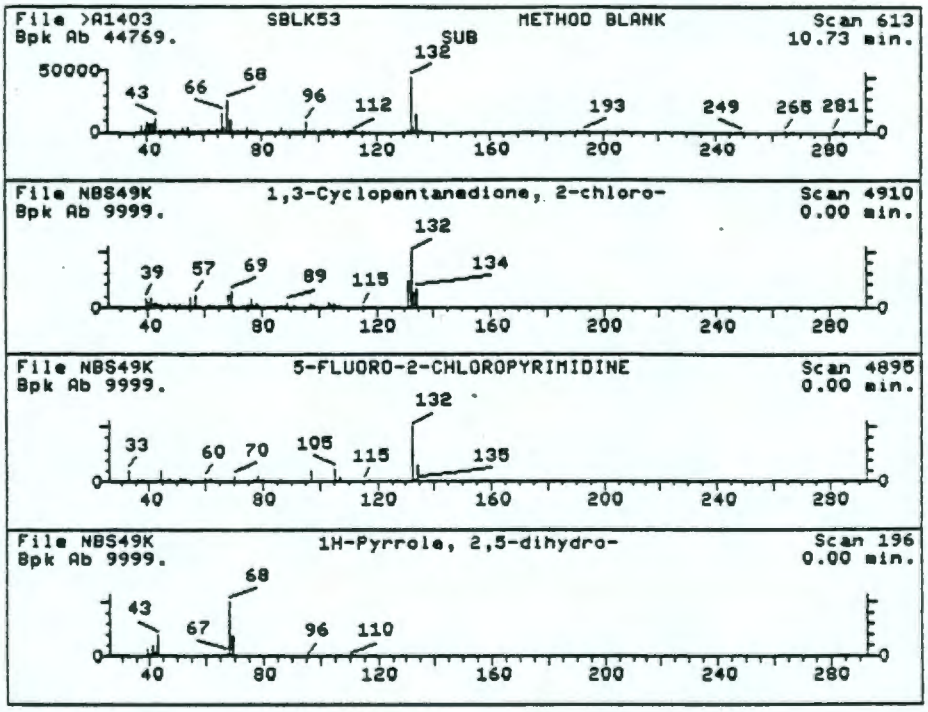


Instrument ID: BNA1 Analyzed on: 1/14/93 14:57
Result 6 in PBM results file: LA1403
Retention Time: 10.73 Area: 692469 Tentative Conc: 6600.00
The unknown area is 249.04% of the nearest internal standard

1. 1,3-Cyclopentanedione, 2-chloro- 132 C5H5ClO2
2. 5-FLUORO-2-CHLOROPYRIMIDINE 132 C4H2ClFN2
3. 1H-Pyrrole, 2,5-dihydro- 69 C4H7N

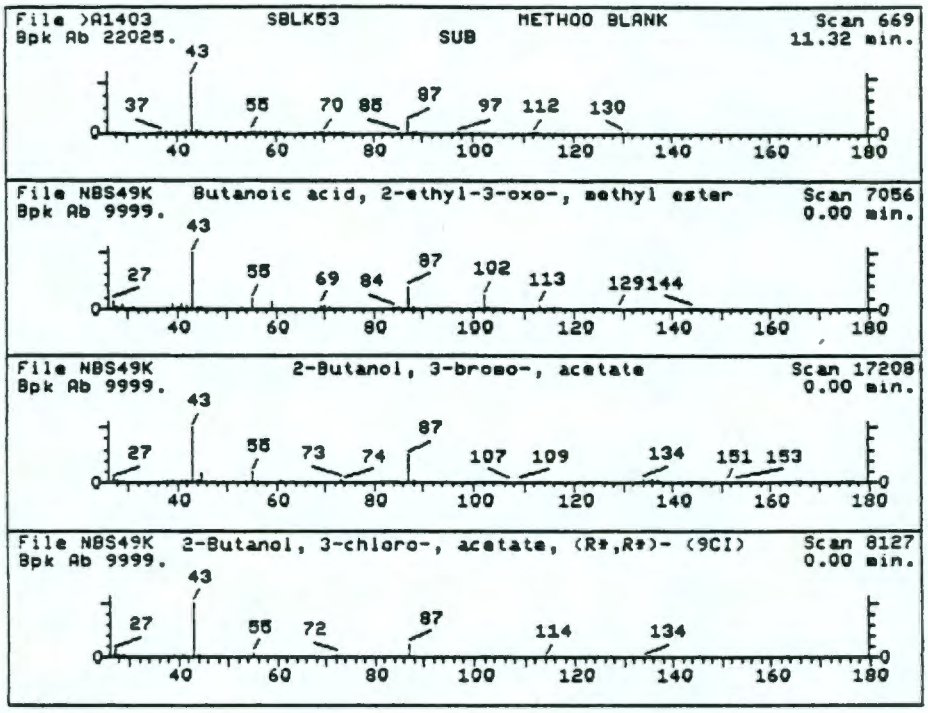
Sample file: >A1403 Spectrum #: 613
Search speed: 3 Tilting option: F No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	27*	14203191	15856	NBS49K	22	89	2	0	98	36	10	13
2.	25*	62802420	15850	NBS49K	29	79	3	0	100	45	8	13
3.	24*	109966	3541	NBS49K	35	21	1	3	25	44	8	12

Delete
This is 2-Chlorophenol-d4 present in the stock acid surrogate mix that is used in the 390 SOW for CLP — we use the 2/88 SOW which does not call for this surrogate.
2/25/93

F03-134

9613492.1284



Instrument ID: BNA1 Analyzed on: 1/14/93 14:57
Result 7 in PBM results file: LA1403
Retention Time: 11.32 Area: 94690 Tentative Conc: 910.00
The unknown area is 34.05% of the nearest internal standard

1. Butanoic acid, 2-ethyl-3-oxo-, methyl ester	144	C7H12O3
2. 2-Butanol, 3-bromo-, acetate	194	C6H11BrO2
3. 2-Butanol, 3-chloro-, acetate, (R*,R*)- (9CI)	150	C6H11ClO2
4. 1-Butanol, 2-methyl-, acetate	130	C7H14O2
5. 2-Butanol, 3-methyl-, acetate	130	C7H14O2

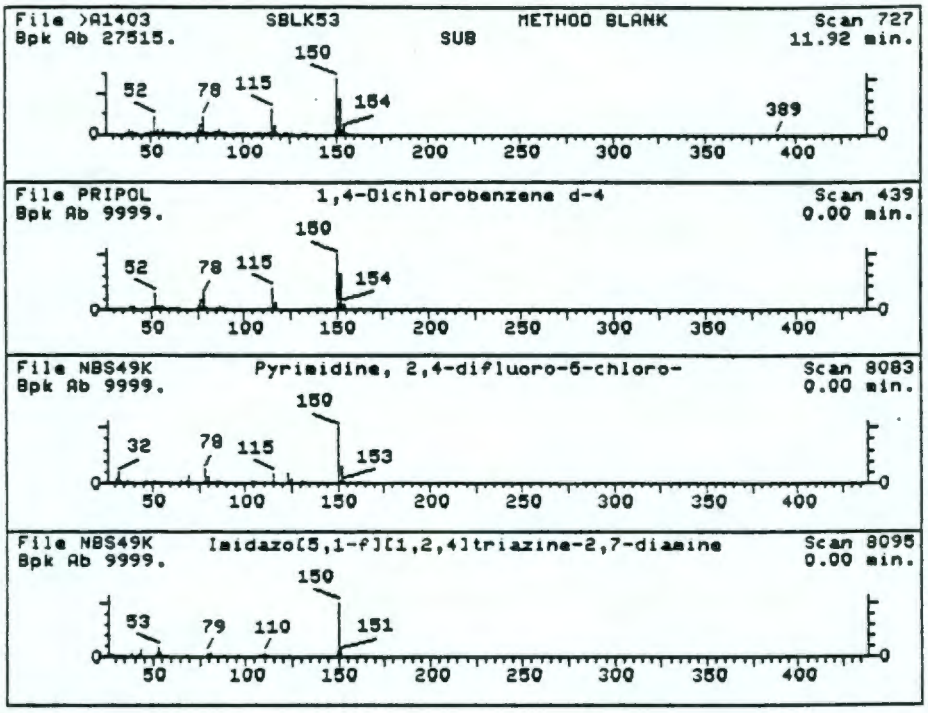
Sample file: >A1403 Spectrum #: 669
Search speed: 3 Tilting option: F No. of ion ranges searched: 52

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	25*	51756082	7336	NBS49K	27	65	2	0	54	47	7	14
2.	25	5798812	7487	NBS49K	37	37	2	0	40	47	7	12
3.	24	54192200	7364	NBS49K	36	44	2	0	87	41	8	12
4.	20*	624419	7299	NBS49K	32	49	2	0	90	52	5	16
5.	20*	5343964	7303	NBS49K	39	36	2	0	82	52	5	19

unk

F03-135

9613492.1285



Instrument ID: BNA1 Analyzed on: 1/14/93 14:57
Result 8 in PBM results file: LA1403
Retention Time: 11.92 Area: 354336 Tentative Conc: 3400.00
The unknown area is 127.43% of the nearest internal standard

1	1,4-Dichlorobenzene d-4	150	C6.D4.CL2
2.	Pyrimidine, 2,4-difluoro-5-chloro-	150	C4HClF2N2
3.	Imidazo[5,1-f][1,2,4]triazine-2,7-diamine	150	C5H6N6
4.	Ethanone, 1-(2-nitrophenyl)-	165	C8H7NO3
5.	Ethylenediamine, N-(m-methoxyphenyl)-N,N'-dimethyl-N'-phenyl-	270	C17H22N2O
6.	2-[3-(CHLOROACETOXY)-4-METHOXYPHENYL]-1,3-BENZODIOXA	334	C17H15ClO5

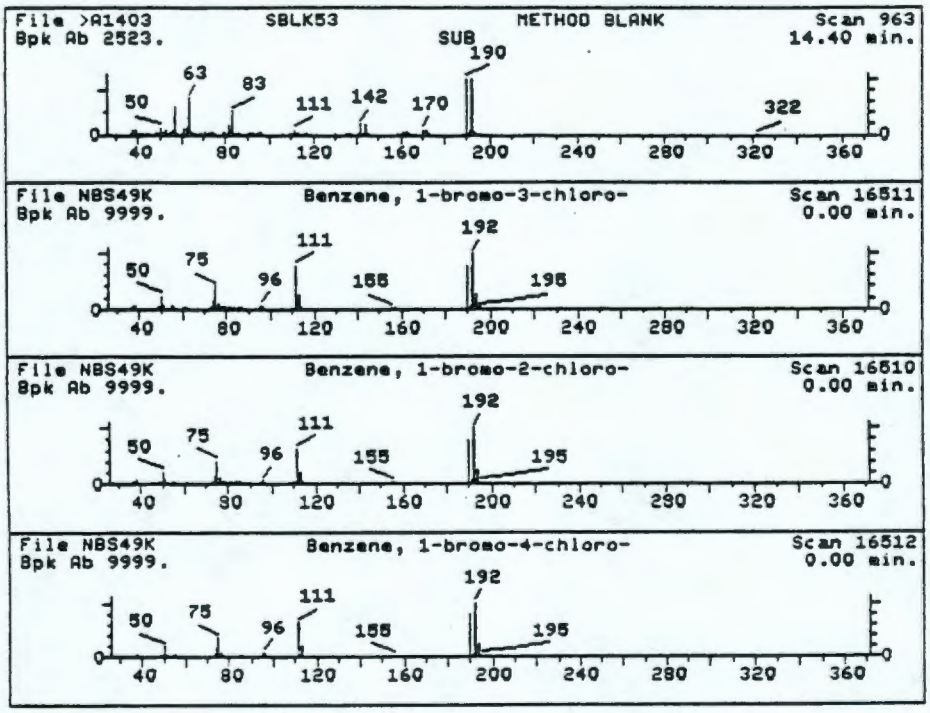
Sample file: >A1403 Spectrum #: 727
Search speed: 3 Tilting option: F No. of ion ranges searched: 152

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	96*	439	257	PRIPOL	95	12	0	0	86	11	64	97
2.	27*	25151079	19311	NBS49K	22	78	2	0	100	36	10	13
3.	25*	51292207	19314	NBS49K	31	59	2	0	100	49	7	15
4.	25*	577593	19423	NBS49K	24	77	3	0	100	49	7	12
5.	20*	32857399	19521	NBS49K	38	82	2	4	100	52	5	12
6.	20*	66267398	41938	NBS49K	48	92	2	4	67	52	5	13

Delete this cpd used in 390 CLP SOW - we are the 2/88 SOW which does not require this cpd. RLA 2/25/93

F03-136

9613492.1286



Instrument ID: BNA1 Analyzed on: 1/14/93 14:57
Result 9 in PBM results file: LA1403
Retention Time: 14.40 Area: 36121 Tentative Conc: 300.00
The unknown area is 11.28% of the nearest internal standard

1. Benzene, 1-bromo-3-chloro-	190	C6H4BrCl
2. Benzene, 1-bromo-2-chloro-	190	C6H4BrCl
3. Benzene, 1-bromo-4-chloro-	190	C6H4BrCl
4. Lycopodine (8CI)	247	C16H25NO
5. Naphtho[1,8-cd]-1,2-dithiole	190	C10H6S2

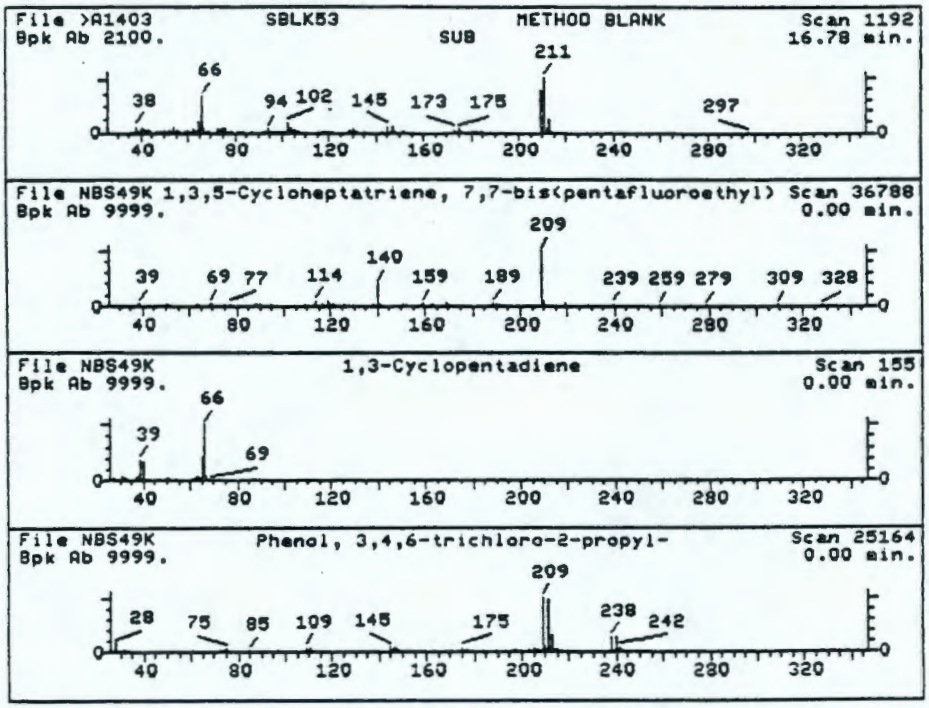
Sample file: >A1403 Spectrum #: 963
Search speed: 3 Tilting option: F No. of ion ranges searched: 36

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	31*	108372	26207	NBS49K	56	71	3	0	99	42	8	19
2.	26*	694804	26206	NBS49K	51	75	3	0	99	42	8	14
3.	25*	106398	26208	NBS49K	45	81	3	0	99	42	8	13
4.	20*	466615	26078	NBS49K	38	57	1	2	30	55	5	14

brominated alkene

ank

9613492.1287



Instrument ID: BNA1 Analyzed on: 1/14/93 14:57
Result 10 in PBM results file: LA1403
Retention Time: 16.78 Area: 33423 Tentative Conc: 280.00
The unknown area is 10.43% of the nearest internal standard

1. 1,3,5-Cycloheptatriene, 7,7-bis(pentafluoroethyl)- 328 C11H6F10
2. 1,3-Cyclopentadiene 66 C5H6
3. Phenol, 3,4,6-trichloro-2-propyl- 238 C9H9Cl3O
4. Palladium, .pi.-cyclopentadienyl(3a,4,7,7a-tetrahydr omethoxy-4,7-methanoindanyl)- 334 C16H20OPd
5. Benzenepropanoic acid, 3-methoxy-.alpha.,4-bis[(trim ethylsilyl)oxy]-, trimethylsilyl ester 428 C19H36O5Si3
6. Benzoxazole, 2-methyl-5-phenyl- 209 C14H11NO

Sample file: >A1403 Spectrum #: 1192
Search speed: 3 Tilting option: F No. of ion ranges searched: 35

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	41*	17838674	29360	NBS49K	39	100	2	2	75	25	17	12
2.	30*	542927	3029	NBS49K	38	43	0	-1	42	50	10	27
3.	30	55538733	29610	NBS49K	62	78	2	0	76	33	12	13
4.	25*	12194159	3421	NBS49K	42	59	1	1	28	50	7	17

brominated cpd

F03-138

QUANT REPORT

Operator ID: ERIC
Output File: ^A1404::OF
Data File: >A1404::D2
Name: 93-02351-E1
Misc: T-106 B07JZ7

Quant Rev: 7
Quant Time: 930114 16:41
Injected at: 930114 15:53
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 2

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930114 10:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.45	686	34648	40.00	ng/uL	97
2)	2-Fluorophenol	6.77	239	162954	125.96	ng/uL	90
3)	Phenol-d5	10.53	598	207532	135.36	ng/uL	94
4)	Phenol	0.00	0	0	0.00	ng/uL	
5)	bis(2-Chloroethyl)ether	0.00	0	0	0.00	ng/uL	
6)	2-Chlorophenol	0.00	0	0	0.00	ng/uL	
7)	1,3-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
8)	1,4-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	1,2-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	0	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	0.00	858	0	0.00	ng/uL	
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.41	1064	116020	40.00	ng/uL	99
17)	Nitrobenzene-d5	13.25	858	97409	64.67	ng/uL	94
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	0.00	0	0	0.00	ng/uL	
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	0.00	0	0	0.00	ng/uL	
30)	2-Methylnaphthalene	0.00	0	0	0.00	ng/uL	
31)	*Acenaphthene-d10	20.70	1571	56067	40.00	ng/uL	98
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	18.78	1387	131029	63.92	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	1571	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	0.00	0	0	0.00	ng/uL	

43)	2,4-Dinitrophenol	0.00	0	0	0.00	ng/uL	
44)	4-Nitrophenol	0.00	0	0	0.00	ng/uL	
45)	Dibenzofuran	0.00	0	0	0.00	ng/uL	
46)	2,4-Dinitrotoluene	0.00	0	0	0.00	ng/uL	
47)	~~Diethylphthalate~~	~~22.20~~	~~1715~~	~~1560~~	~~.620~~	~~ng/uL~~	97
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00	ng/uL	
49)	Fluorene	0.00	0	0	0.00	ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00	ng/uL	
51)	*Phenanthrene-d10	25.11	1994	98280	40.00	ng/uL	99
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00	ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1797	0	0.00	ng/uL	
54)	2,4,6-Tribromophenol	23.05	1797	41654	102.45	ng/uL	99
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00	ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00	ng/uL	
57)	Pentachlorophenol	0.00	0	0	0.00	ng/uL	
58)	Phenanthrene	0.00	0	0	0.00	ng/uL	
59)	Anthracene	0.00	0	0	0.00	ng/uL	
60)	Di-n-butylphthalate	27.14	2189	49737	12.38	ng/uL	97
61)	Fluoranthene	0.00	0	0	0.00	ng/uL	
62)	*Chrysene-d12	32.97	2747	88426	40.00	ng/uL	93
63)	Pyrene	0.00	0	0	0.00	ng/uL	
64)	Terphenyl-d14	30.00	2463	146301	57.71	ng/uL	89
65)	Butylbenzylphthalate	0.00	0	0	0.00	ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00	ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00	ng/uL	
68)	Chrysene	0.00	0	0	0.00	ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	33.40	2788	2064	.723	ng/uL	85
70)	*Perylene-d12	36.89	3121	91988	40.00	ng/uL	97
71)	Di-n-octylphthalate	35.26	2965	2486	.560	ng/uL	96
72)	Benzo(b)fluoranthene	0.00	0	0	0.00	ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00	ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00	ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00	ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00	ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00	ng/uL	

* Compound is ISTD

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >A1404
CAL CHECK FILE = >A1402
DATE AND TIME OF ANALYSIS = 1/14/93 15:53
MISCELLANEOUS = T-106 B07JZ7
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

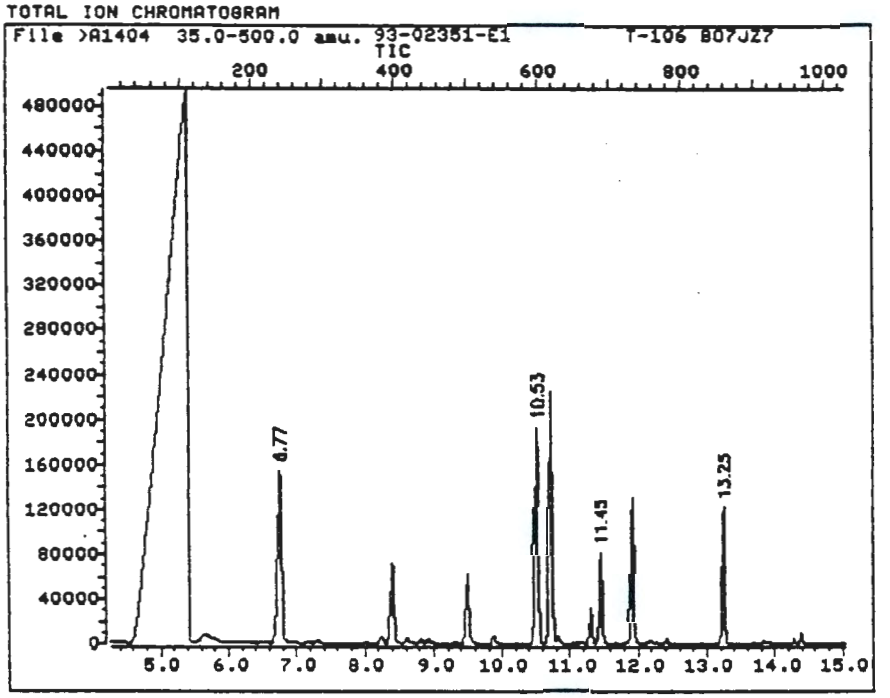
I. Areas

Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	34648	36480	18240	72960	OK
Naphthalene-d8	116020	121269	60635	242538	OK
Acenaphthene-d10	56067	57467	28734	114934	OK
Phenanthrene-d10	98280	101992	50996	203984	OK
Chrysene-d12	88426	77858	38929	155716	OK
Perylene-d12	91988	93060	46530	186120	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.45	11.45	10.95	11.95	OK
Naphthalene-d8	15.41	15.42	14.92	15.92	OK
Acenaphthene-d10	20.70	20.70	20.20	21.20	OK
Phenanthrene-d10	25.11	25.12	24.62	25.62	OK
Chrysene-d12	32.97	33.00	32.50	33.50	OK
Perylene-d12	36.89	36.91	36.41	37.41	OK

TOTAL ION CHROMATOGRAM



Data File: >A1404::D2
Name: 93-02351-E1
Misc: T-106 B07JZ7

Quant Output File: ^A1404::OF
Instrument ID: BNA1

BTL# 2

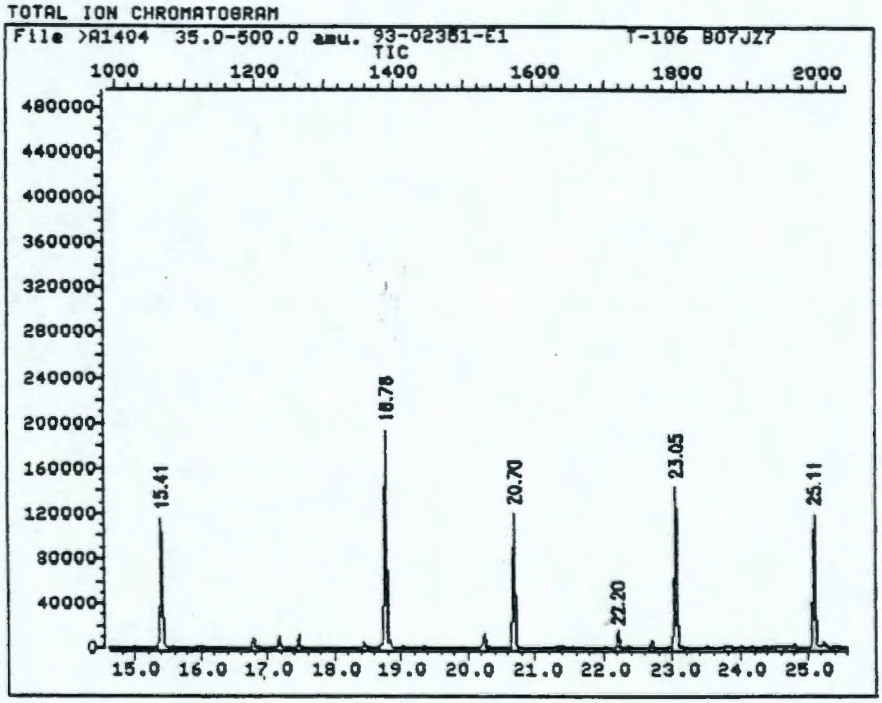
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 16:41
Injected at: 930114 15:53

Page 1 of 4

TOTAL ION CHROMATOGRAM

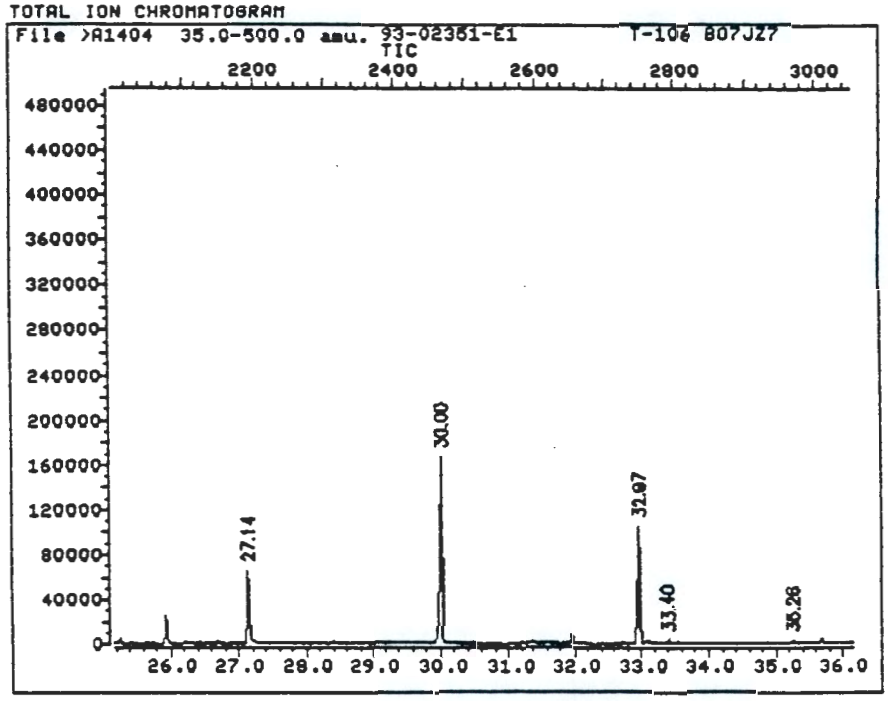


Data File: >A1404::D2 Quant Output File: ^A1404::OF
Name: 93-02351-E1 Instrument ID: BNA1
Misc: T-106 B07JZ7 BTL# 2

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 16:41
Injected at: 930114 15:53

TOTAL ION CHROMATOGRAM



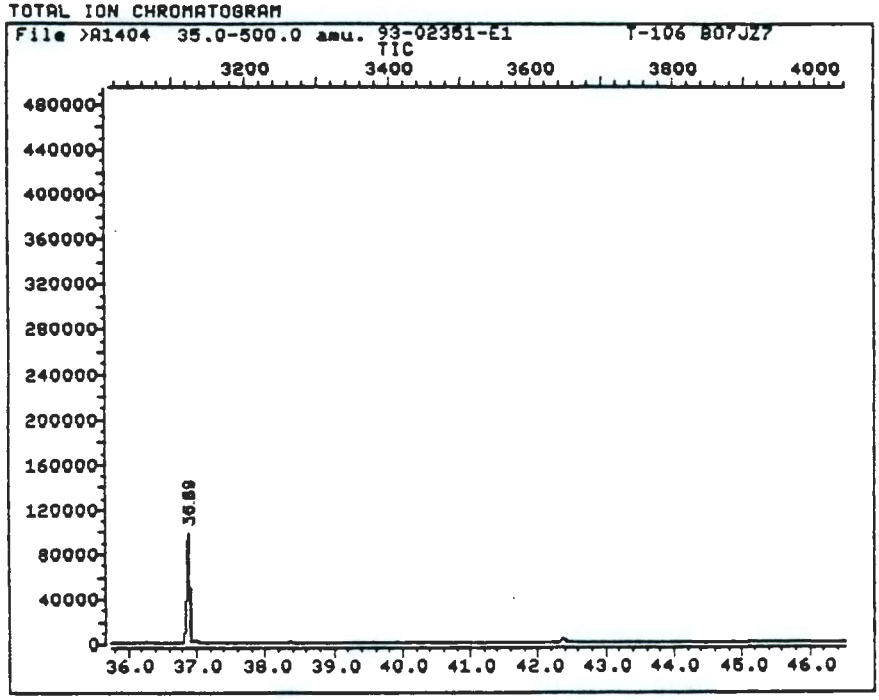
Data File: >A1404::D2 Quant Output File: ^A1404::OF
Name: 93-02351-E1 Instrument ID: BNA1
Misc: T-106 B07JZ7 BTL# 2

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 16:41
Injected at: 930114 15:53

Page 3 of 4

TOTAL ION CHROMATOGRAM



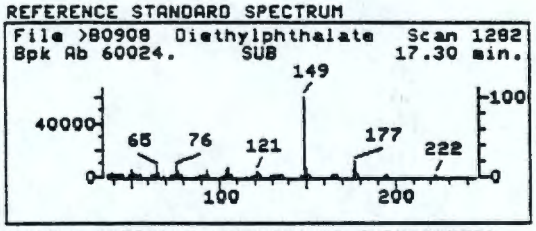
Data File: >A1404::D2 Quant Output File: ^A1404::OF
Name: 93-02351-E1 Instrument ID: BNA1
Misc: T-106 B07JZ7 BTL# 2

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

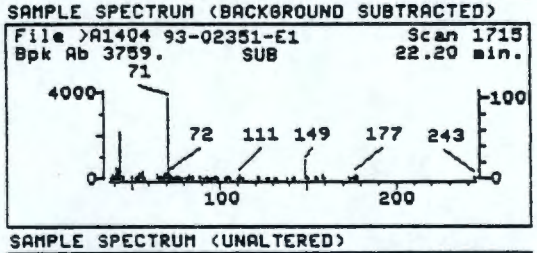
Operator ID: ERIC
Quant Time : 930114 16:41
Injected at: 930114 15:53

Page 4 of 4

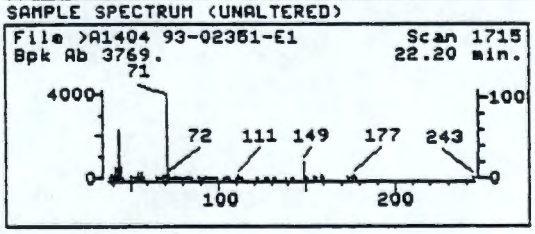
REFERENCE STANDARD SPECTRUM

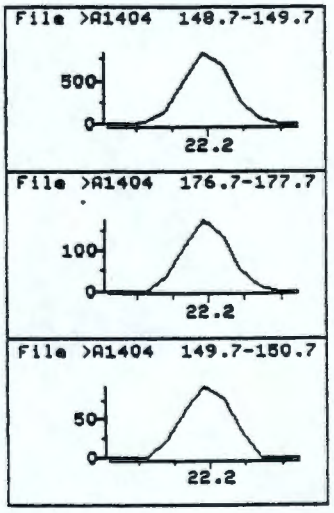


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





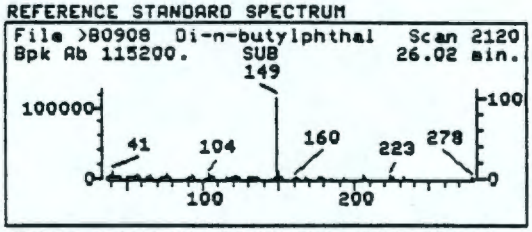
Data File: >A1404::D2
Name: 93-02351-E1
Misc: T-106 B07JZ7
Quant Time: 930114 16:41
Injected at: 930114 15:53
Last Qcal Time: 930114 10:37

Quant Output File: ^A1404::OF
Instrument ID: BNA1
BTL# 2
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

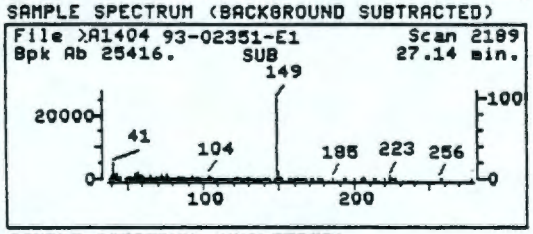
Compound No : 47
Compound Name : Diethylphthalate
Scan Number : 1715
Retention Time: 22.20 min.
Quant Ion : 149.0
Area : 1560
Concentration : .620 ng/uL
q-value : 97

Relist

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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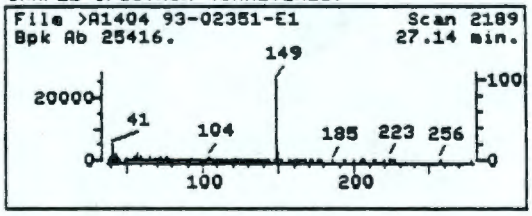
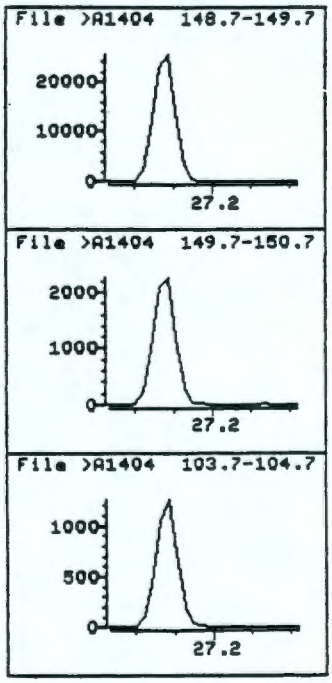




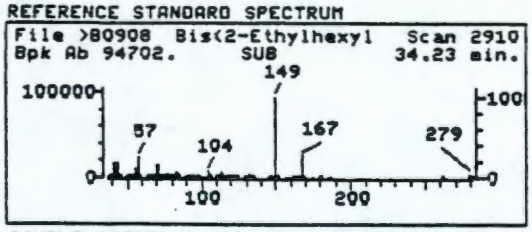
Data File: >A1404::D2
Name: 93-02351-E1
Misc: T-106 B07JZ7
Quant Time: 930114 16:41
Injected at: 930114 15:53
Last Qcal Time: 930114 10:37

Quant Output File: ^A1404::OF
Instrument ID: BNA1
BTL# 2
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

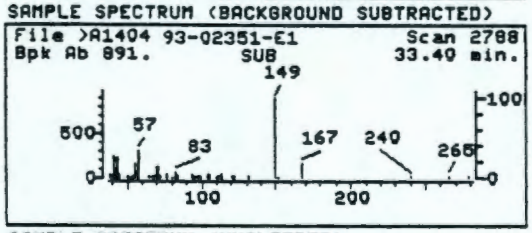
Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2189
Retention Time: 27.14 min.
Quant Ion : 149.0
Area : 49737
Concentration : 12.38 ng/uL
q-value : 97

10/21/93

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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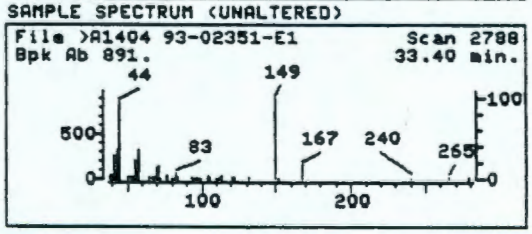
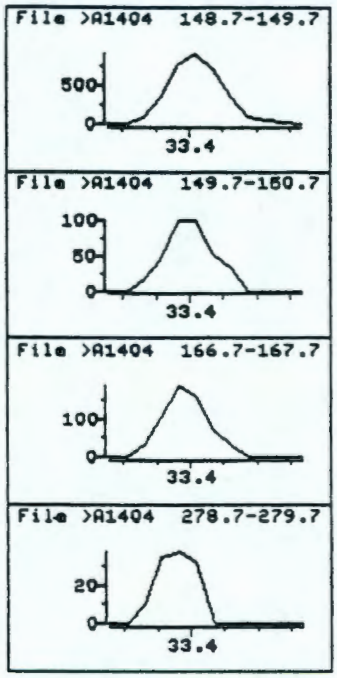




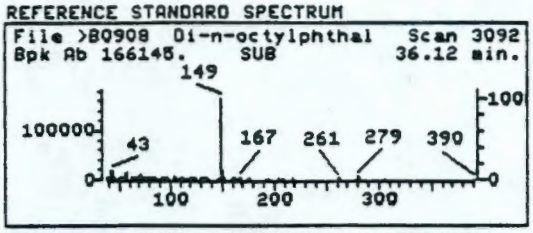
Data File: >A1404::D2
Name: 93-02351-E1
Misc: T-106 B07JZ7
Quant Time: 930114 16:41
Injected at: 930114 15:53
Last Qcal Time: 930114 10:37

Quant Output File: ^A1404::QF
Instrument ID: BNA1
BTL# 2
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2788
Retention Time: 33.40 min.
Quant Ion : 149.0
Area : 2064
Concentration : .723 ng/uL
q-value : 85

VKS 10/24/93

REFERENCE STANDARD SPECTRUM



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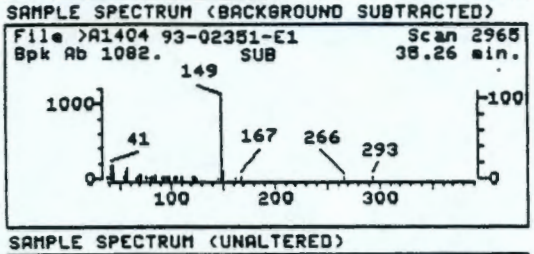

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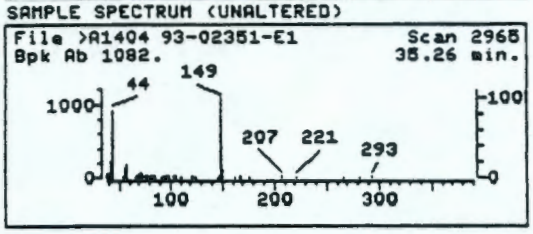
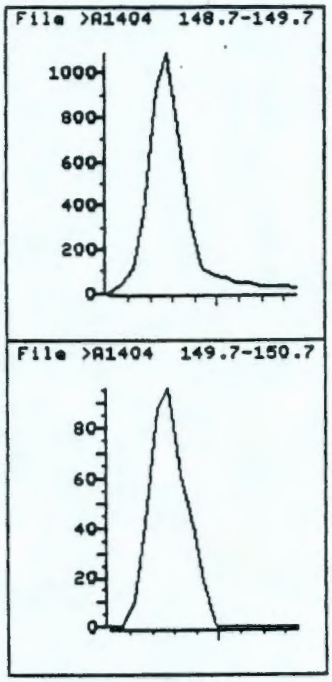




Data File: >A1404::D2
Name: 93-02351-E1
Misc: T-106 B07JZ7
Quant Time: 930114 16:41
Injected at: 930114 15:53
Last Qcal Time: 930114 10:37

Quant Output File: ^A1404::OF
Instrument ID: BNA1
BTL# 2
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 2965
Retention Time: 35.26 min.
Quant Ion : 149.0
Area : 2486
Concentration : .560 ng/uL
q-value : 96

9613492.1299

MS data file header from : >A1404::D2

Sample: 93-02351-E1 Operator: ERIC SUPER GRP. 1/14/93 15:53
Misc : T-106 B07JZ7 BTL# 2
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 2 Equip ID: BNA1
Method file: BNAME1 Tuning file: MTBNA1 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	40.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.5	0.0

>A1404 93-02351-E1 T-106 B07JZ7
35.01 500.0 CLP TIC
Upslope: .2000 Area Reject: 23622. Max Peaks: 11 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File IA1404 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	5.42	27	110	118	492481	12014171	11948253	100.00	86.72
2	5.66	120	133	165	6747	125914	82439*	.69	.59
3	8.24	368	380	387	6966	32330	25321	.21	.18
4	8.41	387	396	410	70671	270490	257979*	2.16	1.87
5	9.50	490	500	513	62282	222785	212174	1.78	1.54
6	9.87	530	535	555	6847	32133	24041	.20	.17
7	10.73	609	617	624	224742	702822	697769	5.84	5.06
8	11.31	664	673	679	31461	94515	88519	.74	.64
9	11.92	724	731	745	129686	377615	367662	3.08	2.66
10	20.24	1519	1527	1532	12201	31401	27064	.23	.19
11	25.94	2068	2074	2084	24533	56933	46289	.39	.33

Sum of corrected areas: 13777516.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	236219.	11.45	4.27 - 13.43
2	40.0	275681.	15.41	13.43 - 18.05
3	40.0	274204.	20.70	18.05 - 22.90
4	40.0	282476.	25.11	22.90 - 29.04
5	40.0	275994.	32.97	29.04 - 34.93
6	40.0	284011.	36.89	34.93 - 46.51

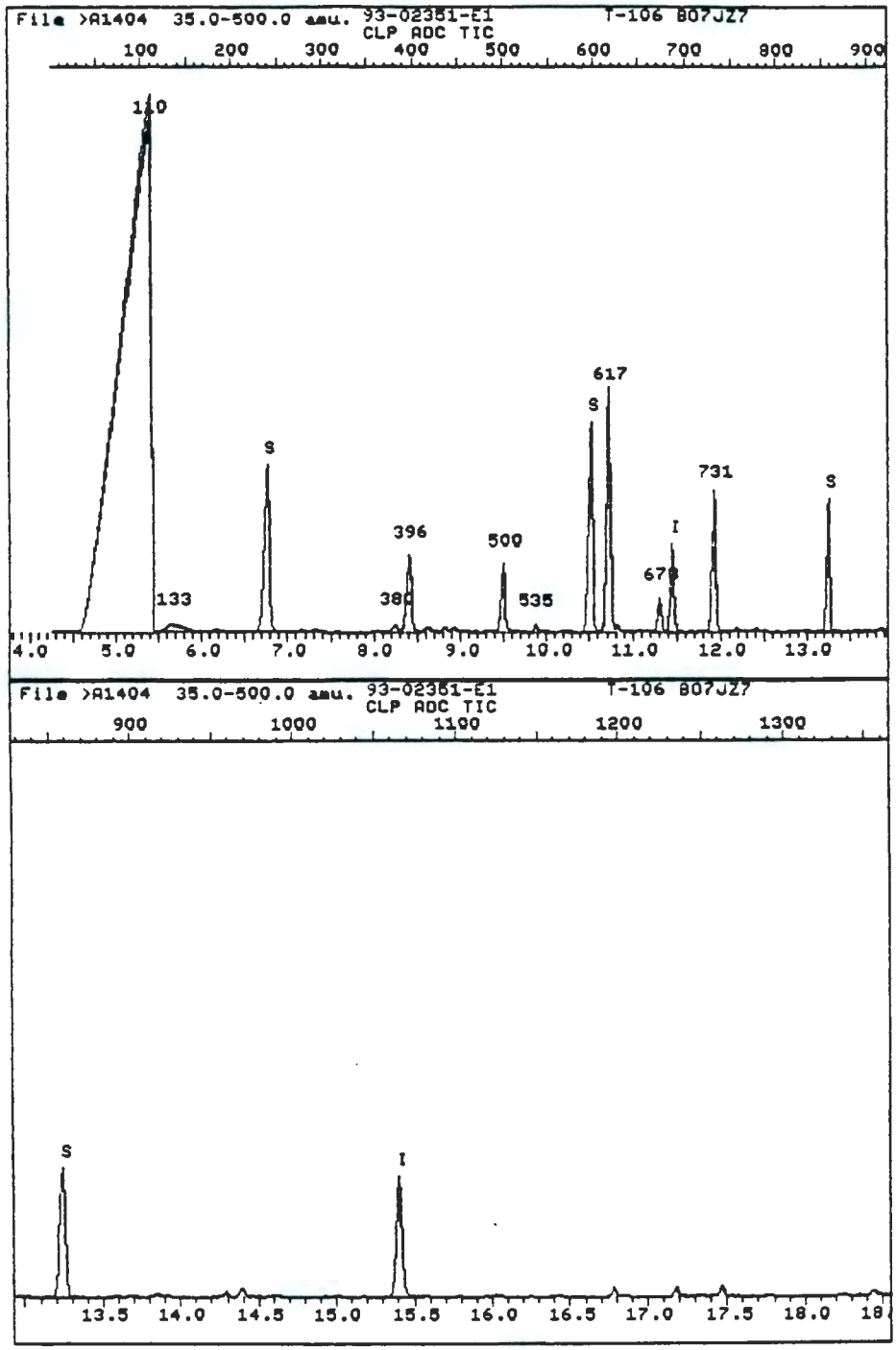
Dilution Factor = 1.00 This sample was 30.0000 g or mL

Correction Factor = 66.73 TIC RESULTS OFF BY 2X; SEE FORM 1F

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std} * \text{Area Unknown}}{\text{Area Int Std}} * \text{Correction Factor}$$

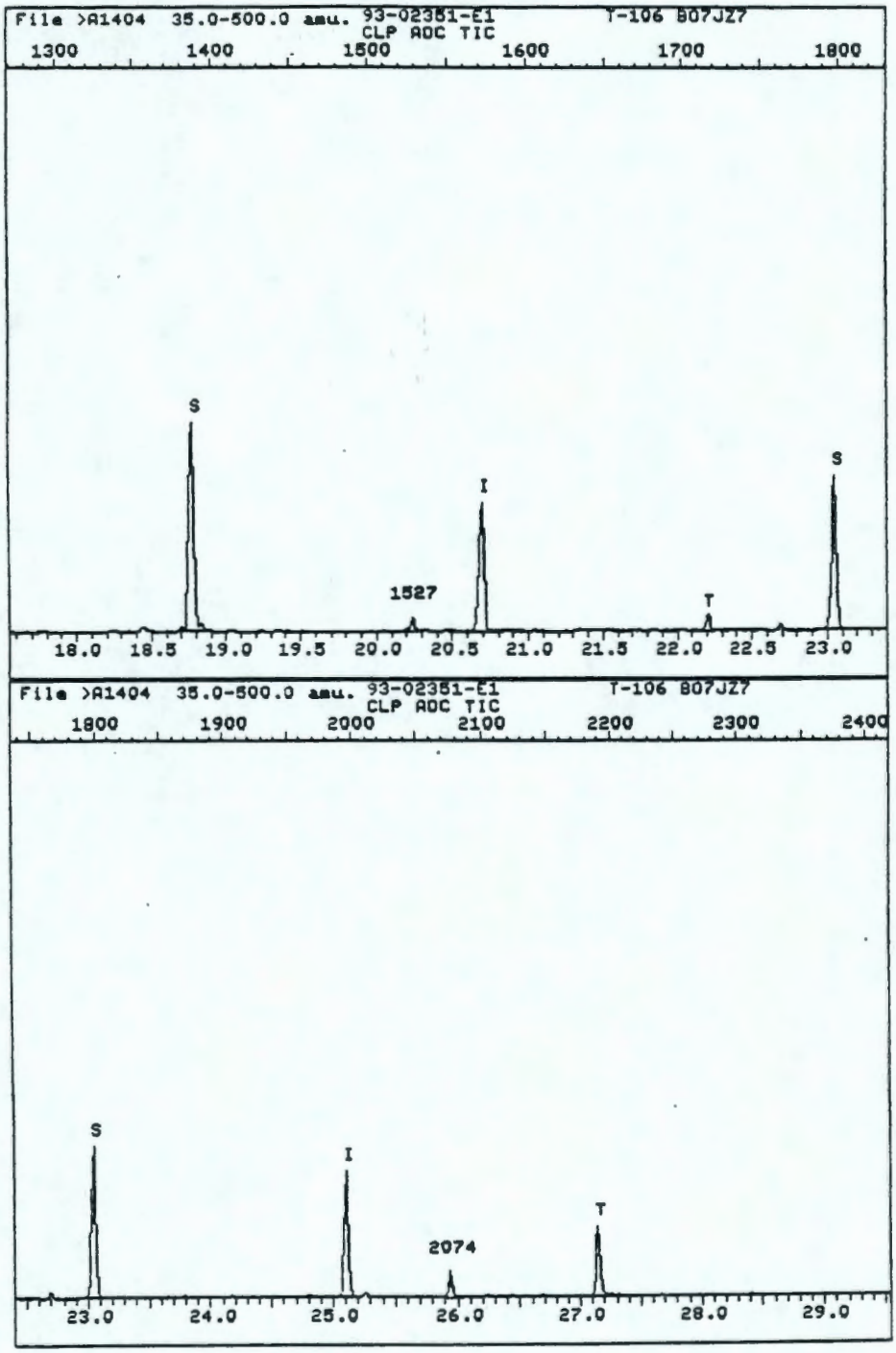
there is a correction for moisture content to be made manually - Conc = $\frac{\text{value}}{.974}$ 5:35 PM TUE., 23 FEB., 1993

F03-150



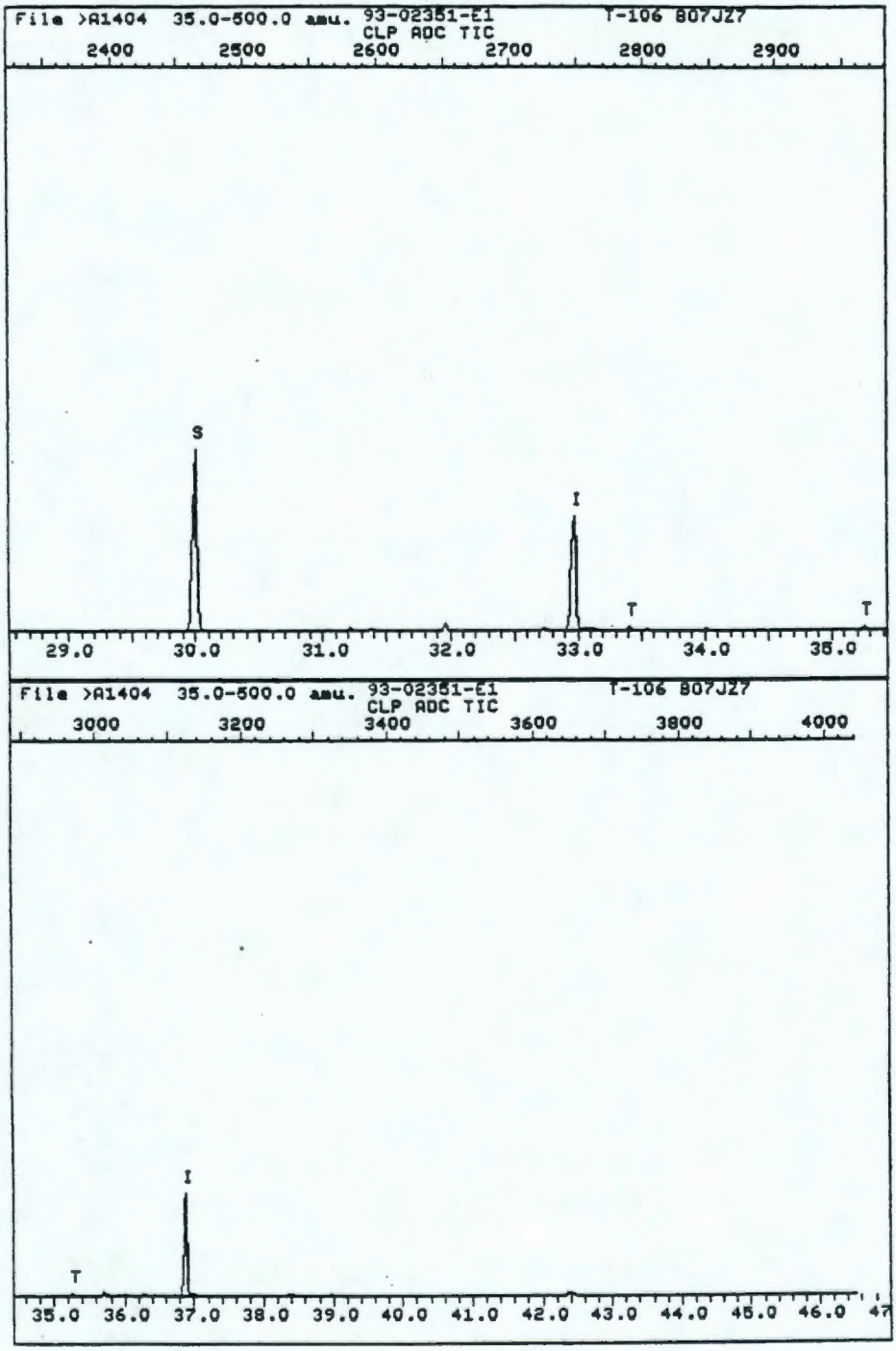
Instrument ID: BNA1 Analyzed on: 1/14/93 15:53

9613492.1301



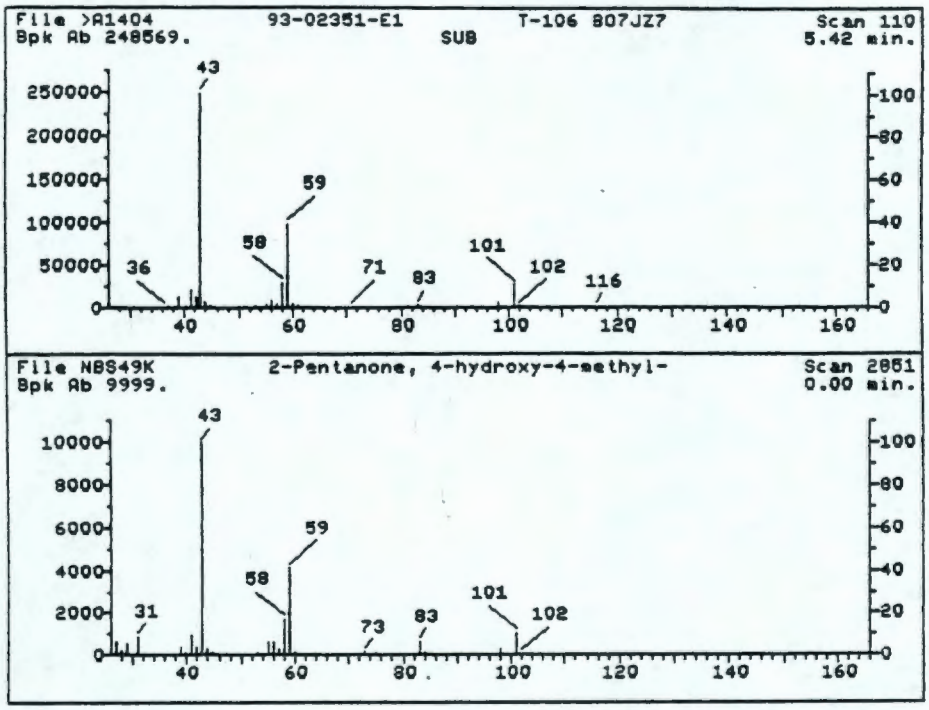
Instrument ID: BNA1 Analyzed on: 1/14/93 15:53

F03-152



Instrument ID: BNA1 Analyzed on: 1/14/93 15:53

9613492.1303



Instrument ID: BNA1 Analyzed on: 1/14/93 15:53
Result 1 in PBM results file: LA1404
Retention Time: 5.42 Area: 11948252 Tentative Conc: 140000.00 =140000
The unknown area is 5058.1% of the nearest internal standard .974
3-2-93

1. 2-Pentanone, 4-hydroxy-4-methyl- 116 C6H12O2

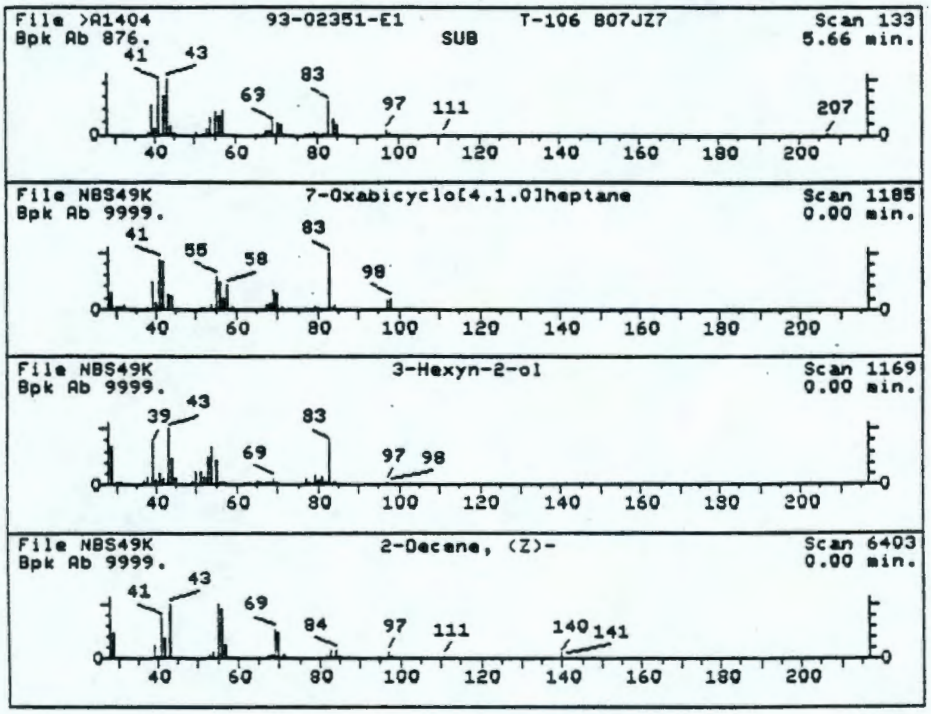
Sample file: >A1404 Spectrum #: 110
Search speed: 3 Tilting option: F No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	47	123422	1790	NBS49K	52	31	2	0	74	22	17	18

A

F02-154

9613492.1304



Instrument ID: BNA1 Analyzed on: 1/14/93 15:53
Result 2 in PBM results file: LA1404
Retention Time: 5.66 Area: 82439 Tentative Conc: 930.00 950
The unknown area is 34.90% of the nearest internal standard 971 3/2/93

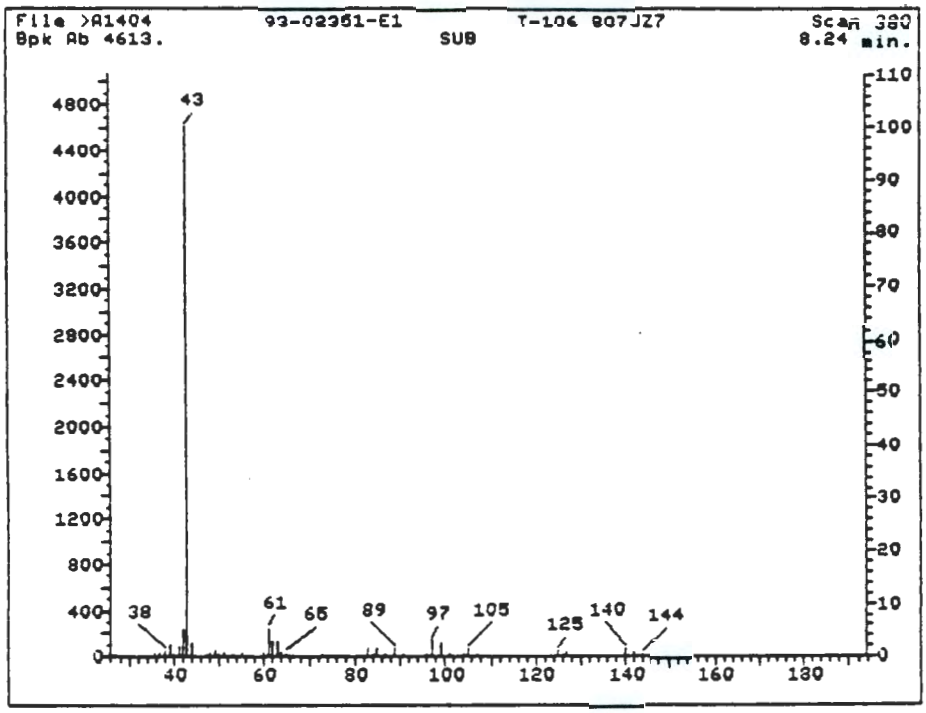
1. 7-Oxabicyclo[4.1.0]heptane 98 C6H10O
2. 3-Hexyn-2-ol 98 C6H10O
3. 2-Decene, (Z)- 140 C10H20

Sample file: >A1404 Spectrum #: 133
Search speed: 3 Tilting option: F No. of ion ranges searched: 68

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	32	286204	6142	NBS49K	74	41	2	0	59	37	10	18

unk *

F03-155



Instrument ID: BNA1 Analyzed on: 1/14/93 15:53
Result 3 in PBM results file: LA1404
Retention Time: 8.24 Area: 25321 Tentative Conc: 290.00
The unknown area is 10.72% of the nearest internal standard

$\frac{290.00}{4.74} = 300$

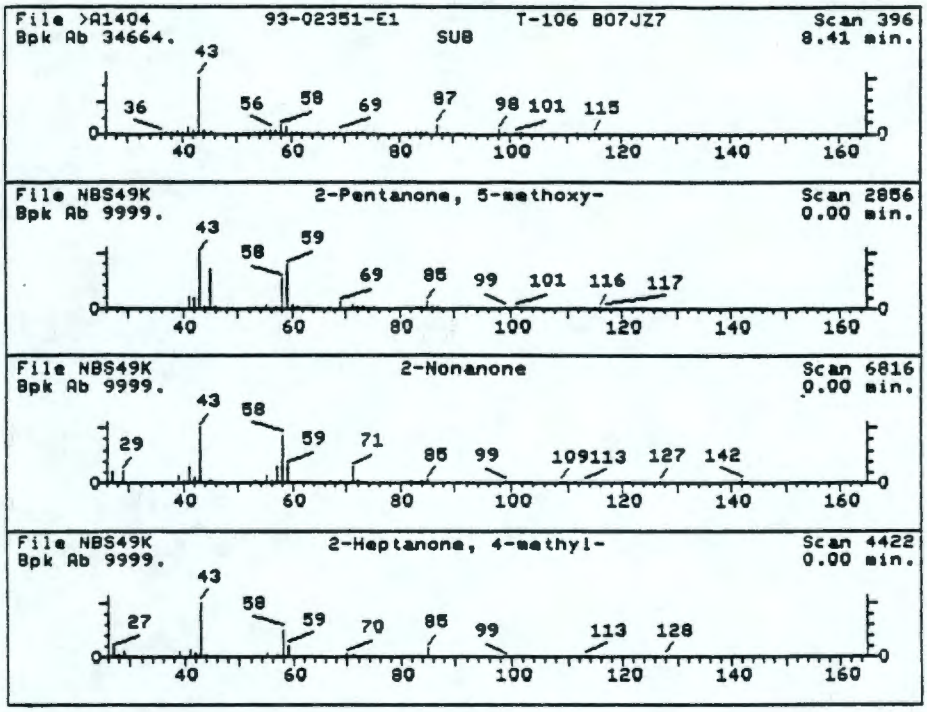
3/2/93

Sample file: >A1404 Spectrum #: 380

No data base entries were retrieved.

unk

9613492.1306



Instrument ID: BNA1 Analyzed on: 1/14/93 15:53
Result 4 in PBM results file: LA1404
Retention Time: 8.41 Area: 257979 Tentative Conc: ~~2900.00~~ 3000
The unknown area is 109.21% of the nearest internal standard .971 2/4/93

1. 2-Pentanone, 5-methoxy-	116	C6H12O2
2. 2-Nonanone	142	C9H18O
3. 2-Heptanone, 4-methyl-	128	C8H16O
4. Butanoic acid, 2-ethyl-3-oxo-, methyl ester	144	C7H12O3

Sample file: >A1404 Spectrum #: 396
Search speed: 3 Tilting option: F No. of ion ranges searched: 50

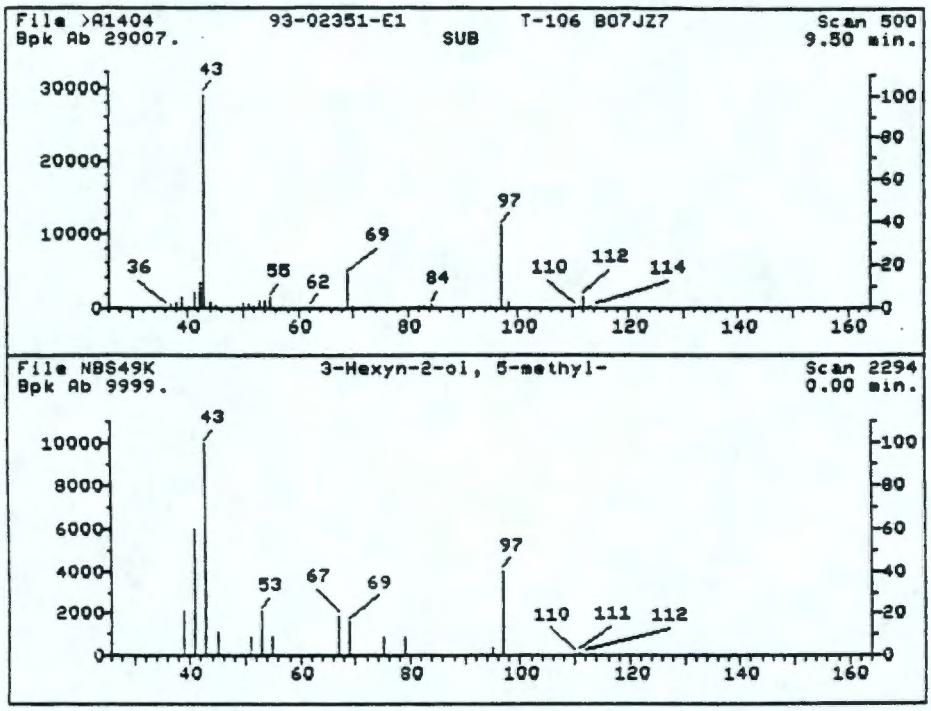
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	20*	17429048	1791	NBS49K	24	43	2	0	15	52	5	14

unk

(A)

F03-157

9613492.1307



Instrument ID: BNA1 Analyzed on: 1/14/93 15:53
Result 5 in PBM results file: LA1404
Retention Time: 9.50 Area: 212174 Tentative Conc: 2400.00 / .9789 = 2500
The unknown area is 89.82% of the nearest internal standard

1. 3-Hexyn-2-ol, 5-methyl- 112 C7H12O

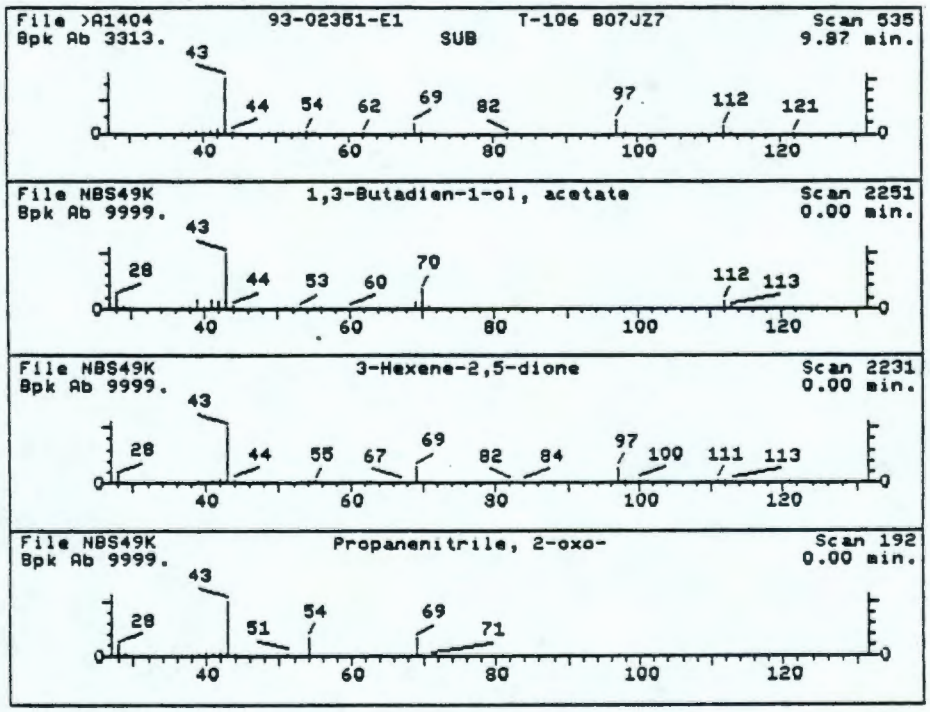
Sample file: >A1404 Spectrum #: 500
Search speed: 3 Tilting option: F No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	31*	23293507	9091	NBS49K	26	63	2	0	96	34	12	14

unk

F03-158

9613492.1308



Instrument ID: BNA1 Analyzed on: 1/14/93 15:53
Result 6 in PBM results file: LA1404
Retention Time: 9.87 Area: 24041 Tentative Conc: ~~270.00~~
The unknown area is 10.18% of the nearest internal standard 210 [illegible] 7/2/93

1. 1,3-Butadien-1-ol, acetate 112 C6H8O2
2. 3-Hexene-2,5-dione 112 C6H8O2
3. Propanenitrile, 2-oxo- 69 C3H3NO

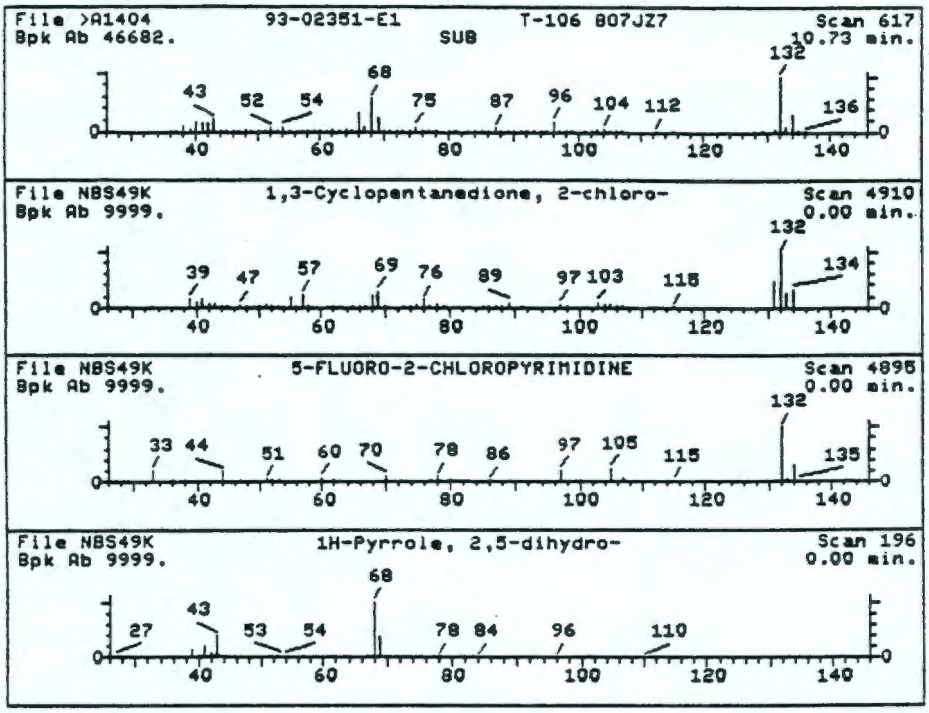
Sample file: >A1404 Spectrum #: 535
Search speed: 3 Tilting option: F No. of ion ranges searched: 49

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	36*	1515760	11993	NBS49K	27	53	3	0	100	27	14	13
2.	25*	4436753	9083	NBS49K	22	60	2	0	65	43	8	13

unk

F03-159

9613492.1309



Instrument ID: BNA1 Analyzed on: 1/14/93 15:53
Result 7 in PBM results file: LA1404
Retention Time: 10.73 Area: 697769 Tentative Conc: 7900.00
The unknown area is 295.39% of the nearest internal standard

1. 1,3-Cyclopentanedione, 2-chloro- 132 C5H5ClO2
2. 5-FLUORO-2-CHLOROPYRIMIDINE 132 C4H2ClFN2
3. 1H-Pyrrole, 2,5-dihydro- 69 C4H7N

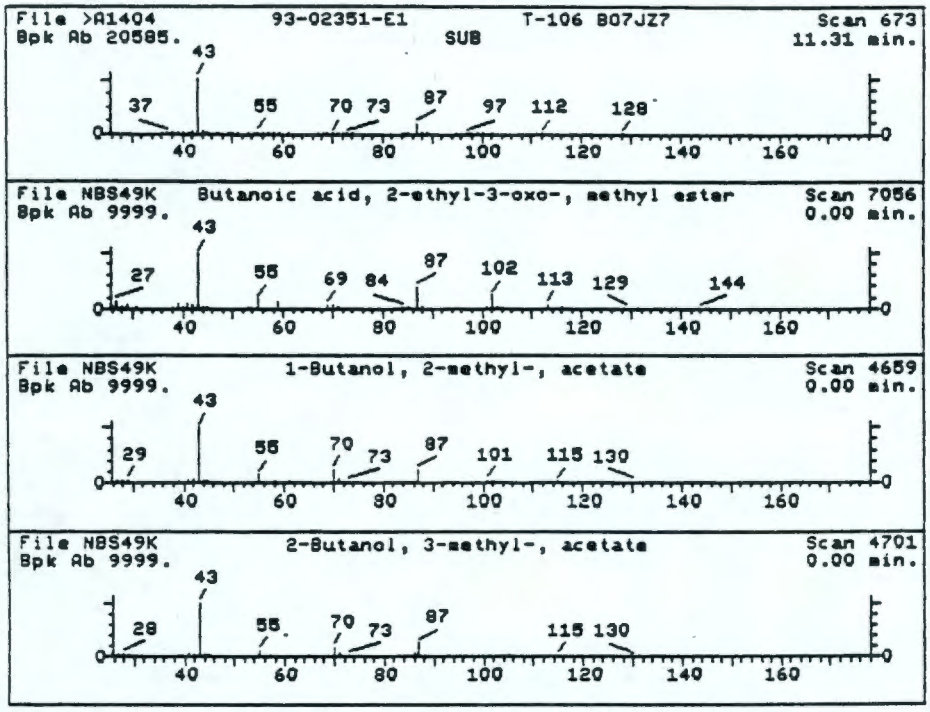
Sample file: >A1404 Spectrum #: 617
Search speed: 3 Tilting option: F No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	28*	14203191	15856	NBS49K	28	83	2	0	97	38	10	14
2.	25*	62802420	15850	NBS49K	23	85	3	0	100	47	7	12
3.	20*	109966	3541	NBS49K	35	21	1	2	32	53	5	12

delete – see file >A1403
[illegible] 2/25/93

F03-160

9613492.1310



Instrument ID: BNA1 Analyzed on: 1/14/93 15:53
Result 8 in PBM results file: LA1404
Retention Time: 11.31 Area: 88519 Tentative Conc: 1000.00
The unknown area is 37.47% of the nearest internal standard n.c. 3/26/93

1. Butanoic acid, 2-ethyl-3-oxo-, methyl ester 144 C7H12O3
2. 1-Butanol, 2-methyl-, acetate 130 C7H14O2
3. 2-Butanol, 3-methyl-, acetate 130 C7H14O2

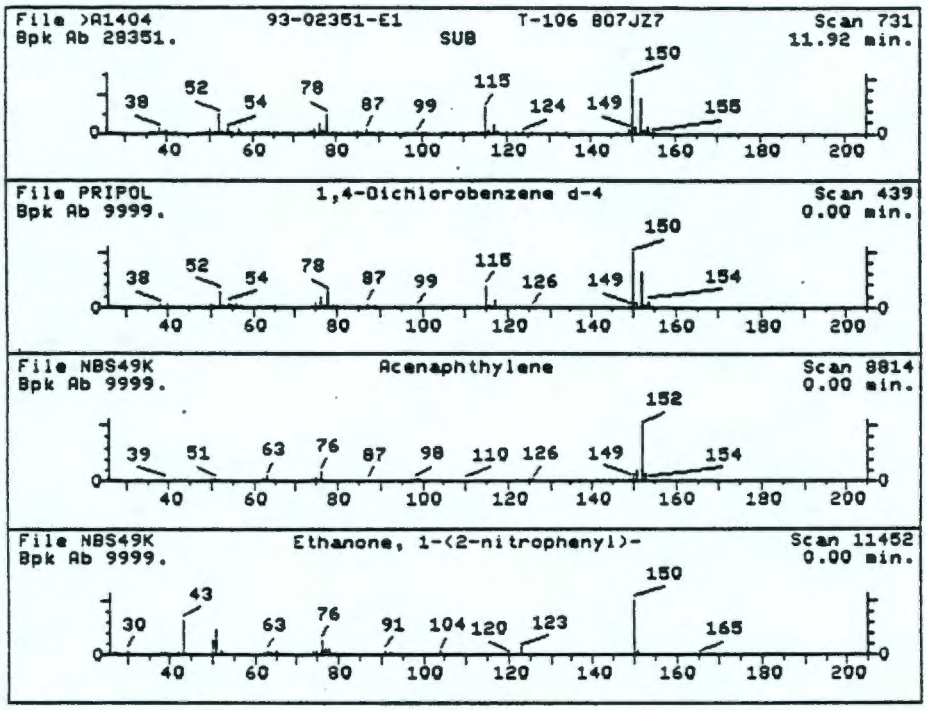
Sample file: >A1404 Spectrum #: 673
Search speed: 3 Tilting option: F No. of ion ranges searched: 52

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25*	51756082	7336	NBS49K	22	70	2	0	51	47	7	13
2.	20*	624419	7299	NBS49K	37	44	2	0	86	52	5	18
3.	20*	5343964	7303	NBS49K	39	36	2	0	78	52	5	19

unk

F03-161

9613492.1311



Instrument ID: BNA1 Analyzed on: 1/14/93 15:53
Result 9 in PBM results file: LA1404
Retention Time: 11.92 Area: 367662 Tentative Conc: 4200.00
The unknown area is 155.64% of the nearest internal standard

1. 1,4-Dichlorobenzene d-4 150 C6.D4.CL2
2. Acenaphthylene 152 C12H8
3. Ethanone, 1-(2-nitrophenyl)- 165 C8H7NO3
4. Imidazo[5,1-f][1,2,4]triazine-2,7-diamine 150 C5H6N6
5. 6H-Purin-6-one, 1,7-dihydro-1-methyl- 150 C6H6N4O

Sample file: >A1404 Spectrum #: 731
Search speed: 3 Tilting option: F No. of ion ranges searched: 37

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	97*	439	257	PRIPOL	95	12	0	0	87	7	68	97

delete - on file >A1403 [illegible] 2/25/93

F03-162

Instrument ID: BNA1 Analyzed on: 1/14/93 15:53

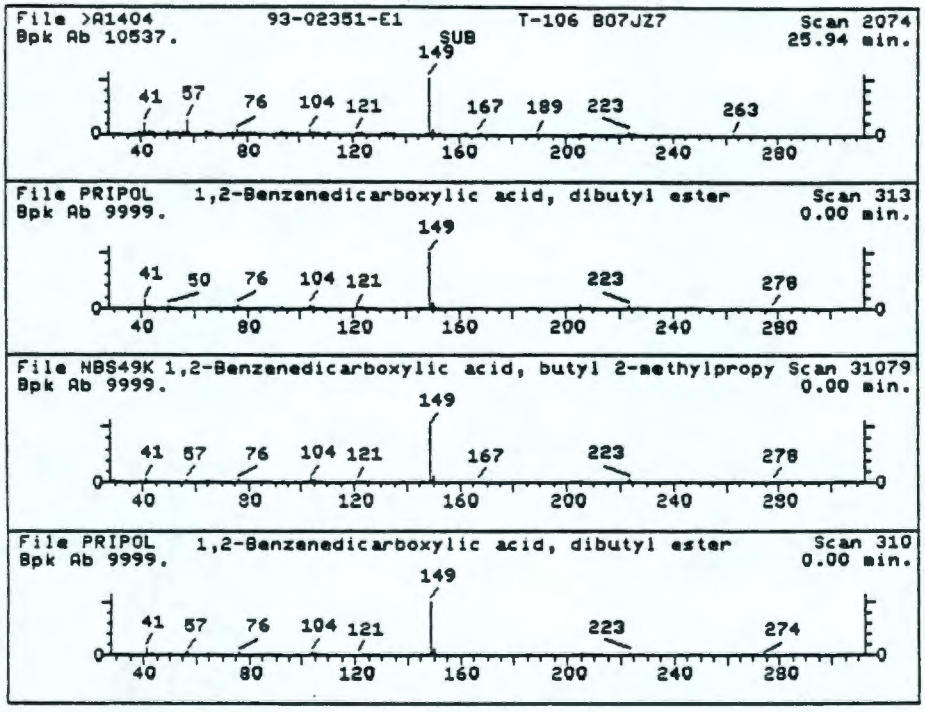
Retention Time: 20.24 Area: 27064 Tentative Conc: 260.00

The unknown area is 9.87% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

9613492.1313



Instrument ID: BNA1 Analyzed on: 1/14/93 15:53
Result 10 in PBM results file: LA1404
Retention Time: 25.94 Area: 46289 Tentative Conc: ~~440.00~~
The unknown area is 16.39% of the nearest internal standard 450 3/24/93

1. 1,2-Benzenedicarboxylic acid, dibutyl ester 278 C16H2204
2. 1,2-Benzenedicarboxylic acid, butyl 2-methylpropyl e ster 278 C16H2204
3. 1,2-Benzenedicarboxylic acid, dibutyl ester 278 C16H2204
4. 1,2-Benzenedicarboxylic acid, dibutyl ester 278 C16H2204
5. 1,2-Benzenedicarboxylic acid, dibutyl ester 278 C16H2204
6. 1,2-Benzenedicarboxylic acid, dibutyl ester 278 C16H2204

Sample file: >A1404 Spectrum #: 2074
Search speed: 3 Tilting option: F No. of ion ranges searched: 98

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	87*	313	241	PRIPOL	87	20	1	0	97	15	55	86
2.	83*	17851535	19272	NBS49K	81	25	0	1	97	15	51	77
3.	76	310	238	PRIPOL	93	17	1	0	95	15	40	57
4.	74*	304	232	PRIPOL	67	39	2	0	100	15	39	46
5.	74*	306	234	PRIPOL	67	48	2	0	100	15	39	46
6.	71*	311	239	PRIPOL	78	39	2	-1	91	15	38	39

wrong phthalate

F03-164

QUANT REPORT

Operator ID: ERIC
Output File: ^A1405::OF
Data File: >A1405::D1
Name: 93-02351-E2
Misc: T-106 B07JZ7 DUP

Quant Rev: 7
Quant Time: 930114 17:37
Injected at: 930114 16:49
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 3

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930114 10:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.45	685	33966	40.00	ng/uL	98
2)	2-Fluorophenol	6.75	237	167116	131.77	ng/uL	8
3)	Phenol-d5	10.52	597	215969	143.70	ng/uL	9
4)	Phenol	0.00	0	0	0.00	ng/uL	
5)	bis(2-Chloroethyl)ether	0.00	0	0	0.00	ng/uL	
6)	2-Chlorophenol	0.00	0	0	0.00	ng/uL	
7)	1,3-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
8)	1,4-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	1,2-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	0	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	0.00	857	0	0.00	ng/uL	
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.40	1063	112147	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.25	857	101456	69.68	ng/uL	9
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	0.00	0	0	0.00	ng/uL	
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	0.00	0	0	0.00	ng/uL	
30)	2-Methylnaphthalene	0.00	0	0	0.00	ng/uL	
31)	*Acenaphthene-d10	20.69	1570	54094	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	18.77	1386	134298	67.90	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	1570	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	0.00	0	0	0.00	ng/uL	

43)	2,4-Dinitrophenol	0.00	0	0	0.00	ng/uL	
44)	4-Nitrophenol	0.00	0	0	0.00	ng/uL	
45)	Dibenzofuran	0.00	0	0	0.00	ng/uL	
46)	2,4-Dinitrotoluene	0.00	0	0	0.00	ng/uL	
47)	~~Diethylphthalate~~	~~22.20~~	~~1715~~	~~1091~~	~~.450~~	~~ng/uL~~	9
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00	ng/uL	
49)	Fluorene	0.00	0	0	0.00	ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00	ng/uL	
51)	*Phenanthrene-d10	25.11	1994	95414	40.00	ng/uL	9
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00	ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1797	0	0.00	ng/uL	
54)	2,4,6-Tribromophenol	23.05	1797	49485	125.37	ng/uL	9
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00	ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00	ng/uL	
57)	Pentachlorophenol	0.00	0	0	0.00	ng/uL	
58)	Phenanthrene	0.00	0	0	0.00	ng/uL	
59)	Anthracene	0.00	0	0	0.00	ng/uL	
60)	Di-n-butylphthalate	27.13	2188	5194	1.33	ng/uL	9
61)	Fluoranthene	0.00	0	0	0.00	ng/uL	
62)	*Chrysene-d12	32.97	2746	86185	40.00	ng/uL	9
63)	Pyrene	0.00	0	0	0.00	ng/uL	
64)	Terphenyl-d14	30.01	2463	152172	61.58	ng/uL	8
65)	Butylbenzylphthalate	0.00	0	0	0.00	ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00	ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00	ng/uL	
68)	Chrysene	0.00	0	0	0.00	ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	33.40	2787	1687	.606	ng/uL	9
70)	*Perylene-d12	36.88	3120	89975	40.00	ng/uL	9
71)	Di-n-octylphthalate	0.00	0	0	0.00	ng/uL	
72)	Benzo(b)fluoranthene	0.00	0	0	0.00	ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00	ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00	ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00	ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00	ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00	ng/uL	

* Compound is ISTD

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >A1405
CAL CHECK FILE = >A1402
DATE AND TIME OF ANALYSIS = 1/14/93 16:49
MISCELLANEOUS = T-106 B07JZ7 DUP
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

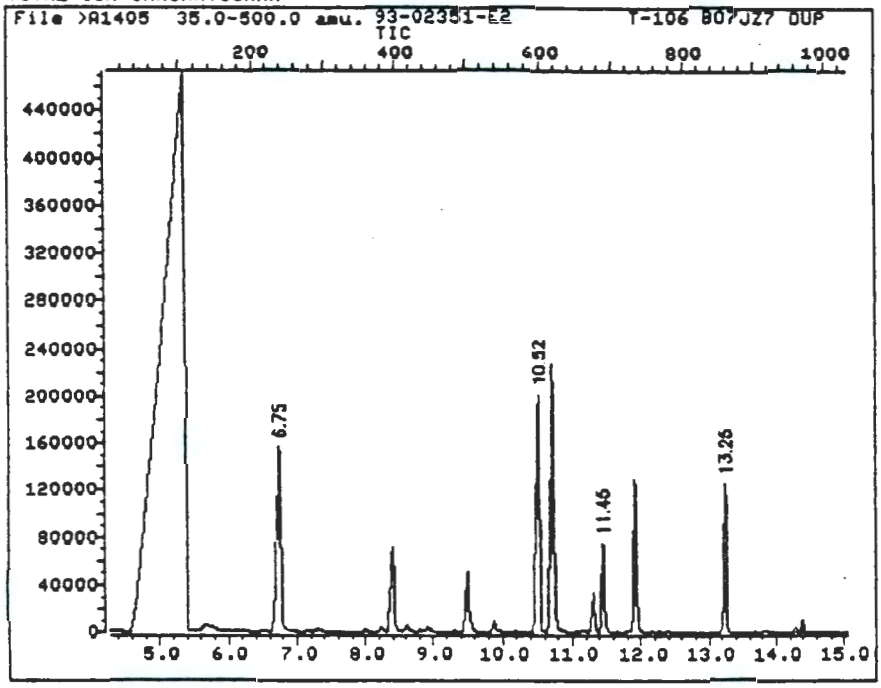
I. Areas

Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	33966	36480	18240	72960	OK
Naphthalene-d8	112147	121269	60635	242538	OK
Acenaphthene-d10	54094	57467	28734	114934	OK
Phenanthrene-d10	95414	101992	50996	203984	OK
Chrysene-d12	86185	77858	38929	155716	OK
Perylene-d12	89975	93060	46530	186120	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.45	11.45	10.95	11.95	OK
Naphthalene-d8	15.40	15.42	14.92	15.92	OK
Acenaphthene-d10	20.69	20.70	20.20	21.20	OK
Phenanthrene-d10	25.11	25.12	24.62	25.62	OK
Chrysene-d12	32.97	33.00	32.50	33.50	OK
Perylene-d12	36.88	36.91	36.41	37.41	OK

TOTAL ION CHROMATOGRAM



Data File: >A1405::D1
Name: 93-02351-E2
Misc: T-106 B07JZ7 DUP

Quant Output File: ^A1405::QF
Instrument ID: BNA1

BTL# 3

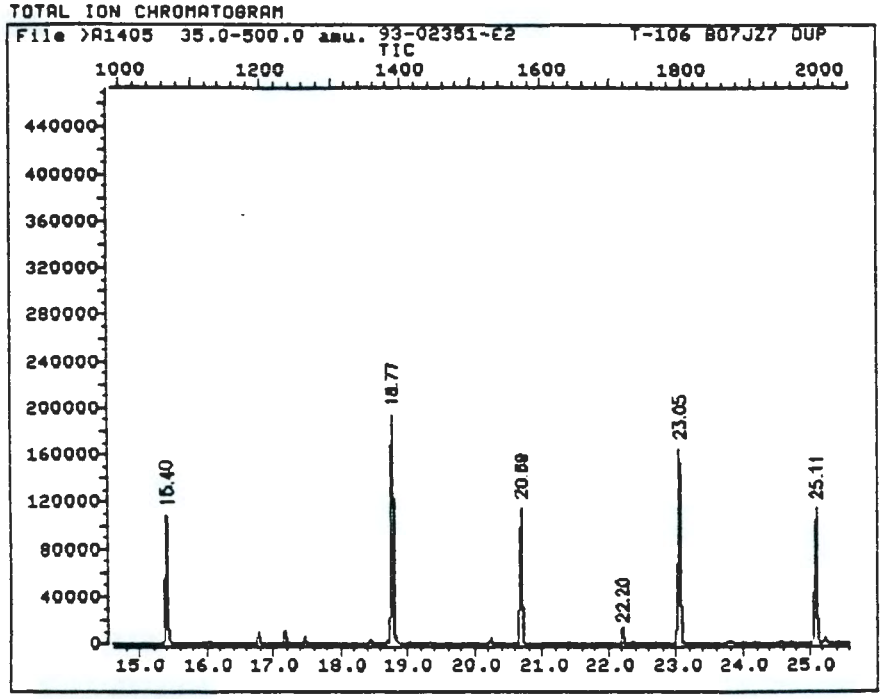
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 17:37
Injected at: 930114 16:49

Page 1 of 4

TOTAL ION CHROMATOGRAM

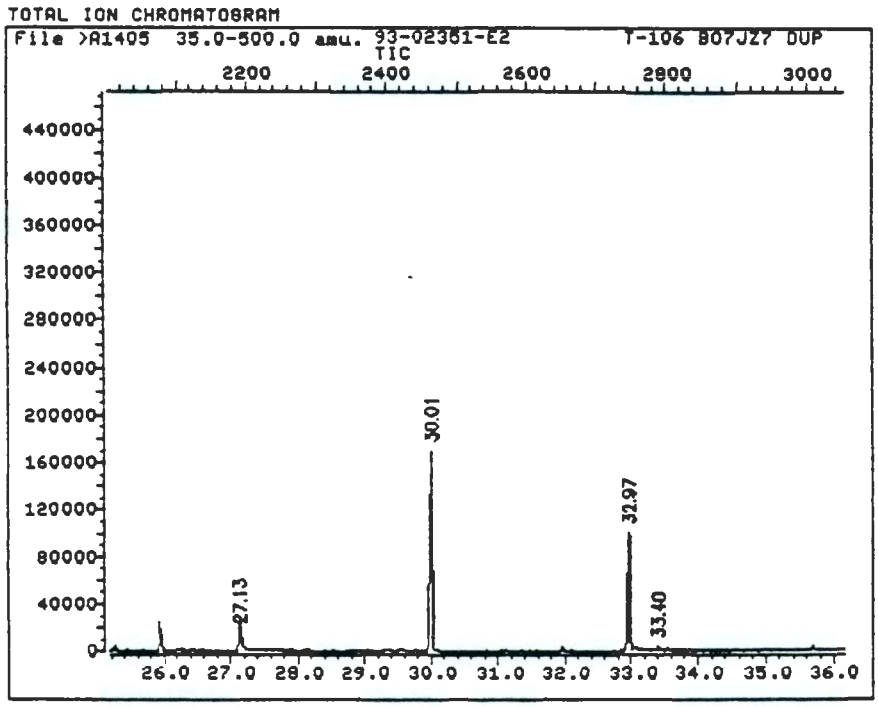


Data File: >A1405::D1 Quant Output File: ^A1405::QF
Name: 93-02351-E2 Instrument ID: BNA1
Misc: T-106 B07JZ7 DUP BTL# 3

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 17:37
Injected at: 930114 16:49

TOTAL ION CHROMATOGRAM



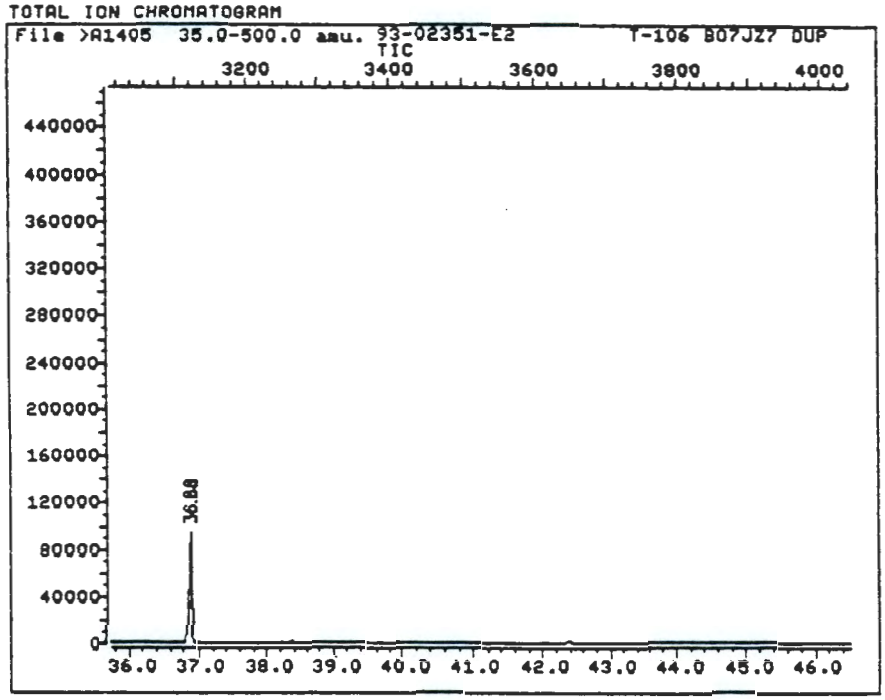
Data File: >A1405::D1 Quant Output File: ^A1405::OF
Name: 93-02351-E2 Instrument ID: BNA1
Misc: T-106 B07JZ7 DUP BTL# 3

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 17:37
Injected at: 930114 16:49

Page 3 of 4

TOTAL ION CHROMATOGRAM



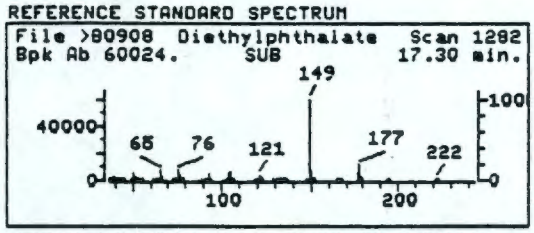
Data File: >A1405::D1 Quant Output File: ^A1405::OF
Name: 93-02351-E2 Instrument ID: BNA1
Misc: T-106 B07JZ7 DUP BTL# 3

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

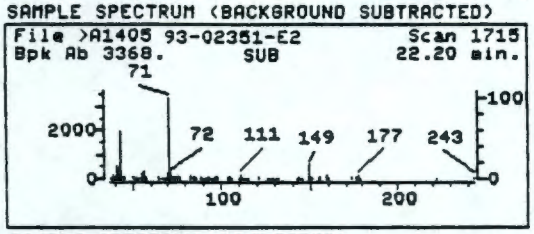
Operator ID: ERIC
Quant Time : 930114 17:37
Injected at: 930114 16:49

Page 4 of 4

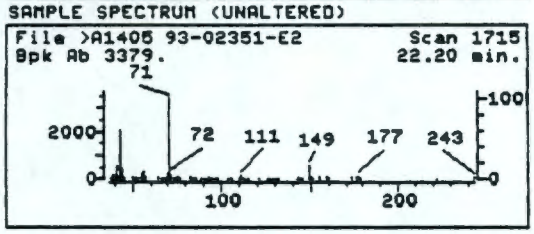
REFERENCE STANDARD SPECTRUM

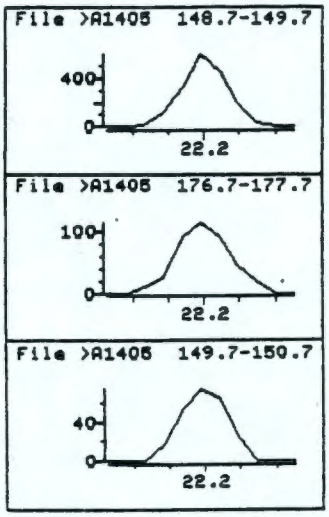


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



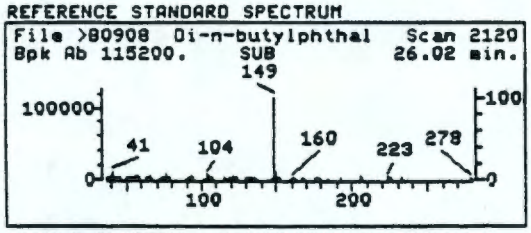


Data File: >A1405::D1
Name: 93-02351-E2
Misc: T-106 B07JZ7 DUP
Quant Time: 930114 17:37
Injected at: 930114 16:49
Last Qcal Time: 930114 10:37

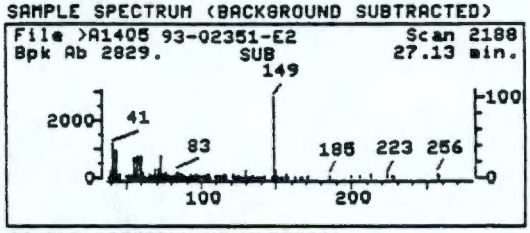
Quant Output File: ^A1405::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 47
Compound Name : Diethylphthalate
Scan Number : 1715
Retention Time: 22.20 min.
Quant Ion : 149.0
Area : 1091
Concentration : .450 ng/uL
q-value : 92

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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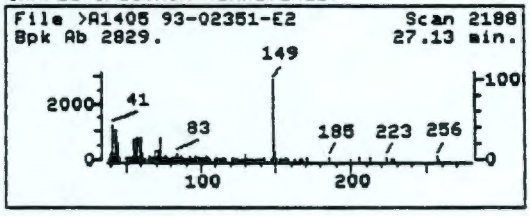
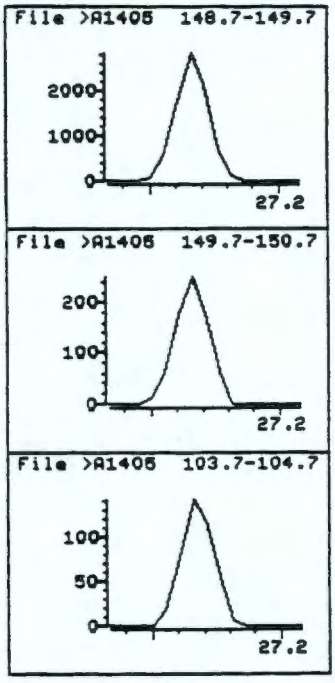


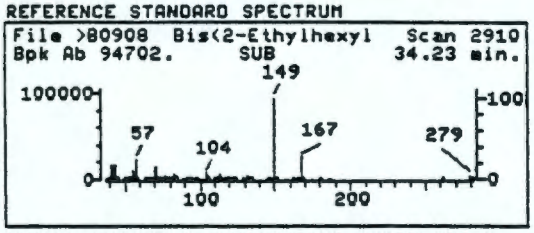


Data File: >A1405::D1
Name: 93-02351-E2
Misc: T-106 B07JZ7 DUP
Quant Time: 930114 17:37
Injected at: 930114 16:49
Last Qcal Time: 930114 10:37

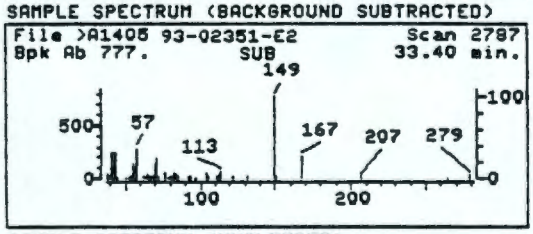
Quant Output File: ^A1405::QF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2188
Retention Time: 27.13 min.
Quant Ion : 149.0
Area : 5194
Concentration : 1.33 ng/uL
q-value : 96

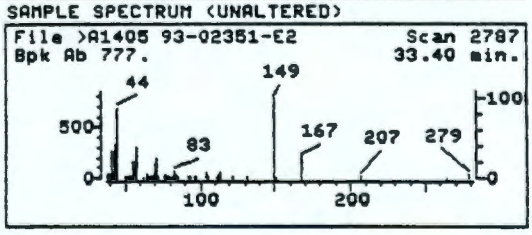
REFERENCE STANDARD SPECTRUM

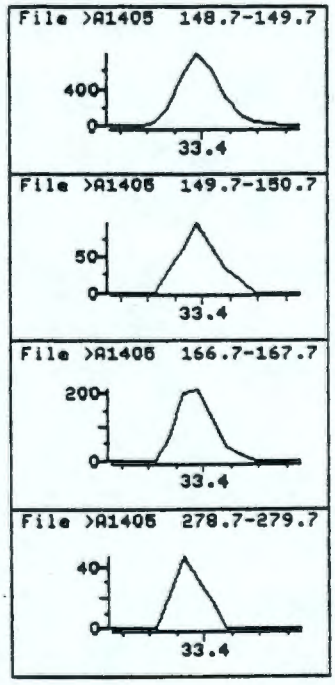


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >A1405::D1
Name: 93-02351-E2
Misc: T-106 B07JZ7 DUP
Quant Time: 930114 17:37
Injected at: 930114 16:49
Last Qcal Time: 930114 10:37

Quant Output File: ^A1405::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2787
Retention Time: 33.40 min.
Quant Ion : 149.0
Area : 1687
Concentration : .606 ng/uL
q-value : 97

9613492.1324

MS data file header from : >A1405::D1

Sample: 93-02351-E2 Operator: ERIC SUPER GRP. 1/14/93 16:49
Misc : T-106 B07JZ7 DUP BTL# 3
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 3 Equip ID: BNA1
Method file: BNAME1 Tuning file: MTBNA1 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	40.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.5	0.0

>A1405 93-02351-E2 T-106 B07JZ7 DUP
35.01 500.0 CLP TIC
Upslope: .2000 Area Reject: 22960. Max Peaks: 9 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File IA1405 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	5.38	27	106	115	471096	10959192	10904073	100.00	85.69
2	5.65	119	132	165	5137	95911	63026*	.58	.49
3	8.41	385	395	408	71766	289461	276730	2.54	2.17
4	9.50	489	499	513	50935	208605	199430	1.83	1.56
5	9.87	528	535	552	8876	39803	32380	.30	.25
6	10.72	607	616	624	227013	736781	731634	6.71	5.75
7	11.31	664	672	678	33318	101093	95913	.88	.75
8	11.92	723	730	742	128539	385420	376217	3.45	2.95
9	25.94	2065	2074	2080	24357	52957	45296	.42	.35

Sum of corrected areas: 12724700.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	229602.	11.45	4.28 - 13.43
2	40.0	266167.	15.40	13.43 - 18.05
3	40.0	264753.	20.69	18.05 - 22.90
4	40.0	273498.	25.11	22.90 - 29.04
5	40.0	265386.	32.97	29.04 - 34.92
6	40.0	275946.	36.88	34.92 - 46.51

Dilution Factor = 1.00 This sample was 30.0000 g or mL

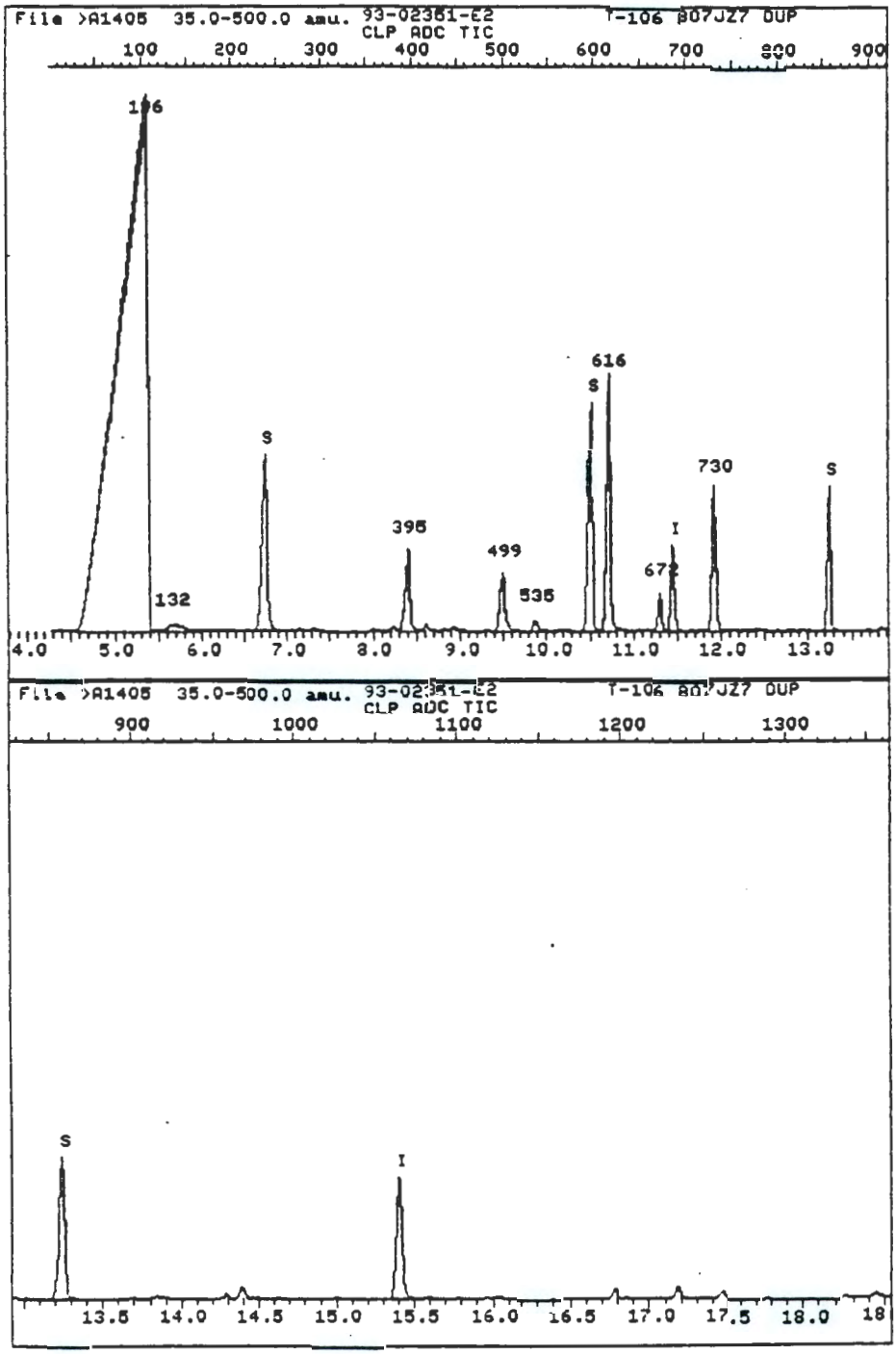
Correction Factor = 66.73 TIC RESULTS OFF BY 2X; SEE FOLN 1F

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std} * \text{Area Unknown}}{\text{Area Int Std}} * \text{Correction Factor}$$

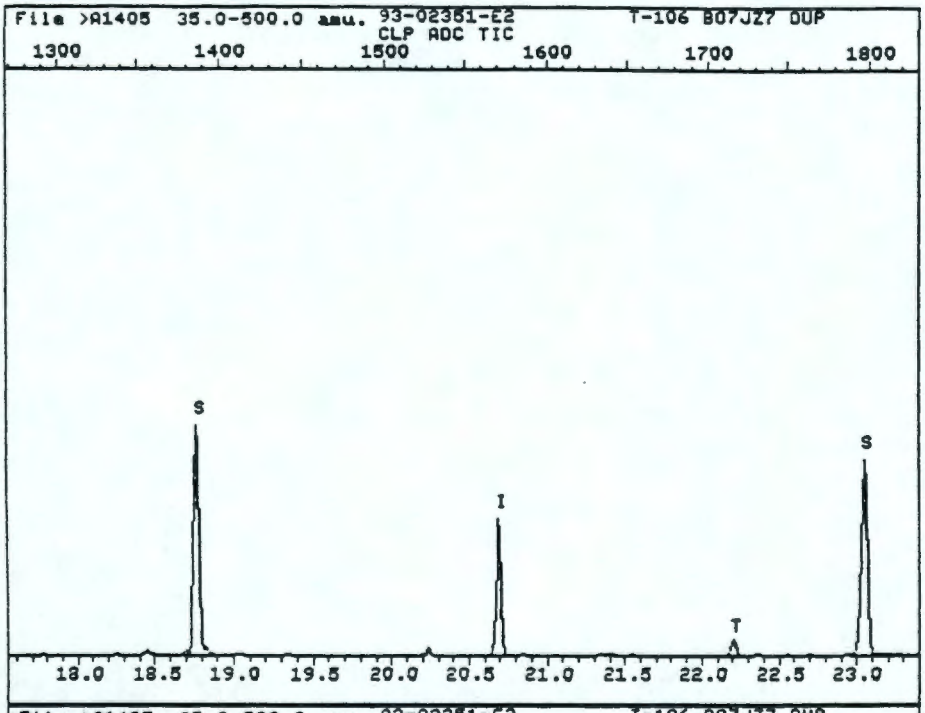
6:34 PM TUE., 23 FEB., 1993

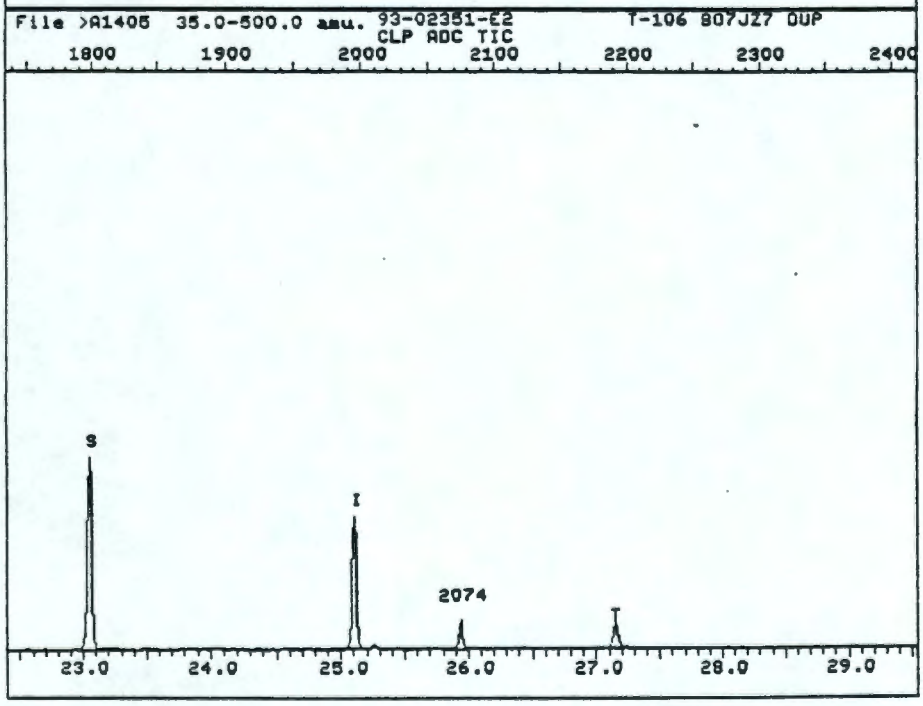
correction for moisture $C_{corr} = \frac{\text{value}}{\text{ATF}}$ 2/9/93

F03-175

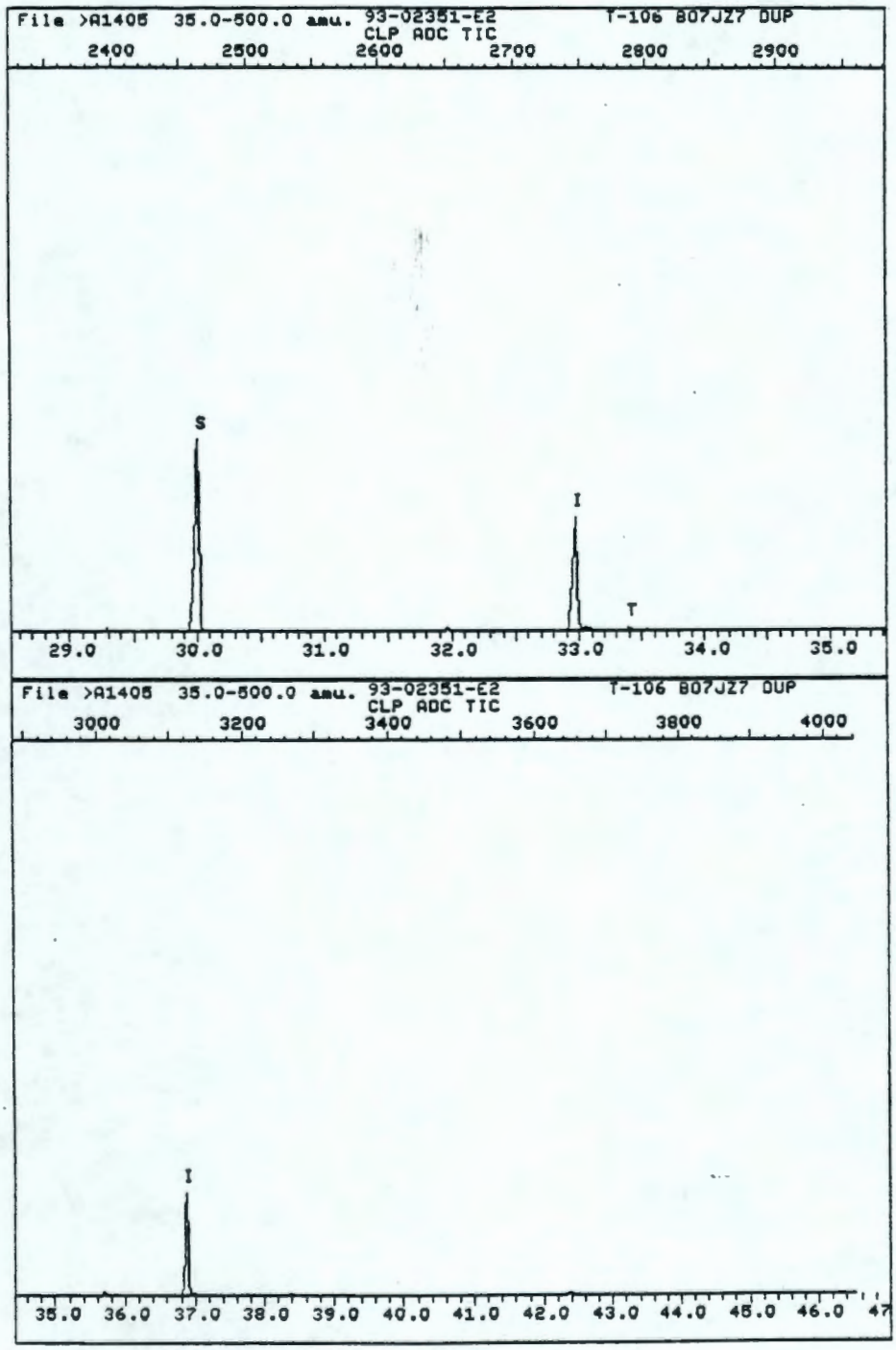


Instrument ID: BNA1 Analyzed on: 1/14/93 16:49

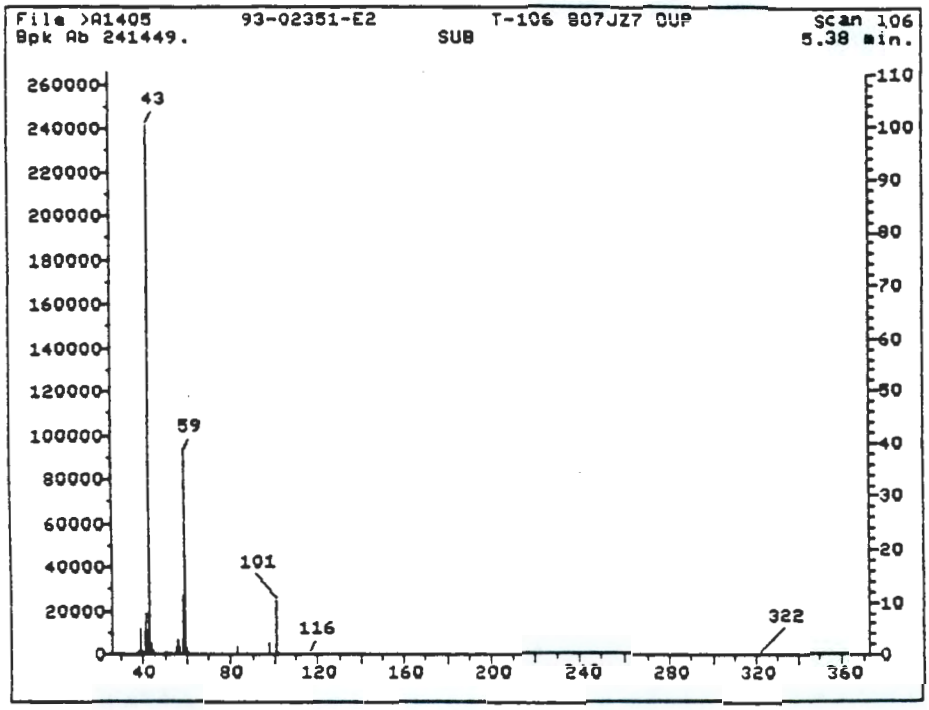




Instrument ID: BNA1 Analyzed on: 1/14/93 16:49



Instrument ID: BNA1 Analyzed on: 1/14/93 16:49



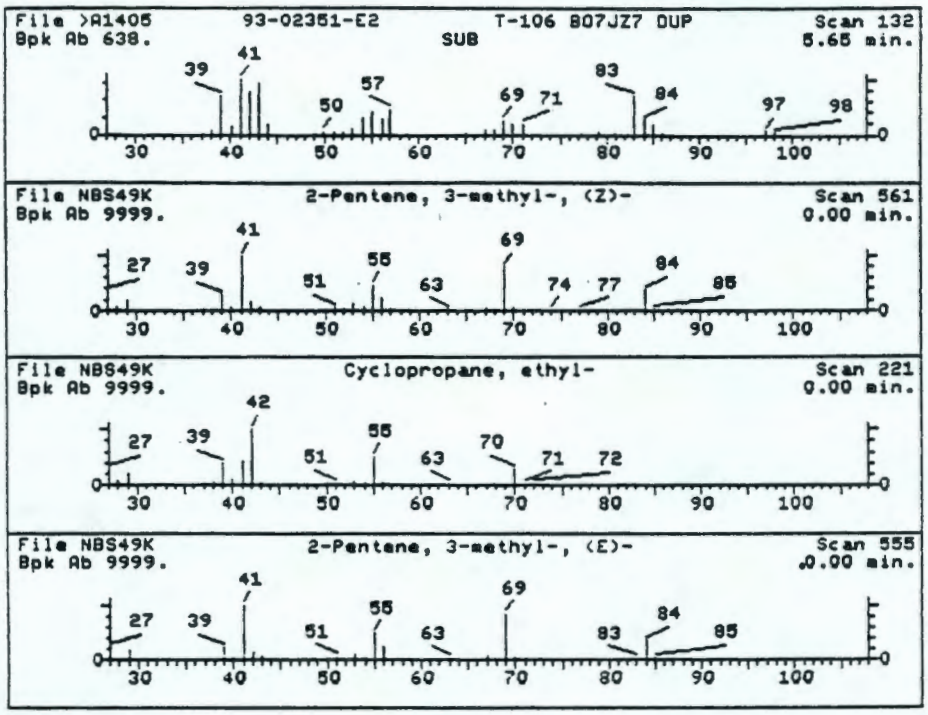
Instrument ID: BNA1 Analyzed on: 1/14/93 16:49
Result .1 in PBM results file: LA1405
Retention Time: 5.38 Area: 10904072 Tentative Conc: 130000.00
The unknown area is 4749.1% of the nearest internal standard

Sample file: >A1405 Spectrum #: 106

No data base entries were retrieved.

2-Pentanone

unk a



Instrument ID: BNA1 Analyzed on: 1/14/93 16:49
Result 2 in PBM results file: LA1405
Retention Time: 5.65 Area: 63026 Tentative Conc: ~~730.00~~
The unknown area is 27.45% of the nearest internal standard 750 3/2/93

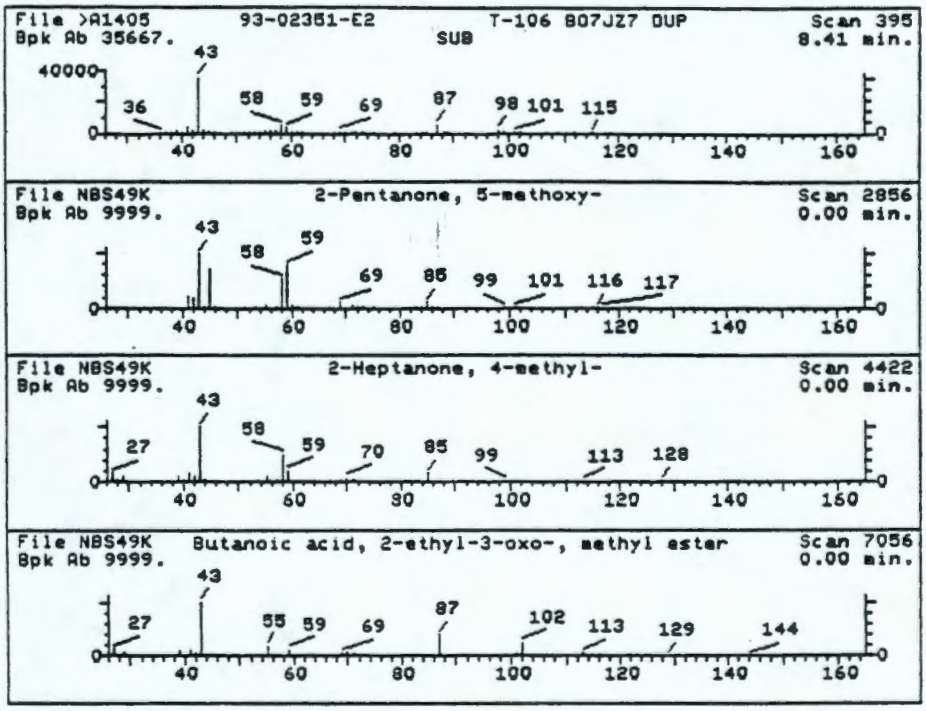
1. 2-Pentene, 3-methyl-, (Z)-	84	C6H12
2. Cyclopropane, ethyl-	70	C5H10
3. 2-Pentene, 3-methyl-, (E)-	84	C6H12
4. 1-Hexene	84	C6H12
5. 2-Oxetanone, 4-methylene-	84	C4H4O2
6. Azetidine, 1,2-dimethyl-	85	C5H11N

Sample file: >A1405 Spectrum #: 132
Search speed: 3 Tilting option: F No. of ion ranges searched: 64

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	41*	922623	6303	NBS49K	55	40	2	3	92	43	14	33
2.	32*	1191964	3812	NBS49K	37	49	0	0	66	55	9	42
3.	27*	616126	6298	NBS49K	50	45	3	3	88	44	8	15
4.	25*	592416	1012	NBS49K	46	56	2	0	100	50	7	17
5.	25*	674828	1010	NBS49K	25	52	1	0	72	46	7	14
6.	25*	51764320	6515	NBS49K	21	70	0	0	75	46	7	15

unk A

9613492.1330



Instrument ID: BNA1 Analyzed on: 1/14/93 16:49
Result 3 in PBM results file: LA1405
Retention Time: 8.41 Area: 276730 Tentative Conc: ~~3200.00~~
The unknown area is 120.53% of the nearest internal standard 3300 [illegible]

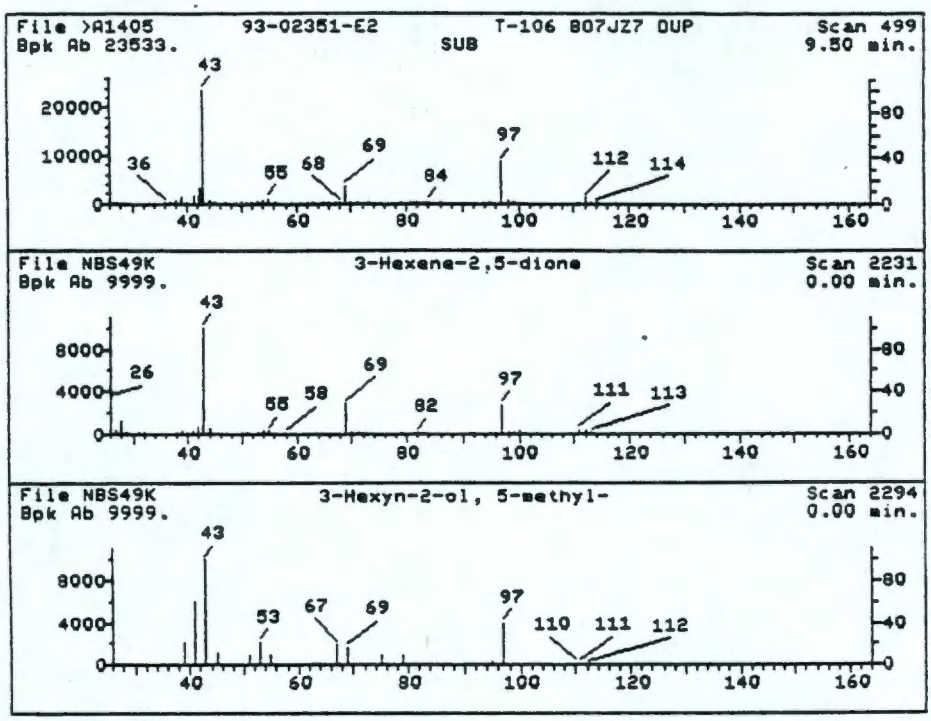
1. 2-Pentanone, 5-methoxy- 116 C6H12O2
2. 2-Heptanone, 4-methyl- 128 C8H16O
3. Butanoic acid, 2-ethyl-3-oxo-, methyl ester 144 C7H12O3

Sample file: >A1405 Spectrum #: 395
Search speed: 3 Tilting option: F No. of ion ranges searched: 50

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25*	17429048	1791	NBS49K	24	43	2	0	15	47	7	14

[illegible] (A)

F03-181



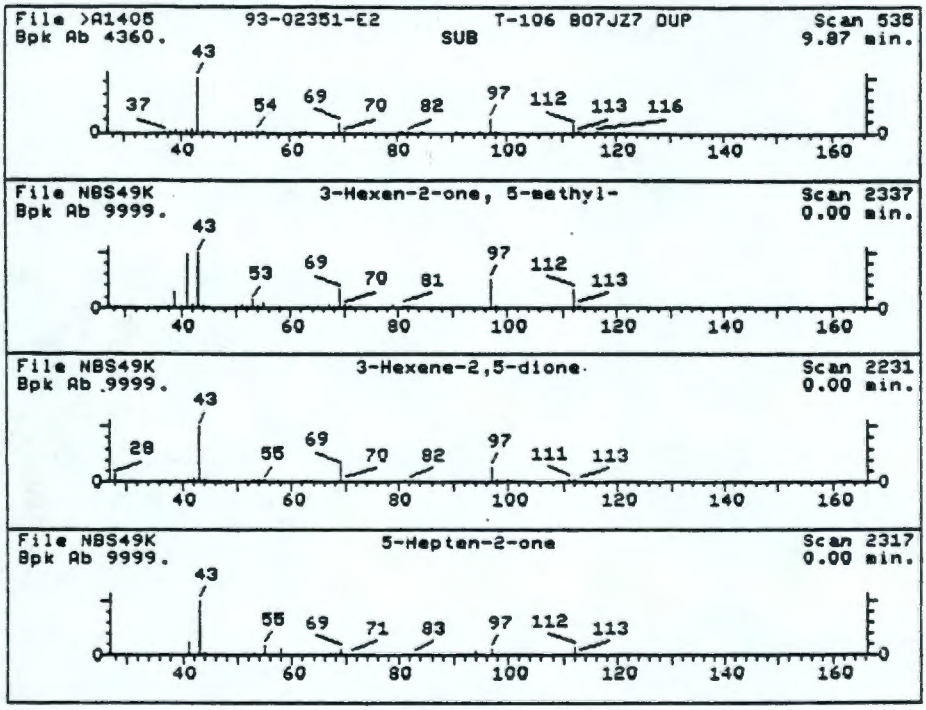
Instrument ID: BNA1 Analyzed on: 1/14/93 16:49
Result 4 in PBM results file: LA1405
Retention Time: 9.50 Area: 199430 Tentative Conc: ~~2300.00~~
The unknown area is 86.86% of the nearest internal standard 2100 MM 2/4/93

1. 3-Hexene-2,5-dione 112 C6H8O2
2. 3-Hexyn-2-ol, 5-methyl- 112 C7H12O

Sample file: >A1405 Spectrum #: 499
Search speed: 3 Tilting option: F No. of ion ranges searched: 47

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	25*	4436753	9083	NBS49K	28	54	3	0	100	50	7	13
2.	25*	23293507	9091	NBS49K	26	63	2	0	94	50	7	14

wk A?



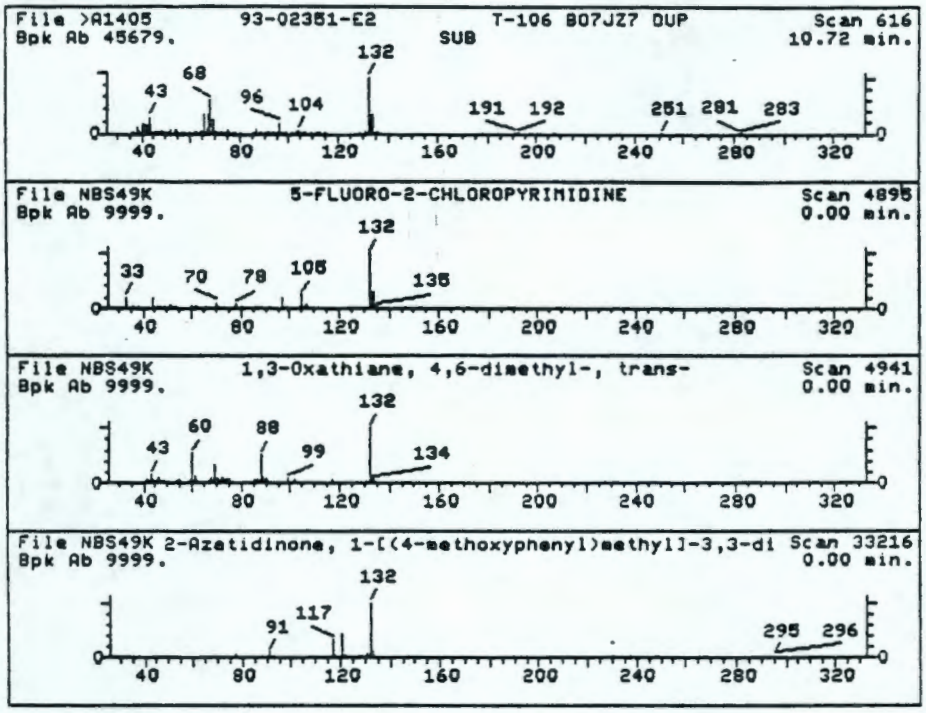
Instrument ID: BNA1 Analyzed on: 1/14/93 16:49
Result 5 in PBM results file: LA1405
Retention Time: 9.87 Area: 32380 Tentative Conc: ~~380.00~~
The unknown area is 14.10% of the nearest internal standard 340 RWH 3/26/93

1. 3-Hexen-2-one, 5-methyl- 112 C7H12O
2. 3-Hexene-2,5-dione 112 C6H8O2
3. 5-Hepten-2-one 112 C7H12O

Sample file: >A1405 Spectrum #: 535
Search speed: 3 Tilting option: F No. of ion ranges searched: 44

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	38*	5166530	12025	NBS49K	50	39	2	3	71	40	14	25
2.	20*	4436753	9083	NBS49K	34	48	2	0	68	55	5	17

9613492.1333



Instrument ID: BNA1 Analyzed on: 1/14/93 16:49
Result 6 in PBM results file: LA1405
Retention Time: 10.72 Area: 731634 Tentative Conc: 8500.00
The unknown area is 318.65% of the nearest internal standard

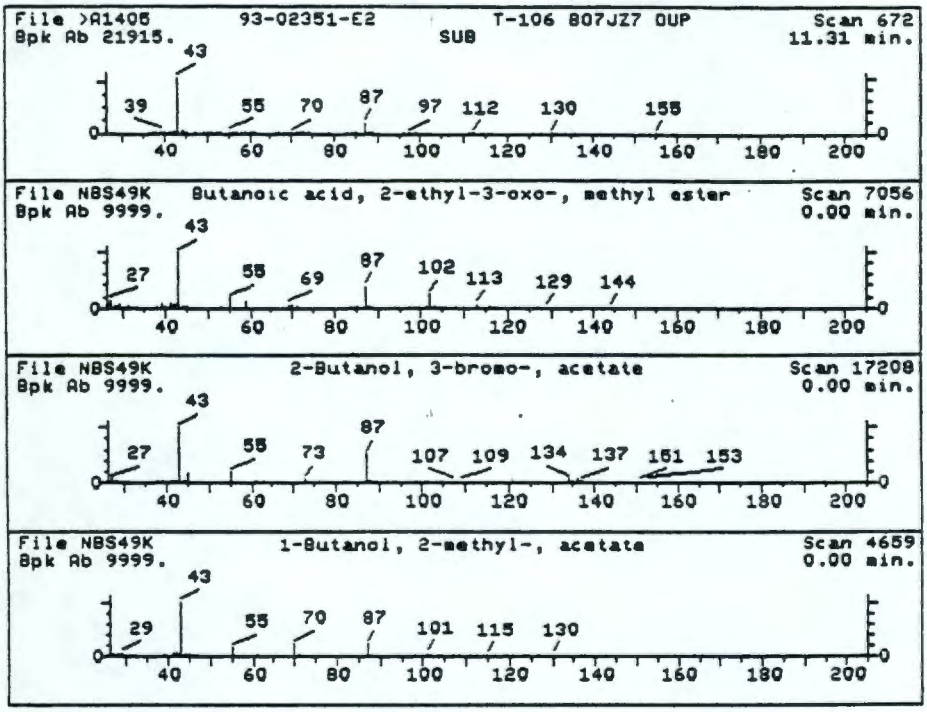
1.	5-FLUORO-2-CHLOROPYRIMIDINE	132	C4H2ClFN2
2.	1,3-Oxathiane, 4,6-dimethyl-, trans-	132	C6H12OS
3.	2-Azetidinone, 1-[(4-methoxyphenyl)methyl]-3,3-dimethyl-4-phenyl-	295	C19H21NO2
4.	1H-Benzimidazole, 2-methyl-	132	C8H8N2
5.	Benzeneethanamine, .alpha.-methyl-N-(phenylmethylene	223	C16H17N
6.	1H-Pyrazole	68	C3H4N2

Sample file: >A1405 Spectrum #: 616
Search speed: 3 Tilting option: F No. of ion ranges searched: 47

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	25*	62802420	15850	NBS49K	35	73	2	0	100	48	7	14
2.	20*	22452262	15866	NBS49K	28	83	2	0	100	53	5	14

Delete - see file >A1403
[illegible] 2/25/93

F03-184



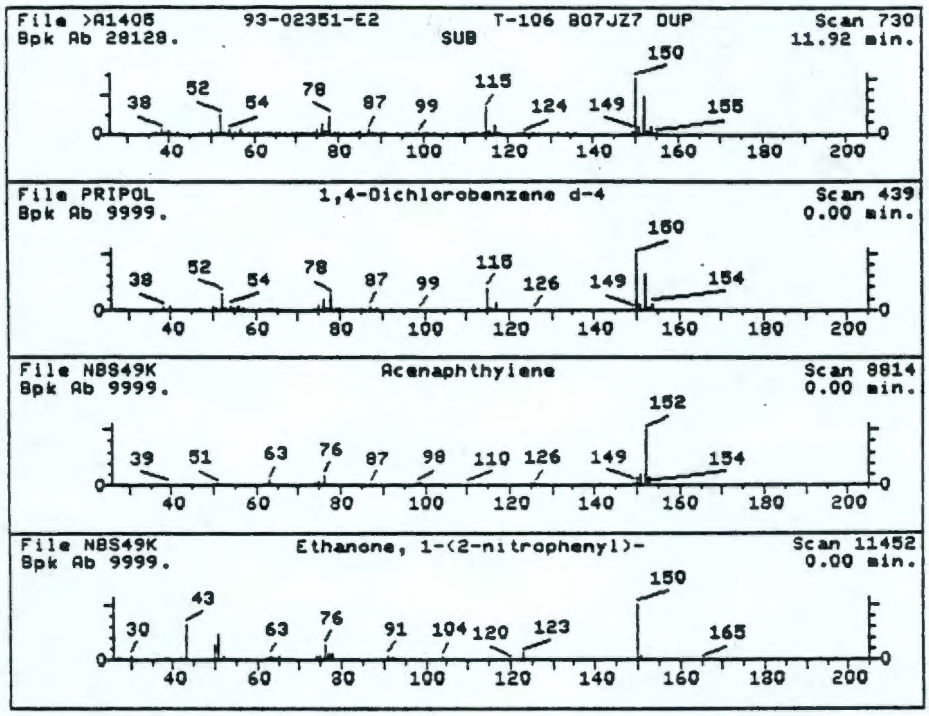
Instrument ID: BNA1 Analyzed on: 1/14/93 16:49
Result 7 in PBM results file: LA1405
Retention Time: 11.31 Area: 95913 Tentative Conc: 1100.00
The unknown area is 41.77% of the nearest internal standard nc 1/14/93

1. Butanoic acid, 2-ethyl-3-oxo-, methyl ester 144 C7H12O3
2. 2-Butanol, 3-bromo-, acetate 194 C6H11BrO2
3. 1-Butanol, 2-methyl-, acetate 130 C7H14O2
4. 2-Butanol, 3-methyl-, acetate 130 C7H14O2

Sample file: >A1405 Spectrum #: 672
Search speed: 3 Tilting option: F No. of ion ranges searched: 73

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25*	51756082	7336	NBS49K	22	70	2	0	51	47	7	13
2.	25	5798812	7487	NBS49K	37	37	2	0	38	47	7	12
3.	20*	624419	7299	NBS49K	37	44	2	0	86	52	5	18
4.	20*	5343964	7303	NBS49K	39	36	2	0	78	52	5	19

wk



Instrument ID: BNA1 Analyzed on: 1/14/93 16:49
Result 8 in PBM results file: LA1405
Retention Time: 11.92 Area: 376217 Tentative Conc: 4400.00
The unknown area is 163.86% of the nearest internal standard

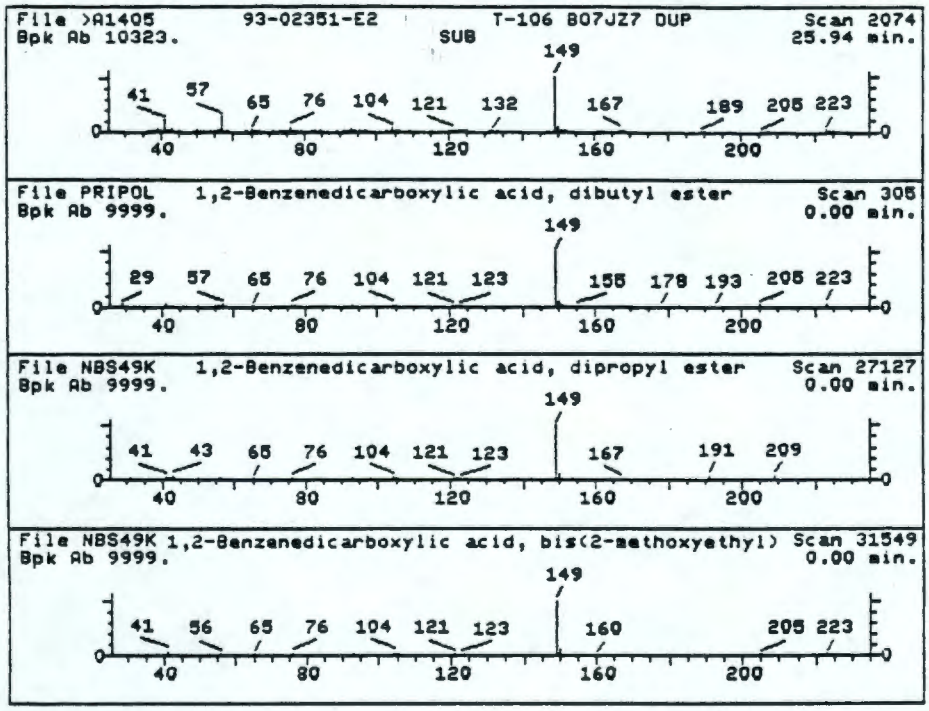
1. 1,4-Dichlorobenzene d-4	150	C6.D4.CL2
2. Acenaphthylene	152	C12H8
3. Ethanone, 1-(2-nitrophenyl)-	165	C8H7NO3
4. Imidazo[5,1-f][1,2,4]triazine-2,7-diamine	150	C5H6N6
5. 6H-Purin-6-one, 1,7-dihydro-1-methyl-	150	C6H6N4O

Sample file: >A1405 Spectrum #: 730
Search speed: 3 Tilting option: F No. of ion ranges searched: 37

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	97*	439	257	PRIPOL	95	12	0	0	86	7	68	97

delete - see file >A1403
[illegible] 2/25/93

9613492.1336



Instrument ID: BNA1 Analyzed on: 1/14/93 16:49
Result 9 in PBM results file: LA1405
Retention Time: 25.94 Area: 45296 Tentative Conc: ~~440.00~~
The unknown area is 16.56% of the nearest internal standard 450 [illegible] 2/2/93

1. 1,2-Benzenedicarboxylic acid, dibutyl ester 278 C16H2204
2. 1,2-Benzenedicarboxylic acid, dipropyl ester 250 C14H1804
3. 1,2-Benzenedicarboxylic acid, bis(2-methoxyethyl) es ter 282 C14H1806
4. 1,2-Benzenedicarboxylic acid, butyl 2-methylpropyl e ster 278 C16H2204

Sample file: >A1405 Spectrum #: 2074
Search speed: 3 Tilting option: F No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	70	305	233	PRIPOL	63	41	2	2	100	8	42	14
2.	60	131168	19265	NBS49K	54	48	2	0	100	15	30	12
3.	41	117828	19276	NBS49K	69	34	0	2	51	41	14	39
4.	28	17851535	19272	NBS49K	64	42	1	2	57	43	8	16

use phthalate

F03-187

QUANT REPORT

Operator ID: ERIC
Output File: ^A1406::OF
Data File: >A1406::D1
Name: 93-02451-E1
Misc: T-106 B07K00

Quant Rev: 7
Quant Time: 930114 18:33
Injected at: 930114 17:45
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 4

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930114 10:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.45	682	32738	40.00	ng/uL	9
2)	2-Fluorophenol	6.76	234	167918	137.37	ng/uL	9
3)	Phenol-d5	10.52	593	212082	146.40	ng/uL	9
4)	Phenol	0.00	0	0	0.00	ng/uL	
5)	bis(2-Chloroethyl)ether	0.00	0	0	0.00	ng/uL	
6)	2-Chlorophenol	0.00	0	0	0.00	ng/uL	
7)	1,3-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
8)	1,4-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	1,2-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	0	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	0.00	853	0	0.00	ng/uL	
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.40	1060	109000	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.24	853	95496	67.48	ng/uL	9
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	0.00	0	0	0.00	ng/uL	
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	0.00	0	0	0.00	ng/uL	
30)	2-Methylnaphthalene	0.00	0	0	0.00	ng/uL	
31)	*Acenaphthene-d10	20.69	1567	52352	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	18.78	1383	128251	67.00	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	1567	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	0.00	0	0	0.00	ng/uL	

43)	2,4-Dinitrophenol	0.00	0	0	0.00	ng/uL	
44)	4-Nitrophenol	0.00	0	0	0.00	ng/uL	
45)	Dibenzofuran	0.00	0	0	0.00	ng/uL	
46)	2,4-Dinitrotoluene	0.00	0	0	0.00	ng/uL	
47)	Diethylphthalate	0.00	0	0	0.00	ng/uL	
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00	ng/uL	
49)	Fluorene	0.00	0	0	0.00	ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00	ng/uL	
51)	*Phenanthrene-d10	25.10	1990	92226	40.00	ng/uL	9
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00	ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1794	0	0.00	ng/uL	
54)	2,4,6-Tribromophenol	23.05	1793	51500	134.99	ng/uL	9
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00	ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00	ng/uL	
57)	Pentachlorophenol	0.00	0	0	0.00	ng/uL	
58)	Phenanthrene	0.00	0	0	0.00	ng/uL	
59)	Anthracene	0.00	0	0	0.00	ng/uL	
~~60)~~	~~Di-n-butylphthalate~~	~~27.13~~	~~2105~~	~~1163~~	~~.308~~	~~ng/uL~~	~~9~~
61)	Fluoranthene	0.00	0	0	0.00	ng/uL	
62)	*Chrysene-d12	32.97	2743	83616	40.00	ng/uL	9
63)	Pyrene	0.00	0	0	0.00	ng/uL	
64)	Terphenyl-d14	30.00	2459	146950	61.30	ng/uL	8
65)	Butylbenzylphthalate	0.00	0	0	0.00	ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00	ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00	ng/uL	
68)	Chrysene	0.00	0	0	0.00	ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	33.40	2784	1228	.455	ng/uL	8
70)	*Perylene-d12	36.88	3117	84361	40.00	ng/uL	9
71)	Di-n-octylphthalate	0.00	0	0	0.00	ng/uL	
72)	Benzo(b)fluoranthene	0.00	0	0	0.00	ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00	ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00	ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00	ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00	ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00	ng/uL	

* Compound is ISTD

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >A1406
CAL CHECK FILE = >A1402
DATE AND TIME OF ANALYSIS = 1/14/93 17:45
MISCELLANEOUS = T-106 B07K00
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

I. Areas

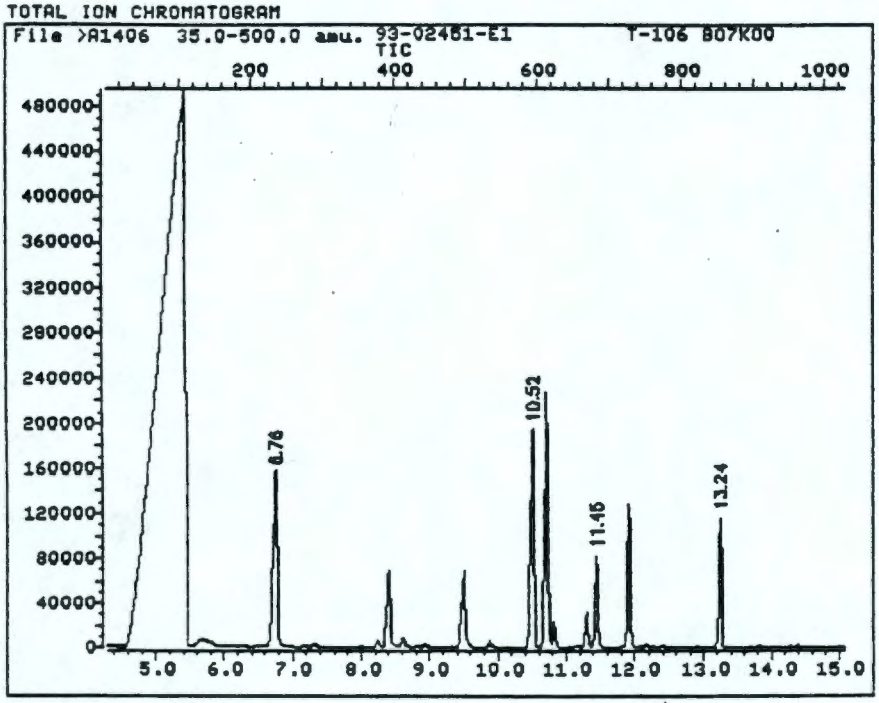
Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	32738	36480	18240	72960	OK
Naphthalene-d8	109008	121269	60635	242538	OK
Acenaphthene-d10	52352	57467	28734	114934	OK
Phenanthrene-d10	92226	101992	50996	203984	OK
Chrysene-d12	83616	77858	38929	155716	OK
Perylene-d12	84361	93060	46530	186120	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.45	11.45	10.95	11.95	OK
Naphthalene-d8	15.41	15.42	14.92	15.92	OK
Acenaphthene-d10	20.69	20.70	20.20	21.20	OK
Phenanthrene-d10	25.10	25.12	24.62	25.62	OK
Chrysene-d12	32.97	33.00	32.50	33.50	OK
Perylene-d12	36.88	36.91	36.41	37.41	OK

9613492.1340

TOTAL ION CHROMATOGRAM



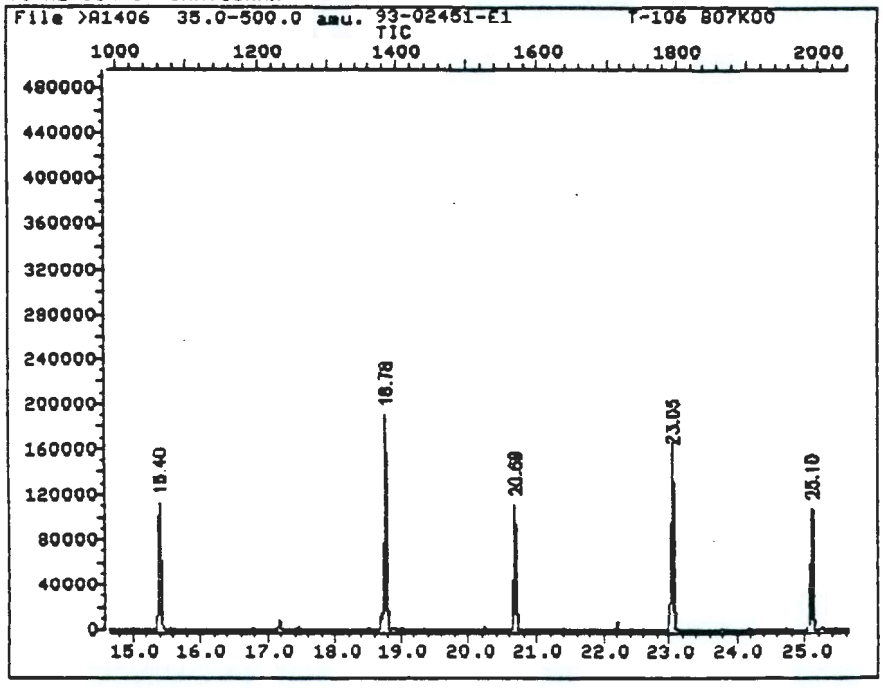
Data File: >A1406::D1 Quant Output File: ^A1406::OF
Name: 93-02451-E1 Instrument ID: BNA1
Misc: T-106 B07K00 BTL# 4

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 18:33
Injected at: 930114 17:45

Page 1 of 4

TOTAL ION CHROMATOGRAM



Data File: >A1406::D1 Quant Output File: ^A1406::OF
Name: 93-02451-E1 Instrument ID: BNA1
Misc: T-106 B07K00 BTL# 4

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 18:33
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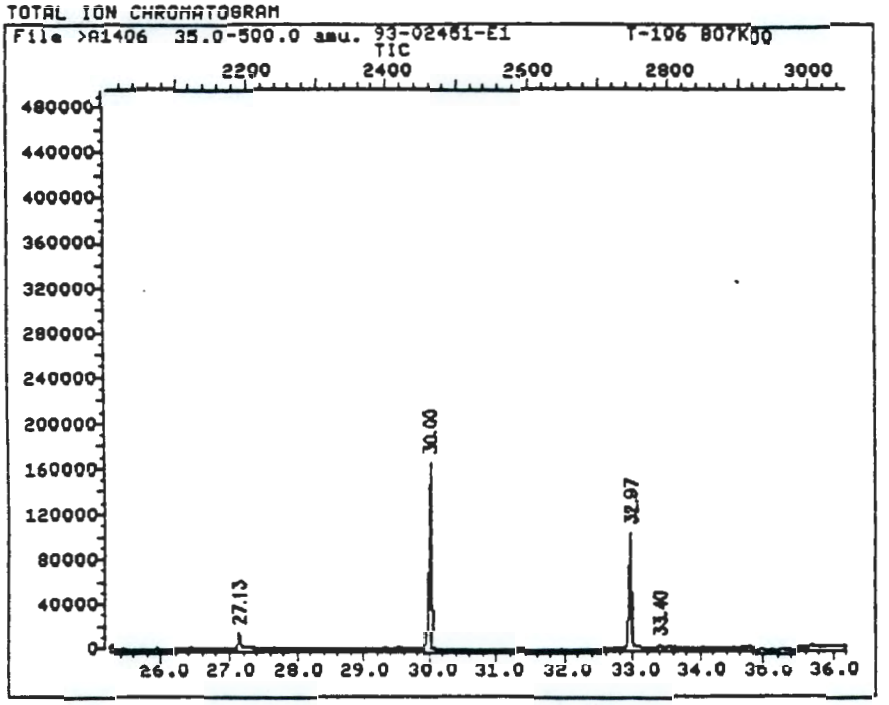
TOTAL ION CHROMATOGRAM



Data File: >A1406::D1
Name: 93-02451-E1
Misc: T-106 B07K00

Quant Output File: ^A1406::OF
Instrument ID: BNA1

BTL#: 4

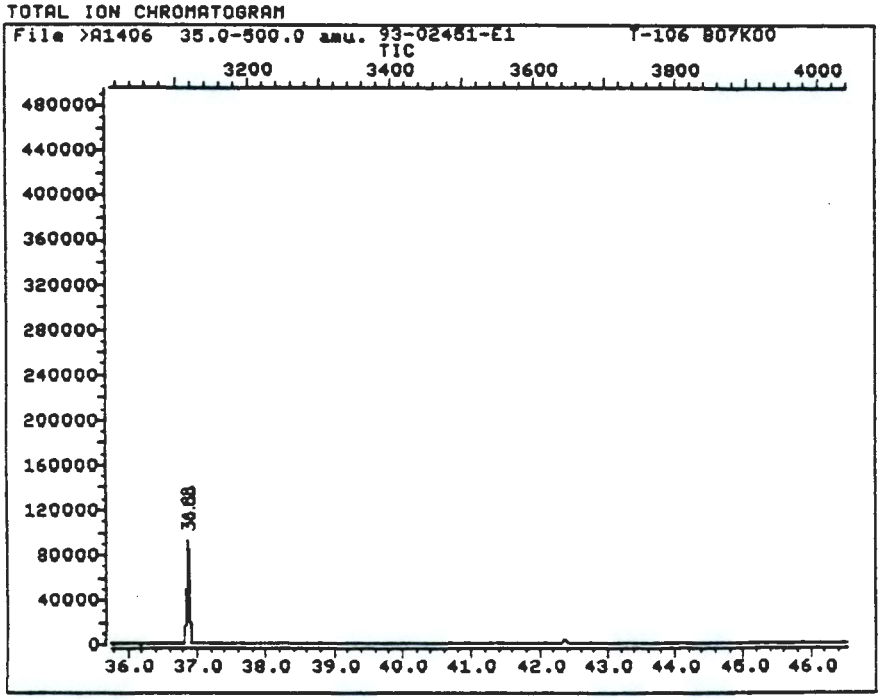
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 18:33
Injected at: 930114 17:45

Page 3 of 4

TOTAL ION CHROMATOGRAM



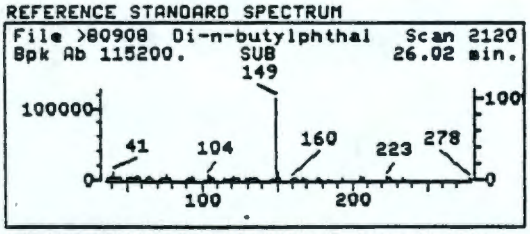
Data File: >A1406::D1 Quant Output File: ^A1406::OF
Name: 93-02451-E1 Instrument ID: BNA1
Misc: T-106 B07K00 BTL# 4

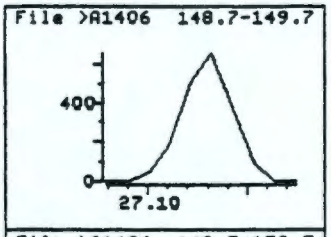
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 18:33
Injected at: 930114 17:45

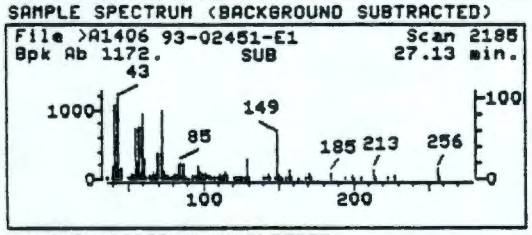
Page 4 of 4

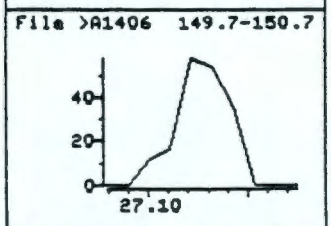
REFERENCE STANDARD SPECTRUM



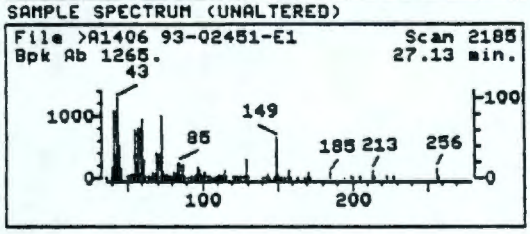


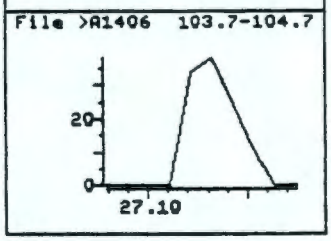
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





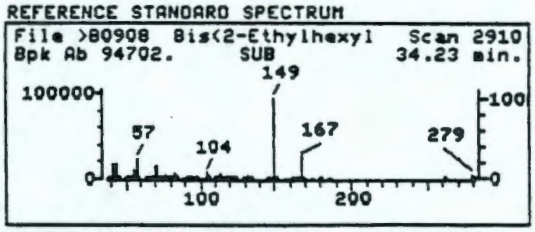
Data File: >A1406::D1
Name: 93-02451-E1
Misc: T-106 B07K00
Quant Time: 930114 18:33
Injected at: 930114 17:45
Last Qcal Time: 930114 10:37

Quant Output File: ^A1406::OF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

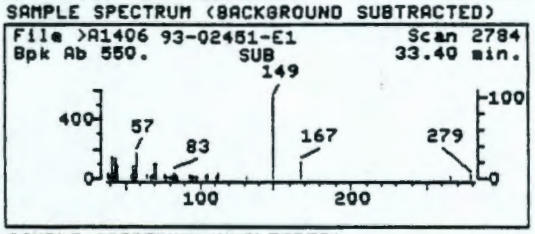
Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2185
Retention Time: 27.13 min.
Quant Ion : 149.0
Area : 1163
Concentration : .308 ng/uL
q-value : 95

dilet

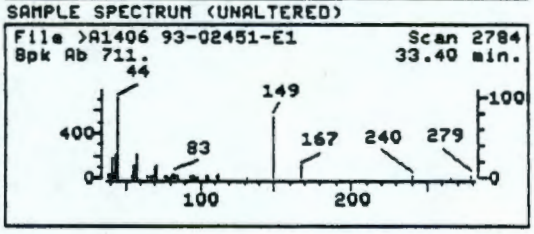
REFERENCE STANDARD SPECTRUM

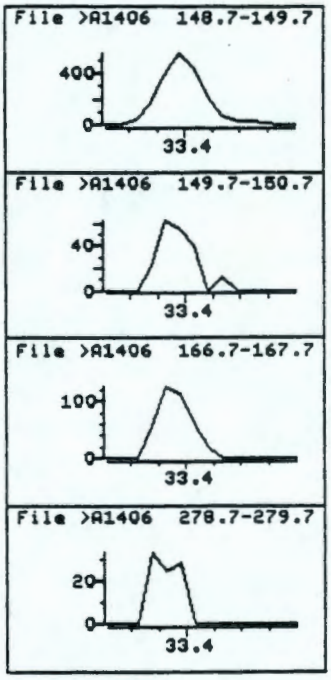


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >A1406::D1
Name: 93-02451-E1
Misc: T-106 B07K00
Quant Time: 930114 18:33
Injected at: 930114 17:45
Last Qcal Time: 930114 10:37

Quant Output File: ^A1406::OF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2784
Retention Time: 33.40 min.
Quant Ion : 149.0
Area : 1228
Concentration : .455 ng/uL
q-value : 89

AS
10/24/93

9613492.1346

MS data file header from : >A1406::D1

Sample: 93-02451-E1 Operator: ERIC SUPER GRP. 1/14/93 17:45
Misc : T-106 B07K00 BTL# 4
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 4 Equip ID: BNA1
Method file: BNAME1 Tuning file: MTBNA1 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	40.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.5	0.0

>A1406 93-02451-E1 T-106 B07K00
35.01 500.0 CLP TIC
Upslope: .2000 Area Reject: 23812. Max Peaks: 9 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File IA1406 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	5.43	23	108	117	493147	12508506	12439555	100.00	86.99
2	5.68	118	131	159	6084	114171	73719*	.59	.51
3	8.41	383	392	404	67779	267789	254697	2.05	1.78
4	8.62	405	412	425	7207	37607	29948	.24	.20
5	9.51	486	497	516	68163	275848	265844	2.14	1.85
6	10.73	603	613	619	226818	728619	724796	5.83	5.06
7	10.83	619	623	640	21676	61310	54356*	.44	.38
8	11.30	661	668	674	31187	92289	87692	.70	.61
9	11.92	708	727	738	127742	377871	368806	2.96	2.57

Sum of corrected areas: 14299414.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	238122.	11.45	4.31 - 13.43
2	40.0	261062.	15.40	13:43 - 18.05
3	40.0	254764.	20.69	18.05 - 22.89
4	40.0	263270.	25.10	22.89 - 29.03
5	40.0	257242.	32.97	29.03 - 34.92
6	40.0	261403.	36.88	34.92 - 46.53

Dilution Factor = 1.00 This sample was 30.0000 g or mL

Correction Factor = 66.73 TIC RESULTS OFF BY 2X; SEE FORM IF

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std} * \text{Area Unknown}}{\text{Area Int Std}} * \text{Correction Factor}$$

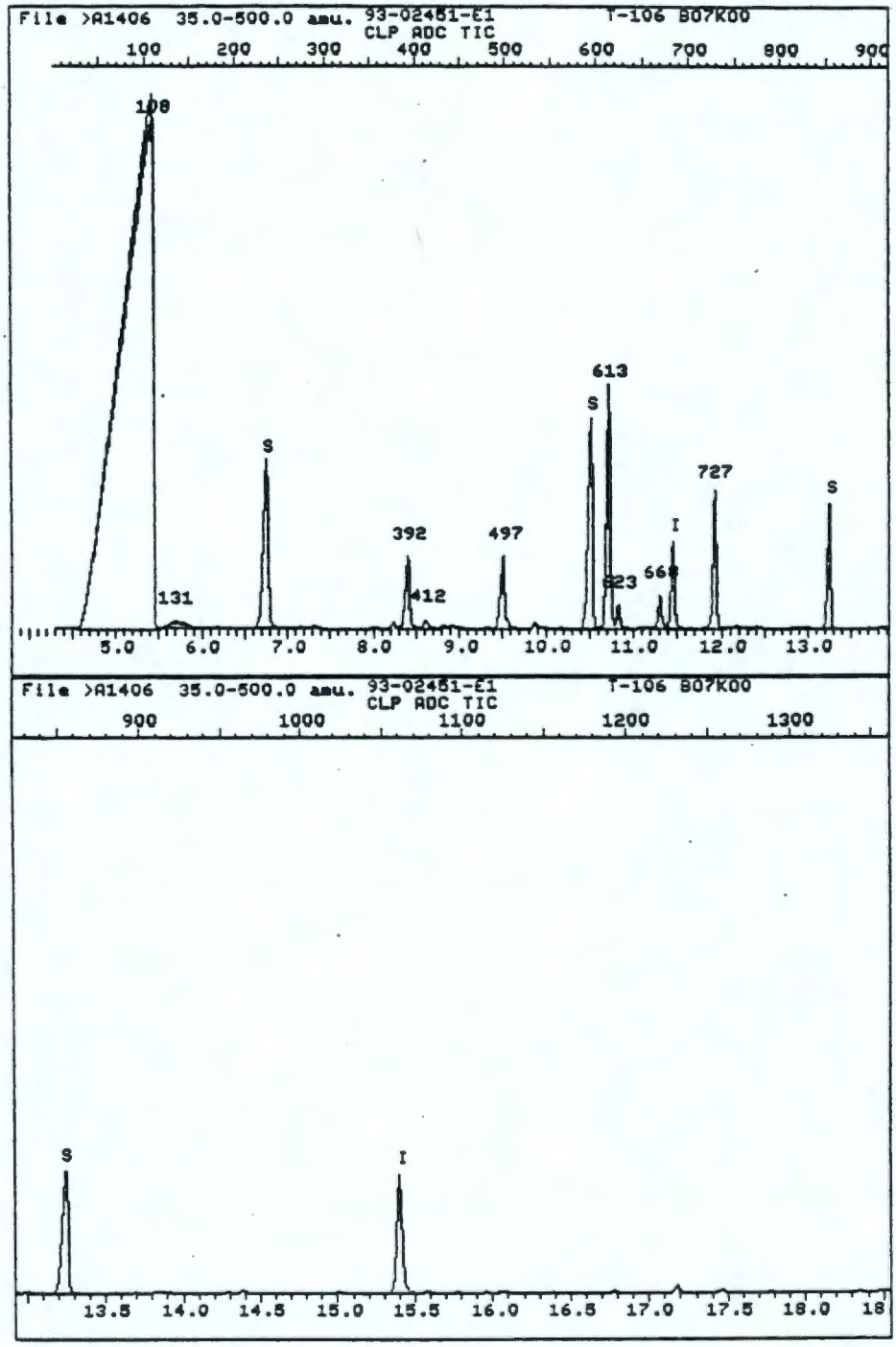
7:06 PM TUE., 23 FEB., 1993

$C_{corr} = \frac{\text{value}}{.935}$ to correct for % moisture

[illegible] 2/2/93

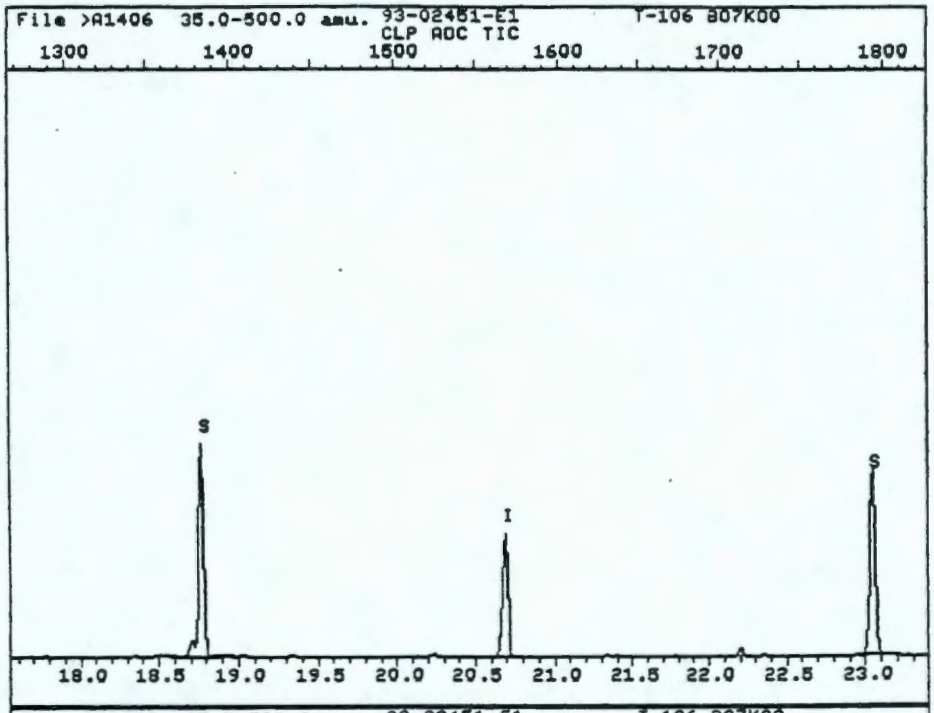
F03-197

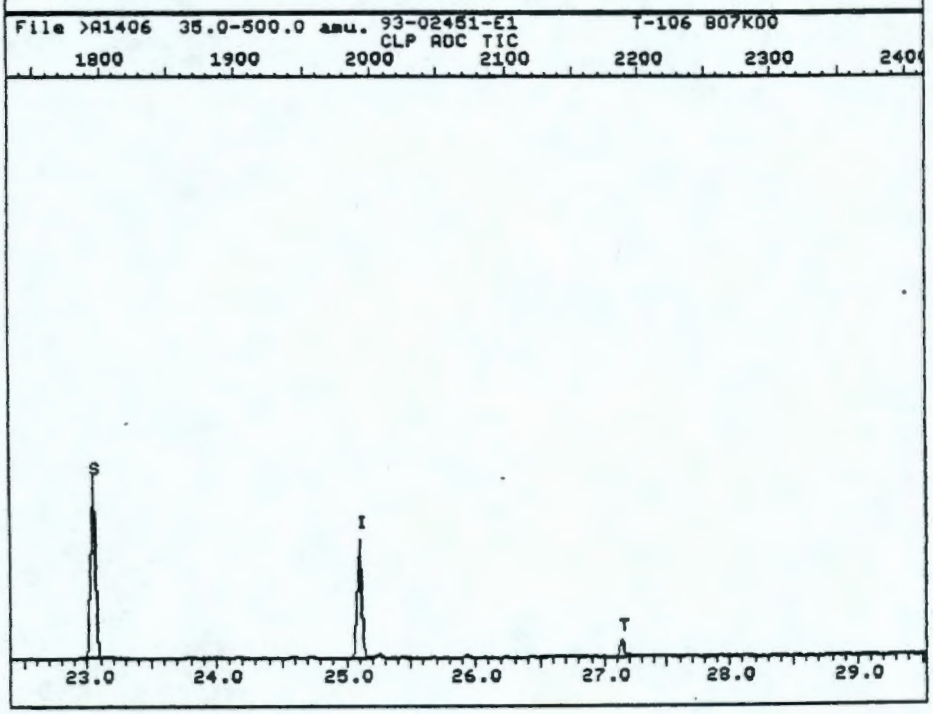
9613492.1347



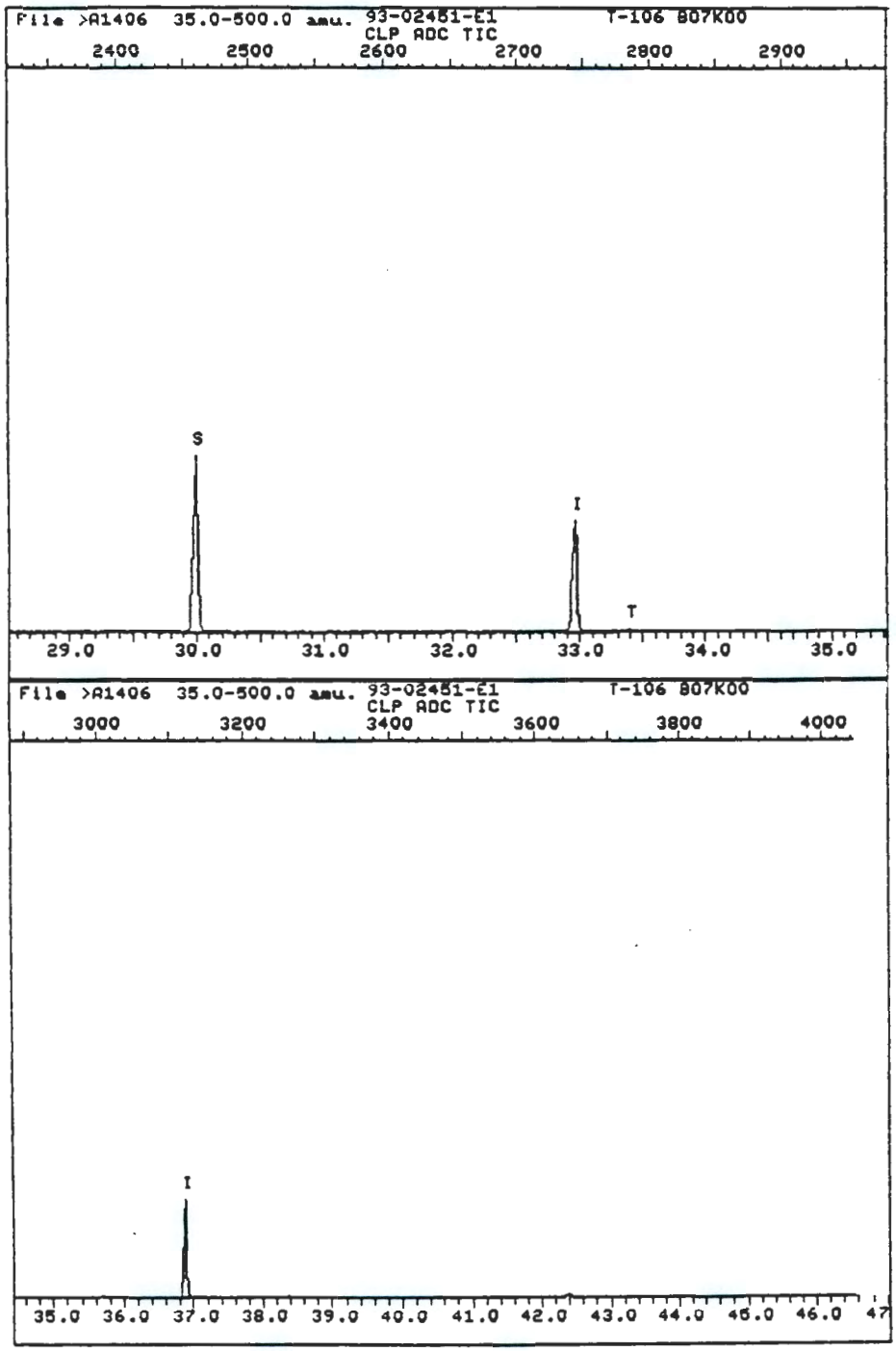
Instrument ID: BNA1 Analyzed on: 1/14/93 17:45

F03-198

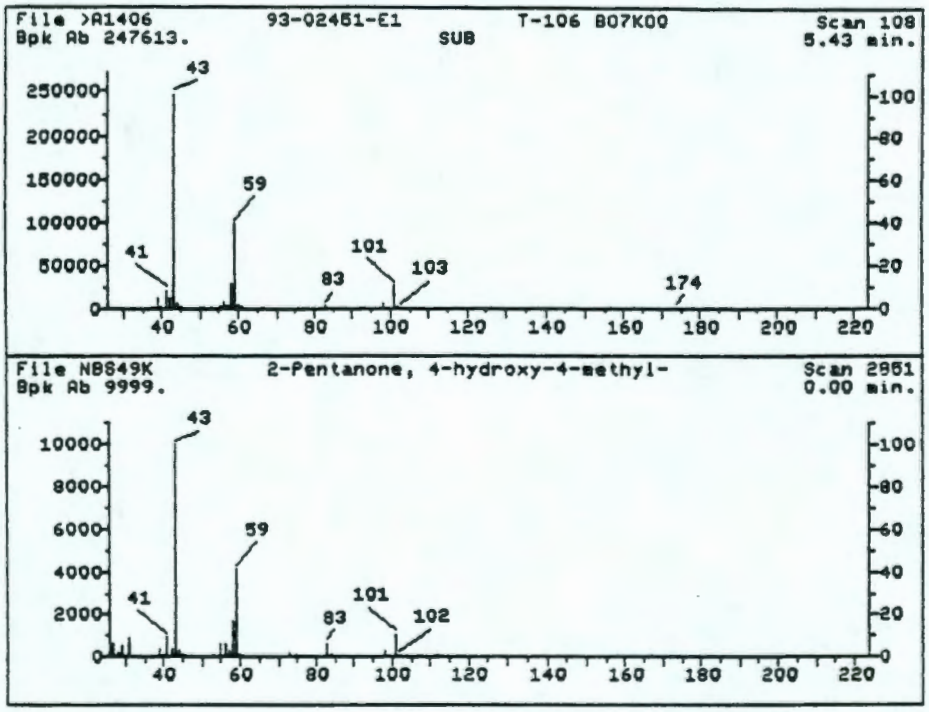




Instrument ID: BNA1 Analyzed on: 1/14/93 17:45



Instrument ID: BNA1 Analyzed on: 1/14/93 17:45



Instrument ID: BNA1 Analyzed on: 1/14/93 17:45
Result 1 in PBM results file: LA1406
Retention Time: 5.43 Area: 12439554 Tentative Conc: ~~140000.~~00
The unknown area is 5224.0% of the nearest internal standard 150000

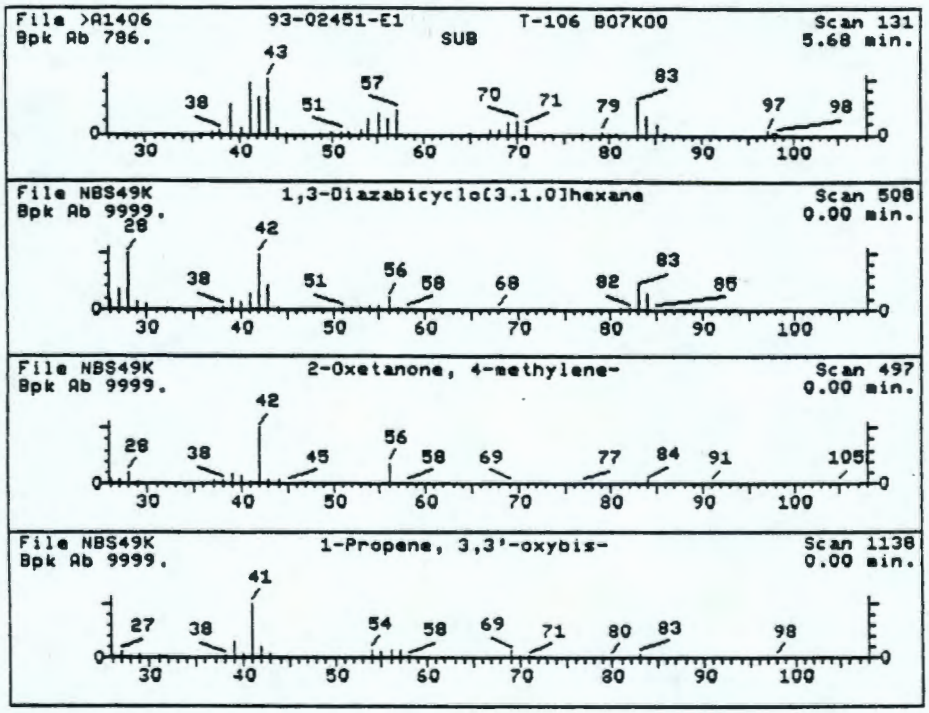
1. 2-Pentanone, 4-hydroxy-4-methyl- 116 C6H12O2

Sample file: >A1406 Spectrum #: 108
Search speed: 3 Tilting option: F No. of ion ranges searched: 89

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	45	123422	1790	NBS49K	47	36	2	0	73	22	17	16

A

9613492.1351



Instrument ID: BNA1 Analyzed on: 1/14/93 17:45
Result 2 in PBM results file: LA1406
Retention Time: 5.68 Area: 73719 Tentative Conc: ~~830.00~~
The unknown area is 30.96% of the nearest internal standard 890 ug/L 1/26/93

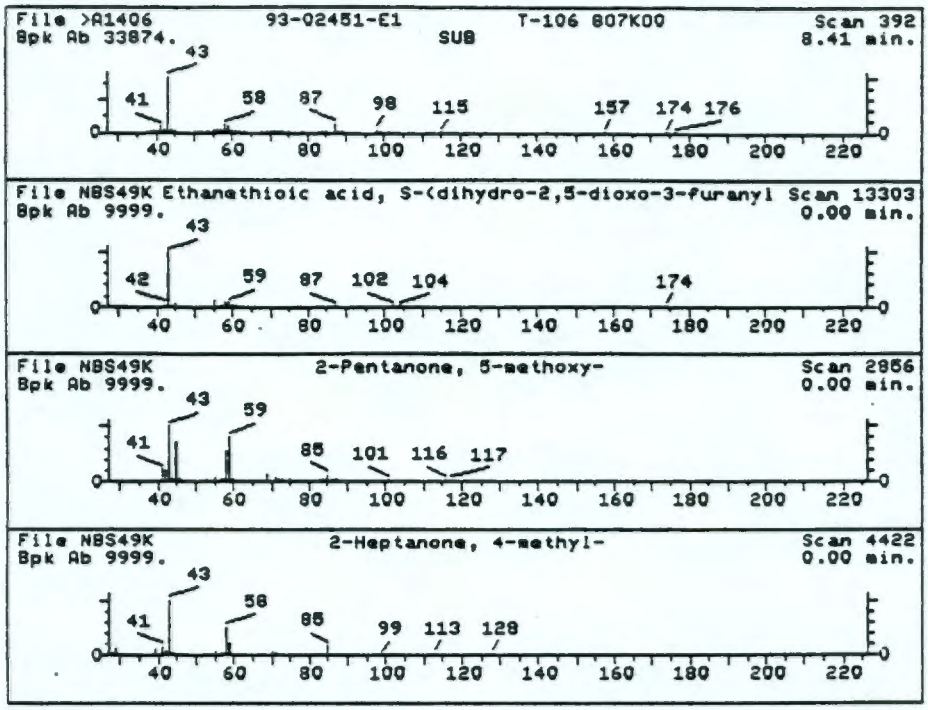
1. 1,3-Diazabicyclo[3.1.0]hexane	84	C4H8N2
2. 2-Oxetanone, 4-methylene-	84	C4H4O2
3. 1-Propene, 3,3'-oxybis-	98	C6H10O
4. Azetidine, 1,2-dimethyl-	85	C5H11N
5. Cyclopropane, ethyl-	70	C5H10
6. 1-Pentene	70	C5H10

Sample file: >A1406 Spectrum #: 131
Search speed: 3 Tilting option: F No. of ion ranges searched: 68

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	20*	17038287	6268	NBS49K	28	66	2	0	112	53	5	14

F03-202

9613492.1352



Instrument ID: BNA1 Analyzed on: 1/14/93 17:45
Result 3 in PBM results file: LA1406
Retention Time: 8.41 Area: 254697 Tentative Conc: ~~2900.00~~
The unknown area is 106.96% of the nearest internal standard 3100 [illegible] 2/2/93

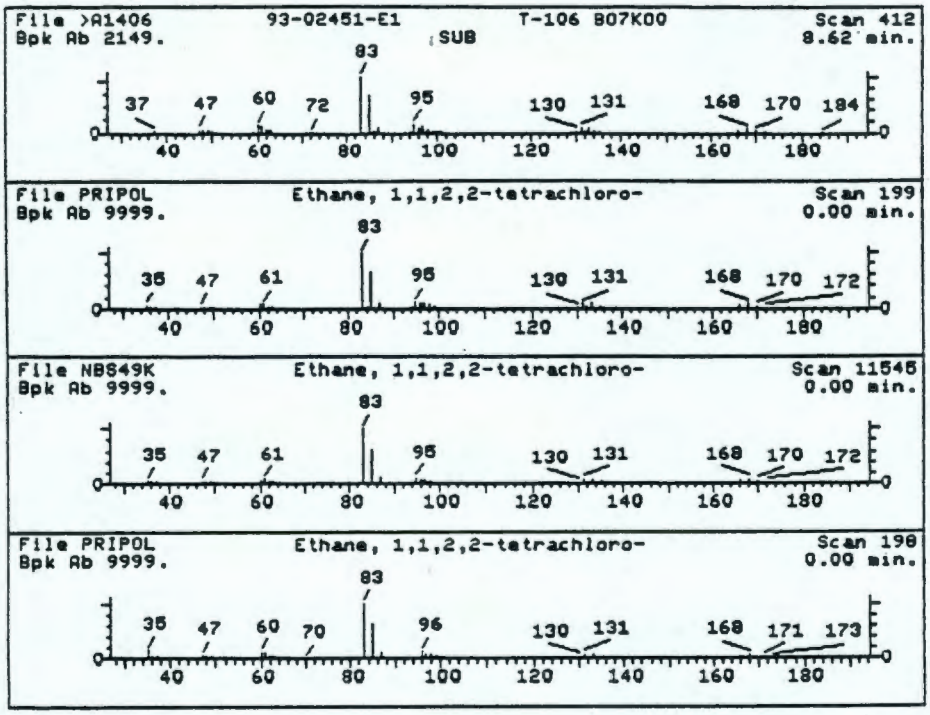
1. Ethanethioic acid, S-(dihydro-2,5-dioxo-3-furanyl) e ster 174 C6H6O4S
2. 2-Pentanone, 5-methoxy- 116 C6H12O2
3. 2-Heptanone, 4-methyl- 128 C8H16O
4. Butanoic acid, 2-ethyl-3-oxo-, methyl ester 144 C7H12O3

Sample file: >A1406 Spectrum #: 392
Search speed: 3 Tilting option: F No. of ion ranges searched: 93

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25*	6953602	263	NBS49K	33	45	2	0	100	47	7	16
2.	20*	17429048	1791	NBS49K	24	43	2	0	15	52	5	14

unk (A)

F03-203

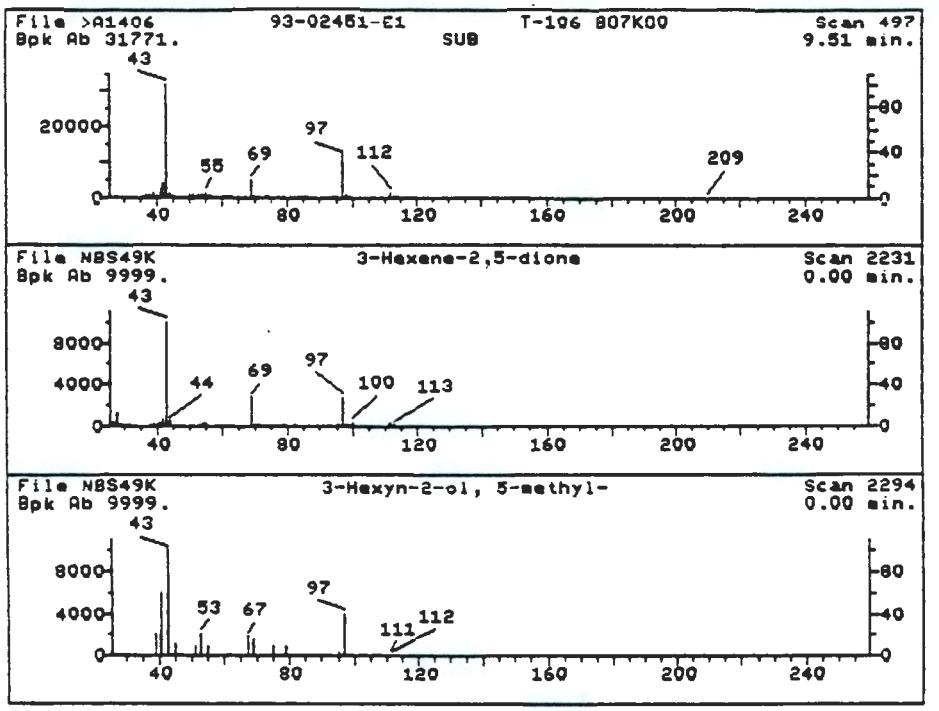


Instrument ID: BNA1 Analyzed on: 1/14/93 17:45
Result 4 in PBM results file: LA1406
Retention Time: 8.62 Area: 29948 Tentative Conc: ~~340.00~~
The unknown area is 12.58% of the nearest internal standard 360 ug/L

1. Ethane, 1,1,2,2-tetrachloro-	166	C2H2C14
2. Ethane, 1,1,2,2-tetrachloro-	166	C2H2C14
3. Ethane, 1,1,2,2-tetrachloro-	166	C2H2C14
4. Ethane, 1,1,2,2-tetrachloro-	166	C2H2C14
5. Ethane, 1,1,2,2-tetrachloro-	166	C2H2C14
6. Ethane, 1,1,2,2-tetrachloro-	166	C2H2C14

Sample file: >A1406 Spectrum #: 412
Search speed: 3 Tilting option: F No. of ion ranges searched: 62

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	94*	199	125	PRIPOL	81	22	0	0	83	17	60	94
2.	94*	79345	6716	NBS49K	81	22	0	0	83	17	60	94
3.	89*	198	124	PRIPOL	90	19	1	0	71	8	62	89
4.	89*	197	123	PRIPOL	89	27	1	0	81	8	62	89
5.	87*	195	121	PRIPOL	88	36	0	0	50	44	43	96
6.	81*	196	122	PRIPOL	94	17	1	2	79	17	45	76



Instrument ID: BNA1 Analyzed on: 1/14/93 17:45
Result 5 in PBM results file: LA1406
Retention Time: 9.51 Area: 265844 Tentative Conc: ~~3000.00~~ 3200 [illegible] 1/26/93
The unknown area is 111.64% of the nearest internal standard

1. 3-Hexene-2,5-dione 112 C6H8O2
2. 3-Hexyn-2-ol, 5-methyl- 112 C7H12O

Sample file: >A1406 Spectrum #: 497
Search speed: 3 Tilting option: F No. of ion ranges searched: 124

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	25*	4436753	9083	NBS49K	33	49	3	0	100	50	7	14
2.	25*	23293507	9091	NBS49K	26	63	2	0	94	50	7	14

Link A?

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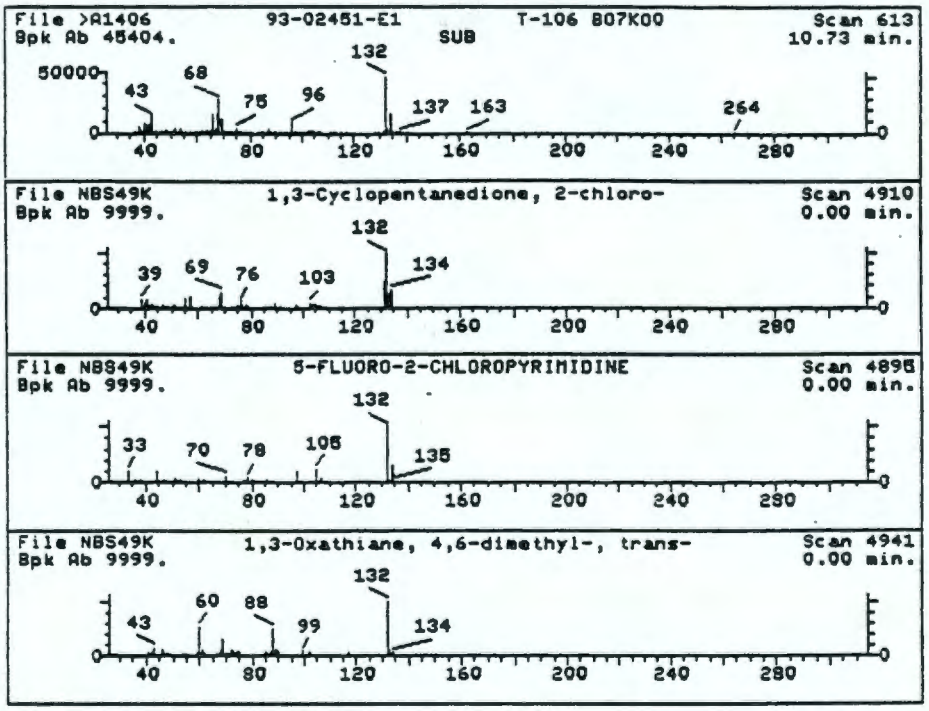


Instrument ID: BNA1 Analyzed on: 1/14/93 17:45
Result 6 in PBM results file: LA1406
Retention Time: 10.73 Area: 724796 Tentative Conc: 8100.00
The unknown area is 304.38% of the nearest internal standard

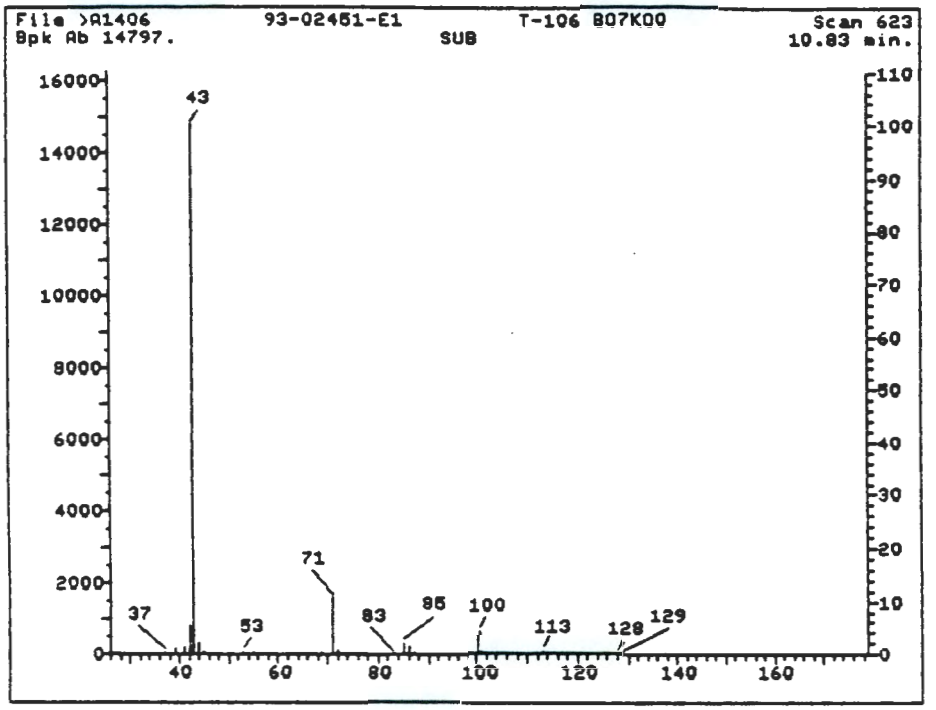
1.	1,3-Cyclopentanedione, 2-chloro-	132	C5H5ClO2
2.	5-FLUORO-2-CHLOROPYRIMIDINE	132	C4H2ClFN2
3.	1,3-Oxathiane, 4,6-dimethyl-, trans-	132	C6H12OS
4.	Benzeneethanamine, .alpha.-methyl-N-(phenylmethylene	223	C16H17N
5.	1H-Pyrazole	68	C3H4N2

Sample file: >A1406 Spectrum #: 613
Search speed: 3 Tilting option: F No. of ion ranges searched: 35

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	28*	14203191	15856	NBS49K	28	83	2	0	100	36	10	14
2.	26*	62802420	15850	NBS49K	41	67	2	0	100	45	8	14
3.	20*	22452262	15866	NBS49K	21	90	2	0	100	54	5	13

Delete - per file > A1403
[illegible] 2/25/93

F03-206

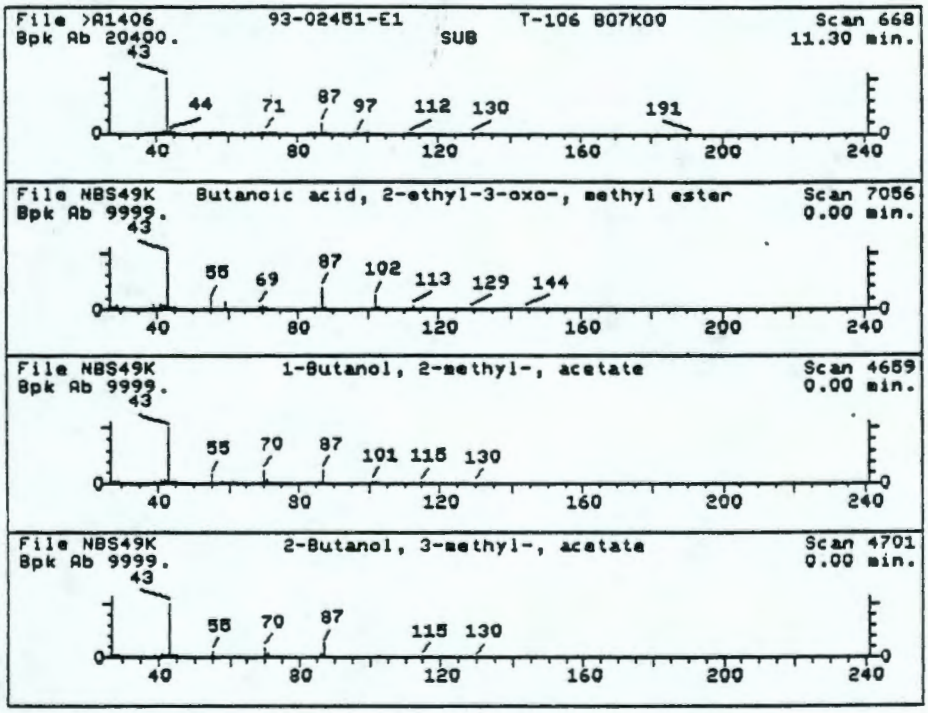


Instrument ID: BNA1 Analyzed on: 1/14/93 17:45
Result 7 in PBM results file: LA1406
Retention Time: 10.83 Area: 54356 Tentative Conc: ~~610.00~~ 660
The unknown area is 22.83% of the nearest internal standard
3/2/93

Sample file: >A1406 Spectrum #: 623

No data base entries were retrieved.

9613492.1357



Instrument ID: BNA1 Analyzed on: 1/14/93 17:45
Result 8 in PBM results file: LA1406
Retention Time: 11.30 Area: 87692 Tentative Conc: ~~1980.00~~ 1000 ug/L 2/4/93
The unknown area is 36.83% of the nearest internal standard

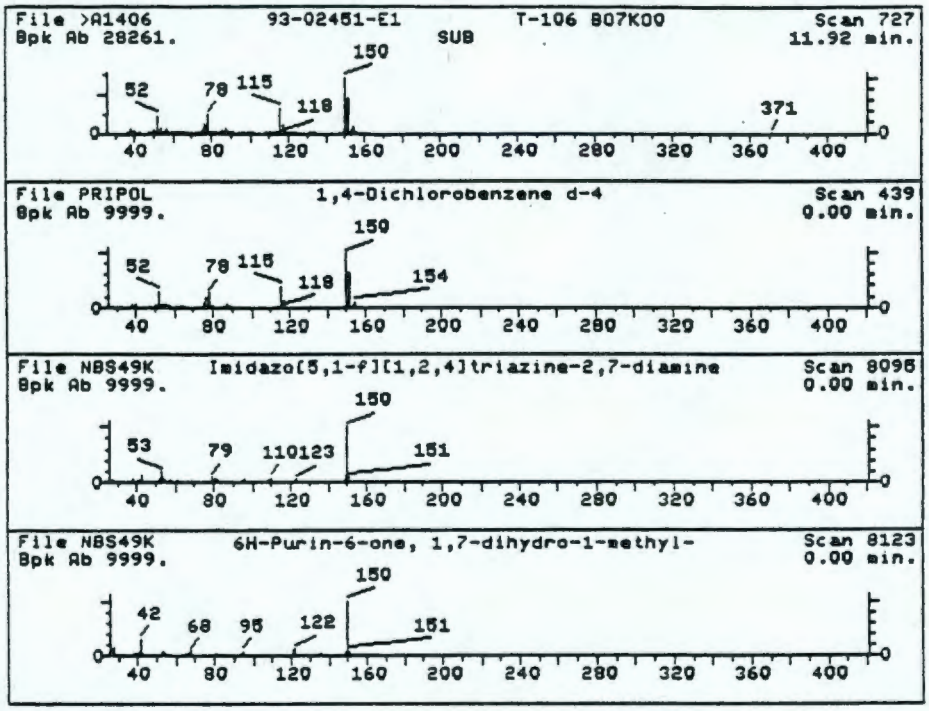
1. Butanoic acid, 2-ethyl-3-oxo-, methyl ester 144 C7H12O3
2. 1-Butanol, 2-methyl-, acetate 130 C7H14O2
3. 2-Butanol, 3-methyl-, acetate 130 C7H14O2

Sample file: >A1406 Spectrum #: 668
Search speed: 3 Tilting option: F No. of ion ranges searched: 108

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	25*	51756082	7336	NBS49K	22	70	2	0	52	47	7	13
2.	20*	624419	7299	NBS49K	27	54	2	0	86	52	5	14
3.	20*	5343964	7303	NBS49K	39	36	2	0	78	52	5	19

usk

F03-208



Instrument ID: BNA1 Analyzed on: 1/14/93 17:45
Result 9 in PBM results file: LA1406
Retention Time: 11.92 Area: 368806 Tentative Conc: 4100.00
The unknown area is 154.88% of the nearest internal standard

1. 1,4-Dichlorobenzene d-4	150	C6.D4.CL2
2. Imidazo[5,1-f][1,2,4]triazine-2,7-diamine	150	C5H6N6
3. 6H-Purin-6-one, 1,7-dihydro-1-methyl-	150	C6H6N4O
4. Ethanone, 1-(2-nitrophenyl)-	165	C8H7NO3
5. Ethylenediamine, N-(m-methoxyphenyl)-N,N'-dimethyl-N'-phenyl-	270	C17H22N2O
6. 2-[3-(CHLOROACETOXY)-4-METHOXYPHENYL]-1,3-BENZODIOXA	334	C17H15ClO5

Sample file: >A1406 Spectrum #: 727
Search speed: 3 Tilting option: F No. of ion ranges searched: 135

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	96*	439	257	PRIPOL	95	12	0	0	85	11	64	97
2.	25*	51292207	19314	NBS49K	31	59	2	0	100	49	7	15
3.	25*	1125399	19320	NBS49K	20	72	2	0	100	49	7	13
4.	25*	577593	19423	NBS49K	24	77	3	0	100	49	7	12
5.	20*	32857399	19521	NBS49K	38	82	2	4	100	52	5	12
6.	20*	66267398	41938	NBS49K	48	92	2	4	65	52	5	13

QUANT REPORT

Operator ID: ERIC
Output File: ^A1407::OF
Data File: >A1407::D1
Name: 93-02451-E2
Misc: T-106 B07K00 DUP

Quant Rev: 7
Quant Time: 930114 19:29
Injected at: 930114 18:41
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 5

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930114 10:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.45	685	31595	40.00	ng/uL	9
2)	2-Fluorophenol	6.76	237	170305	144.37	ng/uL	8
3)	Phenol-d5	10.52	597	219900	157.29	ng/uL	9
4)	Phenol	0.00	0	0	0.00	ng/uL	
5)	bis(2-Chloroethyl)ether	0.00	0	0	0.00	ng/uL	
6)	2-Chlorophenol	0.00	0	0	0.00	ng/uL	
7)	1,3-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
8)	1,4-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	1,2-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	0	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	0.00	857	0	0.00	ng/uL	
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.40	1063	103962	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.25	857	102153	75.68	ng/uL	9
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	0.00	0	0	0.00	ng/uL	
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	0.00	0	0	0.00	ng/uL	
30)	2-Methylnaphthalene	0.00	0	0	0.00	ng/uL	
31)	*Acenaphthene-d10	20.69	1570	50296	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	18.78	1387	135150	73.49	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	1570	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	0.00	0	0	0.00	ng/uL	

43)	2,4-Dinitrophenol	0.00	0	0	0.00	ng/uL	
44)	4-Nitrophenol	0.00	0	0	0.00	ng/uL	
45)	Dibenzofuran	0.00	0	0	0.00	ng/uL	
46)	2,4-Dinitrotoluene	0.00	0	0	0.00	ng/uL	
47)	~~Diethylphthalate~~	~~22.20~~	~~1715~~	~~1183~~	~~.524~~	~~ng/uL~~	9
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00	ng/uL	
49)	Fluorene	0.00	0	0	0.00	ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00	ng/uL	
51)	*Phenanthrene-d10	25.10	1993	88023	40.00	ng/uL	9
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00	ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1797	0	0.00	ng/uL	
54)	2,4,6-Tribromophenol	23.06	1797	48752	133.89	ng/uL	9
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00	ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00	ng/uL	
57)	Pentachlorophenol	0.00	0	0	0.00	ng/uL	
58)	Phenanthrene	0.00	0	0	0.00	ng/uL	
59)	Anthracene	0.00	0	0	0.00	ng/uL	
60)	Di-n-butylphthalate	27.14	2188	20794	5.78	ng/uL	9
61)	Fluoranthene	0.00	0	0	0.00	ng/uL	
62)	*Chrysene-d12	32.96	2745	80065	40.00	ng/uL	9
63)	Pyrene	0.00	0	0	0.00	ng/uL	
64)	Terphenyl-d14	30.00	2462	147070	64.07	ng/uL	8
65)	Butylbenzylphthalate	0.00	0	0	0.00	ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00	ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00	ng/uL	
68)	Chrysene	0.00	0	0	0.00	ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	33.40	2787	1743	.674	ng/uL	9
70)	*Perylene-d12	36.88	3119	80824	40.00	ng/uL	9
71)	~~Di-n-octylphthalate~~	~~35.26~~	~~2964~~	~~1112~~	~~.285~~	~~ng/uL~~	9
72)	Benzo(b)fluoranthene	0.00	0	0	0.00	ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00	ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00	ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00	ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00	ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00	ng/uL	

* Compound is ISTD

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

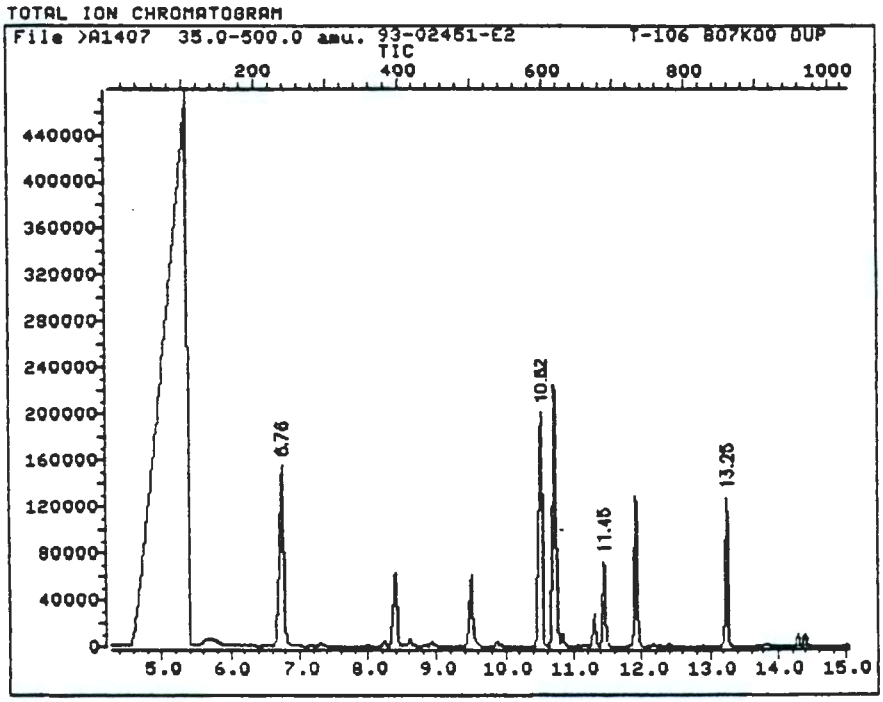
SAMPLE FILE = >A1407
CAL CHECK FILE = >A1402
DATE AND TIME OF ANALYSIS = 1/14/93 18:41
MISCELLANEOUS = T-106 807K00 DUP
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

I. Areas

Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	31595	36480	18240	72960	OK
Naphthalene-d8	103962	121269	60635	242538	OK
Acenaphthene-d10	50296	57467	28734	114934	OK
Phenanthrene-d10	88023	101992	50996	203984	OK
Chrysene-d12	80065	77858	38929	155716	OK
Perylene-d12	80824	93060	46530	186120	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.45	11.45	10.95	11.95	OK
Naphthalene-d8	15.41	15.42	14.92	15.92	OK
Acenaphthene-d10	20.69	20.70	20.20	21.20	OK
Phenanthrene-d10	25.10	25.12	24.62	25.62	OK
Chrysene-d12	32.96	33.00	32.50	33.50	OK
Perylene-d12	36.88	36.91	36.41	37.41	OK



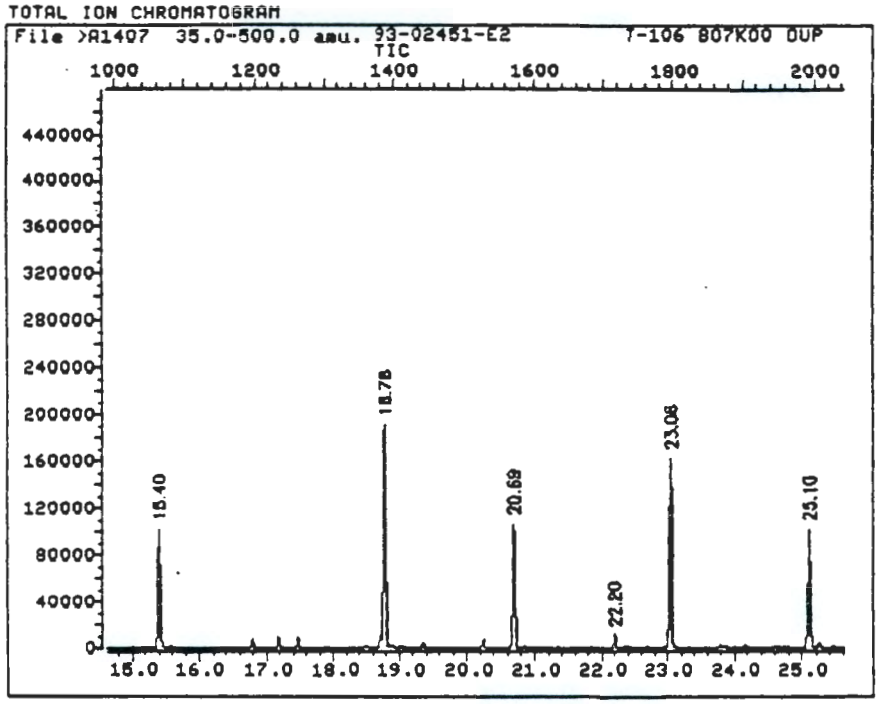
Data File: >A1407::D1 Quant Output File: ^A1407::OF
Name: 93-02451-E2 Instrument ID: BNA1
Misc: T-106 B07K00 DUP BTL# 5

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 19:29
Injected at: 930114 18:41

Page 1 of 4

TOTAL ION CHROMATOGRAM



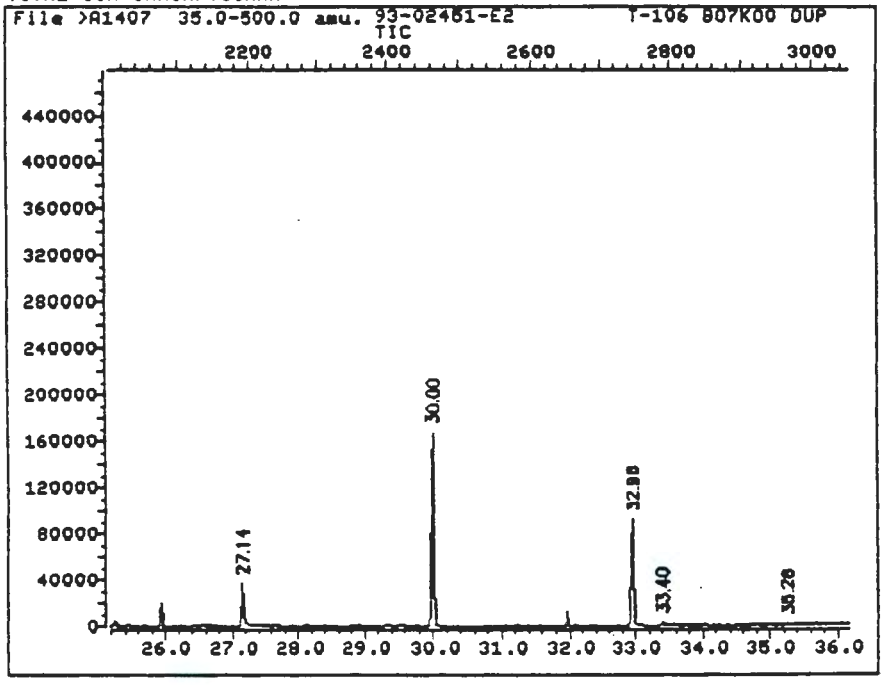
Data File: >A1407::D1 Quant Output File: ^A1407::OF
Name: 93-02451-E2 Instrument ID: BNA1
Misc: T-106 B07K00 DUP `BTL# 5

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 19:29
Injected at: 930114 18:41

Page 2 of 4

TOTAL ION CHROMATOGRAM



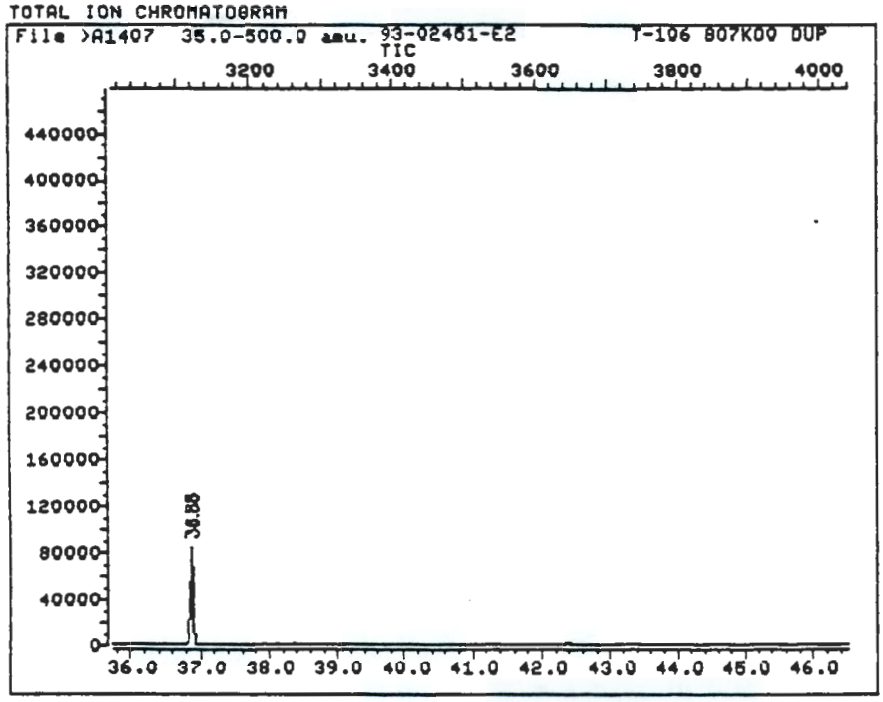
Data File: >A1407::D1 Quant Output File: ^A1407::OF
Name: 93-02451-E2 Instrument ID: BNA1
Misc: T-106 B07K00 DUP BTL# 5

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 19:29
Injected at: 930114 18:41

Page 3 of 4

TOTAL ION CHROMATOGRAM



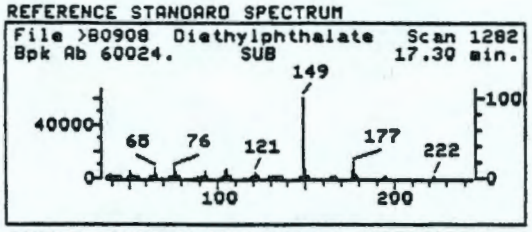
Data File: >A1407::D1 Quant Output File: ^A1407::OF
Name: 93-02451-E2 Instrument ID: BNA1
Misc: T-106 B07K00 DUP BTL# 5

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

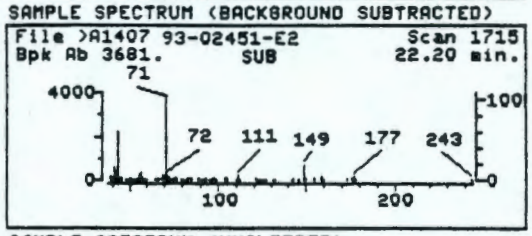
Operator ID: ERIC
Quant Time : 930114 19:29
Injected at: 930114 18:41

Page 4 of 4

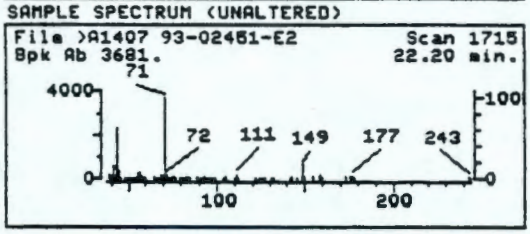
REFERENCE STANDARD SPECTRUM

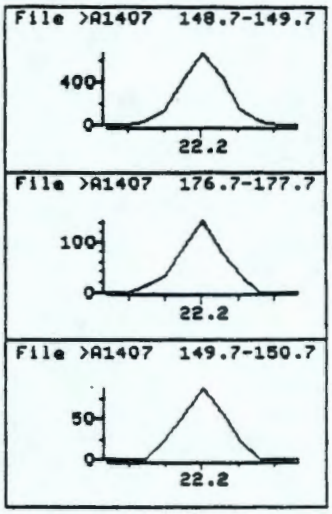


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





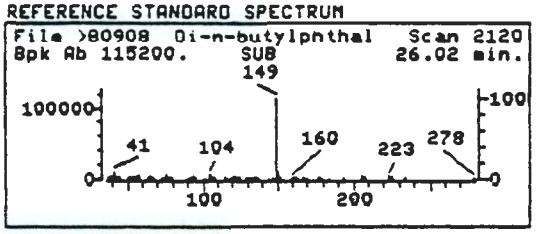
Data File: >A1407::D1
Name: 93-02451-E2
Misc: T-106 B07K00 DUP
Quant Time: 930114 19:29
Injected at: 930114 18:41
Last Qcal Time: 930114 10:37

Quant Output File: ^A1407::OF
Instrument ID: BNA1
BTL# 5
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

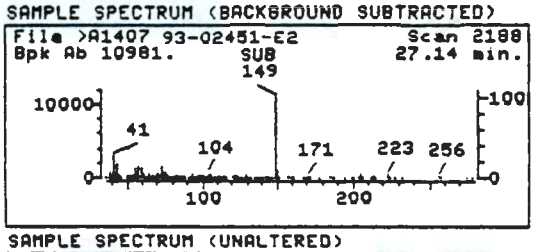
Compound No : 47
Compound Name : Diethylphthalate
Scan Number : 1715
Retention Time: 22.20 min.
Quant Ion : 149.0
Area : 1183
Concentration : .524 ng/uL
q-value : 95

delete

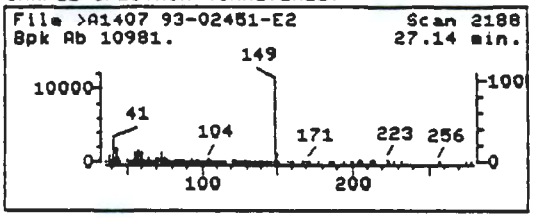
REFERENCE STANDARD SPECTRUM

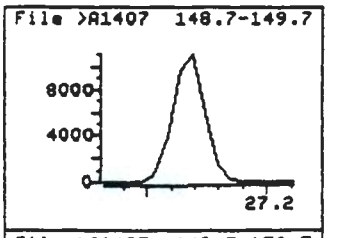


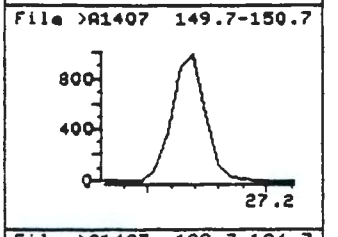
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

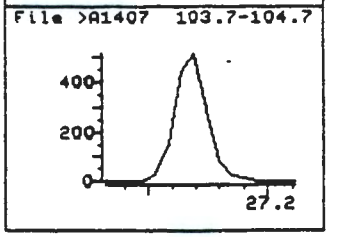


SAMPLE SPECTRUM (UNALTERED)







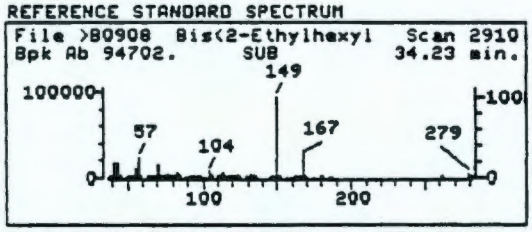


Data File: >A1407::D1
Name: 93-02451-E2
Misc: T-106 B07K00 DUP
Quant Time: 930114 19:29
Injected at: 930114 18:41
Last Qcal Time: 930114 10:37

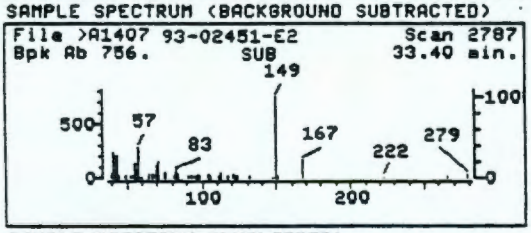
Quant Output File: ^A1407::OF
Instrument ID: BNA1
BTL# 5
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2188
Retention Time: 27.14 min.
Quant Ion : 149.0
Area : 20794
Concentration : 5.78 ng/uL
q-value : 97

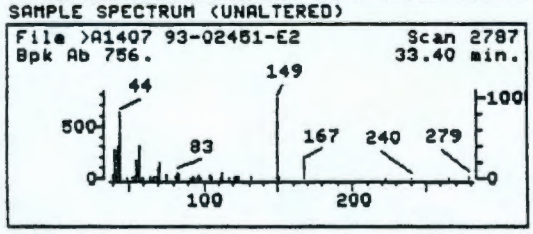
REFERENCE STANDARD SPECTRUM

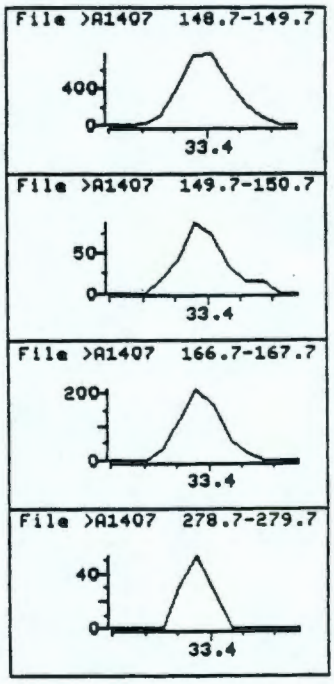


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



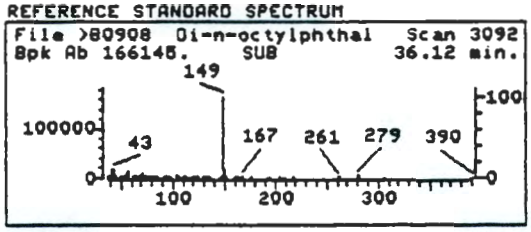


Data File: >A1407::D1
Name: 93-02451-E2
Misc: T-106 B07K00 DUP
Quant Time: 930114 19:29
Injected at: 930114 18:41
Last Qcal Time: 930114 10:37

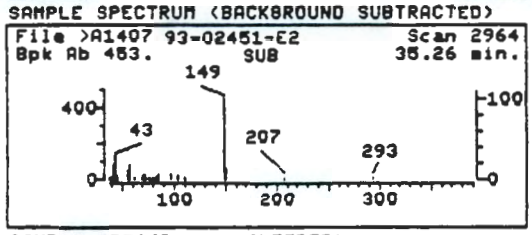
Quant Output File: ^A1407::QF
Instrument ID: BNA1
BTL# 5
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2787
Retention Time: 33.40 min.
Quant Ion : 149.0
Area : 1743
Concentration : .674 ng/uL
q-value : 90

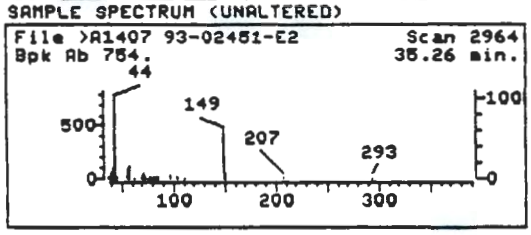
REFERENCE STANDARD SPECTRUM

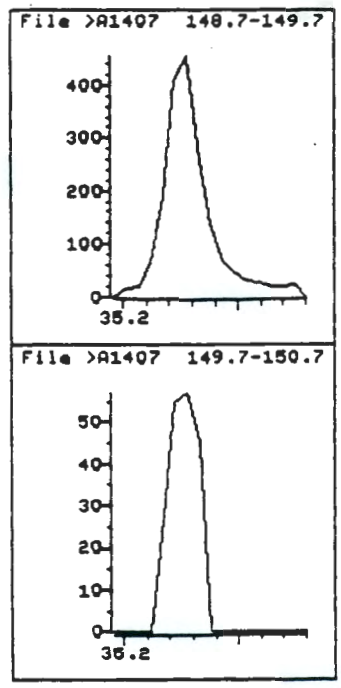


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >A1407::D1
Name: 93-02451-E2
Misc: T-106 B07K00 DUP
Quant Time: 930114 19:29
Injected at: 930114 18:41
Last Qcal Time: 930114 10:37

Quant Output File: ^A1407::OF
Instrument ID: BNA1
BTL# 5
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 2964
Retention Time: 35.26 min.
Quant Ion : 149.0
Area : 1112
Concentration : .285 ng/uL
q-value : 93

Sht

MS data file header from : >A1407::D1

Sample: 93-02451-E2 Operator: ERIC SUPER GRP. 1/14/93 18:41
Misc : T-106 B07K00 DUP BTL# 5
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 5 Equip ID: BNA1
Method file: BNAME1 Tuning file: MTBNA1 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	40.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.5	0.0

>A1407 93-02451-E2 T-106 B07K00 DUP
35.01 500.0 CLP TIC
Upslope: .2000 Area Reject: 21374. Max Peaks: 11 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File IA1407 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	5.39	26	107	116	476107	11193623	11122499	100.00	85.68
2	5.67	120	133	165	5770	114281	75557*	.68	.58
3	8.41	385	395	408	62500	249033	235179	2.11	1.81
4	8.62	408	415	429	5817	33280	24780	.22	.19
5	9.50	488	499	523	61103	251452	239722	2.16	1.84
6	10.72	608	616	623	224916	742652	738136	6.64	5.68
7	10.83	623	626	638	10055	31566	25141*	.23	.19
8	11.31	664	672	678	27856	85428	80717	.73	.62
9	11.92	717	730	742	128909	391171	380835	3.42	2.93
10	14.39	961	966	972	9767	24592	21880	.20	.16
11	25.94	2065	2073	2083	19121	45761	36658	.33	.28

Sum of corrected areas: 12981108.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	213738.	11.45	4.28 - 13.43
2	40.0	247162.	15.40	13.43 - 18.05
3	40.0	244479.	20.69	18.05 - 22.90
4	40.0	251884.	25.10	22.90 - 29.03
5	40.0	244847.	32.96	29.03 - 34.92
6	40.0	251634.	36.88	34.92 - 46.52

Dilution Factor = 1.00 This sample was 30.3000 g or mL

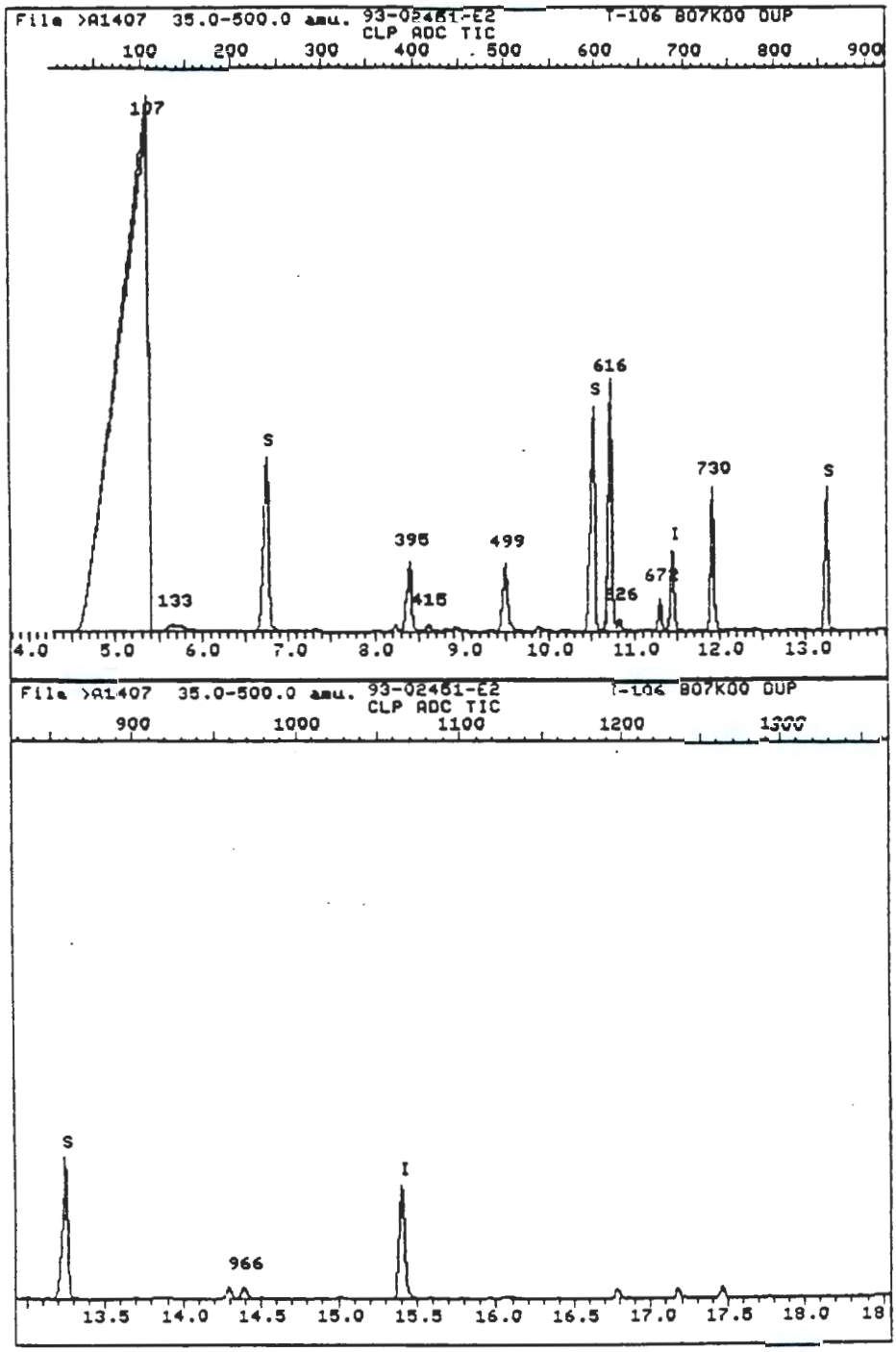
Correction Factor = 66.07 TIC RESULTS OFF BY 2X; SEE FORM 1F

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std} * \text{Area Unknown}}{\text{Area Int Std}} * \text{Correction Factor}$$

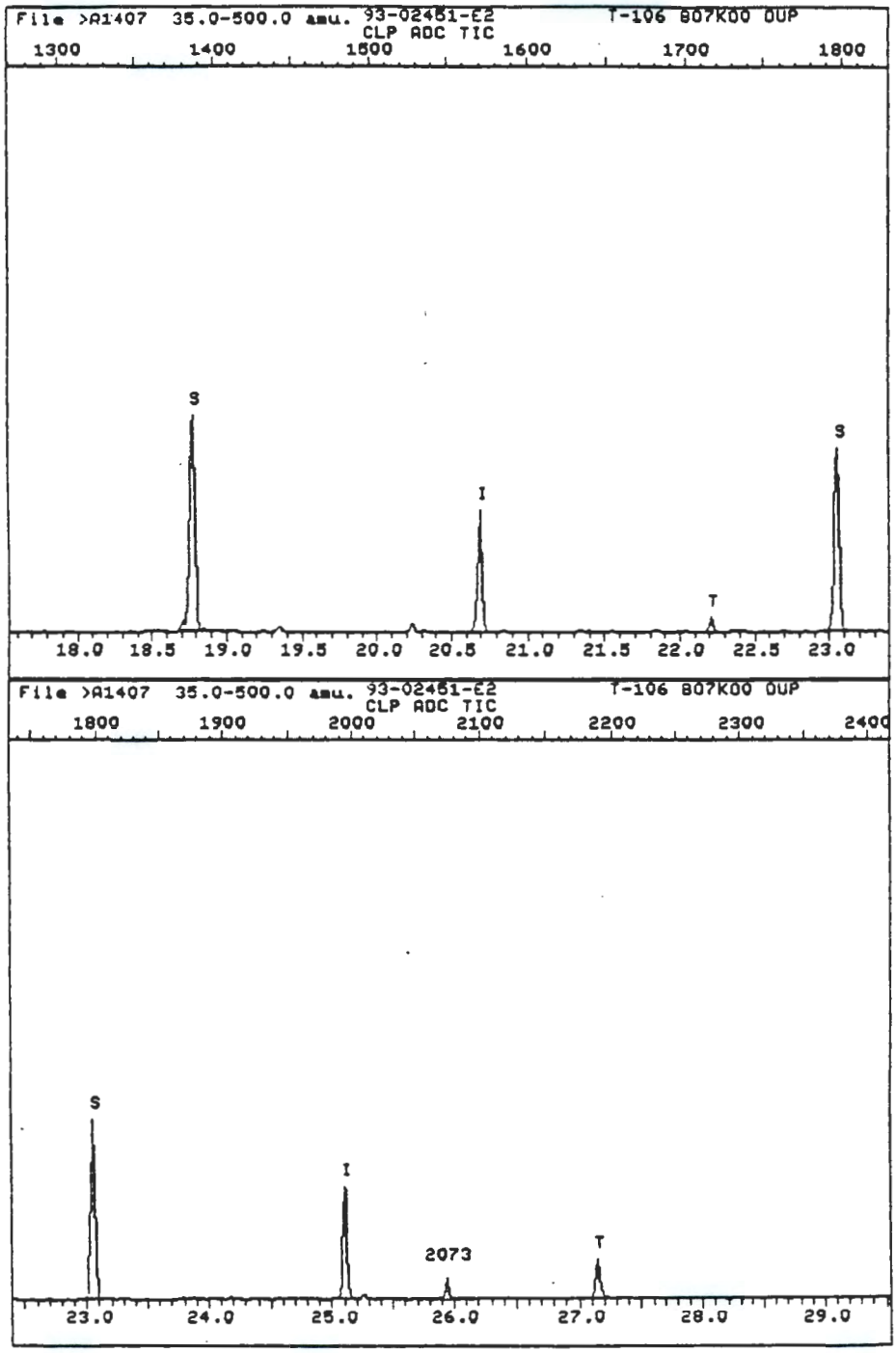
7:39 PM TUE., 23 FEB., 1993

Corr = value / A35 = correction for % moisture
KMH 3/2/93

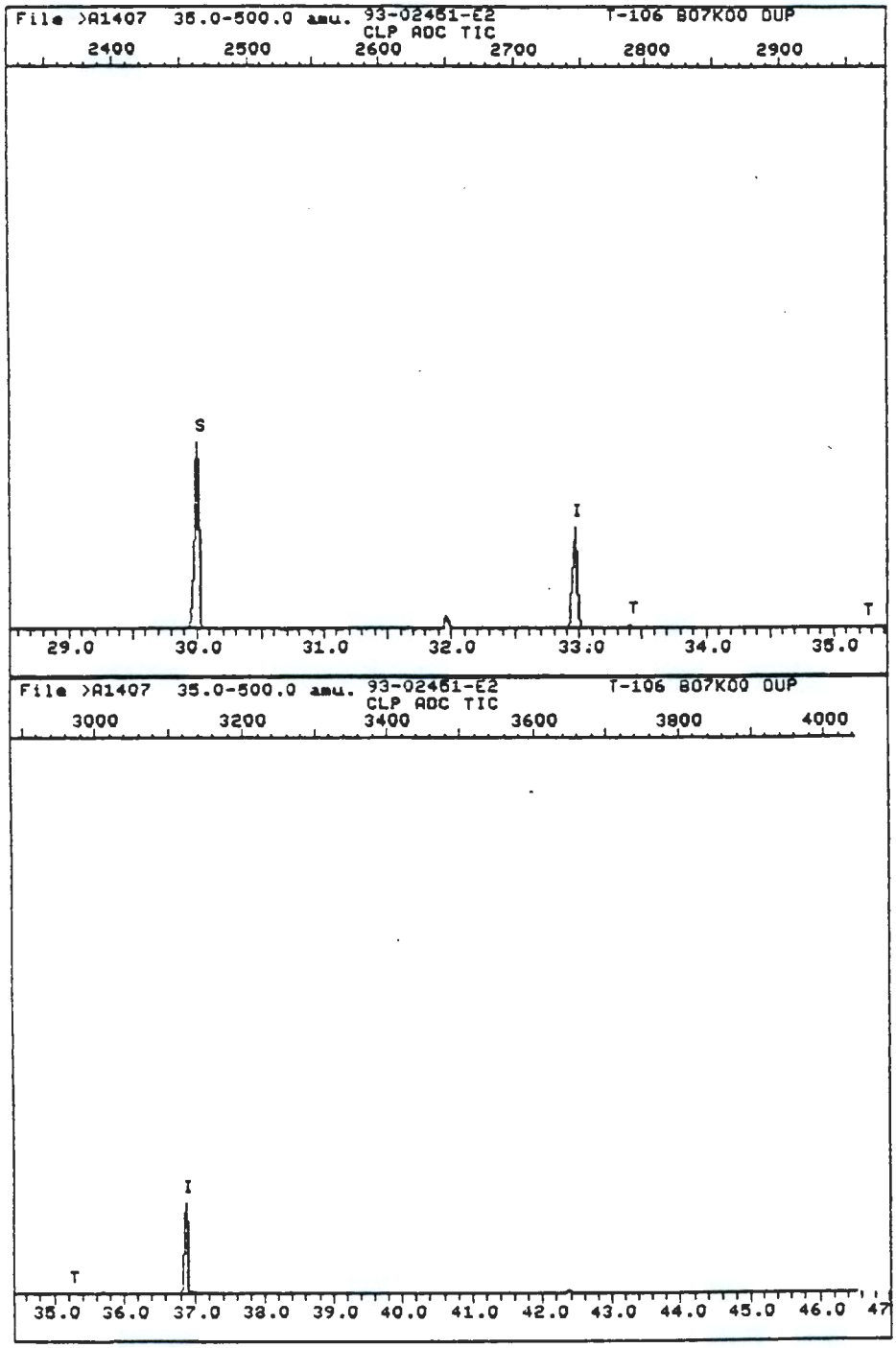
F03-221



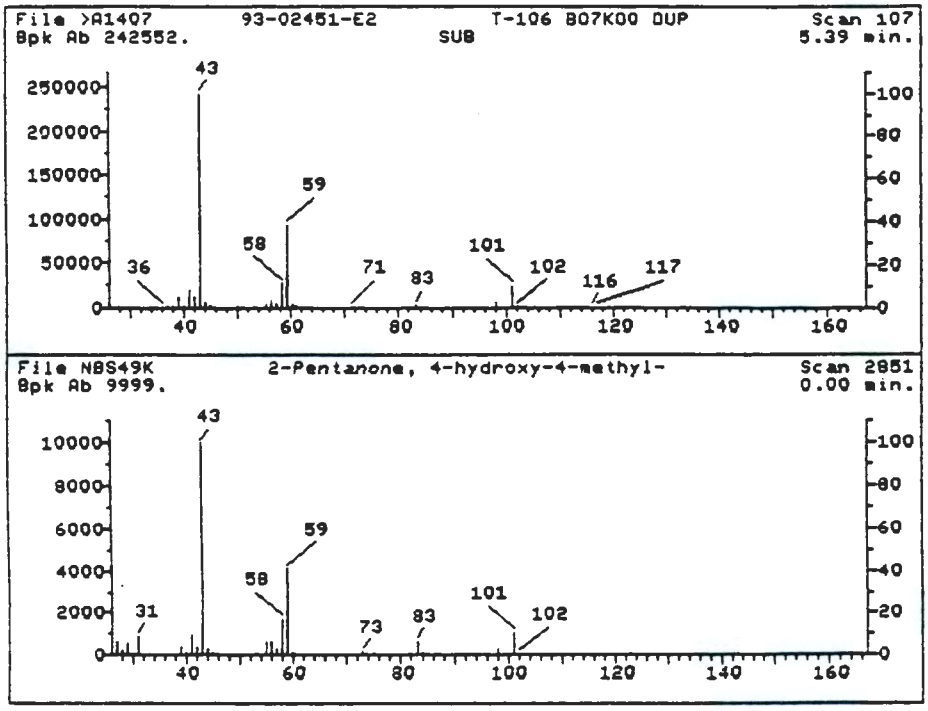
Instrument ID: BNA1 Analyzed on: 1/14/93 18:41



Instrument ID: BNA1 Analyzed on: 1/14/93 18:41



Instrument ID: BNA1 Analyzed on: 1/14/93 18:41



Instrument ID: BNA1 Analyzed on: 1/14/93 18:41
Result 1 in PBM results file: LA1407
Retention Time: 5.39 Area: 11122498 Tentative Conc: ~~140000~~.00 150000 [illegible]
The unknown area is 5203.8% of the nearest internal standard

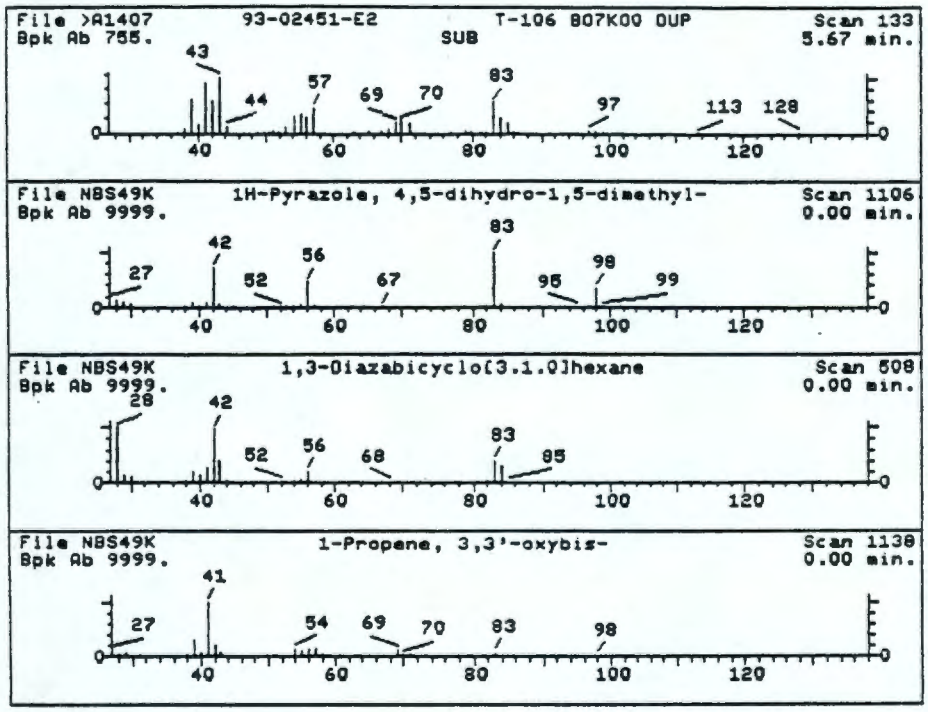
1. 2-Pentanone, 4-hydroxy-4-methyl- 116 C6H12O2

Sample file: >A1407 Spectrum #: 107
Search speed: 3 Tilting option: F No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1	47	123422	1790	NBS49K	52	31	2	0	72	22	17	18

A

9613492.1375



Instrument ID: BNA1 Analyzed on: 1/14/93 18:41
Result 2 in PBM results file: LA1407
Retention Time: 5.67 Area: 75557 Tentative Conc: ~~930.00~~ 1000 ug/g
The unknown area is 35.35% of the nearest internal standard

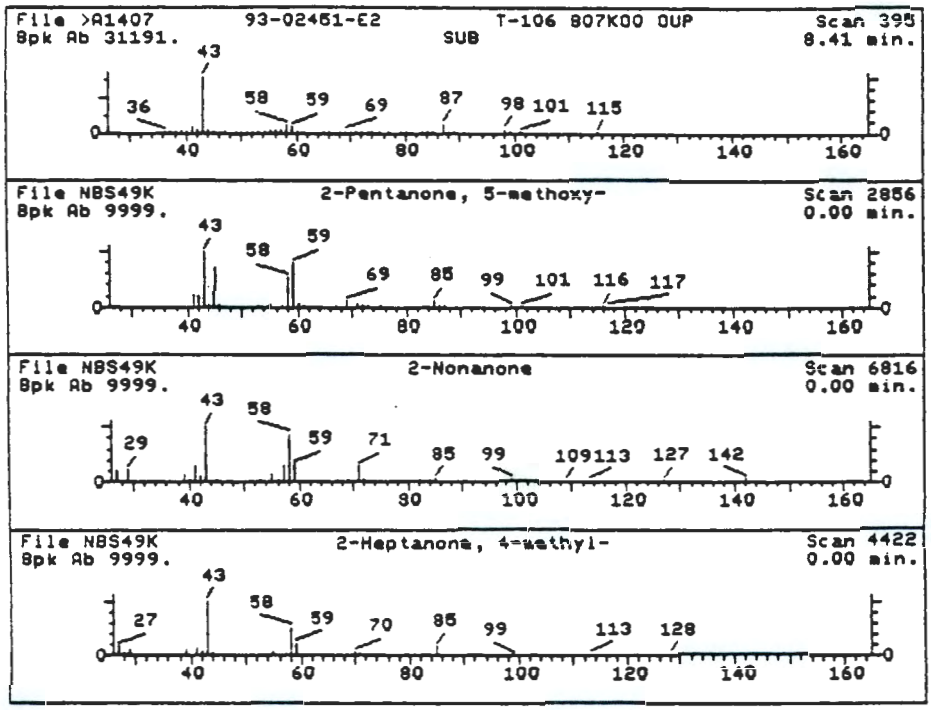
1. 1H-Pyrazole, 4,5-dihydro-1,5-dimethyl-	98	C5H10N2
2. 1,3-Diazabicyclo[3.1.0]hexane	84	C4H8N2
3. 1-Propene, 3,3'-oxybis-	98	C6H10O
4. 2-Oxetanone, 4-methylene-	84	C4H4O2
5. Cyclopropane, ethyl-	70	C5H10
6. 1-Hexene	84	C6H12

Sample file: >A1407 Spectrum #: 133
Search speed: 3 Tilting option: F No. of ion ranges searched: 72

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	24	5775962	6134	NBS49K	34	56	1	0	56	43	8	12
2.	20*	17038287	6268	NBS49K	32	62	2	0	91	52	5	14

wk

F03-226



Instrument ID: BNA1 Analyzed on: 1/14/93 18:41
Result 3 in PBM results file: LA1407
Retention Time: 8.41 Area: 235179 Tentative Conc: ~~2900.00~~ 3100 [illegible] 7/2/93
The unknown area is 110.03% of the nearest internal standard

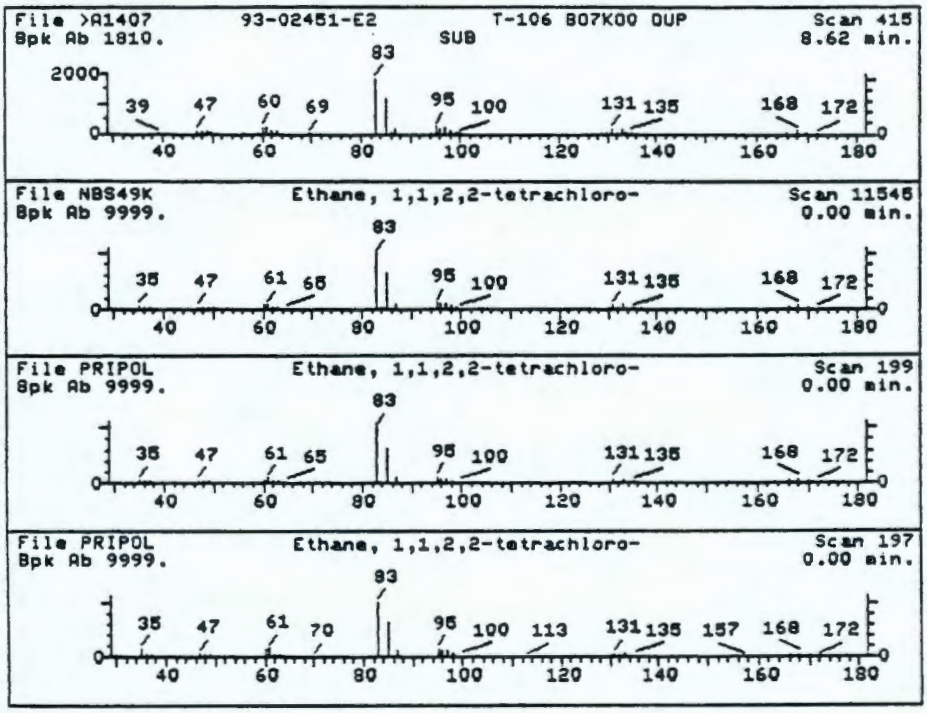
1. 2-Pentanone, 5-methoxy-	116	C6H12O2
2. 2-Nonanone	142	C9H18O
3. 2-Heptanone, 4-methyl-	128	C8H16O
4. Butanoic acid, 2-ethyl-3-oxo-, methyl ester	144	C7H12O3

Sample file: >A1407 Spectrum #: 395
Search speed: 3 Tilting option: F No. of ion ranges searched: 50

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	20*	17429048	1791	NBS49K	24	43	2	0	15	52	5	14

[illegible] A

9613492.1377



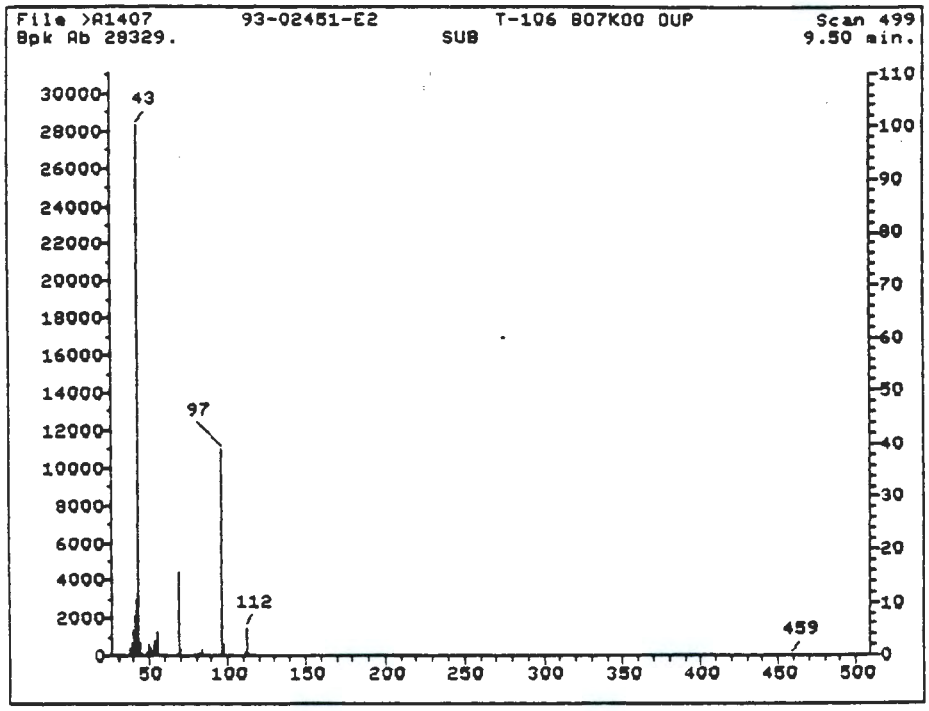
Instrument ID: BNA1 Analyzed on: 1/14/93 18:41
Result 4 in PBM results file: LA1407
Retention Time: 8.62 Area: 24780 Tentative Conc: ~~310.00~~
The unknown area is 11.59% of the nearest internal standard 330 100% 3/2/93

1. Ethane, 1,1,2,2-tetrachloro- 166 C2H2Cl4
2. Ethane, 1,1,2,2-tetrachloro- 166 C2H2Cl4
3. Ethane, 1,1,2,2-tetrachloro- 166 C2H2Cl4
4. Ethane, 1,1,2,2-tetrachloro- 166 C2H2Cl4
5. Ethane, 1,1,2,2-tetrachloro- 166 C2H2Cl4
6. Ethane, 1,1,2,2-tetrachloro- 166 C2H2Cl4

Sample file: >A1407 Spectrum #: 415
Search speed: 3 Tilting option: F No. of ion ranges searched: 62

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	95*	79345	6716	NBS49K	88	15	0	0	75	17	60	96
2.	95*	199	125	PRIPOL	88	15	0	0	75	17	60	96
3.	95*	197	123	PRIPOL	85	31	0	0	66	8	68	95
4.	89*	198	124	PRIPOL	90	19	1	0	74	7	62	89
5.	87*	195	121	PRIPOL	88	36	0	0	52	44	43	96
6.	81*	196	122	PRIPOL	93	18	1	2	72	17	45	74

F03-228

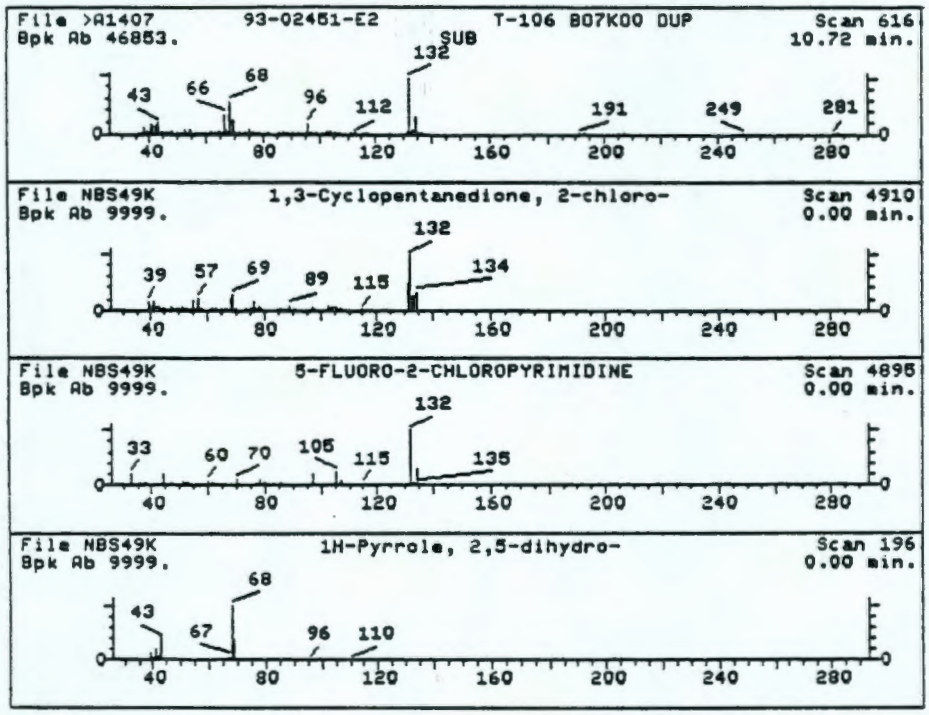


Instrument ID: BNA1 Analyzed on: 1/14/93 18:41
Result 5 in PBM results file: LA1407
Retention Time: 9.50 Area: 239722 Tentative Conc: ~~3000.00~~
The unknown area is 112.16% of the nearest internal standard 3200 KMM 3/2/93

Sample file: >A1407 Spectrum #: 499

No data base entries were retrieved.

unk



Instrument ID: BNA1 Analyzed on: 1/14/93 18:41
Result 6 in PBM results file: LA1407
Retention Time: 10.72 Area: 738136 Tentative Conc: 9100.00
The unknown area is 345.35% of the nearest internal standard

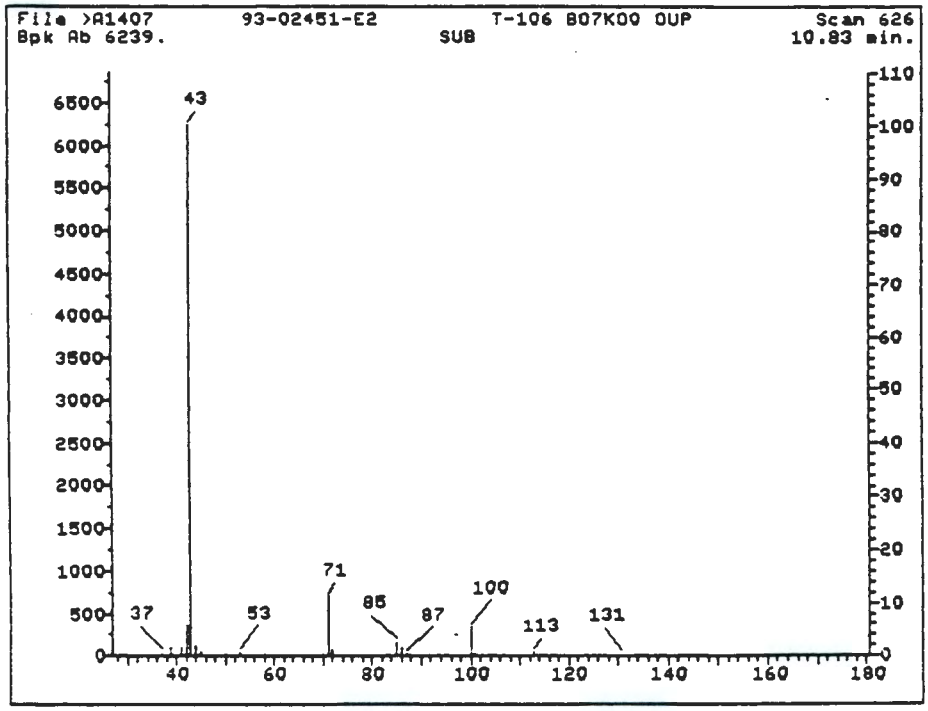
1. 1,3-Cyclopentanedione, 2-chloro- 132 C5H5ClO2
2. 5-FLUORO-2-CHLOROPYRIMIDINE 132 C4H2ClFN2
3. 1H-Pyrrole, 2,5-dihydro- 69 C4H7N

Sample file: >A1407 Spectrum #: 616
Search speed: 3 Tilting option: F No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	28*	14203191	15856	NBS49K	28	83	2	0	97	40	10	14
2.	25*	62802420	15850	NBS49K	23	85	3	0	100	49	7	12
3.	20*	109966	3541	NBS49K	35	21	1	2	28	51	5	12

Delete - see file >A1403
[illegible] 2/25/93

9613492.1580



Instrument ID: BNA1 Analyzed on: 1/14/93 18:41
Result 7 in PBM results file: LA1407
Retention Time: 10.83 Area: 25141 Tentative Conc: ~~310.00~~
The unknown area is 11.76% of the nearest internal standard 330

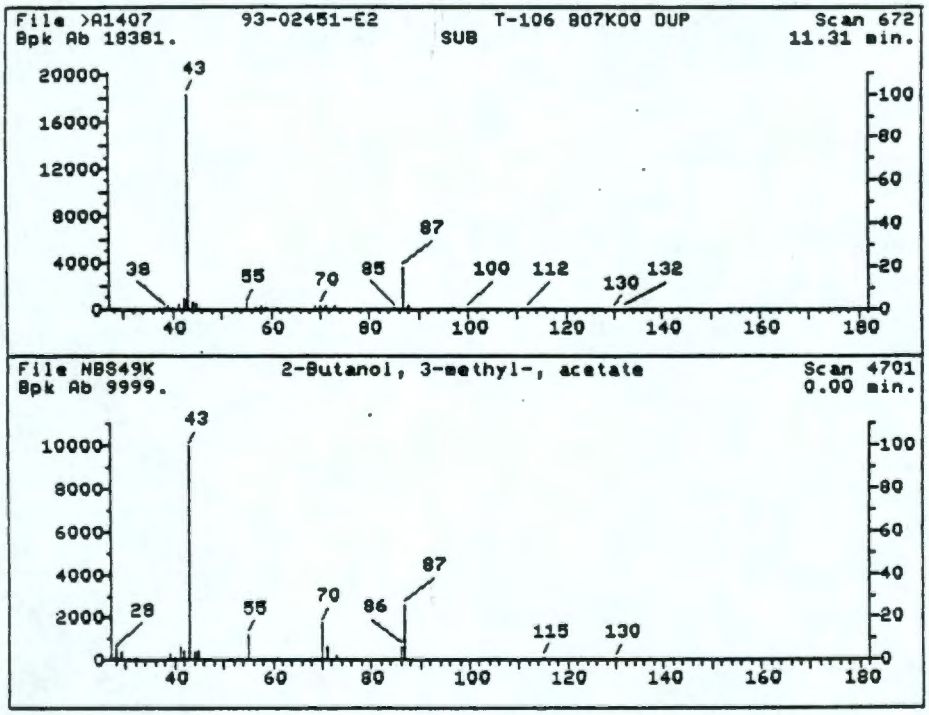
2/2/93

Sample file: >A1407 Spectrum #: 626

No data base entries were retrieved.

F03-231

9613492.1381



Instrument ID: BNA1 Analyzed on: 1/14/93 18:41
Result 8 in PBM results file: LA1407
Retention Time: 11.31 Area: 80717 Tentative Conc: ~~1000.00~~
The unknown area is 37.76% of the nearest internal standard 1100 ug/L

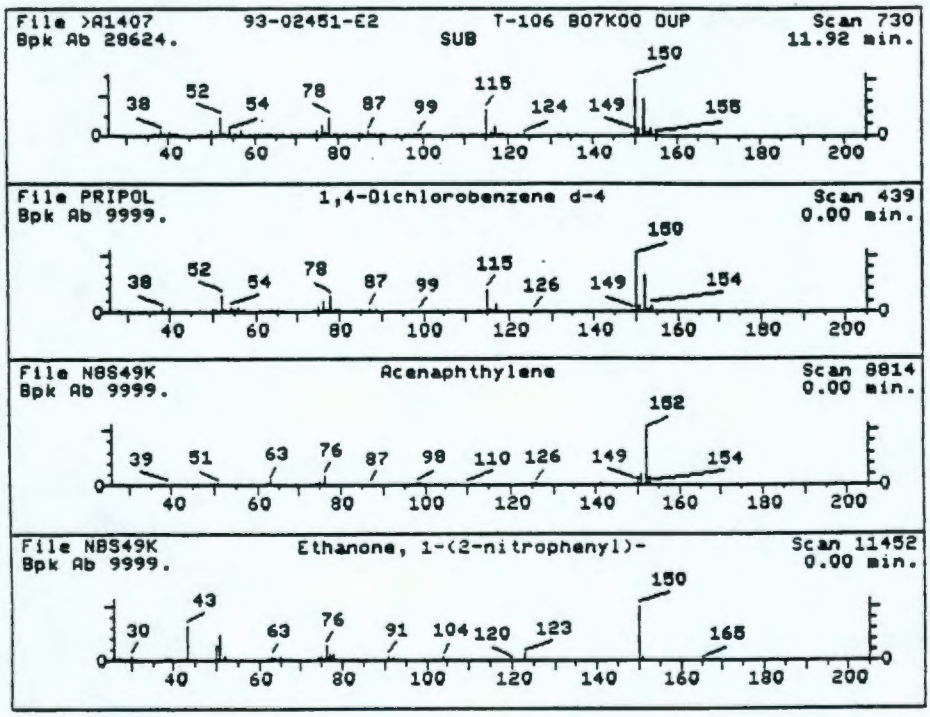
1. 2-Butanol, 3-methyl-, acetate 130 C7H14O2

Sample file: >A1407 Spectrum #: 672
Search speed: 3 Tilting option: F No. of ion ranges searched: 52

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	20*	5343964	7303	NBS49K	39	36	2	0	78	52	5	19

ink

F03-232



Instrument ID: BNA1 Analyzed on: 1/14/93 18:41
Result 9 in PBM results file: LA1407
Retention Time: 11.92 Area: 380835 Tentative Conc: 4700.00
The unknown area is 178.18% of the nearest internal standard

1. 1,4-Dichlorobenzene d-4	150	C6.D4.CL2
2. Acenaphthylene	152	C12H8
3. Ethanone, 1-(2-nitrophenyl)-	165	C8H7NO3
4. Imidazo[5,1-f][1,2,4]triazine-2,7-diamine	150	C5H6N6
5. 6H-Purin-6-one, 1,7-dihydro-1-methyl-	150	C6H6N4O

Sample file: >A1407 Spectrum #: 730
Search speed: 3 Tilting option: F No. of ion ranges searched: 37

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	97*	439	257	PRIPOL	95	12	0	0	86	7	68	97

Delete - 221 > A1403 file
[illegible] 2/25/93

Instrument ID: BNA1 Analyzed on: 1/14/93 18:41

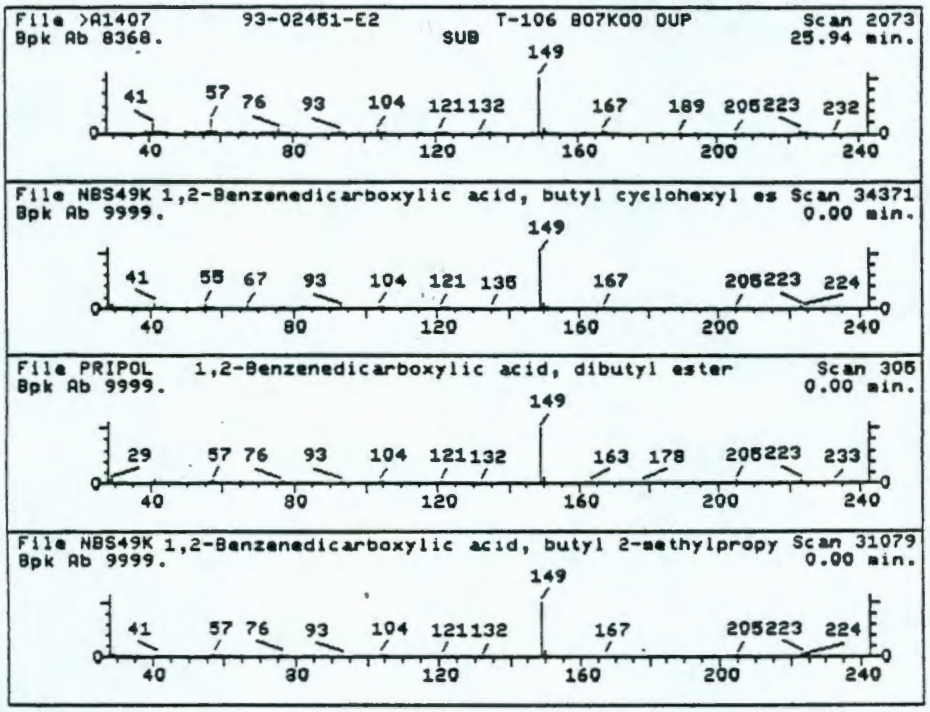
Retention Time: 14.39 Area: 21880 Tentative Conc: 230.00

The unknown area is 8.85% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

9613492.1384



Instrument ID: BNA1 Analyzed on: 1/14/93 18:41
Result 10 in PBM results file: LA1407
Retention Time: 25.94 Area: 36658 Tentative Conc: ~~380.00~~ 400 [illegible] 1/21/93
The unknown area is 14.55% of the nearest internal standard

1. 1,2-Benzenedicarboxylic acid, butyl cyclohexyl ester 304 C18H2404
2. 1,2-Benzenedicarboxylic acid, dibutyl ester 278 C16H2204
3. 1,2-Benzenedicarboxylic acid, butyl 2-methylpropyl e ster 278 C16H2204
4. 1,2-Benzenedicarboxylic acid, dipropyl ester 250 C14H1804
5. 1,2-Benzenedicarboxylic acid, bis(2-methoxyethyl) es ter 282 C14H1806

Sample file: >A1407 Spectrum #: 2073
Search speed: 3 Tilting option: F No. of ion ranges searched: 47

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	78	84640	19279	NBS49K	70	38	2	0	100	4	55	19
2.	70	305	233	PRIPOL	64	40	2	1	100	6	42	14
3.	70	17851535	19272	NBS49K	64	42	2	1	100	8	42	14
4.	60	131168	19265	NBS49K	59	43	2	0	100	12	30	15
5.	36	117828	19276	NBS49K	68	35	1	2	57	40	14	23

[illegible] phthalate

F03-235

QUANT REPORT

Operator ID: ERIC
Output File: ^A1408::OF
Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS

Quant Rev: 7
Quant Time: 930114 20:25
Injected at: 930114 19:37
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 6

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930114 10:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.45	683	31439	40.00	ng/uL	97
2)	2-Fluorophenol	6.78	237	187571	159.79	ng/uL	88
3)	Phenol-d5	10.56	598	228798	164.47	ng/uL	92
4)	Phenol	10.61	603	214100	132.96	ng/uL	88
5)	bis(2-Chloroethyl)ether	0.00	621	0	0.00	ng/uL	
6)	2-Chlorophenol	10.80	621	157737	135.54	ng/uL	97
7)	~~1,3-Dichlorobenzene~~	~~11.50~~	~~688~~	~~93256~~	~~75.10~~	~~ng/uL~~	~~97~~
8)	1,4-Dichlorobenzene	11.50	688	93256	72.57	ng/uL	96
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	~~1,2-Dichlorobenzene~~	~~11.50~~	~~688~~	~~93256~~	~~77.29~~	~~ng/uL~~	~~97~~
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	775	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	12.92	823	62664	70.86	ng/uL	92
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.41	1061	105523	40.00	ng/uL	99
17)	Nitrobenzene-d5	13.25	855	97566	71.21	ng/uL	93
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	15.27	1048	69280	72.09	ng/uL	99
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	17.30	1242	142499	134.47	ng/uL	9
30)	2-Methylnaphthalene	0.00	1242	0	0.00	ng/uL	
31)	*Acenaphthene-d10	20.69	1567	52124	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	18.77	1383	127601	66.90	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	1567	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	20.80	1573	117939	69.12	ng/uL	9

2-24-93

2-24-93

43)	2,4-Dinitrophenol	0.00	0	0	0.00	ng/uL	
44)	4-Nitrophenol	21.29	1625	44236	134.19	ng/uL	8:
45)	Dibenzofuran	0.00	0	0	0.00	ng/uL	
46)	2,4-Dinitrotoluene	21.39	1634	56111	68.38	ng/uL	8E
47)	~~Diethylphthalate~~	~~22.20~~	~~1712~~	~~1038~~	~~.786~~	~~ng/uL~~	9:
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00	ng/uL	
49)	Fluorene	0.00	0	0	0.00	ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00	ng/uL	
51)	*Phenanthrene-d10	25.10	1990	91617	40.00	ng/uL	9:
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00	ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1794	0	0.00	ng/uL	
54)	2,4,6-Tribromophenol	23.06	1794	57809	152.53	ng/uL	9E
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00	ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00	ng/uL	
57)	Pentachlorophenol	24.58	1940	54612	103.37	ng/uL	9e
58)	Phenanthrene	0.00	0	0	0.00	ng/uL	
59)	Anthracene	0.00	0	0	0.00	ng/uL	
60)	Di-n-butylphthalate	27.13	2184	7269	1.94	ng/uL	9e
61)	Fluoranthene	0.00	0	0	0.00	ng/uL	
62)	*Chrysene-d12	32.96	2741	83106	40.00	ng/uL	9:
63)	Pyrene	29.37	2398	200081	62.22	ng/uL	9(
64)	Terphenyl-d14	30.00	2458	142039	59.61	ng/uL	9(
65)	Butylbenzylphthalate	0.00	0	0	0.00	ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00	ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00	ng/uL	
68)	Chrysene	0.00	0	0	0.00	ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	33.39	2782	2217	.826	ng/uL	9(
70)	*Perylene-d12	36.88	3115	83495	40.00	ng/uL	9E
71)	Di-n-octylphthalate	35.24	2959	1859	.461	ng/uL	9:
72)	Benzo(b)fluoranthene	0.00	0	0	0.00	ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00	ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00	ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00	ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00	ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00	ng/uL	

* Compound is ISTD

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

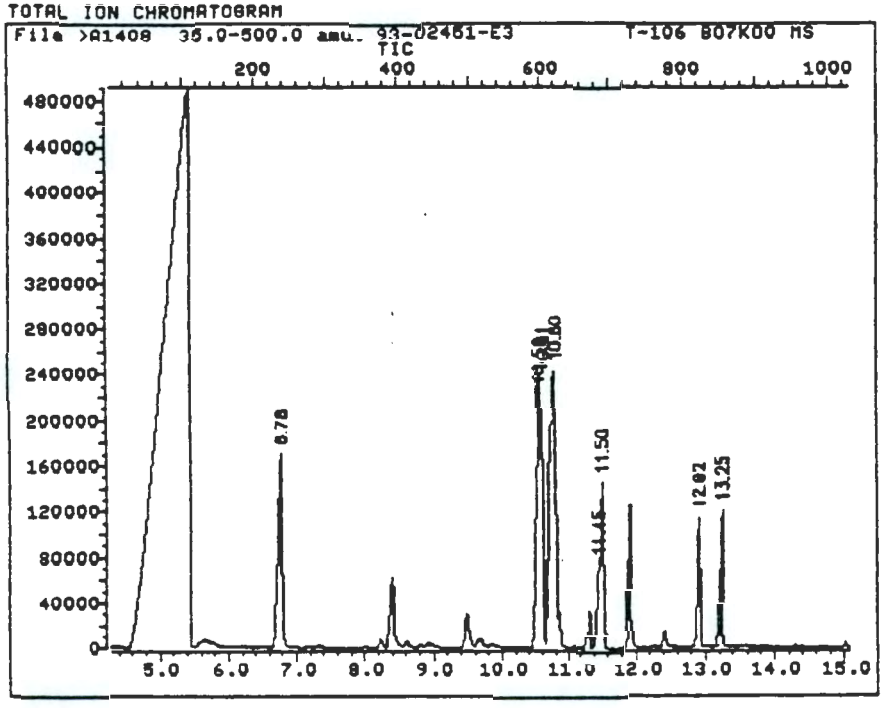
SAMPLE FILE = >A1408
CAL CHECK FILE = >A1402
DATE AND TIME OF ANALYSIS = 1/14/93 19:37
MISCELLANEOUS = T-106 B07K00 MS
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

I. Areas

Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	31439	36480	18240	72960	OK
Naphthalene-d8	105523	121269	60635	242538	OK
Acenaphthene-d10	52124	57467	28734	114934	OK
Phenanthrene-d10	91617	101992	50996	203984	OK
Chrysene-d12	83106	77858	38929	155716	OK
Perylene-d12	83495	93060	46530	186120	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.45	11.45	10.95	11.95	OK
Naphthalene-d8	15.41	15.42	14.92	15.92	OK
Acenaphthene-d10	20.69	20.70	20.20	21.20	OK
Phenanthrene-d10	25.10	25.12	24.62	25.62	OK
Chrysene-d12	32.96	33.00	32.50	33.50	OK
Perylene-d12	36.88	36.91	36.41	37.41	OK



Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS

Quant Output File: ^A1408::OF
Instrument ID: BNA1

BTL# 6

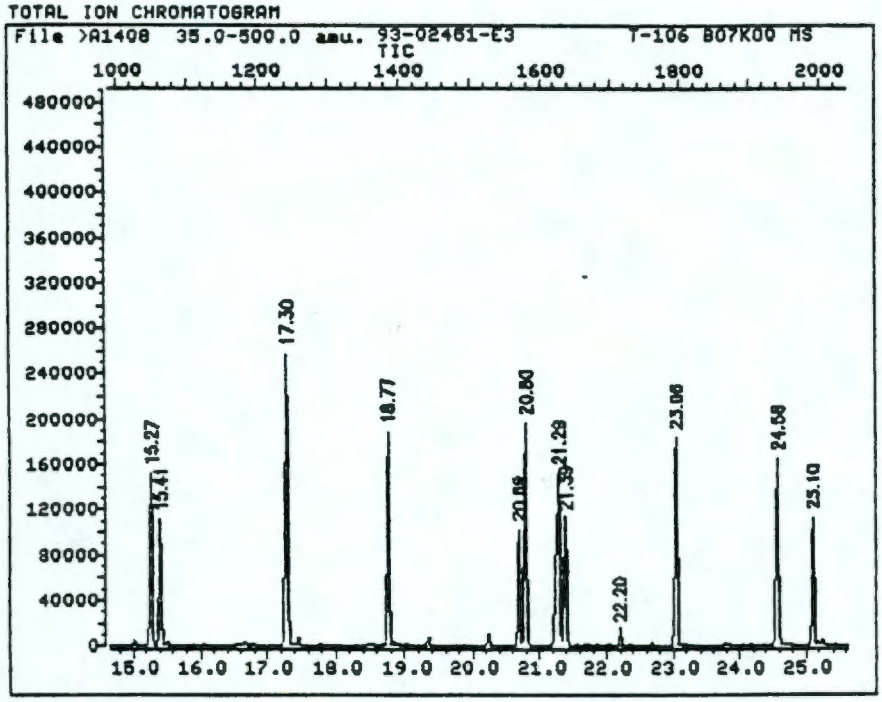
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 20:25
Injected at: 930114 19:37

Page 1 of 4

TOTAL ION CHROMATOGRAM



Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS

Quant Output File: ^A1408::OF
Instrument ID: BNA1
BTL# 6

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 20:25
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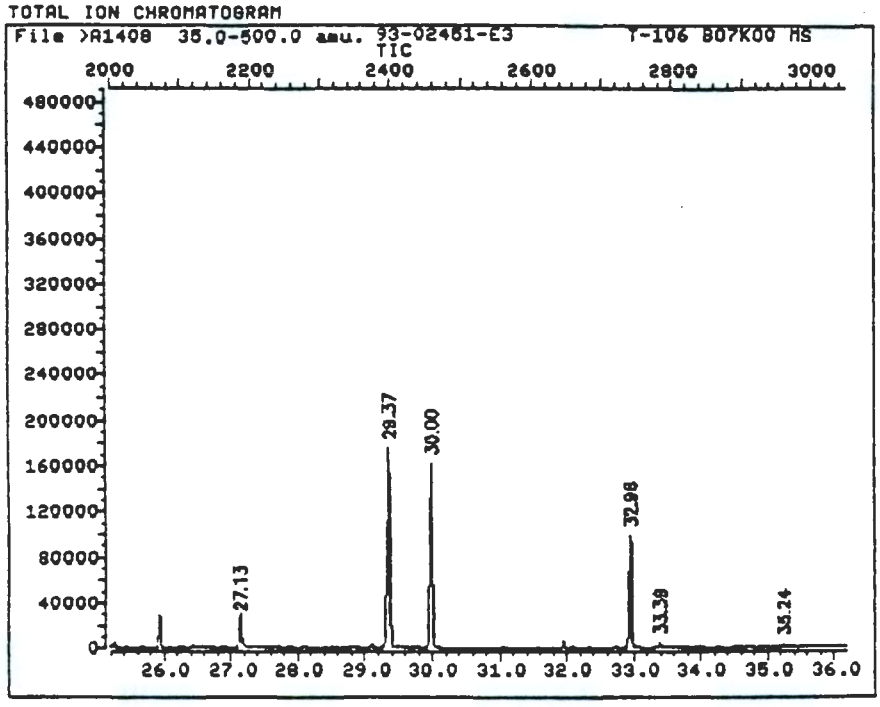
Page 2 of 4

TOTAL ION CHROMATOGRAM



Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS

Quant Output File: ^A1408::OF
Instrument ID: BNA1

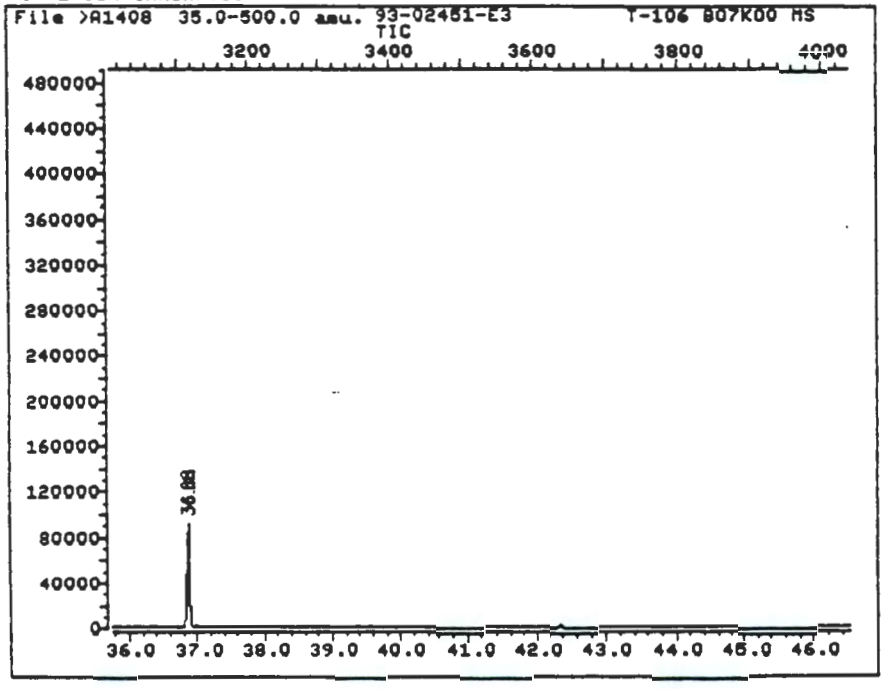
BTL# 6

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 20:25
Injected at: 930114 19:37

TOTAL ION CHROMATOGRAM



Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS

Quant Output File: ^A1408::OF
Instrument ID: BNA1

BTL# 6

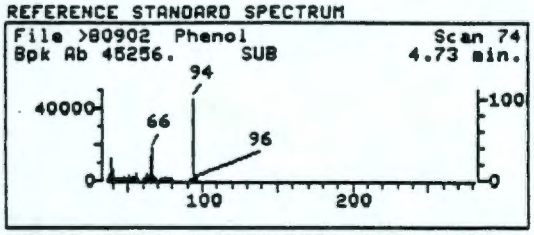
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

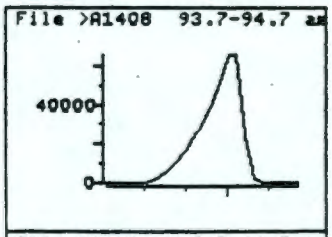
Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 20:25
Injected at: 930114 19:37

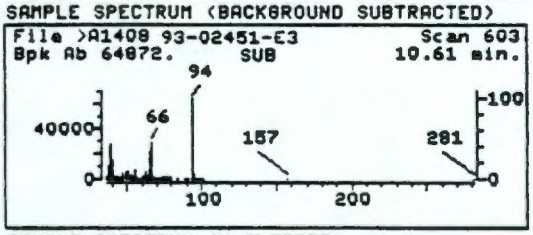
Page 4 of 4

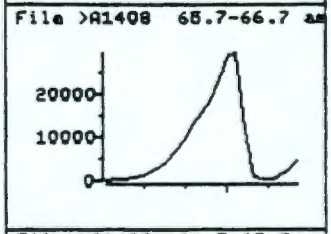
REFERENCE STANDARD SPECTRUM



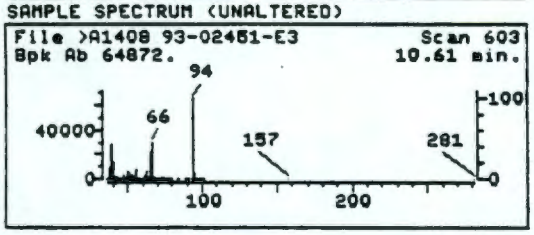


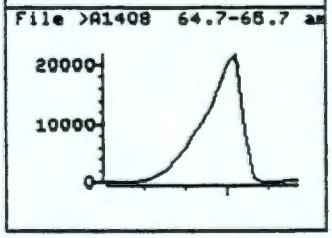
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS
Quant Time: 930114 20:25
Injected at: 930114 19:37
Last Qcal Time: 930114 10:37

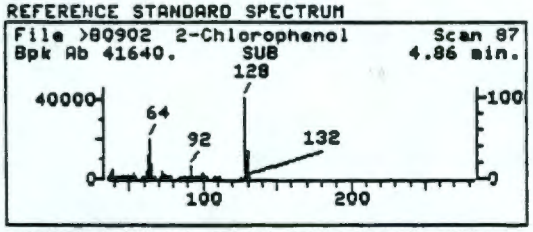
Quant Output File: ^A1408::OF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 4
Compound Name : Phenol
Scan Number : 603
Retention Time: 10.61 min.
Quant Ion : 94.0
Area : 214100
Concentration : 132.96 ng/uL
q-value : 88

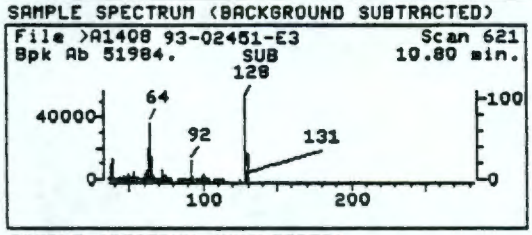
ok

9613492.1393

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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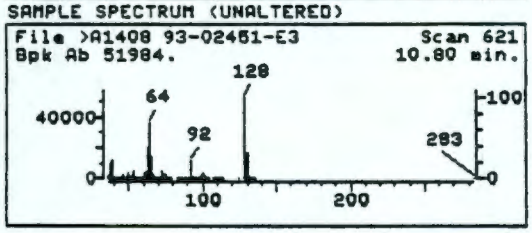
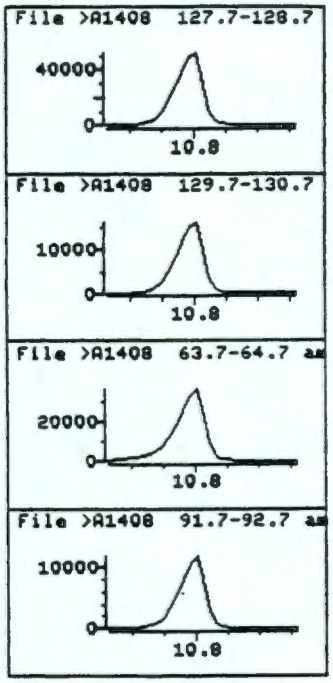




Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS
Quant Time: 930114 20:25
Injected at: 930114 19:37
Last Qcal Time: 930114 10:37

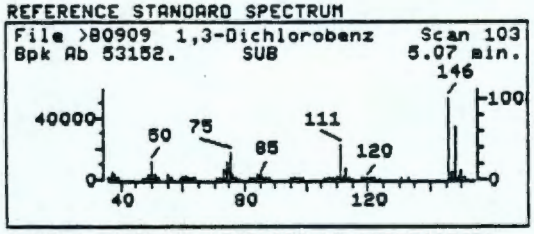
Quant Output File: ^A1408::OF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 6
Compound Name : 2-Chlorophenol
Scan Number : 621
Retention Time: 10.80 min.
Quant Ion : 128.0
Area : 157737
Concentration : 135.54 ng/uL
q-value : 97

ok

F03-244

REFERENCE STANDARD SPECTRUM



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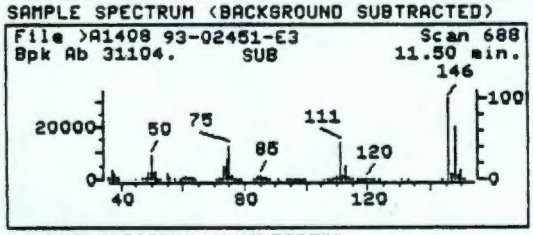
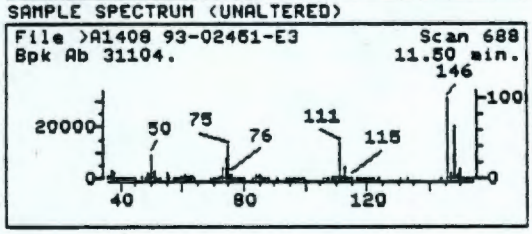
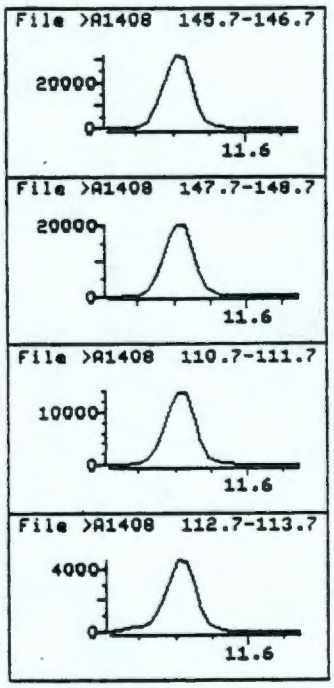


SAMPLE SPECTRUM (UNALTERED)





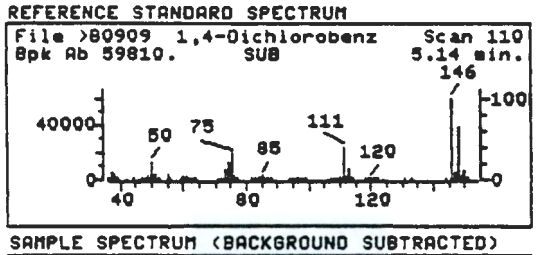
Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS
Quant Time: 930114 20:25
Injected at: 930114 19:37
Last Qcal Time: 930114 10:37

Quant Output File: ^A1408::OF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 7
Compound Name : 1,3-Dichlorobenzene
Scan Number : 688
Retention Time: 11.50 min.
Quant Ion : 146.0
Area : 93256
Concentration : 73.10 ng/uL
q-value : 97

Delete

REFERENCE STANDARD SPECTRUM



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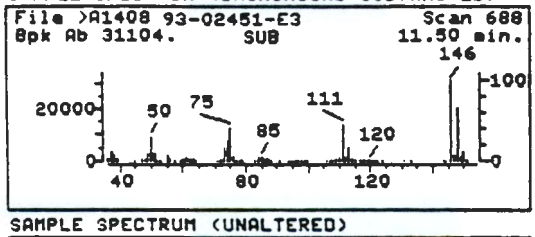

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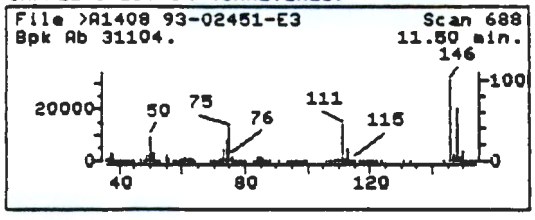
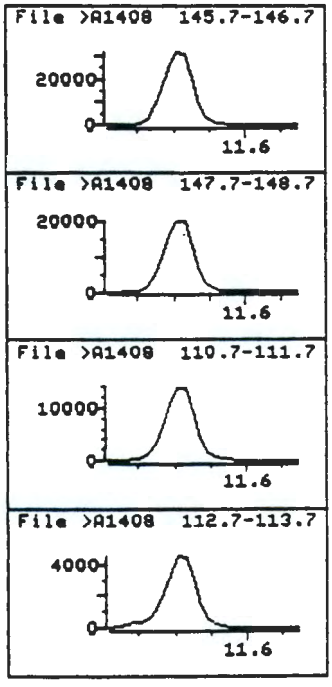




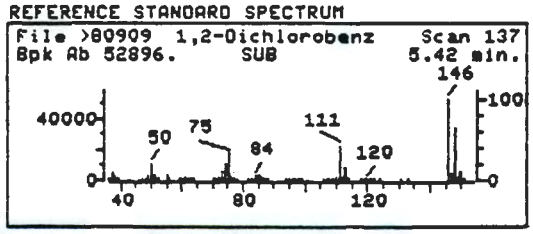
Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS
Quant Time: 930114 20:25
Injected at: 930114 19:37
Last Qcal Time: 930114 10:37

Quant Output File: ^A1408::OF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 8
Compound Name : 1,4-Dichlorobenzene
Scan Number : 688
Retention Time: 11.50 min.
Quant Ion : 146.0
Area : 93256
Concentration : 72.57 ng/uL
q-value : 96

6

REFERENCE STANDARD SPECTRUM



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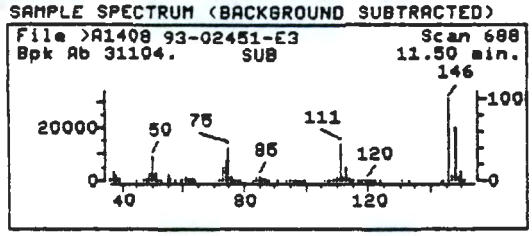

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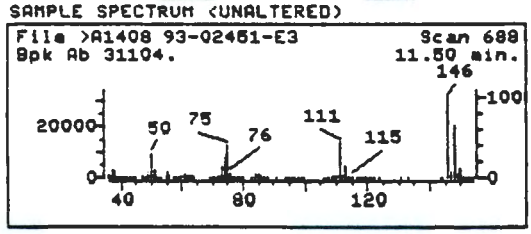
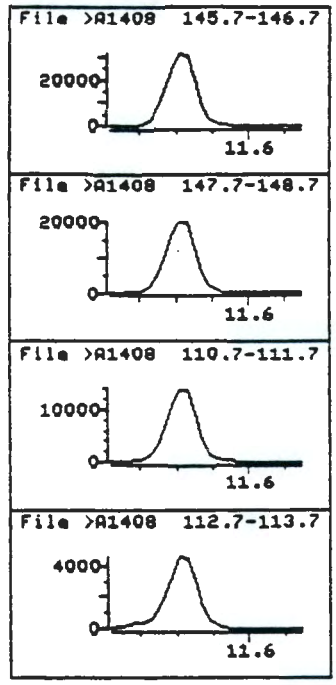


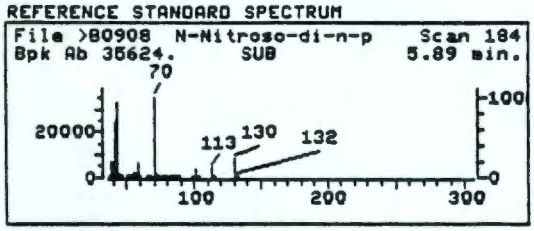


Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS
Quant Time: 930114 20:25
Injected at: 930114 19:37
Last Qcal Time: 930114 10:37

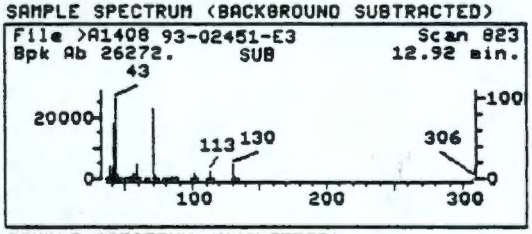
Quant Output File: ^A1408::QF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 10
Compound Name : 1,2-Dichlorobenzene
Scan Number : 688
Retention Time: 11.50 min.
Quant Ion : 146.0
Area : 93256
Concentration : 77.29 ng/uL
q-value : 97

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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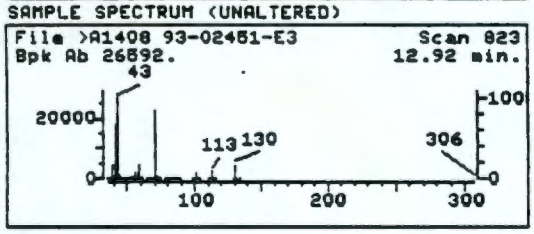
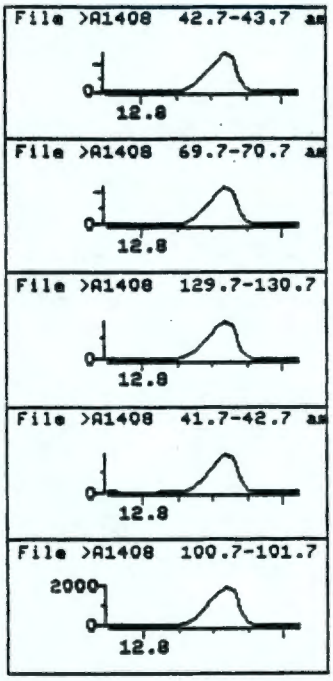




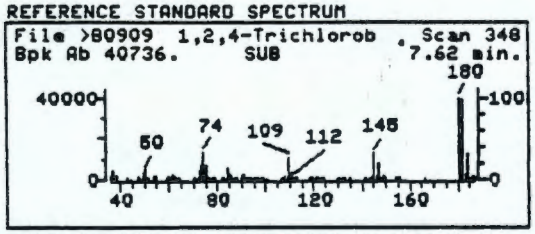
Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS
Quant Time: 930114 20:25
Injected at: 930114 19:37
Last Qcal Time: 930114 10:37

Quant Output File: ^A1408::OF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

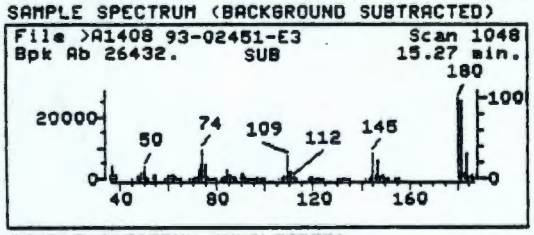
Compound No : 14
Compound Name : N-Nitroso-di-n-propylamine
Scan Number : 823
Retention Time: 12.92 min.
Quant Ion : 70.0
Area : 62664
Concentration : 70.86 ng/uL
q-value : 92

6

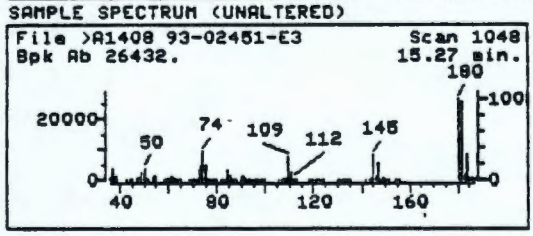
REFERENCE STANDARD SPECTRUM

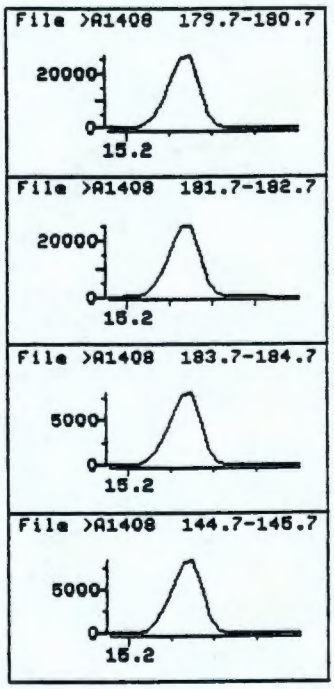


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





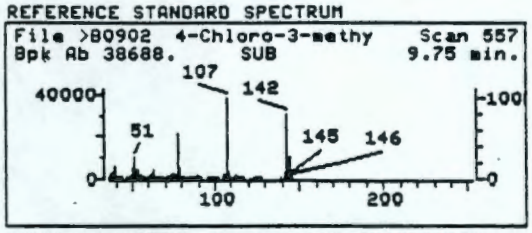
Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS
Quant Time: 930114 20:25
Injected at: 930114 19:37
Last Qcal Time: 930114 10:37

Quant Output File: ^A1408::OF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

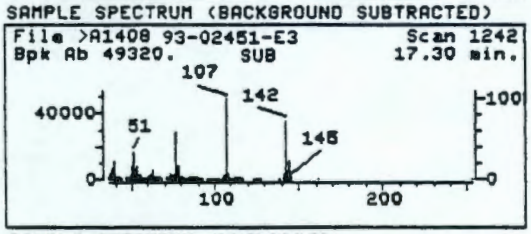
Compound No : 25
Compound Name : 1,2,4-Trichlorobenzene
Scan Number : 1048
Retention Time: 15.27 min.
Quant Ion : 180.0
Area : 69280
Concentration : 72.09 ng/uL
q-value : 99

GK

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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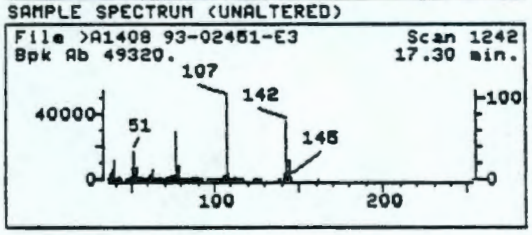
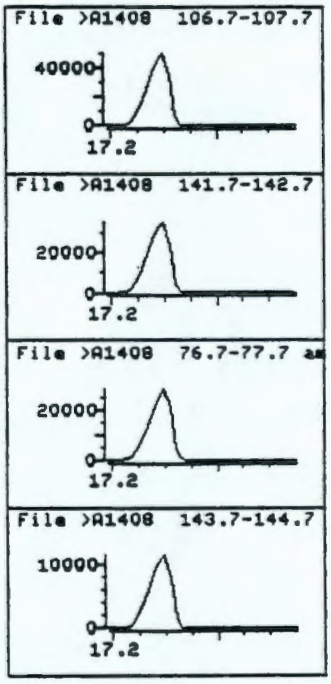




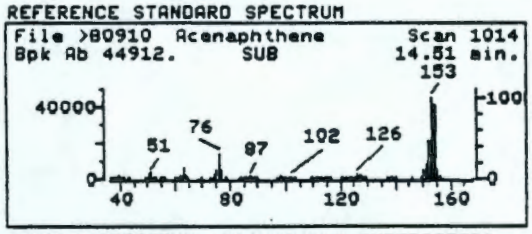
Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS
Quant Time: 930114 20:25
Injected at: 930114 19:37
Last Qcal Time: 930114 10:37

Quant Output File: ^A1408::QF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

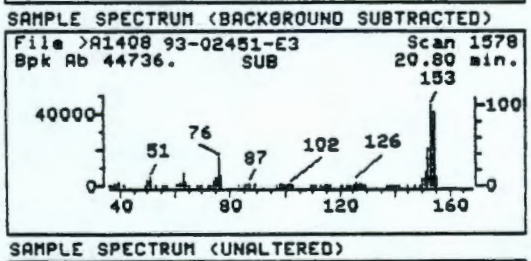
Compound No : 29
Compound Name : 4-Chloro-3-methylphenol
Scan Number : 1242
Retention Time: 17.30 min.
Quant Ion : 107.0
Area : 142499
Concentration : 134.47 ng/uL
q-value : 96

ok

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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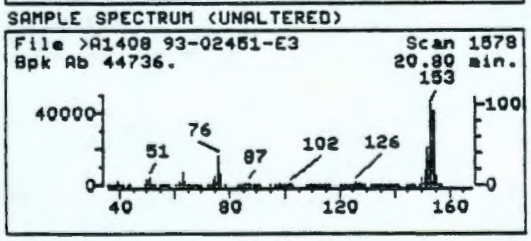
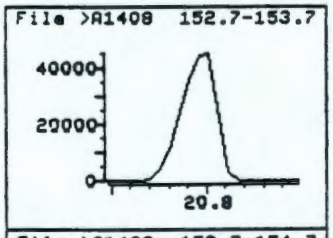
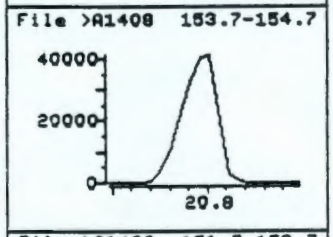
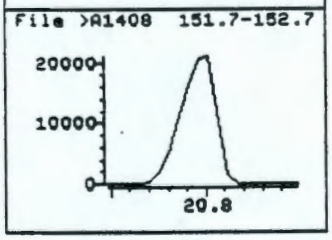








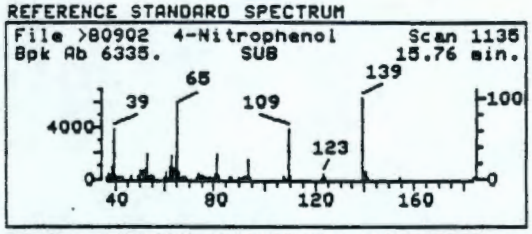
Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS
Quant Time: 930114 20:25
Injected at: 930114 19:37
Last Qcal Time: 930114 10:37

Quant Output File: ^A1408::OF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

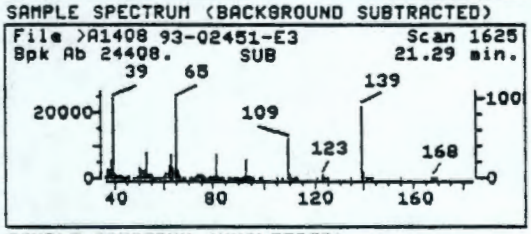
Compound No : 42
Compound Name : Acenaphthene
Scan Number : 1578
Retention Time: 20.80 min.
Quant Ion : 153.0
Area : 117939
Concentration : 69.12 ng/uL
q-value : 97

ok

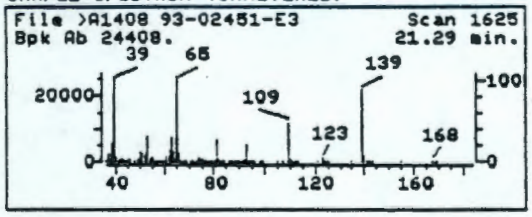
REFERENCE STANDARD SPECTRUM

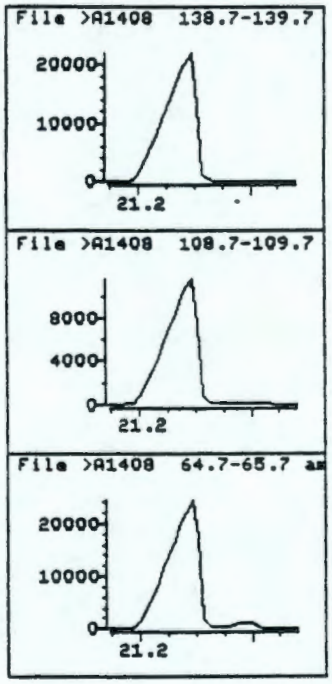


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS
Quant Time: 930114 20:25
Injected at: 930114 19:37
Last Qcal Time: 930114 10:37

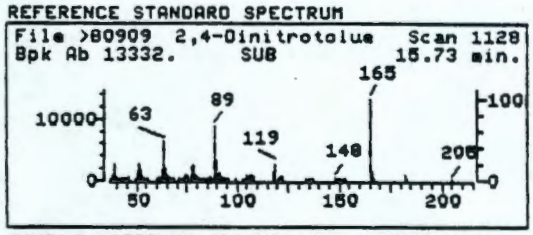
Quant Output File: ^A1408::OF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 44
Compound Name : 4-Nitrophenol
Scan Number : 1625
Retention Time: 21.29 min.
Quant Ion : 109.0
Area : 44236
Concentration : 134.19 ng/uL
q-value : 81

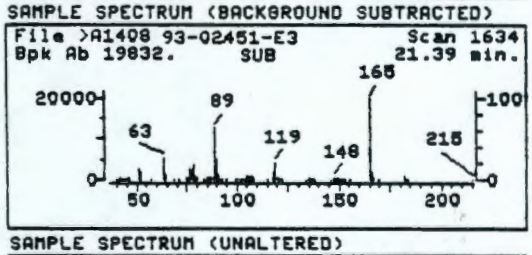
0f

9613492.1402

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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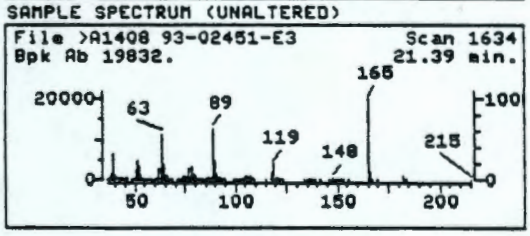
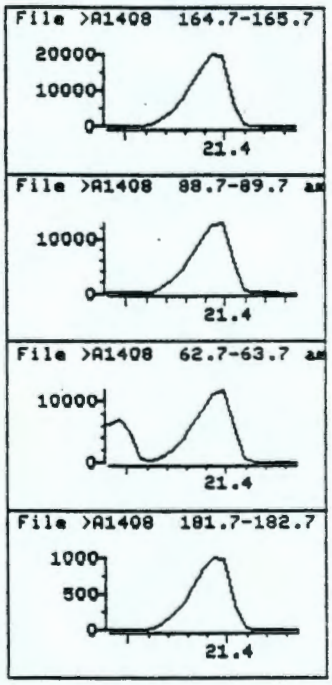




Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS
Quant Time: 930114 20:25
Injected at: 930114 19:37
Last Qcal Time: 930114 10:37

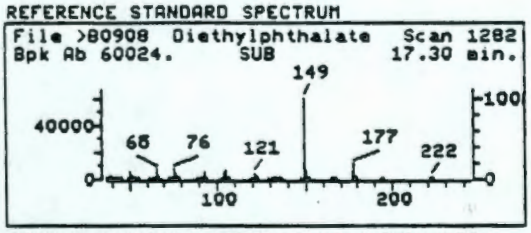
Quant Output File: ^A1408::OF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 46
Compound Name : 2,4-Dinitrotoluene
Scan Number : 1634
Retention Time: 21.39 min.
Quant Ion : 165.0
Area : 56111
Concentration : 68.38 ng/uL
q-value : 88

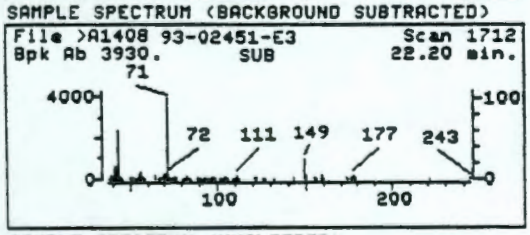
OK

F03-253

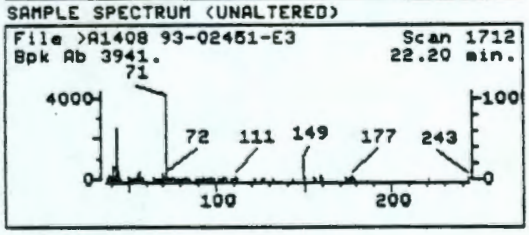
REFERENCE STANDARD SPECTRUM

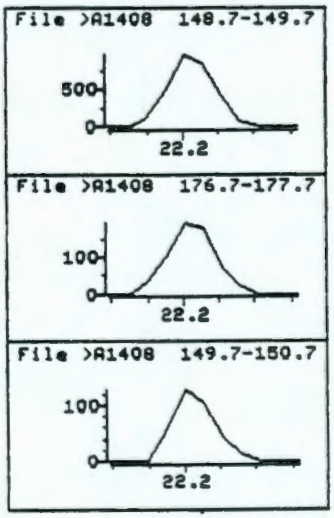


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS
Quant Time: 930114 20:25
Injected at: 930114 19:37
Last Qcal Time: 930114 10:37

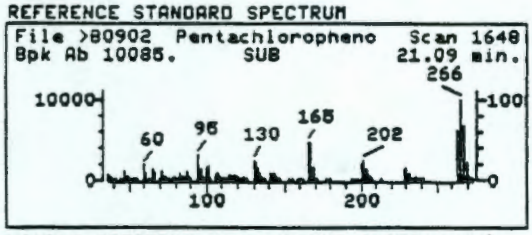
Quant Output File: ^A1408::OF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 47
Compound Name : Diethylphthalate
Scan Number : 1712
Retention Time: 22.20 min.
Quant Ion : 149.0
Area : 1838
Concentration : .786 ng/uL
q-value : 93

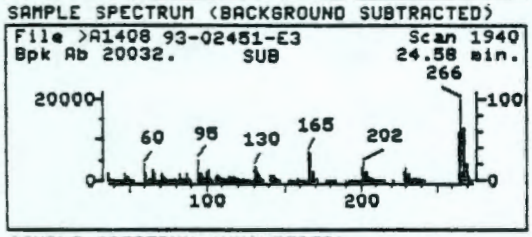
delete

delete

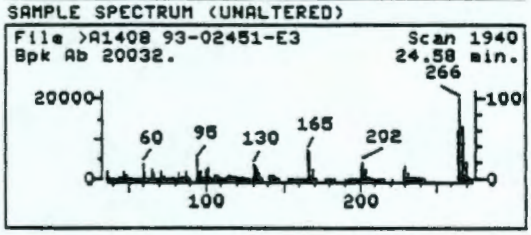
REFERENCE STANDARD SPECTRUM

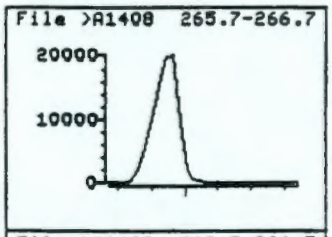


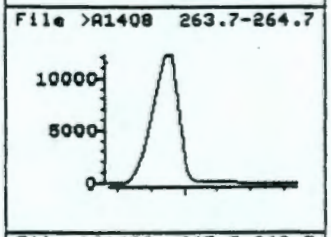
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

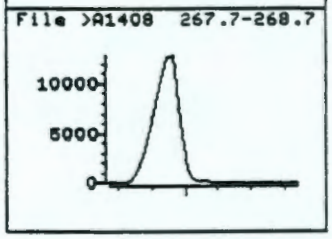


SAMPLE SPECTRUM (UNALTERED)









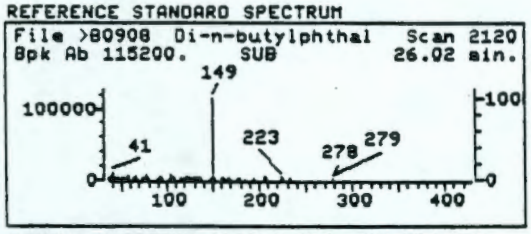
Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS
Quant Time: 930114 20:25
Injected at: 930114 19:37
Last Qcal Time: 930114 10:37

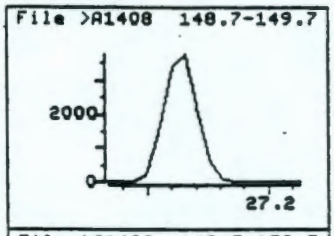
Quant Output File: ^A1408::QF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 57
Compound Name : Pentachlorophenol
Scan Number : 1940
Retention Time: 24.58 min.
Quant Ion : 266.0
Area : 54612
Concentration : 103.37 ng/uL
q-value : 96

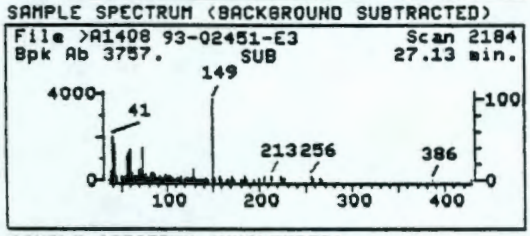
04

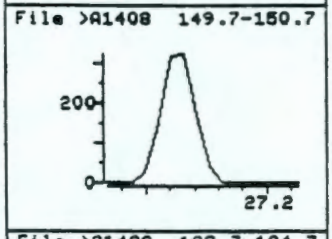
REFERENCE STANDARD SPECTRUM





SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





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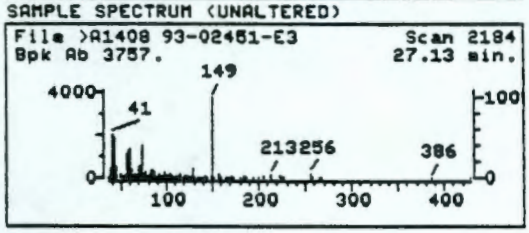
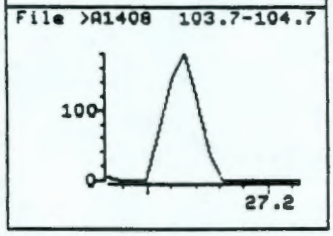




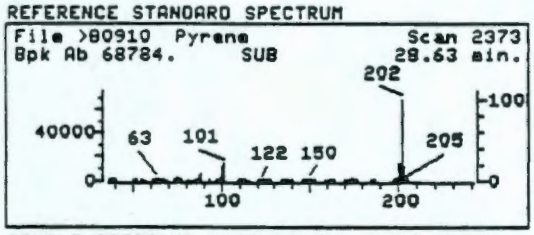
Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS
Quant Time: 930114 20:25
Injected at: 930114 19:37
Last Qcal Time: 930114 10:37

Quant Output File: ^A1408::OF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2184
Retention Time: 27.13 min.
Quant Ion : 149.0
Area : 7269
Concentration : 1.94 ng/uL
q-value : 96

0L

REFERENCE STANDARD SPECTRUM



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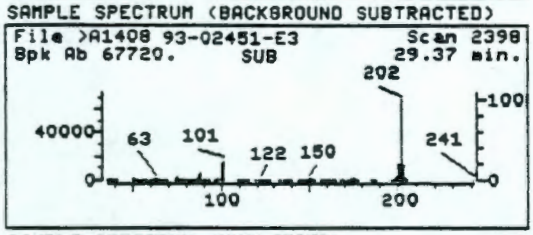
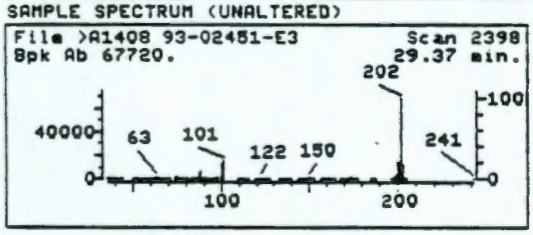
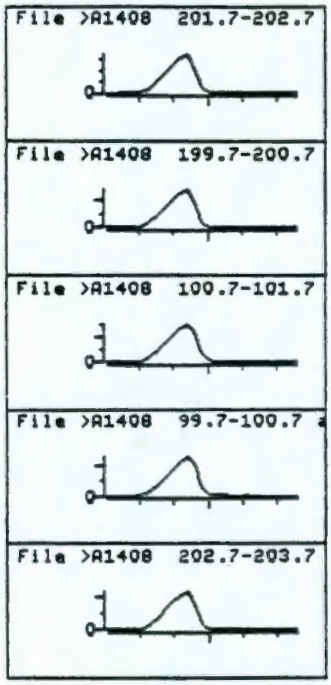


SAMPLE SPECTRUM (UNALTERED)



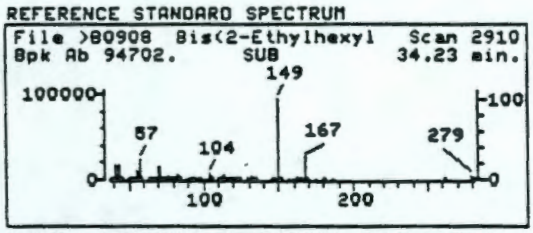


Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 807K00 MS
Quant Time: 930114 20:25
Injected at: 930114 19:37
Last Qcal Time: 930114 10:37

Quant Output File: ^A1408::QF
Instrument ID: 8NA1
BTL# 6
Quant ID File: ID18NA::QT
Last Calibration: 921105 16:54

Compound No : 63
Compound Name : Pyrene
Scan Number : 2398
Retention Time: 29.37 min.
Quant Ion : 202.0
Area : 200081
Concentration : 62.22 ng/uL
q-value : 90

REFERENCE STANDARD SPECTRUM



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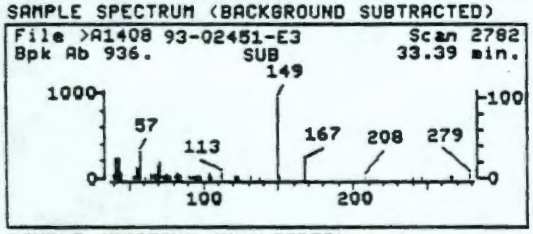

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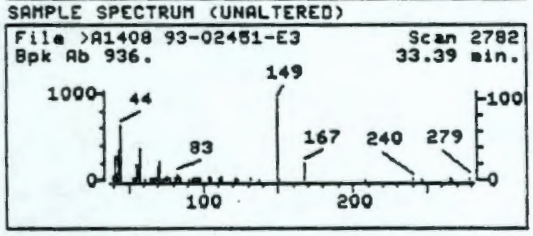
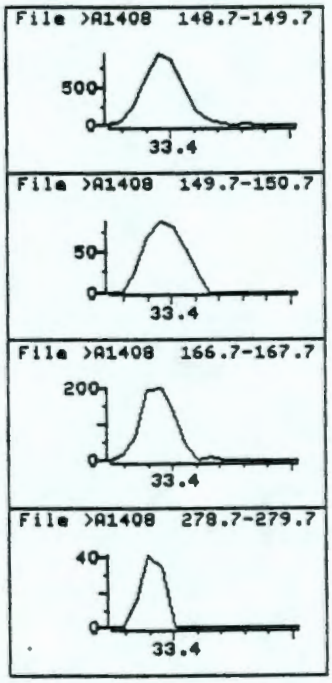


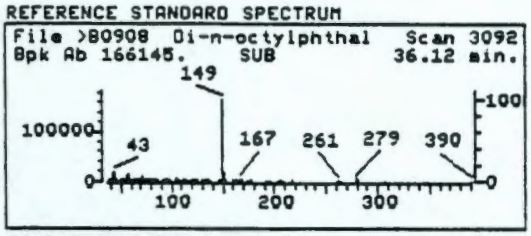


Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS
Quant Time: 930114 20:25
Injected at: 930114 19:37
Last Qcal Time: 930114 10:37

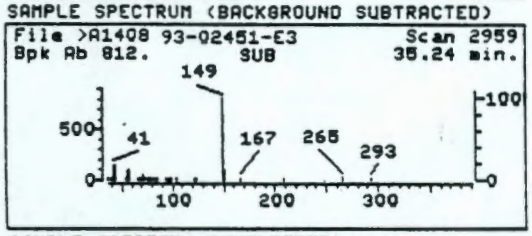
Quant Output File: ^A1408::QF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2782
Retention Time: 33.39 min.
Quant Ion : 149.0
Area : 2217
Concentration : .826 ng/uL
q-value : 90

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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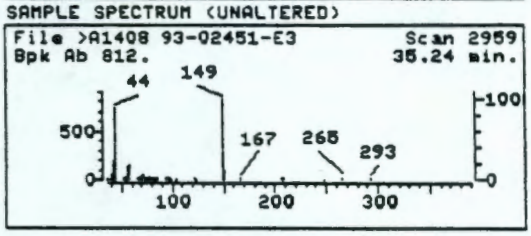

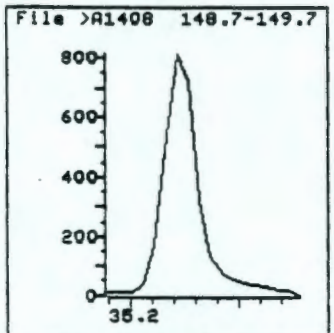

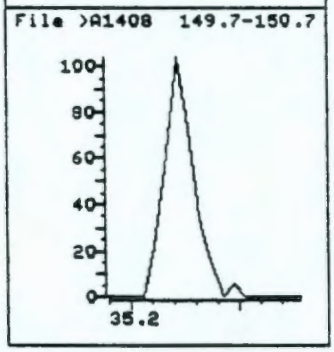

Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS
Quant Time: 930114 20:25
Injected at: 930114 19:37
Last Qcal Time: 930114 10:37

Quant Output File: ^A1408::OF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 2959
Retention Time: 35.24 min.
Quant Ion : 149.0
Area : 1859
Concentration : .461 ng/uL
q-value : 92

QUANT REPORT

Operator ID: ERIC
Output File: ^A1409::OF
Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD

Quant Rev: 7
Quant Time: 930114 21:22
Injected at: 930114 20:34
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 7

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930114 10:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.45	683	31771	40.00	ng/uL	97
2)	2-Fluorophenol	6.76	236	171198	144.32	ng/uL	89
3)	Phenol-d5	10.56	598	213586	151.93	ng/uL	92
4)	Phenol	10.61	603	231513	142.27	ng/uL	88
5)	bis(2-Chloroethyl)ether	0.00	621	0	0.00	ng/uL	
6)	2-Chlorophenol	10.80	621	165990	141.14	ng/uL	96
7)	~~1,3-Dichlorobenzene~~	~~11.52~~	~~689~~	~~95204~~	~~73.85~~	ng/uL	96
8)	1,4-Dichlorobenzene	11.52	689	95204	73.31	ng/uL	96
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	~~1,2-Dichlorobenzene~~	~~11.52~~	~~689~~	~~95204~~	~~70.08~~	ng/uL	97
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	0	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	12.92	823	64360	72.02	ng/uL	92
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.42	1061	107199	40.00	ng/uL	95
17)	Nitrobenzene-d5	13.26	855	104400	75.01	ng/uL	93
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	15.27	1047	71731	73.48	ng/uL	98
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	17.31	1242	153902	142.96	ng/uL	9
30)	2-Methylnaphthalene	0.00	1242	0	0.00	ng/uL	
31)	*Acenaphthene-d10	20.70	1567	52473	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	18.78	1383	136457	71.13	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	1567	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	20.80	1577	122798	71.49	ng/uL	9

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43)	2,4-Dinitrophenol	0.00	0	0	0.00	ng/uL	
44)	4-Nitrophenol	21.31	1625	49039	147.77	ng/uL	
45)	Dibenzofuran	0.00	0	0	0.00	ng/uL	
46)	2,4-Dinitrotoluene	21.40	1634	60214	72.89	ng/uL	
47)	~~Diethylphthalate~~	~~22.21~~	~~1712~~	~~1413~~	~~.608~~	~~ng/uL~~	
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00	ng/uL	
49)	Fluorene	0.00	0	0	0.00	ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00	ng/uL	
51)	*Phenanthrene-d10	25.11	1989	93241	40.00	ng/uL	9
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00	ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1793	0	0.00	ng/uL	
54)	2,4,6-Tribromophenol	23.06	1793	52044	134.93	ng/uL	9
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00	ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00	ng/uL	
57)	Pentachlorophenol	24.58	1939	58303	108.44	ng/uL	9
58)	Phenanthrene	0.00	0	0	0.00	ng/uL	
59)	Anthracene	0.00	0	0	0.00	ng/uL	
60)	Di-n-butylphthalate	27.14	2183	9108	2.39	ng/uL	9
61)	Fluoranthene	0.00	0	0	0.00	ng/uL	
62)	*Chrysene-d12	32.97	2740	84162	40.00	ng/uL	9
63)	Pyrene	29.38	2397	211864	65.06	ng/uL	9
64)	Terphenyl-d14	30.01	2457	153287	63.53	ng/uL	8
65)	Butylbenzylphthalate	0.00	0	0	0.00	ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00	ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00	ng/uL	
68)	Chrysene	0.00	0	0	0.00	ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	33.40	2781	1556	.573	ng/uL	9
70)	*Perylene-d12	36.88	3114	86639	40.00	ng/uL	9
71)	Di-n-octylphthalate	35.25	2958	1529	.366	ng/uL	9
72)	Benzo(b)fluoranthene	0.00	0	0	0.00	ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00	ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00	ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00	ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00	ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00	ng/uL	

* Compcund is ISTD

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >A1409
CAL CHECK FILE = >A1402
DATE AND TIME OF ANALYSIS = 1/14/93 20:34
MISCELLANEOUS = T-106 B07K00 MSD
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

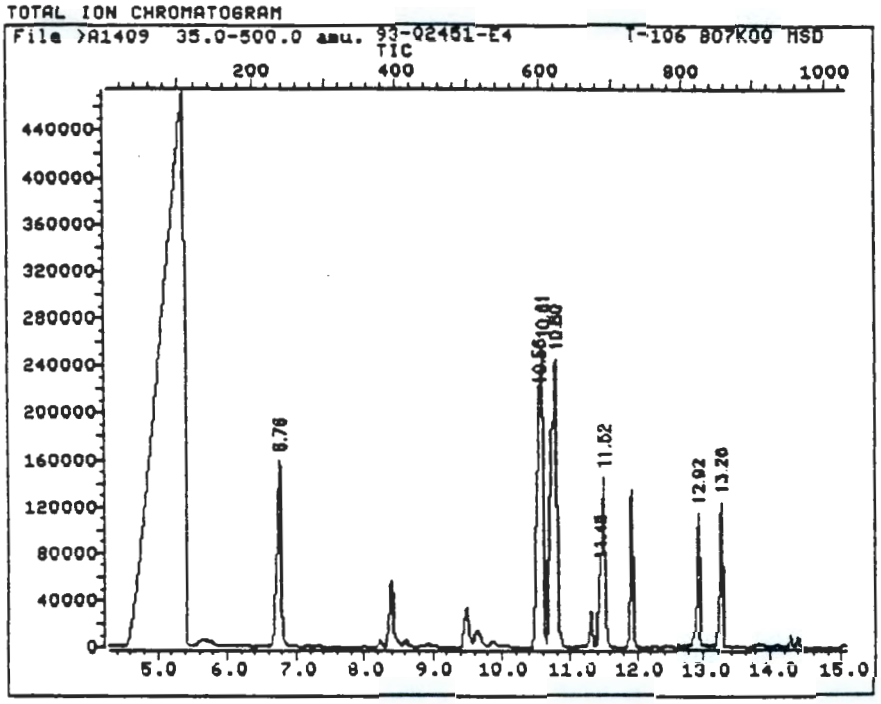
I. Areas

Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	31771	36480	18240	72960	OK
Naphthalene-d8	107199	121269	60635	242538	OK
Acenaphthene-d10	52473	57467	28734	114934	OK
Phenanthrene-d10	93241	101992	50996	203984	OK
Chrysene-d12	84162	77858	38929	155716	OK
Perylene-d12	86639	93060	46530	186120	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.45	11.45	10.95	11.95	OK
Naphthalene-d8	15.42	15.42	14.92	15.92	OK
Acenaphthene-d10	20.70	20.70	20.20	21.20	OK
Phenanthrene-d10	25.11	25.12	24.62	25.62	OK
Chrysene-d12	32.97	33.00	32.50	33.50	OK
Perylene-d12	36.88	36.91	36.41	37.41	OK

TOTAL ION CHROMATOGRAM



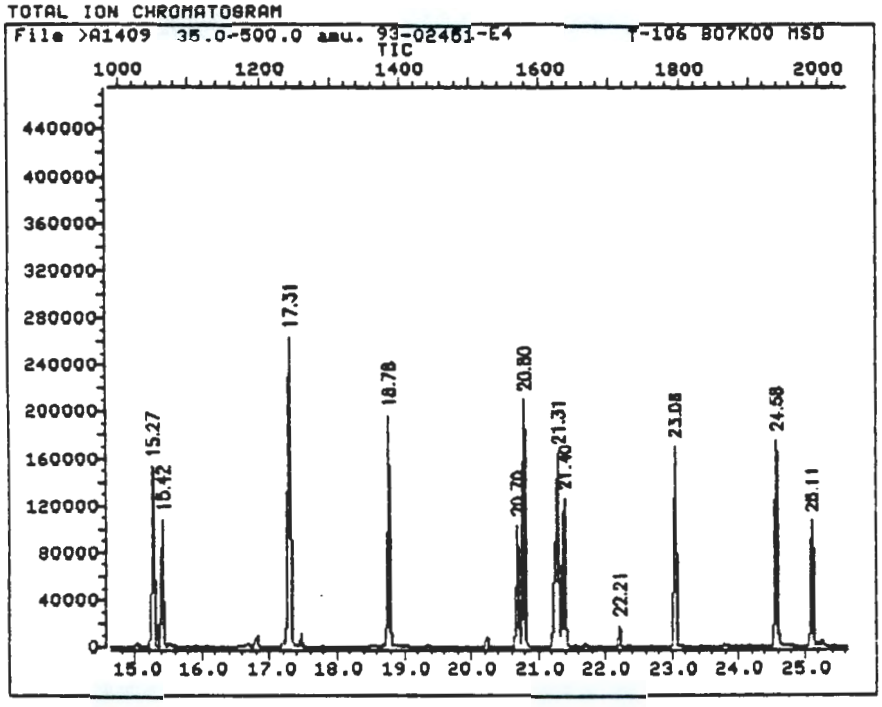
Data File: >A1409::D1 Quant Output File: ^A1409::OF
Name: 93-02451-E4 .Instrument ID: BNA1
Misc: T-106 B07K00 MSD BTL# 7

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 21:22
Injected at: 930114 20:34

Page 1 of 4

TOTAL ION CHROMATOGRAM



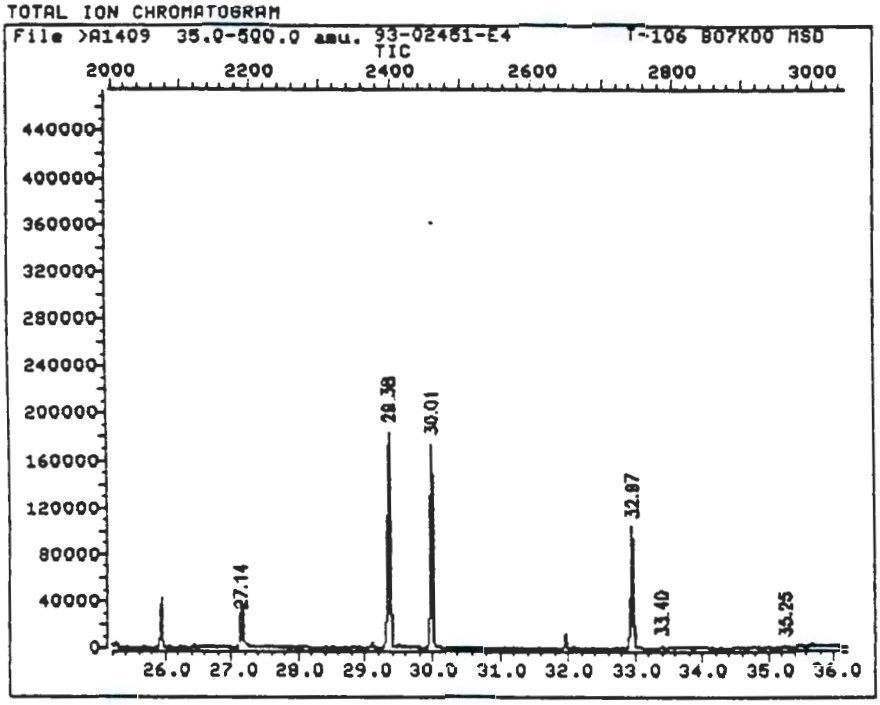
Data File: >A1409::D1 Quant Output File: ^A1409::OF
Name: 93-02451-E4 Instrument ID: BNA1
Misc: T-106 B07K00 MSD BTL# 7

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 21:22
Injected at: 930114 20:34

Page 2 of 4

TOTAL ION CHROMATOGRAM

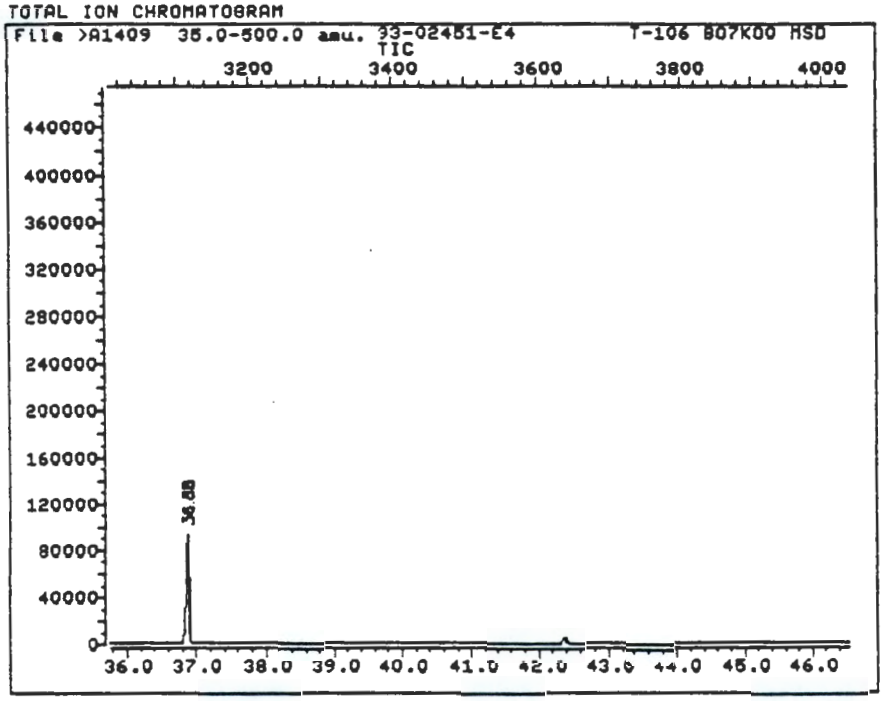


Data File: >A1409::D1 Quant Output File: ^A1409::OF
Name: 93-02451-E4 Instrument ID: BNA1
Misc: T-106 B07K00 MSD BTL# 7

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 21:22
Injected at: 930114 20:34

TOTAL ION CHROMATOGRAM

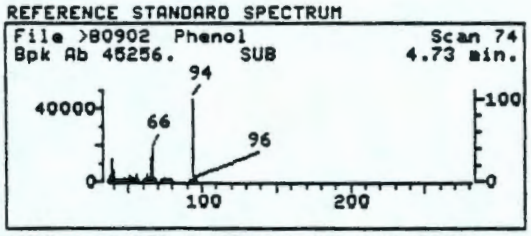


Data File: >A1409::D1 Quant Output File: ^A1409::OF
Name: 93-02451-E4 Instrument ID: BNA1
Misc: T-106 B07K00 MSD BTL# 7

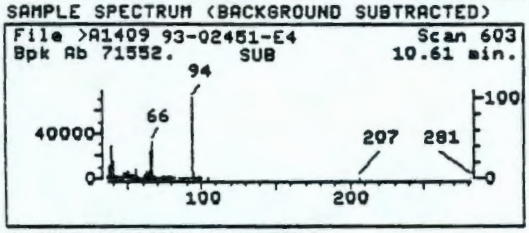
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930114 10:37

Operator ID: ERIC
Quant Time : 930114 21:22
Injected at: 930114 20:34

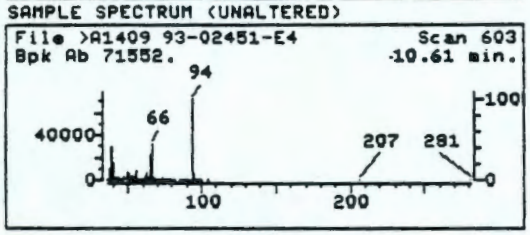
REFERENCE STANDARD SPECTRUM

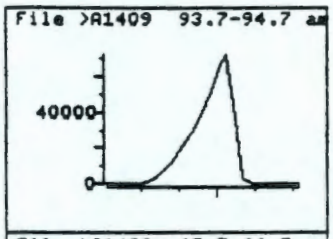


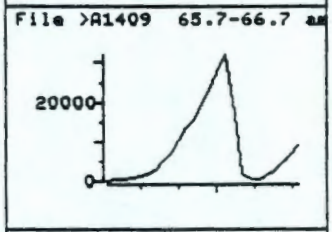
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

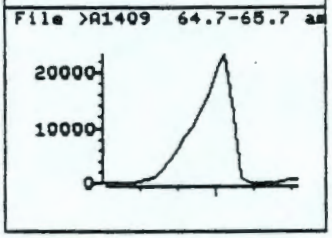


SAMPLE SPECTRUM (UNALTERED)









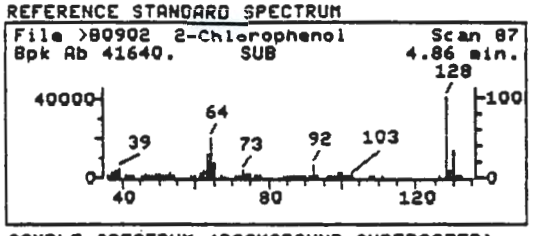
Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD
Quant Time: 930114 21:22
Injected at: 930114 20:34
Last Qcal Time: 930114 10:37

Quant Output File: ^A1409::QF
Instrument ID: BNA1
BTL# 7
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

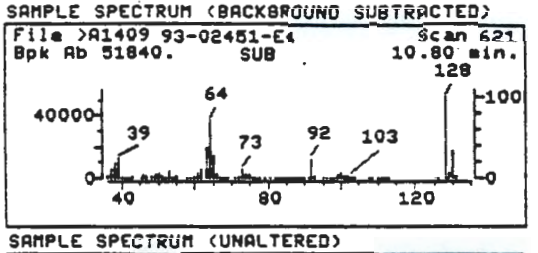
Compound No : 4
Compound Name : Phenol
Scan Number : 603
Retention Time: 10.61 min.
Quant Ion : 94.0
Area : 231513
Concentration : 142.27 ng/uL
q-value : 88

oL

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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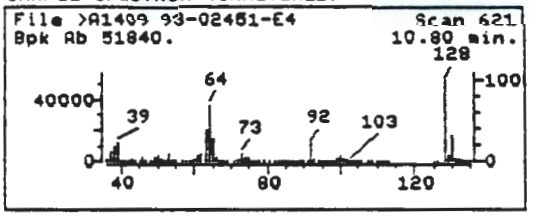
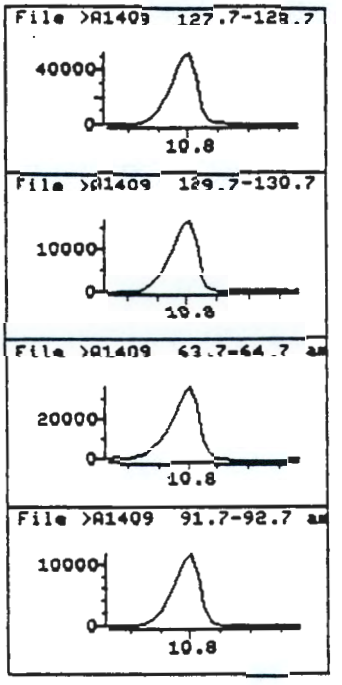


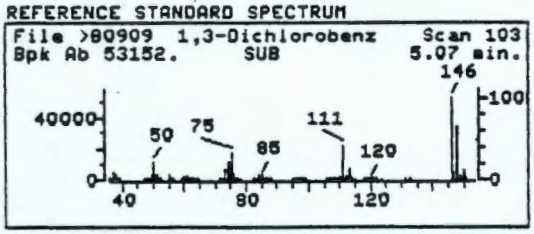


Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD
Quant Time: 930114 21:22
Injected at: 930114 20:34
Last Qcal Time: 930114 10:37

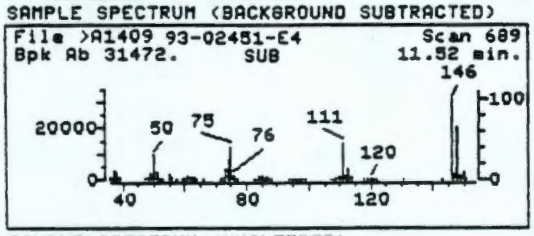
Quant Output File: ^A1409::OF
Instrument ID: BNA1
BTL.# 7
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 6
Compound Name : 2-Chlorophenol
Scan Number : 621
Retention Time: 10.80 min.
Quant Ion : 128.0
Area : 165990
Concentration : 141.14 ng/uL
q-value : 96

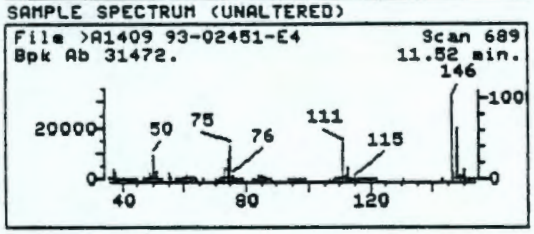
REFERENCE STANDARD SPECTRUM

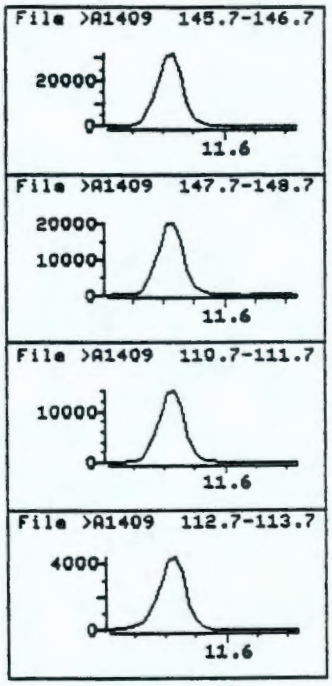


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



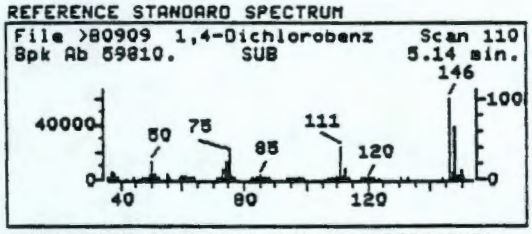


Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD
Quant Time: 930114 21:22
Injected at: 930114 20:34
Last Qcal Time: 930114 10:37

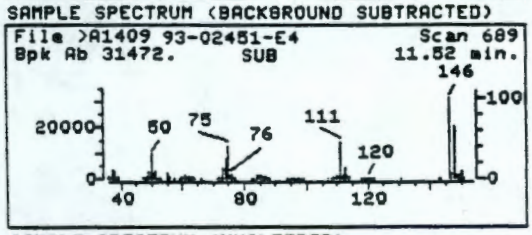
Quant Output File: ^A1409::OF
Instrument ID: BNA1
BTL# 7
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 7
Compound Name : 1,3-Dichlorobenzene
Scan Number : 689
Retention Time: 11.52 min.
Quant Ion : 146.0
Area : 95204
Concentration : 73.85 ng/uL
q-value : 96

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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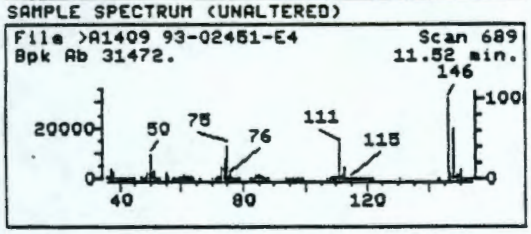
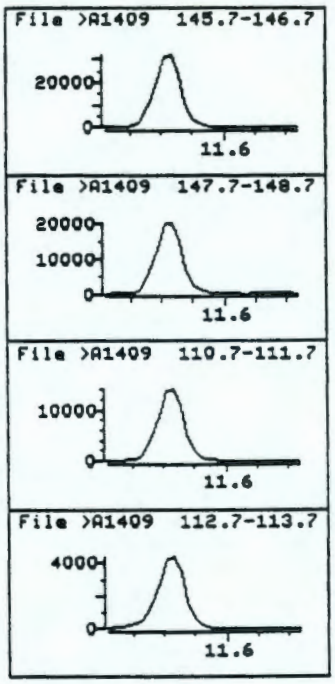


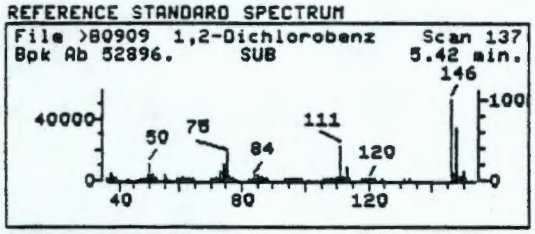


Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD
Quant Time: 930114 21:22
Injected at: 930114 20:34
Last Qcal Time: 930114 10:37

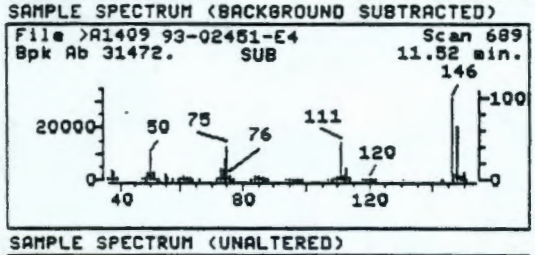
Quant Output File: ^A1409::OF
Instrument ID: BNA1
BTL# 7
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 8
Compound Name : 1,4-Dichlorobenzene
Scan Number : 689
Retention Time: 11.52 min.
Quant Ion : 146.0
Area : 95204
Concentration : 73.31 ng/uL
q-value : 96

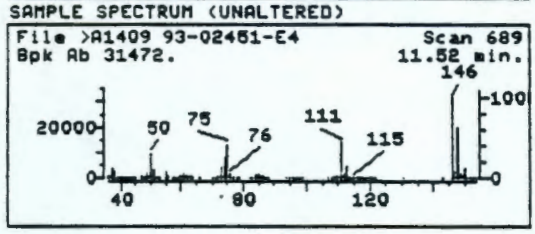
REFERENCE STANDARD SPECTRUM

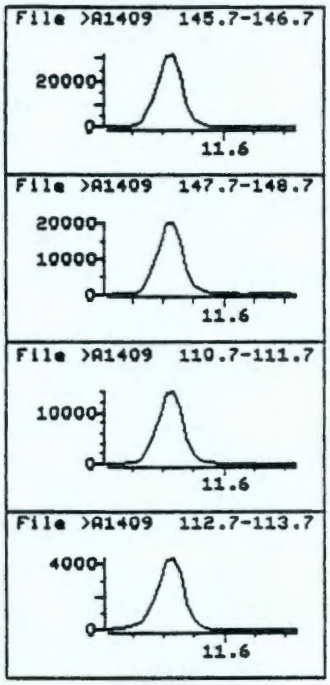


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





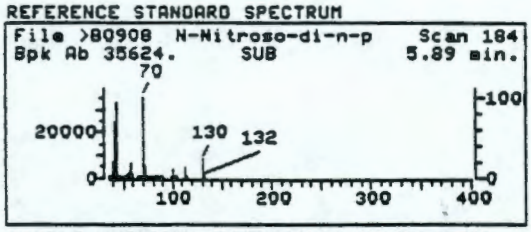
Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD
Quant Time: 930114 21:22
Injected at: 930114 20:34
Last Qcal Time: 930114 10:37

Quant Output File: ^A1409::OF
Instrument ID: BNA1
BTL# 7
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

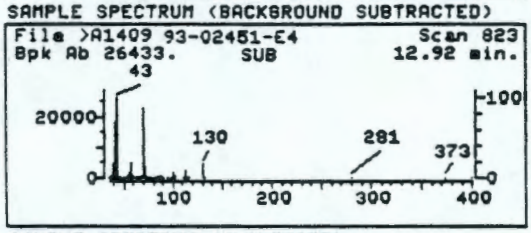
Compound No : 10
Compound Name : 1,2-Dichlorobenzene
Scan Number : 689
Retention Time: 11.52 min.
Quant Ion : 146.0
Area : 95204
Concentration : 78.08 ng/uL
q-value : 97

delete

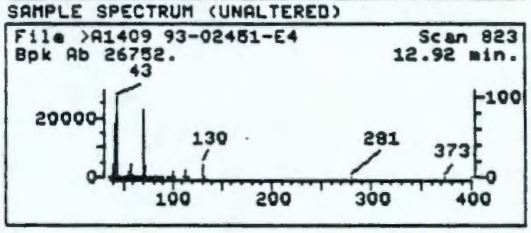
REFERENCE STANDARD SPECTRUM

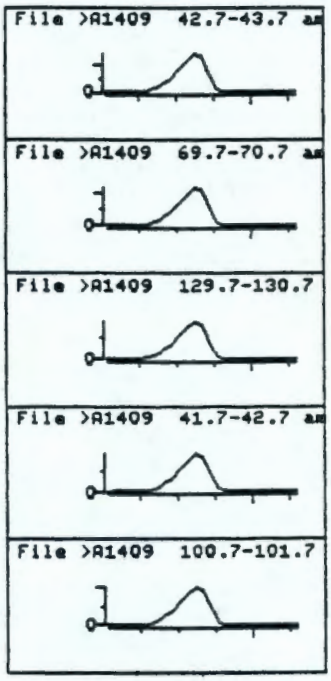


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





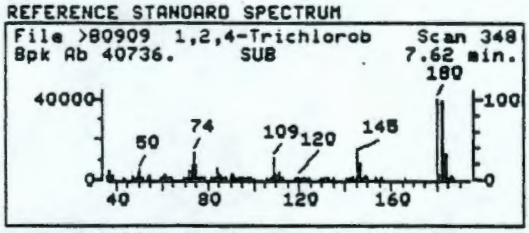
Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD
Quant Time: 930114 21:22
Injected at: 930114 20:34
Last Qcal Time: 930114 10:37

Quant Output File: ^A1409::OF
Instrument ID: BNA1
BTL# 7
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

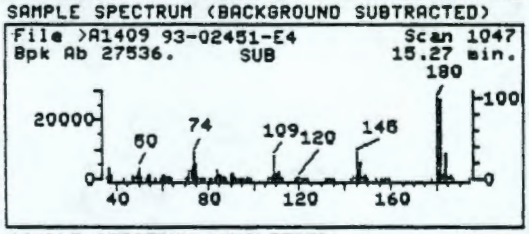
Compound No : 14
Compound Name : N-Nitroso-di-n-propylamine
Scan Number : 823
Retention Time: 12.92 min.
Quant Ion : 70.0
Area : 64360
Concentration : 72.02 ng/uL
q-value : 92

ok

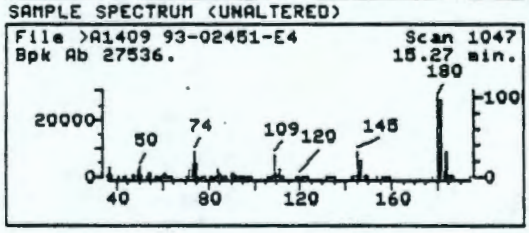
REFERENCE STANDARD SPECTRUM

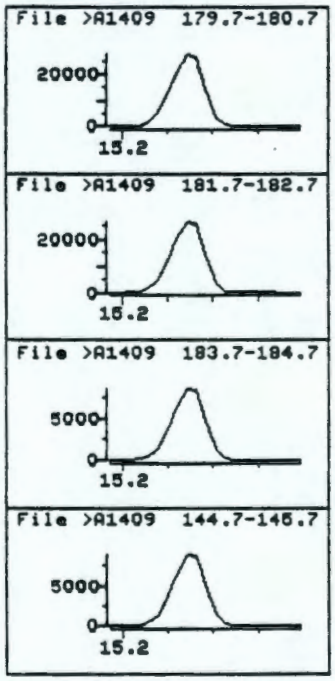


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





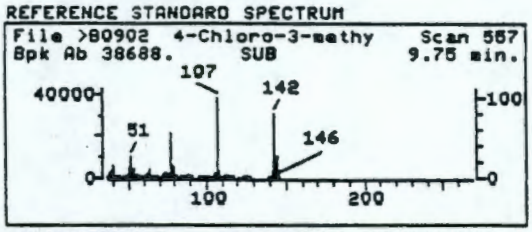
Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD
Quant Time: 930114 21:22
Injected at: 930114 20:34
Last Qcal Time: 930114 10:37

Quant Output File: ^A1409::QF
Instrument ID: BNA1
BTL# 7
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

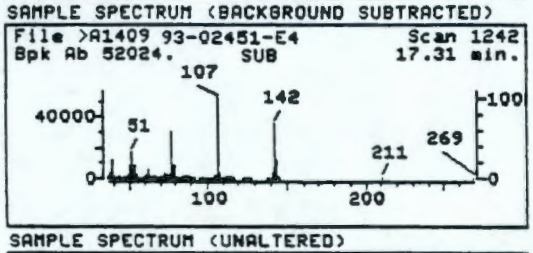
Compound No : 25
Compound Name : 1,2,4-Trichlorobenzene
Scan Number : 1047
Retention Time: 15.27 min.
Quant Ion : 180.0
Area : 71731
Concentration : 73.48 ng/uL
q-value : 98

ok

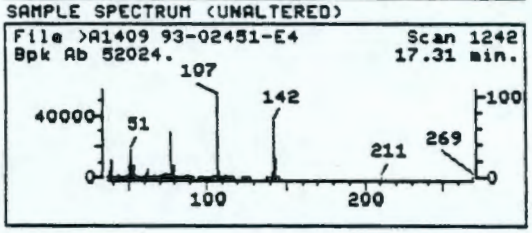
REFERENCE STANDARD SPECTRUM

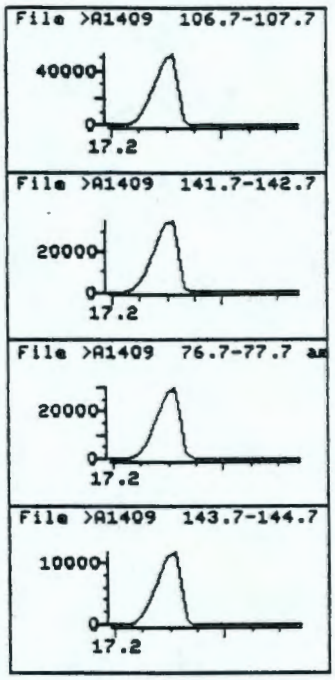


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





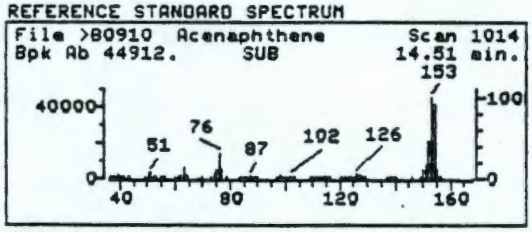
Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD
Quant Time: 930114 21:22
Injected at: 930114 20:34
Last Qcal Time: 930114 10:37

Quant Output File: ^A1409::OF
Instrument ID: BNA1
BTL# 7
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

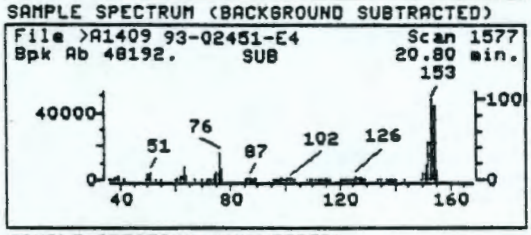
Compound No : 29
Compound Name : 4-Chloro-3-methylphenol
Scan Number : 1242
Retention Time: 17.31 min.
Quant Ion : 107.0
Area : 153902
Concentration : 142.96 ng/uL
q-value : 94

6A

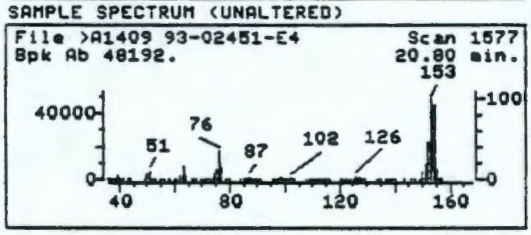
REFERENCE STANDARD SPECTRUM

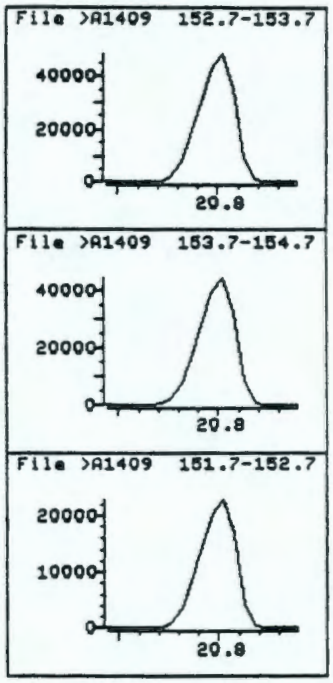


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





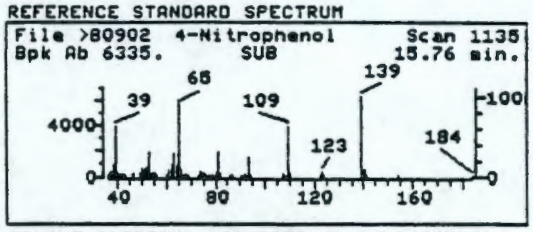
Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD
Quant Time: 930114 21:22
Injected at: 930114 20:34
Last Qcal Time: 930114 10:37

Quant Output File: ^A1409::OF
Instrument ID: BNA1
BTL# 7
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

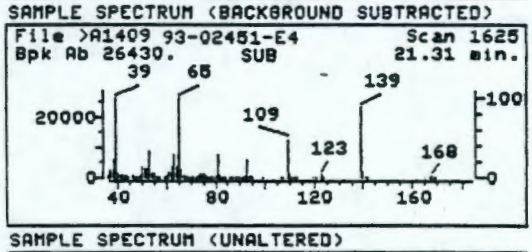
Compound No : 42
Compound Name : Acenaphthene
Scan Number : 1577
Retention Time: 20.80 min.
Quant Ion : 153.0
Area : 122798
Concentration : 71.49 ng/uL
q-value : 98

ok

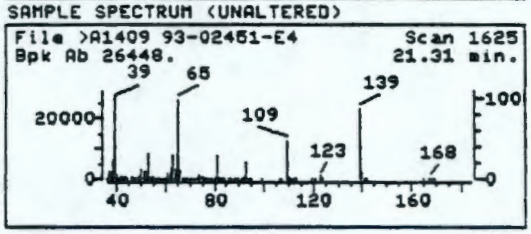
REFERENCE STANDARD SPECTRUM

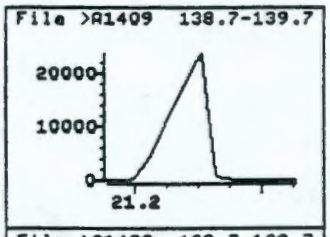


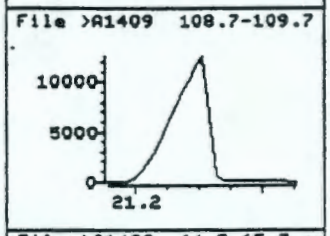
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

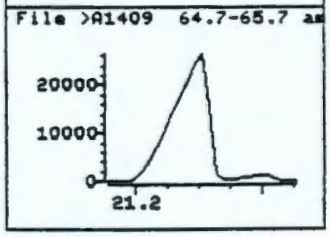


SAMPLE SPECTRUM (UNALTERED)









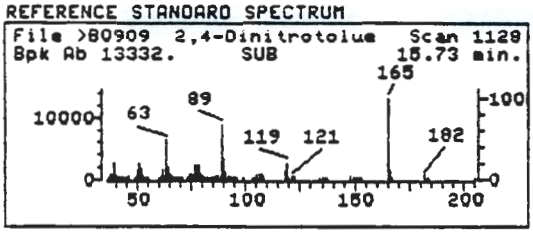
Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD
Quant Time: 930114 21:22
Injected at: 930114 20:34
Last Qcal Time: 930114 10:37

Quant Output File: ^A1409::QF
Instrument ID: BNA1
BTL# 7
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

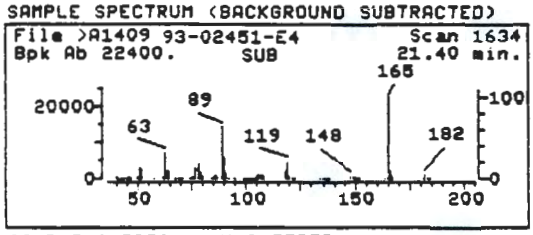
Compound No : 44
Compound Name : 4-Nitrophenol
Scan Number : 1625
Retention Time: 21.31 min.
Quant Ion : 109.0
Area : 49039
Concentration : 147.77 ng/uL
q-value : 81

ok

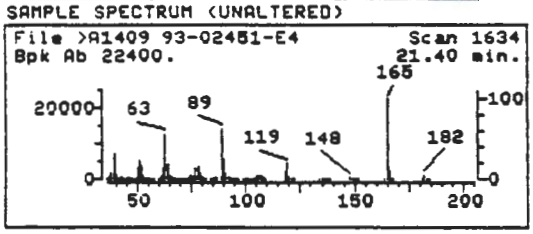
REFERENCE STANDARD SPECTRUM

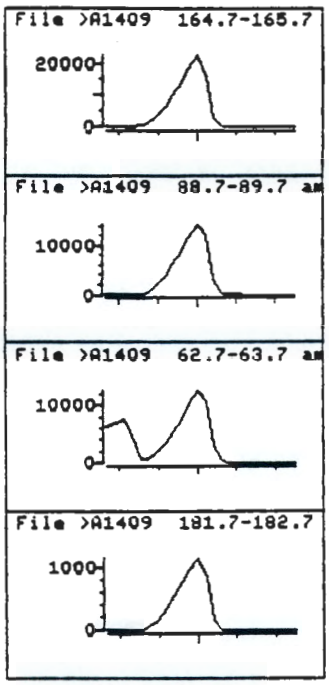


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD
Quant Time: 930114 21:22
Injected at: 930114 20:34
Last Qcal Time: 930114 10:37

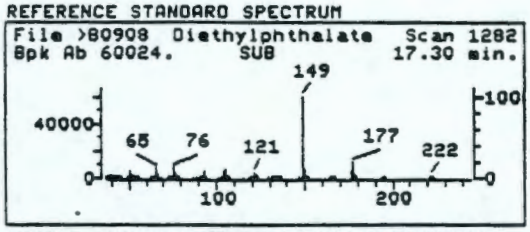
Quant Output File: ^A1409::OF
Instrument ID: BNA1
BTL# 7
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 46
Compound Name : 2,4-Dinitrotoluene
Scan Number : 1634
Retention Time: 21.40 min.
Quant Ion : 165.0
Area : 60214
Concentration : 72.89 ng/uL
q-value : 87

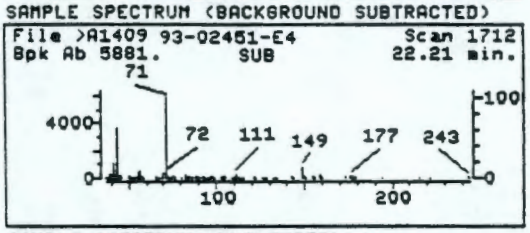
OK

9613492.1427

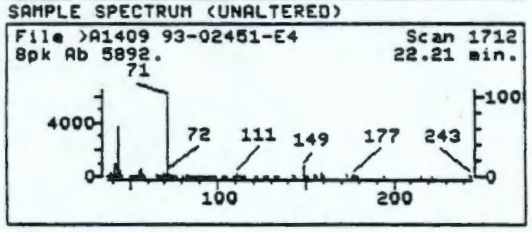
REFERENCE STANDARD SPECTRUM

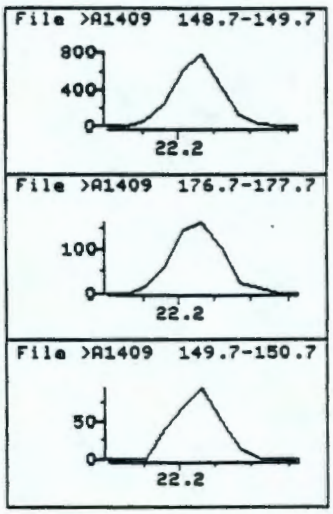


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





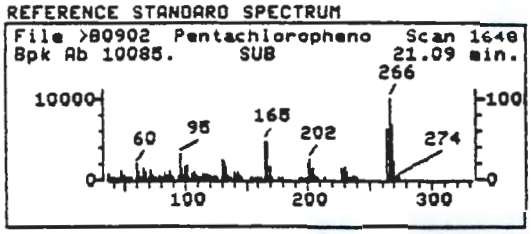
Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD
Quant Time: 930114 21:22
Injected at: 930114 20:34
Last Qcal Time: 930114 10:37

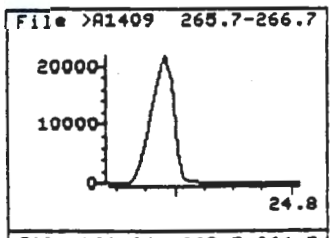
Quant Output File: ^A1409::QF
Instrument ID: BNA1
BTL# 7
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 47
Compound Name : Diethylphthalate
Scan Number : 1712
Retention Time: 22.21 min.
Quant Ion : 149.0
Area : 1413
Concentration : .600 ng/uL
q-value : 95

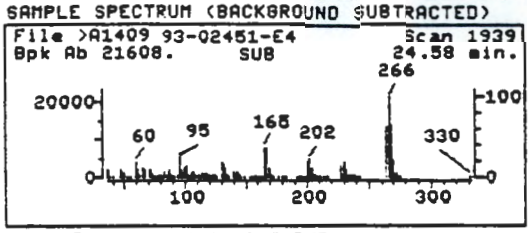
F03-278

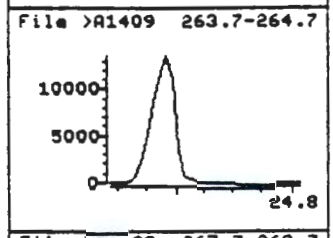
REFERENCE STANDARD SPECTRUM



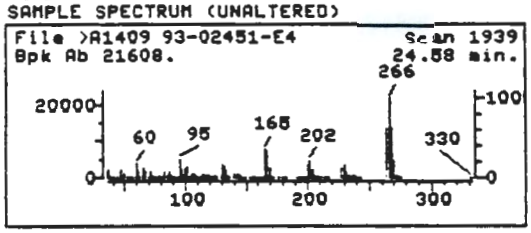


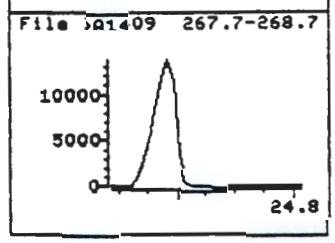
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





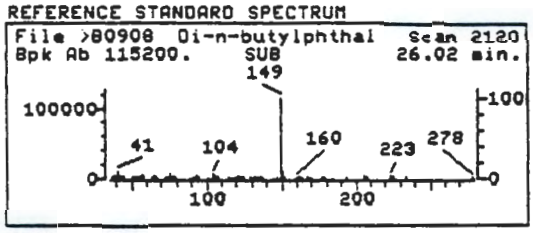
Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD
Quant Time: 930114 21:22
Injected at: 930114 20:34
Last Qcal Time: 930114 10:37

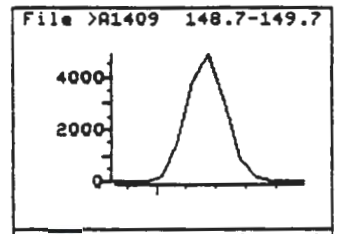
Quant Output File: ^A1409::OF
Instrument ID: BNA1
BTL# 7
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 57
Compound Name : Pentachlorophenol
Scan Number : 1939
Retention Time: 24.58 min.
Quant Ion : 266.0
Area : 58303
Concentration : 108.44 ng/uL
q-value : 97

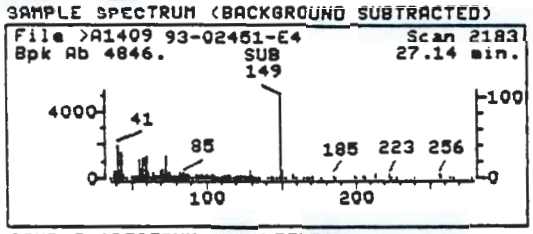
ok

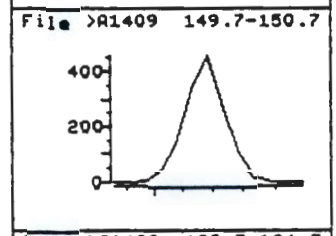
REFERENCE STANDARD SPECTRUM



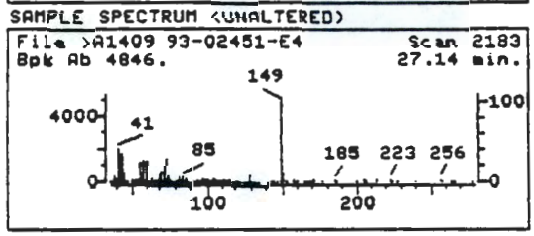


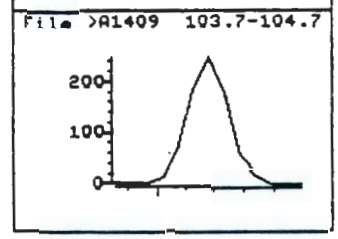
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



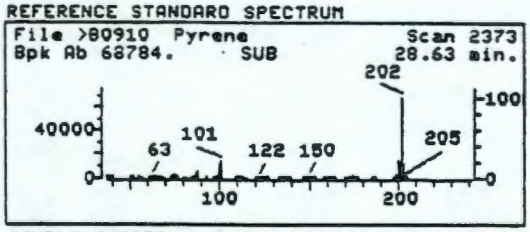


Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 807K00 MSD
Quant Time: 930114 21:22
Injected at: 930114 20:34
Last Qcal Time: 930114 10:37

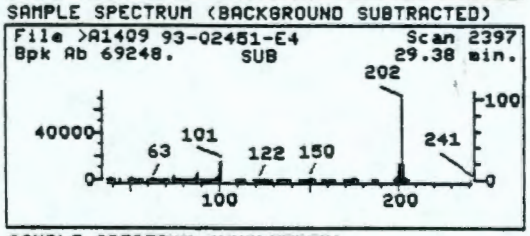
Quant Output File: ^A1409::OF
Instrument ID: BNA1
BTL# 7
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2183
Retention Time: 27.14 min.
Quant Ion : 149.0
Area : 9108
Concentration : 2.39 ng/uL
q-value : 98

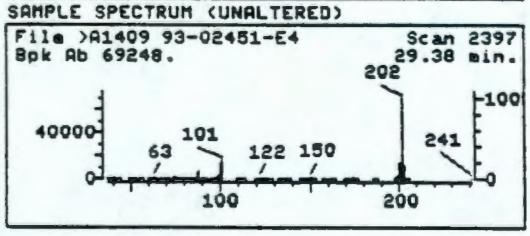
REFERENCE STANDARD SPECTRUM

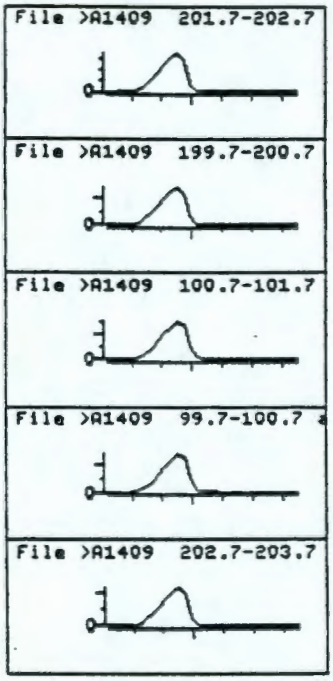


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





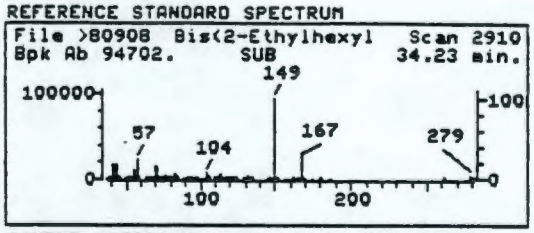
Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD
Quant Time: 930114 21:22
Injected at: 930114 20:34
Last Qcal Time: 930114 10:37

Quant Output File: ^A1409::OF
Instrument ID: BNA1
BTL# 7
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

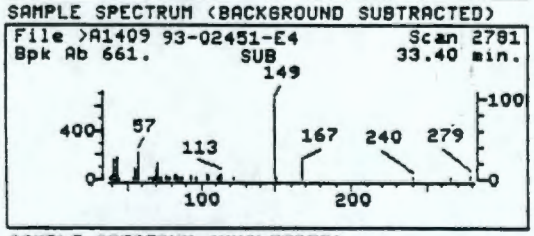
Compound No : 63
Compound Name : Pyrene
Scan Number : 2397
Retention Time: 29.38 min.
Quant Ion : 202.0
Area : 211864
Concentration : 65.06 ng/uL
q-value : 91

oL

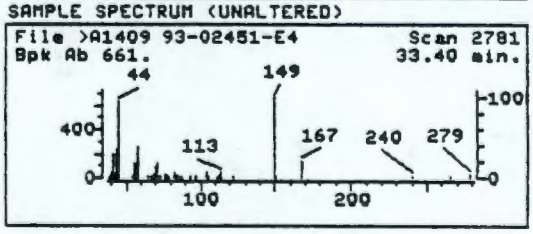
REFERENCE STANDARD SPECTRUM

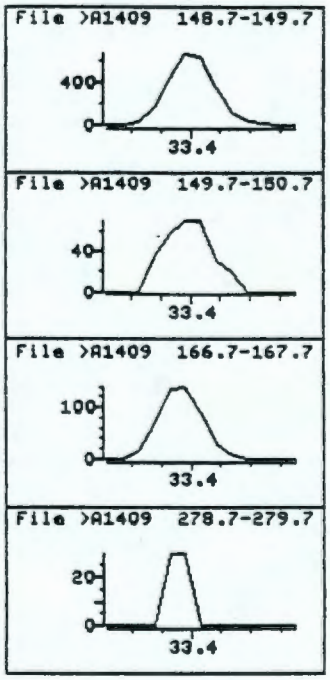


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



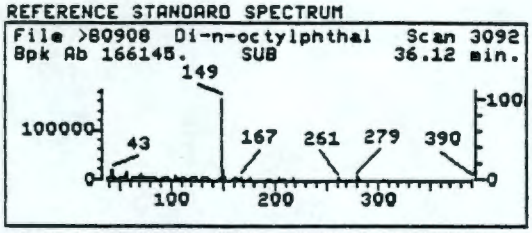


Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD
Quant Time: 930114 21:22
Injected at: 930114 20:34
Last Qcal Time: 930114 10:37

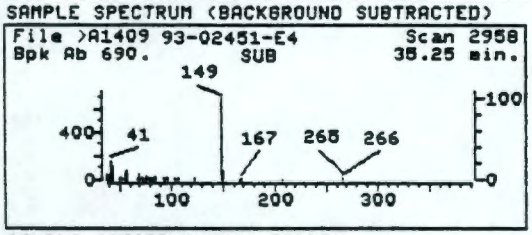
Quant Output File: ^A1409::OF
Instrument ID: BNA1
BTL# 7
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2781
Retention Time: 33.40 min.
Quant Ion : 149.0
Area : 1556
Concentration : .573 ng/uL
q-value : 90

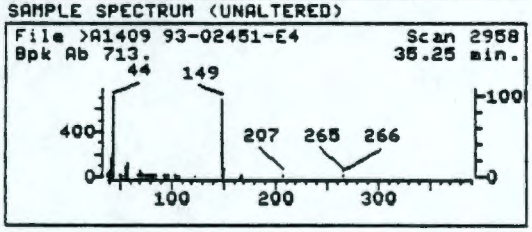
REFERENCE STANDARD SPECTRUM

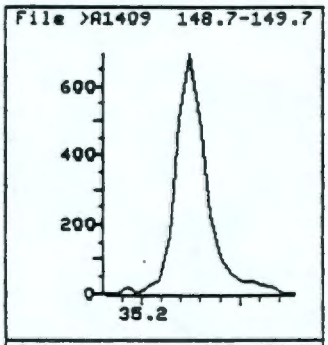


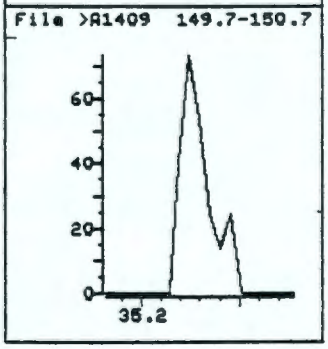
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD
Quant Time: 930114 21:22
Injected at: 930114 20:34
Last Qcal Time: 930114 10:37

Quant Output File: ^A1409::QF
Instrument ID: BNA1
BTL# 7
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 2958
Retention Time: 35.25 min.
Quant Ion : 149.0
Area : 1529
Concentration : .366 ng/uL
q-value : 98

QUANT REPORT

Operator ID: ERIC
Output File: ^A1503::OF
Data File: >A1503::D1
Name: 93-02437-E1
Misc: T-106 B07JZ8

Quant Rev: 7
Quant Time: 930115 15:05
Injected at: 930115 14:17
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 1

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930115 12:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.44	680	32258	40.00	ng/uL	9E
2)	2-Fluorophenol	6.74	231	170765	172.89	ng/uL	9(
3)	Phenol-d5	10.51	591	221088	187.63	ng/uL	95
4)	Phenol	0.00	0	0	0.00	ng/uL	
5)	bis(2-Chloroethyl)ether	0.00	0	0	0.00	ng/uL	
6)	2-Chlorophenol	0.00	0	0	0.00	ng/uL	
7)	1,3-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
8)	1,4-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	1,2-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	0	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	0.00	852	0	0.00	ng/uL	
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.39	1058	107739	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.24	852	103080	91.41	ng/uL	9
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	0.00	0	0	0.00	ng/uL	
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	0.00	0	0	0.00	ng/uL	
30)	2-Methylnaphthalene	0.00	0	0	0.00	ng/uL	
31)	*Acenaphthene-d10	20.68	1565	52778	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	18.77	1382	138968	87.84	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	1565	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	0.00	0	0	0.00	ng/uL	

F03-284

43)	2,4-Dinitrophenol	0.00	0	0	0.00	ng/uL	
44)	4-Nitrophenol	0.00	0	0	0.00	ng/uL	
45)	Dibenzofuran	0.00	0	0	0.00	ng/uL	
46)	2,4-Dinitrotoluene	0.00	0	0	0.00	ng/uL	
47)	Diethylphthalate	22.19	1710	1947	.989	ng/uL	9
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00	ng/uL	
49)	Fluorene	0.00	0	0	0.00	ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00	ng/uL	
51)	*Phenanthrene-d10	25.10	1989	92588	40.00	ng/uL	9
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00	ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1792	0	0.00	ng/uL	
54)	2,4,6-Tribromophenol	23.04	1792	50688	155.32	ng/uL	9
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00	ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00	ng/uL	
57)	Pentachlorophenol	0.00	0	0	0.00	ng/uL	
58)	Phenanthrene	0.00	0	0	0.00	ng/uL	
59)	Anthracene	0.00	0	0	0.00	ng/uL	
60)	Di-n-butylphthalate	27.13	2183	10993	3.52	ng/uL	9
61)	Fluoranthene	0.00	0	0	0.00	ng/uL	
62)	*Chrysene-d12	32.95	2740	84428	40.00	ng/uL	9
63)	Pyrene	0.00	0	0	0.00	ng/uL	
64)	Terphenyl-d14	29.99	2457	158808	80.29	ng/uL	8
65)	Butylbenzylphthalate	0.00	0	0	0.00	ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00	ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00	ng/uL	
68)	Chrysene	0.00	0	0	0.00	ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	33.38	2781	2024	.931	ng/uL	9
70)	*Perylene-d12	36.88	3115	86537	40.00	ng/uL	9
71)	Di-n-octylphthalate	35.25	2959	1184	.365	ng/uL	9
72)	Benzo(b)fluoranthene	0.00	0	0	0.00	ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00	ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00	ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00	ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00	ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00	ng/uL	

* Compound is ISTD

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >A1503
CAL CHECK FILE = >A1502
DATE AND TIME OF ANALYSIS = 1/15/93 14:17
MISCELLANEOUS = T-106 B07JZ8
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

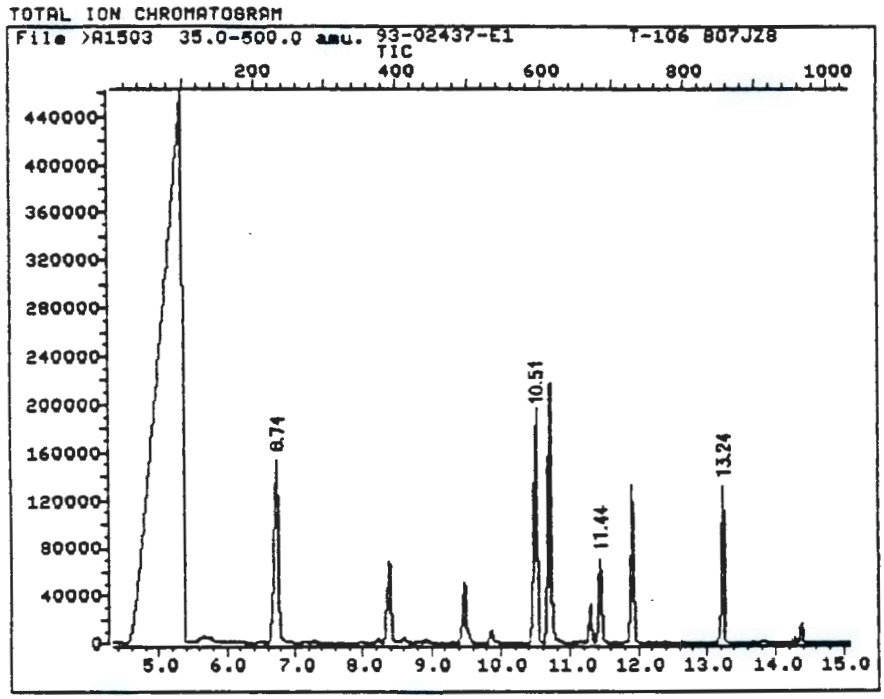
I. Areas

Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	32258	42040	21020	84080	OK
Naphthalene-d8	107739	145283	72641	290566	OK
Acenaphthene-d10	52778	69903	34951	139806	OK
Phenanthrene-d10	92588	127863	63931	255726	OK
Chrysene-d12	84428	100766	50383	201532	OK
Perylene-d12	86537	125861	62930	251722	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.44	11.42	10.92	11.92	OK
Naphthalene-d8	15.39	15.41	14.91	15.91	OK
Acenaphthene-d10	20.68	20.68	20.18	21.18	OK
Phenanthrene-d10	25.10	25.10	24.60	25.60	OK
Chrysene-d12	32.95	32.98	32.48	33.48	OK
Perylene-d12	36.88	36.89	36.39	37.39	OK

TOTAL ION CHROMATOGRAM



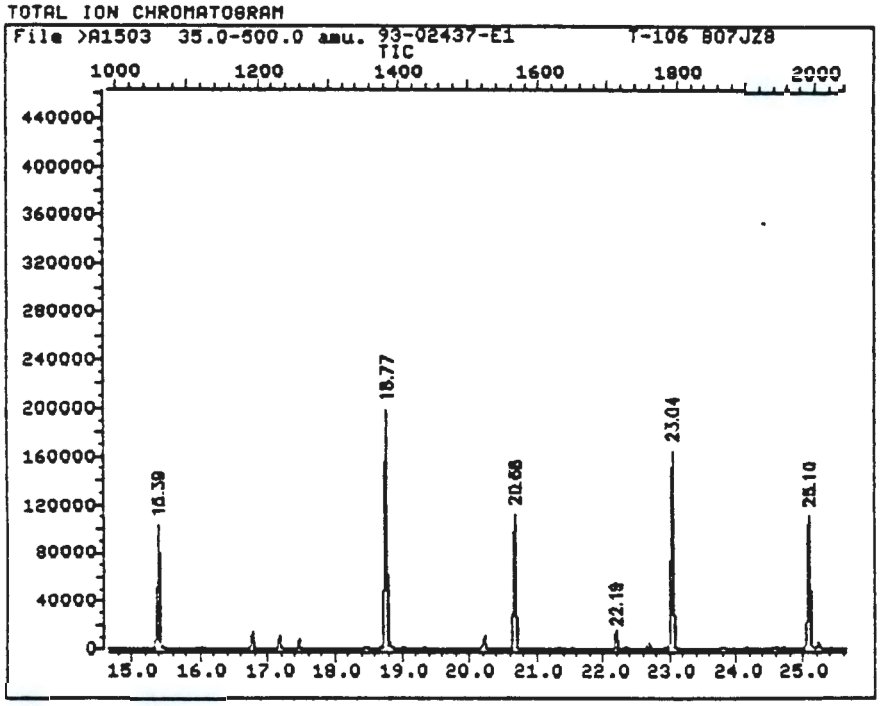
Data File: >A1503::D1 Quant Output File: ^A1503::QF
Name: 93-02437-E1 Instrument ID: BNA1
Misc: T-106 B07JZ8 BTL# 1

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 15:05
Injected at: 930115 14:17

Page 1 of 4

TOTAL ION CHROMATOGRAM



Data File: >A1503::D1
Name: 93-02437-E1
Misc: T-106 B07JZ8

Quant Output File: ^A1503::QF
Instrument ID: BNA1
BTL# 1

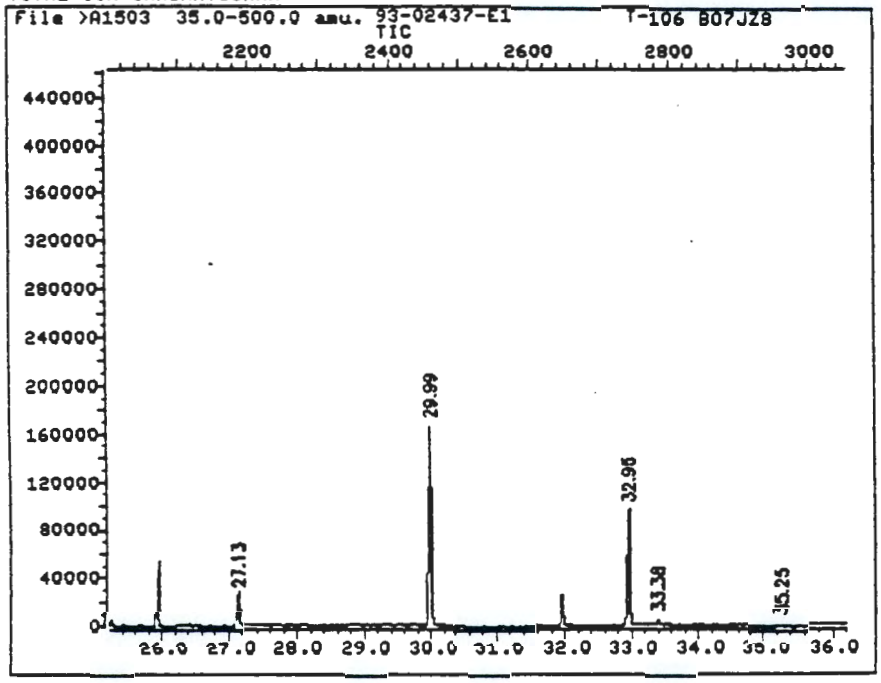
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 15:05
Injected at: 930115 14:17

Page 2 of 4

TOTAL ION CHROMATOGRAM



Data File: >A1503::D1
Name: 93-02437-E1
Misc: T-106 B07JZ8

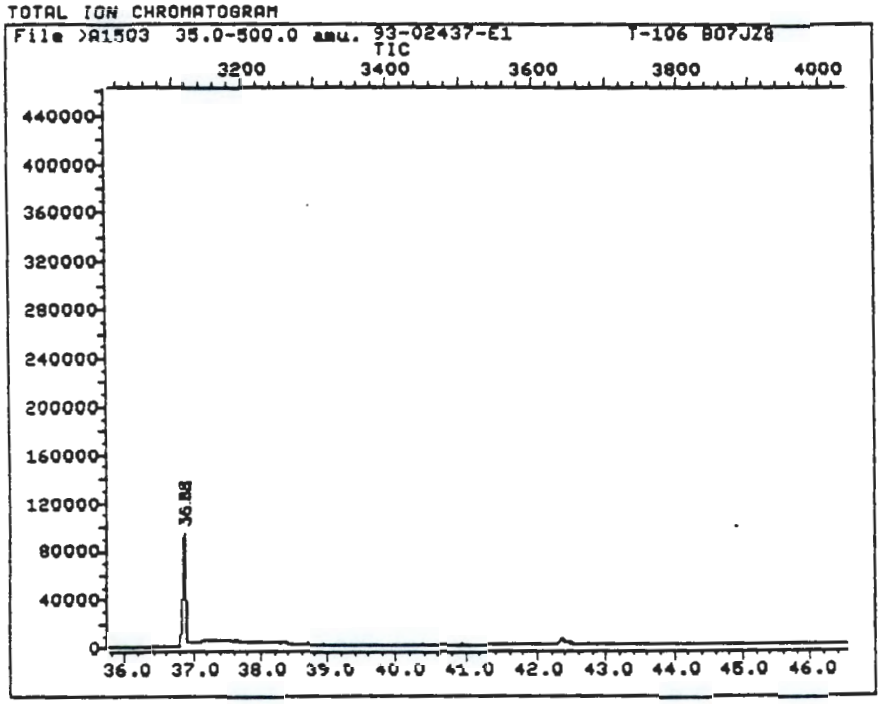
Quant Output File: ^A1503::QF
Instrument ID: BNA1
BTL# 1

Id File: ID1BNA::QT.
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 15:05
Injected at: 930115 14:17

TOTAL ION CHROMATOGRAM



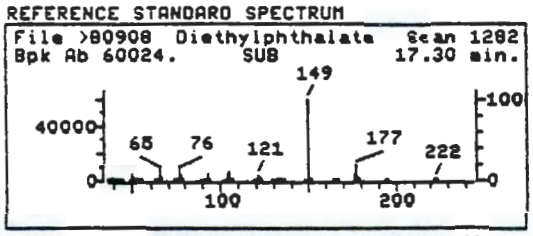
Data File: >A1503::D1 Quant Output File: ^A1503::OF
Name: 93-02437-E1 Instrument ID: BNA1
Misc: T-106 B07JZ8 BTL# 1

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930115 12:23

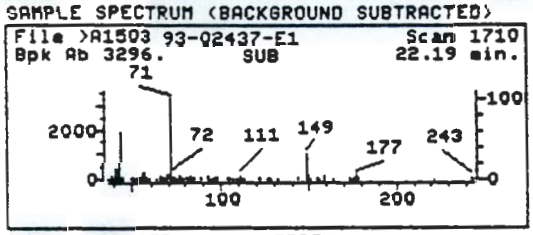
Operator ID: ERIC
Quant Time : 930115 15:05
Injected at: 930115 14:17

Page 4 of 4

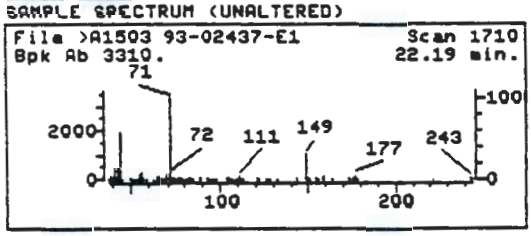
REFERENCE STANDARD SPECTRUM

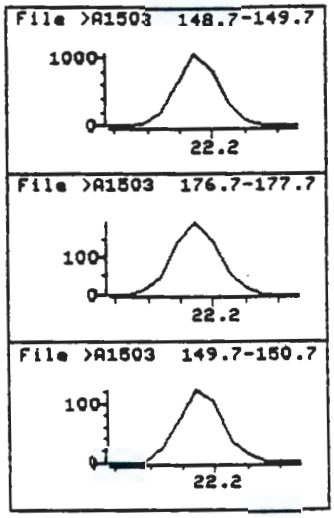


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >A1503::D1
Name: 93-02437-E1
Misc: T-106 B07JZ8
Quant Time: 930115 15:05
Injected at: 930115 14:17
Last Qcal Time: 930115 12:23

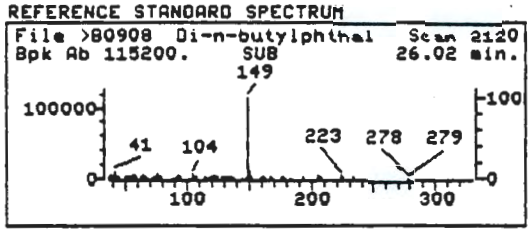
Quant Output File: ^A1503::OF
Instrument ID: BNA1
BTL# 1
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

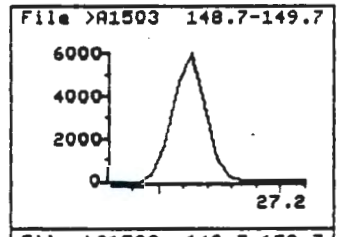
Compound No : 47
Compound Name : Diethylphthalate
Scan Number : 1710
Retention Time: 22.19 min.
Quant Ion : 149.0
Area : 1947
Concentration : .989 ng/uL
q-value : 92

Non-detect

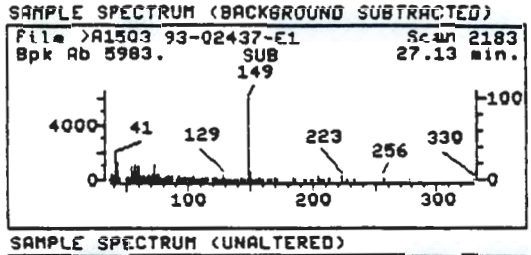
dln

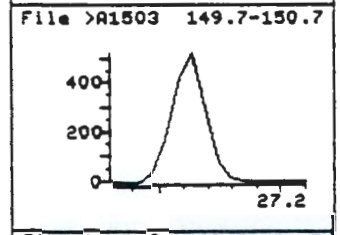
REFERENCE STANDARD SPECTRUM



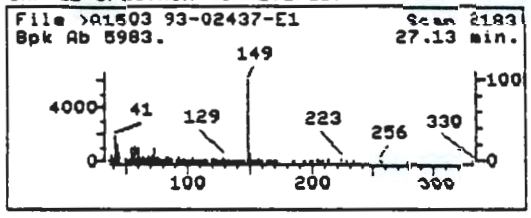


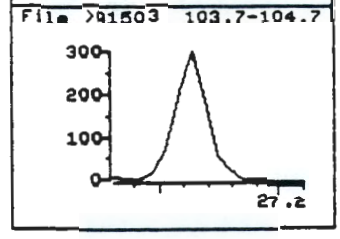
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





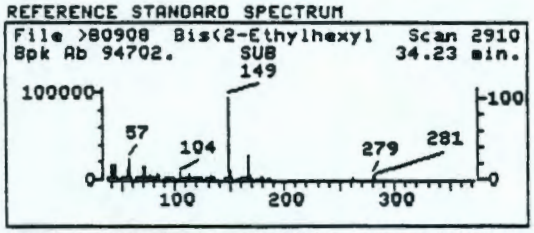
Data File: >A1503::D1
Name: 93-02437-E1
Misc: T-106 B07JZ8
Quant Time: 930115 15:05
Injected at: 930115 14:17
Last Qcal Time: 930115 12:23

Quant Output File: ^A1503::OF
Instrument ID: BNA1
BTL# 1
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2183
Retention Time: 27.13 min.
Quant Ion : 149.0
Area : 10993
Concentration : 3.52 ng/uL
q-value : 96

AS
10/24/93

REFERENCE STANDARD SPECTRUM



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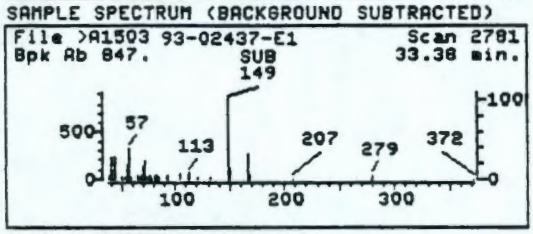

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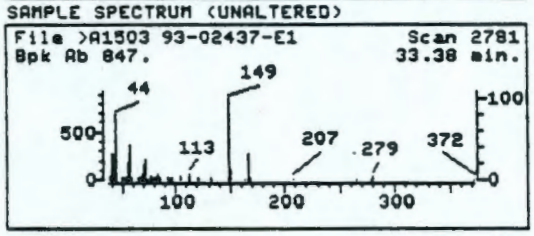
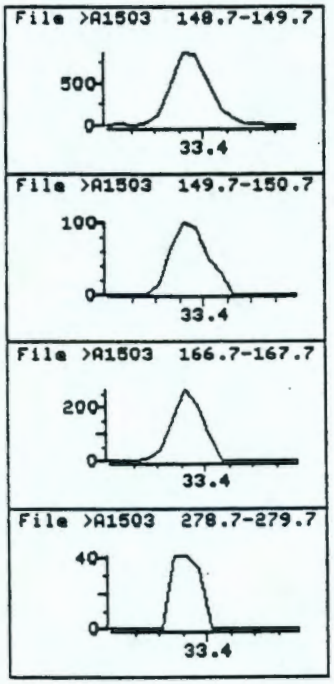


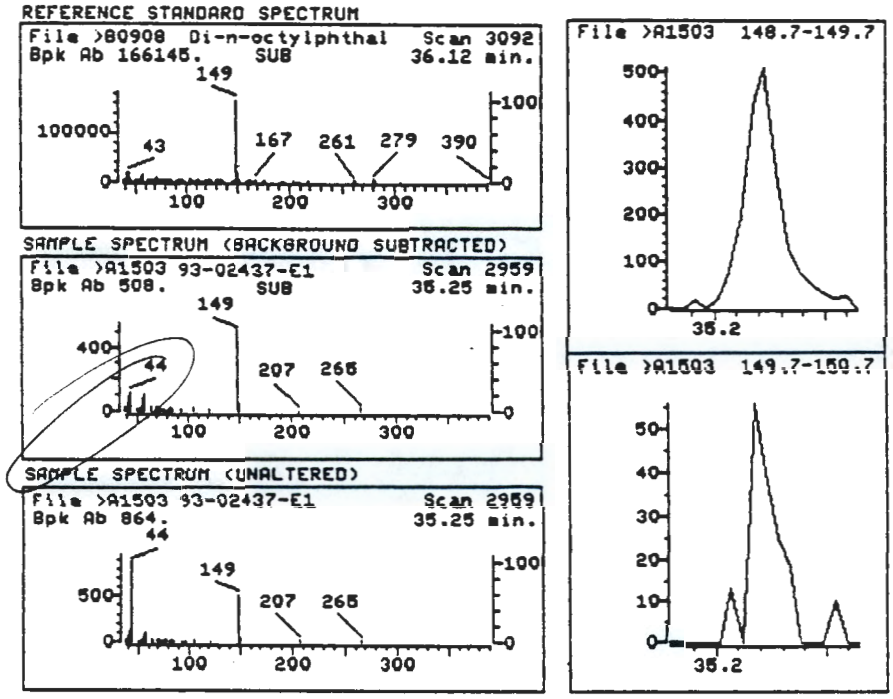


Data File: >A1503::D1
Name: 93-02437-E1
Misc: T-106 B07JZ8
Quant Time: 930115 15:05
Injected at: 930115 14:17
Last Qcal Time: 930115 12:23

Quant Output File: ^A1503::OF
Instrument ID: BNA1
BTL# 1
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2781
Retention Time: 33.38 min.
Quant Ion : 149.0
Area : 2024
Concentration : .931 ng/uL
q-value : 93

AG
10/24/03



Data File: >A1503::D1
Name: 93-02437-E1
Misc: T-106 B07JZ8
Quant Time: 930115 15:05
Injected at: 930115 14:17
Last Qcal Time: 930115 12:23

Quant Output File: ^A1503::OF
Instrument ID: BNA1
BTL# 1
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 2959
Retention Time: 35.25 min.
Quant Ion : 149.0
Area : 1184
Concentration : .365 ng/uL
q-value : 94

non-detect
HS 10/24/93

9613492.1444

MS data file header from : >A1503::D1

Sample: 93-02437-E1 Operator: ERIC SUPER GRP. 1/15/93 14:17
Misc : T-106 B07JZ8 BTL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 1 Equip ID: BNA1
Method file: BNAME1 Tuning file: MTBNA1 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	40.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.5	0.0

>A1503 93-02437-E1 T-106 B07JZ8
35.0| 500.0 CLP TIC
Upslope: .2000 Area Reject: 21701. Max Peaks: 14 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File IA1503 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	5.36	20	99	109	460522	10441765	10390244	100.00	83.61
2	5.66	114	128	160	4662	92311	58983*	.57	.47
3	8.39	379	389	401	68120	274905	262351	2.52	2.11
4	8.60	402	409	422	4983	29055	21713	.21	.17
5	9.48	483	493	511	49765	211444	201484	1.94	1.62
6	9.86	524	529	548	9796	43642	37042	.36	.29
7	10.72	603	611	619	216978	733178	728658	7.01	5.86
8	11.29	658	666	672	32756	100515	95309	.92	.76
9	11.91	717	725	737	132523	401385	392342	3.78	3.15
10	14.38	956	961	967	16383	39093	36476	.35	.29
11	16.77	1181	1190	1196	13008	33565	30405	.29	.24
12	17.17	1222	1228	1238	10725	28932	24763	.24	.19
13	25.93	2063	2069	2078	53412	104596	96741	.93	.77
14	31.95	2638	2644	2654	24978	59375	50297	.48	.40

Sum of corrected areas: 12426816.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	217012.	11.44	4.33 - 13.42
2	40.0	252447.	15.39	13.42 - 18.04
3	40.0	256184.	20.68	18.04 - 22.89
4	40.0	263985.	25.10	22.89 - 29.03
5	40.0	260970.	32.95	29.03 - 34.92
6	40.0	271249.	36.88	34.92 - 46.54

Dilution Factor = 1.00 This sample was 30.0000 g or mL

Correction Factor = 66.73 TIC RESULTS OFF BY 2X; SEE FORM 1F

Unknown Concentration = |Conc Int Std * Area Unknown| / |---|---| * Correction Factor

Corr = value / 935.962 = correction for % moisture [illegible] 3/26/93

F03-295

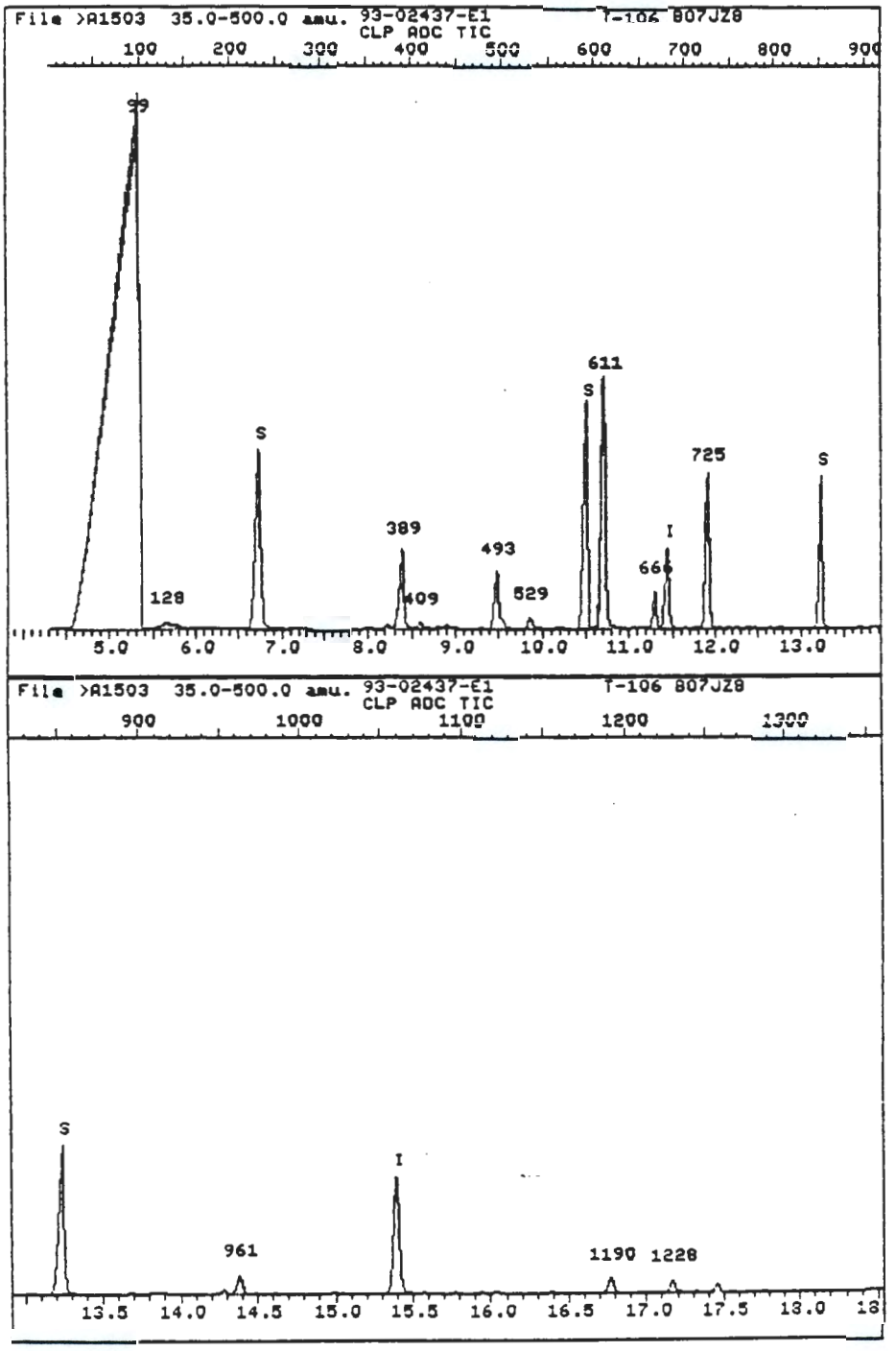
9613492.1445

Area Int Std

8:12 PM TUE., 23 FEB., 1993

F03-296

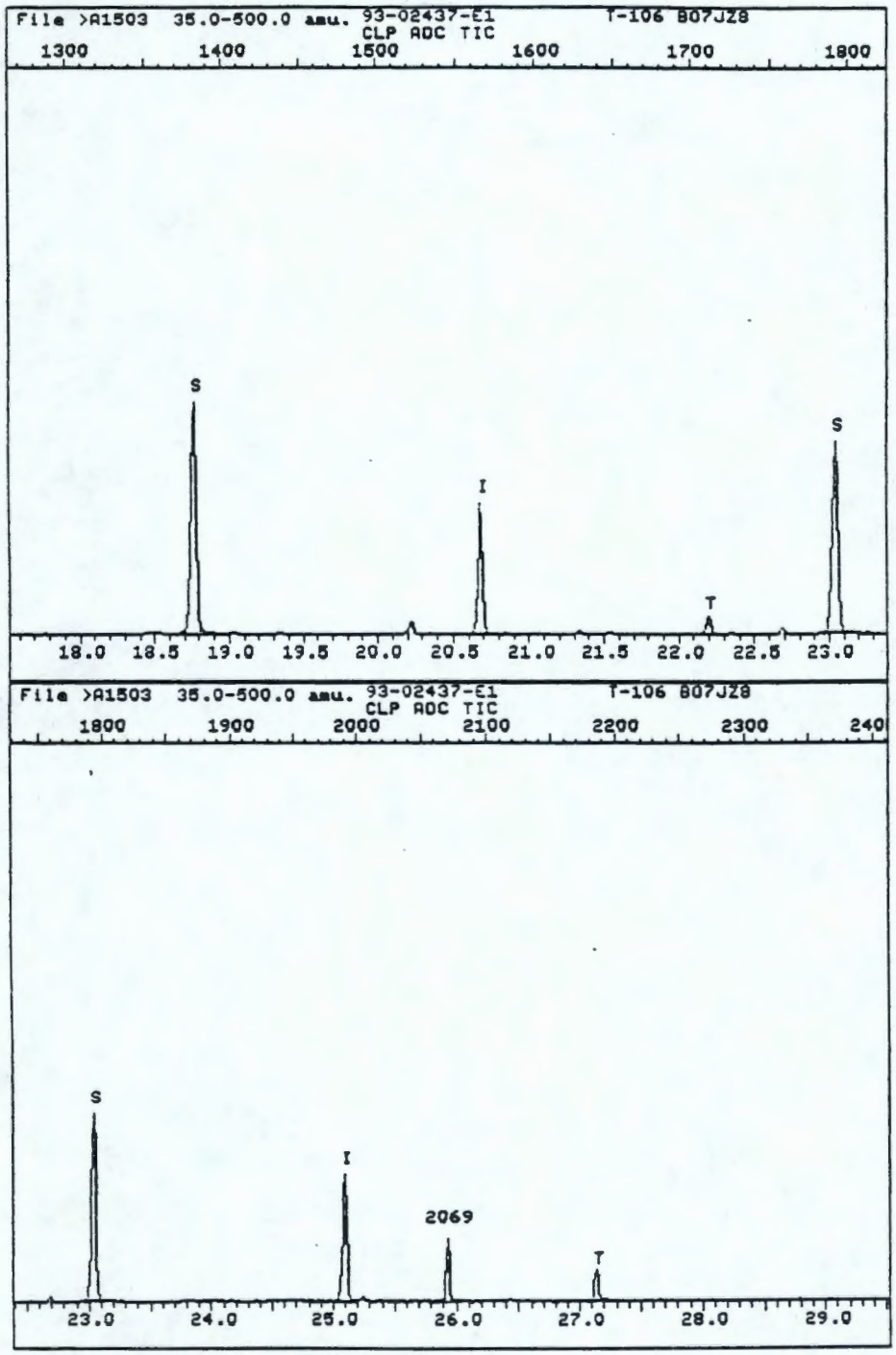
9613492.1446



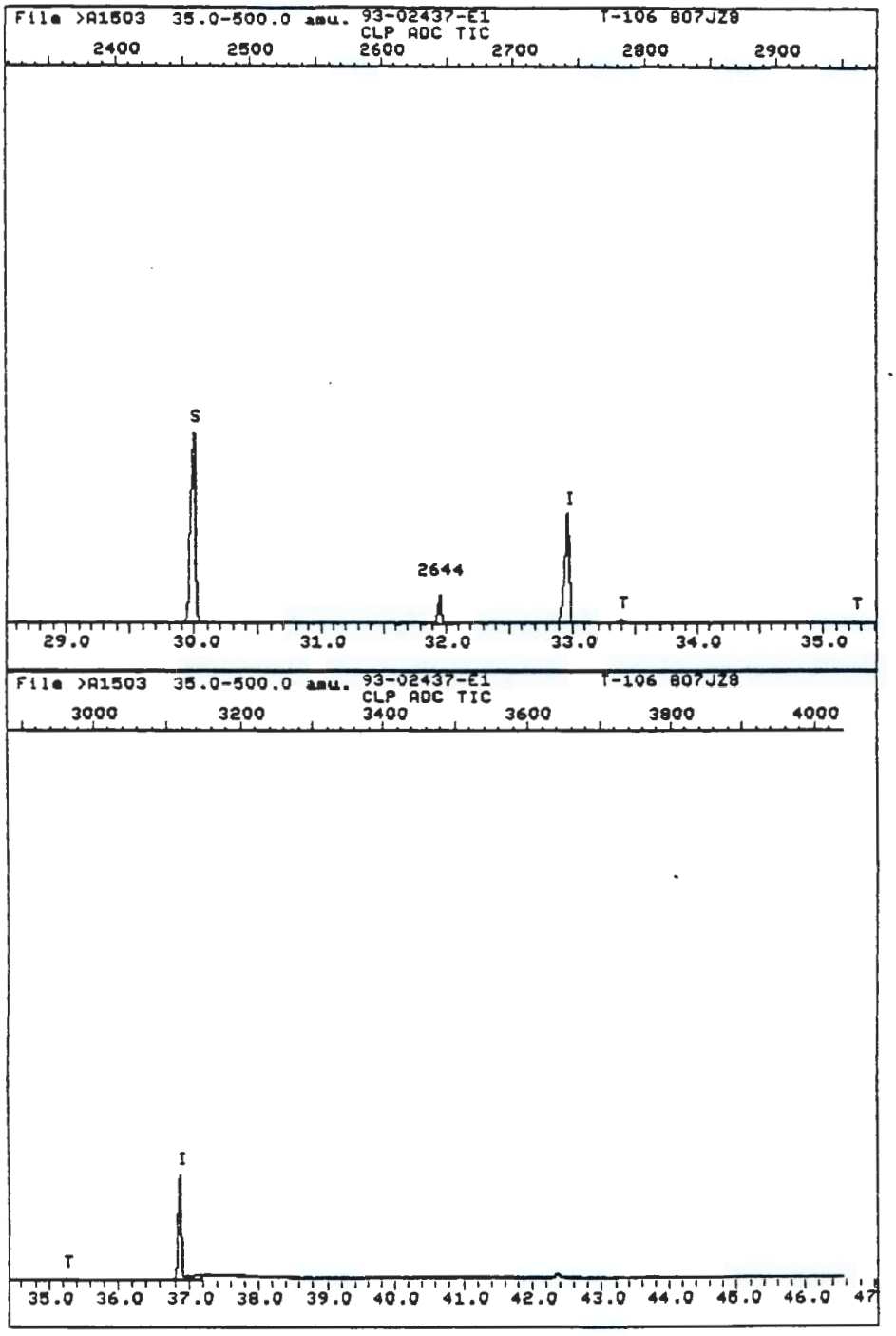
Instrument ID: BNA1 Analyzed on: 1/15/93 14:17

F03-257

9613492.1447

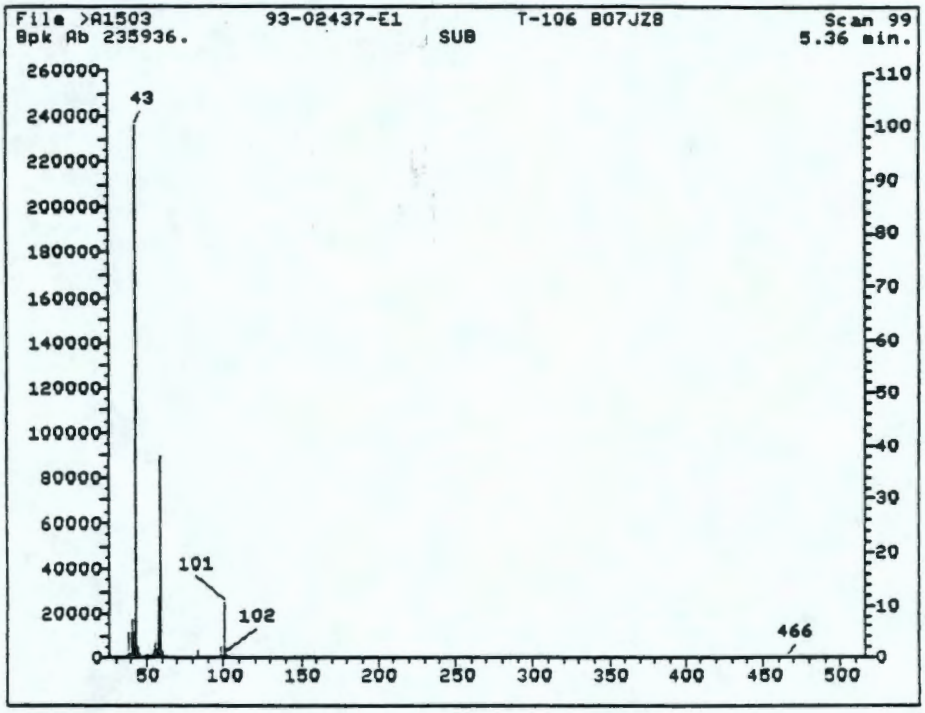


Instrument ID: BNA1 Analyzed on: 1/15/93 14:17



Instrument ID: BNA1 Analyzed on: 1/15/93 14:17

9613492.1449



Instrument ID: BNA1 Analyzed on: 1/15/93 14:17
Result 1 in PBM results file: LA1503
Retention Time: 5.36 Area: 10390244 Tentative Conc: ~~130000.00~~ 140000 KM 2/4/93
The unknown area is 4787.9% of the nearest internal standard

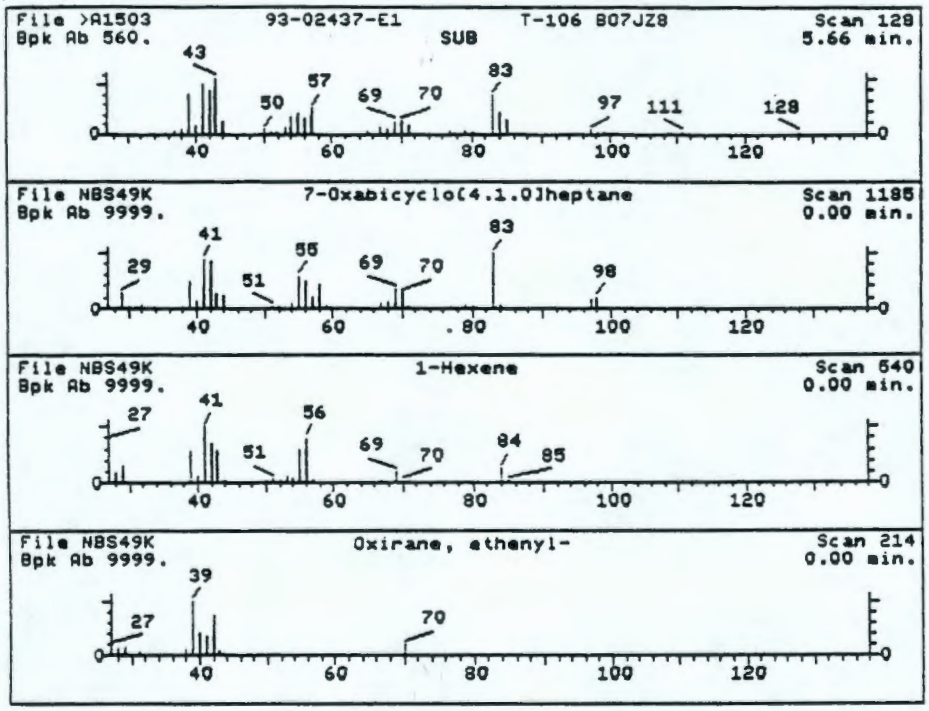
Sample file: >A1503 Spectrum #: 99

No data base entries were retrieved.

unk 2-Pentanone, 4-hydroxy-4-methyl-

F03-300

9613492.1450



Instrument ID: BNA1 Analyzed on: 1/15/93 14:17
Result 2 in PBM results file: LA1503
Retention Time: 5.66 Area: 58983 Tentative Conc: ~~730.00~~ 760 KM 2/1/93
The unknown area is 27.18% of the nearest internal standard

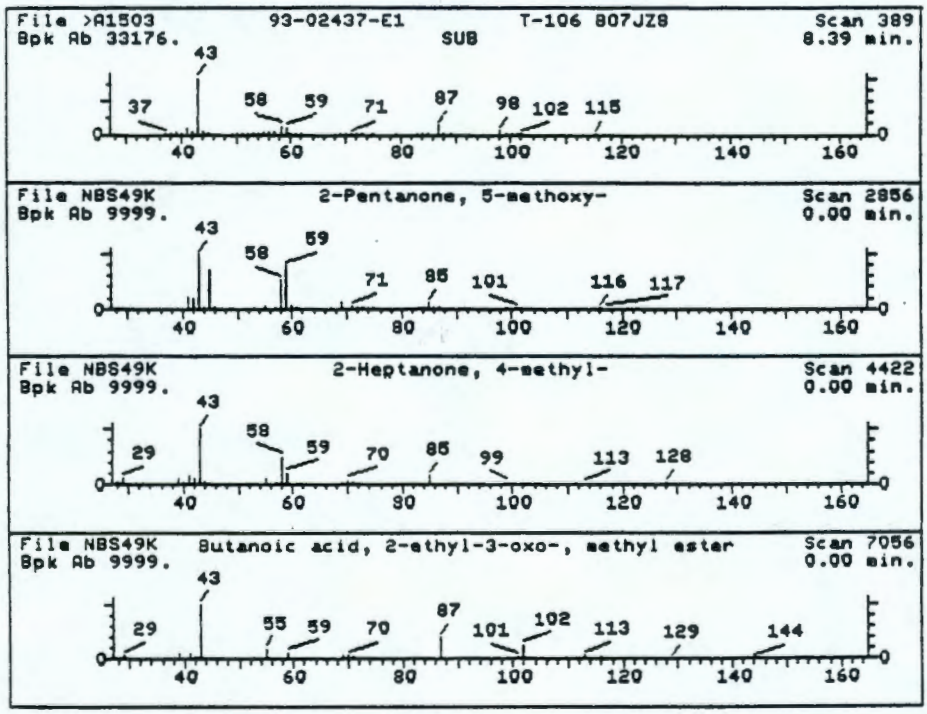
1. 7-Oxabicyclo[4.1.0]heptane	98	C6H10O
2. 1-Hexene	84	C6H12
3. Oxirane, ethenyl-	70	C4H6O
4. 1-Propene	42	C3H6
5. Cyclopropane	42	C3H6
6. Heptane, 3,4-dimethyl-	128	C9H20

Sample file: >A1503 Spectrum #: 128
Search speed: 3 Tilting option: F No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	28	286204	6142	NBS49K	67	48	2	0	59	40	10	14
2.	27*	592416	1012	NBS49K	32	70	3	0	89	40	10	13
3.	25*	930223	3807	NBS49K	24	48	1	0	73	46	7	14
4.	25*	115071	215	NBS49K	24	57	1	0	89	49	7	14
5.	25*	75194	216	NBS49K	25	65	1	0	75	49	7	14
6.	24*	922281	3963	NBS49K	48	49	2	4	59	52	7	21

F03-301

9613492.1451



Instrument ID: BNA1 Analyzed on: 1/15/93 14:17
Result 3 in PBM results file: LA1503
Retention Time: 8.39 Area: 262351 Tentative Conc: ~~3280.00~~
The unknown area is 120.89% of the nearest internal standard 3300 7/2/93

1. 2-Pentanone, 5-methoxy- 116 C6H12O2
2. 2-Heptanone, 4-methyl- 128 C8H16O
3. Butanoic acid, 2-ethyl-3-oxo-, methyl ester 144 C7H12O3

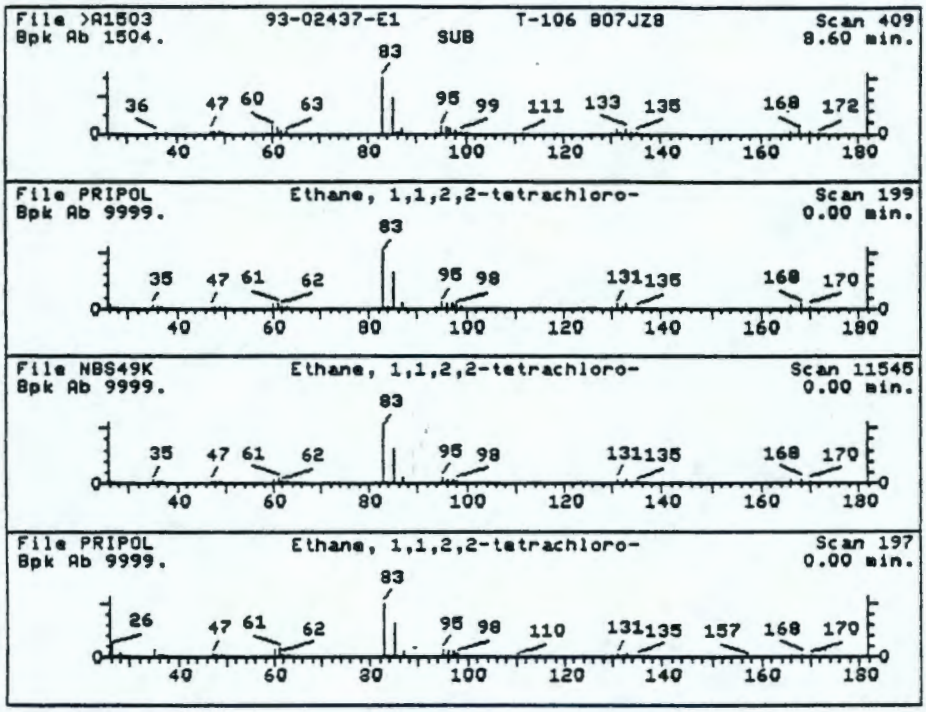
Sample file: >A1503 Spectrum #: 389
Search speed: 3 Tilting option: F No. of ion ranges searched: 50

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	20*	17429048	1791	NBS49K	24	43	2	0	16	52	5	14

rinse A

F03-302

9613492.1452



Instrument ID: BNA1 Analyzed on: 1/15/93 14:17
Result 4 in PBM results file: LA1503
Retention Time: 8.60 Area: 21713 Tentative Conc: ~~270.00~~ 280 [illegible] 1/26/93
The unknown area is 10.01% of the nearest internal standard

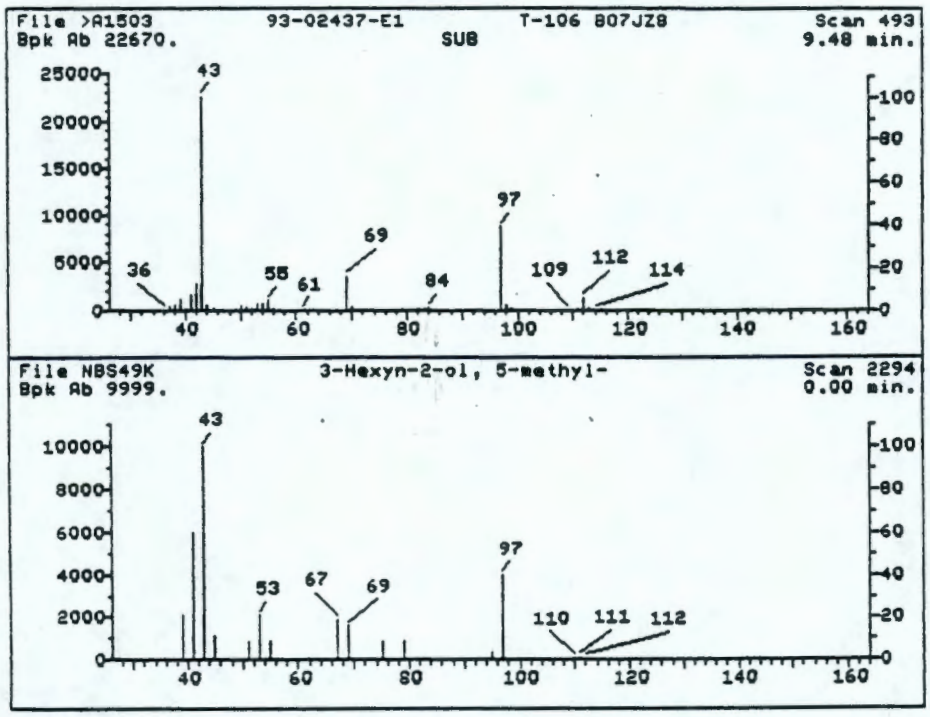
1. Ethane, 1,1,2,2-tetrachloro-	166	C2H2Cl4
2. Ethane, 1,1,2,2-tetrachloro-	166	C2H2Cl4
3. Ethane, 1,1,2,2-tetrachloro-	166	C2H2Cl4
4. Ethane, 1,1,2,2-tetrachloro-	166	C2H2Cl4
5. Ethane, 1,1,2,2-tetrachloro-	166	C2H2Cl4
6. Ethane, 1,1,2,2-tetrachloro-	166	C2H2Cl4

Sample file: >A1503 Spectrum #: 409
Search speed: 3 Tilting option: F No. of ion ranges searched: 61

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	95*	199	125	PRIPOL	89	14	0	0	81	17	60	96
2.	95*	79345	6716	NBS49K	89	14	0	0	81	17	60	96
3.	89*	197	123	PRIPOL	89	27	1	0	75	8	62	89
4.	89*	198	124	PRIPOL	83	26	1	0	79	8	62	80
5.	86*	196	122	PRIPOL	98	13	1	3	88	17	50	86
6.	83*	195	121	PRIPOL	76	33	0	0	43	48	40	93

F03-303

9613492.1453



Instrument ID: BNA1 Analyzed on: 1/15/93 14:17
Result 5 in PBM results file: LA1503
Retention Time: 9.48 Area: 201484 Tentative Conc: ~~2500.00~~ 2600 ppb 2/2/93
The unknown area is 92.84% of the nearest internal standard

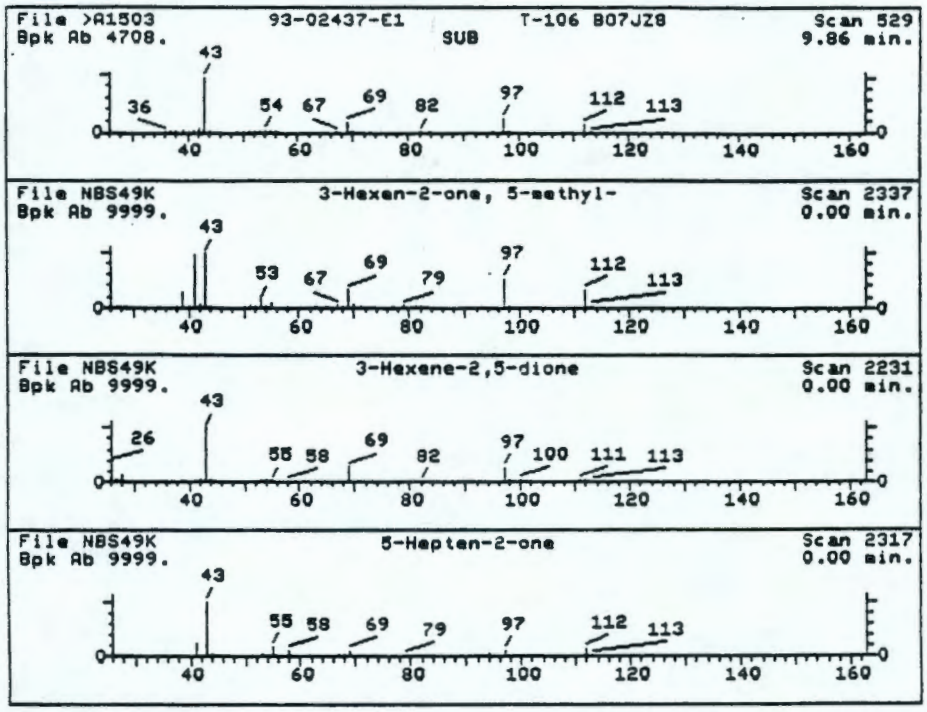
1. 3-Hexyn-2-ol, 5-methyl- 112 C7H120

Sample file: >A1503 Spectrum #: 493
Search speed: 3 Tilting option: F No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	31*	23293507	9091	NBS49K	26	63	2	0	98	34	12	14

ok (+)

F03-304



Instrument ID: BNA1 Analyzed on: 1/15/93 14:17
Result 6 in PBM results file: LA1503
Retention Time: 9.86 Area: 37042 Tentative Conc: ~~460.00~~ 480 ug/L 1/21/93
The unknown area is 17.07% of the nearest internal standard

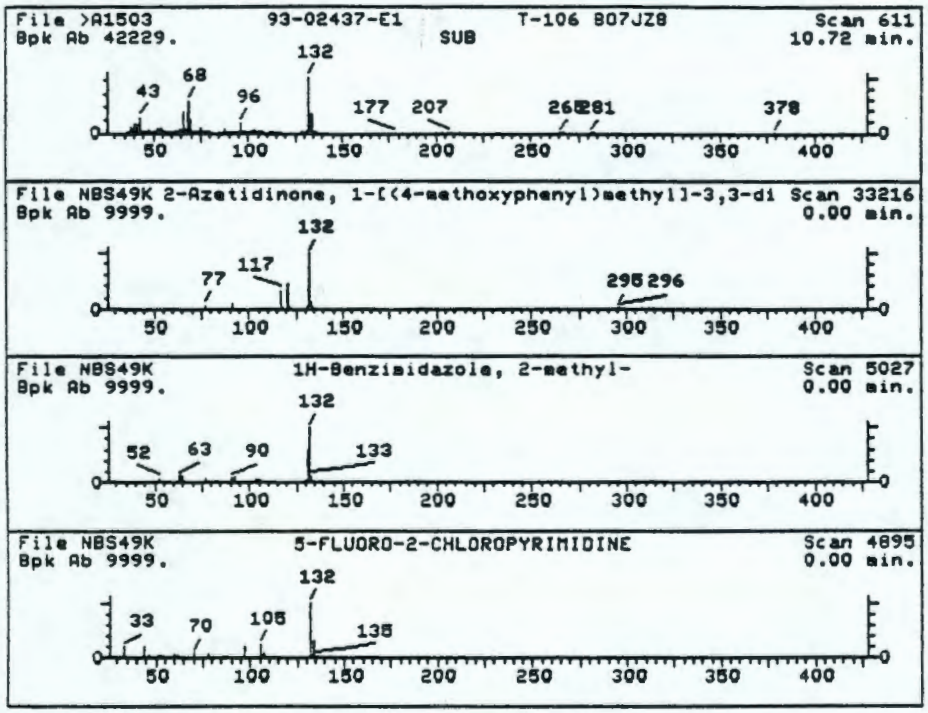
1. 3-Hexen-2-one, 5-methyl- 112 C7H12O
2. 3-Hexene-2,5-dione 112 C6H8O2
3. 5-Hepten-2-one 112 C7H12O

Sample file: >A1503 Spectrum #: 529
Search speed: 3 Tilting option: F No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	38*	5166530	12025	NBS49K	50	39	2	2	68	40	14	25
2.	24*	4436753	9083	NBS49K	39	43	1	0	70	55	7	22

dick

9613492.1455



Instrument ID: BNA1 Analyzed on: 1/15/93 14:17
Result 7 in PBM results file: LA1503
Retention Time: 10.72 Area: 728658 Tentative Conc: 9000.00
The unknown area is 335.77% of the nearest internal standard

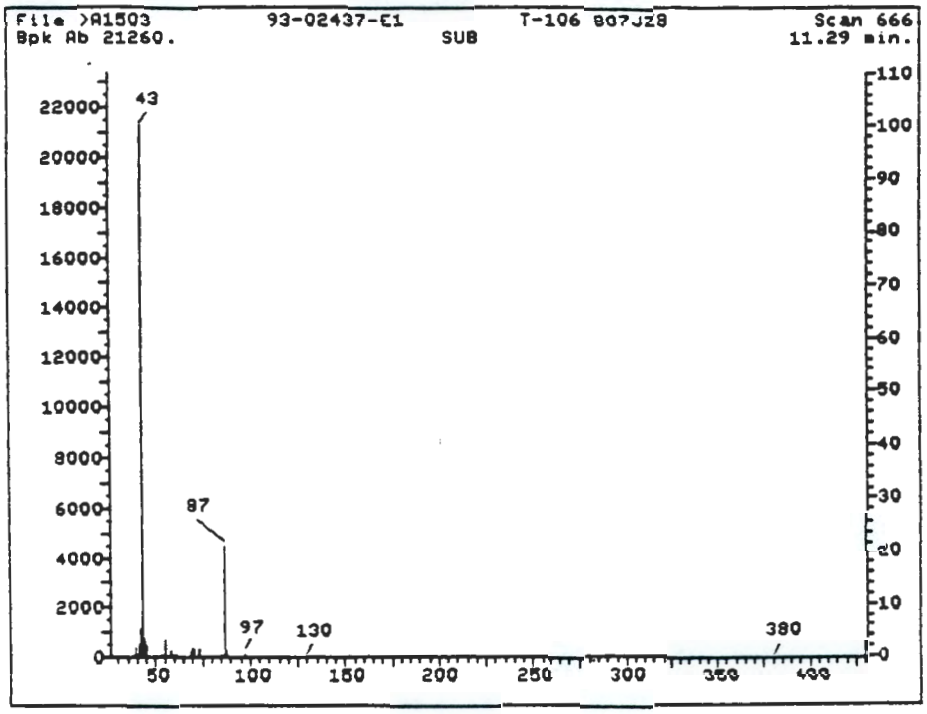
1.	2-Azetidinone, 1-[(4-methoxyphenyl)methyl]-3,3-dimethyl-4-phenyl-	295	C19H21NO2
2.	1H-Benzimidazole, 2-methyl-	132	C8H8N2
3.	5-FLUORO-2-CHLOROPYRIMIDINE	132	C4H2ClFN2
4.	Benzeneethanamine, .alpha.-methyl-N-(phenylmethylene	223	C16H17N
5.	1,3-Oxathiane, 4,6-dimethyl-, trans-	132	C6H12OS
6.	1H-Pyrrole, 2,5-dihydro-	69	C4H7N

Sample file: >A1503 Spectrum #: 611
Search speed: 3 Tilting option: F No. of ion ranges searched: 146

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	29*	54833668	16048	NBS49K	34	45	2	0	83	41	8	17
2.	28*	615156	15880	NBS49K	31	68	2	0	91	40	10	14
3.	26*	62802420	15850	NBS49K	41	67	2	0	100	41	8	14
4.	26*	2980021	16019	NBS49K	31	75	2	0	85	41	8	14
5.	26*	22452262	15866	NBS49K	28	83	2	0	100	41	8	14
6.	20*	109966	3541	NBS49K	28	28	0	3	29	52	5	13

Delete - see [illegible]

F03-306



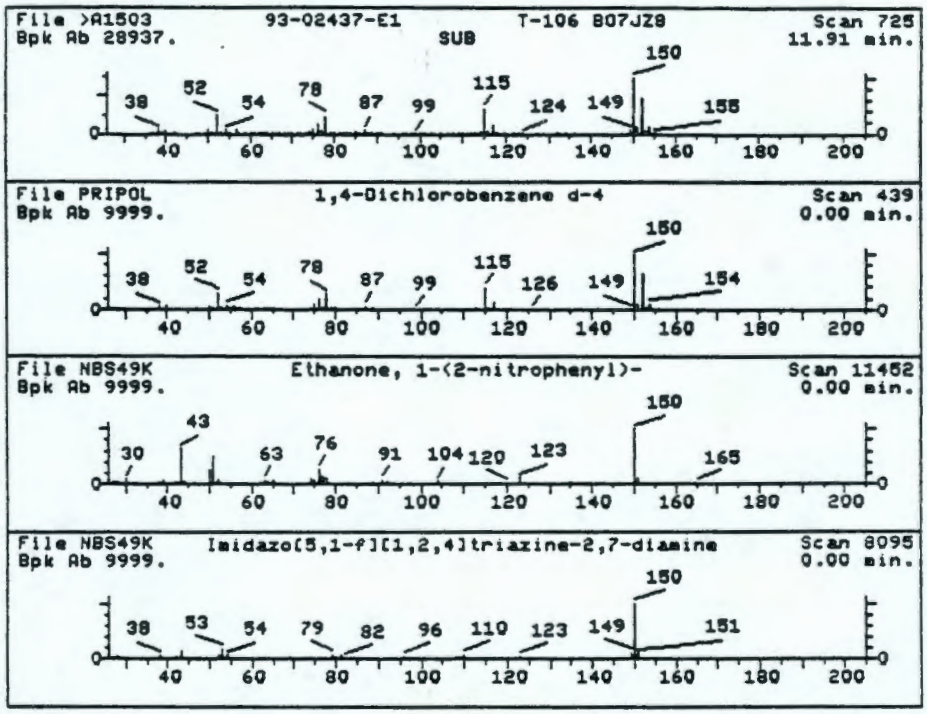
Instrument ID: BNA1 Analyzed on: 1/15/93 14:17
Result 8 in PBM results file: LA1503
Retention Time: 11.29 Area: 95309 Tentative Conc: 1200.00
The unknown area is 43.92% of the nearest internal standard

n.c. [illegible]

Sample file: >A1503 Spectrum #: 666

No data base entries were retrieved.

[illegible]



Instrument ID: BNA1 Analyzed on: 1/15/93 14:17
Result 9 in PBM results file: LA1503
Retention Time: 11.91 Area: 392342 Tentative Conc: 4800.00
The unknown area is 180.79% of the nearest internal standard

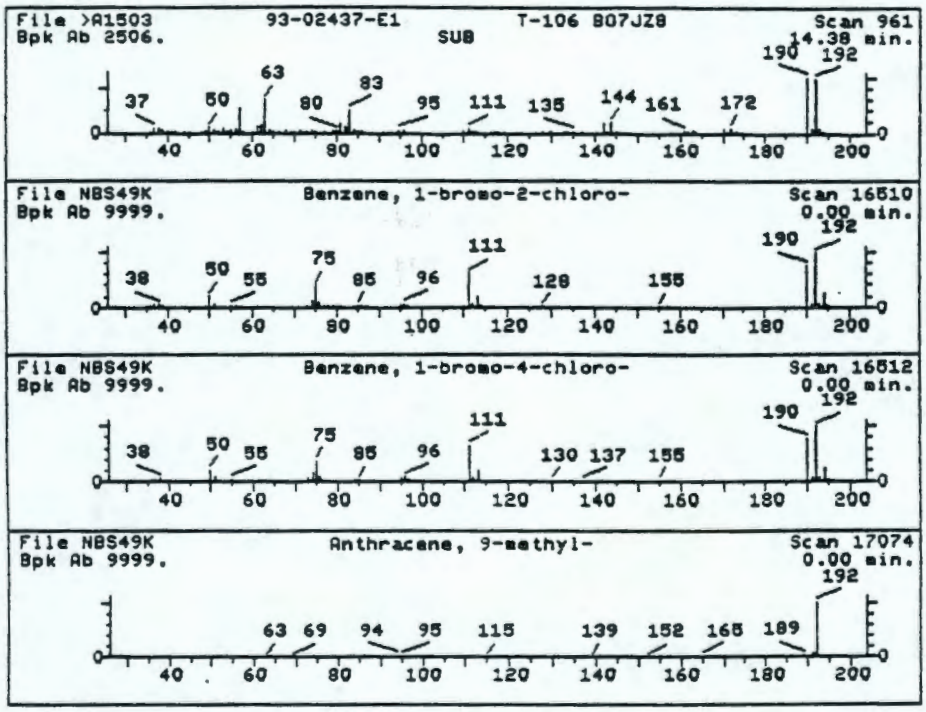
1. 1,4-Dichlorobenzene d-4 150 C6.D4.CL2
2. Ethanone, 1-(2-nitrophenyl)- 165 C8H7NO3
3. Imidazo[5,1-f][1,2,4]triazine-2,7-diamine 150 C5H6N6

Sample file: >A1503 Spectrum #: 725
Search speed: 3 Tilting option: F No. of ion ranges searched: 37

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	97*	439	257	PRIPOL	95	12	0	0	85	7	68	97

tilt see >A1403 file
KLLCL 2/25/93

9613492.1458



Instrument ID: BNA1 Analyzed on: 1/15/93 14:17
Result 10 in PBM results file: LA1503
Retention Time: 14.38 Area: 36476 Tentative Conc: ~~390.00~~ 410 DLM 3/26/93
The unknown area is 14.45% of the nearest internal standard

1. Benzene, 1-bromo-2-chloro-	190	C6H4BrCl
2. Benzene, 1-bromo-4-chloro-	190	C6H4BrCl
3. Anthracene, 9-methyl-	192	C15H12
4. Benzo[1,2-b:3,4-b']dithiophene	190	C10H6S2
5. Benzo[1,2-b:4,3-b']dithiophene	190	C10H6S2
6. Benzo[1,2-b:5,4-b']dithiophene	190	C10H6S2

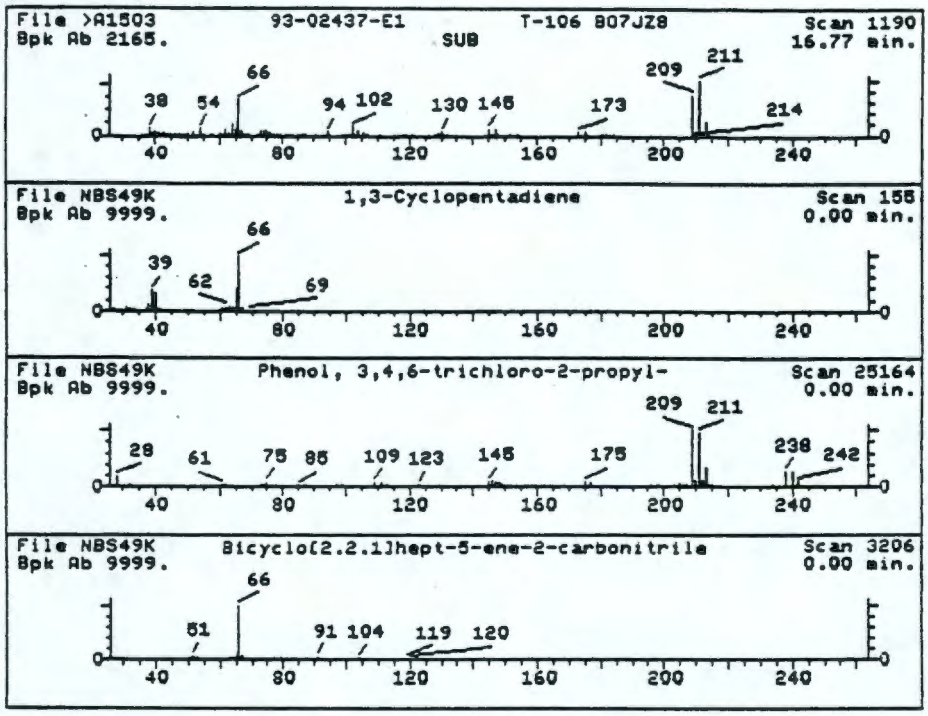
Sample file: >A1503 Spectrum #: 961
Search speed: 3 Tilting option: F No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	31*	694804	26206	NBS49K	51	75	3	0	96	32	12	14
2.	30*	106398	26208	NBS49K	39	87	3	0	96	32	12	13

DLM

F03-309

9613492.1459



Instrument ID: BNA1 Analyzed on: 1/15/93 14:17
Result 11 in PBM results file: LA1503
Retention Time: 16.77 Area: 30405 Tentative Conc: ~~320.00~~ 330 1/21/93
The unknown area is 12.04% of the nearest internal standard

1.	1,3-Cyclopentadiene	66	C5H6
2.	Phenol, 3,4,6-trichloro-2-propyl-	238	C9H9Cl3O
3.	Bicyclo[2.2.1]hept-5-ene-2-carbonitrile	119	C8H9N
4.	1,3,4-Metheno-1H-cyclobuta[cd]pentalene, octahydro-	132	C10H12
5.	3-(N-METHYLAMINO)-9-METHYLCARBAZOLE	210	C14H14N2
6.	Pyrimidine, 4-amino-6-(methylthio)-2-(trifluoromethyl)-	209	C6H6F3N3S

Sample file: >A1503 Spectrum #: 1190
Search speed: 3 Tilting option: F No. of ion ranges searched: 35

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	41*	542927	3029	NBS49K	41	40	0	-1	44	45	14	34
2.	36	55538733	29610	NBS49K	62	78	2	0	74	27	14	13
3.	29*	95114	3102	NBS49K	42	25	1	1	40	41	8	17

F03-310

Instrument ID: BNA1 Analyzed on: 1/15/93 14:17

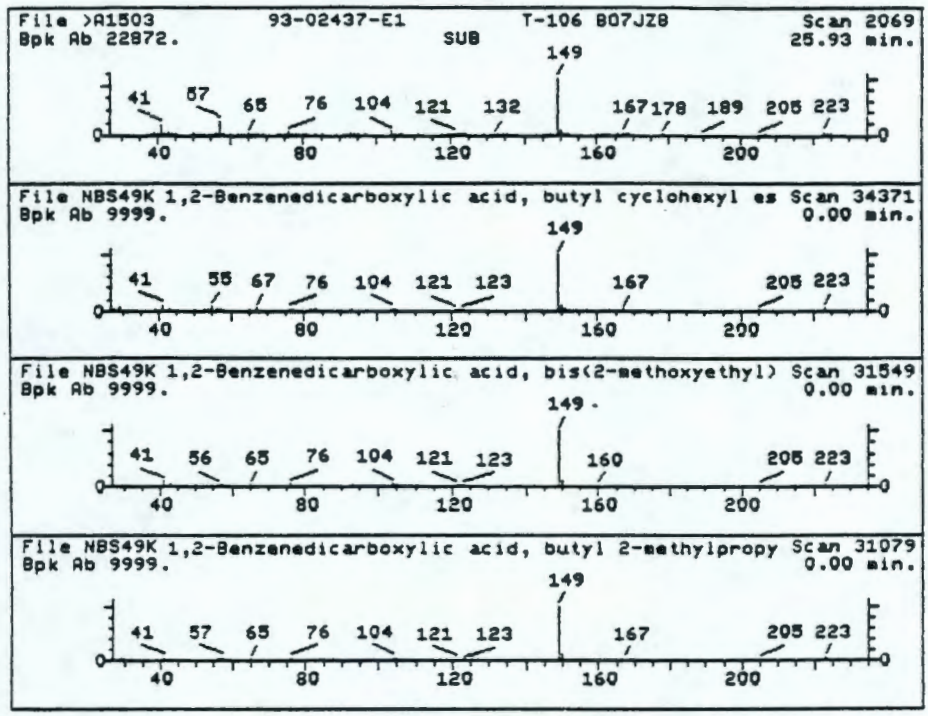
Retention Time: 17.17 Area: 24763 Tentative Conc: 260.00

The unknown area is 9.81% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

9613492.1461



Instrument ID: BNA1 Analyzed on: 1/15/93 14:17
Result 12 in PBM results file: LA1503
Retention Time: 25.93 Area: 96741 Tentative Conc: ~~980.00~~ 1000 µg/L 2/4/93
The unknown area is 36.65% of the nearest internal standard

1. 1,2-Benzenedicarboxylic acid, butyl cyclohexyl ester 304 C18H2404
2. 1,2-Benzenedicarboxylic acid, bis(2-methoxyethyl) es ter 282 C14H1806
3. 1,2-Benzenedicarboxylic acid, butyl 2-methylpropyl e ster 278 C16H2204

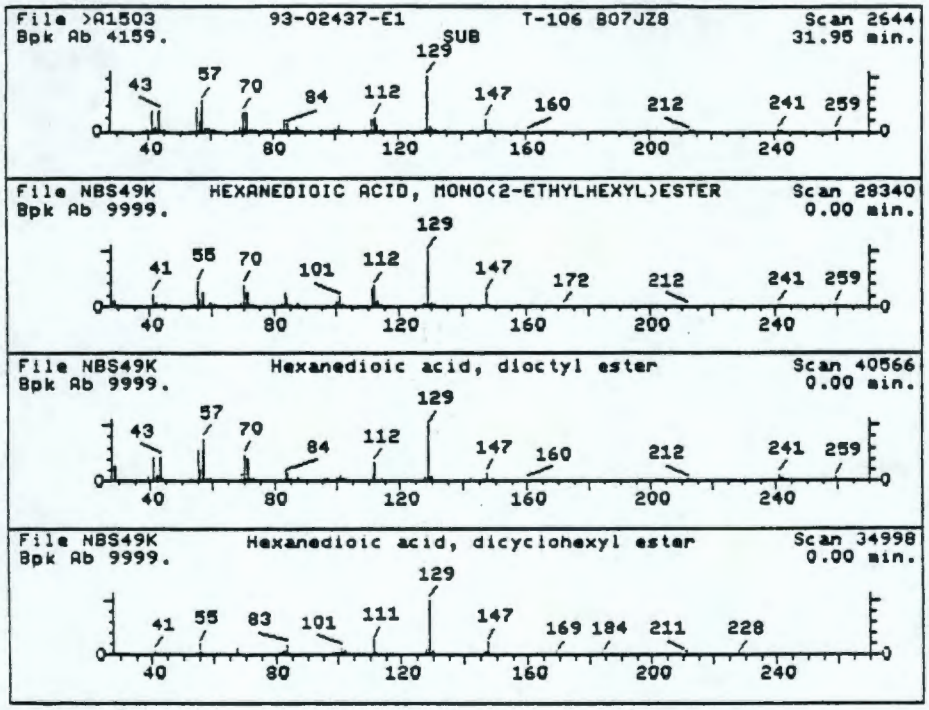
Sample file: >A1503 Spectrum #: 2069
Search speed: 3 Tilting option: F No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	70	84640	19279	NBS49K	60	48	2	0	99	6	42	12
2.	40	117828	19276	NBS49K	73	30	0	2	59	46	12	44
3.	25	17851535	19272	NBS49K	64	42	1	2	56	46	7	16

unk phthalate

F03-312

9613492.1462



Instrument ID: BNA1 Analyzed on: 1/15/93 14:17
Result 13 in PBM results file: LA1503
Retention Time: 31.95 Area: 50297 Tentative Conc: ~~510.00~~ 530 2/26/93
The unknown area is 19.27% of the nearest internal standard

1. HEXANEDIOIC ACID, MONO(2-ETHYLHEXYL)ESTER	258	C14H2604
2. Hexanedioic acid, dioctyl ester	370	C22H4204
3. Hexanedioic acid, dicyclohexyl ester	310	C18H3004
4. Octane, 2,6-dimethyl-	142	C10H22
5. 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione	129	C3H3N303
6. Octane, 3,6-dimethyl-	142	C10H22

Sample file: >A1503 Spectrum #: 2644
Search speed: 3 Tilting option: F No. of ion ranges searched: 56

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	71	4337659	15463	NBS49K	82	63	0	0	55	28	29	60
2.	66	123795	15479	NBS49K	128	40	0	1	57	43	24	73
3.	36	849990	15471	NBS49K	63	75	2	0	83	30	14	13
4.	20*	2051301	12332	NBS49K	38	42	2	1	41	52	5	12
5.	20*	108805	15388	NBS49K	23	62	3	0	100	51	5	12
6.	20*	15869940	12333	NBS49K	38	36	1	1	42	53	5	14

QUANT REPORT

Operator ID: ERIC
Output File: ^A1504::OF
Data File: >A1504::D1
Name: 93-02437-E2
Misc: T-106 B07JZ8 DUP

Quant Rev: 7
Quant Time: 930115 16:02
Injected at: 930115 15:14
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 2

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930115 12:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.43	679	31993	40.00	ng/uL	99
2)	2-Fluorophenol	6.73	231	152636	155.82	ng/uL	88
3)	Phenol-d5	10.50	590	199881	171.03	ng/uL	93
4)	Phenol	0.00	0	0	0.00	ng/uL	
5)	bis(2-Chloroethyl)ether	0.00	0	0	0.00	ng/uL	
6)	2-Chlorophenol	0.00	0	0	0.00	ng/uL	
7)	1,3-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
8)	1,4-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	1,2-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	0	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	0.00	851	0	0.00	ng/uL	
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.39	1057	105463	40.00	ng/uL	99
17)	Nitrobenzene-d5	13.24	851	96122	87.08	ng/uL	93
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	0.00	0	0	0.00	ng/uL	
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	0.00	0	0	0.00	ng/uL	
30)	2-Methylnaphthalene	0.00	0	0	0.00	ng/uL	
31)	*Acenaphthene-d10	20.67	1563	51837	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	18.75	1379	129970	83.65	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	1563	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	0.00	0	0	0.00	ng/uL	

43)	2,4-Dinitrophenol	0.00	0	0	0.00 ng/uL	
44)	4-Nitrophenol	0.00	0	0	0.00 ng/uL	
45)	Dibenzofuran	0.00	0	0	0.00 ng/uL	
46)	2,4-Dinitrotoluene	0.00	0	0	0.00 ng/uL	
47)	Diethylphthalate	0.00	0	0	0.00 ng/uL	
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00 ng/uL	
49)	Fluorene	0.00	0	0	0.00 ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00 ng/uL	
51)	*Phenanthrene-d10	25.09	1986	90795	40.00 ng/uL	99
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00 ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1789	0	0.00 ng/uL	
54)	2,4,6-Tribromophenol	23.03	1789	40331	126.03 ng/uL	99
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00 ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00 ng/uL	
57)	Pentachlorophenol	0.00	0	0	0.00 ng/uL	
58)	Phenanthrene	0.00	0	0	0.00 ng/uL	
59)	Anthracene	0.00	0	0	0.00 ng/uL	
60)	Di-n-butylphthalate	27.12	2180	34623	11.32 ng/uL	97
61)	Fluoranthene	0.00	0	0	0.00 ng/uL	
62)	*Chrysene-d12	32.94	2736	84093	40.00 ng/uL	91
63)	Pyrene	0.00	0	0	0.00 ng/uL	
64)	Terphenyl-d14	29.98	2453	150769	76.53 ng/uL	89
65)	Butylbenzylphthalate	0.00	0	0	0.00 ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00 ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00 ng/uL	
68)	Chrysene	0.00	0	0	0.00 ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	33.37	2777	1906	.881 ng/uL	97
70)	*Perylene-d12	36.86	3110	87841	40.00 ng/uL	97
71)	Di-n-octylphthalate	35.24	2955	1353	.411 ng/uL	98
72)	Benzo(b)fluoranthene	0.00	0	0	0.00 ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00 ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00 ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00 ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00 ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00 ng/uL	

* Compound is ISTD

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >A1504
CAL CHECK FILE = >A1502
DATE AND TIME OF ANALYSIS = 1/15/93 15:14
MISCELLANEOUS = T-106 B07JZ8 DUP
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

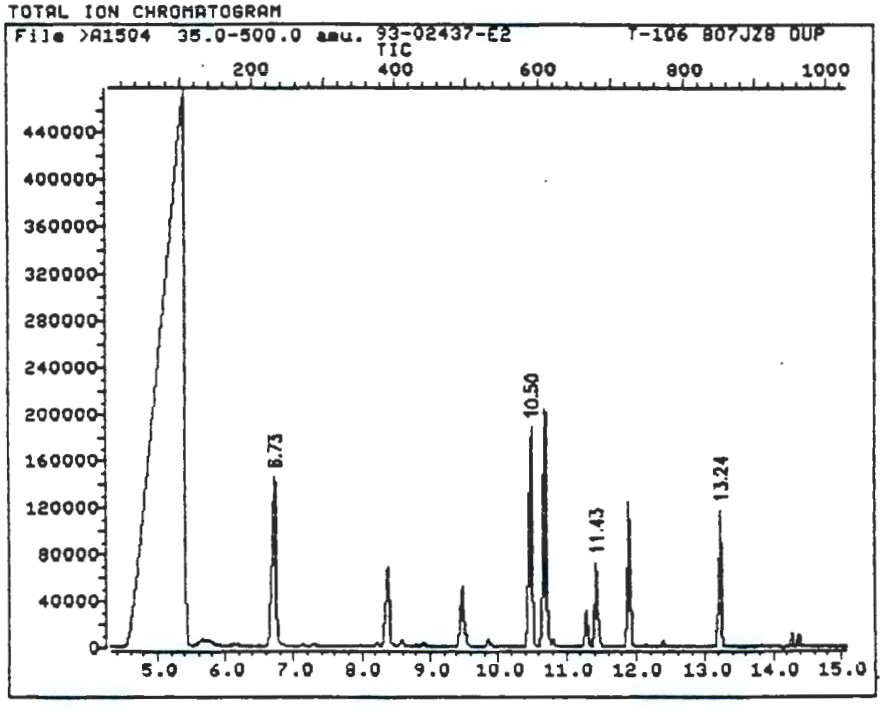
I. Areas

Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	31993	42040	21020	84080	OK
Naphthalene-d8	105463	145283	72641	290566	OK
Acenaphthene-d10	51837	69903	34951	139806	OK
Phenanthrene-d10	90795	127863	63931	255726	OK
Chrysene-d12	84093	100766	50383	201532	OK
Perylene-d12	87841	125861	62930	251722	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.43	11.42	10.92	11.92	OK
Naphthalene-d8	15.39	15.41	14.91	15.91	OK
Acenaphthene-d10	20.67	20.68	20.18	21.18	OK
Phenanthrene-d10	25.09	25.10	24.60	25.60	OK
Chrysene-d12	32.94	32.98	32.48	33.48	OK
Perylene-d12	36.86	36.89	36.39	37.39	OK

TOTAL ION CHROMATOGRAM



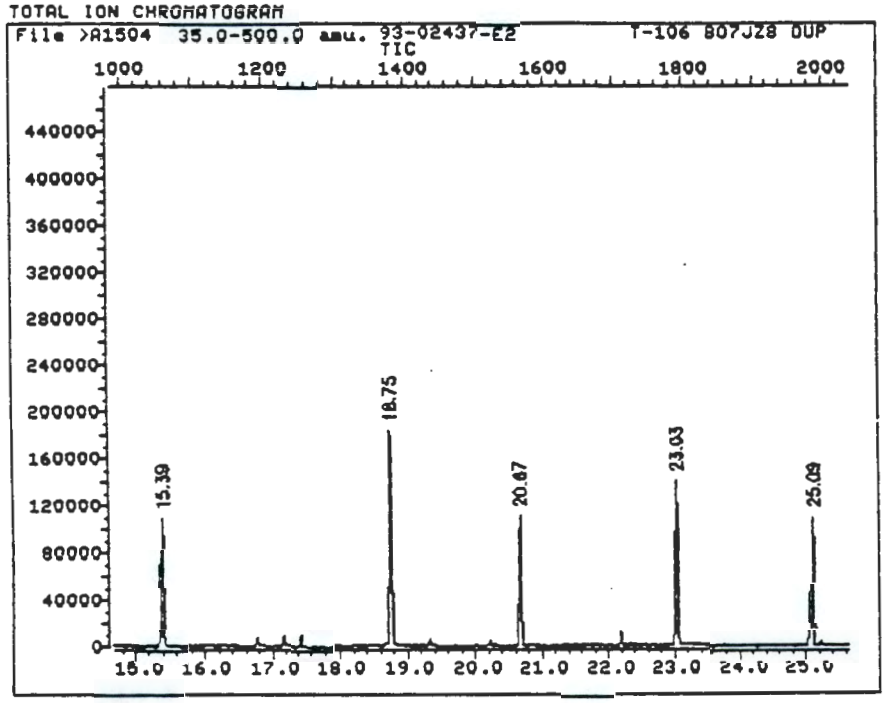
Data File: >A1504::D1 Quant Output File: ^A1504::OF
Name: 93-02437-E2 Instrument ID: BNA1
Misc: T-106 B07JZ8 DUP BTL# 2

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 16:02
Injected at: 930115 15:14

Page 1 of 4

TOTAL ION CHROMATOGRAM



Data File: >A1504::D1
Name: 93-02437-E2
Misc: T-106 B07JZ8 DUP

Quant Output File: ^A1504::OF
Instrument ID: BNA1
BTL# 2

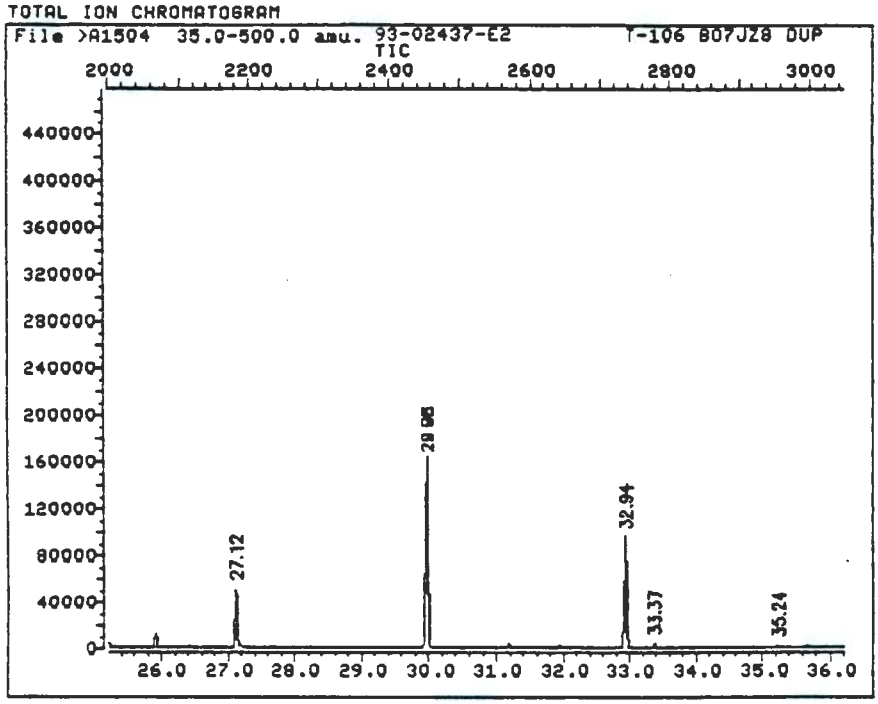
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 16:02
Injected at: 930115 15:14

Page 2 of 4

TOTAL ION CHROMATOGRAM



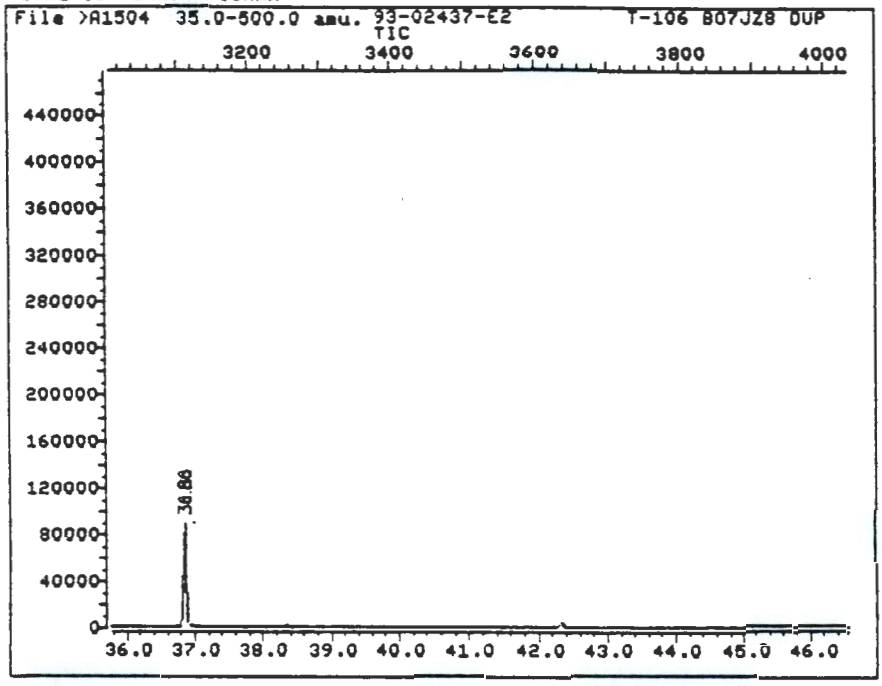
Data File: >A1504::D1 Quant Output File: ^A1504::OF
Name: 93-02437-E2 Instrument ID: BNA1
Misc: T-106 B07JZ8 DUP BTL# 2

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 16:02
Injected at: 930115 15:14

Page 3 of 4

TOTAL ION CHROMATOGRAM



Data File: >A1504::D1
Name: 93-02437-E2
Misc: T-106 B07JZ8 DUP

Quant Output File: ^A1504::QF
Instrument ID: BNA1
BTL# 2

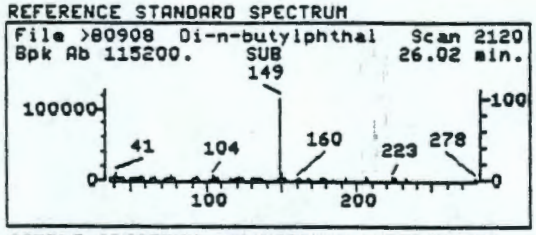
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

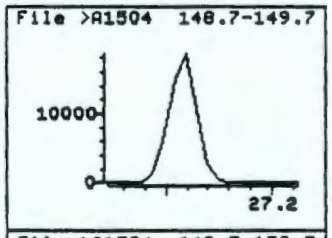
Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 16:02
Injected at: 930115 15:14

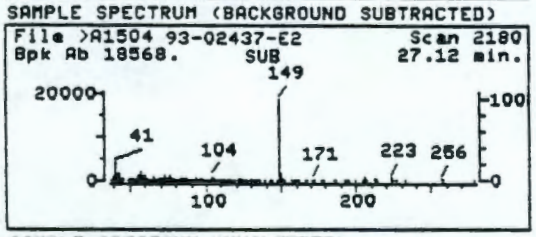
Page 4 of 4

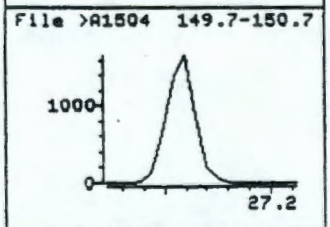
REFERENCE STANDARD SPECTRUM



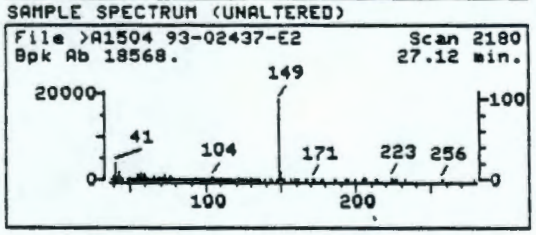


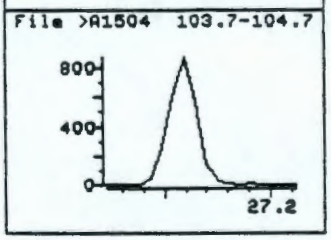
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



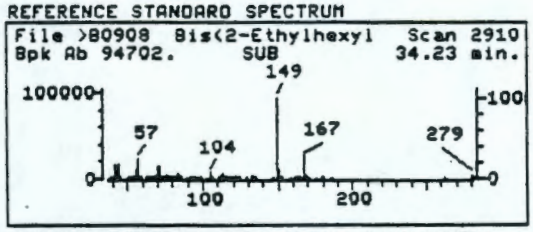


Data File: >A1504::D1
Name: 93-02437-E2
Misc: T-106 807JZ8 DUP
Quant Time: 930115 16:02
Injected at: 930115 15:14
Last Qcal Time: 930115 12:23

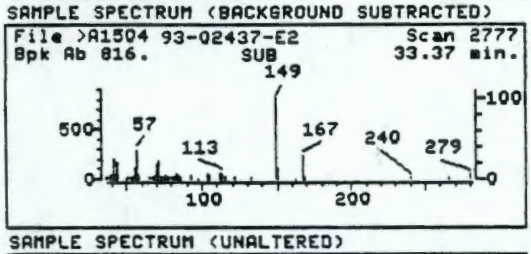
Quant Output File: ^A1504::OF
Instrument ID: BNA1
BTL# 2
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2180
Retention Time: 27.12 min.
Quant Ion : 149.0
Area : 34623
Concentration : 11.32 ng/uL
q-value : 97

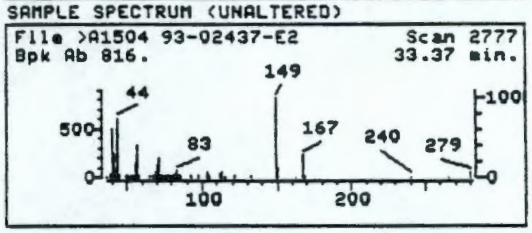
REFERENCE STANDARD SPECTRUM

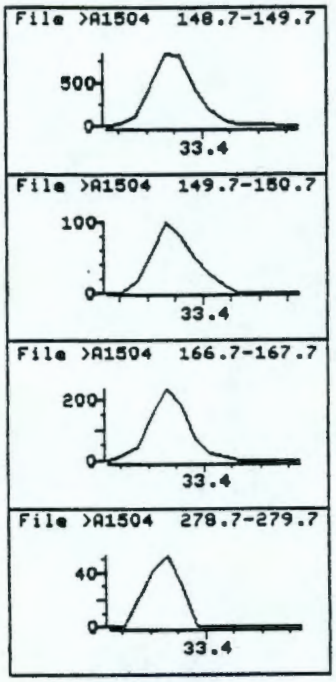


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



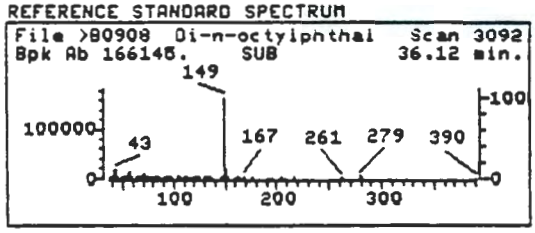


Data File: >A1504::D1
Name: 93-02437-E2
Misc: T-106 B07JZ8 DUP
Quant Time: 930115 16:02
Injected at: 930115 15:14
Last Qcal Time: 930115 12:23

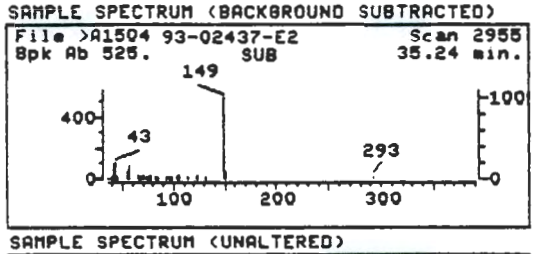
Quant Output File: ^A1504::OF
Instrument ID: BNA1
BTL# 2
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2777
Retention Time: 33.37 min.
Quant Ion : 149.0
Area : 1906
Concentration : .881 ng/uL
q-value : 97

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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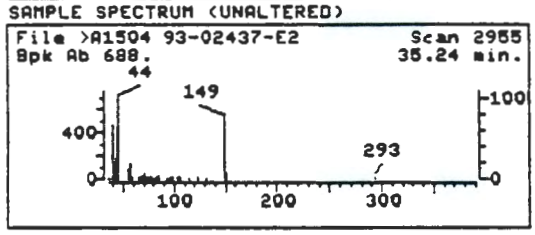
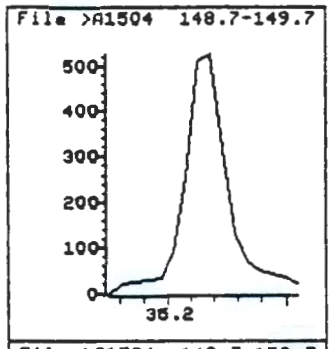
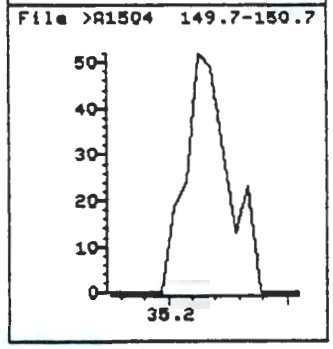






Data File: >A1504::D1
Name: 93-02437-E2
Misc: T-106 B07JZ8 DUP
Quant Time: 930115 16:02
Injected at: 930115 15:14
Last Qcal Time: 930115 12:23

Quant Output File: ^A1504::OF
Instrument ID: BNA1
BTL# 2
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 2955
Retention Time: 35.24 min.
Quant Ion : 149.0
Area : 1353
Concentration : .411 ng/uL
q-value : 98

9613492.1473

MS data file header from : >A1504::D1

Sample: 93-02437-E2 Operator: ERIC SUPER GRP. 1/15/93 15:14
Misc : T-106 B07JZ8 DUP BTL# 2
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 2 Equip ID: BNA1
Method file: BNAME1 Tuning file: MTBNA1 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	40.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.5	0.0

>A1504 93-02437-E2 T-106 B07JZ8 DUP
35.01 500.0 CLP TIC
Upslope: .2000 Area Reject: 21364. Max Peaks: 12 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File IA1504 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	5.42	19	106	113	475377	12058034	11943343	100.00	87.08
2	5.66	117	129	156	5167	118163	64494*	.54	.47
3	8.39	379	389	401	68138	278759	256672	2.15	1.87
4	8.59	401	408	423	5108	42679	22654	.19	.16
5	9.48	483	493	508	50767	229277	206630	1.73	1.50
6	9.86	522	529	549	6966	50234	27000	.23	.19
7	10.70	601	609	617	204061	692309	679209	5.69	4.95
8	11.29	658	665	671	30690	95391	84367	.71	.61
9	11.91	716	724	735	123527	378031	359223	3.01	2.61
10	14.27	938	950	954	12024	34178	23260	.19	.17
11	14.38	954	960	967	9941	31498	22592	.19	.16
12	25.91	2057	2065	2076	11836	39489	24676	.21	.18

Sum of corrected areas: 13714122.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	213637.	11.43	4.32 - 13.41
2	40.0	253034.	15.39	13.41 - 18.03
3	40.0	251620.	20.67	18.03 - 22.88
4	40.0	260793.	25.09	22.88 - 29.02
5	40.0	258922.	32.94	29.02 - 34.90
6	40.0	269208.	36.86	34.90 - 46.53

Dilution Factor = 1.00 This sample was 30.0000 g or mL

Correction Factor = 33.37

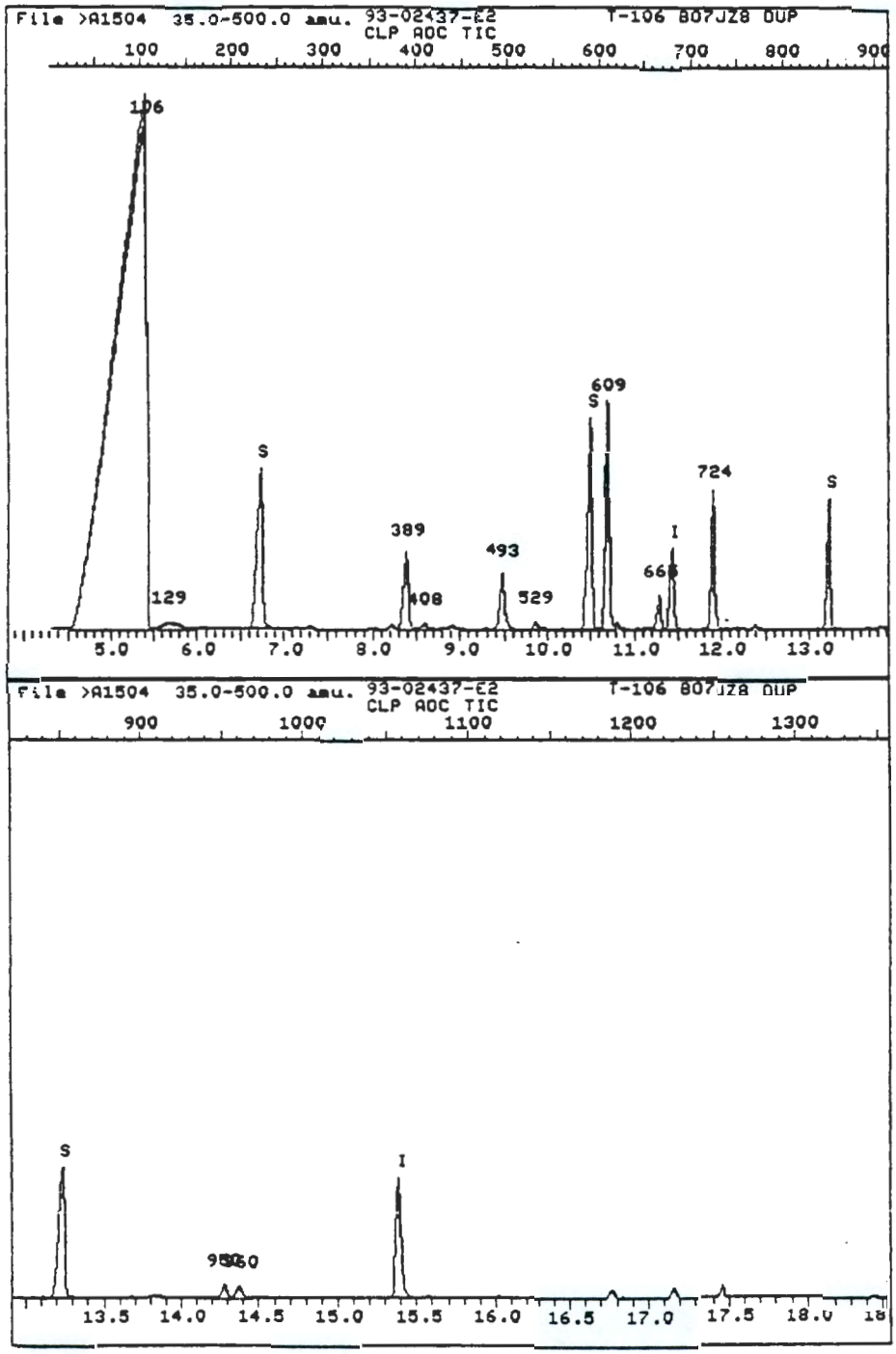
$$\text{Unknown Concentration} = \frac{\text{Conc Int Std} * \text{Area Unknown}}{\text{Area Int Std}} * \text{Correction Factor}$$

correction for % moisture = value / .962 3/2/93

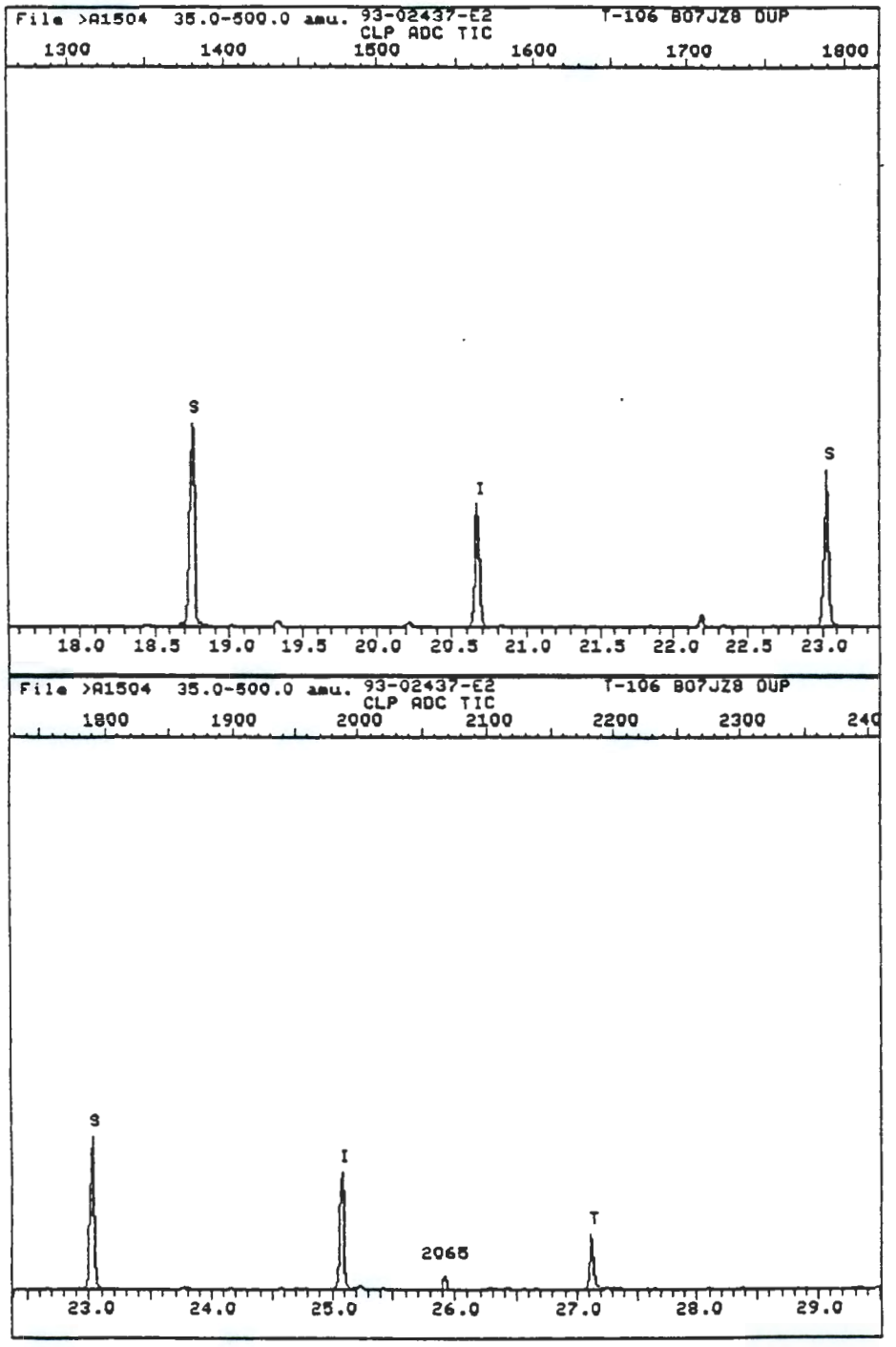
F03-324

9613492.1474

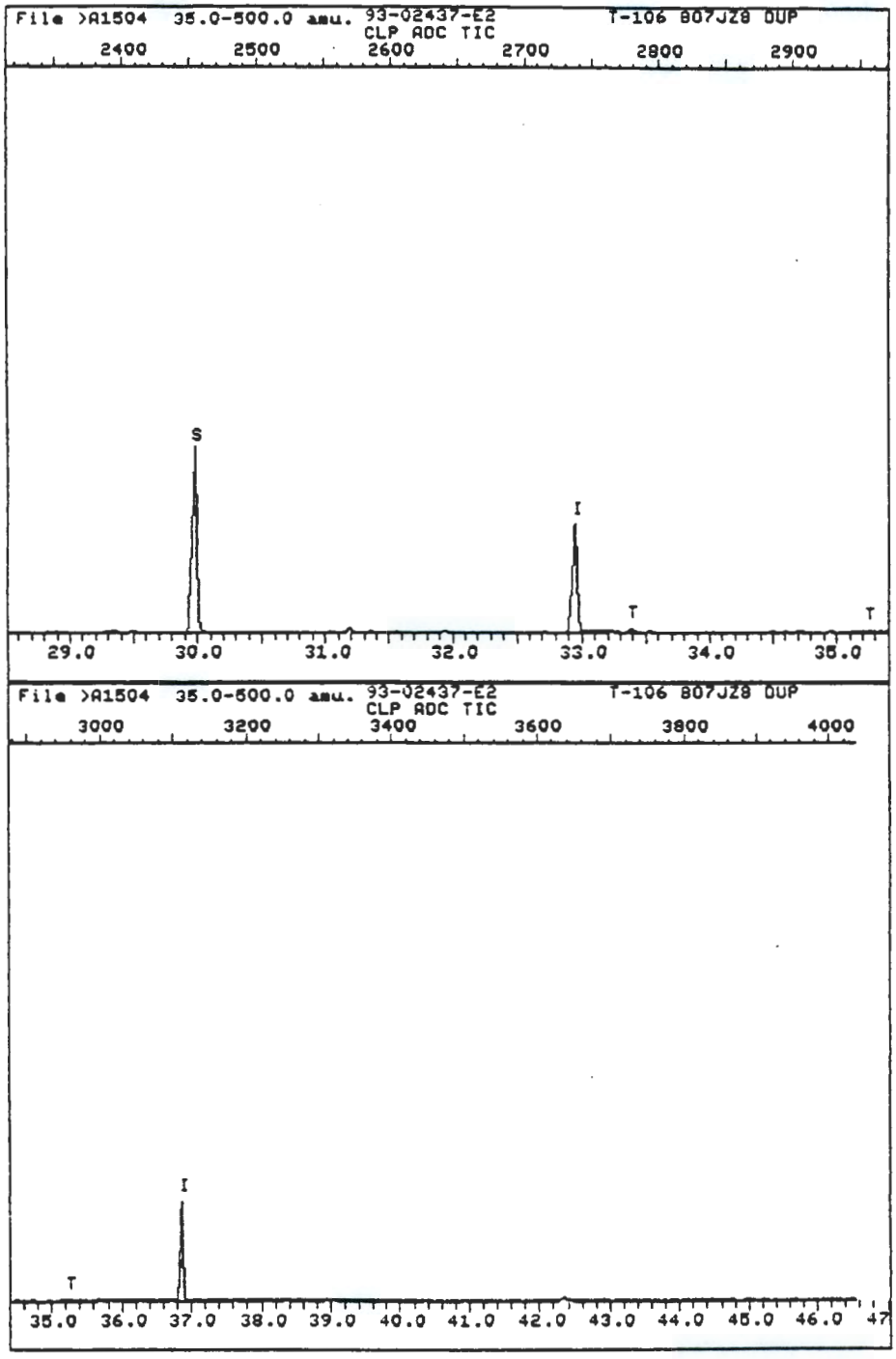
5:10 PM WED., 24 FEB., 1993



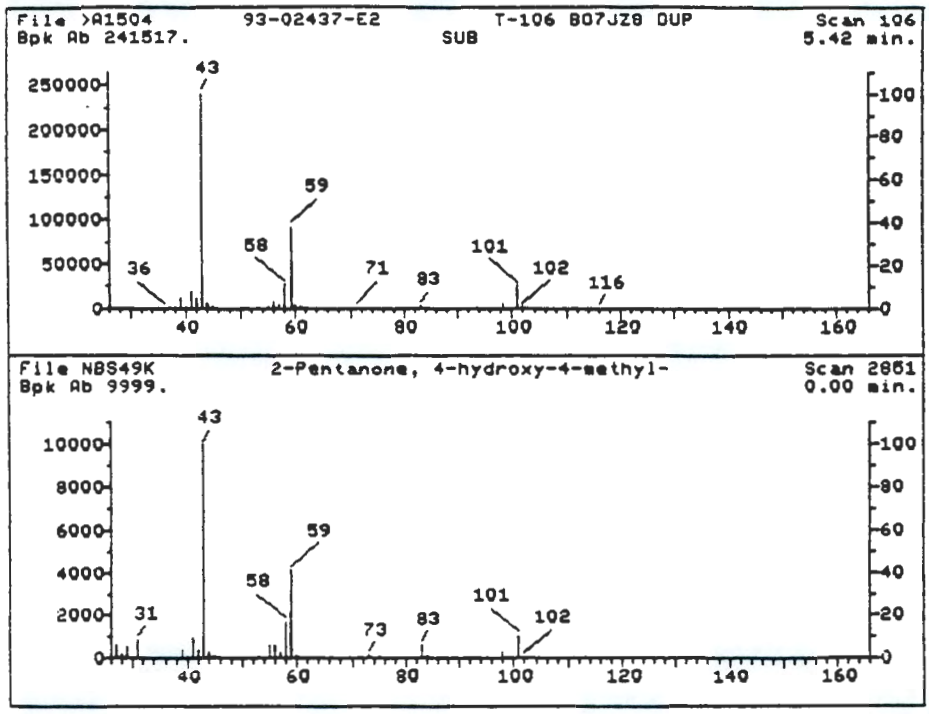
Instrument ID: BNA1 Analyzed on: 1/15/93 15:14



Instrument ID: BNA1 Analyzed on: 1/15/93 15:14



Instrument ID: BNA1 Analyzed on: 1/15/93 15:14



Instrument ID: BNA1 Analyzed on: 1/15/93 15:14
Result 1 in PBM results file: LA1504
Retention Time: 5.42 Area: 11943342 Tentative Conc: ~~79000.00~~
The unknown area is 5590.5% of the nearest internal standard 78000 [illegible]

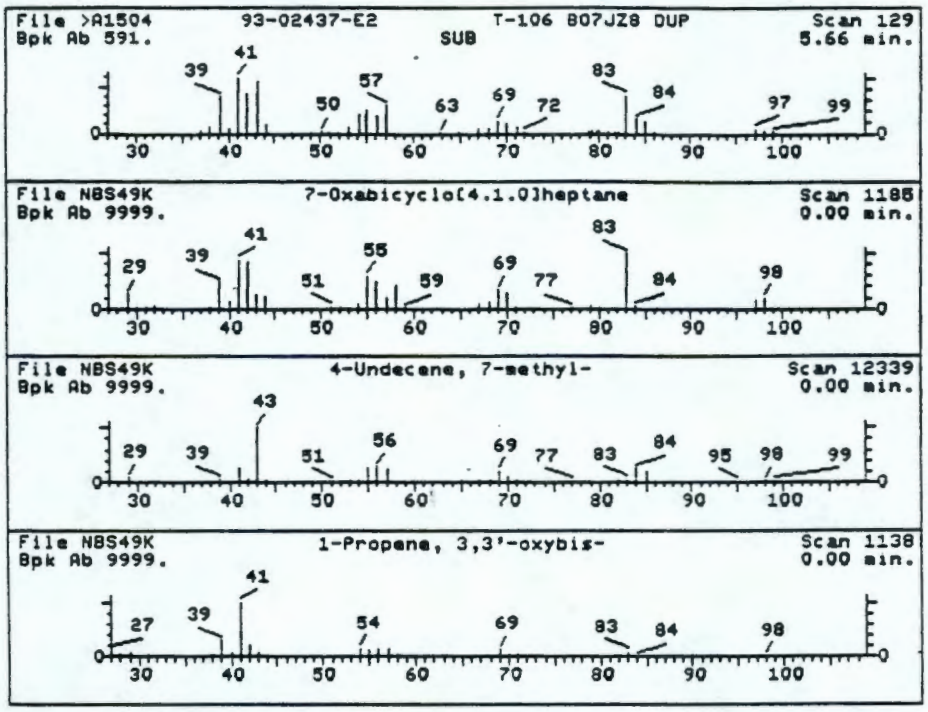
1. 2-Pentanone, 4-hydroxy-4-methyl- 116 C6H12O2

Sample file: >A1504 Spectrum #: 106
Search speed: 3 Tilting option: F No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	47	123422	1790	NBS49K	52	31	2	0	72	22	17	18

A

9613492.1479



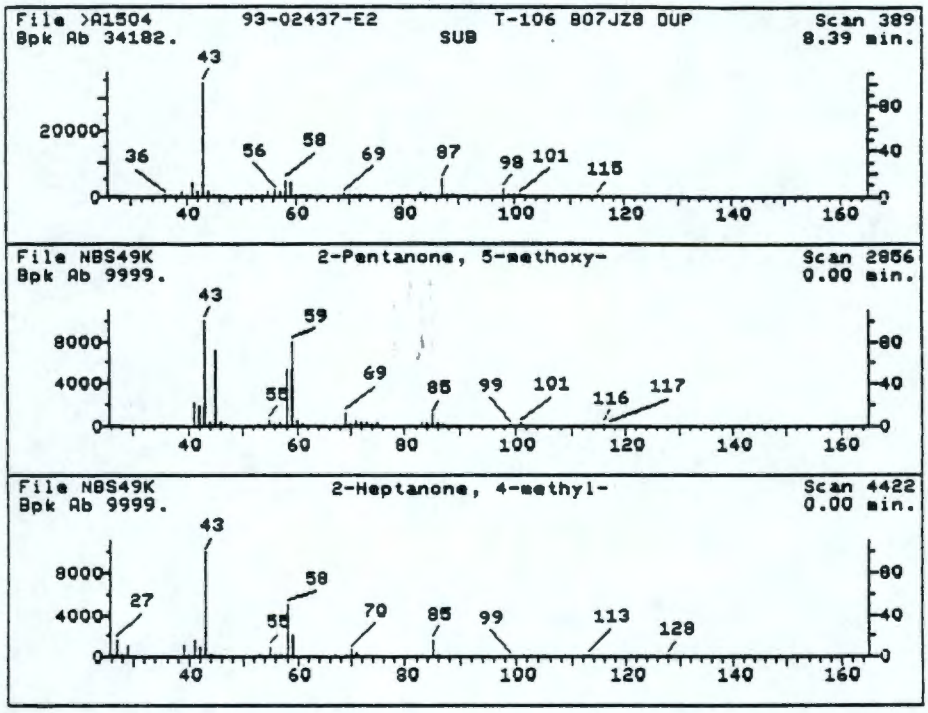
Instrument ID: BNA1 Analyzed on: 1/15/93 15:14
Result 2 in PBM results file: LA1504
Retention Time: 5.66 Area: 64494 Tentative Conc: ~~400.00~~
The unknown area is 30.19% of the nearest internal standard 430 [illegible] 3/2/93

1. 7-Oxabicyclo[4.1.0]heptane	98	C6H10O
2. 4-Undecene, 7-methyl-	168	C12H24
3. 1-Propene, 3,3'-oxybis-	98	C6H10O
4. 1,3-Diazabicyclo[3.1.0]hexane	84	C4H8N2
5. Octane, 3,4-dimethyl-	142	C10H22

Sample file: >A1504 Spectrum #: 129
Search speed: 3 Tilting option: F No. of ion ranges searched: 72

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	30	286204	6142	NBS49K	74	41	2	0	63	44	8	18
2.	25	76441797	6720	NBS49K	46	45	2	0	92	50	7	14

uik



Instrument ID: BNA1 Analyzed on: 1/15/93 15:14
Result 3 in PBM results file: LA1504
Retention Time: 8.39 Area: 256672 Tentative Conc: ~~1600~~.00
The unknown area is 120.14% of the nearest internal standard 1700 [illegible] 3/2/93

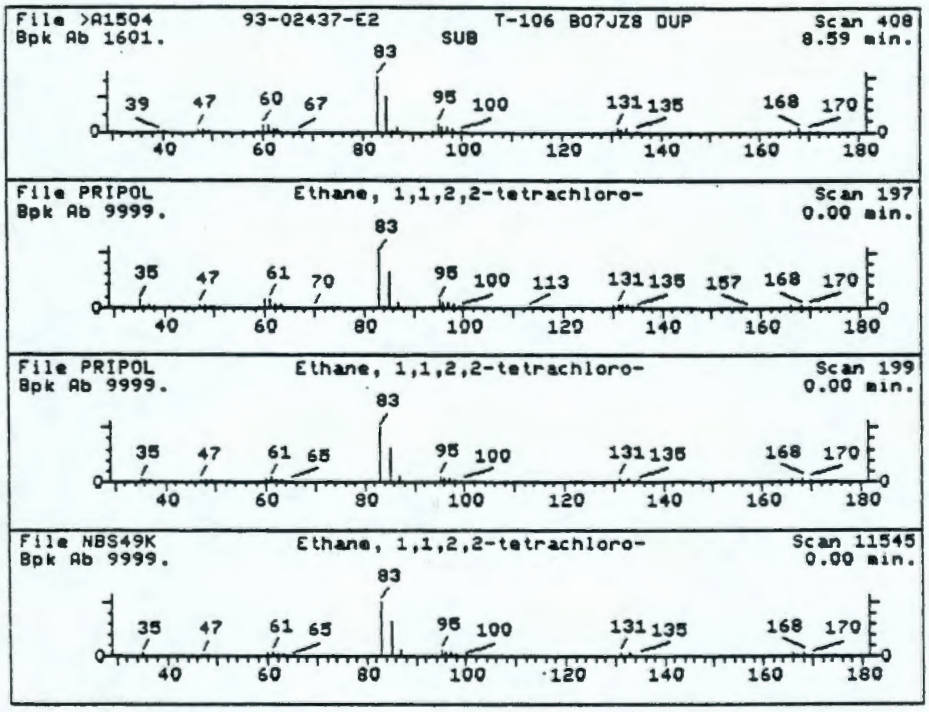
1. 2-Pentanone, 5-methoxy- 116 C6H12O2
2. 2-Heptanone, 4-methyl- 128 C8H16O

Sample file: >A1504 Spectrum #: 389
Search speed: 3 Tilting option: F No. of ion ranges searched: 50

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25*	17429048	1791	NBS49K	24	43	2	0	15	47	7	14

Clk 4

9613492.1481



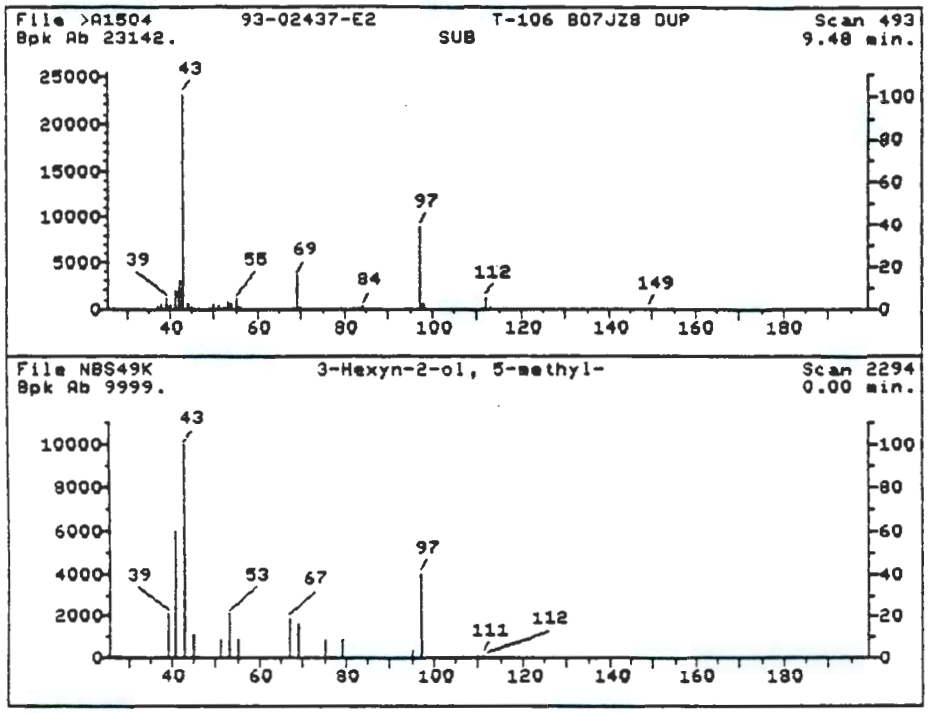
Instrument ID: BNA1 Analyzed on: 1/15/93 15:14
Result 4 in PBM results file: LA1504
Retention Time: 8.59 Area: 22654 Tentative Conc: ~~140.00~~ 150 3/26/93
The unknown area is 10.60% of the nearest internal standard

1. Ethane, 1,1,2,2-tetrachloro- 166 C2H2Cl4
2. Ethane, 1,1,2,2-tetrachloro- 166 C2H2Cl4
3. Ethane, 1,1,2,2-tetrachloro- 166 C2H2Cl4
4. Ethane, 1,1,2,2-tetrachloro- 166 C2H2Cl4
5. Ethane, 1,1,2,2-tetrachloro- 166 C2H2Cl4
6. Ethane, 1,1,2,2-tetrachloro- 166 C2H2Cl4

Sample file: >A1504 Spectrum #: 408
Search speed: 3 Tilting option: F No. of ion ranges searched: 61

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	97*	197	123	PRIPOL	95	21	0	0	70	7	68	97
2.	94*	199	125	PRIPOL	81	22	0	0	82	16	60	94
3.	94*	79345	6716	NBS49K	81	22	0	0	82	16	60	94
4.	89*	198	124	PRIPOL	85	24	1	0	70	6	62	83
5.	85*	195	121	PRIPOL	76	33	0	0	43	43	43	93
6.	70*	196	122	PRIPOL	85	26	2	4	97	16	32	56

F03-332



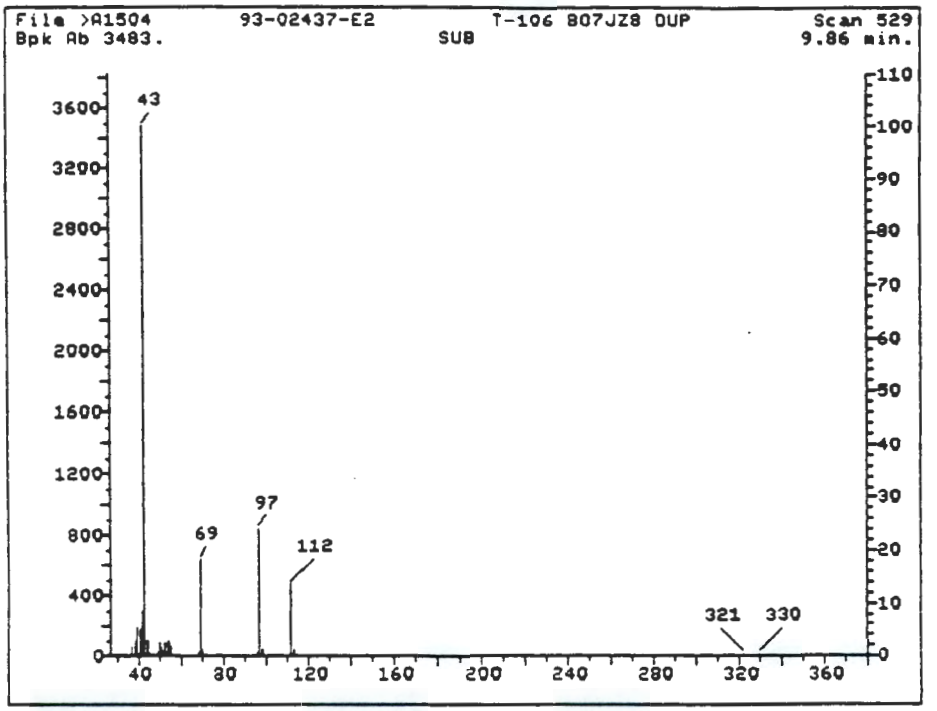
Instrument ID: BNA1 Analyzed on: 1/15/93 15:14
Result 5 in PBM results file: LA1504
Retention Time: 9.48 Area: 206630 Tentative Conc: ~~1300.00~~
The unknown area is 96.72% of the nearest internal standard 1400 [illegible] 3/2/93

1. 3-Hexyn-2-ol, 5-methyl- 112 C7H12O

Sample file: >A1504 Spectrum #: 493
Search speed: 3 Tilting option: F No. of ion ranges searched: 67

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	31*	23293507	9091	NBS49K	26	63	2	0	98	34	12	14

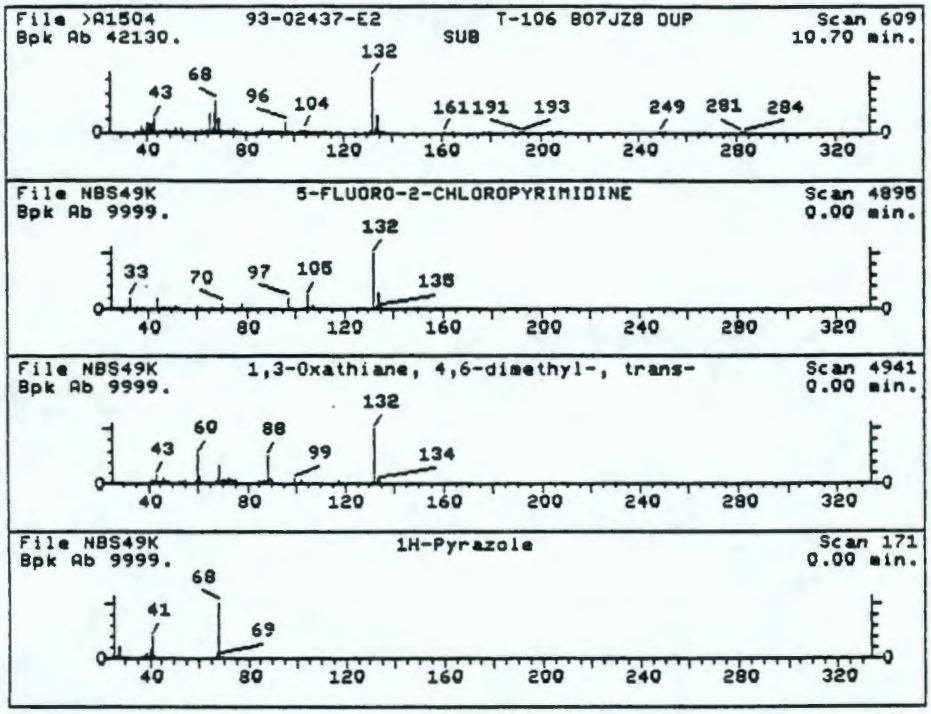
[illegible]



Instrument ID: BNA1 Analyzed on: 1/15/93 15:14
Result 6 in PBM results file: LA1504
Retention Time: 9.86 Area: 27000 Tentative Conc: ~~170.00~~ 150
The unknown area is 12.64% of the nearest internal standard

Sample file: >A1504 Spectrum #: 529

No data base entries were retrieved.



Instrument ID: BNA1 Analyzed on: 1/15/93 15:14
Result 7 in PBM results file: LA1504
Retention Time: 10.70 Area: 679209 Tentative Conc: 4200.00
The unknown area is 317.93% of the nearest internal standard

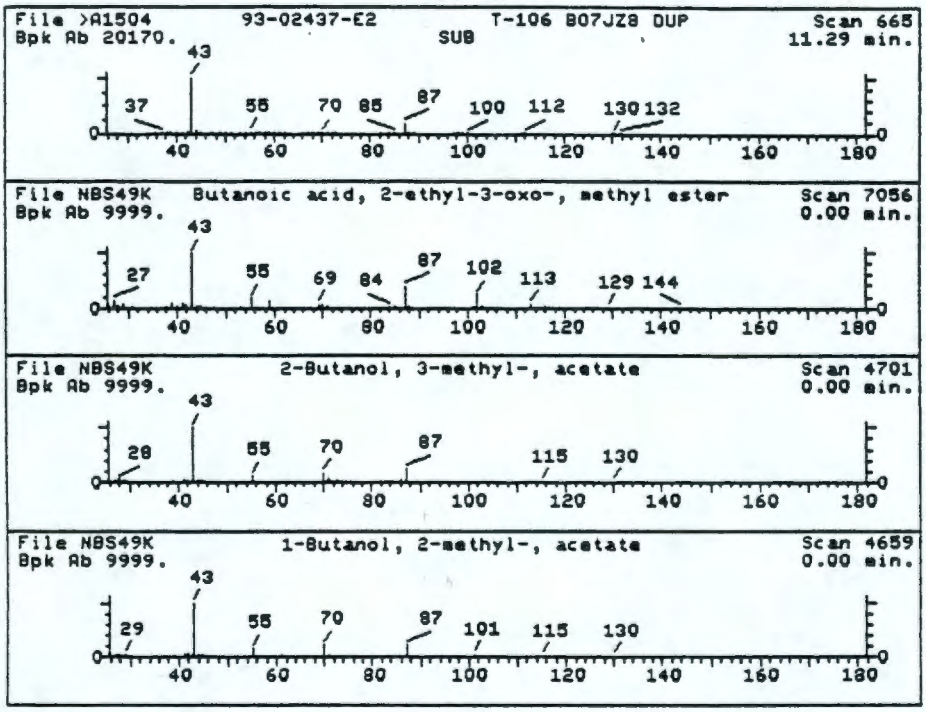
1.	5-FLUORO-2-CHLOROPYRIMIDINE	132	C4H2ClFN2
2.	1,3-Oxathiane, 4,6-dimethyl-, trans-	132	C6H12OS
3.	1H-Pyrazole	68	C3H4N2
4.	2-Azetidinone, 1-[(4-methoxyphenyl)methyl]-3,3-dimethyl-4-phenyl-	295	C19H21NO2
5.	1H-Benzimidazole, 2-methyl-	132	C8H8N2
6.	Benzeneethanamine, .alpha.-methyl-N-(phenylmethylene	223	C16H17N

Sample file: >A1504 Spectrum #: 609
Search speed: 3 Tilting option: F No. of ion ranges searched: 49

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	26*	62802420	15850	NBS49K	35	73	2	0	100	43	8	14
2.	25*	22452262	15866	NBS49K	22	89	2	0	100	49	7	13
3.	23*	288131	3527	NBS49K	44	32	0	-4	82	56	6	40
4.	20*	54833668	16048	NBS49K	34	45	2	0	83	53	5	17
5.	20*	615156	15880	NBS49K	31	68	2	0	91	53	5	14
6.	20*	2980021	16019	NBS49K	26	80	2	0	85	53	5	14

delete - see file >A1403

9613492.1485



Instrument ID: BNA1 Analyzed on: 1/15/93 15:14
Result 8 in PBM results file: LA1504
Retention Time: 11.29 Area: 84367 Tentative Conc: ~~530.00~~ SSO
The unknown area is 39.49% of the nearest internal standard

1. Butanoic acid, 2-ethyl-3-oxo-, methyl ester 144 C7H12O3
2. 2-Butanol, 3-methyl-, acetate 130 C7H14O2
3. 1-Butanol, 2-methyl-, acetate 130 C7H14O2

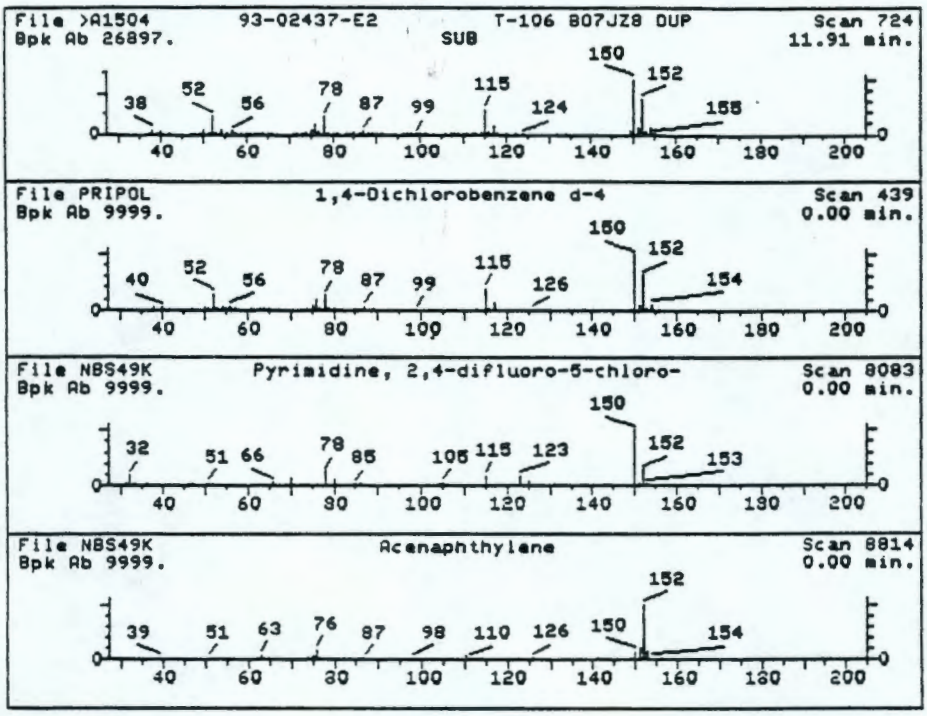
Sample file: >A1504 Spectrum #: 665
Search speed: 3 Tilting option: F No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25*	51756082	7336	NBS49K	22	70	2	0	51	47	7	13
2.	24*	5343964	7303	NBS49K	44	31	2	0	77	52	7	23
3.	20*	624419	7299	NBS49K	37	44	2	0	85	52	5	18

ieuk

F03-336

9613492.1486



Instrument ID: BNA1 Analyzed on: 1/15/93 15:14
Result 9 in PBM results file: LA1504
Retention Time: 11.91 Area: 359223 Tentative Conc: 2200.00
The unknown area is 168.15% of the nearest internal standard

1. 1,4-Dichlorobenzene d-4	150	C6.D4.CL2
2. Pyrimidine, 2,4-difluoro-5-chloro-	150	C4HC1F2N2
3. Acenaphthylene	152	C12H8
4. Ethanone, 1-(2-nitrophenyl)-	165	C8H7NO3
5. Imidazo[5,1-f][1,2,4]triazine-2,7-diamine	150	C5H6N6

Sample file: >A1504 Spectrum #: 724
Search speed: 3 Tilting option: F No. of ion ranges searched: 38

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	97*	439	257	PRIPOL	95	12	0	0	87	7	68	97
2.	25*	25151079	19311	NBS49K	22	78	2	0	100	43	8	13

Calculate - see file >A1403
2/25/93

F03-337

Instrument ID: BNA1 Analyzed on: 1/15/93 15:14

Retention Time: 14.27 Area: 23260 Tentative Conc: 120.00

The unknown area is 9.19% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

Instrument ID: BNA1 Analyzed on: 1/15/93 15:14

Retention Time: 14.38 Area: 22592 Tentative Conc: 120.00

The unknown area is 8.93% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

Instrument ID: BNA1 Analyzed on: 1/15/93 15:14

Retention Time: 25.91 Area: 24676 Tentative Conc: 130.00

The unknown area is 9.46% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

QUANT REPORT

Operator ID: ERIC
Output File: ^A1505::OF
Data File: >A1505::D1
Name: 93-02438-E1
Misc: T-106 B07JZ9

Quant Rev: 7
Quant Time: 930115 16:58
Injected at: 930115 16:10
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 3

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930115 12:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.44	681	32668	40.00	ng/uL	9
2)	2-Fluorophenol	6.76	235	167298	167.26	ng/uL	8
3)	Phenol-d5	10.51	593	218275	182.91	ng/uL	9
4)	Phenol	0.00	0	0	0.00	ng/uL	
5)	bis(2-Chloroethyl)ether	0.00	0	0	0.00	ng/uL	
6)	2-Chlorophenol	0.00	0	0	0.00	ng/uL	
7)	1,3-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
8)	1,4-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	1,2-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	0	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	0.00	852	0	0.00	ng/uL	
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.39	1058	110522	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.23	852	105182	90.93	ng/uL	9
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	0.00	0	0	0.00	ng/uL	
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	0.00	0	0	0.00	ng/uL	
30)	2-Methylnaphthalene	0.00	0	0	0.00	ng/uL	
31)	*Acenaphthene-d10	20.67	1564	53553	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	18.76	1381	139804	87.09	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	1564	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	0.00	0	0	0.00	ng/uL	

43)	2,4-Dinitrophenol	0.00	0	0	0.00 ng/uL	
44)	4-Nitrophenol	0.00	0	0	0.00 ng/uL	
45)	Dibenzofuran	0.00	0	0	0.00 ng/uL	
46)	2,4-Dinitrotoluene	0.00	0	0	0.00 ng/uL	
47)	Diethylphthalate	22.18	1709	1015	.508 ng/uL	9
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00 ng/uL	
49)	Fluorene	0.00	0	0	0.00 ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00 ng/uL	
51)	*Phenanthrene-d10	25.09	1987	94894	40.00 ng/uL	9
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00 ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1790	0	0.00 ng/uL	
54)	2,4,6-Tribromophenol	23.03	1790	40774	121.91 ng/uL	9
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00 ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00 ng/uL	
57)	Pentachlorophenol	0.00	0	0	0.00 ng/uL	
58)	Phenanthrene	0.00	0	0	0.00 ng/uL	
59)	Anthracene	0.00	0	0	0.00 ng/uL	
60)	Di-n-butylphthalate	27.12	2181	2271	.710 ng/uL	9
61)	Fluoranthene	0.00	0	0	0.00 ng/uL	
62)	*Chrysene-d12	32.95	2738	87091	40.00 ng/uL	9
63)	Pyrene	0.00	0	0	0.00 ng/uL	
64)	Terphenyl-d14	29.99	2455	158372	77.62 ng/uL	8
65)	Butylbenzylphthalate	0.00	0	0	0.00 ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00 ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00 ng/uL	
68)	Chrysene	0.00	0	0	0.00 ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	33.38	2779	1750	.781 ng/uL	8
70)	*Perylene-d12	36.87	3112	90725	40.00 ng/uL	9
71)	Di-n-octylphthalate	35.23	2956	2162	.636 ng/uL	9
72)	Benzo(b)fluoranthene	0.00	0	0	0.00 ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00 ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00 ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00 ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00 ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00 ng/uL	

* Compound is ISTD

9613492.1492

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >A1505
CAL CHECK FILE = >A1502
DATE AND TIME OF ANALYSIS = 1/15/93 16:10
MISCELLANEOUS = T-106 B07JZ9
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

I. Areas

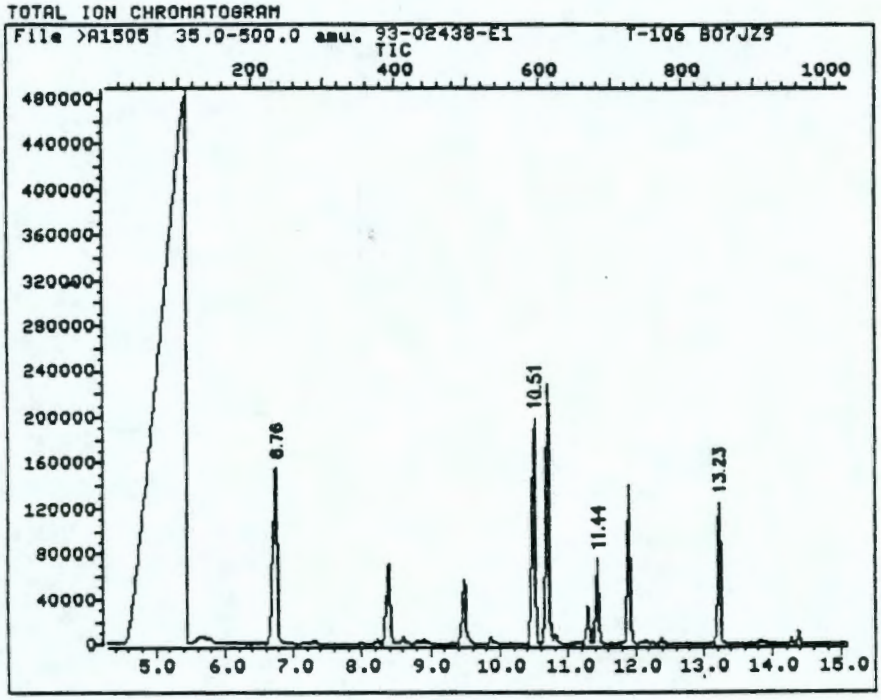
Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	32668	42040	21020	84080	OK
Naphthalene-d8	110522	145283	72641	290566	OK
Acenaphthene-d10	53553	69903	34951	139806	OK
Phenanthrene-d10	94894	127863	63931	255726	OK
Chrysene-d12	87091	100766	50383	201532	OK
Perylene-d12	90725	125861	62930	251722	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.44	11.42	10.92	11.92	OK
Naphthalene-d8	15.39	15.41	14.91	15.91	OK
Acenaphthene-d10	20.67	20.68	20.18	21.18	OK
Phenanthrene-d10	25.09	25.10	24.60	25.60	OK
Chrysene-d12	32.95	32.98	32.48	33.48	OK
Perylene-d12	36.87	36.89	36.39	37.39	OK

9613492.1493

TOTAL ION CHROMATOGRAM



Data File: >A1505::D1
Name: 93-02438-E1
Misc: T-106 B07JZ9

Quant Output File: ^A1505::QF
Instrument ID: BNA1

BTL# 3

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930115 12:23

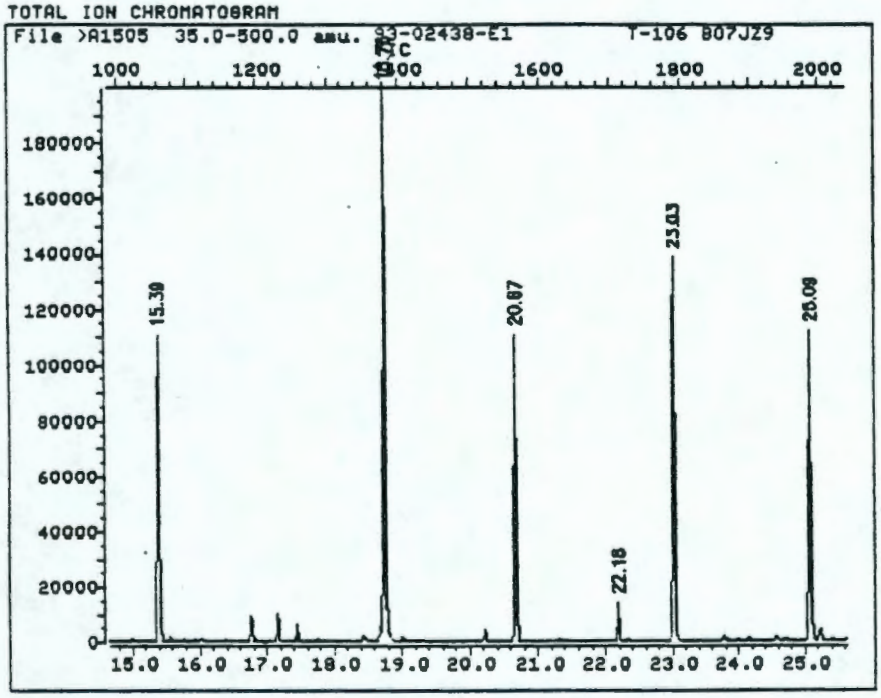
Operator ID: ERIC
Quant Time : 930115 16:58
Injected at: 930115 16:10

Page 1 of 4

F03-344

9613492.1494

TOTAL ION CHROMATOGRAM



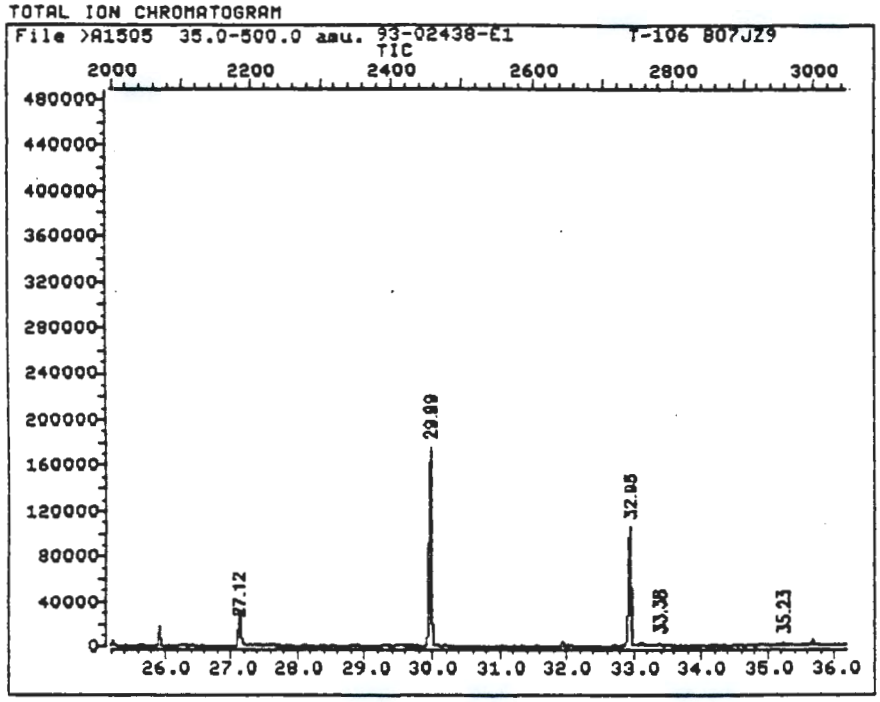
Data File: >A1505::D1 Quant Output File: ^A1505::OF
Name: 93-02438-E1 Instrument ID: BNA1
Misc: T-106 807JZ9 BTL# 3

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 16:58
Injected at: 930115 16:10

Page 2 of 4

TOTAL ION CHROMATOGRAM



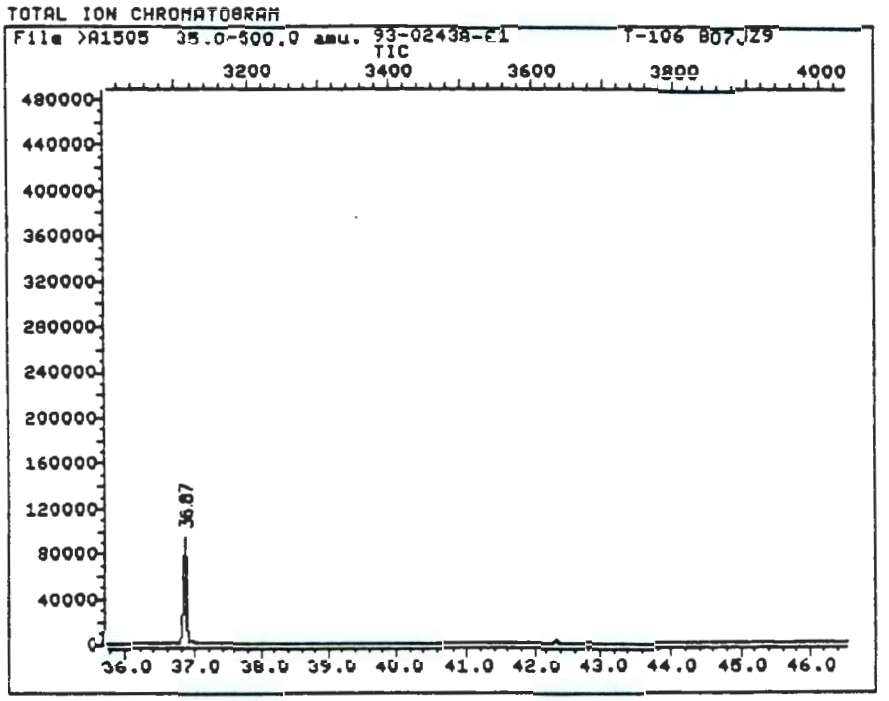
Data File: >A1505::D1 Quant Output File: ^A1505::OF
Name: 93-02438-E1 Instrument ID: BNA1
Misc: T-106 B07JZ9 BTL# 3

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 16:58
Injected at: 930115 16:10

Page 3 of 4

TOTAL ION CHROMATOGRAM



Data File: >A1505::D1 Quant Output File: ^A1505::QF
Name: 93-02438-E1 Instrument ID: BNA1
Misc: T-106 B07JZ9 BTL# 3

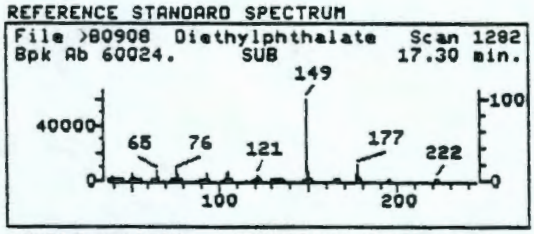
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 16:58
Injected at: 930115 16:10

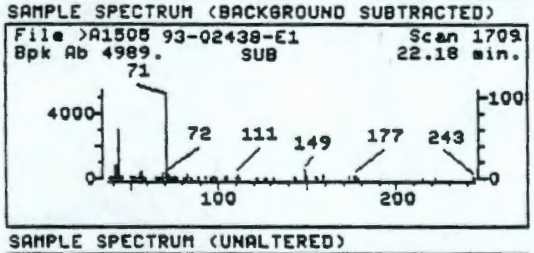
Page 4 of 4

9613492.1497

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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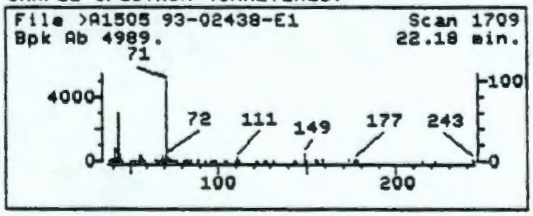
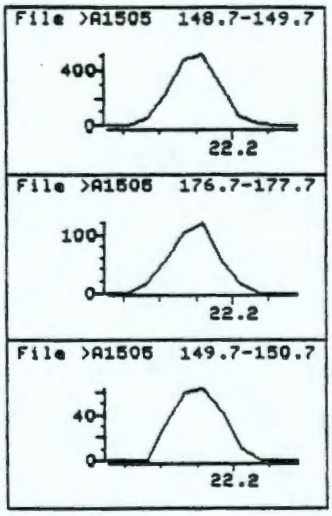




Data File: >A1505::D1
Name: 93-02438-E1
Misc: T-106 B07JZ9
Quant Time: 930115 16:58
Injected at: 930115 16:10
Last Qcal Time: 930115 12:23

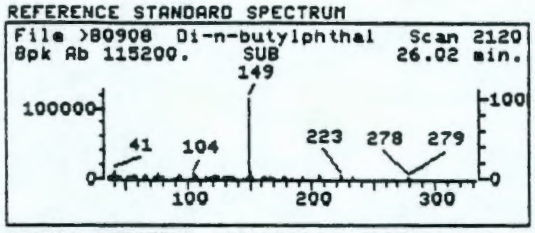
Quant Output File: ^A1505::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 47
Compound Name : Diethylphthalate
Scan Number : 1709
Retention Time: 22.18 min.
Quant Ion : 149.0
Area : 1015
Concentration : .508 ng/uL
q-value : 97

non-detect
AS
10/24/93
Delete

F03-348

REFERENCE STANDARD SPECTRUM



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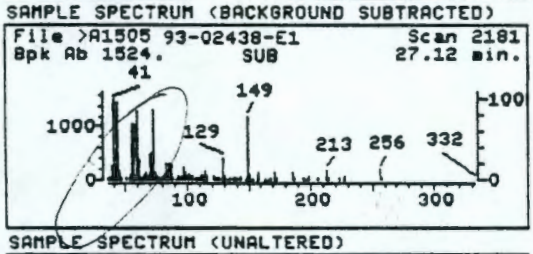

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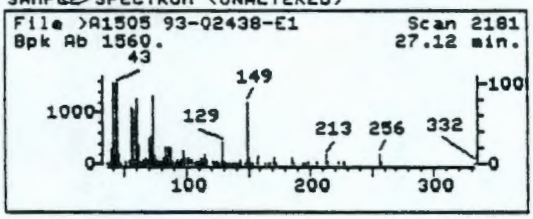
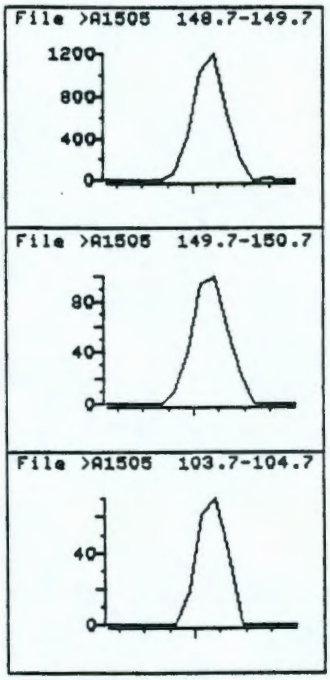




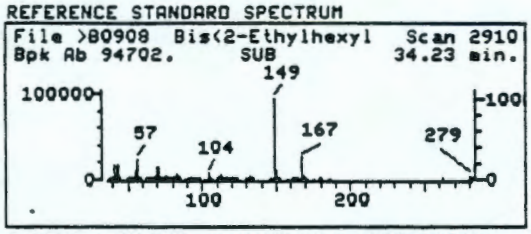
Data File: >A1505::D1
Name: 93-02438-E1
Misc: T-106 B07JZ9
Quant Time: 930115 16:58
Injected at: 930115 16:10
Last Qcal Time: 930115 12:23

Quant Output File: ^A1505::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

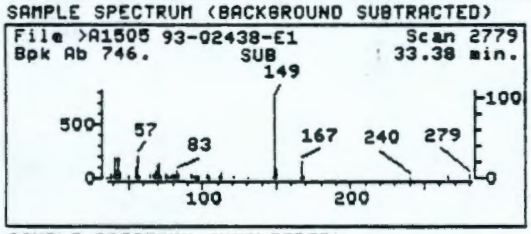
Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2181
Retention Time: 27.12 min.
Quant Ion : 149.0
Area : 2271
Concentration : .710 ng/uL
q-value : 95

non-detect
AS
10/22/93

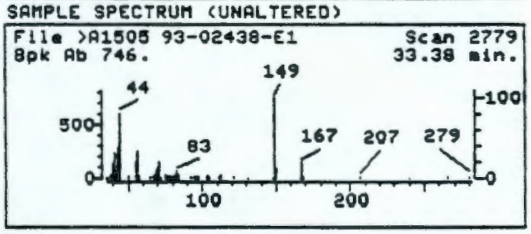
REFERENCE STANDARD SPECTRUM

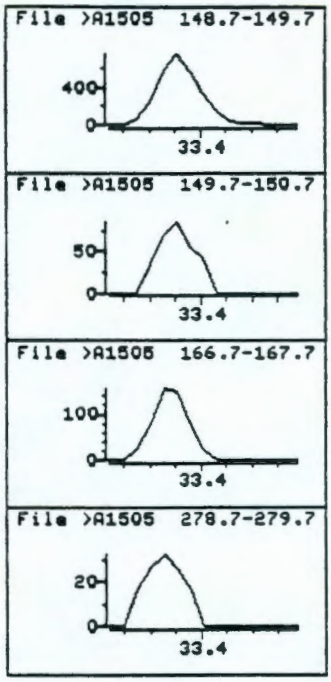


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





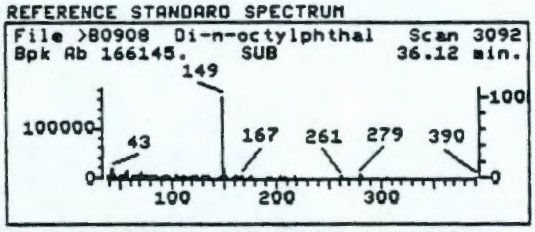
Data File: >A1505::D1
Name: 93-02438-E1
Misc: T-106 B07JZ9
Quant Time: 930115 16:58
Injected at: 930115 16:10
Last Qcal Time: 930115 12:23

Quant Output File: ^A1505::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

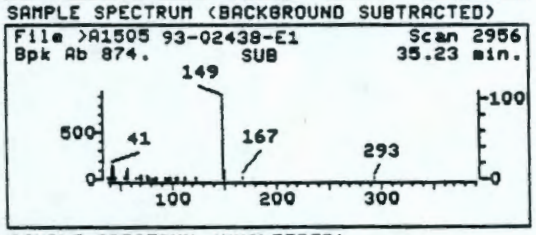
Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2779
Retention Time: 33.38 min.
Quant Ion : 149.0
Area : 1750
Concentration : .781 ng/uL
q-value : 88

AS
10/24/93

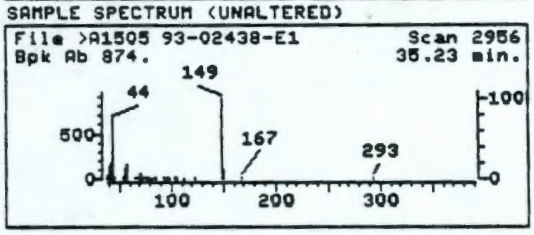
REFERENCE STANDARD SPECTRUM

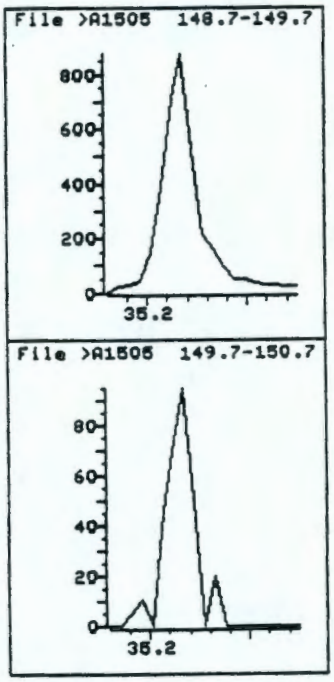


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >A1505::D1
Name: 93-02438-E1
Misc: T-106 B07JZ9
Quant Time: 930115 16:58
Injected at: 930115 16:10
Last Qcal Time: 930115 12:23

Quant Output File: ^A1505::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 2956
Retention Time: 35.23 min.
Quant Ion : 149.0
Area : 2162
Concentration : .636 ng/uL
q-value : 97

A3
10/24/93

9613492.1501

MS data file header from : >A1505::D1

Sample: 93-02438-E1 Operator: ERIC SUPER GRP. 1/15/93 16:10
Misc : T-106 B07JZ9 BTL# 3
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 3 Equip ID: BNA1
Method file: BNAME1 Tuning file: MTBNA1 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	40.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.5	0.0

>A1505 93-02438-E1 T-106 B07JZ9
35.01 500.0 CLP TIC
Upslope: .2000 Area Reject: 22395. Max Peaks: 9 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File IA1505 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	5.45	22	110	116	485872	12435720	12363880	100.00	87.23
2	5.66	117	130	153	5274	105000	60579*	.49	.42
3	8.40	381	392	405	70897	280737	265782	2.15	1.87
4	9.48	484	495	516	56117	231048	216849	1.75	1.53
5	10.71	605	612	619	227701	723783	718413	5.81	5.06
6	11.29	660	667	673	32369	99777	93217	.75	.65
7	11.91	718	726	738	138611	407558	395953	3.20	2.79
8	14.37	956	961	969	10841	29794	24927	.20	.17
9	25.92	2059	2067	2072	17526	41271	33924	.27	.23

Sum of corrected areas: 14173530.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	223954.	11.44	4.30 - 13.41
2	40.0	263046.	15.39	13.41 - 18.03
3	40.0	260184.	20.67	18.03 - 22.88
4	40.0	271612.	25.09	22.88 - 29.02
5	40.0	266377.	32.95	29.02 - 34.91
6	40.0	277565.	36.87	34.91 - 46.53

Dilution Factor = 1.00 This sample was 30.4000 g or mL

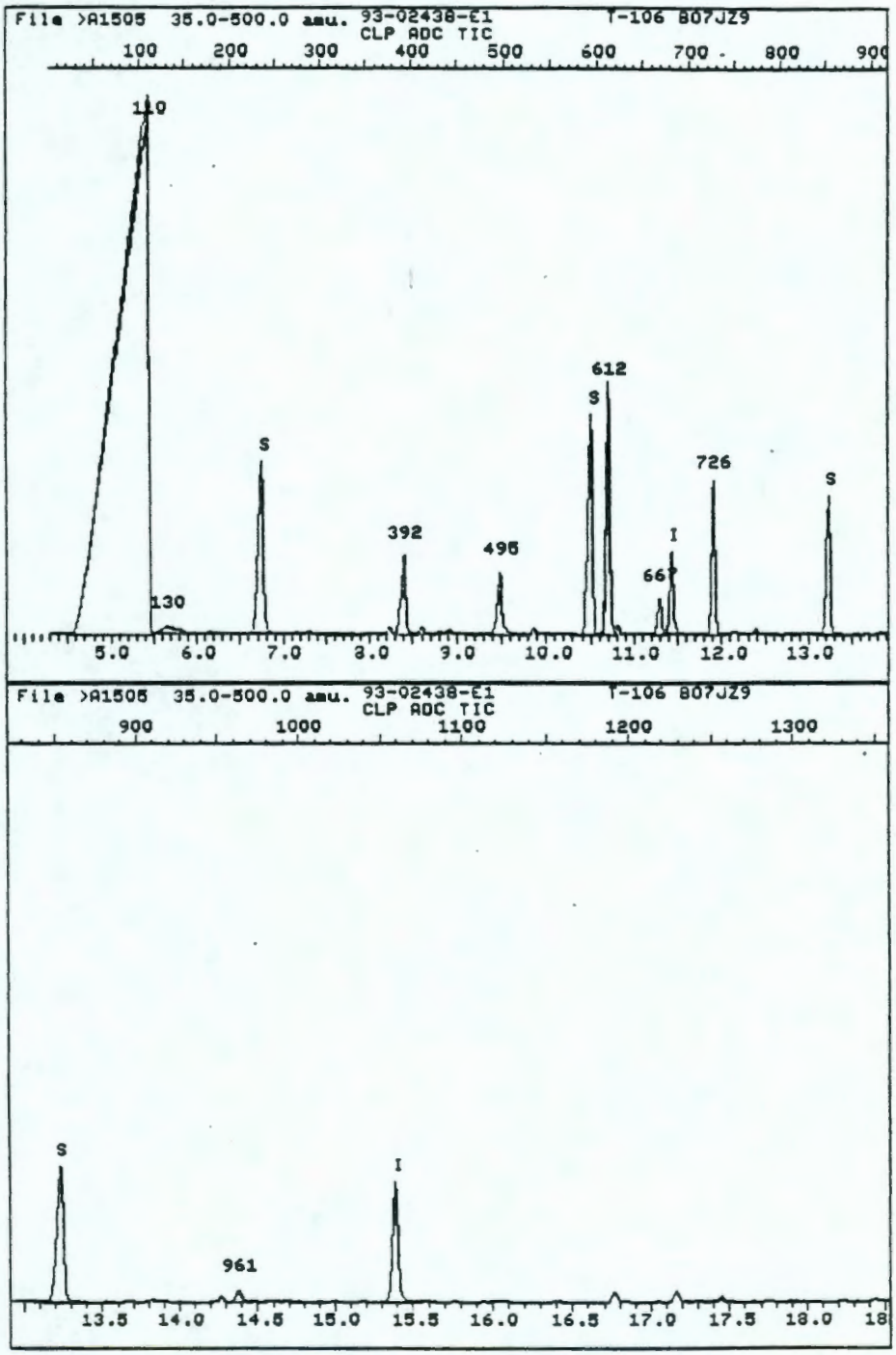
Correction Factor = 65.86 RESULTS OFF BY 2X; SEE FORM 1F

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std} * \text{Area Unknown}}{\text{Area Int Std}} * \text{Correction Factor}$$

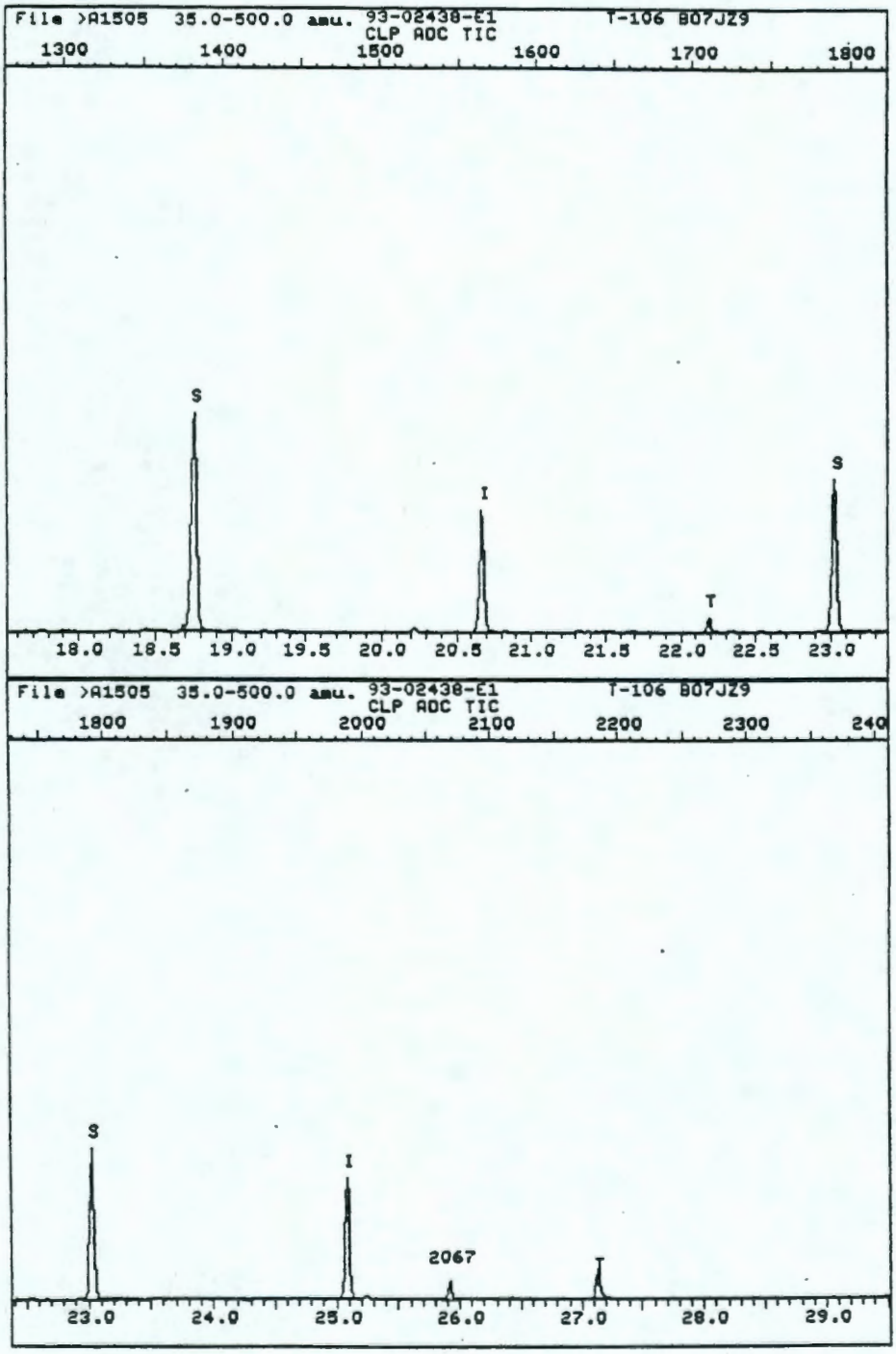
9:41 AM WED., 24 FEB., 1993

Corr: $\frac{\text{value}}{.967}$ = correction for % moisture 3-2-93

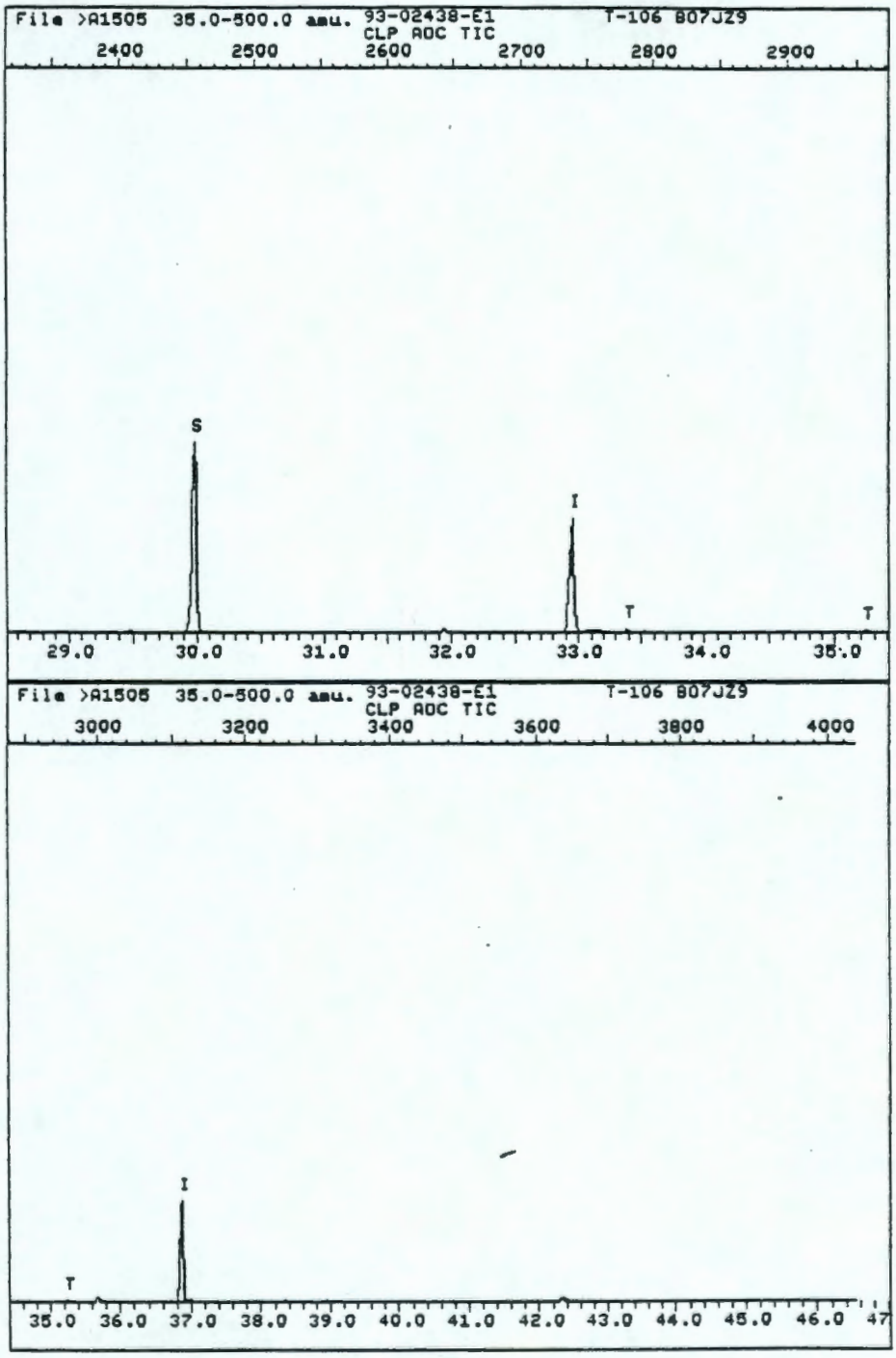
F03-352



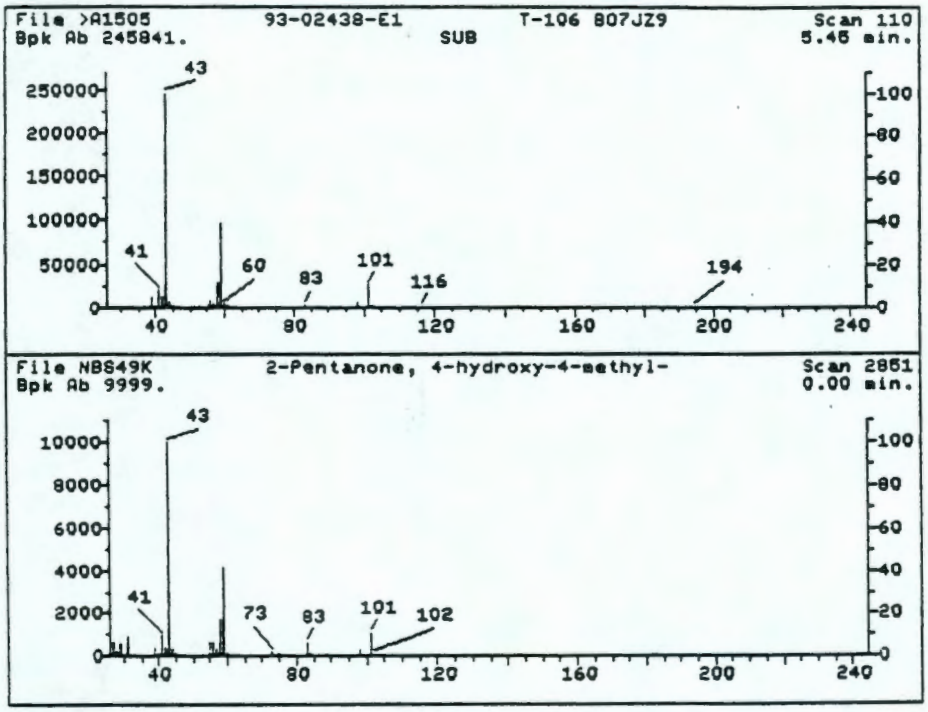
Instrument ID: BNA1 Analyzed on: 1/15/93 16:10



Instrument ID: BNA1 Analyzed on: 1/15/93 16:10



Instrument ID: BNA1 Analyzed on: 1/15/93 16:10



Instrument ID: BNA1 Analyzed on: 1/15/93 16:10
Result 1 in PBM results file: LA1505
Retention Time: 5.45 Area: 12363880 Tentative Conc: ~~150000.00~~ 160000 ppm 1/16/93
The unknown area is 5520.7% of the nearest internal standard

1. 2-Pentanone, 4-hydroxy-4-methyl- 116 C6H12O2

Sample file: >A1505 Spectrum #: 110
Search speed: 3 Tilting option: F No. of ion ranges searched: 111

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	47	123422	1790	NBS49K	52	31	2	0	73	22	17	18

A

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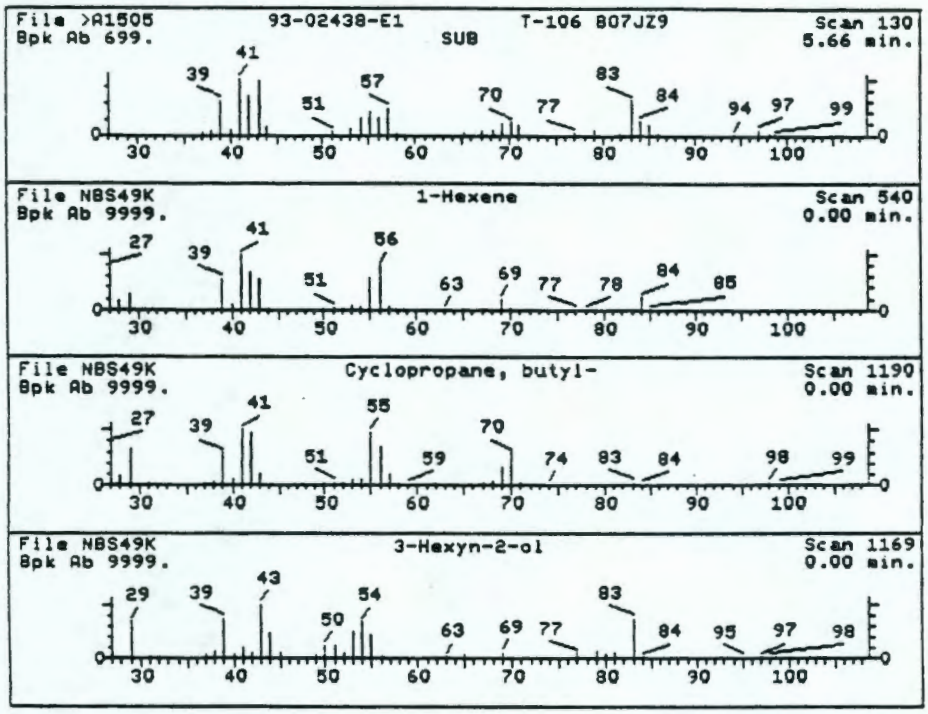


Instrument ID: BNA1 Analyzed on: 1/15/93 16:10
Result 2 in PBM results file: LA1505
Retention Time: 5.66 Area: 60579 Tentative Conc: ~~210~~.00
The unknown area is 27.05% of the nearest internal standard 740 [illegible] 3/2/93

1. 1-Hexene	84	C6H12
2. Cyclopropane, butyl-	98	C7H14
3. 3-Hexyn-2-ol	98	C6H10O
4. 1-Propene, 3-(ethenyloxy)-	84	C5H8O
5. 2-Oxetanone, 4-methylene-	84	C4H4O2
6. Cyclopropane, ethyl-	70	C5H10

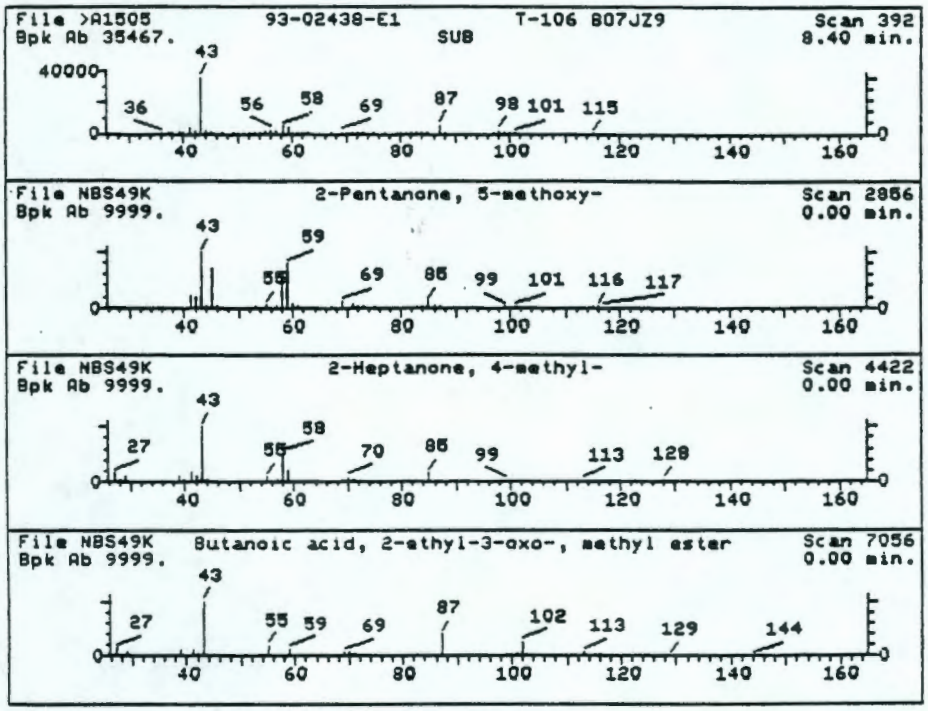
Sample file: >A1505 Spectrum #: 130
Search speed: 3 Tilting option: F No. of ion ranges searched: 65

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	24*	592416	1012	NBS49K	45	57	1	0	71	52	7	23
2.	20*	930574	3848	NBS49K	25	68	0	0	40	52	5	18
3.	20*	109502	667	NBS49K	30	87	3	0	82	54	5	13

[illegible]

F03-357

9613492.1507



Instrument ID: BNA1 Analyzed on: 1/15/93 16:10
Result 3 in PBM results file: LA1505
Retention Time: 8.40 Area: 265782 Tentative Conc: ~~3100.00~~ 3200 1/21/93
The unknown area is 118.68% of the nearest internal standard

1. 2-Pentanone, 5-methoxy- 116 C6H12O2
2. 2-Heptanone, 4-methyl- 128 C8H16O
3. Butanoic acid, 2-ethyl-3-oxo-, methyl ester 144 C7H12O3

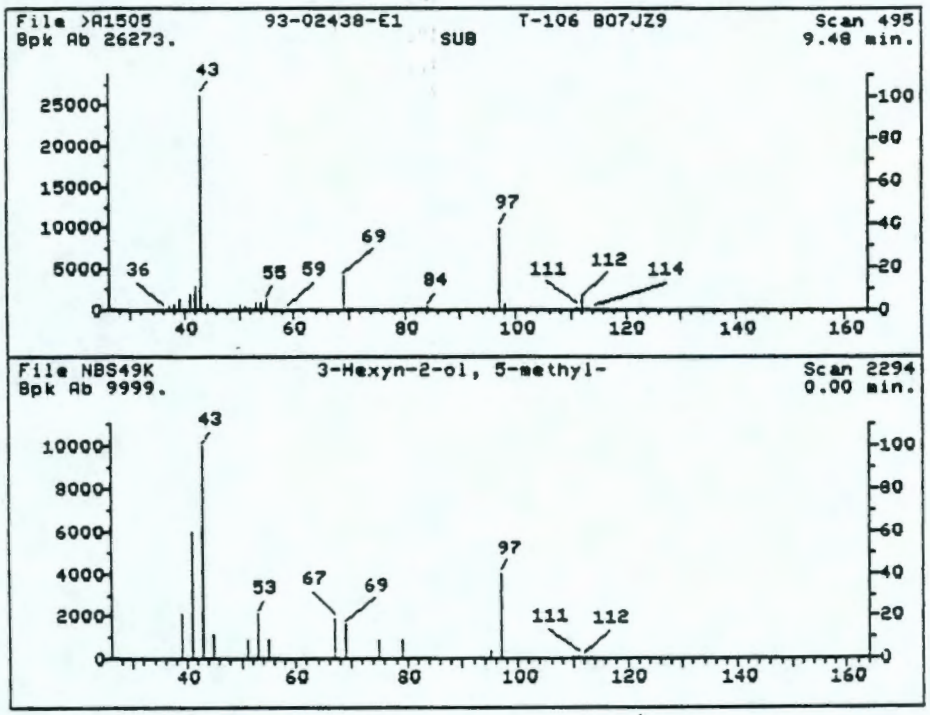
Sample file: >A1505 Spectrum #: 392
Search speed: 3 Tilting option: F No. of ion ranges searched: 49

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	20*	17429048	1791	NBS49K	24	43	2	0	15	52	5	14

cont A

F03-358

9613492.1508



Instrument ID: BNA1 Analyzed on: 1/15/93 16:10
Result 4 in PBM results file: LA1505
Retention Time: 9.48 Area: 216849 Tentative Conc: ~~2600.00~~ 2200 ug/L 1/21/93
The unknown area is 96.83% of the nearest internal standard

1. 3-Hexyn-2-ol, 5-methyl- 112 C7H12O

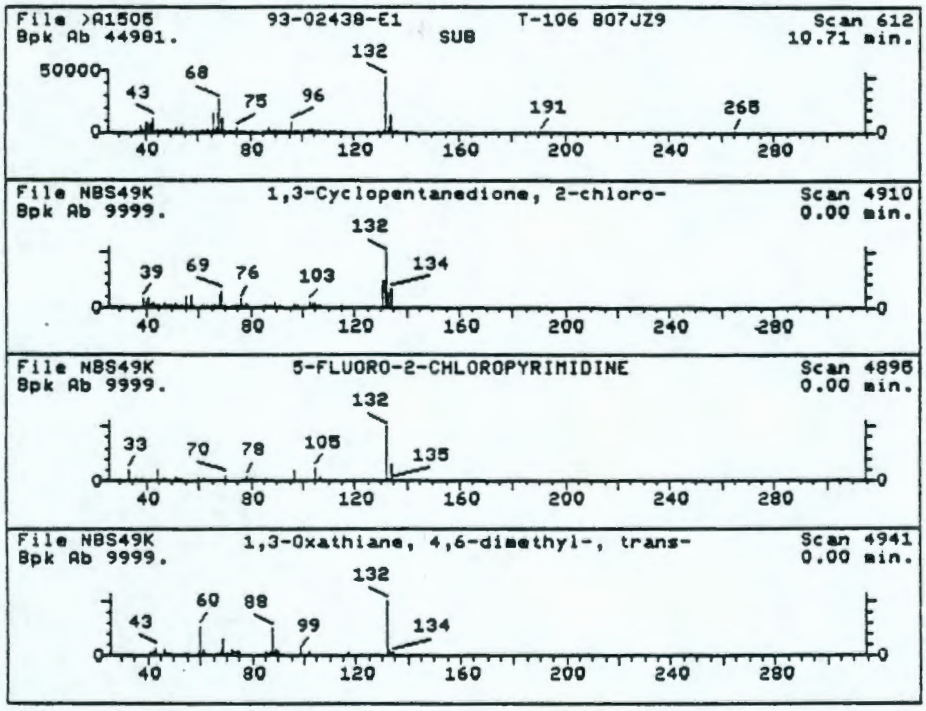
Sample file: >A1505 Spectrum #: 495
Search speed: 3 Tilting option: F No. of ion ranges searched: 47

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	31*	23293507	9091	NBS49K	26	63	2	0	95	34	12	14

mk

F03-359

9613492.1509



Instrument ID: BNA1 Analyzed on: 1/15/93 16:10
Result 5 in PBM results file: LA1505
Retention Time: 10.71 Area: 718413 Tentative Conc: 8500.00
The unknown area is 320.79% of the nearest internal standard

1.	1,3-Cyclopentanedione, 2-chloro-	132	C5H5ClO2
2.	5-FLUORO-2-CHLOROPYRIMIDINE	132	C4H2ClFN2
3.	1,3-Oxathiane, 4,6-dimethyl-, trans-	132	C6H12OS
4.	Benzeneethanamine, .alpha.-methyl-N-(phenylmethylene	223	C16H17N
5.	1H-Pyrazole	68	C3H4N2

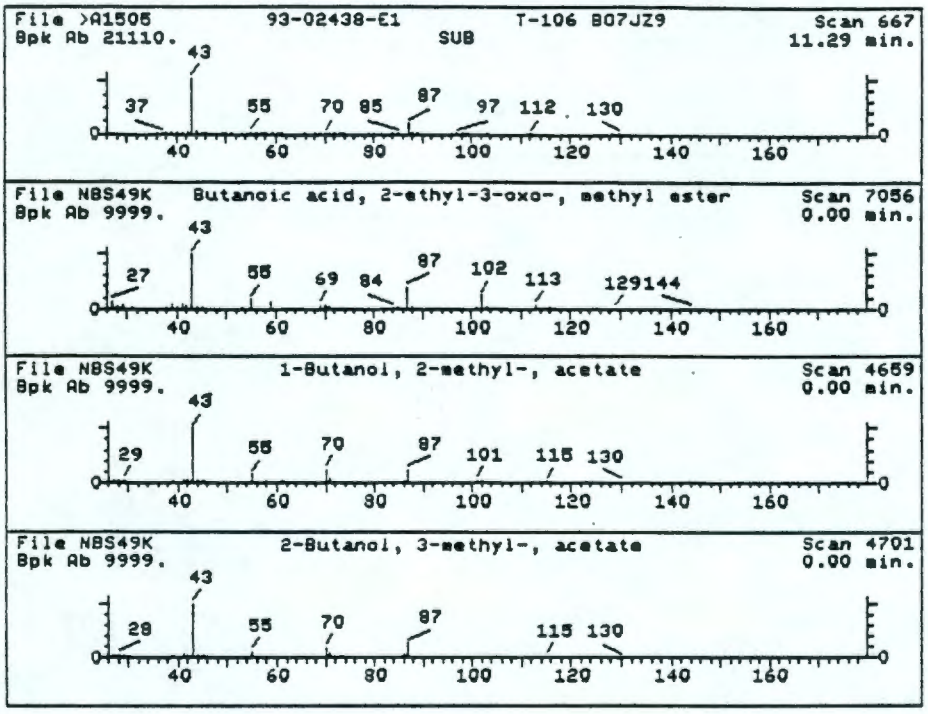
Sample file: >A1505 Spectrum #: 612
Search speed: 3 Tilting option: F No. of ion ranges searched: 35

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	28*	14203191	15856	NBS49K	28	83	2	0	100	36	10	14
2.	26*	62802420	15850	NBS49K	41	67	2	0	100	45	8	14
3.	20*	22452262	15866	NBS49K	21	90	2	0	100	54	5	13

Delete - see data > A1403
[illegible] 2/25/93

F03-360

9613492.1510



Instrument ID: BNA1 Analyzed on: 1/15/93 16:10
Result 6 in PBM results file: LA1505
Retention Time: 11.29 Area: 93217 Tentative Conc: 1100.00
The unknown area is 41.62% of the nearest internal standard n.c. 3/2/93

1. Butanoic acid, 2-ethyl-3-oxo-, methyl ester 144 C7H12O3
2. 1-Butanol, 2-methyl-, acetate 130 C7H14O2
3. 2-Butanol, 3-methyl-, acetate 130 C7H14O2

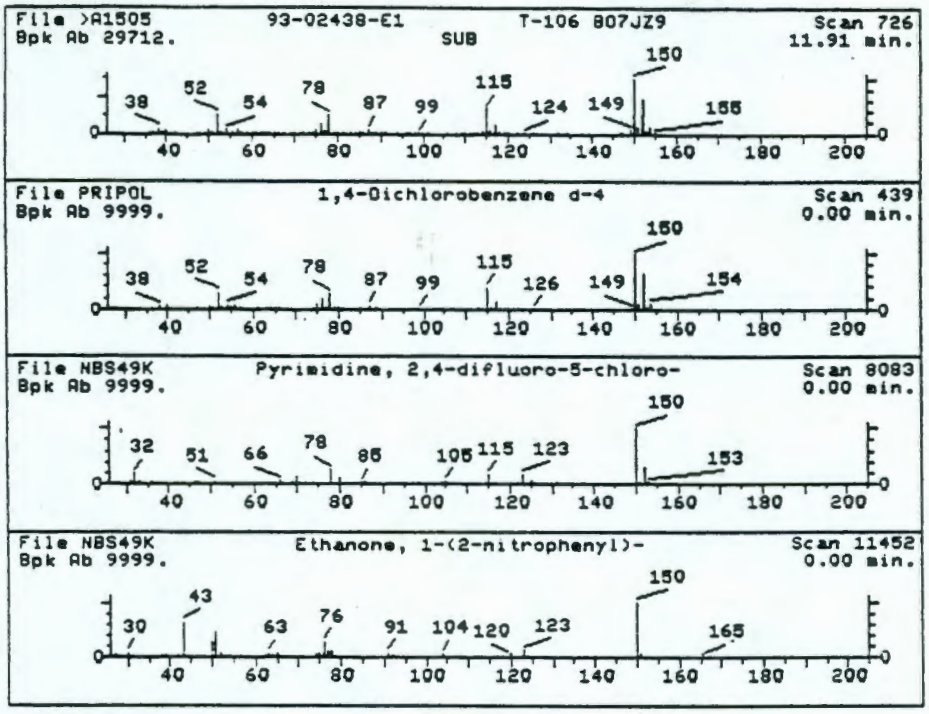
Sample file: >A1505 Spectrum #: 667
Search speed: 3 Tilting option: F No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25*	51756082	7336	NBS49K	22	70	2	0	53	47	7	13
2.	20*	624419	7299	NBS49K	32	49	2	0	89	52	5	16
3.	20*	5343964	7303	NBS49K	39	36	2	0	80	52	5	19

ank

F03-361

9613492.1511



Instrument ID: BNA1 Analyzed on: 1/15/93 16:10
Result 7 in PBM results file: LA1505
Retention Time: 11.91 Area: 395953 Tentative Conc: 4700.00
The unknown area is 176.80% of the nearest internal standard

1. 1,4-Dichlorobenzene d-4	150	C6.D4.CL2
2. Pyrimidine, 2,4-difluoro-5-chloro-	150	C4HClF2N2
3. Ethanone, 1-(2-nitrophenyl)-	165	C8H7NO3
4. Acenaphthylene	152	C12H8
5. Imidazo[5,1-f][1,2,4]triazine-2,7-diamine	150	C5H6N6
6. 6H-Purin-6-one, 1,7-dihydro-1-methyl-	150	C6H6N4O

Sample file: >A1505 Spectrum #: 726
Search speed: 3 Tilting option: F No. of ion ranges searched: 37

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	97*	439	257	PRIPOL	95	12	0	0	91	7	68	97
2.	25*	25151079	19311	NBS49K	22	78	2	0	100	43	8	13
3.	20*	577593	19423	NBS49K	24	77	3	0	100	53	5	12

dilute - see data >A1403

F03-362

Instrument ID: BNA1 Analyzed on: 1/15/93 16:10

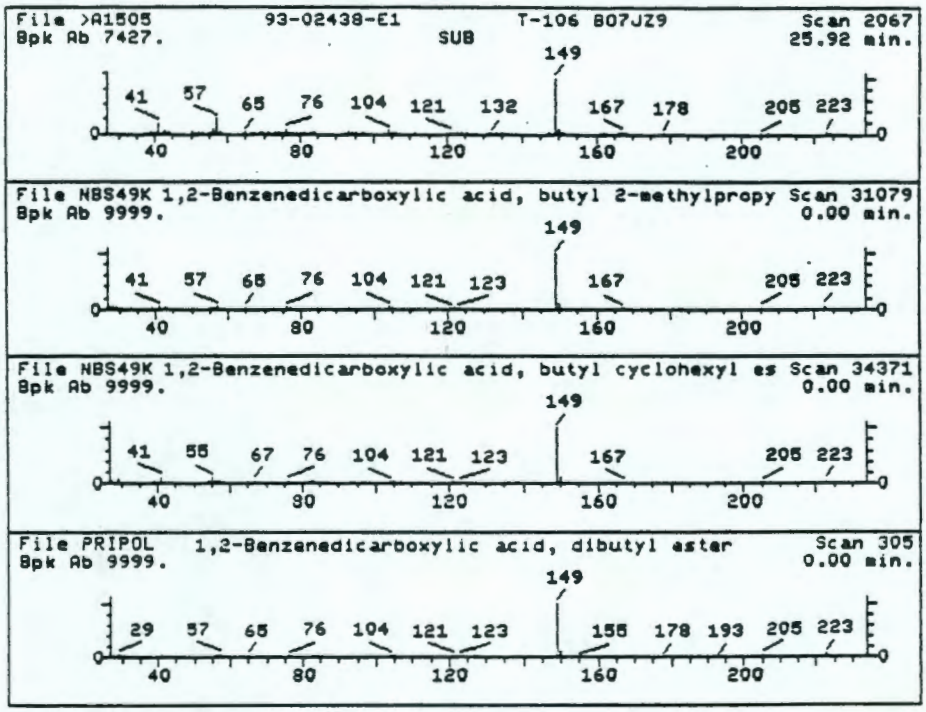
Retention Time: 14.37 Area: 24927 Tentative Conc: 250.00

The unknown area is 9.48% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

9613492.1513



Instrument ID: BNA1 Analyzed on: 1/15/93 16:10
Result 8 in PBM results file: LA1505
Retention Time: 25.92 Area: 33924 Tentative Conc: ~~330.00~~ 340 [illegible] 3/2/93
The unknown area is 12.49% of the nearest internal standard

1. 1,2-Benzenedicarboxylic acid, butyl 2-methylpropyl e ster 278 C16H2204
2. 1,2-Benzenedicarboxylic acid, butyl cyclohexyl ester 304 C18H2404
3. 1,2-Benzenedicarboxylic acid, dibutyl ester 278 C16H2204
4. 1,2-Benzenedicarboxylic acid, dipropyl ester 250 C14H1804
5. 1,2-Benzenedicarboxylic acid, bis(2-methoxyethyl) es ter 282 C14H1806

Sample file: >A1505 Spectrum #: 2067
Search speed: 3 Tilting option: F No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	79	17851535	19272	NBS49K	76	30	1	2	67	6	48	31
2.	78	84640	19279	NBS49K	59	49	2	0	100	4	55	12
3.	70	305	233	PRIPOL	63	41	2	2	100	10	42	14
4.	60	131168	19265	NBS49K	54	48	2	0	100	12	30	12
5.	32	117828	19276	NBS49K	68	35	1	3	51	44	12	23

[illegible]

F03-364

QUANT REPORT

Operator ID: ERIC
Output File: ^A1506::OF
Data File: >A1506::D1
Name: 93-02438-E2
Misc: T-106 B07JZ9 DUP

Quant Rev: 7
Quant Time: 930115 17:55
Injected at: 930115 17:06
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 4

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930115 12:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.44	684	32302	40.00	ng/uL	98
2)	2-Fluorophenol	6.75	237	161623	163.41	ng/uL	88
3)	Phenol-d5	10.51	596	214038	181.40	ng/uL	94
4)	Phenol	0.00	0	0	0.00	ng/uL	
5)	bis(2-Chloroethyl)ether	0.00	0	0	0.00	ng/uL	
6)	2-Chlorophenol	0.00	0	0	0.00	ng/uL	
7)	1,3-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
8)	1,4-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	1,2-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	0	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	0.00	855	0	0.00	ng/uL	
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.39	1061	107345	40.00	ng/uL	99
17)	Nitrobenzene-d5	13.23	855	100448	89.40	ng/uL	97
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	0.00	0	0	0.00	ng/uL	
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	0.00	0	0	0.00	ng/uL	
30)	2-Methylnaphthalene	0.00	0	0	0.00	ng/uL	
31)	*Acenaphthene-d10	20.67	1568	52059	40.00	ng/uL	98
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	18.76	1384	132699	85.04	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	1568	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	0.00	0	0	0.00	ng/uL	

43)	2,4-Dinitrophenol	0.00	0	0	0.00 ng/uL	
44)	4-Nitrophenol	0.00	0	0	0.00 ng/uL	
45)	Dibenzofuran	0.00	0	0	0.00 ng/uL	
46)	2,4-Dinitrotoluene	0.00	0	0	0.00 ng/uL	
47)	Diethylphthalate	0.00	0	0	0.00 ng/uL	
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00 ng/uL	
49)	Fluorene	0.00	0	0	0.00 ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00 ng/uL	
51)	*Phenanthrene-d10	25.09	1991	92273	40.00 ng/uL	9
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00 ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1794	0	0.00 ng/uL	
54)	2,4,6-Tribromophenol	23.03	1794	40753	125.31 ng/uL	9
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00 ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00 ng/uL	
57)	Pentachlorophenol	0.00	0	0	0.00 ng/uL	
58)	Phenanthrene	0.00	0	0	0.00 ng/uL	
59)	Anthracene	0.00	0	0	0.00 ng/uL	
60)	Di-n-butylphthalate	27.11	2185	1449	.466 ng/uL	9
61)	Fluoranthene	0.00	0	0	0.00 ng/uL	
62)	*Chrysene-d12	32.95	2743	84101	40.00 ng/uL	9
63)	Pyrene	0.00	0	0	0.00 ng/uL	
64)	Terphenyl-d14	29.99	2460	151640	76.96 ng/uL	8
65)	Butylbenzylphthalate	0.00	0	0	0.00 ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00 ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00 ng/uL	
68)	Chrysene	0.00	0	0	0.00 ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	33.38	2784	2237	1.03 ng/uL	9
70)	*Perylene-d12	36.87	3117	87833	40.00 ng/uL	9
71)	Di-n-octylphthalate	35.23	2961	1885	.573 ng/uL	9
72)	Benzo(b)fluoranthene	0.00	0	0	0.00 ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00 ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00 ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00 ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00 ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00 ng/uL	

* Compound is ISTD

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >A1506
CAL CHECK FILE = >A1502
DATE AND TIME OF ANALYSIS = 1/15/93 17:06
MISCELLANEOUS = T-106 B07JZ9 DUP
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

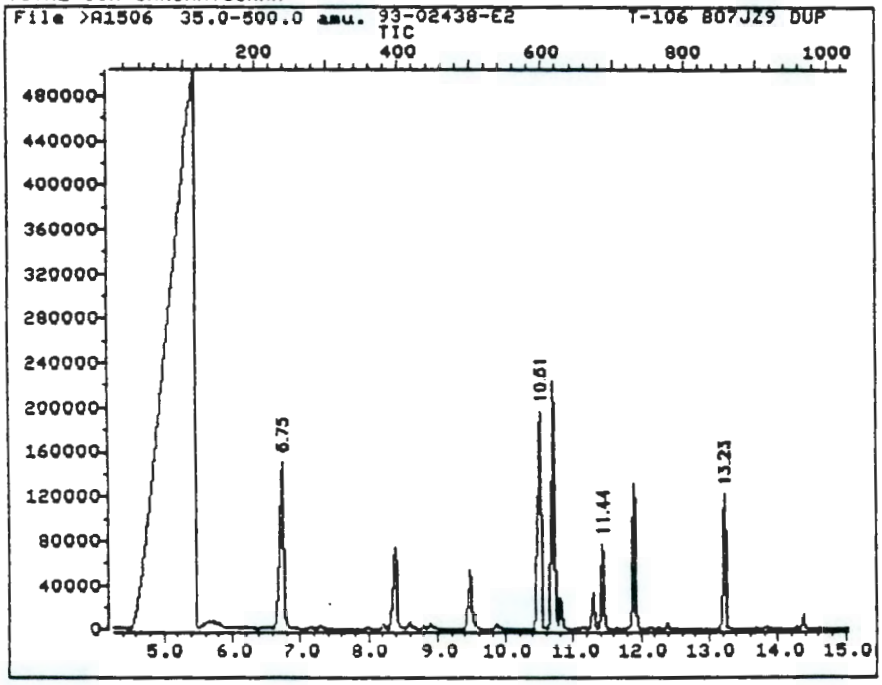
I. Areas

Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	32302	42040	21020	84080	OK
Naphthalene-d8	107345	145283	72641	290566	OK
Acenaphthene-d10	52059	69903	34951	139806	OK
Phenanthrene-d10	92273	127863	63931	255726	OK
Chrysene-d12	84101	100766	50383	201532	OK
Perylene-d12	87833	125861	62930	251722	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.44	11.42	10.92	11.92	OK
Naphthalene-d8	15.39	15.41	14.91	15.91	OK
Acenaphthene-d10	20.67	20.68	20.18	21.18	OK
Phenanthrene-d10	25.09	25.10	24.60	25.60	OK
Chrysene-d12	32.95	32.98	32.48	33.48	OK
Perylene-d12	36.87	36.89	36.39	37.39	OK

TOTAL ION CHROMATOGRAM



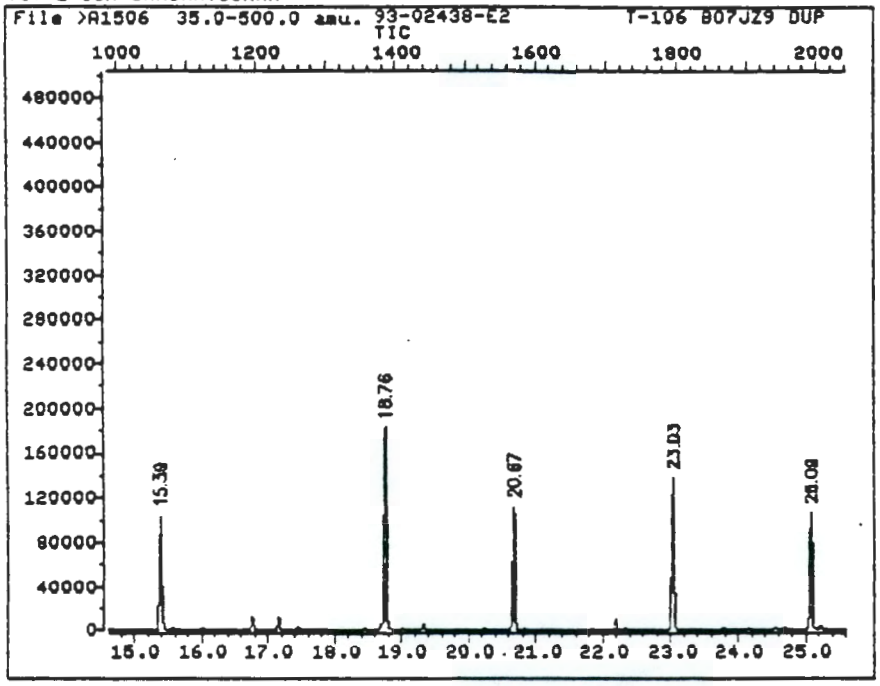
Data File: >A1506::D1 Quant Output File: ^A1506::OF
Name: 93-02438-E2 Instrument ID: BNA1
Misc: T-106 807JZ9 DUP BTL# 4

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 17:55
Injected at: 930115 17:06

Page 1 of 4

TOTAL ION CHROMATOGRAM



Data File: >A1506::D1
Name: 93-02438-E2
Misc: T-106 B07JZ9 DUP

Quant Output File: ^A1506::OF
Instrument ID: BNA1

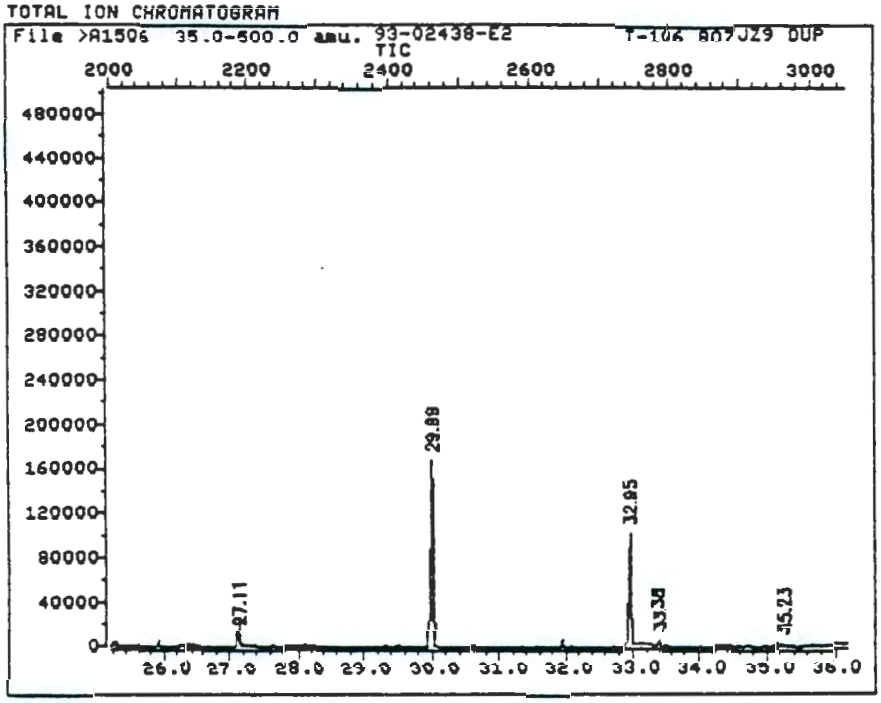
BTL# 4

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 17:55
Injected at: 930115 17:06

TOTAL ION CHROMATOGRAM

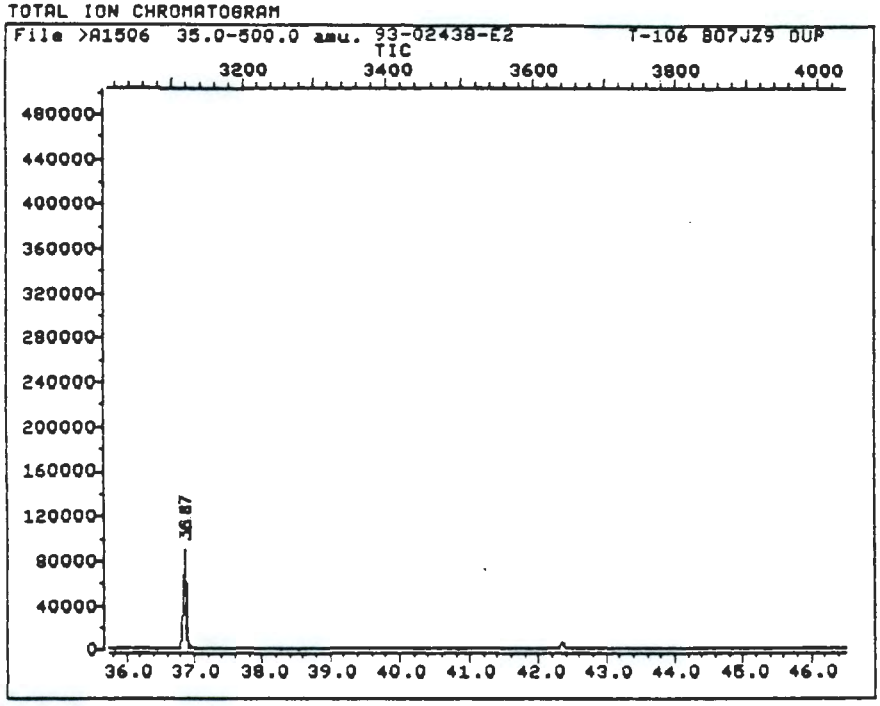


Data File: >A1506::D1 Quant Output File: ^A1506::OF
Name: 93-02438-E2 Instrument ID: BNA1
Misc: T-106 B07JZ9 DUP BTL# 4

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 17:55
Injected at: 930115 17:06

TOTAL ION CHROMATOGRAM

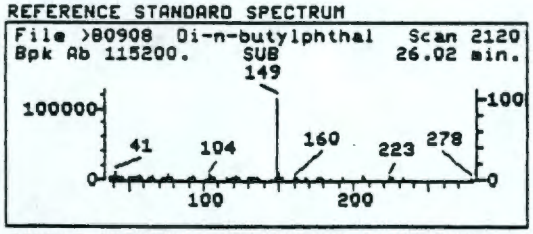


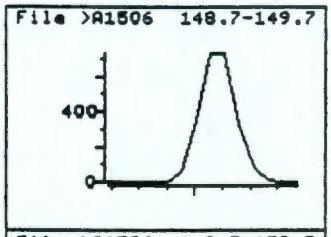
Data File: >A1506::D1 Quant Output File: ^A1506::QF
Name: 93-02438-E2 Instrument ID: BNA1
Misc: T-106 B07JZ9 DUP BTL# 4

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930115 12:23

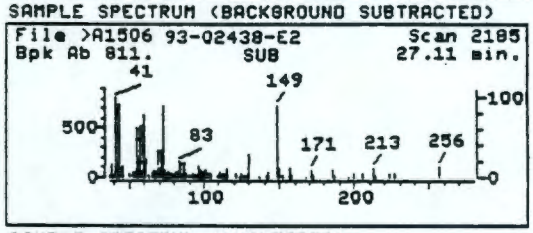
Operator ID: ERIC
Quant Time : 930115 17:55
Injected at: 930115 17:06

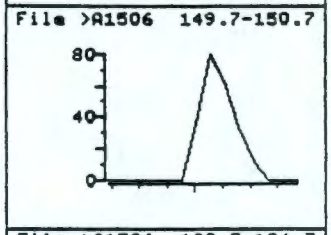
REFERENCE STANDARD SPECTRUM



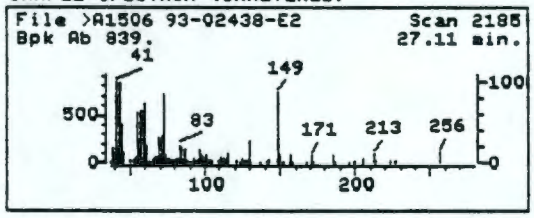


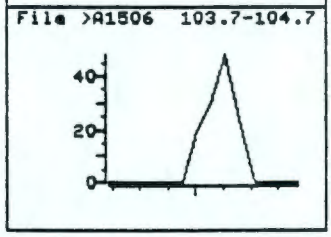
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





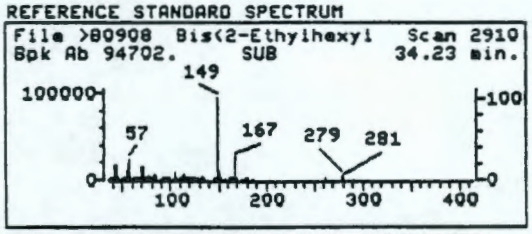
Data File: >A1506::D1
Name: 93-02438-E2
Misc: T-106 B07JZ9 DUP
Quant Time: 930115 17:55
Injected at: 930115 17:06
Last Qcal Time: 930115 12:23

Quant Output File: ^A1506::DF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2185
Retention Time: 27.11 min.
Quant Ion : 149.0
Area : 1449
Concentration : .466 ng/uL
q-value : 97

slit

REFERENCE STANDARD SPECTRUM



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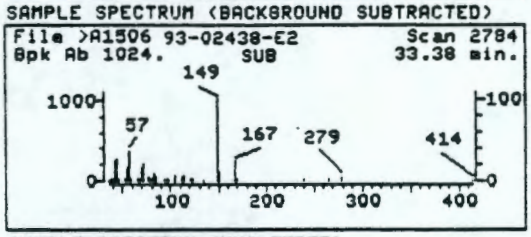

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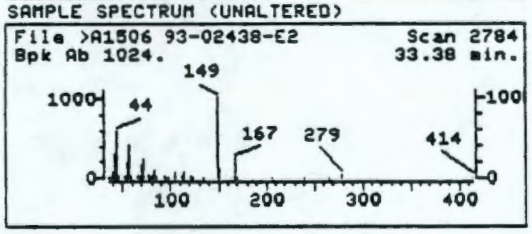
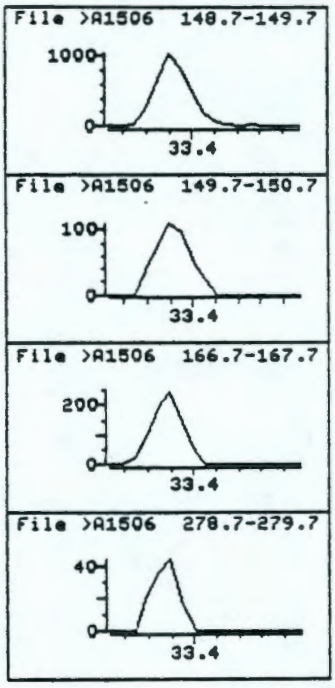


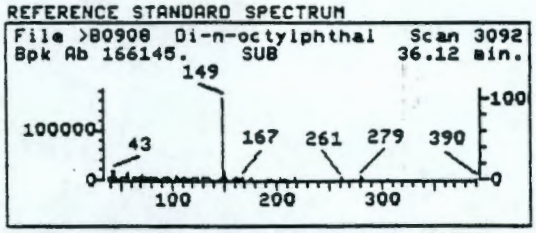


Data File: >A1506::D1
Name: 93-02438-E2
Misc: T-106 B07JZ9 DUP
Quant Time: 930115 17:55
Injected at: 930115 17:06
Last Qcal Time: 930115 12:23

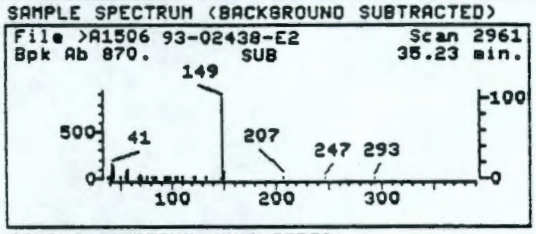
Quant Output File: ^A1506::QF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2784
Retention Time: 33.38 min.
Quant Ion : 149.0
Area : 2237
Concentration : 1.03 ng/uL
q-value : 94

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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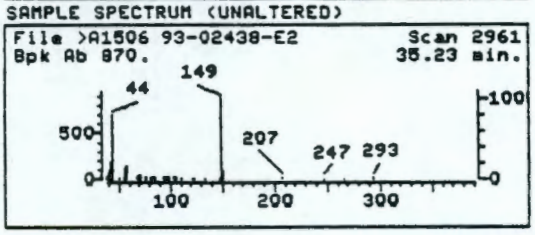
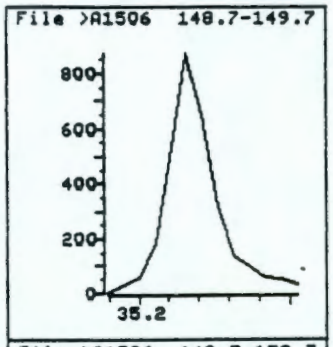
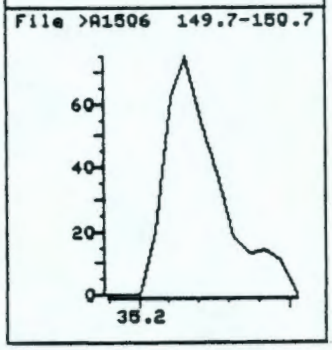






Data File: >A1506::D1
Name: 93-02438-E2
Misc: T-106 B07JZ9 DUP
Quant Time: 930115 17:55
Injected at: 930115 17:06
Last Qcal Time: 930115 12:23

Quant Output File: ^A1506::OF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 2961
Retention Time: 35.23 min.
Quant Ion : 149.0
Area : 1885
Concentration : .573 ng/uL
q-value : 96

dela

9613492.1524

MS data file header from : >A1506::D1

Sample: 93-02438-E2 Operator: ERIC SUPER GRP. 1/15/93 17:06
Misc : T-106 B07JZ9 DUP BTL# 4
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 4 Equip ID: BNA1
Method file: BNAME1 Tuning file: MTBNA1 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	40.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.5	0.0

>A1506 93-02438-E2 T-106 B07JZ9 DUP
35.01 500.0 CLP TIC
Upslope: .2000 Area Reject: 22908. Max Peaks: 12 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File IA1506 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	5.47	24	115	120	501149	13494024	13423870	100.00	87.49
2	5.66	121	133	164	6056	121260	79496*	.59	.51
3	8.41	384	395	407	72824	294758	281370	2.10	1.83
4	8.60	407	414	427	5513	30770	22924	.17	.14
5	9.49	488	498	519	52965	212702	201061	1.50	1.31
6	10.71	607	615	621	223063	716120	711998	5.30	4.64
7	10.82	621	625	636	26719	72272	65918*	.49	.43
8	11.29	663	670	677	32265	99645	94528	.70	.61
9	11.91	709	729	739	130598	395514	383362	2.86	2.49
10	14.37	960	964	971	13233	33134	29601	.22	.19
11	16.76	1186	1193	1198	11239	27756	24663	.18	.16
12	42.34	3632	3639	3652	5120	42048	24110	.18	.15

Sum of corrected areas: 15342904.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	229084.	11.44	4.27 - 13.41
2	40.0	257262.	15.39	13.41 - 18.03
3	40.0	252740.	20.67	18.03 - 22.88
4	40.0	263656.	25.09	22.88 - 29.02
5	40.0	255881.	32.95	29.02 - 34.91
6	40.0	270543.	36.87	34.91 - 46.51

Dilution Factor = 1.00 This sample was 30.0000 g or mL

Correction Factor = 66.73 TIC RESULTS OFF BY 2X; SEE FORM IF

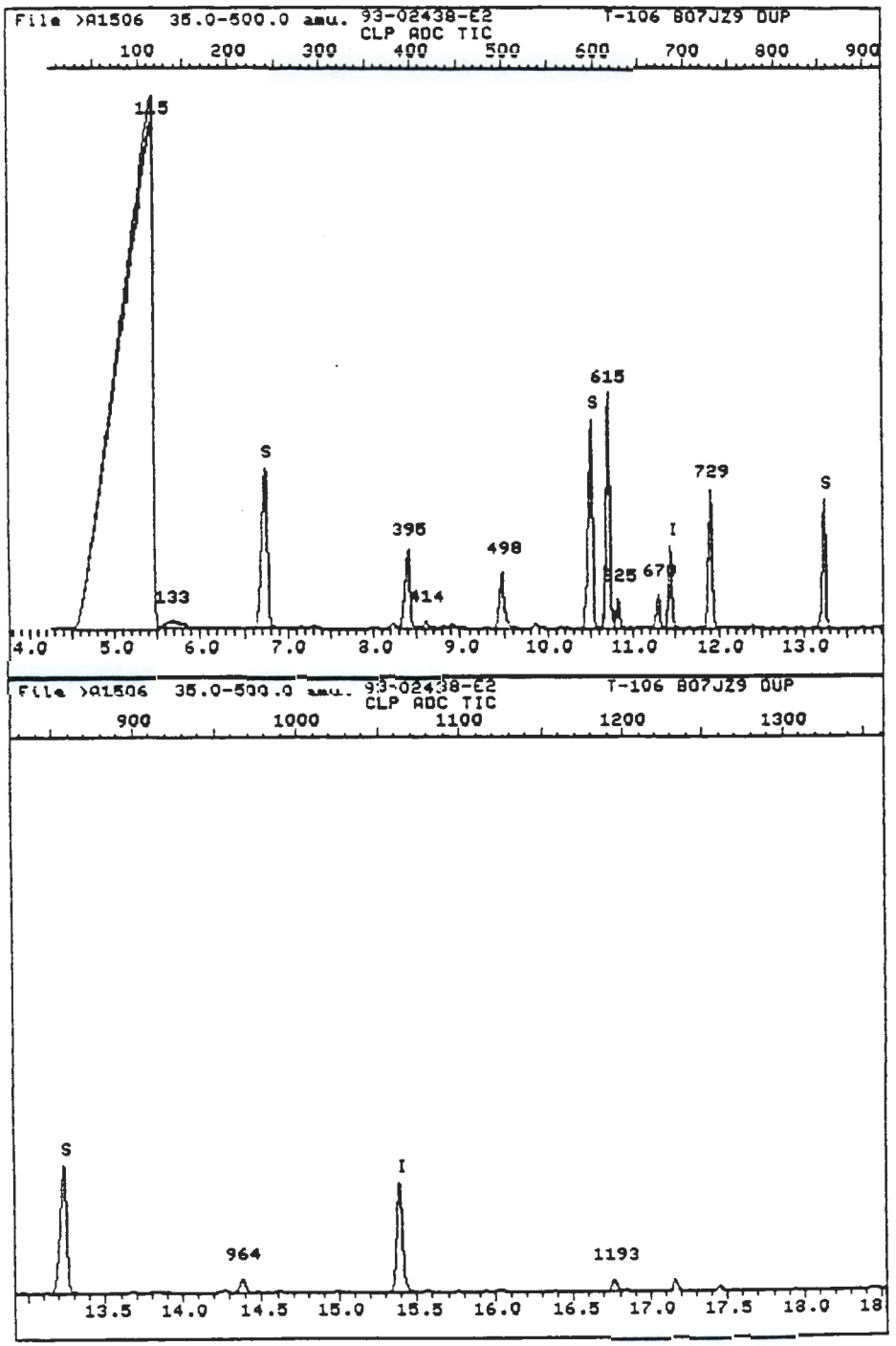
$$\text{Unknown Concentration} = \frac{\text{Conc Int Std} * \text{Area Unknown}}{\text{Area Int Std}} * \text{Correction Factor}$$

$C_{corr} = \frac{value}{.964}$ = correction for % moisture, [illegible] 2/2/93

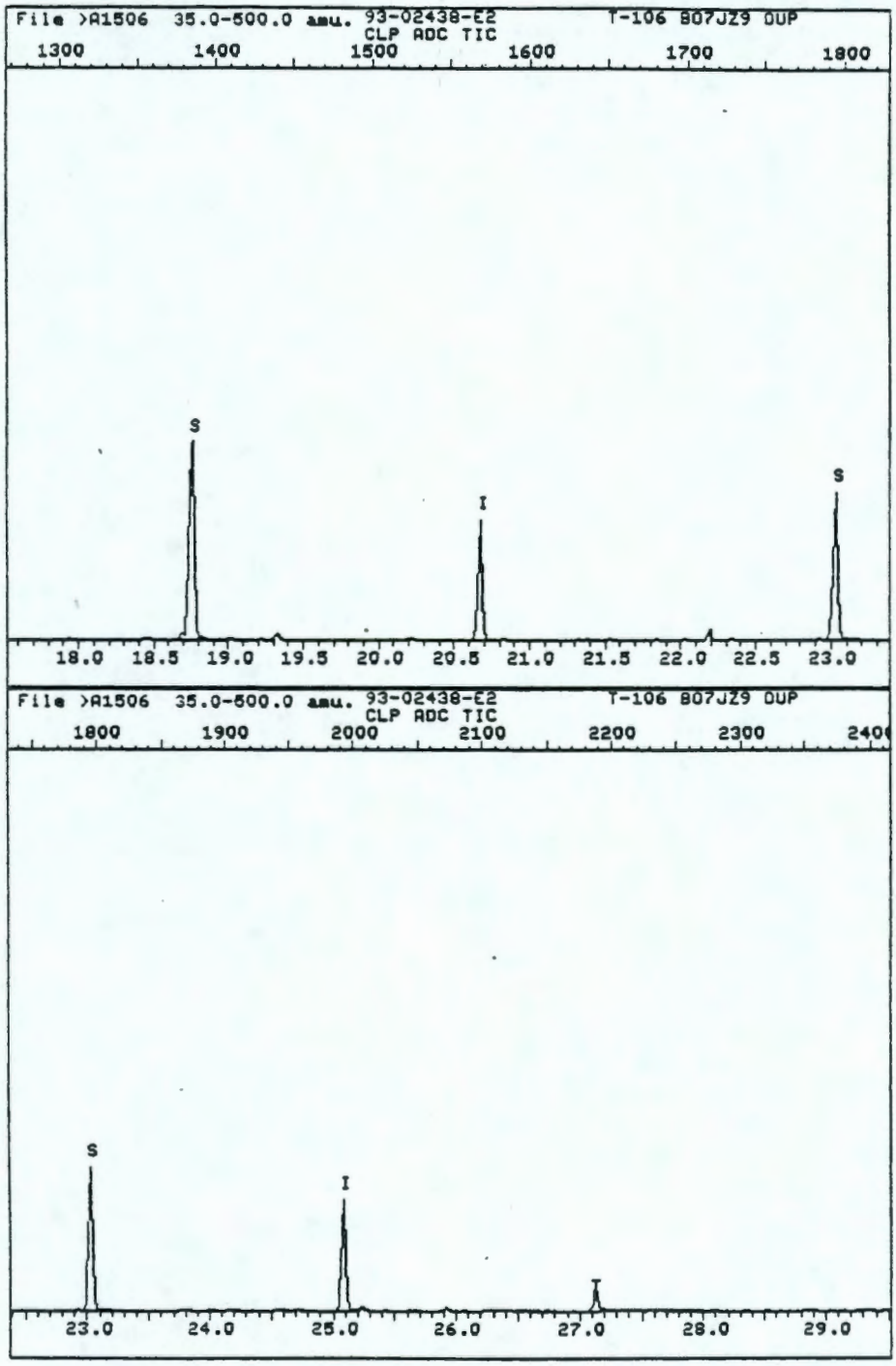
F03-375

9613492.1525

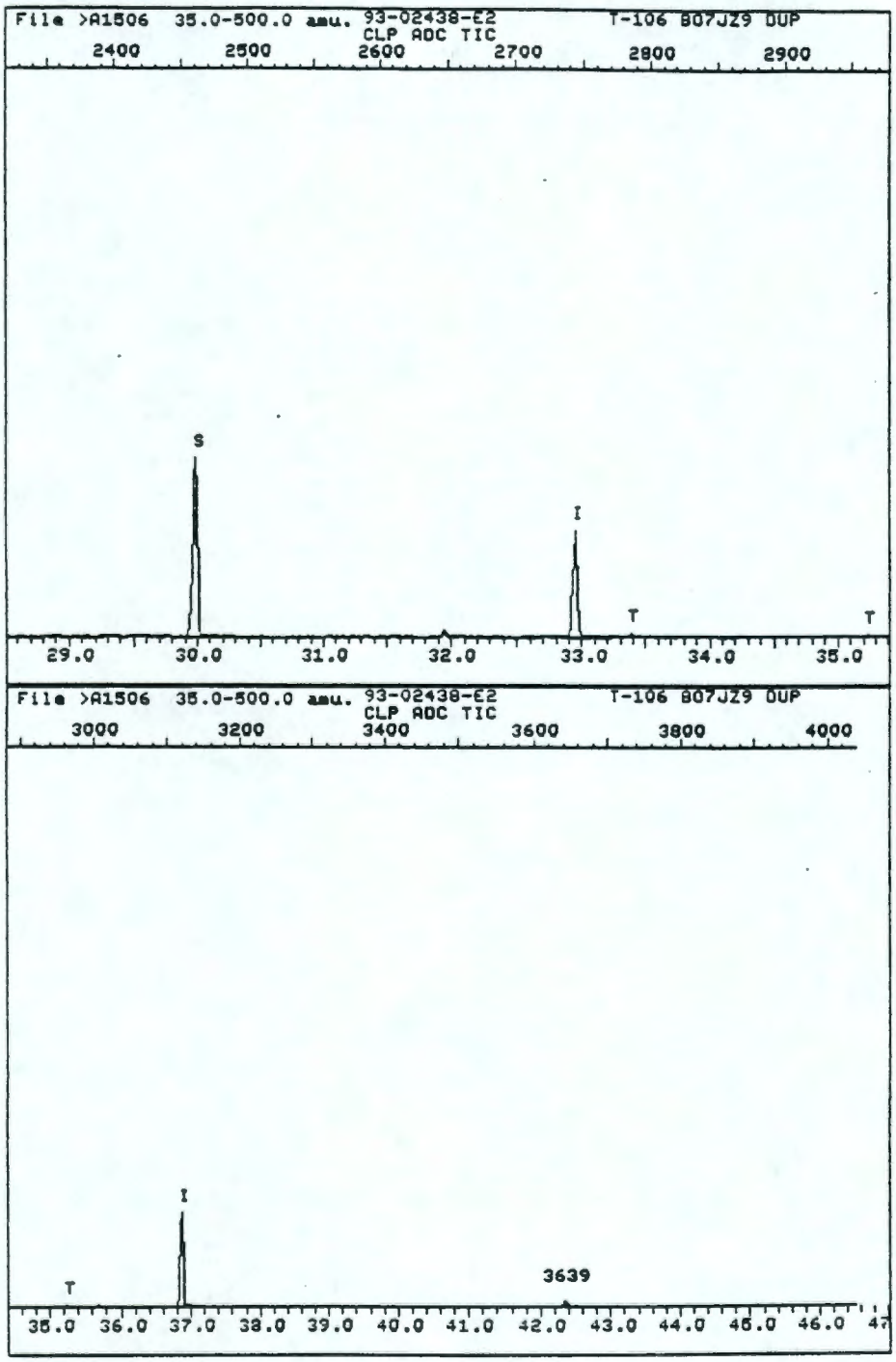
10:17 AM WED., 24 FEB., 1993



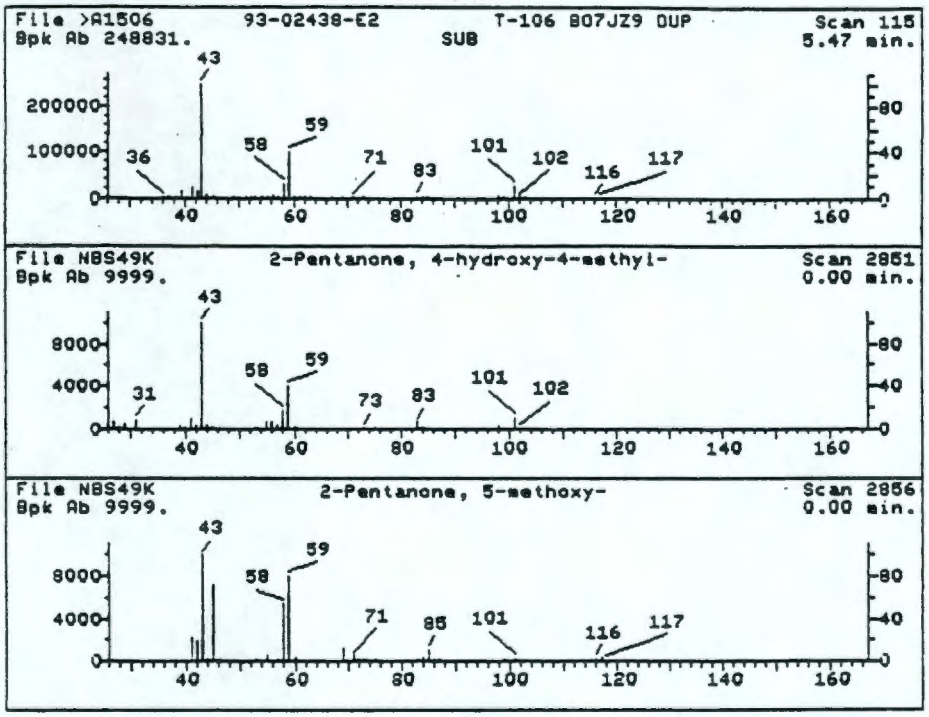
Instrument ID: BNA1 Analyzed on: 1/15/93 17:06



Instrument ID: BNA1 Analyzed on: 1/15/93 17:06



Instrument ID: BNA1 Analyzed on: 1/15/93 17:06



Instrument ID: BNA1 Analyzed on: 1/15/93 17:06
Result 1 in PBM results file: LA1506
Retention Time: 5.47 Area: 13423870 Tentative Conc: ~~160000~~.00, 170000 2/2/93
The unknown area is 5859.8% of the nearest internal standard

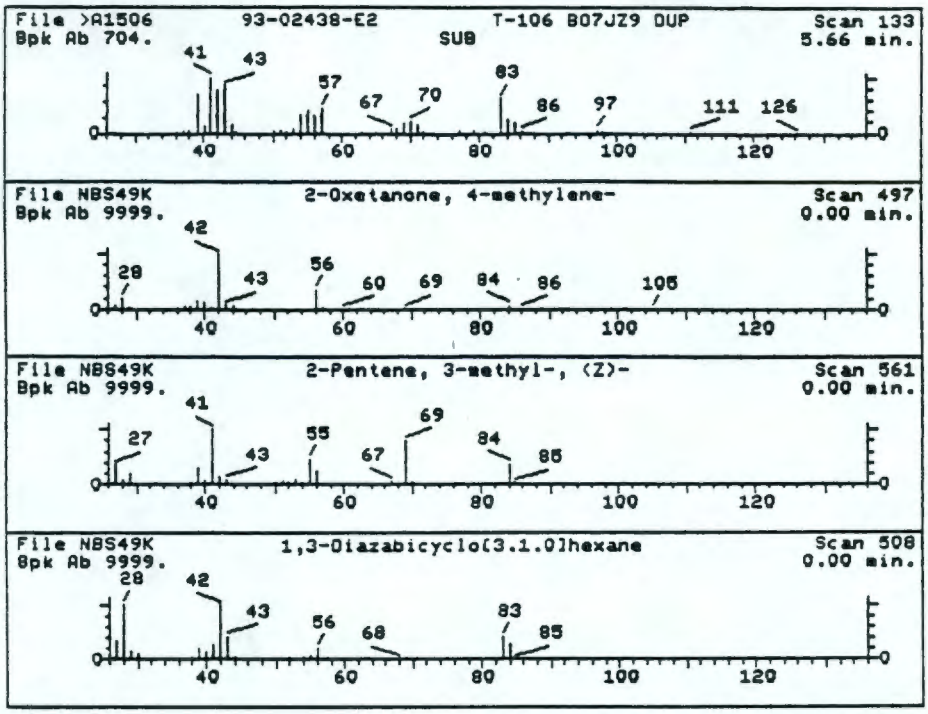
1. 2-Pentanone, 4-hydroxy-4-methyl- 116 C6H12O2
2. 2-Pentanone, 5-methoxy- 116 C6H12O2

Sample file: >A1506 Spectrum #: 115
Search speed: 3 Tilting option: F No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	47	123422	1790	NBS49K	52	31	2	0	75	22	17	18

A

9613492.1530



Instrument ID: BNA1 Analyzed on: 1/15/93 17:06
Result 2 in PBM results file: LA1506
Retention Time: 5.66 Area: 79496 Tentative Conc: ~~930.00~~ 560 UM 2/2/93
The unknown area is 34.70% of the nearest internal standard

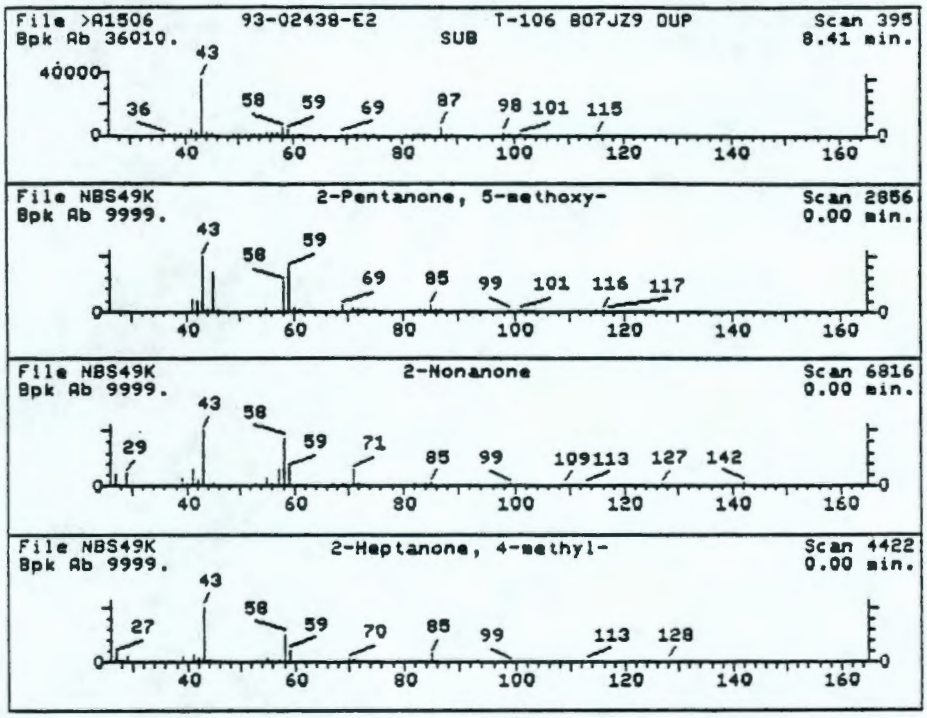
1. 2-Oxetanone, 4-methylene-	84	C4H4O2
2. 2-Pentene, 3-methyl-, (Z)-	84	C6H12
3. 1,3-Diazabicyclo[3.1.0]hexane	84	C4H8N2
4. Cyclopropane, ethyl-	70	C5H10
5. 1-Propene	42	C3H6
6. Cyclopropane	42	C3H6

Sample file: >A1506 Spectrum #: 133
Search speed: 3 Tilting option: F No. of ion ranges searched: 68

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	28*	674828	1010	NBS49K	34	43	0	0	64	55	8	33
2.	25*	922623	6303	NBS49K	42	53	2	4	89	49	7	14
3.	25*	17038287	6268	NBS49K	25	69	1	0	76	47	7	14
4.	20*	1191964	3812	NBS49K	37	49	1	0	76	53	5	19
5.	20*	115071	215	NBS49K	24	57	1	0	88	54	5	14
6.	20*	75194	216	NBS49K	25	65	1	0	76	54	5	14

W.C

F03-381



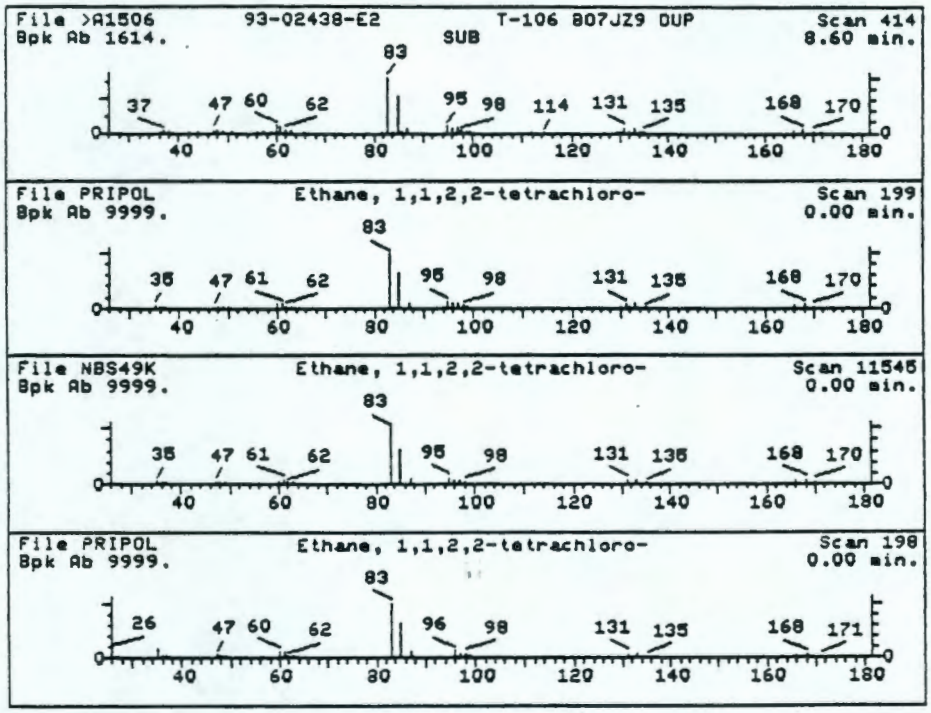
Instrument ID: BNA1 Analyzed on: 1/15/93 17:06
Result 3 in PBM results file: LA1506
Retention Time: 8.41 Area: 281370 Tentative Conc: ~~3300.00~~ 3900 3/2/93
The unknown area is 122.82% of the nearest internal standard

1. 2-Pentanone, 5-methoxy-	116	C6H12O2
2. 2-Nonanone	142	C9H18O
3. 2-Heptanone, 4-methyl-	128	C8H16O
4. Butanoic acid, 2-ethyl-3-oxo-, methyl ester	144	C7H12O3

Sample file: >A1506 Spectrum #: 395
Search speed: 3 Tilting option: F No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	20*	17429048	1791	NBS49K	24	43	2	0	15	52	5	14

Unk A

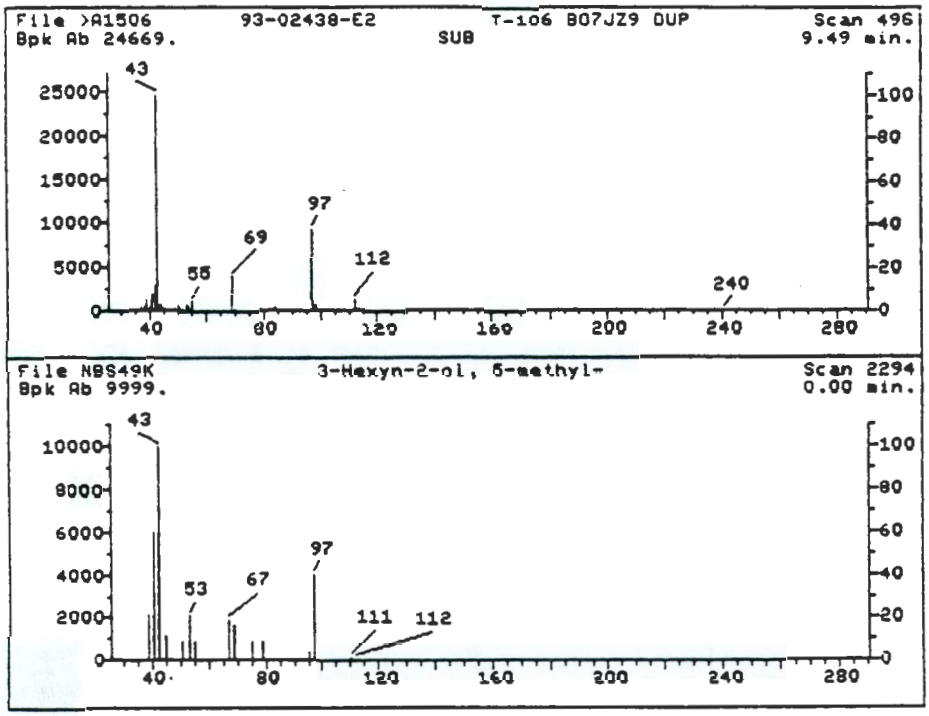


Instrument ID: BNA1 Analyzed on: 1/15/93 17:06
Result 4 in PBM results file: LA1506
Retention Time: 8.60 Area: 22924 Tentative Conc: ~~270.00~~ 280 ug/L x2(5)
The unknown area is 10.01% of the nearest internal standard

1. Ethane, 1,1,2,2-tetrachloro-	166	C2H2Cl4
2. Ethane, 1,1,2,2-tetrachloro-	166	C2H2Cl4
3. Ethane, 1,1,2,2-tetrachloro-	166	C2H2Cl4
4. Ethane, 1,1,2,2-tetrachloro-	166	C2H2Cl4
5. Ethane, 1,1,2,2-tetrachloro-	166	C2H2Cl4
6. Ethane, 1,1,2,2-tetrachloro-	166	C2H2Cl4

Sample file: >A1506 Spectrum #: 414
Search speed: 3 Tilting option: F No. of ion ranges searched: 61

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	94*	199	125	PRIPOL	81	22	0	0	81	16	60	94
2..	94*	79345	6716	NBS49K	81	22	0	0	81	16	60	94
3.	89*	198	124	PRIPOL	90	19	1	0	74	6	62	89
4.	85*	195	121	PRIPOL	76	33	0	0	45	43	43	93
5.	73*	197	123	PRIPOL	67	49	0	0	57	45	33	80
6.	70*	196	122	PRIPOL	83	28	2	3	100	16	32	55



Instrument ID: BNA1 Analyzed on: 1/15/93 17:06
Result 5 in PBM results file: LA1506
Retention Time: 9.49 Area: 201061 Tentative Conc: ~~2300.03~~ 2400 RLM 3/2/93
The unknown area is 87.77% of the nearest internal standard

1. 3-Hexyn-2-ol, 5-methyl- 112 C7H12O

Sample file: >A1506 Spectrum #: 498
Search speed: 3 Tilting option: F No. of ion ranges searched: 158

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	28*	23293507	9091	N8S49K	26	63	2	0	95	36	10	14

ank

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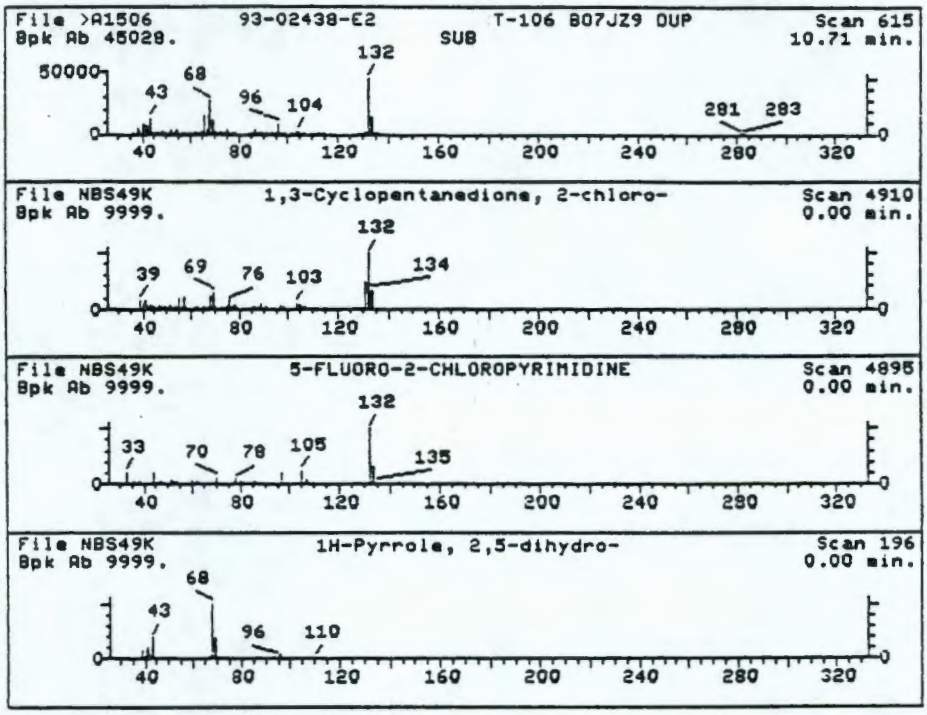

Instrument ID: BNA1 Analyzed on: 1/15/93 17:06
Result 6 in PBM results file: LA1506
Retention Time: 10.71 Area: 711998 Tentative Conc: 8300.00
The unknown area is 310.80% of the nearest internal standard

1. 1,3-Cyclopentanedione, 2-chloro-	132	C5H5ClO2
2. 5-FLUORO-2-CHLOROPYRIMIDINE	132	C4H2ClFN2
3. 1H-Pyrrole, 2,5-dihydro-	69	C4H7N
4. 1,3-Oxathiane, 4,6-dimethyl-, trans-	132	C6H12OS
5. 1H-Pyrazole	68	C3H4N2
6. Benzeneethanamine, .alpha.-methyl-N-(phenylmethylene	223	C16H17N

Sample file: >A1506 Spectrum #: 615
Search speed: 3 Tilting option: F No. of ion ranges searched: 47

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	37*	14203191	15856	NBS49K	28	83	2	0	100	30	14	14
2.	31*	62802420	15850	NBS49K	47	61	2	0	100	43	8	19
3.	30*	109966	3541	NBS49K	32	24	0	3	28	42	12	21
4.	25*	22452262	15866	NBS49K	21	90	2	0	100	49	7	13
5.	21*	288131	3527	NBS49K	43	33	0	-3	68	56	5	38
6.	20*	2980021	16019	NBS49K	23	83	2	0	100	53	5	13

Chlor - see file >A1403
[illegible] 2/25/93

F03-385

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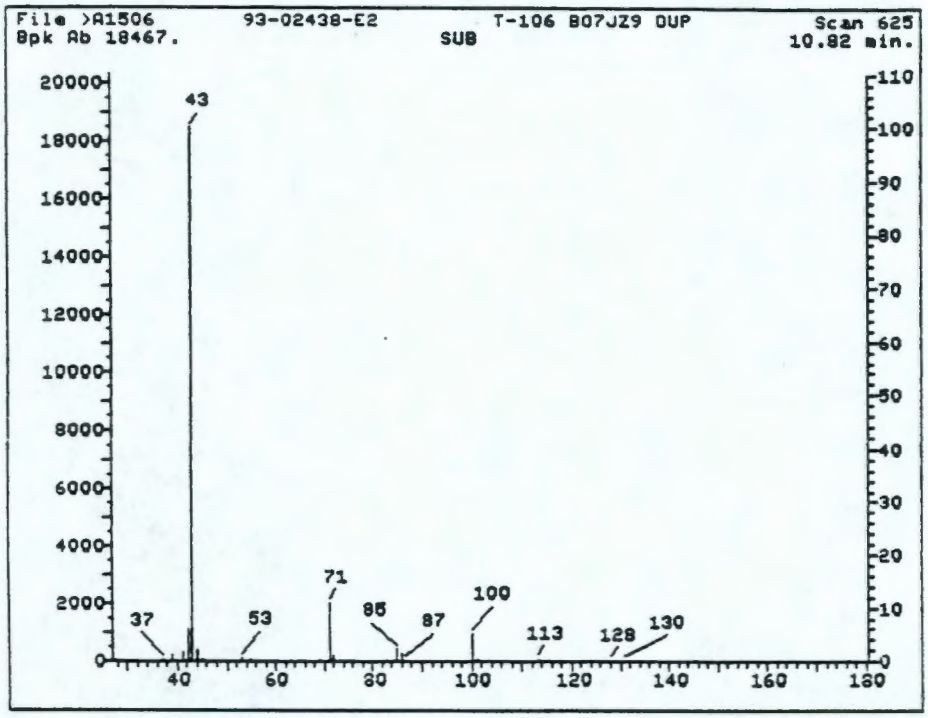


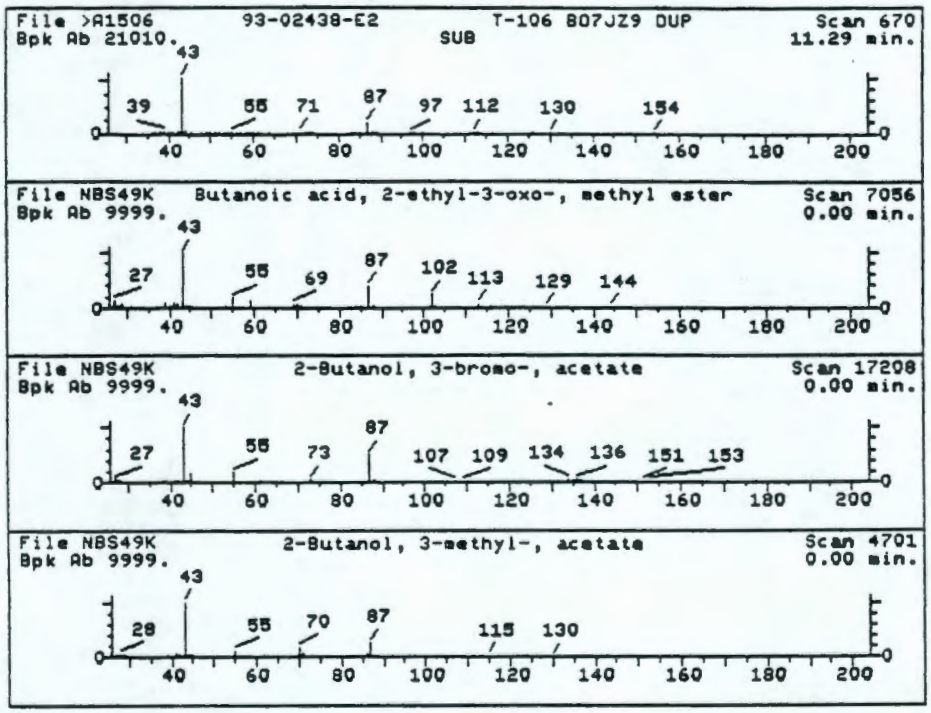
Instrument ID: BNA1 Analyzed on: 1/15/93 17:06
Result 7 in PBM results file: LA1506
Retention Time: 10.82 Area: 65918 Tentative Conc: ~~770.00~~
The unknown area is 28.77% of the nearest internal standard 800 3/2/93

Sample file: >A1506 Spectrum #: 625

No data base entries were retrieved.

F03-386

9613492.1536



Instrument ID: BNA1 Analyzed on: 1/15/93 17:06
Result 8 in PBM results file: LA1506
Retention Time: 11.29 Area: 94528 Tentative Conc: 1100.00
The unknown area is 41.26% of the nearest internal standard n.c. 2/2/93

1. Butanoic acid, 2-ethyl-3-oxo-, methyl ester	144	C7H12O3
2. 2-Butanol, 3-bromo-, acetate	194	C6H11BrO2
3. 2-Butanol, 3-methyl-, acetate	130	C7H14O2
4. 1-Butanol, 2-methyl-, acetate	130	C7H14O2

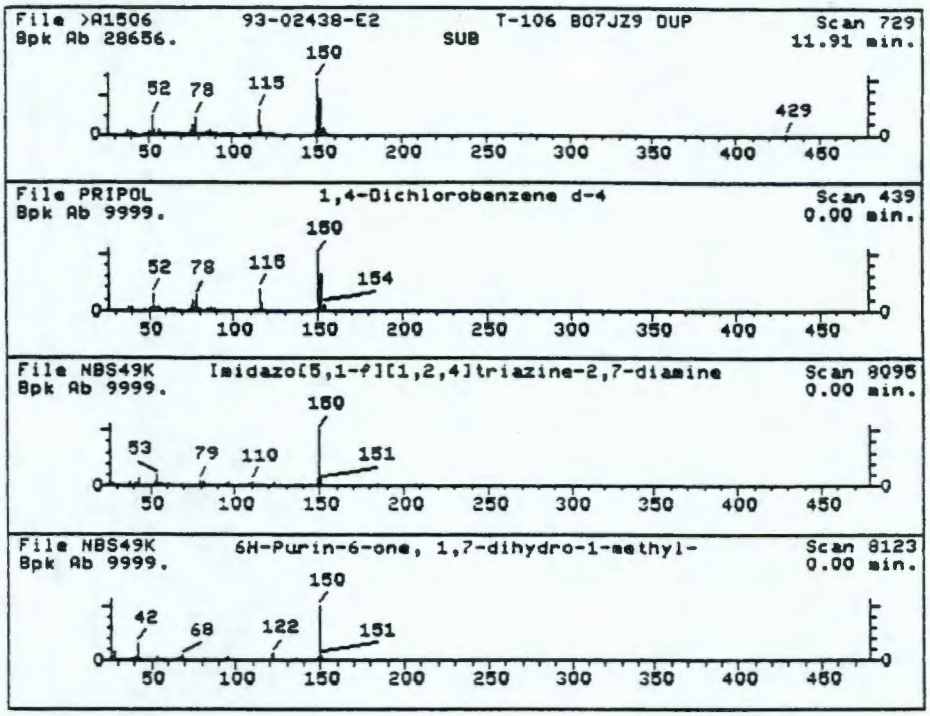
Sample file: >A1506 Spectrum #: 670
Search speed: 3 Tilting option: F No. of ion ranges searched: 73

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25*	51756082	7336	NBS49K	22	70	2	0	52	47	7	13
2.	25	5798812	7487	NBS49K	37	37	2	0	39	47	7	12
3.	24*	5343964	7303	NBS49K	44	31	2	0	79	52	7	23
4.	20*	624419	7299	NBS49K	27	54	2	0	87	52	5	14

unk

F03-387

9613492.1537



Instrument ID: BNA1 Analyzed on: 1/15/93 17:06
Result 9 in PBM results file: LA1506
Retention Time: 11.91 Area: 383362 Tentative Conc: 4500.00
The unknown area is 167.35% of the nearest internal standard

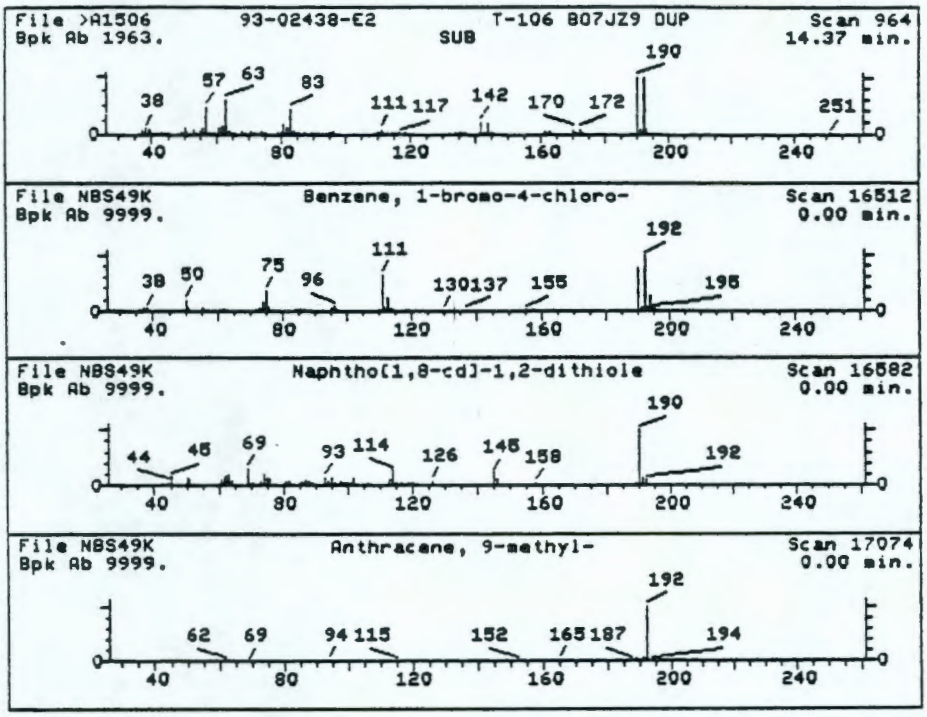
1. 1,4-Dichlorobenzene d-4	150	C6.D4.CL2
2. Imidazo[5,1-f][1,2,4]triazine-2,7-diamine	150	C5H6N6
3. 6H-Purin-6-one, 1,7-dihydro-1-methyl-	150	C6H6N4O
4. Pyrimidine, 2,4-difluoro-5-chloro-	150	C4HClF2N2
5. Ethanone, 1-(2-nitrophenyl)-	165	C8H7NO3
6. Ethylenediamine, N-(m-methoxyphenyl)-N,N'-dimethyl-N'-phenyl-	270	C17H22N2O

Sample file: >A1506 Spectrum #: 729
Search speed: 3 Tilting option: F No. of ion ranges searched: 193

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	95*	439	257	PRIPOL	95	12	0	0	86	21	53	97
2.	44*	51292207	19314	NBS49K	31	59	2	0	100	21	17	15
3.	42*	1125399	19320	NBS49K	20	72	2	0	100	21	17	13
4.	42*	25151079	19311	NBS49K	22	78	2	0	100	21	17	13
5.	41*	577593	19423	NBS49K	24	77	3	0	100	21	17	12
6.	24*	32857399	19521	NBS49K	38	82	2	4	100	43	8	12

F03-388

9613492.1538



Instrument ID: BNA1 Analyzed on: 1/15/93 17:06
Result 10 in PBM results file: LA1506
Retention Time: 14.37 Area: 29601 Tentative Conc: ~~310.00~~
The unknown area is 11.51% of the nearest internal standard 320 1/22/93

1. Benzene, 1-bromo-4-chloro-	190	C6H4BrCl
2. Naphtho[1,8-cd]-1,2-dithiole	190	C10H6S2
3. Anthracene, 9-methyl-	192	C15H12
4. Benzo[1,2-b:4,3-b']dithiophene	190	C10H6S2
5. Benzo[1,2-b:3,4-b']dithiophene	190	C10H6S2
6. Benzo[1,2-b:5,4-b']dithiophene	190	C10H6S2

Sample file: >A1506 Spectrum #: 964
Search speed: 3 Tilting option: F No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	30*	106398	26208	NBS49K	39	87	3	0	98	32	12	13
2.	25*	209223	25969	NBS49K	26	112	3	0	100	50	7	13

F03-389

Instrument ID: BNA1 Analyzed on: 1/15/93 17:06

Retention Time: 16.76 Area: 24663 Tentative Conc: 260.00

The unknown area is 9.59% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

Instrument ID: BNA1 Analyzed on: 1/15/93 17:06

Retention Time: 42.34 Area: 24110 Tentative Conc: 240.00

The unknown area is 8.91% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

9613492.1541

QUANT REPORT

Operator ID: ERIC
Output File: ^A1507::OF
Data File: >A1507::D1
Name: 93-02241-E1
Misc: T-106 B07JZ6

Quant Rev: 7
Quant Time: 930115 18:50
Injected at: 930115 18:02
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 5

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930115 12:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.45	682	30688	40.00	ng/uL	99
2)	2-Fluorophenol	6.74	232	141899	151.02	ng/uL	89
3)	Phenol-d5	10.53	594	185917	165.85	ng/uL	93
4)	Phenol	0.00	0	0	0.00	ng/uL	
5)	bis(2-Chloroethyl)ether	0.00	0	0	0.00	ng/uL	
6)	2-Chlorophenol	0.00	0	0	0.00	ng/uL	
7)	1,3-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
8)	1,4-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	1,2-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	0	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	0.00	854	0	0.00	ng/uL	
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.42	1061	102927	40.00	ng/uL	99
17)	Nitrobenzene-d5	13.26	854	78630	72.99	ng/uL	94
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	0.00	0	0	0.00	ng/uL	
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	0.00	0	0	0.00	ng/uL	
30)	2-Methylnaphthalene	0.00	0	0	0.00	ng/uL	
31)	*Acenaphthene-d10	20.71	1568	50322	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	18.79	1384	108988	72.26	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	1568	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	0.00	0	0	0.00	ng/uL	

F03-392

43)	2,4-Dinitrophenol	0.00	0	0	0.00	ng/uL	
44)	4-Nitrophenol	0.00	0	0	0.00	ng/uL	
45)	Dibenzofuran	0.00	0	0	0.00	ng/uL	
46)	2,4-Dinitrotoluene	0.00	0	0	0.00	ng/uL	
47)	Diethylphthalate	0.00	0	0	0.00	ng/uL	
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00	ng/uL	
49)	Fluorene	0.00	0	0	0.00	ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00	ng/uL	
51)	*Phenanthrene-d10	25.12	1991	90891	40.00	ng/uL	99
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00	ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1794	0	0.00	ng/uL	
54)	2,4,6-Tribromophenol	23.06	1794	38984	121.69	ng/uL	99
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00	ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00	ng/uL	
57)	Pentachlorophenol	0.00	0	0	0.00	ng/uL	
58)	Phenanthrene	0.00	0	0	0.00	ng/uL	
59)	Anthracene	0.00	0	0	0.00	ng/uL	
60)	Di-n-butylphthalate	27.15	2185	1078	.352	ng/uL	98
61)	Fluoranthene	0.00	0	0	0.00	ng/uL	
62)	*Chrysene-d12	32.99	2744	84449	40.00	ng/uL	92
63)	Pyrene	0.00	0	0	0.00	ng/uL	
64)	Terphenyl-d14	30.02	2460	125536	63.45	ng/uL	89
65)	Butylbenzylphthalate	0.00	0	0	0.00	ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00	ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00	ng/uL	
68)	Chrysene	0.00	0	0	0.00	ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	33.41	2785	1066	.490	ng/uL	98
70)	*Perylene-d12	36.90	3118	89007	40.00	ng/uL	98
71)	Di-n-octylphthalate	0.00	0	0	0.00	ng/uL	
72)	Benzo(b)fluoranthene	0.00	0	0	0.00	ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00	ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00	ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00	ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00	ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00	ng/uL	

* Compound is ISTD

AC
10/24/02

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >A1507
CAL CHECK FILE = >A1502
DATE AND TIME OF ANALYSIS = 1/15/93 18:02
MISCELLANEOUS = T-106 B07JZ6
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

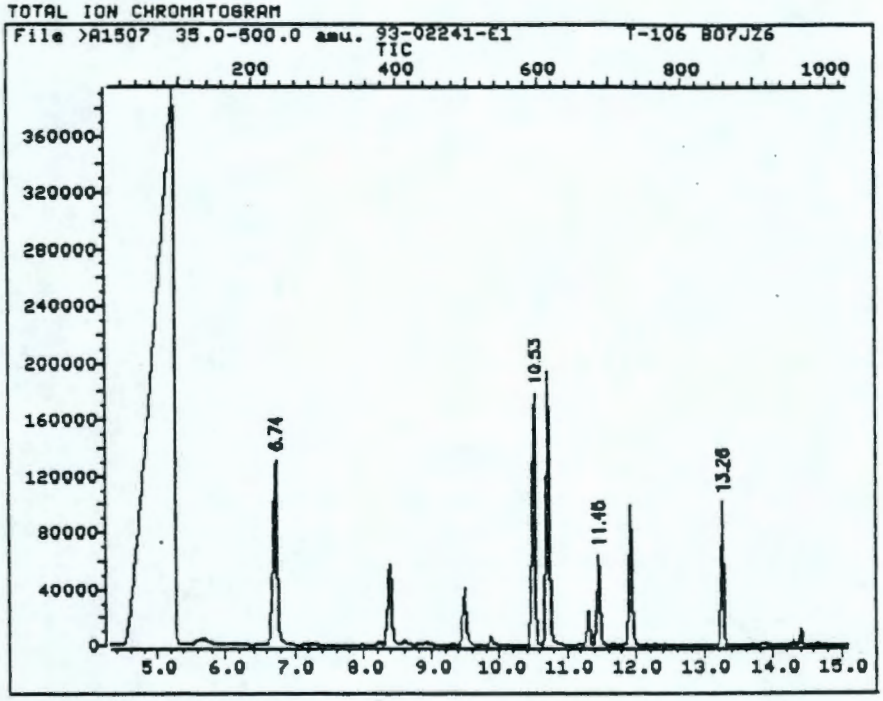
I. Areas

Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	30688	42040	21020	84080	OK
Naphthalene-d8	102927	145283	72641	290566	OK
Acenaphthene-d10	50322	69903	34951	139806	OK
Phenanthrene-d10	90891	127863	63931	255726	OK
Chrysene-d12	84449	100766	50383	201532	OK
Perylene-d12	89007	125861	62930	251722	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.45	11.42	10.92	11.92	OK
Naphthalene-d8	15.42	15.41	14.91	15.91	OK
Acenaphthene-d10	20.71	20.68	20.18	21.18	OK
Phenanthrene-d10	25.12	25.10	24.60	25.60	OK
Chrysene-d12	32.99	32.98	32.48	33.48	OK
Perylene-d12	36.90	36.89	36.39	37.39	OK

TOTAL ION CHROMATOGRAM



Data File: >A1507::D1
Name: 93-02241-E1
Misc: T-106 B07JZ6

Quant Output File: ^A1507::QF
Instrument ID: BNA1

BTL# 5

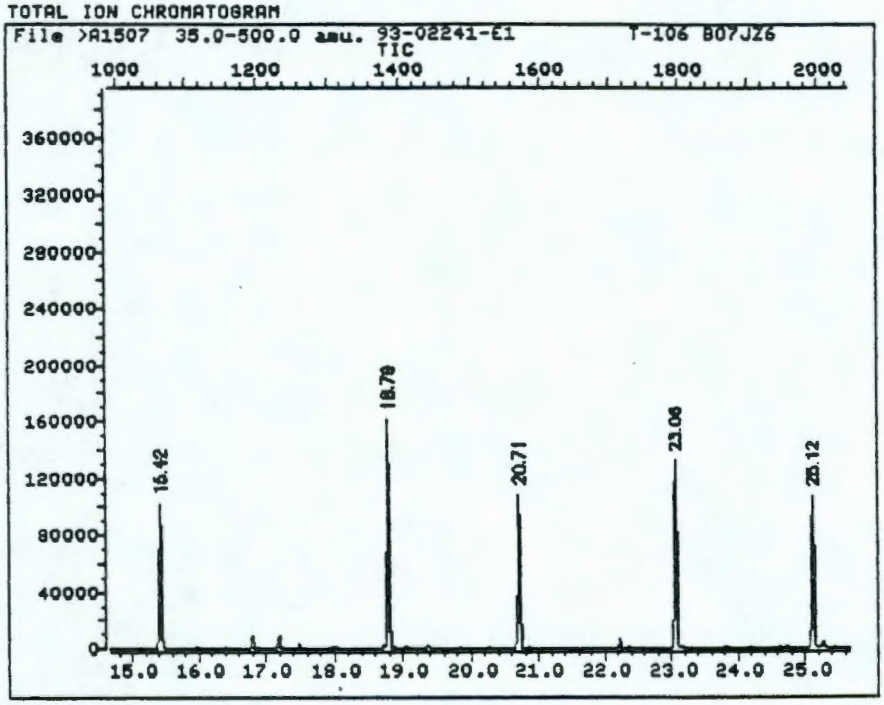
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 18:50
Injected at: 930115 18:02

Page 1 of 4

TOTAL ION CHROMATOGRAM



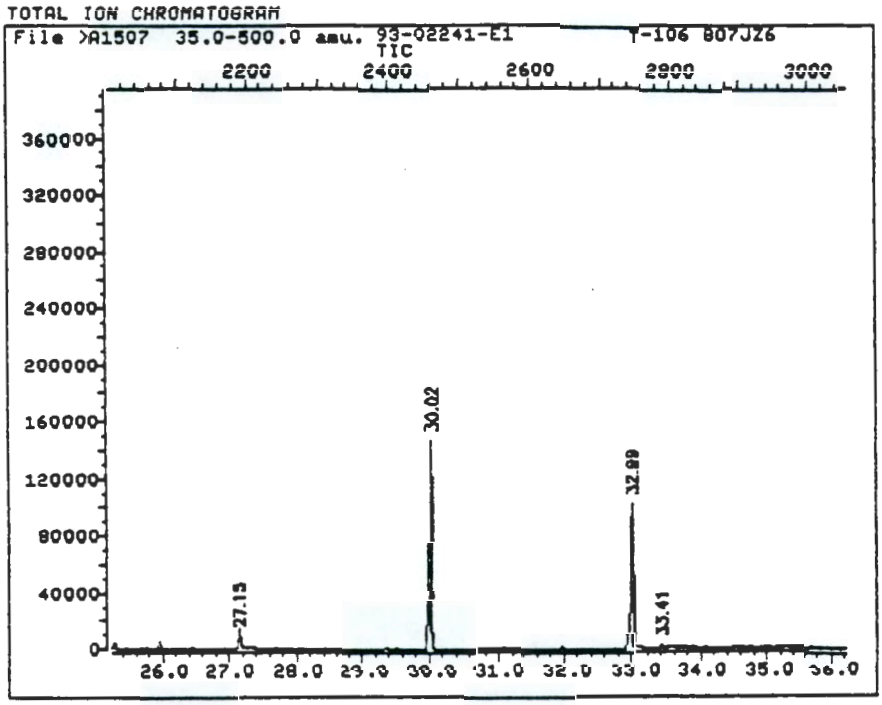
Data File: >A1507::D1 Quant Output File: ^A1507::QF
Name: 93-02241-E1 Instrument ID: BNA1
Misc: T-106 B07JZ6 BTL# 5

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 18:50
Injected at: 930115 18:02

Page 2 of 4

TOTAL ION CHROMATOGRAM



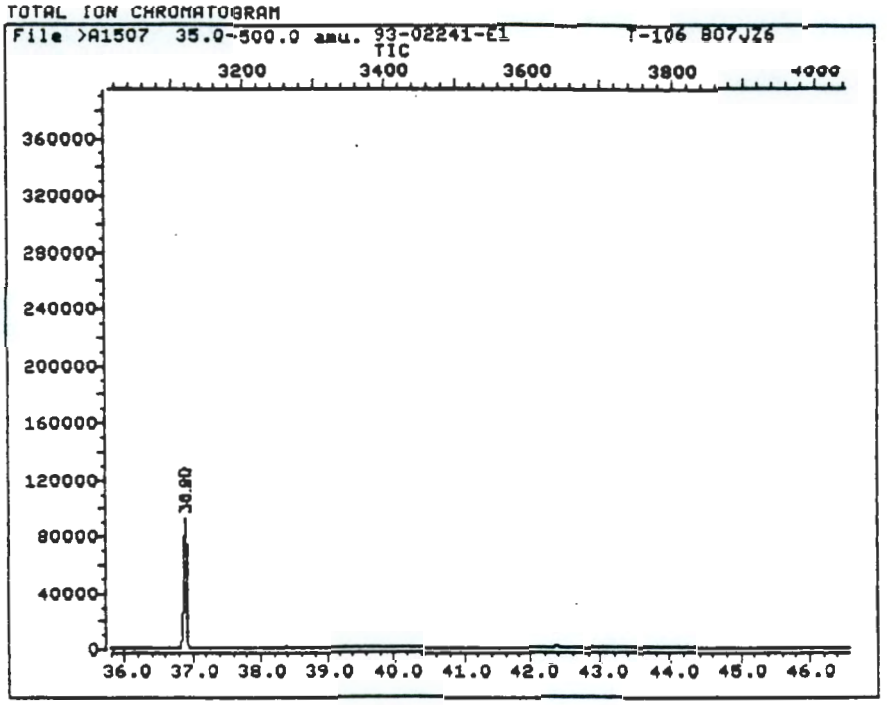
Data File: >A1507::D1 Quant Output File: ^A1507::OF
Name: 93-02241-E1 Instrument ID: BNA1
Misc: T-106 B07JZ6 BTL# 5

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 18:50
Injected at: 930115 18:02

Page 3 of 4

TOTAL ION CHROMATOGRAM



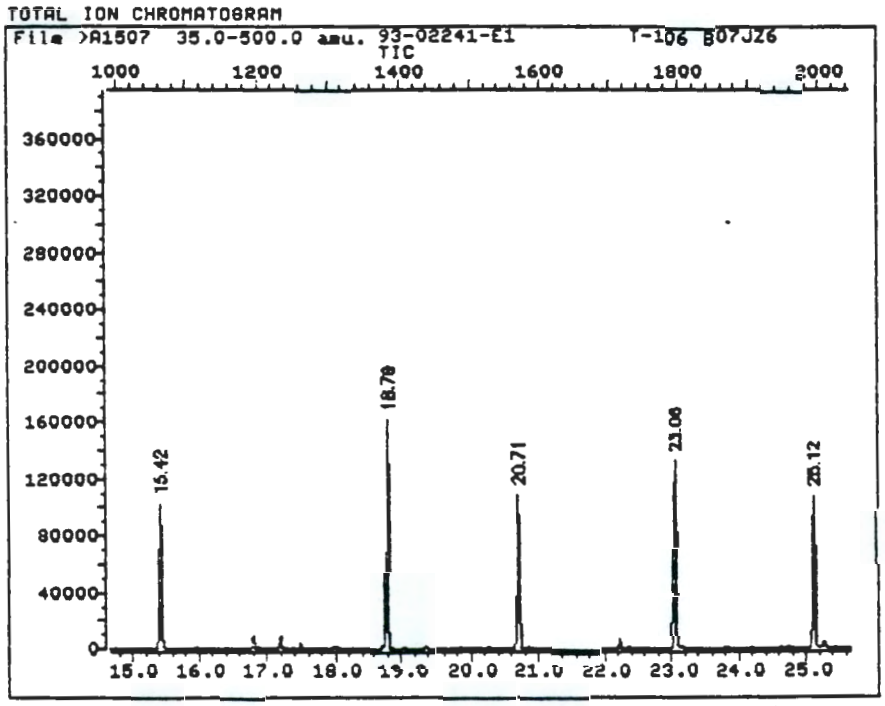
Data File: >A1507::D1 Quant Output File: ^A1507::DF
Name: 93-02241-E1 Instrument ID: BNA1
Misc: T-106 807JZ6 BTL# 5

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 18:50
Injected at: 930115 18:02

Page 4 of 4

TOTAL ION CHROMATOGRAM



Data File: >A1507::D1
Name: 93-02241-E1
Misc: T-106 B07JZ6

Quant Output File: ^A1507::OF
Instrument ID: BNA1

BTL# 5

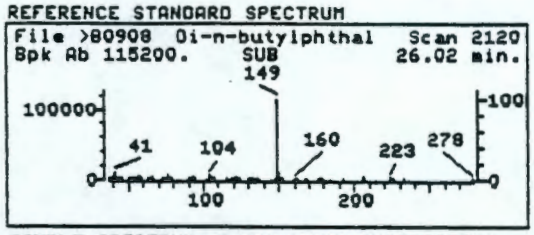
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930115 12:23

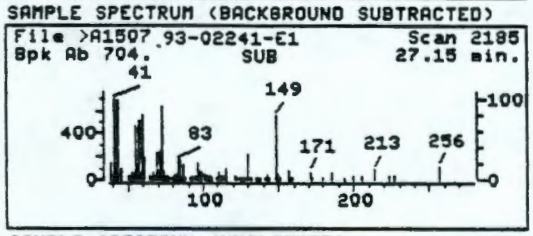
Operator ID: ERIC
Quant Time : 930115 18:50
Injected at: 930115 18:02

Page 2 of 4

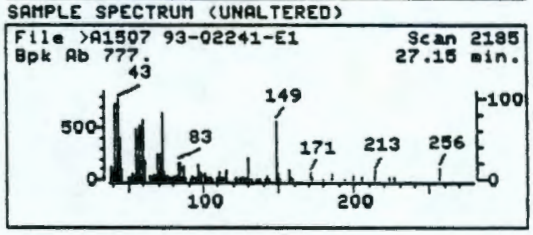
REFERENCE STANDARD SPECTRUM

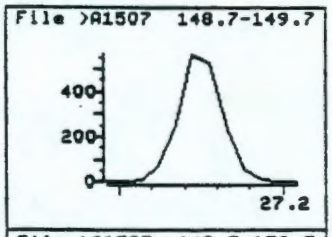


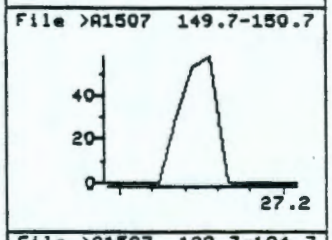
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

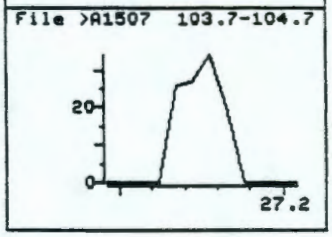


SAMPLE SPECTRUM (UNALTERED)









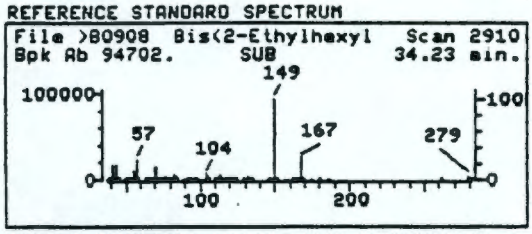
Data File: >A1507::D1
Name: 93-02241-E1
Misc: T-106 B07JZ6
Quant Time: 930115 18:50
Injected at: 930115 18:02
Last Qcal Time: 930115 12:23

Quant Output File: ^A1507::QF
Instrument ID: BNA1
BTL# 5
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

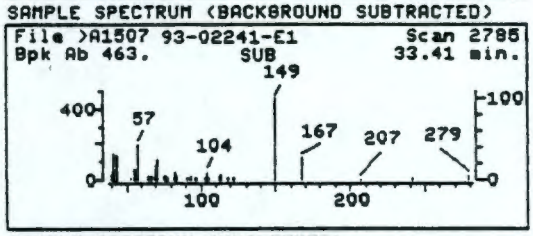
Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2185
Retention Time: 27.15 min.
Quant Ion : 149.0
Area : 1078
Concentration : .352 ng/uL
q-value : 98

non-detect
AS
10/24/03
delete

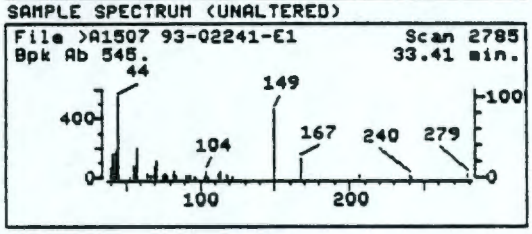
REFERENCE STANDARD SPECTRUM

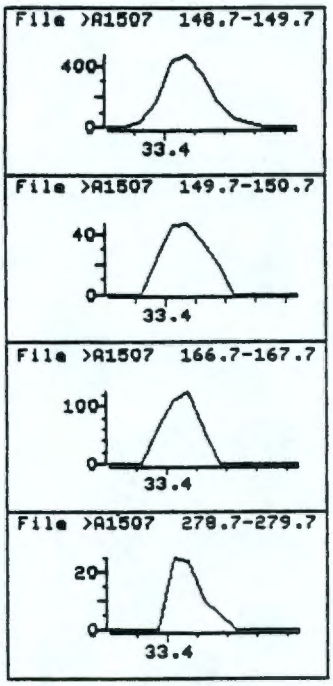


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >A1507::D1
Name: 93-02241-E1
Misc: T-106 B07JZ6
Quant Time: 930115 18:50
Injected at: 930115 18:02
Last Qcal Time: 930115 12:23

Quant Output File: ^A1507::OF
Instrument ID: BNA1
BTL# 5
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2785
Retention Time: 33.41 min.
Quant Ion : 149.0
Area : 1066
Concentration : .490 ng/uL
q-value : 98

9613492.1551

MS data file header from : >A1507::D1

Sample: 93-02241-E1 Operator: ERIC SUPER GRP. 1/15/93 18:02
Misc : T-106 B07JZ6 BTL# 5
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 5 Equip ID: BNA1
Method file: BNAME1 Tuning file: MTBNA1 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	40.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.5	0.0

>A1507 93-02241-E1 T-106 B07JZ6
35.01 500.0 CLP TIC
Upslope: .2000 Area Reject: 20643. Max Peaks: 9 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File IA1507 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	5.27	17	92	109	392329	8484114	8423547	100.00	85.19
2	5.67	114	130	158	3862	79889	49600*	.59	.50
3	8.39	381	390	404	56056	230856	218449	2.59	2.20
4	9.49	486	495	517	40466	160392	150996	1.79	1.52
5	9.87	526	531	551	5932	29121	22102	.26	.22
6	10.73	605	613	621	192620	630756	626573	7.44	6.33
7	11.32	661	669	675	23907	74680	70562	.84	.71
8	11.93	715	727	739	98662	310608	301240	3.58	3.04
9	14.41	959	964	971	11226	27527	24755	.29	.25

Sum of corrected areas: 9887826.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	206431.	11.45	4.31 - 13.44
2	40.0	239874.	15.42	13.44 - 18.07
3	40.0	244746.	20.71	18.07 - 22.91
4	40.0	257537.	25.12	22.91 - 29.05
5	40.0	258427.	32.99	29.05 - 34.94
6	40.0	272877.	36.90	34.94 - 46.58

Dilution Factor = 1.00 This sample was 30.7000 g or mL

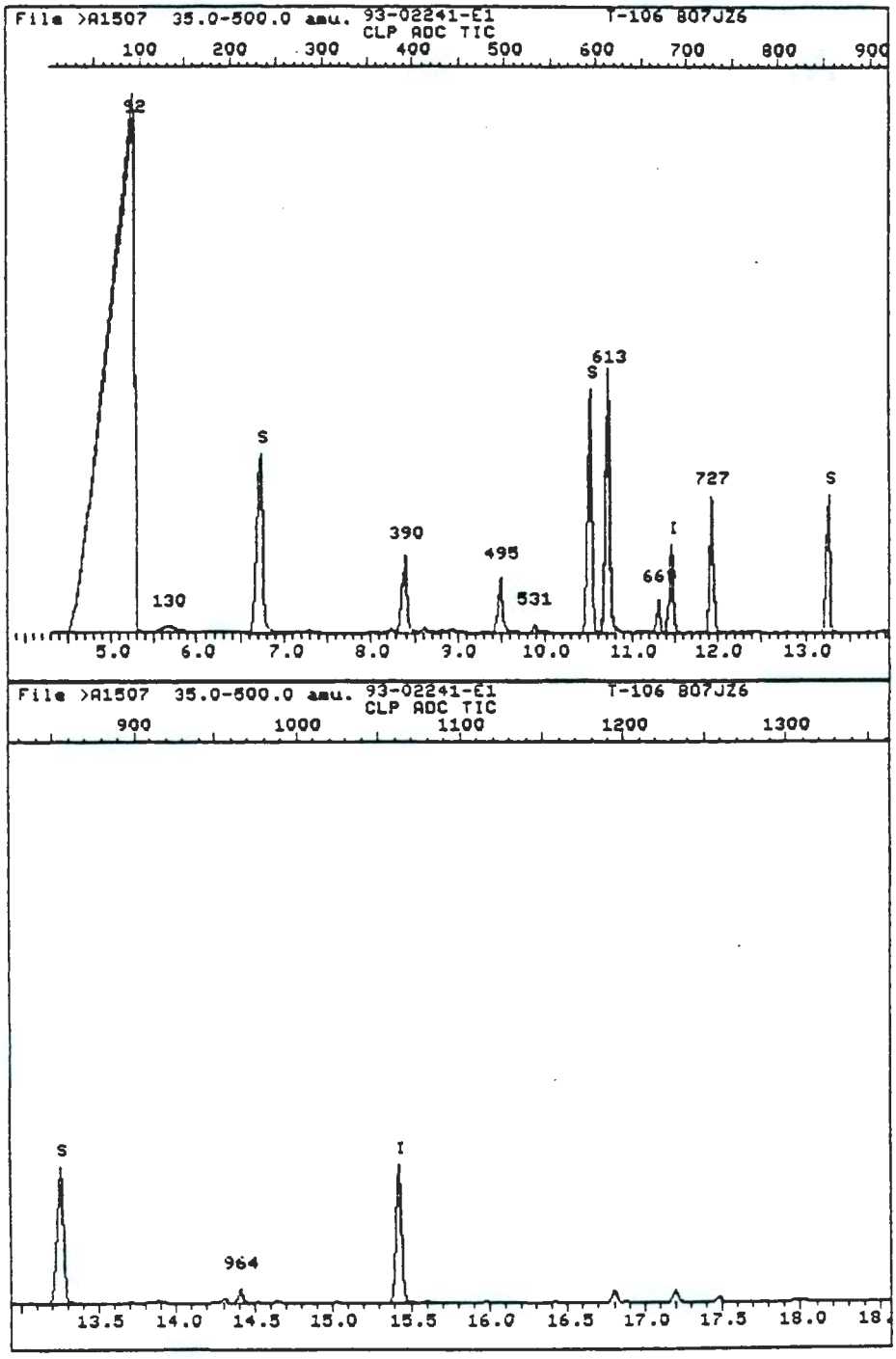
Correction Factor = 65.21 TIC RESULTS OFF BY 2X; SEE FOLLOW UP

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std} * \text{Area Unknown}}{\text{Area Int Std}} * \text{Correction Factor}$$

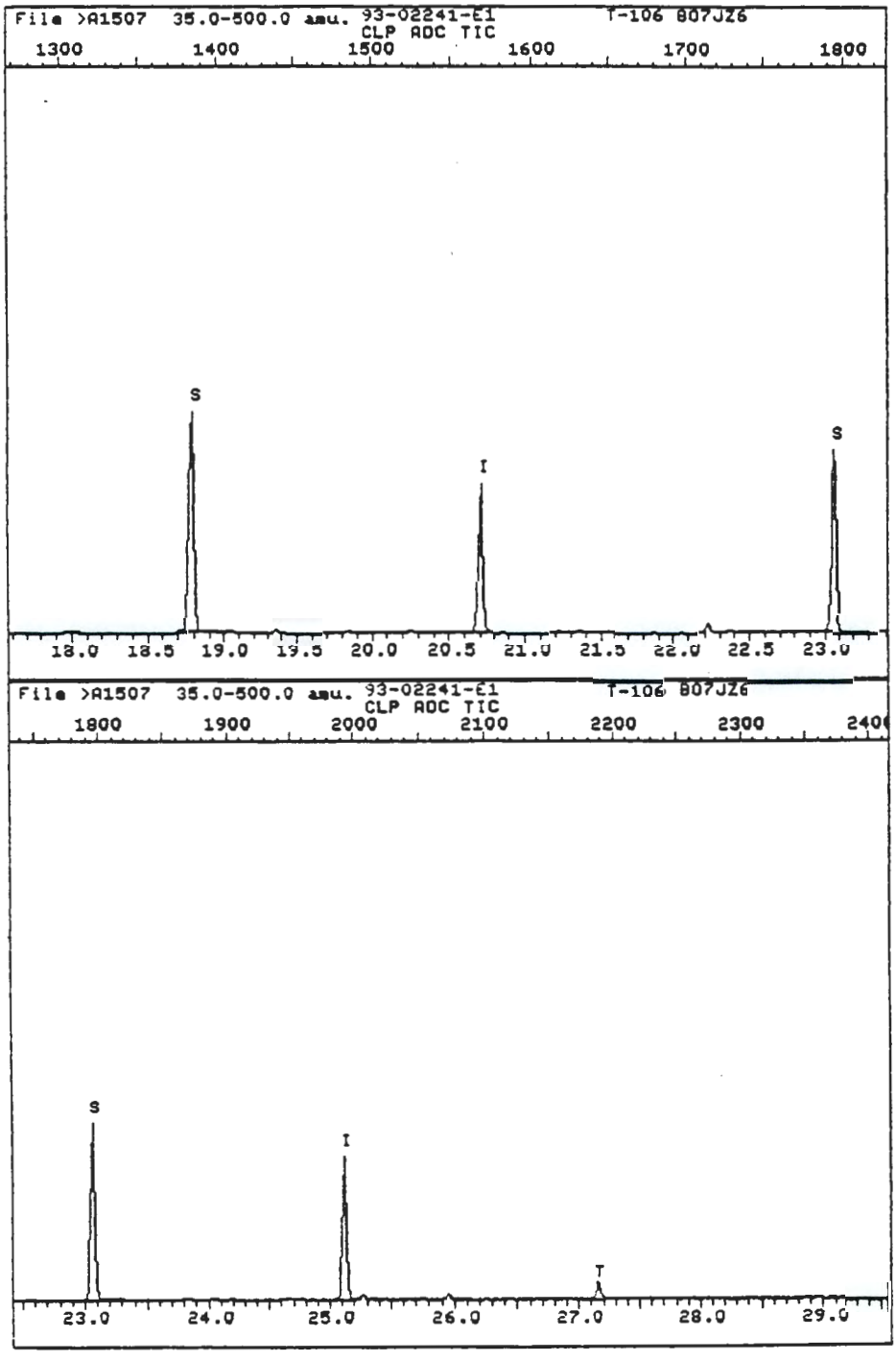
10:56 AM WED., 24 FEB., 1993

Conc = $\frac{\text{value}}{.972}$ = correction for % moisture 3/2/93

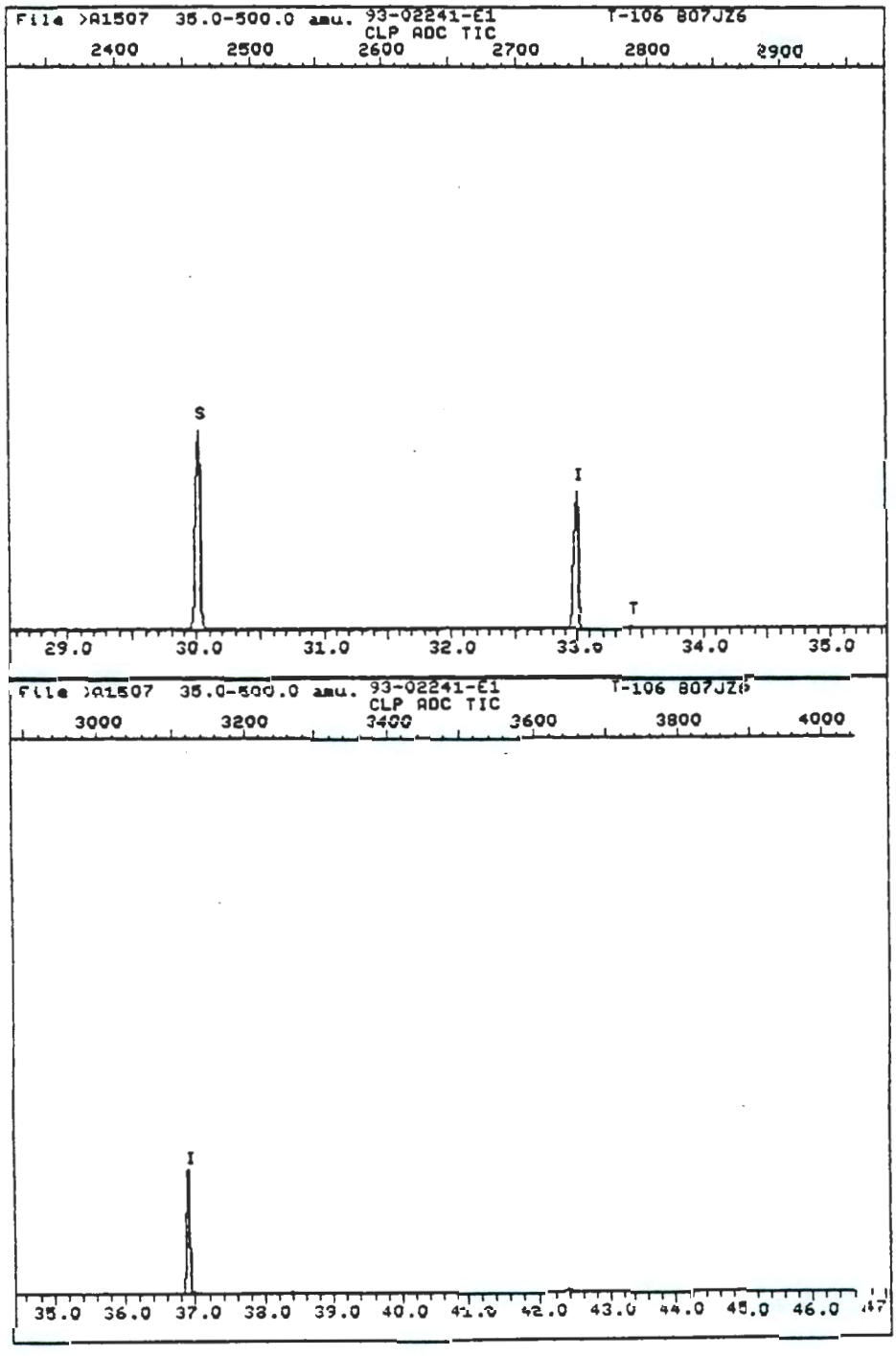
F03-402



Instrument ID: BNA1 Analyzed on: 1/15/93 18:02

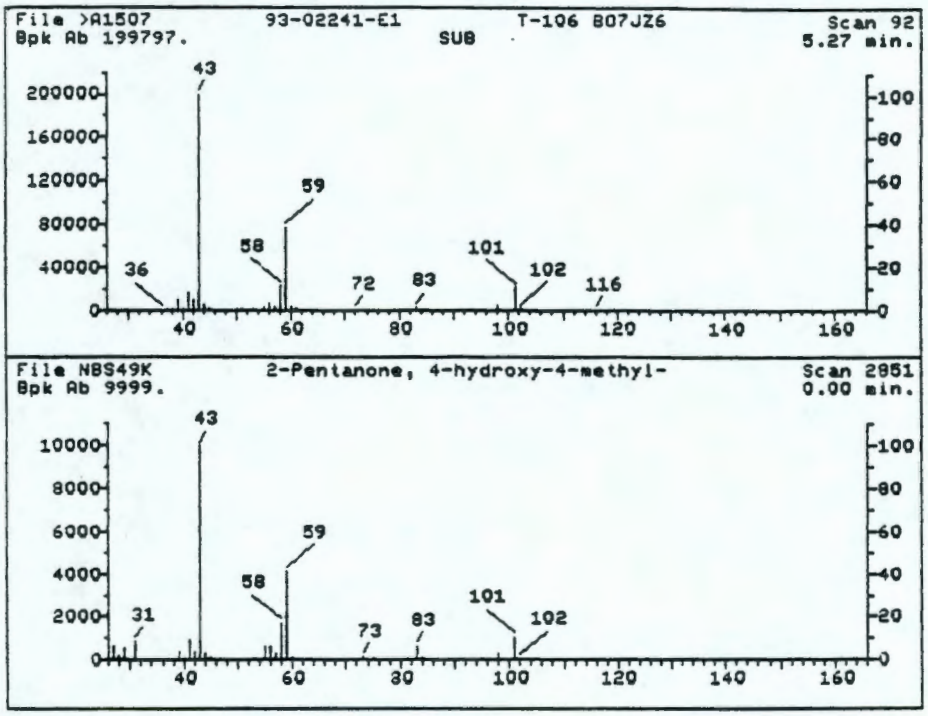


Instrument ID: BNA1 Analyzed on: 1/15/93 18:02



Instrument ID: BNA1 Analyzed on: 1/15/93 18:02

9613492.1555



Instrument ID: BNA1 Analyzed on: 1/15/93 18:02
Result 1 in PBM results file: LA1507
Retention Time: 5.27 Area: 8423546 Tentative Conc: 110000.00
The unknown area is 4080.6% of the nearest internal standard n.c. 3/2/93

1. 2-Pentanone, 4-hydroxy-4-methyl- 116 C6H12O2

Sample file: >A1507 Spectrum #: 92
Search speed: 3 Tilting option: F No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	47	123422	1790	NBS49K	52	31	2	0	71	22	17	18

date 2/25/93

AD

F03-406

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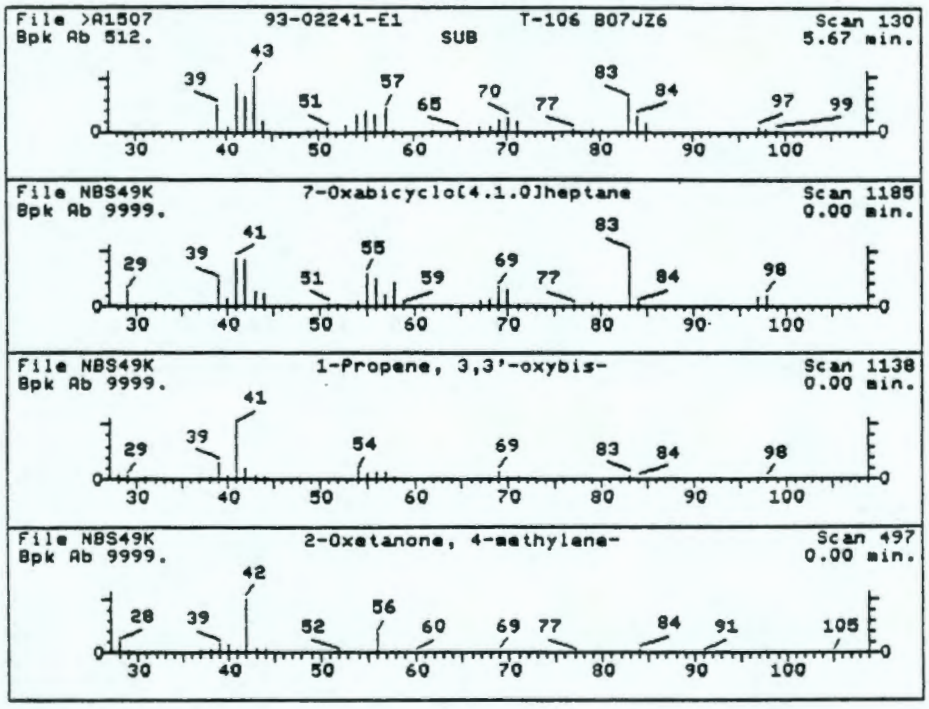

Instrument ID: BNA1 Analyzed on: 1/15/93 18:02
Result 2 in PBM results file: LA1507
Retention Time: 5.67 Area: 49600 Tentative Conc: ~~630.00~~ 650 [illegible] 2/2/93
The unknown area is 24.03% of the nearest internal standard

1. 7-Oxabicyclo[4.1.0]heptane	98	C6H10O
2. 1-Propene, 3,3'-oxybis-	98	C6H10O
3. 2-Oxetanone, 4-methylene-	84	C4H4O2
4. Pentane, 3-methylene-	84	C6H12
5. 1-Pentene	70	C5H10
6. Cyclopropane, butyl-	98	C7H14

Sample file: >A1507 Spectrum #: 130
Search speed: 3 Tilting option: F No. of ion ranges searched: 65

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	28	286204	6142	NBS49K	75	40	2	2	67	36	10	14

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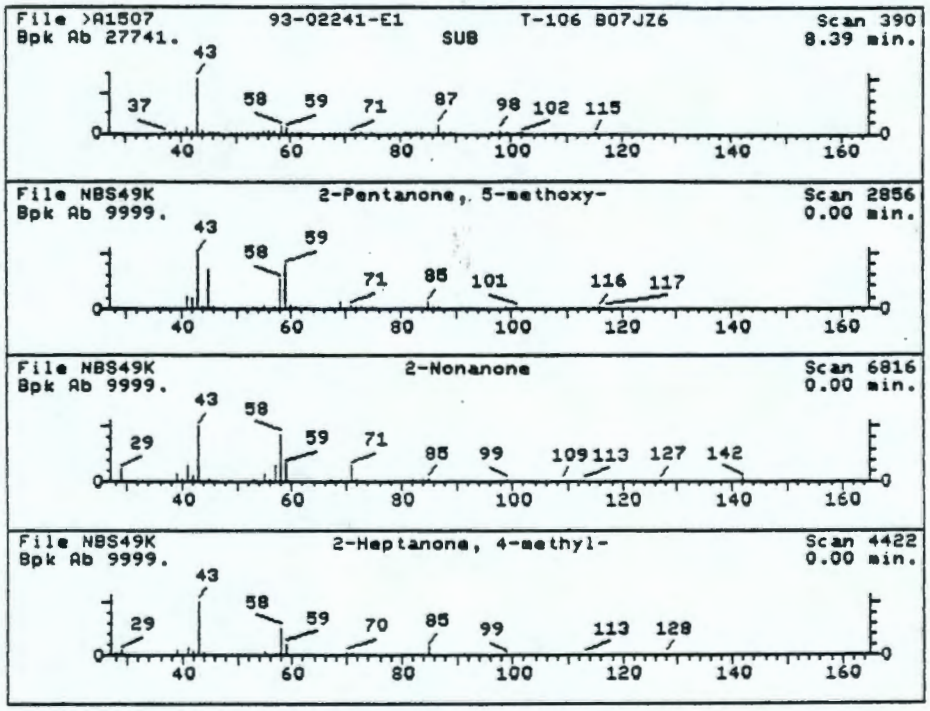
F03-407

9613492.1557



Instrument ID: BNA1 Analyzed on: 1/15/93 18:02
Result 3 in PBM results file: LA1507
Retention Time: 8.39 Area: 218449 Tentative Conc: ~~2800.00~~ 2900 RMS 1/15/93
The unknown area is 105.82% of the nearest internal standard

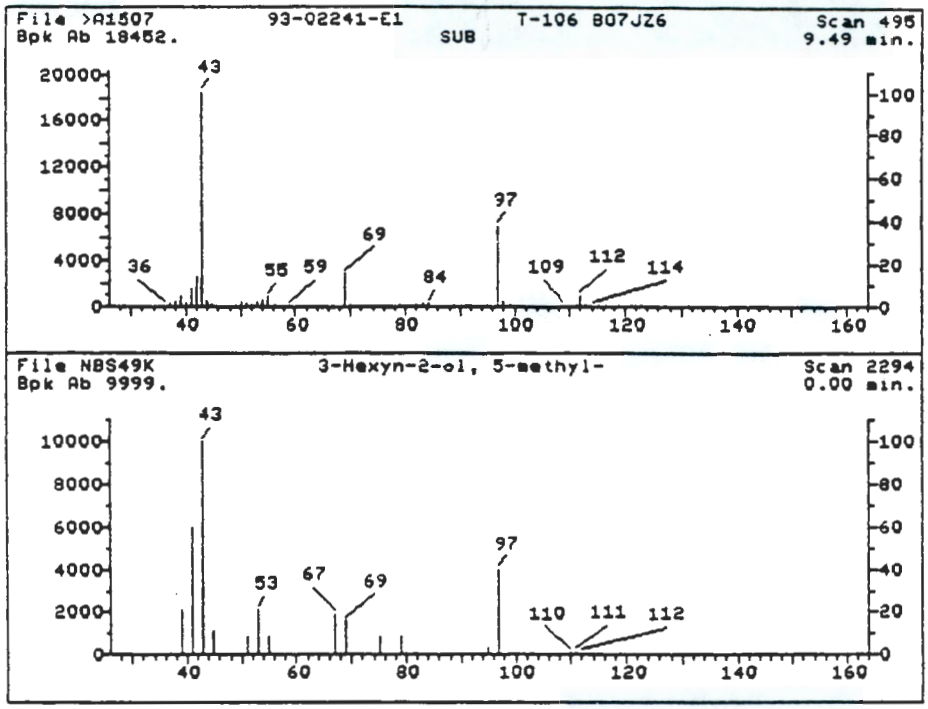
1. 2-Pentanone, 5-methoxy-	116	C6H12O2
2. 2-Nonanone	142	C9H18O
3. 2-Heptanone, 4-methyl-	128	C8H16O
4. Butanoic acid, 2-ethyl-3-oxo-, methyl ester	144	C7H12O3

Sample file: >A1507 Spectrum #: 390
Search speed: 3 Tilting option: F No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	25*	17429048	1791	NBS49K	24	43	2	0	15	47	7	14

Dick A

F03-408

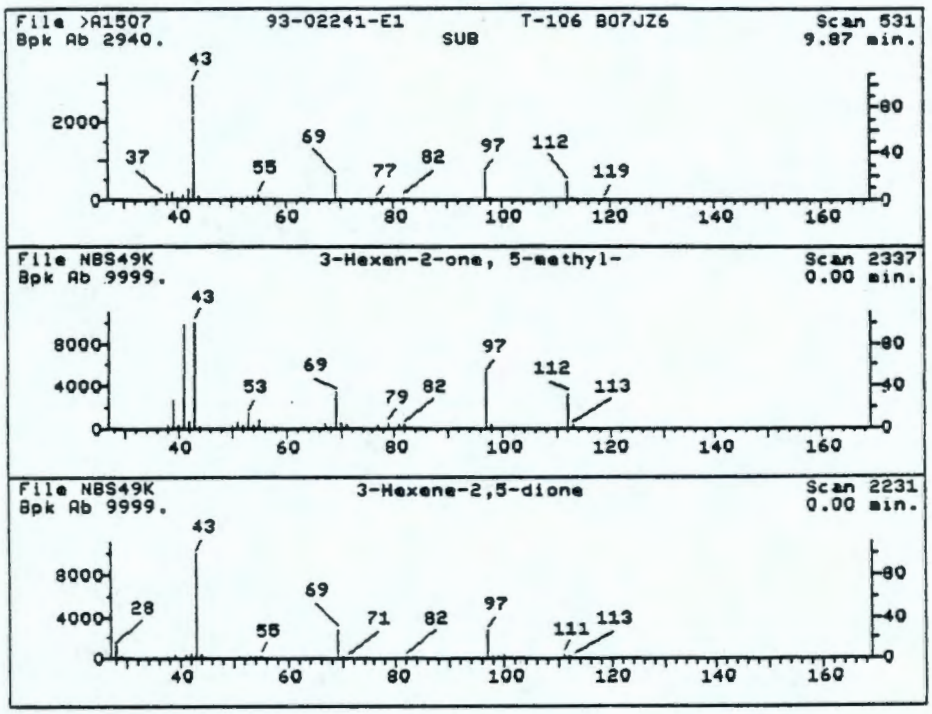


Instrument ID: BNA1 Analyzed on: 1/15/93 18:02
Result 4 in PBM results file: LA1507
Retention Time: 9.49 Area: 150996 Tentative Conc: ~~1980.00~~ 2000 KMM 3/2/93
The unknown area is 73.15% of the nearest internal standard

1. 3-Hexyn-2-ol, 5-methyl- 112 C7H12O

Sample file: >A1507 Spectrum #: 495
Search speed: 3 Tilting option: F No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IC
1.	31*	23293507	9091	NBS49K	26	63	2	0	95	34	12	14



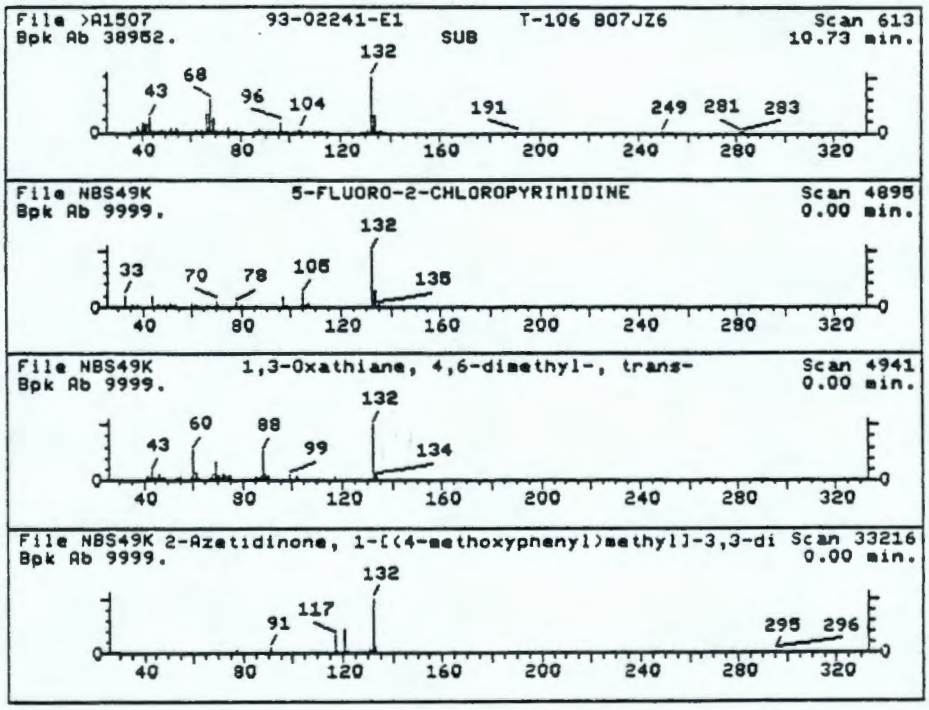
Instrument ID: BNA1 Analyzed on: 1/15/93 18:02
Result 5 in PBM results file: LA1507
Retention Time: 9.87 Area: 22102 Tentative Conc: ~~280.00~~
The unknown area is 10.71% of the nearest internal standard 250 3/2/93

1. 3-Hexen-2-one, 5-methyl- 112 C7H12O
2. 3-Hexene-2,5-dione 112 C6H8O2

Sample file: >A1507 Spectrum #: 531
Search speed: 3 Tilting option: F No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	35*	5166530	12025	NBS49K	48	41	2	1	54	40	14	22
2.	20*	4436753	9083	NBS49K	34	48	2	0	71	55	5	17

9613492.1560



Instrument ID: BNA1 Analyzed on: 1/15/93 18:02
Result 6 in PBM results file: LA1507
Retention Time: 10.73 Area: 626573 Tentative Conc: 7900.00
The unknown area is 303.53% of the nearest internal standard

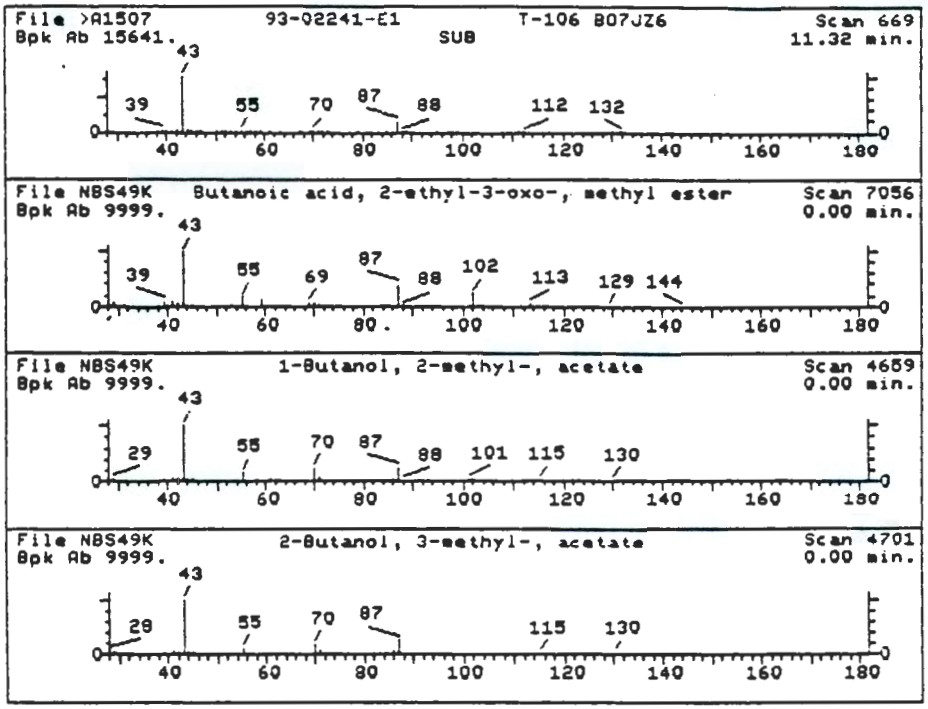
1.	5-FLUORO-2-CHLOROPYRIMIDINE	132	C4H2ClFN2
2.	1,3-Oxathiane, 4,6-dimethyl-, trans-	132	C6H12OS
3.	2-Azetidinone, 1-[(4-methoxyphenyl)methyl]-3,3-dimethyl-4-phenyl-	295	C19H21NO2
4.	1H-Benzimidazole, 2-methyl-	132	C8H8N2
5.	Benzeneethanamine, .alpha.-methyl-N-(phenylmethylene	223	C16H17N
6.	1H-Pyrazole	68	C3H4N2

Sample file: >A1507 Spectrum #: 613
Search speed: 3 Tilting option: F No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	25*	62802420	15850	NBS49K	35	73	2	0	100	48	7	1
2.	20*	22452262	15866	NBS49K	28	83	3	0	100	53	5	1

Delete - see file >A1403
[illegible] 2/5/93

F03-411



Instrument ID: BNA1 Analyzed on: 1/15/93 18:02
Result 7 in PBM results file: LA1507
Retention Time: 11.32 Area: 70562 Tentative Conc: ~~890.00~~ 720 LM 3/4/93
The unknown area is 34.18% of the nearest internal standard

1. Butanoic acid, 2-ethyl-3-oxo-, methyl ester 144 C7H12O3
2. 1-Butanol, 2-methyl-, acetate 130 C7H14O2
3. 2-Butanol, 3-methyl-, acetate 130 C7H14O2

Sample file: >A1507 Spectrum #: 669
Search speed: 3 Tilting option: F No. of ion ranges searched: 52

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	25*	51756082	7336	NBS49K	22	70	2	0	52	47	7	13
2.	20*	624419	7299	NBS49K	32	49	2	0	87	52	5	16
3.	20*	5343964	7303	NBS49K	39	36	2	0	79	52	5	19

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F03-412

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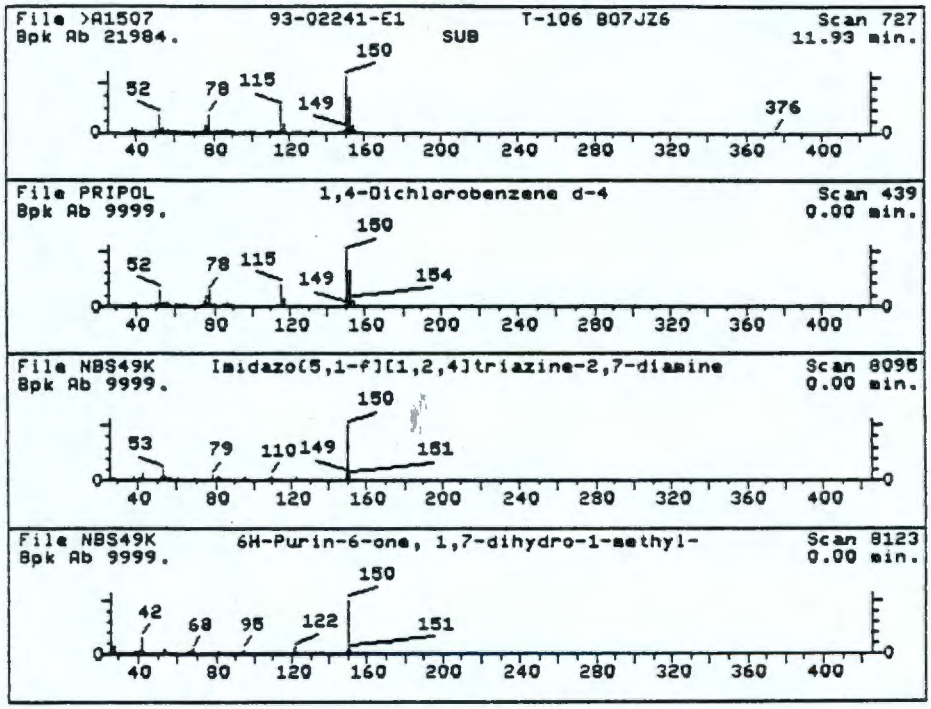


Instrument ID: BNA1 Analyzed on: 1/15/93 18:02
Result 8 in PBM results file: LA1507
Retention Time: 11.93 Area: 301240 Tentative Conc: 3800.00
The unknown area is 145.93% of the nearest internal standard

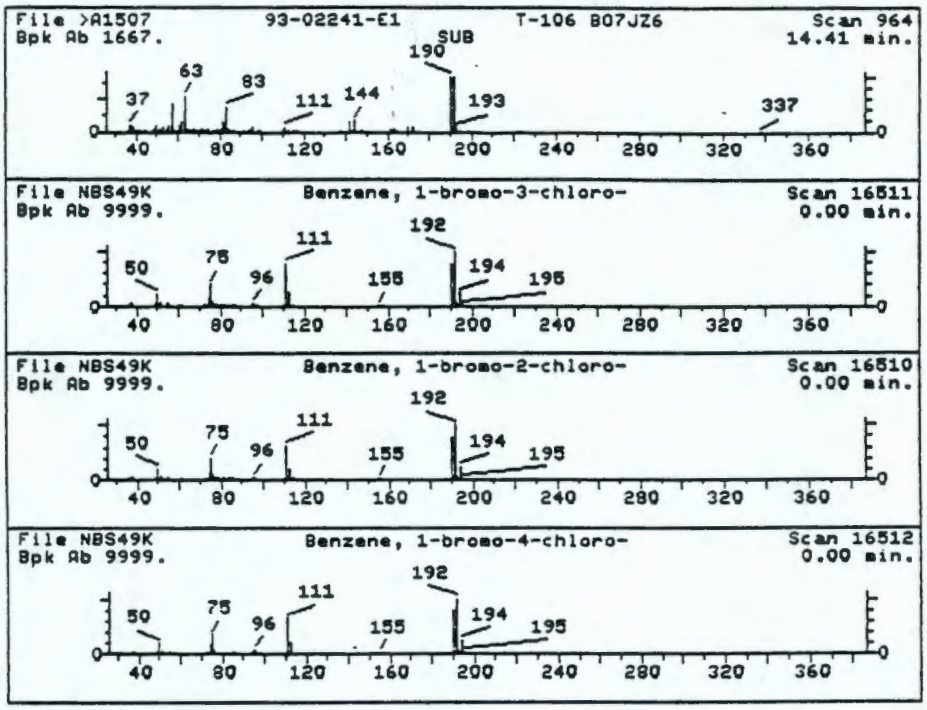
1.	1,4-Dichlorobenzene d-4	150	C6.D4.CL2
2.	Imidazo[5,1-f][1,2,4]triazine-2,7-diamine	150	C5H6N6
3.	6H-Purin-6-one, 1,7-dihydro-1-methyl-	150	C6H6N4O
4.	Ethanone, 1-(2-nitrophenyl)-	165	C8H7NO3
5.	Ethylenediamine, N-(m-methoxyphenyl)-N,N'-dimethyl-N'-phenyl-	270	C17H22N2O
6.	2-[3-(CHLOROACETOXY)-4-METHOXYPHENYL]-1,3-BENZODIOXA	334	C17H15ClO5

Sample file: >A1507 Spectrum #: 727
Search speed: 3 Tilting option: F No. of ion ranges searched: 139

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	96*	439	257	PRIPOL	95	12	0	0	82	11	64	97
2.	25*	51292207	19314	NBS49K	26	64	2	0	100	49	7	14
3.	25*	1125399	19320	NBS49K	20	72	2	0	100	49	7	13
4.	25*	577593	19423	NBS49K	24	77	3	0	100	49	7	12
5.	20*	32857399	19521	NBS49K	38	82	2	4	100	52	5	12
6.	20*	66267398	41938	NBS49K	42	98	2	4	66	52	5	12

F03-413

9613492.1563



Instrument ID: BNA1 Analyzed on: 1/15/93 18:02
Result 9 in PBM results file: LA1507
Retention Time: 14.41 Area: 24755 Tentative Conc: ~~270.00~~ 280 [illegible] 3/2/93
The unknown area is 10.32% of the nearest internal standard

1. Benzene, 1-bromo-3-chloro-	190	C6H4BrCl
2. Benzene, 1-bromo-2-chloro-	190	C6H4BrCl
3. Benzene, 1-bromo-4-chloro-	190	C6H4BrCl
4. Lycopodine (8CI)	247	C16H25NO
5. Naphtho[1,8-cd]-1,2-dithiole	190	C10H6S2
6. Pyrimidine, 2-chloro-5-phenyl-	190	C10H7ClN2

Sample file: >A1507 Spectrum #: 964
Search speed: 3 Tilting option: F No. of ion ranges searched: 37

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	31*	108372	26207	NBS49K	56	71	3	0	98	43	8	19
2.	26*	694804	26206	NBS49K	51	75	3	0	98	43	8	14
3.	25*	106398	26208	NBS49K	39	87	3	0	98	43	8	13
4.	20*	466615	26078	NBS49K	31	44	0	2	20	54	5	17

[illegible]

F03-414

QUANT REPORT

Operator ID: ERIC
Output File: ^A1508::OF
Data File: >A1508::D1
Name: 93-02241-E2
Misc: T-106 B07JZ6 DUP

Quant Rev: 7
Quant Time: 930115 19:46
Injected at: 930115 18:59
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 6

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930115 12:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.44	682	32672	40.00	ng/uL	98
2)	2-Fluorophenol	6.75	234	162109	162.05	ng/uL	89
3)	Phenol-d5	10.52	594	213157	178.60	ng/uL	94
4)	Phenol	0.00	0	0	0.00	ng/uL	
5)	bis(2-Chloroethyl)ether	0.00	0	0	0.00	ng/uL	
6)	2-Chlorophenol	0.00	0	0	0.00	ng/uL	
7)	1,3-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
8)	1,4-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	1,2-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	0	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	0.00	854	0	0.00	ng/uL	
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.40	1060	108677	40.00	ng/uL	99
17)	Nitrobenzene-d5	13.24	854	115873	101.87	ng/uL	92
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	0.00	0	0	0.00	ng/uL	
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	0.00	0	0	0.00	ng/uL	
30)	2-Methylnaphthalene	0.00	0	0	0.00	ng/uL	
31)	*Acenaphthene-d10	20.68	1567	53072	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	18.76	1383	152906	96.12	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	1567	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	0.00	0	0	0.00	ng/uL	

43)	2,4-Dinitrophenol	0.00	0	0	0.00	ng/uL	
44)	4-Nitrophenol	0.00	0	0	0.00	ng/uL	
45)	Dibenzofuran	0.00	0	0	0.00	ng/uL	
46)	2,4-Dinitrotoluene	0.00	0	0	0.00	ng/uL	
47)	Diethylphthalate	22.19	1712	1190	.601	ng/uL	92
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00	ng/uL	
49)	Fluorene	0.00	0	0	0.00	ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00	ng/uL	
51)	*Phenanthrene-d10	25.09	1990	94395	40.00	ng/uL	99
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00	ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1793	0	0.00	ng/uL	
54)	2,4,6-Tribromophenol	23.03	1793	40567	121.93	ng/uL	98
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00	ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00	ng/uL	
57)	Pentachlorophenol	0.00	0	0	0.00	ng/uL	
58)	Phenanthrene	0.00	0	0	0.00	ng/uL	
59)	Anthracene	0.00	0	0	0.00	ng/uL	
60)	Di-n-butylphthalate	27.12	2184	2070	.651	ng/uL	99
61)	Fluoranthene	0.00	0	0	0.00	ng/uL	
62)	*Chrysene-d12	32.95	2742	86136	40.00	ng/uL	92
63)	Pyrene	0.00	0	0	0.00	ng/uL	
64)	Terphenyl-d14	29.99	2459	170398	84.44	ng/uL	88
65)	Butylbenzylphthalate	0.00	0	0	0.00	ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00	ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00	ng/uL	
68)	Chrysene	0.00	0	0	0.00	ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	33.38	2783	1404	.633	ng/uL	99
70)	*Perylene-d12	36.87	3116	88941	40.00	ng/uL	97
71)	Di-n-octylphthalate	0.00	0	0	0.00	ng/uL	
72)	Benzo(b)fluoranthene	0.00	0	0	0.00	ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00	ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00	ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00	ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00	ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00	ng/uL	

* Compound is ISTD

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

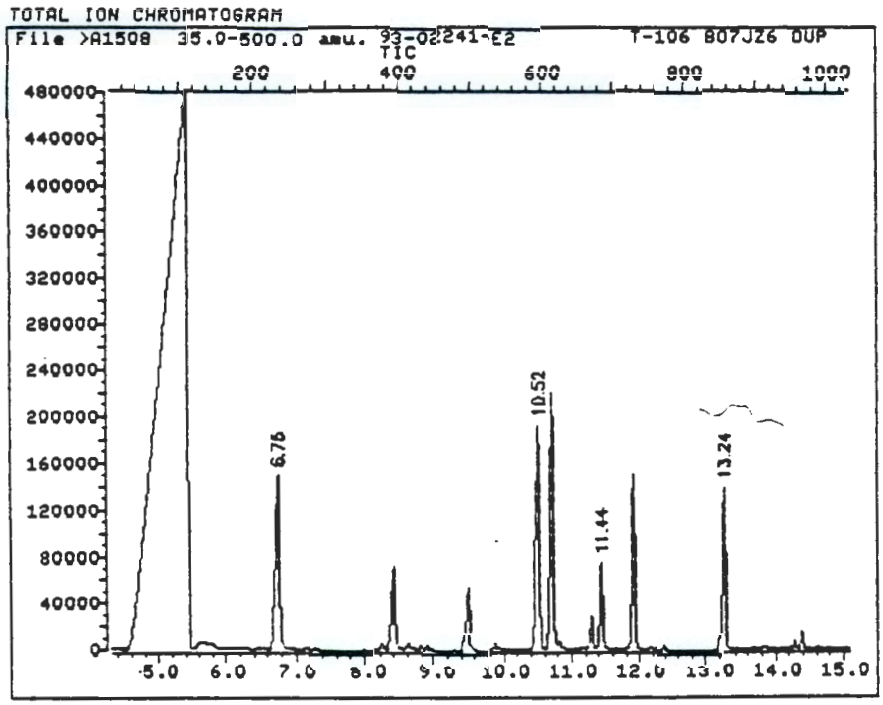
SAMPLE FILE = >A1508
CAL CHECK FILE = >A1502
DATE AND TIME OF ANALYSIS = 1/15/93 18:59
MISCELLANEOUS = T-106 B07JZ6 DUP
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

I. Areas

Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	32672	42040	21020	84080	OK
Naphthalene-d8	108677	145283	72641	290566	OK
Acenaphthene-d10	53072	69903	34951	139806	OK
Phenanthrene-d10	94395	127863	63931	255726	OK
Chrysene-d12	86136	100766	50383	201532	OK
Perylene-d12	88941	125861	62930	251722	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.44	11.42	10.92	11.92	OK
Naphthalene-d8	15.40	15.41	14.91	15.91	OK
Acenaphthene-d10	20.68	20.68	20.18	21.18	OK
Phenanthrene-d10	25.09	25.10	24.60	25.60	OK
Chrysene-d12	32.95	32.98	32.48	33.48	OK
Perylene-d12	36.86	36.89	36.39	37.39	OK



Data File: >A1508::D1
Name: 93-02241-E2
Misc: T-106 B07JZ6 DUP

Quant Output File: ^A1508::OF
Instrument ID: BNA1

BTL# 6

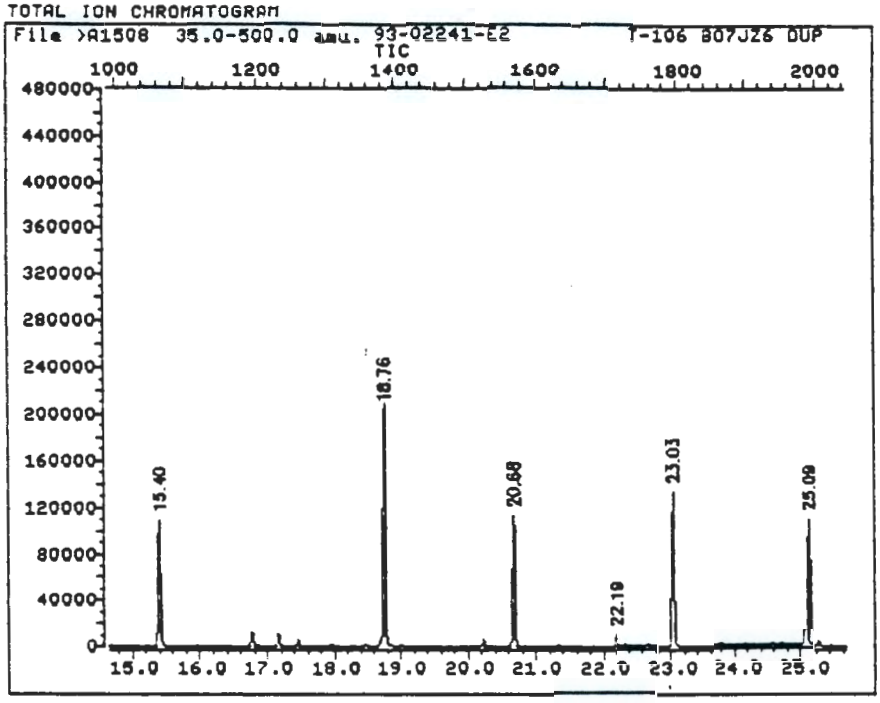
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 19:46
Injected at: 930115 18:59

Page 1 of 4

TOTAL ION CHROMATOGRAM



Data File: >A1508::D1
Name: 93-02241-E2
Misc: T-106 B07JZ6 DUP

Quant Output File: ^A1508::OF
Instrument ID: BNA1

BTL.# 6

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 19:46
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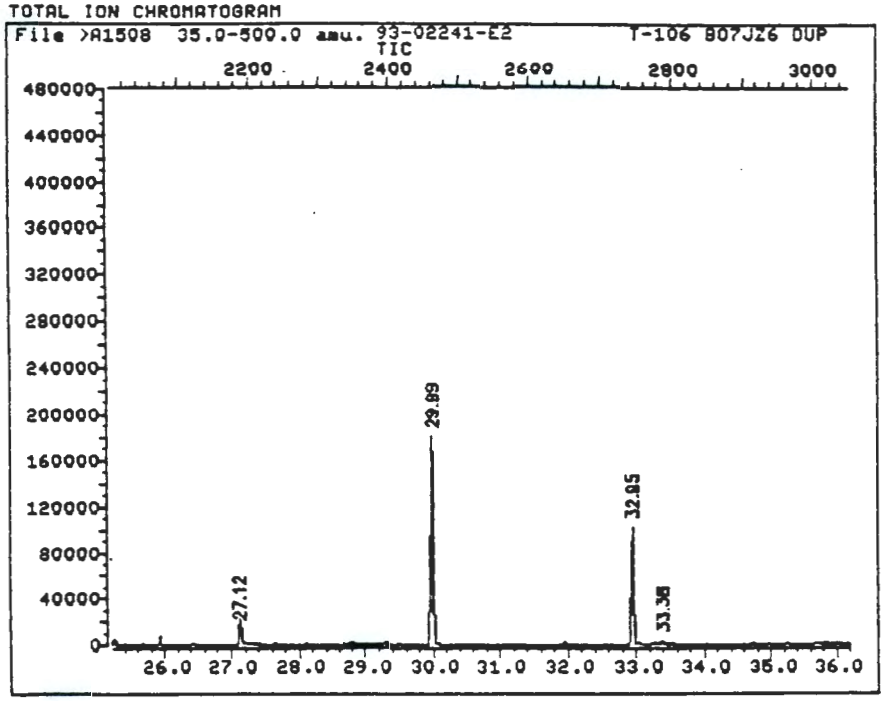
TOTAL ION CHROMATOGRAM

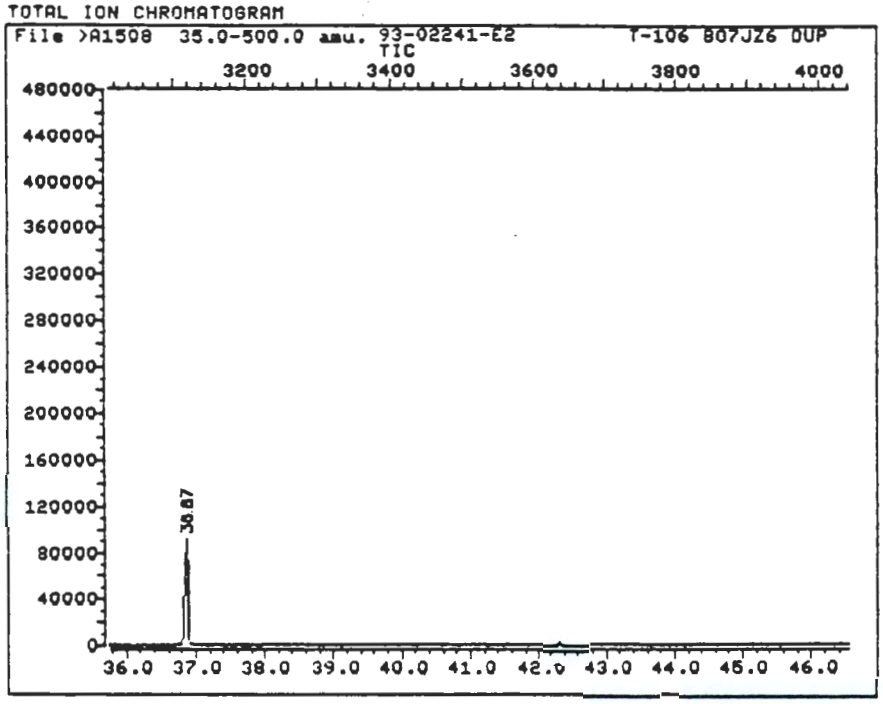


Data File: >A1508::D1 Quant Output File: ^A1508::QF
Name: 93-02241-E2 Instrument ID: BNA1
Misc: T-106 B07JZ6 DUP BTL# 6

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930115 12:23

Operator ID: ERIC
Quant Time : 930115 19:46
Injected at: 930115 18:59

TOTAL ION CHROMATOGRAM



Data File: >A1508::D1
Name: 93-02241-E2
Misc: T-106 B07JZ6 DUP

Quant Output File: ^A1508::OF
Instrument ID: BNA1
BTL# 6

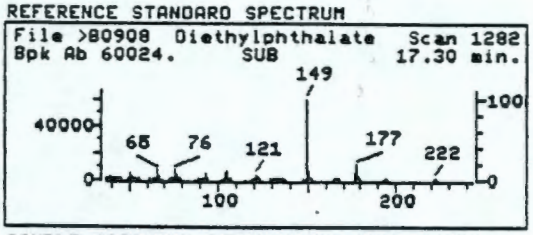
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930115 12:23

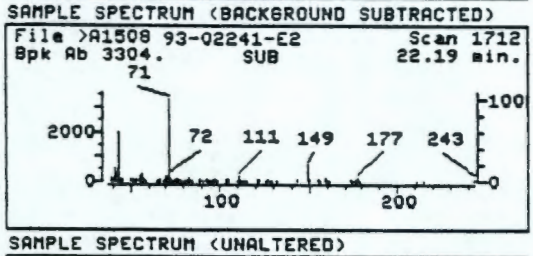
Operator ID: ERIC
Quant Time : 930115 19:46
Injected at: 930115 18:59

Page 4 of 4

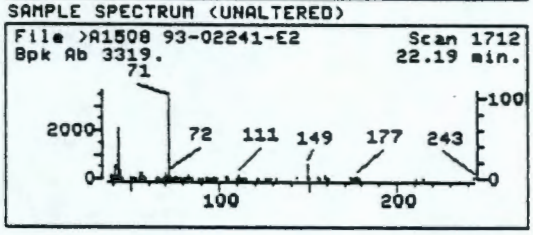
REFERENCE STANDARD SPECTRUM

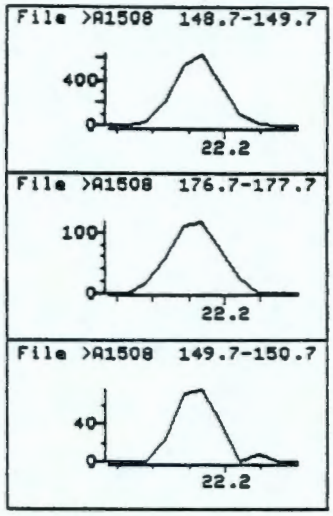


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



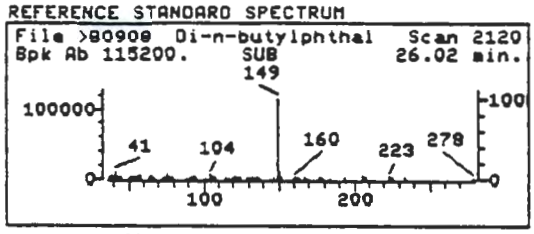


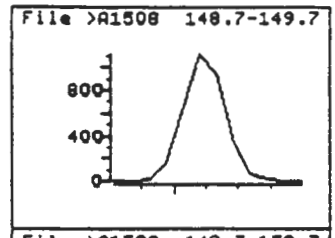
Data File: >A1508::D1
Name: 93-02241-E2
Misc: T-106 B07JZ6 DUP
Quant Time: 930115 19:46
Injected at: 930115 18:59
Last Qcal Time: 930115 12:23

Quant Output File: ^A1508::OF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

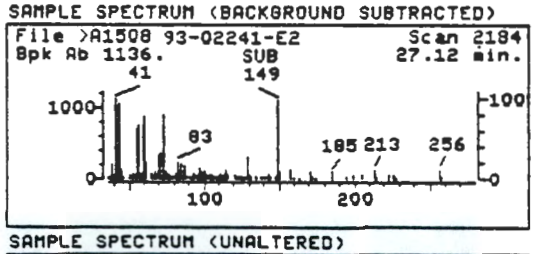
Compound No : 47
Compound Name : Diethylphthalate
Scan Number : 1712
Retention Time: 22.19 min.
Quant Ion : 149.0
Area : 1190
Concentration : .601 ng/uL
q-value : 92

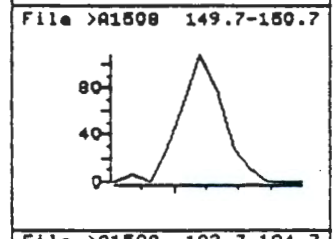
REFERENCE STANDARD SPECTRUM



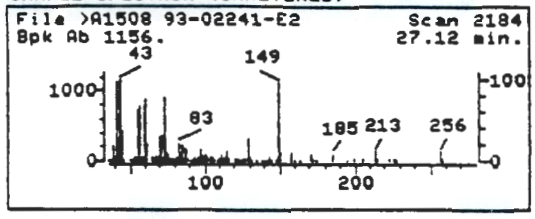


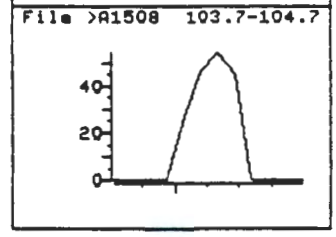
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





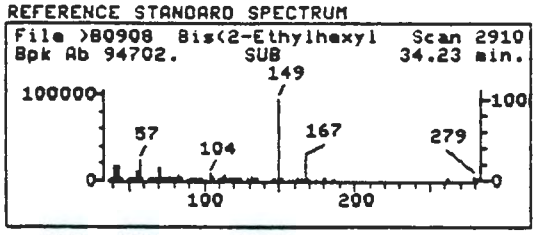
Data File: >A1508::D1
Name: 93-02241-E2
Misc: T-106 B07JZ6 DUP
Quant Time: 930115 19:46
Injected at: 930115 18:59
Last Qcal Time: 930115 12:23

Quant Output File: ^A1508::OF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2184
Retention Time: 27.12 min.
Quant Ion : 149.0
Area : 2070
Concentration : .651 ng/uL
q-value : 99

Delete

REFERENCE STANDARD SPECTRUM



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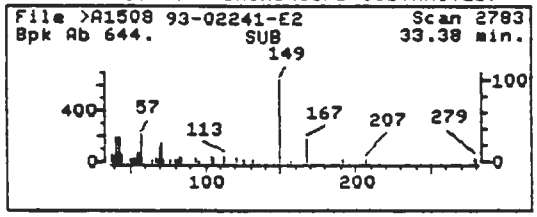

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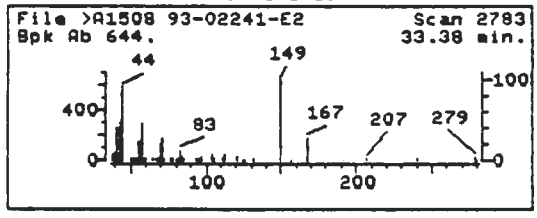
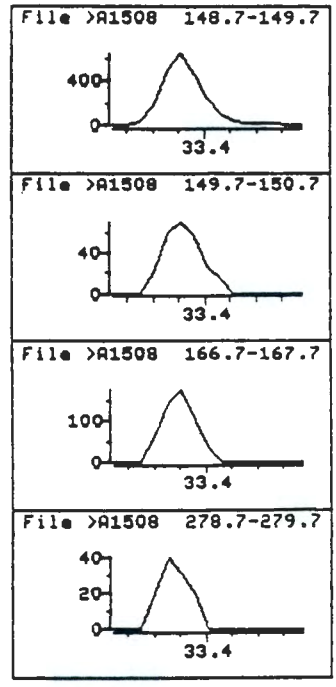




Data File: >A1508::D1
Name: 93-02241-E2
Misc: T-106 B07JZ6 DUP
Quant Time: 930115 19:46
Injected at: 930115 18:59
Last Qcal Time: 930115 12:23

Quant Output File: ^A1508::QF
Instrument ID: BNA1
BTL# 6
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2783
Retention Time: 33.38 min.
Quant Ion : 149.0
Area : 1404
Concentration : .633 ng/uL
q-value : 99

9615492.1574

MS data file header from : >A1508::D1

Sample: 93-02241-E2 Operator: ERIC SUPER GRP. 1/15/93 18:59
Misc : T-106 B07JZ6 DUP BTL# 6
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 6 Equip ID: BNA1
Method file: BNAME1 Tuning file: MTBNA1 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	40.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.5	0.0

>A1508 93-02241-E2 T-106 B07JZ6 DUP
35.01 500.0 CLP TIC
Upslope: .2000 Area Reject: 21964. Max Peaks: 10 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File IA1508 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	5.43	22	108	116	478379	12453847	12392141	100.00	87.12
2	5.65	116	129	161	5446	112501	71249*	.57	.50
3	8.40	382	392	405	71308	287903	275278	2.22	1.93
4	9.48	486	495	519	52388	201080	190440	1.54	1.33
5	10.72	605	613	620	220069	711415	707477	5.71	4.97
6	11.29	661	668	674	27100	81503	77123	.62	.54
7	11.91	714	727	737	149015	439829	428076	3.45	3.01
8	14.38	958	963	969	14276	33556	30629	.25	.21
9	16.77	1183	1192	1197	11932	29642	26449	.21	.18
10	17.17	1224	1230	1241	11169	27922	24083	.19	.16

Sum of corrected areas: 14222950.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	219639.	11.44	4.31 - 13.42
2	40.0	257665.	15.40	13.42 - 18.04
3	40.0	258407.	20.68	18.04 - 22.88
4	40.0	269880.	25.09	22.88 - 29.02
5	40.0	265624.	32.95	29.02 - 34.91
6	40.0	273136.	36.87	34.91 - 46.54

Dilution Factor = 1.00 This sample was 30.3000 g or mL

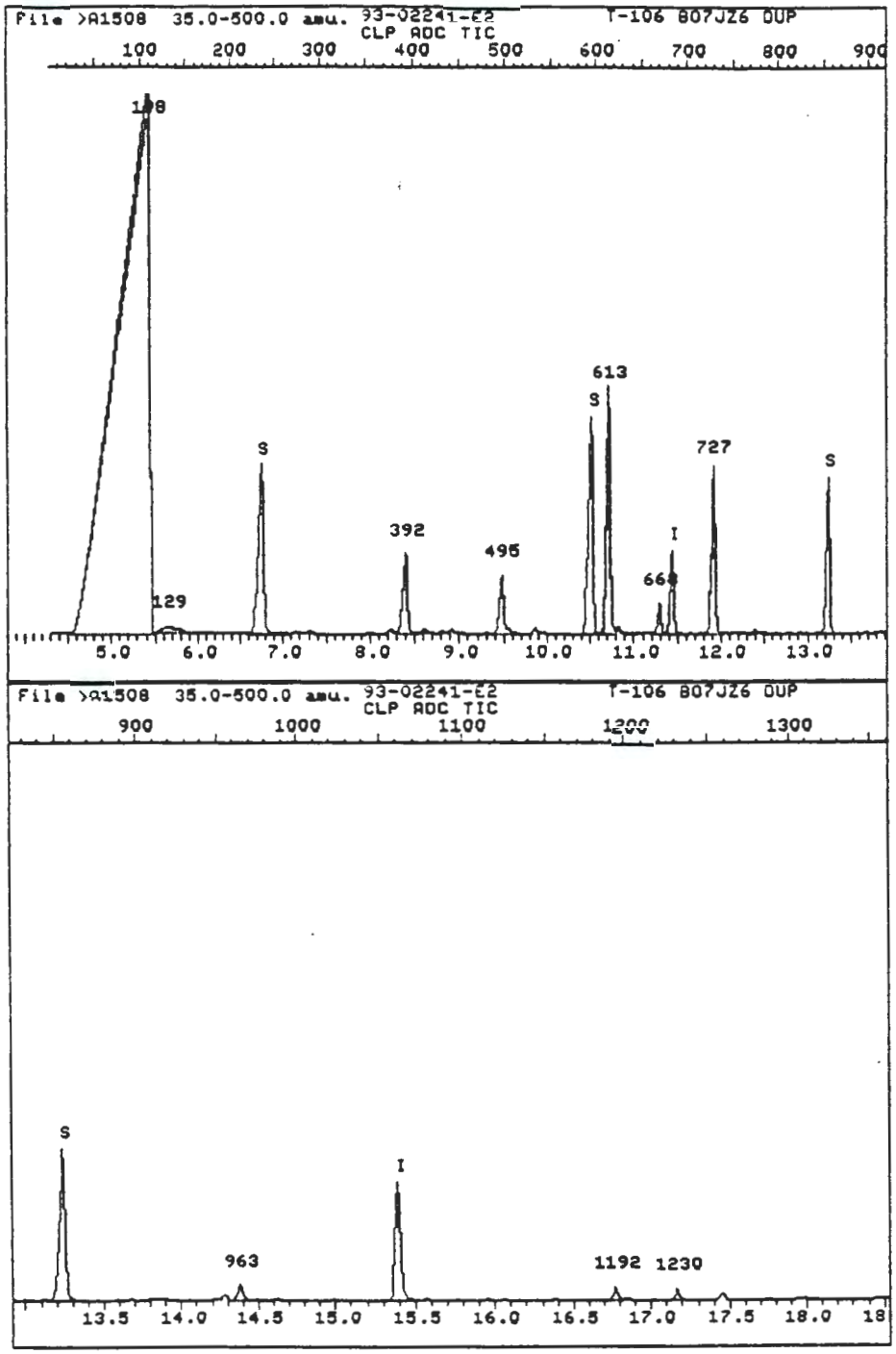
Correction Factor = 33.04

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std} * \text{Area Unknown}}{\text{Area Int Std}} * \text{Correction Factor}$$

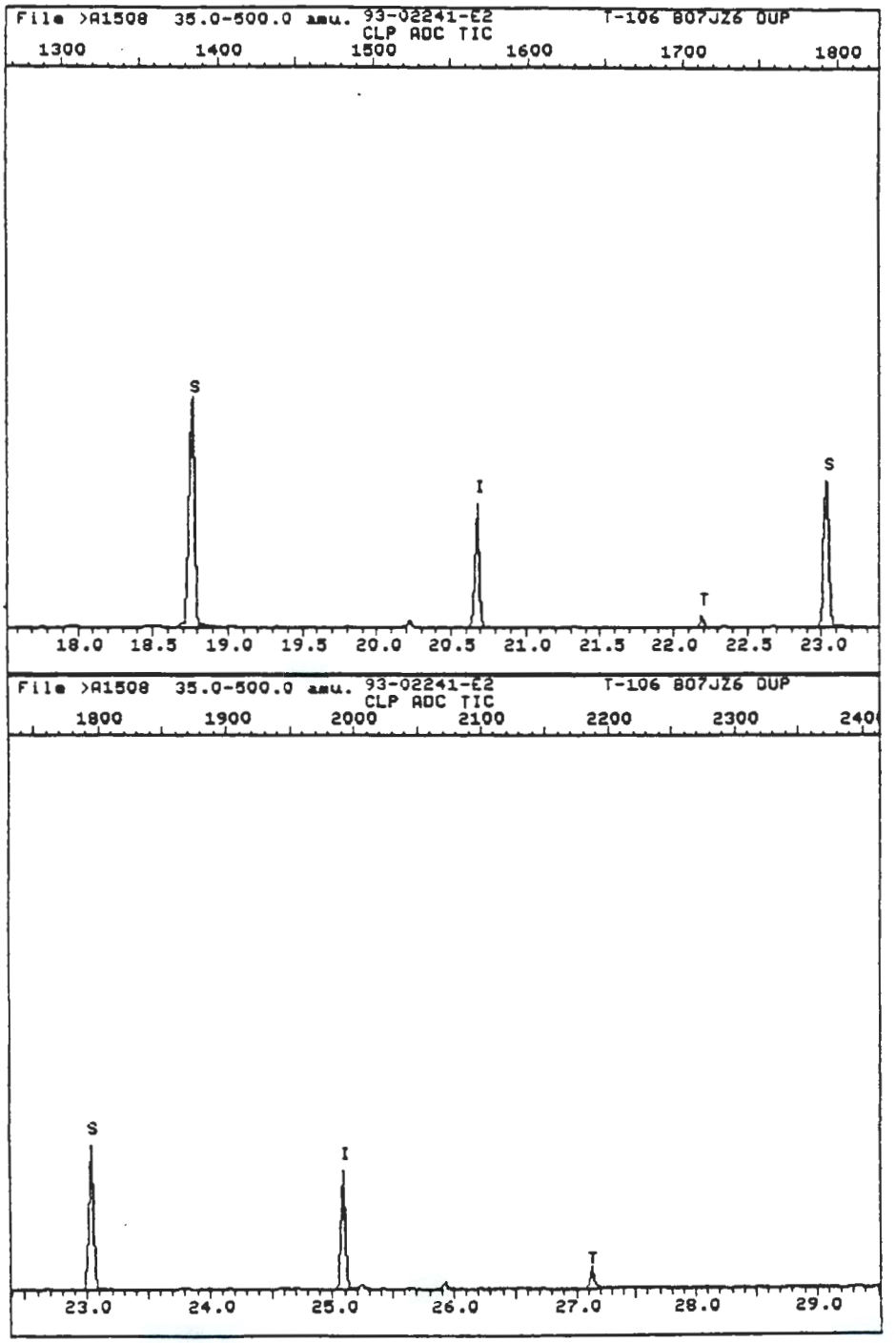
11:45 AM WED., 24 FEB., 1993

Conc = value / .972 = correction for moisture [illegible] 3/2/93

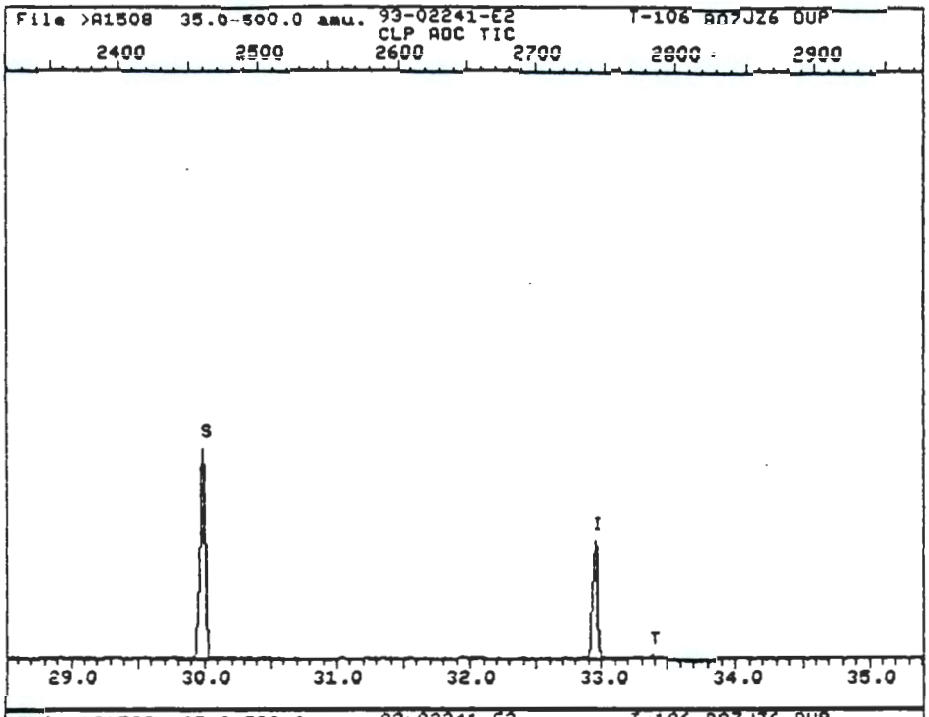
F03-425

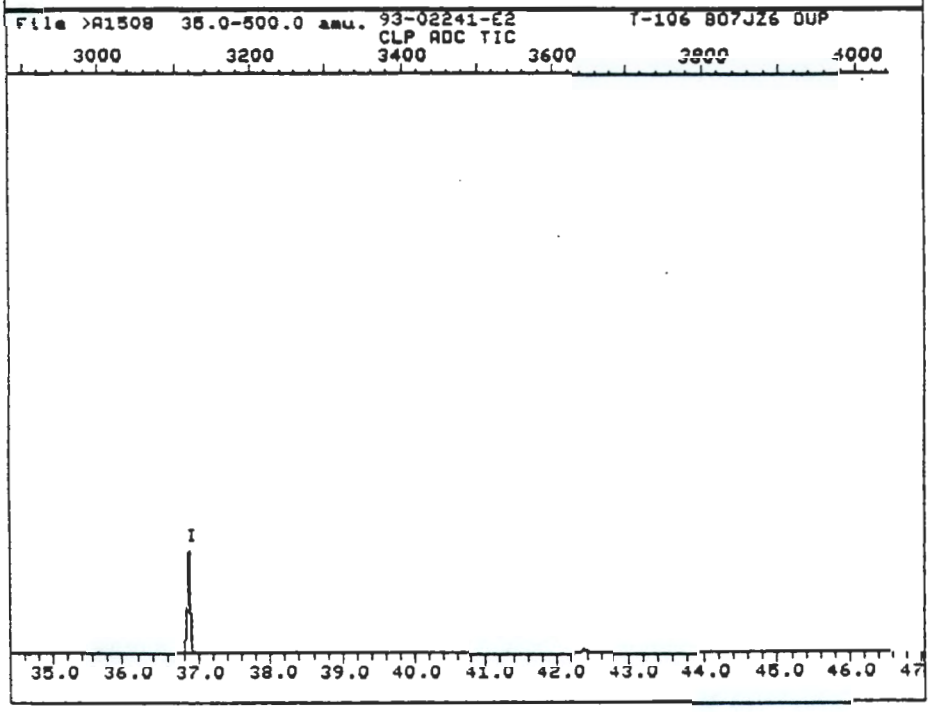


Instrument ID: BNA1 Analyzed on: 1/15/93 18:59

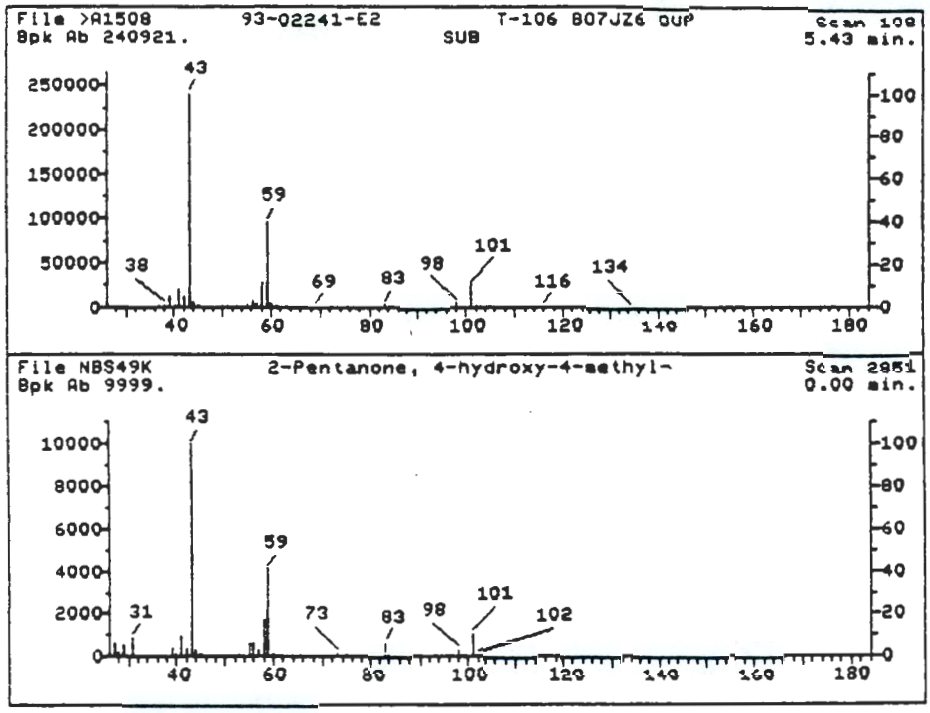


Instrument ID: BNA1 Analyzed on: 1/15/93 18:59





Instrument ID: BNA1 Analyzed on: 1/15/93 18:59



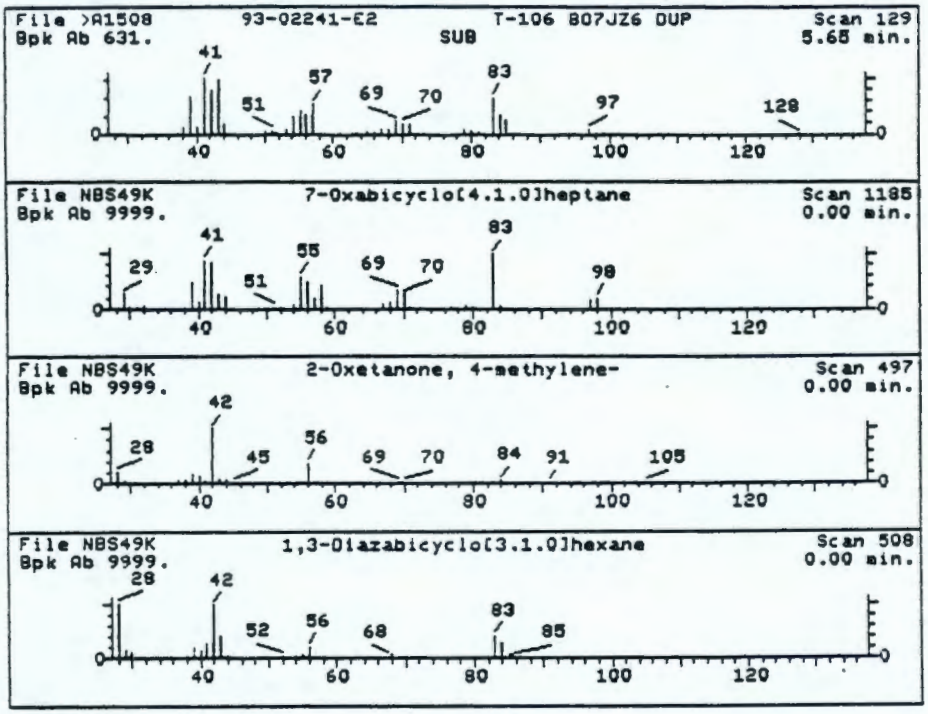
Instrument ID: BNA1 Analyzed on: 1/15/93 18:59
Result 1 in PBM results file: LA1508
Retention Time: 5.43 Area: 12392140 Tentative Conc: ~~75000.00~~ 17000 ug/L 1/21/93
The unknown area is 5642.0% of the nearest internal standard

1. 2-Pentanone, 4-hydroxy-4-methyl- 116 C6H12O2

Sample file: >A1508 Spectrum #: 108
Search speed: 3 Tilting option: F No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	45	123422	1790	NBS49K	47	36	2	0	73	22	17	16

9613492.1579



Instrument ID: BNA1 Analyzed on: 1/15/93 18:59
Result 2 in PBM results file: LA1508
Retention Time: 5.65 Area: 71249 Tentative Conc: ~~430.80~~
The unknown area is 32.44% of the nearest internal standard 440 [illegible] 3/2/93

1. 7-Oxabicyclo[4.1.0]heptane	98	C6H10O
2. 2-Oxetanone, 4-methylene-	84	C4H4O2
3. 1,3-Diazabicyclo[3.1.0]hexane	84	C4H8N2
4. Aziridine, 1,2,3-trimethyl-, trans-	85	C5H11N
5. Cyclopentanone, 2-methyl-	98	C6H10O
6. Azetidine, 1,3-dimethyl-	85	C5H11N

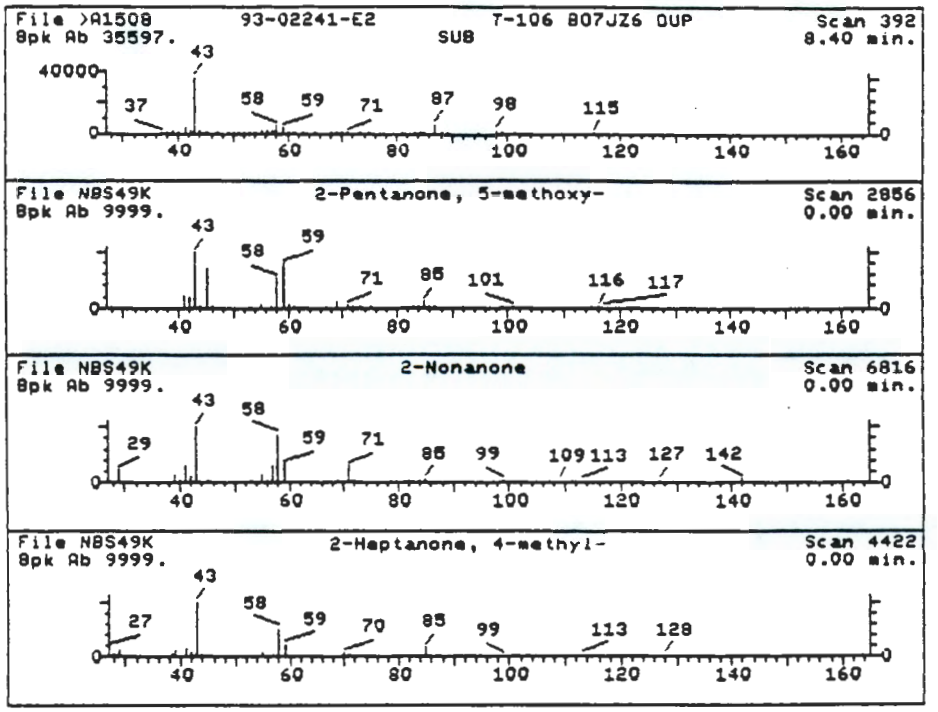
Sample file: >A1508 Spectrum #: 129
Search speed: 3 Tilting option: F No. of ion ranges searched: 69

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	35	286204	6142	NBS49K	61	54	2	0	64	30	14	12
2.	25*	674828	1010	NBS49K	20	57	1	0	75	50	7	14
3.	25*	17038287	6268	NBS49K	20	74	2	0	75	42	8	13
4.	25*	693889	3828	NBS49K	21	79	2	0	75	50	7	13
5.	20	1120725	9436	NBS49K	41	56	1	0	61	51	5	12
6.	20*	55683380	6514	NBS49K	29	61	2	0	75	55	5	14

cal

F03-430

9613492.1580



Instrument ID: BNA1 Analyzed on: 1/15/93 18:59
Result 3 in PBM results file: LA1508
Retention Time: 8.40 Area: 275278 Tentative Conc: 1700.00
The unknown area is 125.33% of the nearest internal standard n.c. [illegible] 3/26/93

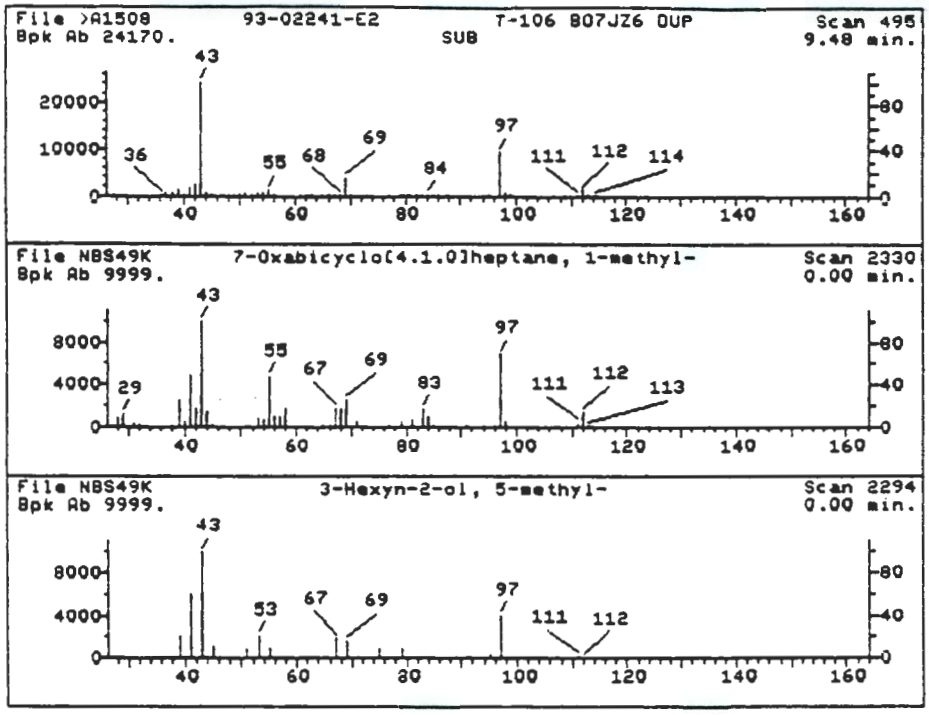
1. 2-Pentanone, 5-methoxy-	116	C6H12O2
2. 2-Nonanone	142	C9H18O
3. 2-Heptanone, 4-methyl-	128	C8H16O
4. Butanoic acid, 2-ethyl-3-oxo-, methyl ester	144	C7H12O3

Sample file: >A1508 Spectrum #: 392
Search speed: 3 Tilting option: F No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	20*	17429048	1791	NBS49K	20	47	2	0	14	52	5	13

int A

F03-431

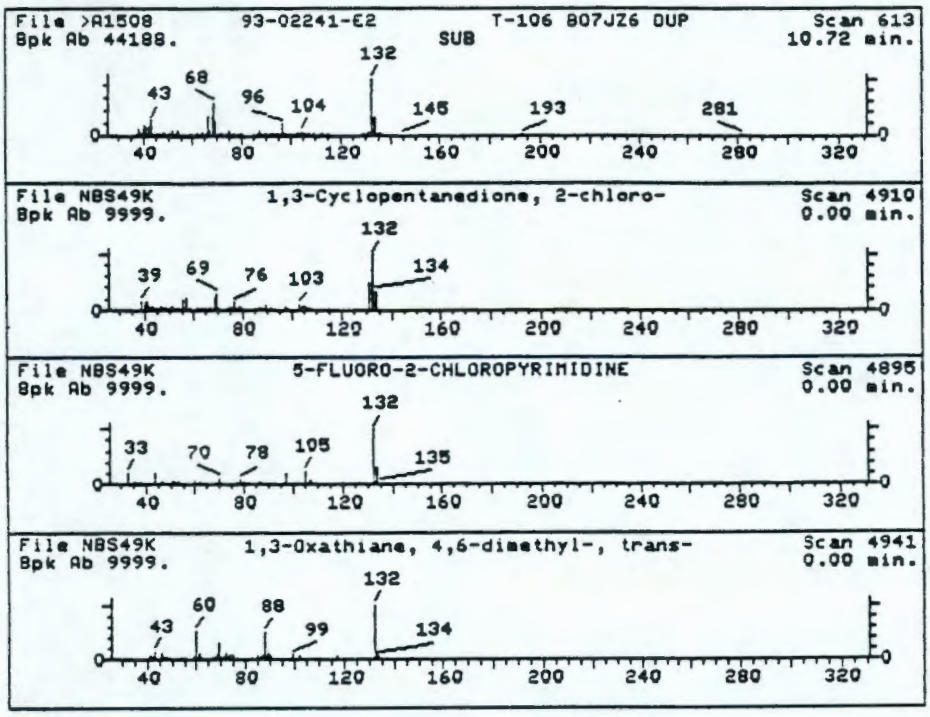


Instrument ID: BNA1 Analyzed on: 1/15/93 18:59
Result 4 in PBM results file: LA1508
Retention Time: 9.48 Area: 190440 Tentative Conc: 1100.00
The unknown area is 86.71% of the nearest internal standard NC 3/2/93

1. 7-Oxabicyclo[4.1.0]heptane, 1-methyl- 112 C7H12O
2. 3-Hexyn-2-ol, 5-methyl- 112 C7H12O

Sample file: >A1508 Spectrum #: 495
Search speed: 3 Tilting option: F No. of ion ranges searched: 47

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	35*	1713333	9098	NBS49K	41	64	2	3	69	30	14	12
2.	31*	23293507	9091	NBS49K	26	63	2	0	99	34	12	14



Instrument ID: BNA1 Analyzed on: 1/15/93 18:59
Result 5 in PBM results file: LA1508
Retention Time: 10.72 Area: 707477 Tentative Conc: 4300.00
The unknown area is 322.11% of the nearest internal standard

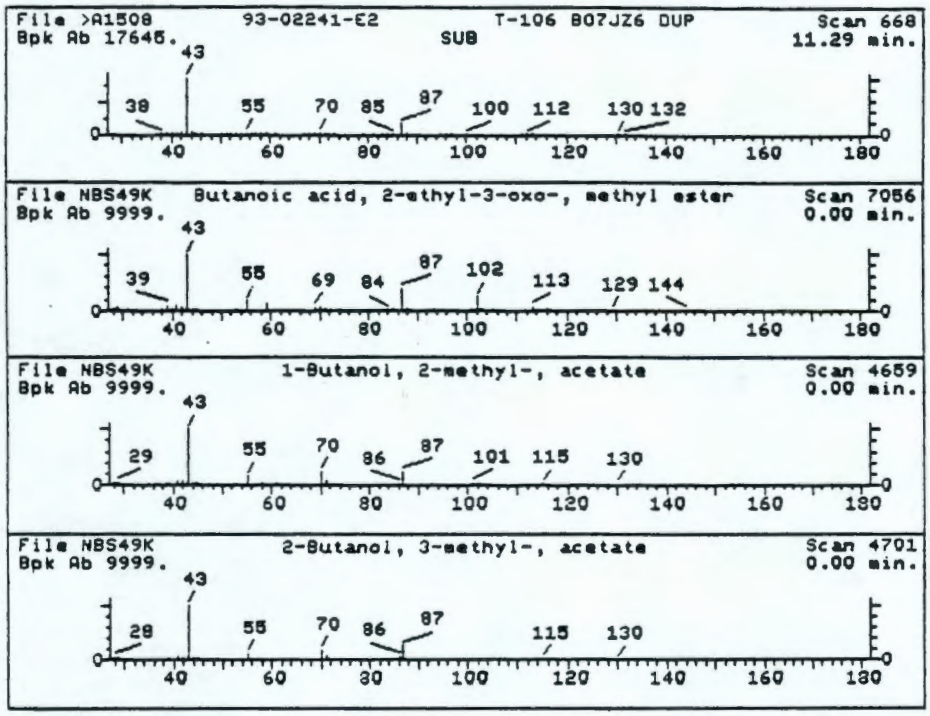
1.	1,3-Cyclopentanedione, 2-chloro-	132	C5H5ClO2
2.	5-FLUORO-2-CHLOROPYRIMIDINE	132	C4H2ClFN2
3.	1,3-Oxathiane, 4,6-dimethyl-, trans-	132	C6H12OS
4.	1H-Pyrrole, 2,5-dihydro-	69	C4H7N
5.	1H-Pyrazole	68	C3H4N2
6.	Benzeneethanamine, .alpha.-methyl-N-(phenylmethylene	223	C16H17N

Sample file: >A1508 Spectrum #: 613
Search speed: 3 Tilting option: F No. of ion ranges searched: 44

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	37*	14203191	15856	NBS49K	28	83	2	0	99	30	14	14
2.	26*	62802420	15850	NBS49K	41	67	2	0	100	43	8	14
3.	25*	22452262	15866	NBS49K	21	90	2	0	100	49	7	13
4.	25*	109966	3541	NBS49K	28	28	0	3	28	42	8	13
5.	23*	288131	3527	NBS49K	44	32	0	-4	80	56	6	40
6.	20*	2980021	16019	NBS49K	23	83	2	0	100	53	5	13

dilute - see file >A1403
[illegible] 2/25/93

F03-433



Instrument ID: BNA1 Analyzed on: 1/15/93 18:59
Result 6 in PBM results file: LA1508
Retention Time: 11.29 Area: 77123 Tentative Conc: ~~468.00~~
The unknown area is 35.11% of the nearest internal standard 470 RDM 3/2/93

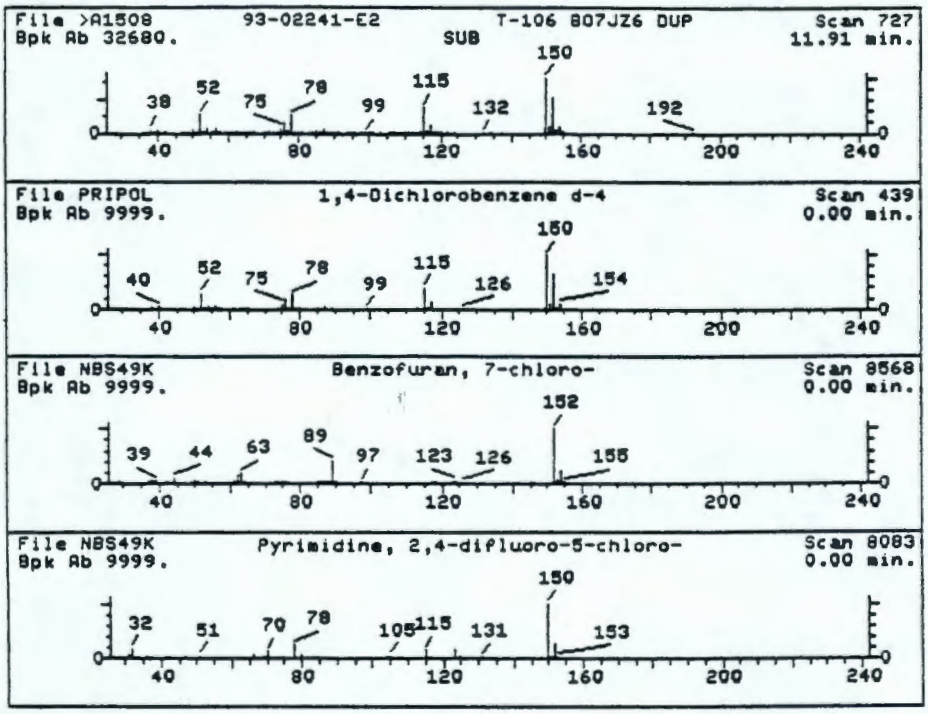
1. Butanoic acid, 2-ethyl-3-oxo-, methyl ester 144 C7H12O3
2. 1-Butanol, 2-methyl-, acetate 130 C7H14O2
3. 2-Butanol, 3-methyl-, acetate 130 C7H14O2

Sample file: >A1508 Spectrum #: 668
Search speed: 3 Tilting option: F No. of ion ranges searched: 50

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25*	51756082	7336	NBS49K	22	70	2	0	52	47	7	13
2.	20*	624419	7299	NBS49K	37	44	2	0	87	52	5	18
3.	20*	5343964	7303	NBS49K	39	36	2	0	79	52	5	19

mk

9613492.1584



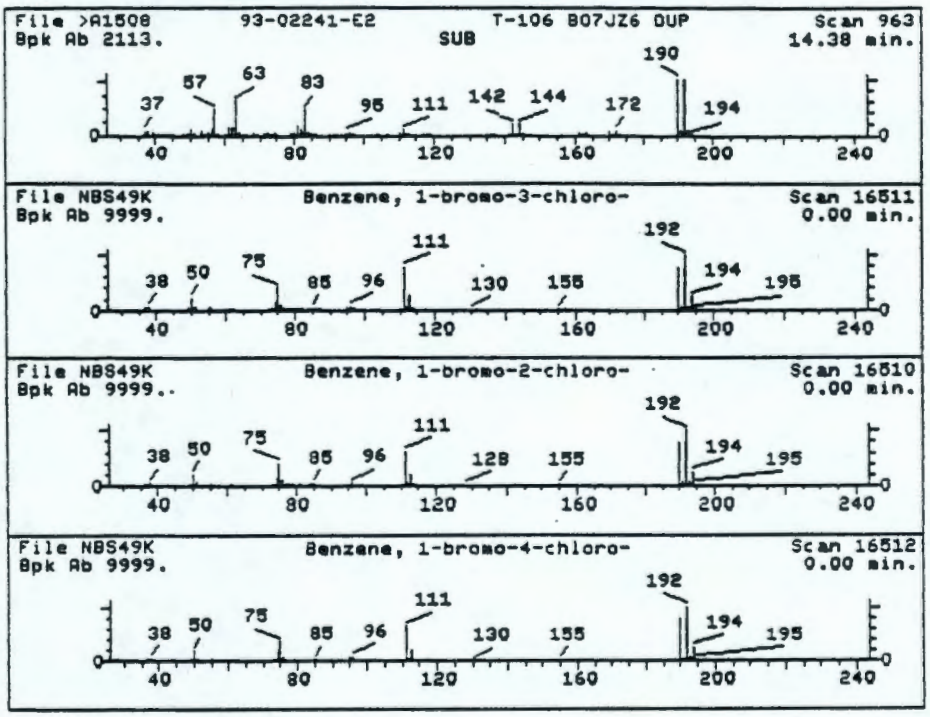
Instrument ID: BNA1 Analyzed on: 1/15/93 18:59
Result 7 in PBM results file: LA1508
Retention Time: 11.91 Area: 428076 Tentative Conc: 2600.00
The unknown area is 194.90% of the nearest internal standard

1. 1,4-Dichlorobenzene d-4	150	C6.D4.CL2
2. Benzofuran, 7-chloro-	152	C8H5ClO
3. Pyrimidine, 2,4-difluoro-5-chloro-	150	C4HClF2N2
4. Benzenebutanoic acid, 3-nitro-.gamma.-oxo-	223	C10H9NO5
5. Acenaphthylene	152	C12H8
6. Ethanone, 1-(2-nitrophenyl)-	165	C8H7NO3

Sample file: >A1508 Spectrum #: 727
Search speed: 3 Tilting option: F No. of ion ranges searched: 37

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	97*	439	257	PRIPOL	95	12	0	0	86	7	68	97
2.	25*	24410557	19743	NBS49K	40	49	2	1	47	45	8	13
3.	25*	25151079	19311	NBS49K	22	78	2	0	100	43	8	13
4.	24*	6328003	19489	NBS49K	54	59	2	3	53	55	7	24

blank - see file >A1403



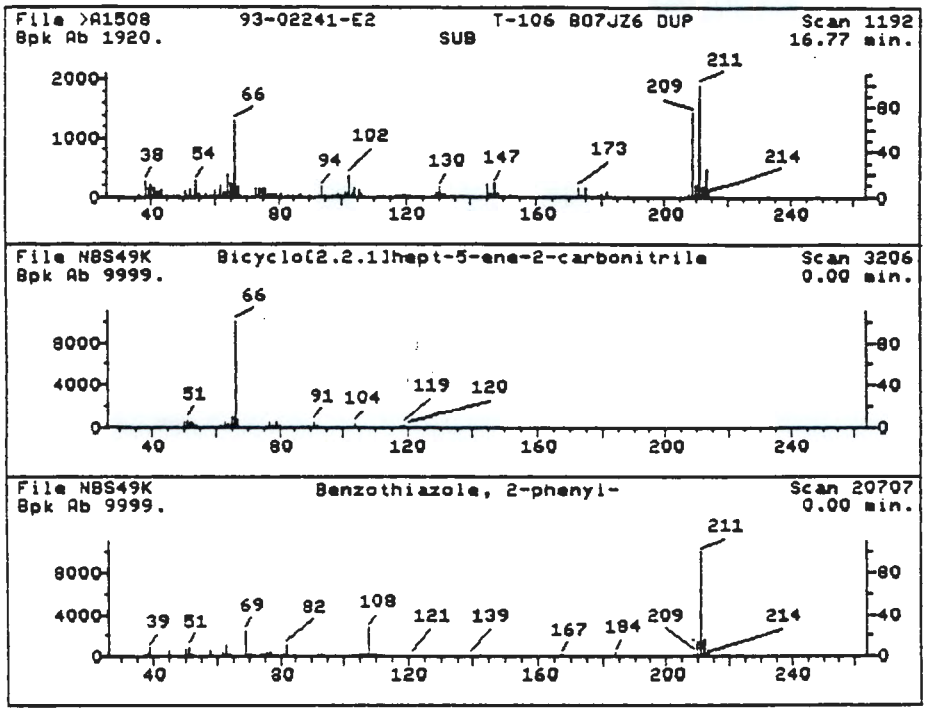
Instrument ID: BNA1 Analyzed on: 1/15/93 18:59
Result 8 in PBM results file: LA1508
Retention Time: 14.38 Area: 30629 Tentative Conc: 160.00
The unknown area is 11.89% of the nearest internal standard nc 1/15/93

1. Benzene, 1-bromo-3-chloro- 190 C6H4BrCl
2. Benzene, 1-bromo-2-chloro- 190 C6H4BrCl
3. Benzene, 1-bromo-4-chloro- 190 C6H4BrCl

Sample file: >A1508 Spectrum #: 963
Search speed: 3 Tilting option: F No. of ion ranges searched: 36

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	31*	108372	26207	NBS49K	56	71	3	0	98	42	8	19
2.	26*	694804	26206	NBS49K	51	75	3	0	98	42	8	14
3.	25*	106398	26208	NBS49K	45	81	3	0	98	42	8	13

cont



Instrument ID: BNA1 Analyzed on: 1/15/93 18:59
Result 9 in PBM results file: LA1508
Retention Time: 16.77 Area: 26449 Tentative Conc: 140.00
The unknown area is 10.26% of the nearest internal standard nc 3/2/93

1. Bicyclo[2.2.1]hept-5-ene-2-carbonitrile 119 C8H9N
2. Benzothiazole, 2-phenyl- 211 C13H9NS

Sample file: >A1508 Spectrum #: 1192
Search speed: 3 Tilting option: F No. of ion ranges searched: 35

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	29*	95114	3102	NBS49K	42	25	1	1	41	42	8	17

unk

Instrument ID: BNA1 Analyzed on: 1/15/93 18:59

Retention Time: 17.17 Area: 24083 Tentative Conc: 120.00

The unknown area is 9.35% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

QUANT REPORT

Operator ID: MANAGER
Output File: ^A3003::OF
Data File: >A3003::D1
Name: 93-02239-E1
Misc: B07JZ4, T-106

Quant Rev: 7
Quant Time: 930201 10:01
Injected at: 930129 16:46
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 1

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930129 15:50

	Compound	R.T.	Scan#	Area	Conc	Units	c
1)	*1,4-Dichlorobenzene-d4	11.35	673	39221	40.00	ng/uL	9
2)	2-Fluorophenol	6.68	226	239754	176.74	ng/uL	9
3)	Phenol-d5	10.46	588	308111	191.41	ng/uL	9
4)	Phenol	0.00	0	0	0.00	ng/uL	
5)	bis(2-Chloroethyl)ether	0.00	0	0	0.00	ng/uL	
6)	2-Chlorophenol	0.00	0	0	0.00	ng/uL	
7)	1,3-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
8)	1,4-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	1,2-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	767	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	0.00	846	0	0.00	ng/uL	
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.32	1052	132506	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.17	846	131855	83.65	ng/uL	9
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	0.00	0	0	0.00	ng/uL	
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	0.00	0	0	0.00	ng/uL	
30)	2-Methylnaphthalene	0.00	0	0	0.00	ng/uL	
31)	*Acenaphthene-d10	20.60	1558	64091	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	18.69	1375	171450	79.20	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	1558	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	0.00	0	0	0.00	ng/uL	

43)	2,4-Dinitrophenol	0.00	0	0	0.00 ng/uL	
44)	4-Nitrophenol	0.00	0	0	0.00 ng/uL	
45)	Dibenzofuran	0.00	0	0	0.00 ng/uL	
46)	2,4-Dinitrotoluene	0.00	0	0	0.00 ng/uL	
47)	Diethylphthalate	0.00	0	0	0.00 ng/uL	
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00 ng/uL	
49)	Fluorene	0.00	0	0	0.00 ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00 ng/uL	
51)	*Phenanthrene-d10	25.01	1980	112793	40.00 ng/uL	9
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00 ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1785	0	0.00 ng/uL	
54)	2,4,6-Tribromophenol	22.97	1785	72108	160.17 ng/uL	9
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00 ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00 ng/uL	
57)	Pentachlorophenol	0.00	0	0	0.00 ng/uL	
58)	Phenanthrene	0.00	0	0	0.00 ng/uL	
59)	Anthracene	0.00	0	0	0.00 ng/uL	
60)	Di-n-butylphthalate	27.04	2174	2862	.655 ng/uL	9
61)	Fluoranthene	0.00	0	0	0.00 ng/uL	
62)	*Chrysene-d12	32.87	2727	105057	40.00 ng/uL	9
63)	Pyrene	0.00	0	0	0.00 ng/uL	
64)	Terphenyl-d14	29.92	2447	195646	73.17 ng/uL	8
65)	Butylbenzylphthalate	0.00	0	0	0.00 ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00 ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00 ng/uL	
68)	Chrysene	0.00	0	0	0.00 ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	33.31	2768	3600	1.17 ng/uL	9
70)	*Perylene-d12	36.79	3097	116780	40.00 ng/uL	9
71)	Di-n-octylphthalate	35.16	2943	2191	.434 ng/uL	9
72)	Benzo(b)fluoranthene	0.00	0	0	0.00 ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00 ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00 ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00 ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00 ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00 ng/uL	

* Compound is ISTD

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >A3003
CAL CHECK FILE = >A3002
DATE AND TIME OF ANALYSIS = 1/29/93 16:46
MISCELLANEOUS = B07JZ4, T-106
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = MANAGER SUPER GRP

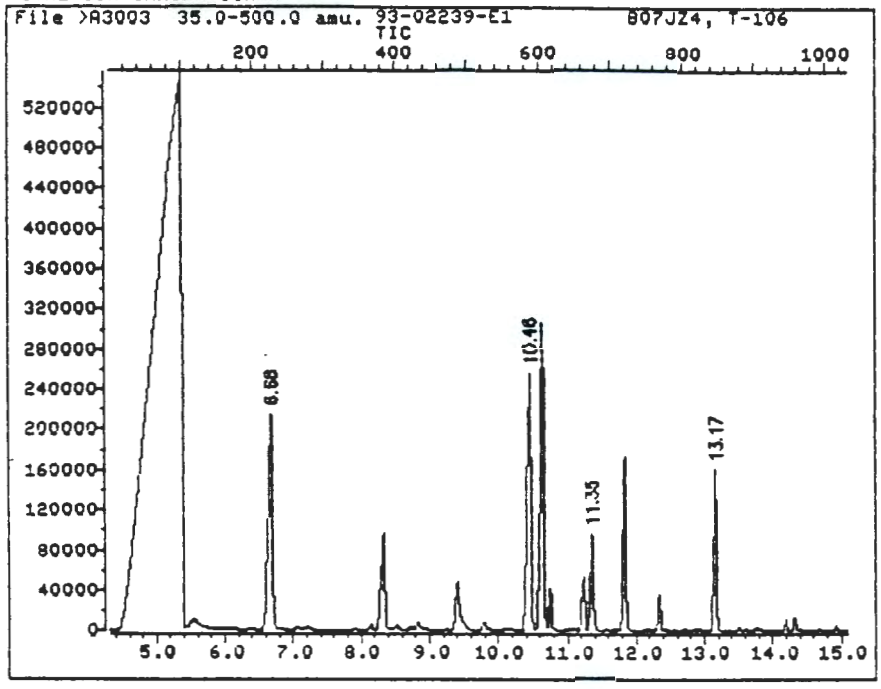
I. Areas

Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	39221	39750	19875	79500	OK
Naphthalene-d8	132506	135073	67536	270146	OK
Acenaphthene-d10	64091	65573	32786	131146	OK
Phenanthrene-d10	112793	120560	60280	241120	OK
Chrysene-d12	105057	97759	48880	195518	OK
Perylene-d12	116780	119406	59703	238812	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.35	11.34	10.84	11.84	OK
Naphthalene-d8	15.32	15.33	14.83	15.83	OK
Acenaphthene-d10	20.60	20.61	20.11	21.11	OK
Phenanthrene-d10	25.01	25.02	24.52	25.52	OK
Chrysene-d12	32.87	32.90	32.40	33.40	OK
Perylene-d12	36.79	36.80	36.30	37.30	OK

TOTAL ION CHROMATOGRAM



Data File: >A3003::D1
Name: 93-02239-E1
Misc: B07JZ4, T-106

Quant Output File: ^A3003::QF
Instrument ID: BNA1
BTL# 1

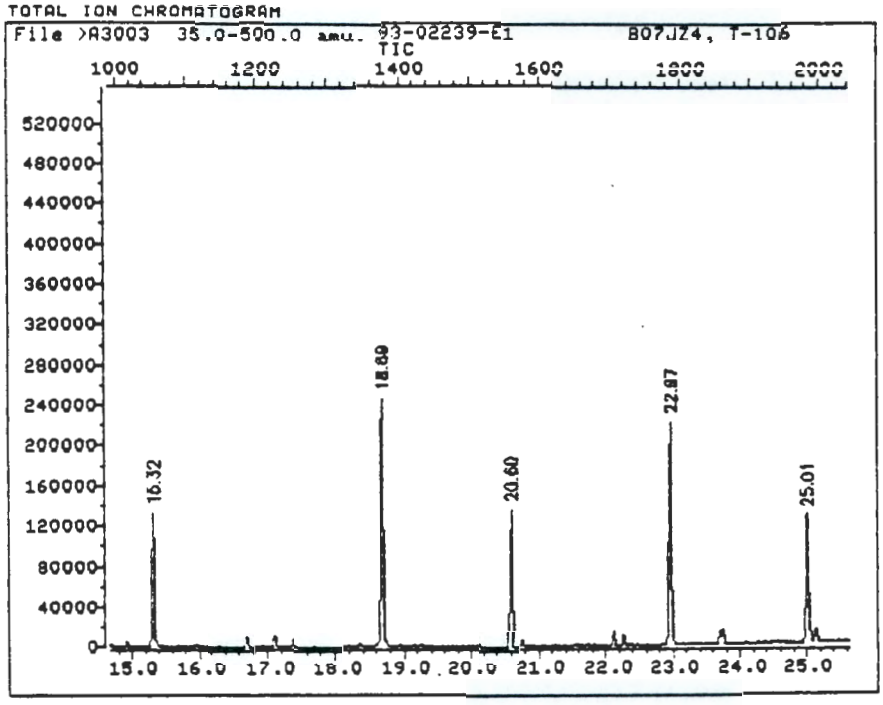
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930129 15:50

Operator ID: MANAGER
Quant Time : 930201 10:01
Injected at: 930129 16:46

Page 1 of 4

TOTAL ION CHROMATOGRAM



Data File: >A3003::D1
Name: 93-02239-E1
Misc: B07JZ4, T-106

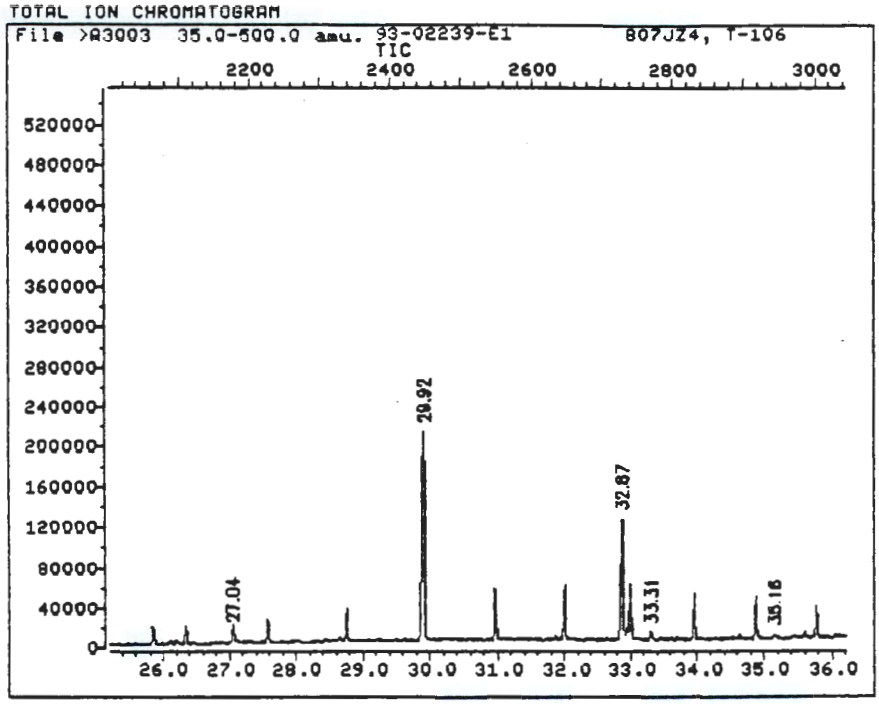
Quant Output File: ^A3003::QF
Instrument ID: BNA1
BTL# 1

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930129 15:50

Operator ID: MANAGER
Quant Time : 930201 10:01
Injected at: 930129 16:46

TOTAL ION CHROMATOGRAM



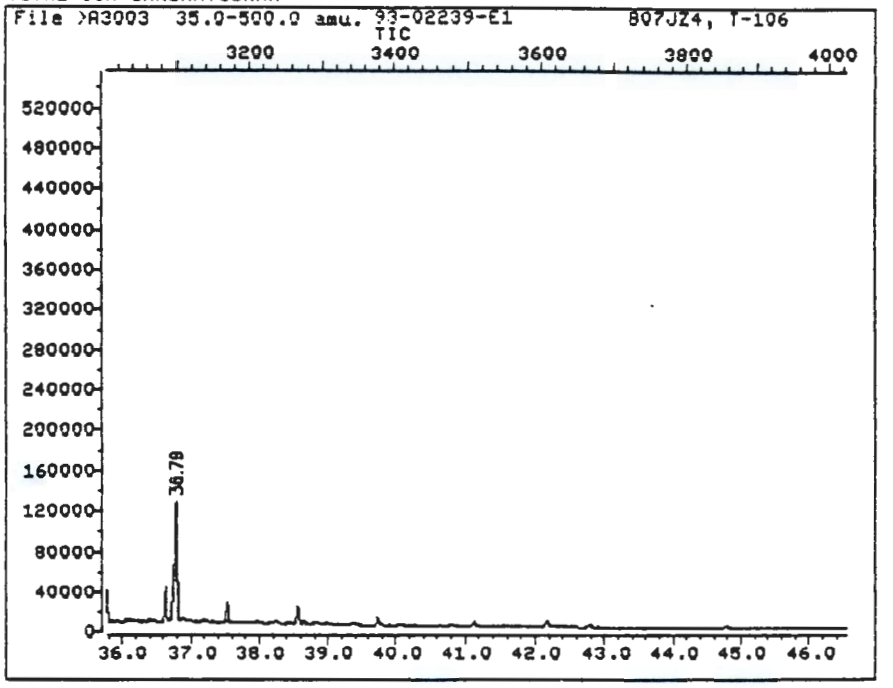
Data File: >A3003::D1 Quant Output File: ^A3003::QF
Name: 93-02239-E1 Instrument ID: BNA1
Misc: 807JZ4, T-106 BTL# 1

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930129 15:50

Operator ID: MANAGER
Quant Time : 930201 10:01
Injected at: 930129 16:46

Page 3 of 4

TOTAL ION CHROMATOGRAM



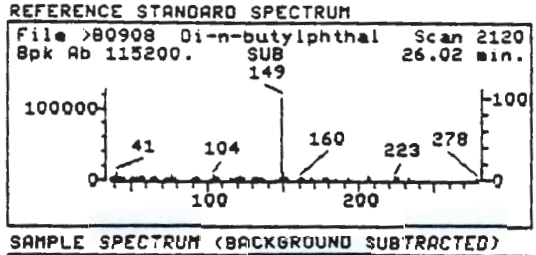
Data File: >A3003::D1 Quant Output File: ^A3003::QF
Name: 93-02239-E1 Instrument ID: BNA1
Misc: B07JZ4, T-106 BTL# 1

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930129 15:50

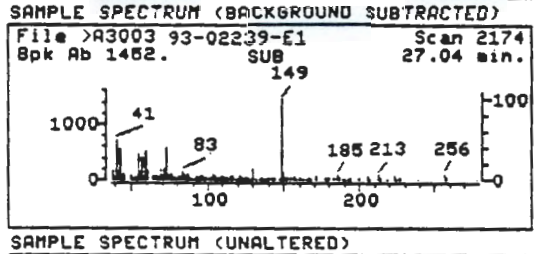
Operator ID: MANAGER
Quant Time : 930201 10:01
Injected at: 930129 16:46

Page 4 of 4

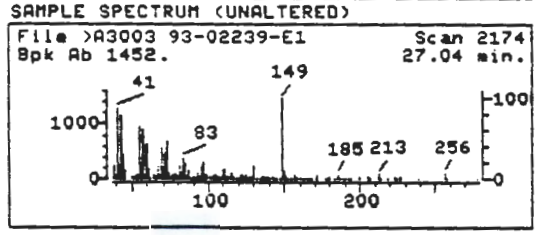
REFERENCE STANDARD SPECTRUM

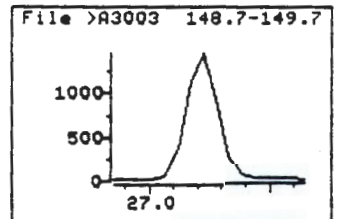


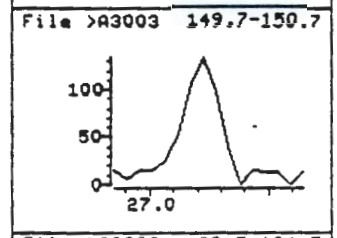
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

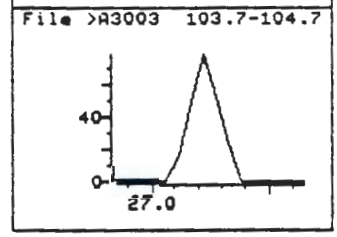


SAMPLE SPECTRUM (UNALTERED)







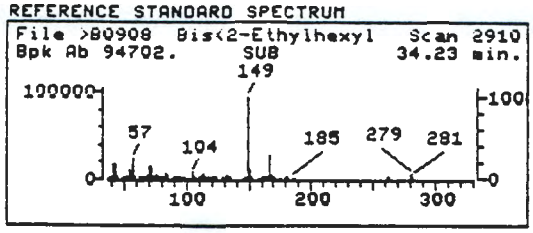


Data File: >A3003::D1
Name: 93-02239-E1
Misc: B07JZ4, T-106
Quant Time: 930201 10:01
Injected at: 930129 16:46
Last Qcal Time: 930129 15:50

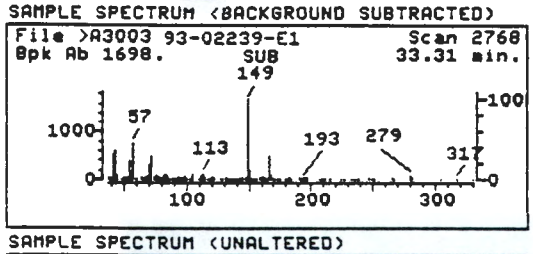
Quant Output File: ^A3003::OF
Instrument ID: BNA1
BTL# 1
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2174
Retention Time: 27.04 min.
Quant Ion : 149.0
Area : 2862
Concentration : .655 ng/uL
q-value : 98

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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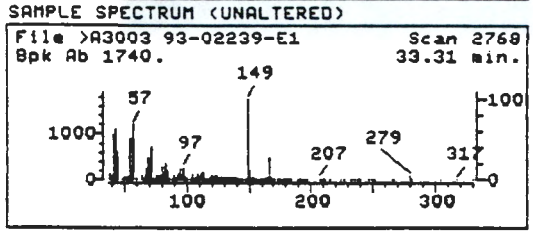
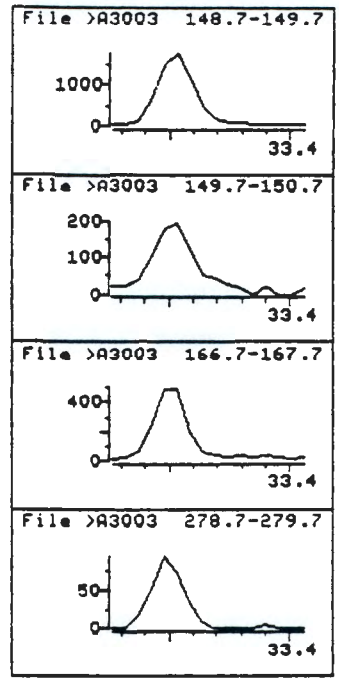




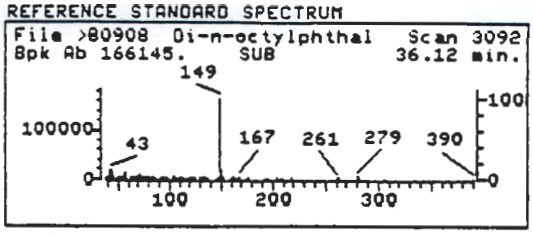
Data File: >A3003::D1
Name: 93-02239-E1
Misc: B07JZ4, T-106
Quant Time: 930201 10:01
Injected at: 930129 16:46
Last Qcal Time: 930129 15:50

Quant Output File: ^A3003::QF
Instrument ID: BNA1
BTL# 1
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

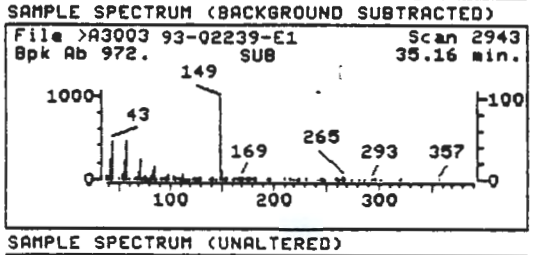
Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2768
Retention Time: 33.31 min.
Quant Ion : 149.0
Area : 3600
Concentration : 1.17 ng/uL
q-value : 99

AS
10/24/93

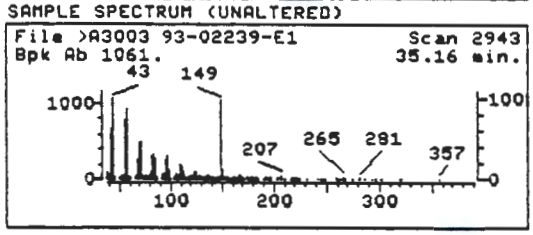
REFERENCE STANDARD SPECTRUM

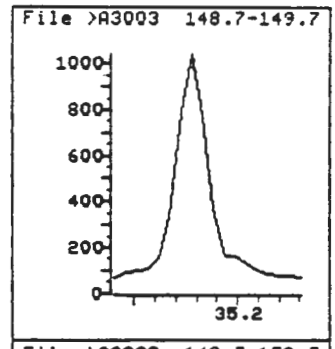


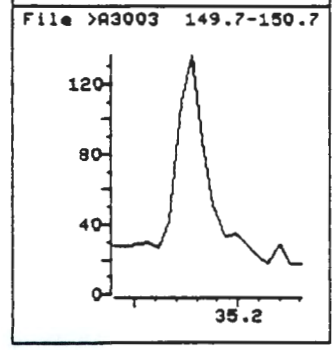
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >A3003::D1
Name: 93-02239-E1
Misc: B07JZ4, T-106
Quant Time: 930201 10:01
Injected at: 930129 16:46
Last Qcal Time: 930129 15:50

Quant Output File: ^A3003::OF
Instrument ID: BNA1
BTL# 1
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 2943
Retention Time: 35.16 min.
Quant Ion : 149.0
Area : 2191
Concentration : .434 ng/uL
q-value : 91

MS data file header from : >A3003::D1

Sample: 93-02239-E1 Operator: MANAGER SUPER GRP. 1/29/93 16:46
Misc : B07JZ4, T-106 BTL# 1
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 1 Equip ID: BNA1
Method file: BNAME1 Tuning file: MTBNA1 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	40.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.5	0.0

>A3003 93-02239-E1 B07JZ4, T-106
35.01 500.0 CLP TIC
Upslope: .2000 Area Reject: 27673. Max Peaks: 25 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File IA3003 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	5.38	10	102	105	553579	15305181	15246635	100.00	81.62
2	5.54	107	117	141	9545	120363	88626*	.58	.47
3	8.34	373	385	397	95511	389096	375602	2.46	2.01
4	8.83	427	432	458	7145	49122	36467	.24	.19
5	9.41	477	487	511	49007	250906	237643	1.56	1.27
6	9.79	518	524	539	7177	38689	30458	.20	.16
7	10.65	598	606	612	303116	1025420	1018357	6.68	5.45
8	10.76	612	616	631	40019	102476	92273*	.61	.49
9	11.24	654	662	666	53104	158259	152079	1.00	.81
10	11.84	707	719	732	172633	507493	492169	3.23	2.63
11	12.34	757	767	774	34379	97775	86642	.57	.46
12	14.32	950	956	962	12167	32800	27995	.18	.15
13	25.15	1988	1993	1999	13239	58616	37937	.25	.20
14	25.85	2053	2060	2066	18906	69225	40366	.26	.21
15	26.35	2103	2108	2114	16875	61549	31225	.20	.16
16	27.58	2220	2225	2233	23594	91209	43107	.28	.23
17	28.76	2332	2337	2342	33304	101469	59079	.39	.31
18	30.96	2542	2546	2552	51116	148697	97407	.64	.52
19	32.01	2640	2645	2651	54568	158727	98812	.65	.52
20	33.96	2825	2830	2839	45531	162772	86004	.56	.46
21	34.88	2913	2917	2926	42949	159050	90954	.60	.48
22	35.78	2997	3002	3006	31574	119122	61761	.41	.33
23	36.64	3078	3083	3088	35284	127302	63037	.41	.33
24	37.54	3164	3168	3174	19762	97786	42024	.28	.22
25	38.55	3259	3264	3269	16627	92561	41811	.27	.22

Sum of corrected areas: 18678476.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window

1	40.0	276731.	11.35	4.32 - 13.34
2	40.0	312990.	15.32	13.34 - 17.96
3	40.0	310465.	20.60	17.96 - 22.80
4	40.0	332603.	25.01	22.80 - 28.94
5	40.0	325633.	32.87	28.94 - 34.83
6	40.0	361882.	36.79	34.83 - 46.54

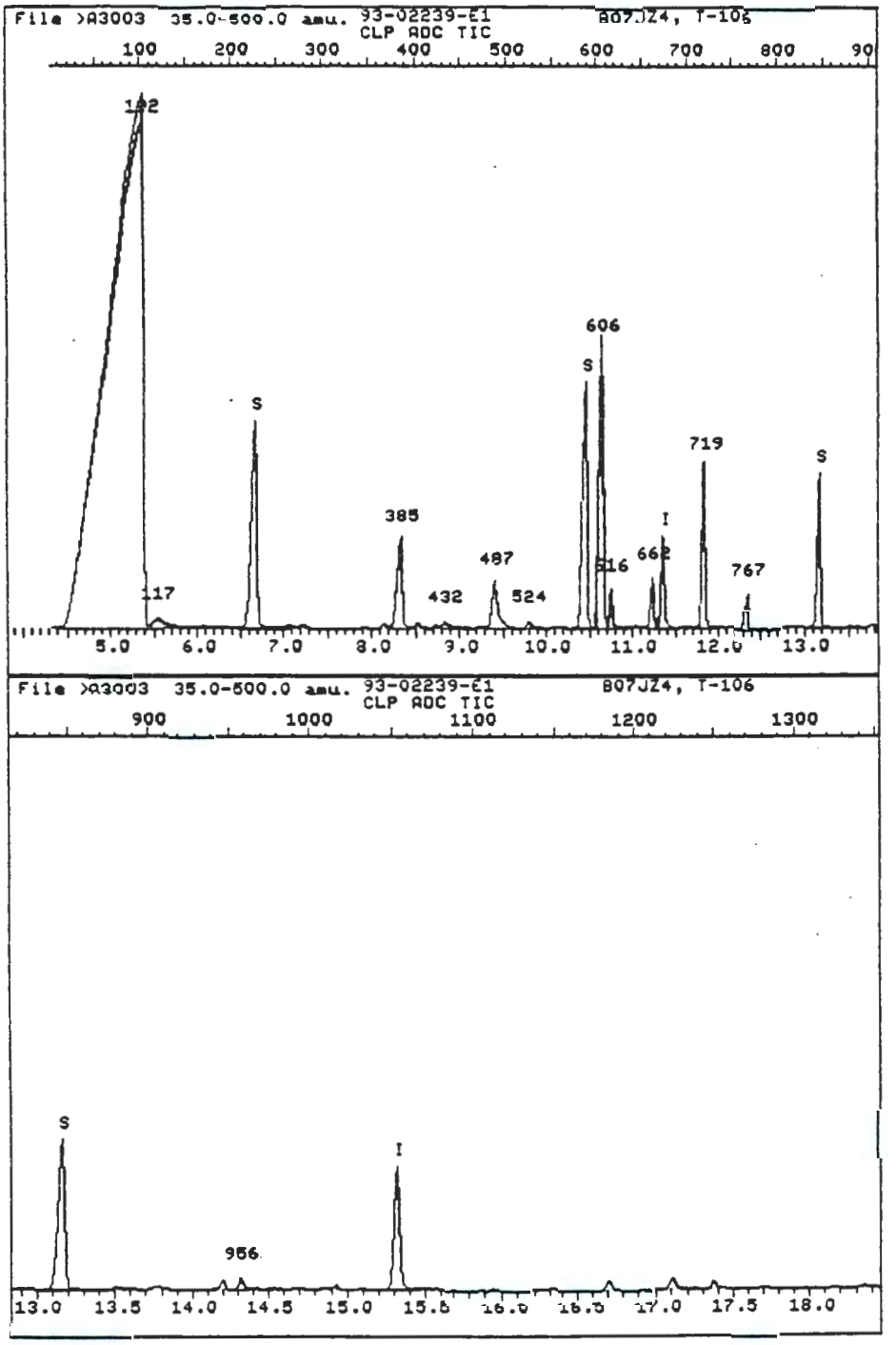
Dilution Factor = 1.00 This sample was 30.3000 g or mL

Correction Factor = 33.04

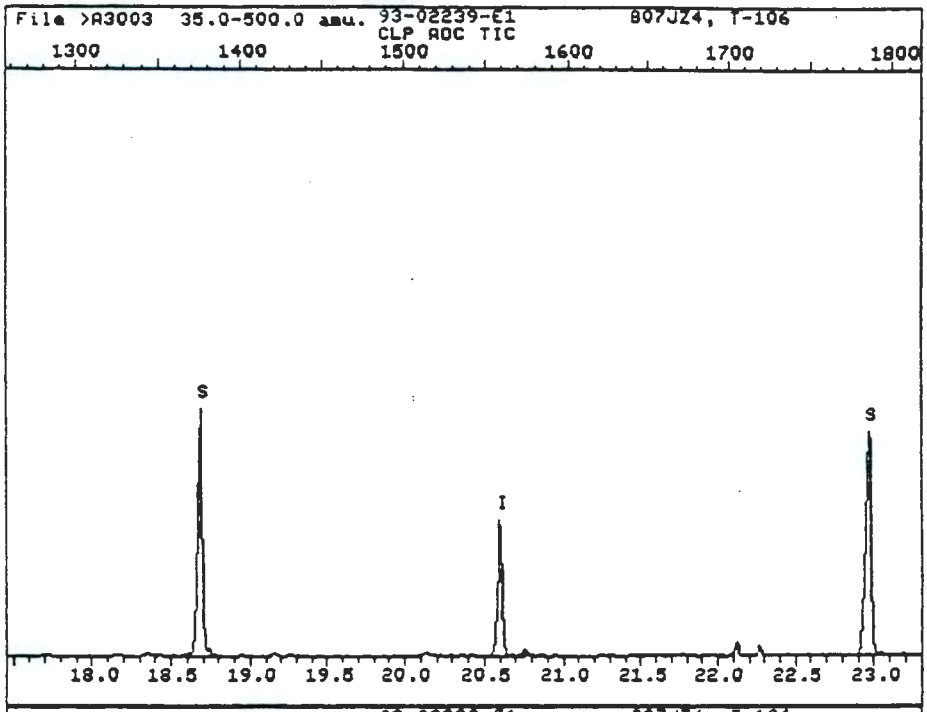
$$\text{Unknown Concentration} = \frac{\text{Conc Int Std} * \text{Area Unknown}}{\text{Area Int Std}} * \text{Correction Factor}$$

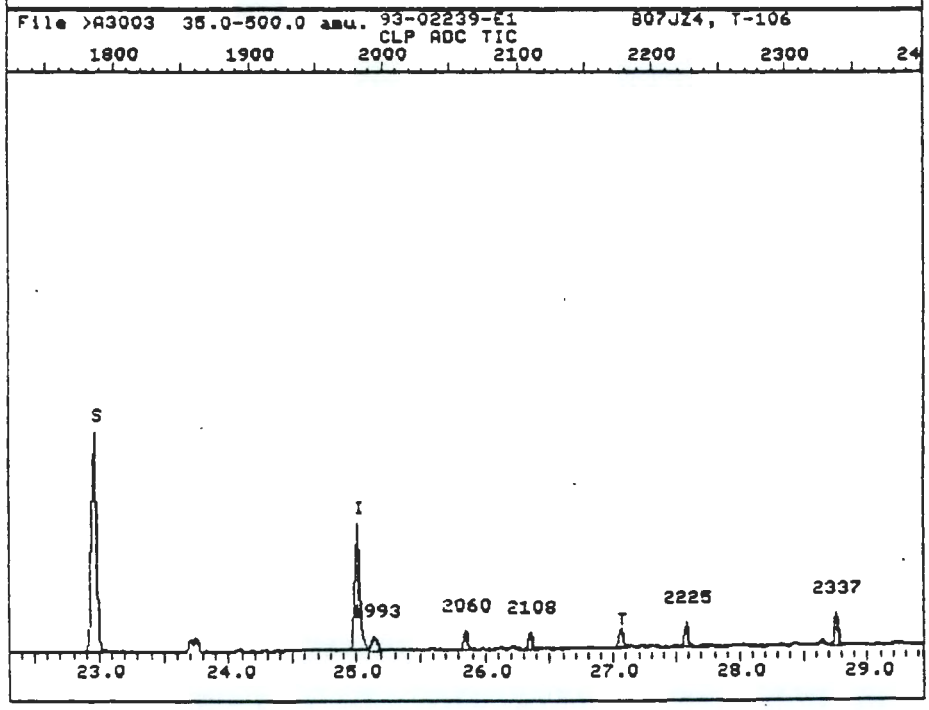
12:28 PM WED., 24 FEB., 1993

$C_{corr} = \frac{\text{value}}{.937}$ = correction for % moisture [illegible] 3/24/93

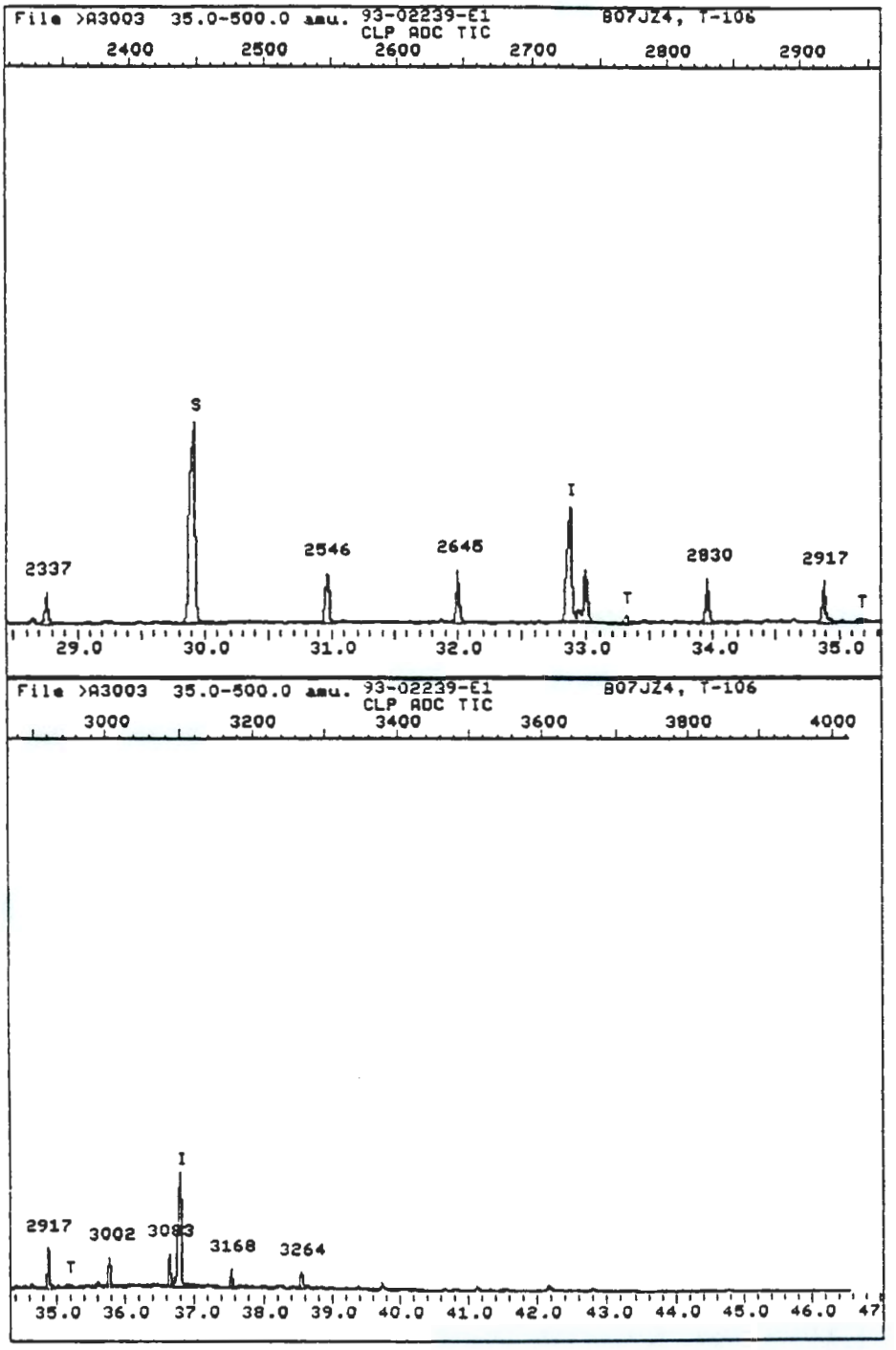


Instrument ID: BNA1 Analyzed on: 1/29/93 16:46

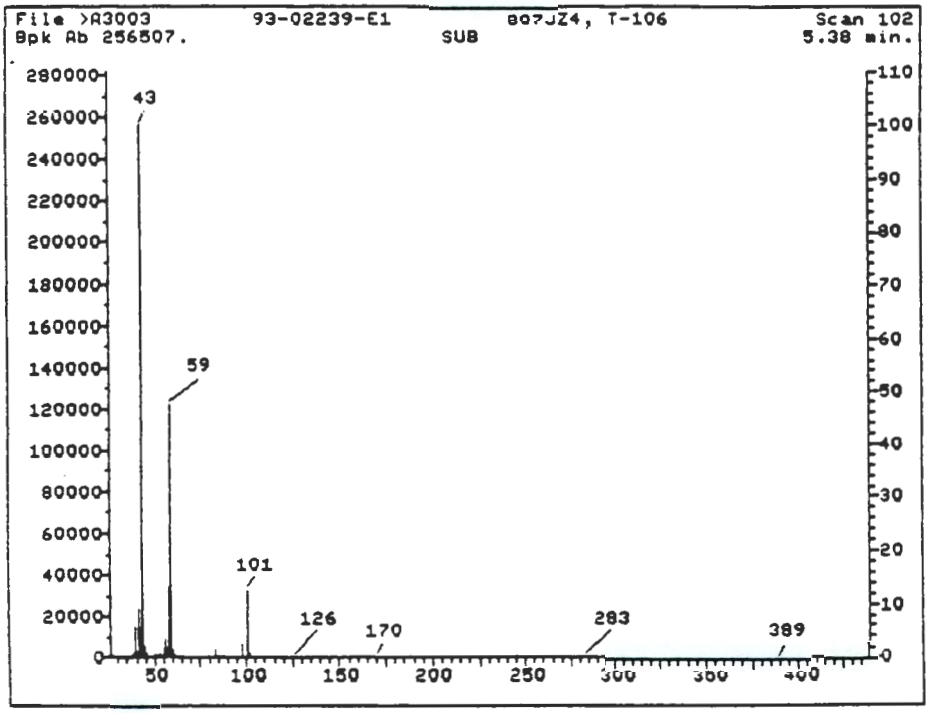




Instrument ID: BNA1 Analyzed on: 1/29/93 16:46



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46



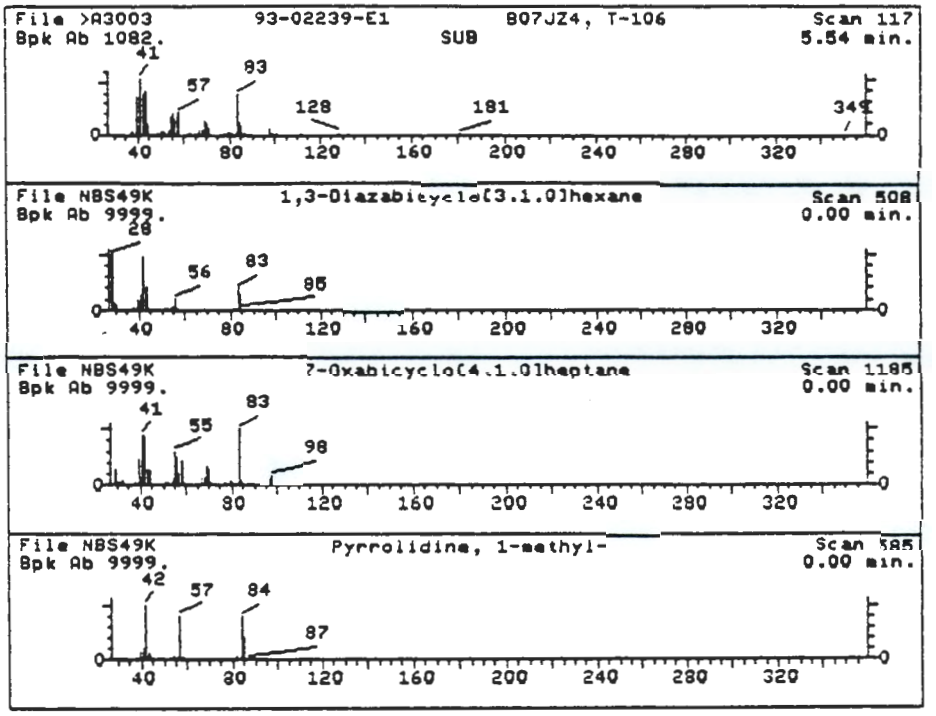
Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 1 in PBM results file: LA3003
Retention Time: 5.38 Area: 15246634 Tentative Conc: ~~73000.00~~ 78000
The unknown area is 5509.6% of the nearest internal standard 2/2/93

Sample file: >A3003 Spectrum #: 102

No data base entries were retrieved.

(A) 2-Pentanone, 4-hydroxy-4-methyl-

9613492.1604



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 2 in PBM results file: LA3003
Retention Time: 5.54 Area: 88626 Tentative Conc: ~~420.00~~ 450 [illegible] 3/4/93
The unknown area is 32.03% of the nearest internal standard

1. 1,3-Diazabicyclo[3.1.0]hexane	84	C4H8N2
2. 7-Oxabicyclo[4.1.0]heptane	98	C6H10O
3. Pyrrolidine, 1-methyl-	85	C5H11N
4. Cyclopropane, ethyl-	70	C5H10
5. 1-Hexene	84	C6H12
6. Cyclobutanone	70	C4H6O

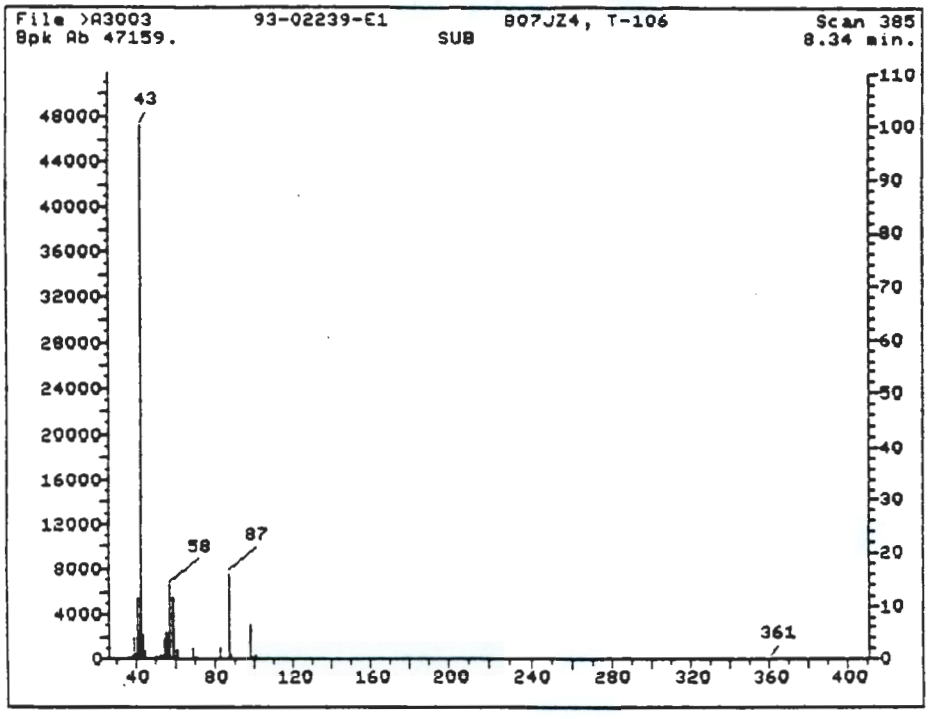
Sample file: >A3003 Spectrum #: 117
Search speed: 3 Tilting option: F No. of ion ranges searched: 62

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	30*	17038287	6268	NBS49K	29	65	0	0	73	49	10	21
2.	28	286204	6142	NBS49K	64	51	2	0	54	37	10	14
3.	25*	120945	6308	NBS49K	40	35	1	4	40	50	7	15
4.	23*	1191964	3812	NBS49K	37	49	0	0	71	57	6	42

[illegible]

F03-455

9613492.1605



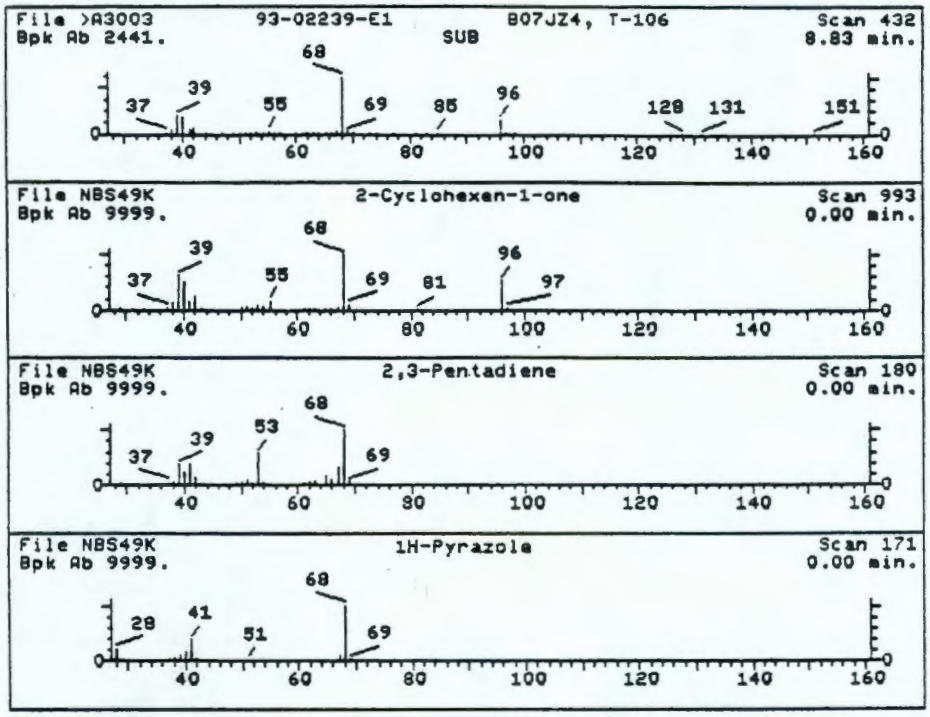
Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 3 in PBM results file: LA3003
Retention Time: 8.34 Area: 375602 Tentative Conc: ~~1800.00~~ 1900 ug/g (2.6)
The unknown area is 135.73% of the nearest internal standard

Sample file: >A3003 Spectrum #: 385

No data base entries were retrieved.

F03-456

9613492.1606



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 4 in PBM results file: LA3003
Retention Time: 8.83 Area: 36467 Tentative Conc: ~~170.88~~ 180 µg/L 2/4/93
The unknown area is 13.18% of the nearest internal standard

1. 2-Cyclohexen-1-one	96	C6H8O
2. 2,3-Pentadiene	68	C5H8
3. 1H-Pyrazole	68	C3H4N2
4. 2-Pentyne	68	C5H8
5. Furan	68	C4H4O
6. 1,4-Pentadiene	68	C5H8

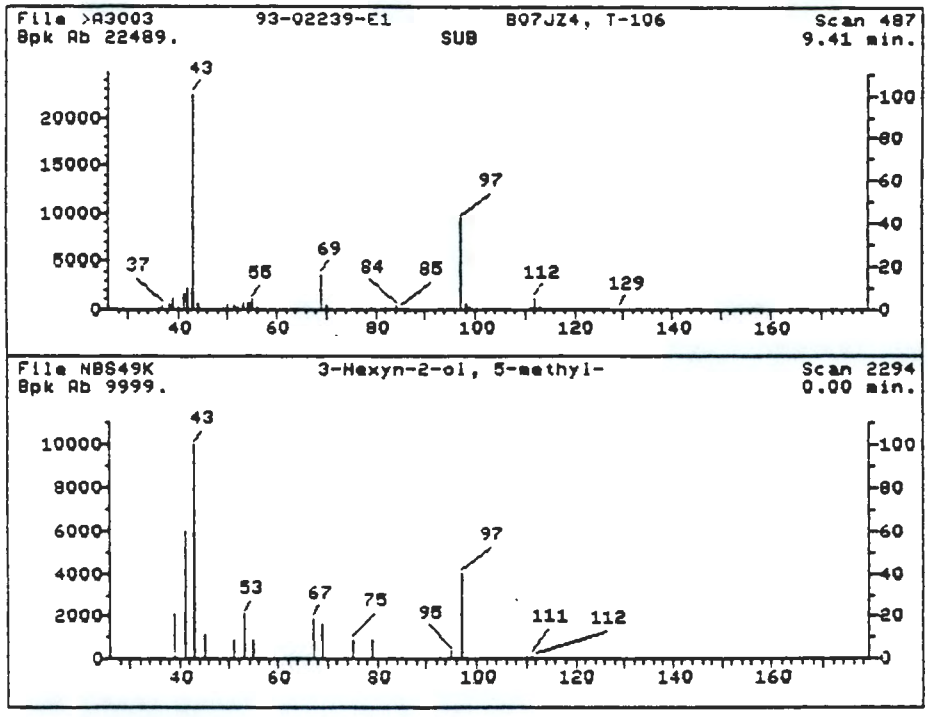
Sample file: >A3003 Spectrum #: 432
Search speed: 3 Tilting option: F No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	69*	930687	3554	NBS49K	61	30	0	0	40	37	28	73
2.	52*	591968	3535	NBS49K	22	81	2	0	100	19	20	13
3.	37*	288131	3527	NBS49K	26	50	2	0	100	30	14	14
4.	36*	627214	3530	NBS49K	22	69	2	0	97	28	14	13

Hasle 2/25/93

F03-457

9613492.1607



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 5 in PBM results file: LA3003
Retention Time: 9.41 Area: 237643 Tentative Conc: ~~1100.00~~ 1200 3/2/93
The unknown area is 85.88% of the nearest internal standard

1. 3-Hexyn-2-ol, 5-methyl- 112 C7H12O

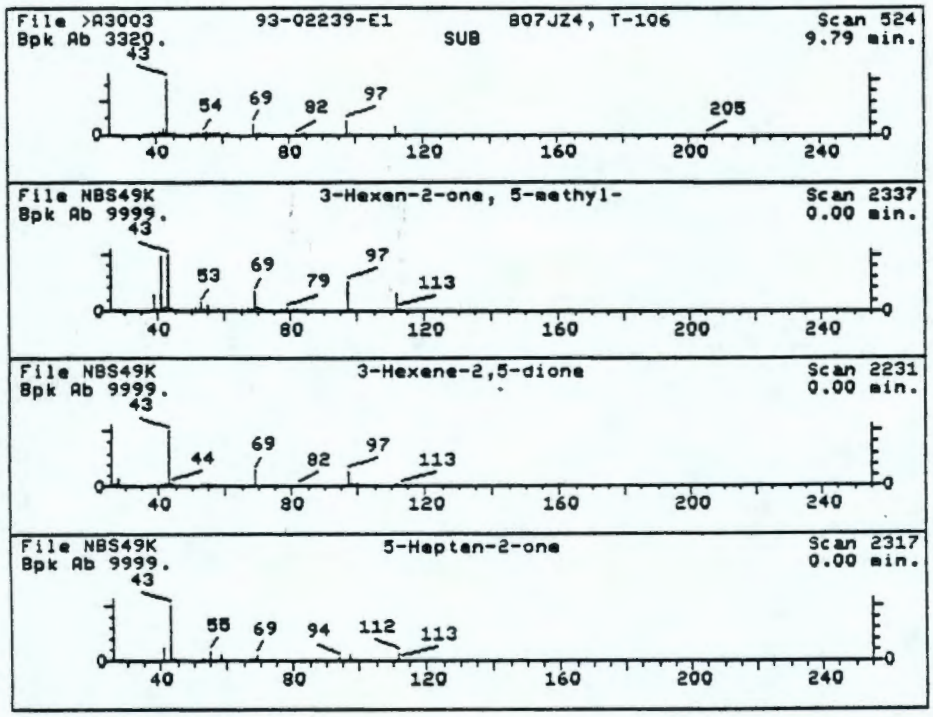
Sample file: >A3003 Spectrum #: 487
Search speed: 3 Tilting option: F No. of ion ranges searched: 50

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	31*	23293507	9091	NBS49K	26	63	2	0	100	34	12	14

ink

F03-458

9613492.1608



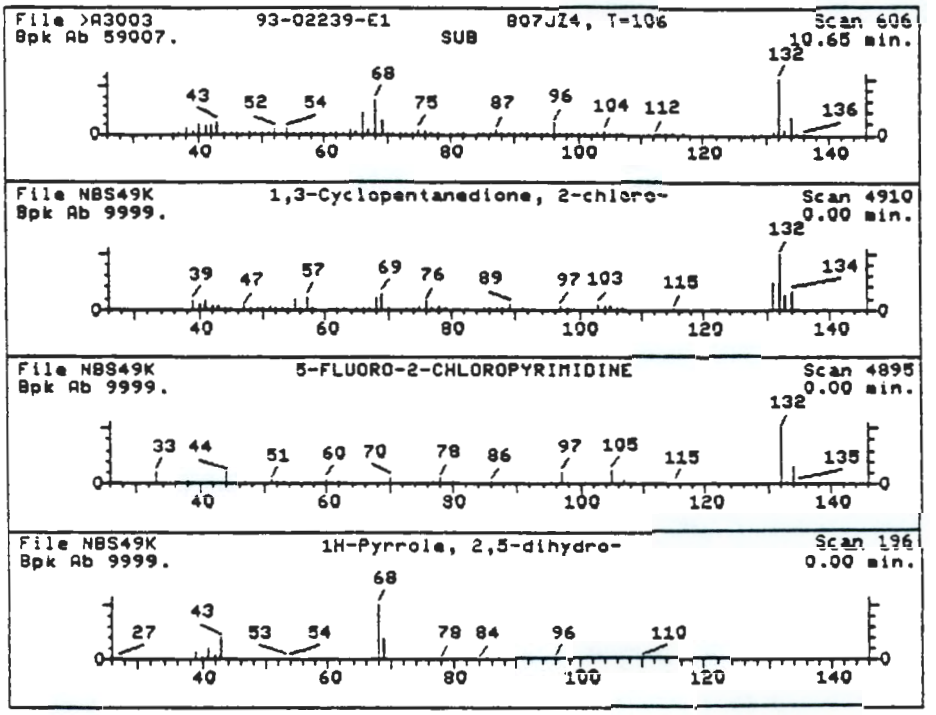
Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 6 in PBM results file: LA3003
Retention Time: 9.79 Area: 30458 Tentative Conc: ~~150.00~~
The unknown area is 11.01% of the nearest internal standard 110 KM 3/2/93

1. 3-Hexen-2-one, 5-methyl- 112 C7H12O
2. 3-Hexene-2,5-dione 112 C6H8O2
3. 5-Hepten-2-one 112 C7H12O

Sample file: >A3003 Spectrum #: 524
Search speed: 3 Tilting option: F No. of ion ranges searched: 118

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	38*	5166530	12025	NBS49K	50	39	2	3	73	40	14	25
2.	24*	4436753	9083	NBS49K	39	43	1	0	69	55	7	22

F03-459



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 7 in PBM results file: LA3003
Retention Time: 10.65 Area: 1018357 Tentative Conc: 4900.00
The unknown area is 368.00% of the nearest internal standard

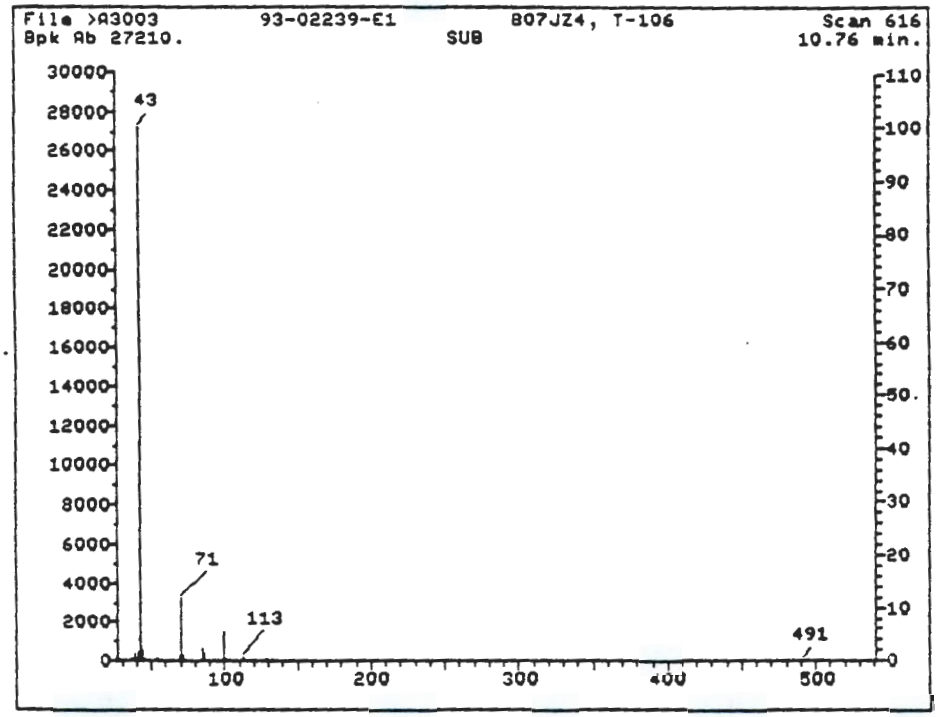
1. 1,3-Cyclopentanedione, 2-chloro- 132 $C_5H_5ClO_2$
2. 5-FLUORO-2-CHLOROPYRIMIDINE 132 $C_4H_2ClFN_2$
3. 1H-Pyrrole, 2,5-dihydro- 69 C_4H_7N

Sample file: >A3003 Spectrum #: 606
Search speed: 3 Tilting option: F No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	26*	14203191	15856	NBS49K	28	83	2	0	97	41	8	14
2.	25*	62802420	15850	NBS49K	29	79	3	0	100	50	7	13
3.	20*	109966	3541	NBS49K	35	21	1	2	31	52	5	12

delete - see file >A1403
[illegible] 2/25/03

9613492.1610



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 8 in PBM results file: LA3003
Retention Time: 10.76 Area: 92273 Tentative Conc: ~~440.00~~ 420 ug/l 3/2/93
The unknown area is 33.34% of the nearest internal standard

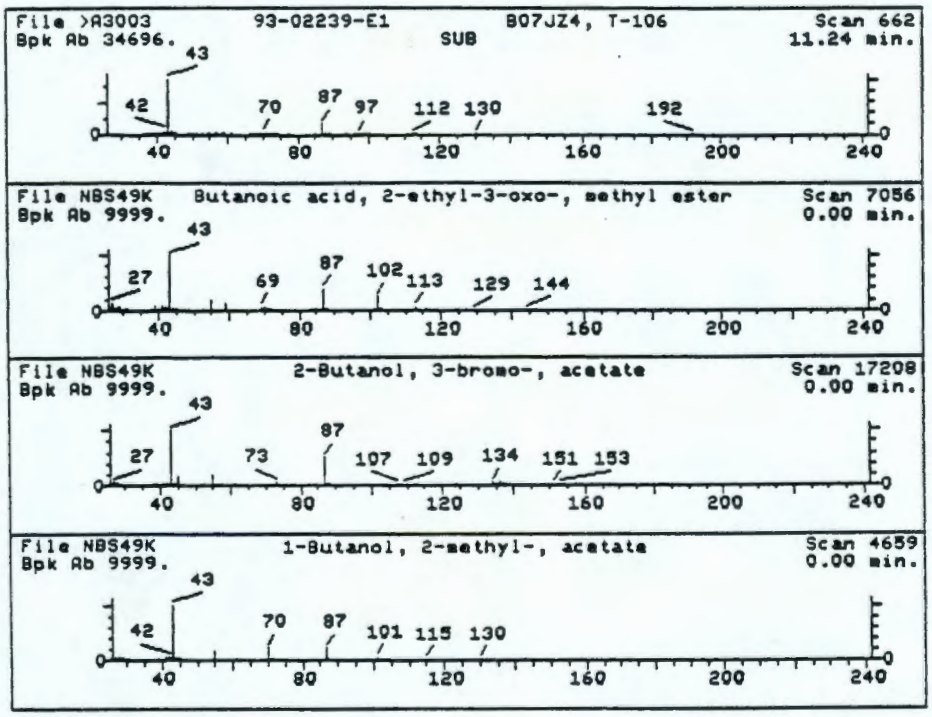
Sample file: >A3003 Spectrum #: 616

No data base entries were retrieved.

wk

F03-461

9613492.1611



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 9 in PBM results file: LA3003
Retention Time: 11.24 Area: 152079 Tentative Conc: ~~730.00~~ 780 BM 3/2/93
The unknown area is 54.96% of the nearest internal standard

1. Butanoic acid, 2-ethyl-3-oxo-, methyl ester	144	C7H12O3
2. 2-Butanol, 3-bromo-, acetate	194	C6H11BrO2
3. 1-Butanol, 2-methyl-, acetate	130	C7H14O2
4. 2-Butanol, 3-methyl-, acetate	130	C7H14O2

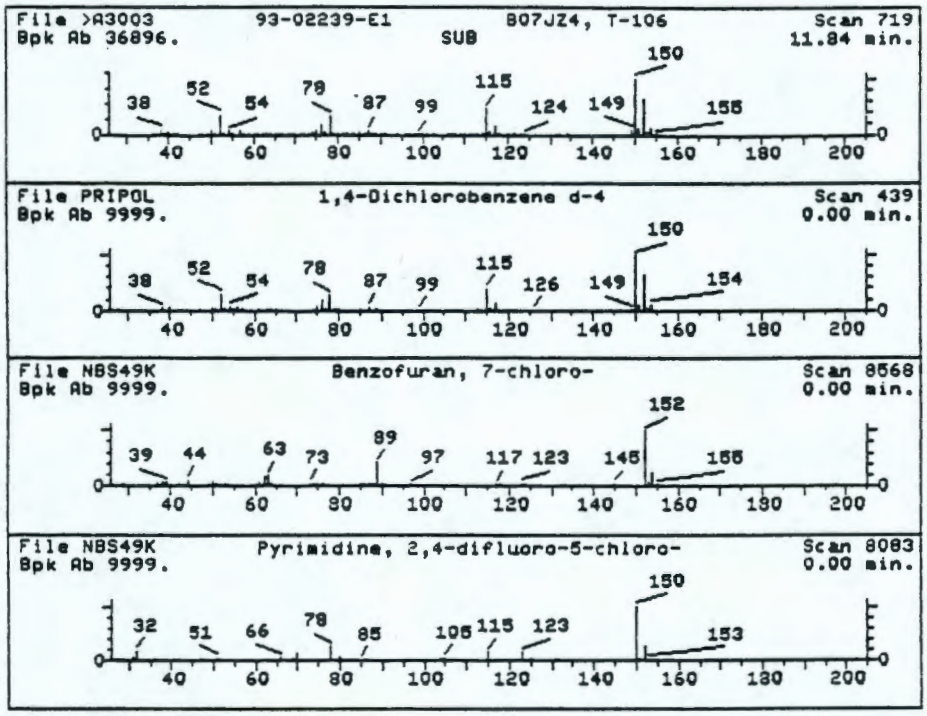
Sample file: >A3003 Spectrum #: 662
Search speed: 3 Tilting option: F No. of ion ranges searched: 108

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25*	51756082	7336	NBS49K	22	70	2	0	53	47	7	13
2.	25	5798812	7487	NBS49K	37	37	2	0	40	47	7	12
3.	20*	624419	7299	NBS49K	32	49	2	0	89	52	5	16
4.	20*	5343964	7303	NBS49K	39	36	2	0	81	52	5	19

cmk

F03-462

9613492.1612



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 10 in PBM results file: LA3003
Retention Time: 11.84 Area: 492169 Tentative Conc: 2400.00
The unknown area is 177.85% of the nearest internal standard

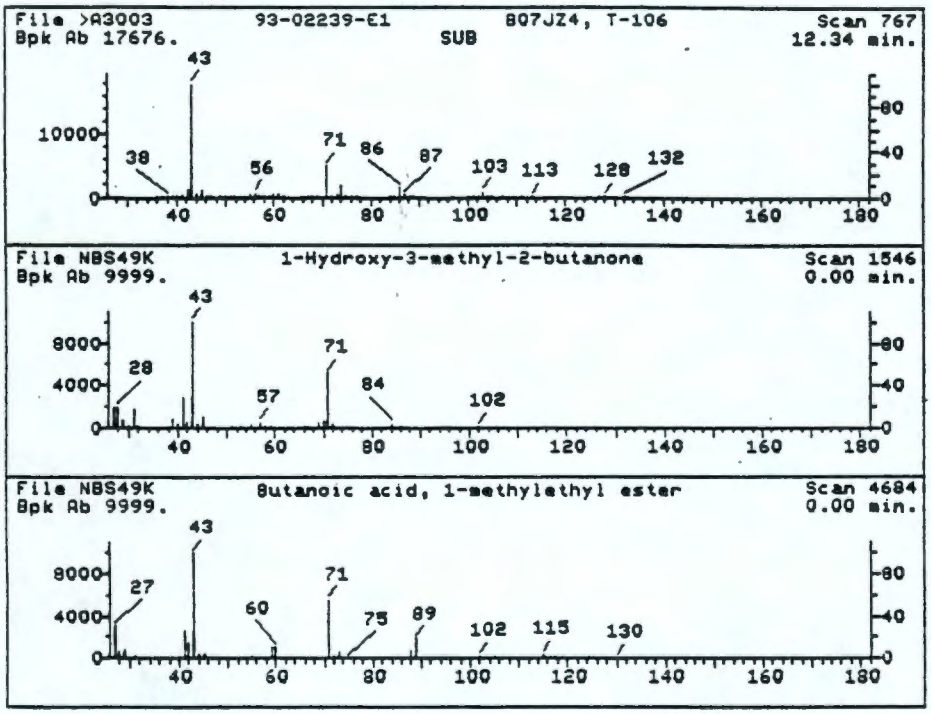
1. 1,4-Dichlorobenzene d-4	150	C6.D4.CL2
2. Benzofuran, 7-chloro-	152	C8H5ClO
3. Pyrimidine, 2,4-difluoro-5-chloro-	150	C4HClF2N2
4. Ethanone, 1-(2-nitrophenyl)-	165	C8H7NO3
5. Imidazo[5,1-f][1,2,4]triazine-2,7-diamine	150	C5H6N6
6. 6H-Purin-6-one, 1,7-dihydro-1-methyl-	150	C6H6N4O

Sample file: >A3003 Spectrum #: 719
Search speed: 3 Tilting option: F No. of ion ranges searched: 37

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	97*	439	257	PRIPOL	95	12	0	0	91	7	68	97
2.	25*	24410557	19743	NBS49K	40	49	2	1	46	45	8	13
3.	25*	25151079	19311	NBS49K	22	78	2	0	100	43	8	13
4.	20*	577593	19423	NBS49K	23	78	2	0	67	55	5	13

F03-463

9613492.1613



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 11 in PBM results file: LA3003
Retention Time: 12.34 Area: 86642 Tentative Conc: ~~410.00~~ 410 ug/L x 2.63
The unknown area is 31.31% of the nearest internal standard

1. 1-Hydroxy-3-methyl-2-butanone 102 C5H10O2
2. Butanoic acid, 1-methylethyl ester 130 C7H14O2

Sample file: >A3003 Spectrum #: 767
Search speed: 3 Tilting option: F No. of ion ranges searched: 62

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	11*	36960222	4280	NBS49K	37	47	2	0	55	64	2	18

F03-464

Instrument ID: BNA1 Analyzed on: 1/29/93 16:46

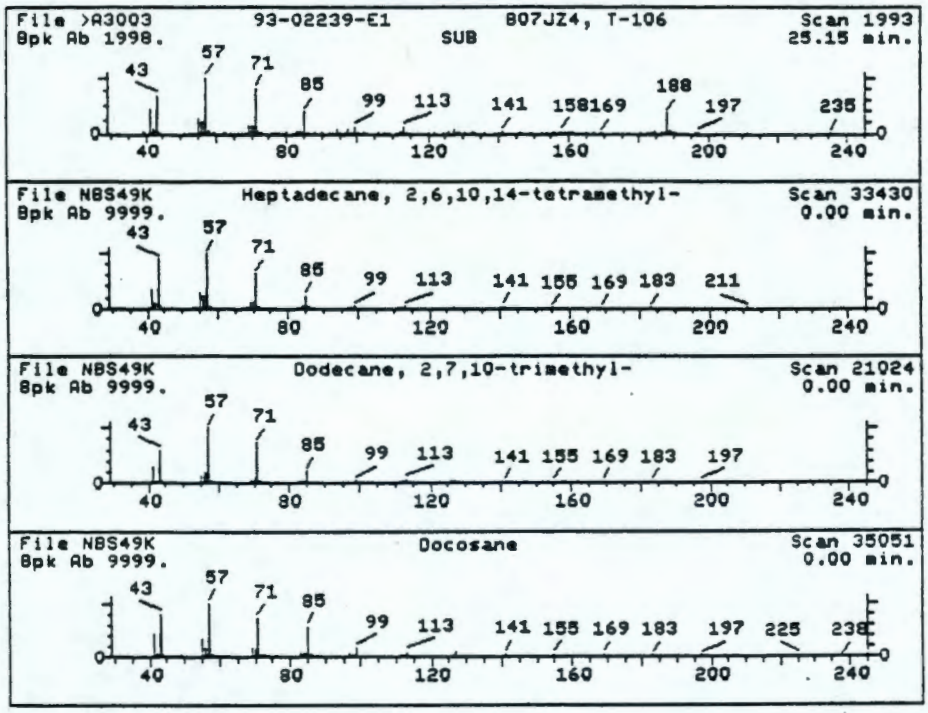
Retention Time: 14.32 Area: 27995 Tentative Conc: 120.00

The unknown area is 8.94% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

9613492.1615



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 12 in PBM results file: LA3003
Retention Time: 25.15 Area: 37937 Tentative Conc: ~~150.80~~
The unknown area is 11.41% of the nearest internal standard 160 dilt 3/2/93

1. Heptadecane, 2,6,10,14-tetramethyl-	296	C21H44
2. Dodecane, 2,7,10-trimethyl-	212	C15H32
3. Docosane	310	C22H46
4. Tridecane	184	C13H28
5. Heptadecane, 2,6,10,15-tetramethyl-	296	C21H44
6. Nonane, 5-butyl-	184	C13H28

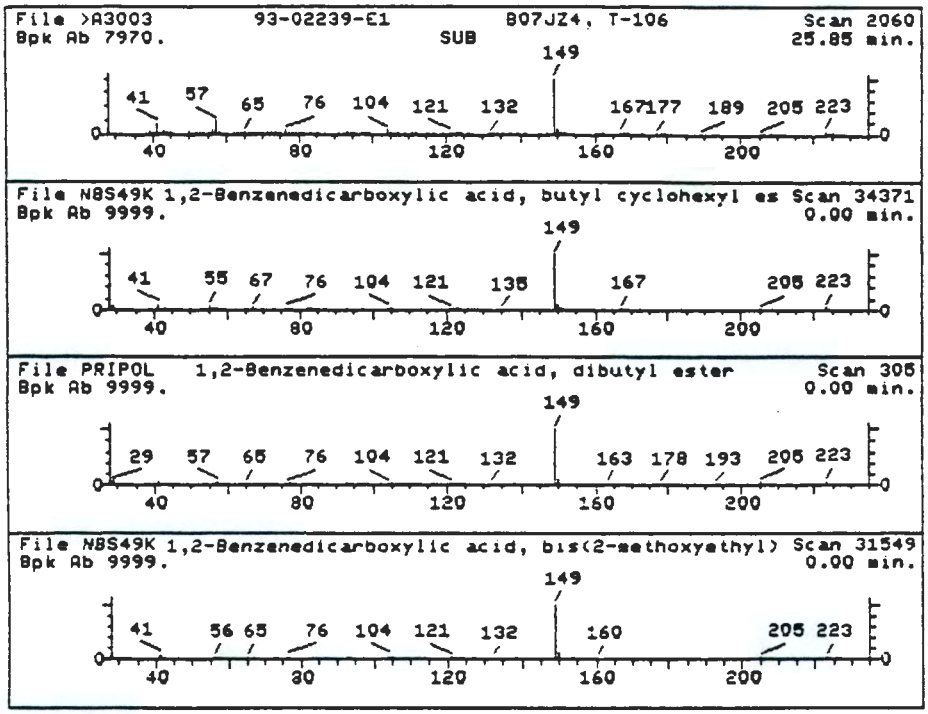
Sample file: >A3003 Spectrum #: 1993
Search speed: 3 Tilting option: F No. of ion ranges searched: 59

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	76	18344371	6880	NBS49K	102	27	2	-4	91	9	45	28
2.	73	74645980	4422	NBS49K	95	14	0	-1	100	21	32	66
3.	70	629970	6886	NBS49K	121	28	2	3	63	18	32	50
4.	67*	629505	6761	NBS49K	60	46	2	-3	86	12	34	2[illegible]
5.	64	54833486	6878	NBS49K	107	28	2	0	91	21	28	4[illegible]
6.	62*	17312639	14869	NBS49K	64	49	2	0	72	30	25	4[illegible]

unk alk

F03-466

9613492.1616



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 13 in PBM results file: LA3003
Retention Time: 25.85 Area: 40366 Tentative Conc: ~~160.00~~ 170 ug/kg
The unknown area is 12.14% of the nearest internal standard

1. 1,2-Benzenedicarboxylic acid, butyl cyclohexyl ester 304 C18H2404
2. 1,2-Benzenedicarboxylic acid, dibutyl ester 278 C16H2204
3. 1,2-Benzenedicarboxylic acid, bis(2-methoxyethyl) es ter 282 C14H1806
4. 1,2-Benzenedicarboxylic acid, butyl 2-methylpropyl e ster 278 C16H2204

Sample file: >A3003 Spectrum #: 2060
Search speed: 3 Tilting option: F No. of ion ranges searched: 47

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	78	84640	19279	NBS49K	62	46	2	0	100	2	55	13
2.	60	305	233	PRIPOL	62	42	2	2	100	13	30	14
3.	41	117828	19276	NBS49K	69	34	0	2	56	45	14	39
4.	25	17851535	19272	NBS49K	68	38	1	3	54	50	7	19

unk phthalate

F03-467

Instrument ID: BNA1 Analyzed on: 1/29/93 16:46

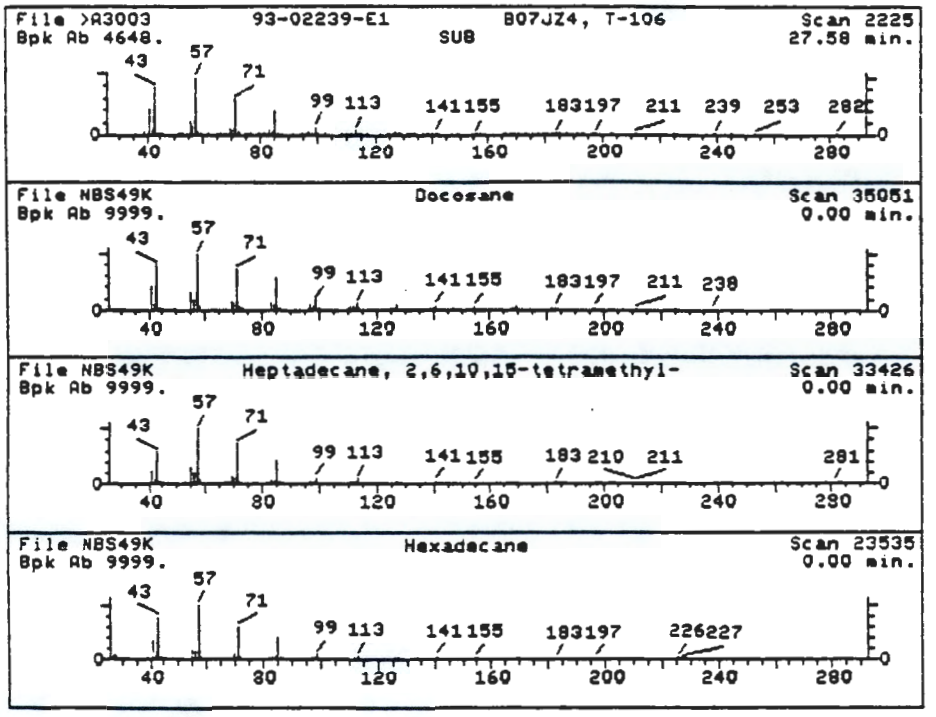
Retention Time: 26.35 Area: 31225 Tentative Conc: 120.00

The unknown area is 9.39% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

9613492.1618



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 14 in PBM results file: LA3003
Retention Time: 27.58 Area: 43107 Tentative Conc: ~~170.00~~ 180 [illegible] 3/2/93
The unknown area is 12.96% of the nearest internal standard

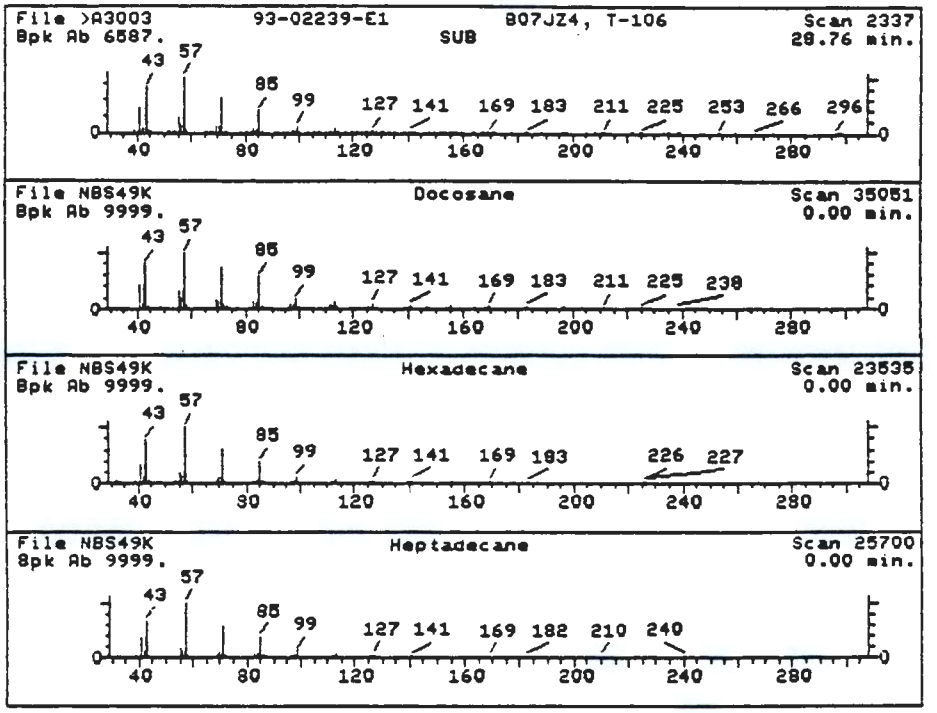
1.	Docosane	310	C22H46
2.	Heptadecane, 2,6,10,15-tetramethyl-	296	C21H44
3.	Hexadecane	226	C16H34
4.	Eicosane	282	C20H42
5.	Nonadecane, 9-methyl-	282	C20H42
6.	Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3

Sample file: >A3003 Spectrum #: 2225
Search speed: 3 Tilting option: F No. of ion ranges searched: 67

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	89	629970	6886	NBS49K	140	9	1	3	75	3	66	74
2.	89	54833486	6878	NBS49K	111	24	1	1	70	3	66	60
3.	88	544763	6835	NBS49K	103	17	1	1	81	3	65	54
4.	87*	112958	6871	NBS49K	113	26	1	3	77	15	55	80
5.	87*	13287246	17802	NBS49K	77	68	2	3	88	3	63	49
6.	86	74764117	6907	NBS49K	131	6	0	2	95	7	59	78

[illegible]

FGC-[illegible]

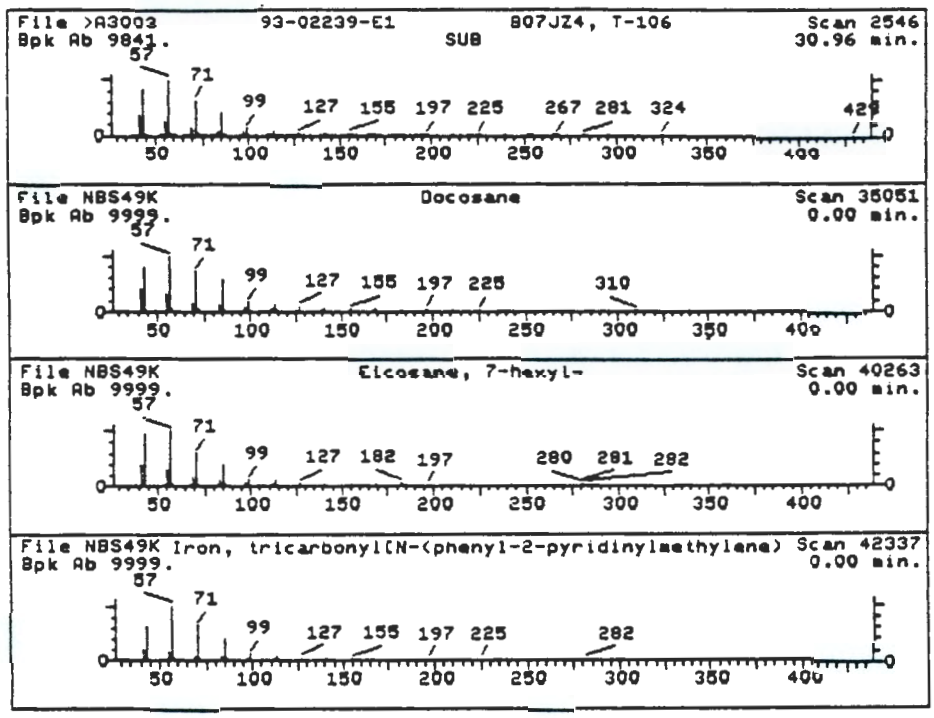


Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 15 in PBM results file: LA3003
Retention Time: 28.76 Area: 59079 Tentative Conc: ~~230.00~~ 250 2/2/93
The unknown area is 17.76% of the nearest internal standard

1.	Docosane	310	C22H46
2.	Hexadecane	226	C16H34
3.	Heptadecane	240	C17H36
4.	Eicosane	282	C20H42
5.	Eicosane, 2-methyl-	296	C21H44
6.	Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3

Sample file: >A3003 Spectrum #: 2337
Search speed: 3 Tilting option: F No. of ion ranges searched: 75

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	89	629970	6886	NBS49K	140	9	1	3	73	3	66	74
2.	89	544763	6835	NBS49K	114	6	1	2	89	3	66	73
3.	89	629787	6846	NBS49K	114	7	1	1	80	3	66	73
4.	87	112958	6871	NBS49K	119	20	2	2	81	3	63	49
5.	87*	1560845	34231	NBS49K	89	55	3	3	100	2	63	46
6.	86	74764117	6907	NBS49K	131	6	1	2	90	8	59	74



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 16 in PBM results file: LA3003
Retention Time: 30.96 Area: 97407 Tentative Conc: ~~400.00~~
The unknown area is 29.91% of the nearest internal standard 430 [illegible] 3/2/93

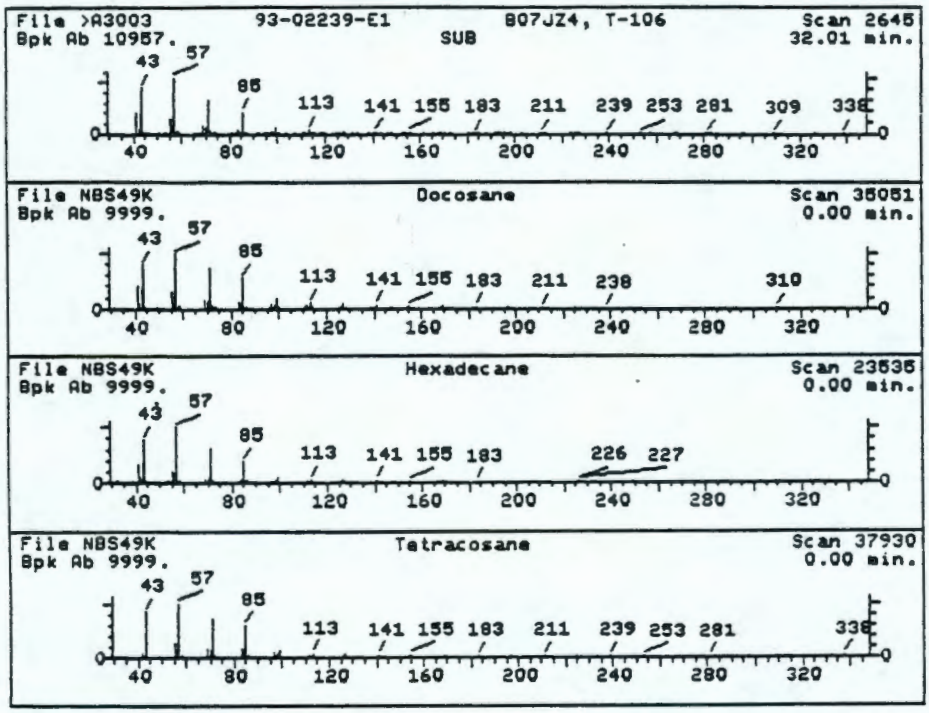
1. Docosane	310	C22H46
2. Eicosane, 7-hexyl-	366	C26H54
3. Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3
4. Eicosane	282	C20H42
5. Hexadecane	226	C16H34
6. Heptadecane, 9-octyl-	352	C25H52

Sample file: >A3003 Spectrum #: 2546
Search speed: 3 Tilting option: F No. of ion ranges searched: 77

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	83	629970	6886	NBS49K	142	7	1	3	77	11	51	74
2.	81	55333998	6899	NBS49K	116	33	2	1	84	8	53	48
3.	79	74764117	6907	NBS49K	125	12	1	2	100	11	43	66
4.	79	112958	6871	NBS49K	123	16	1	2	76	15	43	66
5.	79	544763	6835	NBS49K	103	17	1	0	76	11	43	63
6.	79	7225641	6893	NBS49K	114	33	1	1	77	11	43	60

[illegible]

9613492.1621



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 17 in PBM results file: LA3003
Retention Time: 32.01 Area: 98812 Tentative Conc: ~~400.00~~
The unknown area is 30.34% of the nearest internal standard 430 [illegible] 3/2/93

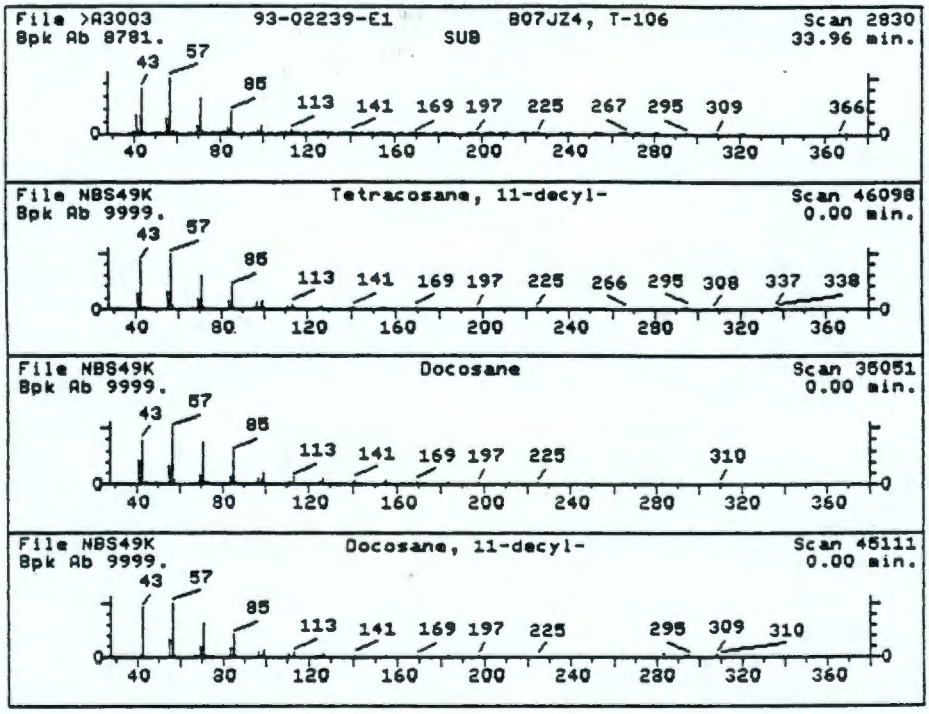
1. Docosane 310 C22H46
2. Hexadecane 226 C16H34
3. Tetracosane 338 C24H50
4. Pentadecane, 8-hexyl- 296 C21H44
5. Tetracosane, 11-decyl- 478 C34H70
6. Tridecane, 7-hexyl- 268 C19H40

Sample file: >A3003 Spectrum #: 2645
Search speed: 3 Tilting option: F No. of ion ranges searched: 75

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	86	629970	6886	NBS49K	140	9	1	3	75	6	59	74
2.	86	544763	6835	NBS49K	114	6	1	1	82	6	59	73
3.	86*	646311	6891	NBS49K	112	33	1	2	57	18	50	80
4.	83	13475757	27350	NBS49K	106	39	1	2	74	6	54	56
5.	83	55429840	6913	NBS49K	99	59	2	2	86	4	57	26
6.	81	7225663	24906	NBS49K	93	41	1	2	74	10	53	44

F03-472

9613492.1622



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 18 in PBM results file: LA3003
Retention Time: 33.96 Area: 86004 Tentative Conc: ~~350.00~~
The unknown area is 26.41% of the nearest internal standard 37 [illegible] 3/2/93

1. Tetracosane, 11-decyl-	478	C34H70
2. Docosane	310	C22H46
3. Docosane, 11-decyl-	450	C32H66
4. Hexadecane	226	C16H34
5. Eicosane	282	C20H42
6. Hexatriacontane	506	C36H74

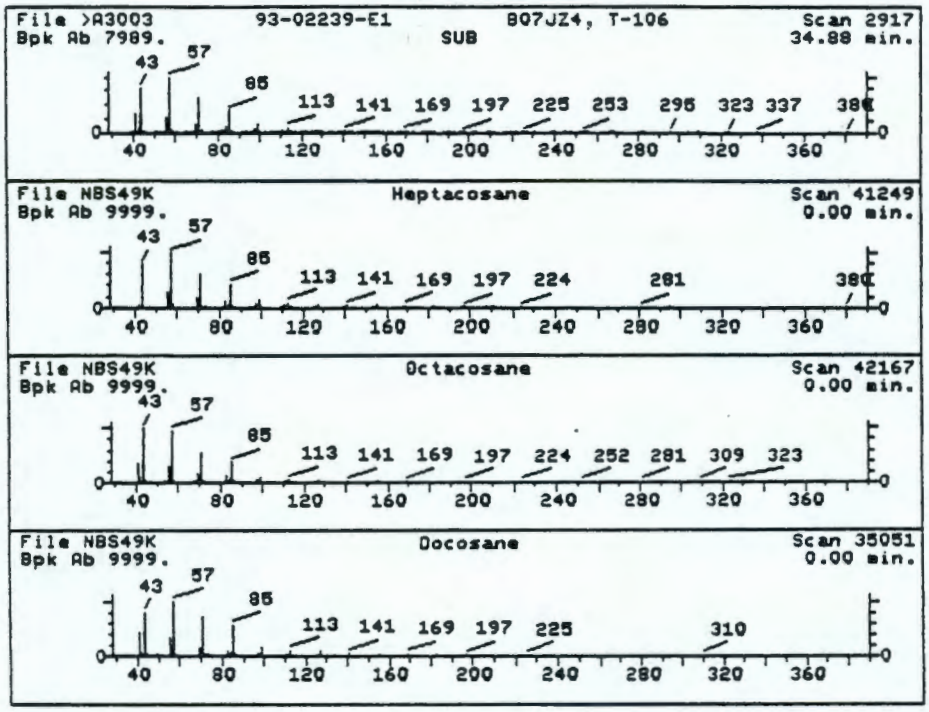
Sample file: >A3003 Spectrum #: 2830
Search speed: 3 Tilting option: F No. of ion ranges searched: 80

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	87	55429840	6913	NBS49K	117	41	2	2	85	4	63	48
2.	86	629970	6886	NBS49K	135	14	1	3	77	6	59	71
3.	86	55401553	6909	NBS49K	102	57	2	2	80	4	60	30
4.	84	544763	6835	NBS49K	109	11	1	1	84	6	55	69
5.	84	112958	6871	NBS49K	115	24	1	2	71	10	55	60
6.	84	630068	9992	NBS49K	117	46	1	2	90	10	55	61

[illegible]

F03-473

9613492.1623



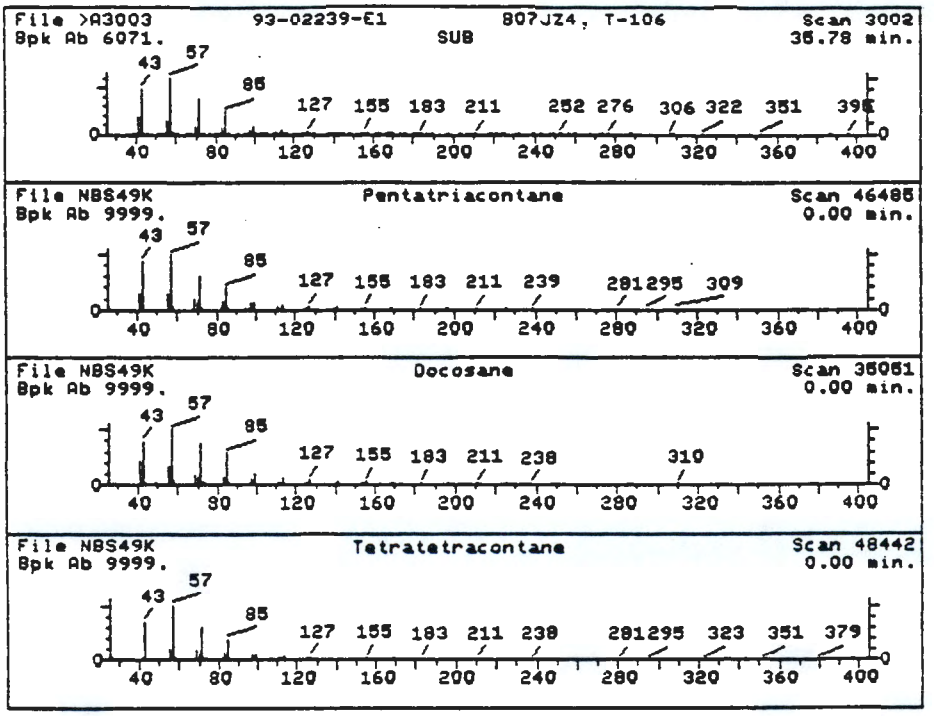
Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 19 in PBM results file: LA3003
Retention Time: 34.88 Area: 90954 Tentative Conc: ~~330.00~~
The unknown area is 25.13% of the nearest internal standard 350

1. Heptacosane	380	C27H56
2. Octacosane	394	C28H58
3. Docosane	310	C22H46
4. Pentatriacontane	492	C35H72
5. Tetratetracontane	618	C44H90
6. Hexadecane	226	C16H34

Sample file: >A3003 Spectrum #: 2917
Search speed: 3 Tilting option: F No. of ion ranges searched: 90

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	94*	593497	6904	NBS49K	149	6	1	2	98	9	68	93
2.	86	630024	6906	NBS49K	117	24	0	0	70	20	50	80
3.	81	629970	6886	NBS49K	142	7	1	2	80	16	45	74
4.	81	630079	6915	NBS49K	142	9	0	2	79	25	41	77
5.	81	7098228	9995	NBS49K	139	21	1	1	82	16	45	73
6.	81	544763	6835	NBS49K	114	6	1	0	77	16	45	78

F03-474



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 20 in PBM results file: LA3003
Retention Time: 35.78 Area: 61761 Tentative Conc: ~~230.00~~ 250 [illegible] 2/2/93
The unknown area is 17.07% of the nearest internal standard

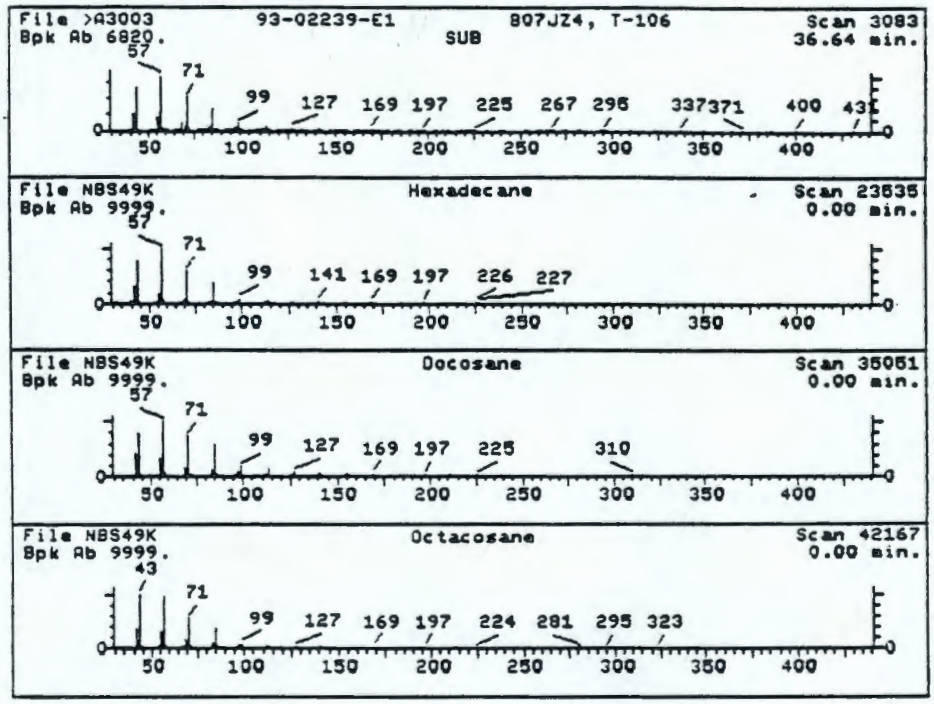
1. Pentatriacontane	492	C35H72
2. Docosane	310	C22H46
3. Tetratetracontane	618	C44H90
4. Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3
5. Hexatriacontane	506	C36H74
6. Tetracosane, 11-decyl-	478	C34H70

Sample file: >A3003 Spectrum #: 3002
Search speed: 3 Tilting option: F No. of ion ranges searched: 78

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	89	630079	6915	NBS49K	141	10	1	1	72	3	66	74
2.	89	629970	6886	NBS49K	139	10	1	2	67	5	66	73
3.	89	7098228	9995	NBS49K	141	19	1	1	78	3	66	74
4.	89	74764117	6907	NBS49K	116	21	1	1	78	3	66	61
5.	89	630068	9992	NBS49K	117	46	1	2	90	5	66	61
6.	88	55429840	6913	NBS49K	124	34	2	1	73	3	65	53

[illegible]

9613492.1625



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 21 in PBM results file: LA3003
Retention Time: 36.64 Area: 63037 Tentative Conc: ~~230.00~~ 250 ug/kg
The unknown area is 17.42% of the nearest internal standard

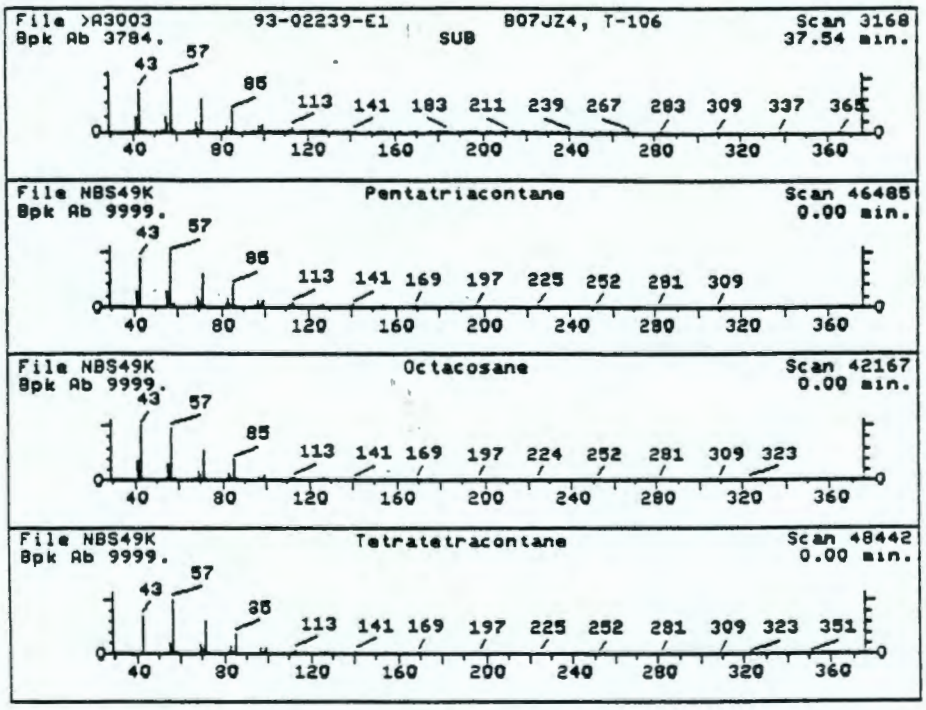
1. Hexadecane	226	C16H34
2. Docosane	310	C22H46
3. Octacosane	394	C28H58
4. Tetratetracontane	618	C44H90
5. Heptacosane	380	C27H56
6. Eicosane, 7-hexyl-	366	C26H54

Sample file: >A3003 Spectrum #: 3083
Search speed: 3 Tilting option: F No. of ion ranges searched: 88

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	83	544763	6835	NBS49K	109	11	1	0	76	13	51	73
2.	81	629970	6886	NBS49K	134	15	1	2	73	16	45	71
3.	81	630024	6906	NBS49K	118	23	1	0	74	18	45	73
4.	77	7098228	9995	NBS49K	139	21	1	2	87	23	41	73
5.	76	593497	6904	NBS49K	129	26	2	2	93	11	40	56
6.	76	55333998	6899	NBS49K	117	32	2	0	84	13	40	56

F03-476

9613492.1626



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 22 in PBM results file: LA3003
Retention Time: 37.54 Area: 42024 Tentative Conc: ~~150.00~~ 100 ug/L 2/2/93
The unknown area is 11.61% of the nearest internal standard

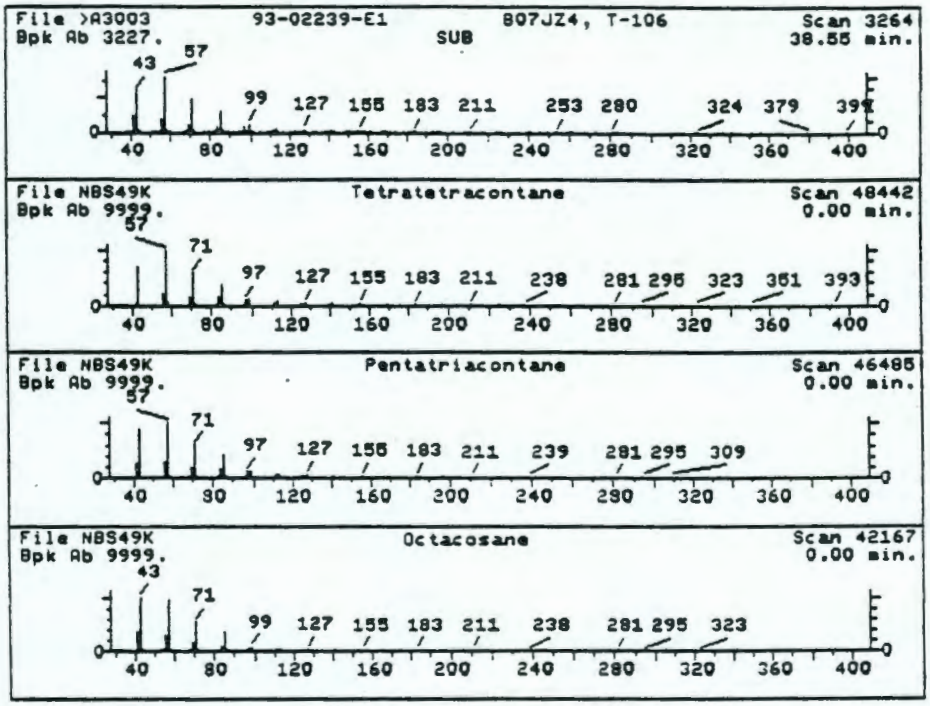
1.	Pentatriacontane	492	C35H72
2.	Octacosane	394	C28H58
3.	Tetratetracontane	618	C44H90
4.	Hexadecane	226	C16H34
5.	Docosane	310	C22H46
6.	Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3

Sample file: >A3003 Spectrum #: 3168
Search speed: 3 Tilting option: F No. of ion ranges searched: 96

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	81	630079	6915	NBS49K	149	2	0	1	77	16	45	78
2.	81	630024	6906	NBS49K	127	14	1	0	77	16	45	77
3.	81	7098228	9995	NBS49K	134	26	1	1	83	16	45	71
4.	81	544763	6835	NBS49K	109	11	1	0	77	16	45	73
5.	75	629970	6886	NBS49K	126	23	1	2	69	16	35	66
6.	75	74764117	6907	NBS49K	120	17	1	1	89	16	35	65

F03-477

9613492.1627



Instrument ID: BNA1 Analyzed on: 1/29/93 16:46
Result 23 in PBM results file: LA3003
Retention Time: 38.55 Area: 41811 Tentative Conc: ~~150.00~~ 160 [illegible] 3/2/93
The unknown area is 11.55% of the nearest internal standard

1. Tetratetracontane	618	C44H90
2. Pentatriacontane	492	C35H72
3. Octacosane	394	C28H58
4. Hexatriacontane	506	C36H74
5. Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3
6. Eicosane, 7-hexyl-	366	C26H54

Sample file: >A3003 Spectrum #: 3264
Search speed: 3 Tilting option: F No. of ion ranges searched: 93

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	83	7098228	9995	NBS49K	140	20	1	1	77	13	51	74
2.	81	630079	6915	NBS49K	138	13	1	1	74	16	45	73
3.	81	630024	6906	NBS49K	126	15	1	0	75	20	45	77
4.	79	630068	9992	NBS49K	106	57	1	0	79	13	43	66
5.	75	74764117	6907	NBS49K	112	25	1	1	89	16	35	61
6.	74	55333998	6899	NBS49K	106	43	2	0	80	13	39	42

[illegible]

F03-478

QUANT REPORT

Operator ID: MANAGER
Output File: ^A3004::OF
Data File: >A3004::D1
Name: 93-02239-E2
Misc: B07JZ4, T-106

Quant Rev: 7
Quant Time: 930201 10:05
Injected at: 930129 17:43
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 2

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Date: 930129 15:50

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.35	678	36769	40.00	ng/uL	9
2)	2-Fluorophenol	6.67	230	182363	143.40	ng/uL	9
3)	Phenol-d5	10.44	591	241079	159.76	ng/uL	9
4)	Phenol	0.00	0	0	0.00	ng/uL	
5)	bis(2-Chloroethyl)ether	0.00	0	0	0.00	ng/uL	
6)	2-Chlorophenol	0.00	0	0	0.00	ng/uL	
7)	1,3-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
8)	1,4-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	1,2-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	774	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	0.00	850	0	0.00	ng/uL	
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.31	1057	123076	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.15	850	119837	81.85	ng/uL	9
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	0.00	0	0	0.00	ng/uL	
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	0.00	0	0	0.00	ng/uL	
30)	2-Methylnaphthalene	0.00	0	0	0.00	ng/uL	
31)	*Acenaphthene-d10	20.59	1563	59219	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	18.68	1380	157363	78.67	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	1563	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	0.00	0	0	0.00	ng/uL	
43)	2,4-Dinitrophenol	0.00	0	0	0.00	ng/uL	

44)	4-Nitrophenol	0.00	0	0	0.00	ng/uL	
45)	Dibenzofuran	0.00	0	0	0.00	ng/uL	
46)	2,4-Dinitrotoluene	0.00	0	0	0.00	ng/uL	
47)	Diethylphthalate	0.00	0	0	0.00	ng/uL	
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00	ng/uL	
49)	Fluorene	0.00	0	0	0.00	ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00	ng/uL	
51)	*Phenanthrene-d10	25.00	1986	105695	40.00	ng/uL	9
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00	ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1790	0	0.00	ng/uL	
54)	2,4,6-Tribromophenol	22.96	1790	53809	127.55	ng/uL	9
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00	ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00	ng/uL	
57)	Pentachlorophenol	0.00	0	0	0.00	ng/uL	
58)	Phenanthrene	0.00	0	0	0.00	ng/uL	
59)	Anthracene	0.00	0	0	0.00	ng/uL	
60)	Di-n-butylphthalate	27.04	2180	9209	2.25	ng/uL	9
61)	Fluoranthene	0.00	0	0	0.00	ng/uL	
62)	*Chrysene-d12	32.87	2734	98987	40.00	ng/uL	9
63)	Pyrene	0.00	0	0	0.00	ng/uL	
64)	Terphenyl-d14	29.91	2453	178600	70.89	ng/uL	8
65)	Butylbenzylphthalate	0.00	0	0	0.00	ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00	ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00	ng/uL	
68)	Chrysene	0.00	0	0	0.00	ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	33.30	2775	3182	1.10	ng/uL	9
70)	*Perylene-d12	36.79	3105	108696	40.00	ng/uL	9
71)	Di-n-octylphthalate	35.15	2950	1834	.390	ng/uL	9
72)	Benzo(b)fluoranthene	0.00	0	0	0.00	ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00	ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00	ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00	ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00	ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00	ng/uL	

* Compound is ISTD

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >A3004
CAL CHECK FILE = >A3002
DATE AND TIME OF ANALYSIS = 1/29/93 17:43
MISCELLANEOUS = B07JZ4, T-106
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = MANAGER SUPER GRP

I. Areas

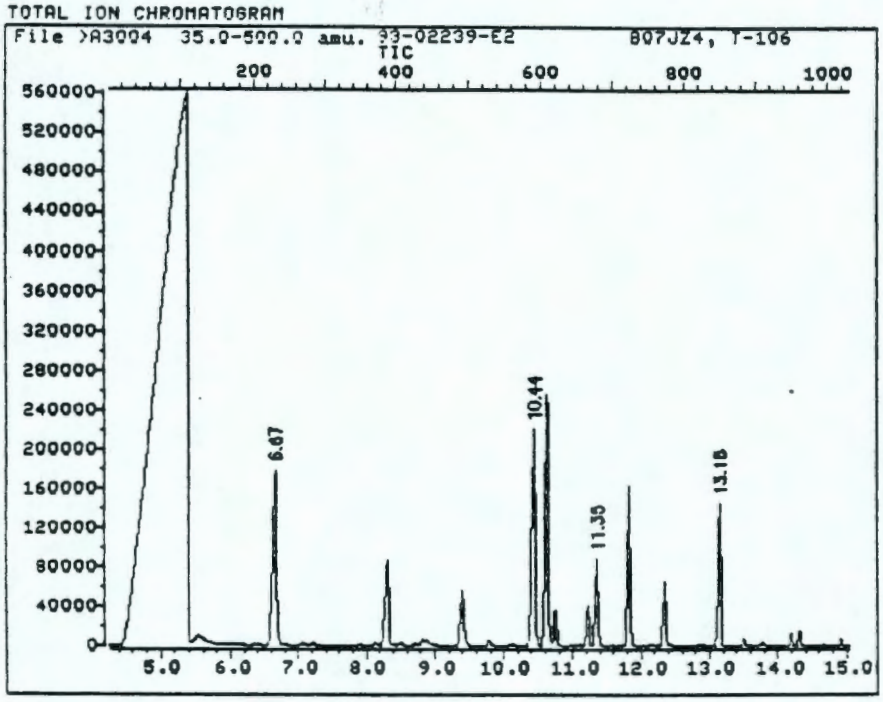
Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	36769	39750	19875	79500	OK
Naphthalene-d8	123076	135073	67536	270146	OK
Acenaphthene-d10	59219	65573	32786	131146	OK
Phenanthrene-d10	105695	120560	60280	241120	OK
Chrysene-d12	98987	97759	48880	195518	OK
Perylene-d12	108696	119406	59703	238812	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.35	11.34	10.84	11.84	OK
Naphthalene-d8	15.31	15.33	14.83	15.83	OK
Acenaphthene-d10	20.59	20.61	20.11	21.11	OK
Phenanthrene-d10	25.00	25.02	24.52	25.52	OK
Chrysene-d12	32.87	32.90	32.40	33.40	OK
Perylene-d12	36.79	36.80	36.30	37.30	OK

9613492.1631

TOTAL ION CHROMATOGRAM



Data File: >A3004::D1
Name: 93-02239-E2
Misc: 807JZ4, T-106

Quant Output File: ^A3004::OF
Instrument ID: BNA1

BTL# 2

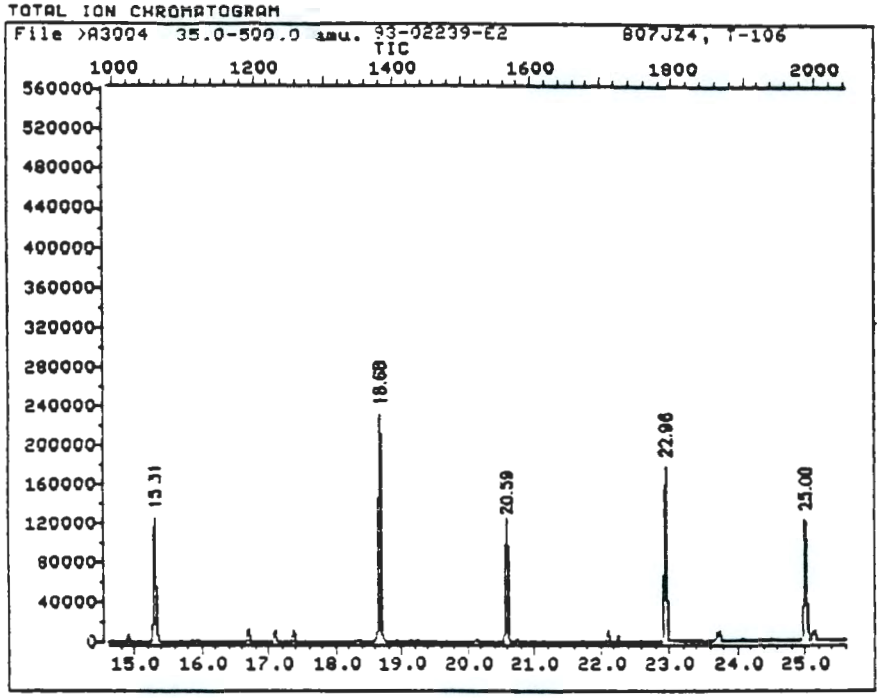
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930129 15:50

Operator ID: MANAGER
Quant Time : 930201 10:05
Injected at: 930129 17:43

F03-482

TOTAL ION CHROMATOGRAM



Data File: >A3004::D1
Name: 93-02239-E2
Misc: B07JZ4, T-106

Quant Output File: ^A3004::OF
Instrument ID: BNA1
BTL# 2

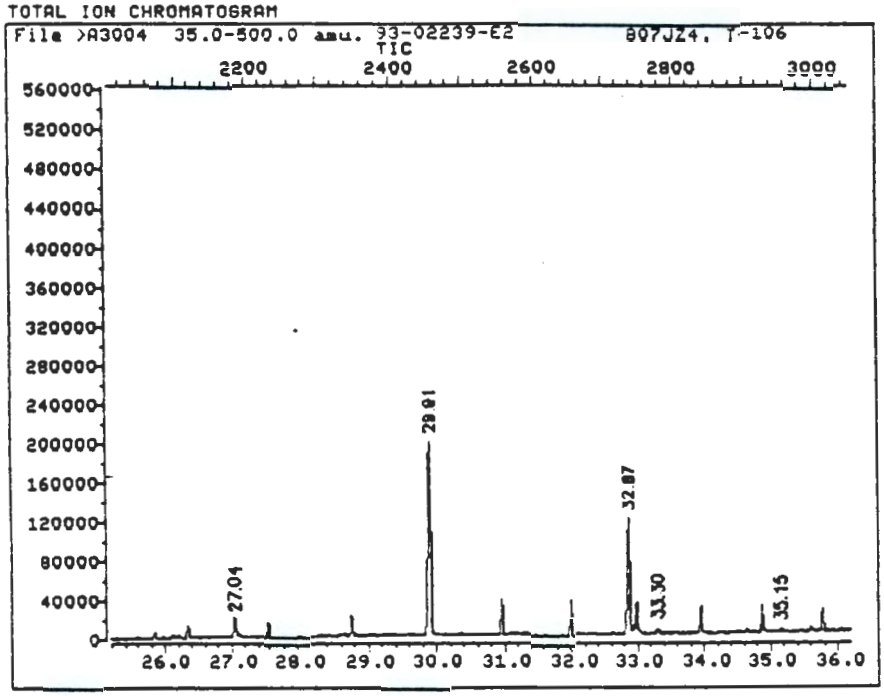
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930129 15:50

Operator ID: MANAGER
Quant Time : 930201 10:05
Injected at: 930129 17:43

Page 2 of 4

TOTAL ION CHROMATOGRAM



Data File: >A3004::D1
Name: 93-02239-E2
Misc: B07JZ4, T-106

Quant Output File: ^A3004::QF
Instrument ID: BNA1

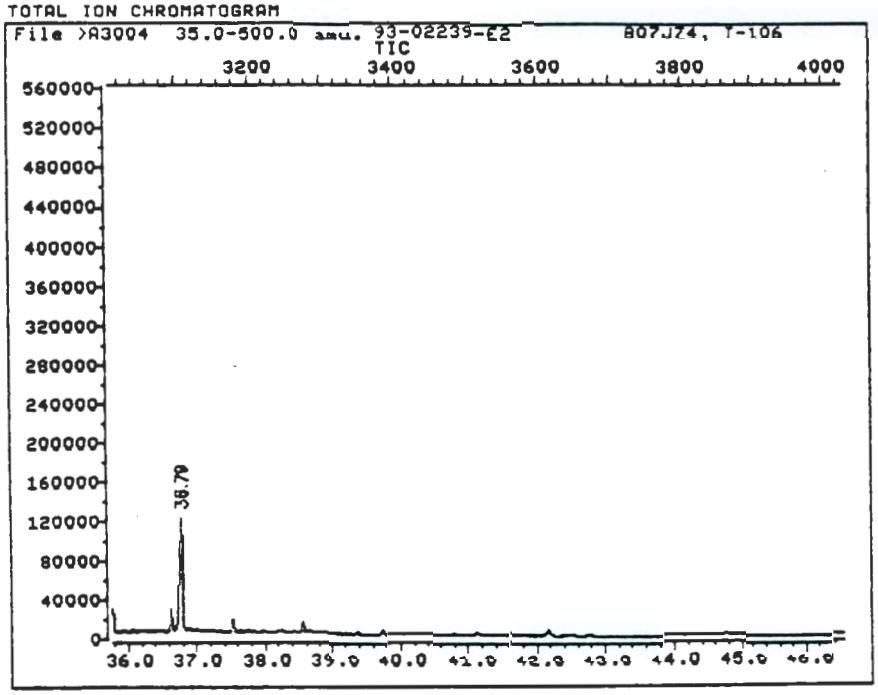
BTL# 2

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930129 15:50

Operator ID: MANAGER
Quant Time : 930201 10:05
Injected at: 930129 17:43

TOTAL ION CHROMATOGRAM



Data File: >A3004::D1
Name: 93-02239-E2
Misc: B07JZ4, T-106

Quant Output File: ^A3004::QF
Instrument ID: BNA1
BTL# 2

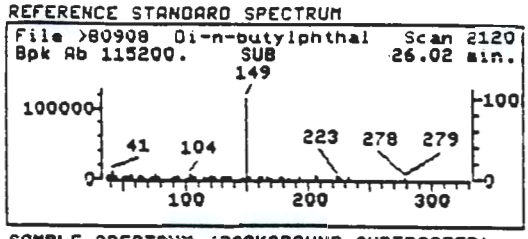
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930129 15:50

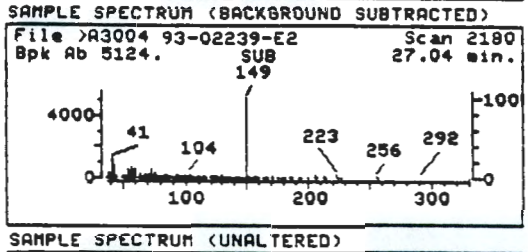
Operator ID: MANAGER
Quant Time : 9[illegible]1 10:05
Injected at: 17:43

Page 4 of 4

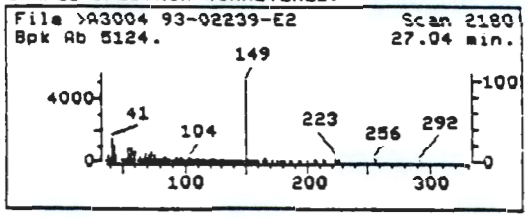
REFERENCE STANDARD SPECTRUM

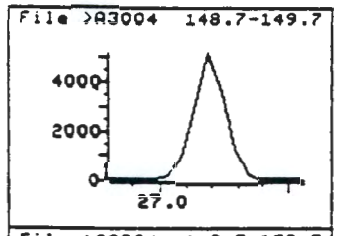


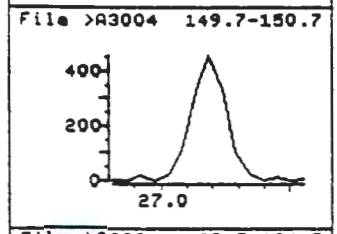
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

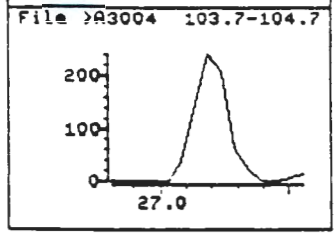


SAMPLE SPECTRUM (UNALTERED)







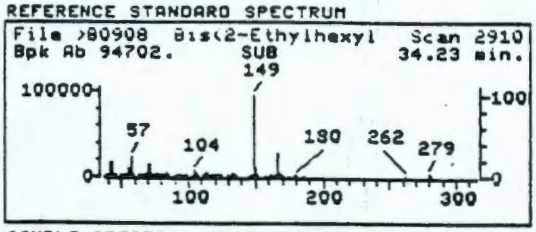


Data File: >A3004::D1
Name: 93-02239-E2
Misc: B07JZ4, T-106
Quant Time: 930201 10:05
Injected at: 930129 17:43
Last Qcal Time: 930129 15:50

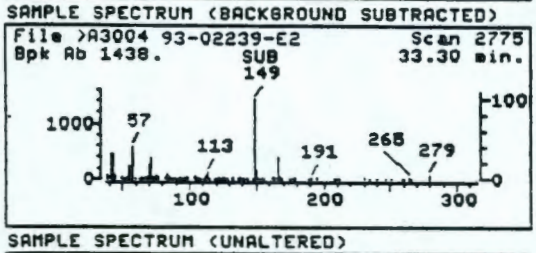
Quant Output File: ^A3004::DF
Instrument ID: BNA1
BTL# 2
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2180
Retention Time: 27.04 min.
Quant Ion : 149.0
Area : 9209
Concentration : 2.25 ng/uL
q-value : 97

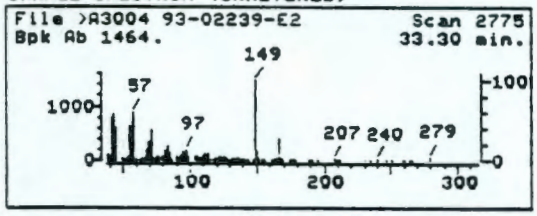
REFERENCE STANDARD SPECTRUM

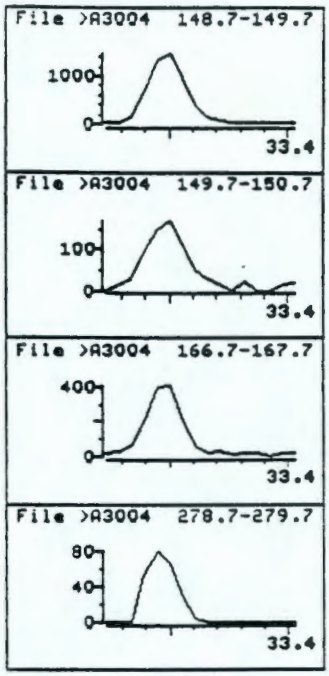


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

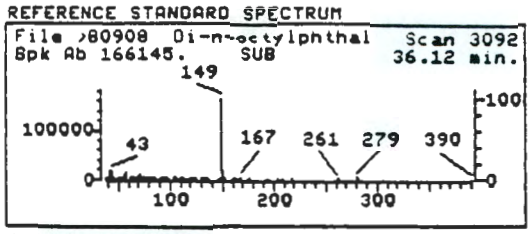


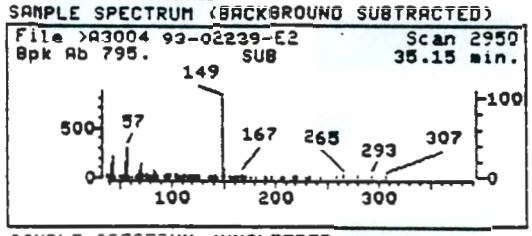


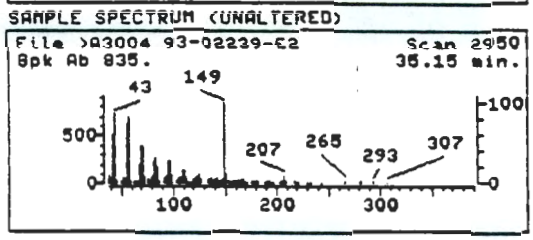
Data File: >A3004::D1
Name: 93-02239-E2
Misc: B07JZ4, T-106
Quant Time: 930201 10:05
Injected at: 930129 17:43
Last Qcal Time: 930129 15:50

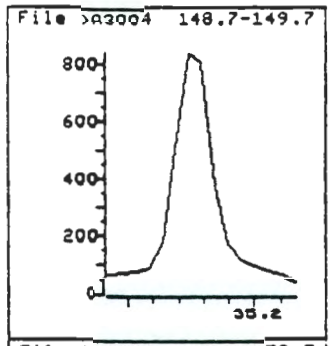
Quant Output File: ^A3004::OF
Instrument ID: BNA1
BTL# 2
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

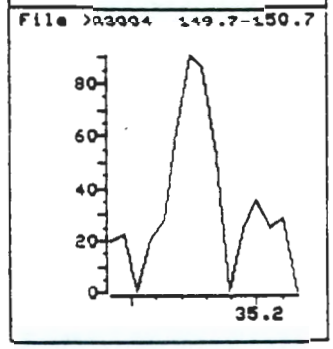
Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2775
Retention Time: 33.30 min.
Quant Ion : 149.0
Area : 3182
Concentration : 1.10 ng/uL
q-value : 99











Data File: >A3004::D1
Name: 93-02239-E2
Misc: 807JZ4, T-106
Quant Time: 930201 10:05
Injected at: 930129 17:43
Last Qcal Time: 930129 15:50

Quant Output File: ^A3004::OF
Instrument ID: BNA1
BTL# 2
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 2950
Retention Time: 35.15 min.
Quant Ion : 149.0
Area : 1834
Concentration : .390 ng/uL
q-value : 97

9613492.1638

MS data file header from : >A3004::D1

Sample: 93-02239-E2 Operator: MANAGER SUPER GRP. 1/29/93 17:43
Misc : B07JZ4, T-106 BTL# 2
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 2 Equip ID: BNA1
Method file: BNAME1 Tuning file: MTBNA1 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	40.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.5	0.0

>A3004 93-02239-E2 B07JZ4, T-106
35.01 500.0 CLP TIC
Upslope: .2000 Area Reject: 25690. Max Peaks: 25 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File IA3004 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	5.39	15	108	111	560955	15816101	15759651	100.00	84.45
2	5.53	111	121	148	9392	129443	95504*	.61	.51
3	8.32	376	388	401	86752	347313	333028	2.11	1.78
4	8.82	431	436	469	6884	69606	54216	.34	.29
5	9.41	481	492	509	56604	233484	219444	1.39	1.17
6	10.63	603	609	615	254973	775758	768056	4.87	4.11
7	10.75	615	620	632	35690	94918	85626	.54	.45
8	11.22	657	665	670	40693	120258	114746	.73	.61
9	11.82	711	723	739	162633	465006	451422	2.86	2.41
10	12.35	761	773	789	64663	207252	190764	1.21	1.02
11	14.31	956	961	967	14908	38612	34019	.22	.18
12	16.70	1184	1190	1195	12676	32222	28369	.18	.15
13	17.09	1221	1228	1236	11254	31226	26032	.17	.13
14	25.14	1995	1999	2005	9178	39417	25873	.16	.13
15	27.57	2226	2231	2239	15334	62336	29188	.19	.15
16	28.75	2339	2343	2347	20932	61933	38540	.24	.20
17	30.96	2549	2553	2558	36047	94691	61364	.39	.32
18	31.99	2647	2651	2658	34290	106097	63306	.40	.33
19	33.95	2832	2837	2842	28587	97509	53044	.34	.28
20	34.87	2920	2924	2935	28065	123898	60488	.38	.32
21	35.77	3005	3009	3013	22220	82409	40833	.26	.21
22	36.63	3086	3090	3095	22109	92328	42799	.27	.22
23	37.53	3171	3175	3181	12842	78803	28701	.18	.15
24	38.55	3267	3272	3277	11275	75395	27730	.18	.14
25	42.16	3607	3614	3625	7072	81849	28814	.18	.15

Sum of corrected areas: 18661568.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window

Correction for moisture : value / .937 [illegible] 2/4/93

F03-489

9613492.1639

1	40.0	256900.	11.35	4.27 - 13.33
2	40.0	287499.	15.31	13.33 - 17.95
3	40.0	289015.	20.59	17.95 - 22.80
4	40.0	306670.	25.00	22.80 - 28.94
5	40.0	303170.	32.87	28.94 - 34.83
6	40.0	330357.	36.79	34.83 - 46.53

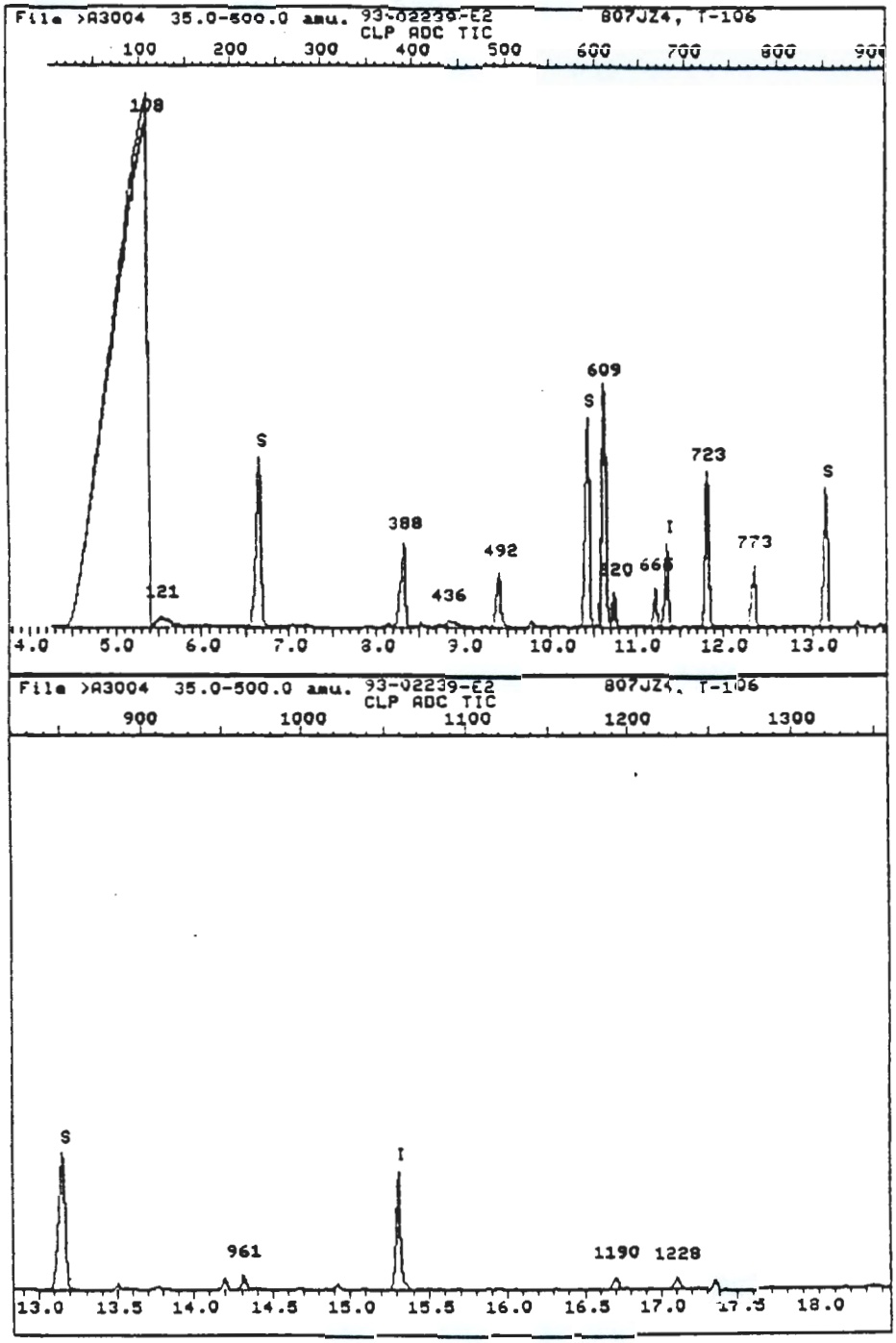
Dilution Factor = 1.00 This sample was 30.3000 g or mL

Correction Factor = 33.04

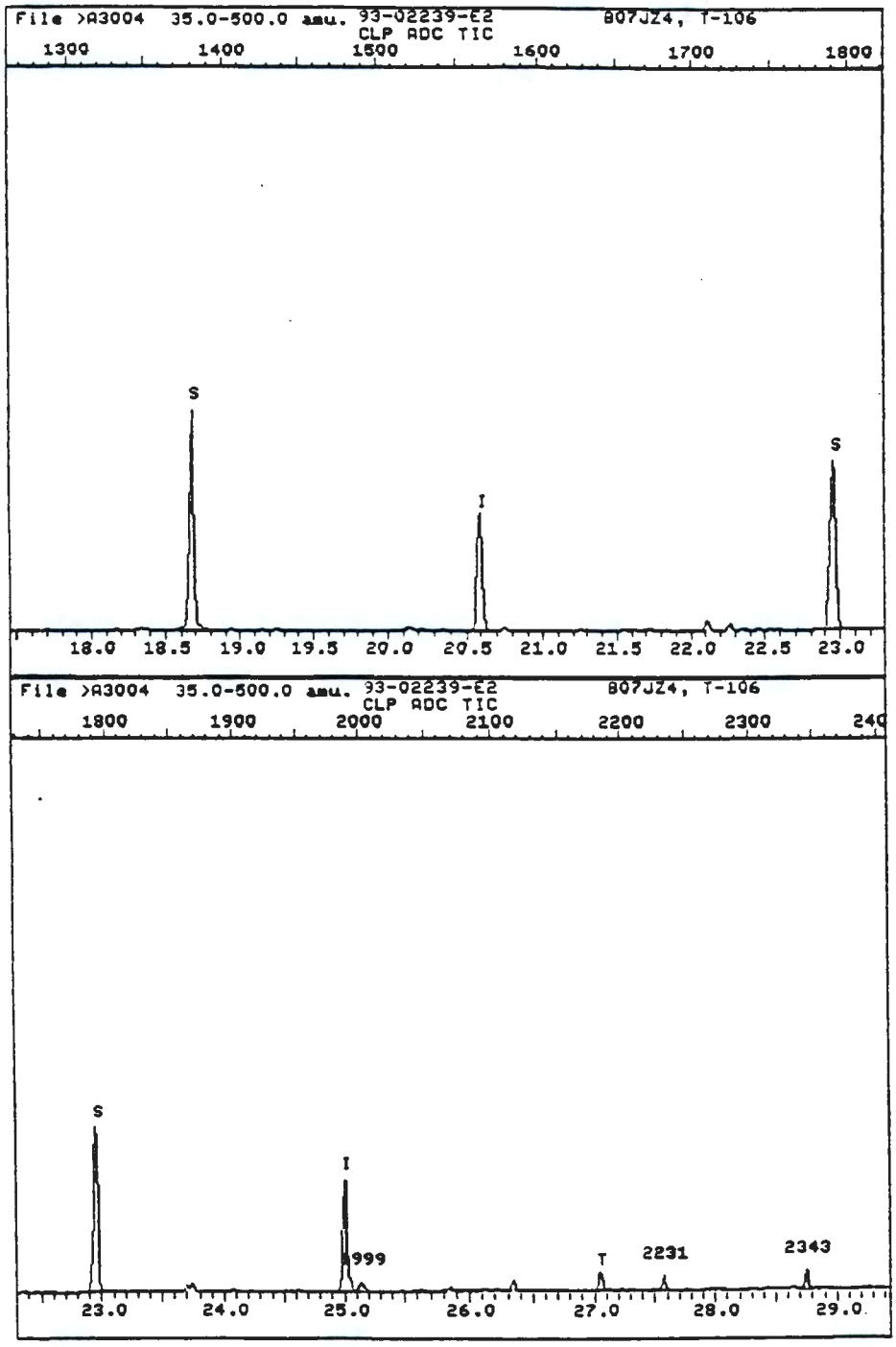
$$\text{Unknown Concentration} = \frac{\text{Conc Int Std} * \text{Area Unknown}}{\text{Area Int Std}} * \text{Correction Factor}$$

1:52 PM WED., 24 FEB., 1993

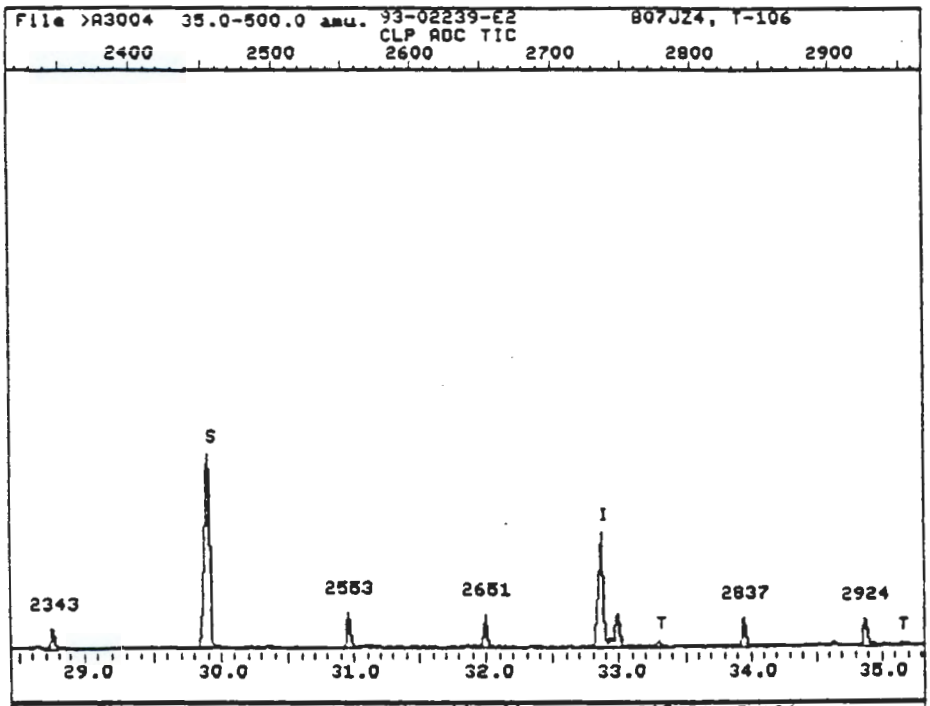
F03-490

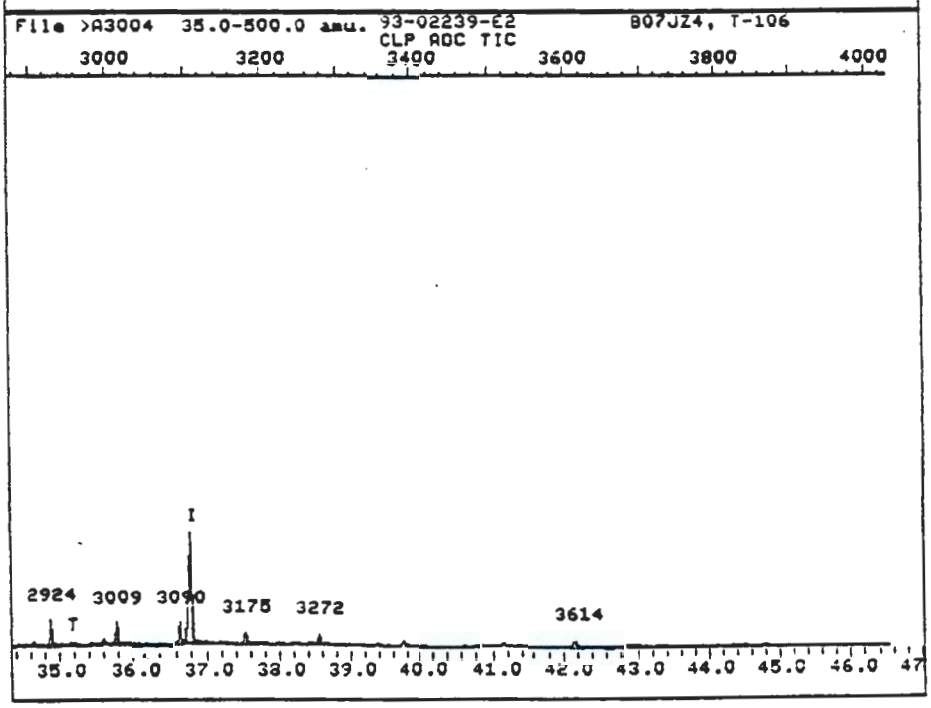


Instrument ID: 8NA1 Analyzed on: 1/29/93 17:43



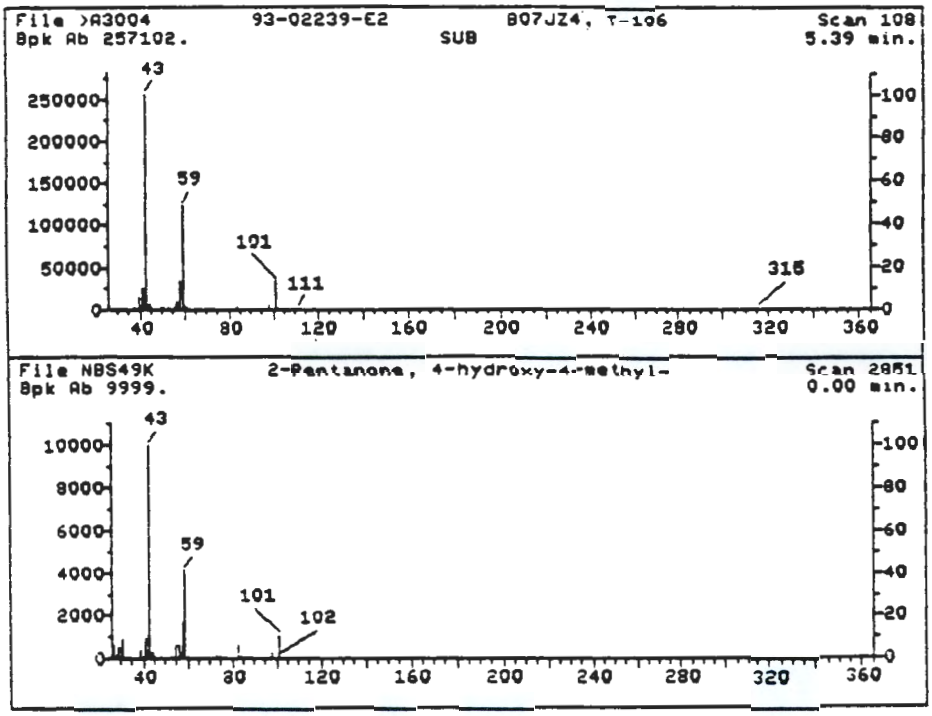
Instrument ID: BNA1 Analyzed on: 1/29/93 17:43





Instrument ID: BNA1 Analyzed on: 1/29/93 17:43

F03-493



Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 1 in PBM results file: LA3004
Retention Time: 5.39 Area: 15759650 Tentative Conc: ~~01000~~.00
The unknown area is 6134.5% of the nearest internal standard 250000 2/2/9

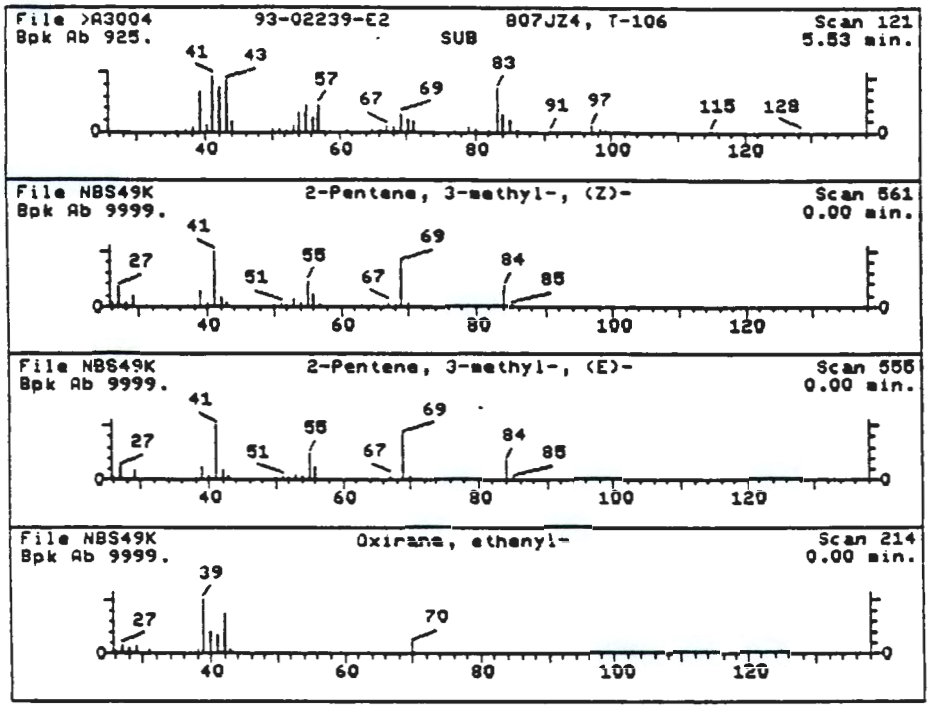
(1) 2-Pentanone, 4-hydroxy-4-methyl- 116 C6H12O2

Sample file: >A3004 Spectrum #: 108
Search speed: 3 Tilting option: F No. of ion ranges searched: 232

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	32	123422	1790	NBS49K	52	31	2	0	82	36	10	18

(A)

9613492.1644



Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 2 in PBM results file: LA3004
Retention Time: 5.53 Area: 95504 Tentative Conc: ~~4518.00~~
The unknown area is 37.18% of the nearest internal standard 520 AM 3/2/93

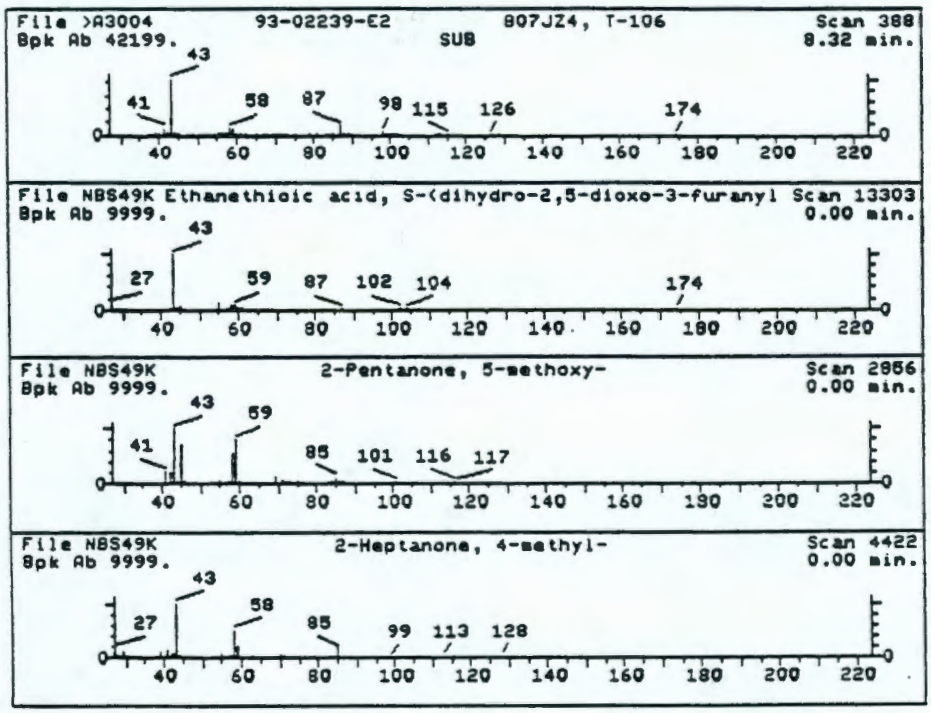
1. 2-Pentene, 3-methyl-, (Z)-	84	C6H12
2. 2-Pentene, 3-methyl-, (E)-	84	C6H12
3. Oxirane, ethenyl-	70	C4H6O
4. 1-Propene	42	C3H6
5. Cyclopropane	42	C3H6
6. Butanediamide, 2-methylene-	128	C5H8N2O2

Sample file: >A3004 Spectrum #: 121
Search speed: 3 Tilting option: F No. of ion ranges searched: 47

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	36*	922623	6303	NBS49K	49	46	2	3	82	36	14	2
2.	35*	616126	6298	NBS49K	55	40	2	2	94	49	11	3
3.	25*	930223	3807	NBS49K	32	40	1	0	73	49	7	1
4.	20*	115071	215	NBS49K	24	57	1	0	94	54	5	1
5.	20*	75194	216	NBS49K	25	65	1	0	80	54	5	1
6.	20*	3786296	6577	NBS49K	25	102	3	0	73	52	5	1

F03-495

9613492.1645



Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 3 in PBM results file: LA3004
Retention Time: 8.32 Area: 333028 Tentative Conc: ~~1700.00~~
The unknown area is 129.63% of the nearest internal standard 1800 [illegible] 2/2/93

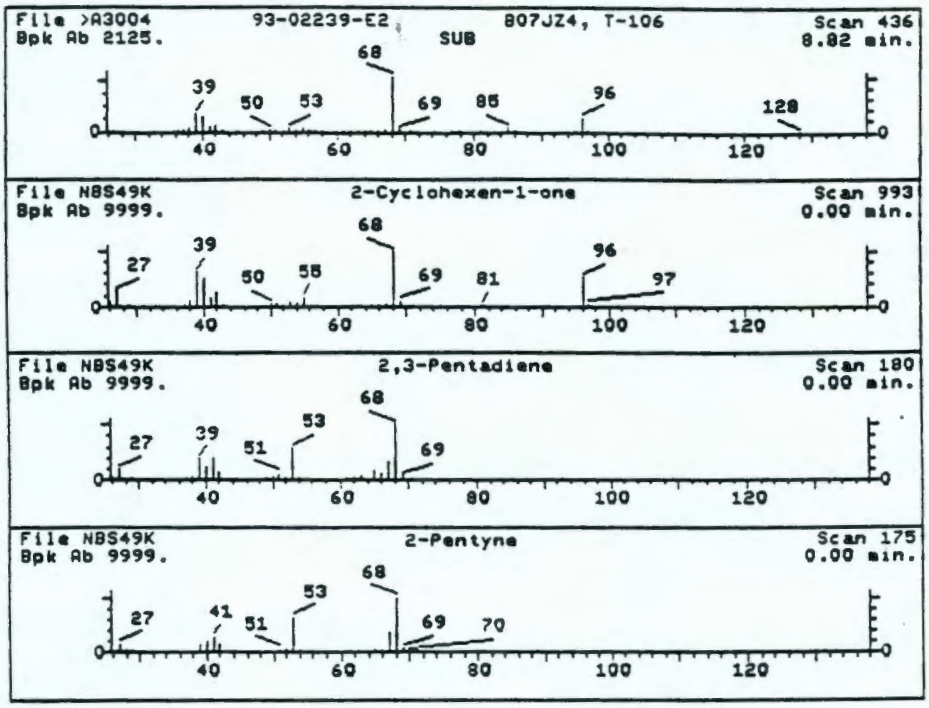
1. Ethanethioic acid, S-(dihydro-2,5-dioxo-3-furanyl) e ster 174 C6H6O4S
2. 2-Pentanone, 5-methoxy- 116 C6H12O2
3. 2-Heptanone, 4-methyl- 128 C8H16O
4. Butanoic acid, 2-ethyl-3-oxo-, methyl ester 144 C7H12O3

Sample file: >A3004 Spectrum #: 388
Search speed: 3 Tilting option: F No. of ion ranges searched: 96

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	26*	6953602	263	NBS49K	29	49	2	0	100	42	8	14
2.	20*	17429048	1791	NBS49K	24	43	2	0	15	52	5	14

unk A?

F03-496



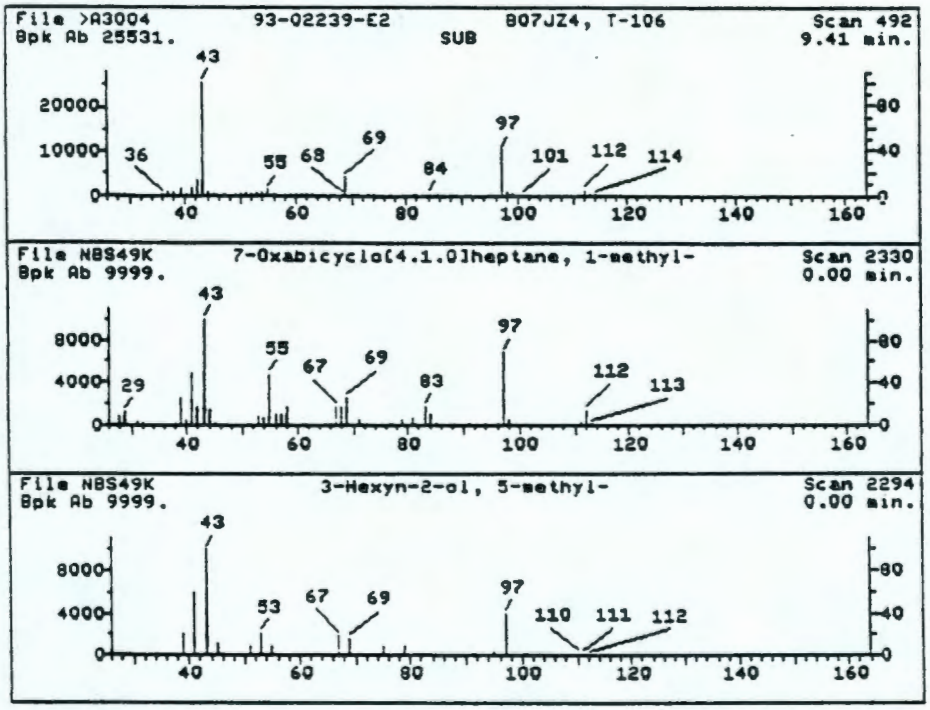
Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 4 in PBM results file: LA3004
Retention Time: 8.82 Area: 54216 Tentative Conc: ~~280.00~~ 300 3/2/93
The unknown area is 21.10% of the nearest internal standard

1. 2-Cyclohexen-1-one	96	C6H8O
2. 2,3-Pentadiene	68	C5H8
3. 2-Pentyne	68	C5H8
4. 1H-Pyrazole	68	C3H4N2
5. 1,2-Pentadiene	68	C5H8
6. Bicyclo[3.1.0]hexan-3-one	96	C6H8O

Sample file: >A3004 Spectrum #: 436
Search speed: 3 Tilting option: F No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	69*	930687	3554	NBS49K	61	30	0	0	42	39	28	73
2.	52*	591968	3535	NBS49K	22	81	2	0	100	20	20	13
3.	36*	627214	3530	NBS49K	22	69	2	0	94	27	14	13
4.	30*	288131	3527	NBS49K	22	54	2	0	100	32	12	13
5.	25*	591957	3534	NBS49K	33	81	2	0	65	48	7	14
6.	20*	1755040	3555	NBS49K	29	56	2	0	43	53	5	14

9613492.1647



Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 5 in PBM results file: LA3004
Retention Time: 9.41 Area: 219444 Tentative Conc: ~~1100.~~00
The unknown area is 85.42% of the nearest internal standard 1200 [illegible] 3/2/93

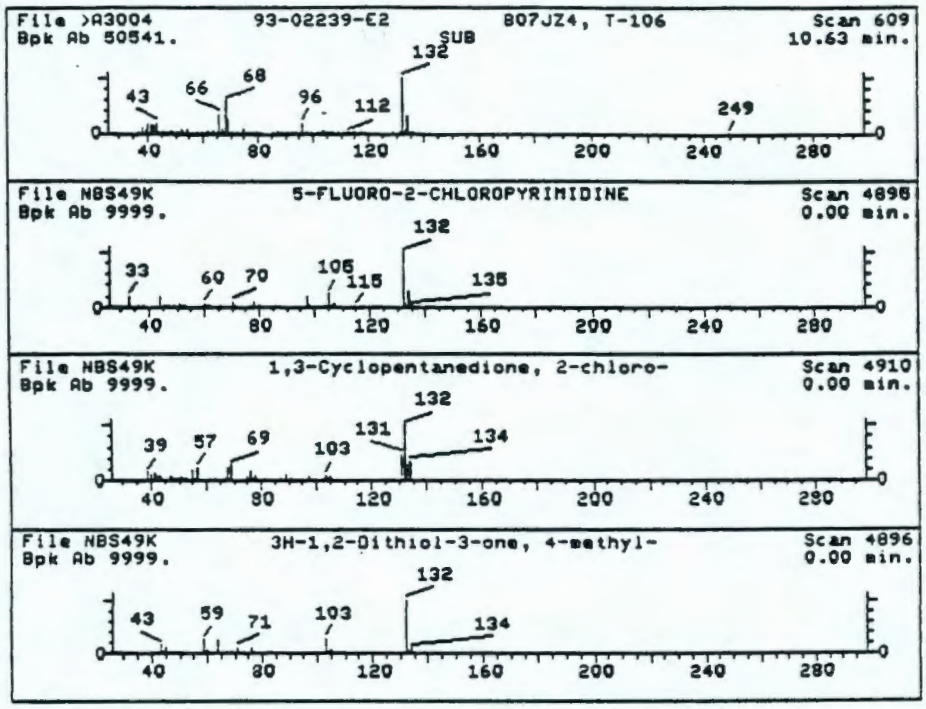
1. 7-Oxabicyclo[4.1.0]heptane, 1-methyl- 112 C7H12O
2. 3-Hexyn-2-ol, 5-methyl- 112 C7H12O

Sample file: >A3004 Spectrum #: 492
Search speed: 3 Tilting option: F No. of ion ranges searched: 50

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	35*	1713333	9098	NBS49K	41	64	2	3	79	30	14	1
2.	31*	23293507	9091	NBS49K	26	63	2	0	100	34	12	1

F03-498

9613492.1648



Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 6 in PBM results file: LA3004
Retention Time: 10.63 Area: 768056 Tentative Conc: 4000.00
The unknown area is 298.97% of the nearest internal standard

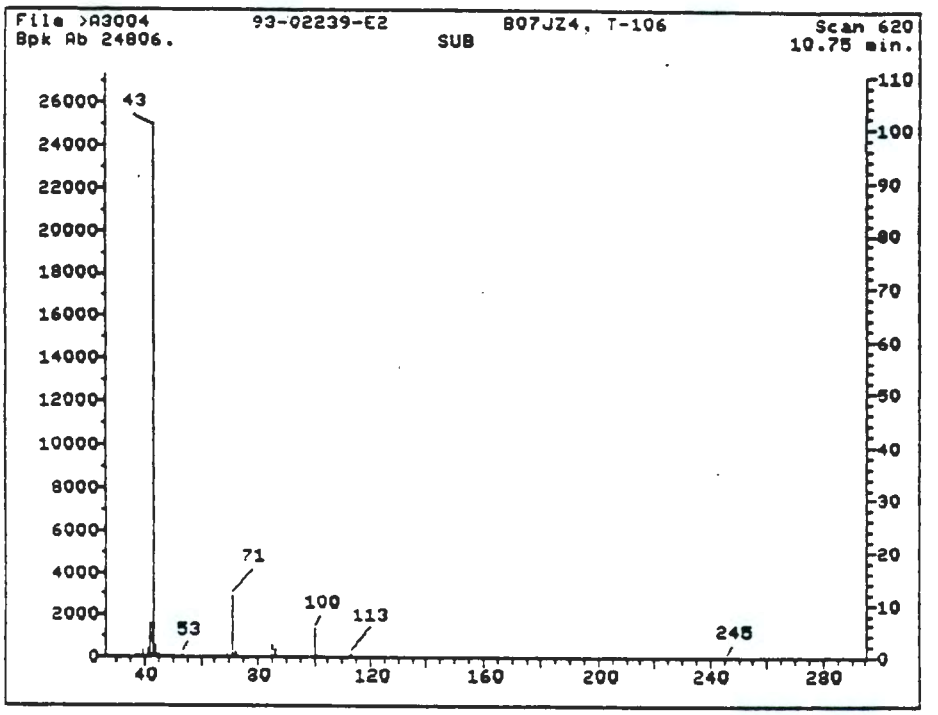
1.	5-FLUORO-2-CHLOROPYRIMIDINE	132	C4H2C1FN2
2.	1,3-Cyclopentanedione, 2-chloro-	132	C5H5C1O2
3.	3H-1,2-Dithiol-3-one, 4-methyl-	132	C4H4OS2
4.	Benzeneethanamine, .alpha.-methyl-N-(phenylmethylene	223	C16H17N
5.	1H-Pyrazole	68	C3H4N2

Sample file: >A3004 Spectrum #: 609
Search speed: 3 Tilting option: F No. of ion ranges searched: 35

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	31*	62802420	15850	NBS49K	47	61	2	0	100	45	8	1
2.	28*	14203191	15856	NBS49K	28	83	2	0	100	36	10	1
3.	20*	3620108	15851	NBS49K	20	82	2	0	100	53	5	1

Edit - see file >A1403
[illegible]

F03-499

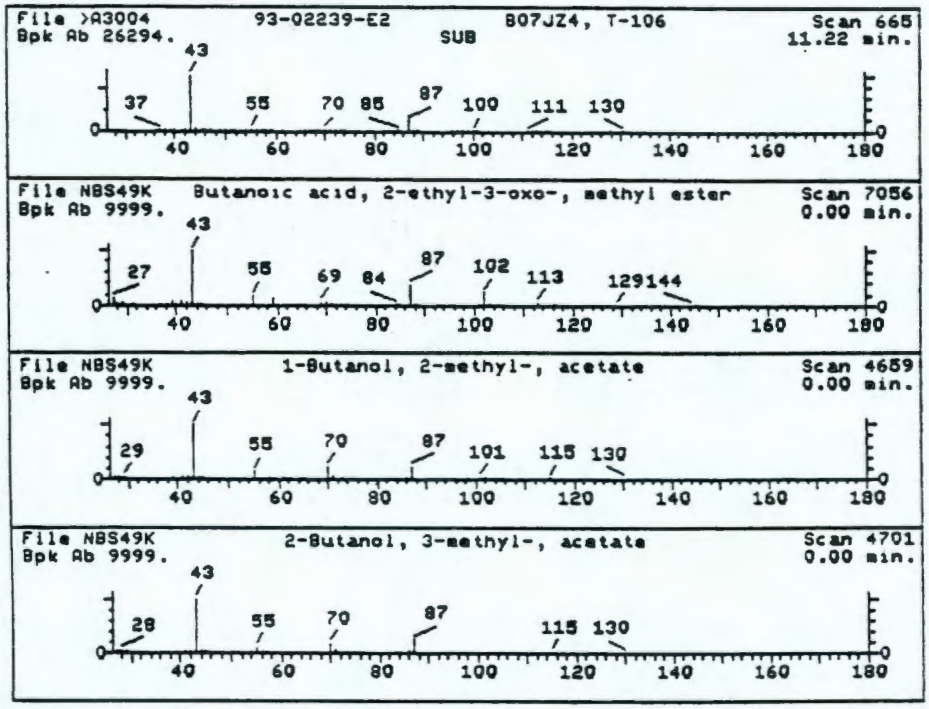


Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 7 in PBM results file: LA3004
Retention Time: 10.75 Area: 85626 Tentative Conc: ~~440.80~~
The unknown area is 33.33% of the nearest internal standard 470 AD 5/2/93

Sample file: >A3004 Spectrum #: 620

No data base entries were retrieved.

Wf



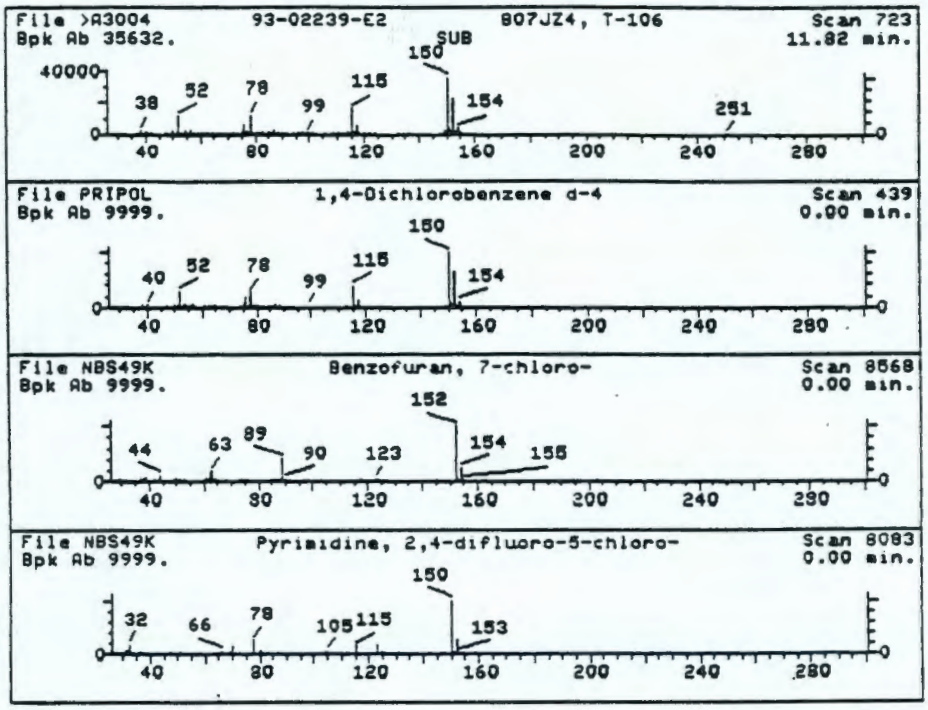
Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 8 in PBM results file: LA3004
Retention Time: 11.22 Area: 114746 Tentative Conc: ~~590.00~~
The unknown area is 44.67% of the nearest internal standard 630 [illegible]/3/93

1. Butanoic acid, 2-ethyl-3-oxo-, methyl ester 144 C7H1203
2. 1-Butanol, 2-methyl-, acetate 130 C7H1402
3. 2-Butanol, 3-methyl-, acetate 130 C7H1402

Sample file: >A3004 Spectrum #: 665
Search speed: 3 Tilting option: F No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	25*	51756082	7336	NBS49K	22	70	2	0	54	47	7	13
2.	20*	624419	7299	NBS49K	28	53	2	0	90	52	5	14
3.	20*	5343964	7303	NBS49K	39	36	2	0	82	52	5	19

9613492.1651



Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 9 in PBM results file: LA3004
Retention Time: 11.82 Area: 451422 Tentative Conc: 2300.00
The unknown area is 175.72% of the nearest internal standard

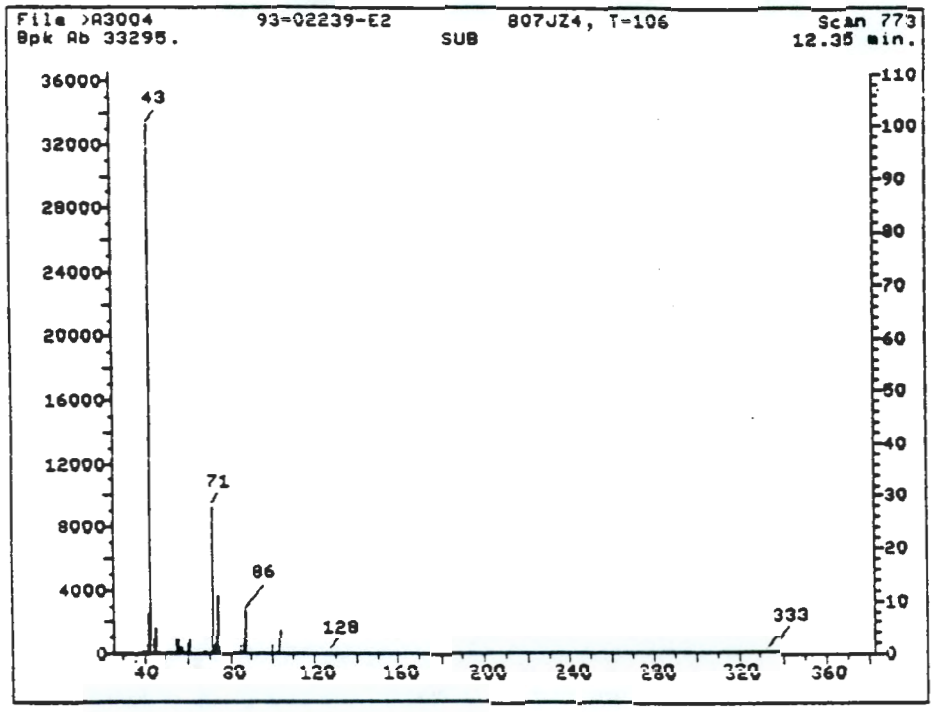
1. 1,4-Dichlorobenzene d-4	150	C6.D4.CL2
2. Benzofuran, 7-chloro-	152	C8H5ClO
3. Pyrimidine, 2,4-difluoro-5-chloro-	150	C4HClF2N2
4. Benzenebutanoic acid, 3-nitro-.gamma.-oxo-	223	C10H9NO5
5. Ethylenediamine, N-(m-methoxyphenyl)-N,N'-dimethyl-N'-phenyl-	270	C17H22N2O
6. Acenaphthylene	152	C12H8

Sample file: >A3004 Spectrum #: 723
Search speed: 3 Tilting option: F No. of ion ranges searched: 37

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	97*	439	257	PRIPOL	95	12	0	0	88	7	68	97
2.	25*	24410557	19743	NBS49K	40	49	2	1	46	45	8	13
3.	25*	25151079	19311	NBS49K	22	78	2	0	100	43	8	13
4.	24*	6328003	19489	NBS49K	54	59	2	3	53	55	7	24
5.	24*	32857399	19521	NBS49K	38	82	2	4	100	41	8	12

Filt - see filt > 1463
[illegible] = 1543

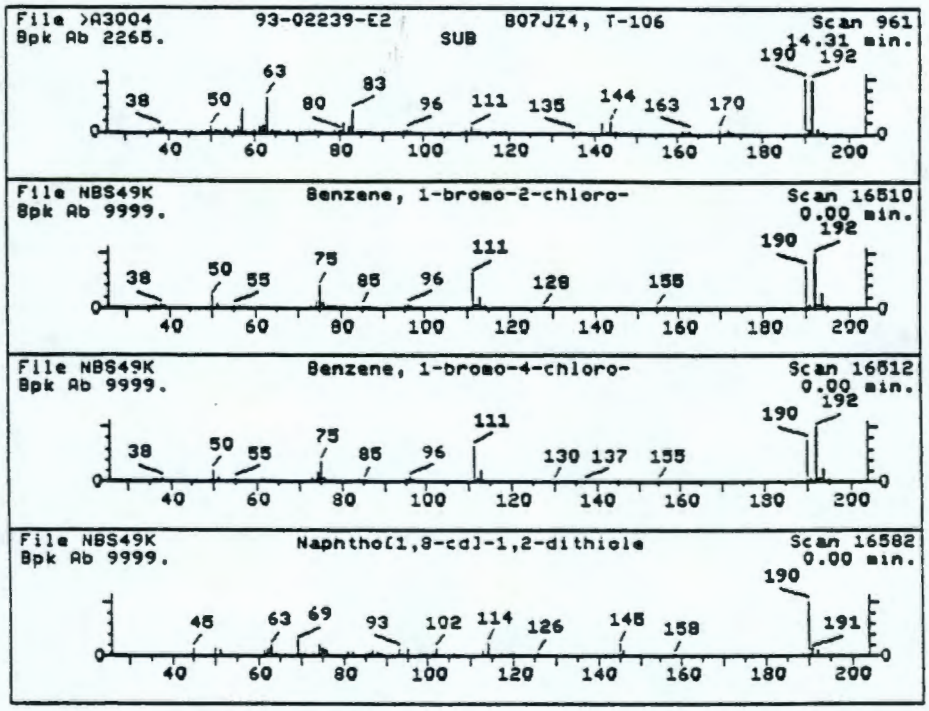
F03-502



Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 10 in PBM results file: LA3004
Retention Time: 12.35 Area: 190764 Tentative Conc: ~~988.00~~ 1000 ug/g
The unknown area is 74.26% of the nearest internal standard

Sample file: >A3004 Spectrum #: 773

No data base entries were retrieved.



Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 11 in PBM results file: LA3004
Retention Time: 14.31 Area: 34019 Tentative Conc: ~~160.00~~ 170 [illegible] 3/2/93
The unknown area is 11.83% of the nearest internal standard

1. Benzene, 1-bromo-2-chloro- 190 C6H4BrCl
2. Benzene, 1-bromo-4-chloro- 190 C6H4BrCl
3. Naphtho[1,8-cd]-1,2-dithiole 190 C10H6S2

Sample file: >A3004 Spectrum #: 961
Search speed: 3 Tilting option: F No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	28*	694804	26206	NBS49K	51	75	3	0	97	39	10	1
2.	27*	106398	26208	NBS49K	39	87	3	0	97	39	10	1

[illegible]

Instrument ID: BNA1 Analyzed on: 1/29/93 17:43

Retention Time: 16.70 Area: 28369 Tentative Conc: 130.00

The unknown area is 9.87% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

Instrument ID: BNA1 Analyzed on: 1/29/93 17:43

Retention Time: 17.09 Area: 26032 Tentative Conc: 120.00

The unknown area is 9.05% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

Instrument ID: BNA1 Analyzed on: 1/29/93 17:43

Retention Time: 25.14 Area: 25873 Tentative Conc: 110.00

The unknown area is 8.44% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

Instrument ID: BNA1 Analyzed on: 1/29/93 17:43

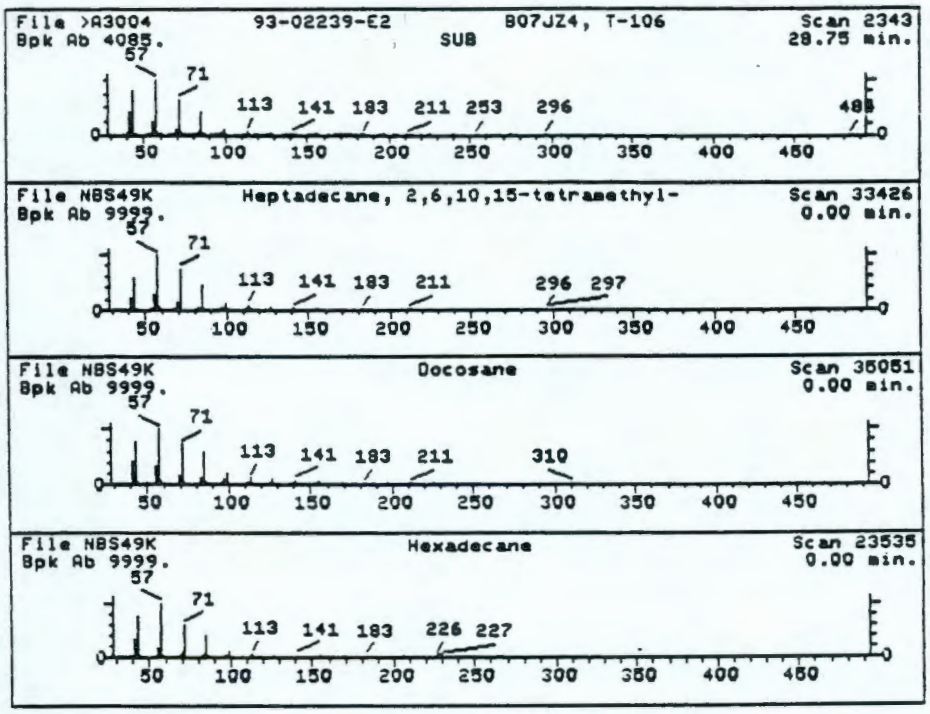
Retention Time: 27.57 Area: 29188 Tentative Conc: 130.00

The unknown area is 9.52% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

9613492.1658



Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 12 in PBM results file: LA3004
Retention Time: 28.75 Area: 38540 Tentative Conc: ~~170.00~~ 180 [illegible]
The unknown area is 12.57% of the nearest internal standard

1. Heptadecane, 2,6,10,15-tetramethyl-	296	C21H44
2. Docosane	310	C22H46
3. Hexadecane	226	C16H34
4. Eicosane	282	C20H42
5. Heptacosane	380	C27H56
6. Octadecane, 5,14-dibutyl-	366	C26H54

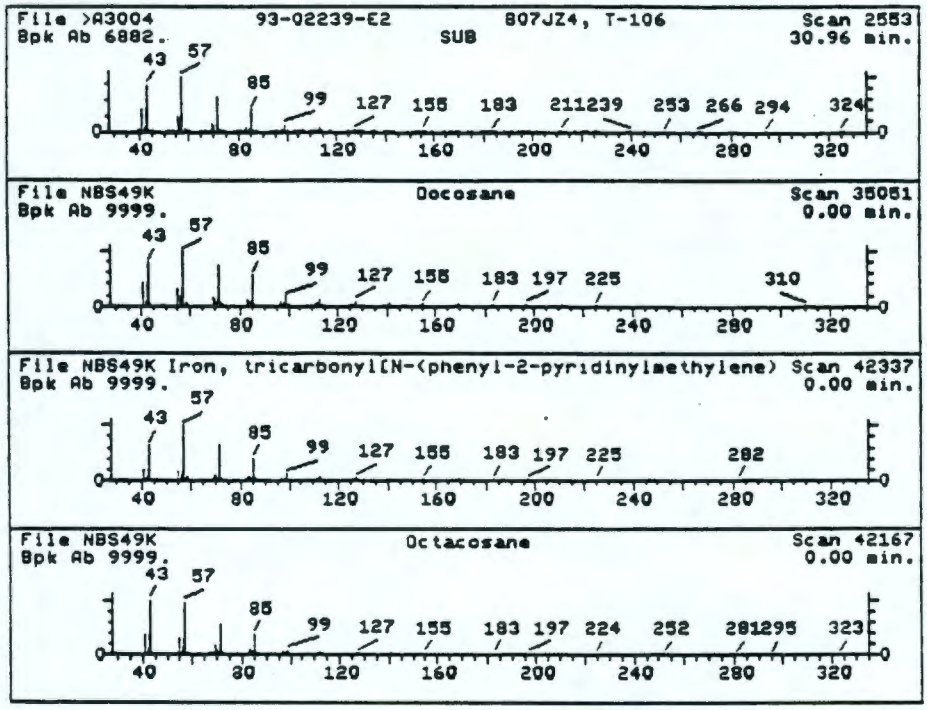
Sample file: >A3004 Spectrum #: 2343
Search speed: 3 Tilting option: F No. of ion ranges searched: 78

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	95*	54833486	6878	NBS49K	101	34	0	0	61	21	53	9
2.	89	629970	6886	NBS49K	142	7	1	3	79	2	66	7
3.	89	544763	6835	NBS49K	108	12	1	1	91	2	66	6
4.	87	112958	6871	NBS49K	119	20	2	2	78	2	63	4
5.	87	593497	6904	NBS49K	112	43	2	2	78	2	63	4
6.	87	55282138	6901	NBS49K	112	44	2	1	61	3	63	4

[illegible]

F03-509

9613492.1659



Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 13 in PBM results file: LA3004
Retention Time: 30.96 Area: 61364 Tentative Conc: 270.00
The unknown area is 20.24% of the nearest internal standard 3/2/93

1. Docosane	310	C22H46
2. Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3
3. Octacosane	394	C28H58
4. Heptadecane, 2,6,10,15-tetramethyl-	296	C21H44
5. Octadecane, 2-methyl-	268	C19H40
6. Eicosane, 7-hexyl-	366	C26H54

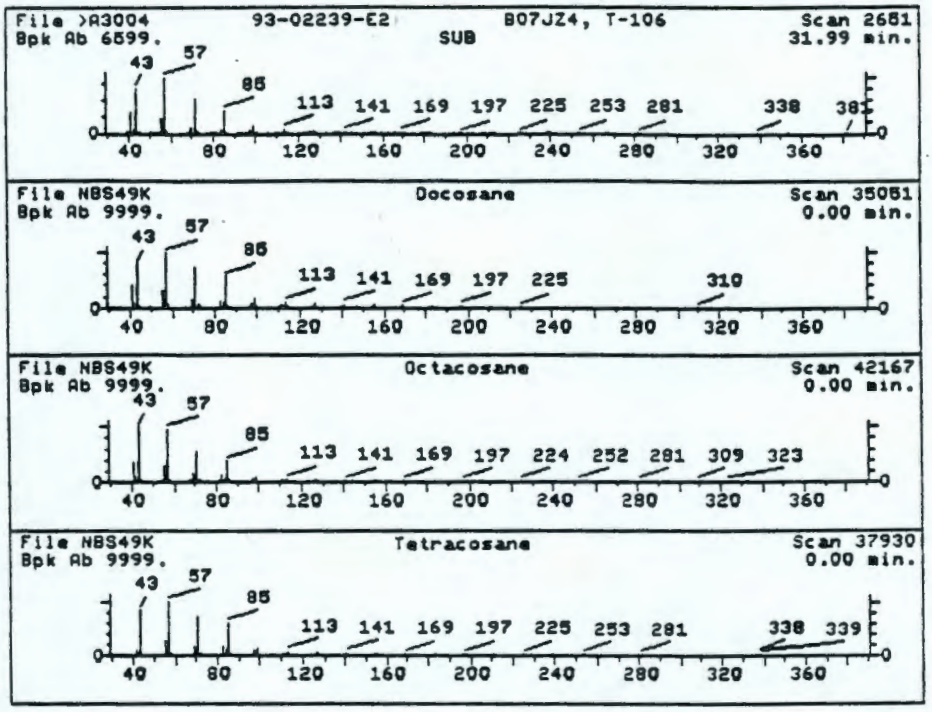
Sample file: >A3004 Spectrum #: 2553
Search speed: 3 Tilting option: F No. of ion ranges searched: 76

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	83	629970	6886	NBS49K	142	7	1	2	76	11	51	7
2.	83	74764117	6907	NBS49K	131	6	1	2	100	11	51	7
3.	83	630024	6906	NBS49K	128	13	1	0	76	11	51	7
4.	83	54833486	6878	NBS49K	116	19	1	0	68	11	51	7
5.	83*	1560889	31491	NBS49K	95	41	3	2	87	8	54	5
6.	81	55333998	6899	NBS49K	117	32	2	1	86	8	53	4

unk ack

F03-510

9613492.1660



Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 14 in PBM results file: LA3004
Retention Time: 31.99 Area: 63306 Tentative Conc: ~~280.00~~ 300 [illegible] 2/2/93
The unknown area is 20.88% of the nearest internal standard

1. Docosane	310	C22H46
2. Octacosane	394	C28H58
3. Tetracosane	338	C24H50
4. Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3
5. Nonacosane	408	C29H60
6. Hexadecane	226	C16H34

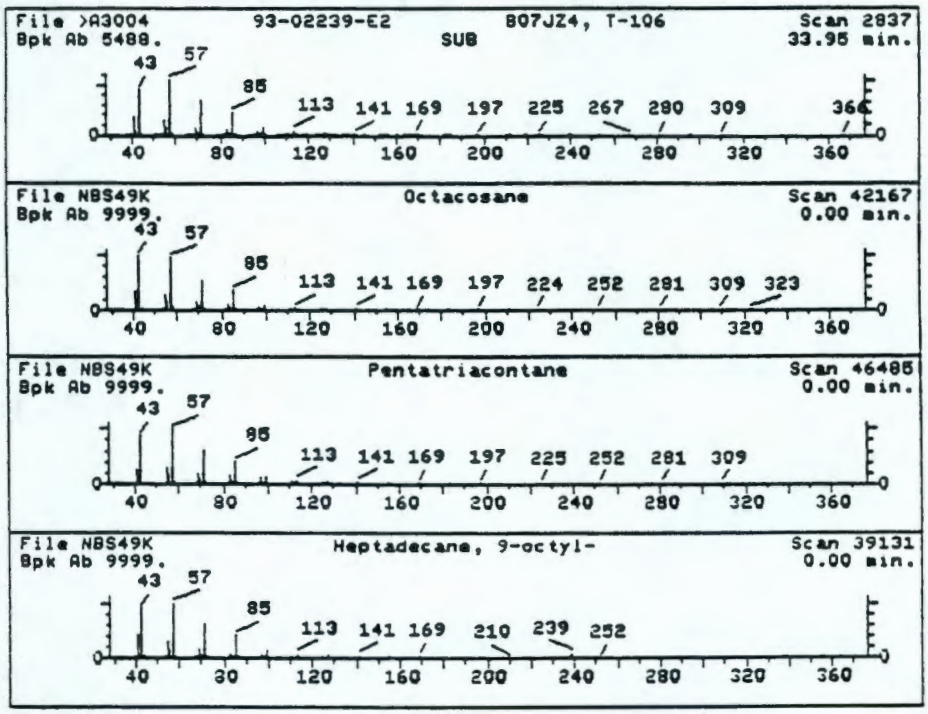
Sample file: >A3004 Spectrum #: 2651
Search speed: 3 Tilting option: F No. of ion ranges searched: 84

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	83	629970	6886	NBS49K	140	9	1	2	74	11	51	74
2.	83	630024	6906	NBS49K	129	12	1	0	80	11	51	78
3.	83*	646311	6891	NBS49K	100	45	1	2	61	13	51	77
4.	79	74764117	6907	NBS49K	126	11	1	1	90	11	43	69
5.	79	630035	9983	NBS49K	102	45	1	0	73	11	43	61
6.	76	544763	6835	NBS49K	103	17	1	1	90	11	40	54

[illegible]

F03-511

9613492.1661



Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 15 in PBM results file: LA3004
Retention Time: 33.95 Area: 53044 Tentative Conc: ~~250.00~~
The unknown area is 17.50% of the nearest internal standard 250

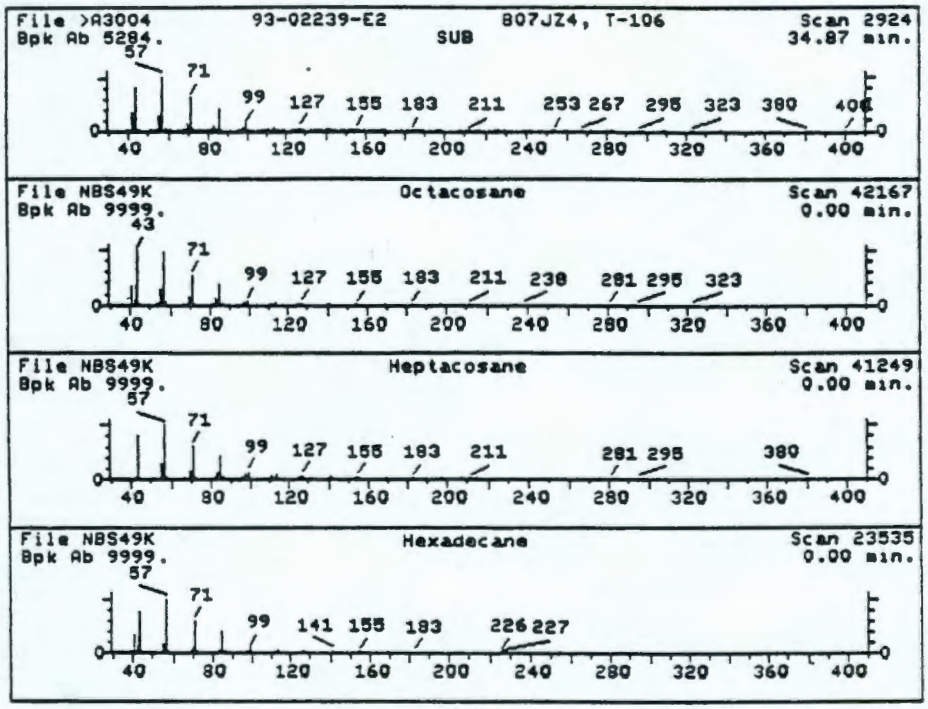
1. Octacosane	394	C28H58
2. Pentatriacontane	492	C35H72
3. Heptadecane, 9-octyl-	352	C25H52
4. Hexadecane	226	C16H34
5. Nonacosane	408	C29H60
6. Heneicosane, 11-(1-ethylpropyl)-	366	C26H54

Sample file: >A3004 Spectrum #: 2837
Search speed: 3 Tilting option: F No. of ion ranges searched: 82

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	86	630024	6906	NBS49K	117	24	0	0	74	20	50	8
2.	81	630079	6915	NBS49K	141	10	1	1	75	16	45	7
3.	75	7225641	6893	NBS49K	123	24	1	1	84	16	35	6
4.	75	544763	6835	NBS49K	109	11	1	1	88	16	35	6
5.	75	630035	9983	NBS49K	103	44	1	0	74	16	35	6
6.	74	55282116	6900	NBS49K	115	35	2	1	78	13	39	4

ink alk

F03-512



Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 16 in PBM results file: LA3004
Retention Time: 34.87 Area: 60488 Tentative Conc: ~~240.00~~ 260 [illegible]
The unknown area is 18.31% of the nearest internal standard

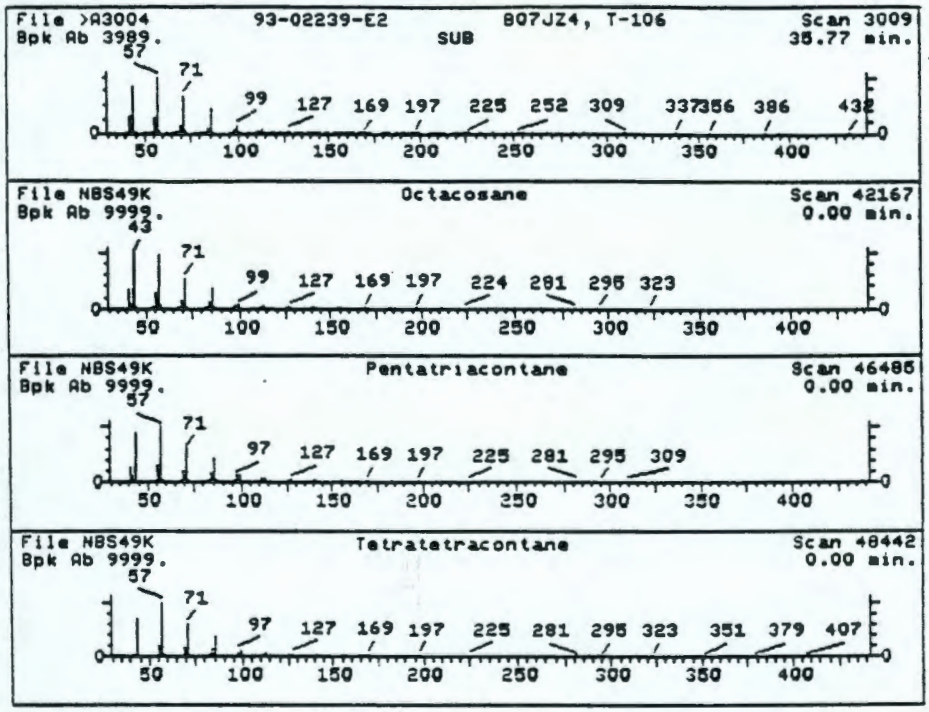
1. Octacosane	394	C28H58
2. Heptacosane	380	C27H56
3. Hexadecane	226	C16H34
4. Docosane	310	C22H46
5. Eicosane, 7-hexyl-	366	C26H54
6. Heneicosane, 11-(1-ethylpropyl)-	366	C26H54

Sample file: >A3004 Spectrum #: 2924
Search speed: 3 Tilting option: F No. of ion ranges searched: 90

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	87	630024	6906	NBS49K	133	8	1	0	78	13	55	8
2.	86*	593497	6904	NBS49K	136	19	1	2	92	16	50	8
3.	83	544763	6835	NBS49K	114	6	1	0	80	13	51	7
4.	81	629970	6886	NBS49K	136	13	1	2	75	16	45	7
5.	76	55333998	6899	NBS49K	122	27	2	1	80	13	40	5
6.	76	55282116	6900	NBS49K	113	37	2	0	78	11	40	5

[illegible]

9613492.1663



Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 17 in PBM results file: LA3004
Retention Time: 35.77 Area: 40833 Tentative Conc: ~~160.00~~
The unknown area is 12.36% of the nearest internal standard 170 NM 7/2/93

1. Octacosane	394	C28H58
2. Pentatriacontane	492	C35H72
3. Tetratetracontane	618	C44H90
4. Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3
5. Tetracosane, 11-decyl-	478	C34H70
6. Hexadecane	226	C16H34

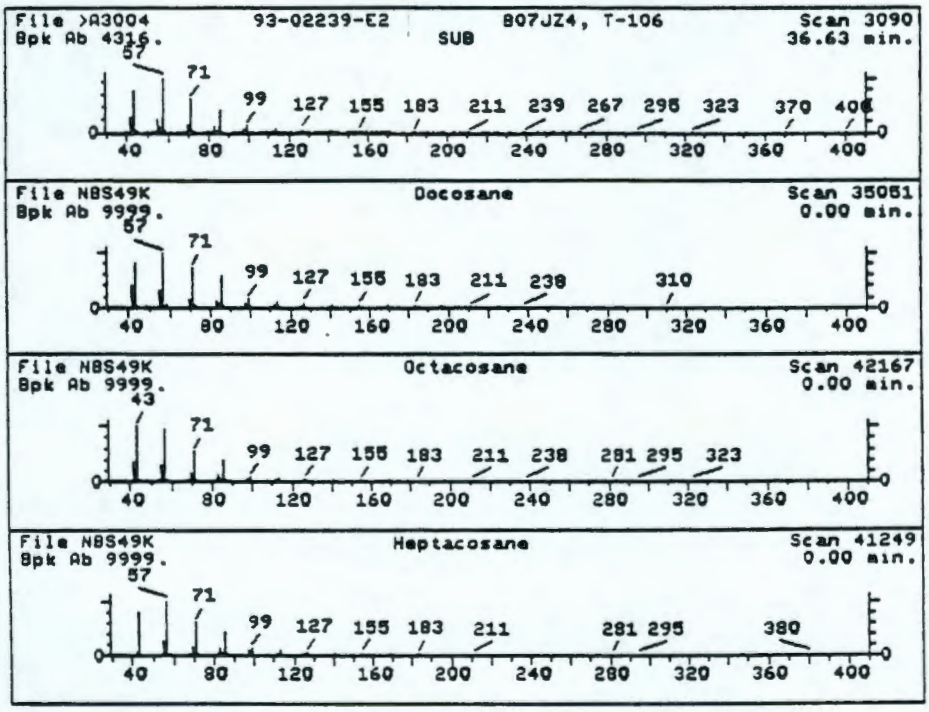
Sample file: >A3004 Spectrum #: 3009
Search speed: 3 Tilting option: F No. of ion ranges searched: 100

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	87	630024	6906	NBS49K	124	17	0	0	79	15	55	86
2.	86	630079	6915	NBS49K	142	9	0	1	81	10	59	77
3.	86	7098228	9995	NBS49K	134	26	1	1	89	10	59	71
4.	84	74764117	6907	NBS49K	117	20	1	1	93	10	55	61
5.	81	55429840	6913	NBS49K	117	41	2	1	84	6	53	48
6.	79	544763	6835	NBS49K	109	11	1	1	86	13	43	69

Hat alk

F03-514

9613492.1664



Instrument ID: BNA1 Analyzed on: 1/29/93 17:43
Result 18 in PBM results file: LA3004
Retention Time: 36.63 Area: 42799 Tentative Conc: ~~170.00~~ 180 ug/L 2/4/93
The unknown area is 12.96% of the nearest internal standard

1. Docosane	310	C22H46
2. Octacosane	394	C28H58
3. Heptacosane	380	C27H56
4. Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3
5. Hexadecane	226	C16H34
6. Heptadecane, 9-octyl-	352	C25H52

Sample file: >A3004 Spectrum #: 3090
Search speed: 3 Tilting option: F No. of ion ranges searched: 94

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	81	629970	6886	NBS49K	139	10	1	2	68	16	45	73
2.	81	630024	6906	NBS49K	121	20	1	0	77	20	45	74
3.	79	593497	6904	NBS49K	132	23	1	2	86	11	43	69
4.	75	74764117	6907	NBS49K	115	22	1	2	100	16	35	60
5.	75	544763	6835	NBS49K	103	17	1	0	77	16	35	63
6.	75	7225641	6893	NBS49K	114	33	1	1	77	16	35	60

F03-515

Instrument ID: BNA1 Analyzed on: 1/29/93 17:43

Retention Time: 37.53 Area: 28701 Tentative Conc: 110.00

The unknown area is 8.69% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

Instrument ID: BNA1 Analyzed on: 1/29/93 17:43

Retention Time: 38.55 Area: 27730 Tentative Conc: 110.00

The unknown area is 8.39% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

Instrument ID: BNA1 Analyzed on: 1/29/93 17:43

Retention Time: 42.16 Area: 28814 Tentative Conc: 120.00

The unknown area is 8.72% of the nearest internal standard

This peak is less than 10% of the nearest internal standard.

No library search has been performed on this peak.

QUANT REPORT

Operator ID: MANAGER
Output File: ^A3005::OF
Data File: >A3005::D1
Name: 93-02240-E1
Misc: B07JZ5, T-106

Quant Rev: 7
Quant Time: 930201 10:10
Injected at: 930129 18:39
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 3

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930129 15:50

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.35	676	35773	40.00	ng/uL	9
2)	2-Fluorophenol	6.64	226	165225	133.54	ng/uL	9
3)	Phenol-d5	10.44	589	211335	143.94	ng/uL	9
4)	Phenol	0.00	0	0	0.00	ng/uL	
5)	bis(2-Chloroethyl)ether	0.00	0	0	0.00	ng/uL	
6)	2-Chlorophenol	0.00	0	0	0.00	ng/uL	
7)	1,3-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
8)	1,4-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	1,2-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	0	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	0.00	848	0	0.00	ng/uL	
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.30	1055	118240	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.15	848	99496	70.74	ng/uL	9
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	0.00	0	0	0.00	ng/uL	
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	0.00	0	0	0.00	ng/uL	
30)	2-Methylnaphthalene	0.00	0	0	0.00	ng/uL	
31)	*Acenaphthene-d10	20.59	1562	56224	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	18.67	1378	130245	68.58	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	1562	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	0.00	0	0	0.00	ng/uL	
43)	2,4-Dinitrophenol	0.00	0	0	0.00	ng/uL	

44)	4-Nitrophenol	0.00	0	0	0.00	ng/uL	
45)	Dibenzofuran	0.00	0	0	0.00	ng/uL	
46)	2,4-Dinitrotoluene	0.00	0	0	0.00	ng/uL	
47)	Diethylphthalate	22.10	1707	1332	.558	ng/uL	9
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00	ng/uL	
49)	Fluorene	0.00	0	0	0.00	ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00	ng/uL	
51)	*Phenanthrene-d10	25.00	1985	98811	40.00	ng/uL	9
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00	ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1789	0	0.00	ng/uL	
54)	2,4,6-Tribromophenol	22.95	1788	49089	124.47	ng/uL	9
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00	ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00	ng/uL	
57)	Pentachlorophenol	0.00	0	0	0.00	ng/uL	
58)	Phenanthrene	0.00	0	0	0.00	ng/uL	
59)	Anthracene	0.00	0	0	0.00	ng/uL	
60)	Di-n-butylphthalate	27.04	2180	12060	3.15	ng/uL	9
61)	Fluoranthene	0.00	0	0	0.00	ng/uL	
62)	*Chrysene-d12	32.86	2737	90552	40.00	ng/uL	9
63)	Pyrene	0.00	0	0	0.00	ng/uL	
64)	Terphenyl-d14	29.90	2454	146925	63.75	ng/uL	9
65)	Butylbenzylphthalate	0.00	0	0	0.00	ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00	ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00	ng/uL	
68)	Chrysene	0.00	0	0	0.00	ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	33.30	2779	1776	.670	ng/uL	9
70)	*Perylene-d12	36.77	3110	99774	40.00	ng/uL	9
71)	Di-n-octylphthalate	35.14	2955	1351	.313	ng/uL	9
72)	Benzo(b)fluoranthene	0.00	0	0	0.00	ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00	ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00	ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00	ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00	ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00	ng/uL	

* Compound is ISTD

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >A3005
CAL CHECK FILE = >A3002
DATE AND TIME OF ANALYSIS = 1/29/93 18:39
MISCELLANEOUS = B07JZ5, T-106
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = MANAGER SUPER GRP

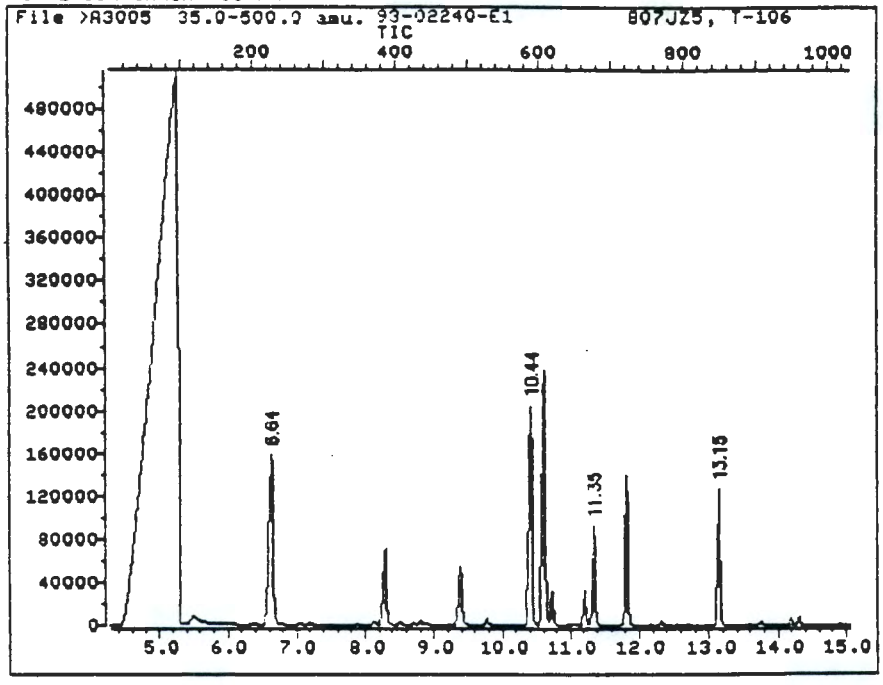
I. Areas

Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	35773	39750	19875	79500	OK
Naphthalene-d8	118240	135073	67536	270146	OK
Acenaphthene-d10	56224	65573	32786	131146	OK
Phenanthrene-d10	98811	120560	60280	241120	OK
Chrysene-d12	90552	97759	48880	195518	OK
Perylene-d12	99774	119406	59703	238812	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.35	11.34	10.84	11.84	OK
Naphthalene-d8	15.30	15.33	14.83	15.83	OK
Acenaphthene-d10	20.59	20.61	20.11	21.11	OK
Phenanthrene-d10	25.00	25.02	24.52	25.52	OK
Chrysene-d12	32.86	32.90	32.40	33.40	OK
Perylene-d12	36.77	36.80	36.30	37.30	OK

TOTAL ION CHROMATOGRAM



Data File: >A3005::D1
Name: 93-02240-E1
Misc: 807JZ5, T-106

Quant Output File: ^A3005::QF
Instrument ID: BNA1

BTL# 3

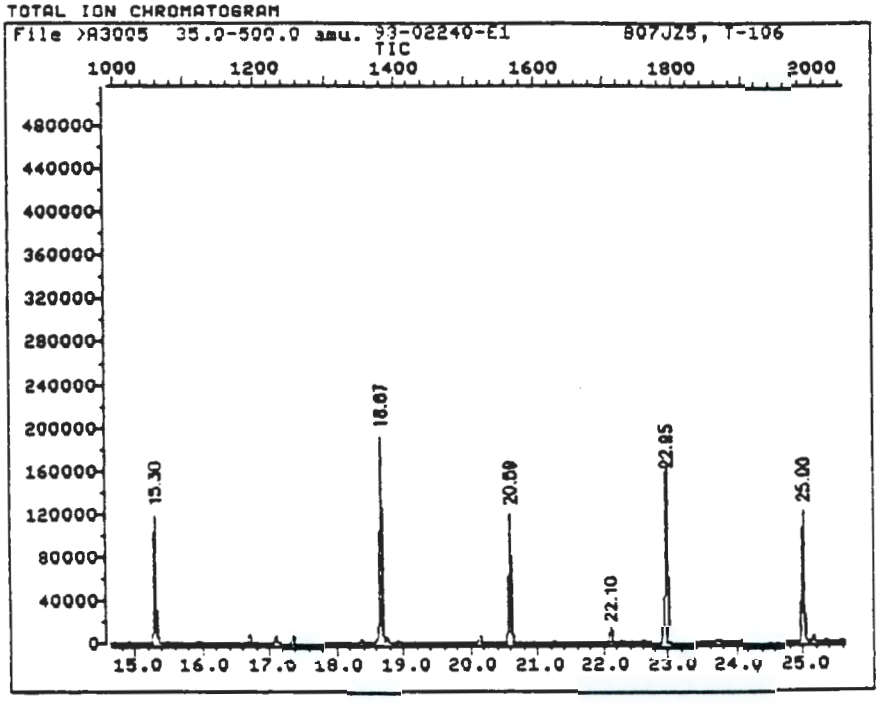
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930129 15:50

Operator ID: MANAGER
Quant Time : 930201 10:10
Injected at: 930129 18:39

Page 1 of 4

TOTAL ION CHROMATOGRAM



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Name: 93-02240-E1
Misc: 807JZ5, T-106

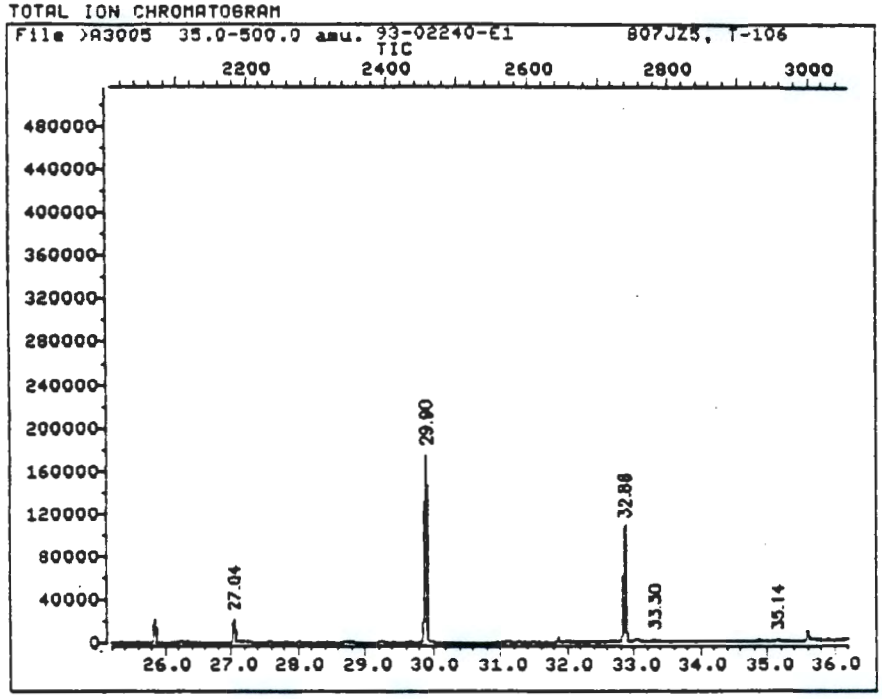
Quant Output File: ^A3005::QF
Instrument ID: BNA1
BTL# 3

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930129 15:50

Operator ID: MANAGER
Quant Time : 930201 10:10
Injected at: 930129 18:39

TOTAL ION CHROMATOGRAM



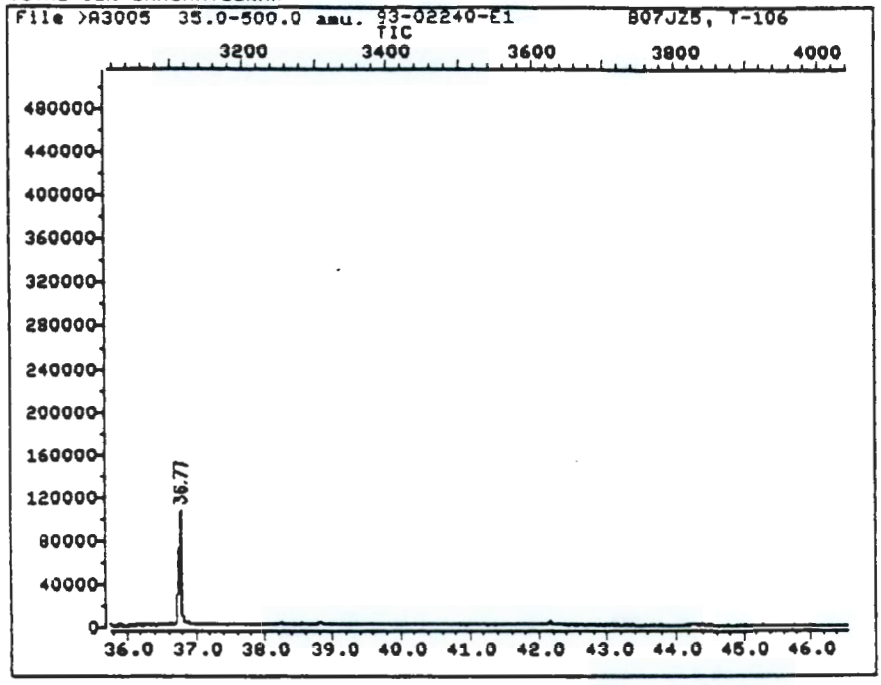
Data File: >A3005::D1 Quant Output File: ^A3005::OF
Name: 93-02240-E1 Instrument ID: BNA1
Misc: B07JZ5, T-106 BTL# 3

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930129 15:50

Operator ID: MANAGER
Quant Time : 930201 10:10
Injected at: 930129 18:39

Page 3 of 4

TOTAL ION CHROMATOGRAM



Data File: >A3005::D1
Name: 93-02240-E1
Misc: B07JZ5, T-106

Quant Output File: ^A3005::QF
Instrument ID: BNA1
BTL# 3

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

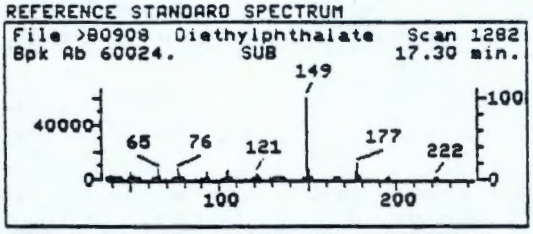
Last Qcal Time: 930129 15:50

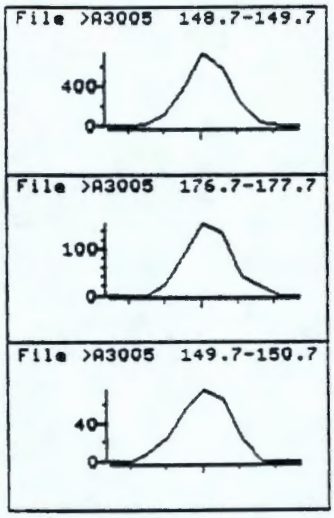
Operator ID: MANAGER
Quant Time : 930201 10:10
Injected at: 930129 18:39

Page 4 of 4

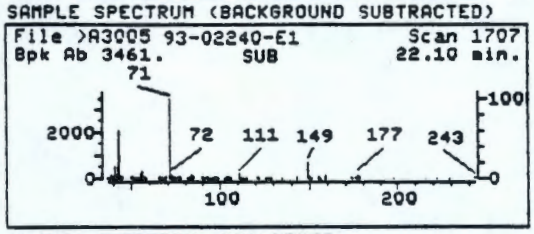
9613492.1675

REFERENCE STANDARD SPECTRUM

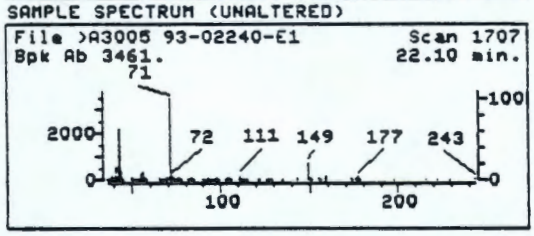




SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >A3005::D1
Name: 93-02240-E1
Misc: B07JZ5, T-106
Quant Time: 930201 10:10
Injected at: 930129 18:39
Last Qcal Time: 930129 15:50

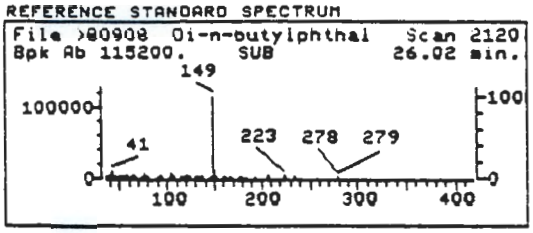
Quant Output File: ^A3005::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

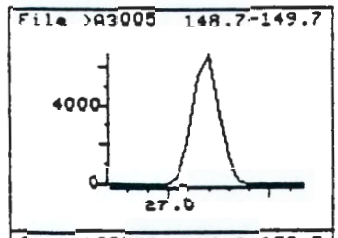
Compound No : 47
Compound Name : Diethylphthalate
Scan Number : 1707
Retention Time: 22.10 min.
Quant Ion : 149.0
Area : 1332
Concentration : .558 ng/uL
q-value : 98

non-detect
MS 10/20/93

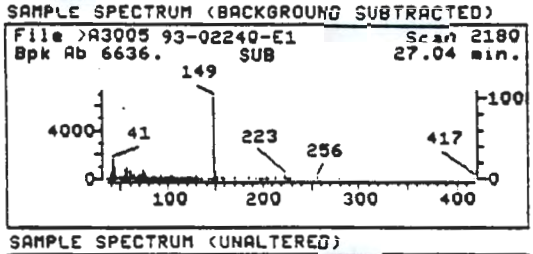
FO3-Ext

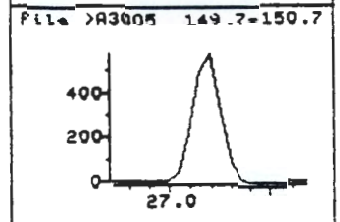
REFERENCE STANDARD SPECTRUM



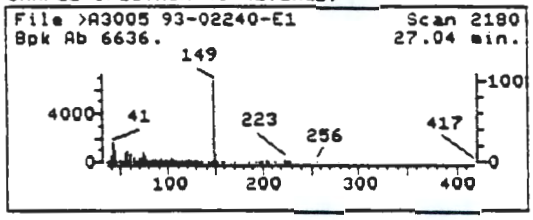


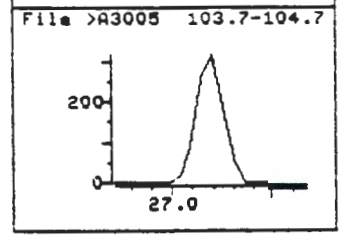
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





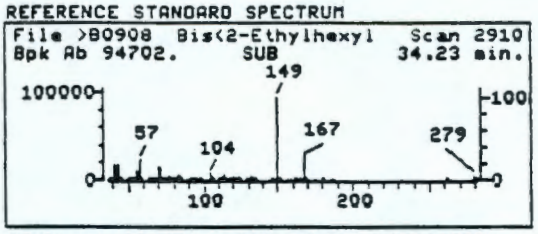
Data File: >A3005::D1
Name: 93-02240-E1
Misc: B07JZ5, T-106
Quant Time: 930201 10:10
Injected at: 930129 18:39
Last Qcal Time: 930129 15:50

Quant Output File: ^A3005::QF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

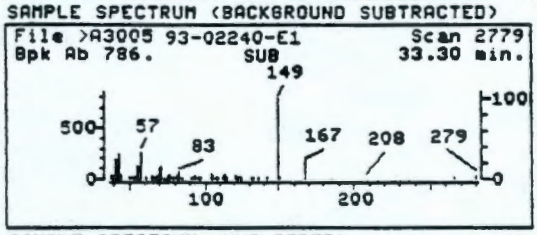
Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2180
Retention Time: 27.04 min.
Quant Ion : 149.0
Area : 12060
Concentration : 3.15 ng/uL
q-value : 96

AS
10/24/93

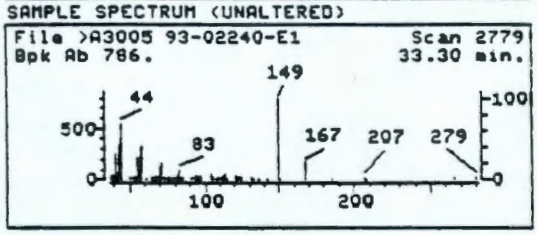
REFERENCE STANDARD SPECTRUM

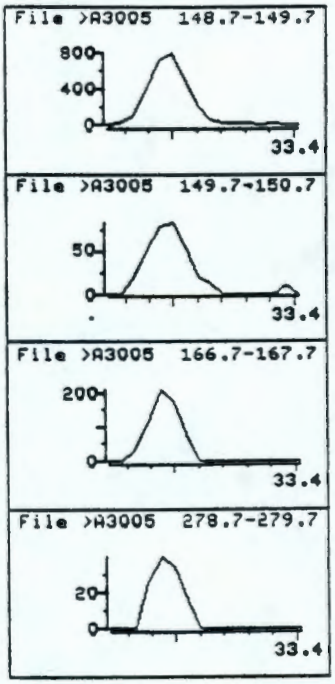


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



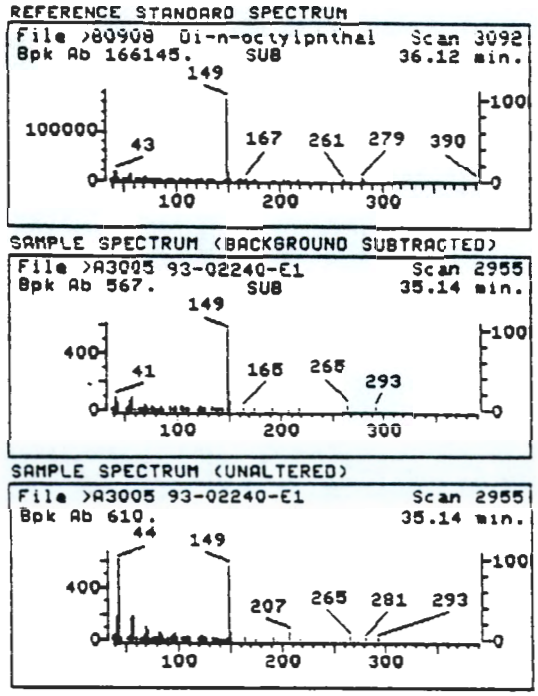


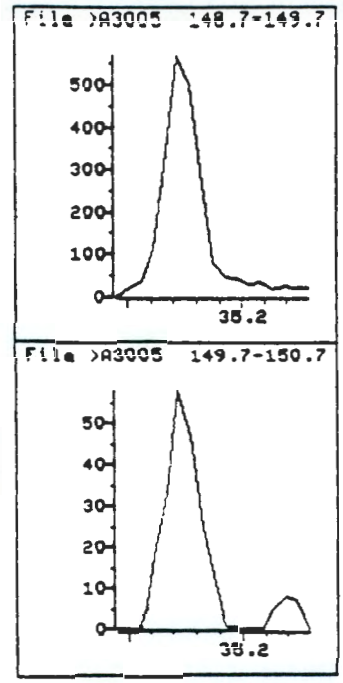
Data File: >A3005::D1
Name: 93-02240-E1
Misc: B07JZ5, T-106
Quant Time: 930201 10:10
Injected at: 930129 18:39
Last Qcal Time: 930129 15:50

Quant Output File: ^A3005::QF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2779
Retention Time: 33.30 min.
Quant Ion : 149.0
Area : 1776
Concentration : .670 ng/uL
q-value : 91

MS
10/24/93





Data File: >A3005::01
Name: 93-02240-E1
Misc: B07JZ5, T-106
Quant Time: 930201 10:10
Injected at: 930129 18:39
Last Qcal Time: 930129 15:50

Quant Output File: ^A3005::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 2955
Retention Time: 35.14 min.
Quant Ion : 149.0
Area : 1351
Concentration : .313 ng/uL
q-value : 99

AS
10/24/93
below D.L.

F03-529

9613492.1679

MS data file header from : >A3005::D1

Sample: 93-02240-E1 Operator: MANAGER SUPER GRP. 1/29/93 18:39
Misc : B07JZ5, T-106 BTL# 3
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 3 Equip ID: BNA1
Method file: BNAME1 Tuning file: MTBNA1 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	40.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.5	0.0

>A3005 93-02240-E1 B07JZ5, T-106
35.01 500.0 CLP TIC
Upslope: .2000 Area Reject: 25701. Max Peaks: 9 Bunch: -1 Valley >100 %
Onslope: 0.0000 Results File IA3005 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	5.28	12	96	106	513250	12749225	12693626	100.00	87.42
2	5.52	106	119	151	7114	106580	72394*	.57	.49
3	8.30	374	385	398	70765	271061	260126	2.05	1.79
4	9.39	478	489	503	54068	195322	185688	1.46	1.27
5	10.63	599	607	613	236522	717478	712502	5.61	4.90
6	10.74	613	618	628	32057	86282	80397*	.63	.55
7	11.21	655	663	669	32718	94837	90431	.71	.62
8	11.82	708	721	734	139217	391398	381955	3.01	2.63
9	25.84	2055	2065	2074	22078	51090	43149	.34	.29

Sum of corrected areas: 14520272.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	257013.	11.35	4.28 - 13.33
2	40.0	278959.	15.30	13.33 - 17.95
3	40.0	274139.	20.59	17.95 - 22.80
4	40.0	283681.	25.00	22.80 - 28.93
5	40.0	282120.	32.86	28.93 - 34.82
6	40.0	312400.	36.77	34.82 - 46.55

Dilution Factor = 1.00 This sample was 30.0000 g or mL

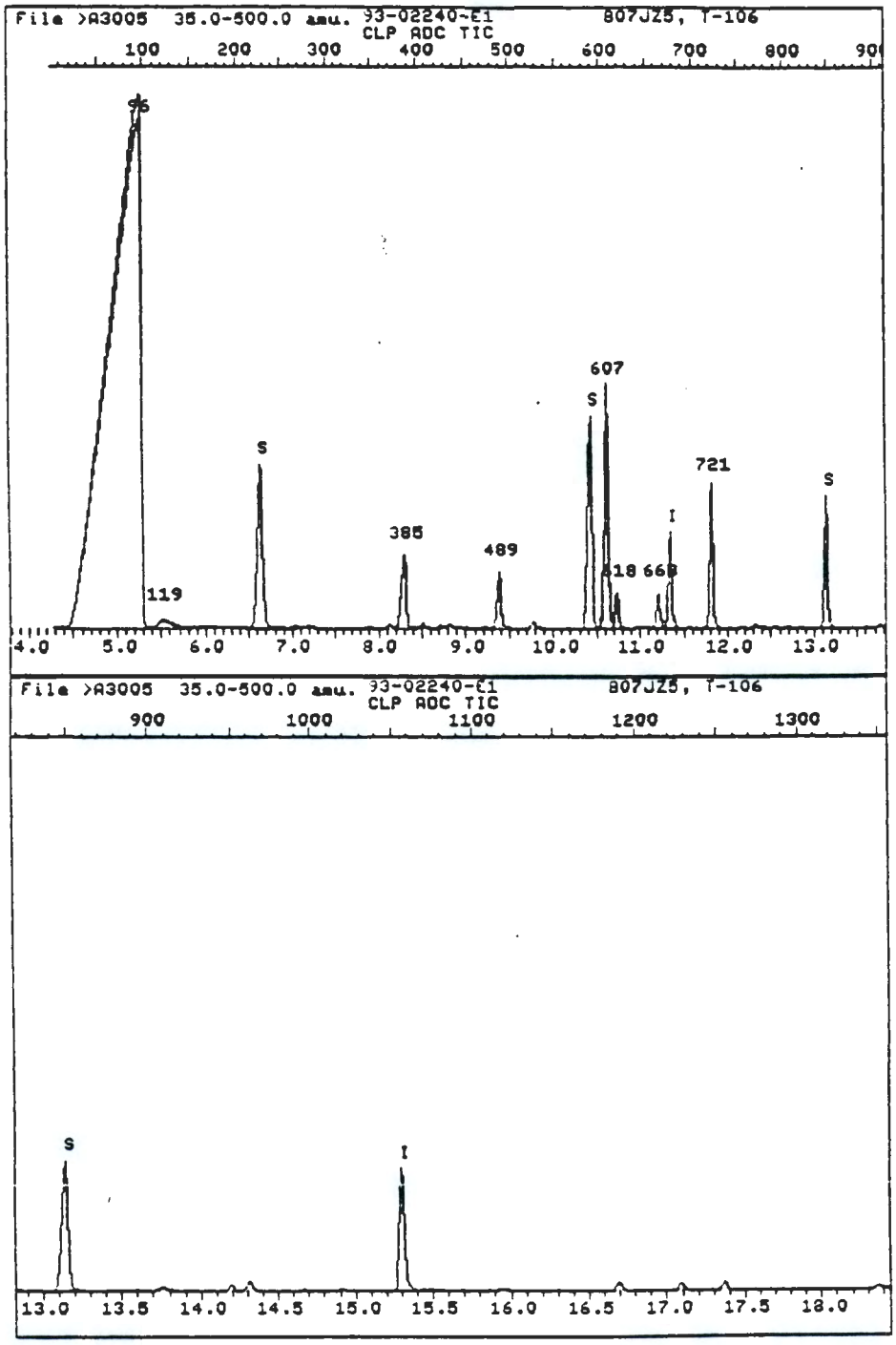
Correction Factor = 33.37

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std} * \text{Area Unknown}}{\text{Area Int Std}} * \text{Correction Factor}$$

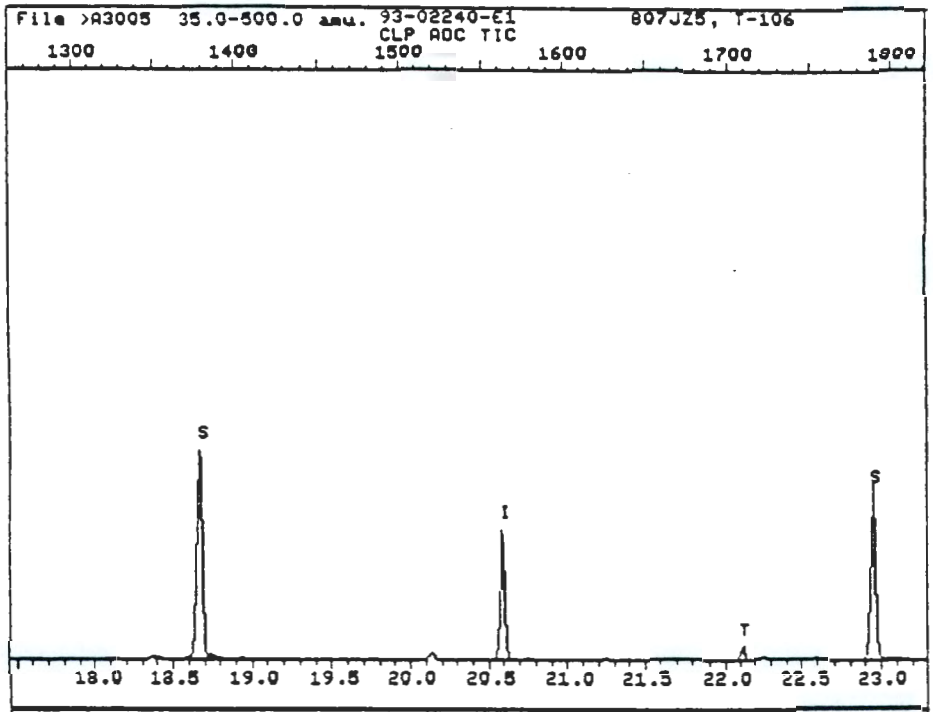
3:23 PM WED., 24 FEB., 1993

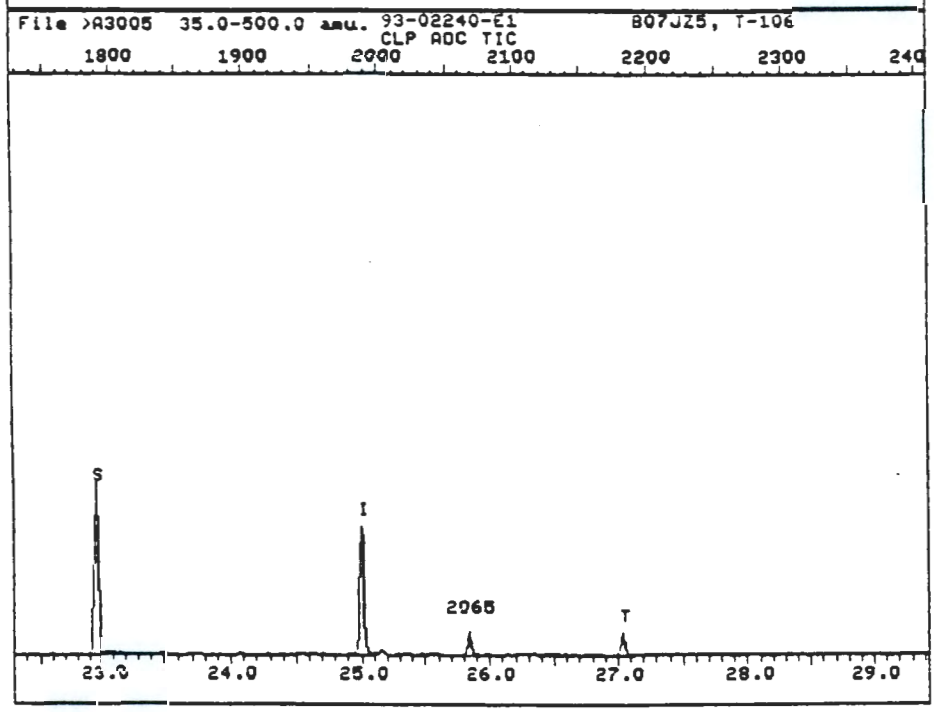
correction for % moisture = $\frac{\text{value}}{.954}$ — not needed since correction was made by computer for this sample. 2/4/93

F03-530

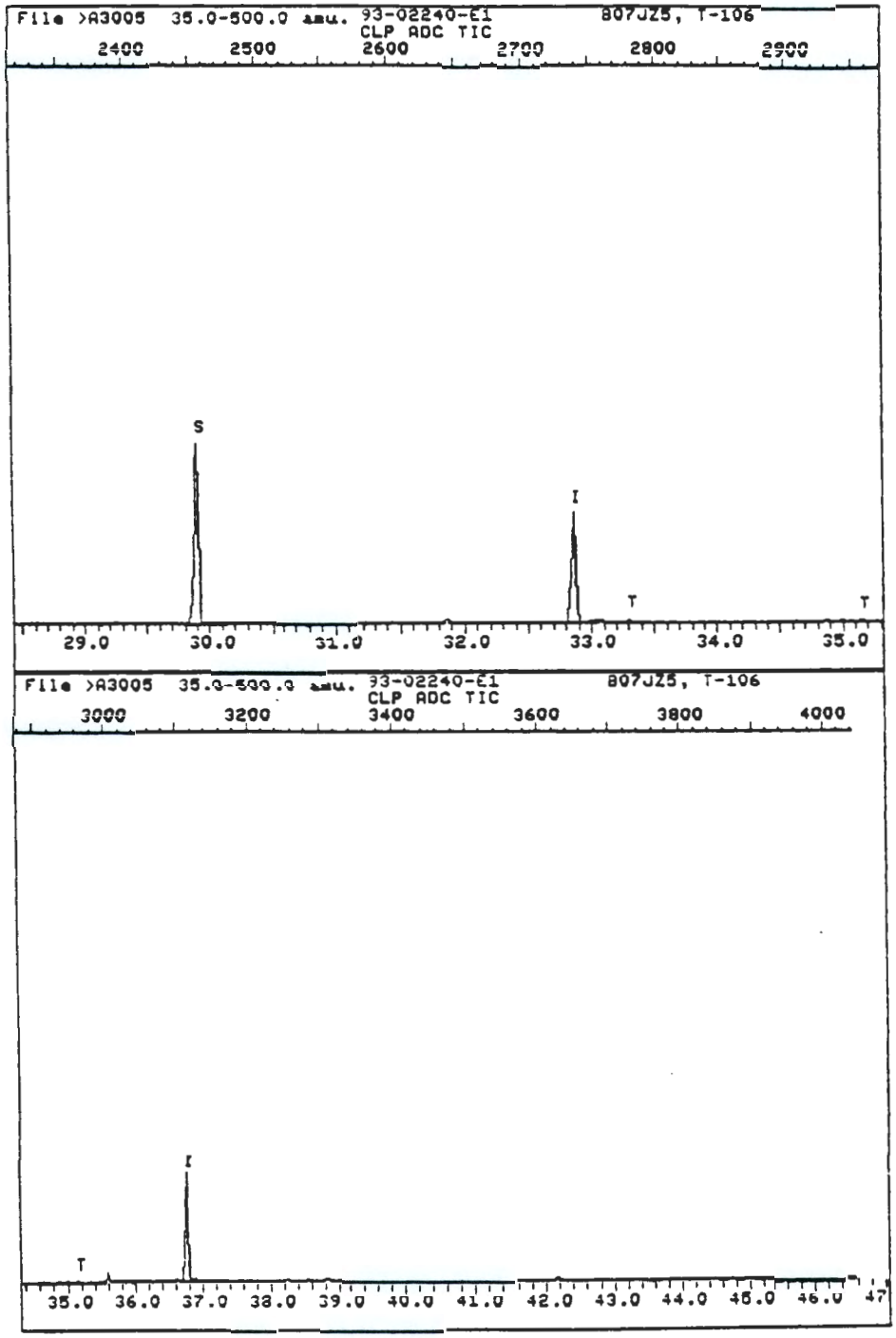


Instrument ID: BNA1 Analyzed on: 1/29/93 18:39



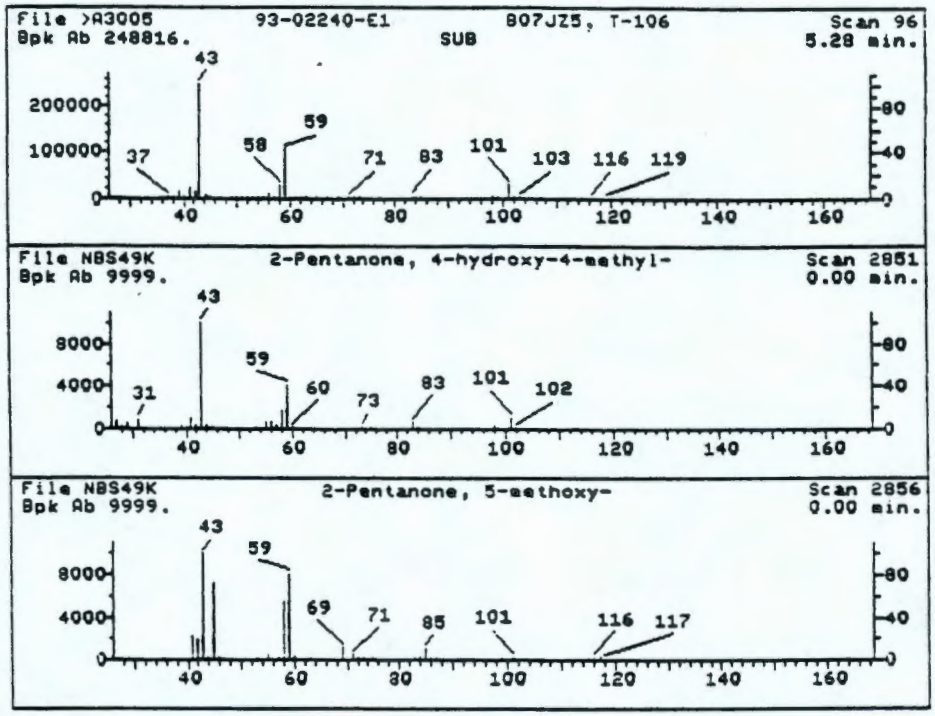


Instrument ID: BNA1 Analyzed on: 1/29/93 18:39



Instrument ID: BNA1 Analyzed on: 1/29/93 18:39

9613492.1683



Instrument ID: BNA1 Analyzed on: 1/29/93 18:39
Result 1 in PBM results file: LA3005
Retention Time: 5.28 Area: 12693626 Tentative Conc: 66000.00
The unknown area is 4938.9% of the nearest internal standard

1. 2-Pentanone, 4-hydroxy-4-methyl- 116 C6H12O2
2. 2-Pentanone, 5-methoxy- 116 C6H12O2

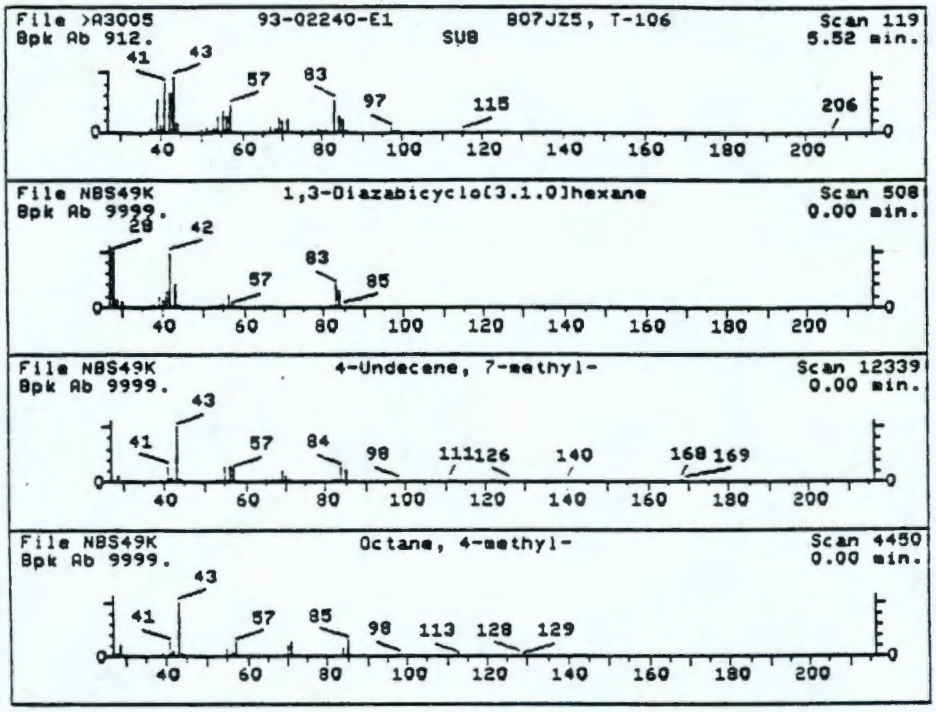
Sample file: >A3005 Spectrum #: 96
Search speed: 3 Tilting option: F No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	45	123422	1790	NBS49K	47	36	2	0	75	22	17	1

A

F03-534

9613492.1684



Instrument ID: BNA1 Analyzed on: 1/29/93 18:39
Result 2 in PBM results file: LA3005
Retention Time: 5.52 Area: 72394 Tentative Conc: 380.00
The unknown area is 28.17% of the nearest internal standard

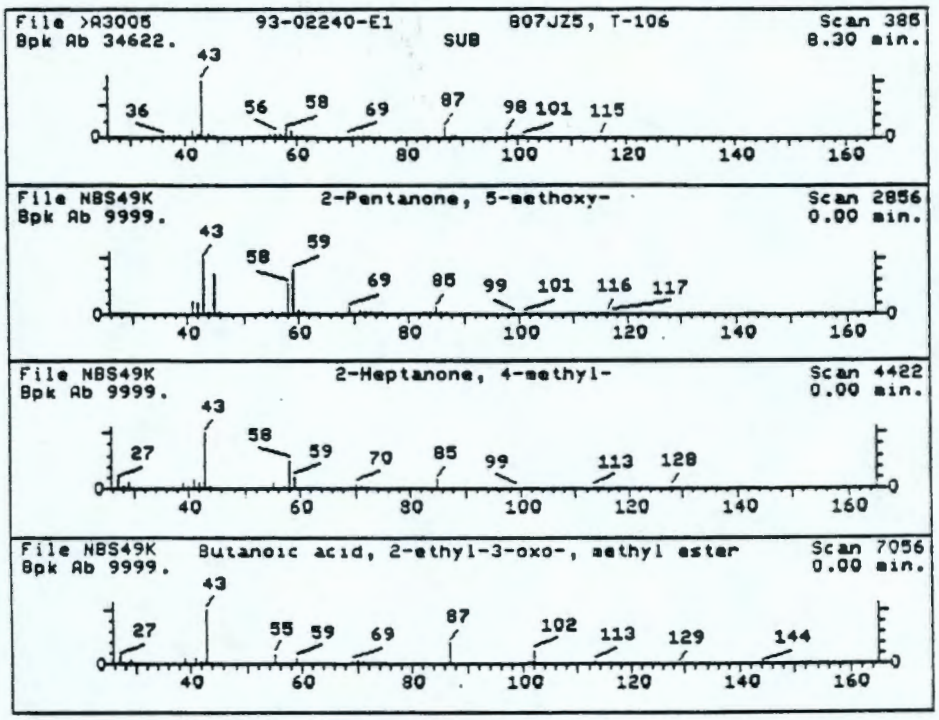
1. 1,3-Diazabicyclo[3.1.0]hexane	84	C4H8N2
2. 4-Undecene, 7-methyl-	168	C12H24
3. Octane, 4-methyl-	128	C9H20
4. 1-Propene, 3,3'-oxybis-	98	C6H10O
5. 3-Hexyn-2-ol	98	C6H10O
6. 7-Oxabicyclo[4.1.0]heptane	98	C6H10O

Sample file: >A3005 Spectrum #: 119
Search speed: 3 Tilting option: F No. of ion ranges searched: 68

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	25*	17038287	6268	NBS49K	32	62	2	0	99	47	7	14
2.	20	76441797	6720	NBS49K	46	45	2	0	100	55	5	14

F03-535

9613492.1685



Instrument ID: BNA1 Analyzed on: 1/29/93 18:39
Result 3 in PBM results file: LA3005
Retention Time: 8.30 Area: 260126 Tentative Conc: 1400.00
The unknown area is 101.21% of the nearest internal standard

1. 2-Pentanone, 5-methoxy- 116 C6H12O2
2. 2-Heptanone, 4-methyl- 128 C8H16O
3. Butanoic acid, 2-ethyl-3-oxo-, methyl ester 144 C7H12O3

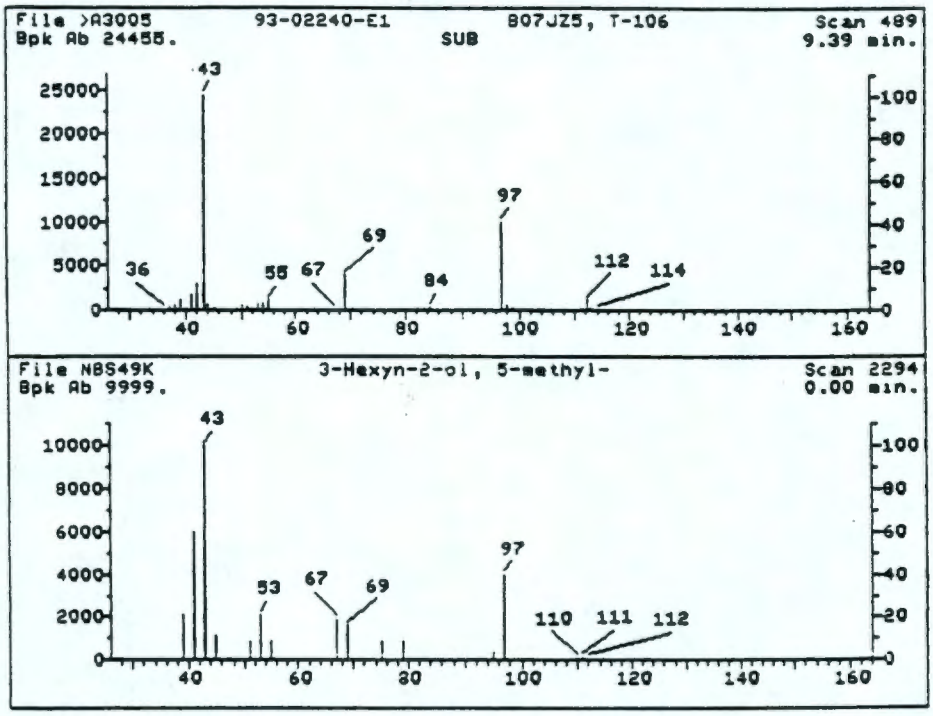
Sample file: >A3005 Spectrum #: 385
Search speed: 3 Tilting option: F No. of ion ranges searched: 49

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	20*	17429048	1791	NBS49K	24	43	2	0	15	52	5	14

unk 4

F03-536

9613492.1686



Instrument ID: BNA1 Analyzed on: 1/29/93 18:39
Result 4 in PBM results file: LA3005
Retention Time: 9.39 Area: 185688 Tentative Conc: 960.00
The unknown area is 72.25% of the nearest internal standard

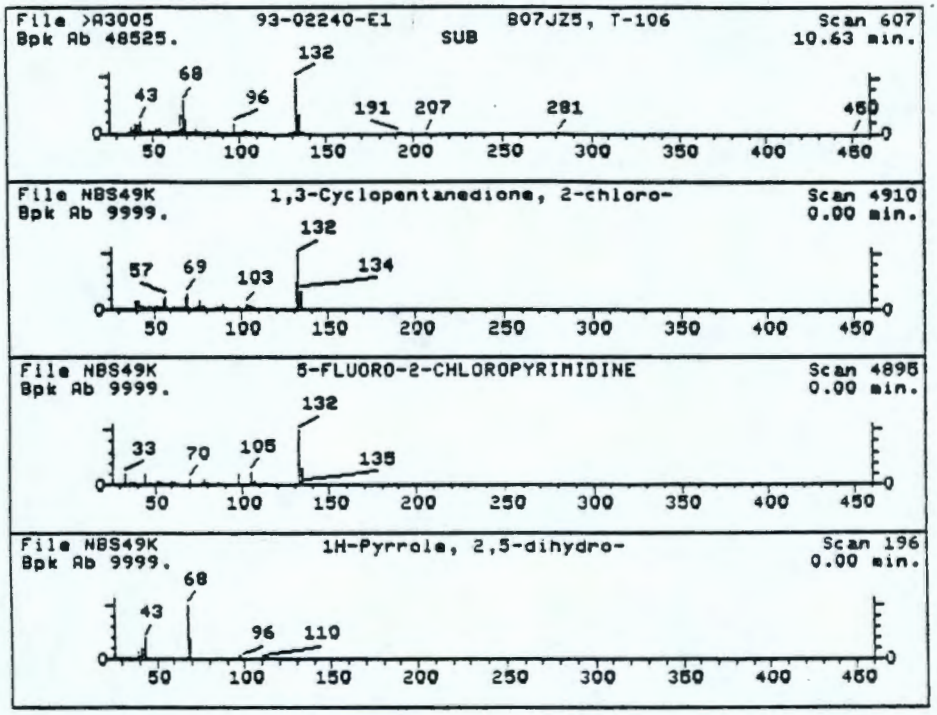
1. 3-Hexyn-2-ol, 5-methyl- 112 C7H12O

Sample file: >A3005 Spectrum #: 489
Search speed: 3 Tilting option: F No. of ion ranges searched: 47

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	31*	23293507	9091	NBS49K	26	63	2	0	100	34	12	14

F03-537

9613492.1687



Instrument ID: BNA1 Analyzed on: 1/29/93 18:39
Result 5 in PBM results file: LA3005
Retention Time: 10.63 Area: 712502 Tentative Conc: 3700.00
The unknown area is 277.22% of the nearest internal standard

1. 1,3-Cyclopentanedione, 2-chloro-	132	C5H5ClO2
2. 5-FLUORO-2-CHLOROPYRIMIDINE	132	C4H2ClFN2
3. 1H-Pyrrole, 2,5-dihydro-	69	C4H7N

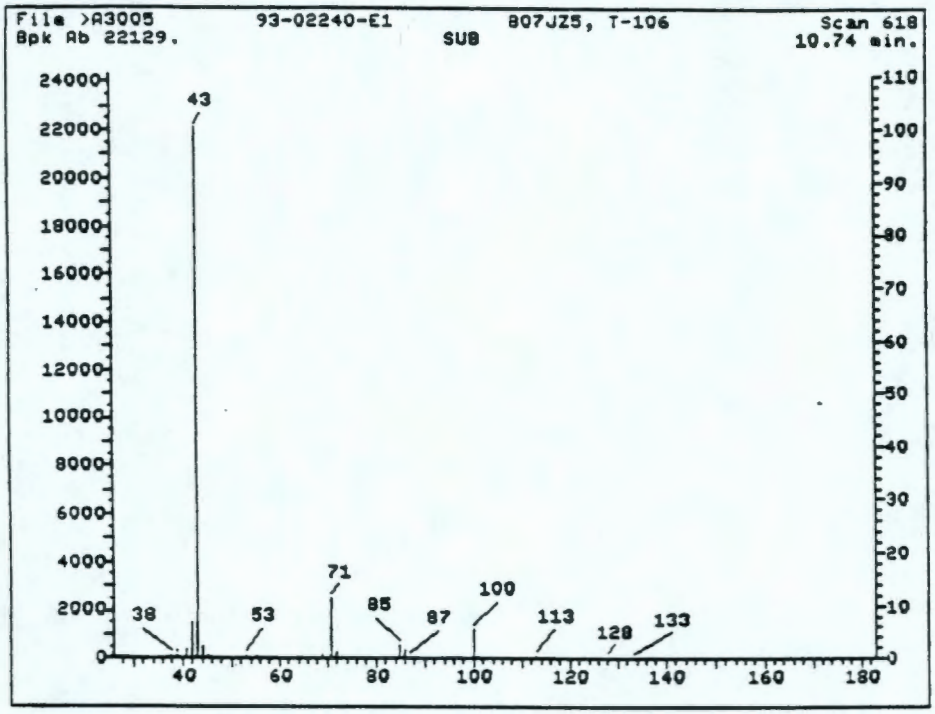
Sample file: >A3005 Spectrum #: 607
Search speed: 3 Tilting option: F No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	26*	14203191	15856	NBS49K	28	83	2	0	98	41	8	14
2.	25*	62802420	15850	NBS49K	29	79	3	0	100	50	7	13
3.	20*	109966	3541	NBS49K	35	21	1	2	30	52	5	12

Delete - see file >A4103
[illegible] 2/25/93

F03-528

9613492.1688



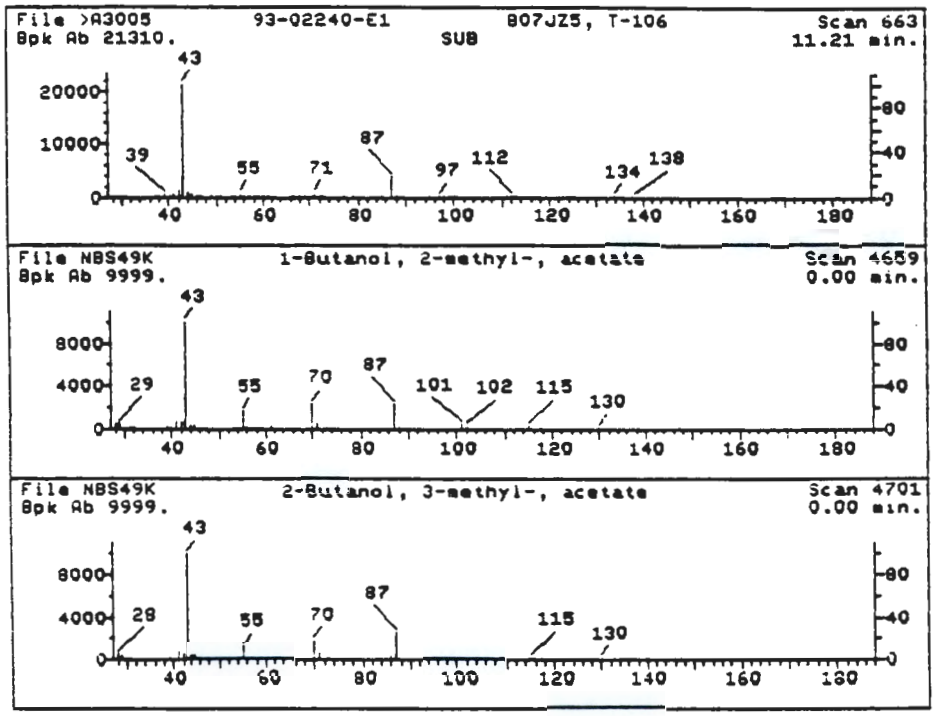
Instrument ID: BNA1 Analyzed on: 1/29/93 18:39
Result 6 in PBM results file: LA3005
Retention Time: 10.74 Area: 80397 Tentative Conc: 420.00
The unknown area is 31.28% of the nearest internal standard

Sample file: >A3005 Spectrum #: 618

No data base entries were retrieved.

ank

F03-539



Instrument ID: BNA1 Analyzed on: 1/29/93 18:39
Result 7 in PBM results file: LA3005
Retention Time: 11.21 Area: 90431 Tentative Conc: 470.00
The unknown area is 35.19% of the nearest internal standard

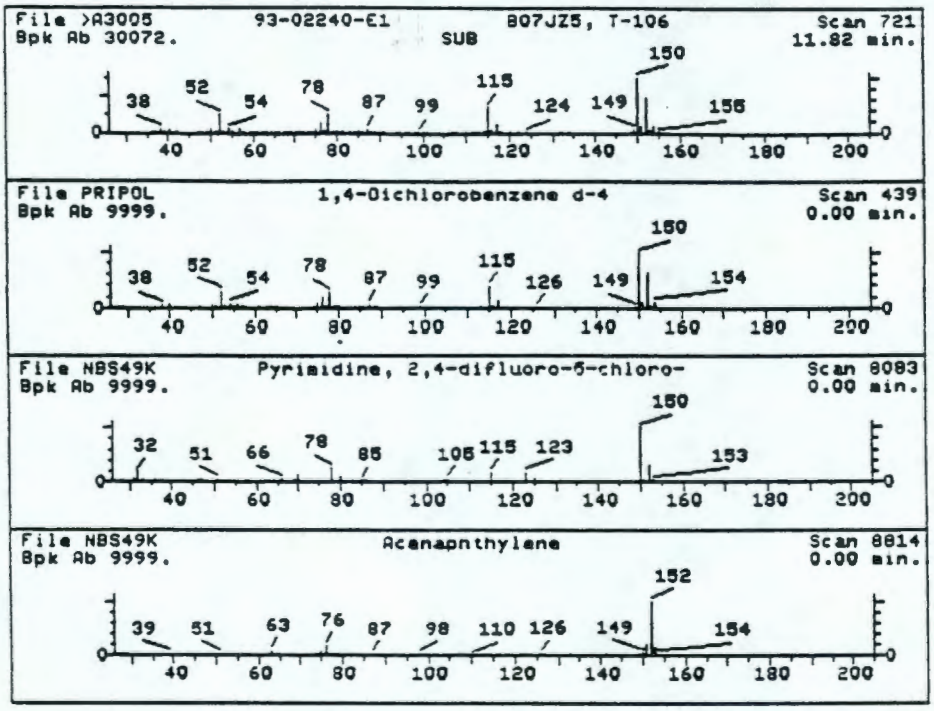
1. 1-Butanol, 2-methyl-, acetate 130 C7H14O2
2. 2-Butanol, 3-methyl-, acetate 130 C7H14O2

Sample file: >A3005 Spectrum #: 663
Search speed: 3 Tilting option: F No. of ion ranges searched: 60

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	20*	624419	7299	NBS49K	28	53	2	0	82	52	5	14
2.	20*	5343964	7303	NBS49K	39	36	2	0	75	52	5	19

uu4

9613492.1690



Instrument ID: BNA1 Analyzed on: 1/29/93 18:39
Result 8 in PBM results file: LA3005
Retention Time: 11.82 Area: 381955 Tentative Conc: 2000.00
The unknown area is 148.61% of the nearest internal standard

1. 1,4-Dichlorobenzene d-4	150	C6.D4.CL2
2. Pyrimidine, 2,4-difluoro-5-chloro-	150	C4HClF2N2
3. Acenaphthylene	152	C12H8
4. Ethanone, 1-(2-nitrophenyl)-	165	C8H7NO3
5. Imidazo[5,1-f][1,2,4]triazine-2,7-diamine	150	C5H6N6
6. 6H-Purin-6-one, 1,7-dihydro-1-methyl-	150	C6H6N4O

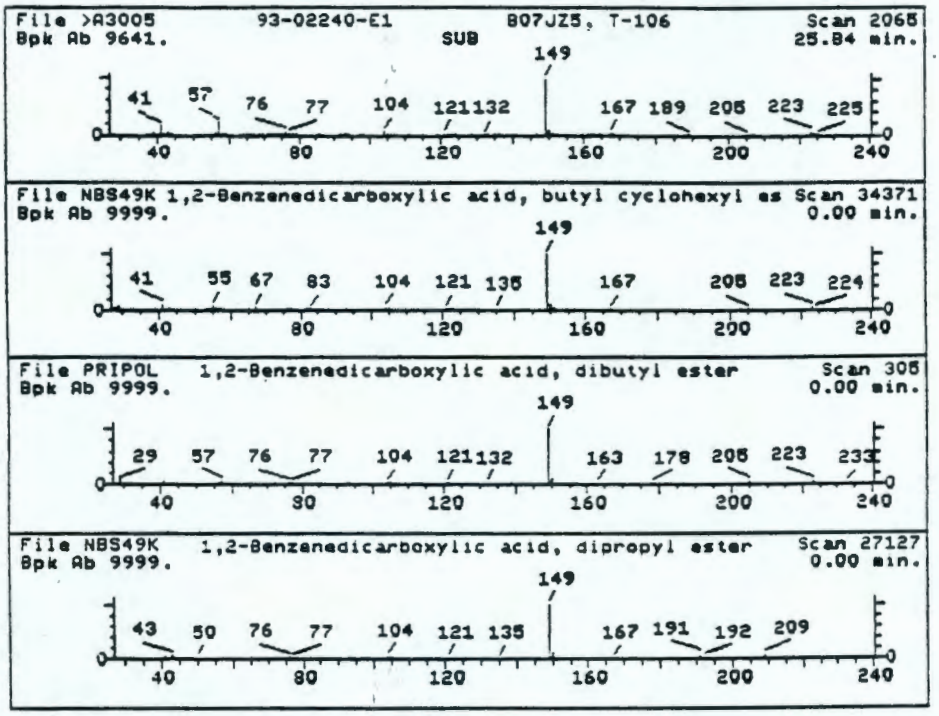
Sample file: >A3005 Spectrum #: 721
Search speed: 3 Tilting option: F No. of ion ranges searched: 37

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	97*	439	257	PRIPOL	95	12	0	0	89	7	68	97
2.	25*	25151079	19311	NBS49K	22	78	2	0	100	43	8	13

delete - see data file >A1403
[illegible] 2/5/93

F03-541

9613492.1691



Instrument ID: BNA1 Analyzed on: 1/29/93 18:39
Result 9 in PBM results file: LA3005
Retention Time: 25.84 Area: 43149 Tentative Conc: 200.00
The unknown area is 15.21% of the nearest internal standard

1. 1,2-Benzenedicarboxylic acid, butyl cyclohexyl ester 304 C18H2404
2. 1,2-Benzenedicarboxylic acid, dibutyl ester 278 C16H2204
3. 1,2-Benzenedicarboxylic acid, dipropyl ester 250 C14H1804
4. 1,2-Benzenedicarboxylic acid, bis(2-methoxyethyl) es ter 282 C14H1806
5. 1,2-Benzenedicarboxylic acid, butyl 2-methylpropyl e ster 278 C16H2204

Sample file: >A3005 Spectrum #: 2065
Search speed: 3 Tilting option: F No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_
1.	78	84640	19279	NBS49K	65	43	2	0	99	2	55	[illegible]
2.	70	305	233	PRIPOL	63	41	2	2	100	8	42	[illegible]
3.	60	131168	19265	NBS49K	58	44	2	1	100	15	30	[illegible]
4.	47	117828	19276	NBS49K	73	30	0	2	59	41	16	[illegible]
5.	36	17851535	19272	NBS49K	71	35	1	1	60	39	14	[illegible]

not phthalate

F03-542

9613492.1692

QUANT REPORT

Operator ID: MANAGER
Output File: ^A3006::OF
Data File: >A3006::D1
Name: 93-02240-E2
Misc: B07JZ5, T-106

Quant Rev: 7
Quant Time: 930201 10:13
Injected at: 930129 19:35
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 4

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930129 15:50

	Compound	R.T.	Scan#	Area	Conc	Units	c
1)	*1,4-Dichlorobenzene-d4	11.35	665	34849	40.00	ng/uL	9
2)	2-Fluorophenol	6.66	217	194369	161.26	ng/uL	9
3)	Phenol-d5	10.46	580	257939	180.35	ng/uL	9
4)	Phenol	0.00	0	0	0.00	ng/uL	
5)	bis(2-Chloroethyl)ether	0.00	0	0	0.00	ng/uL	
6)	2-Chlorophenol	0.00	0	0	0.00	ng/uL	
7)	1,3-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
8)	1,4-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	1,2-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	758	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	0.00	838	0	0.00	ng/uL	
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.32	1045	116211	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.16	838	112858	81.64	ng/uL	9
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	949	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	0.00	0	0	0.00	ng/uL	
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	0.00	0	0	0.00	ng/uL	
30)	2-Methylnaphthalene	0.00	0	0	0.00	ng/uL	
31)	*Acenaphthene-d10	20.60	1552	55922	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	18.69	1368	147831	78.26	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	1552	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	0.00	0	0	0.00	ng/uL	
43)	2,4-Dinitrophenol	0.00	0	0	0.00	ng/uL	

F03-543

44)	4-Nitrophenol	0.00	0	0	0.00	ng/uL
45)	Dibenzofuran	0.00	0	0	0.00	ng/uL
46)	2,4-Dinitrotoluene	0.00	0	0	0.00	ng/uL
47)	Diethylphthalate	22.11	1697	1024	.431	ng/uL
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00	ng/uL
49)	Fluorene	0.00	0	0	0.00	ng/uL
50)	4-Nitroaniline	0.00	0	0	0.00	ng/uL
51)	*Phenanthrene-d10	25.01	1975	98280	40.00	ng/uL
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00	ng/uL
53)	N-Nitrosodiphenylamine	0.00	1778	0	0.00	ng/uL
54)	2,4,6-Tribromophenol	22.96	1778	54012	137.69	ng/uL
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00	ng/uL
56)	Hexachlorobenzene	0.00	0	0	0.00	ng/uL
57)	Pentachlorophenol	0.00	0	0	0.00	ng/uL
58)	Phenanthrene	0.00	0	0	0.00	ng/uL
59)	Anthracene	0.00	0	0	0.00	ng/uL
60)	Di-n-butylphthalate	27.05	2170	25708	6.76	ng/uL
61)	Fluoranthene	0.00	0	0	0.00	ng/uL
62)	*Chrysene-d12	32.87	2727	90877	40.00	ng/uL
63)	Pyrene	0.00	0	0	0.00	ng/uL
64)	Terphenyl-d14	29.91	2444	164922	71.30	ng/uL
65)	Butylbenzylphthalate	0.00	0	0	0.00	ng/uL
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00	ng/uL
67)	Benzo(a)anthracene	0.00	0	0	0.00	ng/uL
68)	Chrysene	0.00	0	0	0.00	ng/uL
69)	Bis(2-Ethylhexyl)phthalate	33.30	2768	1742	.655	ng/uL
70)	*Perylene-d12	36.78	3100	100248	40.00	ng/uL
71)	Di-n-octylphthalate	35.15	2945	1112	.256	ng/uL
72)	Benzo(b)fluoranthene	0.00	0	0	0.00	ng/uL
73)	Benzo(k)fluoranthene	0.00	0	0	0.00	ng/uL
74)	Benzo(a)pyrene	0.00	0	0	0.00	ng/uL
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00	ng/uL
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00	ng/uL
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00	ng/uL

* Compound is ISTD

9613492.1694

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >A3006
CAL CHECK FILE = >A3002
DATE AND TIME OF ANALYSIS = 1/29/93 19:35
MISCELLANEOUS = B07JZ5, T-106
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = MANAGER SUPER GRP

I. Areas

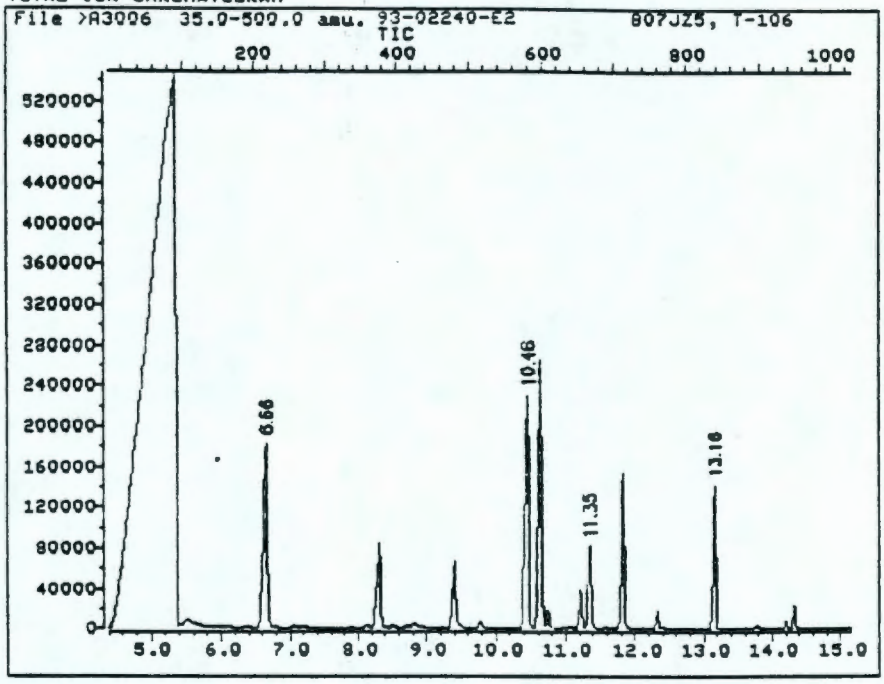
Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	34849	39750	19875	79500	OK
Naphthalene-d8	116211	135073	67536	270146	OK
Acenaphthene-d10	55922	65573	32786	131146	OK
Phenanthrene-d10	98280	120560	60280	241120	OK
Chrysene-d12	90877	97759	48880	195518	OK
Perylene-d12	100248	119406	59703	238812	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.35	11.34	10.84	11.84	OK
Naphthalene-d8	15.32	15.33	14.83	15.83	OK
Acenaphthene-d10	20.60	20.61	20.11	21.11	OK
Phenanthrene-d10	25.01	25.02	24.52	25.52	OK
Chrysene-d12	32.87	32.90	32.40	33.40	OK
Perylene-d12	36.78	36.80	36.30	37.30	OK

F03-545

TOTAL ION CHROMATOGRAM



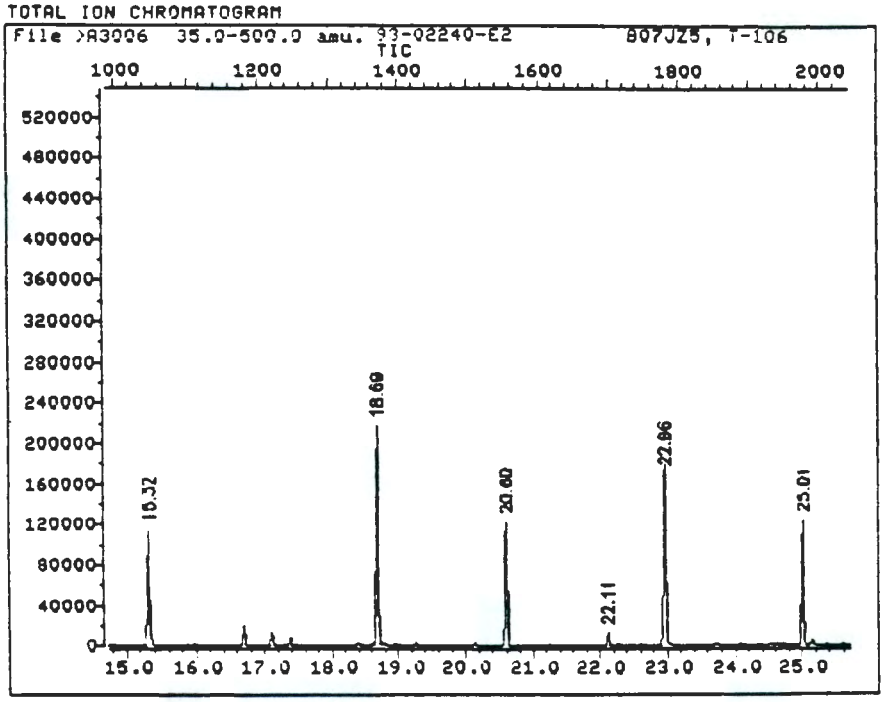
Data File: >A3006::D1 Quant Output File: ^A3006::OF
Name: 93-02240-E2 Instrument ID: BNA1
Misc: B07JZ5, T-106 BTL# 4

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930129 15:50

Operator ID: MANAGER
Quant Time : 930201 10:13
Injected at: 930129 19:35

Page 1 of 4

TOTAL ION CHROMATOGRAM



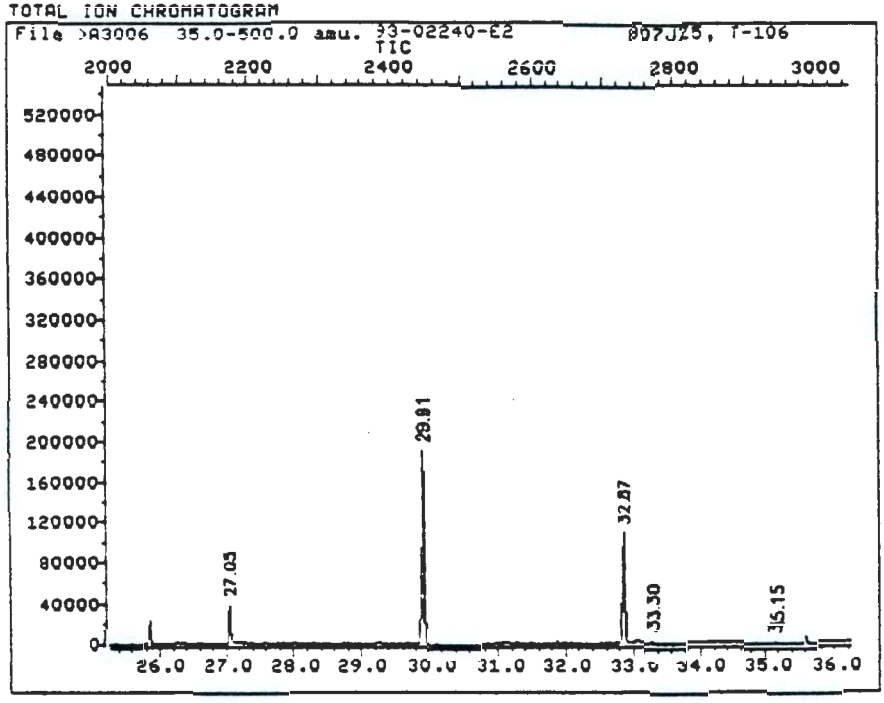
Data File: >A3006::D1 Quant Output File: ^A3006::DF
Name: 93-02240-E2 Instrument ID: BNA1
Misc: 807JZ5, T-106 BTL# 4

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930129 15:50

Operator ID: MANAGER
Quant Time : 930201 10:13
Injected at: 930129 19:35

9613492.1097

TOTAL ION CHROMATOGRAM



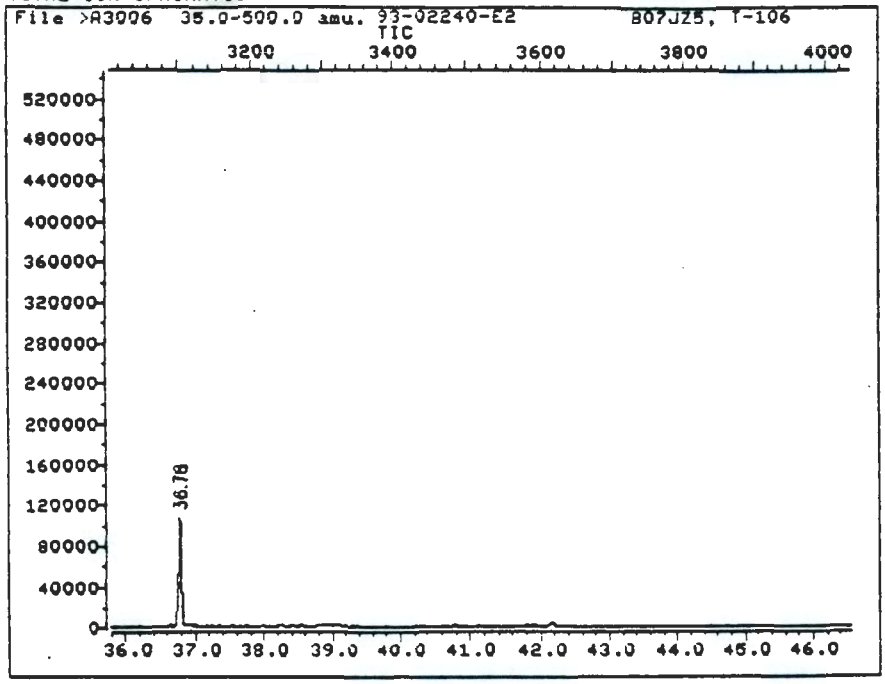
Data File: >A3006::D1 Quant Output File: ^A3006::OF
Name: 93-02240-E2 Instrument ID: BNA1
Misc: B07JZ5, T-106 BTL# 4

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930129 15:50

Operator ID: MANAGER
Quant Time : 930201 10:13
Injected at: 930129 19:35

F02-548

TOTAL ION CHROMATOGRAM



Data File: >A3006::D1
Name: 93-02240-E2
Misc: B07JZ5, T-106

Quant Output File: ^A3006::QF
Instrument ID: BNA1

BTL# 4

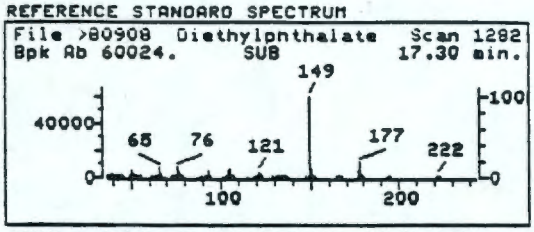
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930129 15:50

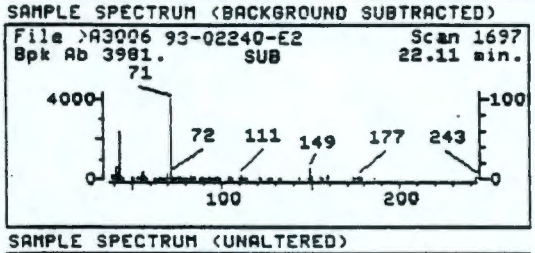
Operator ID: MANAGER
Quant Time : 930201 10:13
Injected at: 930129 19:35

9613492.1699

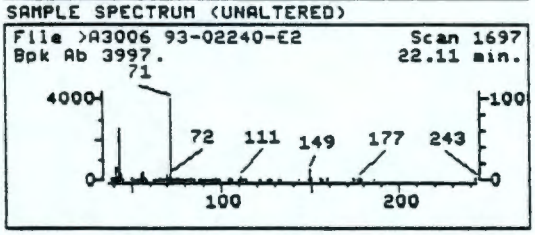
REFERENCE STANDARD SPECTRUM

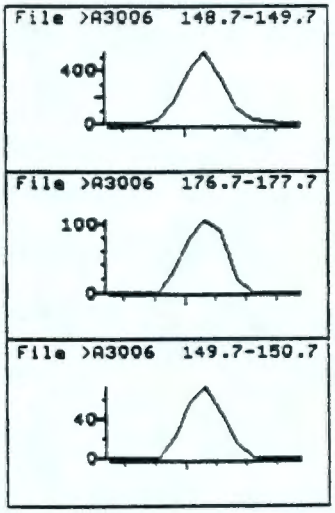


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





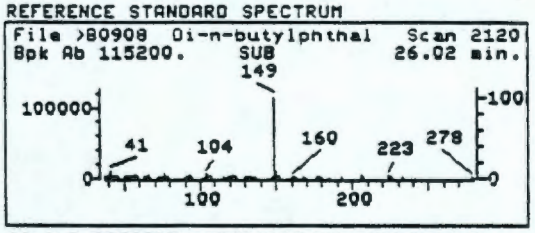
Data File: >A3006::D1
Name: 93-02240-E2
Misc: B07JZ5, T-106
Quant Time: 930201 10:13
Injected at: 930129 19:35
Last Qcal Time: 930129 15:50

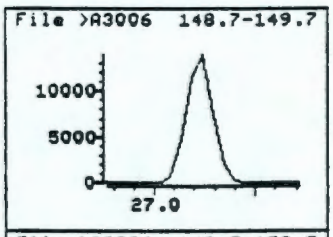
Quant Output File: ^A3006::OF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 47
Compound Name : Diethylphthalate
Scan Number : 1697
Retention Time: 22.11 min.
Quant Ion : 149.0
Area : 1024
Concentration : .431 ng/uL
q-value : 92

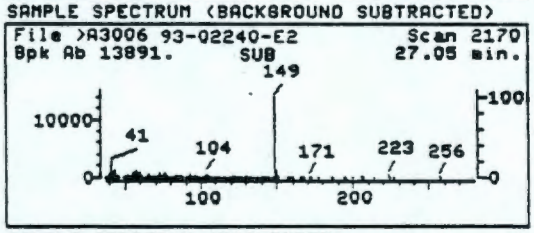
F03-550

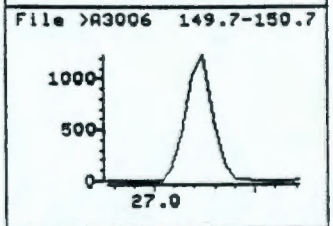
REFERENCE STANDARD SPECTRUM



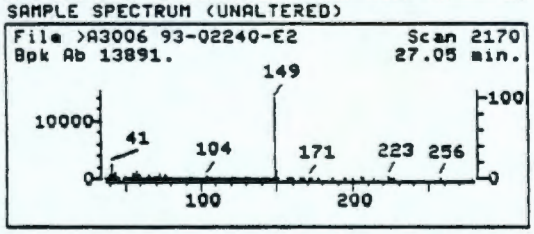


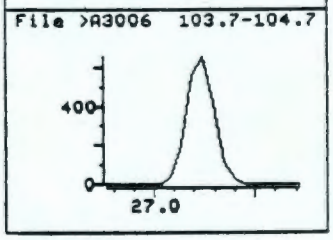
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



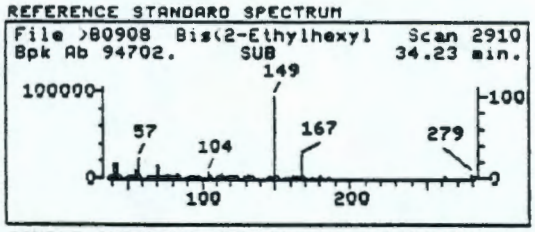


Data File: >A3006::D1
Name: 93-02240-E2
Misc: B07JZ5, T-106
Quant Time: 930201 10:13
Injected at: 930129 19:35
Last Qcal Time: 930129 15:50

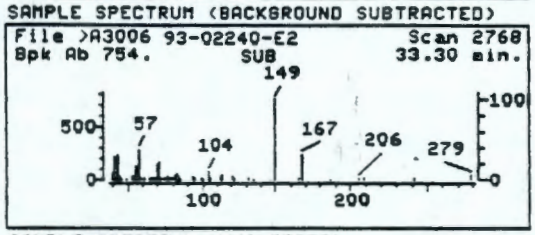
Quant Output File: ^A3006::OF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2170
Retention Time: 27.05 min.
Quant Ion : 149.0
Area : 25708
Concentration : 6.76 ng/uL
q-value : 97

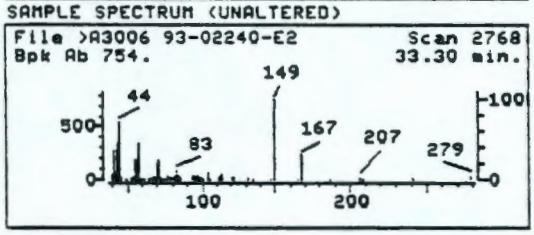
REFERENCE STANDARD SPECTRUM

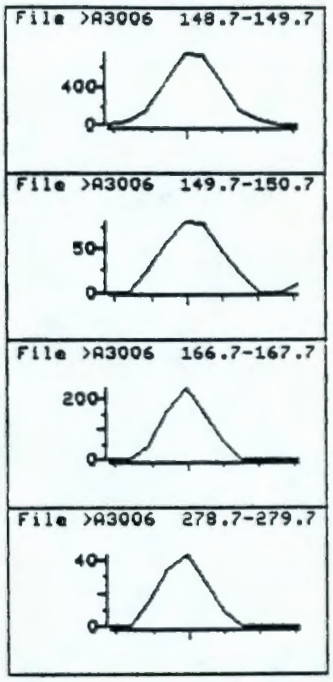


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

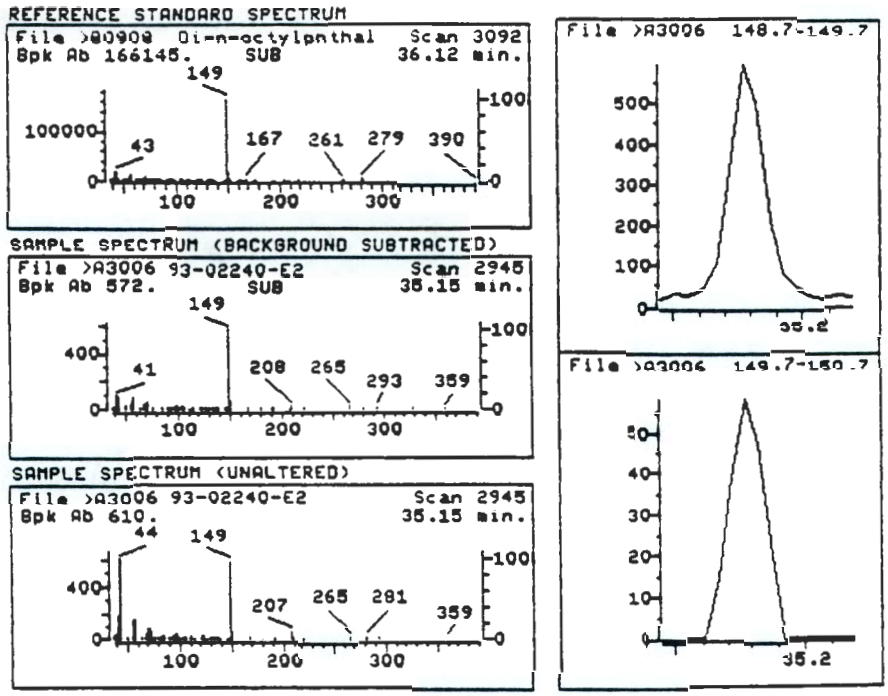




Data File: >A3006::D1
Name: 93-02240-E2
Misc: B07JZ5, T-106
Quant Time: 930201 10:13
Injected at: 930129 19:35
Last Qcal Time: 930129 15:50

Quant Output File: ^A3006::DF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2768
Retention Time: 33.30 min.
Quant Ion : 149.0
Area : 1742
Concentration : .655 ng/uL
q-value : 95



Data File: >A3006::D1
Name: 93-02240-E2
Misc: B07JZ5, T-106
Quant Time: 930201 10:13
Injected at: 930129 19:35
Last Qcal Time: 930129 15:50

Quant Output File: ^A3006::DF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 2945
Retention Time: 35.15 min.
Quant Ion : 149.0
Area : 1112
Concentration : .256 ng/uL
q-value : 99

9613492.1703

MS data file header from : >A3006::D1

Sample: 93-02240-E2 Operator: MANAGER SUPER GRP. 1/29/93 19:35
Misc : B07JZ5, T-106 BTL# 4
Sys. #: 1 MS model: 70 SW/HW rev.: LF ALS # : 4 Equip ID: BNA1
Method file: BNAME1 Tuning file: MTBNA1 No. of extra records: 2
Source temp.: N/A Analyzer temp.: N/A Transfer line temp. : 0

Chromatographic temperatures :	40.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.5	0.0

>A3006 93-02240-E2 B07JZ5, T-106
35.0| 500.0 CLP TIC
Upslope: .2000 Area Reject: 24138. Max Peaks: 15 Bunch: -1 Valley >100 %
Dnslope: 0.0000 Results File IA3006 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of tota
1	5.34	3	91	95	545687	15042346	14935256	100.00	86.2
2	5.51	97	107	134	8139	119490	82738	.55	.4
3	8.32	365	376	387	84293	338023	327373	2.19	1.8
4	8.82	419	423	448	5848	43855	32669	.22	.1
5	9.41	470	480	499	67128	268619	258183	1.73	1.4
6	9.78	508	515	535	7477	35867	27635	.19	.1
7	10.64	589	597	604	264746	851767	846928	5.67	4.8
8	10.74	604	607	619	18145	50395	44759*	.30	.2
9	11.22	645	653	658	38705	113949	109760	.73	.6
10	11.83	699	711	725	152957	439247	427288	2.86	2.4
11	12.33	751	759	776	16552	59156	46760	.31	.2
12	14.32	942	949	955	23094	55630	50824	.34	.2
13	16.70	1166	1178	1190	19867	52423	47238	.32	.2
14	17.10	1209	1216	1227	12615	36878	31052	.21	.1
15	25.85	2046	2055	2065	22377	51363	42652	.29	.2

Sum of corrected areas: 17311124.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	241380.	11.35	4.40 - 13.33
2	40.0	270512.	15.32	13.33 - 17.96
3	40.0	271179.	20.60	17.96 - 22.81
4	40.0	281828.	25.01	22.81 - 28.94
5	40.0	280689.	32.87	28.94 - 34.83
6	40.0	314114.	36.78	34.83 - 46.55

Dilution Factor = 1.00 This sample was 30.1000 g or mL

Correction Factor = 33.26

moisture correction not needed since made by computer [illegible] 3/2/93

F03-554

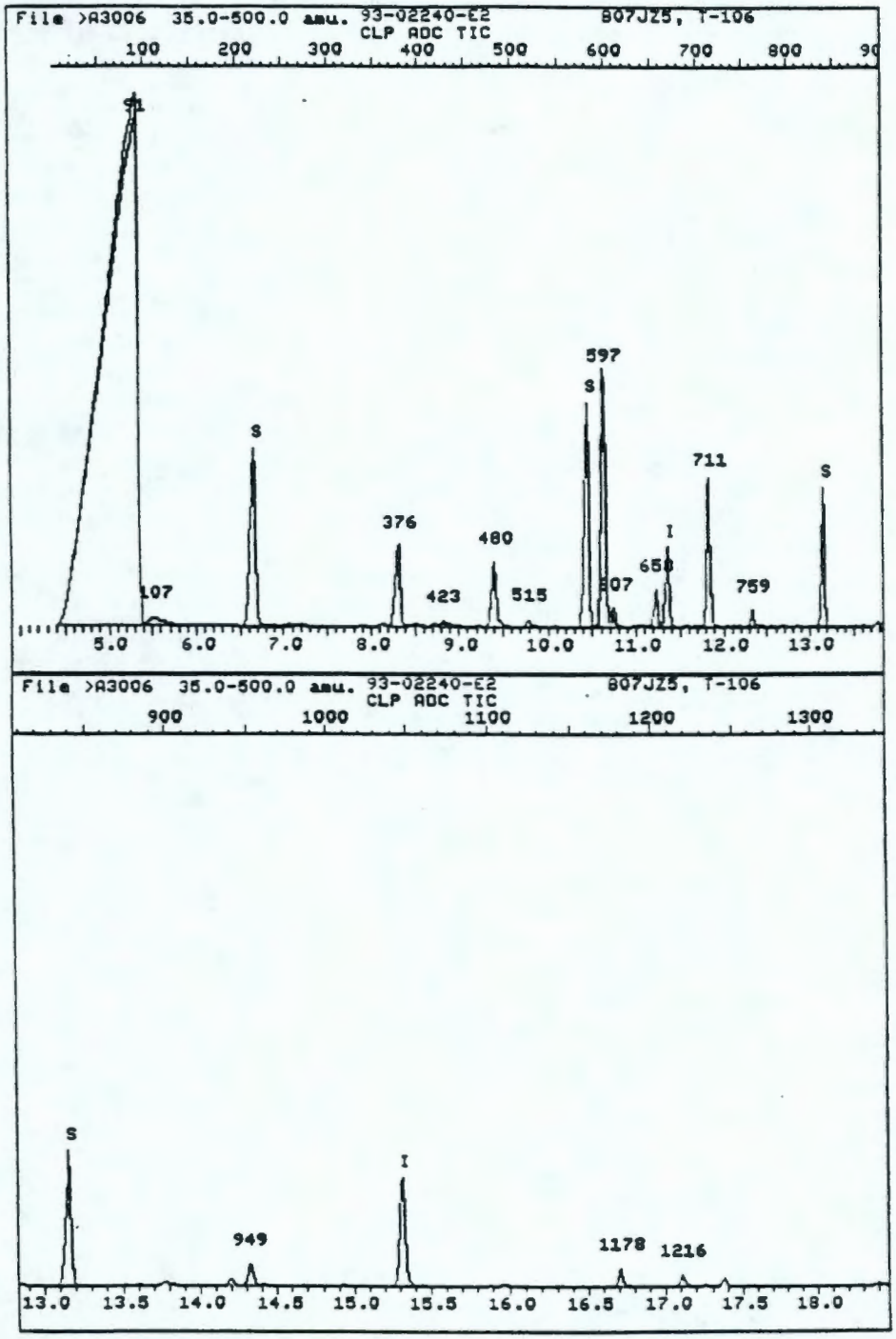
9613492.1704

$$\text{Unknown Concentration} = \frac{\text{Conc Int Std} * \text{Area Unknown}}{\text{Area Int Std}} * \text{Correction Factor}$$

4:08 PM WED., 24 FEB., 1993

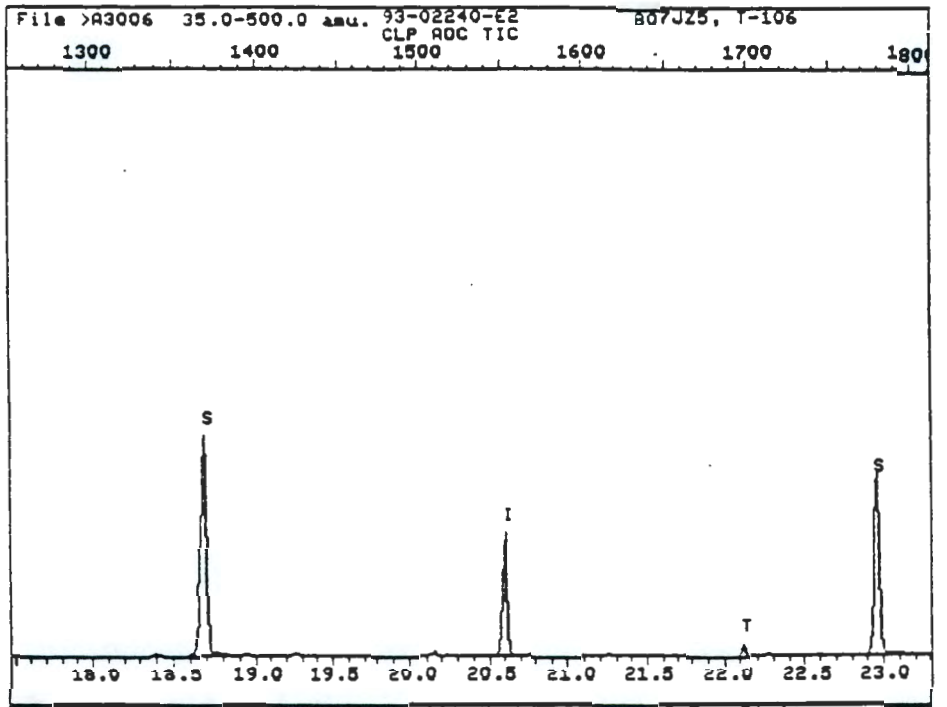
F03-555

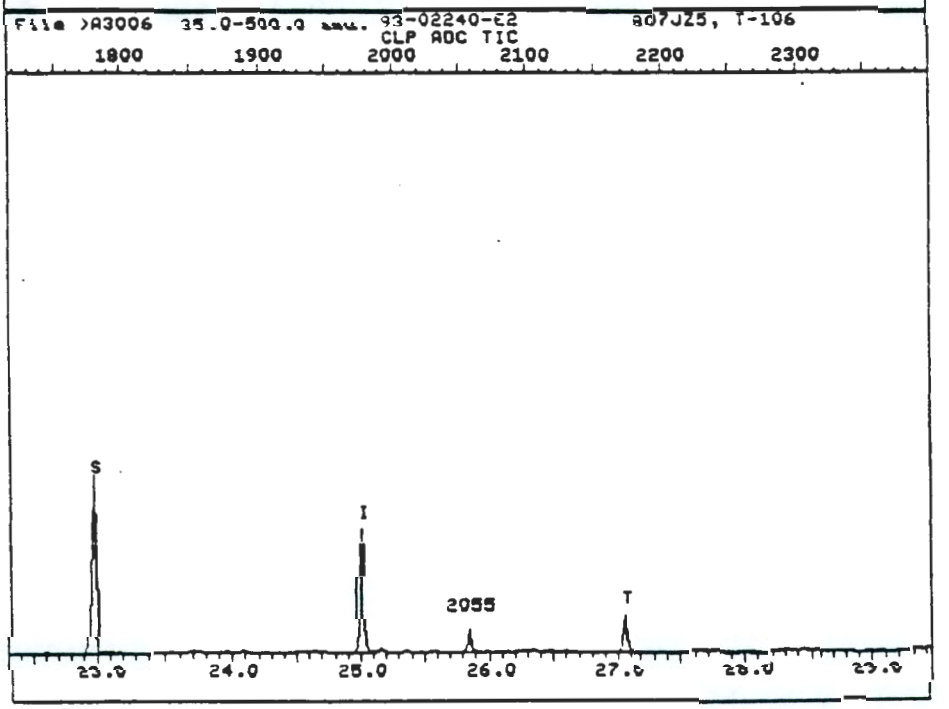
9613492.1705



Instrument ID: BNA1 Analyzed on: 1/29/93 19:35

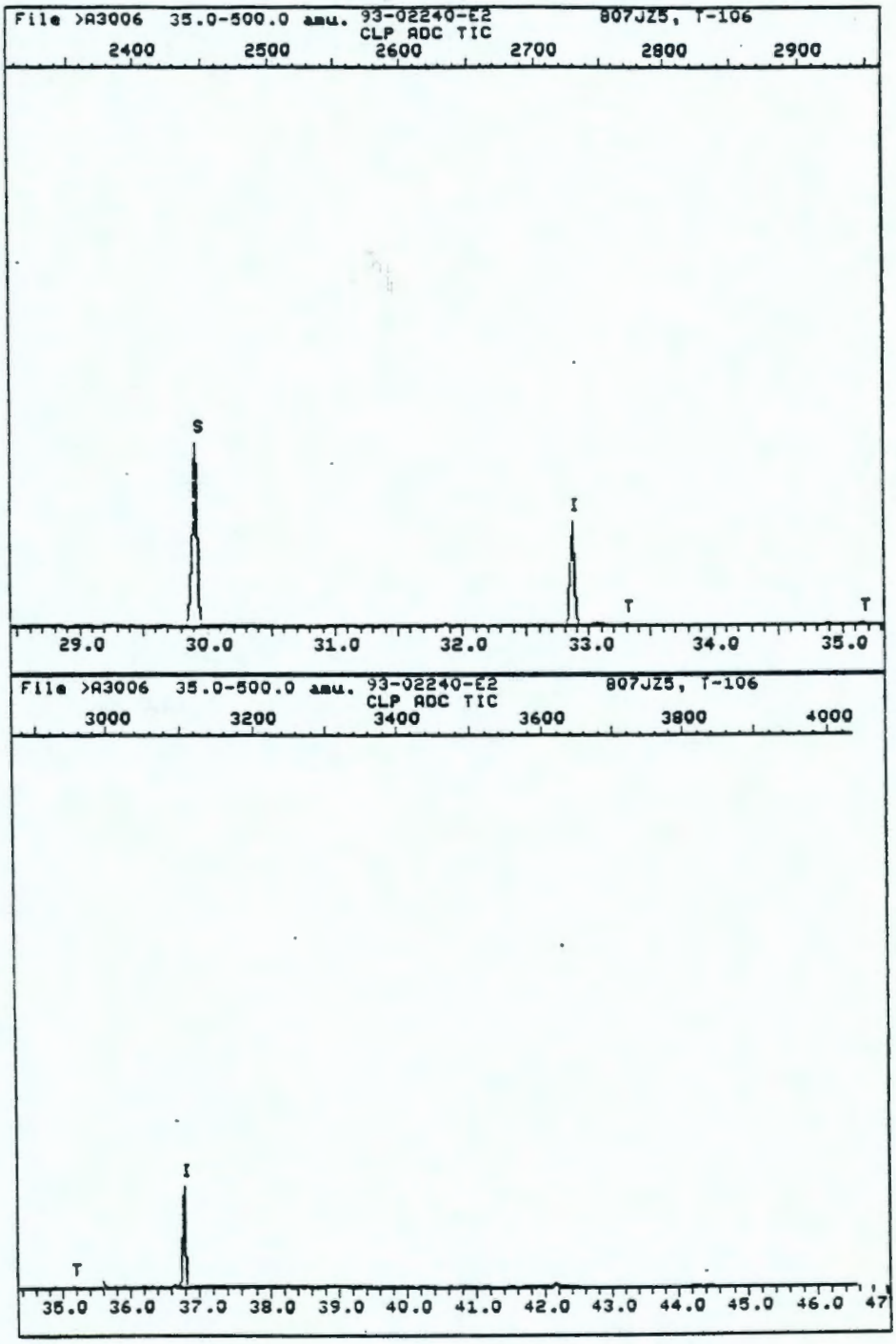
F03-556





Instrument ID: BNA1 Analyzed on: 1/29/93 19:35

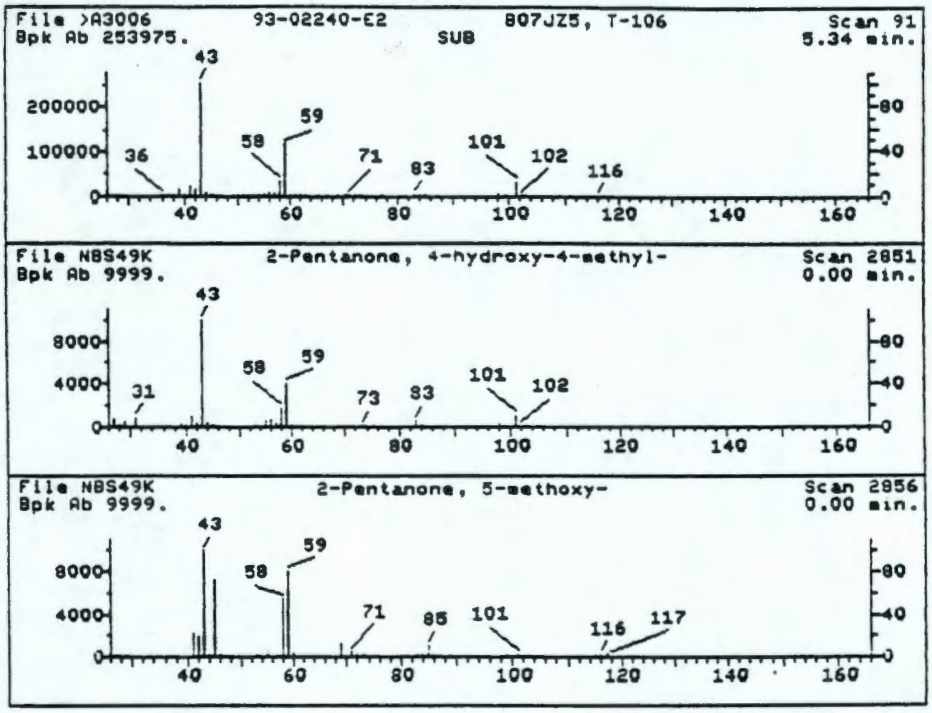
9613492.1707



Instrument ID: BNA1 Analyzed on: 1/29/93 19:35

F03-558

9613492.1708



Instrument ID: BNA1 Analyzed on: 1/29/93 19:35
Result 1 in PBM results file: LA3006
Retention Time: 5.34 Area: 14935256 Tentative Conc: 82000.00
The unknown area is 6187.4% of the nearest internal standard

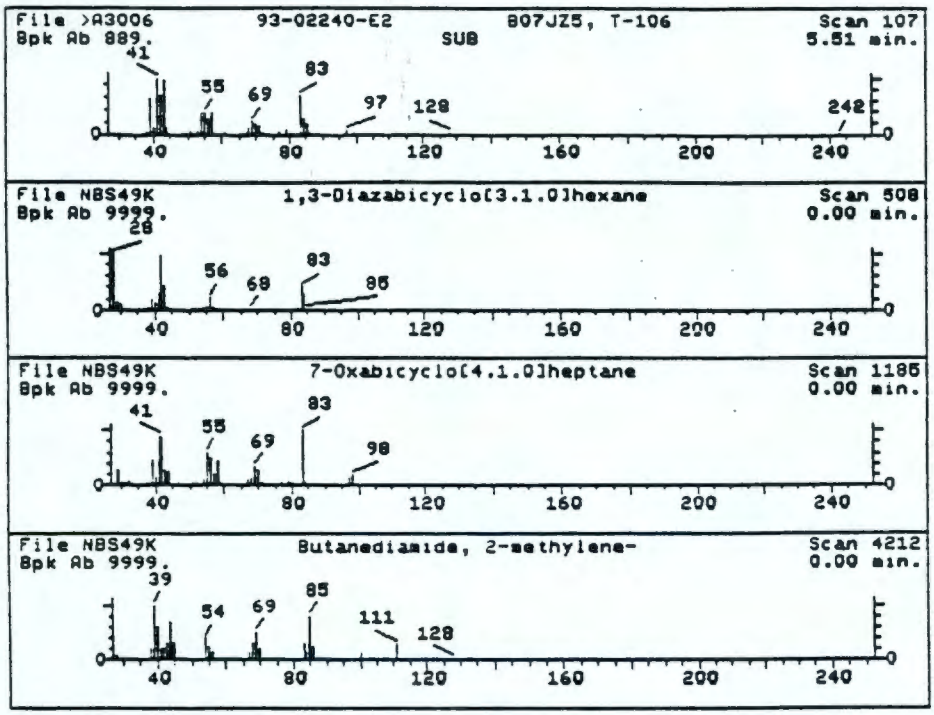
1. 2-Pentanone, 4-hydroxy-4-methyl- 116 C6H12O2
2. 2-Pentanone, 5-methoxy- 116 C6H12O2

Sample file: >A3006 Spectrum #: 91
Search speed: 3 Tilting option: F No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	47	123422	1790	NBS49K	52	31	2	0	82	22	17	1E

F03-559

9613492.1709



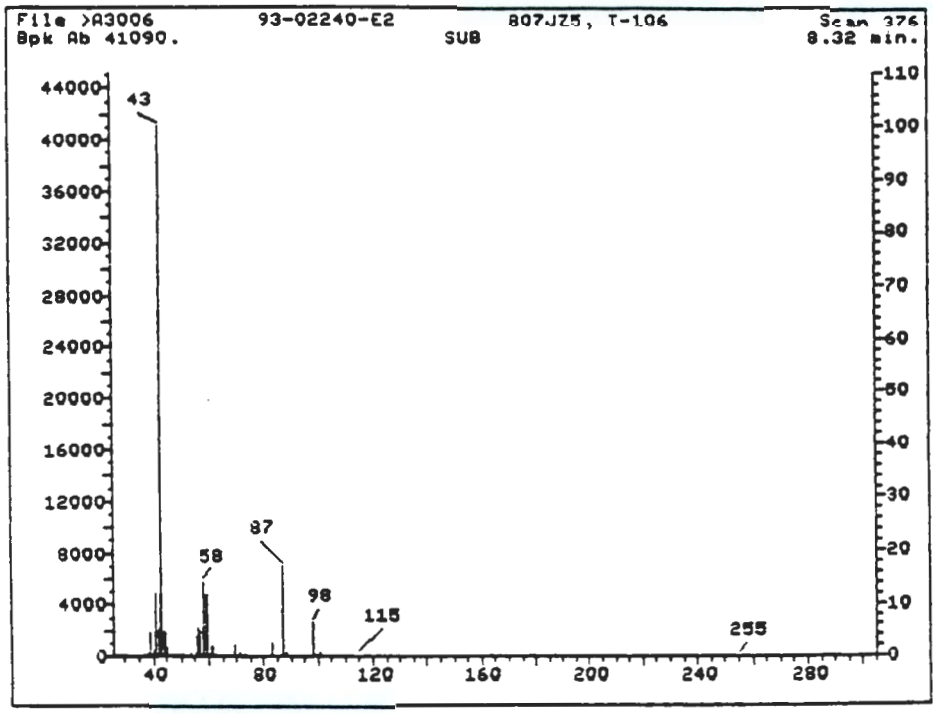
Instrument ID: BNA1 Analyzed on: 1/29/93 19:35
Result 2 in PBM results file: LA3006
Retention Time: 5.51 Area: 82738 Tentative Conc: 460.00
The unknown area is 34.28% of the nearest internal standard

1. 1,3-Diazabicyclo[3.1.0]hexane	84	C4H8N2
2. 7-Oxabicyclo[4.1.0]heptane	98	C6H10O
3. Butanediamide, 2-methylene-	128	C5H8N2O2
4. Decane, 5,6-dimethyl-	170	C12H26
5. Pyrrolidine, 1,1'-methylenebis-	154	C9H18N2
6. 2-Oxetanone, 4-methylene-	84	C4H4O2

Sample file: >A3006 Spectrum #: 107
Search speed: 3 Tilting option: F No. of ion ranges searched: 74

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	35*	17038287	6268	NBS49K	34	60	0	0	71	47	11	3
2.	35	286204	6142	NBS49K	61	54	2	0	58	30	14	1
3.	20*	3786296	6577	NBS49K	25	102	3	0	64	53	5	1
4.	20	1636437	6431	NBS49K	56	41	2	4	78	53	5	1

F03-560

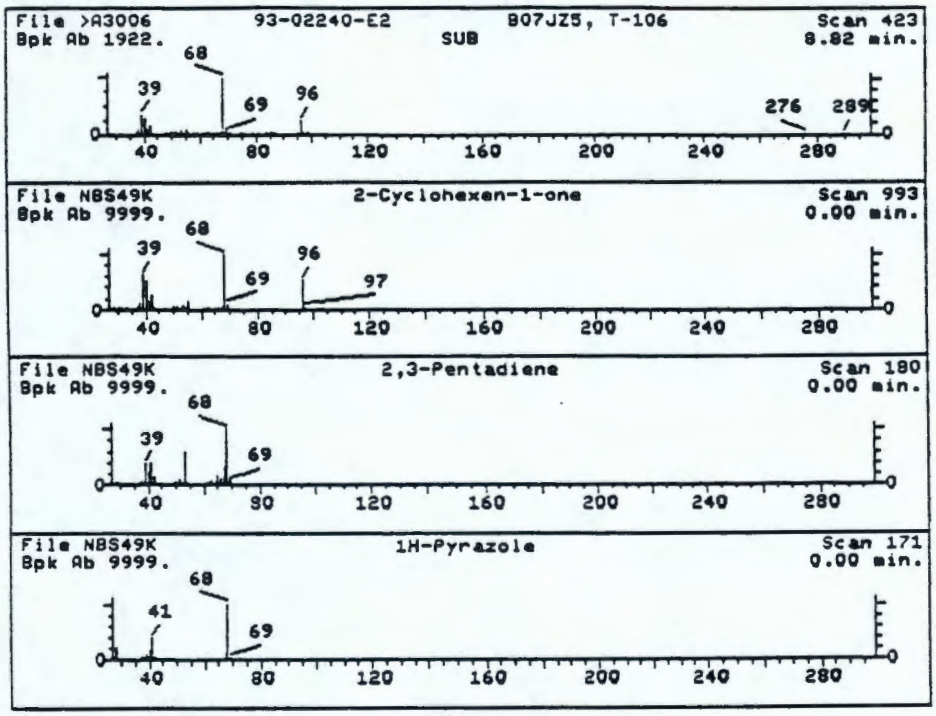


Instrument ID: BNA1 Analyzed on: 1/29/93 19:35
Result 3 in PBM results file: LA3006
Retention Time: 8.32 Area: 327373 Tentative Conc: 1800.00
The unknown area is 135.63% of the nearest internal standard

Sample file: >A3006 Spectrum #: 376

No data base entries were retrieved.

9613492.1711



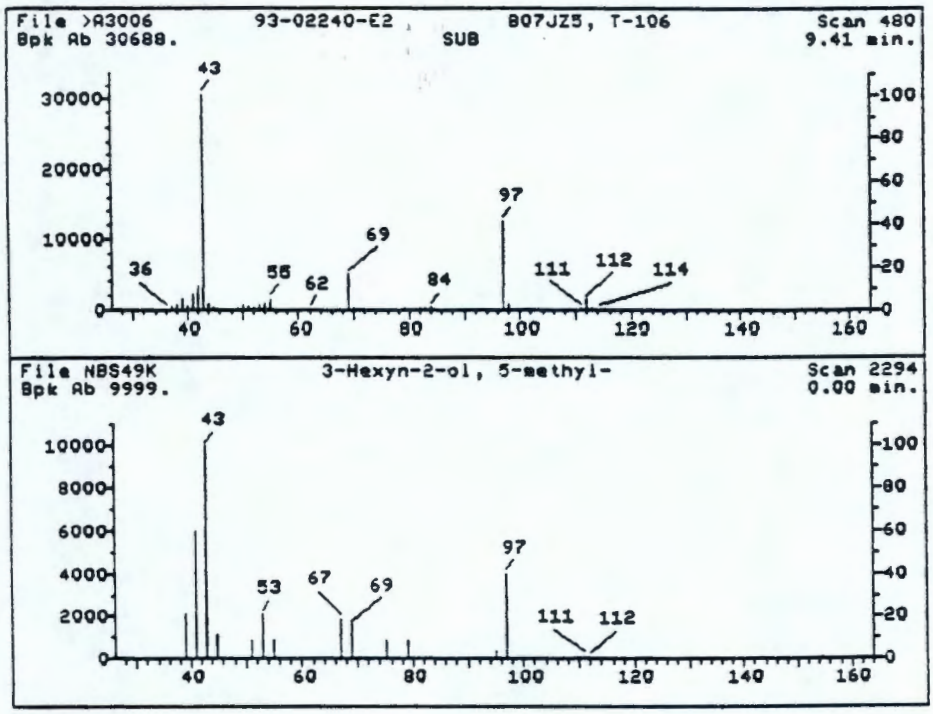
Instrument ID: BNA1 Analyzed on: 1/29/93 19:35
Result 4 in PBM results file: LA3006
Retention Time: 8.82 Area: 32669 Tentative Conc: 180.00
The unknown area is 13.53% of the nearest internal standard

1. 2-Cyclohexen-1-one	96	C6H8O
2. 2,3-Pentadiene	68	C5H8
3. 1H-Pyrazole	68	C3H4N2
4. 2-Pentyne	68	C5H8
5. Bicyclo[3.1.0]hexan-3-one	96	C6H8O
6. 1,4-Pentadiene	68	C5H8

Sample file: >A3006 Spectrum #: 423
Search speed: 3 Tilting option: F No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	66*	930687	3554	NBS49K	61	30	0	0	40	41	24	73
2.	42*	591968	3535	NBS49K	22	81	2	0	100	23	17	13
3.	38*	288131	3527	NBS49K	31	45	2	0	100	26	14	15
4.	36*	627214	3530	NBS49K	22	69	2	0	100	28	14	13
5.	20*	1755040	3555	NBS49K	29	56	2	0	47	55	5	14
6.	20*	591935	3533	NBS49K	38	69	2	0	61	51	5	14

F03-562



Instrument ID: BNA1 Analyzed on: 1/29/93 19:35
Result 5 in PBM results file: LA3006
Retention Time: 9.41 Area: 258183 Tentative Conc: 1400.00
The unknown area is 106.96% of the nearest internal standard

1. 3-Hexyn-2-ol, 5-methyl- 112 C7H12O

Sample file: >A3006 Spectrum #: 480
Search speed: 3 Tilting option: F No. of ion ranges searched: 48

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	31*	23293507	9091	NBS49K	26	63	2	0	100	34	12	14

uak

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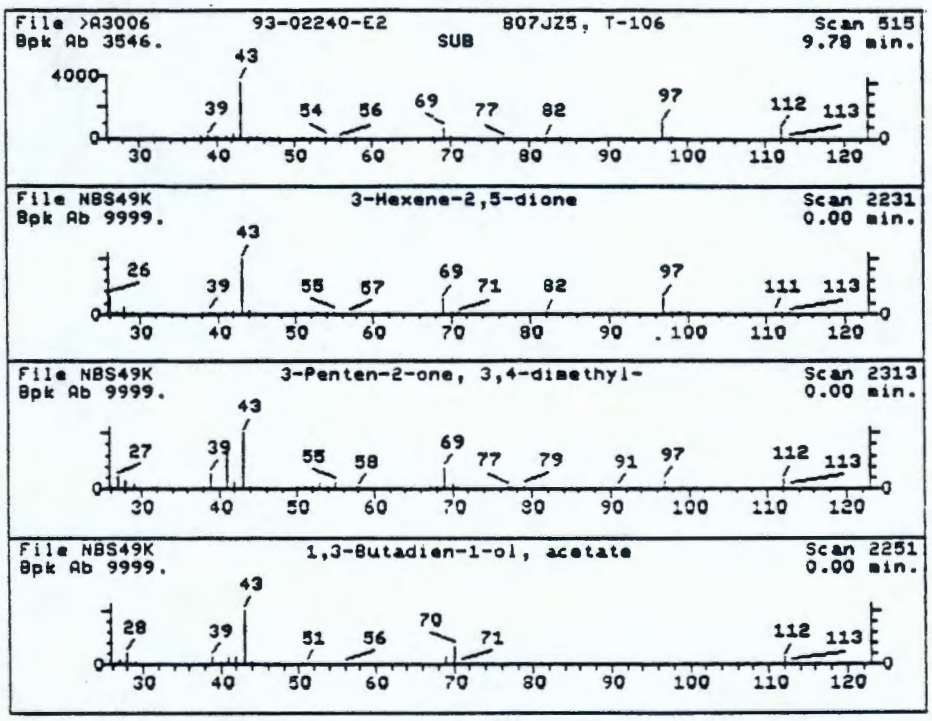


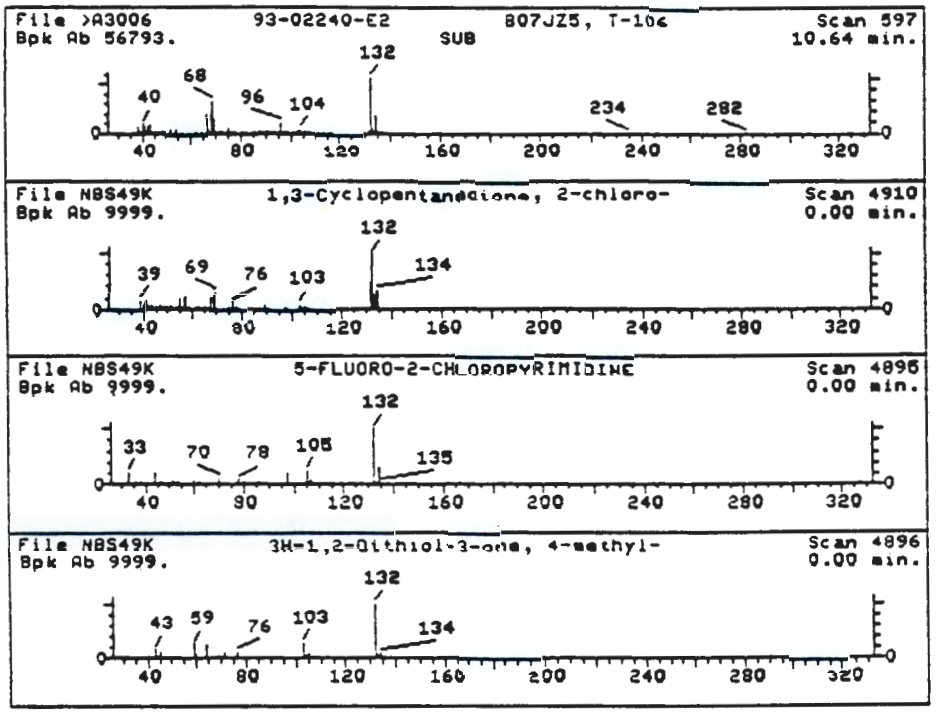
Instrument ID: BNA1 Analyzed on: 1/29/93 19:35
Result 6 in PBM results file: LA3006
Retention Time: 9.78 Area: 27635 Tentative Conc: 150.00
The unknown area is 11.45% of the nearest internal standard

1. 3-Hexene-2,5-dione 112 C6H8O2
2. 3-Penten-2-one, 3,4-dimethyl- 112 C7H12O
3. 1,3-Butadien-1-ol, acetate 112 C6H8O2

Sample file: >A3006 Spectrum #: 515
Search speed: 3 Tilting option: F No. of ion ranges searched: 49

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	60*	4436753	9083	NBS49K	38	44	2	0	68	15	30	19
2.	60*	684946	12022	NBS49K	22	69	3	0	100	15	30	12
3.	36*	1515760	11993	NBS49K	20	60	2	0	100	29	14	13

F03-564



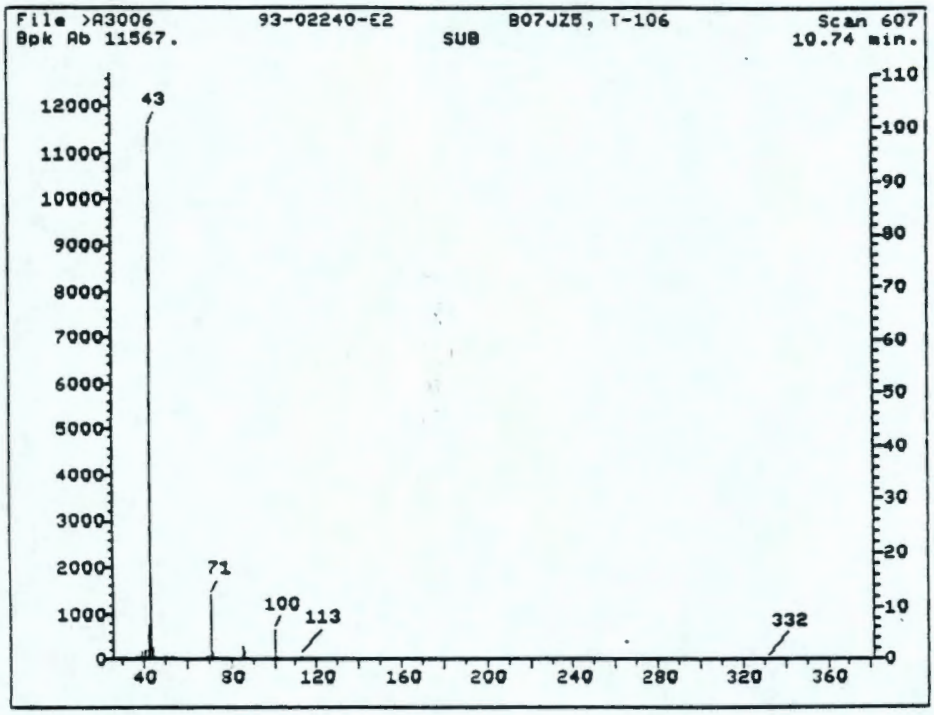
Instrument ID: BNA1 Analyzed on: 1/29/93 19:35
Result 7 in PBM results file: LA3006
Retention Time: 10.64 Area: 846928 Tentative Conc: 4700.00
The unknown area is 350.87% of the nearest internal standard

1.	1,3-Cyclopentanedione, 2-chloro-	132	C5H5ClO2
2.	5-FLUORO-2-CHLOROPYRIMIDINE	132	C4H2ClFN2
3.	3H-1,2-Dithiol-3-one, 4-methyl-	132	C4H4OS2
4.	1H-Pyrazole	68	C3H4N2
5.	Benzeneethanamine, .alpha.-methyl-N-(phenylmethylene	223	C16H17N
6.	1,1-DIFLUORO-3-METHYL-1-SILACYCLO-3-PENTENE	134	C5H8F2Si

Sample file: >A3006 Spectrum #: 597
Search speed: 3 Tilting option: F No. of ion ranges searched: 44

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	37*	14203191	15856	NBS49K	28	83	2	0	100	30	14	14
2.	26*	62802420	15850	NBS49K	41	67	2	0	100	43	8	14
3.	25*	3620108	15851	NBS49K	20	82	2	0	100	47	7	13
4.	23*	288131	3527	NBS49K	44	32	0	-4	81	56	6	40
5.	20*	2980021	16019	NBS49K	23	83	2	0	100	53	5	13

9613492.1715



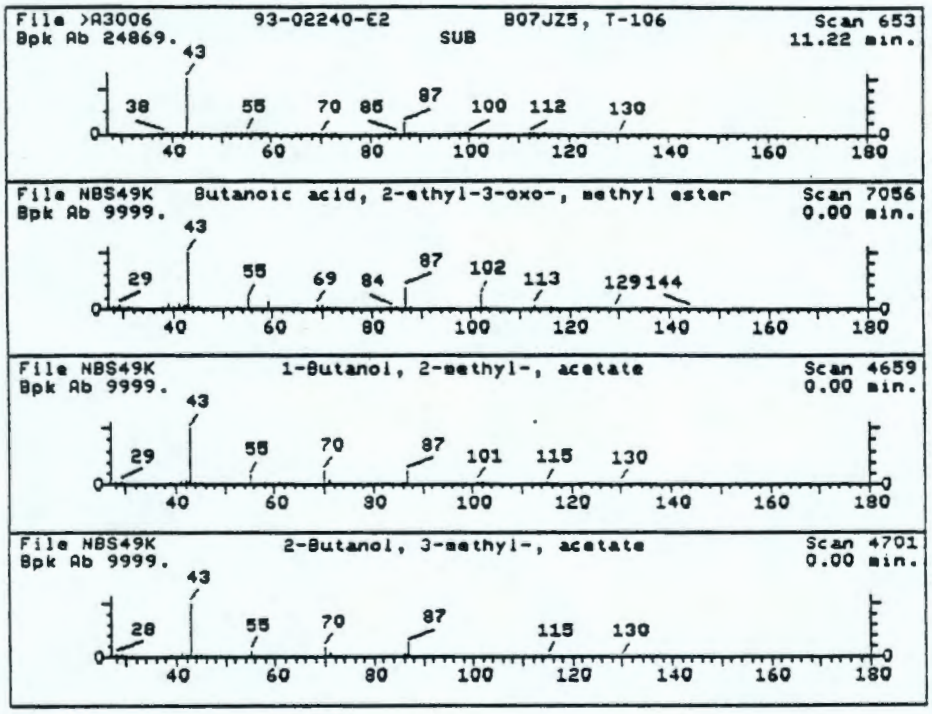
Instrument ID: BNA1 Analyzed on: 1/29/93 19:35
Result 8 in PBM results file: LA3006
Retention Time: 10.74 Area: 44759 Tentative Conc: 250.00
The unknown area is 18.54% of the nearest internal standard

Sample file: >A3006 Spectrum #: 607

No data base entries were retrieved.

unk

F03-566



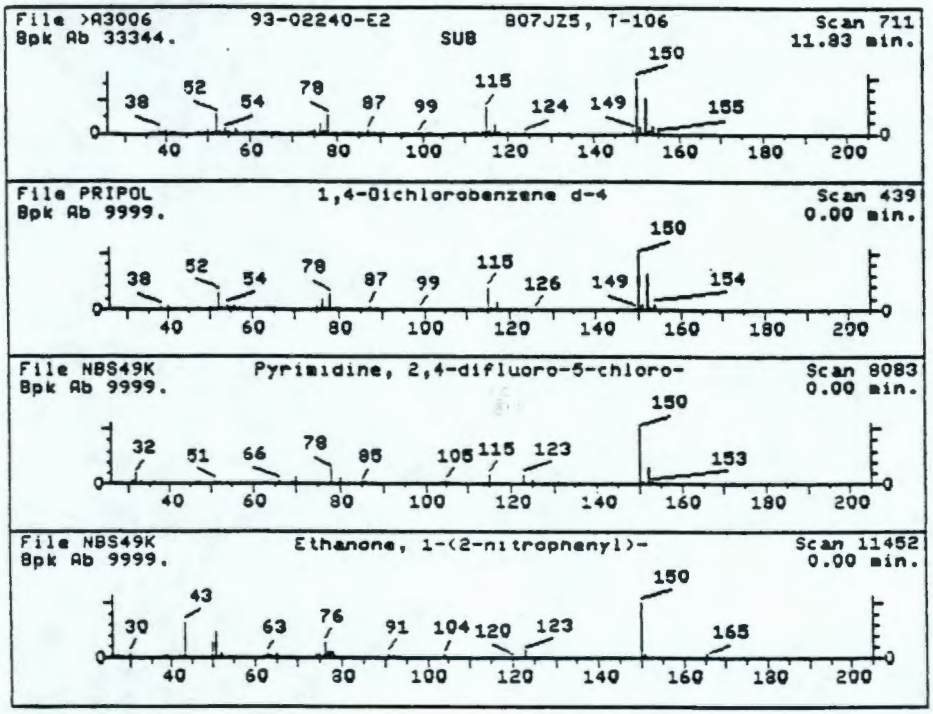
Instrument ID: BNA1 Analyzed on: 1/29/93 19:35
Result 9 in PBM results file: LA3006
Retention Time: 11.22 Area: 109760 Tentative Conc: 600.00
The unknown area is 45.47% of the nearest internal standard

1. Butanoic acid, 2-ethyl-3-oxo-, methyl ester 144 C7H12O3
2. 1-Butanol, 2-methyl-, acetate 130 C7H14O2
3. 2-Butanol, 3-methyl-, acetate 130 C7H14O2

Sample file: >A3006 Spectrum #: 653
Search speed: 3 Tilting option: F No. of ion ranges searched: 52

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	25*	51756082	7336	NBS49K	22	70	2	0	54	47	7	13
2.	20*	624419	7299	NBS49K	28	53	2	0	90	52	5	14
3.	20*	5343964	7303	NBS49K	39	36	2	0	82	52	5	19

9613492.1717



Instrument ID: 8NA1 Analyzed on: 1/29/93 19:35
Result 10 in PBM results file: LA3006
Retention Time: 11.83 Area: 427288 Tentative Conc: 2400.00
The unknown area is 177.02% of the nearest internal standard

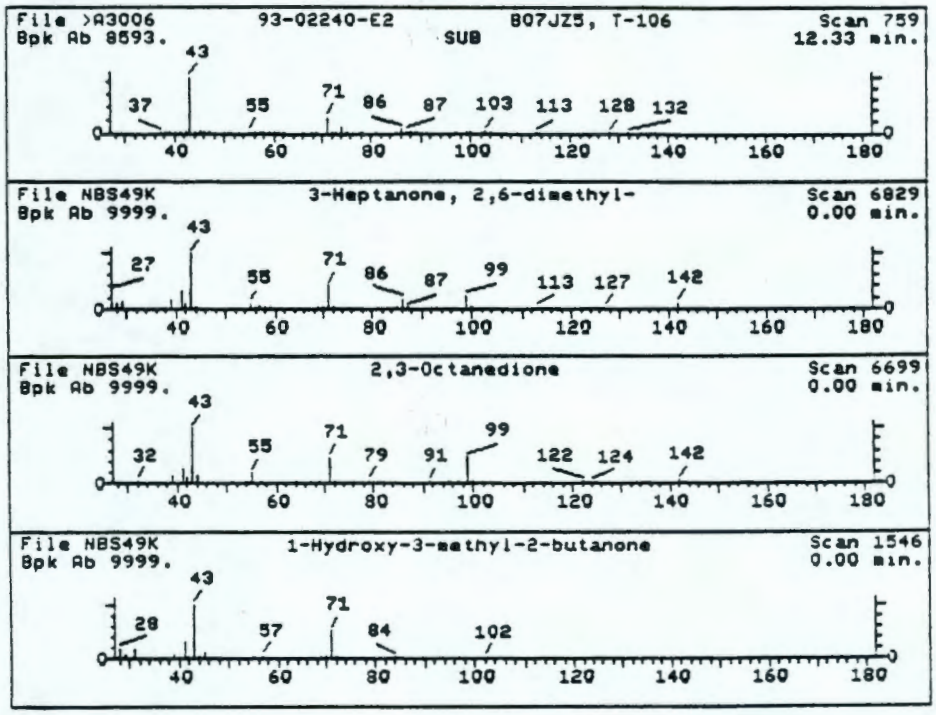
1. 1,4-Dichlorobenzene d-4	150	C6.D4.CL2
2. Pyrimidine, 2,4-difluoro-5-chloro-	150	C4HCIF2N2
3. Ethanone, 1-(2-nitrophenyl)-	165	C8H7NO3
4. Acenaphthylene	152	C12H8
5. Imidazo[5,1-f][1,2,4]triazine-2,7-diamine	150	C5H6N6

Sample file: >A3006 Spectrum #: 711
Search speed: 3 Tilting option: F No. of ion ranges searched: 37

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	97*	439	257	PRIPOL	95	12	0	0	89	7	68	97
2.	25*	25151079	19311	NBS49K	22	78	2	0	100	43	8	13

identic. su file >A1403

F02-5E8



Instrument ID: BNA1 Analyzed on: 1/29/93 19:35
Result 11 in PBM results file: LA3006
Retention Time: 12.33 Area: 46760 Tentative Conc: 260.00
The unknown area is 19.37% of the nearest internal standard

1. 3-Heptanone, 2,6-dimethyl-	142	C9H18O
2. 2,3-Octanedione	142	C8H14O2
3. 1-Hydroxy-3-methyl-2-butanone	102	C5H10O2
4. Hexanethioic acid, S-ethyl ester	160	C8H16OS
5. Hexanethioic acid, S-propyl ester	174	C9H18OS
6. Butanoic acid, 1-methylethyl ester	130	C7H14O2

Sample file: >A3006 Spectrum #: 759
Search speed: 3 Tilting option: F No. of ion ranges searched: 59

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	20	19549838	9746	NBS49K	41	48	2	0	69	52	5	12

cdk

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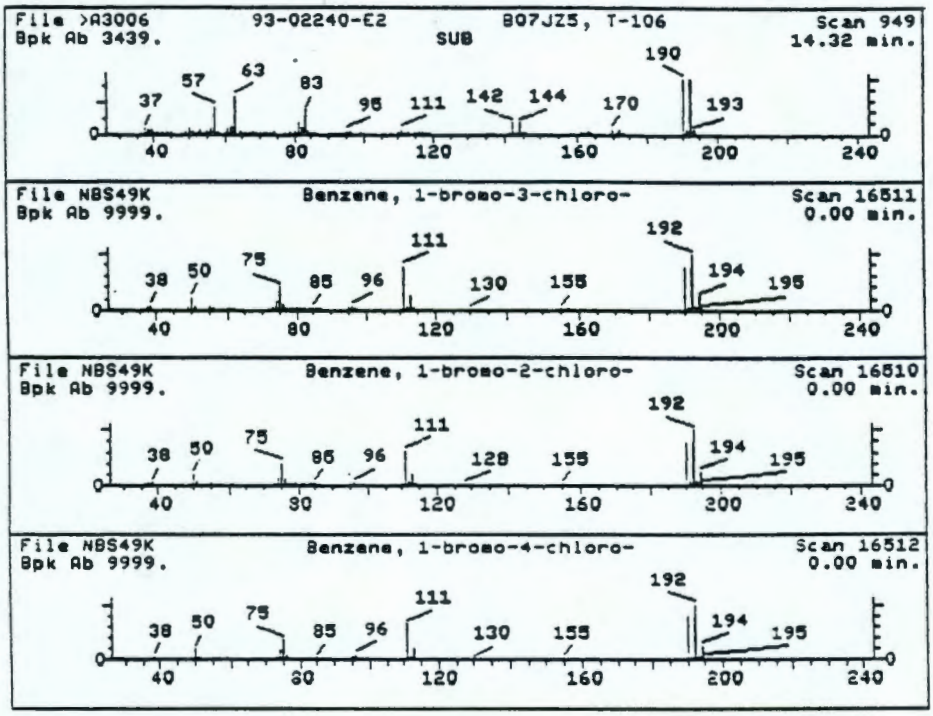

Instrument ID: BNA1 Analyzed on: 1/29/93 19:35
Result 12 in PBM results file: LA3006
Retention Time: 14.32 Area: 50824 Tentative Conc: 250.00
The unknown area is 18.79% of the nearest internal standard

1. Benzene, 1-bromo-3-chloro- 190 C6H4BrCl
2. Benzene, 1-bromo-2-chloro- 190 C6H4BrCl
3. Benzene, 1-bromo-4-chloro- 190 C6H4BrCl
4. Naphtho[1,8-cd]-1,2-dithiole 190 C10H6S2

Sample file: >A3006 Spectrum #: 949
Search speed: 3 Tilting option: F No. of ion ranges searched: 36

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	31*	108372	26207	NBS49K	56	71	3	0	98	42	8	19
2.	26*	694804	26206	NBS49K	51	75	3	0	98	42	8	14
3.	25*	106398	26208	NBS49K	45	81	3	0	98	42	8	13

F03-570

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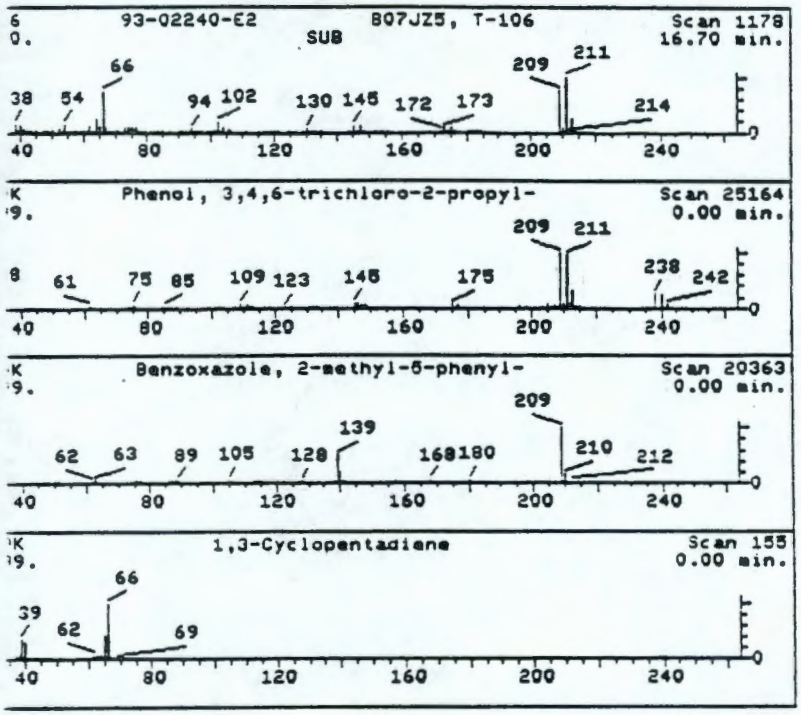

nstrument ID: BNA1 Analyzed on: 1/29/93 19:35
esult 13 in PBM results file: LA3006
etention Time: 16.70 Area: 47238 Tentative Conc: 230.00
he unknown area is 17.46% of the nearest internal standard

. Phenol, 3,4,6-trichloro-2-propyl- 238 C9H9Cl3O
. Benzoxazole, 2-methyl-5-phenyl- 209 C14H11NO
. 1,3-Cyclopentadiene 66 C5H6

mple file: >A3006 Spectrum #: 1178
rch speed: 3 Tilting option: F No. of ion ranges searched: 35

Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
27	55538733	29610	NBS49K	62	78	2	0	75	40	10	13

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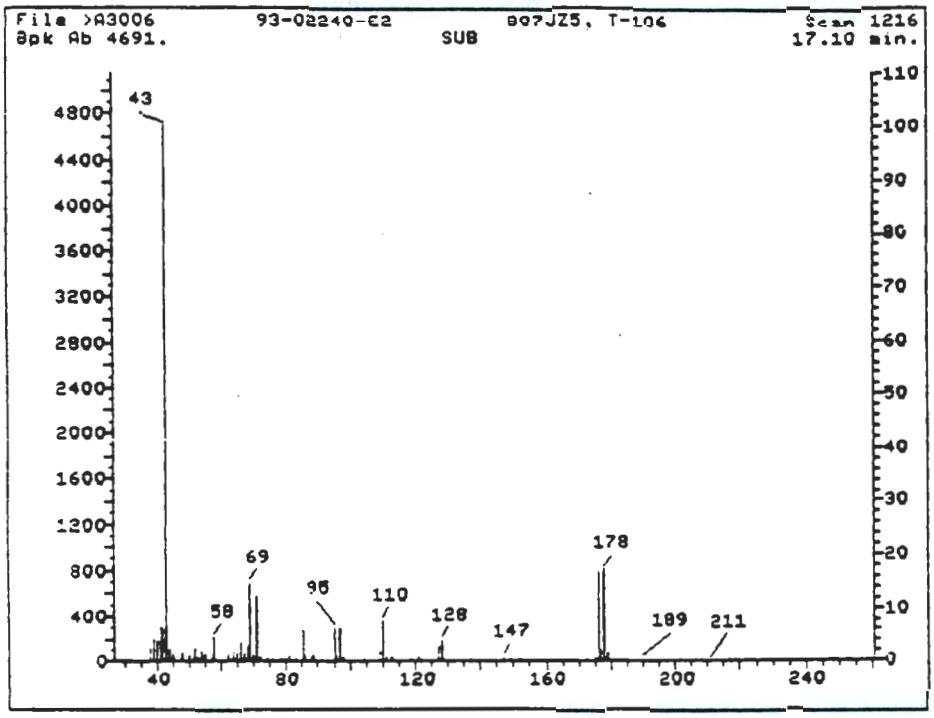
FO?-571

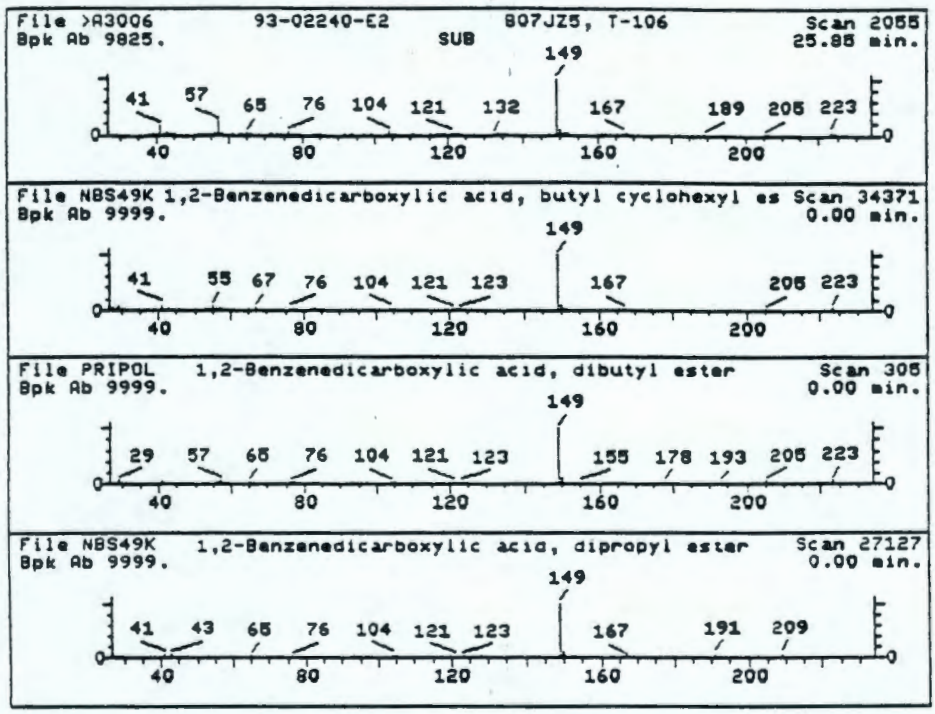


Instrument ID: BNA1 Analyzed on: 1/29/93 19:35
Result 14 in PBM results file: LA3006
Retention Time: 17.10 Area: 31052 Tentative Conc: 150.00
The unknown area is 11.48% of the nearest internal standard

Sample file: >A3006 Spectrum #: 1216

No data base entries were retrieved.

unk



Instrument ID: BNA1 Analyzed on: 1/29/93 19:35
Result 15 in PBM results file: LA3006
Retention Time: 25.85 Area: 42652 Tentative Conc: 200.00
The unknown area is 15.13% of the nearest internal standard

1. 1,2-Benzenedicarboxylic acid, butyl cyclohexyl ester 304 C18H2404
2. 1,2-Benzenedicarboxylic acid, dibutyl ester 278 C16H2204
3. 1,2-Benzenedicarboxylic acid, dipropyl ester 250 C14H1804
4. 1,2-Benzenedicarboxylic acid, bis(2-methoxyethyl) es ter 282 C14H1806
5. 1,2-Benzenedicarboxylic acid, butyl 2-methylpropyl e ster 278 C16H2204

Sample file: >A3006 Spectrum #: 2055
Search speed: 3 Tilting option: F No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_I
1.	78	84640	19279	NBS49K	65	43	2	0	100	4	55	15
2.	70	305	233	PRIPOL	63	41	2	2	100	6	42	14
3.	60	131168	19265	NBS49K	54	48	2	0	100	12	30	12
4.	53	117828	19276	NBS49K	73	30	0	2	60	40	19	44
5.	31	17851535	19272	NBS49K	66	40	1	1	61	38	10	17

9613492.1723

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Sequence File: SQA15A::SC
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Tune File: MTBNA1

CR List: D1,D2,D3
CR Cut-off:  5000 blocks.

                                                   Report Date Archive
                                                  Quant | | ID Archive
Number of samples:   6                     Sample Size | | | | Output Archive
                                          Bottle     | | | | | |
Samp Data File     Sample Name                |     | | | | | |    Quant ID
 No. Method File   Misc Data                  |     | | | | | |    Quant Output
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001) >A1503        93-02437-E1               1/1   1 Y E Y Y Y    ID1BNA::QT
     BNAME1        T-106 B07JZ8                    Dil=1.00000    ^A1503::OF
     REPRT OPTIONS: Aux:REPR1, Label Meth:4, B option, Scale time: 4.000
     REPRT OPTIONS: 4 page TIC, Omit types:IS
002) >A1504        93-02437-E2               2/2   1 Y E Y Y Y    ID1BNA::QT
     BNAME1        T-106 B07JZ8 DUP                Dil=1.00000    ^A1504::OF
     REPRT OPTIONS: Aux:REPR1, Label Meth:4, B option, Scale time: 4.000
     REPRT OPTIONS: 4 page TIC, Omit types:IS
003) >A1505        93-02438-E1               3/3   1 Y E Y Y Y    ID1BNA::QT
     BNAME1        T-106 B07JZ9                    Dil=1.00000    ^A1505::OF
     REPRT OPTIONS: Aux:REPR1, Label Meth:4, B option, Scale time: 4.000
     REPRT OPTIONS: 4 page TIC, Omit types:IS
004) >A1506        93-02438-E2               4/4   1 Y E Y Y Y    ID1BNA::QT
     BNAME1        T-106 B07JZ9 DUP                Dil=1.00000    ^A1506::OF
     REPRT OPTIONS: Aux:REPR1, Label Meth:4, B option, Scale time: 4.000
     REPRT OPTIONS: 4 page TIC, Omit types:IS
005) >A1507        93-02241-E1               5/5   1 Y E Y Y Y    ID1BNA::QT
     BNAME1        T-106 B07JZ6                    Dil=1.00000    ^A1507::OF
     REPRT OPTIONS: Aux:REPR1, Label Meth:4, B option, Scale time: 4.000
     REPRT OPTIONS: 4 page TIC, Omit types:IS
006) >A1508        93-02241-E2               6/6   1 Y E Y Y Y    ID1BNA::QT
     BNAME1        T-106 B07JZ6 DUP                Dil=1.00000    ^A1508::OF
     REPRT OPTIONS: Aux:REPR1, Label Meth:4, B option, Scale time: 4.000
     REPRT OPTIONS: 4 page TIC, Omit types:IS

End of sequence file.
```

QUANT REPORT

Operator ID: ERIC
Output File: ^A1403::OF
Data File: >A1403::D2
Name: SBLK53
Misc: METHOD BLANK

Quant Rev: 7
Quant Time: 930114 15:45
Injected at: 930114 14:57
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 1

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930114 10:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.45	682	41777	40.00	ng/uL	9
2)	2-Fluorophenol	6.76	234	160386	102.82	ng/uL	8
3)	Phenol-d5	10.52	593	209969	113.58	ng/uL	9
16)	*Naphthalene-d8	15.42	1061	137155	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.26	854	92731	52.08	ng/uL	9
31)	*Acenaphthene-d10	20.70	1568	66690	40.00	ng/uL	9
36)	2-Fluorobiphenyl	18.78	1384	125520	51.48	ng/uL	9
51)	*Phenanthrene-d10	25.12	1992	116153	40.00	ng/uL	9
54)	2,4,6-Tribromophenol	23.05	1794	46717	97.23	ng/uL	9
60)	Di-n-butylphthalate	27.14	2186	1185	.250	ng/uL	9
62)	*Chrysene-d12	32.98	2745	106852	40.00	ng/uL	9
64)	Terphenyl-d14	30.00	2460	138908	45.34	ng/uL	8
69)	Bis(2-Ethylhexyl)phthalate	33.40	2785	2698	.782	ng/uL	9
70)	*Perylene-d12	36.89	3119	110826	40.00	ng/uL	9
71)	Di-n-octylphthalate	35.25	2962	1128	.211	ng/uL	9

* Compound is ISTD

QUANT REPORT

Operator ID: ERIC
Output File: ^A1404::OF
Data File: >A1404::D2
Name: 93-02351-E1
Misc: T-106 8O7JZ7

Quant Rev: 7
Quant Time: 930114 16:41
Injected at: 930114 15:53
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 2

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930114 10:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.45	686	34648	40.00	ng/uL	97
2)	2-Fluorophenol	6.77	239	162954	125.96	ng/uL	90
3)	Phenol-d5	10.53	598	207532	135.36	ng/uL	94
16)	*Naphthalene-d8	15.41	1064	116020	40.00	ng/uL	99
17)	Nitrobenzene-d5	13.25	858	97409	64.67	ng/uL	94
31)	*Acenaphthene-d10	20.70	1571	56067	40.00	ng/uL	96
36)	2-Fluorobiphenyl	18.78	1387	131029	63.92	ng/uL	98
47)	Diethylphthalate	22.20	1715	1560	.620	ng/uL	97
51)	*Phenanthrene-d10	25.11	1994	98280	40.00	ng/uL	99
54)	2,4,6-Tribromophenol	23.05	1797	41654	102.45	ng/uL	99
60)	Di-n-butylphthalate	27.14	2189	49737	12.38	ng/uL	97
62)	*Chrysene-d12	32.97	2747	88426	40.00	ng/uL	93
64)	Terphenyl-d14	30.00	2463	146301	57.71	ng/uL	89
69)	Bis(2-Ethylhexyl)phthalate	33.40	2788	2064	.723	ng/uL	85
70)	*Perylene-d12	36.89	3121	91988	40.00	ng/uL	97
71)	Di-n-octylphthalate	35.26	2965	2486	.560	ng/uL	96

* Compound is ISTD

QUANT REPORT

Operator ID: ERIC
Output File: ^A1405::OF
Data File: >A1405::D1
Name: 93-02351-E2
Misc: T-106 B07JZ7 DUP

Quant Rev: 7
Quant Time: 930114 17:37
Injected at: 930114 16:49
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 3

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930114 10:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.45	685	33966	40.00	ng/uL	9
2)	2-Fluorophenol	6.75	237	167116	131.77	ng/uL	8
3)	Phenol-d5	10.52	597	215969	143.70	ng/uL	9
16)	*Naphthalene-d8	15.40	1063	112147	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.25	857	101456	69.68	ng/uL	9
31)	*Acenaphthene-d10	20.69	1570	54094	40.00	ng/uL	9
36)	2-Fluorobiphenyl	18.77	1386	134298	67.90	ng/uL	9
47)	Diethylphthalate	22.20	1715	1091	.450	ng/uL	9
51)	*Phenanthrene-d10	25.11	1994	95414	40.00	ng/uL	9
54)	2,4,6-Tribromophenol	23.05	1797	49485	125.37	ng/uL	9
60)	Di-n-butylphthalate	27.13	2188	5194	1.33	ng/uL	9
62)	*Chrysene-d12	32.97	2746	86185	40.00	ng/uL	9
64)	Terphenyl-d14	30.01	2463	152172	61.58	ng/uL	8
69)	Bis(2-Ethylhexyl)phthalate	33.40	2787	1687	.606	ng/uL	9
70)	*Perylene-d12	36.88	3120	89975	40.00	ng/uL	9

* Compound is ISTD

QUANT REPORT

Operator ID: ERIC
Output File: ^A1406::OF
Data File: >A1406::D1
Name: 93-02451-E1
Misc: T-106 8O7KOO

Quant Rev: 7
Quant Time: 930114 18:33
Injected at: 930114 17:45
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 4

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930114 10:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.45	682	32738	40.00	ng/uL	9
2)	2-Fluorophenol	6.76	234	167918	137.37	ng/uL	9
3)	Phenol-d5	10.52	593	212082	146.40	ng/uL	9
16)	*Naphthalene-d8	15.40	1060	109008	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.24	853	95496	67.48	ng/uL	9
31)	*Acenaphthene-d10	20.69	1567	52352	40.00	ng/uL	9
36)	2-Fluorobiphenyl	18.78	1383	128251	67.00	ng/uL	9
51)	*Phenanthrene-d10	25.10	1990	92226	40.00	ng/uL	9
54)	2,4,6-Tribromophenol	23.05	1793	51500	134.99	ng/uL	9
60)	Di-n-butylphthalate	27.13	2185	1163	.308	ng/uL	9
62)	*Chrysene-d12	32.97	2743	83616	40.00	ng/uL	9
64)	Terphenyl-d14	30.00	2459	146950	61.30	ng/uL	8
69)	Bis(2-Ethylhexyl)phthalate	33.40	2784	1228	.455	ng/uL	8
70)	*Perylene-d12	36.88	3117	84361	40.00	ng/uL	9

* Compound is ISTD

QUANT REPORT

Operator ID: ERIC
Output File: ^A1407::OF
Data File: >A1407::D1
Name: 93-02451-E2
Misc: T-106 B07K00 DUP

Quant Rev: 7
Quant Time: 930114 19:29
Injected at: 930114 18:41
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 5

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930114 10:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.45	685	31595	40.00	ng/uL	99
2)	2-Fluorophenol	6.76	237	170305	144.37	ng/uL	89
3)	Phenol-d5	10.52	597	219900	157.29	ng/uL	93
16)	*Naphthalene-d8	15.40	1063	103962	40.00	ng/uL	99
17)	Nitrobenzene-d5	13.25	857	102153	75.68	ng/uL	94
31)	*Acenaphthene-d10	20.69	1570	50296	40.00	ng/uL	98
36)	2-Fluorobiphenyl	18.78	1387	135150	73.49	ng/uL	98
47)	Diethylphthalate	22.20	1715	1183	.524	ng/uL	95
51)	*Phenanthrene-d10	25.10	1993	88023	40.00	ng/uL	99
54)	2,4,6-Tribromophenol	23.06	1797	48752	133.89	ng/uL	98
60)	Di-n-butylphthalate	27.14	2188	20794	5.78	ng/uL	97
62)	*Chrysene-d12	32.96	2745	80065	40.00	ng/uL	91
64)	Terphenyl-d14	30.00	2462	147070	64.07	ng/uL	89
69)	Bis(2-Ethylhexyl)phthalate	33.40	2787	1743	.674	ng/uL	90
70)	*Perylene-d12	36.88	3119	80824	40.00	ng/uL	98
71)	Di-n-octylphthalate	35.26	2964	1112	.285	ng/uL	93

* Compound is ISTD

QUANT REPORT

Operator ID: ERIC
Output File: ^A1408::OF
Data File: >A1408::D1
Name: 93-02451-E3
Misc: T-106 B07K00 MS

Quant Rev: 7
Quant Time: 930114 20:25
Injected at: 930114 19:37
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 6

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930114 10:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.45	683	31439	40.00	ng/uL	9
2)	2-Fluorophenol	6.78	237	187571	159.79	ng/uL	8
3)	Phenol-d5	10.56	598	228798	164.47	ng/uL	9
4)	Phenol	10.61	603	214100	132.96	ng/uL	8
6)	2-Chlorophenol	10.80	621	157737	135.54	ng/uL	9
7)	1,3-Dichlorobenzene	11.50	688	93256	73.10	ng/uL	9
8)	1,4-Dichlorobenzene	11.50	688	93256	72.57	ng/uL	9
10)	1,2-Dichlorobenzene	11.50	688	93256	77.29	ng/uL	9
14)	N-Nitroso-di-n-propylamine	12.92	823	62664	70.86	ng/uL	9
16)	*Naphthalene-d8	15.41	1061	105523	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.25	855	97566	71.21	ng/uL	9
25)	1,2,4-Trichlorobenzene	15.27	1048	69280	72.09	ng/uL	9
29)	4-Chloro-3-methylphenol	17.30	1242	142499	134.47	ng/uL	9
31)	*Acenaphthene-d10	20.69	1567	52124	40.00	ng/uL	9
36)	2-Fluorobiphenyl	18.77	1383	127501	66.90	ng/uL	9
42)	Acenaphthene	20.80	1578	117939	69.12	ng/uL	9
44)	4-Nitrophenol	21.29	1625	44236	134.19	ng/uL	8
46)	2,4-Dinitrotoluene	21.39	1634	56111	68.38	ng/uL	8
47)	Diethylphthalate	22.20	1712	1838	.786	ng/uL	9
51)	*Phenanthrene-d10	25.10	1990	91617	40.00	ng/uL	9
54)	2,4,6-Tribromophenol	23.06	1794	57809	152.53	ng/uL	9
57)	Pentachlorophenol	24.58	1940	54612	103.37	ng/uL	9
60)	Di-n-butylphthalate	27.13	2184	7269	1.94	ng/uL	9
62)	*Chrysene-d12	32.96	2741	83106	40.00	ng/uL	9
63)	Pyrene	29.37	2398	200081	62.22	ng/uL	9
64)	Terphenyl-d14	30.00	2458	142039	59.61	ng/uL	9
69)	Bis(2-Ethylhexyl)phthalate	33.39	2782	2217	.826	ng/uL	9
70)	*Perylene-d12	34.88	3115	83495	40.00	ng/uL	9
71)	Di-n-octylphthalate	35.24	2959	1859	.461	ng/uL	9

* Compound is ISTD

9613492.1730

QUANT REPORT

Operator ID: ERIC
Output File: ^A1409::OF
Data File: >A1409::D1
Name: 93-02451-E4
Misc: T-106 B07K00 MSD

Quant Rev: 7
Quant Time: 930114 21:22
Injected at: 930114 20:34
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 7

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930114 10:37

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.45	683	31771	40.00	ng/uL	97
2)	2-Fluorophenol	6.76	236	171198	144.32	ng/uL	89
3)	Phenol-d5	10.56	598	213586	151.93	ng/uL	92
4)	Phenol	10.61	603	231513	142.27	ng/uL	88
6)	2-Chlorophenol	10.80	621	165990	141.14	ng/uL	96
7)	1,3-Dichlorobenzene	11.52	689	95204	73.85	ng/uL	96
8)	1,4-Dichlorobenzene	11.52	689	95204	73.31	ng/uL	96
10)	1,2-Dichlorobenzene	11.52	689	95204	78.08	ng/uL	97
14)	N-Nitroso-di-n-propylamine	12.92	823	64360	72.02	ng/uL	92
16)	*Naphthalene-d8	15.42	1061	107199	40.00	ng/uL	99
17)	Nitrobenzene-d5	13.26	855	104400	75.01	ng/uL	93
25)	1,2,4-Trichlorobenzene	15.27	1047	71731	73.48	ng/uL	98
29)	4-Chloro-3-methylphenol	17.31	1242	153902	142.96	ng/uL	94
31)	*Acenaphthene-d10	20.70	1567	52473	40.00	ng/uL	97
36)	2-Fluorobiphenyl	18.78	1383	136457	71.13	ng/uL	98
42)	Acenaphthene	20.80	1577	122798	71.49	ng/uL	98
44)	4-Nitrophenol	21.31	1625	49039	147.77	ng/uL	83
46)	2,4-Dinitrotoluene	21.40	1634	60214	72.89	ng/uL	87
47)	Diethylphthalate	22.21	1712	1413	.600	ng/uL	95
51)	*Phenanthrene-d10	25.11	1989	93241	40.00	ng/uL	99
54)	2,4,6-Tribromophenol	23.06	1793	52044	134.93	ng/uL	99
57)	Pentachlorophenol	24.58	1939	58303	108.44	ng/uL	97
60)	Di-n-butylphthalate	27.14	2183	9108	2.39	ng/uL	98
62)	*Chrysene-d12	32.97	2740	84162	40.00	ng/uL	92
63)	Pyrene	29.38	2397	211864	65.06	ng/uL	93
64)	Terphenyl-d14	30.01	2457	153287	63.53	ng/uL	89
69)	Bis(2-Ethylhexyl)phthalate	33.40	2781	1556	.573	ng/uL	91
70)	*Perylene-d12	36.88	3114	86639	40.00	ng/uL	98
71)	Di-n-octylphthalate	35.25	2958	1529	.366	ng/uL	98

* Compound is ISTD

F03-581

QUANT REPORT

Operator ID: ERIC
Output File: ^A1503::OF
Data File: >A1503::D1
Name: 93-02437-E1
Misc: T-106 B07JZ8

Quant Rev: 7
Quant Time: 930115 15:05
Injected at: 930115 14:17
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 1

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930115 12:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.44	680	32258	40.00	ng/uL	98
2)	2-Fluorophenol	6.74	231	170765	172.89	ng/uL	90
3)	Phenol-d5	10.51	591	221088	187.63	ng/uL	95
16)	*Naphthalene-d8	15.39	1058	107739	40.00	ng/uL	99
17)	Nitrobenzene-d5	13.24	852	103080	91.41	ng/uL	91
31)	*Acenaphthene-d10	20.68	1565	52778	40.00	ng/uL	98
36)	2-Fluorobiphenyl	18.77	1382	138968	87.84	ng/uL	98
47)	Diethylphthalate	22.19	1710	1947	.989	ng/uL	92
51)	*Phenanthrene-d10	25.10	1989	92588	40.00	ng/uL	99
54)	2,4,6-Tribromophenol	23.04	1792	50688	155.32	ng/uL	99
60)	Di-n-butylphthalate	27.13	2183	10993	3.52	ng/uL	96
62)	*Chrysene-d12	32.95	2740	84428	40.00	ng/uL	92
64)	Terphenyl-d14	29.99	2457	158808	80.29	ng/uL	89
69)	Bis(2-Ethylhexyl)phthalate	33.38	2781	2024	.931	ng/uL	93
70)	*Perylene-d12	36.88	3115	86537	40.00	ng/uL	97
71)	Di-n-octylphthalate	35.25	2959	1184	.365	ng/uL	94

* Compound is ISTD

QUANT REPORT

Operator ID: ERIC
Output File: ^A1504::OF
Data File: >A1504::D1
Name: 93-02437-E2
Misc: T-106 B07JZ8 DUP

Quant Rev: 7
Quant Time: 930115 16:02
Injected at: 930115 15:14
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 2

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930115 12:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.43	679	31993	40.00	ng/uL	9
2)	2-Fluorophenol	6.73	231	152636	155.82	ng/uL	8
3)	Phenol-d5	10.50	590	199881	171.03	ng/uL	9
16)	*Naphthalene-d8	15.39	1057	105463	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.24	851	96122	87.08	ng/uL	9
31)	*Acenaphthene-d10	20.67	1563	51837	40.00	ng/uL	9
36)	2-Fluorobiphenyl	18.75	1379	129970	83.65	ng/uL	9
51)	*Phenanthrene-d10	25.09	1986	90795	40.00	ng/uL	9
54)	2,4,6-Tribromophenol	23.03	1789	40331	126.03	ng/uL	9
60)	Di-n-butylphthalate	27.12	2180	34623	11.32	ng/uL	9
62)	*Chrysene-d12	32.94	2736	84093	40.00	ng/uL	9
64)	Terphenyl-d14	29.98	2453	150769	76.53	ng/uL	8
69)	Bis(2-Ethylhexyl)phthalate	33.37	2777	1906	.881	ng/uL	9
70)	*Perylene-d12	36.86	3110	87841	40.00	ng/uL	9
71)	Di-n-octylphthalate	35.24	2955	1353	.411	ng/uL	9

* Compound is ISTD

QUANT REPORT

Operator ID: ERIC
Output File: ^A1505::OF
Data File: >A1505::D1
Name: 93-02438-E1
Misc: T-106 B07JZ9

Quant Rev: 7
Quant Time: 930115 16:58
Injected at: 930115 16:10
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 3

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930115 12:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.44	681	32668	40.00	ng/uL	9
2)	2-Fluorophenol	6.76	235	167298	167.26	ng/uL	8
3)	Phenol-d5	10.51	593	218275	182.91	ng/uL	9
16)	*Naphthalene-d8	15.39	1058	110522	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.23	852	105182	90.93	ng/uL	9
31)	*Acenaphthene-d10	20.67	1564	53553	40.00	ng/uL	9
36)	2-Fluorobiphenyl	18.76	1381	139804	87.09	ng/uL	9
47)	Diethylphthalate	22.18	1709	1015	.508	ng/uL	9
51)	*Phenanthrene-d10	25.09	1987	94894	40.00	ng/uL	9
54)	2,4,6-Tribromophenol	23.03	1790	40774	121.91	ng/uL	9
60)	Di-n-butylphthalate	27.12	2181	2271	.710	ng/uL	9
62)	*Chrysene-d12	32.95	2738	87091	40.00	ng/uL	9
64)	Terphenyl-d14	29.99	2455	158372	77.62	ng/uL	8
69)	Bis(2-Ethylhexyl)phthalate	33.38	2779	1750	.781	ng/uL	8
70)	*Perylene-d12	36.87	3112	90725	40.00	ng/uL	9
71)	Di-n-octylphthalate	35.23	2956	2162	.636	ng/uL	9

* Compound is ISTD

QUANT REPORT

Operator ID: ERIC
Output File: ^A1506::OF
Data File: >A1506::D1
Name: 93-02438-E2
Misc: T-106 B07JZ9 DUP

Quant Rev: 7
Quant Time: 930115 17:55
Injected at: 930115 17:06
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 4

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930115 12:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.44	684	32302	40.00	ng/uL	9
2)	2-Fluorophenol	6.75	237	161623	163.41	ng/uL	8
3)	Phenol-d5	10.51	596	214038	181.40	ng/uL	9
16)	*Naphthalene-d8	15.39	1061	107345	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.23	855	100448	89.40	ng/uL	9
31)	*Acenaphthene-d10	20.67	1568	52059	40.00	ng/uL	9
36)	2-Fluorobiphenyl	18.76	1384	132699	85.04	ng/uL	9
51)	*Phenanthrene-d10	25.09	1991	92273	40.00	ng/uL	9
54)	2,4,6-Tribromophenol	23.03	1794	40753	125.31	ng/uL	9
60)	Di-n-butylphthalate	27.11	2185	1449	.466	ng/uL	9
62)	*Chrysene-d12	32.95	2743	84101	40.00	ng/uL	9
64)	Terphenyl-d14	29.99	2460	151640	76.96	ng/uL	8
69)	Bis(2-Ethylhexyl)phthalate	33.38	2784	2237	1.03	ng/uL	9
70)	*Perylene-d12	36.87	3117	87833	40.00	ng/uL	9
71)	Di-n-octylphthalate	35.23	2961	1885	.573	ng/uL	9

* Compound is ISTD

QUANT REPORT

Operator ID: ERIC
Output File: ^A1507::OF
Data File: >A1507::D1
Name: 93-02241-E1
Misc: T-106 B07JZ6

Quant Rev: 7
Quant Time: 930115 18:50
Injected at: 930115 18:02
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 5

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930115 12:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.45	682	30688	40.00	ng/uL	9
2)	2-Fluorophenol	6.74	232	141899	151.02	ng/uL	8
3)	Phenol-d5	10.53	594	185917	165.85	ng/uL	9
16)	*Naphthalene-d8	15.42	1061	102927	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.26	854	78630	72.99	ng/uL	9
31)	*Acenaphthene-d10	20.71	1568	50322	40.00	ng/uL	9
36)	2-Fluorobiphenyl	18.79	1384	108988	72.26	ng/uL	9
51)	*Phenanthrene-d10	25.12	1991	90891	40.00	ng/uL	9
54)	2,4,6-Tribromophenol	23.06	1794	38984	121.69	ng/uL	9
60)	Di-n-butylphthalate	27.15	2185	1078	.352	ng/uL	9
62)	*Chrysene-d12	32.99	2744	84449	40.00	ng/uL	9
64)	Terphenyl-d14	30.02	2460	125536	63.45	ng/uL	8
69)	Bis(2-Ethylhexyl)phthalate	33.41	2785	1066	.490	ng/uL	9
70)	*Perylene-d12	36.90	3118	89007	40.00	ng/uL	9

* Compound is ISTD

QUANT REPORT

Operator ID: ERIC
Output File: ^A1508::OF
Data File: >A1508::D1
Name: 93-02241-E2
Misc: T-106 B07JZ6 DUP

Quant Rev: 7
Quant Time: 930115 19:46
Injected at: 930115 18:59
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 6

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930115 12:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.44	682	32672	40.00	ng/uL	9
2)	2-Fluorophenol	6.75	234	162109	162.05	ng/uL	8
3)	Phenol-d5	10.52	594	213157	178.60	ng/uL	9
16)	*Naphthalene-d8	15.40	1060	108677	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.24	854	115873	101.87	ng/uL	9
31)	*Acenaphthene-d10	20.68	1567	53072	40.00	ng/uL	9
36)	2-Fluorobiphenyl	18.76	1383	152906	96.12	ng/uL	9
47)	Diethylphthalate	22.19	1712	1190	.601	ng/uL	9
51)	*Phenanthrene-d10	25.09	1990	94395	40.00	ng/uL	9
54)	2,4,6-Tribromophenol	23.03	1793	40567	121.93	ng/uL	9
60)	Di-n-butylphthalate	27.12	2184	2070	.651	ng/uL	9
62)	*Chrysene-d12	32.95	2742	86136	40.00	ng/uL	9
64)	Terphenyl-d14	29.99	2459	170398	84.44	ng/uL	8
69)	Bis(2-Ethylhexyl)phthalate	33.38	2783	1404	.633	ng/uL	9
70)	*Perylene-d12	36.87	3116	88941	40.00	ng/uL	9

* Compound is ISTD

9613492.1737

QUANT REPORT

Operator ID: MANAGER
Output File: ^A3003::OF
Data File: >A3003::D1
Name: 93-02239-E1
Misc: B07JZ4, T-106

Quant Rev: 7
Quant Time: 930201 10:01
Injected at: 930129 16:46
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 1

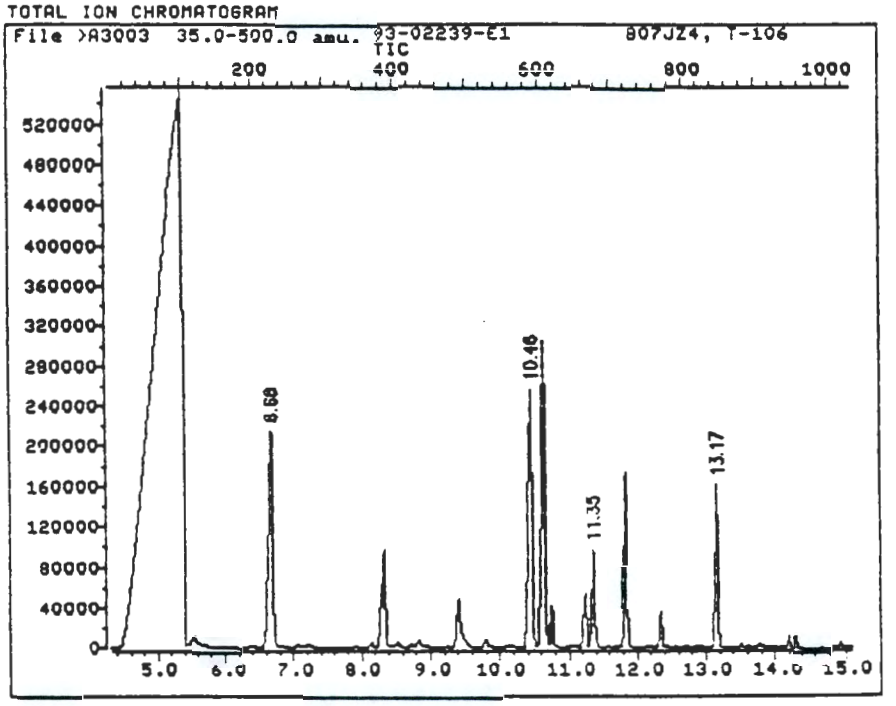
ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930129 15:50

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.35	673	39221	40.00	ng/uL	9E
2)	2-Fluorophenol	6.68	226	239754	176.74	ng/uL	9(
3)	Phenol-d5	10.46	588	308111	191.41	ng/uL	9:
16)	*Naphthalene-d8	15.32	1052	132506	40.00	ng/uL	9:
17)	Nitrobenzene-d5	13.17	846	131855	83.65	ng/uL	9.
31)	*Acenaphthene-d10	20.60	1558	64091	40.00	ng/uL	9E
36)	2-Fluorobiphenyl	18.69	1375	171450	79.20	ng/uL	9E
51)	*Phenanthrene-d10	25.01	1980	112793	40.00	ng/uL	9:
54)	2,4,6-Tribromophenol	22.97	1785	72108	160.17	ng/uL	9E
60)	Di-n-butylphthalate	27.04	2174	2862	.655	ng/uL	9E
62)	*Chrysene-d12	32.87	2727	105057	40.00	ng/uL	9:
64)	Terphenyl-d14	29.92	2447	195646	73.17	ng/uL	8:
69)	Bis(2-Ethylhexyl)phthalate	33.31	2768	3600	1.17	ng/uL	9:
70)	*Perylene-d12	36.79	3097	116780	40.00	ng/uL	9E
71)	Di-n-octylphthalate	35.16	2943	2191	.434	ng/uL	9:

* Compound is ISTD

F03-588

TOTAL ION CHROMATOGRAM



Data File: >A3003::D1
Name: 93-02239-E1
Misc: B07JZ4, T-106

Quant Output File: ^A3003::OF
Instrument ID: BNA1
BTL# 1

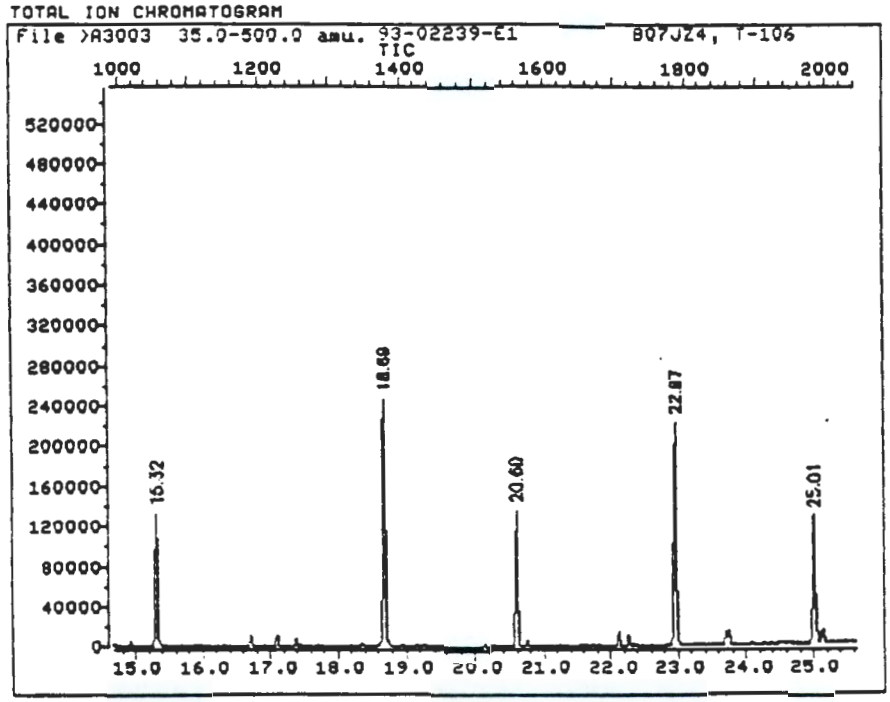
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930129 15:50

Operator ID: MANAGER
Quant Time : 930201 10:01
Injected at: 930129 16:46

Page 1 of 4

TOTAL ION CHROMATOGRAM



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Misc: 807JZ4, T-106

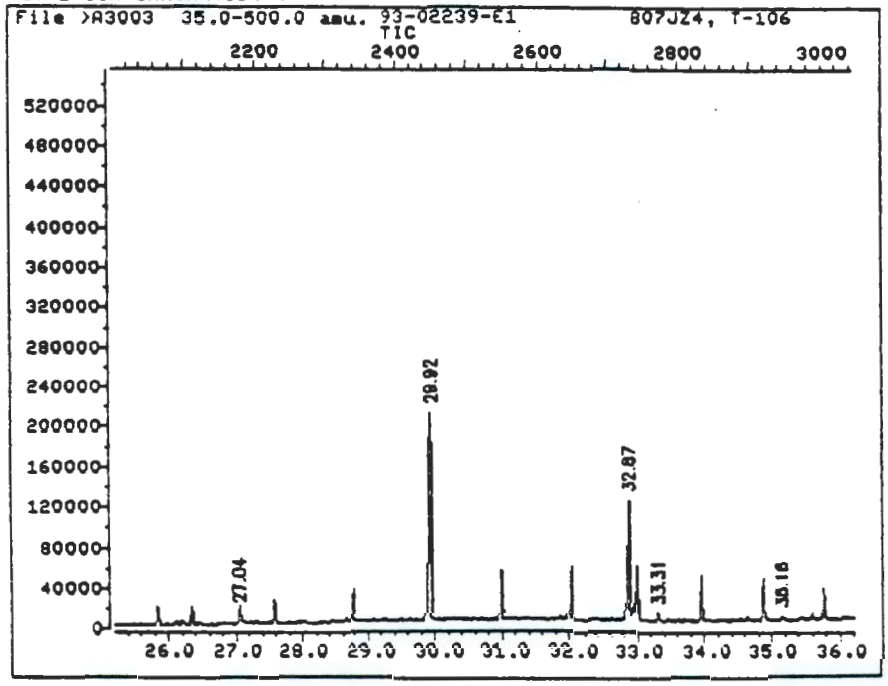
Quant Output File: ^A3003::OF
Instrument ID: BNA1
BTL# 1

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930129 15:50

Operator ID: MANAGER
Quant Time : 930201 10:01
Injected at: 930129 16:46

TOTAL ION CHROMATOGRAM



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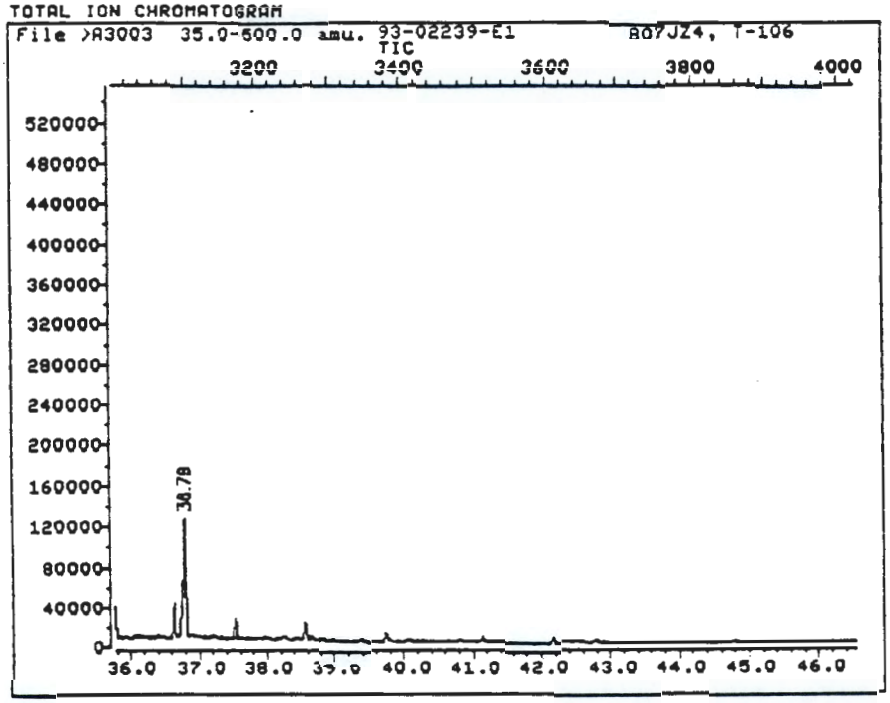
Name: 93-02239-E1 Instrument ID: BNA1
Misc: 807JZ4, T-106 BTL# 1

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930129 15:50

Operator ID: MANAGER
Quant Time : 930201 10:01
Injected at: 930129 16:46

TOTAL ION CHROMATOGRAM



Data File: >A3003::D1
Name: 93-02239-E1
Misc: B07JZ4, T-106

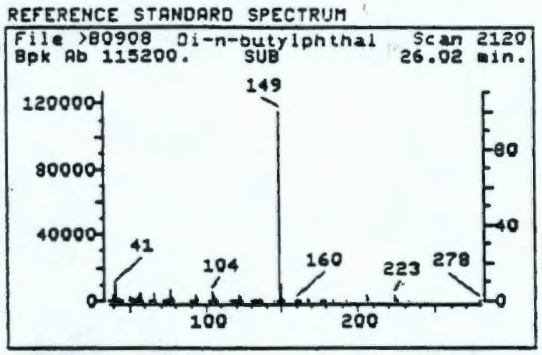
Quant Output File: ^A3003::QF
Instrument ID: BNA1
BTL# 1

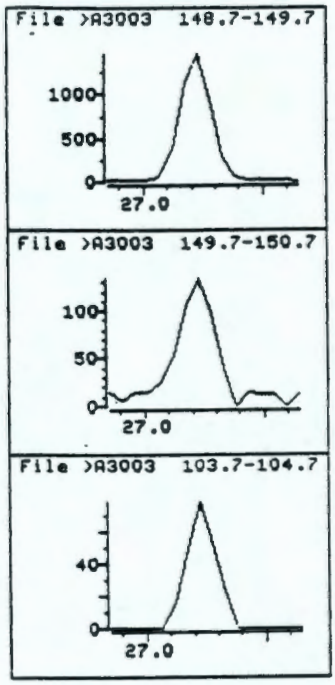
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930129 15:50

Operator ID: MANAGER
Quant Time : 930201 10:01
Injected at: 930129 16:46

REFERENCE STANDARD SPECTRUM





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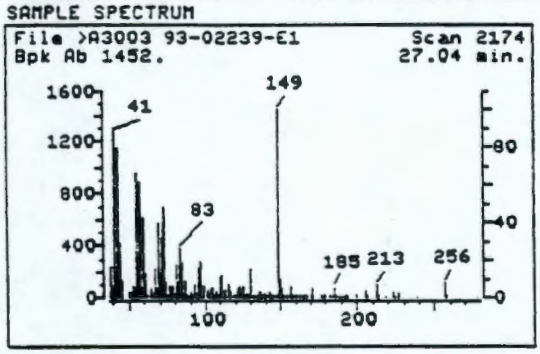

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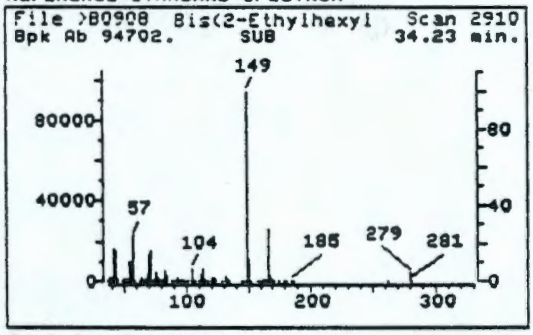
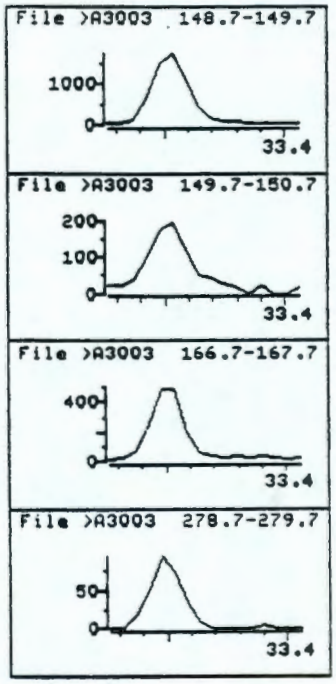
Misc: B07JZ4, T-106
Quant Time: 930201 10:01
Injected at: 930129 16:46
Last Qcal Time: 930129 15:50

Quant Output File: ^A3003::QF
Instrument ID: BNA1
BTL# 1
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2174
Retention Time: 27.04 min.
Quant Ion : 149.0
Area : 2862
Concentration : .655 ng/uL
q-value : 98

REFERENCE STANDARD SPECTRUM





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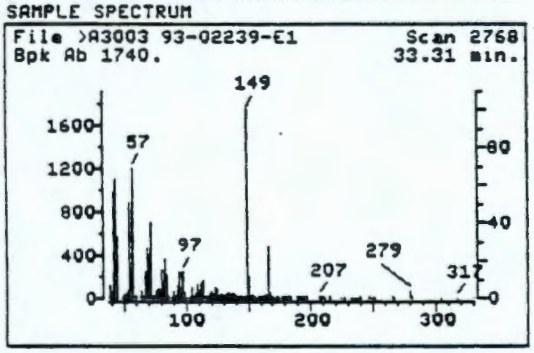

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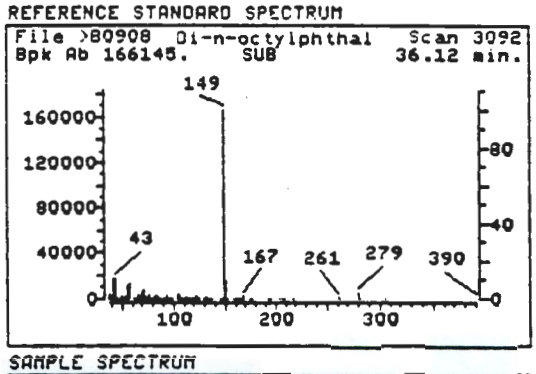
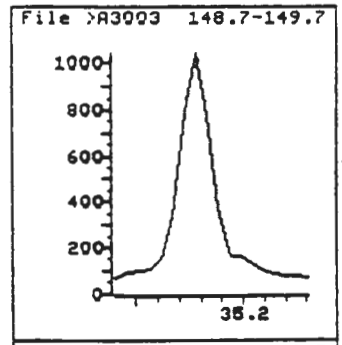
Name: 93-02239-E1
Misc: B07JZ4, T-106
Quant Time: 930201 10:01
Injected at: 930129 16:46
Last Qcal Time: 930129 15:50

Quant Output File: ^A3003::OF
Instrument ID: BNA1
BTL# 1
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2768
Retention Time: 33.31 min.
Quant Ion : 149.0
Area : 3600
Concentration : 1.17 ng/uL
q-value : 99

REFERENCE STANDARD SPECTRUM





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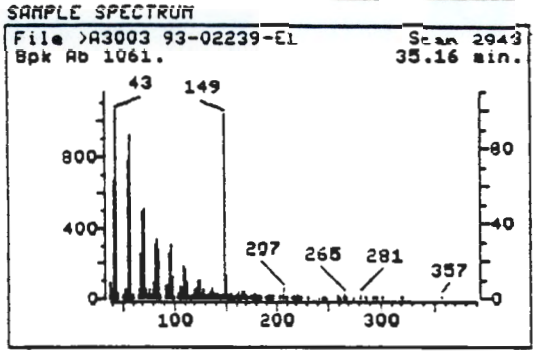

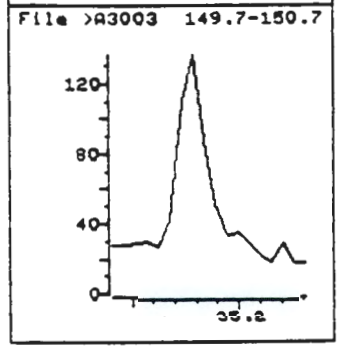

Data File: >A3003::D1
Name: 93-02239-E1
Misc: B07JZ4, T-106
Quant Time: 930201 10:01
Injected at: 930129 16:46
Last Qcal Time: 930129 15:50

Quant Output File: ^A3003::OF
Instrument ID: BNA1
BTL# 1
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 2943
Retention Time: 35.16 min.
Quant Ion : 149.0
Area : 2191
Concentration : .434 ng/uL
q-value : 91

QUANT REPORT

Operator ID: MANAGER
Output File: ^A3003::OF
Data File: >A3003::D1
Name: 93-02239-E1
Misc: B07JZ4, T-106

Quant Rev: 7
Quant Time: 930201 10:01
Injected at: 930129 16:46
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 1

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930129 15:50

	Compound	R.T.	Scan#	Area	Conc	Units	c
1)	*1,4-Dichlorobenzene-d4	11.35	673	39221	40.00	ng/uL	9
2)	2-Fluorophenol	6.68	226	239754	176.74	ng/uL	9
3)	Phenol-d5	10.46	588	308111	191.41	ng/uL	9
16)	*Naphthalene-d8	15.32	1052	132506	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.17	846	131855	83.65	ng/uL	9
31)	*Acenaphthene-d10	20.60	1558	64091	40.00	ng/uL	9
36)	2-Fluorobiphenyl	18.69	1375	171450	79.20	ng/uL	9
51)	*Phenanthrene-d10	25.01	1980	112793	40.00	ng/uL	9
54)	2,4,6-Tribromophenol	22.97	1785	72108	160.17	ng/uL	9
60)	Di-n-butylphthalate	27.04	2174	2862	.655	ng/uL	9
62)	*Chrysene-d12	32.87	2727	105057	40.00	ng/uL	9
64)	Terphenyl-d14	29.92	2447	195646	73.17	ng/uL	8
69)	Bis(2-Ethylhexyl)phthalate	33.31	2768	3600	1.17	ng/uL	9
70)	*Perylene-d12	36.79	3097	116780	40.00	ng/uL	9
71)	Di-n-octylphthalate	35.16	2943	2191	.434	ng/uL	9

* Compound is ISTD

QUANT REPORT

Operator ID: MANAGER
Output File: ^A3004::OF
Data File: >A3004::D1
Name: 93-02239-E2
Misc: B07JZ4, T-106

Quant Rev: 7
Quant Time: 930201 10:05
Injected at: 930129 17:43
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 2

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930129 15:50

	Compound	R.T.	Scan#	Area	Conc	Units	c
1)	*1,4-Dichlorobenzene-d4	11.35	678	36769	40.00	ng/uL	9
2)	2-Fluorophenol	6.67	230	182363	143.40	ng/uL	9
3)	Phenol-d5	10.44	591	241079	159.76	ng/uL	9
16)	*Naphthalene-d8	15.31	1057	123076	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.15	850	119837	81.85	ng/uL	9
31)	*Acenaphthene-d10	20.59	1563	59219	40.00	ng/uL	9
36)	2-Fluorobiphenyl	18.68	1380	157363	78.67	ng/uL	9
51)	*Phenanthrene-d10	25.00	1986	105695	40.00	ng/uL	9
54)	2,4,6-Tribromophenol	22.96	1790	53809	127.55	ng/uL	9
60)	Di-n-butylphthalate	27.04	2180	9209	2.25	ng/uL	9
62)	*Chrysene-d12	32.87	2734	98987	40.00	ng/uL	9
64)	Terphenyl-d14	29.91	2453	178600	70.89	ng/uL	8
69)	Bis(2-Ethylhexyl)phthalate	33.30	2775	3182	1.10	ng/uL	9
70)	*Perylene-d12	36.79	3105	108696	40.00	ng/uL	9
71)	Di-n-octylphthalate	35.15	2950	1834	.390	ng/uL	9

* Compound is ISTD

QUANT REPORT

Operator ID: MANAGER
Output File: ^A3005::OF
Data File: >A3005::D1
Name: 93-02240-E1
Misc: B07JZ5, T-106

Quant Rev: 7
Quant Time: 930201 10:10
Injected at: 930129 18:39
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 3

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930129 15:50

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.35	676	35773	40.00	ng/uL	9
2)	2-Fluorophenol	6.64	226	165225	133.54	ng/uL	9
3)	Phenol-d5	10.44	589	211335	143.94	ng/uL	9
16)	*Naphthalene-d8	15.30	1055	118240	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.15	848	99496	70.74	ng/uL	9
31)	*Acenaphthene-d10	20.59	1562	56224	40.00	ng/uL	9
36)	2-Fluorobiphenyl	18.67	1378	130245	68.58	ng/uL	9
47)	Diethylphthalate	22.10	1707	1332	.558	ng/uL	9
51)	*Phenanthrene-d10	25.00	1985	98811	40.00	ng/uL	9
54)	2,4,6-Tribromophenol	22.95	1788	49089	124.47	ng/uL	9
60)	Di-n-butylphthalate	27.04	2180	12060	3.15	ng/uL	9
62)	*Chrysene-d12	32.86	2737	90552	40.00	ng/uL	9
64)	Terphenyl-d14	29.90	2454	146925	63.75	ng/uL	9
69)	Bis(2-Ethylhexyl)phthalate	33.30	2779	1776	.670	ng/uL	9
70)	*Perylene-d12	36.77	3110	99774	40.00	ng/uL	9
71)	Di-n-octylphthalate	35.14	2955	1351	.313	ng/uL	9

* Compound is ISTD

QUANT REPORT

Operator ID: MANAGER
Output File: ^A3006::OF
Data File: >A3006::D1
Name: 93-02240-E2
Misc: B07JZ5, T-106

Quant Rev: 7
Quant Time: 930201 10:13
Injected at: 930129 19:35
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 4

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930129 15:50

	Compound	R.T.	Scan#	Area	Conc	Units
1)	*1,4-Dichlorobenzene-d4	11.35	665	34849	40.00	ng/uL
2)	2-Fluorophenol	6.66	217	194369	161.26	ng/uL
3)	Phenol-d5	10.46	580	257939	180.35	ng/uL
16)	*Naphthalene-d8	15.32	1045	116211	40.00	ng/uL
17)	Nitrobenzene-d5	13.16	838	112858	81.64	ng/uL
31)	*Acenaphthene-d10	20.60	1552	55922	40.00	ng/uL
36)	2-Fluorobiphenyl	18.69	1368	147831	78.26	ng/uL
47)	Diethylphthalate	22.11	1697	1024	.431	ng/uL
51)	*Phenanthrene-d10	25.01	1975	98280	40.00	ng/uL
54)	2,4,6-Tribromophenol	22.96	1778	54012	137.69	ng/uL
60)	Di-n-butylphthalate	27.05	2170	25708	6.76	ng/uL
62)	*Chrysene-d12	32.87	2727	90877	40.00	ng/uL
64)	Terphenyl-d14	29.91	2444	164922	71.30	ng/uL
69)	Bis(2-Ethylhexyl)phthalate	33.30	2768	1742	.655	ng/uL
70)	*Perylene-d12	36.78	3100	100248	40.00	ng/uL
71)	Di-n-octylphthalate	35.15	2945	1112	.256	ng/uL

* Compound is ISTD

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6 of 42

E-93-22/2978-62
WESTINGHOUSE HANFORD COMPANY
241-T-106 DATA VALIDATION
DISTRIBUTION FORM

SDG: B07J25
Case #: B07J25
Fraction: SVOA

Document Title Final QA Record

Document Number: _____ Date: 4/15/94

DISTRIBUTION					
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Project Files (1=Administrative; 2=Correspondence; 3=Source Data; 4=Technical Data)

1.1	File Index		1.6.6.3	Plans Doc. Log		3.4	Original Chemical Data	
1.2	Distribution Lists		1.6.6.4	Deliverables Doc. Log		3.5	Original Radiochemical Data	
1.3	Project Procedures		1.7	Budget				
1.4	Project Modifications		1.7.1	Downloads		4.1	Task Plan	
1.5	Staff		1.7.2	M-113s				
1.5.1	Staff Resumes		1.7.3	A-208s		4.2	Data Pkg. Completeness Verif. Checklist	
1.5.2	Staff Training		1.7.4	Budget Status		4.3	Data Valididation Calcs./Annotated DP	X
1.5.3	Auth. Former Site Employee		1.7.5	Invoices		4.4	Prelim. QA Records	
1.6	QA		1.8	Requisitions				
1.6.1	QA Manual		1.9	Meeting Minutes		4.5	Data Valid. & Qual. Summary Rpts.	
1.6.2	QA Implementation		1.10	Record of Telecon		4.5.1	Internal Drafts/Comments/Resol.	
1.6.3.1	QA Audits-Deliverables		1.11	Progress Reports		4.5.2	WHC Review Draft Comments/Resol.	
1.6.3.2	QA Audits-Files		1.12	Subcontractor (HC)		4.5.3	Final Report	
1.6.4.1	Audit Resps. - Deliverables					4.6	Weekly Status Reports	
1.6.4.2	Audit Resps. - Files		2.1	Incoming Correspondence		4.7	Weekly Management Reports	
1.6.5	QA Training		2.2	Outgoing Correspondence				
1.6.6.1	QA Manual Document Log		2.3	Internal Correspondence				
1.6.6.2	Procedure Document Log							
			3.1	Task Order				
			3.2	Sample Lists				
			3.3	Data Validation Procedures				

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WHC-SD-EN-SPP-002,Rev. 1

VAS 10/25/93

SEMI-VOLATILE ORGANIC DATA VALIDATION CHECKLIST - FORM A-2

PROJECT: 241-T-106	REVIEWER: AS	DATE: 10/25/93
LABORATORY: PNL	CASE:	SDG: B07J75
SAMPLES/MATRIX:		
~~B07J78~~ B086U2 -soil		

1. DATA PACKAGE COMPLETENESS

Review the data package for completeness and check off the items below. If any data review elements are missing contact the laboratory for submittal.

See attached verification sheet.

Data Package Item	Present?: Yes	No	N/A
Case Narrative	—	—	—
Data Summary	—	—	—
Chain-of-Custody	—	—	—
QC Summary			
Surrogate report	—	—	—
MS/MSD report	—	—	—
Blank summary report	—	—	—
GC/MS tuning report	—	—	—
Internal standard summary report	—	—	—
Sample Data			
Sample reports	—	—	—
TIC reports for each sample	—	—	—
RIC reports for all samples	—	—	—
Raw and corrected spectra for all detected results	—	—	—
Raw and corrected library search data for all reported TIC	—	—	—
Quantitation and calculation data for all TIC	—	—	—
Standards Data			
Initial calibration report	—	—	—
RIC and quantitation reports for initial calibration	—	—	—
Continuing calibration reports	—	—	—
RIC and quantitation reports for cont. calibrations	—	—	—
Internal standard summary report	—	—	—
Raw QC Data			
Tuning report, spectra and mass lists	—	—	—
Blank analysis reports	—	—	—
TIC reports for all blanks	—	—	—
RIC and quantitation reports for blanks	—	—	—
Raw and corrected spectra for all detected results in blanks	—	—	—
Raw and corrected library search data for all reported TIC	—	—	—
Quantitation and calculation data for all TIC	—	—	—
MS/MSD report forms	—	—	—

Data Package Item	Present?: Yes	No	N/A
RIC and quantitation reports for MS/MSD	—	—	—
Additional Data			
Moisture/% solids data sheets	—	—	—
Reduction formulae	—	—	—
Instrument time logs	—	—	—
Chemist notebook pages	—	—	—
Sample preparation sheets	—	—	—

2. HOLDING TIMES

Were all samples extracted within holding time?	Yes	No	N/A
Were all samples analyzed within holding time?	Yes	No	N/A

ACTION: If any holding times were exceeded, but not by greater than a factor of two, qualify associated samples as estimated (J for detects or UJ for nondetects), otherwise reject all nondetects (R) and qualify all associated detects as estimated (J).

3. INSTRUMENT CALIBRATION, TUNING AND PERFORMANCE CHECKS

3.1 GC/MS TUNING AND PERFORMANCE CHECKS

Is a DFTPP tune report present for each applicable 12h period?	Yes	No	N/A
Do all tunes on all instruments meet the tuning criteria?	Yes	No	N/A
Do all tunes on all instruments meet the expanded criteria?	Yes	No	N/A
Has the laboratory made any calculation or transciption errors?	Yes	No	N/A
Have the proper significant figures been reported?	Yes	No	N/A

ACTION: If the mass calibration is out of specification but within the expanded criteria, qualify associated data as estimated (J for detects and UJ for nondetects). If all tuning criteria are not met, qualify all associated data as unusable (R).

3.2 INITIAL CALIBRATION

Is an initial calibration report provided for all instruments? No ical raw data provided	Yes	No	N/A
Are all RSD values ≤30% (2/88 SOW)?	Yes	No	N/A
Are all RRF values ≥0.05 (2/88 SOW)?	Yes	No	N/A
Are all applicable RSD values ≤20.5% (3/90 SOW)?	Yes	No	N/A
Are all applicable RSD values ≤40% (3/90 SOW)?	Yes	No	N/A

Are all applicable RRF values within SOW limits (3/90 SOW)? Yes No N/A

Are all erratic performance compound RRF values ≥0.01 (3/90 SOW)? Yes No N/A

ACTION: With the exception of compounds that exhibit erratic performance and making allowances for up to four TCL compounds or surrogates, if any RRF value is out of specification qualify all detected results for the particular compound as estimated (J) and all nondetects as unusable (R). Making allowances for up to four TCL compounds or surrogates, if any RSD value is out of specification qualify all associated data as estimated (J for detects or UJ for nondetects).

3.3. CONTINUING CALIBRATION

Is a continuing calibration report present for all 12-h periods in which associated samples were analyzed? Yes No N/A

Are all RRF values ≥0.05 (2/88 SOW)? Yes No N/A

Are all %D values ≤25% (2/88 or 3/90 SOW)? Yes No N/A

Are all %D values ≤40% (3/90 SOW)? Yes No N/A

Are all RRF values within SOW limits (3/90 SOW)? Yes No N/A

Are all erratic performance compound RRF values ≥0.01 (3/90 SOW)? Yes No N/A

ACTION: With the exception of compounds that exhibit erratic performance and making allowances for up to four TCL compounds or surrogates, if any RRF value is out of specification qualify all associated detected results as estimated and all nondetects as unusable (R). Making allowances for up to four TCL compounds or surrogates, if any %D is out of specification, qualify all associated results as estimated (J for detects or UJ for nondetects).

4. BLANKS

4.1 LABORATORY BLANKS

Has the laboratory conducted a method blank analysis per matrix for every extraction batch? Yes No N/A

Are compounds reported in the laboratory blanks? Yes No N/A

ACTION: Qualify all sample results < 10 times the highest blank concentration for the common laboratory contaminants, as nondetects (U) or at the SQL if the result is < CRQL. Qualify all remaining sample results < 5 times the blank concentration in similar fashion.

4.2. FIELD BLANKS

Are compounds reported in the field blanks? Yes No N/A

ACTION: Qualify all detected sample results ≤ 5 times the amount in any valid field blank as nondetects (U) and note the results of the field blanks in the validation narrative.

5. ACCURACY

5.1 SURROGATE RECOVERY/SYSTEM MONITORING COMPOUND RECOVERY

Are any surrogate recoveries out of specification? Yes No N/A

Are any surrogate recoveries < 10%? Yes No N/A

Are any method blank surrogate recoveries out of specification? Yes No N/A

ACTION: Qualify all associated data as estimated (J for detects and UJ for nondetects) if at least two semivolatile surrogates are out of specification. If any surrogate is below 10% recovery qualify associated detected results as estimated (J) and associated nondetect results as unusable (R). If method blank surrogates are out of specification and associated sample surrogates are acceptable no qualification is required, however, the laboratory should be contacted for an explanation.

5.2 MATRIX SPIKE RECOVERY

Has an MS/MSD analysis been conducted per matrix in the sample group? Yes No N/A

Are MS/MSD recoveries within specification? Yes No N/A

Are there any calculation errors? Yes No N/A

ACTION: If an MS/MSD analysis has not been conducted contact the laboratory for an explanation. Review the MS/MSD recoveries in conjunction with other QC data such as surrogate recoveries and note the results in the validation narrative. If MS/MSD recoveries are out of specification and sample concentration is > 5 times the spike concentration, no qualification is required, otherwise qualify results as follows: Qualify positive results for the specific class of compound (aromatics and non-aromatics) as estimated (J) in all samples if associated surrogates are also out of specification. The qualification shall only be done on samples of similar matrix as the MS/MSD samples. If it is determined from the review that only the spiked samples are affected by low recoveries, qualify only the results for the spiked sample as described above. If it is determined from the review that out of specification MS/MSD recoveries are indicative of systematic problems in the laboratory such as sample preparation or sample-specific matrix interferences this must be noted in the validation narrative along with the potential affect on the sample results.

5.3 PERFORMANCE AUDIT SAMPLES

Are the results for the performance audit samples within the acceptance limits? Yes No N/A

ACTION: Note the results of the performance audit samples in the validation narrative.

6. PRECISION

6.1 MATRIX SPIKE/MATRIX SPIKE DUPLICATES

Are all RPD values within specification? Yes No N/A

Are there any calculation errors? Yes No N/A

ACTION: Review the MS/MSD results in conjunction with other QC data such as field duplicates and note the results in the validation narrative. If MS/MSD RPDs are out of specification and sample results are > 5xCRQL qualify positive results for the specific class of compound (aromatics and non-aromatics) as estimated (J). If it is determined from the review that out of specification MS/MSD results are indicative of systematic problems in the laboratory such as sample preparation or sample-specific matrix interferences this must be noted in the validation narrative along with the potential affect on the sample results.

6.2 FIELD DUPLICATE SAMPLES

Are field duplicate RPD values acceptable? Yes No N/A

ACTION: Note the results of the field duplicate samples in the validation narrative.

6.3 FIELD SPLIT SAMPLES

Are field split RPD values acceptable? Yes No N/A

ACTION: Note the results of the field split samples in the validation narrative.

7. SYSTEM PERFORMANCE

7.1 INTERNAL STANDARDS PERFORMANCE

Are any internal standard area counts outside the acceptance limits? Yes No N/A

Are retention times for any internal standard outside the ±30 second windows established by the most recent calibration check? Yes No N/A

ACTION: If the area counts are outside the acceptance limits qualify all associated results as estimated (J for detects and UJ for nondetects. If it is determined from the review that out of specification area counts and relative retention times are indicative of systematic problems within the laboratory the reviewer may consider rejection of all affected sample data (R).

8. COMPOUND IDENTIFICATION AND QUANTITATION

8.1 COMPOUND IDENTIFICATION

Are detected compounds within ±0.06 relative retention time units of the associated calibration standard? Yes No N/A

Are all ions at a relative intensity of ≥10% in the standard spectra present in the sample spectra? Yes No N/A

Do the relative intensities between the standard and sample spectra agree within 20%? Yes No N/A

Have all ions > 10% in the sample spectra that are not present in the standard spectra been reviewed for possible background contamination? Yes No N/A

Are molecular ions in the reference spectrum present in the sample spectrum? Yes No N/A

ACTION: If compound identification is in error and retention time and mass spectral criteria are exceeded qualify all affected positive results as unusable (R). If cross-contamination between analyses is suspected, qualify affected data as unusable (R).

8.2 REPORTED RESULTS AND QUANTITATION LIMITS

Has the laboratory used the correct RRF values and internal standards for quantitation? Yes No N/A

Are results and quantitation limits calculated properly? Yes No N/A

Has the laboratory reported the sample quantitation limits within 5xCRQL values? Yes No N/A

ACTION: If the quantitation limits are in error contact the laboratory for clarification and note in the validation narrative.

8.3 TENTATIVELY IDENTIFIED COMPOUNDS

Has the laboratory conducted a spectral library search on all candidate TIC peaks in accordance with the analytical SOW? Yes No N/A

Has the laboratory properly identified and coded all TIC? Yes No N/A

ACTION: If the laboratory has failed to search the minimum number of TIC peaks in the chromatogram contact the laboratory for submittal of the required data. Qualify as nondetects (U) all TIC compounds present in samples and blanks using the review criteria specified in the validation requirements. If TIC identification is in error sample results should be qualified as nondetects (U) or unusable (R). If TIC identifications are judged valid, qualify the results as presumptive and estimated (JN).

9. OVERALL ASSESSMENT AND SUMMARY

Has the laboratory conducted the analysis in accordance with the analytical SOW?	Yes	No	N/A
Were project specific data quality objectives met for this analysis?	Yes	No	N/A

ACTION: Summarize all the data qualifications and complete the data validation narrative as specified in Section 10.0 of the data validation requirements.

COMMENTS (attach additional sheets as necessary):

HOLDING TIME SUMMARY

SDG: B07JZ5	VALIDATOR: AS	DATE: 10/25/93	PAGE 1 OF 8
COMMENTS:			

FIELD SAMPLE ID	ANALYSIS TYPE	DATE SAMPLED	DATE PREPARED	DATE ANALYZED	PREP. HOLDING TIME, DAYS	ANALYSIS HOLDING TIME, DAYS	QUALIFIER
B08612	B1VA	3/17/93	3/17/93	3/18/93	1	1	—

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CALIBRATION DATA SUMMARY

SDG: B07JZ5	VALIDATOR: AS	DATE: 10/28/93	PAGE 2 OF 8
COMMENTS:			
CALIB. TYPE:	INITIAL / CONTINUING	INSTRUMENT:	

CALIB. DATE	COMPOUND	RF	RSD/%D/%R	SAMPLES AFFECTED	QUALIFIER
11/5/92	All %RSD and RRF		—	—	—
	acceptable		—	—	—
GC/MS Tuning	3/18/93		—	—	—
	All tuning criteria met				
	Note: No Ical tuning data were		submitted		
12:15 Ccal 3/18/93	bis(2-chloroisopropyl)ether		44.5%	B086V2	~~J~~ J(+)
	N-nitroso-di-n-propylamine		34.9%	B086V2	~~J~~ J(+)
			None of those were detected then		
			no qualifiers were assigned		
					Qual were assigned
				based upon 2/88 WHC	Guideline
					AS 1/26/94

BLANK AND SAMPLE DATA SUMMARY

SDG: B07J25 | VALIDATOR: AS | DATE: 10/25/93 | PAGE 3 OF 8

COMMENTS:

SAMPLE ID	COMPOUND	RESULT	Q	RT	UNITS	5X RESULT	10X RESULT	SAMPLES AFFECTED	QUALIFIER
3/18/93 SBLK17	Diethylphthalate	14					140	B086U2	U at CRQL
	Di-n-butylphthalate	19					190	↓	↓
	Di-n-octylphthalate	46					460	↓	↓
	2-pentanone, 4-hydroxy-4-met			9.8	000	490,000		B086U2	U
	Ethane, 1,1,2,2-tetrachloro			2.80		1400		B086U2	U
	All other TICs were qualified as "JN".							B086U2	JN

ACCURACY DATA SUMMARY

SDG: B07J25	VALIDATOR: AS	DATE: 10/25/93	PAGE 4 OF 2	
COMMENTS:				
SAMPLE ID	COMPOUND	% RECOVERY	SAMPLE(S) AFFECTED	QUALIFIER REQUIRED
All surrogate recoveries acceptable	58 - 86%	—	—	—
				—
All MS/MSD Recoveries acceptable	65 - 73%	—	—	

PRECISION DATA SUMMARY

SDG: B07J25	VALIDATOR: As	DATE: 10/25/13	PAGE 5 OF 8

COMMENTS:

COMPOUND	SAMPLE ID:	SAMPLE ID:	RPD	SAMPLES AFFECTED	QUALIFIER
All MS/MSD RPDs acceptable	2-	10 %	—	—	—

96134922-1262

CALCULATION SUMMARY

SDG:	REVIEWER:	DATE:	PAGE 6 OF 8

COMMENTS:

See calc sheet

9613492.1764

TELEPHONE CONTACT SUMMARY

VALIDATOR:	DATE:	TIME:	PAGE 7 OF 8
COMPANY:			
ADDRESS:			
PERSON CONTACTED:			
TELEPHONE:		FAX:	
PROJECT/CASE/SDG:			
REMARKS:			
ACTION:			

DATA QUALIFICATION SUMMARY

SDG: B07J85	VALIDATOR: AS	DATE: 10/25/93	PAGE 8 OF 8
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
Diethylphthalate	U at CRQL	B086U2	Blank contamination
Di-n-butylphthalate	↓	↓	↓
Di-n-octylphthalate	↓	↓	↓
~~bis-2-ethylhexylphthalate~~	~~J~~	~~B086U2~~	~~Below CRQL.~~ AS 10/25/94
bis(2-chloroisopropyl)ether	UJ	B086U2	Ccal % D exceeded
N-nitroso-di-n-propylamine	UJ	B086U2	"

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Calculations

HARTCROWSER

Page 1 of 1

Job No. 2978-62

Project WHC

Date 10/25/93

Calculations for GC/MS Tuning + calcs.

Made by AK

3/18/93

m/z

51 = 48.91 ✓

199 = 6.952 ✓

443 = 18.529/92.955 = 19.9% ✓

B086V2 - Surrogate Recoveries

NBZ = 29.23/50 = 58% ✓

FBP = 31.24/50 = 62% ✓

TPH = 34.49/50 = 69% ✓

PHL = 77.04/100 = 77% ✓

2FP = 67.76/100 = 67% ✓

TBP = 80.28/100 = 80% ✓

MS/MSD

MS: Phenol = 4790/6600 = 73% ✓

Pentachlorophenol: 4450/6600 = 67% ✓

MSD: 2-Chlorophenol = 4320/6360 = 68% ✓

Acenaphthene = 2020/3180 = 64% ✓

B086V2: RRT.

Di-n-butylphthalate: $\frac{27.67}{25.61} = 1.08$

Bis (2-Ethylhexyl) phthalate: $\frac{34.10}{33.73} = 1.01$

Di-n-octylphthalate: $\frac{31.00}{37.95} = .948$

Local

$\frac{27.71}{25.63} = 1.08$

$\frac{34.12}{33.76} = 1.01$

$\frac{36.02}{37.87} = .948$

B086V2

Di-n-butylphthalate = $\frac{3127(40)(1000)}{119708(32)(.953)(1.74)} = \frac{125080000}{6380034} = 19.6$

Bis(2-ethylhexyl)phthalate = $\frac{3861(40)(1000)}{108742(32)(.99)(1.29)} = \frac{154440000}{4286870} = 36.02$

Di-n-octylphthalate = $\frac{1951(40)(1000)}{116281(32)(.955)(2.04)} = \frac{78040000}{7174612} = 10.87$ ✓

Recycled Paper

9613492.1767

Calculations

HARTCROWSER

Page 1 of 1

Job No. 2978-62

Project WHC

Date 11/29/93

Calculations for

Made by AS

GC/MS Tuning 11/4/92

m/z 51 = 44.978/100 = 44.978 %

m/z 199 = 6.828/100 = 6.828 %

m/z 443 = 19.240/78.022 = 19.33 %

11/5/92

	50	120	160
Phenol	$\frac{33558}{15860}\left(\frac{40}{50}\right) = 1.693$	$\frac{64457}{12626}(.333) = 1.702$	$\frac{96813}{13505}(.25) = 1.792$
Naphthalene	$\frac{67076}{57091}(.8) = 1.0503$	$\frac{126141}{41104}(.333) = 1.023$	$\frac{167825}{43253}(.25) = .970$
Fluorene	$\frac{42937}{25081}(.8) = 1.3695$	$\frac{86622}{19766}(.333) = 1.360$	$\frac{187318}{20904}(.25) = \cancel{2.240}\ 1.283$
Chrysene	$\frac{57043}{37106}(.8) = 1.2298$	$\frac{104070}{28173}(.333) = 1.233$	$\frac{125641}{26291}(.25) = 1.195$

Recycled Paper

9613492.1768

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Instrument ID: BNA1 Calibration Date(s): 11/05/92 ---- 11/4/92

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 =>KO408 RRF50 =>KO407
RRF80 =>KO409 RRF120=>KO410 RRF160=>KO411

COMPOUND		RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol	*	1.760	1.693	1.739	1.702	1.792	1.737	2.4*
bis(2-Chloroethyl)ether		1.586	1.486	1.526	1.470	1.378	1.489	5.2
2-Chlorophenol		1.447	1.352	1.393	1.332	1.255	1.356	5.3
1,3-Dichlorobenzene		1.616	1.523	1.586	1.496	1.416	1.527	5.1
1,4-Dichlorobenzene	*	1.642	1.545	1.616	1.519	1.424	1.549	5.5*
Benzyl alcohol		.828	.847	.879	.862	.852	.854	2.2
1,2-Dichlorobenzene		1.580	1.475	1.517	1.422	1.299	1.458	7.3
2-Methylphenol		1.177	1.140	1.164	1.128	1.080	1.138	3.3
bis(2-chloroisopropyl)ether		1.682	1.730	1.705	1.765	1.810	1.738	2.9
4-Methylphenol		1.294	1.217	1.224	1.129	1.035	1.180	8.5
N-Nitroso-di-n-propylamine	#	.860	.895	.890	.872	.838	.871	2.6#
Hexachloroethane		.743	.687	.709	.627	.563	.666	10.7
Nitrobenzene		.488	.469	.480	.473	.465	.475	1.9
Isophorone		.911	.892	.912	.922	.909	.909	1.2
2-Nitrophenol	*	.248	.253	.259	.256	.253	.253	1.6*
2,4-Dimethylphenol		.328	.316	.325	.321	.319	.322	1.5
Benzoic acid		0.000	.256	.284	.281	.283	.276	5.0
bis(2-Chloroethoxy)methane		.548	.541	.551	.543	.540	.544	.9
2,4-Dichlorophenol	*	.361	.350	.359	.352	.347	.354	1.7*
1,2,4-Trichlorobenzene		.399	.374	.386	.366	.352	.375	4.8
Naphthalene		1.122	1.050	1.072	1.023	.970	1.047	5.4
4-Chloroaniline		.466	.474	.483	.477	.471	.474	1.4
Hexachlorobutadiene	*	.233	.217	.224	.211	.202	.217	5.5*
4-Chloro-3-methylphenol	*	.369	.360	.368	.357	.352	.361	2.1*
2-Methylnaphthalene		.715	.666	.678	.639	.607	.661	6.2
Hexachlorocyclopentadiene	#	.534	.555	.578	.557	.533	.551	3.4#
2,4,6-Trichlorophenol	*	.507	.495	.527	.533	.555	.524	4.5*
2,4,5-Trichlorophenol		0.000	.537	.550	.526	.469	.521	6.8
2-Chloronaphthalene		1.391	1.319	1.363	1.309	1.244	1.325	4.2
2-Nitroaniline		0.000	.547	.566	.582	.582	.569	2.9
Dimethylphthalate		1.647	1.604	1.679	1.603	1.432	1.593	6.0
Acenaphthylene		2.152	2.063	2.114	1.986	1.848	2.033	5.9
2,6-Dinitrotoluene		.414	.418	.428	.424	.396	.416	2.9
3-Nitroaniline		0.000	.448	.469	.475	.401	.448	7.5
Acenaphthene	*	1.293	1.227	1.272	1.223	1.163	1.235	4.1*
2,4-Dinitrophenol	#	0.000	.312	.329	.326	.296	.316	4.8#
4-Nitrophenol	#	0.000	.253	.265	.239	.196	.238	12.7#

FORM VI SV-1 1/87 Rev. 10/25/87

FO2-628

9613492.1769

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Instrument ID: BNA1 Calibration Date(s): 11/05/92 ----

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 =>KO408 RRF50 =>KO407
RRF80 =>KO409 RRF120=>KO410 RRF160=>KO411

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Dibenzofuran	1.867	1.765	1.806	1.706	1.610	1.751	5.6
2,4-Dinitrotoluene	.585	.605	.633	.610	.544	.595	5.6
Diethylphthalate	1.717	1.688	1.744	1.580	1.317	1.609	10.9
4-Chlorophenyl-phenylether	.725	.692	.714	.688	.654	.695	4.0
Fluorene	1.445	1.369	1.405	1.360	1.283	1.373	4.4
4-Nitroaniline	0.000	.478	.494	.483	.426	.470	6.4
4,6-Dinitro-2-methylphenol	0.000	.212	.213	.207	.206	.209	1.9
N-Nitrosodiphenylamine (1) *	.554	.524	.532	.516	.461	.517	6.7*
4-Bromophenyl-phenylether	.256	.241	.245	.234	.221	.239	5.4
Hexachlorobenzene	.349	.330	.336	.323	.371	.342	5.5
Pentachlorophenol *	0.000	.221	.228	.217	.214	.220	2.8*
Phenanthrene	1.134	1.043	1.071	1.044	1.031	1.065	3.9
Anthracene	1.166	1.062	1.058	.970	.950	1.041	8.3
Di-n-butylphthalate	1.615	1.514	1.524	1.415	1.423	1.498	5.5
Fluoranthene *	1.194	1.109	1.082	1.018	1.013	1.083	6.9*
Pyrene	1.398	1.381	1.422	1.368	1.320	1.378	2.8
Butylbenzylphthalate	.714	.793	.830	.815	.814	.793	5.8
3,3'-Dichlorobenzidine	.368	.416	.442	.458	.465	.430	9.1
Benzo(a)anthracene	1.241	1.247	1.281	1.273	1.246	1.258	1.4
Chrysene	1.254	1.230	1.259	1.231	1.195	1.234	2.1
bis(2-Ethylhexyl)phthalate	1.054	1.135	1.191	1.149	1.125	1.131	4.4
Di-n-octylphthalate *	1.651	1.740	1.803	1.675	1.568	1.687	5.3*
Benzo(b)fluoranthene	1.209	1.141	1.226	1.197	1.200	1.194	2.7
Benzo(k)fluoranthene	1.260	1.158	1.118	.995	.923	1.091	12.2
Benzo(a)pyrene *	1.150	1.101	1.109	1.072	1.040	1.094	3.8*
Indeno(1,2,3-cd)pyrene	1.322	1.315	1.354	1.348	1.354	1.339	1.4
Dibenz(a,h)anthracene	1.014	1.061	1.089	1.069	1.046	1.056	2.7
Benzo(g,h,i)perylene	1.157	1.130	1.175	1.169	1.175	1.161	1.6
Nitrobenzene-d5	.476	.467	.481	.477	.465	.473	1.4
2-Fluorobiphenyl	1.507	1.408	1.443	1.386	1.318	1.413	4.9
Terphenyl-d14	1.036	1.024	1.044	1.028	1.006	1.028	1.4
Phenol-d5	1.645	1.592	1.641	1.600	1.540	1.603	2.7
2-Fluorophenol	1.360	1.337	1.406	1.385	1.334	1.365	2.3
2,4,6-Tribromophenol	.167	.170	.169	.169	.170	.169	.7

(1) Cannot be separated from Diphenylamine

HK 10/25/92

FORM VI SV-2 1/87 Rev.

	Lab ID	Date File	Sample Std ID	Sample Wt or Vol	Dil	ISTD's x 10^-5 1	2	3	4	5
13S 7/92	DFTPP	>J2701	DFTPP - passed							
		>J2702	50 ppm	52901-42-11						
		3	20	12						
		4	80	13						
		5	120	14						
		6	160	15						
		7	50	16						
		8	20	17						
		9	80	18						
		10	120	19						
12/1/92		>J2711	160	20						
1/4/92		>K0401	DFTPP - passed							
		2	50 ppm	52901-42-23						
		3	20	24						
		4	80	25						
		5	120	26						
		6	160	27						
		7	50 *	28						
		8	20 *	29						
		9	80 *	30						
		10	120 *	31						
11/5/92		11	160 *	32						
1/6/92		>K0601	DFTPP tune check passed							
		2	Cont. Calib - passed	52901-42-33						
	93-00895	3	method Blank							
	"	4	Q31/93 PE 0020962							
	"	5	" " 0020982							
	"	6	" " 0020962		x2					
		7	" " 0020982		x2					
		8	" " 0020962 - Acid fraction							
		9	" " 0020962 - B/N fraction							
		10	" " water MS							
		11	" " " MSD							
		>L2101	DFTPP - passed							
		>L2102	Continuing Calib - passed	52901-46-3		55	182	83	149	111
		>L2103	METHOD BLANK			47	155	74	127	109
		>L2104	93-1326E1 / C112			43	139	66	111	93
		>L2105	93-1326E2 / C112			41	137	64	111	94

11/29/93

Project No. _____ Date of Work _____

Entered By _____ Date _____

Disclosed To and Understood By

Signed 1. _____ Date _____

2. _____ Date _____

9613492.1771

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

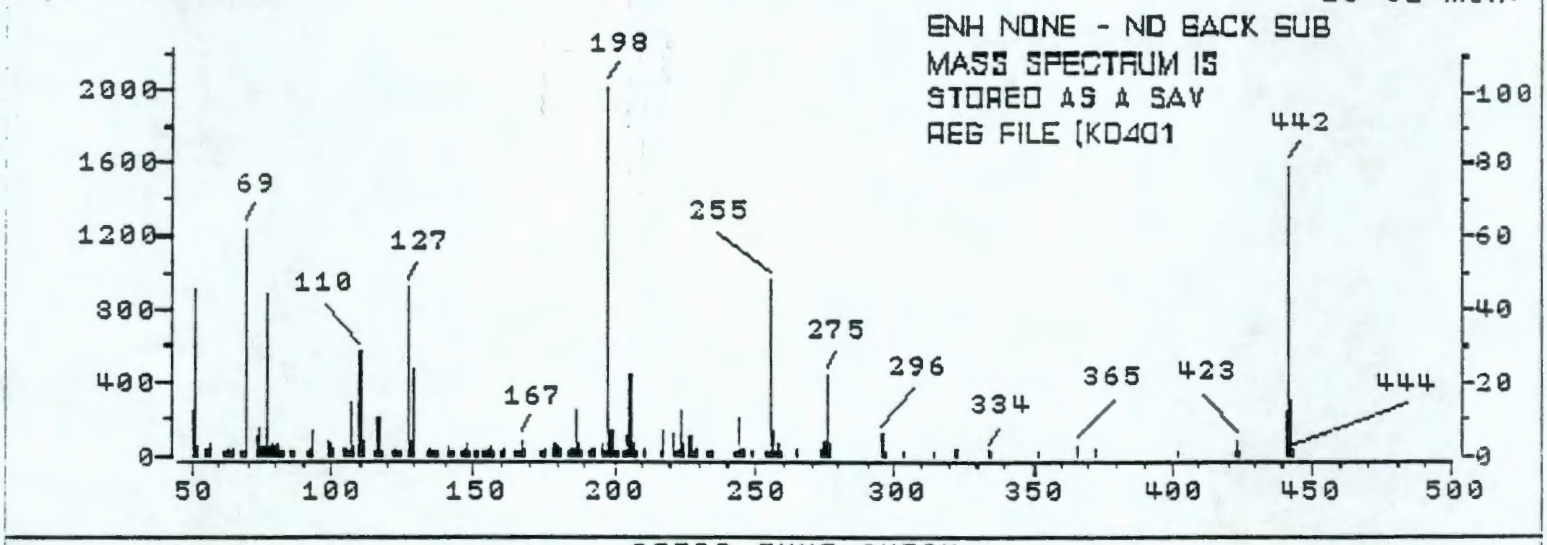
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	44.98	44.98	Ok
68	Less than 2% of mass 69	1.04	1.70	Ok
69	(reference only)	61.16	61.16	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	45.92	45.92	Ok
197	Less than 1% of mass 198	.54	.54	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.83	6.83	Ok
275	10-30% of mass 198	21.82	21.82	Ok
365	Greater than 1% of mass 198	2.42	2.42	Ok
441	0-100% of mass 443	12.17	79.87	Ok
442	Greater than 40% of mass 198	78.82	78.82	Ok
443	17-23% of mass 442	15.24	19.33	Ok

Injection Date: 11/04/92
Injection Time: 09:25
Data File: >K0401
Scan: 1138

AB
11/24/93

9613492.1772

File >K0401 DFTPP TUNE CHECK Scan 1138
Bpk Ab 2021. 16.81 min.



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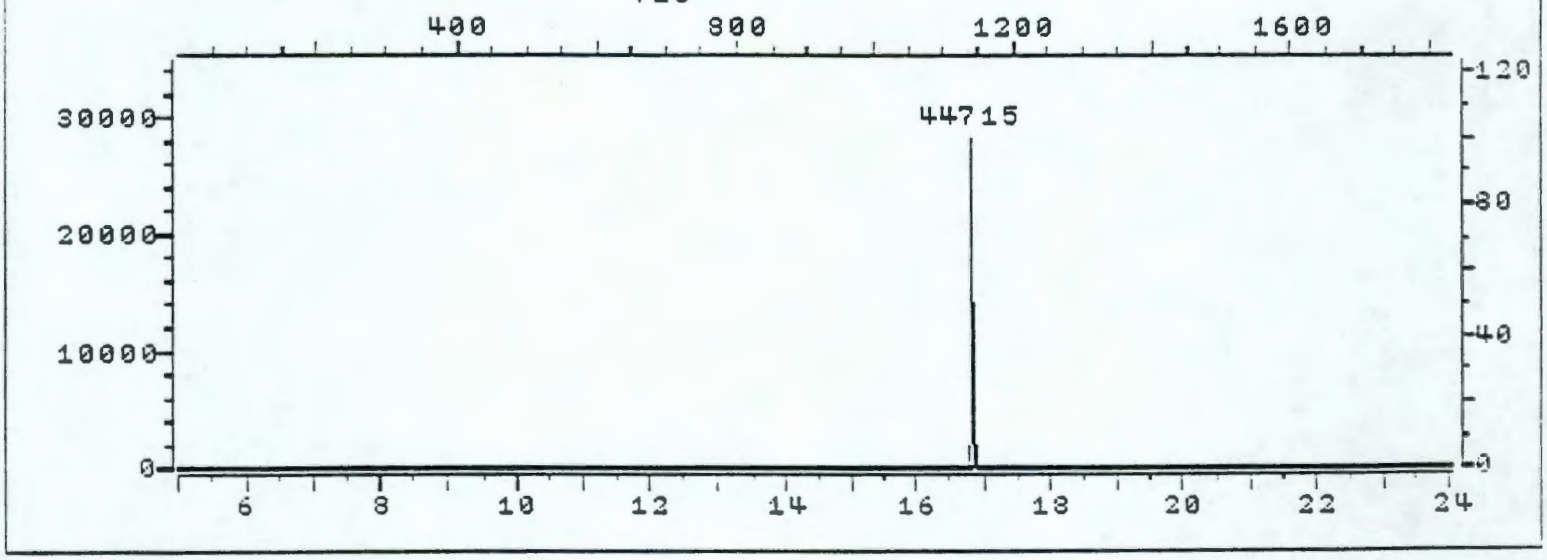
TIC



11/21/92

9613492.1773

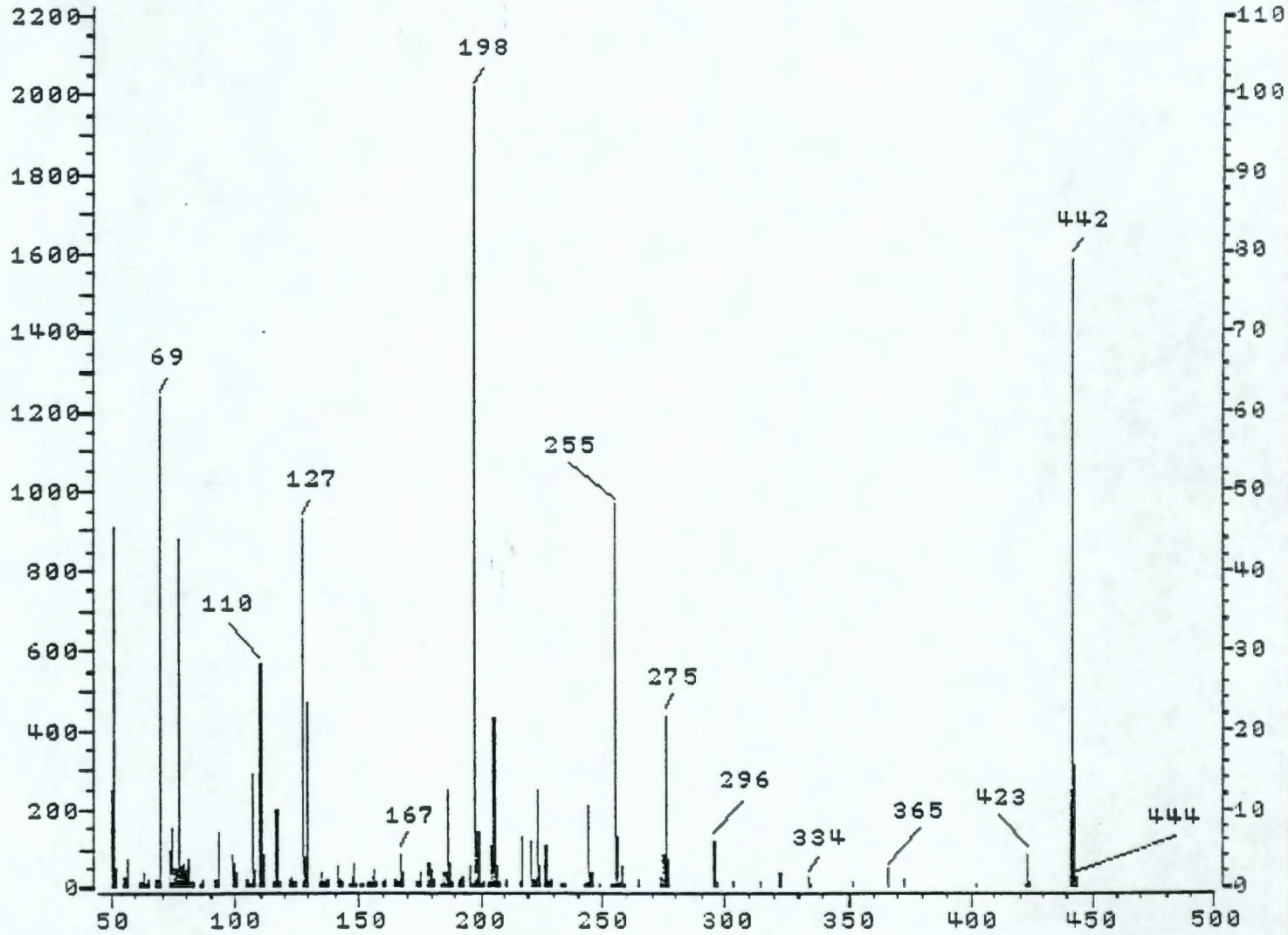
Instrument ID: BNA1 Analyzed on: 11/04/92 9:25

9613492.1774

File >K0401
BpK Ab 2021.

DFTPP TUNE CHECK

Scan 1138
16.81 min.



JAS
11/24/93

9613492.1775

Instrument ID: BNA1 Analyzed on: 11/04/92 9:25

AS
11/20/92

9613492.1776

>K0401 DFTPP TUNE CHECK
1138 NRM

File: >K0401 Scan #: 1138 Retn. time: 16.81

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.10	.693	101.00	1.732	153.10	.792	199.00	6.828	254.10	.297
39.00	3.266	104.00	1.138	154.00	.792	200.10	.544	255.00	48.046
44.00	.792	105.00	1.188	155.00	1.534	201.40	.742	256.00	6.531
50.00	12.172	105.90	.445	156.00	2.227	203.00	.792	257.00	.643
51.10	44.978	107.00	14.151	157.10	.594	204.10	2.771	258.00	2.771
52.00	2.474	108.00	1.979	160.00	.693	205.00	5.146	259.00	.445
56.00	1.385	110.00	28.006	161.00	1.188	206.10	21.277	265.10	1.089
57.00	3.513	111.00	4.206	165.10	.990	207.00	2.820	273.00	1.583
62.00	.891	116.00	.891	166.00	.742	208.00	.643	274.00	4.008
63.10	1.781	117.00	10.045	167.00	4.206	211.00	1.138	275.00	21.821
63.80	.396	117.90	.841	168.00	1.732	215.90	.594	276.00	3.414
65.10	1.138	121.90	.940	173.00	.891	216.10	.594	277.00	1.831
68.10	1.039	123.00	1.583	174.10	.841	217.00	6.531	296.10	5.987
69.00	61.158	124.00	.643	175.10	1.682	217.90	.544	297.00	.841
74.00	4.750	127.00	45.918	175.90	.396	221.00	5.888	303.00	.792
75.00	7.521	128.00	3.711	176.10	.445	221.90	1.039	315.10	.594
76.00	2.524	129.00	23.256	179.00	3.018	223.00	1.534	323.10	1.732
77.00	43.543	130.00	1.880	180.10	2.276	224.00	12.172	334.10	1.336
78.10	2.622	134.00	.792	181.00	1.089	225.10	2.870	335.00	.346
79.00	2.969	135.00	1.831	183.90	.396	227.00	5.146	352.10	.643
80.00	2.128	136.10	.693	185.00	1.831	228.00	.594	365.00	2.425
81.00	3.464	137.10	.940	186.00	12.370	229.00	1.089	372.10	1.138
82.00	.643	141.00	2.672	187.10	3.117	233.90	.544	402.00	.346
85.10	.544	142.00	.940	188.10	.346	235.00	.396	422.00	.445
86.10	1.039	143.00	.742	188.90	.643	242.00	.544	423.10	4.156
87.00	.594	146.00	.495	192.00	.990	243.10	.693	424.10	.792
90.90	.940	147.10	1.385	193.00	1.385	244.10	10.242	441.10	12.172
92.00	1.138	148.00	2.969	196.00	2.771	245.10	1.682	442.10	78.822
93.00	6.680	149.00	.495	196.70	.544	246.00	1.781	443.10	15.240
98.00	4.057	150.90	.346	198.00	100.000	249.10	.346	444.10	1.385
99.00	3.216	151.10	.346						

Instrument ID: BNA1 Analyzed on: 11/04/92 9:25

AS
11/29/93

9613492.1777

QUANT REPORT

Operator ID: BOB
Output File: ^K0407::OF
Data File: >K0407::D1
Name: 50 PPM INIT CALIB
Misc:

Quant Rev: 7
Quant Time: 921104 15:37
Injected at: 921104 14:50
Dilution Factor: 1.00000
Instrument ID: BNA1
STL# 6

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Date: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.23	667	15860	40.00	ng/uL	9
2)	2-Fluorophenol	6.29	193	26513	66.88	ng/uL	9
3)	Phenol-d5	10.28	576	31557	61.12	ng/uL	9
4)	Phenol	10.32	580	33558	55.22	ng/uL	8
5)	bis(2-Chloroethyl)ether	10.55	602	29450	50.15	ng/uL	9
6)	2-Chlorophenol	10.53	600	26795	58.86	ng/uL	9
7)	1,3-Dichlorobenzene	11.02	647	30195	60.75	ng/uL	9
8)	1,4-Dichlorobenzene	11.29	673	30635	62.57	ng/uL	9
9)	Benzyl alcohol	11.82	724	16784	57.09	ng/uL	9
10)	1,2-Dichlorobenzene	11.75	717	29240	61.18	ng/uL	9
11)	2-Methylphenol	12.26	766	22594	55.65	ng/uL	9
12)	bis(2-Chloroisopropyl)ether	12.31	771	34297	31.94	ng/uL	9
13)	4-Methylphenol	12.77	815	24135	58.03	ng/uL	9
14)	N-Nitroso-di-n-propylamine	12.73	811	17741	63.99	ng/uL	8
15)	Hexachloroethane	12.80	818	13623	60.33	ng/uL	9
16)	*Naphthalene-d8	15.21	1049	51091	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.04	841	29818	55.96	ng/uL	9
18)	Nitrobenzene	13.11	847	29939	54.72	ng/uL	8
19)	Isophorone	13.92	925	56982	51.87	ng/uL	9
20)	2-Nitrophenol	14.09	941	16165	63.35	ng/uL	8
21)	2,4-Dimethylphenol	14.39	970	20165	58.17	ng/uL	9
22)	Benzoic acid	14.98	1027	16333	58.38	ng/uL	9
23)	bis(2-Chloroethoxy)methane	14.69	999	34558	52.36	ng/uL	9
24)	2,4-Dichlorophenol	14.85	1014	22379	62.91	ng/uL	9
25)	1,2,4-Trichlorobenzene	15.07	1035	23862	62.87	ng/uL	9
26)	Naphthalene	15.27	1055	67076	65.49	ng/uL	9
27)	4-Chloroaniline	15.52	1079	30278	75.17	ng/uL	9
28)	Hexachlorobutadiene	15.72	1098	13843	57.66	ng/uL	9
29)	4-Chloro-3-methylphenol	17.09	1229	22975	53.21	ng/uL	9
30)	2-Methylnaphthalene	17.39	1258	42547	62.63	ng/uL	9
31)	*Acenaphthene-d10	20.47	1554	25081	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	17.88	1305	17397	94.55	ng/uL	9
33)	2,4,6-Trichlorophenol	18.28	1343	15523	64.32	ng/uL	9
34)	2,4,5-Trichlorophenol	18.36	1351	16842	64.52	ng/uL	9
35)	2-Chloronaphthalene	18.83	1396	41346	66.58	ng/uL	9
36)	2-Fluorobiphenyl	18.56	1370	44159	64.75	ng/uL	9
37)	2-Nitroaniline	19.20	1432	17160	49.19	ng/uL	9
38)	Dimethylphthalate	19.88	1497	50285	62.86	ng/uL	9
39)	Acenaphthylene	20.04	1512	64679	69.98	ng/uL	9
40)	2,6-Dinitrotoluene	20.01	1509	13110	58.49	ng/uL	8
41)	3-Nitroaniline	20.45	1552	14032	102.03	ng/uL	9
42)	Acenaphthene	20.58	1564	38451	63.74	ng/uL	9

9613492.1778

QUANT REPORT

Operator ID: BOB
Output File: ^K0407::OF
Data File: >K0407::D1
Name: 50 PPM INIT CALIB
Misc:

Quant Rev: 7
Quant Time: 921104 15:37
Injected at: 921104 14:50
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 6

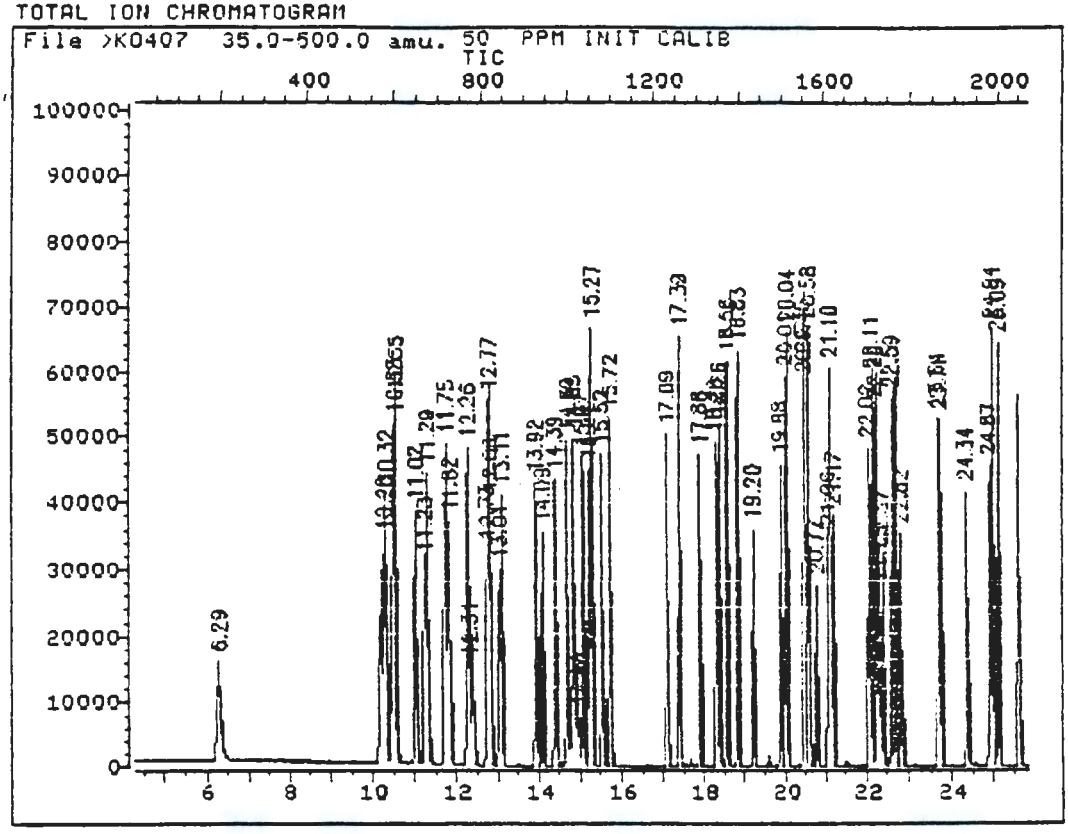
ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Time: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units	
41)	3-Nitroaniline	20.45	1552	14032	102.03	ng/uL	
42)	Acenaphthene	20.58	1564	38451	63.74	ng/uL	
43)	2,4-Dinitrophenol	20.77	1582	9771	125.54	ng/uL	
44)	4-Nitrophenol	21.06	1610	7942	70.98	ng/uL	
45)	Dibenzofuran	21.10	1614	55329	63.97	ng/uL	
46)	2,4-Dinitrotoluene	21.17	1621	18977	60.59	ng/uL	
47)	Diethylphthalate	22.02	1702	52931	60.42	ng/uL	
48)	4-Chlorophenyl-phenylether	22.20	1720	21710	62.12	ng/uL	
49)	Fluorene	22.11	1711	42937	63.65	ng/uL	
50)	4-Nitroaniline	22.29	1728	14985	354.47	ng/uL	
51)	*Phenanthrene-d10	24.87	1976	44987	40.00	ng/uL	
52)	4,6-Dinitro-2-methylphenol	22.37	1736	11907	92.47	ng/uL	
53)	N-Nitrosodiphenylamine	22.59	1757	29447	59.33	ng/uL	
54)	2,4,6-Tribromophenol	22.82	1779	9584	54.09	ng/uL	
55)	4-Bromophenyl-phenylether	23.64	1858	13538	52.50	ng/uL	
56)	Hexachlorobenzene	23.71	1865	18551	54.85	ng/uL	
57)	Pentachlorophenol	24.34	1925	12407	54.17	ng/uL	
58)	Phenanthrene	24.94	1983	58642	58.96	ng/uL	
59)	Anthracene	25.09	1997	59705	58.57	ng/uL	
60)	Di-n-butylphthalate	26.91	2172	85127	43.26	ng/uL	
61)	Fluoranthene	28.45	2320	62366	53.54	ng/uL	
62)	*Chrysene-d12	32.70	2729	37106	40.00	ng/uL	
63)	Pyrene	29.10	2382	64043	68.91	ng/uL	
64)	Terphenyl-d14	29.73	2443	47486	65.94	ng/uL	
65)	Butylbenzylphthalate	31.33	2597	36799	55.85	ng/uL	
66)	3,3'-Dichlorobenzidine	32.71	2730	19308	175.02	ng/uL	
67)	Benzo(a)anthracene	32.67	2726	57856	63.53	ng/uL	
68)	Chrysene	32.79	2737	57043	66.86	ng/uL	
70)	*Perylene-d12	36.59	3102	41881	40.00	ng/uL	
71)	Di-n-octylphthalate	34.99	2949	91075	51.02	ng/uL	
72)	Benzo(b)fluoranthene	35.64	3011	59730	59.84	ng/uL	
73)	Benzo(k)fluoranthene	35.72	3019	60643	64.79	ng/uL	
74)	Benzo(a)pyrene	36.44	3088	57621	62.74	ng/uL	
75)	Indeno(1,2,3-cd)pyrene	39.59	3390	68856	63.37	ng/uL	
76)	Dibenz(a,h)anthracene	39.71	3401	55566	62.83	ng/uL	
77)	Benzo(g,h,i)perylene	40.47	3474	59156	63.90	ng/uL	

* Compound is ISTD

9613492.1779

TOTAL ION CHROMATOGRAM



Data File: >K0407::D1 Quant Output File: ^K0407::OF
Name: 50 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL# 6

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qcal Time: 920901 10:19

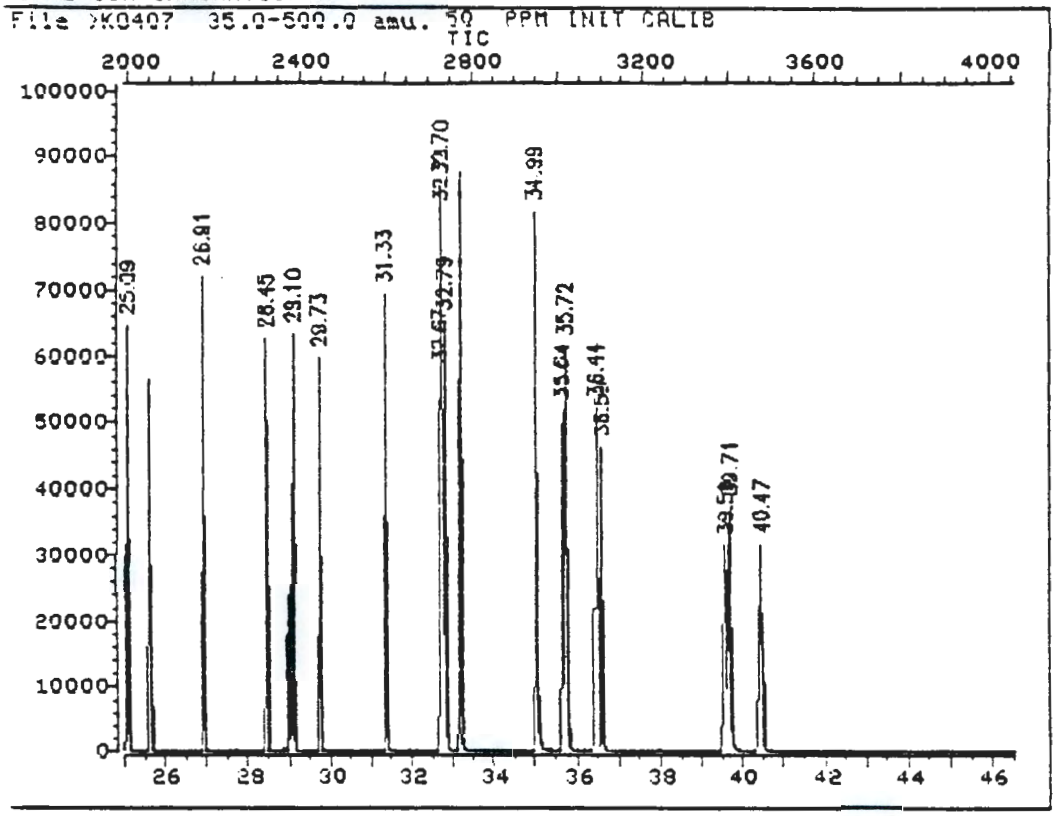
Operator ID: BOB
Quant Time : 921104 15:37
Injected at: 921104 14:50

Page 1 of 2

9613492.1780

TOTAL ION CHROMATOGRAM

File >K0407 35.0-500.0 amu. 50 PPM INIT CALIB



Data File: >K0407::D1 Quant Output File: ^K0407::QF
Name: 50 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL# 6

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qcal Time: 920901 10:19

Operator ID: BOB
Quant Time : 921104 15:37
Injected at: 921104 14:50

9613492.1781

QUANT REPORT

Operator ID: BOB
Output File: ^KO408::OF
Data File: >KO408::O1
Name: 20 PPM INIT CALIB
Disc:

Quant Rev: 7
Quant Time: 921104 16:33
Injected at: 921104 15:46
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 7

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Date: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units	
1)	*1,4-Dichlorobenzene-d4	11.22	671	12865	40.00	ng/uL	[illegible]
2)	2-Fluorophenol	6.27	195	8749	27.21	ng/uL	[illegible]
3)	Phenol-d5	10.24	577	10581	25.27	ng/uL	[illegible]
4)	Phenol	10.28	581	11324	22.97	ng/uL	[illegible]
5)	bis(2-Chloroethyl)ether	10.52	604	10203	21.42	ng/uL	[illegible]
6)	2-Chlorophenol	10.51	603	9308	25.21	ng/uL	[illegible]
7)	1,3-Dichlorobenzene	11.00	650	10394	25.78	ng/uL	[illegible]
8)	1,4-Dichlorobenzene	11.28	677	10560	26.59	ng/uL	[illegible]
9)	Benzyl alcohol	11.79	726	5329	22.35	ng/uL	[illegible]
10)	1,2-Dichlorobenzene	11.74	721	10161	26.21	ng/uL	[illegible]
11)	2-Methylphenol	12.23	768	7572	22.99	ng/uL	[illegible]
12)	bis(2-Chloroisopropyl)ether	12.30	775	10820	12.42	ng/uL	[illegible]
13)	4-Methylphenol	12.74	817	8324	24.67	ng/uL	[illegible]
14)	N-Nitroso-di-n-propylamine	0.00	812	0	0.00	ng/uL	
15)	Hexachloroethane	12.80	823	4780	26.10	ng/uL	[illegible]
16)	*Naphthalene-d8	13.20	1053	41451	40.00	ng/uL	[illegible]
17)	Nitrobenzene-d5	13.02	844	9860	22.81	ng/uL	[illegible]
18)	Nitrobenzene	13.08	849	10111	22.79	ng/uL	[illegible]
19)	Isophorone	13.89	927	18877	21.18	ng/uL	[illegible]
20)	2-Nitrophenol	14.07	945	5132	24.79	ng/uL	[illegible]
21)	2,4-Dimethylphenol	14.36	973	6790	24.14	ng/uL	[illegible]
22)	Benzoic acid	14.75	1010	4445	19.53	ng/uL	[illegible]
23)	bis(2-Chloroethoxy)methane	14.67	1002	11351	21.20	ng/uL	[illegible]
24)	2,4-Dichlorophenol	14.82	1017	7480	25.92	ng/uL	[illegible]
25)	1,2,4-Trichlorobenzene	15.05	1039	8273	26.36	ng/uL	[illegible]
26)	Naphthalene	15.26	1059	23246	27.12	ng/uL	[illegible]
27)	4-Chloroaniline	15.51	1083	9652	29.53	ng/uL	[illegible]
28)	Hexachlorobutadiene	15.72	1103	4830	24.80	ng/uL	[illegible]
29)	4-Chloro-3-methylphenol	17.07	1233	7659	21.86	ng/uL	[illegible]
30)	2-Methylnaphthalene	17.37	1262	14820	26.89	ng/uL	[illegible]
31)	*Acenaphthene-d10	20.47	1559	21731	40.00	ng/uL	[illegible]
32)	Hexachlorocyclopentadiene	17.87	1310	5531	36.37	ng/uL	[illegible]
33)	2,4,6-Trichlorophenol	18.26	1347	5258	26.36	ng/uL	[illegible]
34)	2,4,5-Trichlorophenol	18.34	1355	5613	26.02	ng/uL	[illegible]
35)	2-Chloronaphthalene	18.81	1400	14418	28.09	ng/uL	[illegible]
36)	2-Fluorobiphenyl	18.54	1374	15620	27.71	ng/uL	[illegible]
37)	2-Nitroaniline	19.18	1435	5128	17.78	ng/uL	[illegible]
38)	Dimethylphthalate	19.85	1500	17069	25.81	ng/uL	[illegible]
39)	Acenaphthylene	20.02	1516	22306	29.20	ng/uL	[illegible]
40)	2,6-Dinitrotoluene	19.97	1511	4295	23.18	ng/uL	[illegible]
41)	3-Nitroaniline	20.42	1555	4498	39.57	ng/uL	[illegible]
42)	Acenaphthene	20.55	1567	13397	26.87	ng/uL	[illegible]

9613492.1782

QUANT REPORT

Operator ID: BOB
Output File: ^K0408::OF
Data File: >K0408::D1
Name: 20 PPM INIT CALIB
Misc:

Quant Rev: 7
Quant Time: 921104 16:33
Injected at: 921104 15:46
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 7

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Time: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units	c
42)	Acenaphthene	20.55	1567	13397	26.87	ng/uL	9
43)	2,4-Dinitrophenol	20.73	1584	2661	41.36	ng/uL	9
44)	4-Nitrophenol	21.02	1612	2551	27.58	ng/uL	8
45)	Dibenzofuran	21.08	1618	19348	27.07	ng/uL	9
46)	2,4-Dinitrotoluene	21.14	1624	6062	23.41	ng/uL	8
47)	Diethylphthalate	22.00	1706	17797	24.58	ng/uL	9
48)	4-Chlorophenyl-phenylether	22.19	1725	7519	26.03	ng/uL	8
49)	Fluorene	22.10	1716	14976	26.86	ng/uL	9
50)	4-Nitroaniline	22.22	1728	4592	131.41	ng/uL	9
51)	*Phenanthrene-d10	24.85	1980	35867	40.00	ng/uL	9
52)	4,6-Dinitro-2-methylphenol	22.33	1738	3579	34.86	ng/uL	8
53)	N-Nitrosodiphenylamine	22.56	1760	9934	25.10	ng/uL	9
54)	2,4,6-Tribromophenol	22.80	1783	2999	21.23	ng/uL	9
55)	4-Bromophenyl-phenylether	23.63	1863	4582	22.29	ng/uL	9
56)	Hexachlorobenzene	23.69	1869	6255	23.20	ng/uL	9
57)	Pentachlorophenol	24.32	1929	3830	20.97	ng/uL	9
58)	Phenanthrene	24.92	1987	20329	25.63	ng/uL	9
59)	Anthracene	25.07	2001	20906	25.72	ng/uL	9
60)	Di-n-butylphthalate	26.89	2177	28961	18.46	ng/uL	9
61)	Fluoranthene	28.42	2324	21413	23.06	ng/uL	9
62)	*Chrysene-d12	32.69	2734	31377	40.00	ng/uL	9
63)	Pyrene	29.07	2386	21924	27.90	ng/uL	8
64)	Terphenyl-d14	29.71	2448	16246	26.68	ng/uL	9
65)	Butylbenzylphthalate	31.31	2602	11200	20.10	ng/uL	9
66)	3,3'-Dichlorobenzidine	32.70	2735	5778	61.94	ng/uL	9
67)	Benzo(a)anthracene	32.64	2730	19467	25.28	ng/uL	9
68)	Chrysene	32.75	2740	19672	27.27	ng/uL	7
70)	*Perylene-d12	36.57	3107	32969	40.00	ng/uL	9
71)	Di-n-octylphthalate	34.97	2954	27214	19.37	ng/uL	9
72)	Benzo(b)fluoranthene	35.60	3014	19929	25.36	ng/uL	9
73)	Benzo(k)fluoranthene	35.68	3022	20777	28.20	ng/uL	8
74)	Benzo(a)pyrene	36.41	3092	18957	26.22	ng/uL	9
75)	Indeno(1,2,3-cd)pyrene	39.54	3392	21796	25.48	ng/uL	9
76)	Dibenz(a,h)anthracene	39.65	3403	16714	24.01	ng/uL	9
77)	Benzo(g,h,i)perylene	40.39	3474	19064	26.16	ng/uL	9

* Compound is ISTD

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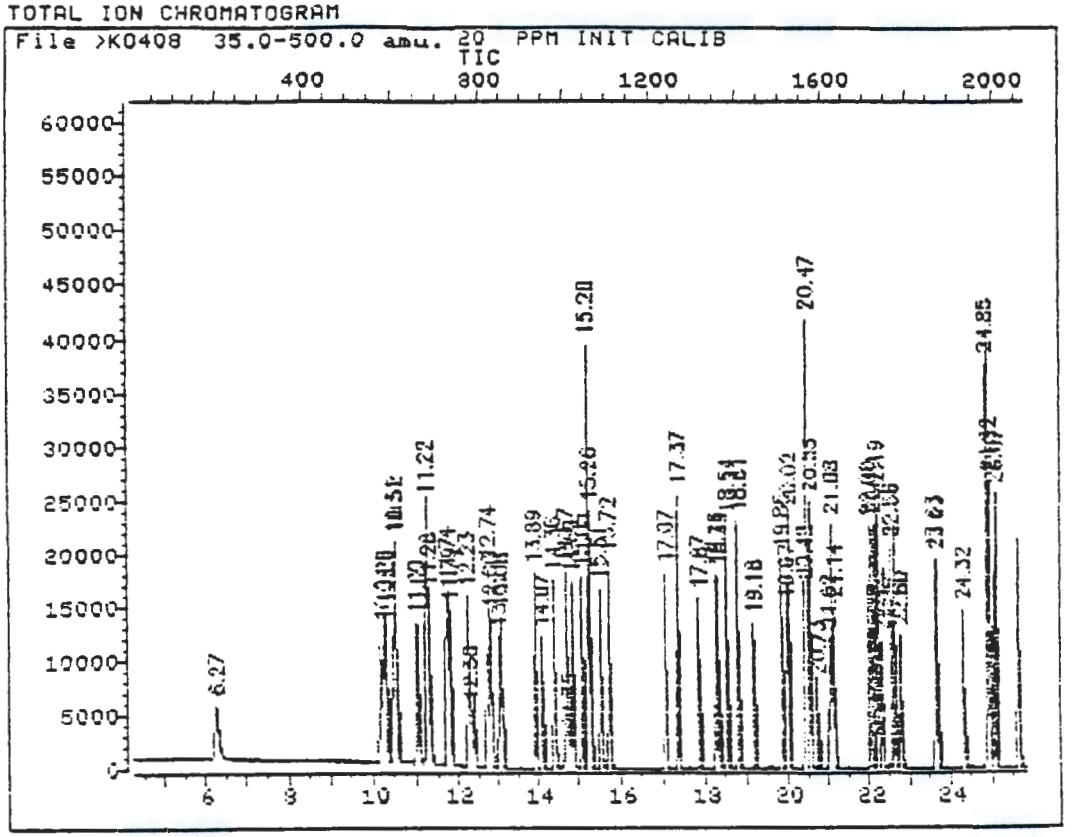
TOTAL ION CHROMATOGRAM



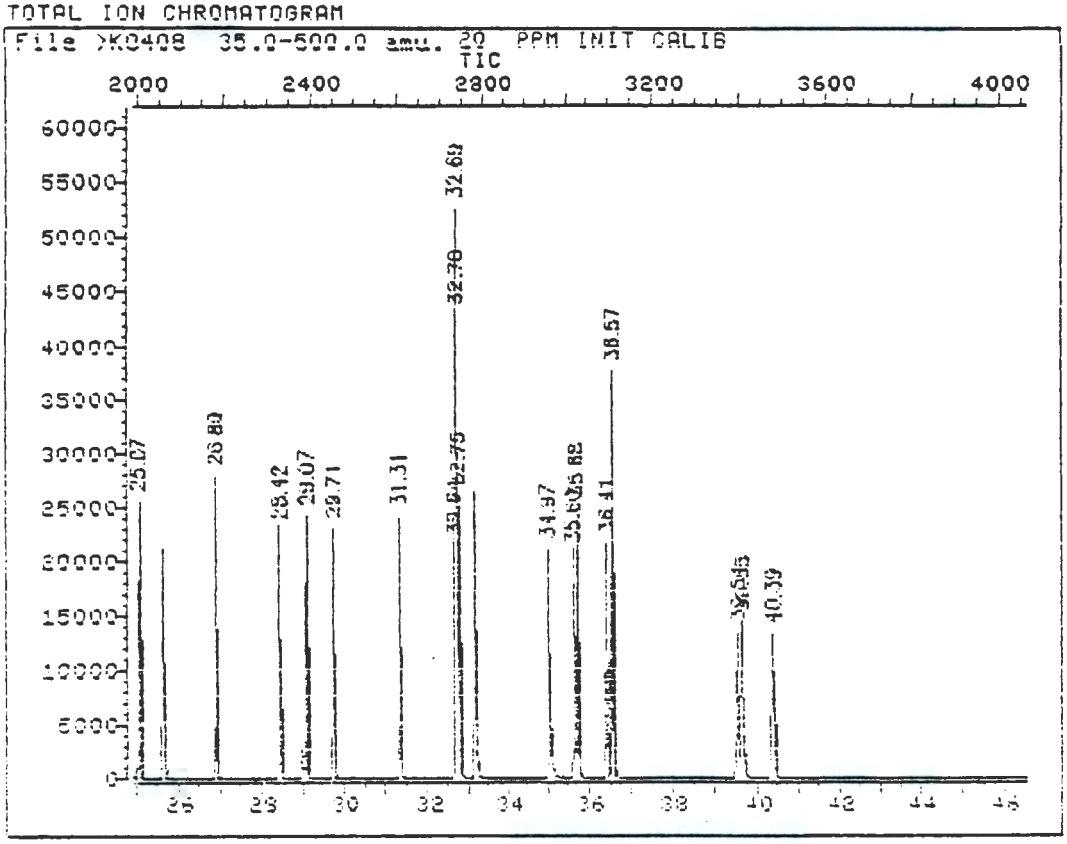
Data File: >K0408::D1 Quant Output File: ^K0408::OF
Name: 20 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL# 7

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qcal Time: 920901 10:19

Operator ID: BDB
Quant Time : 921104 16:37
Injected at: 921104 15:46

Page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >K0408::01 Quant Output File: ^K0408::OF
Name: 20 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL# 7

Id File: ID18NA::OT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qual Time: 921201 10:19

Operator ID: BOB
Quant Time : 921104 16:37
Injected at: 921104 15:46

Page 2 of 2

9613492.1785

QUANT REPORT

Operator ID: BOB
Output File: ^K0409::OF
Data File: >K0409::01
Name: 80 PPM INIT CALIB
Misc:

Quant Rev: 7
Quant Time: 921104 17:29
Injected at: 921104 16:41
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 8

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Date: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units	
1)	*1,4-Dichlorobenzene-d4	11.23	666	12183	40.00	ng/uL	
2)	2-Fluorophenol	6.29	191	34264	112.52	ng/uL	
3)	Phenol-d5	10.28	575	39983	100.82	ng/uL	
4)	Phenol	10.34	580	42371	90.77	ng/uL	
5)	bis(2-Chloroethyl)ether	10.56	601	37170	82.40	ng/uL	
6)	2-Chlorophenol	10.54	599	33934	97.05	ng/uL	
7)	1,3-Dichlorobenzene	11.01	645	38644	101.22	ng/uL	
8)	1,4-Dichlorobenzene	11.29	671	39366	104.67	ng/uL	
9)	Benzyl alcohol	11.84	724	21418	94.85	ng/uL	
10)	1,2-Dichlorobenzene	11.75	716	36962	100.67	ng/uL	
11)	2-Methylphenol	12.27	765	28354	90.91	ng/uL	
12)	bis(2-Chloroisopropyl)ether	12.32	770	41543	50.37	ng/uL	
13)	4-Methylphenol	12.79	815	29816	93.32	ng/uL	
14)	N-Nitroso-di-n-propylamine	12.74	811	21687	101.83	ng/uL	
15)	Hexachloroethane	12.81	817	17266	99.55	ng/uL	
16)	*Naphthalene-d8	15.20	1047	39491	40.00	ng/uL	
17)	Nitrobenzene-d5	13.06	841	37972	92.20	ng/uL	
18)	Nitrobenzene	13.12	847	37936	89.70	ng/uL	
19)	Isophorone	13.93	925	72012	84.80	ng/uL	
20)	2-Nitrophenol	14.09	940	20439	103.63	ng/uL	
21)	2,4-Dimethylphenol	14.40	970	25690	95.87	ng/uL	
22)	Benzoic acid	15.03	1030	22461	103.87	ng/uL	
23)	bis(2-Chloroethoxy)methane	14.70	999	43500	85.27	ng/uL	
24)	2,4-Dichlorophenol	14.86	1014	28371	103.18	ng/uL	
25)	1,2,4-Trichlorobenzene	15.07	1034	30479	103.89	ng/uL	
26)	Naphthalene	15.28	1054	84676	103.69	ng/uL	
27)	4-Chloroaniline	15.54	1079	38161	122.57	ng/uL	
28)	Hexachlorobutadiene	15.73	1097	17669	95.22	ng/uL	
29)	4-Chloro-3-methylphenol	17.09	1228	29064	87.09	ng/uL	
30)	2-Methylnaphthalene	17.39	1257	53575	102.03	ng/uL	
31)	*Acenaphthene-d10	20.47	1553	19113	40.00	ng/uL	
32)	Hexachlorocyclopentadiene	17.88	1304	22105	157.65	ng/uL	
33)	2,4,6-Trichlorophenol	18.27	1342	20157	109.60	ng/uL	
34)	2,4,5-Trichlorophenol	18.36	1350	21013	105.64	ng/uL	
35)	2-Chloronaphthalene	18.83	1395	52089	110.08	ng/uL	
36)	2-Fluorobiphenyl	18.57	1370	55169	106.15	ng/uL	
37)	2-Nitroaniline	19.21	1432	21640	81.40	ng/uL	
38)	Dimethylphthalate	19.89	1497	64169	105.26	ng/uL	
39)	Acenaphthylene	20.04	1511	80814	114.73	ng/uL	
40)	2,6-Dinitrotoluene	20.01	1509	16353	95.74	ng/uL	
41)	3-Nitroaniline	20.46	1552	17926	171.04	ng/uL	
42)	Acenaphthene	20.58	1563	48625	105.77	ng/uL	

QUANT REPORT

Operator ID: BOB
Output File: ^K0409::OF
Data File: >K0409::01
Name: 80 PPM INIT CALIB
Misc:

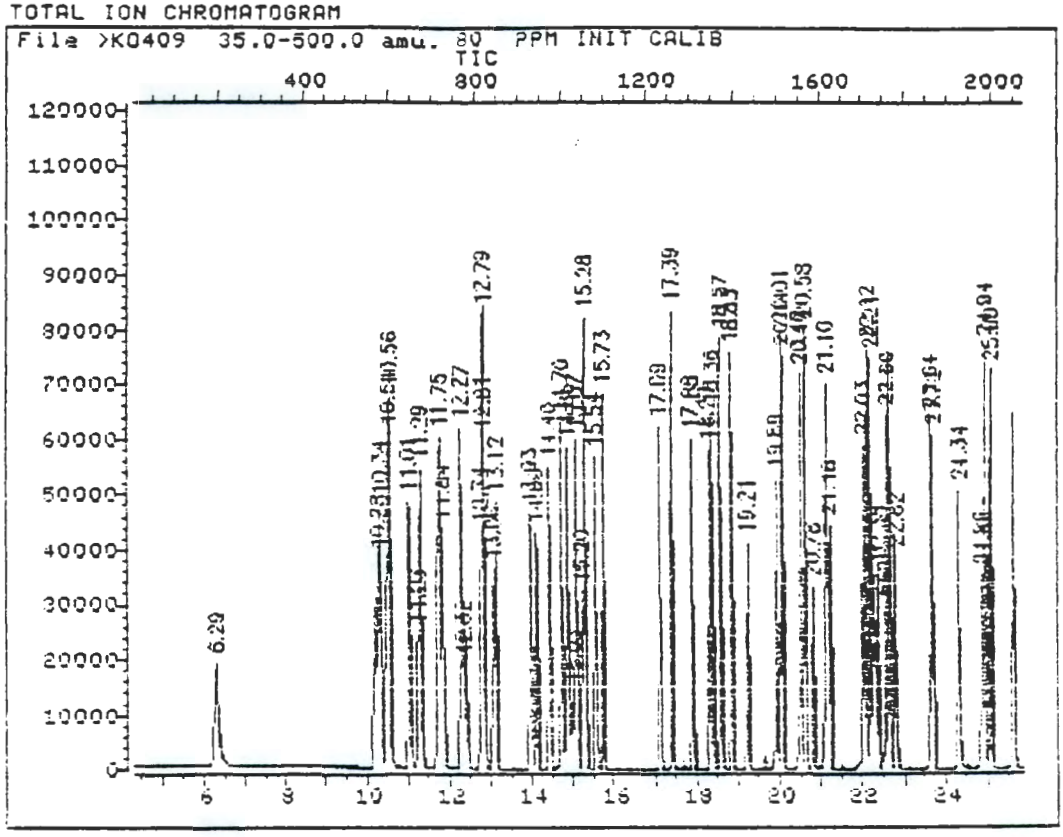
Quant Rev: 7
Quant Time: 921104 17:29
Injected at: 921104 16:41
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 8

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Time: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units
41)	3-Nitroaniline	20.46	1552	17926	171.04	ng/uL
42)	Acenaphthene	20.58	1563	48625	105.77	ng/uL
43)	2,4-Dinitrophenol	20.78	1582	12576	212.03	ng/uL
45)	Dibenzofuran	21.10	1613	69021	104.73	ng/uL
46)	2,4-Dinitrotoluene	21.18	1621	24196	101.37	ng/uL
47)	Diethylphthalate	22.03	1702	66669	99.86	ng/uL
48)	4-Chlorophenyl-phenylether	22.21	1720	27298	102.49	ng/uL
49)	Fluorene	22.12	1711	53724	104.51	ng/uL
50)	4-Nitroaniline	22.31	1729	18899	586.64	ng/uL
51)	*Phenanthrene-d10	24.86	1974	35020	40.00	ng/uL
52)	4,6-Dinitro-2-methylphenol	22.38	1736	14957	149.22	ng/uL
53)	N-Nitrosodiphenylamine	22.60	1757	37289	96.51	ng/uL
54)	2,4,6-Tribromophenol	22.82	1778	11830	85.76	ng/uL
55)	4-Bromophenyl-phenylether	23.64	1857	17160	85.48	ng/uL
56)	Hexachlorobenzene	23.72	1864	23562	89.49	ng/uL
57)	Pentachlorophenol	24.34	1924	15973	89.59	ng/uL
58)	Phenanthrene	24.94	1992	75024	96.89	ng/uL
59)	Anthracene	25.09	1996	74117	93.41	ng/uL
60)	Di-n-butylphthalate	26.91	2171	106767	69.70	ng/uL
61)	Fluoranthene	28.45	2319	75751	83.54	ng/uL
62)	*Chrysene-d12	32.71	2729	27939	40.00	ng/uL
63)	Pyrene	29.10	2381	79449	113.54	ng/uL
64)	Terphenyl-d14	29.73	2442	58355	107.62	ng/uL
65)	Butylbenzylphthalate	31.33	2596	46375	93.48	ng/uL
66)	3,3'-Dichlorobenzidine	32.72	2729	24686	297.19	ng/uL
67)	Benzo(a)anthracene	32.68	2725	71594	104.41	ng/uL
68)	Chrysene	32.79	2736	70342	109.51	ng/uL
70)	*Perylene-d12	36.59	3100	32060	40.00	ng/uL
71)	Di-n-octylphthalate	34.99	2947	115602	84.60	ng/uL
72)	Benzo(b)fluoranthene	35.65	3010	78604	102.87	ng/uL
73)	Benzo(k)fluoranthene	35.73	3018	71667	100.02	ng/uL
74)	Benzo(a)pyrene	36.46	3088	71089	101.12	ng/uL
75)	Indeno(1,2,3-cd)pyrene	39.61	3390	86835	104.40	ng/uL
76)	Dibenz(a,h)anthracene	39.73	3401	69837	103.16	ng/uL
77)	Benzo(g,h,i)perylene	40.50	3475	75330	106.29	ng/uL

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >K0409::01 Quant Output File: ^K0409::QF
Name: 80 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL# 8

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qcal Time: 920901 10:19

Operator ID: BOB
Quant Time : 921104 17:29
Injected at: 921104 16:41

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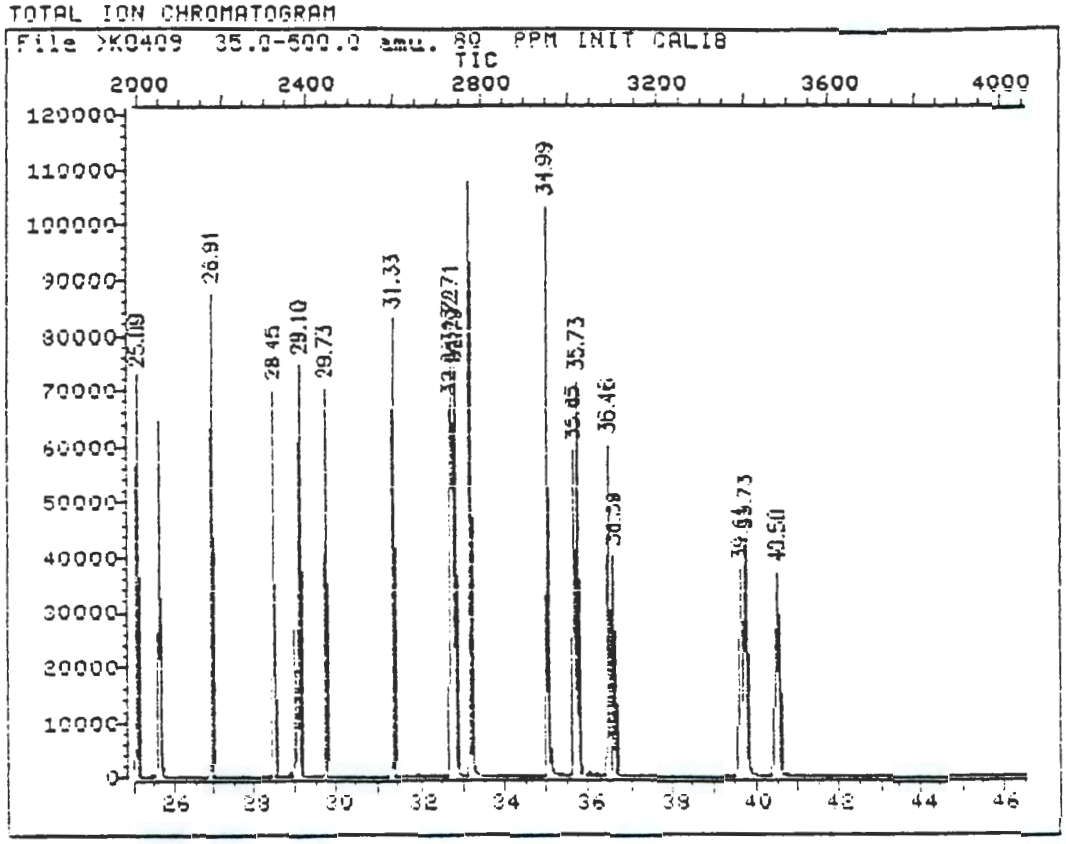
TOTAL ION CHROMATOGRAM



Data File: >K0409::D1 Quant Output File: ^K0409::QF
Name: 80 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL# 8

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:50 Last Qual Time: 920901 10:19

Operator ID: BOB
Quant Time : 921104 17:29
Injected at: 921104 16:41

Page 2 of 2

9613492.1789

QUANT REPORT

Operator ID: BOB
Output File: ^K0410::OF
Data File: >K0410::01
Name: 120 PPM INIT CALIB
Misc:

Quant Rev: 7
Quant Time: 921104 18:25
Injected at: 921104 17:37
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 9

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Date: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units
1)	*1,4-Dichlorobenzene-d4	11.24	666	12626	40.00	ng/uL
2)	2-Fluorophenol	6.31	193	52473	166.27	ng/uL
3)	Phenol-d5	10.32	578	60609	147.46	ng/uL
4)	Phenol	10.37	583	64457	133.24	ng/uL
5)	bis(2-Chloroethyl)ether	10.58	603	55696	119.14	ng/uL
6)	2-Chlorophenol	10.55	600	50455	139.23	ng/uL
7)	1,3-Dichlorobenzene	11.03	646	56651	143.17	ng/uL
8)	1,4-Dichlorobenzene	11.30	672	57533	147.61	ng/uL
9)	Benzyl alcohol	11.86	726	32659	139.55	ng/uL
10)	1,2-Dichlorobenzene	11.76	716	53850	141.52	ng/uL
11)	2-Methylphenol	12.28	766	42724	132.18	ng/uL
12)	bis(2-Chloroisopropyl)ether	12.32	770	66845	78.21	ng/uL
13)	4-Methylphenol	12.81	817	42750	129.11	ng/uL
14)	N-Nitroso-di-n-propylamine	12.78	814	30790	139.50	ng/uL
15)	Hexachloroethane	12.81	817	23740	132.07	ng/uL
16)	*Naphthalene-d8	15.22	1048	41104	40.00	ng/uL
17)	Nitrobenzene-d5	13.07	842	58835	137.26	ng/uL
18)	Nitrobenzene	13.13	848	58266	132.36	ng/uL
19)	Isophorone	13.95	927	113749	123.69	ng/uL
20)	2-Nitrophenol	14.10	941	31509	153.49	ng/uL
21)	2,4-Dimethylphenol	14.42	972	39612	142.03	ng/uL
22)	Benzoic acid	15.15	1041	34699	154.15	ng/uL
23)	bis(2-Chloroethoxy)methane	14.72	1000	66917	126.03	ng/uL
24)	2,4-Dichlorophenol	14.87	1015	43406	151.67	ng/uL
25)	1,2,4-Trichlorobenzene	15.07	1034	45121	147.76	ng/uL
26)	Naphthalene	15.29	1055	126141	148.40	ng/uL
27)	4-Chloroaniline	15.54	1079	58834	181.55	ng/uL
28)	Hexachlorobutadiene	15.73	1097	25972	134.48	ng/uL
29)	4-Chloro-3-methylphenol	17.10	1229	43997	126.66	ng/uL
30)	2-Methylnaphthalene	17.40	1257	78798	144.18	ng/uL
31)	*Acenaphthene-d10	20.48	1552	19766	40.00	ng/uL
32)	Hexachlorocyclopentadiene	17.88	1303	33008	227.64	ng/uL
33)	2,4,6-Trichlorophenol	18.28	1342	31630	166.30	ng/uL
34)	2,4,5-Trichlorophenol	18.37	1350	31221	151.77	ng/uL
35)	2-Chloronaphthalene	18.84	1395	77590	158.55	ng/uL
36)	2-Fluorobiphenyl	18.58	1370	82193	152.92	ng/uL
37)	2-Nitroaniline	19.23	1433	34502	125.49	ng/uL
38)	Dimethylphthalate	19.91	1498	95070	150.79	ng/uL
39)	Acenaphthylene	20.05	1511	117782	161.69	ng/uL
40)	2,6-Dinitrotoluene	20.03	1509	25153	142.39	ng/uL
41)	3-Nitroaniline	20.49	1553	28156	259.77	ng/uL
42)	Acenaphthene	20.59	1563	72524	152.54	ng/uL

AG 11/29/97

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QUANT REPORT

Operator ID: BOB
Output File: ^K0410::OF
Data File: >K0410::01
Name: 120 PPM INIT CALIB
Misc:

Quant Rev: 7
Quant Time: 921104 18:25
Injected at: 921104 17:37
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 9

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Time: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units
41)	3-Nitroaniline	20.49	1553	28156	259.77	ng/uL
42)	Acenaphthene	20.59	1563	72524	152.54	ng/uL
43)	2,4-Dinitrophenol	20.79	1582	19355	315.54	ng/uL
45)	Dibenzofuran	21.11	1613	101181	148.45	ng/uL
46)	2,4-Dinitrotoluene	21.21	1622	36174	146.55	ng/uL
47)	Diethylphthalate	22.04	1702	93716	135.74	ng/uL
48)	4-Chloropnenyl-phenylether	22.22	1719	40798	148.12	ng/uL
49)	Fluorene	22.13	1711	80622	151.65	ng/uL
50)	4-Nitroaniline	22.34	1731	28625	399.19	ng/uL
51)	*Phenanthrene-d10	24.87	1973	37020	40.00	ng/uL
52)	4,6-Dinitro-2-methylphenol	22.42	1738	22962	216.71	ng/uL
53)	N-Nitrosodiphenylamine	22.62	1757	57350	140.42	ng/uL
54)	2,4,6-Tribromophenol	22.84	1778	18798	128.91	ng/uL
55)	4-Bromophenyl-phenylether	23.66	1857	25966	122.36	ng/uL
56)	Hexachlorobenzene	23.73	1864	35902	129.00	ng/uL
57)	Pentachlorophenol	24.35	1923	24069	127.70	ng/uL
58)	Phenanthrene	24.95	1981	115930	141.63	ng/uL
59)	Anthracene	25.11	1996	107698	128.39	ng/uL
60)	Di-n-butylphthalate	26.92	2170	157186	97.07	ng/uL
61)	Fluoranthene	28.46	2318	113010	117.89	ng/uL
62)	*Chrysene-d12	32.71	2726	28173	40.00	ng/uL
63)	Pyrene	29.12	2381	115607	163.34	ng/uL
64)	Terphenyl-d14	29.75	2441	86905	158.94	ng/uL
65)	Butylbenzylphthalate	31.34	2594	68917	137.77	ng/uL
66)	3,3'-Dichlorobenzidine	32.74	2728	38703	462.07	ng/uL
67)	Benzo(a)anthracene	32.68	2723	107607	155.62	ng/uL
68)	Chrysene	32.82	2736	104070	160.67	ng/uL
70)	*Perylene-d12	36.59	3098	34030	40.00	ng/uL
71)	Di-n-octylphthalate	35.01	2946	171030	117.92	ng/uL
72)	Benzo(b)fluoranthene	35.66	3009	122160	150.62	ng/uL
73)	Benzo(k)fluoranthene	35.76	3018	101610	133.60	ng/uL
74)	Benzo(a)pyrene	36.48	3087	109451	146.68	ng/uL
75)	Indeno(1,2,3-cd)pyrene	39.63	3390	137639	155.91	ng/uL
76)	Dibenz(a,h)anthracene	39.77	3403	109181	151.95	ng/uL
77)	Benzo(g,h,i)perylene	40.55	3478	119351	158.66	ng/uL

* Compound is ISTD

AS
11/20/93

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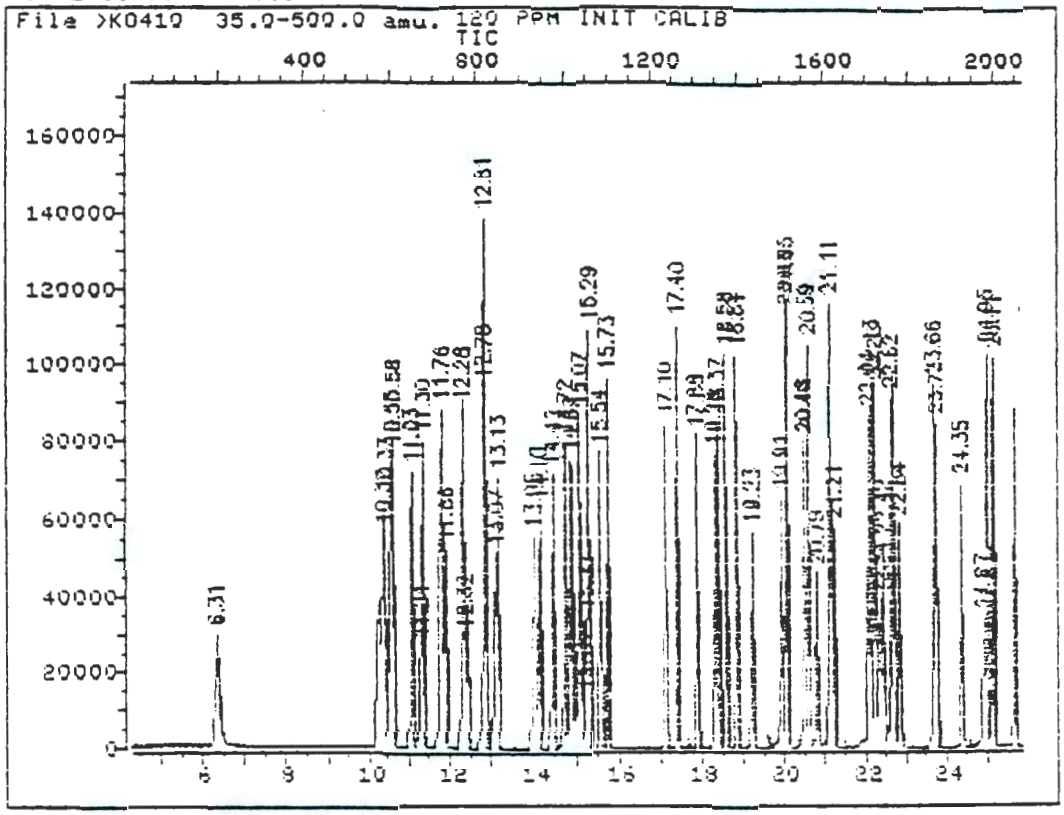
TOTAL ION CHROMATOGRAM



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Name: 120 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL# 9

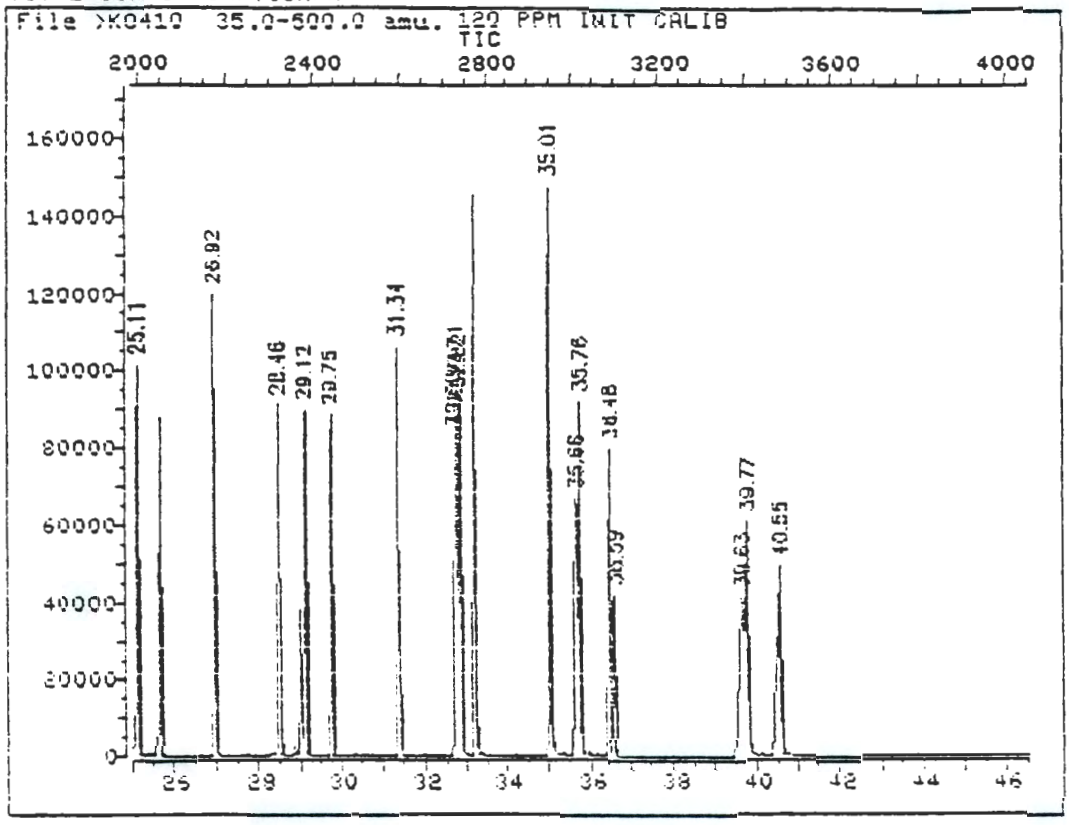
Id File: ID1BNA::OT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qual Time: 920901 10:19

Operator ID: BDB
Quant Time : 921104 18:25
Injected at: 921104 17:37

Page 1 of 2

9613492.1792

TOTAL ION CHROMATOGRAM



Data File: >K0410::01 Quant Output File: ^K0410::QF
Name: 120 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL# 9

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:50 Last Qual Time: 920901 10:19

Operator ID: BDB
Quant Time : 921104 18:09
Injected at: 921104 17:37

Page 2 of 2

9613492.1793

QUANT REPORT

Operator ID: BOB
Output File: ^K0411::OF
Data File: >K0411::D1
Name: 160 PPM INIT CALIB
Misc:

Quant Rev: 7
Quant Time: 921104 19:21
Injected at: 921104 18:33
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL#10

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52
Last Qcal Date: 920901 10:19

	Compound	R.T.	Scan#	Area	Conc	Units
1)	*1,4-Dichlorobenzene-d4	11.24	666	13505	40.00	ng/uL
2)	2-Fluorophenol	6.34	196	72079	213.53	ng/uL
3)	Phenol-d5	10.35	581	83177	189.20	ng/uL
4)	Phenol	10.39	585	96813	187.10	ng/uL
5)	bis(2-Chloroethyl)ether	10.60	605	74419	148.83	ng/uL
6)	2-Chlorophenol	10.57	602	67805	174.93	ng/uL
7)	1,3-Dichlorobenzene	11.04	647	76504	180.76	ng/uL
8)	1,4-Dichlorobenzene	11.30	672	76948	184.57	ng/uL
9)	Benzyl alcohol	11.89	728	46046	183.95	ng/uL
10)	1,2-Dichlorobenzene	11.77	717	70155	172.37	ng/uL
11)	2-Methylphenol	12.29	767	58330	168.72	ng/uL
12)	bis(2-Chloroisopropyl)ether	12.34	771	97794	106.97	ng/uL
13)	4-Methylphenol	12.84	819	55895	157.82	ng/uL
14)	N-Nitroso-di-n-propylamine	12.80	815	36255	153.57	ng/uL
15)	Hexachloroethane	12.82	817	30424	158.24	ng/uL
16)	*Naphthalene-d8	15.23	1048	43253	40.00	ng/uL
17)	Nitrobenzene-d5	13.09	843	80492	178.45	ng/uL
18)	Nitrobenzene	13.15	849	80431	173.64	ng/uL
19)	Isophorone	13.92	923	22602	24.30	ng/uL
20)	2-Nitrophenol	14.12	942	43702	202.31	ng/uL
21)	2,4-Dimethylphenol	14.44	973	55224	188.17	ng/uL
22)	Benzoic acid	15.19	1045	49020	206.97	ng/uL
23)	bis(2-Chloroethoxy)methane	14.73	1001	93363	167.10	ng/uL
24)	2,4-Dichlorophenol	14.90	1017	60031	199.34	ng/uL
25)	1,2,4-Trichlorobenzene	15.09	1035	60967	189.73	ng/uL
26)	Naphthalene	15.30	1055	167825	187.83	ng/uL
27)	4-Chloroaniline	15.56	1080	81459	238.88	ng/uL
28)	Hexachlorobutadiene	15.74	1097	34931	171.88	ng/uL
29)	4-Chloro-3-methylphenol	17.11	1229	60846	166.46	ng/uL
30)	2-Methylnaphthalene	17.40	1257	105021	182.62	ng/uL
31)	*Acenaphthene-d10	20.48	1552	20904	40.00	ng/uL
32)	Hexachlorocyclopentadiene	17.88	1303	44572	290.65	ng/uL
33)	2,4,6-Trichlorophenol	18.30	1343	46431	230.83	ng/uL
34)	2,4,5-Trichlorophenol	18.39	1351	39238	180.36	ng/uL
35)	2-Chloronaphthalene	18.84	1395	104052	201.05	ng/uL
36)	2-Fluorobiphenyl	18.58	1370	110224	193.91	ng/uL
37)	2-Nitroaniline	19.25	1434	48708	167.51	ng/uL
38)	Dimethylphthalate	19.93	1499	119745	179.59	ng/uL
39)	Acenaphthylene	20.07	1512	154487	200.54	ng/uL
40)	2,6-Dinitrotoluene	20.04	1510	25895	138.61	ng/uL
41)	3-Nitroaniline	20.50	1554	33512	292.35	ng/uL
42)	Acenaphthene	20.60	1563	97209	193.33	ng/uL

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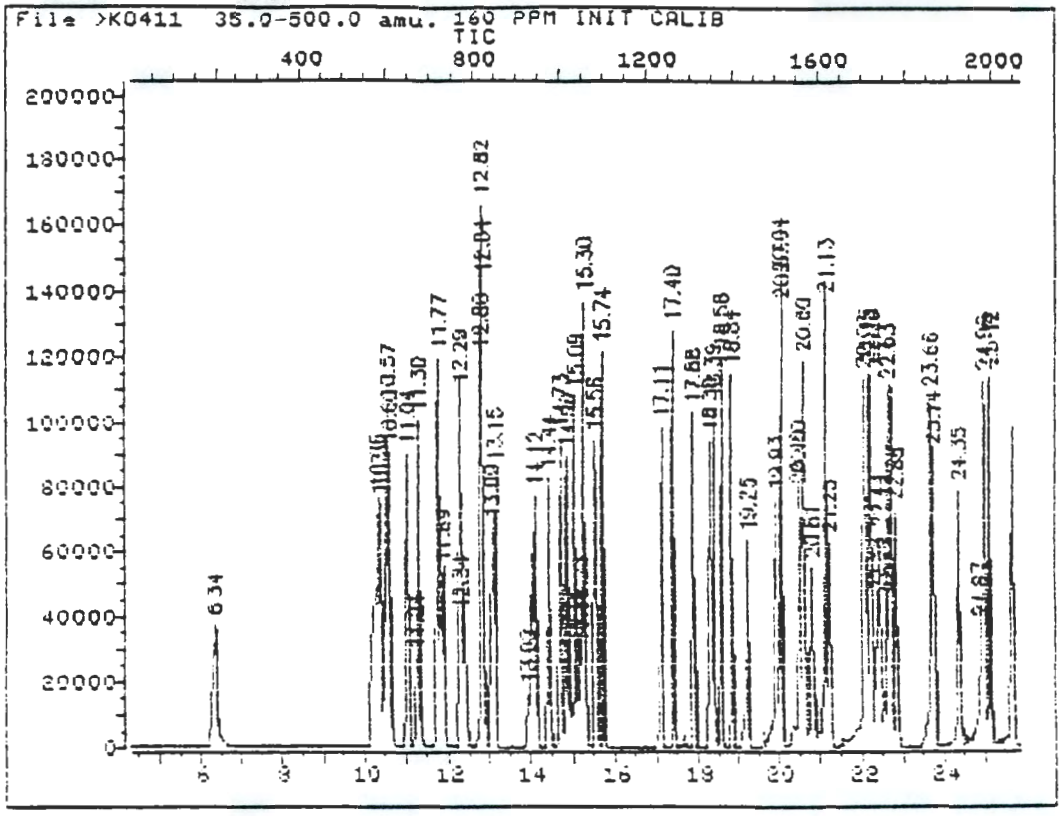
43)	2,4-Dinitrophenol	20.81	1583	24784	382.05	ng/uL
44)	4-Nitrophenol	0.00	1613	0	0.00	ng/uL
45)	Dibenzofuran	21.13	1614	134589	186.72	ng/uL
46)	2,4-Dinitrotoluene	21.23	1623	45517	174.36	ng/uL
47)	Diethylphthalate	22.06	1703	110133	150.83	ng/uL
48)	4-Chlorophenyl-phenylether	22.23	1719	54653	187.62	ng/uL
49)	Fluorene	22.15	1711	107318	190.87	ng/uL
50)	4-Nitroaniline	22.38	1733	35623	1011.03	ng/uL
51)	*Phenanthrene-d10	24.87	1971	33767	40.00	ng/uL
52)	4,6-Dinitro-2-methylphenol	22.44	1739	27752	287.15	ng/uL
53)	N-Nitrosodiphenylamine	22.63	1757	62217	167.01	ng/uL
54)	2,4,6-Tribromophenol	22.85	1778	22983	172.80	ng/uL
55)	4-Bromophenyl-phenylether	23.66	1856	29833	154.13	ng/uL
56)	Hexachlorobenzene	23.74	1863	50139	197.51	ng/uL
57)	Pentachlorophenol	24.35	1922	28929	168.27	ng/uL
58)	Phenanthrene	24.96	1980	139239	186.50	ng/uL
59)	Anthracene	25.12	1995	128358	167.76	ng/uL
60)	Di-n-butylphthalate	26.93	2169	192150	130.09	ng/uL
61)	Fluoranthene	28.47	2317	136825	156.49	ng/uL
62)	*Chrysene-d12	32.73	2724	26291	40.00	ng/uL
63)	Pyrene	29.12	2379	138779	210.75	ng/uL
64)	Terphenyl-d14	29.75	2439	105828	207.40	ng/uL
65)	Butylbenzylphthalate	31.35	2592	85600	183.37	ng/uL
66)	3,3'-Dichlorobenzidine	32.75	2726	48853	625.00	ng/uL
67)	Benzo(a)anthracene	32.70	2721	131058	203.10	ng/uL
68)	Chrysene	32.82	2733	135641	207.85	ng/uL
69)	Bis(2-Ethylhexyl)phthalate	0.00	0	0	0.00	ng/uL
70)	*Perylene-d12	36.80	3095	35706	40.00	ng/uL
71)	Di-n-octylphthalate	35.01	2943	211401	147.15	ng/uL
72)	Benzo(b)fluoranthene	35.69	3008	161815	201.43	ng/uL
73)	Benzo(k)fluoranthene	35.77	3015	124410	165.15	ng/uL
74)	Benzo(a)pyrene	36.50	3085	140222	189.72	ng/uL
75)	Indeno(1,2,3-cd)pyrene	39.63	3386	182574	208.79	ng/uL
76)	Dibenz(a,h)anthracene	39.79	3401	141094	198.25	ng/uL
77)	Benzo(g,h,i)perylene	40.38	3477	158380	212.57	ng/uL

* Compound is ISTD

AS
11/29/93

TOTAL ION CHROMATOGRAM



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Name: 160 PPM INIT CALIB Instrument ID: 8NA1
Misc: BTL#10

Id File: ID1BNA::QT
Title: 8NA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qual Time: 920901 10:19

Operator ID: BDB
Quant Time : 921104 19:21
Injected at: 921104 18:33

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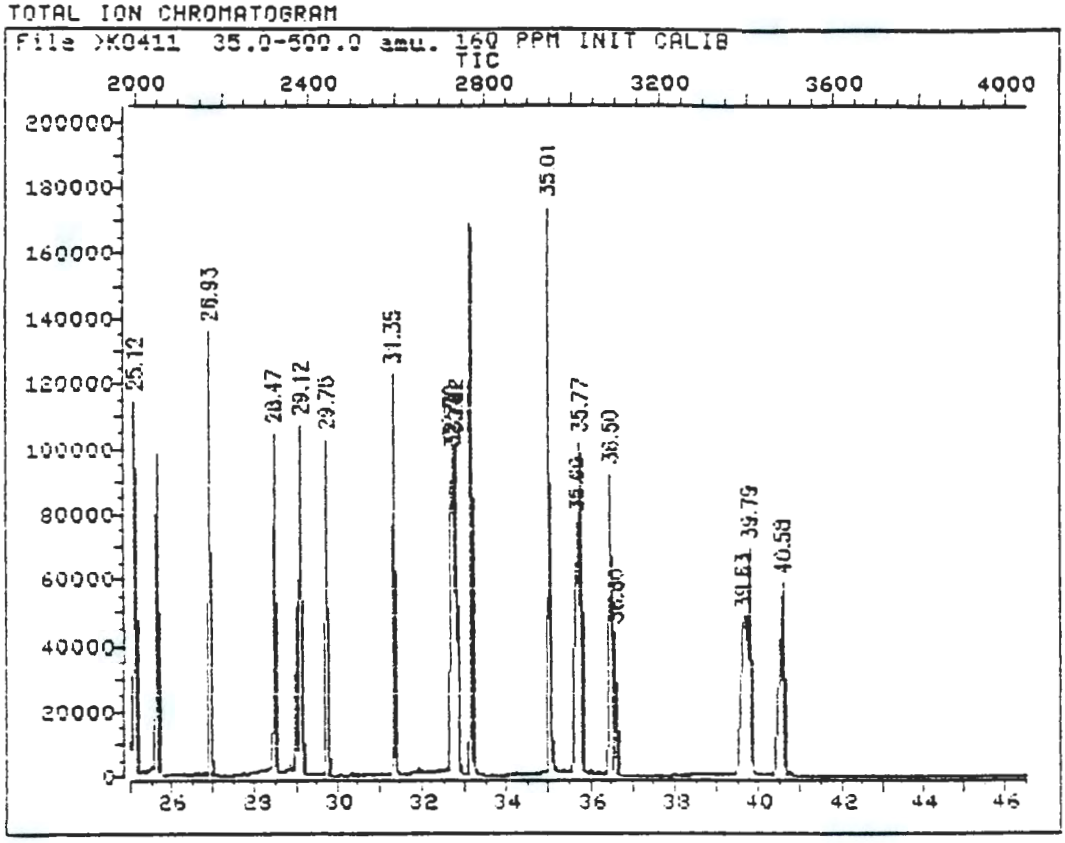
TOTAL ION CHROMATOGRAM



Data File: >K0411::D1 Quant Output File: ^K0411::OF
Name: 160 PPM INIT CALIB Instrument ID: BNA1
Misc: BTL#10

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 920812 08:52 Last Qcal Time: 920901 10:19

Operator ID: BOB
Quant Time : 921104 19:21
Injected at: 921104 18:33

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BO86V2

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-05190-E1

Sample wt/vol: 32.749 (g/mL) G Lab File ID: >C1804

Level: (low/med) LOW Date Received: 03/17/93

% Moisture: not dec.4.5 dec. -- Date Extracted: 03/17/93

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 3/18/93

GPC Cleanup: (Y/N) N pH: 8.82 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q	
108-95-2	Phenol	320.	U	
111-44-4	bis(2-Chloroethyl)Ether	320.	U	
95-57-8	2-Chlorophenol	320.	U	
541-73-1	1,3-Dichlorobenzene	320.	U	
106-46-7	1,4-Dichlorobenzene	320.	U	
100-51-6	Benzyl alcohol	320.	U	
95-50-1	1,2-Dichlorobenzene	320.	U	
95-48-7	2-Methylphenol	320.	U	
39638-32-9	bis(2-chloroisopropyl)ether	320.	~~U~~	UJ
106-44-5	4-Methylphenol	320.	U	
621-64-7	N-Nitroso-Di-n-propylamine	320.	~~U~~	UJ
67-72-1	Hexachloroethane	320.	U	
98-95-3	Nitrobenzene	320.	U	
78-59-1	Isophorone	320.	U	
88-75-5	2-Nitrophenol	320.	U	
105-67-9	2,4-Dimethylphenol	320.	U	
65-85-0	Benzoic acid	1600.	U	
111-91-1	bis(2-Chloroethoxy)methane	320.	U	
120-83-2	2,4-Dichlorophenol	320.	U	
120-82-1	1,2,4-Trichlorobenzene	320.	U	
91-20-3	Naphthalene	320.	U	
106-47-8	4-Chloroaniline	320.	U	
87-68-3	Hexachlorobutadiene	320.	U	
59-50-7	4-Chloro-3-methylphenol	320.	U	
91-57-6	2-Methylnaphthalene	320.	U	
77-47-4	Hexachlorocyclopentadiene	320.	U	
88-06-2	2,4,6-Trichlorophenol	320.	U	
95-95-4	2,4,5-Trichlorophenol	1600.	U	
91-58-7	2-Chloronaphthalene	320.	U	
88-74-4	2-Nitroaniline	1600.	U	
131-11-3	Dimethylphthalate	320.	U	
208-96-8	Acenaphthylene	320.	U	
606-20-2	2,6-Dinitrotoluene	320.	U	

AS 1/26/94

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B086V2

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-05190-E1

Sample wt/vol: 32.749 (g/mL) G Lab File ID: >C1804

Level: (low/med) LOW Date Received: 03/17/93

% Moisture: not dec.4.5 dec. -- Date Extracted: 03/17/93

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 3/18/93

GPC Cleanup: (Y/N) N pH: 8.82 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q	
99-09-2	3-Nitroaniline	1600.	U	
83-32-9	Acenaphthene	320.	U	
51-28-5	2,4-Dinitrophenol	1600.	U	
100-02-7	4-Nitrophenol	1600.	U	
132-64-9	Dibenzofuran	320.	U	
121-14-2	2,4-Dinitrotoluene	320.	U	
84-66-2	Diethylphthalate	~~18~~.	~~JB~~	320 U
7005-72-3	4-Chlorophenyl-phenylether	320.	U	
86-73-7	Fluorene	320.	U	
100-01-6	4-Nitroaniline	1600.	U	
534-52-1	4,6-Dinitro-2-methylphenol	1600.	U	
86-30-6	N-Nitrosodiphenylamine (1)	320.	U	
101-55-3	4-Bromophenyl-phenylether	320.	U	
118-74-1	Hexachlorobenzene	320.	U	
87-86-5	Pentachlorophenol	1600.	U	
85-01-8	Phenanthrene	320.	U	
120-12-7	Anthracene	320.	U	
84-74-2	Di-n-butylphthalate	~~18~~.	~~JB~~	320 U
206-44-0	Fluoranthene	320.	U	
129-00-0	Pyrene	320.	U	
85-68-7	Butylbenzylphthalate	320.	U	
91-94-1	3,3'-Dichlorobenzidine	640.	U	
56-55-3	Benzo(a)anthracene	320.	U	
218-01-9	Chrysene	320.	U	
117-81-7	bis(2-Ethylhexyl)phthalate	35.	J	
117-84-0	Di-n-octylphthalate	~~11~~.	~~JB~~	320 U
205-99-2	Benzo(b)fluoranthene	320.	U	
207-08-9	Benzo(k)fluoranthene	320.	U	
50-32-8	Benzo(a)pyrene	320.	U	
193-39-5	Indeno(1,2,3-cd)pyrene	320.	U	
53-70-3	Dibenz(a,h)anthracene	320.	U	
191-24-2	Benzo(g,h,i)perylene	320.	U	

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

AS 10/28/013

F03-608

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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

B086V2

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-05190-E1

Sample wt/vol: 32.749 (g/mL) G Lab File ID: >C1804

Level: (low/med) LOW Date Received: 03/17/93

% Moisture: not dec. 4.5 dec. -- Date Extracted: 03/17/93

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 3/18/93

GPC Cleanup: (Y/N) N pH: 8.82 Dilution Factor: 1.00000

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1. 123422	2-Pentanone, 4-hydroxy-4-met	5.11	77000.	~~JAB~~	U
2.	Unknown	8.20	1900.	~~JAB~~	U
3. 79345	Ethane, 1,1,2,2-tetrachloro	8.40	120.	~~JB~~	U
4.	Unknown	9.19	270.	~~JAB~~	U
5.	Unknown	9.34	1100.	~~JAB~~	U
6.	Unknown	9.72	180.	~~JB~~	U
7.	Unknown	10.60	360.	~~JB~~	U
8.	Unknown	11.25	380.	~~JB~~	U
9.	Unknown	36.45	240.	~~JB~~	U
10.	Unknown	39.91	150.	~~J~~	JN
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
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FORM I SV-TIC 1/87 Rev.

F03-609

AS
10/28/13

ORGANIC COMPOUND ANALYSIS REPORT

SEMIVOLATILE COMPOUNDS

SAMPLE ANALYSIS REPORTED

Analysis of sample B086V2 from T-106 for semivolatile organic compounds by gas chromatography/mass spectrometry (GC/MS) is the subject of this report.

SAMPLE DESCRIPTION AND PREPARATION

Sample ID	ACL Lab Number
B086V2	93-05190

The samples were received in good condition on 3/17/93. Extractions of both samples and spiked sample were performed on 3/17/93.

- Extraction procedure: PNL-ALO-344.
- Extraction location: Lab 306, 325 building
- Extraction type: Sonication, low level, soil
- Sample/Extract storage temperature: 4°C(+/-2°)

ANALYSIS METHOD

- GC/MS procedure: PNL-ALO-345.
- GC/MS instrumentation: HP-5890/5970 GC/MS (WB38473)

QUALITY CONTROL

The QC features in the analytical procedure were followed as described below. The following lists the attached CLP forms that relate to QC and summarizes the QC results.

Form	Information	Comments
2D	Surrogate Recovery	Met all requirements
3D	MS/MSD Recovery	Met all requirements
4B	Method Blank Summary	Met all requirements
5B	Tune/Mass Calibration	Met all requirements
6B.C	Initial Calibration	Met all requirements
7B.C	Daily Calibration	Met all requirements

8B.C Internal Standards Met all requirements

The following comments provide additional information on QC and related features for analysis of these samples.

DATA

The data and calibration are archived on magnetic tape in the 325 building 325 laboratory. The following is the list of the pertinent files.

File Name	Sample Number	Sample Analyzed
>C1801		Mass calibration and tune check
>C1802		Continuing calibration
>C1803	SBLK17	Method blank
>C1804	93-05190-E1	B086V2
>C1805	93-05190-E3	B086V2 MS
>C1806	93-05180-E4	B086V2 MSD

Laboratory data is maintained as follows:

Activity	Location
• GC/MS injection log	BNW-52916 pg. 6
• Extraction bench sheet:	filed with data in the ACL/ALO records center
• GC/MS data. sample report:	filed with data in the ACL/ALO records center

RESULTS

CLP Target Compounds: As seen in the attached 1B.C Forms. target compounds found are diethylphthalate. di-n-butylphthalate. and di-n-octylphthalate in the method blank. the sample. and the MS/MSD samples. Bis(2-ethylhexyl)phthalate is in the sample. and the MS/MSD samples. In all cases the concentrations of these are far below the CROL. Phthalates are common contaminants. particularly if samples are contacted by plastics.

Tentatively Identified Compounds (TIC): The attached 1F Forms show results for the TIC's. Concentration estimates for the TIC's are made assuming that the response factor for each TIC is one. The peak area for each TIC is then compared to the area of the nearest internal standard (for which concentrations are known) to estimate the TIC concentrations. Identification of the TIC is made by a computer search of the NIST mass spectral library to attempt a match with the spectrum of each of the TIC's. The TIC's reported as "Unknown" did not have satisfactory matches with library spectra. The TIC concentration estimate and identification are reported only if the TIC peak area is 10% or greater than the nearest internal standard peak area.

The TIC's observed in the sample were also in the blank except an unknown at a concentration of 150 µg/Kg which would be below a quantitation limit. The TIC's with the A flag are aldol condensation products formed during the sample preparation process.

The following defines the Q-flags in the Form 1's

"Q" Flag	Definition
U	Indicates the compound was analyzed for but not detected. the U-flagged concentration is the Contract Required Quantitation Limit.
J	Indicates an estimated value for target and tentatively identified compounds. spectra meet criteria but response is below Contract Required Quantitation Limit for the target compounds.
B	Indicates compound was found in the blank.
X	Indicates compound was manually deleted because all requirements were not met.
D	Indicates analysis was performed on a diluted sample.
E	Indicates that quantitation was outside of the calibration range.
A	Aldol condensation product.

ANALYST _____ DATE 3/19/93 REVIEW _____ DATE 4-16-93

3/19/93

9613492.1803

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK17

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: METH BLANK

Sample wt/vol: 30 (g/mL) G Lab File ID: >C1803

Level: (low/med) LOW Date Received: 03/17/93

% Moisture: not dec.-- dec. -- Date Extracted: 03/17/93

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 3/18/93

GPC Cleanup: (Y/N) N pH:---- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	330.	U
111-44-4	bis(2-Chloroethyl)Ether	330.	U
95-57-8	2-Chlorophenol	330.	U
541-73-1	1,3-Dichlorobenzene	330.	U
106-46-7	1,4-Dichlorobenzene	330.	U
100-51-6	Benzyl alcohol	330.	U
95-50-1	1,2-Dichlorobenzene	330.	U
95-48-7	2-Methylphenol	330.	U
39638-32-9	bis(2-chloroisopropyl)ether	330.	U
106-44-5	4-Methylphenol	330.	U
621-64-7	N-Nitroso-Di-n-propylamine	330.	U
67-72-1	Hexachloroethane	330.	U
98-95-3	Nitrobenzene	330.	U
78-59-1	Isophorone	330.	U
88-75-5	2-Nitrophenol	330.	U
105-67-9	2,4-Dimethylphenol	330.	U
65-85-0	Benzoic acid	1700.	U
111-91-1	bis(2-Chloroethoxy)methane	330.	U
120-83-2	2,4-Dichlorophenol	330.	U
120-82-1	1,2,4-Trichlorobenzene	330.	U
91-20-3	Naphthalene	330.	U
106-47-8	4-Chloroaniline	330.	U
87-68-3	Hexachlorobutadiene	330.	U
59-50-7	4-Chloro-3-methylphenol	330.	U
91-57-6	2-Methylnaphthalene	330.	U
77-47-4	Hexachlorocyclopentadiene	330.	U
88-06-2	2,4,6-Trichlorophenol	330.	U
95-95-4	2,4,5-Trichlorophenol	1700.	U
91-58-7	2-Chloronaphthalene	330.	U
88-74-4	2-Nitroaniline	1700.	U
131-11-3	Dimethylphthalate	330.	U
208-96-8	Acenaphthylene	330.	U
606-20-2	2,6-Dinitrotoluene	330.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK17

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: METH BLANK

Sample wt/vol: 30 (g/mL) G Lab File ID: >C1803

Level: (low/med) LOW Date Received: 03/17/93

% Moisture: not dec.-- dec. -- Date Extracted: 03/17/93

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 3/18/93

GPC Cleanup: (Y/N) N pH:---- Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	330.	U
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	330.	U
121-14-2	2,4-Dinitrotoluene	330.	U
84-66-2	Diethylphthalate	14.	J
7005-72-3	4-Chlorophenyl-phenylether	330.	U
86-73-7	Fluorene	330.	U
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine (1)	330.	U
101-55-3	4-Bromophenyl-phenylether	330.	U
118-74-1	Hexachlorobenzene	330.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	330.	U
120-12-7	Anthracene	330.	U
84-74-2	Di-n-butylphthalate	19.	J
206-44-0	Fluoranthene	330.	U
129-00-0	Pyrene	330.	U
85-68-7	Butylbenzylphthalate	330.	U
91-94-1	3,3'-Dichlorobenzidine	670.	U
56-55-3	Benzo(a)anthracene	330.	U
218-01-9	Chrysene	330.	U
117-81-7	bis(2-Ethylhexyl)phthalate	330.	U
117-84-0	Di-n-octylphthalate	46.	J
205-99-2	Benzo(b)fluoranthene	330.	U
207-08-9	Benzo(k)fluoranthene	330.	U
50-32-8	Benzo(a)pyrene	330.	U
193-39-5	Indeno(1,2,3-cd)pyrene	330.	U
53-70-3	Dibenz(a,h)anthracene	330.	U
191-24-2	Benzo(g,h,i)perylene	330.	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK17

Lab Name:BATTELLE-PNL Contract:-------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: METH BLANK

Sample wt/vol: 30 (g/mL) G Lab File ID: >C1803

Level: (low/med) LOW Date Received: 03/17/93

% Moisture: not dec.-- dec. -- Date Extracted:03/17/93

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 3/18/93

GPC Cleanup: (Y/N) N pH:-- Dilution Factor: 1.00000

Number TICs found: 12

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123422	2-Pentanone, 4-hydroxy-4-met	5.21	98000.	JA
2.		Unknown	8.01	214.	JA
3.		Unknown	8.22	2400.	JA
4.	79345	Ethane, 1,1,2,2-tetrachloro	8.42	280.	J
5.		Unknown	9.21	350.	JA
6.		Unknown	9.36	1400.	JA
7.		Unknown	9.73	230.	J
8.		Unknown	10.04	210.	J
9.		Unknown	10.62	320.	J
10.		Unknown	11.27	1300.	J
11.		Unknown	36.33	140.	J
12.		Unknown	36.46	280.	J
13.					
14.					
15.					
16.					
17.					
18.					
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FORM I SV-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BO86V2MS

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-05190-E3

Sample wt/vol: 31.738 (g/mL) G Lab File ID: >C1805

Level: (low/med) LOW Date Received: 03/17/93

% Moisture: not dec.4.5 dec. -- Date Extracted: 03/17/93

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 3/18/93

GPC Cleanup: (Y/N) N pH: 8.82 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	4800.	
111-44-4	bis(2-Chloroethyl)Ether	330.	U
95-57-8	2-Chlorophenol	4600.	
541-73-1	1,3-Dichlorobenzene	330.	U
106-46-7	1,4-Dichlorobenzene	2100.	
100-51-6	Benzyl alcohol	330.	U
95-50-1	1,2-Dichlorobenzene	330.	U
95-48-7	2-Methylphenol	330.	U
39638-32-9	bis(2-chloroisopropyl)ether	330.	U
106-44-5	4-Methylphenol	330.	U
621-64-7	N-Nitroso-Di-n-propylamine	2400.	
67-72-1	Hexachloroethane	330.	U
98-95-3	Nitrobenzene	330.	U
78-59-1	Isophorone	330.	U
88-75-5	2-Nitrophenol	330.	U
105-67-9	2,4-Dimethylphenol	330.	U
65-85-0	Benzoic acid	1600.	U
111-91-1	bis(2-Chloroethoxy)methane	330.	U
120-83-2	2,4-Dichlorophenol	330.	U
120-82-1	1,2,4-Trichlorobenzene	2200.	
91-20-3	Naphthalene	330.	U
106-47-8	4-Chloroaniline	330.	U
87-68-3	Hexachlorobutadiene	330.	U
59-50-7	4-Chloro-3-methylphenol	4700.	
91-57-6	2-Methylnaphthalene	330.	U
77-47-4	Hexachlorocyclopentadiene	330.	U
88-06-2	2,4,6-Trichlorophenol	330.	U
95-95-4	2,4,5-Trichlorophenol	1600.	U
91-58-7	2-Chloronaphthalene	330.	U
88-74-4	2-Nitroaniline	1600.	U
131-11-3	Dimethylphthalate	330.	U
208-96-8	Acenaphthylene	330.	U
606-20-2	2,6-Dinitrotoluene	330.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BO86V2MS

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-05190-E3

Sample wt/vol: 31.738 (g/mL) G Lab File ID: >C1805

Level: (low/med) LOW Date Received: 03/17/93

% Moisture: not dec.4.5 dec. -- Date Extracted: 03/17/93

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 3/18/93

GPC Cleanup: (Y/N) N pH: 8.82 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1600.	U
83-32-9	Acenaphthene	2200.	
51-28-5	2,4-Dinitrophenol	1600.	U
100-02-7	4-Nitrophenol	4400.	
132-64-9	Dibenzofuran	330.	U
121-14-2	2,4-Dinitrotoluene	2100.	
84-66-2	Diethylphthalate	23.	JB
7005-72-3	4-Chlorophenyl-phenylether	330.	U
86-73-7	Fluorene	330.	U
100-01-6	4-Nitroaniline	1600.	U
534-52-1	4,6-Dinitro-2-methylphenol	1600.	U
86-30-6	N-Nitrosodiphenylamine (1)	330.	U
101-55-3	4-Bromophenyl-phenylether	330.	U
118-74-1	Hexachlorobenzene	330.	U
87-86-5	Pentachlorophenol	4400.	
85-01-8	Phenanthrene	330.	U
120-12-7	Anthracene	330.	U
84-74-2	Di-n-butylphthalate	48.	JB
206-44-0	Fluoranthene	330.	U
129-00-0	Pyrene	2200.	
85-68-7	Butylbenzylphthalate	330.	U
91-94-1	3,3'-Dichlorobenzidine	660.	U
56-55-3	Benzo(a)anthracene	330.	U
218-01-9	Chrysene	330.	U
117-81-7	bis(2-Ethylhexyl)phthalate	39.	J
117-84-0	Di-n-octylphthalate	20.	JB
205-99-2	Benzo(b)fluoranthene	330.	U
207-08-9	Benzo(k)fluoranthene	330.	U
50-32-8	Benzo(a)pyrene	330.	U
193-39-5	Indeno(1,2,3-cd)pyrene	330.	U
53-70-3	Dibenz(a,h)anthracene	330.	U
191-24-2	Benzo(g,h,i)perylene	330.	U

(1) - Cannot be separated from Diphenylamine

9613492.1808

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BO86V2MSD

Lab Name:BATTELLE-PNL Contract:-------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-05190-E4

Sample wt/vol: 32.915 (g/mL) G Lab File ID: >C1806

Level: (low/med) LOW Date Received: 03/17/93

% Moisture: not dec.4.5 dec. -- Date Extracted:03/17/93

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 3/18/93

GPC Cleanup: (Y/N) N pH:8.82 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	4500.	
111-44-4	bis(2-Chloroethyl)Ether	320.	U
95-57-8	2-Chlorophenol	4300.	
541-73-1	1,3-Dichlorobenzene	320.	U
106-46-7	1,4-Dichlorobenzene	2000.	
100-51-6	Benzyl alcohol	320.	U
95-50-1	1,2-Dichlorobenzene	320.	U
95-48-7	2-Methylphenol	320.	U
39638-32-9	bis(2-chloroisopropyl)ether	320.	U
106-44-5	4-Methylphenol	320.	U
621-64-7	N-Nitroso-Di-n-propylamine	2300.	
67-72-1	Hexachloroethane	320.	U
98-95-3	Nitrobenzene	320.	U
78-59-1	Isophorone	320.	U
88-75-5	2-Nitrophenol	320.	U
105-67-9	2,4-Dimethylphenol	320.	U
65-85-0	Benzoic acid	1600.	U
111-91-1	bis(2-Chloroethoxy)methane	320.	U
120-83-2	2,4-Dichlorophenol	320.	U
120-82-1	1,2,4-Trichlorobenzene	2000.	
91-20-3	Naphthalene	320.	U
106-47-8	4-Chloroaniline	320.	U
87-68-3	Hexachlorobutadiene	320.	U
59-50-7	4-Chloro-3-methylphenol	4400.	
91-57-6	2-Methylnaphthalene	320.	U
77-47-4	Hexachlorocyclopentadiene	320.	U
88-06-2	2,4,6-Trichlorophenol	320.	U
95-95-4	2,4,5-Trichlorophenol	1600.	U
91-58-7	2-Chloronaphthalene	320.	U
88-74-4	2-Nitroaniline	1600.	U
131-11-3	Dimethylphthalate	320.	U
208-96-8	Acenaphthylene	320.	U
606-20-2	2,6-Dinitrotoluene	320.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BO86V2MSD

Lab Name:BATTELLE-PNL Contract:-------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix: (soil/water) SOIL Lab Sample ID: 93-05190-E4

Sample wt/vol: 32.915 (g/mL) G Lab File ID: >C1806

Level: (low/med) LOW Date Received: 03/17/93

% Moisture: not dec.4.5 dec. -- Date Extracted:03/17/93

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 3/18/93

GPC Cleanup: (Y/N) N pH:8.82 Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	1600.	U
83-32-9	Acenaphthene	2000.	
51-28-5	2,4-Dinitrophenol	1600.	U
100-02-7	4-Nitrophenol	4200.	
132-64-9	Dibenzofuran	320.	U
121-14-2	2,4-Dinitrotoluene	2000.	
84-66-2	Diethylphthalate	21.	JB
7005-72-3	4-Chlorophenyl-phenylether	320.	U
86-73-7	Fluorene	320.	U
100-01-6	4-Nitroaniline	1600.	U
534-52-1	4,6-Dinitro-2-methylphenol	1600.	U
86-30-6	N-Nitrosodiphenylamine (1)	320.	U
101-55-3	4-Bromophenyl-phenylether	320.	U
118-74-1	Hexachlorobenzene	320.	U
87-86-5	Pentachlorophenol	4200.	
85-01-8	Phenanthrene	320.	U
120-12-7	Anthracene	320.	U
84-74-2	Di-n-butylphthalate	29.	JB
206-44-0	Fluoranthene	320.	U
129-00-0	Pyrene	2000.	
85-68-7	Butylbenzylphthalate	320.	U
91-94-1	3,3'-Dichlorobenzidine	640.	U
56-55-3	Benzo(a)anthracene	320.	U
218-01-9	Chrysene	320.	U
117-81-7	bis(2-Ethylhexyl)phthalate	34.	J
117-84-0	Di-n-octylphthalate	15.	JB
205-99-2	Benzo(b)fluoranthene	320.	U
207-08-9	Benzo(k)fluoranthene	320.	U
50-32-8	Benzo(a)pyrene	320.	U
193-39-5	Indeno(1,2,3-cd)pyrene	320.	U
53-70-3	Dibenz(a,h)anthracene	320.	U
191-24-2	Benzo(g,h,i)perylene	320.	U

(1) - Cannot be separated from Diphenylamine

9613492.1810

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	OTHER	TOT OUT
01	SBLK17	71	72	73	81	78	84		0
02	BO86V2	58	62	69	17	68	80		0
03	BO86V2MS	70	70	70	82	76	86		0
04	BO86V2MSD	70	67	66	78	73	80		0
05									
06									
07									
08									
09									
10									
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27									
28									
29									
30									

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl-d14	(18-137)
S4 (PHL)	= Phenol-d5	(24-113)
S5 (2FP)	= 2-Fluorophenol	(25-121)
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)

MS 10/25/93

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

FORM II SV-2 1/87 Rev.

F03-614

9613492.1811

3D
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Matrix Spike - EPA Sample No.: B086V2 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	6600.00	0.00	4790.00	73	26- 90
2-Chlorophenol	6600.00	0.00	4640.00	70	25-102
1,4-Dichlorobenzene	3300.00	0.00	2120.00	64	28-104
N-Nitroso-di-n-prop.(1)	3300.00	0.00	2420.00	73	41-126
1,2,4-Trichlorobenzene	3300.00	0.00	2170.00	66	38-107
4-Chloro-3-methylphenol	6600.00	0.00	4440.00	71	26-103
Acenaphthene	3300.00	0.00	2090.00	66	31-137
4-Nitrophenol	6600.00	0.00	4440.00	67	11-114
2,4-Dinitrotoluene	3300.00	0.00	2150.00	65	28- 89
Pentachlorophenol	6600.00	0.00	4450.00	67	17-109
Pyrene	3300.00	0.00	2170.00	66	35-142

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	6360.00	4450.00	70	4	35	26- 90
2-Chlorophenol	6360.00	4320.00	66	6	50	25-102
1,4-Dichlorobenzene	3180.00	2010.00	63	2	27	28-104
N-Nitroso-di-n-prop.(1)	3180.00	2260.00	71	3	38	41-126
1,2,4-Trichlorobenzene	3180.00	2040.00	64	3	23	38-107
4-Chloro-3-methylphenol	6360.00	4400.00	69	3	33	26-103
Acenaphthene	3180.00	2020.00	61	9	19	31-137
4-Nitrophenol	6360.00	4170.00	63	6	50	11-114
2,4-Dinitrotoluene	3180.00	2030.00	61	6	47	28- 89
Pentachlorophenol	6360.00	4200.00	64	5	47	17-109
Pyrene	3180.00	1990.00	60	10	36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of qc limits

AS 10/25/97

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS:

FORM III SV-1 1/87 Rev.

F03-615

9613492.1812

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Lab File ID: >C1803 Lab Sample ID: METH BLANK

Date Extracted 03/17/93 Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 3/18/93 Time Analyzed: 16:08

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: BNA1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	BO86V2	93-05190-E1	>C1804	3/18/93
02	BO86V2MS	93-05190-E3	>C1805	3/18/93
03	BO86V2MSD	93-05190-E4	>C1806	3/18/93
04				
05				
06				
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COMMENTS:

FORM IV SV 1/87 Rev.

F03-616

9613492.1813

5B
SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name:New CLP Forms Contract:1234-56

Lab Code: HP001 Case No.: AD-76 SAS No.: 12345 SDG No.: 123456

Lab File ID: >C1801 DFTPP Injection Date: 3/18/93

Instrument ID:BNA1 DFTPP Injection Time: 11:42

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	48.9
68	Less than 2.0% of mass 69	0.0(0.0)1
69	Mass 69 relative abundance	60.
70	Less than 2.0% of mass 69	0.0(0.0)1
127	40.0 - 60.0% of mass 198	40.5
197	Less than 1.0% of mass 198	.7
198	Base Peak, 100% relative abundance	100.
199	5.0 - 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	21.9
365	Greater than 1.00% of mass 198	2.42
441	Present, but less than mass 443	13.1
442	Greater than 40.0% of mass 198	93.0
443	17.0 - 23.0% of mass 442	18.5(19.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SVSTD050	CONT CALIB	>C1802	3/18/93	12:15
02	SBLK17	METH BLANK	>C1803	3/18/93	16:08
03	BO86V2	93-05190-E1	>C1804	3/18/93	17:04
04	BO86V2MS	93-05190-E3	>C1805	3/18/93	18:00
05	BO86V2MSD	93-05190-E4	>C1806	3/18/93	18:57
06					
07					
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FORM V SV 1/87 Rev.

AS 10/25/93

F03-617

9613492.1814

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name:BATTELLE-PNL Contract:-------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Instrument ID: BNA1 Calibration Date: 3/18/93 Time: 12:15

Lab File ID: >C1802 Init. Calib. Date(s):11/05/92 03/18/93

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Phenol	*	1.737	2.039	17.4	*
bis(2-Chloroethyl)ether		1.489	1.744	17.1	
2-Chlorophenol		1.356	1.541	13.6	
1,3-Dichlorobenzene		1.527	1.707	11.8	
1,4-Dichlorobenzene	*	1.549	1.717	10.8	*
Benzyl alcohol		.854	1.031	20.7	
1,2-Dichlorobenzene		1.458	1.656	13.6	
2-Methylphenol		1.138	1.357	19.3	
bis(2-chloroisopropyl)ether		1.738	2.511	44.5	
4-Methylphenol		1.180	1.426	20.9	
N-Nitroso-di-n-propylamine	#	.871	1.175	34.9	#
Hexachloroethane		.666	.754	13.3	
Nitrobenzene		.475	.527	11.0	
Isophorone		.909	1.029	13.2	
2-Nitrophenol	*	.253	.269	6.2	*
2,4-Dimethylphenol		.322	.364	13.0	
Benzoic acid		.276	.280	1.4	
bis(2-Chloroethoxy)methane		.544	.619	13.7	
2,4-Dichlorophenol	*	.354	.366	3.4	*
1,2,4-Trichlorobenzene		.375	.392	4.5	
Naphthalene		1.047	1.158	10.5	
4-Chloroaniline		.474	.540	13.8	
Hexachlorobutadiene	*	.217	.215	1.2	*
4-Chloro-3-methylphenol	*	.361	.422	16.8	*
2-Methylnaphthalene		.661	.743	12.3	
Hexachlorocyclopentadiene	#	.551	.497	9.9	#
2,4,6-Trichlorophenol	*	.524	.524	.1	*
2,4,5-Trichlorophenol		.521	.566	8.7	
2-Chloronaphthalene		1.325	1.445	9.1	
2-Nitroaniline		.569	.678	19.0	
Dimethylphthalate		1.593	1.740	9.2	
Acenaphthylene		2.033	2.333	14.8	
2,6-Dinitrotoluene		.416	.450	8.1	
3-Nitroaniline		.448	.520	16.1	
Acenaphthene	*	1.235	1.377	11.5	*
2,4-Dinitrophenol	#	.316	.256	19.0	#
4-Nitrophenol	#	.238	.271	13.5	#

AS 10/25/93

FO?-C2C

9613492.1815

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name:BATTELLE-PNL Contract:-------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Instrument ID: BNA1 Calibration Date: 3/18/93 Time: 12:15

Lab File ID: >C1802 Init. Calib. Date(s):11/05/92 03/18/93

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND	$\overline{RRF}$	RRF50	%D
Dibenzofuran	1.751	1.966	12.3
2,4-Dinitrotoluene	.595	.661	11.0
Diethylphthalate	1.609	1.869	16.1
4-Chlorophenyl-phenylether	.695	.760	9.4
Fluorene	1.373	1.557	13.4
4-Nitroaniline	.470	.548	16.6
4,6-Dinitro-2-methylphenol	.209	.207	1.0
N-Nitrosodiphenylamine (1) *	.517	.606	17.1 *
4-Bromophenyl-phenylether	.239	.268	11.9
Hexachlorobenzene	.342	.354	3.4
Pentachlorophenol *	.220	.237	7.6 *
Phenanthrene	1.065	1.205	13.2
Anthracene	1.041	1.219	17.1
Di-n-butylphthalate	1.498	1.744	16.4
Fluoranthene *	1.083	1.263	16.6 *
Pyrene	1.378	1.548	12.4
Butylbenzylphthalate	.793	.901	13.5
3,3'-Dichlorobenzidine	.430	.494	14.8
Benzo(a)anthracene	1.258	1.323	5.2
Chrysene	1.234	1.372	11.3
bis(2-Ethylhexyl)phthalate	1.131	1.290	14.1
Di-n-octylphthalate *	1.687	2.019	19.7 *
Benzo(b)fluoranthene	1.194	1.234	3.3
Benzo(k)fluoranthene	1.091	1.323	21.3
Benzo(a)pyrene *	1.094	1.239	13.2 *
Indeno(1,2,3-cd)pyrene	1.339	1.408	5.2
Dibenz(a,h)anthracene	1.056	1.130	7.0
Benzo(g,h,i)perylene	1.161	1.216	4.7
Nitrobenzene-d5	.473	.507	7.2
2-Fluorobiphenyl	1.413	1.517	7.4
Terphenyl-d14	1.028	1.148	11.7
Phenol-d5	1.603	1.703	6.2
2-Fluorophenol	1.365	1.393	2.1
2,4,6-Tribromophenol	.169	.173	2.4

AS 10/25/03

(1) Cannot be separated from Diphenylamine

F03-621

9613492.1816

8B
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Lab File ID (Standard): >C1802 Date Analyzed: 3/18/93

Instrument ID: BNA1 Time Analyzed: 12:15

		IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
	12 HOUR STD	37942.	11.39	130260.	15.56	65432.	21.06
	UPPER LIMIT	75884.		260520.		130864.	
	LOWER LIMIT	18971.		65130.		32716.	
	EPA SAMPLE NO.						
01	SBLK17	38839.	11.39	133262.	15.54	67457.	21.04
02	BO86V2	38175	11.39	132809	15.53	66956	21.04
03	BO86V2MS	37167.	11.39	129379.	15.54	66262.	21.04
04	BO86V2MSD	39279.	11.39	136689.	15.54	70417.	21.04
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✓AS 1/25/93

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

UPPER LIMIT = + 100% of internal stansard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-1 1/87 Rev.

F03-622

9613492.1817

8C
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: BATTELLE-PNL Contract: -------

Lab Code: ------- Case No.: ------ SAS No.: ------ SDG No.: ------

Lab File ID (Standard): >C1802 Date Analyzed: 3/18/93

Instrument ID: BNA1 Time Analyzed: 12:15

		IS4 (PHN) AREA #	RT	IS5 (CRY) AREA #	RT	IS3 (PRY) AREA #	RT
	12 HOUR STD	117143.	25.63	98177.	33.76	111326.	37.87
	UPPER LIMIT	234286.		196354.		222652.	
	LOWER LIMIT	58571.		49089.		55663.	
	EPA SAMPLE NO.						
01	SBLK17	116987.	25.61	105468.	33.73	108646.	37.86
02	BO86V2	119708.	25.61	108742.	33.73	116281.	37.85
03	BO86V2MS	118996.	25.62	107273.	33.72	116062.	37.84
04	BO86V2MSD	127101.	25.62	117257.	33.72	127201.	37.85
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#5 10/25/93

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

UPPER LIMIT = + 100% of internal stansard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-2 1/87 Rev.

F03-623

9613492.1818

page 1 of 3

pH BENCH SHEET

BATTELLE Pacific Northwest Laboratories ACL, Organic Analysis Group. File Location: NA	PROJECT: TI: T-106-62	DATE: 3-17-93	PROCEDURES: PNL-ALO 344
325 Building, Room 306	Work pkg:	Matrix: Soil	Analyst: mfd
ph Meter ID# 164452-92	Buffer: pH 4 pH 7	ID# 588108 ID# 31148	Exp. date 8-11-93 Exp. date 5/93

AMOUNT OF WATER USED FOR pH LEACH 50 ml

REAGENT USED FOR TITRATION: not titrated
Name: NA ID#: NA Conc: NA

Sample Id	Weight/Vol	Starting pH	Reagent added (ul)	Ending pH	(ul/g)
93-05190	50.000	8.82	—	—	—
pH 10 pH=9.95					
582108					
(9-6-93)					

F03-624

9613492.1819

page 2 of 3

WEIGHT BENCH SHEET

BATTELLE Pacific Northwest Laboratories ACL, Organic Analysis Group File Location: NA	PROJECT: TI: T106-K2	DATE: 3-17-93	PROCEDURES: PUL-ALO-344
325 Building, Room 306	Work pkg:	Matrix: Soil	Analyst: MJL
BALANCE ID# WB76725	WEIGHT: 99.9998 ID#: 360-80-02-037 SIZE: 100g	OK(Y/N): Y	

SAMPLE ID	FINAL WEIGHT (g)	TARE WEIGHT (g)	SAMPLE WEIGHT (g)	
93-05190	170.979	138.230	32.749	65.5
	236.136		65.157	
93-05190 MS	170.981	139.243	31.738	63.5
	234.101	63.120		
93-05190 MSD	170.512	132.597	32.915	65.8
	236.345	65.833		
SBLK 17	207.721	142.587		Sodium Sulfat.

COMMENTS:

F03-625

9613492.1820

ORGANICS ANALYSIS BENCH SHEET

page 3 of 3

BATTELLE Pacific Northwest Laboratory ACL, Organic Analysis Group	EXTRACTION PROCEDURES: DUL-ALU-344 MATRIX: SOIL	TEST INSTRUCTIONS: T-106-2.
WORK PKG: M99277	EXTRACTION ANALYST: MJ	DATE: 3-17-93

SAMPLE NUMBER	WEIGHT ~~VOLUME~~	Sodium Sulfate				FINAL SOLVENT	FINAL VOLUME
93-05190						CH_2Cl_2	1ml
Sample	32.7	65.2					
MS	31.7	63.1					
MSD	32.9	65.8					
SBLK17	0	65.1				✓	✓

SURROGATE NAME	VOLUME (ul)	52901 ID NUMBER	CONC. ug/ml	SPIKE NAME	VOLUME ul	52901 ID NUMBER	CONC. ug/ml
BN	500	38-18	100	BN	1000	46-8	100
Acid	500	38-17	200	Acid	1000	46-9	200

COMMENTS: no deviations from procedure
extract overnight in refrig KD 3-18-93

CHAIN OF CUSTODY

	LOCATION	DATE	INT.	LOCATION	DATE	INT.	LOCATION	DATE	INT.
Sample	306/#4	3-17-93	[illegible]						
Extract	306 #3	"	[illegible]	Spent	3-18-93				
Residue	300	3-18-93	[illegible]						
Extract	400	3-18-93	[illegible]						

F03-626

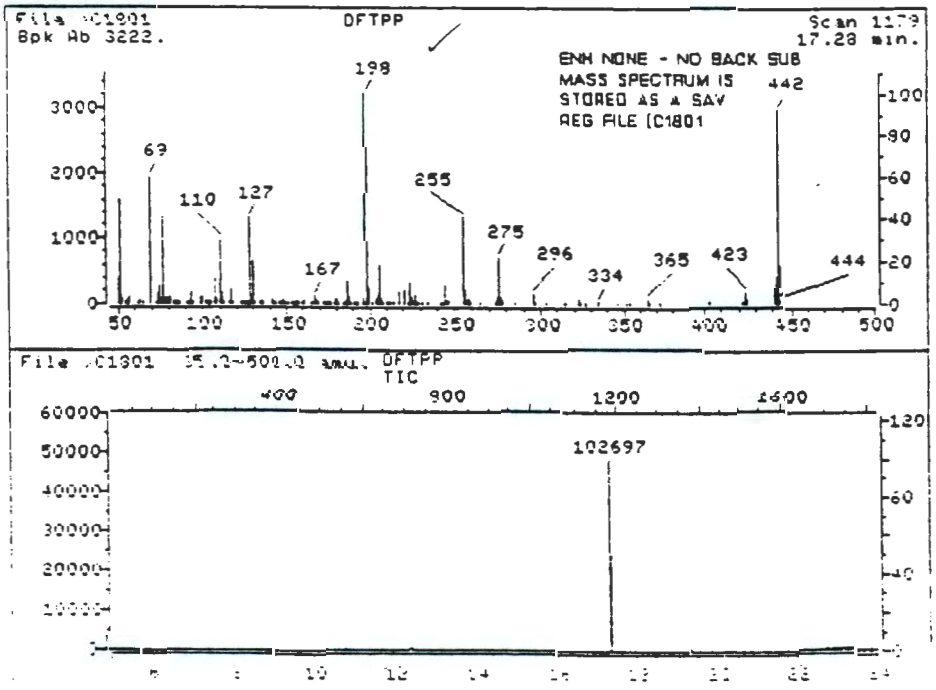
9613492.1821

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	48.91	48.91	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	60.15	60.15	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	40.53	40.53	Ok
197	Less than 1% of mass 198	.65	.65	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.95	6.95	Ok
275	10-30% of mass 198	21.88	21.88	Ok
365	Greater than 1% of mass 198	2.42	2.42	Ok
441	0-100% of mass 443	13.13	70.85	Ok
442	Greater than 40% of mass 198	92.95	92.95	Ok
443	17-23% of mass 442	18.53	19.93	Ok

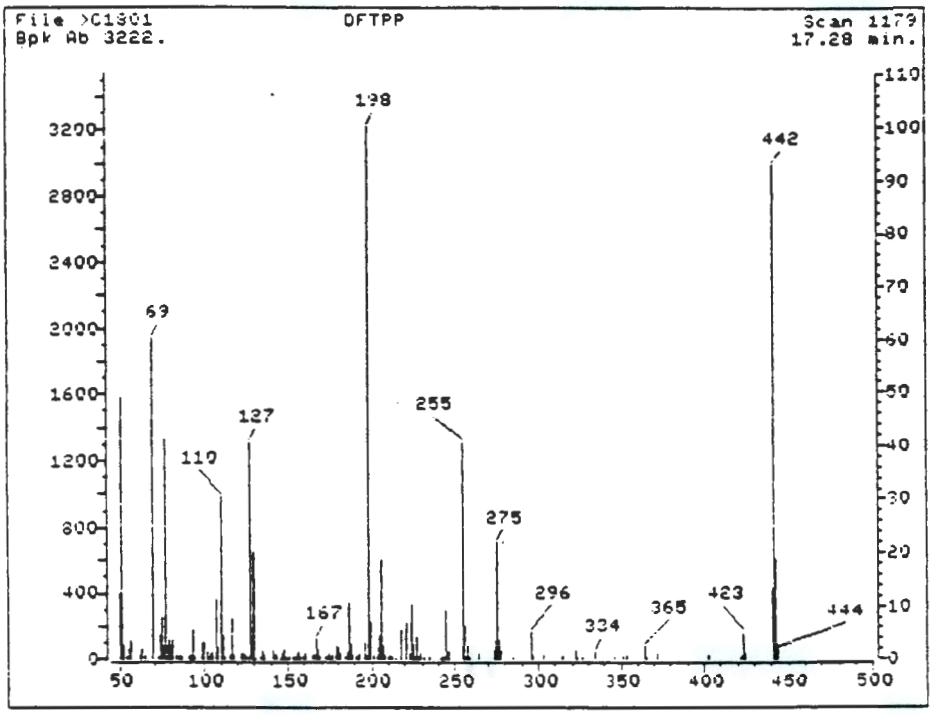
Injection Date: 03/18/93
Injection Time: 11:42
Data File: >C1801
Scan: 1179



AS 10/25/93

F03-627

9613492.1822



Instrument ID: BNA1 Analyzed on: 3/18/93 11:42

AG
10/25/93

503-628

9613492.1823

>C1801 DFTPP
1179 NRM

File: >C1801 Scan #: 1179 Retn. time: 17.28

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	.341	99.90	.745	151.20	.403	[illegible]	.838	258.90	.466
37.90	.745	101.10	1.366	[illegible]	.559	203.00	.466	265.00	.931
39.00	[illegible]	102.90	.559	153.90	.403	204.00	2.173	273.00	1.645
[illegible]	[illegible]	104.00	1.179	154.90	1.024	205.00	4.376	274.05	3.476
50.00	12.135	104.90	.962	156.00	1.304	206.00	18.591	275.05	21.881
51.00	48.914	107.00	11.359	157.40	.279	207.00	2.576	276.05	3.383
52.10	2.328	108.00	1.955	159.90	.590	208.00	.683	277.05	1.521
54.90	.435	110.00	30.478	161.00	1.055	210.30	.559	284.95	.341
56.00	1.769	111.00	4.438	165.00	.776	210.90	.807	296.05	5.059
57.00	3.569	112.00	.528	166.10	.683	211.80	.279	297.15	.869
62.00	.683	116.00	.900	167.00	3.693	214.60	.248	303.05	.621
63.10	1.800	117.00	7.542	168.00	1.831	217.00	5.493	314.55	.279
65.10	.838	117.80	.621	169.00	.435	218.00	.807	315.05	.652
69.00	60.149	121.90	.931	172.00	.435	221.00	6.890	322.35	.186
72.60	.217	123.00	1.210	172.90	.435	222.90	1.024	323.15	1.924
73.00	.310	123.90	.776	173.90	.807	224.00	10.118	323.95	.403
74.00	4.438	124.90	.559	174.90	1.117	225.00	2.762	326.95	.435
75.00	7.852	126.00	.248	175.90	.559	225.90	.279	334.15	1.304
76.10	2.359	127.00	40.534	177.00	.683	227.00	4.035	345.95	.372
77.00	41.279	128.00	3.166	179.00	2.576	227.90	.528	352.05	.776
78.00	2.607	129.00	20.112	180.00	2.110	228.90	1.024	354.05	.652
79.00	3.507	130.00	1.800	181.00	1.024	231.00	.528	364.95	2.421
80.00	2.607	130.70	.248	184.00	.279	234.70	.279	365.95	.497
81.00	3.445	133.80	.435	185.10	1.459	241.10	.217	372.15	1.024
83.00	.776	135.00	1.335	186.00	10.552	241.90	.621	402.05	.714
84.90	.559	136.10	.621	187.10	2.793	243.00	.559	403.15	.869
86.00	.869	141.00	1.893	189.00	.621	244.00	9.187	420.85	.497
86.90	.528	142.00	.900	190.90	.372	245.00	1.459	421.95	.621
91.00	.869	143.00	.838	191.90	.838	246.00	1.366	423.05	4.904
92.00	.776	145.70	.248	193.00	1.024	246.90	.403	424.15	1.179
93.00	5.431	147.00	.993	196.00	3.259	255.00	40.596	441.15	13.128
94.00	.497	148.00	1.924	196.90	.652	256.00	6.114	442.15	92.955
97.90	3.290	148.80	.341	198.00	100.000	256.90	.497	443.15	18.529
99.00	3.011	149.80	.155	199.00	6.952	258.00	2.328	444.15	1.707

Instrument ID: BNA1 Analyzed on: 3/18/93 11:42

F03-629

9613492.1824

QUANT REPORT

Operator ID: ERIC
Output File: ^C1802::OF
Data File: >C1802::D1
Name: CONTINUING CALIB
Misc: LRB # 52901-48-6

Quant Rev: 7
Quant Time: 930318 14:10
Injected at: 930318 12:15
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 2

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930318 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.39	678	37942	40.00	ng/uL	9
2)	2-Fluorophenol	6.25	187	132167	100.00	ng/uL	9
3)	Phenol-d5	10.40	584	161519	100.00	ng/uL	9
4)	Phenol	10.45	588	96700	50.00	ng/uL	8
5)	bis(2-Chloroethyl)ether	10.68	610	82702	50.00	ng/uL	9
6)	2-Chlorophenol	10.66	608	73067	50.00	ng/uL	9
7)	1,3-Dichlorobenzene	11.16	656	80984	50.00	ng/uL	9
8)	1,4-Dichlorobenzene	11.44	683	81414	50.00	ng/uL	9
9)	Benzyl alcohol	12.01	737	48884	50.00	ng/uL	9
10)	1,2-Dichlorobenzene	11.92	729	78557	50.00	ng/uL	9
11)	2-Methylphenol	12.46	780	64358	50.00	ng/uL	9
12)	bis(2-Chloroisopropyl)ether	12.52	786	119113	50.00	ng/uL	9
13)	4-Methylphenol	13.00	832	67616	50.00	ng/uL	9
14)	N-Nitroso-di-n-propylamine	12.95	827	55727	50.00	ng/uL	9
15)	Hexachloroethane	13.04	835	35766	50.00	ng/uL	9
16)	*Naphthalene-d8	15.56	1076	130260	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.29	859	82570	50.00	ng/uL	9
18)	Nitrobenzene	13.35	865	85831	50.00	ng/uL	9
19)	Isophorone	14.20	946	167549	50.00	ng/uL	9
20)	2-Nitrophenol	14.38	963	43833	50.00	ng/uL	9
21)	2,4-Dimethylphenol	14.69	993	59190	50.00	ng/uL	9
22)	Benzoic acid	15.28	1049	45611	48.45	ng/uL	9
23)	bis(2-Chloroethoxy)methane	15.00	1023	100774	50.00	ng/uL	9
24)	2,4-Dichlorophenol	15.17	1039	59571	50.00	ng/uL	9
25)	1,2,4-Trichlorobenzene	15.40	1061	63903	50.00	ng/uL	9
26)	Naphthalene	15.62	1082	188489	50.00	ng/uL	9
27)	4-Chloroaniline	15.89	1107	87895	50.00	ng/uL	9
28)	Hexachlorobutadiene	16.10	1127	34931	50.00	ng/uL	9
29)	4-Chloro-3-methylphenol	17.51	1262	68678	50.00	ng/uL	9
30)	2-Methylnaphthalene	17.83	1293	120917	50.00	ng/uL	9
31)	*Acenaphthene-d10	21.06	1601	65432	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	18.35	1342	40639	50.00	ng/uL	9
33)	2,4,6-Trichlorophenol	18.75	1381	42870	50.00	ng/uL	9
34)	2,4,5-Trichlorophenol	18.84	1389	46300	50.00	ng/uL	9
35)	2-Chloronaphthalene	19.34	1437	118225	50.00	ng/uL	9
36)	2-Fluorobiphenyl	19.06	1410	124055	50.00	ng/uL	9
37)	2-Nitroaniline	19.73	1474	55432	50.00	ng/uL	9
38)	Dimethylphthalate	20.42	1540	142283	50.00	ng/uL	-
39)	Acenaphthylene	20.61	1558	190861	50.00	ng/uL	[illegible]
40)	2,6-Dinitrotoluene	20.55	[illegible]	[illegible]94	50.00	ng/uL	8

F03-630

9613492.1825

Operator ID: ERIC
Output File: ^C1802::OF
Data File: >C1802::D1
Name: CONTINUING CALIB
Misc: LRB # 52901-48-6

Quant Rev: 7
Quant Time: 930318 14:10
Injected at: 930318 12:15
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 2

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921116 [illegible]
Last Qcal Time: 930318 12:15

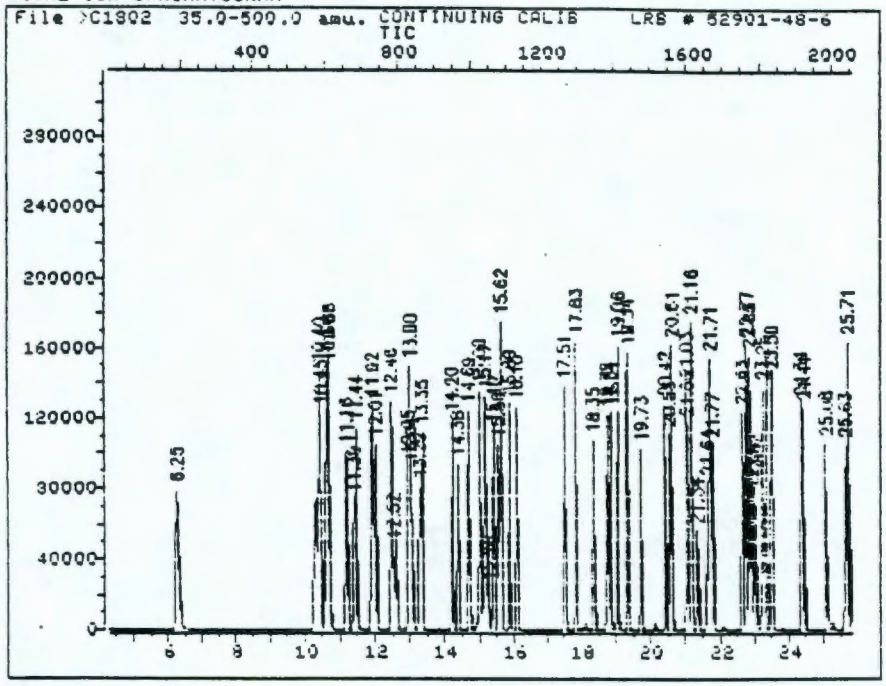
	Compound	R.T.	Scan#	Area	Conc	Units	Q
41)	3-Nitroaniline	21.03	1598	42526	50.00	ng/uL	98
42)	Acenaphthene	21.16	1611	112626	50.00	ng/uL	98
43)	2,4-Dinitrophenol	21.34	1628	20930	50.00	ng/uL	95
44)	4-Nitrophenol	21.64	1656	22125	50.00	ng/uL	85
45)	Dibenzofuran	21.71	1663	160799	50.00	ng/uL	97
46)	2,4-Dinitrotoluene	21.77	1669	54072	50.00	ng/uL	85
47)	Diethylphthalate	22.63	1751	152884	50.00	ng/uL	95
48)	4-Chlorophenyl-phenylether	22.85	1772	62165	50.00	ng/uL	83
49)	Fluorene	22.77	1764	127344	50.00	ng/uL	99
50)	4-Nitroaniline	22.94	1780	44843	50.00	ng/uL	89
51)	*Phenanthrene-d10	25.63	2037	117143	40.00	ng/uL	99
52)	4,6-Dinitro-2-methylphenol	23.02	1798	30367	50.00	ng/uL	86
53)	N-Nitrosodiphenylamine	23.25	1810	88744	50.00	ng/uL	97
54)	2,4,6-Tribromophenol	23.50	1834	50754	100.00	ng/uL	99
55)	4-Bromophenyl-phenylether	24.34	1914	39195	50.00	ng/uL	99
56)	Hexachlorobenzene	24.44	1923	51764	50.00	ng/uL	95
57)	Pentachlorophenol	25.08	1984	34644	50.00	ng/uL	97
58)	Phenanthrene	25.71	2044	176517	50.00	ng/uL	97
59)	Anthracene	25.86	2059	178478	50.00	ng/uL	95
60)	Di-n-butylphthalate	29.31	2276	255315	50.00	ng/uL	96
61)	Fluoranthene	29.36	2293	184894	50.00	ng/uL	91
62)	*Chrysene-d12	33.76	2914	98177	40.00	ng/uL	92
63)	Pyrene	30.03	2457	189933	50.00	ng/uL	89
64)	Terphenyl-d14	30.65	2516	140884	50.00	ng/uL	88
65)	Butylbenzylphthalate	32.28	2672	110541	50.00	ng/uL	99
66)	3,3'-Dichlorobenzidine	33.74	2812	60571	50.00	ng/uL	95
67)	Benzo(a)anthracene	33.71	2809	162309	50.00	ng/uL	98
68)	Chrysene	33.84	2821	168435	50.00	ng/uL	98
69)	Bis(2-Ethylhexyl)phthalate	34.12	2848	158267	50.00	ng/uL	92
70)	*Perylene-d12	37.87	3206	111326	40.00	ng/uL	97
71)	Di-n-octylphthalate	36.02	3029	280957	50.00	ng/uL	97
72)	Benzo(b)fluoranthene	36.79	3103	171650	50.00	ng/uL	92
73)	Benzo(k)fluoranthene	36.88	3111	184117	50.00	ng/uL	87
74)	Benzo(a)pyrene	37.70	3190	172449	50.00	ng/uL	94
75)	Indeno(1,2,3-cd)pyrene	41.57	3559	195994	50.00	ng/uL	93
76)	Dibenz(a,h)anthracene	41.71	3572	157274	50.00	ng/uL	98
77)	Benzo(g,h,i)perylene	42.67	3664	169179	50.00	ng/uL	89

* Compound is ISTD

F03-631

9613492.1826

TOTAL ION CHROMATOGRAM



Data File: >C1802::D1
Name: CONTINUING CALIB
Misc: LRB # 52901-48-6

Quant Output File: ^C1802::QF
Instrument ID: BNA1

BTL# 2

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930318 12:15

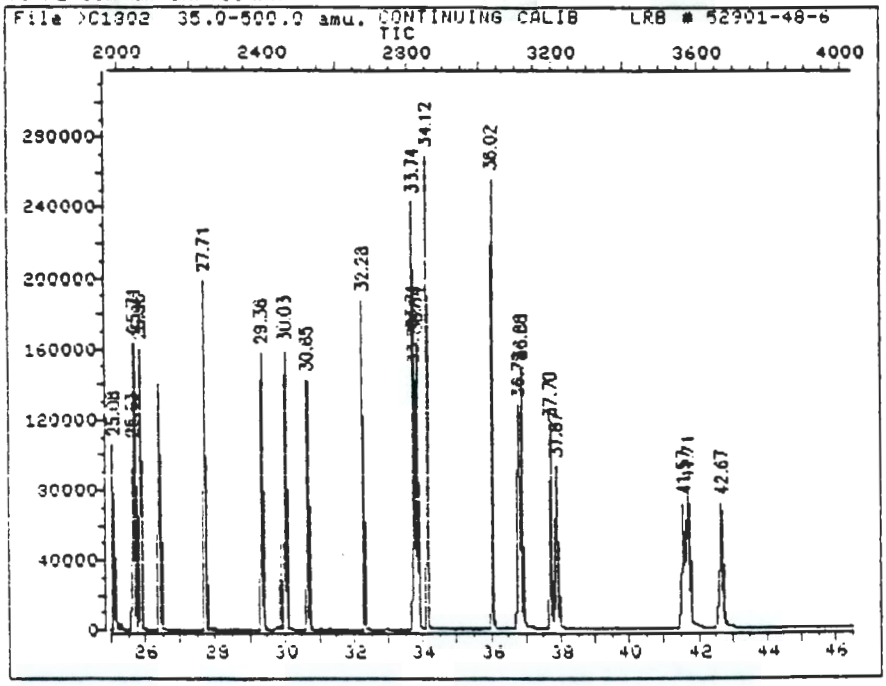
Operator ID: ERIC
Quant Time : 930318 14:10
Injected at: 930318 12:15

Page 1 of 2

F03-632

9613492.1827

TOTAL ION CHROMATOGRAM



Data File: >C1802::D1
Name: CONTINUING CALIB
Misc: LRB # 52901-48-6

Quant Output File: ^C1802::DF
Instrument ID: BNA1
BTL# 2

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930318 12:15

Operator ID: ERIC
Quant Time : 930318 14:10
Injected at: 930318 12:15

Page 2 of 2

F03-633

[CCC AND SPCC DAILY CALIBRATION CHECK OPERATOR REPORT BNA'S]

DATA FILE NAME = >C1802::D1
DATE AND TIME OF ANALYSIS = 3/18/93 12:15
SAMPLE = CONTINUING CALIB
MISCELLANEOUS = LRB # 52901-48-6
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

CCC COMPOUND	DAILY CAL RF	5-POINT AVE RF	%D
Pentachlorophenol	.2366	.2199	7.59
1,4-Dichlorobenzene	1.7166	1.5492	10.81
2-Nitrophenol	.2692	.2535	6.19
2,4-Dichlorophenol	.3659	.3539	3.27
Hexachlorobutadiene	.2145	.2172	1.23
4-Chloro-3-methylphenol	.4218	.3612	16.77
2,4,6-Trichlorophenol	.5242	.5237	.09
Acenaphthene	1.3770	1.2353	11.47
N-Nitrosodiphenylamine	.6061	.5174	17.14
Fluoranthene	1.2627	1.0830	16.59
Di-n-octylphthalate	2.0190	1.6873	19.66
Benzo(a)pyrene	1.2392	1.0943	13.24
Phenol	2.0389	1.7372	17.37

SPCC COMPOUND	DAILY RF
N-Nitroso-di-n-propylamine	1.1750
Hexachlorocyclopentadiene	.4969
2,4-Dinitrophenol	.2559
4-Nitrophenol	.2705

DAILY CALIBRATION FOR BNA'S PASSED ALL CCC AND SPCC CRITERIA

THE RF VALUES WILL AUTOMATICALLY BE UPDATED IN QUP IDFILE

F03-634

[RRT AND RF DAILY CALIBRATION GC/MS OPERATOR REPORT BNA'S PAGE 1]

DATA FILE NAME = >C1802::D1
DATE AND TIME OF ANALYSIS = 3/18/93 12:15
SAMPLE = CONTINUING CALIB
MISCELLANEOUS = LRB # 52901-48-6
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

Compound Name	Retention Times RRT FOUND	RRT IN THE IDFILE	RT DIFF-ERENCE	Response factors RF FOUND	AVE. RF FROM 5-POINT	RATIO RF FOUND TO RF IN IDFILE
bis(2-Chloroethyl)ether	.93747	.93747	.00000	1.7438	1.4890	1.0000
1,3-Dichlorobenzene	.97975	.97975	.00000	1.7075	1.5273	1.0000
Benzyl alcohol	1.0543	1.0543	.00000	1.0307	.8537	1.0000
1,2-Dichlorobenzene	1.0469	1.0469	.00000	1.6564	1.4584	1.0000
2-Methylphenol	1.0939	1.0939	.00000	1.3570	1.1376	1.0000
bis(2-Chloroisopropyl)ether	1.0994	1.0994	.00000	2.5115	1.7384	1.0000
4-Methylphenol	1.1417	1.1417	-.0000	1.4257	1.1797	1.0000
Hexachloroethane	1.1444	1.1444	.00000	.75412	.6658	1.0000
Nitrobenzene	.85794	.85794	.00000	.52714	.4749	1.0000
Isophorone	.91241	.91241	.00000	1.0290	.9092	1.0000
2-Nitrophenol	.92386	.92386	.00000	.26920	.2535	1.0000
2,4-Dimethylphenol	.94404	.94404	.00000	.36352	.3218	1.0000
Benzoic acid	.98178	.98178	.00000	.28012	.2762	.96902
bis(2-Chloroethoxy)methane	.96424	.96424	.00000	.61891	.5444	1.0000
2,4-Dichlorophenol	.97503	.97503	.00000	.36586	.3539	1.0000
Naphthalene	1.0041	1.0041	-.0000	1.1576	1.0474	1.0000
4-Chloroaniline	1.0209	1.0209	.00000	.53981	.4742	1.0000
Hexachlorobutadiene	1.0344	1.0344	.00000	.21453	.2172	1.0000
2-Methylnaphthalene	1.1460	1.1460	.00000	.74262	.6611	1.0000
Hexachlorocyclopentadiene	.87112	.87112	.00000	.49687	.5513	1.0000
2,4,6-Trichlorophenol	.89052	.89052	.00000	.52415	.5237	1.0000
2,4,5-Trichlorophenol	.89452	.89452	.00000	.56608	.5207	1.0000
2-Chloronaphthalene	.91844	.91844	.00000	1.4455	1.3251	1.0000
2-Nitroaniline	.93684	.93684	.00000	.67774	.5695	1.0000
Dimethylphthalate	.96964	.96964	.00000	1.7396	1.5929	1.0000
Acenaphthylene	.97861	.97861	.00000	2.3335	2.0326	1.0000
2,6-Dinitrotoluene	.97561	.97561	.00000	.44986	.4162	1.0000
3-Nitroaniline	.99850	.99850	.00000	.51994	.4480	1.0000
2,4-Dinitrophenol	1.0135	1.0135	.00000	.25590	.3159	1.0000
Dibenzofuran	1.0309	1.0309	.00000	1.9660	1.7506	1.0000
Diethylphthalate	1.0746	1.0746	.00000	1.8692	1.6094	1.0000
4-Chlorophenyl-phenylether	1.0851	1.0851	.00000	.76006	.6947	1.0000
Fluorene	1.0811	1.0811	.00000	1.5570	1.3726	1.0000
4-Nitroaniline	1.0891	1.0891	.00000	.54827	.4703	1.0000
4,6-Dinitro-2-methylphenol	.89814	.89814	.00000	.20738	.2094	1.0000
N-Nitrosodiphenylamine	.90715	.90715	.00000	.60606	.5174	1.0000
4-Bromophenyl-phenylether	.94967	.94967	.00000	.26767	.2392	1.0000
Hexachlorobenzene	.95337	.95337	.00000	.35351	.3419	1.0000
Phenanthrene	1.0029	1.0029	-.0000	1.2455	1.0645	1.0000
Anthracene	1.0090	1.0090	.00000	1.2184	1.0411	1.0000

[RRT AND RF DAILY CALIBRATION GC/MS OPERATOR REPORT BNA'S PAGE 2]

DATA FILE NAME = >C1802::D1
DATE AND TIME OF ANALYSIS = 3/18/93 12:15
SAMPLE = CONTINUING CALIB
MISCELLANEOUS = LRB # 52901-48-6
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

Compound Name	Retention Times: RRT FOUND	RRT IN THE IDFILE	RT DIFF-ERENCE	Response factors: RF FOUND	AVE. RF FROM 5-POINT	RATIO RF FOUND TO RF IN IDFILE
Di-n-butylphthalate	1.0809	1.0809	.00000	1.7436	1.4982	1.0000
Fluoranthene	1.1454	1.1454	-.0000	1.2627	1.0830	1.0000
Butylbenzylphthalate	.95597	.95597	.00000	.90075	.7933	1.0000
3,3'-Dichlorobenzidine	.99937	.99937	.00000	.49357	.4298	1.0000
Benzo(a)anthracene	.99843	.99843	.00000	1.3226	1.2578	1.0000
Chrysene	1.0022	1.0022	.00000	1.3725	1.2337	1.0000
Bis(2-Ethylhexyl)phthalate	1.0106	1.0106	.00000	1.2896	1.1307	1.0000
Di-n-octylphthalate	.95099	.95099	.00000	2.0190	1.6873	1.0000
Benzo(b)fluoranthene	.97145	.97145	.00000	1.2335	1.1945	1.0000
Benzo(k)fluoranthene	.97368	.97368	.00000	1.3231	1.0909	1.0000
Benzo(a)pyrene	.99555	.99555	.00000	1.2392	1.0943	1.0000
Indeno(1,2,3-cd)pyrene	1.0976	1.0976	-.0000	1.4084	1.3388	1.0000
Dibenz(a,h)anthracene	1.1012	1.1012	.00000	1.1302	1.0561	1.0000
Benzo(g,h,i)perylene	1.1267	1.1267	.00000	1.2157	1.1610	1.0000
Phenol	.91718	.91718	.00000	2.0389	1.7372	1.0000
2-Chlorophenol	.93563	.93563	.00000	1.5406	1.3557	1.0000
1,4-Dichlorobenzene	1.0046	1.0046	.00000	1.7166	1.5492	1.0000
N-Nitroso-di-n-propylamine	1.1371	1.1371	.00000	1.1750	.8712	1.0000
1,2,4-Trichlorobenzene	.98987	.98987	.00000	.39246	.3754	1.0000
4-Chloro-3-methylphenol	1.1251	1.1251	.00000	.42179	.3612	1.0000
Acenaphthene	1.0050	1.0050	.00000	1.3770	1.2353	1.0000
4-Nitrophenol	1.0274	1.0274	.00000	.27051	.2384	1.0000
2,4-Dinitrotoluene	1.0339	1.0339	.00000	.66111	.5955	1.0000
Pentachlorophenol	.97829	.97829	.00000	.23659	.2199	1.0000
Pyrene	.88936	.88936	.00000	1.5477	1.3775	1.0000
2-Fluorophenol	.54911	.54911	.00000	1.3934	1.3647	1.0000
Phenol-d5	.91349	.91349	.00000	1.7028	1.6035	1.0000
Nitrobenzene-d5	.85389	.85389	.00000	.50711	.4732	1.0000
2-Fluorobiphenyl	.90500	.90500	.00000	1.5168	1.4126	1.0000
2,4,6-Tribromophenol	.91698	.91698	.00000	.17331	.1692	1.0000
Terphenyl-d14	.90765	.90765	.00000	1.1480	1.0276	1.0000

QUANT REPORT

Operator ID: ERIC
Output File: C1802::OF
Data File: C1802::D1

Quant Rev: [illegible] Quant Time: 930319 11:[illegible]
Injected at: 930318 12:15
Dilution Factor: 1.00000

9613442.1851

Name: CONTINUING CALIB
Misc: LRB # 52901-48-6

Instrument ID: BNA1
BTL# 2

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Date: 930318 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	c
1)	*1,4-Dichlorobenzene-d4	11.39	678	37942	40.00	ng/uL	9
2)	2-Fluorophenol	6.25	187	132167	100.00	ng/uL	9
3)	Phenol-d5	10.40	584	161519	100.00	ng/uL	9
4)	Phenol	10.45	588	96700	50.00	ng/uL	8
5)	bis(2-Chloroethyl)ether	10.68	610	82702	50.00	ng/uL	9
6)	2-Chlorophenol	10.66	608	73067	50.00	ng/uL	9
7)	1,3-Dichlorobenzene	11.16	656	80984	50.00	ng/uL	9
8)	1,4-Dichlorobenzene	11.44	683	81414	50.00	ng/uL	9
9)	Benzyl alcohol	12.01	737	48884	50.00	ng/uL	9
10)	1,2-Dichlorobenzene	11.92	729	78557	50.00	ng/uL	9
11)	2-Methylphenol	12.46	780	64358	50.00	ng/uL	9
12)	bis(2-Chloroisopropyl)ether	12.52	786	119113	50.00	ng/uL	9
13)	4-Methylphenol	13.00	832	67616	50.00	ng/uL	9
14)	N-Nitroso-di-n-propylamine	12.95	827	55727	50.00	ng/uL	9
15)	Hexachloroethane	13.04	835	35766	50.00	ng/uL	9
16)	*Naphthalene-d8	15.56	1076	130260	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.29	859	82570	50.00	ng/uL	9
18)	Nitrobenzene	13.35	865	85831	50.00	ng/uL	9
19)	Isophorone	14.20	946	167549	50.00	ng/uL	9
20)	2-Nitrophenol	14.38	963	43833	50.00	ng/uL	9
21)	2,4-Dimethylphenol	14.69	993	59190	50.00	ng/uL	9
22)	Benzoic acid	15.28	1049	45611	50.00	ng/uL	9
23)	bis(2-Chloroethoxy)methane	15.00	1023	100774	50.00	ng/uL	9
24)	2,4-Dichlorophenol	15.17	1039	59571	50.00	ng/uL	9
25)	1,2,4-Trichlorobenzene	15.40	1061	63903	50.00	ng/uL	9
26)	Naphthalene	15.62	1082	188489	50.00	ng/uL	9
27)	4-Chloroaniline	15.89	1107	87895	50.00	ng/uL	9
28)	Hexachlorobutadiene	16.10	1127	34931	50.00	ng/uL	9
29)	4-Chloro-3-methylphenol	17.51	1262	68678	50.00	ng/uL	9
30)	2-Methylnaphthalene	17.83	1293	120917	50.00	ng/uL	9
31)	*Acenaphthene-d10	21.06	1601	65432	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	18.35	1342	40639	50.00	ng/uL	9
33)	2,4,6-Trichlorophenol	18.75	1381	42870	50.00	ng/uL	9
34)	2,4,5-Trichlorophenol	18.84	1389	46300	50.00	ng/uL	9
35)	2-Chloronaphthalene	19.34	1437	118225	50.00	ng/uL	9
36)	2-Fluorobiphenyl	19.06	1410	124055	50.00	ng/uL	9
37)	2-Nitroaniline	19.73	1474	55432	50.00	ng/uL	9
38)	Dimethylphthalate	20.42	1540	142283	50.00	ng/uL	9
39)	Acenaphthylene	20.61	1558	190861	50.00	ng/uL	9
40)	2,6-Dinitrotoluene	20.55	1552	36794	50.00	ng/uL	8
41)	3-Nitroaniline	21.03	1598	42526	50.00	ng/uL	9
42)	Acenaphthene	21.16	1611	112626	50.00	ng/uL	9
43)	2,4-Dinitrophenol	21.34	1628	20930	50.00	ng/uL	9
44)	4-Nitrophenol	21.64	1656	22125	50.00	ng/uL	9
45)	Dibenzofuran	21.71	1663	160799	50.00	ng/uL	9
46)	2,4-Dinitrotoluene	21.77	1669	54072	50.00	ng/uL	9
47)	Diethylphthalate	22.63	1751	152894	50.00	ng/uL	9
48)	4-Chlorophenyl-phenylether	22.85	1771	62165	50.00	ng/uL	9
49)	Fluorene	22.77	1764	137344	50.00	ng/uL	9

F03-637

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50)	4-Nitroaniline	22.94	1780	44843	50.00	ng/uL	8
51)	*Phenanthrene-d10	25.63	2037	117143	40.00	ng/uL	9
52)	4,6-Dinitro-2-methylphenol	23.02	1788	30367	50.00	ng/uL	8
53)	N-Nitrosodiphenylamine	23.25	1810	88744	50.00	ng/uL	9
54)	2,4,6-Tribromophenol	23.50	1834	50754	100.00	ng/uL	9
55)	4-Bromophenyl-phenylether	24.34	1914	39195	50.00	ng/uL	9
56)	Hexachlorobenzene	24.44	1923	51764	50.00	ng/uL	9
57)	Pentachlorophenol	25.08	1984	34644	50.00	ng/uL	9
58)	Phenanthrene	25.71	2044	176517	50.00	ng/uL	9
59)	Anthracene	25.86	2059	178478	50.00	ng/uL	9
60)	Di-n-butylphthalate	27.71	2235	255315	50.00	ng/uL	9
61)	Fluoranthene	29.36	2393	184894	50.00	ng/uL	9
62)	*Chrysene-d12	33.76	2814	98177	40.00	ng/uL	9
63)	Pyrene	30.03	2457	189933	50.00	ng/uL	8
64)	Terphenyl-d14	30.65	2516	140884	50.00	ng/uL	8
65)	Butylbenzylphthalate	32.28	2672	110541	50.00	ng/uL	9
66)	3,3'-Dichlorobenzidine	33.74	2812	60571	50.00	ng/uL	9
67)	Benzo(a)anthracene	33.71	2809	162309	50.00	ng/uL	9
68)	Chrysene	33.84	2821	168435	50.00	ng/uL	9
69)	Bis(2-Ethylhexyl)phthalate	34.12	2848	158267	50.00	ng/uL	9
70)	*Perylene-d12	37.87	3206	111326	40.00	ng/uL	9
71)	Di-n-octylphthalate	36.02	3029	280957	50.00	ng/uL	9
72)	Benzo(b)fluoranthene	36.79	3103	171650	50.00	ng/uL	9
73)	Benzo(k)fluoranthene	36.88	3111	184117	50.00	ng/uL	8
74)	Benzo(a)pyrene	37.70	3190	172449	50.00	ng/uL	9
75)	Indeno(1,2,3-cd)pyrene	41.57	3559	195994	50.00	ng/uL	9
76)	Dibenz(a,h)anthracene	41.71	3572	157274	50.00	ng/uL	9
77)	Benzo(g,h,i)perylene	42.67	3664	169179	50.00	ng/uL	8

* Compound is ISTD

QUANT REPORT Page 1

Operator ID: EPIC Quant Rev: 7 Quant Time: 930319 10:27
Output File: ^C1803::OF Injected at: 930318 16:08
Data File: >C1803::01 Dilution Factor: 1.00000
Name: SBLK17 Instrument ID: BNA1
Misc: METHOD BLANK BTL# 1

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qual Time: 930318 12:15

	Compound	R.T.	Scan#	Areal	Conc	Units	
1)	*1,4-Dichlorobenzene-d4	11.39	676	38839	40.00	ng/uL	[illegible]
2)	2-Fluorophenol	6.43	203	105737	78.15	ng/uL	[illegible]
3)	Phenol-d5	10.41	583	134604	81.41	ng/uL	[illegible]
16)	*Naphthalene-d8	15.54	1073	133262	40.00	ng/uL	[illegible]
17)	Nitrobenzene-d5	13.27	856	59863	35.43	ng/uL	[illegible]
31)	*Acenaphthene-d10	21.04	1598	67457	40.00	ng/uL	[illegible]
36)	2-Fluorobiphenyl	19.04	1407	91892	35.92	ng/uL	[illegible]
47)	Diethylphthalate	22.59	1746	1710	.416	ng/uL	[illegible]
51)	*Phenanthrene-d10	25.61	2034	116497	40.00	ng/uL	[illegible]
54)	2,4,6-Tribromophenol	23.48	1871	[illegible]	84.16	ng/uL	[illegible]
60)	Di-n-butylphthalate	27.68	2231	[illegible]	.871	ng/uL	[illegible]

FC3-638

62) *Chrysene-d12	33.73	2808	105468	40.00 ng/uL
64) Terphenyl-d14	30.64	2513	110227	36.42 ng/uL
70) *Perylene-d12	37.86	3201	108646	40.00 ng/uL
71) Di-n-octylphthalate	36.01	3025	7595	1.38 ng/uL

* Compound is ISTD

QUANT REPORT

Operator ID: ERIC
Output File: ^C1803::OF
Data File: >C1803::D1
Name: SBLK17
Misc: METHOD BLANK

Quant Rev: 7
Quant Time: 930319 10:27
Injected at: 930318 16:08
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 1

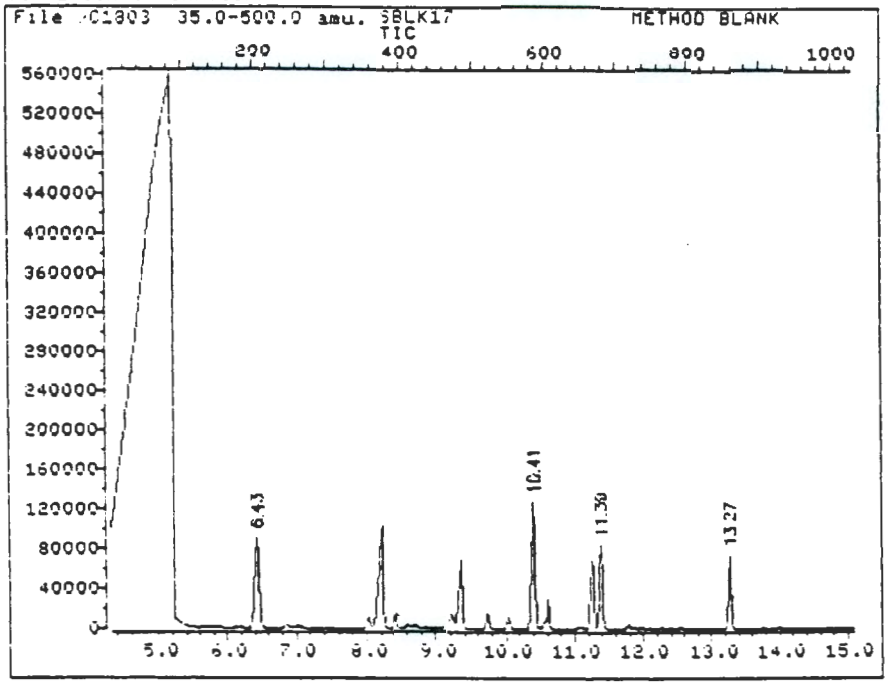
ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930318 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.39	676	38839	40.00	ng/uL	99
2)	2-Fluorophenol	6.43	203	105737	78.15	ng/uL	96
3)	Phenol-d5	10.41	583	134604	81.41	ng/uL	96
16)	*Naphthalene-d8	15.54	1073	133262	40.00	ng/uL	99
17)	Nitrobenzene-d5	13.27	856	59853	35.43	ng/uL	99
31)	*Acenaphthene-d10	21.04	1598	67457	40.00	ng/uL	98
36)	2-Fluorobiphenyl	19.04	1407	91892	35.92	ng/uL	98
47)	Diethylphthalate	22.59	1746	1310	.416	ng/uL	96
51)	*Phenanthrene-d10	25.61	2034	116987	40.00	ng/uL	99
54)	2,4,6-Tribromophenol	23.48	1831	42660	84.16	ng/uL	99
60)	Di-n-butylphthalate	27.68	2231	2911	.571	ng/uL	96
62)	*Chrysene-d12	33.73	2808	105468	40.00	ng/uL	91
64)	Terphenyl-d14	30.64	2513	110227	36.42	ng/uL	88
70)	*Perylene-d12	37.86	3201	108646	40.00	ng/uL	97
71)	Di-n-octylphthalate	36.01	3025	7595	1.38	ng/uL	96

* Compound is ISTD

9613492.1835

TOTAL ION CHROMATOGRAM



Data File: >C1803::D1 Quant Output File: ^C1803::OF
Name: SBLK17 Instrument ID: BNA1
Misc: METHOD BLANK BTL# 1

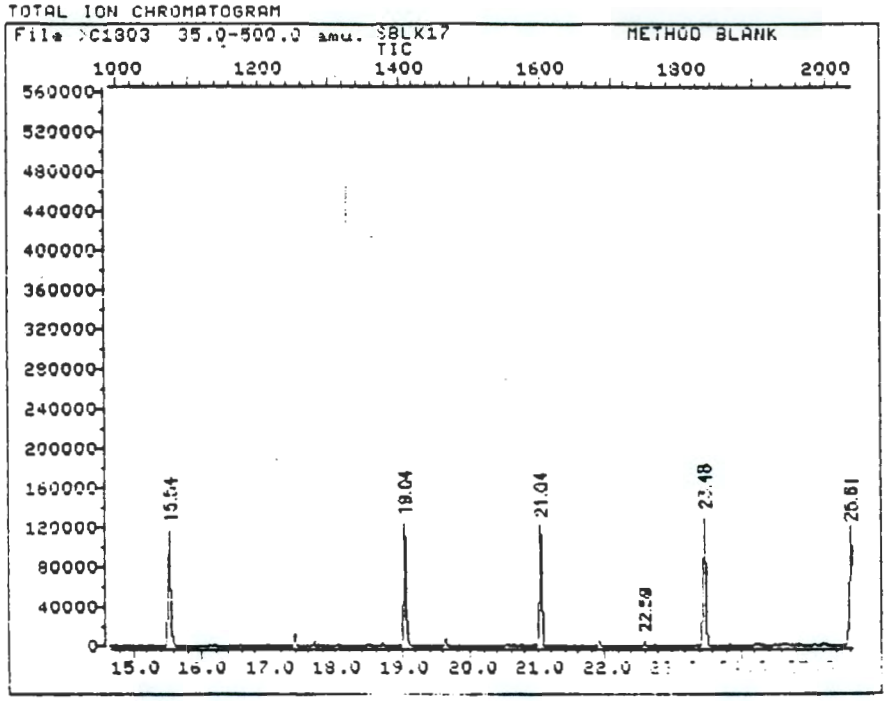
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930318 12:15

Operator ID: ERIC
Quant Time : 930319 10:27
Injected at: 930318 16:08

Page 1 of 4

9613492.1636

TOTAL ION CHROMATOGRAM



Quant Output File: ^C1803::OF
Instrument ID: BNA1
Misc: METHOD BLANK
BTL# 1

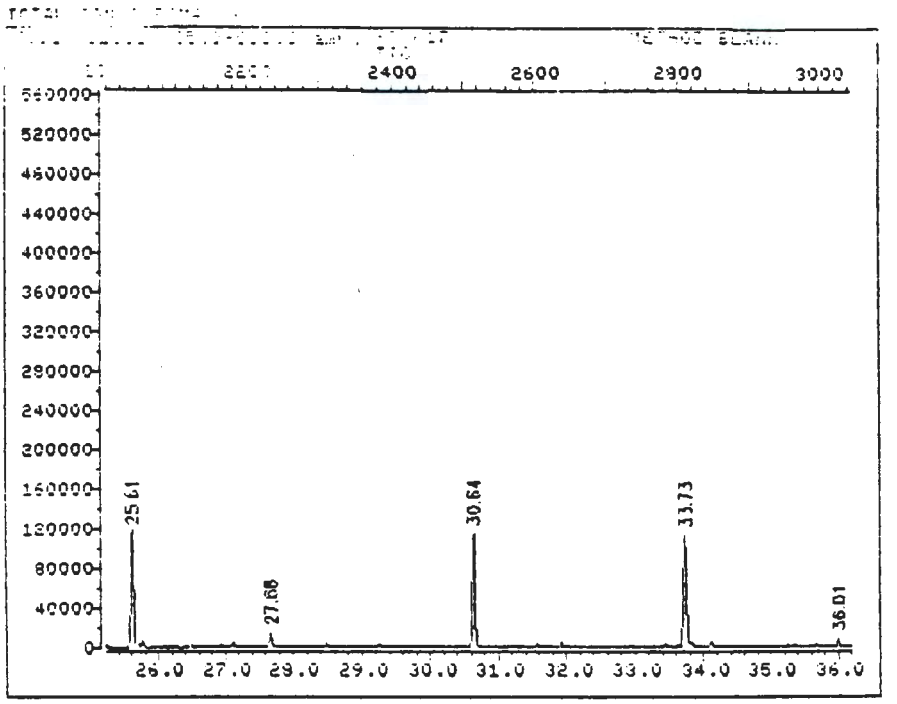
Id File: ID1BNA::QT
Title: BNA IC QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qual Time:

Operator ID: EFIC
Quant Time : 930319 10:27
Injected at: 930318 18:08

Page 2 of 4

F03-642

9613492.1037



Data File: >C1803::D1 Quant Output File: ^C1803::DF
Name: SBLK17 Instrument ID: BNA1
Misc: METHOD BLANK BTL# 1

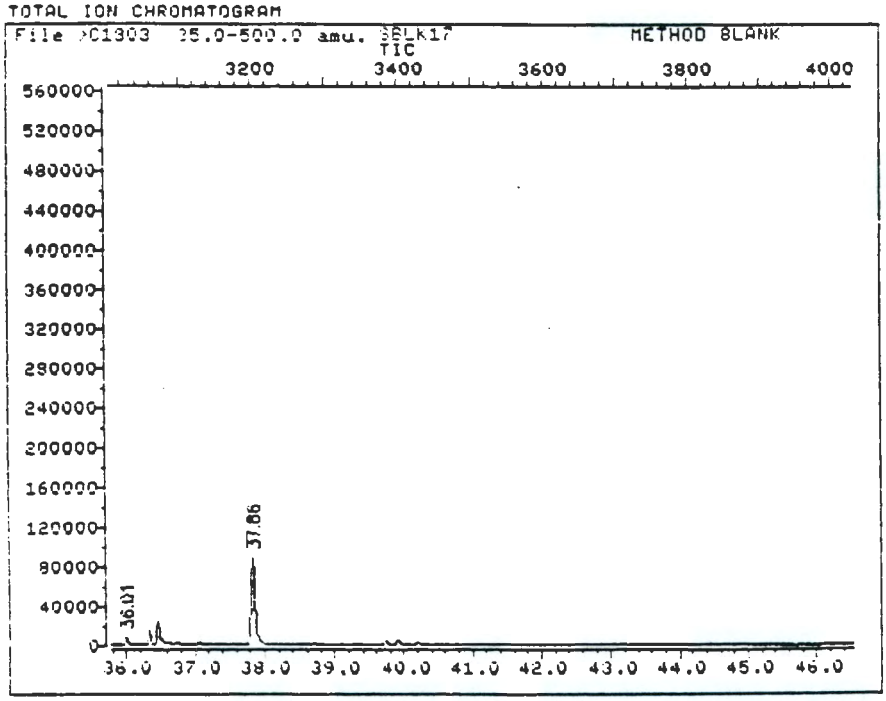
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930318 12:15

Operator ID: ERIC
Quant Time : 930319 10:27
Injected at: 930318 16:08

Page 3 of 4

F03-643

TOTAL ION CHROMATOGRAM



Data File: >C1803::D1
Name: SBLK17
Misc: METHOD BLANK

Quant Output File: ^C1803::DF
Instrument ID: BNA1
BTL# 1

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

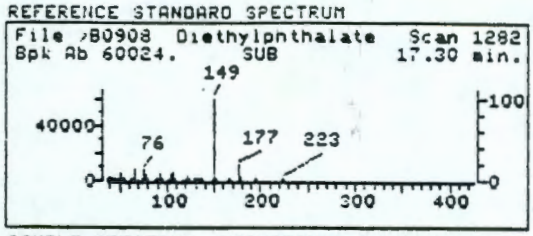
Last Qcal Time: 930318 12:15

Operator ID: ERIC
Quant Time : 930319 10:27
Injected at: 930318 16:08

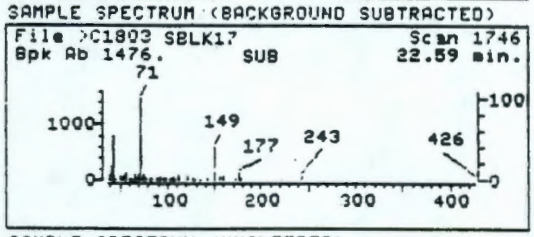
Page 4 of 4

9613492.1839

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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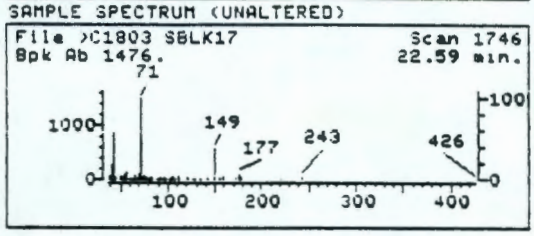
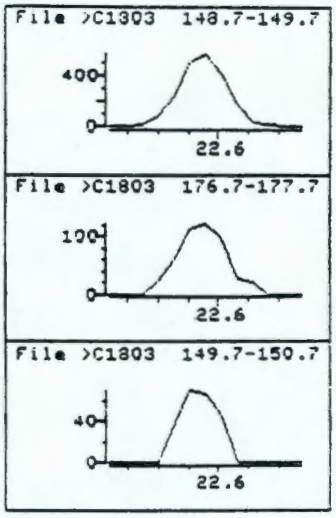




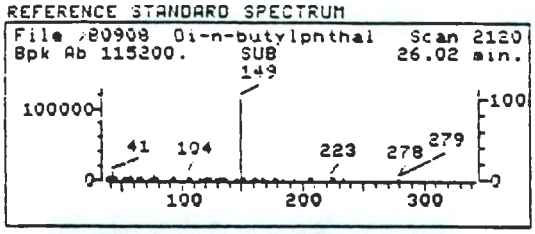
Data File: >C1803::D1
Name: SBLK17
Misc: METHOD BLANK
Quant Time: 930319 10:27
Injected at: 930318 16:08
Last Qcal Time: 930318 12:15

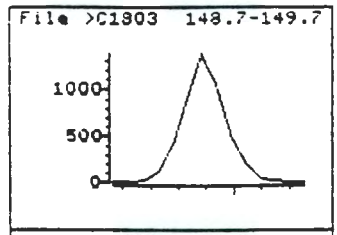
Quant Output File: ^C1803::DF
Instrument ID: BNA1
BTL# 1
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 47
Compound Name : Diethylphthalate
Scan Number : 1746
Retention Time: 22.59 min.
Quant Ion : 149.0
Area : 1310
Concentration : .416 ng/uL
q-value : 96

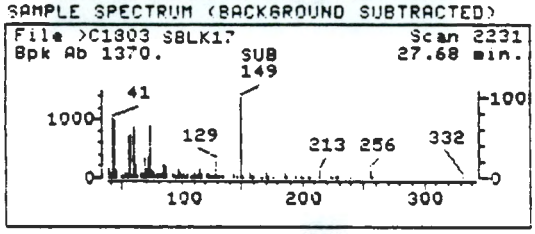
F03-645

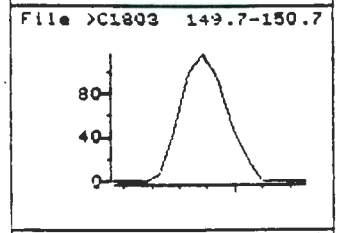
REFERENCE STANDARD SPECTRUM



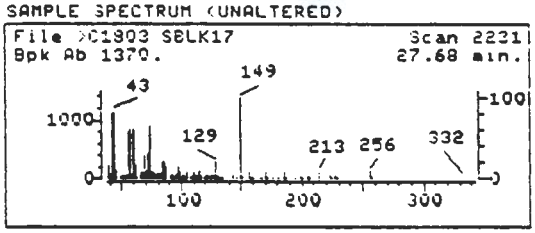


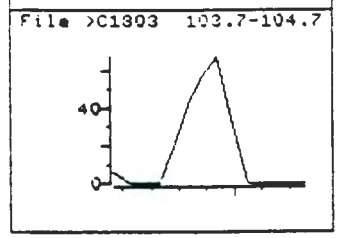
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





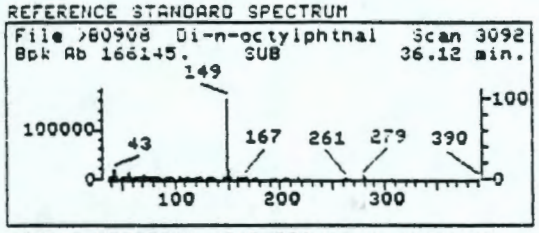
Data File: >C1803::D1
Name: SBLK17
Misc: METHOD BLANK
Quant Time: 930319 10:27
Injected at: 930318 16:08
Last Qcal Time: 930318 12:15

Quant Output File: ^C1803::DF
Instrument ID: BNA1
BTL# 1
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

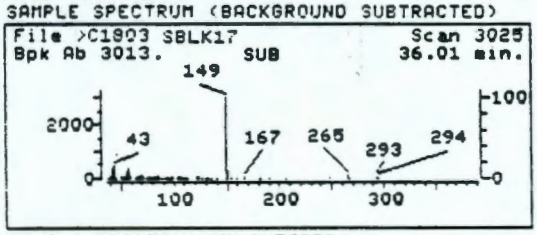
Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2231
Retention Time: 27.68 min.
Quant Ion : 149.0
Area : 2911
Concentration : .571 ng/uL
q-value : 96

9613492.1841

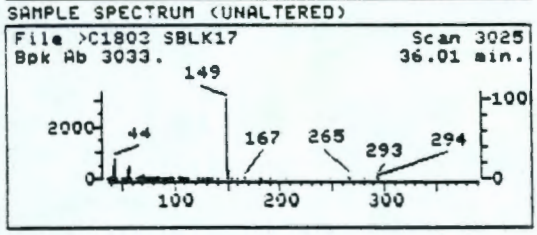
REFERENCE STANDARD SPECTRUM

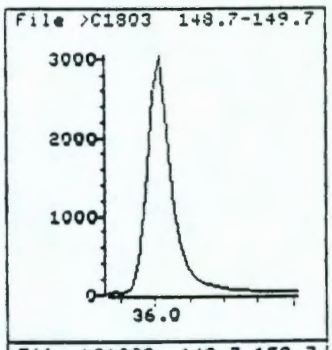


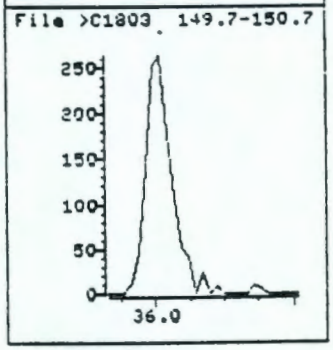
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >C1803::D1
Name: SBLK17
Misc: METHOD BLANK
Quant Time: 930319 10:27
Injected at: 930318 16:08
Last Qcal Time: 930318 12:15

Quant Output File: ^C1803::OF
Instrument ID: 8NA1
BTL# 1
Quant ID File: ID18NA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 3025
Retention Time: 36.01 min.
Quant Ion : 149.0
Area : 7595
Concentration : 1.38 ng/uL
q-value : 96

F03-647

9615492.1842

QUANT REPORT

Operator ID: ERIC
Output File: ^C1803::OF
Data File: >C1803::D1
Name: SBLK17
Misc: METHOD BLANK

Quant Rev: 7
Quant Time: 930319 10:27
Injected at: 930318 16:08
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 1

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930318 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.39	676	38839	40.00	ng/uL	9
2)	2-Fluorophenol	6.43	203	105737	78.15	ng/uL	9
3)	Phenol-d5	10.41	583	134604	81.41	ng/uL	9
4)	Phenol	0.00	586	0	0.00	ng/uL	
5)	bis(2-Chloroethyl)ether	0.00	0	0	0.00	ng/uL	
6)	2-Chlorophenol	0.00	0	0	0.00	ng/uL	
7)	1,3-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
8)	1,4-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	1,2-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	0	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	0.00	856	0	0.00	ng/uL	
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.54	1073	133262	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.27	856	59853	35.43	ng/uL	9
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	0.00	0	0	0.00	ng/uL	
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	0.00	0	0	0.00	ng/uL	
30)	2-Methylnaphthalene	0.00	0	0	0.00	ng/uL	
31)	*Acenaphthene-d10	21.04	1598	67457	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	19.04	1407	91892	35.92	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	0	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	0.00	0	0	0.00	ng/uL	

F03-648

43)	2,4-Dinitrophenol	0.00	0	0	0.00	ng/uL	
44)	4-Nitrophenol	0.00	0	0	0.00	ng/uL	
45)	Dibenzofuran	0.00	0	0	0.00	ng/uL	
46)	2,4-Dinitrotoluene	0.00	0	0	0.00	ng/uL	
47)	Diethylphthalate	22.59	1746	1310	.416	ng/uL	9
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00	ng/uL	
49)	Fluorene	0.00	0	0	0.00	ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00	ng/uL	
51)	*Phenanthrene-d10	25.61	2034	116987	40.00	ng/uL	9
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00	ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1831	0	0.00	ng/uL	
54)	2,4,6-Tribromophenol	23.48	1831	42660	84.16	ng/uL	9
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00	ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00	ng/uL	
57)	Pentachlorophenol	0.00	0	0	0.00	ng/uL	
58)	Phenanthrene	0.00	0	0	0.00	ng/uL	
59)	Anthracene	0.00	0	0	0.00	ng/uL	
60)	Di-n-butylphthalate	27.68	2231	2911	.571	ng/uL	9
61)	Fluoranthene	0.00	0	0	0.00	ng/uL	
62)	*Chrysene-d12	33.73	2808	105468	40.00	ng/uL	9
63)	Pyrene	0.00	0	0	0.00	ng/uL	
64)	Terphenyl-d14	30.64	2513	110227	[illegible]	ng/uL	8
65)	Butylbenzylphthalate	0.00	0	0	0.00	ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00	ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00	ng/uL	
68)	Chrysene	0.00	0	0	0.00	ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	0.00	2845	0	0.00	ng/uL	
70)	*Perylene-d12	37.86	3201	108646	40.00	ng/uL	9
71)	Di-n-octylphthalate	36.01	3025	7595	1.38	ng/uL	9
72)	Benzo(b)fluoranthene	0.00	0	0	0.00	ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00	ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00	ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00	ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00	ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00	ng/uL	

* Compound is ISTD

9613492.1844

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >C1803
CAL CHECK FILE = >C1802
DATE AND TIME OF ANALYSIS = 3/18/93 16:08
MISCELLANEOUS = METHOD BLANK
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

I. Areas

Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	38839	37942	18971	75884	OK
Naphthalene-d8	133262	130260	65130	260520	OK
Acenaphthene-d10	67457	65432	32716	130864	OK
Phenanthrene-d10	116987	117143	58571	234286	OK
Chrysene-d12	105468	98177	49089	196354	OK
Perylene-d12	108646	111326	55663	222652	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.39	11.39	10.89	11.89	OK
Naphthalene-d8	15.54	15.56	15.06	16.06	OK
Acenaphthene-d10	21.04	21.06	20.56	21.56	OK
Phenanthrene-d10	25.61	25.63	25.13	26.13	OK
Chrysene-d12	33.73	33.76	33.26	34.26	OK
Perylene-d12	37.86	37.87	37.37	38.37	OK

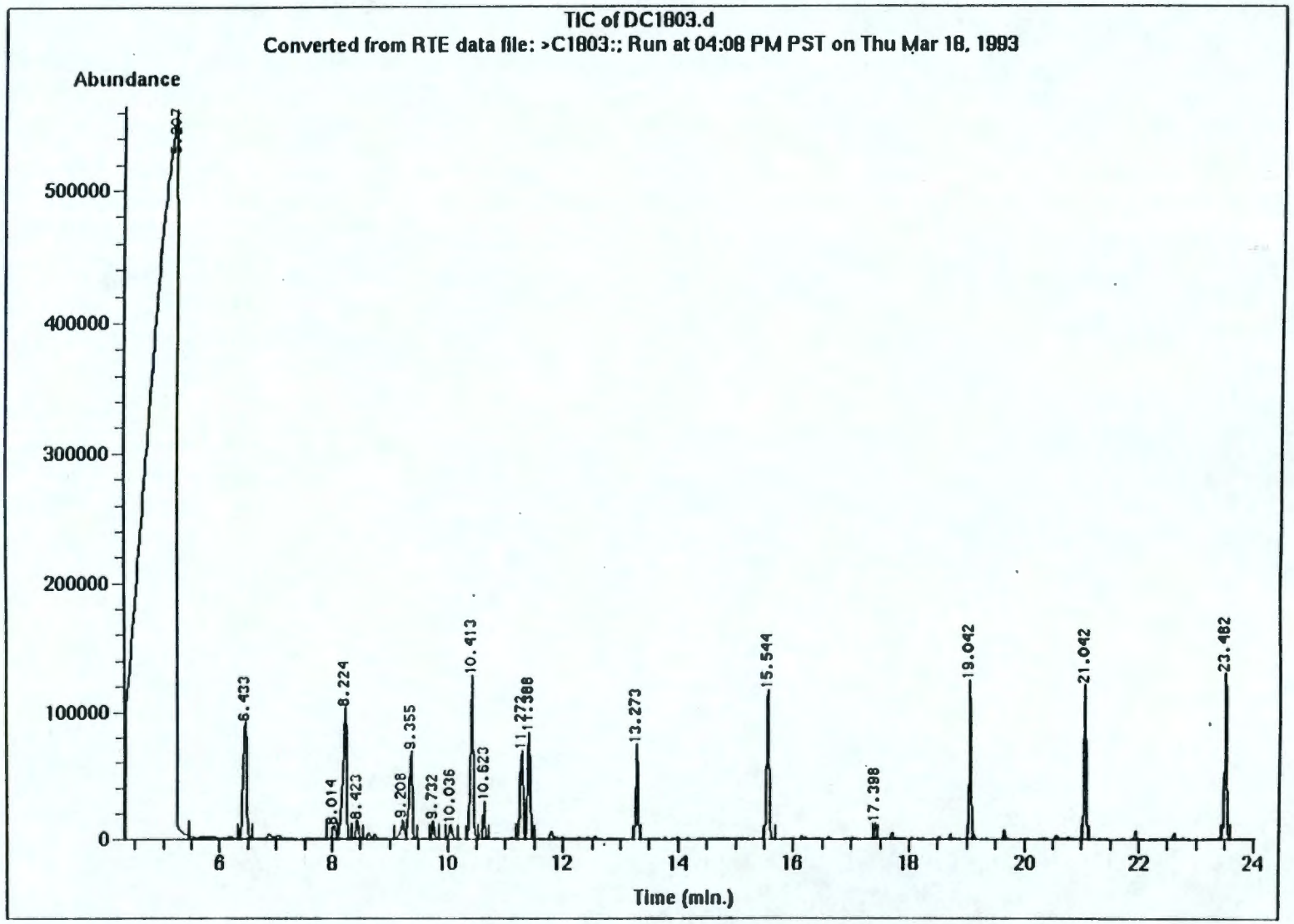
[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[Preliminary Surrogate Report]

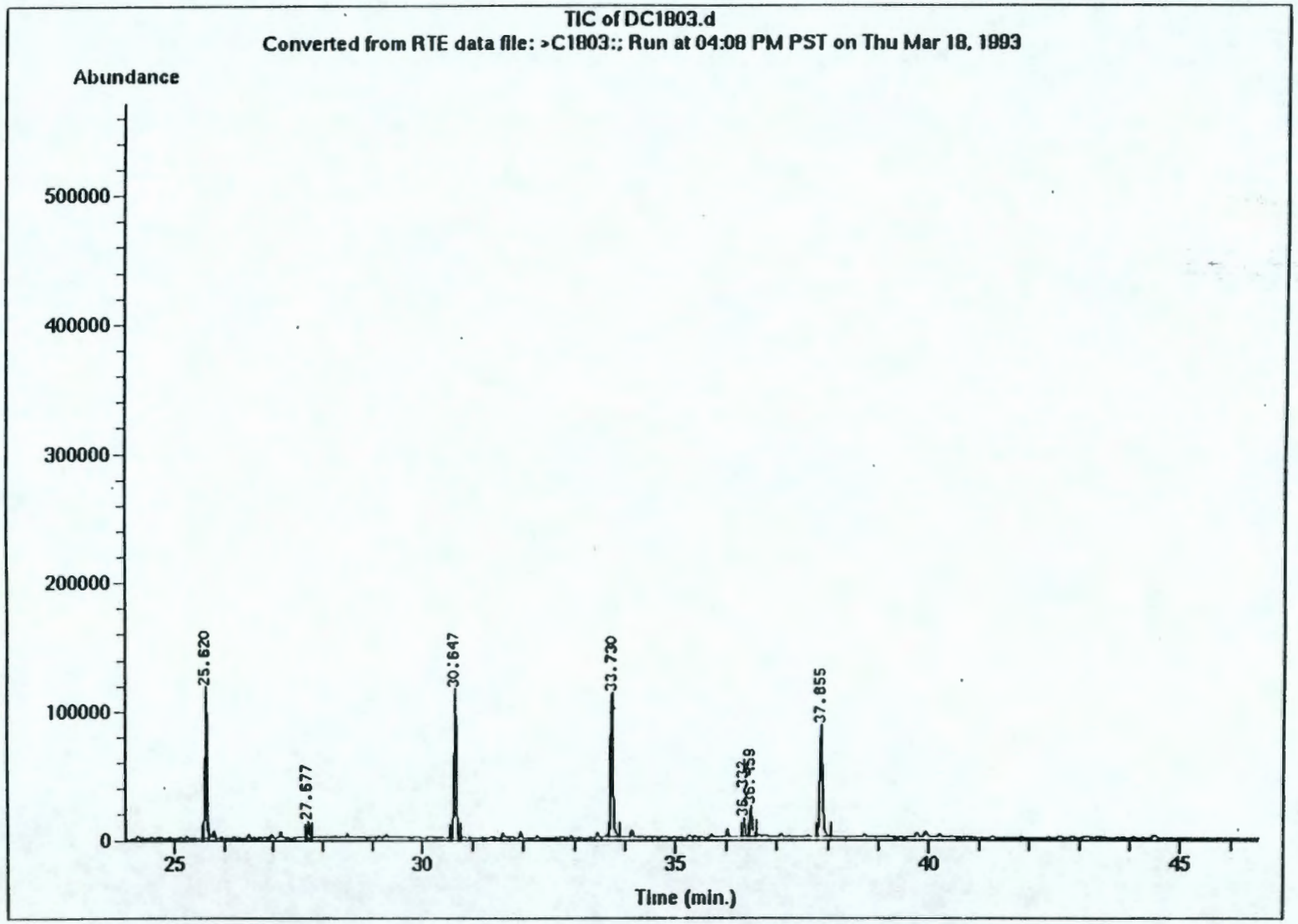
DATA FILE NAME = >C1803::D1
DATE AND TIME OF ANALYSIS = 3/18/93 16:08
SAMPLE = SBLK17
MISCELLANEOUS = METHOD BLANK
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
2-Fluorophenol	78.15	100.00	21-100	25-121	78.15
Phenol-d5	81.41	100.00	10-94	24-113	81.41
Nitrobenzene-d5	35.43	50.00	35-114	23-120	70.85
2-Fluorobiphenyl	35.93	50.00	43-116	30-115	71.85
2,4,6-tribromo-phenol	84.16	100.00	10-123	19-122	84.16
Terphenyl-d14	36.42	50.00	33-141	18-137	72.83



F03-652

9613492.1846

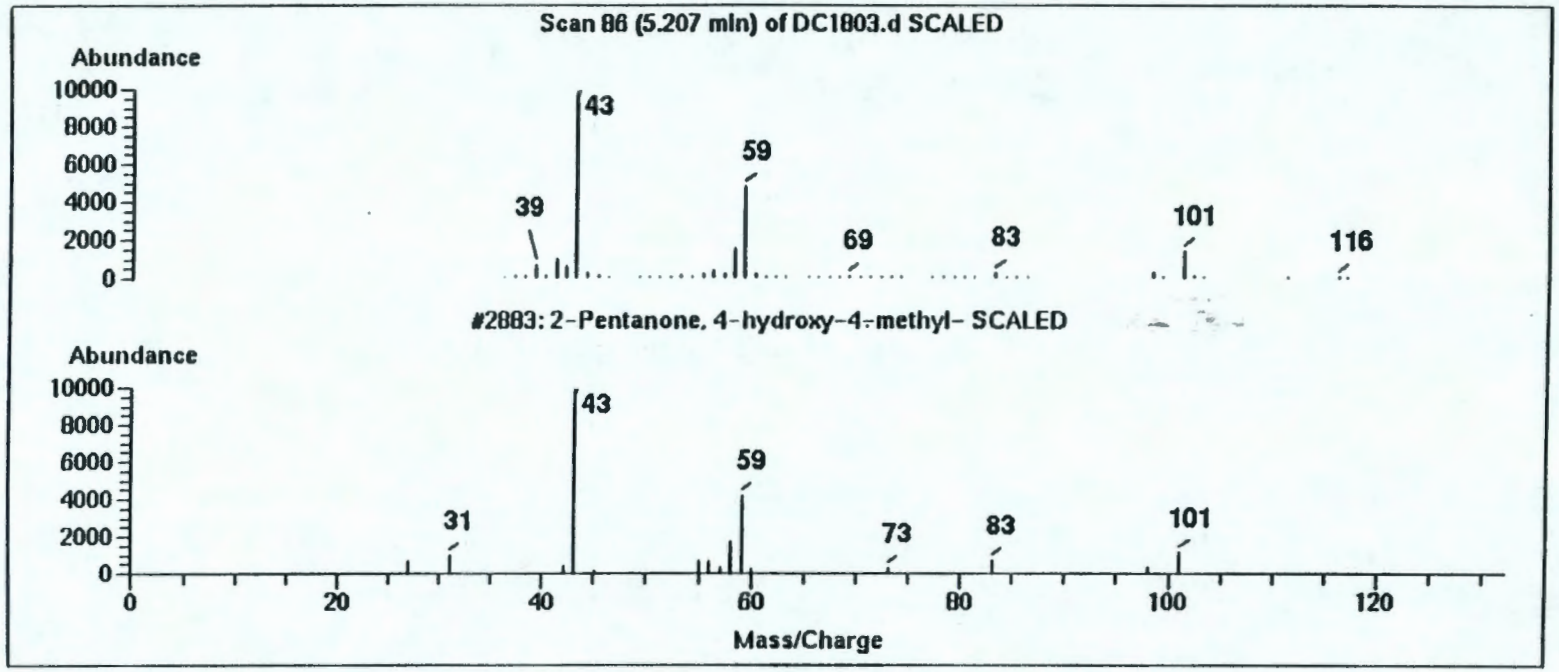


F03-653

9613492.1847

TIC of DC1803.d
Converted from RTE data file: >C1803:

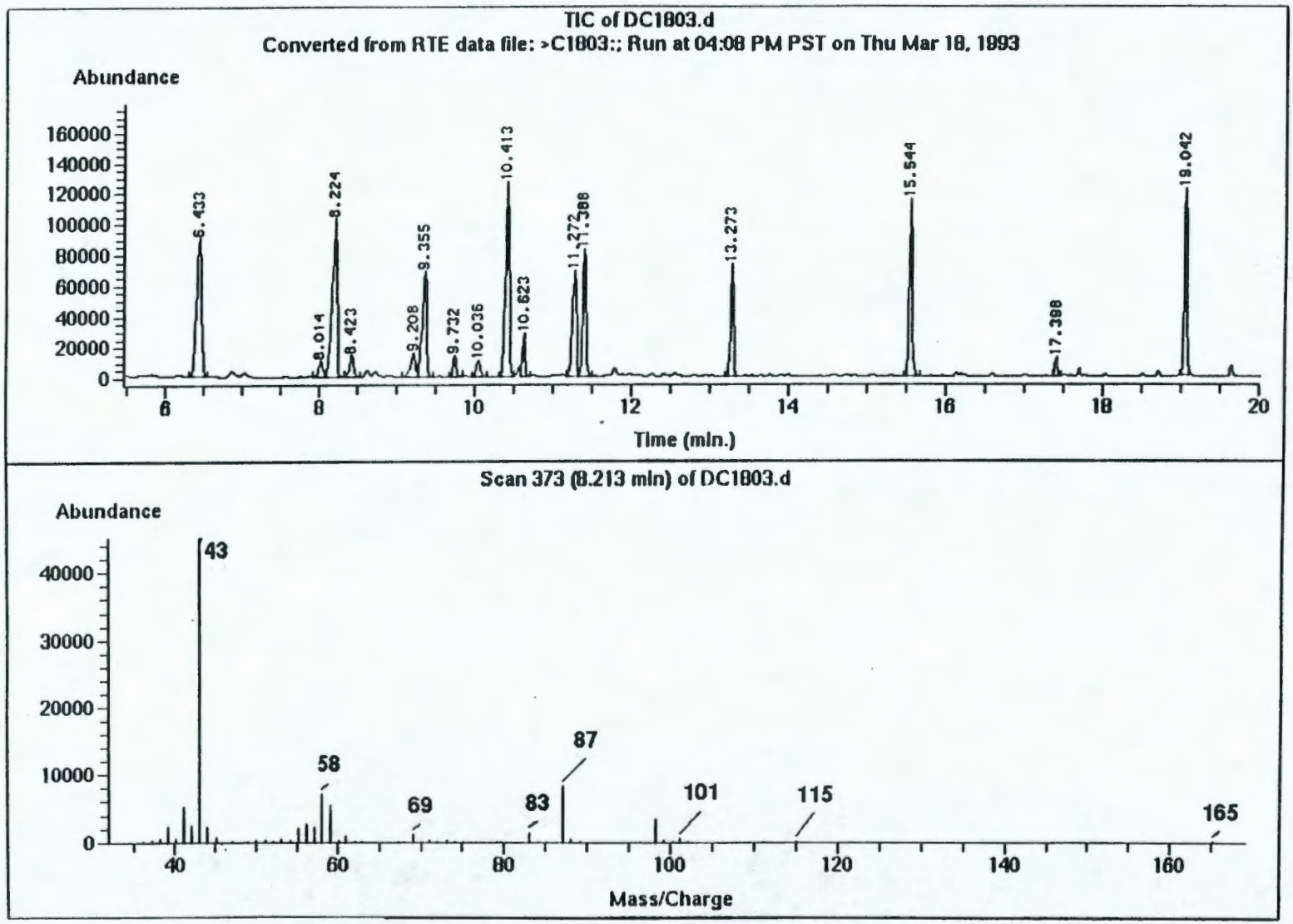
Peak#		Ret Time	Type	Width	Area	Start Time	End Time
1		5.207	MM	1.123	18844184	4.315	5.438
2	S	6.433	RTE	0.252	423778	6.296	6.548
3		8.014	RTE	0.178	41223	7.899	8.077
4		8.224	RTE	0.241	464356	8.077	8.318
5		8.423	RTE	0.199	53252	8.329	8.528
6		9.208	RTE	0.199	67702	9.062	9.261
7		9.355	RTE	0.189	260053	9.261	9.449
8		9.732	RTE	0.178	44200	9.659	9.837
9	S	10.036	RTE	0.199	40314	9.952	10.151
10		10.413	RTE	0.199	445780	10.298	10.497
11		10.623	RTE	0.115	61010	10.581	10.696
12		11.272	RTE	0.168	246502	11.157	11.325
13	I	11.388	RTE	0.168	255657	11.325	11.492
14	S	13.273	RTE	0.136	198033	13.189	13.325
15	I	15.544	RTE	0.199	315357	15.461	15.660
16		17.398	RTE	0.105	27221	17.345	17.450
17	S	19.042	RTE	0.105	294948	18.979	19.084
18	I	21.042	RTE	0.137	312892	20.968	21.105
19	S	23.482	RTE	0.168	348159	23.398	23.566
20	I	25.620	RTE	0.137	325540	25.536	25.673
21		27.677	RTE	0.137	36095	27.614	27.751
22	S	30.647	RTE	0.221	325566	30.531	30.752
23	I	33.730	RTE	0.221	382067	33.656	33.877
24		36.332	RTE	0.126	35658	36.279	36.406
25		36.459	RTE	0.169	71538	36.406	36.574
26	I	37.855	RTE	0.295	343256	37.750	38.045



OE

F03-655

96135492.1849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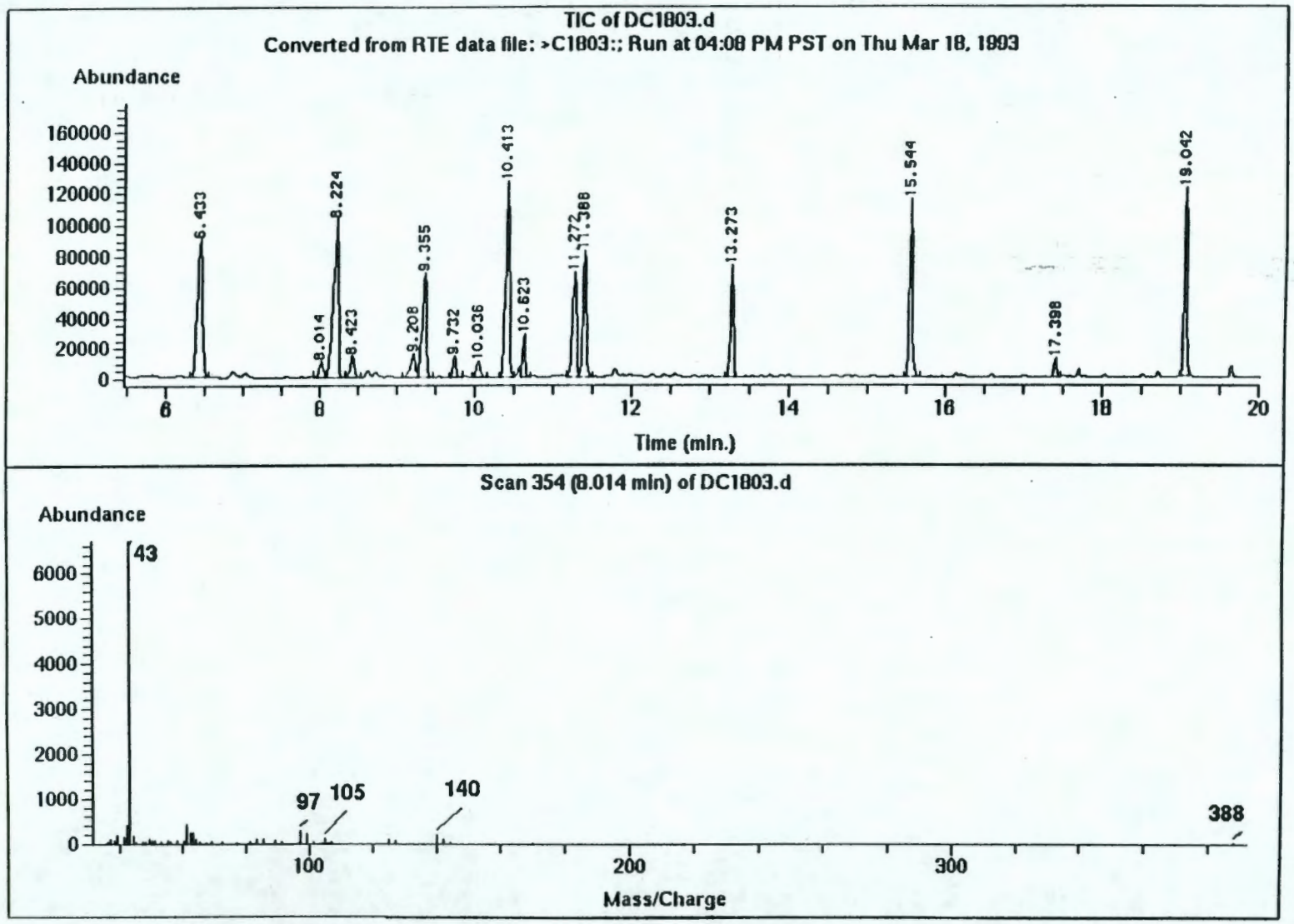
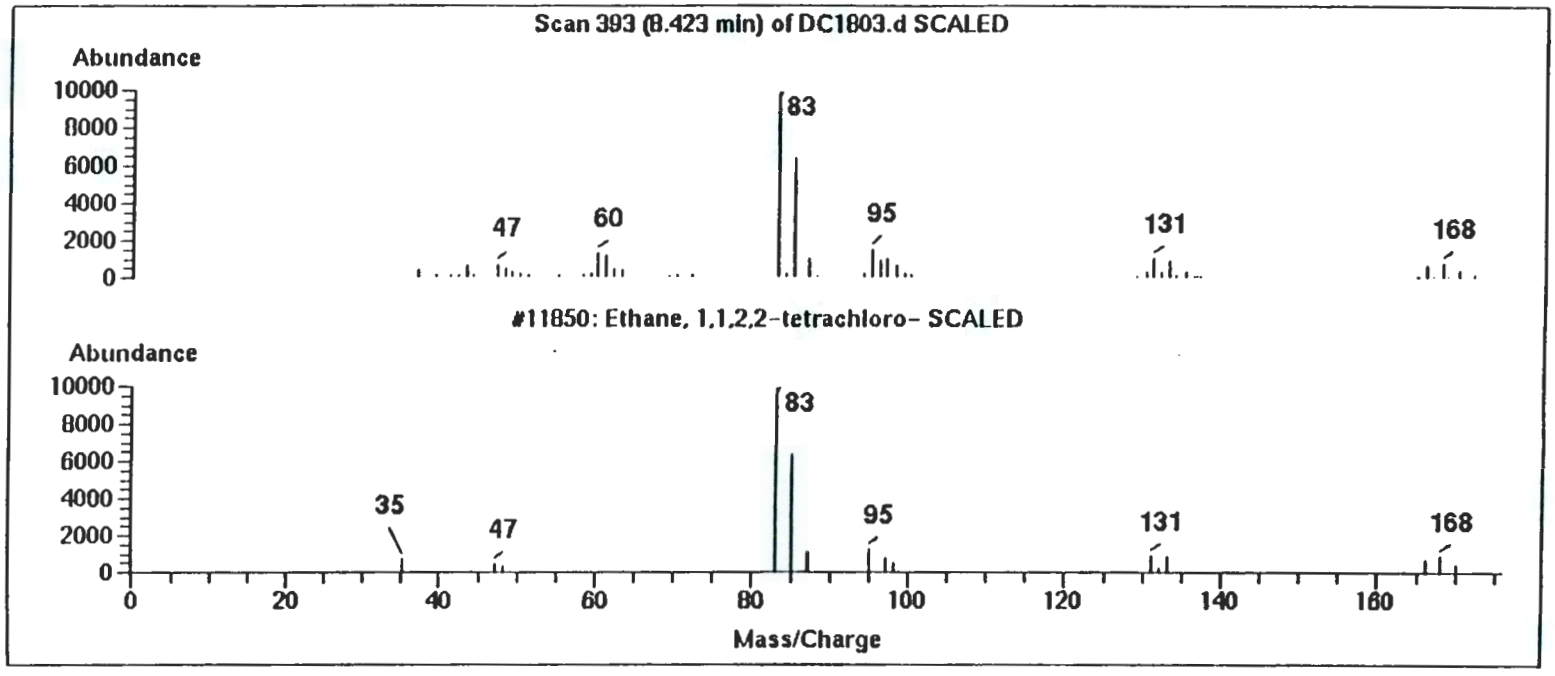
Converted from RTE data file: >C1803:; Run at 04:08 PM PST on Thu Mar 18, 1993
Abundance
160000
140000
120000
100000
80000
60000
40000
20000
0
6.433
8.014
8.224
8.423
9.208
9.355
9.732
10.036
10.413
10.623
11.272
11.388
13.273
15.544
17.398
19.042
6
8
10
12
14
16
18
20
Time (min.)
Scan 373 (8.213 min) of DC1803.d
Abundance
40000
30000
20000
10000
0
43
58
69
83
87
101
115
165
40
60
80
100
120
140
160
Mass/Charge



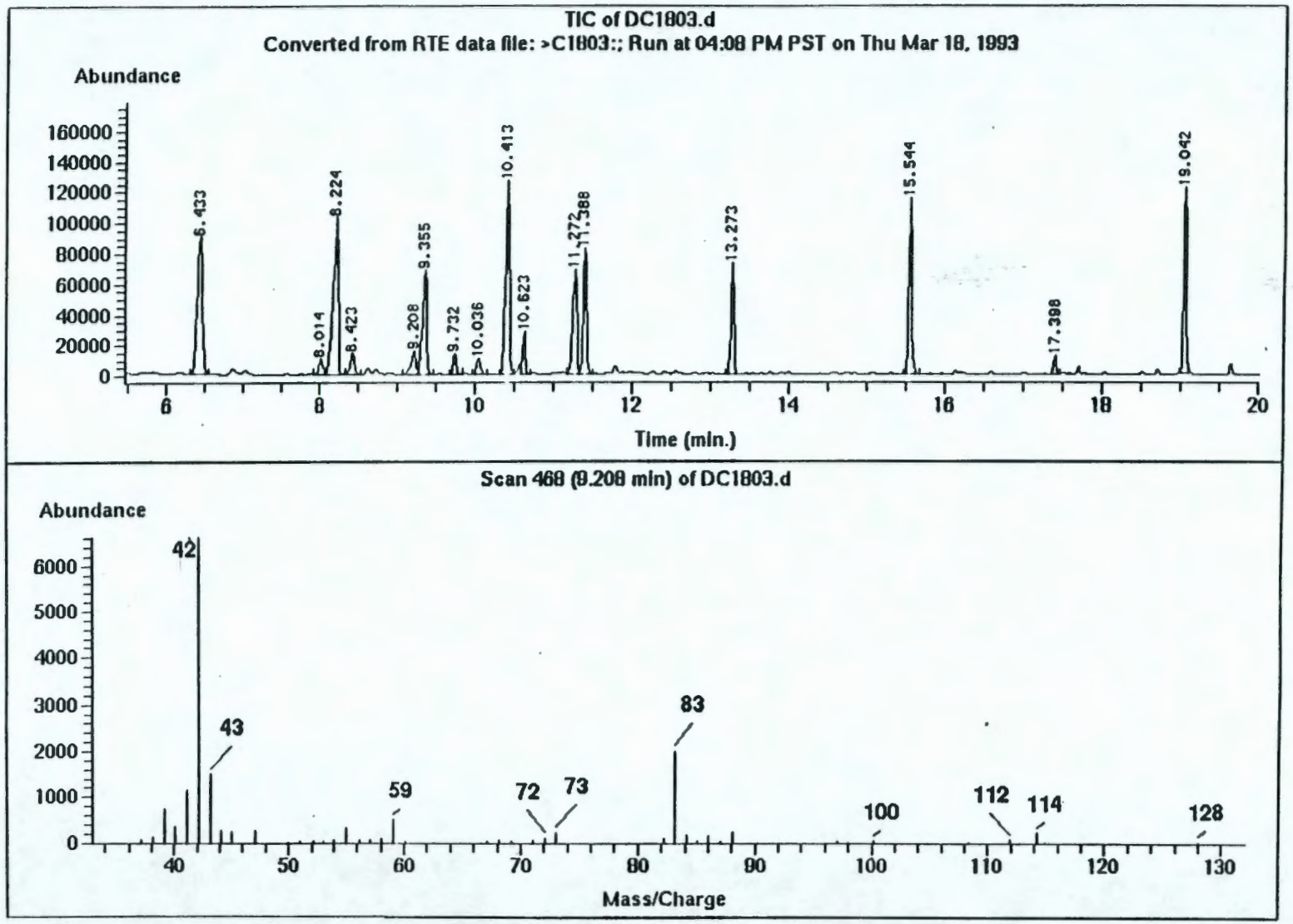
F03-657

9613492.1851


Scan 393 (8.423 min) of DC1803.d SCALED
Abundance
10000
8000
6000
4000
2000
0
83
47
60
95
131
168
#11850: Ethane, 1,1,2,2-tetrachloro- SCALED
Abundance
10000
8000
6000
4000
2000
0
83
35
47
95
131
168
0
20
40
60
80
100
120
140
160
Mass/Charge

ok

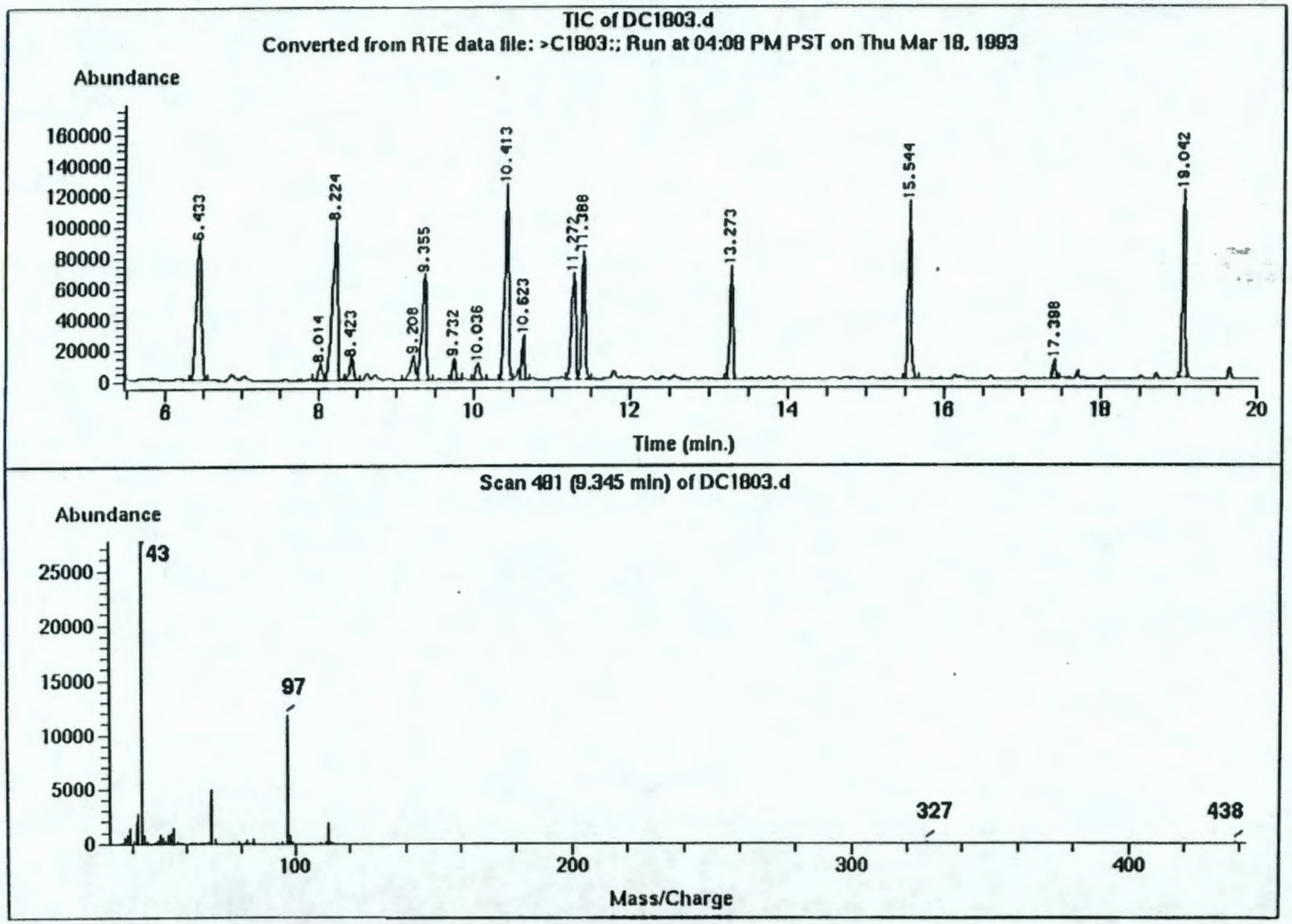
F03-658



wk

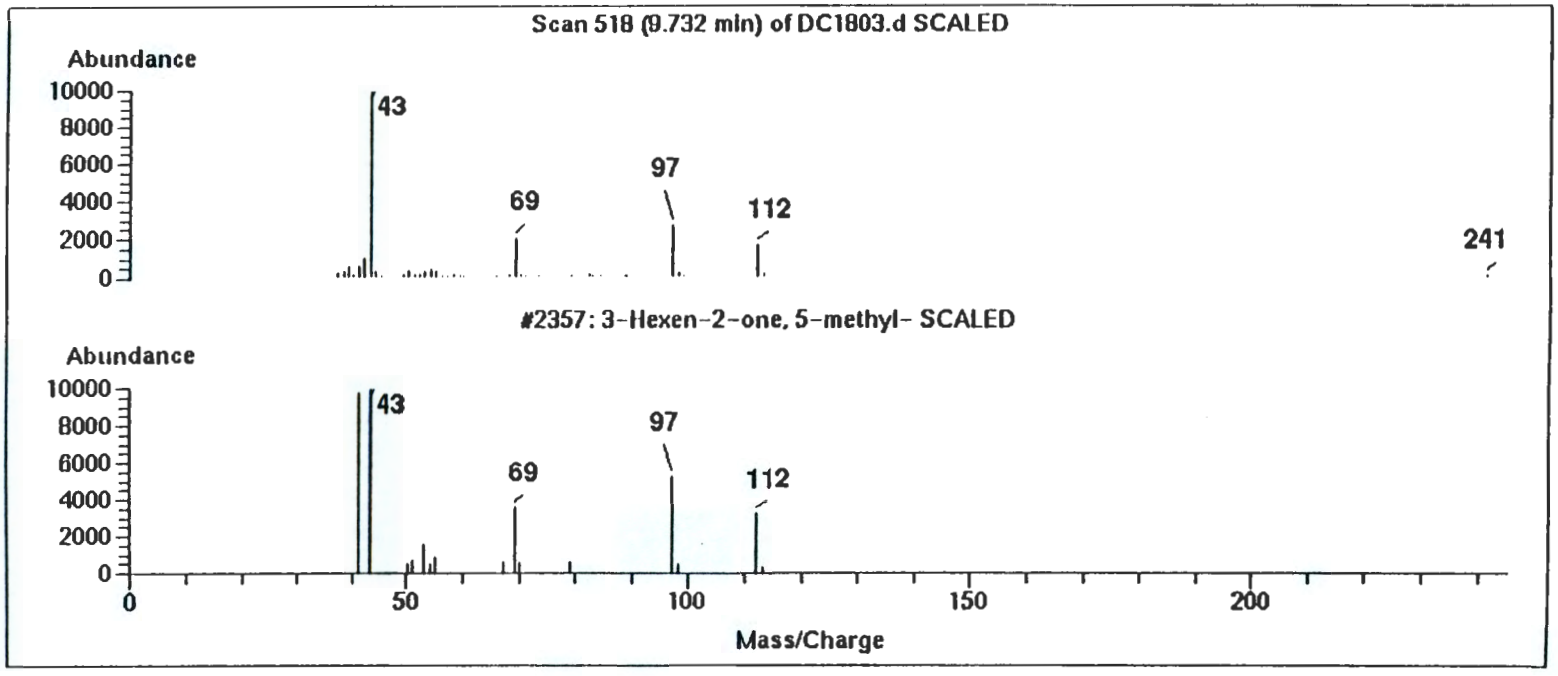
F03-659

9613492.1853



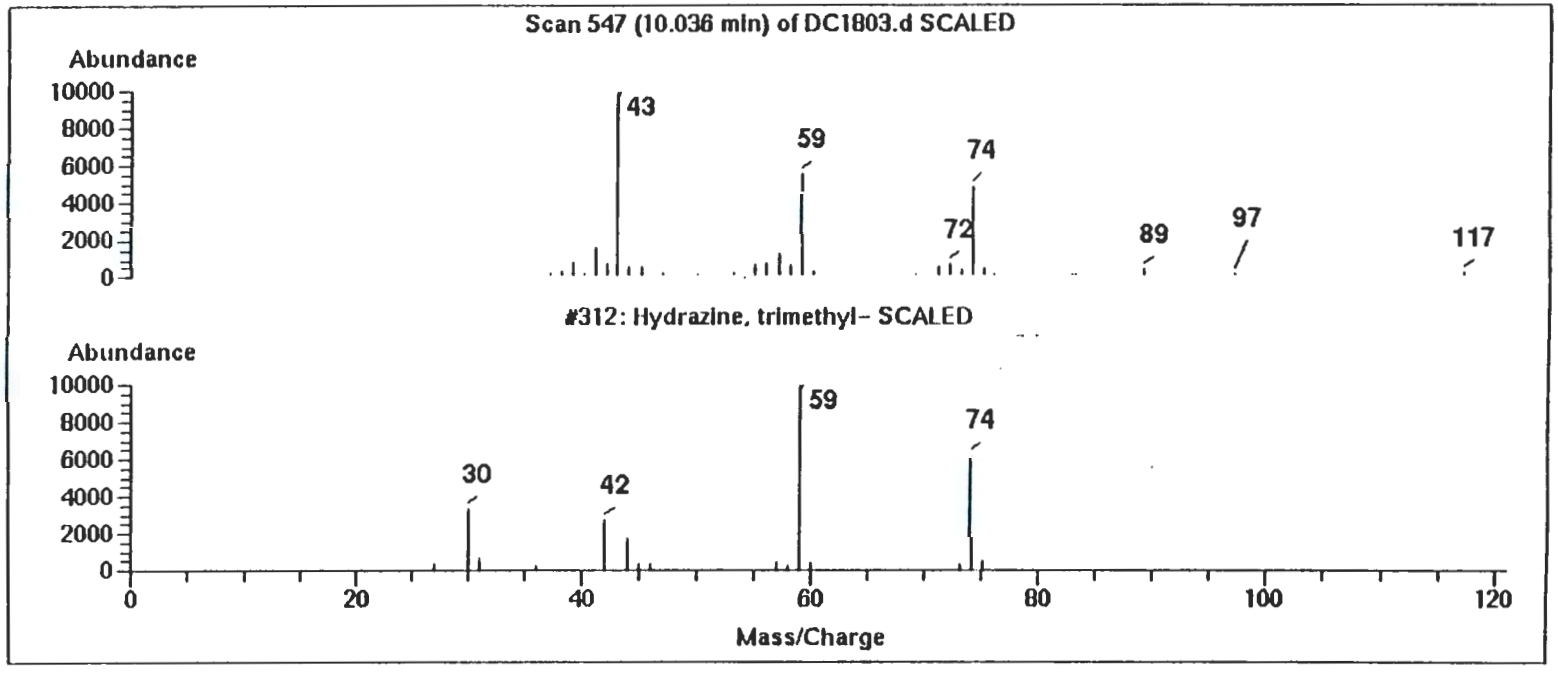
F03-660

96135492.1859


Scan 518 (9.732 min) of DC1803.d SCALED
Abundance
10000
8000
6000
4000
2000
0
43
69
97
112
241
#2357: 3-Hexen-2-one, 5-methyl- SCALED
Abundance
10000
8000
6000
4000
2000
0
43
69
97
112
0
50
100
150
200
Mass/Charge

unk

F03-661



unk

F03-662

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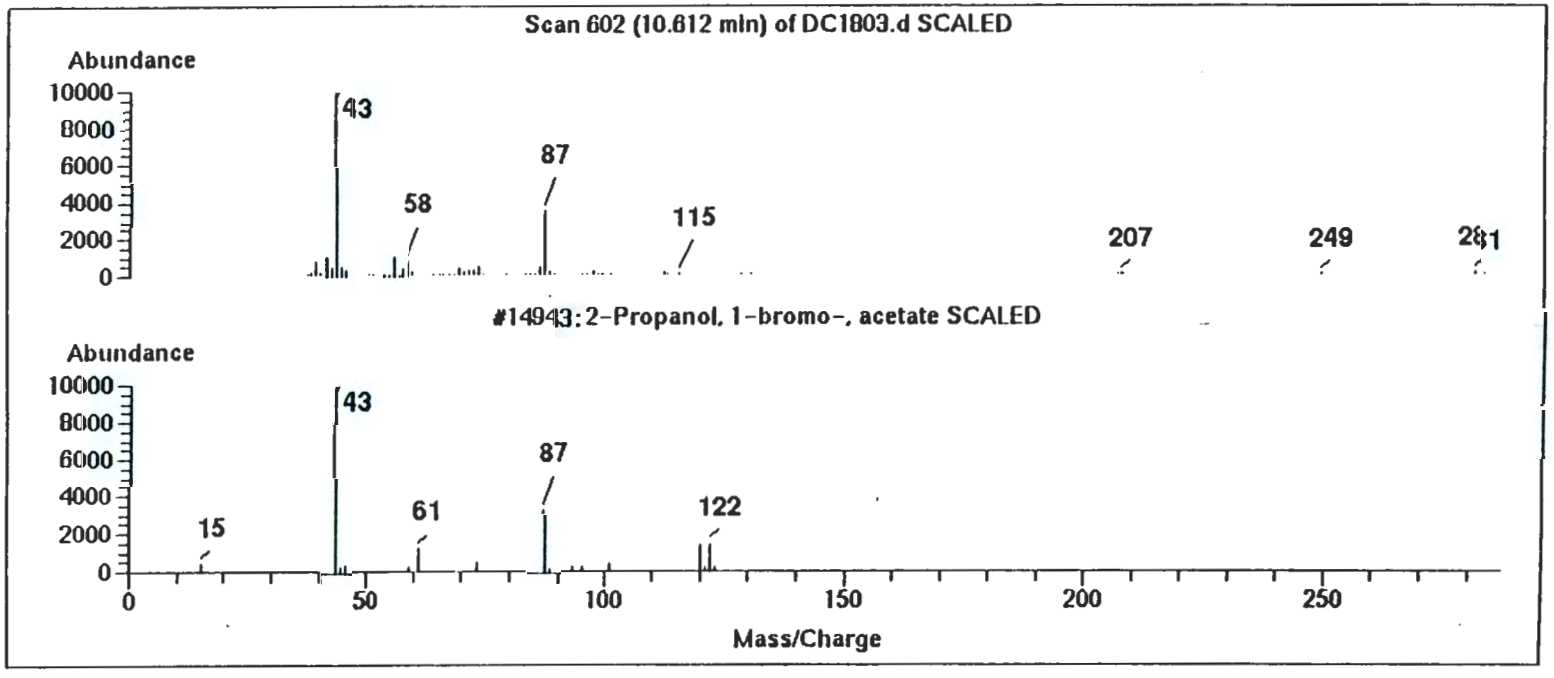
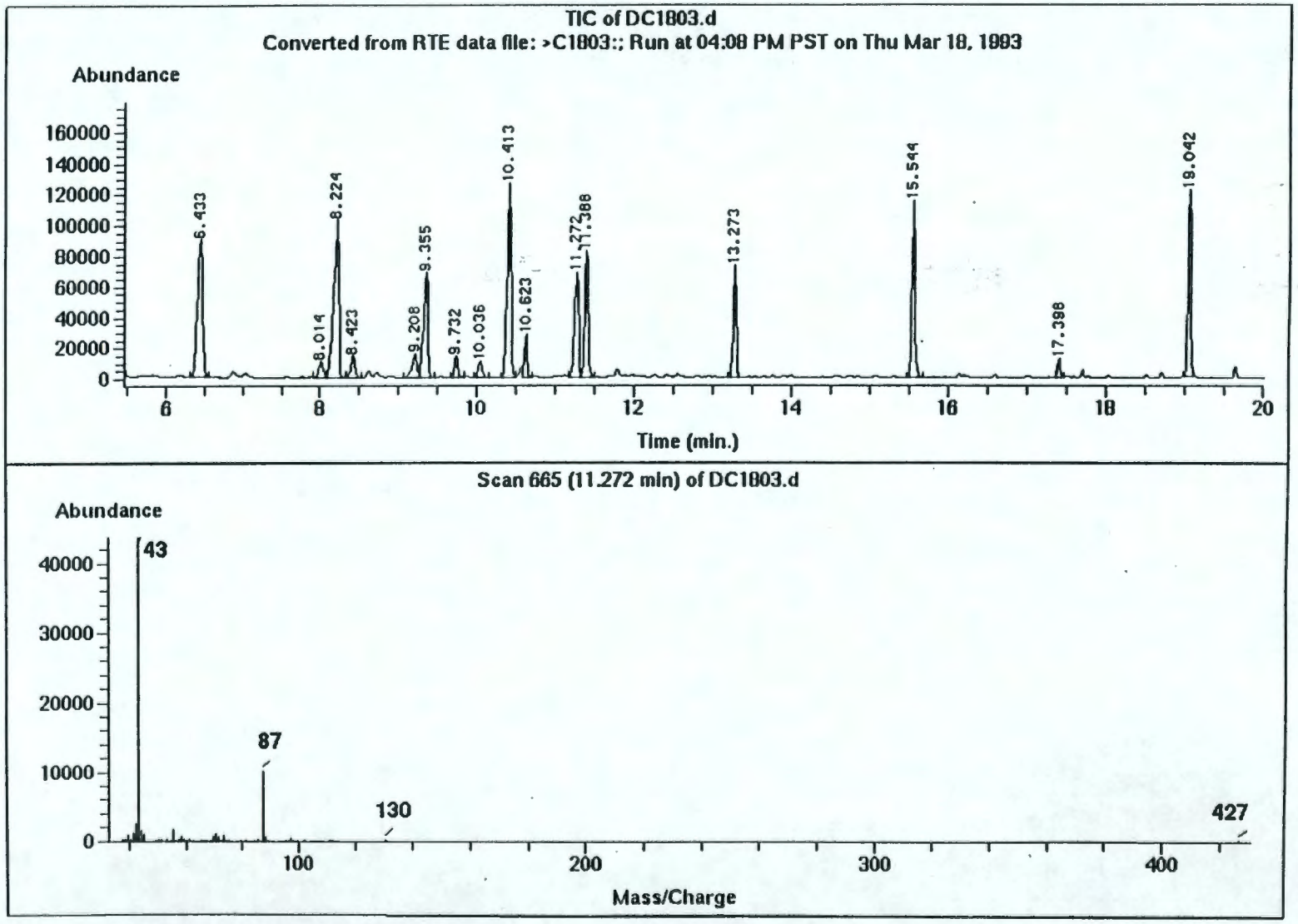


Unk

F03-663

96134027.087



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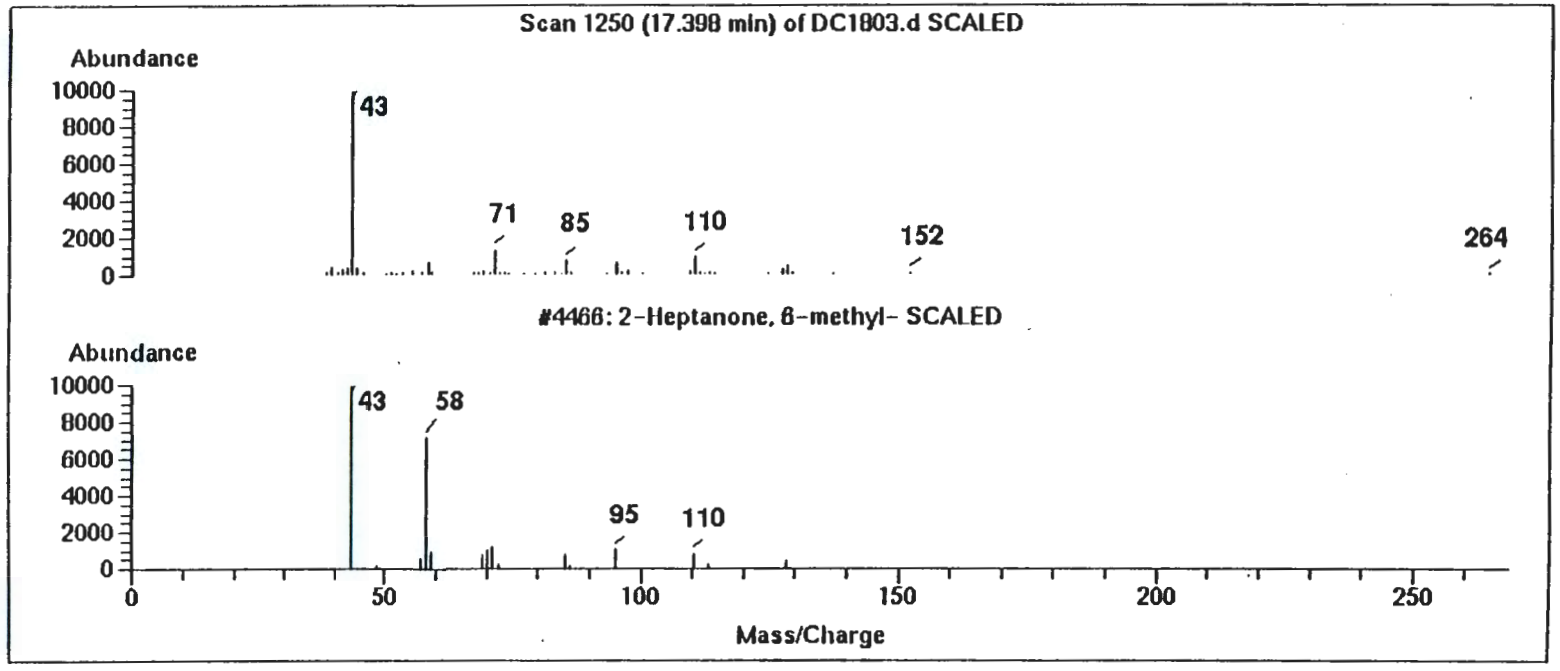
F03-664

9613492.1858



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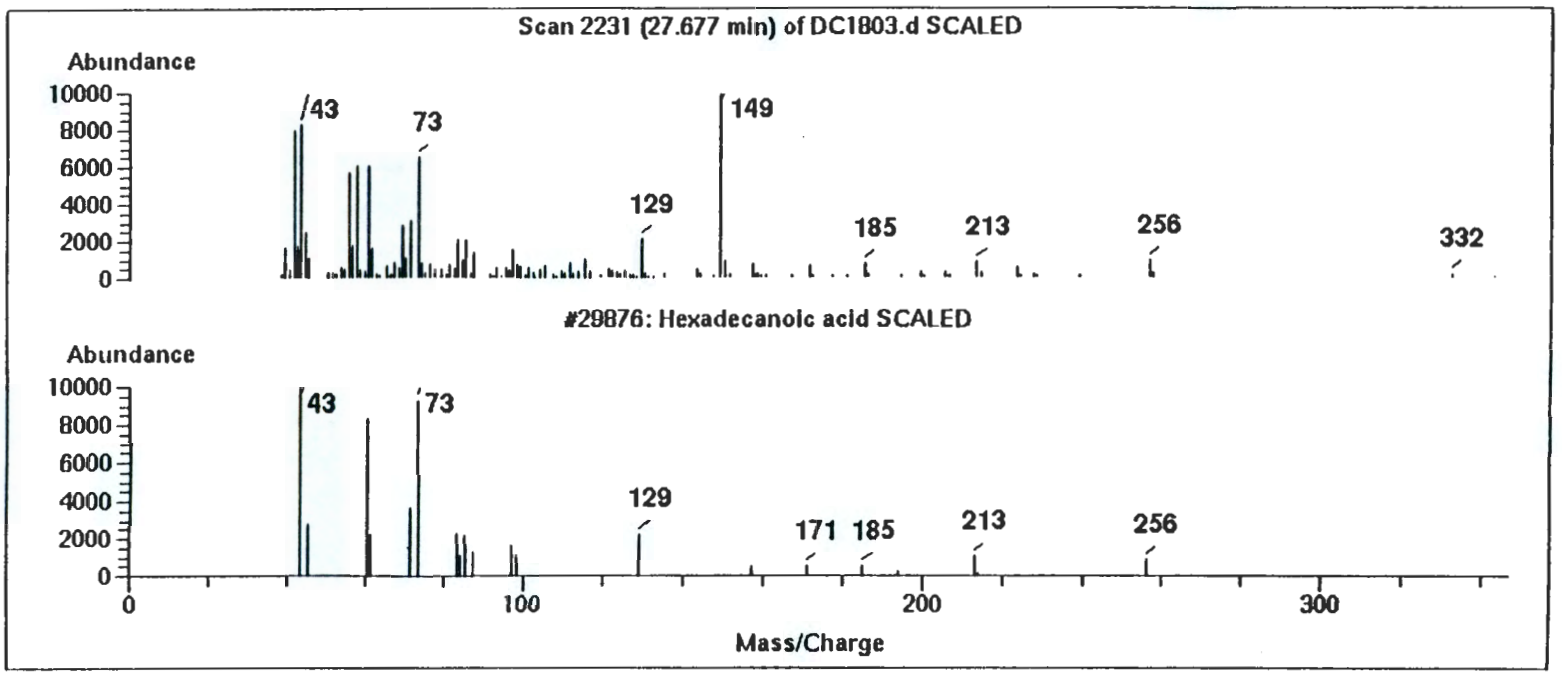
F03-665

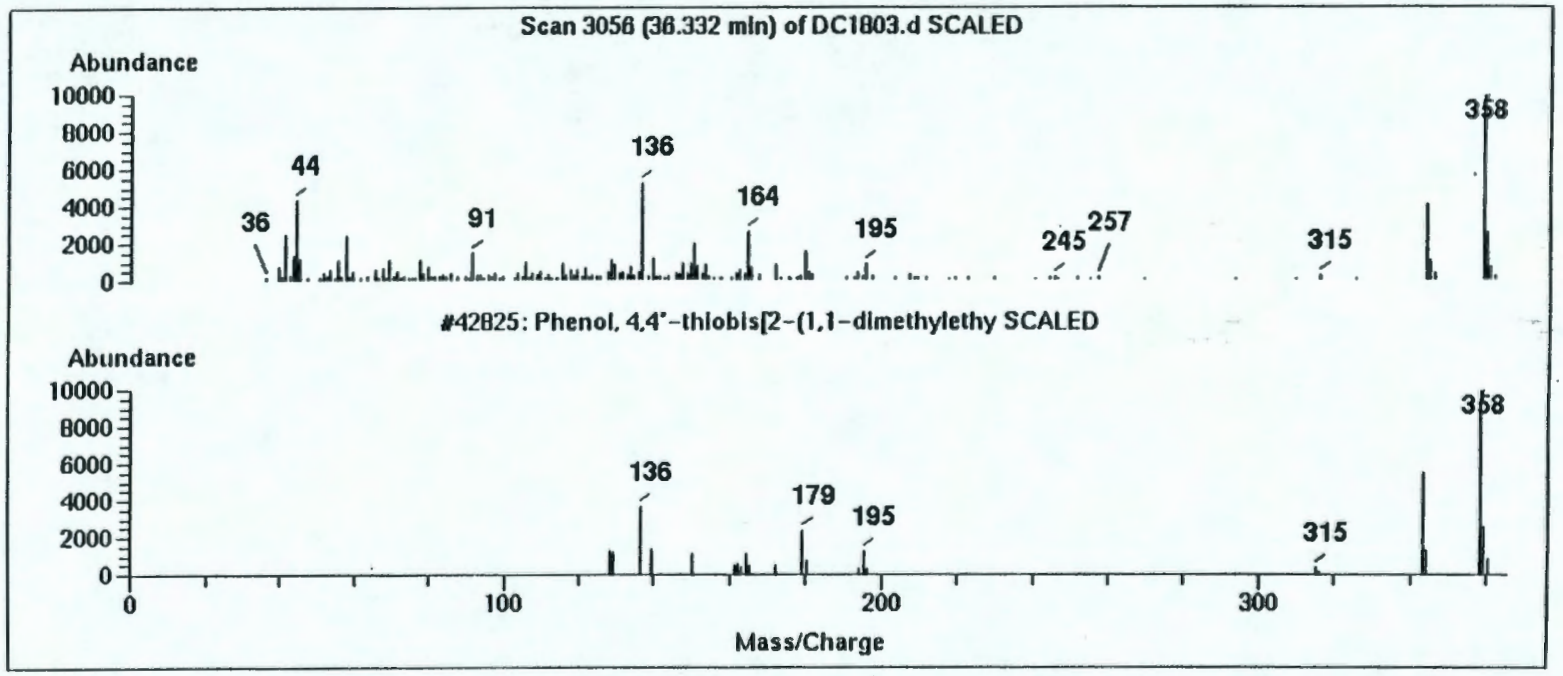
96131792.1859



unk

F03-666

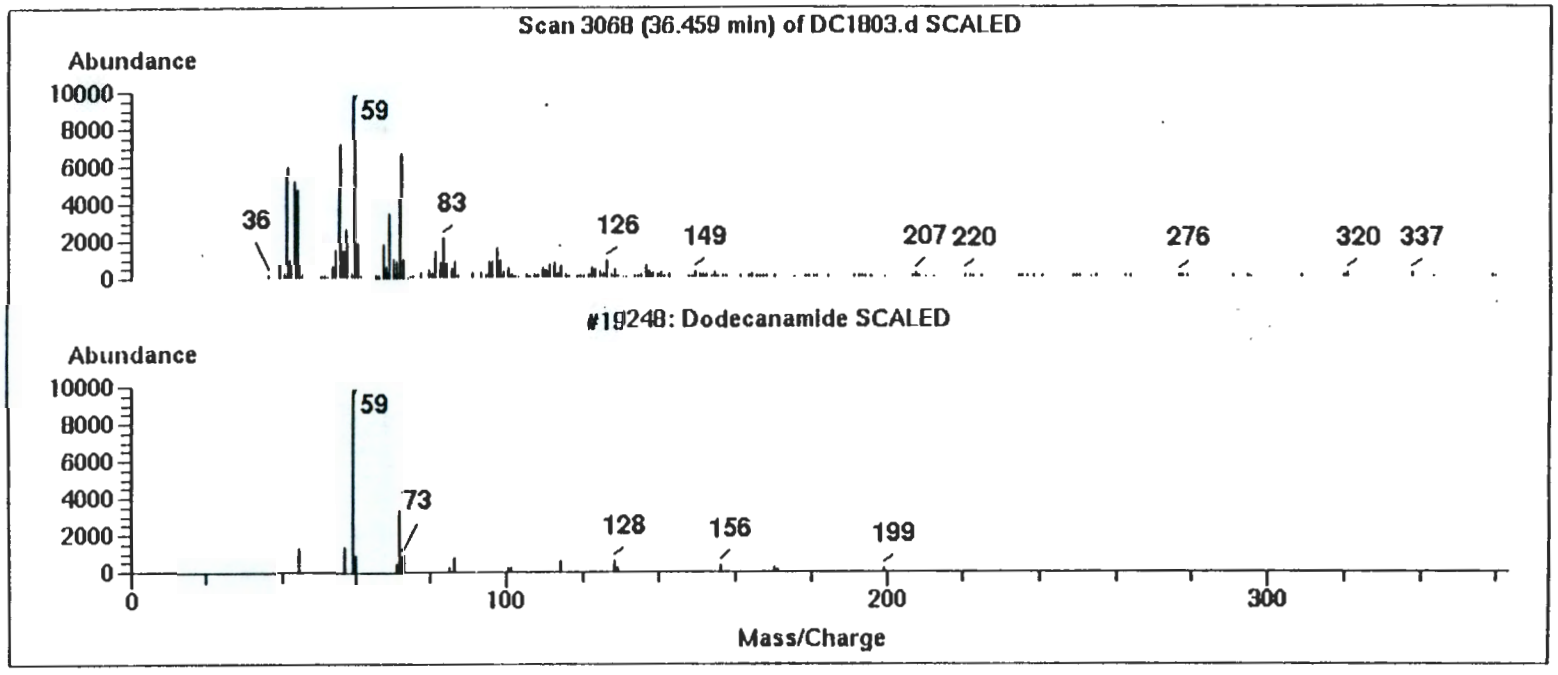
96134972.1860



ink

F02-667

96 13492.18861



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F03-668

96/3492.1862

9615492.1863

QUANT REPORT

Operator ID: ERIC
Output File: ^C1804::OF
Data File: >C1804::D1
Name: 93-05190
Misc: T-106; 32.749 GMS.

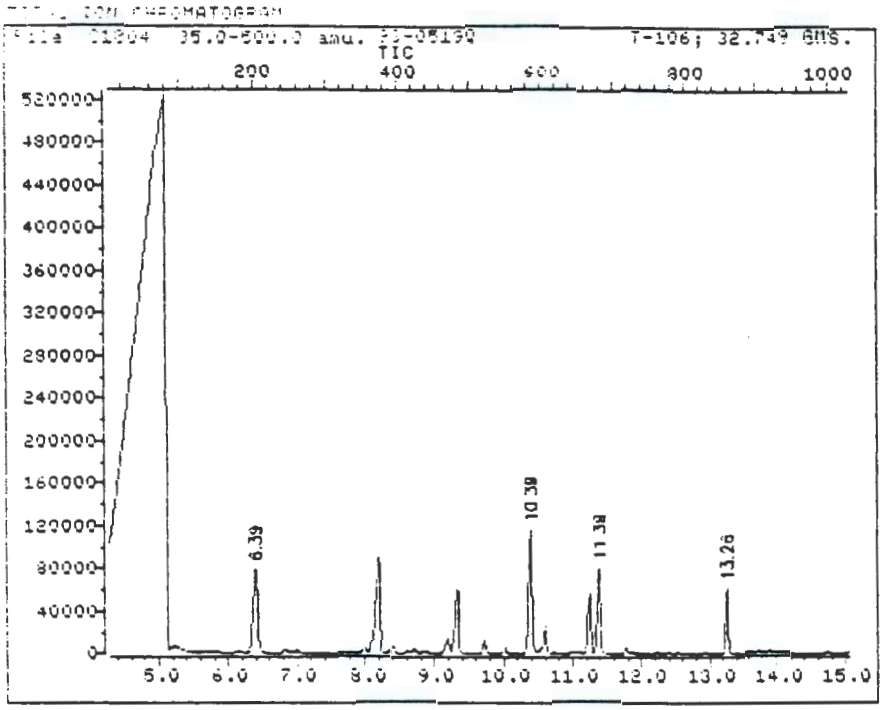
Quant Rev: 7
Quant Time: 930319 10:31
Injected at: 930318 17:04
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 2

ID File: ID18NA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Time: 930318 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.39	679	38175	40.00	ng/uL	9
2)	2-Fluorophenol	6.39	202	90108	67.76	ng/uL	9
3)	Phenol-d5	10.39	584	125197	77.04	ng/uL	9
16)	*Naphthalene-d8	15.53	1075	132809	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.26	858	49211	29.23	ng/uL	9
31)	*Acenaphthene-d10	21.04	1601	66956	40.00	ng/uL	9
36)	2-Fluorobiphenyl	19.04	[illegible]	79322	31.24	ng/uL	9
47)	Diethylphthalate	[illegible]	[illegible]	1457	.466	ng/uL	9
51)	*Phenanthrene-d10	25.61	2038	119708	40.00	ng/uL	9
[illegible]	2,4,6-Tribromophenol	23.48	1834	41635	80.28	ng/uL	9
60)	Di-n-butylphthalate	27.67	2234	3127	.599	ng/uL	9
62)	*Chrysene-d12	33.73	2811	108742	40.00	ng/uL	9
64)	Terphenyl-d14	30.63	2516	107632	34.49	ng/uL	8
69)	Bis(2-Ethylhexyl)phthalate	34.10	2946	[illegible]	1.11	ng/uL	9
70)	*Perylene-d12	37.35	[illegible]	116291	40.00	ng/uL	9
71)	Di-n-octylphthalate	36.00	[illegible]	1951	.332	ng/uL	9

* Internal is 1970

F03-669



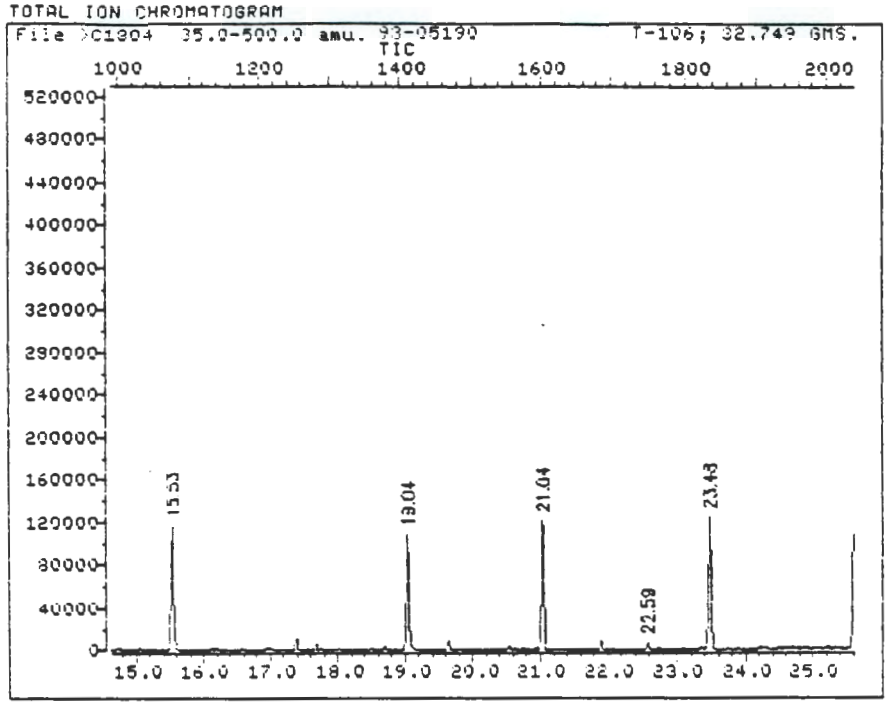
Data File: >C1804::D1 Quant Output File: ^C1804::OF
Name: 93-05190 Instrument ID: BNA1
Misc: T-106; 32.749 GMS. BTL# 2

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 1o:54 Last Qcal Time: 930318 12:15

Operator ID: ERIC
Quant Time : 930319 10:31
Injected at: 930318 17:04

Page 1 of 4

TOTAL ION CHROMATOGRAM



Data File: >C1804::D1
Name: 93-05190
Misc: T-106; 32.749 GMS.

Quant Output File: ^C1804::OF
Instrument ID: BNA1

BTL# 2

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

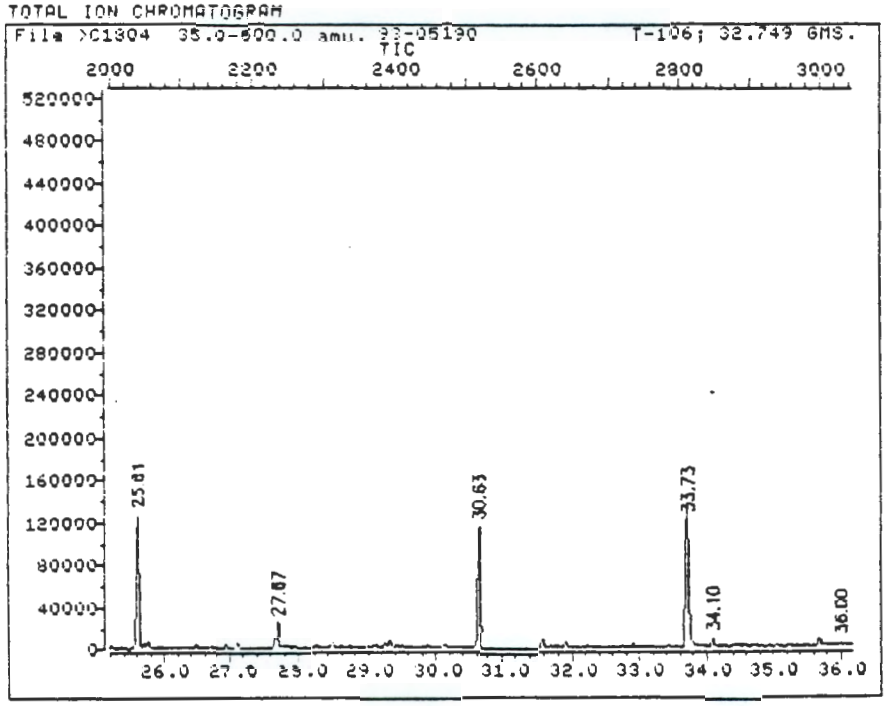
Last Ocal Time: 930318 12:15

Operator ID: ERIC
Quant Time : 930319 10:31
Injected at: 930318 17:04

Page 2 of 4

9613492.1866

TOTAL ION CHROMATOGRAM



Data File: >C1804::D1 Quant Output File: ^C1804::OF
Name: 93-05190 Instrument ID: BNA1
Misc: T-106; 32.749 GMS. BTL# 2

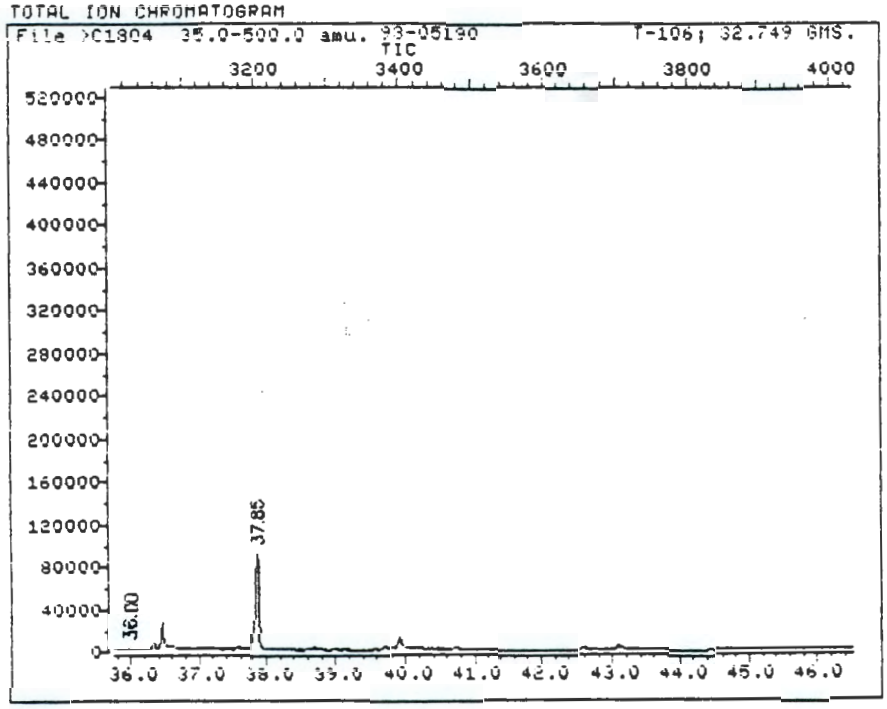
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921109 16:54 Last Qcal Time: 930318 12:15

Operator ID: ERIC
Quant Time : 930319 10:31
Injected at: 930318 17:04

Page 3 of 4

F02-672

TOTAL ION CHROMATOGRAM



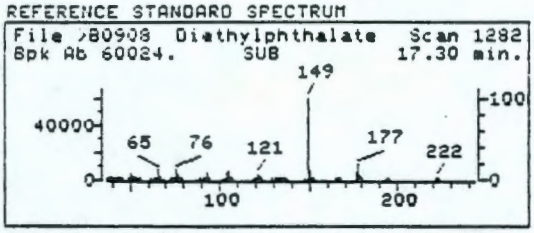
Data File: >C1804::D1 Quant Output File: ^C1804::QF
Name: 93-05190 Instrument ID: BNA1
Misc: T-106; 32.749 GMS. BTL# 2

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930318 12:15

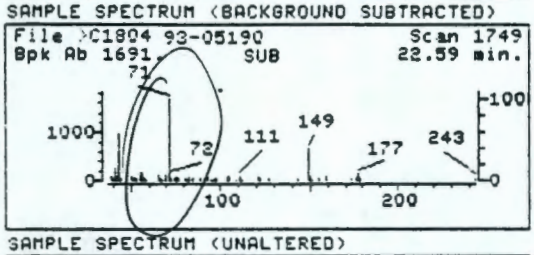
Operator ID: ERIC
Quant Time : 930319 10:31
Injected at: 930318 17:04

9613492.1868

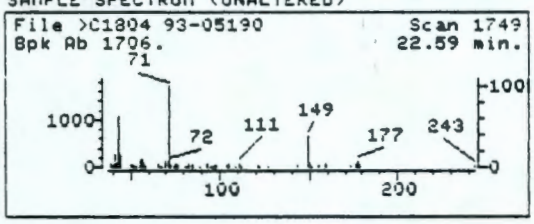
REFERENCE STANDARD SPECTRUM

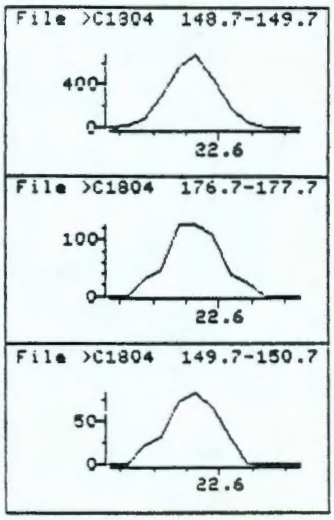


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >C1804::D1
Name: 93-05190
Misc: T-106; 32.749 GMS.
Quant Time: 930319 10:31
Injected at: 930318 17:04
Last Qcal Time: 930318 12:15

Quant Output File: ^C1804::OF
Instrument ID: BNA1
BTL# 2
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 47
Compound Name : Diethylphthalate
Scan Number : 1749
Retention Time: 22.59 min.
Quant Ion : 149.0
Area : 1457
Concentration : .466 ng/uL
q-value : 92

Non-detect Estimate
AS
10/25/93

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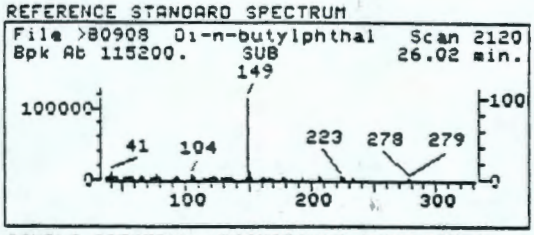
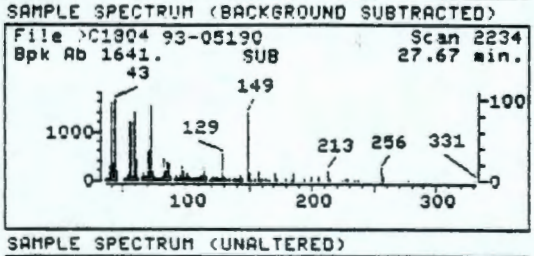
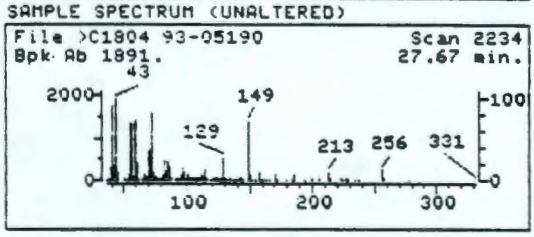
REFERENCE STANDARD SPECTRUM

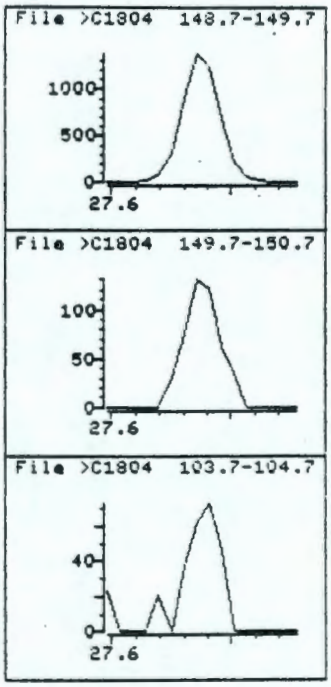


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >C1804::D1
Name: 93-05190
Misc: T-106; 32.749 GMS.
Quant Time: 930319 10:31
Injected at: 930318 17:04
Last Qcal Time: 930318 12:15

Quant Output File: ^C1804::OF
Instrument ID: BNA1
BTL# 2
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2234
Retention Time: 27.67 min.
Quant Ion : 149.0
Area : 3127
Concentration : .599 ng/uL
q-value : 98

estimate
AS
10/25/93

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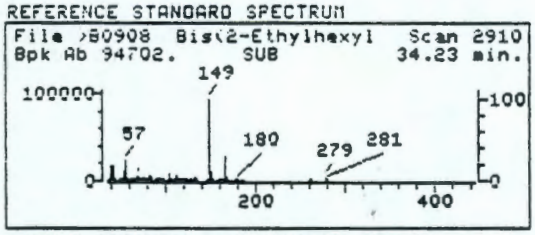
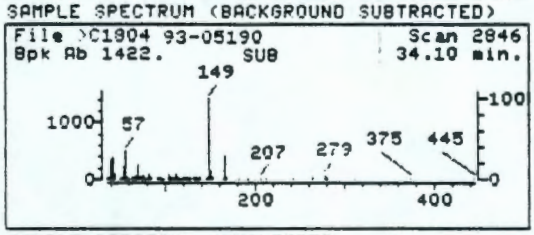
9613492.1870

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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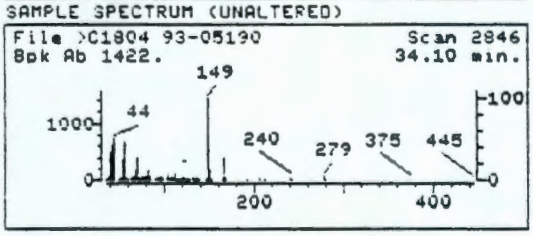
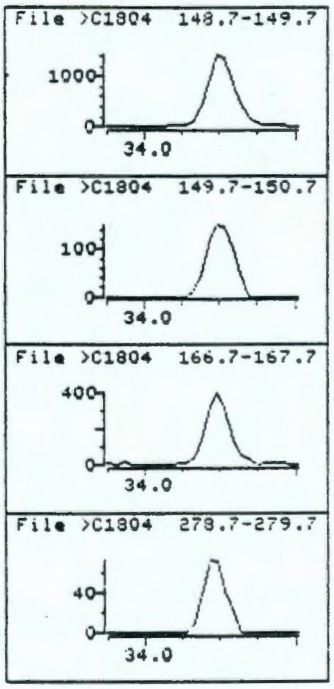




Data File: >C1804::D1
Name: 93-05190
Misc: T-106; 32.749 GMS.
Quant Time: 930319 10:31
Injected at: 930318 17:04
Last Qcal Time: 930318 12:15

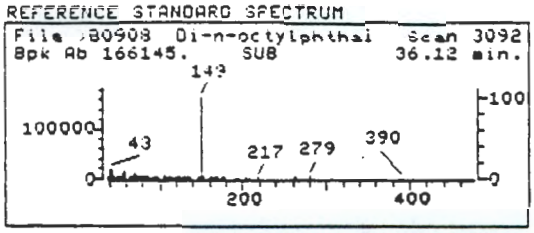
Quant Output File: ^C1804::DF
Instrument ID: BNA1
BTL# 2
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2846
Retention Time: 34.10 min.
Quant Ion : 149.0
Area : 3881
Concentration : 1.11 ng/uL
q-value : 99

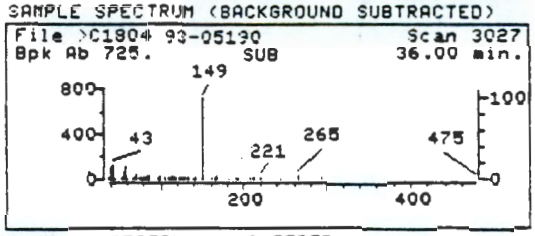
BS
10/25/93

F03-676

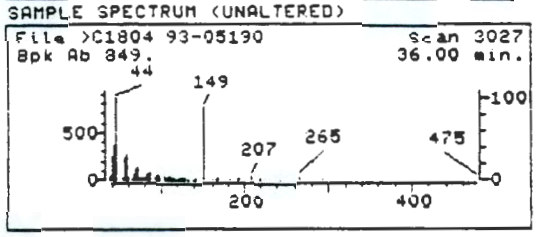
REFERENCE STANDARD SPECTRUM

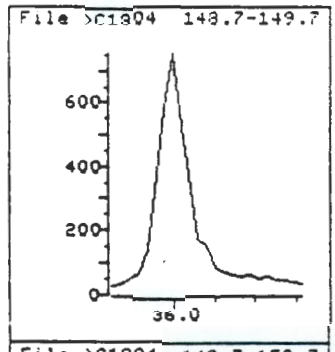


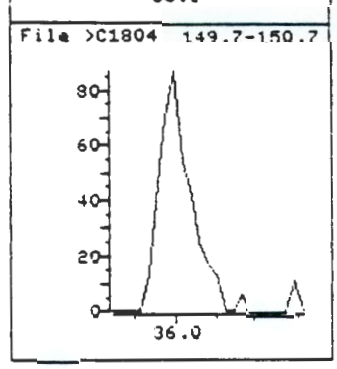
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >C1804::D1
Name: 93-05190
Misc: T-106; 32.749 GMS.
Quant Time: 930319 10:31
Injected at: 930318 17:04
Last Qcal Time: 930318 12:15

Quant Output File: ^C1804::OF
Instrument ID: BNA1
BTL# 2
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 3027
Retention Time: 36.00 min.
Quant Ion : 149.0
Area : 1951
Concentration : .332 ng/uL
q-value : 95

✓ AS 10/25/93

9613492.1872

QUANT REPORT

Operator ID: ERIC
Output File: ^C1804::DF
Data File: >C1804::D1
Name: 93-05190
Misc: T-106; 32.749 GMS.

Quant Rev: 7
Quant Time: 930319 10:31
Injected at: 930318 17:04
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 2

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930318 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.39	679	38175	40.00	ng/uL	9
2)	2-Fluorophenol	6.39	202	90108	67.76	ng/uL	9
3)	Phenol-d5	10.39	584	125197	77.04	ng/uL	9
4)	Phenol	0.00	588	0	0.00	ng/uL	
5)	bis(2-Chloroethyl)ether	0.00	0	0	0.00	ng/uL	
6)	2-Chlorophenol	0.00	0	0	0.00	ng/uL	
7)	1,3-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
8)	1,4-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
10)	1,2-Dichlorobenzene	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	0	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	0.00	858	0	0.00	ng/uL	
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.53	1075	132809	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.26	858	49211	29.23	ng/uL	9
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	0.00	0	0	0.00	ng/uL	
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	0.00	0	0	0.00	ng/uL	
30)	2-Methylnaphthalene	0.00	0	0	0.00	ng/uL	
31)	*Acenaphthene-d10	21.04	1601	66956	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	19.04	1410	79322	31.24	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	0	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	0.00	0	0	0.00	ng/uL	

F03-678

43)	2,4-Dinitrophenol	0.00	0	0	0.00	ng/uL	
44)	4-Nitrophenol	0.00	0	0	0.00	ng/uL	
45)	Dibenzofuran	0.00	0	0	0.00	ng/uL	
46)	2,4-Dinitrotoluene	0.00	0	0	0.00	ng/uL	
47)	Diethylphthalate	22.59	1749	1457	.466	ng/uL	9[illegible]
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00	ng/uL	
49)	Fluorene	0.00	0	0	0.00	ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00	ng/uL	
51)	*Phenanthrene-d10	25.61	2038	119708	40.00	ng/uL	9[illegible]
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00	ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1835	0	0.00	ng/uL	
54)	2,4,6-Tribromophenol	23.48	1834	41635	80.28	ng/uL	9[illegible]
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00	ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00	ng/uL	
57)	Pentachlorophenol	0.00	0	0	0.00	ng/uL	
58)	Phenanthrene	0.00	0	0	0.00	ng/uL	
59)	Anthracene	0.00	0	0	0.00	ng/uL	
60)	Di-n-butylphthalate	27.67	2234	3127	[illegible]	ng/uL	[illegible]
61)	Fluoranthene	0.00	[illegible]	0	0.00	ng/uL	
62)	*Chrysene-d12	[illegible]	[illegible]	[illegible]742	40.00	ng/uL	9[illegible]
63)	[illegible]	0.00	0	0	0.00	ng/uL	
64)	[illegible]	30.63	2516	107632	34.49	ng/uL	8[illegible]
65)	Butylbenzylphthalate	0.00	0	0	0.00	ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00	ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00	ng/uL	
68)	Chrysene	0.00	0	0	0.00	ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	[illegible]	[illegible]	[illegible]1	1.11	ng/uL	[illegible]
70)	*Perylene-d12	37.85	[illegible]33	116291	40.00	ng/uL	9[illegible]
71)	Di-n-octylphthalate	36.00	[illegible]027	1951	.332	ng/uL	99[illegible]
72)	Benzo(b)fluoranthene	0.00	0	0	0.00	ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00	ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00	ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00	ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00	ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00	ng/uL	

* Compound is ISTD

9613492.1874

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >C1804
CAL CHECK FILE = >C1802
DATE AND TIME OF ANALYSIS = 3/18/93 17:04
MISCELLANEOUS = T-106; 32.749 GMS.
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

I. Areas

Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	38175	37942	18971	75884	OK
Naphthalene-d8	132809	130260	65130	260520	OK
Acenaphthene-d10	66956	65432	32716	130864	OK
Phenanthrene-d10	119708	117143	58571	234286	OK
Chrysene-d12	108742	98177	49089	196354	OK
Perylene-d12	116281	111326	55663	222652	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.39	11.39	10.89	11.89	OK
Naphthalene-d8	15.53	15.56	15.06	16.06	OK
Acenaphthene-d10	21.04	21.06	20.56	21.56	OK
Phenanthrene-d10	25.61	25.63	25.13	26.13	OK
Chrysene-d12	33.73	33.76	33.26	34.26	OK
Perylene-d12	37.85	37.87	37.37	38.37	OK

AS 10/26/93

F02-680

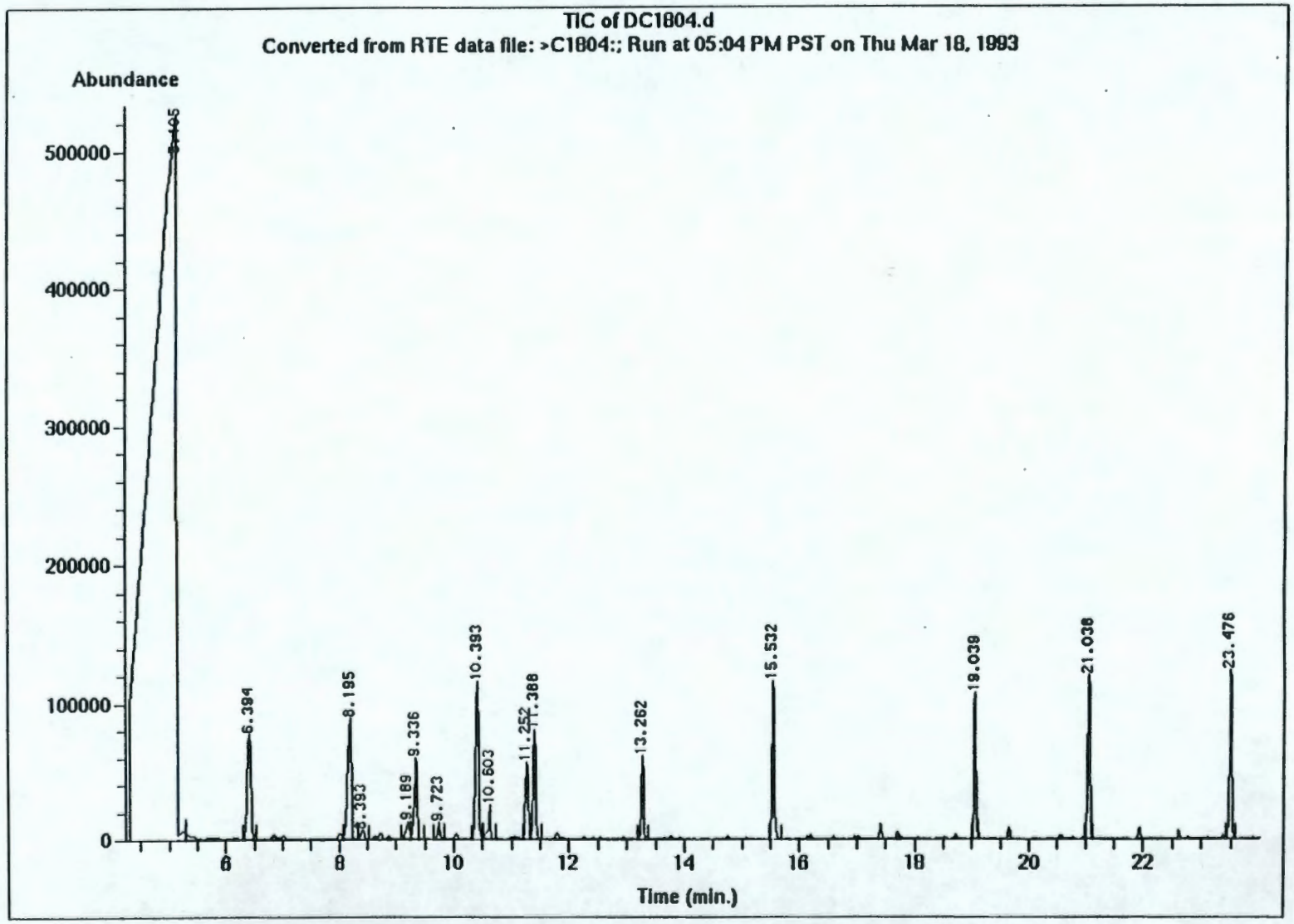
[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[Preliminary Surrogate Report]

DATA FILE NAME = >C1804::D1
DATE AND TIME OF ANALYSIS = 3/18/93 17:04
SAMPLE = 93-05190
MISCELLANEOUS = T-106; 32.749 GMS.
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
2-Fluorophenol	67.76	100.00	21-100	25-121	67.76
Phenol-d5	77.04	100.00	10-94	24-113	77.04
Nitrobenzene-d5	29.23	50.00	35-114	23-120	58.46
2-Fluorobiphenyl	31.24	50.00	43-116	30-115	62.49
2,4,6-tribromo-phenol	80.27	100.00	10-123	19-122	80.27
Terphenyl-d14	34.49	50.00	33-141	18-137	68.98



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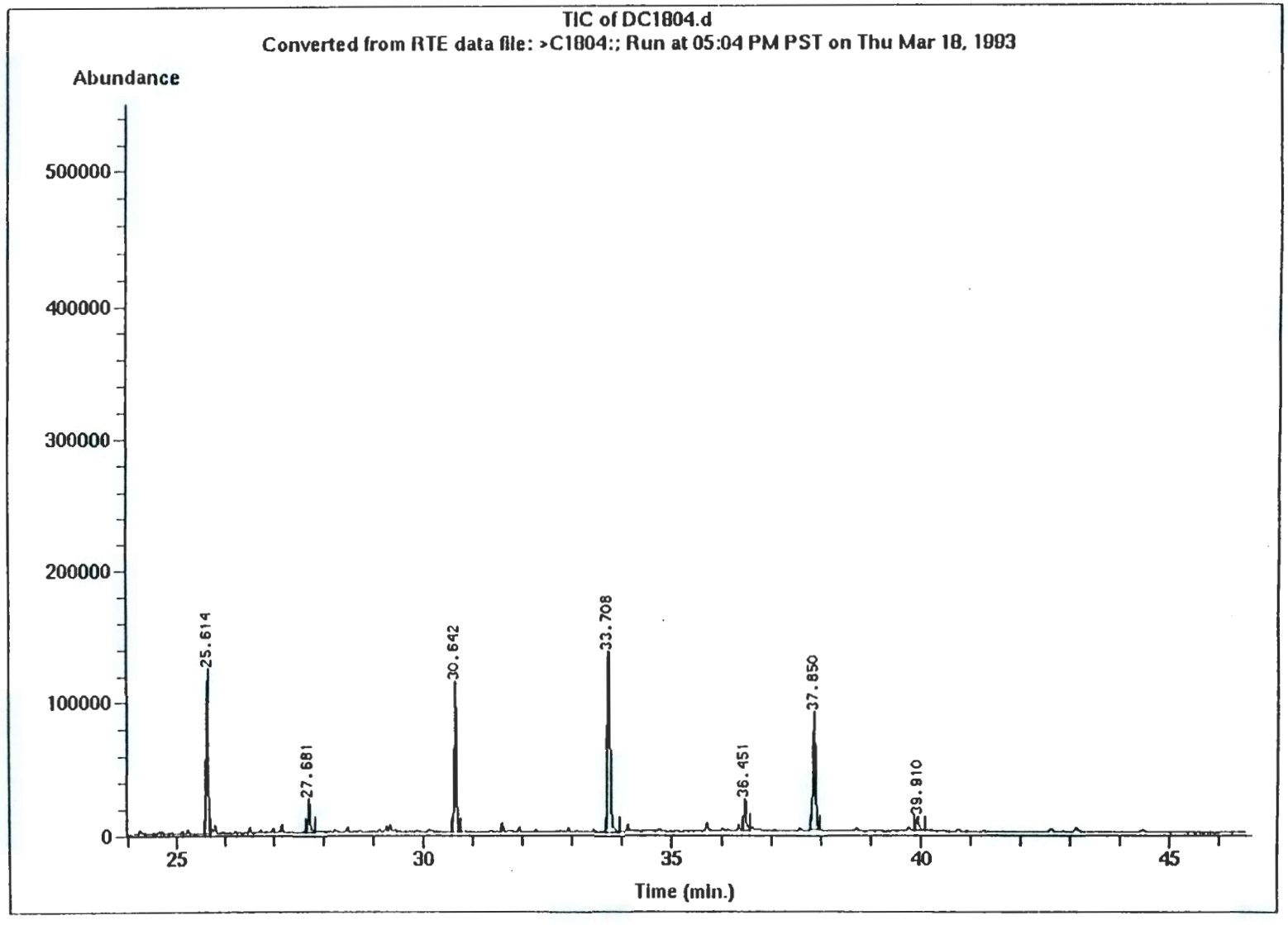


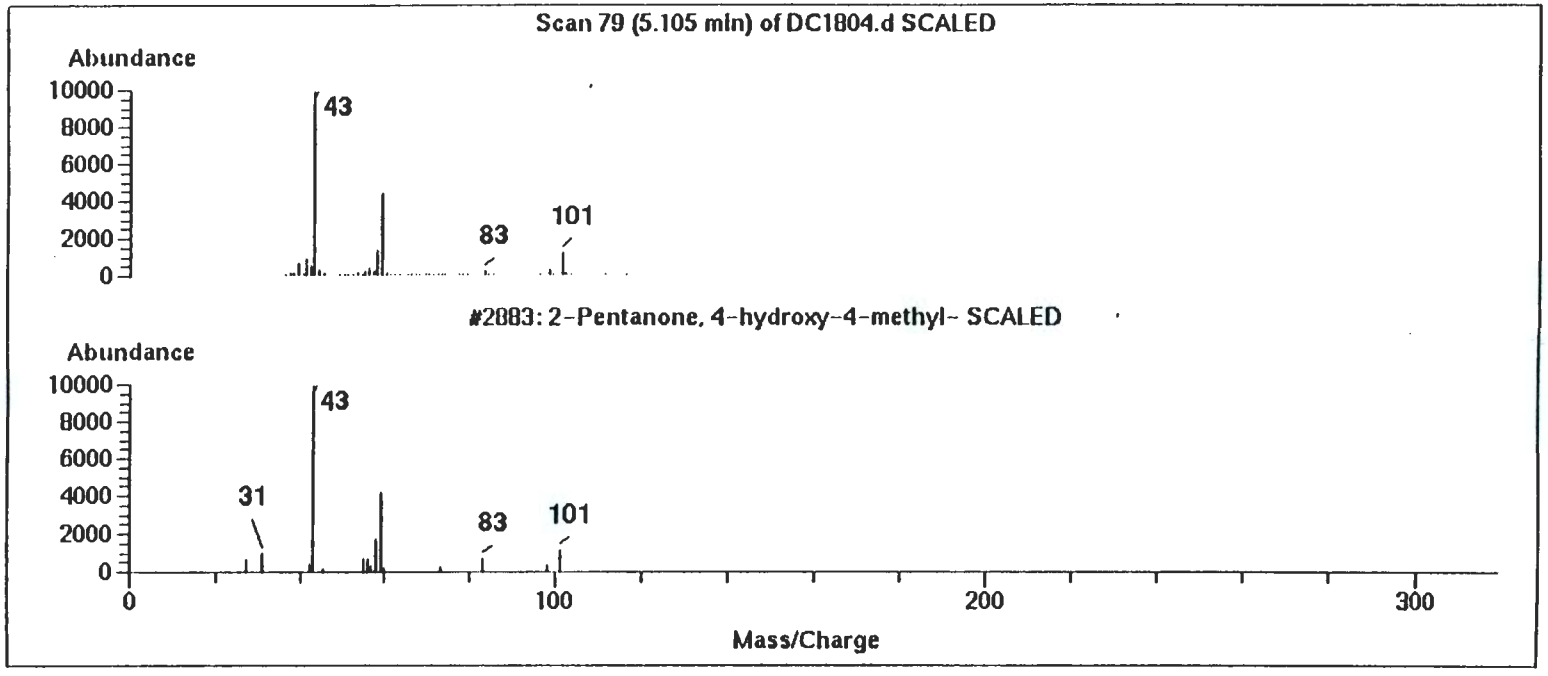
F03-683

96130272.187

9613492.1878

TIC of DC1804.d
Converted from RTE data file: >C1804:

Peak#		Ret Time	Type	Width	Area	Start Time	End Time
1		5.105	MM	0.997	16018319	4.285	5.283
2	S	6.394	RTE	0.241	366568	6.279	6.520
3		8.195	RTE	0.251	396274	8.058	8.310
4		8.393	RTE	0.189	25605	8.310	8.498
5		9.189	RTE	0.178	55662	9.063	9.241
6		9.336	RTE	0.220	223170	9.241	9.461
7		9.723	RTE	0.168	37279	9.639	9.807
8	S	10.393	RTE	0.189	421375	10.288	10.477
9		10.603	RTE	0.209	74029	10.487	10.697
10		11.252	RTE	0.136	193019	11.168	11.304
11		11.388	RTE	0.210	254556	11.304	11.514
12	S	13.262	RTE	0.188	164262	13.167	13.356
13		15.532	RTE	0.220	316961	15.448	15.669
14	S	19.039	RTE	0.105	257857	18.976	19.081
15		21.038	RTE	0.147	317121	20.964	21.111
16	S	23.476	RTE	0.158	340676	23.402	23.560
17		25.614	RTE	0.126	332835	25.540	25.667
18		27.681	RTE	0.189	70893	27.618	27.807
19	S	30.642	RTE	0.190	317267	30.558	30.748
20		33.708	RTE	0.264	477056	33.644	33.908
21		36.451	RTE	0.148	67316	36.398	36.546
22		37.850	RTE	0.211	337916	37.755	37.966
23		39.910	RTE	0.221	42119	39.847	40.068



ok

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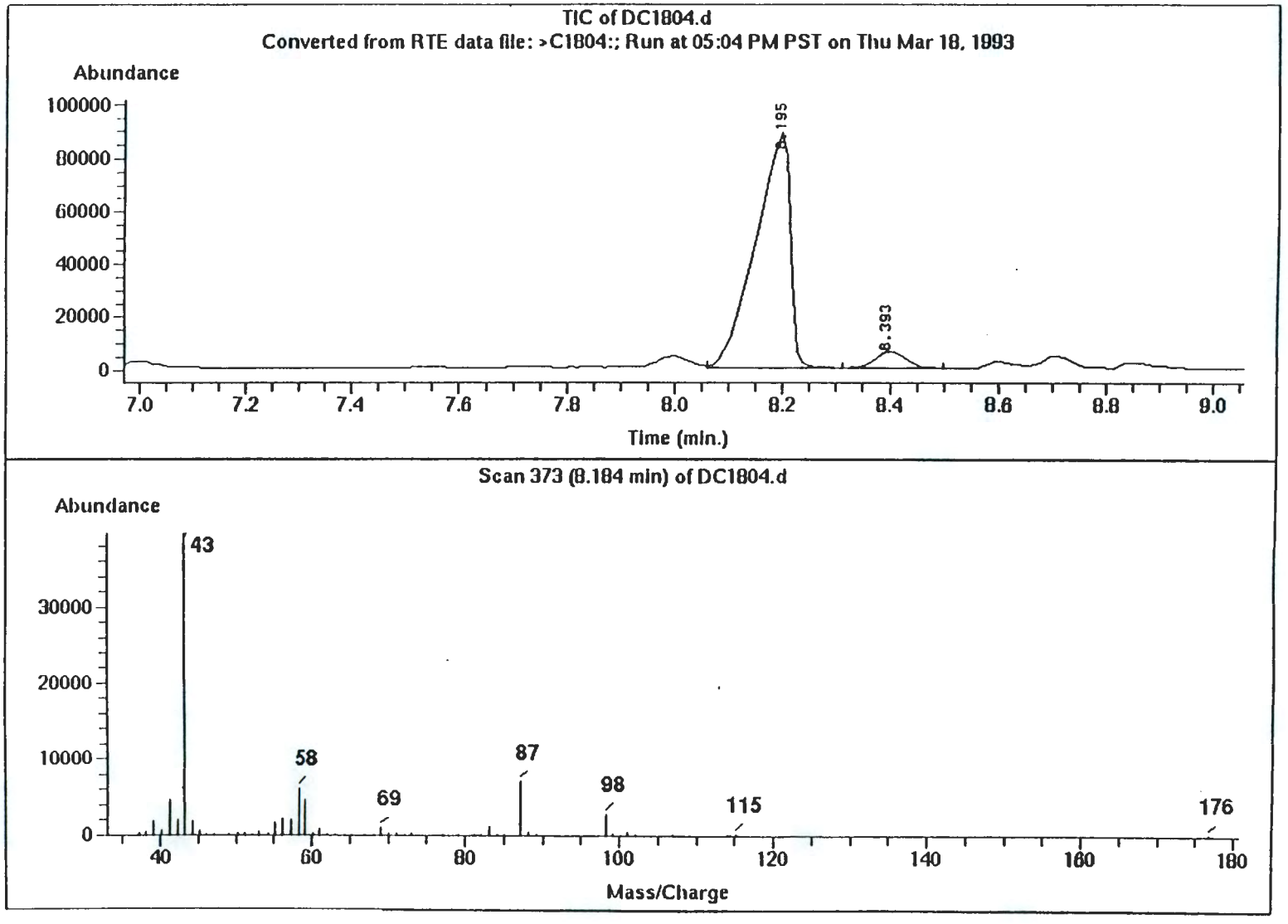
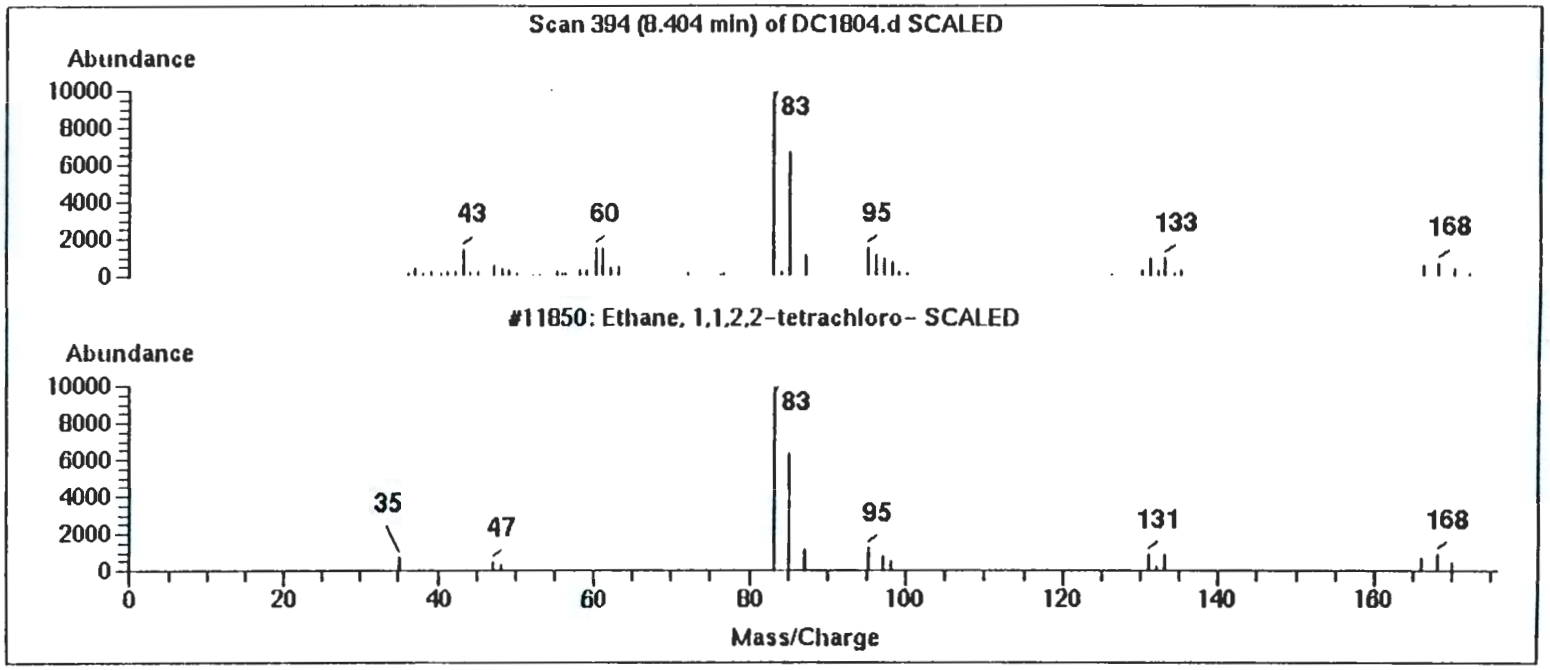
96130492.0879



4.1k

F03-686

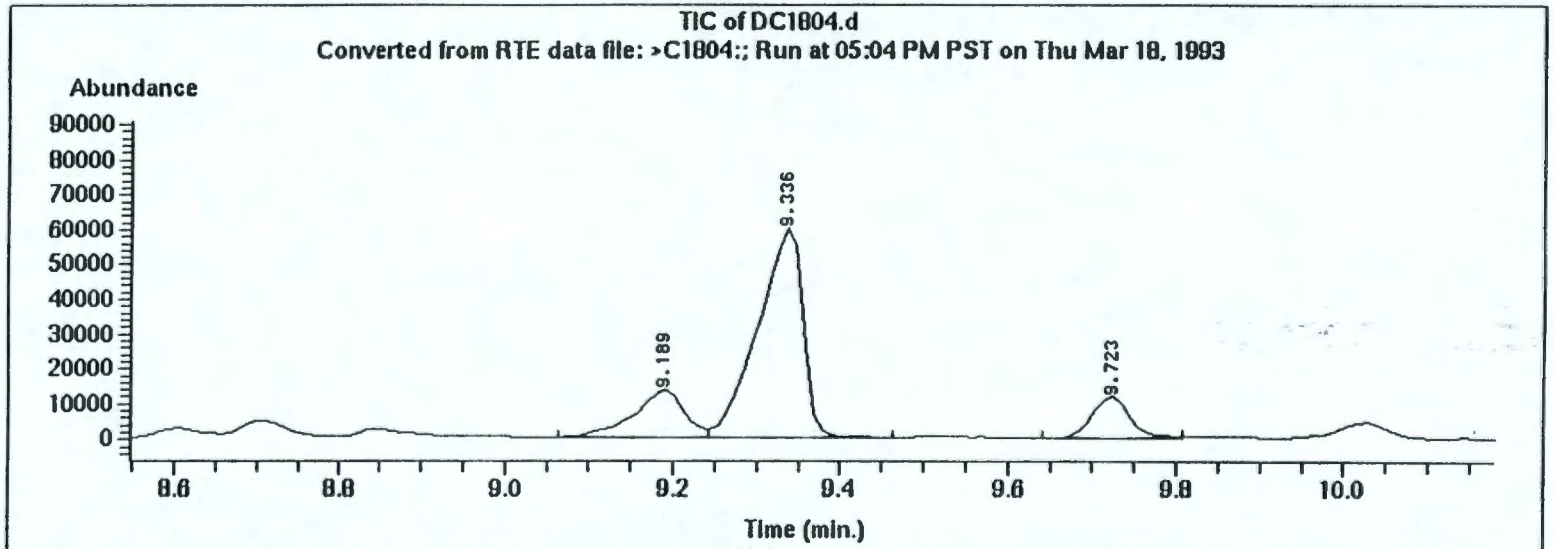
96 3192 1000

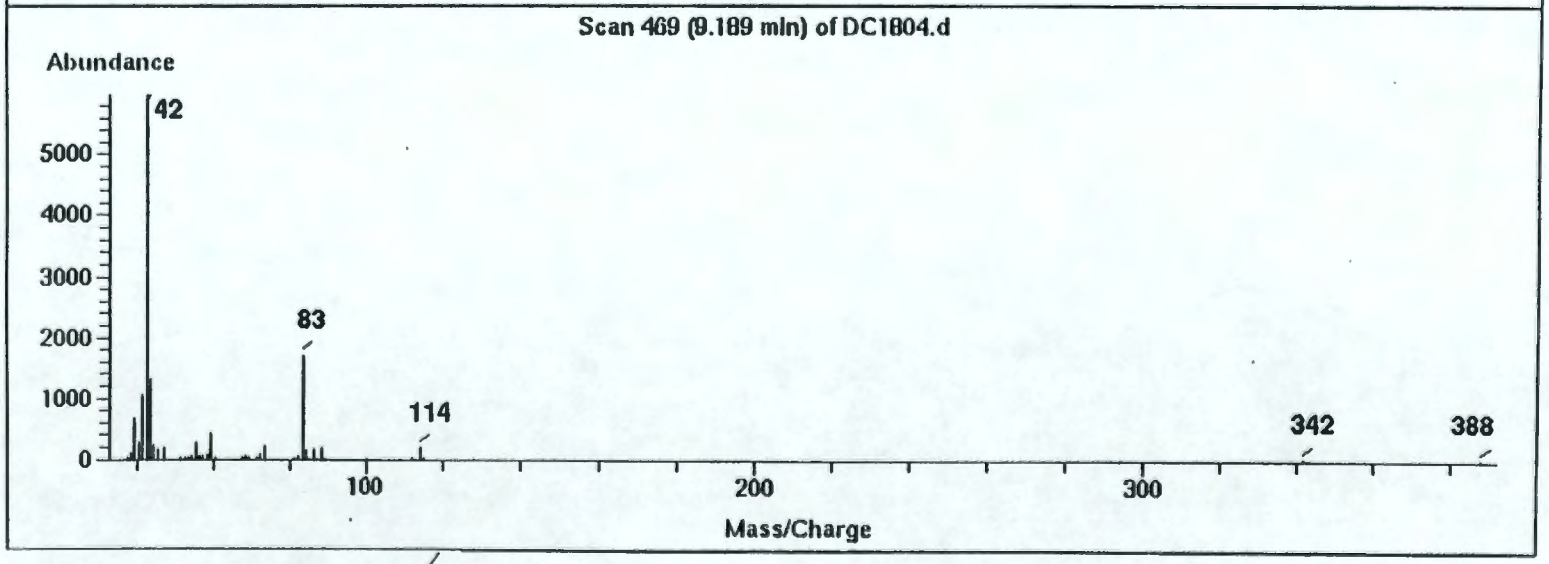


OK

F03-687

96 5362 001

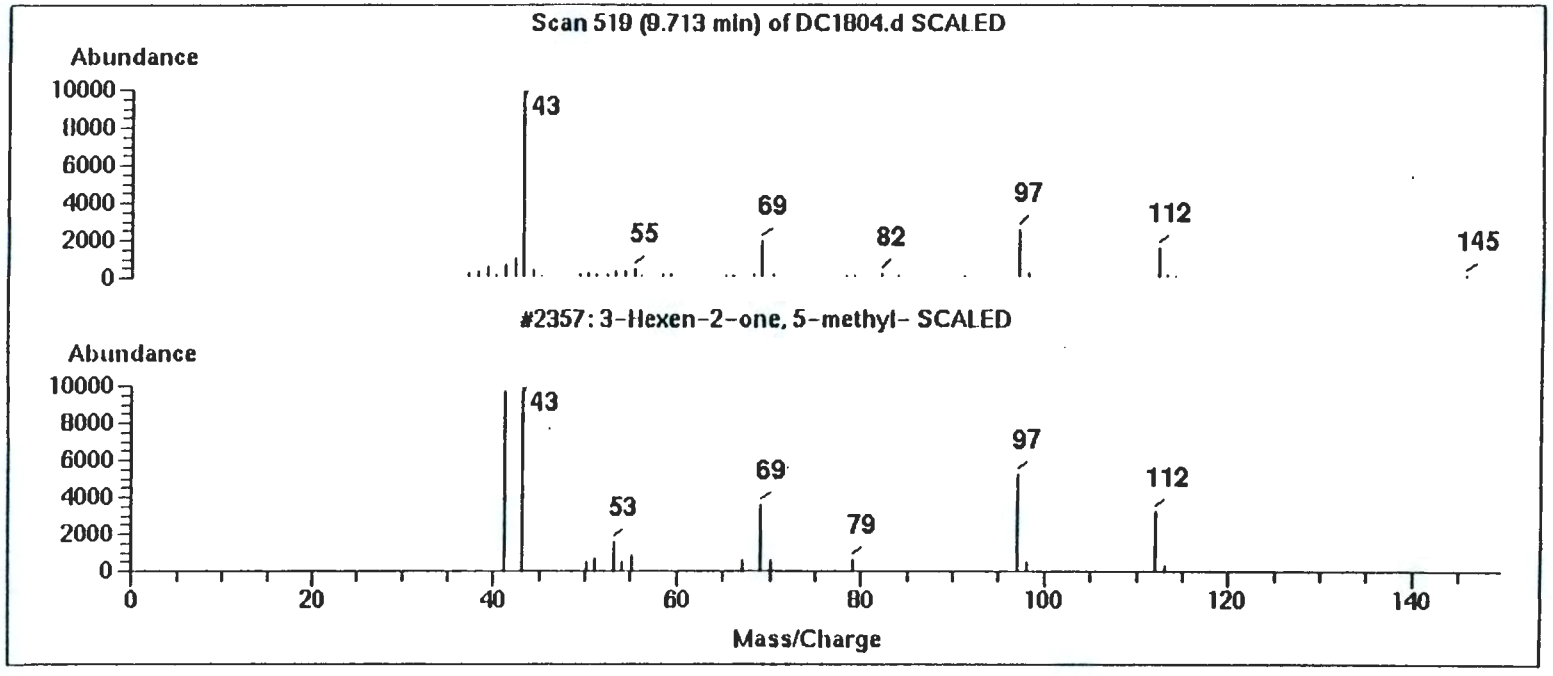




unk

F03-688

9613492.1882



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F03-689

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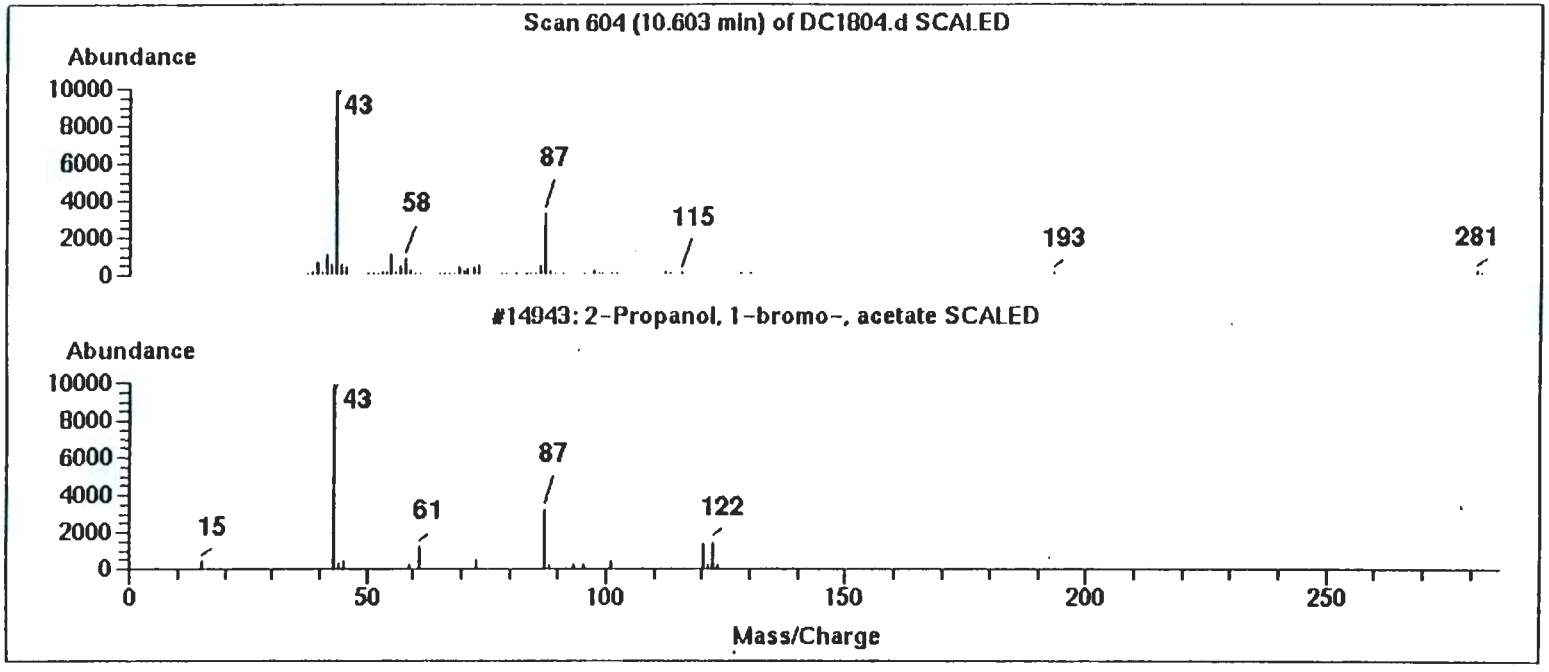

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F03-690

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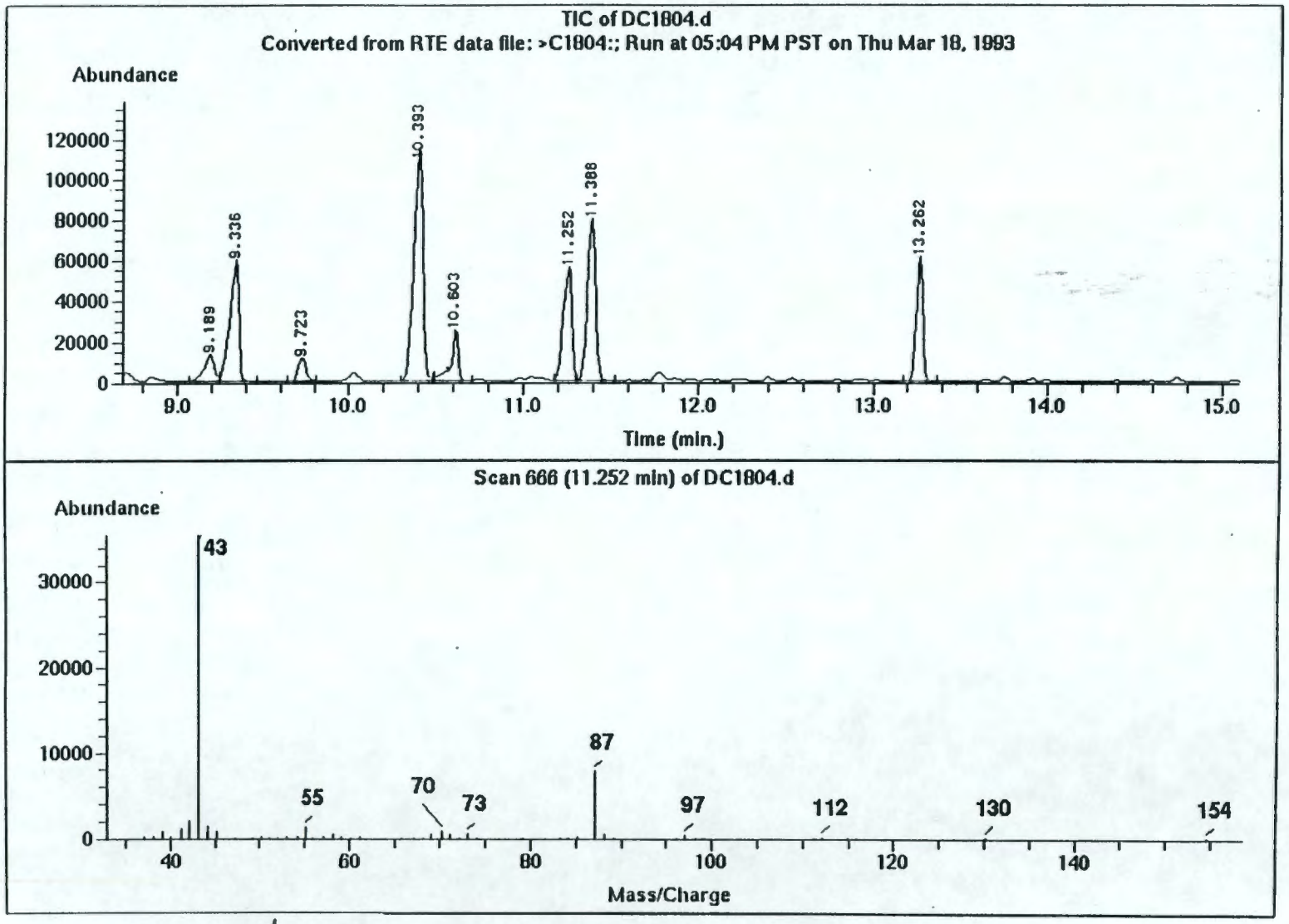

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F03-691

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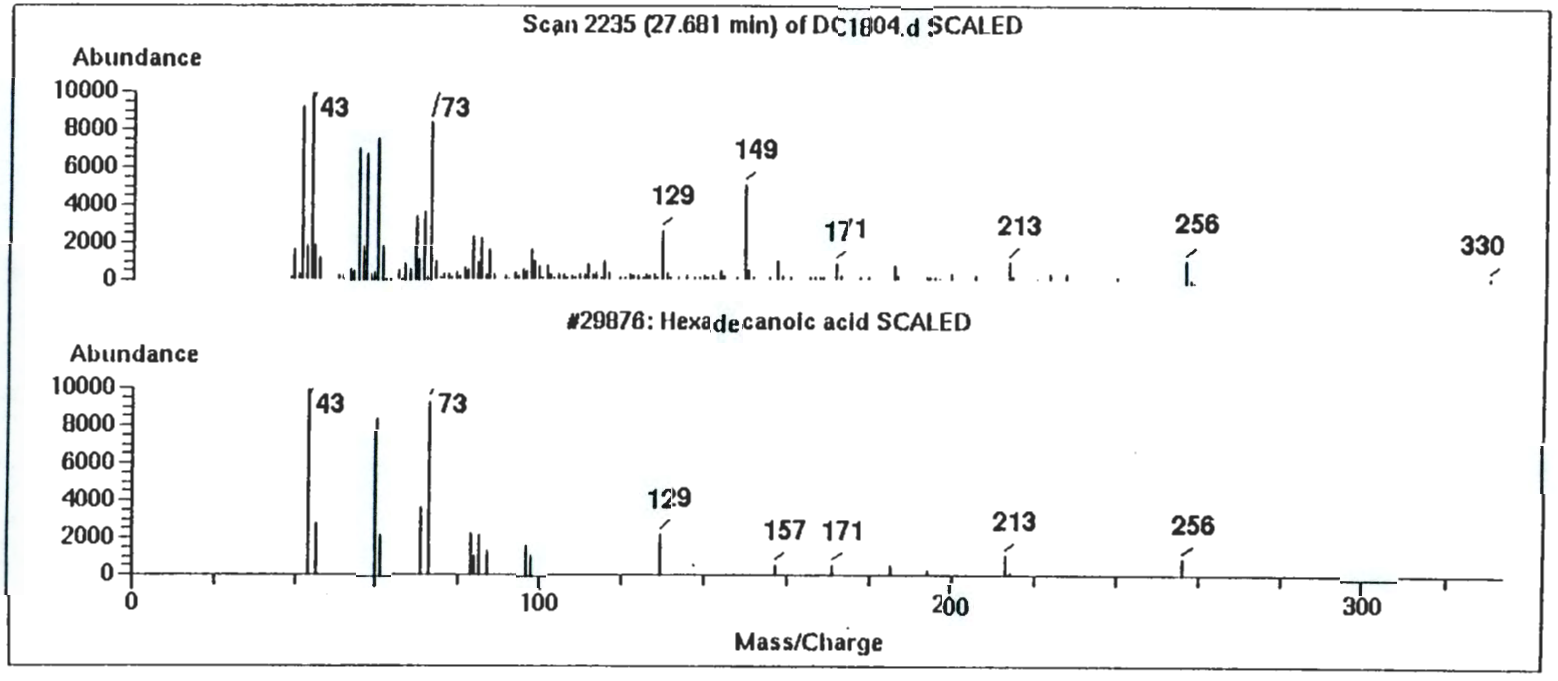

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FOC-CSB

96134927.0006

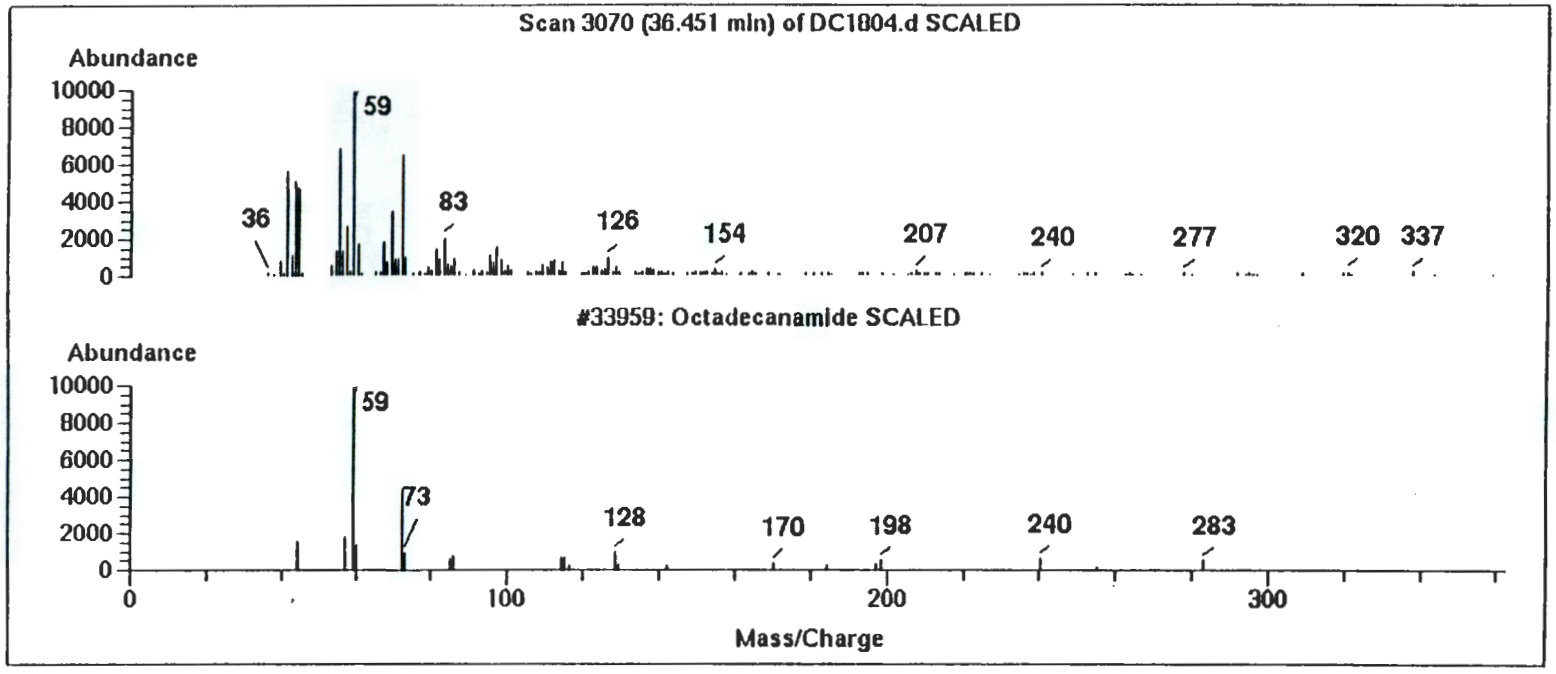

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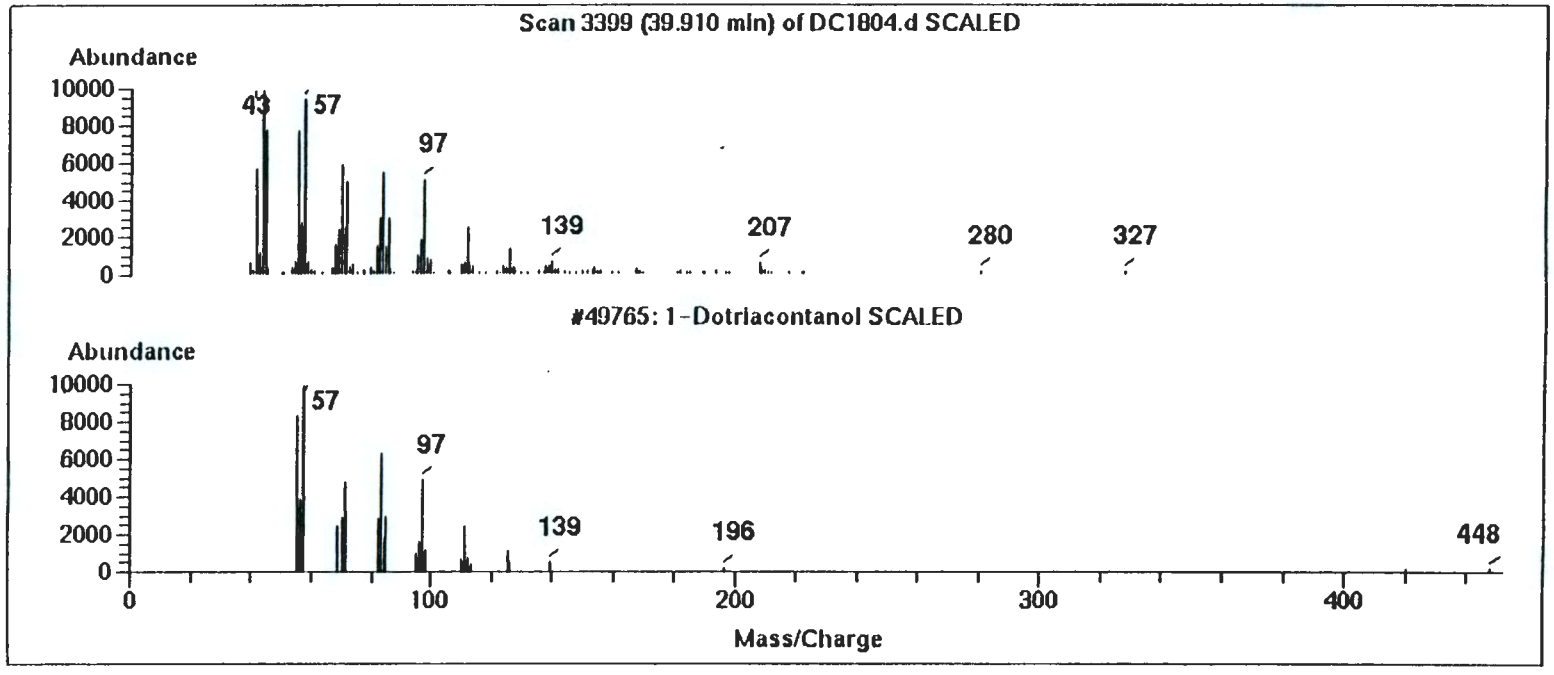
FIG-693

96135942.087


Scan 3399 (39.910 min) of DC1804.d SCALED
Abundance
10000
8000
6000
4000
2000
0
43
57
97
139
207
280
327
#49765: 1-Dotriacontanol SCALED
Abundance
10000
8000
6000
4000
2000
0
57
97
139
196
448
0
100
200
300
400
Mass/Charge

unk

QUANT REPORT

Operator ID: ERIC
Output File: ^C1805::OF
Data File: >C1805::D1
Name: 93-05190 MS
Misc: T-106MS; 31.738 GMS.

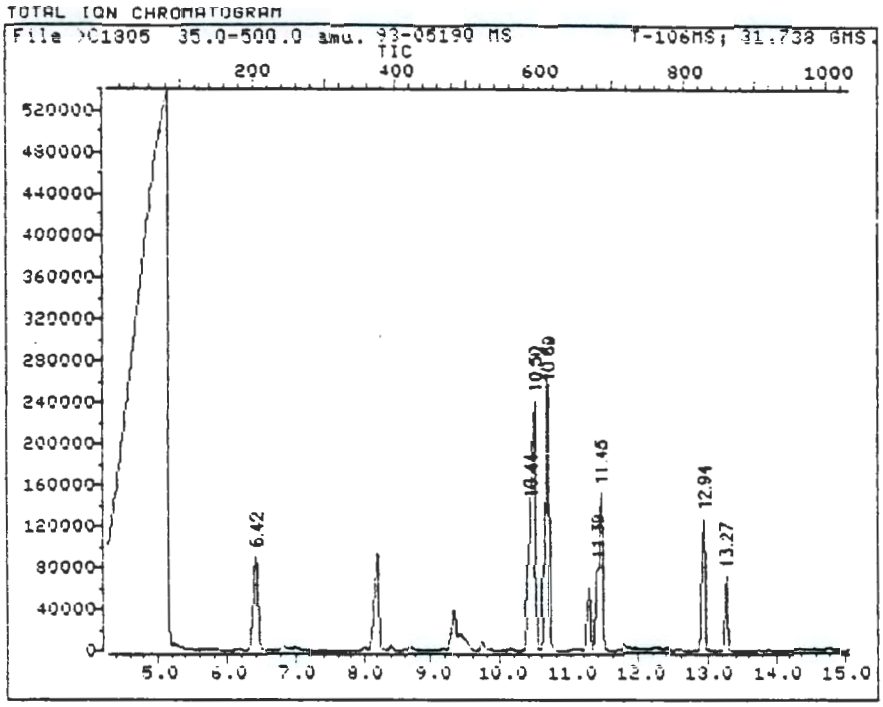
Quant Rev: 7
Quant Time: 930319 10:35
Injected at: 930318 18:00
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 3

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54

Last Qcal Time: 930318 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.39	679	37167	40.00	ng/uL	99
2)	2-Fluorophenol	6.42	204	98840	76.34	ng/uL	91
3)	Phenol-d5	10.44	588	129511	81.86	ng/uL	99
4)	Phenol	10.50	594	274823	145.06	ng/uL	88
6)	2-Chlorophenol	10.69	612	201347	140.66	ng/uL	97
8)	1,4-Dichlorobenzene	11.45	684	102659	64.36	ng/uL	97
14)	N-Nitroso-di-n-propylamine	12.94	827	79979	73.26	ng/uL	96
16)	*Naphthalene-d8	15.54	1075	129379	40.00	ng/uL	99
17)	Nitrobenzene-d5	13.27	858	58044	35.39	ng/uL	94
25)	1,2,4-Trichlorobenzene	15.39	1061	83464	65.75	ng/uL	99
29)	4-Chloro-3-methylphenol	17.52	1264	194771	142.77	ng/uL	95
31)	*Acenaphthene-d10	21.04	1600	66262	40.00	ng/uL	98
36)	2-Fluorobiphenyl	19.04	1409	87874	34.97	ng/uL	98
42)	Acenaphthene	21.15	1611	151319	66.34	ng/uL	98
44)	4-Nitrophenol	21.67	1660	60320	134.61	ng/uL	83
46)	2,4-Dinitrotoluene	21.76	1669	71337	65.14	ng/uL	86
47)	Diethylphthalate	22.60	1749	2182	.705	ng/uL	94
51)	*Phenanthrene-d10	25.62	2037	118996	40.00	ng/uL	99
54)	2,4,6-Tribromophenol	23.48	1833	44353	86.03	ng/uL	98
57)	Pentachlorophenol	25.07	1985	94889	134.82	ng/uL	97
60)	Di-n-butylphthalate	27.68	2233	7480	1.44	ng/uL	97
62)	*Chrysene-d12	33.72	2808	107273	40.00	ng/uL	91
63)	Pyrene	30.03	2457	273270	65.84	ng/uL	89
64)	Terphenyl-d14	30.63	2514	107341	34.87	ng/uL	88
69)	Bis(2-Ethylhexyl)phthalate	34.10	2844	4101	1.19	ng/uL	89
70)	*Perylene-d12	37.84	3200	116062	40.00	ng/uL	98
71)	Di-n-octylphthalate	35.99	3024	3482	.594	ng/uL	99

* Compound is ISTD



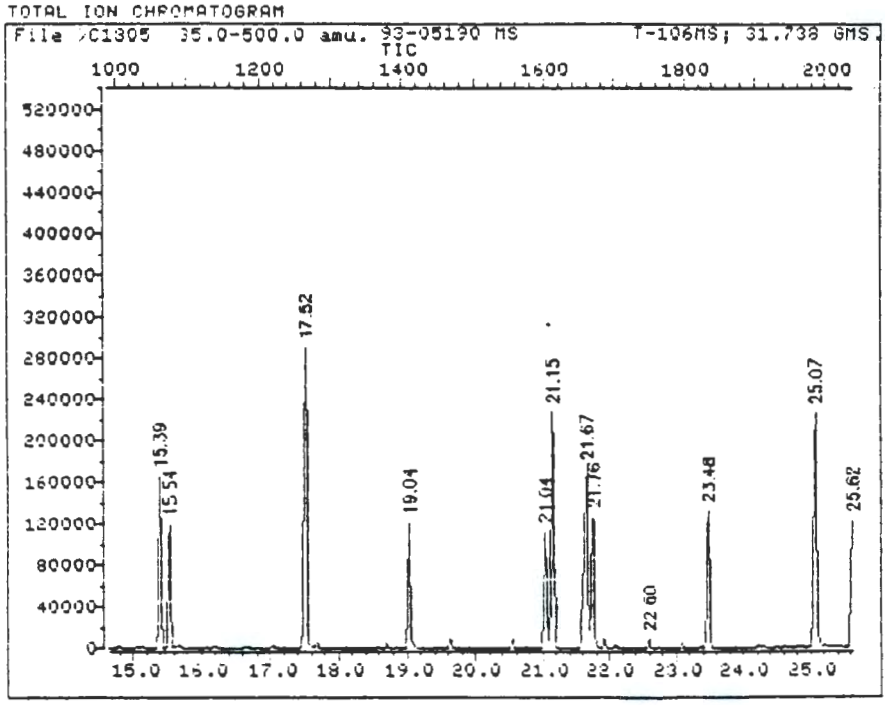
Data File: >C1805::D1 Quant Output File: ^C1805::DF
Name: 93-05190 MS Instrument ID: BNA1
Misc: T-106MS; 31.738 GMS. BTL# 3

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 1o:54 Last Qcal Time: 930318 12:15

Operator ID: ERIC
Quant Time : 930319 10:35
Injected at: 930318 18:00

Page 1 of 4

TOTAL ION CHROMATOGRAM



Data File: >C1805::D1 Quant Output File: ^C1805::DF
Name: 93-05190 MS Instrument ID: BNA1
Misc: T-106MS; 31.738 GMS. BTL# 3

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930318 12:15

Operator ID: ERIC
Quant Time : 930319 10:35
Injected at: 930318 18:00

Page 2 of 4

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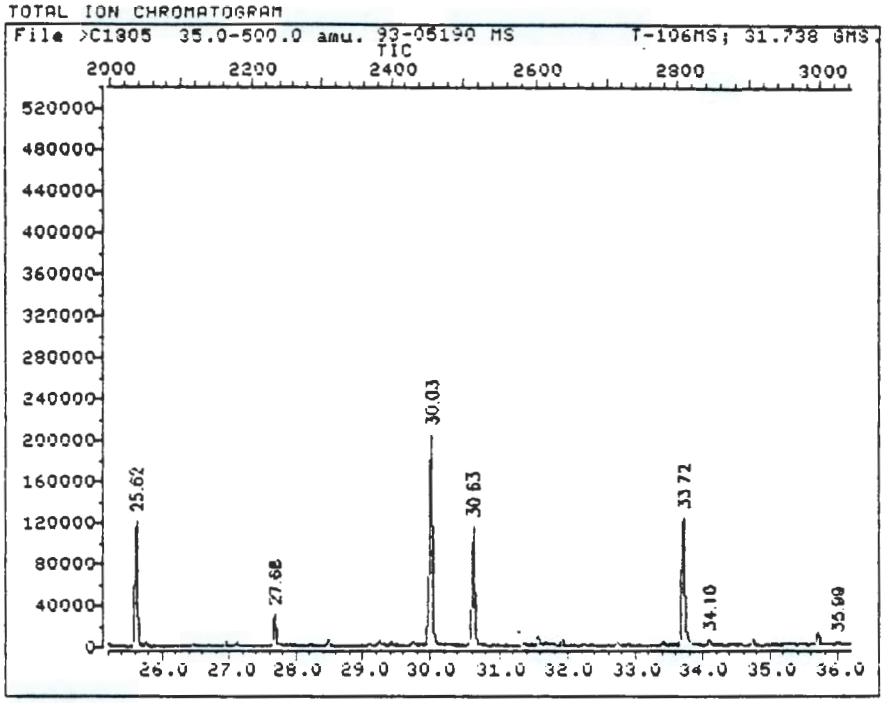
TOTAL ION CHROMATOGRAM



Data File: >C1805::D1 Quant Output File: ^C1805::OF
Name: 93-05190 MS Instrument ID: BNA1
Misc: T-106MS; 31.738 GMS. BTL# 3

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 15:54 Last Qcal Time: 930318 12:15

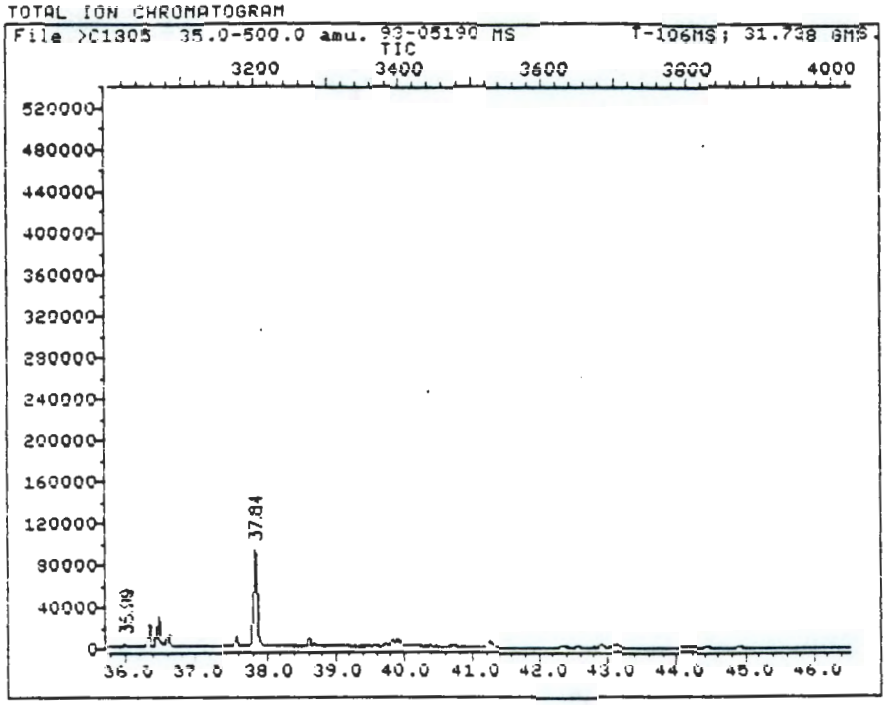
Operator ID: ERIC
Quant Time : 930319 10:35
Injected at: 930318 18:00

Page 3 of 4

F03-699

9613492.1894

TOTAL ION CHROMATOGRAM



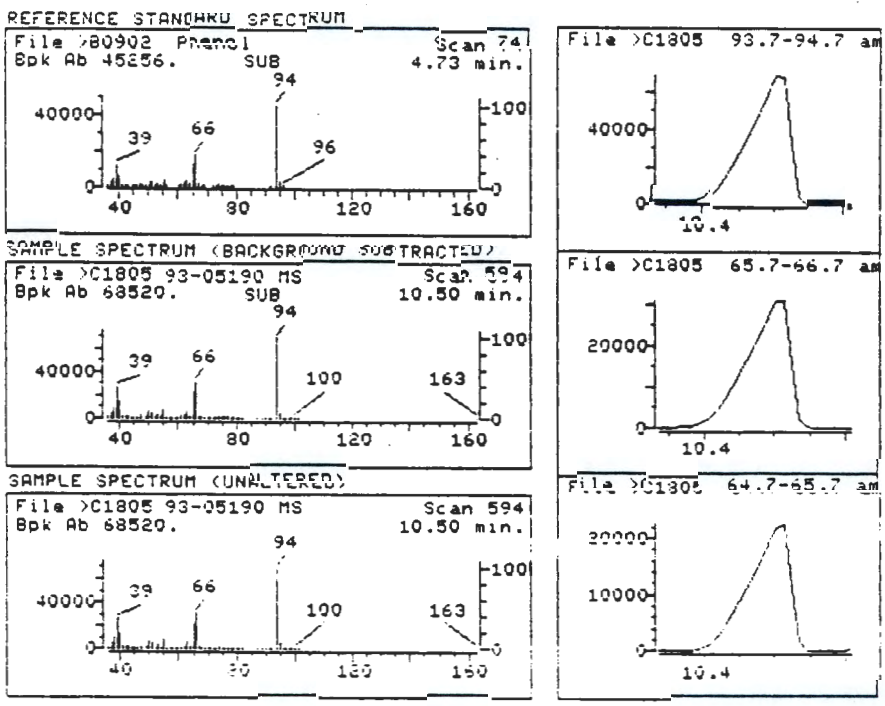
Data File: >C1805::D1 Quant Output File: ^C1805::DF
Name: 93-05190 MS Instrument ID: BNA1
Misc: T-106MS; 31.738 GMS. BTL# 3

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930318 12:15

Operator ID: ERIC
Quant Time : 930319 10:35
Injected at: 930318 18:00

Page 4 of 4

F03-700

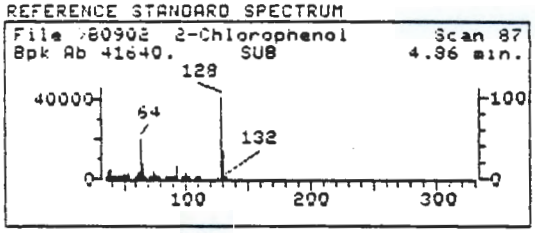


Data File: >C1805::01
Name: 93-05190 MS
Misc: T-106MS; 31.7338 GMS.
Quant Time: 930319 10:35
Injected at: 930318 18:00
Last Qcal Time: 930318 12:15

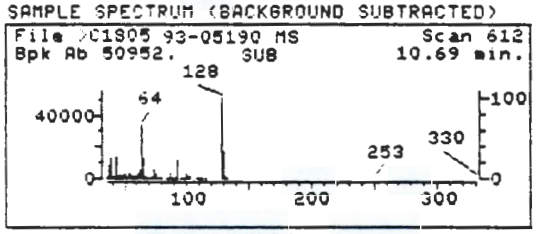
Quant Output File: ^C1805::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 4
Compound Name : Phenol
Scan Number : 594
Retention Time: 10.50 min.
Quant Ion : 94.0
Area : 274823
Concentration : 145.06 ng/uL
q-value : 88

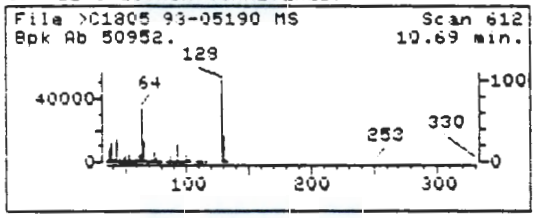
REFERENCE STANDARD SPECTRUM

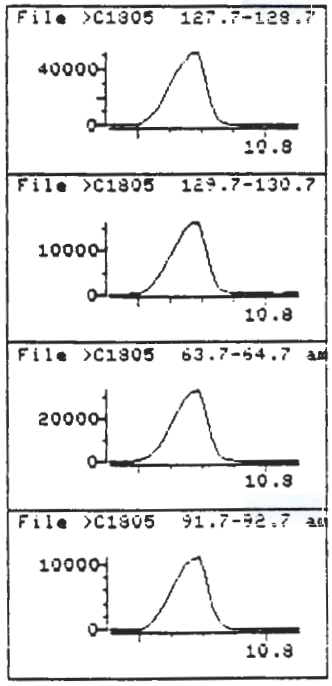


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

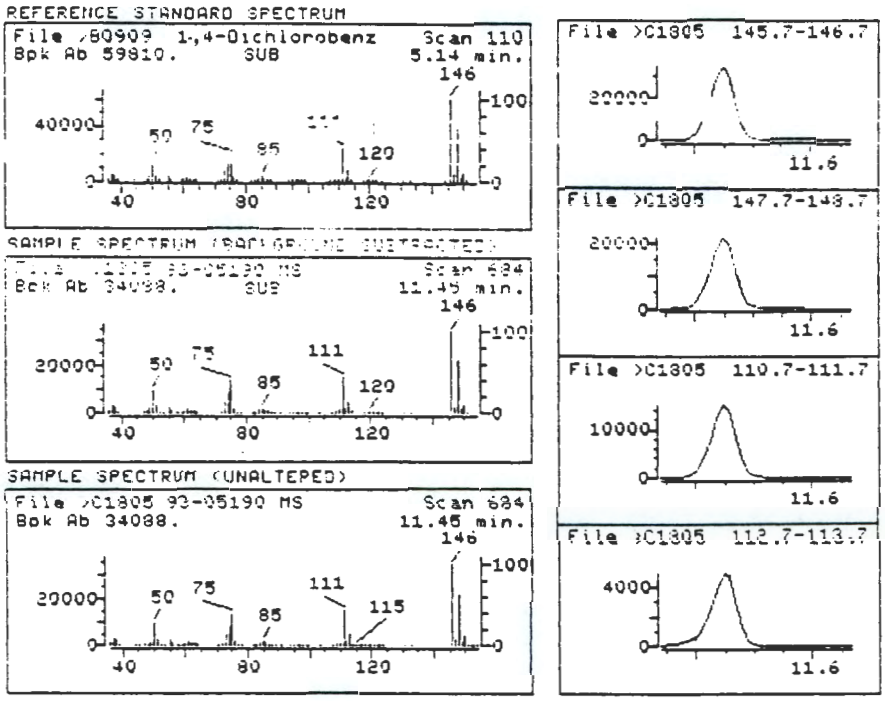




Data File: >C1805::D1
Name: 93-05190 MS
Misc: T-106MS; 31.738 GMS.
Quant Time: 930319 10:35
Injected at: 930318 18:00
Last Qcal Time: 930318 12:15

Quant Output File: ^C1805::QF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

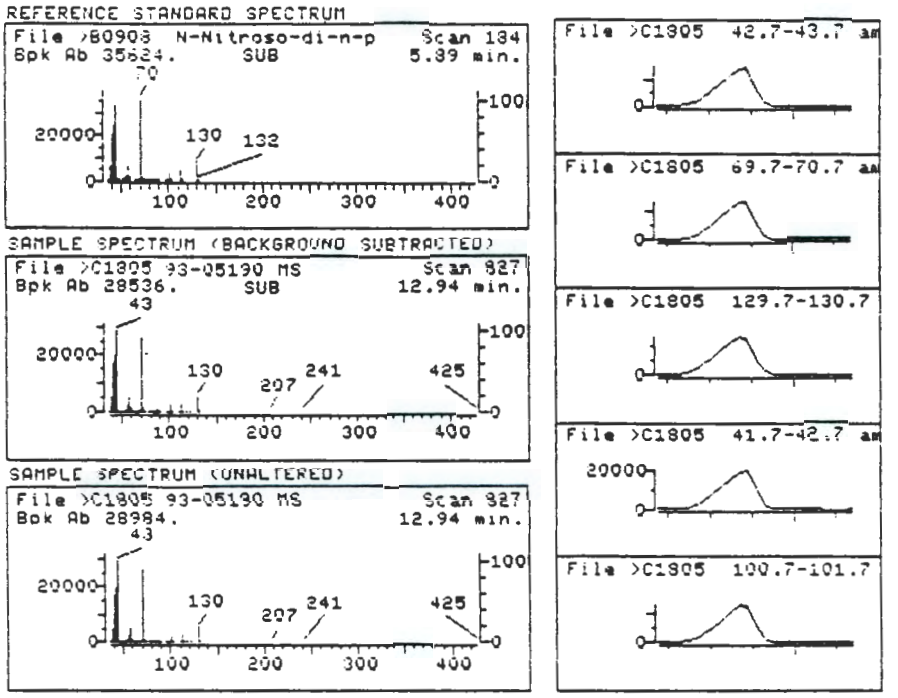
Compound No : 6
Compound Name : 2-Chlorophenol
Scan Number : 612
Retention Time: 10.69 min.
Quant Ion : 128.0
Area : 201347
Concentration : 140.66 ng/uL
q-value : 97



Data File: >C1805::D1
Name: 93-05190 MS
Misc: T-106MS; 31.738 GMS.
Quant Time: 930319 10:35
Injected at: 930318 18:00
Last Qcal Time: 930318 12:15

Quant Output File: ^C1805::DF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 8
Compound Name : 1,4-Dichlorobenzene
Scan Number : 684
Retention Time: 11.45 min.
Quant Ion : 146.0
Area : 102659
Concentration : 64.36 ng/uL
q-value : 97



Data File: >C1805::D1
Name: 93-05190 MS
Misc: T-106MS; 31.738 GMS.
Quant Time: 930319 10:35
Injected at: 930318 18:00
Last Qcal Time: 930318 12:15

Quant Output File: ^C1805::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 14
Compound Name : N-Nitroso-di-n-propylamine
Scan Number : 827
Retention Time: 12.94 min.
Quant Ion : 70.0
Area : 79979
Concentration : 73.26 ng/uL
q-value : 96

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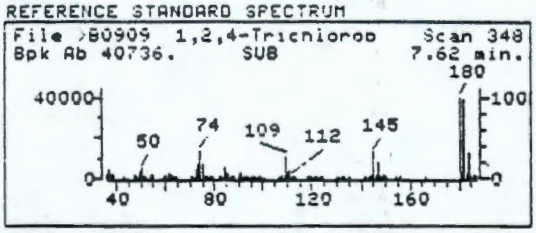
REFERENCE STANDARD SPECTRUM



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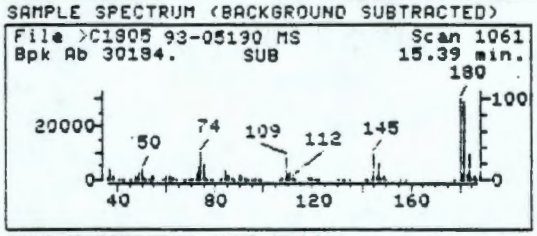

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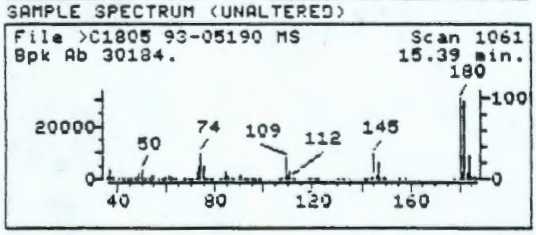
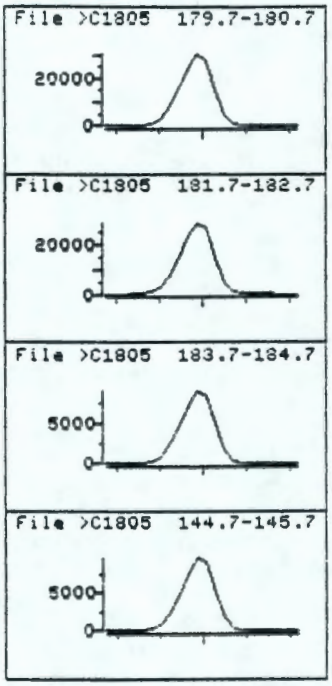


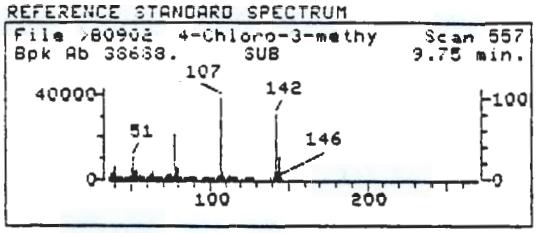


Data File: >C1805::D1
Name: 93-05190 MS
Misc: T-106MS; 31.738 GMS.
Quant Time: 930319 10:35
Injected at: 930318 18:00
Last Qcal Time: 930318 12:15

Quant Output File: ^C1805::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 25
Compound Name : 1,2,4-Trichlorobenzene
Scan Number : 1061
Retention Time: 15.39 min.
Quant Ion : 180.0
Area : 83464
Concentration : 65.75 ng/uL
q-value : 99

REFERENCE STANDARD SPECTRUM



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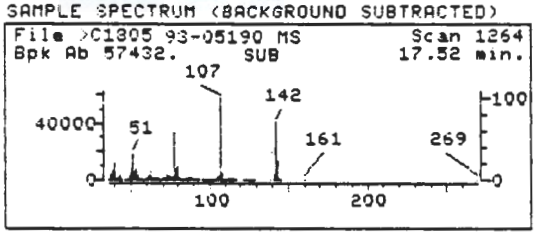

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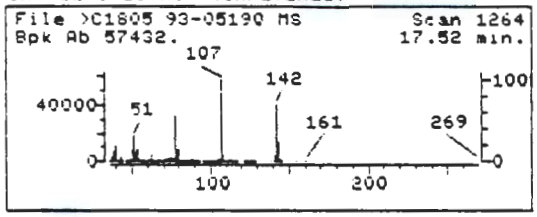
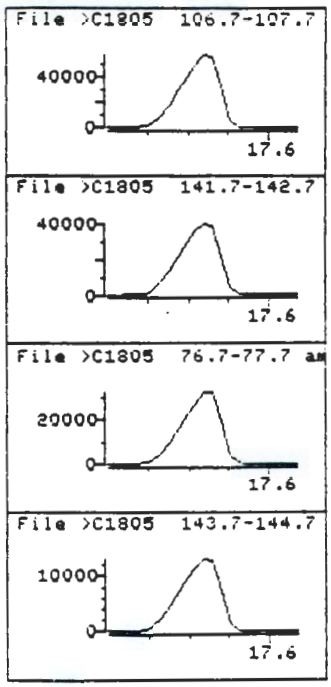




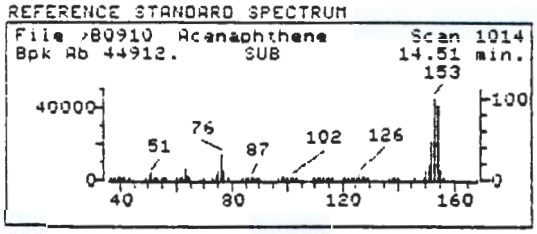
Data File: >C1805::D1
Name: 93-05190 MS
Misc: T-106MS; 31.738 GMS.
Quant Time: 930319 10:35
Injected at: 930318 18:00
Last Qcal Time: 930318 12:15

Quant Output File: ^C1805::DF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

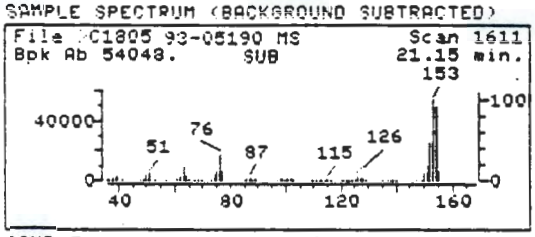
Compound No : 29
Compound Name : 4-Chloro-3-methylphenol
Scan Number : 1264
Retention Time: 17.52 min.
Quant Ion : 107.0
Area : 194771
Concentration : 142.77 ng/uL
q-value : 95

9613492.1901

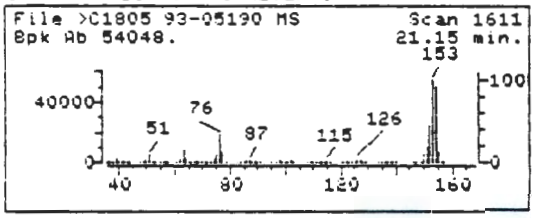
REFERENCE STANDARD SPECTRUM

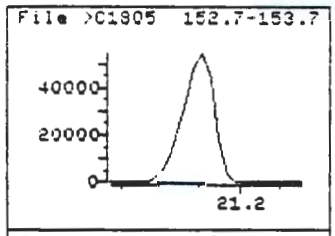


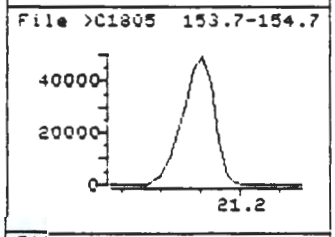
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

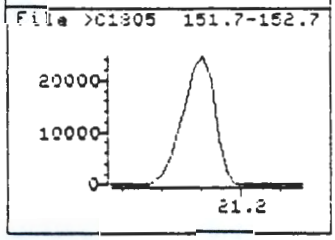


SAMPLE SPECTRUM (UNALTERED)









Data File: >C1805::D1
Name: 93-05190 MS
Misc: T-106MS; 31.738 GMS.
Quant Time: 930319 10:35
Injected at: 930318 18:00
Last Qcal Time: 930318 12:15

Quant Output File: ^C1805::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 42
Compound Name : Acenaphthene
Scan Number : 1611
Retention Time: 21.15 min.
Quant Ion : 153.0
Area : 151319
Concentration : 66.34 ng/uL
q-value : 98

F03-707

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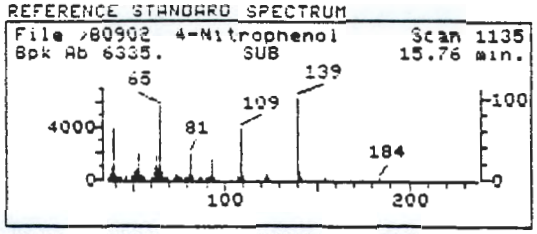
REFERENCE STANDARD SPECTRUM



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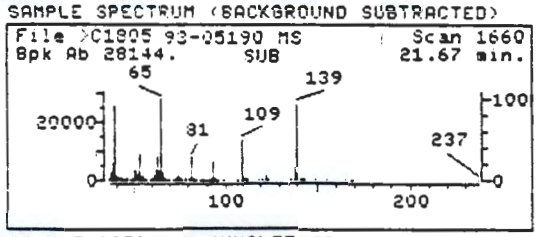
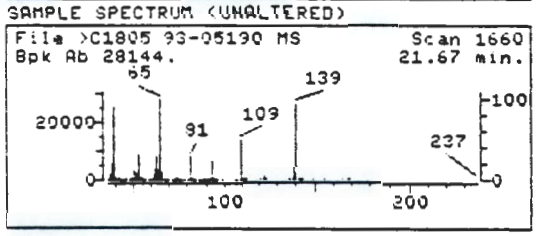
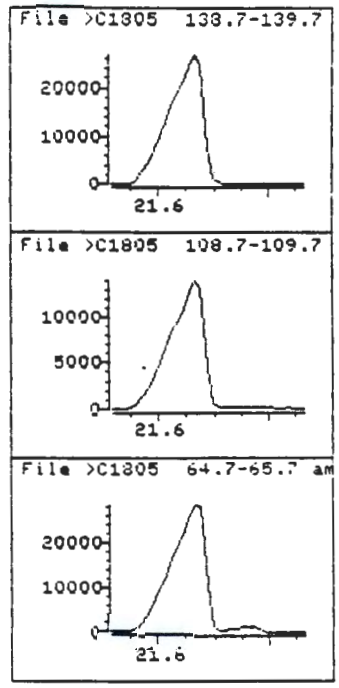


SAMPLE SPECTRUM (UNALTERED)





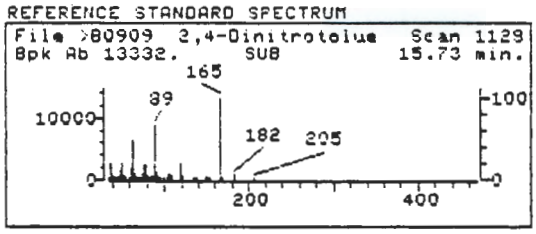
Data File: >C1805::D1
Name: 93-05190 MS
Misc: T-106MS; 31.738 GMS.
Quant Time: 930319 10:35
Injected at: 930318 18:00
Last Qcal Time: 930318 12:15

Quant Output File: ^C1805::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

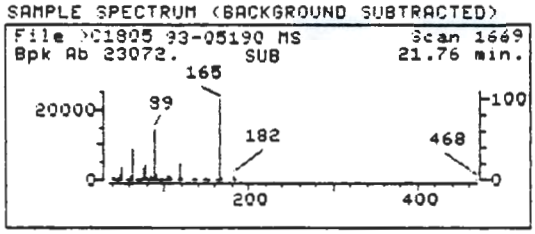
Compound No : 44
Compound Name : 4-Nitrophenol
Scan Number : 1660
Retention Time: 21.67 min.
Quant Ion : 109.0
Area : 60320
Concentration : 134.61 ng/uL
q-value : 83

F03-708

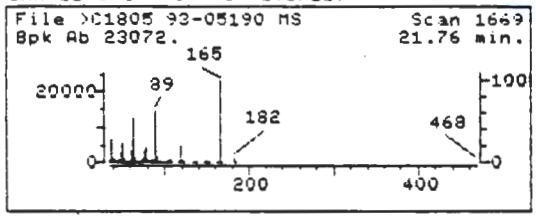
REFERENCE STANDARD SPECTRUM

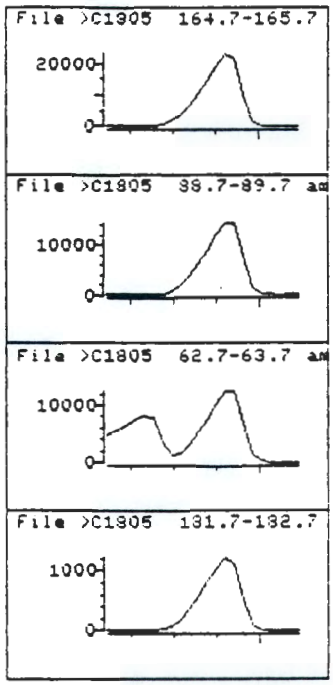


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



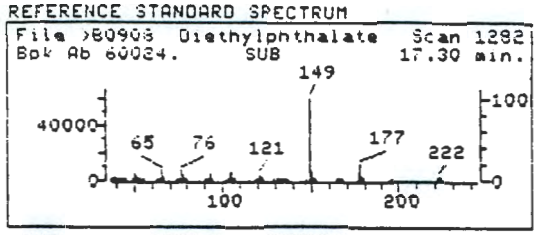


Data File: >C1805::D1
Name: 93-05190 MS
Misc: T-106MS; 31.738 GMS.
Quant Time: 930319 10:35
Injected at: 930318 18:00
Last Qcal Time: 930318 12:15

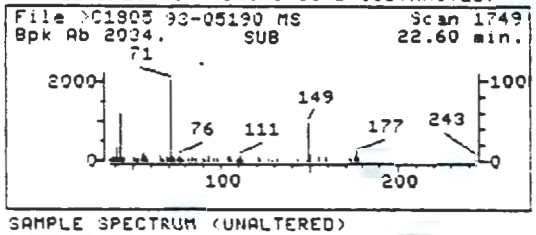
Quant Output File: ^C1805::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 46
Compound Name : 2,4-Dinitrotoluene
Scan Number : 1669
Retention Time: 21.76 min.
Quant Ion : 165.0
Area : 71337
Concentration : 65.14 ng/uL
q-value : 86

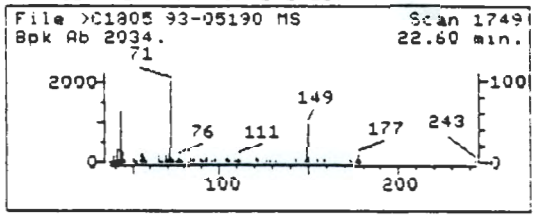
REFERENCE STANDARD SPECTRUM

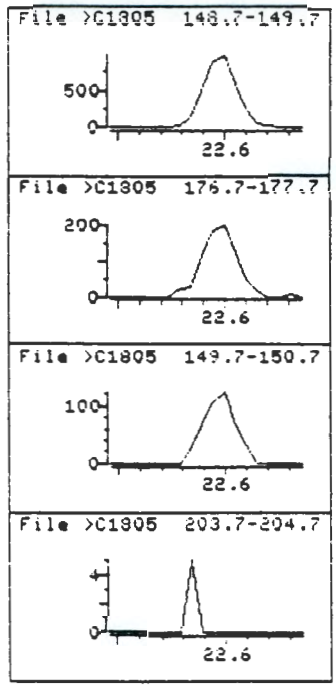


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





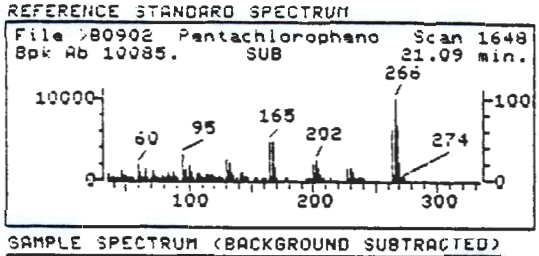
Data File: >C1805::D1
Name: 93-05190 MS
Misc: T-106MS; 31.738 GMS.
Quant Time: 930319 10:35
Injected at: 930318 18:00
Last Qcal Time: 930318 12:15

Quant Output File: ^C1805::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

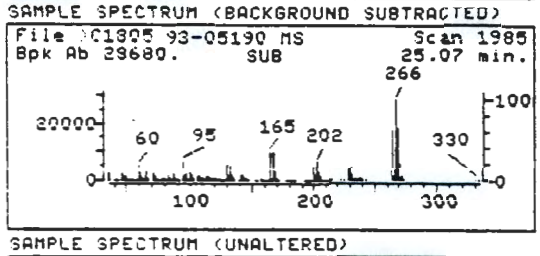
Compound No : 47
Compound Name : Diethylphthalate
Scan Number : 1749
Retention Time: 22.60 min.
Quant Ion : 149.0
Area : 2182
Concentration : .705 ng/uL
q-value : 94

9613492.1905

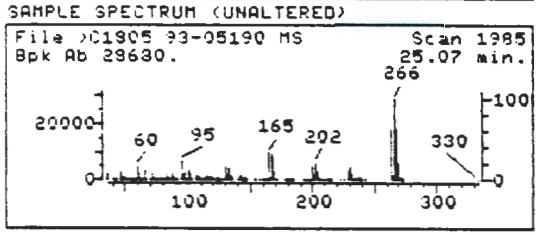
REFERENCE STANDARD SPECTRUM

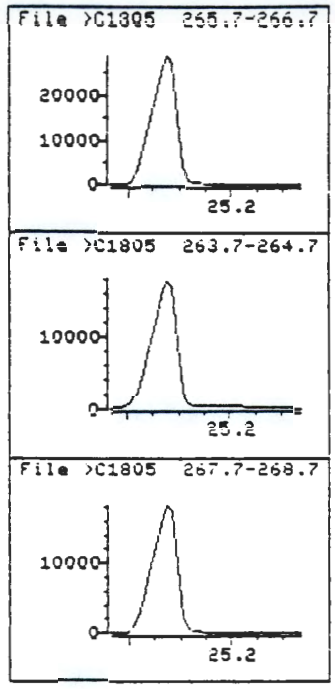


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





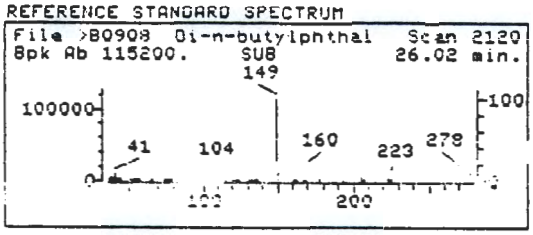
Data File: >C1805::D1
Name: 93-05190 MS
Misc: T-106MS; 31.738 GMS.
Quant Time: 930319 10:35
Injected at: 930318 18:00
Last Qcal Time: 930318 12:15

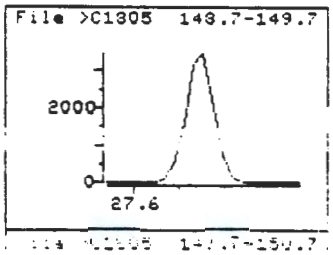
Quant Output File: ^C1805::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 57
Compound Name : Pentachlorophenol
Scan Number : 1985
Retention Time: 25.07 min.
Quant Ion : 266.0
Area : 94889
Concentration : 134.82 ng/uL
q-value : 97

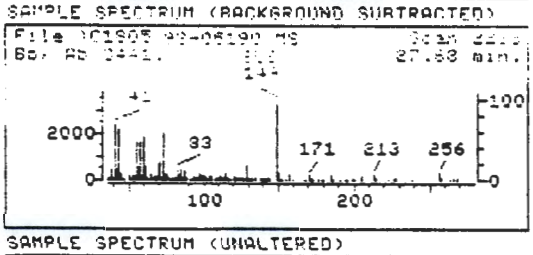
F03-711

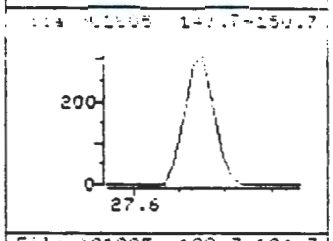
REFERENCE STANDARD SPECTRUM



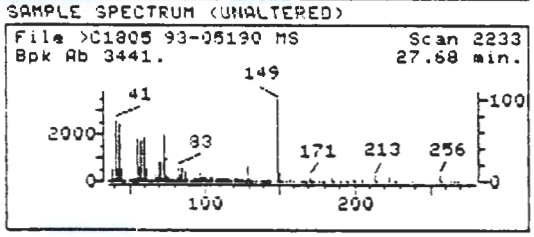


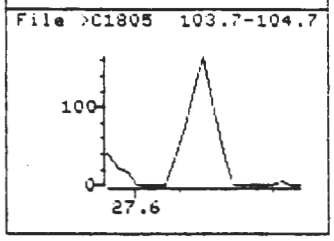
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)

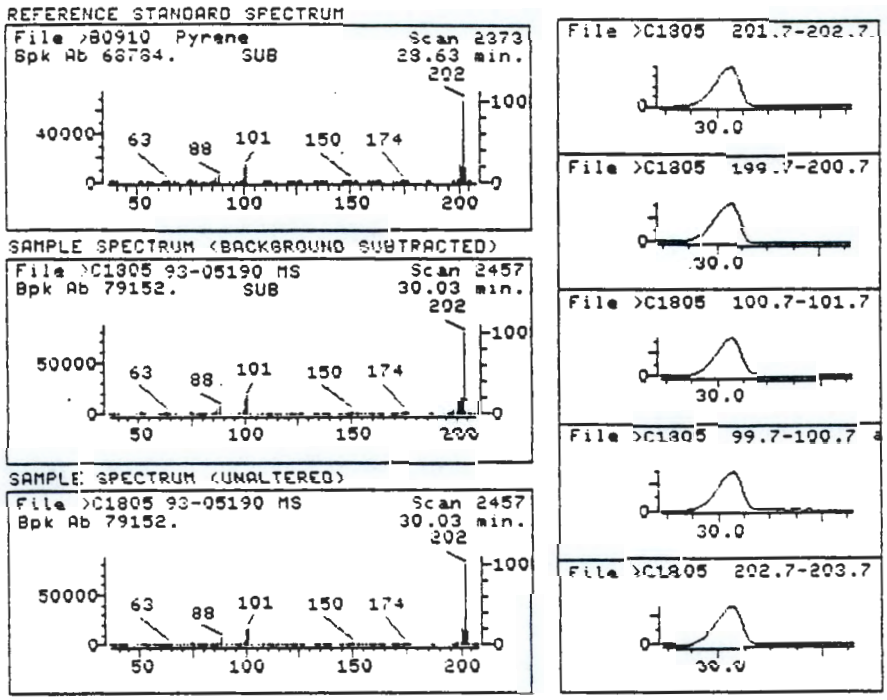




Data File: >C1805::D1
Name: 93-05190 MS
Misc: T-106MS; 31.738 GMS.
Quant Time: 930319 10:35
Injected at: 930318 18:00
Last Qcal Time: 930318 12:15

Quant Output File: ^C1805::DF
Instrument ID: BNA1
BTL# 3
Quant ID File: IDlBNA::QT
Last Calibration: 921105 16:54

Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2233
Retention Time: 27.68 min.
Quant Ion : 149.0
Area : 7480
Concentration : 1.44 ng/uL
q-value : 97



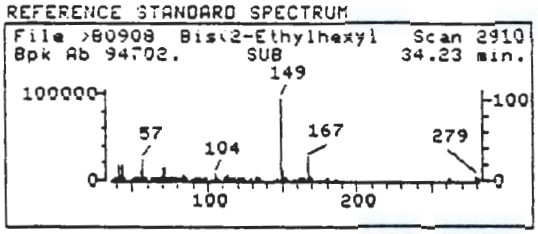
Data File: >C1805::D1
Name: 93-05190 MS
Misc: T-106MS; 31.738 GMS.
Quant Time: 930319 10:35
Injected at: 930318 18:00
Last Qcal Time: 930318 12:15

Quant Output File: ^C1805::DF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

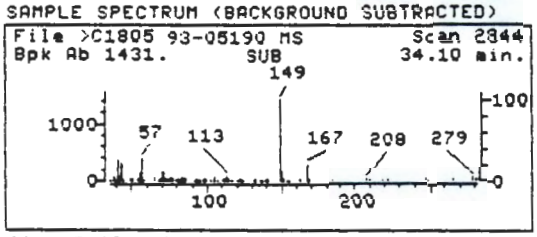
Compound No : 63
Compound Name : Pyrene
Scan Number : 2457
Retention Time: 30.03 min.
Quant Ion : 202.0
Area : 273270
Concentration : 65.34 ng/uL
q-value : 89

9613492.1908

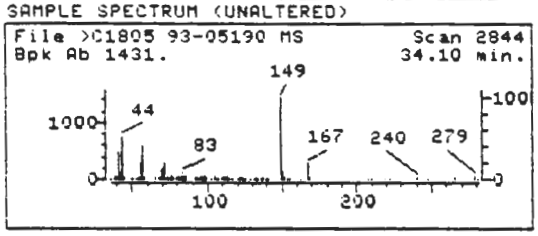
REFERENCE STANDARD SPECTRUM

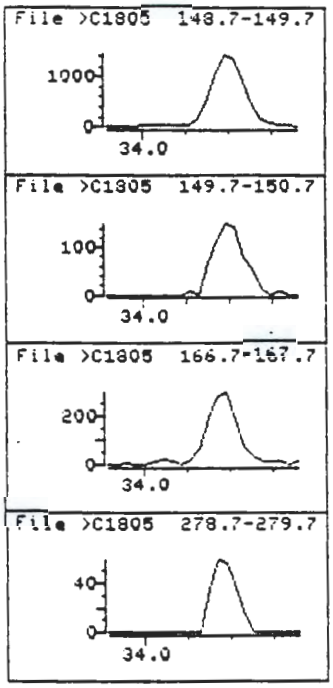


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >C1805::D1
Name: 93-05190 MS
Misc: T-106MS; 31.738 GMS.
Quant Time: 930319 10:35
Injected at: 930318 18:00
Last Qcal Time: 930318 12:15

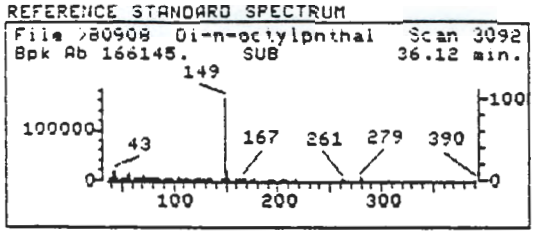
Quant Output File: ^C1805::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2844
Retention Time: 34.10 min.
Quant Ion : 149.0
Area : 4101
Concentration : 1.19 ng/uL
q-value : 89

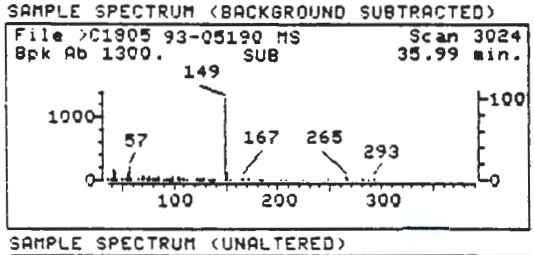
F03-714

9613492.1909

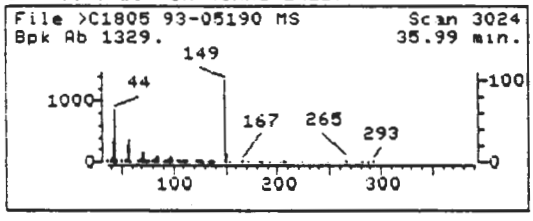
REFERENCE STANDARD SPECTRUM

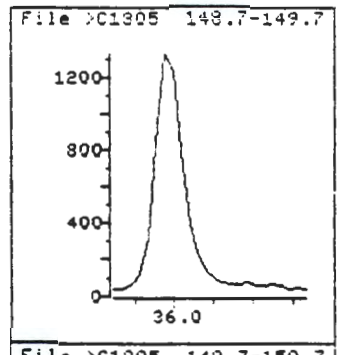


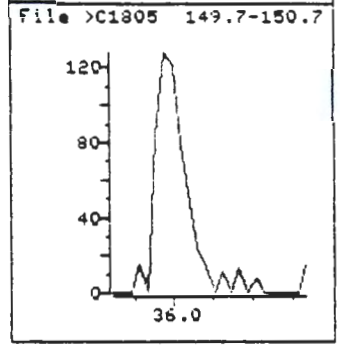
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >C1805::D1
Name: 93-05190 MS
Misc: T-106MS; 31.738 GMS.
Quant Time: 930319 10:35
Injected at: 930318 18:00
Last Qcal Time: 930318 12:15

Quant Output File: ^C1805::OF
Instrument ID: BNA1
BTL# 3
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 3024
Retention Time: 35.99 min.
Quant Ion : 149.0
Area : 3482
Concentration : .594 ng/uL
q-value : 99

F03-715

9613492.1910

QUANT REPORT

Operator ID: ERIC
Output File: ^C1805::OF
Data File: >C1805::D1
Name: 93-05190 MS
Misc: T-106MS; 31.738 GMS.

Quant Rev: 7
Quant Time: 930319 10:35
Injected at: 930318 18:00
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 3

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930318 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.39	679	37167	40.00	ng/uL	99
2)	2-Fluorophenol	6.42	204	98840	76.34	ng/uL	9
3)	Phenol-d5	10.44	588	129511	81.86	ng/uL	99
4)	Phenol	10.50	594	274823	145.06	ng/uL	88
5)	bis(2-Chloroethyl)ether	0.00	612	0	0.00	ng/uL	
6)	2-Chlorophenol	10.69	612	201347	140.66	ng/uL	97
8)	1,4-Dichlorobenzene	11.45	684	102659	64.36	ng/uL	97
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	0	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	12.94	827	79979	73.26	ng/uL	96
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.54	1075	129379	40.00	ng/uL	99
17)	Nitrobenzene-d5	13.27	858	58044	35.39	ng/uL	94
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	15.39	1061	83464	65.75	ng/uL	99
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	17.52	1264	194771	142.77	ng/uL	99
30)	2-Methylnaphthalene	0.00	1264	0	0.00	ng/uL	
31)	*Acenaphthene-d10	21.04	1600	66262	40.00	ng/uL	98
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	19.04	1409	87874	34.97	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	0	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	21.15	1611	151319	66.34	ng/uL	9
43)	2,4-Dinitrophenol	0.00	0	0	0.00	ng/uL	
44	4-Nitrophenol	21.67	1660	63720	174.61	ng/uL	8

F03-716

45)	Dibenzofuran	0.00	0	0	0.00 ng/uL	
46)	2,4-Dinitrotoluene	21.76	1669	71337	65.14 ng/uL	86
47)	Diethylphthalate	22.60	1749	2182	.705 ng/uL	94
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00 ng/uL	
49)	Fluorene	0.00	0	0	0.00 ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00 ng/uL	
51)	*Phenanthrene-d10	25.62	2037	118996	40.00 ng/uL	99
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00 ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1833	0	0.00 ng/uL	
54)	2,4,6-Tribromophenol	23.48	1833	44353	86.03 ng/uL	98
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00 ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00 ng/uL	
57)	Pentachlorophenol	25.07	1985	94889	134.82 ng/uL	97
58)	Phenanthrene	0.00	0	0	0.00 ng/uL	
59)	Anthracene	0.00	0	0	0.00 ng/uL	
60)	Di-n-butylphthalate	27.68	2233	7480	1.44 ng/uL	97
61)	Fluoranthene	0.00	0	0	0.00 ng/uL	
62)	*Chrysene-d12	33.72	2808	107273	40.00 ng/uL	91
63)	Pyrene	30.03	2457	273270	65.84 ng/uL	89
64)	Terphenyl-d14	30.63	2514	107341	34.87 ng/uL	88
65)	Butylbenzylphthalate	0.00	0	0	0.00 ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00 ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00 ng/uL	
68)	Chrysene	0.00	0	0	0.00 ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	34.10	2844	4101	1.19 ng/uL	89
70)	*Perylene-d12	37.84	3200	116062	40.00 ng/uL	98
71)	Di-n-octylphthalate	35.99	3024	3482	.594 ng/uL	99
72)	Benzo(b)fluoranthene	0.00	0	0	0.00 ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00 ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00 ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00 ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00 ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00 ng/uL	

* Compound is ISTD

9613492.1912

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >C1805
CAL CHECK FILE = >C1802
DATE AND TIME OF ANALYSIS = 3/18/93 18:00
MISCELLANEOUS = T-106MS; 31.738 GMS.
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

I. Areas

Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	37167	37942	18971	75884	OK
Naphthalene-d8	129379	130260	65130	260520	OK
Acenaphthene-d10	66262	65432	32716	130864	OK
Phenanthrene-d10	118996	117143	58571	234286	OK
Chrysene-d12	107273	98177	49089	196354	OK
Perylene-d12	116062	111326	55663	222652	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.39	11.39	10.89	11.89	OK
Naphthalene-d8	15.54	15.56	15.06	16.06	OK
Acenaphthene-d10	21.04	21.06	20.56	21.56	OK
Phenanthrene-d10	25.62	25.63	25.13	26.13	OK
Chrysene-d12	33.72	33.76	33.26	34.26	OK
Perylene-d12	37.84	37.87	37.37	38.37	OK

F03-718

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[Preliminary Surrogate Report]

DATA FILE NAME = >C1805::D1
DATE AND TIME OF ANALYSIS = 3/18/93 18:00
SAMPLE = 93-05190 MS
MISCELLANEOUS = T-106MS; 31.738 GMS.
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
2-Fluorophenol	76.34	100.00	21-100	25-121	76.34
Phenol-d5	81.85	100.00	10-94	24-113	81.85
Nitrobenzene-d5	35.39	50.00	35-114	23-120	70.78
2-Fluorobiphenyl	34.97	50.00	43-116	30-115	69.95
2,4,6-tribromo-phenol	86.03	100.00	10-123	19-122	86.03
Terphenyl-d14	34.86	50.00	33-141	18-137	69.73

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QUANT REPORT

Operator ID: ERIC
Output File: C1806::QF
Data File: >C1806::D1
Name: 93-05190 MSD
Misc: T-106MSD; 32.915 GMS.

Quant Rev: 7
Quant Time: 930319 10:40
Injected at: 930318 18:57
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 4

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qual Time: 930318 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.39	677	39279	40.00	ng/uL	9
2)	2-Fluorophenol	6.42	203	100112	73.17	ng/uL	9
3)	Phenol-d5	10.44	587	130269	77.91	ng/uL	9
4)	Phenol	10.51	593	280350	140.02	ng/uL	8
6)	2-Chlorophenol	10.69	610	205672	135.95	ng/uL	9
8)	1,4-Dichlorobenzene	11.45	683	106549	63.21	ng/uL	9
14)	N-Nitroso-di-n-propylamine	12.94	825	82012	71.08	ng/uL	9
16)	*Naphthalene-d8	15.54	1073	136689	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.28	857	60309	34.80	ng/uL	9
25)	1,2,4-Trichlorobenzene	15.39	1059	86091	64.19	ng/uL	9
29)	4-Chloro-3-methylphenol	17.52	1262	199506	138.42	ng/uL	9
31)	*Acenaphthene-d10	21.04	1598	70417	40.00	ng/uL	9
36)	2-Fluorobiphenyl	19.03	1406	89528	33.53	ng/uL	9
42)	Acenaphthene	21.15	1608	153991	63.52	ng/uL	9
44)	4-Nitrophenol	21.67	1658	62484	131.21	ng/uL	8
46)	2,4-Dinitrotoluene	21.76	1666	74168	63.73	ng/uL	8
47)	Diethylphthalate	22.60	1746	2211	.672	ng/uL	9
51)	*Phenanthrene-d10	25.62	2034	127101	40.00	ng/uL	9
54)	2,4,6-Tribromophenol	23.48	1830	44282	90.41	ng/uL	9
57)	Pentachlorophenol	25.07	1982	99236	132.00	ng/uL	9
60)	Di-n-butylphthalate	27.67	2230	5018	.906	ng/uL	9
62)	*Chrysene-d12	33.72	2905	117257	40.00	ng/uL	8
63)	Pyrene	30.03	2454	283752	62.54	ng/uL	8
64)	Terphenyl-d14	30.64	2512	111884	33.25	ng/uL	8
69)	Bis(2-Ethylhexyl)phthalate	34.09	2841	4010	1.06	ng/uL	8
70)	*Perylene-d12	37.85	3198	127201	40.00	ng/uL	9
71)	Di-n-octylphthalate	36.00	3022	3008	.469	ng/uL	9

* Compound is ISTD

F03-720

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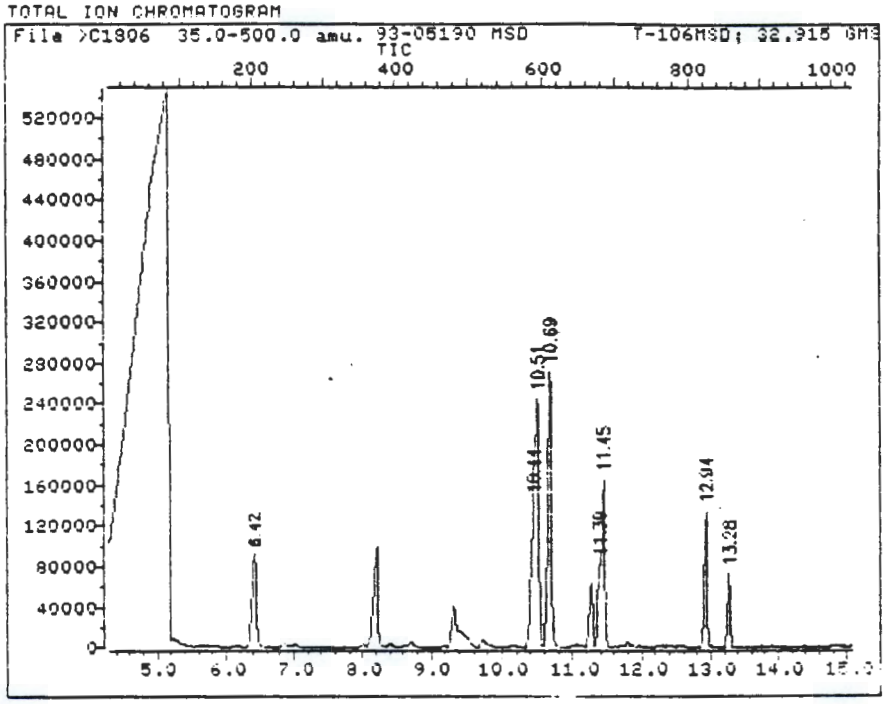
TOTAL ION CHROMATOGRAM



Data File : >C1806::01 Quant Output File: ^C1806::OF
Name: 93-05190 MSD Instrument ID: BNA1
Misc: T-106MSD; 32.915 GMS. BTL# 4

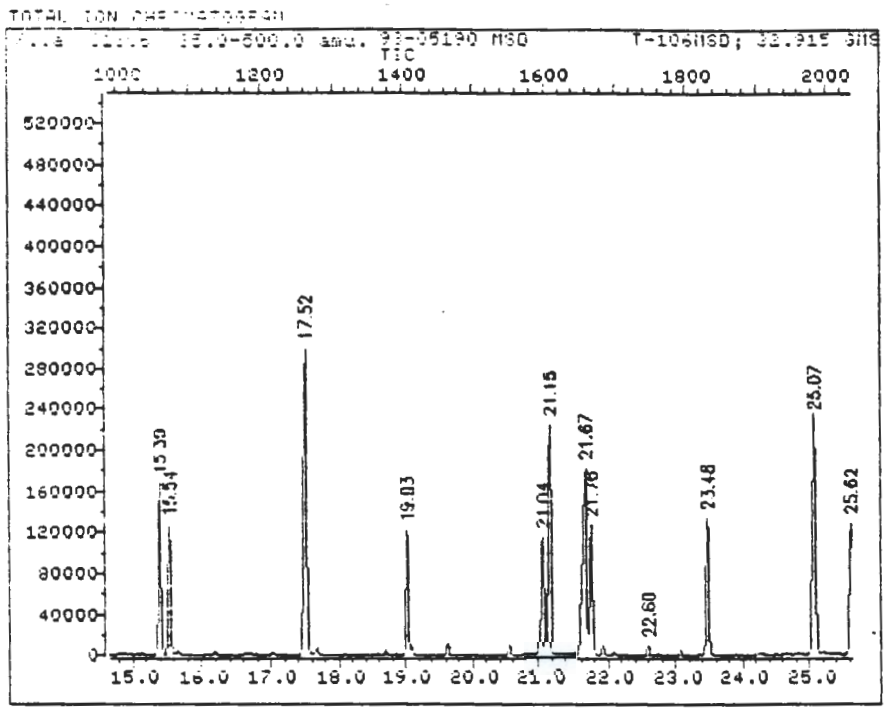
Id File: ID18NA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930318 10:16

Operator ID: ERIC
Quant Time : 930319 10:40
Injected at: 930318 18:57

Page 1 of 4

F03-721

9613492.1916



Data File: >C1806::D1 Quant Output File: ^C1806::DF
Name: 93-05190 MSD Instrument ID: BNA1
Misc: T-106MSD; 32.915 GMS. BTL# 4

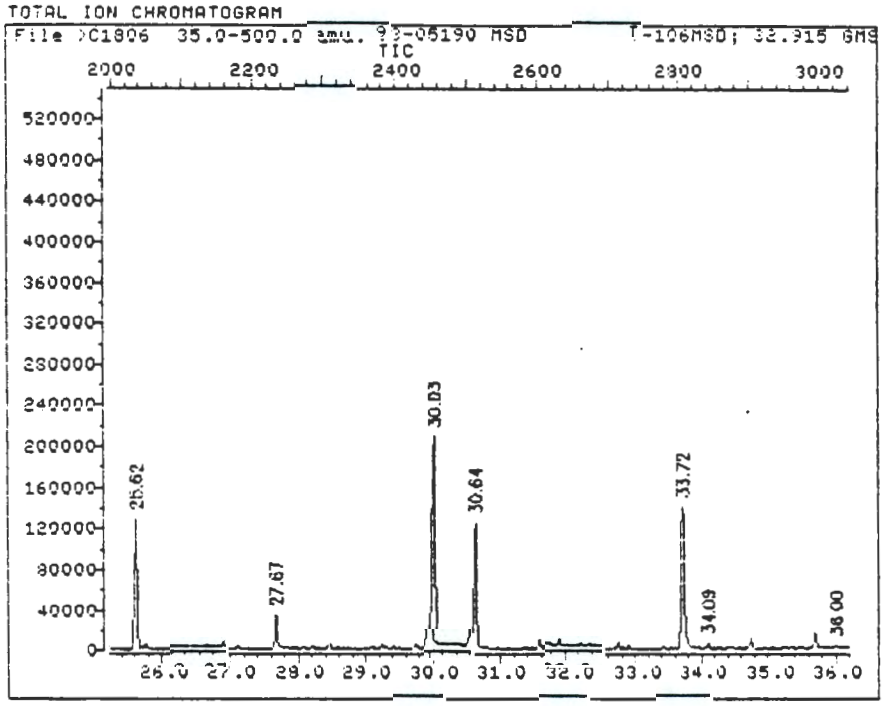
Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 1o:54 Last Qcal Time: 930318 12:15

Operator ID: ERIC
Quant Time : 930319 10:40
Injected at: 930318 18:57

Page 2 of 4

F03-722

9613492.1917



Data File: >C1806::D1 Quant Output File: ^C1806::DF
Name: 93-05190 MSD Instrument ID: BNA1
Misc: T-106MSD; 32.915 GMS. BTL# 4

Id File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930318 12:15

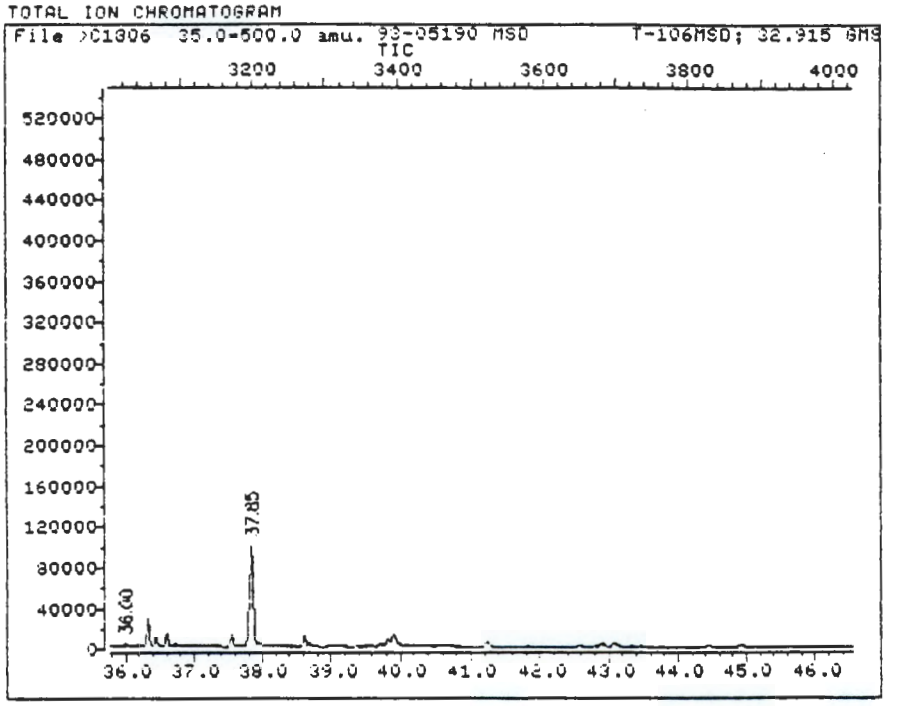
Operator ID: ERIC
Quant Time : 930319 10:40
Injected at: 930318 18:57

Page 3 of 4

F03-723

9613492.1918

TOTAL ION CHROMATOGRAM



Data File: >C1806::D1 Quant Output File: ^C1806::DF
Name: 93-05190 MSD Instrument ID: BNA1
Misc: T-106MSD; 32.915 GMS. BTL# 4

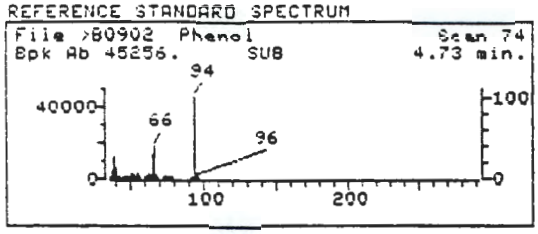
Id File: ID18NA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54 Last Qcal Time: 930318 12:15

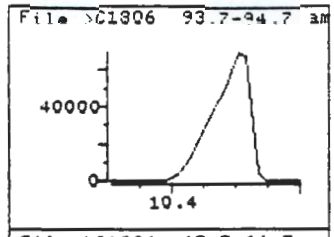
Operator ID: ERIC
Quant Time : 930319 10:40
Injected at: 930318 18:57

Page 4 of 4

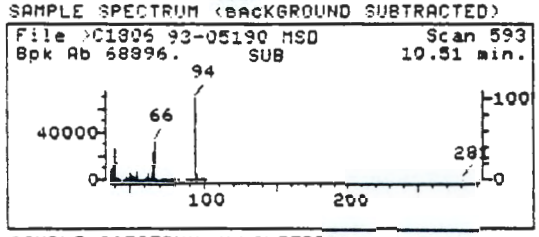
F03-724

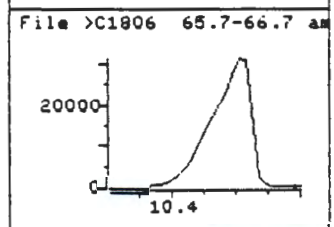
REFERENCE STANDARD SPECTRUM





SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





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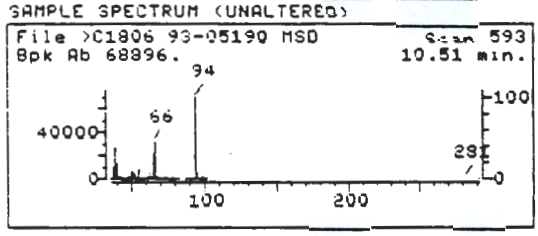
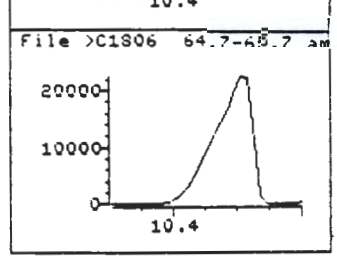


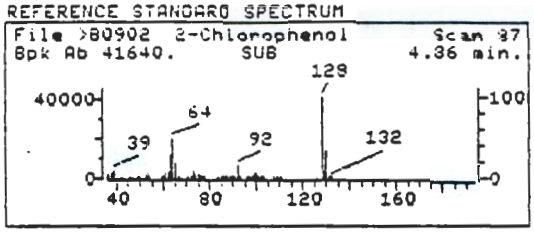


Data File: >C1806::D1
Name: 93-05190 MSD
Misc: T-106MSD; 32.915 GMS.
Quant Time: 930319 10:40
Injected at: 930318 18:57
Last Qcal Time: 930318 12:15

Quant Output File: ^C1806::QF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 4
Compound Name : Phenol
Scan Number : 593
Retention Time: 10.51 min.
Quant Ion : 94.0
Area : 280350
Concentration : 140.02 ng/uL
q-value : 89

REFERENCE STANDARD SPECTRUM



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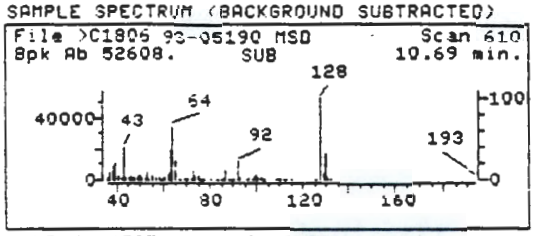

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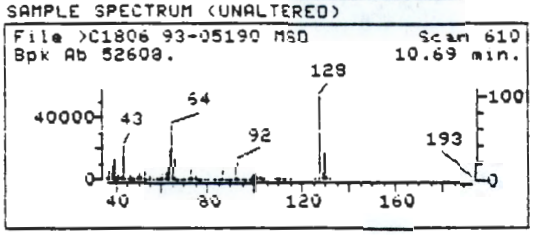
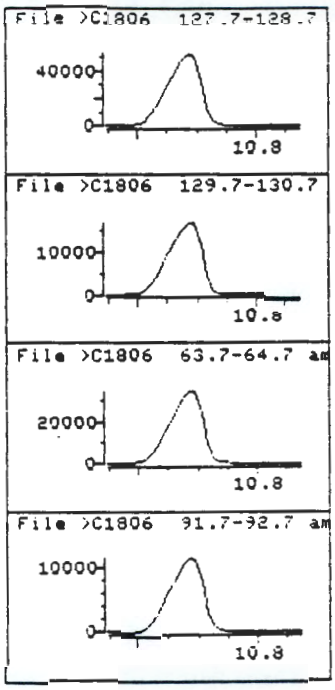


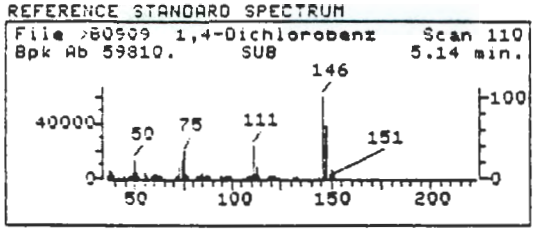


Data File: >C1806::D1
Name: 93-05190 MSD
Misc: T-106MSD; 32.915 GMS.
Quant Time: 930319 10:40
Injected at: 930318 18:57
Last Qcal Time: 930318 12:15

Quant Output File: ^C1806::OF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No. : 6
Compound Name : 2-Chlorophenol
Scan Number : 610
Retention Time: 10.69 min.
Quant Ion : 128.0
Area : 205672
Concentration : 135.95 ng/uL
q-value : 97

REFERENCE STANDARD SPECTRUM



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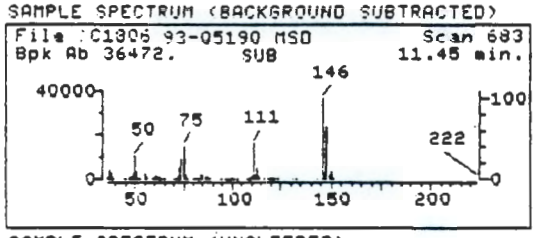

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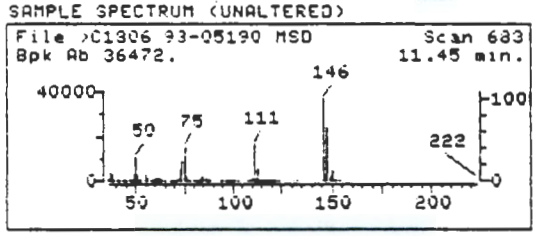
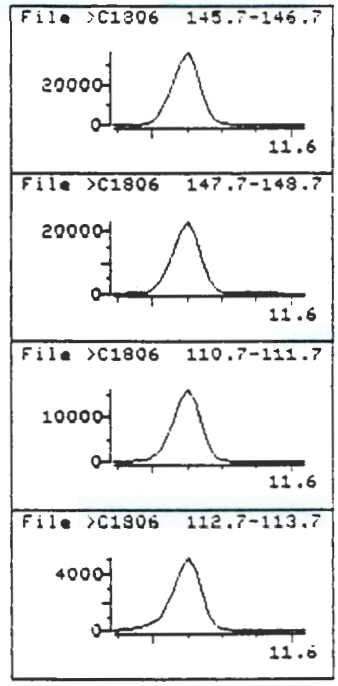


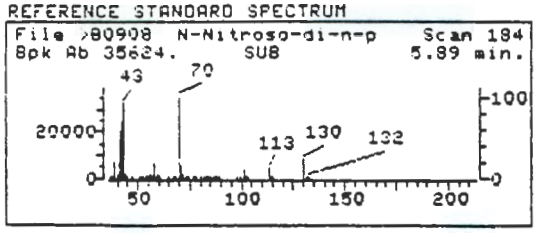


Data File: >C1806::D1
Name: 93-05190 MSD
Misc: T-106MSD; 32.915 GMS.
Quant Time: 930319 10:40
Injected at: 930318 18:57
Last Qcal Time: 930318 12:15

Quant Output File: ^C1806::OF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 8
Compound Name : 1,4-Dichlorobenzene
Scan Number : 683
Retention Time: 11.45 min.
Quant Ion : 146.0
Area : 106549
Concentration : 63.21 ng/uL
q-value : 97

REFERENCE STANDARD SPECTRUM



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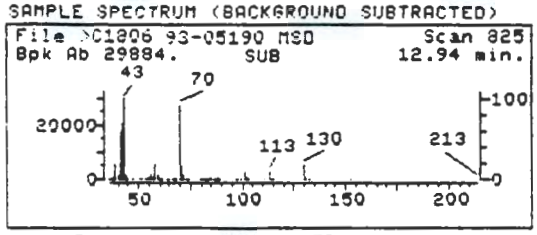

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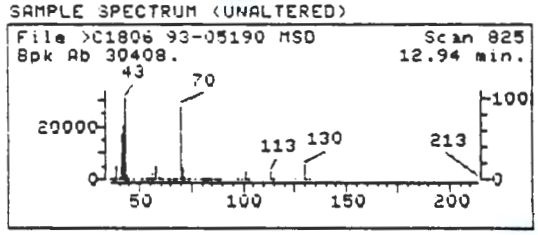
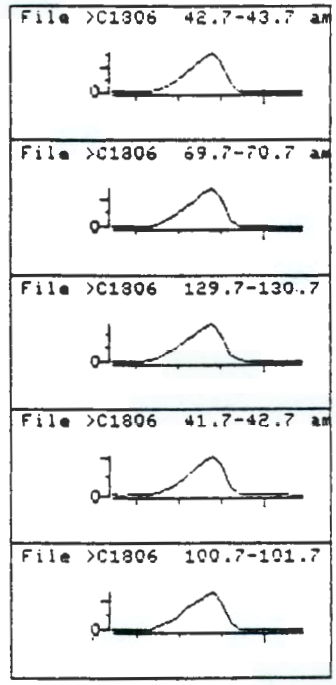


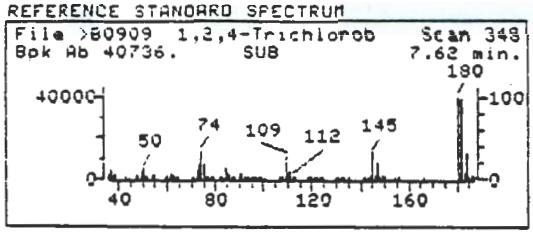


Data File: >C1806::D1
Name: 93-05190 MSD
Misc: T-106MSD; 32.915 GMS.
Quant Time: 930319 10:40
Injected at: 930318 18:57
Last Qcal Time: 930318 12:15

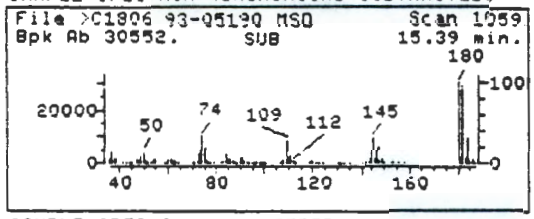
Quant Output File: ^C1806::QF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 14
Compound Name : N-Nitroso-di-n-propylamine
Scan Number : 825
Retention Time: 12.94 min.
Quant Ion : 70.0
Area : 82012
Concentration : 71.08 ng/uL
q-value : 96

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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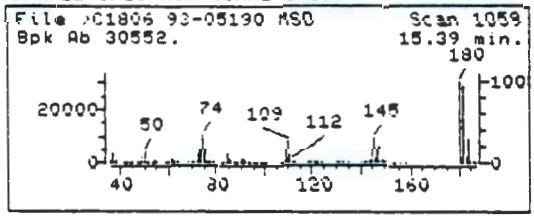

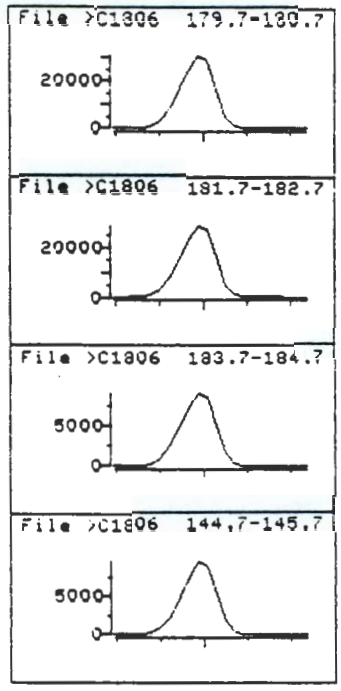

Data File: >C1806::D1
Name: 93-05190 MSD
Misc: T-106MSD; 32.915 GMS.
Quant Time: 930319 10:40
Injected at: 930318 18:57
Last Qcal Time: 930318 12:15

Quant Output File: ^C1806::OF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 25
Compound Name : 1,2,4-Trichlorobenzene
Scan Number : 1059
Retention Time: 15.39 min.
Quant Ion : 180.0
Area : 86091
Concentration : 64.19 ng/uL
q-value : 99

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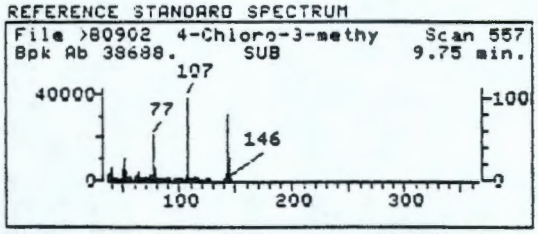
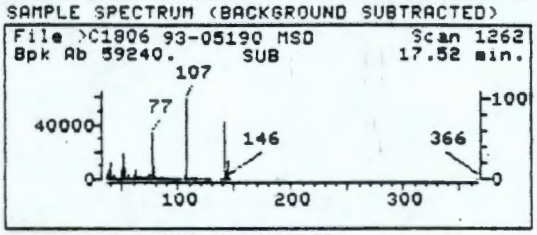
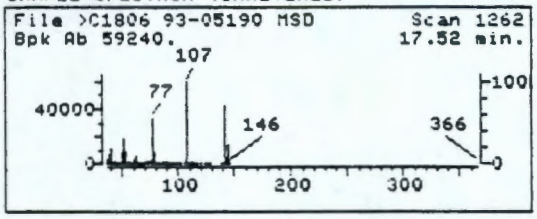
REFERENCE STANDARD SPECTRUM

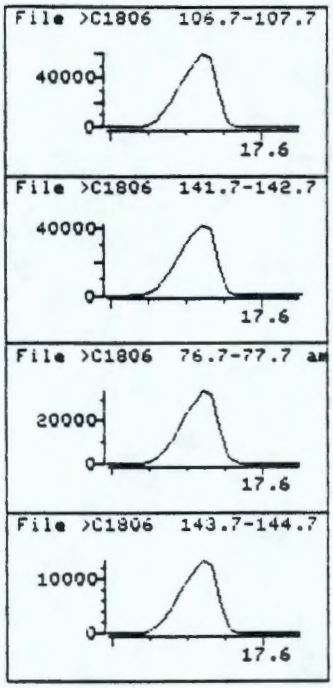


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >C1806::D1
Name: 93-05190 MSD
Misc: T-106MSD; 32.915 GMS.
Quant Time: 930319 10:40
Injected at: 930318 18:57
Last Qcal Time: 930318 12:15

Quant Output File: ^C1806::OF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 29
Compound Name : 4-Chloro-3-methylphenol
Scan Number : 1262
Retention Time: 17.52 min.
Quant Ion : 107.0
Area : 199506
Concentration : 138.42 ng/uL
q-value : 95

F03-730

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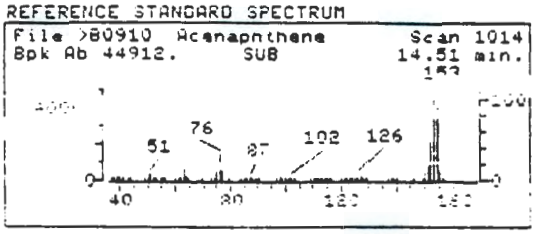
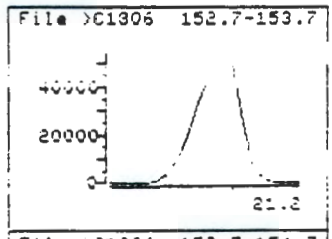
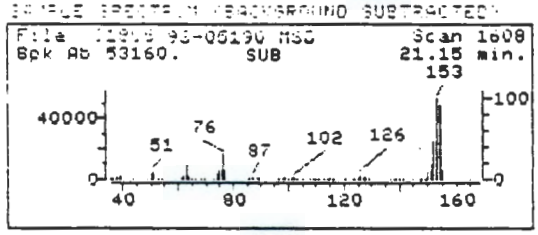
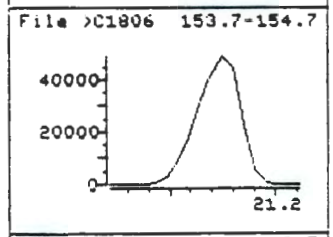
REFERENCE STANDARD SPECTRUM



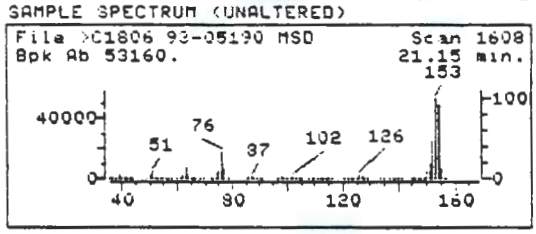


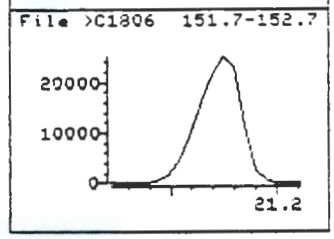
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





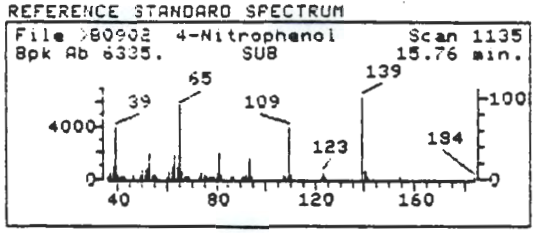
Data File: >C1806::D1
Name: 93-05190 MSD
Misc: T-106MSD; 32.915 GMS.
Quant Time: 930319 10:40
Injected at: 930318 18:57
Last Qcal Time: 930318 12:15

Quant Output File: ^C1806::OF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

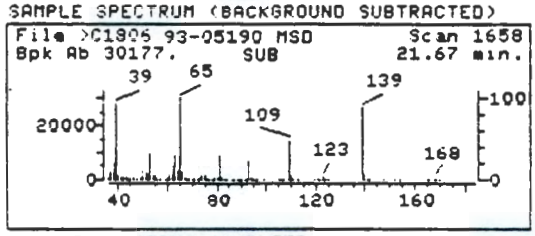
Compound No : 42
Compound Name : Acenaphthene
Scan Number : 1608
Retention Time: 21.15 min.
Quant Ion : 153.0
Area : 153991
Concentration : 63.52 ng/uL
q-value : 97

F03-731

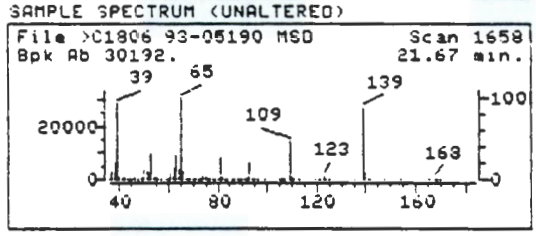
REFERENCE STANDARD SPECTRUM

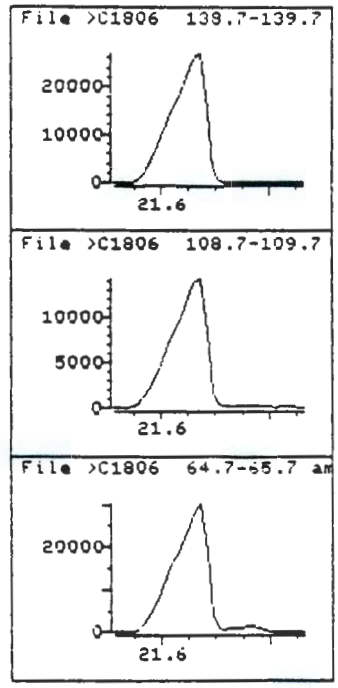


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





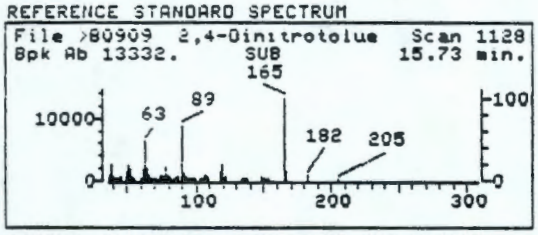
Data File: >C1806::D1
Name: 93-05190 MSD
Misc: T-106MSD; 32.915 GMS.
Quant Time: 930319 10:40
Injected at: 930318 18:57
Last Qcal Time: 930318 12:15

Quant Output File: ^C1806::OF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

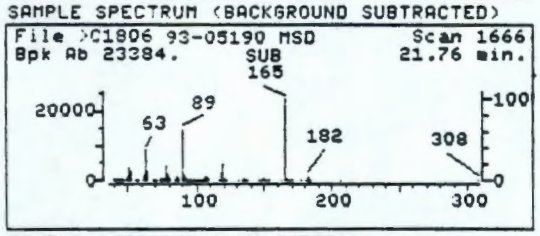
Compound No : 44
Compound Name : 4-Nitrophenol
Scan Number : 1658
Retention Time: 21.67 min.
Quant Ion : 109.0
Area : 62484
Concentration : 131.21 ng/uL
q-value : 82

9613492.1927

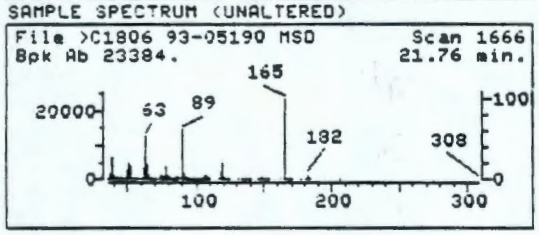
REFERENCE STANDARD SPECTRUM

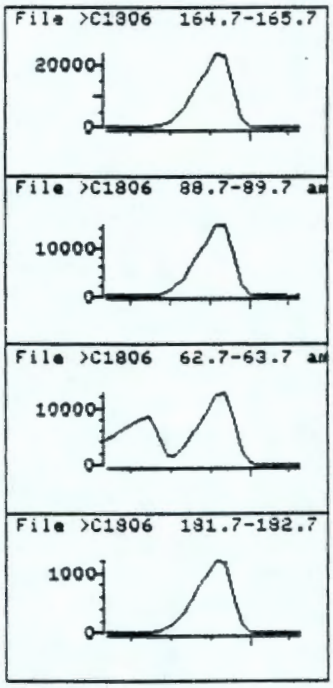


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





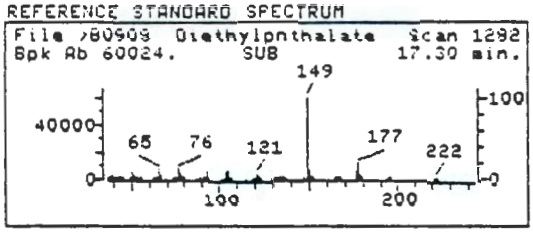
Data File: >C1806::D1
Name: 93-05190 MSD
Misc: T-106MSD; 32.915 GMS.
Quant Time: 930319 10:40
Injected at: 930318 18:57
Last Qcal Time: 930318 12:15

Quant Output File: ^C1806::OF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

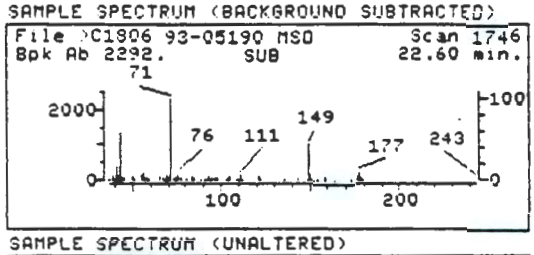
Compound No : 46
Compound Name : 2,4-Dinitrotoluene
Scan Number : 1666
Retention Time: 21.76 min.
Quant Ion : 165.0
Area : 74168
Concentration : 63.73 ng/uL
q-value : 85

F03-733

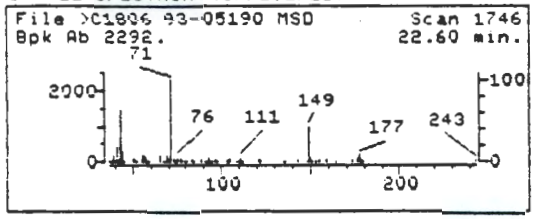
REFERENCE STANDARD SPECTRUM

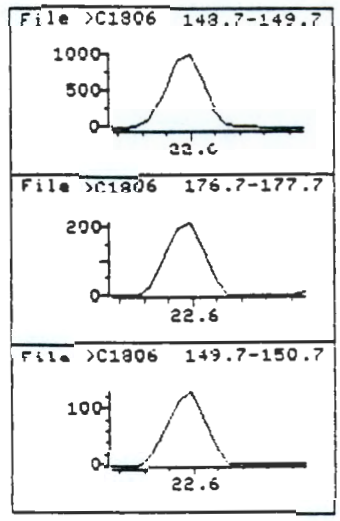


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



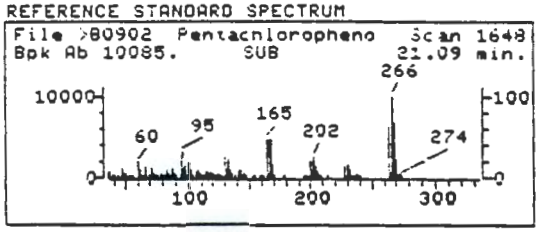


Data File: >C1806::D1
Name: 93-05190 MSD
Misc: T-106MSD; 32.915 GMS.
Quant Time: 930319 10:40
Injected at: 930318 18:57
Last Qcal Time: 930318 12:15

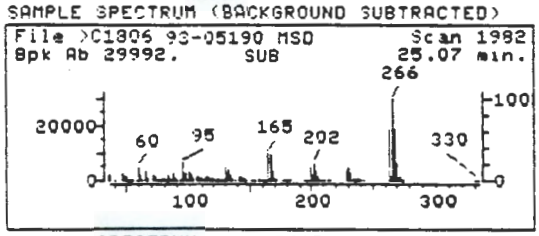
Quant Output File: ^C1806::DF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 47
Compound Name : Diethylphthalate
Scan Number : 1746
Retention Time: 22.60 min.
Quant Ion : 149.0
Area : 2211
Concentration : .672 ng/uL
q-value : 95

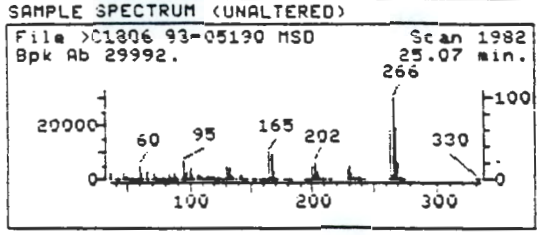
REFERENCE STANDARD SPECTRUM

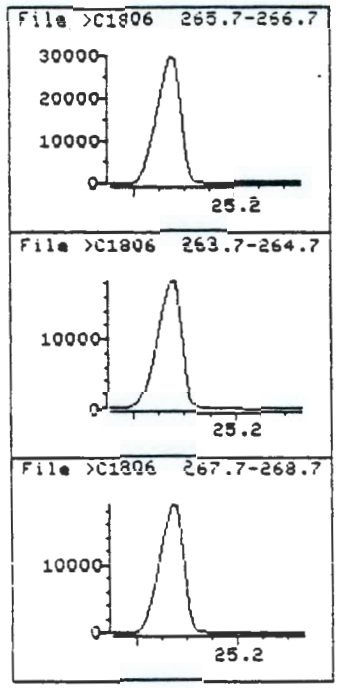


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





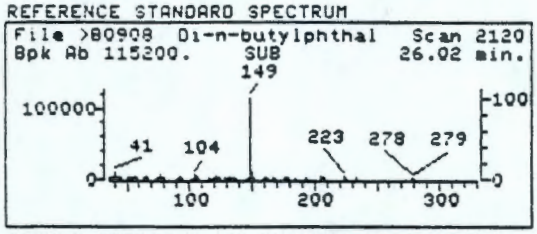
Data File: >C1806::D1
Name: 93-05190 MSD
Misc: T-106MSD; 32.915 GMS.
Quant Time: 930319 10:40
Injected at: 930318 18:57
Last Qcal Time: 930318 12:15

Quant Output File: ^C1806::OF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

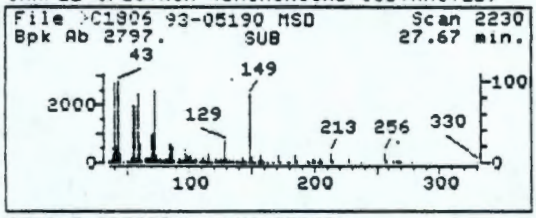
Compound No : 57
Compound Name : Pentachlorophenol
Scan Number : 1982
Retention Time: 25.07 min.
Quant Ion : 266.0
Area : 99236
Concentration : 132.00 ng/uL
q-value : 96

9613492.1930

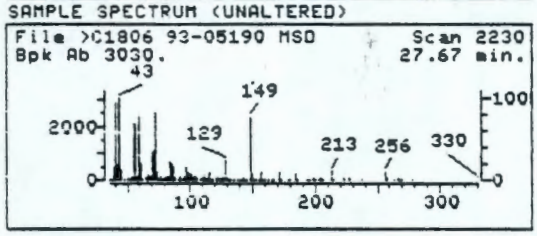
REFERENCE STANDARD SPECTRUM

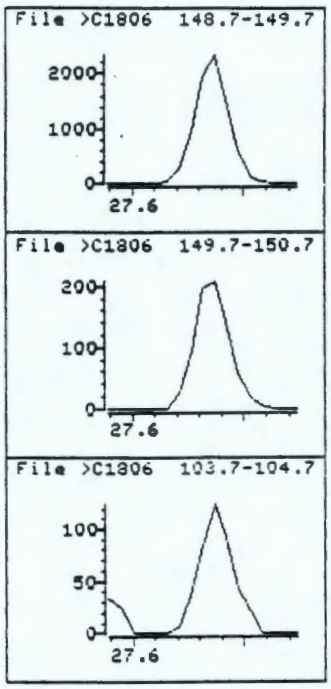


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





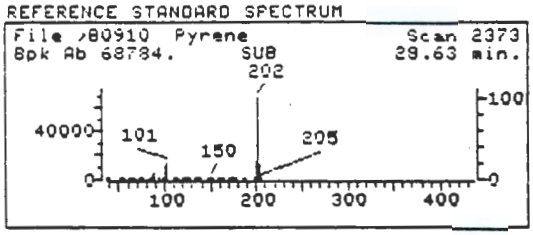
Data File: >C1806::D1
Name: 93-05190 MSD
Misc: T-106MSD; 32.915 GMS.
Quant Time: 930319 10:40
Injected at: 930318 18:57
Last Qcal Time: 930318 12:15

Quant Output File: ^C1806::OF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

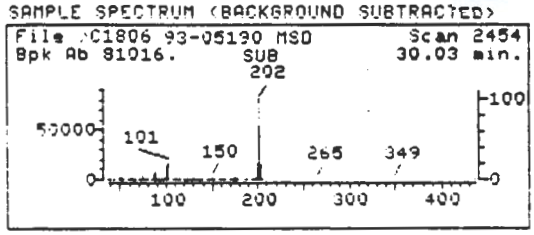
Compound No : 60
Compound Name : Di-n-butylphthalate
Scan Number : 2230
Retention Time: 27.67 min.
Quant Ion : 149.0
Area : 5018
Concentration : .906 ng/uL
q-value : 97

F03-736

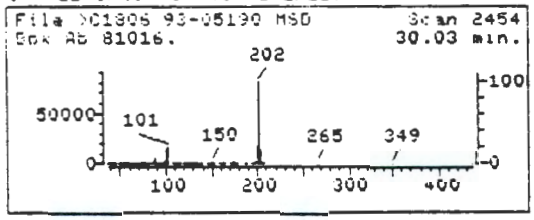
REFERENCE STANDARD SPECTRUM

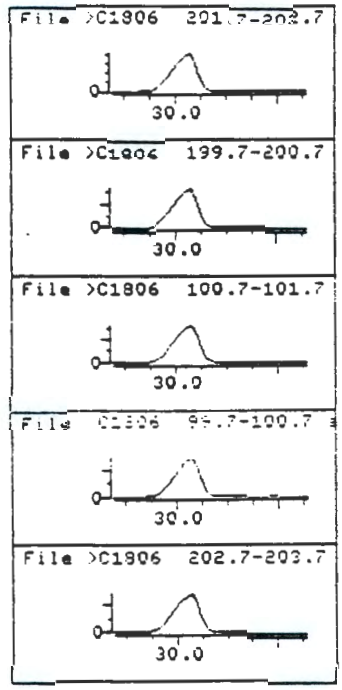


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



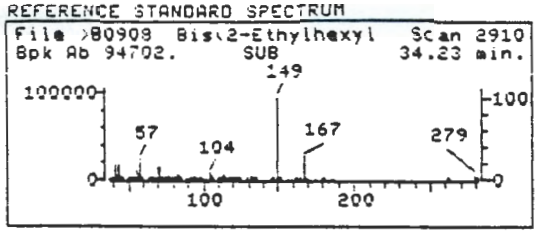


Data File: >C1806::D1
Name: 93-05190 MSD
Misc: T-106MSD; 32.915 GMS.
Quant Time: 930319 10:40
Injected at: 930318 18:57
Last Qcal Time: 930318 12:15

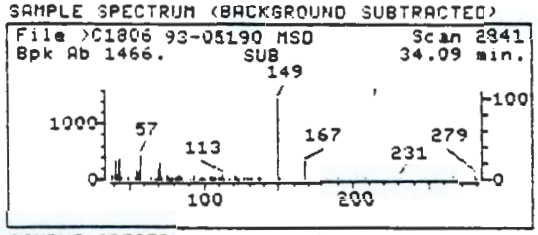
Quant Output File: ^C1806::OF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 63
Compound Name : Pyrene
Scan Number : 2454
Retention Time: 30.03 min.
Quant Ion : 202.0
Area : 283752
Concentration : 62.54 ng/uL
q-value : 88

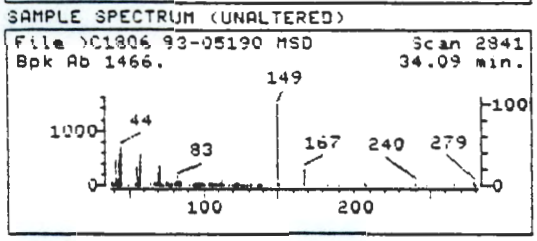
REFERENCE STANDARD SPECTRUM

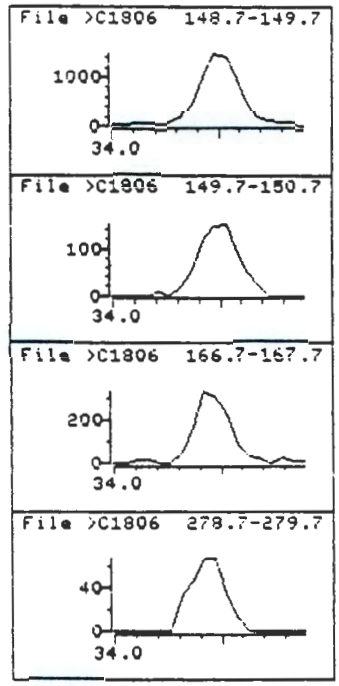


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



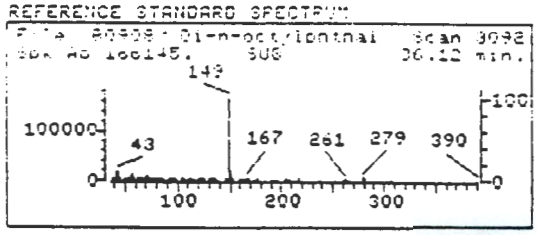


Data File: >C1806::D1
Name: 93-05190 MSD
Misc: T-106MSD; 32.915 GMS.
Quant Time: 930319 1[illegible]
[illegible]ted at: 930318 18:57
Last Qual Time: 930318 12:15

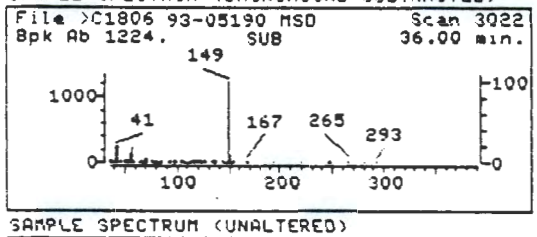
Quant Output File: ^C1806::QF
Instrument [illegible]: [illegible]A1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 69
Compound Name : Bis(2-Ethylhexyl)phthalate
Scan Number : 2841
Retention Time: 34.09 min.
Quant Ion : 149.0
Area : 4010
Concentration : 1.06 ng/uL
q-value : 89

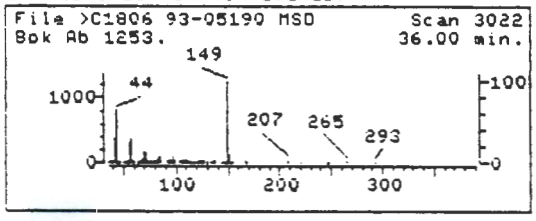
REFERENCE STANDARD SPECTRUM

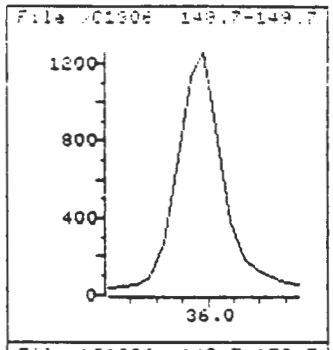


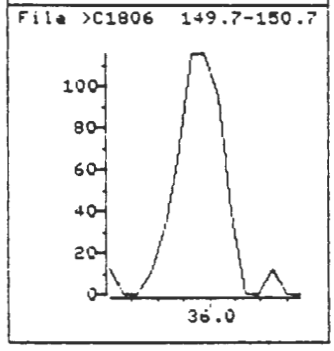
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >C1806::D1
Name: 93-05190 MSD
Misc: T-106MSD; 32.915 GMS.
Quant Time: 930319 10:40
Injected at: 930318 18:57
Last Qcal Time: 930318 12:15

Quant Output File: ^C1806::OF
Instrument ID: BNA1
BTL# 4
Quant ID File: ID1BNA::QT
Last Calibration: 921105 16:54

Compound No : 71
Compound Name : Di-n-octylphthalate
Scan Number : 3022
Retention Time: 36.00 min.
Quant Ion : 149.0
Area : 3008
Concentration : .469 ng/uL
q-value : 97

9613492.1939

QUANT REPORT

Operator ID: ERIC
Output File: ^C1806::OF
Data File: >C1806::D1
Name: 93-05190 MSD
Misc: T-106MSD; 32.915 GMS.

Quant Rev: 7
Quant Time: 930319 10:40
Injected at: 930318 18:57
Dilution Factor: 1.00000
Instrument ID: BNA1
BTL# 4

ID File: ID1BNA::QT
Title: BNA ID QUANT FILE #1 GC/MS
Last Calibration: 921105 16:54
Last Qcal Date: 930318 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-Dichlorobenzene-d4	11.39	677	39279	40.00	ng/uL	9
2)	2-Fluorophenol	6.42	203	100112	73.17	ng/uL	9
3)	Phenol-d5	10.44	587	130269	77.91	ng/uL	9
4)	Phenol	10.51	593	280350	140.02	ng/uL	8
5)	bis(2-Chloroethyl)ether	0.00	610	0	0.00	ng/uL	
6)	2-Chlorophenol	10.69	610	205672	135.95	ng/uL	9
8)	1,4-Dichlorobenzene	11.45	683	106549	63.21	ng/uL	9
9)	Benzyl alcohol	0.00	0	0	0.00	ng/uL	
11)	2-Methylphenol	0.00	0	0	0.00	ng/uL	
12)	bis(2-Chloroisopropyl)ether	0.00	823	0	0.00	ng/uL	
13)	4-Methylphenol	0.00	0	0	0.00	ng/uL	
14)	N-Nitroso-di-n-propylamine	12.94	825	82012	71.08	ng/uL	9
15)	Hexachloroethane	0.00	0	0	0.00	ng/uL	
16)	*Naphthalene-d8	15.54	1073	136689	40.00	ng/uL	9
17)	Nitrobenzene-d5	13.29	857	60309	34.80	ng/uL	9
18)	Nitrobenzene	0.00	0	0	0.00	ng/uL	
19)	Isophorone	0.00	0	0	0.00	ng/uL	
20)	2-Nitrophenol	0.00	0	0	0.00	ng/uL	
21)	2,4-Dimethylphenol	0.00	0	0	0.00	ng/uL	
22)	Benzoic acid	0.00	0	0	0.00	ng/uL	
23)	bis(2-Chloroethoxy)methane	0.00	0	0	0.00	ng/uL	
24)	2,4-Dichlorophenol	0.00	0	0	0.00	ng/uL	
25)	1,2,4-Trichlorobenzene	15.39	1059	86091	64.19	ng/uL	9
26)	Naphthalene	0.00	0	0	0.00	ng/uL	
27)	4-Chloroaniline	0.00	0	0	0.00	ng/uL	
28)	Hexachlorobutadiene	0.00	0	0	0.00	ng/uL	
29)	4-Chloro-3-methylphenol	17.52	1262	199506	138.42	ng/uL	9
30)	2-Methylnaphthalene	0.00	1262	0	0.00	ng/uL	
31)	*Acenaphthene-d10	21.04	1598	70417	40.00	ng/uL	9
32)	Hexachlorocyclopentadiene	0.00	0	0	0.00	ng/uL	
33)	2,4,6-Trichlorophenol	0.00	0	0	0.00	ng/uL	
34)	2,4,5-Trichlorophenol	0.00	0	0	0.00	ng/uL	
35)	2-Chloronaphthalene	0.00	0	0	0.00	ng/uL	
36)	2-Fluorobiphenyl	19.03	1406	89528	33.53	ng/uL	9
37)	2-Nitroaniline	0.00	0	0	0.00	ng/uL	
38)	Dimethylphthalate	0.00	0	0	0.00	ng/uL	
39)	Acenaphthylene	0.00	0	0	0.00	ng/uL	
40)	2,6-Dinitrotoluene	0.00	0	0	0.00	ng/uL	
41)	3-Nitroaniline	0.00	0	0	0.00	ng/uL	
42)	Acenaphthene	21.15	1608	157991	63.52	ng/uL	9
43)	2,4-Dinitrophenol	0.00	0	0	0.00	ng/uL	
44)	4-Nitrophenol	21.67	1659	61484	131.21	ng/uL	9

F03-740

45)	Dibenzofuran	0.00	0	0	0.00 ng/uL	
46)	2,4-Dinitrotoluene	21.76	1666	74168	63.73 ng/uL	89
47)	Diethylphthalate	22.60	1746	2211	.672 ng/uL	95
48)	4-Chlorophenyl-phenylether	0.00	0	0	0.00 ng/uL	
49)	Fluorene	0.00	0	0	0.00 ng/uL	
50)	4-Nitroaniline	0.00	0	0	0.00 ng/uL	
51)	*Phenanthrene-d10	25.62	2034	127101	40.00 ng/uL	99
52)	4,6-Dinitro-2-methylphenol	0.00	0	0	0.00 ng/uL	
53)	N-Nitrosodiphenylamine	0.00	1830	0	0.00 ng/uL	
54)	2,4,6-Tribromophenol	23.48	1830	44282	80.41 ng/uL	98
55)	4-Bromophenyl-phenylether	0.00	0	0	0.00 ng/uL	
56)	Hexachlorobenzene	0.00	0	0	0.00 ng/uL	
57)	Pentachlorophenol	25.07	1982	99236	132.00 ng/uL	96
58)	Phenanthrene	0.00	0	0	0.00 ng/uL	
59)	Anthracene	0.00	0	0	0.00 ng/uL	
60)	Di-n-butylphthalate	27.67	2230	5018	.906 ng/uL	97
61)	Fluoranthene	0.00	0	0	0.00 ng/uL	
62)	*Chrysene-d12	33.72	2805	117257	40.00 ng/uL	89
63)	Pyrene	30.03	2454	283752	62.54 ng/uL	88
64)	Terphenyl-d14	30.64	2512	111884	33.25 ng/uL	89
65)	Butylbenzylphthalate	0.00	0	0	0.00 ng/uL	
66)	3,3'-Dichlorobenzidine	0.00	0	0	0.00 ng/uL	
67)	Benzo(a)anthracene	0.00	0	0	0.00 ng/uL	
68)	Chrysene	0.00	0	0	0.00 ng/uL	
69)	Bis(2-Ethylhexyl)phthalate	34.09	2841	4010	1.06 ng/uL	89
70)	*Perylene-d12	37.85	3198	127201	40.00 ng/uL	96
71)	Di-n-octylphthalate	36.00	3022	3008	.469 ng/uL	97
72)	Benzo(b)fluoranthene	0.00	0	0	0.00 ng/uL	
73)	Benzo(k)fluoranthene	0.00	0	0	0.00 ng/uL	
74)	Benzo(a)pyrene	0.00	0	0	0.00 ng/uL	
75)	Indeno(1,2,3-cd)pyrene	0.00	0	0	0.00 ng/uL	
76)	Dibenz(a,h)anthracene	0.00	0	0	0.00 ng/uL	
77)	Benzo(g,h,i)perylene	0.00	0	0	0.00 ng/uL	

* Compound is ISTD

9613492.1936

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[INTERNAL STANDARD CHECK REPORT]

SAMPLE FILE = >C1806
CAL CHECK FILE = >C1802
DATE AND TIME OF ANALYSIS = 3/18/93 18:57
MISCELLANEOUS = T-106MSD; 32.915 GMS.
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

I. Areas

Name of the BNA Internal Standard	The Sample ISTD Area	Daily Check ISTD Area	Daily Check ISTD Area / 2	Daily Check ISTD Area x 2	Status of the Sample ISTD Area Precision
1,4-Dichlorobenz-d4	39279	37942	18971	75884	OK
Naphthalene-d8	136689	130260	65130	260520	OK
Acenaphthene-d10	70417	65432	32716	130864	OK
Phenanthrene-d10	127101	117143	58571	234286	OK
Chrysene-d12	117257	98177	49089	196354	OK
Perylene-d12	127201	111326	55663	222652	OK

II. Retention Times

Name of the BNA Internal Standard	The Sample ISTD R.Time	Daily Check ISTD R.Time	Daily Check ISTD RT - 0.5	Daily Check ISTD RT + 0.5	Status of the Sample ISTD R.T. Precision
1,4-Dichlorobenz-d4	11.39	11.39	10.89	11.89	OK
Naphthalene-d8	15.54	15.56	15.06	16.06	OK
Acenaphthene-d10	21.04	21.06	20.56	21.56	OK
Phenanthrene-d10	25.62	25.63	25.13	26.13	OK
Chrysene-d12	33.72	33.76	33.26	34.26	OK
Perylene-d12	37.85	37.87	37.37	38.37	OK

F93-742

9613492.1937

[GC/MS OPERATOR REPORT]

[GC/MS LAB SEMIVOLATILES]

[Preliminary Surrogate Report]

DATA FILE NAME = >C1806::D1
DATE AND TIME OF ANALYSIS = 3/18/93 18:57
SAMPLE = 93-05190 MSD
MISCELLANEOUS = T-106MSD; 32.915 GMS.
METHOD = BNAME1
INSTRUMENT = BNA1
OPERATOR = ERIC SUPER GRP

SURROGATE	AS FOUND IN SAMPLE	WAS SPIKED AT	WATER LIMITS	SOIL LIMITS	% RECOVERY
2-Fluorophenol	73.17	100.00	21-100	25-121	73.17
Phenol-d5	77.91	100.00	10-94	24-113	77.91
Nitrobenzene-d5	34.80	50.00	35-114	23-120	69.60
2-Fluorobiphenyl	33.53	50.00	43-116	30-115	67.06
2,4,6-tribromo-phenol	80.41	100.00	10-123	19-122	80.41
Terphenyl-d14	33.25	50.00	33-141	18-137	66.49

FC3-743