3 2 00005

VOLUME I

Site:
Break: 3.2
Other:

3495

Site:
Brand: 32
Other:

3 2 00006

Olin CHEMICALS

P.O. BOX 248, CHARLESTON, TN 37310
(615) 336-4000

December 17, 1987

Mr. Paul Klotz
BCM
P. O. Box 1784
Mobile, AL 36633

Re: Basin Sampling
Olin Corporation
McIntosh, AL

Dear Paul:

Per our conversation with Dr. Paul Freidman and Dr. John Tobin, Olin approves the use of an alternate methodology for organic analysis of the basin sampling. The alternate methodology is SW-846 Rev. 3. Method 8270 GC/MS Method for Semi-volatile Organics: Capillary Column Technique. It is our understanding that BCM may have to go through a method validation for PCNB for Method 8270 due to the limited number of samples.

If you have any problems with the above, please let me know.

Very truly yours,

A. L. Feldman
Environmental Associate

ALF/wsr
028/ALF9
cc: J. K. Scoggins

REC'D

DEC 21 '87

J. B. Converse & Co.
Inc. Engineers
~~C.L.C.~~
~~Nap~~
T.J.T.

Copy to:

Please copy & mail original to Paul Freidman at BCM lab.

P Klotz

CASE NO. [illegible]
LABORATORY Bam

SOP WORK SHEETS FOR EXTRACTABLES

3 2 00007

Water HOLDING TIMES 40 CFR 136

SAMPLE NO. *	CONC. LEVEL/MATRIX	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	TIME ANALYZED	INSTRUMENT I.D.	CONTRACT HOLDING TIME MET YES	CONTRACT HOLDING TIME MET NO	40 CFR 136 HOLDING TIME MET YES	40 CFR 136 HOLDING TIME MET NO	ACTION
A 30384	L/Ag	12/8	12/14	12/14	12/15	14:48				✓		
30385					12/15	10:33						
30386				12/14	12/15	15:38						
30387					12/16	10:50						
30388						11:32						
30389						12:17						
30390					12/15	11:35						
30391					12/16	13:03						
30392						13:47						
30393						14:37						
30394						15:18						
30395					12/15	12:33						
30396					12/15	13:15						
A 30401		12/8			12/17	12:23						
30403					12/15	14:03						
30506		12/9	12/10	12/16	12/22	10:48						
30507					12/22	11:42						
30508				12/15	12/18	13:33						
30525		12/9	12/11	12/16	12/22	12:22						
30539		12/9	12/11	12/15	12/17	15:31						
30541						14:46						
A 30416		12/8	12/8 12/11	N/A	1/4	9:33						
30539		12/9	12/11	12/15	12/17	15:31						
30544				12/15		16:13						
30526		12/9	12/11	N/A	1/11	12:48						

N/A - not available in data package

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

SOP WORK SHEETS FOR EXTRACTABLES

3 2 00008

Soil HOLDING TIMES SW-846

SAMPLE NO *	CONC. LEVEL/MATRIX	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	TIME ANALYZED	INSTRUMENT I.D	CONTRACT HOLDING TIME MET YES	CONTRACT HOLDING TIME MET NO	SW 846 HOLDING TIME MET YES	SW 846 HOLDING TIME MET NO	ACTION
A 30495	Soil	12/9	12/11	12/15	12/18	8:06		✓				
30497					12/18	10:33						
30499					12/18	11:22						
30501					12/18	12:06						
30503					12/18	12:48						
30506				12/16	12/22	10:48		✓				
30511		12/9	12/11	12/15	12/18	16:03		✓				
30513					12/21	9:55						
30515						10:46						
30517						11:29						
30519						12:18						
30521						13:01						
30523						13:49						
30531				12/21	12/22	14:39		✓				
30549		12/9	12/11	12/15	1/4	10:14		✓				
30550					12/22	7:41						
30509		12/9	12/10	12/15	12/18	14:21						
30510					12/18	15:25						
30508					12/18	13:33						
30527		12/9	12/11		12/21	14:41		✓				
30552				12/15	12/22	8:23		✓				
RE 30528		12/9	12/11		12/21	—						
30529				12/15	12/21	—						
RE 30554					12/21	—						
30553				12/15	12/21	—						

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

SOP WORK SHEETS FOR EXTRACTABLES

3 2 00009

HOLDING TIMES

SAMPLE NO *	CONC. LEVEL/MATRIX	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	TIME ANALYZED	INSTRUMENT I.D.	CONTRACT HOLDING TIME MET YES	CONTRACT HOLDING TIME MET NO	SOW-846 ~~40 CFR 136~~ HOLDING TIME MET YES	SOW-846 ~~40 CFR 136~~ HOLDING TIME MET NO	ACTION
30528 RE	4/8d	12/9	12/11	1/5	1/11	16:30					✓	①
30529 RE					1/11	15:50						
30553 RE					1/11	14:59						
30554 RE					1/11	14:15						
30530				1/18	1/19	12:01					✓	
30534						13:36						
30536						12:47						
30538						14:19						

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

① The initial run was within holding times.

CASE NO. [illegible]
LABORATORY Brn

3 2 00010

SOP WORK SHEETS FOR EXTRACTABLES

Water SURROGATES

	SAMPLE NO.*	BLANK SURROGATE CRITERIA MET		IF 'NO': WERE ALL ASSOCIATED SAMPLES RE-ANALYZED		SAMPLE SURROGATE RECOVERY CRITERIA MET		IF 'NO': WAS SAMPLE RE-EXTRACTED/RE-ANALYZED		RE-ANALYZED SAMPLE MET CRITERIA		SURROGATES OUTSIDE CRITERIA	ACTION
		YES	NO	YES	NO	YES	NO	YES	NO	YES	NO		
	A30384					✓							
	A30385						✓		✓				①
	A30386					✓							
	A30387					✓							
	A30388					✓							
	A30389					✓							
	A30390					✓							
	A30391					✓							
	A30392					✓							
	A30393					✓							
	A30394					✓							
	A30395					✓							
MB	A30396	✓											
	A30401	✓											
	A30403					✓							
	A30506					✓							
	A30507					✓							
MB	A30508		✓						✓				②
	A30525						✓		✓				②
	A30539					✓							
	A30541					✓							
	A30416					✓							
	A30401					✓							
	A30403					✓							
	A30539					✓							
	A B721 WP13		✓						✓				②
MB	A30544	✓											
	A30526					✓							

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

① 2 surrogates out of criteria. Sample should have been rerun

② Only one surrogate out of criteria. No action necessary.

LABORATORY BCM

3 2 00011

SOP WORK SHEETS FOR EXTRACTABLES

Soil SURROGATES

SAMPLE NO.*	BLANK SURROGATE CRITERIA MET		IF "NO": WERE ALL ASSOCIATED SAMPLES RE-ANALYZED		SAMPLE SURROGATE RECOVERY CRITERIA MET		IF "NO": WAS SAMPLE RE-EXTRACTED/RE-ANALYZED		RE-ANALYZED SAMPLE MET CRITERIA		SURROGATES OUTSIDE CRITERIA	ACTION
	YES	NO	YES	NO	YES	NO	YES	NO (1)	YES	NO		
A30495					✓							
A30497						✓		✓				
A30499					✓							
A30501						✓		✓				
A30503					✓							
A30506					✓							
A30511						✓		✓				
A30513					✓							
A30515					✓							
A30517					✓							
A30519					✓							
A30521					✓							
A30523						✓		✓				
A30531					✓							
A30549					✓							
A30550						✓		✓				
A30509					✓							
A30516						✓		✓				
A30508						✓		✓				
MB A30507		✓						✓				
B728 M Blank	✓											
MB A30552		✓						✓				
B748 M Blank	✓											
A30528						✓	✓			✓		
A30529						✓	✓			✓		
A30554					✓							
A30553					✓							

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

(1) Not required to reanalyze when only one surrogate in a fraction is out of criteria.

CASE NO. WID
LABORATORY BCAL

3 2 00012

SOP WORK SHEETS FOR EXTRACTABLES

MATRIX SPIKE

SAMPLE NO. *	MATRIX SPIKES FOR EVERY 20 SAMPLES, EACH MATRIX AND EACH LEVEL		ADVISORY LIMITS FOR SPIKE RECOVERY MET		ADVISORY LIMITS FOR SPIKE RPDs MET		ACTION
	YES	NO	YES	NO	YES	NO	
A30402			✓				
A30404			✓				

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

CASE NO. ~~[illegible]~~
LABORATORY BCM

3 2 00013

SOP WORK SHEETS FOR EXTRACTABLES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

SAMPLE NO.*	MATRIX SPIKES FOR EVERY 20 SAMPLES, EACH MATRIX AND EACH LEVEL		ADVISORY LIMITS FOR SPIKE RECOVERY MET		ADVISORY LIMITS FOR SPIKE RPDs MET		ACTION (1)
	YES	NO	YES	NO	YES	NO	
A30495	✓			✓		✓	1,4-Dichlorobenzene results may be estimates in this sample
A30511	✓			✓		✓	% RPD for Dichlorobenzene just out of criteria. No effect on data.
A30539	✓			✓	✓		Recoveries slightly low for 1,4-Dichlorobenzene
A30549	✓		✓		✓		

(1) Other compounds exhibited deviations from QC limits, but 1,4-Dichlorobenzene was the only spiked compound of concern.

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

See MS/MSD Summary Sheets in package.

LABORATORY BBM

3 2 00014

SOP WORK SHEETS FOR EXTRACTABLES

BLANKS

	SAMPLE NO.*	DATE ANALYZED	TIME ANALYZED	APPROPRIATE METHOD BLANK (3)		BLANK ANALYSIS EVERY 12 HRS OR EVERY 20 SAMPLES		CONTAINS <5 ACROL PER COMMON PHTHALATES		CONTAINS <CRQL FOR ALL OTHER NSC COMPOUNDS		ACTION
				YES	NO	YES	NO	YES	NO	YES	NO	EXTRACTION BLANK
	A30385	12/15	13:15	✓		✓		✓		✓		30396
	A30390	↓	↓	↓		↓		↓		↓		↓
	A30395	↓	↓	↓		↓		↓		↓		↓
MB	A30396	12/15	13:15	✓		↓		↓		↓		↓
	A30403	↓	↓	✓		↓		↓		↓		↓
	A30384	↓	↓	↓		↓		↓		↓		↓
	A30386	↓	↓	↓		↓		↓		↓		↓
	A30387	↓	↓	↓		↓	✓	↓		↓		(1)
	A30388	↓	↓	↓		↓	↓	↓		↓		↓
	A30389	↓	↓	↓		↓	↓	↓		↓		↓
	A30391	↓	↓	↓		↓	↓	↓		↓		↓
	A30392	↓	↓	↓		↓	↓	↓		↓		↓
	A30393	↓	↓	↓		↓	↓	↓		↓		↓
	A30394	↓	↓	↓		↓	↓	↓		↓		↓
	A30401	12/17	16:18	↓		✓	↓	↓		↓		(2)
	A30402	↓	↓	↓		↓	↓	↓		↓		↓
	A30541	↓	↓	✓		↓	↓	↓		↓		30544
	A30539	↓	↓	↓		↓	↓	↓		↓		↓
MB	A30544	↓	↓	↓		↓	↓	↓		↓		↓
	A30445	12/18	13:33	✓		↓	↓	↓		↓		↓
	A30545	↓	↓	↓		↓	↓	↓		↓		↓
	A30546	↓	↓	↓		↓	↓	↓		↓		↓
	A30497	↓	↓	✓		↓	↓	↓		↓		30508, 527, 552
	A30499	↓	↓	↓		↓	↓	↓		↓		↓
	A30501	↓	↓	↓		↓	↓	↓		↓		↓

(1) Blank not analyzed on 12/16 with these samples. It was run within 20 samples of these samples.

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

(2) These samples were extracted w/ A30396 and analyzed w/ A30544.

(3) This indicates whether a method blank was extracted w/ these samples. The # of that blank is listed in action column. Rest of review based on analysis blank.

LABORATORY [illegible]

3 2 00015

SOP WORK SHEETS FOR EXTRACTABLES

				BLANKS								
	SAMPLE NO *	DATE ANALYZED	TIME ANALYZED	APPROPRIATE METHOD BLANK		BLANK ANALYSIS EVERY 12 HRS OR EVERY 20 SAMPLES		CONTAINS <5 ACROL PER COMMON PHTHALATES		CONTAINS <CRQL FOR ALL OTHER TSL COMPOUNDS		ACTION
				YES	NO	YES	NO	YES	NO	YES	NO	EXTRACTION BLANK
	A30503	12/18	13:33	✓		✓		✓		✓		30508, 527, 552
MB	A30508											
	A30509											
	A30510											
	A30511											
	A30513	12/21	14:41									
	A30515											
	A30517											
	A30519											
	A30521											
	A30523											
MB	A30527											
	A30528											
	A30529											
	A30549											
	A30550	12/22	8:23									
MB	A30552											
	A30553											
	A30554			✓								✓
	A30556											
	A30507			✓								A 716W
	A30525			✓								↓
MB	>B1394											
MB	>B1395											
	A30531			✓		✓		✓		✓		

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

CASE NO.
LABORATORY BCM

3 2 00016

SOP WORK SHEETS FOR EXTRACTABLES

BLANKS

	SAMPLE NO. *	DATE ANALYZED	TIME ANALYZED	APPROPRIATE METHOD BLANK		BLANK ANALYSIS EVERY 12 HRS OR EVERY 20 SAMPLES		CONTAINS <5 NG/OL PER COMMON PHTHALATES		CONTAINS <CRQL FOR ALL OTHER HSL COMPOUNDS		ACTION
				YES	NO	YES	NO	YES	NO	YES	NO	EXTRACTION BLANK
MB	>B1397	12/22	8:23			✓		✓		✓		
MB	>B1398	↓	↓			↓		↓		↓		
	A30416	1/4	11:06									
	A30549	↓	↓	✓								B7285PB
	M Blank	↓	↓	↓								↓
	A30526	1/11	13:29									
RE	A30552	↓	↓	✓								B7485PB
↓	A30553	↓	↓	↓								↓
	A30529	↓	↓	↓								↓
	A30528	↓	↓	↓								↓
	861099	1/19	10:36	✓								B760 SPB
	A30530	↓	↓	↓								↓
	A30534	↓	↓	↓								↓
	A30536	↓	↓	↓								↓
	A30538	↓	↓	↓								↓
	M Blank	↓	↓	↓		↓		↓		↓		↓

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

LABORATORY Bcm

3 2 00017

SOP WORK SHEETS FOR EXTRACTABLES

INITIAL CALIBRATION (1)

SAMPLE NO.*	DATE	TIME	DESCRIBE CHROMATAGRAPHY PROBLEMS	SPCC CRITERIA MET		CCC CRITERIA MET		ALL COMPOUNDS RF > 0		ANY HSL COMPOUND RF < 0.05		ANY HSL COMPOUNDS RSD > 30%		ERRATIC RF'S		ACTION
				YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	
A30385	12/4	9:11		✓		✓		✓								
A30390																
A30395																
A30396																
A30403																
A30384																
A30386																
A30387	12/4	9:11														
A30388																
A30389																
A30391																
A30392																
A30393																
A30394																
A30401	12/7	8:09		✓		✓		✓								
A30402																
A30541																
A30539																
A30544																
A30496																
A30545																
A30546																
A30497																
A30499																
A30501																

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

(1) SPCC + CCC criteria have been applied to the 4 compounds of Concern: 1,2-, 1,4- Dichlorobenzene, Hexachlorobenzene and Pentachloronitrobenzene, to review calibrations.

LABORATORY BCM

3 2 00018

SOP WORK SHEETS FOR EXTRACTABLES

INITIAL CALIBRATION (1)

	SAMPLE NO.*	DATE	TIME	DESCRIBE CHROMATAGRAPHY PROBLEMS	SPCC CRITERIA MET		CCC CRITERIA MET		ALL COMPOUNDS RF > 0		ANY HSL COMPOUND RF < 0.05		ANY HSL COMPOUNDS RSD > 30%		ERRATIC RF'S		ACTION
					YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	
	A30503	12/17	8:09		✓		✓		✓								
	A30508	↓	↓		↓		↓		↓								
	A30509																
	A30510																
	A30511	↓	↓														
	A30513	12/17	8:09														
	A30515																
	A30517																
	A30519																
	A30521																
	A30523																
	A30527																
	A30528																
	A30529																
	A30549	↓	↓														
	A30550																
	A30552																
	A30553																
	A30554																
	A30556																
	A30507																
	A30525																
>B1394	M Blank																
>B1395	M Blank																
	A30531	↓	↓		↓		↓		↓								

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

LABORATORY

3 2 00019

SOP WORK SHEETS FOR EXTRACTABLES

INITIAL CALIBRATION (1)

	SAMPLE NO.*	DATE	TIME	DESCRIBE CHROMATAGRAPHY PROBLEMS	SPCC CRITERIA MET		CCC CRITERIA MET		ALL COMPOUNDS RF > 0		ANY HSL COMPOUND RF < 0.05		ANY HSL COMPOUNDS RSD > 30%		ERRATIC RF'S		ACTION
					YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	
>B1397	M Blank	12/17	8:09		✓		✓		✓								
>B1398	M Blank	↓	↓		↓		↓		↓								
	A30416	12/17	8:09		↓		↓		↓								
	A30549	↓	↓		↓		↓		↓								
> B1403	M Blank	↓	↓		↓		↓		↓								
	A30526	1/11	8:50		✓		✓		✓								
	A30554	↓	↓		↓		↓		↓								
	A30553	↓	↓		↓		↓		↓								
	A30529	↓	↓		↓		↓		↓								
	A30528	↓	↓		↓		↓		↓								
	A30530	1/18	7:57		✓		✓		✓								
	801099	↓	↓		↓		↓		↓								
	A30534	↓	↓		↓		↓		↓								
	A30536	↓	↓		↓		↓		↓								
	A30538	↓	↓		↓		↓		↓								
>B1466	M Blank	↓	↓		↓		↓		↓								

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

CASE NO. [illegible]
LABORATORY PCM

3 2 00020

SOP WORK SHEETS FOR EXTRACTABLES

CONTINUING CALIBRATIONS (1)

SAMPLE NO. *	DATE	TIME	SPCC CRITERIA MET		CCC CRITERIA MET		ALL COMPOUNDS RF > 0		CALIBRATION WITHIN 12 HRS OF SAMPLE ANALYSIS		ANY HSL COMPOUND RF < 0.05		ANY HSL COMPOUND %D > 25		DESCRIBE CHROMATAGRAPHY PROBLEMS	ACTION
			YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO		
A30385	12/15	8:06	✓		✓		✓									
A30390																
A30395																
A30396																
A30403																
A30384																
A30386																
A30387	12/16	9:02	✓		✓		✓									
A30388																
A30389																
A30391																
A30392																
A30393																
A30394																
A30445	12/18	7:20	✓		✓		✓									
A30545																
A30497																
A30499																
A30501																
A30503																
A30508																
A30509																
A30510																
A30511																
A30513	12/21	9:09	✓		✓		✓									

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

(1) SPCC + CCC criteria have been applied to the 4 compounds of concern to review calibration.

CASE NO. Olin
LABORATORY BCM

3 2 00021

SOP WORK SHEETS FOR EXTRACTABLES

CONTINUING CALIBRATIONS (1)

	SAMPLE NO *	DATE	TIME	SPCC CRITERIA MET		CCC CRITERIA MET		ALL COMPOUNDS RF > 0		CALIBRATION WITHIN 12 HRS OF SAMPLE ANALYSIS		ANY HSL COMPOUND RF < 0.05		ANY HSL COMPOUND % > 25		DESCRIBE CHROMATAGRAPHY PROBLEMS	ACTION
				YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO		
	A30515	12/21	9:09	✓		✓		✓									
	A30517																
	A30519																
	A30521																
	A30523																
	A30527																
	A30528																
	A30529																
	A30549																
	A30550	12/22	6:52	✓		✓		✓									
	A30552																
	A30553																
	A30554																
	A30556																
	A30557																
	A30525																
>B1394	M Blank																
>B1395	M Blank																
	A30531																
>B1397	M Blank																
>B1398	M Blank																
	A30416	1/4	8:40	✓			✓	✓								(3)	
	A30549																
>B1403	M Blank																

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

(3) Hexachlorobenzene % Diff. > 25%. Detection limits for this compound in these samples may be higher than reported, and positive results are estimated.

CASE NO. Offsite
LABORATORY BCM

3 2 00022

SOP WORK SHEETS FOR EXTRACTABLES

CONTINUING CALIBRATIONS (1)

SAMPLE NO.*	DATE	TIME	SPCC CRITERIA MET		CCC CRITERIA MET		ALL COMPOUNDS RF > 0		CALIBRATION WITHIN 12 HRS OF SAMPLE ANALYSIS		ANY HSL COMPOUND RF < 0.05		ANY HSL COMPOUND %D > 25		DESCRIBE CHROMATAGRAPHY PROBLEMS	ACTION
			YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO		
A30530	1/19	8:04	✓			✓	✓									(2)
A30534	↓	↓	↓			↓	↓									↓
A30536	↓	↓	↓			↓	↓									↓
A30538	↓	↓	↓			↓	↓									↓
801099	↓	↓	↓			↓	↓									↓

(2) Pentachloronitrobenzene is slightly above 25% Diff. No effect on data

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

CASE NO. [illegible]
LABORATORY [illegible]

3 2 00023

SOP WORK SHEETS FOR EXTRACTABLES

GC / MS TUNING AND PERFORMANCE

SAMPLE NO *	DATE TUNED	TIME TUNED	DFTPP ION ABUNDANCE CRITERIA MET * YES	DFTPP ION ABUNDANCE CRITERIA MET * NO	ION ABUNDANCE CRITERIA NOT MET	SKEWED OR DISTORTED SPECTRA YES	SKEWED OR DISTORTED SPECTRA NO	FREQUENCY OF TUNE > 12 HRS YES	FREQUENCY OF TUNE > 12 HRS NO	ACTION
Initial Cal	12/14	8:47	✓				✓		✓	
A30385	12/15	7:43	✓				✓		✓	
A30390	↓	↓	↓				↓		↓	
A30395	↓	↓	↓				↓		↓	
A30396	↓	↓	↓				↓		↓	
A30403	↓	↓	↓				↓		↓	
A30384	↓	↓	↓				↓		↓	
A30386	↓	↓	↓				↓		↓	
A30387	12/16	9:02	✓				✓		✓	
A30388	↓	↓	↓				↓		↓	
A30389	↓	↓	↓				↓		↓	
A30391	↓	↓	↓				↓		↓	
A30392	↓	↓	↓				↓		↓	
A30393	↓	↓	↓				↓		↓	
A30394	↓	↓	↓				↓		↓	
A30401	12/17	7:47	✓				✓		✓	
A30402	↓	↓	↓				↓		↓	
A30541	↓	↓	↓				↓		↓	
A30539	↓	↓	↓				↓		↓	
A30544	↓	↓	↓				↓		↓	
A30445	12/18	6:55	✓				✓		✓	
A30545	↓	↓	↓				↓		↓	
A30546	↓	↓	↓				↓		↓	
A30497	↓	↓	↓				↓		↓	
A30499	↓	↓	↓				↓		↓	

*INCLUDES MATRIX SPIKES, BLANKS AND RE - RUNS HERE

* MAY WANT TO CONSIDER EXPANDED CRITERIA. "LABORATORY DATA VALIDATION FUNCTIONAL GUIDELINES FOR EVALUATING ORGANICS ANALYSES", TDD NO. HQ-8410-01, USEPA, P.13.

CASE NO. Olin
LABORATORY BCM

3 2 00024

SOP WORK SHEETS FOR EXTRACTABLES

GC / MS TUNING AND PERFORMANCE

SAMPLE NO *	DATE TUNED	TIME TUNED	DFTPP ION ABUNDANCE CRITERIA MET + YES	DFTPP ION ABUNDANCE CRITERIA MET + NO	ION ABUNDANCE CRITERIA NOT MET	SKEWED OR DISTORTED SPECTRA YES	SKEWED OR DISTORTED SPECTRA NO	FREQUENCY OF TUNE > 12 HRS YES	FREQUENCY OF TUNE > 12 HRS NO	ACTION
A30501	12/18	6:55	✓				✓		✓	
A30503										
A30508										
A30509										
A30510										
A30511										
A30513	12/21	7:50	✓				✓		✓	
A30515										
A30517										
A30519										
A30521										
A30523										
A30527										
A30528										
A30529										
A30549										
A30550	12/22	6:32	✓				✓		✓	
A30552										
A30553										
A30554										
A30556										
A30507										
A30525										
>B1394 M Blank										
B1395 M Blank										

*INCLUDES MATRIX SPIKES, BLANKS AND RE - RUNS HERE

+ MAY WANT TO CONSIDER EXPANDED CRITERIA. "LABORATORY DATA VALIDATION FUNCTIONAL GUIDELINES FOR EVALUATING ORGANICS ANALYSES", TDD NO. HQ-8410-01, USEPA, P.13.

CASE NO. [illegible]
LABORATORY ACM

3 2 00025

SOP WORK SHEETS FOR EXTRACTABLES

GC / MS TUNING AND PERFORMANCE

SAMPLE NO *	DATE TUNED	TIME TUNED	DFTPP ION ABUNDANCE CRITERIA MET + YES	DFTPP ION ABUNDANCE CRITERIA MET + NO	ION ABUNDANCE CRITERIA NOT MET	SKEWED OR DISTORTED SPECTRA YES	SKEWED OR DISTORTED SPECTRA NO	FREQUENCY OF TUNE > 12 HRS YES	FREQUENCY OF TUNE > 12 HRS NO	ACTION
A30530	1/19	7:33	✓				✓		✓	
A30534	↓	↓	↓				↓		↓	
A30536	↓	↓	↓				↓		↓	
A30538	↓	↓	↓				↓		↓	
A30531	12/22	6:32	✓				✓		✓	
0397 M Blank	↓	↓	↓				↓		↓	
0398 M Blank	↓	↓	↓				↓		↓	
A30416	1/4	8:18	✓				✓		✓	
A30549	↓	↓	↓				↓		↓	
M Blank	↓	↓	↓				↓		↓	
A30526	1/11	8:21	✓				✓		✓	
A30554	↓	↓	↓				↓		✓	
A30553	↓	↓	↓				↓		↓	
A30529	↓	↓	↓				↓		↓	
A30528	↓	↓	↓				↓		↓	
S01099	1/19	7:35	✓				✓		✓	

*INCLUDES MATRIX SPIKES, BLANKS AND RE - RUNS HERE

+ MAY WANT TO CONSIDER EXPANDED CRITERIA. "LABORATORY DATA VALIDATION FUNCTIONAL GUIDELINES FOR EVALUATING ORGANICS ANALYSES", TDD NO. HQ-8410-01, USEPA, P.13.

3 2 00026

Client: Olin Chemical
Job #: 00-4006-07
Matrix: Liquid, Sol + Leachate

BCM LABORATORY HOLDING TIME AUDIT

Audit Date: 2/17/88
Audited By: CE Casselberry
Order #:

SAMPLE Number	R / S[1] Date	Mercury Digest	Days Held to Digest	Mercury Run Date	Days Held	Date	Days Held	Note
A30373	12/9, 11/87	12/28	17-19	12/28	17-19			
A30374		12/28						
A30375		12/28						
A30376		12/28						
A30377		12/28						
A30378		12/28						
A30379		12/28						
A30380		12/28						
A30381		12/28						
A30382		12/28						
tr A30383		12/28						
A30406		12/28		12/28				
399 A30410		12/28						
A30495	12/10	12/28	18	1/5	26			
ch 495 A30496		12/28		12/28	18			
A30497		12/28		12/28				
each 497 A30498		12/28		12/28				
A30499		12/28		1/5	26			
each 499 A30500		12/28		12/28	18			
A30501		12/28		12/28				
each 501 A30502		12/28		12/28				
A30503		12/28		1/5	26			
h 503 A30504		12/28		12/28	18			
A30505		12/28		1/5	26			
A30506		12/28		12/28	18			

Circle R for Date of Sample Receipt at Lab
S for Date of Sample Collection
* Indicates analysis date exceeds holding time.

[1] There are no Chain of Custody records to verify these dates.

3 2 00027

Client: Olin Chemical
Job #: 00-4006-07
Matrix: Sol + Leachate liquid

BCM LABORATORY
HOLDING TIME AUDIT

Audit Date: 2/17/88
Audited By: C. E. Casselberry
Order #:

	SAMPLE Number	R / S ① Date	Mercury Digest	Days Held to Digest	Mercury Run Date	Days Held	Date	Days Held	Note
TB	A30507	12/10	12/28	18	12/28	18			
	A30531		12/28	18	12/28				
ach 531	A30928		1/5	26	1/5	26			
MB	A30508		12/28	18	12/28	18			
P	A30509		12/28		1/5	26			
30445	A30510		12/28		1/5	26			
	A30511	12/11	12/28	17	12/28	17			
ach 511	A30512		12/28		12/28				
	A30513		12/28		1/5	25			
ach 513	A30514		12/28		12/28	17			
	A30515		12/28		12/28				
15	A30516		12/28		12/28				
	A30517		12/28		12/28				
MB	A30527		12/28		12/28				
P	A30528		12/28		12/28				
30511	A30529		12/28		12/28				
	A30540		1/18	38 *	1/18	39*			①
	A30542								
	A30543								
MB	A30544								
P	A30547								
30540	A30548								
	A30551		12/28	17	12/28	17			
	A30882		12/28		12/28				
	A30552		12/28		12/28				
	A30555		12/28		12/28				
P 551	A30556		12/28		12/28				

Circle R for Date of Sample Receipt at Lab
S for Date of Sample Collection

* Indicates analysis date exceeds holding time.

① Holding time exceeded by 11 day

Client: Olin Chemical
Job #: 00-4006-07
Matrix: Liquid, Sol + Leachate

BCM LABORATORY HOLDING TIME AUDIT

Audit Date: 2/24/88
Audited By: CEC
Order #:

SAMPLE Number	R / S Date	Mercury Digest	Days Held	Mercury Run Date	Days Held	Date	Days Held	Note
30397	12/8	12/28	20	12/28	20			
30398	↓	↓	↓	↓	↓			
30399	↓	↓	↓	↓	↓			
30400	↓	↓	↓	↓	↓			
30518	12/11	12/28	17	12/28	17			
30519	↓	12/28	↓	1/5	25			
30520	↓	12/28	↓	12/28	17			
30521	↓	12/28	↓	12/28	17			
30522	↓	12/28	↓	12/28	17			
30523	↓	12/28	↓	1/5	25			
30524	↓	12/28	↓	12/28	17			
30525	↓	↓	↓	1/23	43			*(2)
30526	↓	12/28	↓	12/28	17			

Circle R for Date of Sample Receipt at Lab
S for Date of Sample Collection
* Indicates analysis date exceeds holding time.

(2) Run originally on 1/5 w/in holding times.

BCM LABORATORY
DUPLICATE SAMPLE ANALYSIS

3 2 00029

Client: Olin Chemical
Job # : 00-4006-07 Matrix: Sol Units: mg/kg

Audit Date: 2/17/88
Audited By: C.E. Casselberry

Analysis	Sample 30509	Dup. 30495	%RPD	NOTES
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Chromium				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Mercury	25.5	25.5	0	
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Zinc				
TPH				

Comments:

% RPD = (|S - D|)/((S+D)/2) x 100 Max %RPD Solid +/-40%, Liquid +/-20%

3 2 00030

BCM LABORATORY
SPIKE SAMPLE ANALYSIS

Client: Olin Chem
Job # : OCT-4006-07 Matrix: Sol Units: mg/kg Audit Date: 2/24
Audited By: CCC

Analysis	SpikeNo. 30510	Sample 30509	Amt. Spiked	%R
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Chromium				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Mercury	41.0	25.5	15	103.3
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Zinc				
TPH				

Comments:

%R = (Spike - Sample)/Amt. Spiked x 100 Range: %R = 75-125%

BCM LABORATORY
DUPLICATE SAMPLE ANALYSIS

3 2 00031

Client: Olin Chem Audit Date: 2/24/88
Job # : 00-4006-07 Matrix: Sol Units: mg/kg Audited By: CEC

Analysis	Sample 30511	Dup. 30528	%RPD	NOTES
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Chromium				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Mercury	2.55	2.35	8.2	
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Zinc				
TPH				

Comments:

% RPD = (|S - D|)/((S+D)/2) x 100 Max %RPD Solid +/-40%, Liquid +/-20%

3 2 00032

BCM LABORATORY
SPIKE SAMPLE ANALYSIS

Client: Olin Chemical
Job # : 004006-07 Matrix: Solid Units: mg/kg
Audit Date: 2/24/86
Audited By: CEH

Analysis	SpikeNo. 30527	Sample 30511	Amt. Spiked	%R
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Chromium				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Mercury	3.45	2.55	1	90
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Zinc				
TPH				

Comments:

%R = (Spike - Sample)/Amt. Spiked x 100 Range: %R = 75-125%

3 2 00033

BCM LABORATORY
DUPLICATE SAMPLE ANALYSIS

Client: Olin Chem Audit Date: 2/24/88
Job # : 00-4006-07 Matrix: Liquid Units: mg/L Audited By: CEC

Analysis	Sample 30540	Dup. 30547	%RPD	NOTES
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Chromium				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Mercury	<0.0002	<0.0002	NC	
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
*	MATRIX - SOIL	UNITS mg/kg		
	SAMPLE 30551	30555	%RPD	
Mercury	<0.1	<0.1	NC	
TPH				

Comments: NC - non calculable due to results < detection limit

% RPD = (|S - D|)/((S+D)/2) x 100 Max %RPD Solid +/-40%, Liquid +/-20%

3 2 00034

BCM LABORATORY
SPIKE SAMPLE ANALYSIS

Client: Olin Chemical
Job # : 00-4006-07 Matrix: Liquid Units: mg/L

Audit Date: 2/24/88
Audited By: CEC

Analysis	SpikeNo. 30548	Sample 30540	Amt. Spiked	%R
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Chromium				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Mercury	0.002	<0.0002	.002	100
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
	MATRIX - SOL	UNITS - mg/kg		
*	SPIKE 30556	SAMPLE 30551	AMT. SPIKED	%R
Mercury	1.00	<0.1	1.00	100
TPH				

Comments:

%R = (Spike - Sample)/Amt. Spiked x 100 Range: %R = 75-125%

PARAMETER	TYPE (CONC. MATRIX)	SAMPLE #	SOURCE OF H_2O	CONTAMINANTS (CONCENTRATION / DETECTION)
Hg	Method 4/501	30396	BCM	NONE FOUND 3 2 00035
Hg	Method 4/501	30508	BCM	NONE FOUND
Hg	Method 4/501	30527	BCM	NONE FOUND
Hg	Method 4/501	30544	BCM	NONE FOUND
Hg	Method 4/501	30552	BCM	NONE FOUND

LABORATORY REPORTED FIELD BLANK DATA IS COMPARED WITH THE SAMPLE DATA IN A TABULATION FORM + SAMPLE ANALYTICAL DATA SUMMARY.

COMMENTS:

(1) RESULT REPORTED BY LABORATORY AND CONFIRMED BY REVIEWER.

(2) RESULT INFERRED FROM RAW DATA

[illegible]

Detection limits were reported for all samples analyzed: Yes ✓ No ____

Exceptions: _____

Detection limits were less than or equal to the required detection limits specified in _____. Yes ____ No ____

Exceptions: _____

Instrument Sensitivity Reports

Instrument sensitivity reports were documented for all parameters:

Yes ____ No ____

Comments: _____

Other Remarks Concerning this Case:

BCM

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Engineers, Planners and Scientists

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3 2 00037

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Date: 1/18/88

ANALYTICAL SERVICES DATA PACKAGE

Lab Name: BCM Eastern, Inc. Laboratory

Project No.: 00-4006-07

Client Name: Olin Chemical

Order No.: 18787 18790 18819 18820 18821 18822 18823 18824 18825 18826 18828 18829 18830

Sample Numbers

Sample I.D.	BCM No.	Sample I.D.	BCM No.
399	7A30373	509	7A30390
966	7A30374	696	7A30391
107	7A30375	878 FB	7A30392
525	7A30376	341 BD	7A30393
523	7A30377	654 BD	7A30394
316	7A30378	Trip Blank	7A30395
221	7A30379	Method Blank	7A30396
283 FB	7A30380	492	7A30397
838 BB	7A30381	Spike of 30397	7A30398
442 BD	7A30382	312	7A30399
Trip Blank	7A30383	Spike of 30399	7A30400
420	7A30384	150	7A30401
574	7A30385	Spike of 30410	7A30402
869	7A30386	451	7A30403
102	7A30387	Spike of 30403	7A30404
560	7A30388	257	7A30405
777	7A30389	712 Dup of 399	7A30406

Comments:

Reviewed by: C. E. Casselberry

BCM

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Engineers, Planners and Scientists

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3 2 00038

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Date: 1/18/88

ANALYTICAL SERVICES DATA PACKAGE

Lab Name: BCM Eastern, Inc. Laboratory

Project No.: 00-4006-07

Client Name: Olin Chemical

Order No.: 18787 18790 18819 18820 18821 18822 18823 18824 18825 18826 18828 18829 18830

Sample Numbers

Sample I.D.	BCM No.	Sample I.D.	BCM No.
908	7A30407	Leach of 30499	7A30500
925	7A30408	941	7A30501
349	7A30409	Leach of 30500	7A30502
406	7A30410	217 BD	7A30503
Trip Blank	7A30411	Leach of 30503	7A30504
424	7A30412	981	7A30505
362	7A30413	408	7A30506
942	7A30414	Trip Blank	7A30507
737	7A30415	Method Blank	7A30508
672 Dup of 420	7A30416	Dup of 30495	7A30509
Trip Blank	7A30417	Spike of 30495	7A30510
Trip Blank	7A30418	267	7A30511
577	7A30495	Leach of 30511	7A30512
Leach of 30495	7A30496	483	7A30513
538	7A30497	Leach of 30513	7A30514
Leach of 30497	7A30498	615	7A30515
807	7A30499	Leach of 30515	7 A30516

Comments:

Reviewed by:

BCM

BCM Eastern Inc.
Engineers, Planners and Scientists

3 2 00039

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Date: 1/18/88

ANALYTICAL SERVICES DATA PACKAGE

Lab Name: BCM Eastern, Inc. Laboratory

Project No.: 00-4006-07

Client Name: Olin Chemical

Order No.: 18787 18790 18819 18820 18821 18822 18823 18824 18825 18826 18828 18829 18830

Sample Numbers

Sample I.D.	BCM No.	Sample I.D.	BCM No.
907	7A30517	532	7A30535
Leach of 30517	7A30518	384	7A30536
790	7A30519	507	7A30537
Leach of 30519	7A30520	782	7A30538
183	7A30521	118	7A30539
Leach of 30521	7A30522	136	7A30540
401 BD	7A30523	143	7A30541
Leach of30523	7A30524	301	7A30542
281	7A30525	948	7A30543
Trip Blank	7A30526	Method Blank	7A30544
Method Blank	7A30527	Dup of 30539	7A30545
Dup of 30511	7A30528	Spike of 30539	7A30546
Spike of 30511	7A30529	Dup of 30540	7A30547
308	7A30530	Spike of 30540	7A30547
537	7A30531	702	7A30548
919	7A30532	760	7A30549
974	7A30533	810	7A30550
237	7A30534	Method Blank	7A30552

Comments:

Reviewed by:

BCM

BCM Eastern Inc.
Engineers, Planners and Scientists

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3 2 00040

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Date: 1/18/88

ANALYTICAL SERVICES DATA PACKAGE

Lab Name: BCM Eastern, Inc. Laboratory

Project No.: 00-4008-07

Client Name: Olin Chemical

Order No.: 18787 18790 18819 1882(18821 18822 18823 1882 18825 18826 18828 1882 18830

Sample Numbers

Sample I.D.	BCM No.	Sample I.D.	BCM No.
Dup of 30549	7A30553		
Spike of 30549	7A30554		
Dup of 30551	7A30555		
Spike of 30551	7A30556		
Leach of 30551	7A30882		

Comments:

Reviewed by:

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BCM

3 2 00042

Section I - Laboratory Result Sheets

BCM Laboratory Division
1850 Gravers Road
Norristown, PA 19401
[illegible]-0281

[illegible] Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT
This is a fi[illegible]
The results [illegible] checked and authorized for release.

3 2 00043

CLIENT

Olin Chemicals
Attn. Arnold L. Feldman
P.O. Box 248
Charleston, TN 37310

Date 02/29/88
BCM # 00-4006-07
P.O. #
Order# 19787

CC Paul Klotz

BCM Number A30373
Location 399
Client ID

Date Sampled 12/08/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
Mercury	0.001	mg/l	EPA # 245.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM
[illegible] Laboratory Division
[illegible] Gravers Road
[illegible]wn, PA 19401
[illegible]
[illegible]
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3600

FINAL REPORT [illegible]
This is a fi[illegible]
The results [illegible]ecked and authorized for release.

3 2 00044

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O. Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O # :
Order# : 18787

BCM Number : A30374
Location :
Client ID : 966

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	0.0002	mg/l	EPA # 245.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM
[illegible] Laboratory Division
[illegible] Gravers Road
[illegible]town, PA 19401
[illegible]0281

1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPOR[illegible]
This is a f[illegible]
The results [illegible]hecked and authorized for release

3 2 00045

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18787

BCM Number A30375
Location
Client ID : 107

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	0.0007	mg/l	EPA # 245

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM
[illegible] Road
[illegible], PA 19401

1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REP[illegible]
This is a [illegible]
The results [illegible]ecked and authorized for release.

3 2 00046

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18787

BCM Number : A30376
Location : 525
Client ID

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	0.0007	mg/l	EPA # 245.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1850 Gravers Road
Norristown, PA 19401
(215) 275-0281

PLEASE REMIT CHECKS TO:
BCM Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT

This is a final report.

3 2 00047

CLIENT

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

BCM Laboratory Division
1[illegible] Gravers Road
[illegible]town, PA 19401
[illegible]0281

PLEASE REMIT CHECKS TO:
BCM Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT
This is a fi[illegible]
The results [illegible]hecked and authorized for release

3 2 00048

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # 00-4006-07
P.O. # :
Order# 19[illegible]

BCM Number : A30377
Location : S23
Client ID

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	0.0006	mg/l	EPA # 245.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

BCM Laboratory Division
1850 Gravers Road
Norristown, PA 19401
[illegible]5-0281

PLEASE REMIT CHECKS TO:
BCM Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT
This is a fin[illegible]
The results h[illegible] checked and authorized for release.

3 2 00049

CLIENT

Olin Chemicals
Attn Arnold L Feldman
P O Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : 00-4006-07
P O # :
Order# : 18787

CC: Paul Klotz

BCM Number A30378
Location 316
Client ID

Date Sampled : 12/08/87
Date Received : 12/[illegible]/87

Test Description	Results	Units	Test Method
Mercury	0.0007	mg/l	EPA # 245.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

[illegible] Laboratory Division
[illegible] Gravers Road
[illegible]wn, PA 19401
[illegible]

BCM Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT [illegible]
This is a f[illegible]
The results [illegible]cked and authorized for release.

3 2 00050

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O. Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# 18797

BCM Number A30379
Location : 221
Client ID

Date Sampled 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	0.0005	mg/l	EPA # 245.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1880 Gravers Road
Norristown, PA 19401
[illegible]281

BCM Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT

This is a fi[illegible]

The results [illegible]hecked and authorized for release.

3 2 00051

CLIENT

Olin Chemicals
Attn Arnold L. Feldman
P.O Box 248
Charleston, TN 37310

CC Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O # :
Order# : 18787

BCM Number : A30380
Location : 283
Client ID : FB

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	< 0.0002	mg/l	EPA # 245.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1650 Gravers Road
Harrisburg, PA 19401
[illegible]281

BCM Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT [illegible]
This is a f[illegible]
The results [illegible]ecked and authorized for release.

3 2 00052

CLIENT

Olin Chemicals
Attn. Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O # :
Order# : 18787

BCM Number : A30381
Location : 838BD
Client ID

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	0.0006	mg/l	EPA # 245.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1650 Gravers Road
Norristown, PA 19401
[illegible]0281

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1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3600

FINAL REPORT

This is a fi[illegible]
The results [illegible]hecked and authorized for release.

3 2 00053

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O Box 248
Charleston, TN 37310

Date 02/29/88
BCM # 00-4006-07
P.O.#
Order# 18787

CC Paul Klotz

BCM Number A30382
Location 442
Client ID BD

Date Sampled 12/[illegible]/87
Date Received 12/[illegible]/87

Test Description	Results	Units	Test Method
Mercury	< 0.0002	mg/l	EPA # 245.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1850 Gravers Road
Norristown, PA 19401
[illegible]75-0281

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1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT

This is a fi[illegible]
The results [illegible] checked and authorized for release.

3 2 00054

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P O Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18787

CC Paul Klotz

BCM Number A30383
Location : TRIP
Client ID : BLK

Date Sampled 12/08/87
Date Received 12/1 /87

Test Description	Results	Units	Test Method
Mercury	0.0002	mg/l	EPA # 245 1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

[illegible] Laboratory Division
[illegible] Gravers Road
[illegible]wn, PA 19401
[illegible]281

BCM Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT [illegible]
This is a fi[illegible]
The results [illegible]hecked and authorized for release.

3 2 00055

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18787

BCM Number : A30384
Location : 420
Client ID

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1[illegible] Gravers Road
[illegible]ntown, PA 19401
[illegible]-0281

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215-825-3800

FINAL REPORT

This is a fi[illegible]
The results [illegible]checked and authorized for release.

[illegible] 00056

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date 02/29/88
BCM # 00-4006-07
P.O. #
Order # [illegible]

CC: Paul Klotz

BCM Number A30385
Location 3/4
Client ID

Date Sampled [illegible]
Date Received [illegible]

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	10	ug/l	EPA # [illegible]
1,4-Dichlorobenzene	<10	ug/l	
Hexachlorobenzene	[illegible]	ug/l	
Pentachloronitrobenzene	<10	ug/l	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1[illegible] Gravers Road
[illegible]n, PA 19401
[illegible]281

BCM Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT
This is a fi[illegible]
The results [illegible]ecked and authorized for release.

CLIENT

Clin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18787

CC: Paul Klotz

BCM Number A30386
Location 969
Client ID :

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

BCM Laboratory Division
[illegible] Gravers Road
[illegible]wn, PA 19401
[illegible]1

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PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT [illegible]
This is a f[illegible]
The results [illegible]cked and authorized for release.

3 2 00058

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O. Box 248
Charleston, TN 37310

CC: Paul Klotz

Date: 02/29/88
BCM #: 00-4006-07
P.O. #:
Order#: 18787

BCM Number: A30387
Location: 102
Client ID:

Date Sampled: 12/08/87
Date Received: 12/[illegible]/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1850 Gravers Road
Nordstown, PA 19401
[illegible]-0281

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PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT [illegible]
This is a fi[illegible]
The results [illegible] checked and authorized for release.

3 2 00059

CLIENT

Olin Chemicals
Attn Arnold L. Feldman
P O Box 248
Charleston, TN 37310

Date 02/29/88
BCM # 00-4006-07
P O #
Order# 18737

CC Paul Klotz

BCM Number A30388
Location 560
Client ID

Date Sampled [illegible]
Date Received [illegible]

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1880 Gravers Road
Norristown, PA 19401
[redacted]-0281

[redacted] Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT

This is a fi[redacted]
The results [redacted]hecked and authorized for release.

00060

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O. Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : 00-4006-07
P.O. # :
Order# : 18787

cc: Paul Klotz

BCM Number A30389
Location 777
Client ID

Date Sampled 12/08/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

BCM Laboratory Division
[illegible] Gravers Road
[illegible] PA 19401
[illegible]

PLEASE REMIT CHECKS TO:
BCM Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT [illegible]
This is a f[illegible]
The results [illegible]ecked and authorized for release

3 2 00061

CLIENT

Olin Chemicals
Attn Arnold L Feldman
P O.Box 248
Charleston, TN 37310

CC Paul Klotz

Date 02/29/88
BCM # 00-4006-07
P.O.#
Order# 18737

BCM Number A30394
Location 654
Client ID BD

Date Sampled [illegible]
Date Received [illegible]

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # [illegible]
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1[illegible] Gravers Road
Norristown, PA 19401
[illegible]-0281

BCM System Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT

This is a [illegible]
The results [illegible] checked and authorized for release.

3 2 00062

CLIENT

Olin Chemicals
Attn Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 15787

cc Paul Klotz

BCM Number A30395
Location TRIP
Client ID BLK

Date Sampled 12/08/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

BCM Laboratory Division
[illegible] Gravers Road
[illegible], PA 19401
[illegible]

[illegible] Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3600

FINAL REPORT [illegible]
This is a fi[illegible]
The results [illegible]ecked and authorized for release.

3 2 00063

CLIENT

Clin Chemicals
Attn. Arnold L. Feldman
P.O Box 248
Charleston, TN 37310

CC. Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18787

BCM Number : A30395
Location : TRIP
Client ID : BLK

Date Sampled : 12/08/87
Date Received : 12/1[illegible]/87

Test Description	Results	Units	Test Method

End of Report

Certified by : _____

BCM Eastern Laboratory Director

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

BCM Laboratory Division
1[illegible] Gravers Road
[illegible]town, PA 19401
[illegible]

[illegible] CHECKS TO:
BCM Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT [illegible]
This is a f[illegible]
The results [illegible]ecked and authorized for release.

3 2 00064

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18789

BCM Number : A30396
Location : MTHOD
Client ID : BLANK

Date Sampled : 12/10/87
Date Received : 12/12/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 8250
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachlorohitrobenzene	< 10	ug/l	
Mercury	< 0.0002	mg/kg	EPA # 7471

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1850 Gravers Road
Norristown, PA 19401
[illegible]-0281

[illegible] CHECKS TO:
BCM Eastern Inc.
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PLYMOUTH MEETING, PA 19462
215-825-3600

FINAL REPORT [illegible]
This is a fi[illegible]
The results [illegible] checked and authorized for release.

3 2 00065

CLIENT

Olin Chemicals
Attn Arnold L Feldman
P O Box 245
Charleston, TN 37310

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# 18787

CC: Paul Klotz

BCM Number A30390
Location 509
Client ID :

Date Sampled : 12/08/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1[illegible] Gravers Road
[illegible]town, PA 19401
[illegible]-0281

PLEASE REMIT CHECKS TO:
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PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT

This is a fi[illegible]

The results [illegible] checked and authorized for release

3 2 00066

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O. Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # 00-4006-07
P.O # :
Order# : 18787

CC Paul Klotz

BCM Number : A30391
Location 696
Client ID

Date Sampled 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
[illegible] Beavers Road
[illegible] PA 19401

BCM Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPO[illegible]t

This is a f[illegible]

The results [illegible]ecked and authorized for release.

3 2 00067

CLIENT

Olin Chemicals
Attn Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18787

BCM Number A30392
Location 878
Client ID FB

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
[illegible] Graivers Road
[illegible], PA 19401
[illegible]81

BCM Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPO[illegible]

This is a [illegible]

The results [illegible]ecked and authorized for release.

[illegible] 00068

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18787

CC: Paul Klotz

BCM Number : A30393
Location : 341
Client ID : BD

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,3-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

BCM Laboratory Division
1850 Gravers Road
Norristown, PA 19401
[illegible]-0281

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1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT
This is a fin[illegible]
The results [illegible]hecked and authorized for release

3 2 00069

CLIENT

Olin Chemicals
Attn Arnold L Feldman
P O Box 248
Charleston, TN [illegible]

Date 02/29/88
BCM # 00-4006-07
P O #
Order# [illegible]

CC Paul Klotz

BCM Number : A30396
Location MTHID
Client ID BLANK

Date Sampled [illegible]
Date Received [illegible]

Test Description	Results	Units	Test Method

End of Report

Certified by _____

BCM Eastern Laboratory Director

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM [illegible] Laboratory Division
[illegible] Grovers Road
[illegible], PA 19401
[illegible]

[illegible] Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REP[illegible]
This is a [illegible]
The results [illegible]cked and authorized for release.

PAGE : 1

3 2 00070

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18789

BCM Number : A30397
Location : 492
Client ID :

Date Sampled : 12/08/87
Date Received : 12/08/87

Test Description	Results	Units	Test Method
Mercury	0.0005	mg/l	EPA # 245.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1[illegible] Gravers Road
[illegible], PA 19401
[illegible]1

PLEASE REMIT CHECKS TO:
BCM Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT [illegible]
This is a fi[illegible]
The results [illegible]ecked and authorized for release.

3 2 00071

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P O Box 248
Charleston, TN 3731[illegible]0

Date 02/29/88
BCM # 00-4006-07
P O #
Order# [illegible]

CC: Paul Klotz

BCM Number A30398
Location SPK
Client ID 30397

Date Sampled 12/[illegible]/87
Date Received 12/[illegible]/87

Test Description	Results	Units	Test Method
Mercury	102 R	%	EPA # 245.1

Comment ALL % R = PERCENT RECOVERY

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
[illegible] Gravers Road
[illegible]wn, PA 19401
[illegible]281

[illegible] Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPOR[illegible]
This is a [illegible]
The results [illegible]ecked and authorized for release.

3 2 00072

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18789

BCM Number : A30399
Location : 312
Client ID :

Date Sampled : 12/08/87
Date Received : 12/08/87

Test Description	Results	Units	Test Method
Mercury	0.0005	mg/l	EPA # 245.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

[illegible] Laboratory Division
[illegible] Gravers Road
[illegible]n, PA 19401
[illegible]281

[illegible] Inc.
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PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT [illegible]
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The results [illegible]ecked and authorized for release.

3 2 00073

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18739

BCM Number : A30400
Location : SPK
Client ID : 30399

Date Sampled : 12/08/87
Date Received : 12/08/87

Test Description	Results	Units	Test Method
Mercury	100 R	%	EPA # 245.1

Comment ALL % R = PERCENT RECOVERY

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

BCM Laboratory Division
1[illegible] Gravers Road
[illegible]town, PA 19401
[illegible]

[illegible] CHECKS TO:
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PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT [illegible]
This is a fi[illegible]
The results [illegible]ecked and authorized for release.

3 2 00074

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18789

BCM Number : A30401
Location : SPK
Client ID : 150

Date Sampled : 12/[illegible]/87
Date Received : 12/[illegible]/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

[illegible] Laboratory Division
[illegible] Road
[illegible], PA 19401
[illegible]

[illegible] CHECKS TO:
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PLYMOUTH MEETING, PA 19462
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FINAL REPORT [illegible]
This is a fi[illegible]
The results [illegible]ecked and authorized for release.

[illegible] 00075

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P O Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O # :
Order# : 18739

BCM Number A30402
Location SPK
Client ID 30401

Date Sampled 12/08/87
Date Received : 12/08/87

Test Description	Results	Units	Test Method
Base Neutrals by Mass Spectrometer	12/17/87	M/D/Y	EPA # 625

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM [illegible] Laboratory Division

[illegible] Road
[illegible], PA 19401
[illegible]

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FINAL RE[illegible]

PAGE : 7

This is a [illegible]

The results [illegible]cked and authorized for release.

3 2 00076

CLIENT

Olin Chemicals
Attn. Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18789

cc. Paul Klotz

BCM Number : A30403
Location 451
Client ID

Date Sampled : 12/08/87
Date Received : 12/08/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

BCM Laboratory Division
1[illegible] Gravers Road
[illegible]town, PA 19401
[illegible]281

PLEASE REMIT CHECKS TO:
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215-825-3800

FINAL REPORT

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3 2 00077

CLIENT

Olin Chemicals
Attn Arnold L Feldman
P O Box 248
Charleston, TN 37310

CC Paul Klotz

Date : 02/29/88
BCM # 00-4006-07
P O #
Order# 18739

BCM Number A30404
Location SPK
Client ID 30403

Date Sampled 12/08/87
Date Received 12/09/87

Test Description	Results	Units	Test Method
Base Neutrals by Mass Spectrometer	12/17/87	M/D/Y	EPA # 625

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1[illegible] Gravers Road
Norristown, PA 19401
[illegible]0281

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FINAL REPORT
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3 2 00078

CLIENT

Clin Chemicals
Attn: Arnold L. Feldman
P O Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18789

BCM Number : A30404
Location : SPK
Client ID : 30403

Date Sampled : 12/08/87
Date Received : 12/08/87

Test Description	Results	Units	Test Method

End of Report

Certified by : _____

BCM Eastern Laboratory Director

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

[illegible] Laboratory Division
[illegible] Gravers Road
[illegible]wn, PA 19401
[illegible]281

[illegible]
BCM Eastern Inc.
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FINAL REPORT [illegible]
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PAGE : 1

3 2 00079

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.#
Order# : 18790

BCM Number : A30405
Location : 257
Client ID

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Sampling Date	12/08/87	mo day	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1882 Gravers Road
Norristown, PA 19401
[illegible]281

BCM Eastern Inc.
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FINAL REPORT
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3 2 00080

CLIENT

Olin Chemicals
Attn. Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # 00-4006-07
P.O.# :
Order# 18790

CC: Paul Klotz

BCM Number A30406
Location 712
Client ID DPE 399

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	0.0010	mg/l	EPA # 245.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

Laboratory Division
[illegible] Gravers Road
[illegible]town, PA 19401
[illegible]

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3 2 00081

FINAL REPORT
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The results [illegible]ecked and authorized for release.

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18790

BCM Number : A30407
Location : 908
Client ID

Date Sampled 12/08/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
Sampling Date	12/08/87	mo da/	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

BCM Laboratory Division
1858 Gravers Road
Newtown, PA 19401
[illegible]281

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3 2 00082

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P O Box 248
Charleston, TN 37310

Date 02/29/88
BCM # 00-4006-07
P.O #
Order# [illegible]

CC Paul Klotz

BCM Number A30408
Location 925
Client ID

Date Sampled [illegible]
Date Received [illegible]

Test Description	Results	Units	Test Method
Sampling Date	12/08/87	mo da/	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1850 Gravers Road
Norristown, PA 19401
[illegible]-0281

[illegible] Inc.
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FINAL REPORT
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3 2 00083

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O Box 249
Charleston, TN 37310

CC Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O #
Order# : 18790

BCM Number A30409
Location
Client ID : 349

Date Sampled 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Sampling Date	12/08/87	mo day	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM
[illegible] Laboratory Division
[illegible] Gravers Road
[illegible]wn, PA 19401
[illegible]

BCM Eastern Inc.
1 PLYMOUTH MEETING
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215-825-3800

FINAL REPORT [illegible]

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3 2 00084

CLIENT

Olin Chemicals
Attn. Arnold L. Feldman
P.O Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18790

CC: Paul Klotz

BCM Number A30410
Location 406
Client ID

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	0.0004	mg/l	EPA # 245.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
[illegible] Gravers Road
[illegible]town, PA 19401
[illegible]81

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215-825-3800

FINAL REPORT [illegible]
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3 2 00085

CLIENT

Olin Chemicals
Attn. Arnold L. Feldman
P.O Box 248
Charleston, TN 37310

CC Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.#
Order# 13790

BCM Number : A30411
Location : TRIP
Client ID : BLNK

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Sampling Date	12/08/87	mo day	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

[illegible] Laboratory Division
[illegible] Gravers Road
[illegible]town, PA 19401
[illegible]281

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FINAL REPORT
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3 2 00086

CLIENT

Olin Chemicals
Attn Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date 02/29/88
BCM # 00-4006-07
P.O.#
Order# 18790

CC Paul Klotz

BCM Number A30412
Location 424
Client ID

Date Sampled 12/08/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
Sampling Date	12/08/87	mo day	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM [illegible] Laboratory Division
[illegible]vers Road
[illegible], PA 19401
[illegible]1

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FINAL REPO[illegible]
This is a f[illegible]
The results [illegible]ecked and authorized for release.

3 2 00087

CLIENT

Olin Chemicals
Attn Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date 02/29/88
BCM # 00-4006-07
P.O. #
Order# 18790

BCM Number A30413
Location 362
Client ID

Date Sampled 12/08/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
Sampling Date	12/08/87	mo/day	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1650 Gravers Road
Norristown, PA 19401
[illegible]0281

[illegible] Inc.
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3 2 00088

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18790

BCM Number : A30414
Location : 942
Client ID :

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Sampling Date	12/08/87	mo day	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

[illegible] Laboratory Division
[illegible] Gravers Road
[illegible]n, PA 19401
[illegible]281

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215-825-3800

FINAL REPORT [illegible]
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3 2 00089

CLIENT

Olin Chemicals
Attn. Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18790

BCM Number A30415
Location 737
Client ID :

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Sampling Date	12/08/87	mo day	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
[illegible] Graivers Road
[illegible]n, PA 19401
[illegible]21

BCM [illegible] Inc.
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The results [illegible]ecked and authorized for release.

3 2 00090

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O # :
Order# : 18790

BCM Number A30416
Location 672
Client ID : DPE 420

Date Sampled : 12/08/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
[illegible] Gravers Road
[illegible]town, PA 19401
[illegible]1

[illegible] Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT [illegible]
This is a f[illegible]
The results [illegible]cked and authorized for release.

3 2 00091

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.C #
Order# : 18790

BCM Number : A30417
Location : TRIP
Client ID : BLNK

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Sampling Date	12/08/87	mo day	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1[illegible] Gravers Road
[illegible], PA 19401
[illegible]281

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215-825-3800

FINAL REPORT [illegible]
This is a fi[illegible]
The results [illegible]ecked and authorized for release.

3 2 00092

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P O Box 248
Charleston, TN 37310

CC: Paul Klotz

Date 02/29/88
BCM # 00-4006-07
P O #
Order# 18790

BCM Number : A20418
Location TRIP
Client ID BLNK

Date Sampled [illegible]
Date Received [illegible]

Test Description	Results	Units	Test Method
Sampling Date	12/08/87	mo day	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1860 Gravers Road
Norristown, PA 19401
[illegible]0281

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PLYMOUTH MEETING, PA 19462
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3 2 00093

FINAL REPORT
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The results [illegible]hecked and authorized for release.

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18730

BCM Number : A31418
Location : TRIP
Client ID : BLNK

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method

End of Report

Certified by _____

BCM Eastern Laboratory Director

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM
Laboratory Division
Road
PA 19401

1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3600

NAL REPORT

This is a final

The results have d and authorized for release.

CLIENT

Olin Chemicals
Attn Arnold L. Feldman
P O Box 248
Charleston, TN 37310

CC: Paul Klotz

Date 02/20/88
BCM # 00-1006-07
P.O.#
Order# 18819

BCM Name A30495
Location 577
Client ID

Date Sampled 12/09/87
Date Received 12/10/87

Test Description	Results	Units	Test Method
1,3-Dichlorobenzene	< 1.47	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 1.47	mg/kg	
Hexachlorobenzene	< 1.47	mg/kg	
Pentachloronitrobenzene	< 1.47	mg/kg	
Mercury	56.7	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc	12/16/87	M/D/Y	
pH	6.9	std.un	
Specific Gravity	1.079		
Total Solids	45	%	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM
[illegible] Laboratory Division
[illegible] Gravers Road
[illegible]wn, PA 19401
[illegible]1

[illegible] Inc.
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PLYMOUTH MEETING, PA 19462
215-825-3600

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3 2 00095

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O. Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/20/88
BCM # : 00-4006-07
P.O. # :
Order# : 13819

BCM Number : A30496
Location : LEACH
Client ID : 304095

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
Mercury	< 0.0002	mg/l	EPA # 7471

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BCM [illegible] Road
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PLYMOUTH MEETING, PA 19462
215-825-3800

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CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O. Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/20/88
BCM # : 00-4006-07
P.O.# :
Order# : 18819

BCM Number : A30497
Location : 538
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 1.25	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 1.25	mg/kg	
Hexachlorobenzene	< 1.25	mg/kg	
Pentachloronitrobenzene	< 1.25	mg/kg	
Mercury	4.91	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/15/87	M/D/Y	
pH	7.8	std.un	
Specific Gravity	1.033		
Total Solids	53	%	

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BCM Laboratory Division
[illegible] Rivers Road
[illegible] PA 19401
[illegible]

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3 2 00097

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 03/20/86
BCM # : 00-4006-07
P O # :
Order# : 18519

BCM Number : A30498
Location : LEACH DF
Client ID : A30497

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
Mercury	< 0.0002	mg/l	EPA # 7471

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1[illegible] Gravers Road
[illegible], PA 19401
[illegible]

BCM Group Inc.
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215-825-3800

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3 2 00098

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 02/20/88
BCM # : 00-4006-07
P.O # :
Order# : 18819

CC Paul Klotz

BCM Number : A30499
Location : 907
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 1.06	mg/kg	EPA # 8270
1,4-Dichlorobenzene	< 1.06	mg/kg	
Hexachlorobenzene	183	mg/kg	
Pentachloronitrobenzene	7.9	mg/kg	
Mercury	17.1	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/15/87	M/D/Y	
pH	6.5	std un	
Specific Gravity	1.217		
Total Solids	62	%	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM
[illegible] Laboratory Division
[illegible] Drivers Road
[illegible], PA 19401
[illegible]

[illegible] Inc.
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3 2 00099

CLIENT

Olin Chemicals
Attn. Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 02/20/88
BCM # : 00-4006-07
P.O.# :
Order# : 18819

CC: Paul Klotz

BCM Number A30500
Location LEACH OF
Client ID A30499

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
Mercury	< 0.0002	mg/l	EPA # 7471

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1[illegible] Travers Road
[illegible]town, PA 19401
[illegible]31

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3 2 00100

CLIENT

Ulr Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/20/88
BCM # : 00-4006-07
P.O.# :
Order# : 18819

BCM Number : H3U501
Location : 941
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 1.29	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 1.29	mg/kg	
Hexachlorobenzene	4.7	mg/kg	
Pentachloronitrobenzene	< 1.29	mg/kg	
Mercury	4.12	mg/kg	EPA # 74[illegible]
Leachate by Toxic Extract. Proc.	12/15/87	M/D/Y	
pH	7.0	std.un	
Specific Gravity	1.135		
Total Solids	51	%	

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3 2 00101

CLIENT

Olin Chemicals
Attn. Arnold L. Feldman
P.O Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/20/88
BCM # : 00-4006-07
P.O.# :
Order# : 18819

BCM Number : A30502
Location : LEACH OF
Client ID : A30501

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
Mercury	< 0.0002	mg/l	EPA # 7471

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3 2 00102

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O Box 248
Charleston, TN 37310

Date : 02/20/88
BCM # : 00-4006-07
P.O.# :
Order# : 18819

CC: Paul Klotz

BCM Number : A30503
Location : 217
Client ID : 50

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 1.32	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 1.32	mg/kg	
Hexachlorobenzene	< 1.32	mg/kg	
Pentachloronitrobenzene	< 1.32	mg/kg	
Mercury	9.00	mg/kg	EPA # 7471
Leachate by Toxic Extract Proc	12/15/87	M/D/Y	
pH	7.7	std.un	
Specific Gravity	1.012		
Total Solids	50	%	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

BCM Laboratory Division
1[illegible] Gravers Road
Norristown, PA 19401
[illegible]

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3 2 00103

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P O Box 248
Charleston, TN 37310

Date : 02/20/88
BCM # : 00-4006-07
P.O. # :
Order# : 18319

CC: Paul Klotz

BCM Number : A30304
Location : LEACH OF
Client ID : A30504

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
Mercury	< 0.0002	mg/l	EPA # 7471

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

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3 2 00104

CLIENT

Olin Chemicals
Attn Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC Paul Klotz

Date 02/20/88
BCM # 00-4006-07
P.O.# :
Order# 18319

BCM Number A30505
Location 981
Client ID

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
Base Neutrals by Mass Spectrometer	N/A	M/D/F	EPA # 8250
Mercury	0.04	mg/l	EPA # 7471
pH	1.1	std.un	
Total Solids		%	

Comment: SAMPLE FIXED WITH NITRIC ACID
ORGANICS COULD NOT BE ANALYZED

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
[illegible] Stevers Road
[illegible], PA 19401
[illegible]

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3 2 00105

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O. Box 248
Charleston, TN 37310

Date : 02/20/88
BCM # : 00-4006-07
P.O.# :
Order# : 18819

FOR: Paul Klotz

BCM Number : A20506
Location : +08
Client ID : FB

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.01	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.01	mg/kg	
Hexachlorobenzene	< 0.01	mg/kg	
Pentachloronitrobenzene	< 0.01	mg/kg	
Mercury	< 0.0002	mg/kg	EPA # 7471
pH	6.0	std.un	
Total Solids	4	mg/l	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

BCM Laboratory Division
1860 Gravers Road
Norristown, PA 19401
[illegible]-0281

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3 2 00106

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O. Box 248
Charleston, TN 37310

Date 02/20/86
BCM # : 03-4006-01
P.O. #
Order # 19517

CC: Paul Klotz

BCM Number : 430507
Location : TRIP
Client ID : DLNK

Date Sampled : 12/[illegible]
Date Received : 12/10/[illegible]

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.01	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.01	mg/kg	
Hexachlorobenzene	< 0.01	mg/kg	
Pentachloronitrobenzene	< 0.01	mg/kg	
Mercury	< 0.0002	mg/kg	EPA # 74[illegible]
pH	6.2	std.un	
Total Solids	9	mg/l	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

Laboratory Division
[illegible] Road
[illegible] PA 19401

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3 2 00107

CLIENT

Olin Chemicals
Attn. Arnold L. Feldman
P.O Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/20/88
BCM # : 00-4006-07
P.O.# :
Order# : 18319

BCM Number : A30531
Location : 537
Client ID : DUP OF 515

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	0.35	mg/kg	EPA # 8250
1,4-Dichlorobenzene	0.33	mg/kg	
Hexachlorobenzene	31.5	mg/kg	
Pentachloronitrobenzene	5.72	mg/kg	
Mercury	0.67	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/22/87	M/D/Y	
pH	9.3	std.un	
Specific Gravity	1.076		
Total Solids	60	%	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

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BCM Laboratory Division
[illegible] Gravers Road
[illegible], PA 19401
[illegible]1

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3 2 00108

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/20/88
BCM # : 00-4006-07
P.O.# :
Order# : 18819

BCM Number : A30532
Location : 919
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
Sampling Date	12/09/87	M/D/Y	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

BCM Laboratory Division
1850 Gravers Road
Norristown, PA 19401
[illegible]281

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3 2 00109

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 246
Charleston, TN 37310

CC: Paul Klotz

Date : 02/20/88
BCM # : 00-4006-07
P.O.#
Order# : 18819

BCM Number : A30533
Location : 974
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
Sampling Date	12/09/87	M/D/Y	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

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[illegible] Laboratory Division
[illegible] Gravers Road
[illegible]wn, PA 19401
[illegible]-0281

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3 2 00110

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O. Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/20/88
BCM # : 00-4006-07
P.O.#
Order# : 18819

BCM Number : A30535
Location : 532
Client ID

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
Sampling Date	12/09/87	M/D/Y	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
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3 2 00111

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CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O Box 248
Charleston, TN 37310

Date 02/20/88
BCM # 00 [illegible]
P.O. #
Order# 19319

CC: Paul Klotz

BCM Number H30928
Location LEACH DP
Client ID 3053[illegible]

Date Sampled [illegible]
Date Received 12/10/[illegible]

Test Description	Results	Units	Test Method
Mercury	0.0002	mg/l	EPA # 7471

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BCM
[illegible] Laboratory Division
[illegible] Road
[illegible], PA 19401
[illegible]

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CLIENT

Clin Chemicals
Attn: Arnold L Feldman
P.O.Box 245
Charleston, TN 37310

Date : 02/20/88
BCM # : J0-4006-07
P.O.# :
Order# : 13819

CC: Paul Klotz

BCM Number : A30928
Location : LEACH OF
Client ID : 30531

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method

End of Report

Certified by : _____

BCM Eastern Laboratory Director

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BCM

[illegible] Laboratory Division
[illegible] Travers Road
[illegible], PA 19401
[illegible]

[illegible] Inc.
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PAGE : 1
3 2 00113

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O. Box 248
Charleston, TN 37310

CC Paul Klotz

Date : 02/20/88
BCM # : 00-4006-07
P.O.# :
Order# : 18820

BCM Number : H30508
Location : MTHD
Client ID : BLNK

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
Base Neutrals by Mass Spectrometer	12/18/87	M/D/Y	EPA # 8250
Mercury	< 0.0002	mg/kg	EPA # 7471

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

BCM Laboratory Division
[illegible]-Gravers Road
[illegible], PA 19401
[illegible]

[illegible] Inc.
1 PLYMOUTH MEETING
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3 2 00114

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/20/88
BCM # : 00-4005-07
P.O.# :
Order# : 18820

BCM Number : A30508
Location : MTHD
Client ID : BLNK

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method

End of Report

Certified by : _____

BCM Eastern Laboratory Director

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3 2 00115

CLIENT

Olin Chemicals
Attn. Arnold L. Feldman
P O Box 248
Charleston, TN 37310

Date 02/29/88
BCM # 00-4006-07
P.O. #
Order# 18821

Cc Paul Klotz

BCM Number A30509
Location DUP OF
Client ID A30495

Date Sampled 12/09/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
Base Neutrals by Mass Spectrometer	12/18/87	M/D/Y	EPA # 8250
Mercury	0.0 DEV	%	EPA # 7471

Comment ALL % DEV = PERCENT DEVIATION

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1880 Gravers Road
[illegible]town, PA 19401
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3 2 00116

CLIENT

Olin Chemicals
Attn Arnold L Feldman
P O Box 248
Charleston, TN 37310

CC Paul Klotz

Date 03/29/88
BCM # 00-4006-07
P.O. #
Order# 18811

BCM Number A30510
Location SPIKE OF
Client ID A30495

Date Sampled 12/[illegible]/87
Date Received [illegible]

Test Description	Results	Units	Test Method
Base Neutrals by Mass Spectrometer	12/18/87	M.D.L.	EPA # [illegible]
Mercury	103.3 R	%	EPA # [illegible]

Comment ALL % R = PERCENT RECOVERY

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BCM

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PA 19401

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PLYMOUTH MEETING, PA 19462
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3 2 00117

CLIENT

Olin Chemicals
Attn. Arnold L Feldman
P.O Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 15821

cc: Paul Klotz

BCM Number : A30510
Location : SPIKE OF
Client ID : A30495

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method

(End of Report)

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[illegible], PA 19401

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3 2 00118

CLIENT

Olin Chemicals
Attn. Arnold L Feldman
P O Box 248
Charleston, TN 37310

CC Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18822

BCM Number A30511
Location 267
Client ID

Date Sampled 12/09/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 1.14	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 1.14	mg/kg	
Hexachlorobenzene	< 1.14	mg/kg	
Pentachloronitrobenzene	< 1.14	mg/kg	
Mercury	4.40	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/15/87	M/D/Y	
pH	7.9	std.un	
Specific Gravity	1.079		
Total Solids	58	%	

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3 2 00119

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18822

CC: Paul Klotz

BCM Number : A30512
Location : LEACH OF
Client ID : A30511

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	0.0004	mg/l	EPA # 7471

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Olin Chemicals
Attn: Arnold L. Feldman
P.O. Box 248
Charleston, TN 37310

Date 02/29/88
BCM # 00-4006-07
P.O. #
Order# 19322

CC Paul Klotz

BCM Number A30513
Location -83
Client ID

Date Sampled 12/09/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 1.10	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 1.10	mg/kg	
Hexachlorobenzene	< 1.10	mg/kg	
Pentachloronitrobenzene	< 1.10	mg/kg	
Mercury	10.8	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/15/87	M/D/Y	
pH	7.6	std.un	
Specific Gravity	1.011		
Total Solids	60	%	

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Date 02/29/88
BCM # 00-4006-07
P.O #
Order# 18822

CC Paul Klotz

BCM Number A30514
Location LEACH OF
Client ID A30513

Date Sampled 12/09/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
Mercury	[illegible]002	mg/l	EPA # 7471

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3 2 00122

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P.O.Box 248
Charleston, TN 37310

Date 02/29/88
BCM # 00-4006-07
P.O. #
Order# 19322

CC Paul Klotz

BCM Number 130515
Location 315

Date Sampled 12/09/87
Date Received 12/11/87

Client ID

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 1.0	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 1.0	mg/kg	
Hexachlorobenzene	53.4	mg/kg	
Pentachloronitrobenzene	17.7	mg/kg	
Mercury	0.45	mg/kg	EPA # [illegible]
Leachate by Toxic Extract Proc.	12/15/87	M/D/Y	
pH	9.2	std.un	
Specific Gravity	1.747		
Total Solids	65	%	

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1850 Gravers Road
Norristown, PA 19401
[illegible]0281

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CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O Box 248
Charleston, TN 37310

Date 02/29/88
BCM # 00-4006-07
P.O #
Order# 1882[illegible]

CC: Paul Klotz

BCM Number A30516
Location LEACH OF
Client ID A30515

Date Sampled 12/09/87
Date Received 12/1[illegible]/87

Test Description	Results	Units	Test Method
Mercury	< 0.0002	mg/l	EPA # 7471

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Olin Chemicals
Attn: Arnold L. Feldman
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Charleston, TN 37310

CC Paul Klotz

Date 02/29/88
BCM # 00-4006-07
P.O.#
Order# 18822

BCM Number A30517
Location 907

Date Sampled 12/09/87
Date Received 12/11/87

Client ID

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 1.06	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 1.06	mg/kg	
Hexachlorobenzene	18.2	mg/kg	
Pentachlorohitrobenzene	< 1.06	mg/kg	
Mercury	2.50	mg/kg	EPA # 74[illegible]
Leachate by Toxic Extract. Proc.	12/15/87	M/D/Y	
pH	8.4	std.un	
Specific Gravity	1.459		
Total Solids	62	%	

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Date 02/29/88
BCM # 00-4006-07
P.O.# :
Order# 18822

cc Paul Klotz

BCM Number A30518
Location LEACH OF
Client ID A1051[illegible]

Date Sampled 12/09/87
Date Received [illegible]

Test Description	Results	Units	Test Method
Mercury	< 0.0002	mg/l	EPA # 7471

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P O Box 248
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Date 02/29/88
BCM # 00-4006-07
P O #
Order# 13522

CC. Paul Klotz

BCM Number A30519
Location 790
Date Sampled 12/09/87
Date Received 12/11/87

Client ID

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.90	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.90	mg/kg	
Hexachlorobenzene	28.7	mg/kg	
Pentachloronitrobenzene	< 0.90	mg/kg	
Mercury	82.9	mg/kg	EPA # 7471
Leachate by Toxic Extract Proc.	12/16/87	M/D/Y	
pH	6.4	std.un	
Specific Gravity	1.211		
Total Solids	73	%	

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P.O. Box 248
Charleston, TN 37310

Date 02/29/88
BCM # 00-4006-07
P.O.#
Order# 13822

CC: Paul Klotz

BCM Number A30520
Location LEACH CK
Client ID A30519

Date Sampled 12/09/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
Mercury	< 0.0002	mg/l	EPA # 7471

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Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18822

BCM Number : A30521
Location : 183
Date Sampled : 12/09/87
Date Received : 12/11/87

Client ID :

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 1.04	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 1.04	mg/kg	
Hexachlorobenzene	< 1.04	mg/kg	
Pentachloronitrobenzene	< 1.04	mg/kg	
Mercury	6.27	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/16/87	M/D/Y	
pH	6.0	std un	
Specific Gravity	1.129		
Total Solids	63	%	

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Attn: Arnold L. Feldman
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Date 08/29/88
BCM # 00-4006-07
P.O.# :
Order# 18522

CC Paul Klotz

BCM Number A30522
Location LEACH OF
Client ID A30521

Date Sampled 12/09/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
Mercury	< 0.0002	mg/l	EPA # 7471

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Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# 18822

CC: Paul Klotz

BCM Number A30523
Location 401
Client ID BD

Date Sampled 12/09/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.99	mg/kg	EPA # [illegible]50
1,4-Dichlorobenzene	< 0.99	mg/kg	
Hexachlorobenzene	< 0.99	mg/kg	
Pentachloronitrobenzene	< 0.99	mg/kg	
Mercury	11.9	mg/kg	EPA # 7471
Leachate by Toxic Extract Proc.	12/16/87	M/D/Y	
pH	7.0	std.un	
Specific Gravity	1.451		
Total Solids	67	%	

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CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date 02/29/88
BCM # 00-4038-07
P.O. #
Order # [illegible]

CC Paul Klotz

BCM Number A30524
Location LEACH OF
Client ID A30523

Date Sampled 12/09/8[illegible]
Date Received [illegible]

Test Description	Results	Units	Test Method
Mercury	0.0002	mg/l	EPA # 7471

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3 2 00132

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Attn: Arnold L. Feldman
P.O Box 249
Charleston, TN 37310

Date 02/29/88
BCM # 00-4006-07
P.O.#
Order# 18822

CC Paul Klotz

BCM Number A30525
Location 281
Client ID

Date Sampled 12/09/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.01	mg/kg	EPA # [redacted]50
1,4-Dichlorobenzene	< 0.01	mg/kg	
Hexachlorobenzene	< 0.01	mg/kg	
Pentachloronitrobenzene	< 0.01	mg/kg	
Mercury	0.050	mg/l	EPA # 7471
pH	8.9	std.un	
Specific Gravity	1.000		
Total Solids	1477	mg/l	

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Date 02/29/88
BCM # 00-4006-07
P.O. #
Order# 18923

CC: Paul Klotz

BCM Number A30526
Location TRIP
Client ID BLNK

Date Sampled 12/09/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.024	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.024	mg/kg	
Hexachlorobenzene	< 0.024	mg/kg	
Pentachloronitrobenzene	< 0.024	mg/kg	
Mercury	< 0.0002	mg/kg	EPA # 7471
pH	4.7	std.un	
Total Solids	9	%	

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Date 02/29/88
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P.O. #
Order# 18822

CC Paul Klotz

BCM Number A30537
Location 507
Client ID

Date Sampled 12/09/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
Sampling Date	12/09/87	M/D/Y	

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Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.#
Order# : 19822

BCM Number : A30537
Location : 507
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method

End of Report

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BCM Eastern Laboratory Director

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BCM

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3 2 00136

CLIENT

Olin Chemicals
Attn: Arnold L Feldman
P O Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/25/88
BCM # : 00-4006-07
P.O.# :
Order# : 18324

BCM Number : A30528
Location : DPE OF
Client ID : 30511

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Base Neutrals by Mass Spectrometer	1/11/88	M/D/Y	EPA # 8250
Mercury	8 16 dev	%	EPA # 7471

Comment ALL % DEV = PERCENT DEVIATION

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CLIENT

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Attn. Arnold L Feldman
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Charleston, TN 37310

CC. Paul Klotz

Date : 02/25/88
BCM # : 00-4006-07
P.O.# :
Order# : 18824

BCM Number : A30529
Location : SPK OF
Client ID : 30511

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Base Neutrals by Mass Spectrometer	1/11/88	M/D/Y	EPA # 8250
Mercury	90.0 R	%	EPA # 7471

Comment: ALL % R = PERCENT RECOVERY

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

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[illegible], PA 19401
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3 2 00138

CLIENT

Olin Chemicals
Attn Arnold L Feldman
P O Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/25/88
BCM # : 00-4006-07
P.O.# :
Order# : 18824

BCM Number : A30529
Location : SPK OF
Client ID : 30511

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method

End of Report

Certified by _____

BCM Eastern Laboratory Director

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1[illegible] Gravers Road
N[illegible]town, PA 19401
[illegible]

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1 PLYMOUTH MEETING
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215-825-3800

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The results have [illegible]ed and authorized for release

3 2 00139

CLIENT

Olin Chemicals
Attn. Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/20/88
BCM # 00-4006-07
P O # :
Order# 18825

BCM Number A30539
Location 119
Client ID

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,3-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

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...vers Road
...n, PA 19401
...1

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CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/20/88
BCM # : 00-4006-07
P.O # :
Order# : 18825

BCM Number : A30540
Location : 136
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	< 0.0002	mg/l	EPA # 245.1

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BCM Laboratory Division
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[illegible]n, PA 19401
[illegible]281

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3 2 00141

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P O Box 248
Charleston, TN 37310

CC: Paul Klotz

Date 02/20/88
BCM # 00-4006-07
P O.#
Order# 18625

BCM Number A30541
Location 143
Client ID

Date Sampled 12/[illegible]/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

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[illegible], PA 19401
[illegible]

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3 2 00142

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O. Box 248
Charleston, TN 37310

CC Paul Klotz

Date : 02/20/88
BCM # : 00-4036-07
P.O.#
Order# : 16825

BCM Order : H36542
Location : 301
Project ID

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	0.002	mg/l	EPA # 245.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM
Laboratory Division
[illegible] Rivers Road
[illegible], PA 19401
[illegible]

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3 2 00143

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O. Box 248
Charleston, TN 3.310

CC: Paul Klotz

Date : 02/20/88
BCM # : 88-4006-07
P.O. #
Order# : 18825

BCM Number : A70543
Location : 948
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	< 0.0002	mg/l	EPA # 245.1

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[illegible]wers Road
[illegible], PA 19401
[illegible]

[illegible] Inc.
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3 2 00144

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 02/20/88
BCM # : 00-4006-07
P.O # :
Order# : 19525

cc: Paul Klotz

BCM Number : A70543
Location : 948
Client ID :

Date Sampled : 12/04/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method

End of Report

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[illegible]281

[illegible] Inc.
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3 2 00145

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CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O. Box 248
Charleston, TN 37310

Date 02/29/88
BCM # 00-4016-07
P.O.# [illegible]
Order# 15826

CC Paul Klotz

BCM Number A30544
Location MTHD
Client ID BLK

Date Sampled 12/09/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
Base Neutrals by Mass Spectrometer	12/17/87	M/D/Y	EPA # 625
Mercury	< 0.0002	mg/l	EPA # 245.1

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3 2 00146

CLIENT

Olin Chemicals
Attn Arnold L Feldman
P O Box 248
Charleston, TN 37310

CC Paul Klotz

Date 02/29/88
BCM # 00-4006-07
P.O #
Order# [illegible]

BCM Number A30544
Location MTHD
Client ID BLK

Date Sampled [illegible]
Date Received [illegible]

Test Description	Results	Units	Test Method

End of Report

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3 2 00147

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Olin Chemicals
Attn: Arnold L. Feldman
P O Box 248
Charleston, TN 37310

Date [illegible]
BCM # [illegible]
P O #
Order# [illegible]

CC Paul Klotz

BCM Number A30545
Location [illegible]
Client ID 30539

Date Sampled 12/[illegible]
Date Received [illegible]

Test Description	Results	Units	Test Method
Base Neutrals by Mass Spectrometer	12/18/88	M/D/Y	EPA # 625

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

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1659 Gravers Road
Norristown, PA 19401
[illegible]281

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3 2 00148

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Olin Chemicals
Attn Arnold L Feldman
P O Box 248
Charleston, TN 37310

CC Paul Klotz

Date 02/29/88
BCM # 00-4006-07
P O #
Order# 18827

BCM Number A30546
Location SPK OF
Client ID 30539

Date Sampled 12/09/87
Date Received 12/1[illegible]/87

Test Description	Results	Units	Test Method
Base Neutrals by Mass Spectrometer	12/18/88	M/D/Y	EPA # 625

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

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Attn. Arnold L. Feldman
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Charleston, TN 37310

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18827

CC: Paul Klotz

BCM Number A30547
Location DPE OF
Client ID 30540

Date Sampled 12/09/87
Date Received 12/11/87

Test Description	Results	Units	Test Method
Mercury	0.0dev	%	EPA # 245.1

Comment ALL % DEV = PERCENT DEVIATION

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
[illegible] Road
[illegible], PA 19401
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CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.# :
Order# : 18827

BCM Number : A30549
Location : [illegible]
Client ID : 30540

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	100R	%	EPA # [illegible]45.1

Comment : ALL % R = PERCENT RECOVERY

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

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[illegible] Laboratory Division
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CLIENT

Olin Chemicals
Attn. Arnold L. Feldman
P.O. Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P.O.#
Order# 18827

BCM Number A30548
Location : SPK OF
Client ID : 30540

Date Sampled 12/09/87
Date Received 12/11/87

Test Description	Results	Units	Test Method

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BCM Laboratory Division
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CLIENT

Ulin Chemicals
Attn: Arnold L. Feldman
P.O. Box 248
Charleston, IN 37310

CC: Paul Klotz

Date : 02/20/88
BCM # : 00-4006-07
P.O # :
Order# : 18828

BCM Number : [illegible]
Location : 700
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.33	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.33	mg/kg	
Hexachlorobenzene	< 0.33	mg/kg	
Pentachloronitrobenzene	< 0.33	mg/kg	

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Road
PA 19401

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PLYMOUTH MEETING, PA 19462
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3 2 00153

CLIENT

Olin Chemicals
Attn Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/20/88
BCM # : 00-4006-07
P.O.# :
Order# : 18838

BCM Number : A30550
Location : 760
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.33	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.33	mg/kg	
Hexachlorobenzene	< 0.33	mg/kg	
Pentachloronitrobenzene	< 0.33	mg/kg	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
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[illegible]wn, PA 19401
[illegible]281

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CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/20/88
BCM # : 00-4006-07
P.O. # :
Order# : 16828

BCM Number : A30551
Location : 810
Client ID :

Date Sampled : 12/[illegible]/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	0.10	mg/kg	EPA # 7471
Leachate by Toxic Extract Proc.	12/22/87	M/D/Y	

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3 2 00155

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/20/83
BCM # : 00-4006-07
P.O.#
Order# : 13828

BCM Number : A30882
Location : LEACH OF
Client ID : A30551

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	< 0.0002	mg/l	EPA # 7471

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
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3 2 00156

CLIENT

Olin Chemicals
Attn. Arnold L. Feldman
P.O.Box 248
Charleston, IN 37310

Date [illegible]
BCM # [illegible]
P.O. # [illegible]
Order # [illegible]

CC Paul Klotz

BCM Number H[illegible]
Location LEACH DF
Client ID H[illegible]

Date Sampled [illegible]
Date Received [illegible]

Test Description	Results	Units	Test Method

End of Report

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BCM Eastern Laboratory Director

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3 2 00157

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P O Box 248
Charleston, TN 37310

CC Paul Klotz

Date : 02/29/88
BCM # : 00-4006-07
P O #
Order# : 18829

BCM Number : A30552
Location : METHOD BLANK
Client ID

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Base Neutrals by Mass Spectrometer	12/22/87	M/D/Y	EPA # 8250
Mercury	< 0.0002	mg/kg	EPA # 7471

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

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3 2 00158

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P O Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : 00-4006-07
P O # :
Order# : 18829

CC : Paul Klotz

BCM Number : A30552
Location : METHOD BLANK
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method

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BCM

[illegible] Laboratory Division
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[illegible], PA 19401
[illegible]

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3 2 00159

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P O Box 248
Charleston, TN 37310

CC Paul Klotz

Date : 02/25/88
BCM # : 00-4006-07
P.O.# :
Order# : 18830

BCM Number : A30553
Location : DUP OF
Client ID : A30549

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Base Neutrals by Mass Spectrometer	1/11/88	M/D/Y	EPA # 8250

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

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...1

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3 2 00160

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/25/88
BCM # : 00-4006-07
P.O # :
Order# : 18830

BCM Number : A30554
Location : SPIKE OF
Client ID : A30549

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Base Neutrals by Mass.Spectrometer	1/11/88	M/D/Y	EPA # 3250

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

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[illegible] PA 19401
[illegible]

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3 2 00161

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul klotz

Date : 02/25/88
BCM # : 00-4006-07
P.O.# :
Order# : 18830

BCM Number : A30555
Location : DUP OF
Client ID : A30551

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	0.0 dev	%	EPA # 7471

Comment: ALL % DEV = PERCENT DEVIATION

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM
[redacted] Road
[redacted] PA 19401

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3 2 00162

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC. Paul Klotz

Date : 02/25/88
BCM # : 00-4006-07
P.O.# :
Order# : 18830

BCM Number : A30556
Location : SPIKE OF
Client ID : A30551

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	100 R	%	EPA # 7471

Comment: ALL % R = PERCENT RECOVERY

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM [illegible] Laboratory Division
[illegible] Road
[illegible] PA 19401

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3 2 00163

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

CC: Paul Klotz

Date : 02/25/88
BCM # : 00-4006-07
P.O.# :
Order# : 18830

BCM Number : A30556
Location : SPIKE OF
Client ID : A30551

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method

End of Report

Certified by : _____

BCM Eastern Laboratory Director

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1650 Gravers Road
Plymouth Meeting, PA 19401
215-825-0281

PLEASE REMIT CHECKS TO:
BCM Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

3 2 00164

FINAL REPORT
This is a final
The results have been checked and authorized for release.

CLIENT

Olin Chemicals
Attn. Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : - -
P.O.# :
Order# : 19323

BCM Number : 801095
Location : LEACH OF
Client ID : A30530

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	< 0.0002	mg/l	EPA # 245.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM
Laboratory Division
Gravers Road
n, PA 19401
6281

Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

3 2 00165

FINAL REPORT
This is a final
The results have checked and authorized for release.

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O. Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : - -
P.O.# :
Order# : 19323

BCM Number : 801096
Location : LEACH OF
Client ID : A30538

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	< 0.0002	mg/l	EPA # 245.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
1650 Gravers Road
[illegible]n, PA 19401
[illegible]0281

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1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

3 2 00166

FINAL REPORT

This is a fin[illegible]
The results have [illegible]hecked and authorized for release.

CLIENT

Olin Chemicals
Attn. Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : - -
P.O.# :
Order# : 19323

BCM Number 801097
Location : LEACH OF
Client ID : A30534

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	0.0002	mg/l	EPA # [illegible]45.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

[illegible] Laboratory Division
[illegible] Gravers Road
[illegible], PA 19401
[illegible]

[illegible] CHECKS TO:
BCM Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

3 2 00167

FINAL REPORT
This is a final
The results have [illegible] checked and authorized for release.

PAGE : 4

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : - -
P.O.# :
Order# : 19323

BCM Number : 801098
Location : LEACH OF
Client ID : A30536

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
Mercury	0.0002	mg/l	EPA # [illegible]45.1

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
[illegible]ers Road
[illegible] PA 19401
[illegible]

PLEASE REMIT CHECKS TO:
BCM Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

3 2 00168

FINAL REPORT
This is a fina[illegible]
The results have [illegible]ecked and authorized for release.

PAGE : 5

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : - -
P.O.# :
Order# : 19323

BCM Number : 801099
Location : OLD A30499
Client ID : 807

Date Sampled : 12/08/87
Data Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.33	mg/kg	EPA # [illegible]25
1,4-Dichlorobenzene	< 0.33	mg/kg	
Hexachlorobenzene	69.6	mg/kg	
Pentachloronitrobenzene	< 0.33	mg/kg	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM [illegible] Laboratory Division
[illegible]vers Road
[illegible], PA 19401
[illegible]1

[illegible] SHOULD BE SENT TO:
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1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

3 2 00169

FINAL REPORT [illegible]
This is a fin[illegible]
The results hav[illegible]ecked and authorized for release.

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : - -
P.O.# :
Order# : 19323

BCM Number : A30530
Location : 308
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # [illegible]250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	2.11	mg/kg	
Pentachloronitrobenzene	< 0.66	mg/kg	
Mercury	2.65	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	1/18/88	M/D/Y	
pH	6.0	std.un	
Specific Gravity	0.918		
Total Solids	47	%	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
[illegible] Gravers Road
[illegible], PA 19401
[illegible]

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1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

3 2 00170

FINAL REPORT [illegible]
This is a fin[illegible]
The results hav[illegible]ecked and authorized for release.

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : - -
P.O.# :
Order# : 19323

BCM Number : A30534
Location : 237
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	41.7	mg/kg	
Pentachloronitrobenzene	14.5	mg/kg	
Mercury	1.74	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	1/18/88	M/D/Y	
pH	7.5	std.un	
Specific Gravity	1.614		
Total Solids	74	%	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM Laboratory Division
[illegible] Beavers Road
[illegible], PA 19401
[illegible]

BCM Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

3 2 00171

FINAL REPORT
This is a fina[illegible]
The results have [illegible]ecked and authorized for release.
CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : - -
P.O.# :
Order# : 19323

BCM Number : A30536
Location : 384
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.33	mg/kg	EPA # [illegible]250
1,4-Dichlorobenzene	< 0.33	mg/kg	
Hexachlorobenzene	57.5	mg/kg	
Pentachloronitrobenzene	1.62	mg/kg	
Mercury	4.00	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	1/18/88	M/D/Y	
pH	5.5	std.un	
Specific Gravity	1.733		
Total Solids	42	%	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM

[illegible] Laboratory Division
[illegible] Gravers Road
[illegible], PA 19401
[illegible]

[illegible] CHECKS TO:
[illegible] Eastern Inc.
1 PLYMOUTH MEETING
PLYMOUTH MEETING, PA 19462
215-825-3800

3 2 00172

FINAL REPORT
This is a fina[illegible]
The results hav[illegible]ecked and authorized for release.

PAGE : 9

CLIENT

Olin Chemicals
Attn. Arnold L. Feldman
P.O Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : - -
P.O.# :
Order# : 19323

BCM Number : A30538
Location : 782
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # [illegible]250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	1.94	mg/kg	
Pentachloronitrobenzene	< 0.66	mg/kg	
Mercury	9.00	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	1/18/88	M/D/Y	
pH	6.6	std.un	
Specific Gravity	1.260		
Total Solids	44	%	

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

BCM
Laboratory Division
Travers Road
PA 19401

BCM Eastern Inc.
1 PLYMOUTH MEETING,
PLYMOUTH MEETING, PA 19462
215-825-3800

FINAL REPORT
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The results h ked and authorized for release.

3 2 00173

CLIENT

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 02/29/88
BCM # : - -
P.O.# :
Order# : 19323

BCM Number : A30538
Location : 782
Client ID

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method

End of Report

Certified by : _____

BCM Eastern Laboratory Director

PAYMENT IS DUE UPON RECEIPT OF INVOICE. PAST DUE AMOUNTS OVER 30 DAYS WILL BE SUBJECT TO AN INTEREST RATE OF 18% PER ANNUM.

Client: Olin Chemical
Job #: 00-4006-07
Matrix: Liquid, Sol + Leachate

BCM LABORATORY HOLDING TIME AUDIT

Audit Date: 2/17/88
Audited By: CE Casselberry
Order #:

3 2 00174

	SAMPLE Number	R Date ①	Mercury Digest	Days Held to Digest	Mercury Run Date	Days Held	Date	Days Held	Note
	A30373	12/9, 11/87	12/28	17-19	12/28	17-19			
	A30374		12/28						
	A30375		12/28						
	A30376		12/28						
	A30377		12/28						
	A30378		12/28						
	A30379		12/28						
	A30380		12/28						
	A30381		12/28						
	A30382		12/28						
TB	A30383		12/28						
D 397	A30406		12/28		12/28				
	A30410		12/28						
	A30495	12/10	12/28	18	1/5	26			
Leach 415	A30496		12/28		12/28	18			
	A30497		12/28		12/28				
Leach 497	A30498		12/28		12/28				
	A30499		12/28		1/5	26			
Leach 499	A30500		12/28		12/28	18			
	A30501		12/28		12/28				
Leach 501	A30502		12/28		12/28				
	A30503		12/28		1/5	26			
Leach 503	A30504		12/28		12/28	18			
	A30505		12/28		1/5	26			
	A30506		12/28		12/28	18			

Circle R for Date of Sample Receipt at Lab
S for Date of Sample Collection
* Indicates analysis date exceeds holding time.

① There are no Chain of Custody records to verify these dates.

Client: Olin Chemical
Job #: 00-4006-07
Matrix: Sol + Leachate liquid

BCM LABORATORY
HOLDING TIME AUDIT

Audit Date: 2/17/88
Audited By: C. E. Casselberry
Order #:

3 2 00175

	SAMPLE Number	R / S ① Date	Mercury Digest	Days Held to Digest	Mercury Run Date	Days Held	Date	Days Held	Note
TB	A30507	12/10	12/28	18	12/28	18			
	A30531		12/28	18	12/28	↓			
Leach 531	A30928		1/5	26	1/5	26			
MB	A30508		12/28	18	12/28	18			
D	A30509		12/28		1/5	26			
Sp 30445	A30510	↓	12/28	↓	1/5	26			
	A30511	12/11	12/28	17	12/28	17			
Leach 511	A30512		12/28		12/28	↓			
	A30513		12/28		1/5	25			
Leach 513	A30514		12/28		12/28	17			
	A30515		12/28		12/28				
Leach 5	A30516		12/28		12/28				
	A30517		12/28		12/28				
MB	A30527		12/28		12/28				
D p	A30528		12/28		12/28				
Spk 30511	A30529		12/28	↓	12/28	↓			
	A30540		1/18	38 *	1/19	39*			①
	A30542								
	A30543								
MB	A30544								
Dup	A30547								
Sp 30540	A30548		↓	↓	↓	↓			↓
	A30551		12/28	17	12/28	17			
Leach	A30882		12/28		12/28				
r	A30552		12/28		12/28				
D	A30555	↓	12/28		12/28				
Spk 551	A30556		12/28	↓	12/28	↓			

Circle R for Date of Sample Receipt at Lab
S for Date of Sample Collection
* Indicates analysis date exceeds holding time.

① Holding time exceeded by 11 day

ii Date: 2/24/88
iited By: CEC
ier #:

...ce	Days Held	Not[e]
		✗(2)

(2) Run originally on 1/5 w/in holding times.

BCM LABORATORY
DUPLICATE SAMPLE ANALYSIS

3 2 00176

Matrix: Sol Units: mg/kg Audit Date: 2/17/88 Audited By: C.E. Casselberry

...e 30509	Dup. 30495	%RPD	NOTES
5	25.5	0	

2) x 100 Max %RPD Solid +/-40%, Liquid +/-20%

BCM LABORATORY
SPIKE SAMPLE ANALYSIS

3 2 00177

Client: Olin Chem
Job # : 01-4006-07 Matrix: Sol Units: mg/kg

Audit Date: 2/24
Audited By: ccc

Analysis	SpikeNo. 30510	Sample 30509	Amt. Spiked	%R
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Chromium				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Mercury	41.0	25.5	15	103.3
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Zinc				
TPH				

Comments:

%R = (Spike - Sample)/Amt. Spiked x 100 Range: %R = 75-125%

BCM LABORATORY
DUPLICATE SAMPLE ANALYSIS

3 2 00178

Client: Olin Chem
Job # : 00-4004-07 Matrix: Sol Units: mg/kg
Audit Date: 2/24/88
Audited By: CEC

Analysis	Sample 30511	Dup. 30528	%RPD	NOTES
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Chromium				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Mercury	2.55	2.35	8.2	
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Zinc				
TPH				

Comments:

% RPD = (|S - D|)/((S+D)/2) x 100 Max %RPD Solid +/-40%, Liquid +/-20%

BCM LABORATORY
SPIKE SAMPLE ANALYSIS

3 2 00179

Client: Olin Chemical
Job # : 004006-07 Matrix: Solid Units: mg/kg
Audit Date: 2/24/88
Audited By: CEC

Analysis	SpikeNo. 30507	Sample 30511	Amt. Spiked	%R
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Chromium				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Mercury	3.45	2.55	1	90
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Zinc				
TPH				

Comments:

%R = (Spike - Sample)/Amt. Spiked x 100 Range: %R = 75-125%

BCM LABORATORY
DUPLICATE SAMPLE ANALYSIS

3 2 00180

Client: Olin Chem Audit Date: 2/24/88
Job # : 00-4006-07 Matrix: Liquid Units: mg/L Audited By: CEC

Analysis	Sample 30540	Dup. 30547	%RPD	NOTES
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Chromium				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Mercury	<0.0002	<0.0002	NC	
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
*	MATRIX - SOL	UNITS mg/kg		
	SAMPLE 30551	30555	% RPD	
Mercury	<0.1	<0.1	NC	
TPH				

Comments: NC - non calculable due to results < detection limit

% RPD = (|S - D|)/((S+D)/2) x 100 Max %RPD Solid +/-40%, Liquid +/-20%

BCM LABORATORY
SPIKE SAMPLE ANALYSIS

3 2 00181

Client: Olin Chemical
Job # : 00-4006-07 Matrix: Liquid Units: mg/L

Audit Date: 2/24/88
Audited By: CEC

Analysis	SpikeNo. 30548	Sample 30540	Amt. Spiked	%R
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Chromium				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Mercury	0.002	<0.0002	.002	100
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
	MATRIX - SOL	UNITS - mg/kg		
*	SPIKE 30556	SAMPLE 30551	AMT. SPIKED	%R
Mercury	1.00	<0.1	1.00	100
TPH				

Comments:

%R = (Spike - Sample)/Amt. Spiked x 100 Range: %R = 75-125%

[illegible]	[illegible]	SOURCE OF H_2O	CONTAMINANTS (CONCENTRATION / DETECTION
Hg	Method 4/501	30396	BCM NONE FOUND 3 2 00182
Hg	Method 4[illegible]	30508	BCM NONE FOUND
Hg	Method 4/501	30527	BCM NONE FOUND
Hg	Method 4/501	30544	BCM NONE FOUND
Hg	Method 4/501	30552	BCM NONE FOUND

LABORATORY REPORTED FIELD BLANK DATA IS COMPARED WITH THE SAMPLE DATA IN A TABULATION FORM [illegible] SAMPLE ANALYTICAL DATA SUMMARY.

COMMENTS:

(1) RESULT [illegible]ORTED BY LABORATORY AND CONFIRMED BY REVIEWER.

(2) RESULT [illegible]ED FROM RAW DATA

Detection limits were reported for all samples analyzed: Yes ✓ No ___

Exceptions: _____

Detection limits were less than or equal to the required detection limits specified in _____. Yes ___ No ___

Exceptions: _____

Instrument Sensitivity Reports

Instrument sensitivity reports were documented for all parameters:

Yes ___ No ___

Comments: _____

Other Remarks Concerning this Case:

BCM

3 2 00184

Section II - Chain of Custody Records

3 2 00185

LABORATORY DATA INFORMATION SHEET

Client Name: OLIN
Attention:
Phone:
Date Sampled: [redacted]/87
Date Rec'd: [redacted],11/87
Sampler: K[redacted]
Notes: * 1,2-dichlorobenzene
1,4 Dichlorobenzene
Pentachloronitrobenzene
Hexachlorobenzene
pl pt HNO3

Submitter: Olin-AL
Project#:
P.O. #:
Order#:
Level: CLP ECRA
S1 S2 L1 L2 A1 A2 (L3)
Billing:

REQUIRED ANALYSES

		INT	DATE
GC	✓		
Metals	✓		
Wet			
Micro			

Due Date: 12/18/87

BCM LAB #	30373	30374	30375	30376	30377	30378	30379
Sa.ID / Param	399	966	107	325	523	316	221
H6	☒	☒	☒	☒	☒	☒	☒

Client Name: Olin Project: Order #: Page 2 of 4

pl pt HNO3 AMBER QT

BCM Lab # / Sa.ID / Param	30380	30381	30382	30383	30384	30385	30386
	283 FB	838 BD	442 BD	TRIP BLANK	3 2 420	00186 574	869
H6	☒	☒	☒	☒	☐	☐	☐
625BN2	☐	☐	☐	☐	☒	☒	☒
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐

Client Name: / Project: / Order #: / Page 3 of 4

AMBER QT

BCM Lab # / Sa.ID	30387	30388	30389	30390	30391	30392	30393
Param	[redacted] 2	560	777	509	696	00187 878 FB	341 BD
625BND	[redacted]	☒	☒	☒	☒	☒	☒
	[redacted]						

Client Name: OTA Project: Order #: Page 1 of 1

Amber Qt →

BCM Lab # / Sa.ID / Param	30394	30395					
	654 BD	TRIP BLANK			3 2	00188	
* 625BN2							

18788

BCM LAB

LABORATORY DATA INFORMATION SHEET

Pag
REQUIR 88-30396

Client Name: OLIN AL
Attention:
Phone:
Date Sampled:
Date Rec'd:
Sampler:
Notes: *1,2-dichlorobenzene
1,4-dichlorobenzene
Pentachloronitrobenzene
Hexachlorobenzene

Submitter: Olin AL
Project#:
P.O. #:
Order#:
Level: CLP ECRA

S1 S2 ~~L1~~ L2 A1 A2
S3

Billing:

GC 3 2 00189
Metals
Wet
Micro

Due Dat

BCM LAB
88-30396

BCM LAB
88-30396

BCM LAB
88-30396

BCM LAB
88-30396

BCM LAB
88-30396

BCM LAB #	30396						
Sa.ID / Param	Method BLANK						
* 625BN2	☒	☐	☐	☐	☐		
HG	☒	☐	☐	☐	☐		
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐

SUBMITTED DATA INFORMATION SHEET 1878 Page 1 of 2

Client Name: Olin AL
Attention:
Phone:
Date Sampled: 1/8/87
Date Rec'd: 1/8/87
Sampler: K[redacted]
Notes: *1,2-[redacted]hlorobenzene
1,4-dichlor[redacted]benzene
Pentachloronitrobenzene
Hexachlorobenzene

Submitter: Olin AL
Project#:
P.O. #:
Order#:
Level: CLP ECRA
S1 S2 L1 L2 A1 A2
Billing:

REQUIRED ANALYSES

2 00190

	INT	DATE
GC	✓	
Metals	✓	
Wet		
Micro		

Due Date:

BCM LAB #	30397	30398	30399	30400	30401	30402	30403
Sa.ID / Param	492	Spike of 30397	312	Spike of 30399	150	Spike of 30401	451
	1 HNO3 pt		1 HNO3 pt		1 Am Qt		1 Am Qt
	☒	☒	☒	☒	☐	☐	☐
Hg							
*	☐	☐	☐	☐	☒	☒	☒
(a)25.BN2							
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐

Client Name: Olin Project: Order #: Page __of 2

1 Ar Qt 3 2 00191

BCM Lab # / Sa.ID / Param	30404 Spike [illegible]403						
Hg							
* 625 B/N2	X						

Attention: _____ Project#: _____

P.O. #: _____

Phone: _____ Order#: _____

Date Sampled: 12/8/87 Level: CLP ECRA

Date Rec'd: 12/9,11/87

Sampler: KR S1 S2 L1 L2 A1 A2

Notes: _____

Billing: _____

	INT	DATE
GC ✓		
Metals ✓		
Wet		
Micro		

5 2 00192

Due Date: _____

HNO3 pt

BCM LAB #	30405	30406	30407	30408	30409	30410	30411
Sa.ID / Param	257	712 DUP OF 399	908	925	349	406	Trip Blank
/ * No Comp	☒	☐	☒	☒	☒	☐	☒
H.G	☐	☒	☐	☐	☐	☒	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐

Project: Order #:

BCM Lab # / Sa.ID / Param	30412 424	30413 362	30414 942	30415 737	30416 672 Dup of 420	30417 Trip Blank	30416 Trip Blank
NoComp		☒	☒	☒		☒	☒
625BN2					☒		

Phone:
Date Sampled: 12/9/87
Date Rec'd: 12/10/87
Sampler: Client
Notes: * 1,2 dichlorobenzene
1,4 dichlorobenzene
Pentachlo[illegible]itrobenzene
Hexachlo[illegible]enzene

P.O. #:
Order#: 18819
Level: CLP (53) ECRA
S1 S2 L1 L2 A1 A2

GC ✓
Metals ✓
Wet
Micro

3 2 00194

Due Date: 12/17/87

Billing:

	1WMAmpt		1WMAmpt		1WmAmpt		1WmAmp
BCM LAB #	30495	30496	30497	30498	30499	30500	30501
Sa.ID / Param	577	Leach of 30495	538	Leach of 30497	807	Leach of 30499	941
HG	☒	☒	☒	☒	☒	☒	☒
* 625BN2	☒	☐	☒	☐	☒	☐	☒
pH	☒ TR 12/16/87 110/4233	☐	☒ TR 12/15/87 110/4231	☐	☒ TR 12/15/87 110/4231	☐	☒ TR 12/15/8 110/42
TS%	☒	☐	☒	☐	☒	☐	☒
SPGrav	☒	☐	☒	☐	☒	☐	☒
LTEP	☒	☐	☒	☐	☒	☐	☒
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐

Client Name: Olin AL Project: Order #:

BCM Lab # / Sa.ID / Param	30502	30503	30504	30505	30506	30507	
		1WMAmpt		1WmAmpt	1Wmtmpt	1wmtmpt	
	Leach of [redacted]501	217 BD	Leach of 30503	981 Rinse	408 Blank	Tr4P00 BLK	95
HG	☒	☒	☒	☒	☒	☒	☐
625BN2	☐	☒	☐	☒	☒	☒	☐
pH	☐	☒ TK 110/4231	☐	☒ TK 12/15/87 110/4231	☒ TK 12/15/87 110/4231	☒ TK 12/15/87 110/4231	☐
TS%	☐	☒	☐	☒	☒	☒	☐
SPGrav.	☐	☒	☐	☒	☒	☒	☐
LTEP	☐	☒	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐

LABORATORY DATA INFORMATION SHEET

Pag
REQUIR

BCM LAB
88-30508

Client Name: Olin AL
Attention:
Phone:
Date Sampled: [redacted]9/87
Date Rec'd: [redacted]0/87
Sampler: [redacted]

Submitter:
Project#:
P.O. #:
Order#:
Level: CLP ECRA
S1 S2 L1 L2 A1 A2

3 2 00196
GC ✓
Metals ✓
Wet
Micro

Due Date:

Billing: 33

Notes: * 1,2 dichlorobenzene
1,4-dichlorobenzene
Pentachloro nitro benzene
Hexachloro benzene

BCM LAB
88-30508

BCM LAB
88-30508

BCM LAB
88-30508

BCM LAB
A
88-30508

BCM LAB #	30508						
Sa.ID / Param	Method Blk						
Hg	X						
* 625 BNA	X						

100 REQUIRED ANALYSES

Client Name: Olin AL
Attention:
Phone:
Date Sampled: 12/9/87
Date Rec'd: 12/11/87
Sampler: Client
Notes: * 1,2-dichloro benzene
1,4-dichloro benzene
Pentachloro nitro benzene
Hexachloro benzene

Submitter:
Project#:
P.O. #:
Order#:
Level: CLP ECRA
S1 S2 L1 L2 A1 A2
(S3)
Billing:

3 2 00197

		INT	DAT
GC	✓		
Metals	✓		
Wet			
Micro			

Due Date: 12/18/87

BCM LAB #	30509	30510					
Sa.ID / Param	Dup of 30495	Spk of 30495					
Hg	☒	☒	☐	☐	☐	☐	☐
* 625BN2	☒	☒	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐

LABORATORY DATA INFORMATION SHEET

3 2 00198

Client Name: Olin AL
Attention:
Phone:
Date Sampled: [redacted]/9/87
Date Rec'd: [redacted]/11/87
Sampler: [redacted]
Notes: *1,2-dichloro benzene
1,4-dichloro benzene
Pentachloronitrobenzene
Hexachlorobenzene

Submitter:
Project#:
P.O. #:
Order#:
Level: CLP ECRA
S1 S2 L1 L2 A1 A2 (S3)
Billing:

REQUIRED ANALYSES

	INT	DATE
GC ✓		
Metals ✓		
Wet		
Micro		

Due Date: 12/18/87

BCM LAB #	30511	30512	30513	30514	30515	30516	30517
Sa.ID / Param	267	Leach of 30511	483	Leach of 30513	615	Leach of 30515	907
	1Amp ✓		1Amp ✓		1Amp ✓		1Amp ✓
HG	☒	☒	☒	☒	☒	☒	☒
* 625 BN2	☒	☐	☒	☐	☒	☐	☒
pH	☒ TR 12/15/87 110/4231	☐	☒ TR 12/15/87 110/4231	☐	☒ TR 12/15/87 110/4231	☐	☒ TR 12/15/87 110/4231
TS%	☒	☐	☒	☐	☒	☐	☒
SPGrav	☒	☐	☒	☐	☒	☐	☒
LTEP	☒	☐	☒	☐	☒	☐	☒
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐

Clicnt Name: Olin Project: 3 2 00189 Order #: Page 2 of 4

BCM Lab # / Sa.ID / Param	30518	30519	30520	30521	30522	30523	30524
		1Ampt		1Ampt		1Ampt	
Sa.ID	Leach of 30517	790	Leach of 30519	183	Leach of 30521	401 BD	leach of 30523
HG	☒	☒	☒	☒	☒	☒	☒
625BN2	☐	☒	☐	☒	☐	☒	☐
pH	☐	☒ TK 12/16/87 110/4233	☐	☒ TK 12/16/87 110/4233	☐	☒ TK 12/16/87 110/4233	☐
TS%	☐	☒	☐	☒	☐	☒	☐
SpGrav	☐	☒	☐	☒	☐	☒	☐
LTEP	☐	☒	☐	☒	☐	☒	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐

Client Name: Olin Project: 3 2 00200 Order #: Page 3 of 4

BCM Lab # / Sa.ID / Param	1AmQt 30525 [illegible]81-[illegible]	1Ampt 30526 TRIP BLK					
HG	X	X					
625BN2	X	X					
pH	X	X TK 12/16/87 1101 4233					
TS%	X	X					
SpGrav	X	X					
LTEP							

Client Name: Olin Al
Attention:
Phone:
Date Sampled: 12/9/87
Date Rec'd: 12/11/87
Sampler: [redacted]
Notes: * 1,2-dichlorobenzene
1,4-dichlorobenzene
Pentachloronitrobenzene
Hexachlorobenzene

Submitter:
Project#: 18823
P.O. #: 3-2
Order#:
Level: CLP ECRA

S1 S2 L1 L2 A1 A2 (S3)

Billing:

REQUI

GC 00201
Metals
Wet
Micro

Due Date:

BCM LAB 88-30527

BCM LAB 88-30527

BCM LAB 88-30527

BCM LAB 88-30527

BCM LAB 88-30527

BCM LAB #	30527					
Sa.ID / Param	Method BLK					
Hg	☒					
* 625B/12	☒					

Attention:

Phone:

Date Sampled: 12/9/87

Date Rec'd: 12/11/87

Sampler: Client

Notes: # 1,2-dichlorobenzene
1,4-dichlorobenzene
Pentachlorobenzene
Hexachlorobenzene

Project#: 3 2

P.O. #:

Order#:

Level: CLP ECRA

S1 S2 L1 L2 A1 A2 (S3)

Billing:

00202

	INT	DATE
GC	✓	
Metals	✓	
Wet		
Micro		

Due Date: 12/18/87

BCM LAB #	30528	30529					
Sa.ID / Param	Dup of 30511	Spk of 30511					
Hg	☑	☑					
* 625BN2	☑	☑					

Client Name: Olin Project: Order #: 3 2 00203

Page 3 of 34

IWMA, ex

BCM Lab # / Sa.ID / Param	30530	30531	30532	30533	30534	30535	30536
	308	537	919	974	237	532	384
NoComp	☒	☐	☒	☒	☒	☒	☒
HG	☐	☒	☐	☐	☐	☐	☐
625BN2	☐ #	☒	☐	☐	☐ #	☐	☐ #
pH	☐	☒ TK 12/30/87 114/4241	☐	☐	☐	☐	☐
TS%	☐	☒	☐	☐	☐	☐	☐
SPGRAV	☐	☒	☐	☐	☐	☐	☐
LTEP	☐	☒	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐

Client Name: Olin AL Project: Order #:

Page 4 of 4

Wm Ampt

3 2 00204

BCM Lab #	30537	30538					
Sa.ID	[illegible]7	782					
Param							
No Comp	☒	☒					

Number to result # 7-15-89 Add Rev box

3 2 00205

Page 2

BCM LAE 88-3092

Client Name: Olin Project: Order #:

BCM Lab # / Sa.ID / Param	[redacted]928 [redacted]ch OF 30531						BCM LAE 88-3092
H6	☒						BCM LAE 88-3092
							BCM LAE
							88-3092
							BCM LAE 88-3092

3 2 00206

Client Name: Olin Project: Order #: Page 4

BCM LA 88-309

BCM Lab # Sa.ID Param	30928 [illegible]uch DF 30531						BCM LA 88-309
H6	☒						BCM LA 88-309
							BCM LA 88-309
							BCM LA 88-309

Client Name: Olin AI
Attention:
Phone:
Date Sampled: 12/9/87
Date Rec'd: 12/11/87
Sampler: Client
Notes: 1,2-dichlorobenzene
1,4-dichlorobenzene
Pentachloro nitrobenzene
Hexachlorobenzene

Submitter:
Project#:
P.O. #: 3 2 00207
Order#:
Level: CLP ~~ECRA~~ (L-3)
S1 S2 L1 L2 A1 A2

Billing:

Due Date: 12/18/87

REQUIRED ANALYSES

	INT	DAT
GC ✓		
Metals ✓		
Wet		
Micro		

	1AmGal	1ptGt	1AmGal	1PtGt			
BCM LAB #	30539	30540	30541	30542	30543		
Sa.ID / Param	118	136	143	301	948		
Hg	☐	☒	☐	☒	☒	☐	☐
* 625BN2	☒	☐	☒	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐

188226

Client Name: Olin Al
Attention:
Phone:
Date Sampled: 12/9/87
Date Rec'd: 12/11/87
Sampler: [redacted]ent
Notes: * 1,2 d[redacted]robenzene
1,4 dich[redacted] benzene
Pentachloronitrobenzene
Hexachlorobenzene

Submitter:
Project#: 3 2
P.O. #:
Order#:
Level: CLP ECRA
L-3
S1 S2 L1 L2 A1 A2
Billing:

REQUIRED ANALYSES

00208 BCM LAB DATE
GC
Metals 88-30544
Wet
Micro

Due Dat BCM LAB 37

88-30544

BCM LAB #	30514						
Sa.ID / Param	Method BLK						
Hg	☒						
* 625 BN2	☒						

BCM LAB 88-30544

BCM LAB 88-30544

BCM LAB 88-30544

BCM LAB 88-30544

Client Name: Olin Al
Attention:
Phone:
Date Sampled: 12/9/87
Date Rec'd: 12/11/87
Sampler: [illegible]ent
Notes: * 1,2 [illegible]chlorobenzene
1,4 dich[illegible]benzene
Pentachloronitrobenzene
Hexachlorobenzene

Submitter:
Project#: 3 2 00209
P.O. #:
Order#:
Level: CLP ECRA
S1 S2 L1 L2 A1 A2 (L-3)
Billing:

REQUIRED ANALYSES

	INT	DATE
GC ✓		
Metals ✓		
Wet		
Micro		

Due Date: 12/18/87

BCM LAB #	30545	30546	30547	30548			
Sa.ID / Param	Dup of 30539	Spk of 30539	Dup of 30540	Spk of 30540			
Hg			☒	☒			
* 625 BNA	☒	☒					

Client Name: Olin AL
Attention:
Phone:
Date Sampled: 12/9/87
Date Rec'd: 12/11/87
Sampler: [illegible]
Notes: * 1,2 [illegible]lorobenzene
1,4 dichlor[illegible]enzene
Pentachloronitrobenzene
Hexachlorobenzene

Submitter:
Project#:
P.O. #:
Order#:
Level: CLP ECRA
(5-3)
S1 S2 L1 L2 A1 A2
Billing:

18828
3 2 00210

R
GC
Meta
Wet
Micr
Due I

BCM LAB
88-30882

BCM LAB
88-30882

BCM LAB
88-30882

BCM LAB
88-30882

BCM LAB
88-30882

ALYSES
DAT
87

1WM VOA

BCM LAB #	30549	30550	30551	30882			
Sa.ID / Param	702	760	810	leach OF 30551			
Hg	☐	☐	☒	☒	☐		
* 625BN2	☒	☒	☐	☐	☐	☐	
LTEP	☐	☐	☒	☐	☐	☐	
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐

18829 REQUIRE: BCM LAB

Client Name: Olin Al
Attention:
Phone:
Date Sampled: 12/9/87
Date Rec'd: 12/11/87
Sampler: [illegible]ient
Notes: 1,2 dic[illegible]ro benzene
1,4-dic[illegible] benzene
Pentachloro nitro benzene
Hexachloro benzene

Submitter:
Project#: 3 2 00211
P.O. #:
Order#:
Level: CLP ECRA
S3
S1 S2 L1 L2 A1 A2

GC ✓
Metals ✓
Wet
Micro

88-30552

Due Date:

Billing:

BCM LAB #	30552						
Sa.ID / Param	Method BLK						
Hg	☒	☐	☐	☐	☐	☐	☐
* 625BN2	☒	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐

Client Name: Olin A1
Attention:
Phone:
Date Sampled: 12/9/87
Date Rec'd: 12/11/87
Sampler: Client
Notes: 1,2 di[redacted]ro benzene
1,2 dichl[redacted]nzene
Pentachlor[redacted]ro benzene
Hexachloro benzene

Submitter:
Project#:
P.O. #:
Order#:
Level: CLP ECRA
S1 S2 L1 L2 A1 A2
Billing:

REQUIRED ANALYSES

	INT	DAT
GC 212 ✓		
Metals ✓		
Wet		
Micro		

Due Date: 12/18/87

BCM LAB #	30553	30554	30555	30556			
Sa.ID / Param	Dup of 30549	SPK of 30549	Dup of 30551	SPK of 30551			
Hg			☒	☒			
625 B/N	☒	☒					

BCM

3 2 00213

Section III - Raw Analytical Data, Chromatograms & Calculations

BCM

№ 2415

3 2 00214

12/15/87 CAC LTEP Leachates

Sample #	Sample ID	49
30497		100
30499		100
30501		100
30503		100
30511		100
30515		100
30517		100
30513		100

Sample #	16(4) ml H_2O	4(4) ml	May acid added
30497	1600	400	
30499	1600	400	
30501	1600	400	
30503	1600	400	
30511	1600	400	
30515	1600	400	
30517	1600	400	
30513	1600	400	

Sample #	PH	acid add'ns (ml) 1	2	3	4	5	6	7
30497	7.8	10	10	5	—	—	—	—
30499	6.5	10	—	—	—	—	—	—
30501	7.0	10	—	—	—	—	—	—
30503	7.7	10	10	—	—	—	—	—
30511	7.9	10	10	5	—	—	—	—
30513	7.6	10	10	5	—	—	—	—
30515	9.2	10	—	—	5	—	—	—
30517	8.4	10	—	—	—	—	—	—

12-17-87

Cheryl Cerino

12/22/87 CAC LTEP Leachates 3 2 00215

Sample #	Sample ID			
30531	Olin Area S. East	✓	✓	✓
30551	Olin Area N.E	✓	✓	✓
30883 #1			✓	
30883 #2			✓	
30885 #1			✓	
30885 #2			✓	

~~49~~ Sample #	49	16(N) ml H_2O	4(N) ml HAc
30531	100	1600	400
30551	100	1600	400
30883 #1	100	1600	400
30883 #2	100	1600	400
30885 #1	100	1600	400
30885 #2	100	1600	400

Sample #	PH	acid added (ml) 1	2	3	4	5	6	7
30531	6.9.3	10	—	~~4~~	—	10	—	—
30551	5.3	1	—	4	—	—	—	—
30883 #1	6.7	10	10	~~10~~	—	—	—	—
30883 #2	6.9	10	10	~~10~~	—	—	—	—
30885 #1	5.8	5	—	10	—	20	—	—
30885 #2	5.8	5	—	10	—	20	—	—

12/23/87 Cheryl Cirino
JR

BCM

№ 110/4231

3 2 00216

12/15/87 PH Analysis

[redacted]	Client	Reading
2[redacted]	D. TOTH	6.8
30352	New Woman	8.1
30352	D. TOTH	7.9
30275	MOBIL WASH	8.9
30274	↓	7.2
30256	CONCURRENT	8.7
30353	TOMAH	6.4
30237	SUMMARK	6.8
30425	KIRSHNER	7.1
30505	OLIN	1.1
30507	↓	6.2
30509	↓	6.2
30497	OLIN	7.8
30499	↓	6.5
30501	↓	7.0
30503	↓	7.7
30511	↓	7.9
30513	↓	7.6
[redacted]15	↓	9.2
[redacted]17	↓	8.4
30452	LA FRANCE	6.6

[illegible] 12/15

T Kelly 12/15

BCM

№ 110/4232

12/15/87 Alkalinity

3 2 00217

Sample [illegible]	PH	Sample Vol	Vol TITRANT (4.5)	Vol Titrant (8.3)	Results P(ℓK)	mo(H
30228 McANDROWS	7.1	50	5.0	0	0	94
30229 FORBES	7.2	50	5.2	0	0	98
30230 ↓	5.2	50	17.0	0	0	34

$$\frac{\text{Alkalinity}}{(\text{mg/l})} = \frac{A \times N^{*} \times 50{,}000}{\text{mls sample used}}$$

$N^{*} = 0.0189$

A = mls standard acid used

N = Normality of standard acid

T Kelly 12/15

T. Wellner 12/18

BCM

№ 110/4233

PH Analysis 12/16/87

3 2 00218

Sample	Client	Reading
30557	HENDERSON RD	7.5
30558	↓	6.6
30559	↓	7.0
30560	↓	5.4
30561	↓	6.4
30562	↓	7.5
30563	↓	6.8
30564	↓	6.4
30565	↓	6.7
30566	↓	6.0
30495	OLIN	6.9
30519	↓	6.4
30521	↓	6.0
30523	↓	7.0
30426	↓	5.5
30428		4.0
30678	LA FRANCE	6.5
306[illegible]	↓	6.3
306[illegible]	MRS Smiths	6.5
30676	AIRCO	6.7
30710	SUMMARY	7.1
30713	↓	6.6

T Kelly 12/1

T. Wilkin 12/1

3 2 00219

12/17/87 Alkalinity

Sample Client	PH	Sample Vol	Vol Titrant (4.5)	Vol Titrant (8.3)	Results P(alk)	Results mo(alk)
30739 McNeilus	7.8	50	6.4	0	0	121
30740 " Forbes	7.3	50	5.0	0	0	94
30741	7.2	50	31.5	0	0	595

$$\frac{\text{Alkalinity}}{(\text{mg/l})} = \frac{A \times N^{*} \times 50000}{\text{mls sample used}}$$

$N^{*} = .0189$

A = mls standard acid used to titrate

N = Normality of standard acid

T Kelly 12/17

T. Weber 12/18

BCM

№ 110/4235

3 2 00220

12/18/87 PH Analysis

Sample	Client	Reading
30[redacted]	Tomah	5.5
30452	La France	6.3
30525	~~[illegible]~~ OLIN	8.9 ✓
30526	OLIN	4.7 ✓
30601	Rohm + Haas	6.5
30602		8.1
30603		8.2 ✓
30604		8.0 ✓
30605		7.0 ✓
30606		6.9 ✓
30607		6.5 ✓
30608		6.4
30609		5.7
30610		5.9
30611		5.9
30612		5.8
30613		6.5
30617	R+H	7.0
[redacted]618		7.6
[redacted]617		6.6 ✓
30620		7.0
30621	Trip BLK	8.3 * Reading taken 2x contaminated
30622	Field BLK	4.7
30637	Mrs Smiths	6.6 ✓
30796	R+H	5.5 ✓
30614	m. BLK R+H	5.7

T. Kelly

1/11/88

BCM

№ 110/4236

12/18/87 PH Analysis 3 2 00221

Sample	Client	Reading
30797	R+H	6.4 ✓
30798		7.0 ✓
30799		7.5 ✓
30801		6.4 ✓
30802		6.6 ✓
30803		6.9 ✓
30804		8.0 ✓
30805		6.7 ✓
30806		7.0 ✓
30807		6.9 ✓
30808		6.2 ✓
30809		6.6 ✓
30810		6.1 ✓
30818	Halloweil	5.9 ✓
30860	R+H	6.9 ✓
30862	Geraghty & Miller	10.2 ✓
30863		6.6 ✓
30864		6.5 ✓
30865		5.3 ✓
30866		9.2 ✓
30867		6.2 ✓
30868		6.9 ✓
30869		5.4 ✓
30870		5.8 ✓
30871		6.4 ✓
30872		7.3 ✓

T Kuli

GAC
1/11/88

№ 14237

12/18/87 pH Analysis

3 2 00222

Sample	Client	Reading
30873	Geraghty + Miller	5.5 ✓
30874		8.5 ✓
30875		5.5 ✓
30876		5.3 ✓
30877		5.7 ✓
30878		7.4 ✓
30879		5.1 ✓
30880		7.0 ✓
30881	G + Miller	6.5 ✓
30348	Atlantic Aviation	6.3 ✓
30349		6.3 ✓
30350		6.4 ✓
30615	DUP 30601 R+H	6.4 ✓ 0 Order ✓
30623	MBIK R+H	6.0 ✓
30624	DUP 30610 R+H	7.0 ✓ 0 Order ✓

T. Kelly 12/21

G.H. 1/11/88

BCM

№ 11/241

12/29/87 PH Analysis 3 2 00223

Sample No	Client	Reading
314[redacted]	LA FRANCE	6.7
31323	↓	6.5 ✓
31440	NEW WOMAN	7.6 ✓
28795	MANNINGTON	7.7 ✓
31480	HOWE	7.7
3[redacted]3307	AL. SHAPES	5.3 ✓
31308	↓	5.4 ✓
31309		[redacted] 5.6 ✓
31310		6.0 ✓
31311		5.8 ✓
31312	↓	6.1 ✓
31457	LANDDALE BRO	
31458	↓	5.0 ✓
31590	MRS smith's	7.4
31591	↓	7.1
31592	↓	7.3
31557	BUCHAN	6.4
30531	OLIN	9.3
[redacted]	[redacted]	
[redacted]06	OLIN	6.0

TK [illegible]
GAL [illegible]

BCM

Specific Gravity - Solids

№ 108 910

00224

Sample/Client	T° of Sample	Cofactor (F)	(W) (mg) wt of container	(S) (mg) wt of cont. & sample	(R) wt of cont & DI H_2O	Result
30495 Ol	15	.9991	1056	4362	4116	1.079
30497	15		1055	4220		1.033
30499	15		1058	4816		1.217
30501	15		1068	4543		1.135
30503	15		1057	~~4150~~ 4157		1.012
30507	liquid					
30511	15		1049	4353		1.079
30513	15		1049	4145		1.011
30515	15		1056	6407		1.747
30517	15		1053	5523		1.459
30519	15		1045	4753		1.211
30521	15		1054	4513		1.129
30531	15		1049	6274		1.706
00339 Blue [illegible]	15		1050	8228		.7111

Calculation:

$$SG_{T/T_c} = \frac{S - W}{R - W} \times F$$

A volume of 30ml was used.

Cheryl Cirino

1/13/3

BCM 1-18-88

№ 108 913

Sample	T°	(F) Corr. T°	(W) (g) W of cont	(S) (g) W of cont & sample	(g)(R) W of DI H_2O & cont	Resu
30523	15°	.9991	10537	53769	29769	1.45
30530	20	.9982	10497	37877	00225	0.91
30534	20		10460	58586		1.61
30536	20		10599	62284		1.73
30538	20		10690	48256		1.26
800336	20		10495	31560		0.706
800337	20		10498	29362		0.633
800338	20		10578	36334		0.864

Calculation

$$SG_{T/4} = \frac{S-W}{R-W} \times F$$

Volume of 30 mls was used

Cheryl A. Cirino
1-18-88

BCM

№ 108 914

1-20-88 Specific Gravity - Liquid 3 2 00226

Sample	Client	Reading	T°F
30525	Olin	1.000	58°F

Cheryl Cirino
1/20/88

BCM

№ 114 ~~3261~~

1/20/88 Analysis for Solids 3 2 00227

Sample/Client	TEST	DISH No	DISH WT	Sample WT	Dish + Sample (dry)	Sample WT	Solids (%)
30495 OLIN	TS%	7441	74412.1	10655.7	85097.8	78199.7	45
497		7592	75921.8	8828.9	84750.7	80580.6	53
499		6803	68031.1	14734.5	82755.6	77253.7	62
501		10534	105344.4	171635	122507.9	114177.2	51
503		10240	102403.5	10720.1	113123.6	107737.9	50
505*		7457	74572.5	100ml	74573.2	0.4	4 (mg/l)
506 FIELD		10625	106254.9	100ml	106355.8	0.9	9 (mg/l)
507 TRIP		10616	106166.3	8195.6	114361.9	110933.6	58
511		10434	104345.8		118780.5	112990.7	60
513		10179	101774.1	16508.6	118302.7	112784.3	66
515		7492	74921.0	8052.8	82973.8	79929.6	62
517		6930	69301.5	9722.8	79024.3	72571.0	73
519		7466	74673.6	11281.3	85954.9	81510.0	63
521		7355	73551.5	10399.8	83951.3	80547.2	67
523		7471	74717.7	60ml	74806.3	88.6	147 (mg/l)
525		9866	98665.2	100ml	98666.1	0.9	9 (mg/l)
526 TRIP		10761	107611.8	4555.4	112197.2	109758.5	47
530		10015	100157.8	12799.4	112957.8	107856.6	60
531		7601	76011.7	12328.8	88340.5	85109.3	74
534		7434	74343.2	14566.9	89215.1	80604.3	42
536		7737	77371.2	7601.4	84975.6	80739.2	44
538							

(*30 505 does not have sufficient sample size (N/A)) TKelly 1/22/88

TS% = Dish + Sample (dry) − Dish WT ÷ 100

BCM

№ 13/1535

12/28/87 Mercury Digestion 3 2 00228

Sample	Sample Vol (gm)	Final Vol (100ml)
A 30495	.2g	100
A 30497		
A 30499		
A 30501		
A 30503		
A 30509		
A 30510		
A 30511		
A 30513		
A 30515		
A 30517		
A 30519		
A 30521		
A 30523		
A 30528		
A 30529		
A 30531		
A 30551		
A 3055[illegible]		
A 3055[illegible]		

Pratfoldat 12/28/87

Gregory G. Harpel
12-28-87

BCM

№ 1536

Mercury Digestion 12/28/87 3 2 00229 PLG

Sample #	Sample Vol	Sample #	Sample Vol
A 3[redacted]	100 ml	A30512	100
A 30374		A30514	
A 30375		A30496	
A 30376		A30498	
A 30377		A30500	
A 30378		A30502	
A 30379		A30504	
A 30380		A30516	
A 30381		A30518	
A 30383 TB		A30520	
A 30396 MB		A30522	
A 30397		A30524	
A 30398 (375)		A30882	
A 30399			
A 30400 (399S)			
A 30406			
A 30410			
A 30 505			
A30 [redacted]			
A 30 [redacted]			
A 30 508 MB			
A 30 526 TB			
A 30 527 MB			
A 30552 MB			
A 30382			

12/28/87

GM 1/21/88

BCM

№ 1541

3 2 00230

1-5-88 Hg Digestion PG

Sample #	Sample Vol	Final Vol
BLK	100	100
A30505	5	100
A31526	100	100
A31527		
A30928		
A30627	10	
A31565	100	
A31663		
A31664		
A31665		
A31666		
A31667		
A31668		
A31669		
A31670		
A31671		
A31671D		
A3[illegible]		
A3[illegible]		
A31685		
A31686		
A31687		

[illegible] 1/5/88 John T. Rowe

BCM

3 2 00231
134 № 1544

MERCURY DIGESTION 1-18-88

Sample	Sample vol (ml)	Final vol (ml)
4x	10	100
P00349	100	
P00350	100	
P00020	100	
P00341	10	
P00343	10	
P00348	100	
P00354	100	
P00359	100	
P00377	~~10~~ 10	
P00395	10	
P00396	100	
P00874		
P00874D		
P00874S4		
P00876		
P00878		
P00880		
P00968		
P01078		
A30525		
A30540		

Gregory G. Hazel 1-18-88

1/18/88

3CM

134 № 1545

3 2 00232

MERCURY DIGESTION 1-18-88 PAGE 2

SAMPLE	SAMPLE VOL (ml)	FINAL VOL (ml)
A30542	100	100
A30543	↓	↓
A30544 MS		
~~A30545~~		
A30547 DUP		
A30548		
A31565		

Gregory S. Hagel 1-18-88

1/18/88

BCM

№132-1340

3 2 00233

12/28/87 PLG Hg

STD ~~Sample~~	ABS	Conc	
BLK	.002		
.0004	.008	y = 17.36 x + .0017	
.0008	.016	R = .5555	
.002	.037		
.004	.070		
.008	.141		
sample #	ABS	Conc	
D BLK (LIQ)	.002	<.0002	ms/L
A 30373	.017	.001	
A 30374	.006	.0002	
A 30375	.014	.0007	
A 30376	[illegible]	.0007	
A 30377	.012	.0006	
A 30378	.014	.0007	
A 30379	.011	.0005	
A 30380	.004	<.0002	
A 30381	.012	.0006	
A 30382	.004	<.0002	
A 30[illegible]	.002	<.0002	
std QC [illegible]	.091	.0051	
A 30396	.001	<.0002	
A 30397	.011	.0005	
Spike A 30398	.100	.0056	102% R
A 30399	.011	.0005	
[illegible] A 30400	.053	.0030	[illegible]
A 30401	.020	.0010	
A 30402	.009	.0004	

[illegible] 12/28/87

BCM

12/28/87 Hg
cont

№ 1341

3 2 00234

	Sample	ABS	Conc	
	A30503	>250	—	Re RUN Later Date
	A30496	.003	<.0002	mg/L
	A30498	.005		
	A30500	.003		
	A30502	.002		
	A30504	.002		
.005	QC	.087	.0049	mg/L
	A30512	.008	.0004	mg/L
	A30514	.002	<.0002	mg/L
	A30516	.002		
	A30518	.003		
	A30520	.003		
	A30522	.005		
	A30524	.003		
	A30882	.003		
	A30506 FB-S	.002	<.0002	mg/Kg
	A30507 TB-S	.002		
	A30508 MB-S	.002		
	A30536 TB-S	.002		
	A30[illegible] MB-S	.002		
	A30552 MB-S	.002		
.005	QC	.090	.0051	mg/L

12/28/87

BCM

12/28/87
HS Cout

No. 1342

3 2 00235

SA[redacted]	ABS	Cond	
D[redacted](sol)	.002	<.0002	mg/Kg
A30495	>.300	—	
A30497	.092	.0052 x500	2.6 mg/Kg
A30499	>.200	—	
A30501	.074	.0042 x500	2.1 mg/Kg
A30503	>.150	—	
A30509	>.200	—	
A30510	—	—	
A30511	.090	.0051	2.55 mg/Kg
A30513	>.170	—	
.005 QC	.096		.0054 mg/L
A30515	.012	.0006 x500	0.3 mg/Kg
A30517	.055	.0031 x500	1.55 mg/Kg
A30519	>.3	—	
A30521	.138	.0079 x500	3.95 mg/Kg
A30523	>.250	—	
A30528	.083	.0047 x500	2.35 mg/Kg 8.1
1.[redacted] sp. KL A30[redacted]	.121	.0069	3.45 mg/Kg 9
A30[redacted]	.015	.0008 x500	0.4 mg/Kg
A30551	.003	<.0002 x500	<.1
A30555	.003	<.0002 x500 <.1	0% dev
1.00 p.KL A30556	.036	.002 x500	1.00 mg/Kg 100%
.005 QC	.091	.0051 mg/L	

[signature] 12/28/87

BCM

№ 132 1343

Hg Analysis 1/5/88

3 2 00236

	ABS
BLK	.002
0.0008 ppm	.016
0.0016	.029
0.004	.069
0.008	.135
0.016	.271

Y = 16.776X + 0.002

R = .999979

Sample #	ABS		Dilution factor	Result
DBLK	.001			<.0002 mg/L
A30505	.036	.002	x20	0.04 mg/L
A31526FB	.003			<.0002 mg/L
A31527MB	.002			
A30928	.004			
A30627	.024	.0013	x10	.013 mg/L
A31565	.007			.0003 mg/L
A31663	.003			<.0002 mg/L
A31664	.002			
A31665	.002			
0.01 QC	.163			.0096 mg/L
A31[illegible]	.044			.0025 mg/L
A31[illegible]	.007			.0003 mg/L
A31668	.002			<.0002 mg/L
A31669	.002			
A31670	.001			
A31671	.002			
A31671D	.001			0.0[illegible]
.004 Kp A31671S	.070			.041 [illegible]

[illegible] 1/5/88 [illegible] T-Rose

BCM

Hg Anal Cont
1/5/88

№ 132 1344

3 2 00237

	[redacted] #	ABS		Dil factors	Result
	A 31[redacted]	.075			.0044 mg
	A 31685	.001			<.0002 mg/k
	A 31686	.000			
	A 31687	.001			
.01	QC	.162			.0095
	D BLK-S	.002			<.0002 mg/k
	A 30495	.088	.0051	5000	25.5 mg/kg
	A 30499	.039	.0022		11.0 mg/k
	A 30503	.017	~~[illegible]~~ .0009		4.5 mg/kg
	A 30509	.087	.0051		25.5 mg/kg
15 spike	A 30510	.139	.0082		41.0 mg/kg
	A 30513	.034	.0019		9.50 mg/kg
	A 30517	.205	.0121		60.5 mg/k
	A 30523	.029	.0016		8.00 mg/kg
.01	QC	.181		[redacted]	.0107
	D BLK	.001			<.0002 mg/k
	728723	.001		500	< 0.1 mg/kg
	729516	.017	.0009	5000	4.5 mg/kg
	729[redacted]	.018	.0010	5000	10.5 %dev 5.0 mg/kg
20 spike	729520	.085	.0049	5000	[illegible] 24.5 mg/kg
	729708	.003		500	< 0.1 mg/kg
	729709	.015	.0008		0.4 mg/kg
	729710	.002			< 0.1 mg/kg
	729711	.002			
	729712	.002			

[signature] 1/5/88 [signature]

BCM

Hg ~~Dig~~ 1/5/88 cont

№ 1321345

3 2 00238

	Sample #	ABS		Dil Factor	Result
	[illegible]713	.001		500	<0.1 mg/kg
	779714	.002			
.010	QC	.159			.0094
	779715	.002		500	<0.1 mg/kg
	A30311	.008	.0004		0.2 mg/kg
	A30315	.004			<0.1 mg/kg
	A30319	.009	.0004	0.0% dev	0.2 mg/kg
2 spike	A30320	.081	.0047	107.5% R	2.35
	A30883	.002			<0.1 mg/kg
	A30885	.002			
	A31228	.002			
.01	QC	.155			0.0110
	A31230	.003		500	<0.1 mg/kg
	A31232	.005			
	A31234	.013	.0007		0.35 mg/kg
	A31236	.006			<0.1 mg/kg
	A31457	.025	.0014		0.7 mg/kg
	~~A31520~~ A31518	.081	.0047		2.35 mg/kg
	[illegible] A31520	.094	.0055		2.75 mg/kg
	A31522	.023	.0013		0.65 mg/kg
	A31523	.023	.0013		0.65
	A31524	.206	0.0122		6.1 mg/kg
	A31528	.092	.0054	1.83% dev	2.7 mg/kg
2 spike	A31529	.161	.0095	100% R	4.75 mg/kg
.01	QC	.166			.0098

[signature] 9/5/88 [signature]

BCM

132 № 1347

3 2 00239

MERCURY 1-12-88 R=.9997957

SAMP	Abs	CONC	Dilution	Final Result
BK	.002			
0.0004	.006			
0.0008	.015			
0.002	.032			
0.004	.063			
0.008	.125			
A30884	.003	<0.0002 mg/L		
A30886	.001	<0.0002 mg/L		
A30989	.001	<0.0002 mg/L		
4X.	.086	0.00548 mg/L × 10 × 1000 ug/mg	=	54.8 ug/L
A30646	.027	0.0066 mg/L × 1000 ug/mg	=	166 ug/L
A30647	.000	0.00413 mg/L × 1000 ug/mg	=	4.1[illegible] ug/L
A31229	.003	<0.0002 mg/L		
A31231	.001	<0.0002 mg/L		
A31233	.002	<0.0002 mg/L		
A31235	.002	<0.0002 mg/L		
A31237	.003	<0.0002 mg/L		
A31458	.006	0.0003 mg/L		
[illegible]	.033	0.0020 mg/L		
A31458D-P	.006	0.0003 mg/L	0 DEV	
A31458SK	.025	0.0015 mg/L	0.001 ppb, K)	120R
P00096	.001	<0.0002 mg/L		
P00097	.003	<0.0002 mg/L		

[illegible] 1-12-88

[illegible] 1/14/88

BCM

132 № 1348

3 2 00240

MERCURY 1-12-88 RF. 9997957 PAGE 2

SAM[illegible]	Abs.	Conc.	Dilution	Final Resul
800099	.002	<0.0002 mg/L		
800099	.003	<0.0002 mg/L		
800100	.003	<0.0002 mg/L		
800100 Dup	.002	<0.0002 mg/L	ODEV	
800100 Spk	.020	0.0012 mg/L	120 R	(0.001 ppb spk.
800289	.003	<0.0002 mg/L		

Gregory S. Harper 1-14-88

[illegible] 1/14/88

CM

№ 1348
3 2 00241

MERCURY [illegible] 2 4447957 PAGE 2

SAMPLE	[illegible]S	CONC.	DILUTION	FINAL RESULT
500098	.002	<0.0002 mg/L		
500099	.003	<0.0002 mg/L		
500100	.003	<0.0002 mg/L		
500100DP	.002	<0.0002 mg/L	ODEV	
500100SPK	.020	0.0012 mg/L	120R	(0.001 ppb SPK)
500289	.003	<0.0002 mg/L		

[illegible] G. Harper 1-17-88

[illegible] 1/14/88

BCM

132 № 1349
3 2 00242

MERCURY 1-19-88 R= .9993957

SAMPLE	[illegible]S	CONC	DILUTION FINAL REW
BT	[illegible]2		
.0004	.006		
.0008	.011		
.002	.029		
.004	.061		
.008	.115		
[illegible]	.084	0.0057 mg/L	[illegible] 1000 mg/mg = 57.8 mg/L
P00349	.032	0.002 mg/L	[illegible] = 2.[illegible] mg/L
P00350	.049	0.0033 mg/L	[illegible] = 3.34 mg/L
P00[illegible]	.003	<0.0002 mg/L	
P00341	.000	<0.0002 mg/L	[illegible] = <0.002 mg/L
P00343	.007	0.0004 mg/L	x 10 = <0.002 mg/L
P00348	.002	<0.0002 mg/L	
P00354	.001	<0.0002 mg/L	
P00359	.002	<0.0002 mg/L	
P00377	.001	<0.0002	x 10 = <0.0002 mg/L
P00395	VOID	RERUN AT A LATER DATE	
P00396	.001	<0.0002 mg/L	
P00874	[illegible]3	<0.0002 mg/L	
P00874 dup	.002	<0.0002 mg/L	0 DEV
P00874	.028	.0019 mg/L	95 R (0.002 ppg spt)
[illegible]	.030	.002 mg/L	
P00876	.002	<0.0002 mg/L	
P00878	.003	<0.0002 mg/L	

Gregory G. Hassel 1-20-88

[illegible] 1/20/88

BCM

132 № 1350

3 2 00243

MERCURY 1-19-88 R=9993957 PAGE 2

SAMPLE	Abs	Conc	DILUTION	FINAL RESULT
700080	.002	<0.0002	mg/L	
700968	.003	<0.0002	mg/L	
701078	.002	<0.0002	mg/L	
730525	.404	VOID	RUN AT A LATER DATE	
730540	.003	<0.0002	mg/L	
730542	.035	0.002	mg/L	
730543	.003	<0.0002	mg/L	
730544	.002	<0.0002	mg/L	
730547	.002	<0.0002	mg/L	ODFU
730548	.030	0.002	mg/L	[illegible] (0.002 [illegible])
731505	.002	<0.0002	mg/L	
RC 0.002	.027	0.0018	mg/L	

[illegible] 1-20-88

[illegible] 1/20/88

BCM

132 № 1351

3 2 00244

MERCURY 1-23-88 R: 9995019

Sample	Abs	Conc	Dilution	Final
BK	.002			
.0004	.006			
.0008	.011			
.002	.032			
.004	.058			
.008	.115			
4x	.075	0.0051 mg/L	× 0 × 1000 ug/mg	= 51.8 ug/L
P00349	.030	0.002 mg/L	× 1000 ug/mg	= 2.02 ug/L
P00350	.046	0.0031 mg/L	× 1000 ug/mg	= 3.14 ug/L
P00395	.016	0.0010 mg/L	× 10	= 0.010 mg/L
P01095	.001	<0.0002 mg/L		
P01096	.003	<0.0002 mg/L		
P01097	.004	0.0002 mg/L		
P01098	.004	0.0002 mg/L		
P01446	.006	0.0003 mg/L		
P01447	.003	<0.0002 mg/L		
P01484	.005	0.0003 mg/L		
P01484 Dup	[illegible]	0.0003 mg/L	0 DFL	
QC 0.006	[illegible]	0.0019		
P01484 Spk	.033	0.0022 mg/L	95R (0.002 ppb spk)	
P01485	.002	<0.0002 mg/L		
P01486	.003	<0.0002 mg/L		
P01488	.003	<0.0002 mg/L		

Gregory G. Harper 1-25-88

[signature] 1/25/88

BCM

132 № 1352
3 2 00245

MERCURY 1-23-88 RE. 9995019 PAGE 2

Sample	7½ S	CONC	Dilution	Final Result
P01489	.003	<0.0002 mg/L		
P01538	.002	<0.0002 mg/L		
P01539	.003	<0.0002 mg/L		
P01540	.002	<0.0002 mg/L		
P01614	.002	<0.0002 mg/L		
A30525	.072	0.005 mg/L	x 10 =	0.050 mg/L
QC 0.002	.027	0.0018 mg/L		

Gregory S. Harpel 1-25-88

Justo Goldet 1/25/88

BCM

132 № 1354

2 00246

MERCURY 1-25-88 R: .9996602

Sample	[illegible]	Conc	Dilution	Final Result
BK	[illegible]			
.0004	.007			
.0008	.013			
.002	.036			
.004	.071			
.008	.136			
BK	.003	<0.0002 mg/L		
A30890	.018	~~<0.0002 mg/L~~ 0.0008 mg/L × 0.2g→100 =		0.415 mg/kg
A30883	.03	<0.0002 mg/L × 0.2g→100 =		<0.10 mg/kg
A30885	.007	0.0002 mg/L × 0.2g→100 =		0.10 mg/kg
A30530	.094	0.0053 mg/L × 0.2g→100 =		2.65 mg/kg
A30534	.063	0.0035 mg/L × 0.2g→100 =		1.74 mg/kg
A30536	.140	0.008 mg/L × 0.2g→100 =		4.00 mg/kg
A30538	.1241	VOID RUN AT LATER DATE		
QC0.002	.035	0.002 mg/L		

Gregory G. Harpe 1-25-88

[signature] 1/25/88

BCM

No. 132 1355

5 2 00247

Mercury 1-28-88

	ABS				
					y = 13.335X − .0016
BLK	.002				R = .9998
.0004	.007 ~~.013~~ R				
.0008	.012				
.002	.027				
.004	.056				
.008	.108				
SAmple	ABS	~~Sim~~ Conc	Dil factor		Final Conc
DBlK	.000	<.0002	—		<.0002 mg/l
A30538	.013	.0009	x 10000		9.00 mg/l
802519	~~.0005~~ R	.008	.0005	x500	0.25 mg/K
802520	~~.0004~~ R	.007	.0004		0.20 mg/K
802526 (19D)	~~.0005~~ R	.008	.0005		0.02 odor 0.25 mg/K
802527 (19S) 1PDM spike	~~.0025~~ R	.025	.0025		100% R 1.25 mg/
QC (.002 mg/L)	~~.002~~ R	.029	.0021		.0021 mg/

Pat Goldstein 1/28/88

Gregory G. Harper 1-28-88

BCM

№ 14 2416

3 2 00248

12/16/87 CAC LTEP Leachates

Sample #	Sample ID	119
30233		100
30426		100
30428		100
30495		100
30519		100
30521		100
30523		100
30670		100

Sample #	16(4) ml H_2O	4(4) ml HAC added (ml)
30233	1600	400
30426	1600	400
30428	1600	400
30495	1600	400
30519	1600	400
30521	1600	400
30523	1600	400
30670	1600	400

Sample #	PH	HAC adds (ml) 1	2	3	4	5	6	7
30233	10.3	50	40	30	90	70	20	—
30426	5.5	1	—	—	—	—	—	—
30428	4.0	—	—	—	—	—	—	—
30495	6.9	5	10	—	—	—	—	—
30519	6.4	5	1	—	—	—	—	—
30521	6.0	5	—	—	1	—	—	—
30523	7.0	5	5	—	—	—	—	—
30670	6.0	5	10	—	5	5	—	—

[illegible] 12-17-87

BCM

№ 141 2417

3 2 00249

12/17/87 CAC ITEP Leachate

Sample #	Sample ID
30672	
30674	

mple #	Mg	16(N) ml H_2O	4(N) ml HNO
72	100	1600	400
74	100	1600	400

mple #	PH	1	2	3	4	5	6	7
				added acid				
30672	6.2	10	5	20	—	—	—	—
30674	6.5	20	—	—	—	—	—	—

CORROSIVITY 12-17-87 CAC

Sample #	PH	Corrosive / noncorrosive
30233	10.6	noncorrosive
30426	6.4	noncorrosive
30428	3.8	noncorrosive

Corrosivity 12-18-87 CAC

Sample #	PH	Corr / non Corr
30883	6.4	noncorrosive
30885	6.2	noncorrosive

Chuck A. Cannon
12/18/87

BCM

№ 1-7-6 2418

12/22/87 CAC LTEP Leachates 3 2 00250

Sample #	Sample ID			
30531	Dining Area S. East	✓	✓	✓
30551	Dining Area N.E	✓	✓	✓
30883 #1			✓	
30883 #2			✓	
30885 #1			✓	
30885 #2			✓	

~~49~~ Sample #	49	16(4) ml H_2O	4(4) ml HAC
30531	100	1600	400
30551	100	1600	400
30883 #1	100	1600	400
30883 #2	100	1600	400
30885 #1	100	1600	400 ✓
30885 #2	100	1600	400 ✓

Sample #	pH	acid added (ml) 1	2	3	4	5	6	9
30531	6.9.3	10	—	~~4~~	—	10	—	—
30551	5.3	1	—	4	—	—	—	—
30883 #1	6.7	10	10	~~10~~	—	—	—	—
30883 #2	6.9	10	10	~~10~~	—	—	—	—
30885 #1	5.8	5	—	10	—	20	—	—
30885 #2	5.8	5	—	10	—	20	—	—

12/23/87 Cheryl Cirino
JR

BCM

№ 110/4231

3 2 00251

12/15/87 PH Analysis

Code	Client	Reading
2[redacted]	D. TOTH	6.8
30352	New Woman	8.1
303502	D. TOTH	7.9
30275	MOBIL WASH	8.9
30274	↓	7.2
30256	CONCURRENT	8.7
30353	TOMAH	6.4
30237	SUNMARK	6.8
30425	KIRSHNER	7.1
30505	OLIN	1.1
30507	↓	6.2
30509	↓	6.2
30497	OLIN	7.8
30499	↓	6.5
30501	↓	7.0
30503	↓	7.7
30511	↓	7.9
30513	↓	7.6
[redacted]15	↓	9.2
[redacted]17	↓	8.4
30452	LA FRANCE	6.6

[illegible] 12/15

T Kelly 12/15

BCM

№ HO/4232

3 2 00252

12/15/87 Alkalinity

Sample/[illegible]	PH	Sample Vol	Vol TITRANT (4.5)	Vol Titrant (8.3)	Results P(ok)	mo(k
30228 McANDROWS	7.1	50	5.0	0	0	94
30229 FORBES	7.2	50	5.2	0	0	98
30230 ↓	5.2	50	17.0	0	0	34

$$\frac{\text{Alkalinity}}{(\text{mg/l})} = \frac{A \times N^* \times 50{,}000}{\text{mls sample used}}$$

$N^* = 0.0189$

A = mls standard acid used

N = Normality of standard acid

T Kelly 12/15

T. Wilkins 12/18

BCM

№ 114233

3 2 00253

PH Analysis 12/11/87

Sample	Client	Reading
30557	HENDERSON RD	7.5
30558	↓	6.6
30559	↓	7.0
30560	↓	5.4
30561	↓	6.4
30562	↓	7.5
30563	↓	6.8
30564	↓	6.4
30565	↓	6.7
30566	↓	6.0
30495	OLIN	6.9
30519	↓	6.4
30521	↓	6.0
30523	↓	7.0
30426	↓	5.5
30428	↓	4.0
30678	LA FRANCE	6.5
306[illegible]	↓	6.3
306[illegible]	MRS Smiths	6.5
30676	AIRCO	6.7
30710	SUMMARY	7.1
30713	↓	4.6

T Kelly 12/1

T. Walker 12/1

BCM

№ 140/4234

3 2 00254

12/17/87 Alkalinity

Sample [redacted]	PH	Sample Vol	Vol Titrant (4.5)	Vol Titrant (8.3)	Results P(alk)	Results mo(alk)
30739 McMillan	7.8	50	6.4	0	0	121
30740 "	7.3	50	5.0	0	0	94
30741 Forbes	7.2	50	31.5	0	0	595

$$\frac{\text{Alkalinity}}{(\text{mg/l})} = \frac{A \times N^{*} \times 50000}{\text{mls sample used}}$$

$N^{*} = .0189$

A = mls standard acid used to titrate

N = Normality of standard acid

T Kelly 12/1

T. Walker 12/19

№ 4235

3 2 00255

12/18/87 PH Analysis

Sample	Client	Reading
30[redacted]	TOMAH	5.5
30[redacted]	La France	6.3
30525	~~[redacted]~~ OLIN	8.9 ✓
30526	OLIN	4.7 ✓
30601	Rohm + Haas	6.5
30602		8.1
30603		8.2 ✓
30604		8.0 ✓
30605		7.0 ✓
30606		6.9 ✓
30607		6.5 ✓
30608		6.4
30609		5.7
30610		5.9
30611		5.9
30612		5.8
30613		6.5
30617	R+H	7.0
30618		7.0
[redacted]17		6.6 ✓
30620		7.0
30621	Trip BLK	8.3 * Reading taken 2x
30622	Field BLK	4.7 Contaminated
30637	Mrs Smiths	6.6 ✓
30796	R+H	5.5 ✓
30[illegible]	m.BLK R+H	5.7

T. Kelly

12/18/87

BCM

№ 110/4236

3 2 00256

12/18/87 PH Analysis

Sample	Client	Reading
30797	R+H	6.4 ✓
30798		7.0 ✓
30799		7.5 ✓
30801		6.4 ✓
30802	[illegible]	6.6 ✓
30803		6.9 ✓
30804		8.0 ✓
30805		6.7 ✓
30806		7.0 ✓
30807		6.9 ✓
30808		6.2 ✓
30809		6.6 ✓
30810		6.1 ✓
30818	Halloweil	5.9 ✓
30860	R+H	6.9 ✓
30862	Geraghty & Miller	10.2 ✓
30863		6.6 ✓
30864	[illegible]	6.5 ✓
30865		5.3 ✓
30866		9.2 ✓
30867		6.2 ✓
30868		6.9 ✓
30869		5.4 ✓
30870		5.8 ✓
30871		6.4 ✓
30872		7.3 ✓

T Kelly

GAL
1/11/88

BCM

№ HO/4237

3 2 00257

12/18/87 pH Analysis

Sample	Client	Reading
[redacted]73	Geraghty + Miller	5.5 ✓
30874		8.5 ✓
30875		5.5 ✓
30876		5.3 ✓
30877		5.7 ✓
30878		7.4 ✓
30879		5.1 ✓
30880		7.0 ✓
30881	G + Miller	6.5 ✓
30348	Atlantic Aviation	6.3 ✓
30349		6.3 ✓
30350		6.4 ✓
30615	DUP 30601 R+H	6.4 ✓ O Fader ✓
30623	MBIK R+H	6.0 ✓
30624	DUP 30617 R+H	7.0 ✓ O Fader ✓

[redacted]

T. Kelly 12/21

G.H. 1/11/88

BCM

№ 1241

12/29/81 PH Analysis 3 2 00258

Sample NO	Client	Reading
314[redacted]	LAFRANCE	6.7
31325	↓	6.5 ✓
31440	NEW WOMAN	7.6 ✓
28795	MANNINGTON	7.7 ✓
31480	HOWE	7.7
31307	AL. SHAPES	5.3 ✓
31308		5.4 ✓
31309		5.6 ✓
31310		6.0 ✓
31311		5.8 ✓
31312	↓	6.1 ✓
31457	LANSDALE BURO	
31458	↓	5.0 ✓
31590	MRS smith's	7.4
31591		7.1
31592	↓	7.3
31557	BUCHAN	6.4
30531	OLIN	9.3
[redacted]		
[redacted]06	OLIN	6.0

TK
GAL

BCM

Specific Gravity - Solids

№ 108 910

00259

Sample/Client	T° of Sample	Cofactor (F)	(W) (mg) wt of container	(S) (mg) wt of cont. & sample	(R) wt of cont & DI H_2O	Result
30495	15	.9991	1056	4362	4116	1.079
30497	15		1055	4220		1.033
30499	15		1058	4816		1.217
30501	15		1068	4543		1.135
30503	15		1057	~~4150~~ 4157		1.012
30507	liquid					
30511	15		1049	4353		1.079
30513	15		1049	4145		1.011
30515	15		1056	6407		1.747
30517	15		1053	5523		1.459
30519	15		1045	4753		1.211
30521	15		1054	4513		1.129
30531	15		1049	6274		1.706
00339 blue mark	15		1050	8228		.7111

Calculation:

$$SG_{T/°C} = \frac{S - W}{R - W} \times F$$

A volume of 30 ml was used.

Cheryl Cirino

1/13/8

BCM 1-18-88

№ 108 913

Sample	T°	(F) Corr. T°	(W) (g) W of cont	(S) (g) W of cont & sample	(R) (g) W of DI H_2O & cont	Resu
30523	15°	.9991	10537	53769	29769	1.45
30530	20	.9982	10497	37871		0.91
30534	20		10460	58586		1.61
30536	20		10599	62284		1.73
30538	20		10690	48256		1.26
800336	20		10495	31560		0.706
800337	20		10498	29362		0.633
800338	20		10578	36334		0.864

Calculation

$$SG_{T/4} = \frac{S-W}{R-W} \times F$$

Volume of 30 mls was used

Cheryl A. Crum
1-18-88
JR

BCM

№ 108 914

3 2 00261

1-20-88 Specific Gravity - Liquid

Sample	Client	Reading	T°F
30525	Olin	1.000	58°F

Cheryl Cirino
01/20/88

BCM

№ 114 3261

3 2 00262

1/20/88 Analysis for Solids

Sample/Client	TEST	DISH No	DISH WT	Sample wt	Dish + Sample (dry)	Sample wt	Solids (%)
30495 OLIN	TS%	7441	74412.1	10655.7	85097.8	79199.7	45
497		7592	75921.8	8828.9	84750.7	80580.6	53
499		6803	68031.1	14734.5	82755.6	77253.7	62
501		10534	105344.4	171635	122507.9	114177.2	51
503		10240	102403.5	10720.1	113123.6	107737.9	50
505*		7457	74572.5	100ml	74573.2	0.4	4 (mg/l)
506 FIELD		10625	106254.9	100ml	106255.8	0.9	9 (mg/l)
507 TRIP		10616	106166.3	8195.6	114361.9	110933.6	58
511		10434	104345.8		118780.5	112990.7	60
513		10179	101774.1	16508.6	118302.7	112781.3	66
515		7492	74921.0	8052.8	82973.8	79929.6	62
517		6930	69301.5	9722.8	79024.3	72571.0	73
519		7466	74673.6	11281.3	85954.9	81810.0	63
521		7355	73551.5	10399.8	83951.3	80547.2	67
523		7471	74717.7	60ml	74806.3	88.6	147 (mg/l)
525		9866	98665.2	100ml	98666.1	0.9	9 (mg/l)
526 TRIP		10761	107611.8	4555.4	112197.2	109758.5	47
530		10015	100157.8	12799.4	112957.8	107856.6	60
531		7601	76017.7	12328.8	88340.5	85109.3	74
534		7434	74343.2	14566.9	89215.1	80604.3	42
536		7737	77374.2	7601.4	84975.6	80739.2	44
588							

(*30 505 does not have sufficient sample size (N/A)) TKelly 1/22/88

TS% = Dish + Sample (dry) − Dish wt ÷ 100

BCM

№ 3/1535

3 2 00263

12/28/87 Mercury Digestion

Sampl[illegible]	Sample Vol (gm)	Final Vol (100ml)
A 304[illegible]	.2g	100
A 30497		
A 30499		
A 30501		
A 30503		
A 30509		
A 30510		
A 30511		
A 30513		
A 30515		
A 30517		
A 30519		
A 30521		
A 30523		
A 30528		
A 30529		
A 30531		
A 30551		
A 305[illegible]		
A 305[illegible]		

Pratfoldat 12/28/87

Gregory G. Harpel
12-28-87

BCM

№ 1536

2 00264

Mercury Digestion 12/28/87 DLG

Sample #	Sample Vol	Sample #	Sample Vol
A 3[redacted]	100ml	A30512	100
A 30374		A30514	
A 30375		A30496	
A 30376		A30498	
A 30377		A30500	
A 30378		A30502	
A 30379		A30504	
A 30380		A30516	
A 30381		A30518	
A 30383 TB		A30520	
A 30396 MB		A30522	
A 30397		A30524	
A 30398 (375)		A30882	
A 30399			
A 30400 (3505)			
A 30406			
A 30410			
A 30 505			
A30 [redacted]			
A 30 50[redacted] TB			
A 30 508MB			
A 30 526 TB			
A30 527 MB			
A30552 MB			
A 30382			

12/28/87

GM 1/4/88

BCM

№ 1541

3 2 00265

1-5-88 Hg Digestion PG

Sam[redacted]	Sample Vol	Final Vol
BL[redacted]	100	100
A30505	5	100
A31526	100	100
A31527		
A30928		
A30627	10	
A31565	100	
A31663		
A31664		
A31665		
A31666		
A31667		
A31668		
A31669		
A31670		
A31671		
A31671D		
A31671S		
A3[redacted]		
A31685		
A31686		
A31687		

[signature] 1/5/88 John T. Rose

3CM

134 № 1544
3 2 00266

MERCURY DIGESTION 1-18-88

sample	sample vol (ml)	Final vol (ml)
4x	10	100
P00349	100	
P00350	100	
P00020	100	
P00341	10	
P00343	10	
P00348	100	
P00354	100	
P00359	100	
P00377	~~5~~ 10	
P00395	10	
P00396	100	
P00874		
P00874D		
P00874S		
P00876		
P00878		
P00880		
P00968		
P01078		
A30525		
A30540		

Gregory G. Hazel 1-18-88

1/18/88

CM

134 № 1545

3 2 00267

MERCURY DIGESTION 1-18-88 PAGE 2

SAMPLE	SAMPLE VOL (ml)	FINAL VOL (ml)
A30542	100	100
A30543	↓	↓
A30544 MS		
~~A30545~~		
A30547		
A30548		
A31565		

Gregory S. Haupel 1-18-88

1/18/88

BCM

№ 132-1340

3 2 00268

12/28/87 PLC Hg

STD	ABS	Conc
BLK	.002	
.0004	.008	y = 17.36 x + .0017
.0008	.016	R = .5555
.002	.037	
.004	.070	
.008	.141	

Sample #	ABS	Conc	
D BLK (LIQ)	.002	< .0002	MSIL
A 30373	.019	.001	
A 30374	.006	.0002	
A 30375	.010	.0007	
A 30376	[illegible]	.0007	
A 30377	.012	.0006	
A 30378	.014	.0007	
A 30379	.011	.0005	
A 30380	.004	< .0002	
A 30381	.012	.0006	
A 30382	.004	< .0002	
A 303[illegible]	.002	< .0002	
std QC	.091	.0051	
A 30396	.001	< .0002	
A 30397	.011	.0005	
Spike A 30398	.100	.0056	102% R
A 30399	.011	.0005	
A 30400	.053	.0030	[illegible]
A 30401	.023	.0010	
A 30402	.009	.0004	

[illegible] 12/28/87 [illegible]

BCM

cont

№ 1341

3 2 00269

	Sample	ABS	Conc	
	A305[redacted]	>250	—	Re RUN Later Date
	A30496	.003	<.0002	mg/L
	A30498	.005		
	A30500	.003		
	A30502	.002		
	A30504	.002		
.005	QC	.087	.0049	mg/L
	A30512	.008	.000[illegible]	mg/L
	A30514	.002	<.0002	mg/L
	A30516	.002		
	A30518	.003		
	A30520	.003		
	A30522	.005		
	A30524	.003		
	A30682	.003		
	A30566 FB-S	.002	<.0002	mg/Kg
	A30567 TB-S	.002		
	A30508 MB-S	.002		
	A30526 TB-S	.002		
	A30[redacted] TB-S	.002		
	A30[redacted] MB-S	.002		
.005	QC	.090	.0051	mg/L

12/18/87

BCM

12/28/87
HS Cout

№ 1342

3 2 00270

	Sa[redacted]	ABS	Cond		
	D[redacted](sol)	.002	<.0002	mg/Kg	
	A30495	>.300	—		
	A30497	.092	.0052 x500	2.6 mg/Kg	
	A30499	>.200	—		
	A30501	.074	.0042 x500	2.1 mg/Kg	
	A30503	>.150	—		
	A30509	>200	—		
	A30510	—	—		
	A30511	.090	.0051	2.55 mg/Kg	
	A30513	>.170	—		
.005	QC	.096		.0054 mg/L	
	A30515	.012	.0006 x500	0.3 mg/Kg	
	A30517	.055	.0031 x500	1.55 mg/Kg	
	A30519	>.3	—		
	A30521	.138	.0079 x500	3.95 mg/Kg	
	A30523	>.250	—		
	A30528	.083	.0047 x500	2.35 mg/Kg	8.1
1.[redacted] sp. KC	A30529	.121	.0069	3.45 mg/Kg	9
	A30[redacted]	.015	.0008 x500	0.4 mg/Kg	
	A30[redacted]	.003	<.0002 x500	<.1	
	A30555	.003	<.0002 x500 <.1	0% dev	
1.00 p.KC	A30556	.036	.002 x500	1.00 mg/Kg	100%
.005	QC	.091	.0051 mg/L		

[signature] 12/28/87

BCM

№ 132 1343

3 2 00271

Hg Analysis 1/5/88

	ABS
BLK	.002
0.008 [illegible]	.016
0.0016	.029
0.004	.069
0.008	.135
0.016	.271

Y = 16.776X + 0.002

R = .999979

Sample #	ABS		Dilution factor	Result
DBLK	.001			<.0002 mg/L
A30505	.036	.002	x20	0.04 mg/L
A31526FB	.003			<.0002 mg/L
A31527MB	.002			
A30928	.004			
A30627	.024	.0013	x10	.013 mg/L
A31565	.007			.0003 mg/L
A31663	.003			<.0002 mg/L
A31664	.002			
A31665	.002			
0.01 ac	.163			.0096 mg/L
A31666	.044			.0025 mg/L
A31[illegible]	.007			.0003 mg/L
A31[illegible]	.002			<.0002 mg/L
A31669	.002			
A31670	.001			
A31671	.002			
A31671D	.001			0.0[illegible]
[illegible] A31671S	.070			[illegible]

[illegible] 1/5/88 [illegible] T Rose

BCM

Hg Anal Cont
1/5/88

№ 132 1344

3 2 00272

	Sample #	ABS		Dil factors	Result
	A 31[illegible]78	.075			.0044 mg
	A 31685	.001			<.0002 mg/k
	A 31686	.000			
	A 31687	.001			
01	QC	.162			.0095
	D BLK-S	.002			<.0002 mg/k
	A 30495	.088	.0051	5000	25.5 mg/kg
	A 30499	.039	.0022		11.0 mg/k
	A 30503	.017	~~[illegible]~~ .0009		4.5 mg/kg
	A 30509	.087	.0051		25.5 mg/kg
15 spike	A 30510	.139	.0082		41.0 mg/kg
	A 30513	.034	.0019		9.50 mg/kg
	A 30517	.205	.0121		60.5 mg/k
	A 30523	.029	.0016		8.00 mg/kg
01	QC	.181		[illegible]	.0107
	D BLK	.001			<.0002 mg/k
	728723	.001		500	<0.1 mg/kg
	729516	.017	.0009	5000	4.5 mg/kg
	729[illegible]	.018	.0010	5000	10.5 % dev 5.0 mg/kg
20 spike	729520	.085	.0049	5000	[illegible] 24.5 mg/kg
	729708	.003		500	<0.1 mg/kg
	729709	.015	.0008		0.4 mg/kg
	729710	.002			<0.1 mg/kg
	729711	.002			
	729712	.002			

[illegible] 1/5/88 [illegible]

BCM

Hg Reg 1/5/55 cont

№ 1321345

3 2 00273

	Sample #	ABS		Dil Factor	Result
	[redacted]713	.001		500	<0.1 mg/L
	729714	.002			⊥
.010	QC	.159			.0094
	729715	.002		500	<0.1 mg/L
	A30311	.008	.0004		0.2 mg/L
	A30315	.004			<0.1 mg/L
	A30319	.059	.0004	0.07 dev	0.2 mg/L
2 spike	A30320	.081	.0047	107.5% R	2.35
	A30883	.002			<0.1 mg/L
	A30885	.002			⊥
	A31228	.002			⊥
.01	QC	.155			0.011
	A31230	.003		500	<0.1 mg/L
	A31232	.005			⊥
	A31234	.013	.0007		0.35 mg/L
	A31236	.004			<0.1 mg/L
	A31457	.025	.0014		0.7 mg/L
	~~A31458~~ A31518	.081	.0047		2.35 mg/L
	[redacted] A31520	.094	.0055		2.75 mg/L
	[redacted]522	.023	.0013		0.65 mg/L
	A31523	.023	.0013		0.65 ⊥
	A31524	.206	0.0122		6.1 mg/L
	A31528	.092	.0054	1.83 % dev	2.7 mg/L
2 spike	A31529	.161	.0095	100% R	4.75 mg/L
.01	QC	.164			.0098

Reviewed 9/5/55 [illegible]

BCM

132 № 1347

3 2 00274

MERCURY 1-12-88 R=.9997957

SAMPLE	Abs	CONC	Dilution	Final RESULT
BK	.002			
0.0004	.006			
0.0008	.015			
0.002	.032			
0.004	.063			
0.008	.125			
A30884	.003	<0.0002 mg/L		
A30886	.001	<0.0002 mg/L		
A30989	.001	<0.0002 mg/L		
4X.	.086	0.00548 mg/L	× 10 × 1000 ug/mg	= 54.8 ug/L
A30646	.027	0.00166 mg/L	× 1000 ug/mg	= 166 ug/L
A30647	.000	0.00418 mg/L	× 1000 ug/mg	= 418 ug/L
A31229	.003	<0.0002 mg/L		
A31231	.001	<0.0002 mg/L		
A31233	.002	<0.0002 mg/L		
A31235	.002	<0.0002 mg/L		
A31237	.003	<0.0002 mg/L		
A31458	.006	0.0003 mg/L		
[illegible]	.033	0.0020 mg/L		
A31458D-P	.006	0.0003 mg/L	0 DEV	
A31458SPK	.025	0.0015 mg/L	0.001 ppb, K) 120R	
P00096	.001	<0.0002 mg/L		
P00097	.003	<0.0002 mg/L		

Gregory J. Hayes 1-12-88

[illegible] Folds 1/14/88

BCM

132 № 1348

3 2 00275

MERCURY 1-12-88 RE. 9997957 PAGE 2

SAmple	Abs.	Conc.	Dilution:	Final Resul
800099	.002	<0.0002 mg/L		
800099	.003	<0.0002 mg/L		
800100	.003	<0.0002 mg/L		
800100Dp	.002	<0.0002 mg/L	ODEV	
800100spk	.020	0.0012 mg/L	120R	(0.001 ppb spk
800289	.003	<0.0002 mg/L		

Gregory S. Harper 1-14-88

Ernesto Galletta 1/14/88

CM

№ 1348

3 2 00276

MERCURY [illegible] 2 9997957 PAGE 2

SAMPLE	Abs.	Conc.	Dilution	= [illegible]
500098	.002	<0.0002 mg/L		
500099	.003	<0.0002 mg/L		
500100	.003	<0.0002 mg/L		
500100DP	.002	<0.0002 mg/L	ODEV	
500100SPK	.020	0.0012 mg/L	120R	(0.001 ppb SPK)
500289	.003	<0.0002 mg/L		

[illegible] G. Harper 1-17-88

[illegible] 1/14/88

BCM

/32 № 1349
3 2 00277

MERCURY 1-19-88 R= .9993957

SAMPLE	ABS	CONC	DILUTION FINAL REQ
BT	.002		
.0004	.006		
.0008	.011		
.002	.029		
.004	.061		
.008	.115		
[illegible]	.084	0.0057 mg/L	[illegible] 1000 mg/mg = 57 mg/L
P00349	.032	0.002 mg/L	[illegible] = 2.[illegible] mg/L
P00350	.049	0.0033 mg/L	[illegible] = 3.34 mg/L
P00[illegible]	.003	<0.0002 mg/L	
P00341	.000	<0.0002 mg/L	[illegible] = <0.002 mg/L
P00343	.007	0.0004 mg/L	x 10 = <0.002 mg/L
P00348	.002	<0.0002 mg/L	
P00354	.001	<0.0002 mg/L	
P00359	.002	<0.0002 mg/L	
P00377	.001	<0.0002	x 10 = <0.0002 mg/L
P00395	VOID	RERUN AT A LATER DATE	
P00396	.001	<0.0002 mg/L	
P00874	.003	<0.0002 mg/L	
P00874 dup	.002	<0.0002 mg/L	0 DEV
P00874	.028	.0019 mg/L	95 R (0.002 ppg spk)
1 @ 0.002	.030	.002 mg/L	
P00876	.002	<0.0002 mg/L	
P00878	.003	<0.0002 mg/L	

Gregory G. Hansel 1-20-88

[illegible] 1/20/88

BCM

132 № 1350

3 2 00278

MERCURY 1-19-88 R=9993957 PAGE 2

SAMPLE	Abs	Conc	DILUTION	FINAL REQ'D
P00080	.002	<0.0002 mg/L		
P00968	.003	<0.0002 mg/L		
P01078	.002	<0.0002 mg/L		
A30525	.404	VOID	RUN AT A LATER DATE	
A30540	.003	<0.0002 mg/L		
A30542	.035	0.002 mg/L		
A30543	.003	<0.0002 mg/L		
A30544	.002	<0.0002 mg/L		
A30547	.002	<0.0002 mg/L		DFW
A30548	.030	0.002 mg/L		[illegible] (0.002 [illegible])
A31505	.002	<0.0002 mg/L		
RC 0.002	.027	0.0018 mg/L		

Gregory J. [illegible] 1-20-88

[signature] 1/20/88

BCM

132 № 1351

3 2 00279

MERCURY 1-23-88 R: 9995019

SAMPLE	ABS	CONC	DILUTION	FINAL
BK	.002			
.0004	.006			
.0008	.011			
.002	.032			
.004	.058			
.008	.115			
4X	.075	0.00518 mg/L	× 0 × 1000 ug/mg	= 51.8 ug/L
P00349	.030	0.002 mg/L	× 1000 ug/mg	= 2.02 ug/L
P00350	.046	0.0031 mg/L	× 1000 ug/mg	= 3.14 ug/L
P00395	.016	0.0010 mg/L	× 10	= 0.010 mg/L
P01095	.001	<0.0002 mg/L		
P01096	.003	<0.0002 mg/L		
P01097	.004	0.0002 mg/L		
P01098	.004	0.0002 mg/L		
P01446	.006	0.0003 mg/L		
P01447	.003	<0.0002 mg/L		
P01484	.005	0.0003 mg/L		
P01484 Dup	.006	0.0003 mg/L	0 DEL	
QC 0.006	.028	0.0019		
P01484 Spk	.033	0.0022 mg/L	95R (0.002 ppb spk)	
P01485	.002	<0.0002 mg/L		
P01486	.003	<0.0002 mg/L		
P01488	.003	<0.0002 mg/L		

Gregory G. Harper 1-25-88

[signature] 1/25/88

BCM

132 № 1352

3 2 00280

MERCURY 1-23-88 RE. 9995019 PAGE 2

Sample	Abs	Conc	Dilution	Final Result
P01489	.003	<0.0002 mg/L		
P01538	.002	<0.0002 mg/L		
P01539	.003	<0.0002 mg/L		
P01540	.002	<0.0002 mg/L		
P01614	.002	<0.0002 mg/L		
A30525	.072	0.005 mg/L	x 10 =	0.050 mg/L
QC0.002	.027	0.0018 mg/L		

Gregory S. Harpel 1-25-88

Justo Goldet 1/25/88

BCM

132 № 1354

3 2 00281

MERCURY 1-25-88 R: .9996602

Sample	Abs	Conc	Dilution	Final Result
BK	.001			
.0004	.007			
.0008	.013			
.002	.036			
.004	.071			
.008	.136			
BK	.003	<0.0002 mg/L		
A30890	.018	~~<0.0002 mg/L~~ 0.0008 mg/L	× 0.2g→100 =	0.415 mg/kg
A30883	.03	<0.0002 mg/L	× 0.2g→100 =	<0.10 mg/kg
A30885	.007	0.0002 mg/L	× 0.2g→100 =	0.10 mg/kg
A30530	.094	0.0053 mg/L	× 0.2g→100 =	2.65 mg/kg
A30534	.063	0.0035 mg/L	× 0.2g→100 =	1.74 mg/kg
A30536	.140	0.008 mg/L	× 0.2g→100 =	4.00 mg/kg
A30538	.1241	VOID RUN AT LATER DATE		
QC0.002	.035	0.002 mg/L		

Gregory G. Harpel 1-25-88

[signature] 1/25/88

BCM

№ 1321355

5 2 00282

Mercury 1-28-88

STD	ABS
BLK	.002
.0004	.007 ~~.013~~ PC
.0008	.012
.002	.027
.004	.056
.008	.108

$y = 13.335x - .0016$

$R = .9998$

SAmple	ABS	Conc	Dil factor		Final Conc
DBlK	.000	<.0002	—		<.0002 mg/l
A30538	.013	.0009	x 10000		9.00 mg/l
802519	~~.0005~~ PC	.008	.0005	x500	0.25 mg/K
802520	~~.0004~~ PC	.007	.0004		0.20 mg/K
802526 (19D)	~~.0005~~ PC	.008	.0005		0.02 odor 0.25 mg/K
802527 (19S) VPDM spike	~~.0025~~ PC	.025	.0025		100% R 1.25 mg/l
QC (.002 mg/l)	~~.002~~ PC	.029	.0021		.0021 mg/l

Pat Goldstein 1/28/88

Gregory G. Harper 1-28-88

BCM

BCM Eastern Inc.
Engineers, Planners and Scientists

3 2 00283

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COVER PAGE

Date: 1/18/88

ANALYTICAL SERVICES DATA PACKAGE

Lab Name: BCM Eastern, Inc. Laboratory

Project No.: 00-4006-07

Client Name: Olin Chemical

Order No.: 18787 18790 18819 188
18821 18822 18823 188
18825 18826 18828 188
18830

Sample Numbers

Sample I.D.	BCM No.	Sample I.D.	BCM No.
399	7A30373	509	7A30390
966	7A30374	696	7A30391
107	7A30375	878 FB	7A30392
525	7A30376	341 BD	7A30393
523	7A30377	654 BD	7A30394
316	7A30378	Trip Blank	7A30395
221	7A30379	Method Blank	7A30396
283 FB	7A30380	492	7A30397
838 BB	7A30381	Spike of 30397	7A30398
442 BD	7A30382	312	7A30399
Trip Blank	7A30383	Spike of 30399	7A30400
420	7A30384	150	7A30401
574	7A30385	Spike of 30410	7A30402
869	7A30386	451	7A30403
102	7A30387	Spike of 30403	7A30404
560	7A30388	257	7A30405
777	7A30389	712 Dup of 399	7A30406

Comments:

Reviewed by: C&C

BCM

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Engineers, Planners and Scientists

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Date: 1/18/88

ANALYTICAL SERVICES DATA PACKAGE

Lab Name: BCM Eastern, Inc. Laboratory

Project No.: 00-4006-07

Client Name: Olin Chemical

Order No.: 18787 18790 18819 188
18821 18822 18823 188
18825 18826 18828 188
18830

Sample Numbers

Sample I.D.	BCM No.	Sample I.D.	BCM No.
908	7A30407	Leach of 30499	7A30500
925	7A30408	941	7A30501
349	7A30409	Leach of 30500	7A30502
406	7A30410	217 BD	7A30503
Trip Blank	7A30411	Leach of 30503	7A30504
424	7A30412	981	7A30505
362	7A30413	408	7A30506
942	7A30414	Trip Blank	7A30507
737	7A30415	Method Blank	7A30508
672 Dup of 420	7A30416	Dup of 30495	7A30509
Trip Blank	7A30417	Spike of 30495	7A30510
Trip Blank	7A30418	267	7A30511
577	7A30495	Leach of 30511	7A30512
Leach of 30495	7A30496	483	7A30513
538	7A30497	Leach of 30513	7A30518
Leach of 30497	7A30498	615	7A30515
807	7A30499	Leach of 30515	7 A30516

Comments:

Reviewed by:

BCM

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Engineers, Planners and Scientists

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3 2 00285

COVER PAGE

Date: 1/18/88

ANALYTICAL SERVICES DATA PACKAGE

Lab Name: BCM Eastern, Inc. Laboratory

Project No.: 00-4006-07

Client Name: Olin Chemical

Order No.: 18787 18790 18819 188
18821 18822 18823 188
18825 18826 18828 188
18830

Sample Numbers

Sample I.D.	BCM No.	Sample I.D.	BCM No.
907	7A30517	532	7A30535
Leach of 30517	7A30518	384	7A30536
790	7A30519	507	7A30537
Leach of 30519	7A30520	782	7A30538
183	7A30521	118	7A30539
Leach of 30521	7A30522	136	7A30540
401 BD	7A30523	143	7A30541
Leach of30523	7A30524	301	7A30542
281	7A30525	948	7A30543
Trip Blank	7A30526	Method Blank	7A30544
Method Blank	7A30527	Dup of 30539	7A30545
Dup of 30511	7A30528	Spike of 30539	7A30546
Spike of 30511	7A30529	Dup of 30540	7A30547
30[illegible]	7A30530	Spike of 30540	7A30547
537[illegible]	7A30531	702	7A30548
919	7A30532	760	7A30549
974	7A30533	810	7A30550
237	7A30534	Method Blank	7A30552

Comments:

Reviewed by:

BCM

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Engineers, Planners and Scientists

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3 2 00286

COVER PAGE

Date: 1/18/88

ANALYTICAL SERVICES DATA PACKAGE

Lab Name: BCM Eastern, Inc. Laboratory

Project No.: 00-4008-07

Client Name: Olin Chemical

Order No.: 18787 18790 18819 1882
18821 18822 18823 1882
18825 18826 18828 1882
18830

Sample Numbers

Sample I.D.	BCM No.	Sample I.D.	BCM No.
Dup of 30549	7A30553		
Spike of 30549	7A30554		
Dup of 30551	7A30555		
Spike of 30551	7A30556		
Leach of 30551	7A30882		

Comments:

Reviewed by:

BCM

№ 157 5912

3 2 00287

Sample #	Ext #	test	Sample Vol Init → Final	Surrogate	Spike
A30386	B697W	625BN2	1000 → 1ml	50ul BN	
A30387	B[redacted]	625BN2	1000 → 1ml	50ul BN	
A30388	B699W	625BN2	1000 → 1ml	50ul BN	
A30389	B700W	625BN2	1000 → 1ml	50ul BN	
A30390	B701W	625BN2	1000 → 1ml	50ul BN	
A30391	B702W	625BN2	1000 → 1ml	50ul BN	
A30392	B703W	625BN2	1000 → 1ml	50ul BN	
A30393	B704W	625BN2	1000 → 1ml	50ul BN	
A30394	B705W	625BN2	1000 → 1ml	50ul BN	
A30395	B706W	625BN2	1000 → 1ml	50ul BN	
A30396	B707W	625BN2	1000 → 1ml	50ul BN	
A30401	B708W	625BN2	500 → 1ml	50ul BN	30401 + 30402 spike + dup of A
A30402	B709W	625BN2	500 → 1ml	50ul BN	50ul PNA, BN1, BN2, BN2
A30403	B710W	625BN2	500 → 1ml	50ul BN	~~50ul PNA, BN1, BN2~~
A30404	B711W	625BN2	500 → 1ml	50ul BN	50ul PNA, BN1, BN2, BN2.
A30384	B695W	625BN2	1000 → 1ml	50ul BN	
A30385	B696W	625BN2	1000 → 1ml	50ul BN	

MB

QC Count

AB	20
A	3
B	0
GB	3

Date 12/[illegible] Analyst Gary [illegible]

Witness [illegible]

BCM

Book 157

№ 5913

3 2 00288

Sample #	Extra #	test	Sample size Init → Final	Surr.	Spike
A30539	B7[illegible]	625BN2	1000 → 1ml	50ul BN	~~50ul BN2, BC~~ PAH, BN1
A30541	B7[illegible]	625BN2	1000 → 1ml	50ul BN	
A30544	B712wPB	625BN2	1000 → 1ml	50ul BN	
A30545	B710WMS	625BN2	1000 → 1ml	50ul BN	50ul PAH, BenZ BN1, BN2
A30546	B710WMSD	625BN2	1000 → 1ml	50ul BN	50ul PAH, BenZ BN1, BN2

QC Count:

HB	20
A	3
B	0
GB	3

Date 12-15-87 Analyst [illegible]

Witness [illegible]

BCM

№ 5914

Sample	Extr. #	test	Sample size Init	Sample size Final	Sure	Comments 3 2 00289
A30525	B 7[illegible]	625BN2	500ml	1ml	50ml BN	gave thick emulsion
A30232	A 71[illegible]	625AE	1000ml	1ml	50ml Acid	gave thick emulsion
A30236	B715W	625MS	1000ml	1ml	50ml BN	
MBlank	A716W	625AE	1000ml	1ml	50ml Acid	
MBlank	B717W	625BN2	1000ml	1ml	50ml BN	
A30506	B 71[illegible]	625BN2	1000ml	[illegible]	50ml BN	
A30507	B 7[illegible]	625BN2	1000ml	1ml	50ml BN	

QC Count:

AB	20
A	4
B	4
GB	3

12/16/87 Analyst [illegible]

Witness Corey [illegible]

BCM

№ 5915

3 2 00290

Sample	Extr#	Test	Sample Size Init	Final	Surrogate
A30627	[illegible]	625MS/AE	1000	1	50mL } BN Surrogate
MBlank	[illegible]	625MS/AE	1000	1	50mL } Acids Surrogate

QC Count:

AB	21
A	4
B	4
EB	3

12/17/87 Analyst [illegible]

Witness [illegible]

BCM

№ 5806

3 2 00291

Sample	Ext. #	test	Sample size Init	Sample size Final	surrogate	spike
30495	B713S	625BN2	5g	1mL	SOIL BN	
30509	B[redacted]	625BN2	5g	1mL		SOIL PAH, BenZ BNI, BN2
30497	B714S	625BN2	5g	1mL		
30499	B715S	625BN2	5g	1mL		
30501	B716S	625BN2	5g	1mL		
30503	B717S	625BN2	5g	1mL		
30508	B718SPB	625BN2	0g	1mL		
30510	B713SMS	625BN2	5g	1mL		SOIL PAH, BenZ BNI, BN2
30511	B719S	625BN2	5g	1mL		
30513	B720S	625BN2	5g	1mL		
30515	B721S	625BN2	5g	1mL		
30517	B722S	625BN2	5g	1mL		
30519	B723S	625BN2	5g	1mL		
30521	B724S	625BN2	5g	1mL		
30523	B725S	625BN2	5g	1mL		
30527	B726SPB	625BN2	0g	1mL		
30528	B719SMSD	625BN2	5g	1mL		SOIL PAH, BenZ BNI, BN2
30529	B719SMS	625BN2	5g	1mL		SOIL PAH, BenZ BNI, BN2
30549	B727S	625BN2	10g	1mL		
30550	B[redacted]	625BN2	10g	1mL		
30552	B[redacted]	625BN2	0g	1mL		
30553	B727SMSD	625BN2	10g	1mL		SOIL PAH, BenZ BNI, BN2
30554	B727SMS	625BN2	10g	1mL		SOIL PAH, BenZ BNI, BN2

12/15/87 Analyst [signature]

Witness [signature]

BCM

№ 153 5807

3 2 00292

Sample	Ext #	test	Sample Init	Final	Surr.
A30531	B7[illegible]	625BN2 ~~10g~~	210g ~~1mg~~	1ml	50ml BN
M Blank	B7[illegible]	625BN2 ~~0g~~	9g ~~10g~~	1ml	50ml BN
	714				
	715				
	711				
	717				
	[illegible]				
	713				
	77				
	7[illegible]				

Q.C. Count

625 BN: 9

625MS/BN2: 2

625 AE 1

625 AB: 5

Date 12/21/87 [illegible]

[illegible]

BCM

Book 153
№ 5808

3 2 00293

Sample	Extr #	Test	Sample Size Init	Sample Size Final
A30549	[redacted]T	625BN2	10g	1mL
MBlank	[redacted]PB	625BN2	0g	1mL

12/29/01 Corey Schwell

BCM

Book 153

№ 5809

3 2 00294

Sample	Extr#	Test	Sample Size Unit	Sample Size Final	Sun	Spike
MBlank	[redacted] SPB	625BN2	0 g	1 ml	50 uL	—
30528	[redacted]SDRST	625BN2	5 g	1 ml	50 uL	50 uL PAH, BN, [illegible] Benzidine
30529	B7[illegible]SMSRST	625BN2	5 g	1 ml	↓	↓
30553	B727SMSDRST	625BN2	5 g	1 ml	↓	↓
30554	B727SMSRST	625BN2	5 g	1 ml	↓	↓

[illegible]

BCM

Book # 153

№ 5810

3 2 00295

Sample	Extr #	Test	Sample Size Unit →	Final	Surr
MBlank	[redacted]05PB	625BN2	0g	1mL	50mL BNSurr
01099	[redacted]SRST	BN2	10g	1mL	" (A30499)
A30530	B761S	BN2	5g	1mL	"
A30534	B762S	BN2	5g	1mL	"
A30536	B763S	BN2	10g	1mL	"
A30538	B764S	BN2	5g	1mL	"

QC Count:

625BN 9

625[redacted] 12

A[redacted] 1

AB 5

1/13/88 [illegible]

BCM

№ 5811

3 2 00296

Sample	Extr#	Test	Sample Size Unit	Sample Size Final	
30499	B71SSBST	625BN2	10g	1mL	50uL BN Sum
MBlank	B7[illegible]	625BN2	0g	1mL	50uL BN

1/19/98 Analyst [illegible]
Witness [illegible]

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SAMPLE #	DESCRIPTION	FILENAME	EXT. #	IS	TUNE	CRT
1000->1ml 729040	RCA	>B1307	GB0650W	40	MT 2020	D1
1000->1ml 729041	RCA	>B1308	GB0651W	40	MT 2020	D1
1000->1ml 72[illegible]	RCA	>B1309	GB0652W	40	MT 2020	D1
					3 2 00297	
	20ng DFTPP	>B1310				
	50ng ABN STD	>B1311		40		
729043	RCA	>B1312	GB653W	40	MT2020	D1
1000->1ml 729044	RCA	>B1313	GB654W	40	MT2020	D1
1000->1ml 729045	RCA	>B1314	GB655W	40	MT2020	D1
1000->1ml 729046	RCA	>B1315	GB656W	40	MT2020	D1
729047	RCA	>B1316	GB657W	40	MT2020	
729048	RCA	>B1317	GB658W	40	MT2020	D1
1000->1 729049	RCA	>B1318	GB659W	40	MT 2020	D1
1000->1 729050	RCA	>B1319	GB660W	40	MT2020	D1
	20ng DFTPP	>B1320			MT 2020	D1
	50ng ABN STD	>B1321		40		
	20ng ABN STD	>B1322				
TD_BDA updated	80ng ABN STD	>B1323				
	120ng ABN STD	>B1324				
	160ng ABN STD	>B12525				
	20ng DFTPP	>B1326				
	50ng ABN STD	>B1327				
1000->1ml 730385	OLIN	>B1328.	B696W	40	MT2020	D1
730390	OLIN	>B1329	B701W	40	MT2020	D1
7[illegible]	OLIN	>B1330	B706W	40	MT 2020	D1
7[illegible]	OLIN	>B1331	B 707W	40	MT2020	D1
500->1ml 730[illegible]	OLIN	>B1332	B 709W	40	MT2020	D1
730389	OLIN	>B1333	B 695W	40	MT2020	D1
1000->1ml 730386	OLIN	>B1334	B697W	40	MT2020	D1

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DIL FACTOR	AE SURR	BH SURR	COMMENTS	ANALYST	DATE
1				DHS	12/10
1				"	"
1				3 2 00298	
				Kao	12/11
				Kao	12/11
				Kao	12/11
				DHS	12/11
				Kao	12/14
				Kao	12/15
				Kao	12/15
ok 1	—		reextract (no sample left)	DAS	12/15
ok 1	ok	ok	ok		
1		OK			
1		OK			
2		OK			
1		OK			
1					

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Jar #		Description	File Name	Ext #	2S	Time	CRN	QT
						3 2 00299		
		20ng DFTPP	>B1335			MT2020	D1	
		50ng ABNSTD	>B1336		40	MT2020	D1	
		50ng ABN STD	>B1337		40	MT2020	D1	
		20ng ABIX STD	>B1338		40	MT2020	D1	
1000->1	730387	OLIN	> ~~[illegible]~~ >B1339	B699W	40	MT2020	D1	
1000->1	730388	OLIN	>B1340	B699W	40	MT2020	D1	
1000->1	730389	OLIN	>B1341	B700W	40	MT2020	D1	
1000->1	730391	OLIN	> ~~[illegible]~~ >B1342	B702W	40	MT2020	D1	
1000->1	730392	OLIN	>B1343	B703W	40	MT2020	D1	
1000->1	730393	OLIN	>B1344	B704W	40	MT2020	D1	
1000->1	730394	OLIN	>B1345	B705W	40	MT2020	D1	
		20ng DFTPP	>B1346			MT2020	D1	
		50ng ABNSTD	>B1347		40			
		20ng ABNSTD	>B1348					
	ID-BDA updated	80ng ABIX STD	>B1349					
		120ng ABNSTD	>B1350					
		160ng ABN STD	>B1351					
		4280-1,3DCB	>B1352					
500->1ml	A30401	Olin	>B1353	B708W	40			
500->1ml	A30402	OLIN	>B1354	B708MS	40			
500->1ml	A30404	OLIN	>B1355	B709MS	40			
1000->1ml	A30541	OLIN	>B1356	B711W	40			
1000->1ml	[illegible]	OLIN	>B1357	B710W	40			
1000->1ml	[illegible]	Olin	>B1358	B712 wpb	40			
		20ng DFTPP	>B1359			MT2020	D1	
		50ng ABNSTD	>B1360		40	"	D1	
5g->1ml	A30495	Olin	>B1361	B713S	40	MT2020	D1	

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ECT

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	25	AG Sum	BN Sum	ADCA	Comments	Tech	Date
				25		3 2 00300	
						Kao	12/16/87
	OK					Kao	12/16/87
						DHS	12/16/87
			HIGH				
			OK				
2nd	OK		OK				
2nd	OK		OK				
2nd							
2nd							
						Kao	12/17
2nd						Kao	12/17
2nd						DHS	
2nd							
2nd	ok	—	ok				
2nd	ok	—	ok				
2nd							
2nd							
2nd							
						Kao	12/18
2nd						Kao	
2nd						Kao	12/18

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3 2 00301

Sample #	Description	Filename	Ext #	Vs	Time	CRN	QT
1000→1ml A30545	OLIN	>B1362	B710WMSD	40	MT2020	D1	✓
1000→1ml A30544	Olin	>B1363	B710WMS	40	MT2020	D1	✓
59→1ml A30497	OLIN	>B1364	B714S	40	MT2020	D1	✓
59→1ml A30498	OLIN	>B1365	B715S	40	MT2020	D1	✓
59→1ml A30501	OLIN	>B1366	B716S	40	MT2020	D1	✓
59→1ml A30503	OLIN	>B1367	B717S	40	MT2020	D1	✓
09→1ml A30508	OLIN	>B1368	B718SPB	40	MT2020	D1	✓
59→1ml A30509	Olin	>B1369	B713MSD	40	MT2020	D1	✓
59→1ml A30510	Olin	>B1370	B713SMS	40	MT2020	D1	✓
59→1ml A30511	Olin	>B1371	B719S	40	MT2020	D1	✓
	20ng DFTPP	>B1372			MT2020	D1	
	50ng ABNSTD	>B1373					
	50ng ABNSTD	>B1374					
59→1ml A30513	Olin	>B1375	B720S	40	MT2020		
59→1ml A30515	Olin	>B1376	B721S	40			
59→1ml A30517	Olin	>B1377	B722S	40			
59→1ml A30519	Olin	>B1378	B723S	40			
59→1ml A30521	Olin	>B1379	B724S	40			
59→1ml A30523	Olin	>B1380	B725S	40			
59→1ml A30527	Olin	>B1381	B726SPB	40			
59→1ml A30528	Olin	>B1382	B719SMSD	40			
59→1ml A30529	Olin	>B1383	B719SMS	40			
109→1ml A30549	Olin	>B1384	B727S	40			
	20ng DFTPP	>B1385					
	50ng ABNSTD	>B1386		40			
109→1ml A30550	Olin	>B1387	B728S	40		D1	✓
09→1ml A30552	Olin	>B1388	B729SPB	40			✓
109→1ml A30553	Olin	>B1389	B727SMSD	40			✓
A30554	Olin	>B1390	B727SMS	40			✓
A30556	Olin	>B1391	B738W	40			

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Continued From Page 3 2 00302

[illegible]	2/2	AE sim	BN sim	ARCH	Comments	Odel	Tech	Date
✓	ok		ok	2/9			DHS	12/18
✓	ok		ok				Kao	12/18
[illegible]	ok		o[illegible]			✓	DHS	
[illegible]	ok		o[illegible]			✓		
[illegible]	ok		ok			✓		
0.2	ok		ok			✓		
0.1	ok					✓		
0.2 ✓							Kao	
0.2								
0.2						✓		
							Kao	12/21
							Kao	12/21
							Kao	12/21
0.2						✓	Kao	12/21
0.2						✓	Kao	
0.2						✓	Kao	
0.2 ✓						✓	Kao	
0.2						✓	Kao	
						✓		
						✓		
0.2 ✓							DHS	
0.2 ✓								
0.2					reset	✓		
							Kao	12/22
							Kao	
0.1 ✓						✓	Kao	
0.1 ✓						✓	Kao	Kao
0.1 ✓							Kao	12/22
0.1					medium Report ML5		Kao	
1						✓	DHS	

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PROJECT

Notebook No. 2 00303

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Sample #	Description	File Name	Ext #	%	Time	CAN	QT
A30507	OLIN	>B1392	B739W	40	MT2020	D3	✓
50ng/ml A30525	OLIN	>B1393	B737W	40	MT2020	↓	✓
~~A37~~	MTBLK	>B1394	AB721WPB	40	MT2020	↓	✓
	MTBLK	>B1395	A736WPB	40	MT2020	↓	✓
10g→1ml A30531	OLIN	>B1396	B746S	40	MT2020	↓	✓
	MTBLK	>B1397	B747SPB	40	MT2020	↓	✓
	MTBLK	>B1398	B717WPB	40	MT2020		
	20ng DFTPP	>B1399					
	50ng ABNSTD	>B1400					
1000ml→1ml A30416	Olin	>B1401	B0743W	40	MT2020	D1	
10g→1ml A30549	OLIN	>B1402	B727SRST	40	MT2020	D1	
10g→1ml MBlank	OLIN	>B1403 ~~B7[illegible]~~	B728SPB	40	MT2020	D1	✓
1000→1ml A30236	UCC Phila	>B1404	B715W	40	MT2020	D1	✓
1000→1ml A30232	UCC Phila	>B1405	A714W	40	MT2020	D1	✓
1000→1ml AB0627	Rohm + Hass	>B1406	AB720W	40	MT2020	D1	✓
1000→1ml MBlank	MB	>B1407	AB742WPB	40	MT2020	D1	
1000→1ml A30443	AIRCO	>B1408	AB744W	40	MT2020	D1	
1000→1ml A30443	AIRCO	>B1409	AB744W	40	MT2020	D1	
1000→1ml MBLK	MBlank	>B1410	AB742WPB	40	MT2020	D1	
	20ng DFTPP	>B1411	20ng DFTPP		MT2020	D1	
	50ng ABNSTD	>B1412					
1000→1ml A30232	A30232 UCC Phila	>B1413	A714W		MT2020	D1	✓
A30232	UCC Phil	>B1414	A714W		MT2020		
A30[illegible]	UCC Phil	>B1415	A714W		MT2020		
	~~20ng DFTPP~~						
	20ng DFTPP	>B1416			MT2020		
	~~20ng DFTPP~~	~~>B1417~~					

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	TS	80 Stn	80 Stn	Amt	Comments	Tech	Date
		OK	00	25		DHS	12/27
00							
01							
				25		Kao	1/4/88
						Kao	1/4/88
1.0 ✓	ok	—	ok			Kao	
0.1 ✓	ok	—	ok				
0.1 ✓	ok	—	ok			TS	1/4/88
1.0 ✓						TS	1-4-88
1.0 ✓					rerun	TS	1-4-88
1.0 ✓						TS	1-4-88
1.0 ✓						TS	1-4-88
1.0 ✓						TS	1-4-88
1.0 ✓							
				26		TS	1-5-88
500 ✓							
10							
500	ok				500 D		
						TS	1-8-88

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3 2 00305

Sample #	Description	File name	[illegible]	FS	Time	CRN	QT
	20ng DFTPP	>B1417		1	MT2020	D1	
	50ng ABN STD	>B1418		40ng	↓	↓	
	20ng ABN STD	>B1419		↓			
	80ng ABN STD	>B1420					
	120ng ABN STD	>B1421					
	160 ABN STD	>B1422					
A 30526	OLIN	>B1423	AB752W	40ng	MT2020	D1	✓
	MTH BLK	>B1424	B748SPB	40	MT2020	D1	✓
5g→1ml A 30554	OLIN	>B1425	B727SMS	40	MT2020	D1	✓
5g→1ml A 30553	OLIN	>B1426	RST B727SMS	40	MT2020	D1	✓
5→1ml A 30529	OLIN	>B1427	DRST B719SMSRST	40	MT2020	D1	✓
5g→1ml A 30528	OLIN	>B1428	B719SMSDRST	40	MT2020	D1	✓
	20ng DFTPP	>B1429					
	50ng ABN	>B1430		40ng	MT2020	D1	✓
1000→1ml A30627	ROHM + HAAS	>B1431	AB740WRST	40ng	MT2020	D1	✓
1000→1ml 00048	MONSANTO	>B1432	AB751W	40	MT2020	D1	✓
1000→1ml A30628	R+H	>B1433	AB750W	40	MT2020	D1	✓
	MT BLK	>B1434	AB749WPB	40	MT2020	D1	✓
	MT BLK	>B1435	AB749WPBMS	40	MT2020	D1	✓
	MT BLK	>1436	AB749WPBMSD	40	MT2020	D1	✓
1000→1ml 00048	MONSANTO 1:20 dil	>1437	AB751W	40	MT2020	D1	✓
	50ng PEST MIX	>1438		40	MT2020	D1	✓
	20ng DFTPP	>B1439			MT2020	D1	
	50ng ABN	>B1440		40	↓	↓	
	80ng ABN	>B1441		↓			
	160ng ABN	>B1442					
	MTH BLK	>B1443	AB755WPB	40	MT2020	D1	✓
1000→1ml GOLD BOND	00287	>1444	AB756W	40	MT2020	D1	✓
1000→1ml 00048	MONSANTO	>1445	AB751W	40	MT2020	D1	✓
1000→1ml	MTH BLK	>1446	GB753WPB	40	MT2020	D1	✓
900→1ml 00111		>1447	GB754W	40	MT2020	D1	

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PROJECT

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OL	25	A Sur	B Sur	ARCH	Comments	Tech	Date
						DHS	1/11/88
1							
1							
1							
1							
1							
0.2							
0.2							
0.2							
0.2							
1.0							
1.0							
1.0							
1.0							
1.0							
20					Rerun		
						Kao	1/13/88
						Kao	
						Kao	
						Kao	
1.0						DHS	1/13/88
1.0							
20							
1.0							

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SAMPLE NO.	DESCRIPTION	FILENAME	EXT. NO.	IS	TUNE FILE	CAN	QT
	20ng DFTPP	>B1448			MT2020	D1	1
	50ng ABN STD	>B1449		40	MT2020	D1	1
	20ng DFTPP	>B1450			MT2020	D1	1
	50ng ABN STD	>B1451		40	MT2020	D1	1
	80ng ABN STD	>B1452		40	MT2020	D1	1
	160ng ABN STD	>B1453		40	MT2020	D1	1
	20ng DFTPP	>B1454					
	20ng ABN STD	>B1455		40	MT2020	D1	1
	50ng ABN STD	>B1456		40	MT2020	D1	1
	80ng ABN STD	>B1457		40	MT2020	D1	1
	120ng ABN STD	>B1458		40	MT2020	D1	1
	160ng ABN STD	>B1459		40	MT2020	D1	1
1000-1	MTH BLK	>B1460	AB750WPB	40	MT2020	D1	1
1000 800395	R+H	>B1461	AB757W	40	MT2020	D1	1
1000 800396	R+H	>B1462	AB758WAB	40	MT2020	D1	1
	MTH BLK	>B1463	AB750WAB	40	MT2020	D1	
	20ng DFTPP	>B1464			MT2020	D1	1
	50ng ABN STD	>B1465		40	MT2020	D1	1
8g→1ml	MTH BLK	>B1466	B760SPB	40	MT2020	D1	1
10g→1ml 01099	OLN	>B1467	B755RST	40	MT2020	D1	1
5g→1ml A30530	OLN	>B1468	B761S	40	MT2020	D1	1
10g→1ml A30536	OLN	>B1469	B763S	40	MT2020	D1	1
5g→1ml A30534	OLN	>B1470	B762S	40	MT2020	D1	1
5g→1ml A30538	OLN	>B1471	B764S	40	MT2020	D1	1
	20ng DFTPP	>B1472			MT2020	D1	
		>B1493					
		>B1494					
		>B1495					
		>B1496					
	50ng DFTPP	>B1497					

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DIL	IS	ASVR	BVSVR	ARCH	COMMENTS	DATE	TECH
						1/14/88	DH SHANER
						1/15/88	DASHANER
						1/18/88	D. Shaner
					HSLSV		
					HSLSV		
					HSLSV		
						1/19/88	D. SHANER
						1/20/88	D SHANER

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Read and Understood By

Signed Date Signed Date

Notebook No. _____

PROJECT _____ 3 2 00309 Continued From Page _____

SAMPLE NO.	DESCRIPTION	FILENAME	EXT. NO.	IS	TUNE FILE	CRN
	50ng ABN STD	>B1478		40	MT2020	D1
10g->ml 01099	OLDN	>B1479	B7155RST	40	MT2020	D1
0g->ml	MTH BLK	>B1480	B7165MPB	40	MT2020	D1
	20ng DFTPP	>B1481			MT2020	D1
	20ng DFTPP	>B1482				

Continued on Page

Read and Understood By

Signed _____ Date _____ Signed _____ Date _____

PROJECT

Continued From Page

DIV	IS	ASUR	BNSUR	ARCH	COMMENTS	DATE	TECH
						1/20/58	D.A. SHANER
						1/21/58	D.SHANER

Continued on Page

Read and Understood By

Signed Date Signed Date

DATE 12/14/87 TIME 8:00 AM

INSTRUMENT ID #1 ANALYST Kao

LAB SAMPLE NO. WHICH WILL BE AFFECTED BY THIS PERFORMANCE 3 2 00311

DATA RELEASE AUTHORIZED BY

m/e	Abundance Criteria	% Relative Abundance
51	30.0 - 60.0% of mass 198	59.64
68	less than 2.0% of mass 69	0.97 (1.37%)[1]
69	mass 69 relative abundance	73.84
70	less than 2.0% of mass 69	0.77 (1.05%)[1]
127	40.0 - 60.0% of mass 198	47.95
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.56
275	10.0 - 30.0% of mass 198	21.91
365	greater than 1.00% of mass 198	3.08
441	present, but less than mass 443	15.73
442	greater than 40.0% of mass 198	92.36
443	17.0 - 23.0% of mass 442	18.47 18.62

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1]Value in parenthesis is % mass 6
[2]Value in parenthesis is % mass 4

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
[illegible]	[illegible]	12/14	[illegible]
[illegible]	[illegible]	↓	10:02
[illegible]	[illegible]	↓	10:45
[illegible]	[illegible]	↓	11:46
[illegible]	[illegible]	↓	12:37

NJDEP Form O-6
10/86

GC/MS PERFORMANCE STANDARD

3 2 00312

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30[illegible] of mass 198	59.64	59.64	Ok
68	Less than 2% of mass 69	.97	1.32	Ok
69	(reference only)	73.84	73.84	Ok
70	Less than 2% of mass 69	.77	1.05	Ok
127	40-60% of mass 198	47.95	47.95	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	6.56	6.56	Ok
275	10-30% of mass 198	21.91	21.91	Ok
365	Greater than 1% of mass 198	3.08	3.08	Ok
441	0-100% of mass 443	14.78	88.64	Ok
442	Greater than 40% of mass 198	92.30	92.30	Ok
443	17-23% of mass 442	16.67	18.06	Ok

Injection Date: 12/14/87
Injection Time: 09:47
Data File: >B1320
Scan: 159

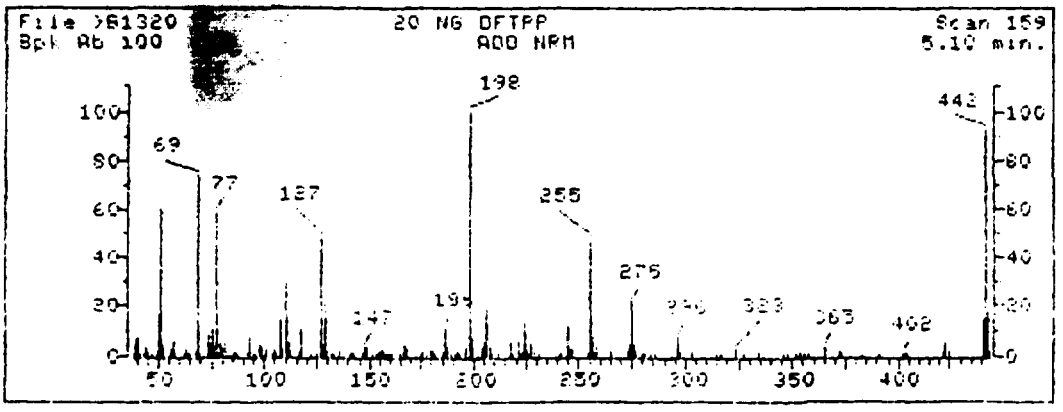
:AL,,3 Move cursor; then press carriage return :

>B1320 20 NG DFTPP
159 ADD NRM

3 2 00313

File: >B1320 Scan #: 159 Retn. time: 5.10

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.00	.583	84.50	.176	140.20	.207	196.20	2.692	276.25	3.513
39.00	6.135	85.00	.491	141.15	2.608	198.20	100.000	277.15	1.695
40.00	7.125	86.00	1.212	142.40	.291	199.20	6.565	280.00	.245
40.90	.614	87.15	.253	142.75	.268	201.45	.222	281.15	.314
41.50	.222	92.15	.882	143.00	.614	204.15	2.707	283.15	.337
43.00	.606	93.00	6.841	146.00	.153	205.15	5.790	285.25	.284
44.00	3.244	95.15	.153	147.25	2.738	206.25	18.705	293.25	.291
44.90	.506	95.50	.215	148.15	2.723	207.25	3.129	296.25	6.933
47.15	.192	95.75	.261	151.65	.230	209.00	.222	297.20	1.020
48.95	1.135	96.15	.330	153.15	.522	211.40	.598	303.05	1.150
49.95	16.366	98.15	3.896	154.40	.445	217.15	6.296	315.05	.253
51.05	59.636	99.15	3.175	155.25	1.120	218.15	.429	316.30	.552
52.05	3.574	101.00	1.925	156.25	1.879	221.25	5.836	323.20	2.017
55.20	.767	103.15	.399	157.15	.215	222.00	.844	327.20	.276
56.05	2.539	104.15	1.848	158.50	.268	223.15	1.511	334.15	1.657
57.05	6.020	105.15	.752	159.15	.268	224.25	12.624	346.15	.376
58.05	.368	107.15	14.135	159.50	.222	225.25	2.324	347.90	.222
61.95	.475	108.15	2.055	160.00	.360	226.25	.238	352.00	.399
63.05	2.032	110.05	29.082	160.25	.345	227.15	4.809	354.00	1.112
64.05	.337	111.05	4.740	161.25	.768	229.15	1.022	355.15	.522
65.05	.721	112.45	.936	165.25	.245	231.15	.245	357.25	.199
68.05	.974	112.70	.276	167.25	3.827	241.05	.261	365.20	3.075
69.05	73.840	116.05	.621	168.15	2.339	242.20	.307	372.20	1.411
70.05	.775	117.20	10.530	174.20	.560	244.20	10.936	373.05	.184
71.45	.161	122.05	.560	175.20	1.449	245.20	1.511	383.20	.291
73.05	3.045	124.05	.922	177.20	.835	246.20	2.331	390.20	.322
74.20	3.413	125.20	.952	179.20	2.398	254.20	.368	402.25	.437
75.05	10.315	127.20	47.948	180.20	2.216	255.20	47.194	403.15	.353
76.20	2.945	128.20	3.766	181.05	.568	256.20	6.356	404.15	.153
77.20	58.417	129.20	20.477	185.20	1.373	257.20	.537	422.20	.399
78.20	4.210	130.20	1.342	186.20	10.705	258.20	2.569	423.05	4.847
79.00	4.441	132.30	.268	187.20	3.267	264.80	.253	424.20	1.043
80.00	2.868	133.20	.383	189.05	.307	265.20	1.250	441.20	14.779
81.15	4.847	135.30	1.703	191.20	.314	273.00	1.603	442.20	92.300
82.15	1.357	136.20	.491	192.20	.959	274.15	3.773	443.20	16.673
83.00	.897	137.30	.483	193.20	.629	275.15	21.911	444.20	1.718
84.15	.621								



CRITERIA FOR SEMIVOLATILES, 50 ug LEVEL OR LESS

3 2 00314

DATE 12/15/87 TIME 7:43 AM

INSTRUMENT ID 1 ANALYST Kao

LAB SAMPLE NO. WHICH WILL BE AFFECTED BY THIS PERFORMANCE

DATA RELEASE AUTHORIZED BY

m/e	Ion Abundance Criteria	% Relative Abundance
51	30.0 - 60.0% of mass 198	51.02
68	less than 2.0% of mass 69	0.78 (1.19%)[1]
69	mass 69 relative abundance	65.30
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	45.20
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.76
275	10.0 - 30.0% of mass 198	20.77
365	greater than 1.00% of mass 198	2.78
441	present, but less than mass 443	13.02
442	greater than 40.0% of mass 198	84.36
443	17.0 - 23.0% of mass 442	14.52

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 6

[2] Value in parenthesis is % mass 4

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
SONG STD	>B1327	12/15	2:06
A30385	>B1328	12/15	10:33
[illegible]	[illegible]		11:35
A30395	>B1330		12:33
A30396	>B1331		13:15
A30403	>B1332		14:03
A30384	>B1333		14:48
A30386	>B1334		15:38

NJDEP Form O-6
10/86

3 2 00315

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	51.02	51.02	Ok
68	Less than 2% of mass 69	.78	1.19	Ok
69	(reference on[y)	65.30	65.30	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	45.20	45.20	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	6.76	6.76	Ok
275	10-30% of mass 198	20.77	20.77	Ok
365	Greater than 1% of mass 198	2.78	2.78	Ok
441	0-100% of mass 443	13.02	89.69	Ok
442	Greater than 40% of mass 198	84.36	84.36	Ok
443	17-23% of mass 442	14.52	17.21	Ok

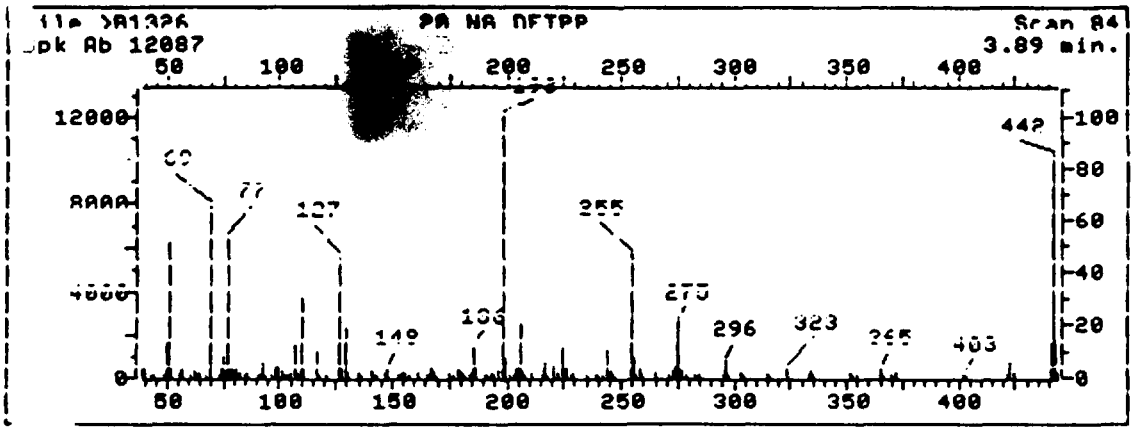
Injection Date: 12/15/87
Injection Time: 07:43
Data File: >B1326
Scan: 84

AL,,3 Move cursor; then press carriage return :

>B1326 20 NG DFTPP
84 NRM

File: >B1326 Sc[illegible] 84 Retn. time: 3.89

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
39.00	3.831	96.90	.347	158.00	.505	211.15	1.026	279.15	.215
40.00	3.243	98.15	4.186	161.25	.976	216.15	.538	283.25	.513
43.25	.190	99.15	3.632	162.15	.273	217.15	5.510	285.15	.331
44.00	.885	101.15	2.019	165.15	.786	218.15	.629	295.15	.232
48.95	.902	102.50	.232	166.25	.546	221.25	4.600	296.25	6.279
49.95	12.824	103.15	.488	167.25	4.161	223.25	1.158	297.05	.894
51.05	51.022	104.25	.910	168.25	2.292	224.25	11.392	303.20	.927
52.05	3.218	105.15	1.084	169.25	.339	225.25	2.954	304.20	.347
56.05	1.142	107.15	12.418	175.20	1.357	227.15	4.658	315.05	.687
56.95	3.359	108.15	1.655	177.05	.488	228.15	.612	316.20	.513
60.80	.745	109.00	.538	179.20	2.970	229.15	1.001	323.20	2.747
63.05	2.044	110.05	29.958	180.20	1.862	235.20	.629	333.00	.199
65.05	.927	111.05	3.640	181.20	.918	239.20	.290	334.25	1.845
68.05	.778	117.05	9.688	182.30	.356	240.20	.281	335.15	.339
69.05	65.302	118.05	.769	184.05	.339	242.20	.637	352.15	1.100
73.05	.761	120.45	.207	185.20	1.663	244.20	10.052	353.15	.529
74.05	4.898	127.20	45.197	186.20	11.591	245.20	1.100	354.25	.654
75.05	7.570	128.20	3.028	187.20	3.566	246.20	2.027	365.05	2.780
76.20	2.399	129.20	18.359	191.20	.496	247.20	.372	366.05	.339
77.20	52.925	130.20	1.497	192.20	.769	255.20	46.653	370.30	.207
78.20	3.334	135.20	1.373	193.20	.951	256.20	6.784	372.05	1.588
79.15	3.400	136.20	.654	194.20	.298	257.20	.323	402.15	.331
80.00	2.507	141.15	2.482	196.20	2.548	258.20	3.268	403.15	.786
81.00	4.112	142.25	.819	198.20	100.000	259.20	.579	421.15	.612
82.00	1.084	143.15	.786	199.20	6.759	265.20	.935	422.05	.761
83.15	1.233	147.25	1.208	201.70	.612	271.15	.215	423.05	5.088
85.15	.678	148.15	2.796	203.20	.430	273.15	1.953	424.20	1.183
86.15	.935	153.25	.745	204.25	3.384	274.15	3.682	441.05	13.022
91.15	.852	154.15	.422	205.15	4.724	275.15	20.774	442.20	84.355
92.25	.720	155.25	1.208	206.25	20.319	276.15	2.978	443.20	14.520
93.15	5.692	156.25	1.737	207.15	2.416	277.15	2.118	444.05	1.646
93.90	.513	157.50	.422	208.15	.670	278.65	.223		



DATE 12/16/97 TIME 9:02

INSTRUMENT ID #1 ANALYST

LAB SAMPLE NO. WHICH WILL BE AFFECTED BY THIS PERFORMANCE 3 2 00317

DATA RELEASE AUTHORIZED BY

m/e	Abundance Criteria	% Relative Abundance
51	30.0 - 60.0% of mass 198	55.93
68	less than 2.0% of mass 69	0.94 (1.32)[1]
69	mass 69 relative abundance	71.13
70	less than 2.0% of mass 69	0.37 (0.52)[1]
127	40.0 - 60.0% of mass 198	46.10
197	less than 1.0% of mass 198	0.00
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	6.33
275	10.0 - 30.0% of mass 198	21.29
365	greater than 1.00% of mass 198	3.15
441	present, but less than mass 443	12.45
442	greater than 40.0% of mass 198	80.34
443	17.0 - 23.0% of mass 442	15.93

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1]Value in parenthesis is % mass 6
[2]Value in parenthesis is % mass 4

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
50ng STD	>B 1337	12/16/97	9:02
20ng STD	>B 1338		
A30387	>B 1339		10:50
A30388	>B 1340		11:32
A30389	>B 1341		12:15
A30391	>B 1342		13:03
A30392	>B 1343		13:47
A30393	>B 1344		14:37
A30394	>B 1345		15:18

NJDEP Form O-6
10/86

:TUNER,=DFTPP

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	55.93	55.93	Ok
68	Less than 2% of mass 69	.94	1.32	Ok
69	(reference only)	71.13	71.13	Ok
70	Less than 2% of mass 69	.37	.52	Ok
127	40-60% of mass 198	46.10	46.10	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	6.33	6.33	Ok
275	10-30% of mass 198	21.29	21.29	Ok
365	Greater than 1% of mass 198	3.15	3.15	Ok
441	0-100% of mass 443	12.45	78.14	Ok
442	Greater than 40% of mass 198	80.54	80.54	Ok
443	17-23% of mass 442	15.93	19.78	Ok

Injection Date: 12/16/87
Injection Time: 07:44
Data File: >B1335
Scan: 86

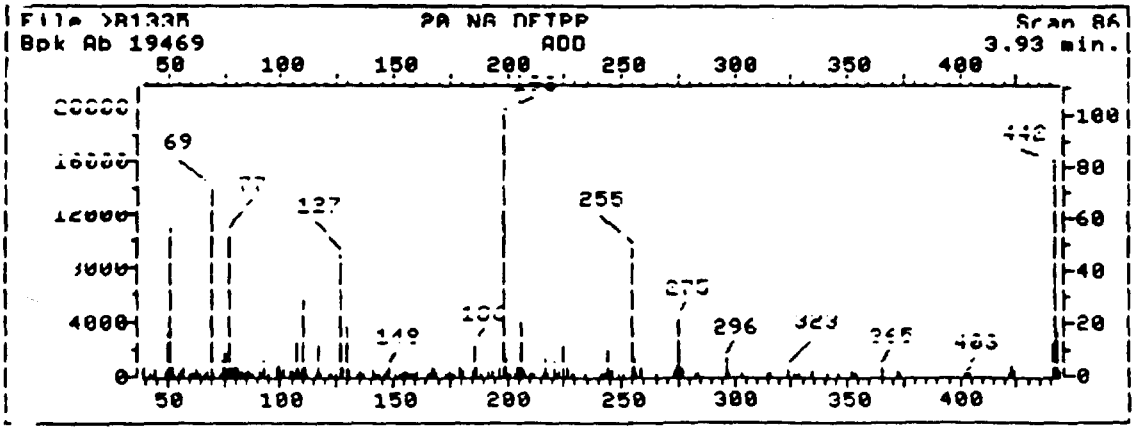
AL,,3 Move cursor; then press carriage return :

3 2 00319

>B1335 20 NG DFTPP
86 ADD NRM

File: >B1335 Sc[illegible]: 86 Retn. time: 3.93

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
39.00	4.089	87.90	.159	146.15	.365	201.70	.544	274.15	4.145
39.90	4.551	91.15	1.017	147.15	1.238	203.20	.575	275.15	21.285
42.75	.108	92.00	.914	148.15	2.614	204.15	3.000	276.15	2.948
44.00	2.162	93.15	5.742	151.15	.293	205.15	5.039	277.15	1.752
48.80	1.248	95.15	.344	153.15	.704	206.15	20.438	283.40	.190
50.05	16.015	98.15	4.397	154.15	.411	207.15	2.435	283.75	.149
50.95	55.930	99.15	3.539	155.15	1.187	208.15	.550	296.25	6.657
51.95	3.015	100.15	.360	156.15	1.413	210.15	.262	297.00	.837
52.80	.149	101.15	2.096	157.00	.293	211.15	.473	303.05	.776
54.95	.909	104.15	1.002	157.40	.288	212.00	.236	315.05	.729
56.05	1.721	105.15	1.243	158.00	.293	216.15	.503	316.05	.200
57.05	4.464	106.00	.293	159.15	.267	217.15	6.246	323.20	2.245
60.30	.128	107.15	14.808	160.15	.401	218.00	.514	326.55	.103
61.05	.509	108.15	1.895	161.15	1.125	221.15	5.516	327.05	.252
62.05	.699	109.15	.349	165.15	.534	222.15	.396	328.05	.195
63.05	2.234	110.05	28.872	166.25	.637	223.15	1.248	334.15	1.572
64.05	.216	111.05	4.109	167.15	3.626	224.25	10.997	341.15	.277
65.05	.909	112.05	.770	168.25	2.075	225.15	3.149	346.00	.241
66.80	.113	116.05	.883	169.25	.467	227.15	4.998	352.15	1.135
68.05	.940	117.20	11.110	173.05	.375	228.15	.411	353.15	.390
69.05	71.128	118.05	.591	174.20	.883	229.25	.904	354.15	.693
70.05	.370	122.05	.637	175.20	1.674	234.15	.385	365.05	3.154
72.95	.647	123.05	.837	176.20	.375	241.30	.108	372.05	1.644
74.05	5.162	125.05	.611	177.05	.647	242.20	.637	373.20	.226
75.05	8.968	127.20	46.104	179.05	3.601	243.20	.334	402.00	.257
76.20	2.548	128.20	3.221	180.20	2.327	244.20	9.985	402.40	.236
77.20	54.487	129.20	19.025	181.20	1.192	245.30	1.330	402.65	.252
78.20	4.032	130.20	2.337	185.20	.991	246.05	2.204	403.25	.411
79.00	3.185	134.05	.514	186.20	11.598	249.05	.318	404.15	.216
80.00	2.789	135.20	1.423	187.20	2.882	251.05	.123	421.15	.324
81.00	3.806	136.20	.329	189.20	.550	255.20	48.467	421.95	.575
82.00	.986	137.20	.411	192.20	1.048	256.20	6.657	423.05	4.582
83.15	1.166	141.15	2.260	193.30	1.382	257.05	.313	424.05	1.264
83.90	.688	1[illegible].15	.678	196.20	2.691	258.20	3.447	441.20	12.451
85.15	.981	1[illegible]0	.170	198.20	100.000	259.05	.565	442.05	80.543
86.15	1.495	1[illegible]	.360	199.20	6.333	265.20	.786	443.05	15.933
87.00	.406	1[illegible].75	.103	200.20	.298	273.15	1.726	444.05	1.222



DATE 12/17/87 TIME 7:47 AM

INSTRUMENT ID 1 ANALYST Kao

LAB SAMPLE NO. WHICH WILL BE AFFECTED BY THIS PERFORMANCE 3 2 00320

DATA RELEASE AUTHORIZED BY

m/e	Abundance Criteria	% Relative Abundance
51	30.0 - 60.0% of mass 198	56.61
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	69.48
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	46.52
197	less than 1.0% of mass 198	0.22
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	7.60
275	10.0 - 30.0% of mass 198	23.50
365	greater than 1.00% of mass 198.	3.18
441	present, but less than mass 443	13.22
442	greater than 40.0% of mass 198	87.09
443	17.0 - 23.0% of mass 442	18.21 20.91%

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass (

[2] Value in parenthesis is % mass

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
50ng	>B1347	12/17	8:09
20ng	>B1348	↓	8:59
80ng	>B1349	↓	9:41
120ng	>B1350	↓	10:26
160ng	>B1351	↓	11:10
~~A280-1 [illegible]~~	~~>B1352~~		
A30401	>B1353		12:23
A30402	>B1354		
A30541	>B1356		14:46
A30539	>B1357		15:31
A30544	>B1358		

NJDEP Form O-6
10/86

3 2 00321

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Mass Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	56.61	56.61	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	69.48	69.48	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	46.52	46.52	Ok
197	Less than 1% of mass 198	.22	.22	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	7.60	7.60	Ok
275	10-30% of mass 198	23.50	23.50	Ok
365	Greater than 1% of mass 198	3.18	3.18	Ok
441	0-100% of mass 443	13.22	72.61	Ok
442	Greater than 40% of mass 198	87.09	87.09	Ok
443	17-23% of mass 442	18.21	20.91	Ok

Injection Date: 12/17/87
Injection Time: 07:47
Data File: >81346
Scan: 84

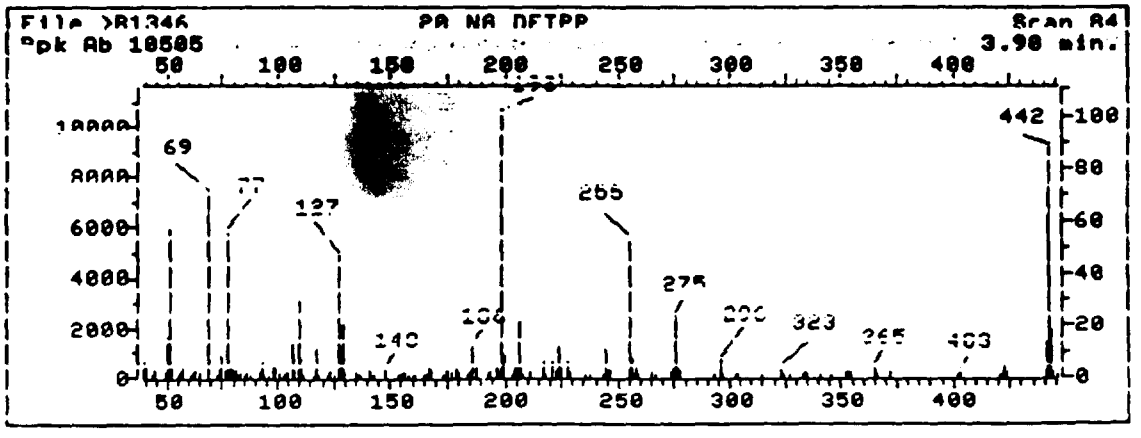
AL,,3 Move cursor; then press carriage return :

3 2 00322

>B1346 20 NG DFTPP
84 NRM

ile: >B1346 Sc[illegible]: 84 Retn. time: 3.90

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
39.00	5.569	93.15	5.721	153.15	.685	207.25	2.913	296.15	6.188
40.00	4.388	94.00	.371	154.15	.533	208.15	.866	297.05	.876
43.15	.428	96.15	.428	155.25	.961	211.15	1.000	303.05	.800
44.00	1.761	98.15	4.607	156.15	1.637	217.15	5.559	303.70	.267
48.95	1.199	99.15	3.798	158.15	.533	218.15	.771	314.20	.723
49.95	15.288	101.15	1.523	160.25	.666	221.15	5.797	323.20	2.418
50.95	56.611	103.00	.514	161.25	.866	223.15	2.208	324.20	.324
52.05	2.618	104.15	1.418	165.15	.762	224.25	11.652	327.20	.324
55.05	.714	105.15	1.514	166.15	.628	225.15	3.218	333.00	.324
55.95	1.694	107.15	12.632	167.25	3.846	227.25	5.112	334.15	1.637
57.05	4.017	108.15	2.494	168.15	2.104	229.15	1.257	335.15	.381
61.05	.505	110.05	29.548	173.20	.352	235.20	.457	341.25	.219
62.05	1.390	111.05	3.370	174.05	.733	237.20	.295	346.15	.514
63.05	2.104	112.05	.476	175.20	1.818	243.20	.828	352.15	1.238
65.05	1.399	116.20	.743	177.20	1.057	244.20	10.547	353.15	1.047
69.05	69.481	117.05	10.509	179.20	3.332	245.20	1.437	354.15	.990
72.95	.505	118.05	.904	180.20	1.542	246.20	2.465	365.05	3.179
74.05	4.893	122.20	.581	184.05	.324	255.20	51.947	366.05	.485
75.05	7.758	123.20	1.818	185.20	1.285	256.20	6.311	372.05	1.647
76.20	2.313	125.05	.457	186.20	11.642	257.20	.495	402.15	.752
77.20	55.060	127.20	46.521	187.30	2.618	258.20	3.246	403.15	1.171
78.20	3.579	128.20	4.131	192.20	.790	259.20	.609	421.00	.781
79.00	3.674	129.20	19.971	193.30	.990	265.20	1.180	422.05	.524
80.00	2.418	130.20	1.218	196.20	2.675	266.25	.333	423.05	5.026
81.15	4.474	135.20	1.580	197.20	.219	273.25	1.618	424.05	1.152
82.15	.847	136.20	.638	198.20	100.000	274.15	3.198	441.05	13.222
83.00	1.266	137.30	.752	199.20	7.596	275.15	23.503	442.20	87.092
85.00	.495	141.15	1.932	203.30	.819	276.25	2.732	443.20	18.210
86.15	1.199	143.00	.419	204.25	3.084	277.15	1.923	444.20	1.495
87.75	.295	147.25	1.314	205.15	4.874	293.15	.333	446.30	.514
92.15	1.199	148.15	2.523	206.25	21.514				



DATE 12/18/87 TIME 6:55 AM

INSTRUMENT ID #1 ANALYST KAO

LAB SAMPLE NO. WHICH WILL BE AFFECTED BY THIS PERFORMANCE 3 2 00323

DATA RELEASE AUTHORIZED BY

m/e	Abundance Criteria	% Relative Abundance
51	30.0 - 60.0% of mass 198	59.07
68	less than 2.0% of mass 69	1.02 (1.42)[1]
69	mass 69 relative abundance	71.73
70	less than 2.0% of mass 69	0.00 (0.00)[1]
127	40.0 - 60.0% of mass 198	46.04
197	less than 1.0% of mass 198	0.54
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	6.69
275	10.0 - 30.0% of mass 198	22.54
365	greater than 1.00% of mass 198	3.40
441	present, but less than mass 443	14.09
442	greater than 40.0% of mass 198	87.18
443	17.0 - 23.0% of mass 442	16.75

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 6
[2] Value in parenthesis is % mass 4

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
50 ng STD	>B1360	12/18/87	7:20 AM
A30495	>B1361		8:06
A30545	>B1362		
A30546	>B1363		
A30497	>B1364		10:33
A30499	>B1365		11:22
A30501	>B1366		12:06
A30503	>B1367		12:48
A30508	>B1368		
A30509	>B1369		
A30510	>B1370		
A30511	>B1371		16:03

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10/86

3 2 00324

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphosphine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	59.07	59.07	Ok
68	Less than 2% of mass 69	1.02	1.42	Ok
69	(reference only)	71.93	71.93	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	46.04	46.04	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	6.69	6.69	Ok
275	10-30% of mass 198	22.54	22.54	Ok
365	Greater than 1% of mass 198	3.40	3.40	Ok
441	0-100% of mass 443	14.09	84.09	Ok
442	Greater than 40% of mass 198	87.18	87.18	Ok
443	17-23% of mass 442	16.75	19.22	Ok

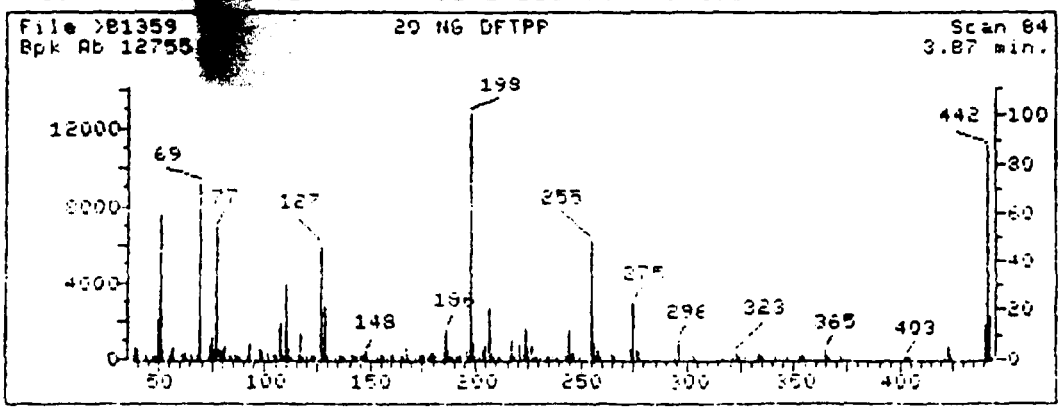
Injection Date: 12/18/87
Injection Time: 06:55
Data File: >B1359
Scan: 84

:AL,,3 Move cursor; then press carriage return :

>B1359 20 NG DFTPP
84 NRM

File: >B1359 Scan #: 84 Retn. time: 3.87

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.90	.619	96.15	.274	151.15	.274	206.15	20.314	275.15	22.540
39.00	4.869	98.15	4.093	153.15	.729	207.15	2.328	276.25	3.018
40.00	3.795	99.15	3.246	155.15	1.105	208.15	.604	277.15	2.125
44.00	1.482	101.15	2.281	156.15	1.842	210.50	.392	294.00	.188
47.45	.227	104.15	1.145	158.15	.588	211.15	.643	296.15	7.338
47.70	.282	105.15	1.396	160.25	.784	216.15	.416	303.20	1.035
48.80	.831	107.15	14.379	161.15	1.058	217.15	6.735	314.20	.361
49.05	.615	108.25	2.454	165.25	.776	218.15	.768	315.05	.666
50.05	16.323	109.25	.423	166.25	.800	221.15	5.551	316.30	.455
51.05	59.075	110.05	30.035	167.25	3.748	223.15	1.262	321.05	.282
51.95	2.791	111.20	3.583	168.15	1.607	224.25	12.403	323.20	2.532
54.95	.361	112.20	.470	172.00	.384	225.15	3.324	324.20	.643
56.05	2.148	116.20	.792	173.20	.243	227.15	5.551	327.20	.321
56.95	4.343	117.05	10.804	174.20	1.192	228.25	.847	333.00	.251
61.05	.823	118.20	.815	175.20	1.356	229.15	.737	334.15	2.031
62.05	.972	119.80	.220	177.20	.902	231.25	.564	335.25	.439
63.05	2.548	122.05	.635	178.30	.274	234.00	.196	341.15	.204
65.20	1.105	123.20	1.654	179.20	2.556	235.05	.580	346.25	.635
68.05	1.019	124.20	.502	180.20	2.054	237.05	.416	352.15	.808
69.05	71.933	127.20	46.045	181.20	.878	239.05	.204	353.25	.580
73.05	.470	128.20	3.614	185.20	1.858	242.20	.596	354.15	.588
74.20	5.253	129.20	21.270	186.20	11.815	243.20	.784	365.05	3.403
75.05	8.538	130.20	1.740	187.20	3.324	244.20	10.980	366.05	.651
76.20	2.[illegible]	134.05	.439	193.20	.227	245.20	1.456	372.20	1.333
77.20	54.128	135.20	1.000	195.20	.572	246.20	1.827	402.15	.525
78.20	3.763	136.20	.470	191.05	.227	249.20	.510	403.15	.721
79.00	3.285	137.20	.708	192.20	.855	255.20	48.240	404.15	.384
80.00	2.666	138.05	.227	193.20	1.043	256.20	6.680	421.15	.666
81.15	5.253	141.15	2.195	196.20	2.948	257.05	.392	422.05	.635
83.00	.839	142.15	.659	196.95	.541	258.20	2.752	423.05	4.532
84.00	.525	143.15	.721	198.20	100.000	259.05	.463	424.05	1.176
86.00	.964	145.25	.196	199.20	6.688	265.20	1.294	441.05	14.089
87.15	.502	146.00	.635	200.20	.478	266.00	.329	442.05	87.182
87.90	.463	147.15	1.168	201.55	.306	273.25	1.309	443.05	16.754
92.15	.768	148.15	2.642	204.15	2.807	274.15	3.849	444.05	1.294
93.00	6.[illegible]	150.90	.282	205.15	5.253				



DATE 12/21 TIME 7:50 AM

INSTRUMENT ID 1 ANALYST Kao

LAB SAMPLE NO. WHICH WILL BE AFFECTED BY THIS PERFORMANCE 3 2 00326

DATA RELEASE AUTHORIZED BY

m/e	Abundance Criteria	% Relative Abundance
51	30.0 - 60.0% of mass 198	57.77
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	67.95
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	49.83
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.07
275	10.0 - 30.0% of mass 198	21.49
365	greater than 1.00% of mass 198	2.42
441	present, but less than mass 443	13.43
442	greater than 40.0% of mass 198	88.55
443	17.0 - 23.0% of mass 442	16.03

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1]Value in parenthesis is % mass 6
[2]Value in parenthesis is % mass 4

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
50ng [illegible]	>B [illegible]	12/21/87	9:09
A30513	>B1375		9:55
A30515	>B1376		10:46
A30517	>B1377		11:[illegible]
A30519	>B1378		12:18
A30521	>B1379		13:01
A30523	>B1380		13:49
A30527	>B1381		
A30528	>B1382		
A30529	>B1383		
A30549	>B1384		17:07

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10/86

GC/MS PERFORMANCE STANDARD

3 2 00327

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	57.77	57.77	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	67.95	67.95	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	49.83	49.83	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	6.47	6.47	Ok
275	10-30% of mass 198	21.49	21.49	Ok
365	Greater than 1% of mass 198	2.42	2.42	Ok
441	0-100% of mass 443	13.43	83.82	Ok
442	Greater than 40% of mass 198	88.55	88.55	Ok
443	17-23% of mass 442	16.03	18.10	Ok

Injection Date: 12/21/87
Injection Time: 07:50
Data File: >B1372
Scan: 85

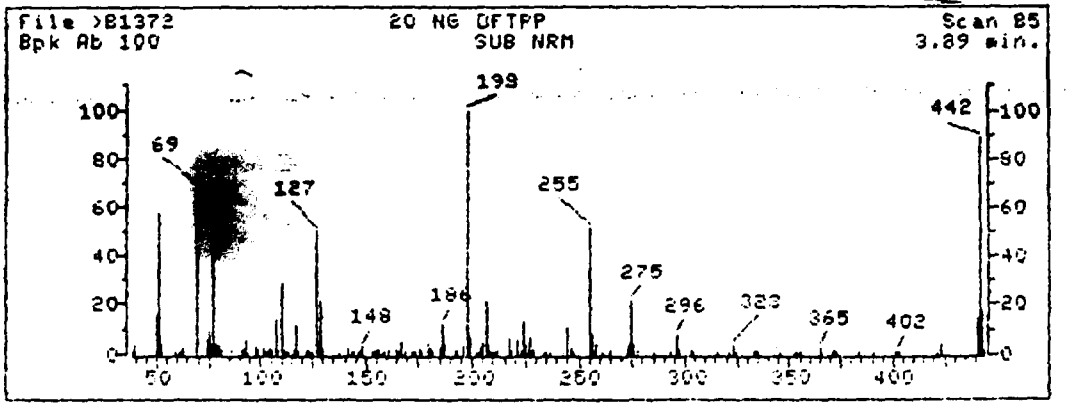
:AL,,3 Move cursor; then press carriage return :

>B1372 20 NG DFTPP
85 SUB NRM

3 2 00328

File: >B1372 Scan #: 85 Retn. time: 3.89

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.90	.883	108.15	1.592	166.15	.559	218.15	1.182	293.15	.827
39.00	3.136	110.05	28.634	167.15	4.460	221.25	5.728	296.15	7.170
49.95	15.271	111.05	1.544	168.25	1.316	223.15	1.505	297.05	1.143
51.05	57.773	112.05	.786	171.25	.307	224.15	13.151	303.20	1.072
52.05	3.680	113.05	.512	172.20	.638	225.15	3.278	304.05	.418
59.05	.252	116.20	1.135	173.20	.654	226.15	.410	315.20	.780
61.05	.583	117.05	11.008	175.20	1.797	227.15	6.067	321.05	.378
61.95	.433	118.05	.827	176.30	.418	228.15	1.016	323.20	3.018
63.05	2.254	122.05	1.009	179.05	3.593	229.15	1.284	324.05	.410
69.05	67.954	123.05	1.111	180.05	2.112	234.25	.307	333.00	.402
74.05	5.405	124.20	.678	181.05	.961	234.95	.646	334.15	1.615
75.05	8.691	125.20	.575	185.20	1.978	237.05	.481	335.00	.378
76.20	3.719	127.20	49.831	186.20	11.977	242.20	.678	346.15	.646
77.20	53.140	128.20	3.436	187.20	3.759	243.05	.733	352.15	.701
78.20	3.459	129.20	31.559	192.20	1.379	244.20	10.551	353.15	.615
79.00	2.900	130.20	2.057	193.20	1.434	245.05	1.135	355.15	.370
80.00	2.671	137.20	.520	196.20	2.805	246.05	1.812	365.05	2.419
81.00	1.547	141.15	1.986	198.20	100.000	247.05	.575	371.05	.189
86.00	1.064	143.15	.591	199.20	6.469	255.20	51.667	372.05	1.576
91.00	.981	144.75	.238	201.45	.654	256.20	7.675	373.05	.496
92.00	1.198	146.15	.654	203.20	.756	257.30	.630	384.05	.315
93.15	5.752	147.15	1.237	204.15	3.254	258.05	3.932	390.20	.323
94.15	.575	148.15	2.695	205.15	4.972	261.05	.158	401.00	.158
95.15	3.239	153.25	.715	206.15	21.291	265.05	1.600	402.15	.741
99.15	1.056	154.15	.362	207.15	2.734	273.15	1.797	403.00	.741
101.15	2.411	155.15	1.300	208.15	.890	274.15	4.121	421.15	.701
102.15	.315	156.25	1.600	209.50	.181	275.15	21.488	423.05	3.995
103.15	.654	158.15	.520	210.00	.410	276.15	3.160	441.05	13.435
104.15	1.757	159.25	.362	210.65	.362	277.15	2.120	442.05	88.551
105.00	.985	161.25	1.135	211.25	.985	278.00	.244	443.05	16.027
107.15	13.655	165.15	1.064	217.15	5.957	285.15	.370	444.05	1.379



DATE 12/22/87 TIME 6:32 AM

INSTRUMENT ID 1 ANALYST KAD

LAB SAMPLE NO. WHICH WILL BE AFFECTED BY THIS PERFORMANCE 3 2 00329

DATA RELEASE AUTHORIZED BY

m/e	Abundance Criteria	% Relative Abundance
51	30.0 - 60.0% of mass 198	58.99
68	less than 2.0% of mass 69	0.89 (1.27%)[1]
69	mass 69 relative abundance	70.01
70	less than 2.0% of mass 69	0.47 (0.67%)[1]
127	40.0 - 60.0% of mass 198	45.01
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.00
275	10.0 - 30.0% of mass 198	22.62
365	greater than 1.00% of mass 198	2.33
441	present, but less than mass 443	11.51
442	greater than 40.0% of mass 198	72.44
443	17.0 - 23.0% of mass 442	14.35 19.81%

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1]Value in parenthesis is % mass (
[2]Value in parenthesis is % mass

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
50NSSTD	>B1356	12/22/87	6:52
A30530	>B1357		7:01
A30532	>B1358		
A30533	>B1359		
A30534	>B1360		
A30536	>B1361		10:48
A30537	>B1362		11:42
A30525	>B1363		12:22
MTH BLK	>B1364		
MTH BLK	>B1365		
A30531	>B1366		14:39
MTH BLK	>B1367		
MTH BLK	>B1368		

NJDEP Form O-6
10/86

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	58.99	58.99	Ok
68	Less than 2% of mass 69	.89	1.27	Ok
69	(reference only)	70.01	70.01	Ok
70	Less than 2% of mass 69	.47	.67	Ok
127	40-60% of mass 198	45.01	45.01	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	6.00	6.00	Ok
275	10-30% of mass 198	22.62	22.62	Ok
365	Greater than 1% of mass 198	2.33	2.33	Ok
441	0-100% of mass 443	11.51	80.25	Ok
442	Greater than 40% of mass 198	72.44	72.44	Ok
443	17-23% of mass 442	14.35	19.81	Ok

Injection Date: 12/22/87
Injection Time: 06:32
Data File: >B1385
Scan: 85

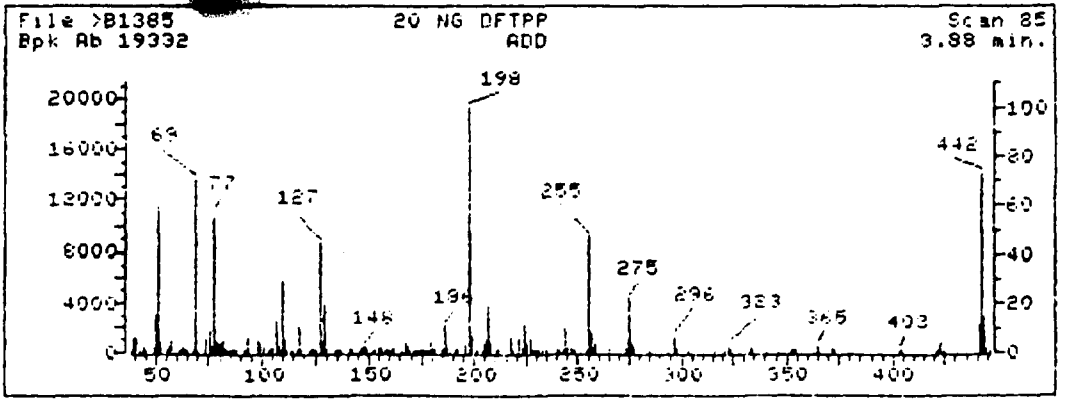
:AL,,3 Move cursor; then press carriage return :

>B1385 20 NG DFTPP
85 ADD NRM

3 2 00331

File: >B13[illegible] Scan #: 85 Retn. time: 3.88

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.90	.336	91.15	.678	148.15	2.054	199.20	5.995	265.20	1.304
39.00	5.080	92.00	.895	149.15	.502	200.30	.336	273.15	1.381
40.00	6.109	93.15	6.114	152.00	.264	201.05	.295	274.15	4.138
40.75	.145	94.15	.672	153.15	.797	201.70	.253	275.15	22.615
42.75	.378	98.15	4.599	155.15	1.350	203.20	.445	276.15	2.840
44.00	2.059	99.15	3.192	156.15	1.624	204.25	2.835	277.15	2.224
45.00	.228	101.15	1.764	157.25	.222	205.15	5.064	285.15	.372
48.80	1.045	103.15	.429	157.50	.217	206.15	20.044	293.15	.212
49.95	15.172	104.15	1.226	158.25	.378	207.25	2.814	296.15	6.130
51.05	58.985	105.15	1.159	159.00	.191	210.15	.186	297.20	1.309
52.05	3.528	107.15	13.310	159.25	.191	211.00	1.081	303.20	.626
54.95	.409	108.25	2.411	160.25	.533	217.15	5.938	316.20	.134
56.05	2.059	109.25	.341	161.25	1.014	218.15	.435	321.20	.248
57.05	4.526	110.05	29.454	165.15	.481	221.25	5.204	323.20	2.431
58.45	.140	111.05	4.381	167.25	4.107	223.15	1.200	324.20	.295
60.95	.150	111.95	.274	168.25	1.960	224.25	11.101	328.05	.160
61.95	.445	113.20	.140	169.15	.631	225.25	2.654	333.15	.119
63.05	2.540	114.95	.166	171.00	.124	227.25	5.137	334.15	1.505
63.95	.440	116.20	.559	172.15	.316	228.15	.450	341.00	.176
65.20	.879	117.20	10.671	173.05	.450	229.15	.522	346.15	.647
68.05	.890	118.20	.517	174.20	.652	230.15	.140	352.15	.403
69.05	70.008	122.20	.652	175.20	1.143	231.25	.285	353.15	.269
70.05	.471	123.20	1.386	176.05	.709	233.00	.124	354.25	.471
74.05	5.390	124.05	.579	176.80	.191	235.20	.228	365.05	2.333
75.05	8.530	125.05	.279	177.20	.776	239.95	.109	372.20	1.381
76.20	1.935	127.20	45.013	178.05	.119	241.20	.186	373.05	.176
77.20	56.430	128.20	3.900	179.05	3.931	243.20	.579	403.00	.709
78.20	3.812	129.20	19.605	180.20	1.562	244.20	9.347	404.00	.403
79.15	2.954	130.20	1.293	181.20	1.288	245.20	1.485	421.15	.672
80.15	2.762	134.20	.621	184.05	.233	246.20	1.660	422.05	.155
81.15	4.583	135.20	.890	185.20	1.376	247.20	.352	423.20	3.895
82.15	1.236	136.20	.517	186.20	11.090	248.95	.134	424.20	.683
83.15	.579	137.20	.471	187.20	3.062	254.05	.403	441.05	11.515
84.00	.874	141.15	1.686	188.20	.331	255.20	47.326	442.20	72.439
85.15	.621	142.15	.854	191.20	.253	256.20	7.330	443.20	14.349
86.15	[illegible]	142.40	.253	192.20	1.169	257.20	.564	444.20	1.516
87.15	[illegible]	146.25	.259	196.20	2.866	258.20	2.679	446.30	.176
88.00	[illegible]	147.25	1.091	198.20	100.000				



DATE 1/4/87 TIME 8:18

INSTRUMENT ID #1 ANALYST SWK

LAB SAMPLE NO. WHICH WILL BE AFFECTED BY THIS PERFORMANCE 3 2 00332

DATA RELEASE AUTHORIZED BY

m/e	Ion Abundance Criteria	% Relative Abundance
51	30.0 - 60.0% of mass 198	55.64
68	less than 2.0% of mass 69	0.00 (0.00)[1]
69	mass 69 relative abundance	70.73
70	less than 2.0% of mass 69	0.68 (0.97)[1]
127	40.0 - 60.0% of mass 198	46.84
197	less than 1.0% of mass 198	0.61
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	7.40
275	10.0 - 30.0% of mass 198	22.41
365	greater than 1.00% of mass 198	2.89
441	present, but less than mass 443	14.45
442	greater than 40.0% of mass 198	93.84
443	17.0 - 23.0% of mass 442	16.77

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 68
[2] Value in parenthesis is % mass 4[illegible]

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
50ng STD	>B 1400	1/4/87	8:00 AM
A 30416	>B 1401	↓	9:33
A 30549	>B 1402		10:14
MTF Blk	>B 1403		

NJDEP Form O-6
10/86

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP) 3 2 00633

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	55.64	55.64	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	70.73	70.73	Ok
70	Less than 2% of mass 69	.68	.97	Ok
127	40-60% of mass 198	46.84	46.84	Ok
197	Less than 1% of mass 198	.61	.61	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	7.40	7.40	Ok
275	10-30% of mass 198	22.41	22.41	Ok
365	Greater than 1% of mass 198	2.89	2.89	Ok
441	0-100% of mass 443	14.45	86.16	Ok
442	Greater than 40% of mass 198	93.84	93.84	Ok
443	17-23% of mass 442	16.77	17.87	Ok

Injection Date: 01/04/88
Injection Time: 08:18
Data File: >B1399
Scan: 82

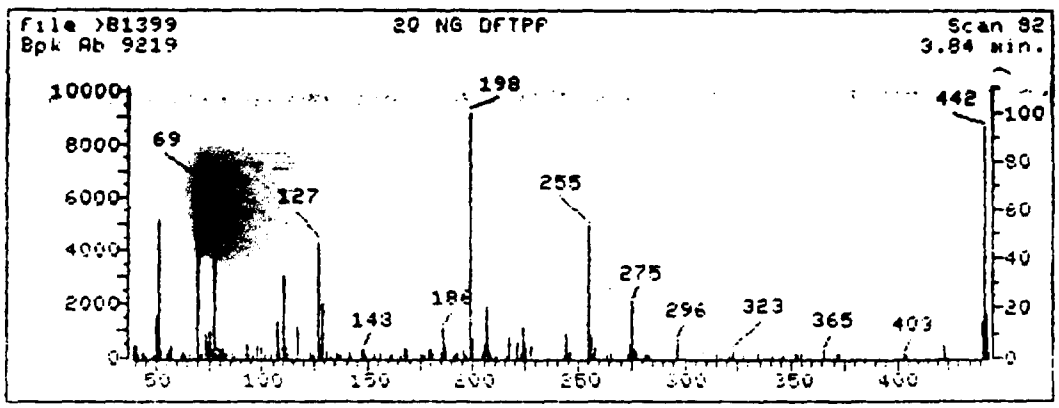
:AL,,3 Move cursor; then press carriage return :

>B1399 20 NG DFTPP
82 NRM

3 2 00334

File: >B1399 Scan #: 82 Retn. time: 3.84

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
39.00	4.014	82.15	1.508	142.15	.835	204.15	3.298	275.15	22.410
40.00	4.946	83.00	1.464	147.15	2.690	205.15	5.261	276.15	2.972
41.15	1.475	86.15	1.356	148.15	3.059	206.15	20.620	277.15	2.430
43.00	1.660	87.00	.499	149.15	.781	207.25	2.983	281.25	1.508
44.00	2.104	92.15	.792	153.15	.944	208.15	1.161	282.25	.542
45.15	.911	93.15	5.760	156.15	1.714	210.50	.488	283.15	.824
47.80	.390	94.15	.770	160.40	.575	210.90	.466	296.15	6.823
49.95	.662	96.15	.486	160.75	.434	214.25	.521	315.05	1.215
49.95	16.486	98.15	4.610	161.25	.944	216.25	.607	321.20	.521
51.05	55.635	99.15	3.872	165.15	.814	217.15	7.582	323.20	2.560
52.05	3.232	101.15	1.866	167.25	4.220	221.25	6.606	327.20	.846
55.05	1.291	104.15	1.280	168.25	2.809	223.15	1.584	334.15	1.291
56.05	2.701	107.15	14.676	175.20	1.714	224.25	12.366	341.15	.748
57.05	4.230	109.15	2.451	176.20	.618	225.15	3.406	346.15	.412
62.05	.944	110.05	32.802	177.20	.857	227.25	4.849	352.15	.955
63.05	2.061	111.20	3.927	179.05	3.298	228.15	.651	353.15	.879
64.20	.564	112.20	1.063	180.20	2.701	236.05	.423	355.25	.955
65.20	1.171	114.05	.304	181.05	1.074	243.20	.542	365.05	2.885
67.20	.781	117.20	12.333	185.20	2.419	244.20	9.318	365.95	.445
69.05	70.734	123.20	2.386	186.20	11.889	245.30	1.161	370.95	.434
70.20	.693	124.20	.489	187.20	3.959	246.20	1.833	372.20	1.356
71.05	1.052	125.05	.575	191.20	.586	255.20	53.292	403.15	1.237
73.20	9.394	127.20	46.836	192.20	1.313	256.20	8.352	403.90	.336
74.20	5.965	128.20	3.125	193.20	1.237	257.05	.868	421.15	.716
75.05	10.077	129.20	21.716	196.05	2.701	258.20	3.764	423.05	4.838
76.20	2.896	130.20	1.811	196.95	.607	263.80	.445	424.20	.900
77.20	51.014	132.95	.390	198.20	100.000	265.20	1.497	441.05	14.446
78.05	3.493	135.20	2.224	199.20	7.398	266.00	.369	442.05	93.839
79.00	3.525	136.05	.553	201.70	.705	273.15	1.714	443.05	16.770
80.00	3.048	137.20	.803	201.95	.597	274.15	5.066	444.20	1.551
81.00	3.927	141.15	2.310						



DATE 1/11/88 TIME 8:21

INSTRUMENT ID #1 ANALYST DHS

LAB SAMPLE NO. WHICH WILL BE AFFECTED BY THIS PERFORMANCE 3 2 00335

DATA [illegible]ASE AUTHORIZED BY

m/e	[illegible] Abundance Criteria	% Relative Abundance
51	30.0 - 60.0% of mass 198	53.61
68	less than 2.0% of mass 69	0.67 (0.99)[1]
69	mass 69 relative abundance	68.01
70	less than 2.0% of mass 69	0.38 (0.56)[1]
127	40.0 - 60.0% of mass 198	49.75
197	less than 1.0% of mass 198	0.00
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	~~21.52~~ 6.48
275	10.0 - 30.0% of mass 198	21.52
365	greater than 1.00% of mass 198	2.38
441	present, but less than mass 443	9.12
442	greater than 40.0% of mass 198	55.71
443	17.0 - 23.0% of mass 442	10.79

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 6

[2] Value in parenthesis is % mass 4

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
[illegible]	>B1418	1/11	[illegible]:52
30 ng	>B1419		9:45
50 ng	>B 420		10:26
120 ng	>B1421		11:12
160 ng	>B1422		11:54
A30526	>B 1423		12:48
A30554	>B1425		14:15
A 30553	>B1426		14:59
A 30529	>B1427		15:50
A 30528	>B1418		16:30

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10/86

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	53.61	53.61	Ok
68	Less than 2% of mass 69	.67	.99	Ok
69	(reference only)	68.01	68.01	Ok
70	Less than 2% of mass 69	.38	.56	Ok
127	40-60% of mass 198	49.25	49.25	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	6.48	6.48	Ok
275	10-30% of mass 198	21.52	21.52	Ok
365	Greater than 1% of mass 198	2.38	2.38	Ok
441	0-100% of mass 443	9.12	84.53	Ok
442	Greater than 40% of mass 198	55.71	55.71	Ok
443	17-23% of mass 442	10.79	19.37	Ok

Injection Date: 01/11/88
Injection Time: 08:21
Data File: >B1417
Scan: 80

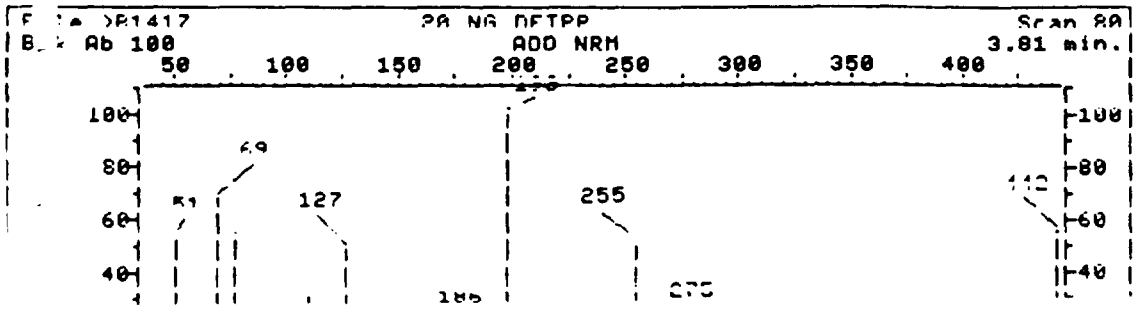
AL,,3 Move cursor; then press carriage return :

3 2 00337

>B1417 20 NG DFTPP
80 ADD NRM

File: >B1417 Sc[redacted] 80 Retn. time: 3.81

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.65	.365	88.40	.088	144.15	.166	200.20	.236	273.15	1.897
38.00	.472	91.15	.987	146.15	.332	201.45	.446	274.15	3.993
39.00	4.413	92.15	.630	147.15	1.393	204.15	2.951	275.15	21.518
40.00	2.538	93.15	5.938	148.15	2.896	205.15	5.132	276.15	2.752
41.00	.659	94.15	.626	149.25	.700	206.25	20.361	277.15	1.871
43.15	.383	95.15	.111	150.15	.184	207.15	2.951	278.15	.114
43.40	.339	97.15	.206	151.15	.166	208.15	.862	293.25	.508
43.75	.792	98.15	4.428	152.00	.099	210.25	.560	296.15	6.299
44.00	.402	99.15	3.890	153.15	.457	210.65	.136	297.05	.928
44.90	.232	100.00	.188	154.15	.483	211.25	.895	298.05	.291
48.80	.810	101.15	1.654	155.25	1.186	212.15	.111	301.05	.147
49.95	14.912	103.15	.424	156.25	1.938	215.15	.177	303.20	.350
51.05	53.612	104.15	1.639	157.25	.239	216.15	.155	314.05	.199
52.05	3.135	105.15	.508	158.00	.431	217.15	6.683	315.20	.619
54.95	.383	106.00	.265	160.15	.792	218.25	.707	316.05	.438
56.05	1.879	106.25	.276	161.15	1.131	221.15	5.607	323.20	2.056
57.05	4.627	107.15	14.489	165.15	.818	223.15	1.212	324.05	.313
61.05	.313	108.25	1.879	166.15	.593	224.25	11.715	327.05	.166
62.05	.718	109.25	.324	167.25	4.218	225.15	2.918	328.05	.133
2.95	2.129	110.05	31.089	168.25	2.078	226.25	.214	334.15	1.168
4.05	.140	111.20	4.505	170.25	.166	227.15	4.984	335.15	.184
5.20	1.057	112.05	.844	173.05	.177	228.25	.468	335.75	.122
67.30	.435	116.05	.726	174.05	.998	229.15	1.260	346.00	.332
68.05	.670	117.05	12.260	175.20	1.776	231.15	.239	352.25	.903
69.05	68.012	118.20	.792	176.20	.236	234.25	.173	353.15	.228
69.80	.379	122.20	.564	177.20	.995	235.05	.420	354.15	.368
71.05	.387	123.20	.785	178.05	.287	239.05	.140	365.05	2.383
73.30	.818	124.05	.718	179.05	3.238	240.95	.181	366.05	.203
74.05	6.163	127.20	49.250	180.20	1.978	242.20	.317	372.05	1.256
75.05	9.210	128.20	3.360	181.20	1.183	243.05	.626	373.20	.136
76.20	2.745	129.20	21.658	184.05	.173	244.20	10.013	401.15	.103
77.20	55.417	130.20	2.063	185.20	1.746	245.20	1.345	402.15	.490
78.05	3.643	131.20	.232	186.20	12.779	246.20	1.949	403.15	.726
79.15	3.817	13[redacted]	.402	187.20	3.172	247.05	.523	404.25	.192
80.15	2.947	13[redacted]	1.779	188.20	.390	249.20	.217	422.05	.516
81.00	4.583	13[redacted]	.398	191.20	.243	255.20	50.256	423.05	3.507
82.15	1.175	137.45	.844	192.20	.969	256.20	6.870	424.20	.670
83.00	1.485	138.30	.096	193.05	.840	257.20	.663	441.05	9.121
84.15	.188	140.20	.166	195.20	.122	258.20	2.885	442.20	55.708
85.15	.969	141.15	2.395	196.20	2.778	259.05	.151	443.05	10.790
86.15	1.101	142.15	.903	198.20	100.000	265.20	1.223	444.20	.928
87.15	.564	143.25	.273	199.20	6.484				



DATE 1/18/88 TIME 7:30

INSTRUMENT ID #1 HP 5985 ANALYST DSHANAR

LAB SAMPLE NO. WHICH WILL BE AFFECTED BY THIS PERFORMANCE 3 2 00338

DATA RELEASE AUTHORIZED BY

m/e	Mass Abundance Criteria	% Relative Abundance
51	30.0 - 60.0% of mass 198	55.19
68	less than 2.0% of mass 69	1.14 (1.50)[1]
69	mass 69 relative abundance	76.10
70	less than 2.0% of mass 69	0.40 (0.53)[1]
127	40.0 - 60.0% of mass 198	51.03
197	less than 1.0% of mass 198	0.00
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	6.45
275	10.0 - 30.0% of mass 198	21.03
365	greater than 1.00% of mass 198	3.21
441	present, but less than mass 443	[illegible]
442	greater than 40.0% of mass 198	77.42
443	17.0 - 23.0% of mass 442	[illegible]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1]Value in parenthesis is % mass 6

[2]Value in parenthesis is % mass 4

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
20ng ABN STD	>B1455	1/18/88	7:57
50ng ABN STD	>B1456	↓	8:48
80ng ABN STD	>B1457		9:62
120ng ABN STD	>B1458		10:17
160ng ABN STD	>B1459	↓	10:57

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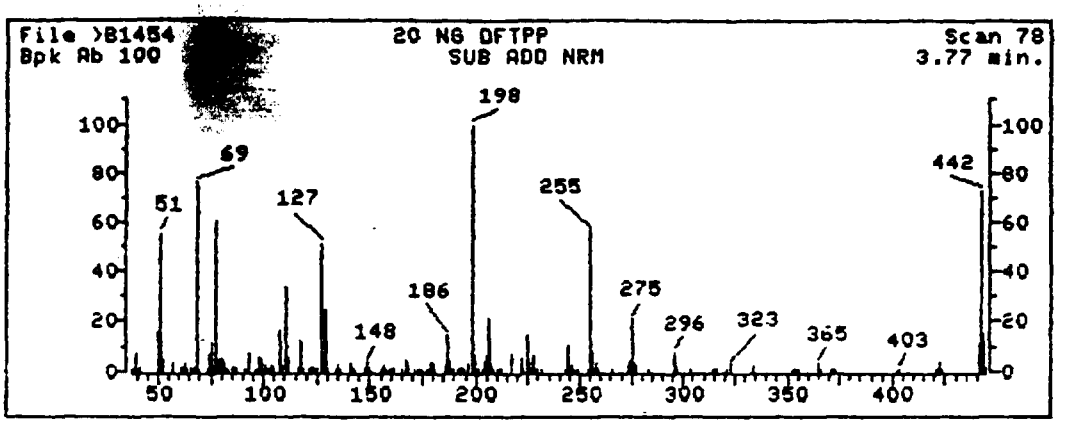
10/86

3 2 00339

>B1454 [redacted] NG DFTPP
78 [redacted]UB ADD NRM

File: >B1454 Scan #: 78 Retn. time: 3.77

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.90	.448	97.15	.426	147.15	1.604	200.20	.519	265.20	.462
38.00	.690	98.15	5.292	148.15	3.679	201.70	.330	273.15	1.776
39.00	6.813	99.15	4.848	149.15	1.134	203.20	.413	274.15	4.044
41.00	1.094	100.00	.413	150.40	.088	204.15	3.477	275.15	21.032
49.95	15.736	101.15	1.987	155.15	.589	205.15	6.220	276.15	2.791
50.95	55.189	101.90	.163	156.15	1.859	206.25	21.406	277.15	2.347
52.05	4.479	102.25	.273	157.15	.294	207.15	2.998	283.15	.149
57.05	2.905	103.15	.440	159.25	.180	208.25	.466	296.25	7.292
61.05	1.099	104.15	1.881	160.25	.510	210.25	.215	297.20	.985
62.05	1.051	105.15	1.349	161.25	1.503	211.15	.585	303.20	.510
63.05	3.108	107.15	16.355	165.25	.462	211.90	.145	314.20	.215
63.80	.347	108.15	2.527	167.25	4.743	212.25	.281	314.95	.620
65.20	1.508	109.00	.163	168.25	2.000	217.15	7.340	316.05	.360
66.30	.229	110.05	33.889	171.25	.202	221.25	5.798	321.20	.325
68.05	1.143	111.20	5.718	172.95	.202	223.15	.642	323.20	2.593
69.05	76.098	111.95	.299	174.05	.523	224.25	14.338	334.15	1.776
69.95	.400	116.20	.836	175.05	.637	225.25	2.883	352.15	.840
73.05	.857	117.05	11.925	177.20	.567	226.25	.264	353.15	.273
74.05	5.912	118.20	.853	178.20	.233	227.15	6.580	355.00	.396
75.05	10.989	121.05	.127	179.05	4.017	228.15	.277	365.05	3.213
76.20	2.426	122.20	.865	180.20	3.011	229.25	.466	366.05	.501
77.20	60.186	123.20	1.209	181.20	.862	231.15	.316	371.05	.273
78.20	4.079	124.20	.369	185.20	1.850	243.05	.642	372.05	1.455
79.15	4.576	125.20	.273	186.20	14.224	244.20	10.630	373.05	.220
80.00	4.228	127.20	51.026	187.20	3.490	245.20	1.424	402.15	.378
81.15	3.244	128.20	4.035	188.20	.185	246.20	2.136	403.00	.747
82.15	.659	129.20	24.109	189.20	.457	247.05	.286	421.00	.712
83.15	.826	130.20	2.228	189.55	.185	249.20	.281	422.05	.440
85.15	1.160	134.05	.497	191.20	.532	254.05	.110	423.05	4.211
86.00	1.[redacted]	135.20	1.877	192.20	1.292	255.20	56.490	424.05	.818
87.00	[redacted]	136.20	.765	193.20	.941	256.20	7.732	441.05	11.485
91.15	[redacted]	140.30	.229	194.05	.185	257.20	.171	442.20	72.423
92.15	[redacted]	141.15	3.134	196.20	2.919	258.20	3.191	443.20	14.637
93.15	7.006	142.15	1.081	198.20	100.000	259.20	.158	444.20	1.002
96.15	.611	143.00	.356	199.20	6.448				


File >B1454
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20 NG DFTPP
SUB ADD NRM
Scan 78
3.77 min.
198
69
51
127
255
442
186
275
148
296
323
365
403
100
80
60
40
20
0
50
100
150
200
250
300
350
400

DATE 1/19/88 TIME 7:33

INSTRUMENT ID #1 5985 ANALYST D. SHANER

LAB SAMPLE NO. WHICH WILL BE AFFECTED BY THIS PERFORMANCE 3 2 00341

DATA [illegible] BASE AUTHORIZED BY

m/e	[illegible] Abundance Criteria	% Relative Abundance
51	[illegible].0 - 60.0% of mass 198	50.92
68	less than 2.0% of mass 69	0.75 (1.15)[1]
69	mass 69 relative abundance	65.75
70	less than 2.0% of mass 69	0.33 (.051)[1]
127	40.0 - 60.0% of mass 198	41.35
197	less than 1.0% of mass 198	0.46
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	7.72
275	10.0 - 30.0% of mass 198	22.07
365	greater than 1.00% of mass 198	2.79
441	present, but less than mass 443	7.31
442	greater than 40.0% of mass 198	50.10
443	17.0 - 23.0% of mass 442	9.35

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 6

[2] Value in parenthesis is % mass 4

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
50ng BFN 5D	>B1465	1/19/88	8:04
801099	B715SRST >B1467	1/19/88	11:16
A30530	B716S >B1468	↓	12:01
A30534	B762S >B1470		13:36
A30536	B763S >B1469		12:47
A30538	B764S >B1471	↓	14:19
MTH BLK R	B760SPB >B1466	1/19/88	10:36

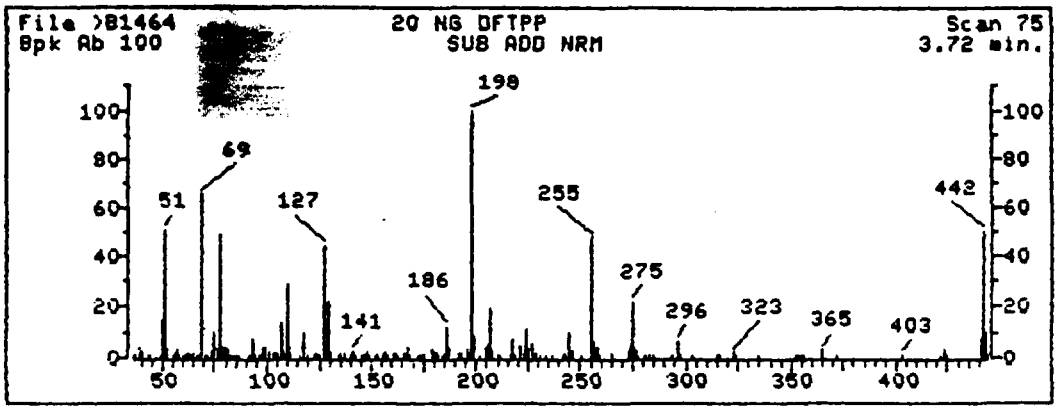
NJDEP Form O-6
10/86

>B1464 [redacted]20 NG DFTPP
75 [redacted]UB ADD NRM

File: >B1464 Scan #: 75 Retn. time: 3.72

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	.187	81.15	3.030	135.20	1.641	193.30	.955	259.20	.596
37.00	.251	82.15	.643	137.30	.955	196.20	2.592	265.20	1.422
37.25	.488	83.15	.671	140.20	.287	197.20	.460	273.25	2.176
37.90	.571	84.15	.284	141.15	2.391	198.20	100.000	274.15	4.215
39.00	3.863	85.15	.539	142.15	.811	199.20	7.719	275.15	22.069
39.90	2.431	86.15	.872	145.00	.136	201.70	.553	276.15	2.470
43.00	.470	91.15	.499	146.15	.481	204.25	3.447	277.25	2.398
43.90	.574	92.15	.596	147.25	1.292	205.25	5.005	281.15	.549
46.75	.154	93.15	6.879	148.15	2.154	206.25	19.897	283.15	.460
48.95	.341	94.15	.919	149.25	.819	207.25	2.359	285.15	.381
49.95	14.422	96.15	.251	152.25	.258	210.25	.481	293.15	.582
51.05	50.919	96.75	.126	153.25	1.099	211.00	.725	296.25	6.484
52.05	3.152	98.15	4.039	155.25	1.425	216.15	.890	297.05	.898
55.05	.528	99.15	3.576	156.25	1.838	217.15	6.857	303.20	.696
56.05	1.138	101.15	2.046	157.65	.316	218.15	.811	315.05	.675
57.05	3.127	103.15	1.005	158.15	.531	221.25	4.739	316.05	.266
57.95	.205	104.15	1.565	160.15	1.041	223.15	1.321	323.20	2.111
60.20	.097	105.15	1.343	161.15	1.350	224.25	10.950	324.20	.560
60.85	.725	107.15	13.625	162.25	.280	225.25	2.958	335.00	.704
62.05	1.120	108.25	2.405	165.15	1.120	227.25	5.637	352.15	.768
63.05	1.099	109.25	.819	166.25	.919	228.25	1.264	353.25	.495
64.05	.539	110.05	28.330	167.25	4.136	229.25	1.249	354.25	.854
65.05	1.422	111.05	3.924	168.25	.908	231.25	.862	355.25	.316
67.20	.366	116.05	.833	172.20	.481	234.25	.416	356.25	.388
68.05	.754	117.20	9.298	173.05	.510	237.05	.438	365.05	2.793
69.05	65.754	118.05	1.012	174.20	.754	242.20	.862	372.20	.905
70.20	.334	119.20	.140	175.20	1.397	243.20	1.034	403.15	.639
71.20	.363	122.20	.811	179.05	3.210	244.20	9.758	421.15	.474
73.20	2.470	123.20	1.677	180.20	2.319	245.20	1.752	422.05	.208
74.20	3[redacted]	124.20	.732	181.20	1.580	246.20	1.939	423.20	3.001
75.05	[redacted]	125.05	.740	182.20	.237	250.95	.215	424.20	.610
76.20	2[redacted]	127.20	44.349	184.20	.388	255.20	48.093	441.20	7.310
77.20	49[redacted]	128.20	3.285	185.20	1.616	256.20	6.451	442.20	50.097
78.20	3.619	129.20	22.237	186.20	12.472	257.20	.316	443.20	9.345
79.00	3.762	130.20	1.982	187.20	3.547	258.20	3.633	444.20	.682
80.00	3.436	134.20	.330	192.20	1.091				

3 2 00343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51
127
255
442
186
275
141
296
323
365
403
100
80
60
40
20
0
50
100
150
200
250
300
350
400

Case No. _____ Region _____ Contractor SCM Contract No. 0

TASK # _____

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (INCL. TIC OR UNKNOWN)	CONC.	UNITS	QUAL
A30508	12/18	ABN	Soil	Low	1		Di n Butyl Phthalate	0.33	ppm	0.33
(B718 SPB)							Bis (2 ethyl hexyl) phthalate	0.57	ppm	0.33
A30527	12[redacted]	[redacted]N	Soil	Low	1		Di n - Butyl Phthalate	[redacted]	ppm	0.33
(B726 SPB)							Bis (2 ethyl hexyl) Phthalate	0.88	ppm	0.33
Method Blank	1/04	ABN	Soil	Low	1		Di n Butyl Phthalate	0.46	ppm	0.33
(B728 SPB)										
A30552	12/22	ABN	Soil	Low	1					
(B729 SPB)										
Method Blank	1/11	ABN	Soil	Low	1		Di N Butyl phthalate	0.33	ppm	0.33
B748 SPB							Bis (2 ethylhexyl) phthalate	0.13	ppm	0.33

Comments:

3 2 00345

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871218 14:17
Output File: ^B13[redacted]QT Injected at: 871218 13:33
Data File: >B13[redacted]1 Dilution Factor: 1~~00000~~ 0.1
Name: OLIN A30508[redacted]SPB
Misc: 2 UL INJ 40[redacted]5

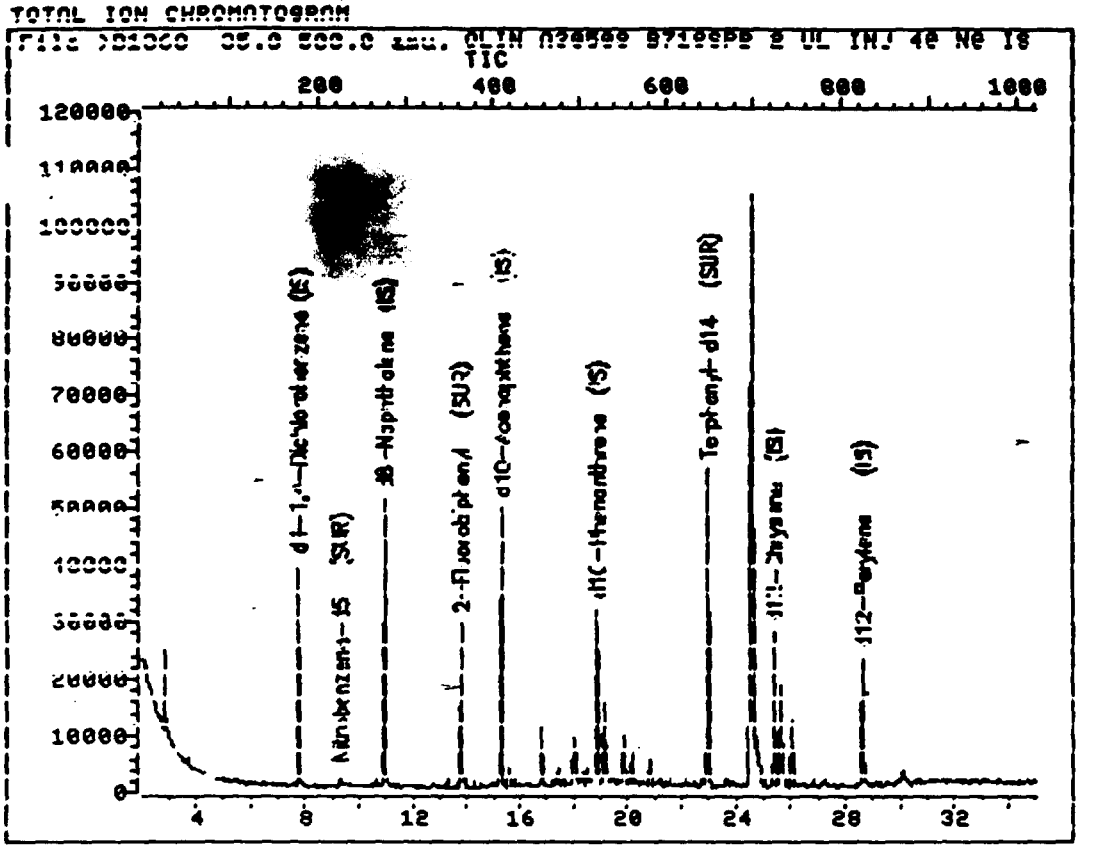
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.73	177	17446	40.00	ng/uL	98
6)	*d8-Naphthalene (IS)	10.93	276	49741	40.00	ng/uL	91
17)	Nitrobenzene-d5 (SUR)	9.28	225	4566	3.24	ng/uL 6%	90
31)	*d10-Acenaphthene (IS)	15.32	412	27850	40.00	ng/uL	98
6)	2-Fluorobiphenyl (SUR)	13.77	364	35724	20.06	ng/uL 40%	95
8)	Dimethyl Phthalate	15.32	412	4813	~~2.49~~	ng/uL	100
46)	2,6-Dinitrotoluene	15.32	412	3946	~~8.38~~	ng/uL	100
1)	*d10-Phenanthrene (IS)	18.88	522	39002	40.00	ng/uL	99
1)	Di-n-Butylphthalate	20.85	583	6791	2.29	ng/uL	98
63)	*d12-Chrysene (IS)	25.40	724	32866	40.00	ng/uL	99
5)	Terphenyl-d14 (SUR)	23.01	650	58767	37.89	ng/uL 76%	90
9)	Bis(2-Ethylhexyl)Phthalate	26.08	745	10974	5.67	ng/uL	97
1)	*d12-Perylene (IS)	28.63	824	28732	40.00	ng/uL	100

* Compound is ISTD

3 2 00346

TOTAL ION CHROMATOGRAM



Data File: >B1368::D1 Quant Output File: ^B1368::QT
Name: OLIN A30508 B718SPB
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871218 14:17
Injected at: 871218 13:33

3 2 00347

QUANT REPORT

erator ID: USE[redacted]
tput File: ^B1[redacted]T
Data File: >B1[redacted]01
Name: OLIN A30527[redacted]28SPB
Misc: 2 UL INJ 40 NG IS

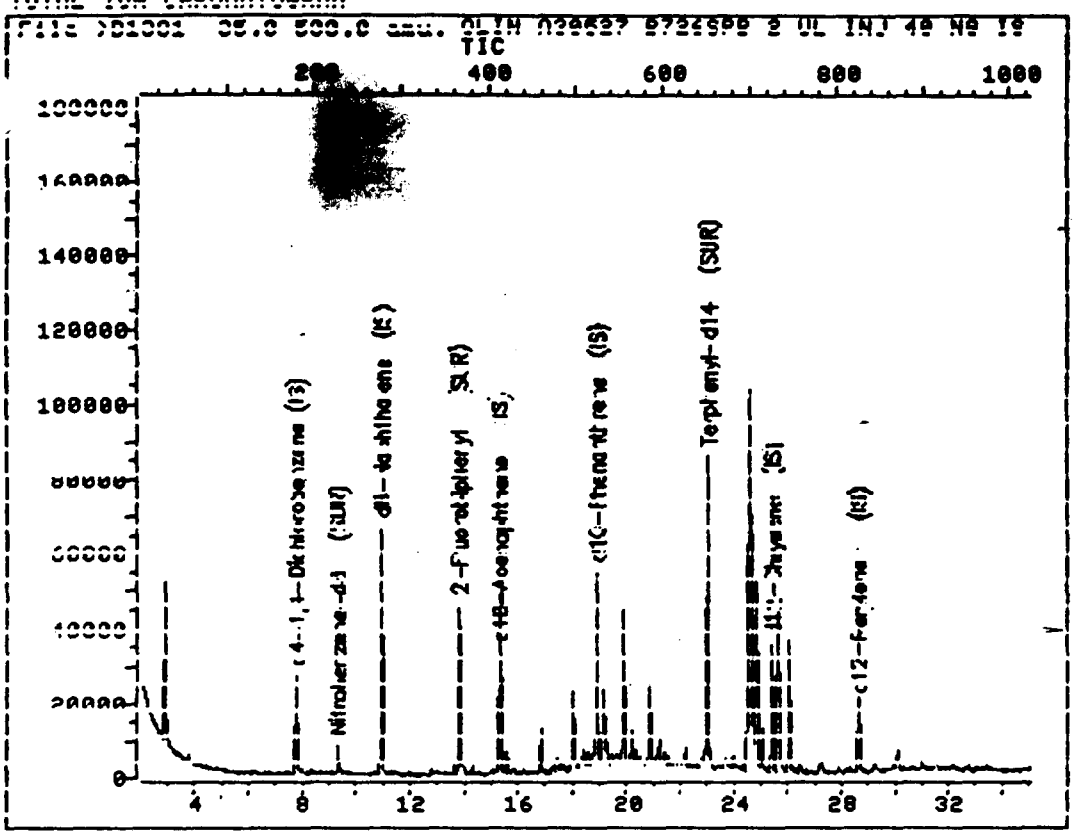
Quant Rev: 6 Quant Time: 871221 15:20
Injected at: 871221 14:41
Dilution Factor: 1.00000
0.1

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.77	179	16379	40.00	ng/uL	95
16)	*d8-Naphthalene (IS)	10.97	278	65644	40.00	ng/uL	91
17)	Nitrobenzene-d5 (SUR)	9.32	227	11091	5.96	ng/uL 12%	94
11)	*d10-Acenaphthene (IS)	15.33	413	34758	40.00	ng/uL	94
26)	2-Fluorobiphenyl (SUR)	13.81	366	52653	23.68	ng/uL 48%	93
38)	Dimethyl Phthalate	15.36	414	5915	~~2.45~~	ng/uL	100
6)	2,6-Dinitrotoluene	15.33	413	4620	~~2.86~~	ng/uL	100
1)	*d10-Phenanthrene (IS)	18.91	524	57055	40.00	ng/uL	98
61)	Di-n-Butylphthalate	20.88	585	29419	6.78	ng/uL	98
3)	*d12-Chrysene (IS)	25.44	726	47269	40.00	ng/uL	92
5)	Terphenyl-d14 (SUR)	23.05	652	110922	49.73	ng/uL 100%	95
69)	Bis(2-Ethylhexyl)Phthalate	26.09	746	24428	8.77	ng/uL	91
71)	*d12-Perylene (IS)	28.64	825	33981	40.00	ng/uL	100

Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1381::D1 Quant Output File: ^B1381::QT
Name: DLIN A30527 B726SPB
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871221 15:20
Injected at: 871221 14:41

3 2 00349

QUANT REPORT

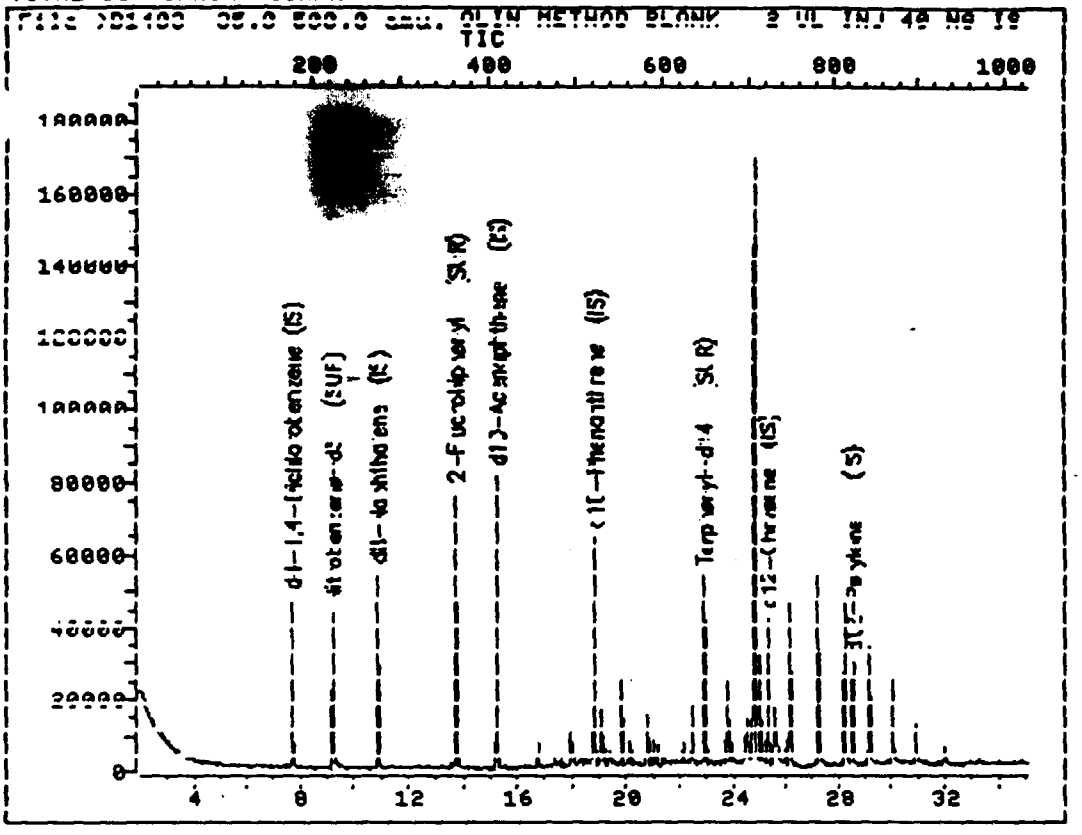
rator ID: USER[redacted] Quant Rev: 6 Quant Time: 880104 11:46
..put File: ^B14[redacted] Injected at: 880104 11:06
ata File: >B14[redacted] Dilution Factor: .10000
Name: OLIN METHOD [redacted]
Misc: 2 UL INJ 40 NG IS B728SPB

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.69	177	17066	40.00	ng/uL	96
16)	*d8-Naphthalene (IS)	10.89	276	65038	40.00	ng/uL	92
17)	Nitrobenzene-d5 (SUR)	9.21	224	43822	2.38	ng/uL 48%	94
1)	*d10-Acenaphthene (IS)	15.25	411	41969	40.00	ng/uL	97
36)	2-Fluorobiphenyl (SUR)	13.73	364	63482	2.36	ng/uL 47%	94
51)	*d10-Phenanthrene (IS)	18.84	522	58673	40.00	ng/uL	99
1)	Di-n-Butylphthalate	20.81	583	20407	.46	ng/uL	95
3)	*d12-Chrysene (IS)	25.33	723	45221	40.00	ng/uL	96
65)	Terphenyl-d14 (SUR)	22.94	649	61573	2.89	ng/uL 58%	85
1)	*d12-Perylene (IS)	28.56	823	34676	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMOTOGRAM



Data File: >B1403::D1 Quant Output File: ^B1403::QT
Name: OLIN METHOD BLANK
Misc: 2 UL INJ 40 NG IS B728SPB

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 880104 11:46
Injected at: 880104 11:06

3 2 00351

QUANT REPORT

Operator ID: USER[redacted]
Input File: ^B13[redacted]
Data File: >B13[redacted]
Name: OLIN A30552 [redacted]PB
Misc: 2 UL INJ 40 [redacted]IS

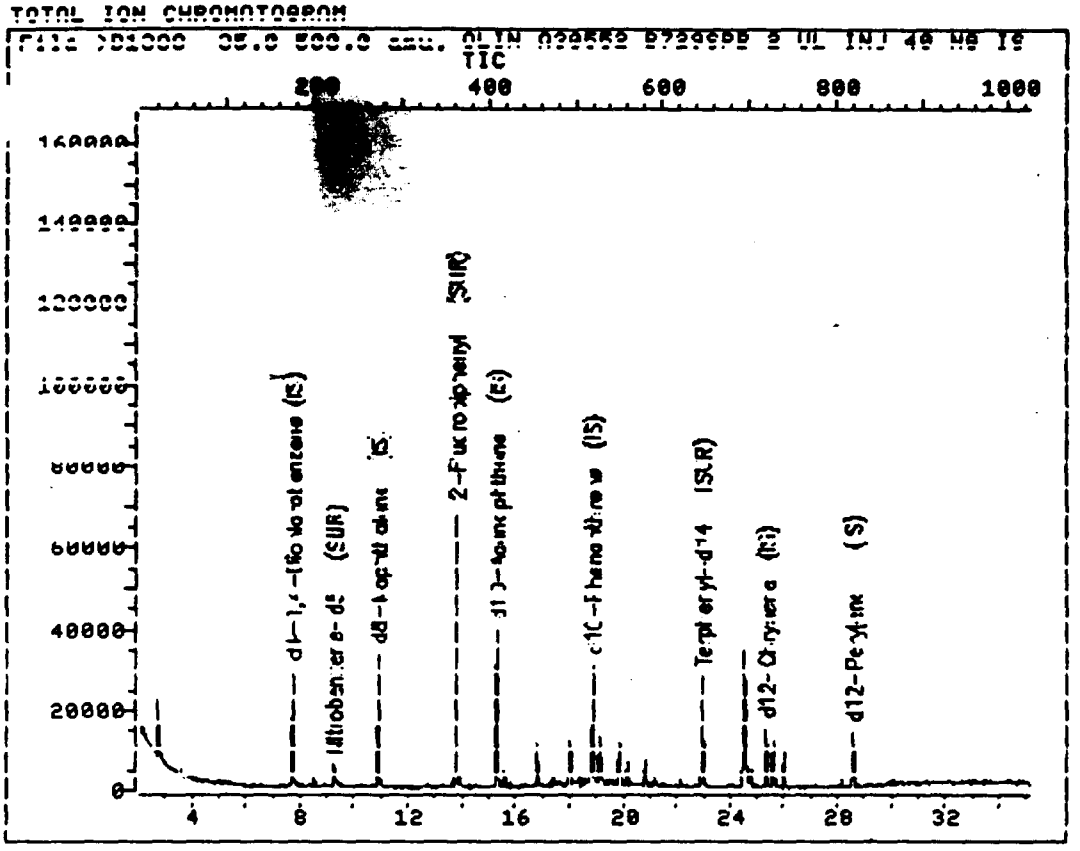
Quant Rev: 6
Quant Time: 871222 09:04
Injected at: 871222 08:23
Dilution Factor: .10000

.D File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
.)	*d4-1,4-Dichlorobenzene (IS)	7.74	176	10723	40.00	ng/uL	90
16)	*d8-Naphthalene (IS)	10.91	274	45498	40.00	ng/uL	87
17)	Nitrobenzene-d5 (SUR)	9.26	223	8457	.66	ng/uL	14% 94
[illegible])	*d10-Acenaphthene (IS)	15.30	410	24348	40.00	ng/uL	98
[illegible])	2-Fluorobiphenyl (SUR)	13.78	363	49041	3.15	ng/uL	63% 92
51)	*d10-Phenanthrene (IS)	18.85	520	34359	40.00	ng/uL	98
[illegible])	*d12-Chrysene (IS)	25.35	721	18219	40.00	ng/uL	98
[illegible])	Terphenyl-d14 (SUR)	22.96	647	39438	4.59	ng/uL	92% 84
71)	*d12-Perylene (IS)	28.58	821	16051	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1388::D1 Quant Output File: ^B1388::QT
Name: OLIN A30552 B729SPB
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871222 09:04
Injected at: 871222 08:23

3 2 00353

QUANT REPORT

Operator ID: USER6
Output File: ^B142[illegible]QT
Data File: >B14241:D1
Name: OLIN MTH BLK B748SPB
Misc: 2 UL INJ 40 NG IS

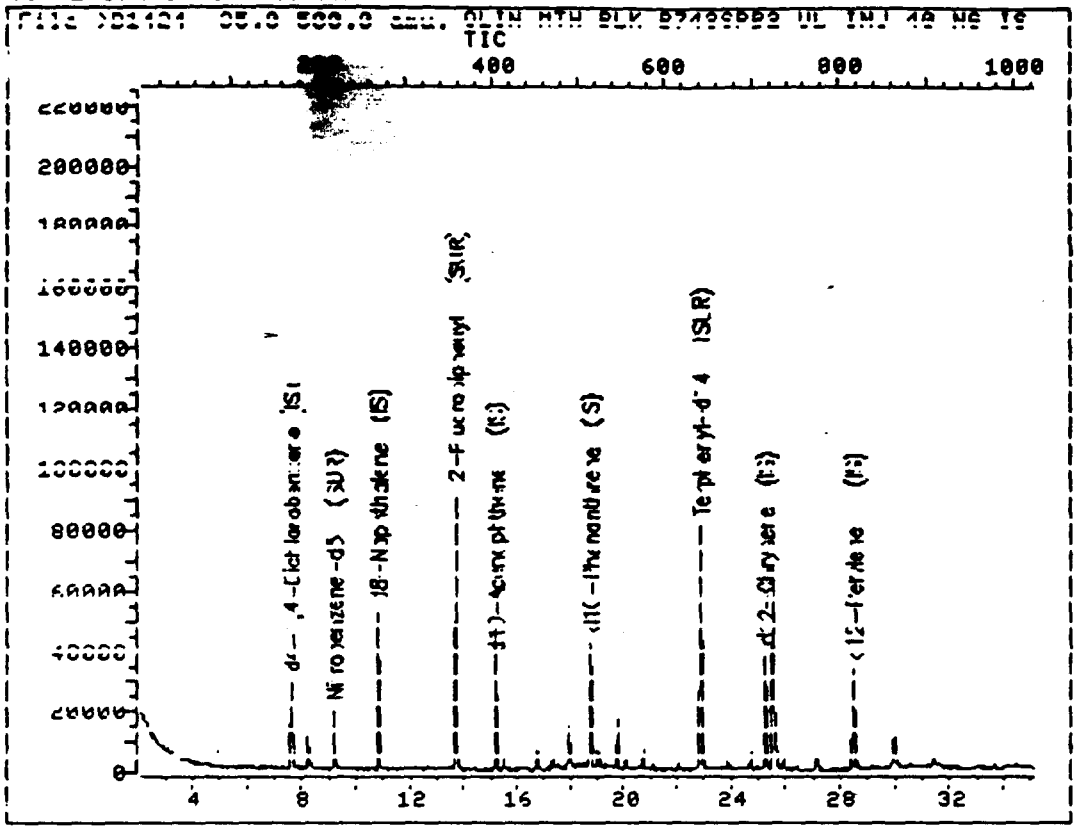
Quant Rev: 6 Quant Time: 880111 14:13
Injected at: 880111 13:29
Dilution Factor: 1.00000

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880111 13:14

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.63	171	15921	40.00	ng/uL	95
[illegible])	*d8-Naphthalene (IS)	10.82	270	65791	40.00	ng/uL	84
[illegible])	Nitrobenzene-d5 (SUR)	9.18	219	21057	15.15	ng/uL 30%	99
31)	*d10-Acenaphthene (IS)	15.18	405	34467	40.00	ng/uL	97
34)	2-Fluorobiphenyl (SUR)	13.70	359	65815	40.60	ng/uL 81%	94
[illegible])	Dimethyl Phthalate	15.22	406	5796	~~3.03~~	ng/uL	100
46)	2,6-Dinitrotoluene	15.18	405	4008	~~8.24~~	ng/uL	100
51)	*d10-Phenanthrene (IS)	18.77	516	50143	40.00	ng/uL	99
[illegible])	Di-n-Butylphthalate	20.74	577	12047	~~3.36~~	ng/uL	96
[illegible])	*d12-Chrysene (IS)	25.26	717	47027	40.00	ng/uL	100
65)	Terphenyl-d14 (SUR)	22.90	644	88965	51.21	ng/uL 102%	93
[illegible])	Bis(2-Ethylhexyl)Phthalate	25.94	738	3013	~~1.26~~	ng/uL	91
[illegible]	*d12-Perylene (IS)	28.49	817	37951	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMOTOGRAM



Data File: >B1424::D1 Quant Output File: ^B1424::QT
Name: DL IN MTH BLK 8748SP8
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880111 13:14

Operator ID: USER6
Quant Time: 880111 14:13
Injected at: 880111 13:29

Case No. _____ Region _____ Contractor [illegible] M _____ Contract No. [illegible]

TASK # _____

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (HOL, TIC OR UNKNOWN)	CONC.	UNITS	[illegible]
A30544	12/17	ABN	Water	Low	1					
(B718WPB)										
AB721WPB	[illegible]	ABN	Water	Low	1		Bis (2-ethyl hexyl Phthalate)	[illegible]	ppb	2

Comments:

3 2 00355

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10/86

QUANT REPORT

3 2 00356

Operator ID: USER6
Output File: ^B1394::QT
Data File: >B139[redacted]::D1
Name: METHOD BLK [redacted]1WPB
Misc: 2 UL INJ 40[redacted] IS

Quant Rev: 6

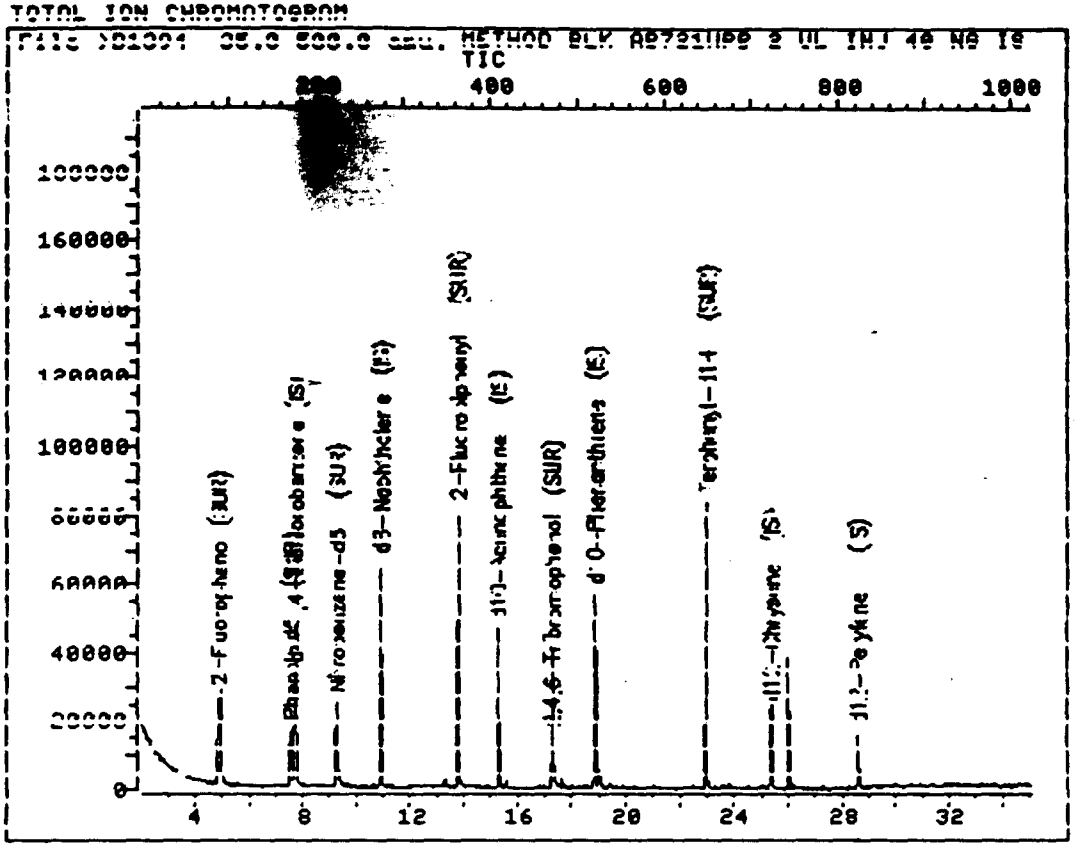
Quant Time: 871222 13:52
Injected at: 871222 13:09
Dilution Factor: 1.00000

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.72	176	16378	40.00	ng/uL	98
2)	2-Fluorophenol (SUR)	4.88	88	26168	24.78	ng/uL	100
3)	Phenol-d5 (SUR)	7.56	171	26893	17.32	ng/uL	100
16)	*d8-Naphthalene (IS)	10.92	275	69164	40.00	ng/uL	88
17)	Nitrobenzene-d5 (SUR)	9.27	224	32012	16.33	ng/uL 33%	88
31)	*d10-Acenaphthene (IS)	15.28	410	34549	40.00	ng/uL	99
36)	2-Fluorobiphenyl (SUR)	13.80	364	61217	27.70	ng/uL 56%	94
38)	Dimethyl Phthalate	15.28	410	5838	~~2.43~~	ng/uL	100
46)	2,6-Dinitrotoluene	15.28	410	4045	~~6.93~~	ng/uL	100
61)	*d10-Phenanthrene (IS)	18.87	521	60987	40.00	ng/uL	98
54)	2,4,6-Tribromophenol (SUR)	17.29	472	18648	42.58	ng/uL	95
3)	*d12-Chrysene (IS)	25.36	722	37696	40.00	ng/uL	96
5)	Terphenyl-d14 (SUR)	23.00	649	87913	49.42	ng/uL 99%	91
69)	Bis(2-Ethylhexyl)Phthalate	26.04	743	27576	12.42	ng/uL ✓	87
71)	*d12-Perylene (IS)	28.59	822	21417	40.00	ng/uL	100

Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1394::D1 Quant Output File: ^B1394::QT
Name: METHOD BLK AB721WPB
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871222 13:52
Injected at: 871222 13:09

QUANT REPORT

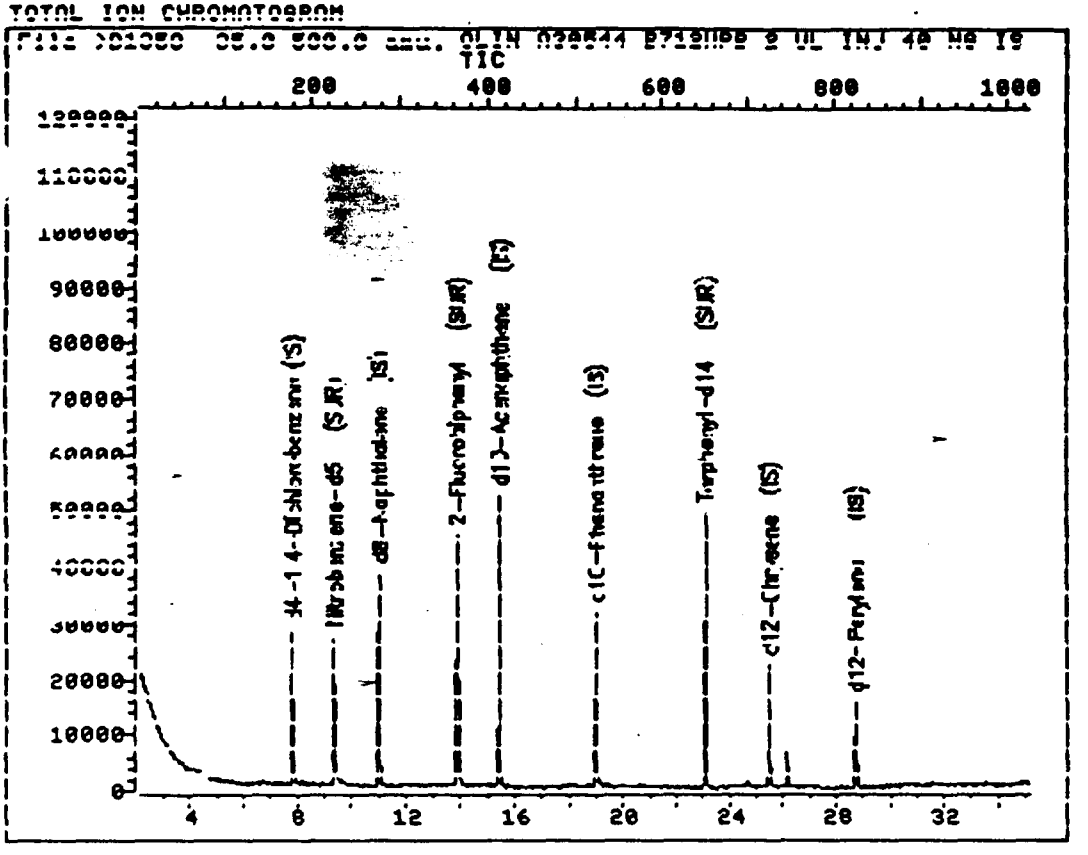
perator ID: USER6 Quant Rev: 6 Quant Time: 871217 18:30
r put File: ^B1358::QT Injected at: 871217 16:18
a File: >B13[redacted]01 Dilution Factor: 1.00000
ame: OLIN A30544 [redacted]WPB
misc: 2 UL INJ 40 [redacted]18

D File: ID BDA::L2
itle: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.83	178	13413	40.00	ng/uL	88
5)	*d8-Naphthalene (IS)	11.02	277	51677	40.00	ng/uL	91
17)	Nitrobenzene-d5 (SUR)	9.34	225	32898	22.46	ng/uL	45% 98
31)	*d10-Acenaphthene (IS)	15.42	413	30352	40.00	ng/uL	98
5)	2-Fluorobiphenyl (SUR)	13.87	365	49796	25.65	ng/uL	51% 93
5)	*d10-Phenanthrene (IS)	18.97	523	40488	40.00	ng/uL	99
63)	*d12-Chrysene (IS)	25.49	725	24148	40.00	ng/uL	96
5)	Terphenyl-d14 (SUR)	23.10	651	49351	43.31	ng/uL	87% 89
1)	*d12-Perylene (IS)	28.72	825	19424	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



3 2 00359

Data File: >B1358::D1 Quant Output File: ^B1358::QT
Name: OLIN A30544 8712WPB
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871217 18:30
Injected at: 871217 16:18

. b Name: BCM Contract: Olin

.ab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 5 2 00360

. vel:(low/med) Low

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	OTHER	TOT OUT
01	A30495	24%	63%	93%					
02	A30497	12.4 *	39.9	70					
03	A30499	51.6	61.2	97.9					
04	A30501	19.4 *	33.9	70.4					
05	A30503	27.7	71.1	96.5					
06	A30506	59	58	72					
07	A30511	21.9 *	42.1	84.6					
08	A30513	29.8	62.2	88.6					
09	A30515	44.8	68.1	94.9					
10	A30517	31.9	66.3	86.0					
11	A30519	19.5	30.3	92.6					
12	A30521	24.0	61.9	93.8					
13	A30523	9.5 *	23.2	104					
14	A30531	48.2	64.2	97.4					
15	A30549	58.8	104	85.6					
16	A30550	15.2 *	31.6	103					
17	A30509	41	68	109					
18	A30510	14.7 *	44.9	95.2					
19	A30508	6 *	40	76					
20	A30527	12 *	41	100					
21	MB-BW 13728	45	47	58					
22	A30552	14 *	23	92					
23	MB B748SPB	30	81	102					
24	A30528	97	117	140 *					
25	A30529	68.6	103	150 *					
26	A30554	50	91	107					
27	A30553	110	114	133					
28	MB								
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)

Column to be used to flag recovery values with an asteris

* Values outside of contract required QC limits

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

3 2 00361

Lab Name: BCM

Lab Code: [redacted] Case No.: _____ Contract No.: Olin

DEP SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	OTHER	TOT OUT
730384	64.7	69.6	72.9					
730385	18.3 *	22.1 *	77.6					
730386	47.5	46.2	83.1					
730387	55.6	60.2	71.5					
730388	56.5	67.2	68.9					
730389	130	124	133					
730390	65.2	65.6	72.7					
730391	53.3	53.5	76.6					
730392	67.9	58.3	71.9					
730393	52.3	73.1	81.8					
730394	92.8	69.9	89.8					
730395	79.2	57.2	79.3					
730396	59.7	69.2	73.0					
A30401	~~133~~ 660	690	840					
730403	67.5	67.2	87.3					
A30506	59.4	58.6	71.6					
A30507	55.3 %	66.7 %	86%					
A30508	6 *	40	76					
A30525	36	33.3 *	57.9					
A30539	64	59.8	75.8					
A30541	61.3	63.2	84.7					
A30416	72.1	93.2	74.7					
A30401	70.4	75.3	90.4					
A30403	74.9	78.9	84.1					
A30539	93.5	91.3	96.3					
A3721WAB	33 *	56	99					
A30544	45	51	87					
A30526	77	103	99					

		QC LIMITS
S[redacted]BZ)	= NITROBENZENE-d5	(35-114)
S[redacted]BP)	= 2-FLUOROBIPHENYL	(43-116)
S3 (TPH)	= TERPHENYL-d14	(33-141)
S4 (PHL)	= PHENOL-d5	(10-94)
S5 (2FP)	= 2-FLUOROPHENOL	(21-100)
S6 (TBP)	= 2,4,6-TRIBROMOPHENOL	(10-123)

COLUMN TO BE USED TO FLAG RECOVERY VALUES

* VALUES OUTSIDE OF CONTRACT REQUIRED QC LIMITS

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: BCM 3 2 00362

Lab Code: [redacted] Case No.: _____ Contract No.: olm

Matrix Spike [redacted] DEP Sample No.: A30402

Lab Sample ID: A30407

COMPOUND	AMT ADD (ng)	SAMPLE RESULT (ug/L)	CONC. MS	MS% REC #	QC LIMITS REC.
1,2,4-Trichloro-benzene	200ppb	ND	150.6	75%	39-98
Acenaphthene			164.9	82%	46-118
2,4-Dinitrotoluene			199.5	100%	24-96
Pyrene			177.8	89%	26-127
N-Nitroso-di-n-Propylamine			181	90%	41-116
1,4-Dichloro-benzene			119.7	59%	36-97
Pentachlorophenol					9-103
Phenol					12-89
2-Chlorophenol					27-123
4-Chloro-3-Methyl phenol					23-97
4-Nitrophenol					10-80

COMPOUND	CONC. MSD	MSD% REC #	MS% REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,2,4-Trichloro-benzene					28	39-98
Acenaphthene					31	46-118
2,4-Dinitrotoluene					38	24-96
Pyrene					31	26-127
N-Nitroso-di-n-Propylamine					38	41-116
1,4-Dichloro-benzene					28	36-97
Pentachl[redacted]henol					50	9-103
Phenol [redacted]					42	12-89
2-Chloro[redacted]l					40	27-123
4-Chloro-[redacted]thyl-phenol					42	23-97
4-Nitrophenol					50	10-80

COLUMN TO BE USED TO FLAG RECOVERY AND RPD VALUES
* VALUES OUTSIDE OF QC LIMITS
RPD: _____ out of _____ outside limits
Spike Recovery: _____ out of _____ outside limits

COMMENTS: _____

3 2 00363

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871217 16:20
put File: ^B135[redacted]QT Injected at: 871217 13:17
ata File: >B135[redacted]1 Dilution Factor: 2.00000
ame: OLIN A30402 [redacted]WMS
Misc: 2 UL INJ 40 [redacted] IS

D File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

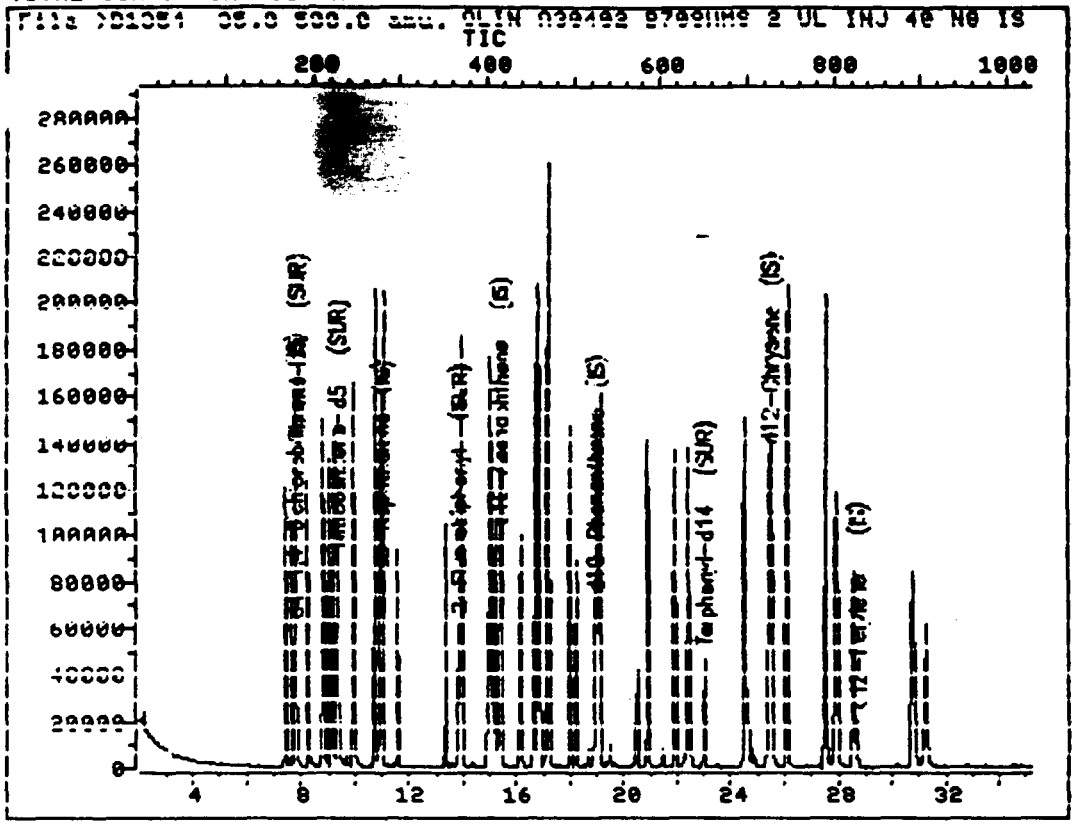
	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.78	179	18329	40.00	ng/uL	90
3)	Phenol-d5 (SUR)	7.81	180	403	.46	ng/uL	100
4)	Phenol	7.42	168	3743	3.98	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.42	168	120056	110.10	ng/uL	94
7)	1,3-Dichlorobenzene	7.65	175	75242	112.73	ng/uL	94
8)	1,4-Dichlorobenzene	7.81	180	81016	119.71	ng/uL	96
10)	1,2-Dichlorobenzene	8.26	194	72227	113.31	ng/uL	98
2)	bis(2-Chloroisopropyl)ether	8.81	211	239862	148.04	ng/uL	94
14)	N-Nitroso-Di-n-propylamine	9.20	223	138538	181.00	ng/uL	78
15)	Hexachloroethane	9.01	217	45864	134.47	ng/uL	97
6)	*d8-Naphthalene (IS)	10.98	278	61798	40.00	ng/uL	87
2)	Nitrobenzene-d5 (SUR)	9.33	227	63378	72.37	ng/uL	99
18)	Nitrobenzene	9.36	228	126543	110.95	ng/uL	87
)	Isophorone	9.97	247	248896	141.73	ng/uL	93
	bis(-2-Chloroethoxy)Methane	10.75	271	200858	192.54	ng/uL	99
2)	1,2,4-Trichlorobenzene	10.91	276	76653	150.60	ng/uL	94
26)	Naphthalene	11.04	280	295712	158.46	ng/uL	98
3)	Hexachlorobutadiene	11.56	296	36673	130.94	ng/uL	92
31)	*d10-Acenaphthene (IS)	15.37	414	33386	40.00	ng/uL	97
32)	Hexachlorocyclopentadiene	13.37	352	44454	142.64	ng/uL	98
5)	2-Chloronaphthalene	13.95	370	176958	174.68	ng/uL	98
3)	2-Fluorobiphenyl (SUR)	13.82	366	77207	72.31	ng/uL	95
38)	Dimethyl Phthalate	15.11	406	207748	179.08	ng/uL	100
)	Acenaphthylene	14.98	402	284301	177.41	ng/uL	92
)	Acenaphthene	15.44	416	161624	164.91	ng/uL	95
43)	4-Nitrophenol	16.70	455	14868	99.65	ng/uL	100
4)	Dibenzofuran	15.86	429	748	.54	ng/uL	76
5)	2,4-Dinitrotoluene	16.18	439	70347	199.50	ng/uL	100
46)	2,6-Dinitrot[redacted]	15.21	409	32488	115.12	ng/uL	100
47)	Diethylphtha[redacted]	16.86	460	175043	142.68	ng/uL	92
8)	4-Chlorophen[redacted]enylether	16.83	459	87744	173.94	ng/uL	100
9)	Fluorene	16.70	455	179856	171.94	ng/uL	99
51)	*d10-Phenanthrene (IS)	18.93	524	46541	40.00	ng/uL	97
5)	N-Nitrosodiphenylamine	17.18	470	106038	165.44	ng/uL	96
5)	4-Bromophenyl-phenylether	17.99	495	64696	196.10	ng/uL	88
57)	Hexachlorobenzene	18.22	502	61702	171.65	ng/uL	95
59)	Phenanthrene	18.99	526	222913	160.21	ng/uL	96
1)	Anthracene	19.12	530	243813	189.40	ng/uL	98
61)	Di-n-Butylphthalate	20.90	585	330876	186.97	ng/uL	97
	Fluoranthene	21.93	617	251504	216.37	ng/uL	95
	*d12-Chrysene (IS)	25.45	726	34093	40.00	ng/uL	98
64)	Pyrene	22.42	632	220374	177.75	ng/uL	97
65)	Terphenyl-d14 (SUR)	23.03	651	72727	90.42	ng/uL	84

3 2 00364

	Compound	R.T.	Scan#	Area	Conc	Units	q
..6)	Butylbenzylphthalate	24.52	697	135910	196.44	ng/uL	93
)	3,3'-Dichlorobenzidine	25.55	729	71585	197.55	ng/uL	97
d)	Benzo(a)Anthracene	25.45	726	273060	238.70	ng/uL	96
9)	Bis(2-Ethylhexyl)Phthalate	26.10	746	240699	239.64	ng/uL	91
70)	Chrysene	25.45	726	273060	325.22	ng/uL	92
71)	*d12-Perylene (IS)	28.69	826	31306	40.00	ng/uL	100
2)	Di-n-octyl phthalate	27.55	791	341705	230.73	ng/uL	87
73)	Benzo(b)fluoranthene	27.94	803	350919	168.77	ng/uL	100
74)	Benzo(k)Fluoranthene	27.94	803	350919	168.77	ng/uL	100
5)	Benzo(a)Pyrene	28.56	822	178203	188.40	ng/uL	95
76)	Indeno(1,2,3-cd)Pyrene	30.79	891	184514	165.57	ng/uL	89
77)	Dibenzo(a,h)Anthracene	30.85	893	151646	175.40	ng/uL	99
8)	Benzo(g,h,i)Perylene	31.27	906	145698	155.11	ng/uL	99

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1354::D1 Quant Output File: ^B1354::QT
Name: OLIN A30402 B708WMS
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871217 16:20
Injected at: 871217 13:17

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: BCM

Lab Code: [redacted] Case No.: _____ Contract No.: 04N

Matrix Spike - [redacted] Sample No.: A30404

Lab Sample ID: A30403

COMPOUND	AMT ADD (ng)	SAMPLE RESULT (ug/L)	CONC. MS	MS% REC #	QC LIMITS REC.
1,2,4-Trichloro-benzene	200ppb	N/D	156.93	78.5%	39-98
Acenaphthene			177.83	88.9	46-118
2,4-Dinitrotoluene			178.19	89.1	24-96
Pyrene			169.26	84.6	26-127
N-Nitroso-di-n-Propylamine			185.88	92.9	41-116
1,4-Dichloro-benzene			115.52	57.8	36-97
Pentachlorophenol					9-103
Phenol					12-89
2-Chlorophenol					27-123
4-Chloro-3-Methyl phenol					23-97
4-Nitrophenol					10-80

COMPOUND	CONC. MSD	MSD% REC #	MS% REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,2,4-Trichloro-benzene					28	39-98
Acenaphthene					31	46-118
2,4-Dinitrotoluene					38	24-96
Pyrene					31	26-127
N-Nitroso-di-n-Propylamine					38	41-116
1,4-Dichloro-benzene					28	36-97
Pentachlorophenol					50	9-103
Phenol					42	12-89
2-Chlorophenol					40	27-123
4-Chloro-3-Methyl-phenol					42	23-97
4-Nitrophenol					50	10-80

COLUMN TO BE USED TO FLAG RECOVERY AND RPD VALUES
* VALUES OUTSIDE OF QC LIMITS

RPD: _____ out of _____ outside limits

Spike Recovery: _____ out of _____ outside limits

COMMENTS: _____

3 2 00367

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871217 16:23
Output File: ^B135[redacted]T Injected at: 871217 14:04
Trace File: >B135[redacted] Dilution Factor: 2.00000
Name: OLIN A30404 [redacted]MS
Misc: 2 UL INJ 40 [redacted]S

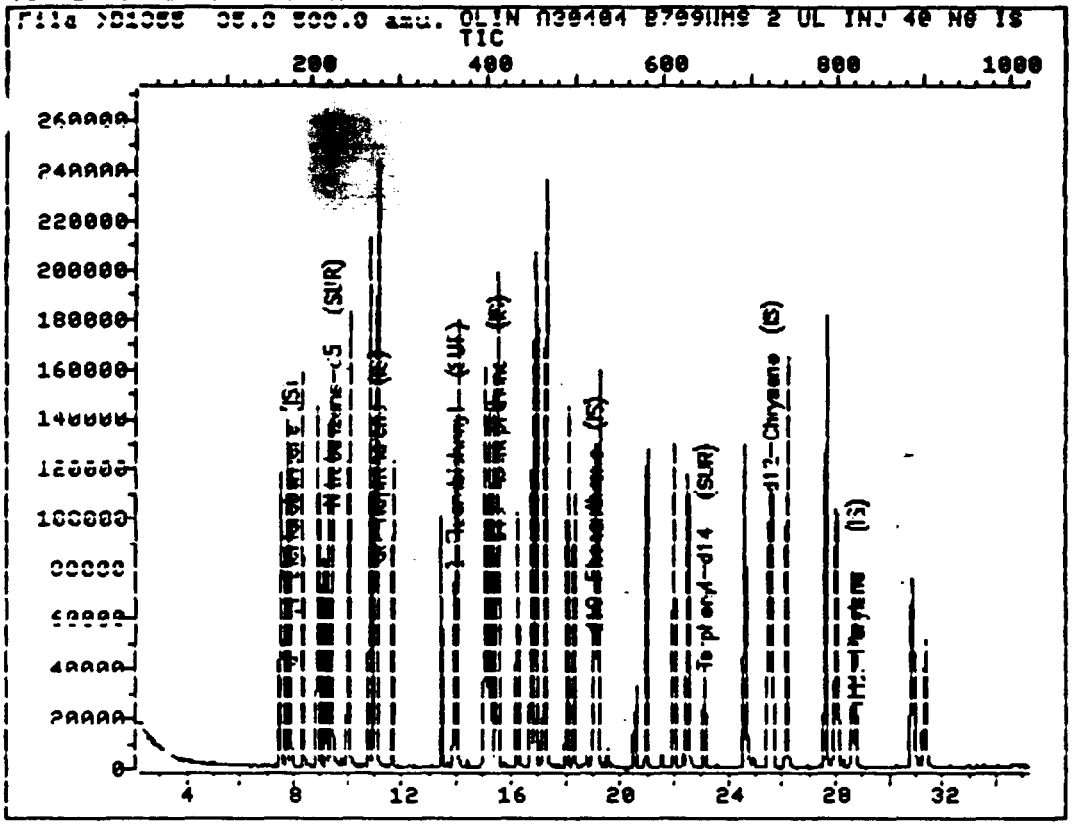
) File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
.)	*d4-1,4-Dichlorobenzene (IS)	7.84	174	17242	40.00	ng/uL	96
i)	Phenol	7.48	163	4187	4.73	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.51	164	133404	130.06	ng/uL	79
7)	1,3-Dichlorobenzene	7.74	171	80427	128.09	ng/uL	93
1)	1,4-Dichlorobenzene	7.90	176	73543	115.52	ng/uL	92
10)	1,2-Dichlorobenzene	8.35	190	84948	141.67	ng/uL	91
12)	bis(2-Chloroisopropyl)ether	8.90	207	210875	138.36	ng/uL	92
1)	-N-Nitroso-Di-n-propylamine	9.29	219	133836	185.88	ng/uL	75
1.)	Hexachloroethane	9.10	213	41012	127.82	ng/uL	96
16)	*d8-Naphthalene (IS)	11.07	274	61990	40.00	ng/uL	88
1)	Nitrobenzene-d5 (SUR)	9.42	223	65809	74.92	ng/uL	98
1)	Nitrobenzene	9.45	224	127612	111.54	ng/uL	92
19)	Isophorone	10.07	243	256561	145.64	ng/uL	92
2)	bis(-2-Chloroethoxy)Methane	10.84	267	197731	188.96	ng/uL	99
2	-1,2,4-Trichlorobenzene	11.04	273	80123	156.93	ng/uL	96
26)	Naphthalene	11.13	276	311420	166.36	ng/uL	98
28)	Hexachlorobutadiene	11.68	293	39203	139.54	ng/uL	94
3)	*d10-Acenaphthene (IS)	15.46	410	33935	40.00	ng/uL	98
3.)	Hexachlorocyclopentadiene	13.46	348	45814	144.62	ng/uL	99
35)	2-Chloronaphthalene	14.04	366	160043	155.43	ng/uL	96
3)	2-Fluorobiphenyl (SUR)	13.94	363	85679	78.95	ng/uL	93
3)	Dimethyl Phthalate	15.20	402	206188	174.86	ng/uL	100
39)	Acenaphthylene	15.07	398	261743	160.69	ng/uL	94
4)	-Acenaphthene	15.56	413	177153	177.83	ng/uL	98
4)	4-Nitrophenol	16.79	451	13014	85.81	ng/uL	100
44)	Dibenzofuran	15.95	425	773	.55	ng/uL	75
45)	-2,4-Dinitrotoluene	16.27	435	63865	178.19	ng/uL	100
4)	2,6-Dinitrotoluene	15.33	406	49866	173.83	ng/uL	100
4.)	Diethylphtha[redacted]	16.95	456	178121	142.84	ng/uL	93
48)	4-Chlorophen[redacted]nylether	16.92	455	78130	152.38	ng/uL	100
4)	Fluorene	16.79	451	166365	156.47	ng/uL	96
5)	*d10-Phenanthrene (IS)	19.02	520	48235	40.00	ng/uL	97
53)	N-Nitrosodiphenylamine	17.27	466	88905	133.84	ng/uL	95
5)	4-Bromophenyl-phenylether	18.08	491	57070	166.91	ng/uL	90
5)	Hexachlorobenzene	18.34	499	60137	161.42	ng/uL	94
59)	Phenanthrene	19.08	522	243602	168.93	ng/uL	99
60)	Anthracene	19.21	526	195238	146.34	ng/uL	98
6)	Di-n-Butylphthalate	20.99	581	310649	169.38	ng/uL	98
6.)	Fluoranthene	22.02	613	201673	167.41	ng/uL	96
6	*d12-Chrysene (IS)	25.54	722	29829	40.00	ng/uL	95
6	Pyrene	22.51	628	183598	169.26	ng/uL	94
6)	Terphenyl-d14 (SUR)	23.12	647	59175	84.08	ng/uL	85
66)	Butylbenzylphthalate	24.61	693	110354	182.30	ng/uL	92

	Compound	R.T.	Scan#	Area	Conc	Units	q
67)	3,3'-Dichlorobenzidine	25.64	725	57848	182.46	ng/uL	95
[illegible])	Benzo(a)Anthracene	25.51	721	218909	218.72	ng/uL	97
)	Bis(2-Ethylh[illegible])Phthalate	26.19	742	181914	207.00	ng/uL	92
70)	Chrysene	25.61	724	90711	123.48	ng/uL	96
71)	*d12-Perylene [illegible](IS)	28.78	822	27281	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.64	787	269098	208.51	ng/uL	86
73)	Benzo(b)fluoranthene	28.03	799	299248	165.15	ng/uL	100
74)	Benzo(k)Fluoranthene	28.03	799	299248	165.15	ng/uL	100
75)	Benzo(a)Pyrene	28.65	818	148381	180.01	ng/uL	96
76)	Indeno(1,2,3-cd)Pyrene	30.88	887	160544	165.31	ng/uL	90
7)	Dibenzo(a,h)Anthracene	30.94	889	132309	175.61	ng/uL	99
78)	Benzo(g,h,i)Perylene	31.36	902	124874	152.55	ng/uL	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM



3 2 00369

Data File: >B1355::D1 Quant Output File: ^B1355::QT
Name: OLIN A30404 8709WMS
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871217 16:23
Injected at: 871217 14:04

3D 3 2 00370

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: BCM

Lab Code: [redacted] Case No.: _____ Contract No.: olin

Matrix Spike [redacted] DEP Sample No.: A30509, A30510

Lab Sample ID: A30495 Level: (low/med) Low

COMPOUND	AMT ADD (ng)	SAMPLE RESULT (ug/Kg)	CONC. MS	MS% REC #	QC LIMITS REC.
1,2,4-Trichloro-benzene	20ppm	N/D	11.38	57%	38-107
Acenaphthene			16.18	80	31-137
2,4-Dinitrotoluene			18.87	94	28-89
Pyrene			19.85	99	35-142
N-Nitroso-di-n-Propylamine			17.62	88	41-126
1,4-Dichloro-benzene			3.11	15 *	28-104
Pentachlorophenol					17-109
Phenol					26-90
2-Chlorophenol					25-102
4-Chloro-3-Methyl phenol					26-103
4-Nitrophenol					11-114

COMPOUND	CONC. MSD	MSD% REC #	MS% REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,2,4-Trichloro-benzene	13.27	66%	57	14.6	23	38-107
Acenaphthene	19.10	95	80	17.1	19	31-137
2,4-Dinitrotoluene	17.39	87	94	7.7	47	28-89
Pyrene	20.19	100	99	1.0	36	35-142
N-Nitroso-di-n-Propylamine	19.89	99	88	10.6	38	41-126
1,4-Dichloro-benzene	4.72	24% *	15	46.2 *	27	28-104
Pentachlorophenol					47	17-109
Phenol					35	26-90
2-Chlorophenol					50	25-102
4-Chloro-3-Methyl-phenol					33	26-103
4-Nitrophenol					50	11-114

COLUMN TO BE USED TO FLAG RECOVERY AND RPD VALUES
* VALUES OUTSIDE OF QC LIMITS
RPD: _____ out of _____ outside limits
Spike Recovery: _____ out of _____ outside limits

COMMENTS: _____

3 2 00371

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871218 15:22
Output File: ^B1[redacted]QT Injected at: 871218 14:21
Data File: >B1[redacted]D1 Dilution Factor: .20000
Name: OLIN A3050[redacted]13MSD
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.77	178	19030	40.00	ng/uL	93
4)	Phenol	7.42	167	3406	.35	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.42	167	107531	9.50	ng/uL	98
7)	1,3-Dichlorobenzene	7.64	174	30941	4.46	ng/uL	98
8)	1,4-Dichlorobenzene	7.81	179	33152	4.72	ng/uL	24% 96
10)	1,2-Dichlorobenzene	8.26	193	42204	6.38	ng/uL	94
12)	bis(2-Chloroisopropyl)ether	8.81	210	202078	12.01	ng/uL	94
14)	N-Nitroso-Di-n-propylamine	9.16	221	158048	19.89	ng/uL	99% 92
15)	Hexachloroethane	8.97	215	16892	4.77	ng/uL	94
16)	*d8-Naphthalene (IS)	10.97	277	68338	40.00	ng/uL	92
17)	Nitrobenzene-d5 (SUR)	9.29	225	39852	4.12	ng/uL	41% 91
18)	Nitrobenzene	9.36	227	169700	13.45	ng/uL	93
19)	Isophorone	9.97	246	316653	16.31	ng/uL	92
23)	bis(-2-Chloroethoxy)Methane	10.71	269	170462	14.78	ng/uL	94
[illegible])	1,2,4-Trichlorobenzene	10.91	275	74700	13.27	ng/uL	66% 95
[illegible])	Naphthalene	11.00	278	268764	13.02	ng/uL	98
28)	Hexachlorobutadiene	11.55	295	42592	13.75	ng/uL	97
31)	*d10-Acenaphthene (IS)	15.33	412	29815	40.00	ng/uL	95
32)	Hexachlorocyclopentadiene	13.33	350	32077	11.52	ng/uL	99
35)	2-Chloronaphthalene	13.91	368	155346	17.17	ng/uL	97
36)	2-Fluorobiphenyl (SUR)	13.82	365	93216	9.78	ng/uL	95
38)	Dimethyl Phthalate	15.08	404	211904	20.45	ng/uL	100
39)	Acenaphthylene	14.95	400	249493	17.43	ng/uL	93
41)	Acenaphthene	15.43	415	167210	19.10	ng/uL	95% 98
43)	4-Nitrophenol	16.66	453	12077	9.06	ng/uL	100
45)	2,4-Dinitrotoluene	16.11	436	54775	17.39	ng/uL	100
46)	2,6-Dinitrotoluene	15.17	407	46517	18.46	ng/uL	100
47)	Diethylpht[redacted]	16.82	458	177932	16.24	ng/uL	93
48)	4-Chlorophe[redacted]phenylether	16.79	457	72015	15.99	ng/uL	100
49)	Fluorene	16.66	453	156277	16.73	ng/uL	98
51)	*d10-Phenanth[redacted] (IS)	18.89	522	32096	40.00	ng/uL	95
53)	N-Nitrosodiphenylamine	17.14	468	86488	19.57	ng/uL	93
55)	4-Bromophenyl-phenylether	17.95	493	49276	21.66	ng/uL	87
57)	Hexachlorobenzene	18.18	500	50277	20.28	ng/uL	93
59)	Phenanthrene	18.96	524	162460	16.93	ng/uL	99
60)	Anthracene	19.09	528	177821	20.03	ng/uL	99
1)	Di-n-Butylphthalate	20.90	584	295716	24.23	ng/uL	96
62)	Fluoranthene	21.90	615	136316	17.01	ng/uL	97
63)	*d12-Chrysene (IS)	25.42	724	19857	40.00	ng/uL	96
[illegible]	Pyrene	22.38	630	145778	20.19	ng/uL	100% 95
[illegible])	Terphenyl-d14 (SUR)	23.00	649	50843	10.85	ng/uL	109% 94
66)	Butylbenzylphthalate	24.48	695	94869	23.54	ng/uL	95
67)	3,3'-Dichlorobenzidine	25.52	727	78911	37.39	ng/uL	97

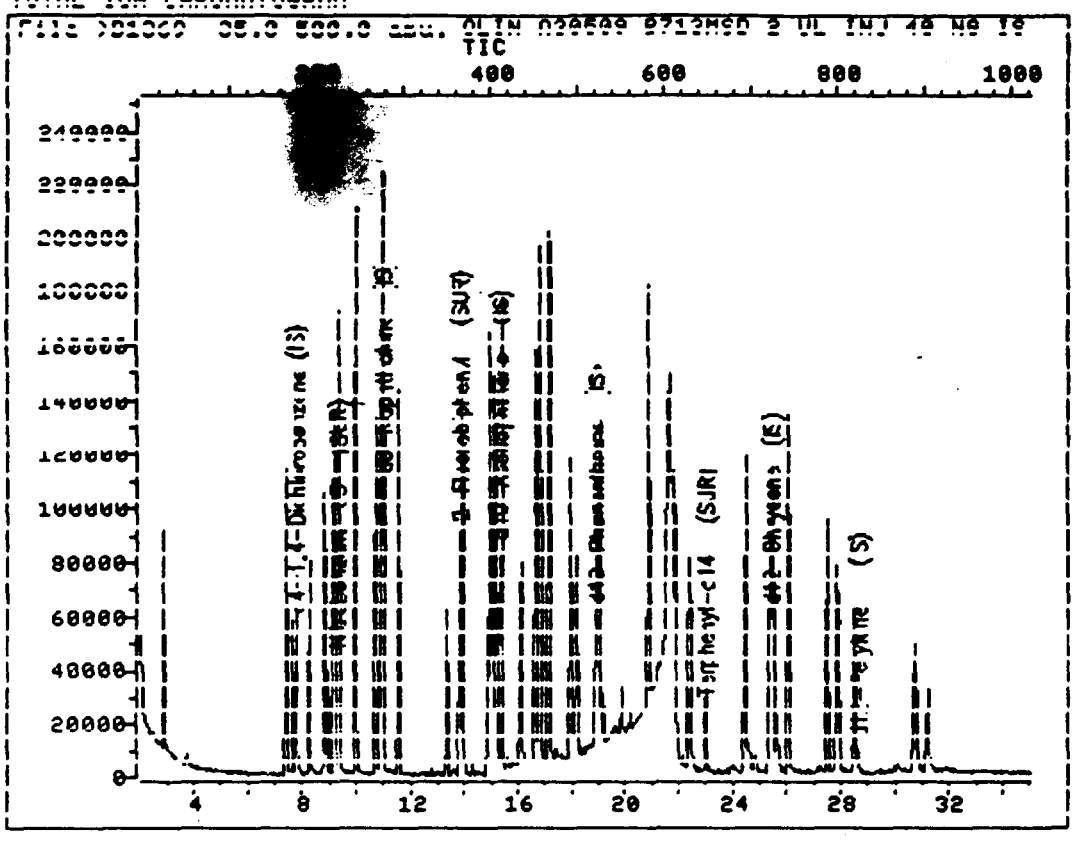
3 2 00372

	Compound	R.T.	Scan#	Area	Conc	Units	q
)	Benzo(a)Ant[illegible]ne	25.39	723	136960	20.56	ng/uL	95
69)	Bis(2-Ethyl[illegible])Phthalate	26.07	744	126355	21.60	ng/uL	92
70)	Chrysene	25.49	726	85854	17.56	ng/uL	95
71)	*d12-Perylene[illegible] (IS)	28.65	824	15357	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.49	788	168496	23.19	ng/uL	88
73)	Benzo(b)fluoranthene	27.88	800	191542	18.78	ng/uL	100
74)	Benzo(k)Fluoranthene	27.88	800	191542	18.78	ng/uL	100
75)	Benzo(a)Pyrene	28.52	820	94840	20.44	ng/uL	97
76)	Indeno(1,2,3-cd)Pyrene	30.72	888	90138	16.49	ng/uL	89
77)	Dibenzo(a,h)Anthracene	30.79	890	74616	17.59	ng/uL	99
78)	Benzo(g,h,i)Perylene	31.21	903	72696	15.78	ng/uL	97

* Compound is ISTD

3 2 00373

TOTAL ION CHROMATOGRAM



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Name: OLIN A30509 8713MSD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871218 15:22
Injected at: 871218 14:21

3 2 00374

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871218 16:01
Output File: ^B137[redacted]::QT Injected at: 871218 15:25
Data File: >B1[redacted]:D1 Dilution Factor: .20000
Name: OLIN A3051[redacted]13SMS
Misc: 2 UL INJ 4[redacted] IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.75	178	23747	40.00	ng/uL	93
4)	Phenol	7.40	167	3047	.25	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.40	167	96060	6.80	ng/uL	98
7)	1,3-Dichlorobenzene	7.63	174	21349	2.42	ng/uL	95
8)	1,4-Dichlorobenzene	7.79	179	27250	3.11	ng/uL	15% 97
10)	1,2-Dichlorobenzene	8.24	193	34626	4.19	ng/uL	97
12)	bis(2-Chloroisopropyl)ether	8.79	210	196150	9.34	ng/uL	95
14)	N-Nitroso-Di-n-propylamine	9.18	222	174747	12.62	ng/uL	85% 73
15)	Hexachloroethane	8.98	216	13326	3.02	ng/uL	98
16)	*d8-Naphthalene (IS)	10.95	277	78312	40.00	ng/uL	90
17)	Nitrobenzene-d5 (SUR)	9.31	226	16334	1.47	ng/uL	97
18)	Nitrobenzene	9.34	227	141655	9.80	ng/uL	90
19)	Isophorone	9.98	247	398465	17.90	ng/uL	77
23)	bis(-2-Chloroethoxy)Methane	10.73	270	242594	18.35	ng/uL	97
[illegible])	1,2,4-Trichlorobenzene	10.89	275	73411	11.38	ng/uL	57% 93
[illegible])	Naphthalene	10.99	278	281020	11.88	ng/uL	97
28)	Hexachlorobutadiene	11.54	295	33581	9.46	ng/uL	94
30)	2-Methylnaphthalene	12.99	340	988	.08	ng/uL	93
31)	*d10-Acenaphthene (IS)	15.32	412	35039	40.00	ng/uL	97
32)	Hexachlorocyclopentadiene	13.31	350	30491	9.32	ng/uL	96
35)	2-Chloronaphthalene	13.93	369	205495	19.33	ng/uL	96
36)	2-Fluorobiphenyl (SUR)	13.80	365	50264	4.49	ng/uL	95
38)	Dimethyl Phthalate	15.06	404	236632	19.44	ng/uL	100
39)	Acenaphthylene	14.93	400	287136	17.07	ng/uL	94
41)	Acenaphthene	15.41	415	166444	16.18	ng/uL	80% 96
43)	4-Nitrophenol	16.67	454	16290	10.40	ng/uL	100
45)	2,4-Dinitrotoluene	16.12	437	69817	18.87	ng/uL	100
46)	2,6-Dinitrotoluene	15.12	406	20484	6.92	ng/uL	100
47)	Diethylpht[redacted]	16.84	459	225796	17.54	ng/uL	93
48)	4-Chlorop[redacted]henylether	16.77	457	92659	17.50	ng/uL	100
49)	Fluorene	16.64	453	186012	16.94	ng/uL	97
51)	*d10-Phenant[redacted] (IS)	18.91	523	45600	40.00	ng/uL	98
53)	N-Nitrosodiphenylamine	17.16	469	134865	21.48	ng/uL	92
55)	4-Bromophenyl-phenylether	17.94	493	51433	15.91	ng/uL	89
57)	Hexachlorobenzene	18.19	501	60425	17.16	ng/uL	97
59)	Phenanthrene	18.97	525	257942	18.92	ng/uL	97
60)	Anthracene	19.07	528	175732	13.93	ng/uL	99
61)	Di-n-Butylphthalate	20.88	584	314591	18.14	ng/uL	97
62)	Fluoranthene	21.91	616	177529	15.59	ng/uL	97
[illegible])	*d12-Chrysene (IS)	25.40	724	24498	40.00	ng/uL	93
[illegible])	Pyrene	22.40	631	176834	19.85	ng/uL	99% 93
5)	Terphenyl-d14 (SUR)	23.01	650	49258	8.52	ng/uL	88
66)	Butylbenzylphthalate	24.47	695	105974	21.32	ng/uL	91

3 2 00375

	Compound	R.T.	Scan#	Area	Conc	Units	q
67)	3,3'-Dichlorobenzidine	25.53	728	53850	20.68	ng/uL	98
68)	Benzo(a)Anthracene	25.40	724	190422	23.17	ng/uL	98
[illegible])	Bis(2-Ethyl[illegible]yl)Phthalate	26.08	745	183124	25.37	ng/uL	97
[illegible])	Chrysene	25.47	726	96647	16.02	ng/uL	92
71)	*d12-Perylen[illegible](IS)	28.64	824	21829	40.00	ng/uL	100
72)	Di-n-octyl [illegible]late	27.51	789	257523	24.94	ng/uL	86
73)	Benzo(b)fluoranthene	27.89	801	256696	17.70	ng/uL	100
74)	Benzo(k)Fluoranthene	27.89	801	256696	17.70	ng/uL	100
75)	Benzo(a)Pyrene	28.51	820	121676	18.45	ng/uL	95
76)	Indeno(1,2,3-cd)Pyrene	30.74	889	131534	16.93	ng/uL	86
77)	Dibenzo(a,h)Anthracene	30.77	890	106457	17.66	ng/uL	95
78)	Benzo(g,h,i)Perylene	31.22	904	-105589	16.12	ng/uL	96

* Compound is ISTD

VOLUME II

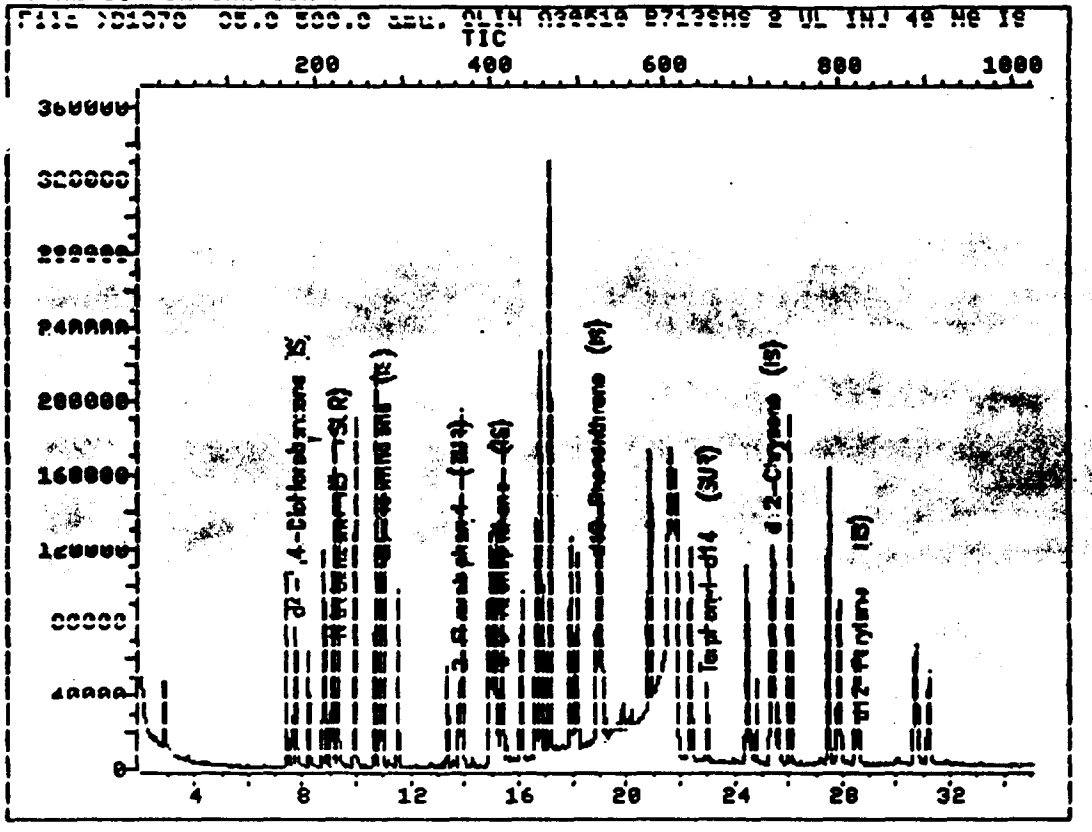
3 2 00376

Site:
Break: 3.2
Other:

Site: _____
Break: 3.2
Other: _____

3 2 00377

TOTAL ION CHROMATOGRAM



Data File: >B1370::D1 Quant Output File: ^B1370::QT
Name: OLIN A30510 B713SMS
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871218 16:01
Injected at: 871218 15:25

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: BCM

Lab Code: _____ Case No.: _____ Contract No.: OLIN

Matrix Spike - DEP Sample No.: A34529, A34528

Lab Sample ID: A30511 Level: (low/med) low

COMPOUND	AMT ADD (ng)	SAMPLE RESULT (ug/Kg)	CONC. MS	MS% REC #	QC LIMITS REC.
1,2,4-Trichloro-benzene	20ppm	N/D	23.99	120	38-107
Acenaphthene			22.04	110	31-137
2,4-Dinitrotoluene			24.86	124	28-89
Pyrene			22.97	115	35-142
N-Nitroso-di-n-Propylamine			20.82	104	41-126
1,4-Dichloro-benzene			13.21	66	28-104
Pentachlorophenol					17-109
Phenol					26-90
2-Chlorophenol					25-102
4-Chloro-3-Methyl phenol					26-103
4-Nitrophenol					11-114

COMPOUND	CONC. MSD	MSD% REC #	MS% REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,2,4-Trichloro-benzene	23.32	117 *	120 *	2.5	23	38-107
Acenaphthene	19.44	97	110	12.6	19	31-137
2,4-Dinitrotoluene	24.46	122 *	124 *	1.6	47	28-89
Pyrene	26.66	133	115	14.5	36	35-142
N-Nitroso-di-n-Propylamine	25.42	142 *	104	30.9	38	41-126
1,4-Dichloro-benzene	18.07	90	66	30.8 *	27	28-104
Pentachlorophenol					47	17-109
Phenol					35	26-90
2-Chlorophenol					50	25-102
4-Chloro-3-Methyl-phenol					33	26-103
4-Nitrophenol					50	11-114

COLUMN TO BE USED TO FLAG RECOVERY AND RPD VALUES
* VALUES OUTSIDE OF QC LIMITS
RPD: _____ out of _____ outside limits
Spike Recovery: _____ out of _____ outside limits

COMMENTS: _____

3 2 00378

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 880112 07:25
Output File: ^B1428::QT Injected at: 880111 16:30
Data File: >B1428::D1 Dilution Factor: .20000
Name: OLIN A30528 B719SMSD
Misc: 2 UL INJ 40 NG 1S

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880111 13:14

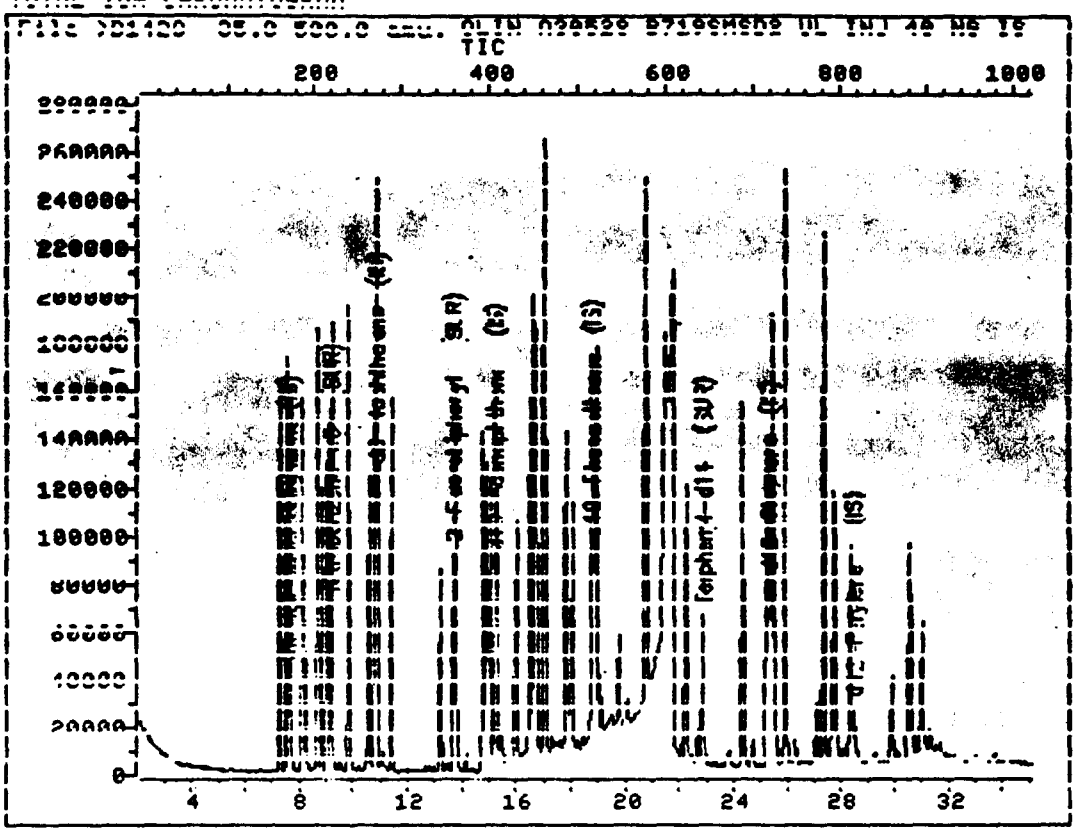
	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.61	171	18171	40.00	ng/uL	96
3)	Phenol-d5 (SUR)	7.61	171	172	.02	ng/uL	100
4)	Phenol	7.58	170	1842	.21	ng/uL	100
7)	1,3-Dichlorobenzene	7.52	168	98921	17.07	ng/uL	97
8)	1,4-Dichlorobenzene	7.68	173	100325	18.07	ng/uL	95
10)	1,2-Dichlorobenzene	8.13	187	98765	18.78	ng/uL	90
12)	bis(2-Chloroisopropyl)ether	8.68	204	313187	23.05	ng/uL	98
14)	N-Nitroso-Di-n-propylamine	9.07	216	155016	28.42	ng/uL	65
15)	Hexachloroethane	8.84	209	43356	15.14	ng/uL	96
16)	*d8-Naphthalene (IS)	10.84	271	58246	40.00	ng/uL	91
17)	Nitrobenzene-d5 (SUR)	9.16	219	59733	9.71	ng/uL 97%	99
19)	Nitrobenzene	9.23	221	193581	22.92	ng/uL	96
	Isophorone	9.84	240	297949	23.84	ng/uL	92
[illegible]	bis(-2-Chloroethoxy)Methane	10.59	263	171619	22.20	ng/uL	98
25)	1,2,4-Trichlorobenzene	10.78	269	80984	23.32	ng/uL	97
[illegible]	Naphthalene	10.88	272	309962	23.24	ng/uL	98
28)	Hexachlorobutadiene	11.43	289	50728	26.70	ng/uL	94
31)	*d10-Acenaphthene (IS)	15.21	416	35431	40.00	ng/uL	95
32)	Hexachlorocyclopentadiene	13.20	344	41664	18.87	ng/uL	98
35)	2-Chloronaphthalene	13.29	362	167073	19.33	ng/uL	97
36)	2-Fluorobiphenyl (SUR)	13.69	359	97816	11.74	ng/uL 117%	94
38)	Dimethyl Phthalate	14.95	398	229117	23.32	ng/uL	100
39)	Acenaphthylene	14.79	393	270800	20.47	ng/uL	94
41)	Acenaphthene	15.27	408	161334	19.44	ng/uL	96
43)	4-Nitrophenol	16.53	447	14657	9.68	ng/uL	100
44)	Dibenzofuran	15.69	421	798	.07	ng/uL	95
45)	2,4-Dinitrotoluene	16.02	431	79486	24.46	ng/uL	100
46)	2,6-Dinitrotoluene	15.115	401	57015	22.81	ng/uL	100
47)	Diethylphthalate	16.73	453	262207	25.03	ng/uL	92
48)	4-Chlorophenyl-phenylether	16.66	451	83255	20.86	ng/uL	100
49)	Fluorene	16.53	447	190267	23.19	ng/uL	95
51)	*d10-Phenanthrene (IS)	18.77	516	53696	40.00	ng/uL	98
53)	N-Nitrosodiphenylamine	17.02	462	115610	17.15	ng/uL	96
55)	4-Bromophenyl-phenylether	17.83	487	64098	23.47	ng/uL	99
57)	Hexachlorobenzene	18.09	495	71217	24.06	ng/uL	97
59)	Phenanthrene	18.83	518	337437	24.70	ng/uL	96
60)	Anthracene	18.96	522	212828	17.12	ng/uL	98
[illegible]	Di-n-Butylphthalate	20.77	578	410663	21.36	ng/uL	96
62)	Fluoranthene	21.81	610	248770	21.48	ng/uL	92
63)	*d12-Chrysene (IS)	25.30	718	32480	40.00	ng/uL	100
64)	Pyrene	22.26	624	252703	26.66	ng/uL	92
65)	Terphenyl-d14 (SUR)	22.87	643	84292	14.115	ng/uL 140%	86
66)	Butylbenzylphthalate	24.36	689	171100	28.80	ng/uL	82

	Compound	R.T.	Scan#	Area	Conc	Units	
67)	3,3'-Dichlorobenzidine	25.40	721	63800	21.80	ng/uL	99
68)	Benzo(a)Anthracene	25.27	717	272587	30.01	ng/uL	98
69)	Bis(2-Ethylhexyl)Phthalate	25.94	738	236238	28.54	ng/uL	96
70)	Chrysene	25.27	717	272587	43.87	ng/uL	94
71)	*d12-Perylene (IS)	28.47	816	26356	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.37	782	340166	30.01	ng/uL	86
73)	Benzo(b)fluoranthene	27.76	794	330060	23.08	ng/uL	100
74)	Benzo(k)Fluoranthene	27.76	794	330060	23.08	ng/uL	100
75)	Benzo(e)Pyrene	28.37	813	148969	23.34	ng/uL	97
76)	Indeno(1,2,3-cd)Pyrene	30.57	881	[illegible]	21.41	ng/uL	87
77)	Dibenzo(a,h)Anthracene	30.60	882	127210	21.31	ng/uL	95
78)	Benzo(g,h,i)Perylene	31.02	895	133396	21.26	ng/uL	96

* Compound is ISTD

3 2 00379

TOTAL ION CHROMATOGRAM



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Name: OLIN A30528 B719SMSD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::12
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880111 13:14

Operator ID: USER6
Quant Time: 880112 07:25
Injected at: 880111 16:30

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 880111 16:28
Output File: ^B1427::QT Injected at: 880111 15:50
Data File: >B1427::D1 Dilution Factor: .20000
Name: OLIN A30529 B719SMSR
Misc: 2 UL INJ 40 NG IS

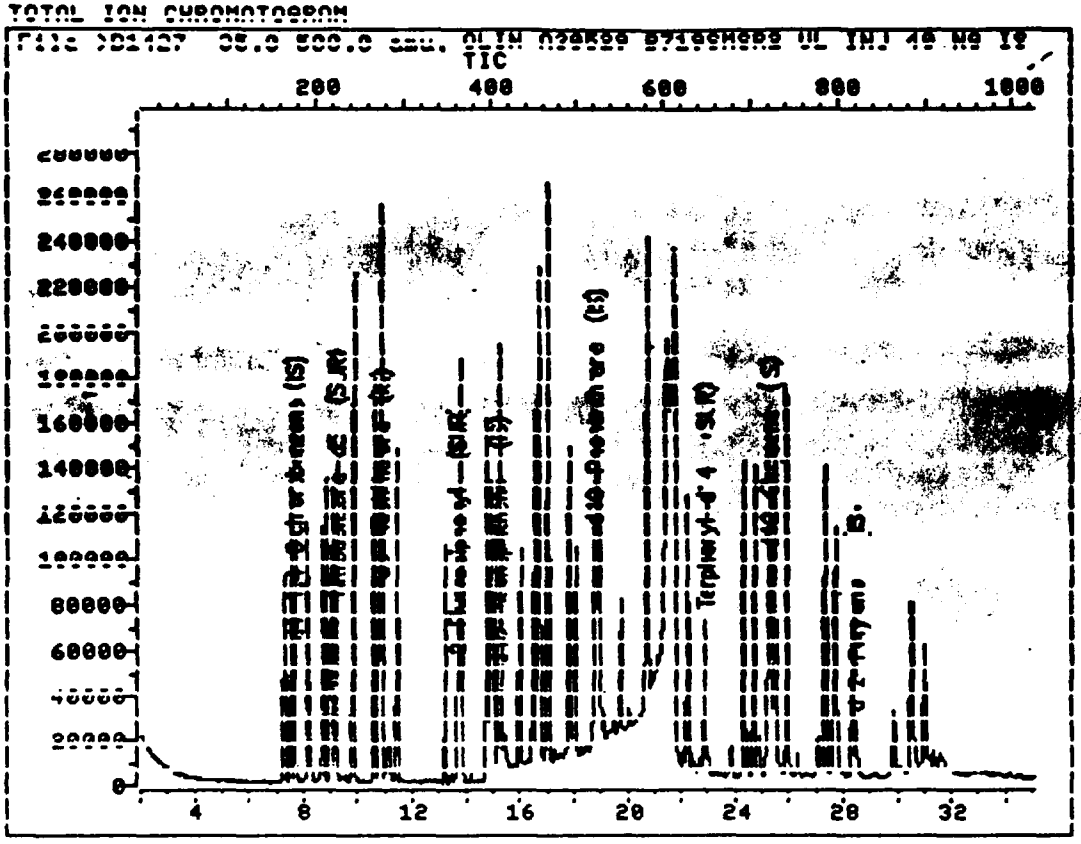
ID File: ID BDA:1L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880111 13:14

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.62	175	19610	40.00	ng/uL	88
4)	Phenol	7.59	174	927	.10	ng/uL	100
7)	1,3-Dichlorobenzene	7.52	172	83075	13.28	ng/uL	91
8)	1,4-Dichlorobenzene	7.65	176	79174	13.21	ng/uL	98
10)	1,2-Dichlorobenzene	8.10	190	78195	13.78	ng/uL	97
12)	bis(2-Chloroisopropyl)ether	8.68	208	228823	15.60	ng/uL	90
14)	N-Nitroso-Di-n-propylamine	9.04	219	122568	20.82	ng/uL	85
15)	Hexachloroethane	8.85	213	44096	14.26	ng/uL	96
16)	*d8-Naphthalene (IS)	10.82	274	58817	40.00	ng/uL	86
17)	Nitrobenzene-d5 (SUR)	9.17	223	42583	6.86	ng/uL 69%	97
18)	Nitrobenzene	9.20	224	157364	18.45	ng/uL	90
19)	Isophorone	9.85	244	359165	28.45	ng/uL	87
23)	bis(-2-Chloroethoxy)Methane	10.59	267	178808	22.90	ng/uL	94
25)	1,2,4-Trichlorobenzene	10.79	273	84106	23.99	ng/uL	
26)	Naphthalene	10.88	276	339966	25.24	ng/uL	
28)	Hexachlorobutadiene	11.43	293	47128	24.56	ng/uL	98
30)	2-Methylnaphthalene	12.85	337	1600	.22	ng/uL	82
31)	*d10-Acenaphthene (IS)	15.18	409	34122	40.00	ng/uL	93
32)	Hexachlorocyclopentadiene	13.21	348	49791	23.41	ng/uL	96
35)	2-Chloronaphthalene	13.79	366	188404	22.63	ng/uL	97
36)	2-Fluorobiphenyl (SUR)	13.66	362	82937	10.34	ng/uL 105%	93
38)	Dimethyl Phthalate	14.95	402	242676	25.65	ng/uL	100
39)	Acenaphthylene	14.79	397	263294	20.67	ng/uL	94
41)	Acenaphthene	15.28	412	176184	22.04	ng/uL	94
43)	4-Nitrophenol	16.54	451	16073	11.03	ng/uL	100
44)	Dibenzofuran	15.67	424	1363	.13	ng/uL	93
45)	2,4-Dinitrotoluene	16.02	435	77805	24.86	ng/uL	100
46)	2,6-Dinitrotoluene	15.05	405	55067	22.87	ng/uL	100
47)	Diethylphthalate	16.70	456	231754	22.97	ng/uL	93
48)	4-Chlorophenyl-phenylether	16.67	455	91859	23.90	ng/uL	100
49)	Fluorene	16.54	451	206142	26.09	ng/uL	98
51)	*d10-Phenanthrene (IS)	18.77	520	53634	40.00	ng/uL	97
53)	N-Nitrosodiphenylamine	17.02	466	125273	18.60	ng/uL	91
55)	4-Bromophenyl-phenylether	17.83	491	64384	23.60	ng/uL	91
57)	Hexachlorobenzene	18.06	498	63986	21.64	ng/uL	95
59)	Phenanthrene	18.83	522	285638	20.94	ng/uL	97
60)	Anthracene	18.93	525	204290	16.45	ng/uL	98
61)	Di-n-Butylphthalate	20.78	582	445334	23.19	ng/uL	95
62)	Fluoranthene	21.78	613	207603	17.95	ng/uL	
63)	*d12-Chrysene (IS)	25.27	721	30981	40.00	ng/uL	
64)	Pyrene	22.26	628	207683	22.97	ng/uL	93
65)	Terphenyl-d14 (SUR)	22.88	647	85721	14.98	ng/uL 50%	88
66)	Butylbenzylphthalate	24.33	692	131106	23.14	ng/uL	92

	Compound	R.T.	Scan#	Area	Conc	Units	q
7)	3,3'-Dichlorobenzidine	25.37	724	51335	18.39	ng/uL	98
68)	Benzo(a)Anthracene	25.24	720	222942	25.73	ng/uL	98
69)	Bis(2-Ethylhexyl)Phthalate	25.92	741	191047	24.19	ng/uL	95
70)	Chrysene	25.34	723	84740	14.30	ng/uL	97
71)	*d12-Perylene (IS)	28.47	820	24886	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.34	785	265852	24.84	ng/uL	87
73)	Benzo(b)fluoranthene	27.73	797	271237	20.08	ng/uL	100
74)	Benzo(k)Fluoranthene	27.73	797	271237	20.08	ng/uL	100
75)	Benzo(a)Pyrene	28.37	817	141178	23.43	ng/uL	96
76)	Indeno(1,2,3-cd)Pyrene	30.54	884	133000	18.91	ng/uL	88
77)	Dibenzo(a,h)Anthracene	30.60	886	111150	19.72	ng/uL	98
78)	Benzo(g,h,i)Perylene	31.03	899	110030	18.57	ng/uL	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1427::D1 Quant Output File: ^B1427::QT
Name: OLIN A30529 B719SMSR
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880111 13:14

Operator ID: USER6
Quant Time: 880111 16:28
Injected at: 880111 15:50

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: BCM

Lab Code: _____ Case No.: _____ Contract No.: Olin

Matrix Spike - DEP Sample No.: A30545, A30546

Lab Sample ID: A30539

COMPOUND	AMT ADD (ng)	SAMPLE RESULT (ug/L)	CONC. MS	MS% REC #	QC LIMITS REC.
1,2,4-Trichloro-benzene	20 ppb	N/D	69.42	34.7	39-98
Acenaphthene		3.25	81.72	40.9	46-118
2,4-Dinitrotoluene		N/D	67.41	33.7	24-96
Pyrene		35.59	33.93	16.9	26-127
N-Nitroso-di-n-Propylamine		N/D	94.91	47.5	41-116
1,4-Dichloro-benzene		N/D	62.92	31.5	36-97
Pentachlorophenol					9-103
Phenol					12-89
2-Chlorophenol					27-123
4-Chloro-3-Methyl phenol					23-97
4-Nitrophenol					10-80

COMPOUND	CONC. MSD	MSD% REC #	MS% REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,2,4-Trichloro-benzene	87.54	43.8	34.7*	23.2	28	39-98
Acenaphthene	~~93.94~~ 90.74	45.4	40.9*	10.4	31	46-118
2,4-Dinitrotoluene	94.28	47.1	33.7	33.2	38	24-96
Pyrene	62.41	31.2	16.9*	69.5*	31	26-127
N-Nitroso-di-n-Propylamine	91.43	45.7	47.5	3.9	38	41-116
1,4-Dichloro-benzene	66.04	33.0*	31.5*	4.7	28	36-97
Pentachlorophenol					50	9-103
Phenol					42	12-89
2-Chlorophenol					40	27-123
4-Chloro-3-Methyl-phenol					42	23-97
4-Nitrophenol					50	10-80

COLUMN TO BE USED TO FLAG RECOVERY AND RPD VALUES
* VALUES OUTSIDE OF QC LIMITS
RPD: _____ out of _____ outside limits
Spike Recovery: _____ out of _____ outside limits

COMMENTS: _____

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871218 10:29
Output File: ^B1363::QT Injected at: 871218 09:32
Data File: >B1363::D1 Dilution Factor: 1.00000
Name: OLIN A30546 B710WMS
Misc: 2 UL INJ 40 NG IS

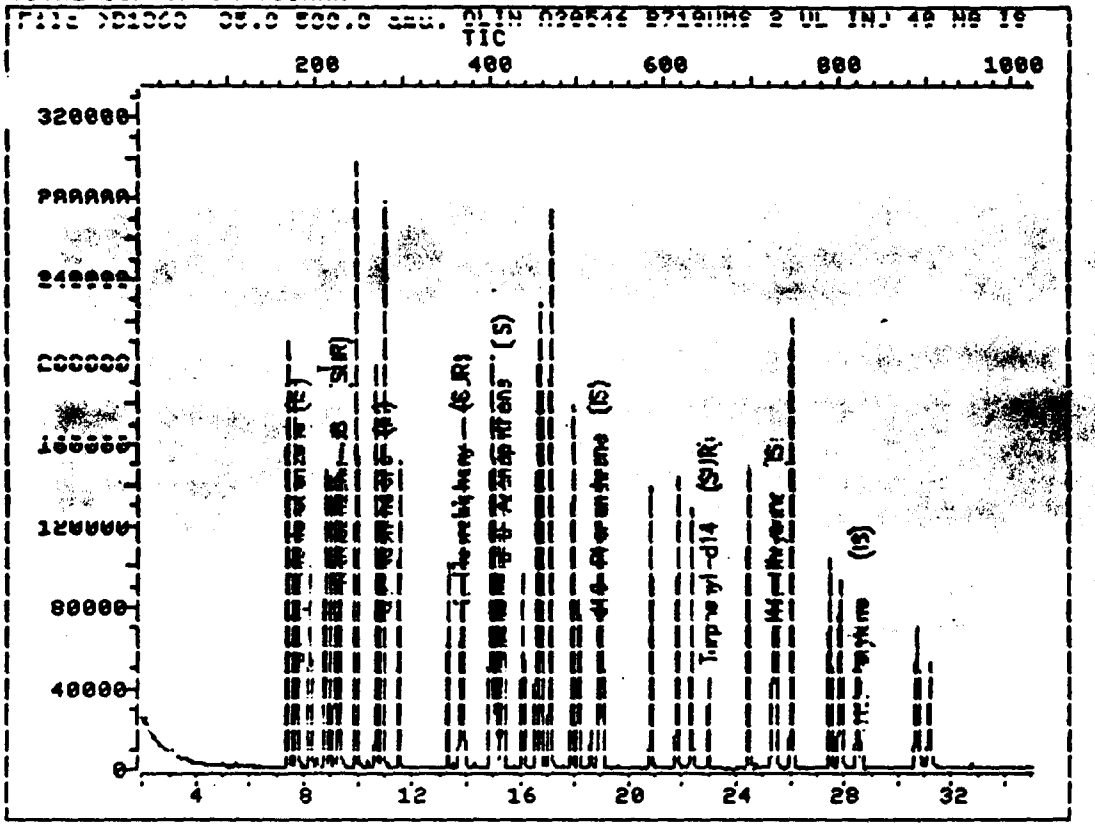
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.74	179	16568	40.00	ng/uL	97
4)	Phenol	7.41	169	7021	4.13	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.41	169	215904	109.53	ng/uL	97
7)	1,3-Dichlorobenzene	7.64	176	96057	79.60	ng/uL	96
8)	1,4-Dichlorobenzene	7.80	181	80797	66.04	ng/uL	89
9)	Benzyl Alcohol	8.45	201	3622	4.27	ng/uL	89
10)	1,2-Dichlorobenzene	8.22	194	79167	68.70	ng/uL	98
12)	bis(2-Chloroisopropyl)ether	8.77	211	234033	79.90	ng/uL	92
13)	N-Nitroso-Di-n-propylamine	9.16	223	126519	91.43	ng/uL	85
15)	Hexachloroethane	8.96	217	47672	77.31	ng/uL	96
16)	*d8-Naphthalene (IS)	10.94	278	58339	40.00	ng/uL	88
17)	Nitrobenzene-d5 (SUR)	9.29	227	68998	41.73	ng/uL	91
18)	Nitrobenzene	9.35	229	180178	83.67	ng/uL	9[illegible]
19)	Isophorone	9.97	248	485562	146.44	ng/uL	9[illegible]
23)	bis(-2-Chloroethoxy)Methane	10.71	271	187547	95.22	ng/uL	94
24)	1,2,4-Trichlorobenzene	10.90	277	84128	87.54	ng/uL	92
26)	Naphthalene	11.00	280	340762	96.72	ng/uL	97
28)	Hexachlorobutadiene	11.55	297	44362	83.89	ng/uL	94
31)	2-Methylnaphthalene	12.97	341	899	.46	ng/uL	86
31)	*d10-Acenaphthene (IS)	15.33	414	31095	40.00	ng/uL	99
32)	Hexachlorocyclopentadiene	13.33	352	43380	74.72	ng/uL	99
33)	2-Chloronaphthalene	13.91	370	170242	90.22	ng/uL	96
34)	2-Fluorobiphenyl (SUR)	13.81	367	90760	45.64	ng/uL	94
38)	Dimethyl Phthalate	15.07	406	211388	97.82	ng/uL	100
39)	Acenaphthylene	14.94	402	330155	110.60	ng/uL	93
41)	Acenaphthene	15.43	417	171597	93.99	ng/uL	98
42)	4-Nitrophenol	16.65	455	16538	59.50	ng/uL	100
44)	Dibenzofuran	15.81	429	1237	.48	ng/uL	86
46)	2,4-Dinitrotoluene	16.14	439	61928	94.28	ng/uL	100
46)	2,6-Dinitrotoluene	15.17	409	30301	57.64	ng/uL	100
47)	Diethylphthalate	16.82	460	196567	86.01	ng/uL	92
48)	4-Chlorophenyl-phenylether	16.78	459	84860	90.31	ng/uL	100
49)	Fluorene	16.65	455	212892	109.26	ng/uL	96
51)	*d10-Phenanthrene (IS)	18.88	524	39460	40.00	ng/uL	97
53)	N-Nitrosodiphenylamine	17.14	470	105614	97.17	ng/uL	96
54)	4-Bromophenyl-phenylether	17.95	495	75430	134.83	ng/uL	84
56)	Hexachlorobenzene	18.17	502	51293	84.15	ng/uL	97
59)	Phenanthrene	18.95	526	209089	88.62	ng/uL	[illegible]
61)	Anthracene	19.05	529	184513	84.53	ng/uL	9[illegible]
61)	Di-n-Butylphthalate	20.85	585	264365	88.10	ng/uL	96
62)	Fluoranthene	21.89	617	268932	136.44	ng/uL	94
63)	*d12-Chrysene (IS)	25.41	726	25079	40.00	ng/uL	95
64)	Pyrene	22.37	632	184224	101.00	ng/uL	94

	Compound	R.T.	Scan#	Area	Conc	Units	q
	Terphenyl-d14 (SUR)	22.99	651	56961	48.13	ng/uL	85
66)	Butylbenzylphthalate	24.47	697	123386	121.22	ng/uL	99
67)	3,3'-Dichlorobenzidine	25.51	729	53938	101.18	ng/uL	98
68)	Benzo(a)Anthracene	25.38	725	166250	98.78	ng/uL	96
69)	Bis(2-Ethylhexyl)Phthalate	26.06	746	243701	164.92	ng/uL	92
70)	Chrysene	25.47	728	115255	93.31	ng/uL	95
71)	*d12-Perylene (IS)	28.61	825	20940	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.48	790	204282	103.11	ng/uL	88
73)	Benzo(b)fluoranthene	27.87	802	268000	96.35	ng/uL	100
74)	Benzo(k)Fluoranthene	27.87	802	268000	96.35	ng/uL	100
75)	Benzo(a)Pyrene	28.51	822	125994	99.57	ng/uL	97
76)	Indeno(1,2,3-cd)Pyrene	30.71	890	135341	90.78	ng/uL	90
77)	Dibenzo(a,h)Anthracene	30.77	892	110392	95.44	ng/uL	96
78)	Benzo(g,h,i)Perylene	31.19	905	111942	89.08	ng/uL	99

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: OLIN A30546 8710WMS
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871218 10:29
Injected at: 871218 09:32

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871218 09:29
Output File: ^B1362::QT Injected at: 871218 08:50
Data File: >B1362::D1 Dilution Factor: 1.00000
Name: OLIN A30545 B710WMSD
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

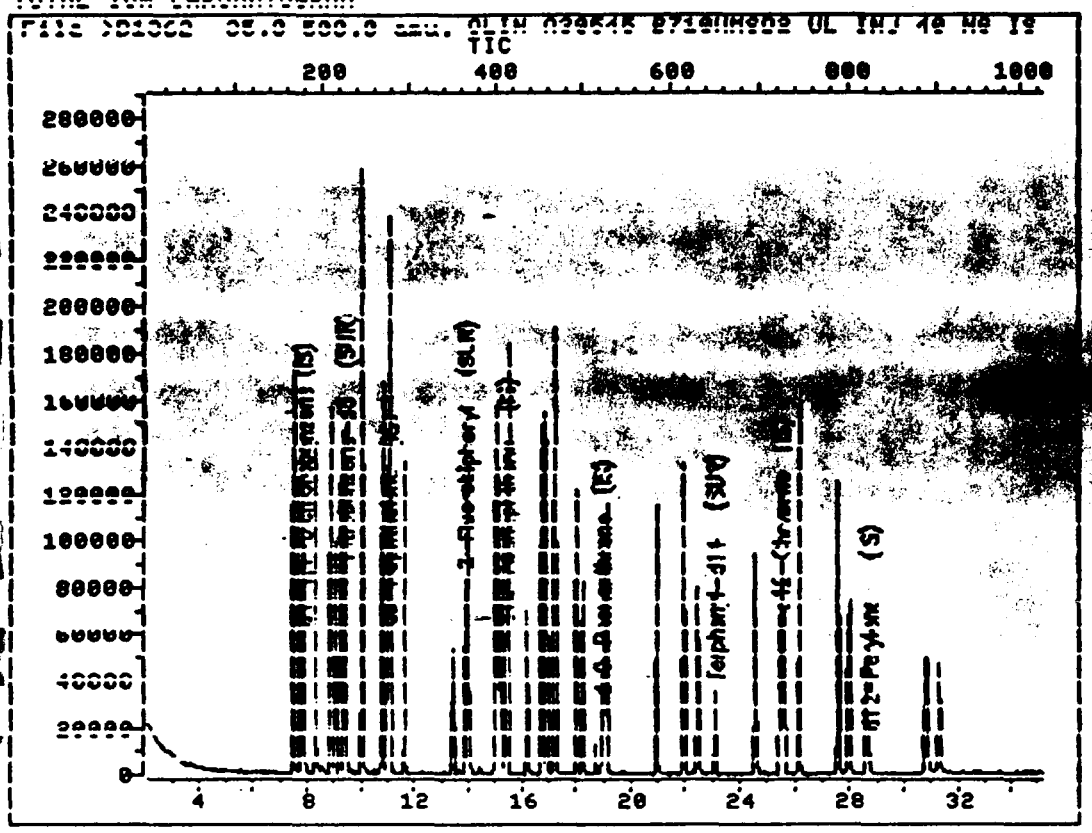
	Compound	R.T.	Scan#	Area	Conc	Units	q
(1)	*d4-1,4-Dichlorobenzene (IS)	7.83	177	16395	40.00	ng/uL	92
4)	Phenol	7.48	166	5274	3.13	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.48	166	161747	82.92	ng/uL	97
7)	1,3-Dichlorobenzene	7.70	173	65374	54.75	ng/uL	97
8)	1,4-Dichlorobenzene	7.86	178	76179	62.92	ng/uL	98
10)	1,2-Dichlorobenzene	8.32	192	73119	64.12	ng/uL	96
12)	bis(2-Chloroisopropyl)ether	8.87	209	230513	79.53	ng/uL	98
14)	N-Nitroso-Di-n-propylamine	9.25	221	129956	94.91	ng/uL	75
15)	Hexachloroethane	9.06	215	38110	62.46	ng/uL	95
16)	*d8-Naphthalene (IS)	11.03	276	60431	40.00	ng/uL	88
17)	Nitrobenzene-d5 (SUR)	9.38	225	61249	35.76	ng/uL	99
18)	Nitrobenzene	9.42	226	123977	55.58	ng/uL	91
19)	Isophorone	10.06	246	427220	124.39	ng/uL	85
[illegible])	bis(-2-Chloroethoxy)Methane	10.80	269	147070	72.09	ng/uL	9[illegible]
25)	1,2,4-Trichlorobenzene	11.00	275	69104	69.42	ng/uL	9[illegible]
26)	Naphthalene	11.10	278	282172	77.31	ng/uL	98
[illegible])	Hexachlorobutadiene	11.65	295	39539	72.18	ng/uL	99
[illegible])	*d10-Acenaphthene (IS)	15.43	412	29720	40.00	ng/uL	99
32)	Hexachlorocyclopentadiene	13.42	350	29081	52.41	ng/uL	98
[illegible])	2-Chloronaphthalene	14.00	368	118288	65.58	ng/uL	96
[illegible])	2-Fluorobiphenyl (SUR)	13.91	365	71470	37.60	ng/uL	93
38)	Dimethyl Phthalate	15.17	404	161977	78.42	ng/uL	100
39)	Acenaphthylene	15.04	400	253963	89.01	ng/uL	93
[illegible])	Acenaphthene	15.52	415	148260	84.97	ng/uL	97
[illegible])	4-Nitrophenol	16.75	453	12107	45.58	ng/uL	100
44)	Dibenzofuran	15.94	428	1273	.52	ng/uL	79
[illegible])	2,4-Dinitrotoluene	16.20	436	42321	67.41	ng/uL	100
[illegible])	2,6-Dinitrotoluene	15.26	407	35751	71.15	ng/uL	100
47)	Diethylphthalate	16.94	459	185950	85.13	ng/uL	86
[illegible])	4-Chlorophenyl-phenylether	16.88	457	55692	62.01	ng/uL	100
[illegible])	Fluorene	16.75	453	145393	78.07	ng/uL	99
51)	*d10-Phenanthrene (IS)	18.98	522	33677	40.00	ng/uL	99
[illegible])	N-Nitrosodiphenylamine	17.23	468	68404	73.74	ng/uL	94
[illegible])	4-Bromophenyl-phenylether	18.04	493	46695	97.80	ng/uL	83
[illegible])	Hexachlorobenzene	18.30	501	41799	80.35	ng/uL	94
59)	Phenanthrene	19.04	524	149347	74.17	ng/uL	96
[illegible])	Anthracene	19.17	528	131369	70.51	ng/uL	98
[illegible])	Di-n-Butylphthalate	20.98	584	218953	85.49	ng/uL	95
62)	Fluoranthene	21.98	615	190483	113.24	ng/uL	[illegible]
[illegible])	*d12-Chrysene (IS)	25.50	724	21625	40.00	ng/uL	[illegible]
[illegible])	Pyrene	22.47	630	114061	72.52	ng/uL	98
65)	Terphenyl-d14 (SUR)	23.11	650	39681	38.89	ng/uL	92
[illegible])	Butylbenzylphthalate	24.57	695	77117	87.86	ng/uL	90

3 2 00384

	Compound	R.T.	Scan#	Area	Conc	Units	q
7)	3,3'-Dichlorobenzidine	25.60	727	38039	82.75	ng/uL	97
	Benzo(a)Anthracene	25.47	723	124716	85.94	ng/uL	96
	Bis(2-Ethylhexyl)Phthalate	26.18	745	129723	101.81	ng/uL	96
1)	Chrysene	25.57	726	66348	62.29	ng/uL	94
71)	*d12-Perylene (IS)	28.74	824	18860	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.60	789	172556	96.70	ng/uL	86
3)	Benzo(b)fluoranthene	28.02	802	190478	76.03	ng/uL	100
4)	Benzo(k)Fluoranthene	28.02	802	190478	76.03	ng/uL	100
75)	Benzo(a)Pyrene	28.61	820	82878	72.72	ng/uL	94
6)	Indeno(1,2,3-cd)Pyrene	30.80	888	102644	76.44	ng/uL	95
7)	Dibenzo(a,h)Anthracene	30.87	890	81543	78.28	ng/uL	95
78)	Benzo(g,h,i)Perylene	31.32	904	[illegible]	75.54	ng/uL	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1362::D1 Quant Output File: ^B1362::QT
Name: OLIN A30545 B710WMSD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871218 09:29
Injected at: 871218 08:50

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3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: BCM

Lab Code: _____ Case No.: _____ Contract No.: OUN

Matrix Spike - DEP Sample No.: A30553, A30554

Lab Sample ID: A30548 Level: (low/med) LOW

COMPOUND	AMT ADD (ng)	SAMPLE RESULT (ug/Kg)	CONC. MS	MS% REC #	QC LIMITS REC.
1,2,4-Trichloro-benzene	20ppm	ND	20.44	102	38-107
Acenaphthene			19.61	98	31-137
2,4-Dinitrotoluene			23.53	118	28-89
Pyrene			26.37	132	35-142
N-Nitroso-di-n-Propylamine			30.11	151	41-126
1,4-Dichloro-benzene			18.14	91	28-104
Pentachlorophenol					17-109
Phenol					26-90
2-Chlorophenol					25-102
4-Chloro-3-Methyl phenol					26-103
4-Nitrophenol					11-114

COMPOUND	CONC. MSD	MSD% REC #	MS% REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,2,4-Trichloro-benzene	20.88	104	102	1.9	23	38-107
Acenaphthene	17.94	90	98	8.5	19	31-137
2,4-Dinitrotoluene	21.82	109 *	118 *	7.9	47	28-89
Pyrene	22.00	110	132		36	35-142
N-Nitroso-di-n-Propylamine	19.97	100 *	151 *	40.6 *	38	41-126
1,4-Dichloro-benzene	17.64	88	91	3.4	27	28-104
Pentachlorophenol					47	17-109
Phenol					35	26-90
2-Chlorophenol					50	25-102
4-Chloro-3-Methyl-phenol					33	26-103
4-Nitrophenol					50	11-114

* COLUMN TO BE USED TO FLAG RECOVERY AND RPD VALUES

VALUES OUTSIDE OF QC LIMITS

RPD: _____ out of _____ outside limits

Spike Recovery: _____ out of _____ outside limits

COMMENTS: _____

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 880111 14:57
Output File: ^B1425::QT Injected at: 880111 14:15
Data File: >B1425::D1 Dilution Factor: .20000
Name: OLIN A30554 B727SMSR
Misc: 2 UL INJ 40 NG IS

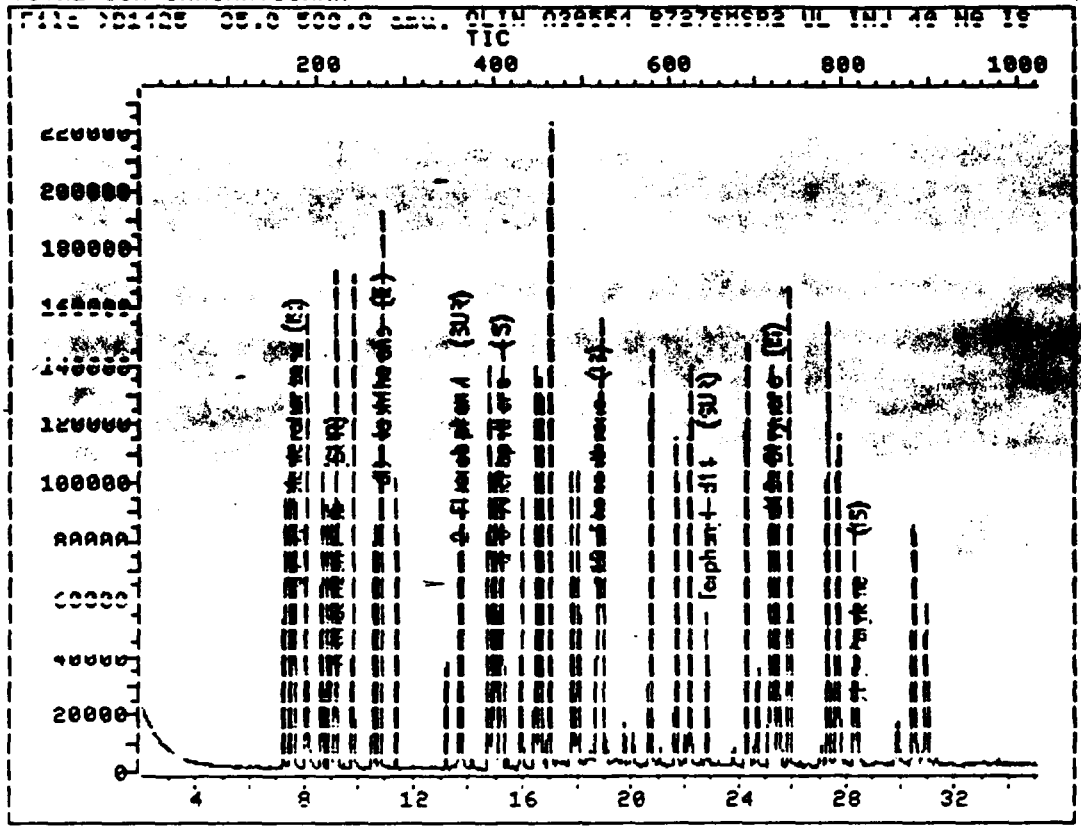
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880111 13:14

	Compound	R.T.	Scan#	Area	Conc	Units	q
[illegible])	*d4-1,4-Dichlorobenzene (IS)	7.62	174	14190	40.00	ng/uL	88
[illegible])	Phenol	7.53	171	5994	.89	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.27	163	75636	11.74	ng/uL	83
[illegible])	1,3-Dichlorobenzene	7.50	170	59066	13.05	ng/uL	97
[illegible])	1,4-Dichlorobenzene	7.66	175	76474	17.64	ng/uL	98
10)	1,2-Dichlorobenzene	8.11	189	78708	19.17	ng/uL	94
12)	bis(2-Chloroisopropyl)ether	8.66	206	141871	13.37	ng/uL	94
[illegible])	N-Nitroso-Di-n-propylamine	9.01	217	85069	19.97	ng/uL	83
[illegible])	Hexachloroethane	8.85	212	39432	17.63	ng/uL	99
16)	*d8-Naphthalene (IS)	10.82	273	59884	40.00	ng/uL	89
[illegible])	Nitrobenzene-d5 (SUR)	9.14	221	31303	4.95	ng/uL	50% 9
[illegible])	Nitrobenzene	9.21	223	162099	18.66	ng/uL	9[illegible]
19)	Isophorone	9.82	242	245968	19.14	ng/uL	94
[illegible])	bis(-2-Chloroethoxy)Methane	10.60	266	116774	14.69	ng/uL	85
[illegible])	1,2,4-Trichlorobenzene	10.76	271	74545	20.88	ng/uL	95
[illegible])	Naphthalene	10.86	274	231614	16.89	ng/uL	97
28)	Hexachlorobutadiene	11.41	291	36224	18.54	ng/uL	95
[illegible])	*d10-Acenaphthene (IS)	15.19	408	31993	40.00	ng/uL	98
32)	Hexachlorocyclopentadiene	13.18	346	20952	10.51	ng/uL	98
35)	2-Chloronaphthalene	13.76	364	139265	17.84	ng/uL	96
[illegible])	2-Fluorobiphenyl (SUR)	13.67	361	68749	9.14	ng/uL	91% 94
[illegible])	Dimethyl Phthalate	14.93	400	159312	17.96	ng/uL	100
39)	Acenaphthylene	14.80	396	246887	20.67	ng/uL	94
[illegible])	Acenaphthene	15.25	410	134414	17.94	ng/uL	96
[illegible])	4-Nitrophenol	16.51	449	12139	8.88	ng/uL	100
44)	Dibenzofuran	15.67	423	1085	.11	ng/uL	95
45)	2,4-Dinitrotoluene	15.99	433	64044	21.82	ng/uL	100
[illegible])	2,6-Dinitrotoluene	15.02	403	46278	20.50	ng/uL	100
47)	Diethylphthalate	16.70	455	181224	19.15	ng/uL	91
48)	4-Chlorophenyl-phenylether	16.64	453	55139	15.30	ng/uL	100
[illegible])	Fluorene	16.51	449	153687	20.75	ng/uL	98
[illegible])	*d10-Phenanthrene (IS)	18.74	518	42762	40.00	ng/uL	98
53)	N-Nitrosodiphenylamine	17.00	464	66659	12.42	ng/uL	94
[illegible])	4-Bromophenyl-phenylether	17.80	489	36923	16.98	ng/uL	87
[illegible])	Hexachlorobenzene	18.06	497	55062	23.36	ng/uL	95
59)	Phenanthrene	18.81	520	204512	18.80	ng/uL	[illegible]
[illegible])	Anthracene	18.94	524	227321	22.96	ng/uL	[illegible]
[illegible])	Di-n-Butylphthalate	20.75	580	293997	19.20	ng/uL	95
62)	Fluoranthene	21.71	610	220246	23.88	ng/uL	96
[illegible])	*d12-Chrysene (IS)	25.27	720	33970	40.00	ng/uL	100
[illegible])	Pyrene	22.23	626	218142	22.00	ng/uL	91
[illegible])	Terphenyl-d14 (SUR)	22.85	645	67007	10.68	ng/uL	107% 86
66)	Butylbenzylphthalate	24.33	691	125004	20.12	ng/uL	94

	Compound	R.T.	Scan#	Area	Conc	Units	q
7)	3,3'-Dichlorobenzidine	25.33	722	33431	10.92	ng/uL	97
8)	Benzo(a)Anthracene	25.24	719	249342	26.24	ng/uL	98
69)	Bis(2-Ethylhexyl)Phthalate	25.92	740	158732	18.33	ng/uL	91
0)	Chrysene	25.30	721	133220	20.50	ng/uL	96
1)	*d12-Perylene (IS)	28.44	818	28307	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.34	784	224002	18.40	ng/uL	87
73)	Benzo(b)fluoranthene	27.73	796	319460	20.80	ng/uL	100
4)	Benzo(k)Fluoranthene	27.73	796	319460	20.80	ng/uL	100
75)	Benzo(a)Pyrene	28.34	815	145093	21.17	ng/uL	97
76)	Indeno(1,2,3-cd)Pyrene	30.54	883	163043	20.38	ng/uL	87
7)	Dibenzo(a,h)Anthracene	30.57	884	129627	20.22	ng/uL	95
8)	Benzo(g,h,i)Perylene	30.99	897	125338	18.60	ng/uL	98

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1425::D1 Quant Output File: ^B1425::QT
Name: DLIN A30554 8727SMSR
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880111 13:14

Operator ID: USER6
Quant Time: 880111 14:57
Injected at: 880111 14:15

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QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 880111 15:48
Output File: ^B1426::QT Injected at: 880111 14:59
Data File: >B1426::D1 Dilution Factor: .20000
Name: OLIN A30553 B727SMSD
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880111 13:14

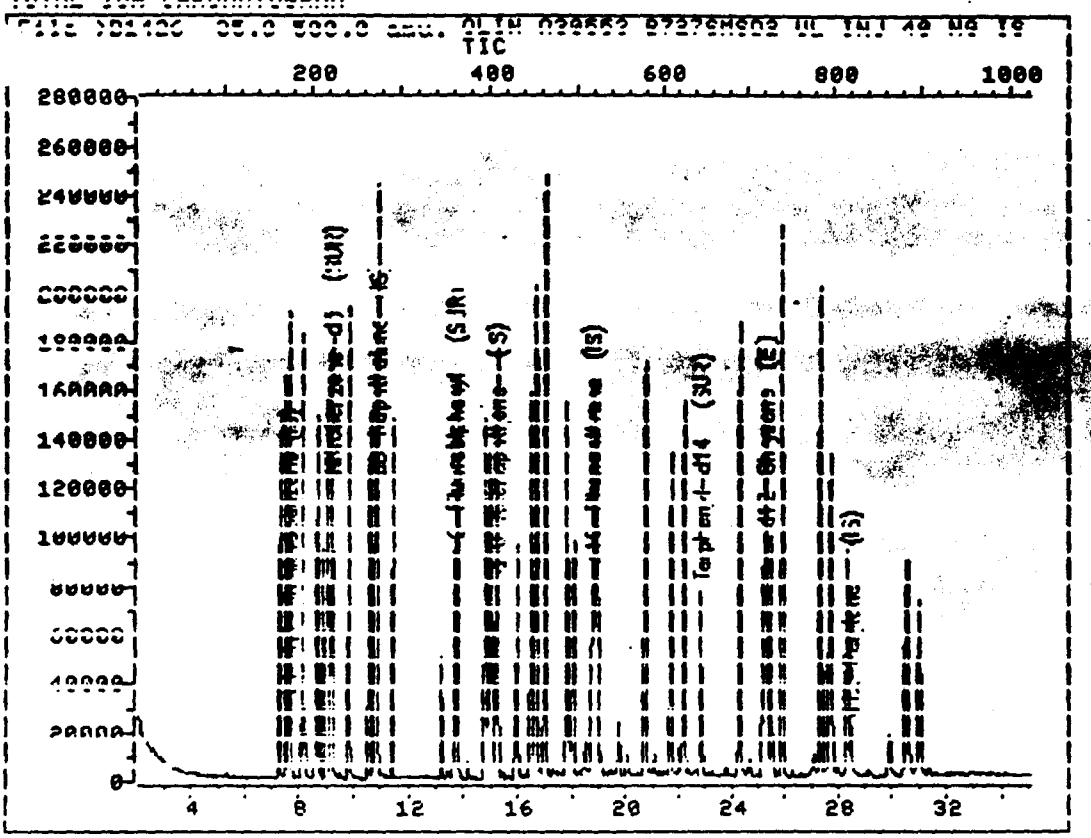
	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.60	173	17505	40.00	ng/uL	96
4)	Phenol	7.53	171	6893	.83	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.28	163	132511	16.68	ng/uL	78
7)	1,3-Dichlorobenzene	7.50	170	88056	15.77	ng/uL	97
8)	1,4-Dichlorobenzene	7.66	175	97054	18.14	ng/uL	97
11)	1,2-Dichlorobenzene	8.12	189	102096	20.15	ng/uL	94
12)	bis(2-Chloroisopropyl)ether	8.67	206	227541	17.38	ng/uL	94
14)	N-Nitroso-Di-n-propylamine	9.05	218	158232	30.11	ng/uL	77
15)	Hexachloroethane	8.83	211	43862	15.89	ng/uL	98
16)	*d8-Naphthalene (IS)	10.83	273	64977	40.00	ng/uL	89
17)	Nitrobenzene-d5 (SUR)	9.18	222	75672	11.03	ng/uL	96
18)	Nitrobenzene	9.22	223	172387	18.29	ng/uL	92
[illegible]	Isophorone	9.83	242	293621	21.06	ng/uL	93
[illegible]	bis(-2-Chloroethoxy)Methane	10.60	266	201003	23.31	ng/uL	88
25)	1,2,4-Trichlorobenzene	10.77	271	79177	20.44	ng/uL	95
[illegible]	Naphthalene	10.86	274	293057	19.70	ng/uL	98
28)	Hexachlorobutadiene	11.41	291	44253	20.88	ng/uL	96
31)	*d10-Acenaphthene (IS)	15.19	408	35289	40.00	ng/uL	99
[illegible]	Hexachlorocyclopentadiene	13.19	346	22450	10.21	ng/uL	98
[illegible]	2-Chloronaphthalene	13.77	364	155525	18.06	ng/uL	97
36)	2-Fluorobiphenyl (SUR)	13.67	361	94619	11.40	ng/uL	95
[illegible]	Dimethyl Phthalate	14.93	400	236053	24.13	ng/uL	100
[illegible]	Acenaphthylene	14.77	395	266657	20.24	ng/uL	94
41)	Acenaphthene	15.26	410	162080	19.61	ng/uL	97
43)	4-Nitrophenol	16.52	449	14583	9.67	ng/uL	100
[illegible]	Dibenzofuran	15.68	423	876	.08	ng/uL	81
45)	2,4-Dinitrotoluene	16.00	433	76168	23.53	ng/uL	100
46)	2,6-Dinitrotoluene	15.03	403	56207	22.58	ng/uL	100
[illegible]	Diethylphthalate	16.71	455	261244	25.03	ng/uL	90
[illegible]	4-Chlorophenyl-phenylether	16.65	453	77827	19.58	ng/uL	100
49)	Fluorene	16.52	449	179149	21.93	ng/uL	96
[illegible]	*d10-Phenanthrene (IS)	18.75	518	48974	40.00	ng/uL	99
[illegible]	N-Nitrosodiphenylamine	17.00	464	104630	17.02	ng/uL	95
[illegible]	4-Bromophenyl-phenylether	17.81	489	63236	25.39	ng/uL	89
[illegible]	Hexachlorobenzene	18.04	496	61435	22.76	ng/uL	94
[illegible]	Phenanthrene	18.81	520	253525	20.35	ng/uL	99
60)	Anthracene	18.91	523	241414	21.29	ng/uL	99
[illegible]	Di-n-Butylphthalate	20.72	579	437555	24.95	ng/uL	96
[illegible]	Fluoranthene	21.72	610	234210	22.17	ng/uL	98
[illegible]	*d12-Chrysene (IS)	25.28	720	35589	40.00	ng/uL	100
[illegible]	Pyrene	22.24	626	274136	26.39	ng/uL	92
[illegible]	Terphenyl-d14 (SUR)	22.85	645	87400	13.30	ng/uL	88
[illegible]	Butylbenzylphthalate	24.34	691	184949	28.41	ng/uL	99

	Compound	R.T.	Scan#	Area	Conc	Units	
67)	3,3'-Dichlorobenzidine	25.34	722	66272	20.67	ng/uL	98
68)	Benzo(a)Anthracene	25.25	719	302297	30.37	ng/uL	97
69)	Bis(2-Ethylhexyl)Phthalate	25.92	740	228658	25.21	ng/uL	92
70)	Chrysene	25.31	721	137269	20.16	ng/uL	95
71)	*d12-Perylene (16)	28.45	818	29585	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.35	784	329721	25.91	ng/uL	87
73)	Benzo(b)fluoranthene	27.73	796	366842	22.85	ng/uL	100
74)	Benzo(k)Fluoranthene	27.73	796	366842	22.85	ng/uL	100
75)	Benzo(a)Pyrene	28.35	815	171743	23.98	ng/uL	97
76)	Indeno(1,2,3-cd)Pyrene	30.55	883	188803	22.58	ng/uL	89
77)	Dibenzo(a,h)Anthracene	30.61	885	151197	22.56	ng/uL	95
78)	Benzo(g,h,i)Perylene	31.03	898	156728	22.25	ng/uL	93

* Compound is ISTD

3 2 00388

TOTAL ION CHROMATOGRAM



Data File: >B1426::D1 Quant Output File: ^B1426::QT
Name: ULIN A30553 B727SMSD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880111 13:14

Operator ID: USER6
Quant Time: 880111 15:48
Injected at: 880111 14:59

CASE NO. Olin Chemical
LABORATORY BOM

SOP WORK SHEETS FOR EXTRACTABLES

Water HOLDING TIMES 40 CFR 136

SAMPLE NO.*	CONC. LEVEL/MATRIX	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	TIME ANALYZED	INSTRUMENT I.D.	CONTRACT HOLDING TIME MET YES	CONTRACT HOLDING TIME MET NO	40 CFR 136 HOLDING TIME MET YES	40 CFR 136 HOLDING TIME MET NO	REACTION
A 30384	L/Aq	12/8	12/9	12/14	12/15	14:48				✓		
30385					12/15	10:33						
30386				12/14	12/15	15:38						
30387					12/16	10:50						
30388						11:32						
30389						12:17						
30390					12/15	11:35						
30391					12/16	13:03						
30392						13:47						
30393						14:37						
30394						15:18						
30395					12/15	12:33						
30396					12/15	13:15						
A 30401		12/8			12/17	12:23						
30403					12/15	14:03						
30506		12/9	12/10	12/16	12/22	10:48						
30507					12/22	11:42						
30508				12/15	12/18	13:33						
30525		12/9	12/11	12/16	12/22	12:22						
30539		12/9	12/11	12/15	12/17	15:31						
30541						14:46						
A 30416		12/8	12/8 12/11	N/A	1/4	9:33						
30543		12/9	12/11	12/15	12/17	15:34						
30544				12/15		16:13						
30526		12/9	12/11	N/A	1/11	12:48						

N/A - not available in data package

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

LABORATORY

SOP WORK SHEETS FOR EXTRACTABLES

3 2 00389

Soil HOLDING TIMES SW-846

SAMPLE NO. *	CONC. LEVEL / MATRIX	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	TIME ANALYZED	INSTRUMENT I.D.	CONTRACT HOLDING TIME MET YES	CONTRACT HOLDING TIME MET NO	SW-846 HOLDING TIME MET YES	SW-846 HOLDING TIME MET NO	ACTION
A 30495	Low	12/9	12/11	12/15	12/18	8:06		✓				
30497					12/18	10:33						
30499					12/18	11:22						
30501					12/18	12:06						
30503					12/18	12:48						
30506				12/16	12/22	10:48		✓				
30511		12/9	12/11	12/15	12/18	16:03		✓				
30513					12/21	9:55						
30515						10:46						
30517						11:29						
30519						12:18						
30521						13:01						
30523						13:45						
30531				12/21	12/22	14:39		✓				
30549		12/9	12/11	12/15	1/4	10:14		✓				
30550					12/22	7:41						
30509		12/9	12/10	12/15	12/18	14:21						
30510					12/18	15:25						
30508					12/18	13:33						
30527		12/9	12/11		12/21	14:41		✓				
30552				12/15	12/22	8:23		✓				
RE 30528		12/9	12/11		12/21	—						
30529				12/15	12/21	—						
RE 30554					12/21	—						
30553				12/15	12/21	—						

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

LABORATORY _____

SOP WORK SHEETS FOR EXTRACTABLES

HOLDING TIMES

SAMPLE NO. *	CONC. LEVEL / MATRIX	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	TIME ANALYZED	INSTRUMENT I.D.	CONTRACT HOLDING TIME MET		SW-846 ~~CLP~~ HOLDING TIME MET		ACTION
								YES	NO	YES	NO	
30528 RE	4/50	12/9	12/11	1/5	1/11	16:30				✓		①
30529 RE						15:50						
30553 RE					1/11	14:59						
30554 RE					1/11	14:15						
30530				1/18	1/19	12:01				✓		
30534						13:36						
30536						12:47						
30538						14:19						

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

① The initial run was within holding times.

CASE NO. Ulin
LABORATORY Bcm

3 2 00390

SOP WORK SHEETS FOR EXTRACTABLES

Water SURROGATES

	SAMPLE NO.*	BLANK SURROGATE CRITERIA MET		IF 'NO': WERE ALL ASSOCIATED SAMPLES RE-ANALYZED		SAMPLE SURROGATE RECOVERY CRITERIA MET		IF 'NO': WAS SAMPLE RE-EXTRACTED/RE-ANALYZED		RE-ANALYZED SAMPLE MET CRITERIA		SURROGATES OUTSIDE CRITERIA	ACTION
		YES	NO	YES	NO	YES	NO	YES	NO	YES	NO		
	A30384					✓							
	A30385						✓		✓				1
	A30386					✓							
	A30387					✓							
	A30388					✓							
	A30389					✓							
	A30390					✓							
	A30391					✓							
	A30392					✓							
	A30393					✓							
	A30394					✓							
	A30395					✓							
MB	A30396	✓											
	A30401	✓											
	A30403					✓							
	A30506					✓							
	A30507					✓							
MB	A30508		✓						✓				2
	A30525						✓		✓				2
	A30539					✓							
	A30541					✓							
	A30416					✓							
	A30401					✓							
	A30403					✓							
	A30539					✓							
	A B721 WPB		✓						✓				2
MB	A30544	✓											
	A30526					✓							

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

1 2 surrogates out of criteria. Sample should have been rerun.

2 Only one surrogate out of criteria. No action necessary.

CASE NO. Olex
LABORATORY BCM

3 2 00391

SOP WORK SHEETS FOR EXTRACTABLES

Soil SURROGATES

	SAMPLE NO.*	BLANK SURROGATE CRITERIA MET		IF 'NO': WERE ALL ASSOCIATED SAMPLES RE-ANALYZED		SAMPLE SURROGATE RECOVERY CRITERIA MET		IF 'NO': WAS SAMPLE RE-EXTRACTED/RE-ANALYZED		RE-ANALYZED SAMPLE MET CRITERIA		SURROGATES OUTSIDE CRITERIA	ACTION
		YES	NO	YES	NO	YES	NO	YES	NO	YES	NO		
	A30495					✓			①				
	A30497						✓		✓				
	A30499					✓							
	A30501						✓		✓				
	A30503					✓							
	A30506					✓							
	A30511						✓		✓				
	A30513					✓							
	A30515					✓							
	A30517					✓							
	A30519					✓							
	A30521					✓							
	A30523						✓		✓				
	A30531					✓							
	A30534					✓							
	A30550						✓		✓				
	A30509					✓							
	A30510						✓		✓				
	A30508						✓		✓				
MB	A30507		✓						✓				
B728	M Blank	✓											
MB	A30552		✓						✓				
B748	M Blank	✓											
	A30528						✓	✓			✓		
	A30529						✓	✓			✓		
	A30554					✓							
	A30553					✓							

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

① Not required to reanalyze when only one surrogate in a fraction is out of criteria.

CASE NO. Olin
LABORATORY BCM

SOP WORK SHEETS FOR EXTRACTABLES

MATRIX SPIKE

SAMPLE NO. *	MATRIX SPIKES FOR EVERY 20 SAMPLES: EACH MATRIX AND EACH LEVEL		ADVISORY LIMITS FOR SPIKE RECOVERY MET		ADVISORY LIMITS FOR SPIKE RPDs MET		ACTION
	YES	NO	YES	NO	YES	NO	
A30402			✓				
A30404			✓				

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

CASE NO. [illegible]
LABORATORY [illegible]

3 2 00392

SOP WORK SHEETS FOR EXTRACTABLES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

SAMPLE NO.*	MATRIX SPIKES FOR EVERY 20 SAMPLES; EACH MATRIX AND EACH LEVEL		ADVISORY LIMITS FOR SPIKE RECOVERY MET		ADVISORY LIMITS FOR SPIKE RPDs MET		ACTION (1)
	YES	NO	YES	NO	YES	NO	
A30495	✓			✓		✓	1,4-Dichlorobenzene results may be estimates in this sample
A30511	✓			✓		✓	% RPD for Dichlorobenzene just out of criteria. No effect on data.
A30539	✓			✓	✓		Recoveries slightly low for 1,4-Dichlorobenzene
A30549	✓		✓		✓		

(1) Other compounds exhibited deviations from QC limits, but 1,4-Dichlorobenzene was the only spiked compound of concern.

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

See MS/MSD Summary Sheets in package.

LABORATORY HAM

SOP WORK SHEETS FOR EXTRACTABLES

BLANKS

	SAMPLE NO.*	DATE ANALYZED	TIME ANALYZED	APPROPRIATE METHOD BLANK (3)		BLANK ANALYSIS EVERY 12 HRS OR EVERY 20 SAMPLES		CONTAINS <5X CRL PER COMMON PHTHALATES		CONTAINS <CRL FOR ALL OTHER TIC COMPOUNDS		ACTION
				YES	NO	YES	NO	YES	[illegible]	YES	NO	EXTRACTION BLANK
	A30385	12/15	13:15	✓		✓		✓		✓		30396
	A30390	↓	↓	↓		↓		↓		↓		↓
	A30395			✓								
MB	A30396	12/15	13:15	✓								
	A30403			✓								
	A30384			↓								
	A30386	↓	↓			↓						
	A30387						✓					(1)
	A30388						↓					↓
	A30389											
	A30391											
	A30392											
	A30393											
	A30394	↓	↓	↓			↓					
	A30401	12/17	16:18			✓						(2)
	A30402			↓								↓
	A30541			✓								30544
	A30539			↓								↓
MB	A30544	↓	↓	✓								
	A30445	12/18	13:33	✓								
	A30545		↓	↓								
	A30546			✓								
	A30497			✓								30508, 527, 552
	A30499			↓								↓
	A30501	↓	↓	↓		↓		↓		↓		

(1) Blank not analyzed on 12/16 with these samples. It was run within 20 samples of these samples.

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

(2) These samples were extracted w/ A30396 and analyzed w/ A30544.

(3) This indicates whether a method blank was extracted w/ these samples. The # of that blank is listed in action column. Rest of review based on analysis blank.

CASE NO. Olin
LABORATORY BCM

3 2 00393

SOP WORK SHEETS FOR EXTRACTABLES

BLANKS

	SAMPLE NO.*	DATE ANALYZED	TIME ANALYZED	APPROPRIATE METHOD BLANK		BLANK ANALYSIS EVERY 12 HRS OR EVERY 20 SAMPLES		CONTAINS <5ACRDL PER COMMON PHTHALATES		CONTAINS <CRDL FOR ALL OTHER HSL COMPOUNDS		ACTION
				YES	NO	YES	NO	YES	NO	YES	NO	EXTRACTION BLANK
	A30503	12/18	13:33	✓		✓		✓		✓		30508, 527, 552
MB	A30508											
	A30509											
	A30510											
	A30511											
	A30513	12/21	4:41									
	A30515											
	A30517											
	A30519											
	A30521											
	A30523											
MB	A30527											
	A30528											
	A30529											
	A30549											
	A30550	12/22	8:23									
MB	A30552											
	A30553											
	A30554											
	A30556											
	A30507			✓								A 7160
	A30525			✓								
MB	>B1394											
MB	>B1395											
	A30531			✓								

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

CASE NO. [illegible]
LABORATORY [illegible]

SOP WORK SHEETS FOR EXTRACTABLES

BLANKS

	SAMPLE NO. *	DATE ANALYZED	TIME ANALYZED	APPROPRIATE METHOD BLANK		BLANK ANALYSIS EVERY 12 HRS OR EVERY 20 SAMPLES		CONTAINS <5X CRQL PER COMMON PHTHALATES		CONTAINS <CRQL FOR ALL OTHER VSL COMPOUNDS		ACTION
				YES	NO	YES	NO	YES		YES	NO	EXTRACTION BLANK
MB	>B1397	12/22	8:23			✓		✓		✓		
MB	>B1398	↓	↓			↓		↓		↓		
	A30416	1/4	11:06									
	A30549	↓	↓	✓								B728SPB
	M Blank	↓	↓	↓								↓
	A30526	1/11	13.29									
RE	A30552	↓	↓	✓								B748SPB
	A30553	↓	↓	↓								↓
	A30529	↓	↓	↓								↓
	A30528	↓	↓	↓								↓
	861099	1/19	10:36	✓								B760 SPB
	A30530	↓	↓	↓								↓
	A30534	↓	↓	↓								↓
	A30536	↓	↓	↓								↓
	A30538	↓	↓	↓								↓
	M Blank	↓	↓	↓		↓		↓		↓		↓

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

CASE NO. [illegible]
LABORATORY [illegible]

3 2 00394

SOP WORK SHEETS FOR EXTRACTABLES

INITIAL CALIBRATION (1)

SAMPLE NO.*	DATE	TIME	DESCRIBE CHROMATAGRAPHY PROBLEMS	SPCC CRITERIA MET		CCC CRITERIA MET		ALL COMPOUNDS RF >0		ANY HSL COMPOUND RF < 0.05		ANY HSL COMPOUNDS RSD > 30%		ERRATIC RF's		ACTION
				YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	
A30385	12/14	9:11		✓		✓		✓								
A30390																
A30395																
A30396																
A30403																
A30384																
A30386																
A30387	12/14	9:11														
A30388																
A30389																
A30391																
A30392																
A30393																
A30394																
A30401	12/17	8:09		✓		✓		✓								
A30402																
A30541																
A30539																
A30544																
A30495																
A30545																
A30546																
A30497																
A30499																
A30501																

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

(1) SPCC + CCC criteria have been applied to the 4 compounds of concern: 1,2-, 1,4- Dichlorobenzene, Hexachlorobenzene and Pentachloronitrobenzene, to review calibrations.

CASE NO. Olen
LABORATORY PCM

SOP WORK SHEETS FOR EXTRACTABLES

INITIAL CALIBRATION (1)

	SAMPLE NO.*	DATE	TIME	DESCRIBE CHROMATAGRAPHY PROBLEMS	SPCC CRITERIA MET		CCC CRITERIA MET		ALL COMPOUNDS RF >0		ANY MAX COMPOUND RF < 0.05		ANY HSL COMPOUNDS RSD >30%		ERRATIC RF's		ACTION
					YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	
	A30503	12/17	8:09		✓		✓		✓								
	A30508	↓	↓		↓		↓		↓								
	A30509																
	A30510																
	A30511	↓	↓														
	A30513	12/17	8:09														
	A30515																
	A30517																
	A30519																
	A30521																
	A30523																
	A30527																
	A30528																
	A30529																
	A30549	↓	↓														
	A30550																
	A30552																
	A30553																
	A30554																
	A30556																
	A30507																
	A30525																
>B1394	MBlank																
>B1395	MBlank																
	A30531	↓	↓		↓		↓		↓								

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

LABORATORY BCA

3 2 00395

SOP WORK SHEETS FOR EXTRACTABLES

INITIAL CALIBRATION (1)

	SAMPLE NO *	DATE	TIME	DESCRIBE CHROMATAGRAPHY PROBLEMS	SPCC CRITERIA MET		CCC CRITERIA MET		ALL COMPOUNDS RF >0		ANY HSL COMPOUND $\overline{RF}$ < 0.05		ANY HSL COMPOUNDS RSD >30%		ERRATIC RF's		ACTION
					YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	
>B1397	M Blank	12/17	8:09		✓		✓		✓								
>B1398	M Blank	↓	↓		↓		↓		↓								
	A30416	12/17	8:09		↓		↓		↓								
	A30549	↓	↓		↓		↓		↓								
> B1403	M Blank	↓	↓		↓		↓		↓								
	A30526	1/11	8:50		✓		✓		✓								
	A30554	↓	↓		↓		↓		↓								
	A30553	↓	↓		↓		↓		↓								
	A30529	↓	↓		↓		↓		↓								
	A30528	↓	↓		↓		↓		↓								
	A30530	1/18	7:57		✓		✓		✓								
	801099	↓	↓		↓		↓		↓								
	A30534	↓	↓		↓		↓		↓								
	A30536	↓	↓		↓		↓		↓								
	A30538	↓	↓		↓		↓		↓								
>B1466	M Blank	↓	↓		↓		↓		↓								

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

CASE NO. Olin
LABORATORY PCM

SOP WORK SHEETS FOR EXTRACTABLES

CONTINUING CALIBRATIONS (1)

SAMPLE NO.*	DATE	TIME	SPCC CRITERIA MET		CCC CRITERIA MET		ALL COMPOUNDS RF > 0		CALIBRATION WITHIN 12 HRS OF SAMPLE ANALYSIS		ANY HSL COMPOUND RF < 0.05		ANY HSL COMPOUND %D > 25		DESCRIBE CHROMATAGRAPHY PROBLEMS	ACTION
			YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO		
A30385	12/15	806	✓		✓		✓									
A30390																
A30395																
A30396																
A30403																
A30384																
A30386																
A30387	12/16	9:02	✓		✓		✓									
A30388																
A30389																
A30391																
A30392																
A30393																
A30394																
A30445	12/18	7:20	✓		✓		✓									
A30545																
A30497																
A30499																
A30501																
A30503																
A30508																
A30509																
A30510																
A30511																
A30513	12/21	9:09	✓		✓		✓									

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

(1) SPCC + CCC criteria have been applied to the 4 compounds of concern to review calibration.

CASE NO. Olin
LABORATORY BCM

3 2 00396

SOP WORK SHEETS FOR EXTRACTABLES

CONTINUING CALIBRATIONS (1)

	SAMPLE NO. *	DATE	TIME	SPCC CRITERIA MET		CCC CRITERIA MET		ALL COMPOUNDS RF > 0		CALIBRATION WITHIN 12 HRS OF SAMPLE ANALYSIS		ANY HSL COMPOUND RF < 0.05		ANY HSL COMPOUND %D > 25		DESCRIBE CHROMATAGRAPHY PROBLEMS	ACTION
				YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO		
	A30515	12/21	9:09	✓		✓		✓									
	A30517																
	A30519																
	A30521																
	A30523																
	A30527																
	A30528																
	A30529																
	A30549	✓	✓														
	A30550	12/22	6:52	✓		✓		✓									
	A30552																
	A30553																
	A30554																
	A30555																
	A30527																
	A30525																
B1394	M Blank																
>B1395	M Blank																
	A30531																
>B1397	M Blank																
B1398	M Blank	✓	✓														
	A3041[illegible]	1/4	2:0[illegible]	✓			✓	✓								(3)	
	A30549																
>B1[illegible]	M Blank	✓	✓														

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

(3) Hexachlorobenzene % Diff. > 25%. Detection limits for this compound in these samples may be higher than reported, and positive results are estimated.

CASE NO. Ollie
LABORATORY BCM

SOP WORK SHEETS FOR EXTRACTABLES

CONTINUING CALIBRATIONS (1)

SAMPLE NO. *	DATE	TIME	SPCC CRITERIA MET		CCC CRITERIA MET		ALL COMPOUNDS RF > 0		CALIBRATION WITHIN 12 HRS OF SAMPLE ANALYSIS	ANY HSL COMPOUND RF < 0.05	ANY HSL COMPOUND %D > 25	DESCRIBE CHROMATAGRAPHY PROBLEMS	ACTION
			YES	NO	YES	NO	YES	NO	YES	[illegible]	[illegible]	[illegible]	[illegible]
A30530	1/19	8:04	✓			✓	✓						(2)
A30534	↓	↓	↓			↓	↓						↓
A30536	↓	↓	↓			↓	↓						↓
A30538	↓	↓	↓			↓	↓						↓
801099	↓	↓	↓			↓	↓						↓

(2) Pentachloronitrobenzene is slightly above 25% Diff. No effect on data.

* INCLUDE MATRIX SPIKES, BLANKS AND RE-RUNS HERE

CASE NO. [illegible]
LABORATORY [illegible]

3 2 00397

SOP WORK SHEETS FOR EXTRACTABLES

GC / MS TUNING AND PERFORMANCE

SAMPLE NO.	DATE TUNED	TIME TUNED	DFTPP ION ABUNDANCE CRITERIA MET *		ION ABUNDANCE CRITERIA NOT MET	SKEWED OR DISTORTED SPECTRA		FREQUENCY OF TUNE > 12 HRS.		ACTION
			YES	NO		YES	NO	YES	NO	
Initial Cal	12/14	8:47	✓				✓		✓	
A30385	12/15	7:43	✓				✓		✓	
A30390	↓	↓	↓				↓		↓	
A30395	↓	↓	↓				↓		↓	
A30396	↓	↓	↓				↓		↓	
A30403	↓	↓	↓				↓		↓	
A30384	↓	↓	↓				↓		↓	
A30386	↓	↓	↓				↓		↓	
A30387	12/16	9:02	✓				✓		✓	
A30388	↓	↓	↓				↓		↓	
A30389	↓	↓	↓				↓		↓	
A30391	↓	↓	↓				↓		↓	
A30392	↓	↓	↓				↓		↓	
A30393	↓	↓	↓				↓		↓	
A30394	↓	↓	↓				↓		↓	
A30401	12/17	7:47	✓				✓		✓	
A30402	↓	↓	↓				↓		↓	
A30541	↓	↓	↓				↓		↓	
A30539	↓	↓	↓				↓		↓	
A30544	↓	↓	↓				↓		↓	
A30445	12/18	6:55	✓				✓		✓	
A30545	↓	↓	↓				↓		↓	
A30546	↓	↓	↓				↓		↓	
A30497	↓	↓	↓				↓		↓	
A30499	↓	↓	↓				↓		↓	

*INCLUDES MATRIX SPIKES, BLANKS AND RE - RUNS HERE

+ MAY WANT TO CONSIDER EXPANDED CRITERIA. "LABORATORY DATA VALIDATION FUNCTIONAL GUIDELINES FOR EVALUATING ORGANICS ANALYSES", TDD NO. HQ-8410-01, USEPA, P.13.

CASE NO. Ulw
LABORATORY BCM

SOP WORK SHEETS FOR EXTRACTABLES

GC / MS TUNING AND PERFORMANCE

SAMPLE NO.	DATE TUNED	TIME TUNED	DFTPP ION ABUNDANCE CRITERIA MET * YES	DFTPP ION ABUNDANCE CRITERIA MET * NO	ION ABUNDANCE CRITERIA NOT MET	SKEWED OR DISTORTED SPECTRA YES	SKEWED OR DISTORTED SPECTRA NO	FREQUENCY OF TUNE > 12 HRS YES	FREQUENCY OF TUNE > 12 HRS NO	ACTION
A30501	12/18	6:55	✓				✓		✓	
A30503										
A30508										
A30509										
A30510										
A30511	✓	✓	✓				✓		✓	
A30513	12/21	7:50	✓				✓		✓	
A30515										
A30517										
A30519										
A30521										
A30523										
A30527										
A30528										
A30529										
A30549	✓	✓	✓				✓		✓	
A30550	12/22	6:32	✓				✓		✓	
A30552										
A30553										
A30554										
A30556										
A30507										
A30525										
>B1310 M Blank										
>A-95 M Blank	✓	✓	✓				✓		✓	

*INCLUDES MATRIX SPIKES, BLANKS AND RE - RUNS HERE

+ MAY WANT TO CONSIDER EXPANDED CRITERIA. "LABORATORY DATA VALIDATION FUNCTIONAL GUIDELINES FOR EVALUATING ORGANICS ANALYSES", TDD NO. HQ-8410-01, USEPA, P.13.

CASE NO. Olin
LABORATORY BCM

3 2 00398

SOP WORK SHEETS FOR EXTRACTABLES

GC / MS TUNING AND PERFORMANCE

SAMPLE NO *	DATE TUNED	TIME TUNED	DFTPP ION ABUNDANCE CRITERIA MET +		ION ABUNDANCE CRITERIA NOT MET	SKEWED OR DISTORTED SPECTRA		FREQUENCY OF TUNE > 12 HRS		ACTION
			YES	NO		YES	NO	YES	NO	
A30530	1/19	7:33	✓				✓		✓	
A30534	↓	↓	↓				↓		↓	
A30536										
A30538	↓	↓	↓				↓		↓	
A30531	1/22	6:32	✓				✓		✓	
>B1397 M Blank	↓	↓	↓				↓		↓	
>B1398 M Blank	↓	↓	↓				↓		↓	
A30416	1/4	8:18	✓				✓		✓	
A30549	↓	↓	↓				↓		↓	
>A M Blank	↓	↓	↓				↓		↓	
A30526	1/11	8:21	✓				✓		✓	
A30554	↓	↓	↓				↓		✓	
A30553	↓	↓	↓				↓		↓	
A30524	↓	↓	↓				↓		↓	
A30528	↓	↓	↓				↓		↓	
SC1099	1/19	7:35	✓				✓		✓	

*INCLUDES MATRIX SPIKES, BLANKS AND RE - RUNS HERE

+ MAY WANT TO CONSIDER EXPANDED CRITERIA. "LABORATORY DATA VALIDATION FUNCTIONAL GUIDELINES FOR EVALUATING ORGANICS ANALYSES", TDD NO. HQ-8410-01, USEPA, P.13.

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18787

CC: Paul Klotz

BCM Number : A30384
Location : 420
Client ID :

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

QUANT REPORT

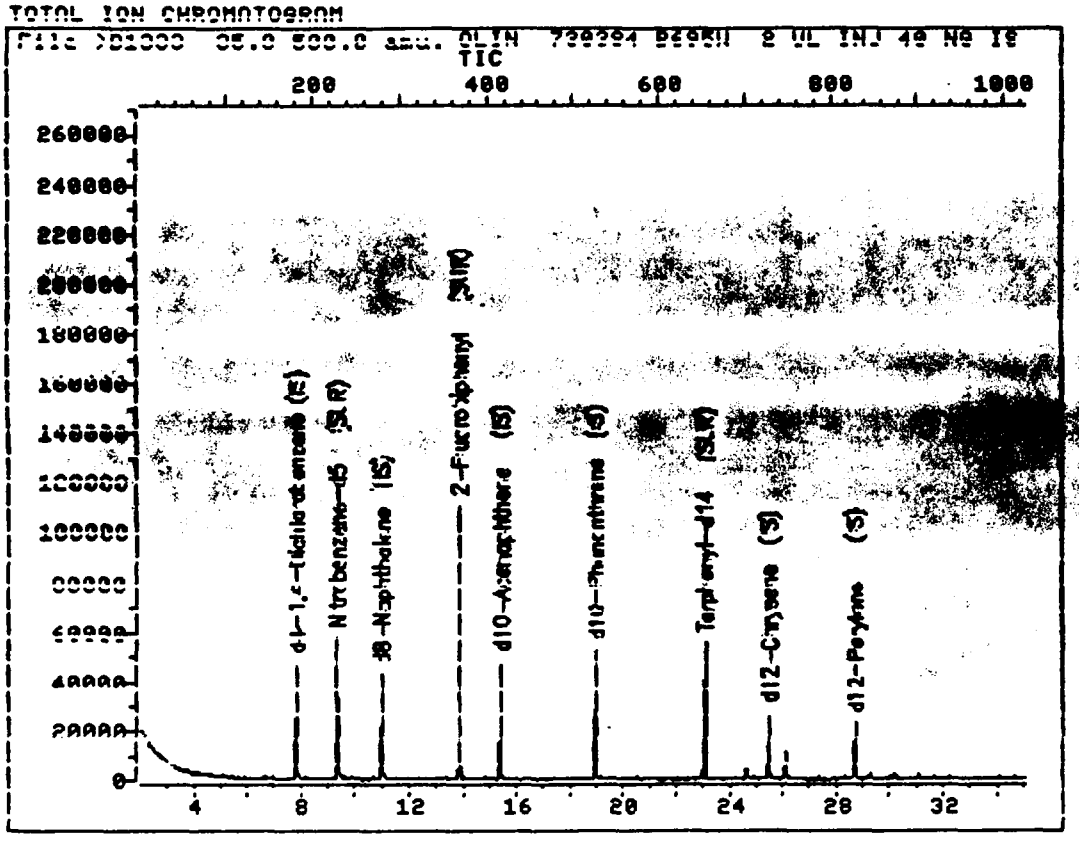
erator ID: USER6 Quant Rev: 6 Quant Time: 871215 15:30
Output File: ^B1333::QT Injected at: 871215 14:48
Data File: >B1333::D1 Dilution Factor: 1.00000
Name: OLIN 730384 B695W
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.83	181	15246	40.00	ng/uL	93
16)	*d8-Naphthalene (IS)	10.99	279	62770	40.00	ng/uL	87
17)	Nitrobenzene-d5 (SUR)	9.35	228	54457	32.35	ng/uL	93
31)	*d10-Acenaphthene (IS)	15.42	416	33059	40.00	ng/uL	96
36)	2-Fluorobiphenyl (SUR)	13.87	368	79211	34.80	ng/uL	95
51)	*d10-Phenanthrene (IS)	18.97	526	53642	40.00	ng/uL	99
63)	*d12-Chrysene (IS)	25.50	728	33719	40.00	ng/uL	98
65)	Terphenyl-d14 (SUR)	23.11	654	62908	36.44	ng/uL	96
71)	*d12-Perylene (IS)	28.73	828	30290	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

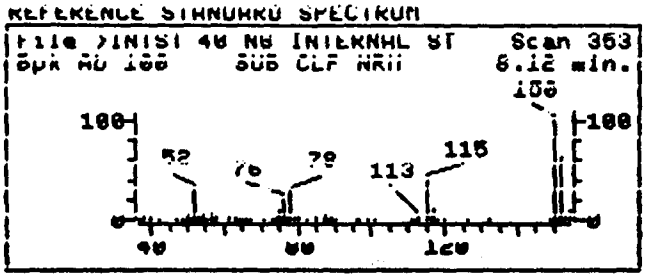


Data File: >B1333::D1 Quant Output File: ^B1333::QT
Name: OLIN 730384 B695W
Misc: 2 UL INJ 40 NG IS

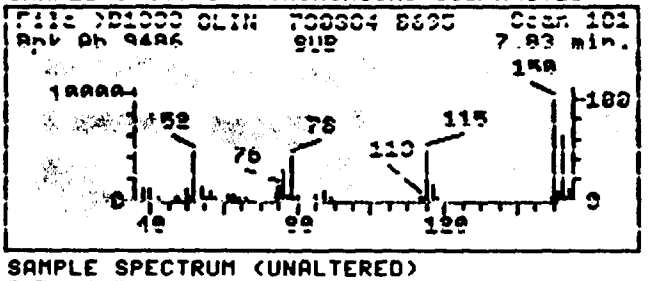
Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

Operator ID: USER6
Quant Time: 871215 15:30
Injected at: 871215 14:48

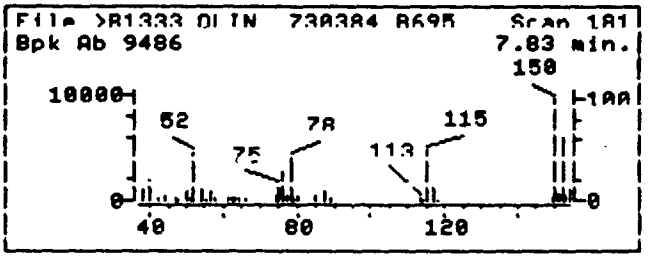
REFERENCE STANDARD SPECTRUM

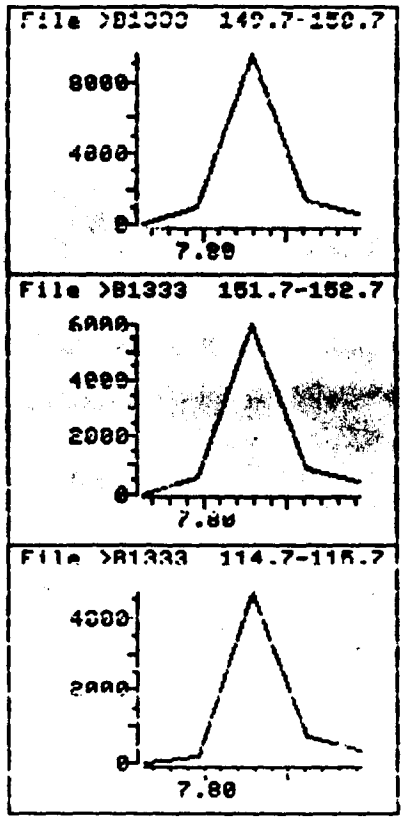


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

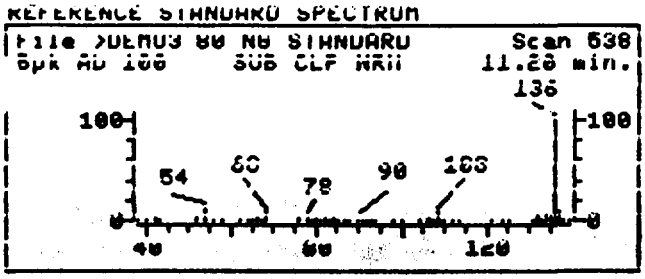




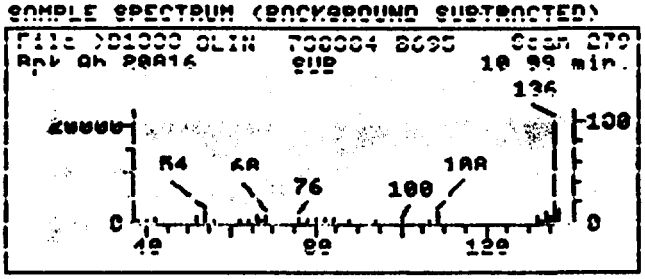
Data File: >B1333::D1 Quant Output File: ^B1333::QT
Name: OLIN 730384 B695W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 15:30 Quant ID File: ID BDA::L2
Injected at: 871215 14:48 Last Calibration: 871214 13:49

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 181
Retention Time: 7.83 min.
Quant Ion: 152.0
Area: 15246
Concentration: 40.00 ng/uL
q-value: 93

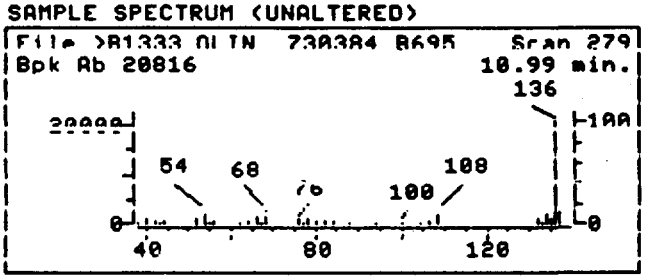
REFERENCE STANDARD SPECTRUM

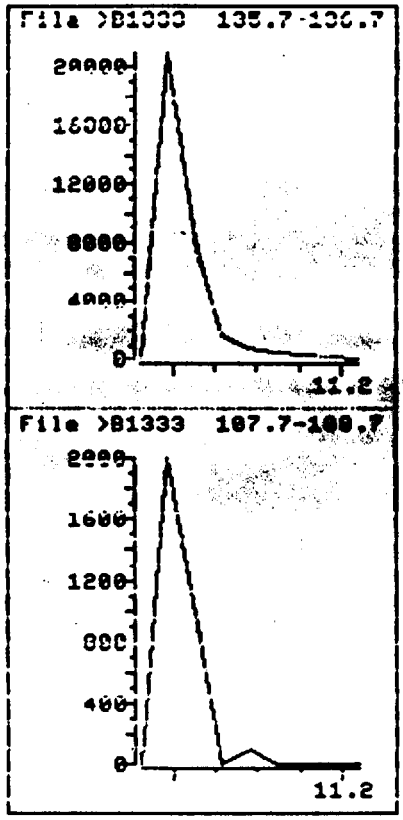


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





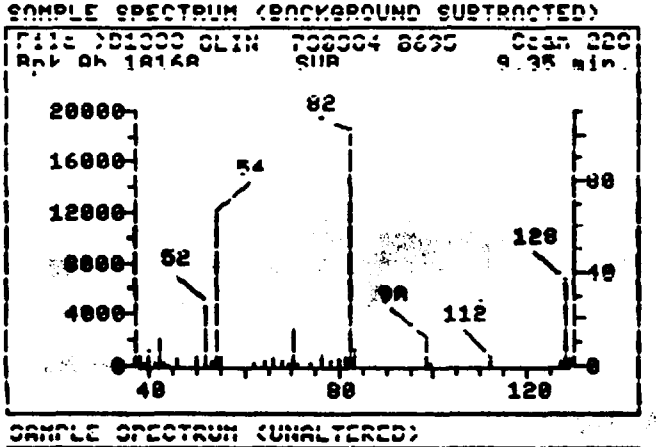
Data File: >B1333::D1
Name: OLIN 730384 B695W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 15:30
Injected at: 871215 14:48

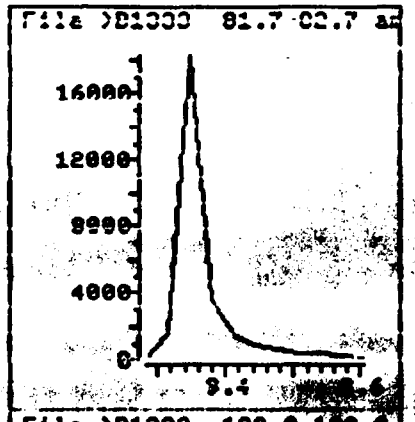
Quant Output File: ^B1333::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

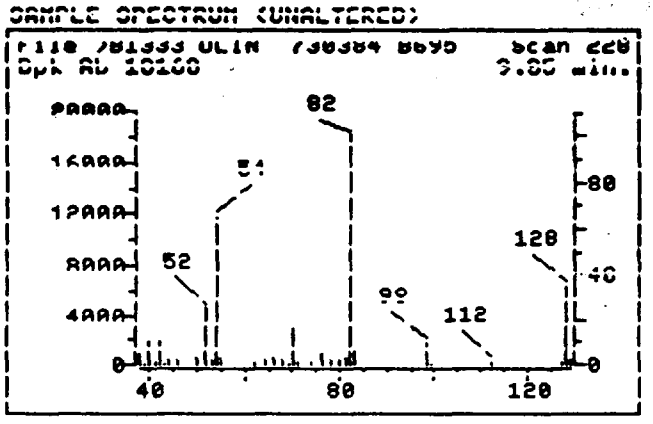
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 279
Retention Time: 10.99 min.
Quant Ion: 136.0
Area: 62770
Concentration: 40.00 ng/uL
q-value: 87

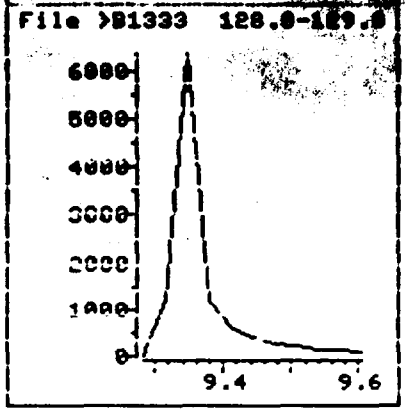
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



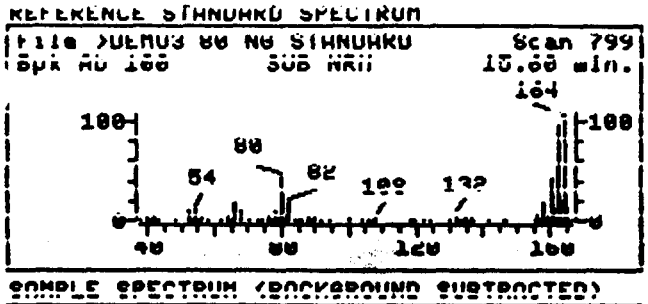


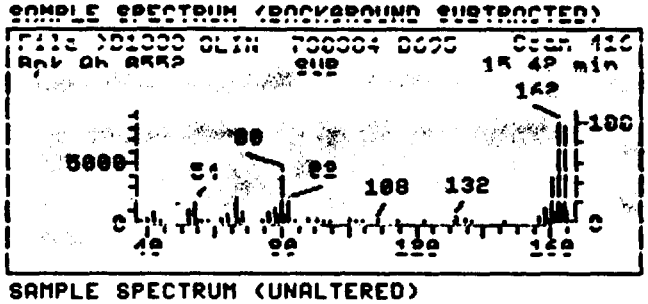
Data File: >B1333::D1
Name: OLIN 730384 B695W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 15:30
Injected at: 871215 14:48

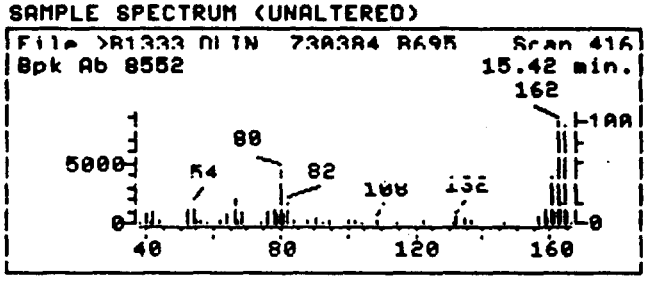
Quant Output File: ^B1333::QT

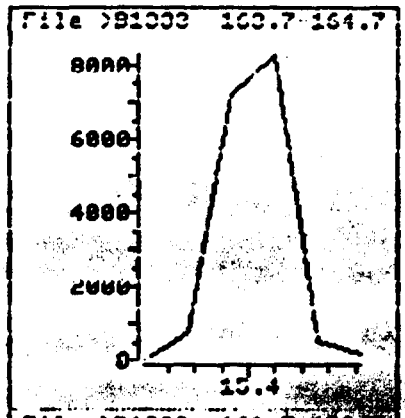
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

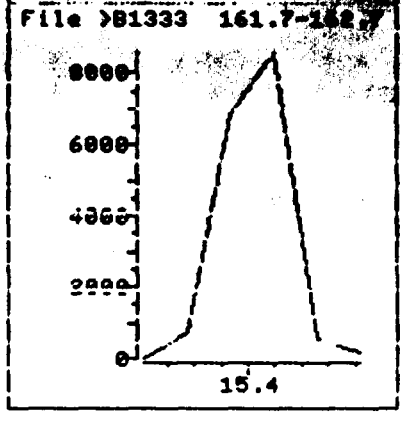
Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 228
Retention Time: 9.35 min.
Quant Ion: 82.0
Area: 54457
Concentration: 32.35 ng/uL
q-value: 93









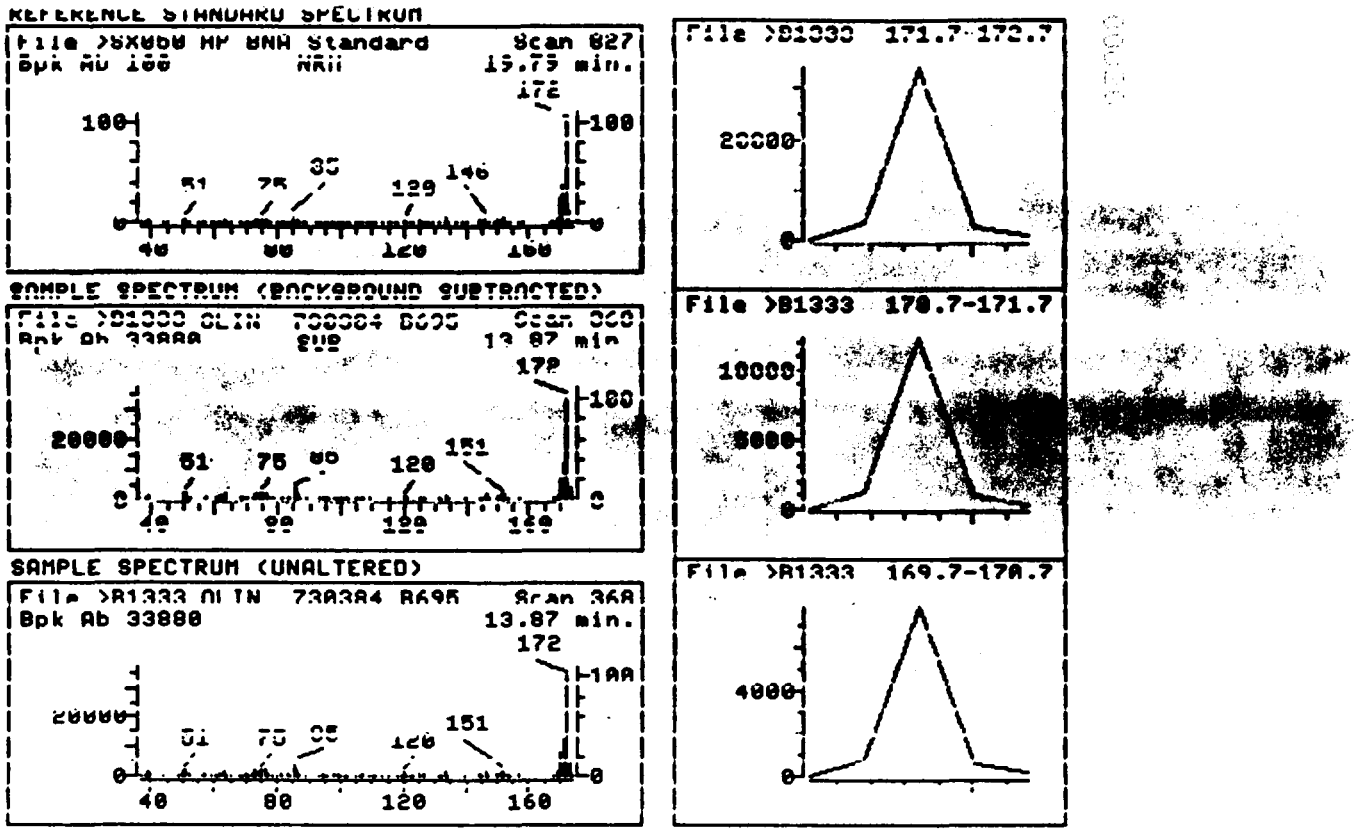


Data File: >B1333::D1
Name: OLIN 730384 8695W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 15:30
Injected at: 871215 14:48

Quant Output File: ^B1333::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 416
Retention Time: 15.42 min.
Quant Ion: 164.0
Area: 33059
Concentration: 40.00 ng/uL
q-value: 96

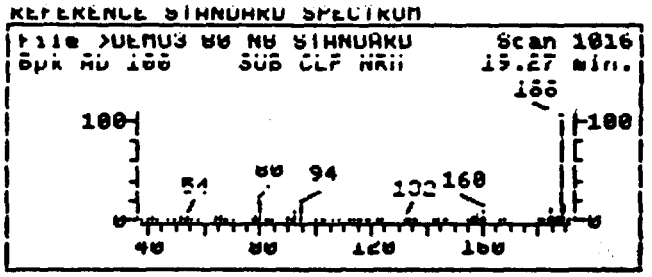


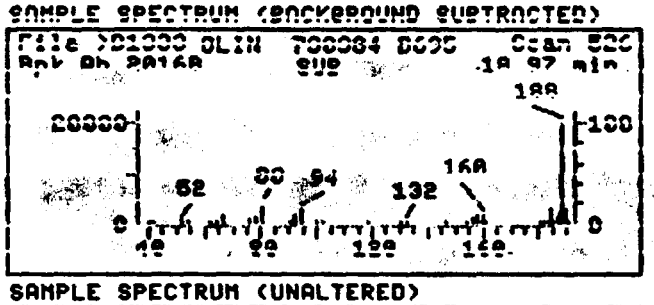
Data File: >B1333::D1
Name: OLIN 730384 B695W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 15:30
Injected at: 871215 14:48

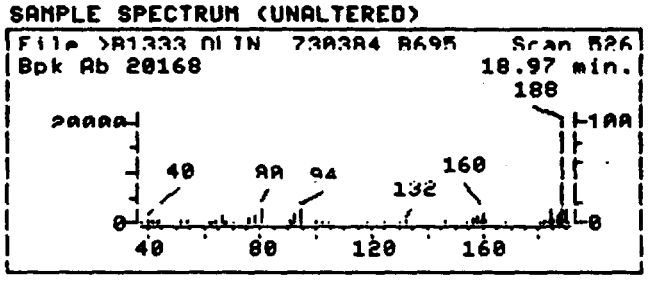
Quant Output File: ^B1333::QT

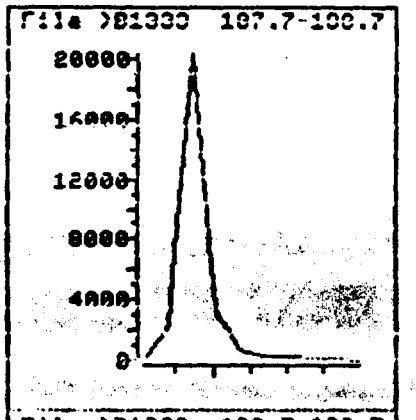
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

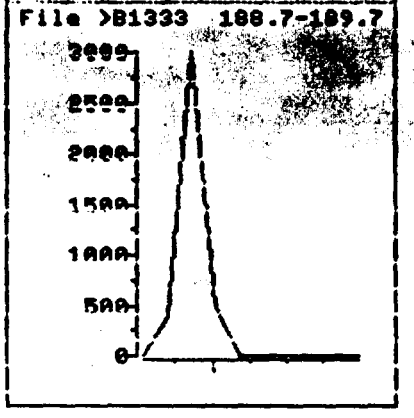
Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 368
Retention Time: 13.87 min.
Quant Ion: 172.0
Area: 79211
Concentration: 34.80 ng/uL
q-value: 95











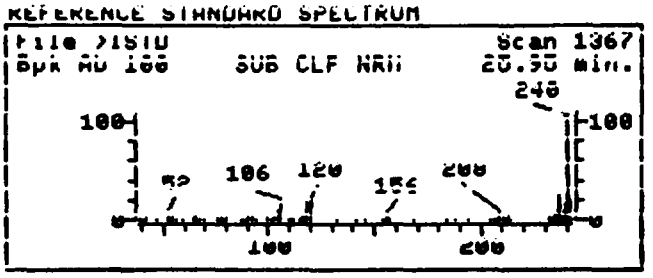
Data File: >B1333::D1
Name: DLIN 730384 B695W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 15:30
Injected at: 871215 14:48

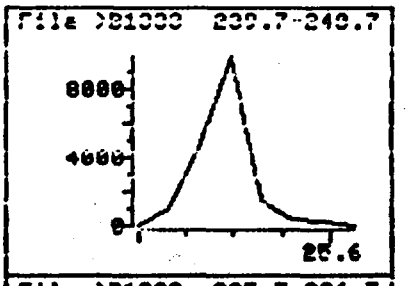
Quant Output File: ^B1333::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

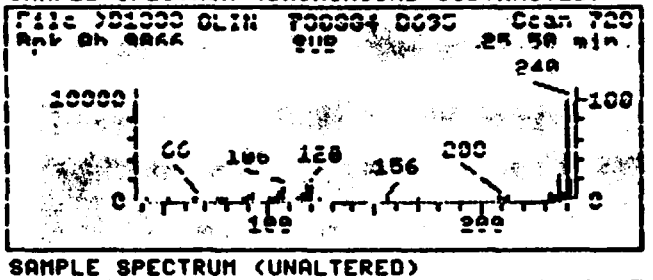
Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 526
Retention Time: 18.97 min.
Quant Ion: 188.0
Area: 53642
Concentration: 40.00 ng/uL
q-value: 99

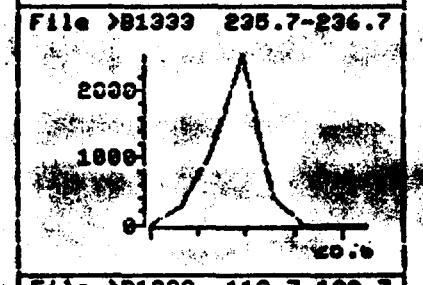
REFERENCE STANDARD SPECTRUM



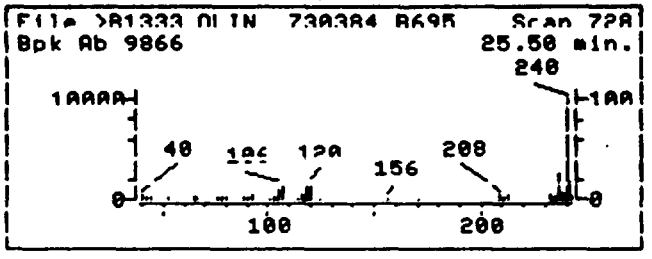


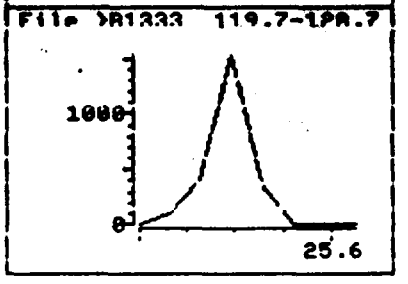
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





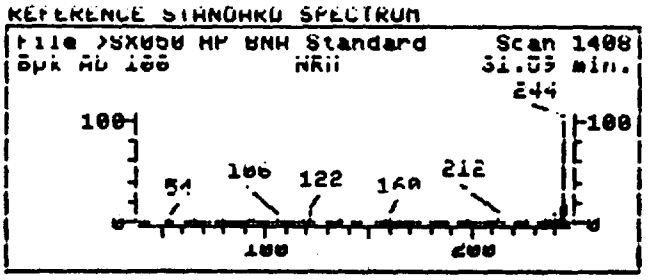
Data File: >B1333::D1
Name: OLIN 730384 B695W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 15:30
Injected at: 871215 14:48

Quant Output File: ^B1333::QT

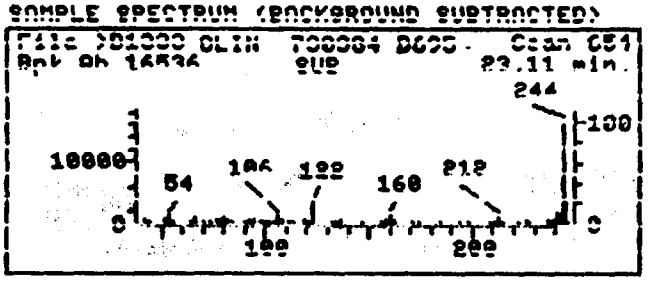
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 728
Retention Time: 25.50 min.
Quant Ion: 240.0
Area: 33719
Concentration: 40.00 ng/uL
q-value: 98

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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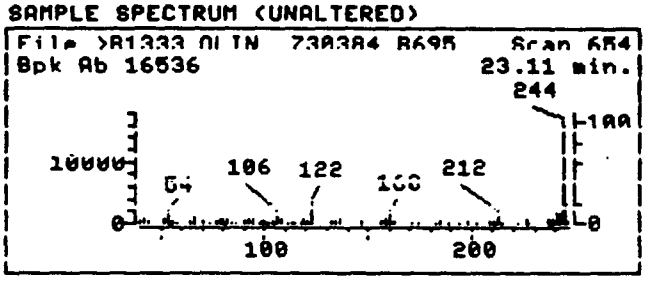
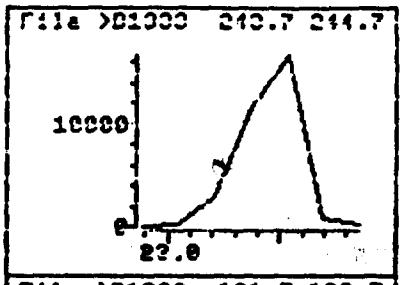
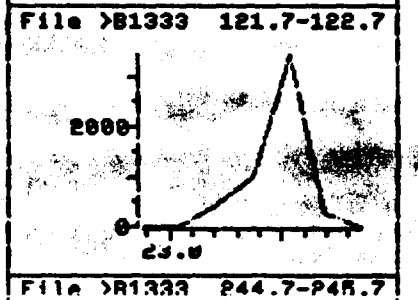
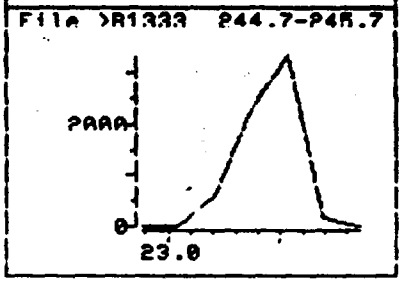






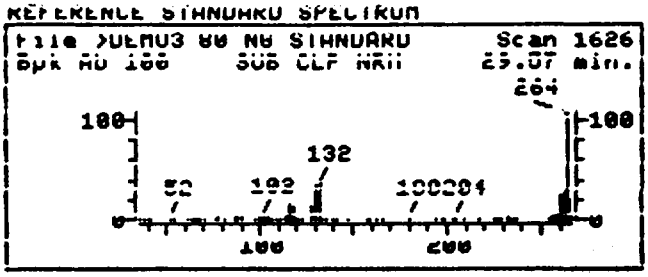


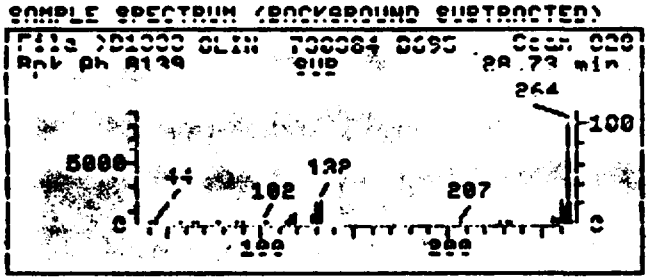
Data File: >B1333::D1
Name: OLIN 730384 B695W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 15:30
Injected at: 871215 14:48

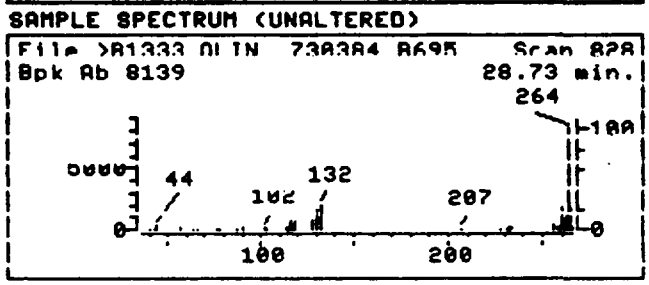
Quant Output File: ^B1333::QT

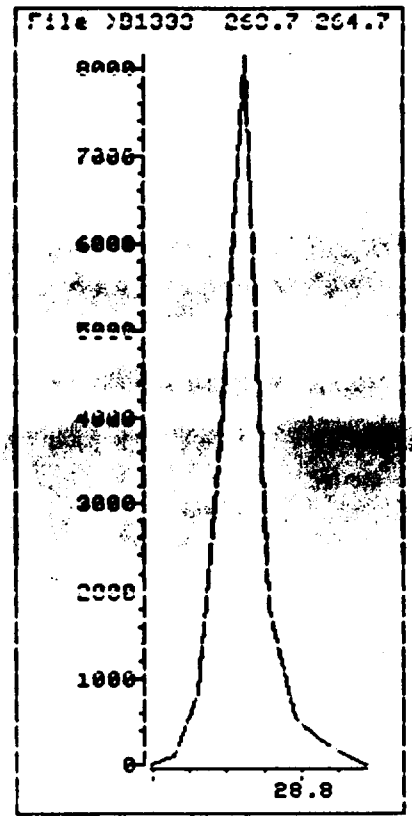
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 654
Retention Time: 23.11 min.
Quant Ion: 244.0
Area: 62908
Concentration: 36.44 ng/uL
q-value: 96









Data File: >B1333::D1
Name: OLIN 730384 B695W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 15:30
Injected at: 871215 14:48

Quant Output File: ^B1333::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 828
Retention Time: 28.73 min.
Quant Ion: 264.0
Area: 30290
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18787

CC: Paul Klotz

BCM Number : A30385
Location : 574
Client ID :

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results *	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871215 11:41
Output File: ^B1328::QT Injected at: 871215 10:33
Data File: >B1328::D1 Dilution Factor: 1.00000
Name: OLIN
Misc: 2 UL INJ 40 NG IS

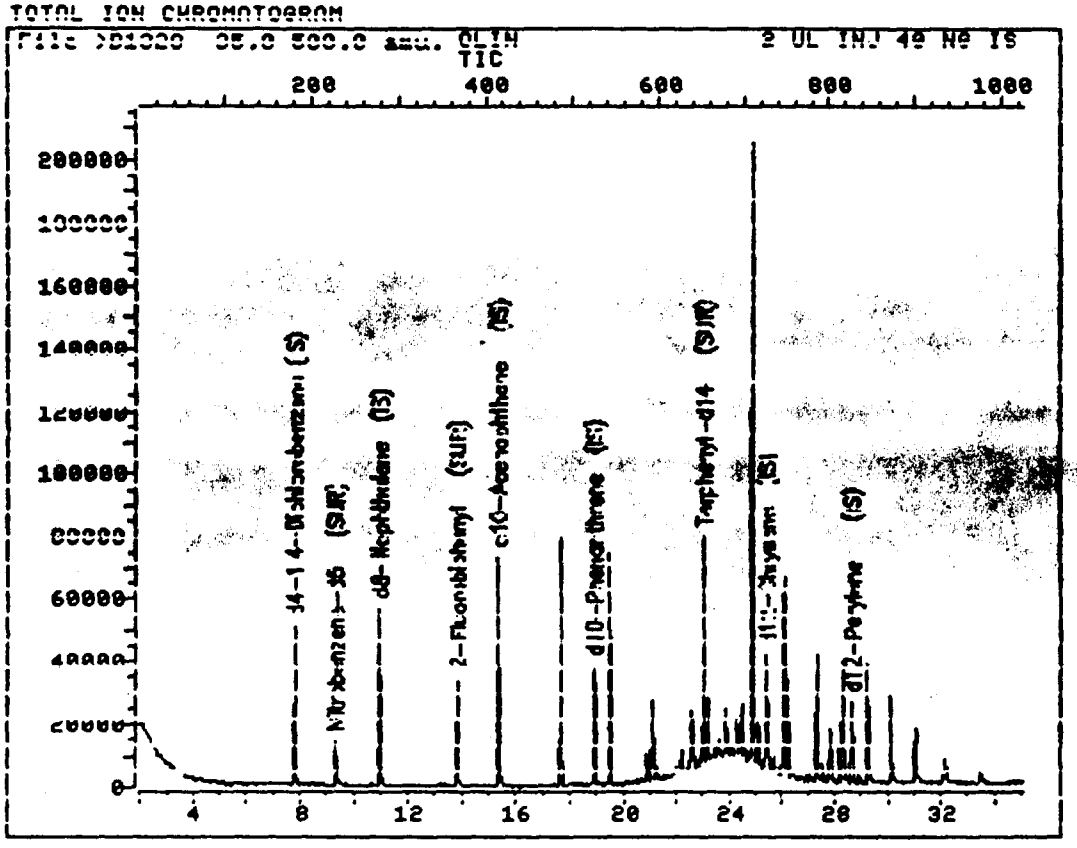
A30385

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.80	181	16962	40.00	ng/uL	98
16)	*d8-Naphthalene (IS)	10.96	279	65735	40.00	ng/uL	86
17)	Nitrobenzene-d5 (SUR)	9.32	228	16137	9.15	ng/uL	91
31)	*d10-Acenaphthene (IS)	15.36	415	36359	40.00	ng/uL	99
36)	2-Fluorobiphenyl (SUR)	13.84	368	27603	11.03	ng/uL	93
51)	*d10-Phenanthrene (IS)	18.91	525	49114	40.00	ng/uL	98
63)	*d12-Chrysene (IS)	25.44	727	37744	40.00	ng/uL	97
65)	Terphenyl-d14 (SUR)	23.05	653	75015	38.82	ng/uL	88
71)	*d12-Perylene (IS)	28.67	827	32771	40.00	ng/uL	100

* Compound is ISTD

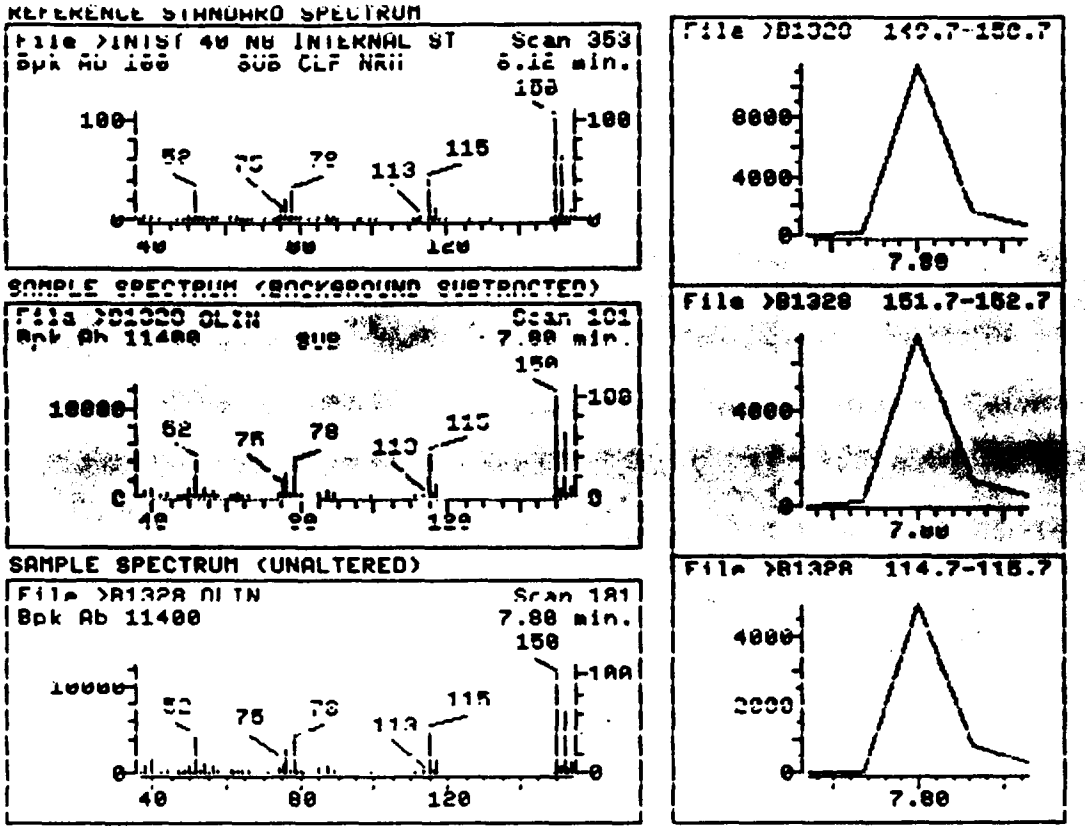
TOTAL ION CHROMATOGRAM



Data File: >B1328::D1 Quant Output File: ^B1328::QT
Name: OLIN
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

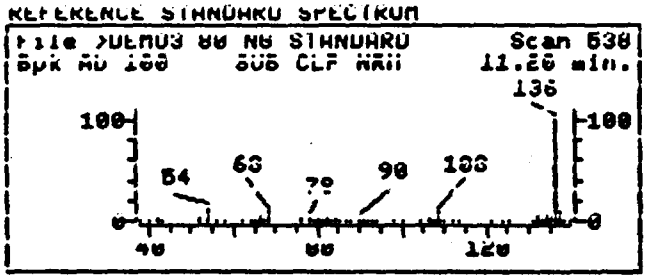
Operator ID: USER6
Quant Time: 871215 11:41
Injected at: 871215 10:33



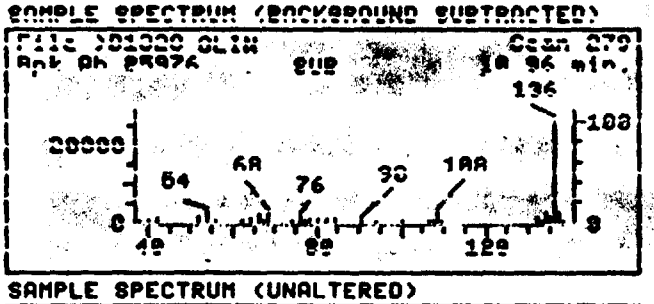
Data File: >B1328::D1 Quant Output File: ^B1328::QT
Name: OLIN
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 11:41 Quant ID File: ID BDA::L2
Injected at: 871215 10:33 Last Calibration: 871214 13:49

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 181
Retention Time: 7.80 min.
Quant Ion: 152.0
Area: 16962
Concentration: 40.00 ng/uL
q-value: 98

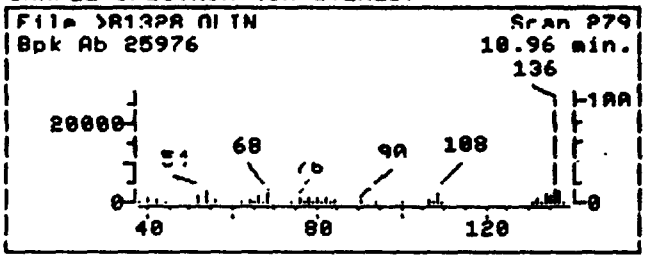
REFERENCE STANDARD SPECTRUM

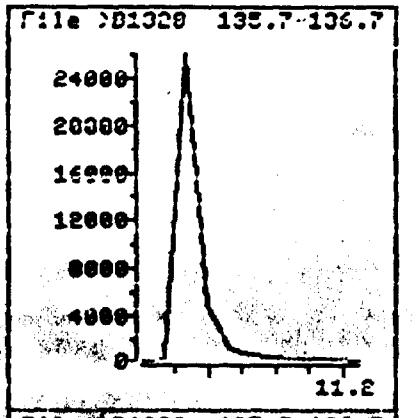


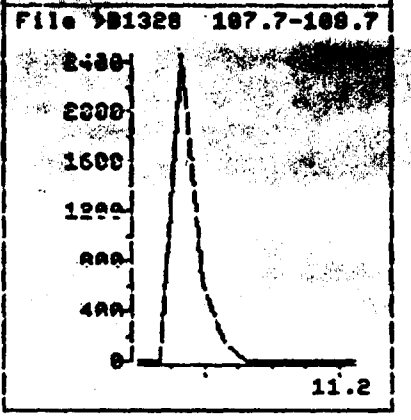
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



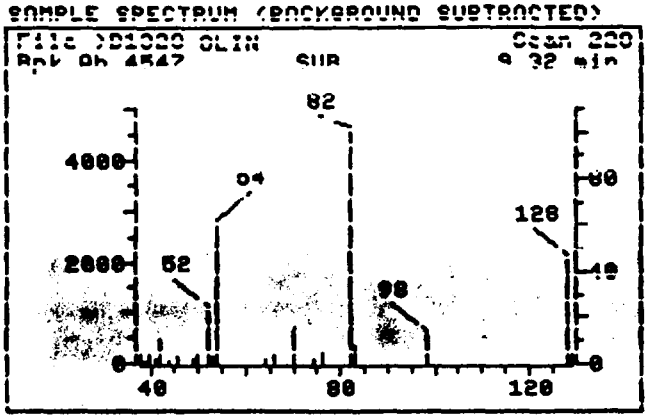


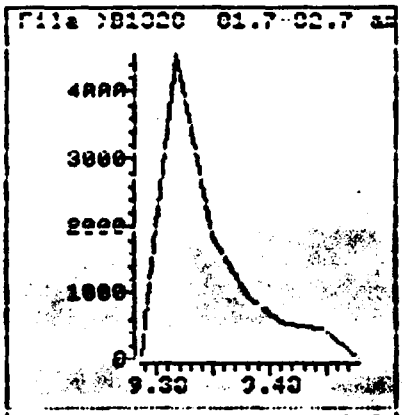


Data File: >B1328::D1 Quant Output File: ^B1328::QT
Name: OLIN
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 11:41 Quant ID File: ID BDA::L2
Injected at: 871215 10:33 Last Calibration: 871214 13:49

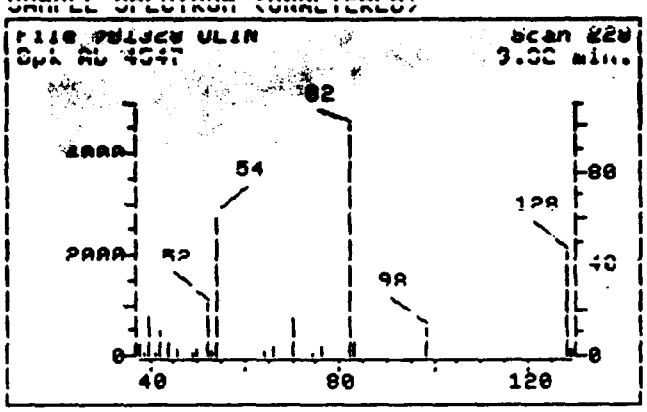
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 279
Retention Time: 10.96 min.
Quant Ion: 136.0
Area: 65735
Concentration: 40.00 ng/uL
q-value: 86

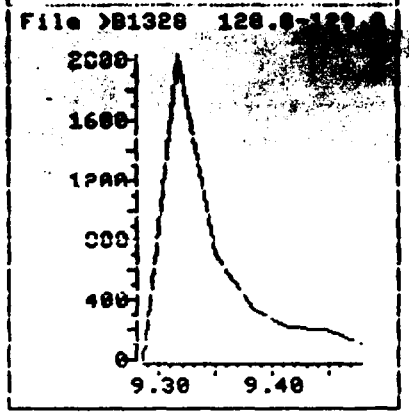
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)

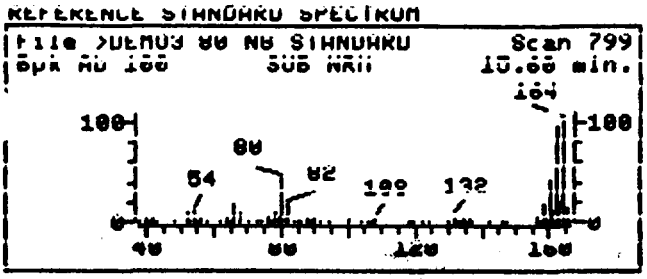




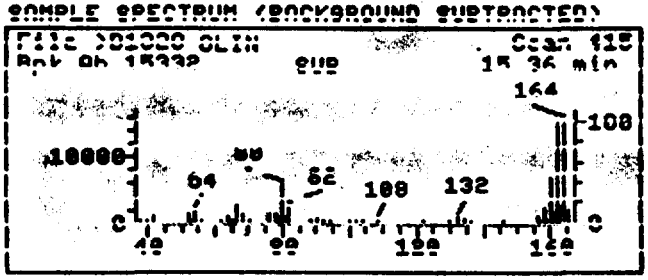
Data File: >B1328::D1 Quant Output File: ^B1328::QT
Name: OLIN
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 11:41 Quant ID File: ID BDA::L2
Injected at: 871215 10:33 Last Calibration: 871214 13:49

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 228
Retention Time: 9.32 min.
Quant Ion: 82.0
Area: 16137
Concentration: 9.15 ng/uL
q-value: 91

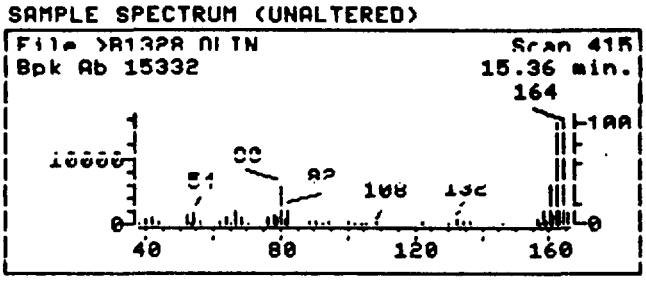
REFERENCE STANDARD SPECTRUM

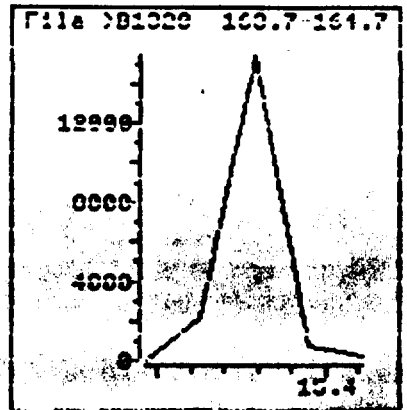


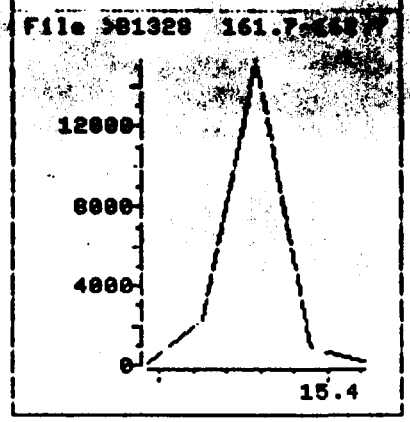
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

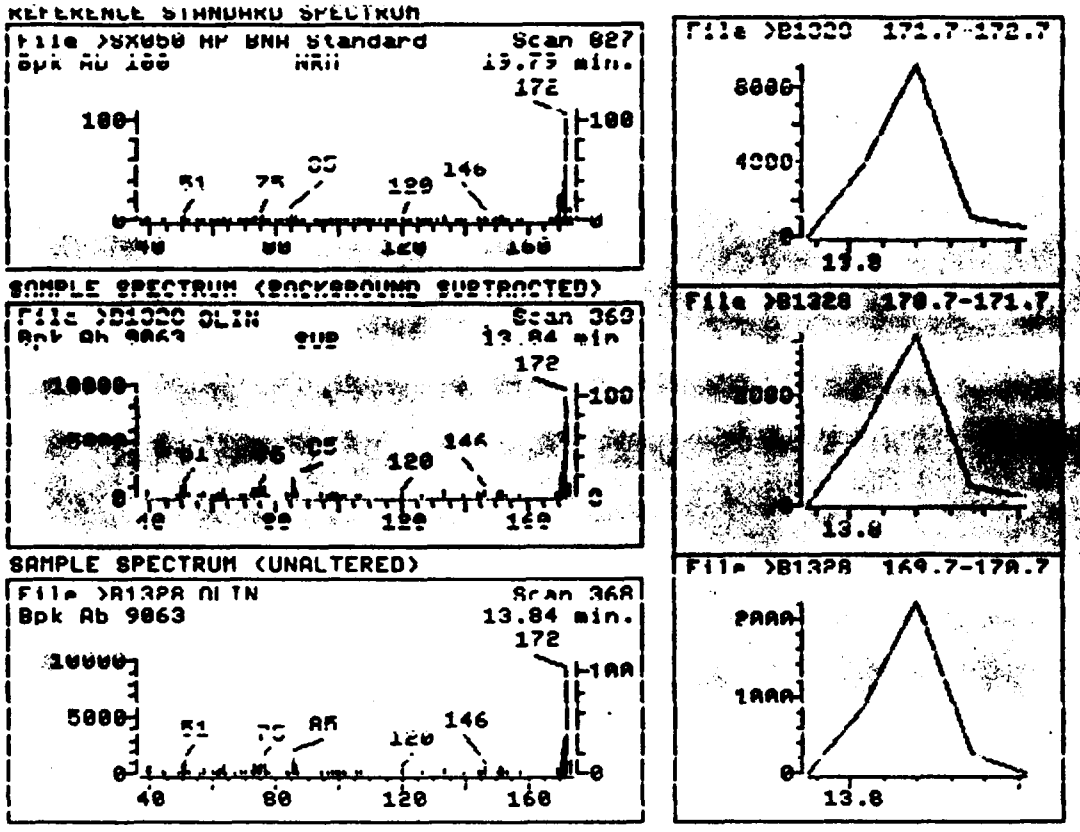






Data File: >B1328::D1 Quant Output File: ^B1328::QT
Name: OLIN
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 11:41 Quant ID File: ID BDA::L2
Injected at: 871215 10:33 Last Calibration: 871214 13:49

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 415
Retention Time: 15.36 min.
Quant Ion: 164.0
Area: 36359
Concentration: 40.00 ng/uL
q-value: 99



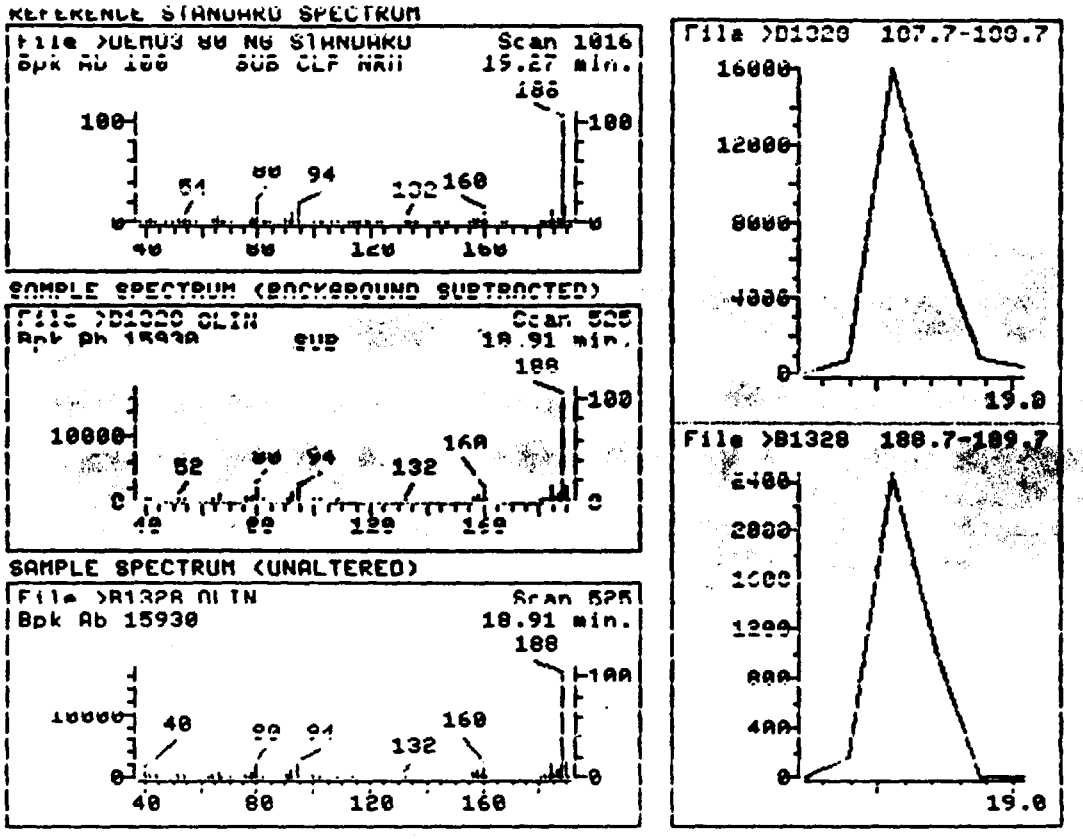
Data File: >B1328::D1
Name: OLIN
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 11:41
Injected at: 871215 10:33

Quant Output File: ^B1328::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

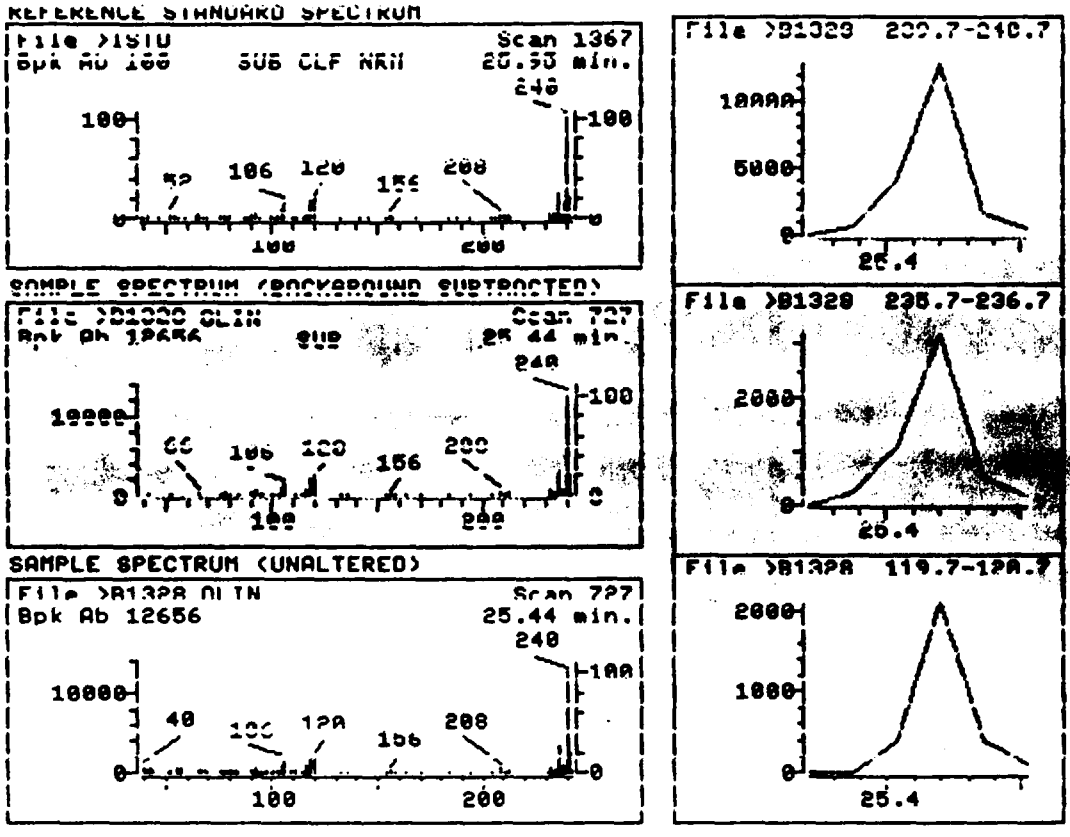
Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 368
Retention Time: 13.84 min.
Quant Ion: 172.0
Area: 27603
Concentration: 11.03 ng/uL
q-value: 93

3 2 00409



Data File: >B1328::D1 Quant Output File: ^B1328::QT
Name: OLIN
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 11:41 Quant ID File: ID BDA::L2
Injected at: 871215 10:33 Last Calibration: 871214 13:49

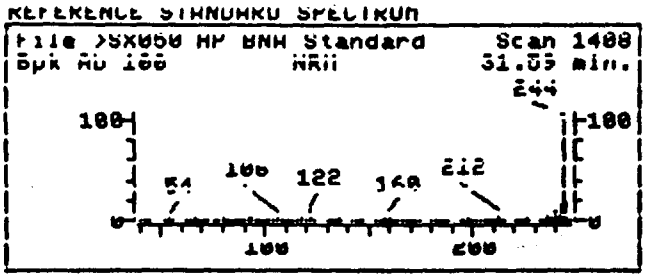
Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 525
Retention Time: 18.91 min.
Quant Ion: 188.0
Area: 49114
Concentration: 40.00 ng/uL
q-value: .98

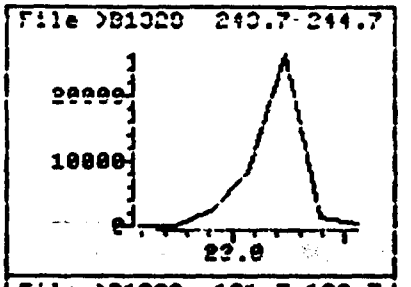


Data File: >B1328::D1 Quant Output File: ^B1328::QT
Name: OLIN
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 11:41 Quant ID File: ID BDA::L2
Injected at: 871215 10:33 Last Calibration: 871214 13:49

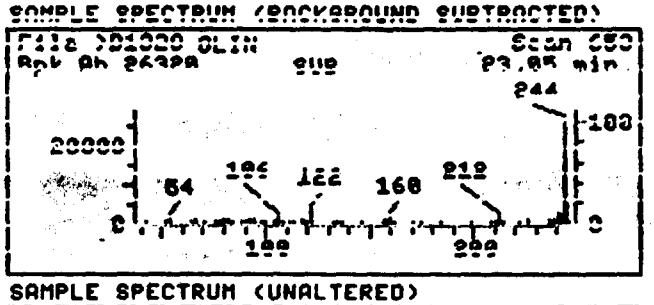
Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 727
Retention Time: 25.44 min.
Quant Ion: 240.0
Area: 37744
Concentration: 40.00 ng/uL
q-value: 97

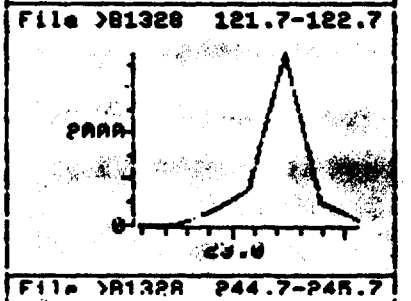
REFERENCE STANDARD SPECTRUM



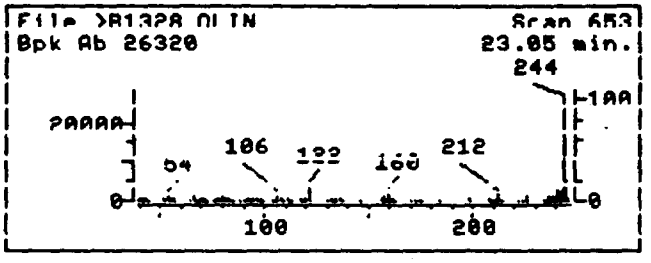


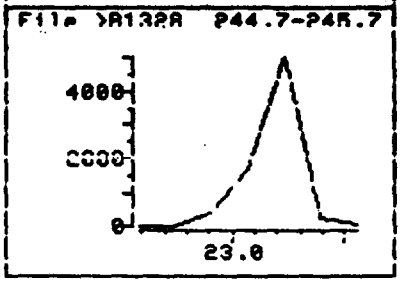
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





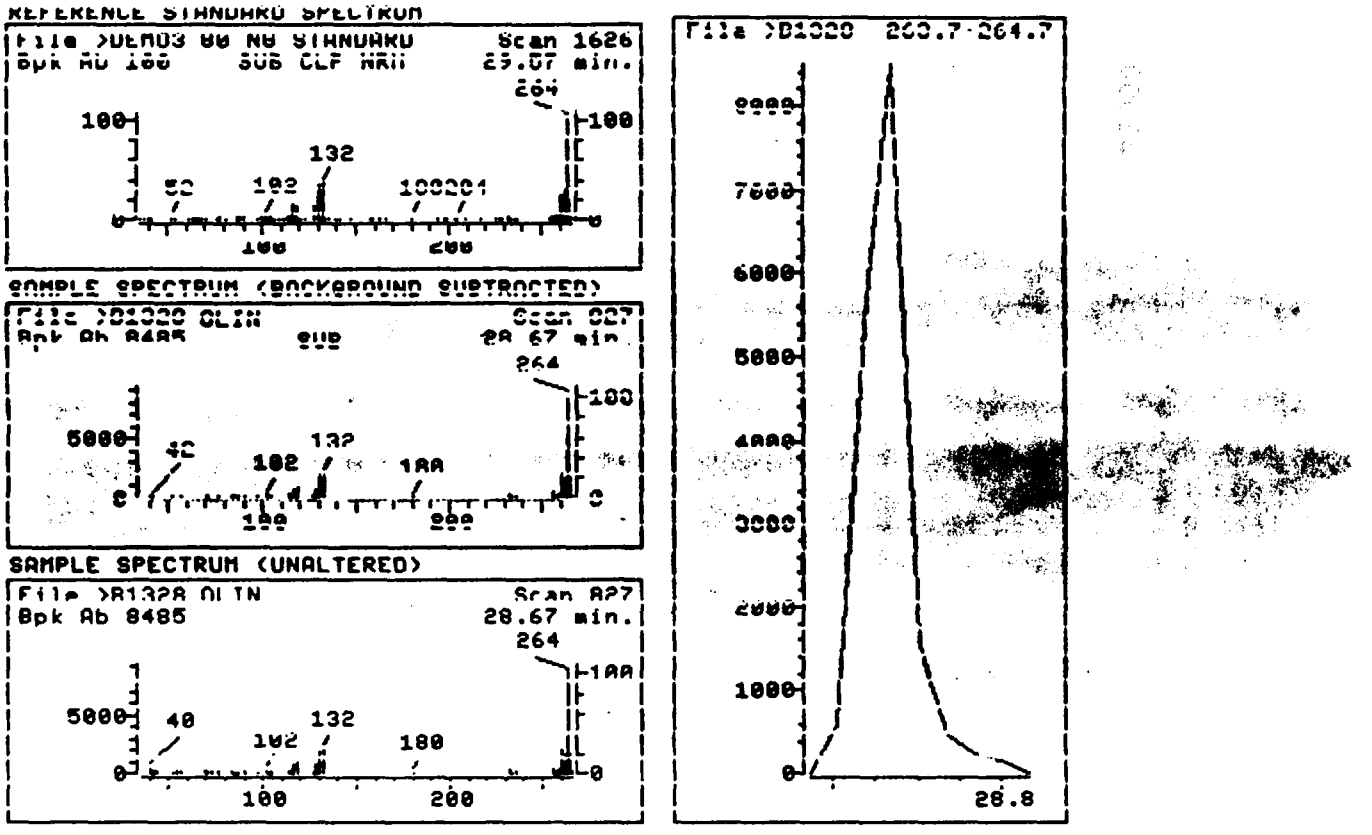
SAMPLE SPECTRUM (UNALTERED)





Data File: >B1328::D1 Quant Output File: ^B1328::QT
Name: OLIN
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 11:41 Quant ID File: ID BDA::L2
Injected at: 871215 10:33 Last Calibration: 871214 13:49

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 653
Retention Time: 23.05 min.
Quant Ion: 244.0
Area: 75015
Concentration: 38.82 ng/uL
q-value: 88



Data File: >B1328::D1
Name: DLIN
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 11:41
Injected at: 871215 10:33

Quant Output File: ^B1328::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 827
Retention Time: 28.67 min.
Quant Ion: 264.0
Area: 32771
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT
This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18787

CC: Paul Klotz

BCM Number : A30386
Location : 869
Client ID :

Date Sampled : 12/08/87
Date Received : 12/31/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

QUANT REPORT

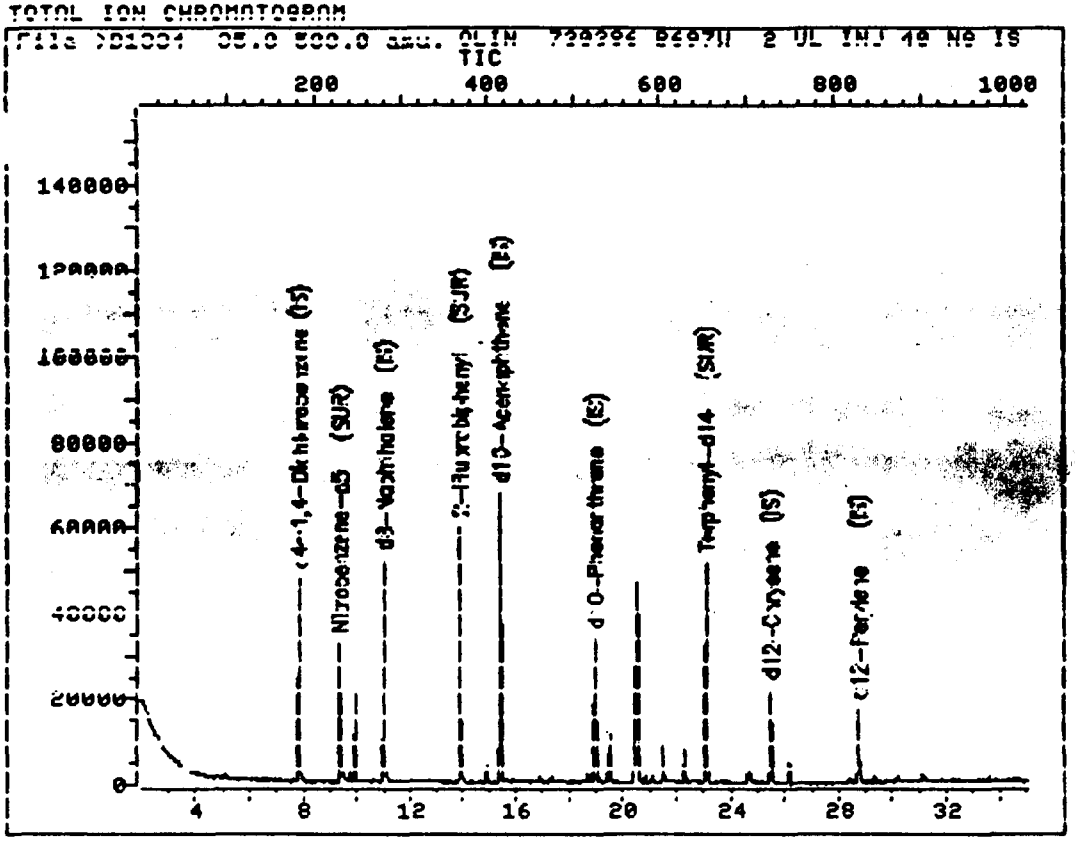
Operator ID: USER6 Quant Rev: 6 Quant Time: 871215 16:19
Output File: ^B1334::QT Injected at: 871215 15:38
Data File: >B1334::D1 Dilution Factor: 1.00000
Name: OLIN 730386 B697W
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.84	181	17642	40.00	ng/uL	94
16)	*d8-Naphthalene (IS)	11.04	280	57516	40.00	ng/uL	95
17)	Nitrobenzene-d5 (SUR)	9.36	228	36681	23.78	ng/uL	96
31)	*d10-Acenaphthene (IS)	15.43	416	36055	40.00	ng/uL	96
36)	2-Fluorobiphenyl (SUR)	13.88	368	57357	23.10	ng/uL	93
51)	*d10-Phenanthrene (IS)	18.99	526	47095	40.00	ng/uL	99
63)	*d12-Chrysene (IS)	25.51	728	26482	40.00	ng/uL	96
65)	Terphenyl-d14 (SUR)	23.12	654	56354	41.56	ng/uL	89
71)	*d12-Perylene (IS)	28.74	828	22791	40.00	ng/uL	100

* Compound is ISTD

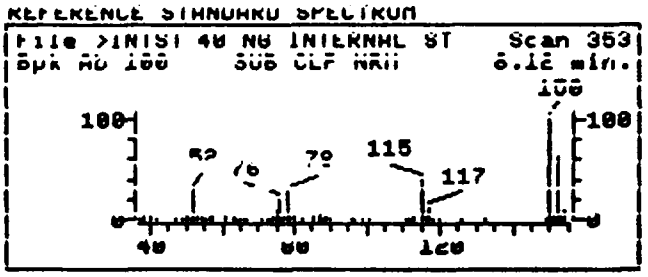
TOTAL ION CHROMATOGRAM

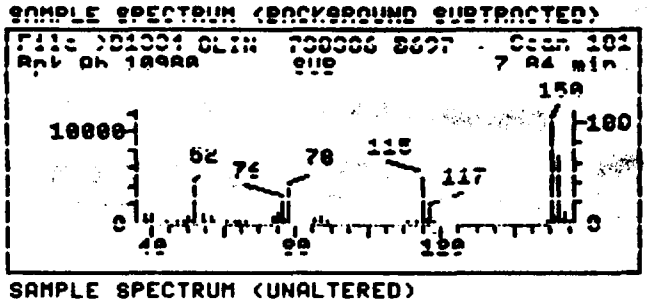


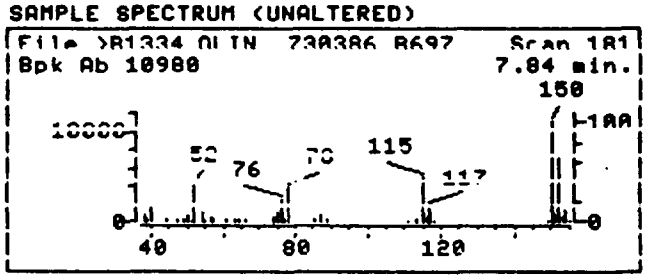
Data File: >B1334::D1 Quant Output File: ^B1334::QT
Name: OLIN 730386 B697W
Misc: 2 UL INJ 40 NG IS

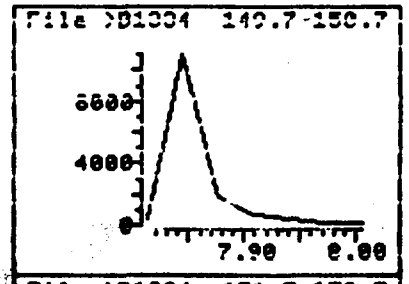
Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

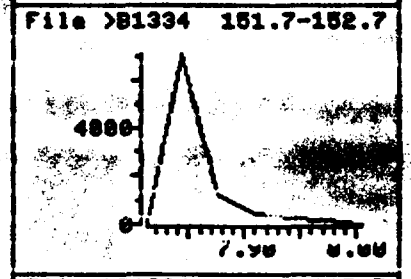
Operator ID: USER6
Quant Time: 871215 16:19
Injected at: 871215 15:38

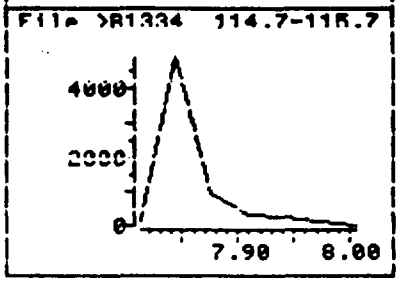








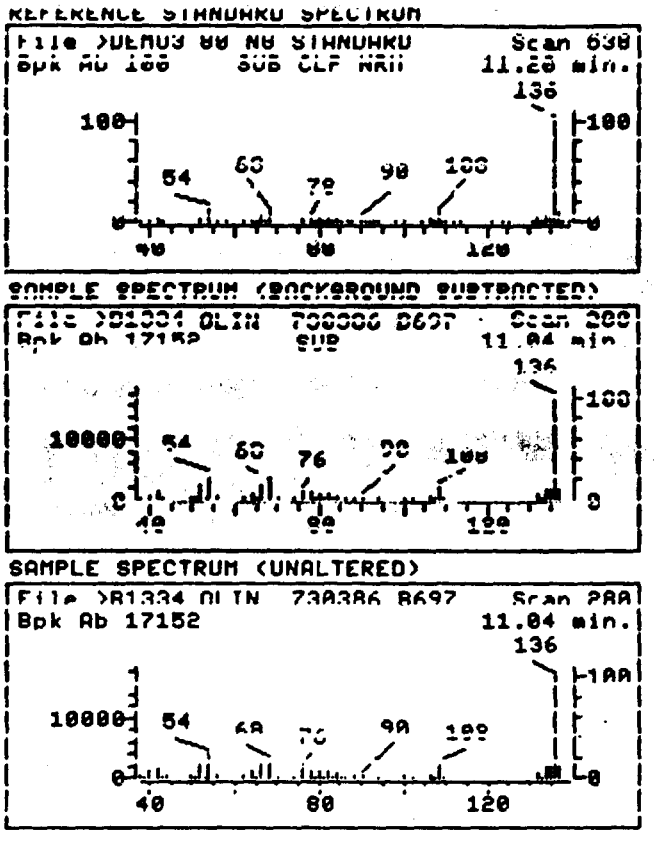


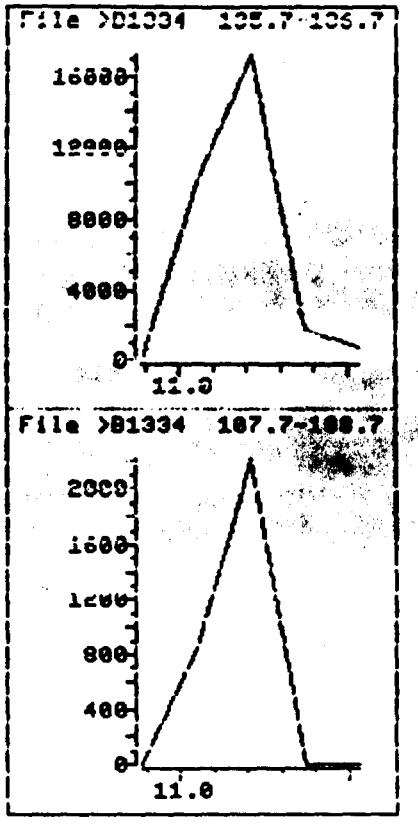


Data File: >B1334::D1 Quant Output File: ^B1334::QT
Name: OLIN 730386 B697W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 16:19 Quant ID File: ID BDA::L2
Injected at: 871215 15:38 Last Calibration: 871214 13:49

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 181
Retention Time: 7.84 min.
Quant Ion: 152.0
Area: 17642
Concentration: 40.00 ng/uL
q-value: 94

3 2 00413





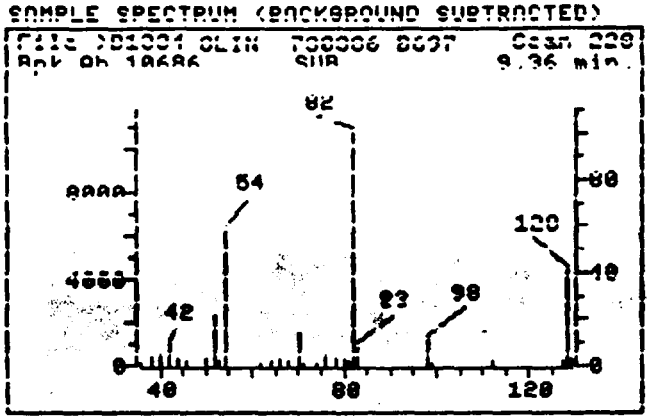
Data File: >B1334::D1
Name: OLIN 730386 B697W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 16:19
Injected at: 871215 15:38

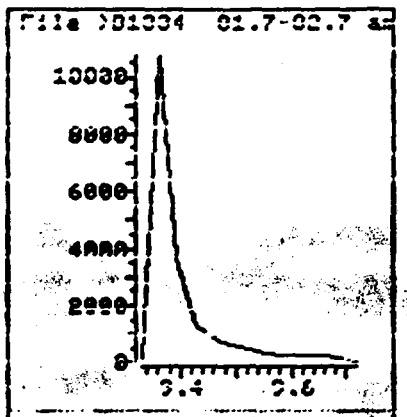
Quant Output File: ^B1334::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

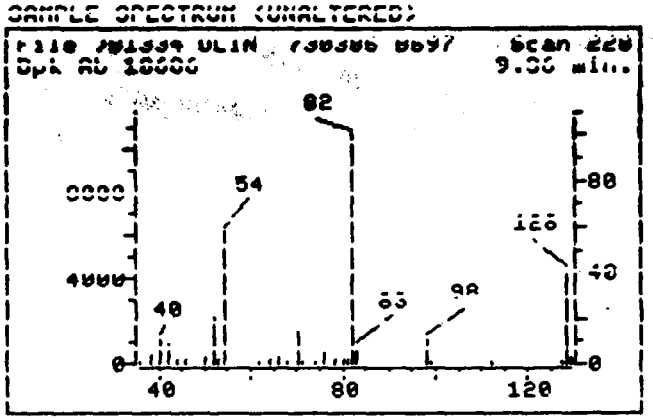
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 280
Retention Time: 11.04 min.
Quant Ion: 136.0
Area: 57516
Concentration: 40.00 ng/uL
q-value: 95

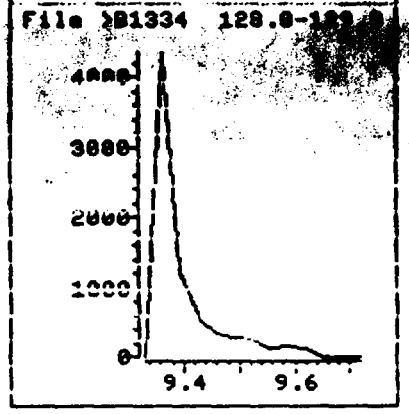
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



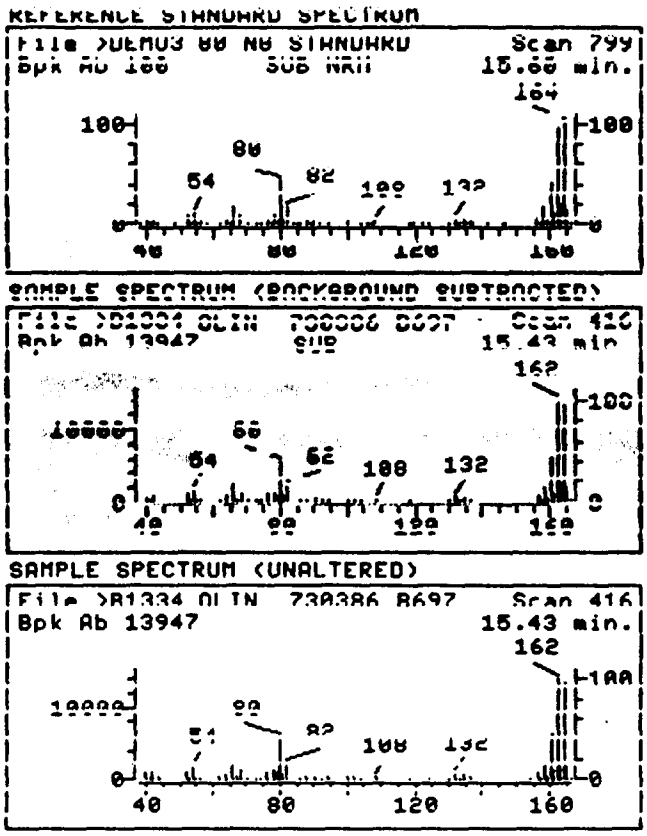


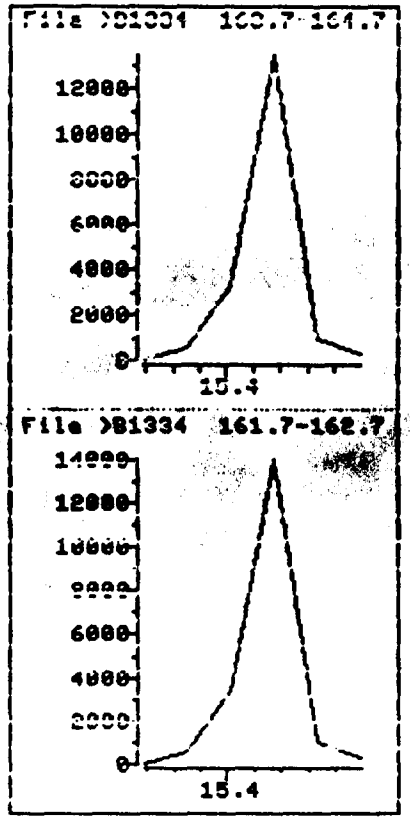
Data File: >B1334::D1
Name: OLIN 730386 B697W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 16:19
Injected at: 871215 15:38

Quant Output File: ^B1334::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 228
Retention Time: 9.36 min.
Quant Ion: 82.0
Area: 36681
Concentration: 23.78 ng/uL
q-value: 96





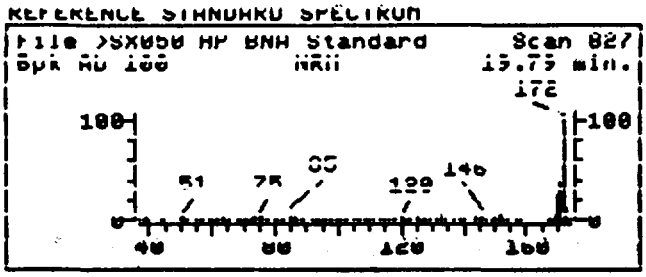
Data File: >B1334::D1
Name: OLIN 730386 B697W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 16:19
Injected at: 871215 15:38

Quant Output File: ^B1334::QT

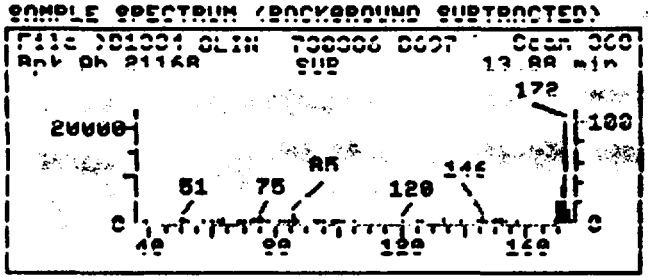
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 416
Retention Time: 15.43 min.
Quant Ion: 164.0
Area: 36055
Concentration: 40.00 ng/uL
q-value: 96

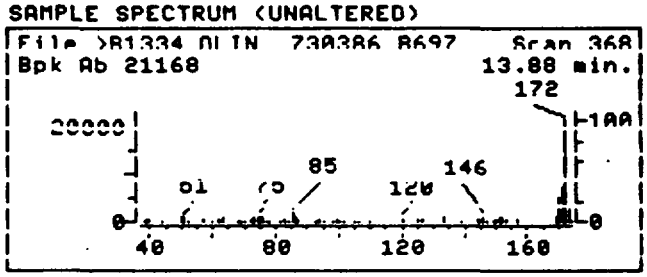
REFERENCE STANDARD SPECTRUM

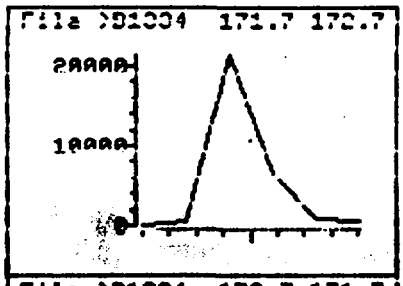


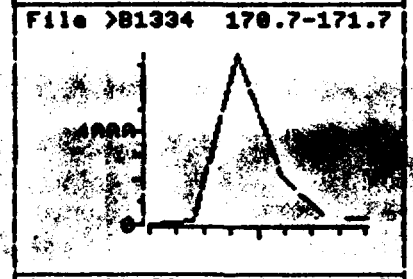
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

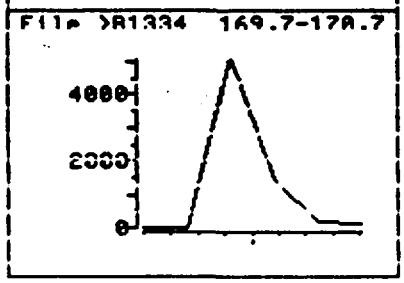


SAMPLE SPECTRUM (UNALTERED)







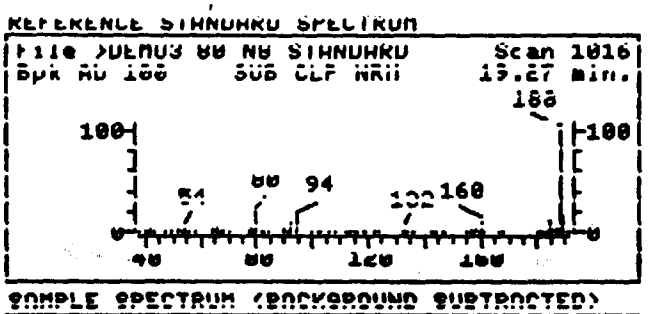


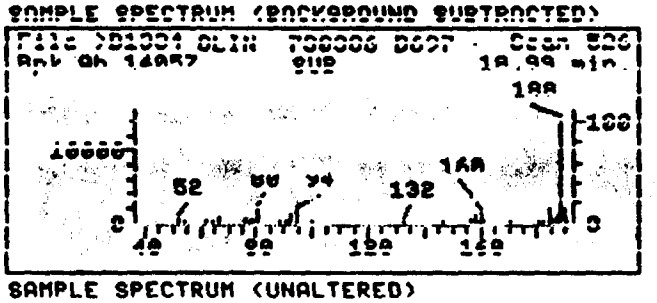
Data File: >B1334::D1
Name: OLIN 730386 B697W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 16:19
Injected at: 871215 15:38

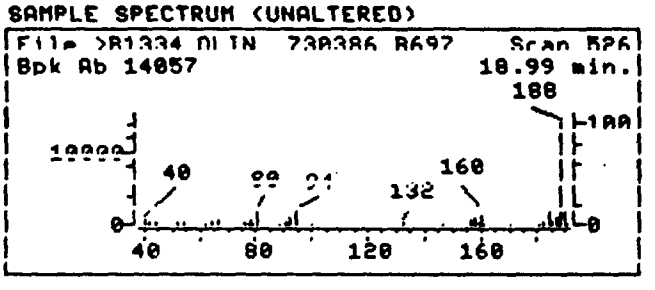
Quant Output File: ^B1334::QT

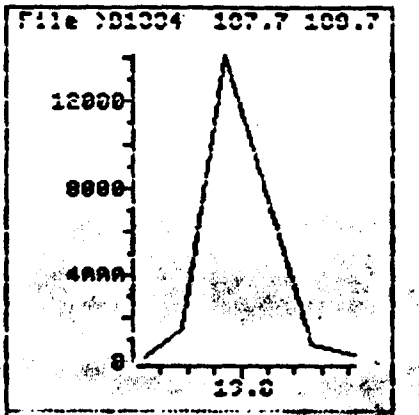
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

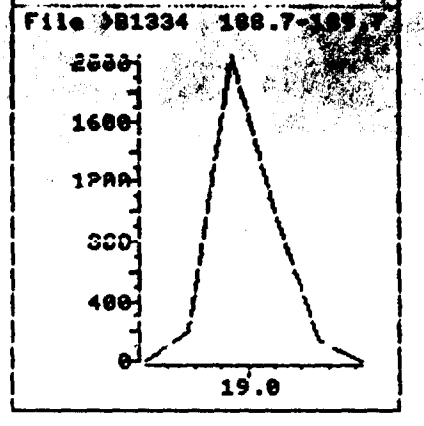
Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 368
Retention Time: 13.88 min.
Quant Ion: 172.0
Area: 57357
Concentration: 23.10 ng/uL
q-value: 93









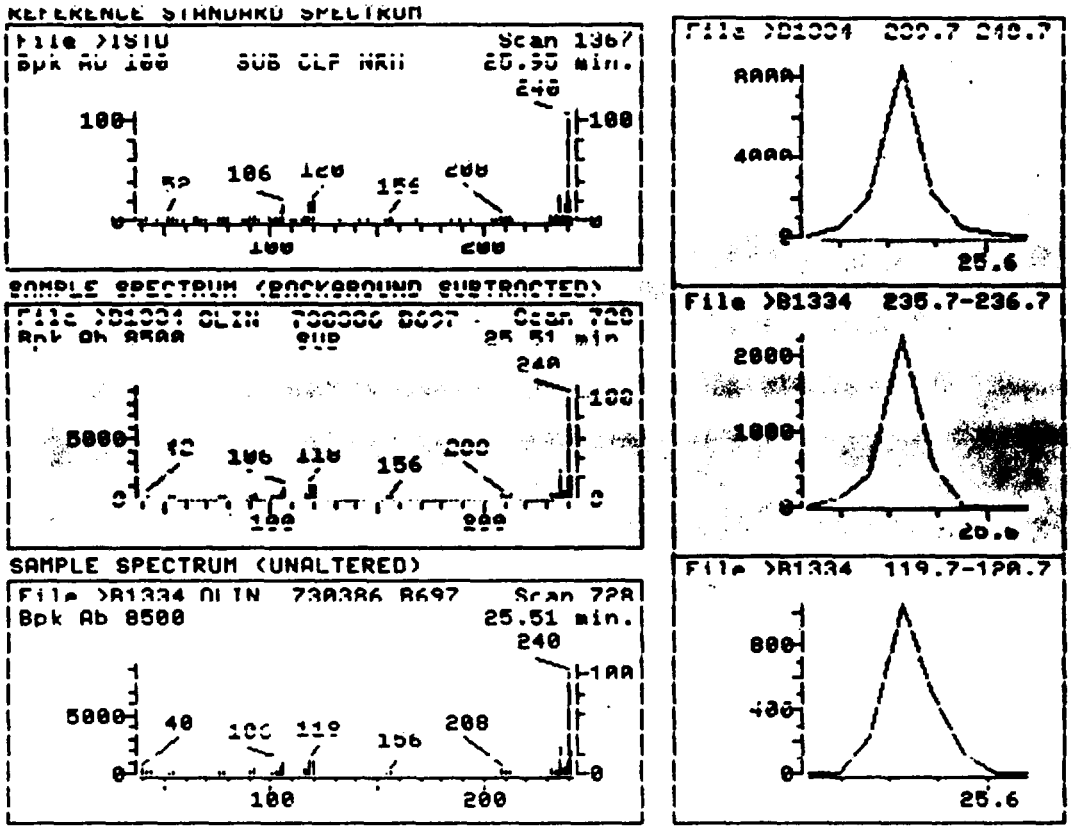


Data File: >B1334::D1
Name: OLIN 730386 8697W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 16:19
Injected at: 871215 15:38

Quant Output File: ^B1334::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 526
Retention Time: 18.99 min.
Quant Ion: 188.0
Area: 47095
Concentration: 40.00 ng/uL
q-value: 99

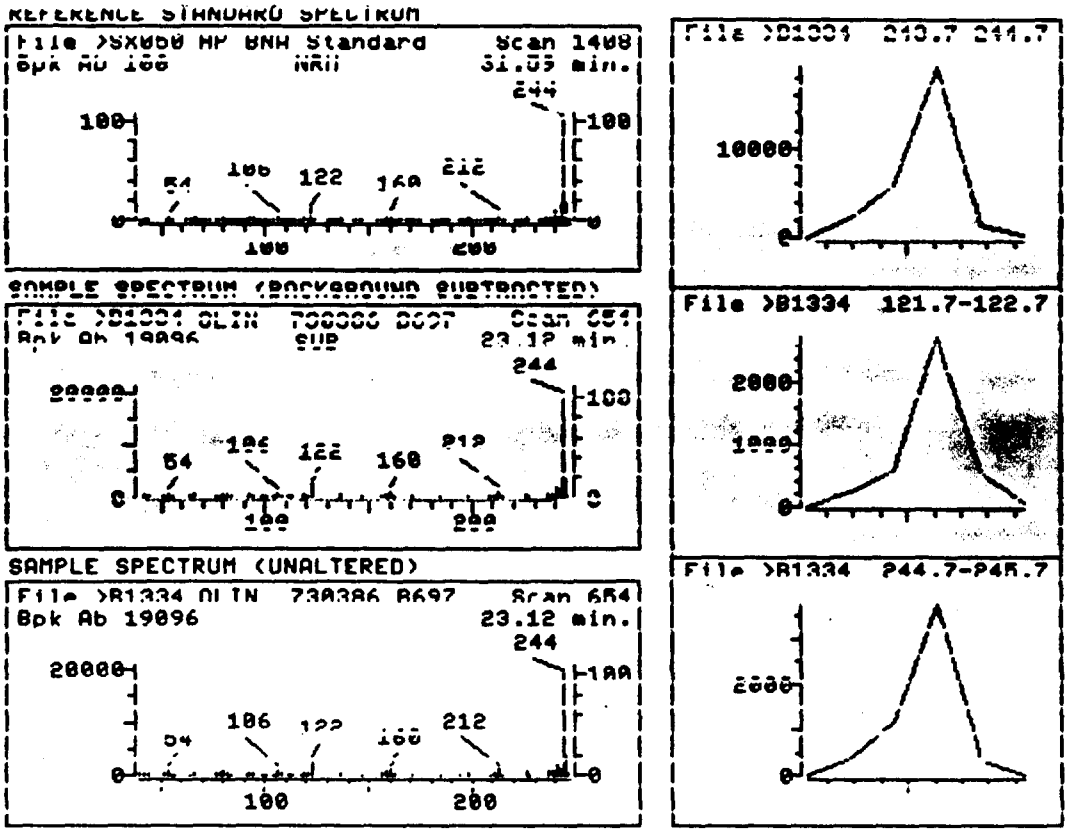


Data File: >B1334::D1
Name: OLIN 730386 B697W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 16:19
Injected at: 871215 15:38

Quant Output File: ^B1334::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

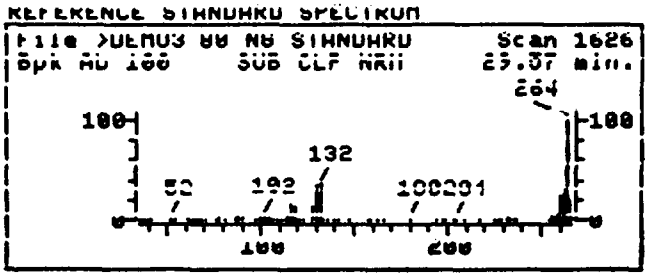
Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 728
Retention Time: 25.51 min.
Quant Ion: 240.0
Area: 26482
Concentration: 40.00 ng/uL
q-value: 96

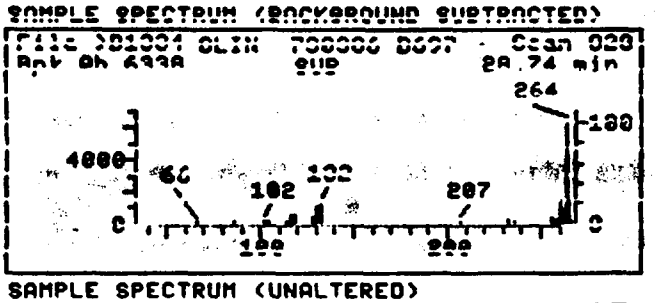


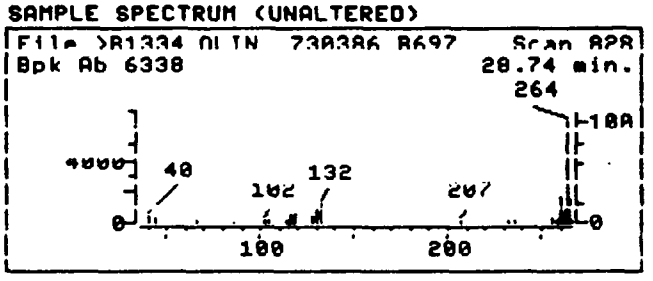
Data File: >B1334::D1
Name: OLIN 730386 B697W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 16:19
Injected at: 871215 15:38

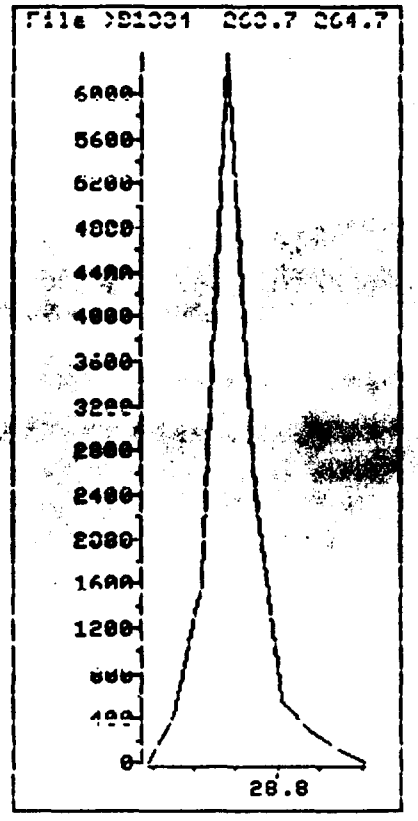
Quant Output File: ^B1334::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 654
Retention Time: 23.12 min.
Quant Ion: 244.0
Area: 56354
Concentration: 41.56 ng/uL
q-value: 89









Data File: >B1334::D1
Name: OLIN 730386 B697W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 16:19
Injected at: 871215 15:38

Quant Output File: ^B1334::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 828
Retention Time: 28.74 min.
Quant Ion: 264.0
Area: 22791
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 80-4006-07
P.O.# :
Order# : 18787

CC: Paul Klotz

BCM Number : A30387
Location : 102
Client ID :

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

QUANT REPORT

Operator ID: USER6
Output File: ^B1339::QT
Data File: >B1339::D1
Name: OLIN 730387 B698W
Misc: 2 UL INJ 40 NG IS

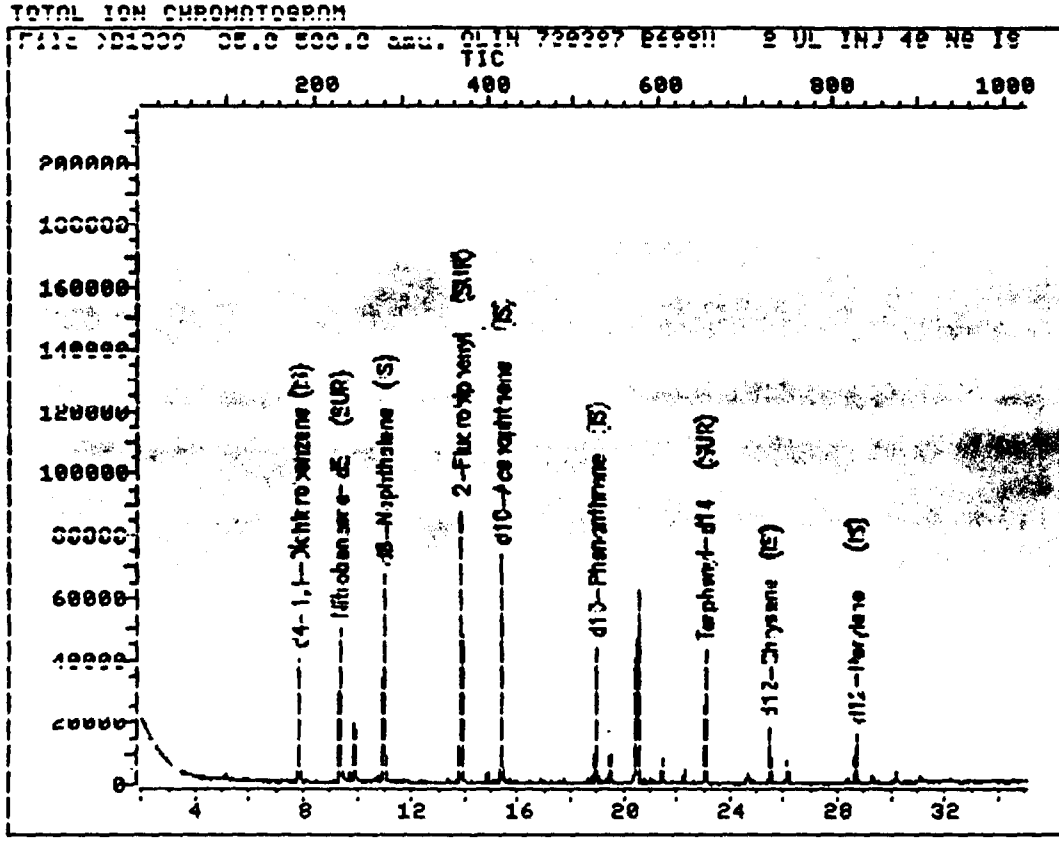
Quant Rev: 6
Quant Time: 871216 11:30
Injected at: 871216 10:50
Dilution Factor: 1.00000

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.83	182	17648	40.00	ng/uL	88
16)	*d8-Naphthalene (IS)	11.00	280	71897	40.00	ng/uL	87
17)	Nitrobenzene-d5 (SUR)	9.35	229	53553	27.78	ng/uL	94
31)	*d10-Acenaphthene (IS)	15.39	416	35916	40.00	ng/uL	98
36)	2-Fluorobiphenyl (SUR)	13.87	369	74467	30.11	ng/uL	94
51)	*d10-Phenanthrene (IS)	18.98	527	48486	40.00	ng/uL	98
63)	*d12-Chrysene (IS)	25.47	728	27448	40.00	ng/uL	96
65)	Terphenyl-d14 (SUR)	23.08	654	50229	35.74	ng/uL	84
71)	*d12-Perylene (IS)	28.70	828	24590	40.00	ng/uL	100

* Compound is ISTD

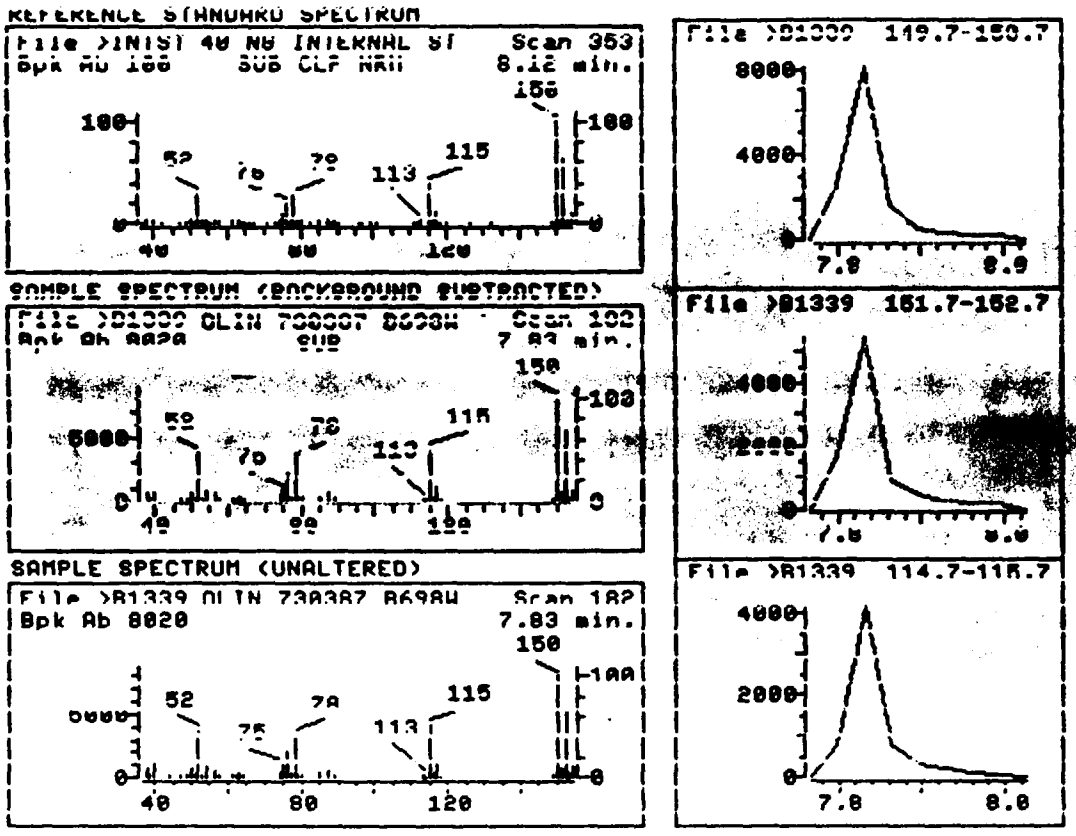
TOTAL ION CHROMATOGRAM



Data File: >B1339::D1 Quant Output File: ^B1339::QT
Name: OLIN 730387 B698W
Misc: 2 UL INJ 40 NG IS

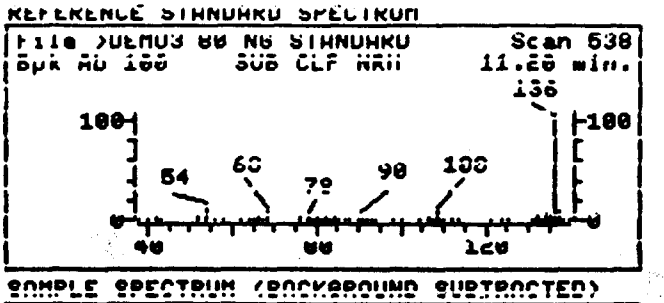
Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

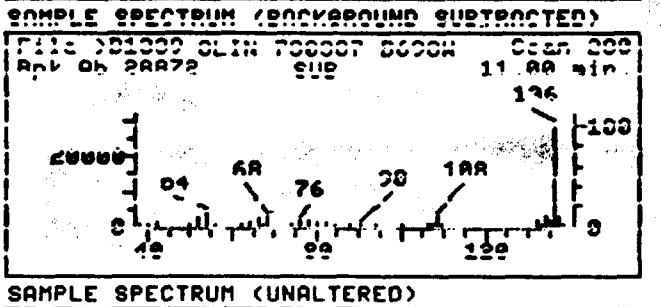
Operator ID: USER6
Quant Time: 871216 11:30
Injected at: 871216 10:50

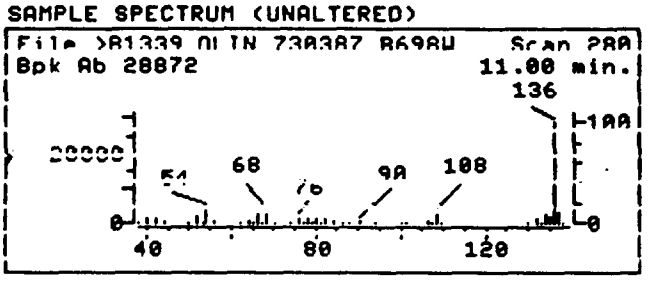


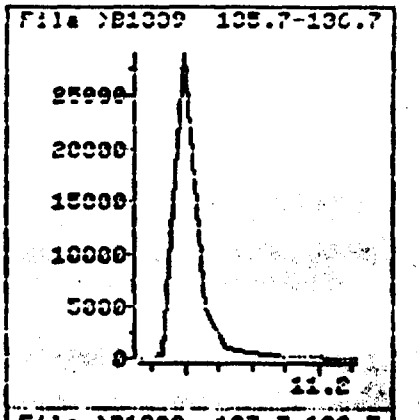
Data File: >B1339::D1 Quant Output File: ^B1339::QT
Name: OLIN 730387 B698W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 11:30 Quant ID File: ID BDA::L2
Injected at: 871216 10:50 Last Calibration: 871214 13:49

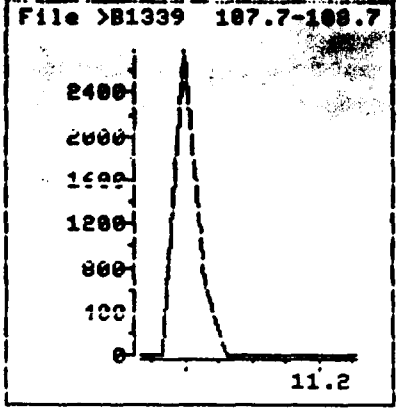
Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 182
Retention Time: 7.83 min.
Quant Ion: 152.0
Area: 17648
Concentration: 40.00 ng/uL
Q-value: 88







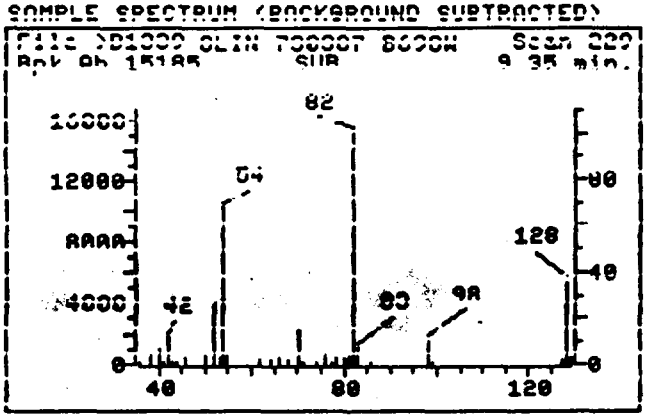


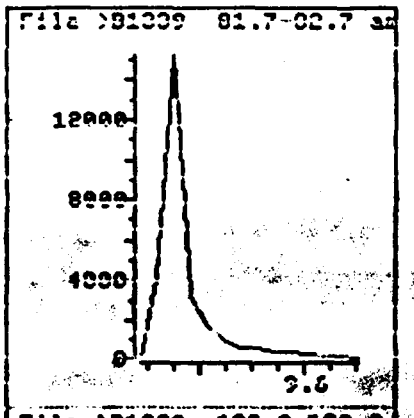


Data File: >B1339::D1 Quant Output File: ^B1339::QT
Name: OLIN 730387 B698W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 11:30 Quant ID File: ID BDA::L2
Injected at: 871216 10:50 Last Calibration: 871214 13:49

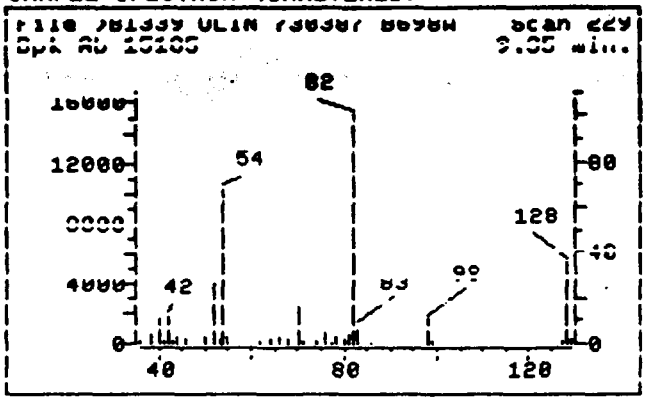
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 280
Retention Time: 11.00 min.
Quant Ion: 136.0
Area: 71897
Concentration: 40.00 ng/uL
q-value: 87

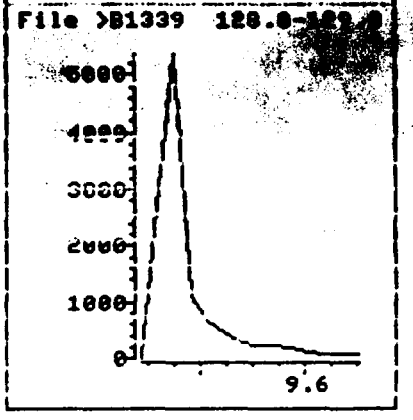
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



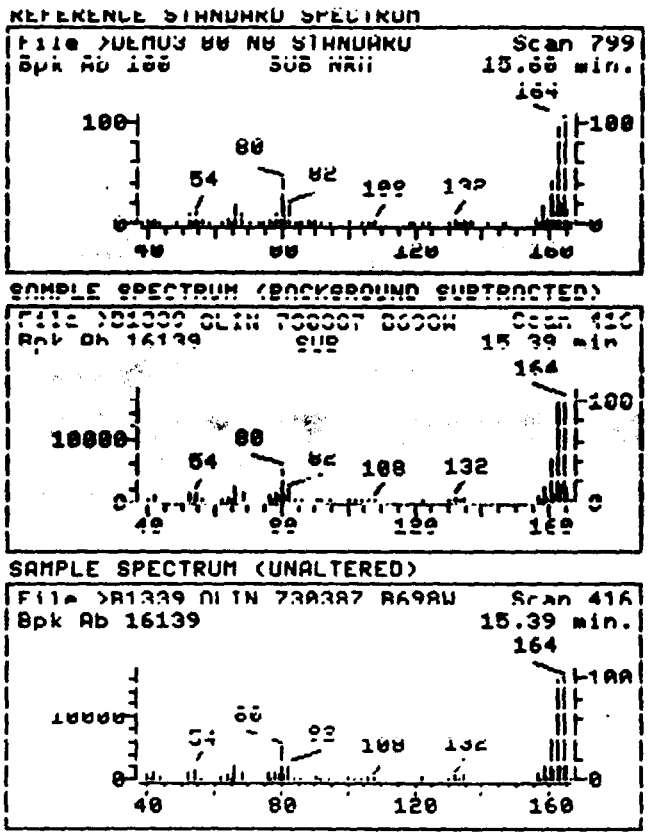


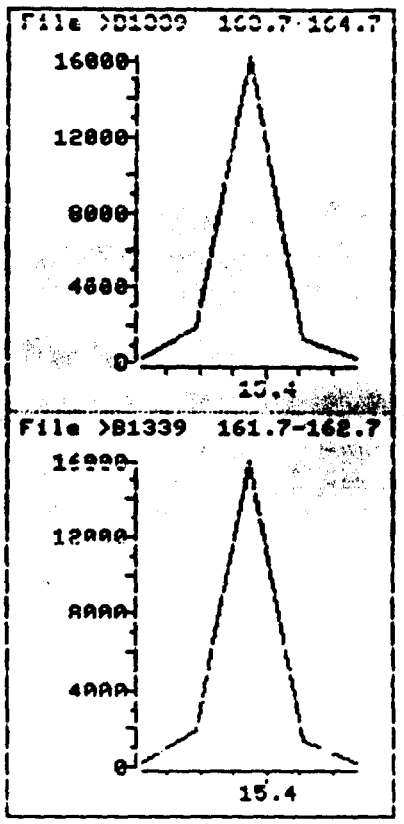
Data File: >B1339::D1
Name: OLIN 730387 B698W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 11:30
Injected at: 871216 10:50

Quant Output File: ^B1339::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 229
Retention Time: 9.35 min.
Quant Ion: 82.0
Area: 53553
Concentration: 27.78 ng/uL
q-value: 94



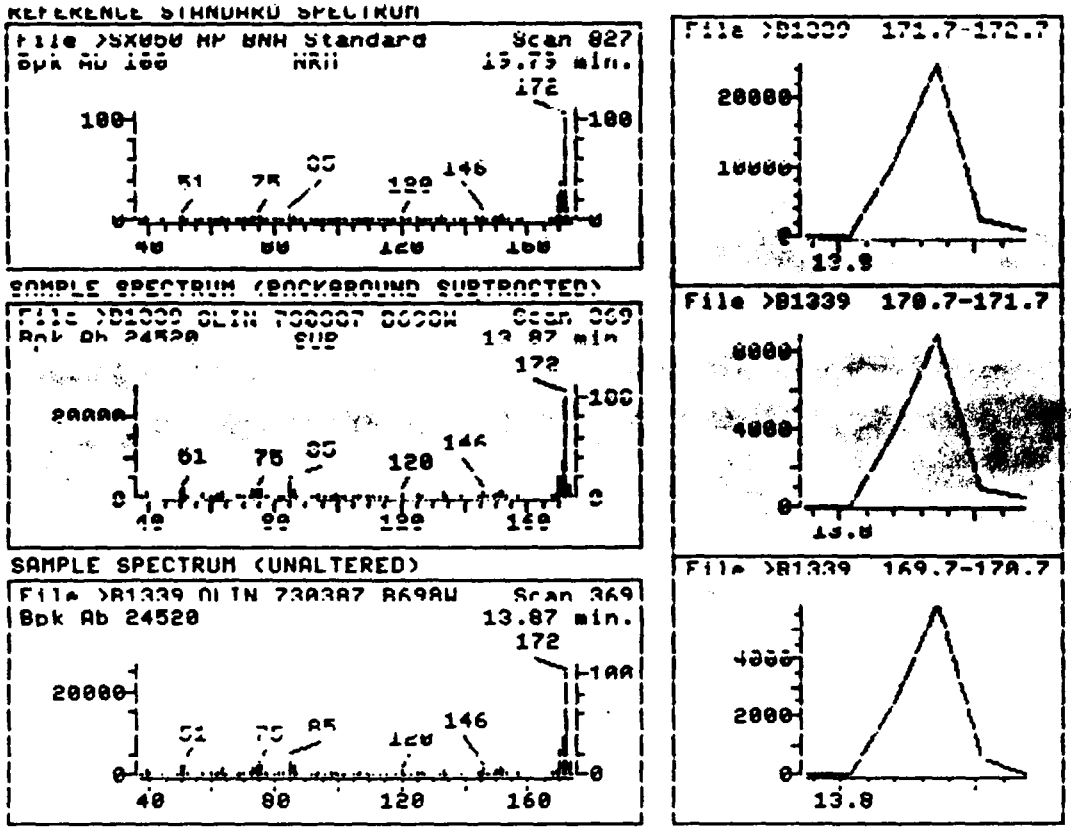


Data File: >B1339::D1
Name: OLIN 730387 B698W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 11:30
Injected at: 871216 10:50

Quant Output File: ^B1339::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 416
Retention Time: 15.39 min.
Quant Ion: 164.0
Area: 35916
Concentration: 40.00 ng/uL
q-value: 98



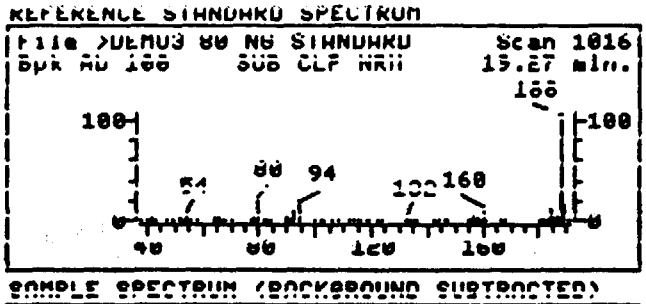
Data File: >B1339::D1
Name: OLIN 730387 B698W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 11:30
Injected at: 871216 10:50

Quant Output File: ^B1339::QT

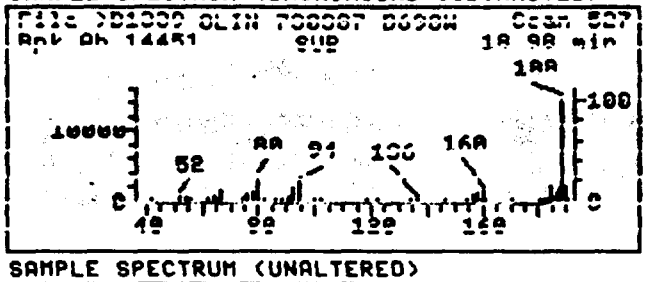
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 369
Retention Time: 13.87 min.
Quant Ion: 172.0
Area: 74467
Concentration: 30.11 ng/uL
q-value: 94

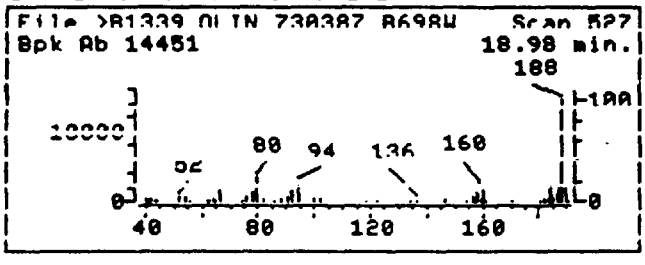
REFERENCE STANDARD SPECTRUM

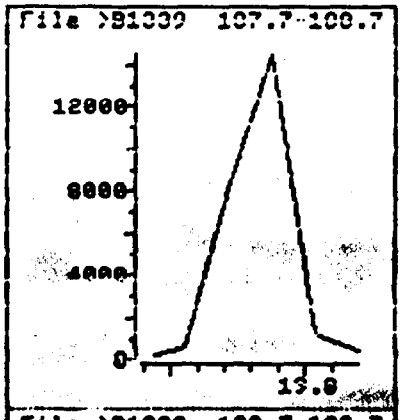


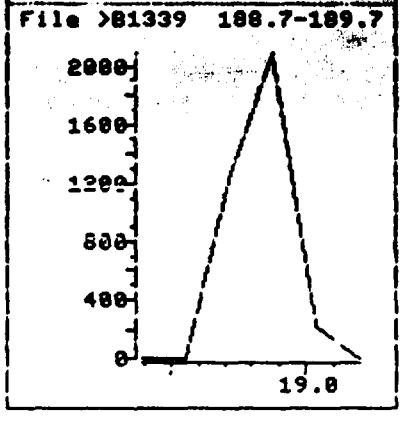
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







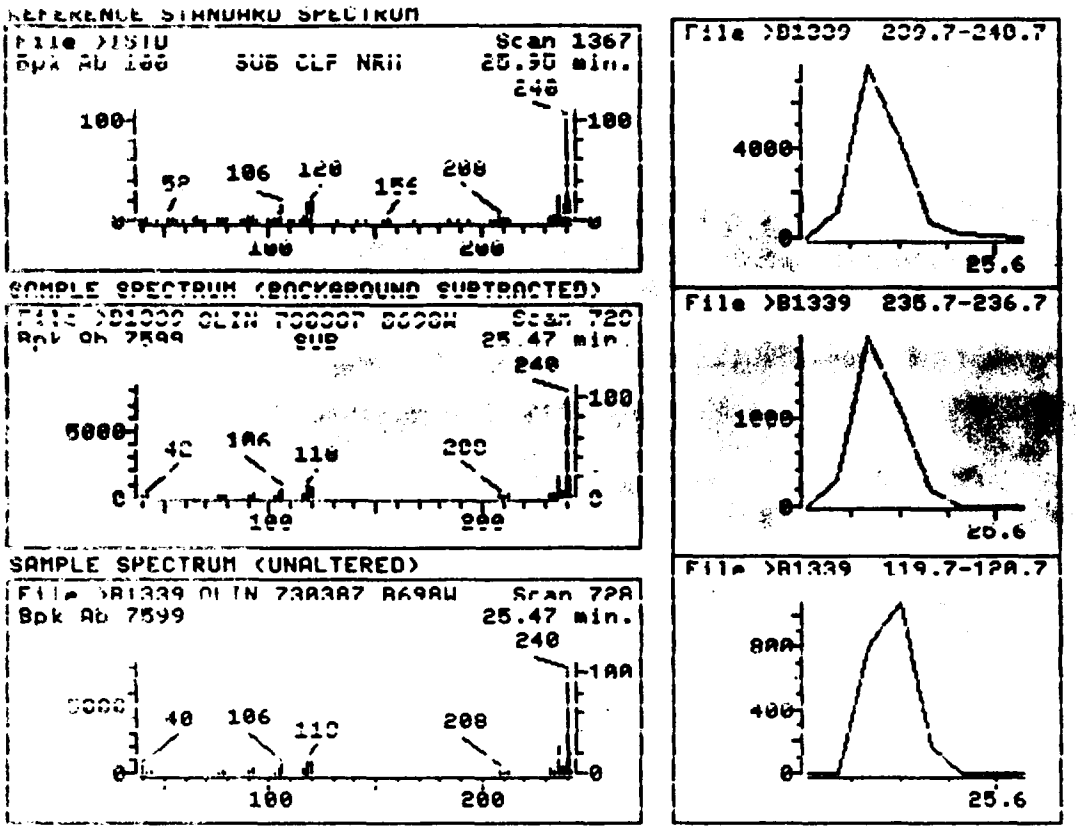
Data File: >B1339::D1
Name: OLIN 730387 B698W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 11:30
Injected at: 871216 10:50

Quant Output File: ^B1339::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 527
Retention Time: 18.98 min.
Quant Ion: 188.0
Area: 48486
Concentration: 40.00 ng/uL
q-value: 98

3 2 00422



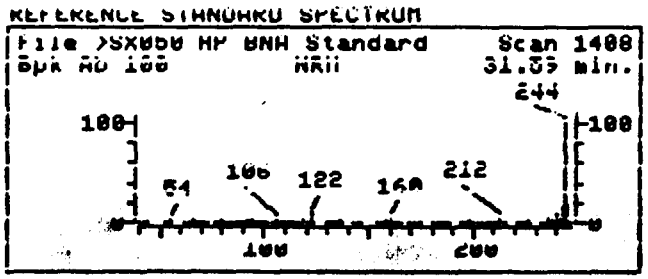
Data File: >B1339::D1
Name: OLIN 730387 B698W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 11:30
Injected at: 871216 10:50

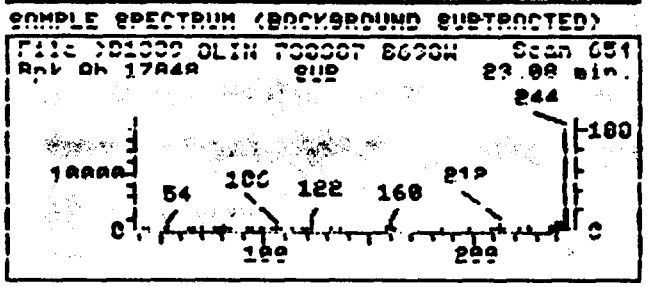
Quant Output File: ^B1339::QT

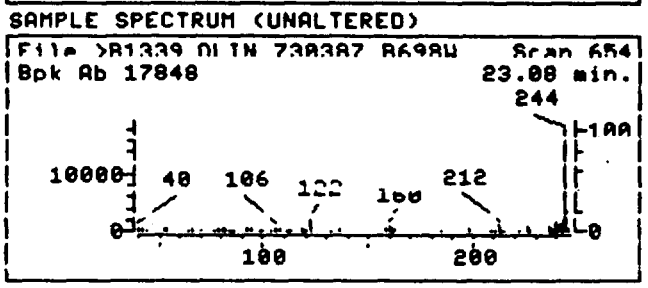
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

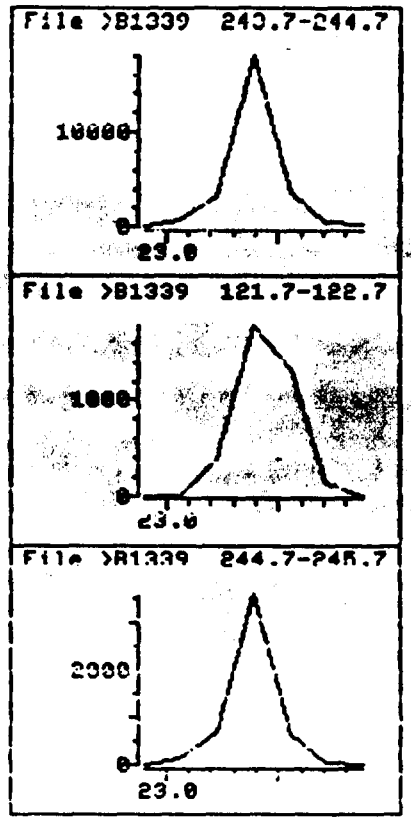
Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 728
Retention Time: 25.47 min.
Quant Ion: 240.0
Area: 27448
Concentration: 40.00 ng/uL
q-value: 96

3 2 00423





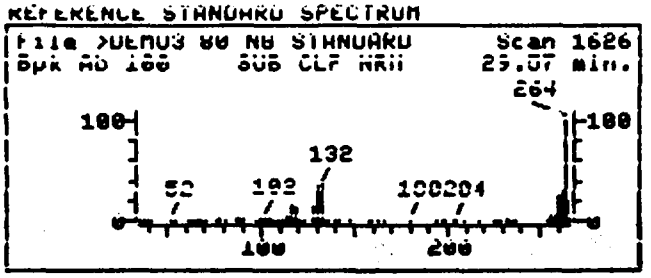




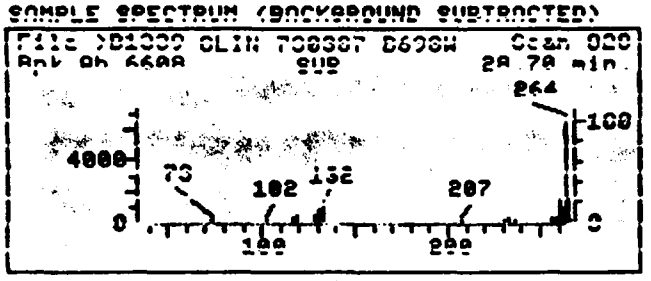
Data File: >B1339::D1 Quant Output File: ^B1339::QT
Name: OLIN 730387 B698W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 11:30 Quant ID File: ID BDA::L2
Injected at: 871216 10:50 Last Calibration: 871214 13:49

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 654
Retention Time: 23.08 min.
Quant Ion: 244.0
Area: 50229
Concentration: 35.74 ng/uL
q-value: 84

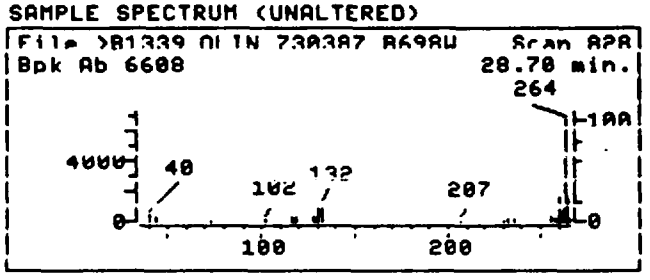
REFERENCE STANDARD SPECTRUM

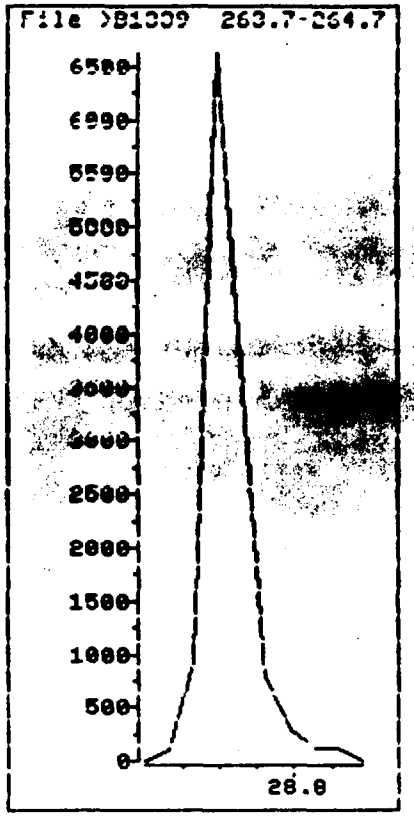


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >B1339::D1
Name: OLIN 730387 B698W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 11:30
Injected at: 871216 10:50

Quant Output File: ^B1339::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 828
Retention Time: 28.70 min.
Quant Ion: 264.0
Area: 24590
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18787

CC: Paul Klotz

BCM Number : A30388
Location : 560
Client ID :

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

QUANT REPORT

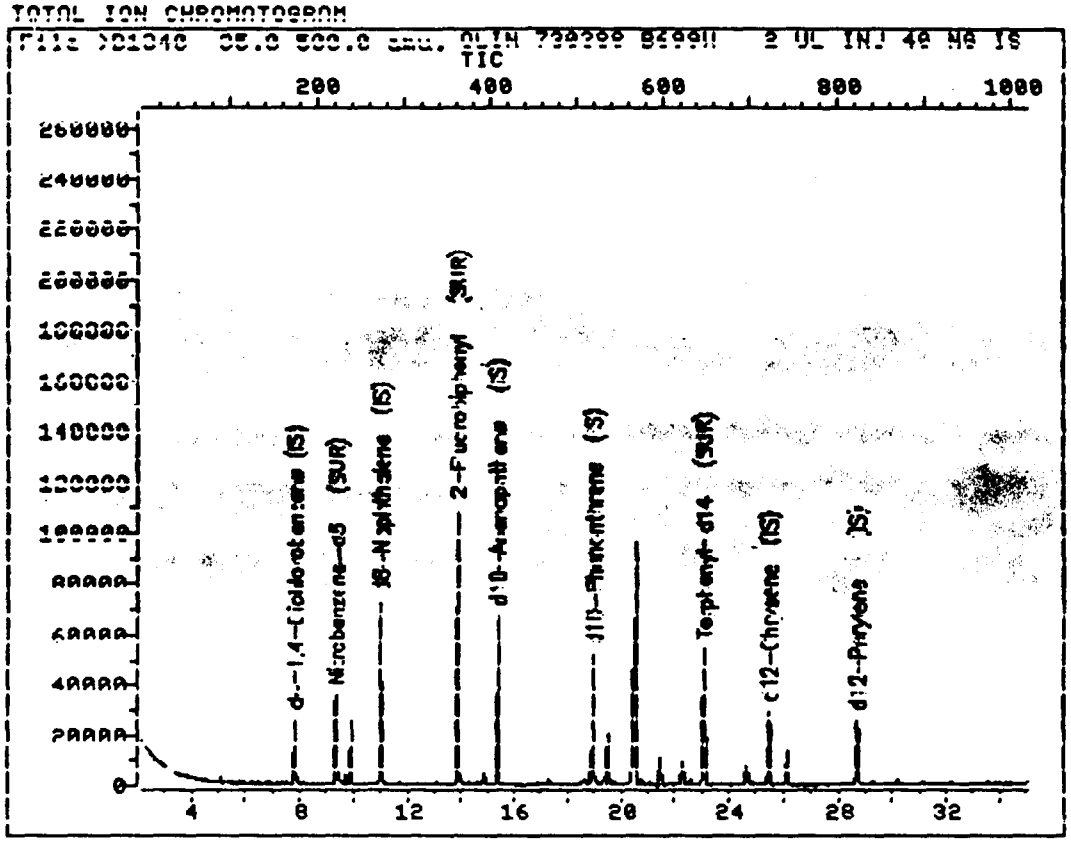
Operator ID: USER6 Quant Rev: 6 Quant Time: 871216 12:13
Output File: ^B1340::QT Injected at: 871216 11:32
Data File: >B1340::D1 Dilution Factor: 1.00000
Name: OLIN 730388 B699W
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.80	175	17074	40.00	ng/uL	96
16)	*d8-Naphthalene (IS)	11.00	274	71157	40.00	ng/uL	89
17)	Nitrobenzene-d5 (SUR)	9.35	223	53864	28.23	ng/uL	93
31)	*d10-Acenaphthene (IS)	15.39	410	37637	40.00	ng/uL	97
36)	2-Fluorobiphenyl (SUR)	13.88	363	87095	33.61	ng/uL	95
51)	*d10-Phenanthrene (IS)	18.98	521	57413	40.00	ng/uL	96
63)	*d12-Chrysene (IS)	25.47	722	41942	40.00	ng/uL	95
65)	Terphenyl-d14 (SUR)	23.08	648	73975	34.45	ng/uL	85
71)	*d12-Perylene (IS)	28.70	822	36923	40.00	ng/uL	100

* Compound is ISTD

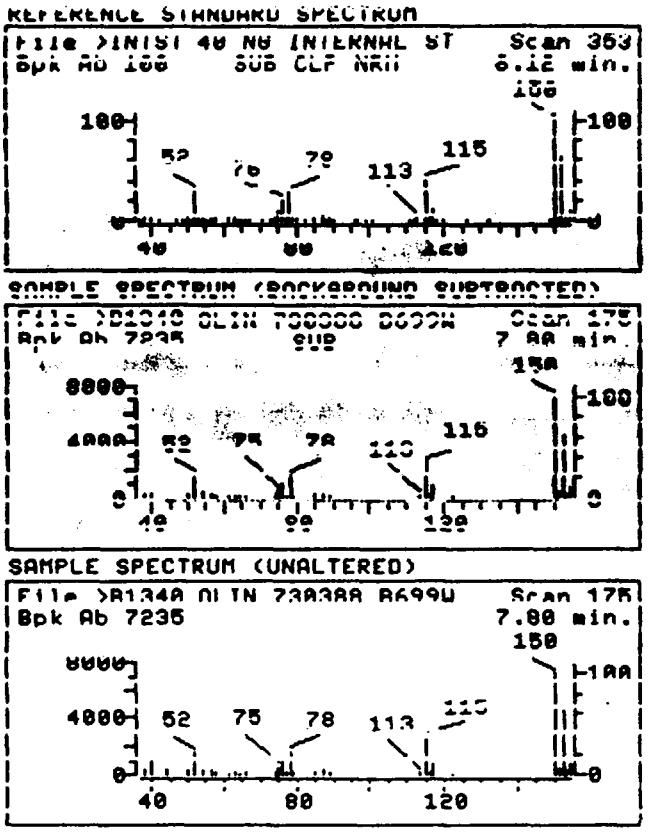
TOTAL ION CHROMATOGRAM

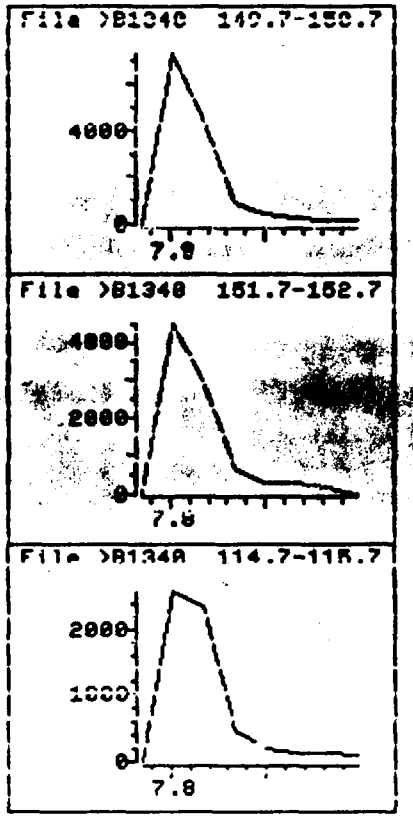


Data File: >B1340::D1 Quant Output File: ^B1340::QT
Name: OLIN 730388 B699W
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

Operator ID: USER6
Quant Time: 871216 12:13
Injected at: 871216 11:32



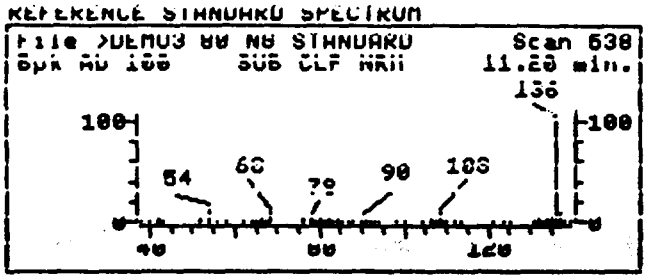


Data File: >B1340::D1 Quant Output File: ^B1340::QT
Name: OLIN 730388 B699W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:13 Quant ID File: ID BDA::L2
Injected at: 871216 11:32 Last Calibration: 871214 13:49

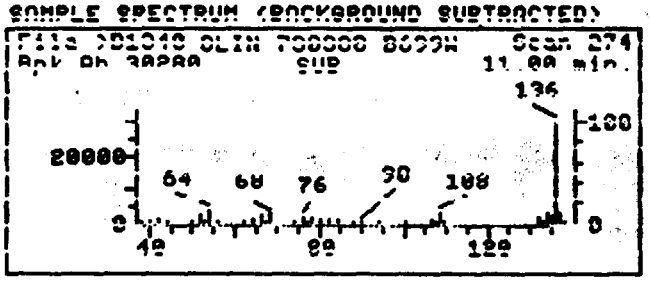
Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 175
Retention Time: 7.80 min.
Quant Ion: 152.0
Area: 17074
Concentration: 40.00 ng/uL
q-value: 96

3 2 00426

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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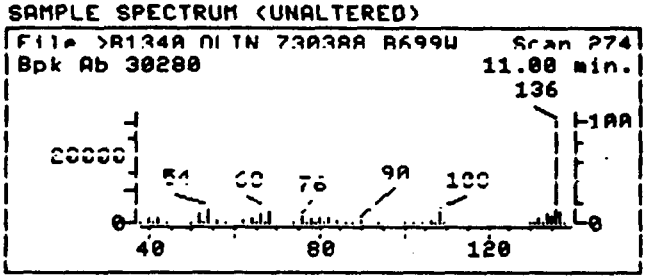
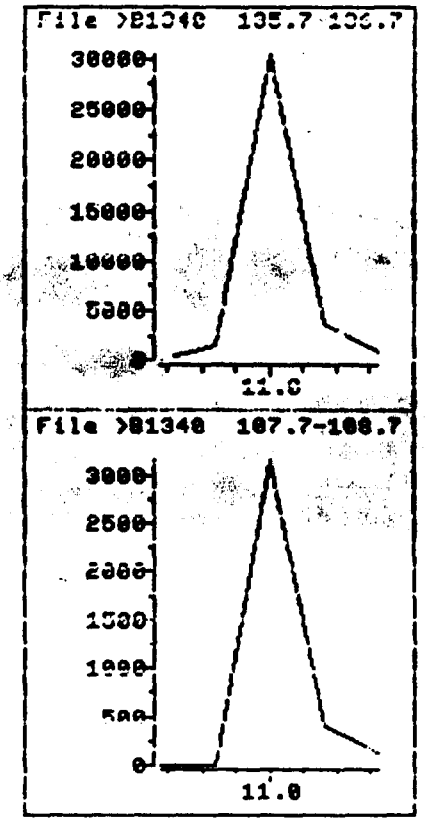
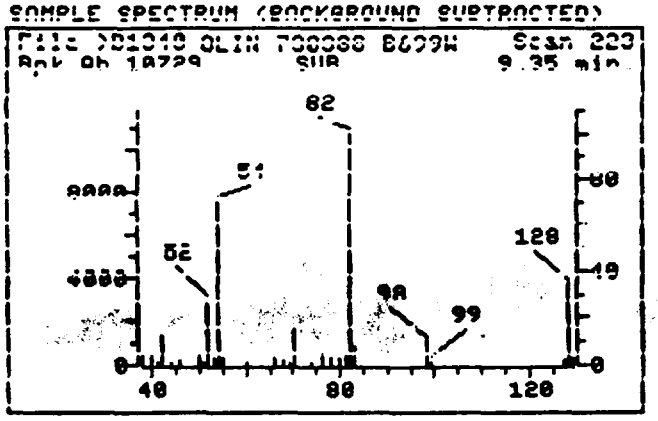


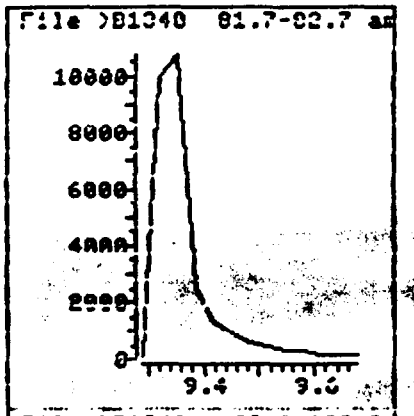


Data File: >B1340::D1 Quant Output File: ^B1340::QT
Name: OLIN 730388 B699W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:13 Quant ID File: ID BDA::L2
Injected at: 871216 11:32 Last Calibration: 871214 13:49

Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 274
Retention Time: 11.00 min.
Quant Ion: 136.0
Area: 71157
Concentration: 40.00 ng/uL
q-value: 89

SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





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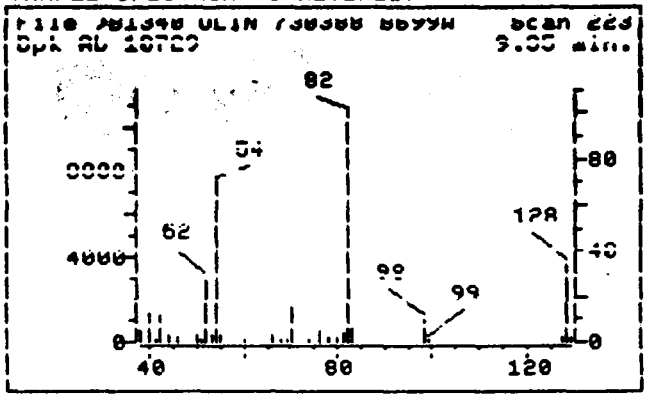
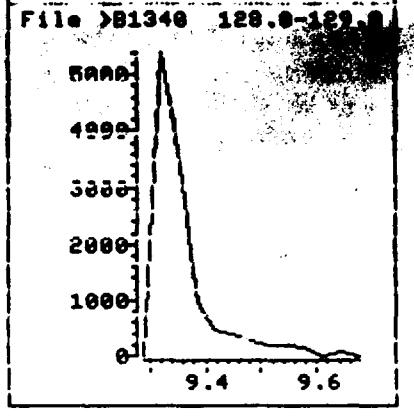




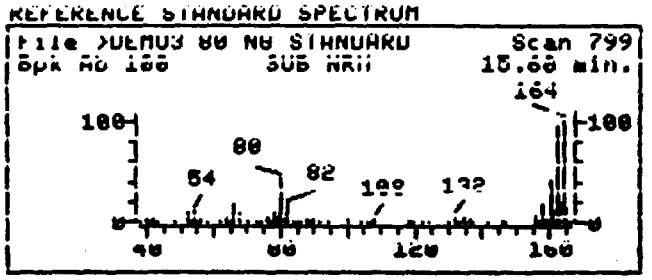
Data File: >B1340::D1
Name: OLIN 730388 B699W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:13
Injected at: 871216 11:32

Quant Output File: ^B1340::QT

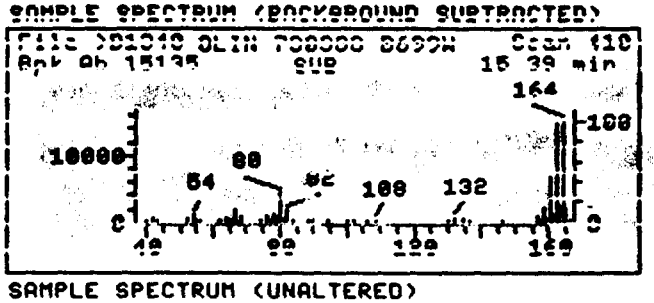
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 223
Retention Time: 9.35 min.
Quant Ion: 82.0
Area: 53864
Concentration: 28.23 ng/uL
q-value: 93

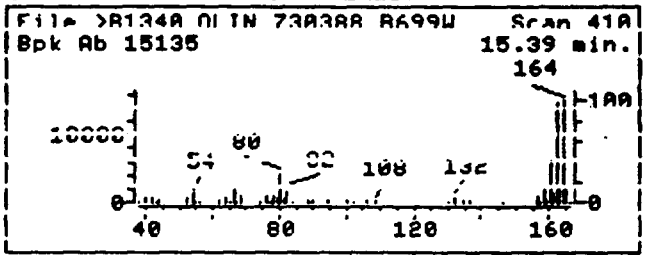
REFERENCE STANDARD SPECTRUM

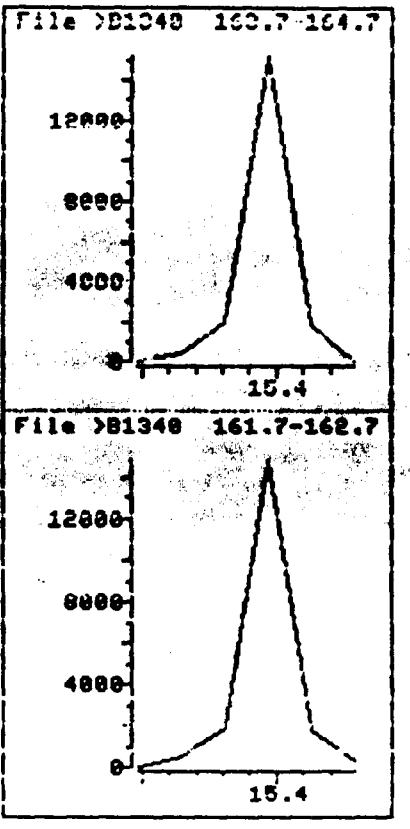


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



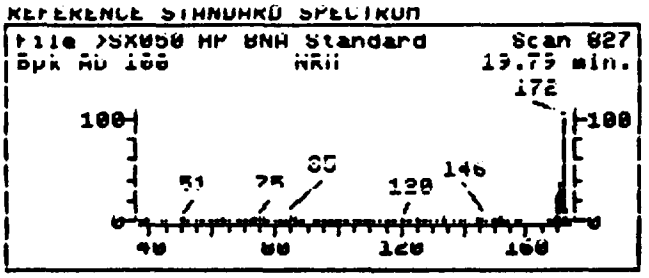


Data File: >B1340::D1
Name: OLIN 730388 8699W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:13
Injected at: 871216 11:32

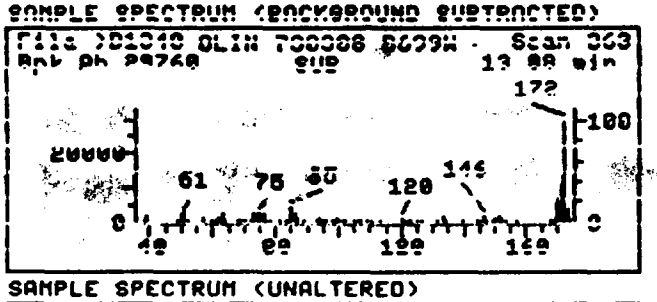
Quant Output File: ^B1340::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 410
Retention Time: 15.39 min.
Quant Ion: 164.0
Area: 37637
Concentration: 40.00 ng/uL
q-value: 97

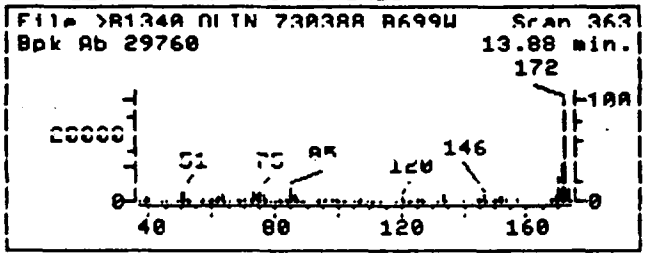
REFERENCE STANDARD SPECTRUM

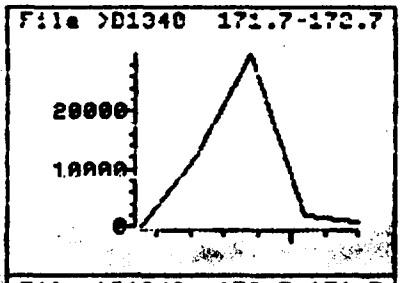


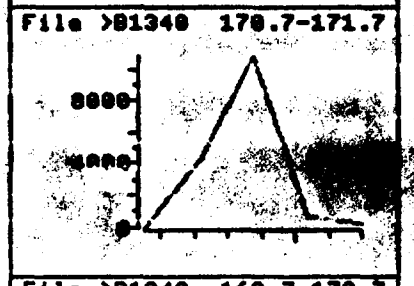
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

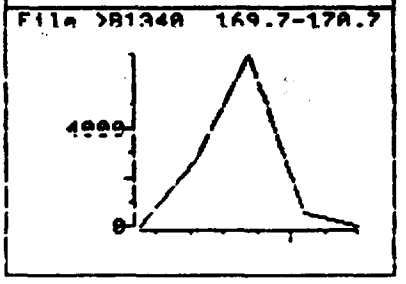


SAMPLE SPECTRUM (UNALTERED)







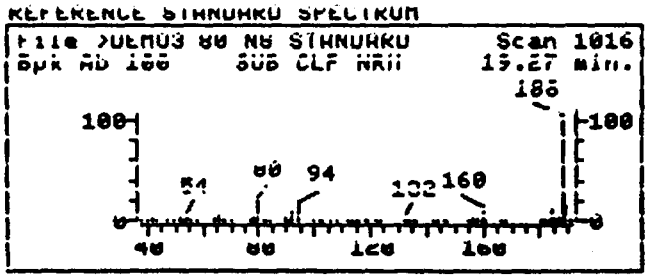


Data File: >B1340::D1
Name: OLIN 730388 B699W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:13
Injected at: 871216 11:32

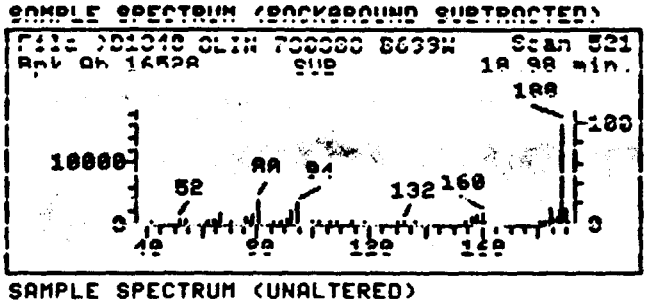
Quant Output File: ^B1340::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 363
Retention Time: 13.88 min.
Quant Ion: 172.0
Area: 87095
Concentration: 33.61 ng/uL
q-value: 95

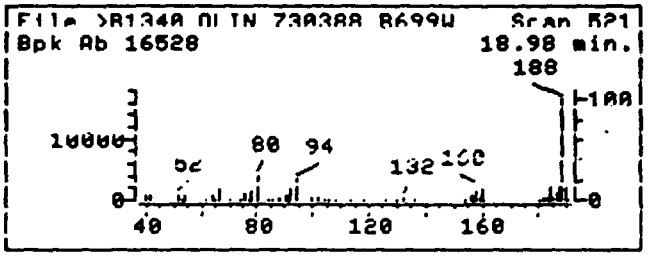
REFERENCE STANDARD SPECTRUM

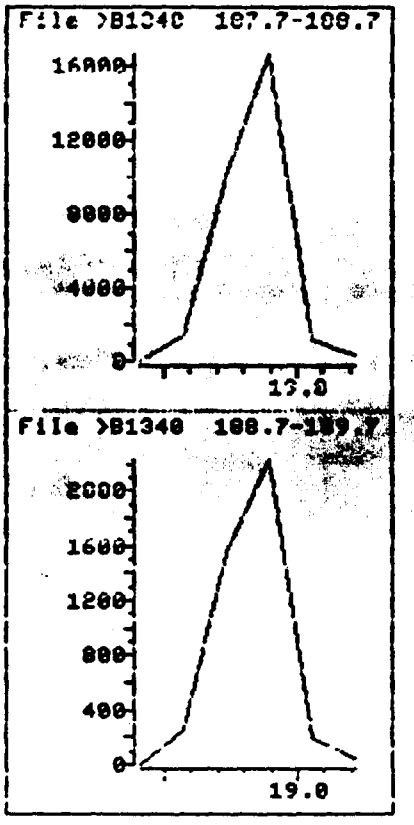


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

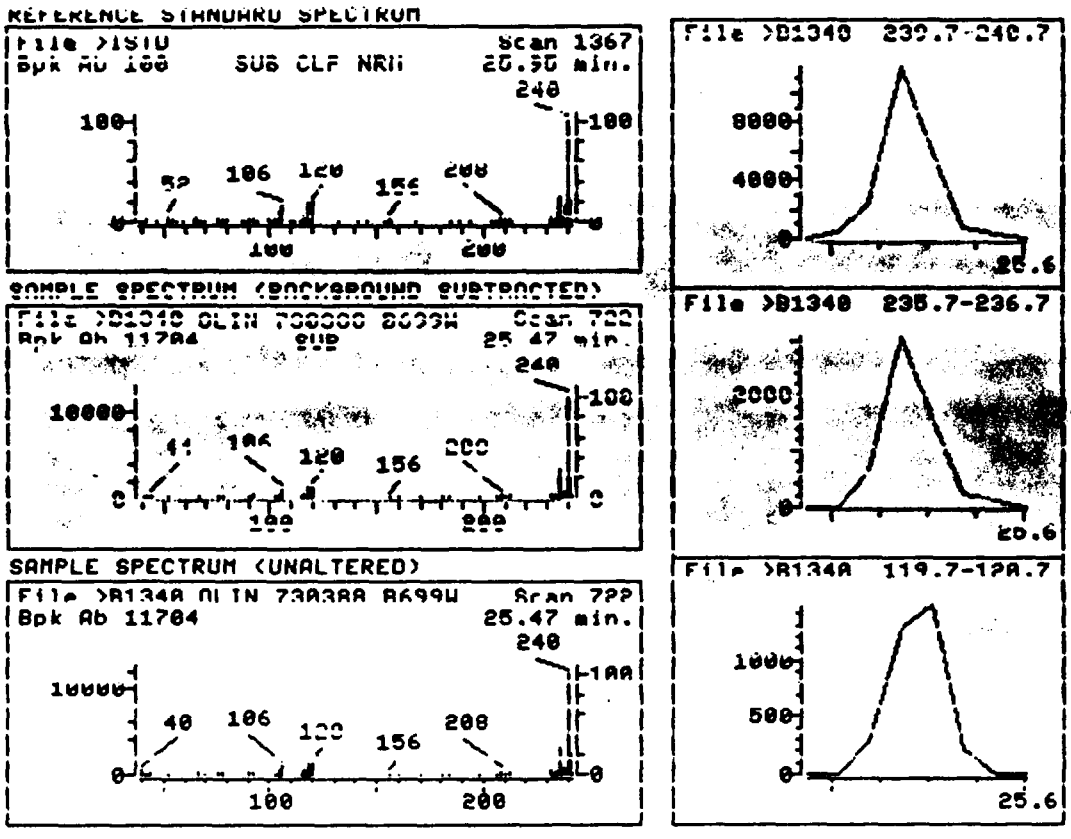




Data File: >B1340::D1
Name: OLIN 730388 B699W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:13
Injected at: 871216 11:32

Quant Output File: ^B1340::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 521
Retention Time: 18.98 min.
Quant Ion: 188.0
Area: 57413
Concentration: 40.00 ng/uL
q-value: 96



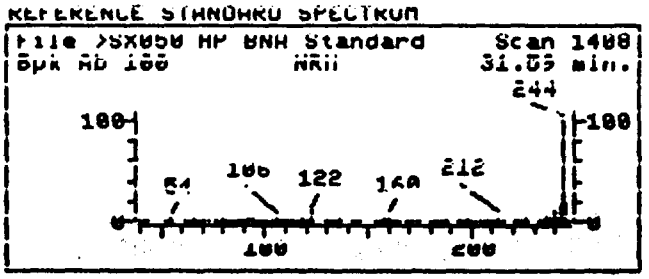
Data File: >B1340::D1
Name: OLIN 730388 B699W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:13
Injected at: 871216 11:32

Quant Output File: ^B1340::QT

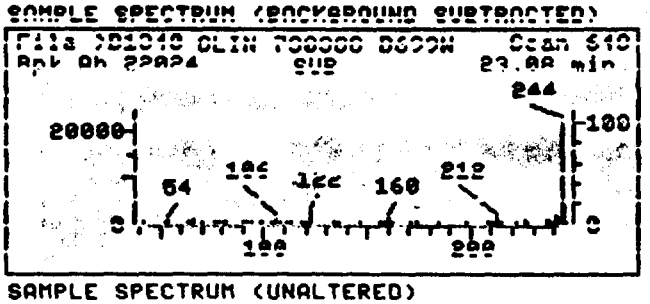
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 722
Retention Time: 25.47 min.
Quant Ion: 240.0
Area: 41942
Concentration: 40.00 ng/uL
q-value: 95

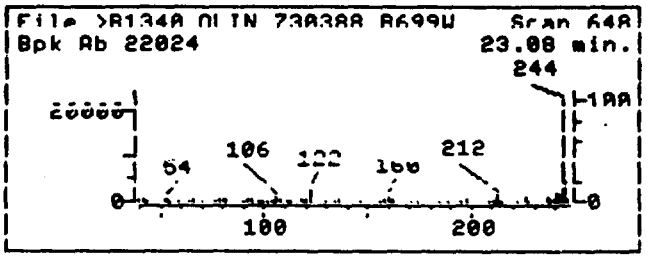
REFERENCE STANDARD SPECTRUM

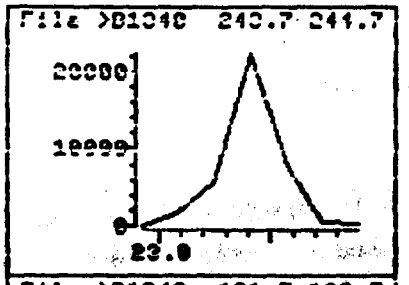


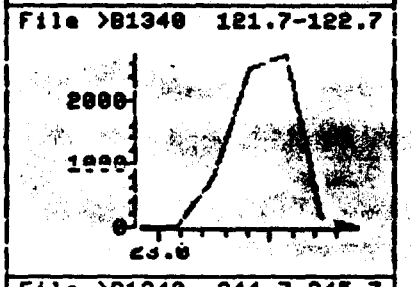
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

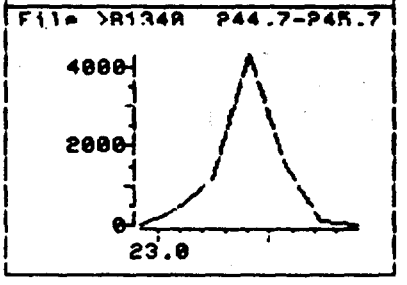


SAMPLE SPECTRUM (UNALTERED)







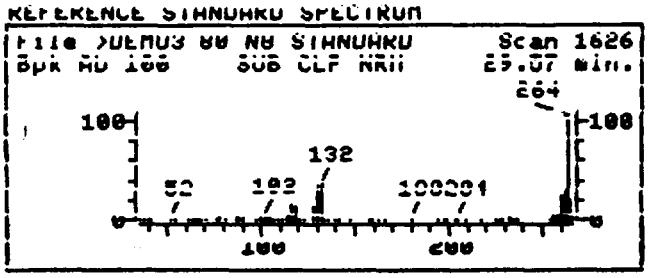


Data File: >B1340::D1
Name: OLIN 730388 B699W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:13
Injected at: 871216 11:32

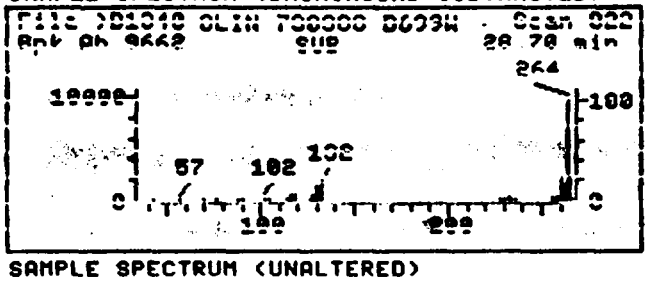
Quant Output File: ^B1340::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 648
Retention Time: 23.08 min.
Quant Ion: 244.0
Area: 73975
Concentration: 34.45 ng/uL
q-value: 85

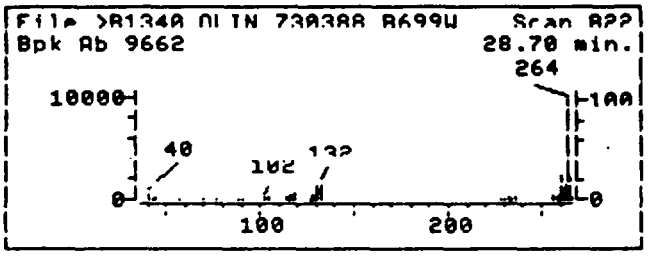
REFERENCE STANDARD SPECTRUM

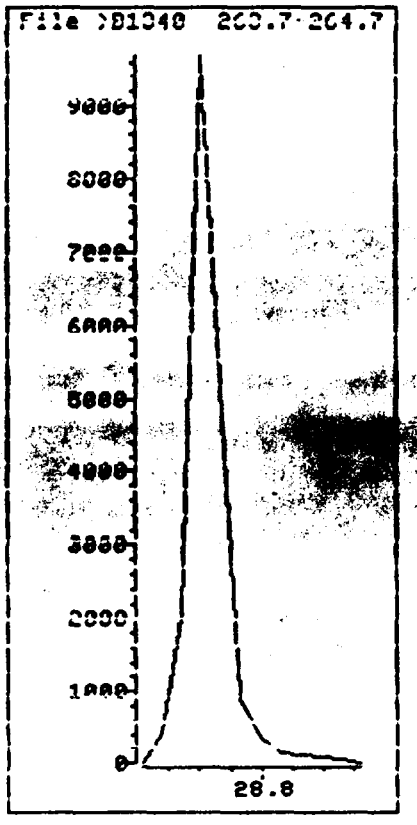


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >B1340::D1 Quant Output File: ^B1340::QT
Name: OLIN 730388 B699W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:13 Quant ID File: ID BDA::L2
Injected at: 871216 11:32 Last Calibration: 871214 13:49

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 822
Retention Time: 28.70 min.
Quant Ion: 264.0
Area: 36923
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18787

CC: Paul Klotz

BCM Number : A30389
Location : 777
Client ID :

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

QUANT REPORT

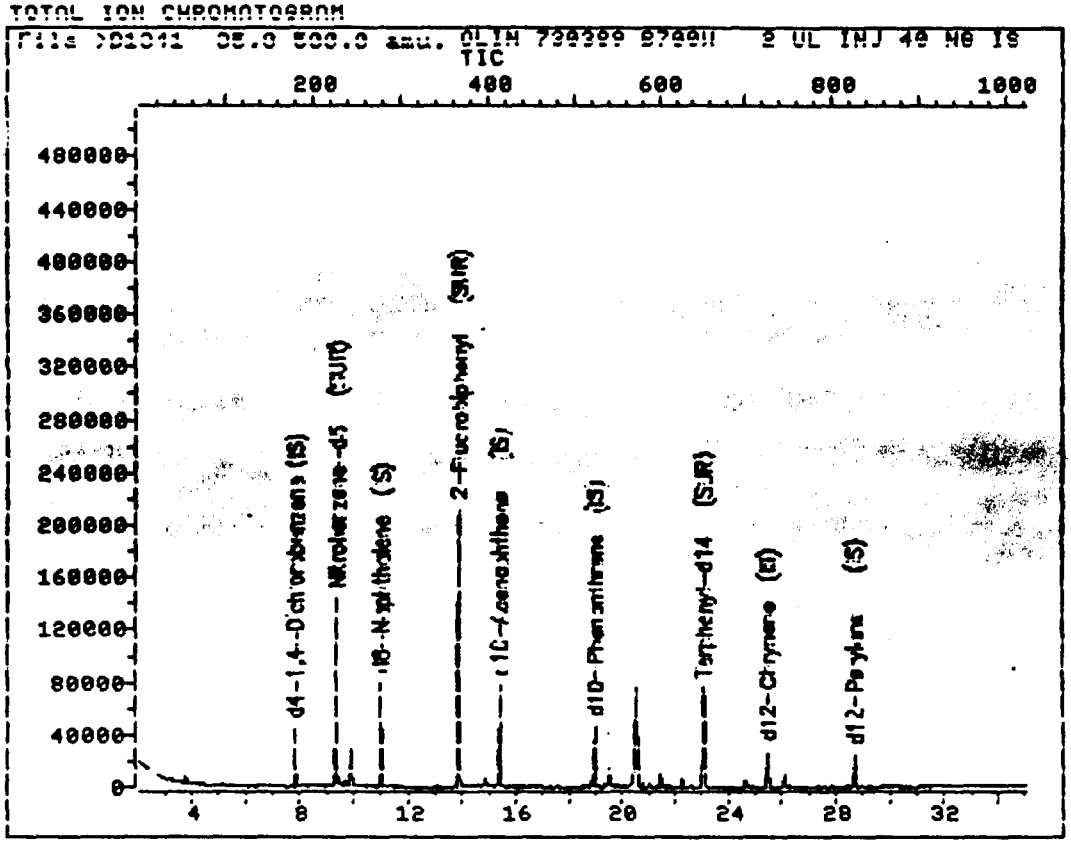
Operator ID: USER6 Quant Rev: 6 Quant Time: 871216 12:59
Output File: ^B1341::QT Injected at: 871216 12:17
Data File: >B1341::D1 Dilution Factor: 1.00000
Name: OLIN 730389 B700W
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units		a
1)	*d4-1,4-Dichlorobenzene (IS)	7.80	179	121062	40.00	ng/uL		96
16)	*d8-Naphthalene (IS)	11.00	278	79358	40.00	ng/uL		88
17)	Nitrobenzene-d5 (SUR)	9.35	227	138720	65.19	ng/uL	130	93
31)	*d10-Acenaphthene (IS)	15.39	414	42357	40.00	ng/uL		98
36)	2-Fluorobiphenyl (SUR)	13.87	367	180672	61.95	ng/uL	124	94
51)	*d10-Phenanthrene (IS)	18.98	525	53740	40.00	ng/uL		97
63)	*d12-Chrysene (IS)	25.47	726	33853	40.00	ng/uL		97
65)	Terphenyl-d14 (SUR)	23.08	652	115085	66.40	ng/uL	133	85
71)	*d12-Perylene (IS)	28.70	826	31183	40.00	ng/uL		100

* Compound is ISTD

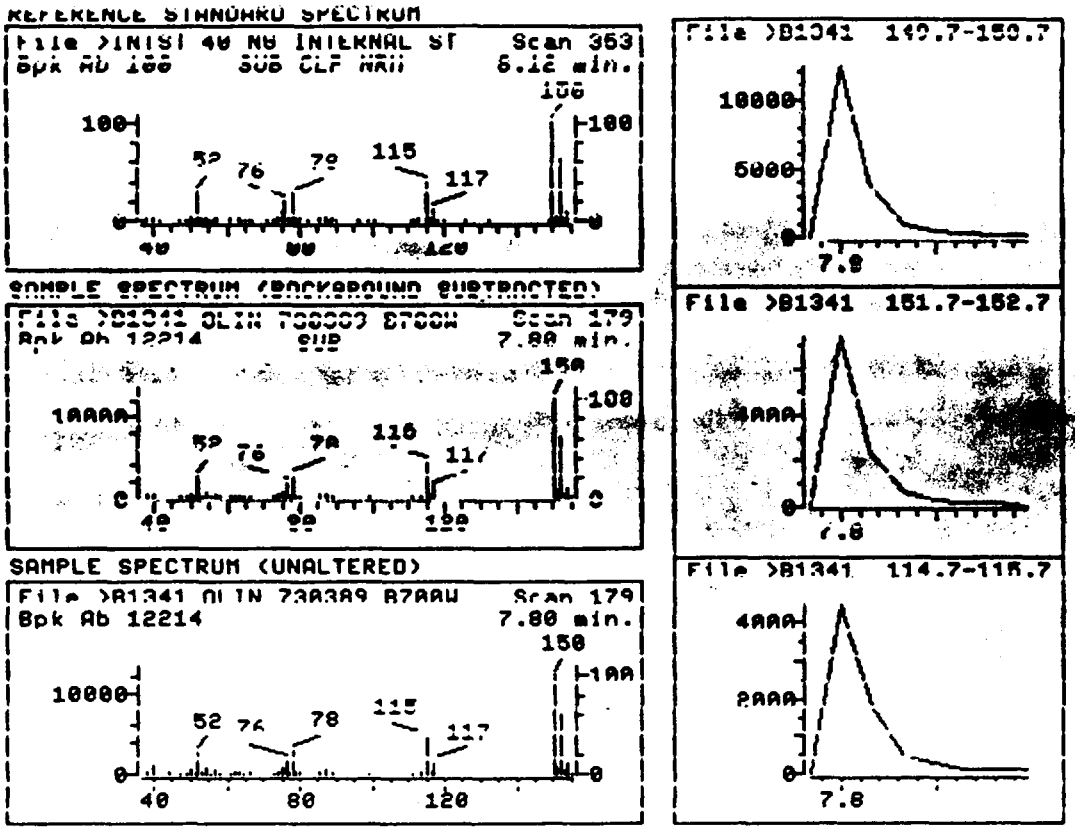
TOTAL ION CHROMATOGRAM



Data File: >B1341::D1 Quant Output File: ^B1341::QT
Name: OLIN 730389 B700W
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

Operator ID: USER6
Quant Time: 871216 12:59
Injected at: 871216 12:17



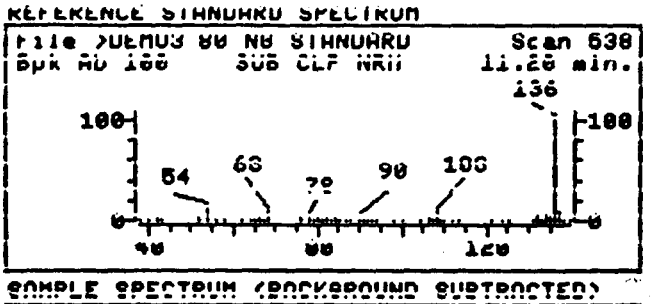
Data File: >B1341::D1
Name: OLIN 730389 B700W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:59
Injected at: 871216 12:17

Quant Output File: ^B1341::QT

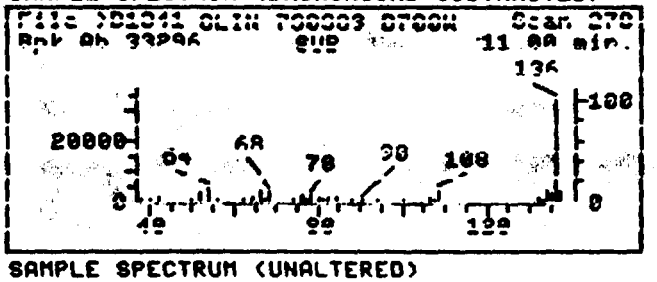
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 179
Retention Time: 7.80 min.
Quant Ion: 152.0
Area: 21062
Concentration: 40.00 ng/uL
q-value: 96

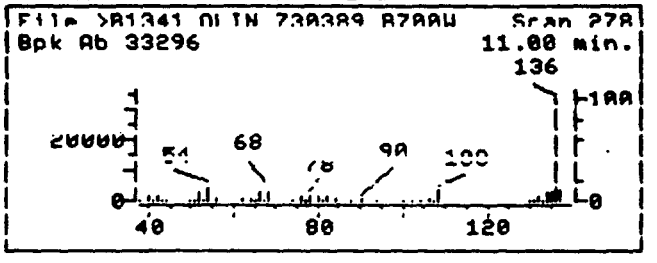
REFERENCE STANDARD SPECTRUM

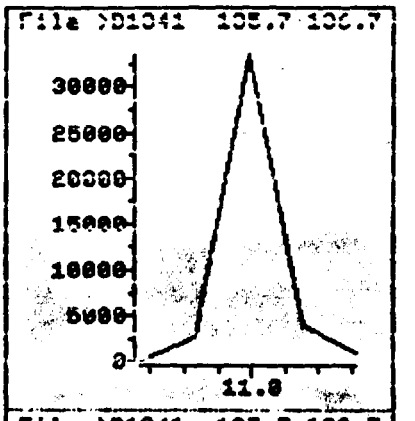


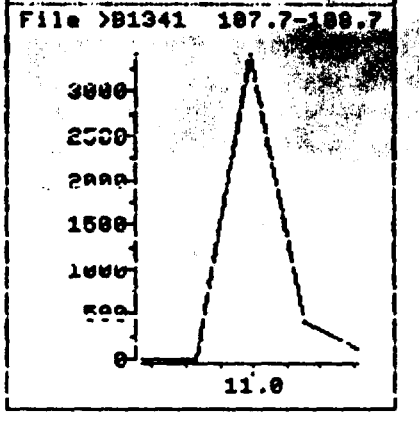
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







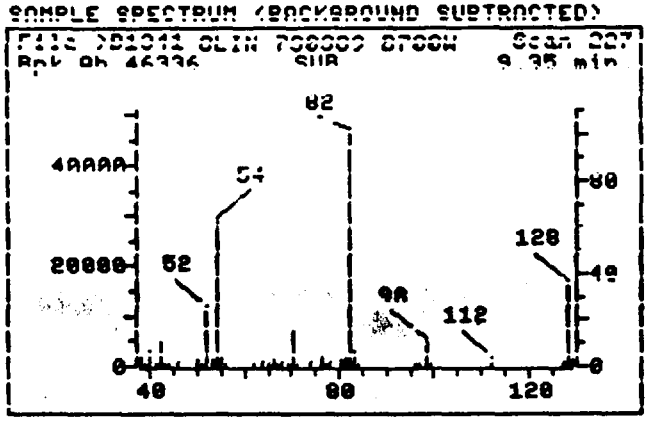
Data File: >B1341::D1
Name: OLIN 730389 B700W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:59
Injected at: 871216 12:17

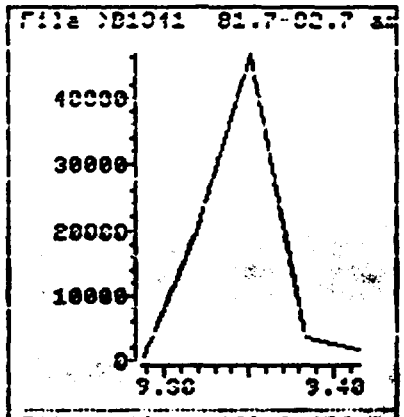
Quant Output File: ^B1341::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

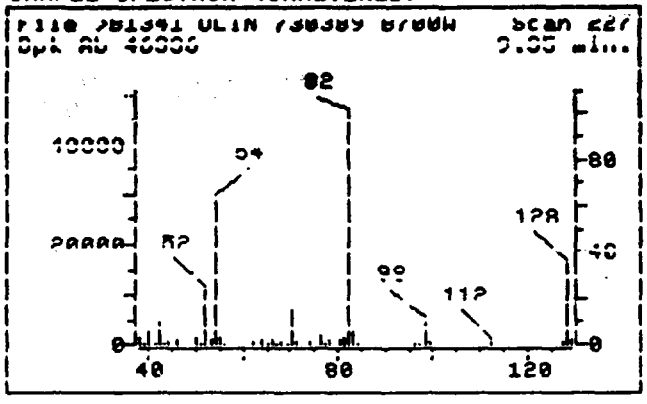
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 278
Retention Time: 11.00 min.
Quant Ion: 136.0
Area: 79358
Concentration: 40.00 ng/uL
q-value: 88

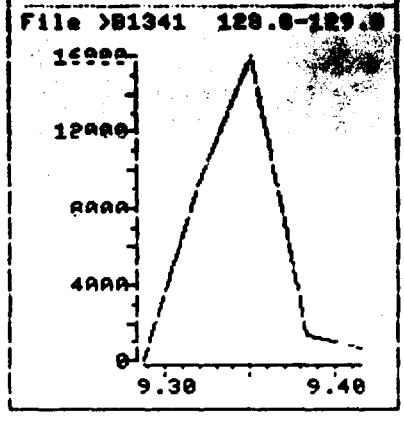
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





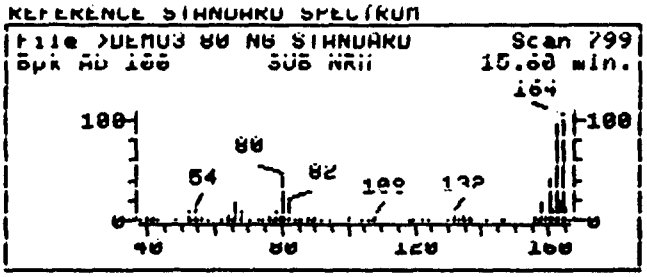
Data File: >B1341::D1
Name: OLIN 730389 B700W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:59
Injected at: 871216 12:17

Quant Output File: ^B1341::QT

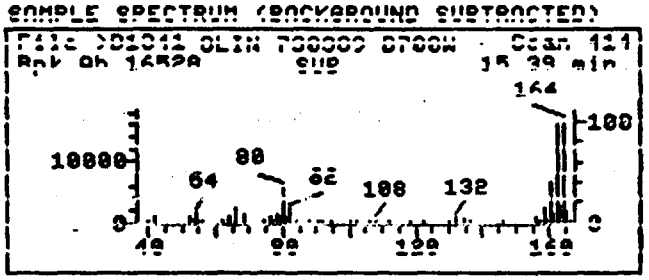
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 227
Retention Time: 9.35 min.
Quant Ion: 82.0
Area: 138720
Concentration: 65.19 ng/uL
q-value: 93

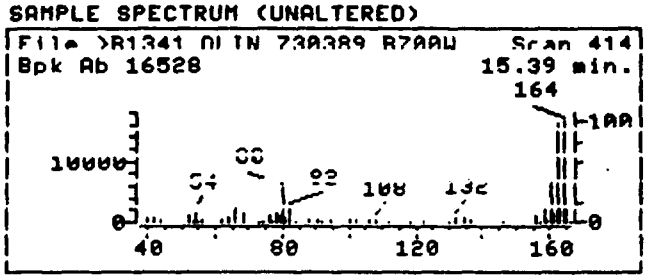
REFERENCE STANDARD SPECTRUM

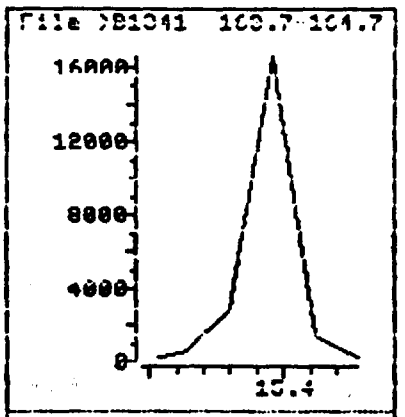


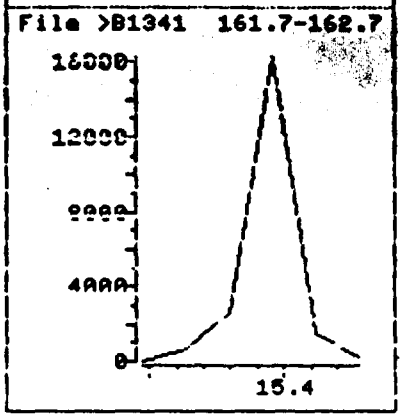
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







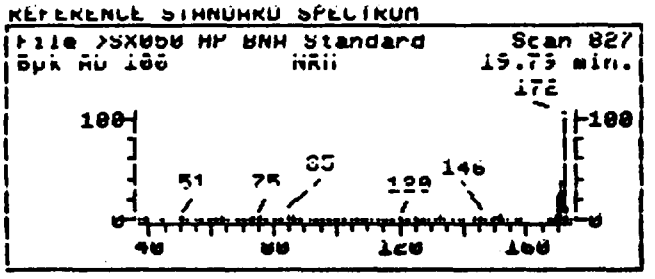
Data File: >B1341::D1
Name: OLIN 730389 B700W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:59
Injected at: 871216 12:17

Quant Output File: ^B1341::QT

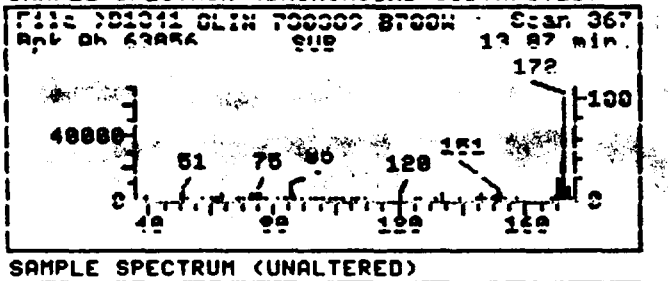
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 414
Retention Time: 15.39 min.
Quant Ion: 164.0
Area: 42357
Concentration: 40.00 ng/uL
q-value: 98

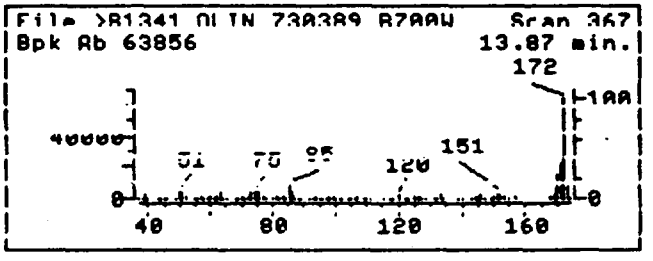
REFERENCE STANDARD SPECTRUM

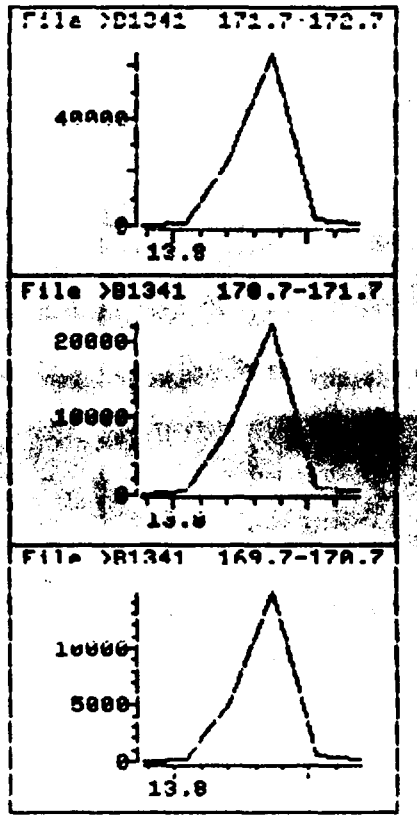


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





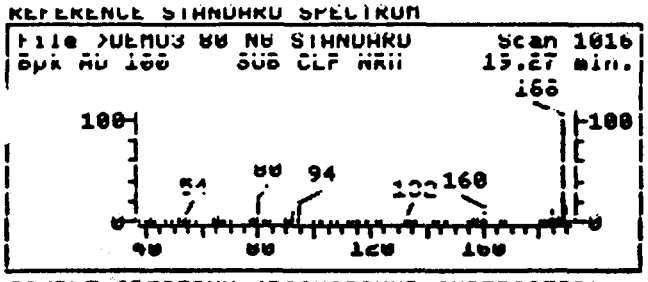
Data File: >B1341::D1
Name: OLIN 730389 B700W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:59
Injected at: 871216 12:17

Quant Output File: ^B1341::QT

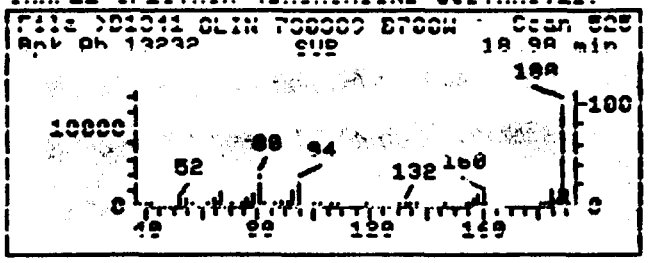
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 367
Retention Time: 13.87 min.
Quant Ion: 172.0
Area: 180672
Concentration: 61.95 ng/uL
q-value: 94

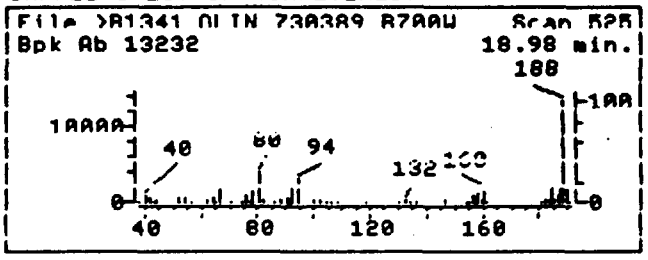
REFERENCE STANDARD SPECTRUM

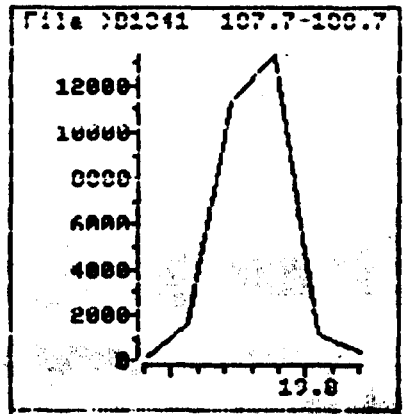


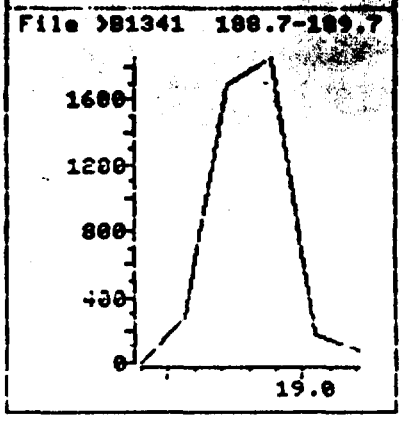
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





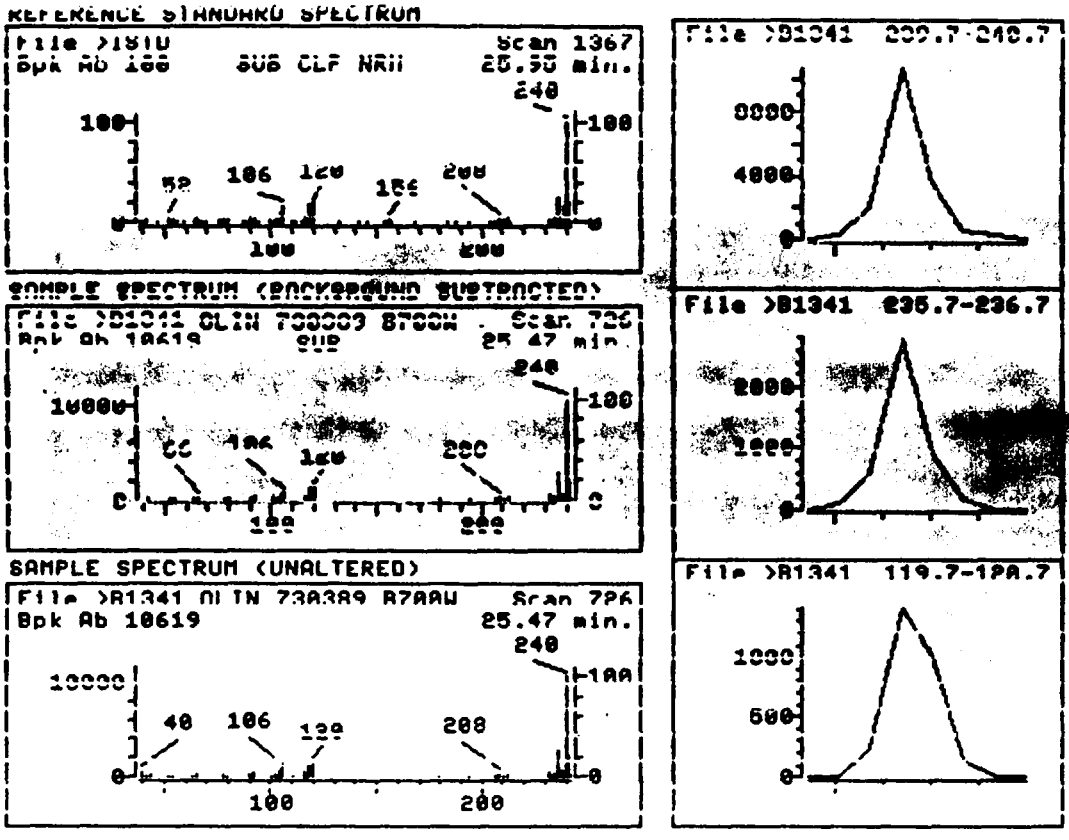


Data File: >B1341::D1
Name: OLIN 730389 B700W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:59
Injected at: 871216 12:17

Quant Output File: ^B1341::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

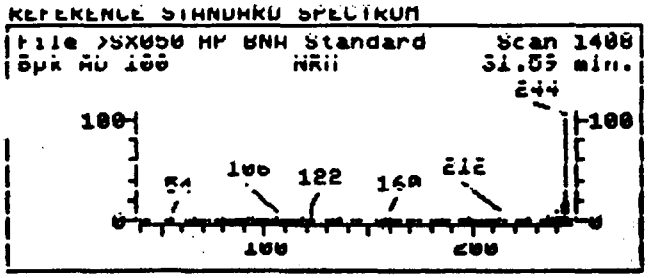
Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 525
Retention Time: 18.98 min.
Quant Ion: 188.0
Area: 53740
Concentration: 40.00 ng/uL
q-value: 97

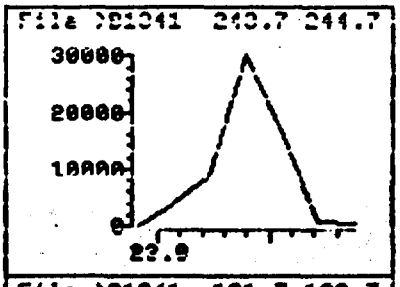


Data File: >B1341::D1 Quant Output File: ^B1341::QT
Name: OLIN 730389 8700W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:59 Quant ID File: ID BDA::L2
Injected at: 871216 12:17 Last Calibration: 871214 13:49

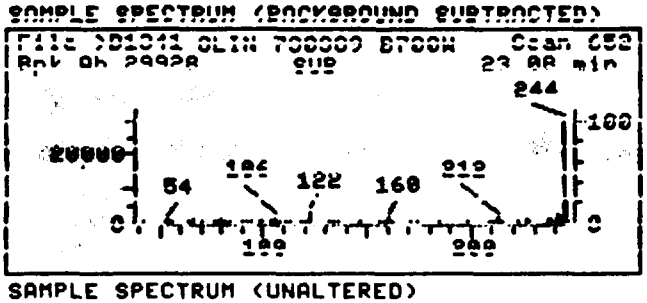
Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 726
Retention Time: 25.47 min.
Quant Ion: 240.0
Area: 33853
Concentration: 40.00 ng/uL
q-value: 97

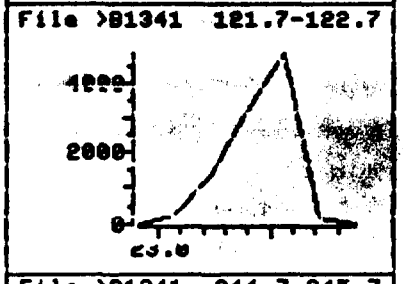
REFERENCE STANDARD SPECTRUM



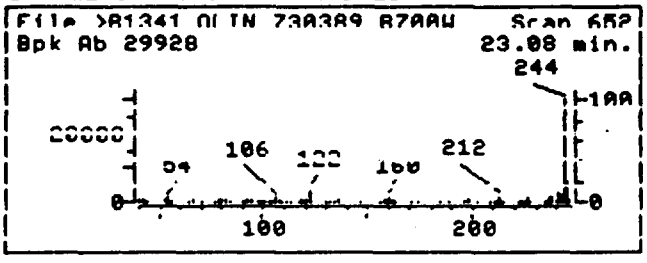


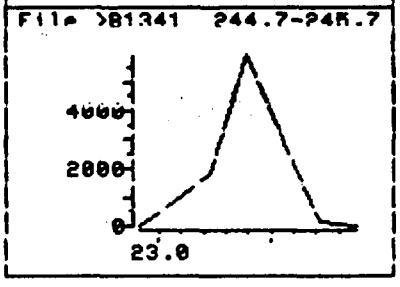
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



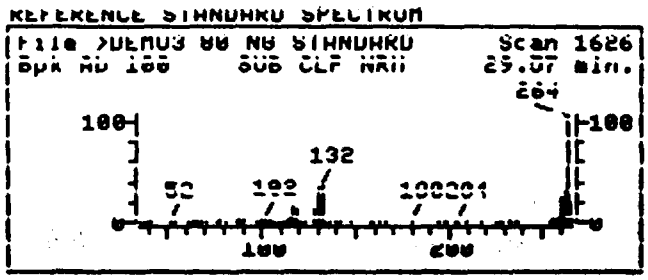


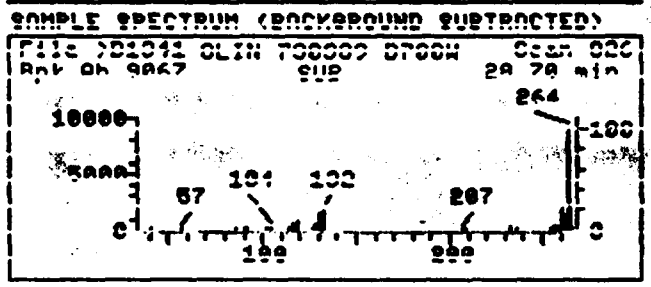
Data File: >B1341::D1
Name: OLIN 730389 B700W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:59
Injected at: 871216 12:17

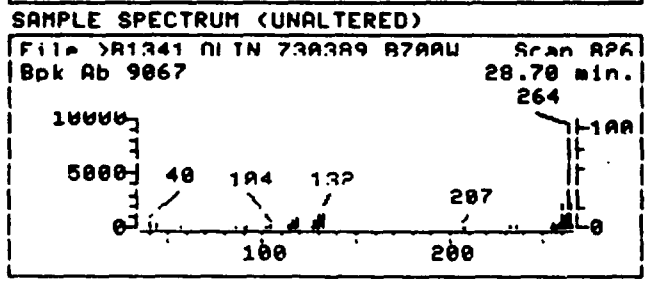
Quant Output File: ^B1341::QT

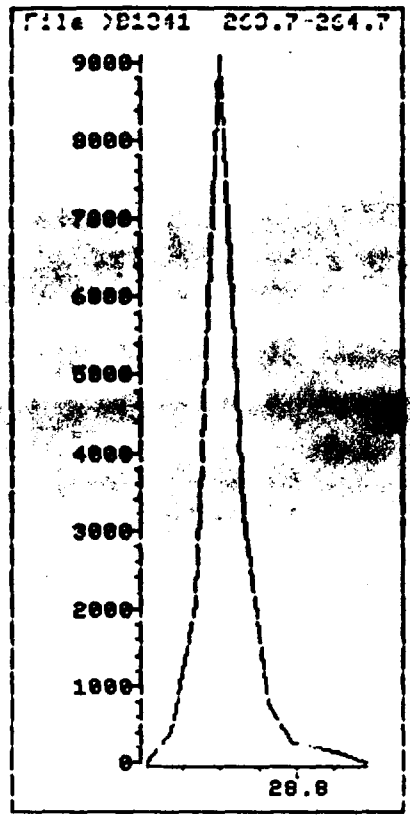
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 652
Retention Time: 23.08 min.
Quant Ion: 244.0
Area: 115085
Concentration: 66.40 ng/uL
q-value: 85









Data File: >B1341::D1
Name: OLIN 730389 B700W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 12:59
Injected at: 871216 12:17

Quant Output File: ^B1341::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 826
Retention Time: 28.70 min.
Quant Ion: 264.0
Area: 31183
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

3 2 00436

This report is preliminary and all results are subject to revision.
A final report will be issued upon completion & verification of all results.

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 80-4006-07
P.O.# :
Order# : 18787

CC: Paul Klotz

BCM Number : A30390
Location : 509
Client ID #:

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

QUANT REPORT

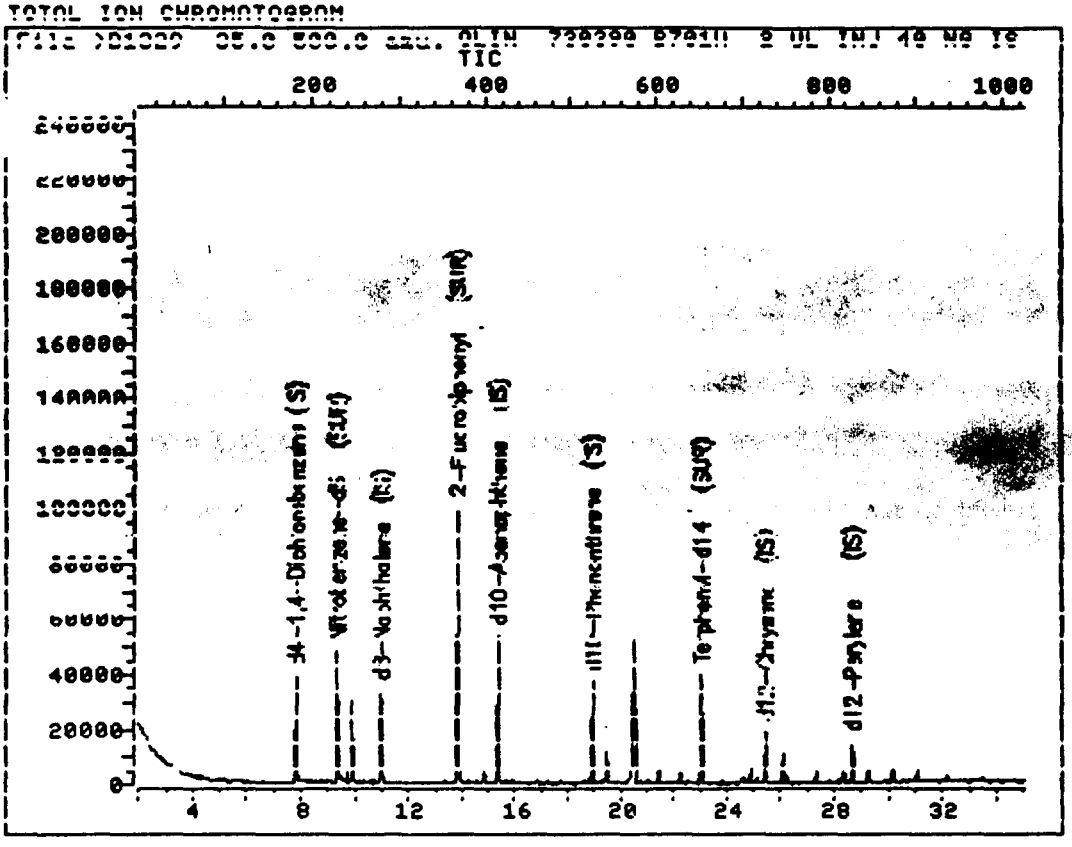
Operator ID: USER6 Quant Rev: 6 Quant Time: 871215 12:30
Output File: ^B1329::QT Injected at: 871215 11:35
Data File: >B1329::D1 Dilution Factor: 1.00000
Name: OLIN 730390 B701W
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.80	181	15925	40.00	ng/uL	98
16)	*d8-Naphthalene (IS)	10.97	279	54360	40.00	ng/uL	86
17)	Nitrobenzene-d5 (SUR)	9.32	228	47508	32.59	ng/uL	97
31)	*d10-Acenaphthene (IS)	15.36	415	31843	40.00	ng/uL	99
36)	2-Fluorobiphenyl (SUR)	13.84	368	71877	32.78	ng/uL	94
51)	*d10-Phenanthrene (IS)	18.94	526	39029	40.00	ng/uL	98
63)	*d12-Chrysene (IS)	25.44	727	24214	40.00	ng/uL	99
65)	Terphenyl-d14 (SUR)	23.05	653	45086	36.37	ng/uL	84
71)	*d12-Perylene (IS)	28.67	827	21942	40.00	ng/uL	100

* Compound is ISTD

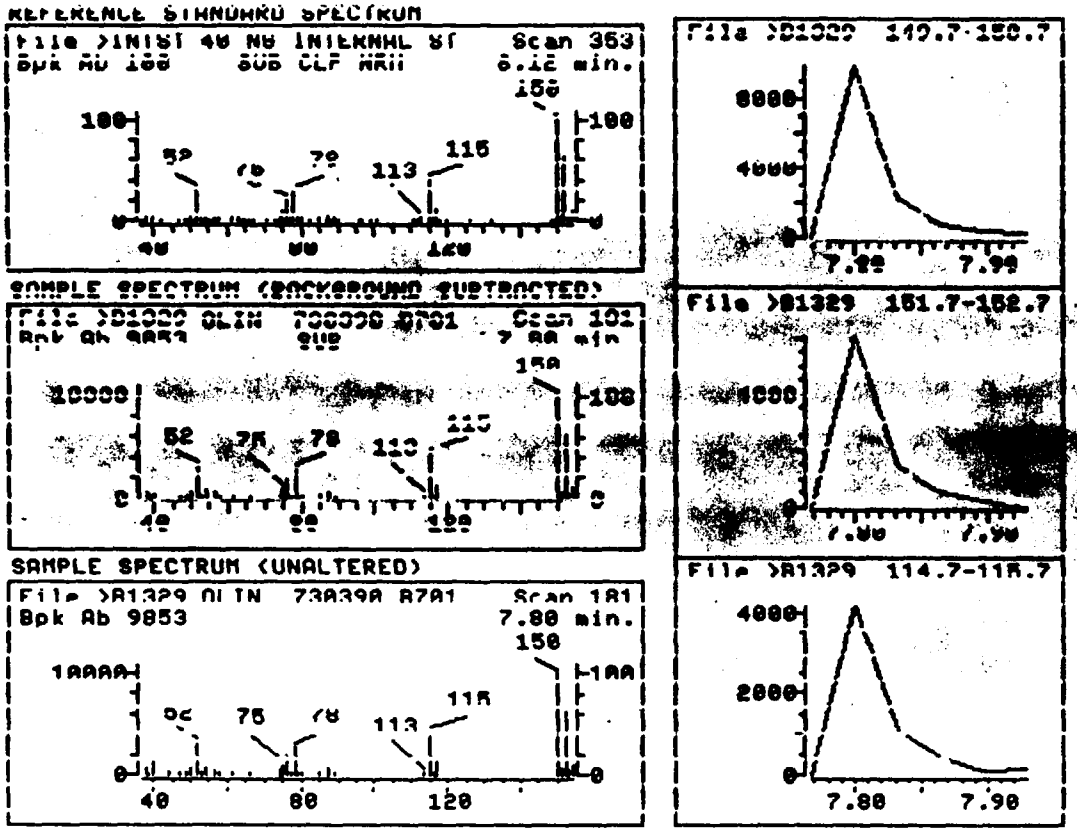
TOTAL ION CHROMATOGRAM



Data File: >B1329::D1 Quant Output File: ^B1329::QT
Name: OLIN 730390 B701W
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

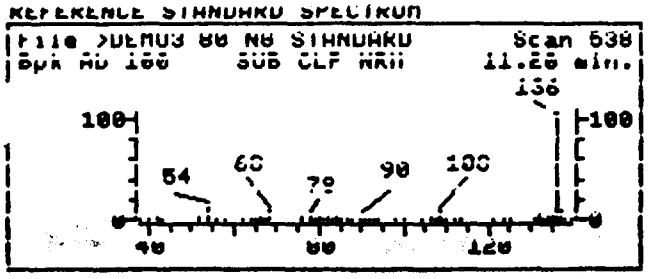
Operator ID: USER6
Quant Time: 871215 12:30
Injected at: 871215 11:35



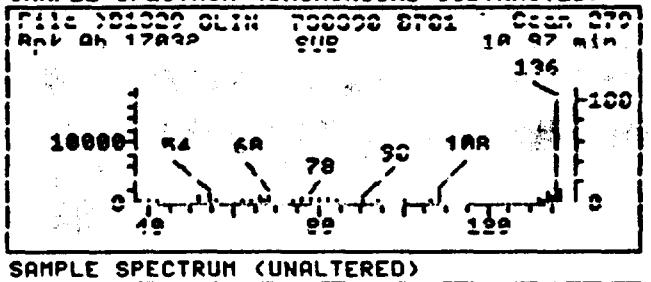
Data File: >B1329::D1 Quant Output File: ^B1329::QT
Name: OLIN 730390 B701W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 12:30 Quant ID File: ID BDA::L2
Injected at: 871215 11:35 Last Calibration: 871214 13:49

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 181
Retention Time: 7.80 min.
Quant Ion: 152.0
Area: 15925
Concentration: 40.00 ng/uL
q-value: 98

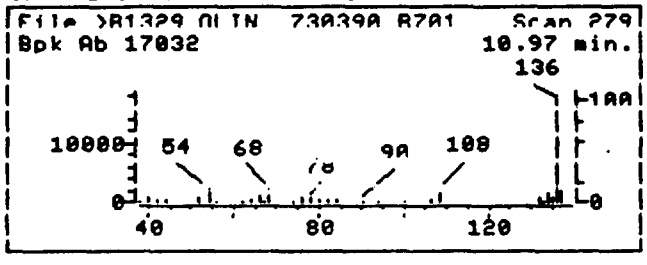
REFERENCE STANDARD SPECTRUM

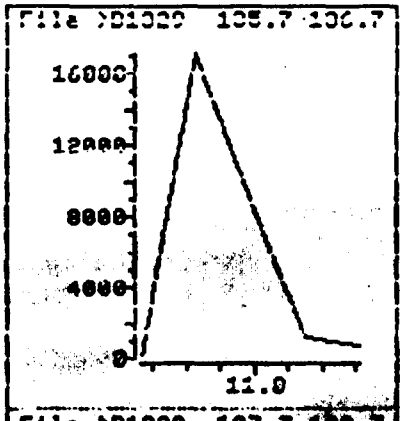


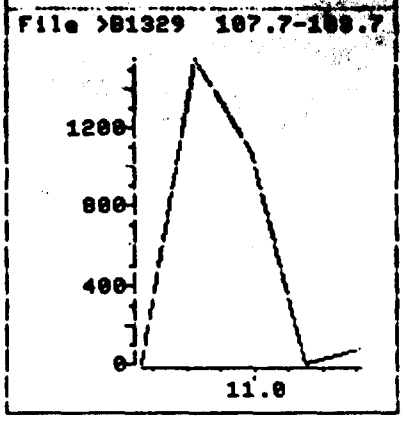
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



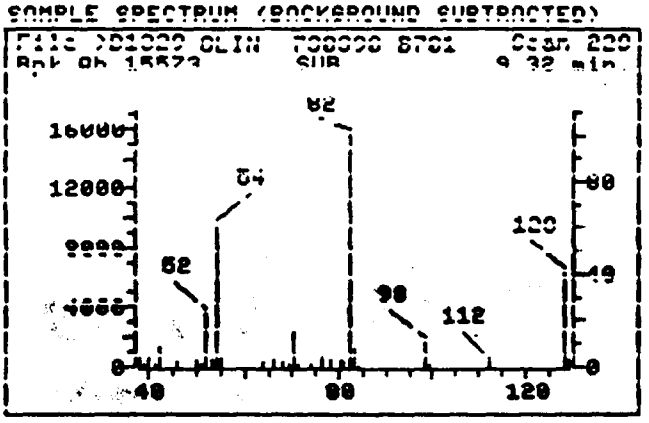


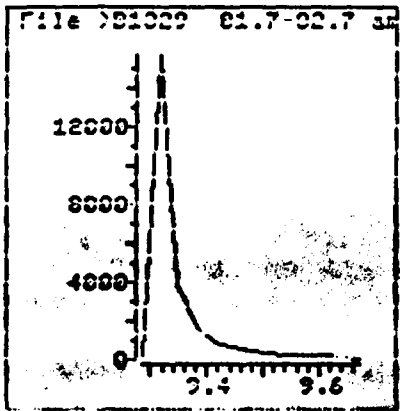


Data File: >B1329::D1 Quant Output File: ^B1329::QT
Name: OLIN 730390 B701W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 12:30 Quant ID File: ID BDA::L2
Injected at: 871215 11:35 Last Calibration: 871214 13:49

Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 279
Retention Time: 10.97 min.
Quant Ion: 136.0
Area: 54360
Concentration: 40.00 ng/uL
q-value: 86

SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





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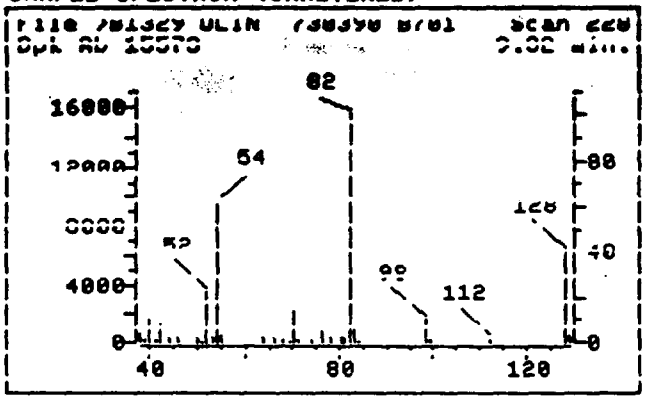
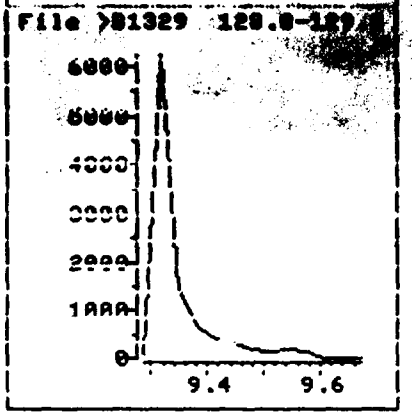


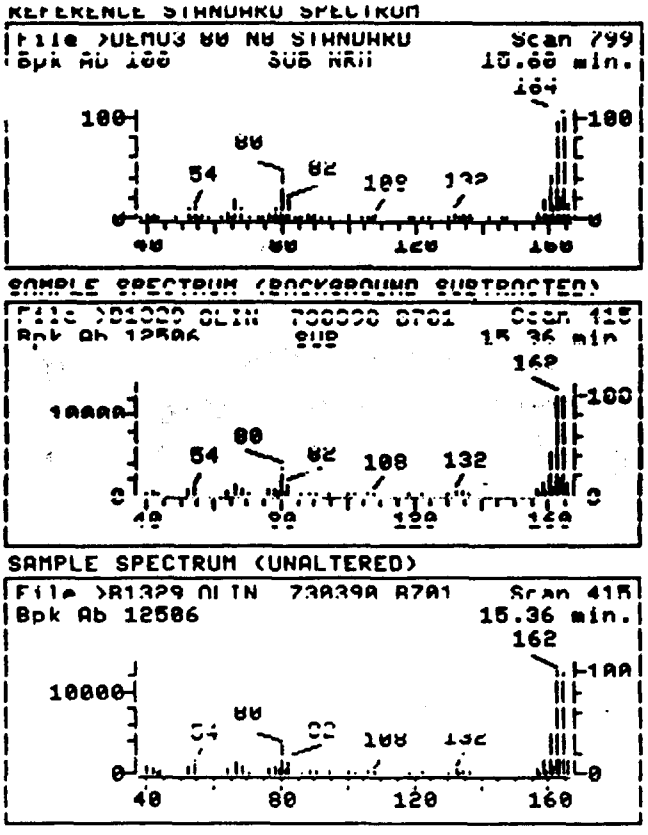


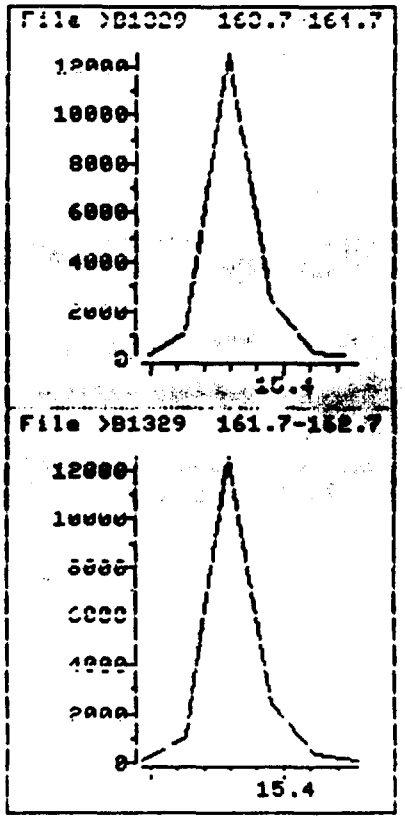
Data File: >B1329::D1
Name: OLIN 730390 B701W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 12:30
Injected at: 871215 11:35

Quant Output File: ^B1329::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 228
Retention Time: 9.32 min.
Quant Ion: 82.0
Area: 47508
Concentration: 32.59 ng/uL
q-value: 97



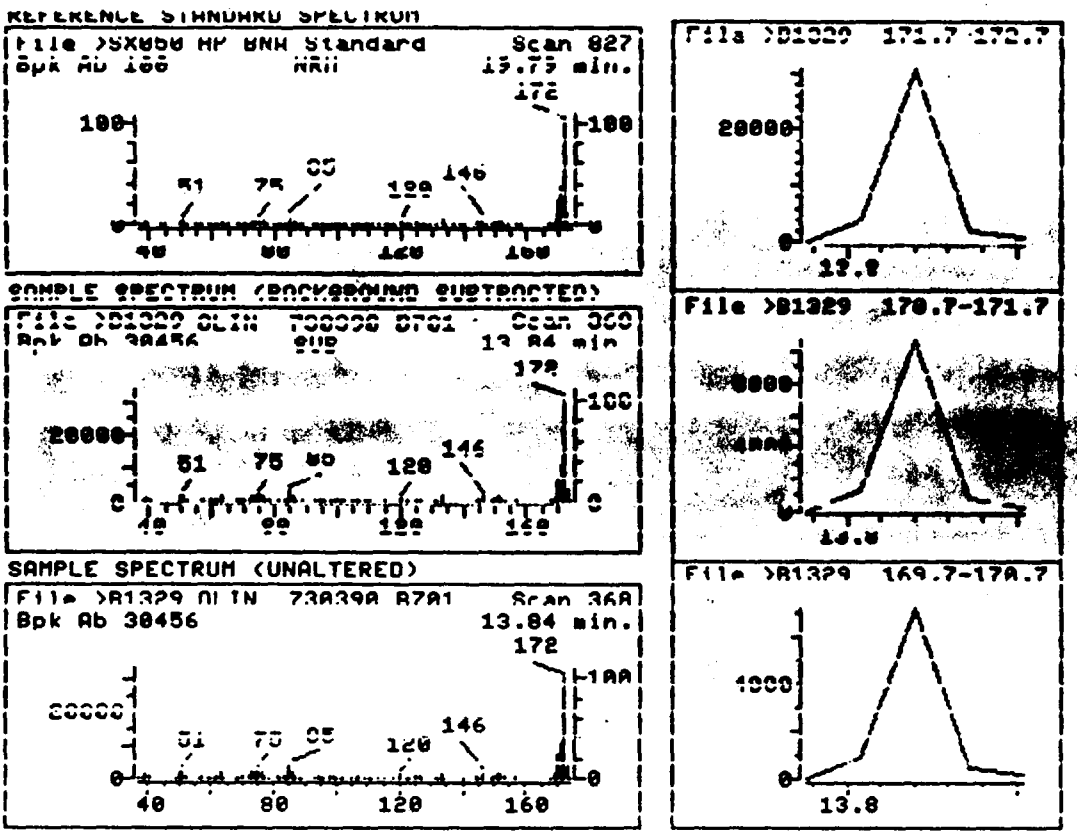


Data File: >B1329::D1
Name: OLIN 730390 B701W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 12:30
Injected at: 871215 11:35

Quant Output File: ^B1329::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 415
Retention Time: 15.36 min.
Quant Ion: 164.0
Area: 31843
Concentration: 40.00 ng/uL
q-value: 99

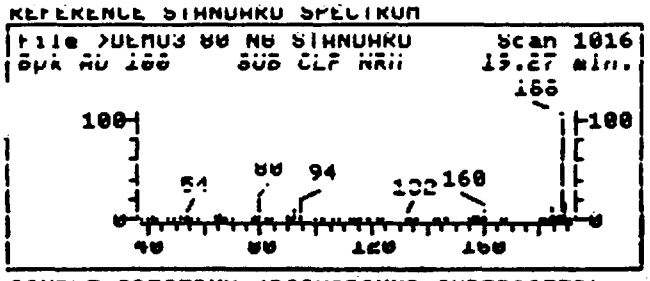


Data File: >B1329::D1
Name: OLIN 730390 B701W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 12:30
Injected at: 871215 11:35

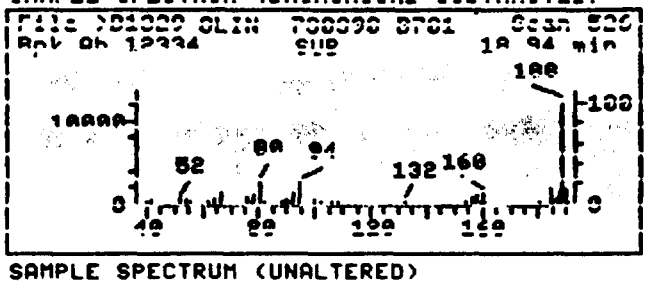
Quant Output File: ^B1329::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 368
Retention Time: 13.84 min.
Quant Ion: 172.0
Area: 71877
Concentration: 32.78 ng/uL
q-value: 94

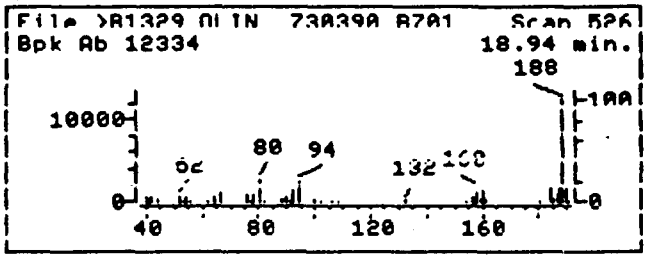
REFERENCE STANDARD SPECTRUM

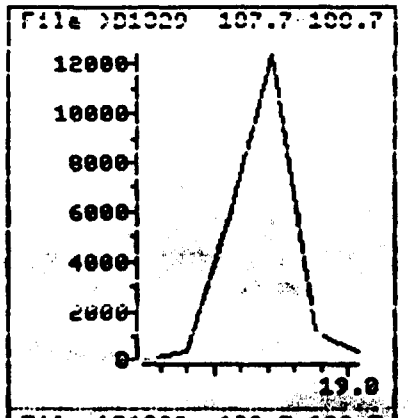


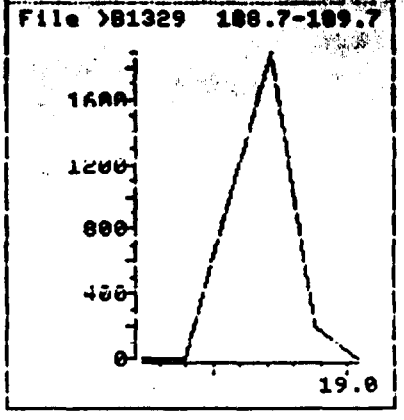
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



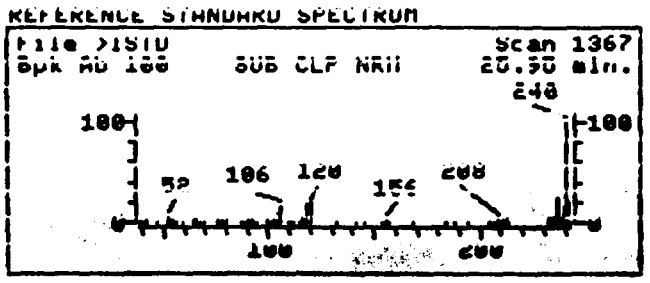


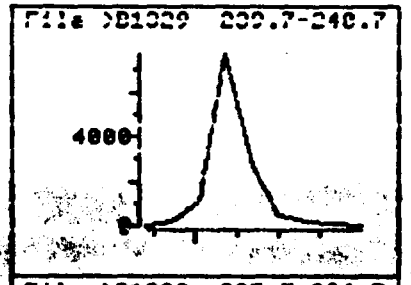


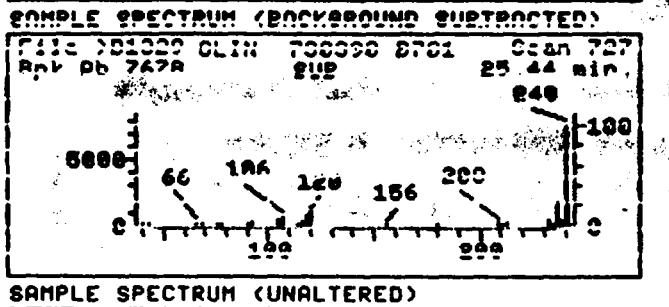
Data File: >B1329::D1
Name: OLIN 730390 B701W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 12:30
Injected at: 871215 11:35

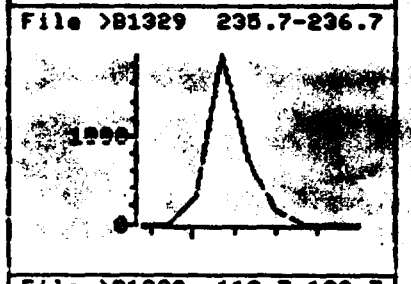
Quant Output File: ^B1329::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

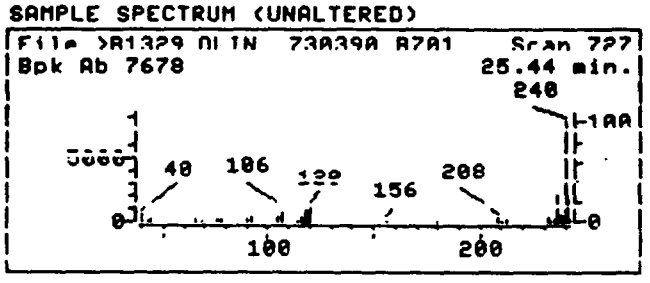
Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 526
Retention Time: 18.94 min.
Quant Ion: 188.0
Area: 39029
Concentration: 40.00 ng/uL
q-value: 98

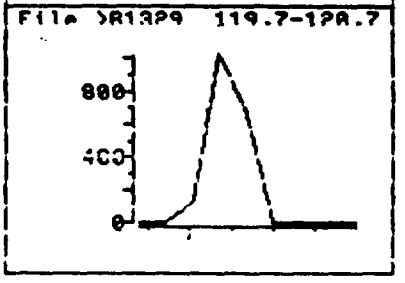












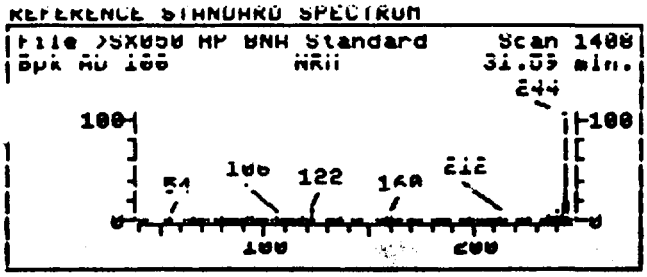
Data File: >B1329::D1
Name: OLIN 730390 B701W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 12:30
Injected at: 871215 11:35

Quant Output File: ^B1329::QT

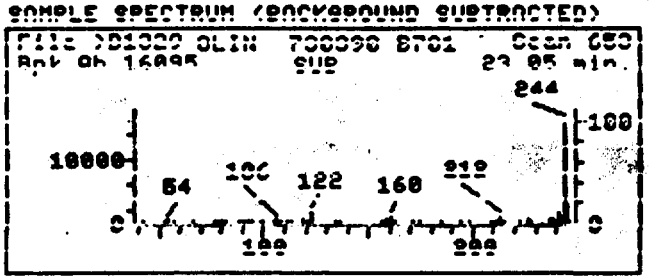
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 727
Retention Time: 25.44 min.
Quant Ion: 240.0
Area: 24214
Concentration: 40.00 ng/uL
q-value: 99

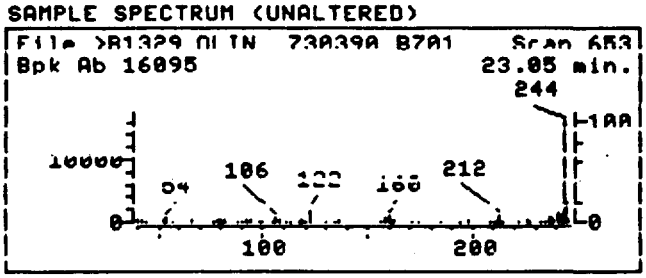
REFERENCE STANDARD SPECTRUM

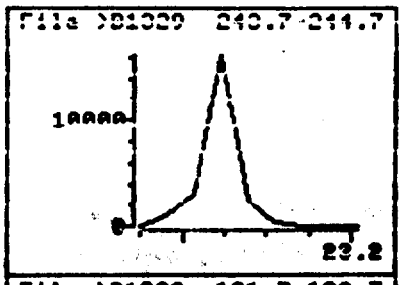


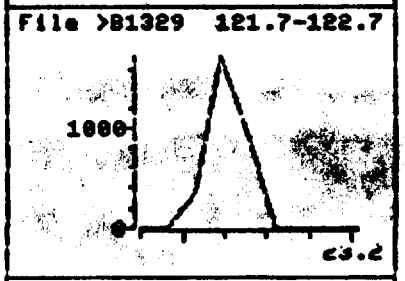
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

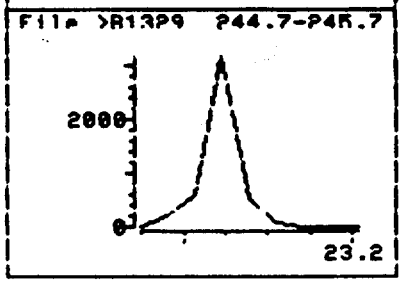


SAMPLE SPECTRUM (UNALTERED)







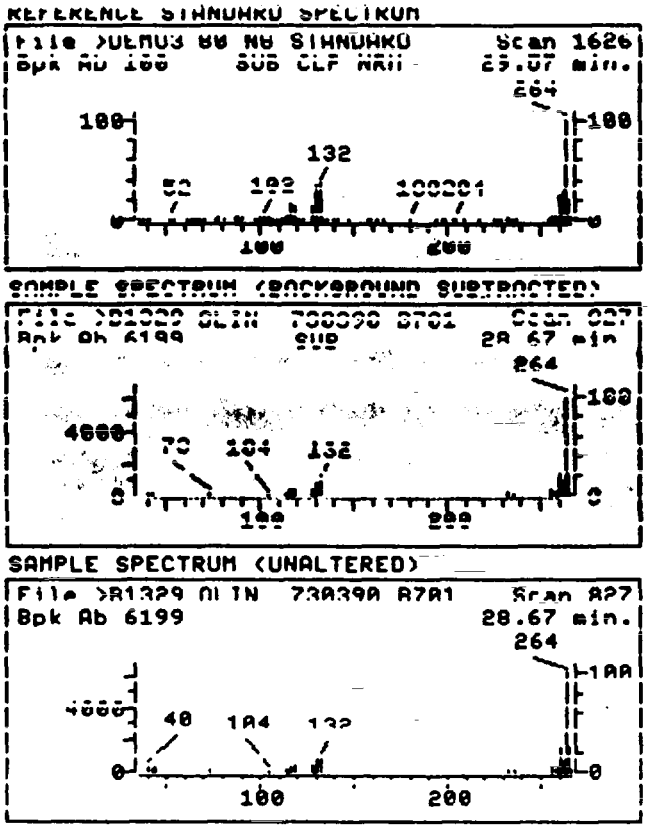


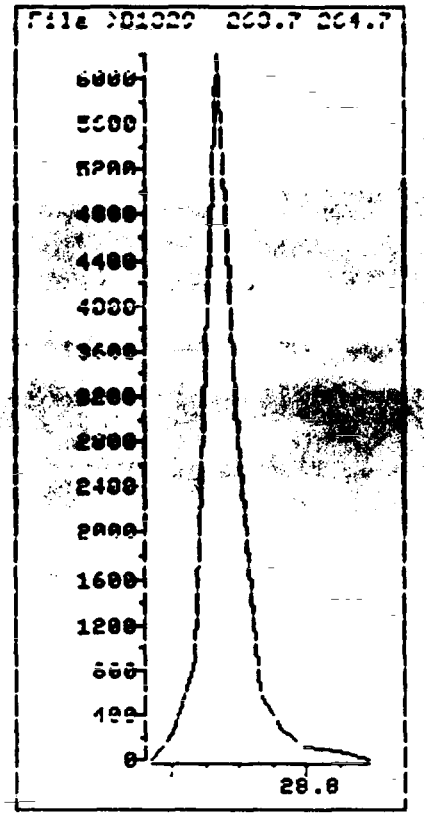
Data File: >B1329::D1
Name: OLIN 730390 B701W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 12:30
Injected at: 871215 11:35

Quant Output File: ^B1329::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 653
Retention Time: 23.05 min.
Quant Ion: 244.0
Area: 45086
Concentration: 36.37 ng/uL
q-value: 84





Data File: >B1329::D1
Name: OLIN 730390 B701W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 12:30
Injected at: 871215 11:35

Quant Output File: ^B1329::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 827
Retention Time: 28.67 min.
Quant Ion: 264.0
Area: 21942
Concentration: 40.00 ng/uL
q-value: 100

QUANT REPORT

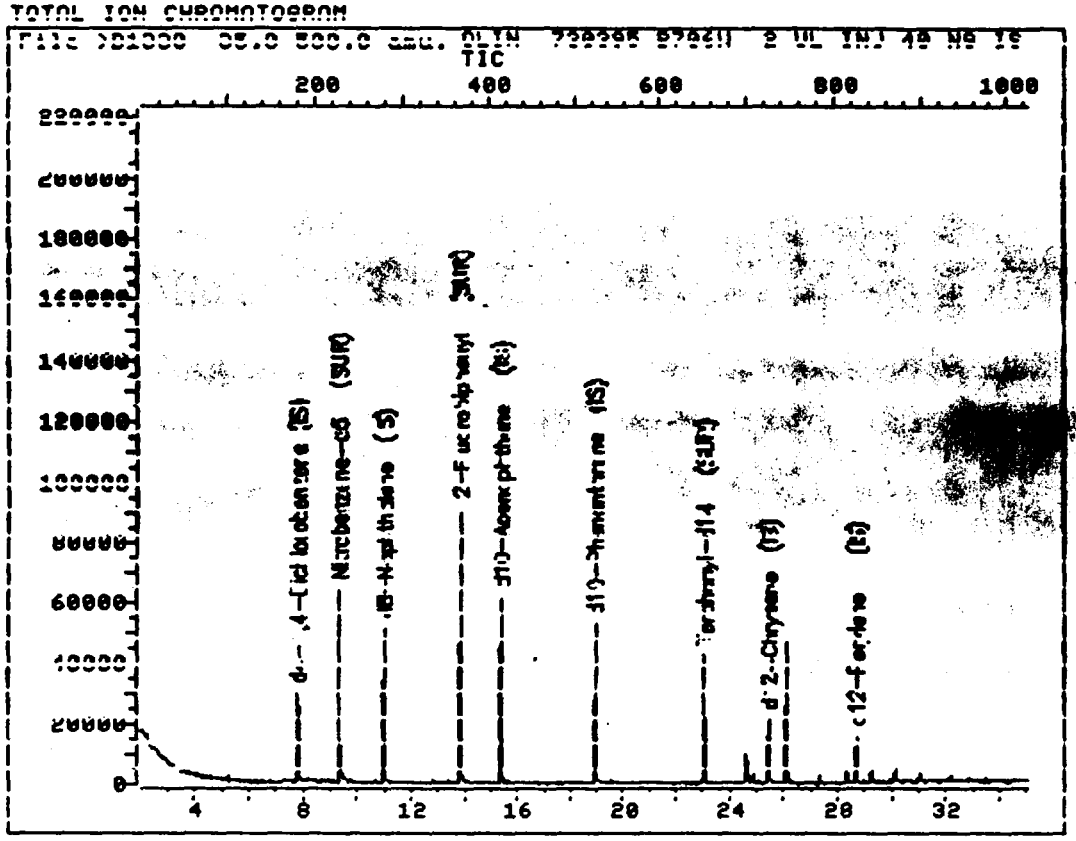
erator ID: USER6 Quant Rev: 6 Quant Time: 871215 13:10
tput File: ^B1330::QT Injected at: 871215 12:33
Data File: >B1330::D1 Dilution Factor: 1.00000
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.80	180	16317	40.00	ng/uL	96
16)	*d8-Naphthalene (IS)	11.00	279	59540	40.00	ng/uL	93
17)	Nitrobenzene-d5 (SUR)	9.32	227	63183	39.58	ng/uL	90
31)	*d10-Acenaphthene (IS)	15.39	415	38366	40.00	ng/uL	96
36)	2-Fluorobiphenyl (SUR)	13.84	367	75559	28.60	ng/uL	94
51)	*d10-Phenanthrene (IS)	18.95	525	52591	40.00	ng/uL	98
63)	*d12-Chrysene (IS)	25.47	727	25595	40.00	ng/uL	94
65)	Terphenyl-d14 (SUR)	23.08	653	51991	39.67	ng/uL	95
71)	*d12-Perylene (IS)	28.70	827	21657	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

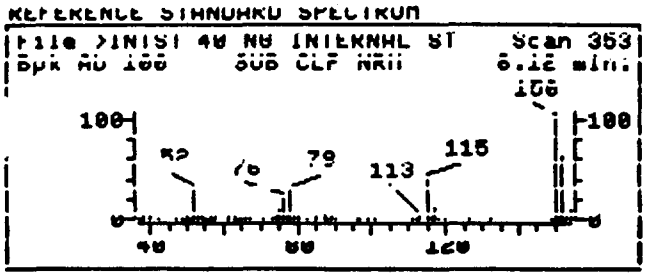


Data File: >B1330::DI Quant Output File: ^B1330::QT
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS

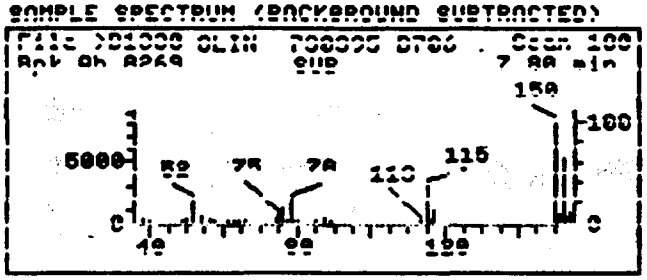
Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

Operator ID: USER6
Quant Time: 871215 13:10
Injected at: 871215 12:33

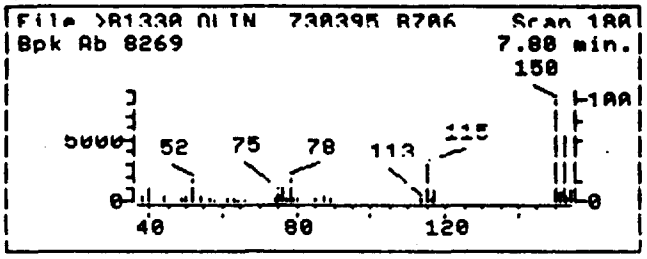
REFERENCE STANDARD SPECTRUM

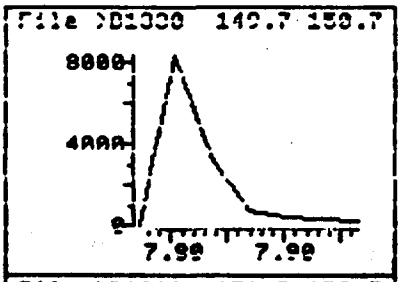


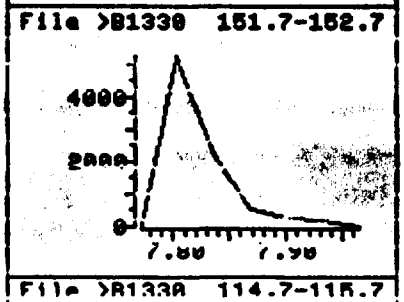
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

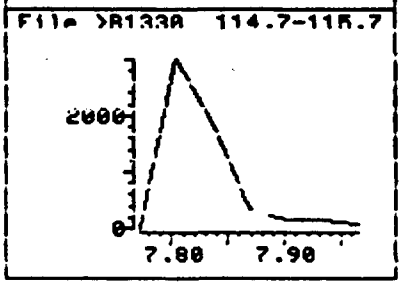


SAMPLE SPECTRUM (UNALTERED)





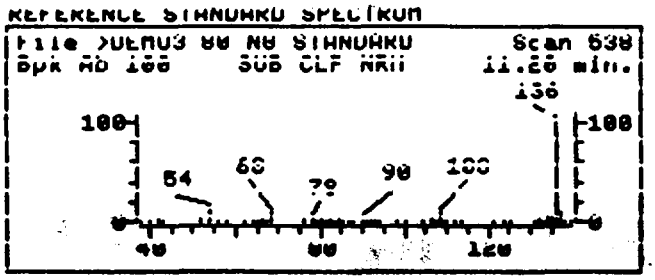


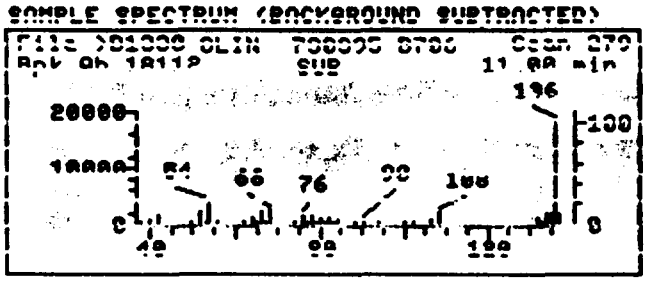


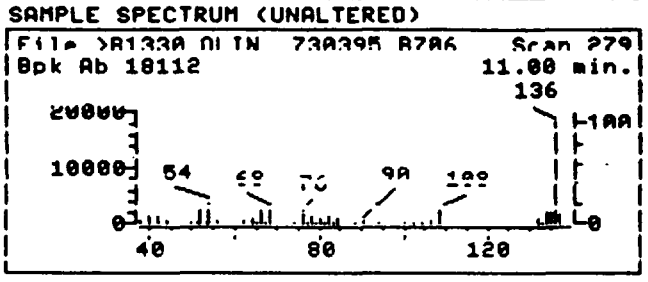
Data File: >B1330::D1
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10
Injected at: 871215 12:33

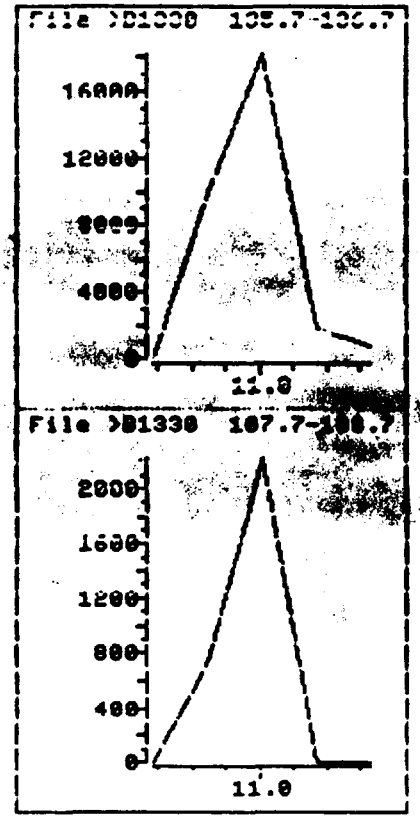
Quant Output File: ^B1330::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 180
Retention Time: 7.80 min.
Quant Ion: 152.0
Area: 16317
Concentration: 40.00 ng/uL
q-value: 96









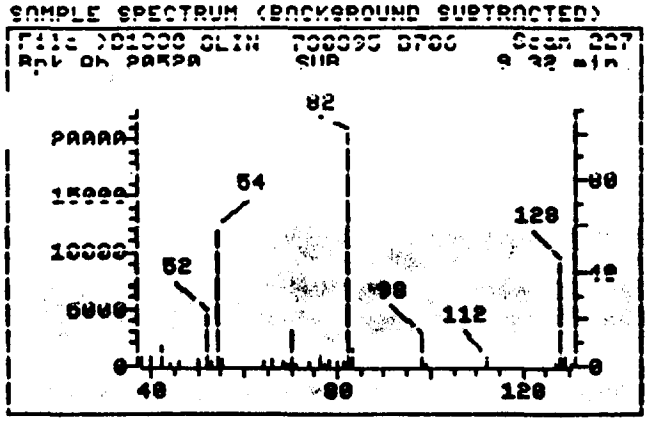
Data File: >B1330::D1
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10
Injected at: 871215 12:33

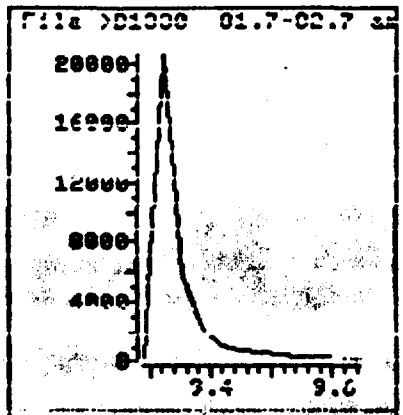
Quant Output File: ^B1330::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 279
Retention Time: 11.00 min.
Quant Ion: 136.0
Area: 59540
Concentration: 40.00 ng/uL
q-value: 93

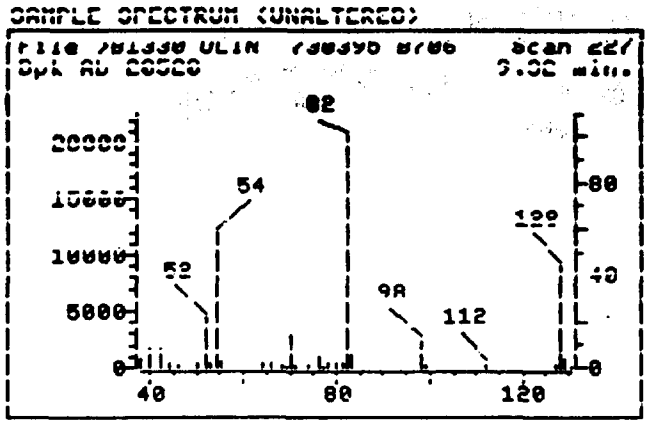
3 2 00444

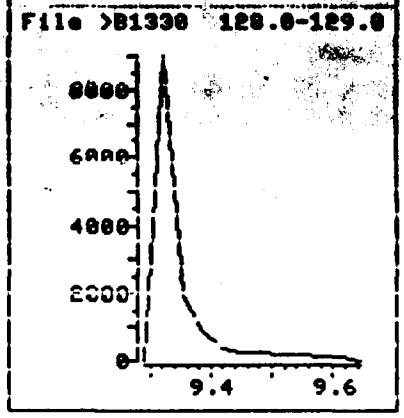
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



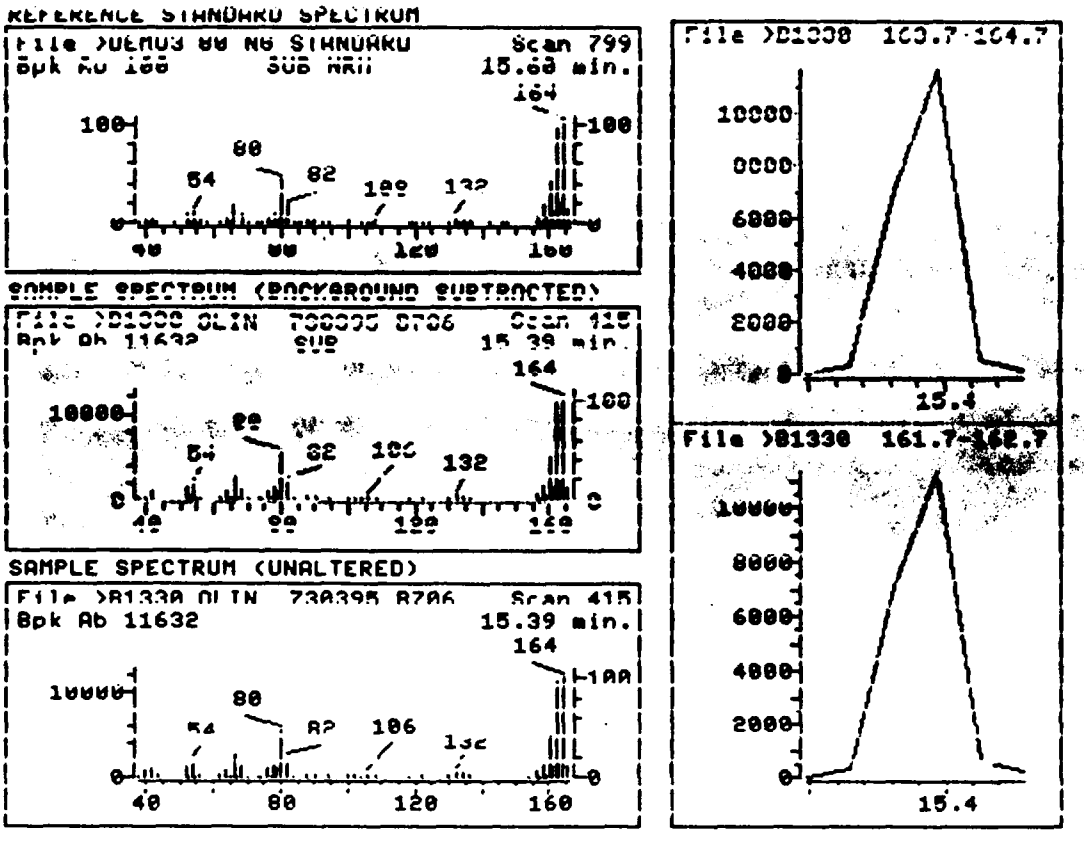


Data File: >B1330::D1
Name: OLIN 730395 8706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10
Injected at: 871215 12:33

Quant Output File: ^B1330::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 227
Retention Time: 9.32 min.
Quant Ion: 82.0
Area: 63183
Concentration: 39.58 ng/uL
q-value: 90



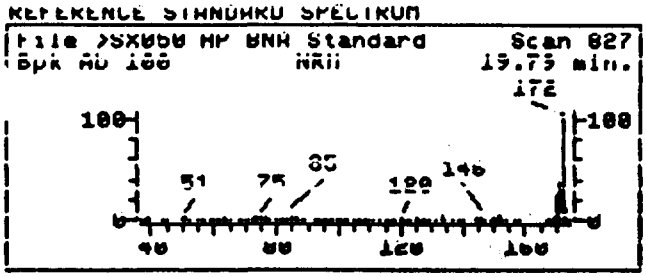
Data File: >B1330::D1
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10
Injected at: 871215 12:33

Quant Output File: ^B1330::QT

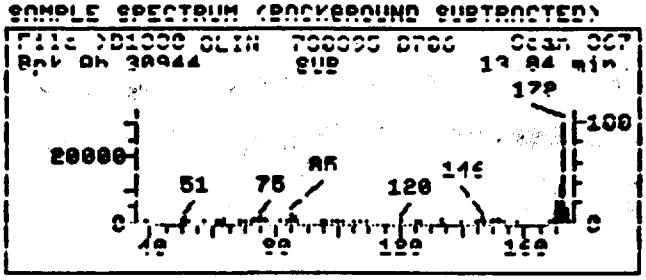
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 415
Retention Time: 15.39 min.
Quant Ion: 164.0
Area: 38366
Concentration: 40.00 ng/uL
q-value: 96

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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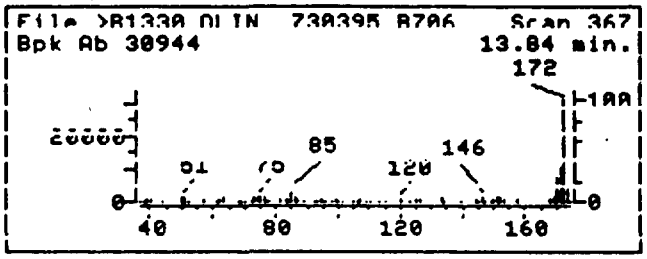
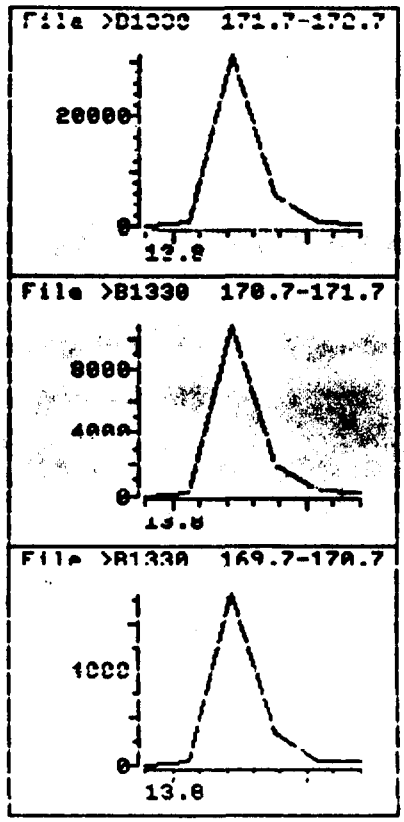




Data File: >B1330::D1
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10
Injected at: 871215 12:33

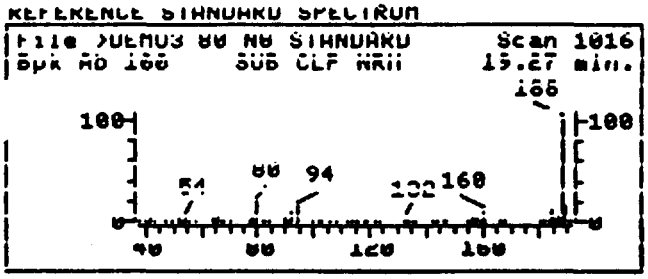
Quant Output File: ^B1330::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

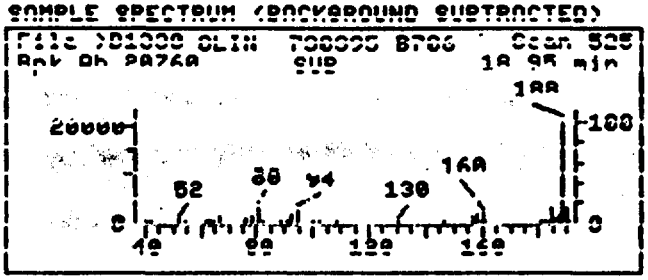
Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 367
Retention Time: 13.84 min.
Quant Ion: 172.0
Area: 75559
Concentration: 28.60 ng/uL
q-value: 94

3 2 00446

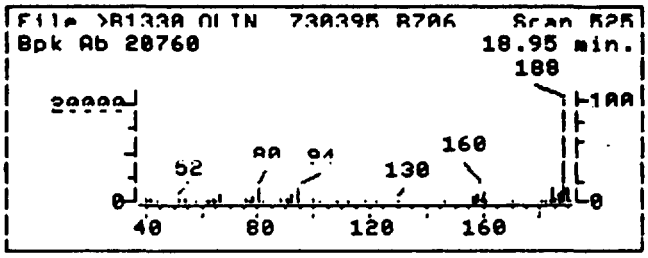
REFERENCE STANDARD SPECTRUM

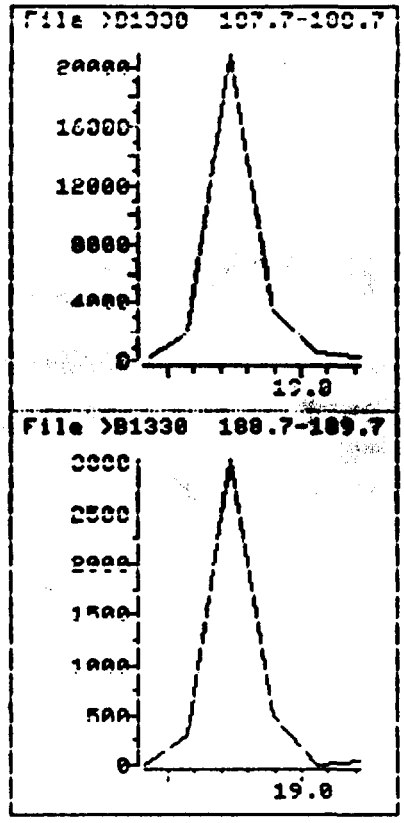


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

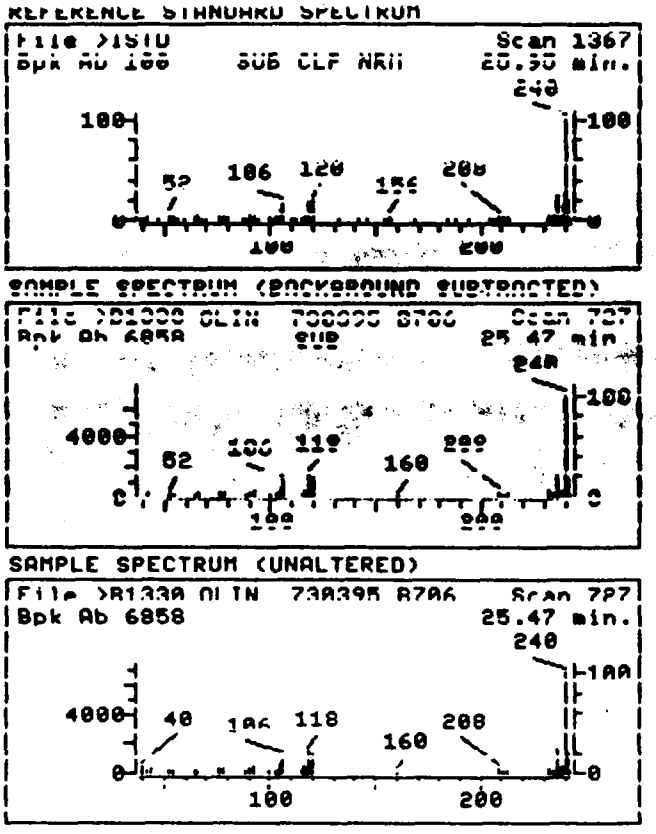


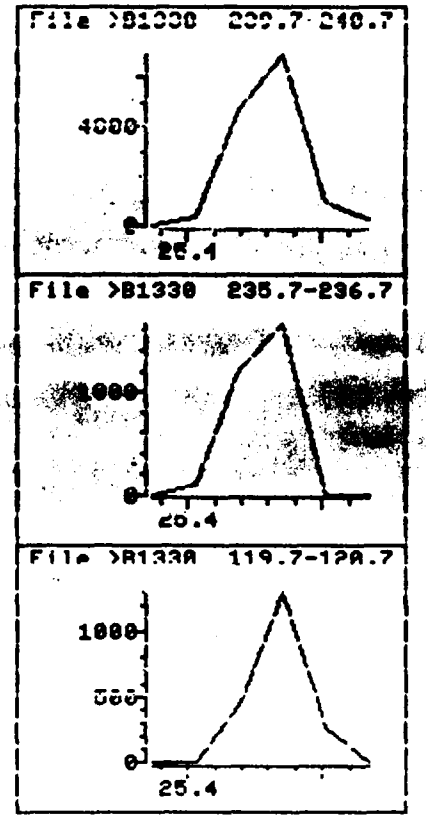


Data File: >B1330::D1
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10
Injected at: 871215 12:33

Quant Output File: ^B1330::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 525
Retention Time: 18.95 min.
Quant Ion: 188.0
Area: 52591
Concentration: 40.00 ng/uL
q-value: 98





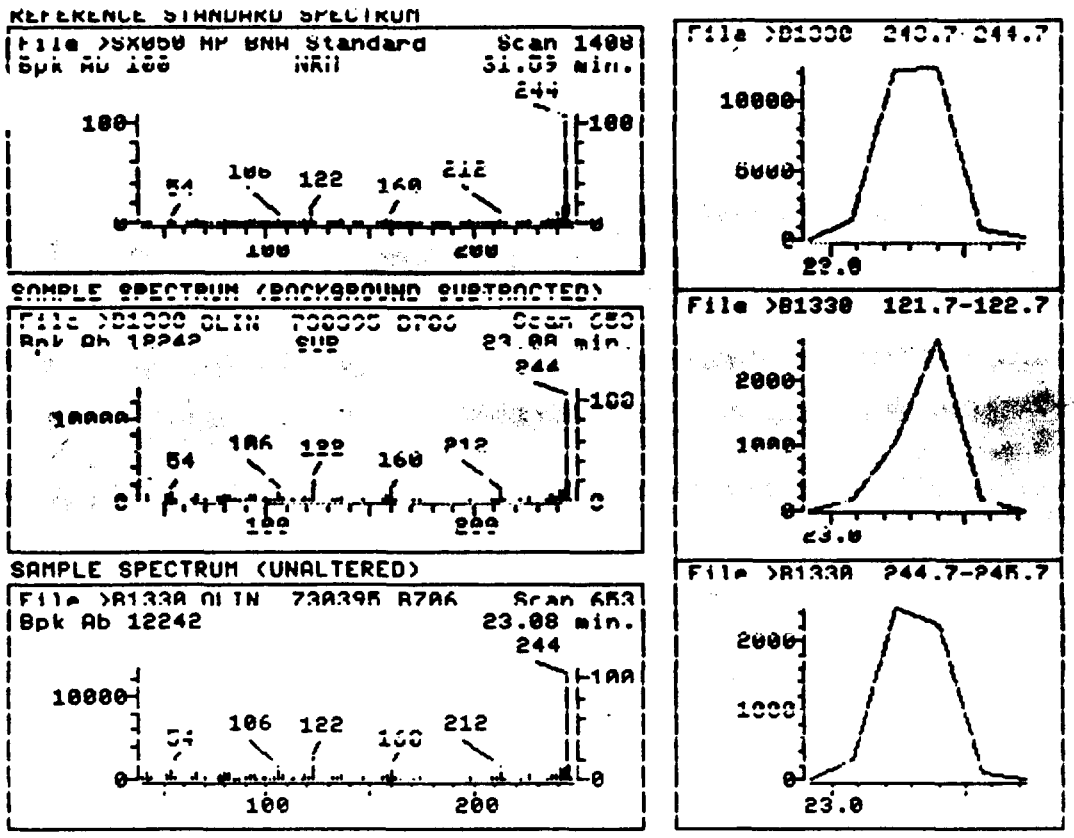
Data File: >B1330::D1
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10
Injected at: 871215 12:33

Quant Output File: ^B1330::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 727
Retention Time: 25.47 min.
Quant Ion: 240.0
Area: 25595
Concentration: 40.00 ng/uL
q-value: 94

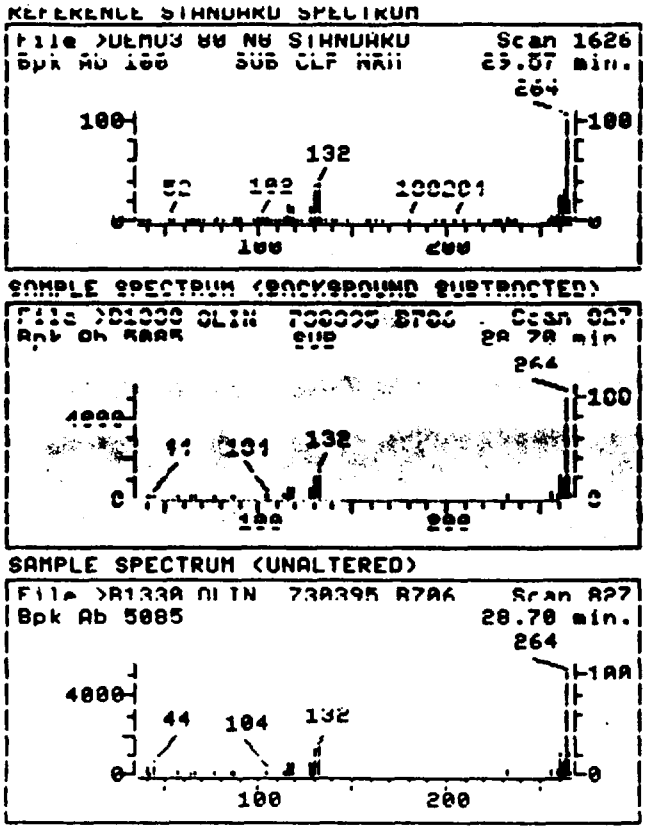
3 2 00447

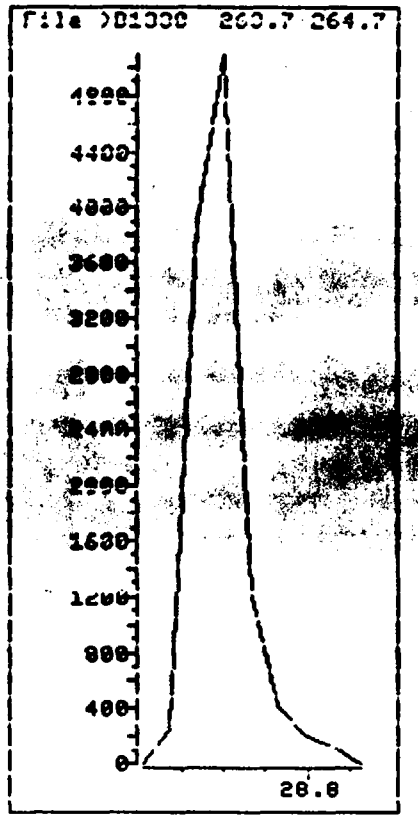


Data File: >B1330::D1
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10
Injected at: 871215 12:33

Quant Output File: ^B1330::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 653
Retention Time: 23.08 min.
Quant Ion: 244.0
Area: 51991
Concentration: 39.67 ng/uL
q-value: 95





Data File: >B1330::D1
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10
Injected at: 871215 12:33

Quant Output File: ^B1330::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 827
Retention Time: 28.70 min.
Quant Ion: 264.0
Area: 21657
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-87
P.O.# :
Order# : 18787

CC: Paul Klotz

BCM Number : A30391
Location : 696
Client ID :

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,2-Dichlorobenzene	< 10	ug/l	
1,4-Dichlorobenzene	< 10	ug/l	
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

QUANT REPORT

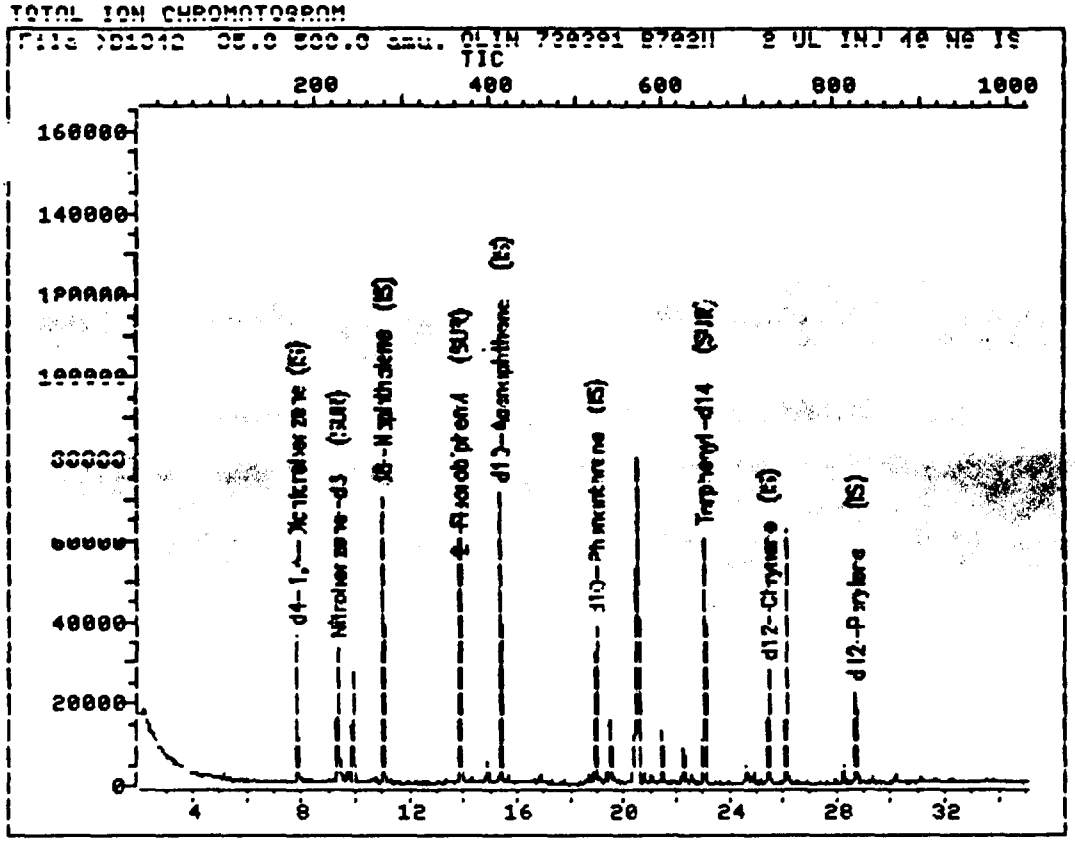
Operator ID: USER6 Quant Rev: 6 Quant Time: 871216 13:42
Output File: ^B1342::QT Injected at: 871216 13:03
Data File: >B1342::D1 Dilution Factor: 1.00000
Name: OLIN 730391 B702W
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.80	179	19119	40.00	ng/uL	97
16)	*d8-Naphthalene (IS)	11.00	278	68381	40.00	ng/uL	89
17)	Nitrobenzene-d5 (SUR)	9.32	226	50698	27.65	ng/uL 55.3	81
31)	*d10-Acenaphthene (IS)	15.39	414	38539	40.00	ng/uL	96
36)	2-Fluorobiphenyl (SUR)	13.84	366	70988	26.75	ng/uL 53.5	92
51)	*d10-Phenanthrene (IS)	18.98	525	51034	40.00	ng/uL	96
63)	*d12-Chrysene (IS)	25.47	726	36984	40.00	ng/uL	97
65)	Terphenyl-d14 (SUR)	23.08	652	72495	38.29	ng/uL 76.6	85
71)	*d12-Perylene (IS)	28.70	826	31787	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

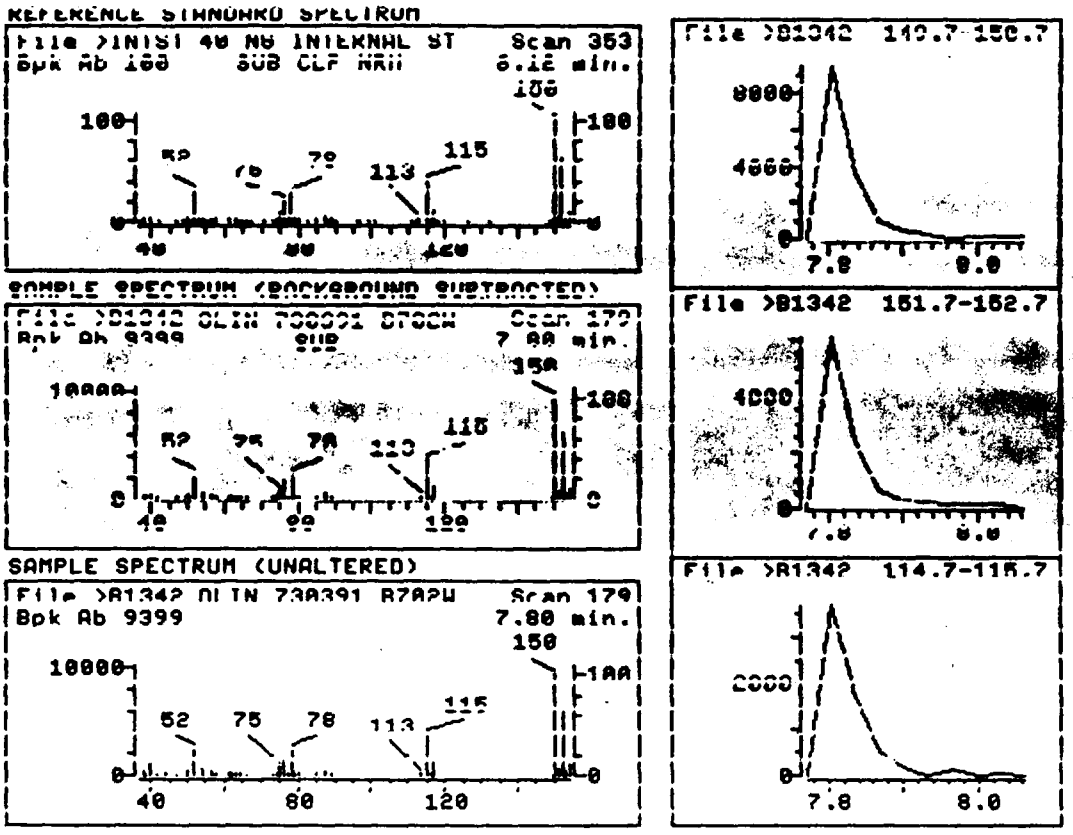


3 2 00449

Data File: >B1342::D1 Quant Output File: ^B1342::QT
Name: OLIN 730391 B702W
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

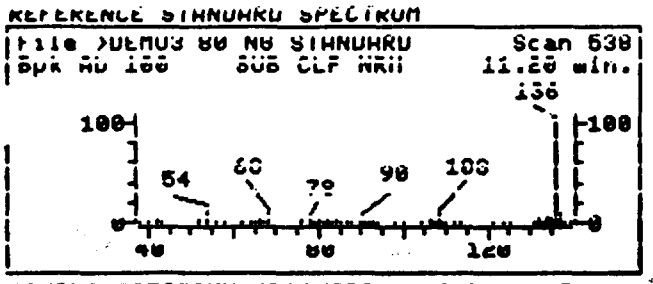
Operator ID: USER6
Quant Time: 871216 13:42
Injected at: 871216 13:03

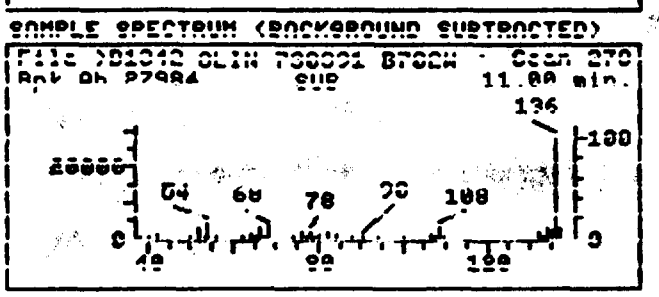


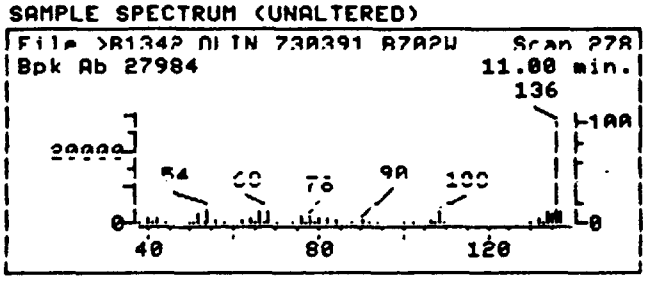
Data File: >B1342::D1 Quant Output File: ^B1342::QT
Name: OLIN 730391 B702W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 13:42 Quant ID File: ID BDA::L2
Injected at: 871216 13:03 Last Calibration: 871214 13:49

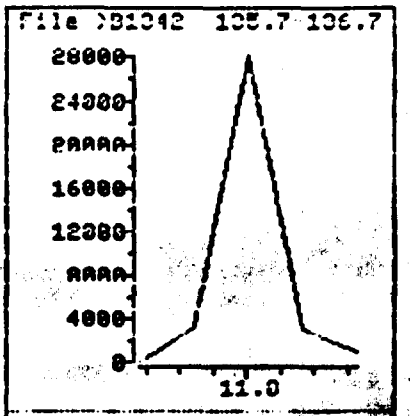
Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 179
Retention Time: 7.80 min.
Quant Ion: 152.0
Area: 19119
Concentration: 40.00 ng/uL
q-value: 97

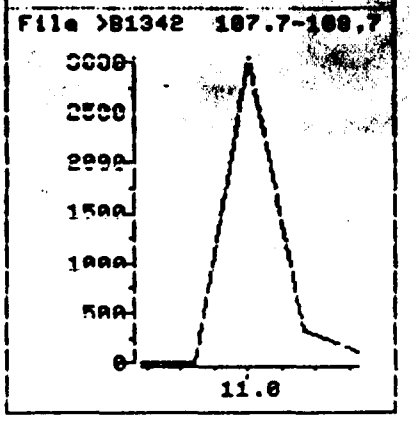
3 2 00450











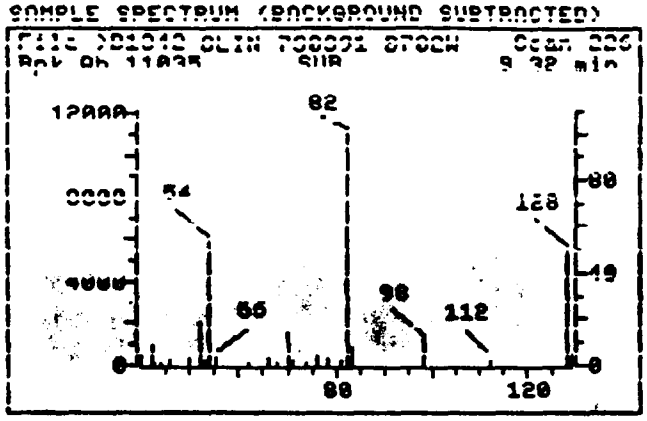
Data File: >B1342::D1
Name: OLIN 730391 B702W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 13:42
Injected at: 871216 13:03

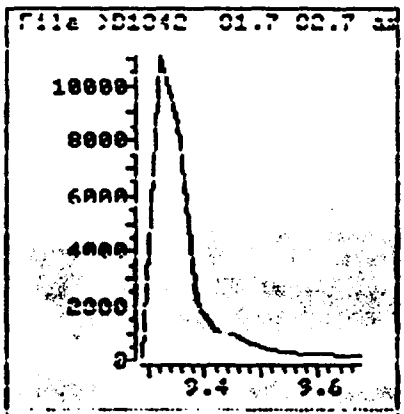
Quant Output File: ^B1342::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

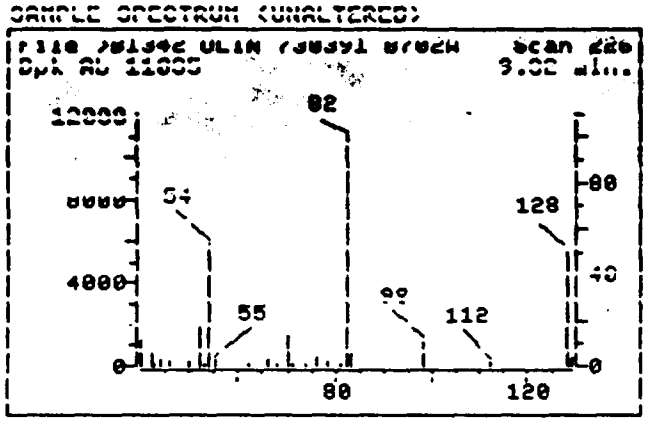
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 278
Retention Time: 11.00 min.
Quant Ion: 136.0
Area: 68381
Concentration: 40.00 ng/uL
q-value: 89

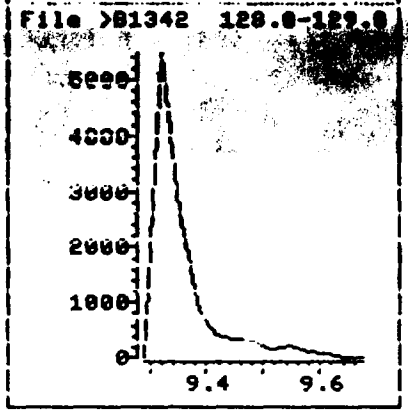
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



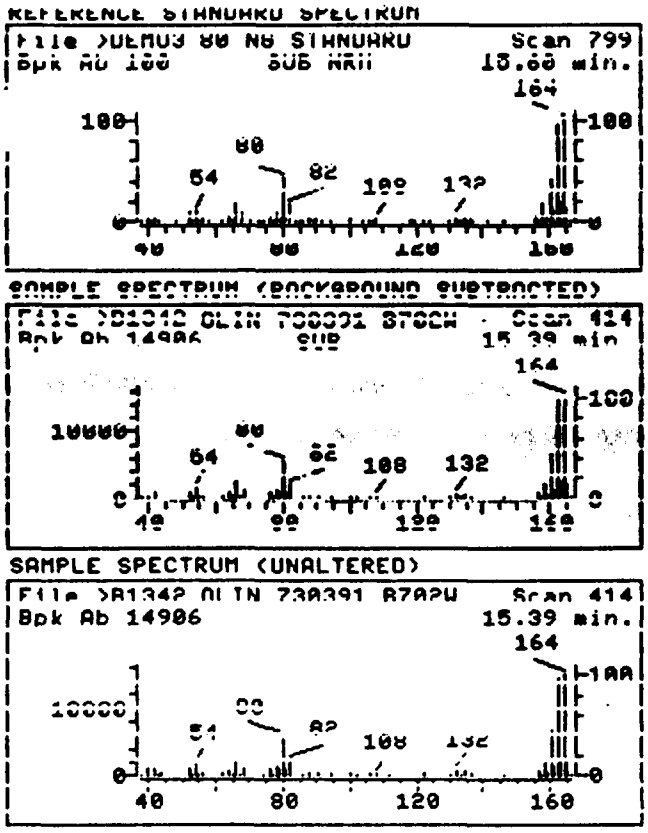


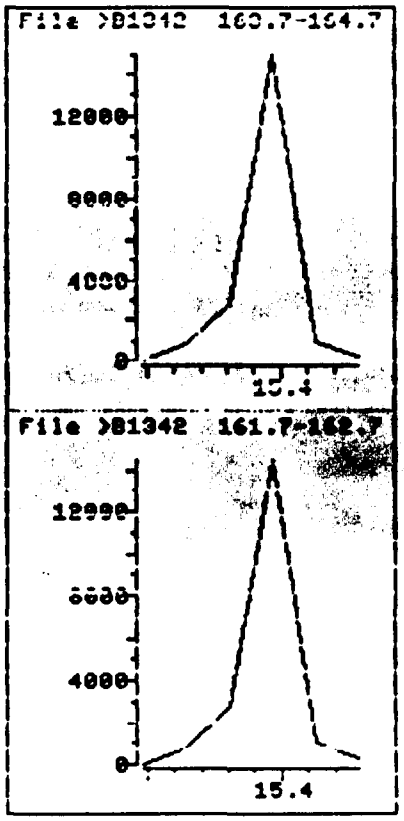
Data File: >B1342::D1
Name: OLIN 730391 B702W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 13:42
Injected at: 871216 13:03

Quant Output File: ^B1342::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 226
Retention Time: 9.32 min.
Quant Ion: 82.0
Area: 50698
Concentration: 27.65 ng/uL
q-value: 81



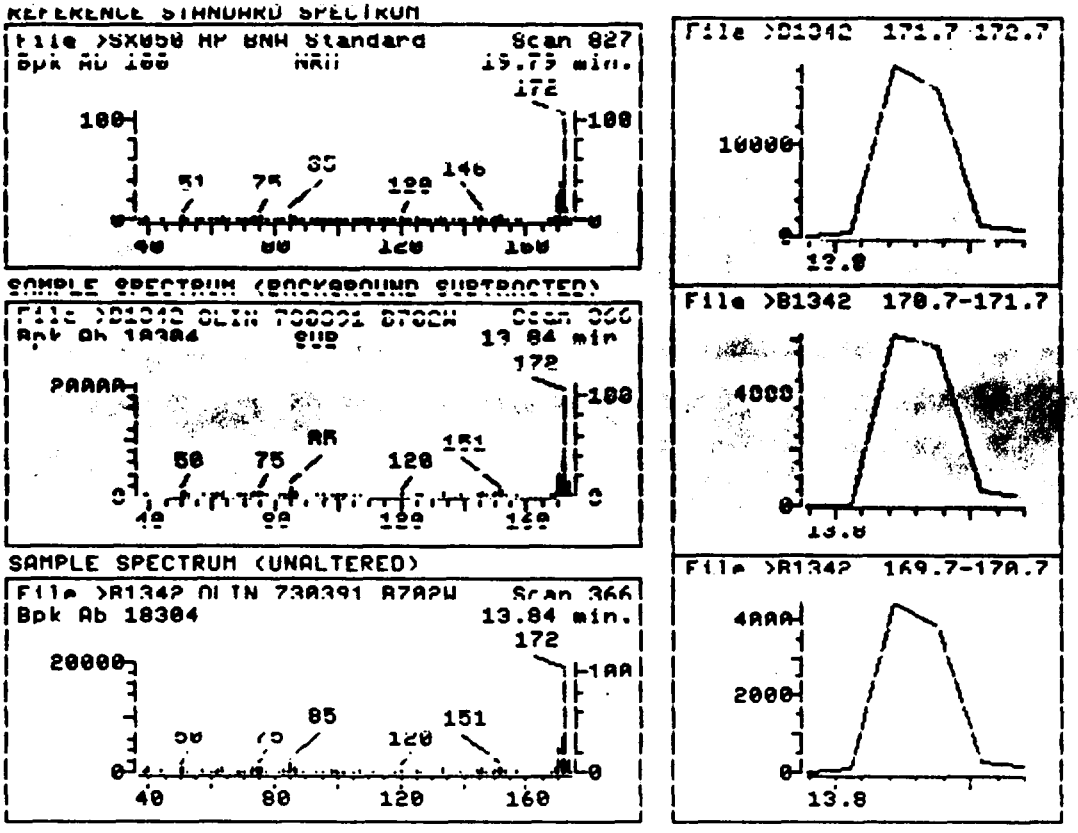


Data File: >B1342::D1
Name: OLIN 730391 B702W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 13:42
Injected at: 871216 13:03

Quant Output File: ^B1342::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 414
Retention Time: 15.39 min.
Quant Ion: 164.0
Area: 38539
Concentration: 40.00 ng/uL
q-value: 96

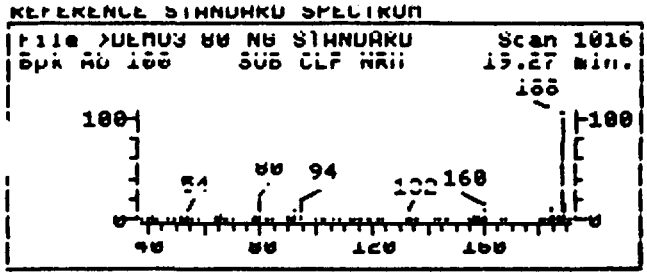


Data File: >B1342::D1
Name: OLIN 730391 B702W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 13:42
Injected at: 871216 13:03

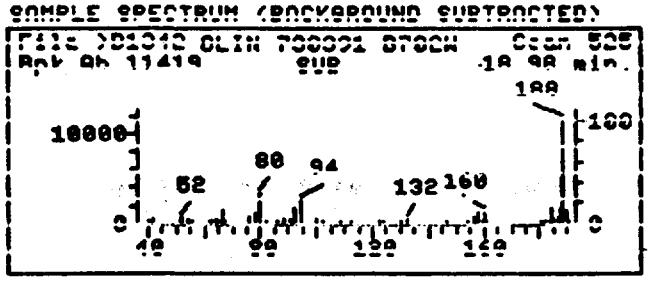
Quant Output File: ^B1342::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 366
Retention Time: 13.84 min.
Quant Ion: 172.0
Area: 70988
Concentration: 26.75 ng/uL
q-value: 92

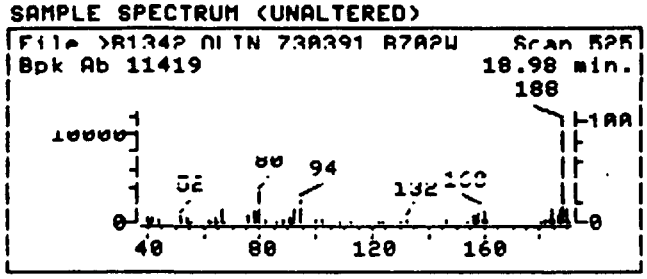
REFERENCE STANDARD SPECTRUM

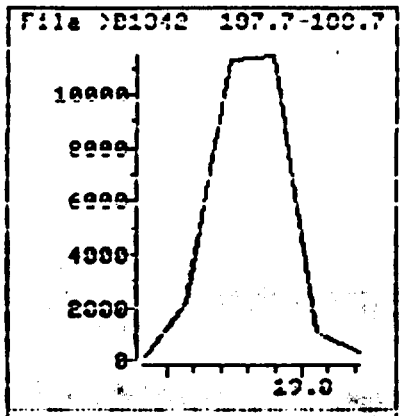


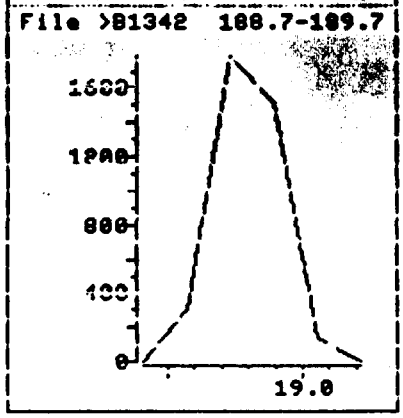
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





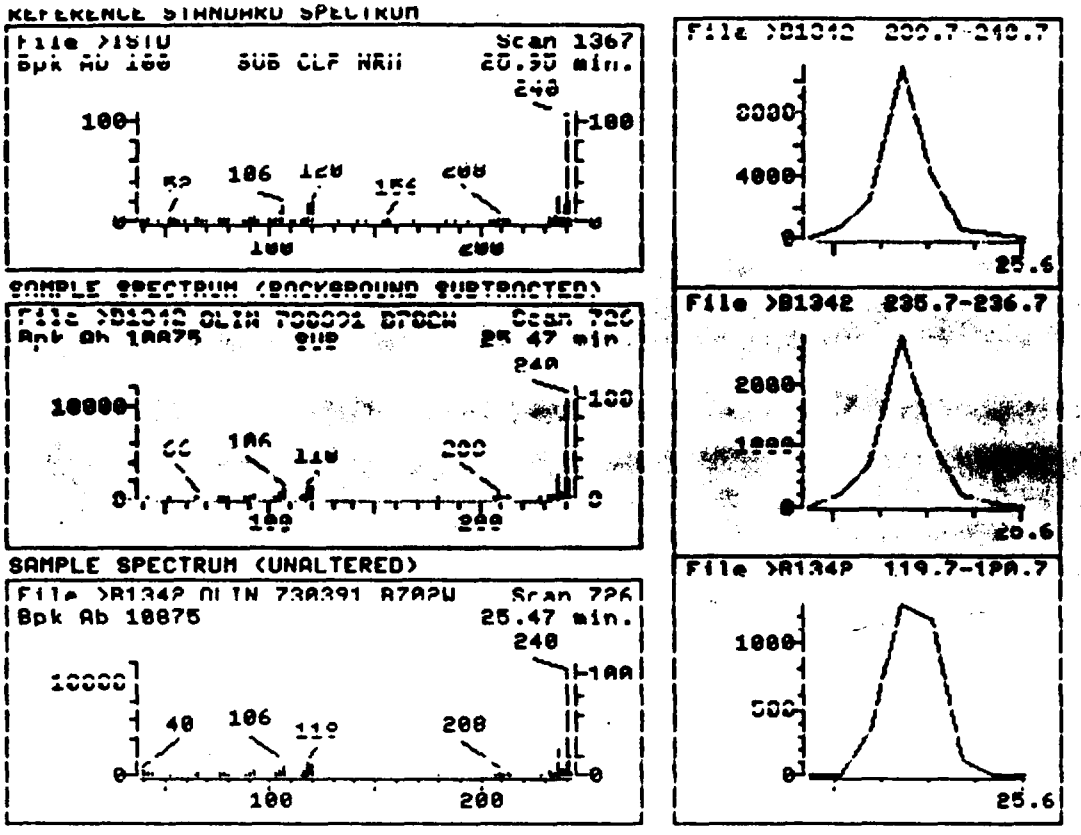


Data File: >B1342::D1
Name: OLIN 730391 B702W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 13:42
Injected at: 871216 13:03

Quant Output File: ^B1342::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 525
Retention Time: 18.98 min.
Quant Ion: 188.0
Area: 51034
Concentration: 40.00 ng/uL
q-value: 96



Data File: >B1342::D1
Name: OLIN 730391 B702W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 13:42
Injected at: 871216 13:03

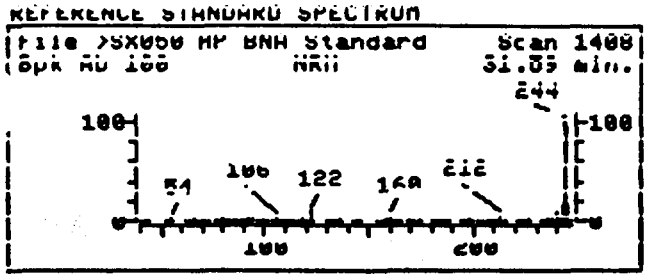
Quant Output File: ^B1342::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

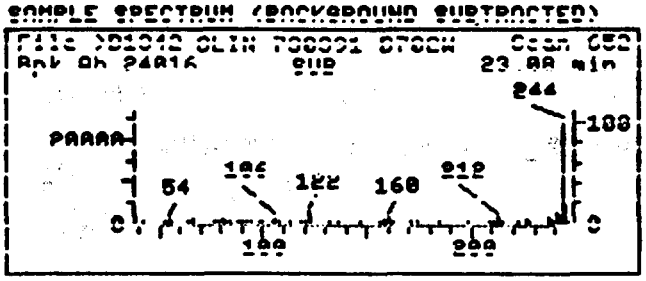
Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 726
Retention Time: 25.47 min.
Quant Ion: 240.0
Area: 36984
Concentration: 40.00 ng/uL
q-value: 97

3 2 00453

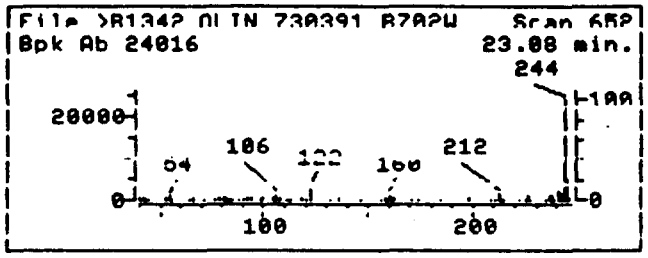
REFERENCE STANDARD SPECTRUM

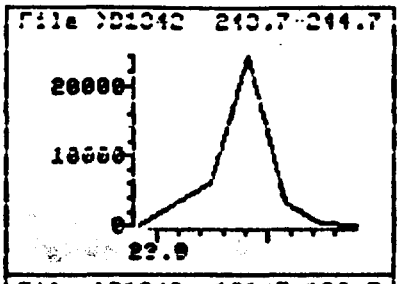


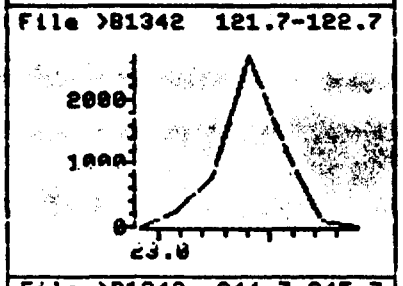
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

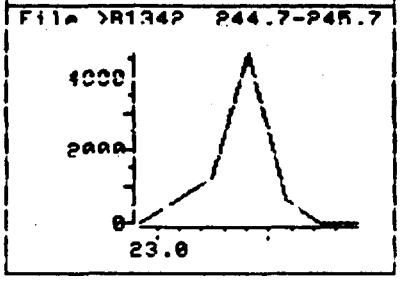


SAMPLE SPECTRUM (UNALTERED)









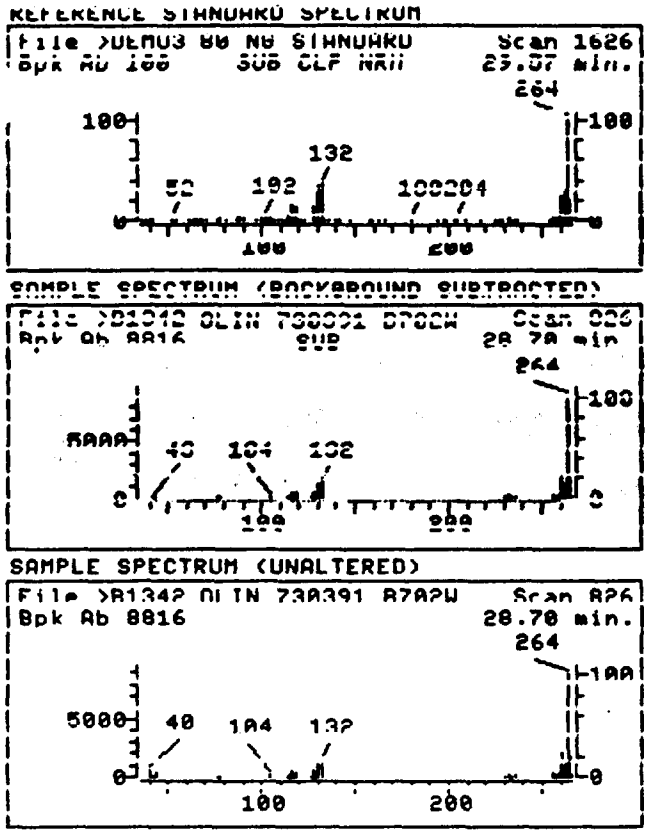
Data File: >B1342::D1
Name: OLIN 730391 B702W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 13:42
Injected at: 871216 13:03

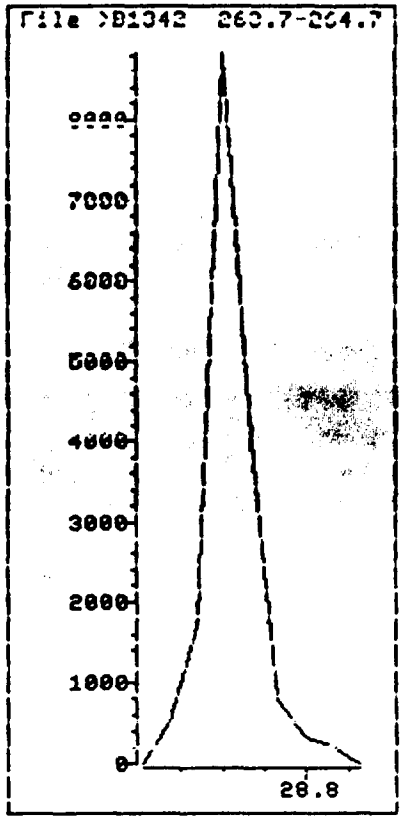
Quant Output File: ^B1342::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 652
Retention Time: 23.08 min.
Quant Ion: 244.0
Area: 72495
Concentration: 38.29 ng/uL
q-value: 85

3 2 00454





Data File: >B1342::D1 Quant Output File: ^B1342::QT
Name: OLIN 730391 B702W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 13:42 Quant ID File: ID BDA::L2
Injected at: 871216 13:03 Last Calibration: 871214 13:49

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 826
Retention Time: 28.70 min.
Quant Ion: 264.0
Area: 31787
Concentration: 40.00 ng/uL
q-value: 100

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18787

CC: Paul Klotz

BCM Number : A30392
Location : 878
Client ID : BD

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

3 2 00455

QUANT REPORT

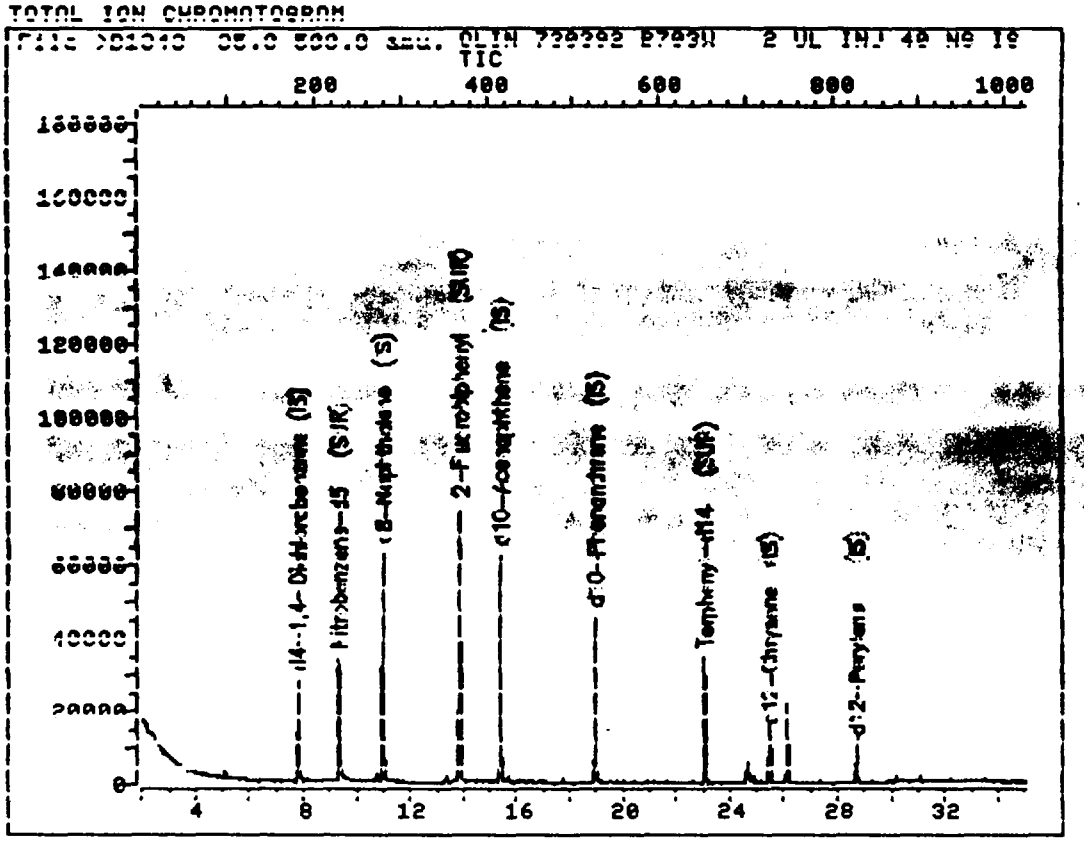
Operator ID: USER6 Quant Rev: 6 Quant Time: 871216 14:28
put File: ^B1343::QT Injected at: 871216 13:47
Data File: >B1343::D1 Dilution Factor: 1.00000
Name: OLIN 730392 B703W
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units		q
1)	*d4-1,4-Dichlorobenzene (IS)	7.80	181	17312	40.00	ng/uL		96
16)	*d8-Naphthalene (IS)	11.00	280	60446	40.00	ng/uL		89
17)	Nitrobenzene-d5 (SUR)	9.32	228	54993	33.93	ng/uL	67.9	83
31)	*d10-Acenaphthene (IS)	15.39	416	33924	40.00	ng/uL		97
36)	2-Fluorobiphenyl (SUR)	13.87	369	68103	29.16	ng/uL	58.3	94
51)	*d10-Phenanthrene (IS)	18.97	527	43957	40.00	ng/uL		99
63)	*d12-Chrysene (IS)	25.47	728	24146	40.00	ng/uL		95
65)	Terphenyl-d14 (SUR)	23.08	654	44422	35.93	ng/uL	71.9	83
71)	*d12-Perylene (IS)	28.70	828	19996	40.00	ng/uL		100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

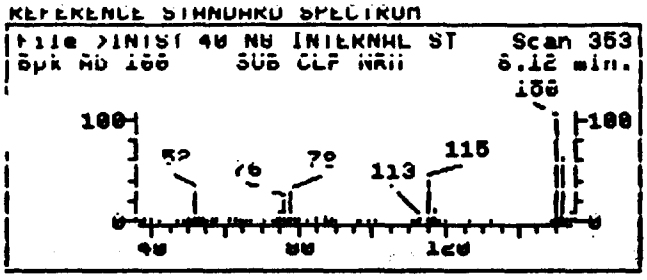


Data File: >B1343::D1 Quant Output File: ^B1343::QT
Name: OLIN 730392 B703W
Misc: 2 UL INJ 40 NG IS

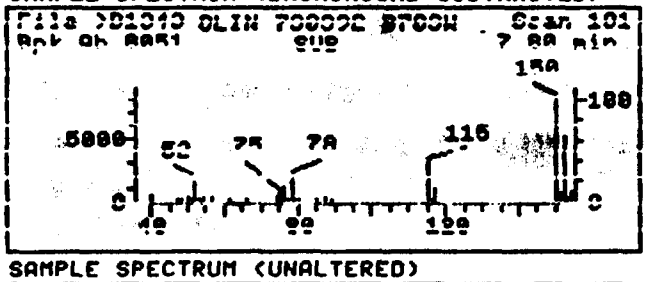
Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

Operator ID: USER6
Quant Time: 871216 14:28
Injected at: 871216 13:47

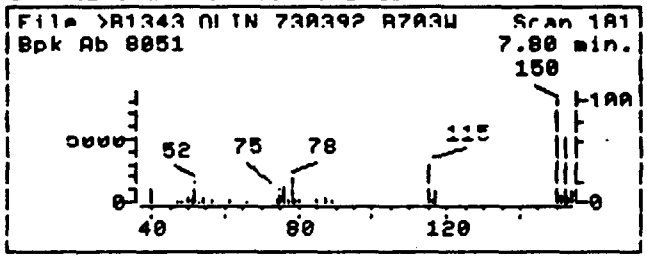
REFERENCE STANDARD SPECTRUM

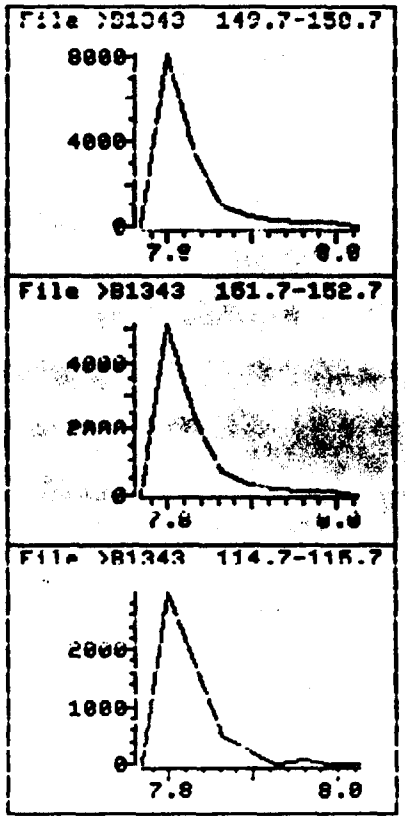


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

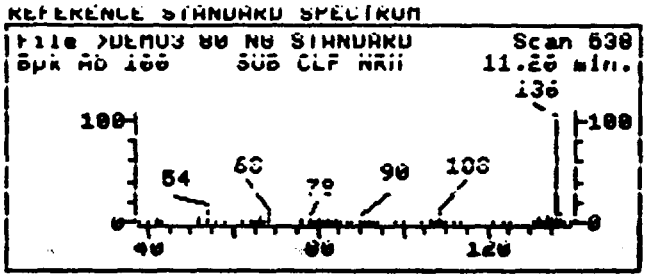




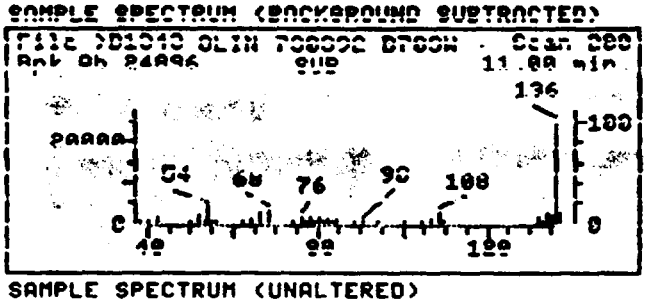
Data File: >B1343::D1 Quant Output File: ^B1343::QT
Name: OLIN 730392 B703W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 14:28 Quant ID File: ID BDA::L2
Injected at: 871216 13:47 Last Calibration: 871214 13:49

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 181
Retention Time: 7.80 min.
Quant Ion: 152.0
Area: 17312
Concentration: 40.00 ng/uL
q-value: 96

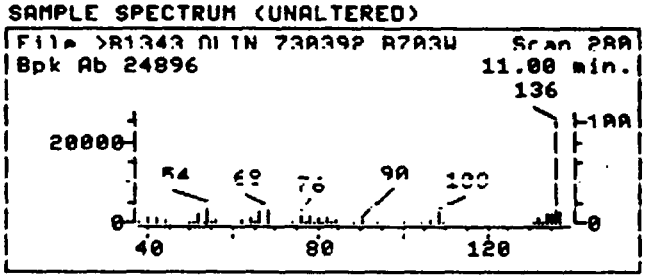
REFERENCE STANDARD SPECTRUM

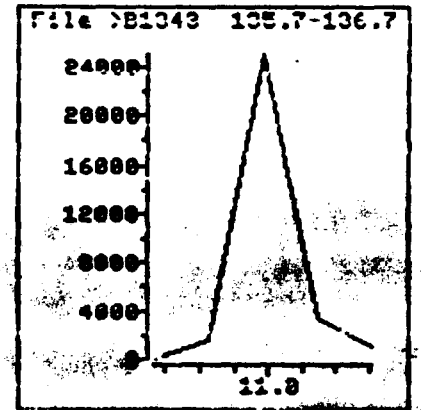


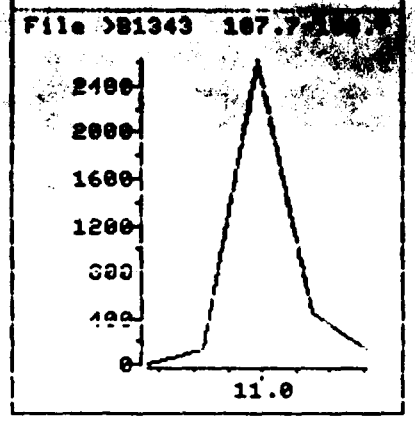
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >B1343::D1
Name: OLIN 730392 B703W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 14:28
Injected at: 871216 13:47

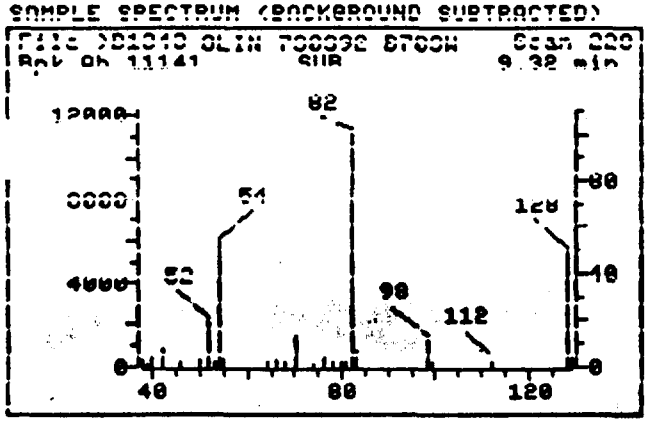
Quant Output File: ^B1343::QT

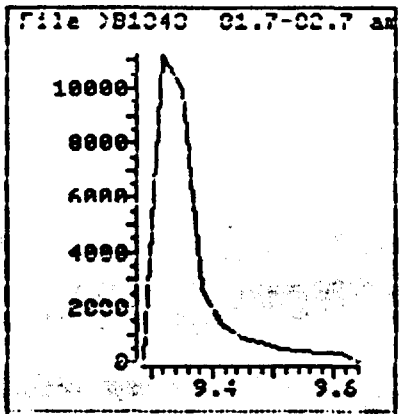
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 280
Retention Time: 11.00 min.
Quant Ion: 136.0
Area: 60446
Concentration: 40.00 ng/uL
q-value: 89

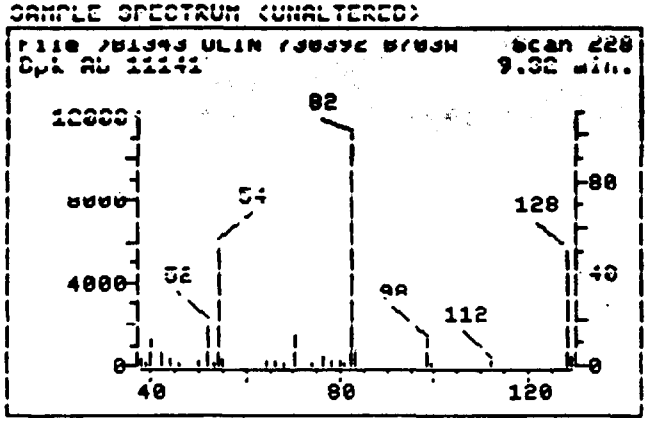
3 2 00457

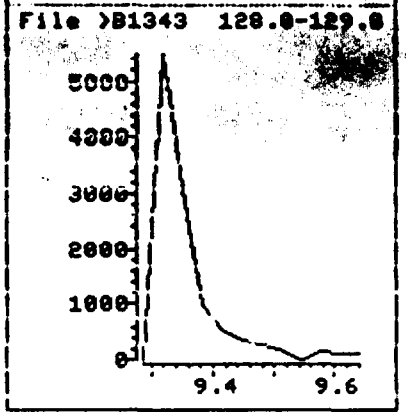
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



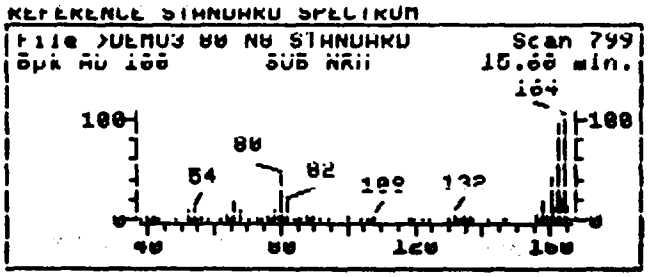


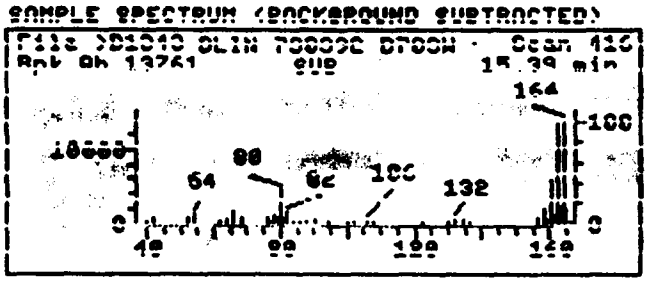
Data File: >B1343::D1
Name: OLIN 730392 B703W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 14:28
Injected at: 871216 13:47

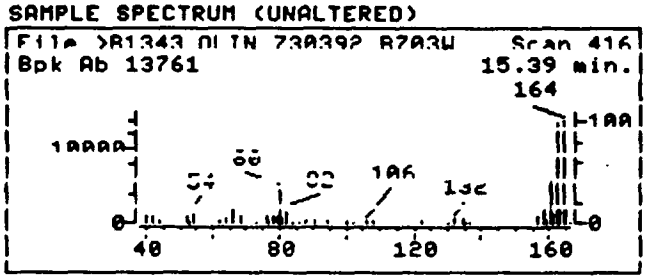
Quant Output File: ^B1343::QT

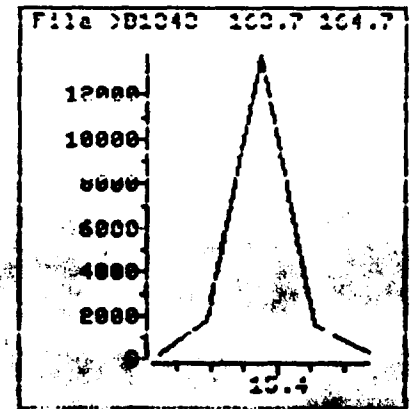
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

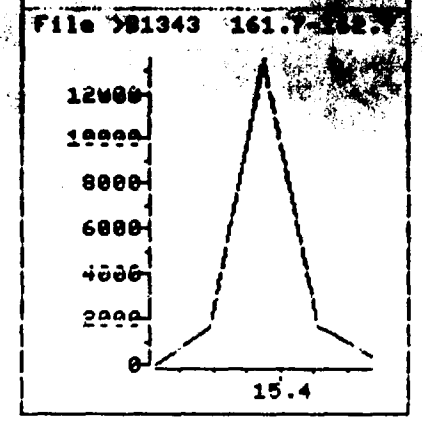
Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 228
Retention Time: 9.32 min.
Quant Ion: 82.0
Area: 54993
Concentration: 33.93 ng/uL
q-value: 83











Data File: >B1343::D1
Name: OLIN 730392 B703W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 14:28
Injected at: 871216 13:47

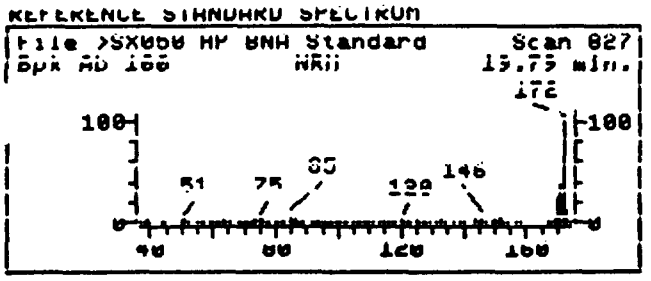
Quant Output File: ^B1343::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

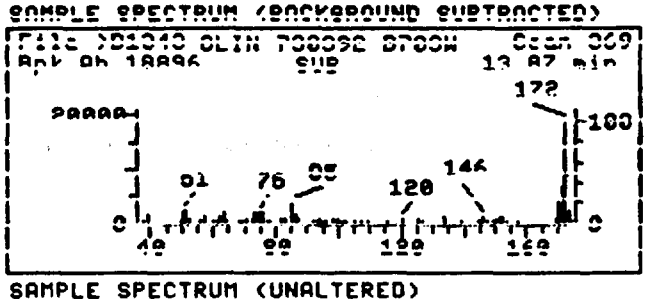
Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 416
Retention Time: 15.39 min.
Quant Ion: 164.0
Area: 33924
Concentration: 40.00 ng/uL
q-value: 97

3 2 00458

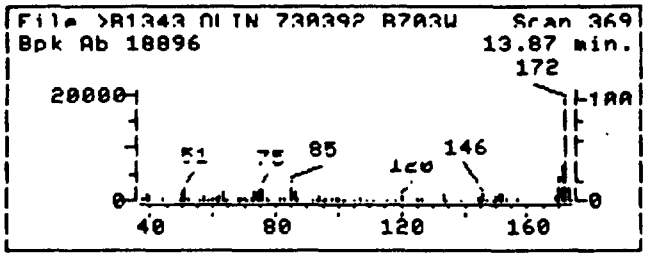
REFERENCE STANDARD SPECTRUM

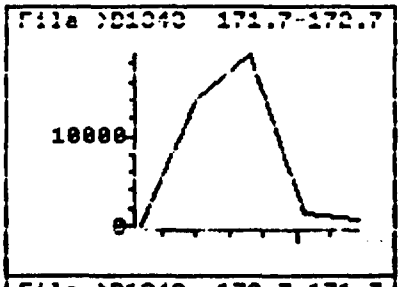


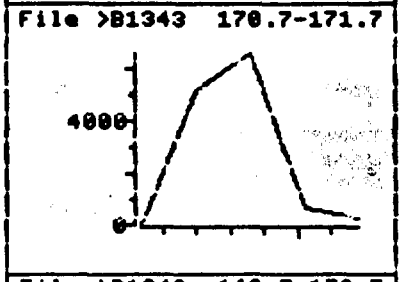
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

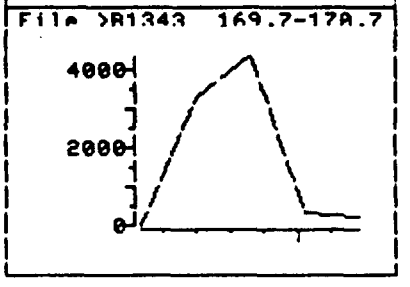


SAMPLE SPECTRUM (UNALTERED)







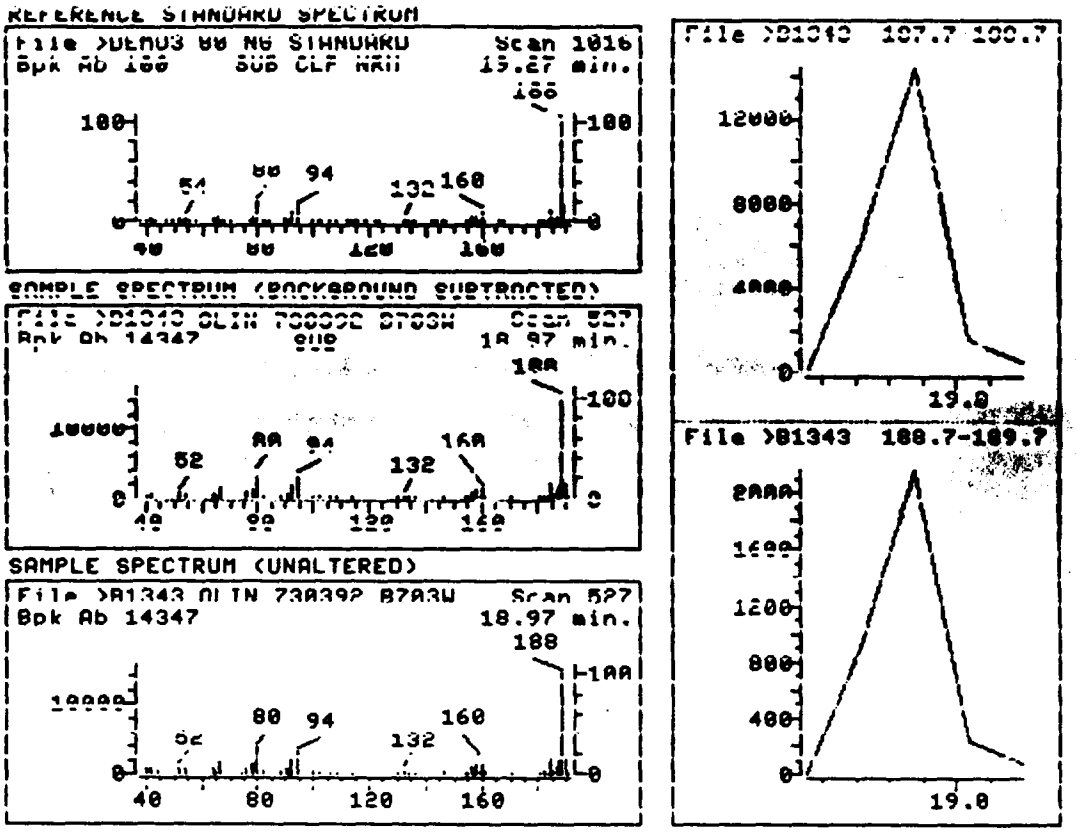


Data File: >B1343::D1
Name: OLIN 730392 B703W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 14:28
Injected at: 871216 13:47

Quant Output File: ^B1343::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 369
Retention Time: 13.87 min.
Quant Ion: 172.0
Area: 68103
Concentration: 29.16 ng/uL
q-value: 94



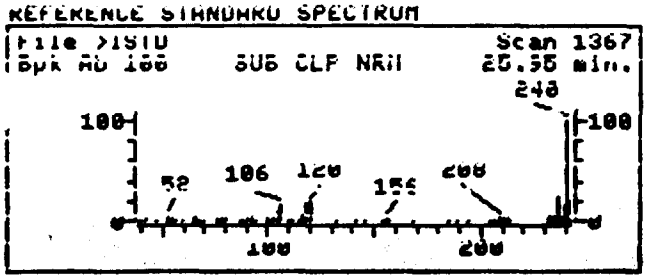
Data File: >B1343::D1
Name: OLIN 730392 B703W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 14:28
Injected at: 871216 13:47

Quant Output File: ^B1343::QT

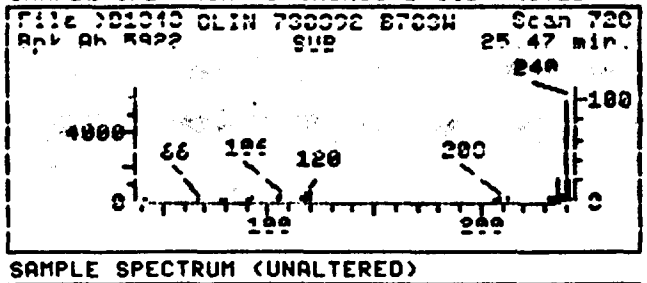
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 527
Retention Time: 18.97 min.
Quant Ion: 188.0
Area: 43957
Concentration: 40.00 ng/uL
q-value: 99

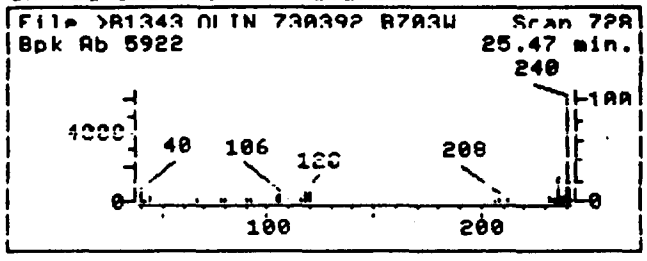
REFERENCE STANDARD SPECTRUM

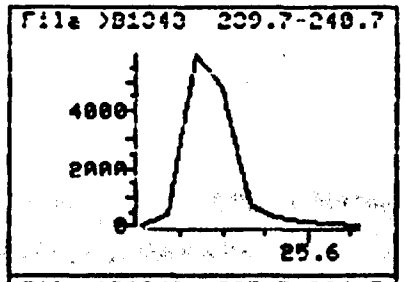


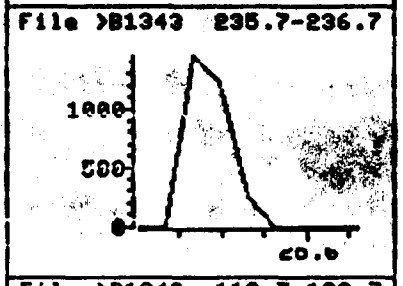
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

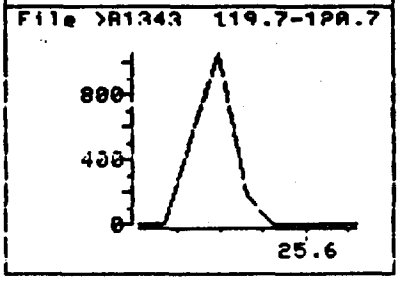


SAMPLE SPECTRUM (UNALTERED)







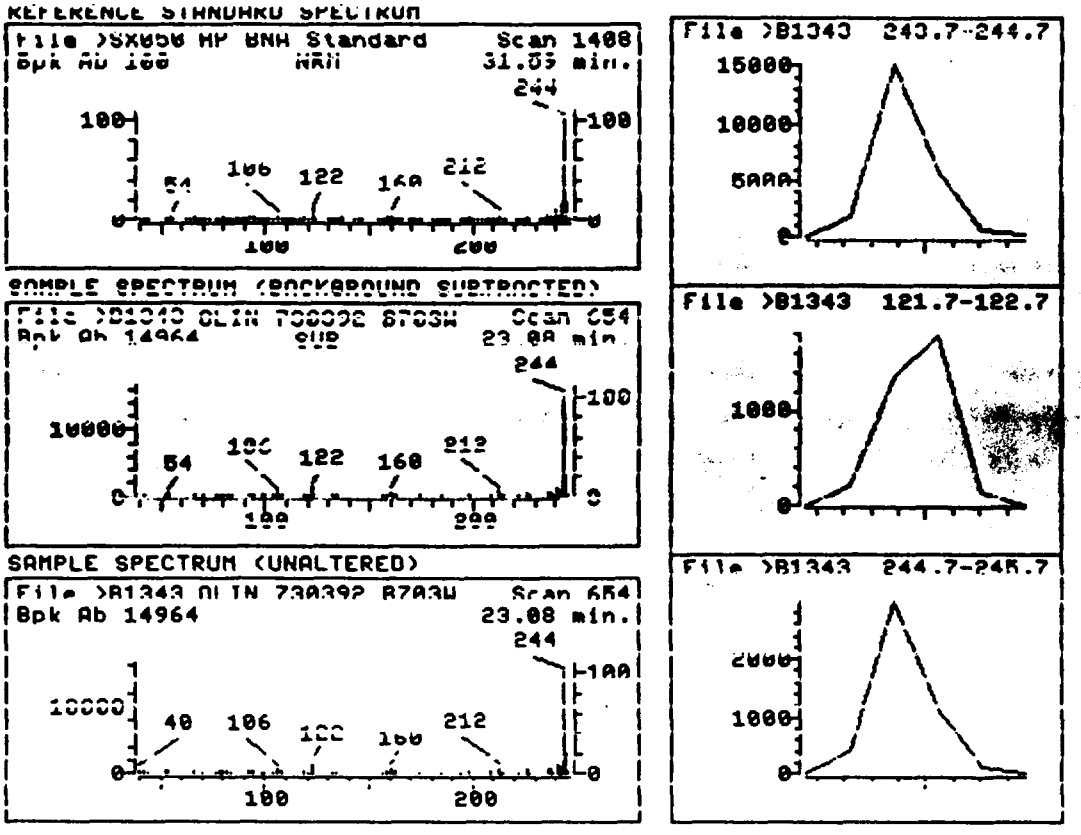


Data File: >B1343::D1
Name: QLIN 730392 B703W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 14:28
Injected at: 871216 13:47

Quant Output File: ^B1343::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 728
Retention Time: 25.47 min.
Quant Ion: 240.0
Area: 24146
Concentration: 40.00 ng/uL
q-value: 95

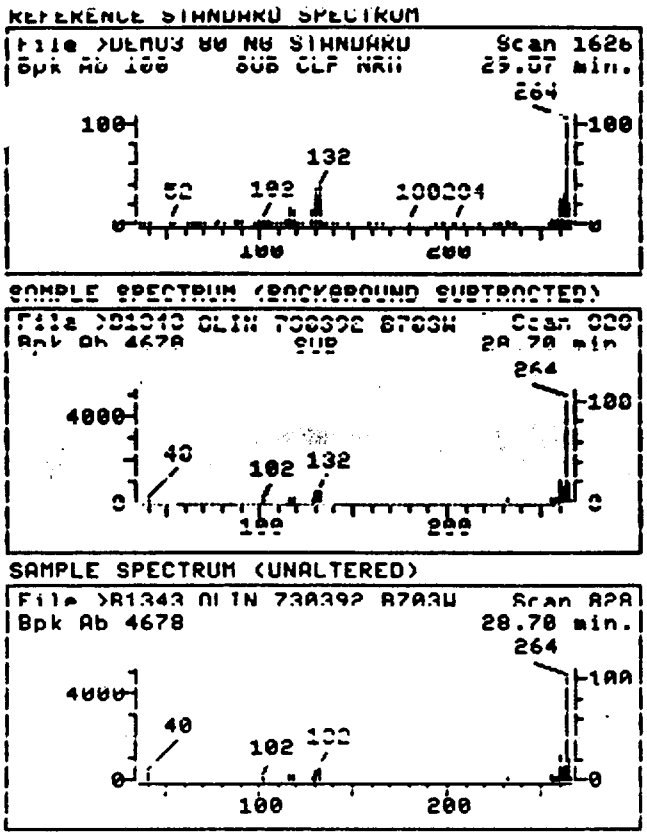


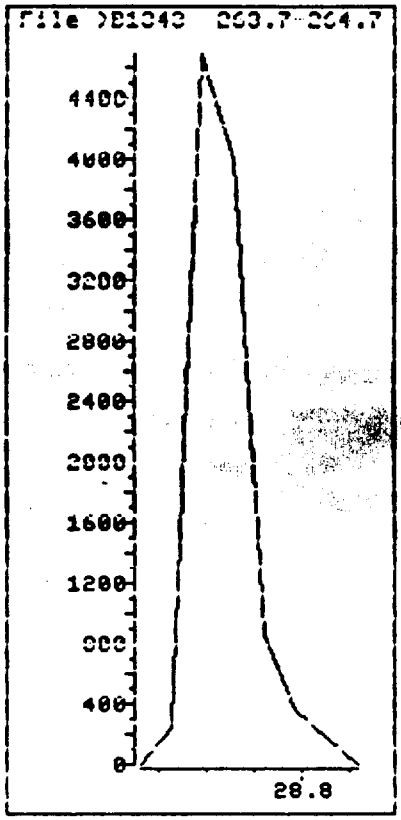
Data File: >B1343::D1
Name: OLIN 730392 B703W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 14:28
Injected at: 871216 13:47

Quant Output File: ^B1343::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 654
Retention Time: 23.08 min.
Quant Ion: 244.0
Area: 44422
Concentration: 35.93 ng/uL
q-value: 83





Data File: >B1343::D1
Name: OLIN 730392 8703W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 14:28
Injected at: 871216 13:47

Quant Output File: ^B1343::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 828
Retention Time: 28.70 min.
Quant Ion: 264.0
Area: 19996
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18787

CC: Paul Klotz

BCM Number : A30393
Location : 341
Client ID : BD

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

3 2 00461

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871216 15:13
Output File: ^B1344::QT Injected at: 871216 14:37
Data File: >B1344::D1 Dilution Factor: 1.00000
Name: OLIN 730393 B704W
Misc: 2 UL INJ 40 NG IS

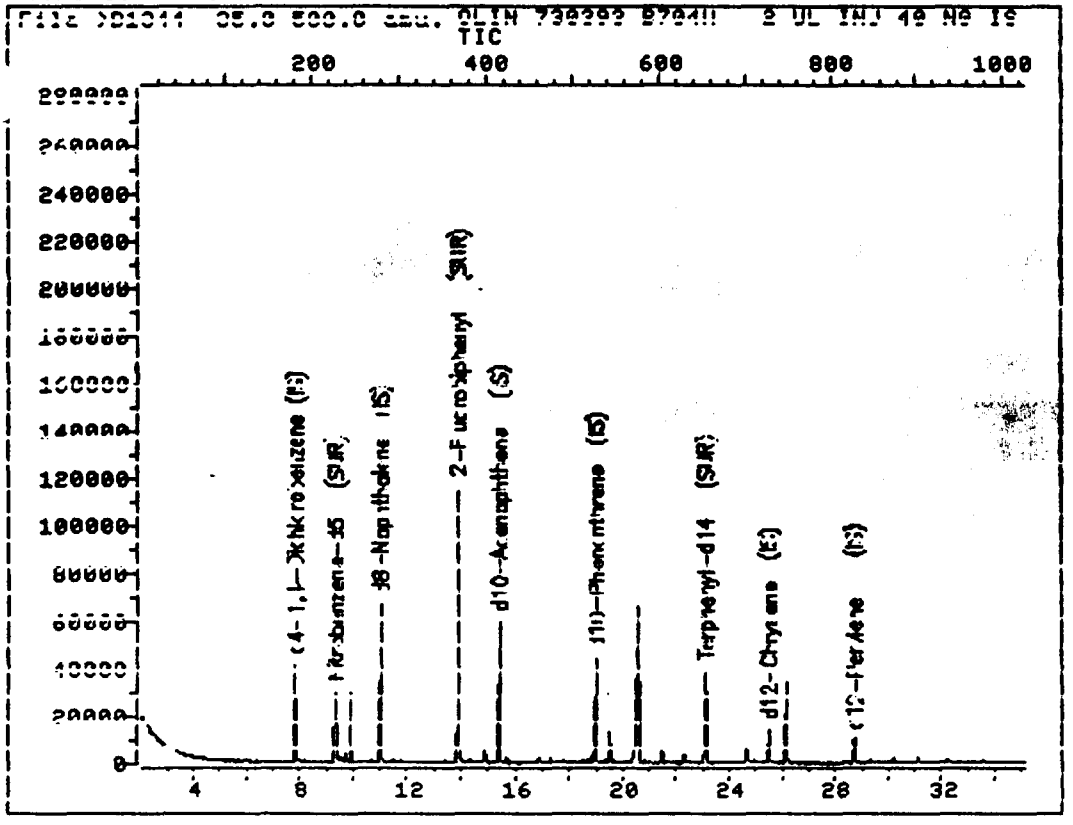
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.83	180	18131	40.00	ng/uL	97
16)	*d8-Naphthalene (IS)	11.03	279	66659	40.00	ng/uL	88
17)	Nitrobenzene-d5 (SUR)	9.35	227	46731	26.14	ng/uL 52.3	80
31)	*d10-Acenaphthene (IS)	15.42	415	35118	40.00	ng/uL	98
36)	2-Fluorobiphenyl (SUR)	13.91	368	88429	36.57	ng/uL 73.1	95
51)	*d10-Phenanthrene (IS)	19.01	526	43694	40.00	ng/uL	99
63)	*d12-Chrysene (IS)	25.50	727	23477	40.00	ng/uL	96
65)	Terphenyl-d14 (SUR)	23.11	653	48747	40.55	ng/uL 81.1	84
71)	*d12-Perylene (IS)	28.73	827	19140	40.00	ng/uL	100

* Compound is ISTD

3 2 00462

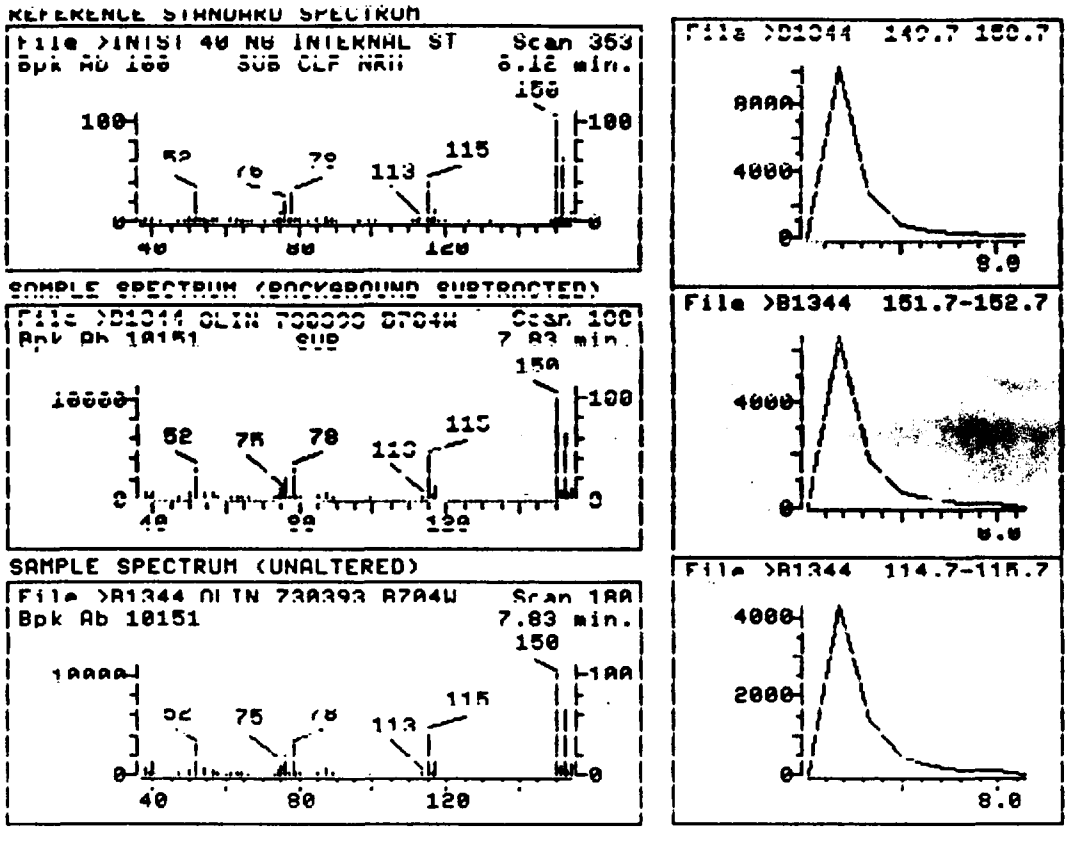
TOTAL ION CHROMATOGRAM



Data File: >B1344::D1 Quant Output File: ^B1344::QT
Name: OLIN 730393 B704W
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

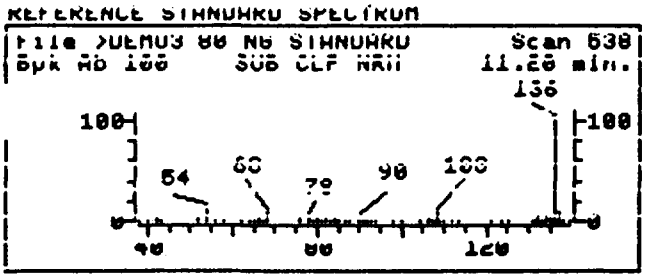
Operator ID: USER6
Quant Time: 871216 15:13
Injected at: 871216 14:37



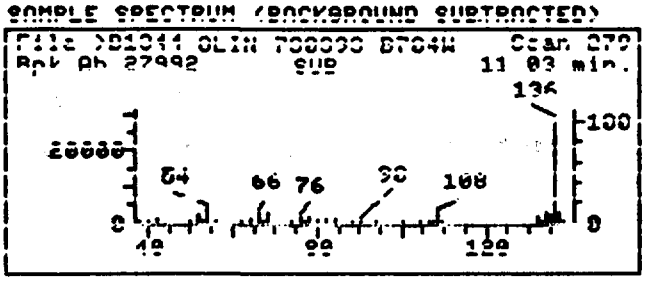
Data File: >B1344::D1 Quant Output File: ^B1344::QT
Name: OLIN 730393 B704W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 15:13 Quant ID File: ID BDA::L2
Injected at: 871216 14:37 Last Calibration: 871214 13:49

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 180
Retention Time: 7.83 min.
Quant Ion: 152.0
Area: 18131
Concentration: 40.00 ng/uL
q-value: 97

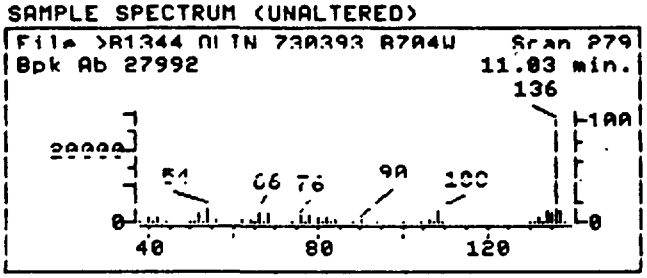
REFERENCE STANDARD SPECTRUM

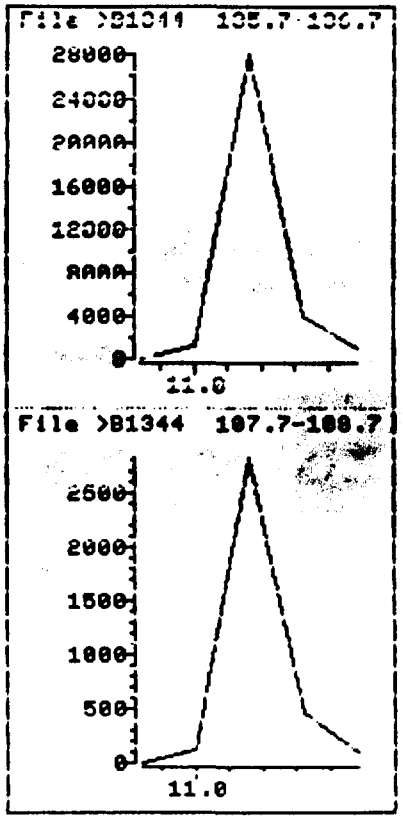


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





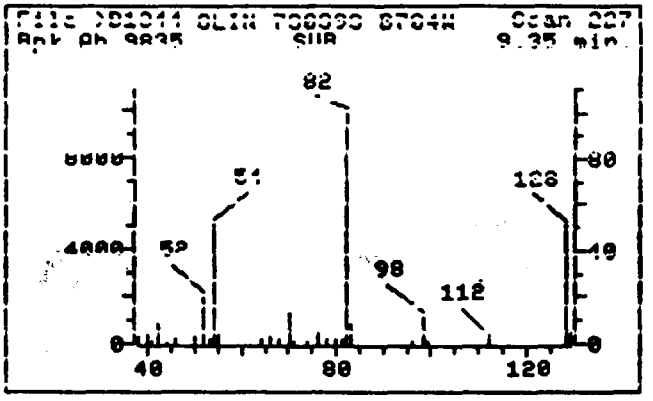
Data File: >B1344::D1
Name: OLIN 730393 B704W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 15:13
Injected at: 871216 14:37

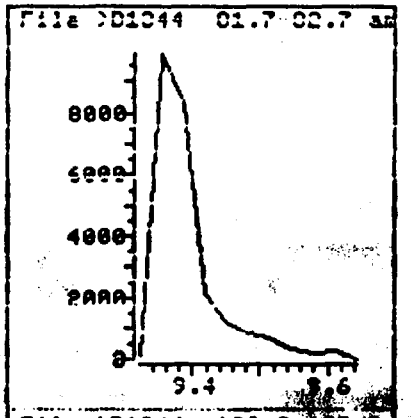
Quant Output File: ^B1344::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

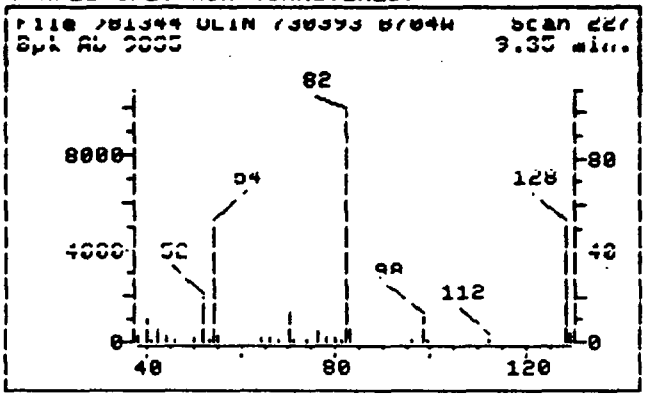
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 279
Retention Time: 11.03 min.
Quant Ion: 136.0
Area: 66659
Concentration: 40.00 ng/uL
q-value: 88

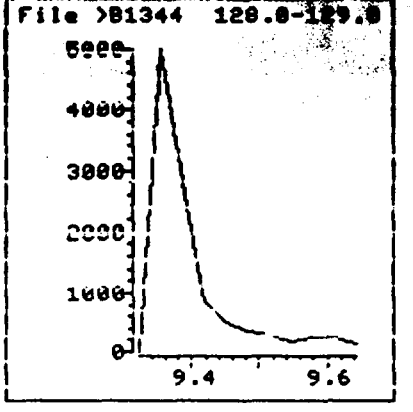
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





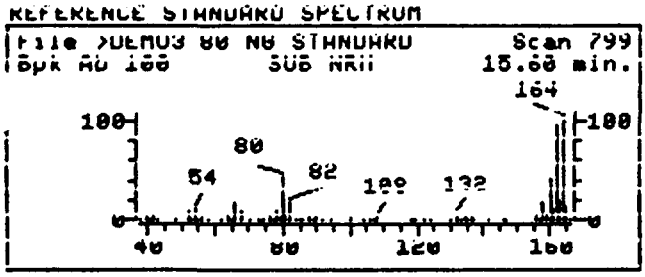
Data File: >B1344::D1
Name: OLIN 730393 B704W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 15:13
Injected at: 871216 14:37

Quant Output File: ^B1344::QT

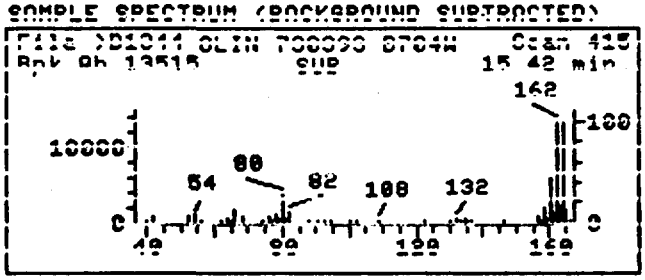
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 227
Retention Time: 9.35 min.
Quant Ion: 82.0
Area: 46731
Concentration: 26.14 ng/uL
q-value: 80

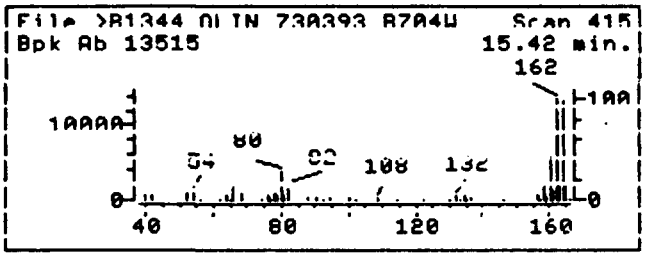
REFERENCE STANDARD SPECTRUM

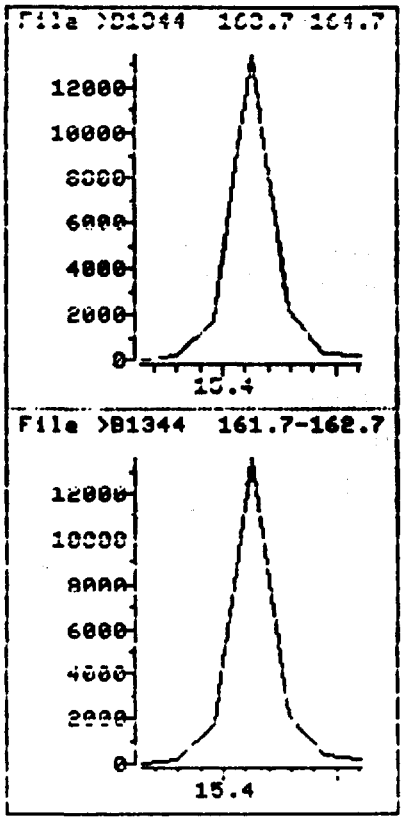


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





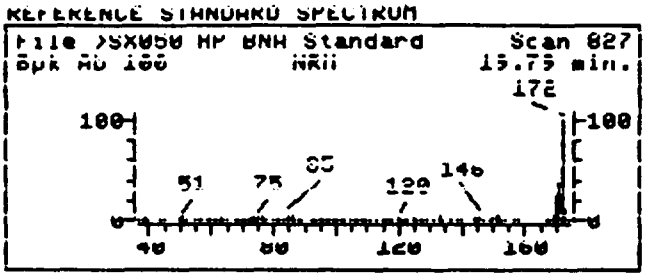
Data File: >B1344::D1
Name: OLIN 730393 B704W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 15:13
Injected at: 871216 14:37

Quant Output File: ^B1344::QT

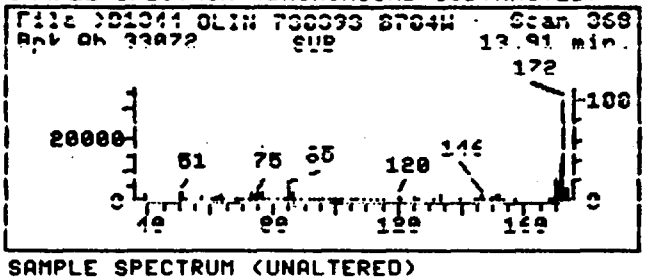
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 415
Retention Time: 15.42 min.
Quant Ion: 164.0
Area: 35118
Concentration: 40.00 ng/uL
q-value: 98

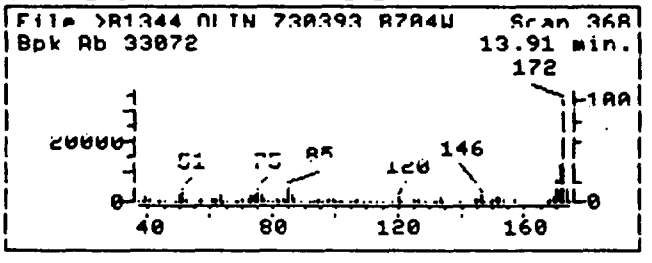
REFERENCE STANDARD SPECTRUM

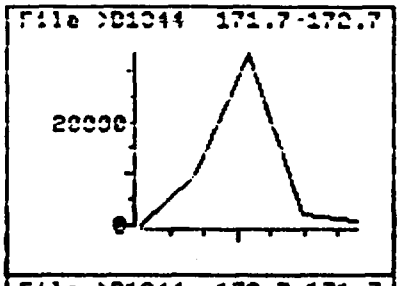


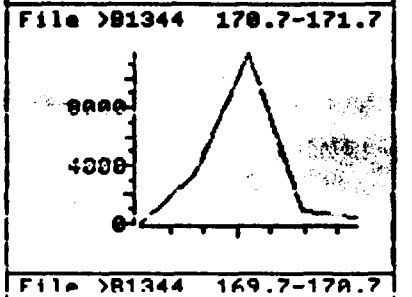
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

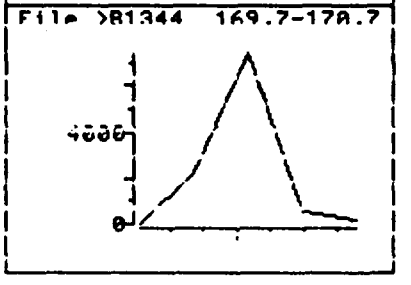


SAMPLE SPECTRUM (UNALTERED)









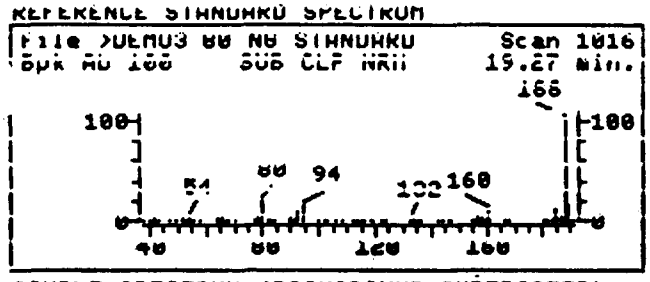
Data File: >B1344::D1
Name: OLIN 730393 8704W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 15:13
Injected at: 871216 14:37

Quant Output File: ^B1344::QT

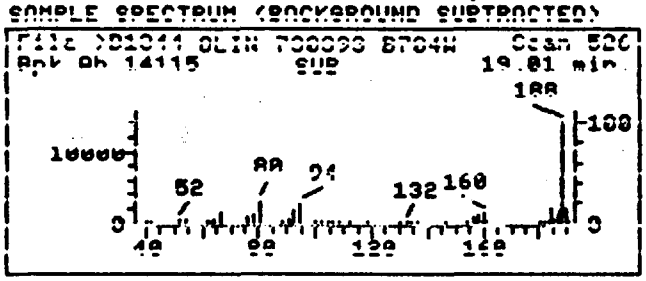
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 368
Retention Time: 13.91 min.
Quant Ion: 172.0
Area: 88429
Concentration: 36.57 ng/uL
q-value: 95

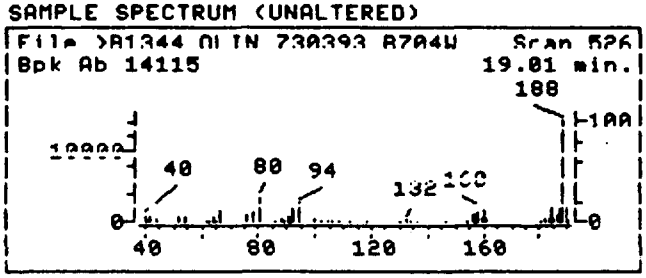
REFERENCE STANDARD SPECTRUM

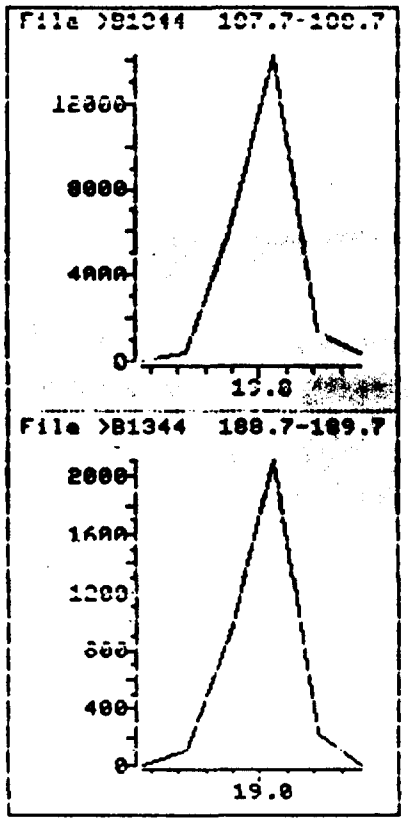


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



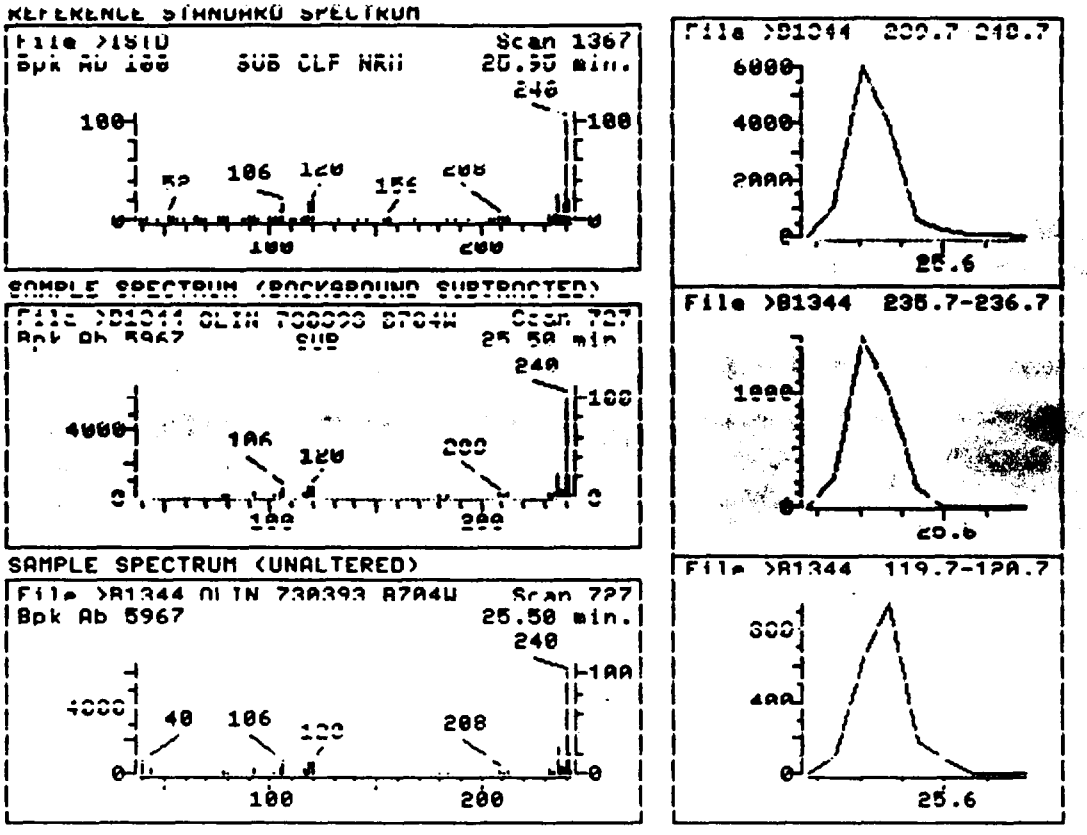


Data File: >B1344::D1
Name: OLIN 730393 B704W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 15:13
Injected at: 871216 14:37

Quant Output File: ^B1344::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 526
Retention Time: 19.01 min.
Quant Ion: 188.0
Area: 43694
Concentration: 40.00 ng/uL
q-value: 99

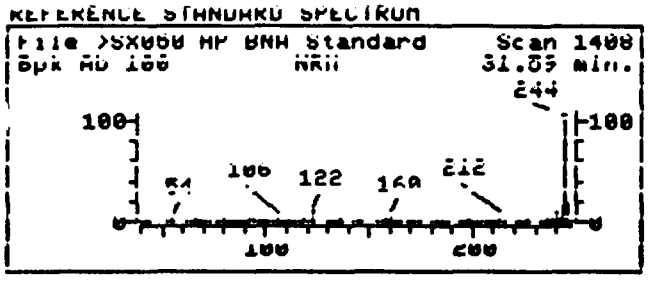


Data File: >B1344::D1 Quant Output File: ^B1344::QT
Name: OLIN 730393 B704W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 15:13 Quant ID File: ID BDA::L2
Injected at: 871216 14:37 Last Calibration: 871214 13:49

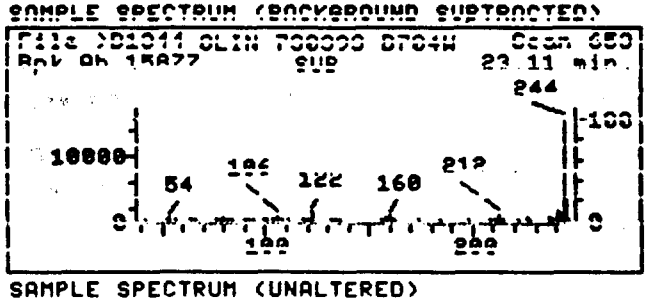
Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 727
Retention Time: 25.50 min.
Quant Ion: 240.0
Area: 23477
Concentration: 40.00 ng/uL
q-value: 96

3 2 00466

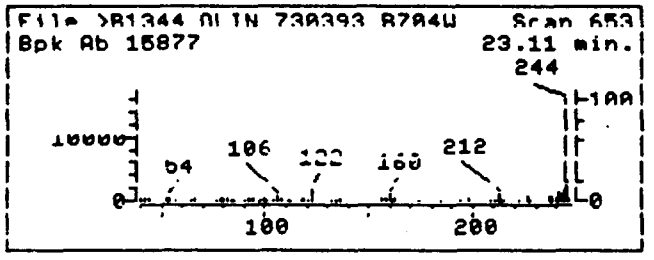
REFERENCE STANDARD SPECTRUM

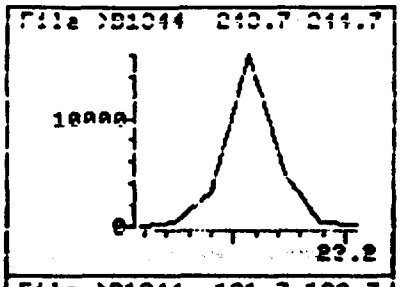


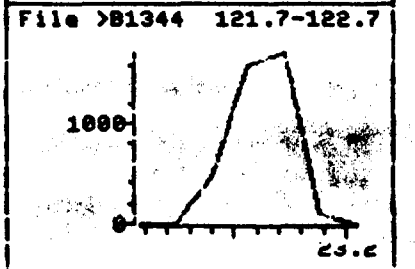
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

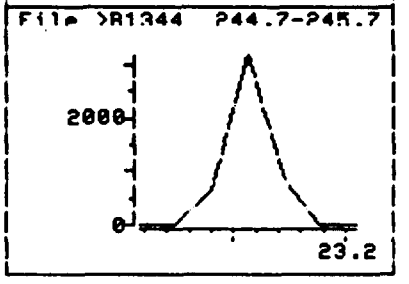


SAMPLE SPECTRUM (UNALTERED)







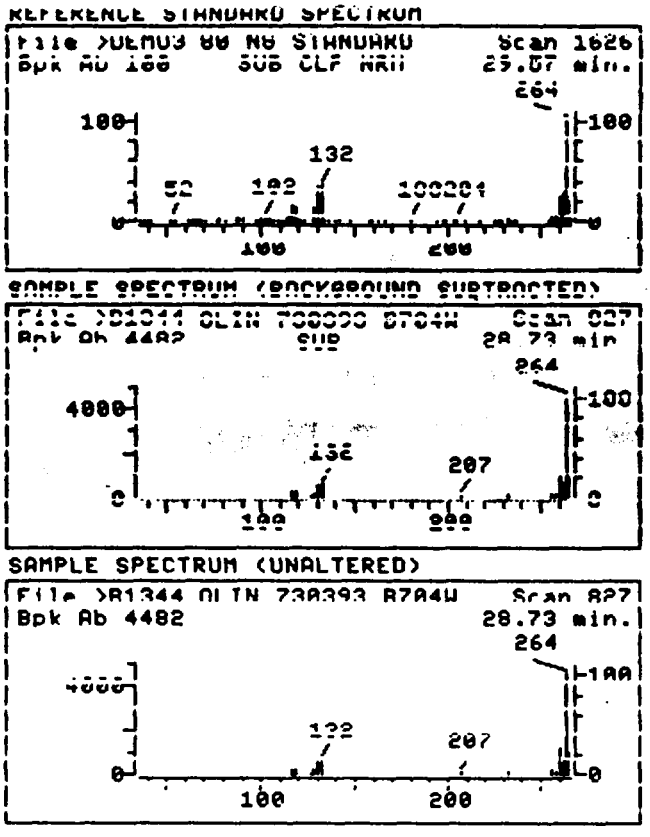


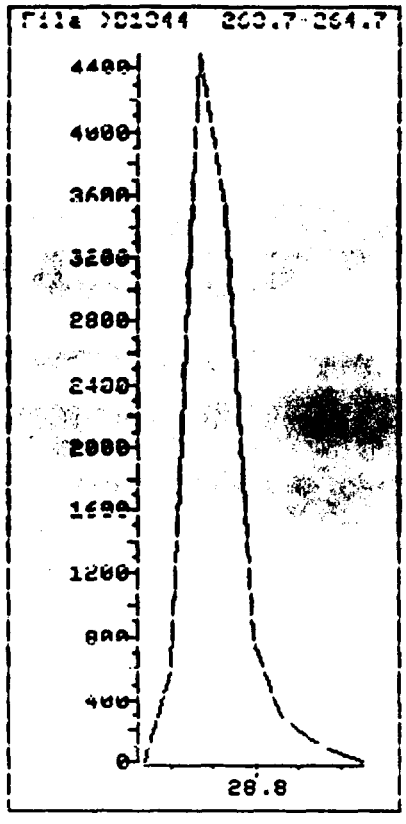
Data File: >B1344::D1
Name: OLIN 730393 B704W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 15:13
Injected at: 871216 14:37

Quant Output File: ^B1344::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 653
Retention Time: 23.11 min.
Quant Ion: 244.0
Area: 48747
Concentration: 40.55 ng/uL
q-value: 84





Data File: >B1344::D1
Name: OLIN 730393 B704W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 15:13
Injected at: 871216 14:37

Quant Output File: ^B1344::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 827
Retention Time: 28.73 min.
Quant Ion: 264.0
Area: 19140
Concentration: 40.00 ng/uL
q-value: 100

3 2 00467

QUANT REPORT

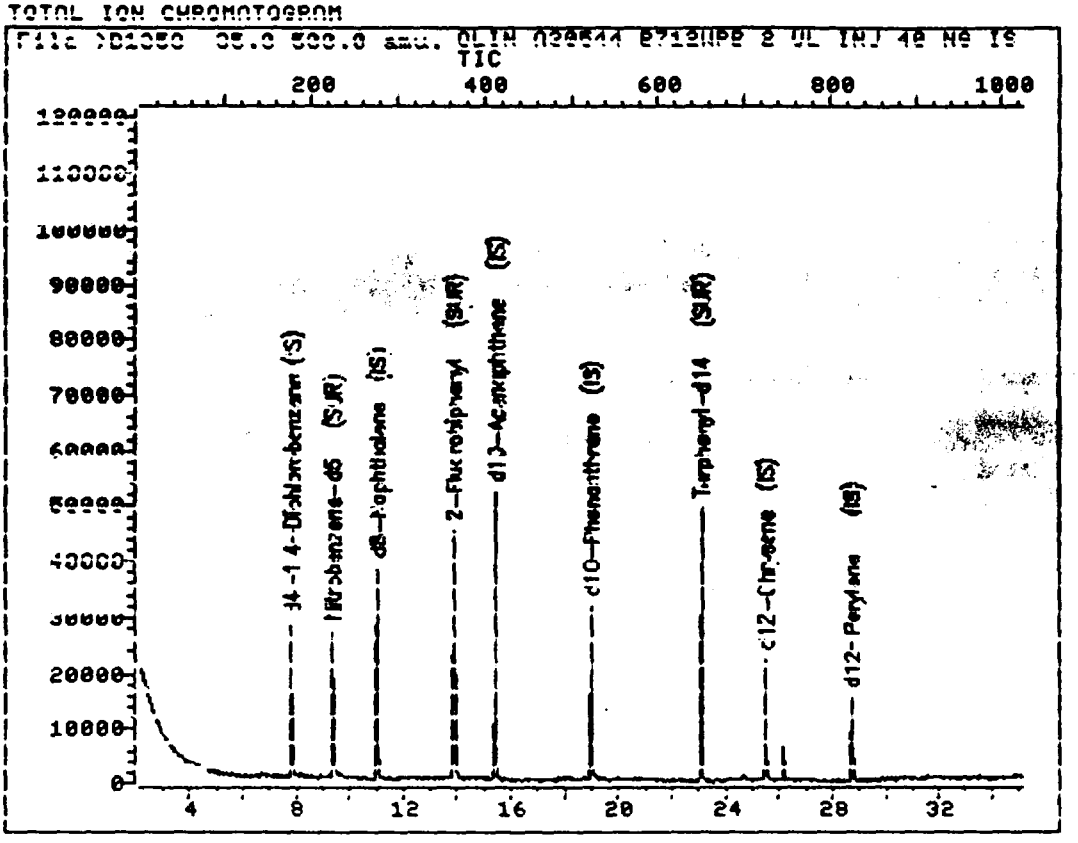
Operator ID: USER6 Quant Rev: 6 Quant Time: 871217 18:30
Output File: ^B1358::QT Injected at: 871217 16:18
ta File: >B1358::D1 Dilution Factor: 1.00000
Name: OLIN A30544 B712WPB
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.83	178	13413	40.00	ng/uL	88
16)	*d8-Naphthalene (IS)	11.02	277	51677	40.00	ng/uL	91
17)	Nitrobenzene-d5 (SUR)	9.34	225	32898	22.46	ng/uL	98
31)	*d10-Acenaphthene (IS)	15.42	413	30352	40.00	ng/uL	98
36)	2-Fluorobiphenyl (SUR)	13.87	365	49796	25.65	ng/uL	93
38)	Dimethyl Phthalate	15.42	413	5027	2.38	ng/uL	100
46)	2,6-Dinitrotoluene	15.42	413	3870	7.54	ng/uL	100
51)	*d10-Phenanthrene (IS)	18.97	523	40488	40.00	ng/uL	99
63)	*d12-Chrysene (IS)	25.49	725	24148	40.00	ng/uL	96
65)	Terphenyl-d14 (SUR)	23.10	651	49351	43.31	ng/uL	89
69)	Bis(2-Ethylhexyl)Phthalate	26.17	746	5433	3.82	ng/uL	96
71)	*d12-Perylene (IS)	28.72	825	19424	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1358::D1 Quant Output File: ^B1358::QT
Name: OLIN A30544 B712WPB
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871217 18:30
Injected at: 871217 16:18

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18787

CC: Paul Klotz

BCM Number : A30394
Location : 654
Client ID : BD

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results #	Units	Test Method #
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

QUANT REPORT

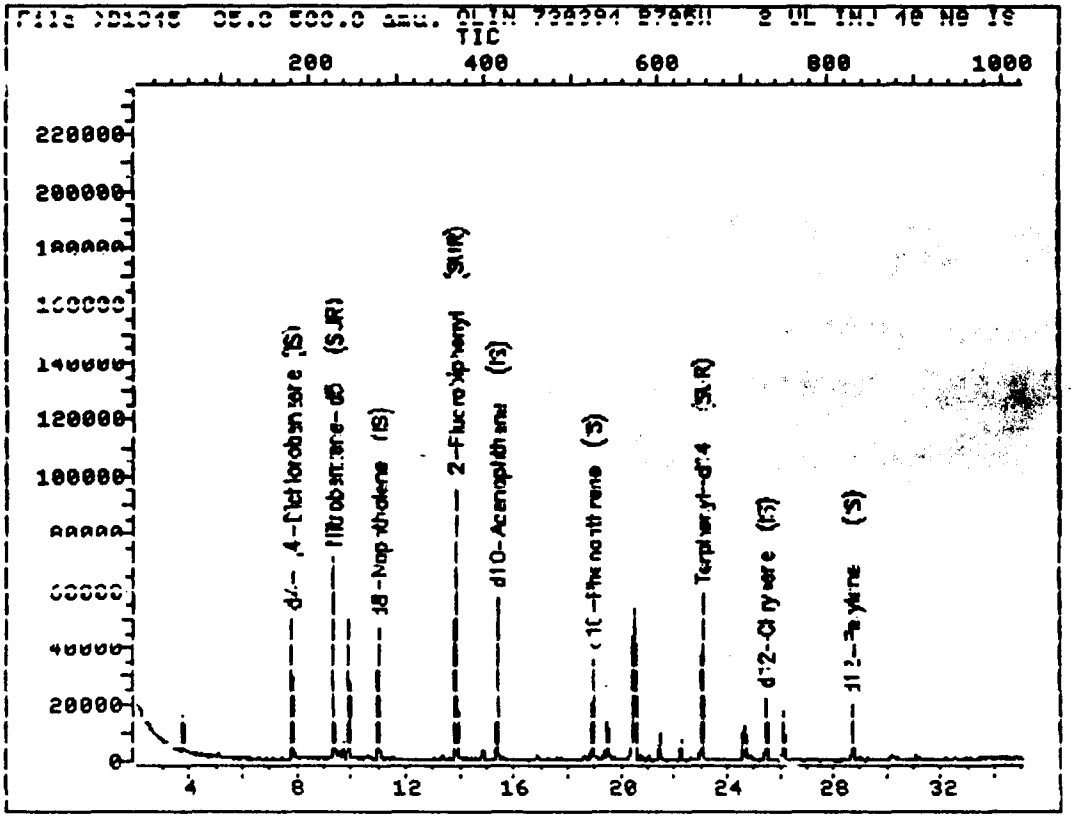
Operator ID: USER6 Quant Rev: 6 Quant Time: 871216 16:12
Output File: ^B1345::QT Injected at: 871216 15:18
Data File: >B1345::D1 Dilution Factor: 1.00000
Name: OLIN 730394 B705W
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.81	180	17121	40.00	ng/uL	94
16)	*d8-Naphthalene (IS)	11.01	279	55473	40.00	ng/uL	92
17)	Nitrobenzene-d5 (SUR)	9.33	227	69026	46.40	ng/uL 92.8	94
31)	*d10-Acenaphthene (IS)	15.40	415	33584	40.00	ng/uL	97
36)	2-Fluorobiphenyl (SUR)	13.85	367	80905	34.99	ng/uL 69.9	93
51)	*d10-Phenanthrene (IS)	18.96	525	42633	40.00	ng/uL	97
63)	*d12-Chrysene (IS)	25.48	727	26759	40.00	ng/uL	98
65)	Terphenyl-d14 (SUR)	23.09	653	61547	44.92	ng/uL 87.8	87
71)	*d12-Perylene (IS)	28.71	827	23357	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

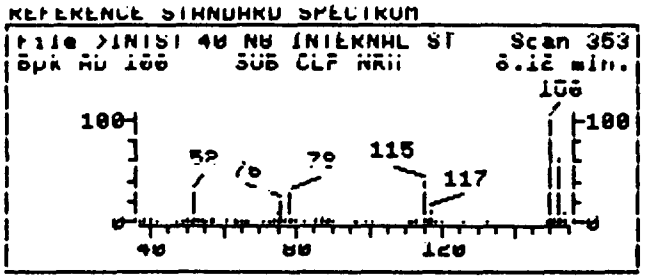


Data File: >B1345::D1 Quant Output File: ^B1345::QT
Name: OLIN 730394 B705W
Misc: 2 UL INJ 40 NG IS

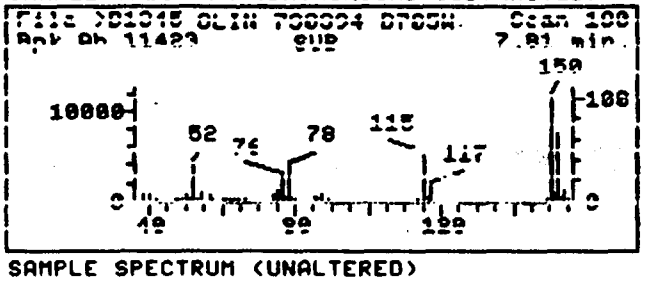
Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

Operator ID: USER6
Quant Time: 871216 16:12
Injected at: 871216 15:18

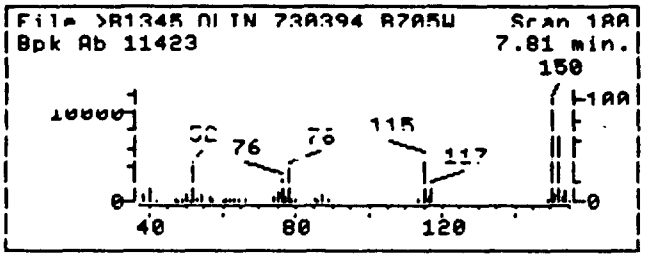
REFERENCE STANDARD SPECTRUM

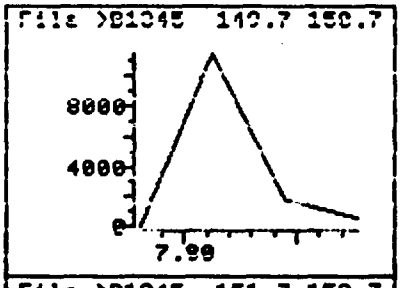


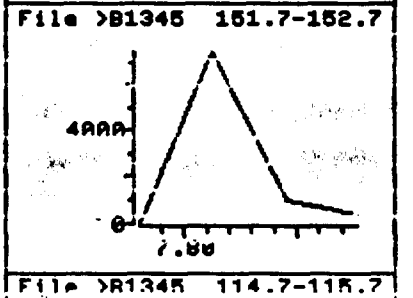
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

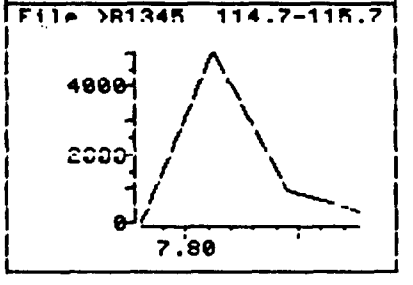


SAMPLE SPECTRUM (UNALTERED)



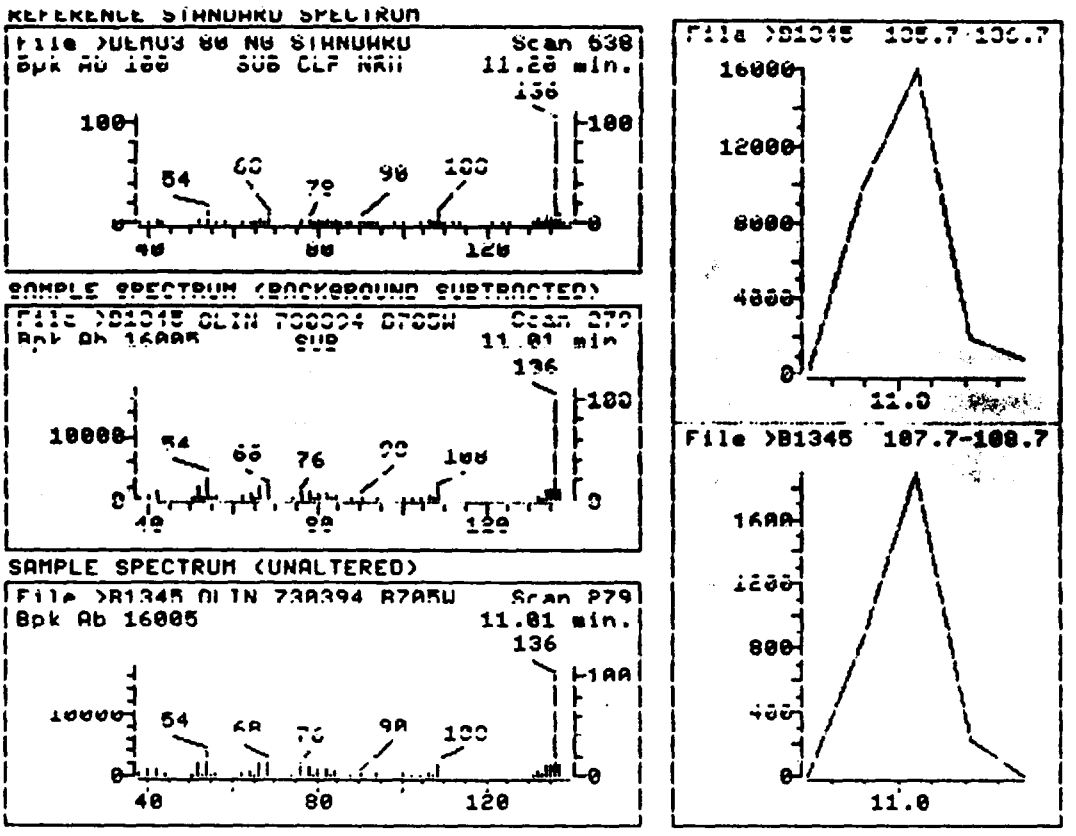






Data File: >B1345::D1 Quant Output File: ^B1345::QT
Name: OLIN 730394 B705W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 16:12 Quant ID File: ID BDA::L2
Injected at: 871216 15:18 Last Calibration: 871214 13:49

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 180
Retention Time: 7.81 min.
Quant Ion: 152.0
Area: 17121
Concentration: 40.00 ng/uL
q-value: 94



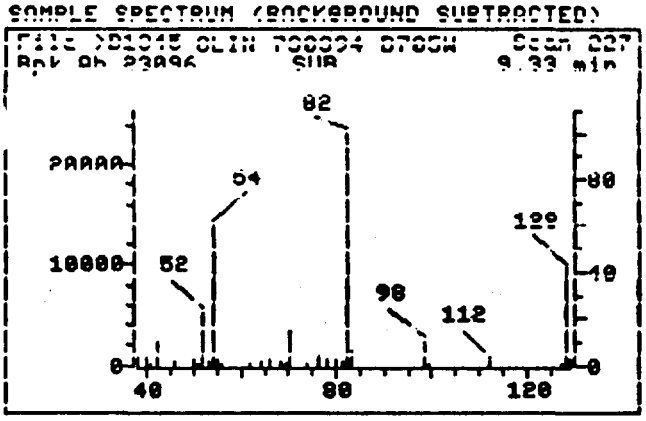
Data File: >B1345::D1
Name: OLIN 730394 B705W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 16:12
Injected at: 871216 15:18

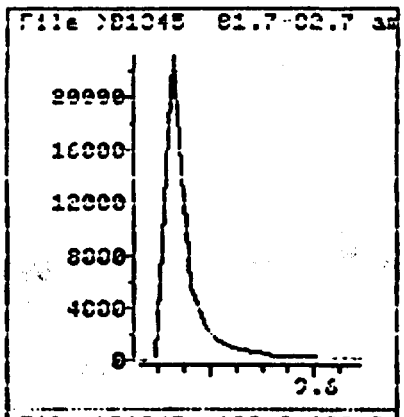
Quant Output File: ^B1345::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

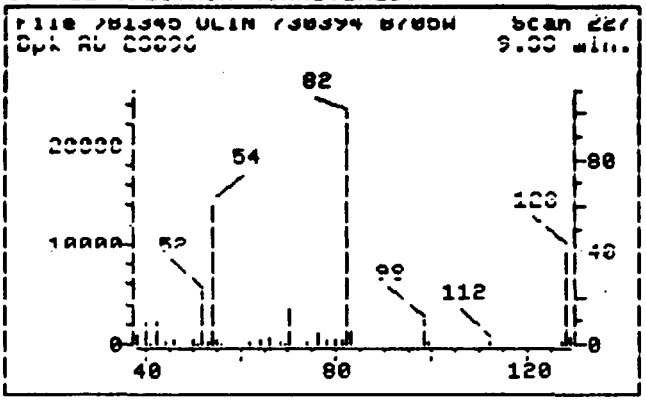
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 279
Retention Time: 11.01 min.
Quant Ion: 136.0
Area: 55473
Concentration: 40.00 ng/uL
q-value: 92

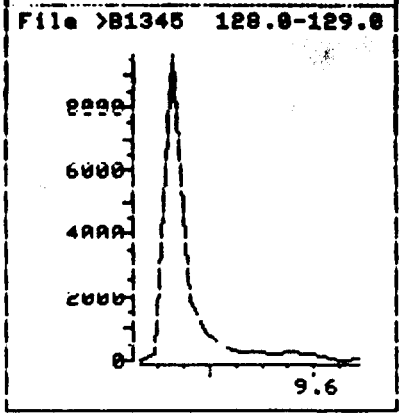
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





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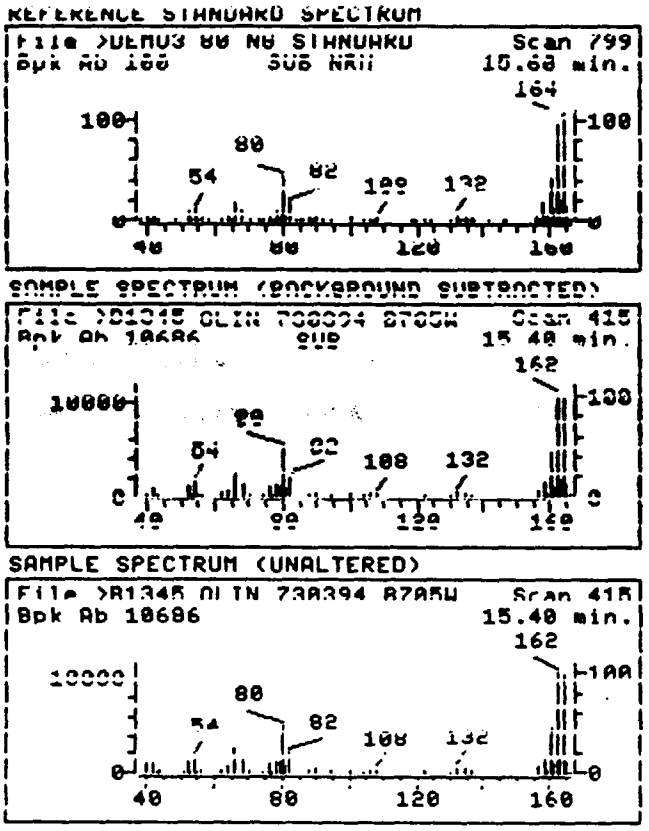
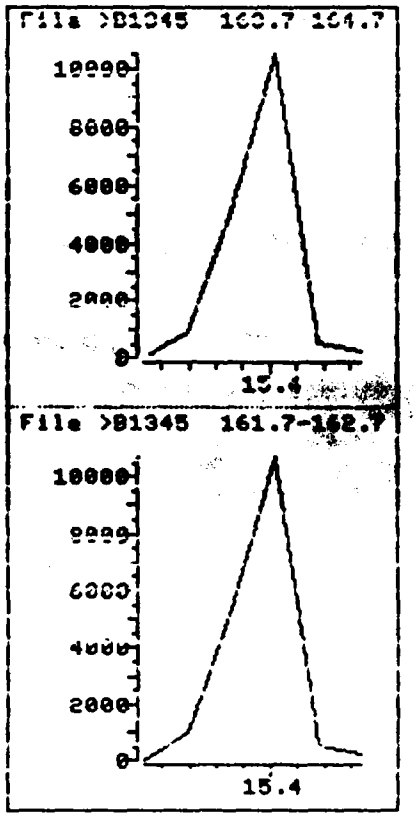
Name: OLIN 730394 B705W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 16:12
Injected at: 871216 15:18

Quant Output File: ^B1345::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 227
Retention Time: 9.33 min.
Quant Ion: 82.0
Area: 69026
Concentration: 46.40 ng/uL
q-value: 94





Data File: >B1345::D1
Name: OLIN 730394 B705W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 16:12
Injected at: 871216 15:18

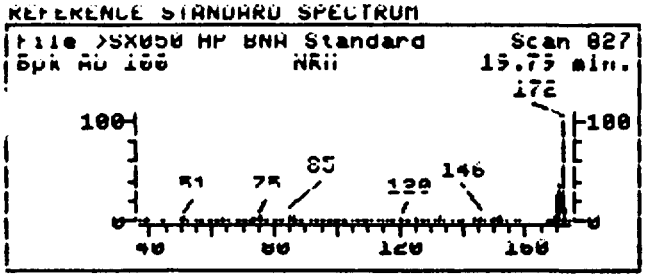
Quant Output File: ^B1345::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

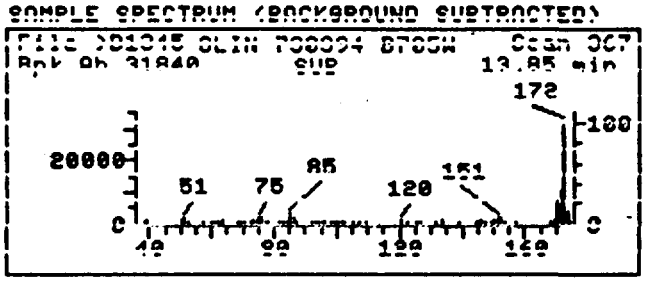
Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 415
Retention Time: 15.40 min.
Quant Ion: 164.0
Area: 33584
Concentration: 40.00 ng/uL
q-value: 97

3 2 00472

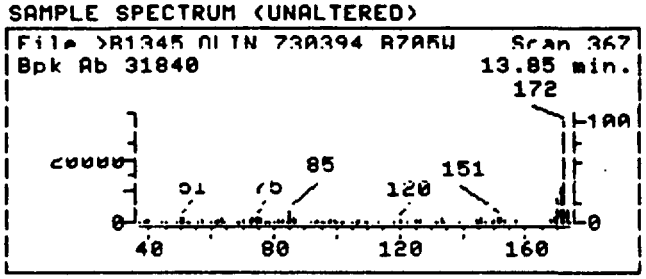
REFERENCE STANDARD SPECTRUM

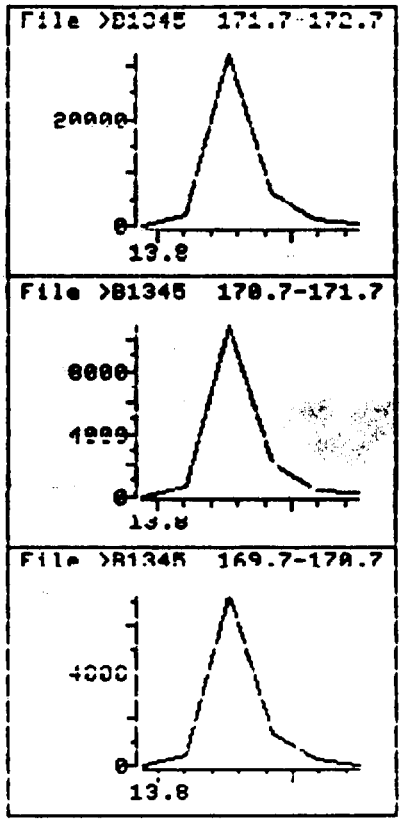


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



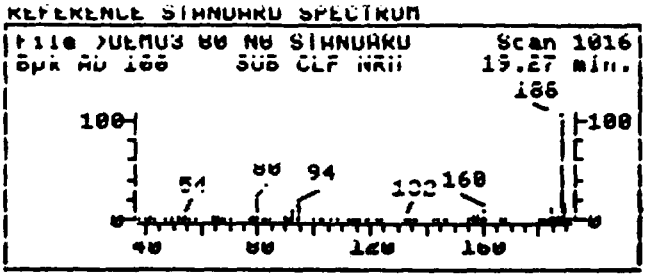


Data File: >B1345::D1
Name: OLIN 730394 B705W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 16:12
Injected at: 871216 15:18

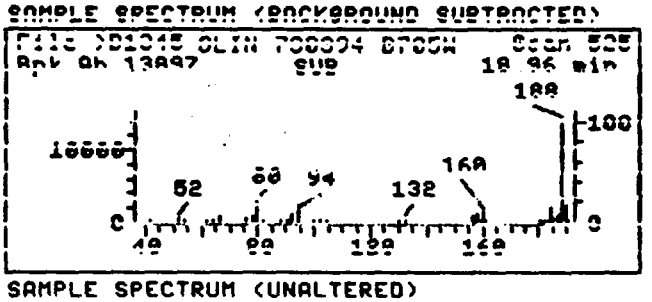
Quant Output File: ^B1345::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 367
Retention Time: 13.85 min.
Quant Ion: 172.0
Area: 80905
Concentration: 34.99 ng/uL
q-value: 93

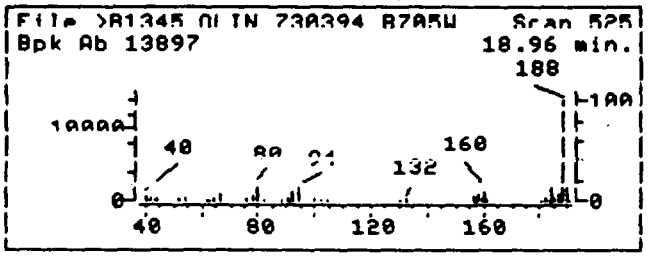
REFERENCE STANDARD SPECTRUM

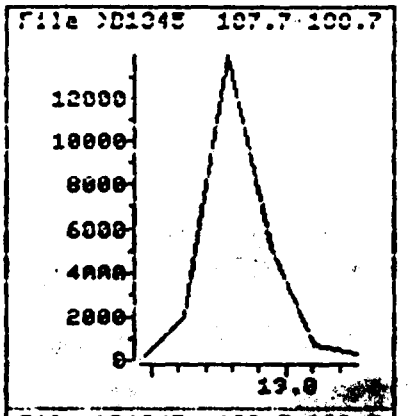


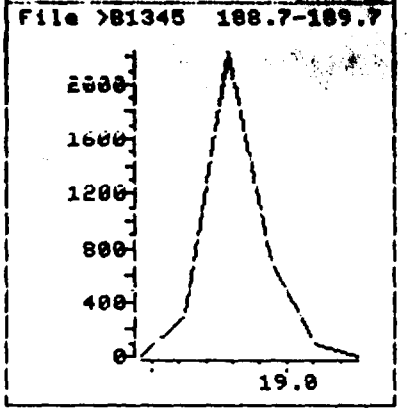
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





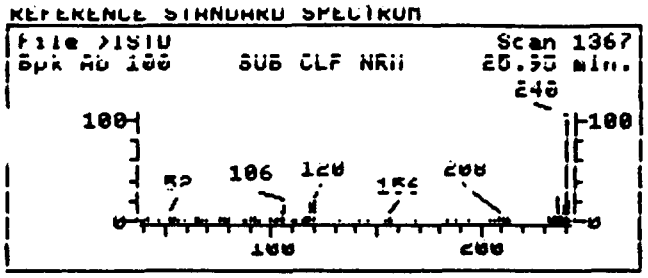


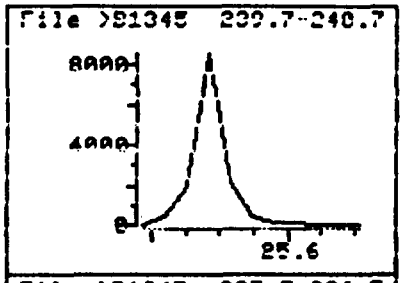
Data File: >B1345::D1
Name: OLIN 730394 B705W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 16:12
Injected at: 871216 15:18

Quant Output File: ^B1345::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

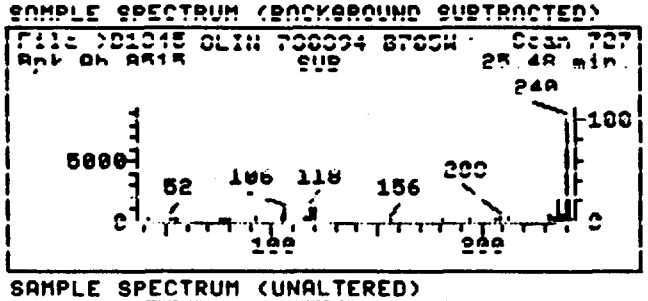
Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 525
Retention Time: 18.96 min.
Quant Ion: 188.0
Area: 42633
Concentration: 40.00 ng/uL
q-value: 97

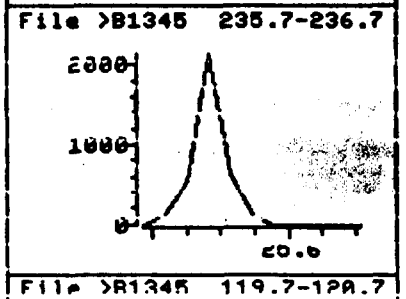
REFERENCE STANDARD SPECTRUM



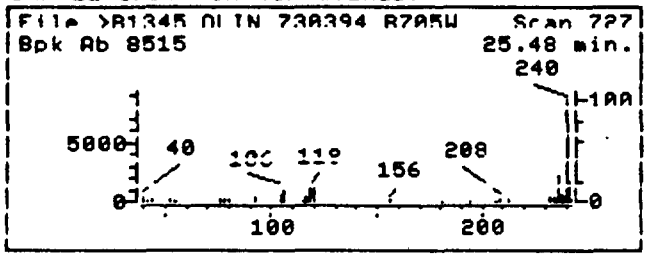


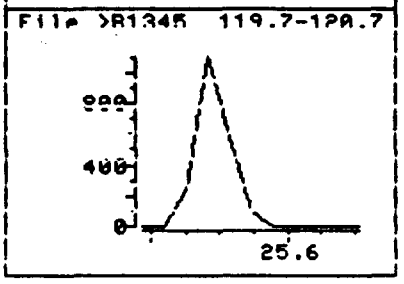
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



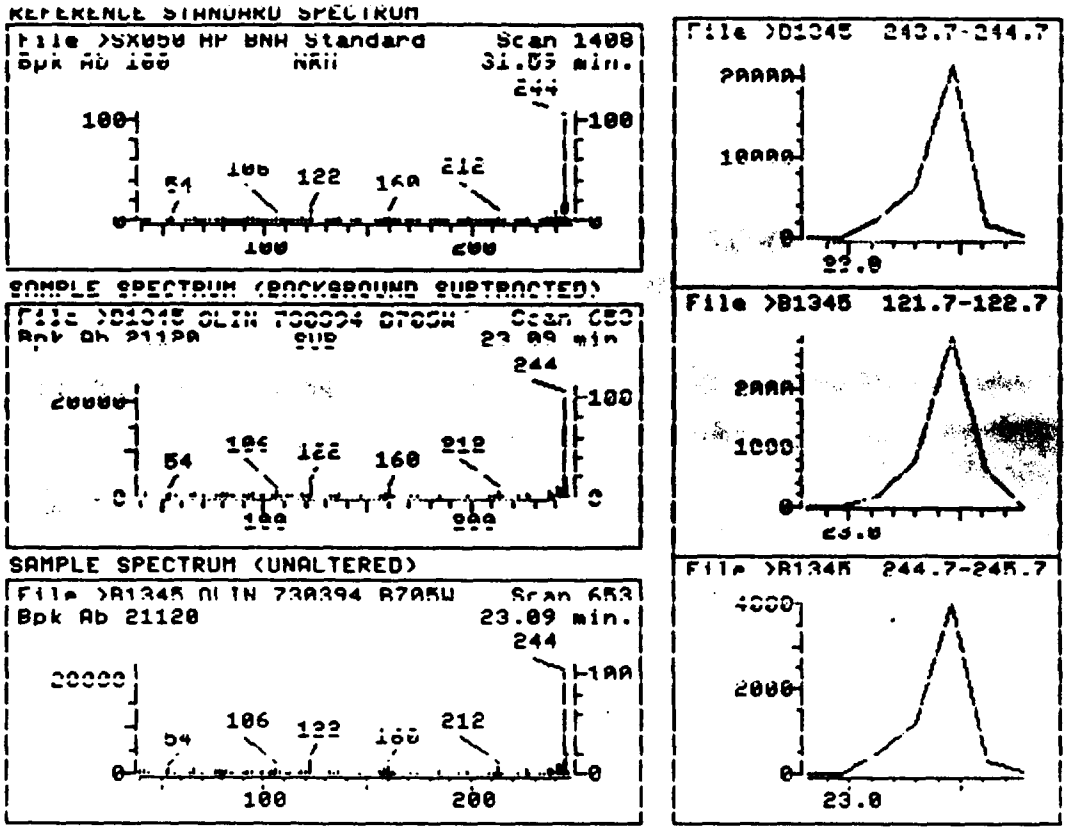


Data File: >B1345::D1
Name: OLIN 730394 B705W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 16:12
Injected at: 871216 15:18

Quant Output File: ^B1345::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 727
Retention Time: 25.48 min.
Quant Ion: 240.0
Area: 26759
Concentration: 40.00 ng/uL
q-value: 98



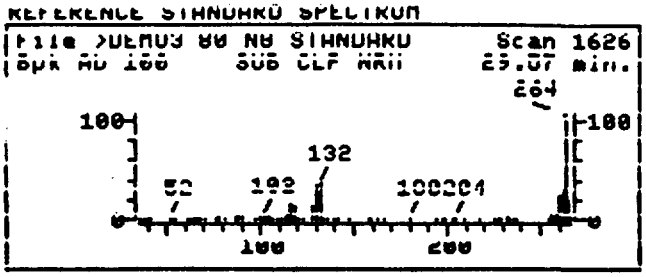
Data File: >B1345::D1
Name: OLIN 730394 B705W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 16:12
Injected at: 871216 15:18

Quant Output File: ^B1345::QT

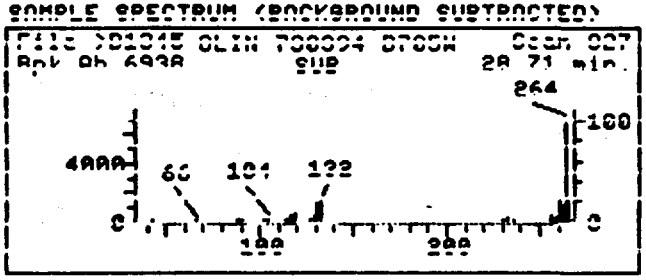
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 653
Retention Time: 23.09 min.
Quant Ion: 244.0
Area: 61547
Concentration: 44.92 ng/uL
q-value: 87

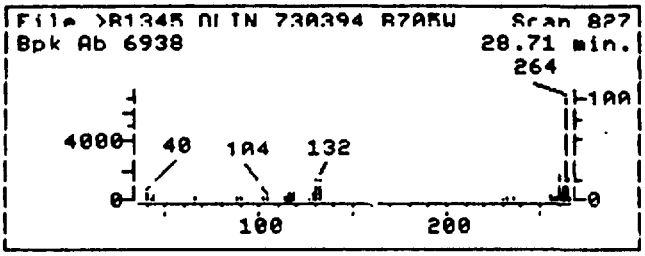
REFERENCE STANDARD SPECTRUM

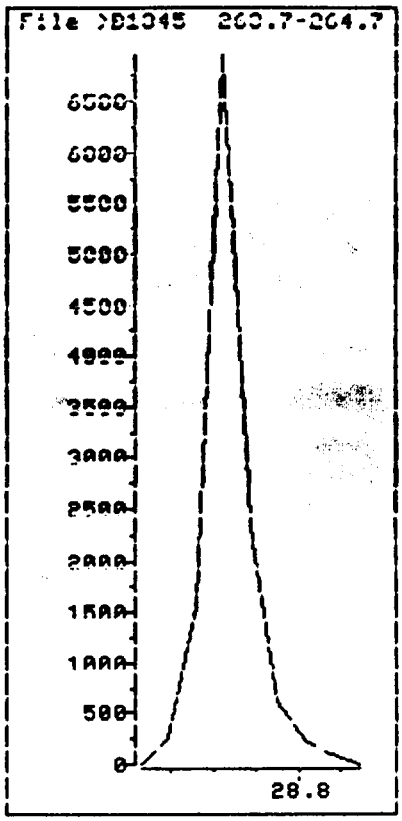


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >B1345::D1
Name: OLIN 730394 B705W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871216 16:12
Injected at: 871216 15:18

Quant Output File: ^B1345::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 827
Retention Time: 28.71 min.
Quant Ion: 264.0
Area: 23357
Concentration: 40.00 ng/uL
q-value: 100

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18787

CC: Paul Klotz

BCM Number : A30395
Location : TRIP
Client ID : BLK

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

QUANT REPORT

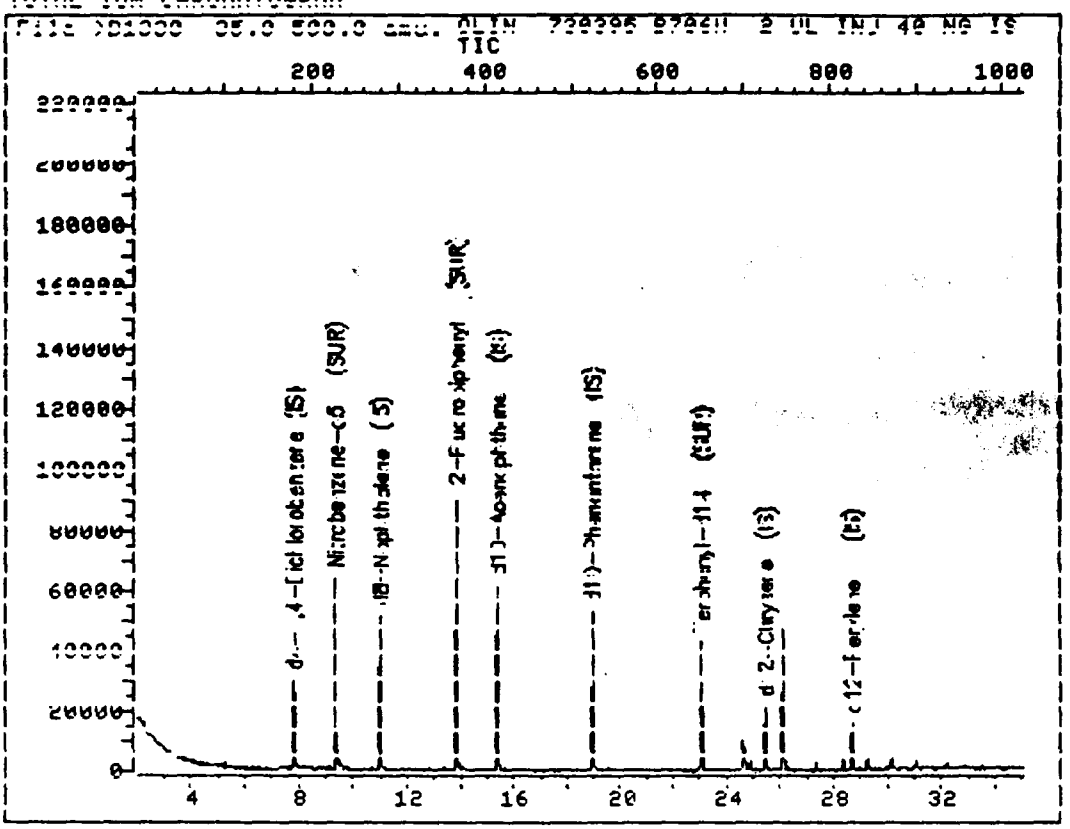
Operator ID: USER6 Quant Rev: 6 Quant Time: 871215 13:10
Output File: ^B1330::QT Injected at: 871215 12:33
Data File: >B1330::D1 Dilution Factor: 1.00000
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.80	180	16317	40.00	ng/uL	96
16)	*d8-Naphthalene (IS)	11.00	279	59540	40.00	ng/uL	93
17)	Nitrobenzene-d5 (SUR)	9.32	227	63183	39.58	ng/uL	90
31)	*d10-Acenaphthene (IS)	15.39	415	38366	40.00	ng/uL	96
36)	2-Fluorobiphenyl (SUR)	13.84	367	75559	28.60	ng/uL	94
51)	*d10-Phenanthrene (IS)	18.95	525	52591	40.00	ng/uL	98
63)	*d12-Chrysene (IS)	25.47	727	25595	40.00	ng/uL	94
65)	Terphenyl-d14 (SUR)	23.08	653	51991	39.67	ng/uL	95
71)	*d12-Perylene (IS)	28.70	827	21657	40.00	ng/uL	100

* Compound is ISTD

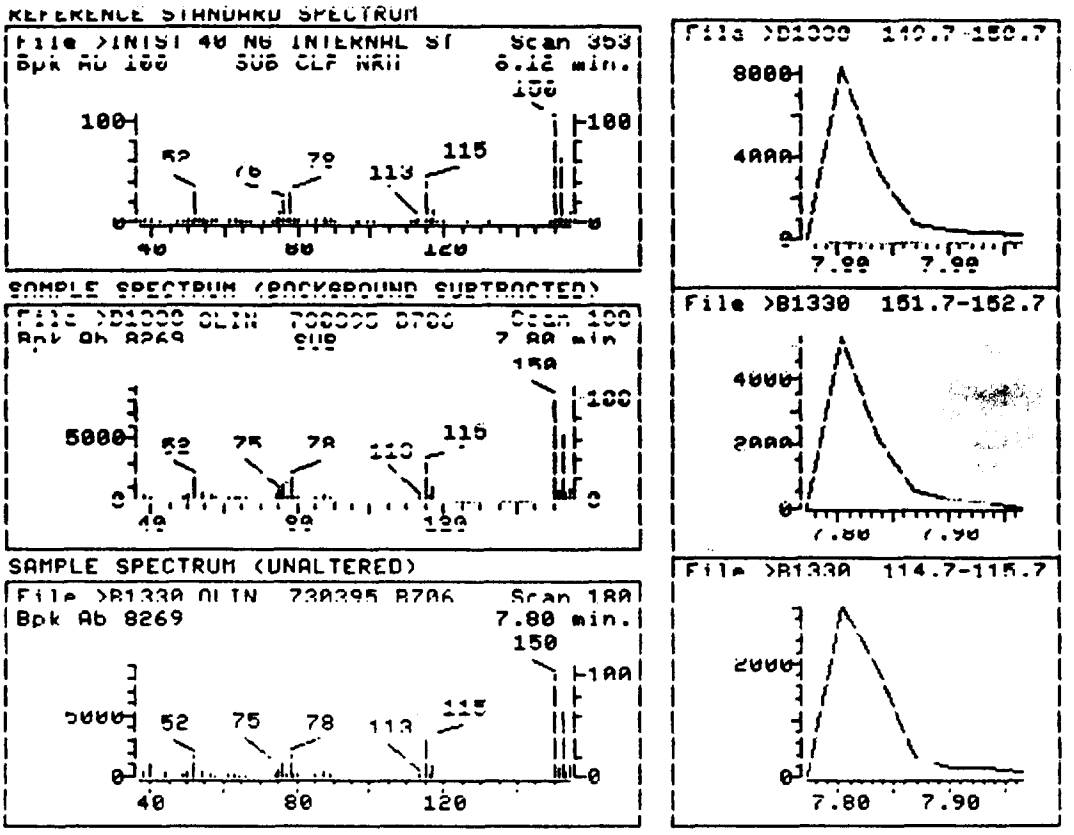
TOTAL ION CHROMATOGRAM



Data File: >B1330::D1 Quant Output File: ^B1330::QT
Name: OLIN 730395 8706W
Misc: 2 UL INJ 40 NG IS

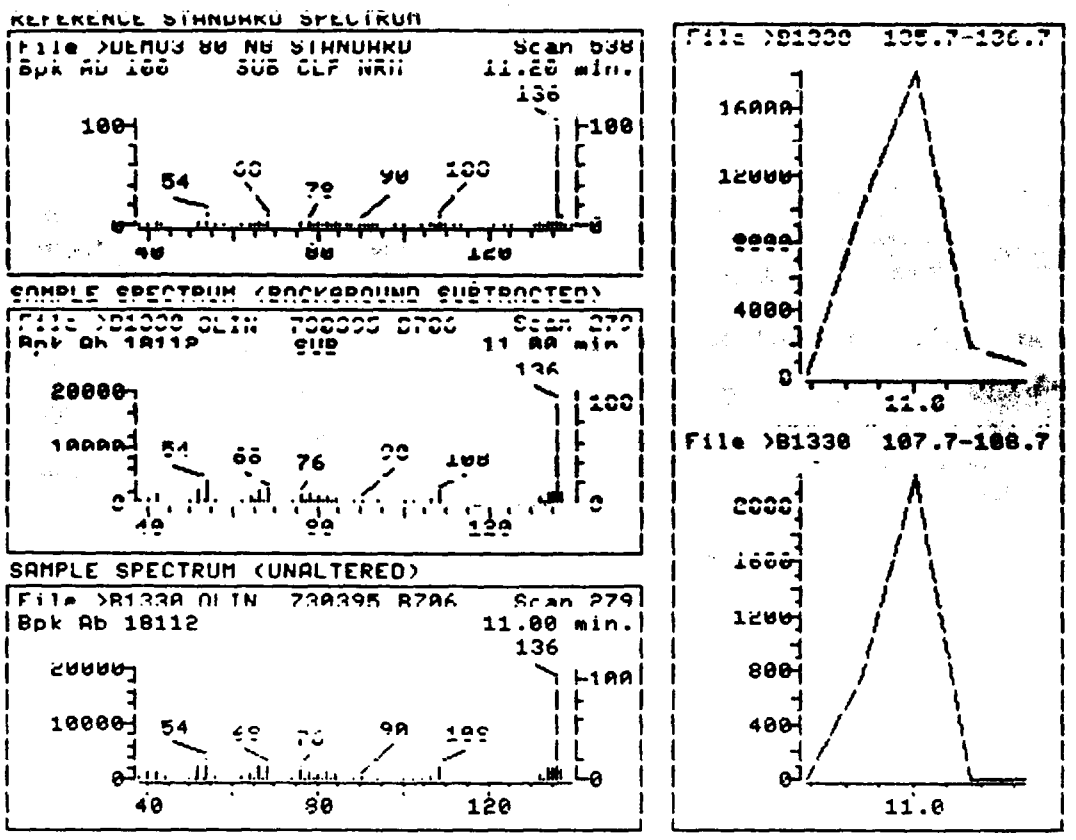
Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

Operator ID: USER6
Quant Time: 871215 13:10
Injected at: 871215 12:33



Data File: >B1330::D1 Quant Output File: ^B1330::QT
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10 Quant ID File: ID BDA::L2
Injected at: 871215 12:33 Last Calibration: 871214 13:49

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 180
Retention Time: 7.80 min.
Quant Ion: 152.0
Area: 16317
Concentration: 40.00 ng/uL
q-value: 96



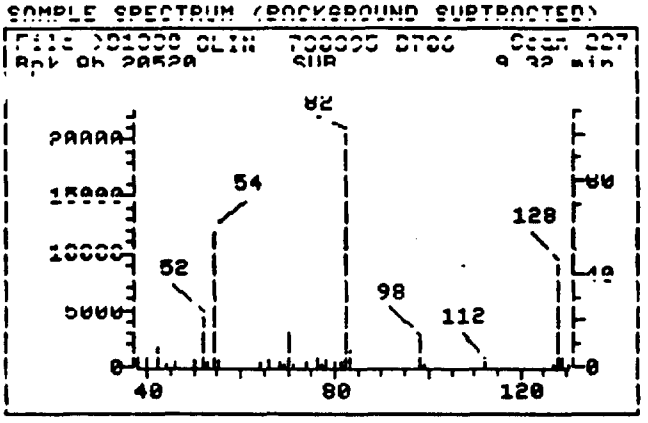
Data File: >B1330::D1
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10
Injected at: 871215 12:33

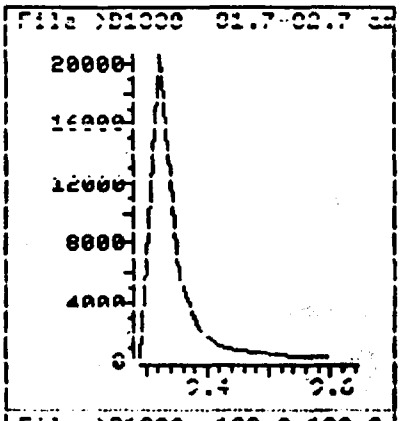
Quant Output File: ^B1330::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

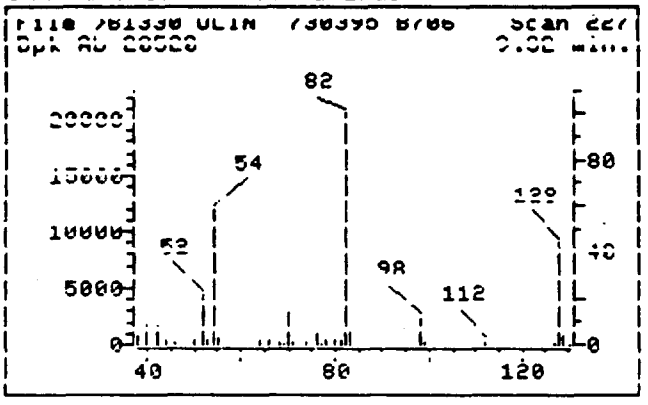
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 279
Retention Time: 11.00 min.
Quant Ion: 136.0
Area: 59540
Concentration: 40.00 ng/uL
q-value: 93

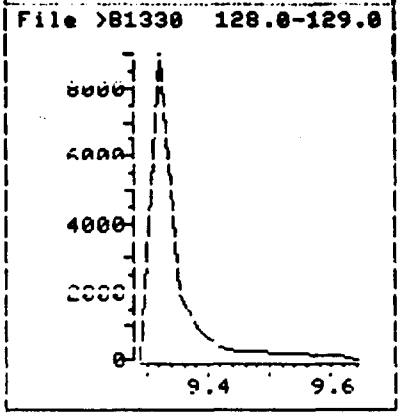
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





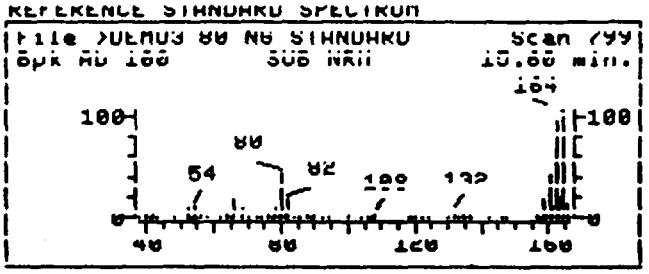
Data File: >B1330::D1
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10
Injected at: 871215 12:33

Quant Output File: ^B1330::QT

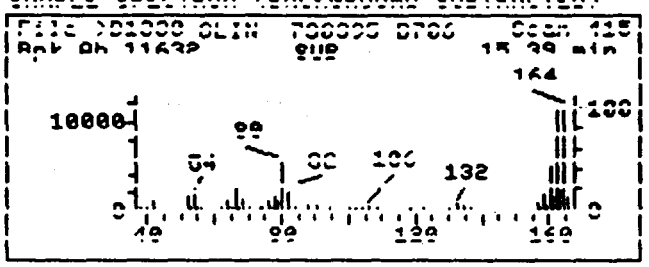
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 227
Retention Time: 9.32 min.
Quant Ion: 82.0
Area: 63183
Concentration: 39.58 ng/uL
q-value: 90

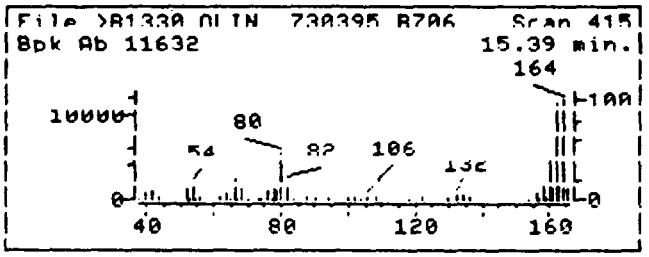
REFERENCE STANDARD SPECTRUM

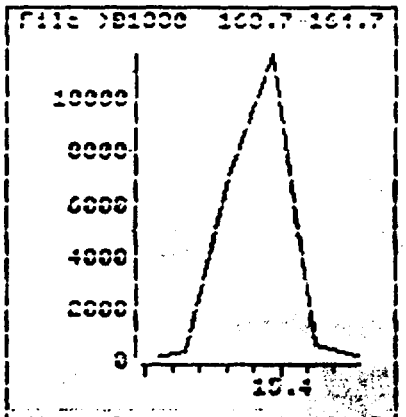


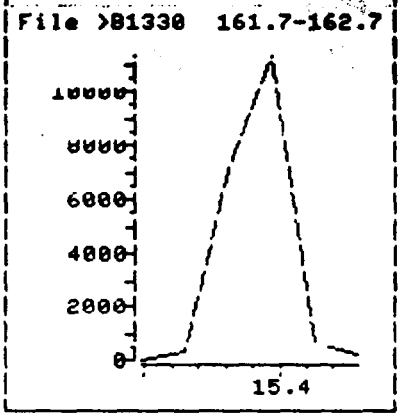
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





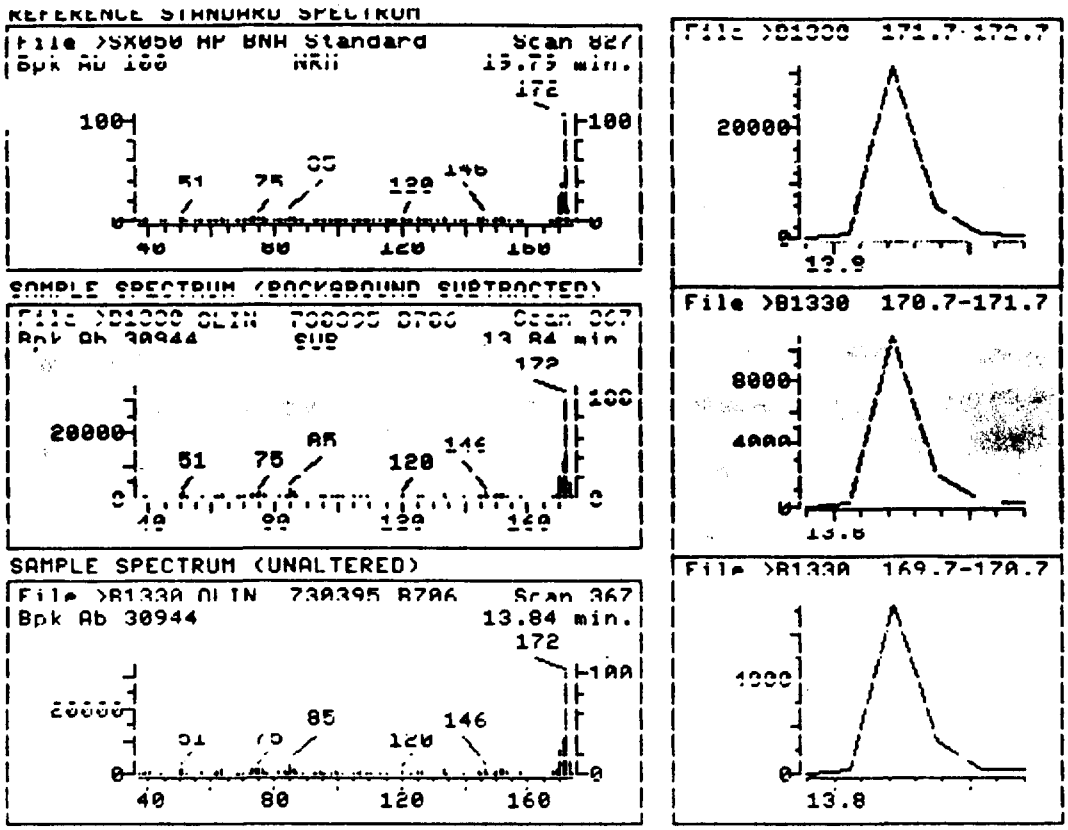


Data File: >B1330::D1
Name: DLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10
Injected at: 871215 12:33

Quant Output File: ^B1330::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 415
Retention Time: 15.39 min.
Quant Ion: 164.0
Area: 38366
Concentration: 40.00 ng/uL
q-value: 96

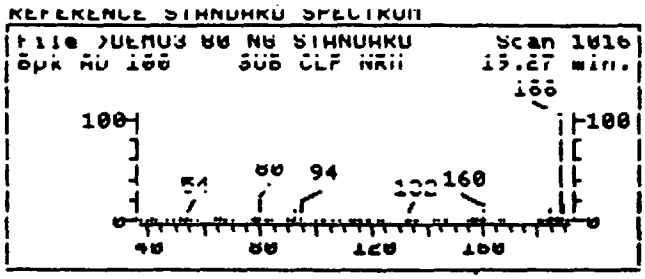


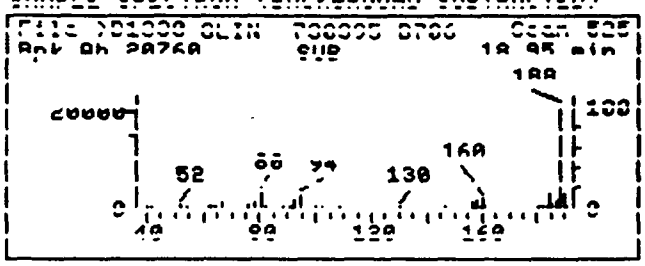
Data File: >B1330::D1
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10
Injected at: 871215 12:33

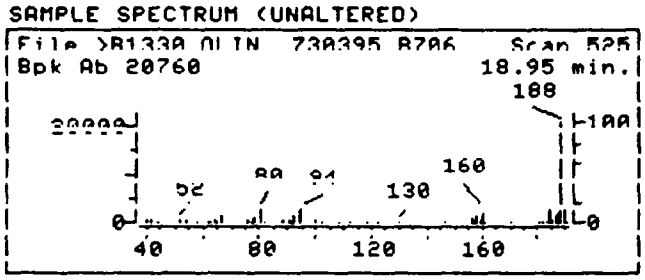
Quant Output File: ^B1330::QT

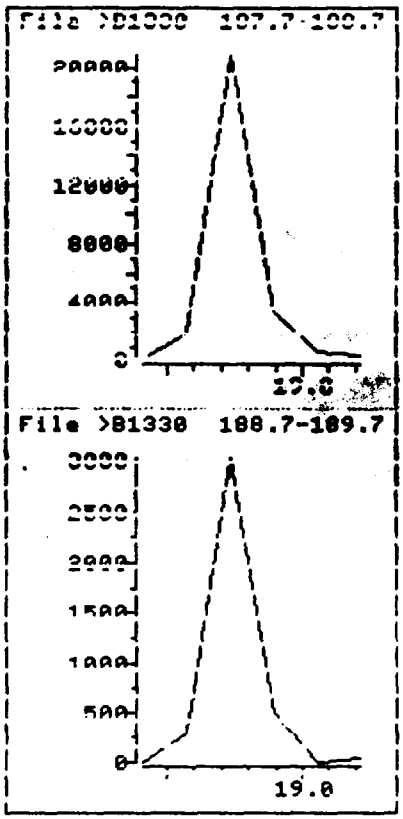
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 367
Retention Time: 13.84 min.
Quant Ion: 172.0
Area: 75559
Concentration: 28.60 ng/uL
q-value: 94







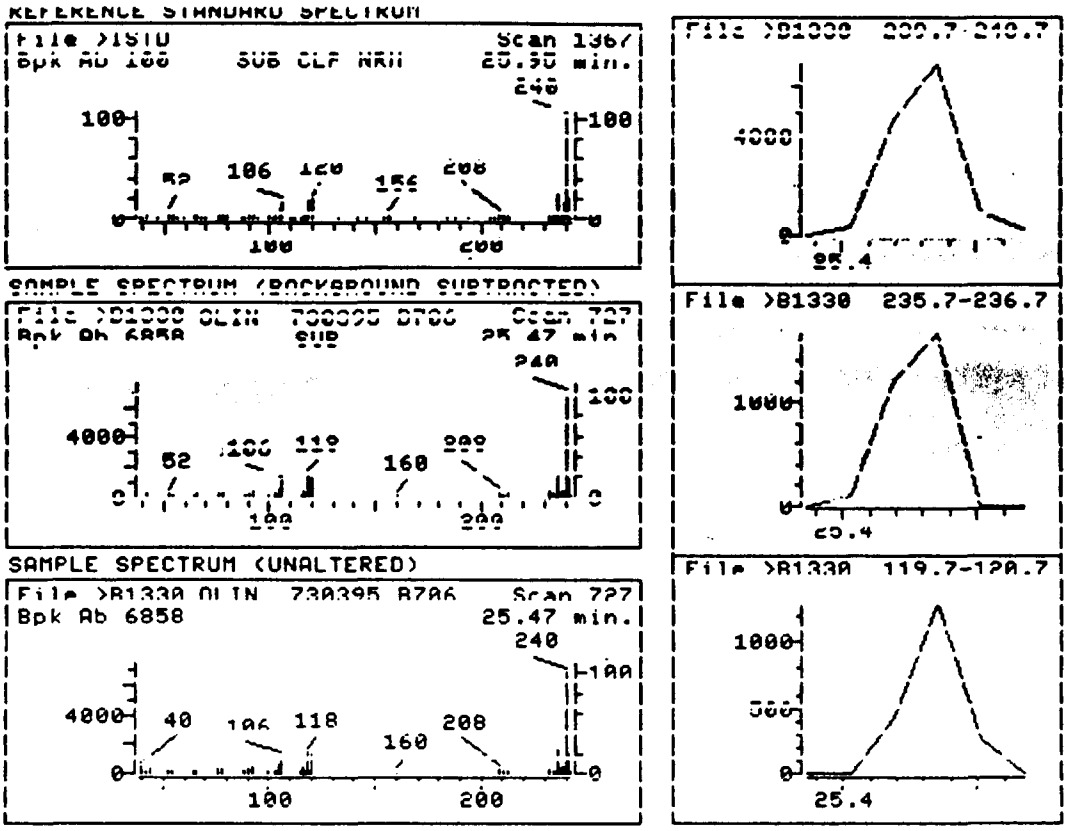


Data File: >B1330::D1
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10
Injected at: 871215 12:33

Quant Output File: ^B1330::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 525
Retention Time: 18.95 min.
Quant Ion: 188.0
Area: 52591
Concentration: 40.00 ng/uL
q-value: 98

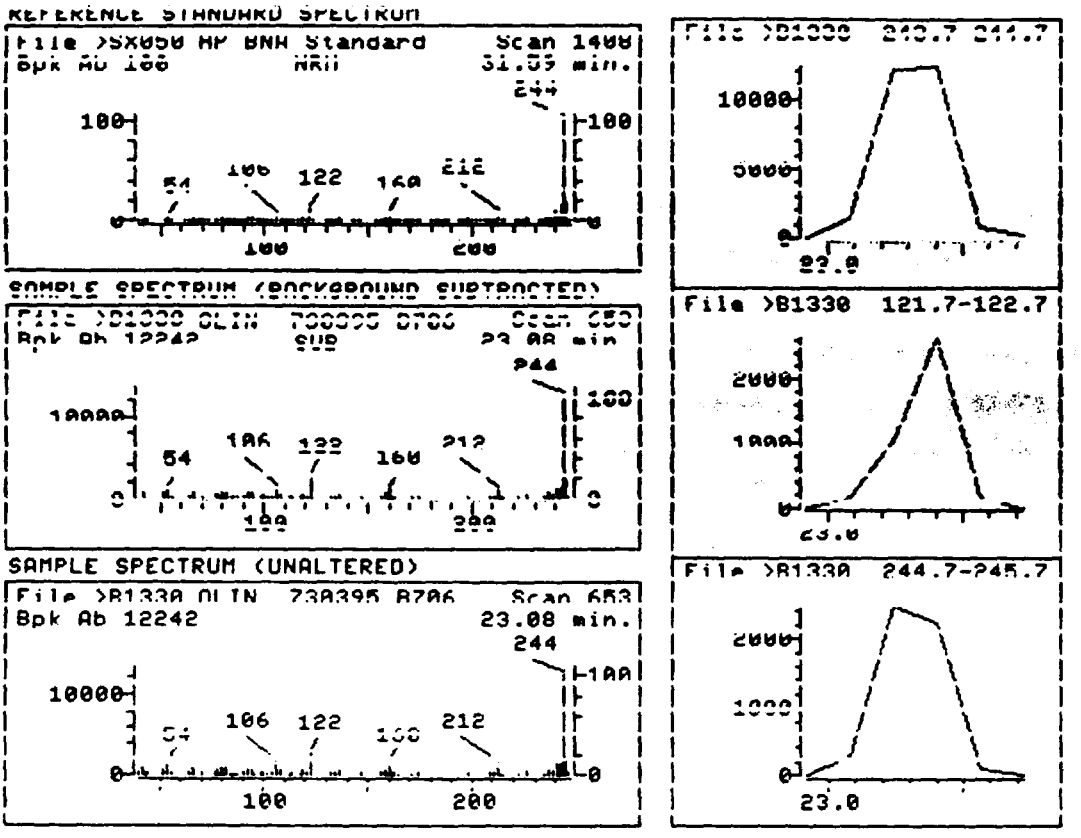


Data File: >B1330::D1
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10
Injected at: 871215 12:33

Quant Output File: ^B1330::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 727
Retention Time: 25.47 min.
Quant Ion: 240.0
Area: 25595
Concentration: 40.00 ng/uL
q-value: 94

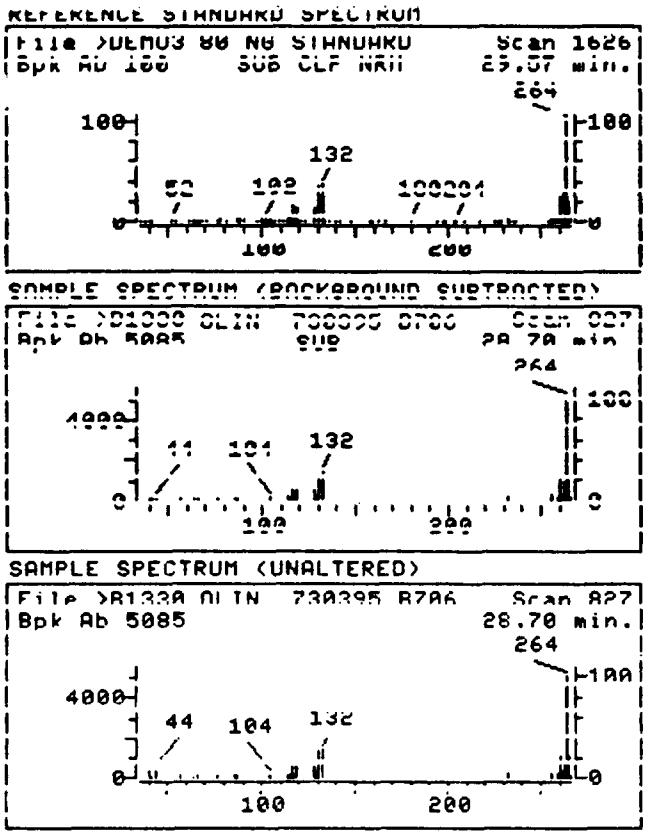


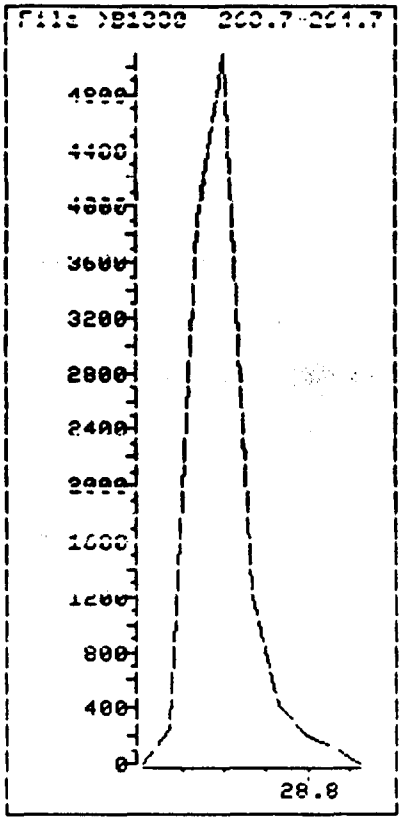
Data File: >B1330::D1
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10
Injected at: 871215 12:33

Quant Output File: ^B1330::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 653
Retention Time: 23.08 min.
Quant Ion: 244.0
Area: 51991
Concentration: 39.67 ng/uL
q-value: 95





Data File: >B1330::D1
Name: OLIN 730395 B706W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:10
Injected at: 871215 12:33

Quant Output File: ^B1330::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 827
Retention Time: 28.70 min.
Quant Ion: 264.0
Area: 21657
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

3 2 00481

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871215 13:57
Output File: ^B1331::QT Injected at: 871215 13:15
Data File: >B1331::D1 Dilution Factor: 1.00000
Name: OLIN 730396 B707W
Misc: 2 UL INJ 40 NG IS

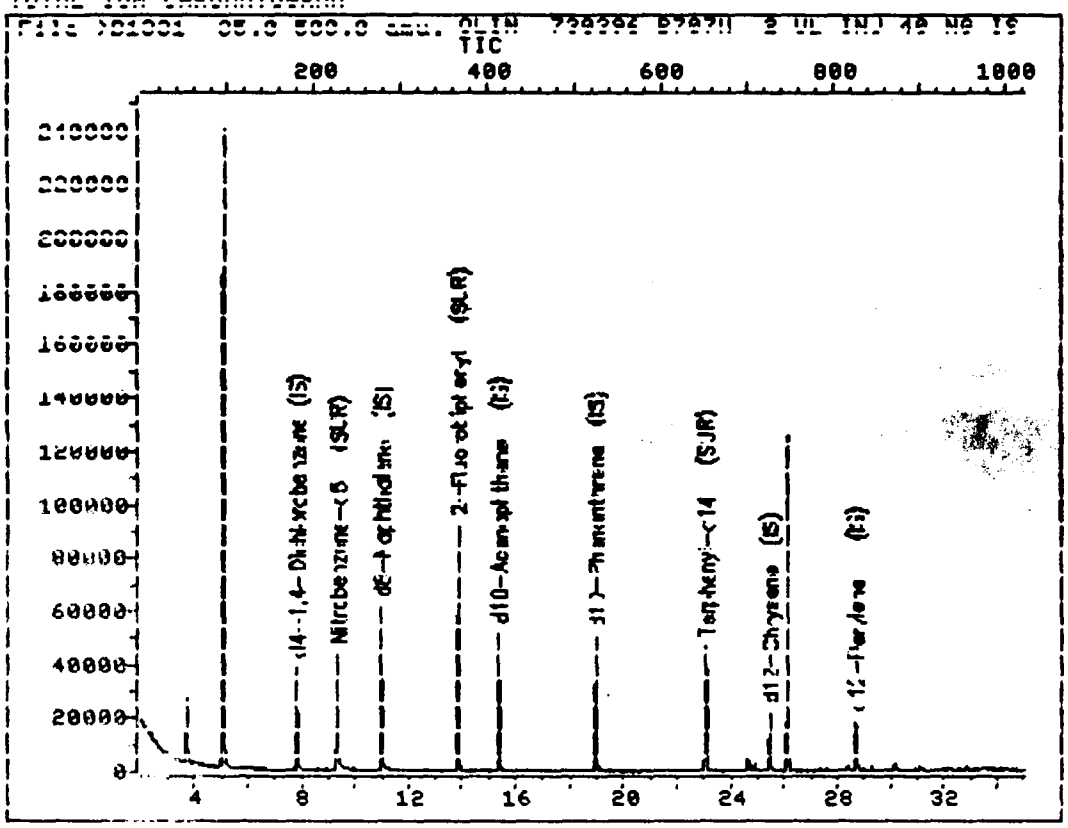
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.82	180	15003	40.00	ng/uL	90
16)	*d8-Naphthalene (IS)	10.99	278	61035	40.00	ng/uL	87
17)	Nitrobenzene-d5 (SUR)	9.34	227	48839	29.84	ng/uL	87
31)	*d10-Acenaphthene (IS)	15.38	414	30601	40.00	ng/uL	96
36)	2-Fluorobiphenyl (SUR)	13.86	367	73070	34.68	ng/uL	94
51)	*d10-Phenanthrene (IS)	18.96	525	48377	40.00	ng/uL	99
63)	*d12-Chrysene (IS)	25.46	726	32490	40.00	ng/uL	97
65)	Terphenyl-d14 (SUR)	23.07	652	60697	36.49	ng/uL	84
71)	*d12-Perylene (IS)	28.69	826	28528	40.00	ng/uL	100

* Compound is ISTD

3 2 00482

TOTAL ION CHROMATOGRAM

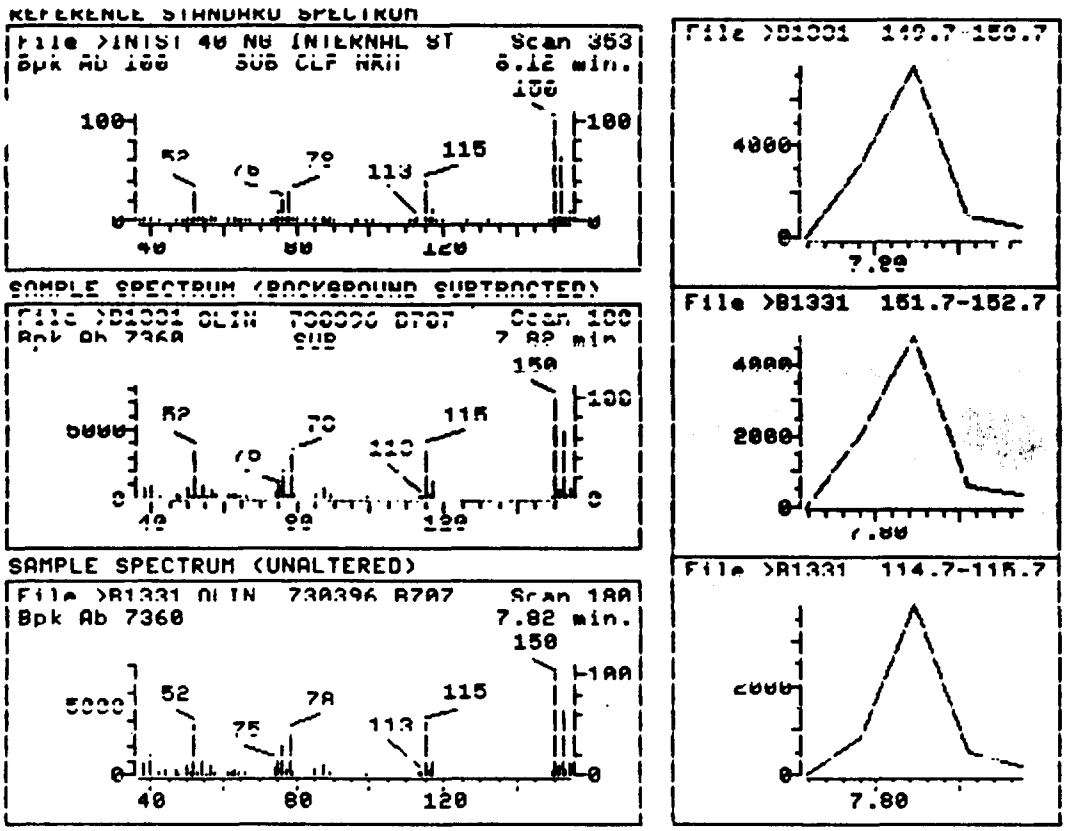


Data File: >B1331::D1 Quant Output File: ^B1331::QT
Name: OLIN 730396 B707W
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

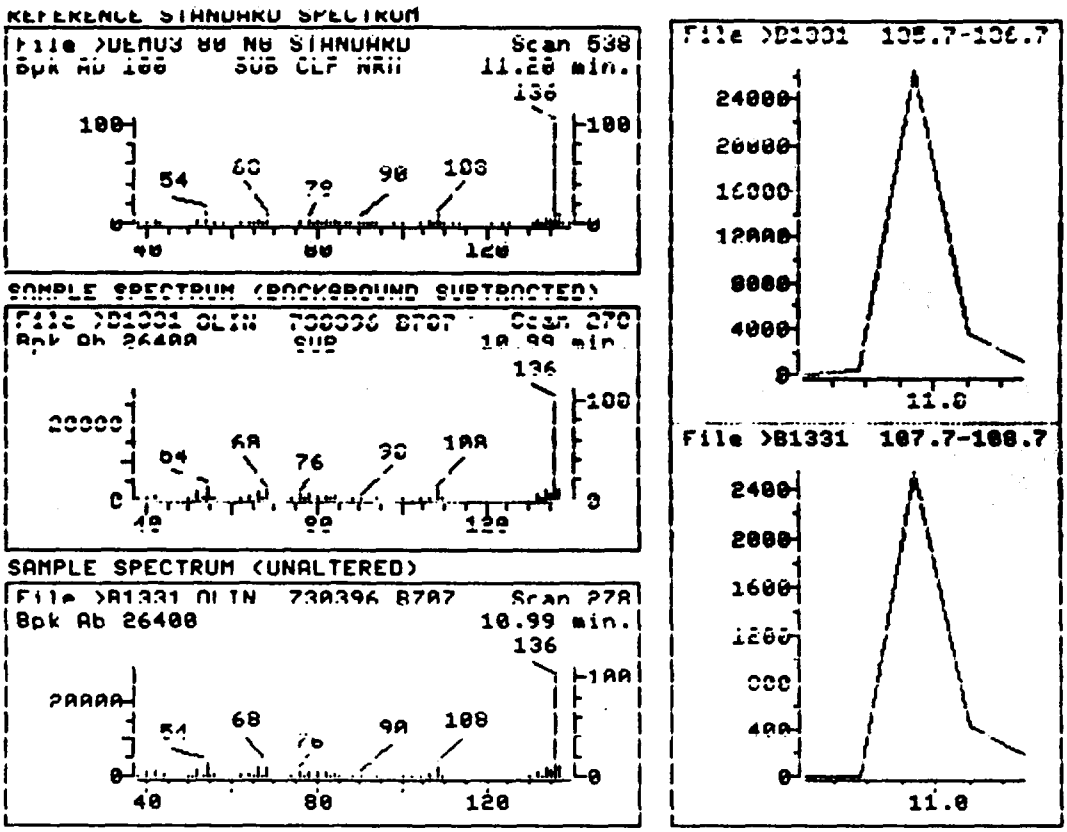
Operator ID: USER6
Quant Time: 871215 13:57
Injected at: 871215 13:15

3 2 00483



Data File: >B1331::D1 Quant Output File: ^B1331::QT
Name: OLIN 730396 B707W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:57 Quant ID File: ID BDA::L2
Injected at: 871215 13:15 Last Calibration: 871214 13:49

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 180
Retention Time: 7.82 min.
Quant Ion: 152.0
Area: 15003
Concentration: 40.00 ng/uL
q-value: 90



Data File: >B1331::D1
Name: OLIN 730396 B707W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:57
Injected at: 871215 13:15

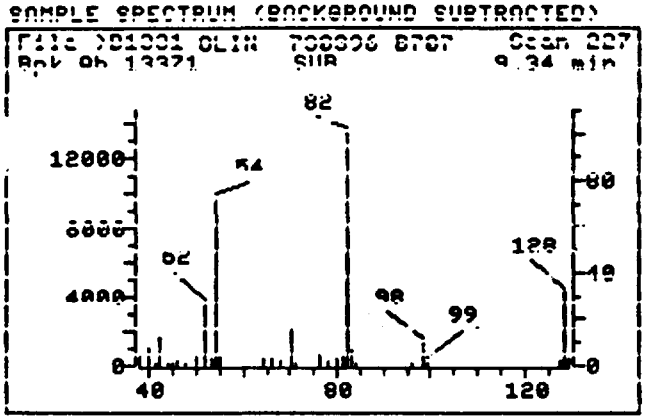
Quant Output File: ^B1331::QT

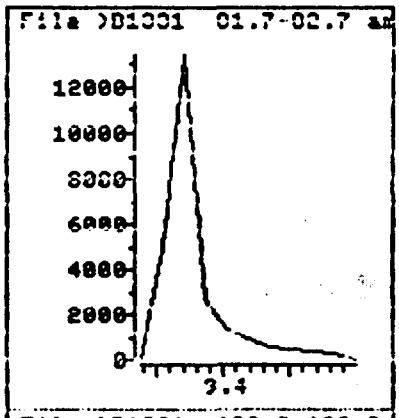
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 278
Retention Time: 10.99 min.
Quant Ion: 136.0
Area: 61035
Concentration: 40.00 ng/uL
q-value: 87

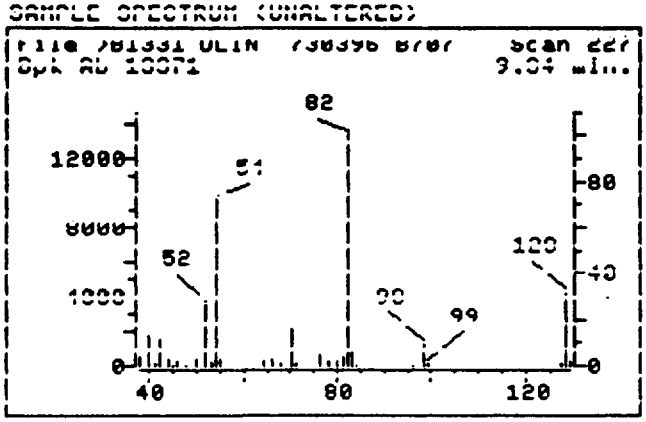
3 2 00484

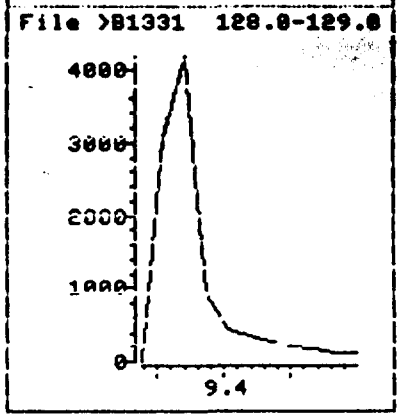
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





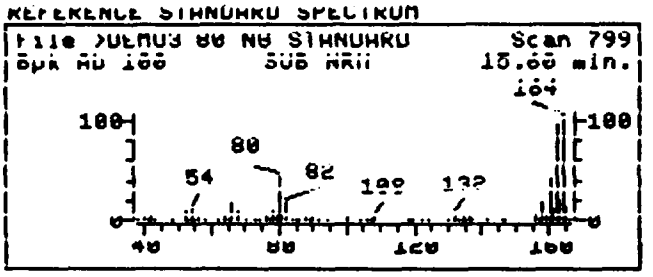
Data File: >B1331::D1
Name: OLIN 730396 B707W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:57
Injected at: 871215 13:15

Quant Output File: ^B1331::QT

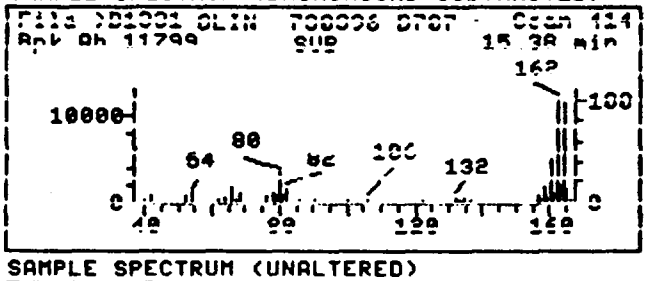
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 227
Retention Time: 9.34 min.
Quant Ion: 82.0
Area: 48839
Concentration: 29.84 ng/uL
q-value: 87

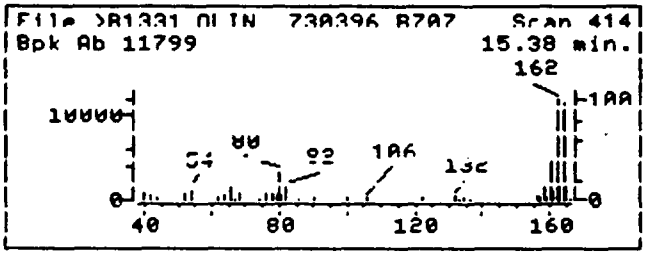
REFERENCE STANDARD SPECTRUM

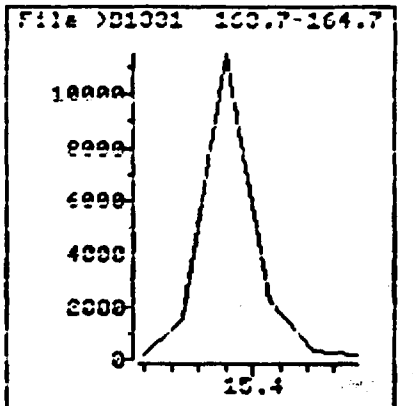


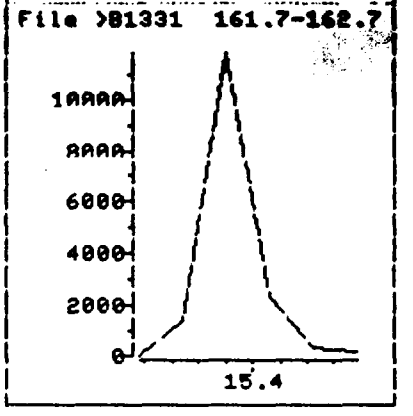
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







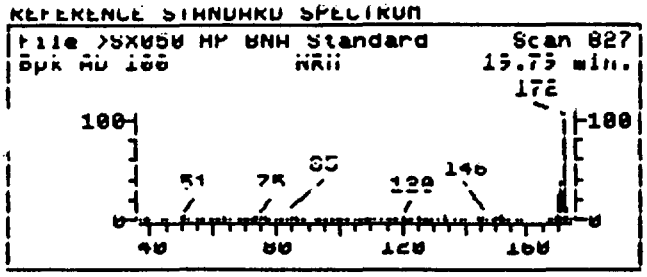
Data File: >B1331::D1
Name: OLIN 730396 B707W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:57
Injected at: 871215 13:15

Quant Output File: ^B1331::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

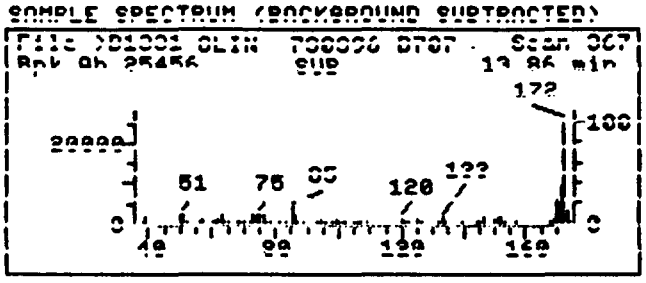
Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 414
Retention Time: 15.38 min.
Quant Ion: 164.0
Area: 30601
Concentration: 40.00 ng/uL
q-value: 96

3 2 00485

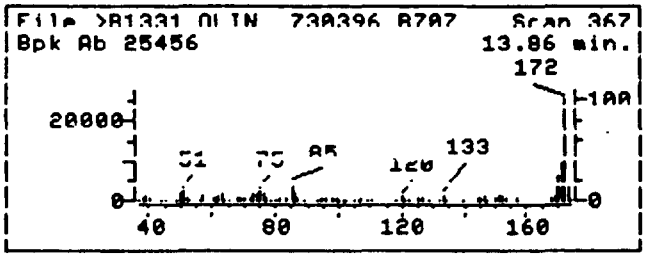
REFERENCE STANDARD SPECTRUM

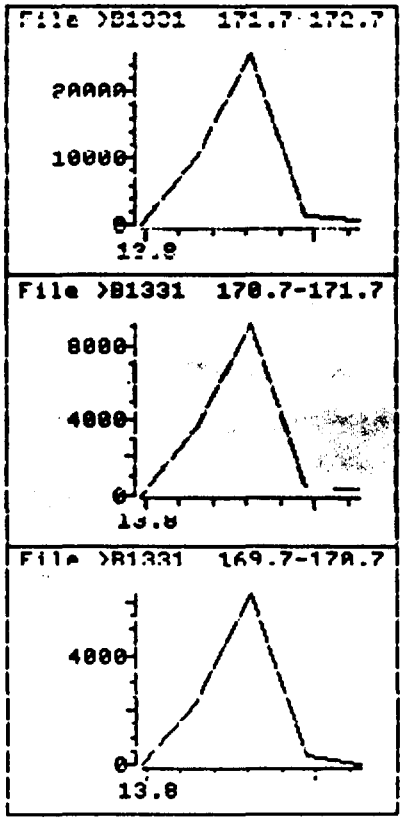


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



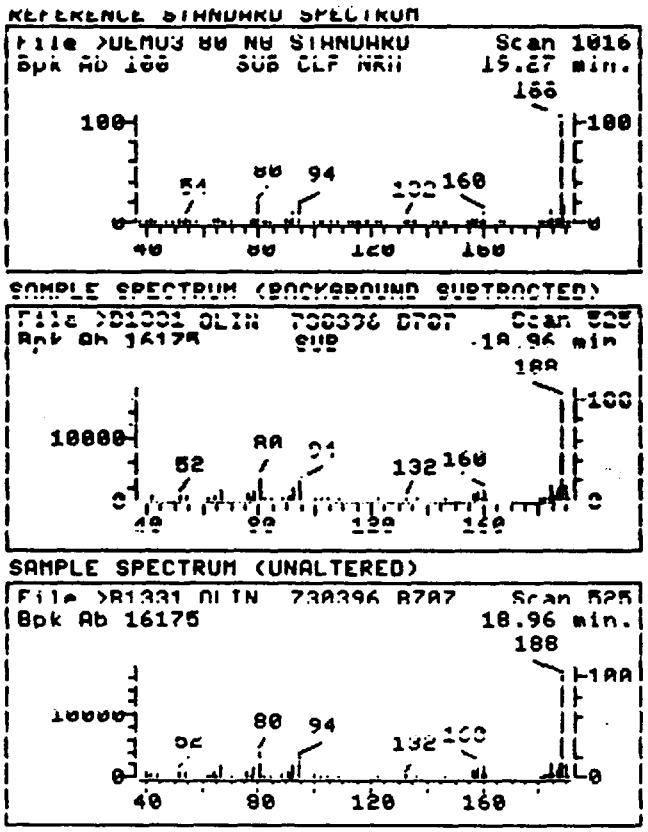


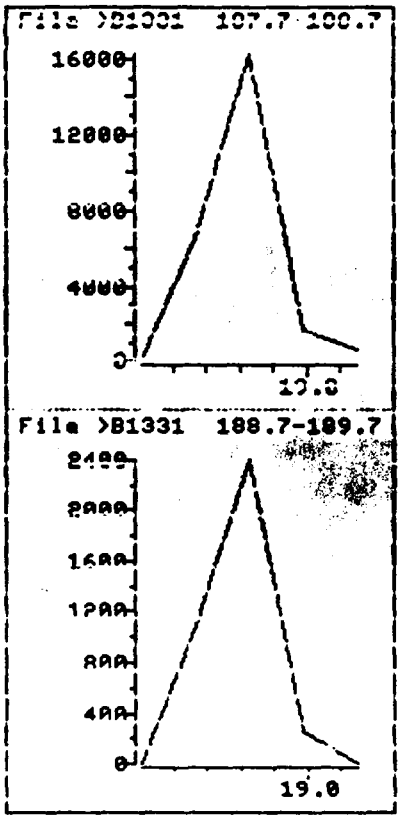
Data File: >B1331::D1
Name: OLIN 730396 B707W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:57
Injected at: 871215 13:15

Quant Output File: ^B1331::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 367
Retention Time: 13.86 min.
Quant Ion: 172.0
Area: 73070
Concentration: 34.68 ng/uL
q-value: 94



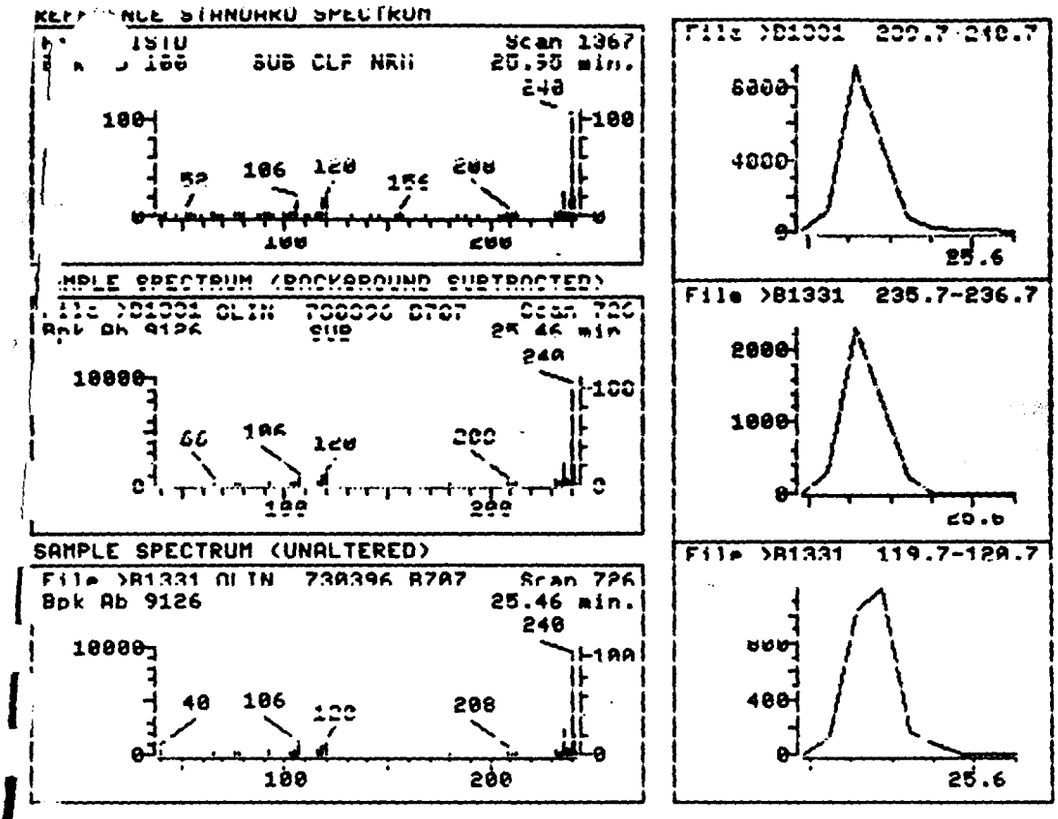


Data File: >B1331::D1
Name: OLIN 730396 B707W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:57
Injected at: 871215 13:15

Quant Output File: ^B1331::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 525
Retention Time: 18.96 min.
Quant Ion: 188.0
Area: 48377
Concentration: 40.00 ng/uL
q-value: 99



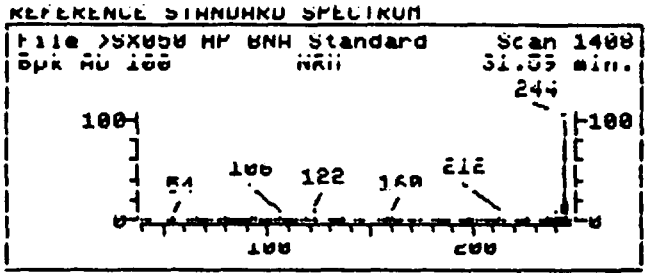
Data File: >B1331::D1
Name: OLIN 730396 B707W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:57
Injected at: 871215 13:15

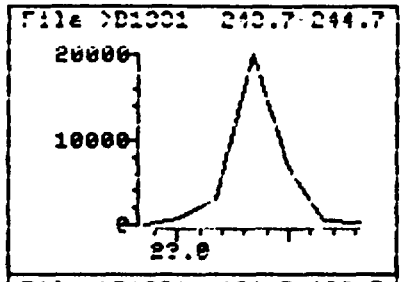
Quant Output File: ^B1331::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

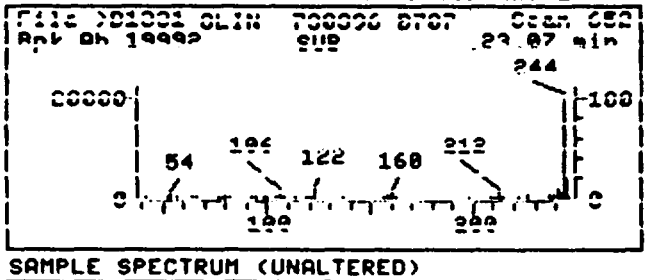
Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 726
Retention Time: 25.46 min.
Quant Ion: 240.0
Area: 32490
Concentration: 40.00 ng/uL
q-value: 97

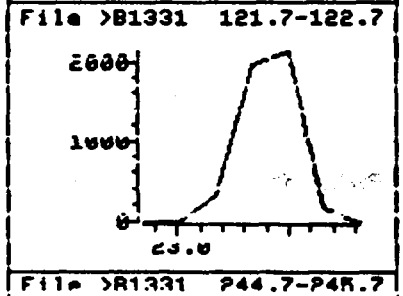
REFERENCE STANDARD SPECTRUM



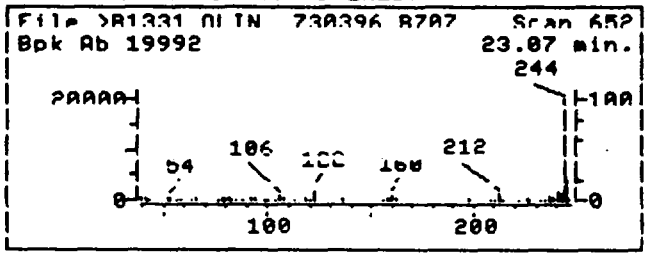


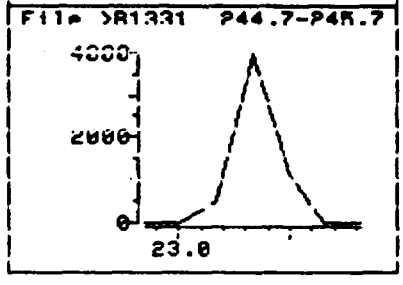
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



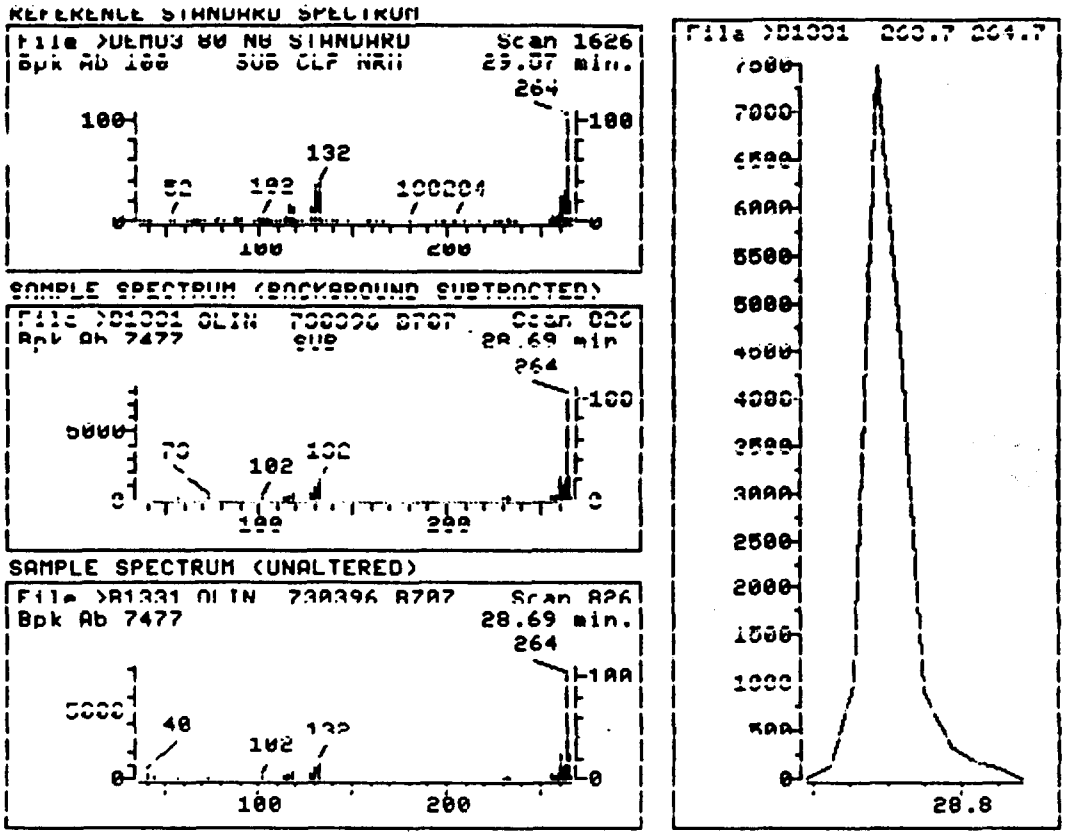


Data File: >B1331::D1
Name: OLIN 730396 B707W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:57
Injected at: 871215 13:15

Quant Output File: ^B1331::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 652
Retention Time: 23.07 min.
Quant Ion: 244.0
Area: 60697
Concentration: 36.49 ng/uL
q-value: 84



Data File: >B1331::D1
Name: OLIN 730396 B707W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 13:57
Injected at: 871215 13:15

Quant Output File: ^B1331::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 826
Retention Time: 28.69 min.
Quant Ion: 264.0
Area: 28528
Concentration: 40.00 ng/uL
q-value: 100

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18789

CC: Paul Klotz

BCM Number : A30401
Location : SPK
Client ID : 150

Date Sampled : 12/08/87
Date Received : 12/08/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

QUANT REPORT

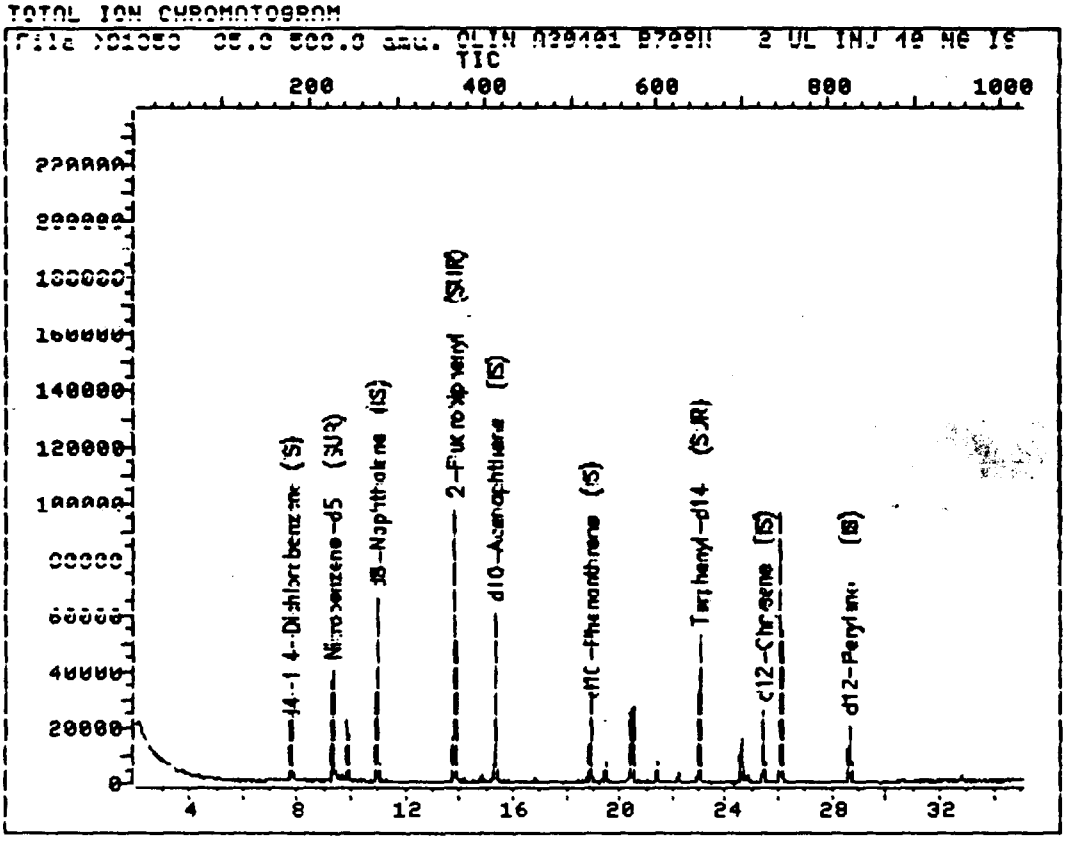
Operator ID: USER6 Quant Rev: 6 Quant Time: 871217 13:14
tput File: ^B1353::QT Injected at: 871217 12:33
ta File: >B1353::D1 Dilution Factor: 2.00000
Name: OLIN A30401 B708W
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.75	178	14040	40.00	ng/uL	93
16)	*d8-Naphthalene (IS)	10.95	277	64856	40.00	ng/uL	89
17)	Nitrobenzene-d5 (SUR)	9.31	226	60923	66.29	ng/uL	88
31)	*d10-Acenaphthene (IS)	15.35	413	34269	40.00	ng/uL	99
36)	2-Fluorobiphenyl (SUR)	13.83	366	75572	68.96	ng/uL	96
51)	*d10-Phenanthrene (IS)	18.90	523	47115	40.00	ng/uL	98
63)	*d12-Chrysene (IS)	25.42	725	32864	40.00	ng/uL	97
65)	Terphenyl-d14 (SUR)	23.03	651	65030	83.87	ng/uL	85
71)	*d12-Perylene (IS)	28.65	825	29146	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

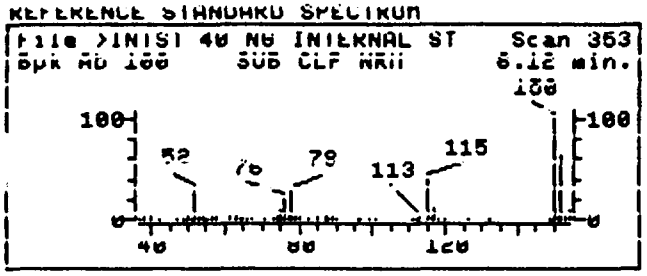


Data File: >B1353::D1 Quant Output File: ^B1353::QT
Name: OLIN A30401 B708W
Misc: 2 UL INJ 40 NG IS

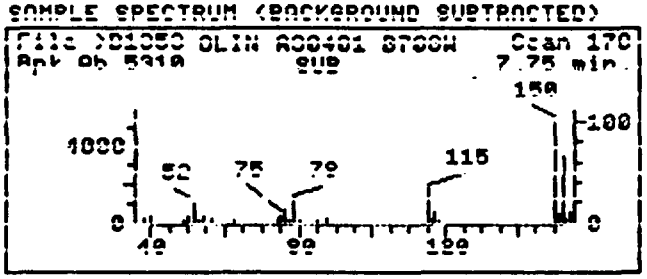
Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871217 13:14
Injected at: 871217 12:33

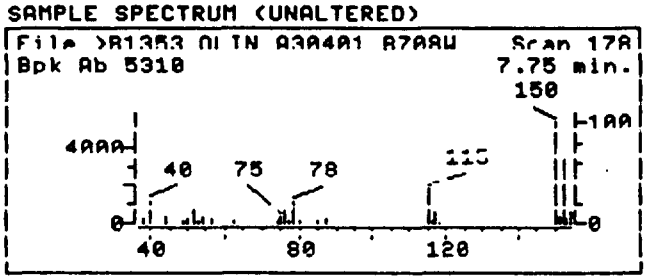
REFERENCE STANDARD SPECTRUM

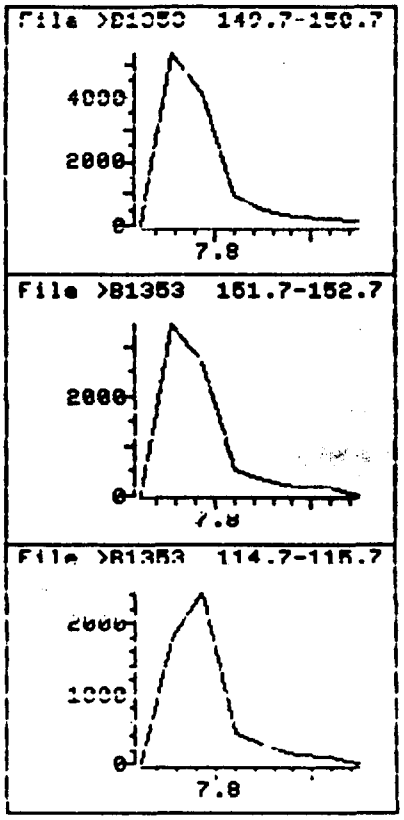


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

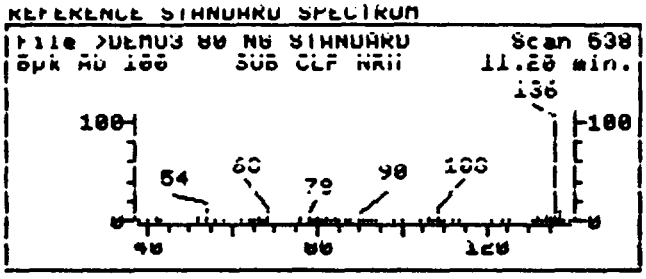




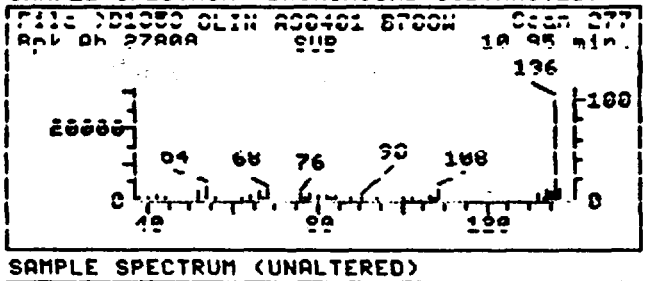
Data File: >B1353::D1 Quant Output File: ^B1353::QT
Name: OLIN A30401 B708W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 13:14 Quant ID File: ID BDA::L2
Injected at: 871217 12:33 Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 178
Retention Time: 7.75 min.
Quant Ion: 152.0
Area: 14040
Concentration: 40.00 ng/uL
q-value: 93

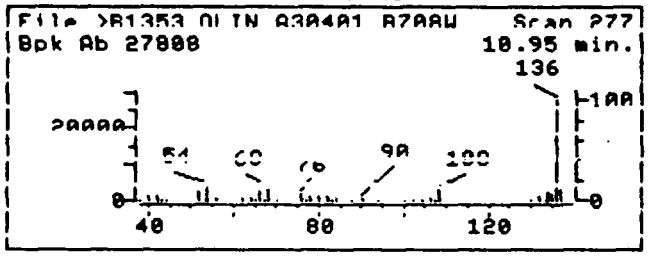
REFERENCE STANDARD SPECTRUM

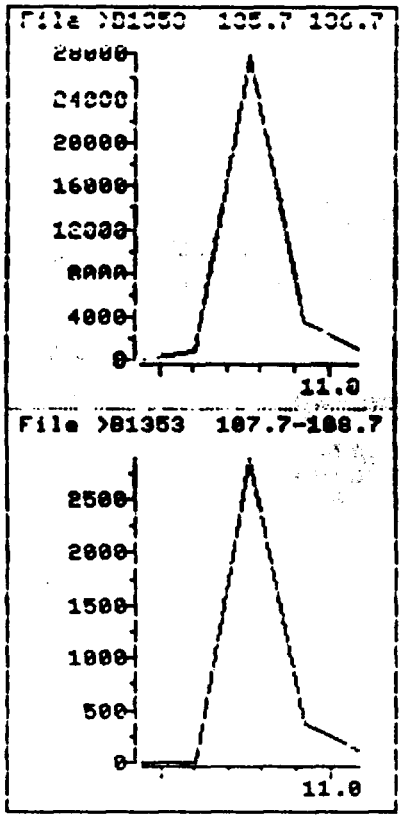


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

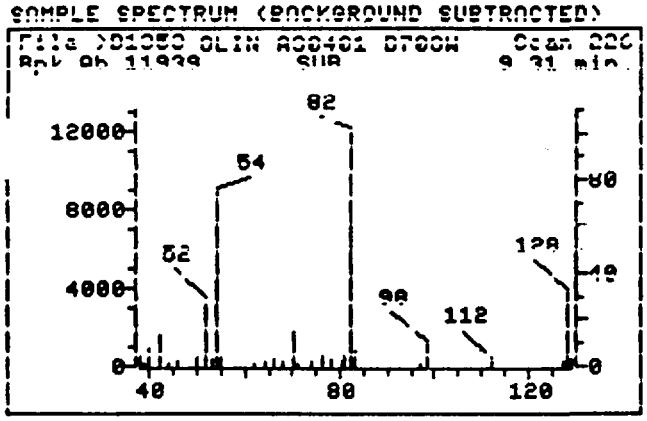


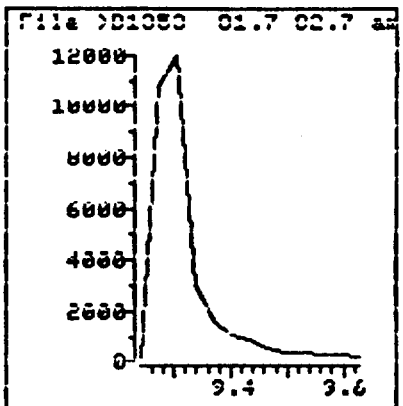


Data File: >B1353::D1 Quant Output File: ^B1353::QT
Name: OLIN A30401 B708W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 13:14 Quant ID File: ID BDA::L2
Injected at: 871217 12:33 Last Calibration: 871217 12:15

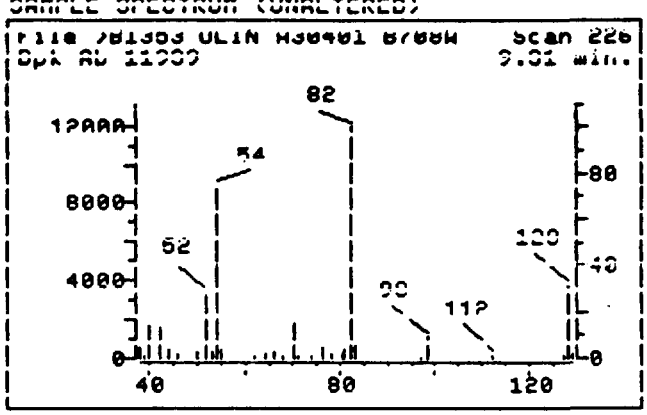
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 277
Retention Time: 10.95 min.
Quant Ion: 136.0
Area: 64856
Concentration: 40.00 ng/uL
q-value: 89

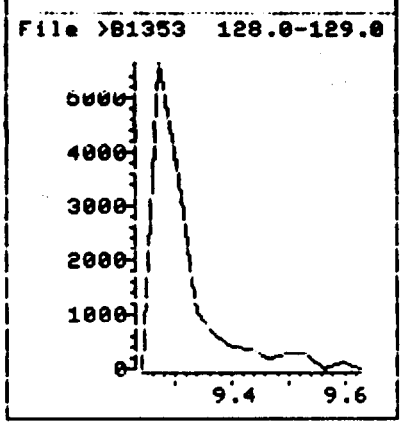
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





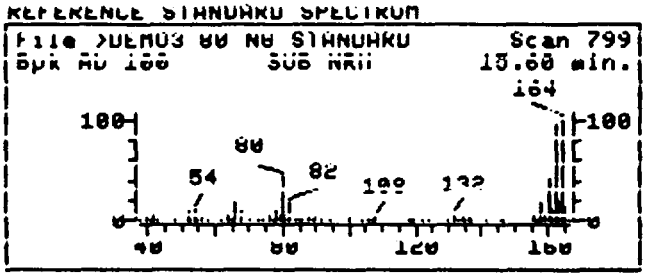
Data File: >B1353::D1
Name: OLIN A30401 B708W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 13:14
Injected at: 871217 12:33

Quant Output File: ^B1353::QT

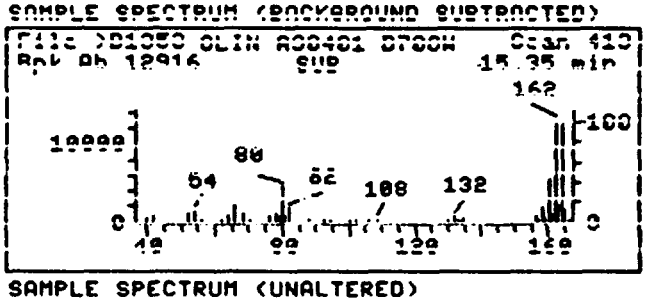
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 226
Retention Time: 9.31 min.
Quant Ion: 82.0
Area: 60923
Concentration: 66.29 ng/uL
q-value: 88

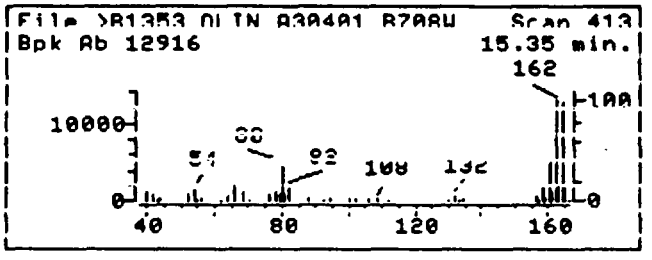
REFERENCE STANDARD SPECTRUM

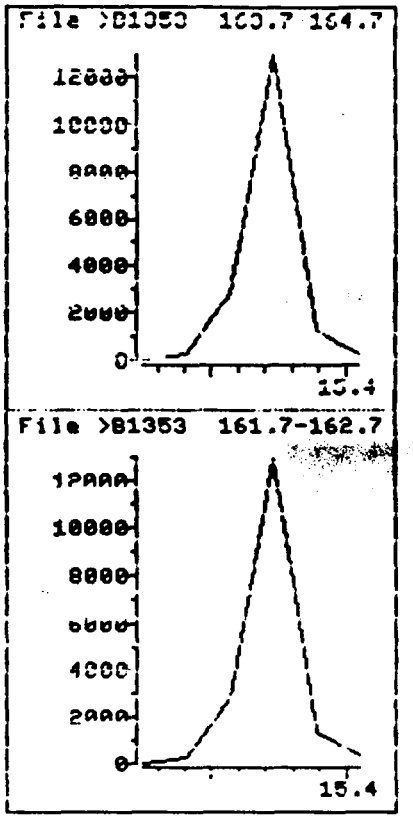


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



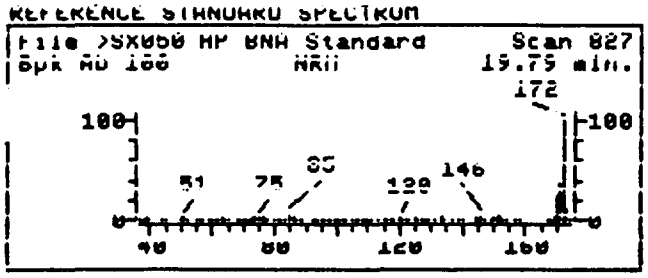


Data File: >B1353::D1 Quant Output File: ^B1353::QT
Name: QLIN A30401 B708W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 13:14 Quant ID File: ID BDA::L2
Injected at: 871217 12:33 Last Calibration: 871217 12:15

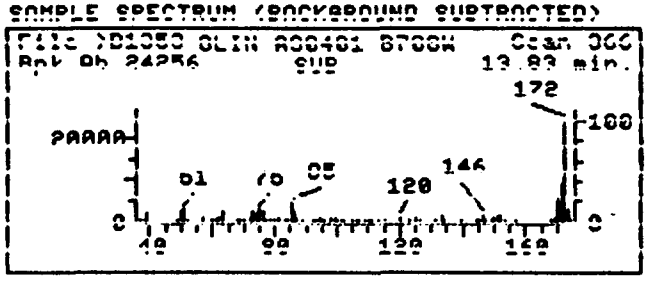
Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 413
Retention Time: 15.35 min.
Quant Ion: 164.0
Area: 34269
Concentration: 40.00 ng/uL
q-value: 99

3 2 00491

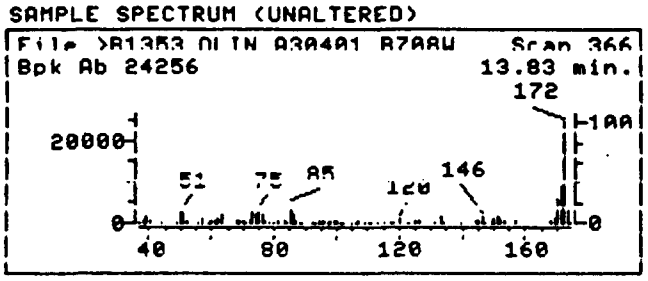
REFERENCE STANDARD SPECTRUM

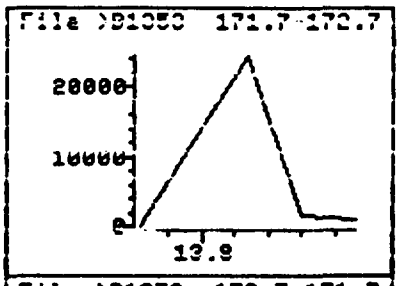


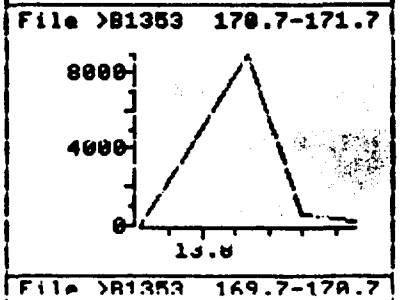
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

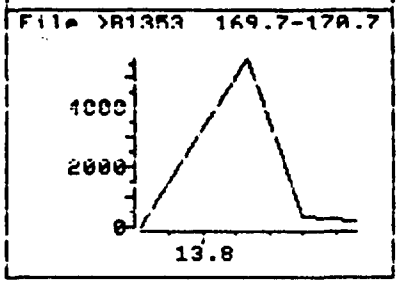


SAMPLE SPECTRUM (UNALTERED)





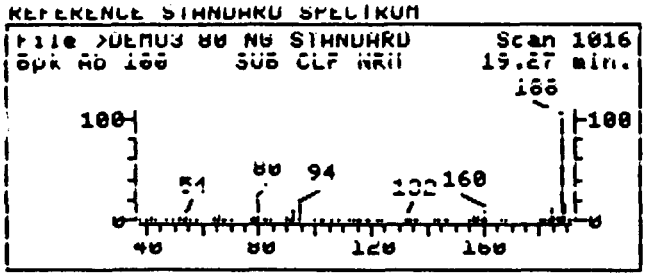




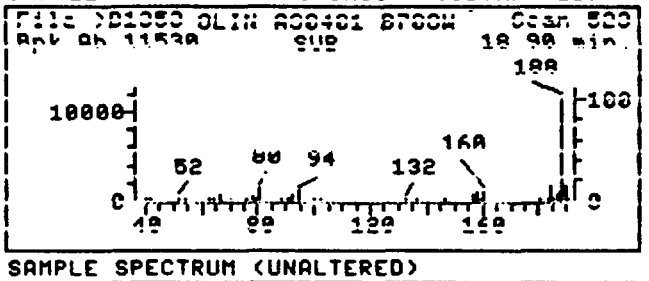
Data File: >B1353::D1 Quant Output File: ^B1353::QT
Name: OLIN A30401 B708W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 13:14 Quant ID File: ID BDA::L2
Injected at: 871217 12:33 Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 366
Retention Time: 13.83 min.
Quant Ion: 172.0
Area: 75572
Concentration: 68.96 ng/uL
q-value: 96

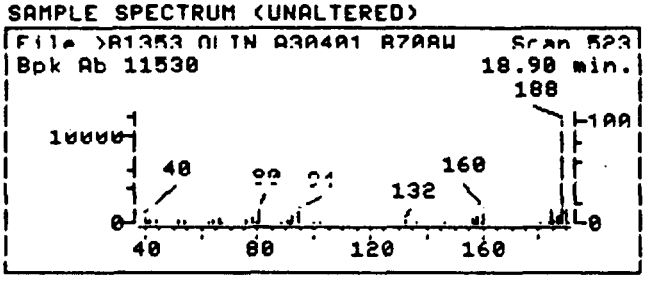
REFERENCE STANDARD SPECTRUM

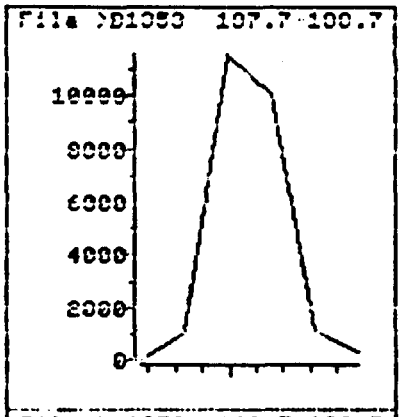


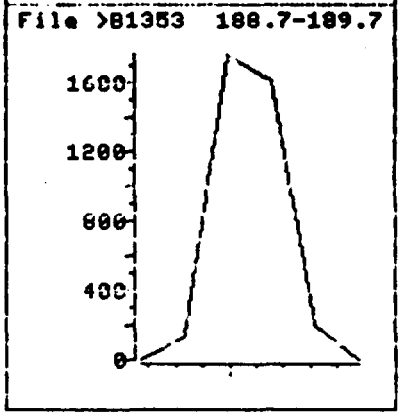
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





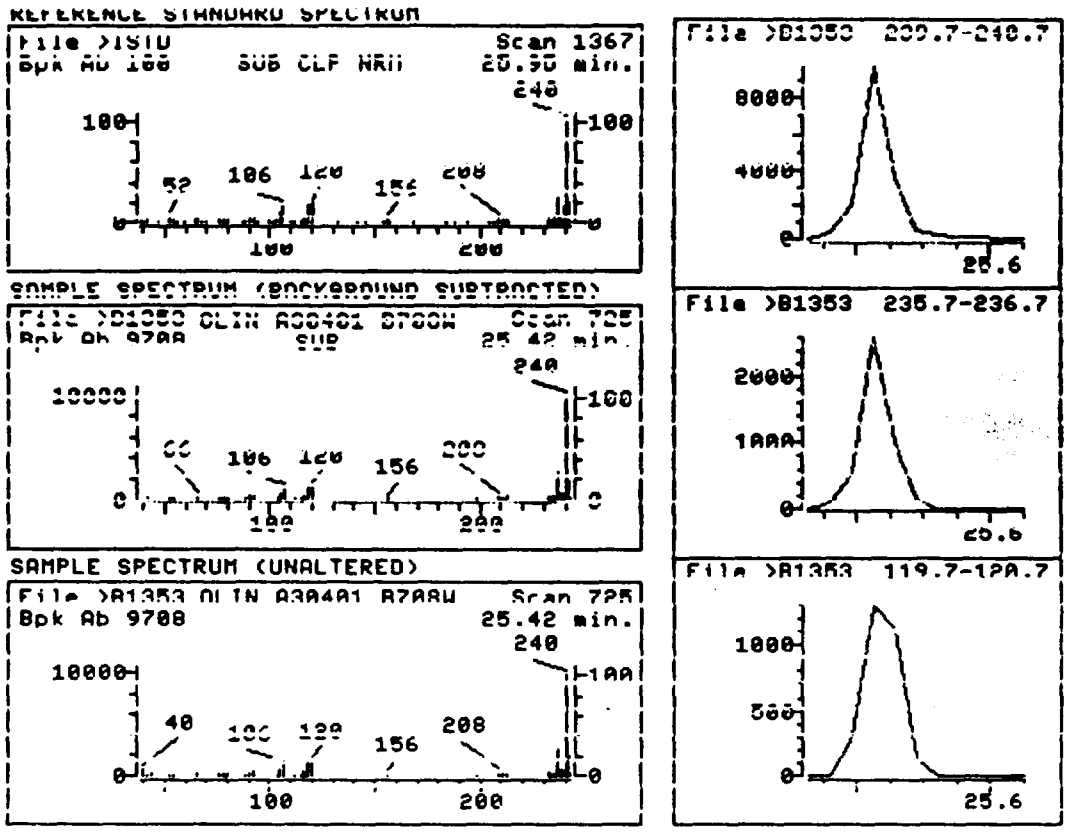


Data File: >B1353::D1
Name: OLIN A30401 B708W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 13:14
Injected at: 871217 12:33

Quant Output File: ^B1353::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 523
Retention Time: 18.90 min.
Quant Ion: 188.0
Area: 47115
Concentration: 40.00 ng/uL
q-value: 98



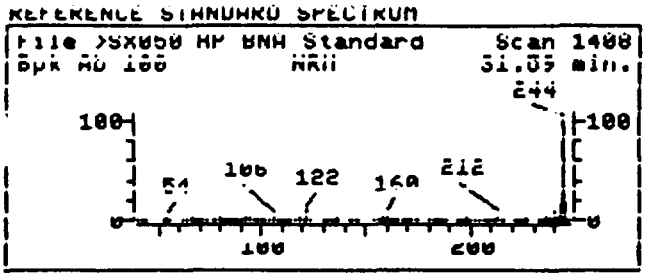
Data File: >B1353::D1
Name: OLIN A30401 B708W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 13:14
Injected at: 871217 12:33

Quant Output File: ^B1353::QT

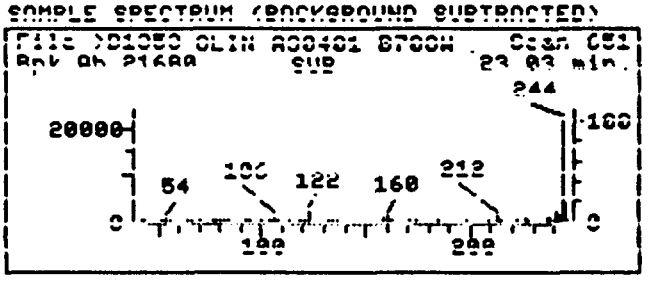
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 725
Retention Time: 25.42 min.
Quant Ion: 240.0
Area: 32864
Concentration: 40.00 ng/uL
q-value: 97

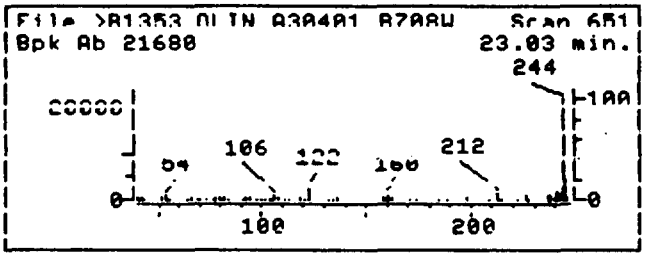
REFERENCE STANDARD SPECTRUM

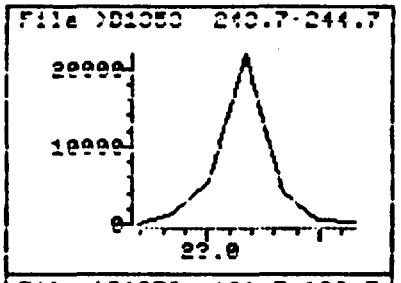


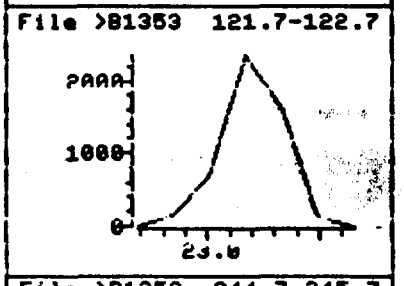
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

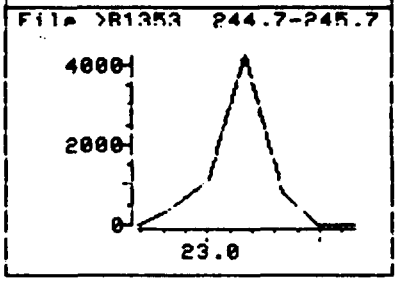


SAMPLE SPECTRUM (UNALTERED)









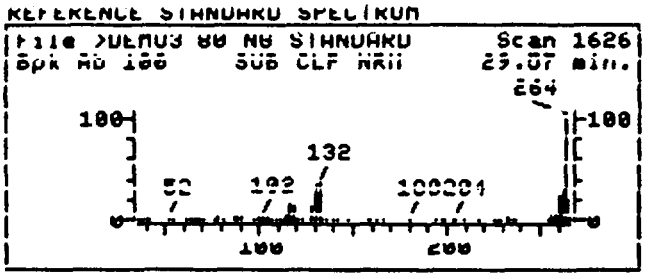
Data File: >B1353::D1
Name: OLIN A30401 B708W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 13:14
Injected at: 871217 12:33

Quant Output File: ^B1353::QT

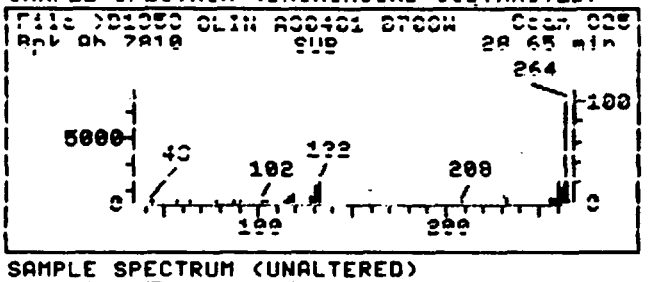
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 651
Retention Time: 23.03 min.
Quant Ion: 244.0
Area: 65030
Concentration: 83.87 ng/uL
q-value: 85

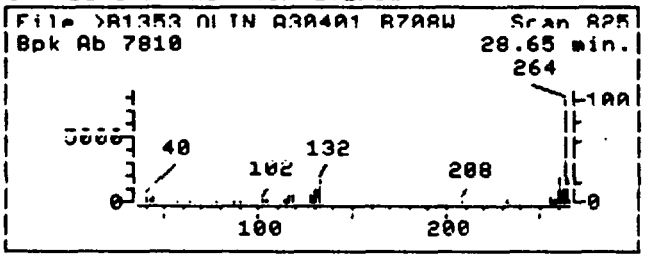
REFERENCE STANDARD SPECTRUM

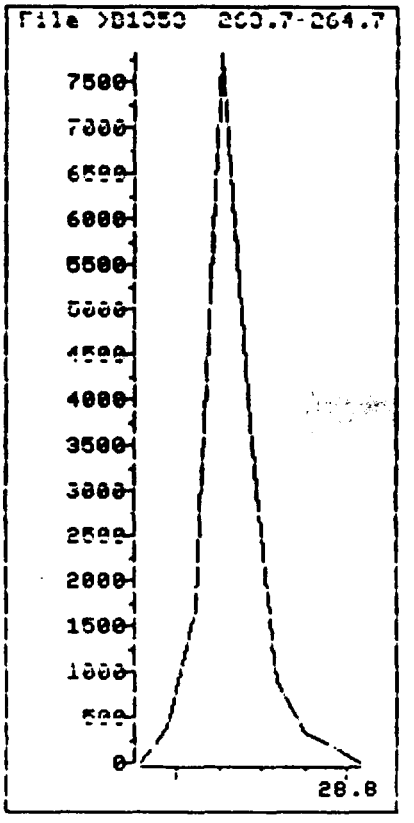


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >B1353::D1
Name: OLIN A30401 B708W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 13:14
Injected at: 871217 12:33

Quant Output File: ^B1353::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 825
Retention Time: 28.65 min.
Quant Ion: 264.0
Area: 29146
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18789

CC: Paul Klotz

BCM Number : A30403
Location : 451
Client ID :

Date Sampled : 12/08/87
Date Received : 12/08/87

Test Description	Results	Units	Test Method #
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

QUANT REPORT

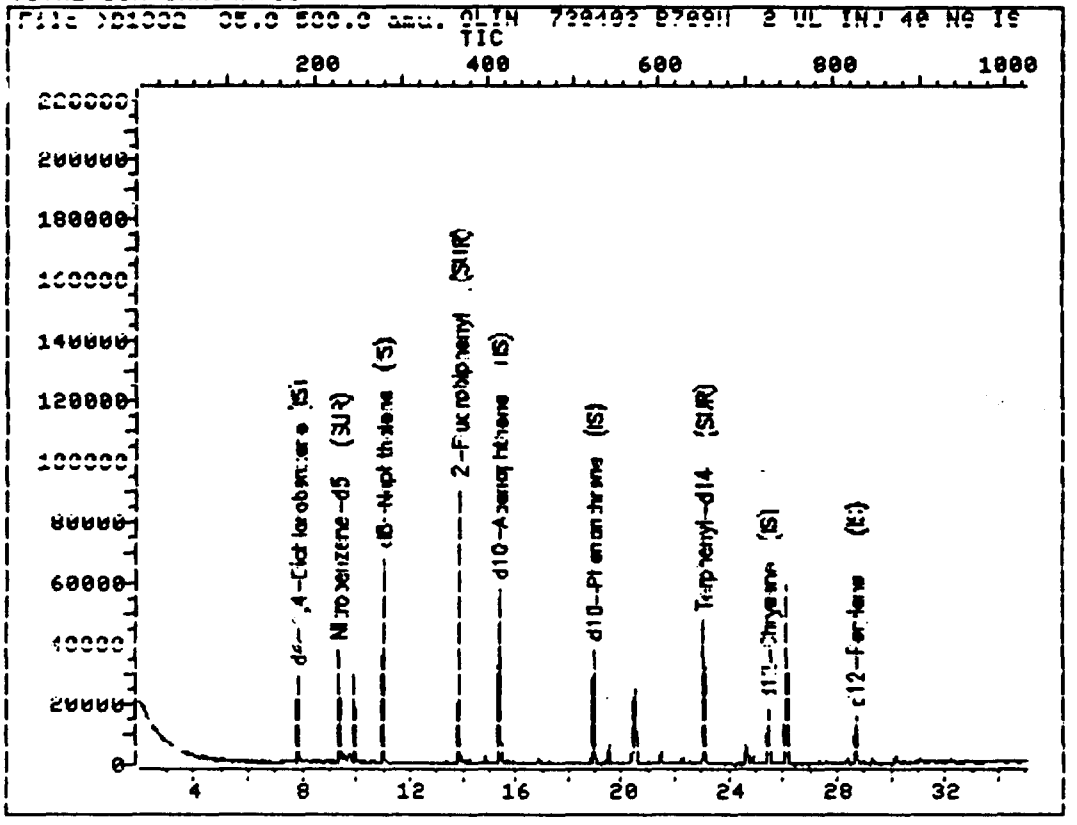
Operator ID: USER6 Quant Rev: 6 Quant Time: 871215 14:43
Output File: ^B1332::QT Injected at: 871215 14:03
Data File: >B1332::D1 Dilution Factor: 2.00000
Name: OLIN 730403 B709W
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.83	181	13984	40.00	ng/uL	90
16)	*d8-Naphthalene (IS)	11.00	279	64916	40.00	ng/uL	89
17)	Nitrobenzene-d5 (SUR)	9.35	228	58760	67.51	ng/uL	83
31)	*d10-Acenaphthene (IS)	15.39	415	33094	40.00	ng/uL	97
36)	2-Fluorobiphenyl (SUR)	13.87	368	76511	67.15	ng/uL	94
51)	*d10-Phenanthrene (IS)	18.98	526	45723	40.00	ng/uL	98
63)	*d12-Chrysene (IS)	25.47	727	24846	40.00	ng/uL	96
65)	Terphenyl-d14 (SUR)	23.08	653	55504	87.26	ng/uL	85
71)	*d12-Perylene (IS)	28.70	827	22217	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMOTOGRAM

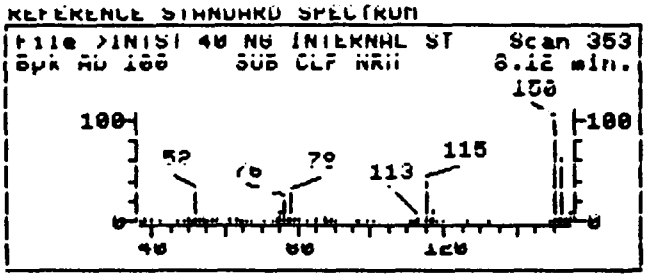


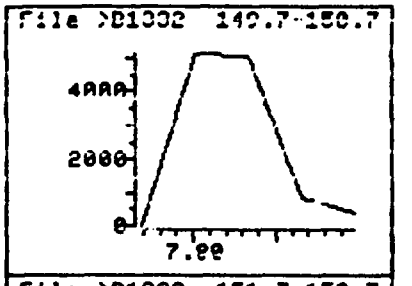
Data File: >B1332::D1 Quant Output File: ^B1332::QT
Name: OLIN 730403 B709W
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

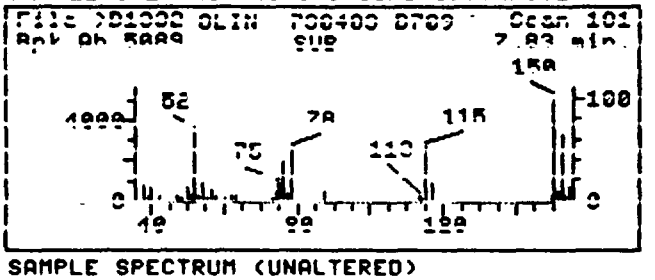
Operator ID: USER6
Quant Time: 871215 14:43
Injected at: 871215 14:03

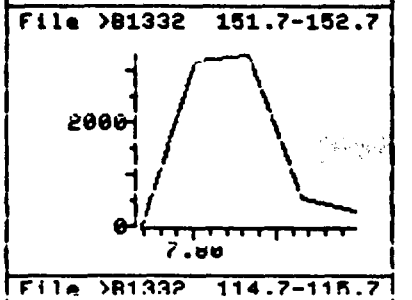
REFERENCE STANDARD SPECTRUM



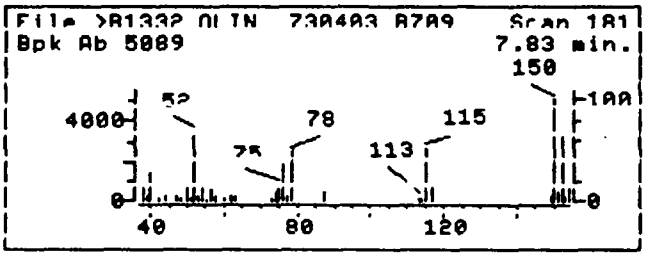


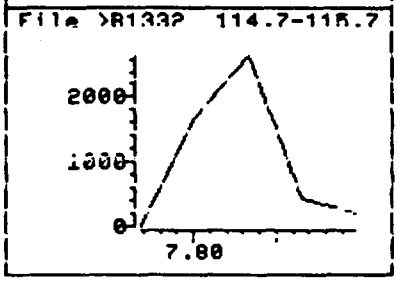
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





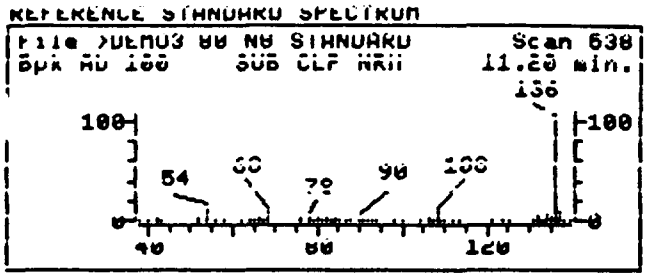
Data File: >B1332::D1
Name: OLIN 730403 B709W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 14:43
Injected at: 871215 14:03

Quant Output File: ^B1332::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

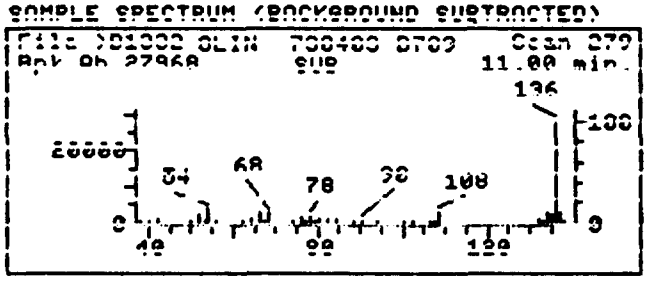
Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 181
Retention Time: 7.83 min.
Quant Ion: 152.0
Area: 13984
Concentration: 40.00 ng/uL
q-value: 90

3 2 00496

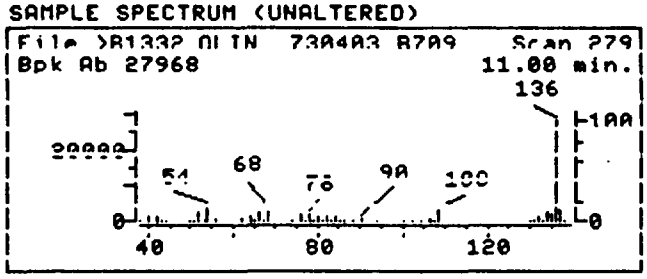
REFERENCE STANDARD SPECTRUM

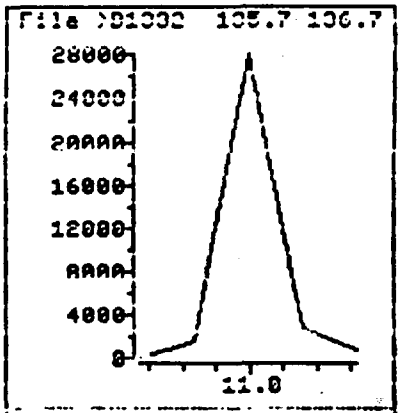


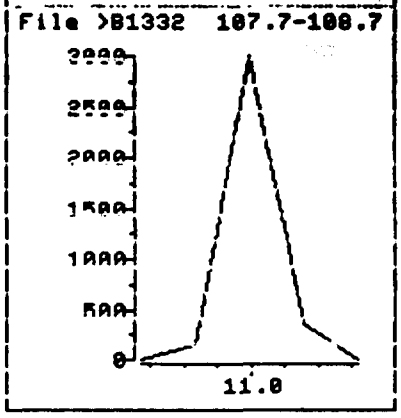
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



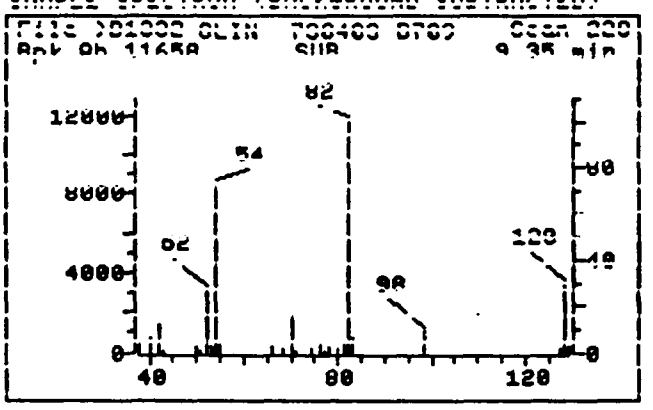


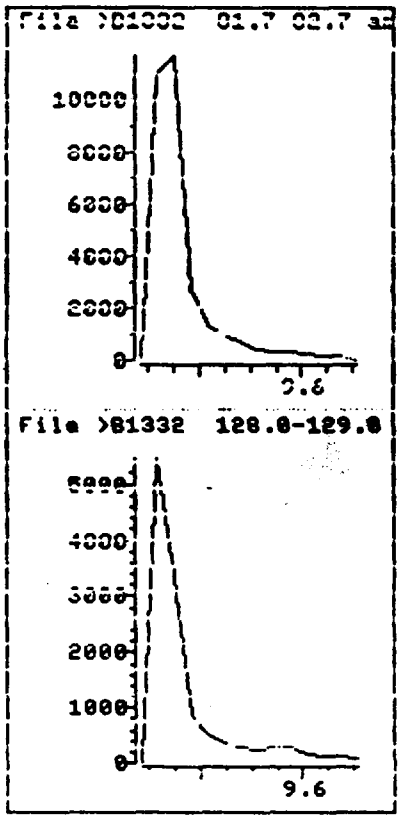


Data File: >B1332::D1 Quant Output File: ^B1332::QT
Name: OLIN 730403 B709W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 14:43 Quant ID File: ID BDA::L2
Injected at: 871215 14:03 Last Calibration: 871214 13:49

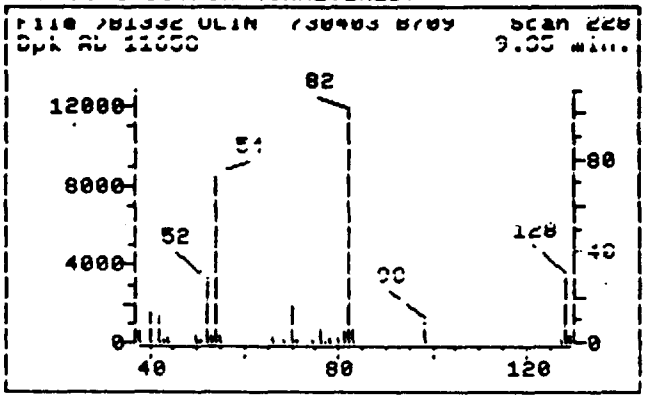
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 279
Retention Time: 11.00 min.
Quant Ion: 136.0
Area: 64916
Concentration: 40.00 ng/uL
q-value: 89

SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)

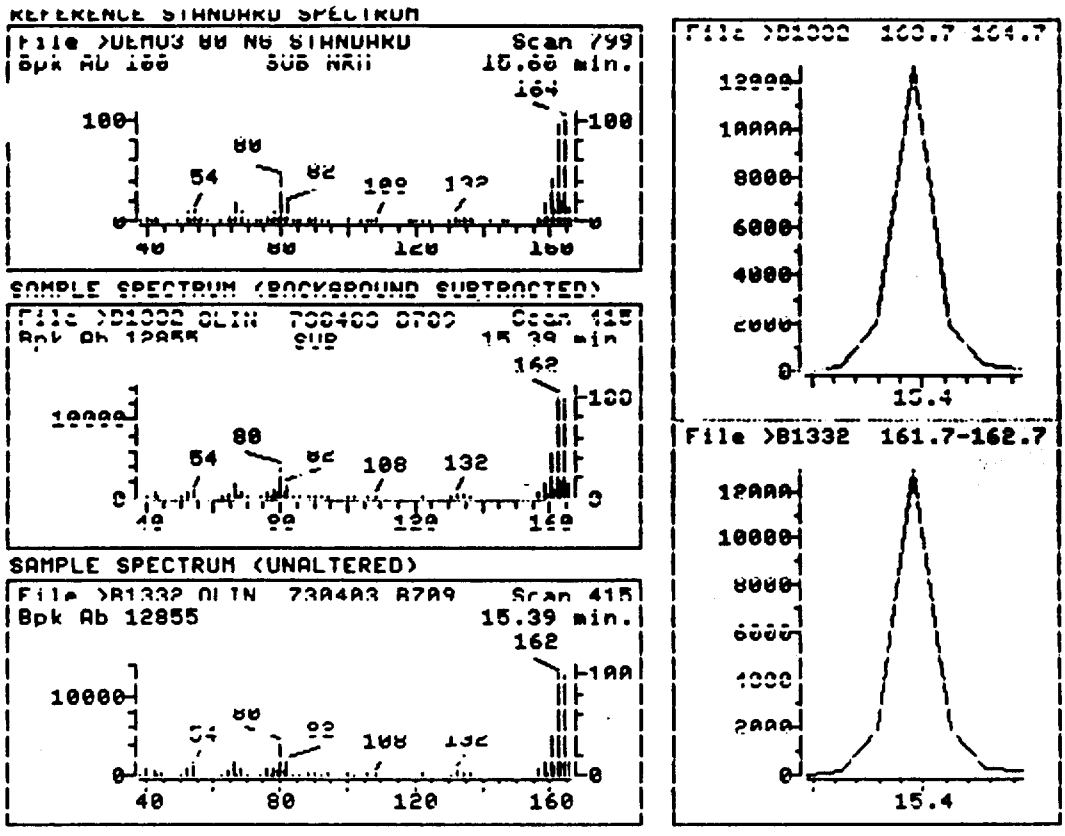


Data File: >B1332::D1
Name: OLIN 730403 8709W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 14:43
Injected at: 871215 14:03

Quant Output File: ^B1332::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 228
Retention Time: 9.35 min.
Quant Ion: 82.0
Area: 58760
Concentration: 67.51 ng/uL
q-value: 83

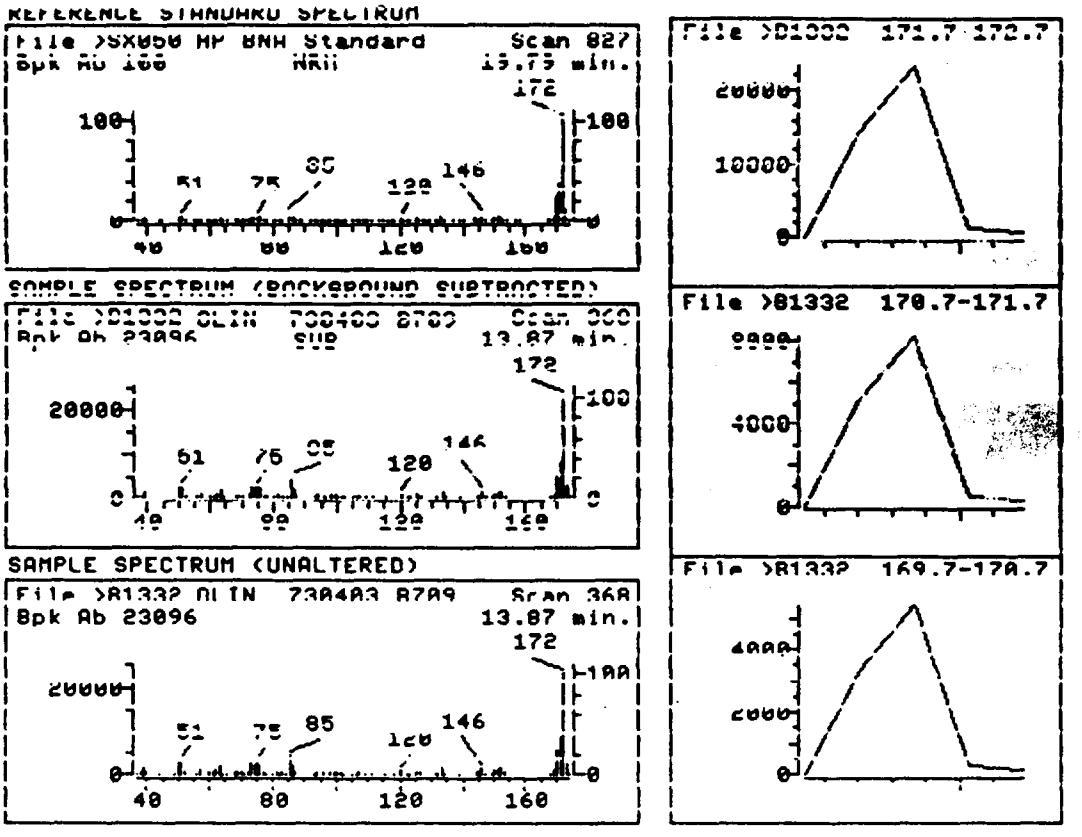


Data File: >B1332::D1
Name: OLIN 730403 B709W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 14:43
Injected at: 871215 14:03

Quant Output File: ^B1332::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 415
Retention Time: 15.39 min.
Quant Ion: 164.0
Area: 33094
Concentration: 40.00 ng/uL
q-value: 97



Data File: >B1332::D1
Name: OLIN 730403 B709W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 14:43
Injected at: 871215 14:03

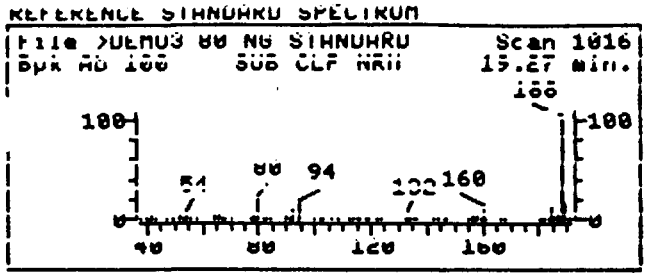
Quant Output File: ^B1332::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

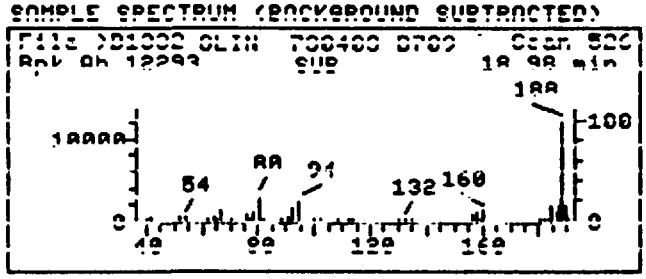
Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 368
Retention Time: 13.87 min.
Quant Ion: 172.0
Area: 76511
Concentration: 67.15 ng/uL
q-value: 94

3 2 00498

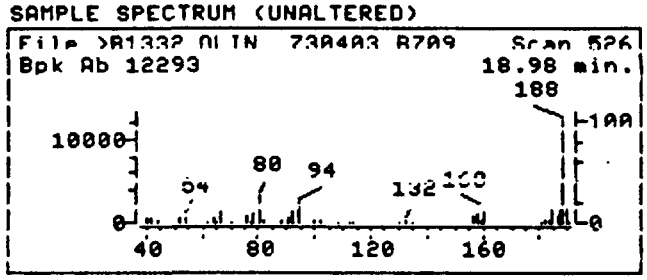
REFERENCE STANDARD SPECTRUM

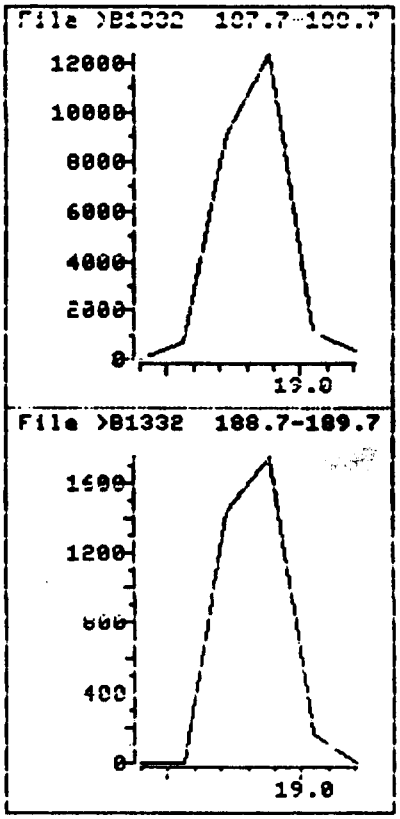


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

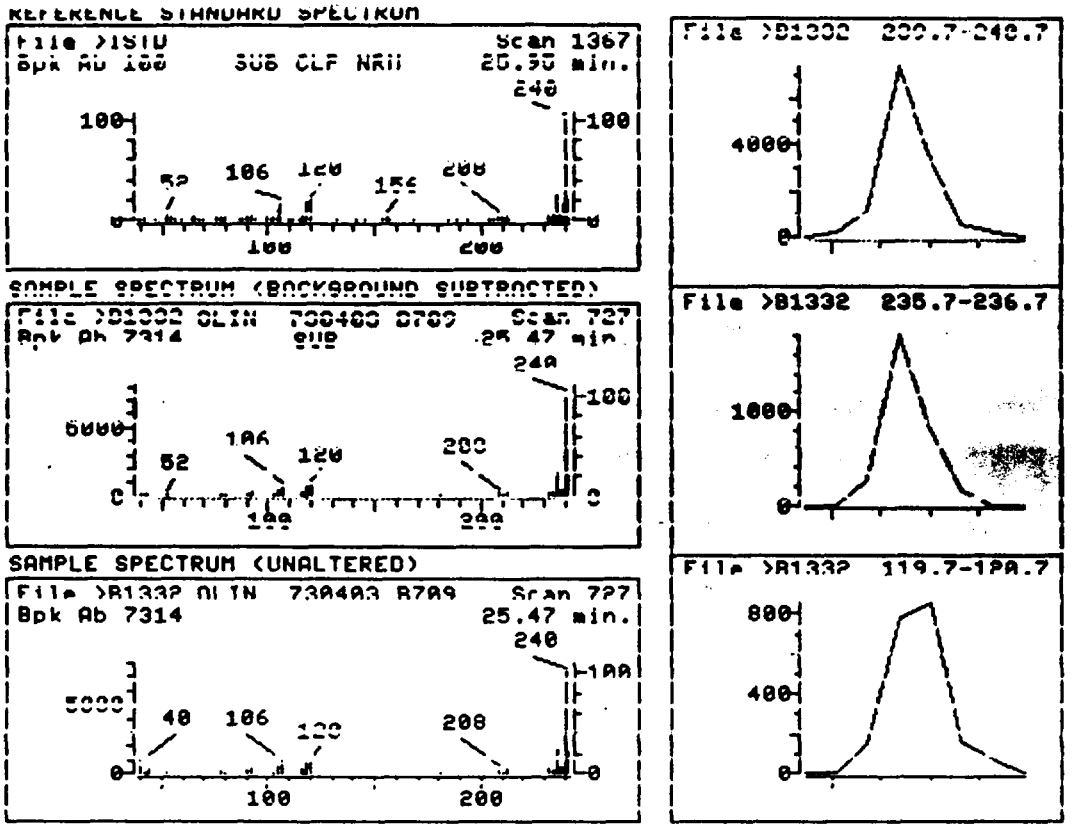




Data File: >B1332::D1
Name: OLIN 730403 B709W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 14:43
Injected at: 871215 14:03

Quant Output File: ^B1332::QT
Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 526
Retention Time: 18.98 min.
Quant Ion: 188.0
Area: 45723
Concentration: 40.00 ng/uL
q-value: 98

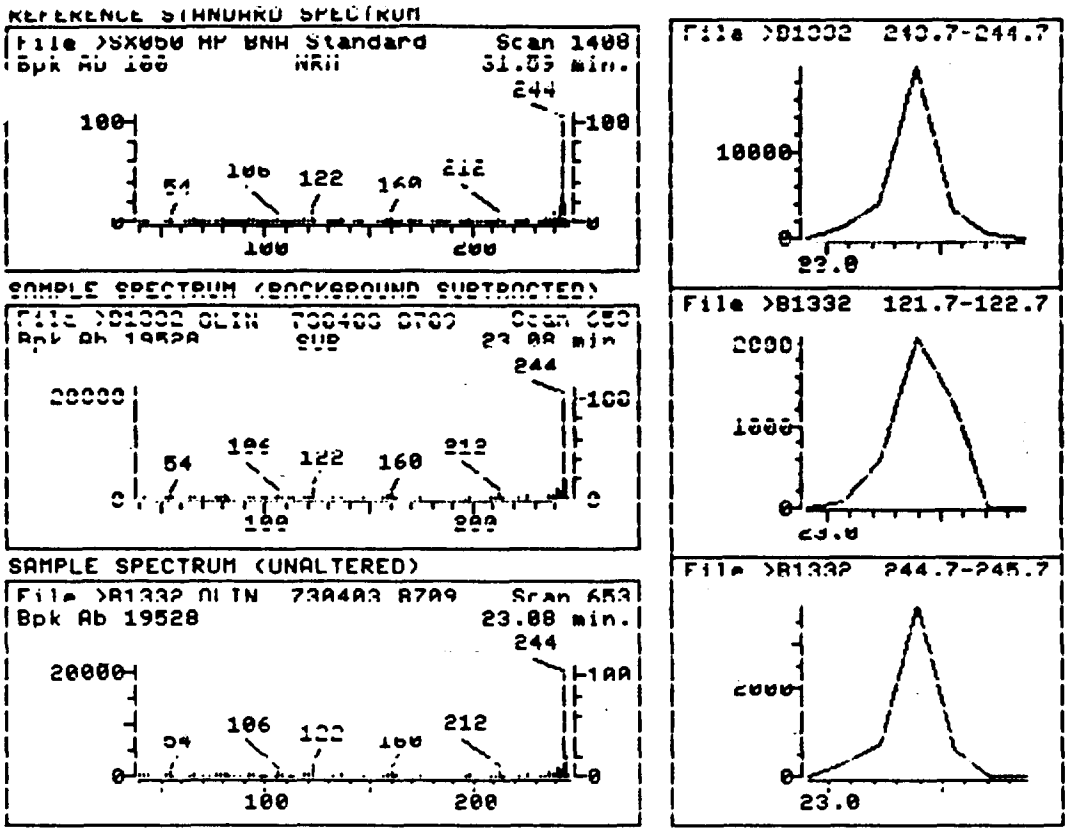


Data File: >B1332::D1
Name: OLIN 730403 8709W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 14:43
Injected at: 871215 14:03

Quant Output File: ^B1332::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 727
Retention Time: 25.47 min.
Quant Ion: 240.0
Area: 24846
Concentration: 40.00 ng/uL
q-value: 96

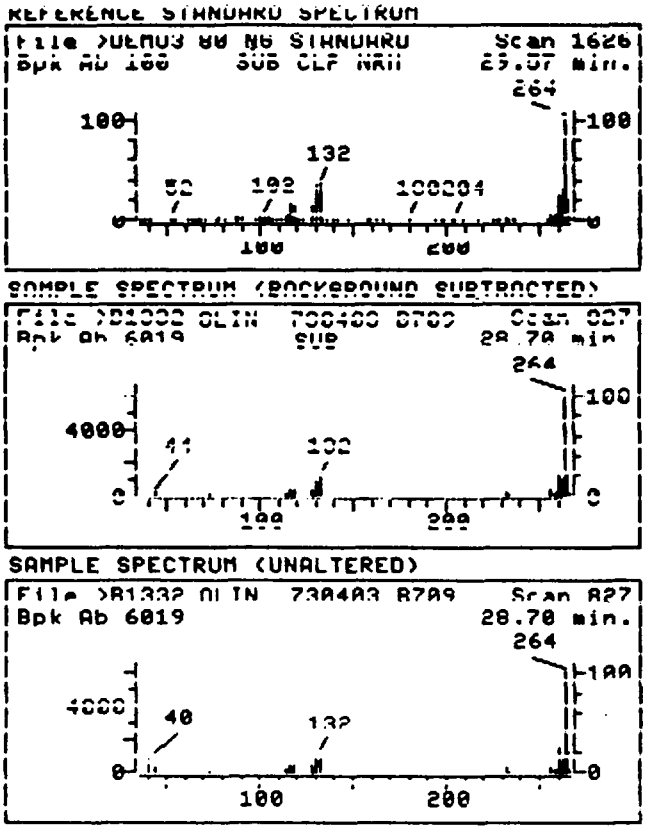


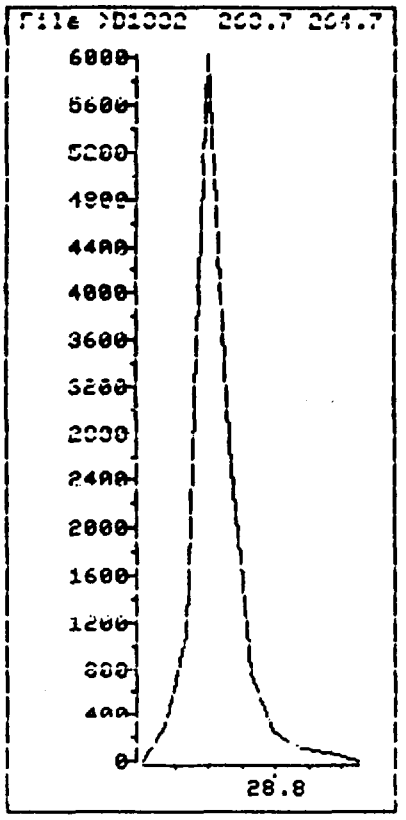
Data File: >B1332::D1
Name: OLIN 730403 B709W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 14:43
Injected at: 871215 14:03

Quant Output File: ^B1332::QT

Quant ID File: ID BDA::L2
Last Calibration: 871214 13:49

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 653
Retention Time: 23.08 min.
Quant Ion: 244.0
Area: 55504
Concentration: 87.26 ng/uL
q-value: 85





Data File: >B1332::D1 Quant Output File: ^B1332::QT
Name: OLIN 730403 B709W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871215 14:43 Quant ID File: ID BDA::L2
Injected at: 871215 14:03 Last Calibration: 871214 13:49

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 827
Retention Time: 28.70 min.
Quant Ion: 264.0
Area: 22217
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT
This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18790

CC: Paul Klotz

BCM Number : A30416
Location : 672
Client ID : DPE 420

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

QUANT REPORT

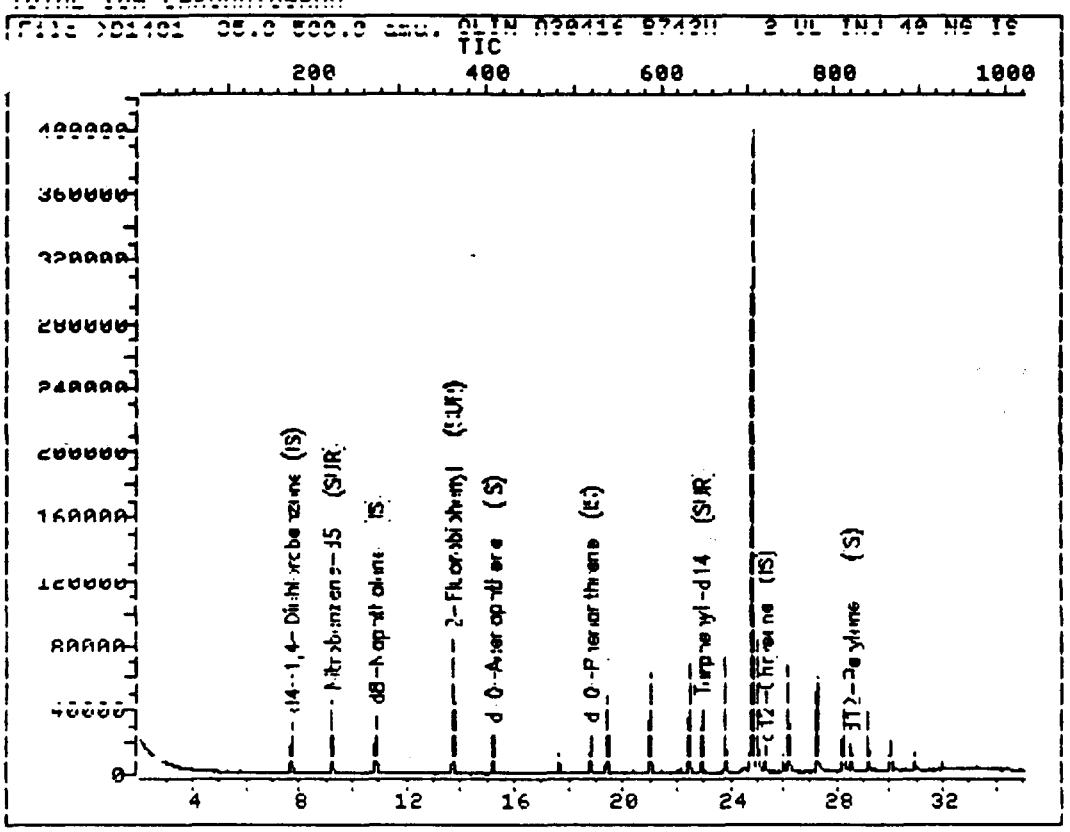
Operator ID: USER6 Quant Rev: 6 Quant Time: 880104 10:09
Output File: ^B1401::QT Injected at: 880104 09:33
Data File: >B1401::D1 Dilution Factor: 1.00000
Name: OLIN A30416 B743W
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.70	176	10502	40.00	ng/uL	95
16)	*d8-Naphthalene (IS)	10.87	274	39918	40.00	ng/uL	88
17)	Nitrobenzene-d5 (SUR)	9.22	223	40801	36.07	ng/uL	98
31)	*d10-Acenaphthene (IS)	15.23	409	20890	40.00	ng/uL	98
36)	2-Fluorobiphenyl (SUR)	13.75	363	62263	46.60	ng/uL	93
51)	*d10-Phenanthrene (IS)	18.82	520	30840	40.00	ng/uL	99
63)	*d12-Chrysene (IS)	25.31	721	21843	40.00	ng/uL	94
65)	Terphenyl-d14 (SUR)	22.95	648	38528	37.38	ng/uL	96
71)	*d12-Perylene (IS)	28.54	821	18524	40.00	ng/uL	100

* Compound is ISTD

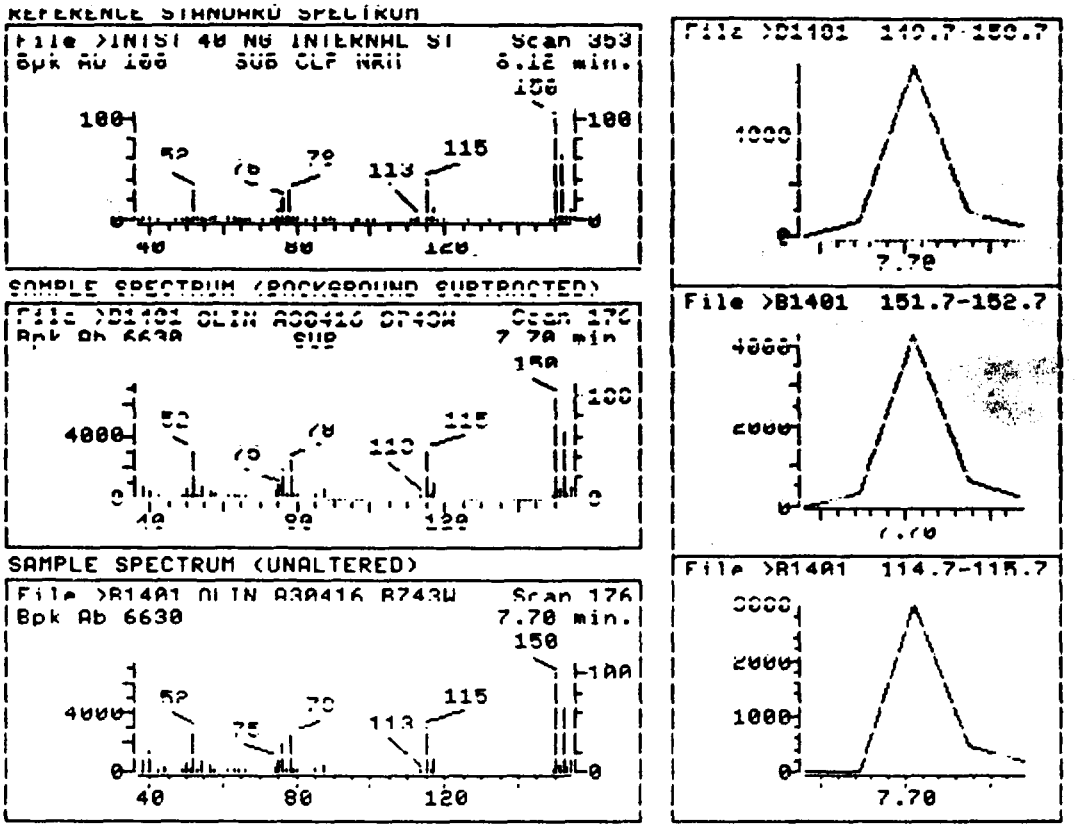
TOTAL ION CHROMATOGRAM



Data File: >B1401::D1 Quant Output File: ^B1401::QT
Name: OLIN A30416 B743W
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 880104 10:09
Injected at: 880104 09:33

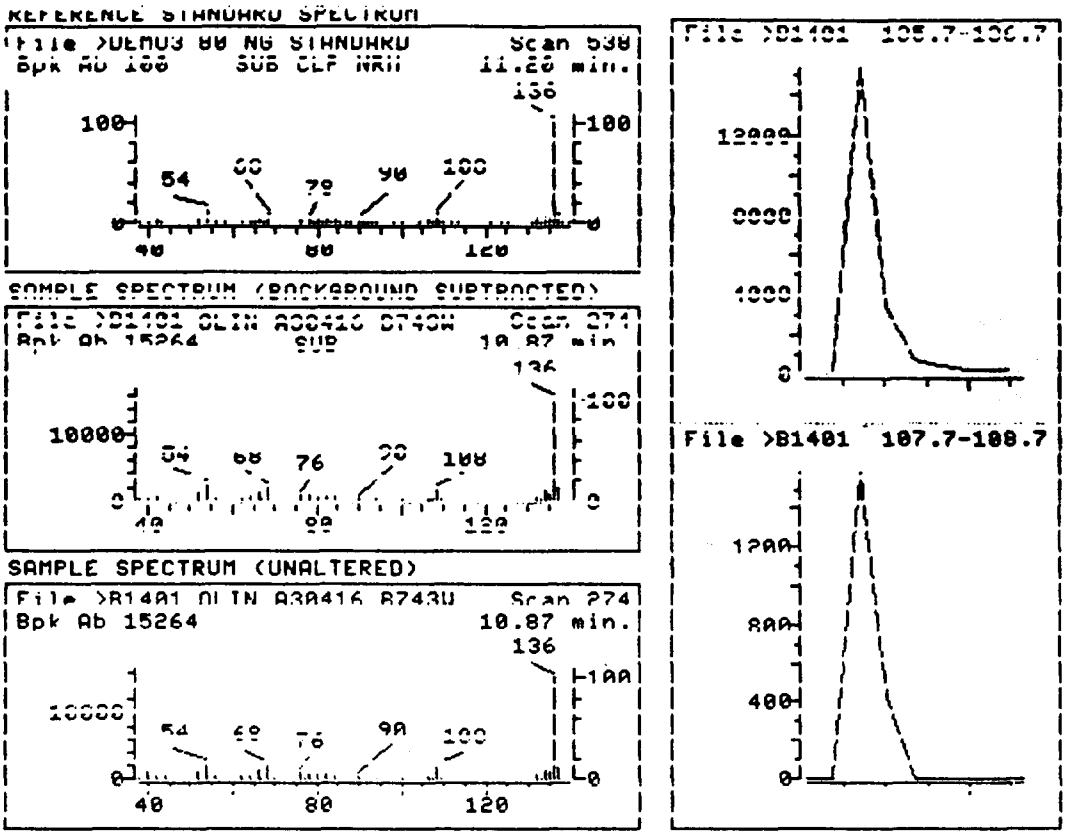


Data File: >B1401::D1
Name: OLIN A30416 B743W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:09
Injected at: 880104 09:33

Quant Output File: ^B1401::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 176
Retention Time: 7.70 min.
Quant Ion: 152.0
Area: 10502
Concentration: 40.00 ng/uL
q-value: 95



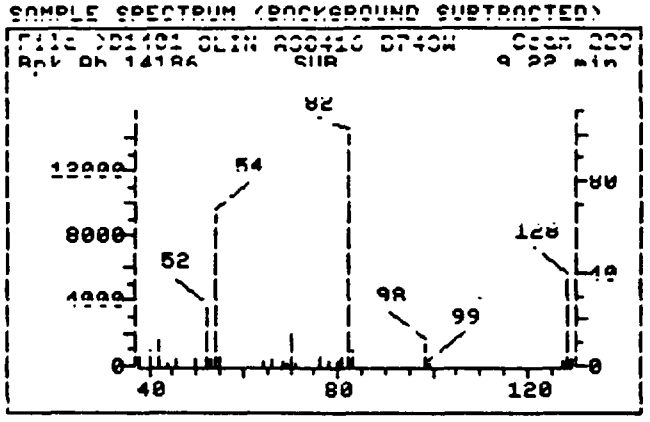
Data File: >B1401::D1
Name: OLIN A30416 B743W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:09
Injected at: 880104 09:33

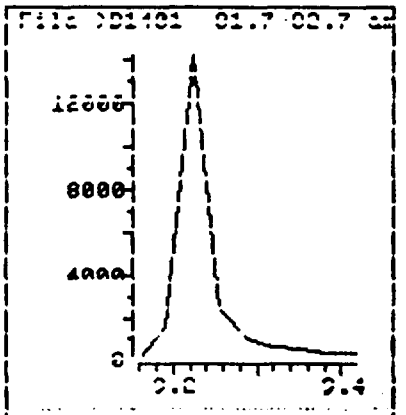
Quant Output File: ^B1401::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

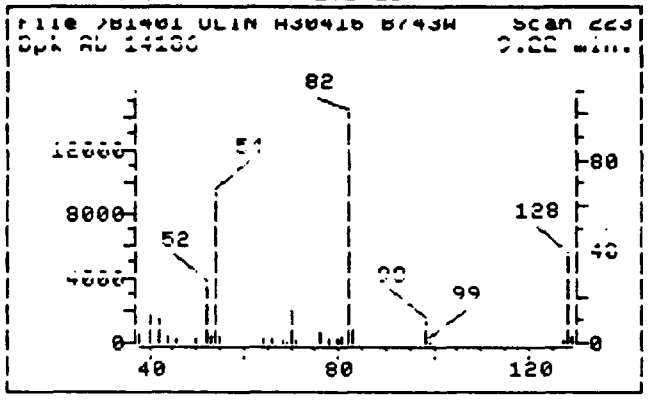
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 274
Retention Time: 10.87 min.
Quant Ion: 136.0
Area: 39918
Concentration: 40.00 ng/uL
q-value: 88

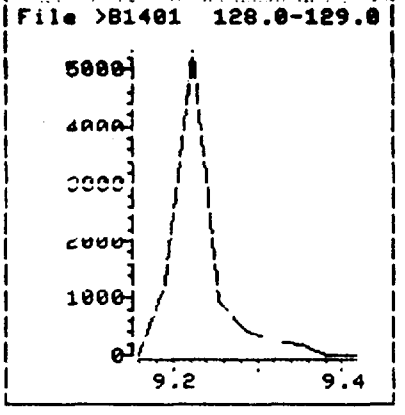
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



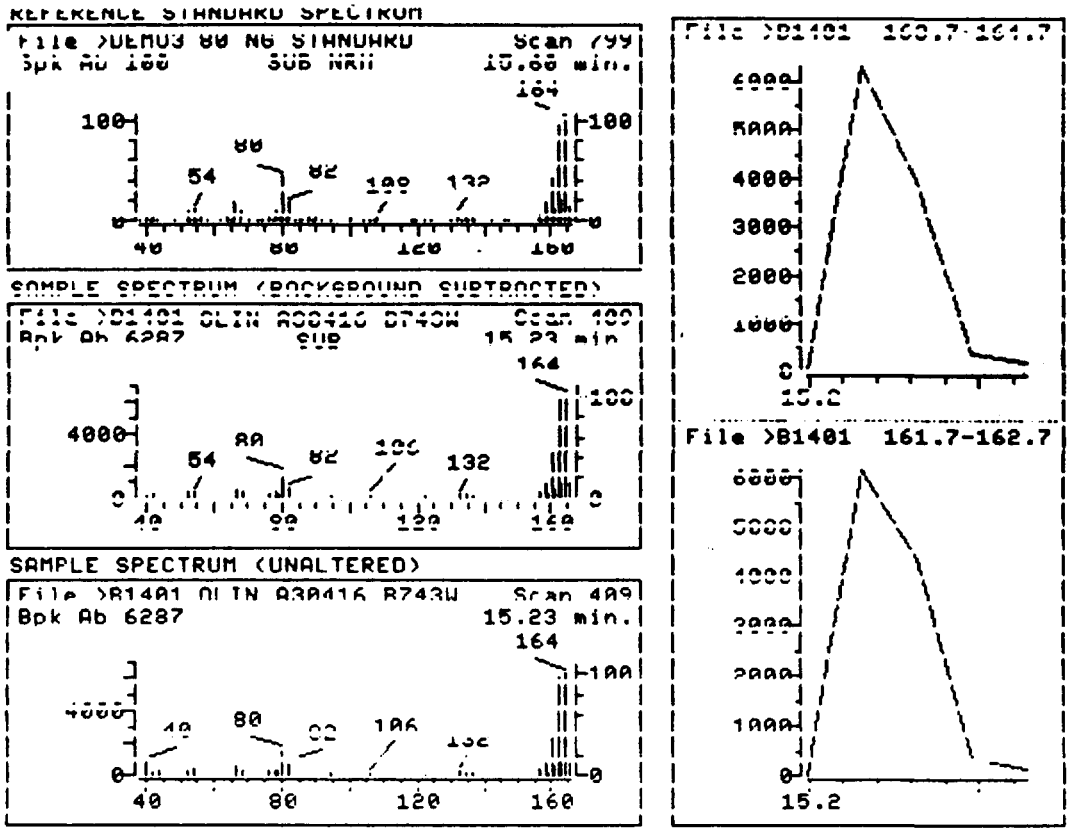


Data File: >B1401::D1
Name: OLIN A30416 B743W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:09
Injected at: 880104 09:33

Quant Output File: ^B1401::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 223
Retention Time: 9.22 min.
Quant Ion: 82.0
Area: 40801
Concentration: 36.07 ng/uL
q-value: 98

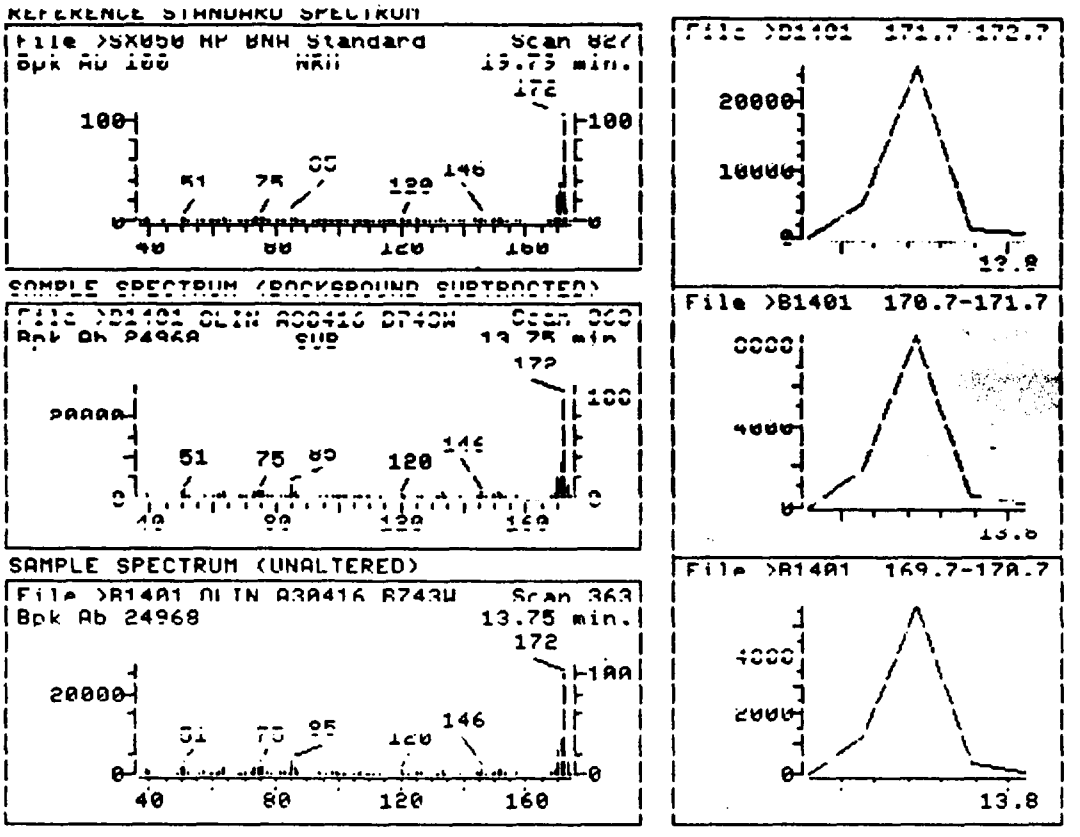


Data File: >B1401::D1
Name: OLIN A30416 B743W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:09
Injected at: 880104 09:33

Quant Output File: ^B1401::QT

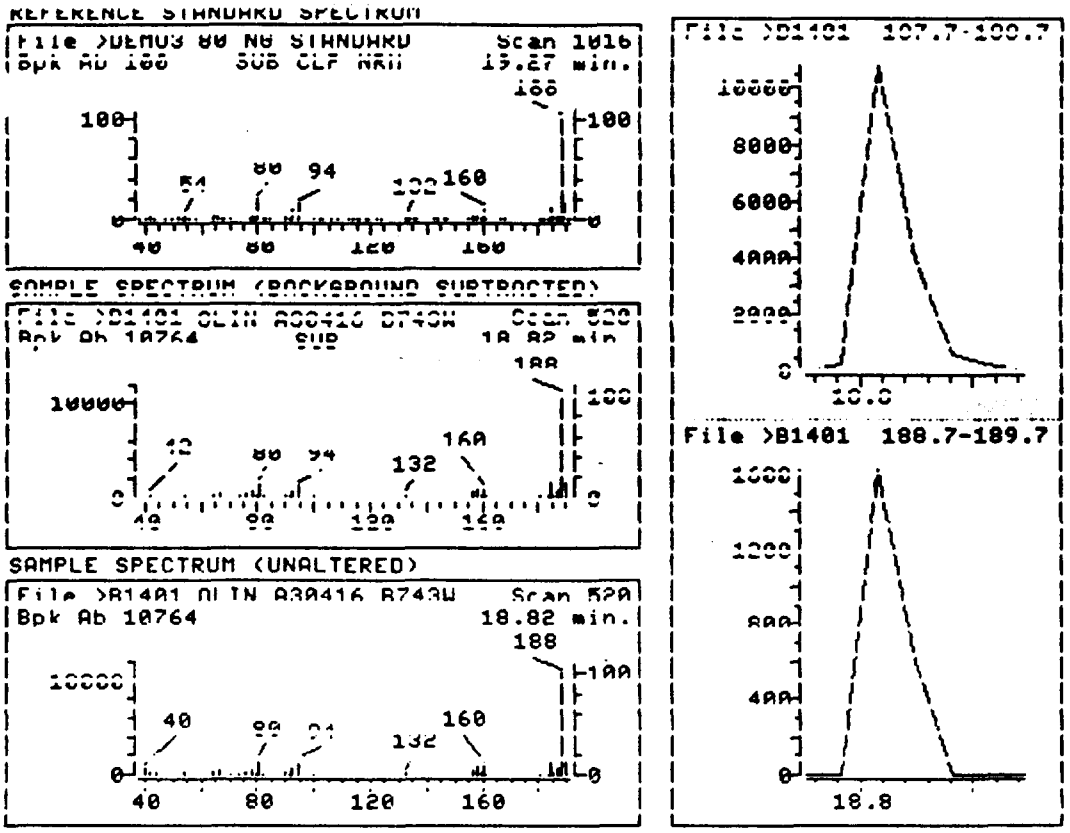
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 409
Retention Time: 15.23 min.
Quant Ion: 164.0
Area: 20890
Concentration: 40.00 ng/uL
q-value: 98



Data File: >B1401::D1 Quant Output File: ^B1401::QT
Name: OLIN A30416 B743W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:09 Quant ID File: ID BDA::L2
Injected at: 880104 09:33 Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 363
Retention Time: 13.75 min.
Quant Ion: 172.0
Area: 62263
Concentration: 46.60 ng/uL
q-value: 93

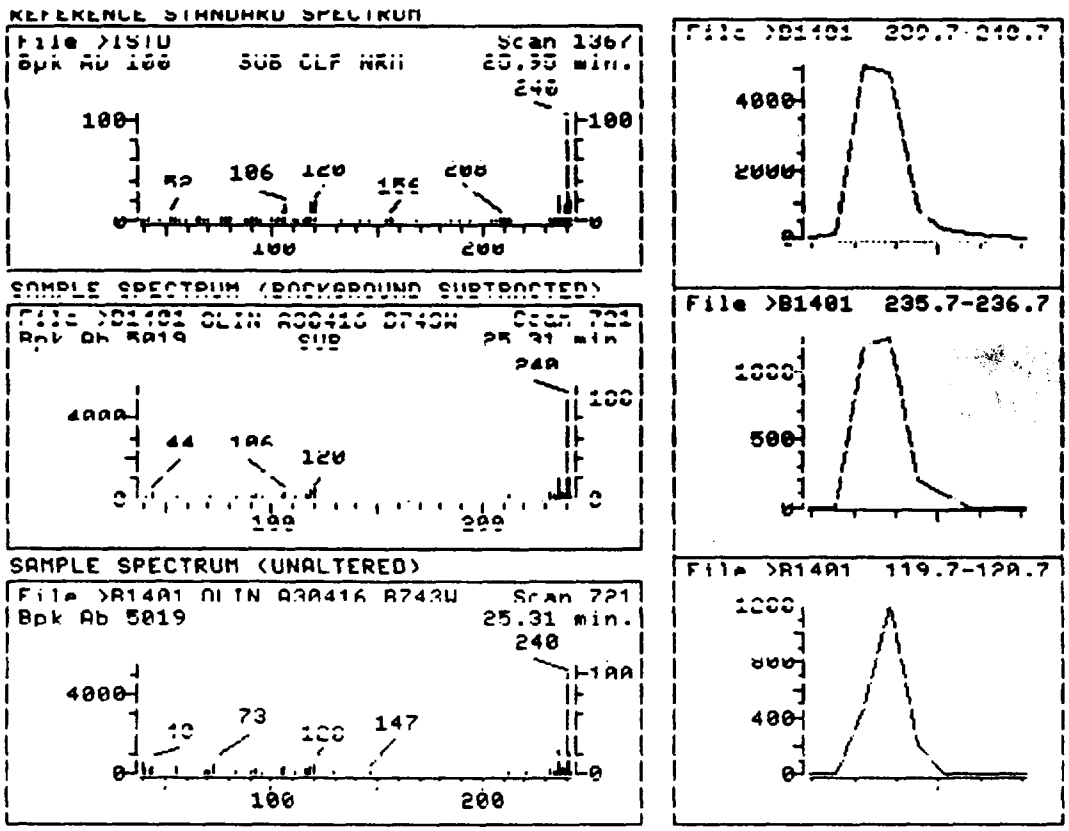


Data File: >B1401::D1
Name: OLIN A30416 B743W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:09
Injected at: 880104 09:33

Quant Output File: ^B1401::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 520
Retention Time: 18.82 min.
Quant Ion: 188.0
Area: 30840
Concentration: 40.00 ng/uL
q-value: 99



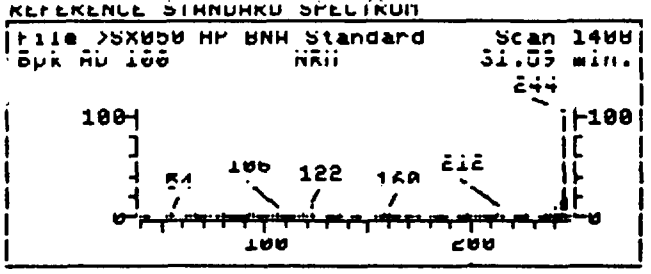
Data File: >B1401::D1
Name: OLIN A30416 B743W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:09
Injected at: 880104 09:33

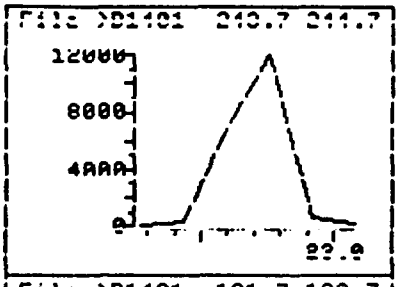
Quant Output File: ^B1401::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

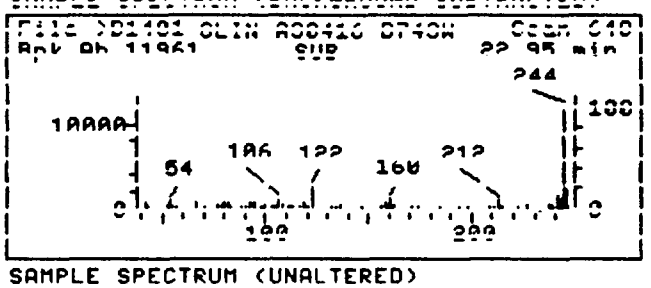
Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 721
Retention Time: 25.31 min.
Quant Ion: 240.0
Area: 21843
Concentration: 40.00 ng/uL
q-value: 94

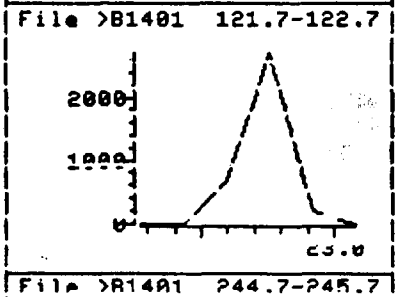
REFERENCE STANDARD SPECTRUM



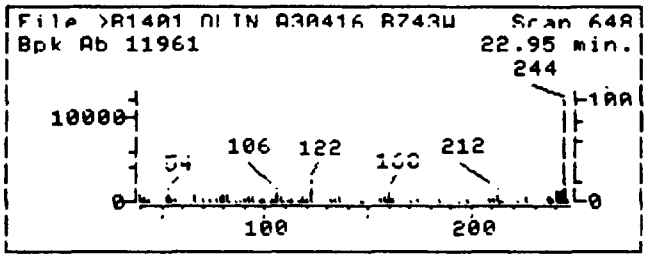


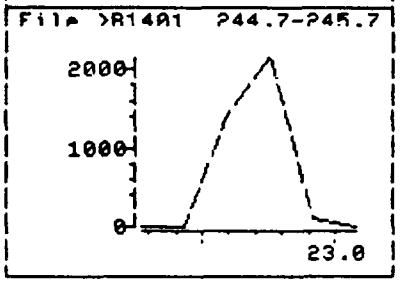
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



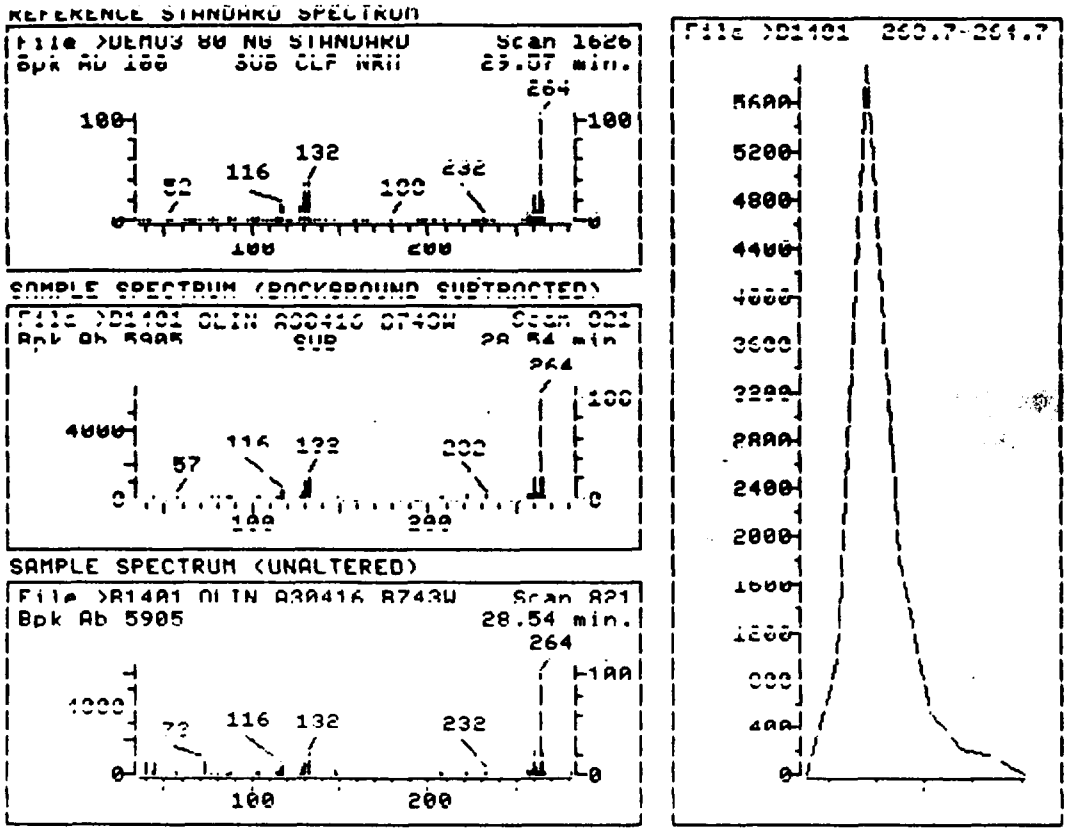


Data File: >B1401::D1
Name: OLIN A30416 B743W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:09
Injected at: 880104 09:33

Quant Output File: ^B1401::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 648
Retention Time: 22.95 min.
Quant Ion: 244.0
Area: 38528
Concentration: 37.38 ng/uL
q-value: 96



Data File: >B1401::D1
Name: OLIN A30416 B743W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:09
Injected at: 880104 09:33

Quant Output File: ^B1401::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 821
Retention Time: 28.54 min.
Quant Ion: 264.0
Area: 18524
Concentration: 40.00 ng/uL
q-value: 100

QUANT REPORT

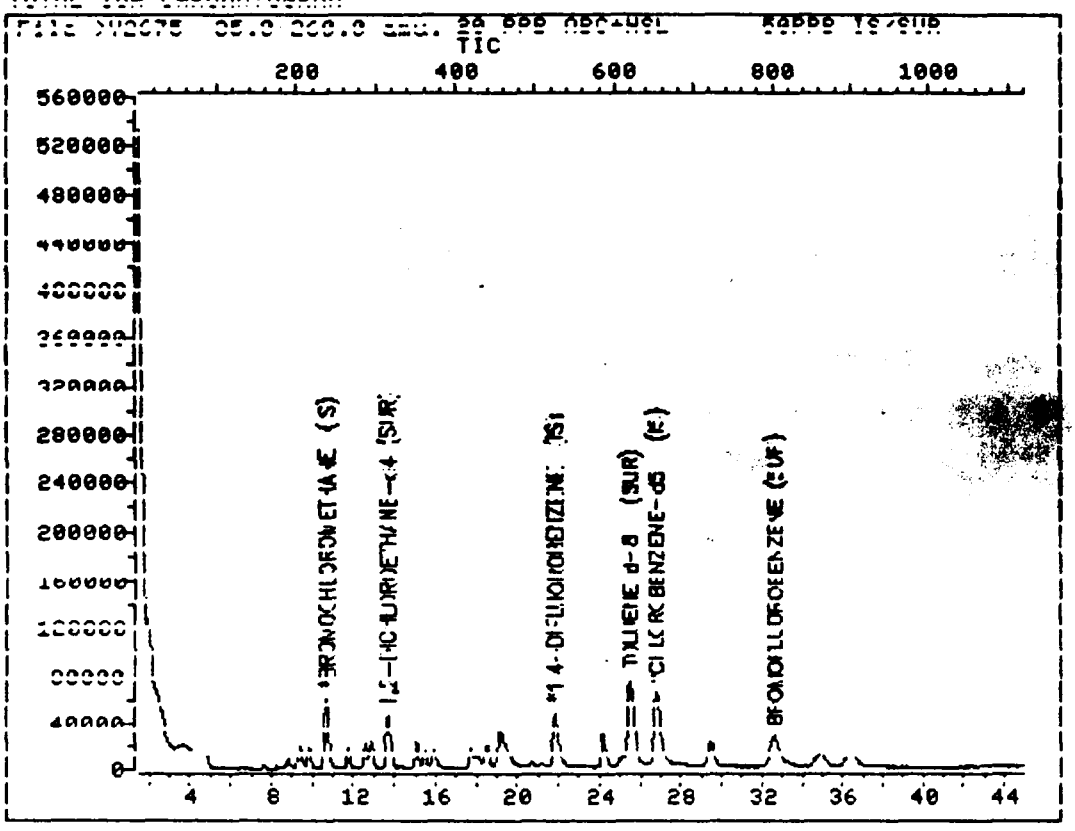
Operator ID: USER6 Quant Rev: 6 Quant Time: 880104 11:43
Output File: ^V2675::QT Injected at: 880104 10:39
Data File: >V2675::D4 Dilution Factor: 1.00000
Name: 20 PPB ABC+HSL
Misc: 50PPB IS/SUR

ID File: IDVCLP::L1
Title: VOLATILE ORGANIC COMPOUNDS
Last Calibration: 871222 07:55

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	**BROMOCHLOROMETHANE (IS)	10.70	238	81720	50.00	UG/L	90
2)	CHLOROMETHANE	2.39	24	16295	10.50	UG/L	100
3)	BROMOMETHANE	3.67	57	10292	54.62	UG/L	95
4)	VINYL CHLORIDE	4.60	81	11733	9.93	UG/L	96
5)	CHLOROETHANE	5.65	108	6341	12.51	UG/L	86
6)	METHYLENE CHLORIDE	7.67	160	6646	18.36	UG/L	92
7)	ACETONE	8.83	190	62346	41.87	UG/L	100
8)	CARBON DISULFIDE	9.38	204	130255	22.62	UG/L	100
9)	1,1-DICHLOROETHENE	10.58	235	39971	22.33	UG/L	91
10)	1,1-DICHLOROETHANE	11.74	265	103015	16.75	UG/L	92
11)	TRANS-1,2-DICHLOROETHENE	12.60	287	46272	16.44	UG/L	91
12)	CHLOROFORM	12.91	295	103884	16.56	UG/L	94
*	1,2-DICHLOROETHANE-d4 (SUR)	13.68	315	176543	46.62	UG/L	94
[illegible]	1,2-DICHLOROETHANE	13.80	318	92636	15.06	UG/L	97
15)	2-BUTANONE	14.34	332	3235	4.30	UG/L	96
16)	1,1,1-TRICHLOROETHANE	15.08	351	72340	16.20	UG/L	78
17)	CARBON TETRACHLORIDE	15.51	362	53398	14.68	UG/L	91
19)	BROMODICHLOROMETHANE	15.90	372	78012	14.19	UG/L	90
20)	**1,4-DIFLUOROBENZENE (IS)	21.83	525	294185	50.00	UG/L	69
21)	1,2-DICHLOROPROPANE	17.72	419	52235	18.49	UG/L	92
22)	TRANS-1,3-DICHLOROPROPENE	18.07	428	44865	8.43	UG/L	98
23)	TRICHLOROETHENE	18.50	439	48771	21.56	UG/L	80
24)	DIBROMOCHLOROMETHANE	19.12	455	37226	13.97	UG/L	95
25)	1,1,2-TRICHLOROETHANE	19.47	464	38591	15.15	UG/L	89
26)	BENZENE	19.19	457	158885	21.88	UG/L	88
27)	CIS-1,3-DICHLOROPROPENE	18.07	428	44865	8.43	UG/L	98
29)	BROMOFORM	21.99	529	18876	10.15	UG/L	94
30)	**CHLOROBENZENE-d5 (IS)	26.76	652	241256	50.00	UG/L	94
31)	2-HEXANONE	26.76	652	23010	6.36	UG/L	100
32)	4-METHYL-2-PENTANONE	25.29	614	61857	10.16	UG/L	100
33)	TETRACHLOROETHENE	24.16	585	46848	25.46	UG/L	98
34)	1,1,2,2-TETRACHLOROETHANE	24.24	587	28923	10.29	UG/L	97
35)	TOLUENE	25.68	624	104226	23.53	UG/L	96
36)	TOLUENE d-8 (SUR)	25.48	619	332413	50.13	UG/L	97
37)	CHLOROBENZENE	26.92	656	116091	22.15	UG/L	93
38)	ETHYLBENZENE	29.44	721	52790	22.45	UG/L	96
39)	STYRENE	34.84	860	49418	8.02	UG/L	88
[illegible]	TOTAL XYLENES	36.43	901	62084	17.37	UG/L	96
	ACROLEIN	8.87	191	961	6.85	UG/L	100
42)	ACRYLONITRILE	9.34	203	31587	22.21	UG/L	96
43)	BROMOFLUOROBENZENE (SUR)	32.62	803	168339	47.75	UG/L	81

* Compound is ISTD

TOTAL ION CHROMOTOGRAM



Data File: >V2675::D4
Name: 20 PPB ABC+HSL
Misc: 50PPB IS/SUR

Quant Output File: ^V2675::QT

Id File: IDVOLP::L1
Title: VOLATILE ORGANIC COMPOUNDS
Last Calibration: 871222 07:55

Operator ID: USER6
Quant Time: 880104 11:43
Injected at: 880104 10:39

PRELIMINARY REPORT
This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

CC: Paul Klotz

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18819

BCM Number : A30495
Location : 577
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	< 0.66	mg/kg	
Pentachloronitrobenzene	< 0.66	mg/kg	
Mercury	25.5	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/16/87	M/D/Y	
pH	6.9	std.un	
Specific Gravity	---------		
Total Solids	---------	%	

QUANT REPORT

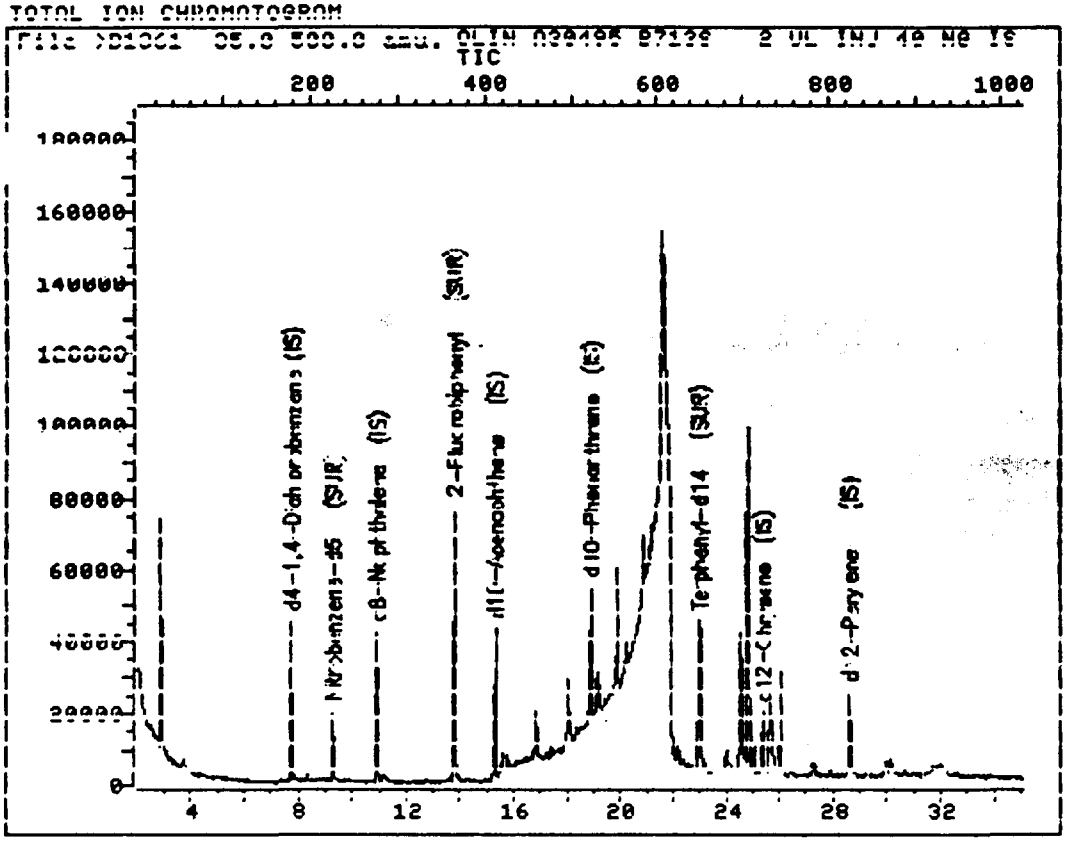
Operator ID: USER6 Quant Rev: 6 Quant Time: 871218 08:43
Output File: ^B1361::QT Injected at: 871218 08:06
Data File: >B1361::D1 Dilution Factor: .20000
Name: OLIN A30495 B713S
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.75	178	15772	40.00	ng/uL	91
16)	*d8-Naphthalene (IS)	10.91	276	55189	40.00	ng/uL	86
17)	Nitrobenzene-d5 (SUR)	9.27	225	18823	2.41	ng/uL	99
31)	*d10-Acenaphthene (IS)	15.31	412	29230	40.00	ng/uL	99
36)	2-Fluorobiphenyl (SUR)	13.79	365	58802	6.29	ng/uL	94
51)	*d10-Phenanthrene (IS)	18.89	523	42148	40.00	ng/uL	99
63)	*d12-Chrysene (IS)	25.39	724	29929	40.00	ng/uL	96
65)	Terphenyl-d14 (SUR)	23.00	650	65585	9.29	ng/uL	87
71)	*d12-Perylene (IS)	28.62	824	26054	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

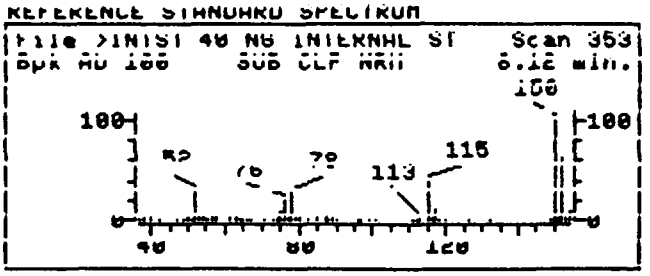


Data File: >B1361::D1 Quant Output File: ^B1361::QT
Name: OLIN A30495 B713S
Misc: 2 UL INJ 40 NG IS

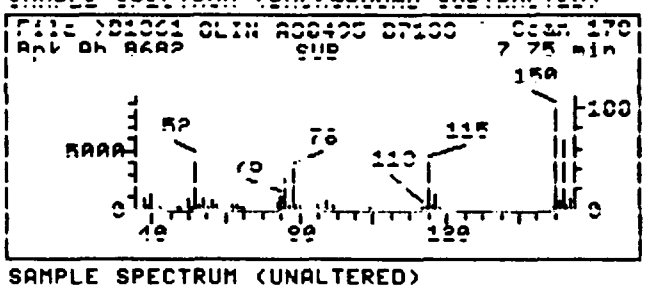
Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871218 08:43
Injected at: 871218 08:06

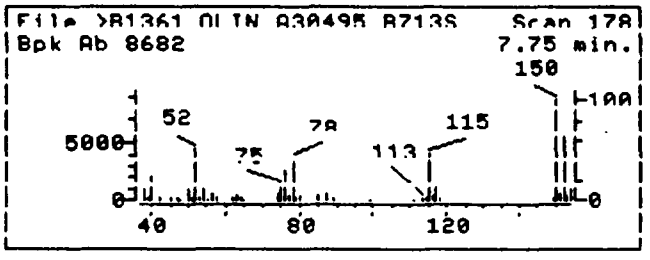
REFERENCE STANDARD SPECTRUM

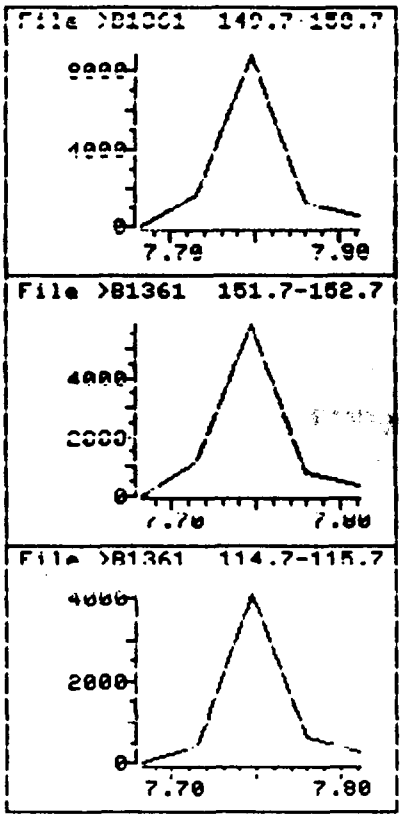


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



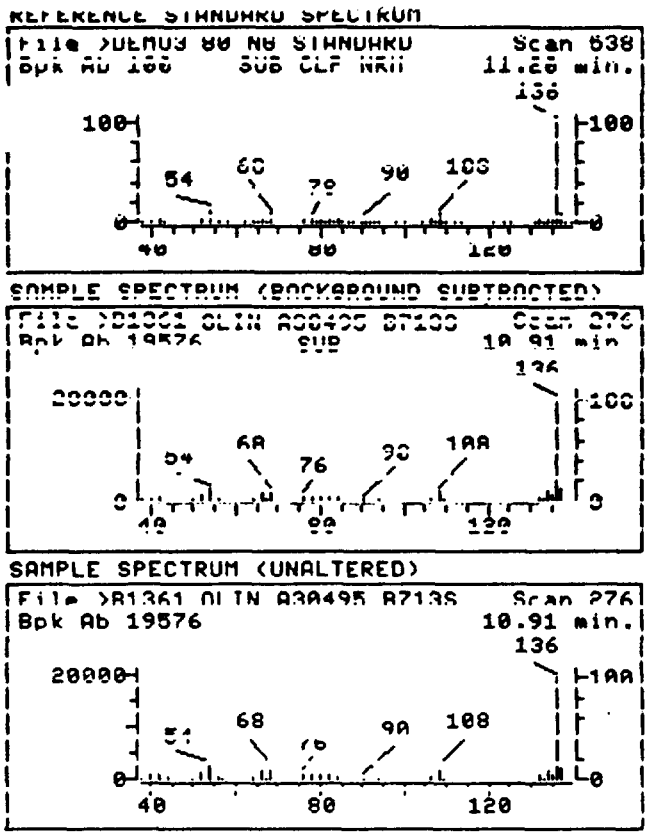
SAMPLE SPECTRUM (UNALTERED)

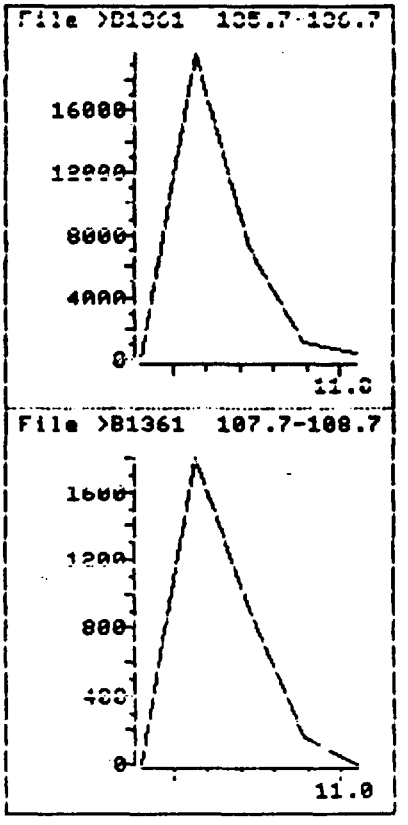




Data File: >B1361::D1 Quant Output File: ^B1361::QT
Name: OLIN A30495 B713S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 08:43 Quant ID File: ID BDA::L2
Injected at: 871218 08:06 Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 178
Retention Time: 7.75 min.
Quant Ion: 152.0
Area: 15772
Concentration: 40.00 ng/uL
q-value: 91





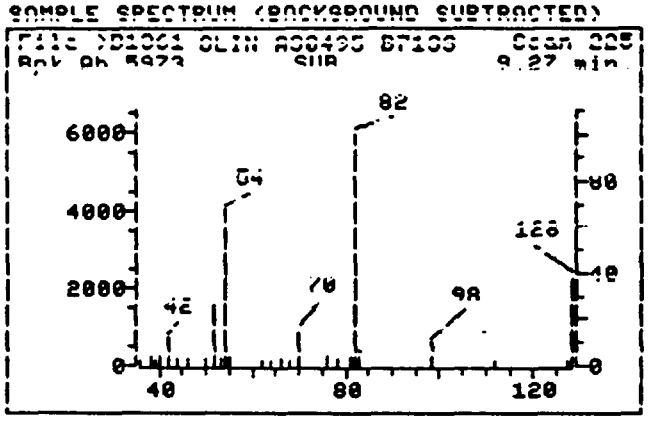
Data File: >B1361::D1
Name: OLIN A30495 B713S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 08:43
Injected at: 871218 08:06

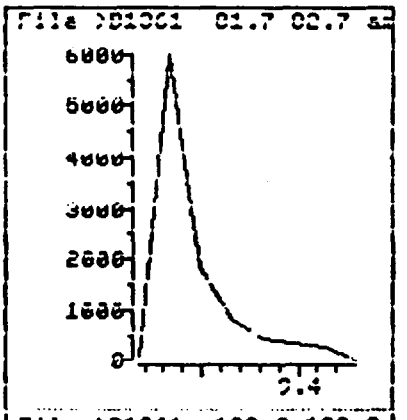
Quant Output File: ^B1361::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 276
Retention Time: 10.91 min.
Quant Ion: 136.0
Area: 55189
Concentration: 40.00 ng/uL
q-value: 86

SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





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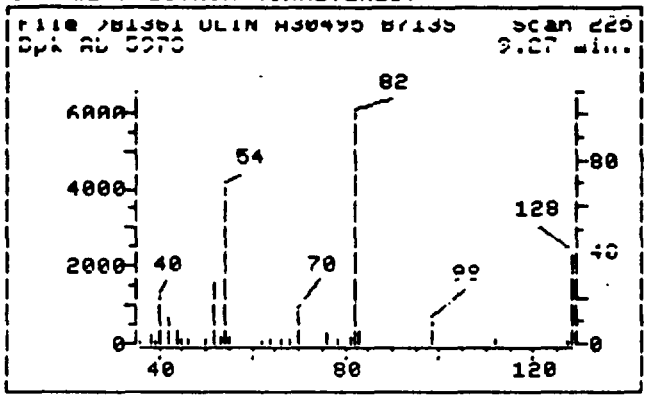
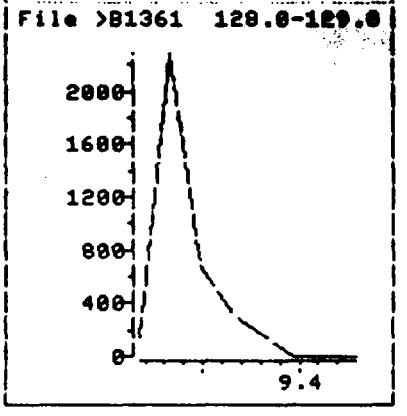


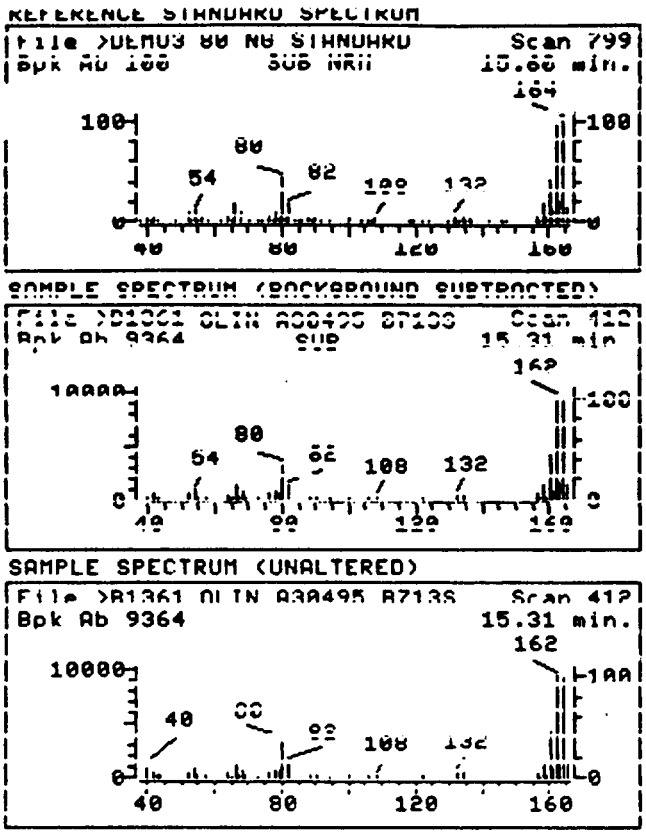


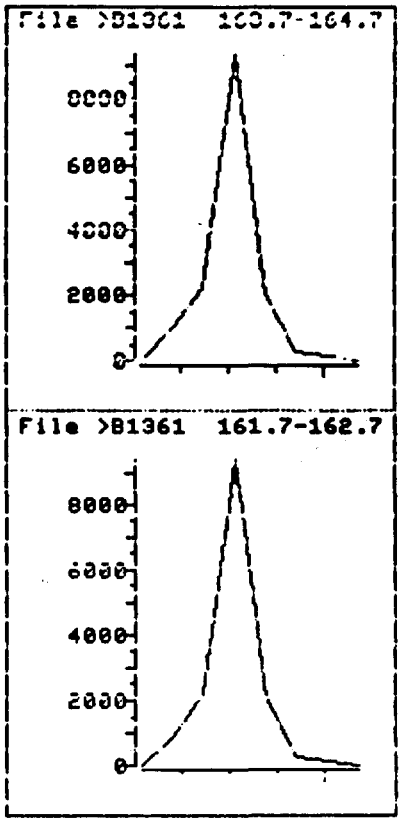
Data File: >B1361::D1
Name: OLIN A30495 B713S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 08:43
Injected at: 871218 08:06

Quant Output File: ^B1361::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 225
Retention Time: 9.27 min.
Quant Ion: 82.0
Area: 18823
Concentration: 2.41 ng/uL
q-value: 99





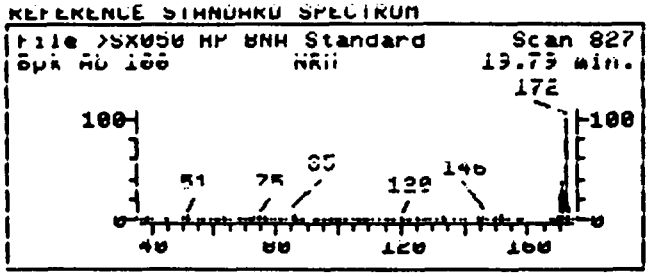
Data File: >B1361::D1
Name: OLIN A30495 B713S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 08:43
Injected at: 871218 08:06

Quant Output File: ^B1361::QT

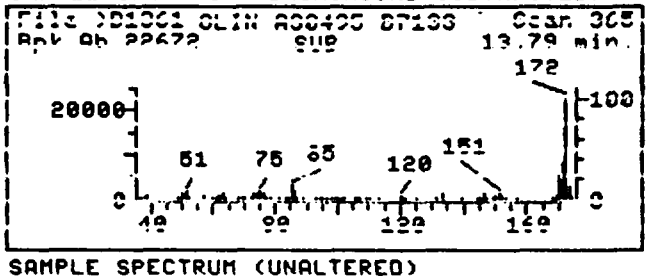
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 412
Retention Time: 15.31 min.
Quant Ion: 164.0
Area: 29230
Concentration: 40.00 ng/uL
q-value: 99

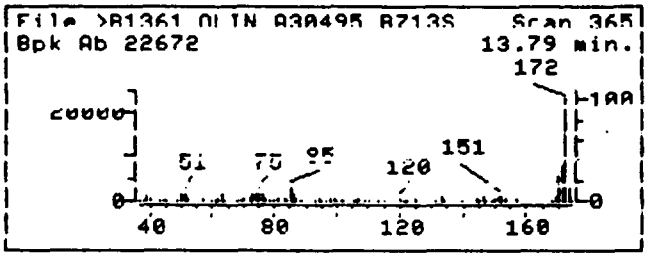
REFERENCE STANDARD SPECTRUM

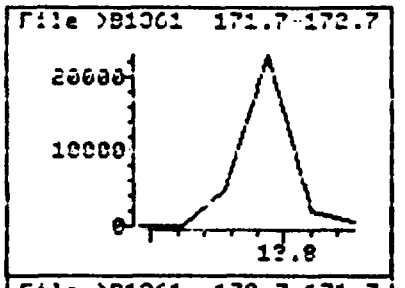


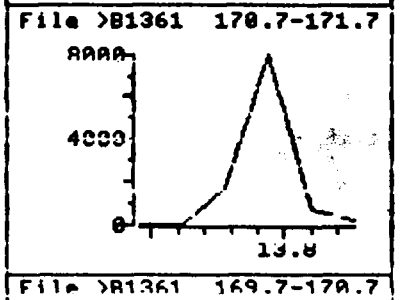
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

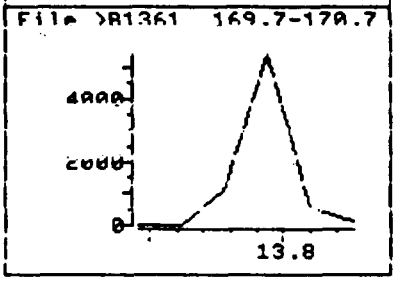


SAMPLE SPECTRUM (UNALTERED)









Data File: >B1361::D1
Name: OLIN A30495 B713S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 08:43
Injected at: 871218 08:06

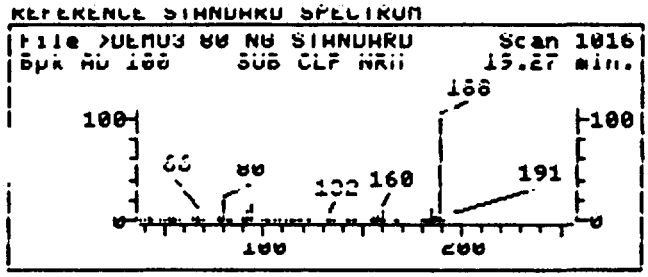
Quant Output File: ^B1361::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

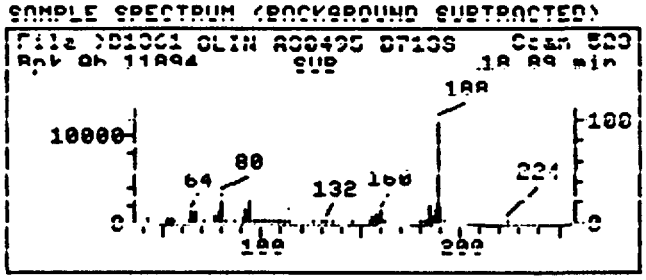
Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 365
Retention Time: 13.79 min.
Quant Ion: 172.0
Area: 58802
Concentration: 6.29 ng/uL
q-value: 94

3 2 00511

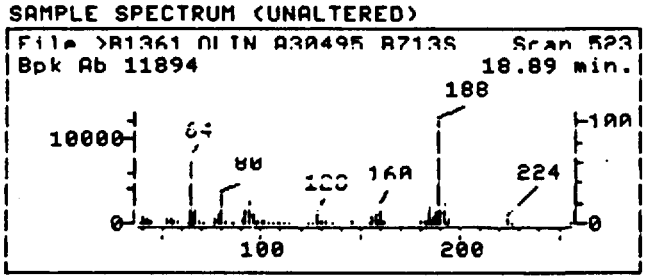
REFERENCE STANDARD SPECTRUM

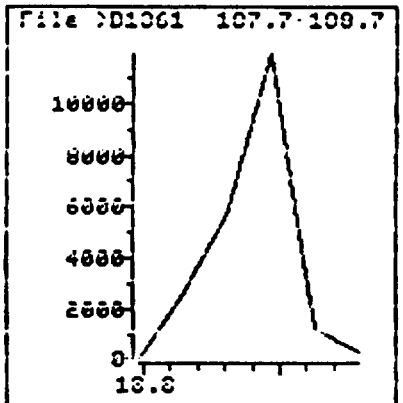


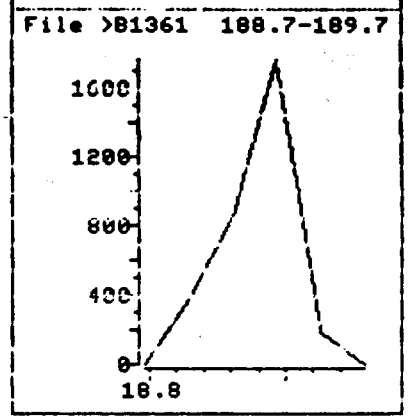
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





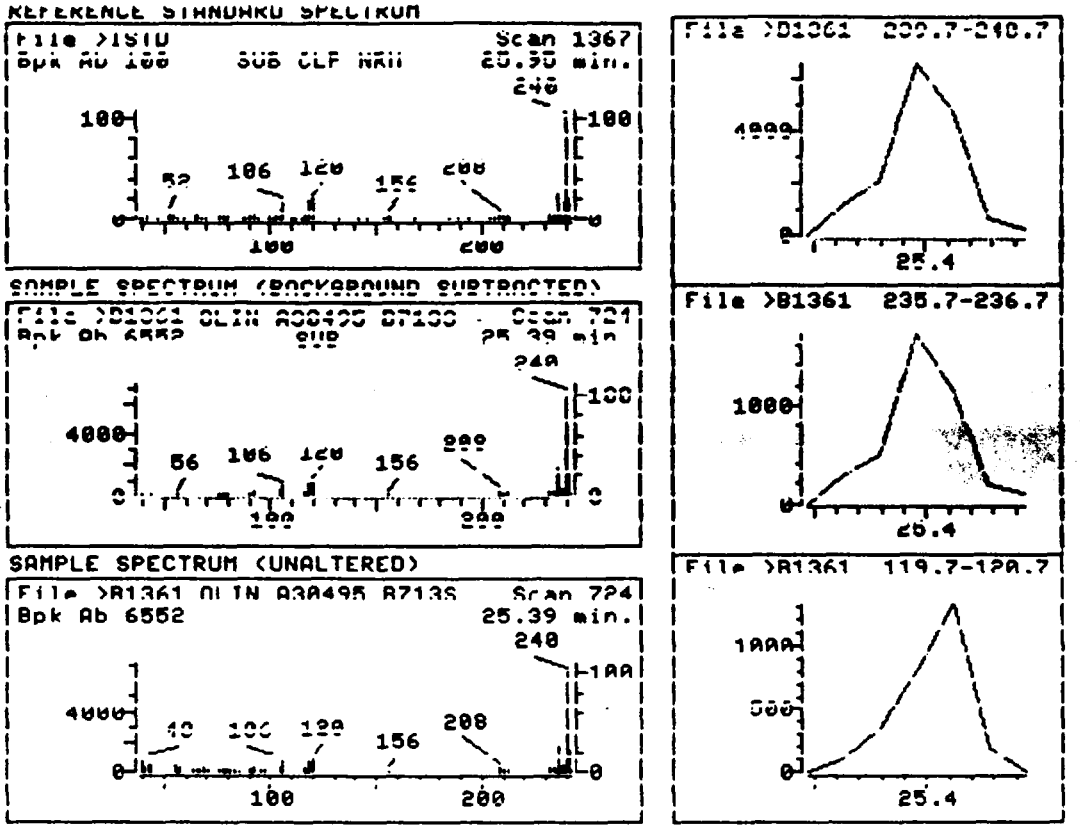


Data File: >B1361::D1
Name: OLIN A30495 B713S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 08:43
Injected at: 871218 08:06

Quant Output File: ^B1361::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 523
Retention Time: 18.89 min.
Quant Ion: 188.0
Area: 42148
Concentration: 40.00 ng/uL
q-value: 99



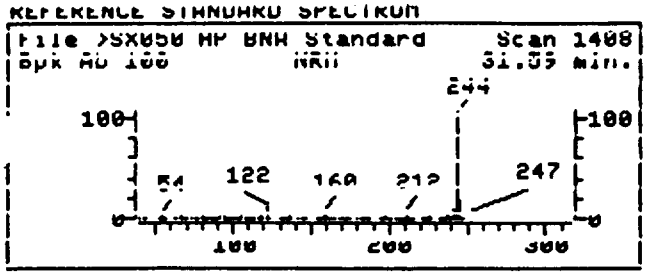
Data File: >B1361::D1
Name: OLIN A30495 B713S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 08:43
Injected at: 871218 08:06

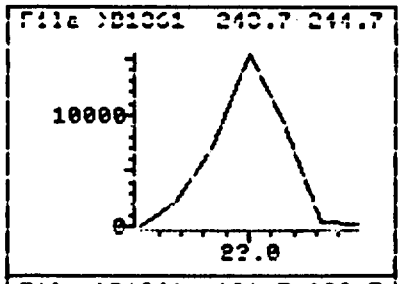
Quant Output File: ^B1361::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

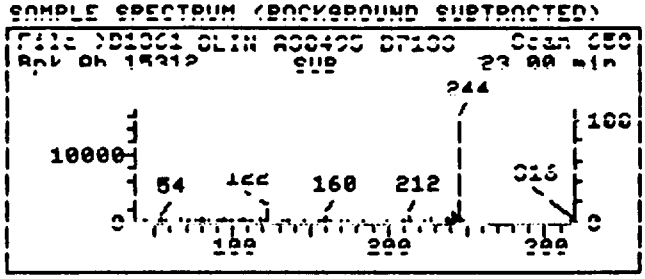
Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 724
Retention Time: 25.39 min.
Quant Ion: 240.0
Area: 29929
Concentration: 40.00 ng/uL
q-value: 96

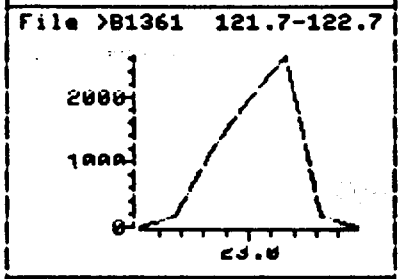
REFERENCE STANDARD SPECTRUM



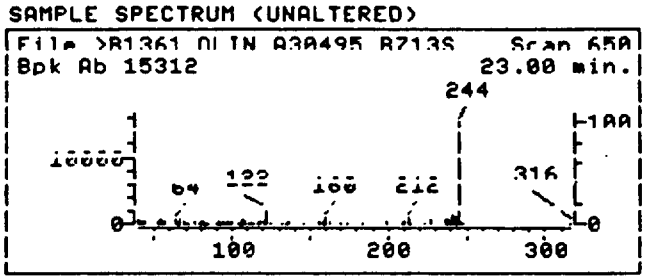


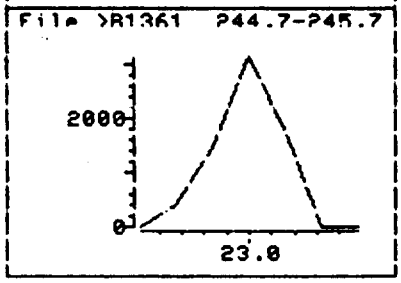
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



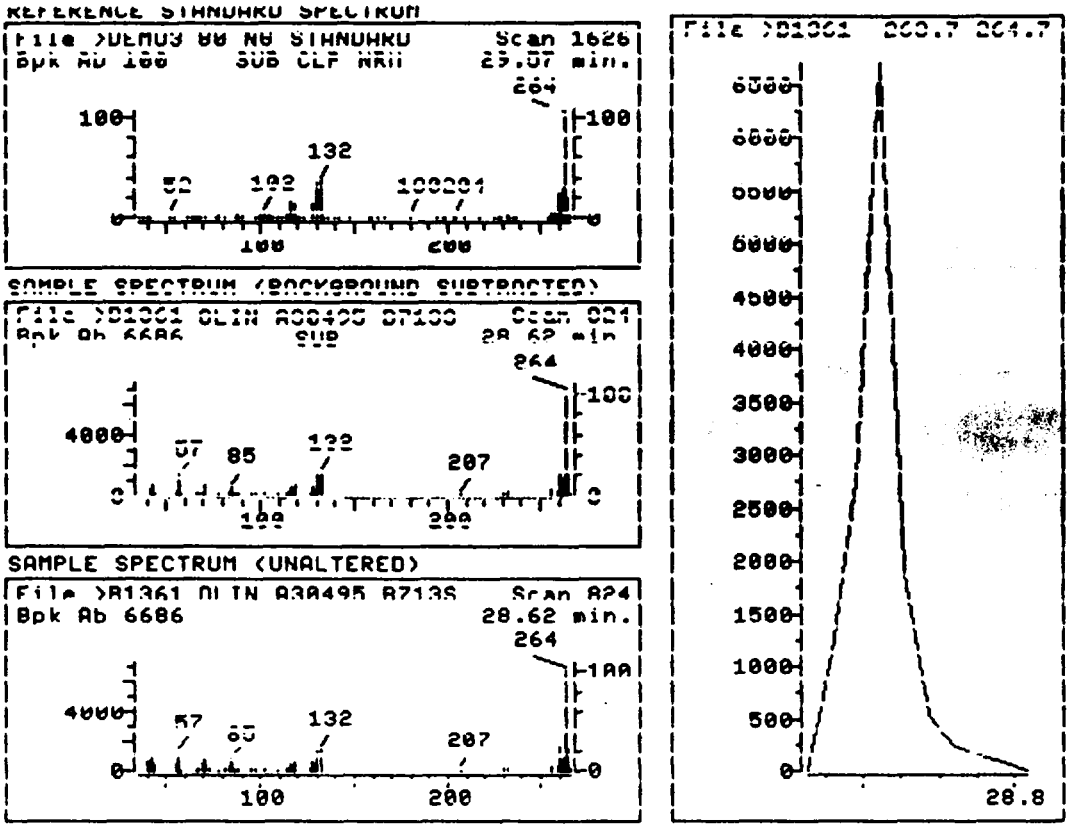


Data File: >B1361::D1
Name: OLIN A30495 B713S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 08:43
Injected at: 871218 08:06

Quant Output File: ^B1361::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 650
Retention Time: 23.00 min.
Quant Ion: 244.0
Area: 65585
Concentration: 9.29 ng/uL
q-value: 87



Data File: >B1361::D1 Quant Output File: ^B1361::QT
Name: OLIN A30495 B713S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 08:43 Quant ID File: ID BDA::L2
Injected at: 871218 08:06 Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 824
Retention Time: 28.62 min.
Quant Ion: 264.0
Area: 26054
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

CC: Paul Klotz

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18819

BCM Number : A30497
Location : 538
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	< 0.66	mg/kg	
Pentachloronitrobenzene	< 0.66	mg/kg	
Mercury	2.60	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/15/87	M/D/Y	
pH	7.8	std.un	
Specific Gravity	---------		
Total Solids	---------	%	

QUANT REPORT

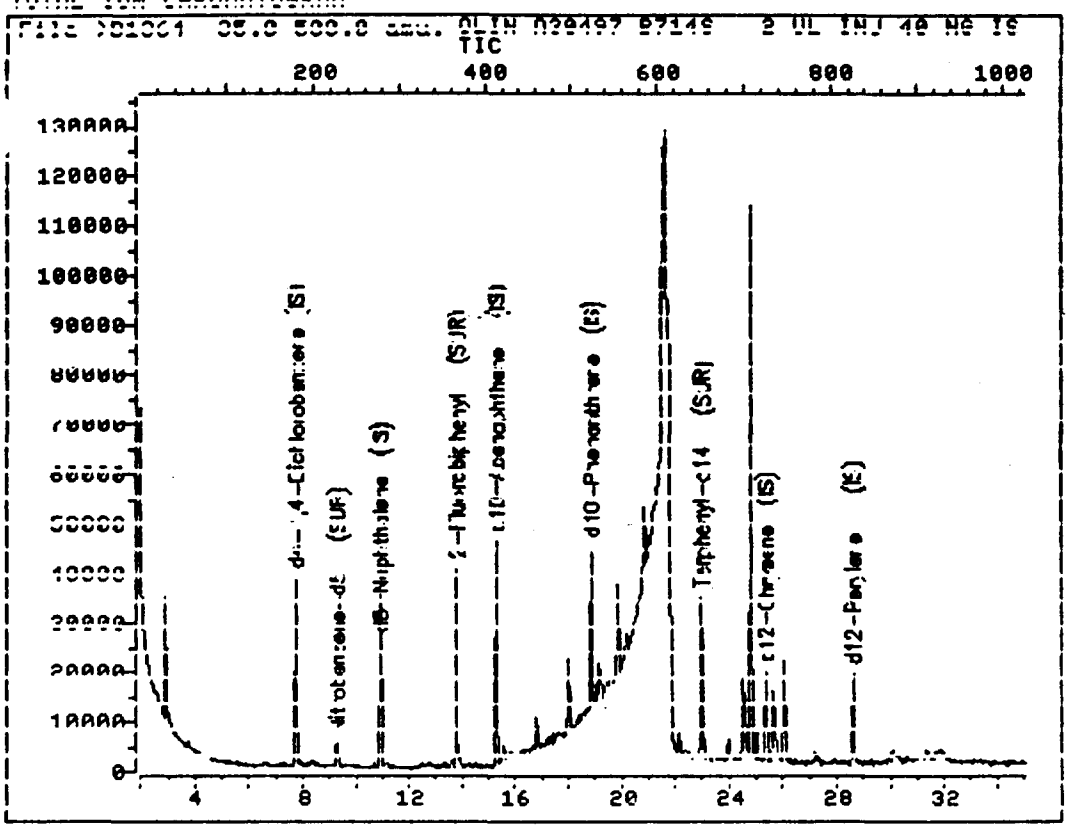
Operator ID: USER6 Quant Rev: 6 Quant Time: 871218 11:20
Output File: ^B1364::QT Injected at: 871218 10:33
Data File: >B1364::D1 Dilution Factor: .20000
Name: OLIN A30497 B714S
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.74	179	16105	40.00	ng/uL	96
16)	*d8-Naphthalene (IS)	10.91	277	50962	40.00	ng/uL	85
17)	Nitrobenzene-d5 (SUR)	9.29	227	8956	1.24	ng/uL	99
31)	*d10-Acenaphthene (IS)	15.30	413	26009	40.00	ng/uL	96
36)	2-Fluorobiphenyl (SUR)	13.78	366	33185	3.99	ng/uL	94
51)	*d10-Phenanthrene (IS)	18.89	524	36086	40.00	ng/uL	97
63)	*d12-Chrysene (IS)	25.38	725	27199	40.00	ng/uL	99
65)	Terphenyl-d14 (SUR)	22.99	651	44935	7.00	ng/uL	86
71)	*d12-Perylene (IS)	28.61	825	23268	40.00	ng/uL	100

* Compound is ISTD

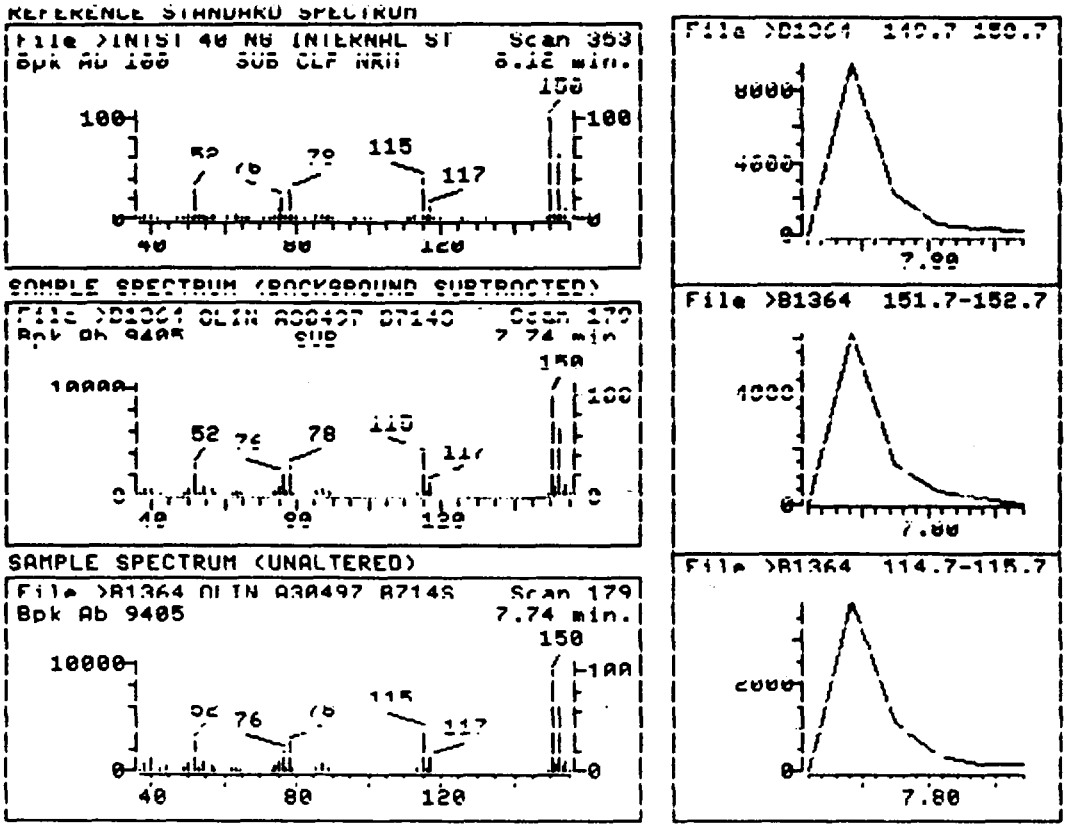
TOTAL ION CHROMATOGRAM



Data File: >B1364::D1 Quant Output File: ^B1364::QT
Name: OLIN A30497 B714S
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

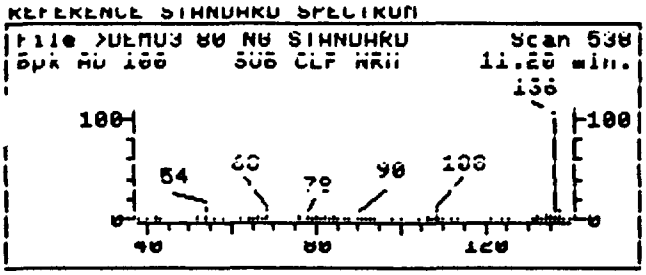
Operator ID: USER6
Quant Time: 871218 11:20
Injected at: 871218 10:33



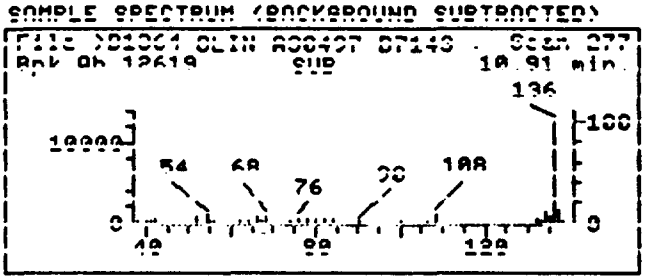
Data File: >B1364::D1 Quant Output File: ^B1364::QT
Name: OLIN A30497 B714S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:20 Quant ID File: ID BDA::L2
Injected at: 871218 10:33 Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 179
Retention Time: 7.74 min.
Quant Ion: 152.0
Area: 16105
Concentration: 40.00 ng/uL
q-value: 96

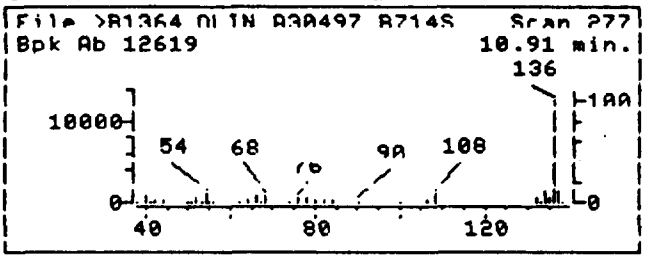
REFERENCE STANDARD SPECTRUM

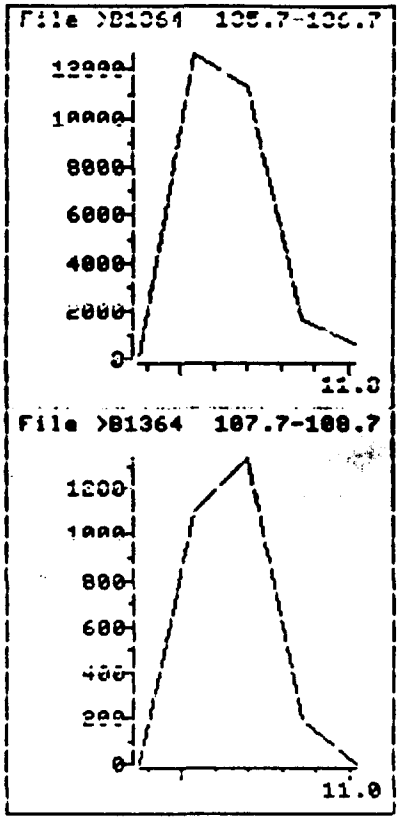


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





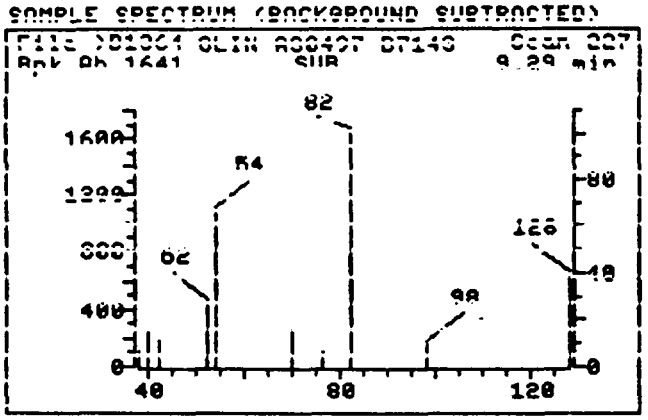
Data File: >B1364::D1
Name: OLIN A30497 B714S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:20
Injected at: 871218 10:33

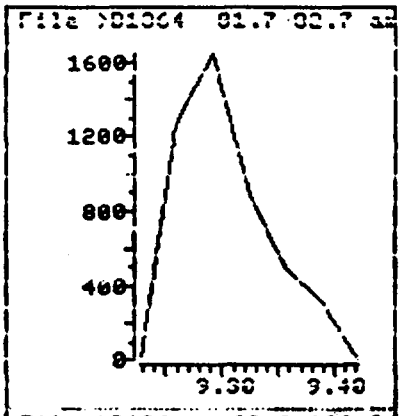
Quant Output File: ^B1364::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

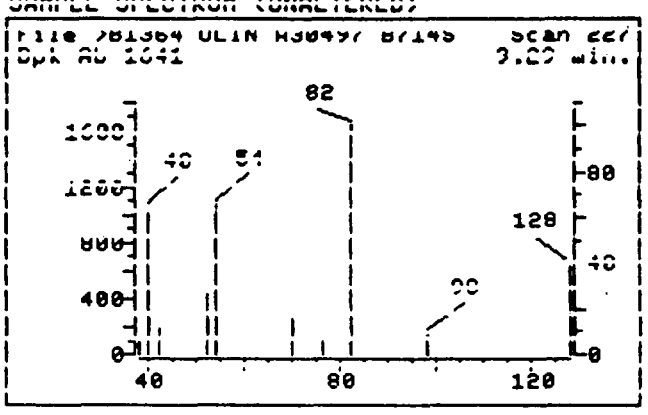
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 277
Retention Time: 10.91 min.
Quant Ion: 136.0
Area: 50962
Concentration: 40.00 ng/uL
q-value: 85

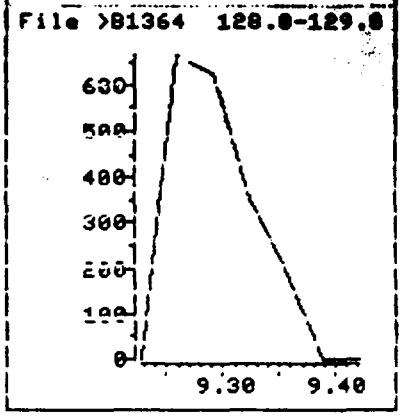
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)

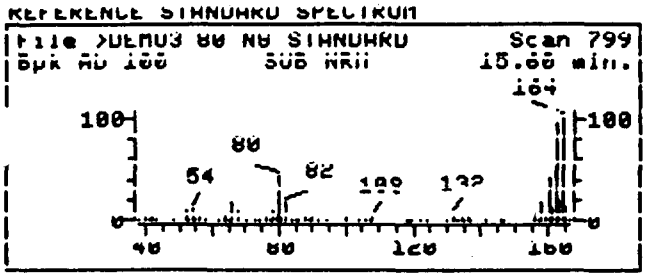




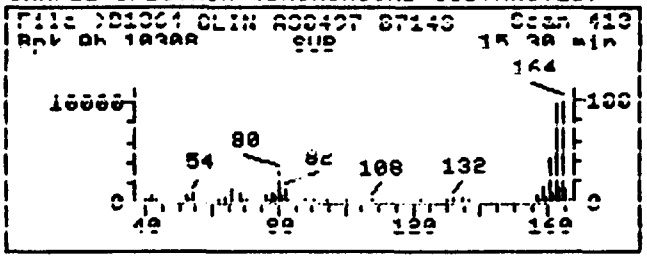
Data File: >B1364::D1 Quant Output File: ^B1364::QT
Name: OLIN A30497 B714S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:20 Quant ID File: ID BDA::L2
Injected at: 871218 10:33 Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 227
Retention Time: 9.29 min.
Quant Ion: 82.0
Area: 8956
Concentration: 1.24 ng/uL
q-value: 99

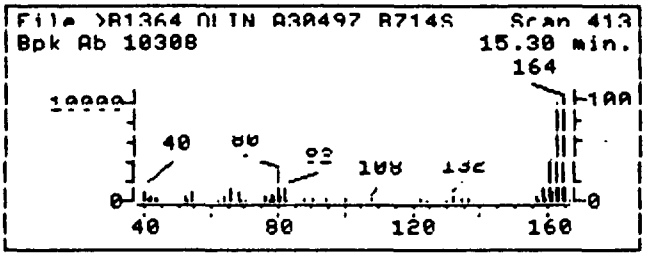
REFERENCE STANDARD SPECTRUM

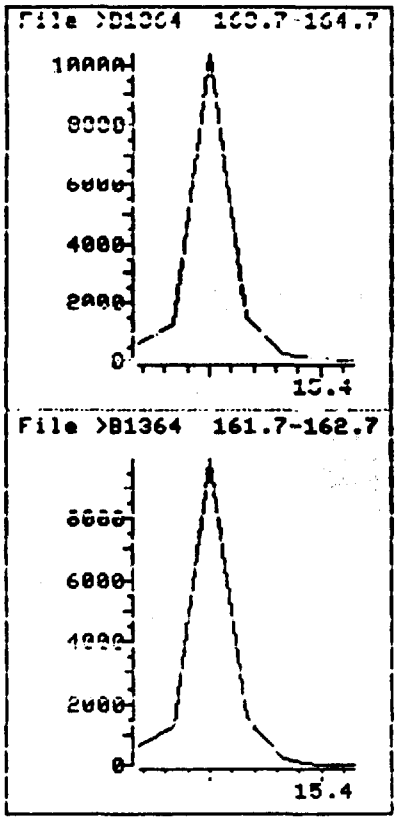


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



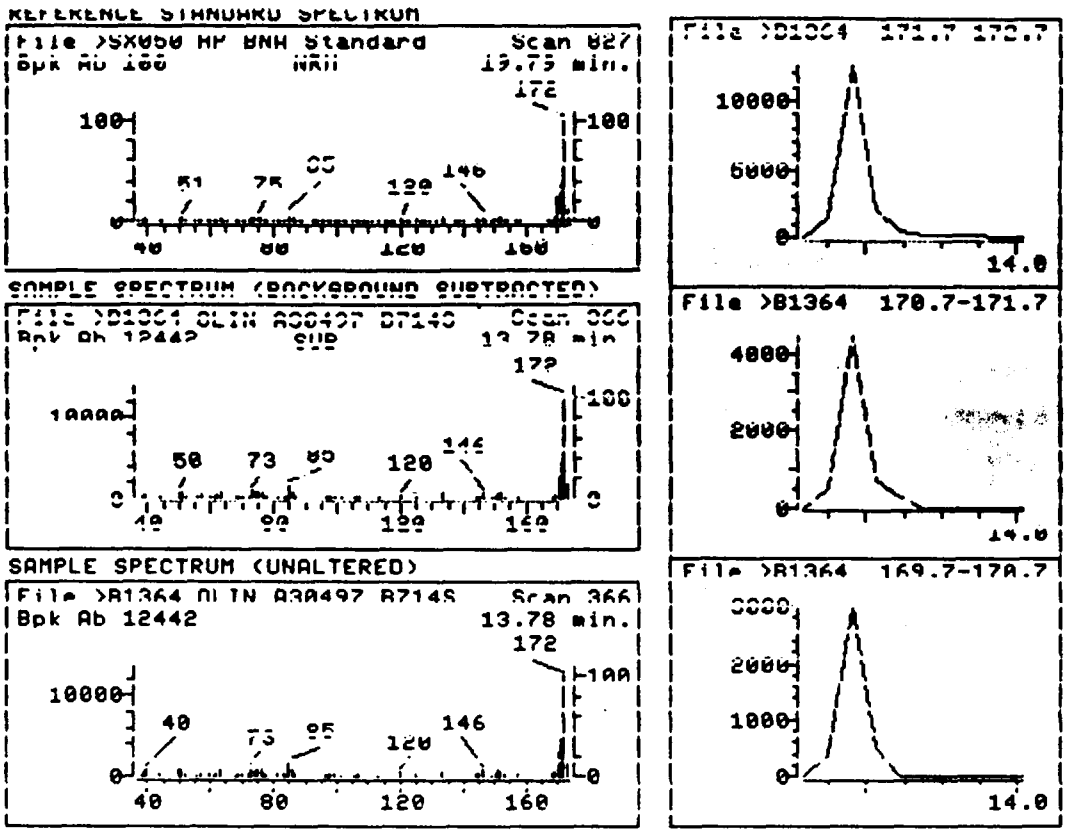


Data File: >B1364::D1
Name: DLIN A30497 B714S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:20
Injected at: 871218 10:33

Quant Output File: ^B1364::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 413
Retention Time: 15.30 min.
Quant Ion: 164.0
Area: 26009
Concentration: 40.00 ng/uL
q-value: 96



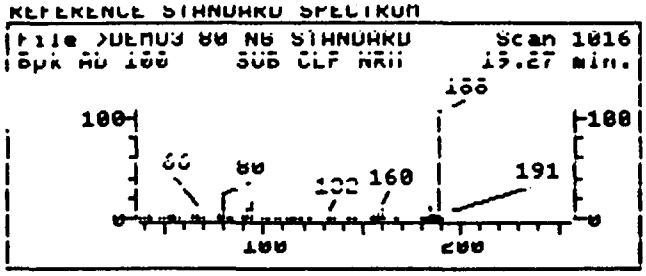
Data File: >B1364::D1
Name: OLIN A30497 B714S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:20
Injected at: 871218 10:33

Quant Output File: ^B1364::QT

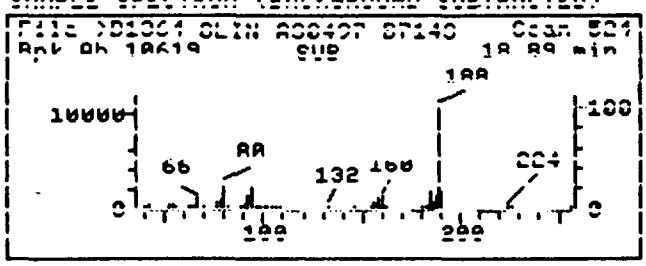
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 366
Retention Time: 13.78 min.
Quant Ion: 172.0
Area: 33185
Concentration: 3.99 ng/uL
q-value: 94

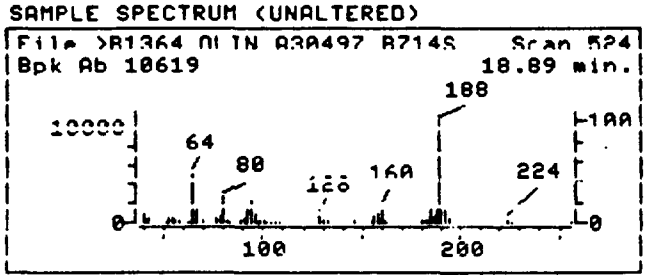
REFERENCE STANDARD SPECTRUM

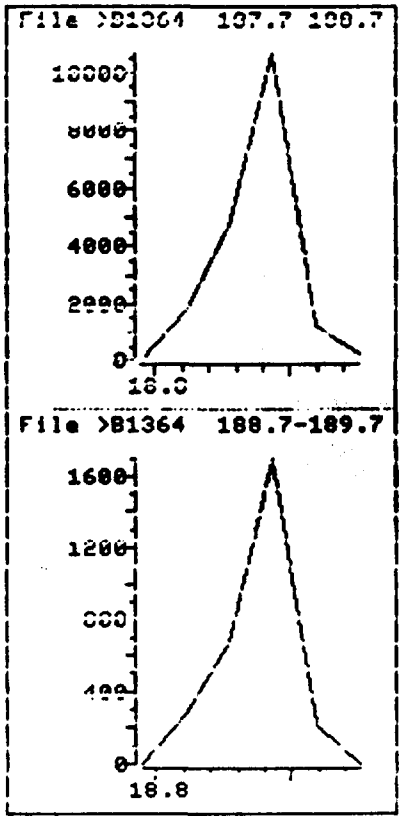


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



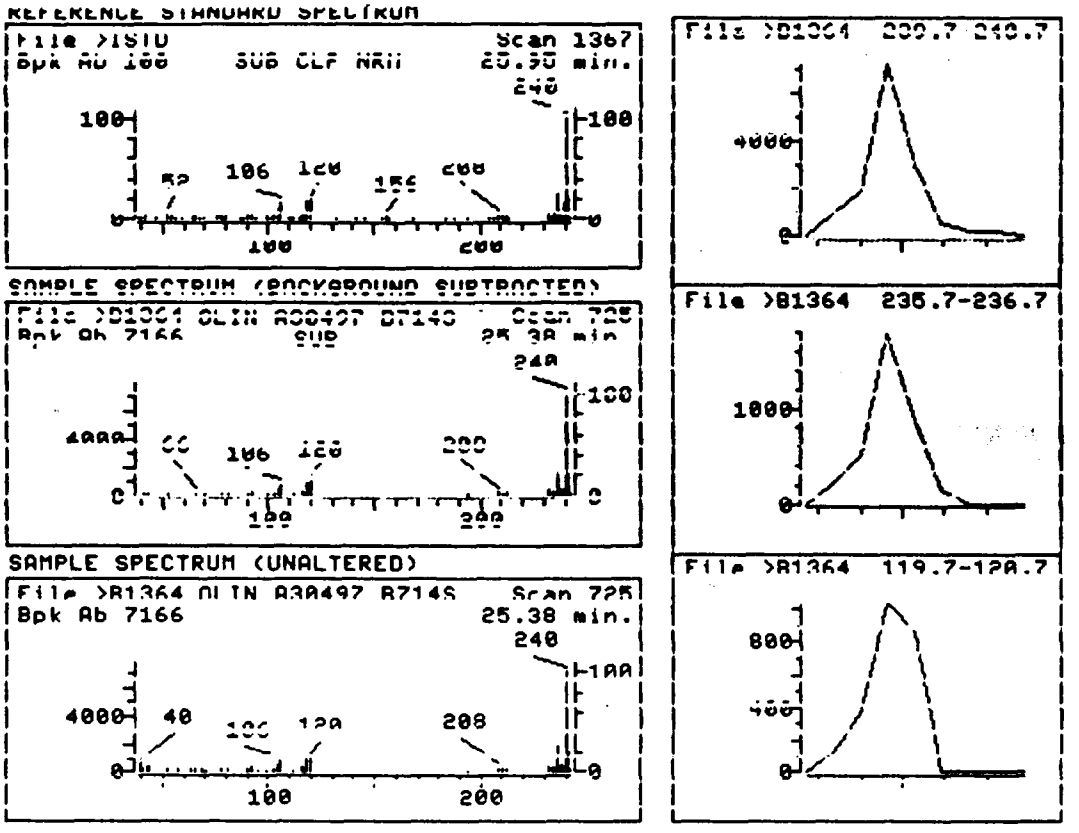


Data File: >B1364::D1
Name: OLIN A30497 B714S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:20
Injected at: 871218 10:33

Quant Output File: ^B1364::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

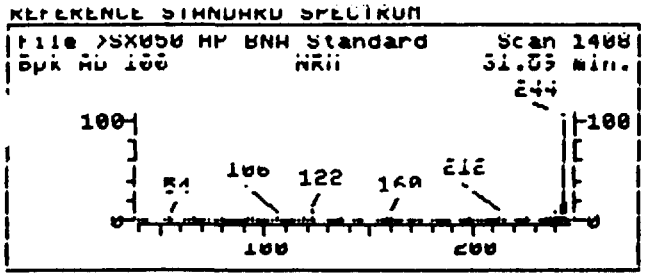
Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 524
Retention Time: 18.89 min.
Quant Ion: 188.0
Area: 36086
Concentration: 40.00 ng/uL
q-value: 97



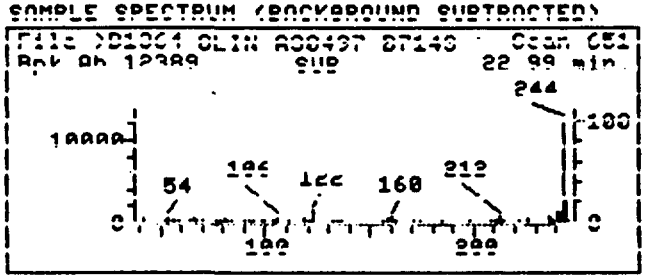
Data File: >B1364::D1 Quant Output File: ^B1364::QT
Name: OLIN A30497 B714S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:20 Quant ID File: ID BDA::L2
Injected at: 871218 10:33 Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 725
Retention Time: 25.38 min.
Quant Ion: 240.0
Area: 27199
Concentration: 40.00 ng/uL
q-value: 99

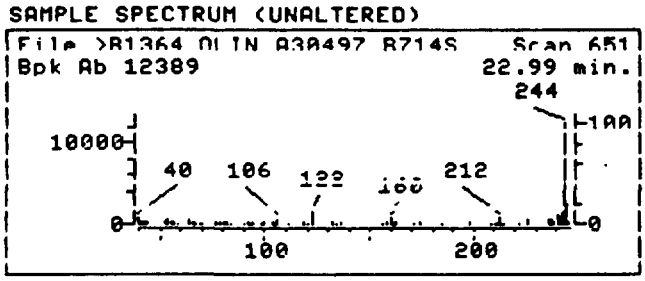
REFERENCE STANDARD SPECTRUM

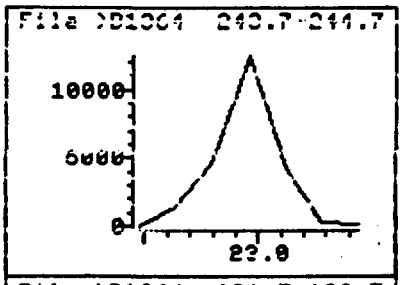


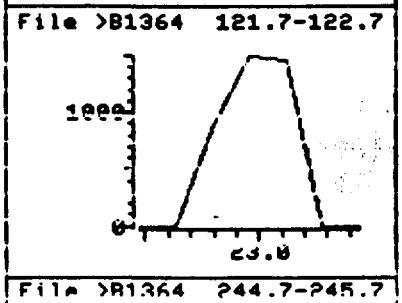
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

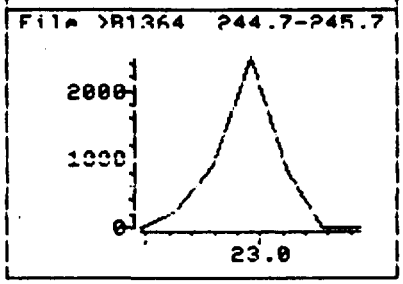


SAMPLE SPECTRUM (UNALTERED)







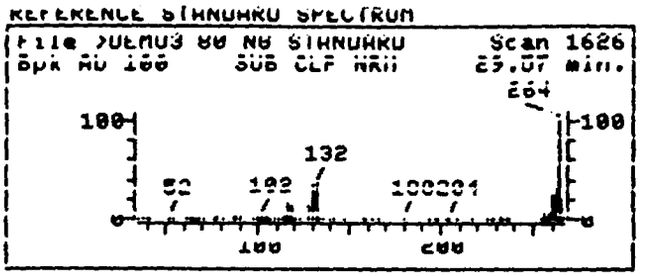


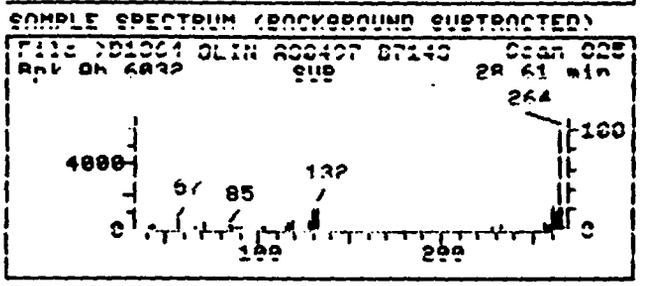
Data File: >B1364::D1
Name: OLIN A30497 B714S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:20
Injected at: 871218 10:33

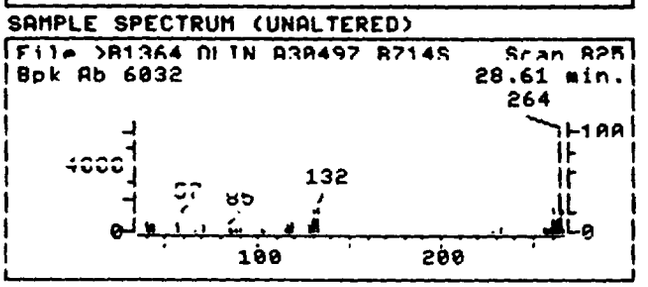
Quant Output File: ^B1364::QT

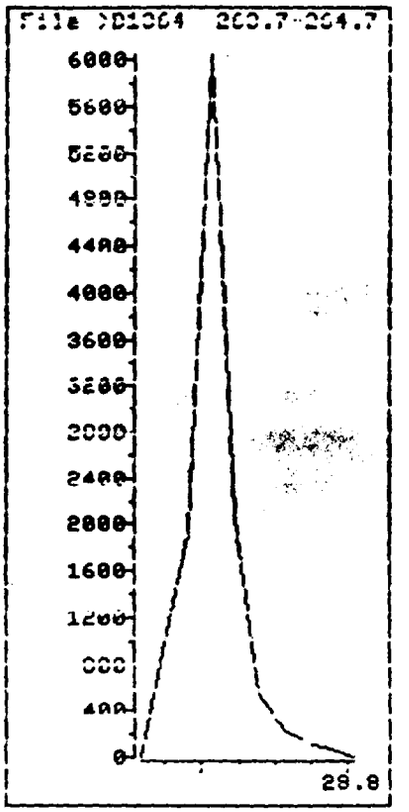
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 651
Retention Time: 22.99 min.
Quant Ion: 244.0
Area: 44935
Concentration: 7.00 ng/uL
q-value: 86









Data File: >B1364::D1
Name: OLIN A30497 B714S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:20
Injected at: 871218 10:33

Quant Output File: ^B1364::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 825
Retention Time: 28.61 min.
Quant Ion: 264.0
Area: 23268
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18819

CC: Paul Klotz

BCM Number : A30499
Location : 807
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	114	mg/kg	
Pentachloronitrobenzene	4.9	mg/kg	
Mercury	11.0	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/15/87	M/D/Y	
	6.5	std.un	
Specific Gravity	---------		
Total Solids	---------	%	

QUANT REPORT

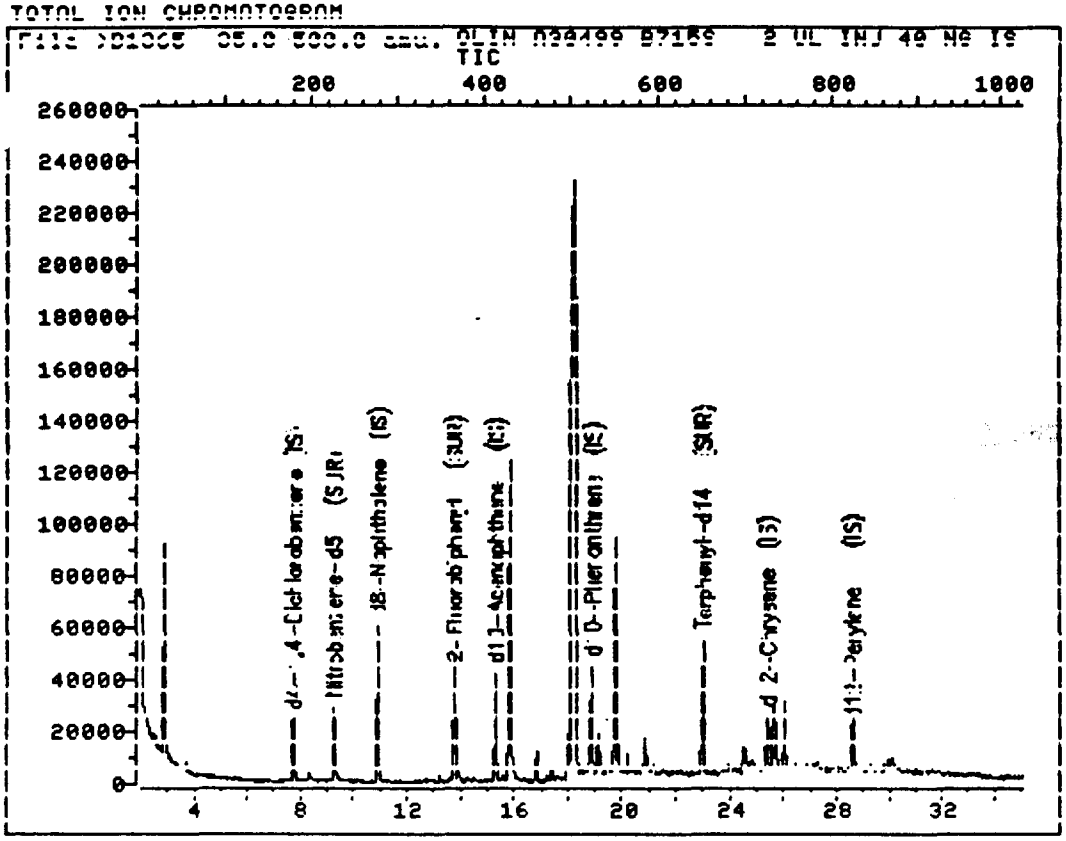
Operator ID: USER6 Quant Rev: 6 Quant Time: 871218 11:59
Output File: ^B1365::QT Injected at: 871218 11:22
Data File: >B1365::D1 Dilution Factor: .20000
Name: OLIN A30499 B715S
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.73	178	16082	40.00	ng/uL	93
16)	*d8-Naphthalene (IS)	10.93	277	59666	40.00	ng/uL	89
17)	Nitrobenzene-d5 (SUR)	9.25	225	43615	5.16	ng/uL	86
31)	*d10-Acenaphthene (IS)	15.32	413	29433	40.00	ng/uL	99
36)	2-Fluorobiphenyl (SUR)	13.77	365	57562	6.12	ng/uL	94
51)	*d10-Phenanthrene (IS)	18.91	524	42229	40.00	ng/uL	99
56)	Pentachloronitrobenzene	18.88	523	3447	4.87	ng/uL	100
57)	Hexachlorobenzene	18.30	505	370613	113.63	ng/uL	96
63)	*d12-Chrysene (IS)	25.41	725	29567	40.00	ng/uL	89
65)	Terphenyl-d14 (SUR)	23.01	651	68283	9.79	ng/uL	93
71)	*d12-Perylene (IS)	28.61	824	24452	40.00	ng/uL	100

* Compound is ISTD

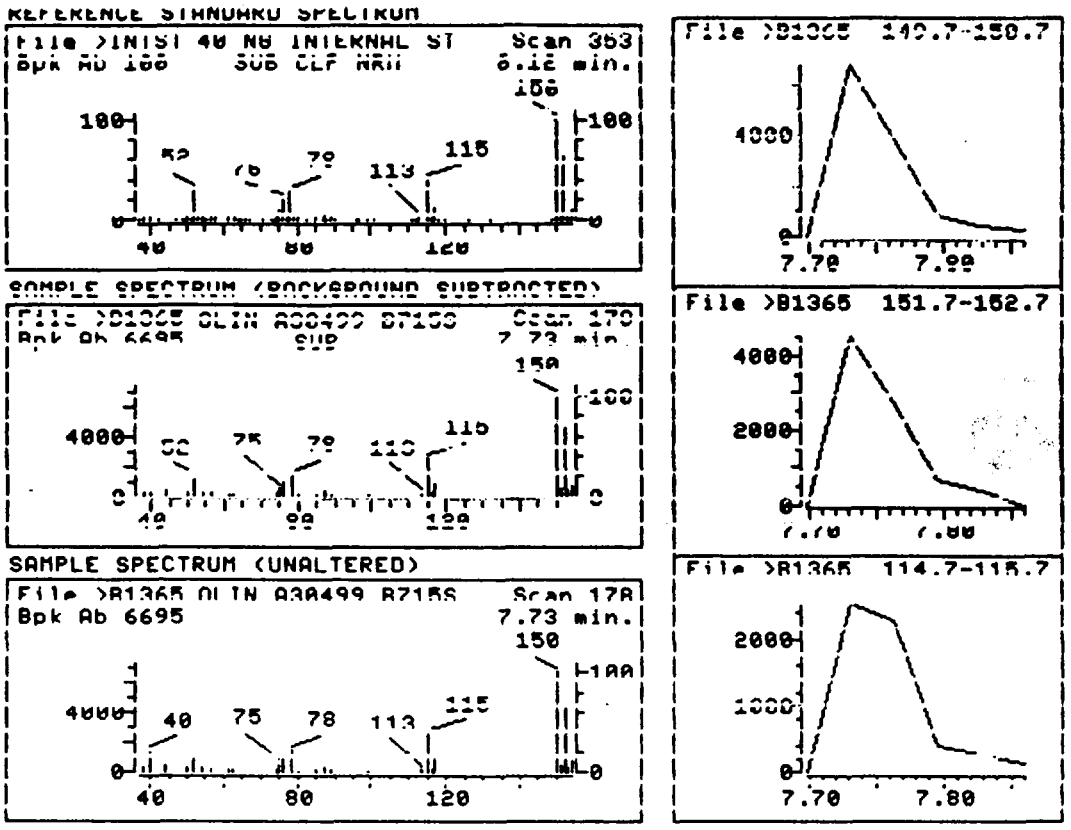
TOTAL ION CHROMATOGRAM



Data File: >B1365::D1 Quant Output File: ^B1365::QT
Name: OLIN A30499 B715S
Misc: 2 UL INJ 40 NG IS

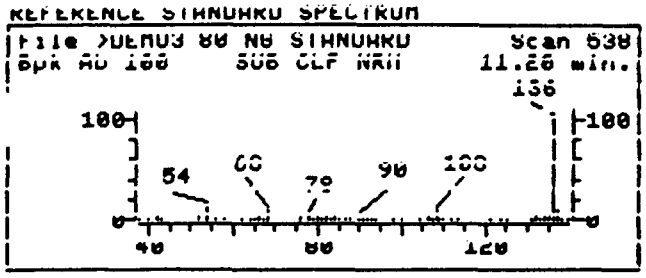
Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

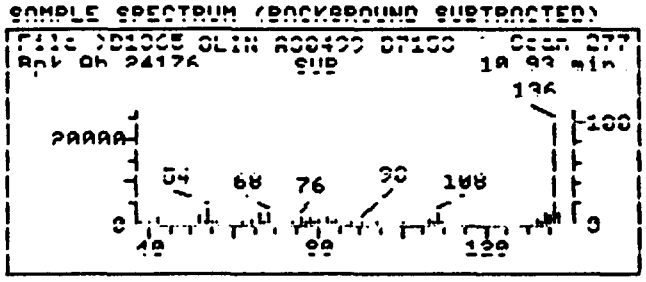
Operator ID: USER6
Quant Time: 871218 11:59
Injected at: 871218 11:22

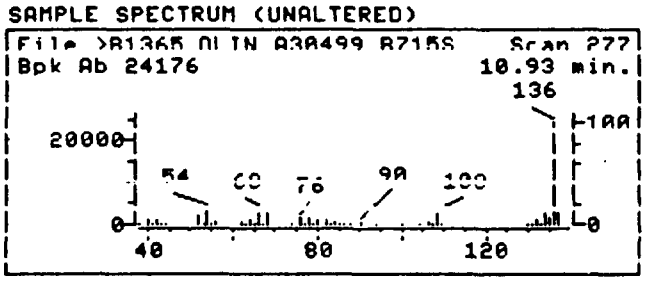


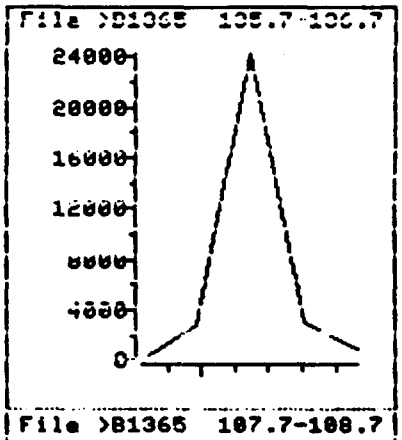
Data File: >B1365::D1 Quant Output File: ^B1365::QT
Name: OLIN A30499 B7155
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:59 Quant ID File: ID BDA::L2
Injected at: 871218 11:22 Last Calibration: 871217 12:15

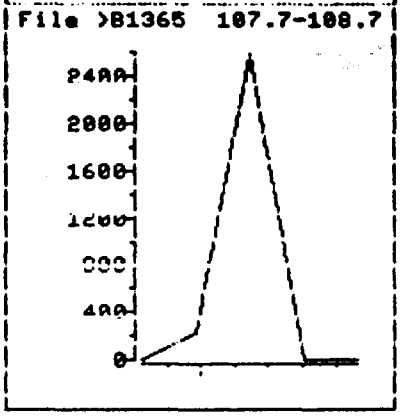
Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 178
Retention Time: 7.73 min.
Quant Ion: 152.0
Area: 16082
Concentration: 40.00 ng/uL
q-value: 93











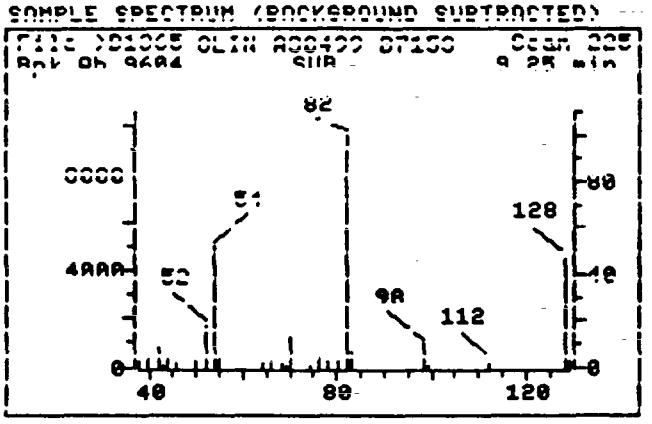
Data File: >B1365::D1
Name: OLIN A30499 B715S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:59
Injected at: 871218 11:22

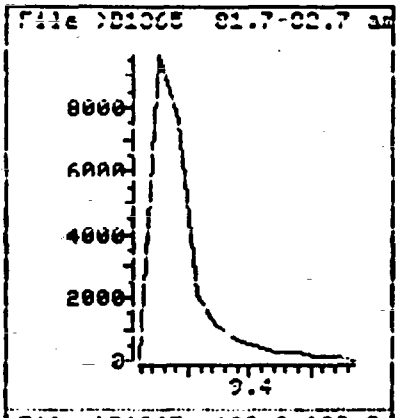
Quant Output File: ^B1365::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

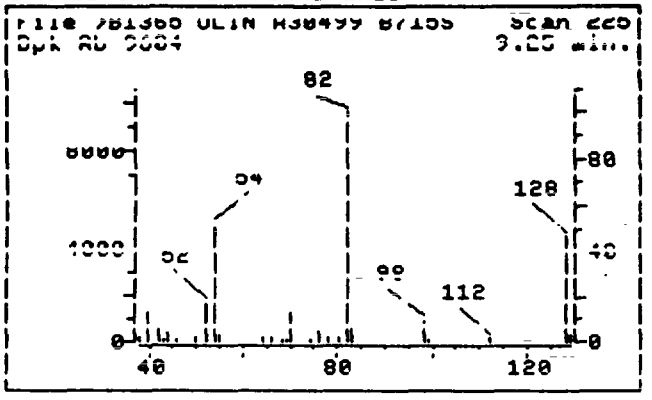
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 277
Retention Time: 10.93 min.
Quant Ion: 136.0
Area: 59666
Concentration: 40.00 ng/uL
q-value: 89

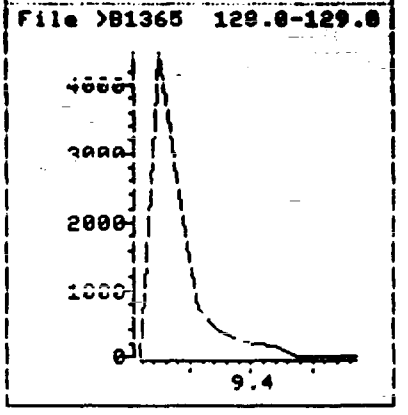
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





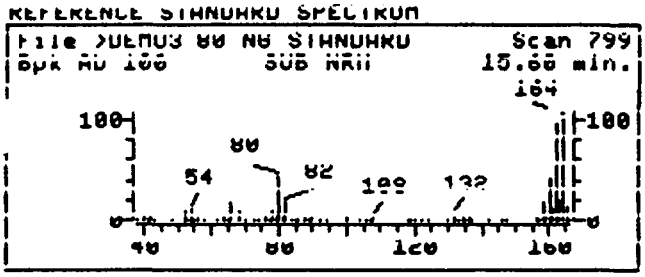
Data File: >B1365::D1
Name: OLIN A30499 B715S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:59
Injected at: 871218 11:22

Quant Output File: ^B1365::QT

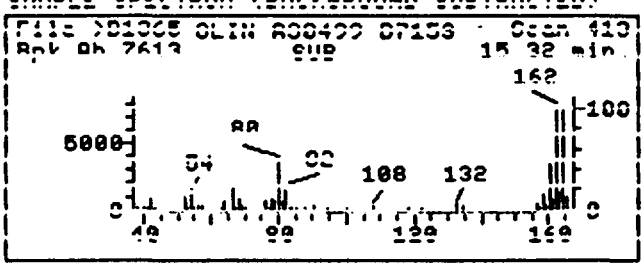
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 225
Retention Time: 9.25 min.
Quant Ion: 82.0
Area: 43615
Concentration: 5.16 ng/uL
q-value: 86

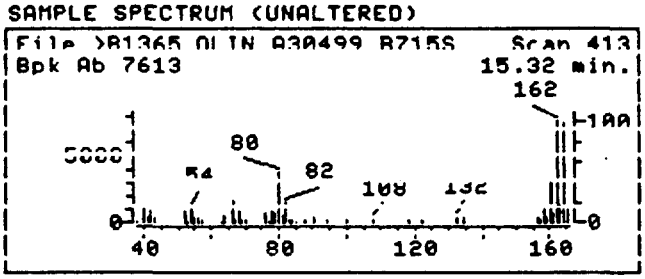
REFERENCE STANDARD SPECTRUM

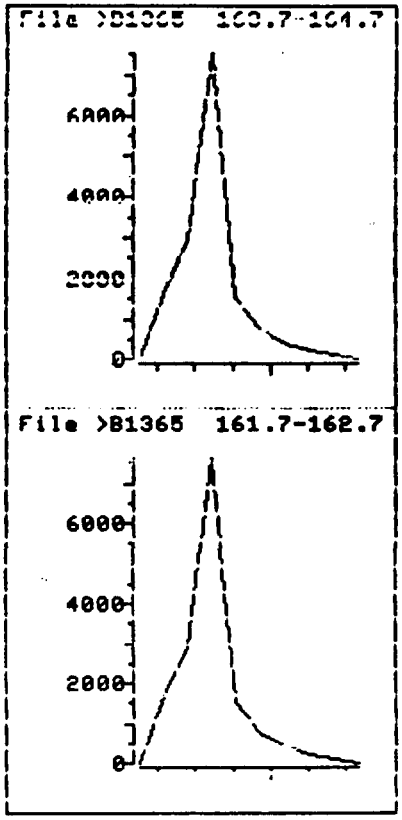


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



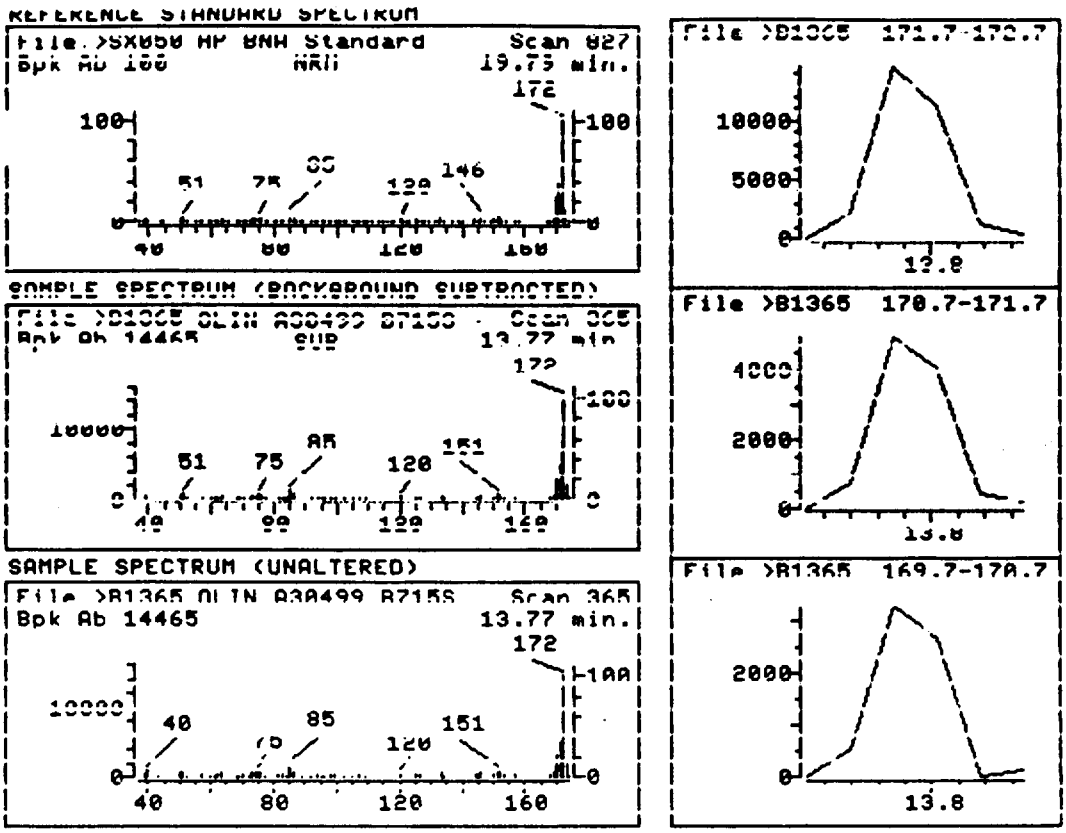


Data File: >B1365::D1
Name: OLIN A30499 B715S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:59
Injected at: 871218 11:22

Quant Output File: ^B1365::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 413
Retention Time: 15.32 min.
Quant Ion: 164.0
Area: 29433
Concentration: 40.00 ng/uL
q-value: 99

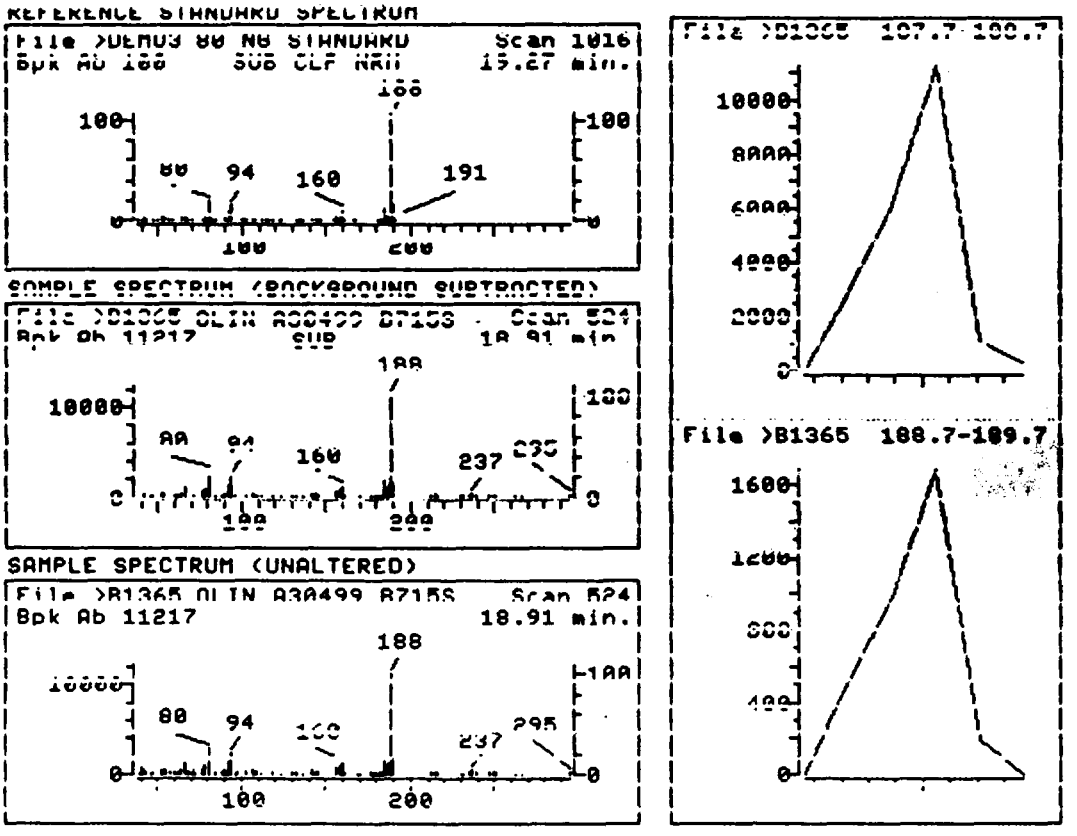


Data File: >B1365::D1
Name: DLIN A30499 B715S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:59
Injected at: 871218 11:22

Quant Output File: ^B1365::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 365
Retention Time: 13.77 min.
Quant Ion: 172.0
Area: 57562
Concentration: 6.12 ng/uL
q-value: 94

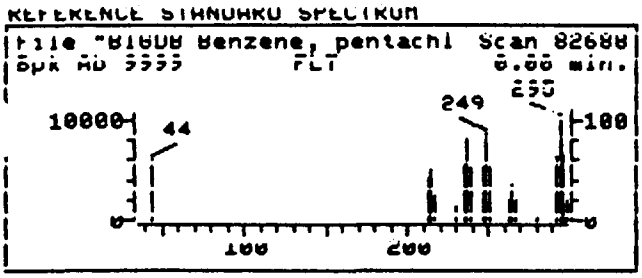


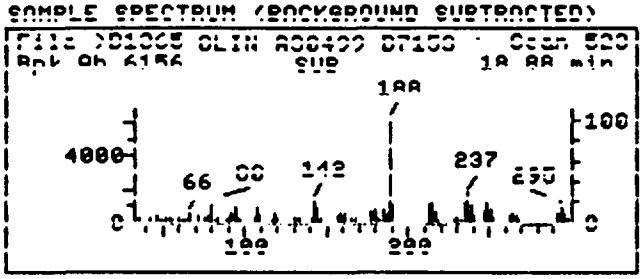
Data File: >B1365::D1
Name: OLIN A30499 B715S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:59
Injected at: 871218 11:22

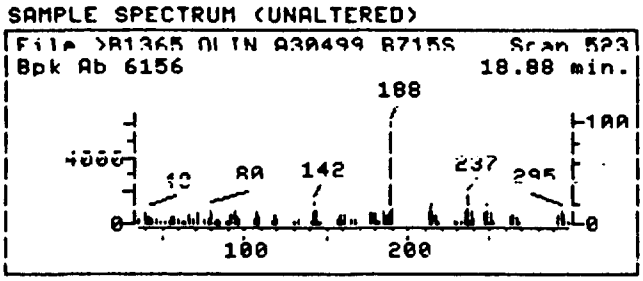
Quant Output File: ^B1365::QT

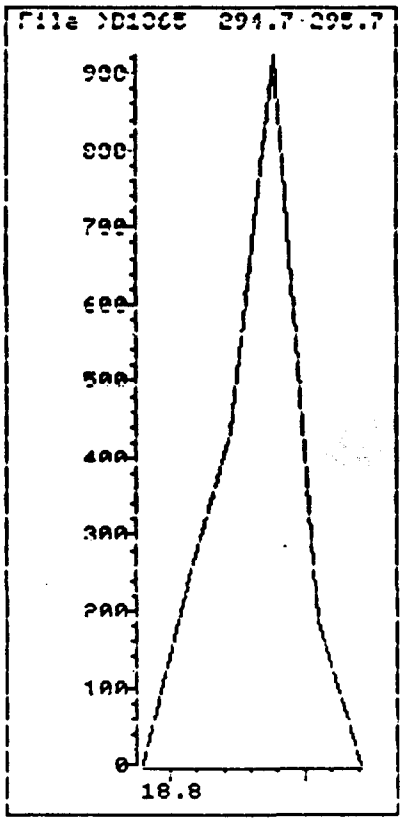
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 524
Retention Time: 18.91 min.
Quant Ion: 188.0
Area: 42229
Concentration: 40.00 ng/uL
q-value: 99



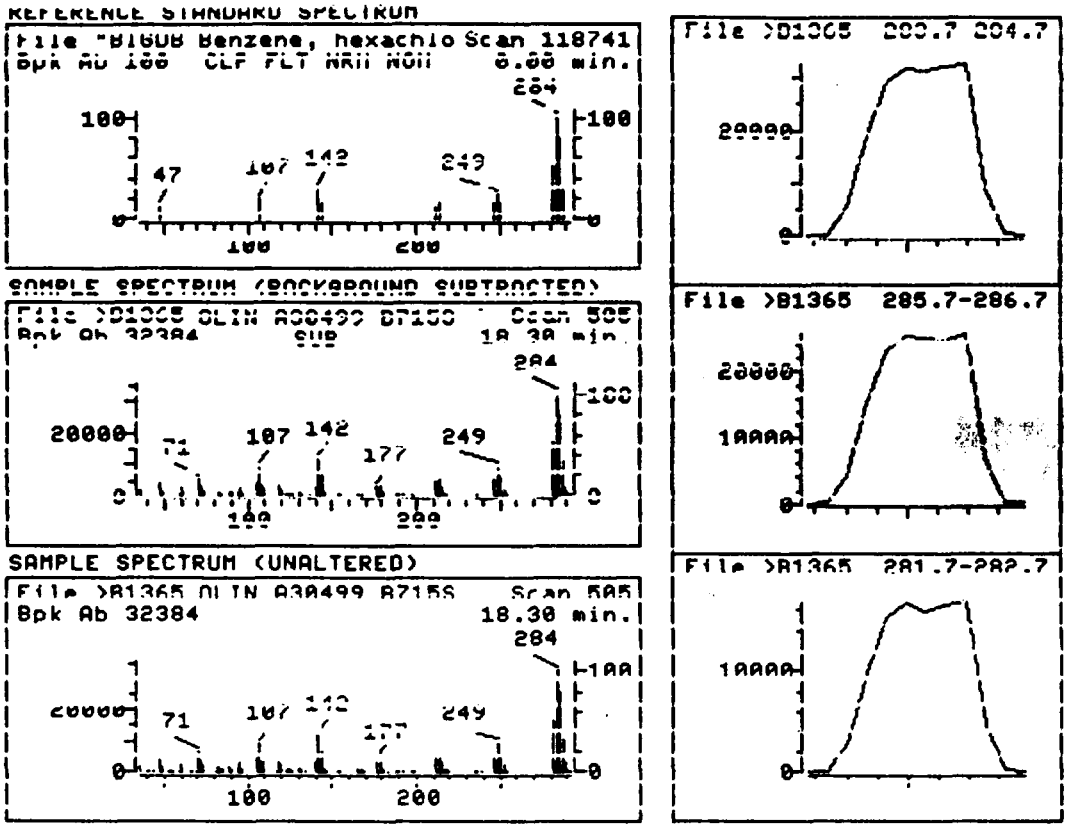






Data File: >B1365::D1 Quant Output File: ^B1365::QT
Name: OLIN A30499 B715S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:59 Quant ID File: ID BDA::L2
Injected at: 871218 11:22 Last Calibration: 871217 12:15

Compound No: 56
Compound Name: Pentachloronitrobenzene
Scan Number: 523
Retention Time: 18.88 min.
Quant Ion: 295.0
Area: 3447
Concentration: 4.87 ng/uL
q-value: 100



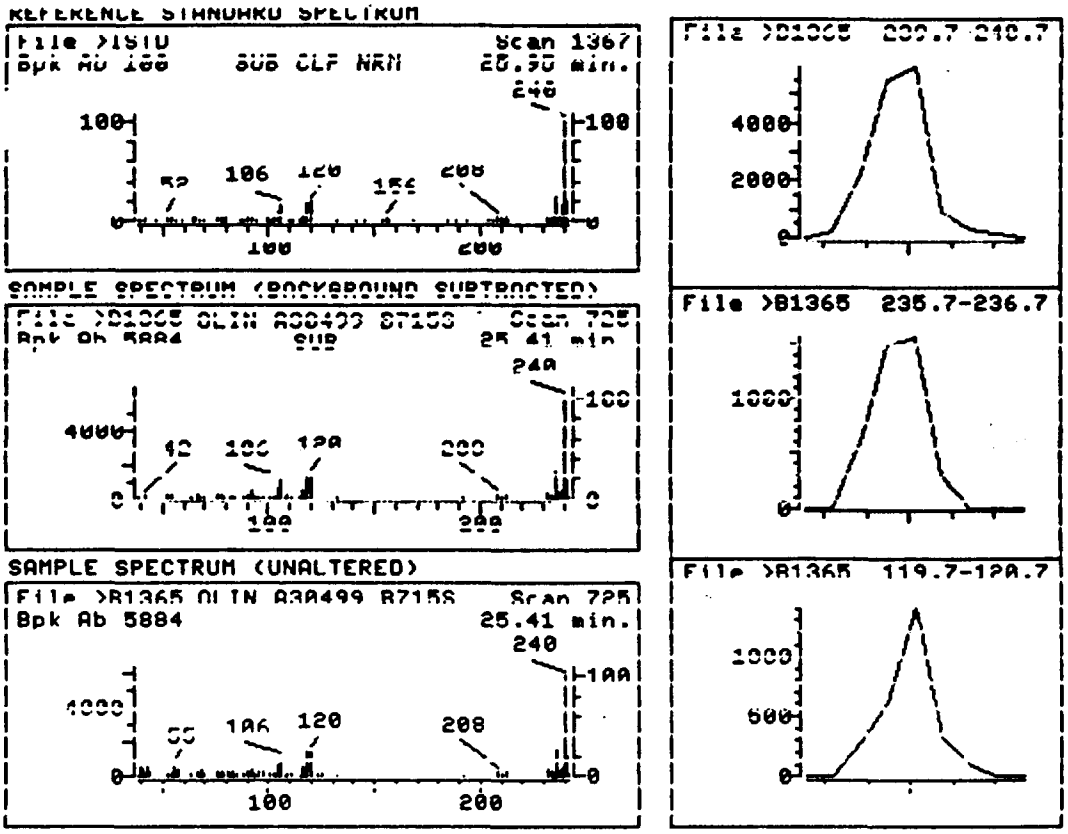
Data File: >B1365::D1
Name: OLIN A30499 B715S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:59
Injected at: 871218 11:22

Quant Output File: ^B1365::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 57
Compound Name: Hexachlorobenzene
Scan Number: 505
Retention Time: 18.30 min.
Quant Ion: 284.0
Area: 370613
Concentration: 113.63 ng/uL
q-value: 96

3 2 00525

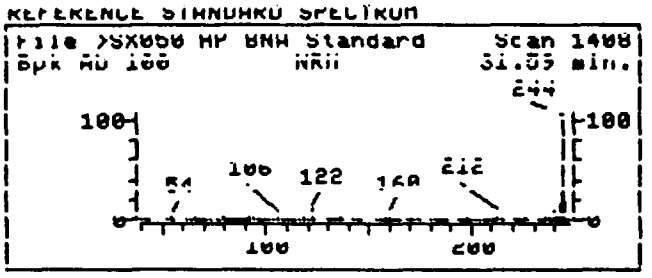


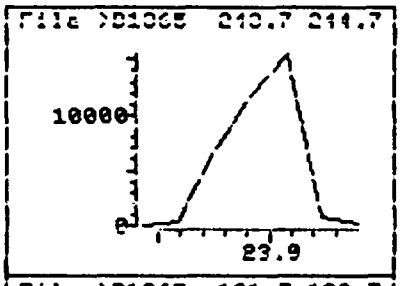
Data File: >B1365::D1
Name: OLIN A30499 B715S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:59
Injected at: 871218 11:22

Quant Output File: ^B1365::QT
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

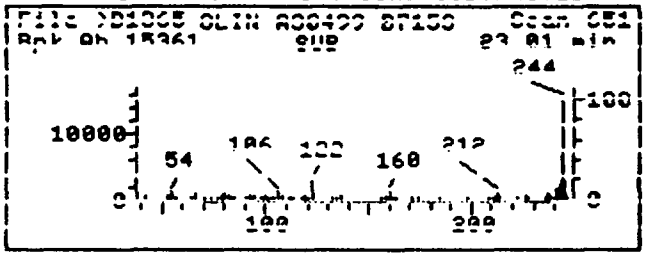
Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 725
Retention Time: 25.41 min.
Quant Ion: 240.0
Area: 29567
Concentration: 40.00 ng/uL
q-value: 89

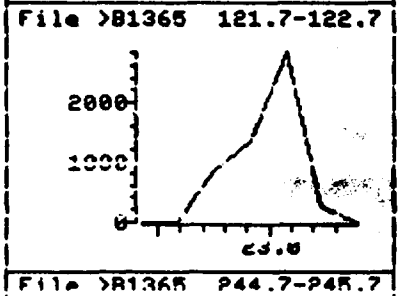
REFERENCE STANDARD SPECTRUM



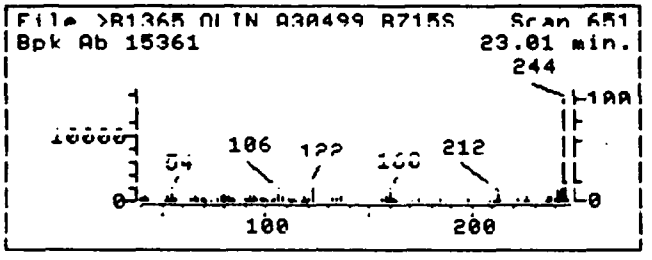


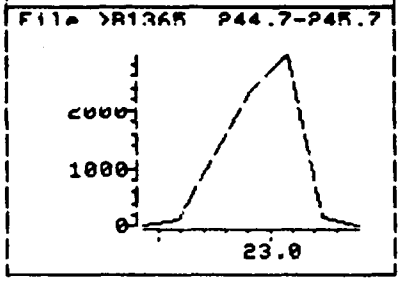
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





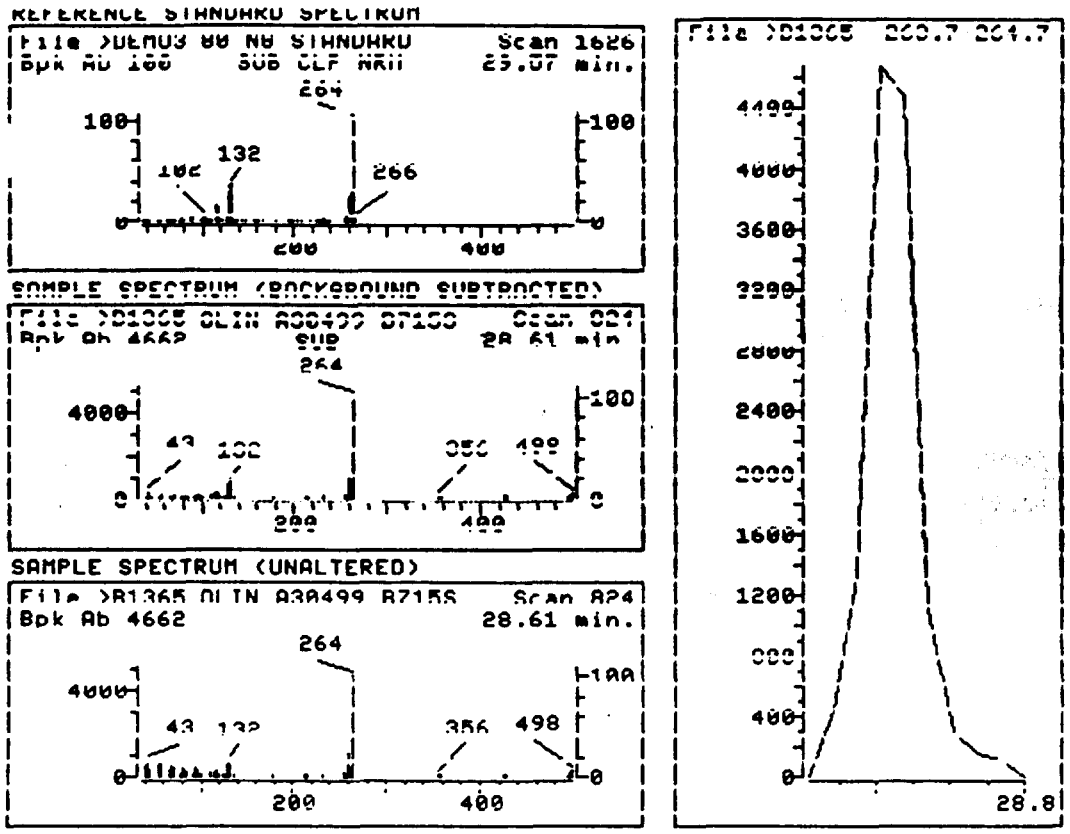
Data File: >B1365::D1
Name: OLIN A30499 B715S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:59
Injected at: 871218 11:22

Quant Output File: ^B1365::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 651
Retention Time: 23.01 min.
Quant Ion: 244.0
Area: 68283
Concentration: 9.79 ng/uL
q-value: 93

3 2 00526



Data File: >B1365::D1 Quant Output File: ^B1365::QT
Name: OLIN A30499 B715S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 11:59 Quant ID File: ID BDA::L2
Injected at: 871218 11:22 Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 824
Retention Time: 28.61 min.
Quant Ion: 264.0
Area: 24452
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT
This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 01/21/88
BCM # : - -
P.O.# :
Order# : 19323

BCM Number : 801099
Location : OLD A30499
Client ID : 807

Date Sampled : 12/08/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.33	mg/kg	EPA # 625
1,4-Dichlorobenzene	< 0.33	mg/kg	
Hexachlorobenzene	< 0.33	mg/kg	
Pentachloronitrobenzene	< 0.33	mg/kg	

QUANT REPORT

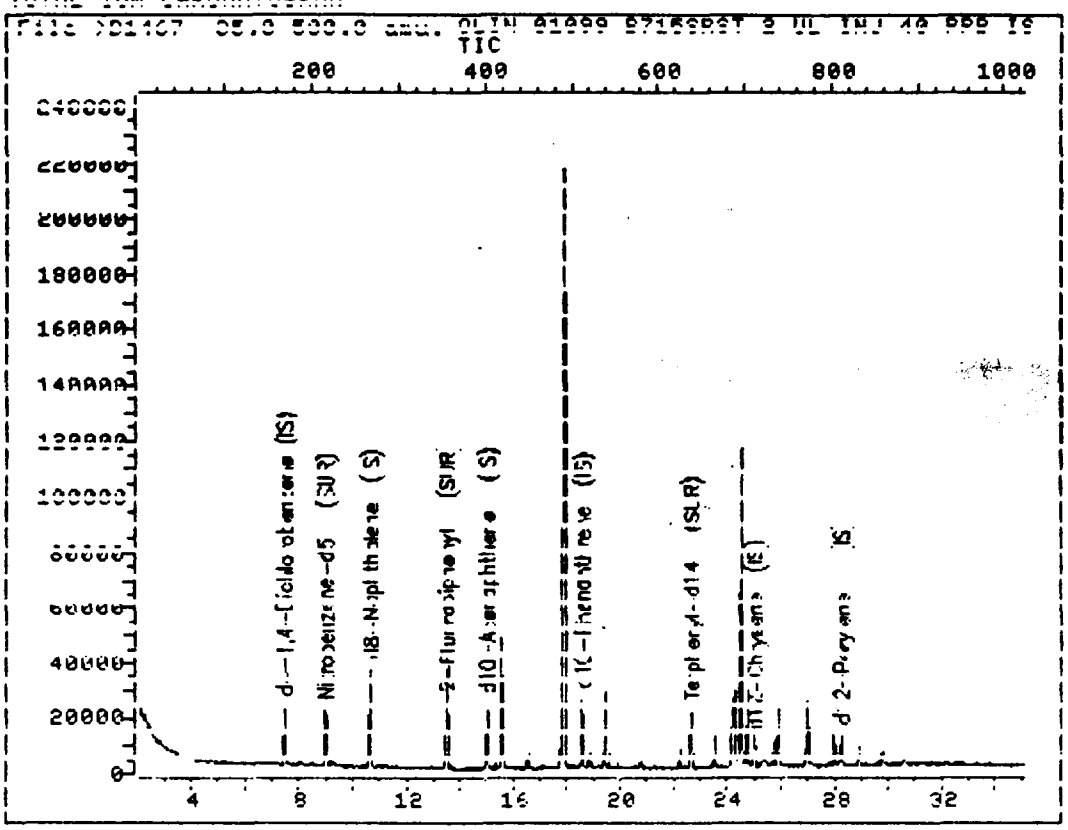
Operator ID: USER6 Quant Rev: 6 Quant Time: 880119 12:00
Output File: ^B1467::QT Injected at: 880119 11:16
Data File: >B1467::D1 Dilution Factor: .10000
Name: OLIN 01099 8715SRST
Misc: 2 UL INJ 40 PPB IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880118 12:07

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.45	168	8629	40.00	ng/uL	98
16)	*d8-Naphthalene (IS)	10.65	267	31330	40.00	ng/uL	94
17)	Nitrobenzene-d5 (SUR)	8.97	215	32204	4.43	ng/uL	85
31)	*d10-Acenaphthene (IS)	15.01	402	15789	40.00	ng/uL	96
36)	2-Fluorobiphenyl (SUR)	13.49	355	37236	4.65	ng/uL	95
51)	*d10-Phenanthrene (IS)	18.56	512	23168	40.00	ng/uL	97
56)	Pentachloronitrobenzene	18.56	512	628	1.32	ng/uL	100
57)	Hexachlorobenzene	17.91	492	160821	69.63	ng/uL	95
63)	*d12-Chrysene (IS)	25.02	712	15203	40.00	ng/uL	100
65)	Terphenyl-d14 (SUR)	22.66	639	22490	4.89	ng/uL	88
71)	*d12-Perylene (IS)	28.25	812	11942	40.00	ng/uL	100

Compound is ISTD

TOTAL ION CHROMATOGRAM

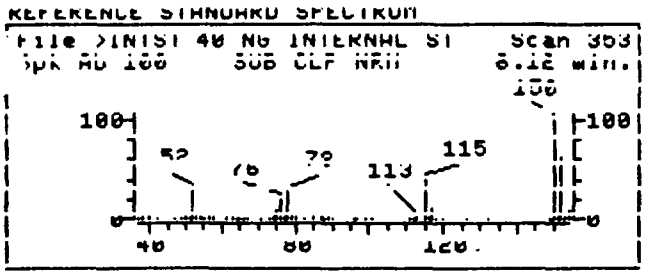


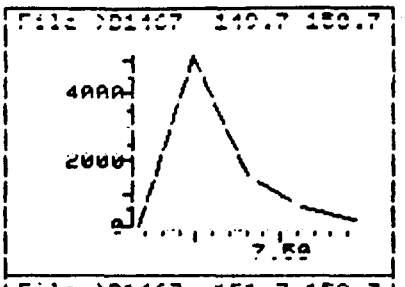
Data File: >B1467::D1 Quant Output File: ^B1467::QT
Name: [illegible]
Misc: 2 UL INJ 40 PPB IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880118 12:07

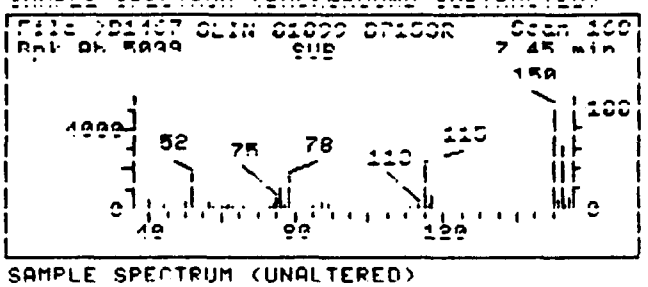
Operator ID: USER6
Quant Time: 880119 12:00
Injected at: 880119 11:16

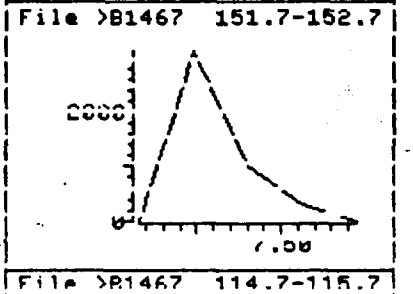
REFERENCE STANDARD SPECTRUM



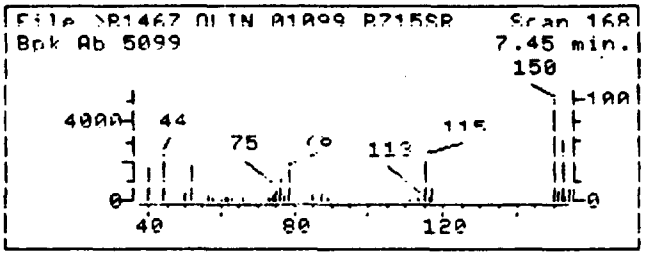


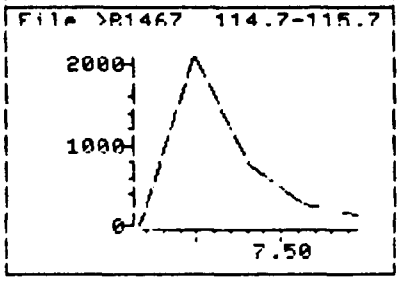
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



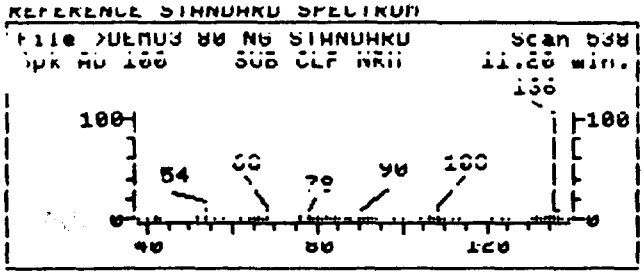


Data File: >B1467::D1
Name: OLIN 01099 B715SRST
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:00
Injected at: 880119 11:16

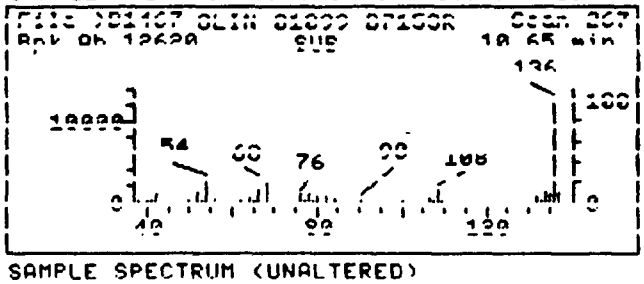
Quant Output File: ^B1467::QT
Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 168
Retention Time: 7.45 min.
Quant Ion: 152.0
Area: 8529
Concentration: 40.00 ng/ul
q-value: 98

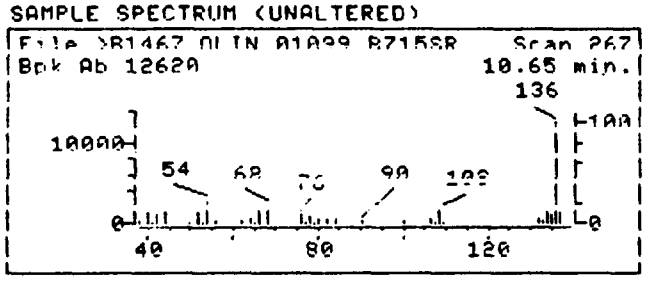
REFERENCE STANDARD SPECTRUM

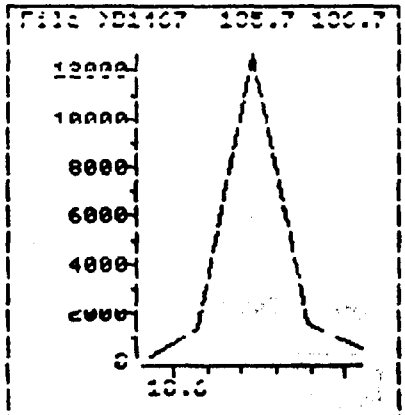


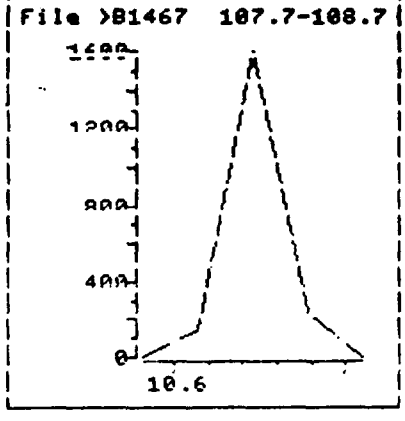
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







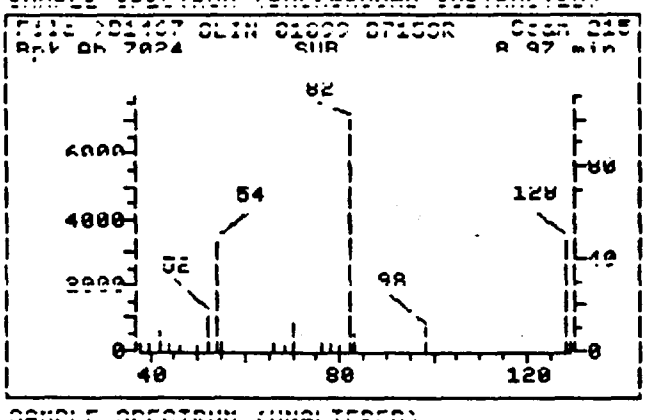
Data File: >B1467::D1
Name: OLIN 01099 B715SPST
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:00
Injected at: 880119 11:16

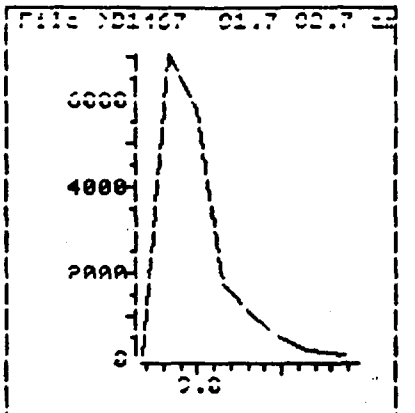
Quant Output File: ^B1467::QT

Quant ID File: ID 8DA::L2
Last Calibration: 880118 12:07

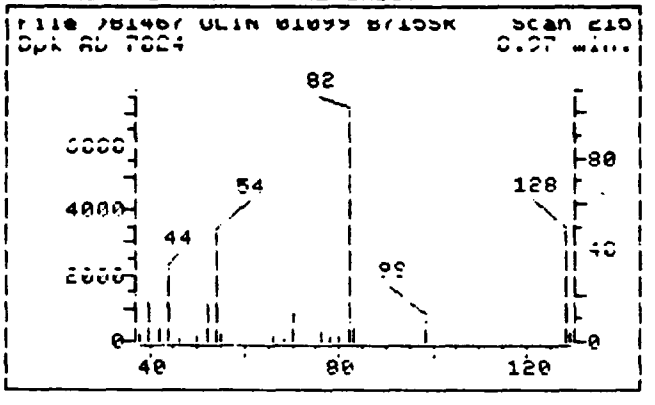
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 267
Retention Time: 10.65 min.
Quant Ion: 136.0
Area: 31330
Concentration: 40.00 ng/ul
q-value: 94

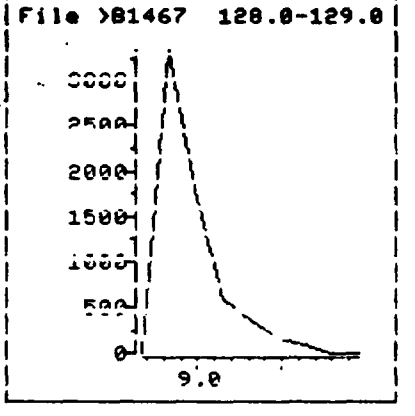
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



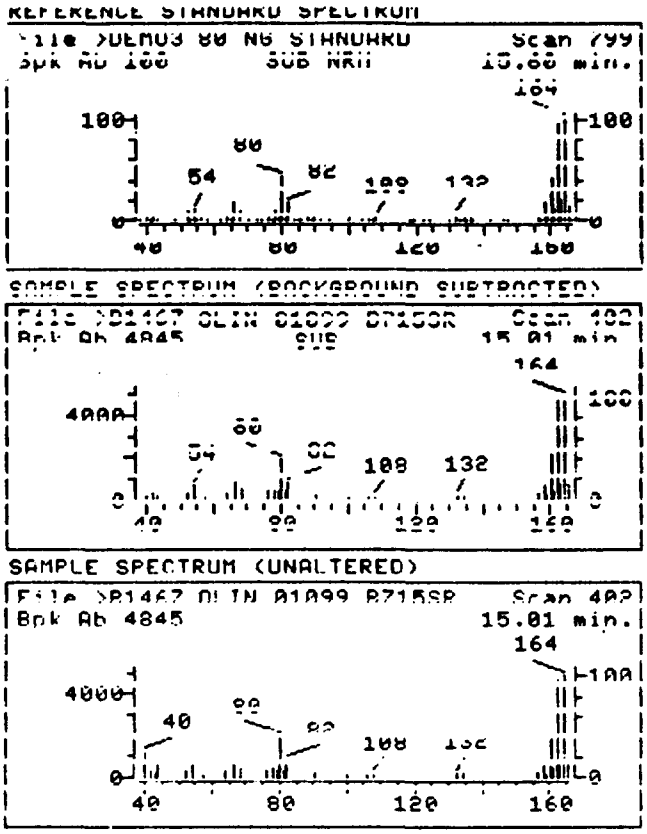


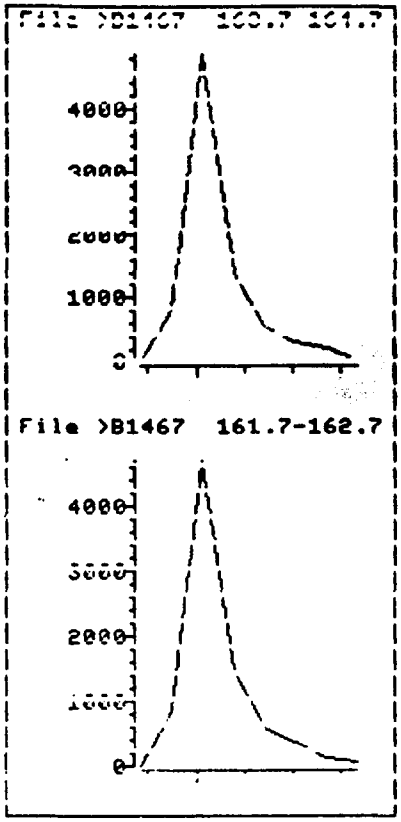
Data File: >B1467::D1
Name: OLIN 01099 B7155PST
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:00
Injected at: 880119 11:16

Quant Output File: ^B1467::QT

Quant ID File: ID HDA::L2
Last Calibration: 880118 12:07

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 215
Retention Time: 8.97 min.
Quant Ion: 82.0
Area: 32204
Concentration: 4.43 ng/ul
q-value: 85





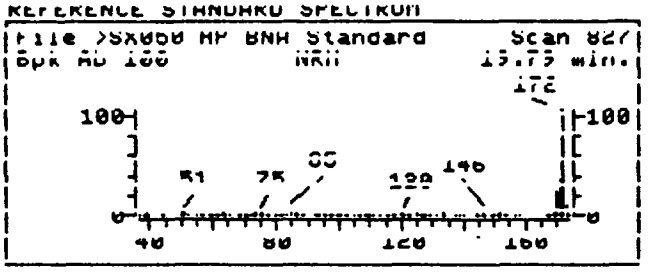
Data File: >B1467::D1
Name: [illegible]
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:00
Injected at: 880119 11:16

Quant Output File: ^B1467::QT

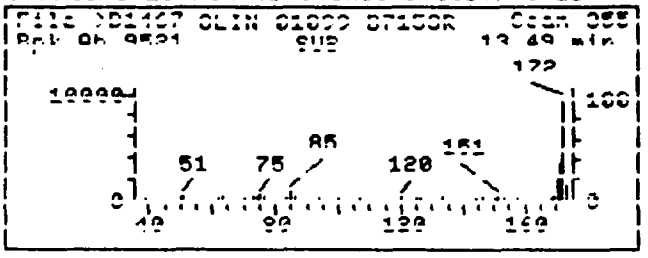
Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 402
Retention Time: 15.01 min.
Quant Ion: 164.0
Area: 15789
Concentration: 40.00 ng/ul
q-value: 96

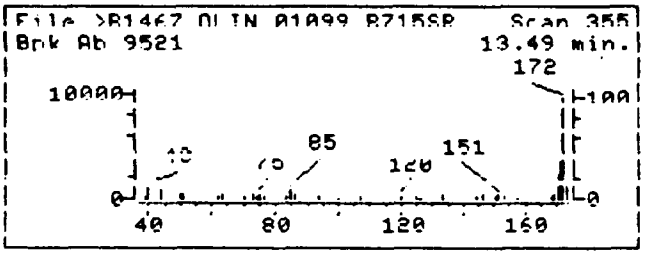
REFERENCE STANDARD SPECTRUM

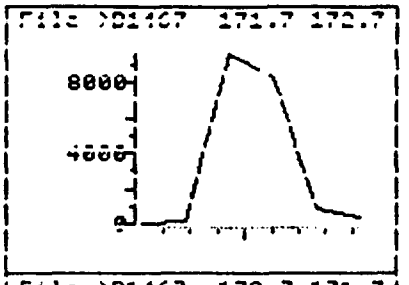


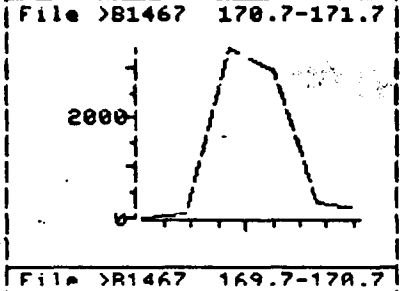
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

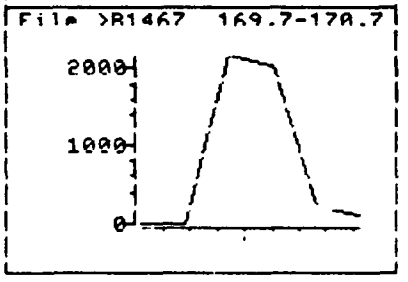


SAMPLE SPECTRUM (UNALTERED)







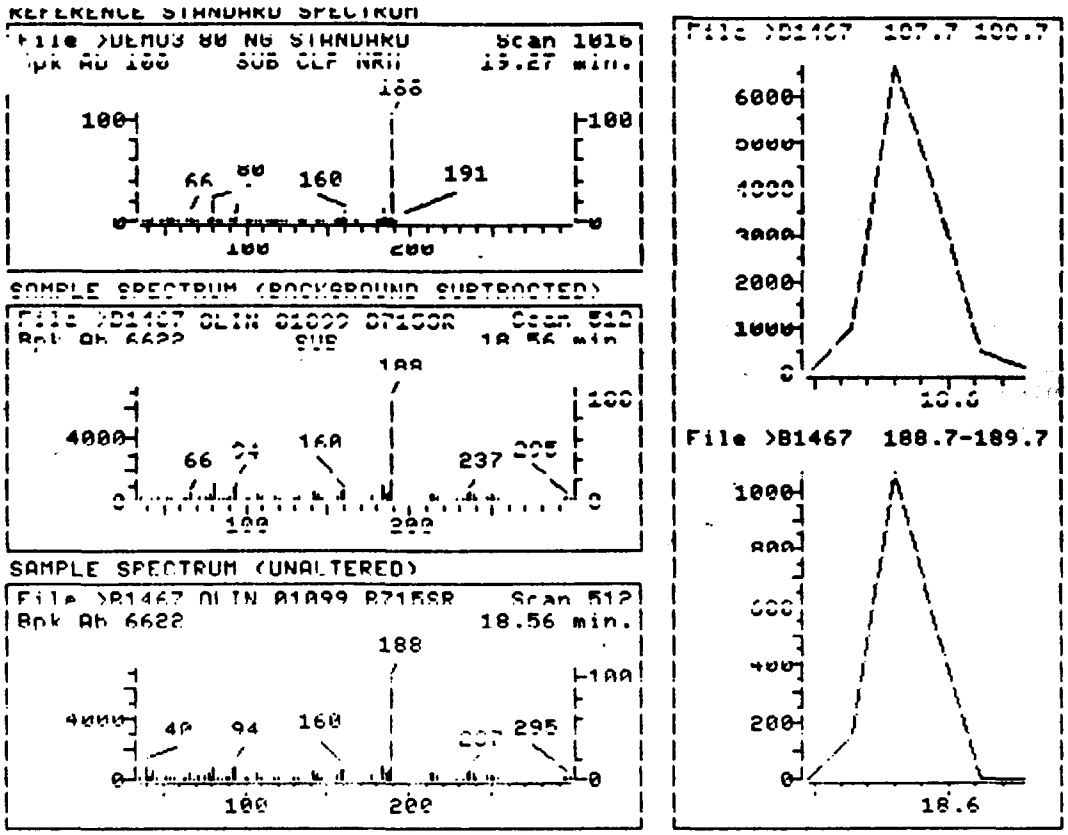


Data File: >B1467::D1
Name: OLIN 01099 B715SPST
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:00
Injected at: 880119 11:16

Quant Output File: ^B1467::QT

Quant ID File: ID HDA::L2
Last Calibration: 880118 12:07

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 355
Retention Time: 13.49 min.
Quant Ion: 172.0
Area: 37236
Concentration: 4.65 ng/ul
q-value: 95



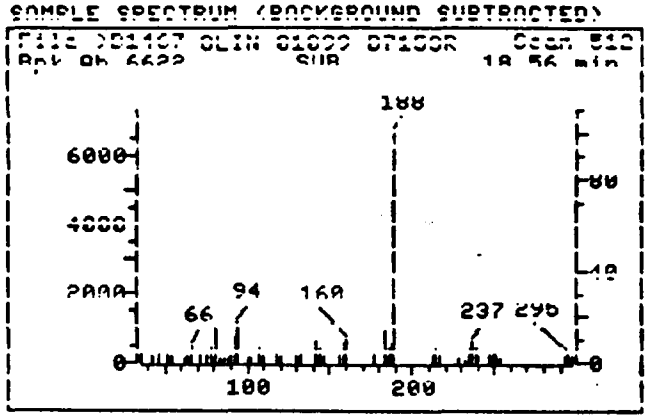
Data File: >B1467::D1
Name: DLIN 01099 B7158PLT
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:00
Injected at: 880119 11:16

Quant Output File: ^B1467::QT

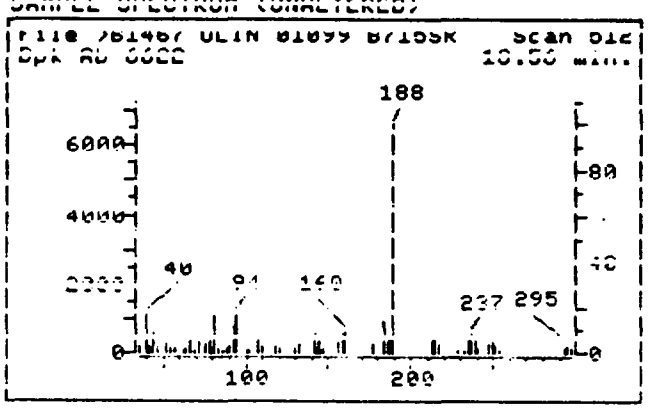
Quant ID File: ID RDA::L2
Last Calibration: 880118 12:07

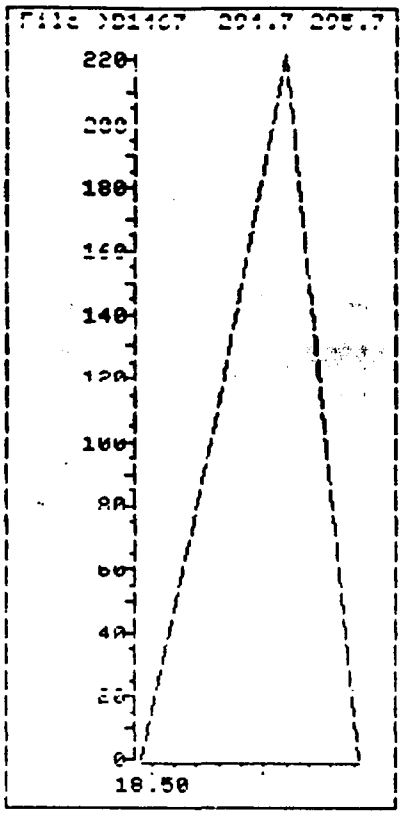
Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 512
Retention Time: 18.56 min.
Quant Ion: 188.0
Area: 23168
Concentration: 40.00 ng/ul
q-value: 97

SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





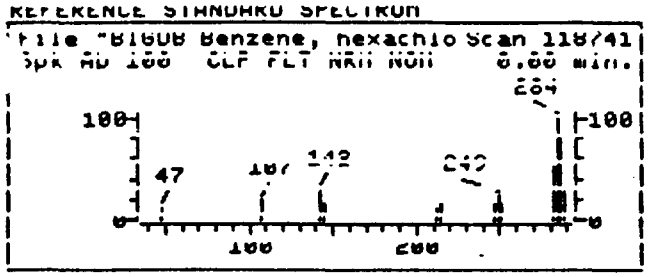
Data File: >B1467::D1
Name: OLIN 01099 B715SRST
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:00
Injected at: 880119 11:16

Quant Output File: ^B1467::QT

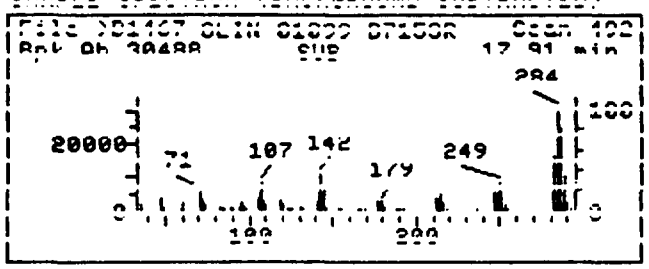
Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 56
Compound Name: Pentachloronitrobenzene
Scan Number: 512
Retention Time: 18.56 min.
Quant Ion: 295.0
Area: 628
Concentration: 1.32 ng/ul
q-value: 100

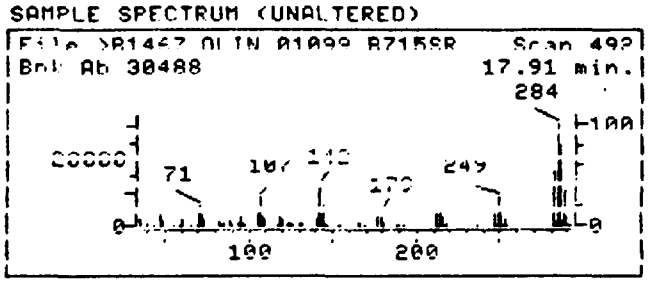
REFERENCE STANDARD SPECTRUM

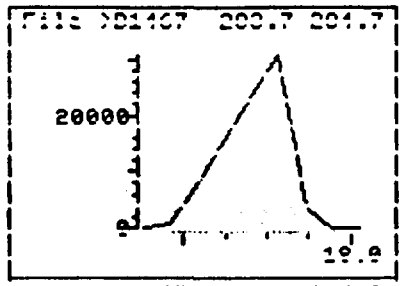


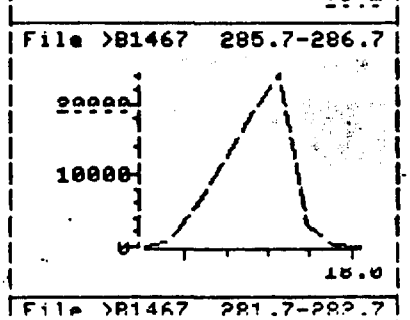
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

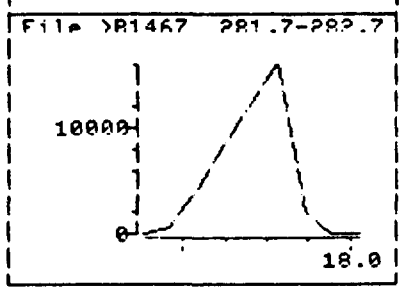


SAMPLE SPECTRUM (UNALTERED)









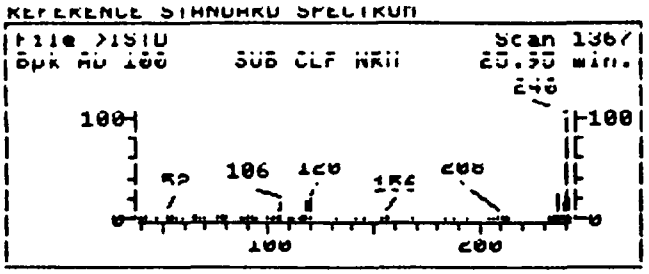
Data File: >B1467::D1
Name: OLIN 01099 B715SRST
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:00
Injected at: 880119 11:16

Quant Output File: ^B1467::QT

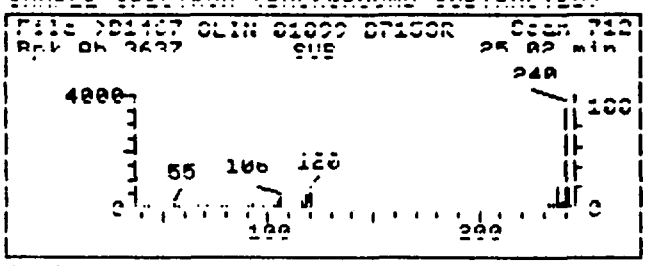
Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 57
Compound Name: Hexachlorobenzene
Scan Number: 492
Retention Time: 17.91 min.
Quant Ion: 284.0
Area: 160821
Concentration: 69.63 ng/ul
q-value: 95

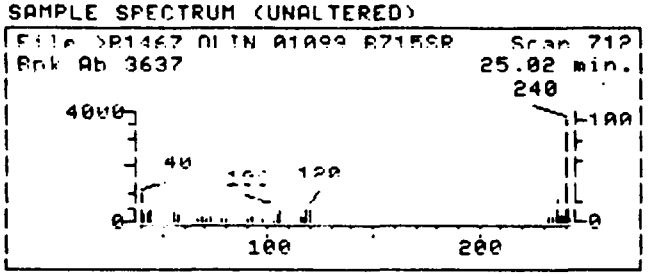
REFERENCE STANDARD SPECTRUM

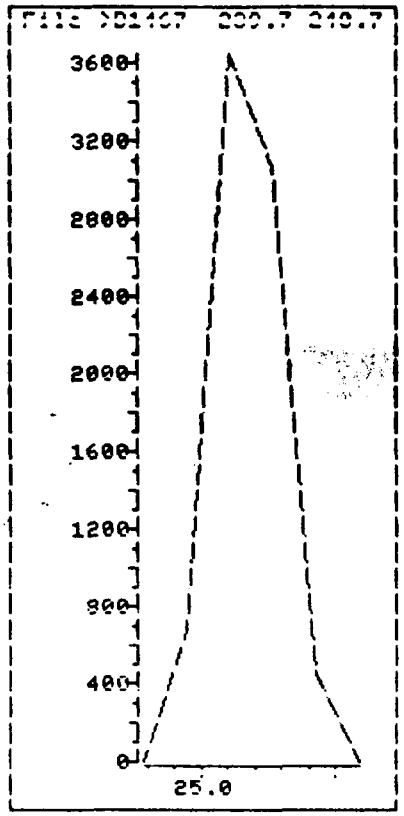


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





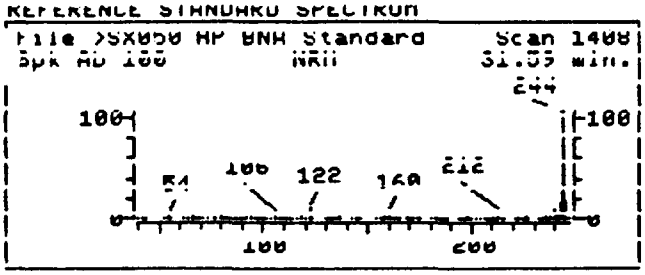
Data File: >B1467::D1
Name: OLIN 01099 B715SRST
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:00
Injected at: 880119 11:16

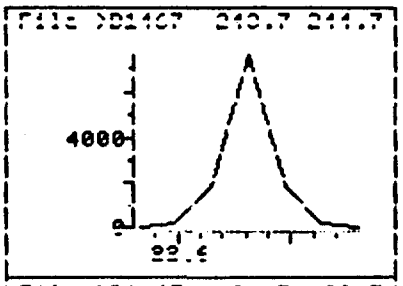
Quant Output File: ^B1467::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

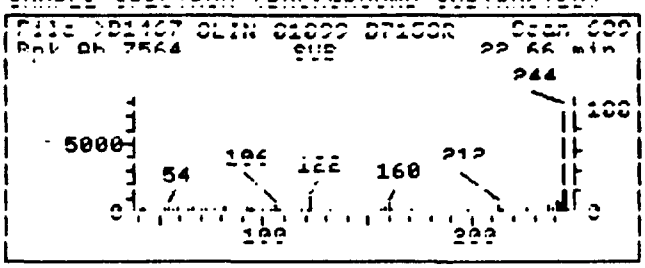
Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 712
Retention Time: 25.02 min.
Quant Ion: 240.0
Area: 15203
Concentration: 40.00 ng/uL
q-value: 100

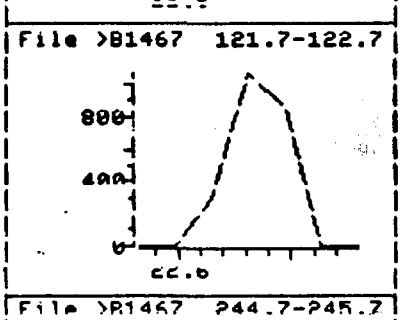
REFERENCE STANDARD SPECTRUM



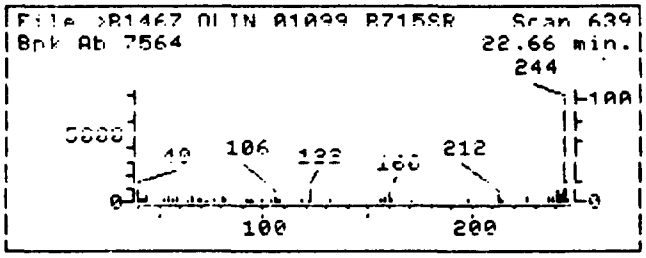


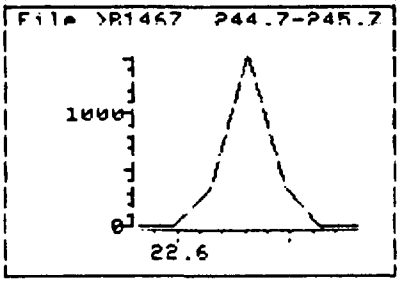
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



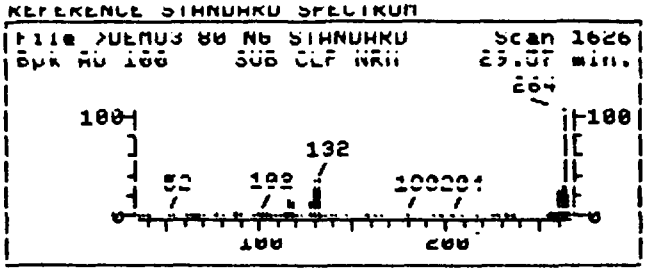


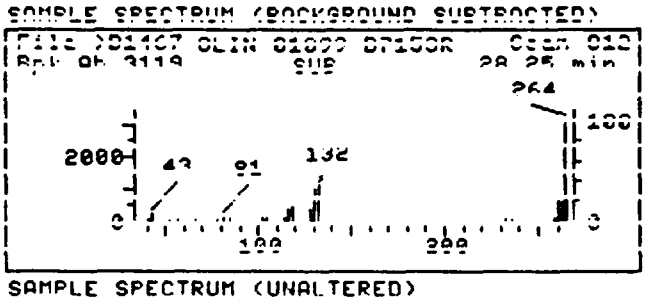
Data File: >B1467::D1
Name: OLIN 01099 B715SR
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:00
Injected at: 880119 11:16

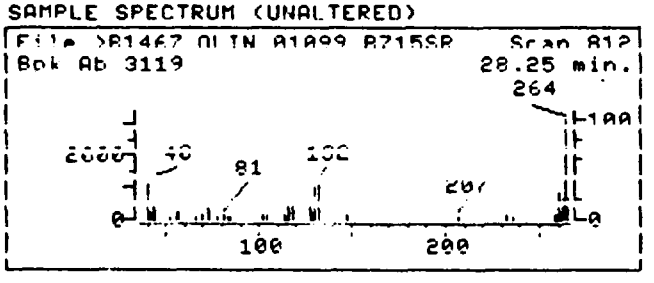
Quant Output File: ^B1467::QT

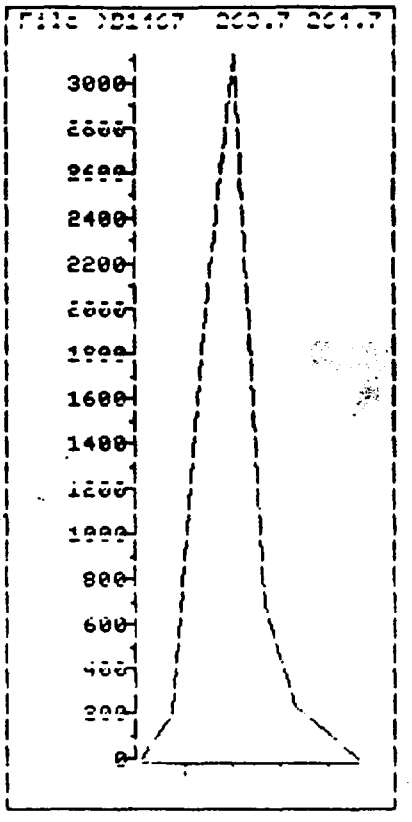
Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 639
Retention Time: 22.66 min.
Quant Ion: 244.0
Area: 22490
Concentration: 4.89 ng/ul
q-value: 88









Data File: >B1467::D1
Name: OLIN 01099 B715SRST
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:00
Injected at: 880119 11:16

Quant Output File: ^B1467::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 812
Retention Time: 28.25 min.
Quant Ion: 264.0
Area: 11942
Concentration: 40.00 ng/ul
q-value: 100

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18819

CC: Paul Klotz

BCM Number : A30501
Location : 941
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	2.4	mg/kg	
Pentachloronitrobenzene	< 0.66	mg/kg	
Mercury	2.10	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/15/87	M/D/Y	
pH	7.0	std.un	
Specific Gravity	---------		
Total Solids	---------	%	

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871218 12:44
Output File: ^B1366::QT Injected at: 871218 12:16
Data File: >B1366::D1 Dilution Factor: .20000
Name: OLIN A30501 B716S
Misc: 2 UL INJ 40 NG IS

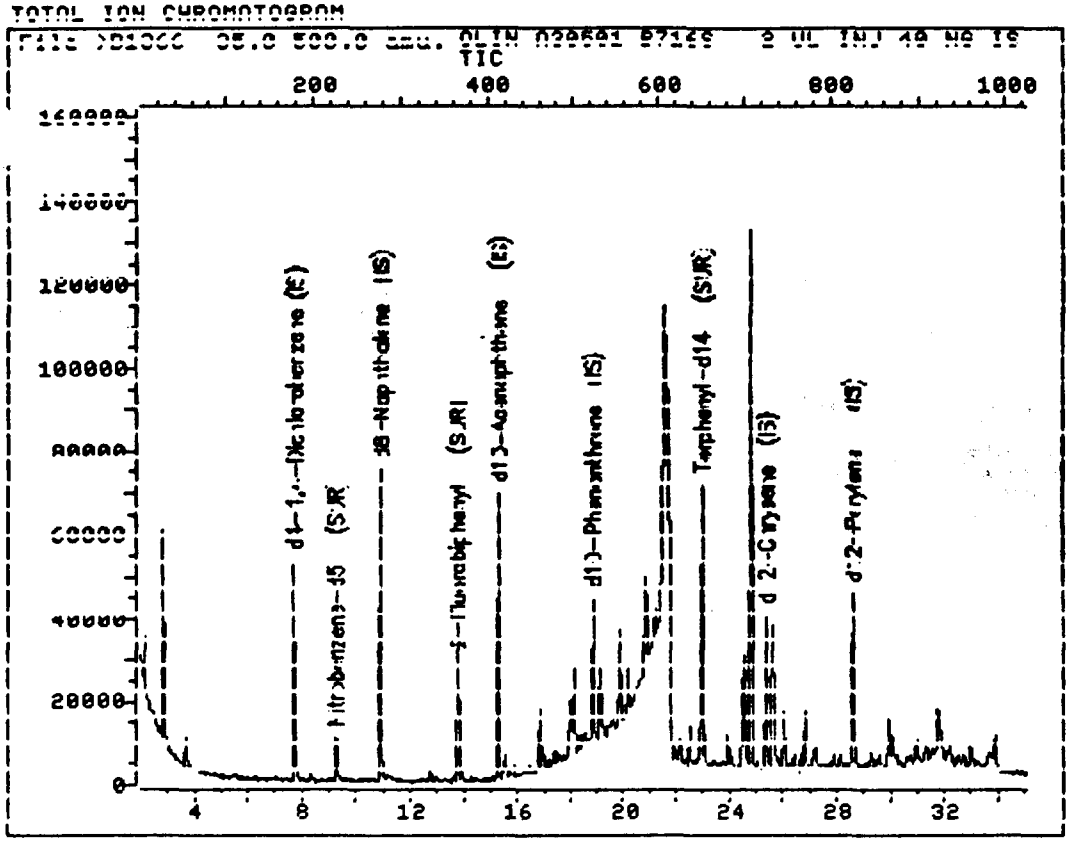
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.73	178	21862	40.00	ng/uL	97
16)	*d8-Naphthalene (IS)	10.93	277	72795	40.00	ng/uL	90
17)	Nitrobenzene-d5 (SUR)	9.25	225	19996	1.94	ng/uL	77
31)	*d10-Acenaphthene (IS)	15.32	413	40907	40.00	ng/uL	98
36)	2-Fluorobiphenyl (SUR)	13.77	365	44373	3.39	ng/uL	96
51)	*d10-Phenanthrene (IS)	18.87	523	58033	40.00	ng/uL	97
57)	Hexachlorobenzene	18.16	501	10922	2.44	ng/uL	94
63)	*d12-Chrysene (IS)	25.40	725	48757	40.00	ng/uL	97
65)	Terphenyl-d14 (SUR)	23.01	651	80944	7.04	ng/uL	88
71)	*d12-Perylene (IS)	28.64	825	39884	40.00	ng/uL	100

* Compound is ISTD

3 2 00535

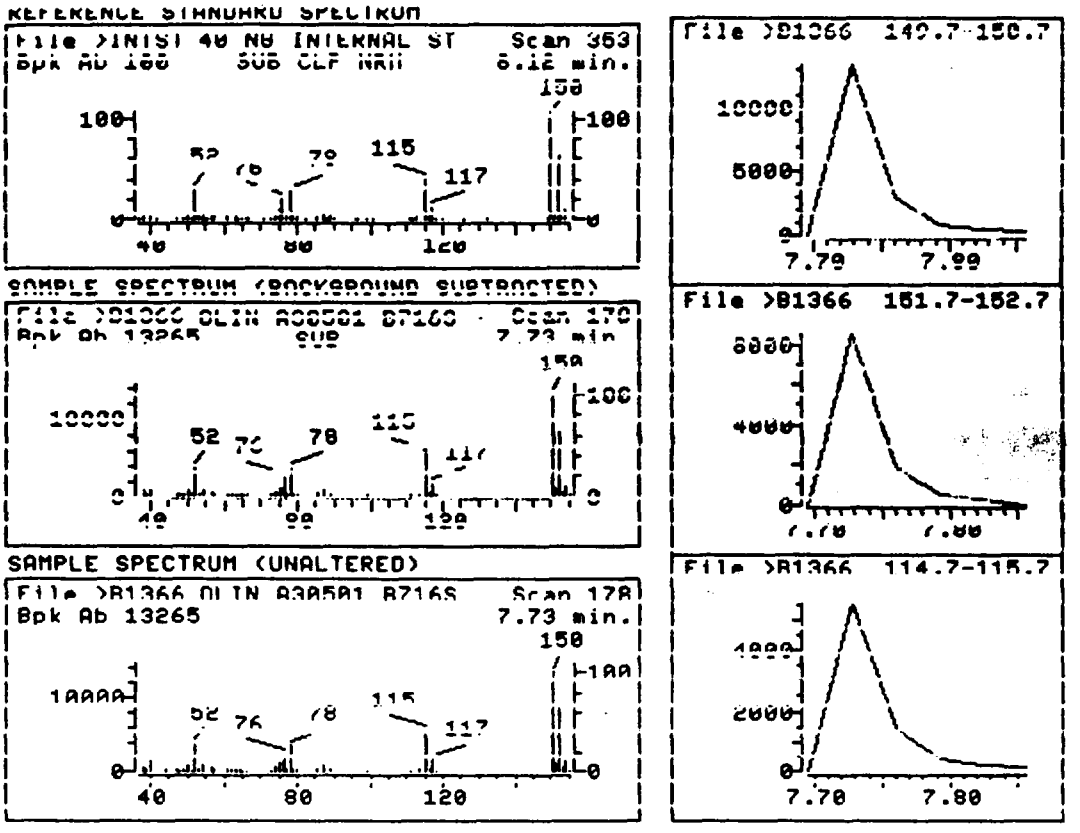
TOTAL ION CHROMATOGRAM



Data File: >B1366::D1 Quant Output File: ^B1366::QT
Name: OLIN A30501 8716S
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

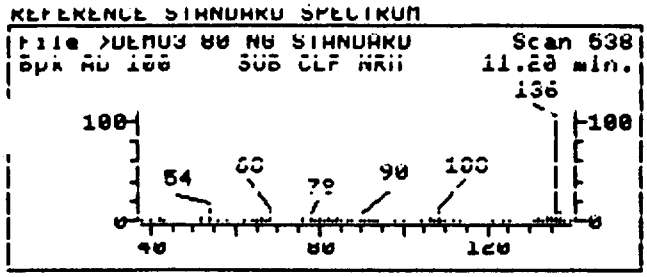
Operator ID: USER6
Quant Time: 871218 12:44
Injected at: 871218 12:06



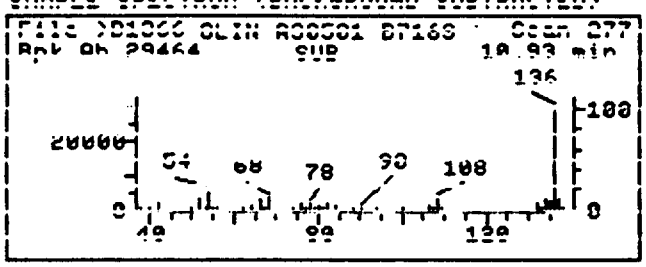
Data File: >B1366::D1 Quant Output File: ^B1366::QT
Name: OLIN A30501 B716S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 12:44 Quant ID File: ID BDA::L2
Injected at: 871218 12:06 Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 178
Retention Time: 7.73 min.
Quant Ion: 152.0
Area: 21862
Concentration: 40.00 ng/uL
q-value: 97

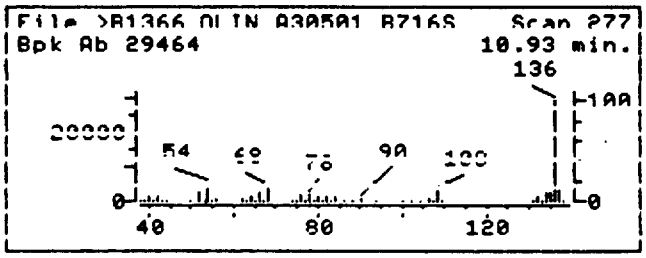
REFERENCE STANDARD SPECTRUM

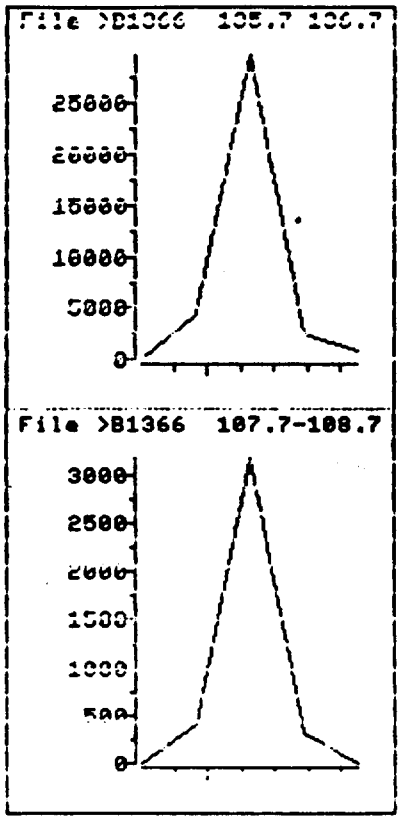


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





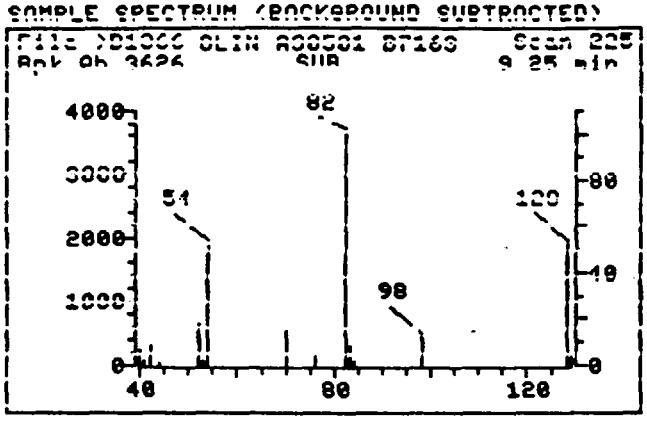
Data File: >B1366::D1
Name: OLIN A30501 B716S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 12:44
Injected at: 871218 12:06

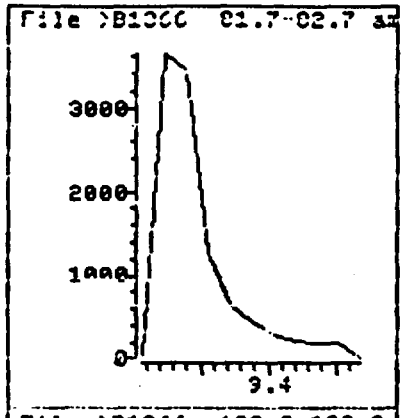
Quant Output File: ^B1366::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

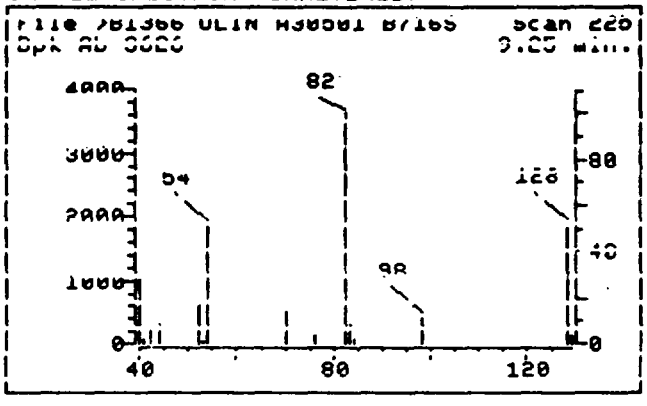
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 277
Retention Time: 10.93 min.
Quant Ion: 136.0
Area: 72795
Concentration: 40.00 ng/uL
q-value: 90

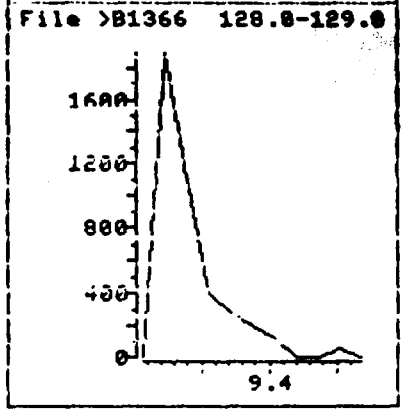
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





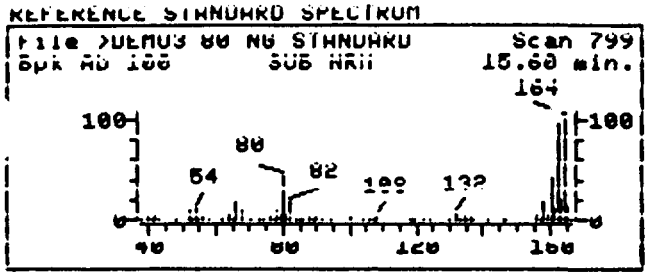
Data File: >B1366::D1
Name: OLIN A30501 B716S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 12:44
Injected at: 871218 12:06

Quant Output File: ^B1366::QT

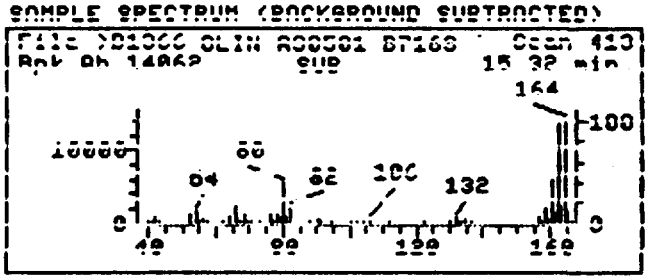
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 225
Retention Time: 9.25 min.
Quant Ion: 82.0
Area: 19996
Concentration: 1.94 ng/uL
q-value: 77

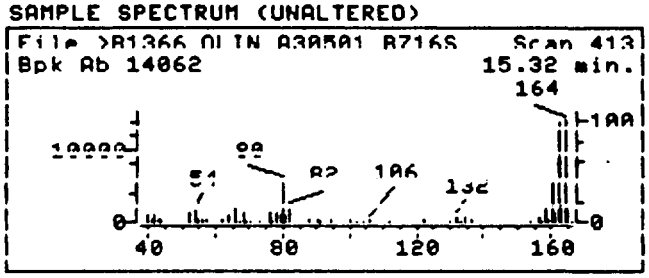
REFERENCE STANDARD SPECTRUM

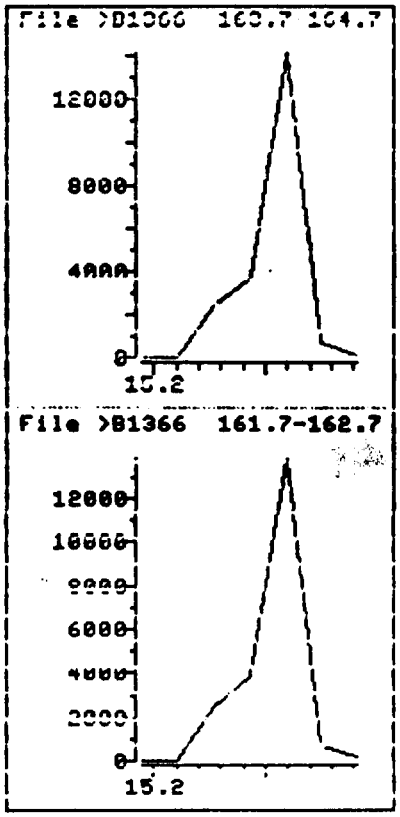


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



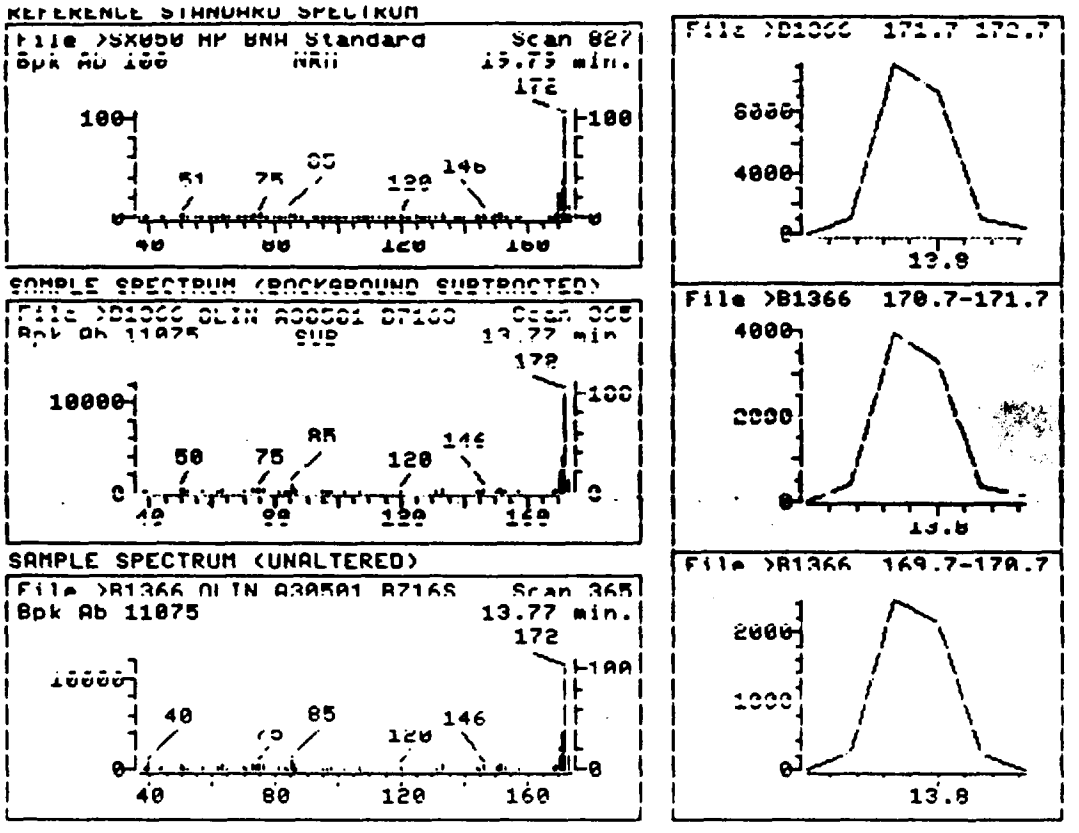


Data File: >B1366::D1
Name: OLIN A30501 B716S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 12:44
Injected at: 871218 12:06

Quant Output File: ^B1366::QT

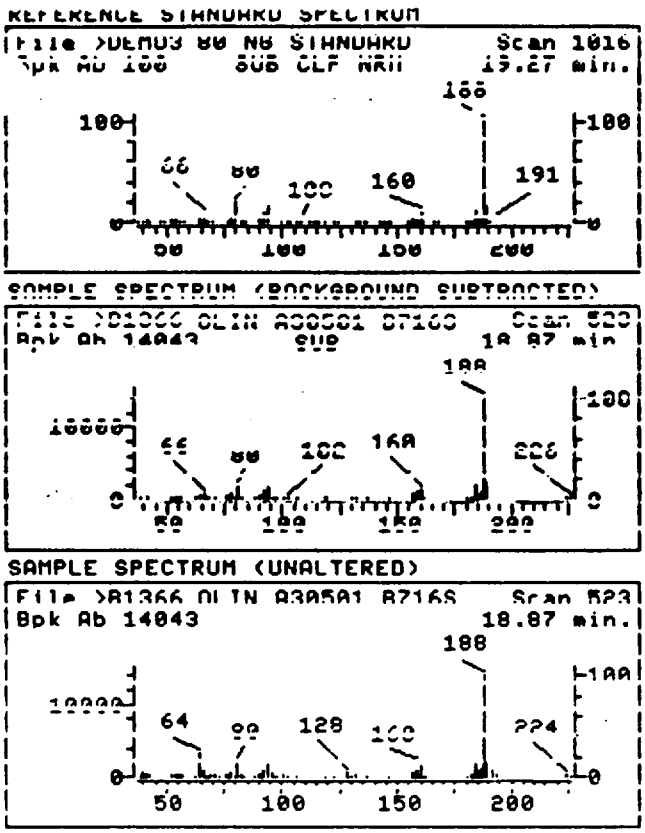
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

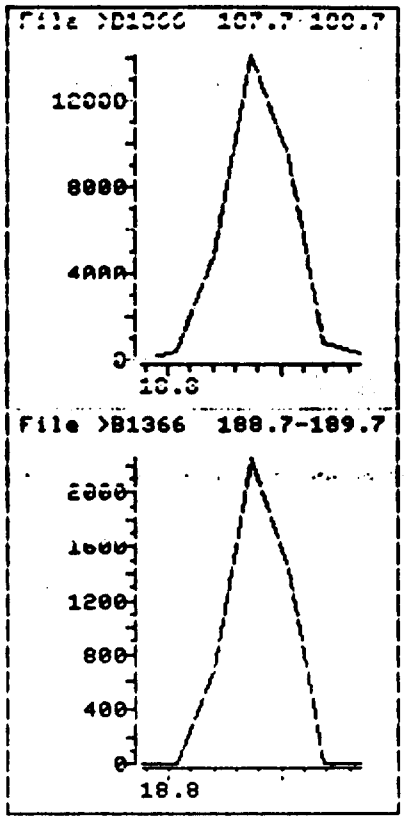
Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 413
Retention Time: 15.32 min.
Quant Ion: 164.0
Area: 40907
Concentration: 40.00 ng/uL
q-value: 98



Data File: >B1366::D1 Quant Output File: ^B1366::QT
Name: OLIN A30501 B716S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 12:44 Quant ID File: ID BDA::L2
Injected at: 871218 12:06 Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 365
Retention Time: 13.77 min.
Quant Ion: 172.0
Area: 44373
Concentration: 3.39 ng/uL
q-value: 96



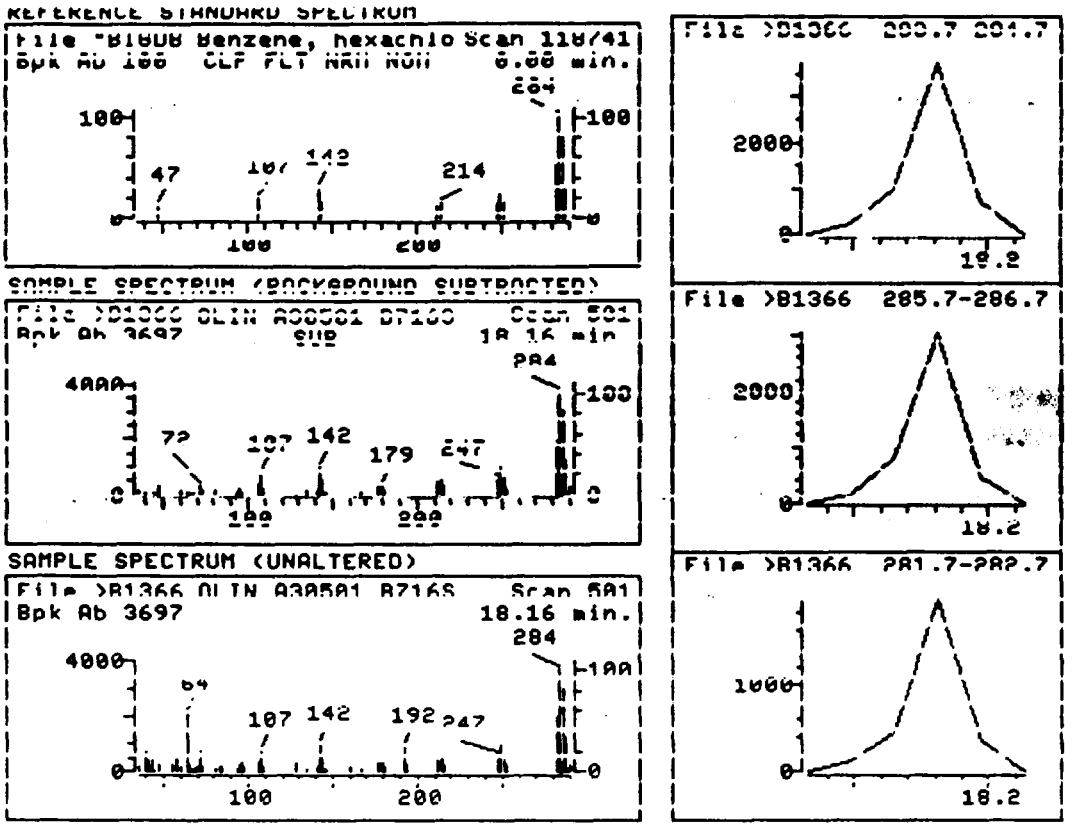


Data File: >B1366::D1
Name: OLIN A30501 B716S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 12:44
Injected at: 871218 12:06

Quant Output File: ^B1366::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 523
Retention Time: 18.87 min.
Quant Ion: 188.0
Area: 58033
Concentration: 40.00 ng/uL
q-value: 97



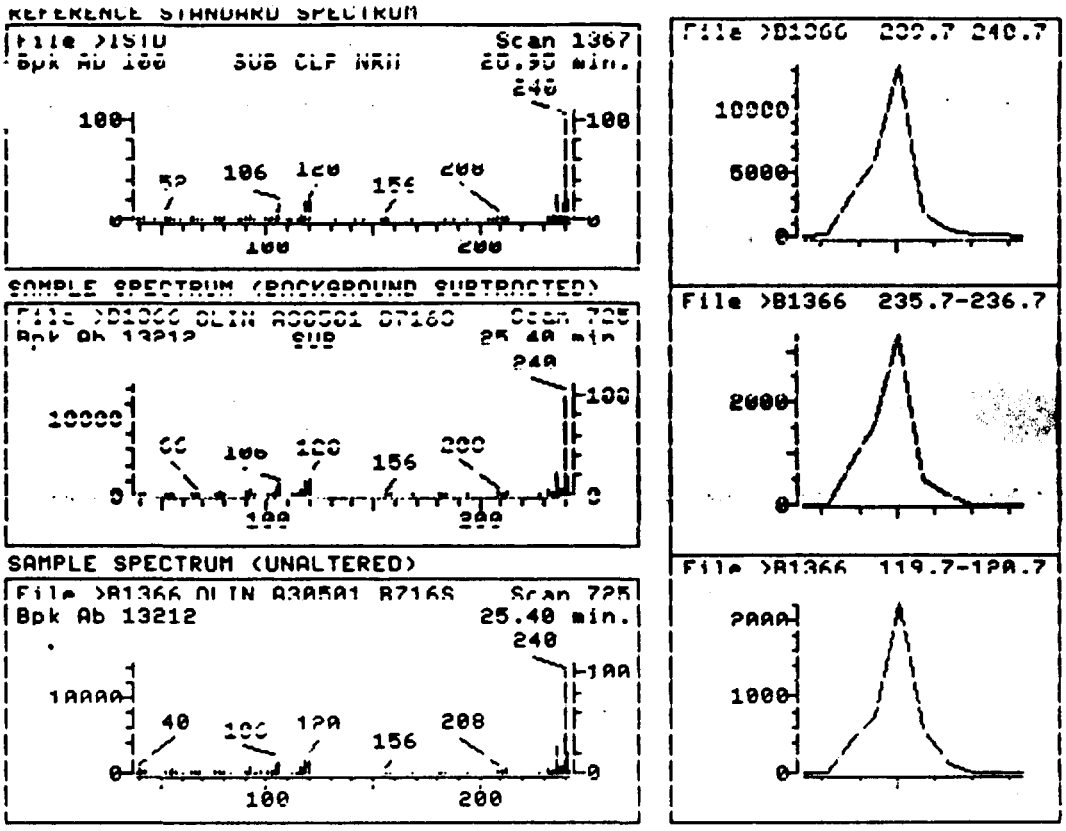
Data File: >B1366::D1
Name: OLIN A30501 B716S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 12:44
Injected at: 871218 12:06

Quant Output File: ^B1366::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 57
Compound Name: Hexachlorobenzene
Scan Number: 501
Retention Time: 18.16 min.
Quant Ion: 284.0
Area: 10922
Concentration: 2.44 ng/uL
q-value: 94

gk

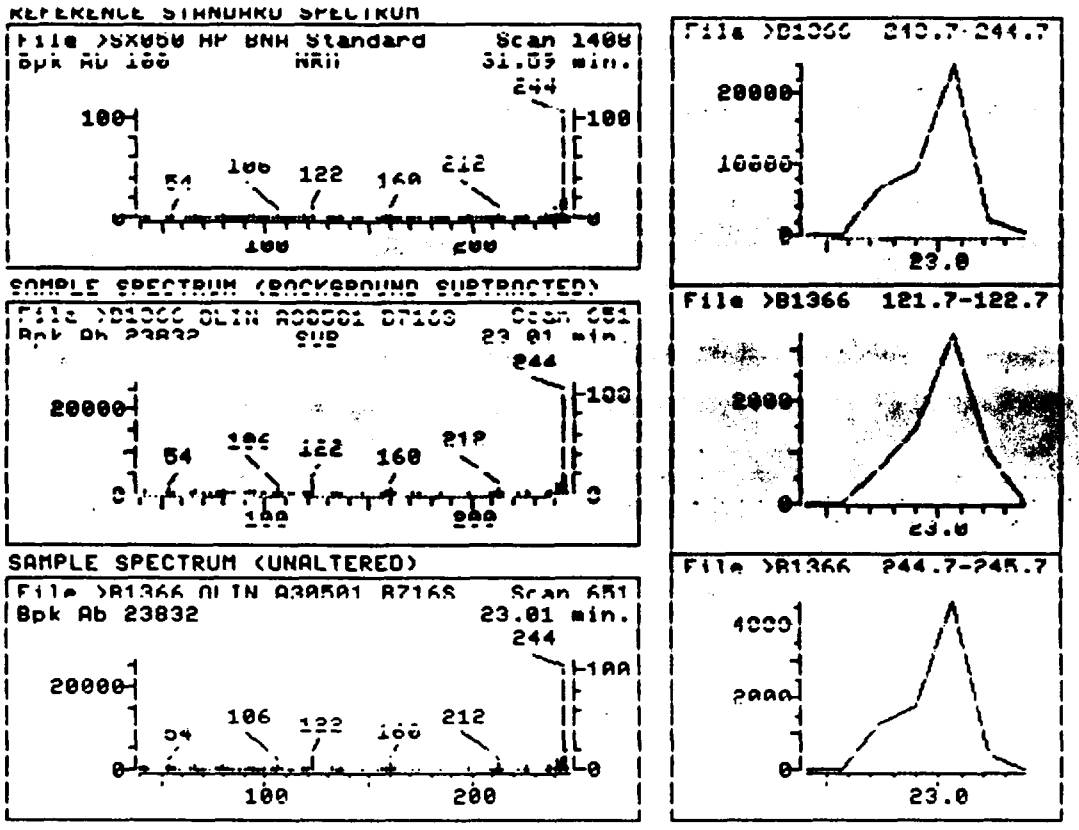


Data File: >B1366::D1
Name: OLIN A30501 B716S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 12:44
Injected at: 871218 12:06

Quant Output File: ^B1366::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 725
Retention Time: 25.40 min.
Quant Ion: 240.0
Area: 48757
Concentration: 40.00 ng/uL
q-value: 97



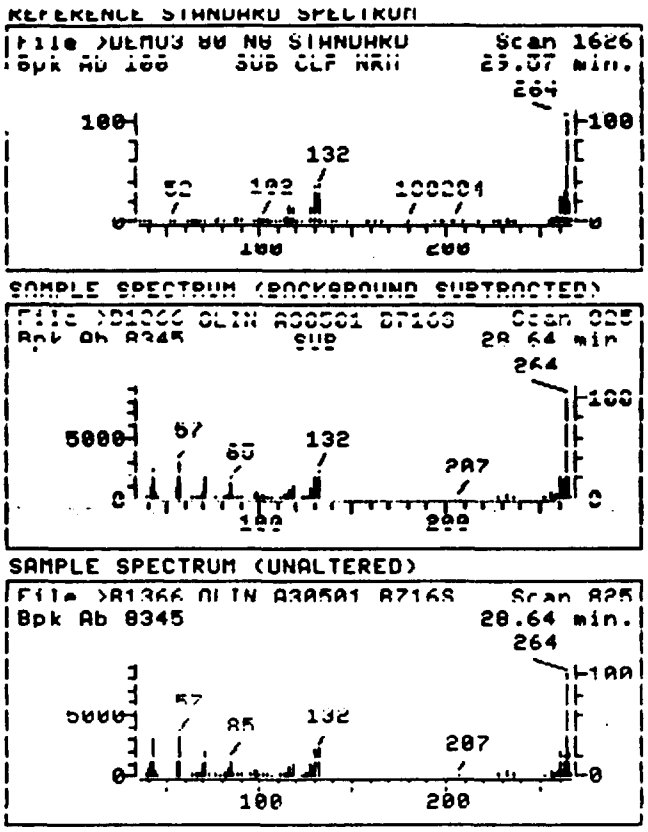
Data File: >B1366::D1
Name: OLIN A30501 B716S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 12:44
Injected at: 871218 12:06

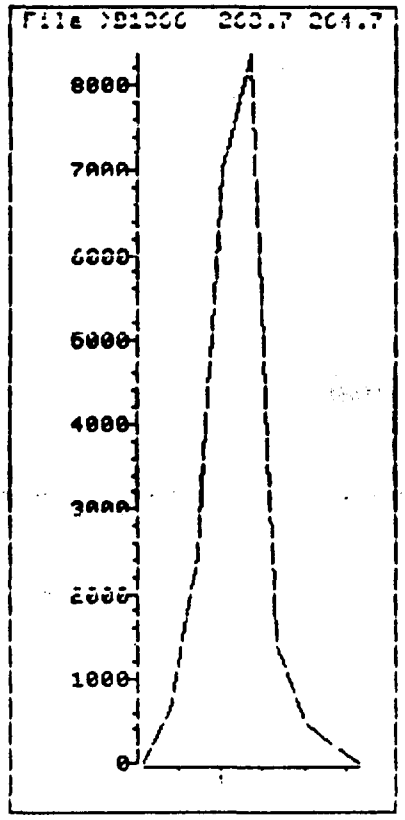
Quant Output File: ^B1366::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 651
Retention Time: 23.01 min.
Quant Ion: 244.0
Area: 80944
Concentration: 7.04 ng/uL
q-value: 88

3 2 00540





Data File: >B1366::D1
Name: OLIN A30501 B716S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 12:44
Injected at: 871218 12:06

Quant Output File: ^B1366::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 825
Retention Time: 28.64 min.
Quant Ion: 264.0
Area: 39884
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

CC: Paul Klotz

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18819

BCM Number : A30503
Location : 217
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	< 0.66	mg/kg	
Pentachloronitrobenzene	< 0.66	mg/kg	
Mercury	4.5	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/15/87	M/D/Y	
pH	7.7	std.un	
Specific Gravity	---------		
Total Solids	---------	%	

3 2 00541

QUANT REPORT

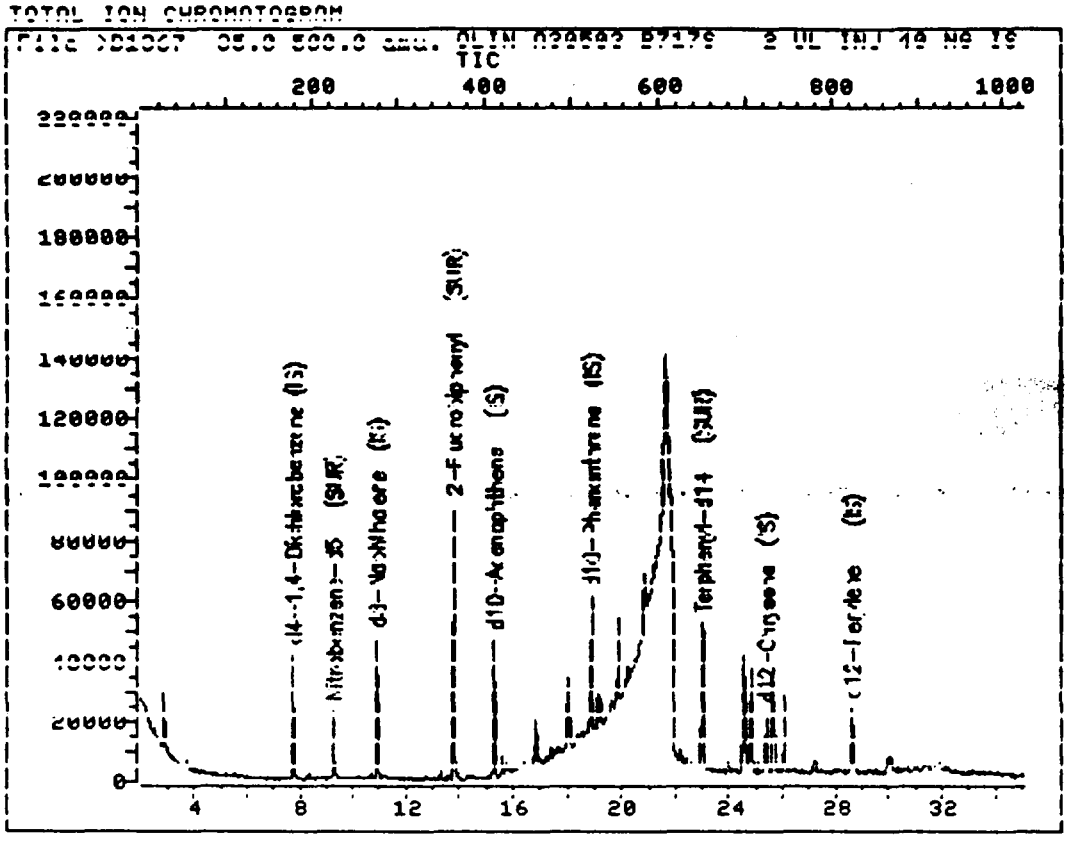
Operator ID: USER6 Quant Rev: 6 Quant Time: 871218 13:30
Output File: ^B1367::QT Injected at: 871218 12:48
Data File: >B1367::D1 Dilution Factor: .20000
Name: OLIN A30503 8717S
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.75	178	15252	40.00	ng/uL	90
16)	*d8-Naphthalene (IS)	10.91	276	60919	40.00	ng/uL	87
17)	Nitrobenzene-d5 (SUR)	9.26	225	23909	2.77	ng/uL	97
31)	*d10-Acenaphthene (IS)	15.31	412	32089	40.00	ng/uL	96
36)	2-Fluorobiphenyl (SUR)	13.79	365	73000	7.11	ng/uL	93
51)	*d10-Phenanthrene (IS)	18.89	523	51895	40.00	ng/uL	99
63)	*d12-Chrysene (IS)	25.39	724	32738	40.00	ng/uL	98
65)	Terphenyl-d14 (SUR)	23.00	650	74511	9.65	ng/uL	85
71)	*d12-Perylene (IS)	28.62	824	24441	40.00	ng/uL	100

* Compound is ISTD

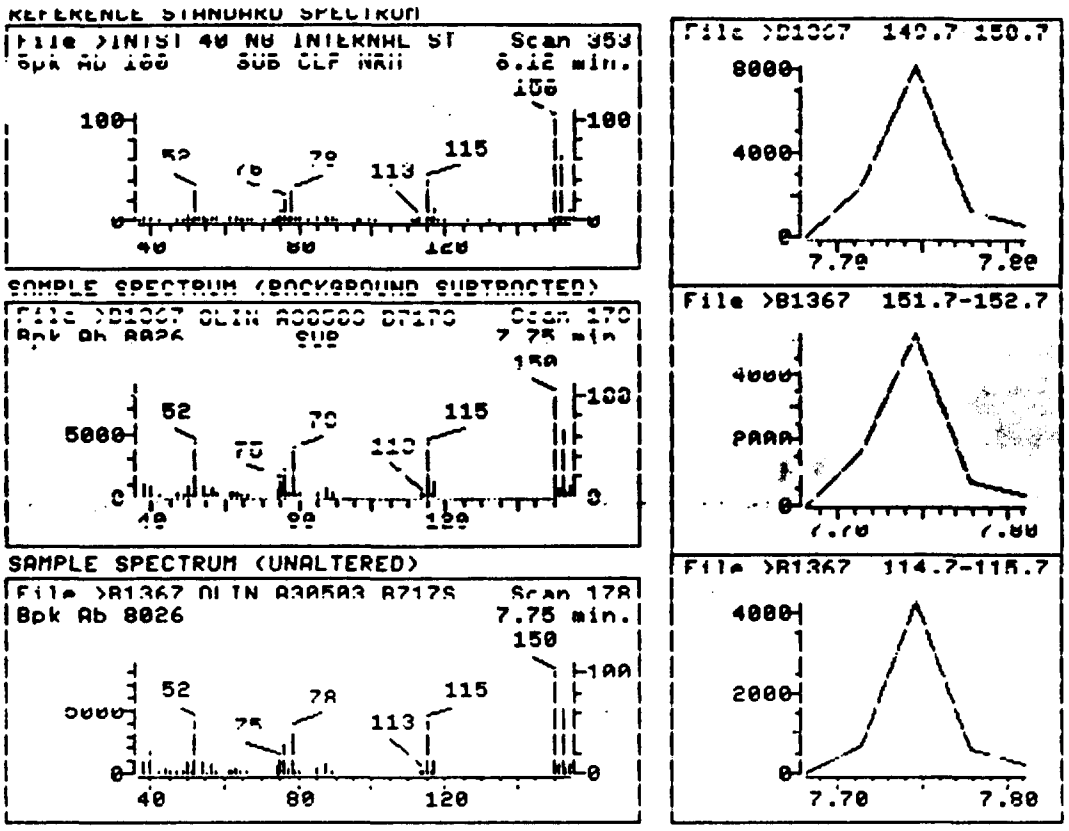
TOTAL ION CHROMOTOGRAM



Data File: >B1367::D1 Quant Output File: ^B1367::QT
Name: OLIN A30503 B717S
Misc: 2 UL INJ 40 NG IS

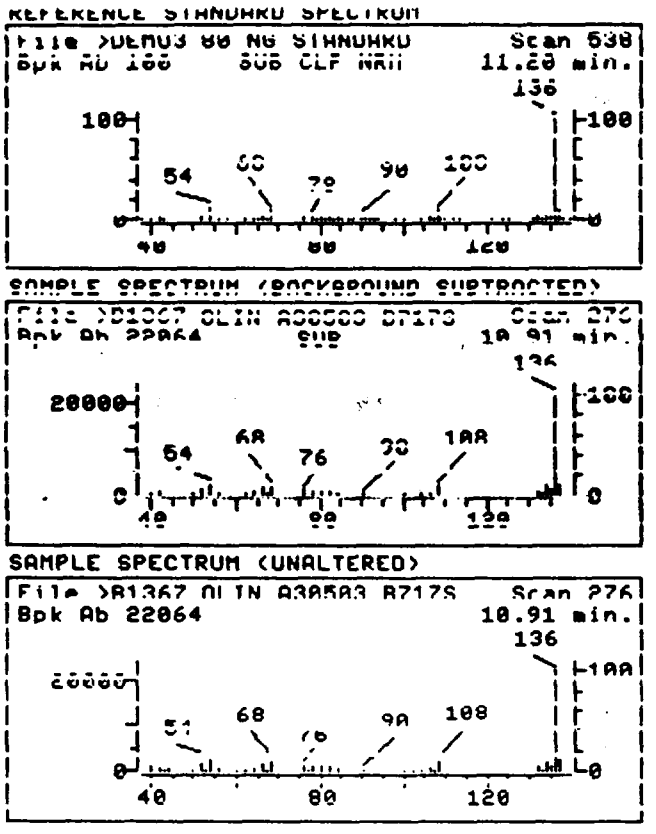
Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

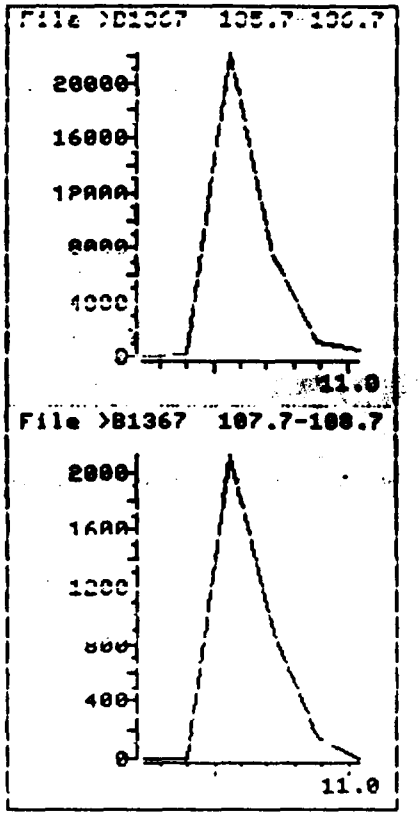
Operator ID: USER6
Quant Time: 871218 13:30
Injected at: 871218 12:48



Data File: >B1367::D1 Quant Output File: ^B1367::QT
Name: OLIN A30503 B717S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 13:30 Quant ID File: ID BDA::L2
Injected at: 871218 12:48 Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 178
Retention Time: 7.75 min.
Quant Ion: 152.0
Area: 15252
Concentration: 40.00 ng/uL
q-value: 90





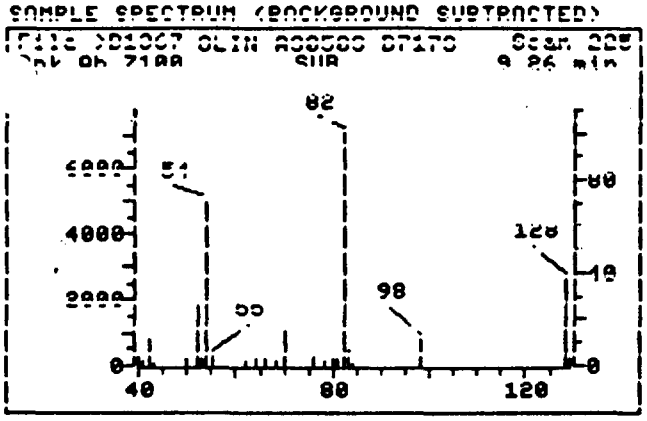
Data File: >B1367::D1
Name: OLIN A30503 B717S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 13:30
Injected at: 871218 12:48

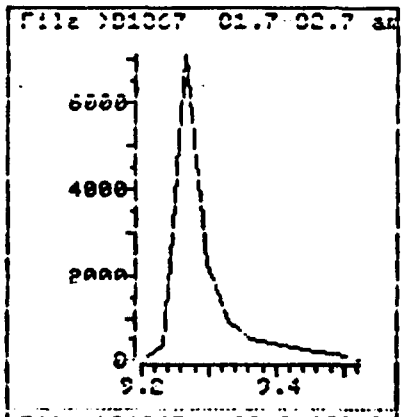
Quant Output File: ^B1367::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

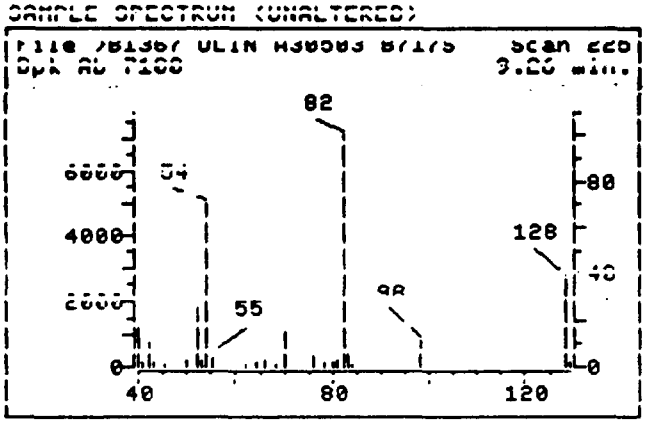
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 276
Retention Time: 10.91 min.
Quant Ion: 136.0
Area: 60919
Concentration: 40.00 ng/uL
q-value: 87

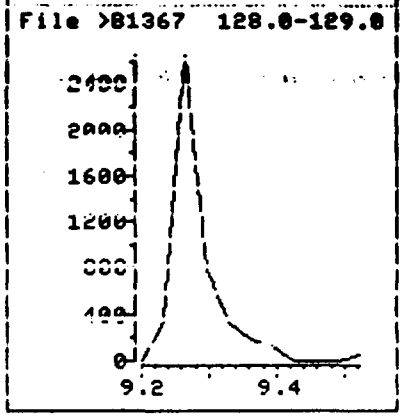
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



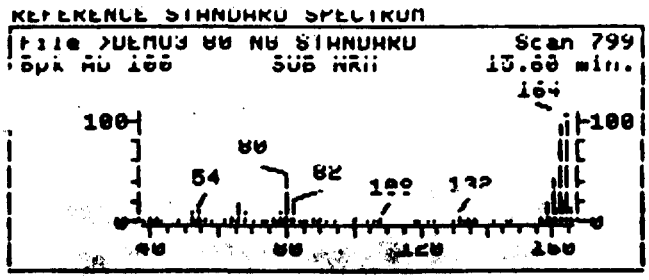


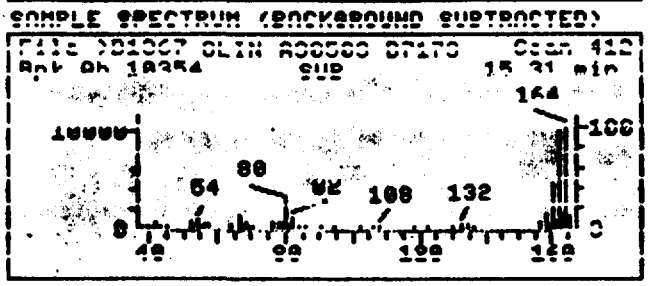
Data File: >B1367::D1
Name: OLIN A30503 B717S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 13:30
Injected at: 871218 12:48

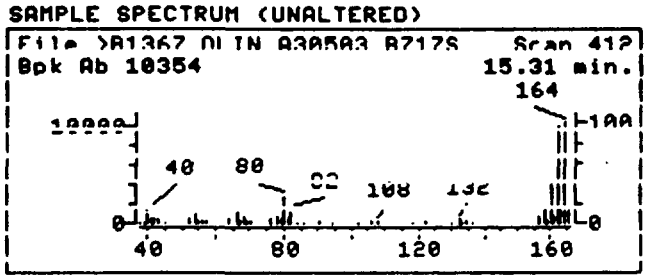
Quant Output File: ^B1367::QT

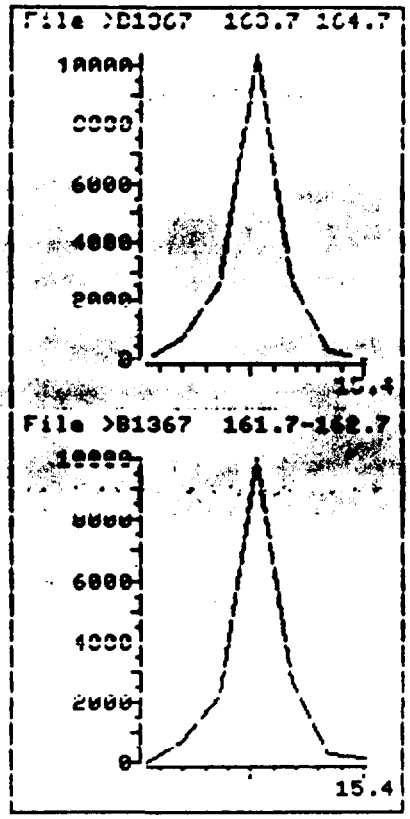
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 225
Retention Time: 9.26 min.
Quant Ion: 82.0
Area: 23909
Concentration: 2.77 ng/uL
q-value: 97







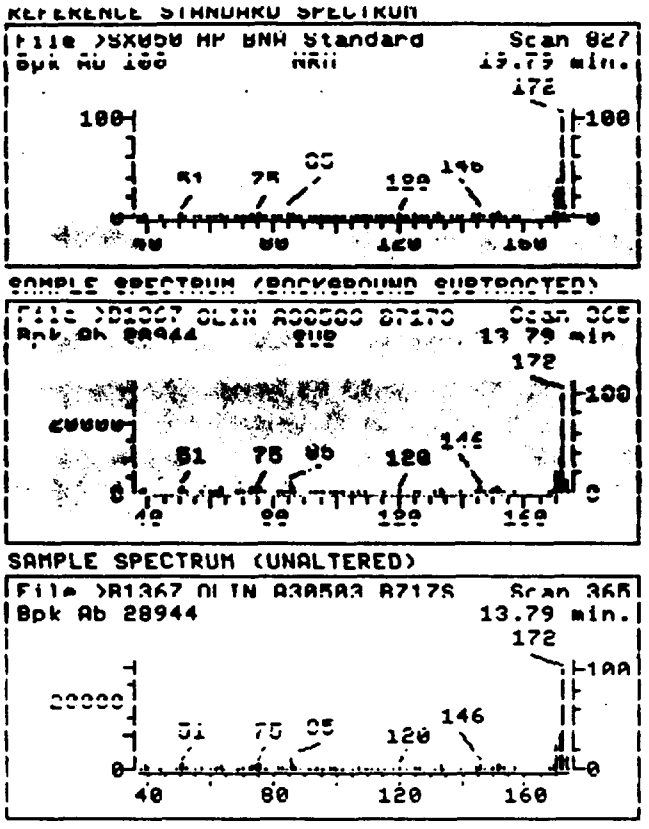


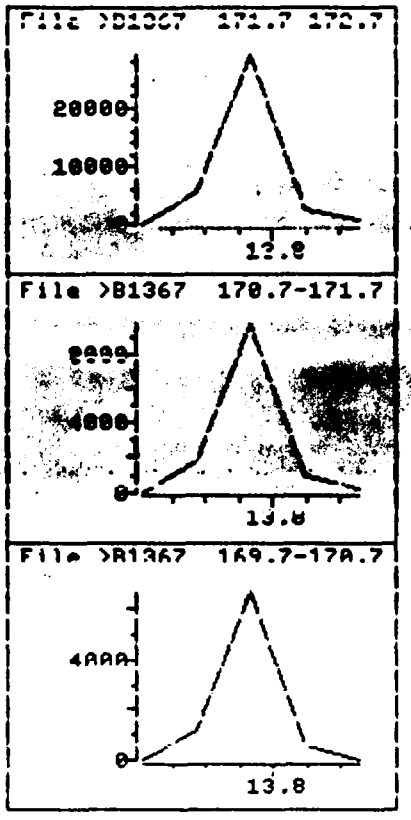
Data File: >B1367::D1
Name: OLIN A30503 B717S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 13:30
Injected at: 871218 12:48

Quant Output File: ^B1367::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 412
Retention Time: 15.31 min.
Quant Ion: 164.0
Area: 32089
Concentration: 40.00 ng/uL
q-value: 96



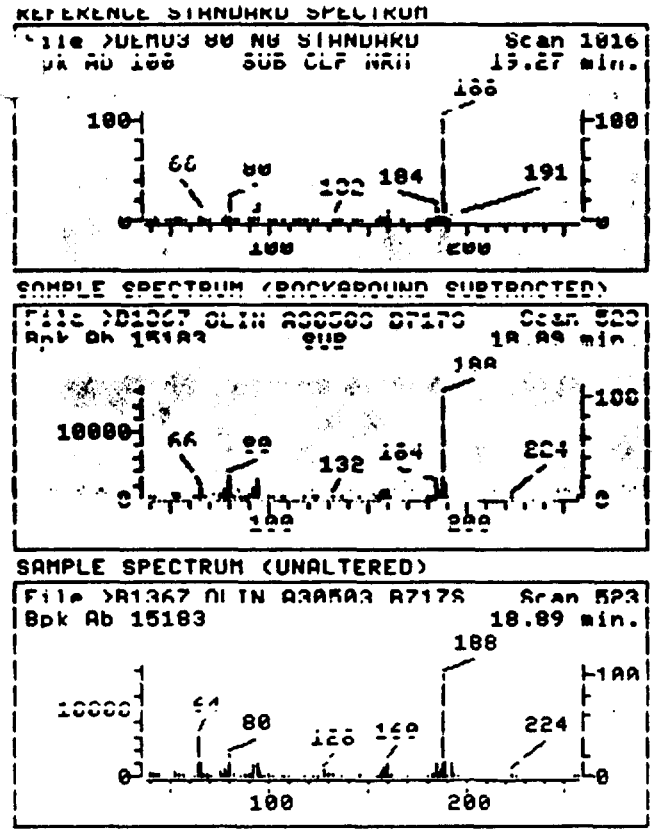


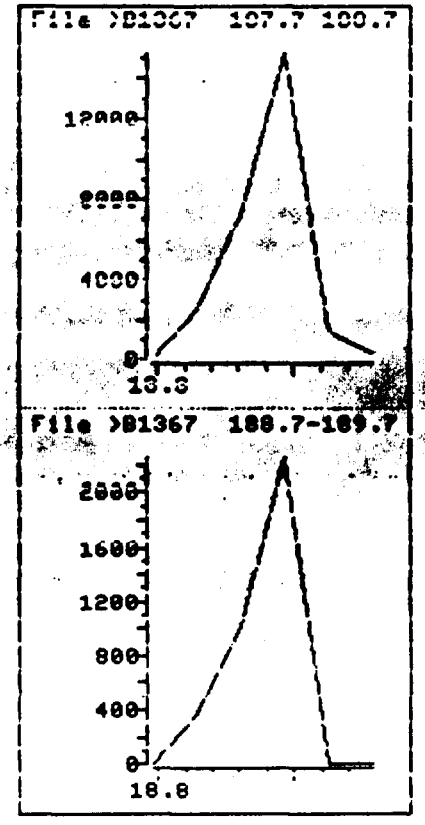
Data File: >B1367::D1
Name: OLIN A30503 B717S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 13:30
Injected at: 871218 12:48

Quant Output File: ^B1367::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 365
Retention Time: 13.79 min.
Quant Ion: 172.0
Area: 73000
Concentration: 7.11 ng/uL
q-value: 93



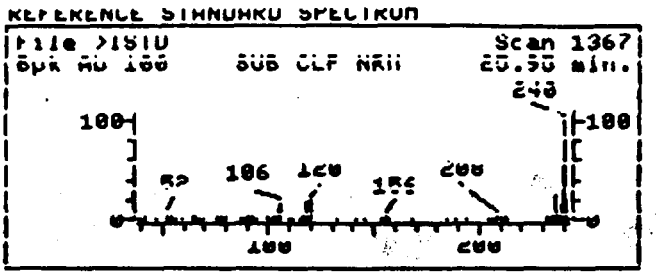


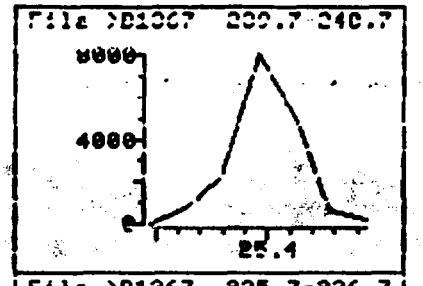
Data File: >B1367::D1
Name: OLIN A30503 B717S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 13:30
Injected at: 871218 12:48

Quant Output File: ^B1367::QT

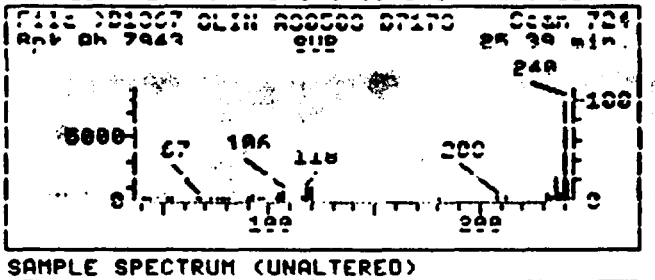
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

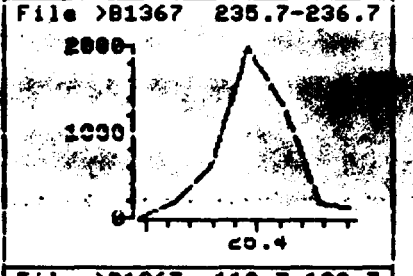
Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 523
Retention Time: 18.89 min.
Quant Ion: 188.0
Area: 51895
Concentration: 40.00 ng/uL
q-value: 99



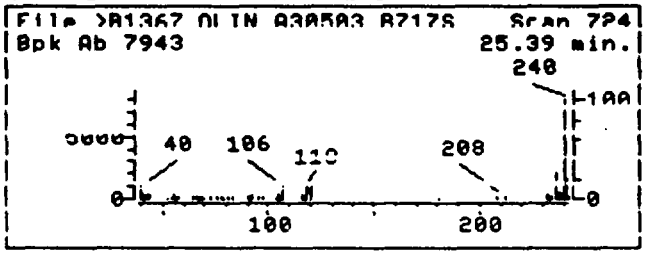


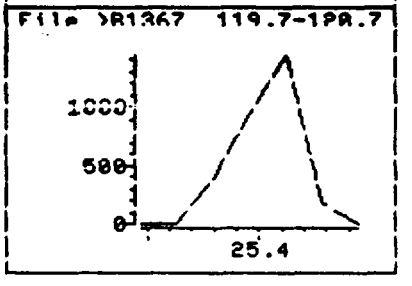
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



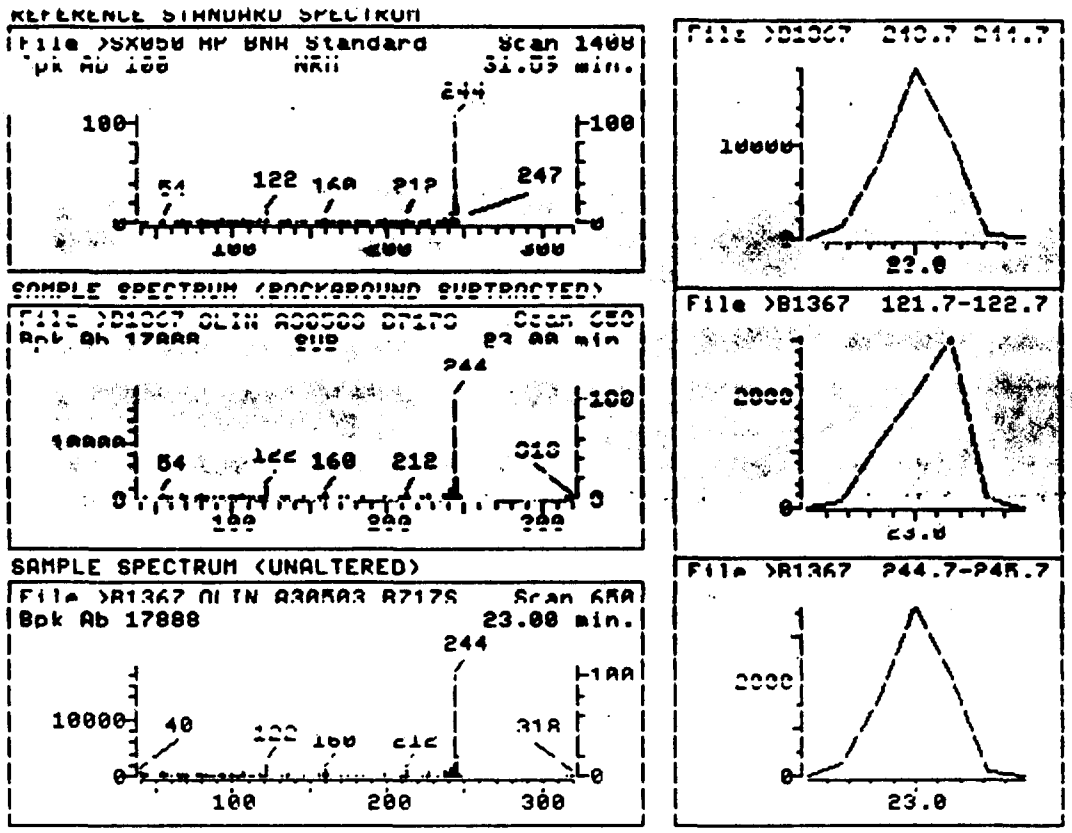


Data File: >B1367::D1
Name: OLIN A30503 B717S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 13:30
Injected at: 871218 12:48

Quant Output File: ^B1367::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 724
Retention Time: 25.39 min.
Quant Ion: 240.0
Area: 32738
Concentration: 40.00 ng/uL
q-value: 98

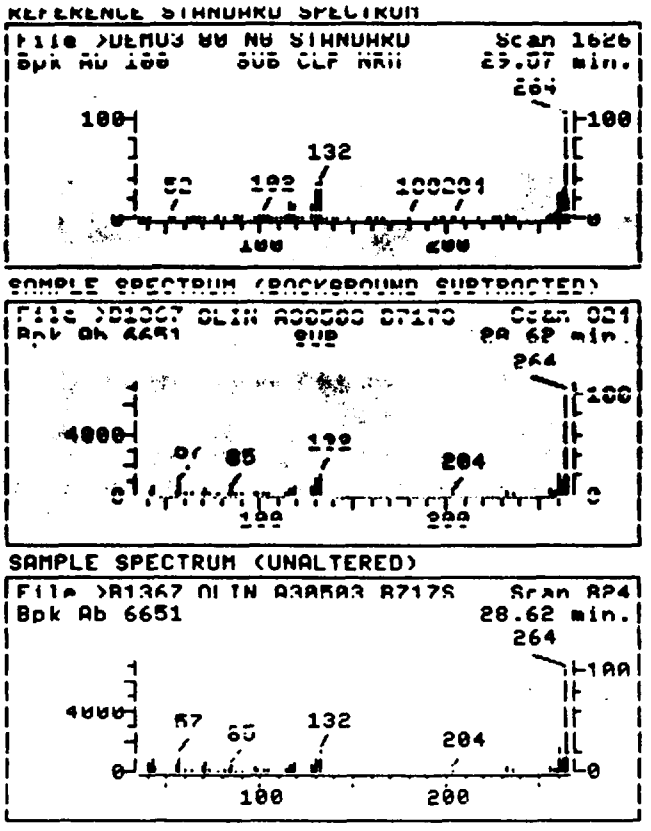


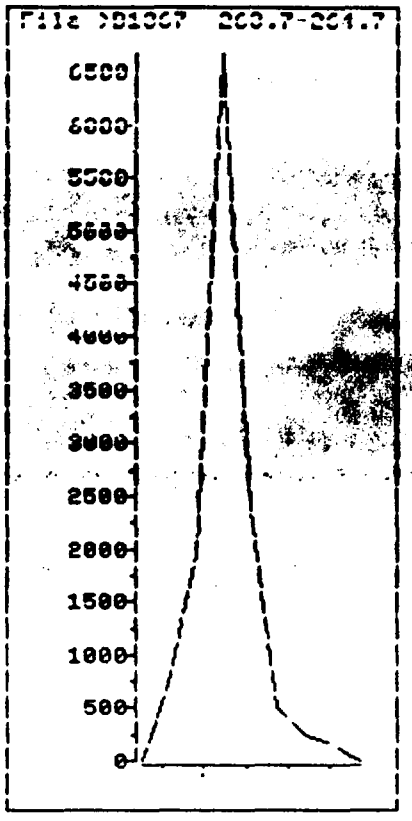
Data File: >B1367::D1
Name: OLIN A30503 B717S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 13:30
Injected at: 871218 12:48

Quant Output File: ^B1367::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 650
Retention Time: 23.00 min.
Quant Ion: 244.0
Area: 74511
Concentration: 9.65 ng/uL
q-value: 85





Data File: >B1367::D1
Name: OLIN A30503 B717S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871218 13:30
Injected at: 871218 12:48

Quant Output File: ^B1367::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 824
Retention Time: 28.62 min.
Quant Ion: 264.0
Area: 24441
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

CC: Paul Klotz

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18819

BCM Number : A30506
Location : 408
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.01	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.01	mg/kg	
Hexachlorobenzene	< 0.01	mg/kg	
Pentachloronitrobenzene	< 0.01	mg/kg	
Mercury	< 0.0002	mg/kg	EPA # 7471
pH	6.0	std.un	
Specific Gravity	---------		
Total Solids	---------	%	

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871222 11:45
Output File: ^B1391::QT Injected at: 871222 10:48
Data File: >B1391::D1 Dilution Factor: 1.00000
Name: DLIN A30506 B738W
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.73	177	12482	40.00	ng/uL	92
16)	*d8-Naphthalene (IS)	10.89	275	54125	40.00	ng/uL	90
17)	Nitrobenzene-d5 (SUR)	9.21	223	44051	28.72	ng/uL	77
31)	*d10-Acenaphthene (IS)	15.25	410	30766	40.00	ng/uL	97
36)	2-Fluorobiphenyl (SUR)	13.74	363	57647	29.30	ng/uL	93
51)	*d10-Phenanthrene (IS)	18.81	520	39433	40.00	ng/uL	97
63)	*d12-Chrysene (IS)	25.30	721	26489	40.00	ng/uL	96
65)	Terphenyl-d14 (SUR)	22.94	648	44722	35.78	ng/uL	97
71)	*d12-Perylene (IS)	28.53	821	21189	40.00	ng/uL	100

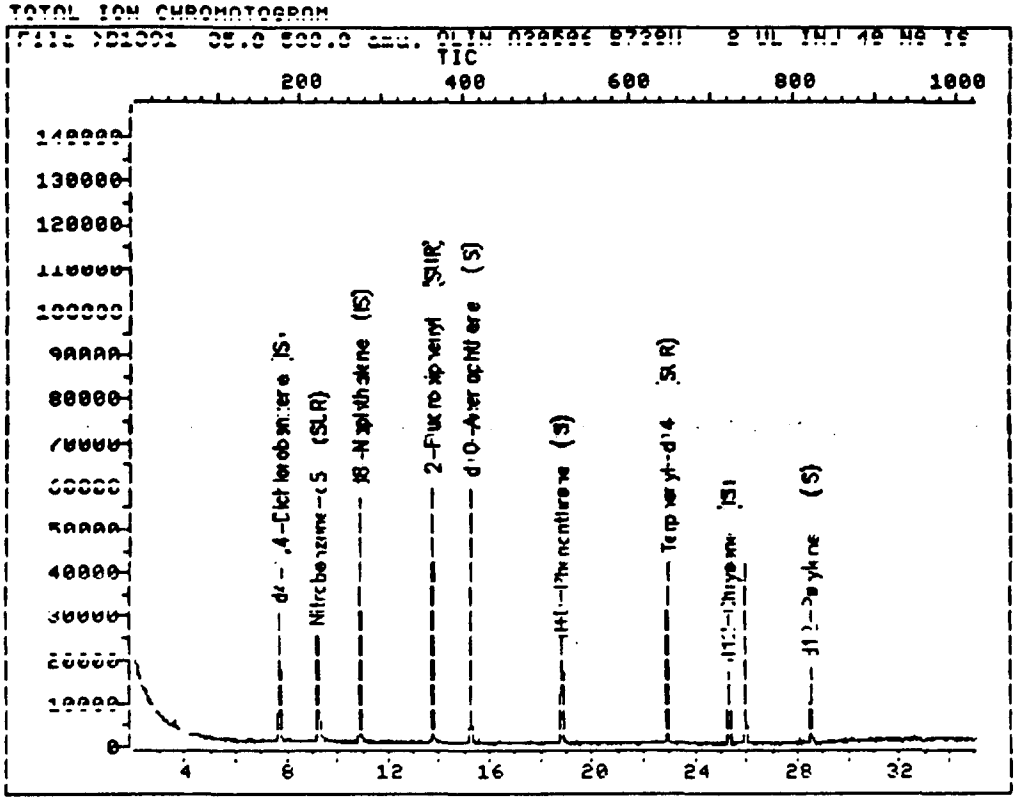
* Compound is ISTD

3 2 00548

Site: _____
Break: 3.2
Other: _____

3 2 00549

TOTAL ION CHROMATOGRAM

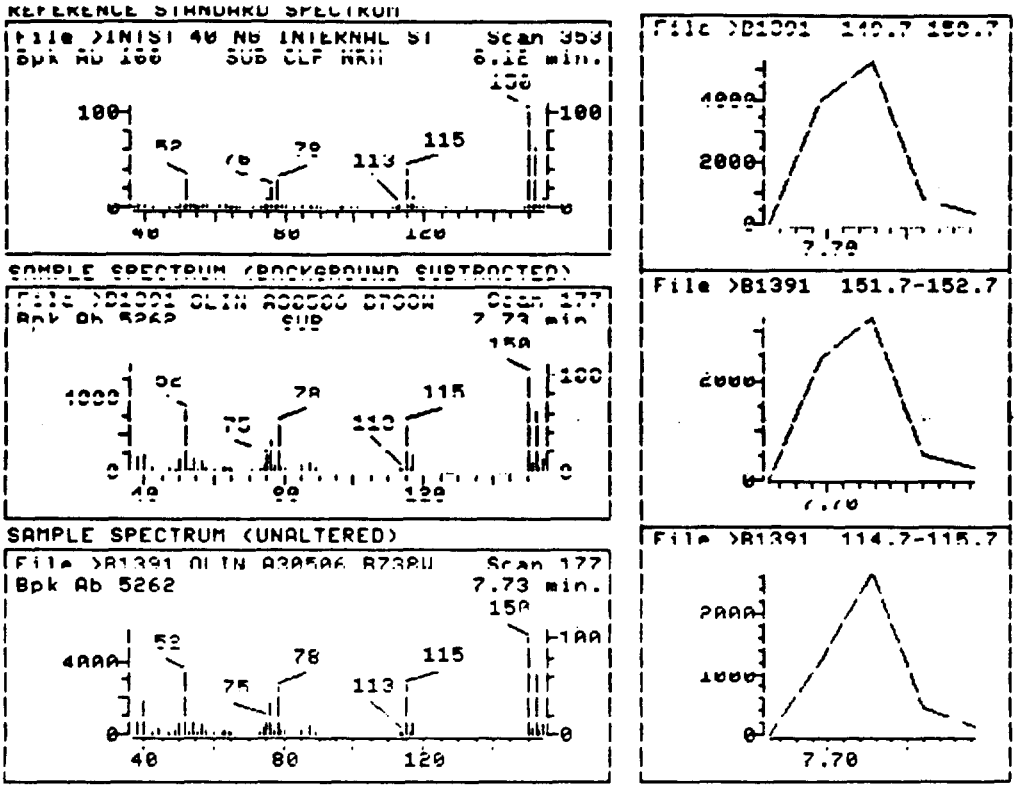


Data File: >B1391::D1
Name: OLIN A30506 B7380
Misc: 2 UL INJ 40 NG IS

Quant Output File: ^B1391::QT

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

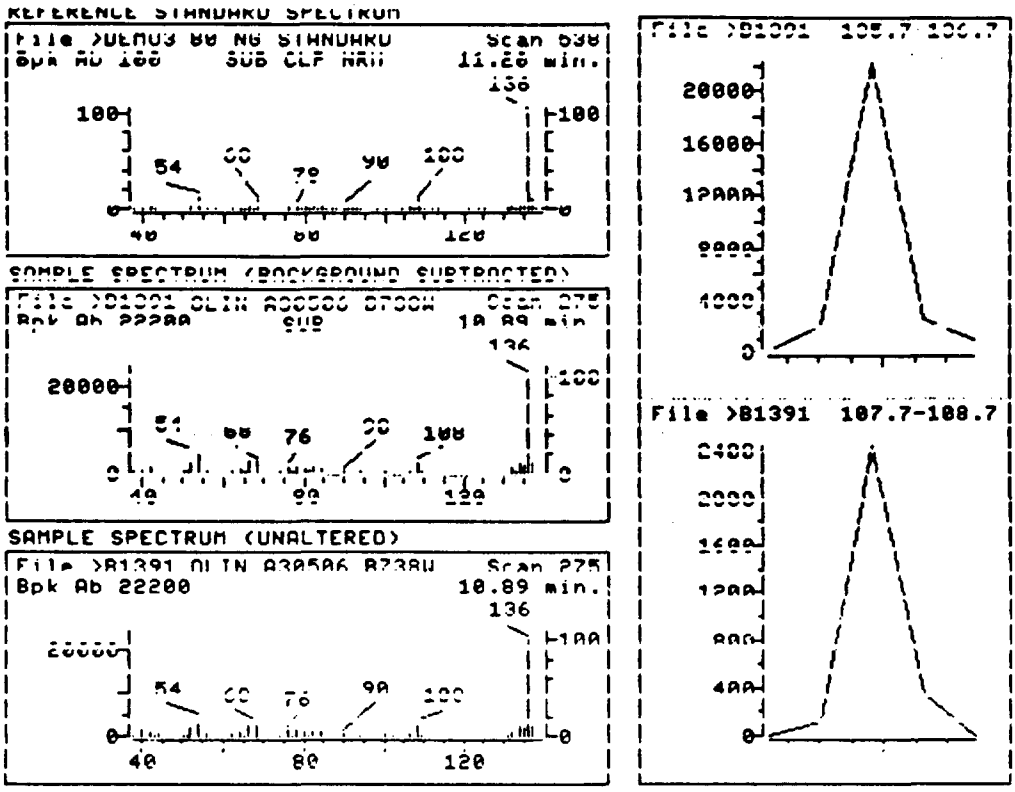
Operator ID: USER6
Quant Time: 871222 11:45
Injected at: 871222 10:48



Data File: >B1391::D1
Name: CLIN A305D6 B738W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 11:45
Injected at: 871222 10:48

Quant Output File: ^B1391::QT
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 177
Retention Time: 7.73 min.
Quant Ion: 152.0
Area: 12482
Concentration: 40.00 ng/uL
q-value: 92



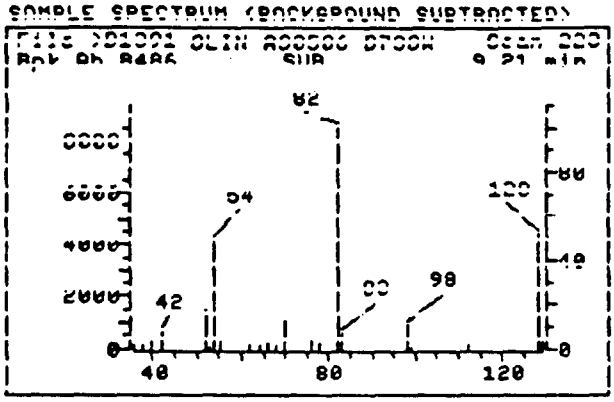
Data File: >B1391::D1
Name: DLIN A30506 B738W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 11:45
Injected at: 871222 10:48

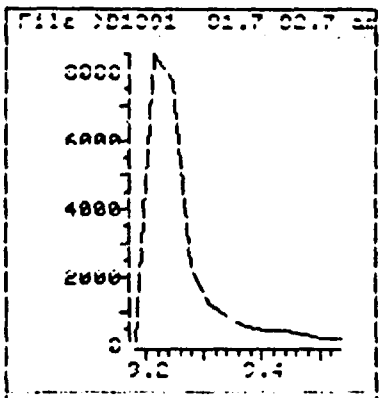
Quant Output File: ^B1391::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

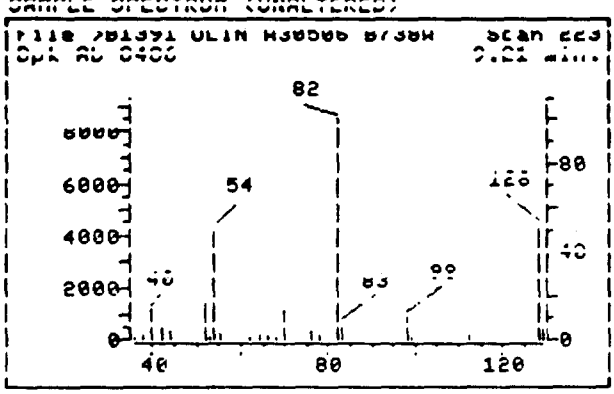
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 275
Retention Time: 10.89 min.
Quant Ion: 136.0
Area: 54125
Concentration: 40.00 ng/uL
q-value: 90

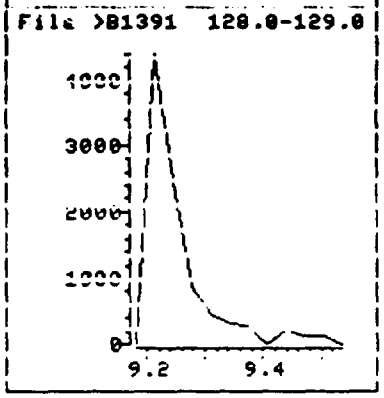
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



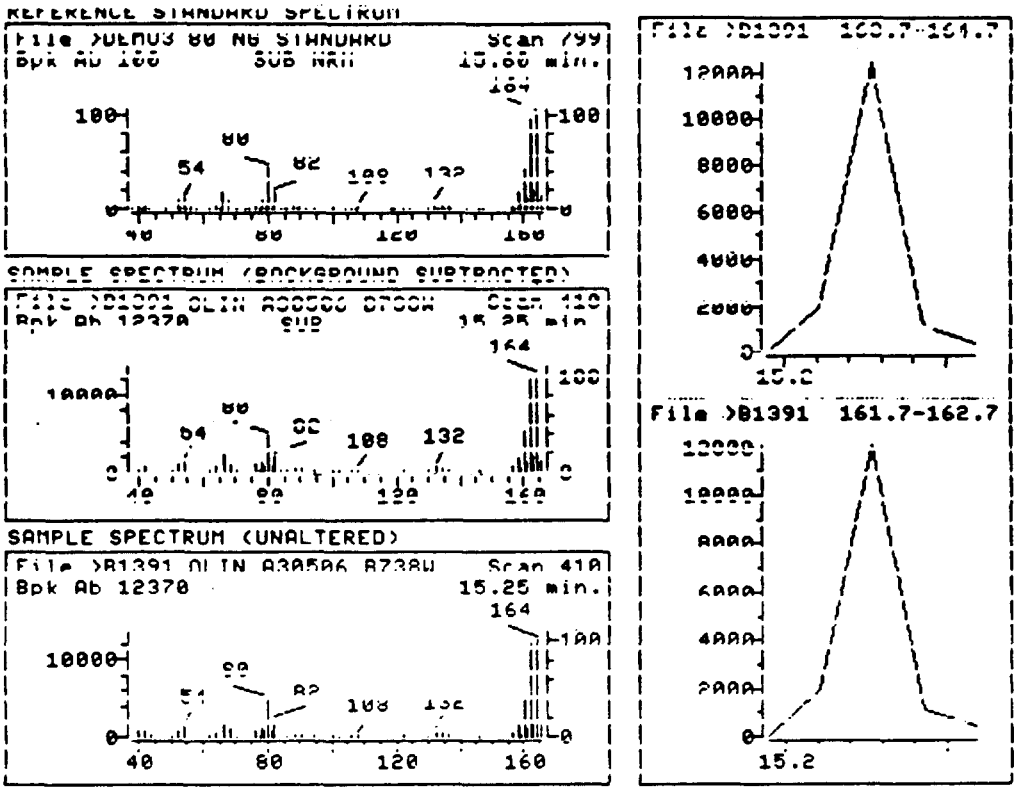


Data File: >B1391::D1
Name: OL IN A30506 B738W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 11:45
Injected at: 871222 10:48

Quant Output File: ^B1391::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 223
Retention Time: 9.21 min.
Quant Ion: 82.0
Area: 44051
Concentration: 28.72 ng/uL
q-value: 77

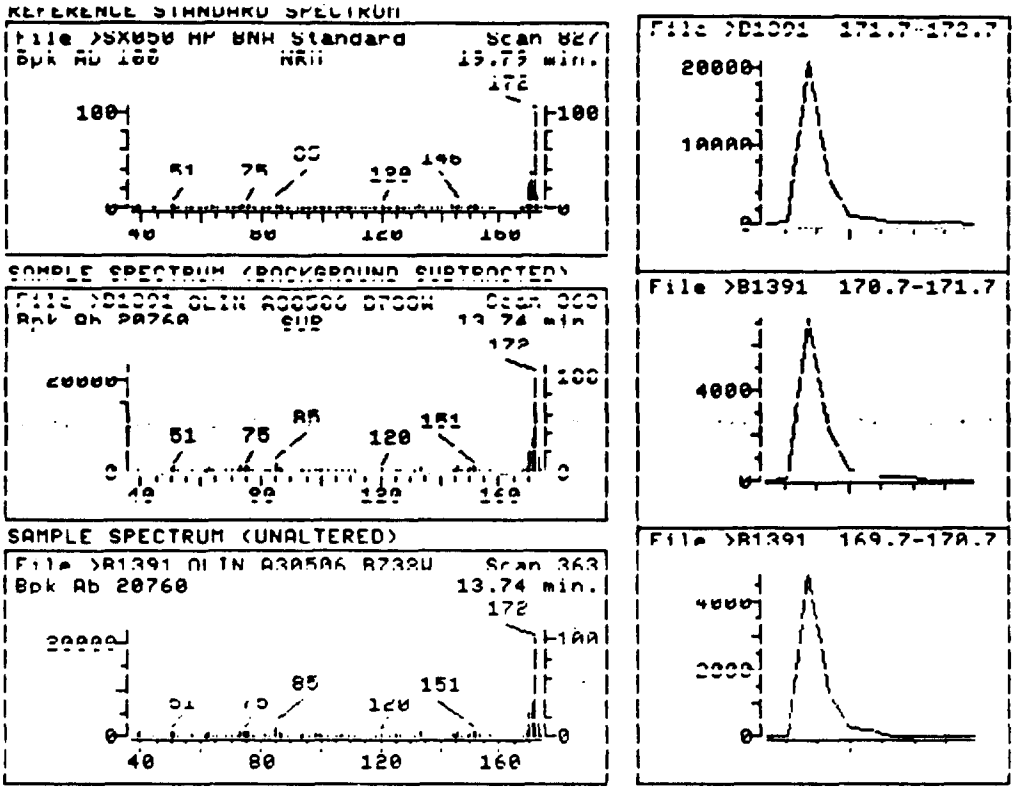


Data File: >B1391::D1
Name: DLIN A30506 B738W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 11:45
Injected at: 871222 10:48

Quant Output File: ^B1391::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 410
Retention Time: 15.25 min.
Quant Ion: 164.0
Area: 30766
Concentration: 40.00 ng/uL
q-value: 97

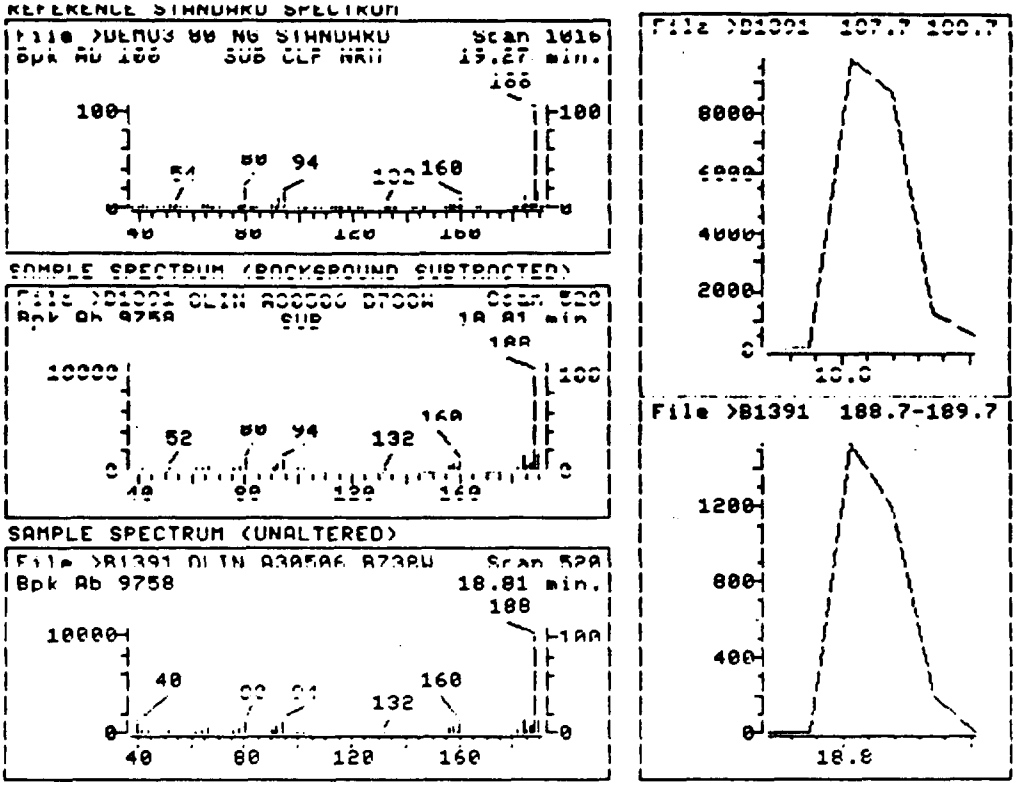


Data File: >B1391::D1
Name: DLIN A30506 B738W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 11:45
Injected at: 871222 10:48

Quant Output File: ^B1391::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 363
Retention Time: 13.74 min.
Quant Ion: 172.0
Area: 57647
Concentration: 29.30 ng/uL
q-value: 93

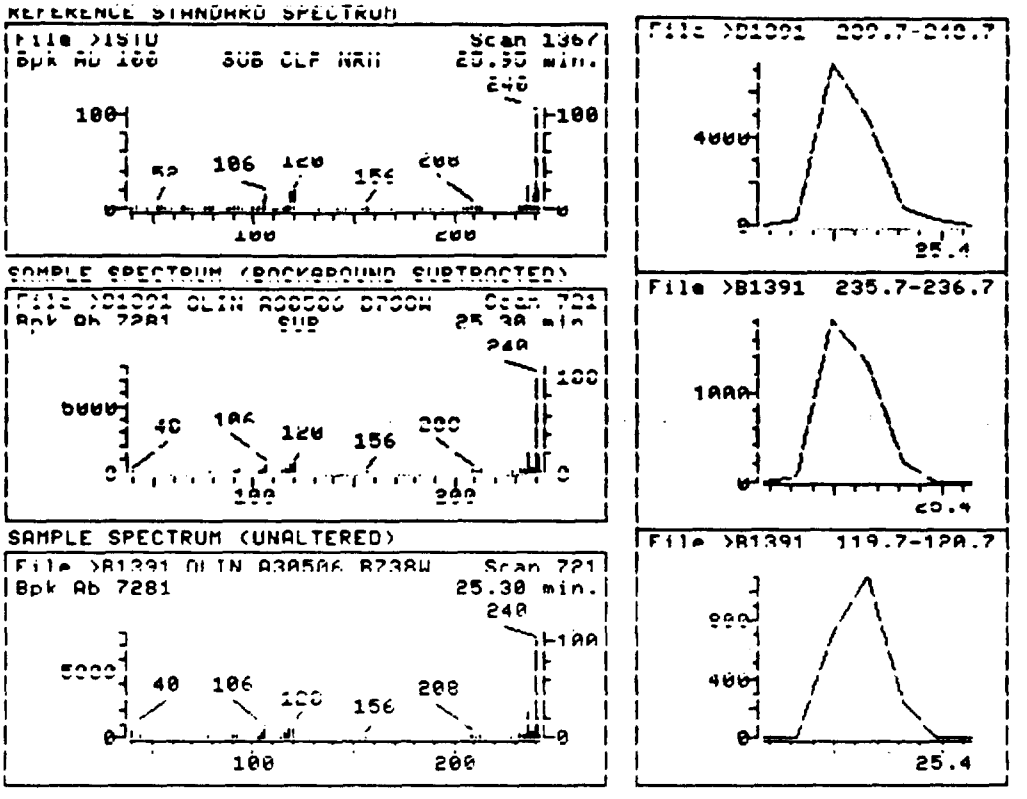


Data File: >B1391::D1
Name: OLIN A30506 B738W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 11:45
Injected at: 871222 10:48

Quant Output File: ^B1391::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 520
Retention Time: 18.81 min.
Quant Ion: 188.0
Area: 39433
Concentration: 40.00 ng/uL
q-value: 97

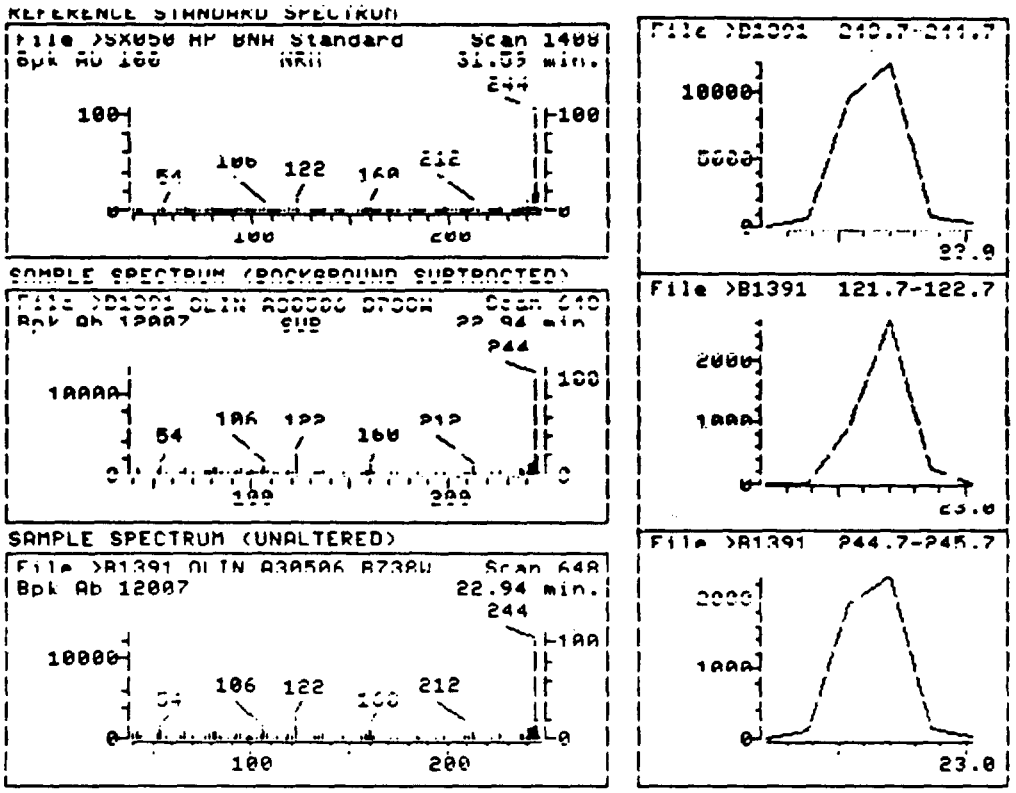


Data File: >B1391::D1
Name: DLIN A30506 B738W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 11:45
Injected at: 871222 10:48

Quant Output File: ^B1391::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 721
Retention Time: 25.30 min.
Quant Ion: 240.0
Area: 26489
Concentration: 40.00 ng/uL
q-value: 96

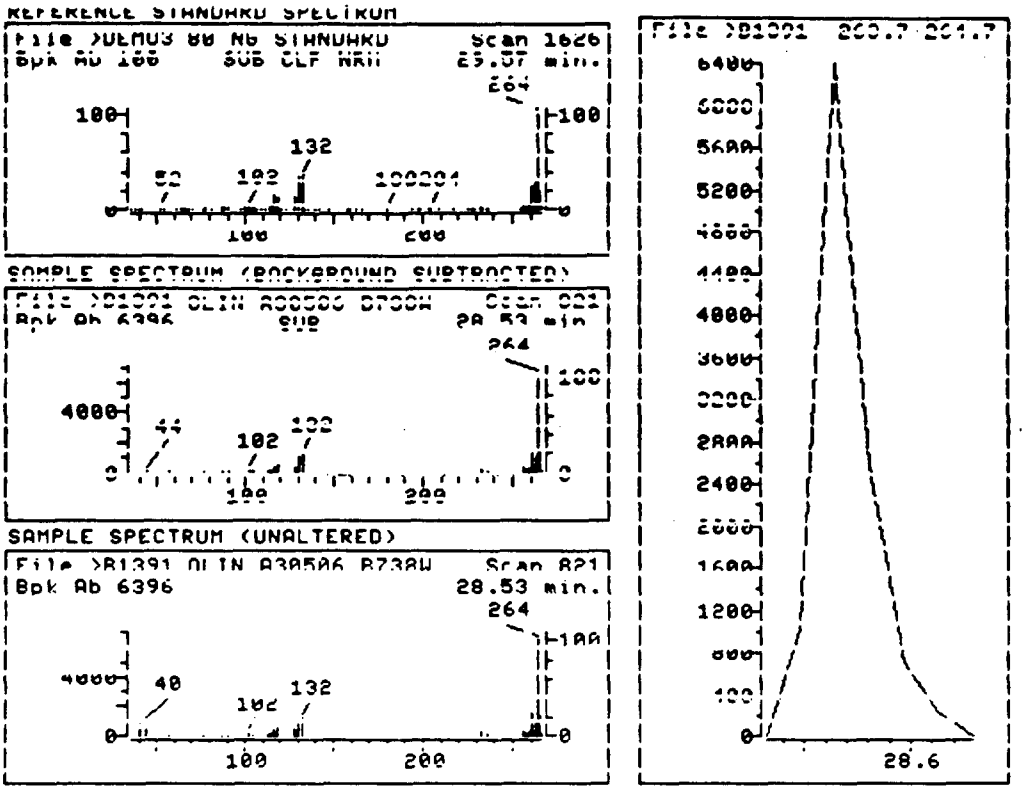


Data File: >B1391::D1
Name: OLIN A30506 B738W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 11:45
Injected at: 871222 10:48

Quant Output File: ^B1391::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 648
Retention Time: 22.94 min.
Quant Ion: 244.0
Area: 44722
Concentration: 35.78 ng/uL
q-value: 97



Data File: >B1391::D1
Name: DLIN A30506 B738W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 11:45
Injected at: 871222 10:48

Quant Output File: ^B1391::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 821
Retention Time: 28.53 min.
Quant Ion: 264.0
Area: 21189
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT
This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18819

CC: Paul Klotz

BCM Number : A30507
Location : TRIP
Client ID : BLNK

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.01	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.01	mg/kg	
Hexachlorobenzene	< 0.01	mg/kg	
Pentachloronitrobenzene	< 0.01	mg/kg	
Mercury	< 0.0002	mg/kg	EPA # 7471
pH	6.2	std.un	
Specific Gravity	---------		
Total Solids	---------	%	

QUANT REPORT

Operator ID: USER6
Output File: ^B1392::QT
Data File: >B1392::D1
Name: OLIN A30507 B739W
Misc: 2 UL INJ 40 NG IS

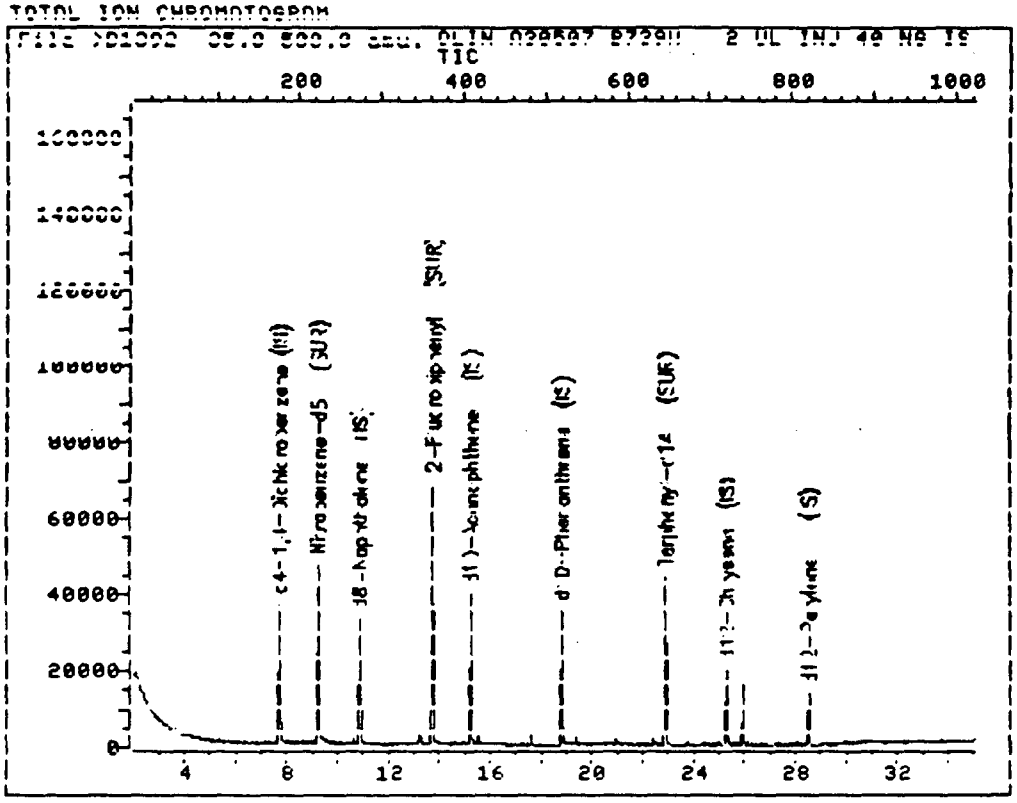
Quant Rev: 6
Quant Time: 871222 12:18
Injected at: 871222 11:42
Dilution Factor: 1.00000

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.71	176	13380	40.00	ng/uL	92
16)	*d8-Naphthalene (IS)	10.87	274	50220	40.00	ng/uL	87
17)	Nitrobenzene-d5 (SUR)	9.22	223	46440	32.63	ng/uL	99
31)	*d10-Acenaphthene (IS)	15.23	409	24837	40.00	ng/uL	96
36)	2-Fluorobiphenyl (SUR)	13.75	363	52507	33.05	ng/uL	94
51)	*d10-Phenanthrene (IS)	18.82	520	36891	40.00	ng/uL	99
63)	*d12-Chrysene (IS)	25.31	721	21362	40.00	ng/uL	94
65)	Terphenyl-d14 (SUR)	22.92	647	43432	43.09	ng/uL	87
71)	*d12-Perylene (IS)	28.54	821	18545	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMOTOGRAM

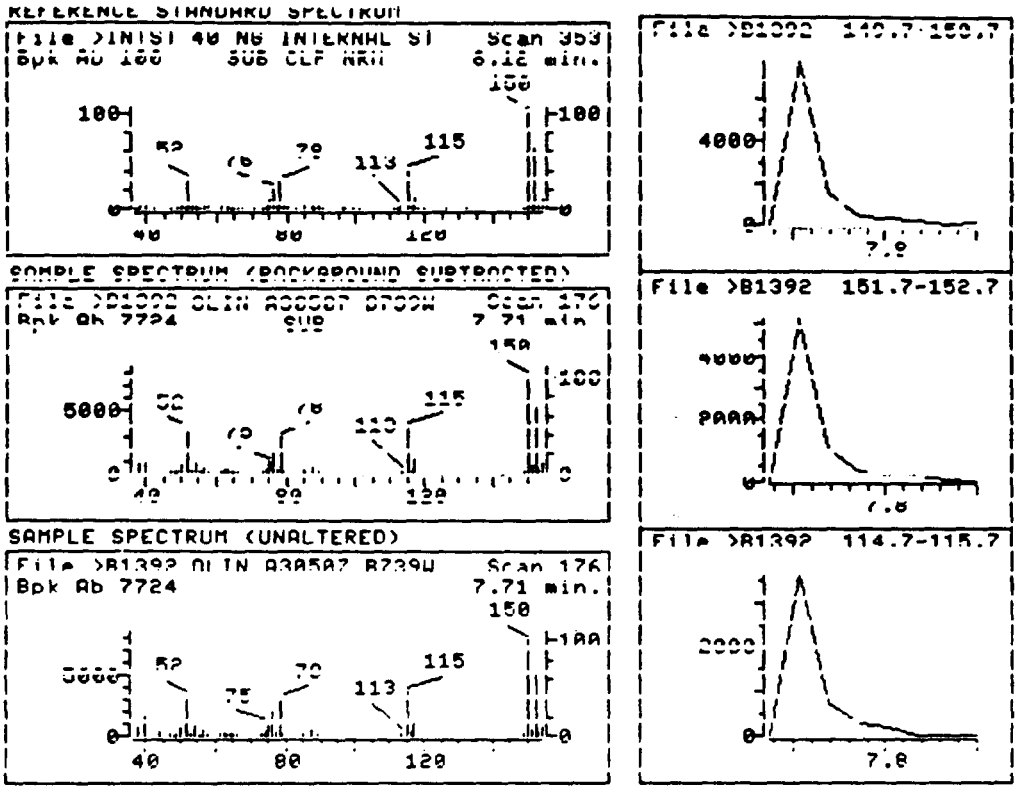


Data File: >B1392::D1
Name: OLIN A30507 B739W
Misc: 2 UL INJ 40 NG IS

Quant Output File: ^B1392::QT

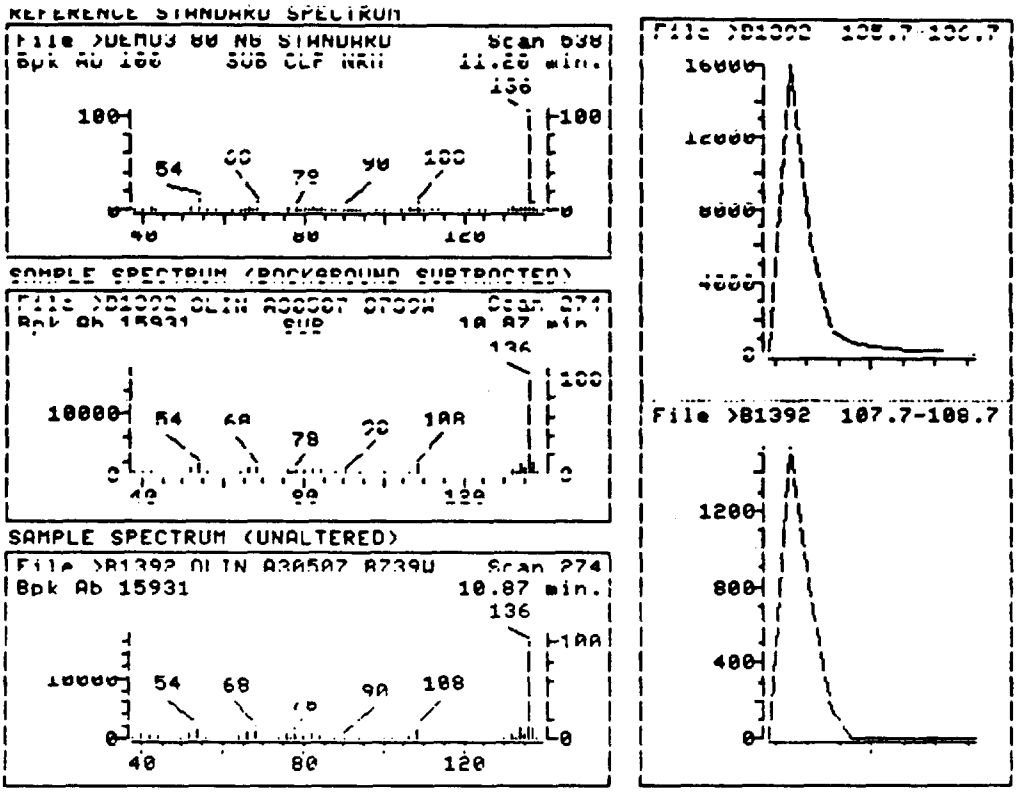
Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871222 12:18
Injected at: 871222 11:42



Data File: >B1392::D1 Quant Output File: ^B1392::QT
Name: OLIN A30507 B739W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 12:18 Quant ID File: ID BDA::L2
Injected at: 871222 11:42 Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 176
Retention Time: 7.71 min.
Quant Ion: 152.0
Area: 13380
Concentration: 40.00 ng/uL
q-value: 92

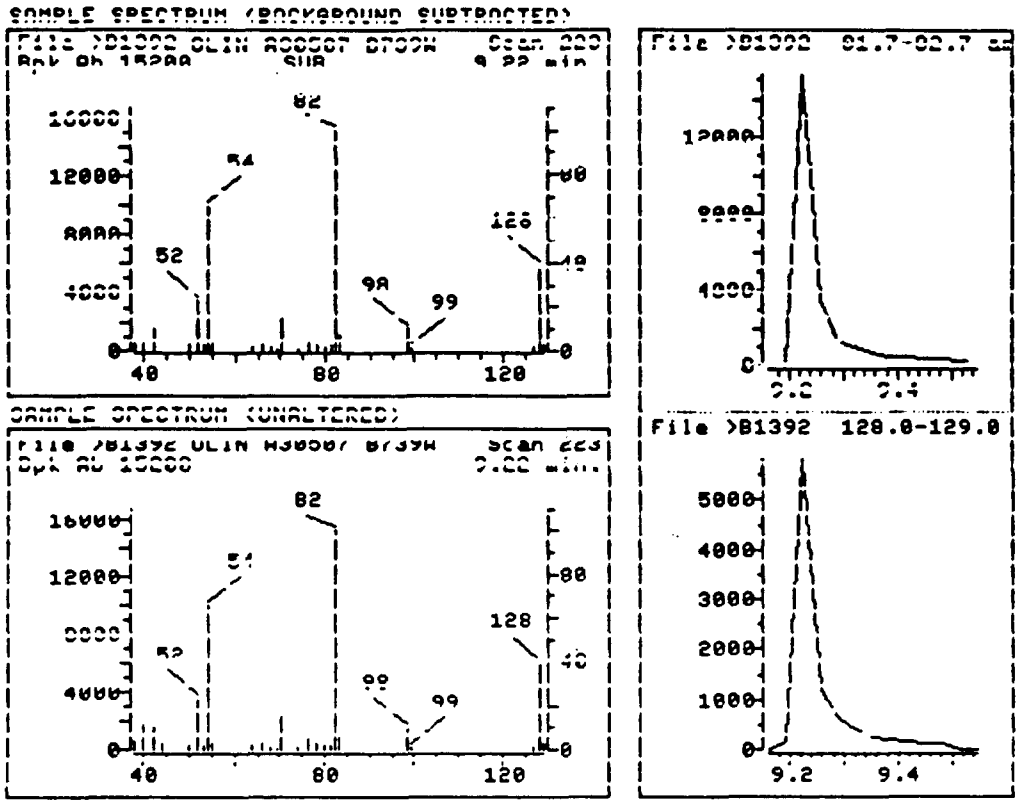


Data File: >B1392::D1
Name: OLIN A30507 B739W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 12:18
Injected at: 871222 11:42

Quant Output File: ^B1392::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 274
Retention Time: 10.87 min.
Quant Ion: 136.0
Area: 50220
Concentration: 40.00 ng/uL
q-value: 87

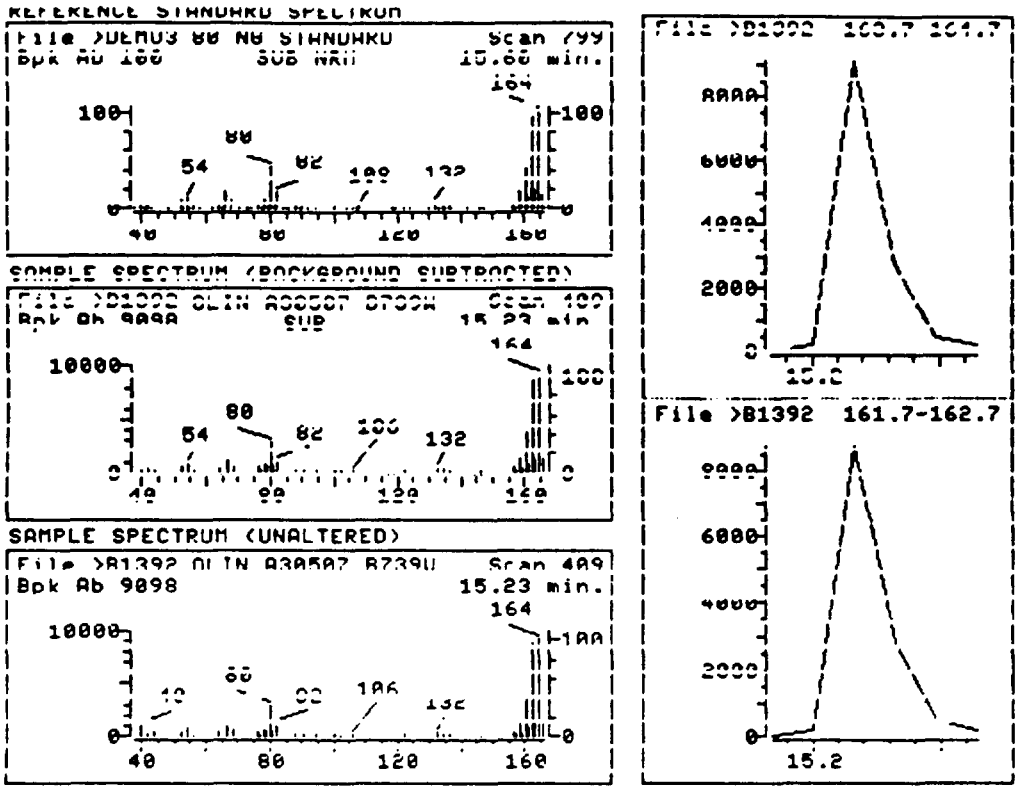


Data File: >B1392::D1
Name: DLIN A30507 B739W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 12:18
Injected at: 871222 11:42

Quant Output File: ^B1392::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 223
Retention Time: 9.22 min.
Quant Ion: 82.0
Area: 46440
Concentration: 32.63 ng/uL
q-value: 99

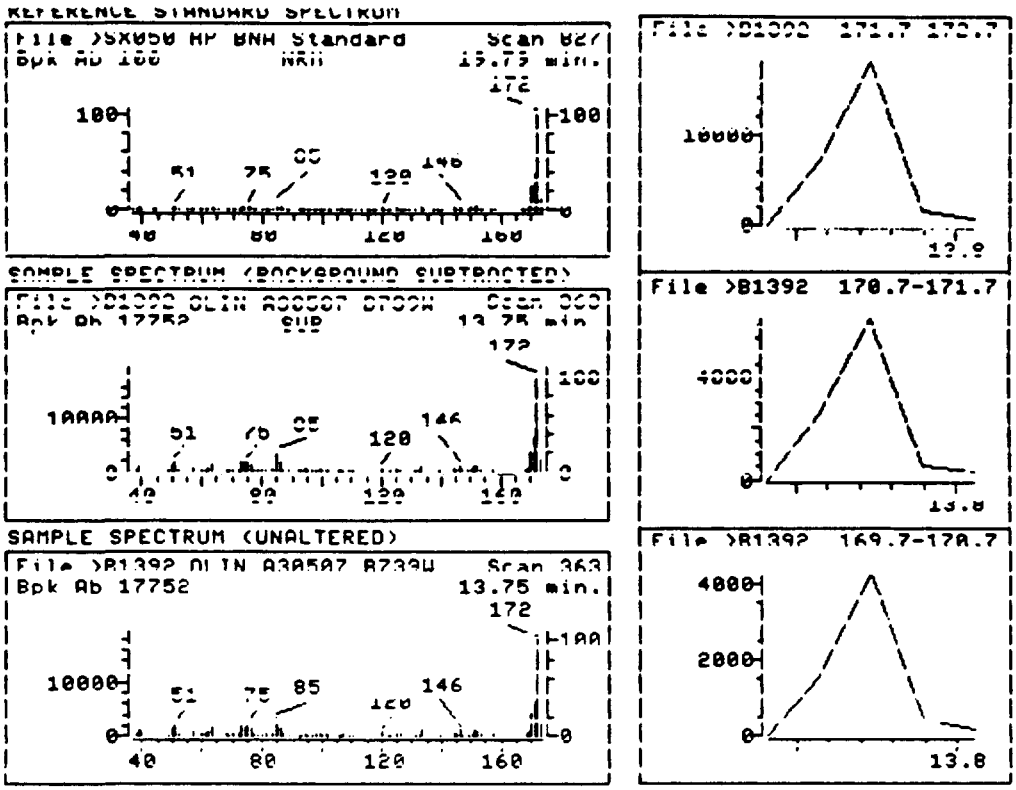


Data File: >B1392::D1
Name: OLIN A30507 B739W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 12:18
Injected at: 871222 11:42

Quant Output File: ^B1392::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 409
Retention Time: 15.23 min.
Quant Ion: 164.0
Area: 24837
Concentration: 40.00 ng/uL
q-value: 96

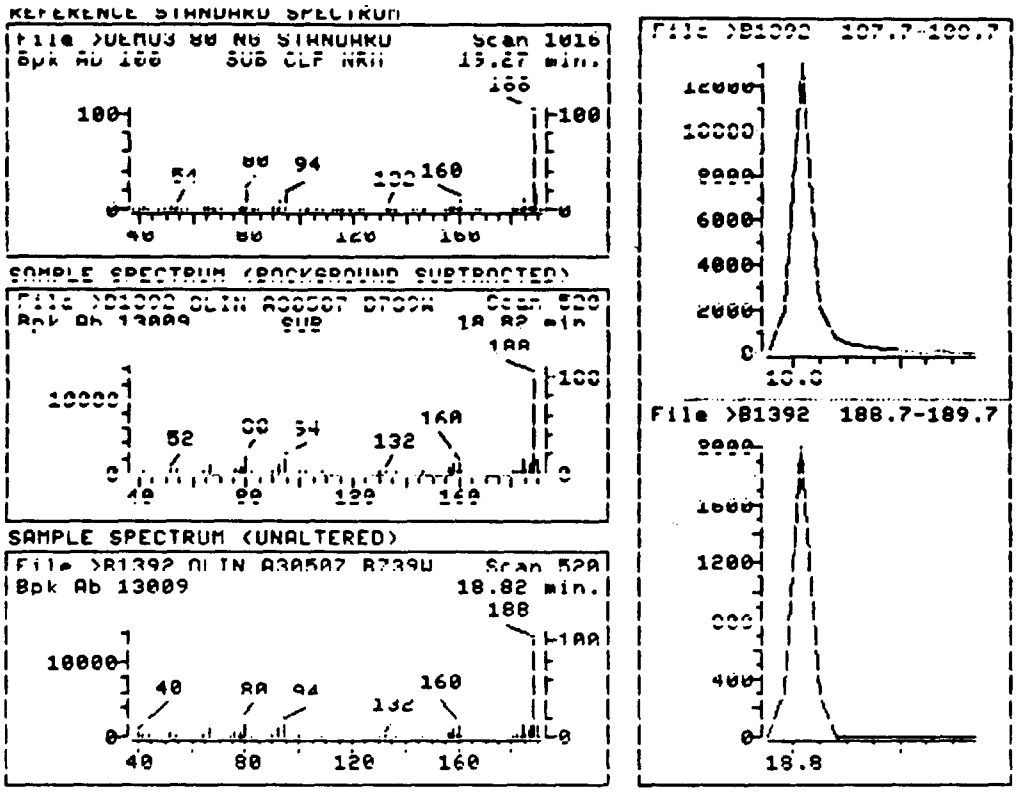


Data File: >B1392::D1
Name: OLIN A30507 B739W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 12:18
Injected at: 871222 11:42

Quant Output File: ^B1392::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 363
Retention Time: 13.75 min.
Quant Ion: 172.0
Area: 52507
Concentration: 33.05 ng/uL
q-value: 94

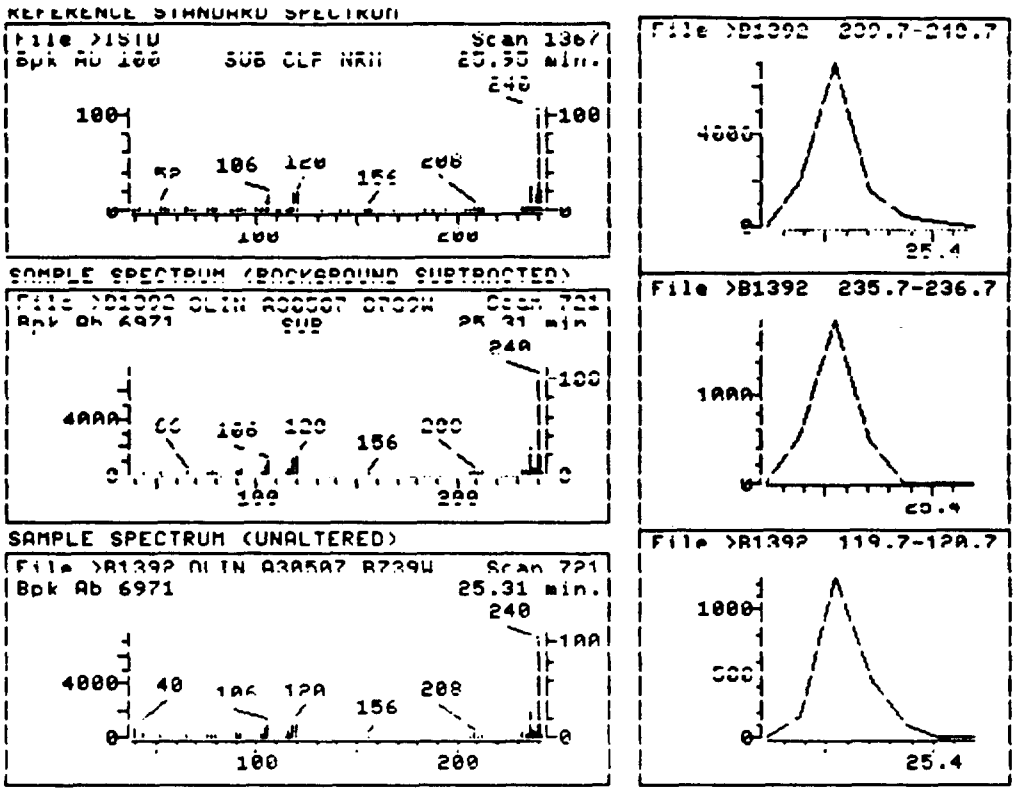


Data File: >B1392::D1
Name: OLIN A30507 B739W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 12:18
Injected at: 871222 11:42

Quant Output File: ^B1392::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 520
Retention Time: 18.82 min.
Quant Ion: 188.0
Area: 36891
Concentration: 40.00 ng/uL
c-value: 99

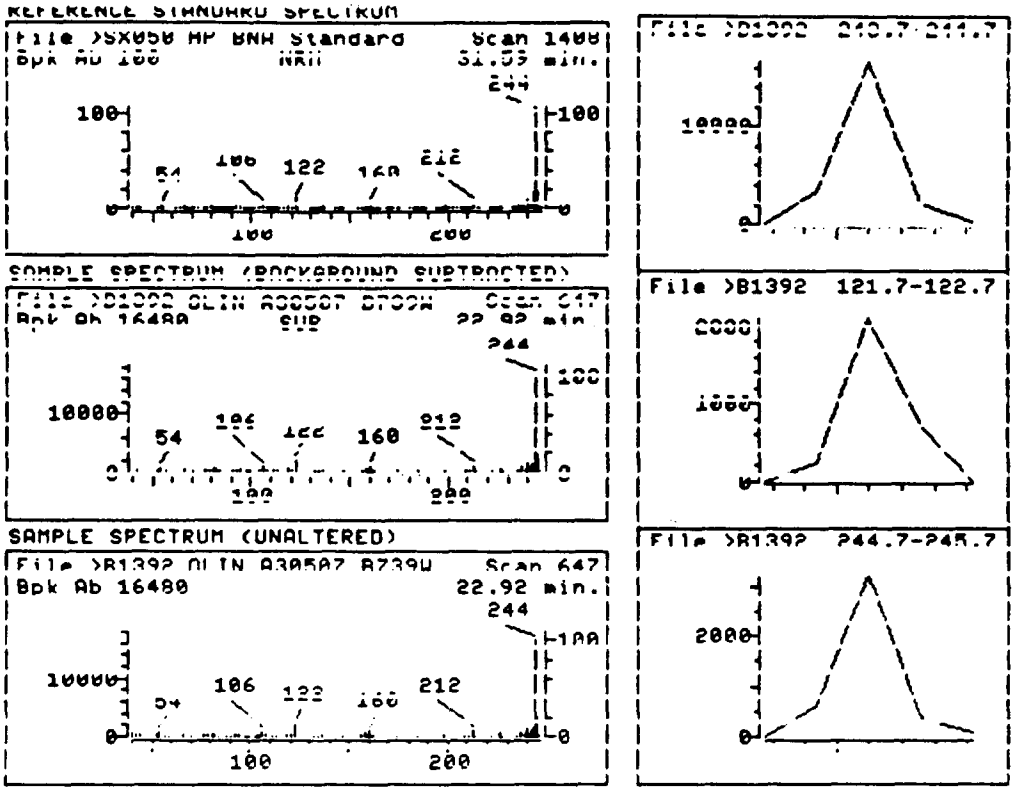


Data File: >B1392::D1
Name: OLIN A30507 B739W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 12:18
Injected at: 871222 11:42

Quant Output File: ^B1392::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 721
Retention Time: 25.31 min.
Quant Ion: 240.0
Area: 21362
Concentration: 40.00 ng/uL
q-value: 94

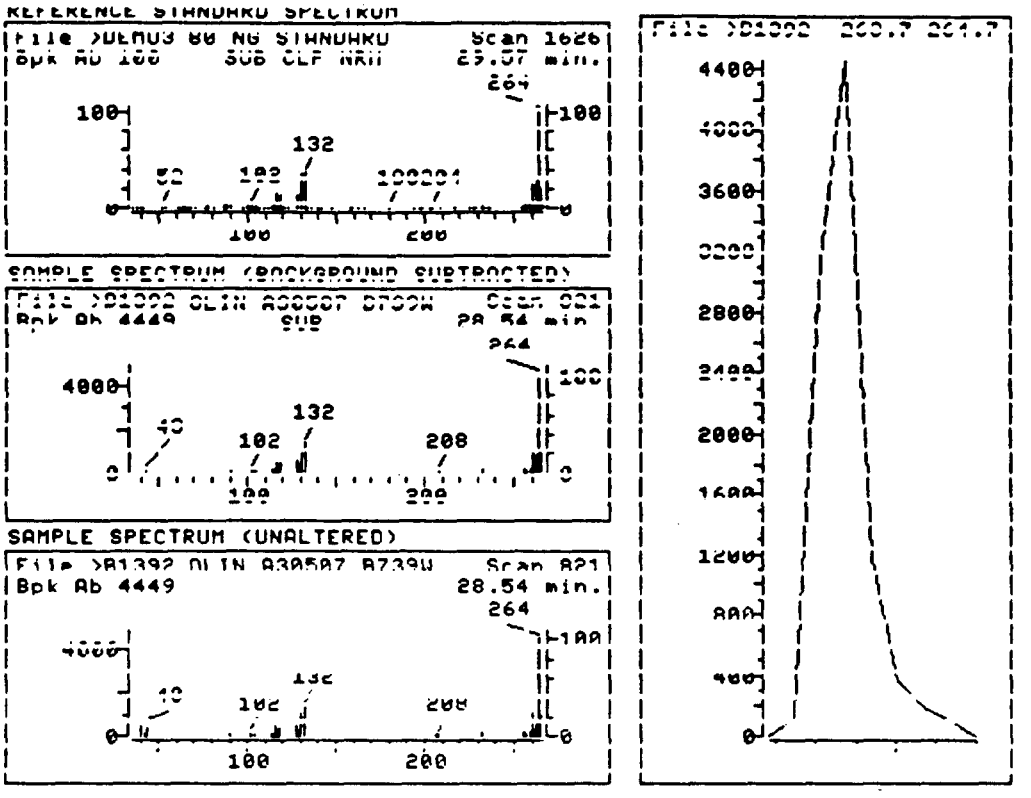


Data File: >B1392::D1
Name: OLIN A30507 B739W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 12:18
Injected at: 871222 11:42

Quant Output File: ^B1392::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 647
Retention Time: 22.92 min.
Quant Ion: 244.0
Area: 43432
Concentration: 43.09 ng/uL
q-value: 87



Data File: >B1392::D1
Name: OLIN A30507 B739W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 12:18
Injected at: 871222 11:42

Quant Output File: ^B1392::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 821
Retention Time: 28.54 min.
Quant Ion: 264.0
Area: 18545
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT
This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18819

CC: Paul Klotz

BCM Number : A30531
Location : 537
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	0.35	mg/kg	EPA # 8250
1,4-Dichlorobenzene	0.33	mg/kg	
Hexachlorobenzene	31.5	mg/kg	
Pentachloronitrobenzene	5.72	mg/kg	
Mercury	0.4	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/22/87	M/D/Y	
pH	9.3	std.un	
Specific Gravity	---------		
Total Solids	---------	%	

QUANT REPORT

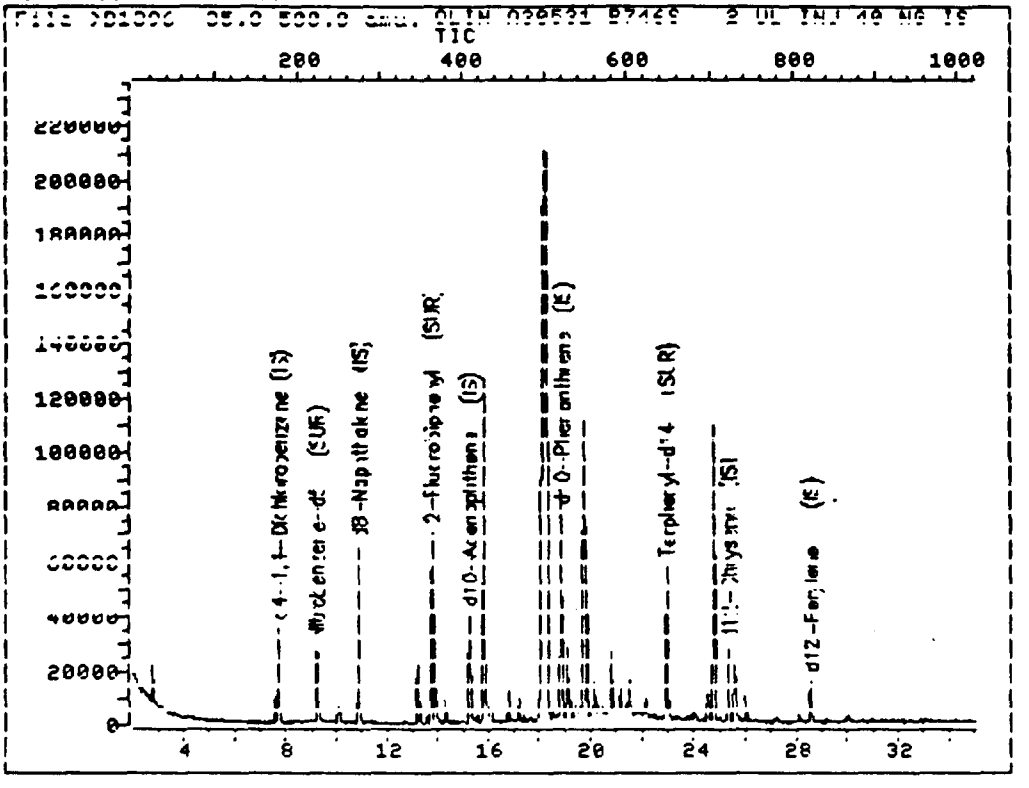
Operator ID: USER6 Quant Rev: 6 Quant Time: 871222 15:23
Output File: ^B1396::QT Injected at: 871222 14:39
Data File: >B1396::D1 Dilution Factor: .10000
Name: OLIN A30531 B746S
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.74	177	16739	40.00	ng/uL	88
8)	1,4-Dichlorobenzene	7.77	178	4022	.33	ng/uL	90
10)	1,2-Dichlorobenzene	7.77	178	4022	.35	ng/uL	91
16)	*d8-Naphthalene (IS)	10.91	275	62810	40.00	ng/uL	88
17)	Nitrobenzene-d5 (SUR)	9.23	223	42922	2.41	ng/uL	83
31)	*d10-Acenaphthene (IS)	15.27	410	35471	40.00	ng/uL	99
36)	2-Fluorobiphenyl (SUR)	13.78	364	72853	3.21	ng/uL	93
51)	*d10-Phenanthrene (IS)	18.89	522	55127	40.00	ng/uL	98
56)	Pentachloronitrobenzene	18.86	521	10583	5.72	ng/uL	100
57)	Hexachlorobenzene	18.21	501	268087	31.48	ng/uL	96
63)	*d12-Chrysene (IS)	25.35	722	31420	40.00	ng/uL	97
65)	Terphenyl-d14 (SUR)	22.96	648	73670	4.97	ng/uL	84
71)	*d12-Perylene (IS)	28.58	822	17595	40.00	ng/uL	100

* Compound is ISTD

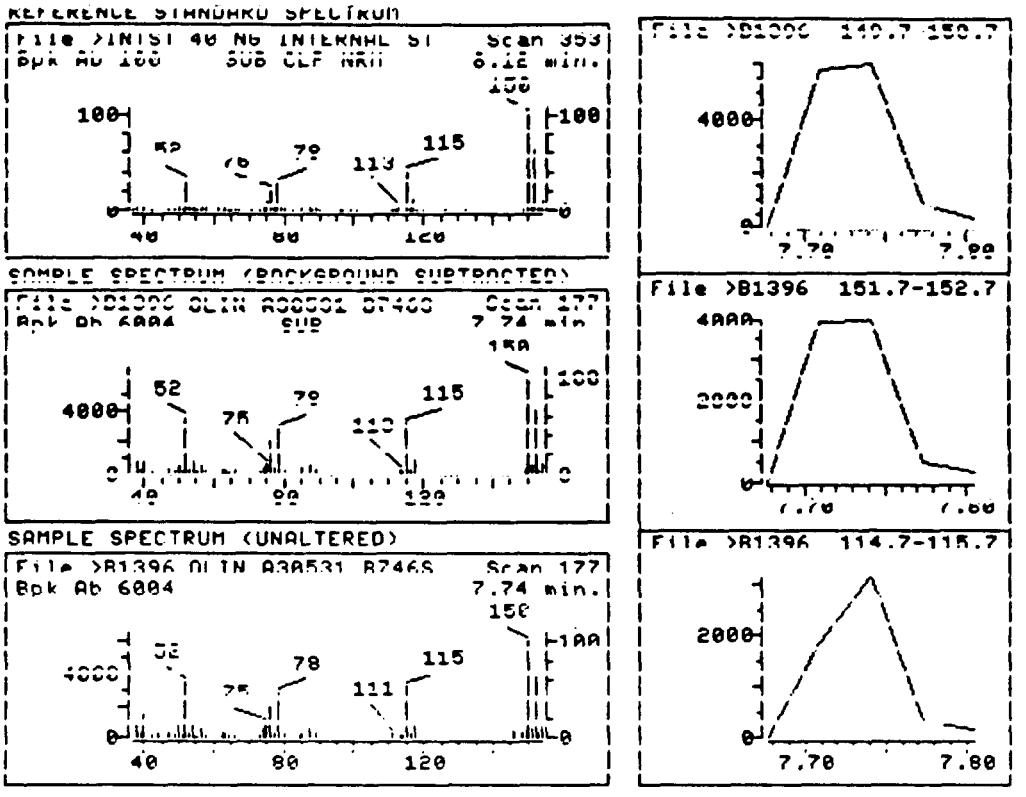
TOTAL ION CHROMATOGRAM



Data File: >B1396::D1 Quant Output File: ^B1396::QT
Name: OLIN A30531 B746S
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

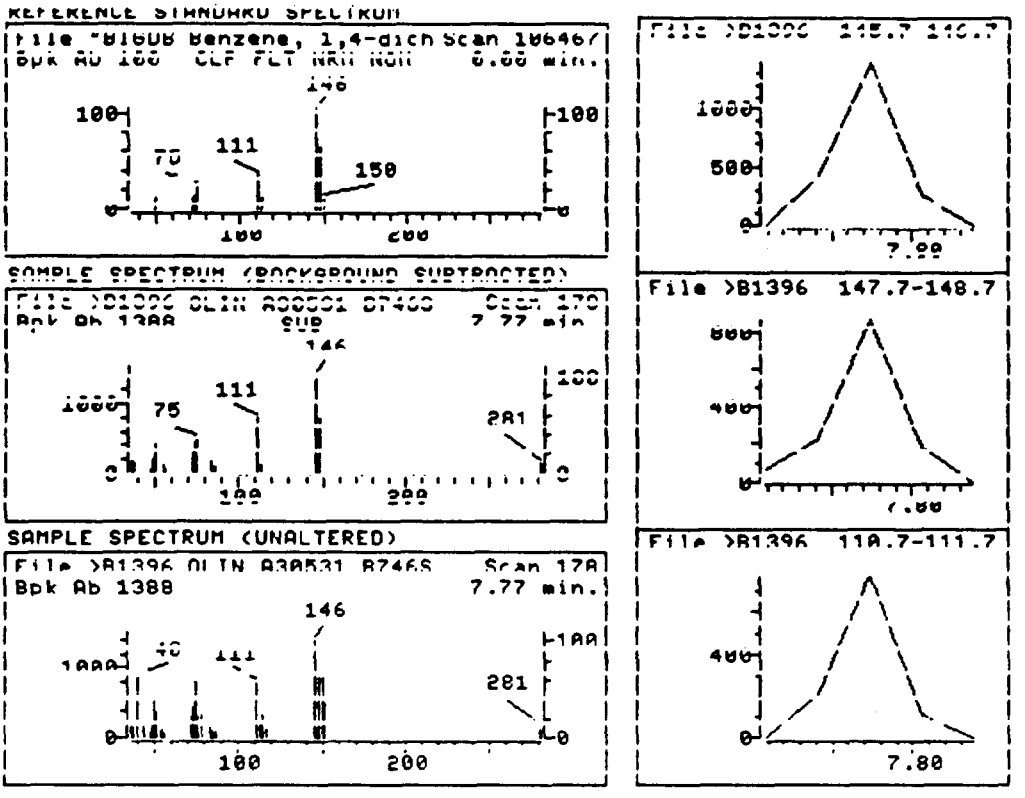
Operator ID: USER6
Quant Time: 871222 15:23
Injected at: 871222 14:39



Data File: >B1396::D1
Name: OLIN A30531 B746S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 15:23
Injected at: 871222 14:39

Quant Output File: ^B1396::QT
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 177
Retention Time: 7.74 min.
Quant Ion: 152.0
Area: 16739
Concentration: 40.00 ng/uL
q-value: 88



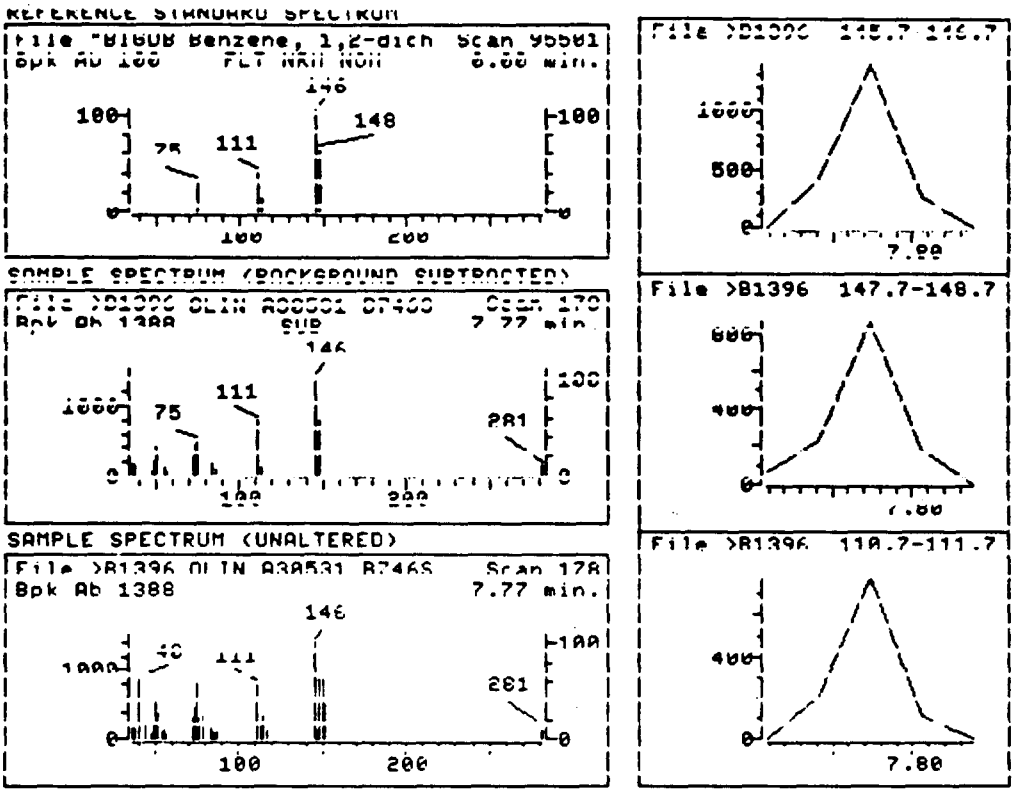
Data File: >B1396::D1
Name: OLIN A30531 B746S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 15:23
Injected at: 871222 14:39

Quant Output File: ^B1396::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 8
Compound Name: 1,4-Dichlorobenzene
Scan Number: 178
Retention Time: 7.77 min.
Quant Ion: 146.0
Area: 4022
Concentration: .33 ng/uL
Q-value: 90

ok



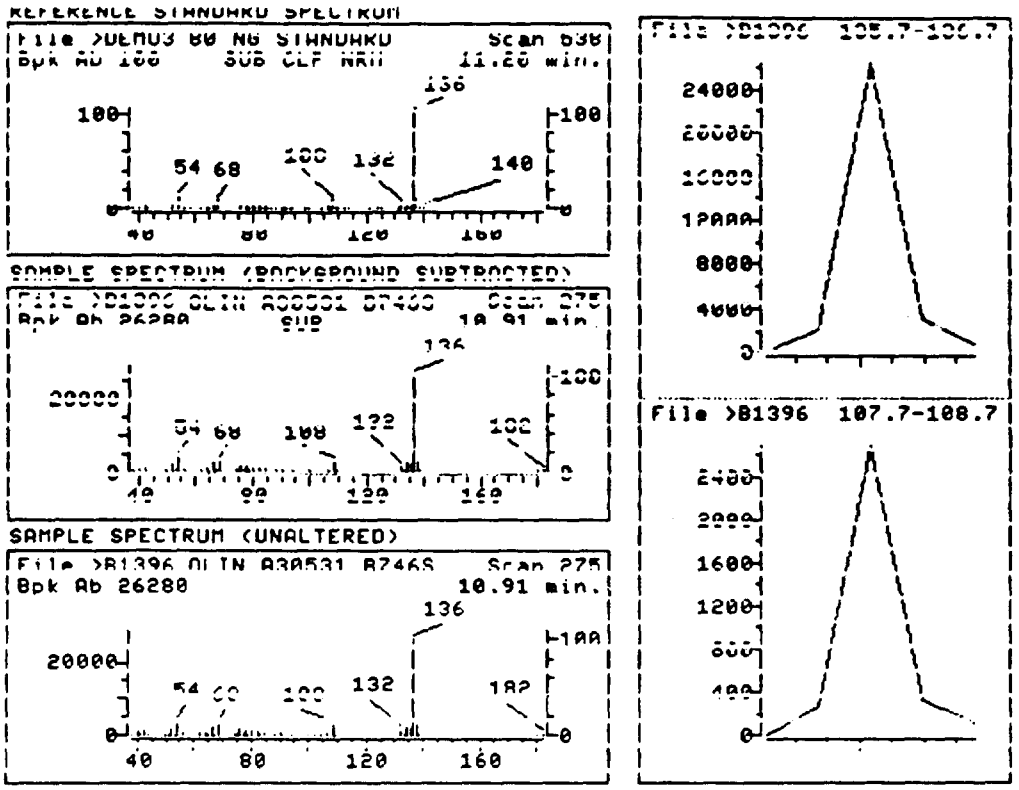
Data File: >B1396::D1
Name: DLIN A30531 B746S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 15:23
Injected at: 871222 14:39

Quant Output File: ^B1396::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 10
Compound Name: 1,2-Dichlorobenzene
Scan Number: 178
Retention Time: 7.77 min.
Quant Ion: 146.0
Area: 4022
Concentration: .35 ng/uL
q-value: 91

ok



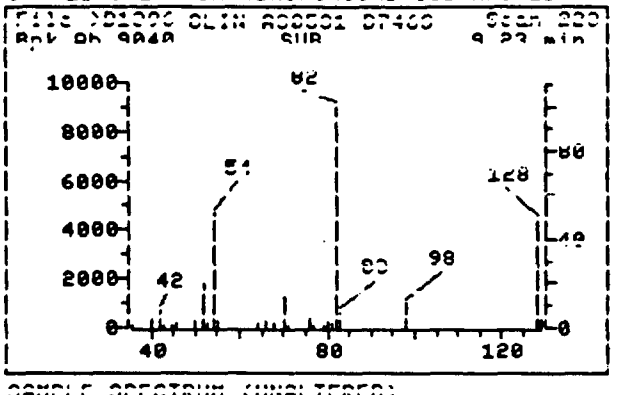
Data File: >B1396::D1
Name: OL IN A30531 B746S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 15:23
Injected at: 871222 14:39

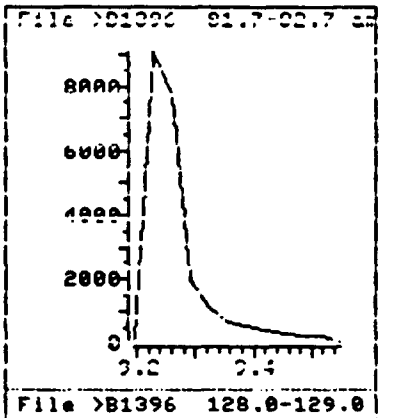
Quant Output File: ^B1396::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

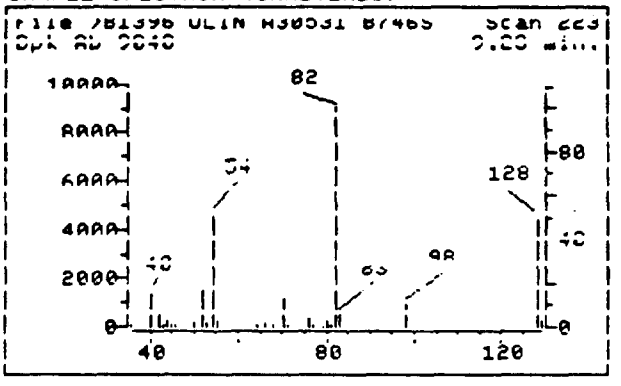
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 275
Retention Time: 10.91 min.
Quant Ion: 136.0
Area: 62810
Concentration: 40.00 ng/uL
q-value: 88

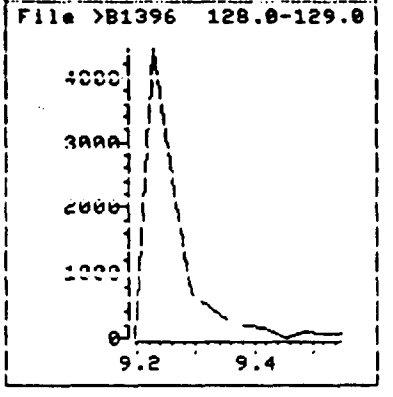
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



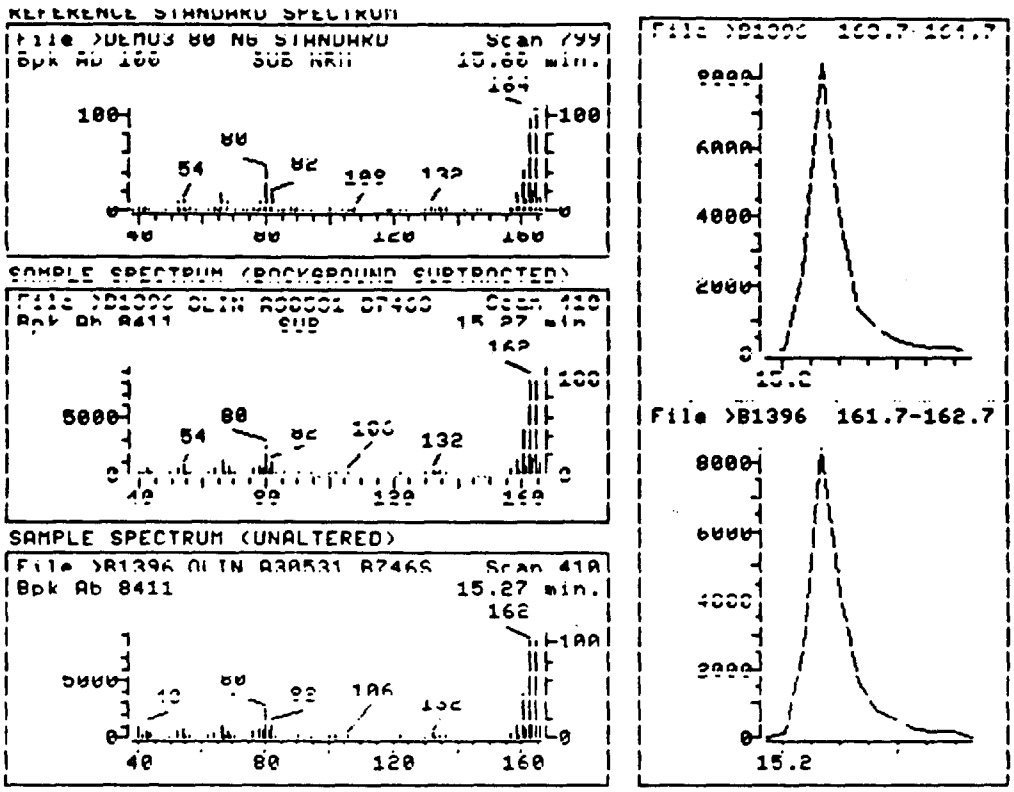


Data File: >B1396::D1
Name: OLIN A30531 B746S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 15:23
Injected at: 871222 14:39

Quant Output File: ^B1396::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 223
Retention Time: 9.23 min.
Quant Ion: 82.0
Area: 42922
Concentration: 2.41 ng/uL
q-value: 83

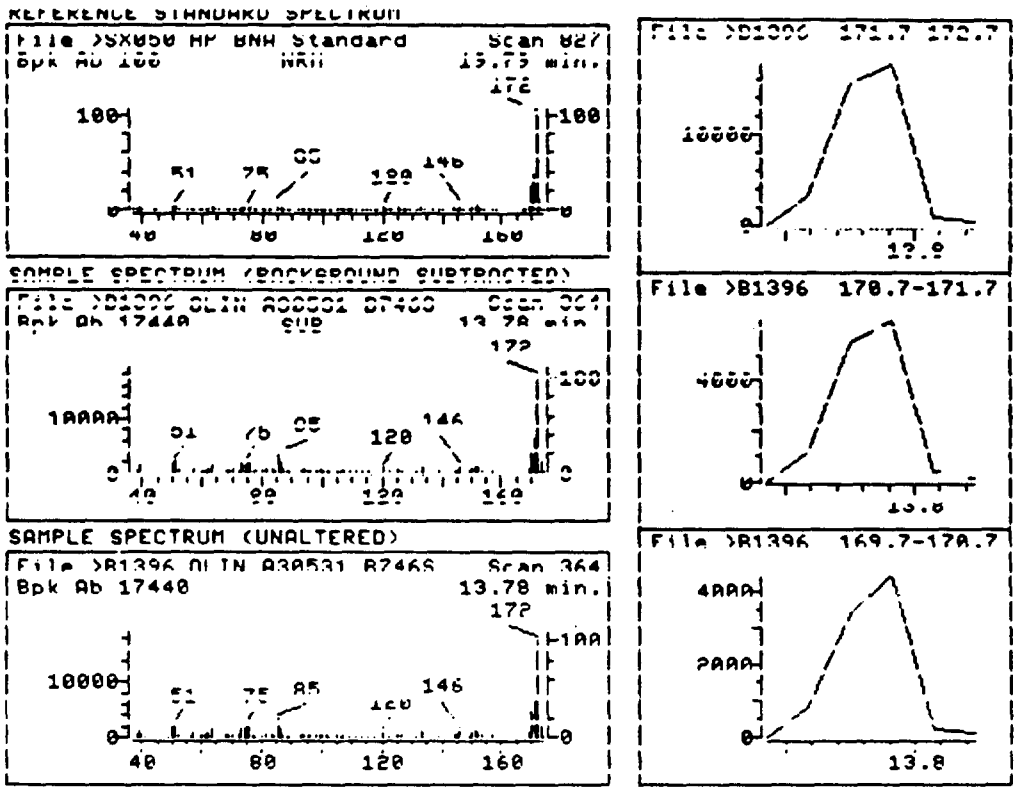


Data File: >B1396::D1
Name: DLIN A30531 B746S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 15:23
Injected at: 871222 14:39

Quant Output File: ^B1396::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 410
Retention Time: 15.27 min.
Quant Ion: 164.0
Area: 35471
Concentration: 40.00 ng/uL
q-value: 99

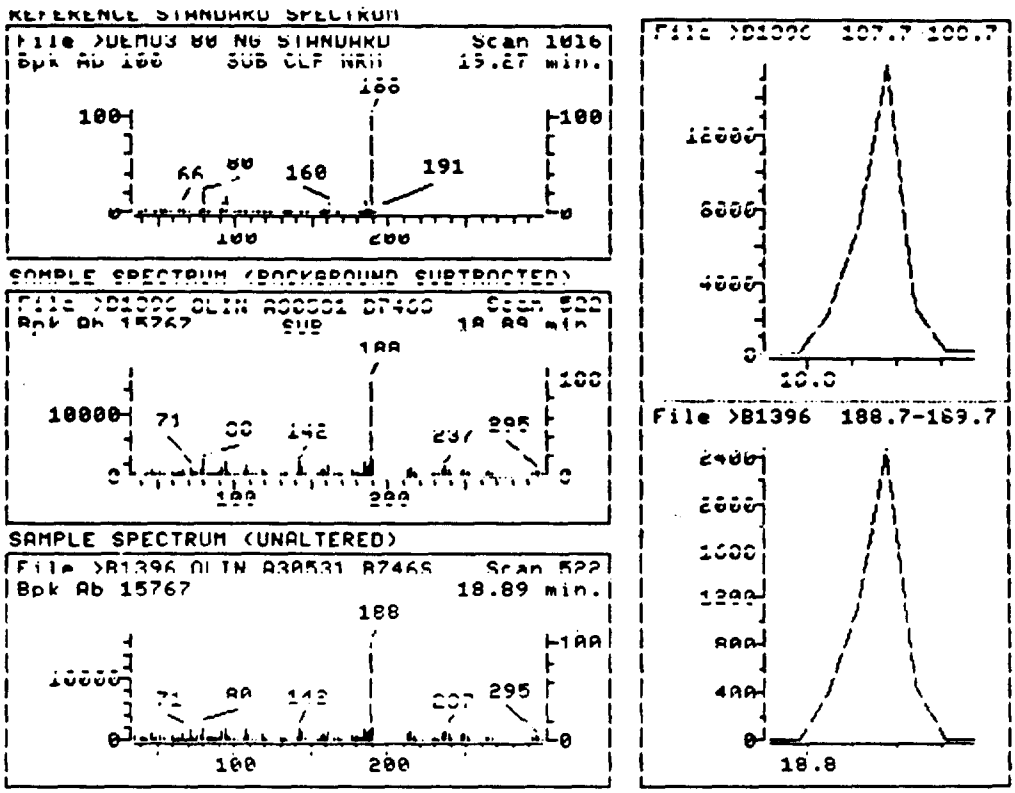


Data File: >B1396::D1
Name: OLIN A30531 B746S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 15:23
Injected at: 871222 14:39

Quant Output File: ^B1396::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 364
Retention Time: 13.78 min.
Quant Ion: 172.0
Area: 72853
Concentration: 3.21 ng/uL
q-value: 93

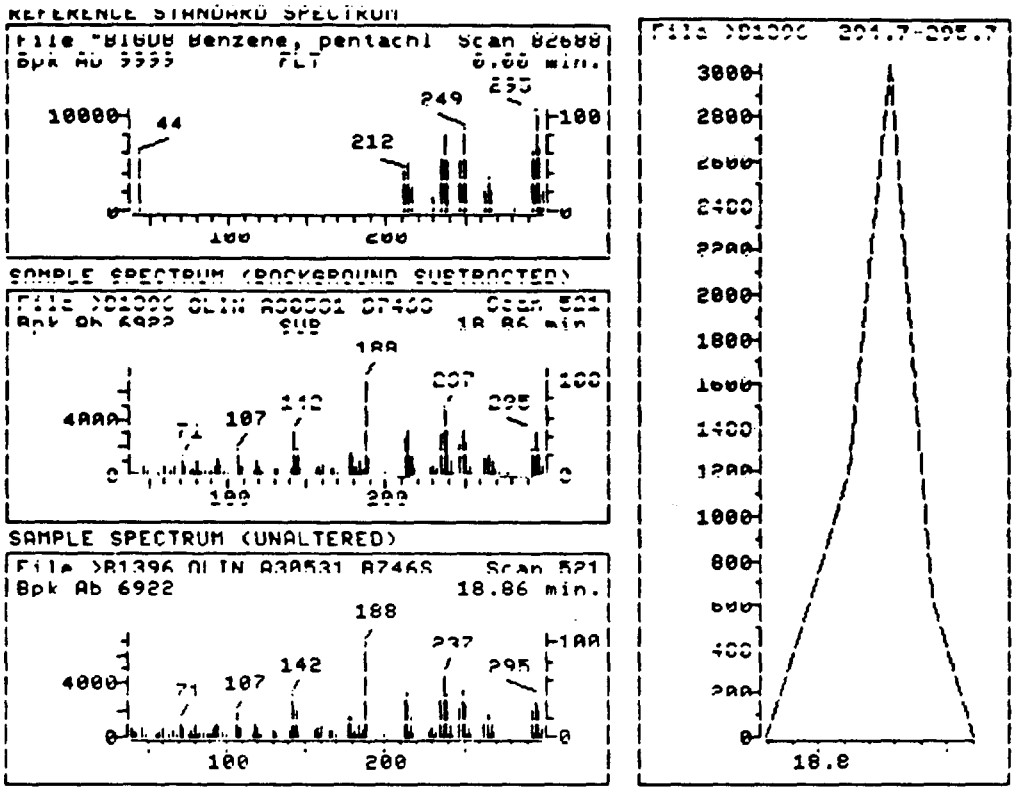


Data File: >B1396::D1
Name: OLIN A30531 B746S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 15:23
Injected at: 871222 14:39

Quant Output File: ^B1396::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 522
Retention Time: 18.89 min.
Quant Ion: 188.0
Area: 55127
Concentration: 40.00 ng/uL
q-value: 98

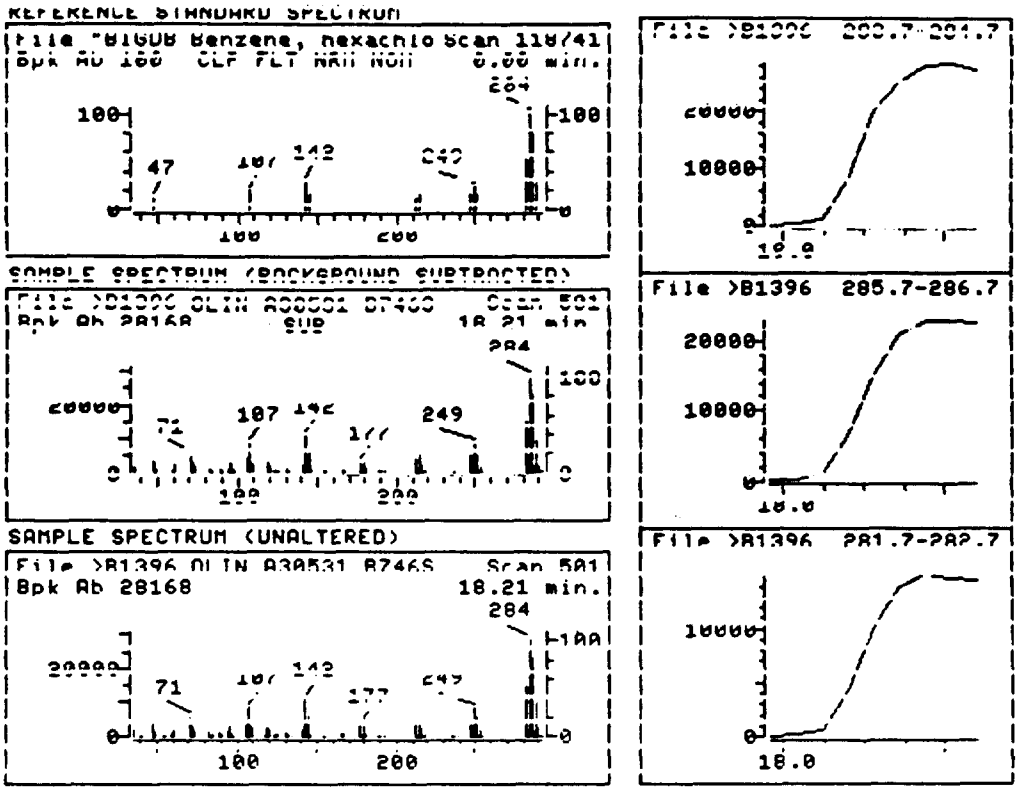


Data File: >B1396::D1
Name: OLIN A30531 B746S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 15:23
Injected at: 871222 14:39

Quant Output File: ^B1396::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 56
Compound Name: Pentachloronitrobenzene
Scan Number: 521
Retention Time: 18.86 min.
Quant Ion: 295.0
Area: 10583
Concentration: 5.72 ng/uL
q-value: 100

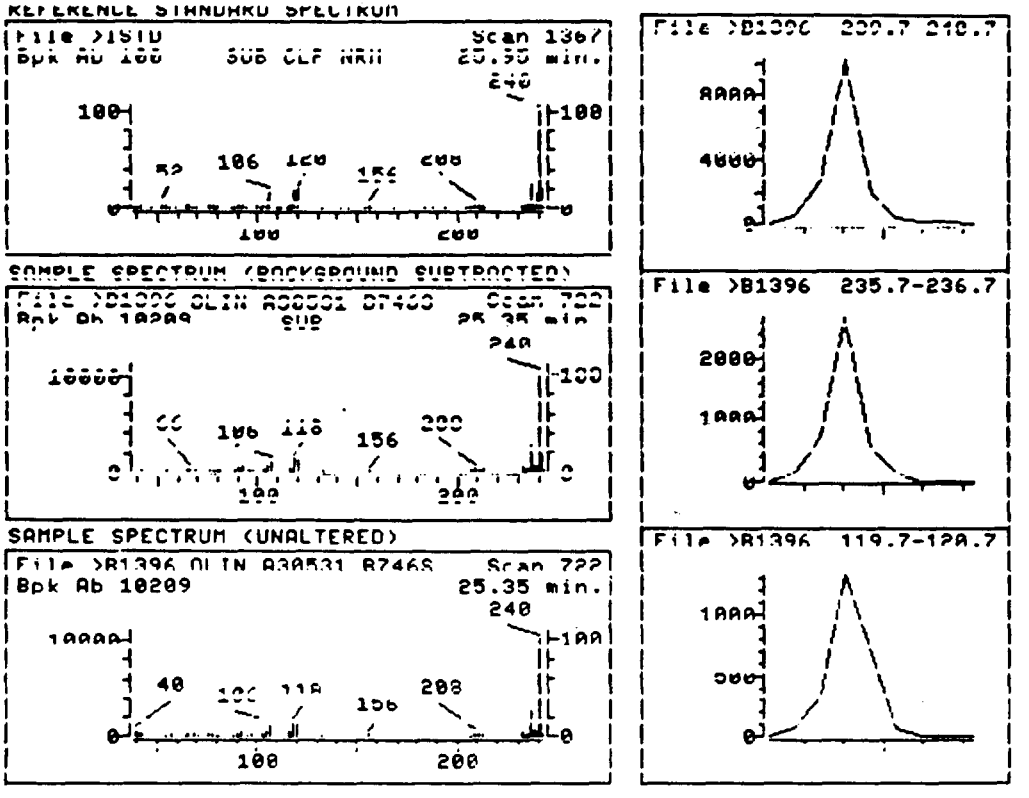


Data File: >B1396::D1
Name: OLIN A30531 B746S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 15:23
Injected at: 871222 14:39

Quant Output File: ^B1396::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 57
Compound Name: Hexachlorobenzene
Scan Number: 501
Retention Time: 18.21 min.
Quant Ion: 284.0
Area: 268087
Concentration: 31.48 ng/uL
q-value: 96

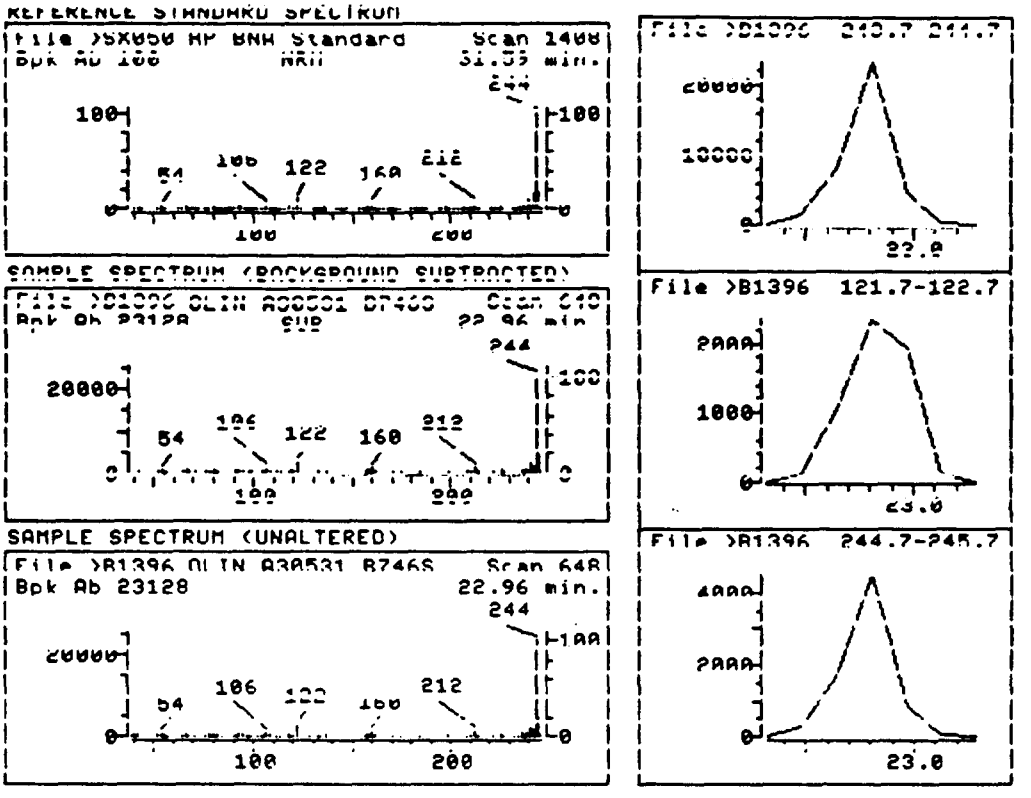


Data File: >B1396::D1
Name: OLIN A30531 B746S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 15:23
Injected at: 871222 14:39

Quant Output File: ^B1396::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 722
Retention Time: 25.35 min.
Quant Ion: 240.0
Area: 31420
Concentration: 40.00 ng/uL
q-value: 97

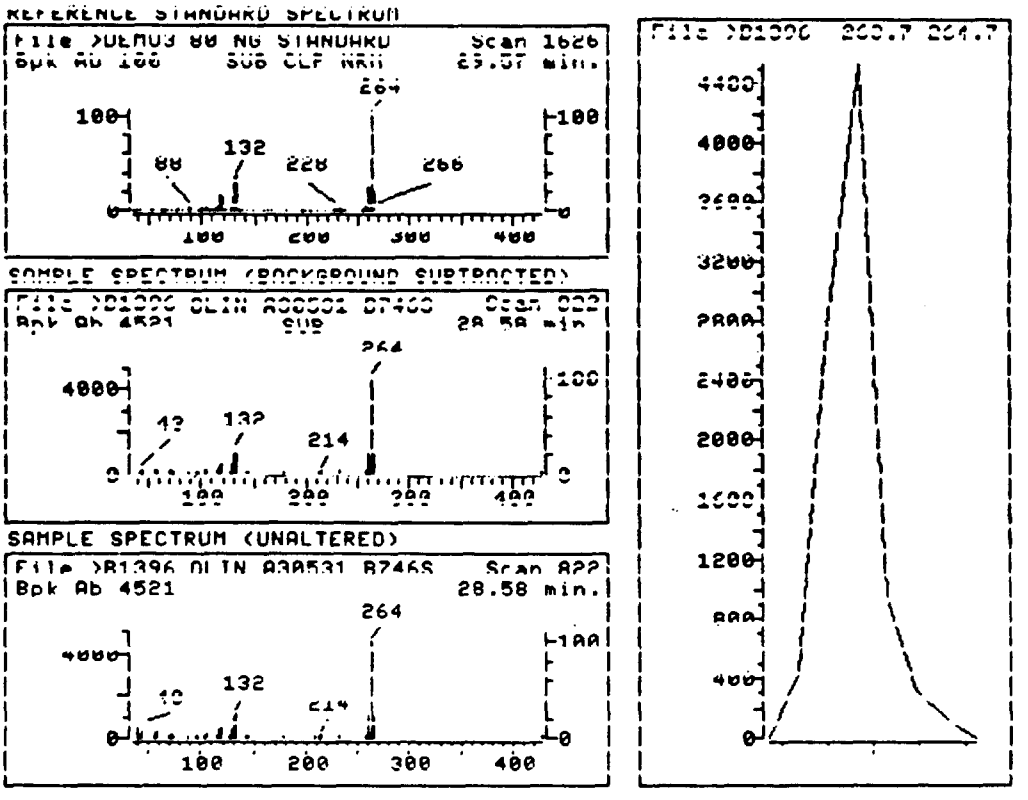


Data File: >B1396::D1
Name: OLIN A30531 B746S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 15:23
Injected at: 871222 14:39

Quant Output File: ^B1396::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 648
Retention Time: 22.96 min.
Quant Ion: 244.0
Area: 73670
Concentration: 4.97 ng/uL
q-value: 84



Data File: >B1396::D1
Name: OLIN A30531 B746S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 15:23
Injected at: 871222 14:39

Quant Output File: ^B1396::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 822
Retention Time: 28.58 min.
Quant Ion: 264.0
Area: 17595
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18822

CC: Paul Klotz

BCM Number : A30511
Location : 267
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	< 0.66	mg/kg	
Pentachloronitrobenzene	< 0.66	mg/kg	
Mercury	2.55	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/15/87	M/D/Y	
pH	7.9	std.un	
Specific Gravity	---------		
Total Solids	---------	%	

QUANT REPORT

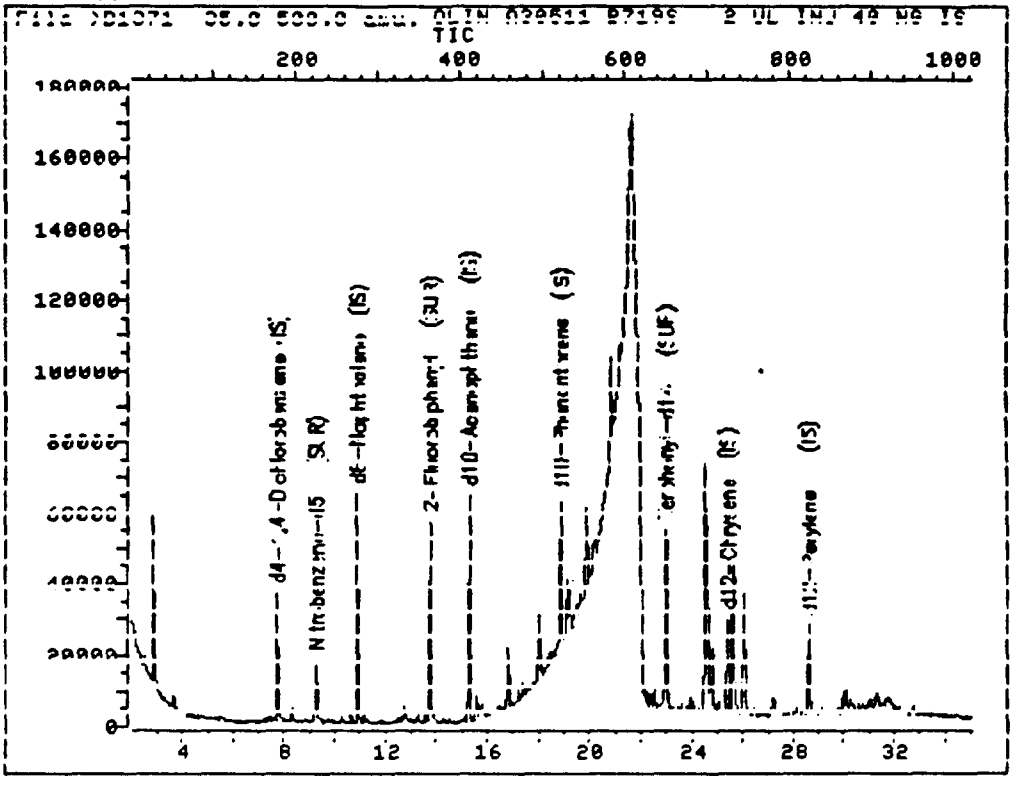
Operator ID: USER6 Quant Rev: 6 Quant Time: 871221 07:18
Output File: ^B1371::QT Injected at: 871218 16:03
Data File: >B1371::D1 Dilution Factor: .20000
Name: OLIN A30511 B719S
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.76	178	16235	40.00	ng/uL	89
16)	*d8-Naphthalene (IS)	10.92	276	67438	40.00	ng/uL	89
17)	Nitrobenzene-d5 (SUR)	9.27	225	20898	2.19	ng/uL	94
31)	*d10-Acenaphthene (IS)	15.32	412	37001	40.00	ng/uL	93
36)	2-Fluorobiphenyl (SUR)	13.80	365	49797	4.21	ng/uL	95
51)	*d10-Phenanthrene (IS)	18.90	523	52421	40.00	ng/uL	99
63)	*d12-Chrysene (IS)	25.43	725	40429	40.00	ng/uL	93
65)	Terphenyl-d14 (SUR)	23.01	650	80695	8.46	ng/uL	86
71)	*d12-Perylene (IS)	28.63	824	29072	40.00	ng/uL	100

* Compound is ISTD

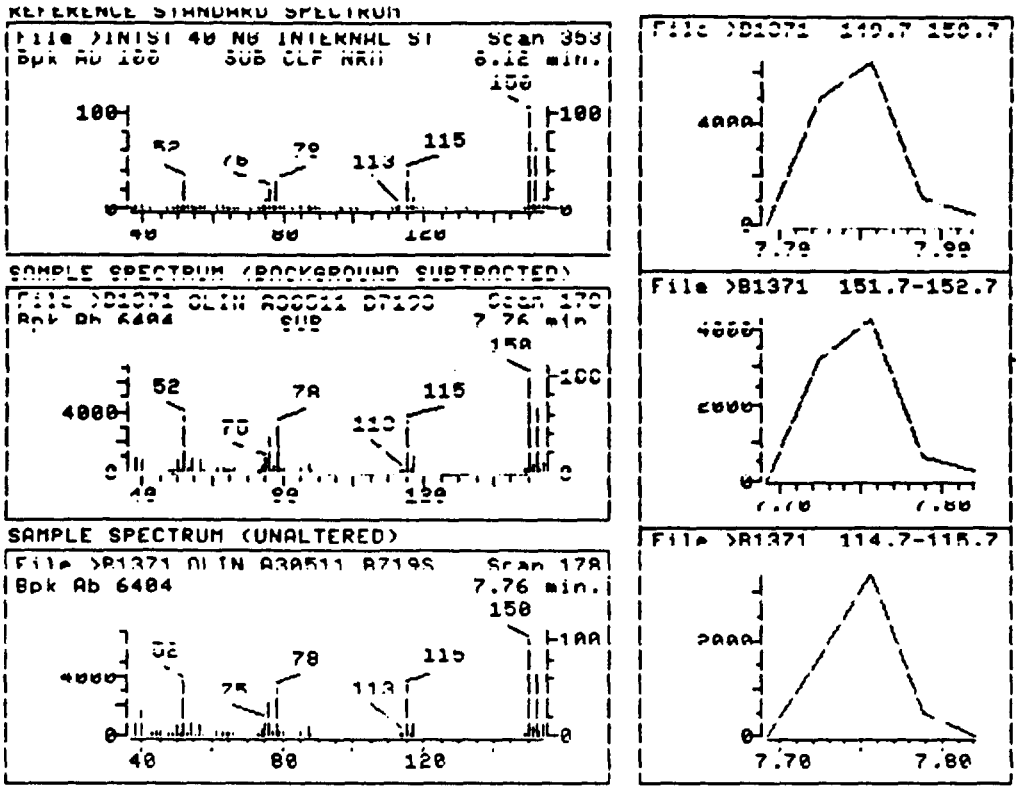
TOTAL ION CHROMOTOGRAM



Data File: >B1371::D1 Quant Output File: ^B1371::QT
Name: OL IN A30511 B719S
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871221 07:18
Injected at: 871218 16:03

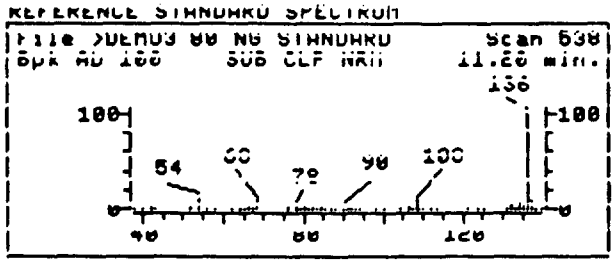


Data File: >B1371::D1
Name: OLIN A30511 B719S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 07:18
Injected at: 871218 16:03

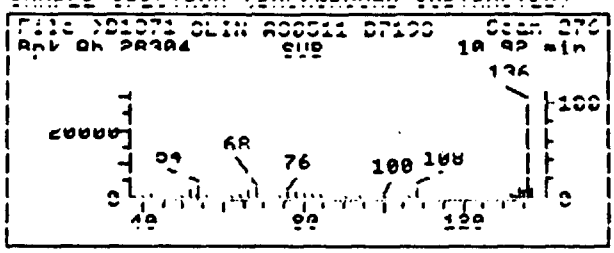
Quant Output File: ^B1371::QT
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 178
Retention Time: 7.76 min.
Quant Ion: 152.0
Area: 16235
Concentration: 40.00 ng/uL
q-value: 89

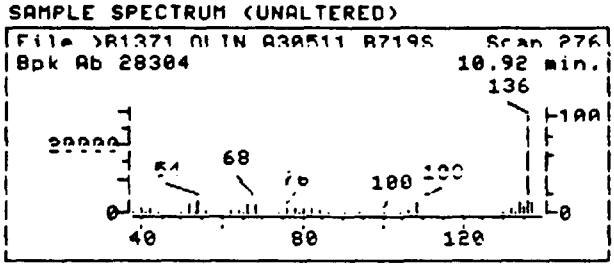
REFERENCE STANDARD SPECTRUM

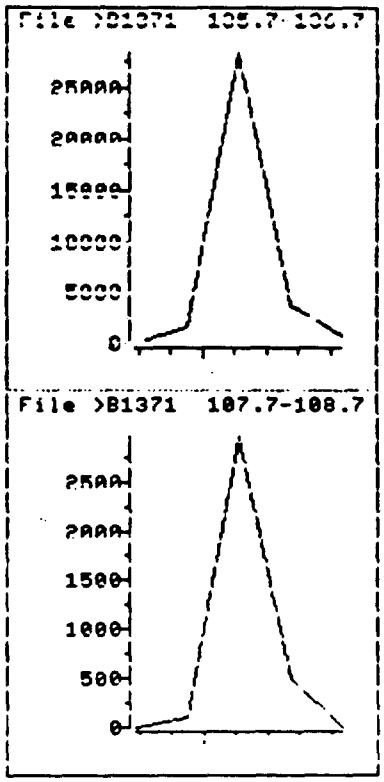


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



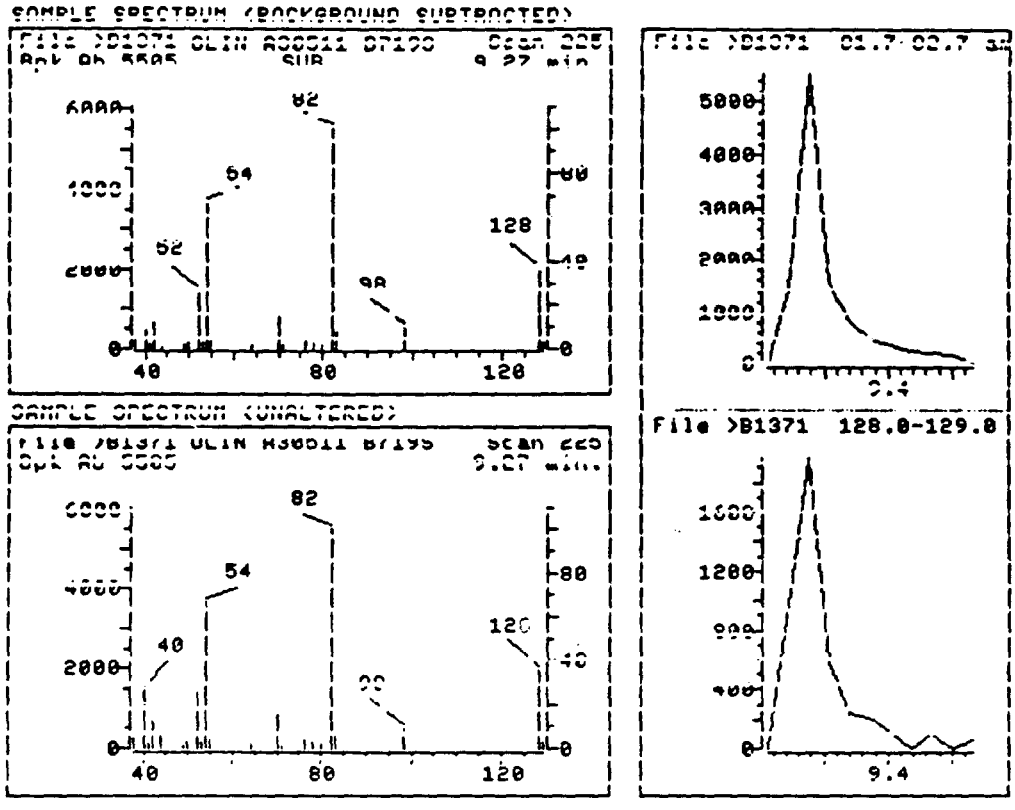


Data File: >B1371::D1
Name: OLIN A30511 8719S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 07:18
Injected at: 871218 16:03

Quant Output File: ^B1371::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 276
Retention Time: 10.92 min.
Quant Ion: 136.0
Area: 67438
Concentration: 40.00 ng/uL
q-value: 89

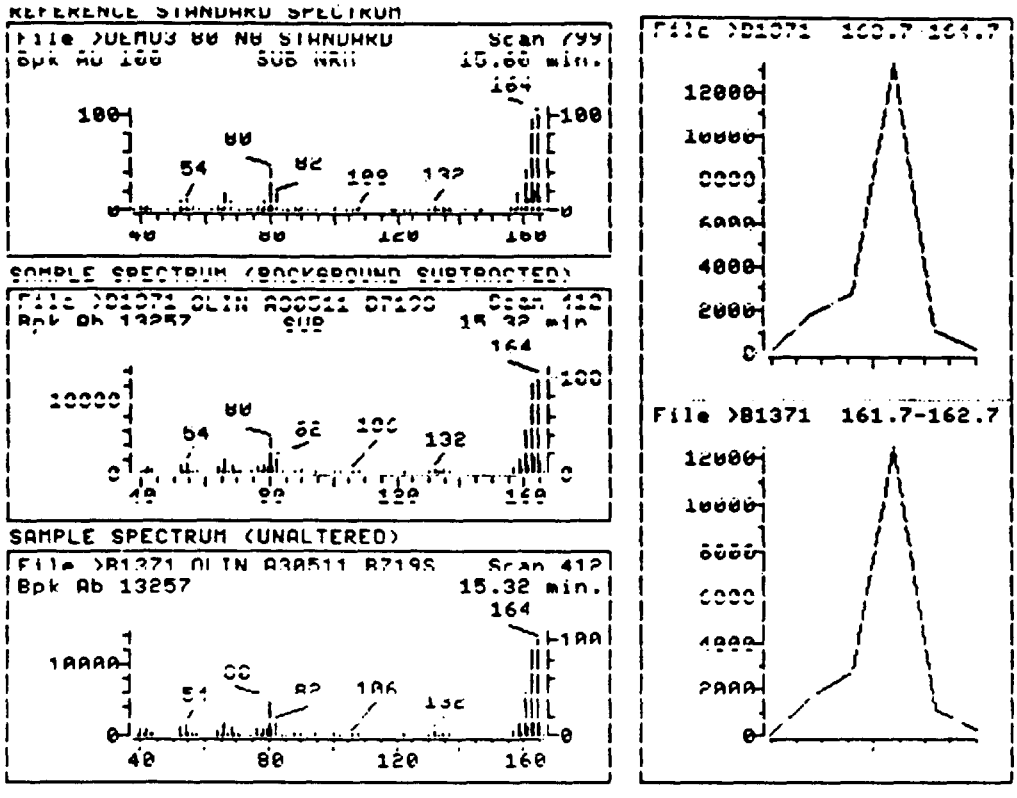


Data File: >B1371::D1
Name: OLIN A30511 B7195
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 07:18
Injected at: 871218 16:03

Quant Output File: ^B1371::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 225
Retention Time: 9.27 min.
Quant Ion: 82.0
Area: 20898
Concentration: 2.19 ng/uL
q-value: 94

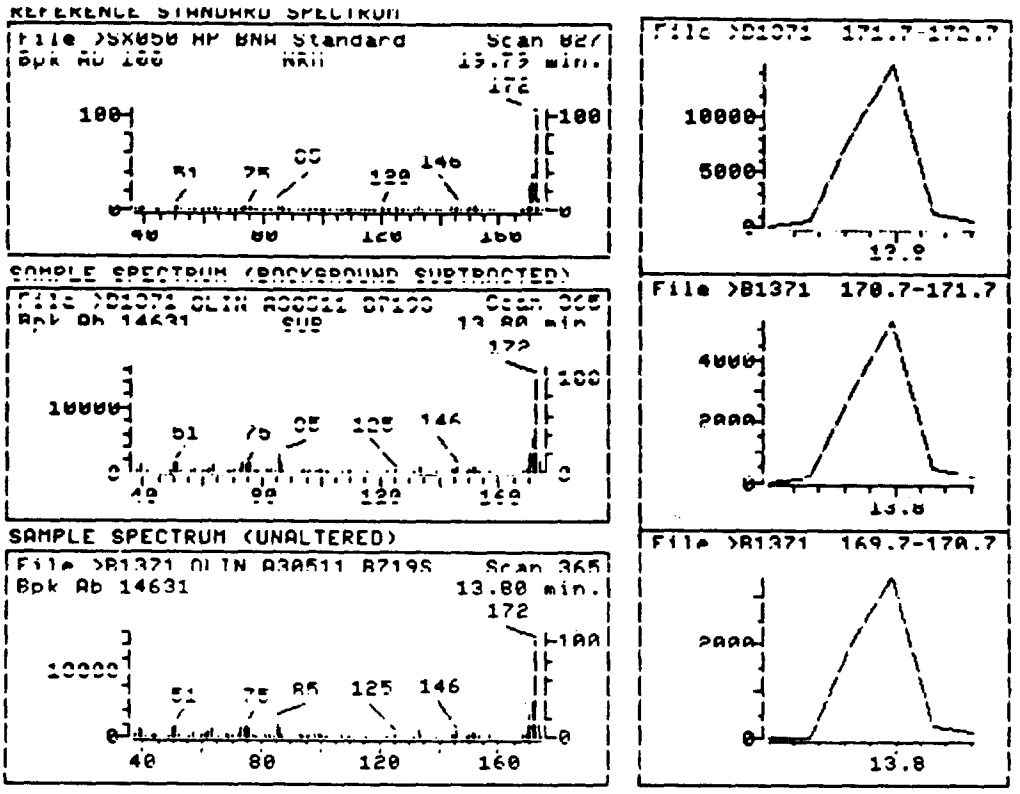


Data File: >B1371::D1
Name: DLIN A30511 B719S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 07:18
Injected at: 871218 16:03

Quant Output File: ^B1371::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 412
Retention Time: 15.32 min.
Quant Ion: 164.0
Area: 37001
Concentration: 40.00 ng/uL
q-value: 93

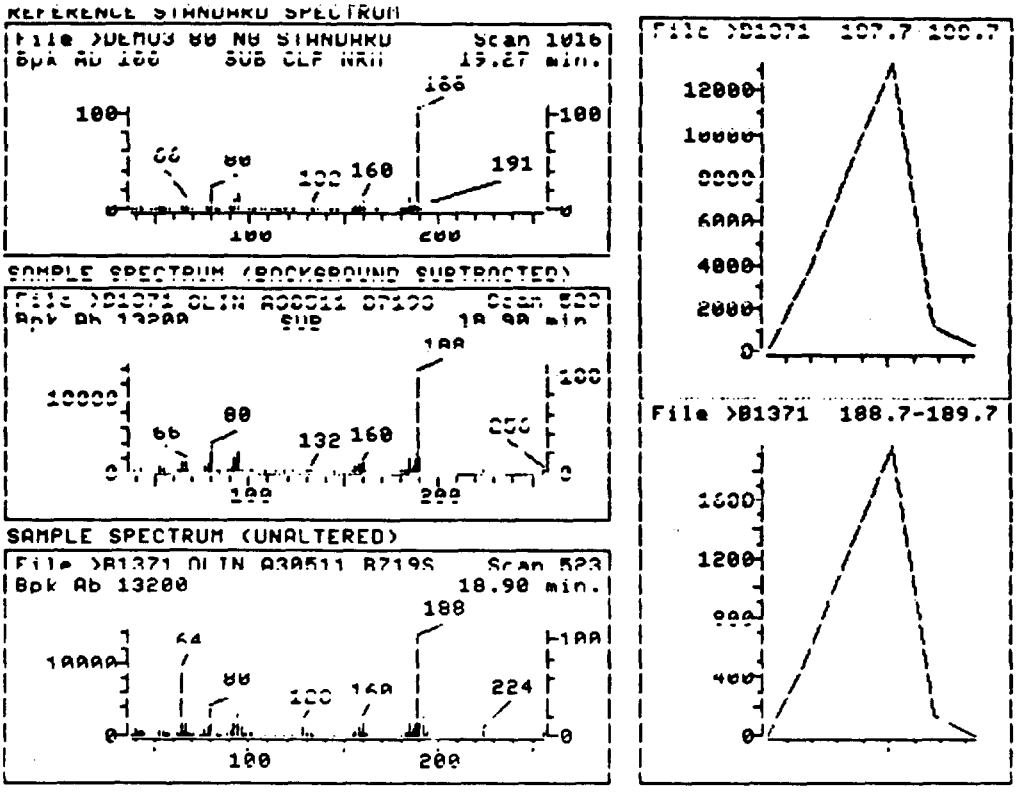


Data File: >B1371::D1
Name: OLIN A30511 B719S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 07:18
Injected at: 871218 16:03

Quant Output File: ^B1371::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 365
Retention Time: 13.80 min.
Quant Ion: 172.0
Area: 49797
Concentration: 4.21 ng/uL
q-value: 95

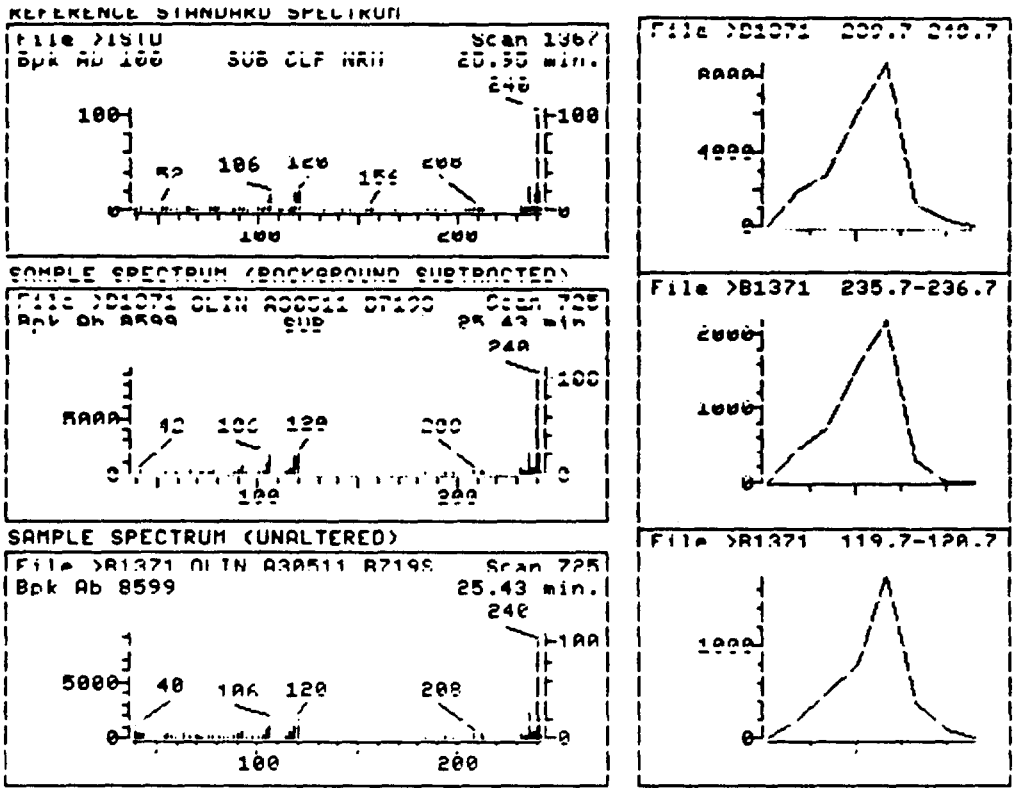


Data File: >B1371::D1
Name: OLIN A30511 B719S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 07:18
Injected at: 871218 16:03

Quant Output File: ^B1371::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 523
Retention Time: 18.90 min.
Quant Ion: 188.0
Area: 52421
Concentration: 40.00 ng/uL
q-value: 99

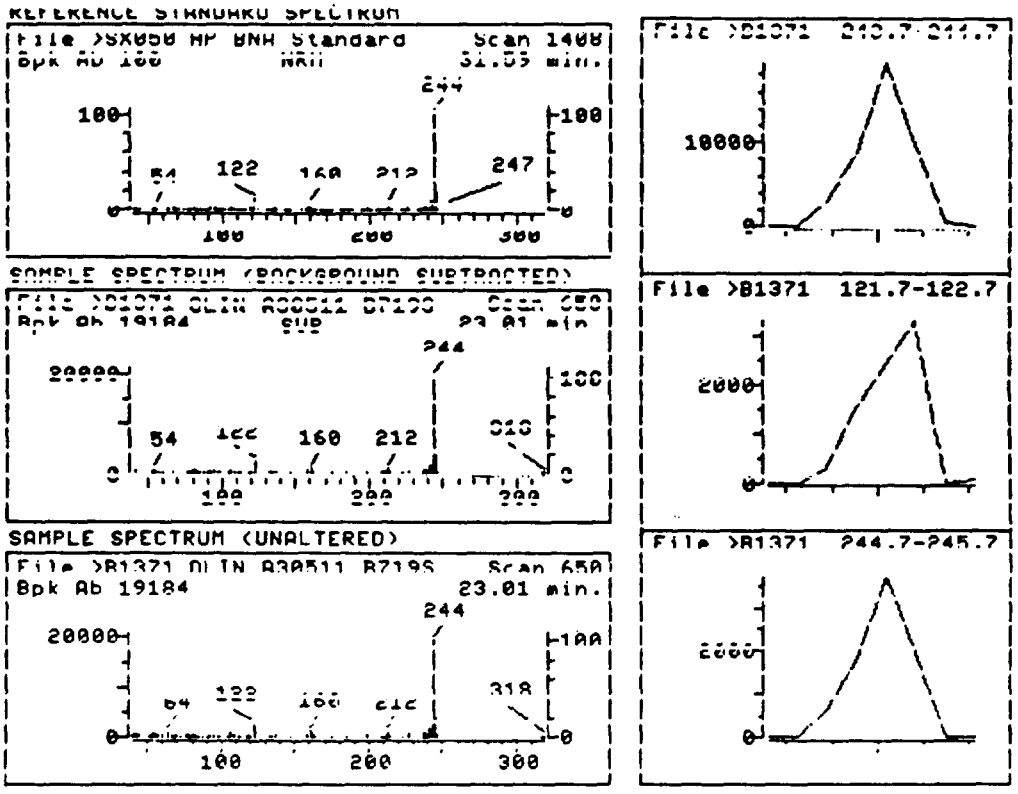


Data File: >B1371::D1
Name: OLIN A30511 B719S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 07:18
Injected at: 871218 16:03

Quant Output File: ^B1371::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 725
Retention Time: 25.43 min.
Quant Ion: 240.0
Area: 40429
Concentration: 40.00 ng/uL
q-value: 93

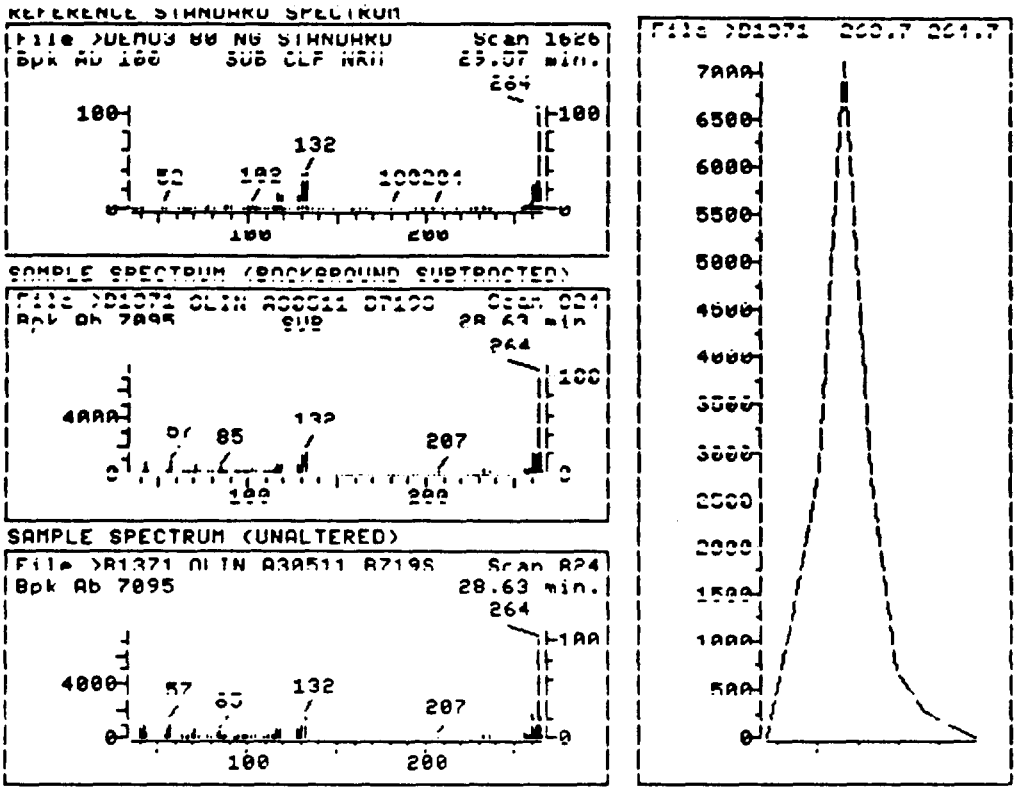


Data File: >B1371::D1
Name: OLIN A30511 B719S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 07:18
Injected at: 871218 16:03

Quant Output File: ^B1371::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 650
Retention Time: 23.01 min.
Quant Ion: 244.0
Area: 80695
Concentration: 8.46 ng/uL
q-value: 86



Data File: >B1371::D1
Name: OLIN A30511 B719S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 07:18
Injected at: 871218 16:03

Quant Output File: ^B1371::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 824
Retention Time: 28.63 min.
Quant Ion: 264.0
Area: 29072
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18822

CC: Paul Klotz

BCM Number : A30513
Location : 483
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	< 0.66	mg/kg	
Pentachloronitrobenzene	< 0.66	mg/kg	
Mercury	9.50	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/15/87	M/D/Y	
pH	7.6	std.un	
Specific Gravity	---------		
Total Solids	---------	%	

QUANT REPORT

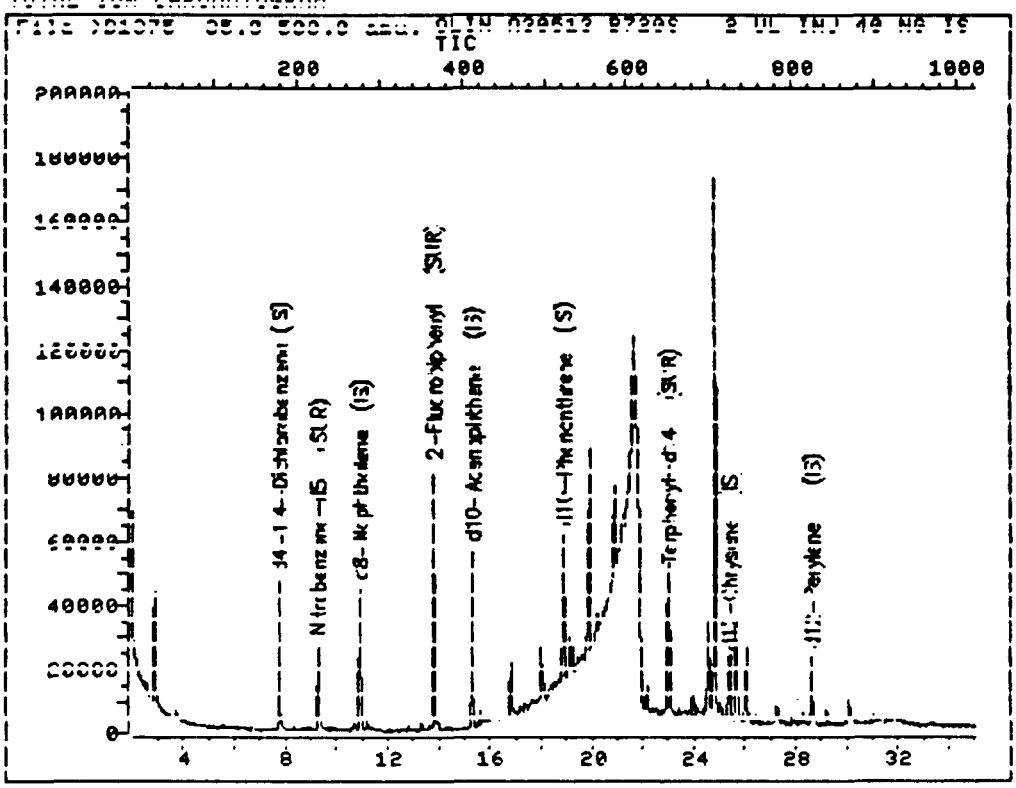
Operator ID: USER6 Quant Rev: 6 Quant Time: 871221 10:44
Output File: ^B1375::QT Injected at: 871221 09:55
Data File: >B1375::D1 Dilution Factor: .20000
Name: OLIN A30513 B720S
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.77	179	16611	40.00	ng/uL	94
16)	*d8-Naphthalene (IS)	10.94	277	63213	40.00	ng/uL	85
17)	Nitrobenzene-d5 (SUR)	9.29	226	26694	2.98	ng/uL	95
31)	*d10-Acenaphthene (IS)	15.33	413	35537	40.00	ng/uL	98
36)	2-Fluorobiphenyl (SUR)	13.81	366	70707	6.22	ng/uL	92
51)	*d10-Phenanthrene (IS)	18.92	524	52263	40.00	ng/uL	99
63)	*d12-Chrysene (IS)	25.42	725	35433	40.00	ng/uL	98
65)	Terphenyl-d14 (SUR)	23.02	651	74090	8.86	ng/uL	85
71)	*d12-Perylene (IS)	28.65	825	26659	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

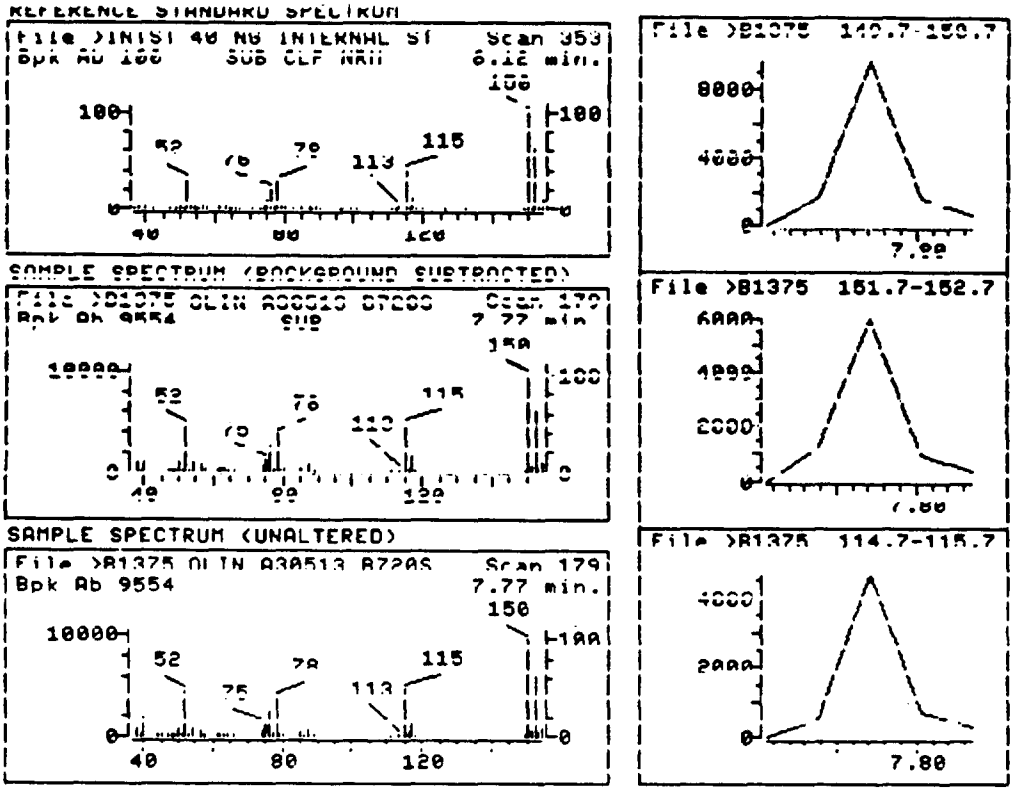


Data File: >B1375::D1
Name: OLIN A30513 B720S
Misc: 2 UL INJ 40 NG IS

Quant Output File: ^B1375::QT

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871221 10:44
Injected at: 871221 09:55

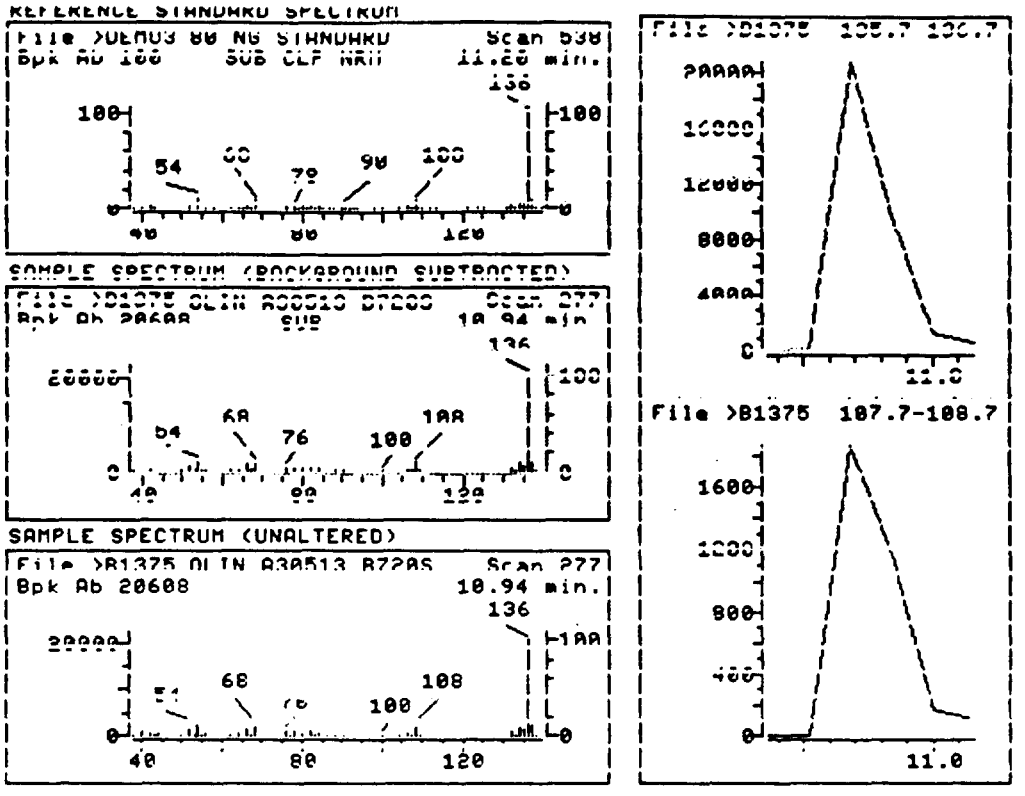


Data File: >B1375::D1
Name: OLIN A30513 B720S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 10:44
Injected at: 871221 09:55

Quant Output File: ^B1375::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 179
Retention Time: 7.77 min.
Quant Ion: 152.0
Area: 16611
Concentration: 40.00 ng/uL
a-value: 94



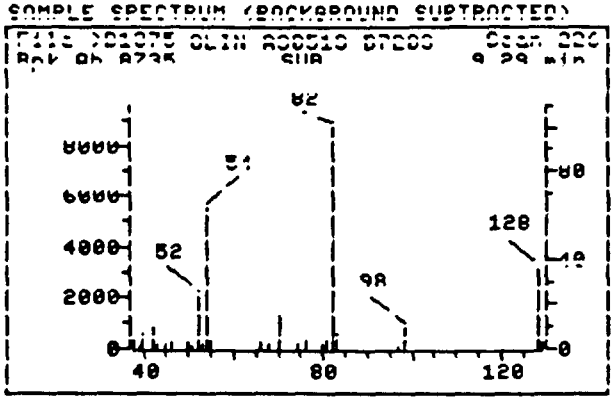
Data File: >B1375::D1
Name: OLIN A30513 B720S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 10:44
Injected at: 871221 09:55

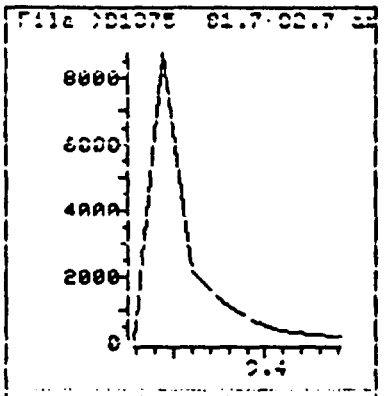
Quant Output File: ^B1375::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

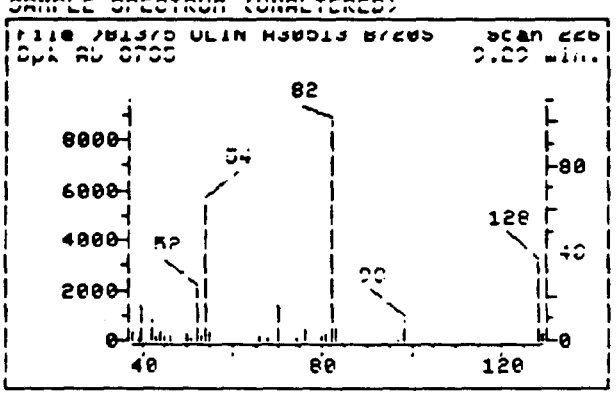
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 277
Retention Time: 10.94 min.
Quant Ion: 136.0
Area: 63213
Concentration: 40.00 ng/uL
q-value: 85

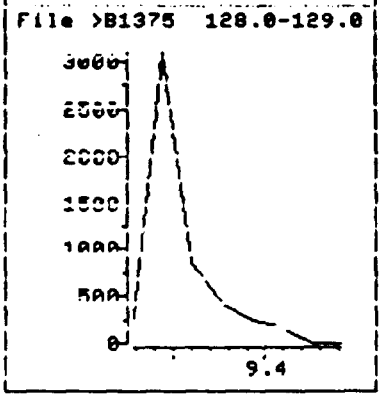
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



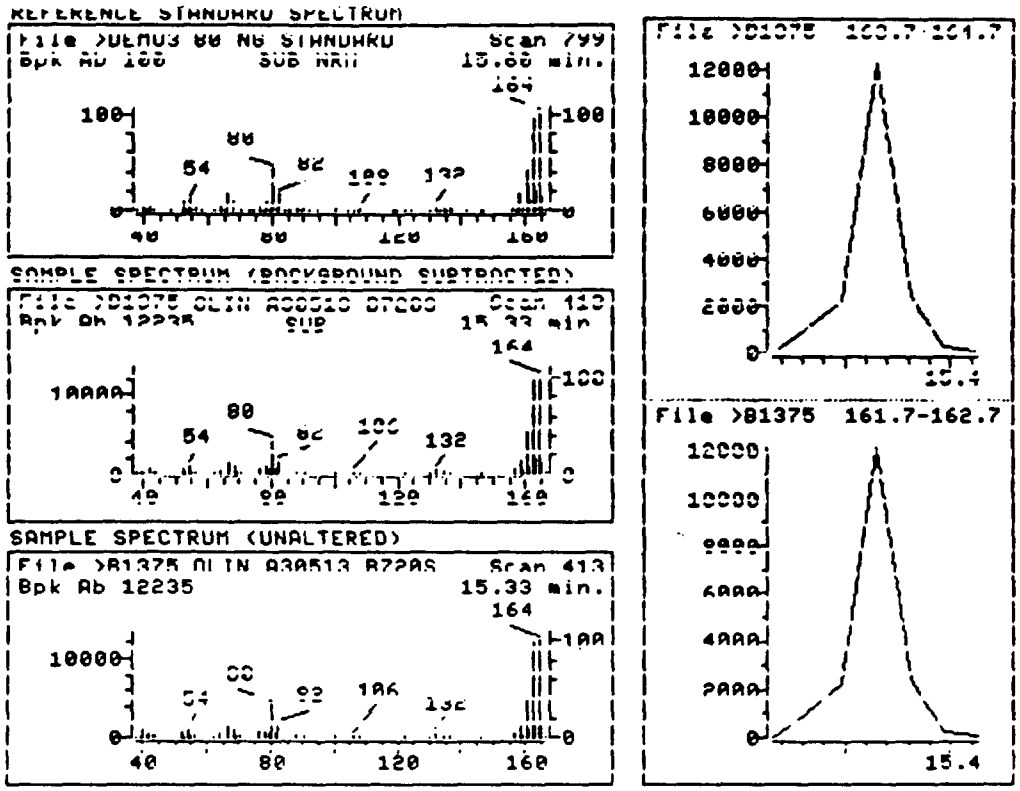


Data File: >B1375::D1
Name: OLIN A30513 B720S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 10:44
Injected at: 871221 09:55

Quant Output File: ^B1375::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 226
Retention Time: 9.29 min.
Quant Ion: 82.0
Area: 26694
Concentration: 2.98 ng/uL
q-value: 95

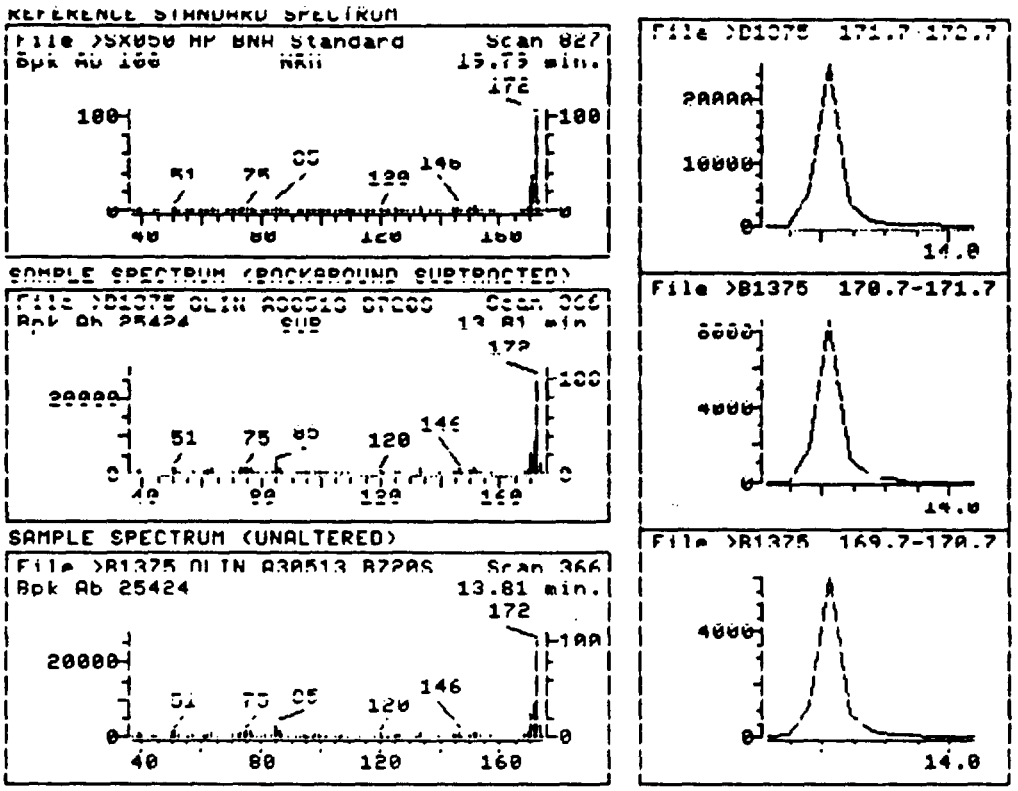


Data File: >B1375::D1
Name: OLIN A30513 B720S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 10:44
Injected at: 871221 09:55

Quant Output File: ^B1375::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 413
Retention Time: 15.33 min.
Quant Ion: 164.0
Area: 35537
Concentration: 40.00 ng/uL
q-value: 98



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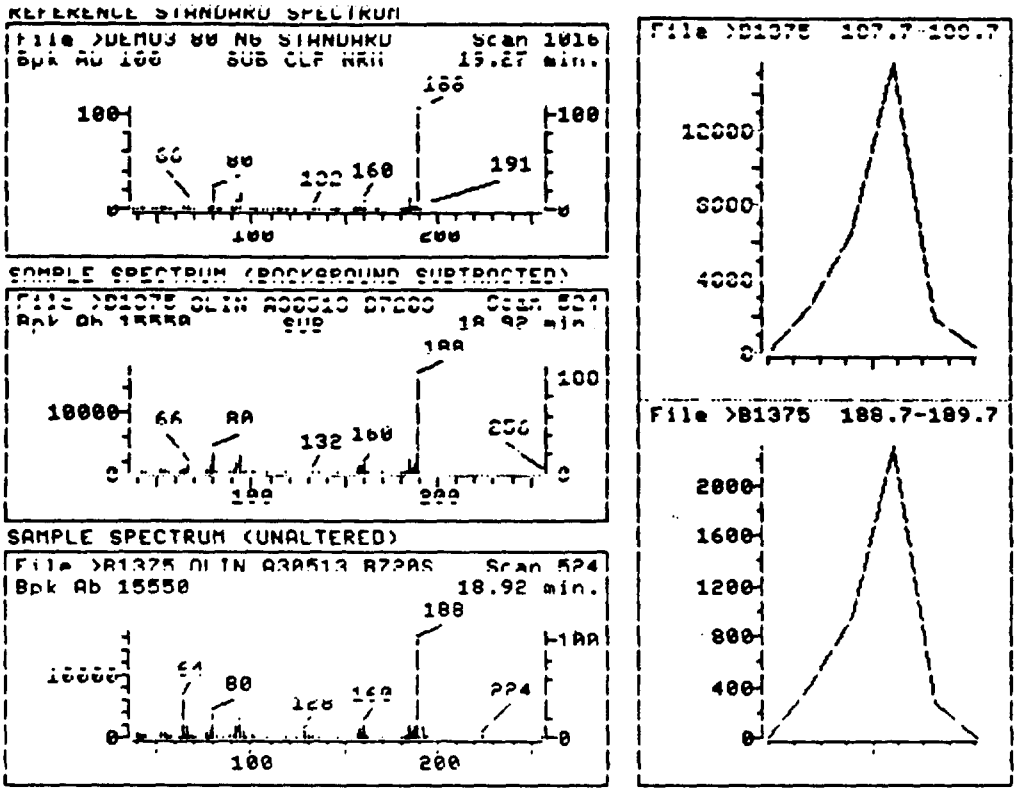
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 10:44
Injected at: 871221 09:55

Quant Output File: ^B1375::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 366
Retention Time: 13.81 min.
Quant Ion: 172.0
Area: 70707
Concentration: 6.22 ng/uL
q-value: 92



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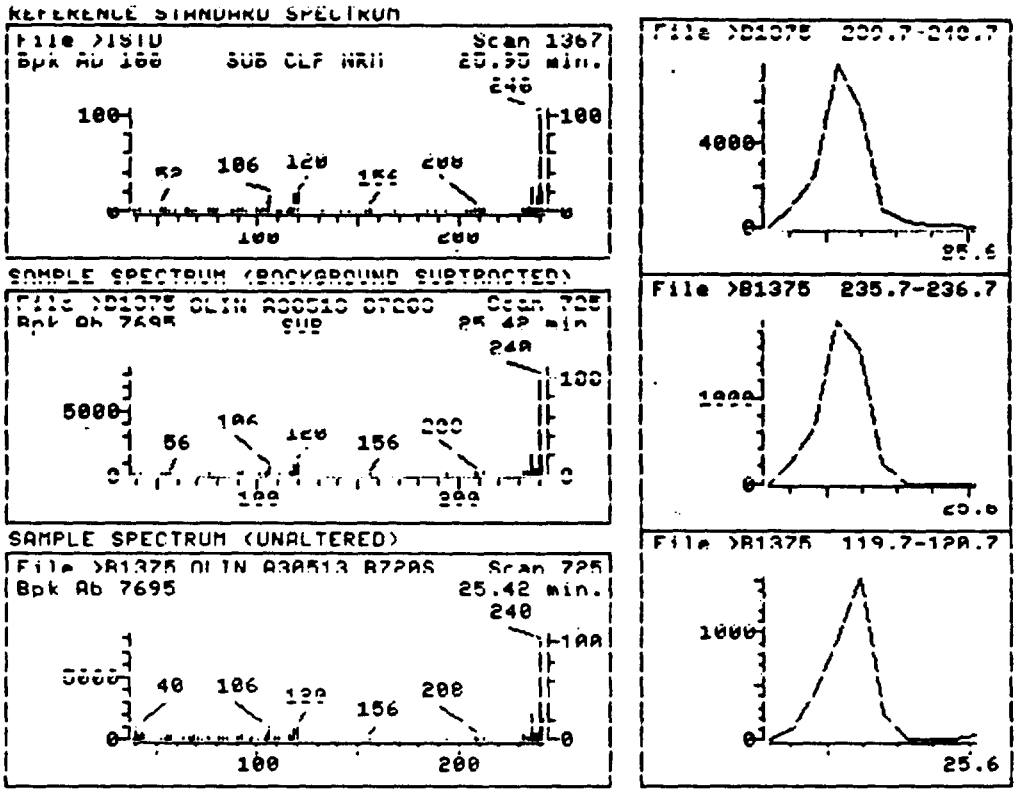
Name: OLIN A30513 B720S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 10:44
Injected at: 871221 09:55

Quant Output File: ^B1375::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 524
Retention Time: 18.92 min.
Quant Ion: 188.0
Area: 52263
Concentration: 40.00 ng/uL
q-value: 99



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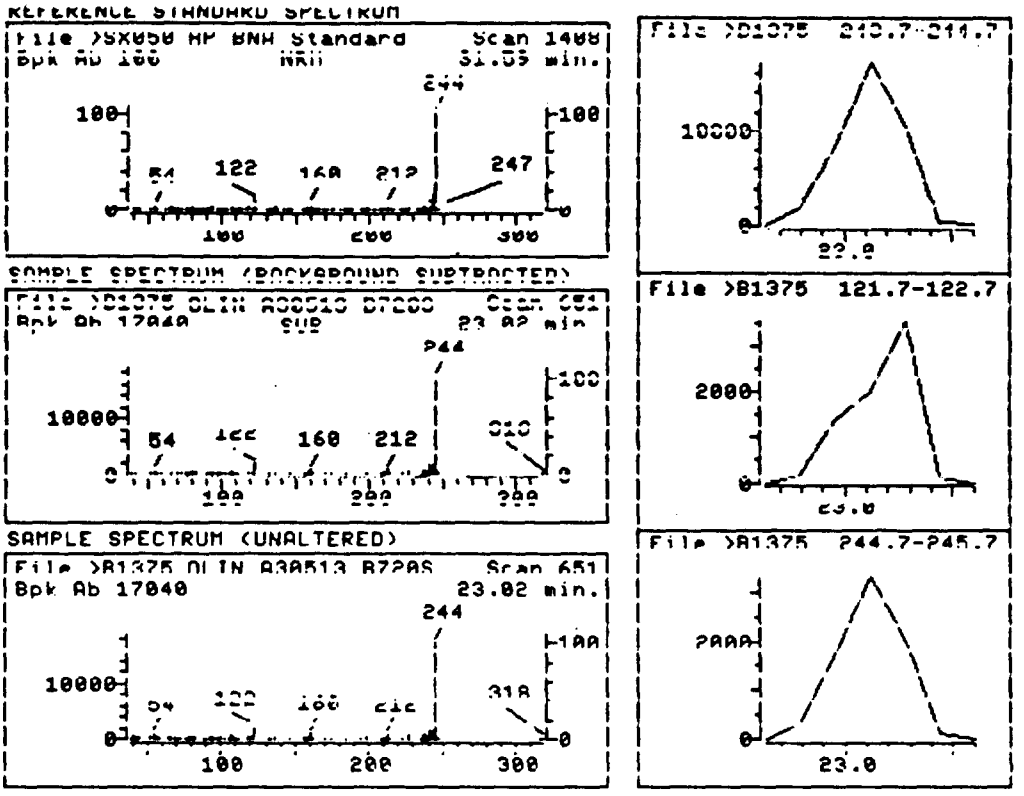
Quant Time: 871221 10:44
Injected at: 871221 09:55

Quant Output File: ^B1375::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 725
Retention Time: 25.42 min.
Quant Ion: 240.0
Area: 35433
Concentration: 40.00 ng/uL
q-value: 98



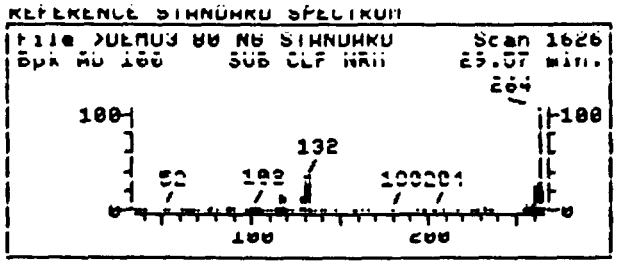
Data File: >B1375::D1
Name: OLIN A30513 B720S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 10:44
Injected at: 871221 09:55

Quant Output File: ^B1375::QT

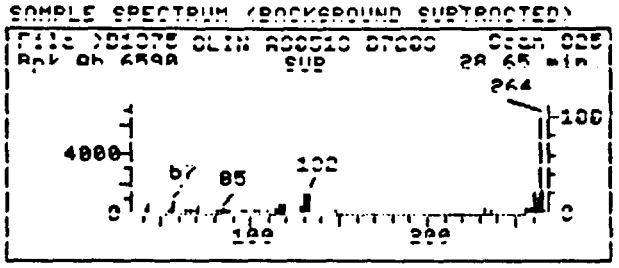
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 651
Retention Time: 23.02 min.
Quant Ion: 244.0
Area: 74090
Concentration: 8.86 ng/uL
q-value: 85

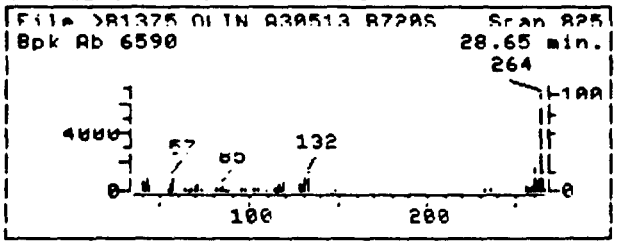
REFERENCE STANDARD SPECTRUM

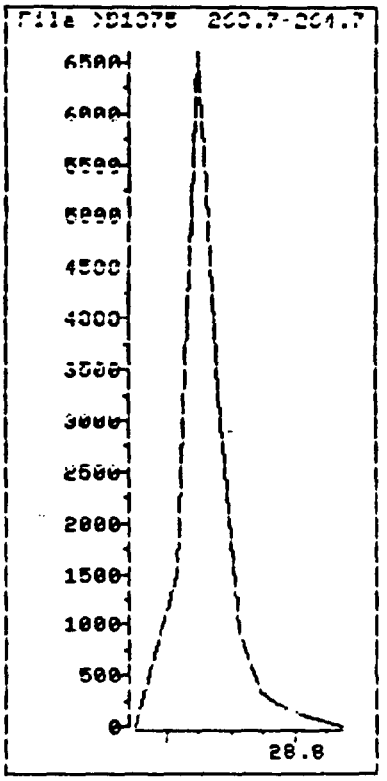


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >B1375::D1
Name: OLIN A30513 B720S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 10:44
Injected at: 871221 09:55

Quant Output File: ^B1375::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 825
Retention Time: 28.65 min.
Quant Ion: 264.0
Area: 26659
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18822

CC: Paul Klotz

BCM Number : A30515
Location : 615
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	35.3	mg/kg	
Pentachloronitrobenzene	11.7	mg/kg	
Mercury	0.3	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/15/87	M/D/Y	
pH	9.2	std.un	
Specific Gravity	---------		
Total Solids	---------	%	

QUANT REPORT

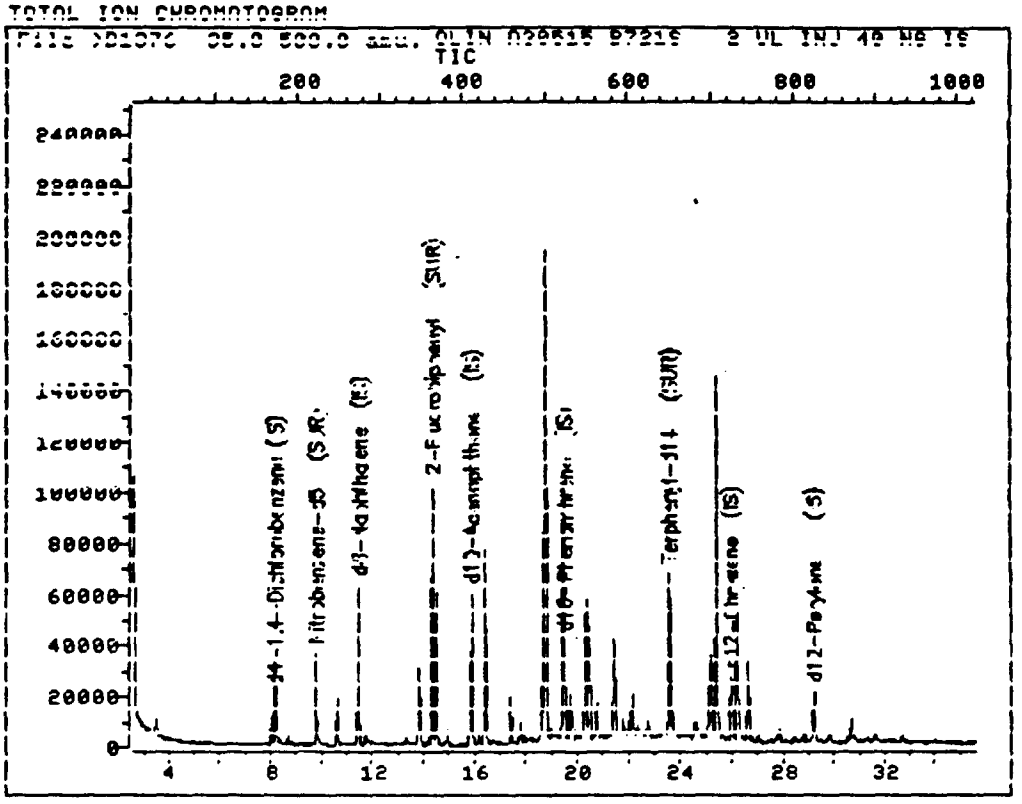
Operator ID: USER6 Quant Rev: 6 Quant Time: 871221 11:25
Output File: ^B1376::QT Injected at: 871221 10:46
Data File: >B1376::D1 Dilution Factor: .20000
Name: OLIN A30515 B721S
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	8.16	172	14980	40.00	ng/uL	93
8)	1,4-Dichlorobenzene	8.22	174	5539	1.00	ng/uL	95
10)	1,2-Dichlorobenzene	8.71	189	1659	.32	ng/uL	90
16)	*d8-Naphthalene (IS)	11.49	275	64400	40.00	ng/uL	89
17)	Nitrobenzene-d5 (SUR)	9.77	222	40928	4.48	ng/uL	90
31)	*d10-Acenaphthene (IS)	15.91	412	38986	40.00	ng/uL	96
36)	2-Fluorobiphenyl (SUR)	14.39	365	84855	6.81	ng/uL	93
51)	*d10-Phenanthrene (IS)	19.53	524	55460	40.00	ng/uL	97
56)	Pentachloronitrobenzene	19.47	522	10916	11.74	ng/uL	100
57)	Hexachlorobenzene	18.82	502	151387	35.34	ng/uL	96
63)	*d12-Chrysene (IS)	26.00	724	42642	40.00	ng/uL	96
65)	Terphenyl-d14 (SUR)	23.61	650	95490	9.49	ng/uL	85
71)	*d12-Perylene (IS)	29.23	824	28448	40.00	ng/uL	100

* Compound is ISTD

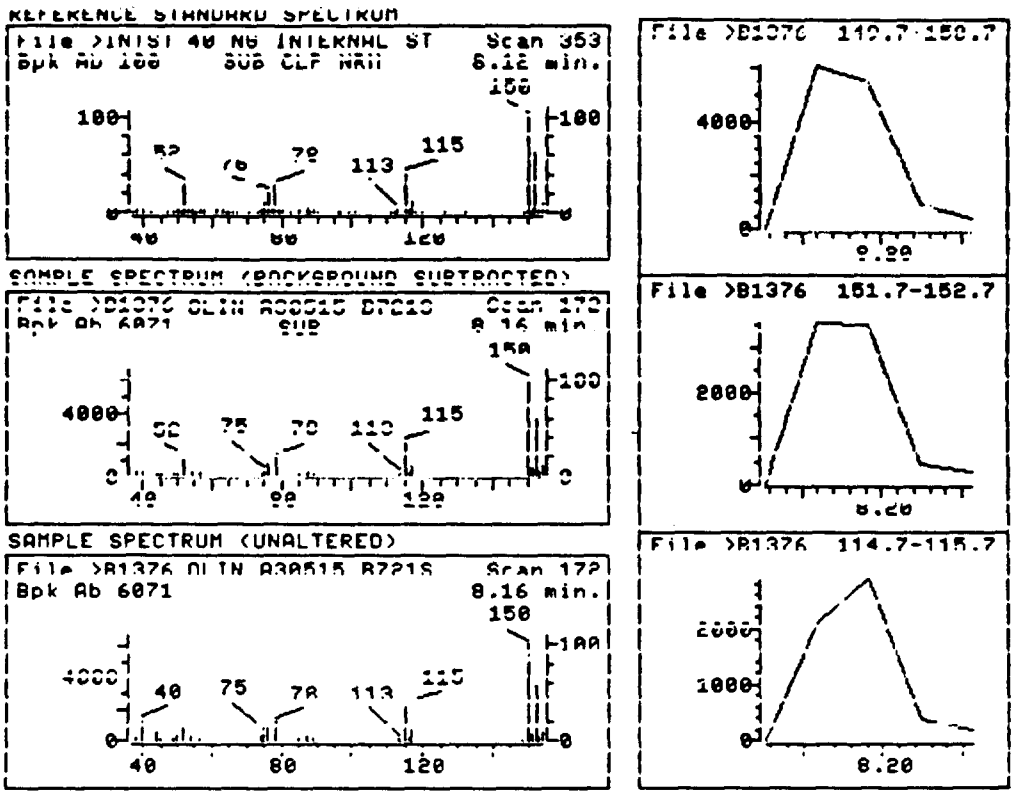
TOTAL ION CHROMATOGRAM



Data File: >B1376::D1 Quant Output File: ^B1376::QT
Name: OL IN A30515 B7215
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871221 11:25
Injected at: 871221 10:46



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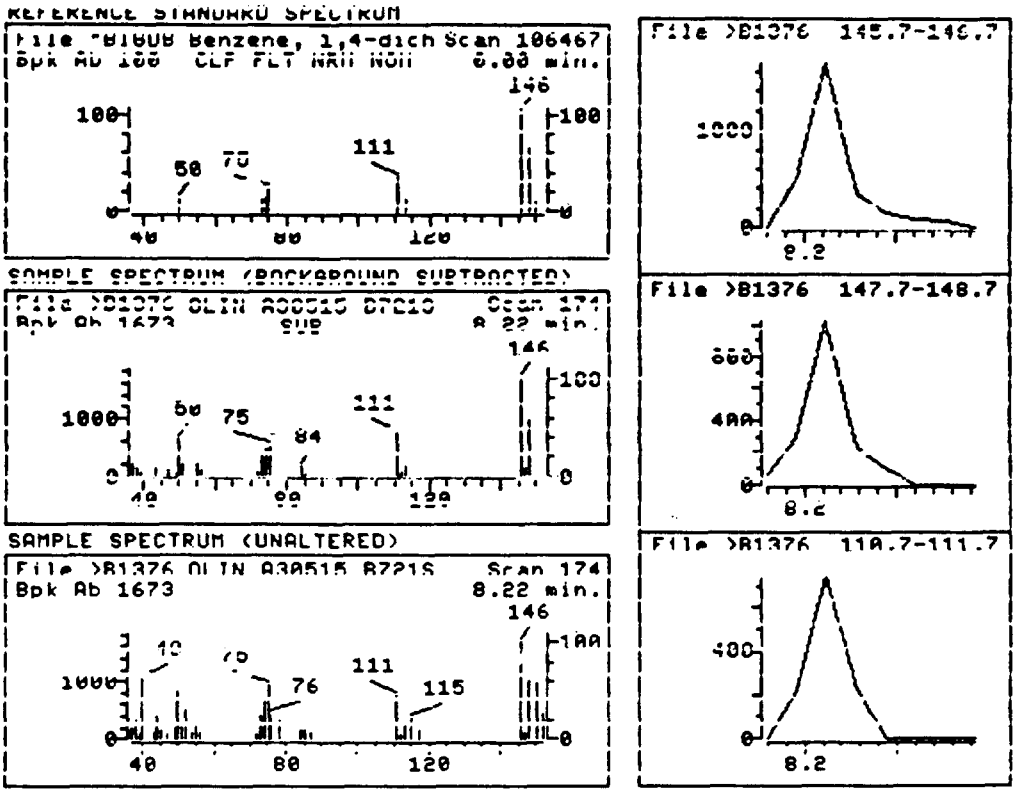
Name: OLIN A30515 B721S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 11:25
Injected at: 871221 10:46

Quant Output File: ^B1376::QT
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 172
Retention Time: 8.16 min.
Quant Ion: 152.0
Area: 14980
Concentration: 40.00 ng/uL
q-value: 93

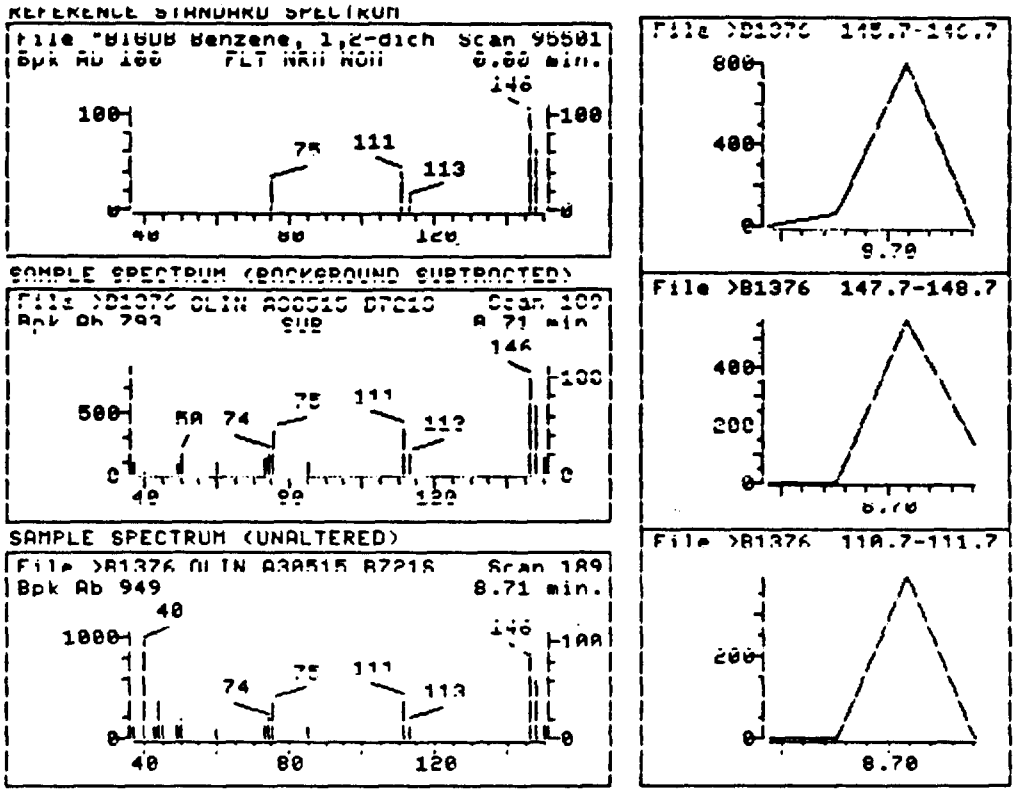


Data File: >B1376::D1
Name: OLIN A30515 B7215
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 11:25
Injected at: 871221 10:46

Quant Output File: ^B1376::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 8
Compound Name: 1,4-Dichlorobenzene
Scan Number: 174
Retention Time: 8.22 min.
Quant Ion: 146.0
Area: 5539
Concentration: 1.00 ng/uL
q-value: 95

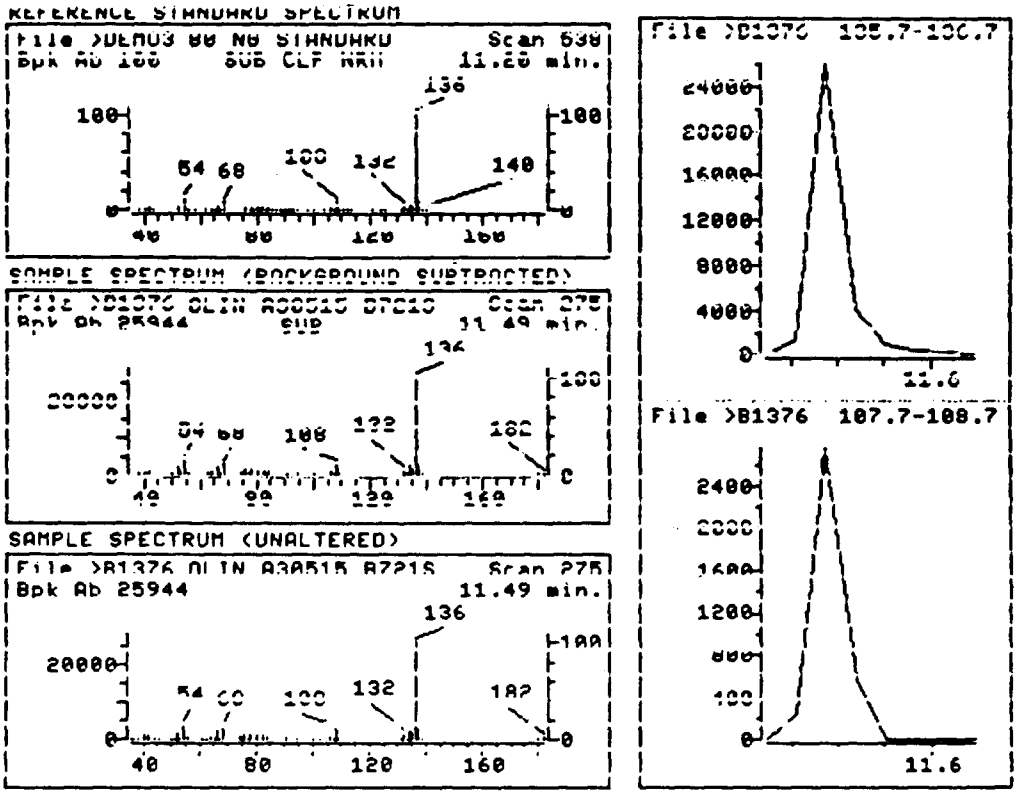


Data File: >B1376::D1
Name: OLIN A30515 B721S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 11:25
Injected at: 871221 10:46

Quant Output File: ^B1376::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 10
Compound Name: 1,2-Dichlorobenzene
Scan Number: 189
Retention Time: 8.71 min.
Quant Ion: 146.0
Area: 1659
Concentration: .32 ng/uL
q-value: 90

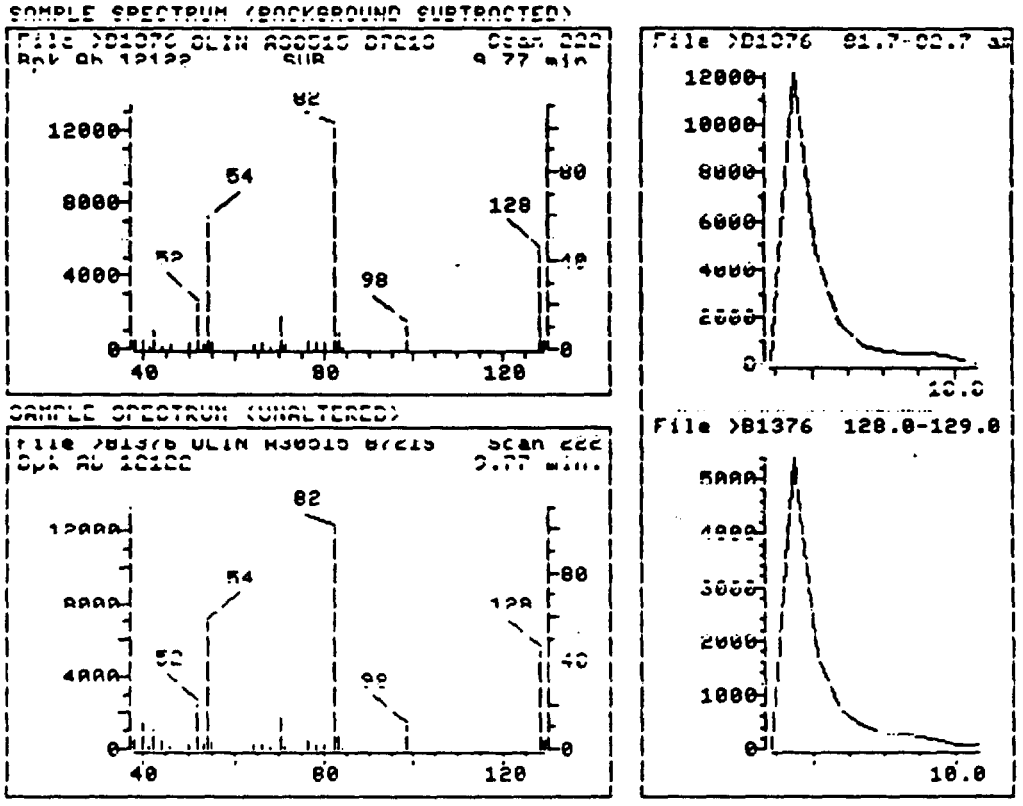


Data File: >B1376::D1
Name: OLIN A30515 B721S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 11:25
Injected at: 871221 10:46

Quant Output File: ^B1376::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 275
Retention Time: 11.49 min.
Quant Ion: 136.0
Area: 64400
Concentration: 40.00 ng/uL
q-value: 89

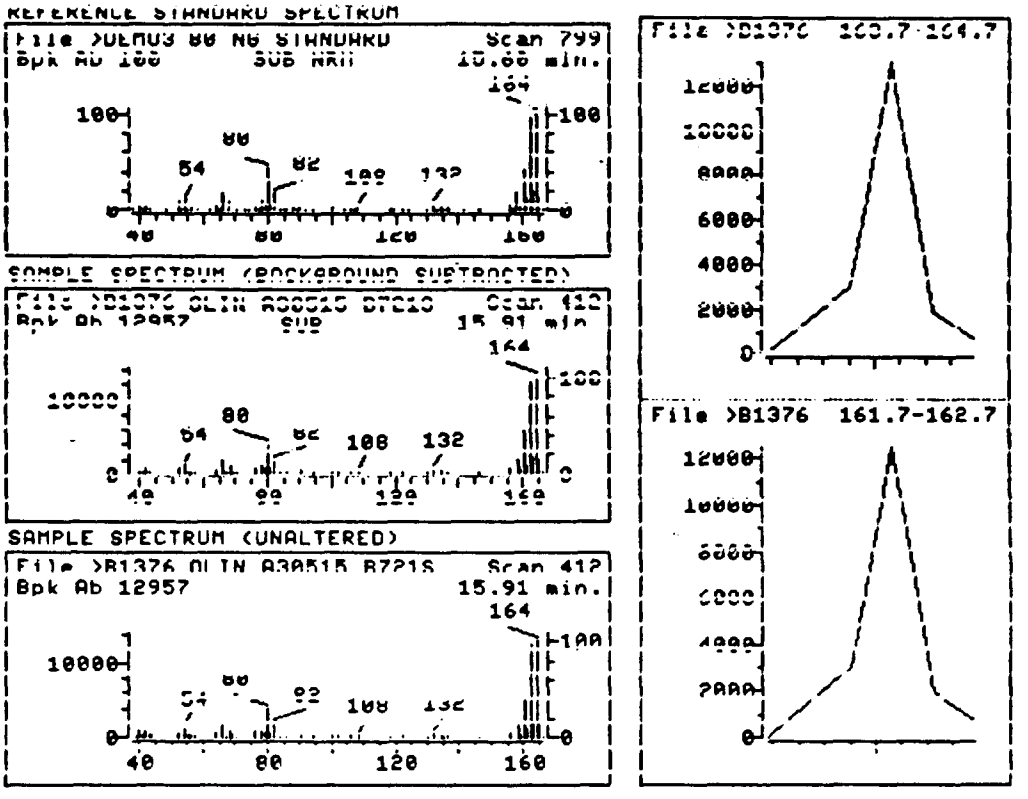


Data File: >B1376::D1
Name: OLIN A30515 B721S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 11:25
Injected at: 871221 10:46

Quant Output File: ^B1376::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 222
Retention Time: 9.77 min.
Quant Ion: 82.0
Area: 40928
Concentration: 4.48 ng/uL
q-value: 90

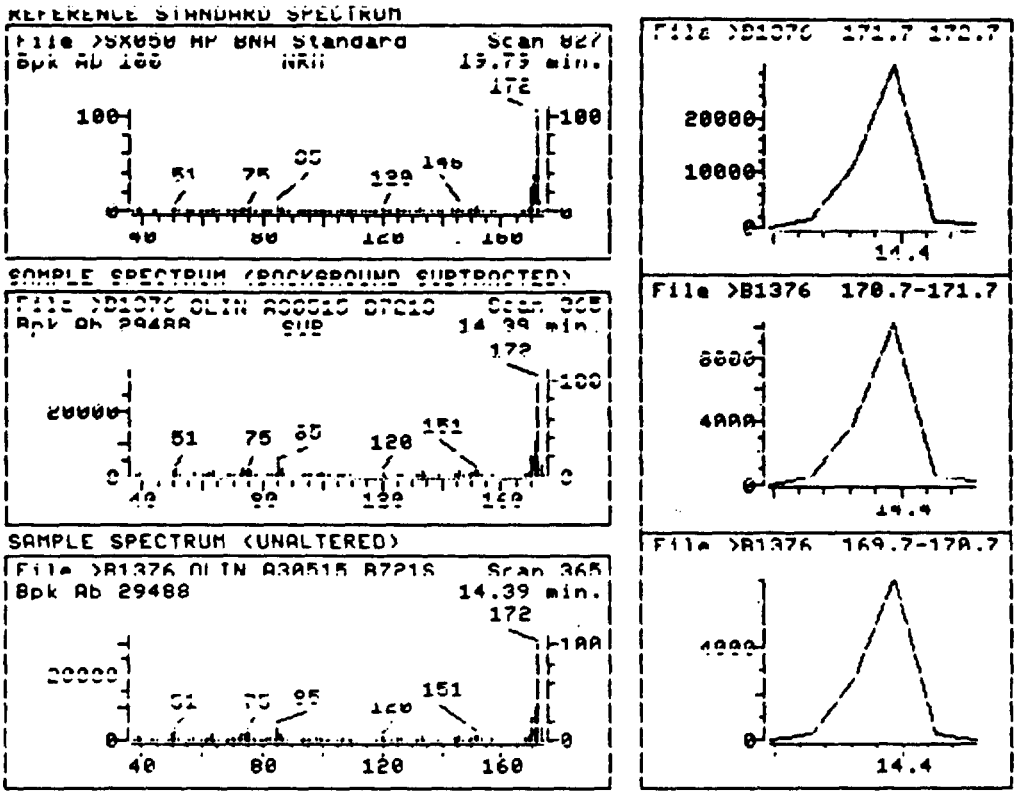


Data File: >B1376::D1
Name: OLIN A30515 B721S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 11:25
Injected at: 871221 10:46

Quant Output File: ^B1376::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 412
Retention Time: 15.91 min.
Quant Ion: 164.0
Area: 38986
Concentration: 40.00 ng/uL
q-value: 96



Data File: >B1376::D1
Name: OLIN A30515 B721S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 11:25
Injected at: 871221 10:46

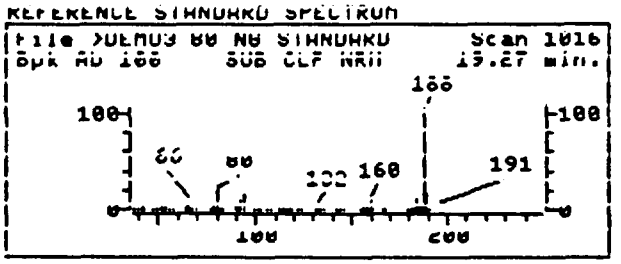
Quant Output File: ^B1376::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

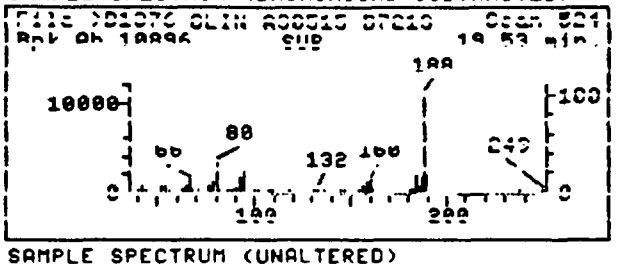
Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 365
Retention Time: 14.39 min.
Quant Ion: 172.0
Area: 84855
Concentration: 6.81 ng/uL
q-value: 93

3 2 00621

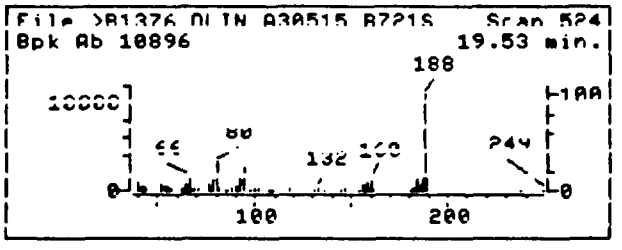
REFERENCE STANDARD SPECTRUM

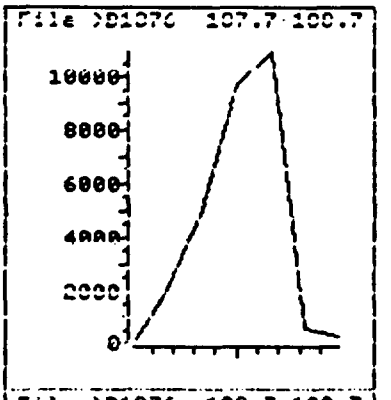


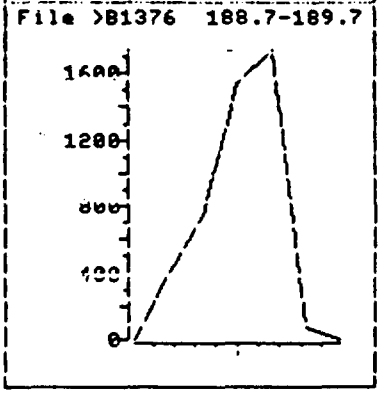
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







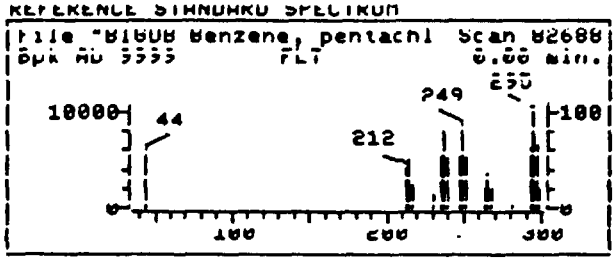
Data File: >B1376::D1
Name: OLIN A30515 B721S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 11:25
Injected at: 871221 10:46

Quant Output File: ^B1376::QT

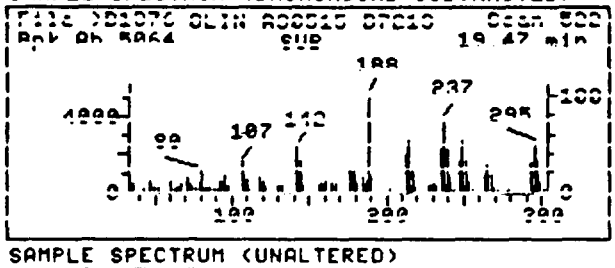
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 524
Retention Time: 19.53 min.
Quant Ion: 188.0
Area: 55460
Concentration: 40.00 ng/uL
q-value: 97

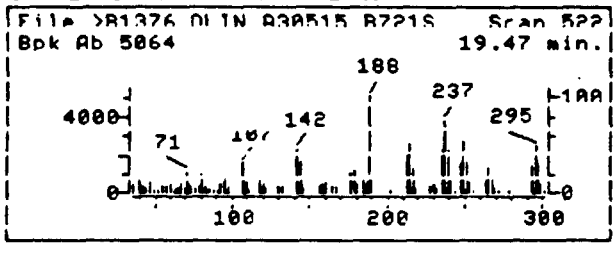
REFERENCE STANDARD SPECTRUM

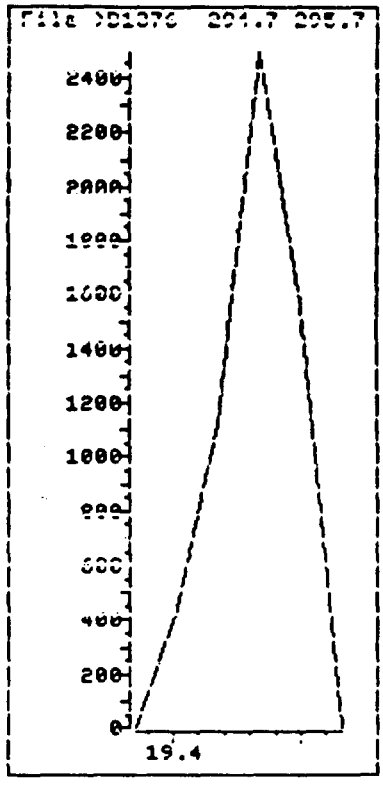


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



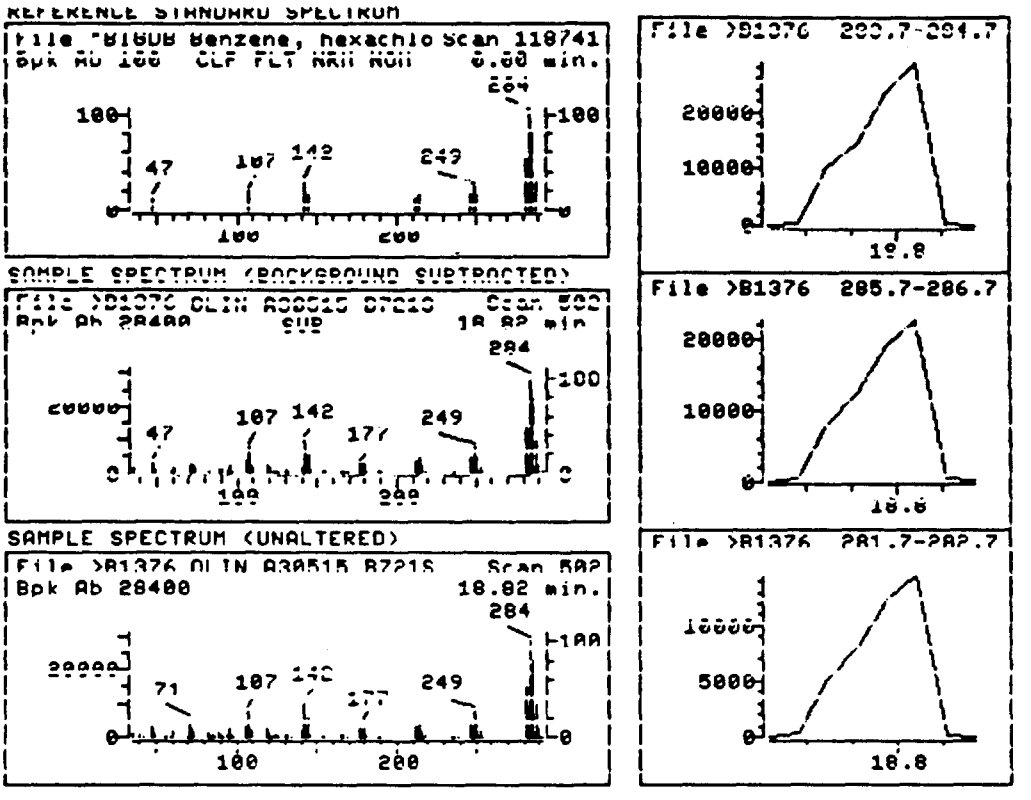


Data File: >B1376::D1
Name: DLIN A30515 B721S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 11:25
Injected at: 871221 10:46

Quant Output File: ^B1376::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 56
Compound Name: Pentachloronitrobenzene
Scan Number: 522
Retention Time: 19.47 min.
Quant Ion: 295.0
Area: 10916
Concentration: 11.74 ng/uL
q-value: 100



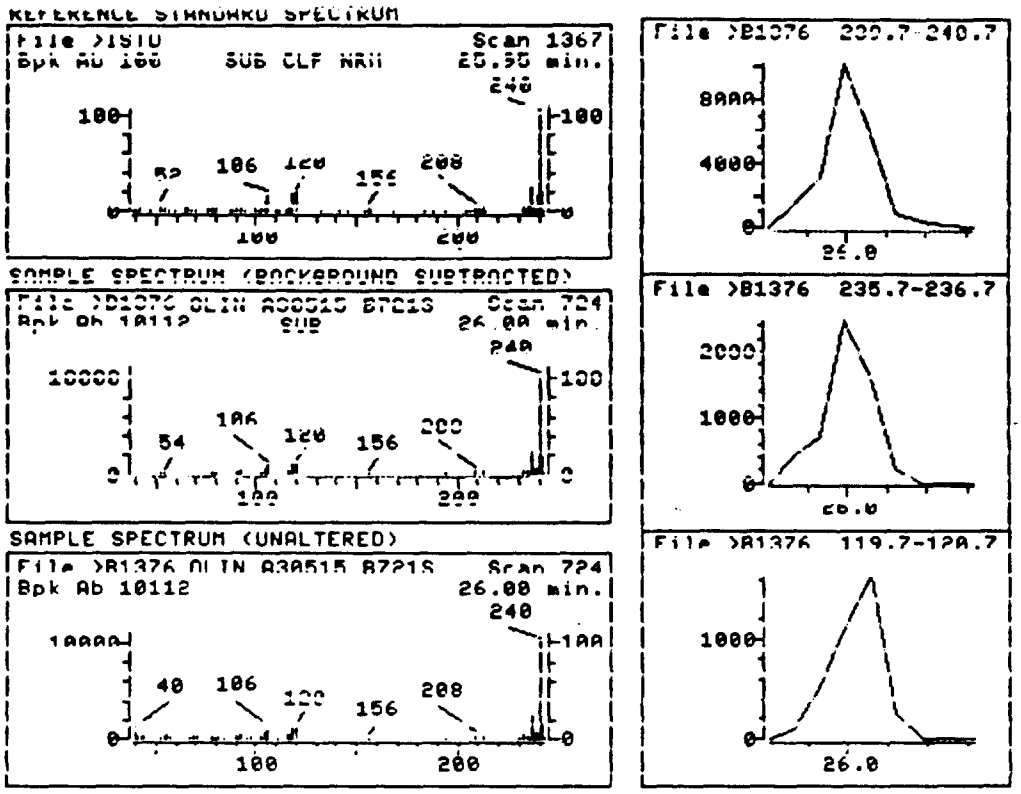
Data File: >B1376::D1
Name: OLIN A30515 B721S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 11:25
Injected at: 871221 10:46

Quant Output File: ^B1376::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 57
Compound Name: Hexachlorobenzene
Scan Number: 502
Retention Time: 18.82 min.
Quant Ion: 284.0
Area: 151387
Concentration: 35.34 ng/uL
q-value: 96

ok

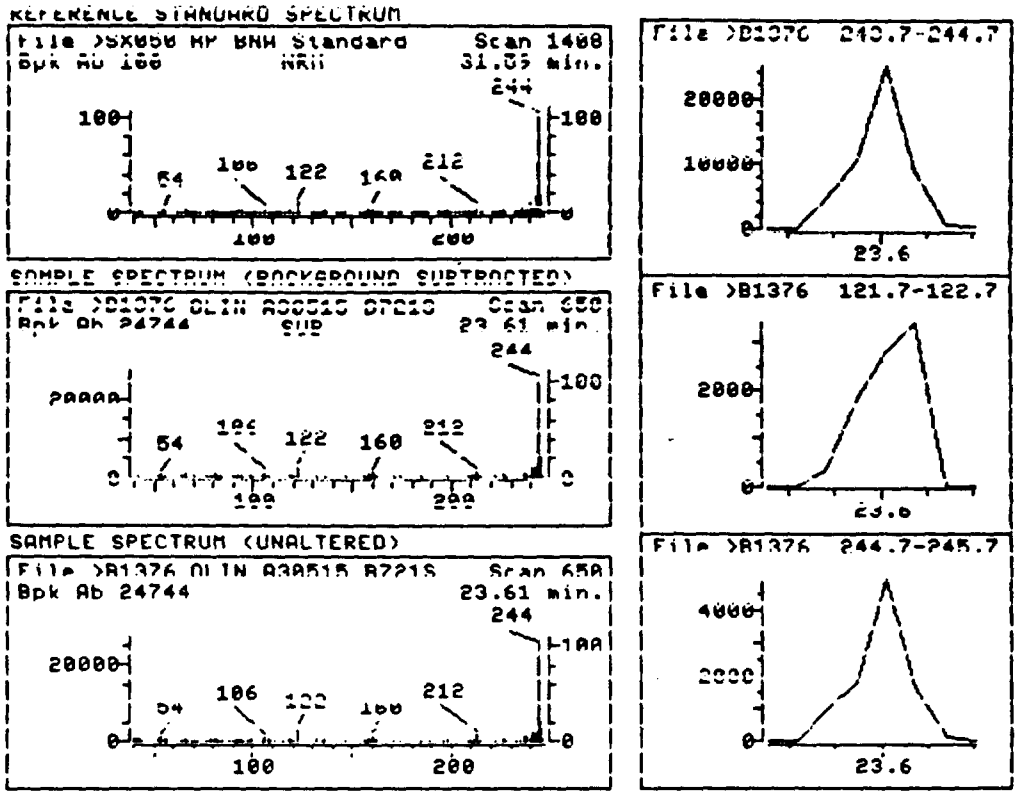


Data File: >B1376::D1
Name: OLIN A30515 B721S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 11:25
Injected at: 871221 10:46

Quant Output File: ^B1376::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 724
Retention Time: 26.00 min.
Quant Ion: 240.0
Area: 42642
Concentration: 40.00 ng/uL
q-value: 96

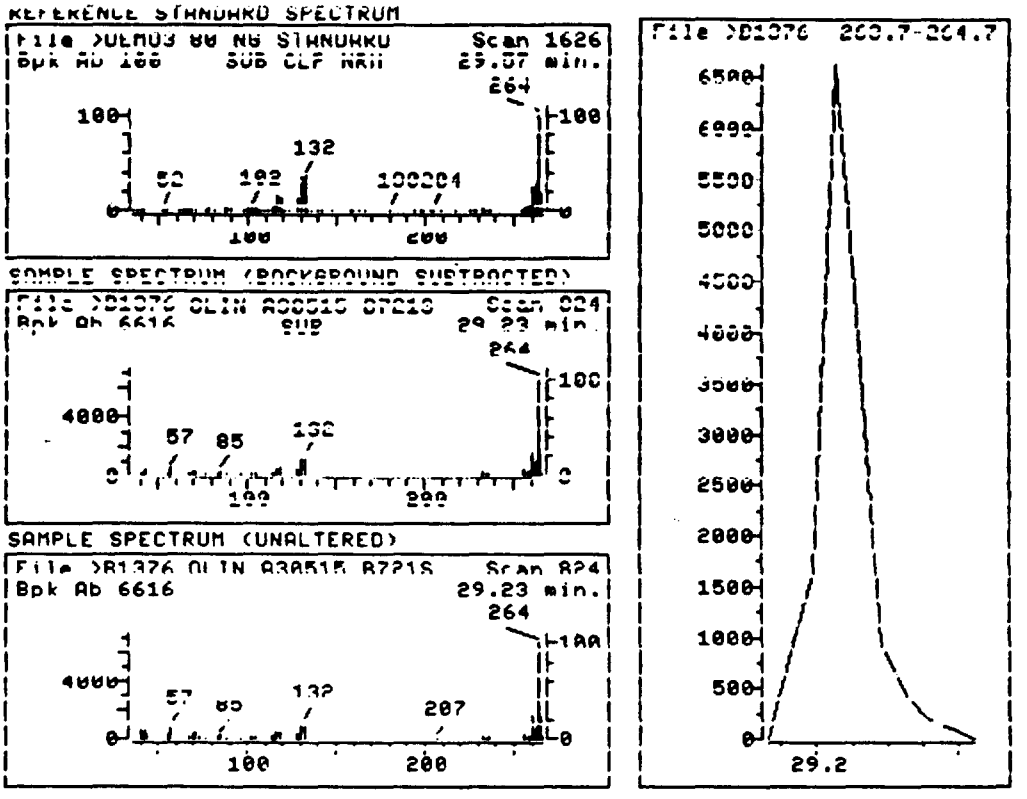


Data File: >B1376::D1
Name: OLIN A30515 B721S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 11:25
Injected at: 871221 10:46

Quant Output File: ^B1376::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 650
Retention Time: 23.61 min.
Quant Ion: 244.0
Area: 95490
Concentration: 9.49 ng/uL
q-value: 85



Data File: >B1376::D1
Name: OLIN A30515 B721S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 11:25
Injected at: 871221 10:46

Quant Output File: ^B1376::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 824
Retention Time: 29.23 min.
Quant Ion: 264.0
Area: 28448
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT
This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18822

CC: Paul Klotz

BCM Number : A30517
Location : 907
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	11.3	mg/kg	
Pentachloronitrobenzene	< 0.66	mg/kg	
Mercury	1.55	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/15/87	M/D/Y	
pH	8.4	std.un	
Specific Gravity	---------		
Total Solids	---------	%	

QUANT REPORT

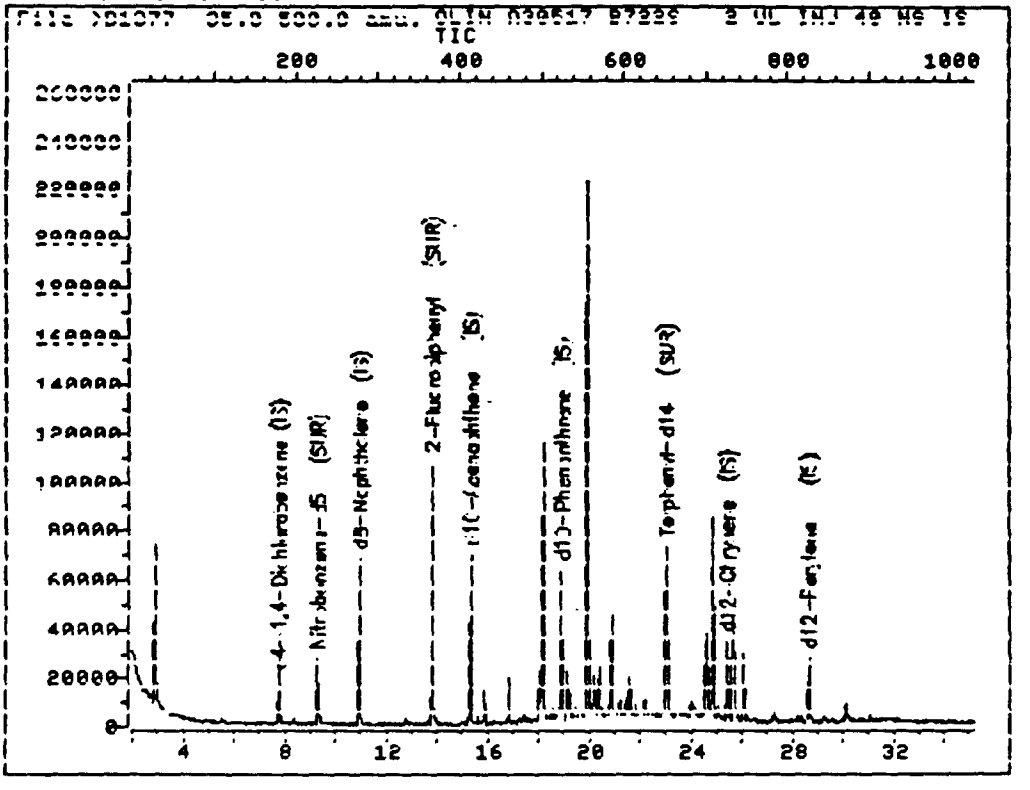
Operator ID: USER6 Quant Rev: 6 Quant Time: 871221 12:14
Output File: ^B1377::QT Injected at: 871221 11:29
Data File: >B1377::D1 Dilution Factor: .20000
Name: OLIN A30517 B722S
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.75	179	16620	40.00	ng/uL	94
16)	*d8-Naphthalene (IS)	10.95	278	77037	40.00	ng/uL	87
17)	Nitrobenzene-d5 (SUR)	9.30	227	34797	3.19	ng/uL	94
31)	*d10-Acenaphthene (IS)	15.34	414	40164	40.00	ng/uL	95
36)	2-Fluorobiphenyl (SUR)	13.82	367	85125	6.63	ng/uL	93
51)	*d10-Phenanthrene (IS)	18.93	525	66861	40.00	ng/uL	99
57)	Hexachlorobenzene	18.22	503	58292	11.29	ng/uL	95
63)	*d12-Chrysene (IS)	25.42	726	51561	40.00	ng/uL	96
65)	Terphenyl-d14 (SUR)	23.03	652	104574	8.60	ng/uL	86
71)	*d12-Perylene (IS)	28.66	826	38751	40.00	ng/uL	100

* Compound is ISTD

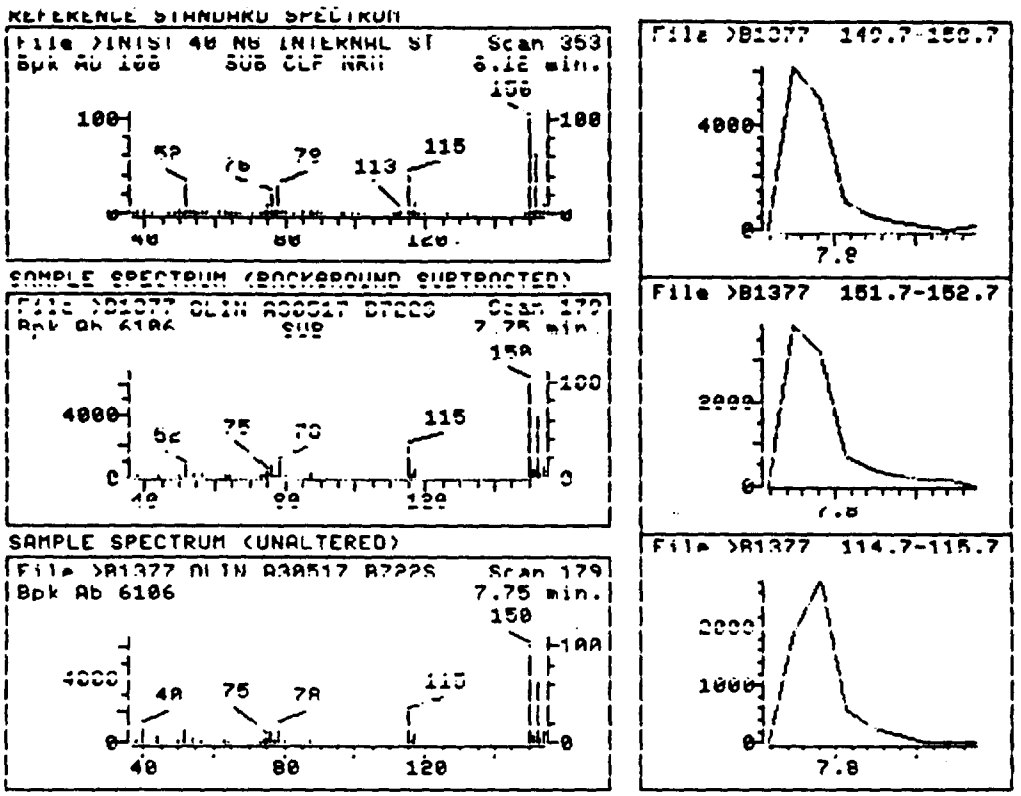
TOTAL ION CHROMATOGRAM



Data File: >B1377::D1 Quant Output File: ^B1377::QT
Name: OLIN A30517 B722S
Misc: 2 UL INJ 40 NG IS

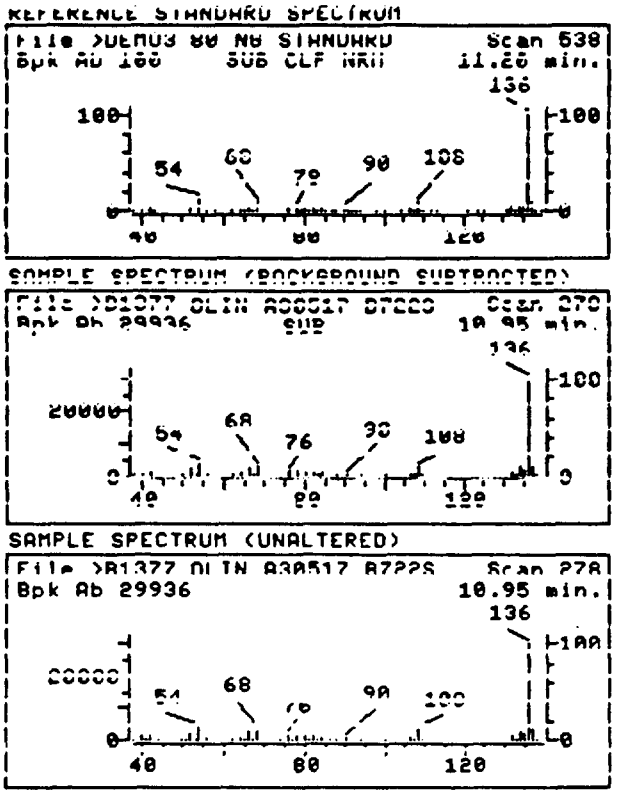
Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

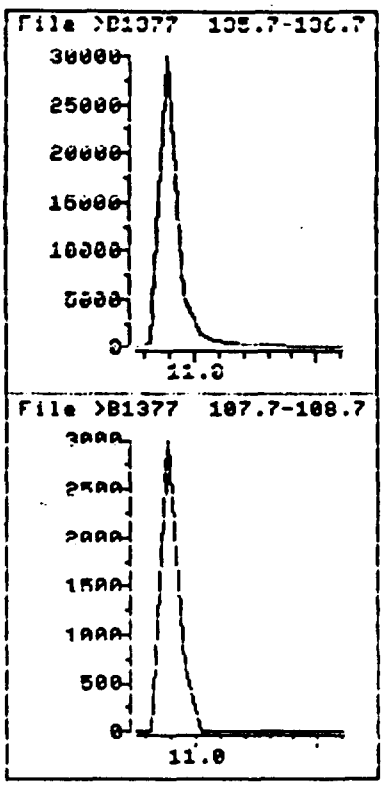
Operator ID: USER6
Quant Time: 871221 12:14
Injected at: 871221 11:29



Data File: >B1377::D1 Quant Output File: ^B1377::QT
Name: OLIN A30517 B722S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:14 Quant ID File: ID BDA::L2
Injected at: 871221 11:29 Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 179
Retention Time: 7.75 min.
Quant Ion: 152.0
Area: 16620
Concentration: 40.00 ng/uL
q-value: 94





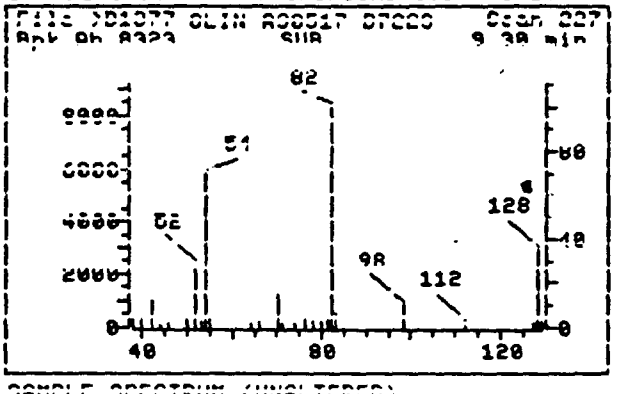
Data File: >B1377::D1
Name: OLIN A30517 B722S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:14
Injected at: 871221 11:29

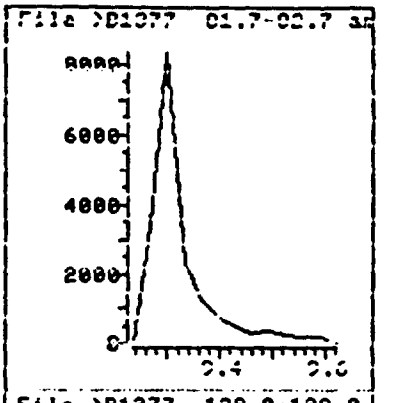
Quant Output File: ^B1377::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

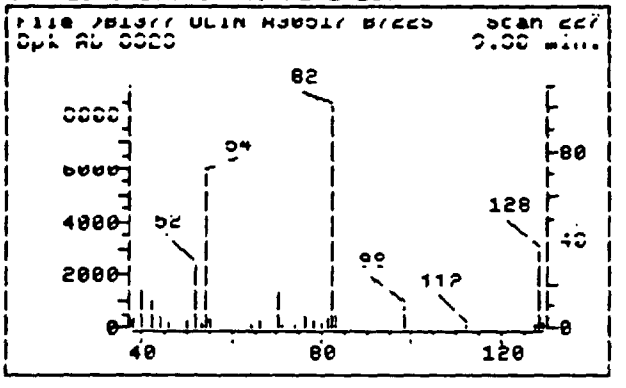
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 278
Retention Time: 10.95 min.
Quant Ion: 136.0
Area: 77037
Concentration: 40.00 ng/uL
q-value: 87

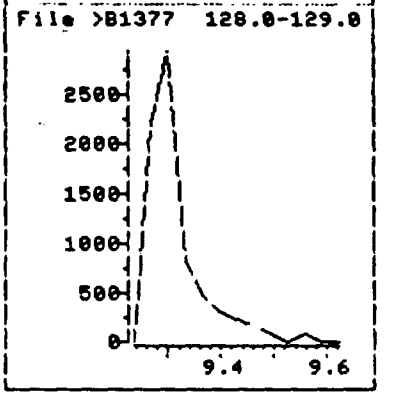
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



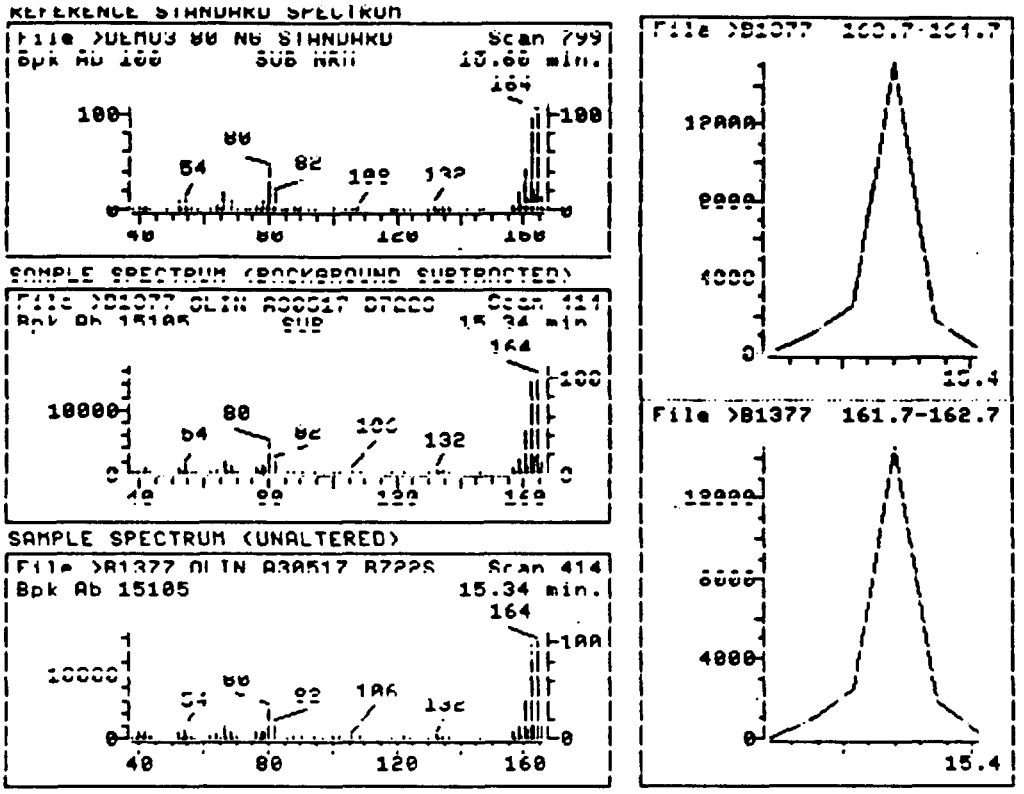


Data File: >B1377::D1
Name: OLIN A30517 B722S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:14
Injected at: 871221 11:29

Quant Output File: ^B1377::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 227
Retention Time: 9.30 min.
Quant Ion: 82.0
Area: 34797
Concentration: 3.19 ng/uL
q-value: 94

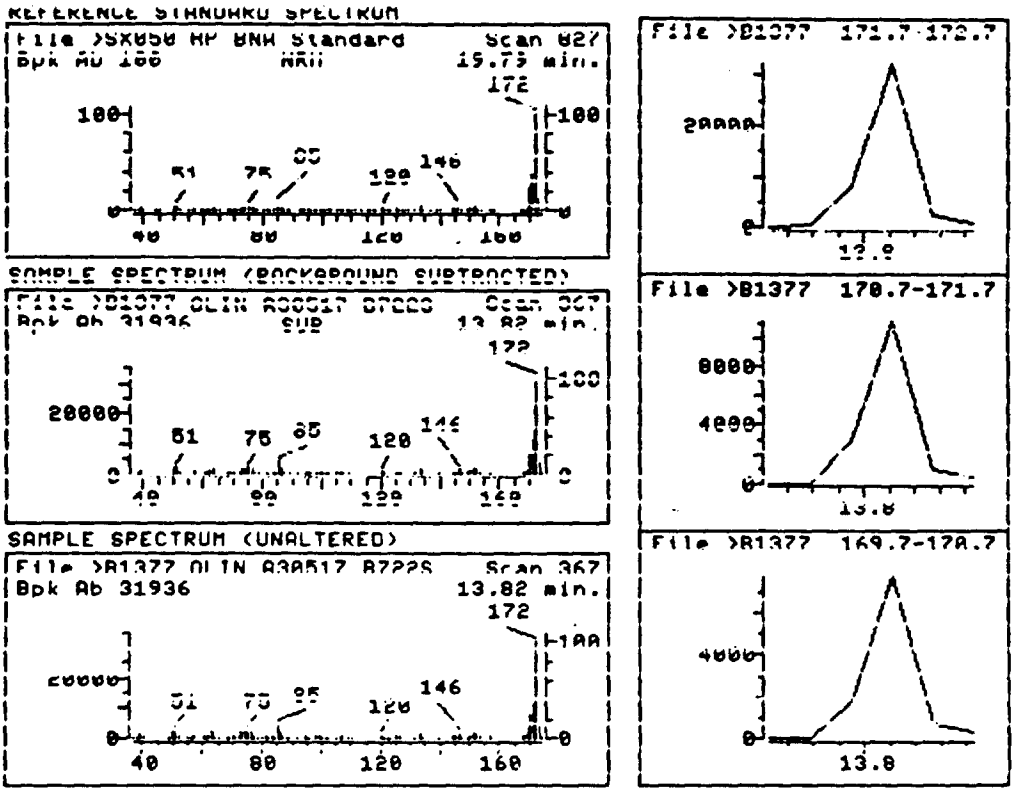


Data File: >B1377::D1
Name: OLIN A30517 B722S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:14
Injected at: 871221 11:29

Quant Output File: ^B1377::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 414
Retention Time: 15.34 min.
Quant Ion: 164.0
Area: 40164
Concentration: 40.00 ng/uL
q-value: 95



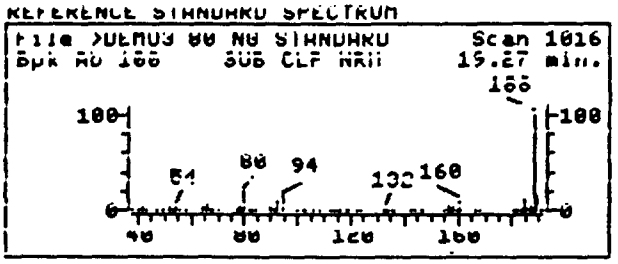
Data File: >B1377::D1
Name: OLIN A30517 B722S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:14
Injected at: 871221 11:29

Quant Output File: ^B1377::QT

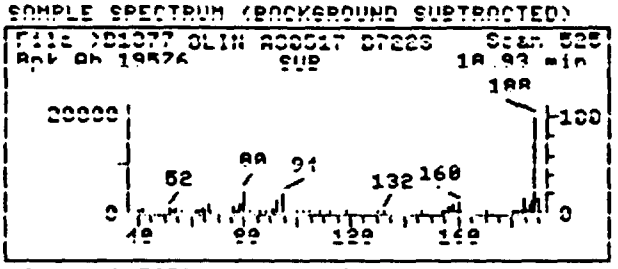
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 367
Retention Time: 13.82 min.
Quant Ion: 172.0
Area: 85125
Concentration: 6.63 ng/uL
q-value: 93

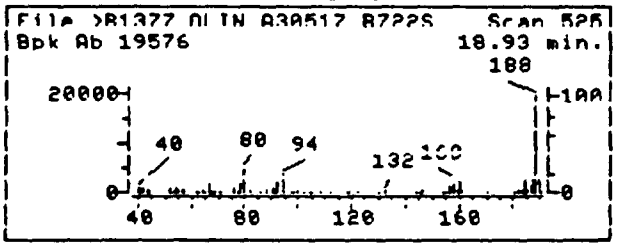
REFERENCE STANDARD SPECTRUM

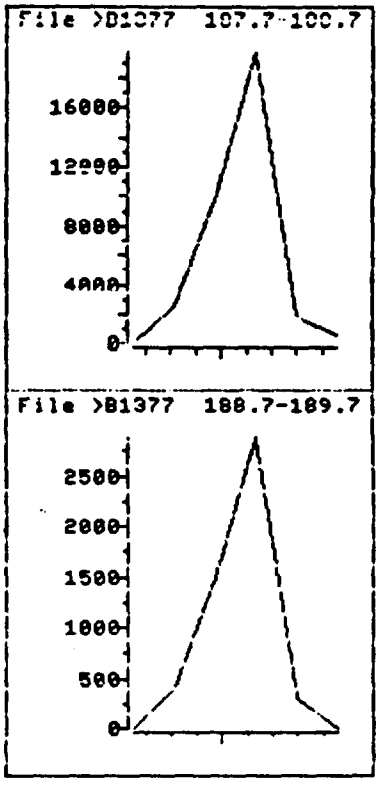


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



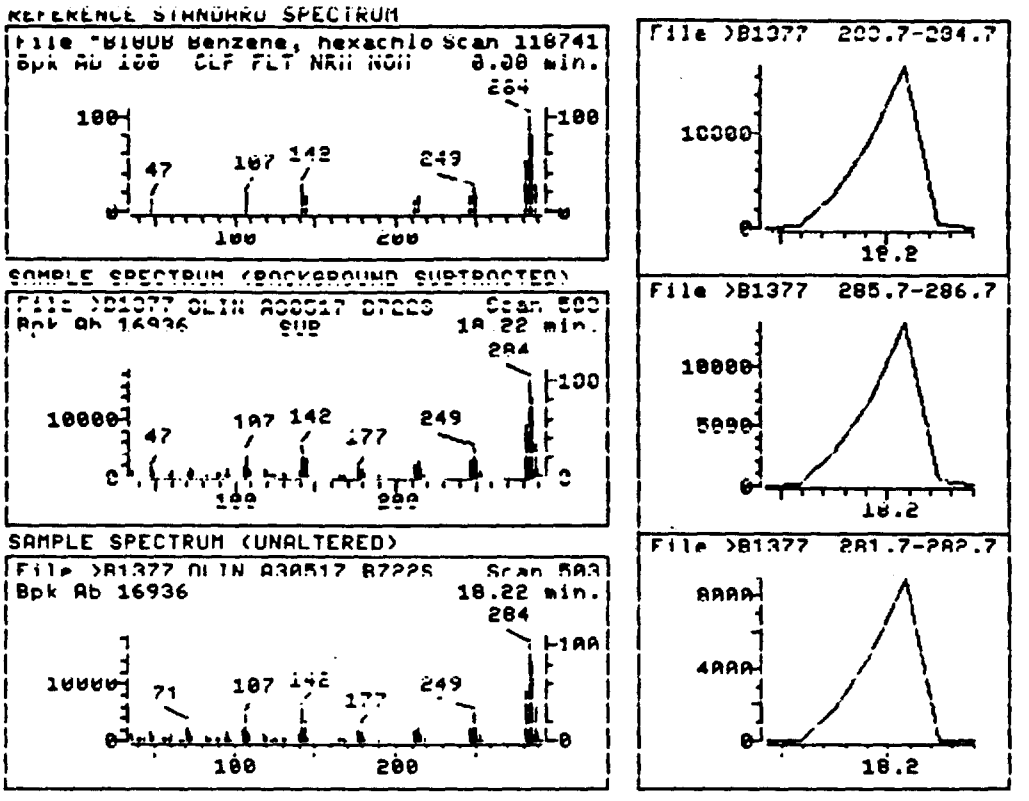


Data File: >B1377::D1
Name: OLIN A30517 B722S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:14
Injected at: 871221 11:29

Quant Output File: ^B1377::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 525
Retention Time: 18.93 min.
Quant Ion: 188.0
Area: 66861
Concentration: 40.00 ng/uL
q-value: 99



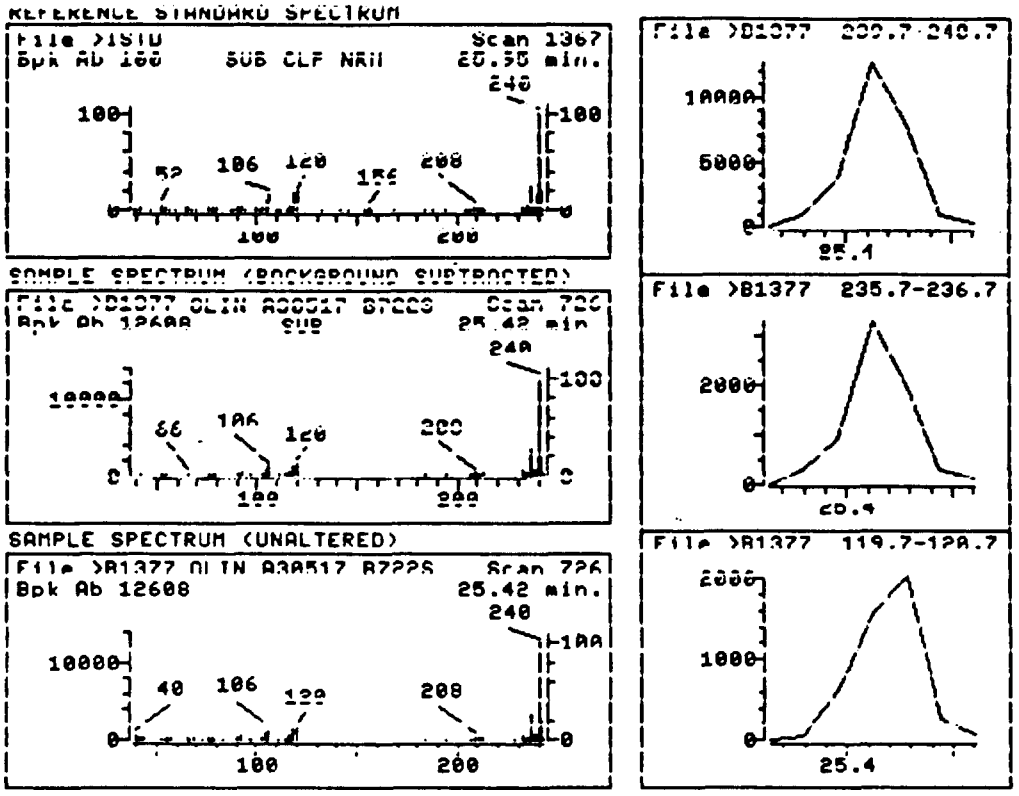
Data File: >B1377::D1
Name: OLIN A30517 B722S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:14
Injected at: 871221 11:29

Quant Output File: ^B1377::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 57
Compound Name: Hexachlorobenzene
Scan Number: 503
Retention Time: 18.22 min.
Quant Ion: 284.0
Area: 58292
Concentration: 11.29 ng/uL
q-value: 95

OK

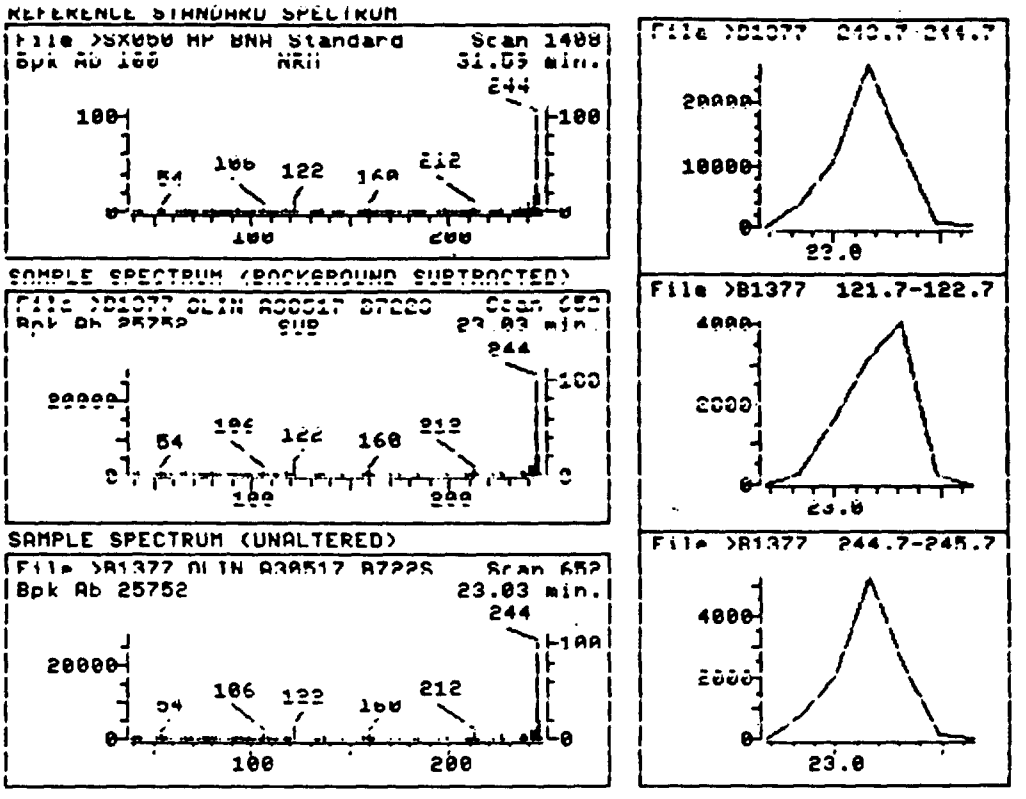


Data File: >B1377::D1
Name: OLIN A30517 B722S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:14
Injected at: 871221 11:29

Quant Output File: ^B1377::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 726
Retention Time: 25.42 min.
Quant Ion: 240.0
Area: 51561
Concentration: 40.00 ng/uL
q-value: 96

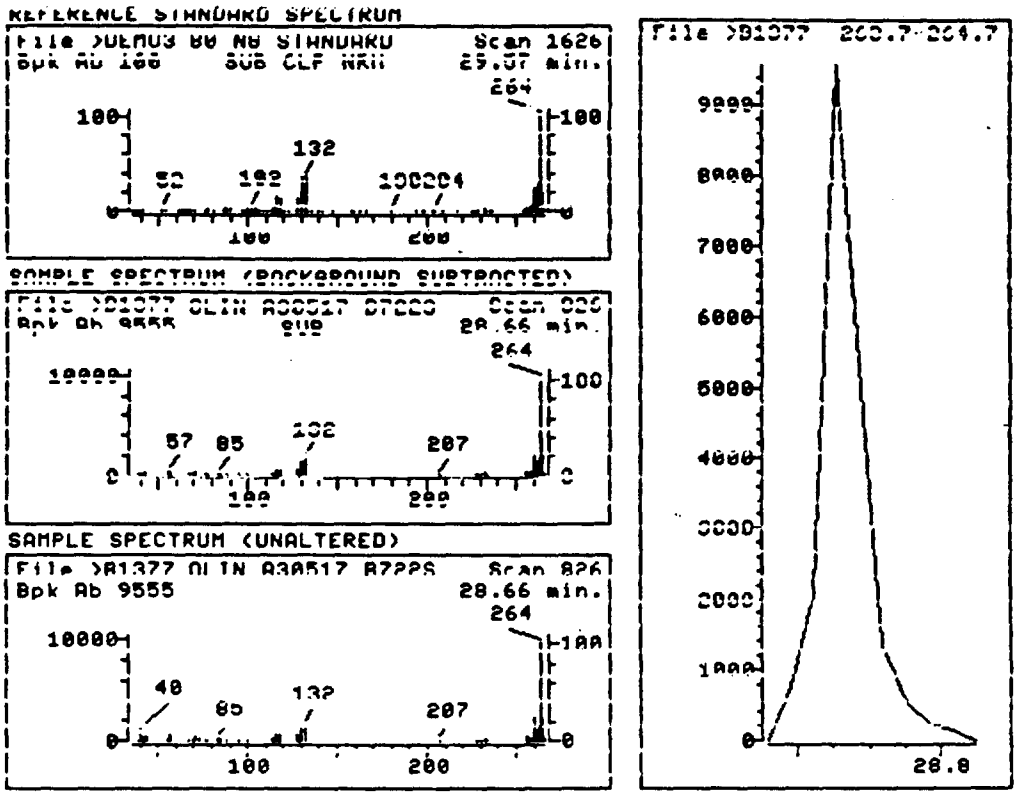


Data File: >B1377::D1
Name: OLIN A30517 B722S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:14
Injected at: 871221 11:29

Quant Output File: ^B1377::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 652
Retention Time: 23.03 min.
Quant Ion: 244.0
Area: 104574
Concentration: 8.60 ng/uL
q-value: 86



Data File: >B1377::D1
Name: OLIN A30517 B722S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:14
Injected at: 871221 11:29

Quant Output File: ^B1377::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 826
Retention Time: 28.66 min.
Quant Ion: 264.0
Area: 38751
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT
This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18822

CC: Paul Klotz

BCM Number : A30319
Location : 790
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	21.0	mg/kg	
Pentachloronitrobenzene	< 0.66	mg/kg	
Mercury	60.5	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/16/87	M/D/Y	
pH	6.4	std.un	
Specific Gravity	---------		
Total Solids	---------	%	

QUANT REPORT

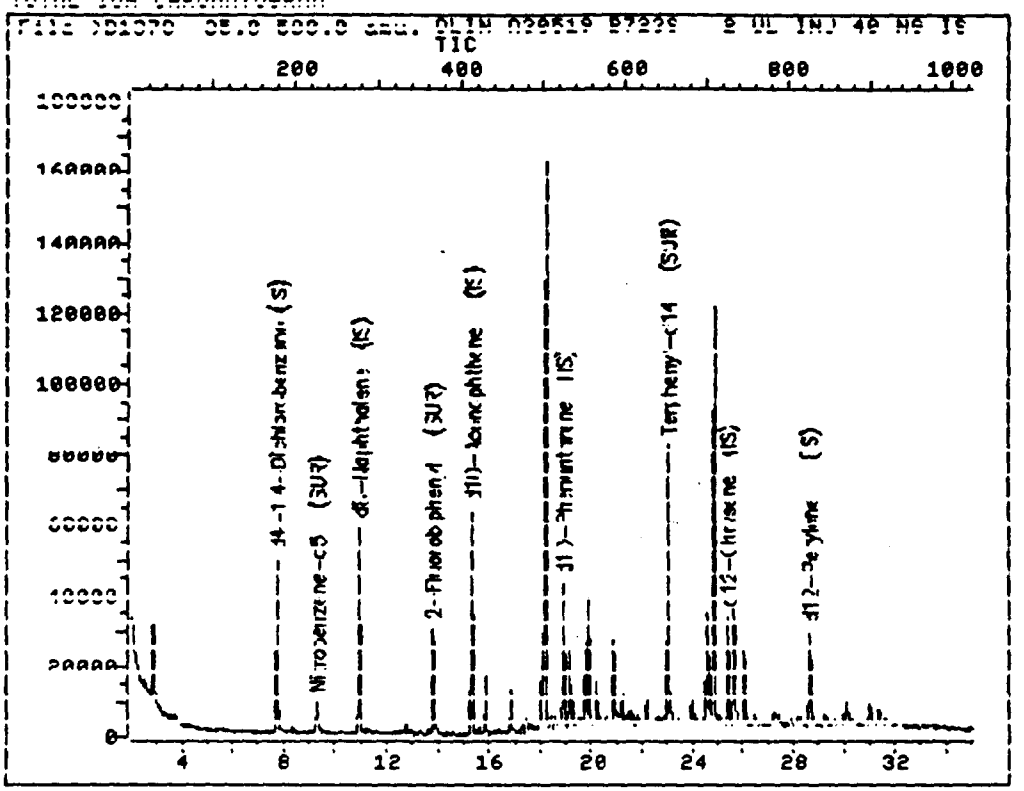
Operator ID: USER6 Quant Rev: 6 Quant Time: 871221 12:58
Output File: ^B1378::QT Injected at: 871221 12:18
Data File: >B1378::D1 Dilution Factor: .20000
Name: OLIN A30519 B723S
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.76	179	18681	40.00	ng/uL	93
16)	*d8-Naphthalene (IS)	10.96	278	58854	40.00	ng/uL	92
17)	Nitrobenzene-d5 (SUR)	9.31	227	16299	1.95	ng/uL	91
31)	*d10-Acenaphthene (IS)	15.35	414	38188	40.00	ng/uL	96
36)	2-Fluorobiphenyl (SUR)	13.80	366	37036	3.03	ng/uL	94
51)	*d10-Phenanthrene (IS)	18.91	524	56071	40.00	ng/uL	98
56)	Pentachloronitrobenzene	18.91	524	938	1.00	ng/uL	100
57)	Hexachlorobenzene	18.23	503	90759	20.96	ng/uL	95
63)	*d12-Chrysene (IS)	25.44	726	42757	40.00	ng/uL	97
65)	Terphenyl-d14 (SUR)	23.05	652	93388	9.26	ng/uL	88
71)	*d12-Perylene (IS)	28.67	826	31809	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

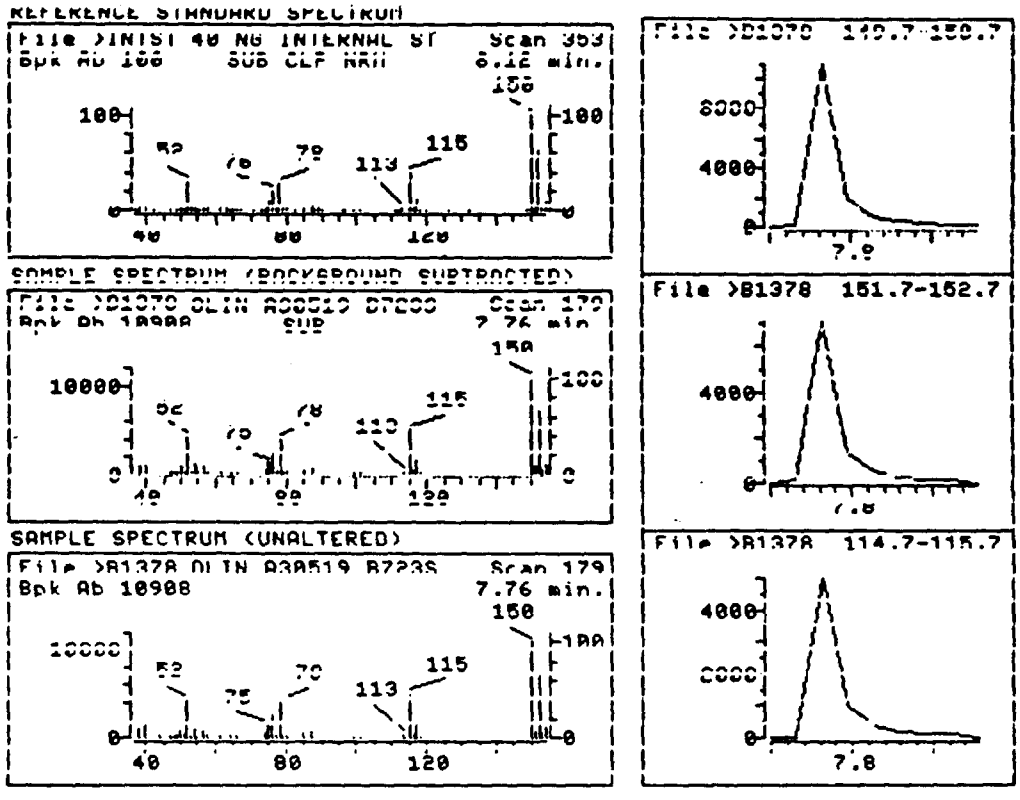


Data File: >B1378::D1
Name: OLIN A30519 8723S
Misc: 2 UL INJ 40 NG IS

Quant Output File: ^B1378::QT

Id File: ID BNA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

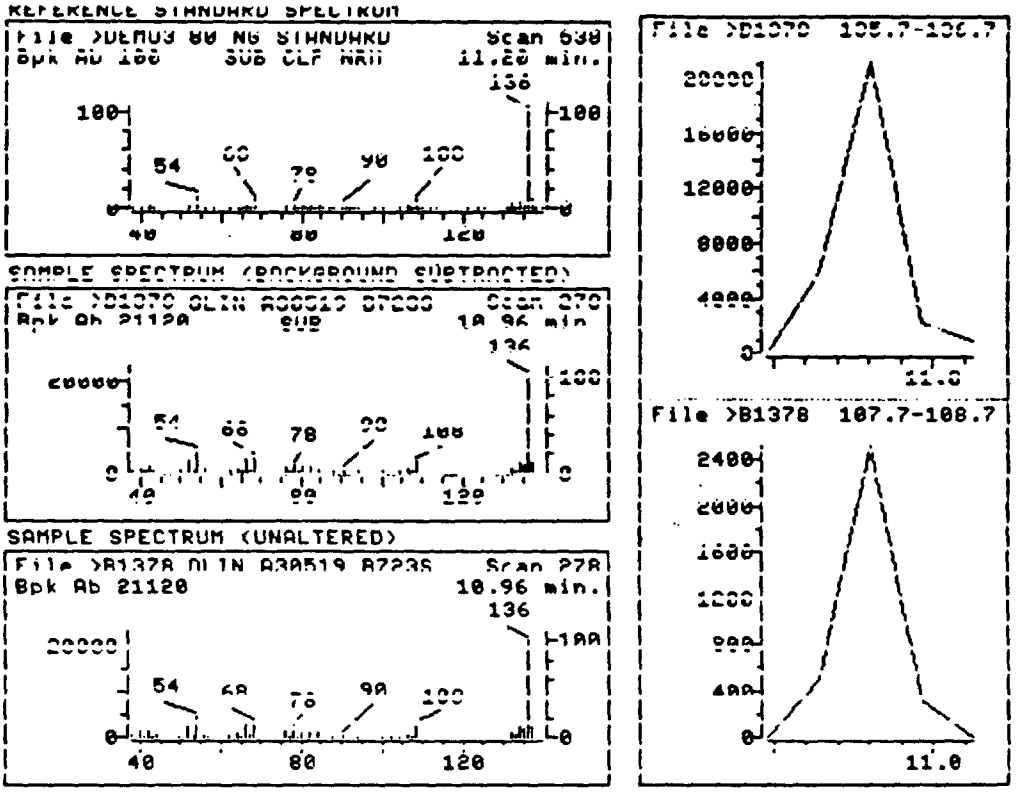
Operator ID: USER6
Quant Time: 871221 12:58
Injected at: 871221 12:18



Data File: >B1378::D1
Name: OLIN A30519 B723S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:58
Injected at: 871221 12:18

Quant Output File: ^B1378::QT
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 179
Retention Time: 7.76 min.
Quant Ion: 152.0
Area: 18681
Concentration: 40.00 ng/uL
q-value: 93



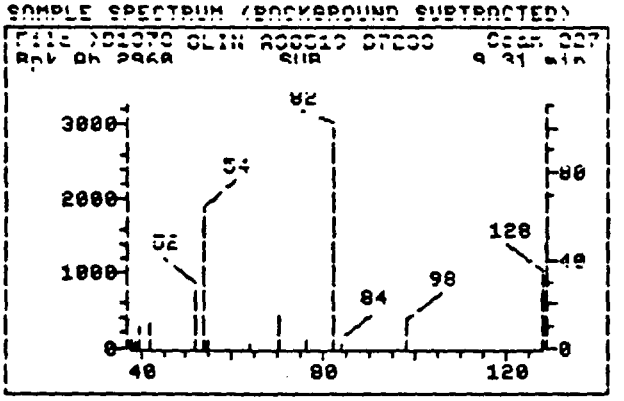
Data File: >B1378::D1
Name: OLIN A30519 B723S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:58
Injected at: 871221 12:18

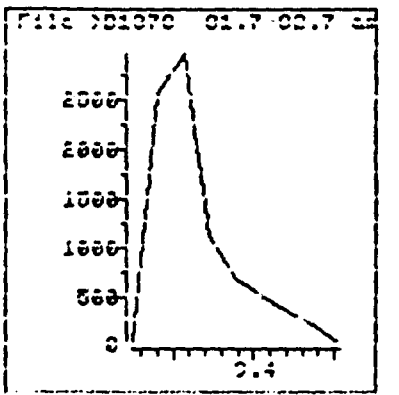
Quant Output File: ^B1378::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

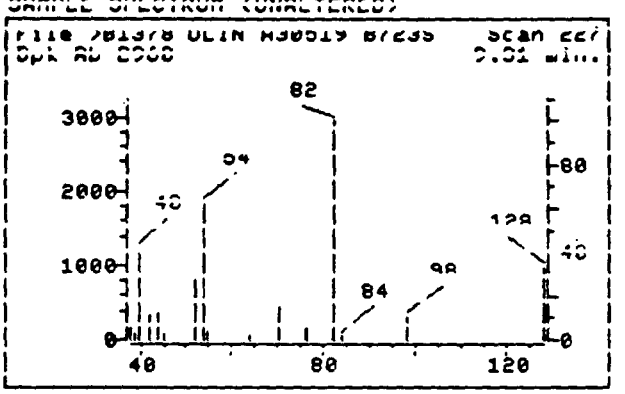
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 278
Retention Time: 10.96 min.
Quant Ion: 136.0
Area: 58854
Concentration: 40.00 ng/uL
q-value: 92

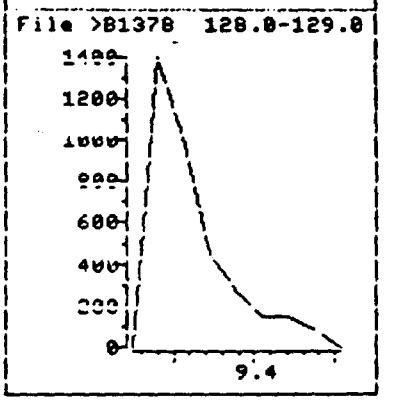
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



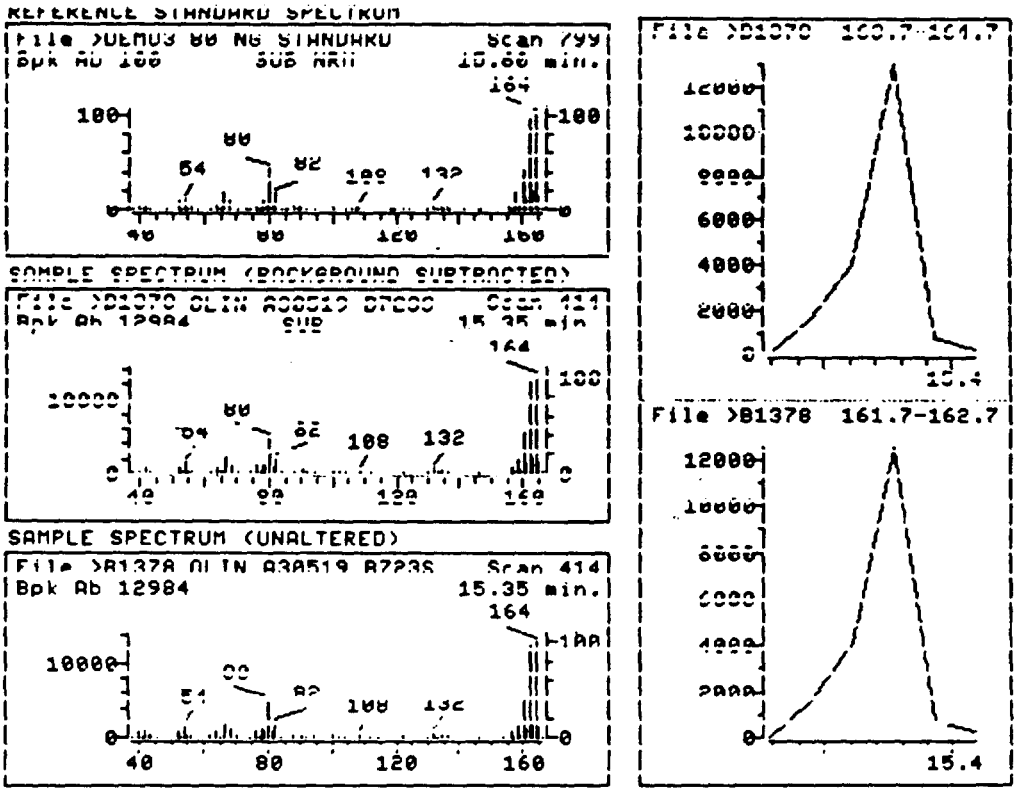


Data File: >B1378::D1
Name: OLIN A30519 B723S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:58
Injected at: 871221 12:18

Quant Output File: ^B1378::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 227
Retention Time: 9.31 min.
Quant Ion: 82.0
Area: 16299
Concentration: 1.95 ng/uL
q-value: 91

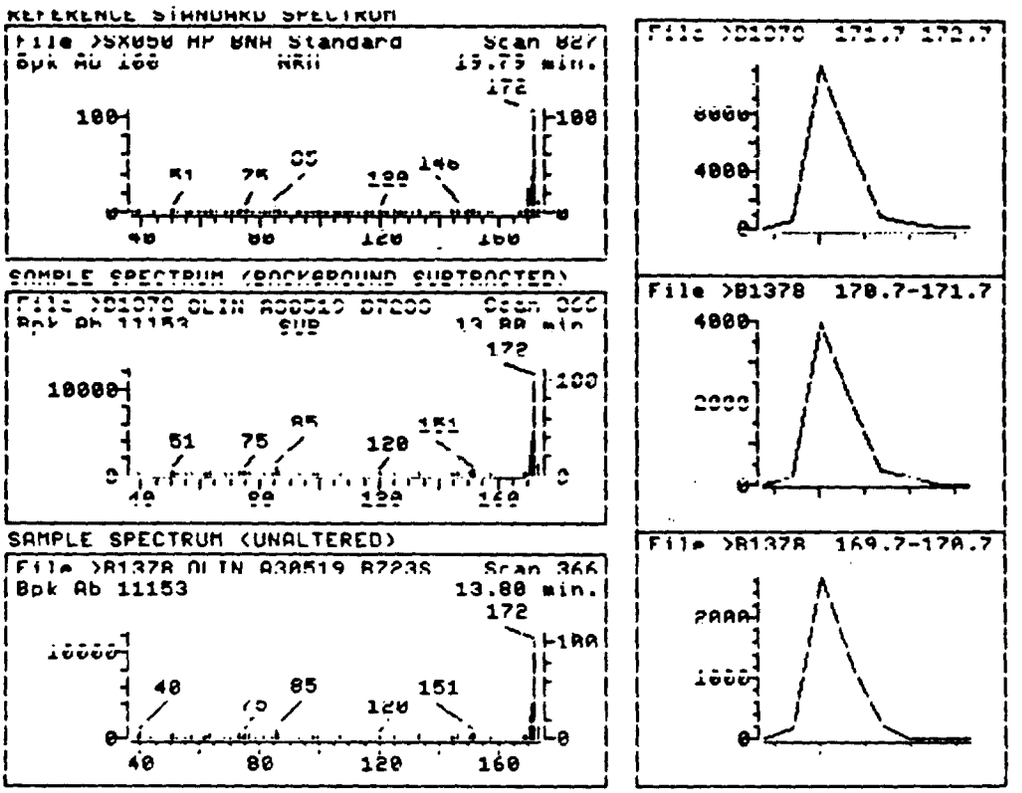


Data File: >B1378::D1
Name: OLIN A30519 B723S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:58
Injected at: 871221 12:18

Quant Output File: ^B1378::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 414
Retention Time: 15.35 min.
Quant Ion: 164.0
Area: 38188
Concentration: 40.00 ng/uL
q-value: 96

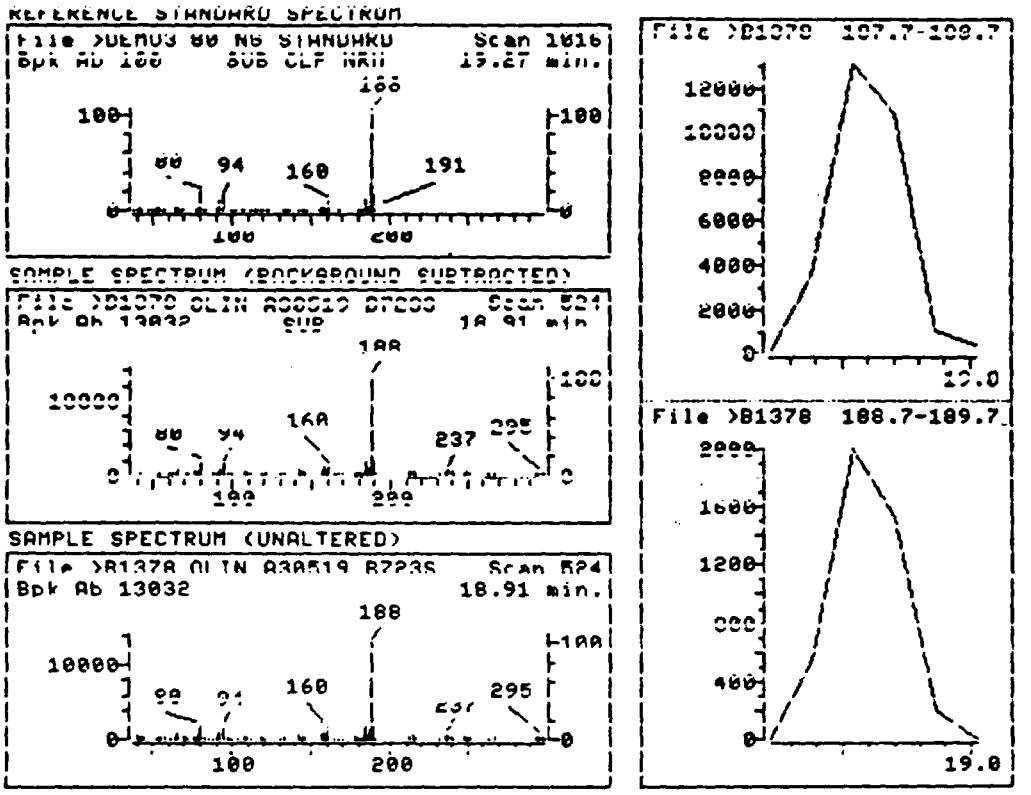


Data File: >B1378::D1
Name: OLIN A30519 B723S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:58
Injected at: 871221 12:18

Quant Output File: ^B1378::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 366
Retention Time: 13.80 min.
Quant Ion: 172.0
Area: 37036
Concentration: 3.03 ng/uL
o-value: 94



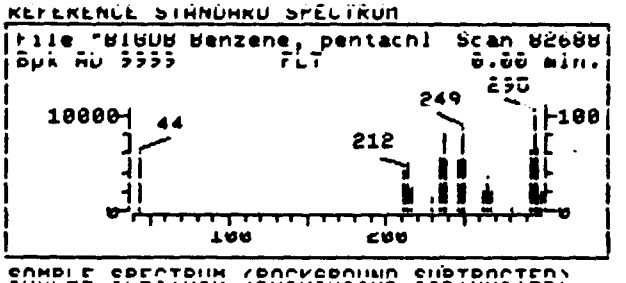
Data File: >B1378::D1
Name: OLIN A30519 B723S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:58
Injected at: 871221 12:18

Quant Output File: ^B1378::QT

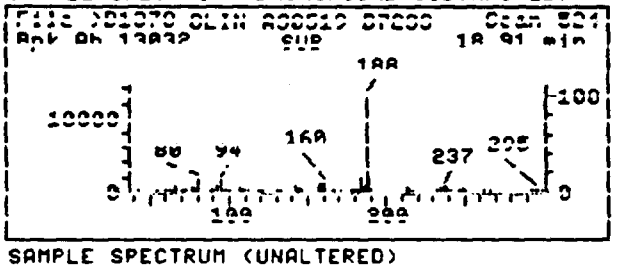
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 524
Retention Time: 18.91 min.
Quant Ion: 188.0
Area: 56071
Concentration: 40.00 ng/uL
q-value: 98

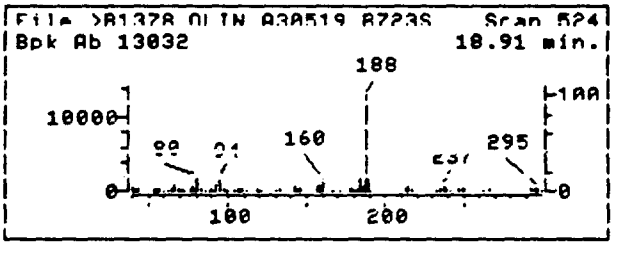
REFERENCE STANDARD SPECTRUM

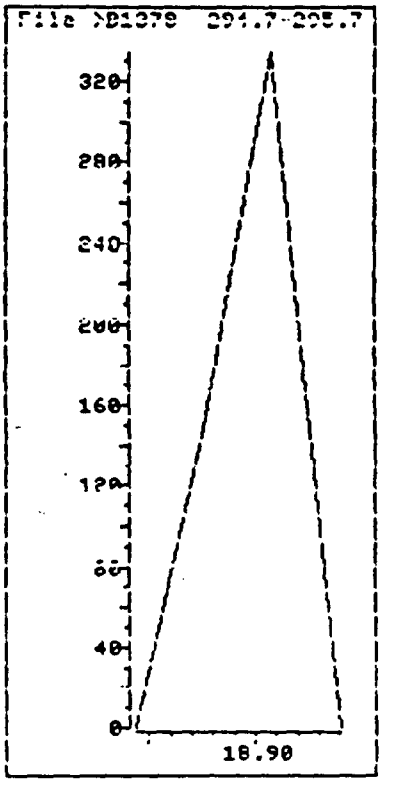


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





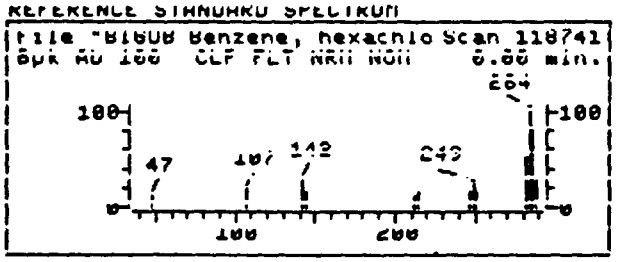
Data File: >B1378::D1
Name: OLIN A30519 B723S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:58
Injected at: 871221 12:18

Quant Output File: ^B1378::QT

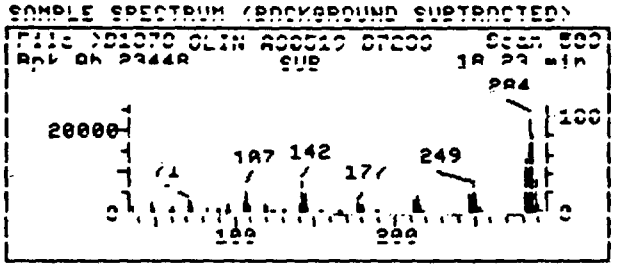
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 56
Compound Name: Pentachloronitrobenzene
Scan Number: 524
Retention Time: 18.91 min.
Quant Ion: 295.0
Area: 938
Concentration: 1.00 ng/uL
q-value: 100

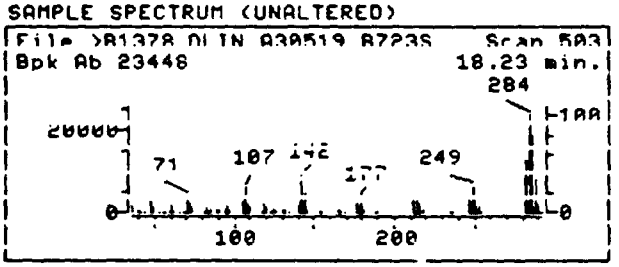
REFERENCE STANDARD SPECTRUM

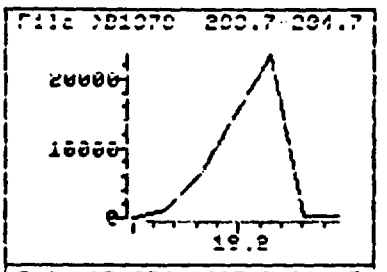


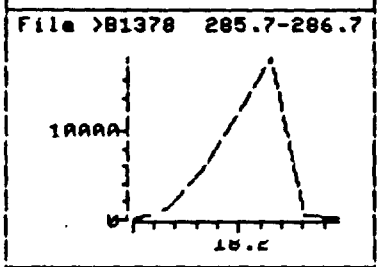
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

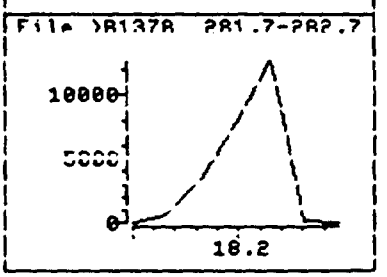


SAMPLE SPECTRUM (UNALTERED)







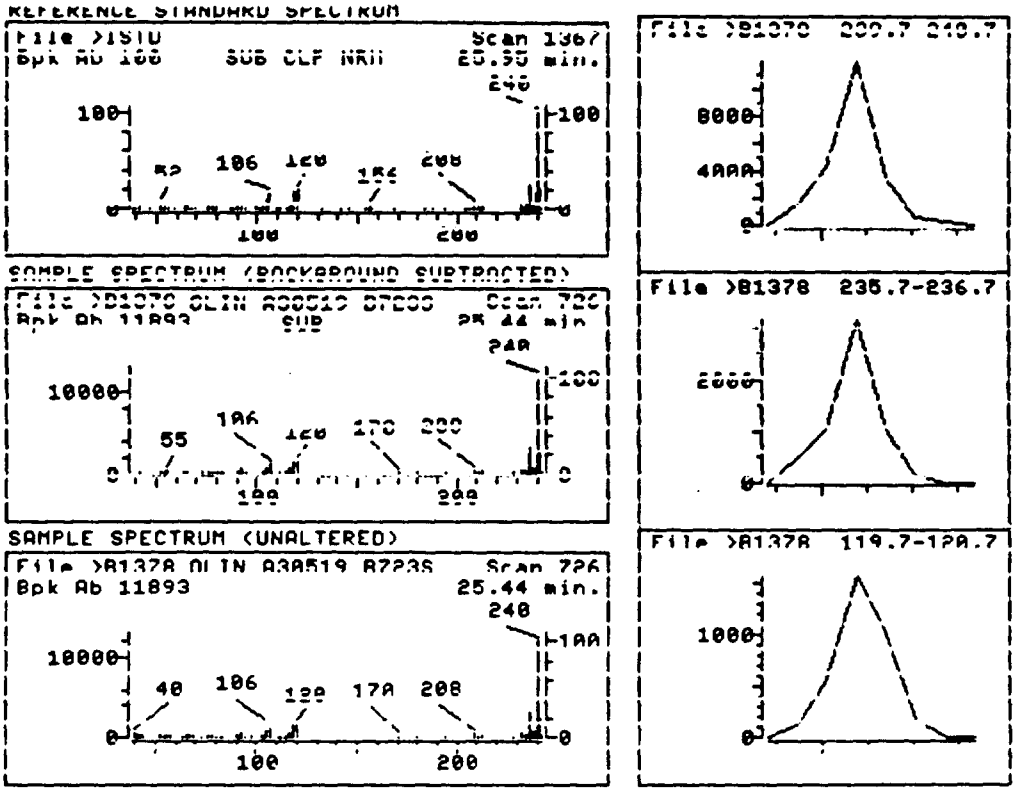


Data File: >B1378::D1
Name: OLIN A30519 B723S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:58
Injected at: 871221 12:18

Quant Output File: ^B1378::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 57
Compound Name: Hexachlorobenzene
Scan Number: 503
Retention Time: 18.23 min.
Quant Ion: 284.0
Area: 90759
Concentration: 20.96 ng/uL
q-value: 95

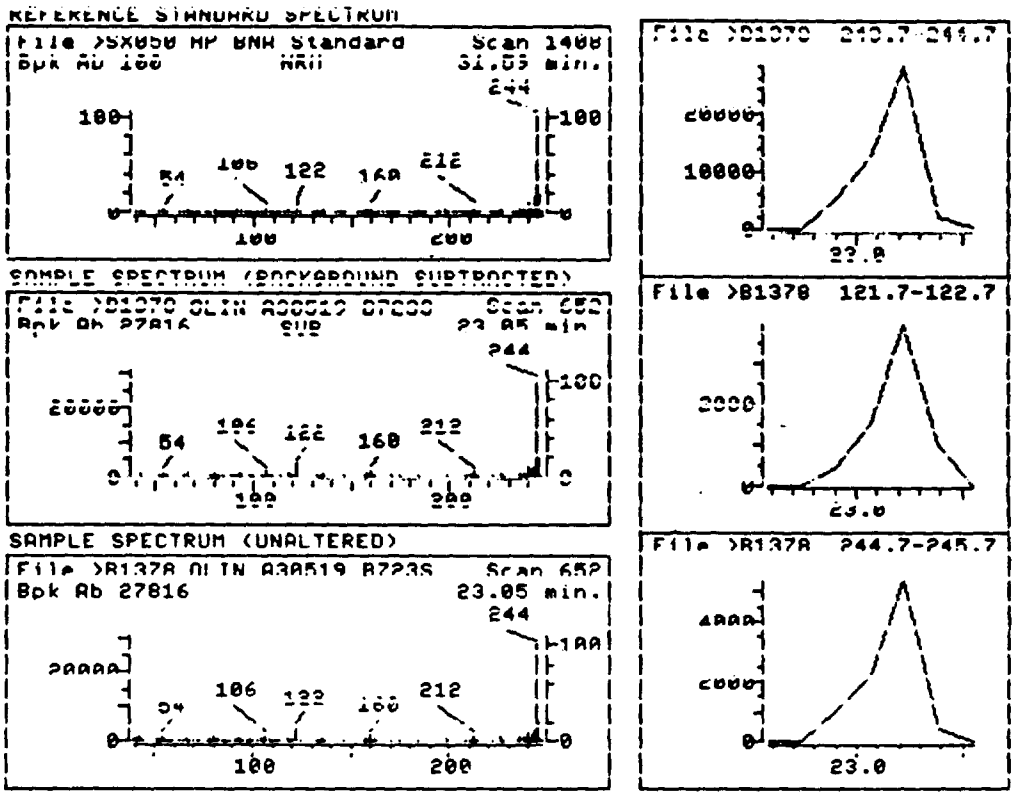


Data File: >B1378::D1
Name: OLIN A30519 B723S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:58
Injected at: 871221 12:18

Quant Output File: ^B1378::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 726
Retention Time: 25.44 min.
Quant Ion: 240.0
Area: 42757
Concentration: 40.00 ng/uL
q-value: 97



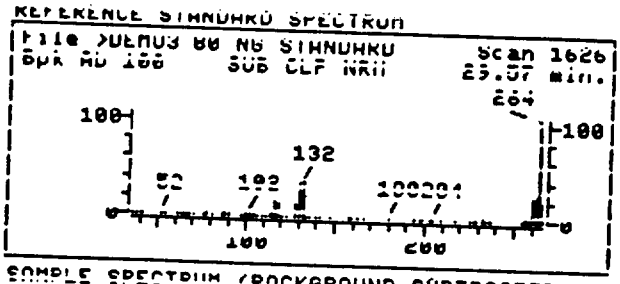
Data File: >B1378::D1
Name: OLIN A30519 B723S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:58
Injected at: 871221 12:18

Quant Output File: ^B1378::QT

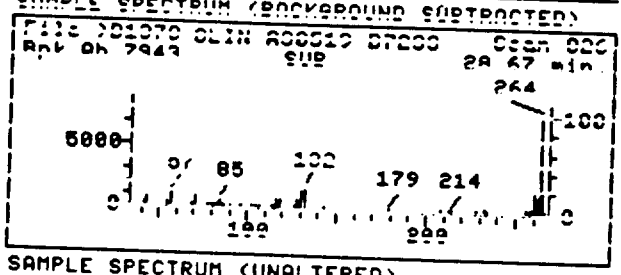
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 652
Retention Time: 23.05 min.
Quant Ion: 244.0
Area: 93388
Concentration: 9.26 ng/uL
q-value: 88

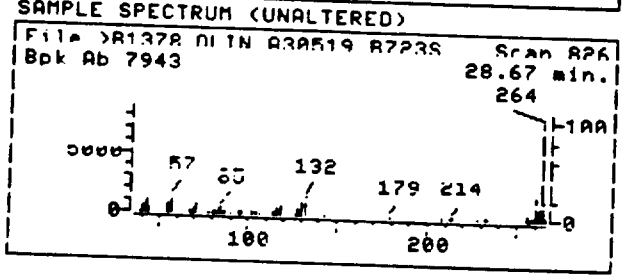
REFERENCE STANDARD SPECTRUM

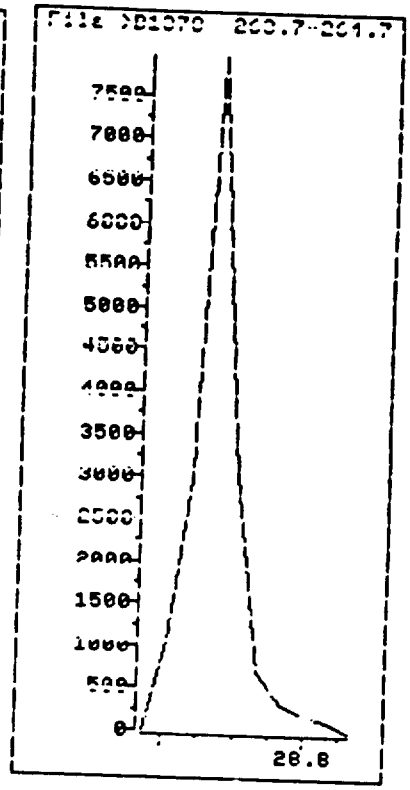


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >B1378::D1
Name: DLIN A30519 B723S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 12:58
Injected at: 871221 12:18

Quant Output File: ^B1378::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 826
Retention Time: 28.67 min.
Quant Ion: 264.0
Area: 31809
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT
This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18822

CC: Paul Klotz

BCM Number : A30521
Location : 183
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	< 0.66	mg/kg	
Pentachloronitrobenzene	< 0.66	mg/kg	
Mercury	3.95	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/16/87	M/D/Y	
pH	6.0	std.un	
Specific Gravity	---------		
Total Solids	---------	%	

QUANT REPORT

Operator ID: USER6
Output File: ^B1379::QT
Data File: >B1379::D1
Name: OLIN A30521 B724S
Misc: 2 UL INJ 40 NG IS

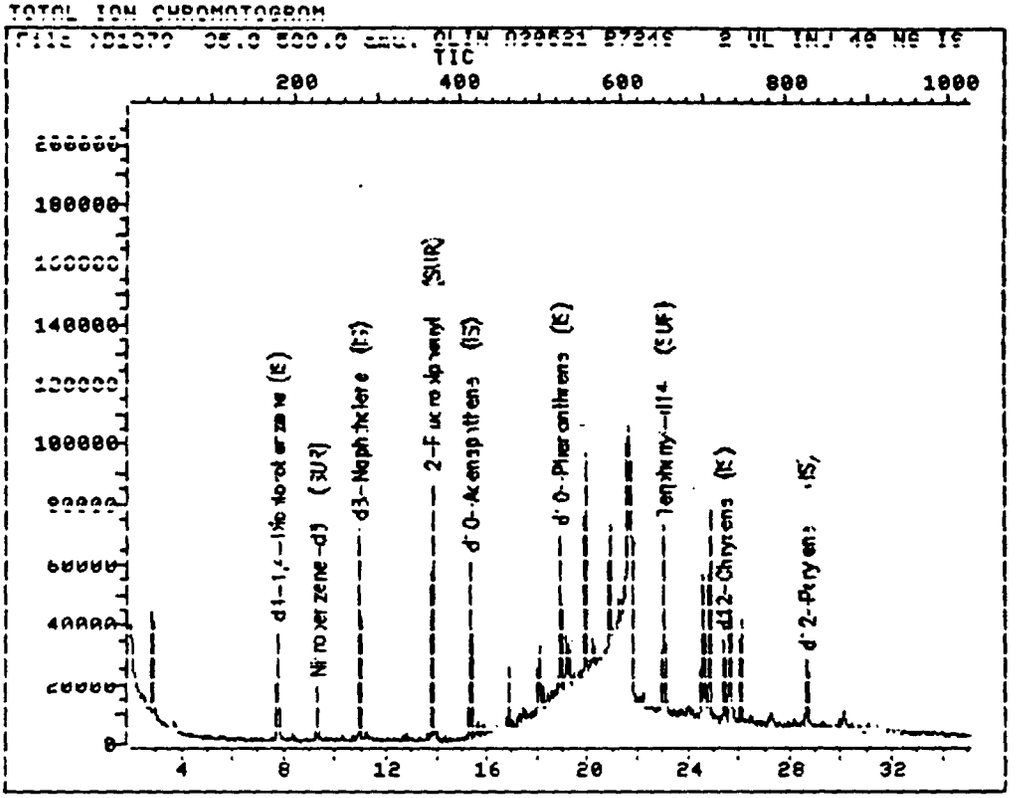
Quant Rev: 6
Quant Time: 871221 13:45
Injected at: 871221 13:01
Dilution Factor: .20000

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.76	179	18530	40.00	ng/uL	98
16)	*d8-Naphthalene (IS)	10.96	278	73413	40.00	ng/uL	88
17)	Nitrobenzene-d5 (SUR)	9.32	227	24951	2.40	ng/uL	92
31)	*d10-Acenaphthene (IS)	15.36	414	36941	40.00	ng/uL	97
36)	2-Fluorobiphenyl (SUR)	13.84	367	73156	6.19	ng/uL	93
51)	*d10-Phenanthrene (IS)	18.95	525	61348	40.00	ng/uL	99
57)	Hexachlorobenzene	18.20	502	2868	.61	ng/uL	86
63)	*d12-Chrysene (IS)	25.45	726	40819	40.00	ng/uL	98
65)	Terphenyl-d14 (SUR)	23.05	652	90334	9.38	ng/uL	85
71)	*d12-Perylene (IS)	28.68	826	29200	40.00	ng/uL	100

* Compound is ISTD

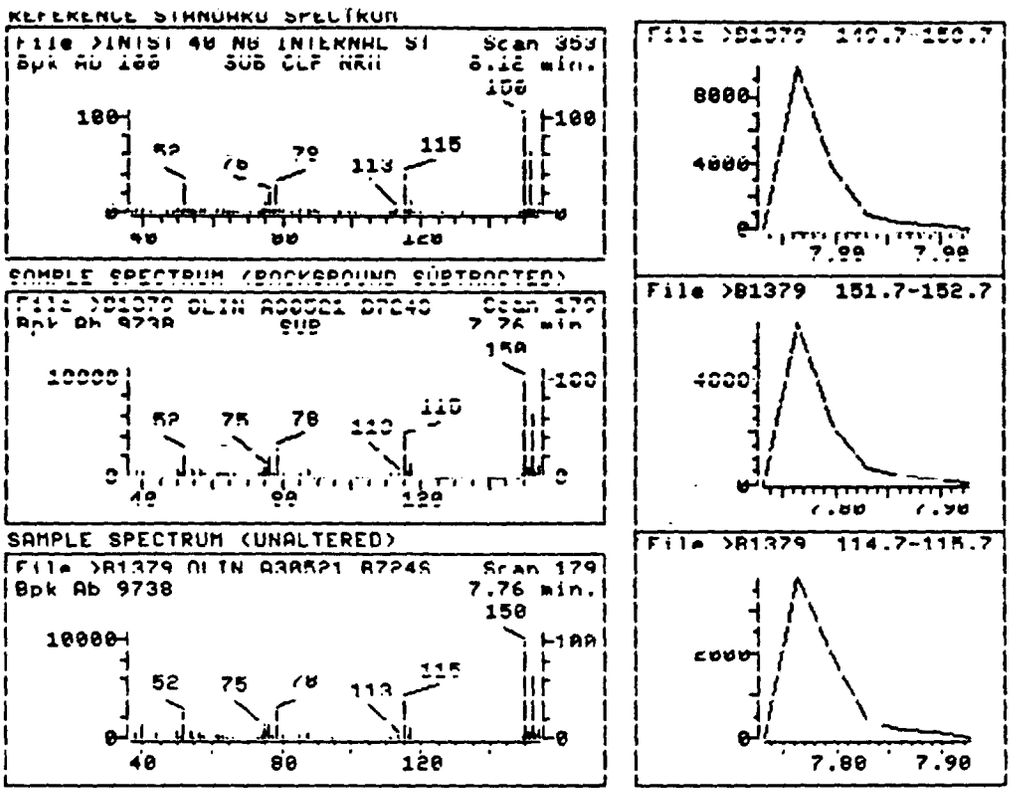
TOTAL ION CHROMATOGRAM



Data File: >B1379::D1 Quant Output File: ^B1379::QT
Name: OLIN A30521 B724S
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871221 13:45
Injected at: 871221 13:01

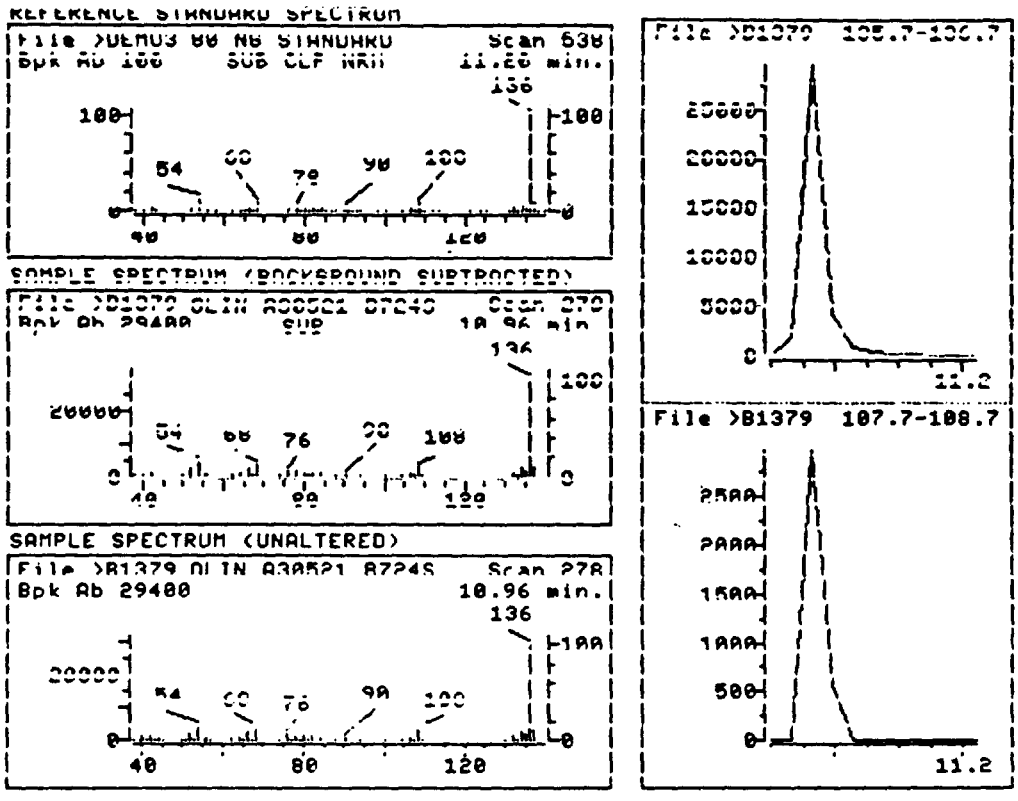


Data File: >B1379::D1
Name: OLIN A30521 B724S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 13:45
Injected at: 871221 13:01

Quant Output File: ^B1379::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 179
Retention Time: 7.76 min.
Quant Ion: 152.0
Area: 18530
Concentration: 40.00 ng/uL
q-value: 98



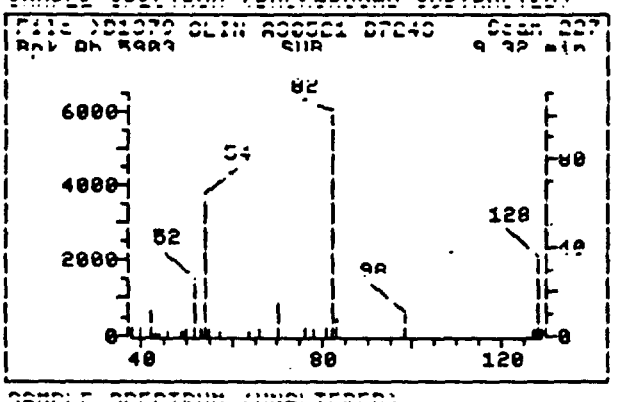
Data File: >B1379::D1
Name: OLIN A30521 B724S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 13:45
Injected at: 871221 13:01

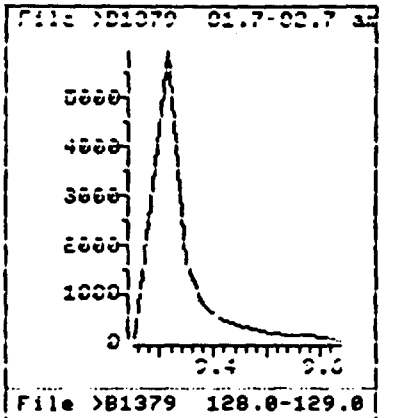
Quant Output File: ^B1379::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

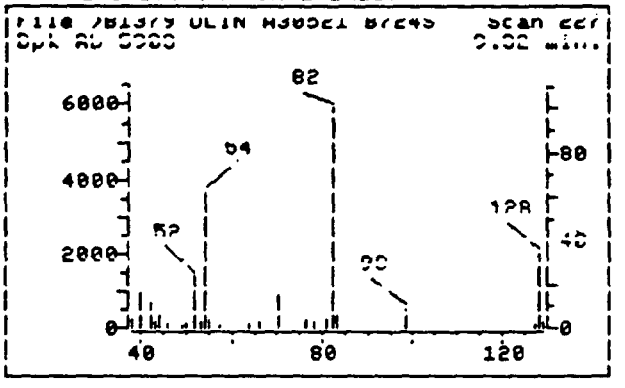
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 278
Retention Time: 10.96 min.
Quant Ion: 136.0
Area: 73413
Concentration: 40.00 ng/uL
q-value: 88

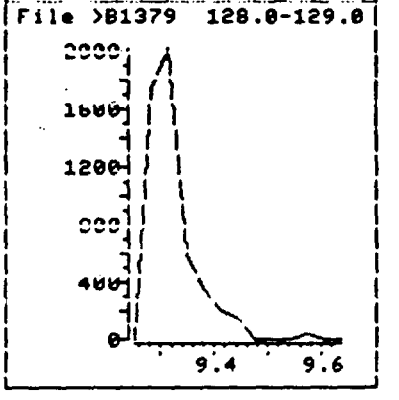
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



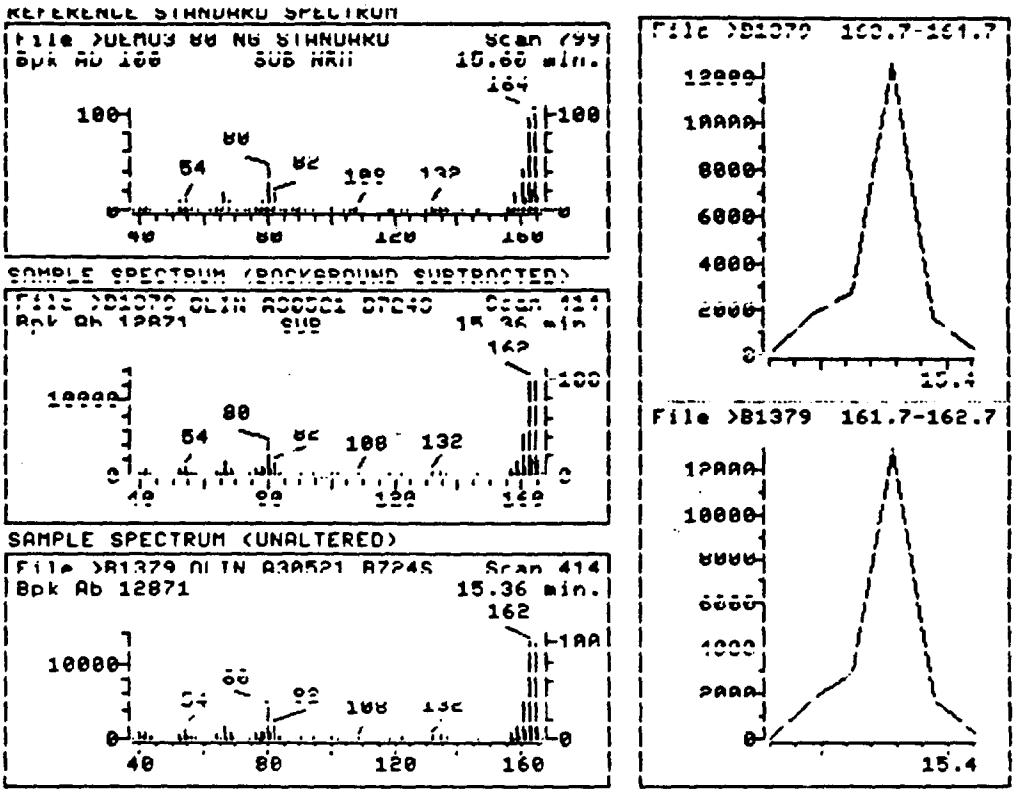


Data File: >B1379::D1
Name: DLIN A30521 B724S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 13:45
Injected at: 871221 13:01

Quant Output File: ^B1379::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 227
Retention Time: 9.32 min.
Quant Ion: 82.0
Area: 24951
Concentration: 2.40 ng/uL
q-value: 92

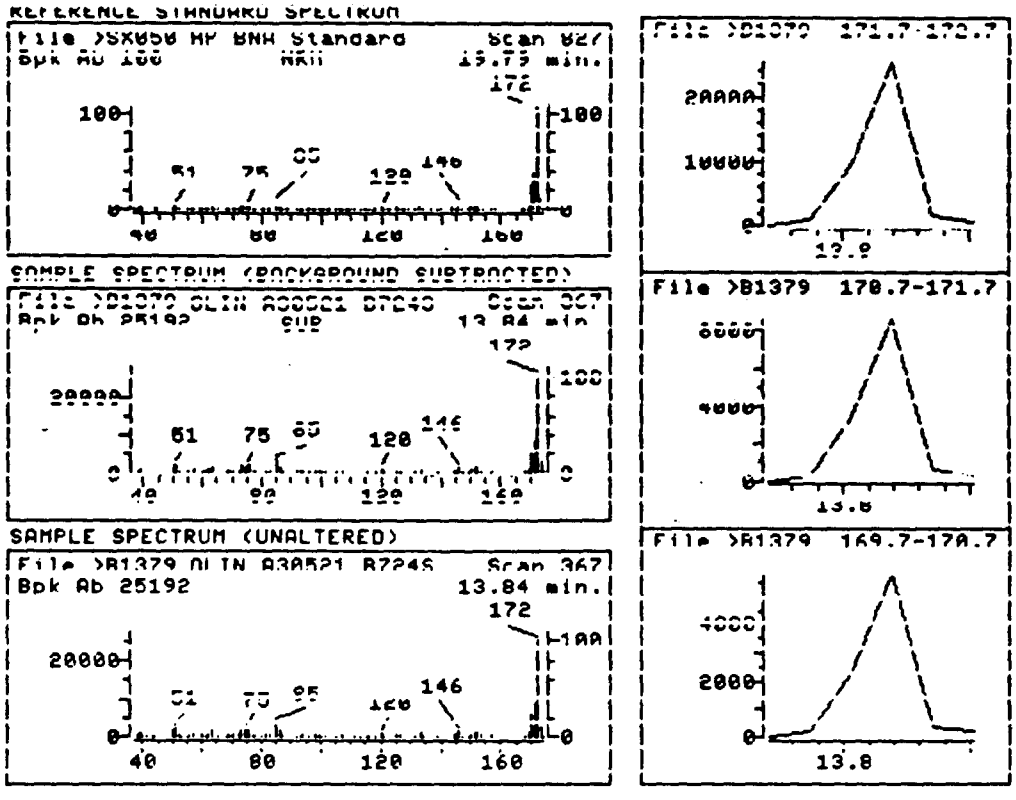


Data File: >B1379::D1
Name: OLIN A30521 B724S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 13:45
Injected at: 871221 13:01

Quant Output File: ^B1379::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 414
Retention Time: 15.36 min.
Quant Ion: 164.0
Area: 36941
Concentration: 40.00 ng/uL
q-value: 97

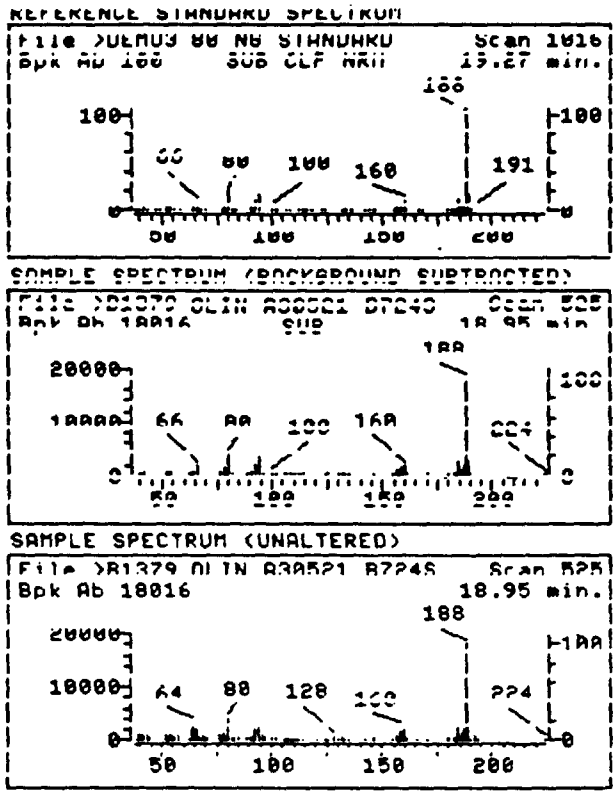


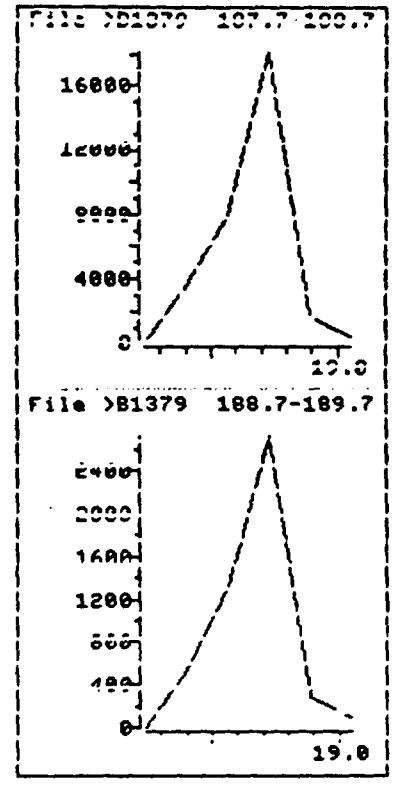
Data File: >B1379::D1
Name: OLIN A30521 B7245
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 13:45
Injected at: 871221 13:01

Quant Output File: ^B1379::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 367
Retention Time: 13.84 min.
Quant Ion: 172.0
Area: 73156
Concentration: 6.19 ng/uL
q-value: 93



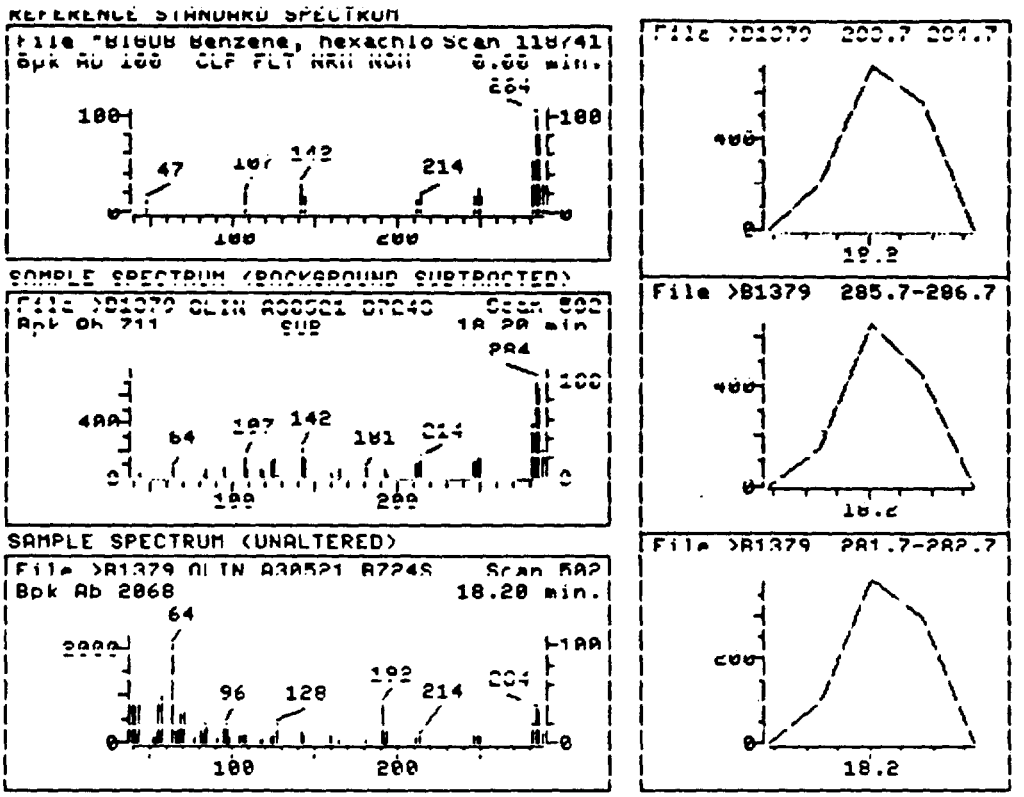


Data File: >B1379::D1
Name: OLIN A30521 B724S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 13:45
Injected at: 871221 13:01

Quant Output File: ^B1379::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 525
Retention Time: 18.95 min.
Quant Ion: 188.0
Area: 61348
Concentration: 40.00 ng/uL
q-value: 99



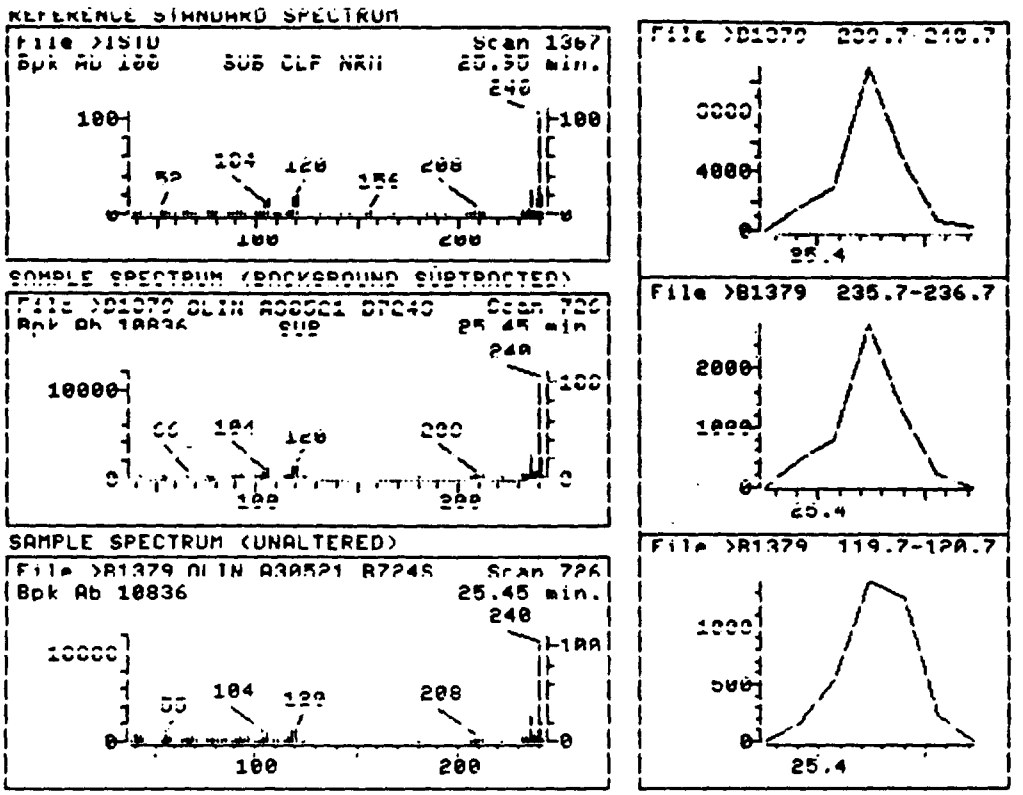
Data File: >B1379::D1
Name: OLIN A30521 B724S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 13:45
Injected at: 871221 13:01

Quant Output File: ^B1379::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 57
Compound Name: Hexachlorobenzene
Scan Number: 502
Retention Time: 18.20 min.
Quant Ion: 284.0
Area: 2868
Concentration: .61 ng/uL
q-value: 86

ok



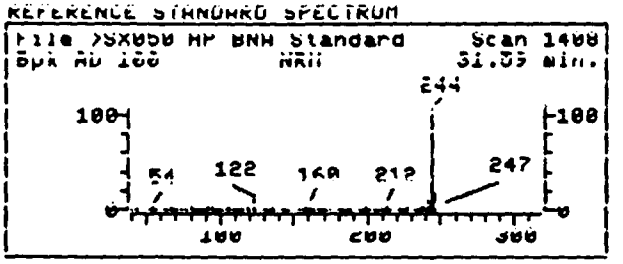
Data File: >B1379::D1
Name: OLIN A30521 B724S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 13:45
Injected at: 871221 13:01

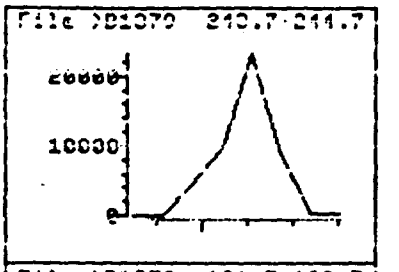
Quant Output File: ^B1379::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

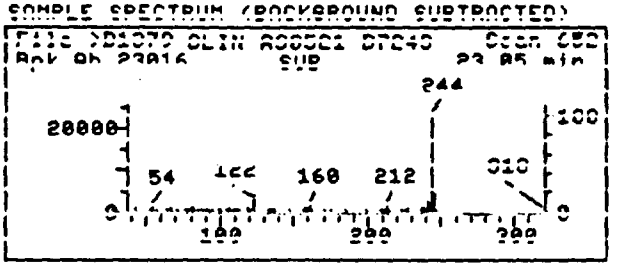
Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 726
Retention Time: 25.45 min.
Quant Ion: 240.0
Area: 40819
Concentration: 40.00 ng/uL
q-value: 98

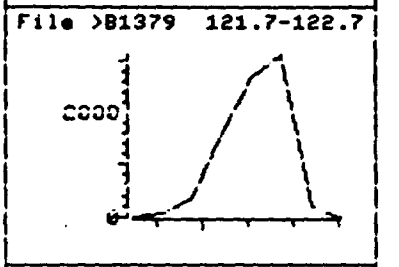
REFERENCE STANDARD SPECTRUM



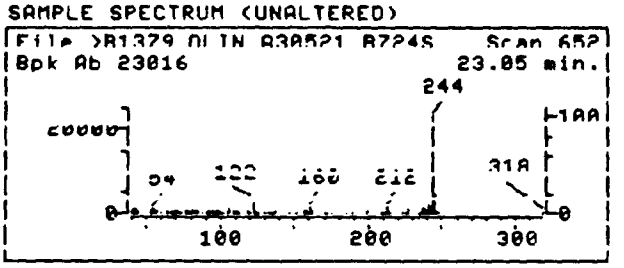


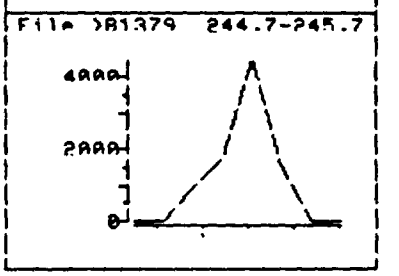
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



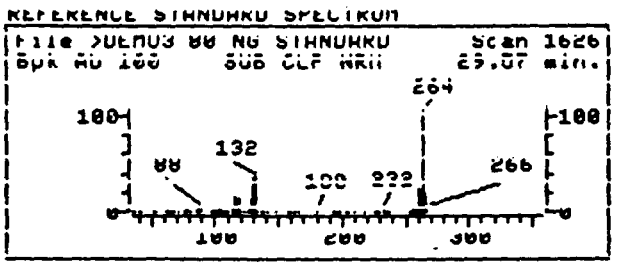


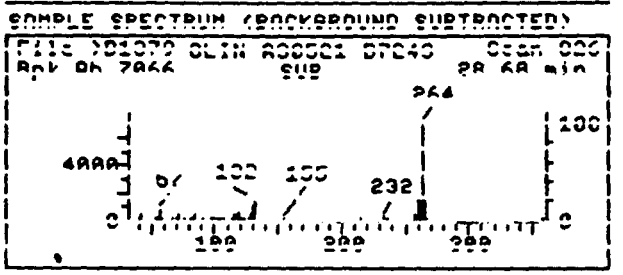
Data File: >B1379::D1
Name: OLIN A30521 B724S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 13:45
Injected at: 871221 13:01

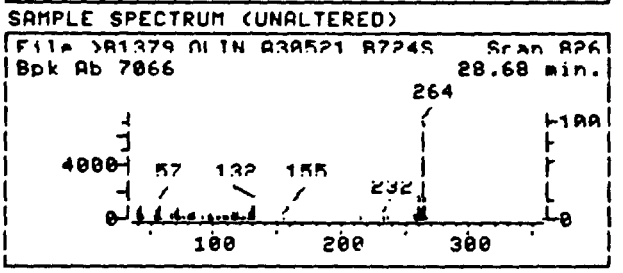
Quant Output File: ^B1379::QT

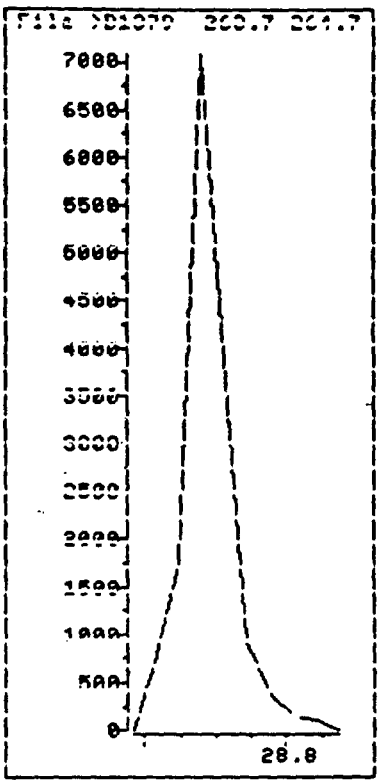
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 652
Retention Time: 23.05 min.
Quant Ion: 244.0
Area: 90334
Concentration: 9.38 ng/uL
q-value: 85









Data File: >B1379::D1
Name: OLIN A30521 B724S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 13:45
Injected at: 871221 13:01

Quant Output File: ^B1379::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 826
Retention Time: 28.68 min.
Quant Ion: 264.0
Area: 29200
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT
This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18822

CC: Paul Klotz

BCM Number : A30523
Location : 401
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	< 0.66	mg/kg	
Pentachloronitrobenzene	< 0.66	mg/kg	
Mercury	8.00	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	12/16/87	M/D/Y	
pH	7.0	std.un	
Specific Gravity	---------		
Total Solids	---------	%	

QUANT REPORT

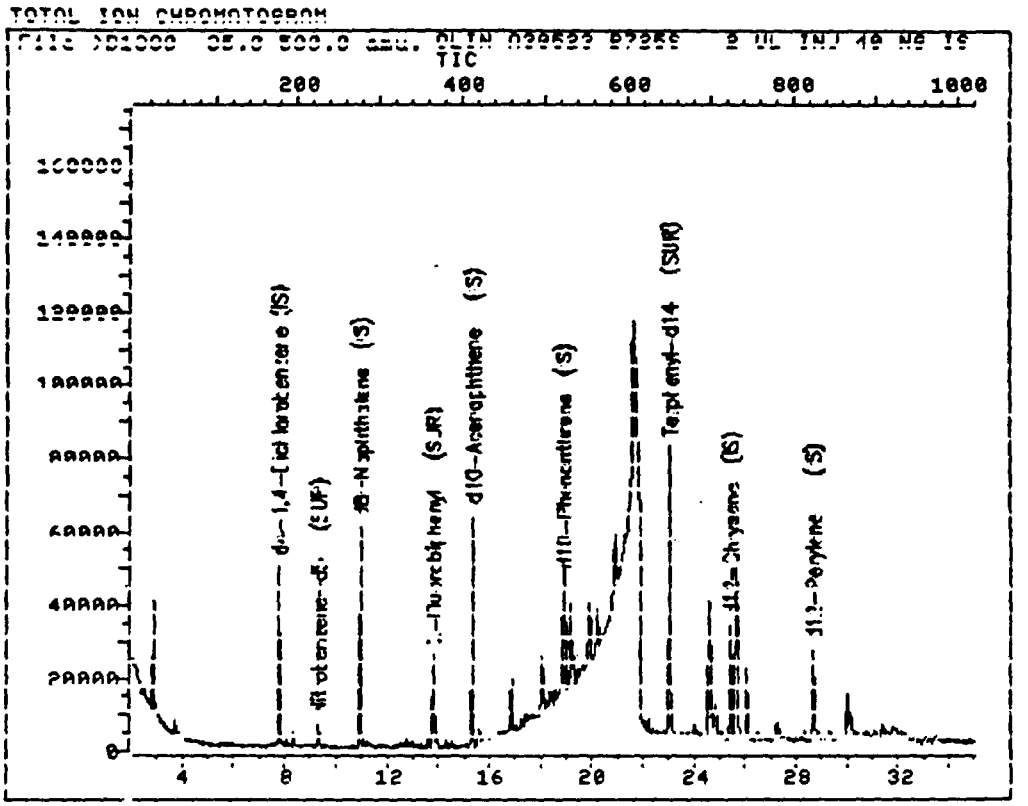
Operator ID: USER6
Output File: ^B1380::QT
Data File: >B1380::D1
Name: OLIN A30523 8725S
Misc: 2 UL INJ 40 NG IS

Quant Rev: 6
Quant Time: 871221 14:30
Injected at: 871221 13:49
Dilution Factor: .20000

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.77	177	18620	40.00	ng/uL	94
16)	*d8-Naphthalene (IS)	10.96	276	61286	40.00	ng/uL	90
17)	Nitrobenzene-d5 (SUR)	9.32	225	8266	.95	ng/uL	94
31)	*d10-Acenaphthene (IS)	15.36	412	38906	40.00	ng/uL	99
36)	2-Fluorobiphenyl (SUR)	13.81	364	28895	2.32	ng/uL	95
51)	*d10-Phenanthrene (IS)	18.91	522	56217	40.00	ng/uL	99
63)	*d12-Chrysene (IS)	25.44	724	40167	40.00	ng/uL	96
65)	Terphenyl-d14 (SUR)	23.05	650	98320	10.38	ng/uL	86
71)	*d12-Perylene (IS)	28.68	824	26741	40.00	ng/uL	100

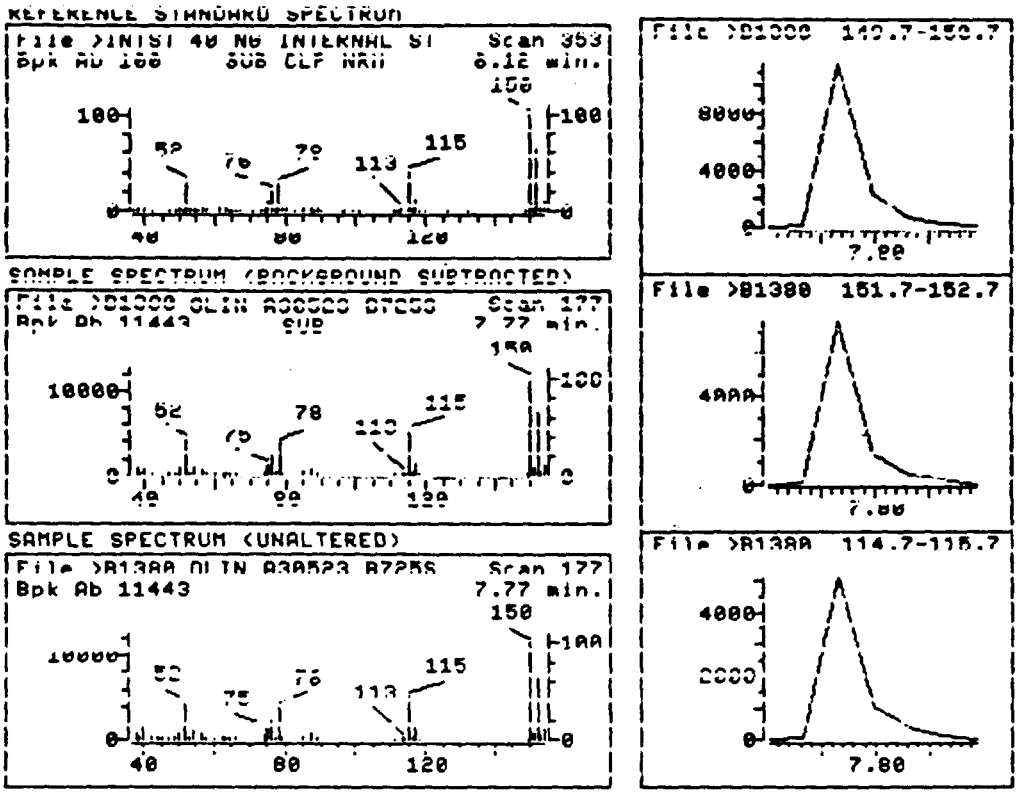
* Compound is ISTD



Data File: >B1380::D1 Quant Output File: ^B1380::QT
Name: DLIN A30523 B725S
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871221 14:30
Injected at: 871221 13:49

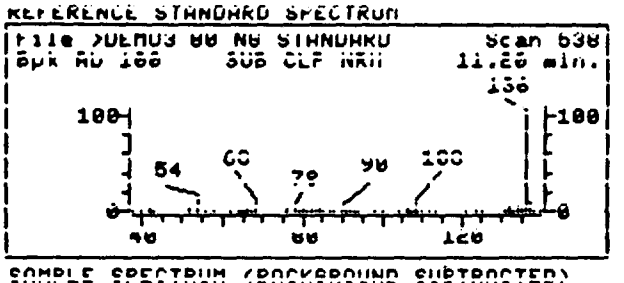


Data File: >B1380::D1
Name: OLIN A30523 B725S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 14:30
Injected at: 871221 13:49

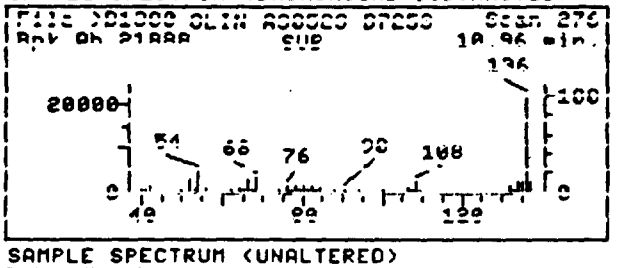
Quant Output File: ^B1380::QT
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 177
Retention Time: 7.77 min.
Quant Ion: 152.0
Area: 18620
Concentration: 40.00 ng/uL
q-value: 94

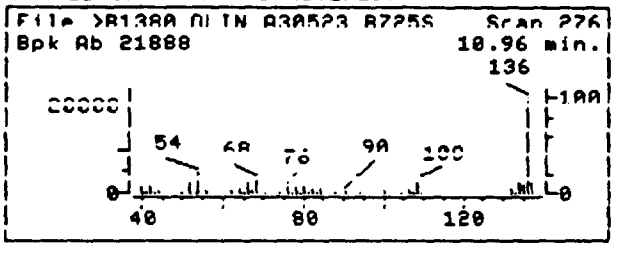
REFERENCE STANDARD SPECTRUM

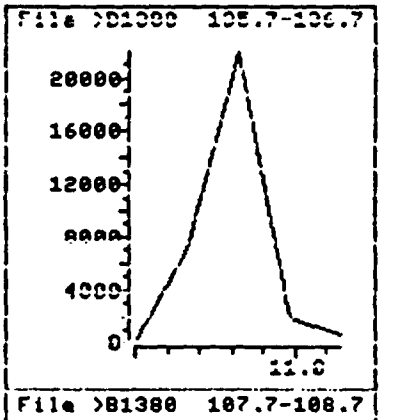


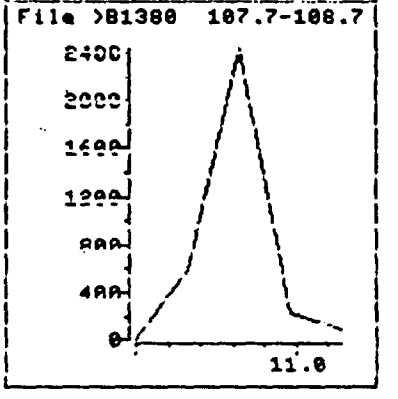
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







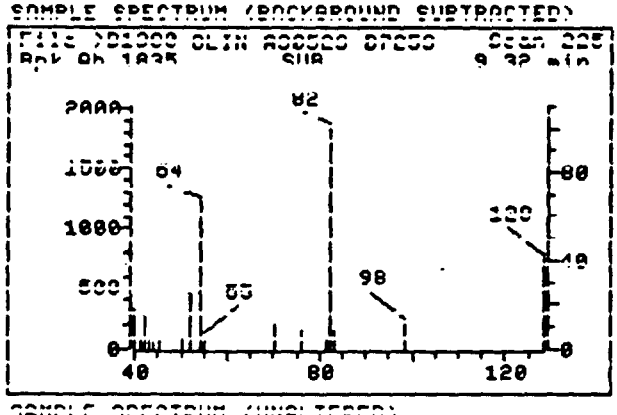
Data File: >B1380::D1
Name: OLIN A30523 B725S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 14:30
Injected at: 871221 13:49

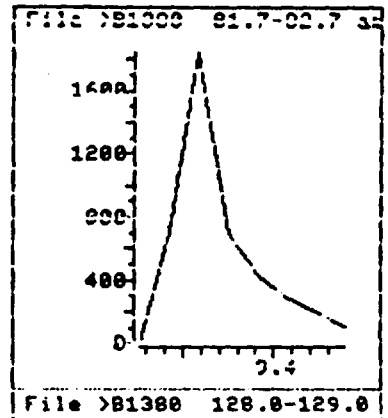
Quant Output File: ^B1380::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

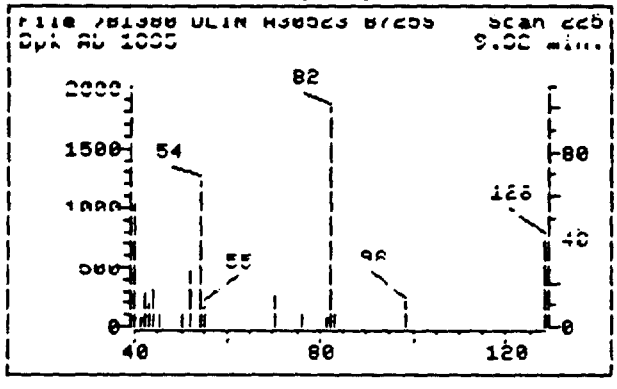
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 276
Retention Time: 10.96 min.
Quant Ion: 136.0
Area: 61286
Concentration: 40.00 ng/uL
q-value: 90

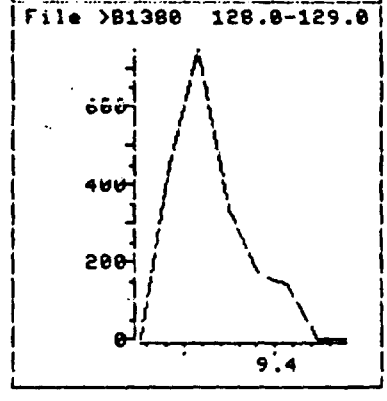
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



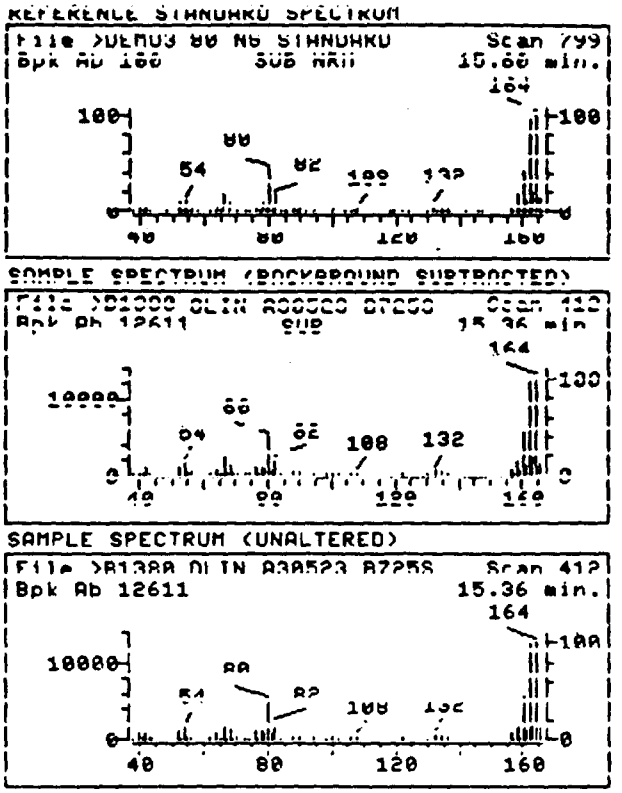


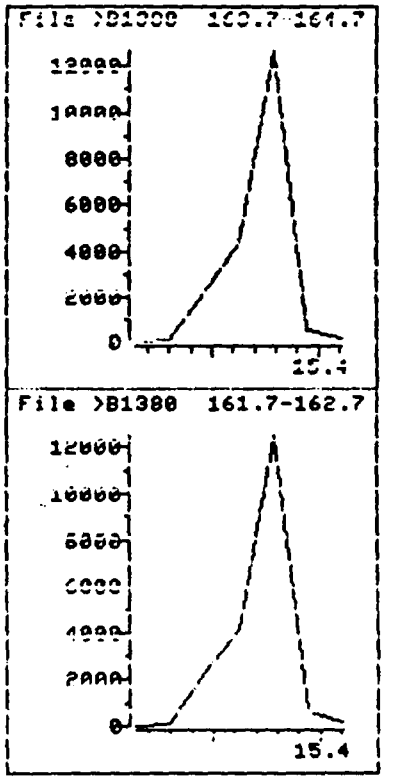
Data File: >B1380::D1
Name: OLIN A30523 B7255
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 14:30
Injected at: 871221 13:49

Quant Output File: ^B1380::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 225
Retention Time: 9.32 min.
Quant Ion: 82.0
Area: 8266
Concentration: .95 ng/uL
q-value: 94



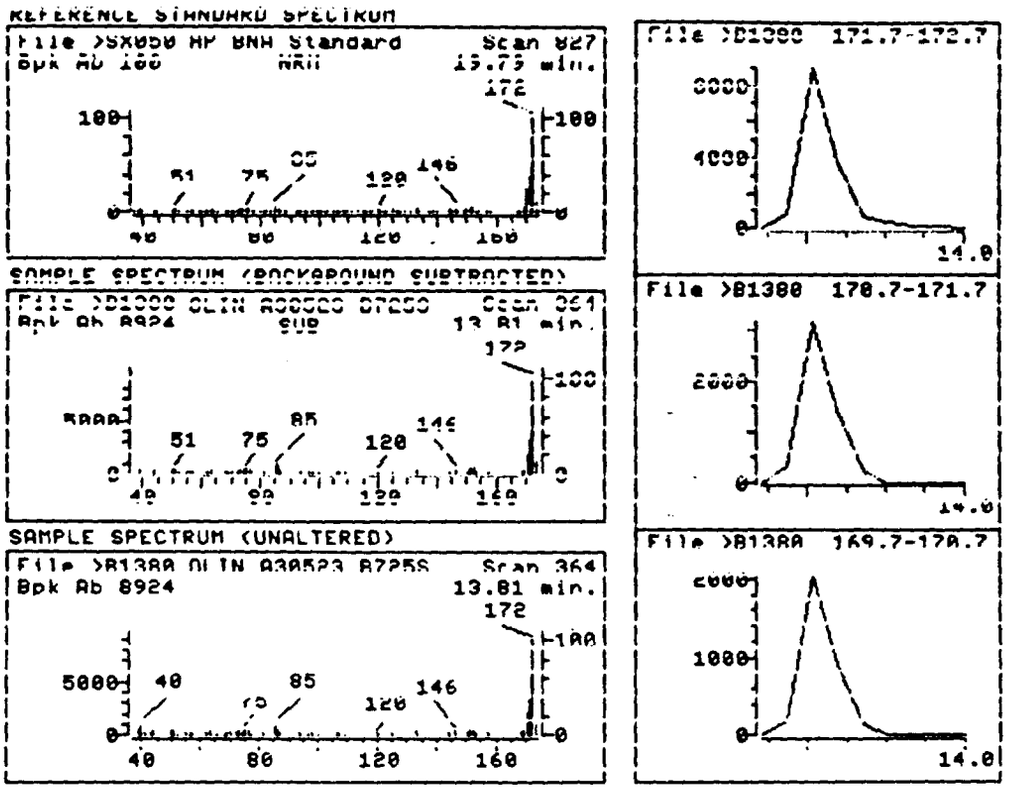


Data File: >B1380::D1
Name: OLIN A30523 B725S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 14:30
Injected at: 871221 13:49

Quant Output File: ^B1380::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 412
Retention Time: 15.36 min.
Quant Ion: 164.0
Area: 38906
Concentration: 40.00 ng/uL
q-value: 99

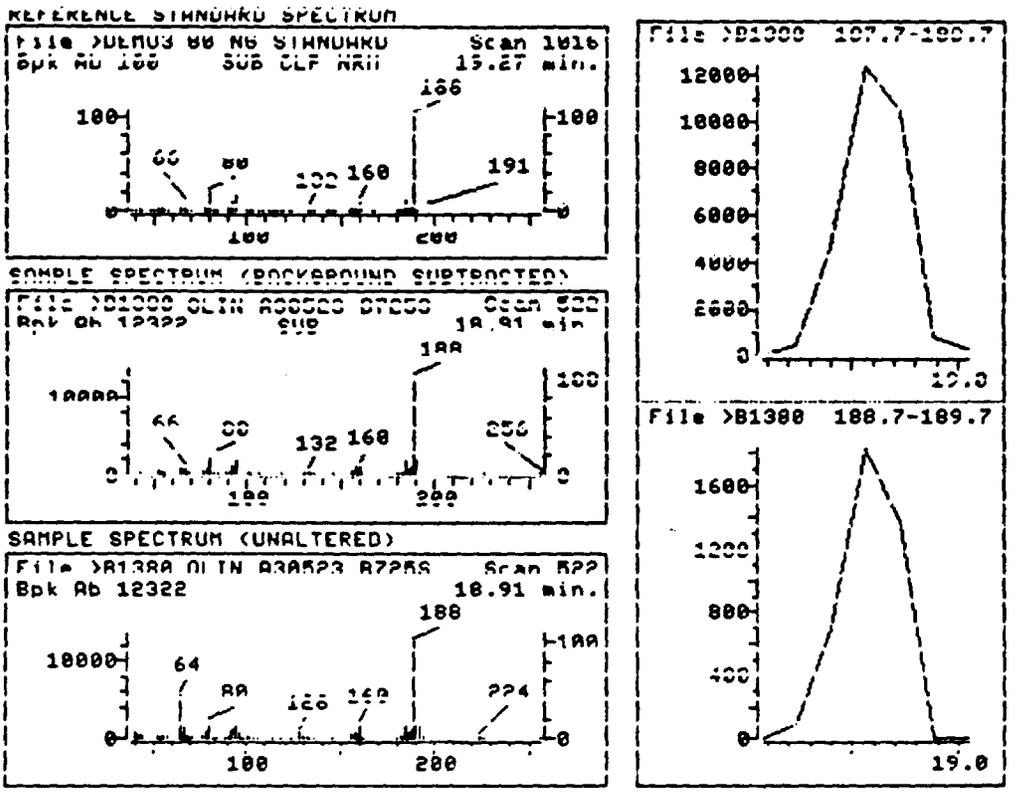


Data File: >B1380::D1
Name: OLIN A30523 B725S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 14:30
Injected at: 871221 13:49

Quant Output File: ^B1380::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 364
Retention Time: 13.81 min.
Quant Ion: 172.0
Area: 28895
Concentration: 2.32 ng/uL
q-value 95

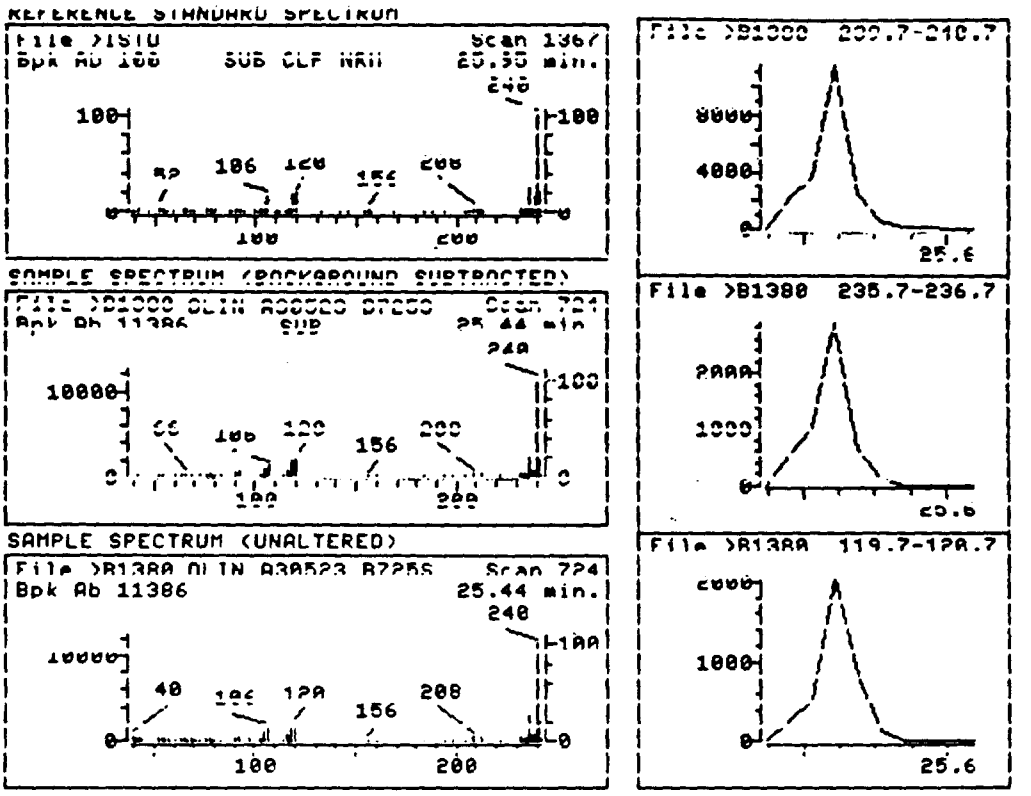


Data File: >B1380::D1
Name: OLIN A30523 B725S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 14:30
Injected at: 871221 13:49

Quant Output File: ^B1380::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 522
Retention Time: 18.91 min.
Quant Ion: 188.0
Area: 56217
Concentration: 40.00 ng/uL
q-value: 99

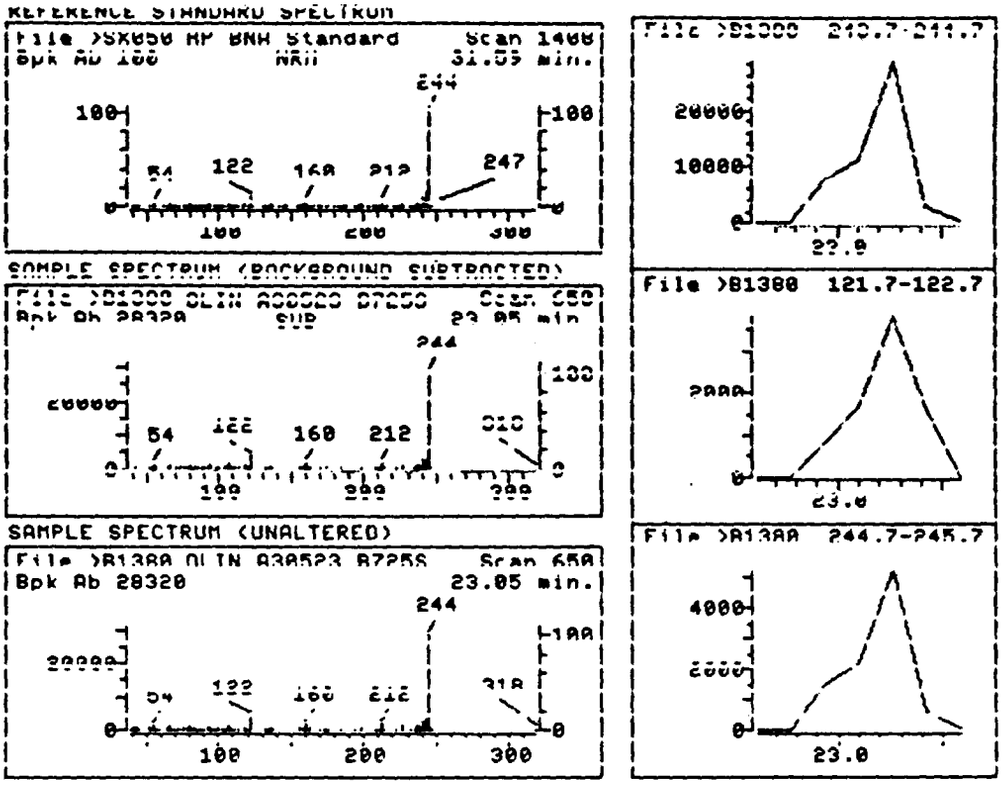


Data File: >B1380::D1
Name: OLIN A30523 B725S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 14:30
Injected at: 871221 13:49

Quant Output File: ^B1380::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 724
Retention Time: 25.44 min.
Quant Ion: 240.0
Area: 40167
Concentration: 40.00 ng/uL
q-value: 96



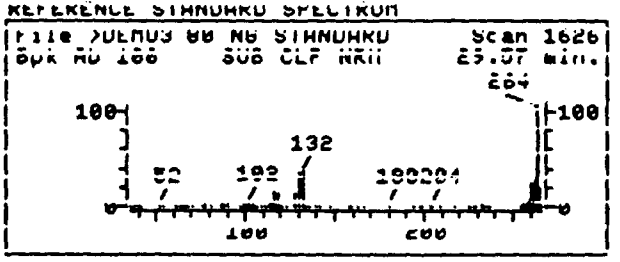
Data File: >B1380::D1
Name: OLIN A30523 B725S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 14:30
Injected at: 871221 13:49

Quant Output File: ^B1380::QT

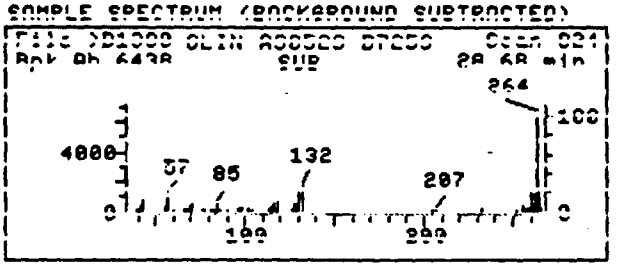
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 650
Retention Time: 23.05 min.
Quant Ion: 244.0
Area: 98320
Concentration: 10.38 ng/uL
q-value: 86

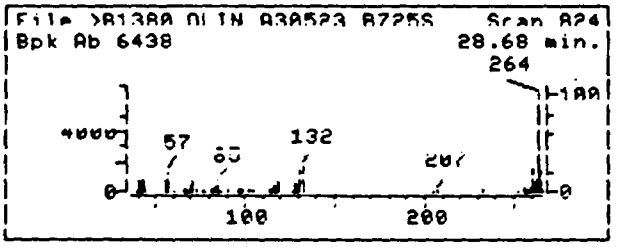
REFERENCE STANDARD SPECTRUM

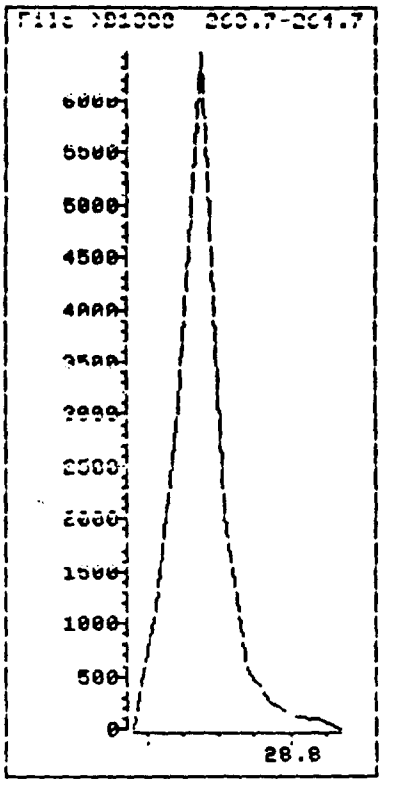


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >B1380::D1
Name: OLIN A30523 B725S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871221 14:30
Injected at: 871221 13:49

Quant Output File: ^B1380::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 824
Retention Time: 28.68 min.
Quant Ion: 264.0
Area: 26741
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18822

CC: Paul Klotz

BCM Number : A30525
Location : 281
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.01	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.01	mg/kg	
Hexachlorobenzene	< 0.01	mg/kg	
Pentachloronitrobenzene	< 0.01	mg/kg	
Mercury	---------	mg/kg	EPA # 7471
pH	8.9	std.un	
Specific Gravity	---------		
Total Solids	---------	%	

QUANT REPORT

Operator ID: USER6
Output File: ^B1393::QT
Data File: >B1393::D1
Name: OLIN A30525 B737W
Misc: 2 UL INJ 40 NG IS

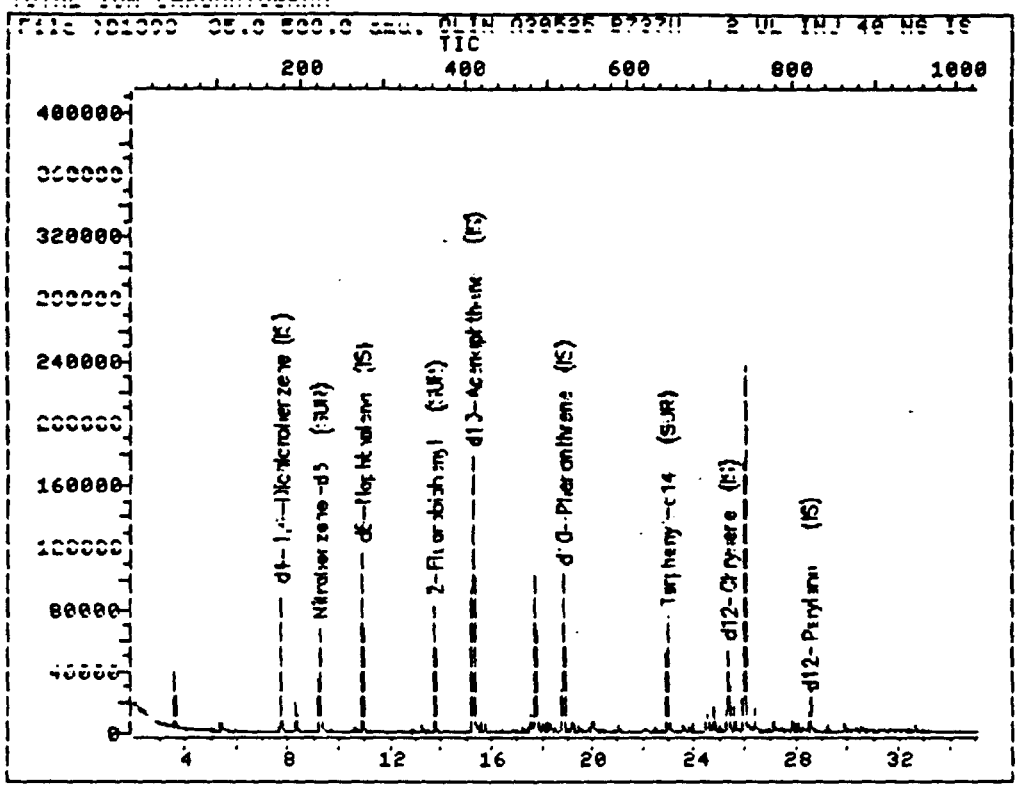
Quant Rev: 6
Quant Time: 871222 13:06
Injected at: 871222 12:22
Dilution Factor: 2.00000

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.73	177	31829	40.00	ng/uL	94
16)	*d8-Naphthalene (IS)	10.92	276	119165	40.00	ng/uL	92
17)	Nitrobenzene-d5 (SUR)	9.24	224	60569	35.87	ng/uL	95
31)	*d10-Acenaphthene (IS)	15.29	411	67776	40.00	ng/uL	99
36)	2-Fluorobiphenyl (SUR)	13.77	364	72270	33.34	ng/uL	94
51)	*d10-Phenanthrene (IS)	18.87	522	117554	40.00	ng/uL	99
63)	*d12-Chrysene (IS)	25.36	723	60004	40.00	ng/uL	96
65)	Terphenyl-d14 (SUR)	22.97	649	81959	57.89	ng/uL	86
71)	*d12-Perylene (IS)	28.56	822	32740	40.00	ng/uL	100

* Compound is ISTD

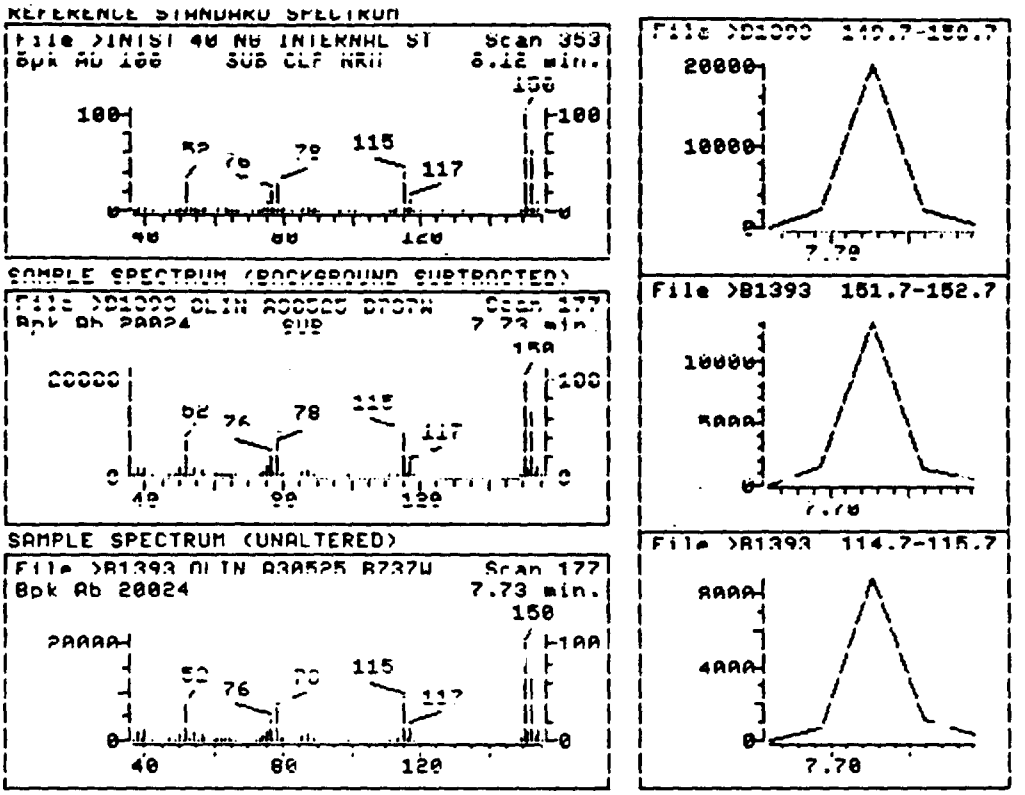
TOTAL ION CHROMOTOGRAM



Data File: >B1393::D1 Quant Output File: ^B1393::QT
Name: OLIN A30525 B737W
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871222 13:06
Injected at: 871222 12:22

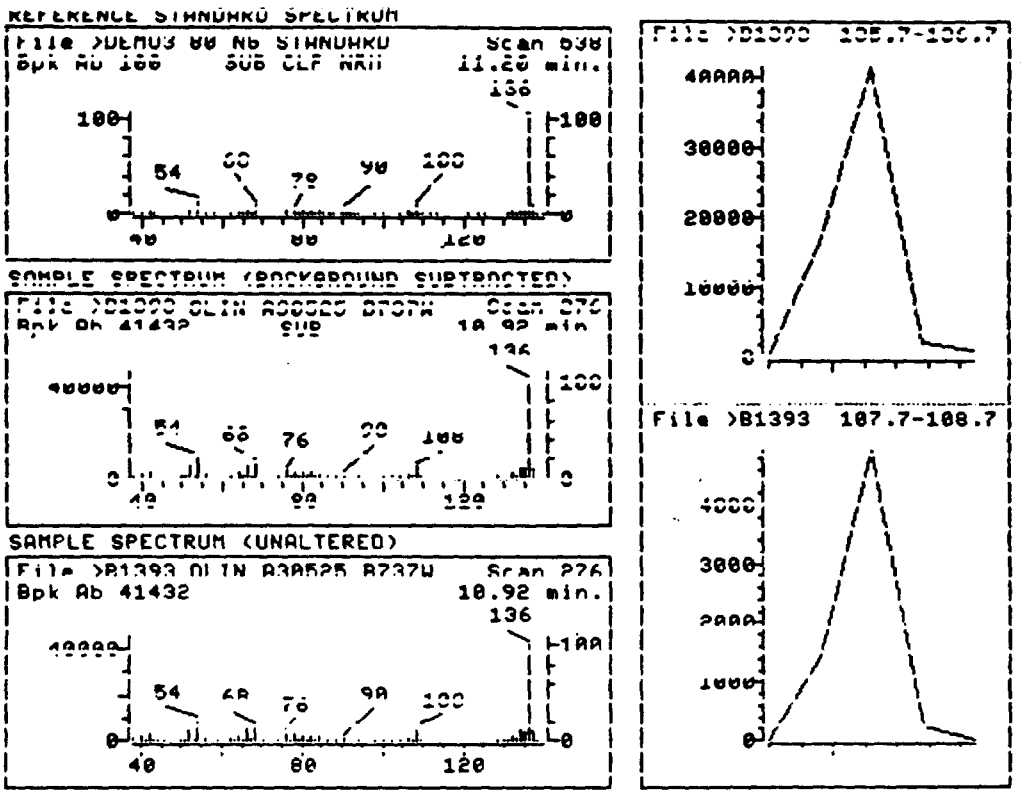


Data File: >B1393::D1
Name: OLIN A30525 B737W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 13:06
Injected at: 871222 12:22

Quant Output File: ^B1393::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 177
Retention Time: 7.73 min.
Quant Ion: 152.0
Area: 31829
Concentration: 40.00 ng/uL
q-value: 94



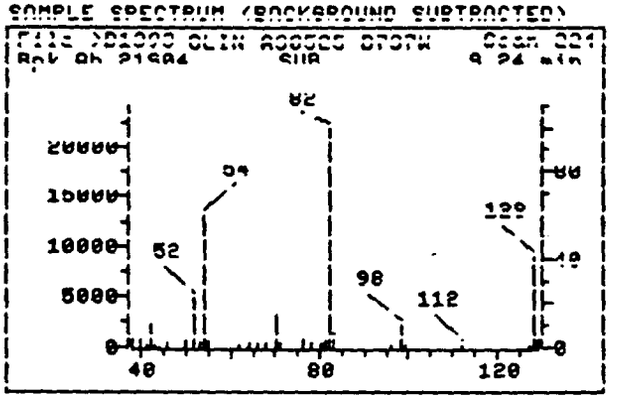
Data File: >B1393::D1
Name: OLIN A30525 B737W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 13:06
Injected at: 871222 12:22

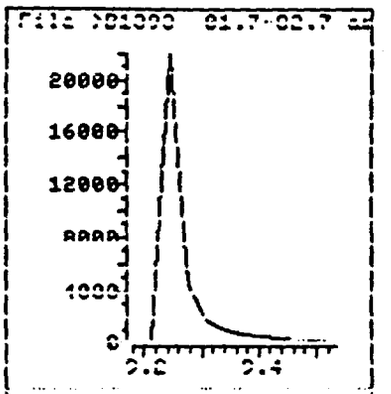
Quant Output File: ^B1393::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

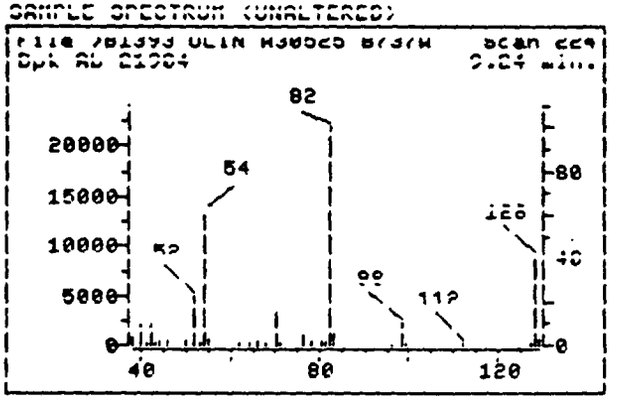
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 276
Retention Time: 10.92 min.
Quant Ion: 136.0
Area: 119165
Concentration: 40.00 ng/uL
q-value: 92

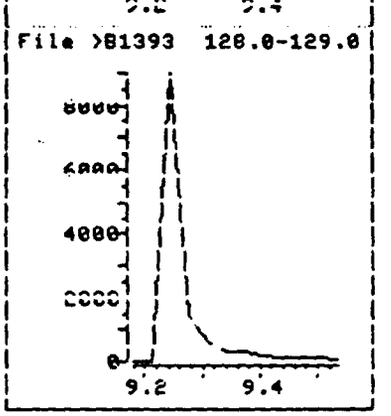
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



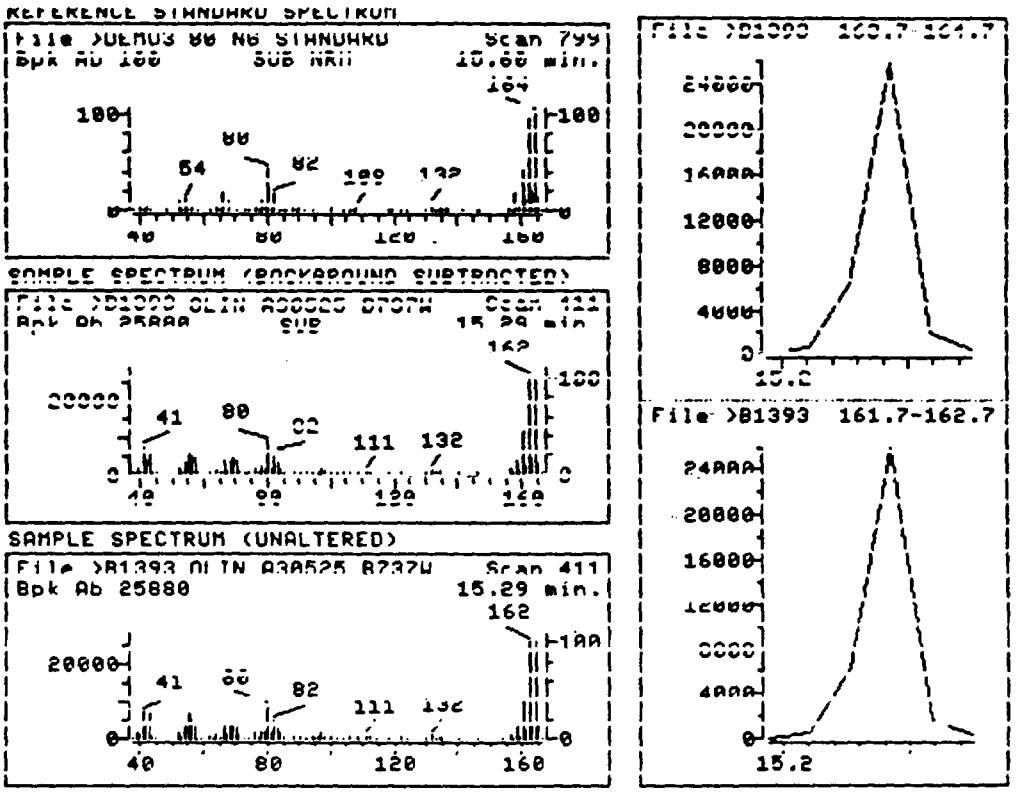


Data File: >B1393::D1
Name: OLIN A30525 B737W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 13:06
Injected at: 871222 12:22

Quant Output File: ^B1393::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

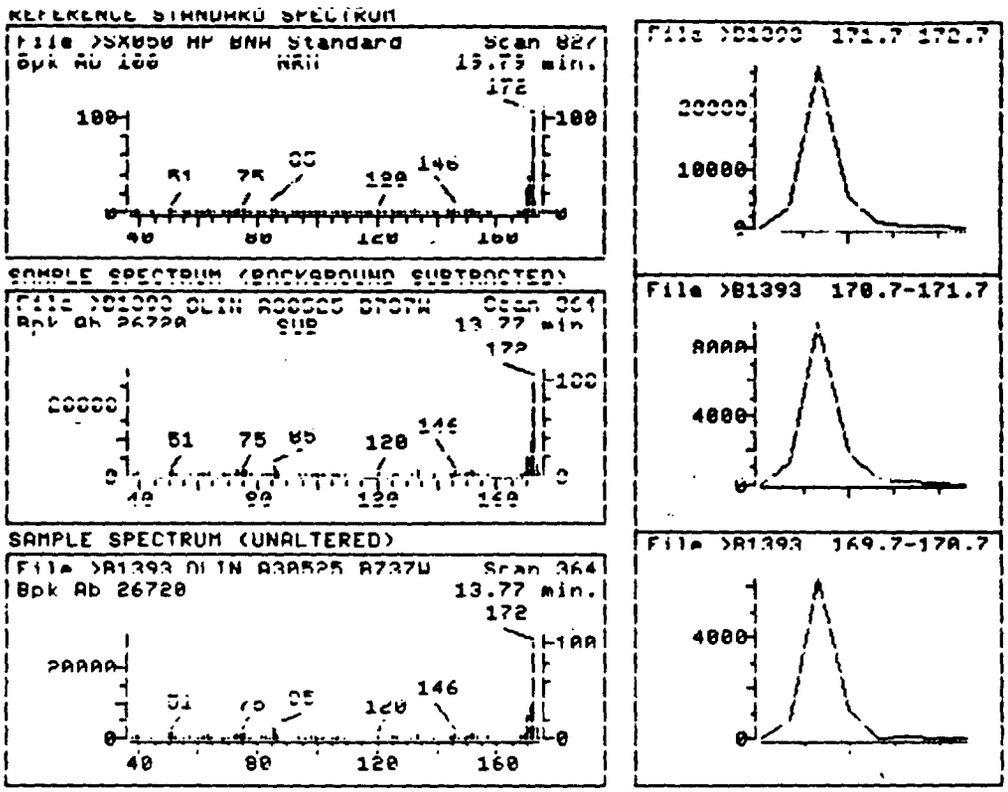
Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 224
Retention Time: 9.24 min.
Quant Ion: 82.0
Area: 60569
Concentration: 35.87 ng/uL
q-value: 95



Data File: >B1393::D1
Name: OLIN A30525 B737W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 13:06
Injected at: 871222 12:22

Quant Output File: ^B1393::QT
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 411
Retention Time: 15.29 min.
Quant Ion: 164.0
Area: 67776
Concentration: 40.00 ng/uL
q-value: 99



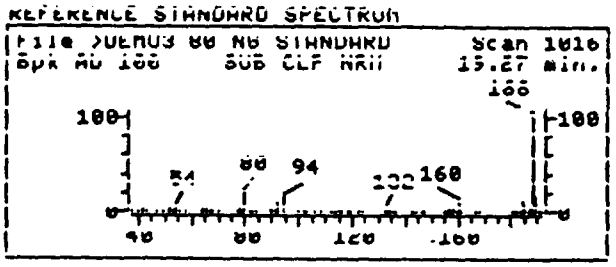
Data File: >B1393::D1
Name: OLIN A30525 B737W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 13:06
Injected at: 871222 12:22

Quant Output File: ^B1393::QT

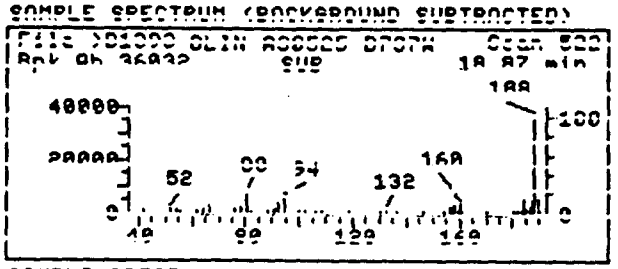
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 364
Retention Time: 13.77 min.
Quant Ion: 172.0
Area: 72270
Concentration: 33.34 ng/uL
q-value: 94

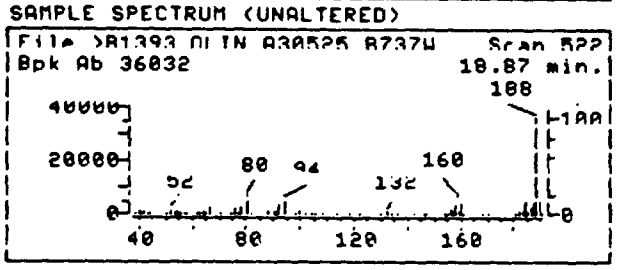
REFERENCE STANDARD SPECTRUM

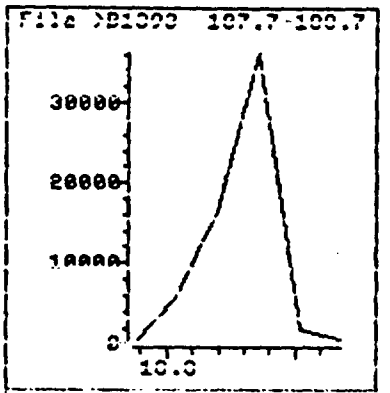


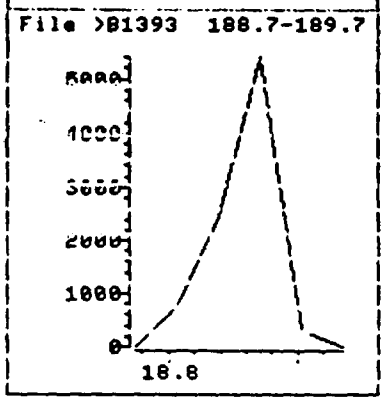
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





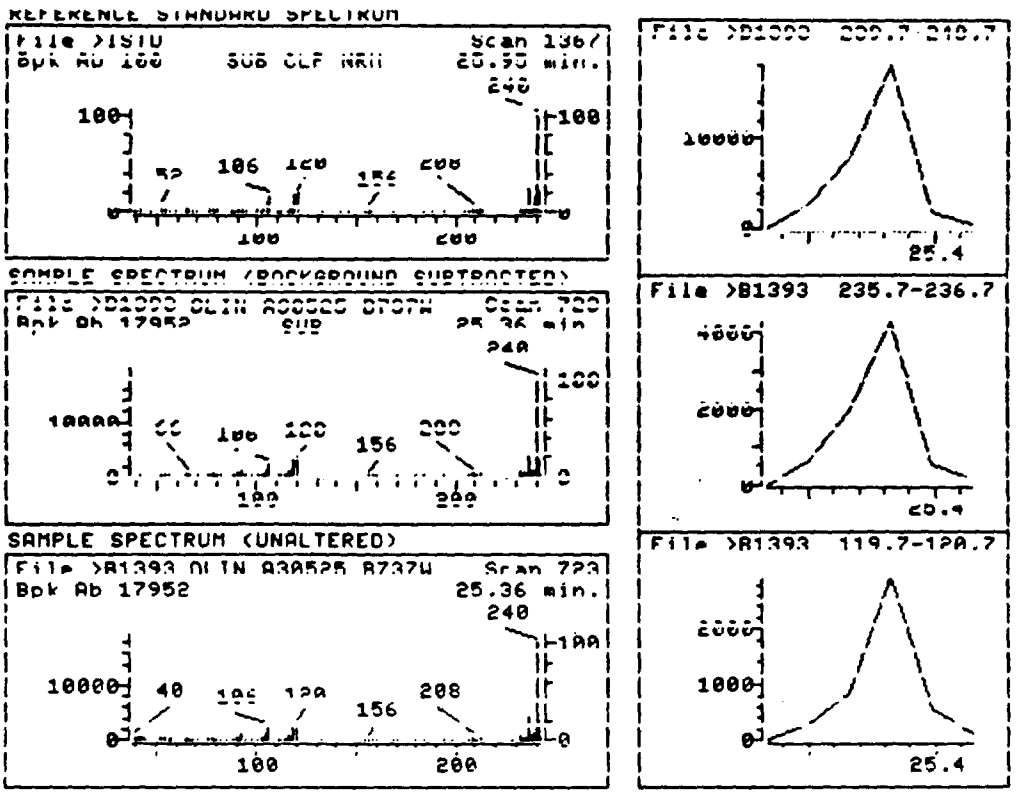


Data File: >B1393::D1
Name: OLIN A30525 B737W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 13:06
Injected at: 871222 12:22

Quant Output File: ^B1393::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 522
Retention Time: 18.87 min.
Quant Ion: 188.0
Area: 117554
Concentration: 40.00 ng/uL
q-value: 99

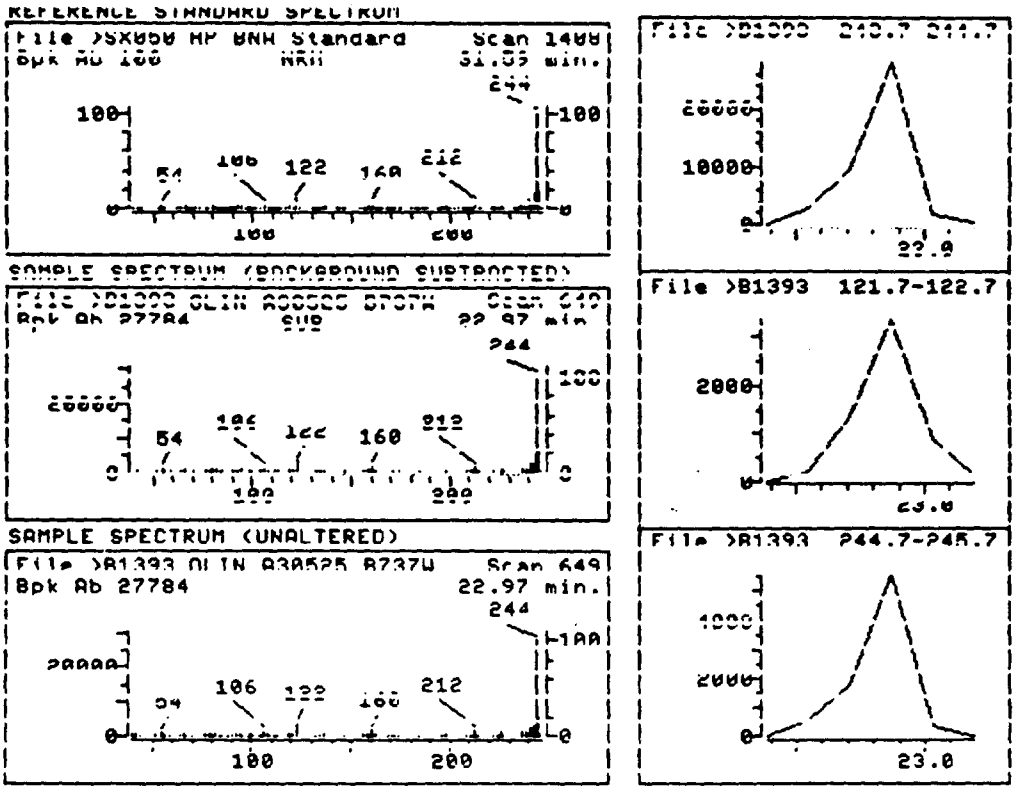


Data File: >B1393::D1
Name: OLIN A30525 B737W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 13:06
Injected at: 871222 12:22

Quant Output File: ^B1393::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 723
Retention Time: 25.36 min.
Quant Ion: 240.0
Area: 60004
Concentration: 40.00 ng/uL
q-value: 96

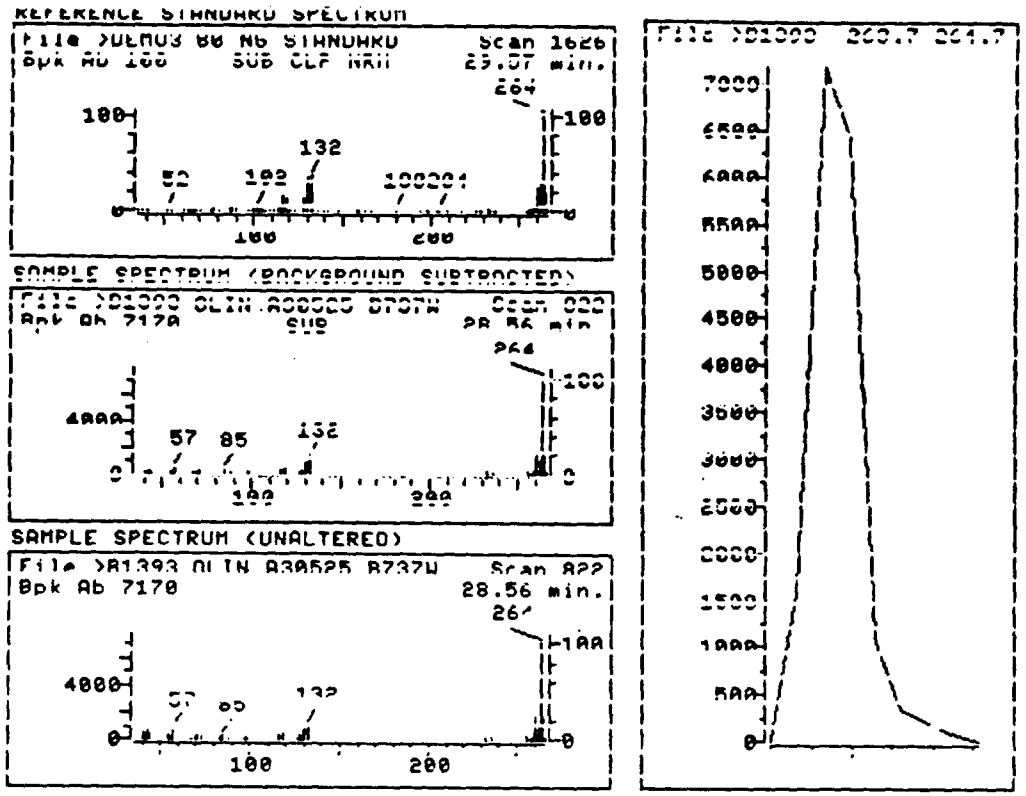


Data File: >B1393::D1
Name: OLIN A30525 B737W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 13:06
Injected at: 871222 12:22

Quant Output File: ^B1393::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 649
Retention Time: 22.97 min.
Quant Ion: 244.0
Area: 81959
Concentration: 57.89 ng/uL
q-value: 86



Data File: >B1393::D1
Name: OLIN A30525 B737W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 13:06
Injected at: 871222 12:22

Quant Output File: ^B1393::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 822
Retention Time: 28.56 min.
Quant Ion: 264.0
Area: 32740
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT
This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18822

CC: Paul Klotz

BCM Number : A30526
Location : TRIP
Client ID : BLNK

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.024	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.024	mg/kg	
Hexachlorobenzene	< 0.024	mg/kg	
Pentachloronitrobenzene	< 0.024	mg/kg	
Mercury	< 0.0002	mg/kg	EPA # 7471
pH	4.7	std.un	
Specific Gravity	---		
Total Solids	---	%	

3 2 00692

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 880111 13:27
Output File: ^B1423::QT Injected at: 880111 12:48
Data File: >B1423::D1 Dilution Factor: 1.00000
Name: OLIN A30526 AB752W
Misc: 2 UL INJ 40 NG IS

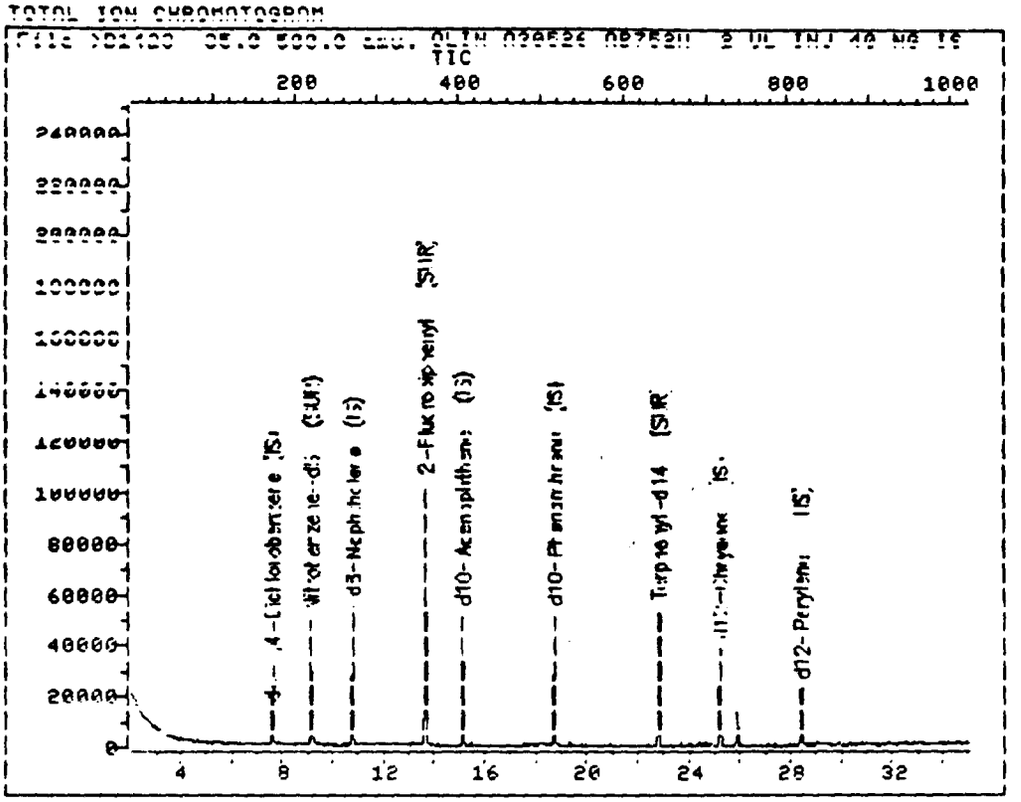
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880111 13:14

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.59	172	12641	40.00	ng/uL	95
16)	*d8-Naphthalene (IS)	10.79	271	62499	40.00	ng/uL	84
17)	Nitrobenzene-d5 (SUR)	9.14	220	50838	38.51	ng/uL 77%	92
31)	*d10-Acenaphthene (IS)	15.15	406	29797	40.00	ng/uL	95
36)	2-Fluorobiphenyl (SUR)	13.66	360	71834	51.26	ng/uL 103%	94
51)	*d10-Phenanthrene (IS)	18.73	517	45593	40.00	ng/uL	98
63)	*d12-Chrysene (IS)	25.22	718	41020	40.00	ng/uL	100
65)	Terphenyl-d14 (SUR)	22.83	644	75277	49.68	ng/uL 99%	85
71)	*d12-Perylene (IS)	28.42	817	33513	40.00	ng/uL	100

* Compound is ISTD

d10 -> 1/ml 2.4

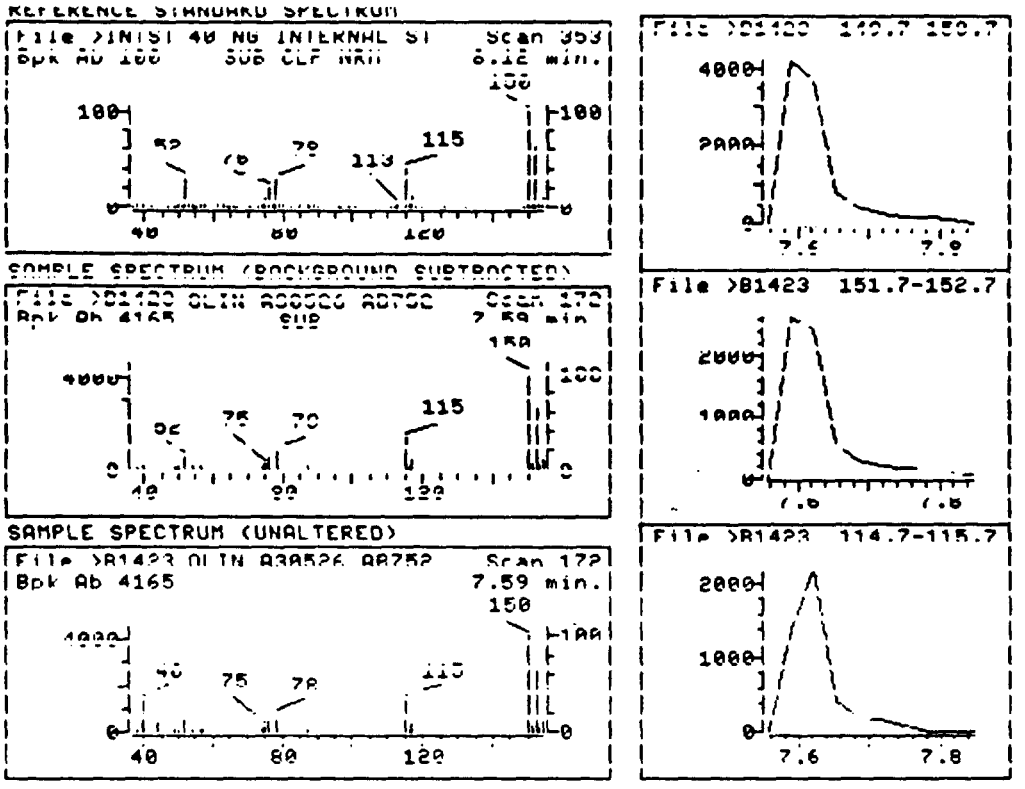
TOTAL ION CHROMATOGRAM



Data File: >B1423::D1 Quant Output File: ^B1423::QT
Name: DI IN A30526 AB752W
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::12
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880111 13:14

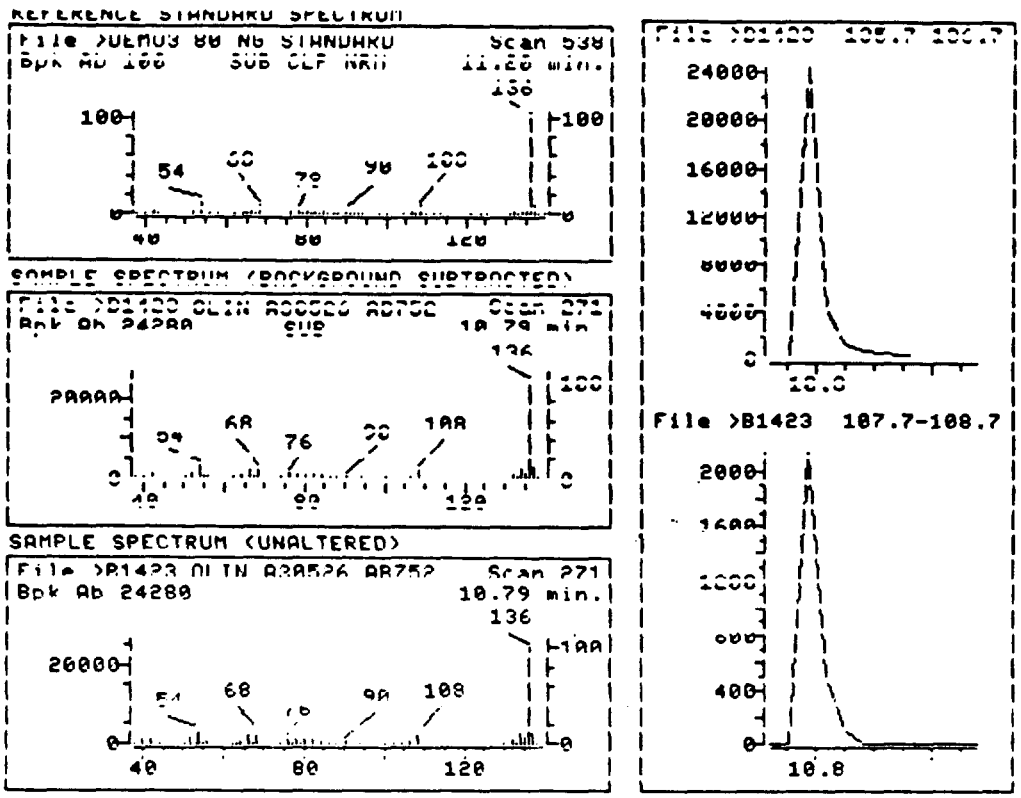
Operator ID: USER6
Quant Time: 880111 13:27
Injected at: 880111 12:48



Data File: >B1423::D1
Name: DLIN A30526 AB752W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880111 13:27
Injected at: 880111 12:48

Quant Output File: ^B1423::QT
Quant ID File: ID HDA::L2
Last Calibration: 880111 13:14

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 172
Retention Time: 7.59 min.
Quant Ion: 152.0
Area: 12641
Concentration: 40.00 ng/uL
q-value: 95



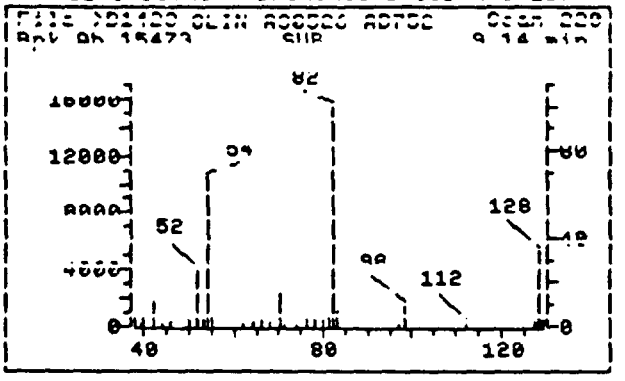
Data File: >B1423::D1
Name: DLIN A30526 AR752W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880111 13:27
Injected at: 880111 12:48

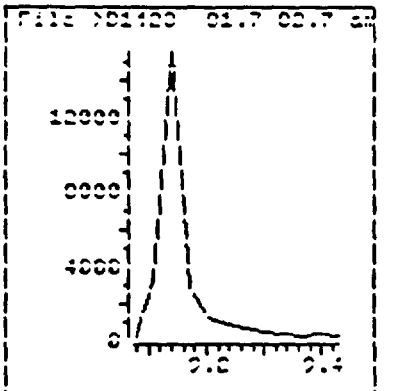
Quant Output File: ^B1423::QT

Quant ID File: ID HDA::L2
Last Calibration: 880111 13:14

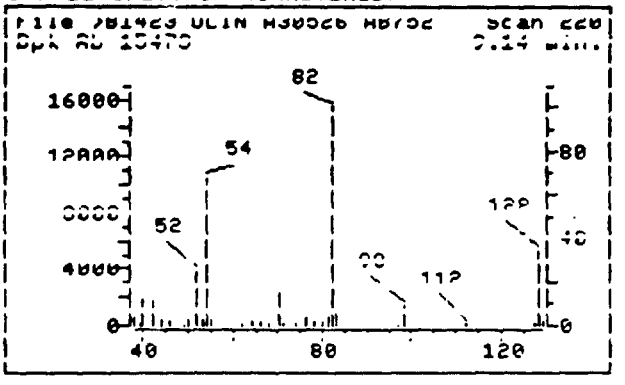
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 271
Retention Time: 10.79 min.
Quant Ion: 136.0
Area: 62499
Concentration: 40.00 ng/uL
q-value: 84

SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

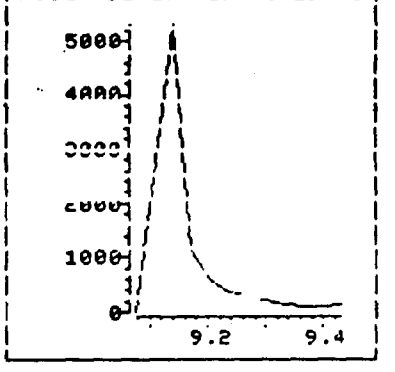




SAMPLE SPECTRUM (UNALTERED)



File >B1423 128.0-129.0

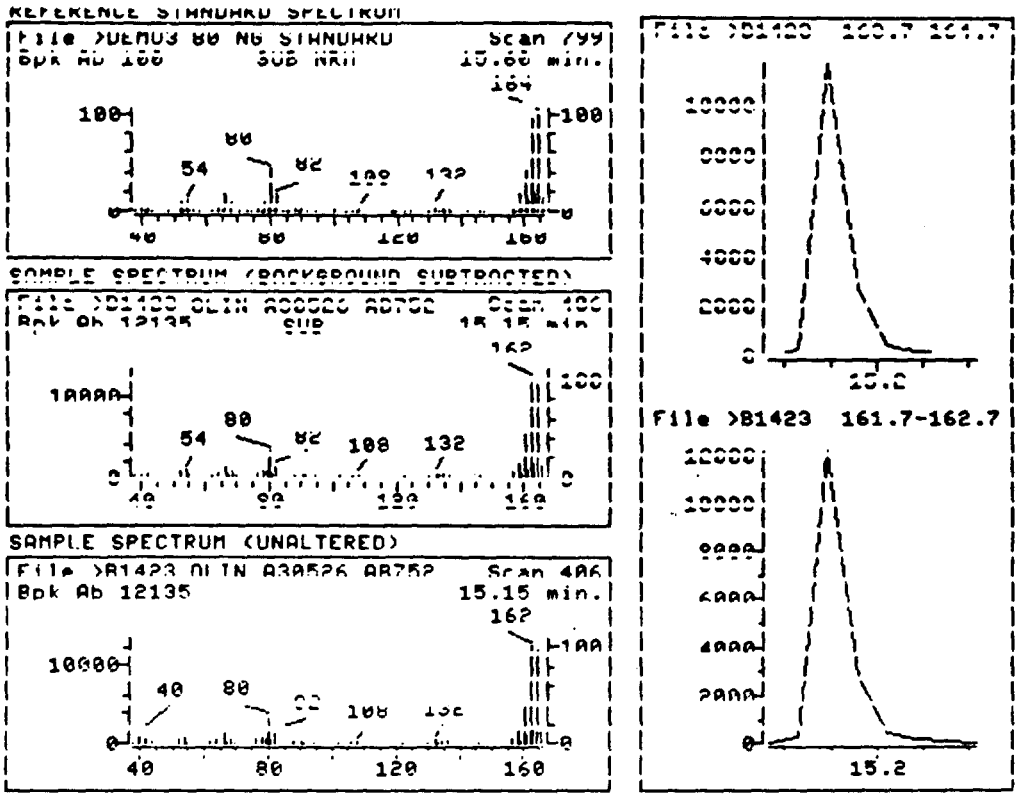


Data File: >B1423::D1
Name: OL IN A30526 A8759W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880111 13:27
Injected at: 880111 12:48

Quant Output File: ^B1423::QT

Quant ID File: ID BDA::L2
Last Calibration: 880111 13:14

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 220
Retention Time: 9.14 min.
Quant Ion: 82.0
Area: 50838
Concentration: 38.51 ng/uL
q-value: 92

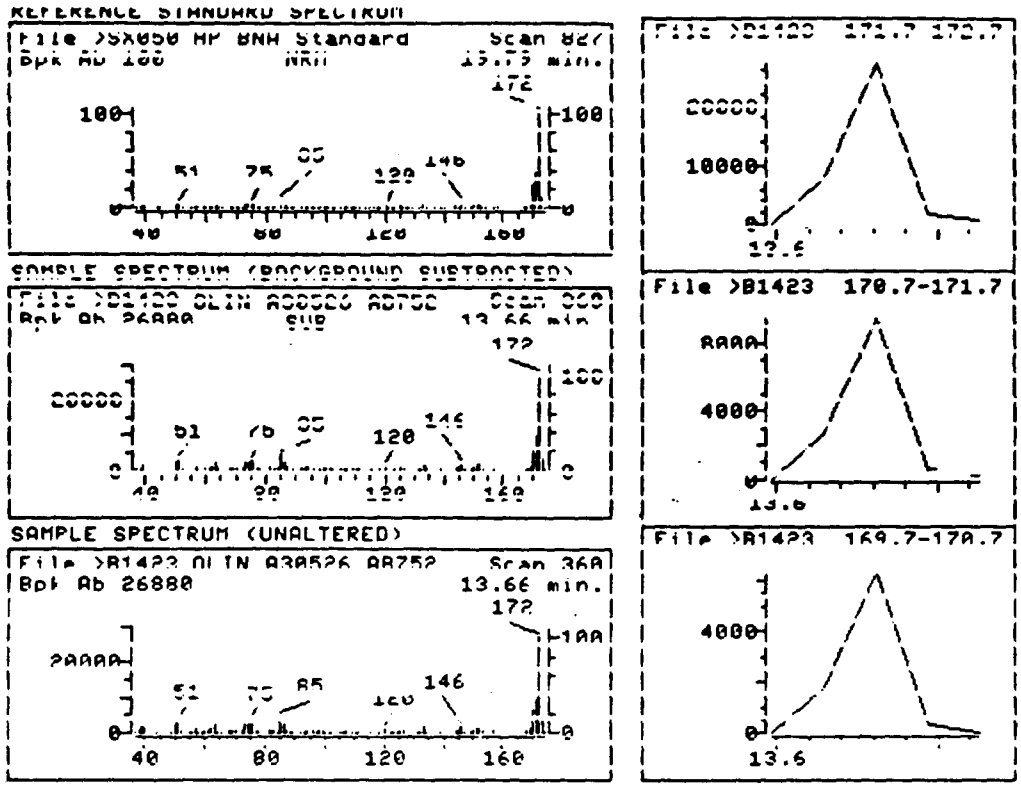


Data File: >B1423::D1
Name: DI IN A30526 AB752W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880111 13:27
Injected at: 880111 12:48

Quant Output File: ^B1423::QT

Quant ID File: ID BDA::L2
Last Calibration: 880111 13:14

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 406
Retention Time: 15.15 min.
Quant Ion: 164.0
Area: 29797
Concentration: 40.00 ng/uL
q-value: 95

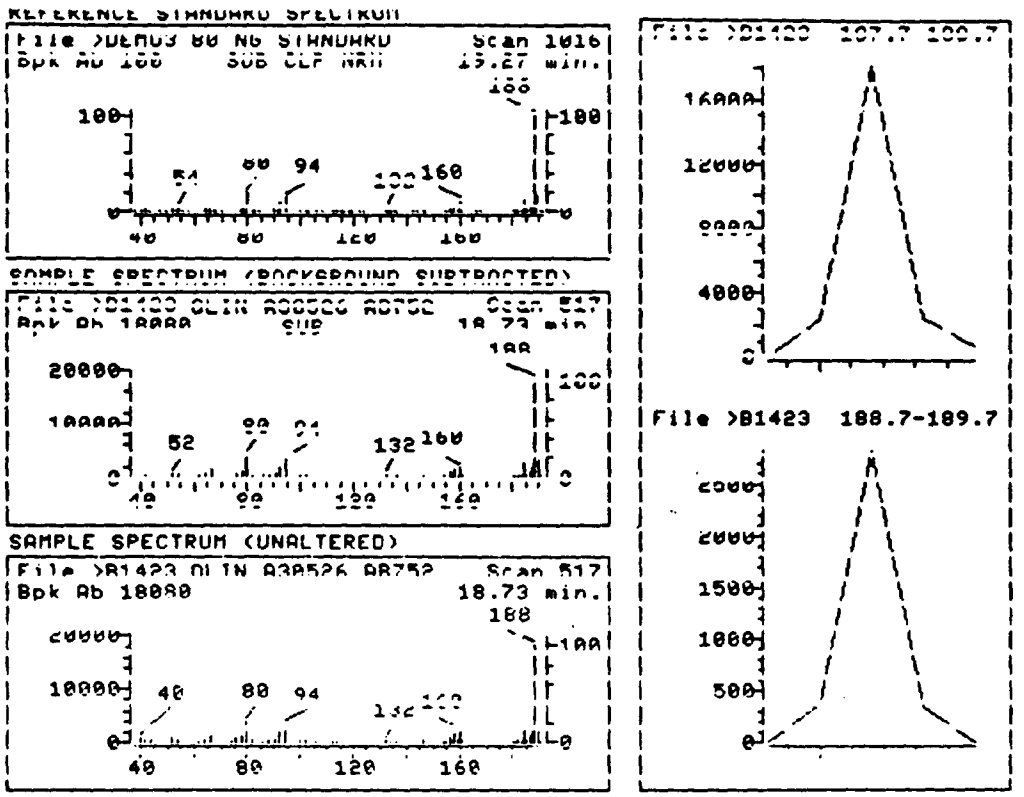


Data File: >B1423::D1
Name: OLIN A30526 A8752W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880111 13:27
Injected at: 880111 12:48

Quant Output File: ^B1423::QT

Quant ID File: ID RDA::L2
Last Calibration: 880111 13:14

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 360
Retention Time: 13.66 min.
Quant Ion: 172.0
Area: 71834
Concentration: 51.26 ng/uL
q-value: 94

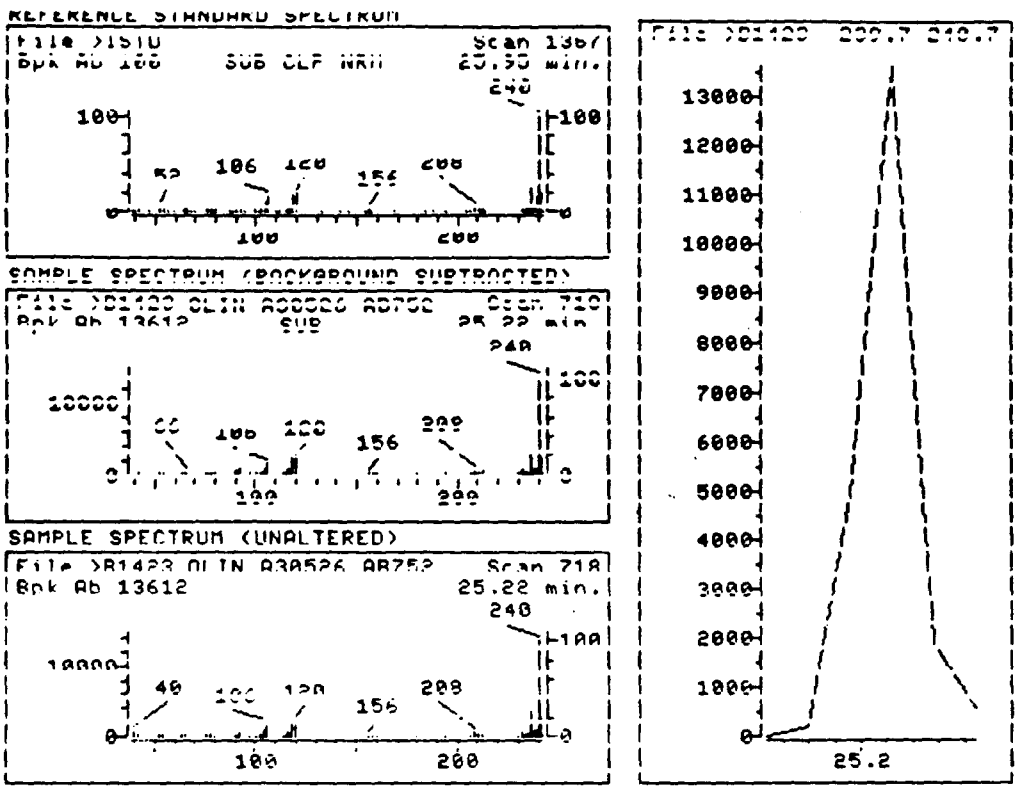


Data File: >B1423::D1
Name: DI IN A30526 AB752W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880111 13:27
Injected at: 880111 12:48

Quant Output File: ^B1423::QT

Quant ID File: ID BDA::L2
Last Calibration: 880111 13:14

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 517
Retention Time: 18.73 min.
Quant Ion: 188.0
Area: 45593
Concentration: 40.00 ng/ul
q-value: 98

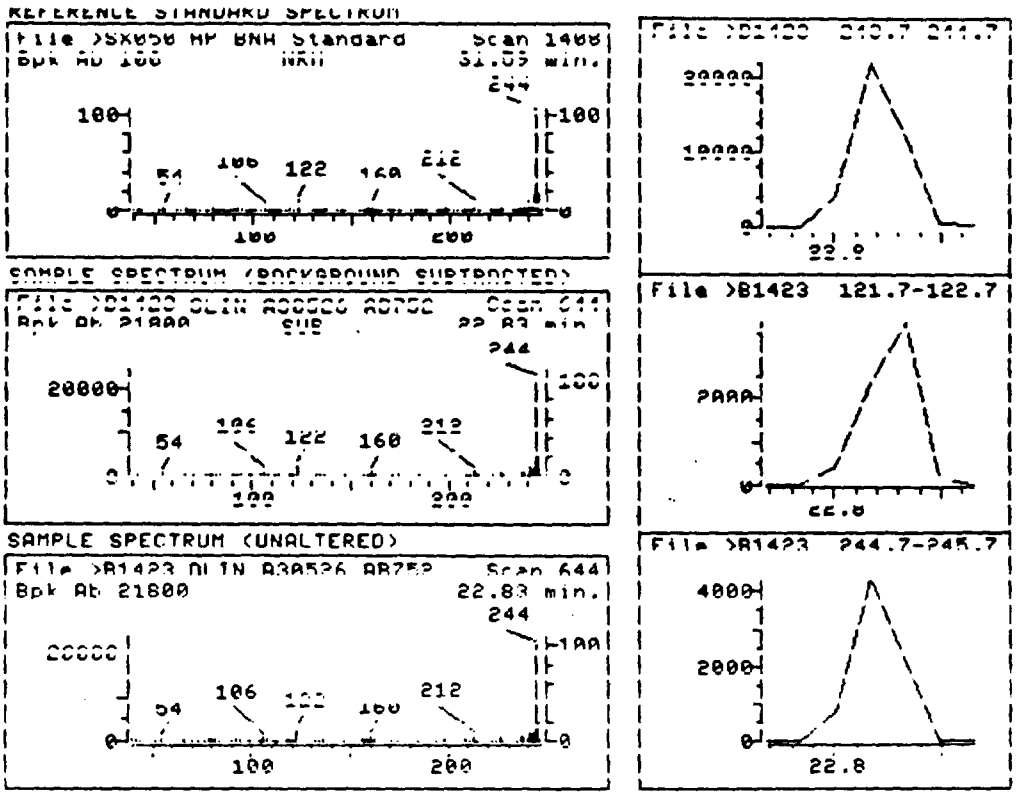


Data File: >B1423::D1
Name: OL IN A30526 A8752W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880111 13:27
Injected at: 880111 12:48

Quant Output File: ^B1423::QT

Quant ID File: ID BOA::L2
Last Calibration: 880111 13:14

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 718
Retention Time: 25.22 min.
Quant Ion: 240.0
Area: 41020
Concentration: 40.00 ng/uL
q-value: 100

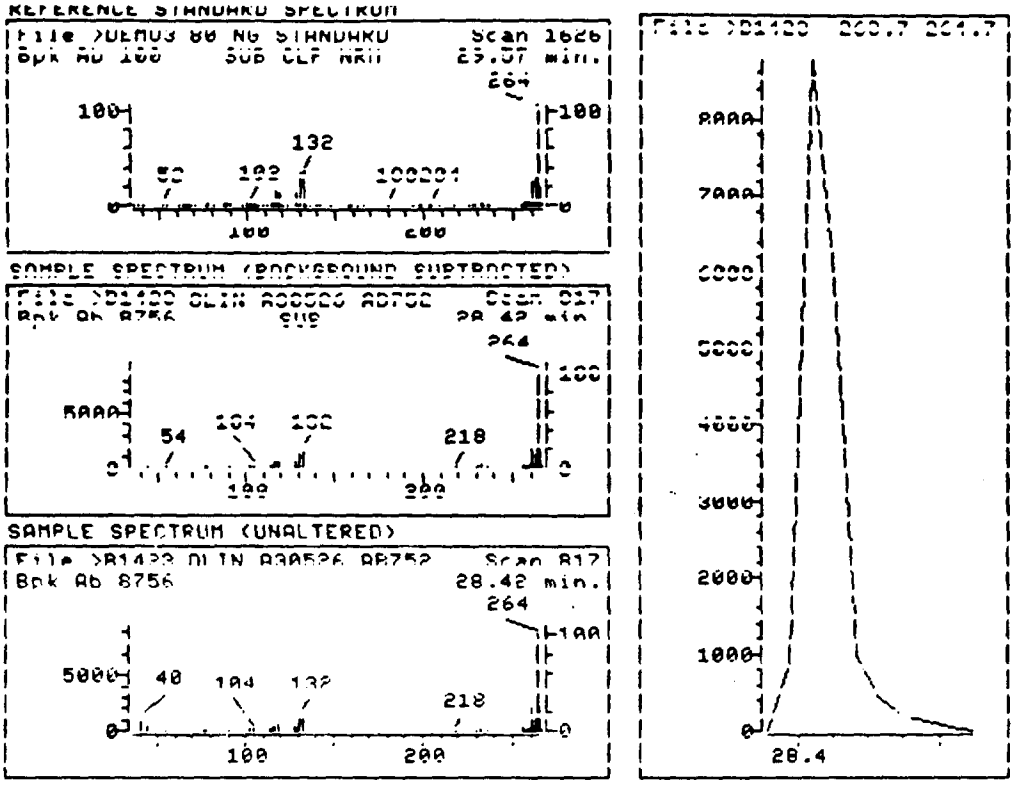


Data File: >B1423::D1
Name: DLIN A30526 AB252W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880111 13:27
Injected at: 880111 12:48

Quant Output File: ^B1423::QT

Quant ID File: ID BOA::L2
Last Calibration: 880111 13:14

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 644
Retention Time: 22.83 min.
Quant Ion: 244.0
Area: 75277
Concentration: 49.68 ng/uL
q-value: 85



Data File: >B1423::D1
Name: D1 IN A30526 AB752W
Misc: 2 UL INJ 40 NG IS
Quant Time: 880111 13:27
Injected at: 880111 12:48

Quant Output File: ^B1423::QT

Quant ID File: ID BDA::L2
Last Calibration: 880111 13:14

Compound No: 21 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 817
Retention Time: 28.42 min.
Quant Ion: 264.0
Area: 33513
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT PAGE : 6
This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 01/21/88
BCM # : - -
P.O.# :
Order# : 19323

BCM Number : A30530
Location : 308
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	2.11	mg/kg	
Pentachloronitrobenzene	< 0.66	mg/kg	
Mercury	---------	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	1/18/88	M/D/Y	
pH	6.0	std.un	
Specific Gravity	0.918		
Total Solids	---------	%	

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 880119 12:45
Output File: ^B1468::QT Injected at: 880119 12:01
Data File: >B1468::D1 Dilution Factor: .20000
Name: DLIN A30530 B716S
Misc: 2 UL INJ 40 PPB IS

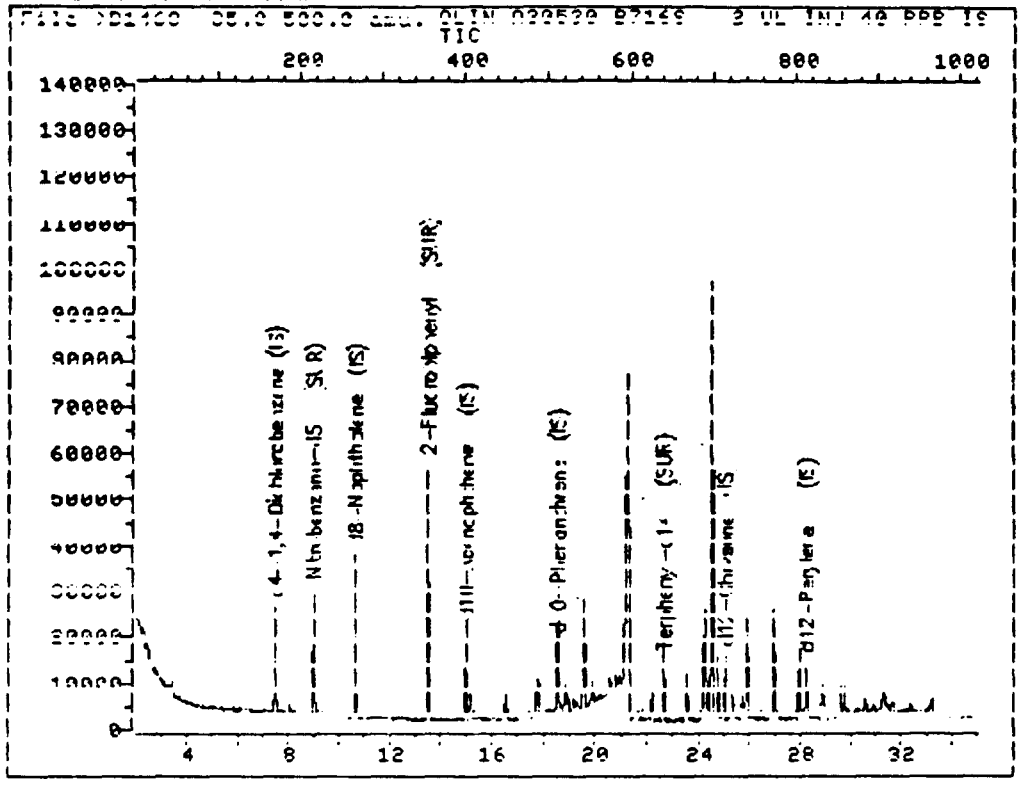
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880118 12:07

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.47	169	8820	40.00	ng/uL	91
16)	*d8-Naphthalene (IS)	10.64	267	35745	40.00	ng/uL	89
17)	Nitrobenzene-d5 (SUR)	8.99	216	25554	6.17	ng/uL	95
31)	*d10-Acenaphthene (IS)	15.00	402	17107	40.00	ng/uL	99
36)	2-Fluorobiphenyl (SUR)	13.51	356	38080	8.78	ng/uL	94
51)	*d10-Phenanthrene (IS)	18.55	512	23887	40.00	ng/uL	98
57)	Hexachlorobenzene	17.84	490	2513	2.11	ng/uL	97
63)	*d12-Chrysene (IS)	25.05	713	14499	40.00	ng/uL	100
65)	Terphenyl-d14 (SUR)	22.66	639	20912	9.54	ng/uL	87
71)	*d12-Perylene (IS)	28.24	812	12186	40.00	ng/uL	100

* Compound is ISTD

3 2 00705

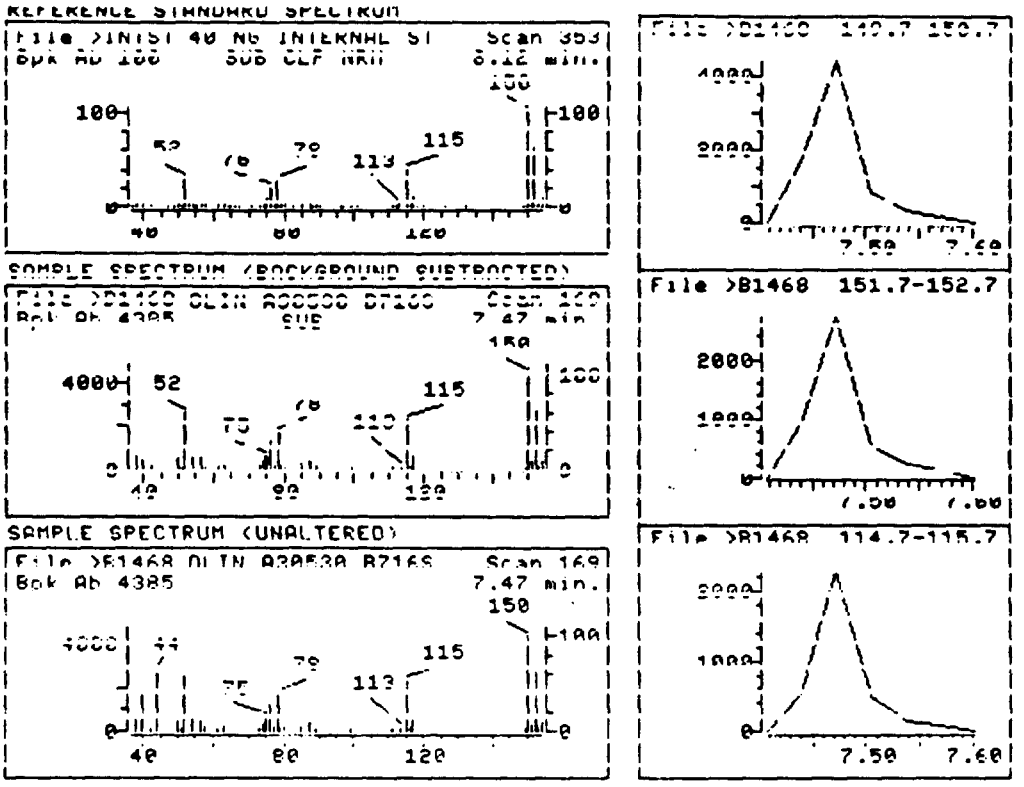
TOTAL ION CHROMATOGRAM



Data File: >B1468::D1 Quant Output File: ^B1468::QT
Name: OLIN A30530 B7145
Misc: 2 UL INJ 40 PPB IS

Id File: ID BNA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880118 12:07

Operator ID: USER6
Quant Time: 880119 12:45
Injected at: 880119 12:01

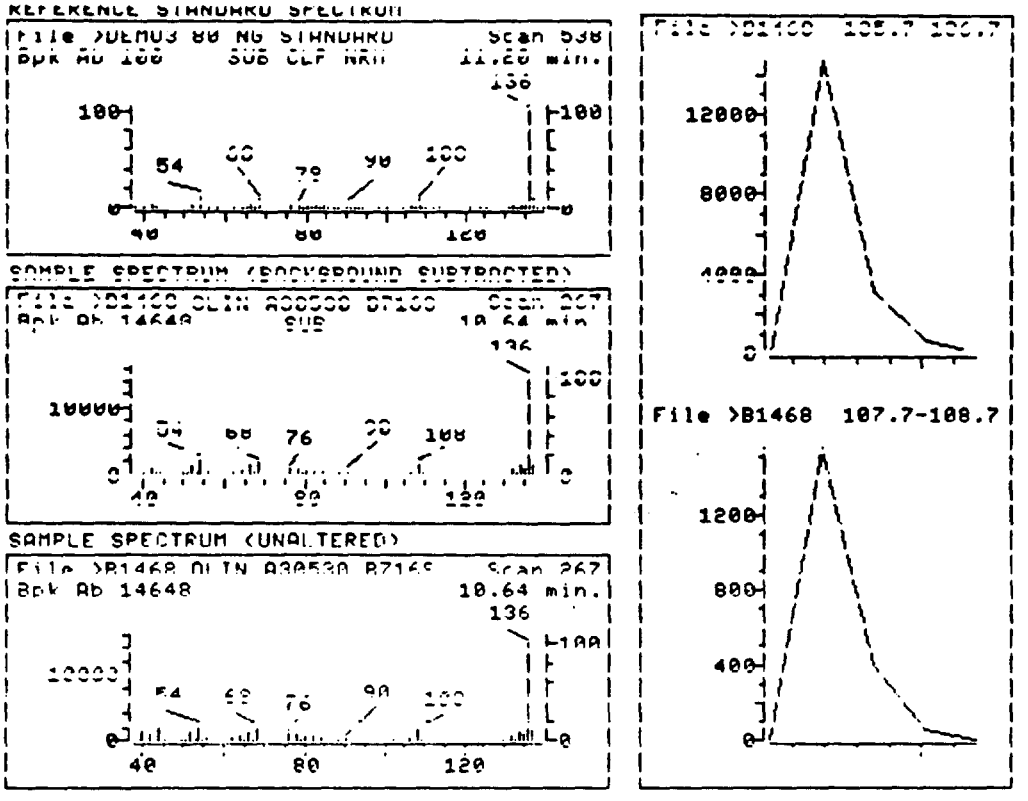


Data File: >B1468::D1
Name: DF IN A30530 B716S
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:45
Injected at: 880119 12:01

Quant Output File: ^B1468::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 169
Retention Time: 7.47 min.
Quant Ion: 152.0
Area: 8820
Concentration: 40.00 ng/ul
q-value: 91



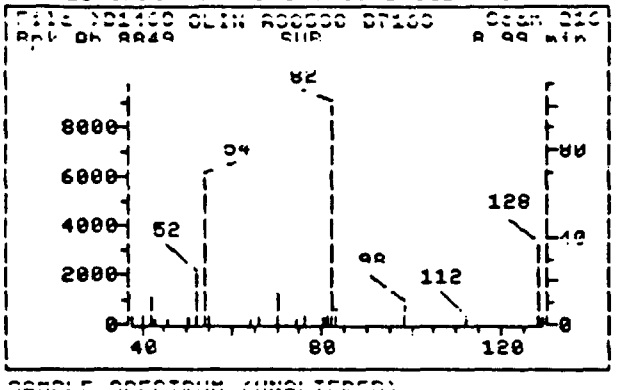
Data File: >B1468::D1
Name: DL IN A30540 B7165
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:45
Injected at: 880119 12:01

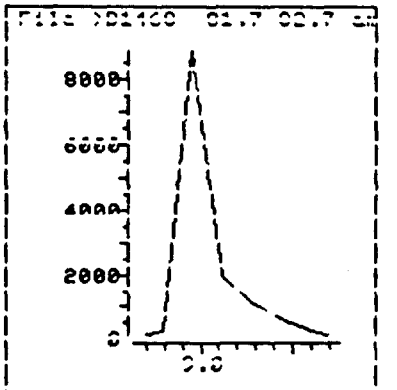
Quant Output File: ^B1468::QT

Quant ID File: ID RDA::L2
Last Calibration: 880118 12:07

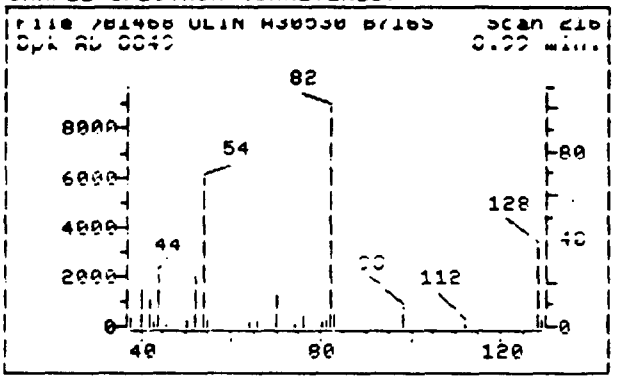
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 267
Retention Time: 10.64 min.
Quant Ion: 136.0
Area: 35745
Concentration: 40.00 ng/ul
q-value: 89

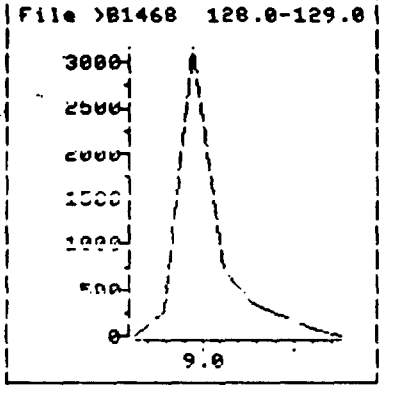
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



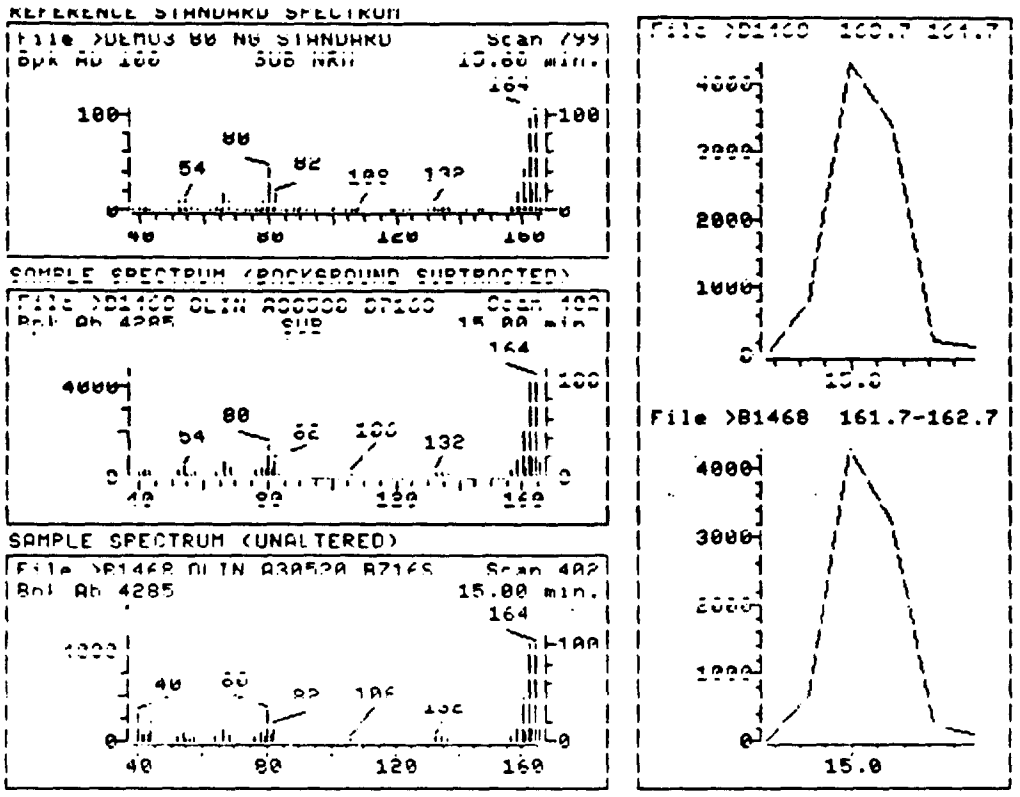


Data File: >B1468::D1
Name: DI IN A30530 B216S
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:45
Injected at: 880119 12:01

Quant Output File: ^B1468::DT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 216
Retention Time: 8.99 min.
Quant Ion: 82.0
Area: 25554
Concentration: 6.17 ng/ul
q-value: 95

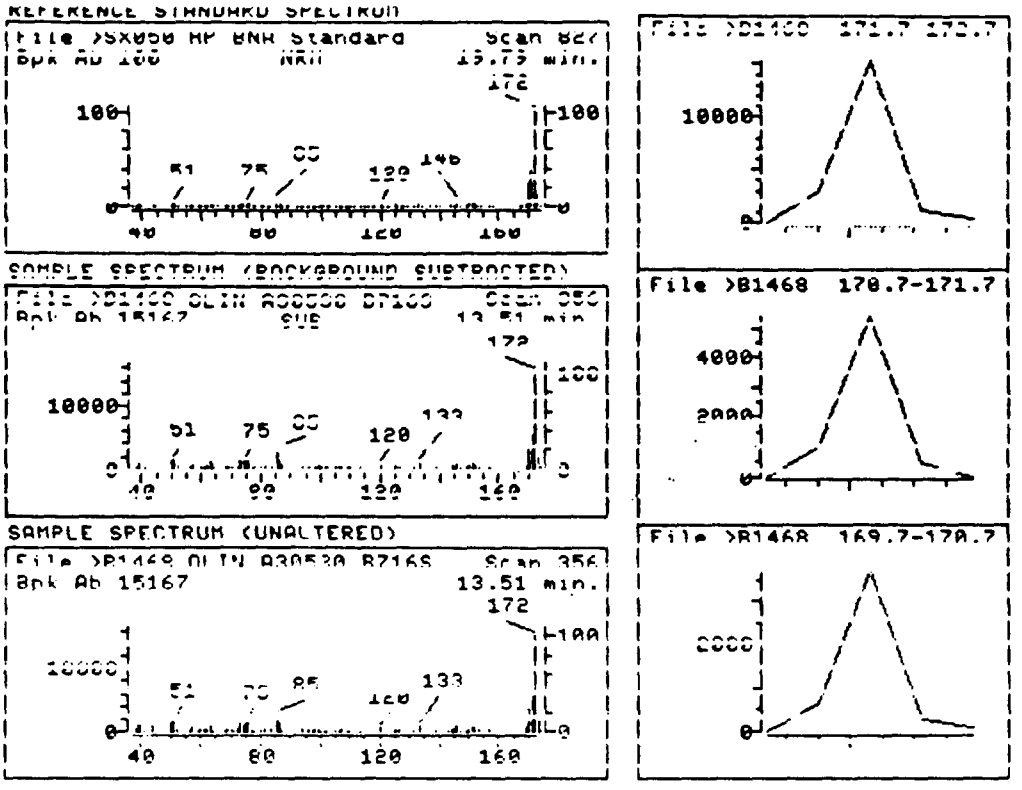


Data File: >B1468::D1
Name: DI IN A30530 B7165
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:45
Injected at: 880119 12:01

Quant Output File: ^B1468::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 402
Retention Time: 15.00 min.
Quant Ion: 164.0
Area: 17107
Concentration: 40.00 ng/uL
q-value: 99

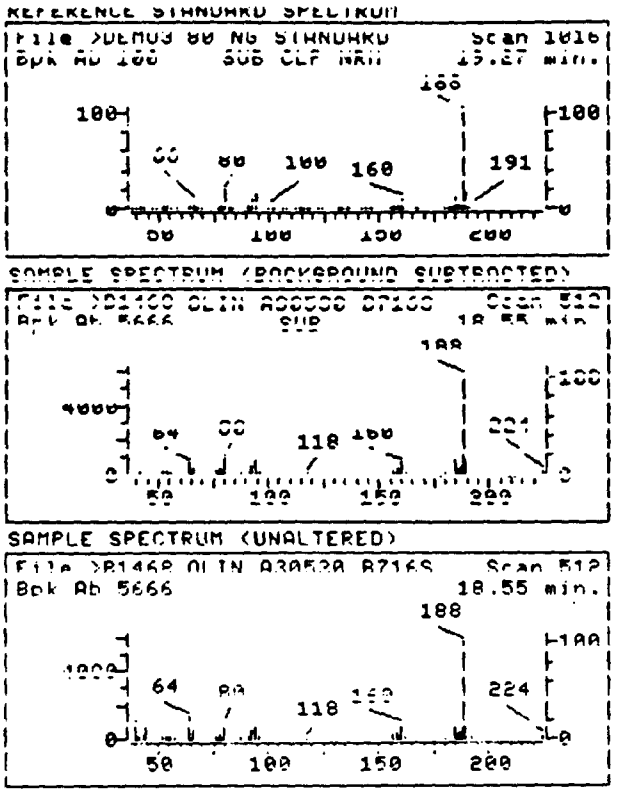


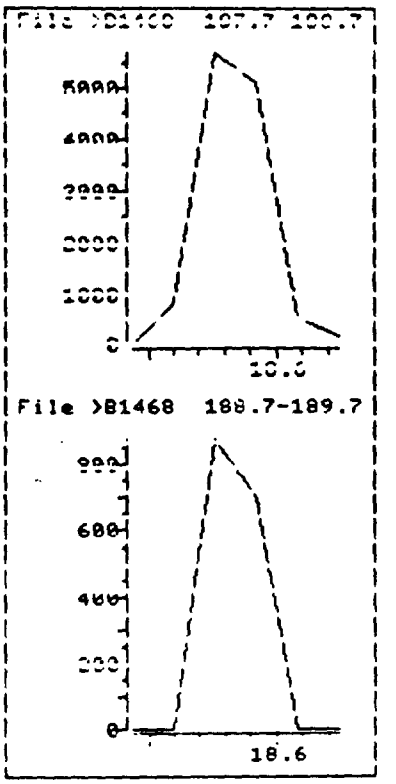
Data File: >B1468::D1
Name: OL IN B30530 B716S
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:45
Injected at: 880119 12:01

Quant Output File: ^B1468::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 356
Retention Time: 13.51 min.
Quant Ion: 172.0
Area: 38080
Concentration: 8.78 ng/uL
q-value: 94



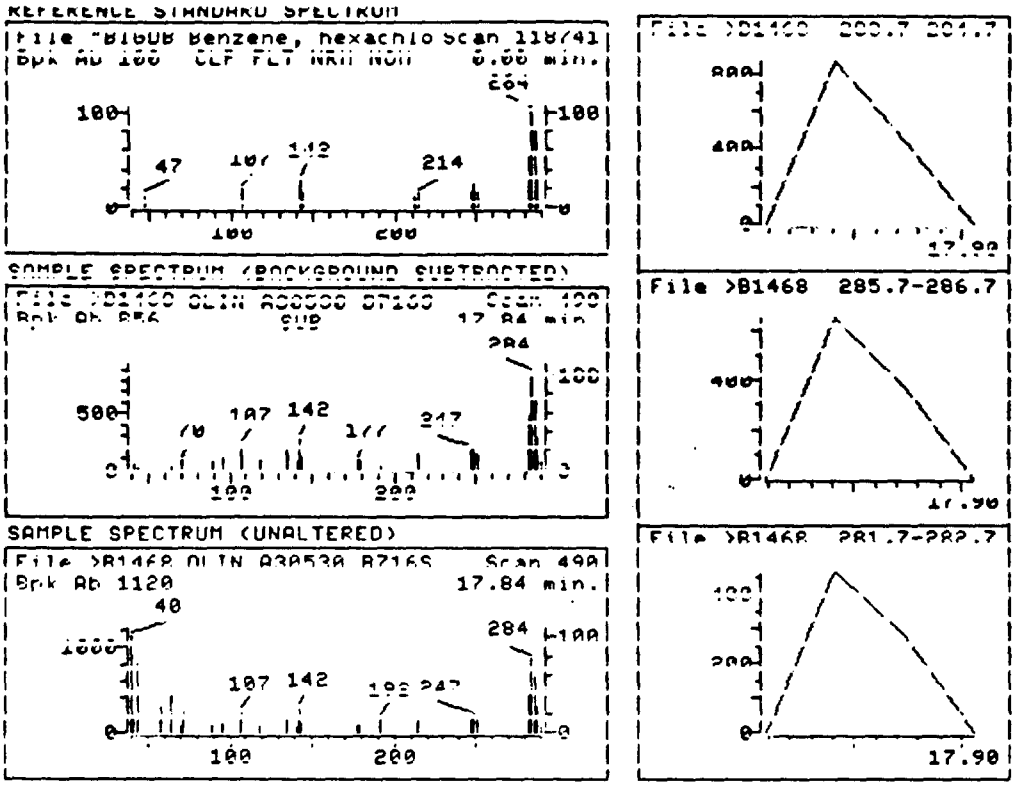


Data File: >B1468::D1
Name: 01 IN A30530 B7165
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:45
Injected at: 880119 12:01

Quant Output File: ^B1468::QT

Quant ID File: ID 80A::L2
Last Calibration: 880118 12:07

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 512
Retention Time: 18.55 min.
Quant Ion: 188.0
Area: 23887
Concentration: 40.00 ng/ul
a-value: 98

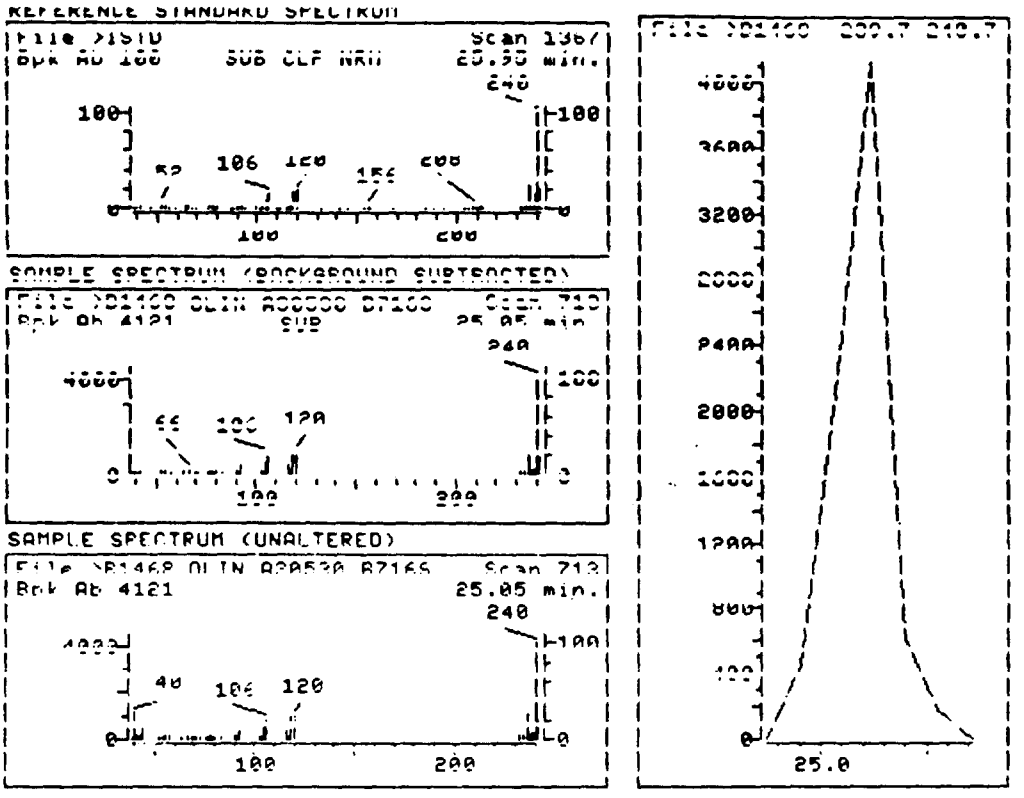


Data File: >B1468::D1
Name: UL IN A30530 B7165
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:45
Injected at: 880119 12:01

Quant Output File: ^B1468::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 57
Compound Name: Hexachlorobenzene
Scan Number: 490
Retention Time: 17.84 min.
Quant Ion: 284.0
Area: 2513
Concentration: 2.11 ng/uL
q-value: 97



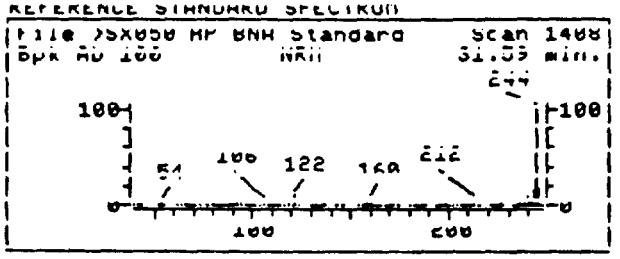
Data File: >B1468::D1
Name: [illegible] A30530 B7165
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:45
Injected at: 880119 12:01

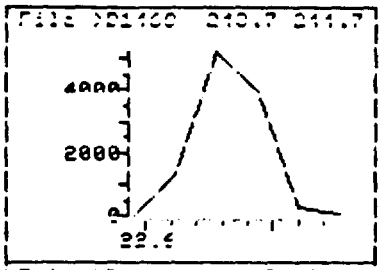
Quant Output File: ^B1468::QT

Quant ID File: ID BOA::L2
Last Calibration: 880118 12:07

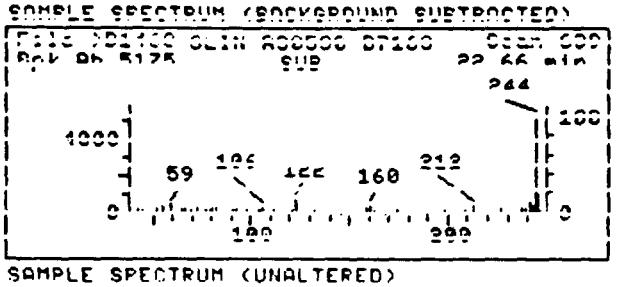
Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 713
Retention Time: 25.05 min.
Quant Ion: 240.0
Area: 14499
Concentration: 40.00 ng/uL
q-value: 100

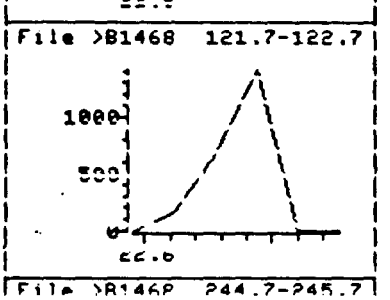
REFERENCE STANDARD SPECTRUM



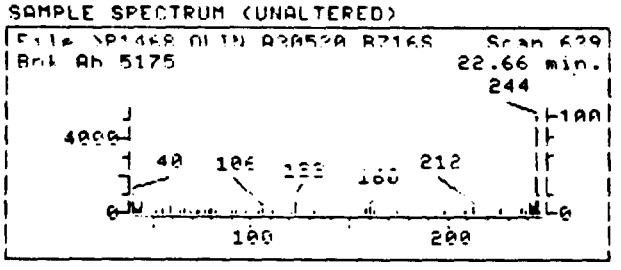


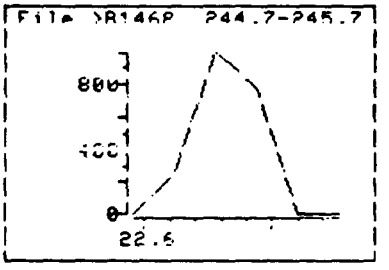
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





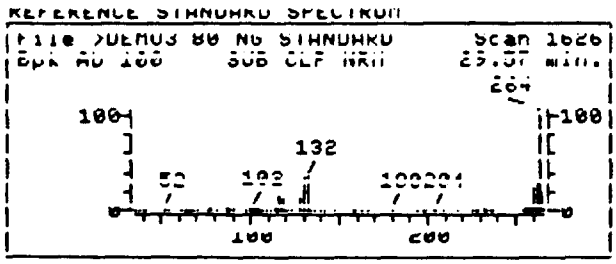
Data File: >B1468::D1
Name: OLIN A30520 B716S
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:45
Injected at: 880119 12:01

Quant Output File: ^B1468::QT

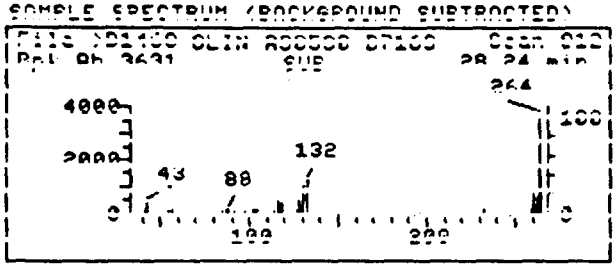
Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 639
Retention Time: 22.66 min.
Quant Ion: 244.0
Area: 20912
Concentration: 9.54 ng/ul
q-value: 87

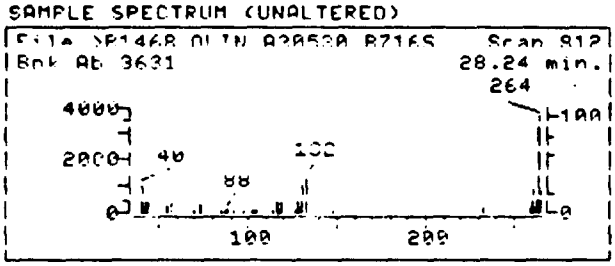
REFERENCE STANDARD SPECTRUM

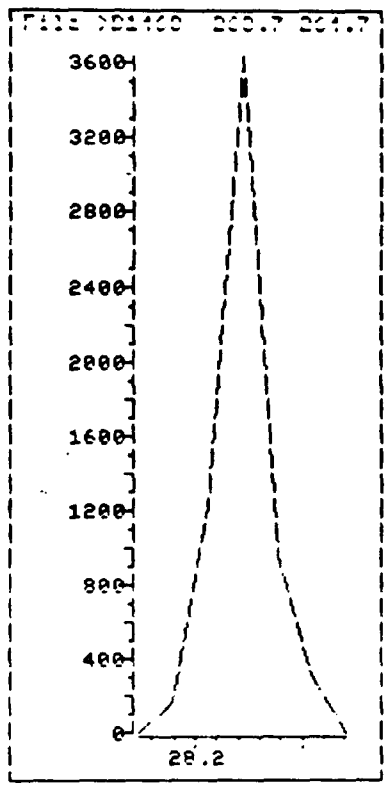


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >B1468::D1
Name: OLIN A30530 B716S
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 12:45
Injected at: 880119 12:01

Quant Output File: ^B1468::Q1

Quant ID File: ID BOA::L2
Last Calibration: 880118 12:07

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 812
Retention Time: 28.24 min.
Quant Ion: 264.0
Area: 12186
Concentration: 40.00 ng/ul
q-value: 100

PRELIMINARY REPORT PAGE : 7

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 01/21/88
BCM # : - -
P.O.# :
Order# : 19323

BCM Number : A30534
Location : 237
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	41.7	mg/kg	
Pentachloronitrobenzene	14.5	mg/kg	
Mercury	---------	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	1/18/88	M/D/Y	
pH	7.5	std.un	
Specific Gravity	1.614		
Total Solids	---------	%	

QUANT REPORT

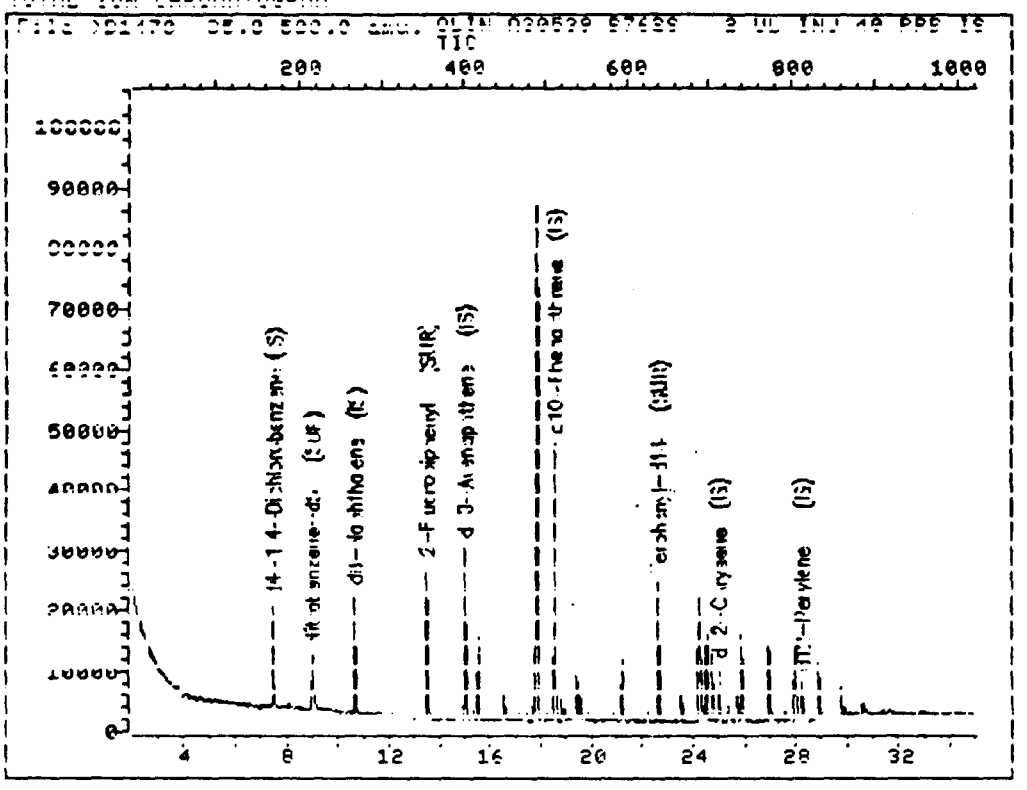
Operator ID: USER6 Quant Rev: 6 Quant Time: 880119 14:17
Output File: ^B1470::QT Injected at: 880119 13:36
Data File: >B1470::D1 Dilution Factor: .20000
Name: DL IN A30534 B762S
Misc: 2 UL INJ 40 PPB IS

ID File: ID RDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880118 12:07

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.46	169	6788	40.00	ng/uL	95
16)	*d8-Naphthalene (IS)	10.65	268	22102	40.00	ng/uL	92
17)	Nitrobenzene-d5 (SUR)	8.97	216	17712	6.91	ng/uL	87
31)	*d10-Acenaphthene (IS)	15.01	403	13621	40.00	ng/uL	97
36)	2-Fluorobiphenyl (SUR)	13.50	356	26128	7.57	ng/uL	95
51)	*d10-Phenanthrene (IS)	18.57	513	19206	40.00	ng/uL	94
56)	Pentachloronitrobenzene	18.54	512	2841	14.46	ng/uL	100
57)	Hexachlorobenzene	17.86	491	39874	41.65	ng/uL	93
63)	*d12-Chrysene (IS)	25.03	713	11163	40.00	ng/uL	100
66)	Terphenyl-d14 (SUR)	22.67	640	21975	13.02	ng/uL	90
71)	*d12-Perylene (IS)	28.26	813	8350	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

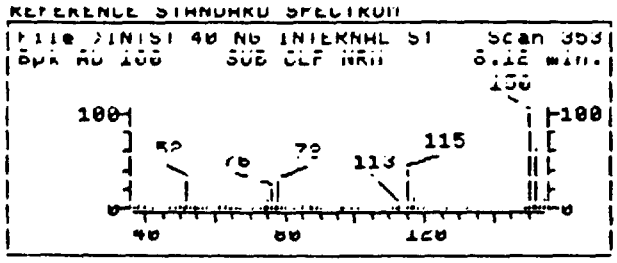


Data File: >B1470::D1 Quant Output File: ^B1470::QT
Name: [illegible]
Misc: 2 UL INJ 40 PPB IS

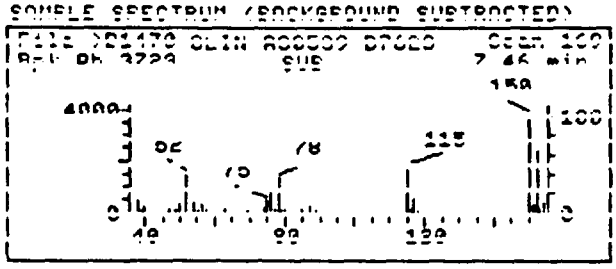
Id File: ID [illegible]
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880118 12:07

Operator ID: USER6
Quant Time: 880119 14:17
Injected at: 880119 13:36

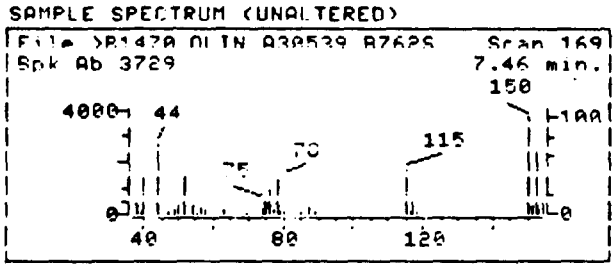
REFERENCE STANDARD SPECTRUM

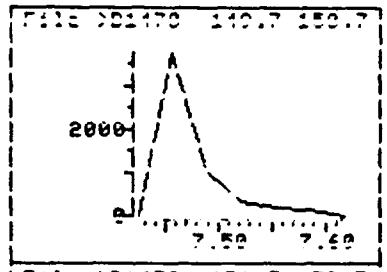


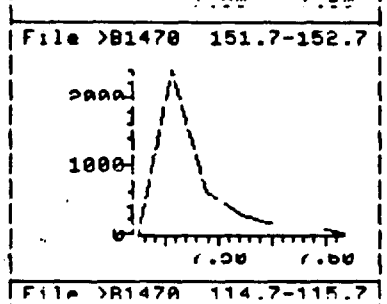
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

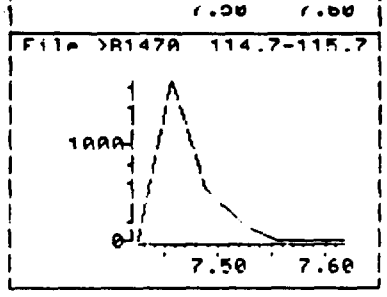


SAMPLE SPECTRUM (UNALTERED)





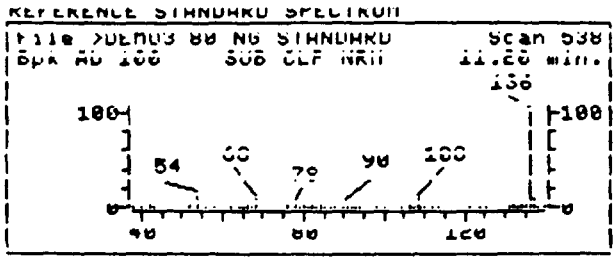


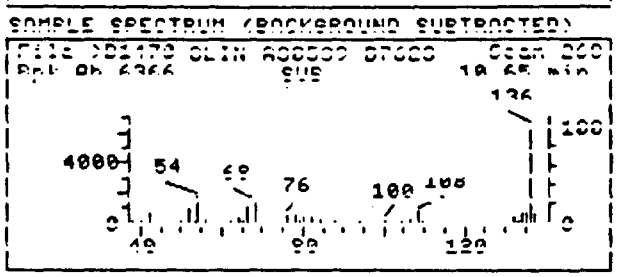


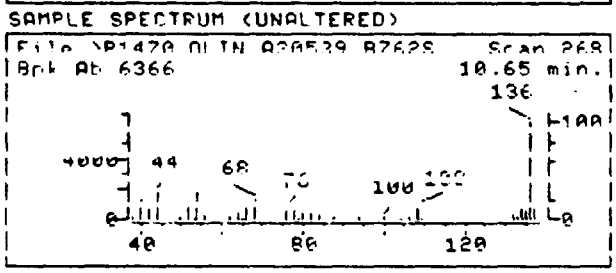
Data File: >B1470::D1
Name: OLIN A30539 B762S
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 14:17
Injected at: 880119 13:36

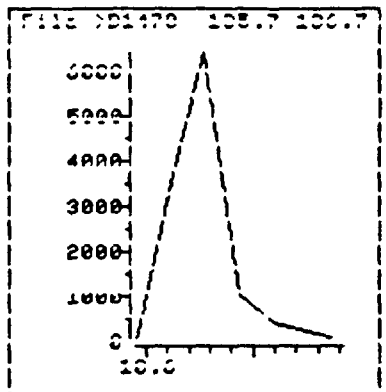
Quant Output File: ^B1470::QT
Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

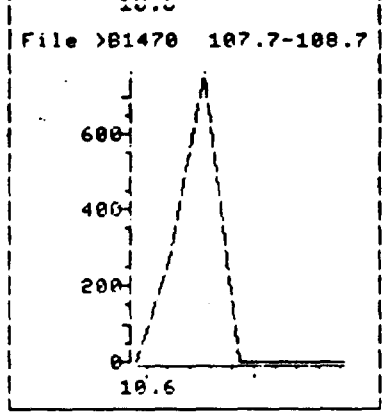
Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 169
Retention Time: 7.46 min.
Quant Ion: 152.0
Area: 6788
Concentration: 40.00 ng/uL
q-value: 95











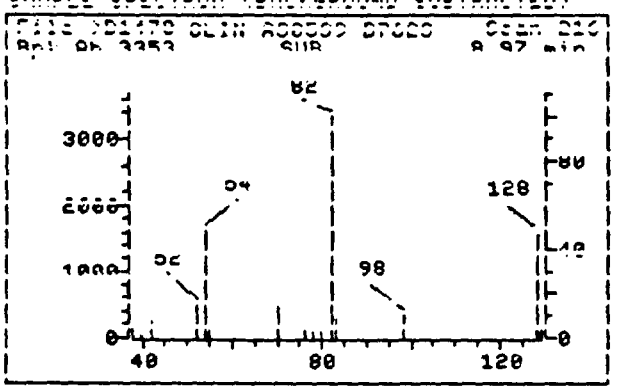
Data File: >B1470::D1
Name: OLIN A30539 B762S
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 14:17
Injected at: 880119 13:36

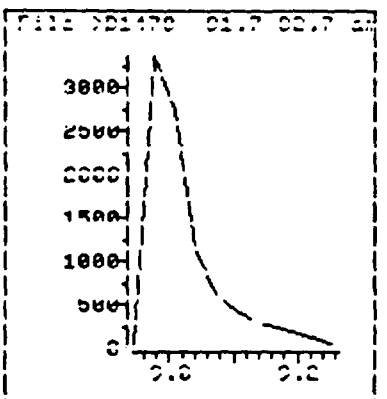
Quant Output File: ^B1470::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

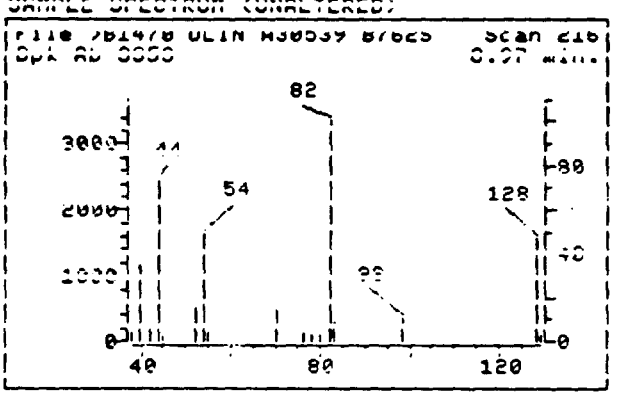
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 268
Retention Time: 10.65 min.
Quant Ion: 136.0
Area: 22102
Concentration: 40.00 ng/uL
q-value: 92

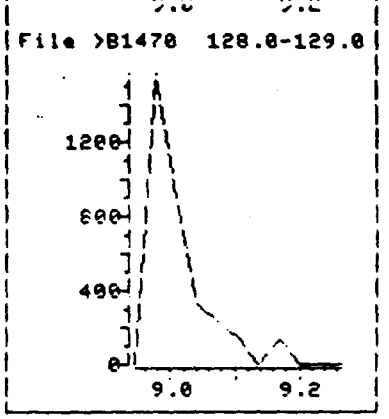
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



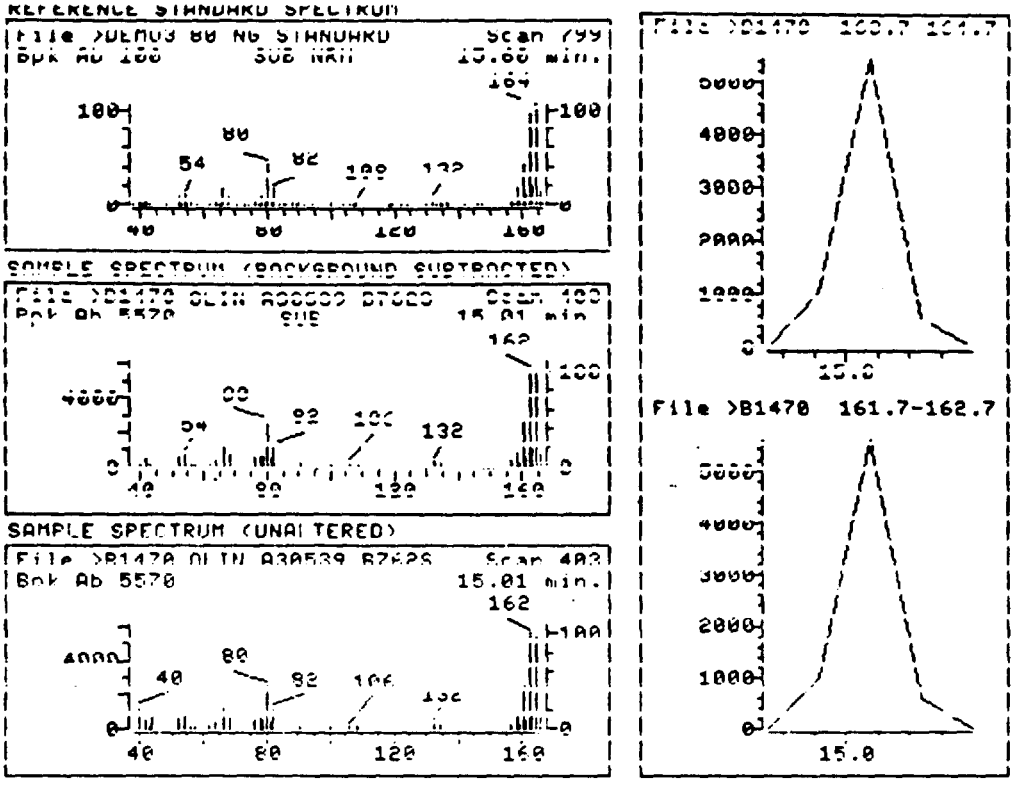


Data File: >B1470::D1
Name: OL IN A30534 B7625
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 14:17
Injected at: 880119 13:36

Quant Output File: ^B1470::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 216
Retention Time: 8.97 min.
Quant Ion: 82.0
Area: 17712
Concentration: 6.91 ng/uL
q-value: 87

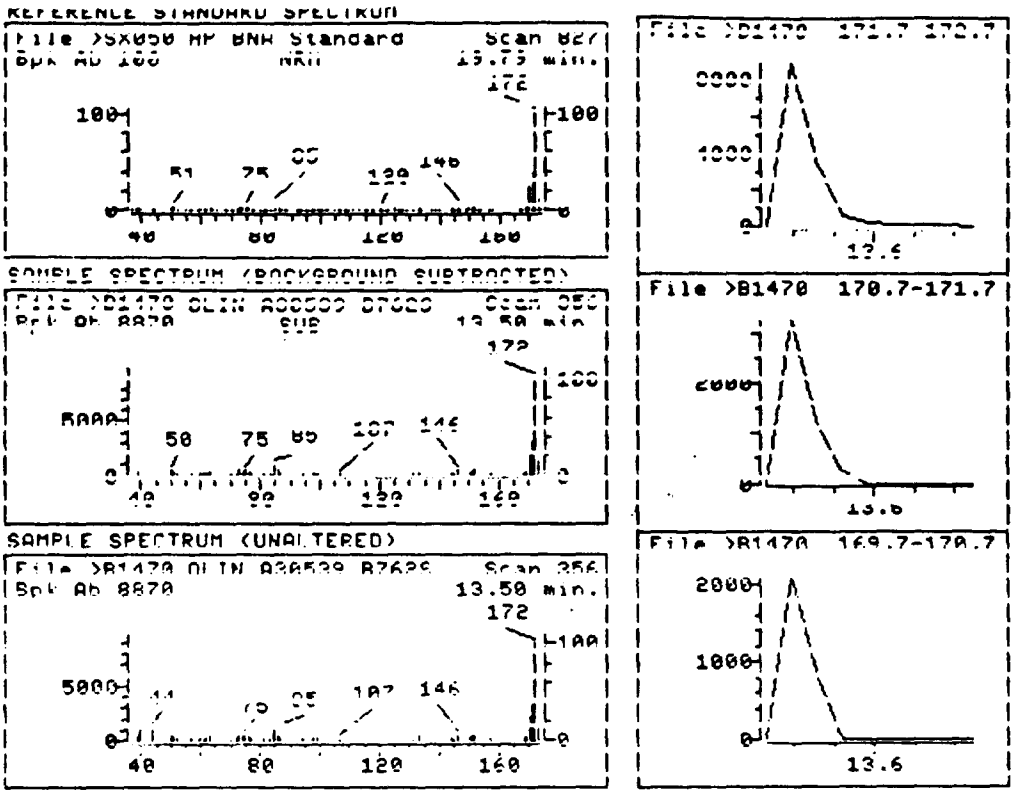


Data File: >B1470::01
Name: DI IN A30539 B7625
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 14:17
Injected at: 880119 13:36

Quant Output File: ^B1470::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 403
Retention Time: 15.01 min.
Quant Ion: 164.0
Area: 13621
Concentration: 40.00 ng/uL
q-value: 97

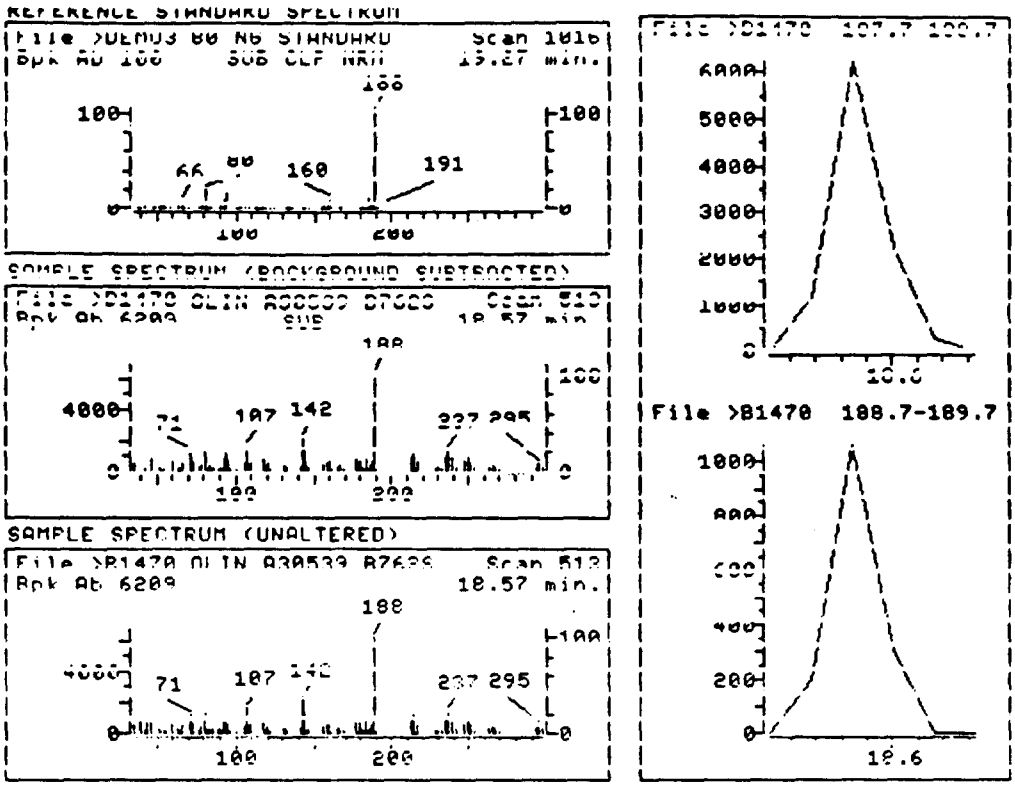


Data File: >B1470::D1
Name: DLIN A30534 B7625
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 14:17
Injected at: 880119 13:36

Quant Output File: ^B1470::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 356
Retention Time: 13.50 min.
Quant Ion: 172.0
Area: 26128
Concentration: 7.57 ng/uL
q-value: 95



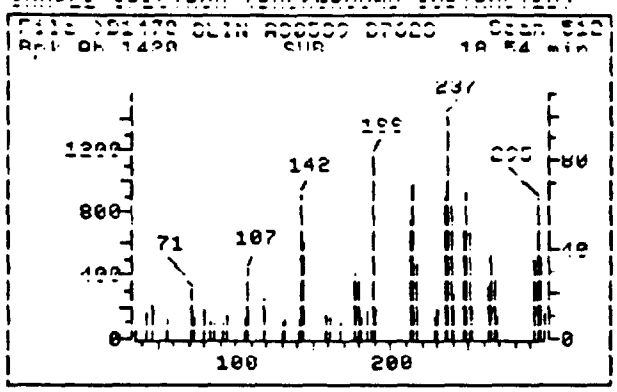
Data File: >B1470::D1
Name: OLIN A30539 B7625
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 14:17
Injected at: 880119 13:36

Quant Output File: ^B1470::QT

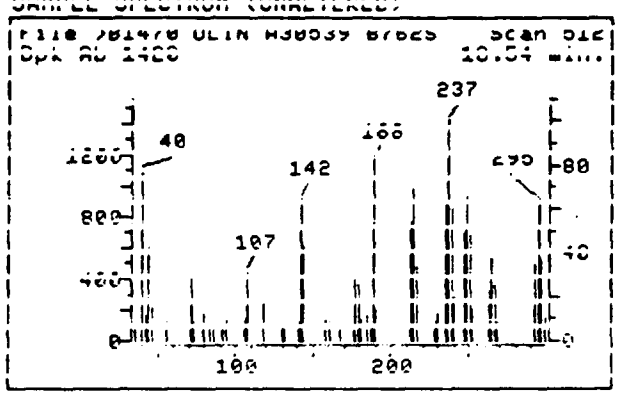
Quant ID File: ID RDA::L2
Last Calibration: 880118 12:07

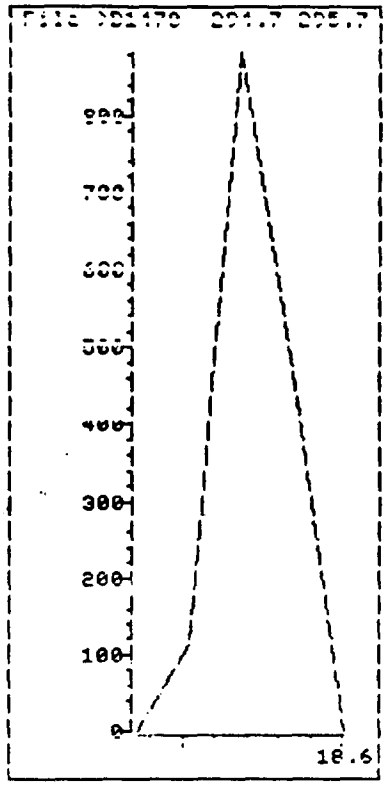
Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 513
Retention Time: 18.57 min.
Quant Ion: 188.0
Area: 19206
Concentration: 40.00 ng/ul
q-value: 94

SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



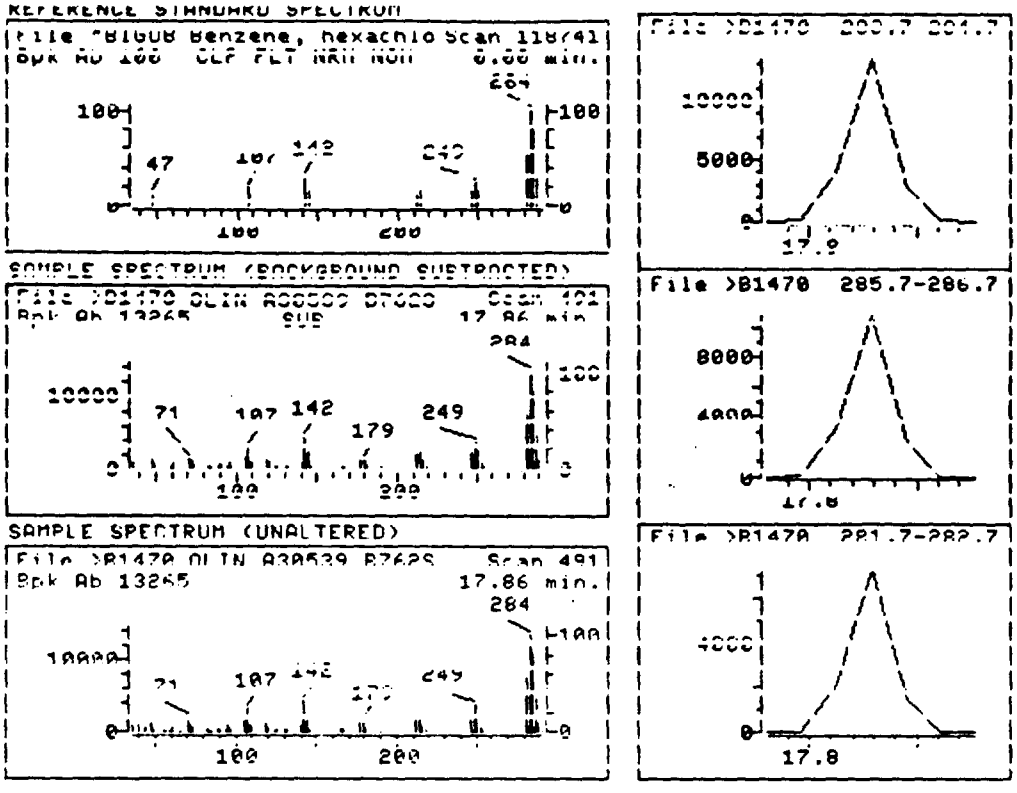


Data File: >B1470::D1
Name: OLIN A30539 B7625
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 14:17
Injected at: 880119 13:36

Quant Output File: ^B1470::QT

Quant ID File: ID RDA::L2
Last Calibration: 880118 12:07

Compound No: 56
Compound Name: Pentachloronitrobenzene
Scan Number: 512
Retention Time: 18.54 min.
Quant Ion: 295.0
Area: 2841
Concentration: 14.46 ng/uL
q-value: 100

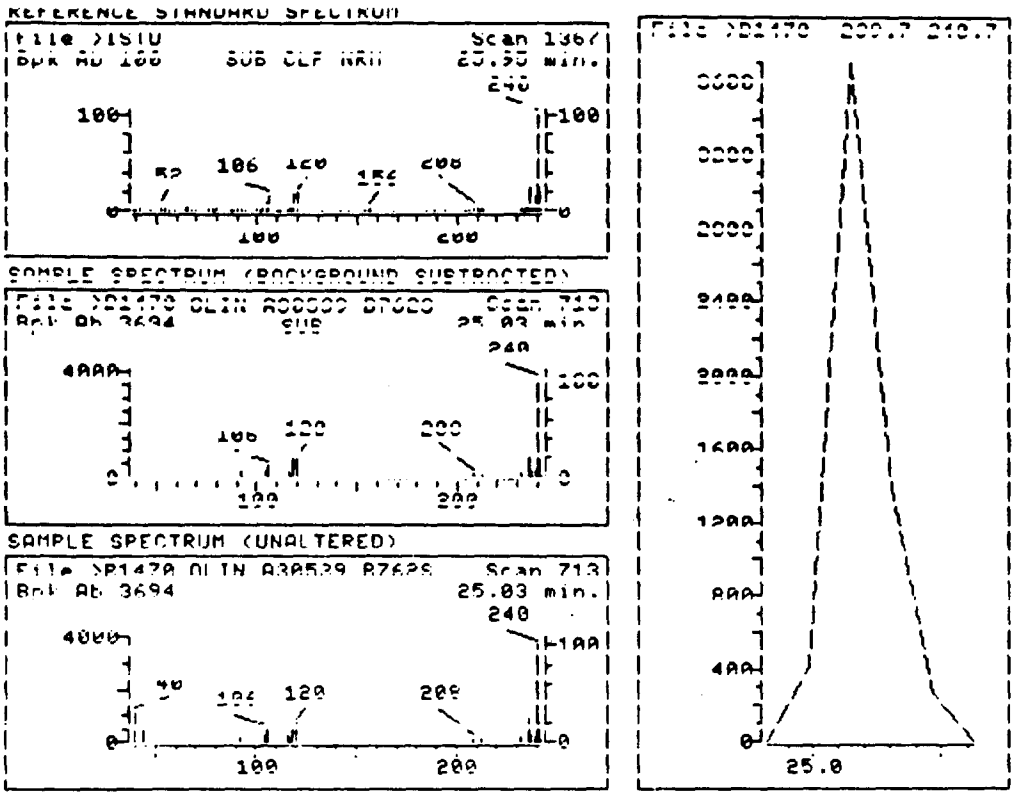


Data File: >B1470::D1
Name: DB IN A30539 B7625
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 14:17
Injected at: 880119 13:36

Quant Output File: ^B1470::QT

Quant ID File: ID RDA::12
Last Calibration: 880118 12:07

Compound No: 57
Compound Name: Hexachlorobenzene
Scan Number: 491
Retention Time: 17.86 min.
Quant Ion: 284.0
Area: 39874
Concentration: 41.65 ng/ul
q-value: 93

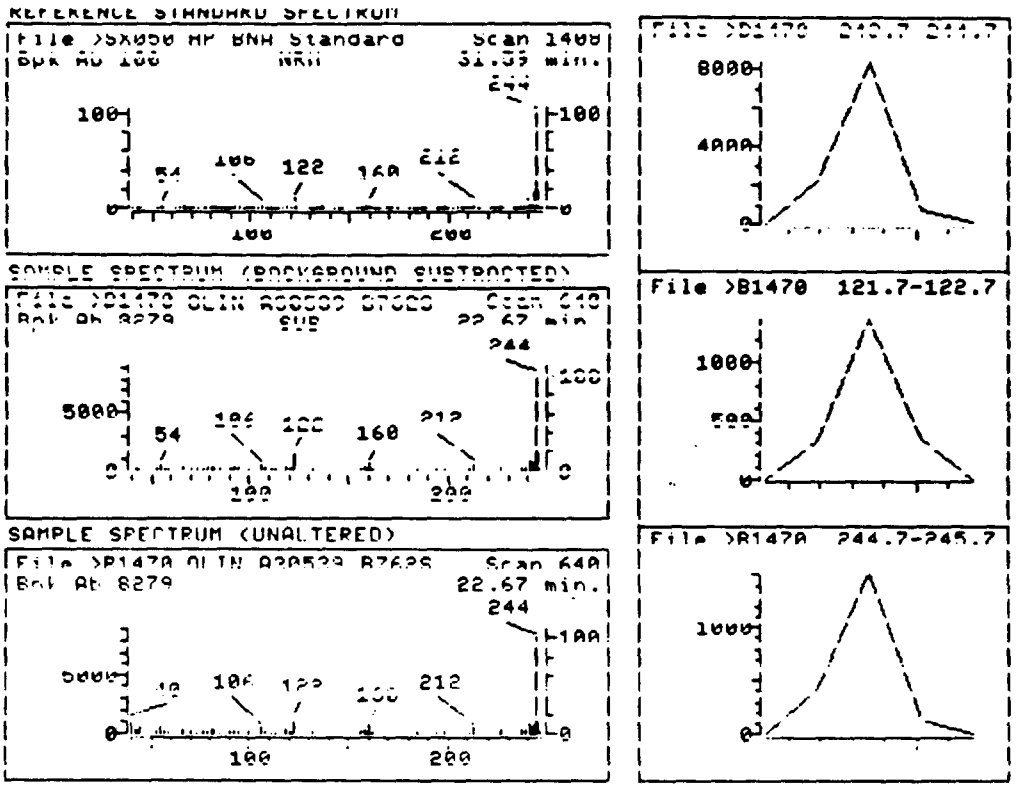


Data File: >B1470::D1
Name: UL IN A38539 B7625
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 14:17
Injected at: 880119 13:36

Quant Output File: ^B1470::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 63 (ISID)
Compound Name: d12-Chrysene (IS)
Scan Number: 713
Retention Time: 25.03 min.
Quant Ion: 240.0
Area: 11163
Concentration: 40.00 ng/ul
q-value: 100

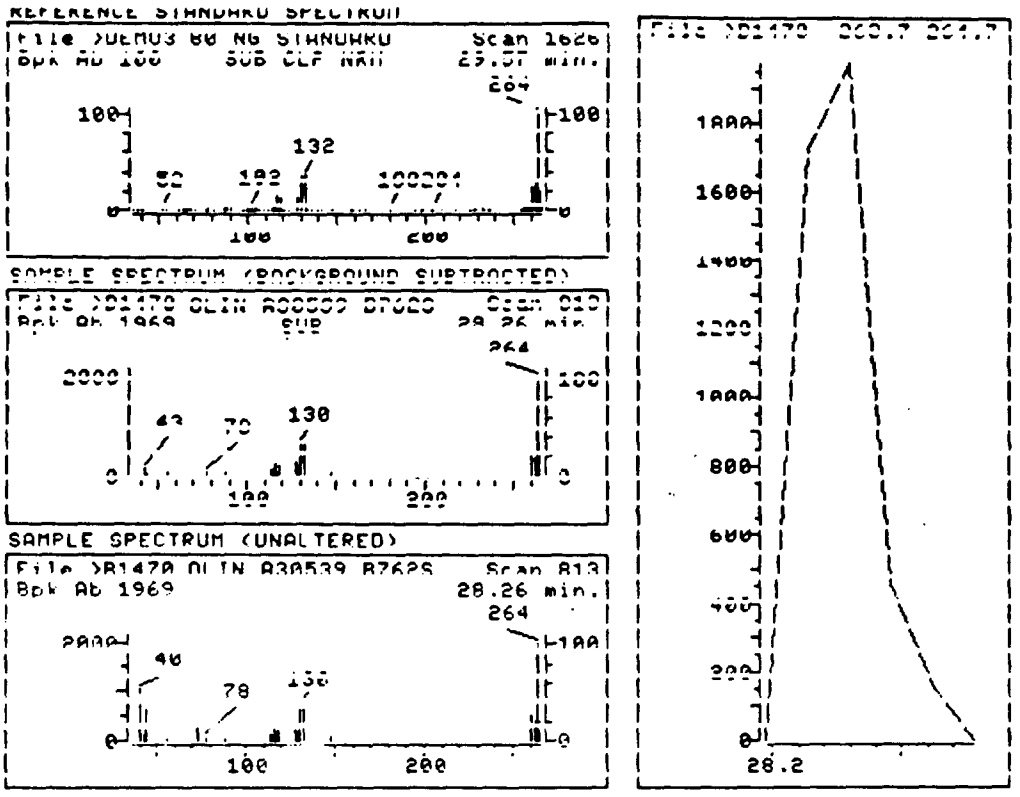


Data File: >B1470::D1
Name: [illegible]
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 14:17
Injected at: 880119 13:36

Quant Output File: ^B1470::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 640
Retention Time: 22.67 min.
Quant Ion: 244.0
Area: 21975
Concentration: 13.02 ng/uL
q-value: 90



Data File: >B1470::D1
Name: OL IN A30539 B7625
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 14:17
Injected at: 880119 13:36

Quant Output File: ^B1470::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 813
Retention Time: 28.26 min.
Quant Ion: 264.0
Area: 8350
Concentration: 40.00 ng/ul
q-value: 100

PRELIMINARY REPORT PAGE : 8

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 01/21/88
BCM # : - -
P.O.# :
Order# : 19323

BCM Number : A30536
Location : 384
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.33	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.33	mg/kg	
Hexachlorobenzene	57.5	mg/kg	
Pentachloronitrobenzene	1.62	mg/kg	
Mercury	---------	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	1/18/88	M/D/Y	
pH	5.5	std.un	
Specific Gravity	1.733		
Total Solids	---------	%	

QUANT REPORT

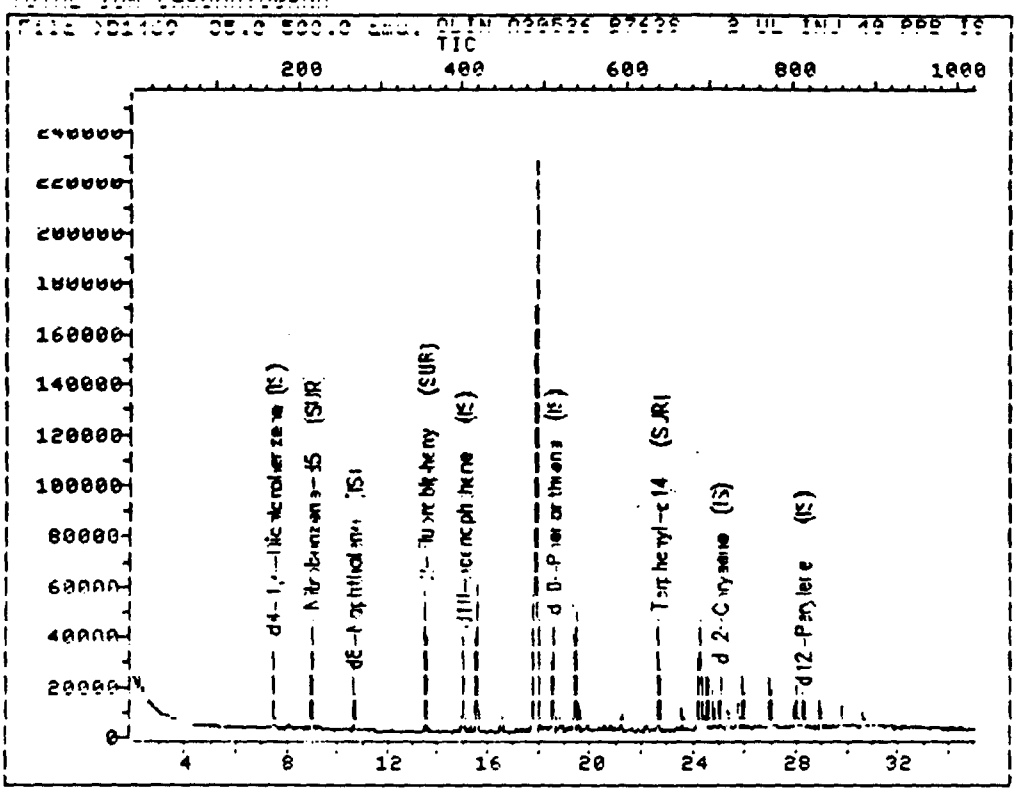
Operator ID: USER6 Quant Rev: 6 Quant Time: 880119 13:35
Output File: ^B1469::QT Injected at: 880119 12:47
Data File: >B1469::D1 Dilution Factor: .10000
Name: OLIN A30536 B763S
Misc: 2 UL INJ 40 PPB IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880118 12:07

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.46	169	10842	40.00	ng/uL	93
16)	*d8-Naphthalene (IS)	10.63	267	40129	40.00	ng/uL	84
17)	Nitrobenzene-d5 (SUR)	8.98	216	41169	4.42	ng/uL	97
31)	*d10-Acenaphthene (IS)	15.02	403	23758	40.00	ng/uL	91
36)	2-Fluorobiphenyl (SUR)	13.50	356	47571	3.95	ng/uL	94
51)	*d10-Phenanthrene (IS)	18.58	513	32260	40.00	ng/uL	98
56)	Pentachloronitrobenzene	18.54	512	1067	1.62	ng/uL	100
57)	Hexachlorobenzene	17.93	493	184816	57.47	ng/uL	97
63)	*d12-Chrysene (IS)	25.04	713	24218	40.00	ng/uL	100
65)	Terphenyl-d14 (SUR)	22.68	640	41535	5.67	ng/uL	92
71)	*d12-Perylene (IS)	28.24	812	19247	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

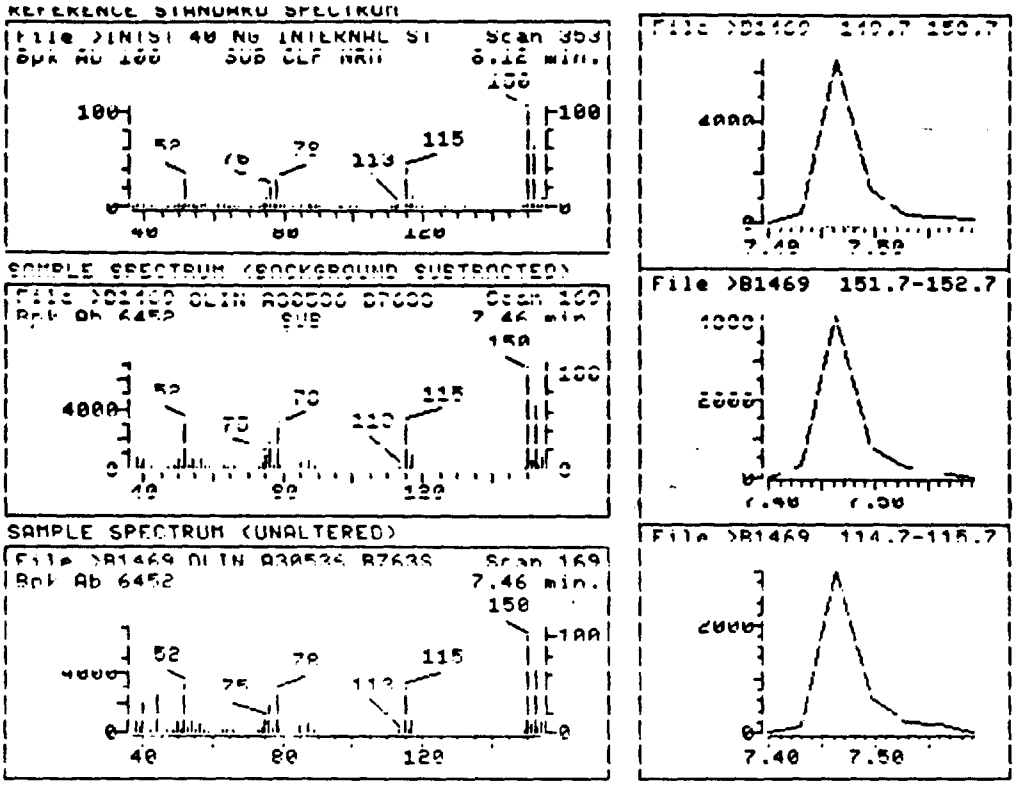


Data File: >B1469::DI
Name: DLIN A30536 B7435
Misc: 2 UL INJ 40 PPB IS

Quant Output File: ^B1469::QT

Id File: ID BDA::12
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880118 12:07

Operator ID: USER6
Quant Time: 880119 13:35
Injected at: 880119 12:47

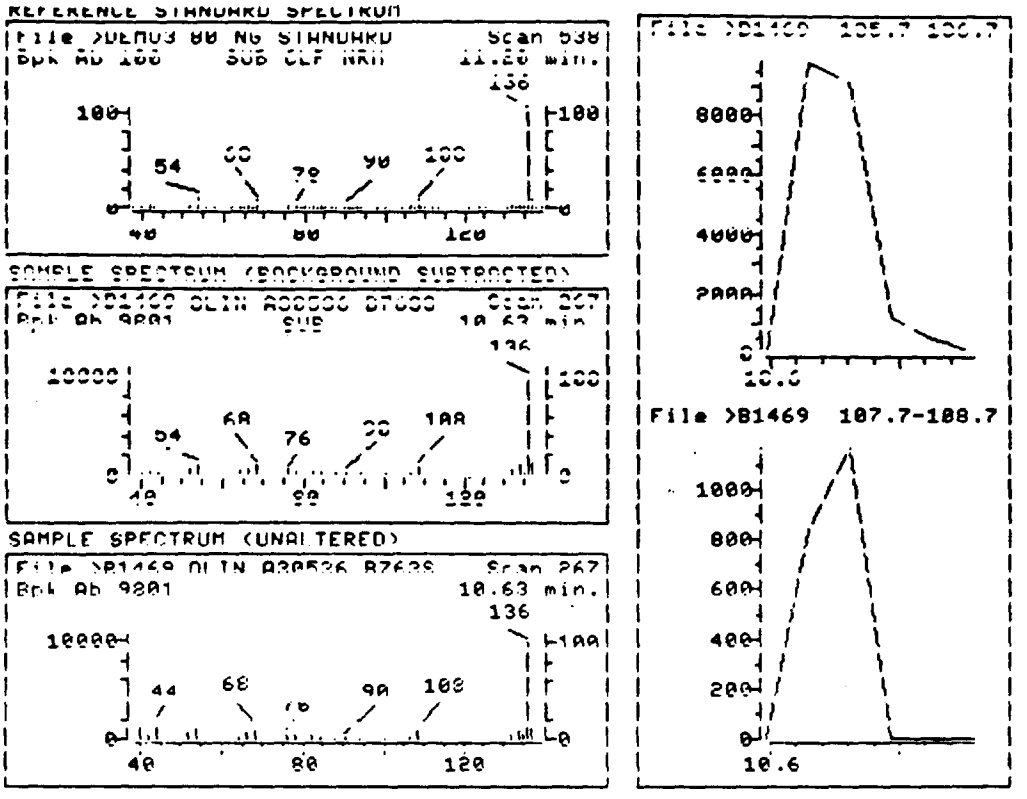


Data File: >B1469::D1
Name: [illegible]
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 13:35
Injected at: 880119 12:47

Quant Output File: ^B1469::QT

Quant ID File: ID HDA::L2
Last Calibration: 880118 12:07

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 169
Retention Time: 7.46 min.
Quant Ion: 152.0
Area: 10842
Concentration: 40.00 ng/uL
q-value: 93



Data File: >B1469::D1
Name: DI IN A30536 A763S
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 13:35
Injected at: 880119 12:47

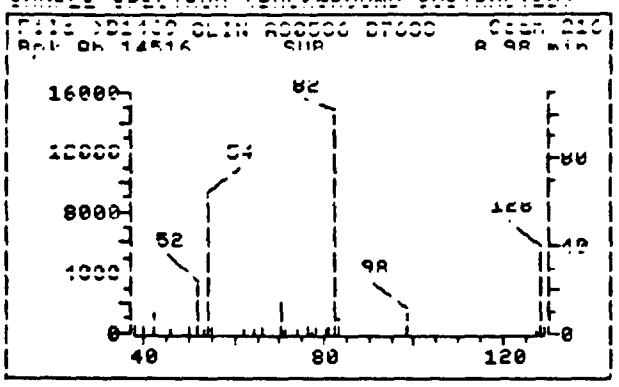
Quant Output File: ^B1469::QT

Quant ID File: ID HUA::L2
Last Calibration: 880118 12:07

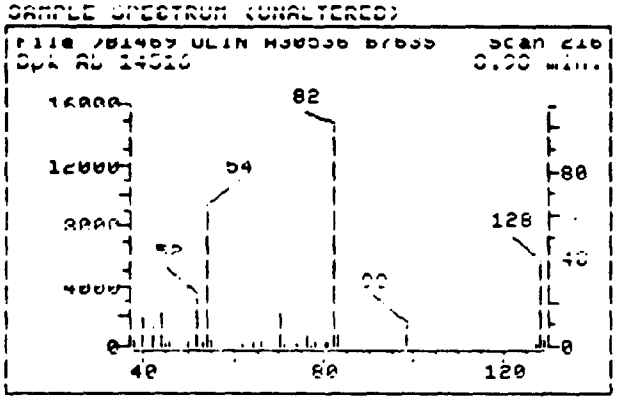
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 267
Retention Time: 10.63 min.
Quant Ion: 136.0
Area: 40129
Concentration: 40.00 ng/ul
q-value: 84

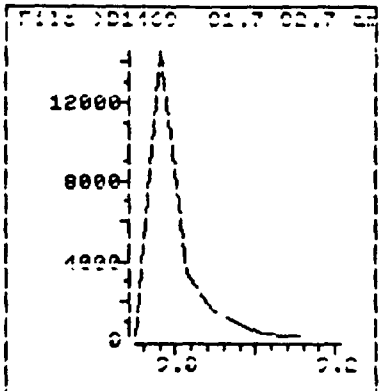
3 2 00735

SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

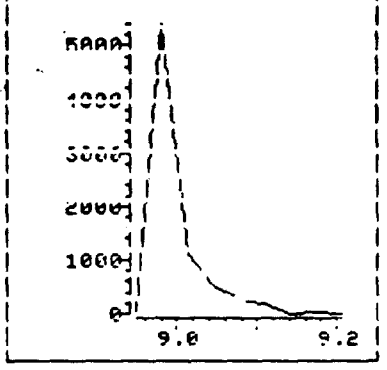


SAMPLE SPECTRUM (UNALTERED)





File >B1469 128.0-129.0

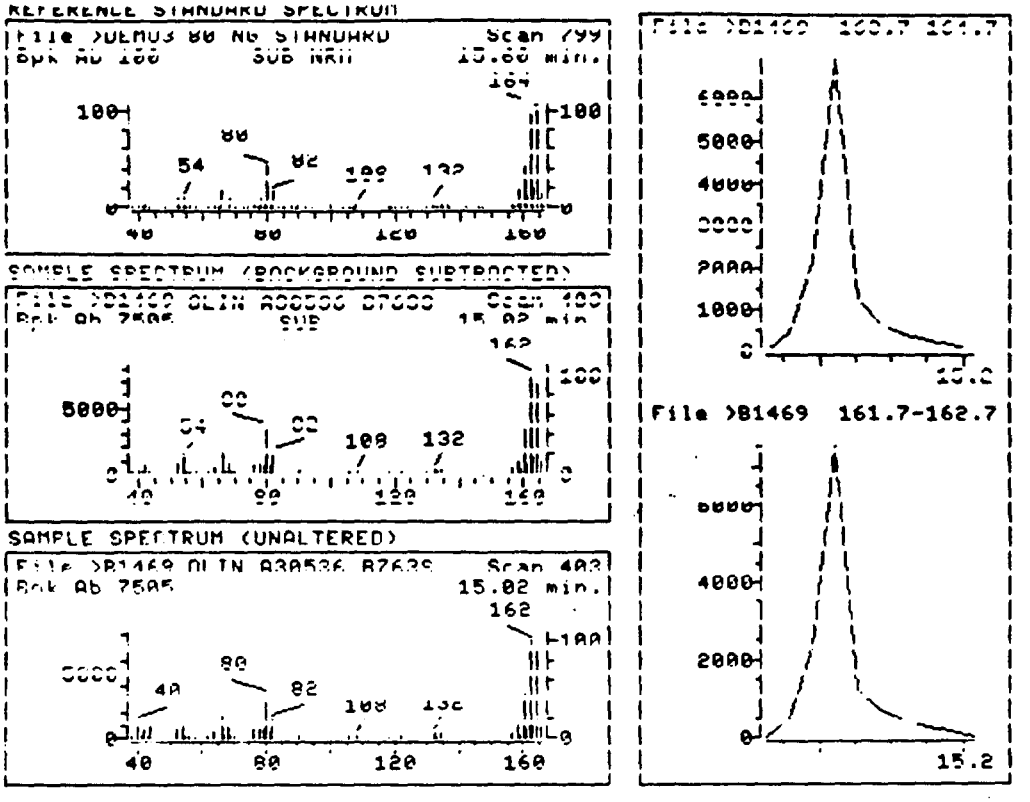


Data File: >B1469::D1
Name: OLIN A30536 B763S
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 13:45
Injected at: 880119 12:47

Quant Output File: ^B1469::QT

Quant ID File: ID RDA::L2
Last Calibration: 880118 12:07

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 216
Retention Time: 8.98 min.
Quant Ion: 82.0
Area: 41169
Concentration: 4.42 ng/ul
q-value: 97

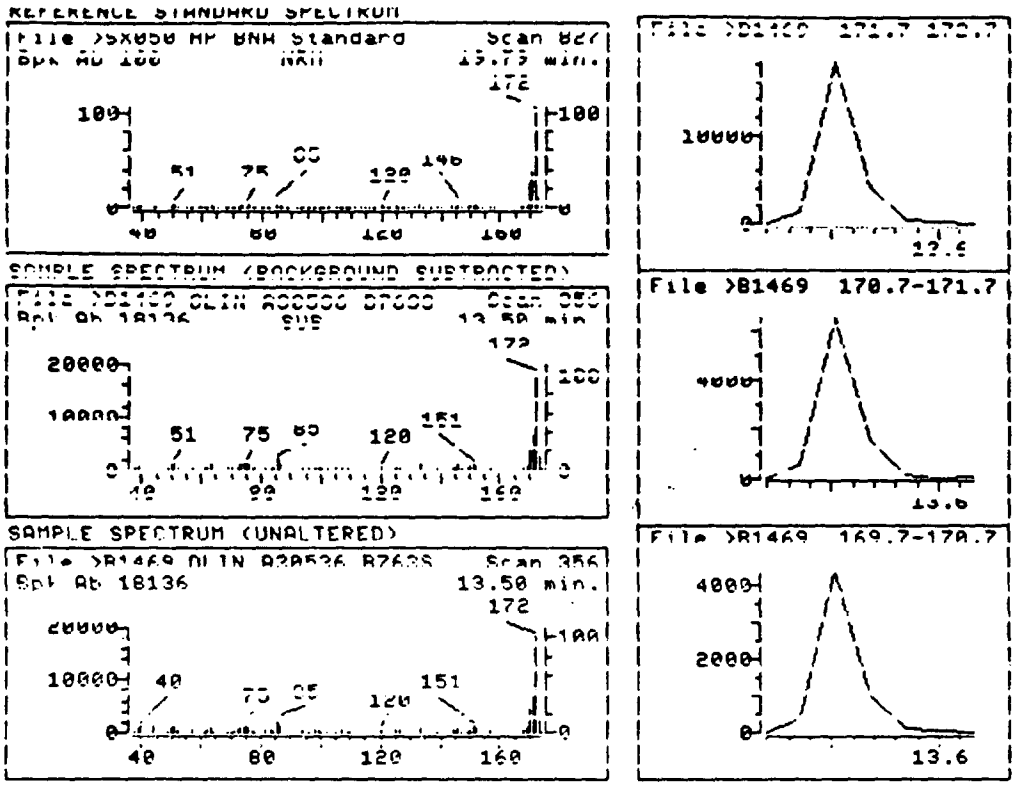


Data File: >B1469::D1
Name: DI IN A30536 B7635
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 13:35
Injected at: 880119 12:47

Quant Output File: ^B1469::QT

Quant ID File: ID RDA::L2
Last Calibration: 880118 12:07

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 403
Retention Time: 15.02 min.
Quant Ion: 164.0
Area: 23758
Concentration: 40.00 ng/uL
q-value: 91

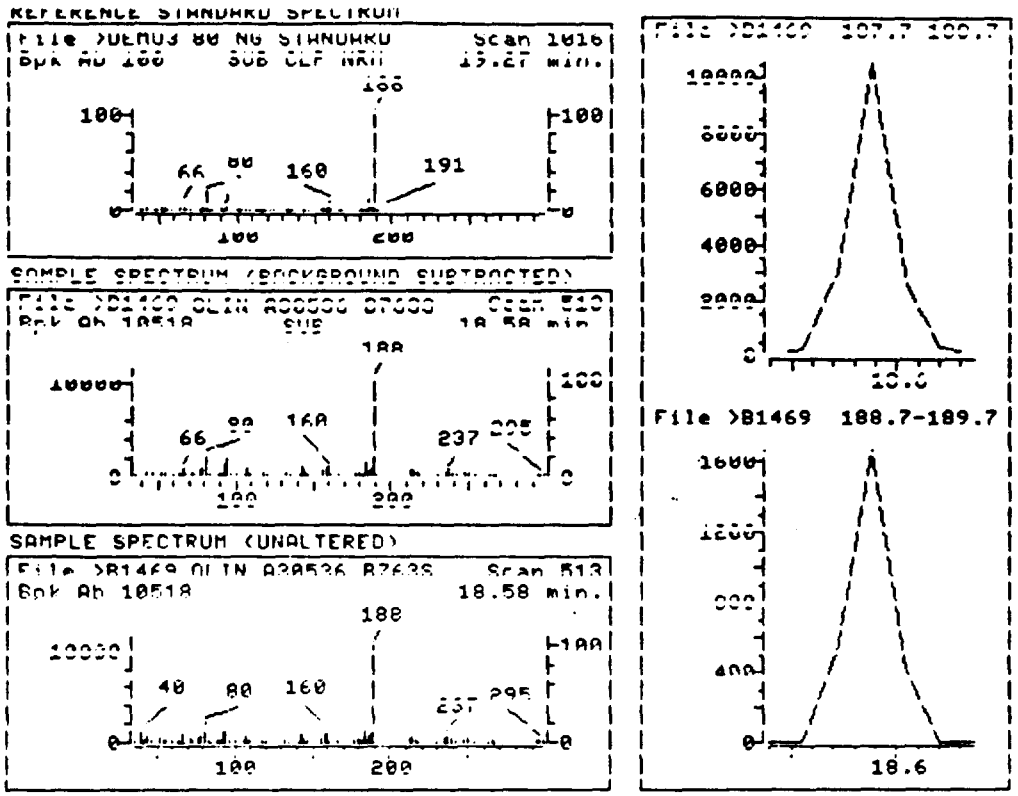


Data File: >B1469::D1
Name: OLIN A30536 B763S
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 13:35
Injected at: 880119 12:47

Quant Output File: ^B1469::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 356
Retention Time: 13.50 min.
Quant Ion: 172.0
Area: 47571
Concentration: 3.95 ng/ul
q-value: 94



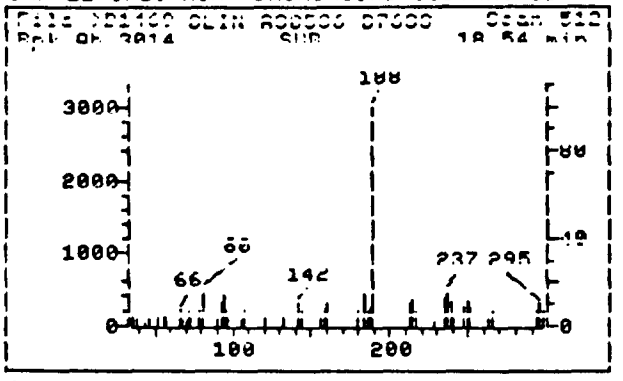
Data File: >B1469::D1
Name: OIL IN B30536 B763S
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 13:55
Injected at: 880119 12:47

Quant Output File: ^B1469::QT

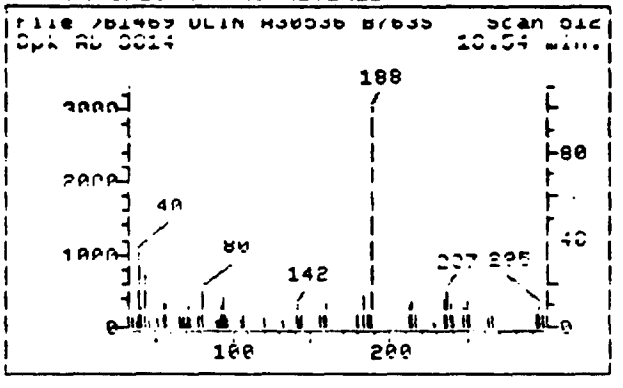
Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

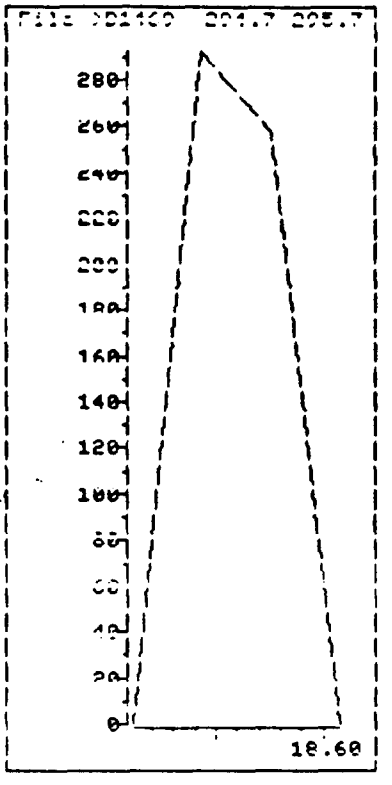
Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 513
Retention Time: 18.58 min.
Quant Ion: 188.0
Area: 32260
Concentration: 40.00 ng/ul
q-value: 98

SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



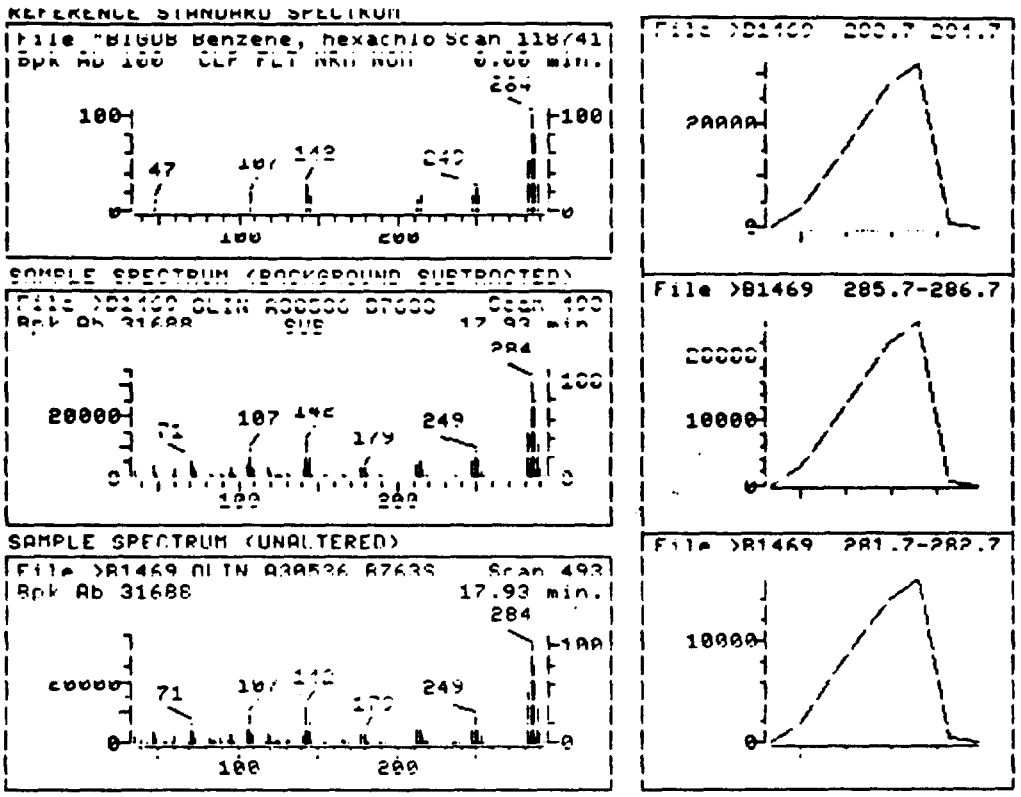


Data File: >B1469::D1
Name: DL IN A30536 B7655
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 13:35
Injected at: 880119 12:47

Quant Output File: ^B1469::QT

Quant ID File: ID PDA::L2
Last Calibration: 880118 12:07

Compound No: 56
Compound Name: Pentachloronitrobenzene
Scan Number: 512
Retention Time: 18.54 min.
Quant Ion: 295.0
Area: 1067
Concentration: 1.62 ng/ul
q-value: 100

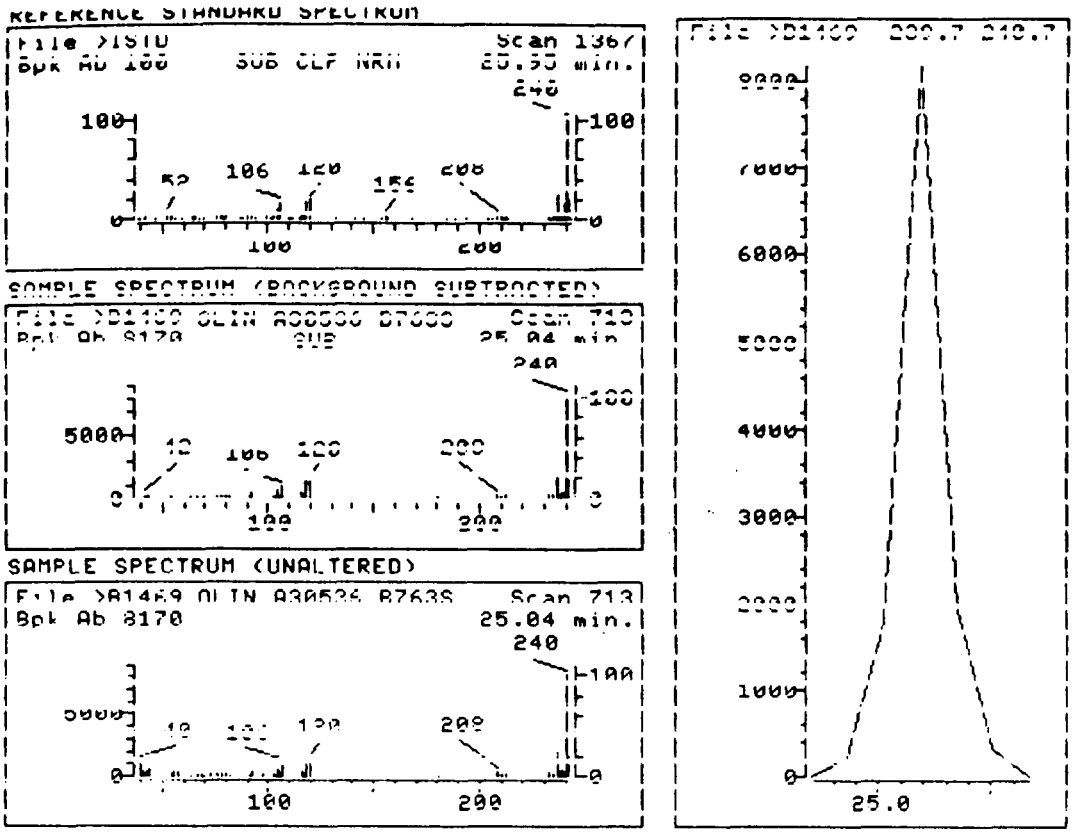


Data File: >B1469::D1
Name: 01 IN A30636 B763S
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 13:25
Injected at: 880119 12:47

Quant Output File: ^B1469::QT

Quant ID File: ID RDA::L2
Last Calibration: 880118 12:07

Compound No: 57
Compound Name: Hexachlorobenzene
Scan Number: 493
Retention Time: 17.93 min.
Quant Ion: 284.0
Area: 184816
Concentration: 57.47 ng/ul
q-value: 97

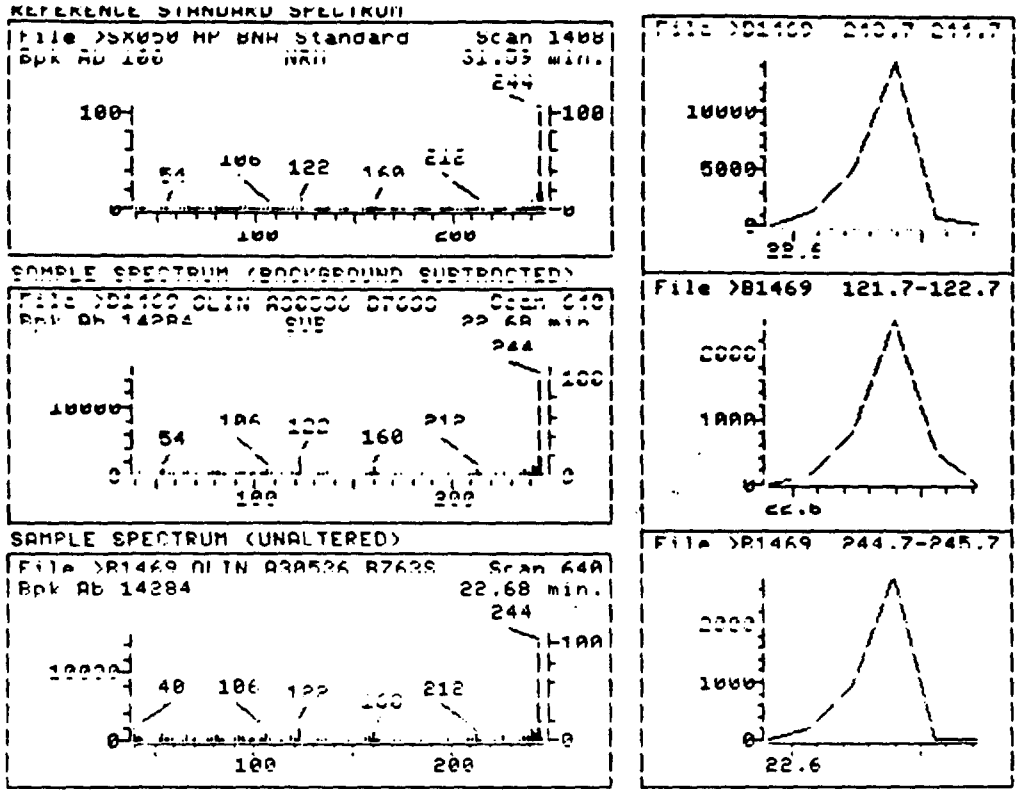


Data File: >B1469::D1
Name: DI IN A30536 B763S
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 13:35
Injected at: 880119 12:47

Quant Output File: ^B1469::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 713
Retention Time: 25.04 min.
Quant Ion: 240.0
Area: 24218
Concentration: 40.00 ng/uL
q-value: 100

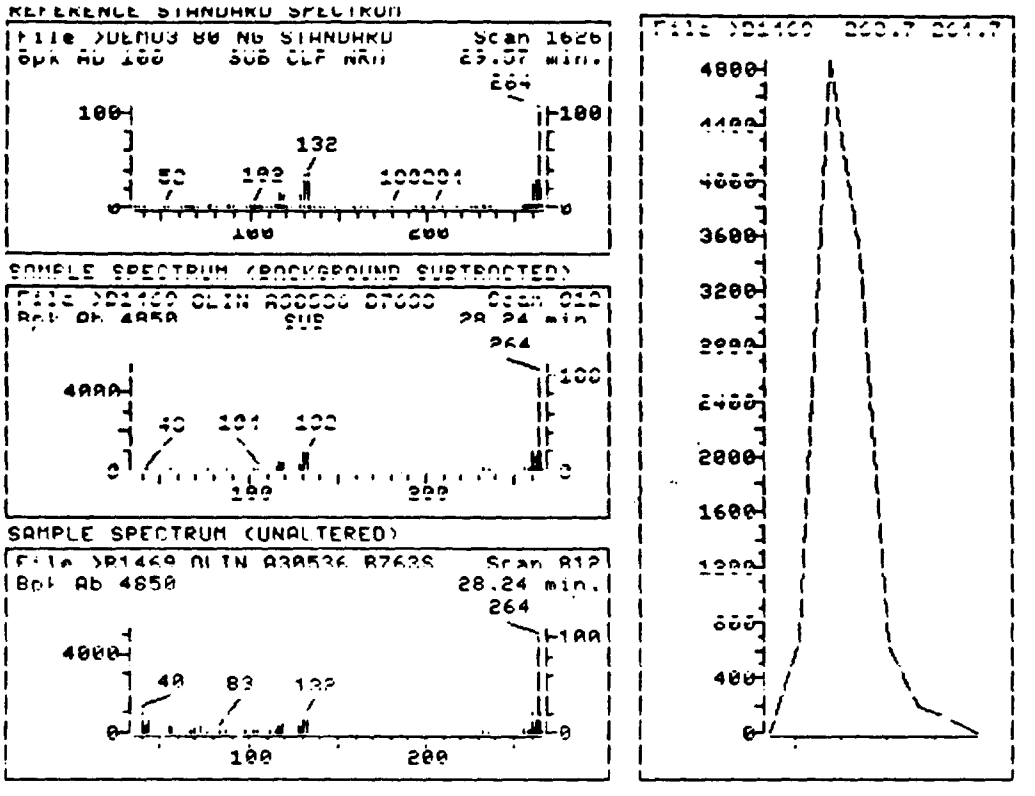


Data File: >B1469::D1
Name: DL IN A30536 B7635
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 13:35
Injected at: 880119 12:47

Quant Output File: ^B1469::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 640
Retention Time: 22.68 min.
Quant Ion: 244.0
Area: 41535
Concentration: 5.67 ng/ul
a-value: 92



Data File: >B1469::D1
Name: CL IN A30536 B7635
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 13:45
Injected at: 880119 12:47

Quant Output File: ^B1469::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 812
Retention Time: 28.24 min.
Quant Ion: 264.0
Area: 19247
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemicals
Attn: Arnold L. Feldman
P.O.Box 248
Charleston, TN 37310

Date : 01/21/88
BCM # : - -
P.O.# :
Order# : 19323

BCM Number : A30538
Location : 782
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.66	mg/kg	EPA # 8250
1,4-Dichlorobenzene	< 0.66	mg/kg	
Hexachlorobenzene	1.94	mg/kg	
Pentachloronitrobenzene	< 0.66	mg/kg	
Mercury	---------	mg/kg	EPA # 7471
Leachate by Toxic Extract. Proc.	1/18/88	M/D/Y	
pH	6.6	std.un	
Specific Gravity	1.260		
Total Solids	---------	%	

QUANT REPORT

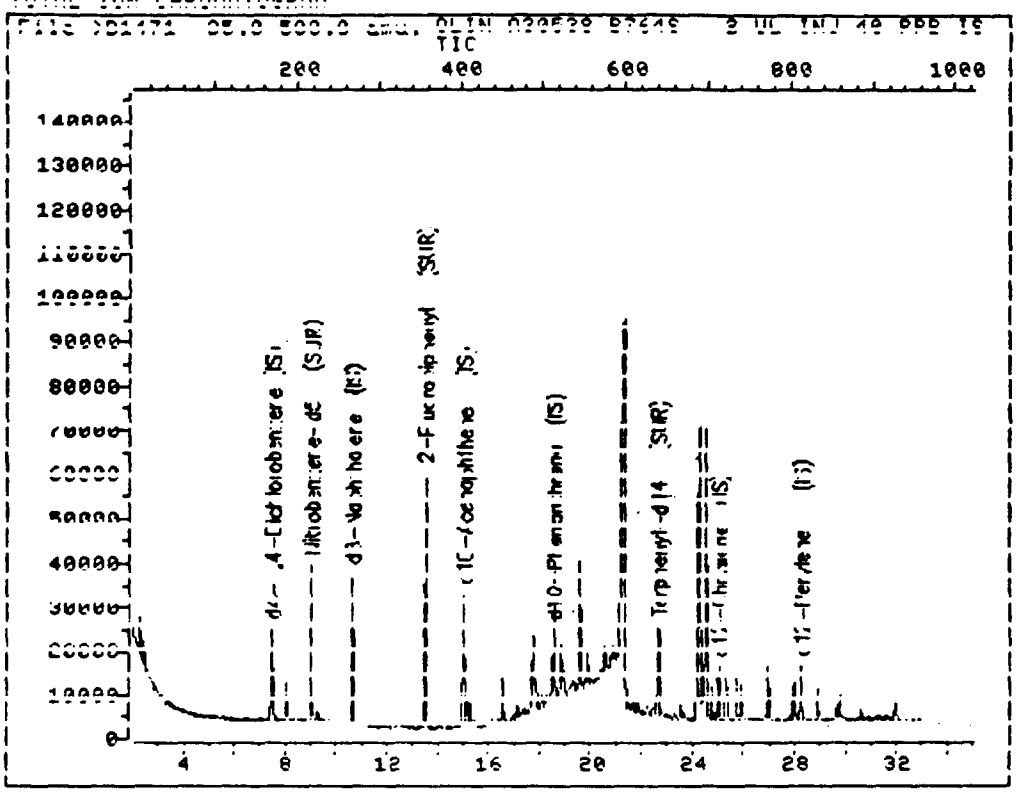
Operator ID: USER6 Quant Rev: 6 Quant Time: 880119 15:05
Output File: ^B1471::QT Injected at: 880119 14:19
Data File: >B1471::D1 Dilution Factor: .20000
Name: DLIN A30538 B764S
Misc: 2 UL INJ 40 PPB IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880118 12:07

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.47	170	9001	40.00	ng/uL	89
16)	*d8-Naphthalene (IS)	10.64	268	38754	40.00	ng/uL	86
17)	Nitrobenzene-d5 (SUR)	8.99	217	32239	7.17	ng/uL	91
31)	*d10-Acenaphthene (IS)	15.03	404	18672	40.00	ng/uL	99
36)	2-Fluorobiphenyl (SUR)	13.51	357	43520	9.20	ng/uL	94
51)	*d10-Phenanthrene (IS)	18.55	513	25517	40.00	ng/uL	99
52)	Hexachlorobenzene	17.84	491	2469	1.94	ng/uL	95
63)	*d12-Chrysene (IS)	25.05	714	15215	40.00	ng/uL	100
65)	Terphenyl-d14 (SUR)	22.66	640	25539	11.10	ng/uL	84
71)	*d12-Perylene (IS)	28.25	813	12774	40.00	ng/uL	100

* Compound is ISTD

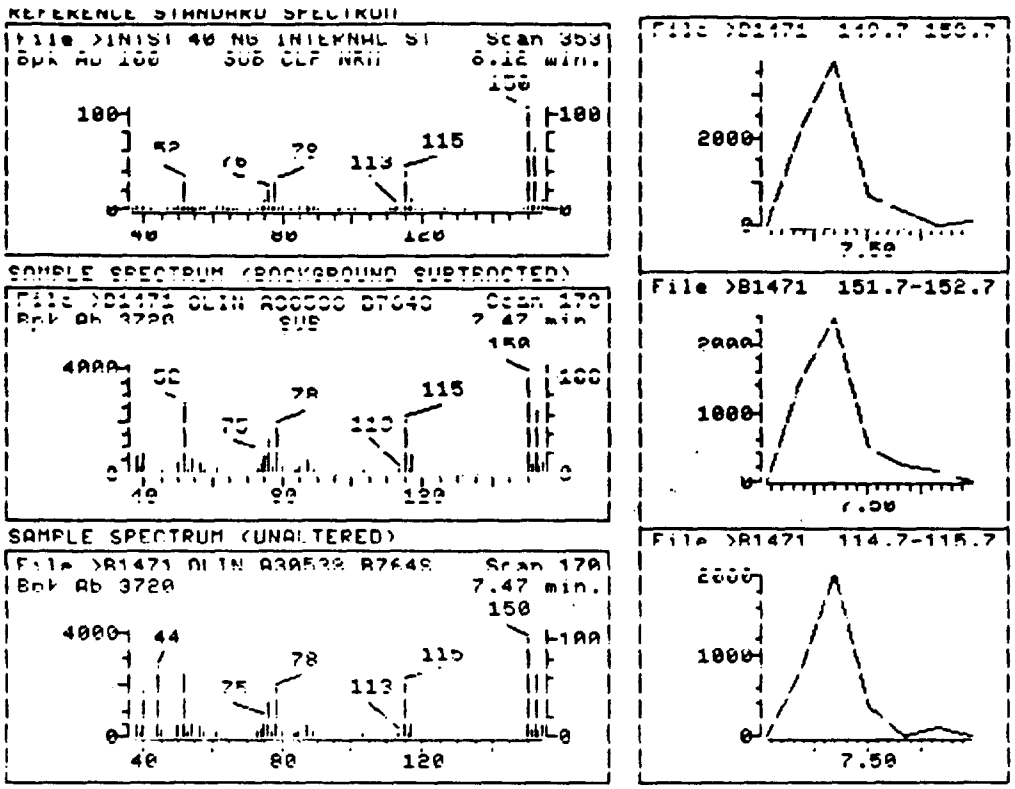
TOTAL ION CHROMATOGRAM



Data File: >B1471::D1 Quant Output File: ^B1471::QT
Name: DLIN A30538 B7645
Misc: 2 UL INJ 40 PPB IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880118 12:07

Operator ID: USER6
Quant Time: 880119 15:05
Injected at: 880119 14:19

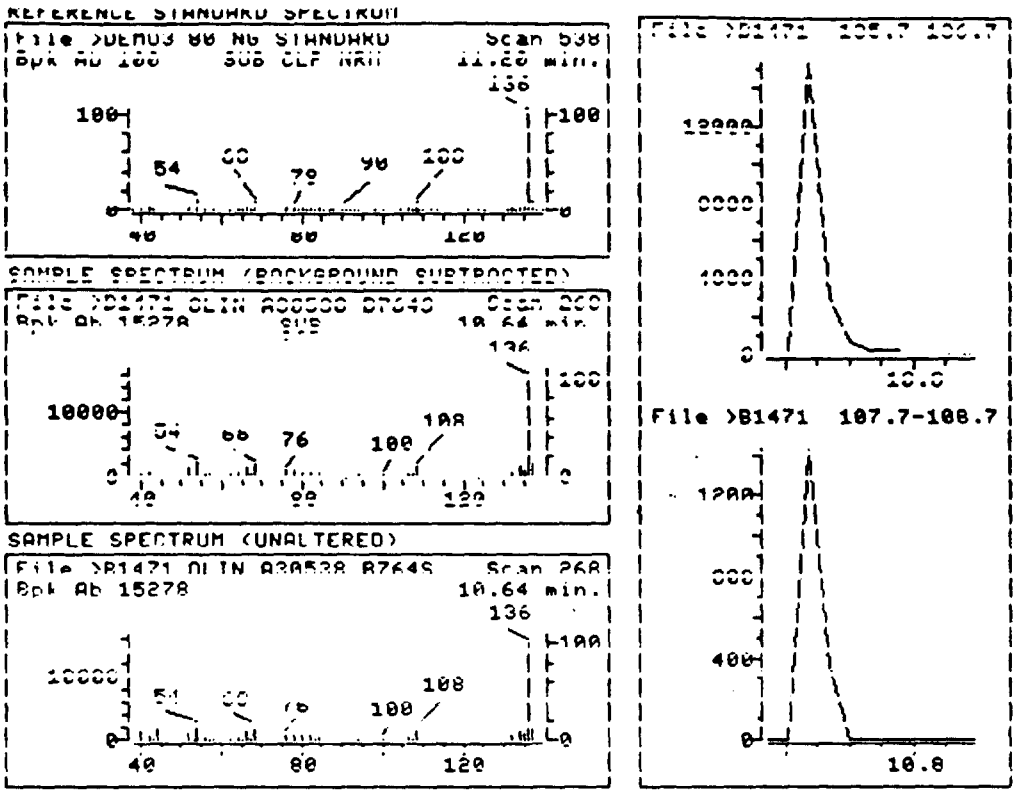


Data File: >B1471::D1
Name: DL IN A30538 B7649
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 15:05
Injected at: 880119 14:19

Quant Output File: ^B1471::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 170
Retention Time: 7.47 min.
Quant Ion: 152.0
Area: 9001
Concentration: 40.00 ng/ul
q-value: 89



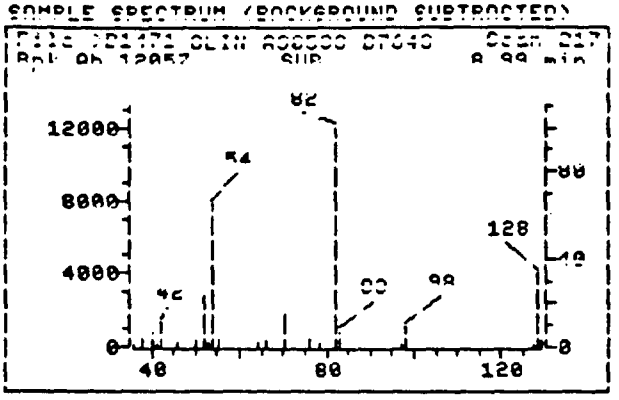
Data File: >B1471::D1
Name: DLIN A30538 B7649
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 15:05
Injected at: 880119 14:19

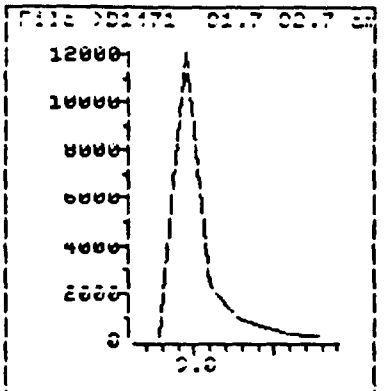
Quant Output File: ^B1471::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

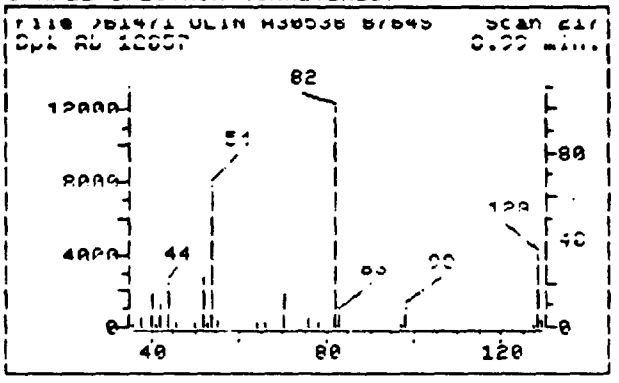
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 268
Retention Time: 10.64 min.
Quant Ion: 136.0
Area: 38754
Concentration: 40.00 ng/ul
q-value: 86

SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

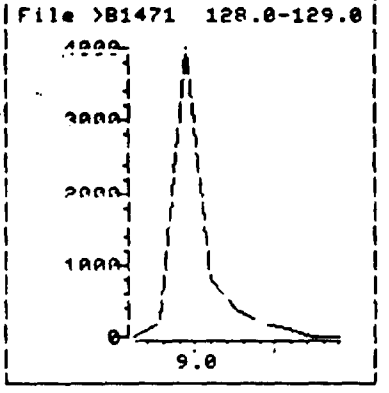




SAMPLE SPECTRUM (UNALTERED)



File >B1471 128.0-129.0

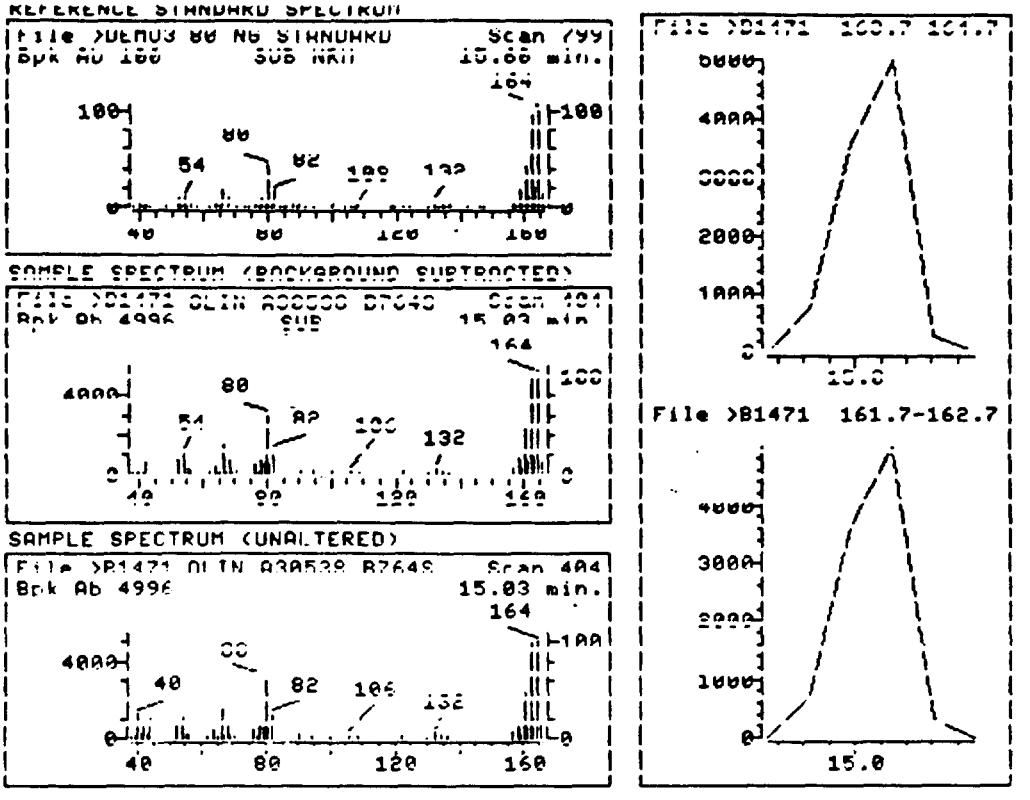


Data File: >B1471::D1
Name: DL IN 830538 B764S
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 15:05
Injected at: 880119 14:19

Quant Output File: ^B1471::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 217
Retention Time: 8.99 min.
Quant Ion: 82.0
Area: 32239
Concentration: 7.17 ng/uL
q-value: 91

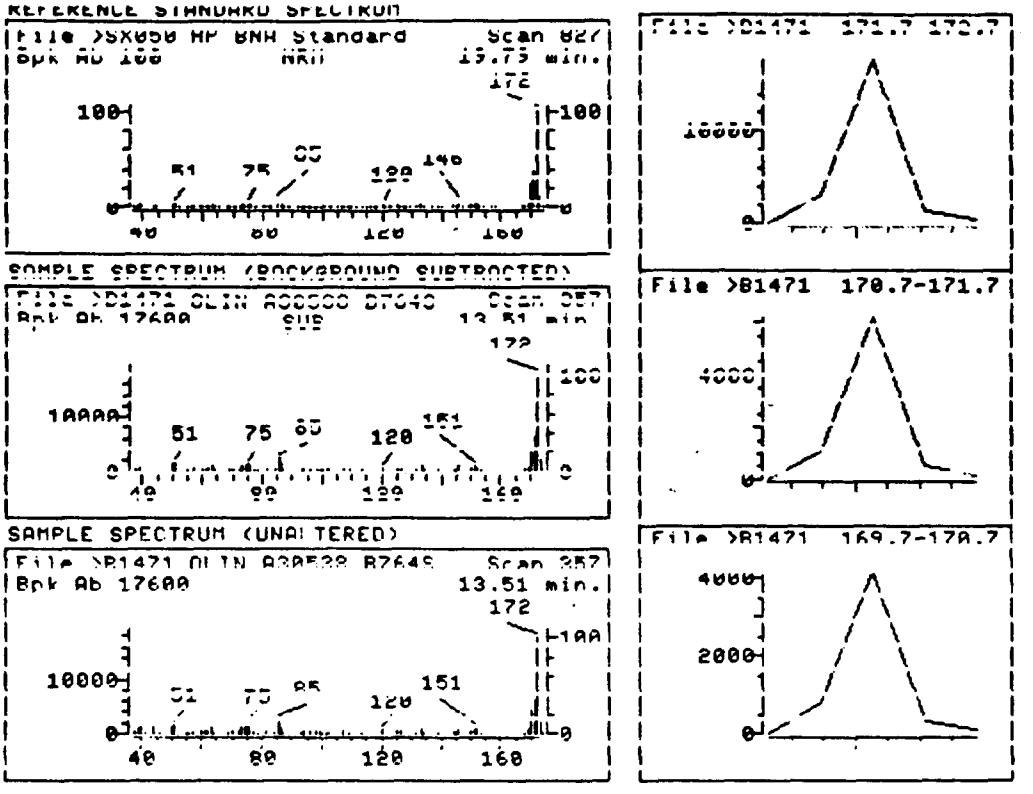


Data File: >B1471::D1
Name: D1 IN A30538 B7645
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 15:05
Injected at: 880119 14:19

Quant Output File: ^B1471::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 404
Retention Time: 15.03 min.
Quant Ion: 164.0
Area: 18672
Concentration: 40.00 ng/uL
q-value: 99

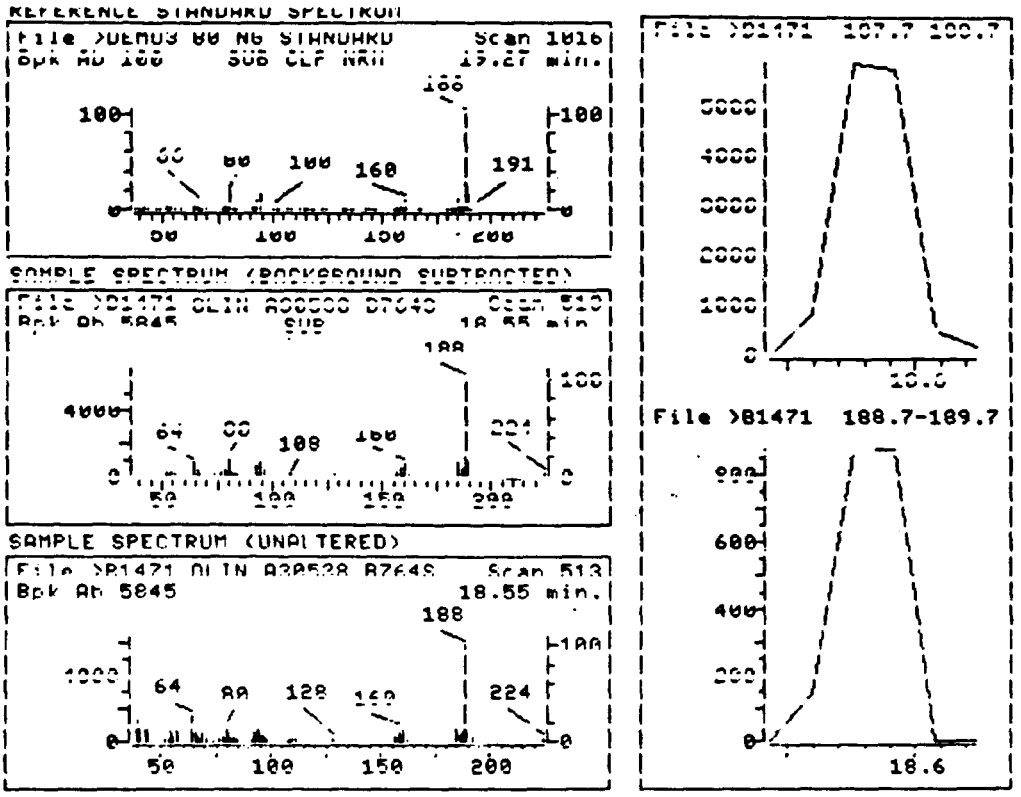


Data File: >B1471::D1
Name: OLIN A30528 B7645
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 15:05
Injected at: 880119 14:19

Quant Output File: ^B1471::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 357
Retention Time: 13.51 min.
Quant Ion: 172.0
Area: 43520
Concentration: 9.20 ng/ul
a-value: 94

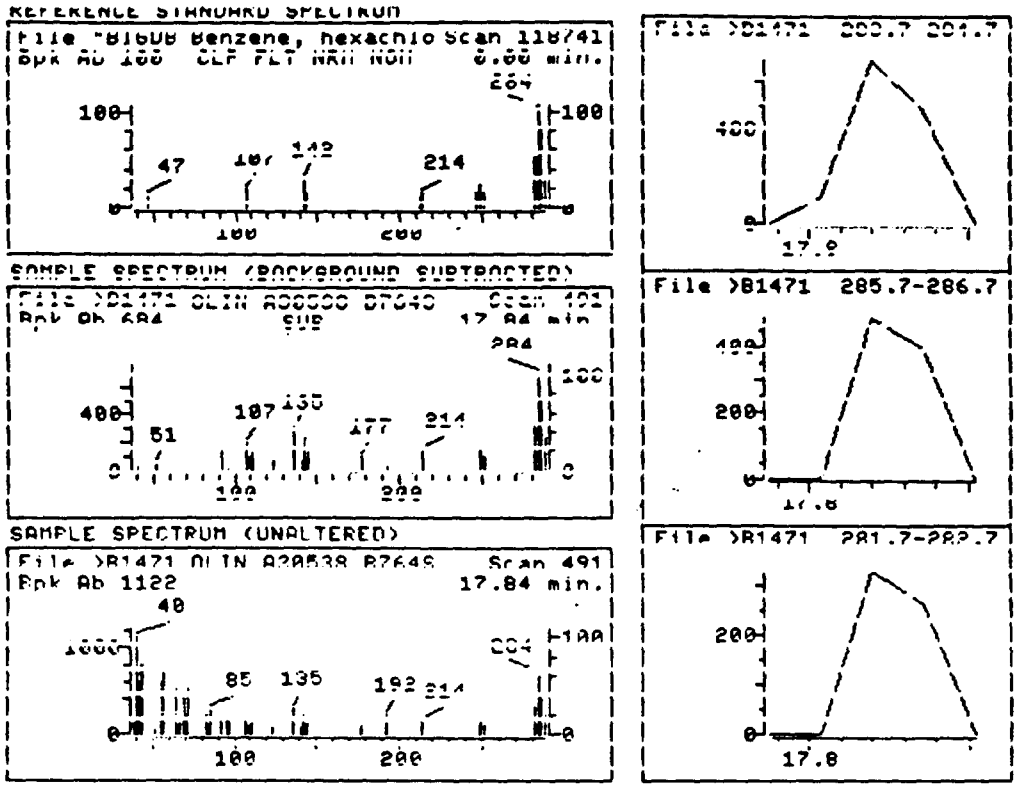


Data File: >B1471::D1
Name: UL IN B30538 B7645
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 15:05
Injected at: 880119 14:19

Quant Output File: ^B1471::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 513
Retention Time: 18.55 min.
Quant Ion: 188.0
Area: 25517
Concentration: 40.00 ng/ul
q-value: 99

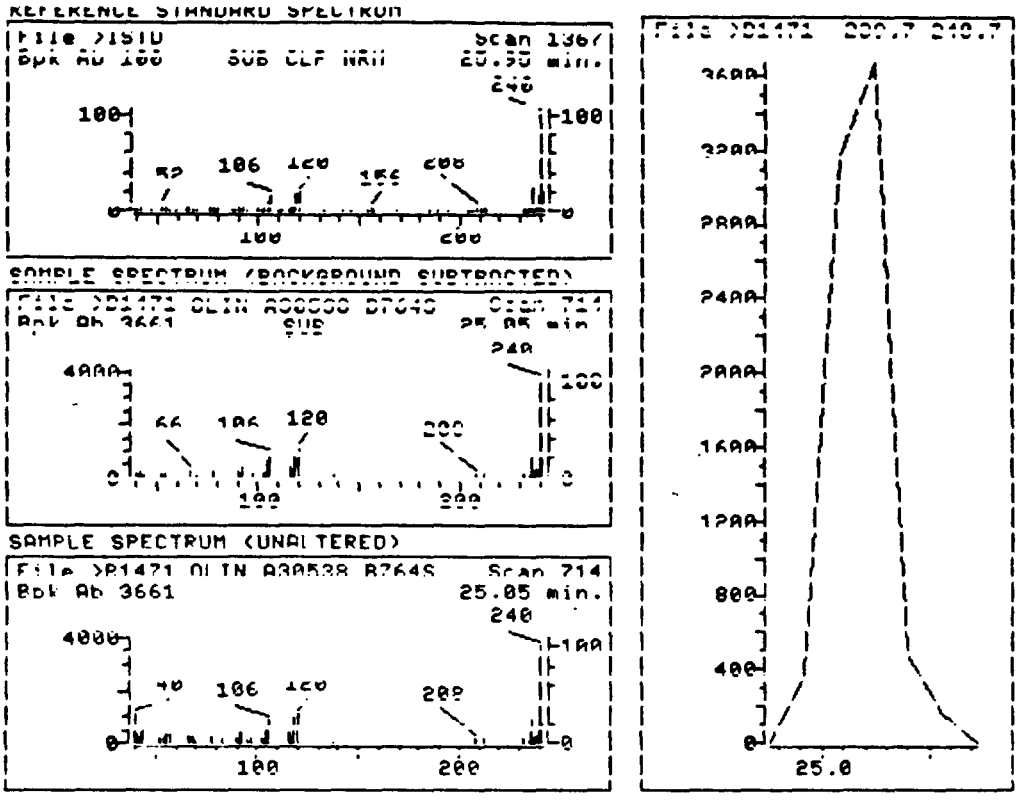


Data File: >B1471::D1
Name: [illegible]
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 15:05
Injected at: 880119 14:19

Quant Output File: ^B1471::QT

Quant ID File: ID HDA::L2
Last Calibration: 880118 12:07

Compound No: 57
Compound Name: Hexachlorobenzene
Scan Number: 491
Retention Time: 17.84 min.
Quant Ion: 284.0
Area: 2469
Concentration: 1.94 ng/ul
q-value: 95

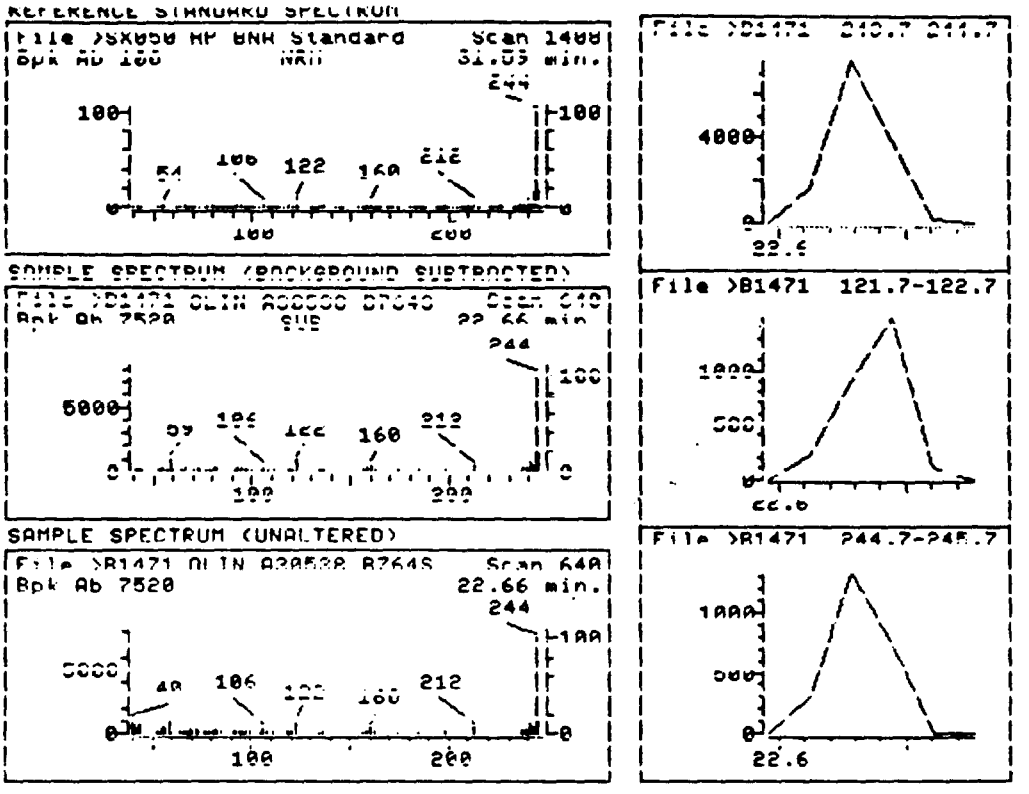


Data File: >B1471::D1
Name: OLIN A30538 B7645
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 15:05
Injected at: 880119 14:19

Quant Output File: ^B1471::QT

Quant ID File: ID HDA::L2
Last Calibration: 880118 12:07

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 714
Retention Time: 25.05 min.
Quant Ion: 240.0
Area: 15215
Concentration: 40.00 ng/ul
a-value: 100

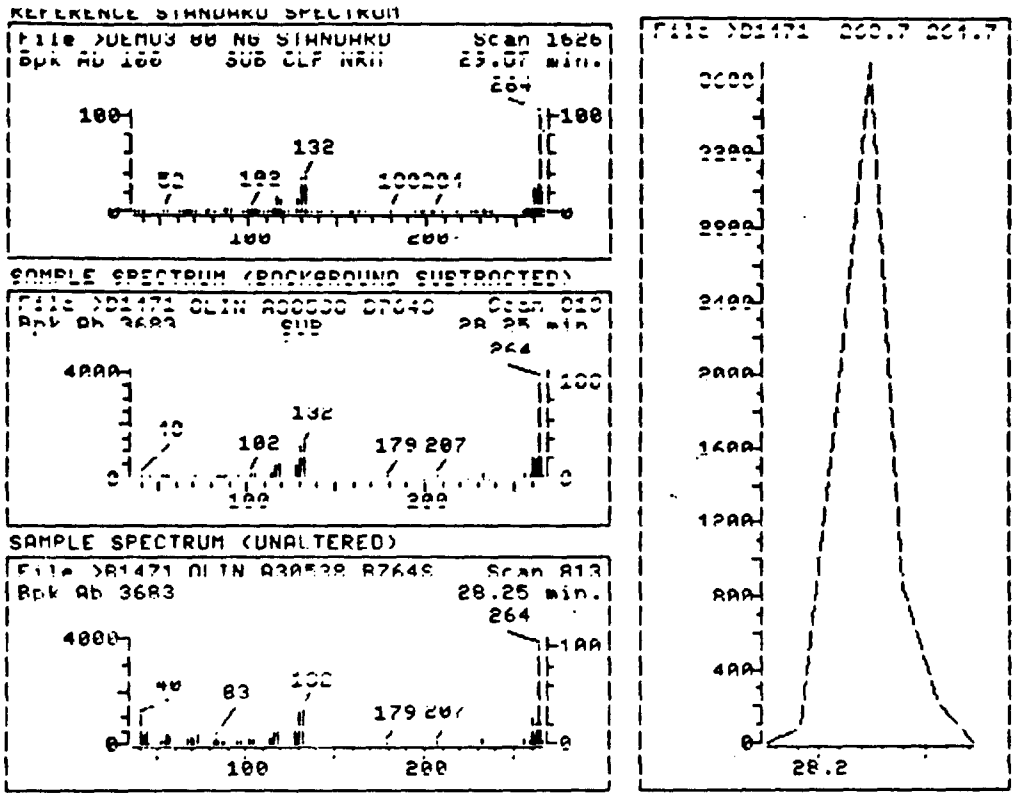


Data File: >B1471::D1
Name: OL IN A20538 B764S
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 15:05
Injected at: 880119 14:19

Quant Output File: ^B1471::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 640
Retention Time: 22.66 min.
Quant Ion: 244.0
Area: 25539
Concentration: 11.10 ng/uL
q-value: 84



Data File: >B1471::D1
Name: DI IN A30538 B7645
Misc: 2 UL INJ 40 PPB IS
Quant Time: 880119 15:05
Injected at: 880119 14:19

Quant Output File: ^B1471::QT

Quant ID File: ID BDA::L2
Last Calibration: 880118 12:07

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 813
Retention Time: 28.25 min.
Quant Ion: 264.0
Area: 12724
Concentration: 40.00 ng/ul
q-value: 100

3 2 00757

PRELIMINARY REPORT

This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18819

CC: Paul Klotz

BCM Number : A30505
Location : 981
Client ID :

Date Sampled : 12/09/87
Date Received : 12/10/87

Test Description	Results	Units	Test Method
Base Neutrals by Mass Spectrometer	---------	M/D/Y	EPA # 8250
Mercury	0.04	mg/l	EPA # 7471
pH	1.1	std.un	
Specific Gravity	---------		
Total Solids	---------	%	

Nitric fixed Sample can't do 625BN

PRELIMINARY REPORT
This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

CC: Paul Klotz

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18825

BCM Number : A30539
Location : 118
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

QUANT REPORT

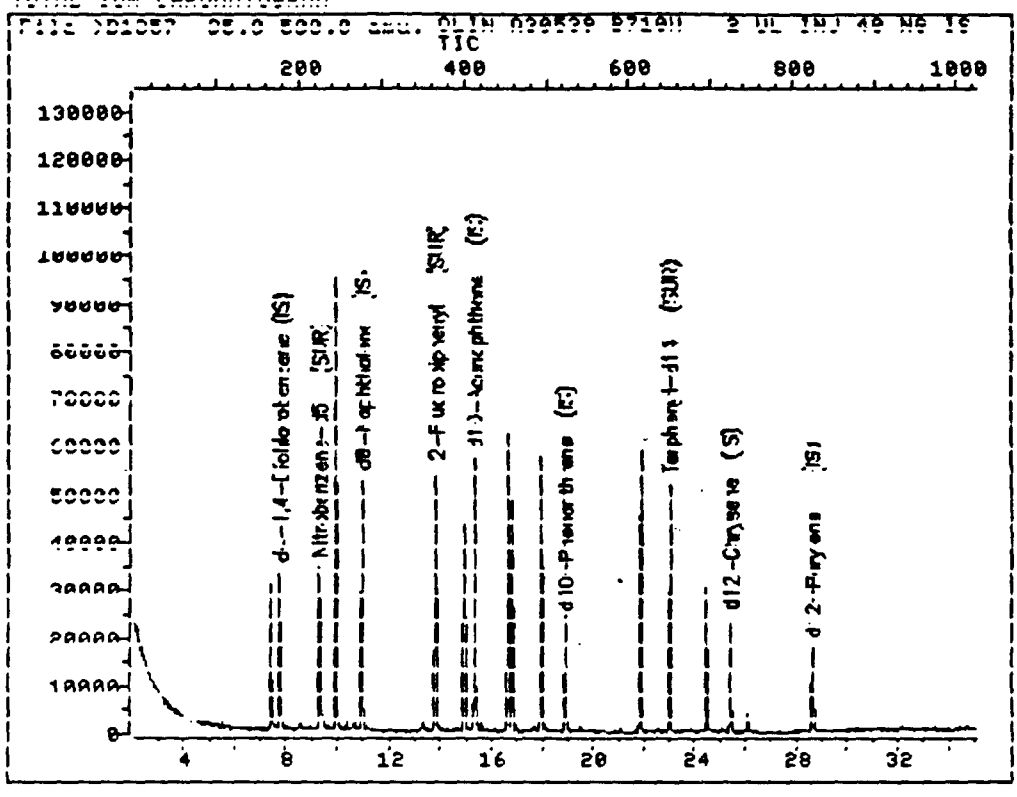
Operator ID: USER6 Quant Rev: 6 Quant Time: 871217 16:16
Output File: ^B1357::QT Injected at: 871217 15:31
Data File: >B1357::D1 Dilution Factor: 1.00000
Name: OLIN A30539 B710W
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.75	178	15168	40.00	ng/uL	96
16)	*d8-Naphthalene (IS)	10.95	277	51128	40.00	ng/uL	90
17)	Nitrobenzene-d5 (SUR)	9.27	225	46465	32.07	ng/uL	83
31)	*d10-Acenaphthene (IS)	15.35	413	29475	40.00	ng/uL	97
36)	2-Fluorobiphenyl (SUR)	13.83	366	52595	27.90	ng/uL	94
51)	*d10-Phenanthrene (IS)	18.90	523	35650	40.00	ng/uL	98
63)	*d12-Chrysene (IS)	25.42	725	27430	40.00	ng/uL	97
65)	Terphenyl-d14 (SUR)	23.03	651	49028	37.88	ng/uL	89
71)	*d12-Perylene (IS)	28.65	825	22148	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

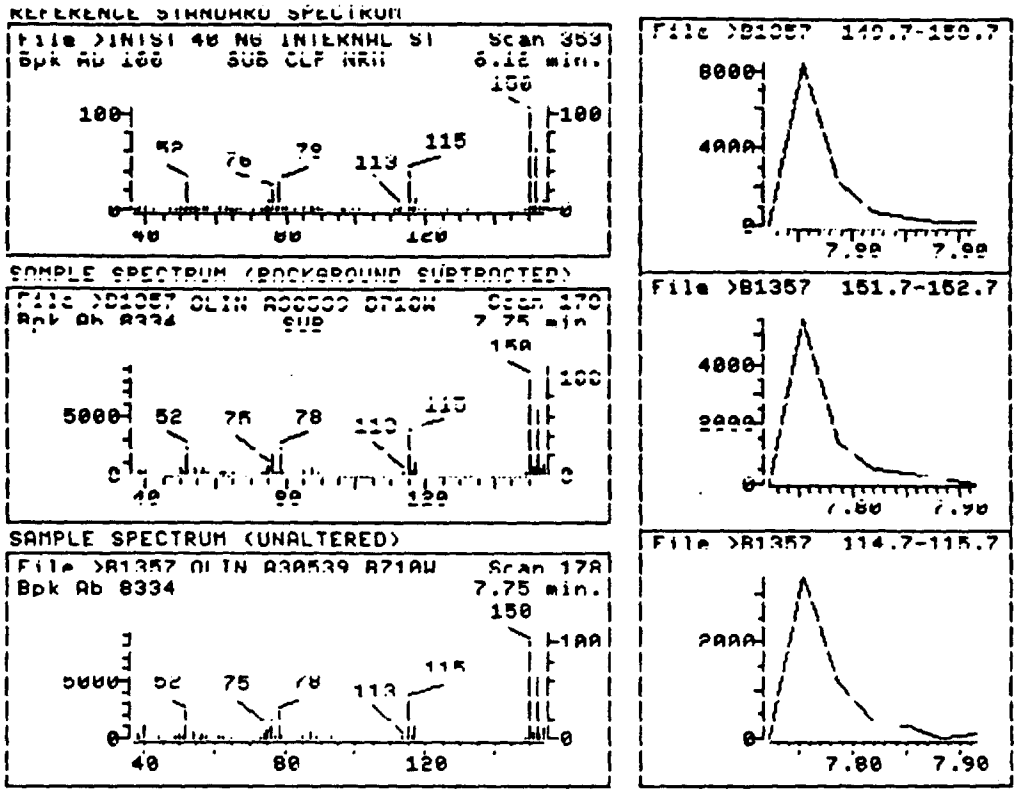


Data File: >B1357::D1
Name: OLIN A30539 B710W
Misc: 2 UL INJ 40 NG IS

Quant Output File: ^B1357::QT

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

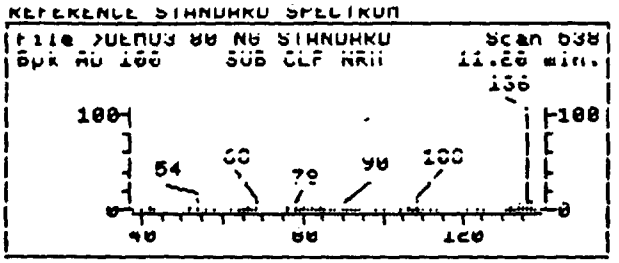
Operator ID: USER6
Quant Time: 871217 16:16
Injected at: 871217 15:31



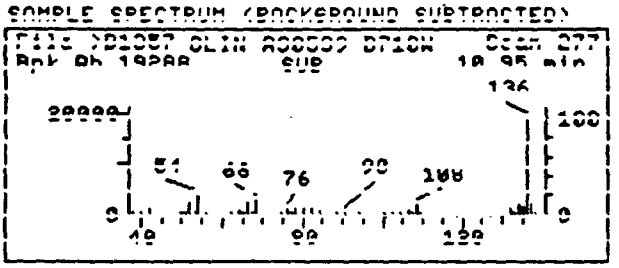
Data File: >B1357::D1 Quant Output File: ^B1357::QT
Name: OLIN A30539 B710W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 16:16 Quant ID File: ID BDA::L2
Injected at: 871217 15:31 Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 178
Retention Time: 7.75 min.
Quant Ion: 152.0
Area: 15168
Concentration: 40.00 ng/uL
q-value: 96

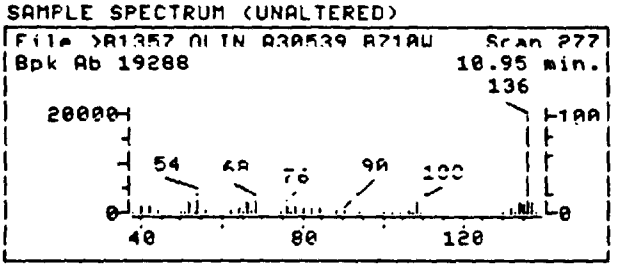
REFERENCE STANDARD SPECTRUM

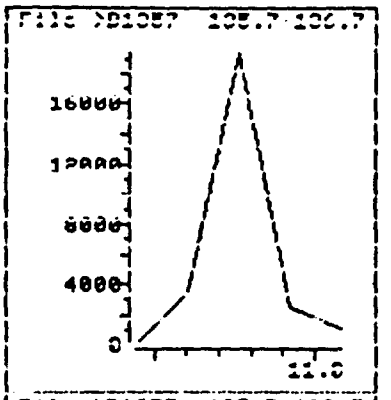


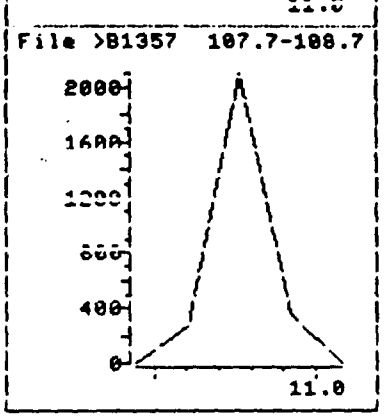
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







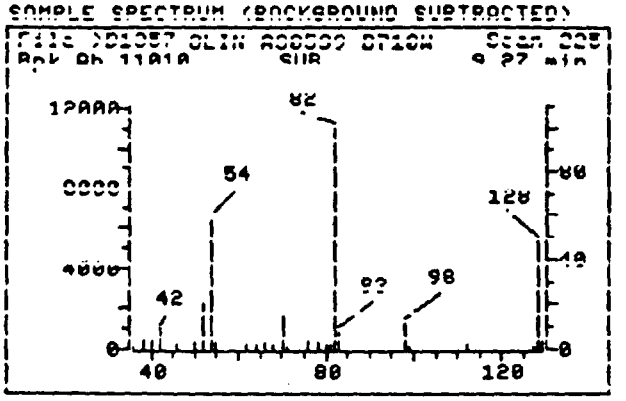
Data File: >B1357::D1
Name: OLIN A30539 B710W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 16:16
Injected at: 871217 15:31

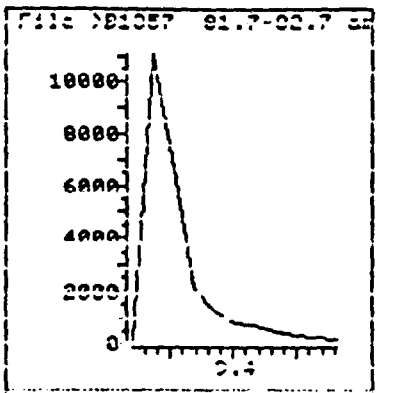
Quant Output File: ^B1357::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

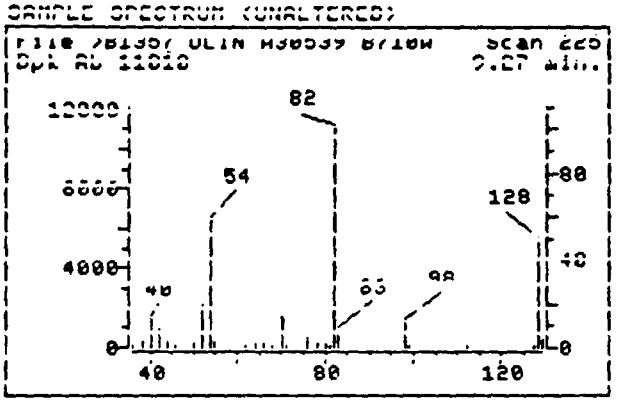
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 277
Retention Time: 10.95 min.
Quant Ion: 136.0
Area: 51128
Concentration: 40.00 ng/uL
q-value: 90

SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



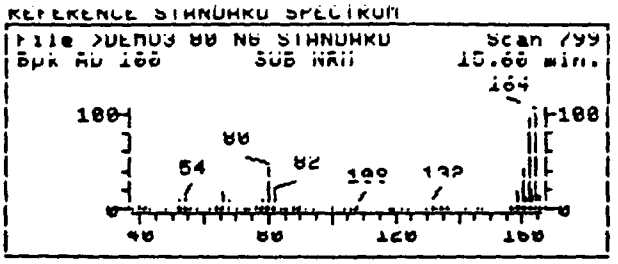
Data File: >B1357::D1
Name: DLIN A30539 B710W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 16:16
Injected at: 871217 15:31

Quant Output File: ^B1357::QT

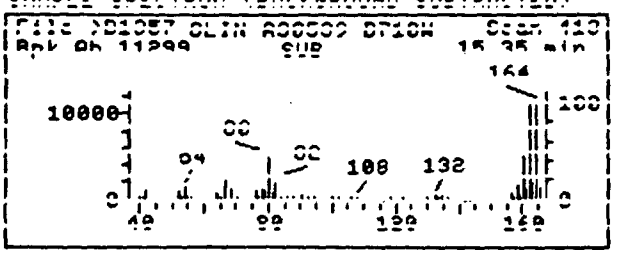
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 225
Retention Time: 9.27 min.
Quant Ion: 82.0
Area: 46465
Concentration: 32.07 ng/uL
q-value: 83

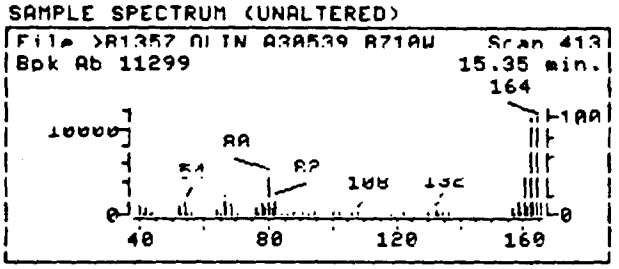
REFERENCE STANDARD SPECTRUM

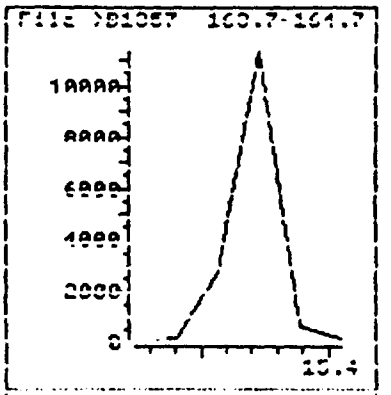


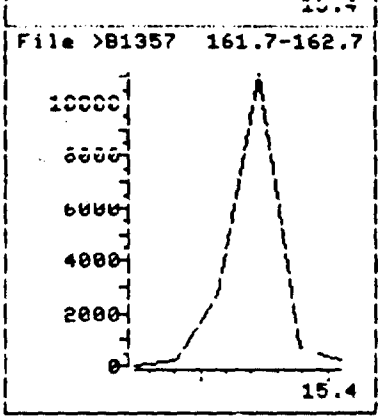
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





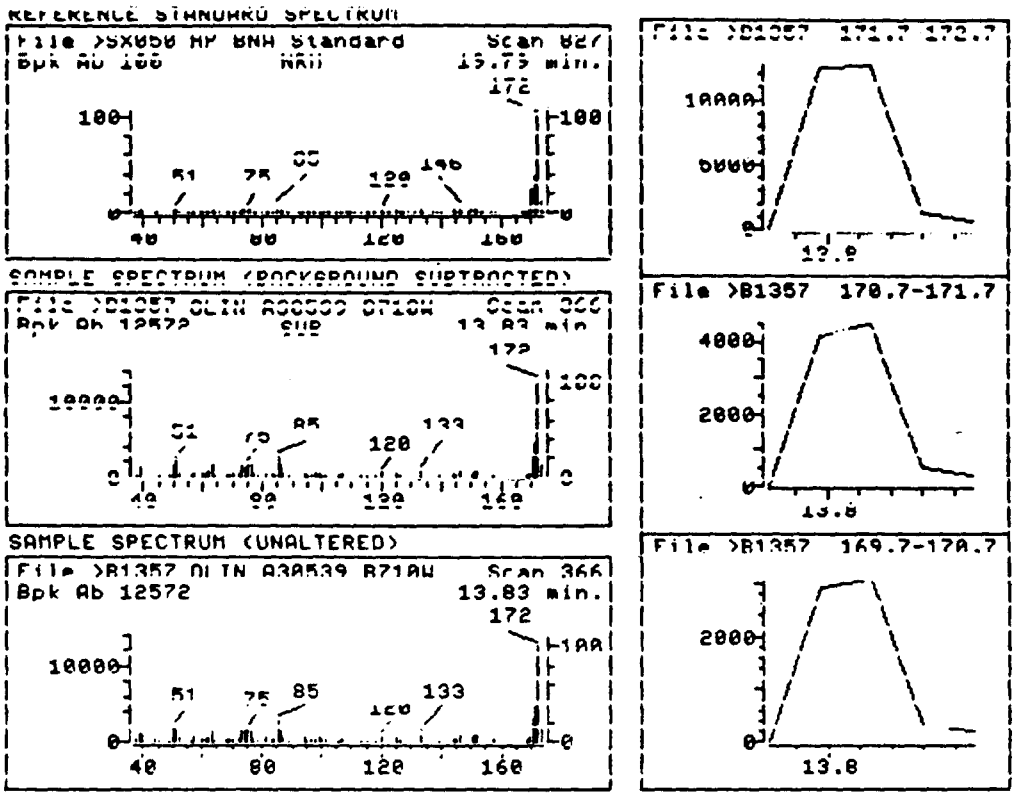


Data File: >B1357::D1
Name: OLIN A30539 B710W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 16:16
Injected at: 871217 15:31

Quant Output File: ^B1357::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 413
Retention Time: 15.35 min.
Quant Ion: 164.0
Area: 29475
Concentration: 40.00 ng/uL
q-value: 97



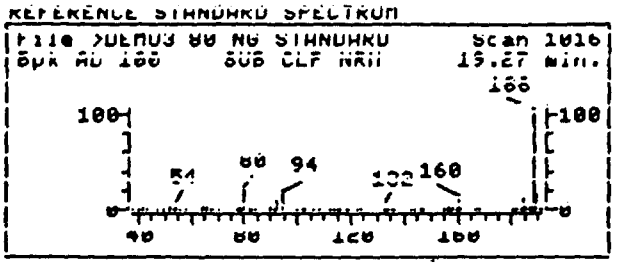
Data File: >B1357::D1
Name: OLIN A30539 B710W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 16:16
Injected at: 871217 15:31

Quant Output File: ^B1357::QT

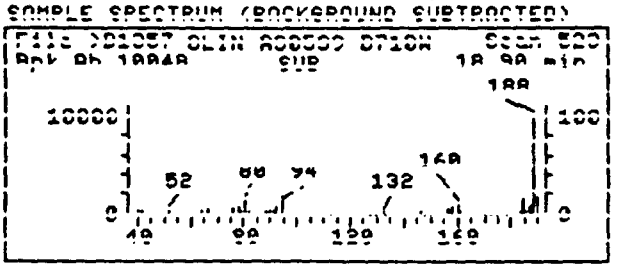
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 366
Retention Time: 13.83 min.
Quant Ion: 172.0
Area: 52595
Concentration: 27.90 ng/uL
q-value: 94

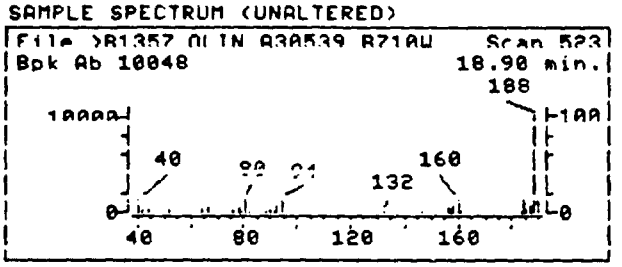
REFERENCE STANDARD SPECTRUM

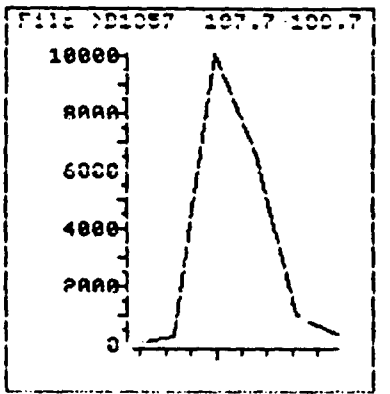


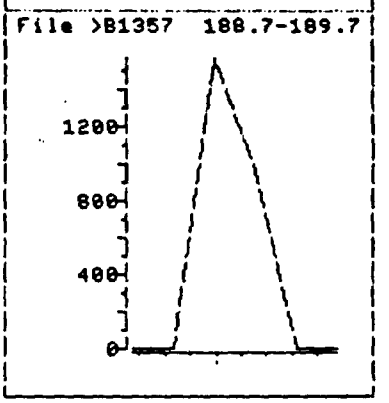
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





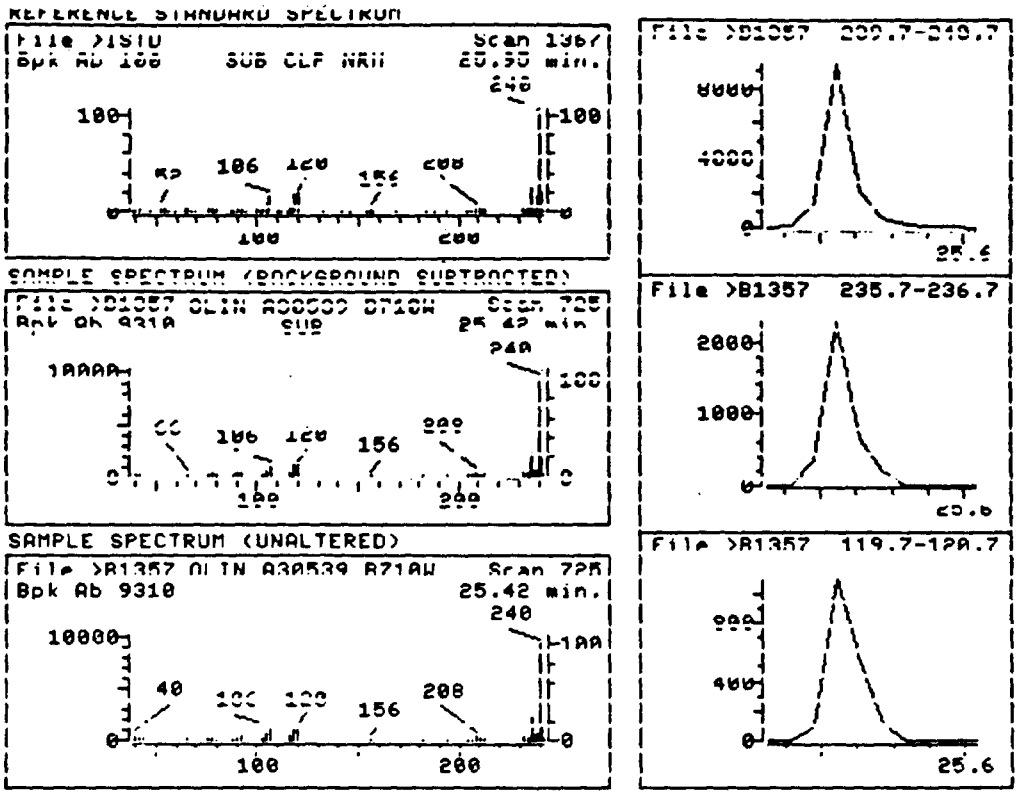


Data File: >B1357::D1
Name: OLIN A30539 B710W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 16:16
Injected at: 871217 15:31

Quant Output File: ^B1357::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 523
Retention Time: 18.90 min.
Quant Ion: 188.0
Area: 35650
Concentration: 40.00 ng/uL
q-value: 98

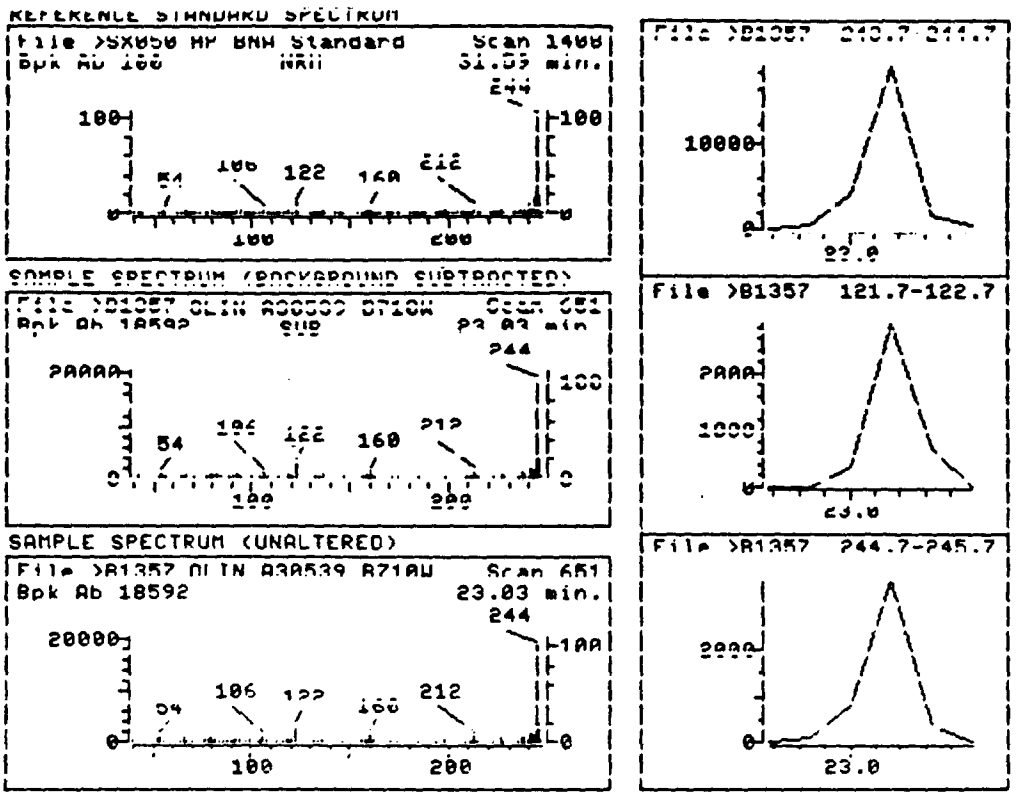


Data File: >B1357::D1
Name: OLIN A30539 B710W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 16:16
Injected at: 871217 15:31

Quant Output File: ^B1357::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 725
Retention Time: 25.42 min.
Quant Ion: 240.0
Area: 27430
Concentration: 40.00 ng/uL
q-value: 97

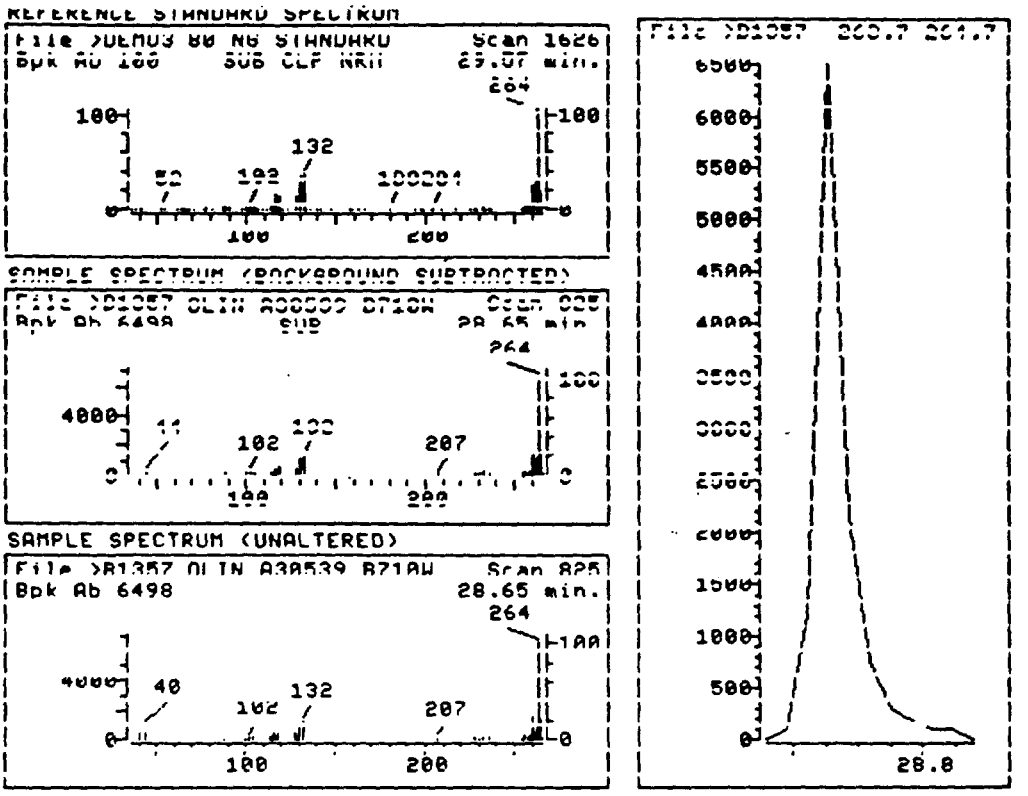


Data File: >B1357::D1
Name: DLIN A30539 B710W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 16:16
Injected at: 871217 15:31

Quant Output File: ^B1357::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 651
Retention Time: 23.03 min.
Quant Ion: 244.0
Area: 49028
Concentration: 37.88 ng/uL
q-value: 89



Data File: >B1357::D1
Name: OLIN A30539 B710W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 16:16
Injected at: 871217 15:31

Quant Output File: ^B1357::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 825
Retention Time: 28.65 min.
Quant Ion: 264.0
Area: 22148
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT
This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 004006-07
P.O.# :
Order# : 18825

CC: Paul Klotz

BCM Number : A30541
Location : 143
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 10	ug/l	EPA # 625
1,4-Dichlorobenzene	< 10	ug/l	
Hexachlorobenzene	< 10	ug/l	
Pentachloronitrobenzene	< 10	ug/l	

QUANT REPORT

Operator ID: USER6
Output File: ^B1356::QT
Data File: >B1356::D1
Name: OLIN A30541 B711W
Misc: 2 UL INJ 40 NG IS

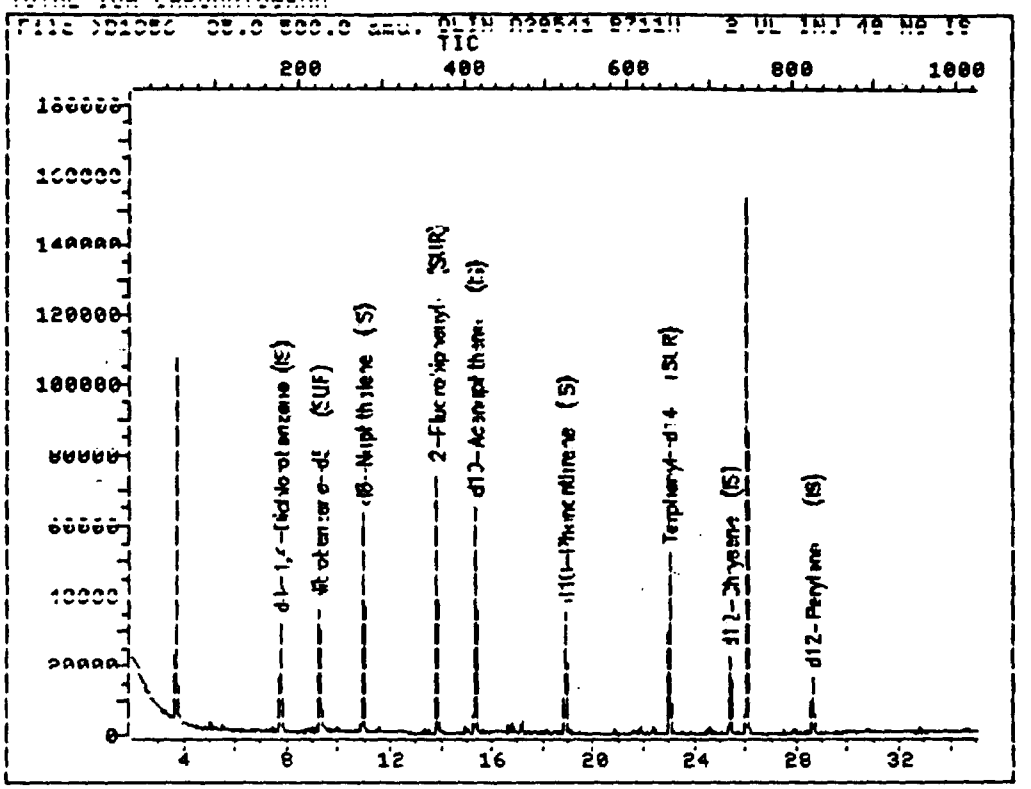
Quant Rev: 6
Quant Time: 871217 15:26
Injected at: 871217 14:46
Dilution Factor: 1.00000

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.76	179	16371	40.00	ng/uL	96
16)	*d8-Naphthalene (IS)	10.95	278	58687	40.00	ng/uL	89
17)	Nitrobenzene-d5 (SUR)	9.27	226	51011	30.67	ng/uL	83
31)	*d10-Acenaphthene (IS)	15.35	414	33404	40.00	ng/uL	97
36)	2-Fluorobiphenyl (SUR)	13.83	367	67541	31.61	ng/uL	95
51)	*d10-Phenanthrene (IS)	18.93	525	41401	40.00	ng/uL	98
63)	*d12-Chrysene (IS)	25.42	726	26492	40.00	ng/uL	97
65)	Terphenyl-d14 (SUR)	23.03	652	52952	42.36	ng/uL	86
71)	*d12-Perylene (IS)	28.65	826	20885	40.00	ng/uL	100

* Compound is ISTD

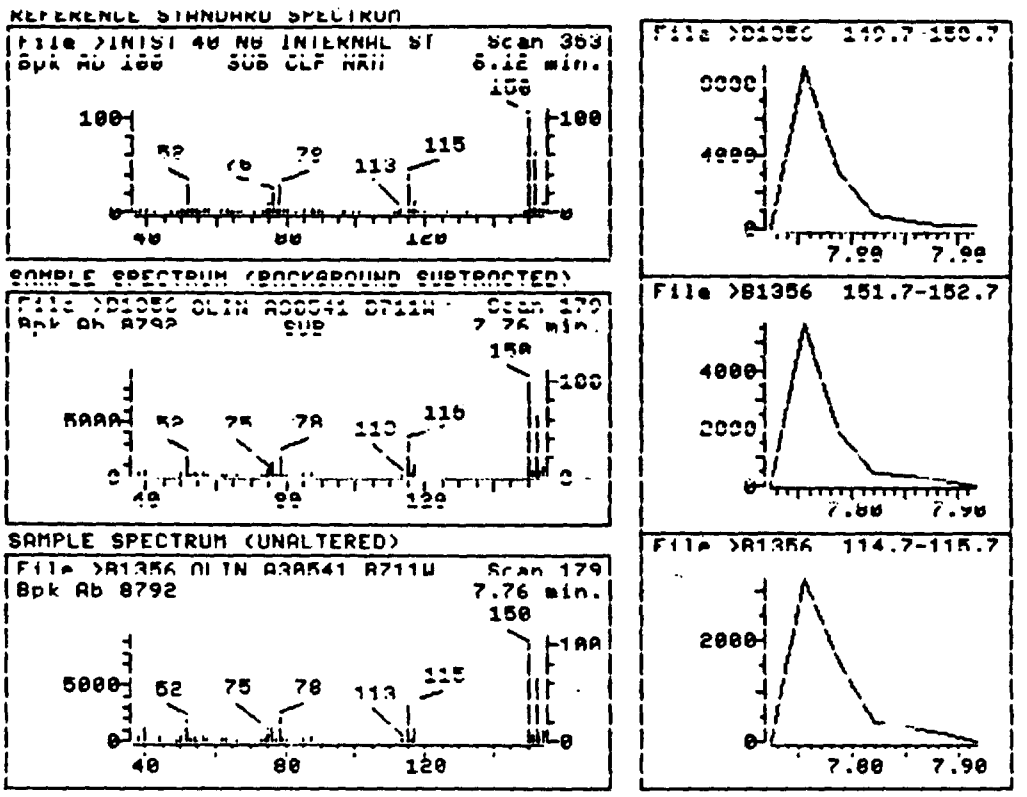
TOTAL ION CHROMATOGRAM



Data File: >B1356::D1 Quant Output File: ^B1356::QT
Name: OLIN A30541 B711W
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871217 15:26
Injected at: 871217 14:46

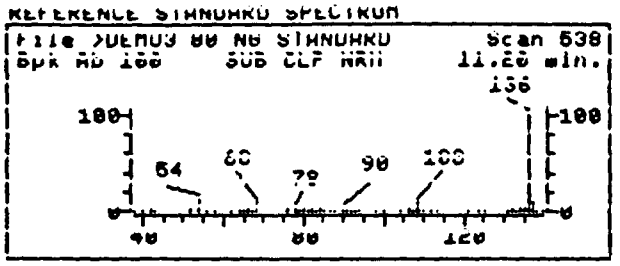


Data File: >B1356::D1
Name: OLIN A30541 B711W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 15:26
Injected at: 871217 14:46

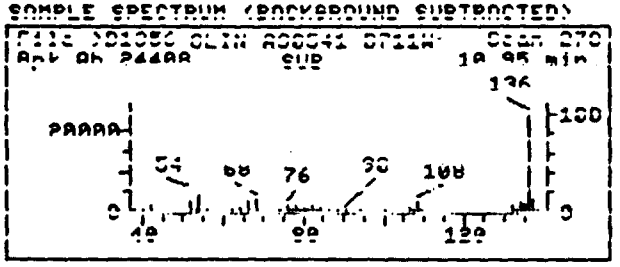
Quant Output File: ^B1356::QT
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 179
Retention Time: 7.76 min.
Quant Ion: 152.0
Area: 16371
Concentration: 40.00 ng/uL
q-value: 96

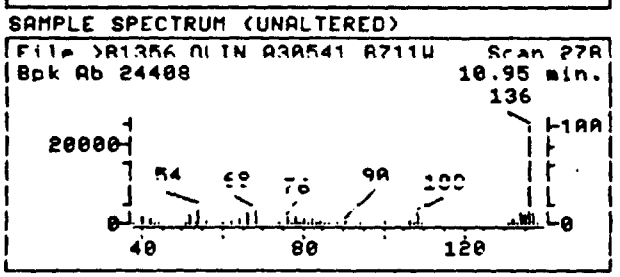
REFERENCE STANDARD SPECTRUM

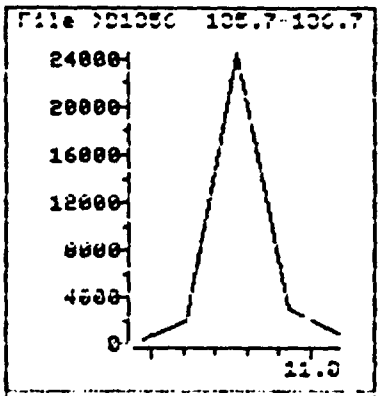


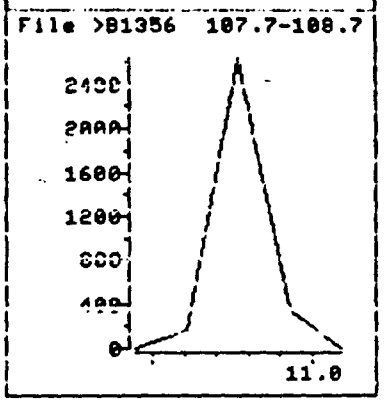
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >B1356::D1
Name: OLIN A30541 B711W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 15:26
Injected at: 871217 14:46

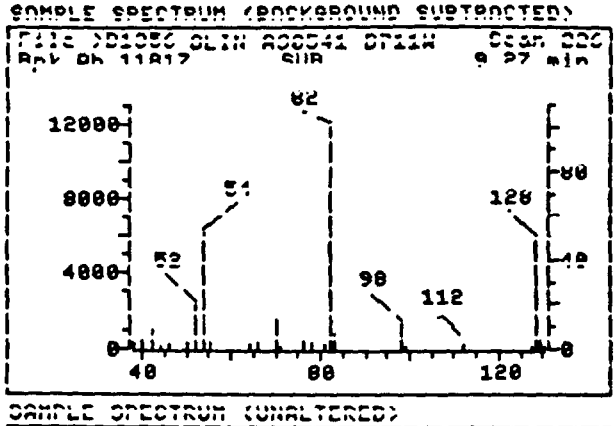
Quant Output File: ^B1356::QT

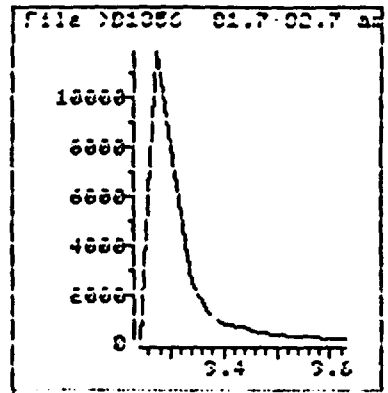
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 278
Retention Time: 10.95 min.
Quant Ion: 136.0
Area: 58687
Concentration: 40.00 ng/uL
q-value: 89

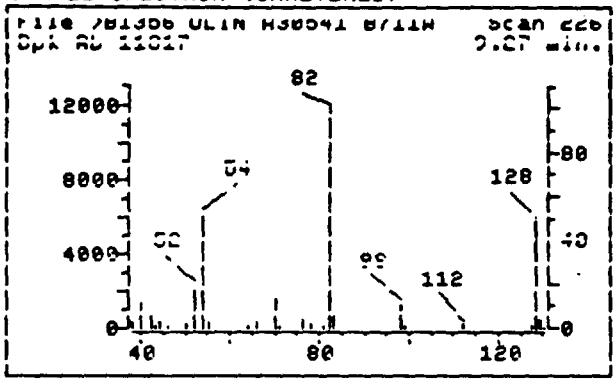
3 2 00774

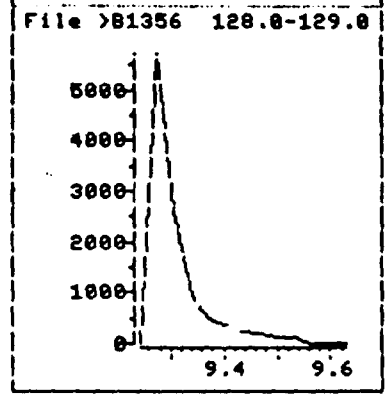
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



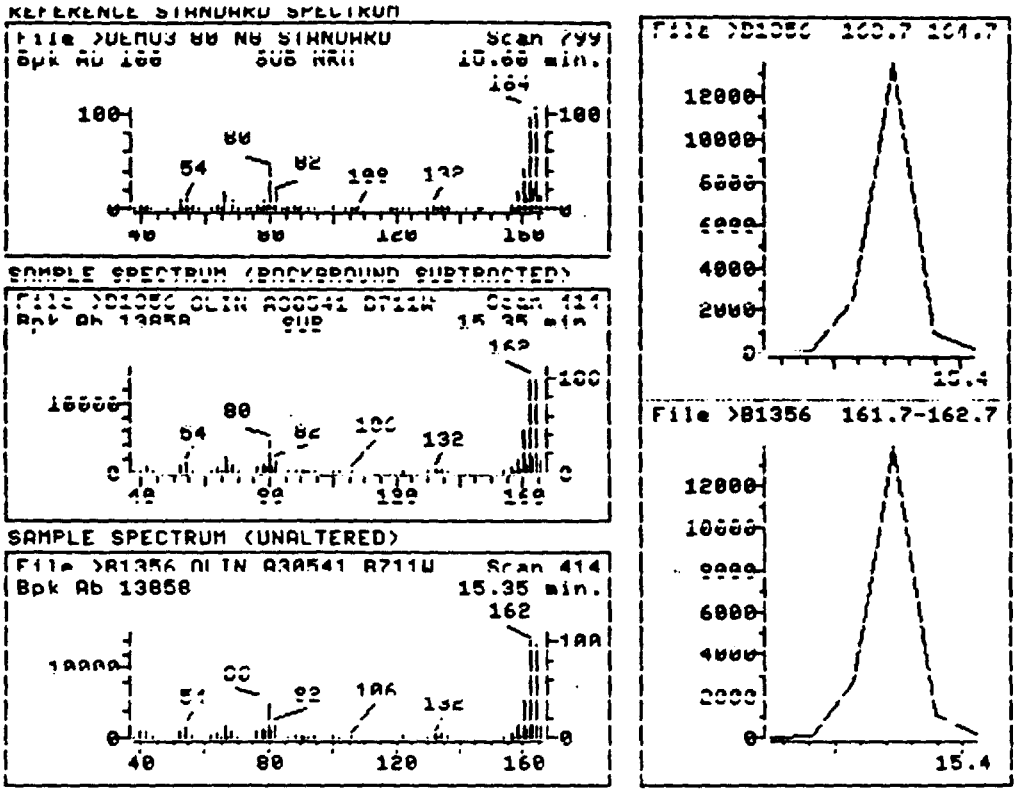


Data File: >B1356::D1
Name: OLIN A30541 B711W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 15:26
Injected at: 871217 14:46

Quant Output File: ^B1356::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 226
Retention Time: 9.27 min.
Quant Ion: 82.0
Area: 51011
Concentration: 30.67 ng/uL
q-value: 83

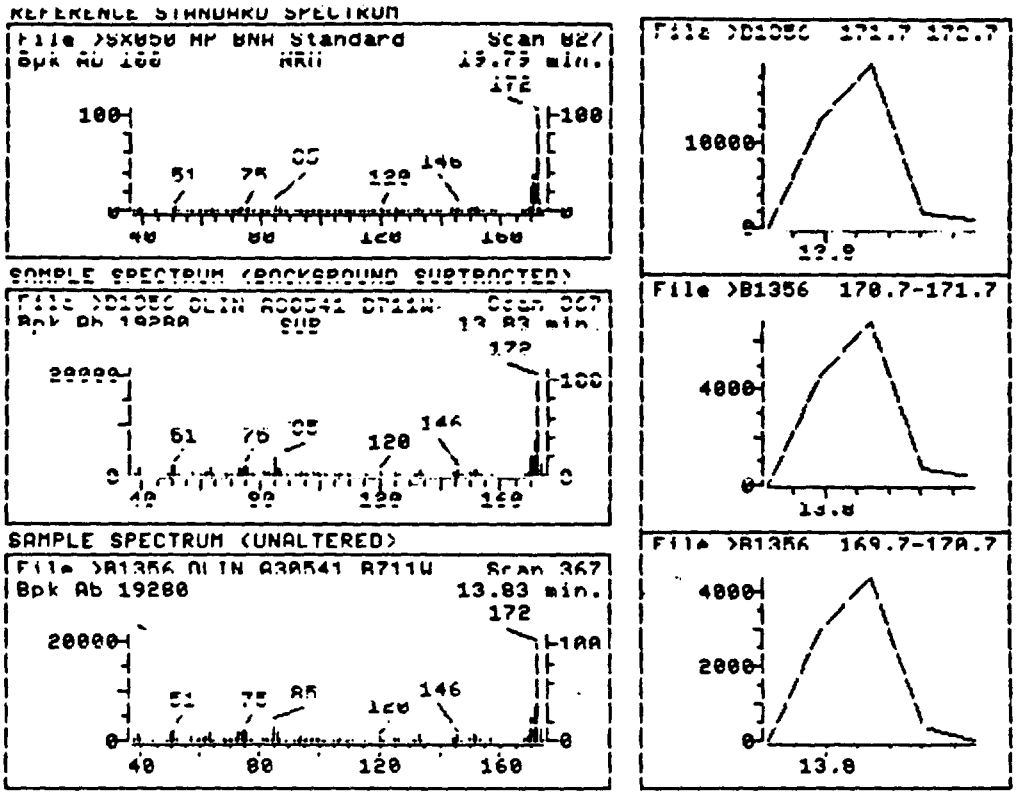


Data File: >B1356::D1
Name: OLIN A30541 B711W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 15:26
Injected at: 871217 14:46

Quant Output File: ^B1356::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 414
Retention Time: 15.35 min.
Quant Ion: 164.0
Area: 33404
Concentration: 40.00 ng/uL
q-value: 97

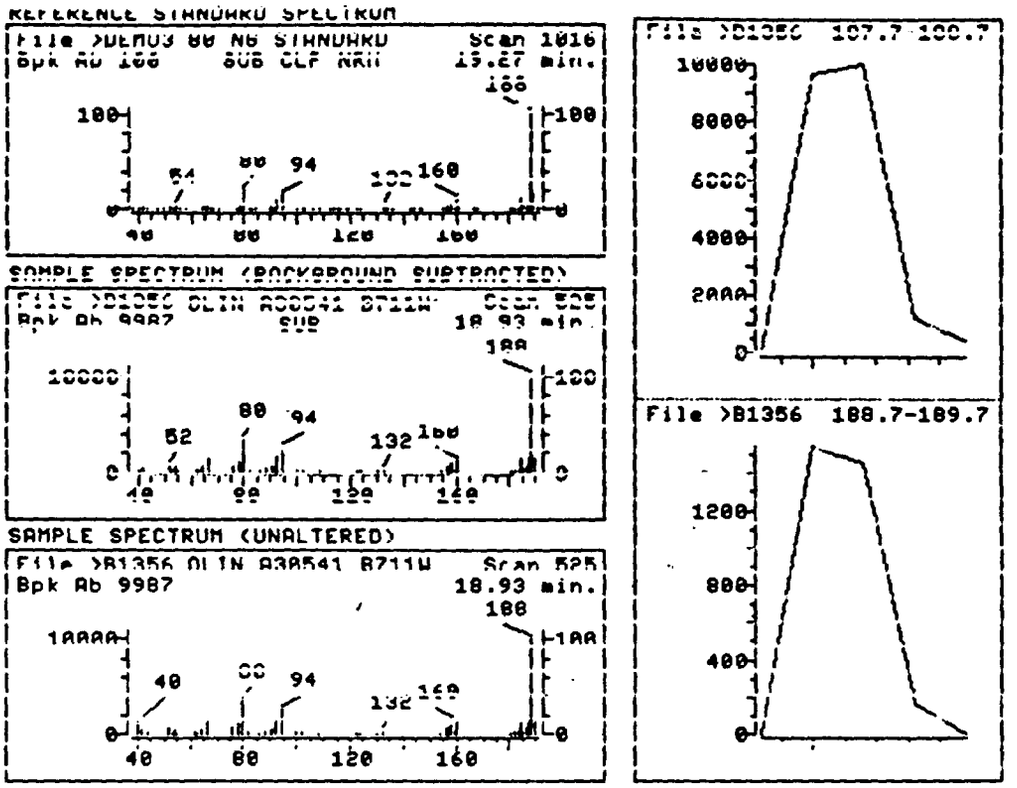


Data File: >B1356::D1
Name: OLIN A30541 B711W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 15:26
Injected at: 871217 14:46

Quant Output File: ^B1356::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 367
Retention Time: 13.83 min.
Quant Ion: 172.0
Area: 67541
Concentration: 31.61 ng/uL
q-value: 95

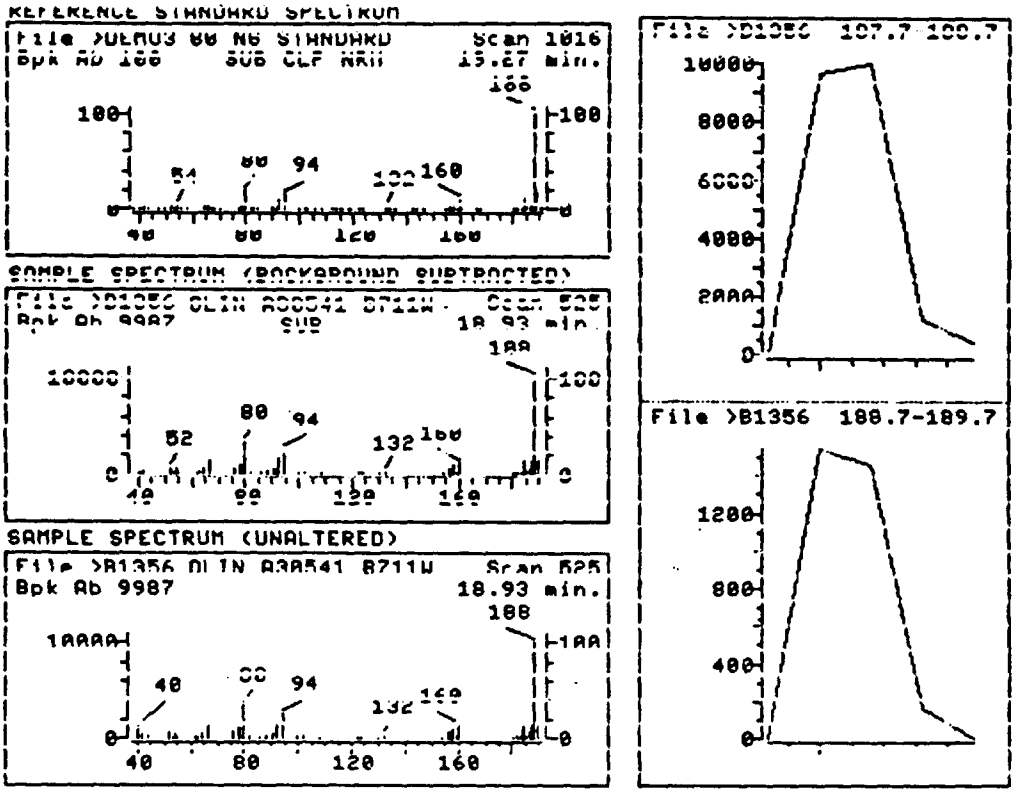


Data File: >B1356::D1
Name: OLIN A30541 B711W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 15:26
Injected at: 871217 14:46

Quant Output File: ^B1356::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 525
Retention Time: 18.93 min.
Quant Ion: 188.0
Area: 41401
Concentration: 40.00 ng/uL
q-value: 98



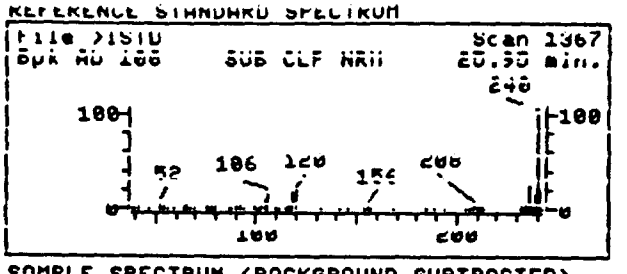
Data File: >B1356::D1
Name: OLIN A30541 B711W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 15:26
Injected at: 871217 14:46

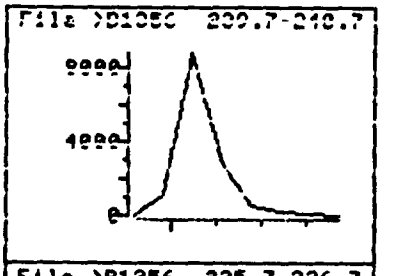
Quant Output File: ^B1356::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

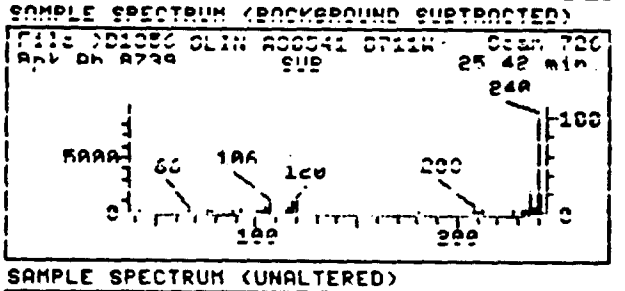
Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 525
Retention Time: 18.93 min.
Quant Ion: 188.0
Area: 41401
Concentration: 40.00 ng/uL
q-value: 98

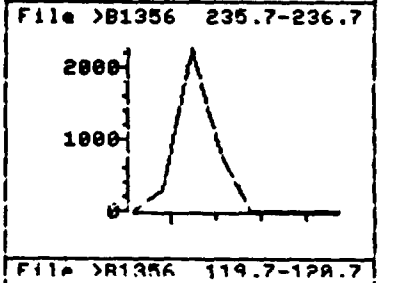
REFERENCE STANDARD SPECTRUM



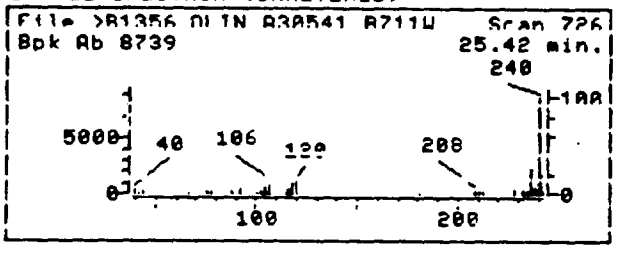


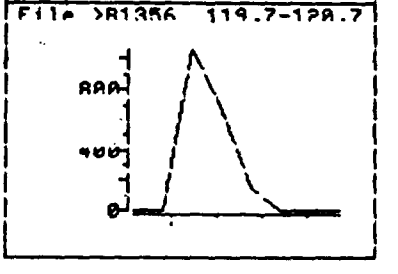
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



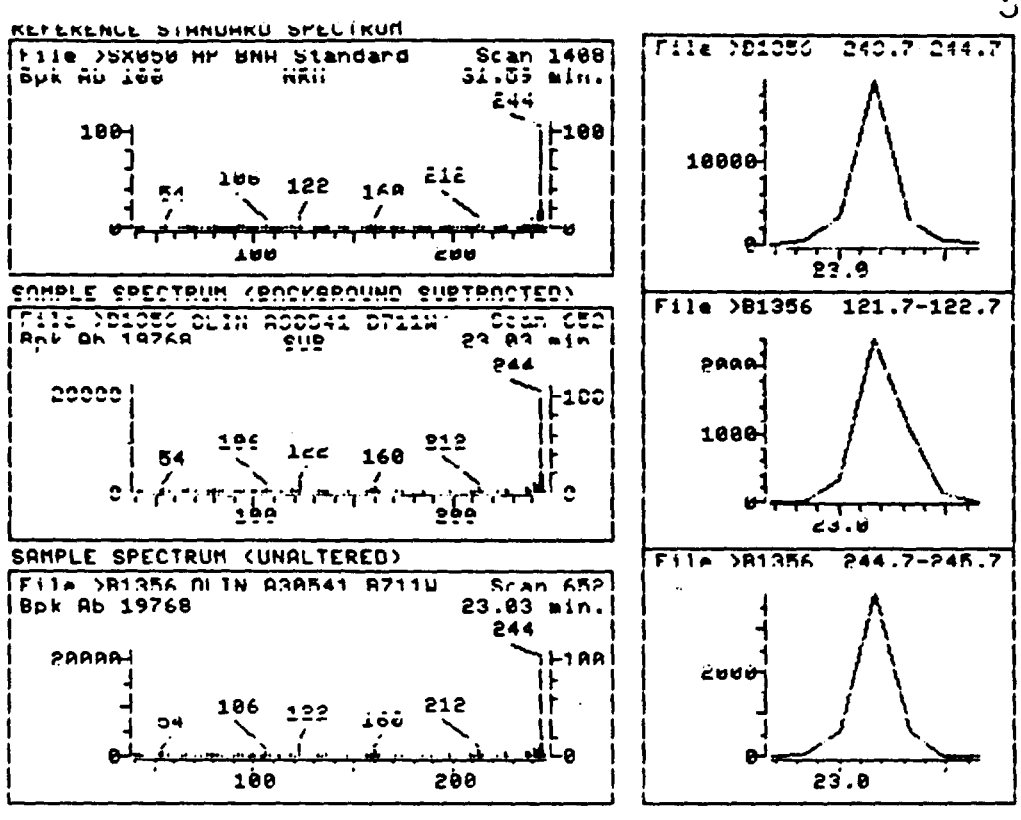


Data File: >B1356::D1
Name: OLIN A30541 B711W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 15:26
Injected at: 871217 14:46

Quant Output File: ^B1356::QT

Quant ID File: ID BDA::12
Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 726
Retention Time: 25.42 min.
Quant Ion: 240.0
Area: 26492
Concentration: 40.00 ng/uL
q-value: 97

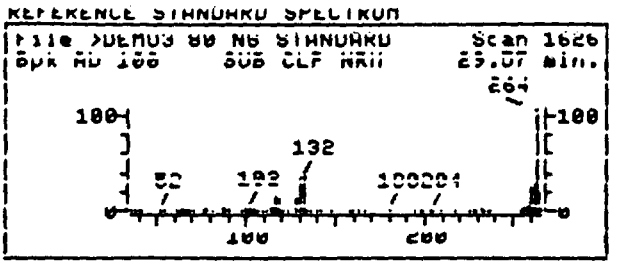


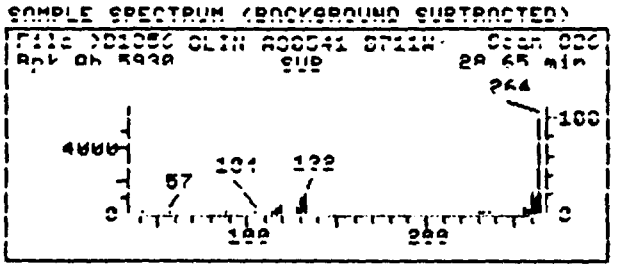
Data File: >B1356::D1
Name: OLIN A30541 B711W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 15:26
Injected at: 871217 14:46

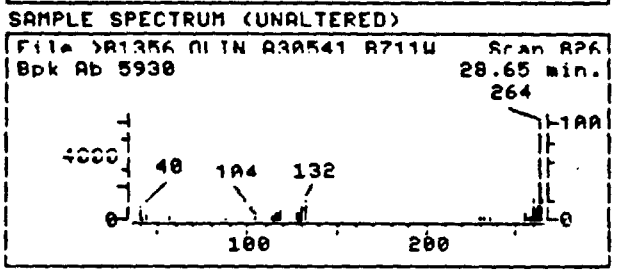
Quant Output File: ^B1356::QT

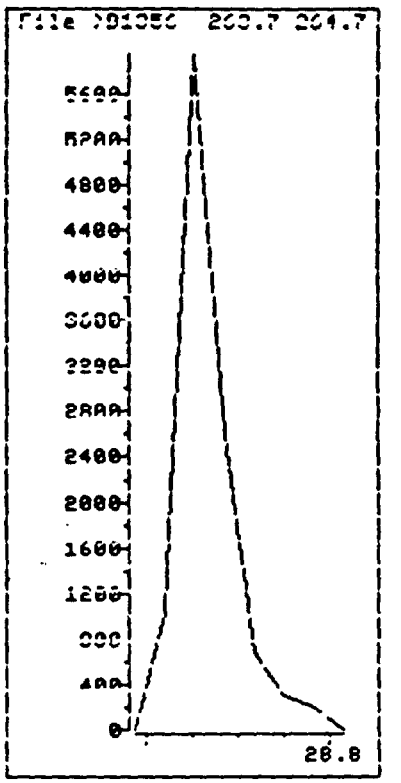
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 652
Retention Time: 23.03 min.
Quant Ion: 244.0
Area: 52952
Concentration: 42.36 ng/uL
q-value: 86









Data File: >B1356::D1
Name: OLIN A30541 B711W
Misc: 2 UL INJ 40 NG IS
Quant Time: 871217 15:26
Injected at: 871217 14:46

Quant Output File: ^B1356::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 826
Retention Time: 28.65 min.
Quant Ion: 264.0
Area: 20885
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT
This report is preliminary and all results are subject to revision.
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18828

CC: Paul Klotz

BCM Number : A30550
Location : 760
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.33	mg/kg	EPA # 8250
1,2-Dichlorobenzene	< 0.33	mg/kg	
1,4-Dichlorobenzene	< 0.33	mg/kg	
1,4-Dichlorobenzene	< 0.33	mg/kg	
Hexachlorobenzene	< 0.33	mg/kg	
Hexachlorobenzene	< 0.33	mg/kg	
Pentachloronitrobenzene	< 0.33	mg/kg	
Pentachloronitrobenzene	< 0.33	mg/kg	

QUANT REPORT

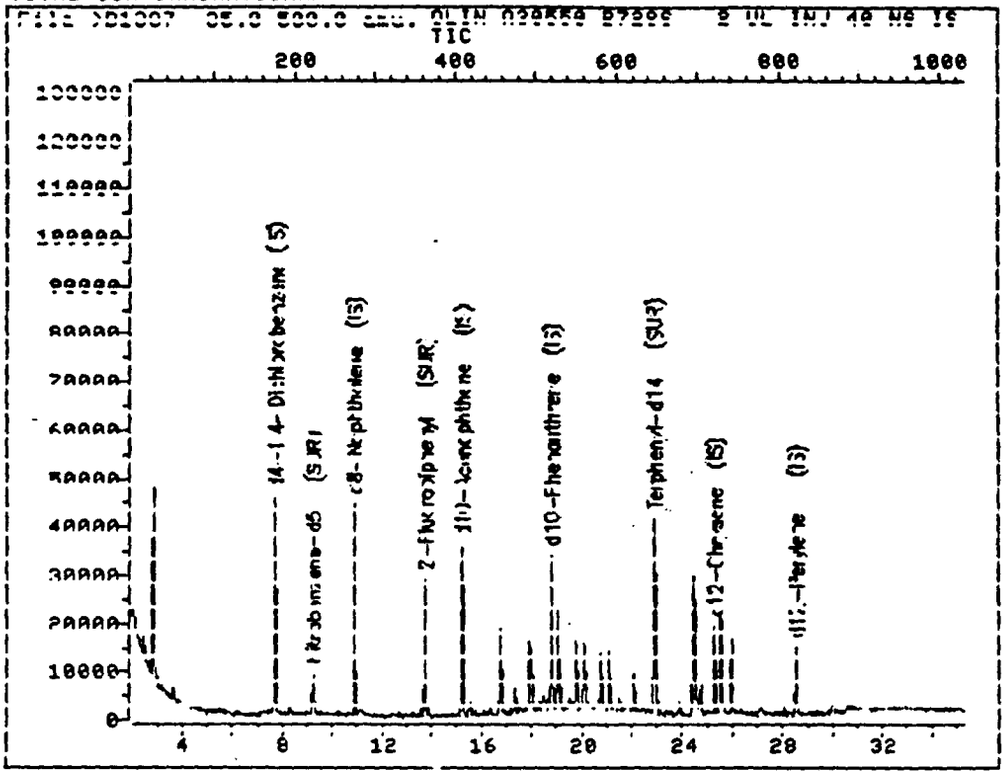
Operator ID: USER6 Quant Rev: 6 Quant Time: 871222 08:18
Output File: ^B1387::QT Injected at: 871222 07:41
Data File: >B1387::D1 Dilution Factor: .10000
Name: OLIN A30550 B728S
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.71	176	16425	40.00	ng/uL	97
16)	*d8-Naphthalene (IS)	10.87	274	53211	40.00	ng/uL	85
17)	Nitrobenzene-d5 (SUR)	9.22	223	11510	.76	ng/uL	99
31)	*d10-Acenaphthene (IS)	15.23	409	24245	40.00	ng/uL	99
36)	2-Fluorobiphenyl (SUR)	13.75	363	24565	1.58	ng/uL	95
51)	*d10-Phenanthrene (IS)	18.82	520	36045	40.00	ng/uL	99
63)	*d12-Chrysene (IS)	25.31	721	21328	40.00	ng/uL	98
65)	Terphenyl-d14 (SUR)	22.92	647	51910	5.16	ng/uL	83
71)	*d12-Perylene (IS)	28.54	821	19114	40.00	ng/uL	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

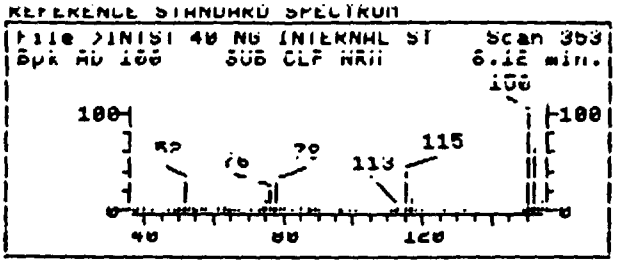


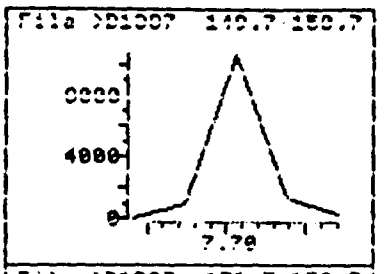
Data File: >B1387::D1 Quant Output File: ^B1387::QT
Name: OLIN A30550 B728S
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

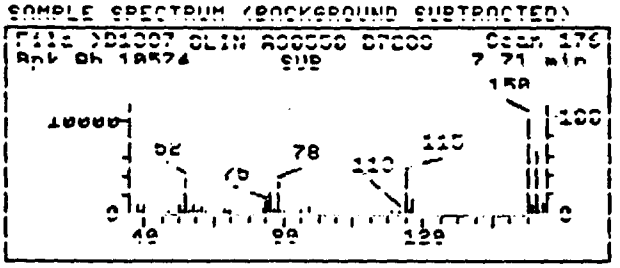
Operator ID: USER6
Quant Time: 871222 08:18
Injected at: 871222 07:41

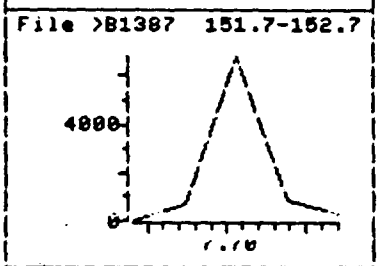
REFERENCE STANDARD SPECTRUM



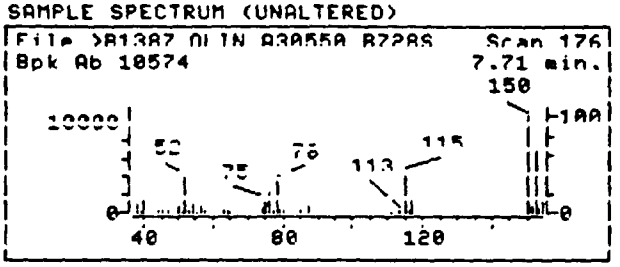


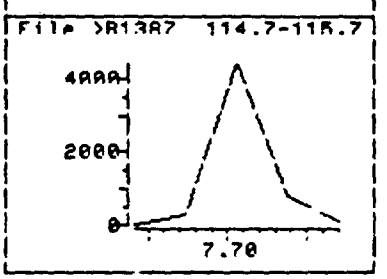
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



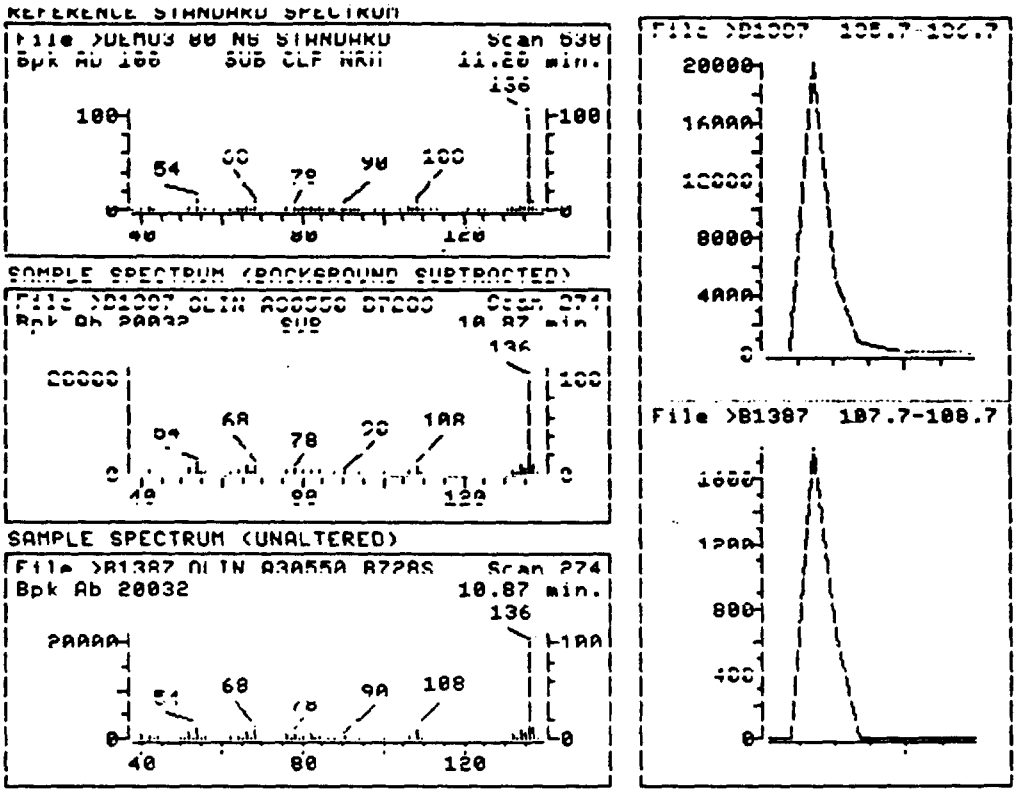


Data File: >B1387::D1
Name: OLIN A30550 B728S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 08:18
Injected at: 871222 07:41

Quant Output File: ^B1387::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 176
Retention Time: 7.71 min.
Quant Ion: 152.0
Area: 16425
Concentration: 40.00 ng/uL
q-value: 97



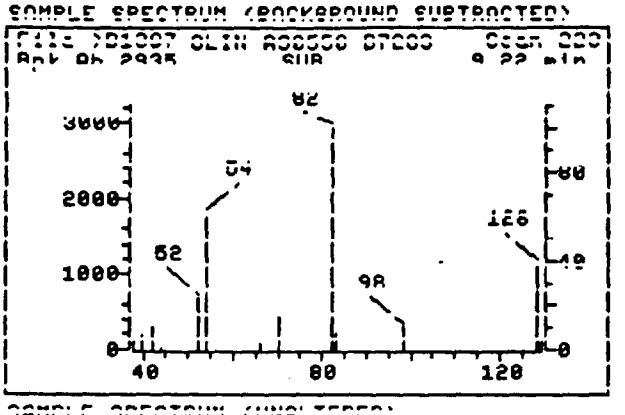
Data File: >B1387::D1
Name: OLIN A30550 B72RS
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 08:18
Injected at: 871222 07:41

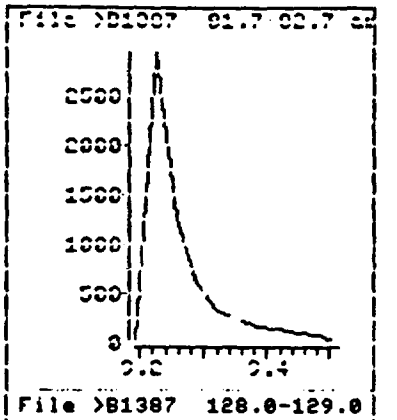
Quant Output File: ^B1387::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

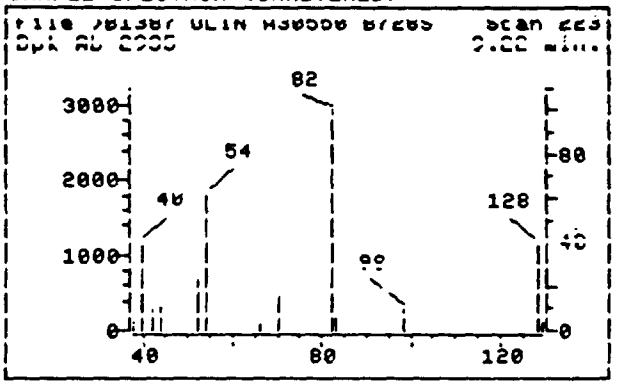
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 274
Retention Time: 10.87 min.
Quant Ion: 136.0
Area: 53211
Concentration: 40.00 ng/uL
q-value: 85

SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

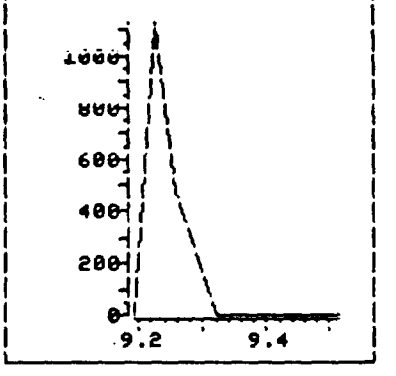




SAMPLE SPECTRUM (UNALTERED)



File >B1387 128.0-129.0

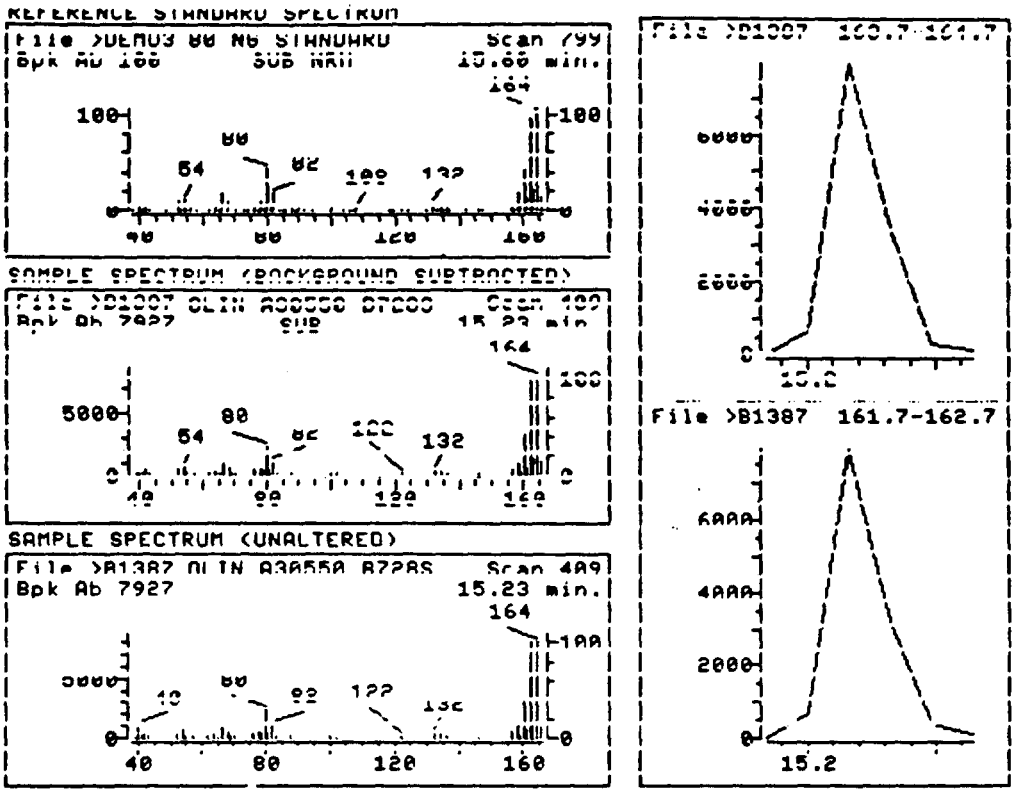


Data File: >B1387::D1
Name: DLIN A30550 B728S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 08:18
Injected at: 871222 07:41

Quant Output File: ^B1387::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 223
Retention Time: 9.22 min.
Quant Ion: 82.0
Area: 11510
Concentration: .76 ng/uL
q-value: 99

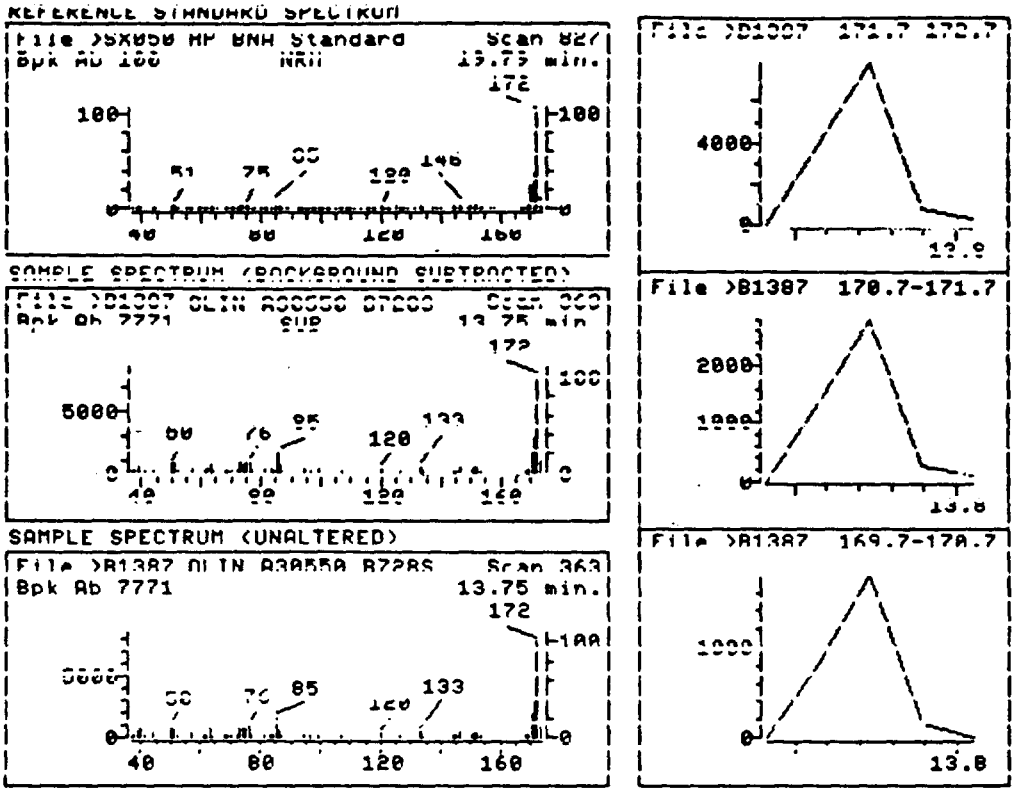


Data File: >B1387::D1
Name: OLIN A30550 B728S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 08:18
Injected at: 871222 07:41

Quant Output File: ^B1387::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 409
Retention Time: 15.23 min.
Quant Ion: 164.0
Area: 24245
Concentration: 40.00 ng/uL
q-value: 99

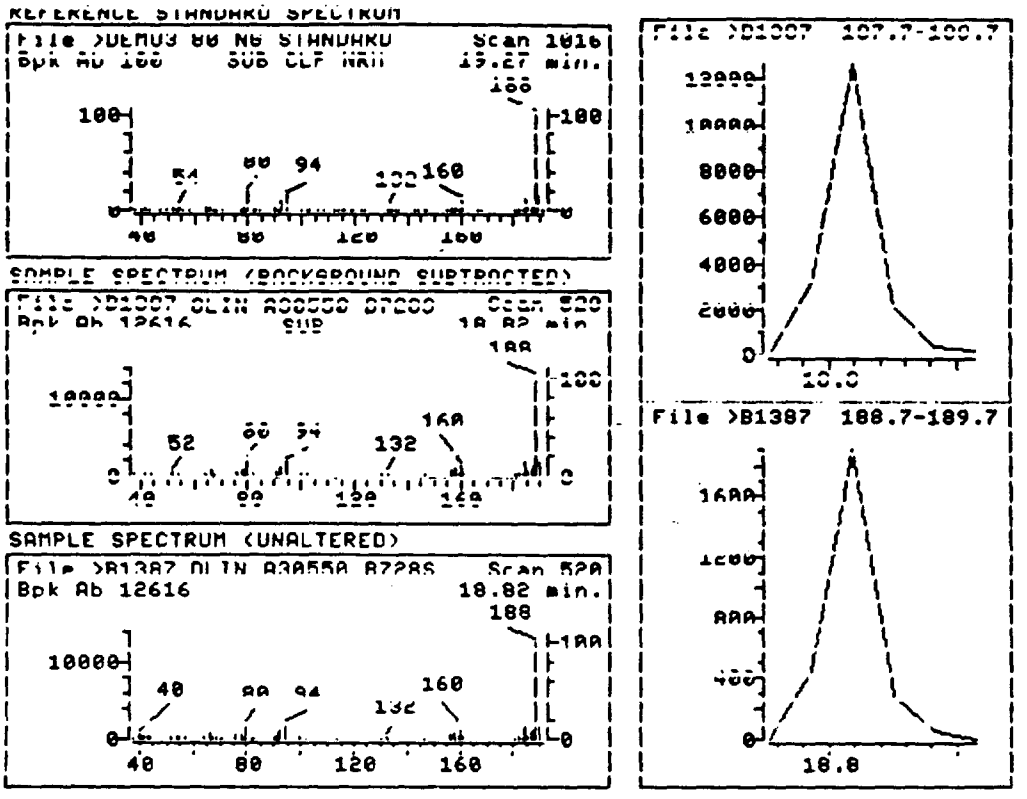


Data File: >B1387::D1
Name: OLIN A30550 B728S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 08:18
Injected at: 871222 07:41

Quant Output File: ^B1387::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 363
Retention Time: 13.75 min.
Quant Ion: 172.0
Area: 24565
Concentration: 1.58 ng/uL
q-value: 95

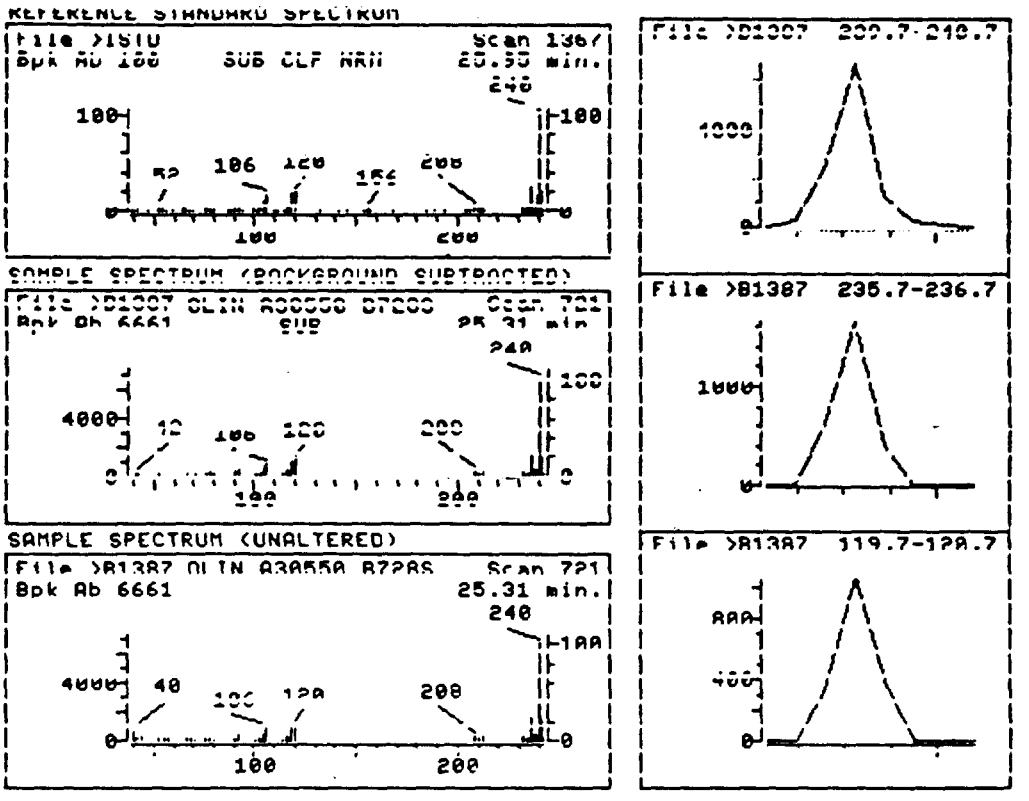


Data File: >B1387::D1
Name: OLIN A30550 B728S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 08:18
Injected at: 871222 07:41

Quant Output File: ^B1387::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 520
Retention Time: 18.82 min.
Quant Ion: 188.0
Area: 36045
Concentration: 40.00 ng/uL
q-value: 99

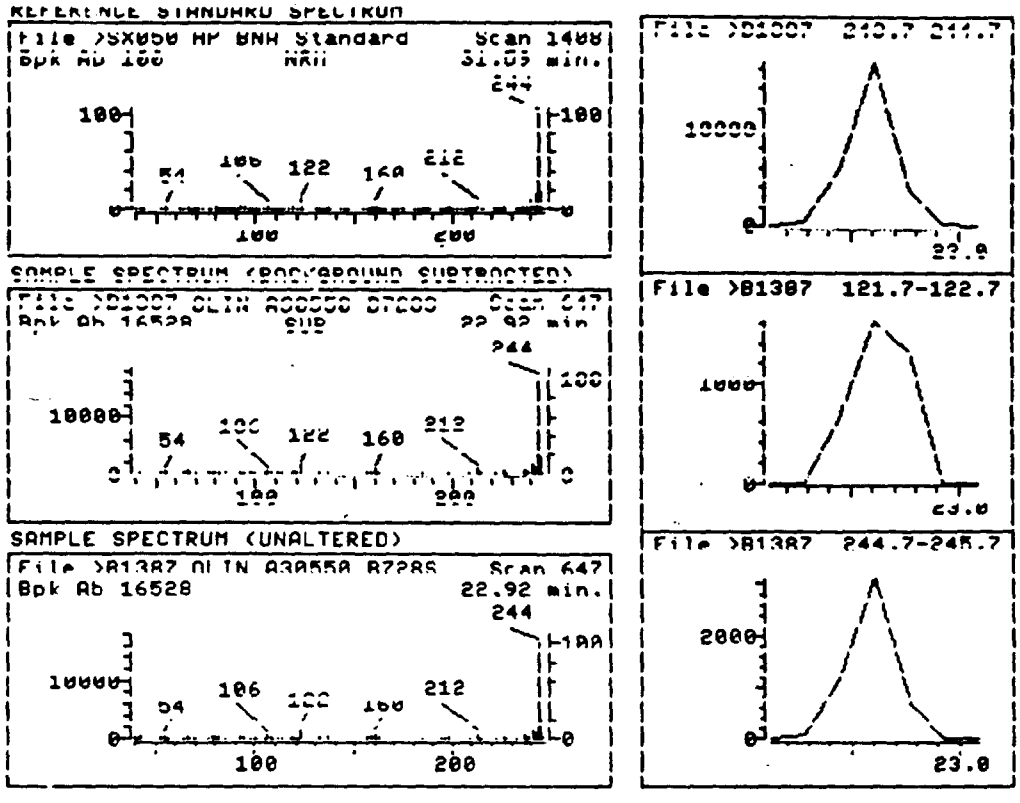


Data File: >B1387::D1
Name: OLIN A30550 B728S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 08:18
Injected at: 871222 07:41

Quant Output File: ^B1387::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 721
Retention Time: 25.31 min.
Quant Ion: 240.0
Area: 21328
Concentration: 40.00 ng/uL
q-value: 98

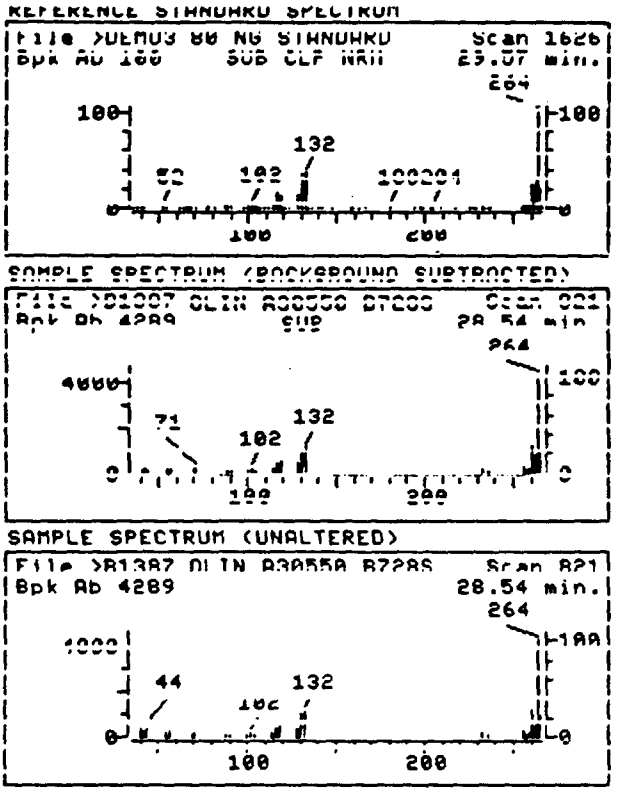


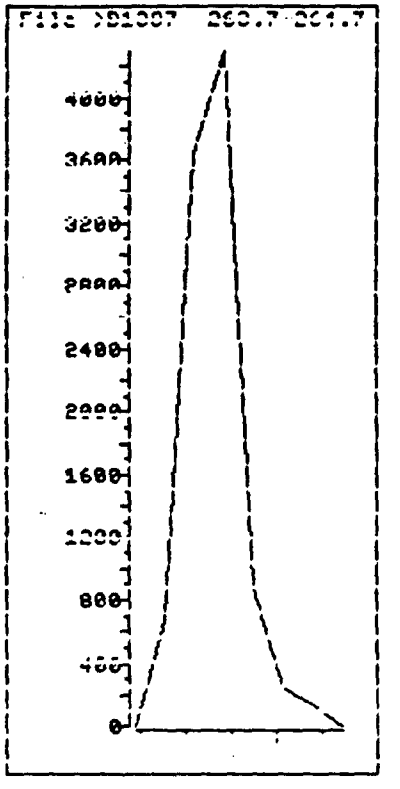
Data File: >B1387::D1
Name: OLIN A30550 B7285
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 08:18
Injected at: 871222 07:41

Quant Output File: ^B1387::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 647
Retention Time: 22.92 min.
Quant Ion: 244.0
Area: 51910
Concentration: 5.16 ng/uL
q-value: 83





Data File: >B1387::D1
Name: OLIN A30550 B728S
Misc: 2 UL INJ 40 NG IS
Quant Time: 871222 08:18
Injected at: 871222 07:41

Quant Output File: ^B1387::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 821
Retention Time: 28.54 min.
Quant Ion: 264.0
Area: 19114
Concentration: 40.00 ng/uL
q-value: 100

PRELIMINARY REPORT
This report is preliminary and all results are subject to revision
A final report will be issued upon completion & verification of all results

Olin Chemical
Attn Toni B. Odom
McIntosh Plant
McIntosh, AL 36553

Date : 01/14/88
BCM # : 00-4006-07
P.O.# :
Order# : 18828

CC: Paul Klotz

BCM Number : A30549
Location : 702
Client ID :

Date Sampled : 12/09/87
Date Received : 12/11/87

Test Description	Results	Units	Test Method
1,2-Dichlorobenzene	< 0.33	mg/kg	EPA # 8250
1,2-Dichlorobenzene	< 0.33	mg/kg	
1,4-Dichlorobenzene	< 0.33	mg/kg	
1,4-Dichlorobenzene	< 0.33	mg/kg	
Hexachlorobenzene	< 0.33	mg/kg	
Hexachlorobenzene	< 0.33	mg/kg	
Pentachloronitrobenzene	< 0.33	mg/kg	
Pentachloronitrobenzene	< 0.33	mg/kg	

QUANT REPORT

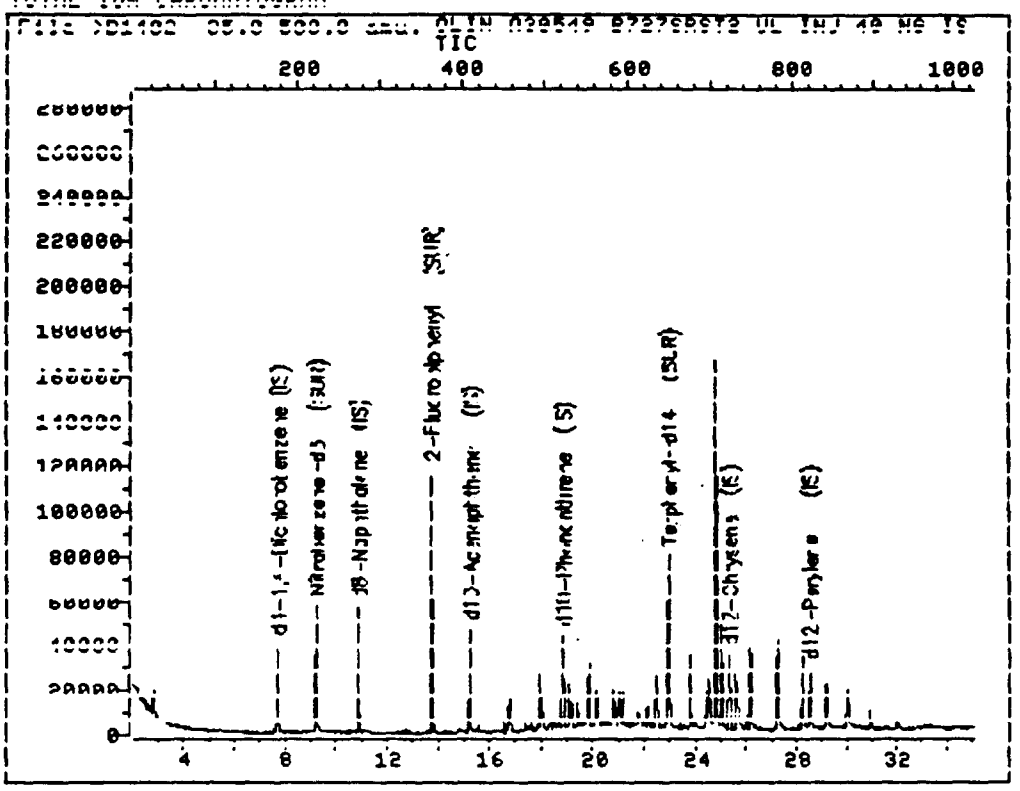
Operator ID: USER6 Quant Rev: 6 Quant Time: 880104 10:56
Output File: ^B1402::QT Injected at: 880104 10:14
Data File: >B1402::D1 Dilution Factor: .10000
Name: OLIN A30549 B727SRST
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.70	177	13474	40.00	ng/uL	92
16)	*d8-Naphthalene (IS)	10.87	275	61202	40.00	ng/uL	87
17)	Nitrobenzene-d5 (SUR)	9.22	224	51079	2.94	ng/uL	88
31)	*d10-Acenaphthene (IS)	15.26	411	27431	40.00	ng/uL	99
36)	2-Fluorobiphenyl (SUR)	13.74	364	91359	5.21	ng/uL	93
51)	*d10-Phenanthrene (IS)	18.85	522	50561	40.00	ng/uL	99
63)	*d12-Chrysene (IS)	25.34	723	44380	40.00	ng/uL	91
65)	Terphenyl-d14 (SUR)	22.95	649	89729	4.28	ng/uL	86
71)	*d12-Perylene (IS)	28.54	822	33954	40.00	ng/uL	100

* Compound is ISTD

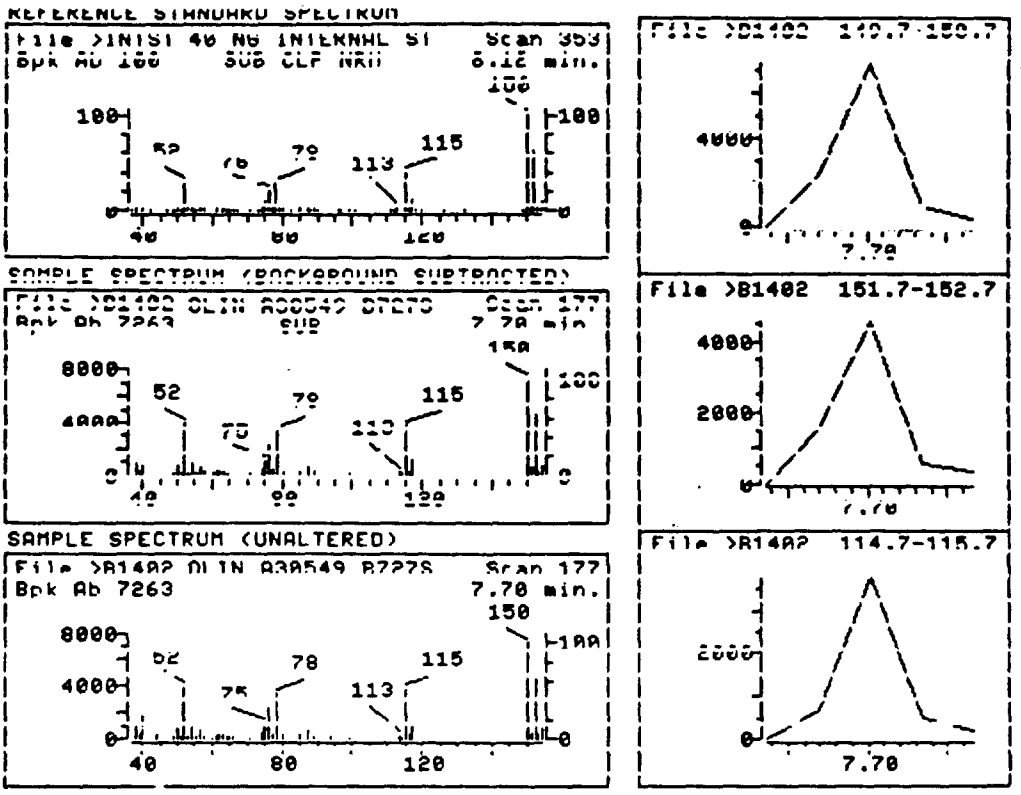
TOTAL ION CHROMATOGRAM



Data File: >B1402::D1 Quant Output File: ^B1402::QT
Name: OLIN A30549 B727SRST
Misc: 2 UL INJ 40 NG IS

Id File: ID RDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

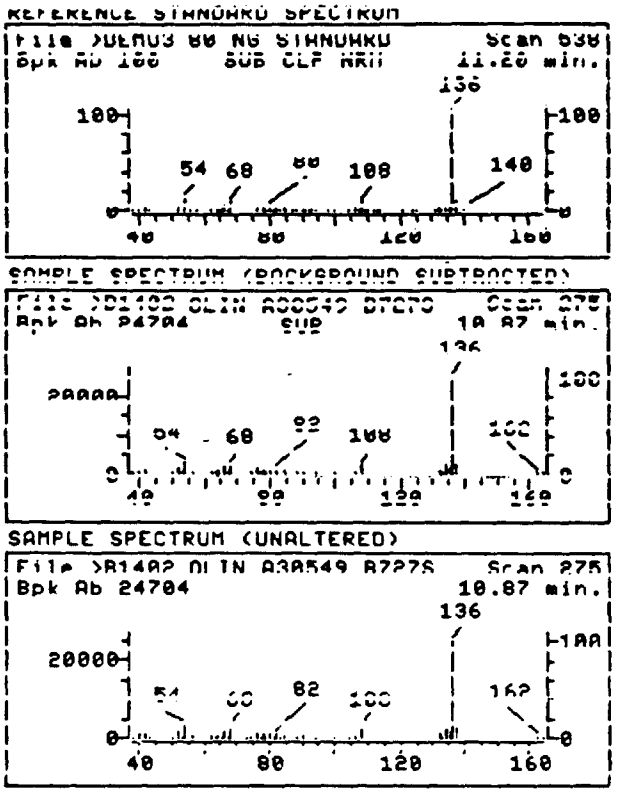
Operator ID: USER6
Quant Time: 880104 10:56
Injected at: 880104 10:14

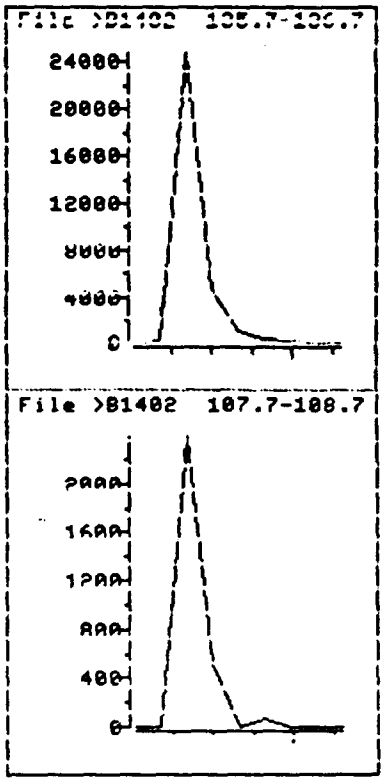


Data File: >B1402::D1
Name: OLIN A30549 B727SRST
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:56
Injected at: 880104 10:14

Quant Output File: ^B1402::QT
Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 1 (ISTD)
Compound Name: d4-1,4-Dichlorobenzene (IS)
Scan Number: 177
Retention Time: 7.70 min.
Quant Ion: 152.0
Area: 13474
Concentration: 40.00 ng/uL
q-value: 92





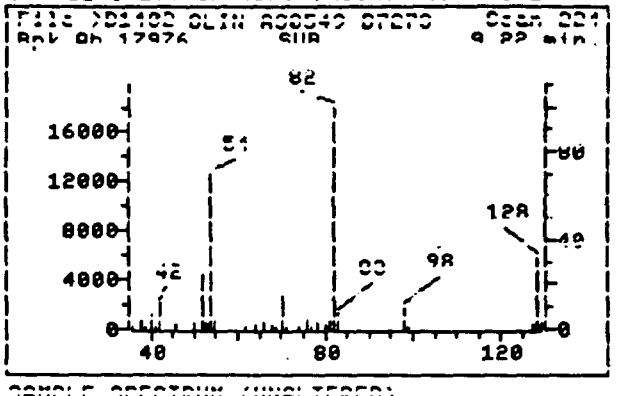
Data File: >B1402::D1
Name: OLIN A30549 B727SRST
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:56
Injected at: 880104 10:14

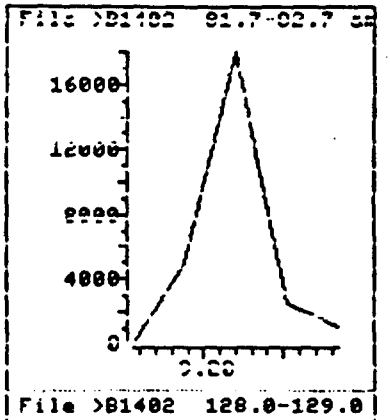
Quant Output File: ^B1402::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

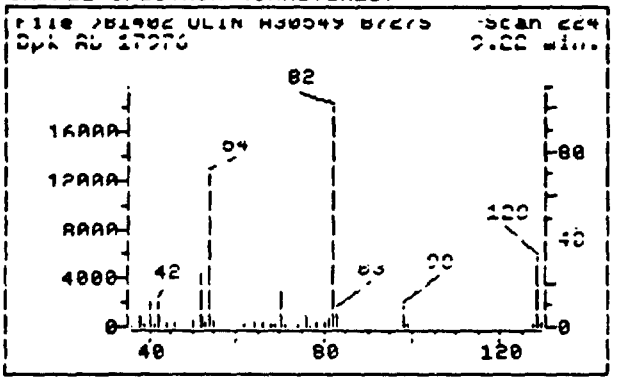
Compound No: 16 (ISTD)
Compound Name: d8-Naphthalene (IS)
Scan Number: 275
Retention Time: 10.87 min.
Quant Ion: 136.0
Area: 61202
Concentration: 40.00 ng/uL
q-value: 87

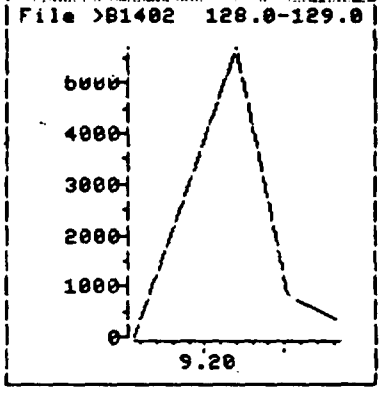
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)



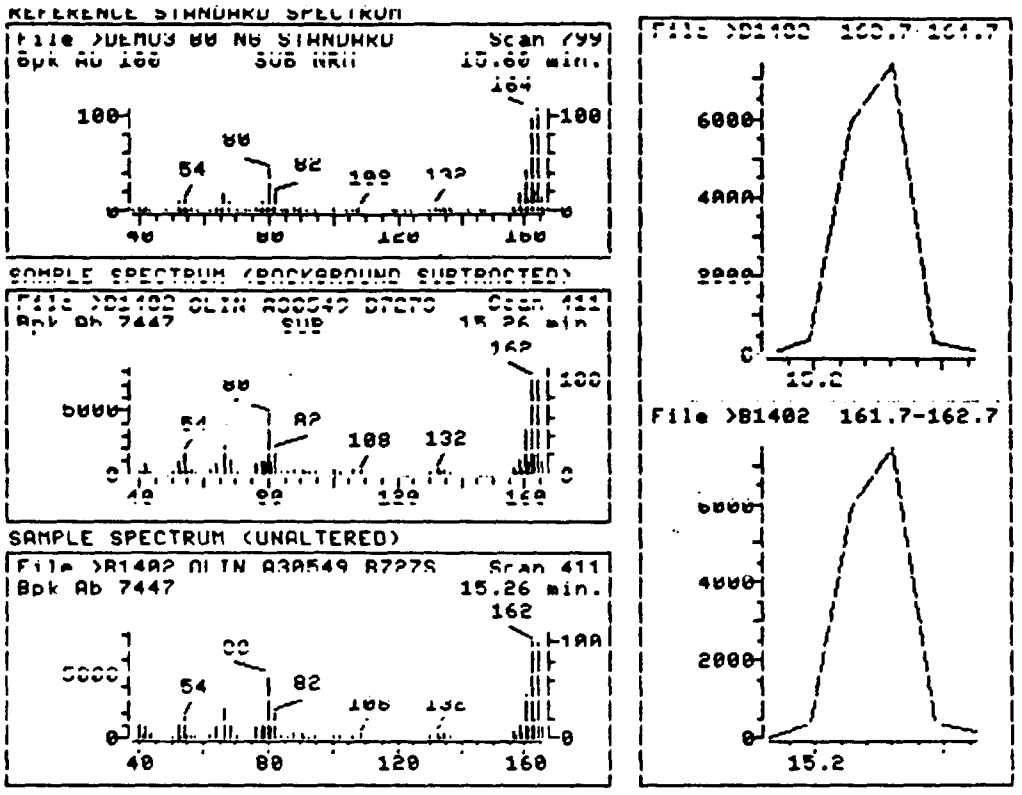


Data File: >B1402::D1
Name: OLIN A30549 B727SRST
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:56
Injected at: 880104 10:14

Quant Output File: ^B1402::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 17
Compound Name: Nitrobenzene-d5 (SUR)
Scan Number: 224
Retention Time: 9.22 min.
Quant Ion: 82.0
Area: 51079
Concentration: 2.94 ng/uL
q-value: 88

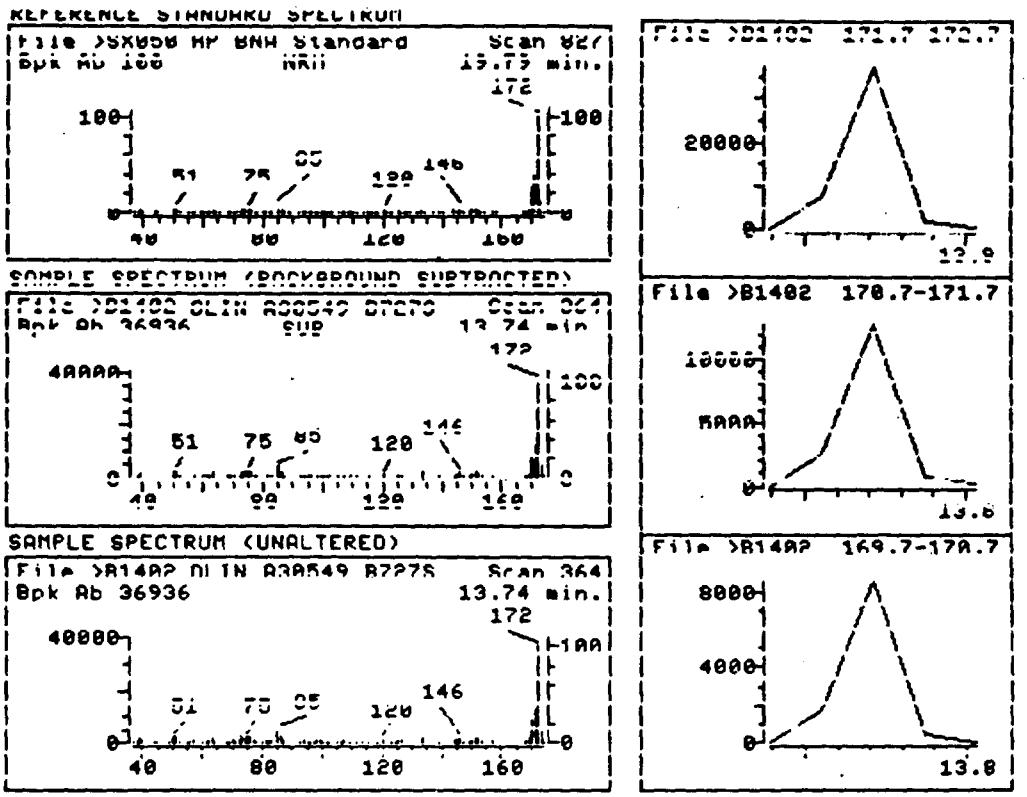


Data File: >B1402::D1
Name: OLIN A30549 B727SRST
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:56
Injected at: 880104 10:14

Quant Output File: ^B1402::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 31 (ISTD)
Compound Name: d10-Acenaphthene (IS)
Scan Number: 411
Retention Time: 15.26 min.
Quant Ion: 164.0
Area: 27431
Concentration: 40.00 ng/uL
q-value: 99

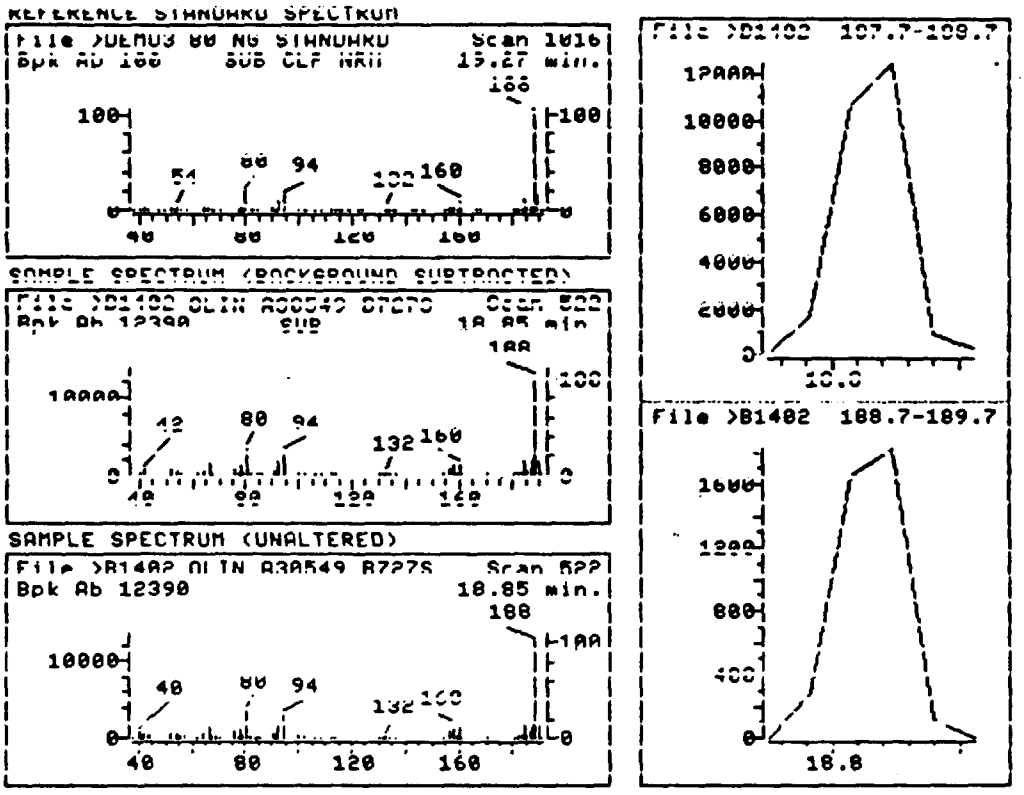


Data File: >B1402::D1
Name: OLIN A30549 B727SRST
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:56
Injected at: 880104 10:14

Quant Output File: ^B1402::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 36
Compound Name: 2-Fluorobiphenyl (SUR)
Scan Number: 364
Retention Time: 13.74 min.
Quant Ion: 172.0
Area: 91359
Concentration: 5.21 ng/uL
q-value: 93

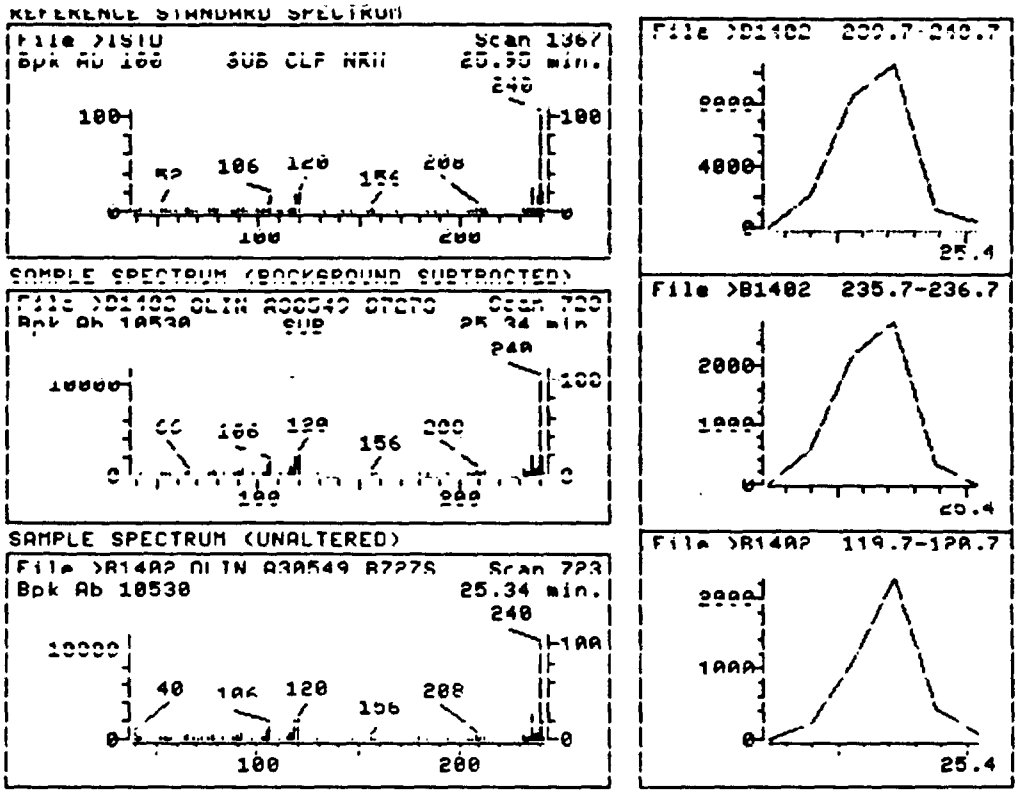


Data File: >B1402::D1
Name: OLIN A30549 B727SRST
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:56
Injected at: 880104 10:14

Quant Output File: ^B1402::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 51 (ISTD)
Compound Name: d10-Phenanthrene (IS)
Scan Number: 522
Retention Time: 18.85 min.
Quant Ion: 188.0
Area: 50561
Concentration: 40.00 ng/uL
q-value: 99

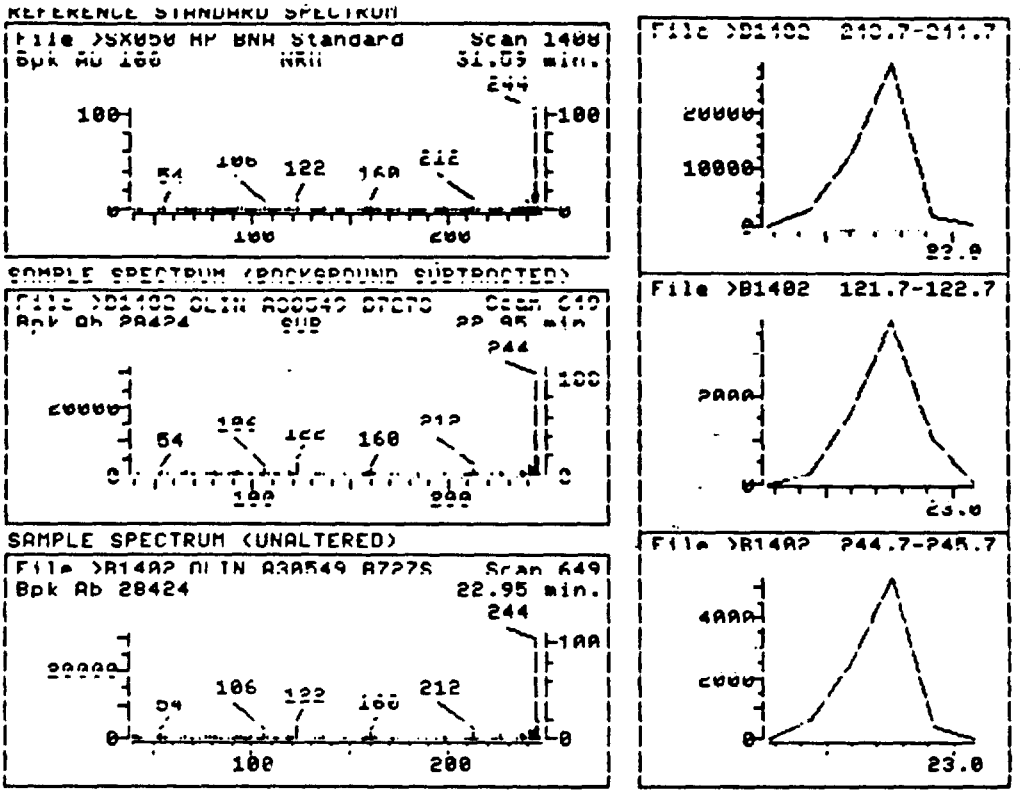


Data File: >B1402::D1
Name: OLIN A30549 B727SRST
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:56
Injected at: 880104 10:14

Quant Output File: ^B1402::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 63 (ISTD)
Compound Name: d12-Chrysene (IS)
Scan Number: 723
Retention Time: 25.34 min.
Quant Ion: 240.0
Area: 44380
Concentration: 40.00 ng/uL
q-value: 91

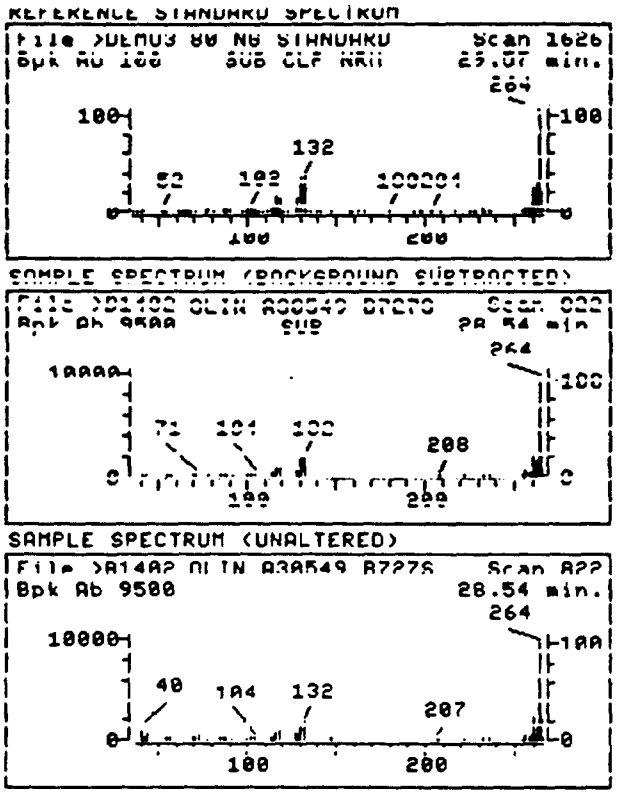


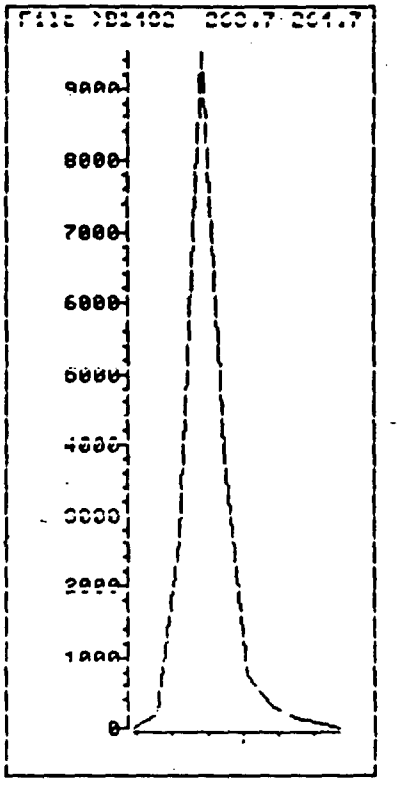
Data File: >B1402::D1
Name: OLIN A30549 B727SRST
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:56
Injected at: 880104 10:14

Quant Output File: ^B1402::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 65
Compound Name: Terphenyl-d14 (SUR)
Scan Number: 649
Retention Time: 22.95 min.
Quant Ion: 244.0
Area: 89729
Concentration: 4.28 ng/uL
q-value: 86





Data File: >B1402::D1
Name: OLIN A30549 B727SRST
Misc: 2 UL INJ 40 NG IS
Quant Time: 880104 10:56
Injected at: 880104 10:14

Quant Output File: ^B1402::QT

Quant ID File: ID BDA::L2
Last Calibration: 871217 12:15

Compound No: 71 (ISTD)
Compound Name: d12-Perylene (IS)
Scan Number: 822
Retention Time: 28.54 min.
Quant Ion: 264.0
Area: 33954
Concentration: 40.00 ng/uL
q-value: 100

3 2 00806

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: #1

Contractor: BCM _____ Calibration Date: 12/14/87

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % RSD for CCC is 30.0%

Laboratory ID:	>B1322	>B1321	>B1323	>B1324	>B1325					
	RF	RF	RF	RF	RF					
Compound	10.00	25.00	40.00	60.00	80.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
2-Fluorophenol (SUR)	2.39674	2.48730	2.94542	3.26653	2.73186	.637	2.76557	12.757		
Phenol-d5 (SUR)	4.44567	4.61785	4.38518	3.75322	3.54861	.975	4.15011	11.307		
Phenol	4.30650	4.65870	4.90064	4.74682	4.53205	.979	4.62894	4.854	*	
bis(-2-Chloroethyl)Ether	4.65791	4.36552	4.57342	5.29034	4.20906	.950	4.61941	8.965		
2-Chlorophenol	3.27451	3.30646	2.90545	2.80660	2.75780	.959	3.01052	8.675		
1,3-Dichlorobenzene	2.70282	3.06145	2.85790	2.60995	2.40725	.986	2.72789	9.082		
1,4-Dichlorobenzene	3.26308	2.69044	2.83304	2.51212	2.32036	1.006	2.72381	13.128	*	
Benzyl Alcohol	1.61830	2.15877	1.95579	2.12859	2.00251	1.090	1.97279	10.922		
1,2-Dichlorobenzene	2.86168	2.73709	2.52336	2.39880	2.12458	1.063	2.52910	11.434		
2-Methylphenol	3.16428	3.35006	2.85196	3.27148	2.62446	1.159	3.05645	10.047		
bis(2-Chloroisopropyl)ether	6.65108	7.61625	6.27493	6.61800	5.55870	1.134	6.51397	11.359		
4-Methylphenol	2.61301	3.92441	2.66590	3.66080	2.86311	1.212	3.14546	19.244		
N-Nitroso-Di-n-propylamine	3.11552	3.74216	3.40244	3.08955	3.98000	1.186	3.47193	11.050		**
Hexachloroethane	1.80009	1.61630	1.28605	1.33675	1.18313	1.159	1.44606	17.857		
Nitrobenzene-d5 (SUR)	1.13431	1.11605	1.02358	1.06677	1.01618	.846	1.07258	4.837		
Nitrobenzene	1.09178	1.75856	1.37250	1.49116	1.42349	.852	1.42750	16.776		
Isophorone	[illegible]	[illegible]	[illegible]	2.21612	2.01638	.913	2.05066	7.040		
2-Nitrophenol	[illegible]	[illegible]	.46780	.51410	.52075	.926	.49174	6.063	*	
2,4-Dimethylphenol	.66503	.73730	.62881	.66098	.64802	.968	.66803	6.170		
Benzoic Acid	.67300	.38687	.32170	.55600	.35261	1.034	.43804	51.369		
bis(-2-Chloroethoxy)Methane	1.19143	1.12919	1.23388	1.41010	1.21862	.978	1.23664	6.482		
2,4-Dichlorophenol	.49125	.63923	.65657	.67890	.51501	.992	.59419	15.083		
1,2,4-Trichlorobenzene	.66392	.59104	.64724	.64395	.53828	.995	.61688	8.389		
Naphthalene	2.43952	1.94614	2.37901	2.50474	1.73129	1.004	2.20038	15.527		
4-Chloroaniline	.96744	1.03509	.03641	.92958	.90433	1.038	.93457	7.892		
Hexachlorobutadiene	.35683	.32369	.39664	.32478	.30021	1.056	.34203	10.315	*	
4-Chloro-3-methylphenol	.65881	.67322	.68159	.86152	.77345	1.177	.73092	11.914	*	
2-Methylnaphthalene	1.18558	1.16252	1.35079	1.37374	1.06887	1.164	1.22990	10.736		
Hexachlorocyclopentadiene	.82953	.80514	.67010	.84214	1.05237	.869	.83986	16.336		**
2,4,6-Trichlorophenol	.78665	.92785	.80952	.94411	1.33386	.899	.96040	22.907	*	

RF - Response Factor (Subscript is amount in ng/uL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

3 2 00807

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: #1 _____

Contractor: BCM _____ Calibration Date: 12/14/87 _____

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % RSD for CCC is 30.0%

Compound	>B1322 RF 10.00	>B1321 RF 25.00	>B1323 RF 40.00	>B1324 RF 60.00	>B1325 RF 80.00	$\overline{RRT}$	$\overline{RF}$	%RSD	CCC	SPCC
2,4,5-Trichlorophenol	.78665	.92785	.80992	.94411	1.33386	.899	.96048	22.907		
2-Chloronaphthalene	2.73941	2.60101	2.29375	2.26796	3.91674	.907	2.76378	24.428		
2-Fluorobiphenyl (SUR)	2.51656	2.41222	2.67592	2.58828	3.57804	.900	2.75420	17.086		
2-Nitroaniline	.88613	.93633	.91071	.77092	1.61785	.943	1.02439	32.969		
Dimethyl Phthalate	2.83929	2.28558	2.69997	2.15266	2.98286	.982	2.59207	13.809		
Acenaphthylene	3.78454	3.69756	3.56117	3.41096	3.66206	.975	3.62326	3.951		
3-Nitroaniline	.57732	.67571	.73157	.71319	1.16946	1.010	.77346	29.638		
Acenaphthene	2.65642	2.39140	2.38216	2.48084	2.38943	1.005	2.46165	4.770	*	
2,4-Dinitrophenol	-	.09538	.13228	.24402	.45232	1.027	.23100	69.486		**
4-Nitrophenol	.13669	.33393	.35579	.52539	.82314	1.066	.43498	59.094		**
Dibenzofuran	3.13046	3.10142	2.31830	2.72059	2.69218	1.032	2.79439	12.081		
2,4-Dinitrotoluene	.64718	.70661	.71453	.80409	1.08038	1.051	.79056	21.686		
2,6-Dinitrotoluene	.52362	.56861	.50309	.53005	.91856	.990	.62082	27.382		
Diethylphthalate	2.58319	2.78645	2.33784	2.90538	4.18621	1.098	2.95981	24.280		
4-Chlorophenyl-phenylether	1.15411	1.07206	1.17826	1.30889	1.96526	1.094	1.33571	27.106		
Fluorene	[illegible]	[illegible]	[illegible]	[illegible]	3.52333	1.086	2.61531	22.844		
4-Nitroaniline	.47447	.56349	.52950	.73813	.85852	1.110	.63262	25.307		
4,6-Dinitro-2-methylphenol	.10587	.13221	.23644	.31537	.31109	.906	.23219	37.741		
N-Nitrosodiphenylamine	1.12900	1.11935	.94226	.72207	.94247	.900	.97103	17.123	*	
2,4,6-Tribromophenol (SUR)	[illegible]	[illegible]	[illegible]	[illegible]	.33134	.916	.34196	7.569		
Pentachloronitrobenzene	.12555	.10206	.13256	.12007	.08363	1.000	.11277	17.579		
4-Bromophenyl-phenylether	.63652	.57326	.55058	.58513	.50948	.950	.57100	8.167		
Hexachlorobenzene	.77191	.63403	.56584	.52158	.58086	.962	.61663	15.562		
Pentachlorophenol	-	.14062	.14129	.24892	.26673	.993	.19939	34.036	*	
Phenanthrene	2.46374	2.51908	2.17907	2.36510	2.41193	1.003	2.38778	5.447		
Anthracene	2.65122	2.32835	1.78395	2.00087	1.66202	1.009	2.00128	19.647		
Di-n-Butylphthalate	3.13218	3.42866	2.59289	2.86673	3.23383	1.104	3.05086	10.703		
Fluoranthene	1.87919	1.98236	1.69302	1.93039	2.06796	1.157	1.91058	7.338	*	
Pyrene	3.49320	3.29235	2.67654	2.90011	2.60966	.880	2.99437	12.886		
Terphenyl-d14 (SUR)	2.42377	2.25863	1.74091	1.84939	1.96720	.905	2.04798	13.936		

RF - Response Factor (Subscript is amount in ng/uL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
MSL Compounds

Case No: _____ Instrument ID: 11

Contractor: BCM Calibration Date: 12/14/87

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % RSD for CCC is 30.0%

Laboratory ID: >B1322 >B1321 >B1323 >B1324 >B1325

Compound	RF 10.00	RF 25.00	RF 40.00	RF 60.00	RF 80.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Butylbenzylphthalate	1.69088	1.75830	1.54082	1.82563	1.55448	.963	1.67402	7.461		
3,3'-Dichlorobenzidine	.74100	.87054	.74418	.86586	.90901	1.004	.82612	9.451		
Benzo(a)Anthracene	2.58761	2.96933	2.30532	2.77832	3.02919	.999	2.73396	10.815		
Bis(2-Ethylhexyl)Phthalate	3.18494	3.04771	2.16324	2.45369	2.36253	1.026	2.64242	16.947		
Chrysene	2.39351	2.20048	1.79285	1.83048	1.42273	1.002	1.92801	19.648		
Di-n-octyl phthalate	4.71837	4.54915	4.34789	4.51800	4.57989	.960	4.54284	2.929	*	
Benzo(b)fluoranthene	5.92290	5.94342	5.17731	5.22873	4.87213	.974	5.42890	8.844		
Benzo(k)fluoranthene	5.92290	5.94342	5.17731	5.22873	4.87213	.974	5.42890	8.844		
Benzo(a)Pyrene	2.57916	2.67660	2.20928	2.43163	2.30677	.995	2.44109	7.848	*	
Indeno(1,2,3-cd)Pyrene	2.95805	3.10305	2.61858	2.57328	2.54325	1.073	2.76060	9.292		
Dibenzo(a,h)Anthracene	2.31635	2.46165	2.09035	2.09472	2.02508	1.075	2.19763	8.390		
Benzo(g,h,i)Perylene	2.34450	2.37110	2.17665	2.10255	2.07424	1.090	2.21301	6.188		

RF - Response Factor (Subscript is amount in ng/uL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

QUANT REPORT

Operator ID: USER6
Output File: ^B1321::QT
Data File: >B1321::D1
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Quant Rev: 6
Quant Time: 871214 09:48
Injected at: 871214 09:11
Dilution Factor: 1.00000

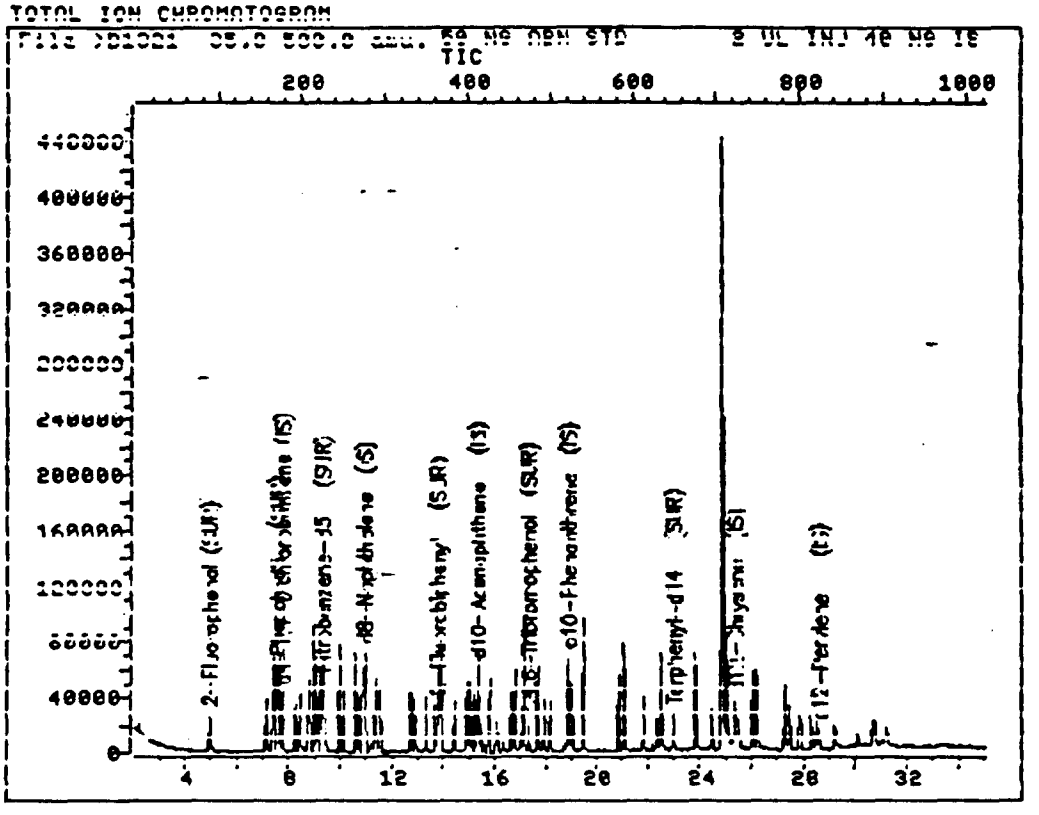
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871208 09:57

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.74	177	15706	40.00	ng/uL	96
2)	2-Fluorophenol (SUR)	4.93	90	24416	26.76	ng/uL	100
3)	Phenol-d5 (SUR)	7.54	171	45330	38.57	ng/uL	100
4)	Phenol	7.58	172	45731	34.97	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.38	166	42853	33.83	ng/uL	88
6)	2-Chlorophenol	7.42	167	32457	32.59	ng/uL	98
7)	1,3-Dichlorobenzene	7.64	174	30052	29.17	ng/uL	92
8)	1,4-Dichlorobenzene	7.80	179	26410	24.82	ng/uL	87
9)	Benzyl Alcohol	8.42	198	21191	37.89	ng/uL	81
10)	1,2-Dichlorobenzene	8.22	192	26868	28.32	ng/uL	94
11)	2-Methylphenol	8.97	215	32885	34.99	ng/uL	92
12)	bis(2-Chloroisopropyl)ether	8.77	209	74763	38.78	ng/uL	89
13)	4-Methylphenol	9.35	227	38523	40.98	ng/uL	94
14)	N-Nitroso-Di-n-propylamine	9.16	221	36734	35.18	ng/uL	86
15)	Hexachloroethane	8.97	215	15866	33.75	ng/uL	99
16)	*d8-Naphthalene (IS)	10.94	276	63078	40.00	ng/uL	88
17)	Nitrobenzene-d5 (SUR)	9.29	225	43999	40.37	ng/uL	92
18)	Nitrobenzene	9.32	226	69329	51.56	ng/uL	95
19)	Isophorone	9.97	246	85620	37.32	ng/uL	90
20)	2-Nitrophenol	10.13	251	18998	36.49	ng/uL	76
21)	2,4-Dimethylphenol	10.58	265	29067	42.14	ng/uL	89
22)	Benzoic Acid	11.29	287	15252	45.21	ng/uL	87
23)	bis(-2-Chloroethoxy)Methane	10.71	269	44517	33.80	ng/uL	88
24)	2,4-Dichlorophenol	10.84	273	25201	39.21	ng/uL	90
25)	1,2,4-Trichlorobenzene	10.87	274	23301	32.51	ng/uL	94
26)	Naphthalene	10.97	277	76724	32.73	ng/uL	97
27)	4-Chloroaniline	11.36	289	40807	36.51	ng/uL	95
28)	Hexachlorobutadiene	11.55	295	12761	28.91	ng/uL	96
29)	4-Chloro-3-methylphenol	12.88	336	26541	32.24	ng/uL	87
30)	2-Methylnaphthalene	12.71	331	45831	35.09	ng/uL	93
31)	*d10-Acenaphthene (IS)	15.33	412	30967	40.00	ng/uL	96
32)	Hexachlorocyclopentadiene	13.33	350	15583	36.13	ng/uL	96
33)	2,4,6-Trichlorophenol	13.81	365	17958	41.45	ng/uL	90
34)	2,4,5-Trichlorophenol	13.81	365	17958	41.45	ng/uL	95
35)	2-Chloronaphthalene	13.91	368	50341	39.83	ng/uL	97
36)	2-Fluorobiphenyl (SUR)	13.78	364	46687	37.29	ng/uL	93
37)	2-Nitroaniline	14.43	384	18122	36.91	ng/uL	80
38)	Dimethyl Phthalate	15.04	403	44236	30.88	ng/uL	100
39)	Acenaphthylene	14.94	400	71564	32.88	ng/uL	92
40)	3-Nitroaniline	15.46	416	13078M	33.48	ng/uL	
41)	Acenaphthene	15.40	414	46284	38.14	ng/uL	98
42)	2,4-Dinitrophenol	15.75	425	1846	30.79	ng/uL	100
43)	4-Nitrophenol	16.33	443	6463	38.70	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.82	427	60026	31.30	ng/uL	94
45)	2,4-Dinitrotoluene	16.11	436	13676	27.74	ng/uL	100
46)	2,6-Dinitrotoluene	15.17	407	11005	26.53	ng/uL	100
47)	Diethylphthalate	16.82	458	53930	33.14	ng/uL	92
48)	4-Chlorophenyl-phenylether	16.75	456	20749	28.73	ng/uL	100
49)	Fluorene	16.62	452	40866	30.08	ng/uL	99
50)	4-Nitroaniline	16.98	463	10906M	29.02	ng/uL	
51)	*d10-Phenanthrene (IS)	18.89	522	35728	40.00	ng/uL	98
52)	4,6-Dinitro-2-methylphenol	17.08	466	4292	37.31	ng/uL	100
53)	N-Nitrosodiphenylamine	17.14	468	24995	33.70	ng/uL	91
54)	2,4,6-Tribromophenol (SUR)	17.30	473	8662	45.93	ng/uL	97
55)	4-Bromophenyl-phenylether	17.92	492	12801	35.35	ng/uL	88
56)	Pentachloronitrobenzene	18.89	522	2279	2279.00	NO CALIB	100
57)	Hexachlorobenzene	18.18	500	14178	30.65	ng/uL	90
58)	Pentachlorophenol	18.76	518	3140	40.06	ng/uL	100
59)	Phenanthrene	18.95	524	56251	38.40	ng/uL	96
60)	Anthracene	19.05	527	51992	34.31	ng/uL	98
61)	Di-n-Butylphthalate	20.86	583	76562	34.76	ng/uL	96
62)	Fluoranthene	21.86	614	44266	33.88	ng/uL	99
63)	*d12-Chrysene (IS)	25.38	723	19699	40.00	ng/uL	93
64)	Pyrene	22.34	629	40535	34.50	ng/uL	98
65)	Terphenyl-d14 (SUR)	22.99	649	27808	35.58	ng/uL	86
66)	Butylbenzylphthalate	24.44	694	21648	32.26	ng/uL	84
67)	3,3'-Dichlorobenzidine	25.51	727	10718	31.52	ng/uL	97
68)	Benzo(a)Anthracene	25.35	722	36558	33.19	ng/uL	95
69)	Bis(2-Ethylhexyl)Phthalate	26.06	744	37523	45.19	ng/uL	94
70)	Chrysene	25.45	725	27092	35.40	ng/uL	94
71)	*d12-Perylene (IS)	28.61	823	15780	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.48	788	44866	41.10	ng/uL	87
73)	Benzo(b)fluoranthene	27.84	799	58617	36.24	ng/uL	100
74)	Benzo(k)Fluoranthene	27.84	799	58617	36.24	ng/uL	100
75)	Benzo(a)Pyrene	28.49	819	26398	35.60	ng/uL	97
76)	Indeno(1,2,3-cd)Pyrene	30.68	887	30663	34.55	ng/uL	93
77)	Dibenzo(a,h)Anthracene	30.75	889	24278	33.88	ng/uL	97
78)	Benzo(g,h,i)Perylene	31.17	902	23385	31.21	ng/uL	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871208 09:57

Operator ID: USER6
Quant Time: 871214 09:48
Injected at: 871214 09:11

3 2 00812

QUANT REPORT

Operator ID: USER6
Output File: ^B1322::QT
Data File: >B1322::D1
Name: 20 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Quant Rev: 6
Quant Time: 871214 10:39
Injected at: 871214 10:02
Dilution Factor: 1.00000

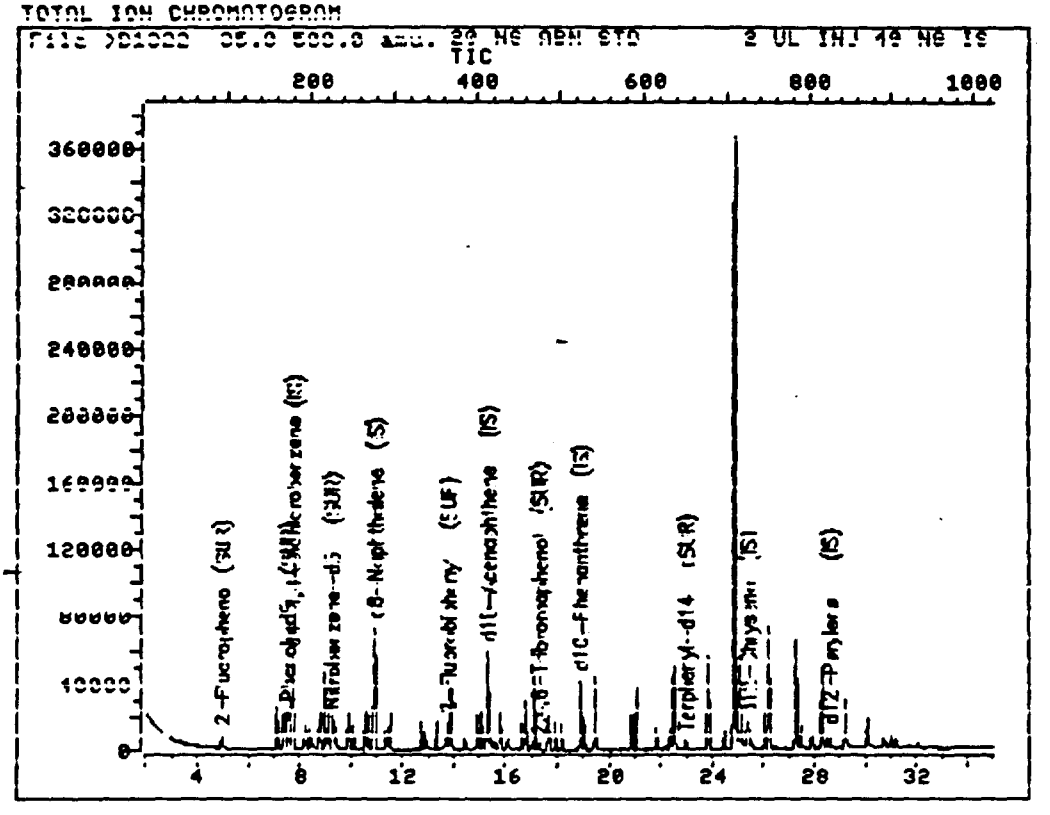
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871208 09:57

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.73	179	18884	40.00	ng/uL	97
2)	2-Fluorophenol (SUR)	4.96	93	11315	10.31	ng/uL	100
3)	Phenol-d5 (SUR)	7.54	173	20988	14.85	ng/uL	100
4)	Phenol	7.57	174	20331	12.93	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.38	168	21990	14.44	ng/uL	89
6)	2-Chlorophenol	7.41	169	15458	12.91	ng/uL	97
7)	1,3-Dichlorobenzene	7.64	176	12760	10.30	ng/uL	90
8)	1,4-Dichlorobenzene	7.77	180	15405	12.04	ng/uL	93
9)	Benzyl Alcohol	8.41	200	7640	11.36	ng/uL	85
10)	1,2-Dichlorobenzene	8.22	194	13510	11.85	ng/uL	97
11)	2-Methylphenol	8.96	217	15033	13.30	ng/uL	89
12)	bis(2-Chloroisopropyl)ether	8.77	211	31404	13.55	ng/uL	91
13)	4-Methylphenol	9.38	230	12336	10.91	ng/uL	97
14)	N-Nitroso-Di-n-propylamine	9.12	222	14850	11.83	ng/uL	77
15)	Hexachloroethane	8.96	217	8536	15.10	ng/uL	96
16)	*d8-Naphthalene (IS)	10.93	278	64984	40.00	ng/uL	89
17)	Nitrobenzene-d5 (SUR)	9.25	226	18428	16.41	ng/uL	81
18)	Nitrobenzene	9.32	228	17737	12.81	ng/uL	99
19)	Isophorone	9.93	247	31482	13.32	ng/uL	98
20)	2-Nitrophenol	10.13	253	6899	12.86	ng/uL	76
21)	2,4-Dimethylphenol	10.58	267	10804	15.20	ng/uL	89
22)	Benzoic Acid	11.16	285	1186M	3.41	ng/uL	
23)	bis(-2-Chloroethoxy)Methane	10.67	270	19356M	14.26	ng/uL	
24)	2,4-Dichlorophenol	10.87	276	7818	11.81	ng/uL	97
25)	1,2,4-Trichlorobenzene	10.87	276	10786	14.61	ng/uL	94
26)	Naphthalene	10.97	279	39639	16.41	ng/uL	97
27)	4-Chloroaniline	11.35	291	15717	13.65	ng/uL	93
28)	Hexachlorobutadiene	11.55	297	5797	12.75	ng/uL	95
29)	4-Chloro-3-methylphenol	12.87	338	10703	12.62	ng/uL	93
30)	2-Methylnaphthalene	12.71	333	19261	14.31	ng/uL	97
31)	*d10-Acenaphthene (IS)	15.33	414	30316	40.00	ng/uL	95
32)	Hexachlorocyclopentadiene	13.32	352	6287	14.89	ng/uL	98
33)	2,4,6-Trichlorophenol	13.65	362	5962	14.06	ng/uL	94
34)	2,4,5-Trichlorophenol	13.65	362	5962	14.06	ng/uL	96
35)	2-Chloronaphthalene	13.90	370	20762	16.78	ng/uL	98
36)	2-Fluorobiphenyl (SUR)	13.78	366	19073	15.56	ng/uL	93
37)	2-Nitroaniline	14.42	386	6716	13.97	ng/uL	95
38)	Dimethyl Phthalate	15.04	405	21519	15.34	ng/uL	100
39)	Acenaphthylene	14.94	402	28683	13.46	ng/uL	95
40)	3-Nitroaniline	15.49	419	4376	11.44	ng/uL	94
41)	Acenaphthene	15.39	416	20133	16.95	ng/uL	96
43)	4-Nitrophenol	16.42	448	1036	6.34	ng/uL	100
44)	Dibenzofuran	15.81	429	23794	12.67	ng/uL	93

	Compound	R.T.	Scan#	Area	Conc	Units	q
45)	2,4-Dinitrotoluene	16.10	438	4905	10.16	ng/uL	100
46)	2,6-Dinitrotoluene	15.16	409	3970	9.78	ng/uL	100
47)	Diethylphthalate	16.81	460	19578	12.29	ng/uL	90
48)	4-Chlorophenyl-phenylether	16.78	459	8747	12.37	ng/uL	100
49)	Fluorene	16.62	454	16887	12.69	ng/uL	97
50)	4-Nitroaniline	17.01	466	3596	9.77	ng/uL	76
51)	*d10-Phenanthrene (IS)	18.88	524	33325	40.00	ng/uL	98
52)	4,6-Dinitro-2-methylphenol	17.10	469	882	8.22	ng/uL	100
53)	N-Nitrosodiphenylamine	17.14	470	9406	13.60	ng/uL	89
54)	2,4,6-Tribromophenol (SUR)	17.30	475	2736	15.55	ng/uL	89
55)	4-Bromophenyl-phenylether	17.94	495	5303	15.70	ng/uL	97
56)	Pentachloronitrobenzene	18.85	523	1046	1046.00	NO CALIB	100
57)	Hexachlorobenzene	18.17	502	6431	14.90	ng/uL	99
59)	Phenanthrene	18.94	526	20526	15.02	ng/uL	93
60)	Anthracene	19.04	529	22088	15.63	ng/uL	97
61)	Di-n-Butylphthalate	20.85	585	26095	12.70	ng/uL	98
62)	Fluoranthene	21.85	616	15656	12.85	ng/uL	93
63)	*d12-Chrysene (IS)	25.41	726	16259	40.00	ng/uL	92
64)	Pyrene	22.37	632	14199	14.64	ng/uL	90
65)	Terphenyl-d14 (SUR)	22.98	651	9852	15.27	ng/uL	81
66)	Butylbenzylphthalate	24.47	697	6873M	12.41	ng/uL	
67)	3,3'-Dichlorobenzidine	25.53	730	3012	10.73	ng/uL	96
68)	Benzo(a)Anthracene	25.37	725	10518	11.57	ng/uL	93
69)	Bis(2-Ethylhexyl)Phthalate	26.05	746	12946	18.89	ng/uL	91
70)	Chrysene	25.44	727	9729	15.40	ng/uL	93
71)	*d12-Perylene (IS)	28.60	825	13074	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.47	790	15422	17.05	ng/uL	86
73)	Benzo(b)fluoranthene	27.89	803	19359	14.45	ng/uL	100
74)	Benzo(k)Fluoranthene	27.89	803	19359	14.45	ng/uL	100
75)	Benzo(a)Pyrene	28.51	822	8430	13.72	ng/uL	90
76)	Indeno(1,2,3-cd)Pyrene	30.70	890	9671	13.15	ng/uL	82
77)	Dibenzo(a,h)Anthracene	30.77	892	7571	12.75	ng/uL	94
78)	Benzo(g,h,i)Perylene	31.19	905	7663	12.34	ng/uL	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1322::D1 Quant Output File: ^B1322::QT
Name: 20 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871208 09:57

Operator ID: USER6
Quant Time: 871214 10:39
Injected at: 871214 10:02

```
 66) Butylbenzylphthalate          RT:24.47 Area:    6873M   12.41  ng/uL
Enter:   C n   -  To select comp # n (default is next comp).
         E     -  To exit and replace output file.
         A     -  To Abort (no change to output file).
         I     -  Manually integrate using cursor.
         P     -  Push scan using cursor and display. Use PS for subtraction.
         X m   -  Expand EC window +/- m minutes. If m omitted, use cursor.
         O     -  Return to original window (after X).
         G     -  Graphics report to terminal printer.
 ^B1322::QT (Comp # 66)  Command:
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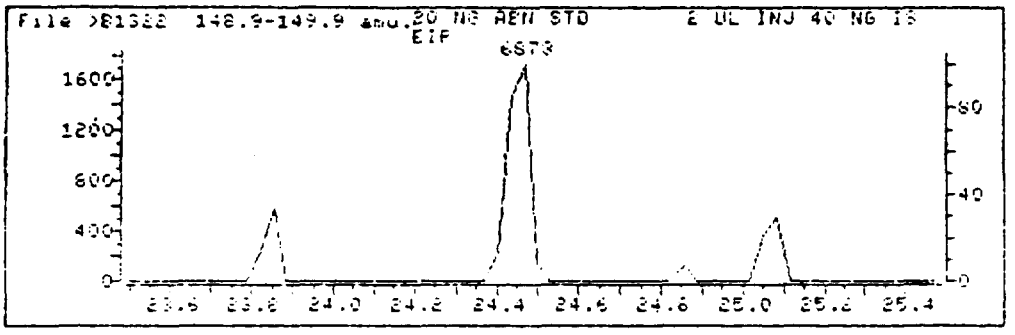


QUANT REPORT

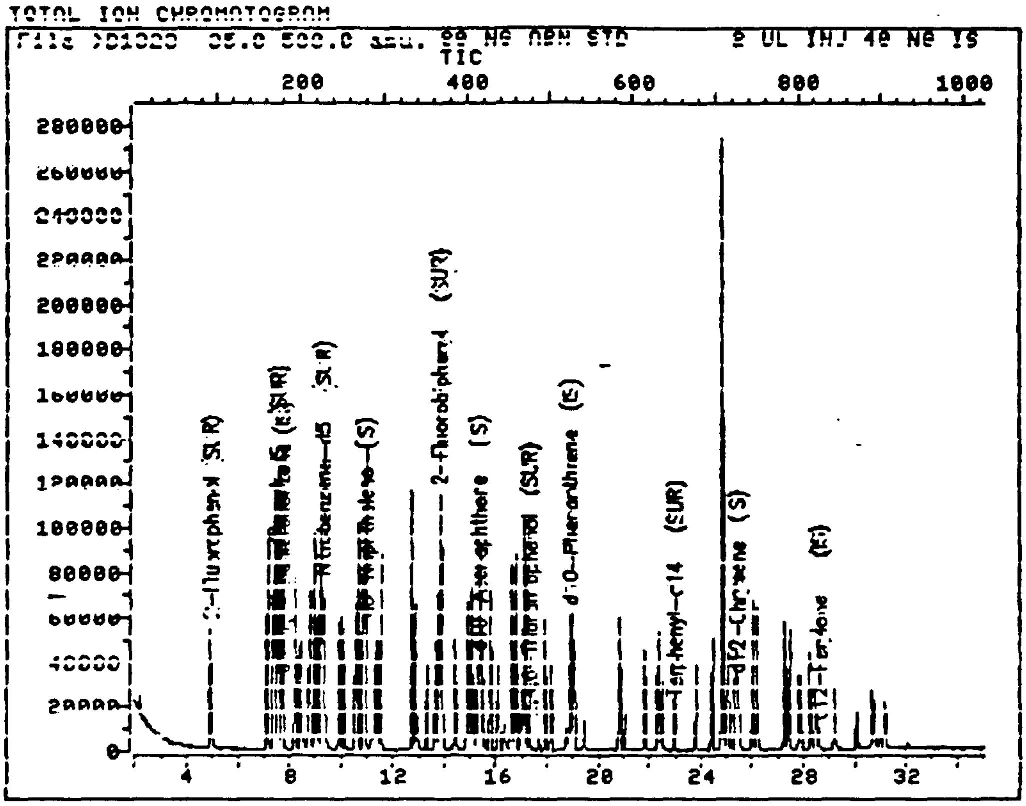
Operator ID: USER6 Quant Rev: 6 Quant Time: 871214 11:42
Output File: ^B1323::QT Injected at: 871214 10:45
Data File: >B1323::D1 Dilution Factor: 1.00000
Name: 80 NG ABN STD
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871208 09:57

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.73	179	17441	40.00	ng/uL	96
2)	2-Fluorophenol (SUR)	4.92	92	51371	50.70	ng/uL	100
3)	Phenol-d5 (SUR)	7.54	173	76482	58.61	ng/uL	100
4)	Phenol	7.57	174	85472	58.85	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.41	169	79765	56.70	ng/uL	95
6)	2-Chlorophenol	7.44	170	50674	45.82	ng/uL	99
7)	1,3-Dichlorobenzene	7.64	176	49846	43.57	ng/uL	98
8)	1,4-Dichlorobenzene	7.80	181	49411	41.82	ng/uL	94
9)	Benzyl Alcohol	8.41	200	34111	54.93	ng/uL	92
10)	1,2-Dichlorobenzene	8.25	195	44010	41.78	ng/uL	91
11)	2-Methylphenol	8.99	218	49741	47.67	ng/uL	95
12)	bis(2-Chloroisopropyl)ether	8.77	211	109441	51.12	ng/uL	91
13)	4-Methylphenol	9.38	230	46496	44.54	ng/uL	96
14)	N-Nitroso-Di-n-propylamine	9.19	224	59342	51.18	ng/uL	81
15)	Hexachloroethane	8.96	217	22430	42.96	ng/uL	96
16)	*d8-Naphthalene (IS)	10.93	278	60077	40.00	ng/uL	87
17)	Nitrobenzene-d5 (SUR)	9.29	227	61854	59.58	ng/uL	92
18)	Nitrobenzene	9.32	228	82459	64.39	ng/uL	89
19)	Isophorone	10.00	249	113016	51.72	ng/uL	89
20)	2-Nitrophenol	10.13	253	28074	56.62	ng/uL	99
21)	2,4-Dimethylphenol	10.58	267	37777	57.50	ng/uL	98
22)	Benzoic Acid	11.32	290	19327	60.16	ng/uL	93
23)	bis(-2-Chloroethoxy)Methane	10.71	271	74128	59.09	ng/uL	91
24)	2,4-Dichlorophenol	10.84	275	39445	64.43	ng/uL	86
25)	1,2,4-Trichlorobenzene	10.90	277	38884	56.95	ng/uL	94
26)	Naphthalene	11.00	280	142972	64.03	ng/uL	99
27)	4-Chloroaniline	11.35	291	50249	47.20	ng/uL	88
28)	Hexachlorobutadiene	11.55	297	23829	56.68	ng/uL	98
29)	4-Chloro-3-methylphenol	12.87	338	41128	52.46	ng/uL	87
30)	2-Methylnaphthalene	12.74	334	81632	65.61	ng/uL	93
31)	*d10-Acenaphthene (IS)	15.33	414	28357	40.00	ng/uL	93
32)	Hexachlorocyclopentadiene	13.32	352	19002	48.11	ng/uL	96
33)	2,4,6-Trichlorophenol	13.81	367	22967	57.89	ng/uL	85
34)	2,4,5-Trichlorophenol	13.81	367	22967	57.89	ng/uL	87
35)	2-Chloronaphthalene	13.91	370	65044	56.20	ng/uL	97
36)	2-Fluorobiphenyl (SUR)	13.81	367	75881	66.19	ng/uL	93
37)	2-Nitroaniline	14.46	387	25825M	57.43	ng/uL	
38)	Dimethyl Phthalate	15.07	406	76563	58.36	ng/uL	100
39)	Acenaphthylene	14.94	402	100984	50.66	ng/uL	94
40)	3-Nitroaniline	15.49	419	20745	57.99	ng/uL	88
41)	Acenaphthene	15.43	417	67551	60.79	ng/uL	97
42)	2,4-Dinitrophenol	15.75	427	3751	68.31	ng/uL	100
43)	4-Nitrophenol	16.33	445	10089	65.96	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.81	429	65740	37.44	ng/uL	91
45)	2,4-Dinitrotoluene	16.10	438	20262	44.88	ng/uL	100
46)	2,6-Dinitrotoluene	15.17	409	14266	37.56	ng/uL	100
47)	Diethylphthalate	16.81	460	66294	44.48	ng/uL	94
48)	4-Chlorophenyl-phenylether	16.78	459	33412	50.53	ng/uL	100
49)	Fluorene	16.65	455	64960	52.21	ng/uL	96
50)	4-Nitroaniline	17.01	466	15015	43.63	ng/uL	98
51)	*d10-Phenanthrene (IS)	18.88	524	35713	40.00	ng/uL	99
52)	4,6-Dinitro-2-methylphenol	17.11	469	8444	73.44	ng/uL	100
53)	N-Nitrosodiphenylamine	17.14	470	33651	45.39	ng/uL	95
54)	2,4,6-Tribromophenol (SUR)	17.30	475	11674	61.92	ng/uL	99
55)	4-Bromophenyl-phenylether	17.95	495	19663	54.33	ng/uL	84
56)	Pentachloronitrobenzene	18.88	524	4734	4734.00	NO CALIB	100
57)	Hexachlorobenzene	18.17	502	20208	43.70	ng/uL	96
58)	Pentachlorophenol	18.75	520	5046	64.40	ng/uL	100
59)	Phenanthrene	18.95	526	77821	53.15	ng/uL	97
60)	Anthracene	19.08	530	62996	41.58	ng/uL	96
61)	Di-n-Butylphthalate	20.85	585	92600	42.05	ng/uL	98
62)	Fluoranthene	21.86	616	60463	46.30	ng/uL	93
63)	*d12-Chrysene (IS)	25.41	726	22930	40.00	ng/uL	95
64)	Pyrene	22.37	632	61373	44.88	ng/uL	92
65)	Terphenyl-d14 (SUR)	22.99	651	39919	43.87	ng/uL	81
66)	Butylbenzylphthalate	24.47	697	35331	45.23	ng/uL	88
67)	3,3'-Dichlorobenzidine	25.51	729	17064	43.11	ng/uL	97
68)	Benzo(a)Anthracene	25.38	725	52861	41.23	ng/uL	99
69)	Bis(2-Ethylhexyl)Phthalate	26.06	746	49603	51.32	ng/uL	88
70)	Chrysene	25.47	728	41110	46.15	ng/uL	94
71)	*d12-Perylene (IS)	28.61	825	16790	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.48	790	73001	62.85	ng/uL	87
73)	Benzo(b)fluoranthene	27.90	803	86927	50.51	ng/uL	100
74)	Benzo(k)Fluoranthene	27.90	803	86927	50.51	ng/uL	100
75)	Benzo(a)Pyrene	28.51	822	37077	46.99	ng/uL	96
76)	Indeno(1,2,3-cd)Pyrene	30.71	890	43966	46.56	ng/uL	88
77)	Dibenzo(a,h)Anthracene	30.77	892	35097	46.03	ng/uL	96
78)	Benzo(g,h,i)Perylene	31.19	905	36546	45.84	ng/uL	97

* Compound is ISTD



Data File: >B1323::D1 Quant Output File: ^B1323::QT
Name: 80 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871208 09:57

Operator ID: USER6
Quant Time: 871214 11:42
Injected at: 871214 10:45

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.83	429	128760	65.90	ng/uL	92
45)	2,4-Dinitrotoluene	16.12	438	38056	75.76	ng/uL	100
46)	2,6-Dinitrotoluene	15.22	410	27926	66.07	ng/uL	100
47)	Diethylphthalate	16.87	461	137506	82.92	ng/uL	93
48)	4-Chlorophenyl-phenylether	16.80	459	61947	84.19	ng/uL	100
49)	Fluorene	16.67	455	114668	82.83	ng/uL	98
50)	4-Nitroaniline	17.06	467	34934M	91.22	ng/uL	
51)	*d10-Phenanthrene (IS)	18.90	524	42803	40.00	ng/uL	98
52)	4,6-Dinitro-2-methylphenol	17.12	469	20248	146.93	ng/uL	100
53)	N-Nitrosodiphenylamine	17.16	470	46360	52.17	ng/uL	95
54)	2,4,6-Tribromophenol (SUR)	17.32	475	21527	95.28	ng/uL	96
55)	4-Bromophenyl-phenylether	17.97	495	37568	86.60	ng/uL	83
56)	Pentachloronitrobenzene	18.90	524	7709	7709.00	NO CALIB	100
57)	Hexachlorobenzene	18.19	502	33488	60.42	ng/uL	93
58)	Pentachlorophenol	18.77	520	15982	170.20	ng/uL	100
59)	Phenanthrene	18.97	526	151850	86.53	ng/uL	96
60)	Anthracene	19.10	530	128465	70.75	ng/uL	99
61)	Di-n-Butylphthalate	20.87	585	184057	69.74	ng/uL	97
62)	Fluoranthene	21.87	616	123940	79.19	ng/uL	95
63)	*d12-Chrysene (IS)	25.43	726	31065	40.00	ng/uL	97
64)	Pyrene	22.39	632	135138	72.94	ng/uL	92
65)	Terphenyl-d14 (SUR)	23.01	651	86177	69.91	ng/uL	85
66)	Butylbenzylphthalate	24.49	697	85070	80.38	ng/uL	83
67)	3,3'-Dichlorobenzidine	25.53	729	40347	75.23	ng/uL	98
68)	Benzo(a)Anthracene	25.40	725	129463	74.54	ng/uL	98
69)	Bis(2-Ethylhexyl)Phthalate	26.08	746	114336	87.32	ng/uL	92
70)	Chrysene	25.49	728	85296	70.68	ng/uL	97
71)	*d12-Perylene (IS)	28.63	825	24964	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.50	790	169214	97.98	ng/uL	88
73)	Benzo(b)fluoranthene	27.88	802	195795	76.52	ng/uL	100
74)	Benzo(k)Fluoranthene	27.88	802	195795	76.52	ng/uL	100
75)	Benzo(a)Pyrene	28.53	822	91167	77.72	ng/uL	97
76)	Indeno(1,2,3-cd)Pyrene	30.73	890	96359	68.63	ng/uL	89
77)	Dibenzo(a,h)Anthracene	30.79	892	78439	69.20	ng/uL	98
78)	Benzo(g,h,i)Perylene	31.21	905	78732	66.42	ng/uL	96

* Compound is ISTD

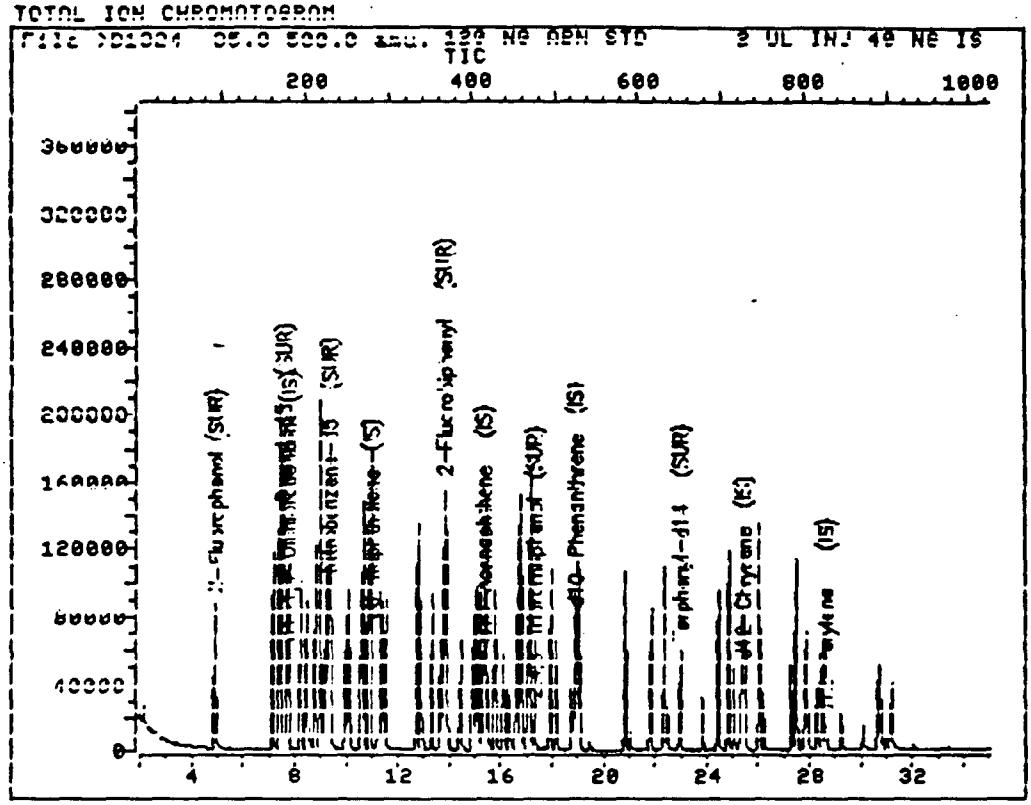
QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871214 12:26
Output File: ^B1324::QT Injected at: 871214 11:46
Data File: >B1324::D1 Dilution Factor: 1.00000
Name: 120 NG ABN STD
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871208 09:57

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.75	179	17384	40.00	ng/uL	94
2)	2-Fluorophenol (SUR)	4.91	91	85178	84.34	ng/uL	100
3)	Phenol-d5 (SUR)	7.56	173	97869	75.24	ng/uL	100
4)	Phenol	7.59	174	123778	85.51	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.17	161	137951M	98.39	ng/uL	
6)	2-Chlorophenol	7.43	169	73237	66.43	ng/uL	99
7)	1,3-Dichlorobenzene	7.62	175	68057	59.68	ng/uL	95
8)	1,4-Dichlorobenzene	7.78	180	65506	55.63	ng/uL	96
9)	Benzyl Alcohol	8.46	201	55505	89.67	ng/uL	88
10)	1,2-Dichlorobenzene	8.24	194	62551	59.58	ng/uL	96
11)	2-Methylphenol	8.98	217	85307	82.01	ng/uL	92
12)	bis(2-Chloroisopropyl)ether	8.79	211	172571	80.88	ng/uL	94
13)	4-Methylphenol	9.40	230	95461	91.74	ng/uL	95
14)	N-Nitroso-Di-n-propylamine	9.21	224	80563M	69.72	ng/uL	95
15)	Hexachloroethane	8.98	217	34857	66.99	ng/uL	99
16)	*d8-Naphthalene (IS)	10.95	278	60794	40.00	ng/uL	88
17)	Nitrobenzene-d5 (SUR)	9.30	227	97280	92.60	ng/uL	94
18)	Nitrobenzene	9.34	228	135980	104.94	ng/uL	84
19)	Isophorone	10.01	249	202090	91.40	ng/uL	95
20)	2-Nitrophenol	10.14	253	46881	93.44	ng/uL	90
21)	2,4-Dimethylphenol	10.60	267	60275	90.67	ng/uL	94
22)	Benzoic Acid	11.40	292	50702	155.95	ng/uL	91
23)	bis(-2-Chloroethoxy)Methane	10.73	271	128588	101.29	ng/uL	91
24)	2,4-Dichlorophenol	10.85	275	61910	99.93	ng/uL	90
25)	1,2,4-Trichlorobenzene	10.92	277	58722	85.00	ng/uL	92
26)	Naphthalene	11.02	280	228410	101.09	ng/uL	98
27)	4-Chloroaniline	11.37	291	84769	78.69	ng/uL	93
28)	Hexachlorobutadiene	11.57	297	29617	69.61	ng/uL	97
29)	4-Chloro-3-methylphenol	12.89	338	78836	99.37	ng/uL	88
30)	2-Methylnaphthalene	12.76	334	125273	99.51	ng/uL	90
31)	*d10-Acenaphthene (IS)	15.35	414	31552	40.00	ng/uL	97
32)	Hexachlorocyclopentadiene	13.34	352	39857	90.69	ng/uL	99
33)	2,4,6-Trichlorophenol	13.83	367	44683	101.22	ng/uL	94
34)	2,4,5-Trichlorophenol	13.83	367	44683	101.22	ng/uL	93
35)	2-Chloronaphthalene	13.92	370	107338	83.35	ng/uL	98
36)	2-Fluorobiphenyl (SUR)	13.83	367	122498	96.03	ng/uL	94
37)	2-Nitroaniline	14.47	387	36486	72.93	ng/uL	87
38)	Dimethyl Phthalate	15.09	406	101881	69.79	ng/uL	100
39)	Acenaphthylene	14.96	402	161434	72.79	ng/uL	93
40)	3-Nitroaniline	15.51	419	33754	84.81	ng/uL	72
41)	Acenaphthene	15.44	417	117792	95.27	ng/uL	94
42)	2,4-Dinitrophenol	15.77	427	11549	189.03	ng/uL	100
43)	4-Nitrophenol	16.32	444	24865	146.11	ng/uL	100

TOTAL ION CHROMOTOGRAM



Data File: >B1324::D1 Quant Output File: ^B1324::QT
Name: 120 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871208 09:57

Operator ID: USER6
Quant Time: 871214 12:26
Injected at: 871214 11:46

QUANT REPORT

Operator ID: USER6
Output File: ^B1325::QT
Data File: >B1325::D1
Name: 160_NG ABN STD
Misc: 2 UL INJ 40 NG IS

Quant Rev: 6

Quant Time: 871214 13:23
Injected at: 871214 12:37
Dilution Factor: 1.00000

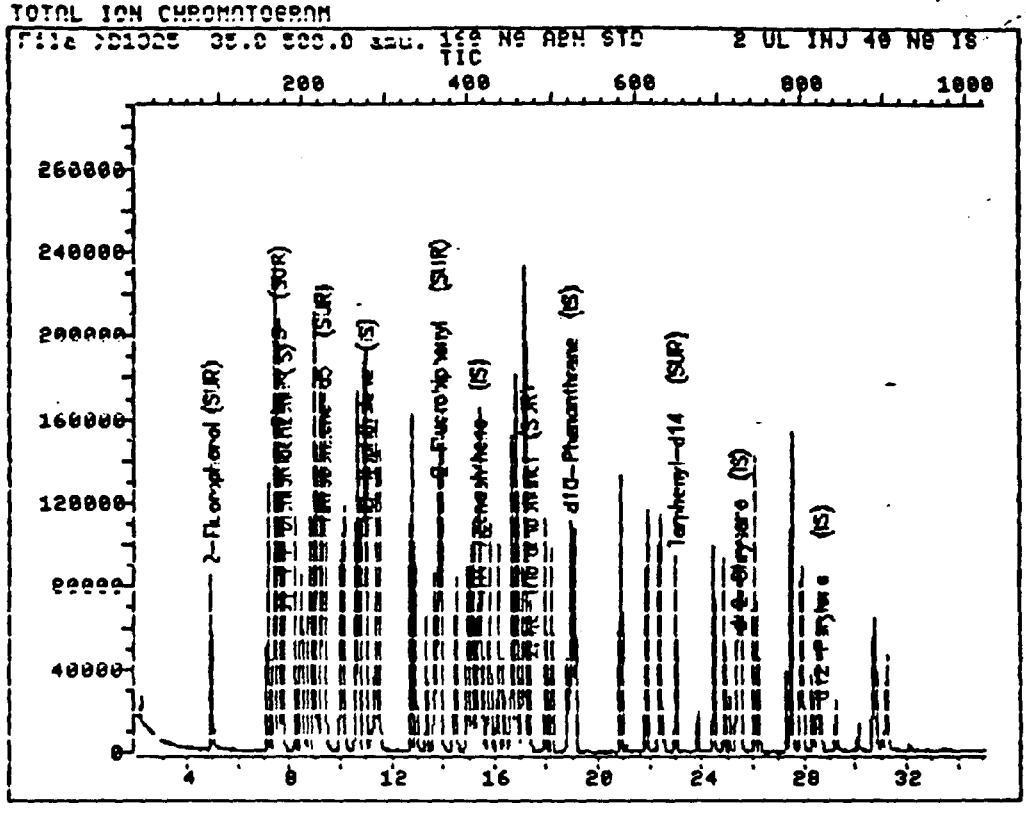
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871208 09:57

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.74	177	17752	40.00	ng/uL	91
2)	2-Fluorophenol (SUR)	4.93	90	96992	94.04	ng/uL	100
3)	Phenol-d5 (SUR)	7.55	171	125990	94.86	ng/uL	100
4)	Phenol	7.58	172	160906	108.86	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.42	167	149467	104.39	ng/uL	85
6)	2-Chlorophenol	7.42	167	97913	86.97	ng/uL	95
7)	1,3-Dichlorobenzene	7.61	173	85467	73.40	ng/uL	95
8)	1,4-Dichlorobenzene	7.78	178	82382	68.51	ng/uL	95
9)	Benzyl Alcohol	8.49	200	71097	112.48	ng/uL	83
10)	1,2-Dichlorobenzene	8.23	192	75431	70.35	ng/uL	98
11)	2-Methylphenol	8.97	215	93179	87.73	ng/uL	91
12)	bis(2-Chloroisopropyl)ether	8.78	209	197356	90.58	ng/uL	87
13)	4-Methylphenol	9.39	228	101652	95.66	ng/uL	95
14)	N-Nitroso-Di-n-propylamine	9.23	223	141306M	119.74	ng/uL	94
15)	Hexachloroethane	8.97	215	42006	79.05	ng/uL	97
16)	*d8-Naphthalene (IS)	10.98	277	65608	40.00	ng/uL	91
17)	Nitrobenzene-d5 (SUR)	9.29	225	133339	117.61	ng/uL	90
18)	Nitrobenzene	9.36	227	186783	133.56	ng/uL	91
19)	Isophorone	10.07	249	268518	112.53	ng/uL	93
20)	2-Nitrophenol	10.17	252	68331M	126.20	ng/uL	
21)	2,4-Dimethylphenol	10.62	266	85031	118.52	ng/uL	93
22)	Benzoic Acid	11.40	290	46268	131.87	ng/uL	92
23)	bis(-2-Chloroethoxy)Methane	10.72	269	159902	116.71	ng/uL	88
24)	2,4-Dichlorophenol	10.88	274	67577	101.08	ng/uL	95
25)	1,2,4-Trichlorobenzene	10.91	275	70631	94.73	ng/uL	93
26)	Naphthalene	11.01	278	227173	93.17	ng/uL	99
27)	4-Chloroaniline	11.40	290	118662	102.07	ng/uL	97
28)	Hexachlorobutadiene	11.56	295	40442	88.08	ng/uL	94
29)	4-Chloro-3-methylphenol	12.88	336	101489	118.53	ng/uL	91
30)	2-Methylnaphthalene	12.75	332	140253	103.23	ng/uL	94
31)	*d10-Acenaphthene (IS)	15.37	413	20335	40.00	ng/uL	99
32)	Hexachlorocyclopentadiene	13.33	350	42800	151.11	ng/uL	98
33)	2,4,6-Trichlorophenol	13.85	366	54248	190.68	ng/uL	91
34)	2,4,5-Trichlorophenol	13.85	366	54248	190.68	ng/uL	95
35)	2-Chloronaphthalene	13.95	369	159294	191.92	ng/uL	99
36)	2-Fluorobiphenyl (SUR)	13.82	365	145519	177.01	ng/uL	94
37)	2-Nitroaniline	14.53	387	65798M	204.06	ng/uL	
38)	Dimethyl Phthalate	15.11	405	121313	128.95	ng/uL	100
39)	Acenaphthylene	14.98	401	148936	104.19	ng/uL	92
40)	3-Nitroaniline	15.53	418	47562M	185.42	ng/uL	97
41)	Acenaphthene	15.47	416	97178	121.95	ng/uL	96
42)	2,4-Dinitrophenol	15.79	426	18396	467.20	ng/uL	100
43)	4-Nitrophenol	16.34	443	33477	305.23	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.86	428	109491	86.95	ng/uL	92
45)	2,4-Dinitrotoluene	16.18	438	43939	135.72	ng/uL	100
46)	2,6-Dinitrotoluene	15.24	409	37358	137.14	ng/uL	100
47)	Diethylphthalate	16.89	460	170253	159.30	ng/uL	92
48)	4-Chlorophenyl-phenylether	16.83	458	79927	168.56	ng/uL	100
49)	Fluorene	16.70	454	143294	160.60	ng/uL	99
50)	4-Nitroaniline	17.08	466	34916	141.47	ng/uL	97
51)	*d10-Phenanthrene (IS)	18.93	523	41732	40.00	ng/uL	98
52)	4,6-Dinitro-2-methylphenol	17.15	468	25965M	193.26	ng/uL	100
53)	N-Nitrosodiphenylamine	17.18	469	78662M	90.80	ng/uL	92
54)	2,4,6-Tribromophenol (SUR)	17.34	474	27655	125.54	ng/uL	97
55)	4-Bromophenyl-phenylether	17.96	493	42523	100.54	ng/uL	84
56)	Pentachloronitrobenzene	18.93	523	6980	6980.00	NO CALIB	100
57)	Hexachlorobenzene	18.22	501	49149	90.96	ng/uL	92
58)	Pentachlorophenol	18.80	519	22262	243.16	ng/uL	100
59)	Phenanthrene	18.99	525	201309	117.66	ng/uL	99
60)	Anthracene	19.09	528	138719	78.36	ng/uL	98
61)	Di-n-Butylphthalate	20.90	584	269908	104.90	ng/uL	96
62)	Fluoranthene	21.90	615	172600	113.11	ng/uL	96
63)	*d12-Chrysene (IS)	25.45	725	30348	40.00	ng/uL	93
64)	Pyrene	22.38	630	158396	87.51	ng/uL	97
65)	Terphenyl-d14 (SUR)	23.03	650	119401	99.15	ng/uL	86
66)	Butylbenzylphthalate	24.48	695	94351	91.26	ng/uL	85
67)	3,3'-Dichlorobenzidine	25.55	728	55173	105.31	ng/uL	97
68)	Benzo(a)Anthracene	25.42	724	183860	108.36	ng/uL	97
69)	Bis(2-Ethylhexyl)Phthalate	26.10	745	143396	112.11	ng/uL	97
70)	Chrysene	25.49	726	86354	73.24	ng/uL	95
71)	*d12-Perylene (IS)	28.65	824	26636	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.52	789	243980	132.40	ng/uL	86
73)	Benzo(b)fluoranthene	27.94	802	259548	95.07	ng/uL	100
74)	Benzo(k)Fluoranthene	27.94	802	259548	95.07	ng/uL	100
75)	Benzo(a)Pyrene	28.56	821	122886	98.18	ng/uL	96
76)	Indeno(1,2,3-cd)Pyrene	30.75	889	135484	90.44	ng/uL	90
77)	Dibenzo(a,h)Anthracene	30.82	891	107880	89.19	ng/uL	98
78)	Benzo(g,h,i)Perylene	31.24	904	110499	87.37	ng/uL	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1325::D1 Quant Output File: ^B1325::QT
Name: 160 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871208 09:57

Operator ID: USER6
Quant Time: 871214 13:23
Injected at: 871214 12:37

Continuing Calibration Check
MSL Compounds

Case No: _____ Calibration Date: 12/15/87

Contractor: BCM Time: 08:06

Contract No: _____ Laboratory ID: >B1327

Instrument ID: #1 Initial Calibration Date: 12/14/87

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % Diff for CCC is 25.0%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
2-Fluorophenol (SUR)	2.76557	2.95928	7.00		
Phenol-d5 (SUR)	4.15011	4.95299	19.35		
Phenol	4.62894	4.76372	2.91	*	
bis(-2-Chloroethyl)Ether	4.61941	4.55394	1.42		
2-Chlorophenol	3.01052	3.13916	3.20		
1,3-Dichlorobenzene	2.72780	3.23210	18.48		
1,4-Dichlorobenzene	2.72391	2.85230	4.72	*	
Benzyl Alcohol	1.97279	1.97950	.34		
1,2-Dichlorobenzene	2.50310	2.65205	4.86		
2-Methylphenol	3.05645	3.25164	6.39		
bis(2-Chloroisopropyl)ether	6.54337	6.50883	.65		
4-Methylphenol	3.14516	3.72500	18.42		
N-Nitroso-Di-n-propylamine	3.47193	3.44256	.85		**
Hexachloroethane	1.44608	1.54036	6.52		
Nitrobenzene-d5 (SUR)	1.07055	.97819	8.80		
Nitrobenzene	1.42750	1.51164	5.89		
Isophorone	[illegible]	[illegible]	2.94		
2-Nitrophenol	.45174	.47122	1.55	*	
2,4-Dimethylphenol	.58600	.61950	7.29		
Benzoic Acid	.33804	.39446	16.73		
bis(-2-Chloroethoxy)Methane	1.13664	1.34442	17.97		
2,4-Dichlorophenol	.59419	.60964	2.60		
1,2,4-Trichlorobenzene	.61688	.53325	13.56		
Naphthalene	2.20038	1.83641	16.54		
4-Chloroaniline	.93457	.93027	.46		
Hexachlorobutadiene	.34203	.27310	20.15	*	
4-Chloro-3-methylphenol	.73092	.72444	.89	*	
2-Methylnaphthalene	1.22990	1.09664	10.83		
Hexachlorocyclopentadiene	.83900	.65609	21.79		**
2,4,6-Trichlorophenol	.96048	.85109	11.39	*	
2,4,5-Trichlorophenol	.96048	.85109	11.39		
2-Chloronaphthalene	2.76378	2.23738	19.05		

RF - Response Factor from daily standard file at 25.00 ng/ul

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: | Calibration Date: 12/15/87

Contractor: BCM | Time: 09:06

Contract No: | Laboratory ID: >81327

Instrument ID: #1 | Initial Calibration Date: 12/14/87

Minimum $\overline{RF}$ for SPCC is 0.05 | Maximum % Diff for CCC is 25.0%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
2-Fluorobiphenyl (SUR)	2.75420	1.95359	29.07		
2-Nitroaniline	1.02439	.96620	5.68		
Dimethyl Phthalate	2.59207	2.85112	9.99		
Acenaphthylene	3.62326	3.28097	9.45		
3-Nitroaniline	.77346	.77759	.53		
Acenaphthene	2.46165	2.29408	6.81	*	
2,4-Dinitrophenol	.23190	.15572	32.59		**
4-Nitrophenol	.53492	.47920	10.17		**
Dibenzofuran	2.79439	2.82640	1.15		
2,4-Dinitrotoluene	.79956	.80369	1.66		
2,6-Dinitrotoluene	.62082	.62084	.13		
Diethylphthalate	2.95561	3.26812	10.42		
4-Chlorophenyl-phenylether	1.33521	1.06259	20.45		
Fluorene	2.51531	2.09434	16.74		
4-Nitroaniline	.57201	.63012	9.05		
4,6-Dinitro-2-methylphenol	.23.19	.25510	9.86		
n-Nitrosodiphenylamine	.5[illegible]	1.05050	12.30	*	
2,4,6-Tribromophenol (SUR)	.34156	.38515	12.73		
Pentachloronitrobenzene	.1.277	.11200	.13		
4-Bromophenyl-phenylether	.57150	.51132	10.50		
Hexachlorobenzene	.61663	.60500	1.24		
Pentachlorophenol	.19939	.16530	17.10	*	
Phenanthrene	2.38778	2.34497	1.79		
Anthracene	2.08128	2.07234	.43		
Di-n-Butylphthalate	3.05006	4.70131	54.10		
Fluoranthene	1.91058	1.91072	.01	*	
Pyrene	2.99437	2.81191	6.09		
Terphenyl-d14 (SUR)	2.04798	2.00100	2.29		
Butylbenzylphthalate	1.67402	2.01797	20.55		
3,3'-Dichlorobenzidine	.82612	.73533	10.99		
Benzo(a)Anthracene	2.73396	2.66813	2.41		
Bis(2-Ethylhexyl)Phthalate	2.64242	3.78320	43.17		

RF - Response Factor from daily standard file at 25.00 ng/uL

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 12/15/87

Contractor: BCM Time: 08:06

Contract No: _____ Laboratory ID: >B1327

Instrument ID: X1 Initial Calibration Date: 12/14/87

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % Diff for CCC is 25.0%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
Chrysene	1.92801	1.69095	12.30		
Di-n-octyl phthalate	4.54204	3.44492	24.17	*	
Benzo(b)fluoranthene	5.42890	5.12829	5.54		
Benzo(k)fluoranthene	5.42890	5.12829	5.54		
Benzo(a)Pyrene	2.44109	2.30048	5.76	*	
Indeno(1,2,3-cd)Pyrene	2.76060	2.53701	8.10		
Dibenzo(a,h)Anthracene	2.19763	2.04227	7.07		
Benzo(g,h,i)Perylene	2.21321	2.06262	6.83		

RF - Response Factor from daily standard file at 25.00 ng/uL

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871215 08:42
Output File: ^B1327::QT Injected at: 871215 08:06
Data File: >B1327::D1 Dilution Factor: 1.00000
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

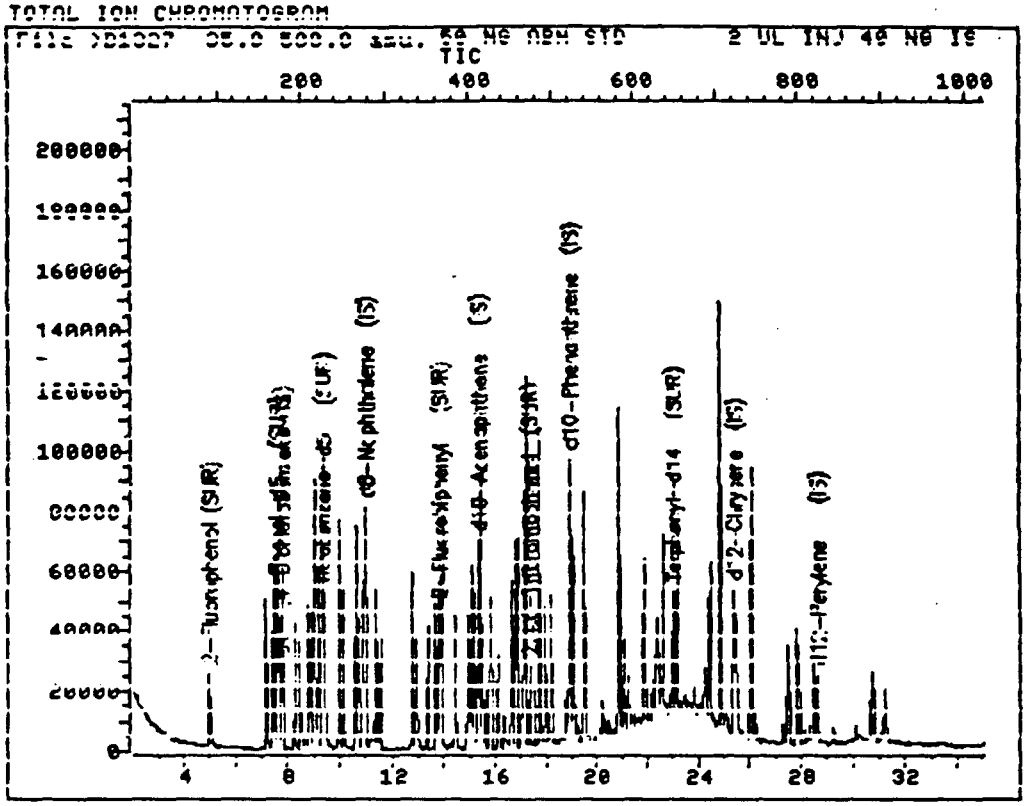
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.77	178	16451	40.00	ng/uL	96
2)	2-Fluorophenol (SUR)	4.99	92	30427	26.75	ng/uL	100
3)	Phenol-d5 (SUR)	7.58	172	50926	29.84	ng/uL	100
4)	Phenol	7.61	173	48980	25.73	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.45	168	46823	24.65	ng/uL	93
6)	2-Chlorophenol	7.48	169	31968	25.82	ng/uL	95
7)	1,3-Dichlorobenzene	7.67	175	33232	29.62	ng/uL	96
8)	1,4-Dichlorobenzene	7.83	180	29327	26.18	ng/uL	93
9)	Benzyl Alcohol	8.45	199	20353	25.09	ng/uL	87
10)	1,2-Dichlorobenzene	8.29	194	27268	26.22	ng/uL	90
11)	2-Methylphenol	9.00	216	33433	26.60	ng/uL	99
12)	bis(2-Chloroisopropyl)ether	8.80	210	67725	25.16	ng/uL	91
13)	4-Methylphenol	9.39	228	38300	29.61	ng/uL	98
14)	N-Nitroso-Di-n-propylamine	9.19	222	35396	24.79	ng/uL	87
15)	Hexachloroethane	9.00	216	15838	26.63	ng/uL	96
16)	*d8-Naphthalene (IS)	10.97	277	69953	40.00	ng/uL	89
17)	Nitrobenzene-d5 (SUR)	9.32	226	42767	22.80	ng/uL	89
18)	Nitrobenzene	9.35	227	66090	26.47	ng/uL	92
19)	Isophorone	10.00	247	87020	24.26	ng/uL	90
20)	2-Nitrophenol	10.16	252	20735M	24.61	ng/uL	
21)	2,4-Dimethylphenol	10.61	266	27076	23.18	ng/uL	88
22)	Benzoic Acid	11.32	288	16809	28.43	ng/uL	97
23)	bis(-2-Chloroethoxy)Methane	10.71	269	44351	20.51	ng/uL	84
24)	2,4-Dichlorophenol	10.87	274	26654	25.65	ng/uL	91
25)	1,2,4-Trichlorobenzene	10.90	275	23314	21.61	ng/uL	93
26)	Naphthalene	11.00	278	80289	20.86	ng/uL	96
27)	4-Chloroaniline	11.39	290	40672	24.89	ng/uL	97
28)	Hexachlorobutadiene	11.55	295	11940	19.96	ng/uL	87
29)	4-Chloro-3-methylphenol	12.91	337	31673	24.78	ng/uL	88
30)	2-Methylnaphthalene	12.75	332	47946	22.29	ng/uL	96
31)	*d10-Acenaphthene (IS)	15.36	413	38377	40.00	ng/uL	99
32)	Hexachlorocyclopentadiene	13.36	351	15756	19.55	ng/uL	98
33)	2,4,6-Trichlorophenol	13.84	366	20414	22.15	ng/uL	88
34)	2,4,5-Trichlorophenol	13.84	366	20414	22.15	ng/uL	91
35)	2-Chloronaphthalene	13.94	369	53665	20.24	ng/uL	93
36)	2-Fluorobiphenyl (SUR)	13.81	365	46858	17.73	ng/uL	96
37)	2-Nitroaniline	14.46	385	23175	23.58	ng/uL	82
38)	Dimethyl Phthalate	15.07	404	68386	27.50	ng/uL	100
39)	Acenaphthylene	14.94	400	78696	22.64	ng/uL	94
40)	3-Nitroaniline	15.49	417	18651	25.13	ng/uL	71
41)	Acenaphthene	15.43	415	55025	23.30	ng/uL	97
42)	2,4-Dinitrophenol	15.75	425	3735	16.85	ng/uL	100
43)	4-Nitrophenol	16.33	443	11494	27.54	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.82	427	67793	25.29	ng/uL	88
45)	2,4-Dinitrotoluene	16.14	437	19277	25.42	ng/uL	100
46)	2,6-Dinitrotoluene	15.20	408	14872	24.97	ng/uL	100
47)	Diethylphthalate	16.85	459	78388	27.60	ng/uL	92
48)	4-Chlorophenyl-phenylether	16.79	457	25487	19.89	ng/uL	100
49)	Fluorene	16.66	453	50234	20.82	ng/uL	97
50)	4-Nitroaniline	17.04	465	16553	27.26	ng/uL	91
51)	*d10-Phenanthrene (IS)	18.92	523	52579	40.00	ng/uL	98
52)	4,6-Dinitro-2-methylphenol	17.11	467	8383	27.47	ng/uL	100
53)	N-Nitrosodiphenylamine	17.17	469	35836	28.08	ng/uL	91
54)	2,4,6-Tribromophenol (SUR)	17.34	474	12601	28.03	ng/uL	94
55)	4-Bromophenyl-phenylether	17.95	493	16793	22.37	ng/uL	89
56)	Pentachloronitrobenzene	18.92	523	3710	25.03	ng/uL	100
57)	Hexachlorobenzene	18.21	501	20013	24.69	ng/uL	98
58)	Pentachlorophenol	18.79	519	5432	20.73	ng/uL	100
59)	Phenanthrene	18.98	525	77060	24.55	ng/uL	98
60)	Anthracene	19.08	528	68101	24.89	ng/uL	99
61)	Di-n-Butylphthalate	20.89	584	154494	38.52	ng/uL	97
62)	Fluoranthene	21.89	615	62790	25.00	ng/uL	97
63)	*d12-Chrysene (IS)	25.42	724	32351	40.00	ng/uL	96
64)	Pyrene	22.38	630	56855	23.48	ng/uL	95
65)	Terphenyl-d14 (SUR)	23.03	650	40459	24.43	ng/uL	86
66)	Butylbenzylphthalate	24.48	695	40802	30.14	ng/uL	81
67)	3,3'-Dichlorobenzidine	25.55	728	14868	22.25	ng/uL	98
68)	Benzo(a)Anthracene	25.39	723	53948	24.40	ng/uL	97
69)	Bis(2-Ethylhexyl)Phthalate	26.10	745	76494	35.79	ng/uL	98
70)	Chrysene	25.48	726	34190	21.93	ng/uL	98
71)	*d12-Perylene (IS)	28.65	824	26503	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.52	789	57063	18.96	ng/uL	86
73)	Benzo(b)fluoranthene	27.88	800	84947	23.62	ng/uL	100
74)	Benzo(k)Fluoranthene	27.88	800	84947	23.62	ng/uL	100
75)	Benzo(a)Pyrene	28.52	820	38106	23.56	ng/uL	94
76)	Indeno(1,2,3-cd)Pyrene	30.72	888	42024	22.98	ng/uL	93
77)	Dibenzo(a,h)Anthracene	30.78	890	33829	23.23	ng/uL	94
78)	Benzo(g,h,i)Perylene	31.24	904	34166	23.29	ng/uL	87

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1327::D1 Quant Output File: ^B1327::QT
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

Operator ID: USER6
Quant Time: 871215 08:42
Injected at: 871215 08:06

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 12/16/87

Contractor: BCM Time: 09:02

Contract No: Laboratory ID: >B1337

Instrument ID: #1 Initial Calibration Date: 12/14/87

Minimum RF for SPCC is 0.05 Maximum % Diff for CCC is 25.0%

Compound	RF	RF	%Diff	CCC	SPCC
2-Fluorophenol (SUR)	2.76557	2.22094	19.69		
Phenol-d5 (SUR)	4.15011	4.27754	3.07		
Phenol	4.62894	4.05378	12.43	*	
bis(-2-Chloroethyl)Ether	4.61941	5.06713	9.69		
2-Chlorophenol	3.01052	2.89201	3.94		
1,3-Dichlorobenzene	2.72789	2.89276	6.04		
1,4-Dichlorobenzene	2.72381	2.54102	6.71	*	
Benzyl Alcohol	1.97279	2.04863	3.84		
1,2-Dichlorobenzene	2.52910	2.53080	.07		
2-Methylphenol	3.05645	3.36472	10.09		
bis(2-Chloroisopropyl)ether	6.54397	5.94191	9.20		
4-Methylphenol	3.14546	3.69379	17.43		
N-Nitroso-Di-n-propylamine	3.47193	3.42609	1.32		**
Hexachloroethane	1.44606	1.45139	.37		
Nitrobenzene-d5 (SUR)	1.07258	.87820	18.12		
Nitrobenzene	1.42750	1.36799	4.17		
Isophorone	2.05066	1.76447	13.96		
2-Nitrophenol	.48174	.40151	16.65	*	
2,4-Dimethylphenol	.66803	.50448	24.48		
Benzoic Acid	.33804	.22370	33.82		
bis(-2-Chloroethoxy)Methane	1.23664	.95212	23.01		
2,4-Dichlorophenol	.59419	.52444	11.74		
1,2,4-Trichlorobenzene	.61688	.53176	13.80		
Naphthalene	2.20038	1.80566	17.94		
4-Chloroaniline	.93457	.87681	6.18		
Hexachlorobutadiene	.34203	.26382	22.87	*	
4-Chloro-3-methylphenol	.73092	.64690	11.50	*	
2-Methylnaphthalene	1.22990	1.03794	15.61		
Hexachlorocyclopentadiene	.83986	.70308	16.29		**
2,4,6-Trichlorophenol	.96048	.89127	7.21	*	
2,4,5-Trichlorophenol	.96048	.89127	7.21		
2-Chloronaphthalene	2.76378	2.42194	12.37		

RF - Response Factor from daily standard file at 25.00 ng/uL

RF - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 12/16/87

Contractor: BCM Time: 09:02

Contract No: Laboratory ID: >B1337

Instrument ID: #1 Initial Calibration Date: 12/14/87

Minimum RF for SPCC is 0.05 Maximum % Diff for CCC is 25.0%

Compound	RF	RF	%Diff	CCC	SPCC
2-Fluorobiphenyl (SUR)	2.75420	2.46724	10.42		
2-Nitroaniline	1.02439	.99377	2.99		
Dimethyl Phthalate	2.59207	3.00989	16.12		
Acenaphthylene	3.62326	3.51344	3.03		
3-Nitroaniline	.77346	.81958	5.96		
Acenaphthene	2.46165	2.58944	5.19	*	
2,4-Dinitrophenol	.23100	.10584	54.18		**
4-Nitrophenol	.43498	.33953	21.95		**
Dibenzofuran	2.79439	2.82903	1.24		
2,4-Dinitrotoluene	.79056	.87815	11.08		
2,6-Dinitrotoluene	.62082	.69885	12.57		
Diethylphthalate	2.95981	3.05893	3.35		
4-Chlorophenyl-phenylether	1.33571	1.10702	17.12		
Fluorene	2.51531	2.25070	10.52		
4-Nitroaniline	.63282	.70932	12.09		
4,6-Dinitro-2-methylphenol	.23219	.18428	20.64		
N-Nitrosodiphenylamine	.97103	.90368	6.94	*	
2,4,6-Tribromophenol (SUR)	.34196	.26835	21.53		
Pentachloronitrobenzene	.11277	.11158	1.05		
4-Bromophenyl-phenylether	.57100	.49629	13.08		
Hexachlorobenzene	.61663	.53454	13.31		
Pentachlorophenol	.19939	.10301	48.34	*	
Phenanthrene	2.38778	2.10392	11.89		
Anthracene	2.08128	1.89845	8.78		
Di-n-Butylphthalate	3.05086	2.75196	9.80		
Fluoranthene	1.91058	1.80523	5.51	*	
Pyrene	2.99437	2.28837	23.58		
Terphenyl-d14 (SUR)	2.04798	1.59955	21.90		
Butylbenzylphthalate	1.67402	1.27099	24.08		
3,3'-Dichlorobenzidine	.82612	.70544	14.61		
Benzo(a)Anthracene	2.73396	2.27370	16.83		
Bis(2-Ethylhexyl)Phthalate	2.64242	2.07692	21.40		

RF - Response Factor from daily standard file at 25.00 ng/uL

RF - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 12/16/87

Contractor: BCM Time: 09:02

Contract No: Laboratory ID: >B1337

Instrument ID: #1 Initial Calibration Date: 12/14/87

Minimum RF for SPCC is 0.05 Maximum % Diff for CCC is 25.0%

Compound	RF	RF	%Diff	CCC	SPCC
Chrysene	1.92801	1.58631	17.72		
Di-n-octyl phthalate	4.54284	3.49348	23.10	*	
Benzo(b)fluoranthene	5.42890	4.78394	11.88		
Benzo(k)Fluoranthene	5.42890	4.78394	11.88		
Benzo(a)Pyrene	2.44109	2.25121	7.78	*	
Indeno(1,2,3-cd)Pyrene	2.76060	2.70129	2.15		
Dibenzo(a,h)Anthracene	2.19763	2.11247	3.88		
Benzo(g,h,i)Perylene	2.21381	2.22260	.40		

RF - Response Factor from daily standard file at 25.00 ng/uL

RF - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871216 09:43
Output File: ^B1337::QT Injected at: 871216 09:02
Data File: >B1337::D1 Dilution Factor: 1.00000
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

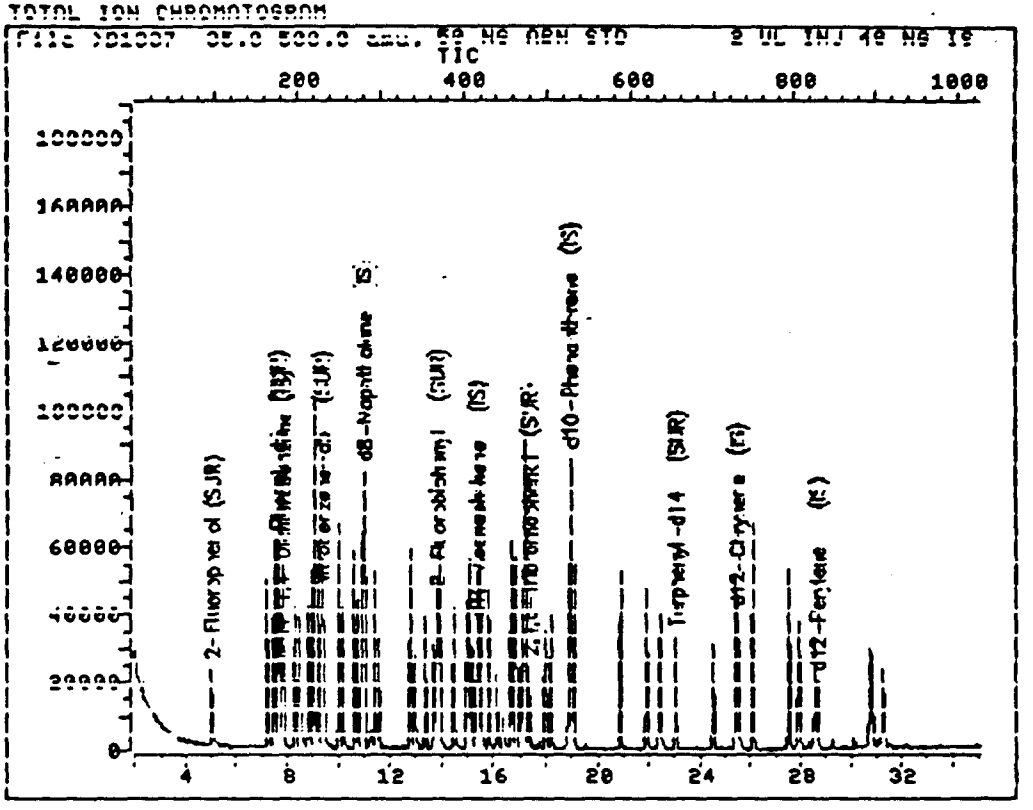
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.80	181	17076	40.00	ng/uL	94
2)	2-Fluorophenol (SUR)	5.02	95	23703	20.08	ng/uL	100
3)	Phenol-d5 (SUR)	7.61	175	45652	25.77	ng/uL	100
4)	Phenol	7.64	176	43264	21.89	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.22	163	54079M	27.42	ng/uL	
6)	2-Chlorophenol	7.48	171	30865	24.02	ng/uL	98
7)	1,3-Dichlorobenzene	7.70	178	30873	26.51	ng/uL	96
8)	1,4-Dichlorobenzene	7.86	183	27119	23.32	ng/uL	93
9)	Benzyl Alcohol	8.48	202	21864	25.96	ng/uL	86
10)	1,2-Dichlorobenzene	8.32	197	27010	25.02	ng/uL	88
11)	2-Methylphenol	9.03	219	35910	27.52	ng/uL	91
12)	bis(2-Chloroisopropyl)ether	8.83	213	63415	22.70	ng/uL	90
13)	4-Methylphenol	9.42	231	39422	29.36	ng/uL	97
14)	N-Nitroso-Di-n-propylamine	9.22	225	36565	24.67	ng/uL	85
15)	Hexachloroethane	9.03	219	15490	25.09	ng/uL	98
16)	*d8-Naphthalene (IS)	11.00	280	73419	40.00	ng/uL	89
17)	Nitrobenzene-d5 (SUR)	9.35	229	40298	20.47	ng/uL	96
18)	Nitrobenzene	9.38	230	62773	23.96	ng/uL	96
19)	Isophorone	10.03	250	80966	21.51	ng/uL	90
20)	2-Nitrophenol	10.19	255	18424	20.84	ng/uL	77
21)	2,4-Dimethylphenol	10.64	269	23149	18.88	ng/uL	85
22)	Benzoic Acid	11.29	289	10265	16.54	ng/uL	90
23)	bis(-2-Chloroethoxy)Methane	10.74	272	43690	19.25	ng/uL	86
24)	2,4-Dichlorophenol	10.90	277	24065	22.07	ng/uL	94
25)	1,2,4-Trichlorobenzene	10.93	278	24401	21.55	ng/uL	96
26)	Naphthalene	11.03	281	82856	20.52	ng/uL	98
27)	4-Chloroaniline	11.42	293	40234	23.45	ng/uL	97
28)	Hexachlorobutadiene	11.58	298	12106	19.28	ng/uL	92
29)	4-Chloro-3-methylphenol	12.94	340	29684	22.13	ng/uL	85
30)	2-Methylnaphthalene	12.78	335	47628	21.10	ng/uL	94
31)	*d10-Acenaphthene (IS)	15.36	415	32563	40.00	ng/uL	99
32)	Hexachlorocyclopentadiene	13.39	354	14309	20.93	ng/uL	99
33)	2,4,6-Trichlorophenol	13.87	369	18139	23.20	ng/uL	88
34)	2,4,5-Trichlorophenol	13.87	369	18139	23.20	ng/uL	93
35)	2-Chloronaphthalene	13.97	372	49291	21.91	ng/uL	95
36)	2-Fluorobiphenyl (SUR)	13.84	368	50213	22.40	ng/uL	95
37)	2-Nitroaniline	14.49	388	20225M	24.25	ng/uL	
38)	Dimethyl Phthalate	15.10	407	61257	29.03	ng/uL	100
39)	Acenaphthylene	14.97	403	71505	24.24	ng/uL	94
40)	3-Nitroaniline	15.52	420	16680	26.49	ng/uL	91
41)	Acenaphthene	15.46	418	52700	26.30	ng/uL	97
42)	2,4-Dinitrophenol	15.81	429	2154	11.45	ng/uL	100
43)	4-Nitrophenol	16.36	446	6910	19.51	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.85	430	57576	25.31	ng/uL	89
45)	2,4-Dinitrotoluene	16.14	439	17872	27.77	ng/uL	100
46)	2,6-Dinitrotoluene	15.20	410	14223	28.14	ng/uL	100
47)	Diethylphthalate	16.88	462	62255	25.84	ng/uL	90
48)	4-Chlorophenyl-phenylether	16.81	460	22530	20.72	ng/uL	100
49)	Fluorene	16.69	456	45806	22.37	ng/uL	97
50)	4-Nitroaniline	17.04	467	14436	28.02	ng/uL	83
51)	*d10-Phenanthrene (IS)	18.95	526	52624	40.00	ng/uL	97
52)	4,6-Dinitro-2-methylphenol	17.14	470	6061	19.84	ng/uL	100
53)	N-Nitrosodiphenylamine	17.17	471	29722	23.27	ng/uL	90
54)	2,4,6-Tribromophenol (SUR)	17.36	477	8826	19.62	ng/uL	93
55)	4-Bromophenyl-phenylether	17.98	496	16323	21.73	ng/uL	90
56)	Pentachloronitrobenzene	18.95	526	3670	24.74	ng/uL	100
57)	Hexachlorobenzene	18.24	504	17581	21.67	ng/uL	95
58)	Pentachlorophenol	18.82	522	3388	12.92	ng/uL	100
59)	Phenanthrene	19.01	528	69198	22.03	ng/uL	96
60)	Anthracene	19.11	531	62440	22.80	ng/uL	95
61)	Di-n-Butylphthalate	20.92	587	90512	22.55	ng/uL	96
62)	Fluoranthene	21.92	618	59374	23.62	ng/uL	97
63)	*d12-Chrysene (IS)	25.47	728	39279	40.00	ng/uL	91
64)	Pyrene	22.44	634	56178	19.11	ng/uL	84
65)	Terphenyl-d14 (SUR)	23.05	653	39268	19.53	ng/uL	85
66)	Butylbenzylphthalate	24.50	698	31202	18.98	ng/uL	81
67)	3,3'-Dichlorobenzidine	25.57	731	17318	21.35	ng/uL	96
68)	Benzo(a)Anthracene	25.44	727	55818	20.79	ng/uL	97
69)	Bis(2-Ethylhexyl)Phthalate	26.12	748	50987	19.65	ng/uL	92
70)	Chrysene	25.50	729	38943	20.57	ng/uL	93
71)	*d12-Perylene (IS)	28.67	827	34286	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.54	792	71572M	18.38	ng/uL	87
73)	Benzo(b)fluoranthene	27.96	805	97999	21.06	ng/uL	100
74)	Benzo(k)Fluoranthene	27.96	805	97999	21.06	ng/uL	100
75)	Benzo(a)Pyrene	28.57	824	46116	22.04	ng/uL	97
76)	Indeno(1,2,3-cd)Pyrene	30.77	892	55336	23.39	ng/uL	94
77)	Dibenzo(a,h)Anthracene	30.83	894	43274	22.97	ng/uL	95
78)	Benzo(g,h,i)Perylene	31.29	908	45530	23.99	ng/uL	97

* Compound is ISTD

TOTAL ION CHROMOTOGRAM



Data File: >B1337::D1 Quant Output File: ^B1337::QT
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

Operator ID: USER6
Quant Time: 871216 09:43
Injected at: 871216 09:02

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 01

Contractor: BCM Calibration Date: 12/17/87

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % RSD for CCC is 30.0%

Laboratory ID:	>81348	>81347	>81349	>81350	>81351					
Compound	RF 10.00	RF 25.00	RF 40.00	RF 60.00	RF 80.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
2-fluorophenol (SUR)	2.33402	3.16884	2.22951	2.58827	2.57447	.636	2.57902	14.117		
Phenol-d5 (SUR)	4.32443	5.37699	2.65835	3.24538	3.35570	.974	3.79217	28.186		
Phenol	4.52594	5.02567	3.41551	3.79324	3.76642	.978	4.10616	15.949	*	
bis(-2-Chloroethyl)Ether	6.21811	5.92803	3.45028	4.84853	3.35102	.943	4.75919	28.188		
2-Chlorophenol	3.57556	3.19773	2.20897	2.37563	2.75781	.959	2.82314	20.101		
1,3-Dichlorobenzene	3.30922	3.90704	2.38311	2.31279	2.65440	.986	2.91331	23.363		
1,4-Dichlorobenzene	3.25903	3.87499	2.60917	2.23638	2.79896	1.005	2.95391	21.369	*	
Benzyl Alcohol	2.05261	2.73358	1.76183	1.75410	1.93872	1.087	2.04817	19.686		
1,2-Dichlorobenzene	3.20564	3.61204	2.57105	2.05122	2.47052	1.063	2.78209	22.332		
2-Methylphenol	3.44787	3.29180	2.13861	2.51277	2.42440	1.160	2.76109	20.689		
bis(2-Chloroisopropyl)ether	7.89368	5.34023	6.10655	6.12750	5.89066	1.134	7.07172	21.258		
4-Methylphenol	2.89675	3.51857	2.28641	2.82792	2.70878	1.209	2.84609	15.578		
N-Nitroso-Di-n-propylamine	3.64625	3.94103	3.32079	3.42443	2.37092	1.163	3.34068	17.720		**
Hexachloroethane	1.75778	1.76529	1.36952	1.31075	1.24023	1.157	1.48871	17.010		
Nitrobenzene-d5 (SUR)	1.26142	1.31050	1.01126	1.03794	1.04658	.849	1.13364	12.412		
Nitrobenzene	1.19054	1.75077	1.47752	1.37297	1.58881	.853	1.47652	14.424		
Isophorone	2.75761	2.99745	1.95347	2.01407	2.13845	.913	2.27343	16.916		
2-Nitrophenol	.45541	.47827	.38250	.44783	.42156	.936	.43718	8.353	*	
2,4-Dimethylphenol	.64141	.73321	.49159	.65329	.56506	.968	.61691	14.910		
Benzoic Acid	-	.31025	.21206	.38634	.38614	1.032	.32621	25.200		
bis(-2-Chloroethoxy)Methane	1.52343	1.66715	1.04197	1.30180	1.23764	.978	1.35045	17.907		
2,4-Dichlorophenol	.57077	.58626	.42156	.54406	.51847	.992	.52822	12.306		
1,2,4-Trichlorobenzene	.82922	.73902	.57424	.56894	.58253	.995	.65891	18.024		
Naphthalene	2.96093	2.74410	2.06743	1.89573	2.41065	1.004	2.41577	18.475		
4-Chloroaniline	1.19550	1.20302	.80982	.91183	.83308	1.038	.99065	19.600		
Hexachlorobutadiene	.39136	.48355	.29743	.30148	.33502	1.054	.36257	21.362	*	
4-Chloro-3-methylphenol	.76308	.71995	.58537	.71224	.68964	1.175	.69405	9.556	*	
2-Methylnaphthalene	1.56179	1.64915	1.16287	1.05952	1.27874	1.163	1.34241	18.938		
Hexachlorocyclopentadiene	.85222	.82187	.64638	.74230	.67127	.870	.74681	12.081		**
2,4,6-Trichlorophenol	.80489	.85681	.57553	.81259	.60645	.902	.73125	17.781	*	

RF - Response Factor (Subscript is amount in ng/uL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

Case No: Instrument ID: 81

Contractor: BCM Calibration Date: 12/17/87

Contract No:

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % RSD for CCC is 30.0%

Laboratory ID: >B1348 >B1347 >B1349 >B1350 >B1351

Compound	RF 10.00	RF 25.00	RF 40.00	RF 60.00	RF 80.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
2,4,5-Trichlorophenol	.80489	.85681	.57553	.81259	.60645	.902	.73125	17.781		
2-Chloronaphthalene	2.76366	2.90577	2.10614	2.38649	1.97535	.907	2.42748	16.621		
2-fluorobiphenyl (SUR)	3.43383	2.97696	2.22398	2.03444	2.12256	.900	2.55835	24.079		
2-Nitroaniline	1.11860	1.15051	.96474	.92421	.84687	.942	1.00099	12.944		
Dimethyl Phthalate	3.12029	3.21891	2.67854	2.49463	2.38693	.982	2.77986	13.396		
Acenaphthylene	4.72362	4.54961	3.27086	3.54446	3.11146	.974	3.84001	19.428		
3-Nitroaniline	.80268	1.01327	.73029	.74879	.69585	1.010	.79818	15.823		
Acenaphthene	3.03275	2.55974	2.32492	2.09121	1.72377	1.005	2.34848	21.014	*	
2,4-Dinitrophenol	-	.17176	.10596	.21586	.18953	1.027	.17078	27.437		**
4-Nitrophenol	.14031	.49259	.29313	.49982	.37175	1.065	.35752	41.350		**
Dibenzofuran	3.34147	3.91365	2.80069	2.14455	2.64539	1.031	3.28915	18.552		
2,4-Dinitrotoluene	.80556	1.05671	.77277	.88638	.67333	1.051	.84495	18.371		
2,6-Dinitrotoluene	.81015	.90353	.57823	.71776	.37164	.989	.67626	30.815		
Diethylphthalate	3.29589	3.59391	2.69189	2.70212	2.41504	1.097	2.93977	16.560		
4-Chlorophenyl-phenylether	1.44350	1.51572	1.01110	1.07851	.99499	1.094	1.20877	20.726		
Fluorene	3.11527	3.23745	1.98820	2.18412	2.00389	1.085	2.50659	24.714		
4-Nitroaniline	.59178	.94696	.56939	.71351	.60810	1.109	.68742	23.145		
4,6-Dinitro-2-methylphenol	.00325	.22857	.22034	.28187	.26373	.905	.21151	10.963		
N-Nitrosodiphenylamine	1.10766	1.25831	1.04589	1.15377	.84228	.907	1.10174	14.991	*	
2,4,6-Tribromophenol (SUR)	.32619	.28124	.29066	.29682	.24130	.916	.28724	10.684		
Pentachloronitrobenzene	.13890	.14993	.13391	.12528	.12269	.939	.13414	8.182		
4-Bromophenyl-phenylether	.65253	.65802	.49506	.51109	.51872	.943	.56708	14.278		
Hexachlorobenzene	.76352	.65645	.57705	.59890	.49347	.962	.61788	16.226		
Pentachlorophenol	-	.15369	.06323	.19345	.18148	.993	.15296	32.284	*	
Phenanthrene	2.52723	2.71842	2.26701	2.13410	2.31144	1.003	2.39164	9.659		
Anthracene	2.52097	2.60170	2.05293	2.02402	1.86430	1.009	2.21278	14.798		
Di-n-Butylphthalate	3.04562	3.54731	3.01831	3.00013	2.59815	1.104	3.04191	11.083		
Fluoranthene	1.95468	2.47192	1.88761	1.98251	1.69322	1.157	1.99799	14.415	*	
Pyrene	3.61778	3.29543	2.74085	2.56175	2.32993	.881	2.90915	18.318		
Terphenyl-d14 (SUR)	2.35571	2.27121	1.70292	1.54506	1.56226	.905	1.88743	20.919		

RF - Response Factor (Subscript is amount in ng/uL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
MSL Compounds

3 2 00038

Case No: _____ Instrument ID: B1

Contractor: BCM Calibration Date: 12/17/87

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % RSD for CCC is 30.0%

Laboratory ID:	>B1348	>B1347	>B1349	>B1350	>B1351					
Compound	RF 10.00	RF 25.00	RF 40.00	RF 60.00	RF 80.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Butylbenzylphthalate	1.61166	1.85239	1.55028	1.55975	1.54338	.963	1.62349	8.053		
3,3'-Dichlorobenzidine	.84506	.98363	.81721	.80314	.80235	1.004	.85028	8.999		
Benzo(a)Anthracene	2.80367	3.43519	2.44117	2.48248	2.25807	.999	2.68432	17.261		
Bis(2-Ethylhexyl)Phthalate	2.90780	2.95050	2.10973	2.05750	1.75893	1.026	2.35689	22.890		
Chrysene	2.60020	2.81896	1.80370	1.79121	1.63672	1.002	1.97016	19.165		
Di-n-octyl phthalate	3.86081	4.77642	3.31499	3.46370	3.50682	.960	3.78455	15.577	*	
Benzo(b)fluoranthene	6.04118	6.07686	4.86658	5.01266	4.57056	.974	5.31357	13.155		
Benzo(k)fluoranthene	6.04118	6.07686	4.86658	5.01266	4.57056	.974	5.31357	13.155		
Benzo(a)Pyrene	2.77639	2.66825	2.29626	2.30662	2.03823	.995	2.41715	12.455	*	
Indeno(1,2,3-cd)Pyrene	3.04077	3.26822	2.81551	2.71600	2.39880	1.072	2.84786	11.566		
Dibenzo(a,h)Anthracene	2.16970	2.60297	2.25519	2.14951	1.84964	1.074	2.20940	12.195		
Benzo(g,h,i)Perylene	2.67399	2.68602	2.37642	2.26118	2.00445	1.090	2.40041	12.023		

RF - Response Factor (Subscript is amount in ng/uL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871217 08:46
Output File: ^B1347::QT Injected at: 871217 08:09
Data File: >B1347::D1 Dilution Factor: 1.00000
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

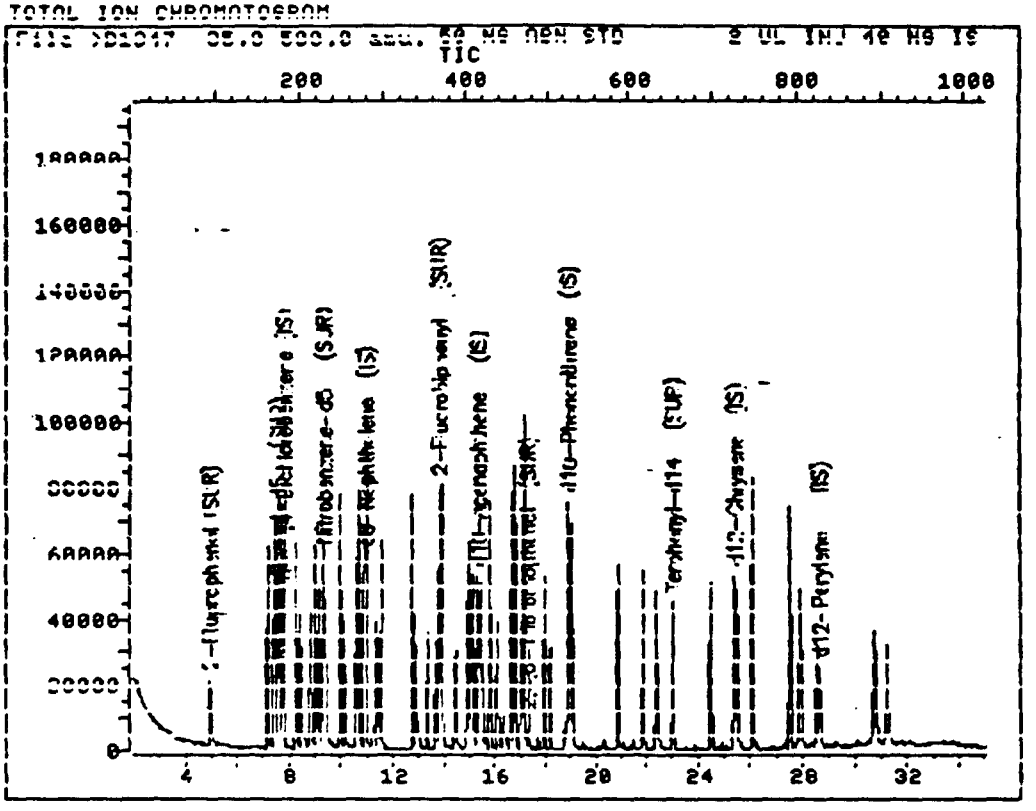
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.79	180	14123	40.00	ng/uL	89
2)	2-Fluorophenol (SUR)	4.95	92	27971	28.65	ng/uL	100
3)	Phenol-d5 (SUR)	7.56	173	47462	32.39	ng/uL	100
4)	Phenol	7.60	174	44361	27.14	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.44	169	52326	32.08	ng/uL	93
6)	2-Chlorophenol	7.47	170	28226	26.55	ng/uL	99
7)	1,3-Dichlorobenzene	7.66	176	34487	35.81	ng/uL	98
8)	1,4-Dichlorobenzene	7.82	181	34204	35.57	ng/uL	96
9)	Benzyl Alcohol	8.44	200	24129	34.64	ng/uL	89
10)	1,2-Dichlorobenzene	8.28	195	31883	35.70	ng/uL	91
11)	2-Methylphenol	9.02	218	28968	26.84	ng/uL	95
12)	bis(2-Chloroisopropyl)ether	8.82	212	82445	35.68	ng/uL	94
13)	4-Methylphenol	9.41	230	31058	27.97	ng/uL	93
14)	N-Nitroso-Di-n-propylamine	9.18	223	34787	28.38	ng/uL	87
15)	Hexachloroethane	8.99	217	15582	30.52	ng/uL	95
16)	*d8-Naphthalene (IS)	10.96	278	56704	40.00	ng/uL	88
17)	Nitrobenzene-d5 (SUR)	9.31	227	46444	30.55	ng/uL	98
18)	Nitrobenzene	9.34	228	62118	30.70	ng/uL	91
19)	Isophorone	9.99	248	91912	31.62	ng/uL	91
20)	2-Nitrophenol	10.15	253	16950	24.82	ng/uL	82
21)	2,4-Dimethylphenol	10.60	267	25985	27.44	ng/uL	93
22)	Benzoic Acid	11.28	288	11351	23.69	ng/uL	90
23)	bis(-2-Chloroethoxy)Methane	10.73	271	59083	33.70	ng/uL	95
24)	2,4-Dichlorophenol	10.86	275	20777M	24.67	ng/uL	
25)	1,2,4-Trichlorobenzene	10.93	277	26191	29.95	ng/uL	92
26)	Naphthalene	11.02	280	97251	31.18	ng/uL	98
27)	4-Chloroaniline	11.38	291	42635	32.18	ng/uL	89
28)	Hexachlorobutadiene	11.57	297	17137	35.34	ng/uL	96
29)	4-Chloro-3-methylphenol	12.90	338	25515	24.62	ng/uL	83
30)	2-Methylnaphthalene	12.77	334	58446	33.52	ng/uL	92
31)	*d10-Acenaphthene (IS)	15.35	414	30545	40.00	ng/uL	97
32)	Hexachlorocyclopentadiene	13.35	352	15690	24.46	ng/uL	97
33)	2,4,6-Trichlorophenol	13.83	367	16357	22.30	ng/uL	92
34)	2,4,5-Trichlorophenol	13.83	367	16357	22.30	ng/uL	94
35)	2-Chloronaphthalene	13.93	370	55473	26.28	ng/uL	96
36)	2-Fluorobiphenyl (SUR)	13.83	367	56832	27.02	ng/uL	92
37)	2-Nitroaniline	14.45	386	21964	28.08	ng/uL	97
38)	Dimethyl Phthalate	15.06	405	61451	31.05	ng/uL	100
39)	Acenaphthylene	14.96	402	86855	31.39	ng/uL	93
40)	3-Nitroaniline	15.51	419	19344	32.75	ng/uL	92
41)	Acenaphthene	15.42	416	49058	26.10	ng/uL	98
42)	2,4-Dinitrophenol	15.77	427	3279	18.59	ng/uL	100
43)	4-Nitrophenol	16.35	445	9213	27.74	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.84	429	74714	35.01	ng/uL	94
45)	2,4-Dinitrotoluene	16.13	438	20746	34.37	ng/uL	100
46)	2,6-Dinitrotoluene	15.19	409	17249	36.38	ng/uL	100
47)	Diethylphthalate	16.84	460	68610	30.36	ng/uL	93
48)	4-Chlorophenyl-phenylether	16.81	459	28936	28.37	ng/uL	100
49)	Fluorene	16.68	455	61805	32.18	ng/uL	99
50)	4-Nitroaniline	17.03	466	18078	37.41	ng/uL	95
51)	*d10-Phenanthrene (IS)	18.94	525	48118	40.00	ng/uL	99
52)	4,6-Dinitro-2-methylphenol	17.13	469	6865	24.58	ng/uL	100
53)	N-Nitrosodiphenylamine	17.16	470	37860	32.41	ng/uL	93
54)	2,4,6-Tribromophenol (SUR)	17.32	475	8458	20.56	ng/uL	97
55)	4-Bromophenyl-phenylether	17.97	495	19789	28.81	ng/uL	85
56)	Pentachloronitrobenzene	18.91	524	4509	33.24	ng/uL	100
57)	Hexachlorobenzene	18.20	502	19742	26.61	ng/uL	92
58)	Pentachlorophenol	18.78	520	4622	19.27	ng/uL	100
59)	Phenanthrene	18.97	526	81753	28.46	ng/uL	96
60)	Anthracene	19.10	530	78243	31.25	ng/uL	96
61)	Di-n-Butylphthalate	20.91	586	106681	29.07	ng/uL	96
62)	Fluoranthene	21.91	617	74340	32.35	ng/uL	89
63)	*d12-Chrysene (IS)	25.43	726	33668	40.00	ng/uL	98
64)	Pyrene	22.40	632	69344	27.51	ng/uL	95
65)	Terphenyl-d14 (SUR)	23.04	652	47792	27.73	ng/uL	89
66)	Butylbenzylphthalate	24.50	697	38979	27.66	ng/uL	89
67)	3,3'-Dichlorobenzidine	25.53	729	20698	29.77	ng/uL	97
68)	Benzo(a)Anthracene	25.40	725	72285	31.41	ng/uL	98
69)	Bis(2-Ethylhexyl)Phthalate	26.11	747	62086	27.91	ng/uL	94
70)	Chrysene	25.50	728	42484	26.18	ng/uL	97
71)	*d12-Perylene (IS)	28.66	826	31615	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.53	791	94379	26.29	ng/uL	87
73)	Benzo(b)fluoranthene	27.95	804	120075	27.98	ng/uL	100
74)	Benzo(k)Fluoranthene	27.95	804	120075	27.98	ng/uL	100
75)	Benzo(a)Pyrene	28.53	822	52723	27.33	ng/uL	94
76)	Indeno(1,2,3-cd)Pyrene	30.76	891	64578	29.60	ng/uL	87
77)	Dibenzo(a,h)Anthracene	30.80	892	51433	29.61	ng/uL	93
78)	Benzo(g,h,i)Perylene	31.25	906	53074	30.33	ng/uL	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1347::D1 Quant Output File: ^B1347::QT
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

Operator ID: USER6
Quant Time: 871217 08:46
Injected at: 871217 08:09

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871217 09:36
Output File: ^B1348::QT Injected at: 871217 08:59
Data File: >B1348::D1 Dilution Factor: 1.00000
Name: 20 NG ABN STD
Misc: 2 UL INJ 40 NG IS

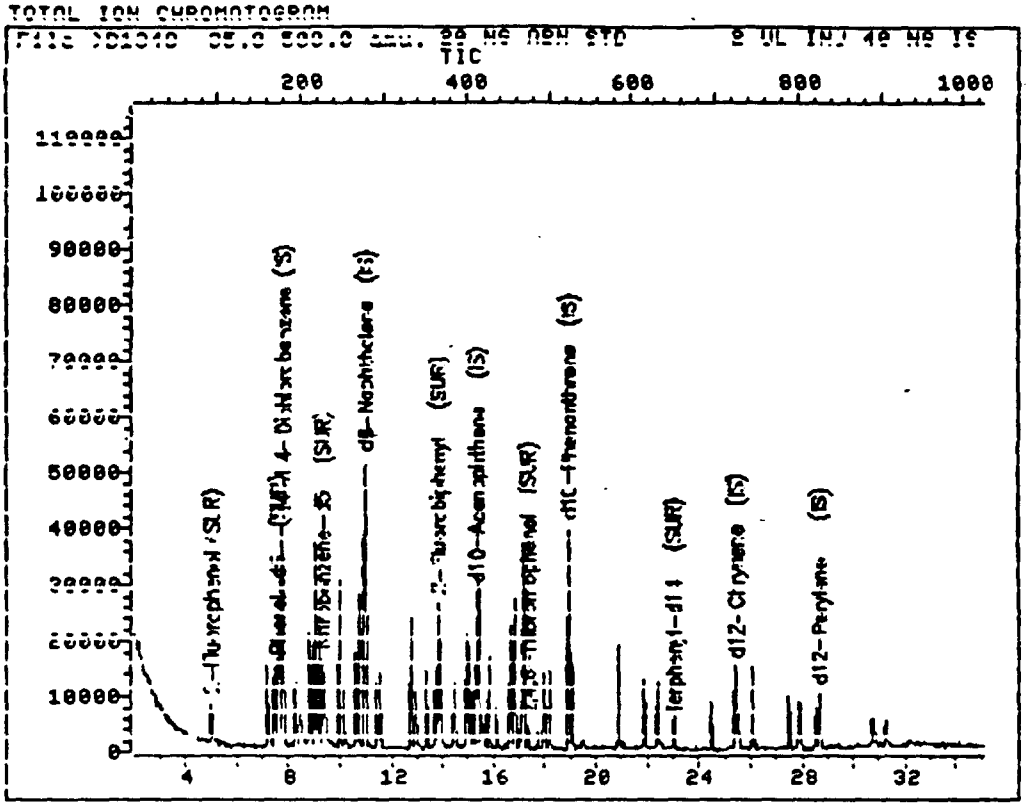
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	Q
1)	*d4-1,4-Dichlorobenzene (IS)	7.77	178	14598	40.00	ng/uL	99
2)	2-Fluorophenol (SUR)	4.99	92	8518	8.44	ng/uL	100
3)	Phenol-d5 (SUR)	7.58	172	15782	10.42	ng/uL	100
4)	Phenol	7.61	173	16532	9.79	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.16	159	22693M	13.46	ng/uL	
6)	2-Chlorophenol	7.45	168	13049	11.88	ng/uL	94
7)	1,3-Dichlorobenzene	7.67	175	12077	12.13	ng/uL	94
8)	1,4-Dichlorobenzene	7.80	179	11861	11.93	ng/uL	90
9)	Benzyl Alcohol	8.45	199	7491	10.40	ng/uL	85
10)	1,2-Dichlorobenzene	8.26	193	11699	12.68	ng/uL	94
11)	2-Methylphenol	9.00	216	12583	11.28	ng/uL	90
12)	bis(2-Chloroisopropyl)ether	8.80	210	28808	12.06	ng/uL	96
13)	4-Methylphenol	9.42	229	10579	9.22	ng/uL	99
14)	N-Nitroso-Di-n-propylamine	9.16	221	13307	10.50	ng/uL	75
15)	Hexachloroethane	9.00	216	6415	12.16	ng/uL	98
16)	*d8-Naphthalene (IS)	10.97	277	51523	40.00	ng/uL	89
17)	Nitrobenzene-d5 (SUR)	9.29	225	16248	11.76	ng/uL	90
18)	Nitrobenzene	9.35	227	15335	8.34	ng/uL	97
19)	Isophorone	9.97	246	35521	13.45	ng/uL	91
20)	2-Nitrophenol	10.16	252	5866M	9.45	ng/uL	
21)	2,4-Dimethylphenol	10.61	266	8262	9.60	ng/uL	88
23)	bis(-2-Chloroethoxy)Methane	10.71	269	19366	12.16	ng/uL	88
24)	2,4-Dichlorophenol	10.90	275	7352	9.61	ng/uL	93
25)	1,2,4-Trichlorobenzene	10.90	275	10681	13.44	ng/uL	94
26)	Naphthalene	11.00	278	38139	13.46	ng/uL	98
27)	4-Chloroaniline	11.39	290	15399	12.79	ng/uL	96
28)	Hexachlorobutadiene	11.55	295	5041	11.44	ng/uL	90
29)	4-Chloro-3-methylphenol	12.91	337	9829	10.44	ng/uL	98
30)	2-Methylnaphthalene	12.75	332	20117	12.70	ng/uL	96
31)	*d10-Acenaphthene (IS)	15.33	412	23576	40.00	ng/uL	96
32)	Hexachlorocyclopentadiene	13.36	351	5023	10.15	ng/uL	93
33)	2,4,6-Trichlorophenol	13.88	367	4744	8.38	ng/uL	83
34)	2,4,5-Trichlorophenol	13.88	367	4744	8.38	ng/uL	87
35)	2-Chloronaphthalene	13.91	368	16289	10.00	ng/uL	90
36)	2-Fluorobiphenyl (SUR)	13.81	365	20239	12.47	ng/uL	93
37)	2-Nitroaniline	14.46	385	6593M	10.92	ng/uL	
38)	Dimethyl Phthalate	15.07	404	18391	12.04	ng/uL	100
39)	Acenaphthylene	14.94	400	27841	13.04	ng/uL	95
40)	3-Nitroaniline	15.49	417	4731M	10.38	ng/uL	
41)	Acenaphthene	15.43	415	17875	12.32	ng/uL	97
43)	4-Nitrophenol	16.43	446	827	3.23	ng/uL	100
44)	Dibenzofuran	15.82	427	23231	14.10	ng/uL	90
45)	2,4-Dinitrotoluene	16.14	437	4748	10.19	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
46)	2,6-Dinitrotoluene	15.17	407	4775	13.05	ng/uL	100
47)	Diethylphthalate	16.82	458	19426	11.14	ng/uL	97
48)	4-Chlorophenyl-phenylether	16.78	457	8508	10.81	ng/uL	100
49)	Fluorene	16.66	453	18385	12.40	ng/uL	98
50)	4-Nitroaniline	17.01	464	3429M	9.19	ng/uL	
51)	*d10-Phenanthrene (IS)	18.92	523	32570	40.00	ng/uL	97
52)	4,6-Dinitro-2-methylphenol	17.14	468	515	2.72	ng/uL	100
53)	N-Nitrosodiphenylamine	17.14	468	9835	12.44	ng/uL	92
54)	2,4,6-Tribromophenol (SUR)	17.33	474	2656	9.54	ng/uL	93
55)	4-Bromophenyl-phenylether	17.95	493	5313	11.43	ng/uL	89
56)	Pentachloronitrobenzene	18.88	522	1131	12.32	ng/uL	100
57)	Hexachlorobenzene	18.21	501	6217	12.38	ng/uL	96
59)	Phenanthrene	18.98	525	20578	10.58	ng/uL	96
60)	Anthracene	19.08	528	20527	12.11	ng/uL	97
61)	Di-n-Butylphthalate	20.89	584	24799	9.98	ng/uL	98
62)	Fluoranthene	21.89	615	15916	10.23	ng/uL	95
63)	*d12-Chrysene (IS)	25.44	725	16671	40.00	ng/uL	92
64)	Pyrene	22.40	631	15078	12.08	ng/uL	91
65)	Terphenyl-d14 (SUR)	23.02	650	9818	11.50	ng/uL	84
66)	Butylbenzylphthalate	24.50	696	6717	9.63	ng/uL	88
67)	3,3'-Dichlorobenzidine	25.54	728	3522	10.23	ng/uL	91
68)	Benzo(a)Anthracene	25.41	724	11685	10.25	ng/uL	93
69)	Bis(2-Ethylhexyl)Phthalate	26.09	745	12119	11.00	ng/uL	94
70)	Chrysene	25.47	726	10837	13.49	ng/uL	92
71)	*d12-Perylene (IS)	28.67	825	14570	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.51	789	14063	8.50	ng/uL	90
73)	Benzo(b)fluoranthene	27.93	802	22005	11.13	ng/uL	100
74)	Benzo(k)Fluoranthene	27.93	802	22005	11.13	ng/uL	100
75)	Benzo(a)Pyrene	28.54	821	10113	11.37	ng/uL	94
76)	Indeno(1,2,3-cd)Pyrene	30.74	889	11076	11.01	ng/uL	96
77)	Dibenzo(a,h)Anthracene	30.80	891	7976	9.96	ng/uL	94
78)	Benzo(g,h,i)Perylene	31.25	905	9740	12.08	ng/uL	92

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1348::D1 Quant Output File: ^B1348::QT
Name: 20 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

Operator ID: USER6
Quant Time: 871217 09:36
Injected at: 871217 08:59

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871217 10:21
Output File: ^B1349::QT Injected at: 871217 09:41
Data File: >B1349::D1 Dilution Factor: 1.00000
Name: 80 NG ABN STD
Misc: 2 UL INJ 40 NG IS

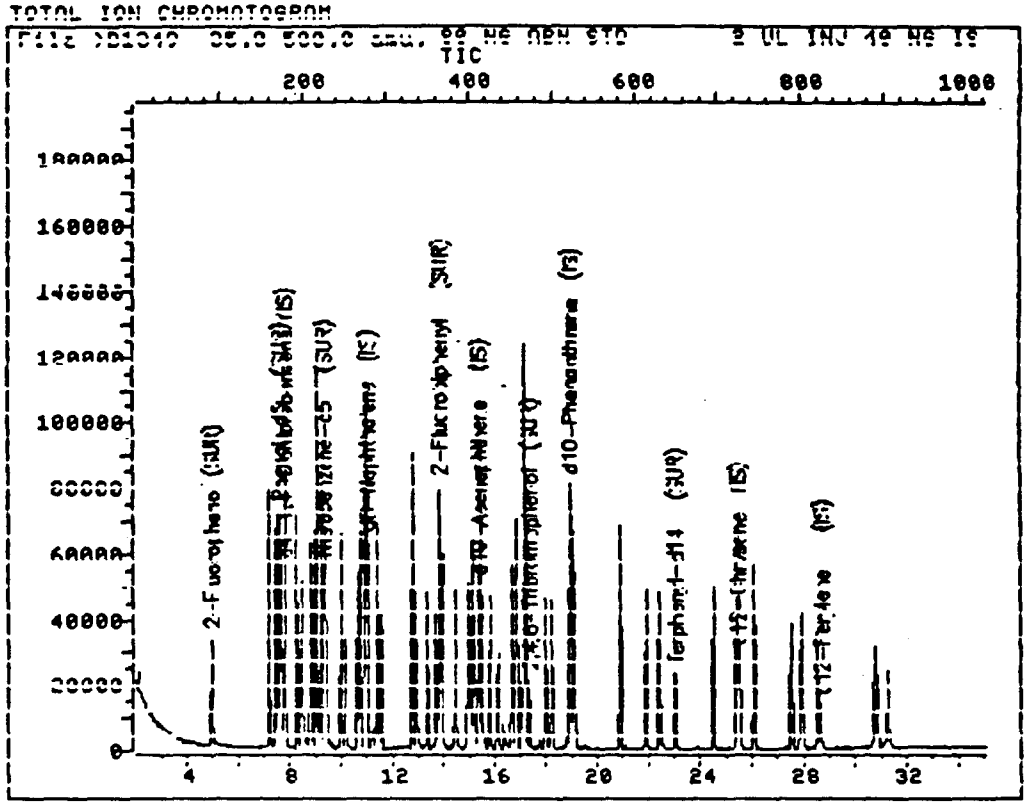
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.78	178	15677	40.00	ng/uL	95
2)	2-Fluorophenol (SUR)	4.94	90	34952	32.25	ng/uL	100
3)	Phenol-d5 (SUR)	7.58	172	41675	25.62	ng/uL	100
4)	Phenol	7.58	172	53545	29.51	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.42	167	54090	29.88	ng/uL	98
6)	2-Chlorophenol	7.46	168	34630	29.35	ng/uL	99
7)	1,3-Dichlorobenzene	7.65	174	37360	34.94	ng/uL	96
8)	1,4-Dichlorobenzene	7.81	179	40904	38.32	ng/uL	98
9)	Benzyl Alcohol	8.46	199	27620M	35.72	ng/uL	
10)	1,2-Dichlorobenzene	8.26	193	40306	40.66	ng/uL	95
11)	2-Methylphenol	9.01	216	33527	27.99	ng/uL	96
12)	bis(2-Chloroisopropyl)ether	8.81	210	95732	37.33	ng/uL	93
13)	4-Methylphenol	9.39	228	35844	29.08	ng/uL	93
14)	N-Nitroso-Di-n-propylamine	9.20	222	52060	38.26	ng/uL	77
15)	Hexachloroethane	9.01	216	21470	37.88	ng/uL	99
16)	*d8-Naphthalene (IS)	10.98	277	54234	40.00	ng/uL	91
17)	Nitrobenzene-d5 (SUR)	9.30	225	54872	37.73	ng/uL	91
18)	Nitrobenzene	9.36	227	80132	41.40	ng/uL	99
19)	Isophorone	10.01	247	100521	36.15	ng/uL	87
20)	2-Nitrophenol	10.17	252	20761M	31.79	ng/uL	
21)	2,4-Dimethylphenol	10.62	266	26661	29.44	ng/uL	93
22)	Benzoic Acid	11.27	286	11501	25.09	ng/uL	90
23)	bis(-2-Chloroethoxy)Methane	10.72	269	56510	33.70	ng/uL	86
24)	2,4-Dichlorophenol	10.88	274	22863	28.38	ng/uL	96
25)	1,2,4-Trichlorobenzene	10.91	275	31176	37.27	ng/uL	91
26)	Naphthalene	11.01	278	112125	37.58	ng/uL	98
27)	4-Chloroaniline	11.40	290	43920	34.66	ng/uL	93
28)	Hexachlorobutadiene	11.56	295	16131	34.78	ng/uL	93
29)	4-Chloro-3-methylphenol	12.88	336	31747	32.03	ng/uL	91
30)	2-Methylnaphthalene	12.75	332	63067	37.82	ng/uL	96
31)	*d10-Acenaphthene (IS)	15.37	413	27114	40.00	ng/uL	99
32)	Hexachlorocyclopentadiene	13.37	351	17526	30.79	ng/uL	96
33)	2,4,6-Trichlorophenol	13.85	366	15605	23.97	ng/uL	95
34)	2,4,5-Trichlorophenol	13.85	366	15605	23.97	ng/uL	96
35)	2-Chloronaphthalene	13.92	368	57106	30.48	ng/uL	95
36)	2-Fluorobiphenyl (SUR)	13.82	365	60301	32.30	ng/uL	95
37)	2-Nitroaniline	14.47	385	26158M	37.67	ng/uL	
38)	Dimethyl Phthalate	15.08	404	72626	41.33	ng/uL	100
39)	Acenaphthylene	14.95	400	88686	36.11	ng/uL	96
40)	3-Nitroaniline	15.50	417	19801	37.77	ng/uL	80
41)	Acenaphthene	15.44	415	63038	37.78	ng/uL	97
42)	2,4-Dinitrophenol	15.79	426	2873	18.35	ng/uL	100
43)	4-Nitrophenol	16.34	443	7948	26.96	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.82	427	75938	40.09	ng/uL	87
45)	2,4-Dinitrotoluene	16.12	436	20953	39.10	ng/uL	100
46)	2,6-Dinitrotoluene	15.18	407	15678	37.26	ng/uL	100
47)	Diethylphthalate	16.86	459	72988	36.38	ng/uL	91
48)	4-Chlorophenyl-phenylether	16.79	457	27415	30.28	ng/uL	100
49)	Fluorene	16.66	453	53908	31.62	ng/uL	98
50)	4-Nitroaniline	17.02	464	15357	35.80	ng/uL	88
51)	*d10-Phenanthrene (IS)	18.93	523	33366	40.00	ng/uL	99
52)	4,6-Dinitro-2-methylphenol	17.12	467	7352	37.96	ng/uL	100
53)	N-Nitrosodiphenylamine	17.18	469	34897	43.08	ng/uL	88
54)	2,4,6-Tribromophenol (SUR)	17.34	474	9698	34.00	ng/uL	94
55)	4-Bromophenyl-phenylether	17.96	493	16519	34.68	ng/uL	89
56)	Pentachloronitrobenzene	18.93	523	4468	47.50	ng/uL	100
57)	Hexachlorobenzene	18.22	501	19254	37.43	ng/uL	93
58)	Pentachlorophenol	18.80	519	2777	16.70	ng/uL	100
59)	Phenanthrene	18.99	525	75641	37.98	ng/uL	96
60)	Anthracene	19.09	528	68498	39.46	ng/uL	98
61)	Di-n-Butylphthalate	20.90	584	100709	39.57	ng/uL	96
62)	Fluoranthene	21.90	615	62982	39.52	ng/uL	94
63)	*d12-Chrysene (IS)	25.45	725	22354	40.00	ng/uL	92
64)	Pyrene	22.42	631	61269	36.61	ng/uL	87
65)	Terphenyl-d14 (SUR)	23.03	650	38067	33.26	ng/uL	83
66)	Butylbenzylphthalate	24.51	696	34655	37.04	ng/uL	85
67)	3,3'-Dichlorobenzidine	25.55	728	18268	39.57	ng/uL	97
68)	Benzo(a)Anthracene	25.42	724	54570	35.72	ng/uL	97
69)	Bis(2-Ethylhexyl)Phthalate	26.10	745	47161	31.94	ng/uL	92
70)	Chrysene	25.48	726	40320	37.42	ng/uL	95
71)	*d12-Perylene (IS)	28.68	825	20185	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.52	789	66913	29.19	ng/uL	89
73)	Benzo(b)fluoranthene	27.91	801	98232	35.86	ng/uL	100
74)	Benzo(k)Fluoranthene	27.91	801	98232	35.86	ng/uL	100
75)	Benzo(a)Pyrene	28.55	821	46350	37.63	ng/uL	99
76)	Indeno(1,2,3-cd)Pyrene	30.75	889	56831	40.80	ng/uL	94
77)	Dibenzo(a,h)Anthracene	30.81	891	45521	41.05	ng/uL	96
78)	Benzo(g,h,i)Perylene	31.27	905	47968	42.94	ng/uL	90

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1349::D1 Quant Output File: ^B1349::QT
Name: 80 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

Operator ID: USER6
Quant Time: 871217 10:21
Injected at: 871217 09:41

QUANT REPORT

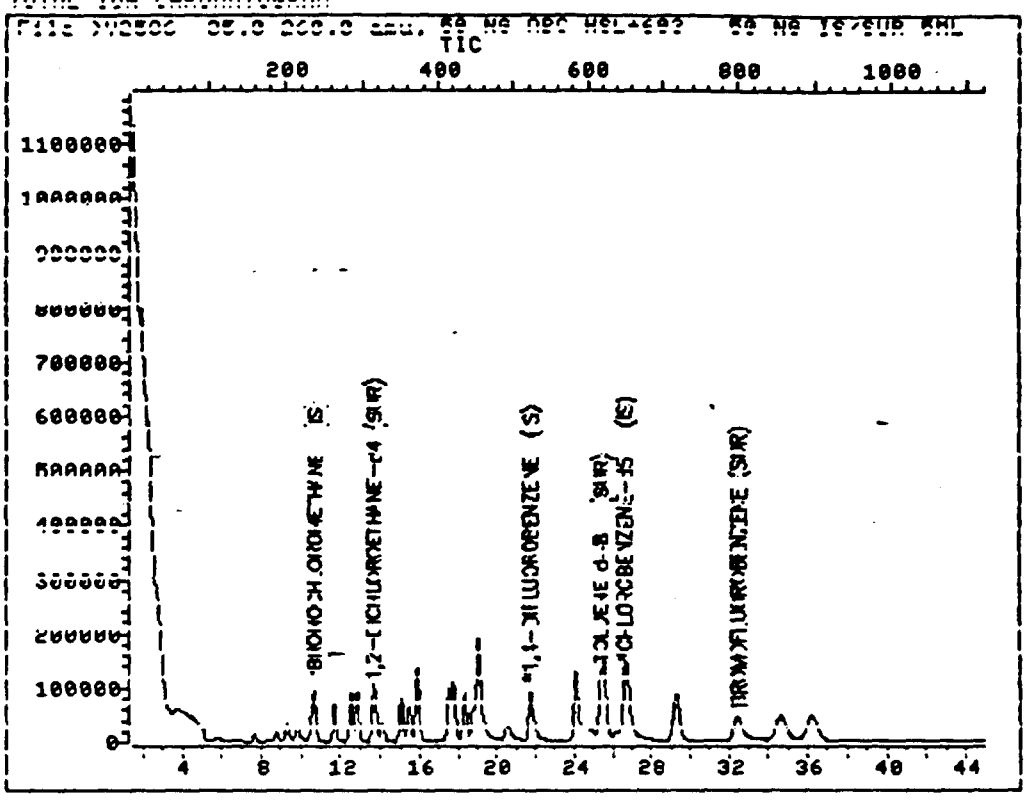
Operator ID: USER6 Quant Rev: 6 Quant Time: 871217 10:11
Output File: ^V2586::QT Injected at: 871217 09:25
Data File: >V2586::D2 Dilution Factor: 1.00000
Name: 50 NG ABC HSL+603
Misc: 50 NG IS/SUR 5ML

ID File: IDVCLP::L1
Title: VOLATILE ORGANIC COMPOUNDS
Last Calibration: 871210 15:16

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	**BROMOCHLOROMETHANE (IS)	10.65	237	84559	50.00	UG/L	95
2)	CHLOROMETHANE	2.58	29	141998M	58.96	UG/L	100
3)	BROMOMETHANE	3.67	57	19760	100.29	UG/L	89
4)	VINYL CHLORIDE	4.56	80	104108	66.67	UG/L	95
5)	CHLOROETHANE	5.76	111	39502	63.40	UG/L	93
6)	METHYLENE CHLORIDE	7.66	160	22284	67.55	UG/L	96
7)	ACETONE	8.75	188	128097	54.53	UG/L	100
8)	CARBON DISULFIDE	9.29	202	183656	50.23	UG/L	100
9)	1,1-DICHLOROETHENE	10.49	233	91507	39.72	UG/L	83
10)	1,1-DICHLOROETHANE	11.70	264	391933	63.78	UG/L	91
11)	TRANS-1,2-DICHLOROETHENE	12.51	285	178484	65.02	UG/L	95
12)	CHLOROFORM	12.82	293	397651	65.57	UG/L	93
13)	1,2-DICHLOROETHANE-d4 (SUR)	13.64	314	293397	61.97	UG/L	88
14)	1,2-DICHLOROETHANE	13.75	317	375795	63.97	UG/L	95
15)	2-BUTANONE	14.10	326	45262	50.12	UG/L	92
16)	1,1,1-TRICHLOROETHANE	15.03	350	280122	66.44	UG/L	79
17)	CARBON TETRACHLORIDE	15.46	361	223734	65.88	UG/L	88
18)	VINYL ACETATE	15.89	372	40477	60.49	UG/L	73
19)	BROMODICHLOROMETHANE	15.85	371	341098	65.33	UG/L	91
20)	**1,4-DIFLUOROBENZENE (IS)	21.71	522	451891	50.00	UG/L	69
21)	1,2-DICHLOROPROPANE	17.51	414	220380	47.80	UG/L	91
22)	TRANS-1,3-DICHLOROPROPENE	17.75	420	412379	47.75	UG/L	94
23)	TRICHLOROETHENE	18.33	435	175782	47.95	UG/L	88
24)	DIBROMOCHLOROMETHANE	18.76	446	169500	47.41	UG/L	98
25)	1,1,2-TRICHLOROETHANE	18.99	452	183015	49.30	UG/L	97
26)	BENZENE	19.07	454	616422	51.28	UG/L	83
27)	CIS-1,3-DICHLOROPROPENE	17.75	420	412379	47.75	UG/L	94
28)	2-CHLOROETHYLVINYLETHER	20.50	491	116981	38.82	UG/L	92
29)	BROMOFORM	21.82	525	109905	42.32	UG/L	99
30)	**CHLOROBENZENE-d5 (IS)	26.63	649	375632	50.00	UG/L	93
31)	2-HEXANONE	26.25	639	332494M	61.85	UG/L	100
32)	4-METHYL-2-PENTANONE	24.50	594	424921	45.63	UG/L	100
33)	TETRACHLOROETHENE	24.07	583	153386	50.58	UG/L	95
34)	1,1,2,2-TETRACHLOROETHANE	24.07	583	205221	41.47	UG/L	96
35)	TOLUENE	25.59	622	369034	48.97	UG/L	94
36)	TOLUENE d-8 (SUR)	25.39	617	510625	48.56	UG/L	98
37)	CHLOROBENZENE	26.75	652	417196	49.95	UG/L	91
38)	ETHYLBENZENE	29.27	717	200314	49.87	UG/L	97
39)	STYRENE	34.59	854	392033	41.59	UG/L	90
40)	TOTAL XYLENES	36.18	895	228094	42.85	UG/L	90
41)	ACROLEIN	8.75	188	10129	30.78	UG/L	100
42)	ACRYLONITRILE	9.25	201	59092	34.45	UG/L	95
43)	BROMOFLUOROBENZENE (SUR)	32.45	799	272307	47.36	UG/L	89

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >V2586::D2
Name: 50 NG ABC HSL+603
Misc: 50 NG IS/SUR 5ML

Quant Output File: ^V2586::QT

Id File: IDVCLP::L1
Title: VOLATILE ORGANIC COMPOUNDS
Last Calibration: 871210 15:16

Operator ID: USER6
Quant Time: 871217 10:11
Injected at: 871217 09:25

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871217 11:04
Output File: ^B1350::QT Injected at: 871217 10:26
Data File: >B1350::D1 Dilution Factor: 1.00000
Name: 120NG ABN STD
Misc: 2 UL INJ 40 NG IS

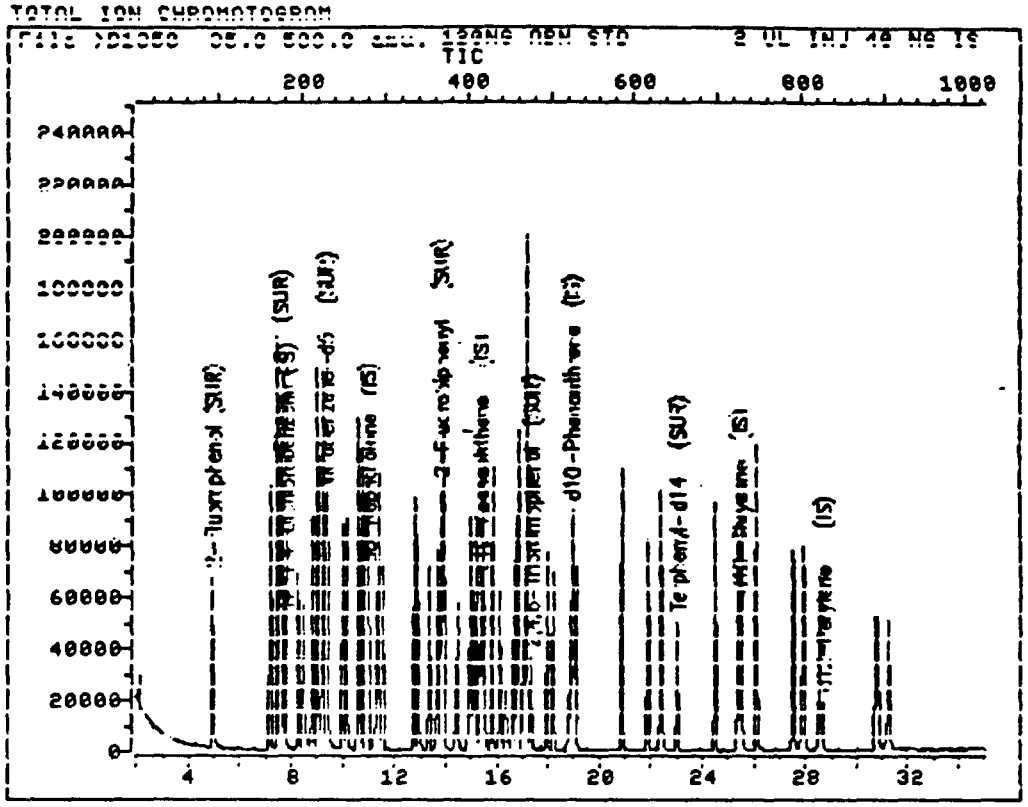
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.77	180	16115	40.00	ng/uL	97
2)	2-Fluorophenol (SUR)	4.93	92	62565	56.15	ng/uL	100
3)	Phenol-d5 (SUR)	7.58	174	78449	46.92	ng/uL	100
4)	Phenol	7.61	175	91692	49.17	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.19	162	117201M	62.98	ng/uL	
6)	2-Chlorophenol	7.45	170	57425	47.35	ng/uL	98
7)	1,3-Dichlorobenzene	7.68	177	55906	50.87	ng/uL	90
8)	1,4-Dichlorobenzene	7.81	181	54059	49.26	ng/uL	94
9)	Benzyl Alcohol	8.45	201	42401	53.35	ng/uL	99
10)	1,2-Dichlorobenzene	8.26	195	49583	48.66	ng/uL	97
11)	2-Methylphenol	9.03	219	60740	49.33	ng/uL	95
12)	bis(2-Chloroisopropyl)ether	8.81	212	148117	56.18	ng/uL	95
13)	4-Methylphenol	9.39	230	68358	53.94	ng/uL	98
14)	N-Nitroso-Di-n-propylamine	9.23	225	82777	59.18	ng/uL	78
15)	Hexachloroethane	9.00	218	31684	54.39	ng/uL	95
16)	*d8-Naphthalene (IS)	10.97	279	54275	40.00	ng/uL	86
17)	Nitrobenzene-d5 (SUR)	9.33	228	84501	58.06	ng/uL	99
18)	Nitrobenzene	9.36	229	111777	57.71	ng/uL	90
19)	Isophorone	10.04	250	164785	59.22	ng/uL	88
20)	2-Nitrophenol	10.17	254	36459	55.78	ng/uL	78
21)	2,4-Dimethylphenol	10.62	268	53186	58.68	ng/uL	92
22)	Benzoic Acid	11.39	292	31453	68.57	ng/uL	91
23)	bis(-2-Chloroethoxy)Methane	10.75	272	105983	63.16	ng/uL	94
24)	2,4-Dichlorophenol	10.88	276	44293	54.94	ng/uL	97
25)	1,2,4-Trichlorobenzene	10.91	277	46319	55.34	ng/uL	94
26)	Naphthalene	11.01	280	154336	51.69	ng/uL	97
27)	4-Chloroaniline	11.39	292	74234	58.54	ng/uL	96
28)	Hexachlorobutadiene	11.56	297	24544	52.89	ng/uL	92
29)	4-Chloro-3-methylphenol	12.88	338	57985M	58.47	ng/uL	
30)	2-Methylnaphthalene	12.75	334	86258	51.69	ng/uL	95
31)	*d10-Acenaphthene (IS)	15.37	415	27138	40.00	ng/uL	97
32)	Hexachlorocyclopentadiene	13.36	353	30217	53.03	ng/uL	98
33)	2,4,6-Trichlorophenol	13.85	368	33078	50.76	ng/uL	94
34)	2,4,5-Trichlorophenol	13.85	368	33078	50.76	ng/uL	95
35)	2-Chloronaphthalene	13.95	371	97147	51.81	ng/uL	95
36)	2-Fluorobiphenyl (SUR)	13.82	367	82816	44.32	ng/uL	94
37)	2-Nitroaniline	14.46	387	37622	54.13	ng/uL	84
38)	Dimethyl Phthalate	15.08	406	101549	57.74	ng/uL	100
39)	Acenaphthylene	14.98	403	144285	58.70	ng/uL	95
40)	3-Nitroaniline	15.50	419	30481	58.09	ng/uL	77
41)	Acenaphthene	15.43	417	85127	50.97	ng/uL	97
42)	2,4-Dinitrophenol	15.79	428	8787	56.07	ng/uL	100
43)	4-Nitrophenol	16.34	445	20346	68.94	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.85	430	128005	67.52	ng/uL	97
45)	2,4-Dinitrotoluene	16.14	439	36082	67.27	ng/uL	100
46)	2,6-Dinitrotoluene	15.21	410	29218	69.37	ng/uL	100
47)	Diethylphthalate	16.86	461	109995	54.78	ng/uL	93
48)	4-Chlorophenyl-phenylether	16.82	460	43903	48.45	ng/uL	100
49)	Fluorene	16.66	455	88909	52.10	ng/uL	92
50)	4-Nitroaniline	17.05	467	29061M	67.69	ng/uL	
51)	*d10-Phenanthrene (IS)	18.92	525	38831	40.00	ng/uL	98
52)	4,6-Dinitro-2-methylphenol	17.15	470	16418	72.84	ng/uL	100
53)	N-Nitrosodiphenylamine	17.18	471	67203	71.29	ng/uL	92
54)	2,4,6-Tribromophenol (SUR)	17.34	476	17289	52.08	ng/uL	96
55)	4-Bromophenyl-phenylether	17.95	495	29769	53.70	ng/uL	88
56)	Pentachloronitrobenzene	18.92	525	7297	66.65	ng/uL	100
57)	Hexachlorobenzene	18.21	503	34884	58.28	ng/uL	99
58)	Pentachlorophenol	18.79	521	11268	58.21	ng/uL	100
59)	Phenanthrene	18.99	527	124304	53.63	ng/uL	97
60)	Anthracene	19.09	530	117892	58.35	ng/uL	97
61)	Di-n-Butylphthalate	20.89	586	174747	59.00	ng/uL	97
62)	Fluoranthene	21.90	617	115474	62.26	ng/uL	97
63)	*d12-Chrysene (IS)	25.45	727	32533	40.00	ng/uL	94
64)	Pyrene	22.41	633	125012	51.33	ng/uL	92
65)	Terphenyl-d14 (SUR)	23.03	652	75398	45.27	ng/uL	86
66)	Butylbenzylphthalate	24.51	698	76115	55.90	ng/uL	92
67)	3,3'-Dichlorobenzidine	25.55	730	39193	58.33	ng/uL	99
68)	Benzo(a)Anthracene	25.42	726	121144	54.48	ng/uL	97
69)	Bis(2-Ethylhexyl)Phthalate	26.10	747	100405	46.72	ng/uL	92
70)	Chrysene	25.51	729	87410	55.74	ng/uL	97
71)	*d12-Perylene (IS)	28.68	827	28596	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.52	791	148572	45.75	ng/uL	87
73)	Benzo(b)fluoranthene	27.91	803	215013	55.40	ng/uL	100
74)	Benzo(k)Fluoranthene	27.91	803	215013	55.40	ng/uL	100
75)	Benzo(a)Pyrene	28.55	823	98940	56.69	ng/uL	96
76)	Indeno(1,2,3-cd)Pyrene	30.75	891	116500	59.03	ng/uL	92
77)	Dibenzo(a,h)Anthracene	30.81	893	92201	58.69	ng/uL	94
78)	Benzo(g,h,i)Perylene	31.27	907	96991	61.28	ng/uL	98

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: 120NG ABN STD
Misc: 2 UL INJ 40 NG IS

Quant Output File: ^B1350::QT

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

Operator ID: USER6
Quant Time: 871217 11:04
Injected at: 871217 10:26

3 2 00853

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871217 11:47
Output File: ^B1351::QT Injected at: 871217 11:10
Data File: >B1351::D1 Dilution Factor: 1.00000
Name: 160NG ABN STD
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.77	179	15502	40.00	ng/uL	96
2)	2-Fluorophenol (SUR)	4.93	91	79819	74.47	ng/uL	100
3)	Phenol-d5 (SUR)	7.57	173	104040	64.69	ng/uL	100
4)	Phenol	7.61	174	116774	65.09	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.45	169	103895	58.03	ng/uL	89
6)	2-Chlorophenol	7.48	170	85503	73.28	ng/uL	99
7)	1,3-Dichlorobenzene	7.67	176	82297	77.84	ng/uL	98
8)	1,4-Dichlorobenzene	7.83	181	86779	82.21	ng/uL	95
9)	Benzyl Alcohol	8.48	201	60108	78.62	ng/uL	87
10)	1,2-Dichlorobenzene	8.29	195	76596	78.15	ng/uL	89
11)	2-Methylphenol	9.03	218	75166	63.46	ng/uL	95
12)	bis(2-Chloroisopropyl)ether	8.83	212	182634	72.01	ng/uL	88
13)	4-Methylphenol	9.42	230	83983	68.89	ng/uL	97
14)	N-Nitroso-Di-n-propylamine	9.22	224	73508	54.63	ng/uL	92
15)	Hexachloroethane	9.00	217	38452	68.61	ng/uL	99
16)	*d8-Naphthalene (IS)	10.97	278	52898	40.00	ng/uL	88
17)	Nitrobenzene-d5 (SUR)	9.32	227	110724	78.06	ng/uL	92
18)	Nitrobenzene	9.38	229	168090	89.04	ng/uL	94
19)	Isophorone	10.06	250	226239	83.42	ng/uL	91
20)	2-Nitrophenol	10.16	253	44602	70.01	ng/uL	98
21)	2,4-Dimethylphenol	10.61	267	59781	67.67	ng/uL	94
22)	Benzoic Acid	11.36	290	40852	91.38	ng/uL	89
23)	bis(-2-Chloroethoxy)Methane	10.74	271	130959	80.08	ng/uL	95
24)	2,4-Dichlorophenol	10.87	275	54852	69.81	ng/uL	90
25)	1,2,4-Trichlorobenzene	10.94	277	61629	75.54	ng/uL	94
26)	Naphthalene	11.03	280	255037	87.64	ng/uL	98
27)	4-Chloroaniline	11.39	291	88137	71.31	ng/uL	97
28)	Hexachlorobutadiene	11.58	297	35867	79.30	ng/uL	96
29)	4-Chloro-3-methylphenol	12.88	337	72961M	75.48	ng/uL	
30)	2-Methylnaphthalene	12.78	334	135286	83.18	ng/uL	89
31)	*d10-Acenaphthene (IS)	15.36	414	31657	40.00	ng/uL	97
32)	Hexachlorocyclopentadiene	13.36	352	42501	63.94	ng/uL	99
33)	2,4,6-Trichlorophenol	13.85	367	38397	50.51	ng/uL	83
34)	2,4,5-Trichlorophenol	13.85	367	38397	50.51	ng/uL	85
35)	2-Chloronaphthalene	13.94	370	125067	57.18	ng/uL	96
36)	2-Fluorobiphenyl (SUR)	13.85	367	134388	61.65	ng/uL	94
37)	2-Nitroaniline	14.49	387	53619M	66.14	ng/uL	
38)	Dimethyl Phthalate	15.11	406	151126	73.67	ng/uL	100
39)	Acenaphthylene	14.98	402	196999	68.70	ng/uL	93
40)	3-Nitroaniline	15.53	419	44057	71.97	ng/uL	80
41)	Acenaphthene	15.43	416	109139	56.02	ng/uL	98
42)	2,4-Dinitrophenol	15.79	427	12000	65.64	ng/uL	100
43)	4-Nitrophenol	16.33	444	23537	68.37	ng/uL	100

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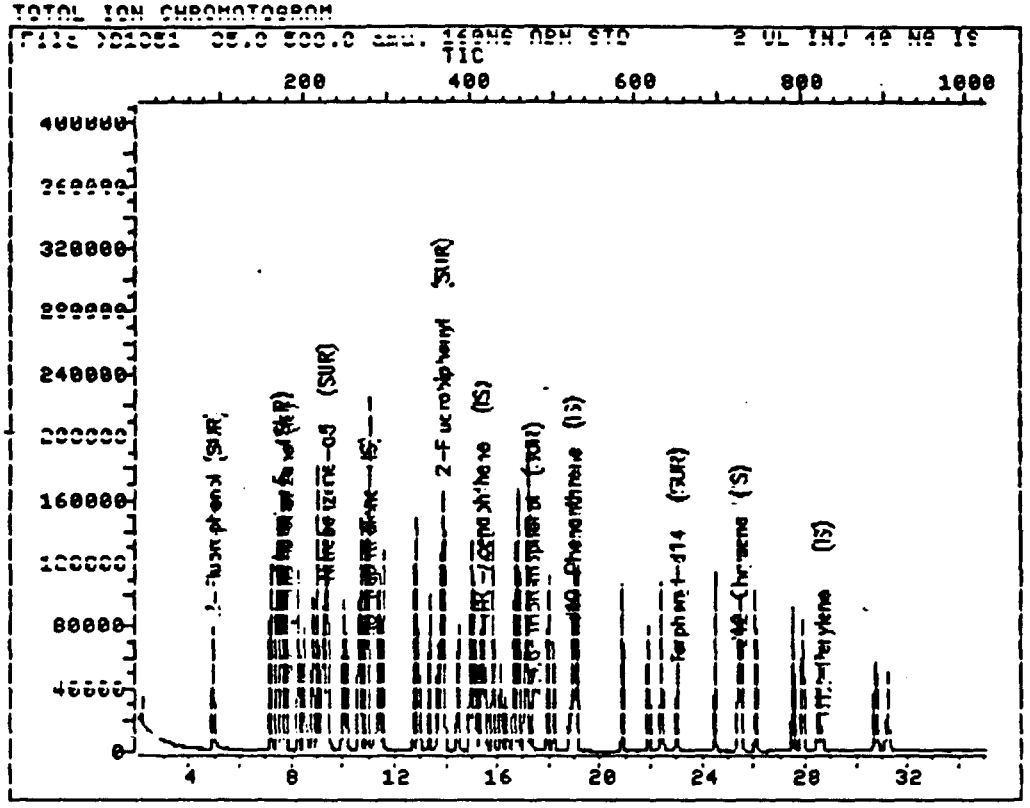
	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.85	429	167490	75.73	ng/uL	93
45)	2,4-Dinitrotoluene	16.14	438	42631	68.14	ng/uL	100
46)	2,6-Dinitrotoluene	15.20	409	23530	47.89	ng/uL	100
47)	Diethylphthalate	16.88	461	152906	65.28	ng/uL	90
48)	4-Chlorophenyl-phenylether	16.82	459	62997	59.59	ng/uL	100
49)	Fluorene	16.69	455	126874	63.73	ng/uL	99
50)	4-Nitroaniline	17.08	467	38501M	76.87	ng/uL	
51)	*d10-Phenanthrene (IS)	18.92	524	38187	40.00	ng/uL	98
52)	4,6-Dinitro-2-methylphenol	17.14	469	20147	90.89	ng/uL	100
53)	N-Nitrosodiphenylamine	17.18	470	64328	69.39	ng/uL	95
54)	2,4,6-Tribromophenol (SUR)	17.34	475	18429	56.45	ng/uL	95
55)	4-Bromophenyl-phenylether	17.98	495	39617	72.68	ng/uL	88
56)	Pentachloronitrobenzene	18.92	524	9370	87.03	ng/uL	100
57)	Hexachlorobenzene	18.21	502	37688	64.02	ng/uL	95
58)	Pentachlorophenol	18.79	520	13860	72.81	ng/uL	100
59)	Phenanthrene	18.99	526	176534	77.44	ng/uL	98
60)	Anthracene	19.12	530	142384	71.66	ng/uL	98
61)	Di-n-Butylphthalate	20.89	585	198431	68.13	ng/uL	97
62)	Fluoranthene	21.89	616	129318	70.90	ng/uL	96
63)	*d12-Chrysene (IS)	25.45	726	28444	40.00	ng/uL	99
64)	Pyrene	22.41	632	132545	62.25	ng/uL	93
65)	Terphenyl-d14 (SUR)	23.02	651	88874	61.03	ng/uL	86
66)	Butylbenzylphthalate	24.51	697	87800	73.76	ng/uL	96
67)	3,3'-Dichlorobenzidine	25.54	729	45644	77.70	ng/uL	98
68)	Benzo(a)Anthracene	25.41	725	128514	66.10	ng/uL	97
69)	Bis(2-Ethylhexyl)Phthalate	26.09	746	100062	53.25	ng/uL	90
70)	Chrysene	25.51	728	93110	67.91	ng/uL	93
71)	*d12-Perylene (IS)	28.68	826	24482	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.51	790	171708	61.76	ng/uL	87
73)	Benzo(b)fluoranthene	27.97	804	223793	67.35	ng/uL	100
74)	Benzo(k)Fluoranthene	27.97	804	223793	67.35	ng/uL	100
75)	Benzo(a)Pyrene	28.55	822	99800	66.80	ng/uL	95
76)	Indeno(1,2,3-cd)Pyrene	30.75	890	117455	69.52	ng/uL	91
77)	Dibenzo(a,h)Anthracene	30.81	892	90566	67.33	ng/uL	96
78)	Benzo(g,h,i)Perylene	31.26	906	98146	72.43	ng/uL	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1351::D1 Quant Output File: ^B1351::QT
Name: 160NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871214 13:49

Operator ID: USER6
Quant Time: 871217 11:47
Injected at: 871217 11:10

Continuing Calibration Check
HSL Compounds

3 2 00856

Case No: Calibration Date: 12/18/87

Contractor: BCM Time: 07:20

Contract No: Laboratory ID: >B1360

Instrument ID: 01 Initial Calibration Date: 12/17/87

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % Diff for CCC is 25.0%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
2-Fluorophenol (SUR)	2.57902	2.62259	1.69		
Phenol-d5 (SUR)	3.79217	4.11994	8.64		
Phenol	4.10616	4.15514	1.19	*	
bis(-2-Chloroethyl)Ether	4.75919	5.05467	6.21		
2-Chlorophenol	2.82314	3.28310	16.29		
1,3-Dichlorobenzene	2.91331	2.61819	10.13		
1,4-Dichlorobenzene	2.95391	2.68822	8.99	*	
Benzyl Alcohol	2.04817	1.76424	13.86		
1,2-Dichlorobenzene	2.78209	2.41253	13.28		
2-Methylphenol	2.75109	3.47789	25.96		
bis(2-Chloroisopropyl)ether	7.07172	7.10780	.51		
4-Methylphenol	2.84609	3.25524	14.30		
N-Nitroso-Di-n-propylamine	3.34069	3.22823	3.37		**
Hexachloroethane	1.48871	1.49906	.70		
Nitrobenzene-d5 (SUR)	1.13564	.97010	14.43		
Nitrobenzene	1.47652	1.45266	1.62		
Isophorone	2.27345	1.72276	24.22		
2-Nitrophenol	.45719	.41974	3.99	*	
2,4-Dimethylphenol	.61631	.63786	3.40		
Benzoic Acid	.32621	.14663	55.05		
bis(-2-Chloroethoxy)Methane	1.35045	1.11873	17.16		
2,4-Dichlorophenol	.52822	.59769	13.19		
1,2,4-Trichlorobenzene	.65891	.60023	8.91		
Naphthalene	2.41577	2.24715	6.98		
4-Chloroaniline	.99065	.94854	4.25		
Hexachlorobutadiene	.36257	.28786	20.60	*	
4-Chloro-3-methylphenol	.69405	.65987	4.93	*	
2-Methylnaphthalene	1.34241	1.16741	13.04		
Hexachlorocyclopentadiene	.74681	.71053	4.86		**
2,4,6-Trichlorophenol	.73125	.79913	9.28	*	
2,4,5-Trichlorophenol	.73125	.94410	29.11		
2-Chloronaphthalene	2.42746	2.49351	2.72		

RF - Response Factor from daily standard file at 25.00 ng/uL

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: _____ Calibration Date: 12/18/87

Contractor: BCM Time: 07:20

Contract No: _____ Laboratory ID: X81360

Instrument ID: 81 Initial Calibration Date: 12/17/87

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % Diff for CCC is 25.0%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
2-Fluorobiphenyl (SUR)	2.55835	2.54885	.37		
2-Nitroaniline	1.00099	.92320	7.77		
Dimethyl Phthalate	2.77986	2.97355	6.97		
Acenaphthylene	3.84801	3.82161	.68		
3-Nitroaniline	.79818	.76508	4.15		
Acenaphthene	2.34846	2.58971	10.27	*	
2,4-Dinitrophenol	.17078	.02850	83.31		**
4-Nitrophenol	.35752	.22169	37.99		**
Dibenzofuran	3.28915	3.09636	5.86		
2,4-Dinitrotoluene	.84495	.75234	10.96		
2,6-Dinitrotoluene	.67626	.63753	5.67		
Diethylphthalate	2.93977	2.69752	8.24		
4-Chlorophenyl-phenylether	1.20877	1.11671	7.62		
Fluorene	2.50659	2.53579	1.16		
4-Nitroaniline	.68342	.51694	24.36		
4,6-Dinitro-2-methylphenol	.21151	.17256	18.37		
N-Nitrosodiphenylamine	1.0124	1.04178	5.44	*	
2,4,6-Tribromophenol (SUR)	.28724	.30308	5.51		
Pentachloronitrobenzene	.13414	.10653	20.51		
4-Bromophenyl-phenylether	.56709	.55706	1.77		
Hexachlorobenzene	.61786	.53144	13.99		
Pentachlorophenol	.15296	.04170	72.74	*	
Phenanthrene	2.39164	2.21208	7.51		
Anthracene	2.21278	2.23146	.84		
Di-n-Butylphthalate	3.04191	3.24696	6.74		
Fluoranthene	1.99795	1.82857	8.47	*	
Pyrene	2.90315	2.77428	4.64		
Terphenyl-d14 (SUR)	1.88743	1.87716	.54		
Butylbenzylphthalate	1.62349	1.48835	8.32		
3,3'-Dichlorobenzidine	.85028	.71467	15.95		
Benzo(a)Anthracene	2.68432	2.48462	7.44		
Bis(2-Ethylhexyl)Phthalate	2.35689	2.49723	5.95		

RF - Response factor from daily standard file at 25.00 ng/uL

$\overline{RF}$ - Average Response factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
MSL Compounds

Case No: Calibration Date: 12/18/87

Contractor: BCM Time: 07:20

Contract No: Laboratory ID: >B1360

Instrument ID: 01 Initial Calibration Date: 12/17/87

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % Diff for CCC is 25.0%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
Chrysene	1.97016	1.93585	1.74		
Di-n-octyl phthalate	3.78455	4.25720	12.49	*	
Benzo(b)fluoranthene	5.31357	5.29375	.37		
Benzo(k)Fluoranthene	5.31357	5.29375	.37		
Benzo(a)Pyrene	2.41715	2.32176	3.95	*	
Indeno(1,2,3-cd)Pyrene	2.84786	2.69528	5.22		
Dibenzo(a,h)Anthracene	2.20940	2.20657	.13		
Benzo(g,h,i)Perylene	2.40041	2.39961	.03		

RF - Response Factor from daily standard file at 25.00 ng/ul

$\overline{RF}$ - Average Response factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871218 07:55
Output File: ^B1360::QT Injected at: 871218 07:20
Data File: >B1360::D1 Dilution Factor: 1.00000
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

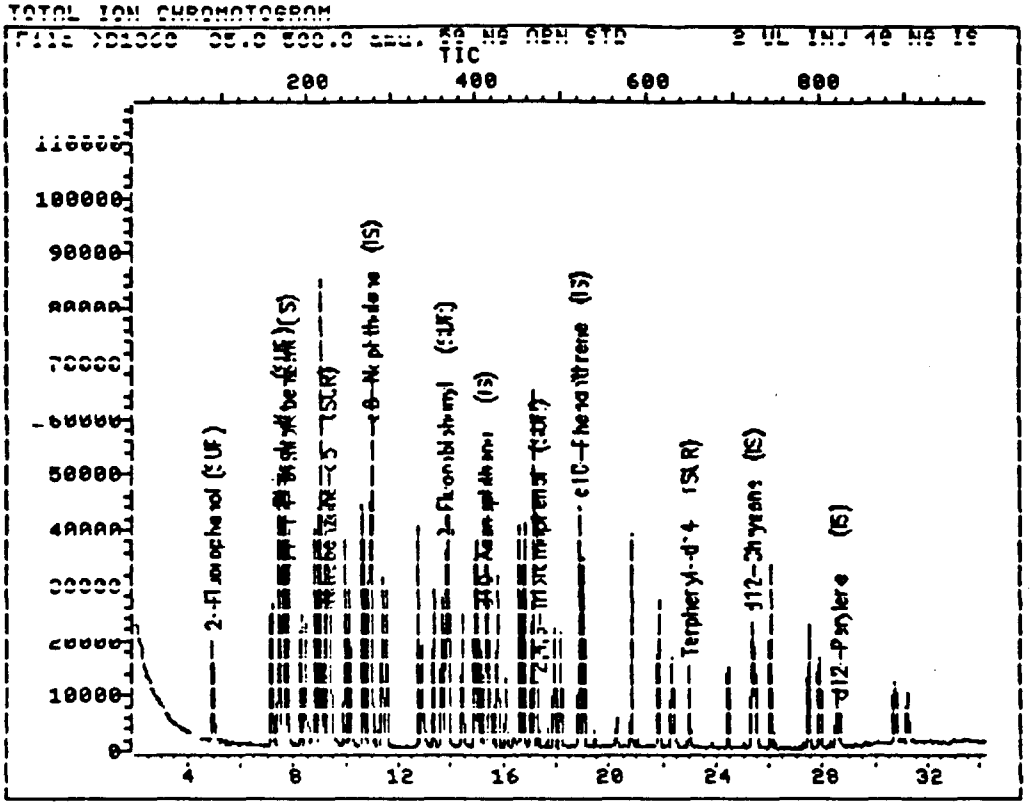
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.74	177	13093	40.00	ng/uL	96
2)	2-Fluorophenol (SUR)	4.93	90	21461	25.42	ng/uL	100
3)	Phenol-d5 (SUR)	7.54	171	33714	27.16	ng/uL	100
4)	Phenol	7.58	172	34002	25.30	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.12	158	41363M	26.55	ng/uL	
6)	2-Chlorophenol	7.41	167	26866	29.07	ng/uL	99
7)	1,3-Dichlorobenzene	7.64	174	21425	22.47	ng/uL	92
8)	1,4-Dichlorobenzene	7.77	178	21998	22.75	ng/uL	92
9)	Benzyl Alcohol	8.42	198	14437M	21.53	ng/uL	
10)	1,2-Dichlorobenzene	8.22	192	19742	21.68	ng/uL	94
11)	2-Methylphenol	8.97	215	28460	31.49	ng/uL	91
12)	bis(2-Chloroisopropyl)ether	8.77	209	58164	25.13	ng/uL	96
13)	4-Methylphenol	9.35	227	26638	28.57	ng/uL	98
14)	N-Nitroso-Di-n-propylamine	9.16	221	26417	24.16	ng/uL	68
15)	Hexachloroethane	8.97	215	12267	25.17	ng/uL	98
16)	*d8-Naphthalene (IS)	10.94	276	47195	40.00	ng/uL	89
17)	Nitrobenzene-d5 (SUR)	9.26	224	28615	21.39	ng/uL	80
18)	Nitrobenzene	9.32	226	42849	24.60	ng/uL	95
19)	Isophorone	9.97	246	50816	18.94	ng/uL	85
20)	2-Nitrophenol	10.13	251	12381M	24.00	ng/uL	
21)	2,4-Dimethylphenol	10.58	265	18815	25.85	ng/uL	87
22)	Benzoic Acid	11.20	284	4325	11.24	ng/uL	96
23)	bis(-2-Chloroethoxy)Methane	10.68	268	32999	20.71	ng/uL	89
24)	2,4-Dichlorophenol	10.84	273	17636	28.30	ng/uL	86
25)	1,2,4-Trichlorobenzene	10.87	274	17705	22.77	ng/uL	94
26)	Naphthalene	10.97	277	66284	23.26	ng/uL	98
27)	4-Chloroaniline	11.36	289	27979	23.94	ng/uL	99
28)	Hexachlorobutadiene	11.55	295	8491	19.85	ng/uL	93
29)	4-Chloro-3-methylphenol	12.88	336	19464	23.77	ng/uL	91
30)	2-Methylnaphthalene	12.71	331	34435	21.74	ng/uL	97
31)	*d10-Acenaphthene (IS)	15.30	411	20208	40.00	ng/uL	96
32)	Hexachlorocyclopentadiene	13.33	350	8974	23.79	ng/uL	95
33)	2,4,6-Trichlorophenol	13.65	360	10093M	27.32	ng/uL	95
34)	2,4,5-Trichlorophenol	13.84	366	11924	32.28	ng/uL	97
35)	2-Chloronaphthalene	13.91	368	31493	25.68	ng/uL	91
36)	2-Fluorobiphenyl (SUR)	13.78	364	32192	24.91	ng/uL	94
37)	2-Nitroaniline	14.43	384	11660M	23.06	ng/uL	
38)	Dimethyl Phthalate	15.04	403	37556	26.74	ng/uL	100
39)	Acenaphthylene	14.91	399	48267	24.88	ng/uL	94
40)	3-Nitroaniline	15.46	416	9663	23.96	ng/uL	79
41)	Acenaphthene	15.40	414	32708	27.57	ng/uL	97
42)	2,4-Dinitrophenol	15.82	427	360	4.17	ng/uL	100
43)	4-Nitrophenol	16.36	444	2800	15.50	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.78	426	39107	23.53	ng/uL	93
45)	2,4-Dinitrotoluene	16.07	435	9502	22.26	ng/uL	100
46)	2,6-Dinitrotoluene	15.14	406	8057	23.58	ng/uL	100
47)	Diethylphthalate	16.78	457	34071	22.94	ng/uL	96
48)	4-Chlorophenyl-phenylether	16.75	456	14104	23.10	ng/uL	100
49)	Fluorene	16.62	452	32027	25.29	ng/uL	99
50)	4-Nitroaniline	16.98	463	6529M	18.91	ng/uL	
51)	*d10-Phenanthrene (IS)	18.89	522	26169	40.00	ng/uL	99
52)	4,6-Dinitro-2-methylphenol	17.08	466	2824	20.41	ng/uL	100
53)	N-Nitrosodiphenylamine	17.11	467	17039	23.64	ng/uL	91
54)	2,4,6-Tribromophenol (SUR)	17.30	473	4957	26.38	ng/uL	96
55)	4-Bromophenyl-phenylether	17.92	492	9111	24.56	ng/uL	92
56)	Pentachloronitrobenzene	18.85	521	1744	19.87	ng/uL	100
57)	Hexachlorobenzene	18.17	500	8692	21.50	ng/uL	95
58)	Pentachlorophenol	18.76	518	682	6.82	ng/uL	100
59)	Phenanthrene	18.95	524	36180	23.12	ng/uL	96
60)	Anthracene	19.05	527	36497	25.21	ng/uL	98
61)	Di-n-Butylphthalate	20.86	583	53106	26.69	ng/uL	95
62)	Fluoranthene	21.86	614	29909	22.88	ng/uL	96
63)	*d12-Chrysene (IS)	25.38	723	15864	40.00	ng/uL	95
64)	Pyrene	22.34	629	27507	23.84	ng/uL	96
65)	Terphenyl-d14 (SUR)	22.99	649	18612	24.86	ng/uL	85
66)	Butylbenzylphthalate	24.44	694	14757	22.92	ng/uL	79
67)	3,3'-Dichlorobenzidine	25.51	727	7086	21.01	ng/uL	98
68)	Benzo(a)Anthracene	25.35	722	24635	23.14	ng/uL	95
69)	Bis(2-Ethylhexyl)Phthalate	26.06	744	24760	26.49	ng/uL	94
70)	Chrysene	25.44	725	19194	24.56	ng/uL	93
71)	*d12-Perylene (IS)	28.61	823	12168	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.48	788	32376	28.12	ng/uL	86
73)	Benzo(b)fluoranthene	27.90	801	40259	24.91	ng/uL	100
74)	Benzo(k)Fluoranthene	27.90	801	40259	24.91	ng/uL	100
75)	Benzo(a)Pyrene	28.51	820	17657	24.01	ng/uL	90
76)	Indeno(1,2,3-cd)Pyrene	30.71	888	20528	23.70	ng/uL	81
77)	Dibenzo(a,h)Anthracene	30.77	890	16781	24.97	ng/uL	93
78)	Benzo(g,h,i)Perylene	31.19	903	18249	24.99	ng/uL	92

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1360::D1 Quant Output File: ^B1360::QT
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871218 07:55
Injected at: 871218 07:20

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 12/21/87

Contractor: BCM Time: 09:09

Contract No: Laboratory ID: >B1374

Instrument ID: #1 Initial Calibration Date: 12/17/87

Minimum RF for SPCC is 0.05 Maximum % Diff for CCC is 25.0%

Compound	RF	RF	%Diff	CCC	SPCC
2-Fluorophenol (SUR)	2.57902	2.28926	11.24		
Phenol-d5 (SUR)	3.79217	3.68613	2.80		
Phenol	4.10616	3.73404	9.06	*	
bis(-2-Chloroethyl)Ether	4.75919	5.31380	11.65		
2-Chlorophenol	2.82314	2.73103	3.26		
1,3-Dichlorobenzene	2.91331	2.82165	3.15		
1,4-Dichlorobenzene	2.95391	2.58989	12.32	*	
Benzyl Alcohol	2.04817	2.19991	7.41		
1,2-Dichlorobenzene	2.78209	2.87360	3.29		
2-Methylphenol	2.76109	3.17327	14.93		
bis(2-Chloroisopropyl)ether	7.07172	6.71605	5.03		
4-Methylphenol	2.84809	3.52063	23.61		
N-Nitroso-Di-n-propylamine	3.34068	3.47303	3.96		**
Hexachloroethane	1.48871	1.62941	9.45		
Nitrobenzene-d5 (SUR)	1.13364	1.05256	7.15		
Nitrobenzene	1.47652	1.41262	4.33		
Isophorone	2.27343	2.03255	10.60		
2-Nitrophenol	.43718	.38240	12.53	*	
2,4-Dimethylphenol	.61691	.53279	13.64		
Benzoic Acid	.32621	.26367	19.17		
bis(-2-Chloroethoxy)Methane	1.35045	1.06159	21.39		
2,4-Dichlorophenol	.52822	.47165	10.71		
1,2,4-Trichlorobenzene	.65891	.50953	22.67		
Naphthalene	2.41577	1.94551	19.47		
4-Chloroaniline	.99065	.93016	6.11		
Hexachlorobutadiene	.36257	.26894	25.82	*	
4-Chloro-3-methylphenol	.69405	.61045	12.05	*	
2-Methylnaphthalene	1.34241	1.13223	15.66		
Hexachlorocyclopentadiene	.74681	.61720	17.36		**
2,4,6-Trichlorophenol	.73125	.74242	1.53	*	
2,4,5-Trichlorophenol	.73125	.74242	1.53		
2-Chloronaphthalene	2.42748	2.29825	5.32		

RF - Response Factor from daily standard file at 25.00 ng/uL

RF - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 12/21/87

Contractor: BCM Time: 09:09

Contract No: Laboratory ID: >B1374

Instrument ID: #1 Initial Calibration Date: 12/17/87

Minimum RF for SPCC is 0.05 Maximum % Diff for CCC is 25.0%

Compound	RF	RF	%Diff	CCC	SPCC
2-Fluorobiphenyl (SUR)	2.55835	2.56766	.36		
2-Nitroaniline	1.00099	.95294	4.80		
Dimethyl Phthalate	2.77986	2.47235	11.06		
Acenaphthylene	3.84001	4.01950	4.67		
3-Nitroaniline	.79818	.72253	9.48		
Acenaphthene	2.34848	2.13126	9.25	*	
2,4-Dinitrophenol	.17078	.08677	49.19		**
4-Nitrophenol	.35752	.07173	79.94		**
Dibenzofuran	3.28915	3.35028	1.86		
2,4-Dinitrotoluene	.84495	.75479	10.67		
2,6-Dinitrotoluene	.67626	.65108	3.72		
Diethylphthalate	2.93977	2.36536	19.54		
4-Chlorophenyl-phenylether	1.20877	1.09911	9.07		
Fluorene	2.50659	2.17967	13.04		
4-Nitroaniline	.68342	.52087	23.79		
4,6-Dinitro-2-methylphenol	.21151	.13680	35.32		
N-Nitrosodiphenylamine	1.10174	1.01304	8.05	*	
2,4,6-Tribromophenol (SUR)	.28724	.22228	22.62		
Pentachloronitrobenzene	.13414	.10642	20.66		
4-Bromophenyl-phenylether	.56708	.51911	8.46		
Hexachlorobenzene	.61788	.49740	19.50		
Pentachlorophenol	.15296	.06716	56.09	*	
Phenanthrene	2.39164	2.19375	8.27		
Anthracene	2.21278	1.92622	12.95		
Di-n-Butylphthalate	3.04191	2.75785	9.34		
Fluoranthene	1.99799	1.64934	17.45	*	
Pyrene	2.90915	2.87636	1.13		
Terphenyl-d14 (SUR)	1.88743	1.89811	.57		
Butylbenzylphthalate	1.62349	1.78899	10.19		
3,3'-Dichlorobenzidine	.85028	.71053	16.44		
Benzo(a)Anthracene	2.68432	2.55371	4.87		
Bis(2-Ethylhexyl)Phthalate	2.35689	3.15445	33.84		

RF - Response Factor from daily standard file at 25.00 ng/uL

RF - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: | Calibration Date: 12/21/87

Contractor: BCM | Time: 09:09

Contract No: | Laboratory ID: >B1374

Instrument ID: #1 | Initial Calibration Date: 12/17/87

Minimum $\overline{RF}$ for SPCC is 0.05 | Maximum % Diff for CCC is 25.0%

Compound	RF	$\overline{RF}$	%Diff	CCC	SPCC
Chrysene	1.97016	1.63677	16.92		
Di-n-octyl phthalate	3.78455	4.18146	10.49	*	
Benzo(b)fluoranthene	5.31357	4.91437	7.51		
Benzo(k)Fluoranthene	5.31357	4.91437	7.51		
Benzo(a)Pyrene	2.41715	2.29862	4.90	*	
Indeno(1,2,3-cd)Pyrene	2.84786	2.63583	7.45		
Dibenzo(a,h)Anthracene	2.20940	2.09685	5.09		
Benzo(g,h,i)Perylene	2.40041	2.14184	10.77		

RF - Response Factor from daily standard file at 25.00 ng/uL

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

3 2 00865

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871221 09:48
Output File: ^B1374::QT Injected at: 871221 09:09
Data File: >B1374::D1 Dilution Factor: 1.00000
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

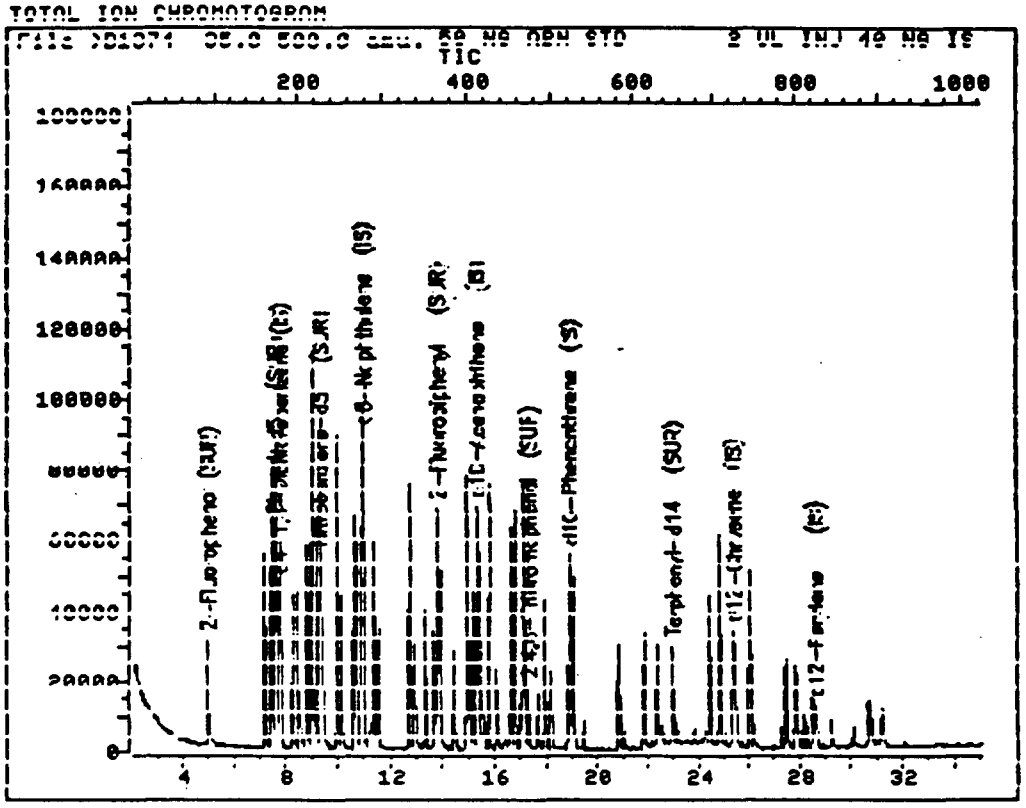
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.77	178	20235	40.00	ng/uL	96
2)	2-Fluorophenol (SUR)	4.96	91	28952	22.19	ng/uL	100
3)	Phenol-d5 (SUR)	7.58	172	46618	24.30	ng/uL	100
4)	Phenol	7.61	173	47224	22.73	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.19	160	67203M	27.91	ng/uL	
6)	2-Chlorophenol	7.45	168	34539	24.18	ng/uL	98
7)	1,3-Dichlorobenzene	7.67	175	35685	24.21	ng/uL	93
8)	1,4-Dichlorobenzene	7.84	180	32754	21.92	ng/uL	94
9)	Benzyl Alcohol	8.45	199	27822	26.85	ng/uL	88
10)	1,2-Dichlorobenzene	8.26	193	36342	25.82	ng/uL	93
11)	2-Methylphenol	9.00	216	40132	28.73	ng/uL	93
12)	bis(2-Chloroisopropyl)ether	8.80	210	84937	23.74	ng/uL	89
13)	4-Methylphenol	9.39	228	44525	30.90	ng/uL	97
14)	N-Nitroso-Di-n-propylamine	9.19	222	43923	25.99	ng/uL	84
15)	Hexachloroethane	9.00	216	20607	27.36	ng/uL	97
16)	*d8-Naphthalene (IS)	10.97	277	78001	40.00	ng/uL	90
17)	Nitrobenzene-d5 (SUR)	9.32	226	51313	23.21	ng/uL	93
18)	Nitrobenzene	9.35	227	68866	23.92	ng/uL	95
19)	Isophorone	10.00	247	99088	22.35	ng/uL	92
20)	2-Nitrophenol	10.16	252	18642M	21.87	ng/uL	
21)	2,4-Dimethylphenol	10.61	266	25974	21.59	ng/uL	88
22)	Benzoic Acid	11.33	288	12854	20.21	ng/uL	86
23)	bis(-2-Chloroethoxy)Methane	10.71	269	51753	19.65	ng/uL	92
24)	2,4-Dichlorophenol	10.87	274	22993	22.32	ng/uL	95
25)	1,2,4-Trichlorobenzene	10.91	275	24840	19.33	ng/uL	97
26)	Naphthalene	11.00	278	94845	20.13	ng/uL	98
27)	4-Chloroaniline	11.39	290	45346	23.47	ng/uL	94
28)	Hexachlorobutadiene	11.55	295	13111M	18.54	ng/uL	92
29)	4-Chloro-3-methylphenol	12.91	337	29760	21.99	ng/uL	88
30)	2-Methylnaphthalene	12.75	332	55197	21.09	ng/uL	94
31)	*d10-Acenaphthene (IS)	15.33	412	34665	40.00	ng/uL	99
32)	Hexachlorocyclopentadiene	13.36	351	13372	20.66	ng/uL	98
33)	2,4,6-Trichlorophenol	13.85	366	16085	25.38	ng/uL	92
34)	2,4,5-Trichlorophenol	13.85	366	16085	25.38	ng/uL	93
35)	2-Chloronaphthalene	13.91	368	49793	23.67	ng/uL	93
36)	2-Fluorobiphenyl (SUR)	13.81	365	55630	25.09	ng/uL	92
37)	2-Nitroaniline	14.43	384	20646	23.80	ng/uL	84
38)	Dimethyl Phthalate	15.04	403	53565	22.23	ng/uL	100
39)	Acenaphthylene	14.94	400	87085	26.17	ng/uL	95
40)	3-Nitroaniline	15.49	417	15654	22.63	ng/uL	90
41)	Acenaphthene	15.40	414	46175	22.69	ng/uL	98
42)	2,4-Dinitrophenol	15.82	427	1880	12.70	ng/uL	100
43)	4-Nitrophenol	16.40	445	1554	5.02	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.82	427	72586	25.46	ng/uL	93
45)	2,4-Dinitrotoluene	16.11	436	16353	22.33	ng/uL	100
46)	2,6-Dinitrotoluene	15.17	407	14106	24.07	ng/uL	100
47)	Diethylphthalate	16.82	458	51247	20.12	ng/uL	92
48)	4-Chlorophenyl-phenylether	16.79	457	23813	22.73	ng/uL	100
49)	Fluorene	16.66	453	47224	21.74	ng/uL	98
50)	4-Nitroaniline	17.01	464	11285	19.05	ng/uL	86
51)	*d10-Phenanthrene (IS)	18.92	523	41930	40.00	ng/uL	99
52)	4,6-Dinitro-2-methylphenol	17.11	467	3585	16.17	ng/uL	100
53)	N-Nitrosodiphenylamine	17.14	468	26548	22.99	ng/uL	91
54)	2,4,6-Tribromophenol (SUR)	17.34	474	5825	19.35	ng/uL	94
55)	4-Bromophenyl-phenylether	17.95	493	13604	22.89	ng/uL	82
56)	Pentachloronitrobenzene	18.89	522	2789	19.83	ng/uL	100
57)	Hexachlorobenzene	18.18	500	13035	20.13	ng/uL	96
58)	Pentachlorophenol	18.79	519	1760	10.98	ng/uL	100
59)	Phenanthrene	18.95	524	57490	22.93	ng/uL	95
60)	Anthracene	19.08	528	50479	21.76	ng/uL	96
61)	Di-n-Butylphthalate	20.86	583	72273	22.67	ng/uL	97
62)	Fluoranthene	21.89	615	43223	20.64	ng/uL	92
63)	*d12-Chrysene (IS)	25.41	724	24061	40.00	ng/uL	98
64)	Pyrene	22.38	630	43255	24.72	ng/uL	96
65)	Terphenyl-d14 (SUR)	23.02	650	28544	25.14	ng/uL	91
66)	Butylbenzylphthalate	24.48	695	26903	27.55	ng/uL	92
67)	3,3'-Dichlorobenzidine	25.54	728	10685	20.89	ng/uL	94
68)	Benzo(a)Anthracene	25.38	723	38403	23.78	ng/uL	98
69)	Bis(2-Ethylhexyl)Phthalate	26.06	744	47437	33.46	ng/uL	84
70)	Chrysene	25.48	726	24614	20.77	ng/uL	98
71)	*d12-Perylene (IS)	28.64	824	17921	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.48	788	46835	27.62	ng/uL	88
73)	Benzo(b)fluoranthene	27.87	800	55044	23.12	ng/uL	100
74)	Benzo(k)Fluoranthene	27.87	800	55044	23.12	ng/uL	100
75)	Benzo(a)Pyrene	28.51	820	25746	23.77	ng/uL	93
76)	Indeno(1,2,3-cd)Pyrene	30.71	888	29523	23.14	ng/uL	94
77)	Dibenzo(a,h)Anthracene	30.78	890	23486	23.73	ng/uL	96
78)	Benzo(g,h,i)Perylene	31.23	904	23990	22.31	ng/uL	94

* Compound is ISTD

TOTAL ION CHROMOTOGRAM



Data File: >B1374::D1 Quant Output File: ^B1374::QT
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871221 09:48
Injected at: 871221 09:09

Continuing Calibration Check
NSL Compounds

Case No: | Calibration Date: 12/22/87

Contractor: BCM | Time: 06:52

Contract No: | Laboratory ID: >81386

Instrument ID: 81 | Initial Calibration Date: 12/17/87

Minimum $\overline{RF}$ for SPCC is 0.05 | Maximum % Diff for CCC is 25.0%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
2-Fluorophenol (SUR)	2.57902	2.50575	2.84		
Phenol-d5 (SUR)	3.79217	2.73631	27.84		
Phenol	4.10616	4.93492	20.18	*	
bis(-2-Chloroethyl)Ether	4.75919	4.29948	9.66		
2-Chlorophenol	2.82314	3.15639	11.80		
1,3-Dichlorobenzene	2.91331	2.69704	7.40		
1,4-Dichlorobenzene	2.95391	2.63342	10.85	*	
Benzyl Alcohol	2.04817	1.73913	15.09		
1,2-Dichlorobenzene	2.78209	2.74426	1.36		
2-Methylphenol	2.76109	2.97985	7.92		
bis(2-Chloroisopropyl)ether	7.07172	6.83820	3.30		
4-Methylphenol	2.84209	3.13184	9.96		
N-Nitroso-Di-n-propylamine	3.34068	2.99972	10.21		**
Hexachloroethane	1.48871	1.51009	1.44		
Nitrobenzene-d5 (SUR)	1.13364	1.16906	3.12		
Nitrobenzene	1.47652	1.66317	12.64		
Isophorone	2.22343	2.05698	9.43		
2-Nitrophenol	.43718	.46969	7.44	*	
2,4-Dimethylphenol	.61691	.64469	4.50		
Benzoic Acid	.32621	.32975	1.09		
bis(-2-Chloroethoxy)Methane	1.35045	1.35333	.21		
2,4-Dichlorophenol	.52622	.54857	3.85		
1,2,4-Trichlorobenzene	.65891	.66457	.86		
Naphthalene	2.41577	2.60651	7.90		
4-Chloroaniline	.99065	1.03643	4.62		
Hexachlorobutadiene	.36257	.37046	2.18	*	
4-Chloro-3-methylphenol	.69405	.83133	19.78	*	
2-Methylnaphthalene	1.34241	1.46239	8.94		
Hexachlorocyclopentadiene	.74681	.48344	35.27		**
2,4,6-Trichlorophenol	.73125	.85942	17.53	*	
2,4,5-Trichlorophenol	.73125	.85942	17.53		
2-Chloronaphthalene	2.42748	2.26488	6.70		

RF - Response factor from daily standard file at 25.00 ng/uL

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 12/22/87

Contractor: BCM Time: 06:52

Contract No: Laboratory ID:)81386

Instrument ID: 01 Initial Calibration Date: 12/17/87

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % Diff for CCC is 25.0%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
2-Fluorobiphenyl (SUR)	2.55835	2.49068	2.65		
2-Nitroaniline	1.00099	.98844	1.25		
Dimethyl Phthalate	2.77986	2.83997	2.16		
Acenaphthylene	3.84001	3.48259	9.31		
3-Nitroaniline	.79818	.83300	4.36		
Acenaphthene	2.34848	2.53693	8.02	*	
2,4-Dinitrophenol	.17078	.07446	56.40		**
4-Nitrophenol	.35752	.35393	1.00		**
Dibenzofuran	3.28915	2.94626	10.36		
2,4-Dinitrotoluene	.84495	.76880	9.01		
2,6-Dinitrotoluene	.67626	.61725	8.73		
Diethylphthalate	2.93977	3.00595	2.25		
4-Chlorophenyl-phenylether	1.20877	1.23643	2.29		
Fluorene	2.50659	2.21357	11.69		
4-Nitroaniline	.68342	.60497	11.48		
4,6-Dinitro-2-methylphenol	.21151	.17182	18.76		
N-Nitrosodiphenylamine	1.19174	1.26909	15.19	*	
2,4,6-Tribromophenol (SUR)	.28724	.26936	6.23		
Pentachloronitrobenzene	.13414	.12197	9.07		
4-Bromophenyl-phenylether	.56708	.63034	11.16		
Hexachlorobenzene	.61788	.70702	14.43		
Pentachlorophenol	.15296	.09412	38.47	*	
Phenanthrene	2.39164	2.36863	.96		
Anthracene	2.21278	2.30848	4.32		
Di-n-Butylphthalate	3.04191	3.20975	5.52		
Fluoranthene	1.99799	1.98038	.88	*	
Pyrene	2.90915	3.02085	3.84		
Terphenyl-d14 (SUR)	1.88743	1.94142	2.86		
Butylbenzylphthalate	1.62349	1.54414	4.89		
3,3'-Dichlorobenzidine	.85028	.68772	19.12		
Benzo(a)Anthracene	2.68432	2.67429	.37		
Bis(2-Ethylhexyl)Phthalate	2.35683	2.70301	14.69		

RF - Response Factor from daily standard file at 25.00 ng/uL

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
NSL Compounds

Case No: _____ Calibration Date: 12/22/87

Contractor: BCM Time: 06:52

Contract No: _____ Laboratory ID: >81386

Instrument ID: 81 Initial Calibration Date: 12/17/87

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % Diff for CCC is 25.0%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC
Chrysene	1.97016	1.73643	11.86		
Di-n-octyl phthalate	3.78455	4.69191	24.05	*	
Benzo(b)fluoranthene	5.31357	5.32932	.30		
Benzo(k)fluoranthene	5.31357	5.32932	.30		
Benzo(a)Pyrene	2.41715	2.38654	1.27	*	
Indeno(1,2,3-cd)Pyrene	2.84786	2.83894	.31		
Dibenzo(a,h)Anthracene	2.20940	2.35302	6.50		
Benzo(g,h,i)Perylene	2.40041	2.40187	.06		

RF - Response Factor from daily standard file at 25.00 ng/uL

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 871222 07:31
Output File: ^B1386::QT Injected at: 871222 06:52
Data File: >B1386::D1 Dilution Factor: 1.00000
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.70	176	13685	40.00	ng/uL	94
2)	2-Fluorophenol (SUR)	4.86	88	21432	24.29	ng/uL	100
3)	Phenol-d5 (SUR)	7.51	170	23404	18.04	ng/uL	100
4)	Phenol	7.51	170	42209	30.05	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.34	165	36774	22.59	ng/uL	87
6)	2-Chlorophenol	7.38	166	26997	27.95	ng/uL	97
7)	1,3-Dichlorobenzene	7.57	172	23075	23.15	ng/uL	96
8)	1,4-Dichlorobenzene	7.73	177	22524	22.29	ng/uL	97
9)	Benzyl Alcohol	8.35	196	14875	21.23	ng/uL	94
10)	1,2-Dichlorobenzene	8.18	191	23472	24.66	ng/uL	98
11)	2-Methylphenol	8.93	214	25487	26.98	ng/uL	94
12)	bis(2-Chloroisopropyl)ether	8.73	208	58488	24.17	ng/uL	99
13)	4-Methylphenol	9.31	226	26787	27.49	ng/uL	97
14)	N-Nitroso-Di-n-propylamine	9.09	219	25657	22.45	ng/uL	88
15)	Hexachloroethane	8.93	214	12916	25.36	ng/uL	90
16)	*d8-Naphthalene (IS)	10.90	275	43310	40.00	ng/uL	93
17)	Nitrobenzene-d5 (SUR)	9.22	223	31645	25.78	ng/uL	95
18)	Nitrobenzene	9.28	225	45020	28.16	ng/uL	94
19)	Isophorone	9.90	244	55734	22.64	ng/uL	96
20)	2-Nitrophenol	10.06	249	12714	26.86	ng/uL	80
21)	2,4-Dimethylphenol	10.54	264	17451	26.13	ng/uL	87
22)	Benzoic Acid	11.16	283	8926	25.27	ng/uL	96
23)	bis(-2-Chloroethoxy)Methane	10.64	267	36633	25.05	ng/uL	93
24)	2,4-Dichlorophenol	10.80	272	14849	25.96	ng/uL	95
25)	1,2,4-Trichlorobenzene	10.83	273	17989	25.21	ng/uL	94
26)	Naphthalene	10.93	276	70555	26.97	ng/uL	99
27)	4-Chloroaniline	11.32	288	28055	26.16	ng/uL	89
28)	Hexachlorobutadiene	11.48	293	10028	25.54	ng/uL	93
29)	4-Chloro-3-methylphenol	12.80	334	22503	29.94	ng/uL	92
30)	2-Methylnaphthalene	12.67	330	39585	27.23	ng/uL	96
31)	*d10-Acenaphthene (IS)	15.26	410	23078	40.00	ng/uL	97
32)	Hexachlorocyclopentadiene	13.26	348	6973	16.18	ng/uL	94
33)	2,4,6-Trichlorophenol	13.74	363	12396	29.38	ng/uL	92
34)	2,4,5-Trichlorophenol	13.74	363	12396	29.38	ng/uL	89
35)	2-Chloronaphthalene	13.84	366	32668	23.33	ng/uL	94
36)	2-Fluorobiphenyl (SUR)	13.74	363	35925	24.34	ng/uL	93
37)	2-Nitroaniline	14.35	382	14257M	24.69	ng/uL	
38)	Dimethyl Phthalate	14.97	401	40963	25.54	ng/uL	100
39)	Acenaphthylene	14.84	397	50232	22.67	ng/uL	96
40)	3-Nitroaniline	15.39	414	12015M	26.09	ng/uL	
41)	Acenaphthene	15.32	412	36592	27.01	ng/uL	97
42)	2,4-Dinitrophenol	15.68	423	1074	10.90	ng/uL	100
43)	4-Nitrophenol	16.26	441	5105	24.75	ng/uL	100

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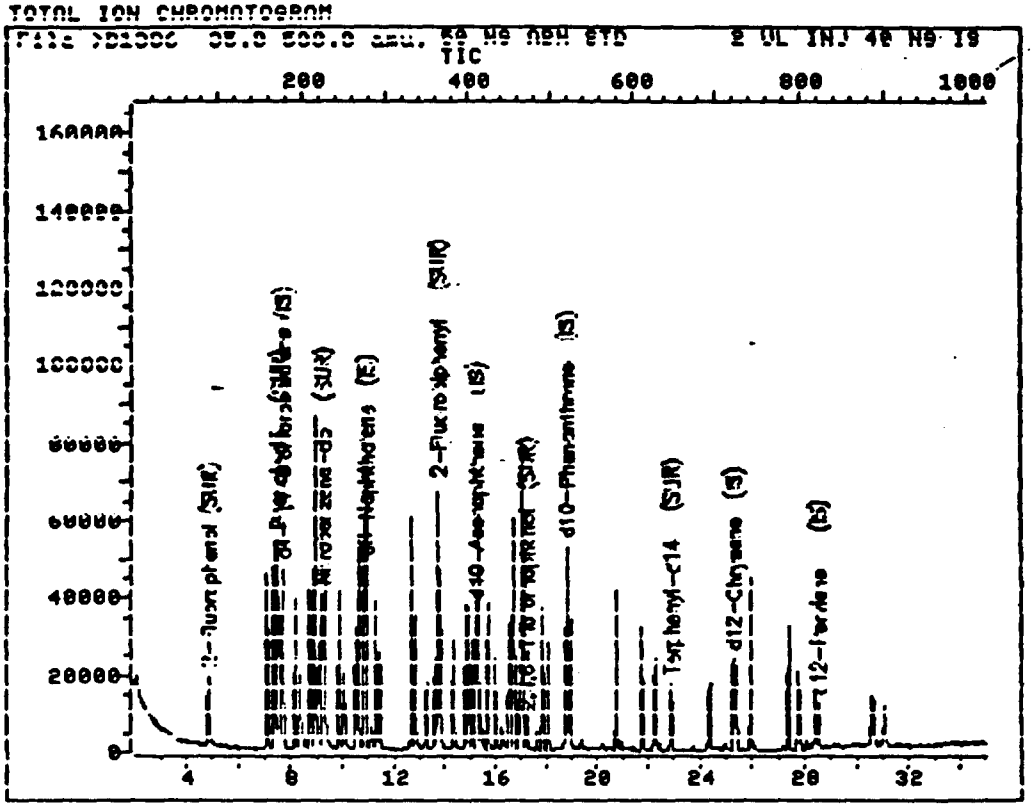
	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.74	425	42525	22.41	ng/uL	90
45)	2,4-Dinitrotoluene	16.04	434	11089	22.75	ng/uL	100
46)	2,6-Dinitrotoluene	15.10	405	8903	22.82	ng/uL	100
47)	Diethylphthalate	16.75	456	43357	25.56	ng/uL	93
48)	4-Chlorophenyl-phenylether	16.71	455	17834	25.57	ng/uL	100
49)	Fluorene	16.58	451	31928	22.08	ng/uL	99
50)	4-Nitroaniline	16.91	461	8726	22.13	ng/uL	78
51)	*d10-Phenanthrene (IS)	18.81	520	29528	40.00	ng/uL	98
52)	4,6-Dinitro-2-methylphenol	17.00	464	3171	20.31	ng/uL	100
53)	N-Nitrosodiphenylamine	17.07	466	23421	28.80	ng/uL	92
54)	2,4,6-Tribromophenol (SUR)	17.23	471	4971	23.44	ng/uL	93
55)	4-Bromophenyl-phenylether	17.88	491	11633	27.79	ng/uL	91
56)	Pentachloronitrobenzene	18.81	520	2251	22.73	ng/uL	100
57)	Hexachlorobenzene	18.10	498	13048	28.61	ng/uL	95
58)	Pentachlorophenol	18.68	516	1737	15.38	ng/uL	100
59)	Phenanthrene	18.88	522	43713	24.76	ng/uL	98
60)	Anthracene	18.98	525	42603	26.08	ng/uL	97
61)	Di-n-Butylphthalate	20.78	581	59236	26.38	ng/uL	98
62)	Fluoranthene	21.79	612	36548	24.78	ng/uL	95
63)	*d12-Chrysene (IS)	25.31	721	18389	40.00	ng/uL	98
64)	Pyrene	22.30	628	34719	25.96	ng/uL	86
65)	Terphenyl-d14 (SUR)	22.92	647	22313	25.72	ng/uL	85
66)	Butylbenzylphthalate	24.37	692	17747	23.78	ng/uL	78
67)	3,3'-Dichlorobenzidine	25.44	725	7904	20.22	ng/uL	93
68)	Benzo(a)Anthracene	25.27	720	30736	24.91	ng/uL	97
69)	Bis(2-Ethylhexyl)Phthalate	25.98	742	31066	28.67	ng/uL	90
70)	Chrysene	25.37	723	19957	22.03	ng/uL	97
71)	*d12-Perylene (IS)	28.54	821	14083	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.41	786	41324	31.01	ng/uL	85
73)	Benzo(b)fluoranthene	27.76	797	46908	25.07	ng/uL	100
74)	Benzo(k)Fluoranthene	27.76	797	46908	25.07	ng/uL	100
75)	Benzo(a)Pyrene	28.41	817	21006	24.68	ng/uL	95
76)	Indeno(1,2,3-cd)Pyrene	30.60	885	24988	24.92	ng/uL	83
77)	Dibenzo(a,h)Anthracene	30.67	887	20711	26.63	ng/uL	94
78)	Benzo(g,h,i)Perylene	31.09	900	21141	25.02	ng/uL	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1386::D1 Quant Output File: ^B1386::QT
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 871222 07:31
Injected at: 871222 06:52

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 01/04/88

Contractor: BCM Time: 08:40

Contract No: Laboratory ID: >B1400

Instrument ID: #1 Initial Calibration Date: 12/17/87

Minimum RF for SPCC is 0.05 Maximum % Diff for CCC is 25.0%

Compound	RF	RF	%Diff	CCC	SPCC
2-Fluorophenol (SUR)	2.57902	1.74913	32.18		
Phenol-d5 (SUR)	3.79217	5.09375	34.32		
Phenol	4.10616	4.77108	16.19	*	
bis(-2-Chloroethyl)Ether	4.75919	4.56042	4.18		
2-Chlorophenol	2.82314	2.89806	2.65		
1,3-Dichlorobenzene	2.91331	3.38073	16.04		
1,4-Dichlorobenzene	2.95391	2.89120	2.12	*	
Benzyl Alcohol	2.04817	1.94040	5.26		
1,2-Dichlorobenzene	2.78209	2.79992	.64		
2-Methylphenol	2.76109	3.38140	22.47		
bis(2-Chloroisopropyl)ether	7.07172	7.33559	3.73		
4-Methylphenol	2.84809	3.58370	25.83		
N-Nitroso-Di-n-propylamine	3.34068	3.31001	.92		**
Hexachloroethane	1.49871	1.69781	14.05		
Nitrobenzene-d5 (SUR)	1.13364	1.14783	1.25		
Nitrobenzene	1.47652	1.64172	11.19		
Isophorone	2.27343	2.47532	8.88		
2-Nitrophenol	.43718	.35837	18.03	*	
2,4-Dimethylphenol	.61691	.68215	10.57		
Benzoic Acid	.32621	.18963	41.87		
bis(-2-Chloroethoxy)Methane	1.35045	1.39379	3.21		
2,4-Dichlorophenol	.52822	.49867	5.60		
1,2,4-Trichlorobenzene	.65891	.58764	10.82		
Naphthalene	2.41577	2.29760	4.89		
4-Chloroaniline	.99065	.84654	14.55		
Hexachlorobutadiene	.36257	.28447	21.54	*	
4-Chloro-3-methylphenol	.69405	.84121	21.20	*	
2-Methylnaphthalene	1.34241	1.37488	2.42		
Hexachlorocyclopentadiene	.74681	.43779	41.38		**
2,4,6-Trichlorophenol	.73125	.69262	5.28	*	
2,4,5-Trichlorophenol	.73125	.69262	5.28		
2-Chloronaphthalene	2.42748	2.18674	9.92		

RF - Response Factor from daily standard file at 25.00 ng/uL

RF - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: | Calibration Date: 01/04/88

Contractor: BCM | Time: 08:40

Contract No: | Laboratory ID: >B1400

Instrument ID: #1 | Initial Calibration Date: 12/17/87

Minimum RF for SPCC is 0.05 | Maximum % Diff for CCC is 25.0%

Compound	RF	RF	%Diff	CCC	SPCC
2-Fluorobiphenyl (SUR)	2.55835	2.36128	7.70		
2-Nitroaniline	1.00099	.85897	14.19		
Dimethyl Phthalate	2.77986	2.59016	6.82		
Acenaphthylene	3.84001	3.18816	16.98		
3-Nitroaniline	.79818	.77405	3.02		
Acenaphthene	2.34848	2.32791	.88	*	
2,4-Dinitrophenol	.17078	.07836	54.12		**
4-Nitrophenol	.35752	.22068	38.28		**
Dibenzofuran	3.28915	2.84635	13.46		
2,4-Dinitrotoluene	.84495	.78367	7.25		
2,6-Dinitrotoluene	.67626	.57512	14.96		
Diethylphthalate	2.93977	2.51651	14.40		
4-Chlorophenyl-phenylether	1.20877	1.09633	9.30		
Fluorene	2.50659	2.26160	9.77		
4-Nitroaniline	.68342	.62474	8.59		
4,6-Dinitro-2-methylphenol	.21151	.12445	41.16		
N-Nitrosodiphenylamine	1.10174	1.00067	9.17	*	
2,4,6-Tribromophenol (SUR)	.28724	.13177	54.13		
Pentachloronitrobenzene	.13414	.11001	17.99		
4-Bromophenyl-phenylether	.56708	.42573	24.93		
Hexachlorobenzene	.61788	.41609	32.66		
Pentachlorophenol	.15296	.06178	59.61	*	
Phenanthrene	2.39164	2.20129	7.96		
Anthracene	2.21278	1.90774	13.79		
Di-n-Butylphthalate	3.04191	3.28855	8.11		
Fluoranthene	1.99799	2.18551	9.39	*	
Pyrene	2.90915	2.44797	15.85		
Terphenyl-d14 (SUR)	1.88743	1.55562	17.58		
Butylbenzylphthalate	1.62349	1.64504	1.33		
3,3'-Dichlorobenzidine	.85028	.76845	9.62		
Benzo(a)Anthracene	2.68432	2.49367	7.10		
Bis(2-Ethylhexyl)Phthalate	2.35689	2.60227	10.41		

RF - Response Factor from daily standard file at 25.00 ng/uL

RF - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: | Calibration Date: 01/04/88

Contractor: BCM | Time: 08:40

Contract No: | Laboratory ID: >81400

Instrument ID: #1 | Initial Calibration Date: 12/17/87

Minimum RF for SPCC is 0.05 | Maximum % Diff for CCC is 25.0%

Compound	RF	RF	%Diff	CCC	SPCC
Chrysene	1.97016	1.80177	8.55		
Di-n-octyl phthalate	3.78455	3.44742	8.91	*	
Benzo(b)fluoranthene	5.31357	4.60635	13.31		
Benzo(k)Fluoranthene	5.31357	4.60635	13.31		
Benzo(a)Pyrene	2.41715	2.05658	14.92	*	
Indeno(1,2,3-cd)Pyrene	2.84786	2.42798	14.74		
Dibenzo(a,h)Anthracene	2.20940	1.88323	14.76		
Benzo(g,h,i)Perylene	2.40041	1.96361	18.20		

RF - Response Factor from daily standard file at 25.00 ng/uL

RF - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 880104 09:16
Output File: ^B1400::QT Injected at: 880104 08:40
Data File: >B1400::D1 Dilution Factor: 1.00000
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

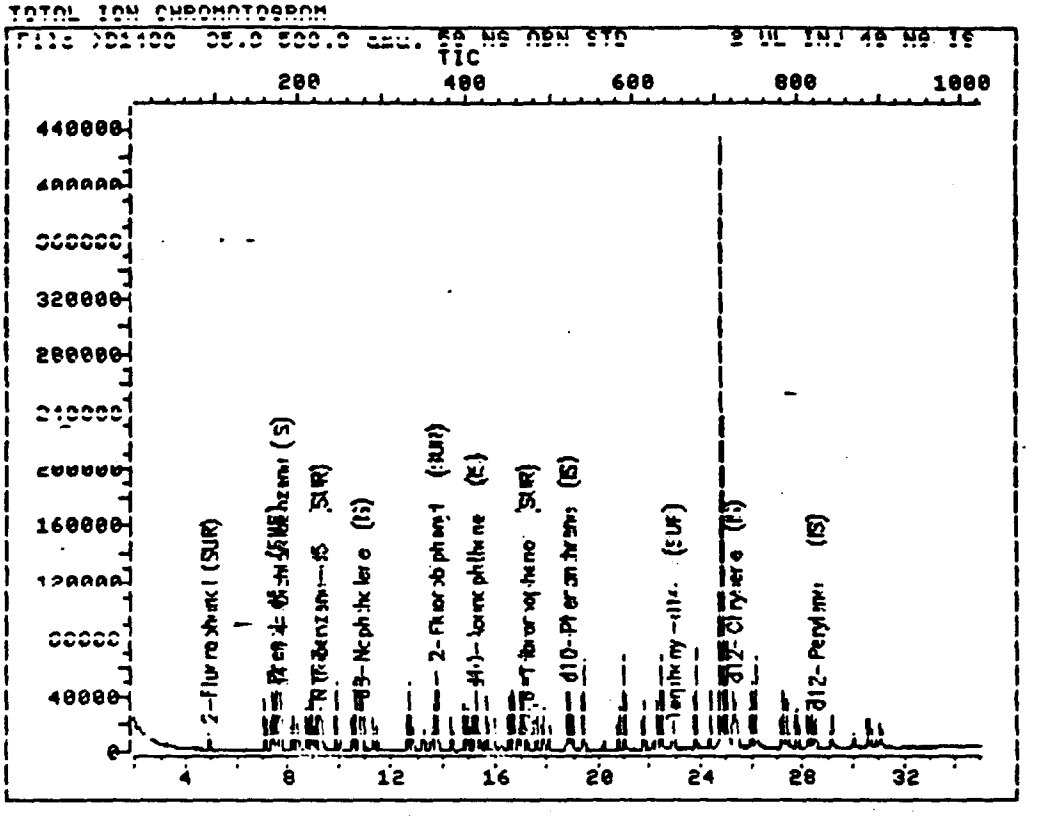
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.73	179	9570	40.00	ng/uL	91
2)	2-Fluorophenol (SUR)	4.92	92	10462	16.96	ng/uL	100
3)	Phenol-d5 (SUR)	7.51	172	30467	33.58	ng/uL	100
4)	Phenol	7.54	173	28537	29.05	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.38	168	27277	23.96	ng/uL	84
6)	2-Chlorophenol	7.41	169	17334	25.66	ng/uL	96
7)	1,3-Dichlorobenzene	7.61	175	20221	29.01	ng/uL	98
8)	1,4-Dichlorobenzene	7.77	180	17293	24.47	ng/uL	91
9)	Benzyl Alcohol	8.38	199	11606	23.68	ng/uL	86
10)	1,2-Dichlorobenzene	8.22	194	16747	25.16	ng/uL	93
11)	2-Methylphenol	8.93	216	20225	30.62	ng/uL	91
12)	bis(2-Chloroisopropyl)ether	8.74	210	43876	25.93	ng/uL	97
13)	4-Methylphenol	9.32	228	21435	31.46	ng/uL	92
14)	N-Nitroso-Di-n-propylamine	9.09	221	19798	24.77	ng/uL	83
15)	Hexachloroethane	8.93	216	10155	28.51	ng/uL	96
16)	*d8-Naphthalene (IS)	10.87	276	33860	40.00	ng/uL	87
17)	Nitrobenzene-d5 (SUR)	9.22	225	24291	25.31	ng/uL	80
18)	Nitrobenzene	9.29	227	34743	27.80	ng/uL	96
19)	Isophorone	9.90	246	52384	27.22	ng/uL	92
20)	2-Nitrophenol	10.06	251	7584	20.49	ng/uL	83
21)	2,4-Dimethylphenol	10.51	265	14436	27.64	ng/uL	94
22)	Benzoic Acid	11.16	285	4013	14.53	ng/uL	90
23)	bis(-2-Chloroethoxy)Methane	10.64	269	29496	25.80	ng/uL	97
24)	2,4-Dichlorophenol	10.80	274	10553	23.60	ng/uL	96
25)	1,2,4-Trichlorobenzene	10.84	275	12436	22.30	ng/uL	95
26)	Naphthalene	10.93	278	48623	23.78	ng/uL	98
27)	4-Chloroaniline	11.32	290	17915M	21.36	ng/uL	
28)	Hexachlorobutadiene	11.48	295	6020	19.61	ng/uL	98
29)	4-Chloro-3-methylphenol	12.81	336	17802	30.30	ng/uL	95
30)	2-Methylnaphthalene	12.68	332	29096	25.60	ng/uL	91
31)	*d10-Acenaphthene (IS)	15.26	412	22440	40.00	ng/uL	96
32)	Hexachlorocyclopentadiene	13.26	350	6140	14.66	ng/uL	97
33)	2,4,6-Trichlorophenol	13.74	365	9714	23.68	ng/uL	93
34)	2,4,5-Trichlorophenol	13.74	365	9714	23.68	ng/uL	93
35)	2-Chloronaphthalene	13.84	368	30669	22.52	ng/uL	98
36)	2-Fluorobiphenyl (SUR)	13.74	365	33117	23.07	ng/uL	93
37)	2-Nitroaniline	14.36	384	12047M	21.45	ng/uL	
38)	Dimethyl Phthalate	14.97	403	36327	23.29	ng/uL	100
39)	Acenaphthylene	14.84	399	44714	20.76	ng/uL	97
40)	3-Nitroaniline	15.39	416	10856M	24.24	ng/uL	
41)	Acenaphthene	15.33	414	32649	24.78	ng/uL	98
42)	2,4-Dinitrophenol	15.68	425	1099	11.47	ng/uL	100
43)	4-Nitrophenol	16.26	443	3095	15.43	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.75	427	39920	21.63	ng/uL	98
45)	2,4-Dinitrotoluene	16.04	436	10991	23.19	ng/uL	100
46)	2,6-Dinitrotoluene	15.10	407	8066	21.26	ng/uL	100
47)	Diethylphthalate	16.75	458	35294	21.40	ng/uL	91
48)	4-Chlorophenyl-phenylether	16.72	457	15376	22.67	ng/uL	100
49)	Fluorene	16.59	453	31719	22.56	ng/uL	96
50)	4-Nitroaniline	16.94	464	8762	22.85	ng/uL	80
51)	*d10-Phenanthrene (IS)	18.82	522	31024	40.00	ng/uL	94
52)	4,6-Dinitro-2-methylphenol	17.01	466	2413	14.71	ng/uL	100
53)	N-Nitrosodiphenylamine	17.07	468	19403	22.71	ng/uL	91
54)	2,4,6-Tribromophenol (SUR)	17.23	473	2555	11.47	ng/uL	91
55)	4-Bromophenyl-phenylether	17.88	493	8255	18.77	ng/uL	90
56)	Pentachloronitrobenzene	18.82	522	2133	20.50	ng/uL	100
57)	Hexachlorobenzene	18.11	500	8068	16.84	ng/uL	92
58)	Pentachlorophenol	18.69	518	1198	10.10	ng/uL	100
59)	Phenanthrene	18.88	524	42683	23.01	ng/uL	98
60)	Anthracene	18.98	527	36991	21.55	ng/uL	97
61)	Di-n-Butylphthalate	20.79	583	63765	27.03	ng/uL	98
62)	Fluoranthene	21.79	614	42377	27.35	ng/uL	95
63)	*d12-Chrysene (IS)	25.31	723	24265	40.00	ng/uL	96
64)	Pyrene	22.31	630	37125	21.04	ng/uL	83
65)	Terphenyl-d14 (SUR)	22.92	649	23592	20.61	ng/uL	86
66)	Butylbenzylphthalate	24.41	695	24948	25.33	ng/uL	89
67)	3,3'-Dichlorobenzidine	25.44	727	11654	22.59	ng/uL	99
68)	Benzo(a)Anthracene	25.31	723	37818	23.22	ng/uL	91
69)	Bis(2-Ethylhexyl)Phthalate	25.99	744	39465	27.60	ng/uL	93
70)	Chrysene	25.38	725	27325	22.86	ng/uL	93
71)	*d12-Perylene (IS)	28.54	823	24043	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.41	788	51804	22.77	ng/uL	87
73)	Benzo(b)fluoranthene	27.77	799	69219	21.67	ng/uL	100
74)	Benzo(k)Fluoranthene	27.77	799	69219	21.67	ng/uL	100
75)	Benzo(a)Pyrene	28.41	819	30904	21.27	ng/uL	95
76)	Indeno(1,2,3-cd)Pyrene	30.61	887	36485	21.31	ng/uL	88
77)	Dibenzo(a,h)Anthracene	30.68	889	28299	21.31	ng/uL	97
78)	Benzo(g,h,i)Perylene	31.10	902	29507	20.45	ng/uL	97

* Compound is ISTD

TOTAL ION CHROMOTOGRAM



Data File: >B1400::D1 Quant Output File: ^B1400::QT
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 880104 09:16
Injected at: 880104 08:40

Initial Calibration Data
HSL Compounds

3 2 00080

Case No: _____ Instrument ID: 81

Contractor: BCM Calibration Date: 01/11/88

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % RSD for CCC is 30.0%

Compound	RF 10.00	RF 25.00	RF 40.00	RF 60.00	RF 80.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Laboratory ID:	>81419	>81418	>81420	>81421	>81422					
2-Fluorophenol (SUR)	1.32679	1.53711	2.46697	2.14426	2.19703	.623	1.93443	24.841		
Phenol-d5 (SUR)	2.85248	3.03334	3.82119	3.03776	2.55776	.974	3.06051	15.290		
Phenol	3.98456	3.48470	3.88516	3.69579	3.88681	.978	3.78741	5.253	*	
bis(-2-Chloroethyl)Ether	3.48600	3.42657	3.99893	4.17195	3.07857	.957	3.63080	12.355		
2-Chlorophenol	1.94487	2.60906	2.62782	2.20363	2.13563	.957	2.30420	13.115		
1,3-Dichlorobenzene	2.54620	2.38259	2.95569	2.39909	2.47470	.986	2.55165	9.213		
1,4-Dichlorobenzene	2.70937	2.24936	2.74159	2.30564	2.21767	1.008	2.44473	10.573	*	
Benzyl Alcohol	1.99228	1.75455	1.87558	1.93945	1.69045	1.090	1.85046	6.807		
1,2-Dichlorobenzene	2.60728	2.26910	2.40363	2.35146	1.94373	1.065	2.31504	18.460		
2-Methylphenol	2.49261	2.73227	2.34495	2.73527	2.29581	1.162	2.52018	8.253		
bis(2-Chloroisopropyl)ether	5.75347	5.34272	5.56555	6.39883	6.85336	1.139	5.98279	10.463		
4-Methylphenol	2.34642	2.75905	2.22772	3.02132	2.57252	1.215	2.58541	12.313		
N-Nitroso-Di-n-propylamine	2.98479	2.92254	2.77064	2.69566	.63287	1.185	2.40130	41.449		**
Hexachloroethane	1.37045	1.24992	1.13918	1.32746	1.21884	1.161	1.26115	7.219		
Nitrobenzene-d5 (SUR)	.67537	.82981	.87870	.97859	.86163	.847	.84482	13.001		
Nitrobenzene	.82514	1.25376	1.15157	1.27517	1.29543	.851	1.16022	16.835		
Isophorone	1.43576	1.62102	1.73377	2.02037	1.78369	.911	1.71691	12.519		
2-Nitrophenol	.30282	.38088	.34807	.42378	.38478	.925	.34807	16.778	*	
2,4-Dimethylphenol	.53310	.44332	.51947	.55830	.48487	.967	.50781	8.812		
Benzoic Acid	-	.26597	.23938	.31868	.31531	1.033	.28498	13.610		
bis(-2-Chloroethoxy)Methane	.94057	.98845	1.11577	1.22699	1.03751	.979	1.06186	10.620		
2,4-Dichlorophenol	.31808	.35959	.50423	.49472	.45920	.992	.42716	19.585		
1,2,4-Trichlorobenzene	.44095	.39748	.50787	.53128	.50700	.995	.47692	11.685		
Naphthalene	2.05455	1.83454	1.85620	1.73375	1.68074	1.004	1.83196	7.847		
4-Chloroaniline	.71534	.79208	.82863	.78672	.73131	1.039	.77082	6.846		
Hexachlorobutadiene	.22714	.21786	.32638	.28391	.24970	1.056	.26100	17.864	*	
4-Chloro-3-methylphenol	.46125	.62011	.57490	.66408	.58818	1.178	.58170	12.995	*	
2-Methylnaphthalene	.98909	1.15919	1.06642	.98450	.82344	1.165	1.00453	12.312		
Hexachlorocyclopentadiene	.46017	.47226	.50575	.59883	.45626	.870	.49865	11.889		**
2,4,6-Trichlorophenol	.48051	.58529	.60242	.67088	.51470	.900	.57076	13.148	*	

RF - Response Factor (Subscript is amount in ng/uL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
MSL Compounds

Case No: _____ Instrument ID: 01

Contractor: BCM Calibration Date: 01/11/88

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % RSD for CCC is 30.0%

Compound	>B1419 RF 10.00	>B1418 RF 25.00	>B1420 RF 40.00	>B1421 RF 60.00	>B1422 RF 80.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
2,4,5-Trichlorophenol	.48051	.56529	.60242	.67088	.51470	.900	.57076	13.148		
2-Chloronaphthalene	1.92867	1.83862	2.15075	2.16514	1.67650	.907	1.95194	10.692		
2-Fluorobiphenyl (SUR)	2.01914	2.11825	1.86821	1.89235	1.50893	.900	1.88138	12.297		
2-Nitroaniline	.73565	.79309	.80418	.83363	.74374	.940	.78206	5.308		
Dimethyl Phthalate	2.21577	2.33122	2.19763	2.33047	2.01491	.982	2.21800	5.041		
Acenaphthylene	3.02228	2.85110	3.24022	3.24792	2.57339	.974	2.98698	9.513		
3-Nitroaniline	.52346	.62286	.73953	.69648	.64173	1.010	.65681	12.533		
Acenaphthene	2.09084	2.06424	1.84819	1.78691	1.57872	1.004	1.87378	11.279	*	
2,4-Dinitrophenol	-	.08955	.14804	.17069	.21401	1.028	.15557	33.314		**
4-Nitrophenol	.14215	.31078	.40019	.45262	.40316	1.066	.34178	35.917		**
Dibenzofuran	2.54883	2.21167	2.63546	2.44050	2.43042	1.032	2.45337	6.489		
2,4-Dinitrotoluene	.62743	.67359	.84938	.78652	.73228	1.052	.73384	12.012		
2,6-Dinitrotoluene	.52429	.57442	.56409	.62240	.53688	.990	.56442	6.764		
Diethylphthalate	2.35989	2.38063	2.53172	2.33606	2.22057	1.099	2.36577	4.715		
4-Chlorophenyl-phenylether	1.00953	.83873	1.02432	.78033	.79391	1.096	.90117	12.750		
Fluorene	1.94527	1.75182	2.01317	1.76138	1.78447	1.067	1.85234	6.557		
4-Nitroaniline	.34334	.60920	.67775	.66700	.61752	1.112	.58296	23.543		
4,6-Dinitro-2-methylphenol	.08480	.12899	.24934	.22654	.24273	.904	.18648	40.098		
N-Nitrosodiphenylamine	1.05241	.98791	1.10144	1.00083	.94959	.307	1.00444	7.888	*	
2,4,6-Tribromophenol (SUR)	.17664	.13715	.25719	.20384	.24120	.916	.20320	23.891		
Pentachloronitrobenzene	.05228	.10115	.09775	.10817	.10529	1.000	.10032	6.194		
4-Bromophenyl-phenylether	.43157	.32397	.44029	.36854	.44990	.949	.40685	12.763		
Hexachlorobenzene	.45165	.37729	.53572	.42665	.41379	.962	.44102	13.458		
Pentachlorophenol	-	.10084	.14837	.19270	.18348	.992	.15635	26.634	*	
Phenanthrene	1.94272	1.99591	2.02965	2.24696	1.95985	1.003	2.03502	6.051		
Anthracene	1.99793	1.95749	1.88519	1.91718	1.50165	1.009	1.85189	10.817		
Di-n-Butylphthalate	2.53966	2.79628	3.25153	3.26555	2.46[illegible]5	1.105	2.86423	13.271		
Fluoranthene	1.63029	1.43553	1.86931	1.85522	1.83764	1.158	1.72568	10.966	*	
Pyrene	2.30249	2.29984	2.42171	2.41176	2.23899	.880	2.33496	3.380		
Terphenyl-d14 (SUR)	1.54831	1.46629	1.42636	1.44979	1.49771	.906	1.47769	3.198		

RF - Response Factor (Subscript is amount in ng/uL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
MSL Compounds

Case No: _____ Instrument ID: 81 _____

Contractor: BCM _____ Calibration Date: 01/11/88 _____

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % RSD for CCC is 30.0%

Compound	RF 10.00	RF 25.00	RF 40.00	RF 60.00	RF 80.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
Laboratory ID:	>81419	>81418	>81420	>81421	>81422					
Butylbenzylphthalate	1.17494	1.55413	1.49873	1.70402	1.38413	.964	1.46319	13.535		
3,3'-Dichlorobenzidine	.67425	.66875	.78289	.77760	.70016	1.004	.72073	7.720		
Benzo(a)Anthracene	1.92775	2.23549	2.43194	2.60664	1.98615	.999	2.23759	12.899		
Bis(2-Ethylhexyl)Phthalate	1.82865	1.98700	1.92383	2.20086	2.25482	1.027	2.03903	8.942		
Chrysene	1.88754	1.63267	1.37490	1.28329	1.47429	1.002	1.53054	15.544		
Di-n-octyl phthalate	2.86237	3.70140	3.00309	4.06075	3.57827	.961	3.44117	14.510	*	
Benzo(b)fluoranthene	4.73783	4.12338	4.19766	4.71197	3.93715	.973	4.34160	8.353		
Benzo(k)Fluoranthene	4.73783	4.12338	4.19766	4.71197	3.93715	.973	4.34160	8.353		
Benzo(a)Pyrene	1.92279	2.04444	1.88597	2.01196	1.81988	.996	1.93701	4.738	*	
Indeno(1,2,3-cd)Pyrene	2.57857	2.41599	2.14679	2.23018	1.93235	1.072	2.26078	10.989		
Dibenzo(a,h)Anthracene	2.00883	1.88961	1.76625	1.82508	1.54975	1.074	1.91190	9.333		
Benzo(g,h,i)Perylene	2.13421	2.01846	1.87463	1.84404	1.65293	1.089	1.90486	9.594		

RF - Response Factor (Subscript is amount in ng/uL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

QUANT REPORT

Operator ID: USER6
Output File: ^B1419::QT
Data File: >B1419::D1
Name: 20 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Quant Rev: 6
Quant Time: 880111 11:22
Injected at: 880111 09:45
Dilution Factor: 1.00000

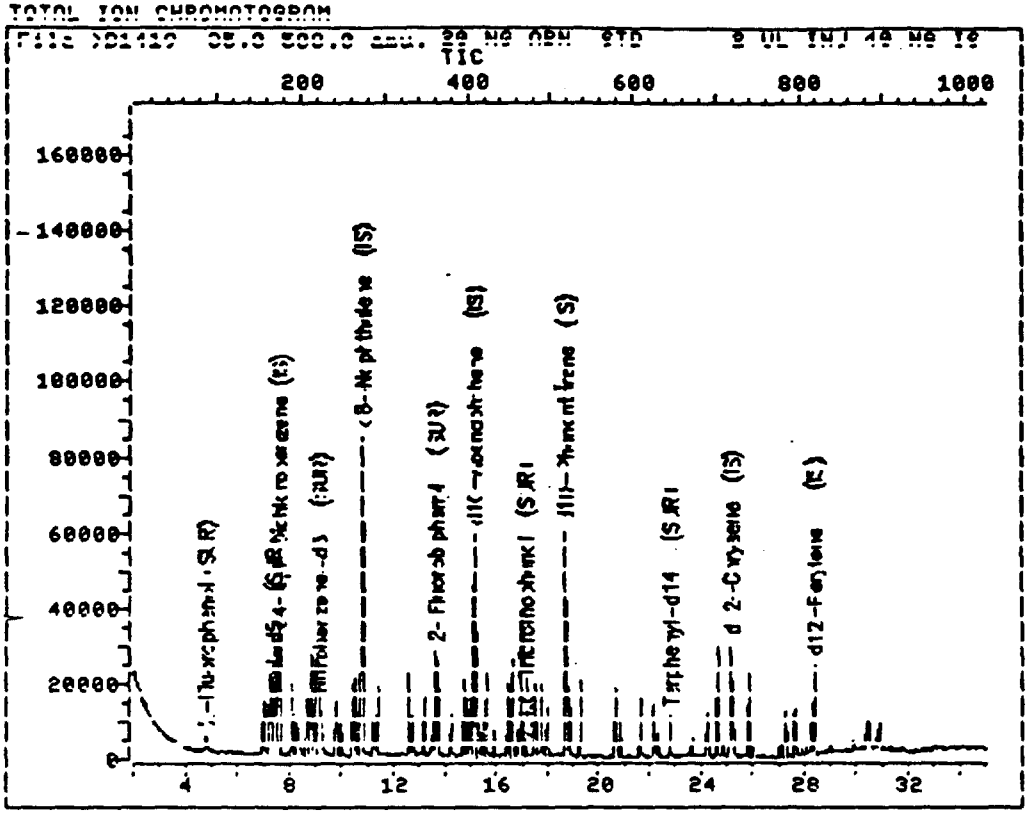
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.59	174	18140	40.00	ng/uL	94
2)	2-Fluorophenol (SUR)	4.78	87	6017	5.14	ng/uL	100
3)	Phenol-d5 (SUR)	7.39	168	12936	7.52	ng/uL	100
4)	Phenol	7.43	169	18070	9.70	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.26	164	15809	7.32	ng/uL	89
6)	2-Chlorophenol	7.30	165	8820	6.89	ng/uL	89
7)	1,3-Dichlorobenzene	7.49	171	11547	8.74	ng/uL	96
8)	1,4-Dichlorobenzene	7.65	176	12287	9.17	ng/uL	94
9)	Benzyl Alcohol	8.27	195	9035	9.73	ng/uL	89
10)	1,2-Dichlorobenzene	8.10	190	11824	9.37	ng/uL	91
11)	2-Methylphenol	8.81	212	11304	9.03	ng/uL	82
12)	bis(2-Chloroisopropyl)ether	8.65	207	26092	8.14	ng/uL	92
13)	4-Methylphenol	9.23	225	10641	8.24	ng/uL	93
14)	N-Nitroso-Di-n-propylamine	8.98	217	13536	8.93	ng/uL	83
15)	Hexachloroethane	8.81	212	6215	9.21	ng/uL	95
16)	*d8-Naphthalene (IS)	10.79	273	75265	40.00	ng/uL	89
17)	Nitrobenzene-d5 (SUR)	9.14	222	12708	5.96	ng/uL	94
18)	Nitrobenzene	9.17	223	15526	5.59	ng/uL	97
19)	Isophorone	9.78	242	27016	6.32	ng/uL	92
20)	2-Nitrophenol	9.98	248	5698	6.93	ng/uL	98
21)	2,4-Dimethylphenol	10.43	262	10031	8.64	ng/uL	98
23)	bis(-2-Chloroethoxy)Methane	10.56	266	17698	6.96	ng/uL	99
24)	2,4-Dichlorophenol	10.72	271	5985	6.02	ng/uL	96
25)	1,2,4-Trichlorobenzene	10.72	271	8297	6.69	ng/uL	92
26)	Naphthalene	10.82	274	38659	8.50	ng/uL	97
27)	4-Chloroaniline	11.21	286	13460	7.22	ng/uL	90
28)	Hexachlorobutadiene	11.40	292	4274	6.26	ng/uL	94
29)	4-Chloro-3-methylphenol	12.72	333	8679	6.65	ng/uL	88
30)	2-Methylnaphthalene	12.56	328	18611	7.3[illegible]	ng/uL	89
31)	*d10-Acenaphthene (IS)	15.15	408	38551	40.00	ng/uL	99
32)	Hexachlorocyclopentadiene	13.18	347	4435	6.16	ng/uL	97
33)	2,4,6-Trichlorophenol	13.66	362	4631	6.57	ng/uL	98
34)	2,4,5-Trichlorophenol	13.66	362	4631	6.57	ng/uL	94
35)	2-Chloronaphthalene	13.73	364	18598	7.95	ng/uL	95
36)	2-Fluorobiphenyl (SUR)	13.63	361	19460	7.89	ng/uL	94
37)	2-Nitroaniline	14.74	380	7090	7.35	ng/uL	80
38)	Dimethyl Phthalate	14.86	399	21355	7.97	ng/uL	100
39)	Acenaphthylene	14.73	395	29128	7.87	ng/uL	92
40)	3-Nitroaniline	15.31	413	5045M	6.56	ng/uL	
41)	Acenaphthene	15.21	410	20151	8.90	ng/uL	99
43)	4-Nitrophenol	16.21	441	1370	3.98	ng/uL	100
44)	Dibenzofuran	15.63	423	24565	7.75	ng/uL	99
45)	2,4-Dinitrotoluene	15.92	432	6047	7.43	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
46)	2,6-Dinitrotoluene	14.99	403	5053	7.75	ng/uL	100
47)	Diethylphthalate	16.63	454	22744	8.03	ng/uL	94
48)	4-Chlorophenyl-phenylether	16.60	453	9720	8.34	ng/uL	100
49)	Fluorene	16.47	449	18748	7.76	ng/uL	97
50)	4-Nitroaniline	16.83	460	3309	5.02	ng/uL	82
51)	*d10-Phenanthrene (IS)	18.70	518	45425	40.00	ng/uL	99
52)	4,6-Dinitro-2-methylphenol	16.92	463	963	4.01	ng/uL	100
53)	N-Nitrosodiphenylamine	16.96	464	12065	9.64	ng/uL	88
54)	2,4,6-Tribromophenol (SUR)	17.12	469	2006	6.15	ng/uL	94
55)	4-Bromophenyl-phenylether	17.76	489	4901	7.61	ng/uL	86
56)	Pentachloronitrobenzene	18.70	518	1048	6.88	ng/uL	100
57)	Hexachlorobenzene	17.99	496	5129	7.31	ng/uL	98
59)	Phenanthrene	18.77	520	22062	8.12	ng/uL	95
60)	Anthracene	18.86	523	22689	9.03	ng/uL	95
61)	Di-n-Butylphthalate	20.67	579	28841	8.35	ng/uL	97
62)	Fluoranthene	21.67	610	18514	8.16	ng/uL	93
63)	*d12-Chrysene (IS)	25.19	719	32332	40.00	ng/uL	100
64)	Pyrene	22.16	625	18611	7.91	ng/uL	98
65)	Terphenyl-d14 (SUR)	22.80	645	12515	8.20	ng/uL	87
66)	Butylbenzylphthalate	24.26	690	9497	7.24	ng/uL	78
67)	3,3'-Dichlorobenzidine	25.29	722	5450	7.93	ng/uL	97
68)	Benzo(a)Anthracene	25.16	718	15582	7.18	ng/uL	96
69)	Bis(2-Ethylhexyl)Phthalate	25.87	740	14781	7.76	ng/uL	96
70)	Chrysene	25.23	720	15257	9.58	ng/uL	92
71)	*d12-Perylene (IS)	28.39	818	26033	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.29	784	18629	7.56	ng/uL	88
73)	Benzo(b)fluoranthene	27.62	794	30835	8.92	ng/uL	100
74)	Benzo(k)Fluoranthene	27.62	794	30835	8.92	ng/uL	100
75)	Benzo(a)Pyrene	28.26	814	12514	7.95	ng/uL	96
76)	Indeno(1,2,3-cd)Pyrene	30.43	881	16782	9.05	ng/uL	97
77)	Dibenzo(a,h)Anthracene	30.49	883	13074	9.09	ng/uL	97
78)	Benzo(g,h,i)Perylene	30.91	896	13890	8.89	ng/uL	86

* Compound is ISTD

TOTAL ION CHROMOTOGRAM



Data File: >B1419::D1 Quant Output File: ^B1419::QT
Name: 20 NG ARN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 880111 11:22
Injected at: 880111 09:45

3 2 00886

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 880111 11:20
Output File: ^B1418::QT Injected at: 880111 08:50
Data File: >B1418::D1 Dilution Factor: 1.00000
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.59	174	16129	40.00	ng/uL	96
2)	2-Fluorophenol (SUR)	4.75	86	15495	14.90	ng/uL	100
3)	Phenol-d5 (SUR)	7.40	168	30578	20.00	ng/uL	100
4)	Phenol	7.43	169	35128	21.22	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.27	164	34542	18.00	ng/uL	98
6)	2-Chlorophenol	7.27	164	26301	23.10	ng/uL	96
7)	1,3-Dichlorobenzene	7.49	171	24018	20.45	ng/uL	92
8)	1,4-Dichlorobenzene	7.65	176	22675	19.04	ng/uL	90
9)	Benzyl Alcohol	8.27	195	17687	21.42	ng/uL	83
10)	1,2-Dichlorobenzene	8.11	190	22874	20.39	ng/uL	91
11)	2-Methylphenol	8.82	212	27543	24.74	ng/uL	93
12)	bis(2-Chloroisopropyl)ether	8.62	206	53858	18.89	ng/uL	86
13)	4-Methylphenol	9.21	224	27813	24.22	ng/uL	96
14)	N-Nitroso-Di-n-propylamine	9.01	218	29461	21.87	ng/uL	78
15)	Hexachloroethane	8.82	212	12600	20.99	ng/uL	97
16)	*d8-Naphthalene (IS)	10.79	273	60735	40.00	ng/uL	90
17)	Nitrobenzene-d5 (SUR)	9.11	221	31499	18.30	ng/uL	77
18)	Nitrobenzene	9.17	223	47592	21.23	ng/uL	93
19)	Isophorone	9.82	243	61533	17.83	ng/uL	81
20)	2-Nitrophenol	9.98	248	10662M	16.06	ng/uL	
21)	2,4-Dimethylphenol	10.43	262	16828	17.97	ng/uL	86
22)	Benzoic Acid	11.08	282	10096	20.38	ng/uL	95
23)	bis(-2-Chloroethoxy)Methane	10.56	266	37521	18.30	ng/uL	86
24)	2,4-Dichlorophenol	10.69	270	13650	17.02	ng/uL	94
25)	1,2,4-Trichlorobenzene	10.72	271	15088	15.08	ng/uL	94
26)	Naphthalene	10.82	274	69638	18.99	ng/uL	98
27)	4-Chloroaniline	11.21	286	30067	19.99	ng/uL	93
28)	Hexachlorobutadiene	11.40	292	8270	15.02	ng/uL	91
29)	4-Chloro-3-methylphenol	12.69	332	23539	22.34	ng/uL	97
30)	2-Methylnaphthalene	12.57	328	44002	21.59	ng/uL	95
31)	*d10-Acenaphthene (IS)	15.15	408	33124	40.00	ng/uL	97
32)	Hexachlorocyclopentadiene	13.18	347	9777	15.81	ng/uL	94
33)	2,4,6-Trichlorophenol	13.63	361	12117	20.01	ng/uL	95
34)	2,4,5-Trichlorophenol	13.63	361	12117	20.01	ng/uL	94
35)	2-Chloronaphthalene	13.73	364	38064	18.94	ng/uL	95
36)	2-Fluorobiphenyl (SUR)	13.63	361	43853	20.70	ng/uL	94
37)	2-Nitroaniline	14.25	380	16419	19.81	ng/uL	99
38)	Dimethyl Phthalate	14.86	399	48262	20.97	ng/uL	100
39)	Acenaphthylene	14.73	395	59025	18.56	ng/uL	93
40)	3-Nitroaniline	15.28	412	14137	21.39	ng/uL	98
41)	Acenaphthene	15.21	410	42735	21.97	ng/uL	96
42)	2,4-Dinitrophenol	15.57	421	1854	13.11	ng/uL	100
43)	4-Nitrophenol	16.15	439	6434	21.73	ng/uL	100

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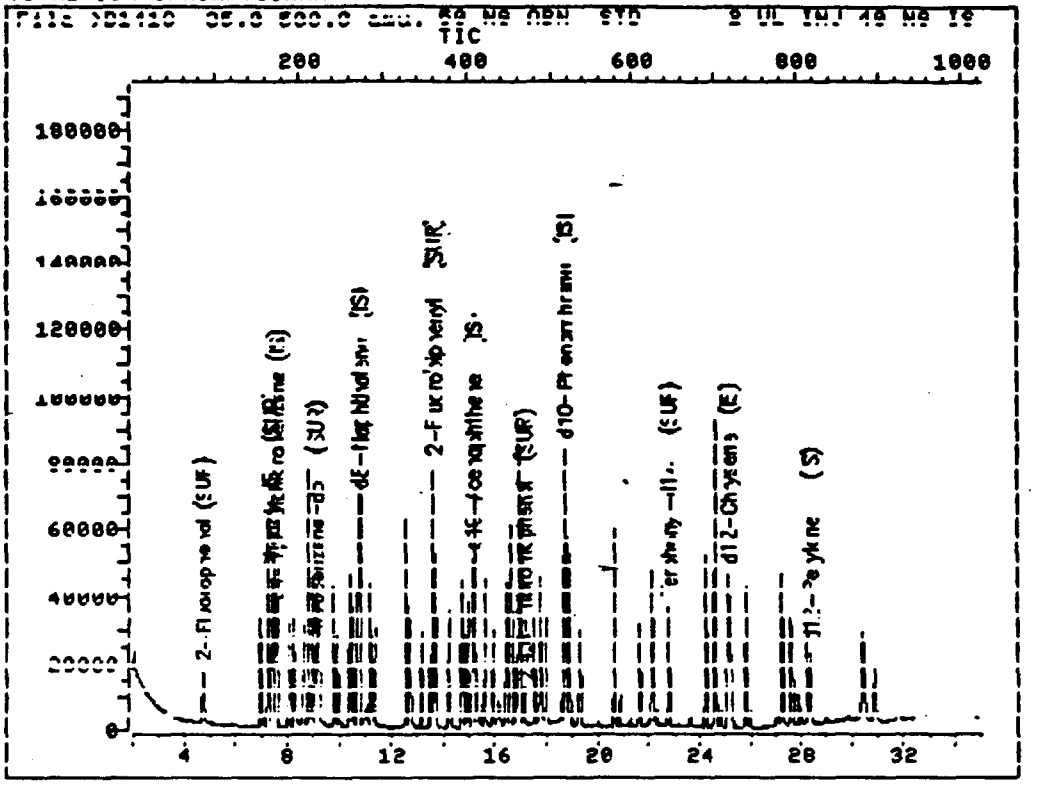
	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.63	423	45787	16.81	ng/uL	88
45)	2,4-Dinitrotoluene	15.93	432	13945	19.93	ng/uL	100
46)	2,6-Dinitrotoluene	14.99	403	11892	21.24	ng/uL	100
47)	Diethylphthalate	16.64	454	49285	20.25	ng/uL	93
48)	4-Chlorophenyl-phenylether	16.60	453	18606	18.59	ng/uL	100
49)	Fluorene	16.47	449	36267	17.47	ng/uL	96
50)	4-Nitroaniline	16.83	460	12612	22.28	ng/uL	80
51)	*d10-Phenanthrene (IS)	18.70	518	50597	40.00	ng/uL	98
52)	4,6-Dinitro-2-methylphenol	16.90	462	4079	15.25	ng/uL	100
53)	N-Nitrosodiphenylamine	16.96	464	28711	20.60	ng/uL	93
54)	2,4,6-Tribromophenol (SUR)	17.12	469	4337	11.94	ng/uL	95
55)	4-Bromophenyl-phenylether	17.77	489	10245	14.28	ng/uL	90
56)	Pentachloronitrobenzene	18.70	518	3197	18.84	ng/uL	100
57)	Hexachlorobenzene	17.99	496	11931	15.27	ng/uL	98
58)	Pentachlorophenol	18.58	514	3189	16.48	ng/uL	100
59)	Phenanthrene	18.77	520	63117	20.86	ng/uL	95
60)	Anthracene	18.87	523	61902	22.12	ng/uL	99
61)	Di-n-Butylphthalate	20.68	579	88427	22.98	ng/uL	97
62)	Fluoranthene	21.64	609	45396	17.96	ng/uL	98
63)	*d12-Chrysene (IS)	25.17	718	35407	40.00	ng/uL	100
64)	Pyrene	22.16	625	50894	19.76	ng/uL	89
65)	Terphenyl-d14 (SUR)	22.81	645	32448	19.42	ng/uL	97
66)	Butylbenzylphthalate	24.26	690	34392	23.93	ng/uL	89
67)	3,3'-Dichlorobenzidine	25.30	722	14799	19.66	ng/uL	96
68)	Benzo(a)Anthracene	25.13	717	49470	20.82	ng/uL	97
69)	Bis(2-Ethylhexyl)Phthalate	25.84	739	43971	21.08	ng/uL	92
70)	Chrysene	25.23	720	36130	20.72	ng/uL	95
71)	*d12-Perylene (IS)	28.40	818	27220	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.27	783	62970	24.45	ng/uL	86
73)	Benzo(b)fluoranthene	27.62	794	70149	19.40	ng/uL	100
74)	Benzo(k)Fluoranthene	27.62	794	70149	19.40	ng/uL	100
75)	Benzo(a)Pyrene	28.27	814	34781	21.15	ng/uL	97
76)	Indeno(1,2,3-cd)Pyrene	30.43	881	41102	21.21	ng/uL	86
77)	Dibenzo(a,h)Anthracene	30.50	883	32147	21.38	ng/uL	93
78)	Benzo(g,h,i)Perylene	30.88	895	34339	21.02	ng/uL	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1418::D1 Quant Output File: ^B1418::QT
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 880111 11:20
Injected at: 880111 08:50

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QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 880111 11:24
Output File: ^B1420::QT Injected at: 880111 10:26
Data File: >B1420::D1 Dilution Factor: 1.00000
Name: 80 NG ABN STD
Misc: 2 UL INJ 40 NG IS

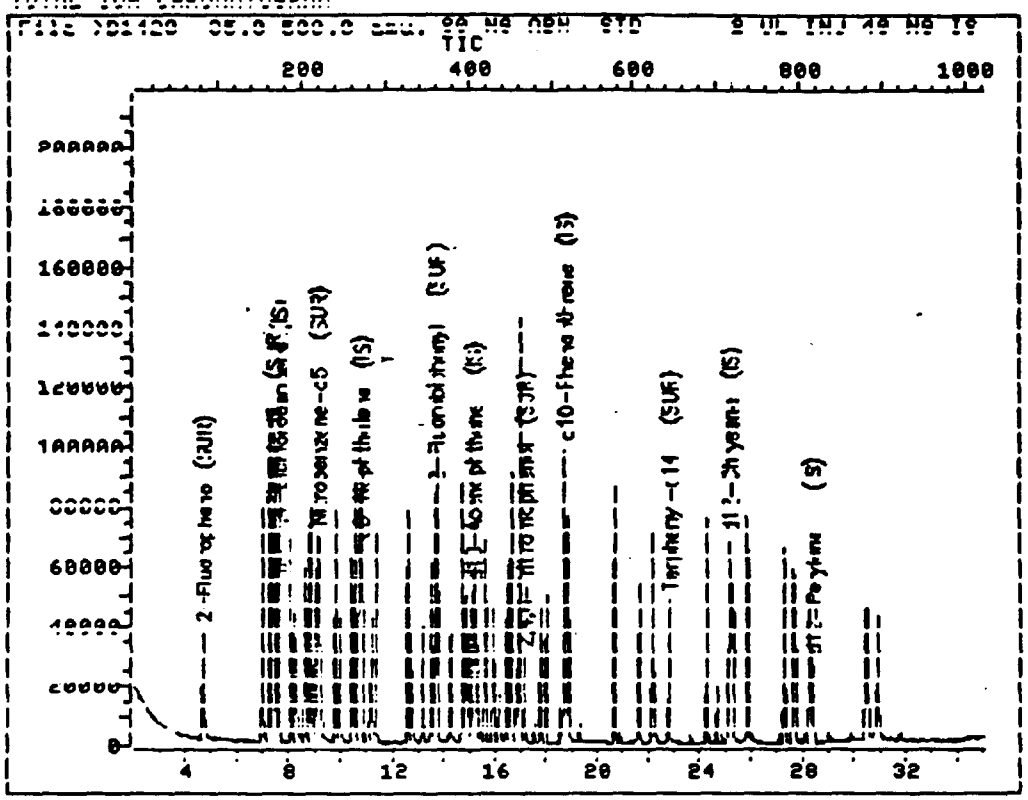
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	-Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.61	173	15866	40.00	ng/uL	91
2)	2-Fluorophenol (SUR)	4.71	83	39141	38.26	ng/uL	100
3)	Phenol-d5 (SUR)	7.39	166	60627	40.31	ng/uL	100
4)	Phenol	7.42	167	61642	37.85	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.26	162	63447M	33.61	ng/uL	
6)	2-Chlorophenol	7.26	162	41693	37.23	ng/uL	98
7)	1,3-Dichlorobenzene	7.48	169	46895	40.58	ng/uL	97
8)	1,4-Dichlorobenzene	7.65	174	43498	37.12	ng/uL	96
9)	Benzyl Alcohol	8.26	193	29758	36.63	ng/uL	97
10)	1,2-Dichlorobenzene	8.10	188	38136	34.56	ng/uL	91
11)	2-Methylphenol	8.84	211	37205	33.97	ng/uL	90
12)	bis(2-Chloroisopropyl)ether	8.65	205	88303	31.48	ng/uL	92
13)	4-Methylphenol	9.23	223	35345	31.29	ng/uL	99
14)	N-Nitroso-Di-n-propylamine	9.03	217	43959M	33.17	ng/uL	
15)	Hexachloroethane	8.81	210	18073	30.61	ng/uL	96
16)	*d8-Naphthalene (IS)	10.78	271	60724	40.00	ng/uL	85
17)	Nitrobenzene-d5 (SUR)	9.13	220	53358	31.00	ng/uL	97
18)	Nitrobenzene	9.16	221	69978	31.20	ng/uL	84
19)	Isophorone	9.81	241	104674	30.33	ng/uL	91
20)	2-Nitrophenol	9.97	246	21136	31.85	ng/uL	99
21)	2,4-Dimethylphenol	10.42	260	31544	33.68	ng/uL	94
22)	Benzoic Acid	11.10	281	14536	29.35	ng/uL	95
23)	bis(-2-Chloroethoxy)Methane	10.55	264	67754	33.05	ng/uL	96
24)	2,4-Dichlorophenol	10.68	268	30619	38.18	ng/uL	91
25)	1,2,4-Trichlorobenzene	10.75	270	30840	30.83	ng/uL	91
26)	Naphthalene	10.84	273	112716	30.73	ng/uL	98
27)	4-Chloroaniline	11.20	284	50318	33.46	ng/uL	88
28)	Hexachlorobutadiene	11.39	290	19819	36.01	ng/uL	97
29)	4-Chloro-3-methylphenol	12.72	331	34910	33.13	ng/uL	87
30)	2-Methylnaphthalene	12.59	327	64757	31.78	ng/uL	87
31)	*d10-Acenaphthene (IS)	15.14	406	30268	40.00	ng/uL	97
32)	Hexachlorocyclopentadiene	13.17	345	15308	27.09	ng/uL	98
33)	2,4,6-Trichlorophenol	13.62	359	18234	32.95	ng/uL	91
34)	2,4,5-Trichlorophenol	13.62	359	18234	32.95	ng/uL	96
35)	2-Chloronaphthalene	13.75	363	65099	35.44	ng/uL	95
36)	2-Fluorobiphenyl (SUR)	13.66	360	56547	29.21	ng/uL	94
37)	2-Nitroaniline	14.24	378	24341	32.14	ng/uL	77
38)	Dimethyl Phthalate	14.88	398	66518	31.62	ng/uL	100
39)	Acenaphthylene	14.75	394	98075	33.75	ng/uL	94
40)	3-Nitroaniline	15.30	411	22384M	37.06	ng/uL	
41)	Acenaphthene	15.21	408	55941	31.48	ng/uL	97
42)	2,4-Dinitrophenol	15.59	420	4481	34.68	ng/uL	100
43)	4-Nitrophenol	16.14	437	12113	44.77	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.63	421	79770	32.05	ng/uL	93
45)	2,4-Dinitrotoluene	15.95	431	25709	40.21	ng/uL	100
46)	2,6-Dinitrotoluene	14.98	401	17074	33.37	ng/uL	100
47)	Diethylphthalate	16.66	453	76630	34.45	ng/uL	96
48)	4-Chlorophenyl-phenylether	16.63	452	31004	33.90	ng/uL	100
49)	Fluorene	16.47	447	61086	32.21	ng/uL	96
50)	4-Nitroaniline	16.82	458	20514	39.67	ng/uL	81
51)	*d10-Phenanthrene (IS)	18.73	517	42933	40.00	ng/uL	98
52)	4,6-Dinitro-2-methylphenol	16.92	461	10705	47.16	ng/uL	100
53)	N-Nitrosodiphenylamine	16.98	463	47288	39.99	ng/uL	91
54)	2,4,6-Tribromophenol (SUR)	17.15	468	11042	35.82	ng/uL	97
55)	4-Bromophenyl-phenylether	17.76	487	18903	31.06	ng/uL	89
56)	Pentachloronitrobenzene	18.73	517	4197	29.15	ng/uL	100
57)	Hexachlorobenzene	18.02	495	23000	34.68	ng/uL	98
58)	Pentachlorophenol	18.57	512	6370	38.80	ng/uL	100
59)	Phenanthrene	18.79	519	87139	33.95	ng/uL	97
60)	Anthracene	18.89	522	80937	34.08	ng/uL	98
61)	Di-n-Butylphthalate	20.70	578	139598	42.76	ng/uL	97
62)	Fluoranthene	21.67	608	80255	37.42	ng/uL	95
63)	*d12-Chrysene (IS)	25.19	717	36535	40.00	ng/uL	100
64)	Pyrene	22.19	624	88477	33.30	ng/uL	92
65)	Terphenyl-d14 (SUR)	22.83	644	52112	30.23	ng/uL	99
66)	Butylbenzylphthalate	24.29	689	54756	36.93	ng/uL	93
67)	3,3'-Dichlorobenzidine	25.32	721	28603	36.83	ng/uL	99
68)	Benzo(a)Anthracene	25.19	717	88851	36.24	ng/uL	93
69)	Bis(2-Ethylhexyl)Phthalate	25.87	738	70287	32.65	ng/uL	91
70)	Chrysene	25.95	719	60232	27.91	ng/uL	95
71)	*d12-Perylene (IS)	28.42	817	36604	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.29	782	109925	31.74	ng/uL	87
73)	Benzo(b)fluoranthene	27.65	793	153651	31.60	ng/uL	100
74)	Benzo(k)Fluoranthene	27.65	793	153651	31.60	ng/uL	100
75)	Benzo(a)Pyrene	28.29	813	69034	31.21	ng/uL	96
76)	Indeno(1,2,3-cd)Pyrene	30.46	880	78581	30.15	ng/uL	90
77)	Dibenzo(a,h)Anthracene	30.52	882	65384	32.34	ng/uL	99
78)	Benzo(g,h,i)Perylene	30.94	895	68619	31.24	ng/uL	92

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1420::D1 Quant Output File: ^B1420::QT
Name: 90 NG BNA STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 880111 11:24
Injected at: 880111 10:26

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QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 880111 11:53
Output File: ^B1421::QT Injected at: 880111 11:12
Data File: >B1421::D1 Dilution Factor: 1.00000
Name: 120 NG ABN STD
Misc: 2 UL INJ 40 NG IS

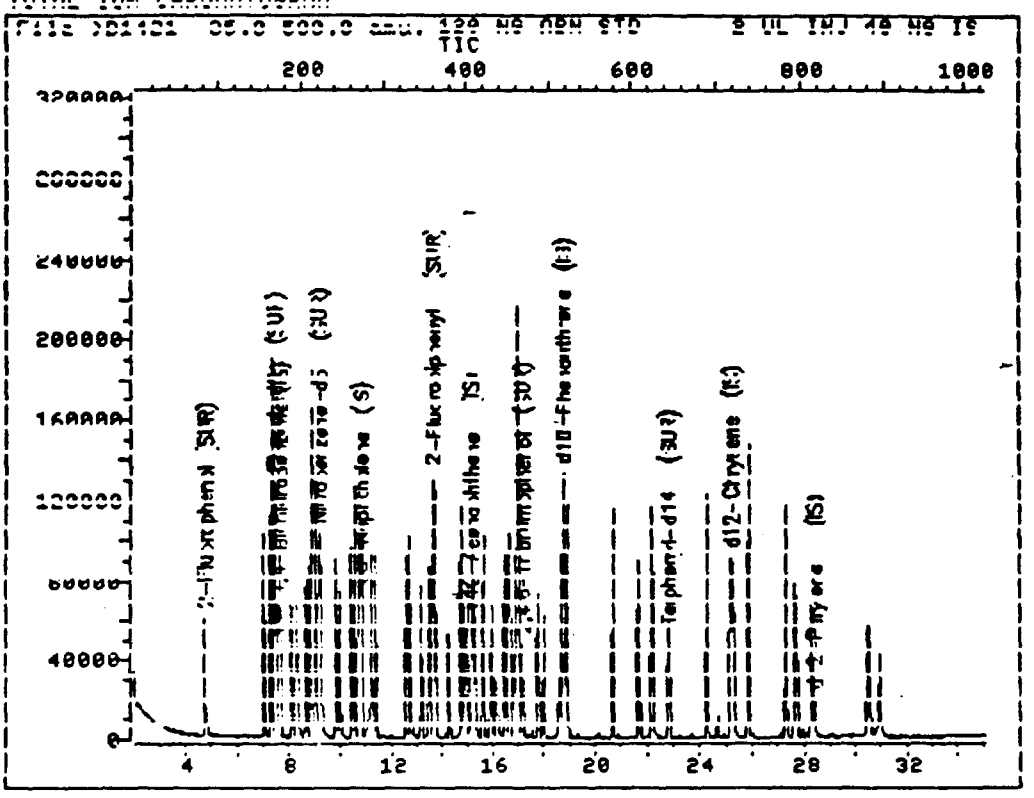
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

	Compound	R.T.	Scan#	Area	Conc	Units	Q
1)	*d4-1,4-Dichlorobenzene (IS)	7.60	173	15888	40.00	ng/uL	93
2)	2-Fluorophenol (SUR)	4.72	84	51102	49.89	ng/uL	100
3)	Phenol-d5 (SUR)	7.40	167	72396	48.06	ng/uL	100
4)	Phenol	7.44	168	88078	54.00	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.28	163	99426	52.60	ng/uL	93
6)	2-Chlorophenol	7.28	163	52517	46.83	ng/uL	97
7)	1,3-Dichlorobenzene	7.50	170	57175	49.41	ng/uL	91
8)	1,4-Dichlorobenzene	7.66	175	54948	46.83	ng/uL	91
9)	Benzyl Alcohol	8.31	195	46221	56.82	ng/uL	79
10)	1,2-Dichlorobenzene	8.08	188	56040	50.71	ng/uL	99
11)	2-Methylphenol	8.86	212	65187	59.44	ng/uL	92
12)	bis(2-Chloroisopropyl)ether	8.67	206	152497	54.29	ng/uL	93
13)	4-Methylphenol	9.25	224	72004	63.65	ng/uL	99
14)	N-Nitroso-Di-n-propylamine	9.05	218	64243	48.42	ng/uL	87
15)	Hexachloroethane	8.83	211	31636	53.50	ng/uL	99
16)	*d8-Naphthalene (IS)	10.80	272	59075	40.00	ng/uL	87
17)	Nitrobenzene-d5 (SUR)	9.15	221	86714	51.79	ng/uL	95
18)	Nitrobenzene	9.18	222	112996	51.82	ng/uL	88
19)	Isophorone	9.86	243	179030	53.32	ng/uL	90
20)	2-Nitrophenol	9.99	247	37552	58.16	ng/uL	95
21)	2,4-Dimethylphenol	10.44	261	49472	54.30	ng/uL	95
22)	Benzoic Acid	11.19	284	28257	58.65	ng/uL	89
23)	bis(-2-Chloroethoxy)Methane	10.57	265	108727	54.52	ng/uL	93
24)	2,4-Dichlorophenol	10.70	269	43838	56.19	ng/uL	97
25)	1,2,4-Trichlorobenzene	10.77	271	47078	48.38	ng/uL	91
26)	Naphthalene	10.83	273	153632	43.06	ng/uL	98
27)	4-Chloroaniline	11.22	285	69713	47.65	ng/uL	98
28)	Hexachlorobutadiene	11.41	291	25158	46.98	ng/uL	95
29)	4-Chloro-3-methylphenol	12.70	331	58846M	57.41	ng/uL	
30)	2-Methylnaphthalene	12.58	327	87239	44.00	ng/uL	94
31)	*d10-Acenaphthene (IS)	15.16	407	33883	40.00	ng/uL	97
32)	Hexachlorocyclopentadiene	13.19	346	30435	48.11	ng/uL	97
33)	2,4,6-Trichlorophenol	13.64	360	34097	55.05	ng/uL	92
34)	2,4,5-Trichlorophenol	13.64	360	34097	55.05	ng/uL	92
35)	2-Chloronaphthalene	13.77	364	110042	53.52	ng/uL	97
36)	2-Fluorobiphenyl (SUR)	13.64	360	96178	44.38	ng/uL	92
37)	2-Nitroaniline	14.26	379	42369M	49.97	ng/uL	
38)	Dimethyl Phthalate	14.90	399	118445	50.30	ng/uL	100
39)	Acenaphthylene	14.77	395	165074	50.75	ng/uL	94
40)	3-Nitroaniline	15.32	412	35398M	52.36	ng/uL	
41)	Acenaphthene	15.23	409	90819	45.65	ng/uL	98
42)	2,4-Dinitrophenol	15.58	420	8675	59.97	ng/uL	100
43)	4-Nitrophenol	16.13	437	23004	75.96	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.65	422	124037	44.52	ng/uL	92
45)	2,4-Dinitrotoluene	15.97	432	39975	55.85	ng/uL	100
46)	2,6-Dinitrotoluene	15.03	403	31633	55.22	ng/uL	100
47)	Diethylphthalate	16.68	454	118729	47.68	ng/uL	92
48)	4-Chlorophenyl-phenylether	16.62	452	39660	38.73	ng/uL	100
49)	Fluorene	16.49	448	89552	42.18	ng/uL	97
50)	4-Nitroaniline	16.87	460	33900	58.56	ng/uL	89
51)	*d10-Phenanthrene (IS)	18.75	518	46847	40.00	ng/uL	99
52)	4,6-Dinitro-2-methylphenol	16.94	462	15919	64.26	ng/uL	100
53)	N-Nitrosodiphenylamine	17.00	464	70329	54.50	ng/uL	93
54)	2,4,6-Tribromophenol (SUR)	17.17	469	14324	42.58	ng/uL	95
55)	4-Bromophenyl-phenylether	17.78	488	27303	41.11	ng/uL	82
56)	Pentachloronitrobenzene	18.75	518	7601	48.38	ng/uL	100
57)	Hexachlorobenzene	18.01	495	29981	41.43	ng/uL	93
58)	Pentachlorophenol	18.59	513	13541	75.59	ng/uL	100
59)	Phenanthrene	18.81	520	157895	56.37	ng/uL	96
60)	Anthracene	18.91	523	134721	51.98	ng/uL	99
61)	Di-n-Butylphthalate	20.72	579	229472	64.41	ng/uL	96
62)	Fluoranthene	21.69	609	130367	55.71	ng/uL	96
63)	*d12-Chrysene (IS)	25.21	718	37904	40.00	ng/uL	100
64)	Pyrene	22.21	625	137123	49.74	ng/uL	88
65)	Terphenyl-d14 (SUR)	22.82	644	82429	46.09	ng/uL	88
66)	Butylbenzylphthalate	24.31	690	96884	62.98	ng/uL	92
67)	3,3'-Dichlorobenzidine	25.31	721	44211	54.87	ng/uL	98
68)	Benzo(a)Anthracene	25.18	717	148203	58.26	ng/uL	97
69)	Bis(2-Ethylhexyl)Phthalate	25.89	739	125132	56.03	ng/uL	93
70)	Chrysene	25.98	720	72953	39.08	ng/uL	97
71)	*d12-Perylene (IS)	28.41	817	29487	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.31	783	179609	64.38	ng/uL	86
73)	Benzo(b)fluoranthene	27.67	794	208413	53.21	ng/uL	100
74)	Benzo(k)Fluoranthene	27.67	794	208413	53.21	ng/uL	100
75)	Benzo(a)Pyrene	28.31	814	88990	49.94	ng/uL	97
76)	Indeno(1,2,3-cd)Pyrene	30.48	881	98642	46.99	ng/uL	88
77)	Dibenzo(a,h)Anthracene	30.54	883	80724	49.56	ng/uL	97
78)	Benzo(g,h,i)Perylene	30.96	896	81563	46.09	ng/uL	86

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1421::D1 Quant Output File: ^B1421::QT
Name: 120 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::12
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 880111 11:53
Injected at: 880111 11:12

QUANT REPORT

Operator ID: USER6
Output File: ^B1422::QT
Data File: >B1422::D1
Name: 160 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Quant Rev: 6
Quant Time: 880111 12:42
Injected at: 880111 11:54
Dilution Factor: 1.00000

ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

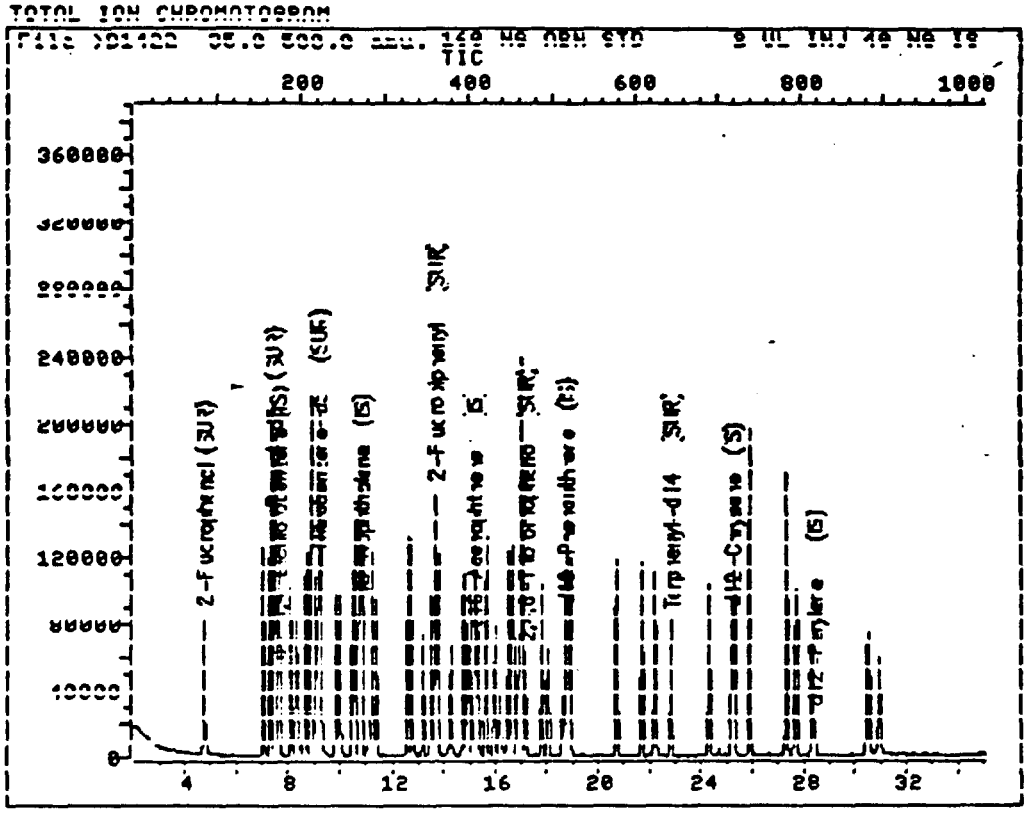
	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.61	173	17175	40.00	ng/uL	84
2)	2-Fluorophenol (SUR)	4.74	84	75468	68.15	ng/uL	100
3)	Phenol-d5 (SUR)	7.42	167	87859	53.96	ng/uL	100
4)	Phenol	7.45	168	133512	75.73	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.29	163	105474	51.61	ng/uL	94
6)	2-Chlorophenol	7.29	163	73359	60.52	ng/uL	99
7)	1,3-Dichlorobenzene	7.52	170	85006	67.96	ng/uL	94
8)	1,4-Dichlorobenzene	7.68	175	76177	60.06	ng/uL	90
9)	Benzyl Alcohol	8.32	195	58067	66.03	ng/uL	91
10)	1,2-Dichlorobenzene	8.10	188	66767	55.89	ng/uL	98
11)	2-Methylphenol	8.84	211	78861	66.52	ng/uL	91
12)	bis(2-Chloroisopropyl)ether	8.68	206	235413	77.53	ng/uL	96
13)	4-Methylphenol	9.26	224	88366	72.26	ng/uL	96
14)	N-Nitroso-Di-n-propylamine	8.97	215	21739	15.16	ng/uL	74
15)	Hexachloroethane	8.84	211	41867	65.50	ng/uL	93
16)	*d8-Naphthalene (IS)	10.81	272	65426	40.00	ng/uL	87
17)	Nitrobenzene-d5 (SUR)	9.16	221	112746	60.80	ng/uL	95
18)	Nitrobenzene	9.23	223	169516	70.19	ng/uL	96
19)	Isophorone	9.87	243	233387	62.76	ng/uL	93
20)	2-Nitrophenol	10.00	247	50349	70.41	ng/uL	97
21)	2,4-Dimethylphenol	10.46	261	63446	62.88	ng/uL	95
22)	Benzoic Acid	11.23	285	41259	77.33	ng/uL	91
23)	bis(-2-Chloroethoxy)Methane	10.59	265	135760	61.46	ng/uL	92
24)	2,4-Dichlorophenol	10.71	269	60087	69.55	ng/uL	94
25)	1,2,4-Trichlorobenzene	10.75	270	66342	61.56	ng/uL	95
26)	Naphthalene	10.84	273	219928	55.66	ng/uL	98
27)	4-Chloroaniline	11.23	285	95694	59.06	ng/uL	97
28)	Hexachlorobutadiene	11.39	290	32674	55.10	ng/uL	96
29)	4-Chloro-3-methylphenol	12.72	331	76965M	67.80	ng/uL	
30)	2-Methylnaphthalene	12.59	327	107749	49.07	ng/uL	93
31)	*d10-Acenaphthene (IS)	15.18	407	35606	40.00	ng/uL	99
32)	Hexachlorocyclopentadiene	13.20	346	32491	48.88	ng/uL	98
33)	2,4,6-Trichlorophenol	13.66	360	36653	56.31	ng/uL	96
34)	2,4,5-Trichlorophenol	13.66	360	36653	56.31	ng/uL	93
35)	2-Chloronaphthalene	13.75	363	119387	55.25	ng/uL	97
36)	2-Fluorobiphenyl (SUR)	13.66	360	107454	47.18	ng/uL	94
37)	2-Nitroaniline	14.27	379	52963	59.44	ng/uL	93
38)	Dimethyl Phthalate	14.92	399	143486	57.99	ng/uL	100
39)	Acenaphthylene	14.79	395	183256	53.61	ng/uL	93
40)	3-Nitroaniline	15.34	412	45699M	64.32	ng/uL	
41)	Acenaphthene	15.24	409	112424	53.78	ng/uL	97
42)	2,4-Dinitrophenol	15.60	420	15240	100.25	ng/uL	100
43)	4-Nitrophenol	16.15	437	28710	90.21	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.66	422	173075	59.11	ng/uL	90
45)	2,4-Dinitrotoluene	15.98	432	52147	69.33	ng/uL	100
46)	2,6-Dinitrotoluene	15.05	403	38232	63.51	ng/uL	100
47)	Diethylphthalate	16.69	454	158131	60.43	ng/uL	94
48)	4-Chlorophenyl-phenylether	16.63	452	56536	52.54	ng/uL	100
49)	Fluorene	16.50	448	127076	56.95	ng/uL	99
50)	4-Nitroaniline	16.89	460	43975	72.29	ng/uL	76
51)	*d10-Phenanthrene (IS)	18.73	517	47372	40.00	ng/uL	99
52)	4,6-Dinitro-2-methylphenol	16.95	462	22997	91.81	ng/uL	100
53)	N-Nitrosodiphenylamine	17.02	464	89968	68.95	ng/uL	92
54)	2,4,6-Tribromophenol (SUR)	17.18	469	22852	67.18	ng/uL	97
55)	4-Bromophenyl-phenylether	17.79	488	42625	63.47	ng/uL	88
56)	Pentachloronitrobenzene	18.76	518	9976	62.80	ng/uL	100
57)	Hexachlorobenzene	18.02	495	39204	53.58	ng/uL	95
58)	Pentachlorophenol	18.60	513	17384	95.96	ng/uL	100
59)	Phenanthrene	18.80	519	185684	65.56	ng/uL	96
60)	Anthracene	18.93	523	142272	54.29	ng/uL	99
61)	Di-n-Butylphthalate	20.70	578	233842	64.91	ng/uL	97
62)	Fluoranthene	21.70	609	174105	73.58	ng/uL	97
63)	*d12-Chrysene (IS)	25.23	718	36738	40.00	ng/uL	100
64)	Pyrene	22.19	624	164512	61.57	ng/uL	95
65)	Terphenyl-d14 (SUR)	22.83	644	110046	63.48	ng/uL	87
66)	Butylbenzylphthalate	24.29	689	101700	68.20	ng/uL	98
67)	3,3'-Dichlorobenzidine	25.32	721	51445	65.88	ng/uL	98
68)	Benzo(a)Anthracene	25.19	717	145934	59.19	ng/uL	95
69)	Bis(2-Ethylhexyl)Phthalate	25.90	739	165675	76.54	ng/uL	96
70)	Chrysene	25.29	720	108325	59.86	ng/uL	93
71)	*d12-Perylene (IS)	28.42	817	33820	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.33	783	242034	75.64	ng/uL	87
73)	Benzo(b)fluoranthene	27.68	794	266309	59.28	ng/uL	100
74)	Benzo(k)Fluoranthene	27.68	794	266309	59.28	ng/uL	100
75)	Benzo(a)Pyrene	28.33	814	123097	60.23	ng/uL	98
76)	Indeno(1,2,3-cd)Pyrene	30.49	881	130704	54.28	ng/uL	88
77)	Dibenzo(a,h)Anthracene	30.56	883	104825	56.11	ng/uL	98
78)	Benzo(g,h,i)Perylene	30.98	896	111804	55.09	ng/uL	91

* Compound is ISTD

3 2 00896

TOTAL ION CHROMATOGRAM



Data File: >B1422::D1 Quant Output File: ^B1422::QT
Name: 160 NG ABN STD
Misc: 2 UL INJ 40 NG IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 871217 12:15

Operator ID: USER6
Quant Time: 880111 12:42
Injected at: 880111 11:54

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 81

Contractor: BCM Calibration Date: 01/18/88

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % RSD for CCC is 30.0%

Compound	>B1455 RF 10.00	>B1456 RF 25.00	>B1457 RF 40.00	>B1458 RF 60.00	>B1459 RF 80.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
2-Fluorophenol (SUR)	1.11575	2.27040	2.31419	1.99967	1.82509	.623	1.90502	25.436		
Phenol-d5 (SUR)	3.32738	2.35266	2.97152	2.66657	2.33256	.974	2.73014	15.535		
Phenol	3.81829	3.33119	3.96857	3.43016	3.33649	.979	3.57694	8.286	*	
bis(-2-Chloroethyl)Ether	4.42730	3.17211	3.64476	3.03820	2.71515	.949	3.57151	18.453		
2-Chlorophenol	2.46903	2.18040	2.40361	1.99378	1.91030	.957	2.19143	11.185		
1,3-Dichlorobenzene	2.04737	1.81637	2.15753	2.02325	1.97483	.905	2.00387	6.207		
1,4-Dichlorobenzene	2.23982	2.00624	2.11075	2.01263	1.75714	1.005	2.02532	8.755	*	
Benzyl Alcohol	1.40858	1.98393	1.73061	1.61567	1.20462	1.091	1.58868	18.806		
1,2-Dichlorobenzene	1.83238	2.25683	2.07145	2.16203	1.45710	1.064	1.95596	16.377		
2-Methylphenol	2.29242	2.83254	2.51396	2.45924	1.79925	1.164	2.37949	15.919		
bis(2-Chloroisopropyl)ether	5.93679	7.12515	7.84470	7.69941	5.42730	1.139	6.60567	15.802		
4-Methylphenol	1.52640	2.70833	2.61526	2.67858	1.69024	1.217	2.26336	23.718		
N-Nitroso-Di-n-propylamine	2.97663	3.39710	3.61970	2.79052	.24571	1.189	2.40953	56.151		**
Hexachloroethane	1.20110	1.63790	1.30543	1.34424	.83877	1.162	1.26549	22.791		
Nitrobenzene-d5 (SUR)	.94361	.97804	.94429	.96725	.90493	.846	.92765	5.896		
Nitrobenzene	.67188	1.09133	1.36149	1.28447	1.38557	.850	1.19895	18.040		
Isophorone	1.84604	2.07217	1.94775	1.95775	1.85122	.911	1.93498	4.795		
2-Nitrophenol	.26487	.40756	.36285	.37744	.33798	.924	.35014	15.395	*	
2,4-Dimethylphenol	.58350	.60917	.51993	.51395	.54555	.968	.55442	7.410		
Benzoic Acid	.07837	.17178	.28559	.24424	.19899	1.029	.19579	40.205		
bis(-2-Chloroethoxy)Methane	1.02177	1.24313	1.07246	1.14338	.95523	.978	1.08719	10.220		
2,4-Dichlorophenol	.33748	.37855	.37646	.46917	.45111	.992	.40256	13.768		
1,2,4-Trichlorobenzene	.44194	.40070	.47880	.48815	.46520	.996	.45496	7.684		
Naphthalene	1.95568	1.56217	2.09768	1.65889	2.08721	1.004	1.87432	13.269		
4-Chloroaniline	.78944	.75075	.80450	.74762	.73767	1.040	.76599	3.809		
Hexachlorobutadiene	.21358	.22506	.23368	.23770	.28219	1.056	.23844	10.964	*	
4-Chloro-3-methylphenol	.73064	.59749	.64967	.56679	.63795	1.180	.64851	13.264	*	
2-Methylnaphthalene	1.37573	1.03958	1.07294	.95217	1.14694	1.165	1.11747	14.356		
Hexachlorocyclopentadiene	.55018	.70839	.47139	.53727	.51238	.869	.55592	16.256		**
2,4,6-Trichlorophenol	.58083	.74822	.52175	.53712	.53091	.902	.58361	16.227	*	

RF - Response Factor (Subscript is amount in ng/uL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 01

Contractor: BCM Calibration Date: 01/18/88

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % RSD for CCC is 30.0%

Laboratory ID: >B1455 >B1456 >B1457 >B1458 >B1459

Compound	RF 10.00	RF 25.00	RF 40.00	RF 60.00	RF 80.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
2,4,5-Trichlorophenol	.58003	.74822	.52175	.53712	.53091	.902	.58361	16.227		
2-Chloronaphthalene	2.12453	2.35372	1.69482	1.76901	1.60667	.907	1.90977	16.582		
2-Fluorobiphenyl (SUR)	2.25397	2.53350	1.73003	1.91316	1.70636	.901	2.02741	17.647		
2-Nitroaniline	.83989	.83646	.78415	.76661	.64368	.942	.77396	10.266		
Dimethyl Phthalate	1.73458	2.56737	2.19734	1.90048	1.96028	.985	2.07203	15.579		
Acenaphthylene	2.80869	2.98352	2.85794	2.60689	2.64224	.974	2.77986	5.609		
3-Nitroaniline	.51353	.65188	.60767	.59049	.54964	1.010	.58264	9.142		
Acenaphthene	1.70169	2.08852	1.66821	1.95887	1.50978	1.005	1.78541	13.096	*	
2,4-Dinitrophenol	-	.01752	.08945	.16280	.15643	1.029	.10655	63.816		**
4-Nitrophenol	.18994	.28972	.31537	.33709	.15468	1.072	.25718	31.337		**
Dibenzofuran	2.14243	2.91696	2.53075	2.20396	2.22897	1.032	2.40462	13.448		
2,4-Dinitrotoluene	.54944	.81380	.64605	.53904	.62281	1.052	.64723	15.919		
2,6-Dinitrotoluene	.43673	.49622	.46612	.59768	.40537	.990	.48042	15.347		
Diethylphthalate	2.63711	2.79509	2.35526	2.00644	2.15366	1.100	2.38951	13.711		
4-Chlorophenyl-phenylether	.85609	1.04626	.90532	.69596	.68775	1.096	.83868	17.990		
Fluorene	1.78443	2.60124	1.81444	1.65819	1.45754	1.087	1.86317	23.393		
4-Nitroaniline	.49634	.59774	.52421	.51512	.51696	1.111	.53047	7.310		
4,6-Dinitro-2-methylphenol	.05759	.11599	.16508	.19074	.19710	.904	.14530	40.268		
N-Nitrosodiphenylamine	.65867	.97604	.88670	.80133	.83290	.907	.83913	12.241	*	
2,4,6-Tribromophenol (SUR)	.14548	.14951	.17128	.15323	.15421	.915	.15474	6.373		
Pentachloronitrobenzene	.06477	.07787	.09717	.08091	.08849	1.000	.08184	14.806		
4-Bromophenyl-phenylether	.33915	.44167	.37665	.35272	.27833	.949	.35770	16.585		
Hexachlorobenzene	.40789	.44462	.42700	.33624	.37798	.961	.39875	10.731		
Pentachlorophenol	.03888	.01626	.09017	.13382	.13139	.993	.08210	64.942	*	
Phenanthrene	1.65771	1.85700	1.80395	1.93552	1.74539	1.003	1.79992	5.884		
Anthracene	1.80642	1.68774	1.69706	1.69096	1.47826	1.009	1.67209	7.129		
Di-n-Butylphthalate	2.07150	2.56316	2.46411	2.85205	2.52629	1.106	2.49542	11.217		
Fluoranthene	1.28051	1.46554	1.60442	1.48540	1.24097	1.158	1.41537	10.701	*	
Pyrene	1.73286	1.96522	1.85731	2.27799	2.09205	.876	1.98509	10.614		
Terphenyl-d14 (SUR)	1.07058	1.06693	1.20852	1.33822	1.36241	.905	1.20933	11.563		

RF - Response Factor (Subscript is amount in ng/uL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (%) SPCC - System Performance Check Compounds (%)

Initial Calibration Data
HSL Compounds

Case No: _____ Instrument ID: 81

Contractor: BCM Calibration Date: 01/18/88

Contract No: _____

Minimum $\overline{RF}$ for SPCC is 0.05 Maximum % RSD for CCC is 30.0%

Compound	RF 10.00	RF 25.00	RF 40.00	RF 60.00	RF 80.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CCC	SPCC
	Laboratory ID: >B1455	>B1456	>B1457	>B1458	>B1459					
Butylbenzylphthalate	1.27026	1.38132	1.26005	1.63355	1.37091	.963	1.38322	16.890		
3,3'-Dichlorobenzidine	.55557	.60139	.64110	.63110	.68943	1.005	.62372	7.943		
Benzo(a)Anthracene	1.91062	2.07686	1.87173	2.39183	2.87724	.999	2.06566	9.930		
Bis(2-Ethylhexyl)Phthalate	2.04239	1.97966	2.11642	2.05577	1.99725	1.027	2.03830	2.636		
Chrysene	1.60448	1.51363	1.48139	1.27502	1.24378	1.002	1.42366	11.027		
Di-n-octyl phthalate	3.51742	3.48897	3.64018	3.35705	3.40201	.961	3.48113	3.158	*	
Benzo(b)fluoranthene	3.84193	3.97207	3.76559	3.86968	3.53636	.974	3.79713	4.305		
Benzo(k)fluoranthene	3.84193	3.97207	3.76559	3.86968	3.53636	.974	3.79713	4.305		
Benzo(a)Pyrene	1.89609	1.92995	1.73228	1.85141	1.64059	.996	1.81007	6.667	*	
Indeno(1,2,3-cd)Pyrene	1.68037	2.57725	2.33071	2.26968	1.71615	1.079	2.11483	19.797		
Dibenzo(a,h)Anthracene	1.93855	2.04525	1.87937	1.79066	1.61389	1.075	1.85354	8.784		
Benzo(g,h,i)Perylene	1.68037	2.08318	2.00531	1.90331	1.71615	1.089	1.87766	9.385		

RF - Response Factor (Subscript is amount in ng/uL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds SPCC - System Performance Check Compounds (*)

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 880118 08:53
Output File: ^B1455::QT Injected at: 880118 07:57
Data File: >B1455::D1 Dilution Factor: 1.00000
Name: 20 NG ABN STD
Misc: 2 UL INJ 40 PPB IS

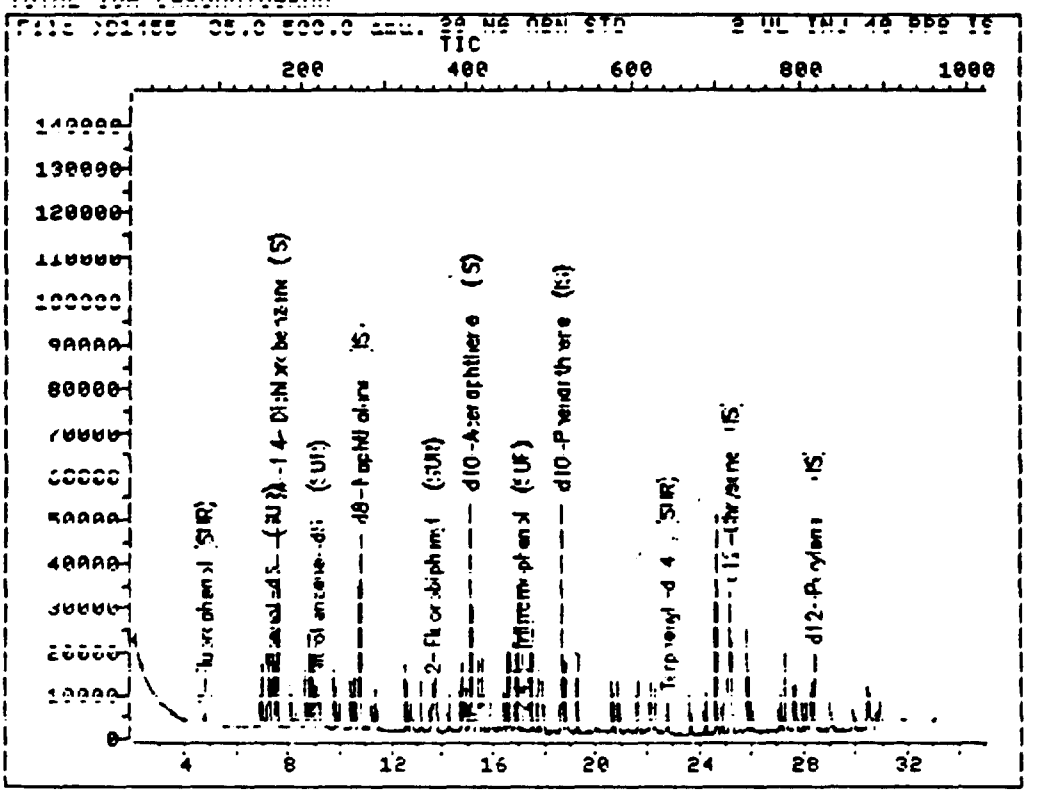
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880115 11:16

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.58	172	14903	40.00	ng/uL	95
2)	2-Fluorophenol (SUR)	4.77	85	4157	5.73	ng/uL	100
3)	Phenol-d5 (SUR)	7.38	166	12397	10.38	ng/uL	100
4)	Phenol	7.41	167	14226	10.57	ng/uL	100
6)	2-Chlorophenol	7.25	162	9199	11.30	ng/uL	98
7)	1,3-Dichlorobenzene	7.45	168	7628	10.00	ng/uL	95
8)	1,4-Dichlorobenzene	7.61	173	8345	11.21	ng/uL	93
9)	Benzyl Alcohol	8.25	193	5248M	10.32	ng/uL	
10)	1,2-Dichlorobenzene	8.06	187	6827	8.50	ng/uL	89
11)	2-Methylphenol	8.80	210	8541	9.54	ng/uL	89
12)	bis(2-Chloroisopropyl)ether	8.61	204	22119	9.44	ng/uL	98
13)	4-Methylphenol	9.22	223	5687	5.64	ng/uL	96
14)	N-Nitroso-Di-n-propylamine	8.97	215	7737	8.58	ng/uL	71
15)	Hexachloroethane	8.80	211	4475	8.64	ng/uL	96
16)	*d8-Naphthalene (IS)	10.77	271	40322	40.00	ng/uL	94
17)	Nitrobenzene-d5 (SUR)	9.09	219	8504	11.11	ng/uL	93
18)	Nitrobenzene	9.16	221	8789	9.22	ng/uL	95
19)	Isophorone	9.77	240	18609	11.99	ng/uL	92
20)	2-Nitrophenol	9.97	246	2670	7.96	ng/uL	74
21)	2,4-Dimethylphenol	10.42	260	5882	12.45	ng/uL	93
22)	Benzoic Acid	11.00	278	790M	4.48	ng/uL	
23)	bis(-2-Chloroethoxy)Methane	10.55	264	10300	11.62	ng/uL	97
24)	2,4-Dichlorophenol	10.71	269	3402M	8.99	ng/uL	
25)	1,2,4-Trichlorobenzene	10.71	269	4455	10.41	ng/uL	96
26)	Naphthalene	10.81	272	19815	12.13	ng/uL	98
27)	4-Chloroaniline	11.23	285	7958	12.92	ng/uL	82
28)	Hexachlorobutadiene	11.39	290	2153	10.48	ng/uL	90
29)	4-Chloro-3-methylphenol	12.74	332	7970	16.18	ng/uL	95
30)	2-Methylnaphthalene	12.55	326	13868	16.90	ng/uL	98
31)	*d10-Acenaphthene (IS)	15.14	406	22916	40.00	ng/uL	95
32)	Hexachlorocyclopentadiene	13.16	345	3152	13.26	ng/uL	98
33)	2,4,6-Trichlorophenol	13.68	361	3323	12.36	ng/uL	94
34)	2,4,5-Trichlorophenol	13.68	361	3323	12.36	ng/uL	89
35)	2-Chloronaphthalene	13.71	362	12172	13.44	ng/uL	92
36)	2-Fluorobiphenyl (SUR)	13.62	359	12913	14.95	ng/uL	95
37)	2-Nitroaniline	14.26	379	4806	12.51	ng/uL	97
38)	Dimethyl Phthalate	14.84	397	9938	9.34	ng/uL	100
39)	Acenaphthylene	14.75	394	16091	11.30	ng/uL	98
40)	3-Nitroaniline	15.30	411	2942M	10.48	ng/uL	
41)	Acenaphthene	15.20	408	9749	10.63	ng/uL	93
43)	4-Nitrophenol	16.27	441	1083	12.56	ng/uL	100
44)	Dibenzofuran	15.62	421	12974	9.89	ng/uL	88
45)	2,4-Dinitrotoluene	15.91	430	3142	11.50	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
46)	2,6-Dinitrotoluene	14.97	401	2502	9.91	ng/uL	100
47)	Diethylphthalate	16.62	452	15108	14.66	ng/uL	92
48)	4-Chlorophenyl-phenylether	16.59	451	4916	13.04	ng/uL	100
49)	Fluorene	16.43	446	10223	11.95	ng/uL	97
50)	4-Nitroaniline	16.82	458	2855	14.04	ng/uL	83
51)	*d10-Phenanthrene (IS)	18.69	516	43414	40.00	ng/uL	99
52)	4,6-Dinitro-2-methylphenol	16.88	460	625	4.57	ng/uL	100
53)	N-Nitrosodiphenylamine	16.94	462	7583	9.31	ng/uL	83
54)	2,4,6-Tribromophenol (SUR)	17.11	467	1579	10.39	ng/uL	97
55)	4-Bromophenyl-phenylether	17.75	487	3681	11.20	ng/uL	91
56)	Pentachloronitrobenzene	18.69	516	703	9.30	ng/uL	100
57)	Hexachlorobenzene	17.98	494	4427	13.96	ng/uL	95
58)	Pentachlorophenol	18.56	512	422	5.14	ng/uL	100
59)	Phenanthrene	18.75	518	17992	11.15	ng/uL	94
60)	Anthracene	18.85	521	19606	11.49	ng/uL	95
61)	Di-n-Butylphthalate	20.66	577	22483	8.46	ng/uL	99
62)	Fluoranthene	21.66	608	13898	8.02	ng/uL	79
63)	*d12-Chrysene (IS)	25.18	717	31751	40.00	ng/uL	100
64)	Pyrene	22.15	623	13755	8.42	ng/uL	88
65)	Terphenyl-d14 (SUR)	22.79	643	8498	8.80	ng/uL	89
66)	Butylbenzylphthalate	24.25	688	10083	10.59	ng/uL	80
67)	3,3'-Dichlorobenzidine	25.31	721	4410	9.28	ng/uL	94
68)	Benzo(a)Anthracene	25.15	716	15166	10.20	ng/uL	97
69)	Bis(2-Ethylhexyl)Phthalate	25.86	738	16212	10.28	ng/uL	98
70)	Chrysene	25.25	719	12736	11.62	ng/uL	94
71)	*d12-Perylene (IS)	28.38	816	25811	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.98	782	22697	11.69	ng/uL	84
73)	Benzo(b)fluoranthene	27.67	794	24291	10.29	ng/uL	100
74)	Benzo(k)Fluoranthene	27.67	794	24291	10.29	ng/uL	100
75)	Benzo(a)Pyrene	28.28	813	12235	11.64	ng/uL	91
76)	Indeno(1,2,3-cd)Pyrene	30.90	894	10843	9.19	ng/uL	85
77)	Dibenzo(a,h)Anthracene	30.51	882	12509	12.86	ng/uL	95
78)	Benzo(g,h,i)Perylene	30.90	894	10843	10.00	ng/uL	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1455::D1 Quant Output File: ^B1455::QT
Name: 20 NG OPN STD
Misc: 2 UL INJ 40 PPB IS

IM File: ID BNA::12
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880115 11:16

Operator ID: USER6
Quant Time: 880118 08:53
Injected at: 880118 07:57

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 880118 09:24
Output File: ^B1456::QT Injected at: 880118 08:48
Data File: >B1456::D1 Dilution Factor: 1.00000
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 PPB IS

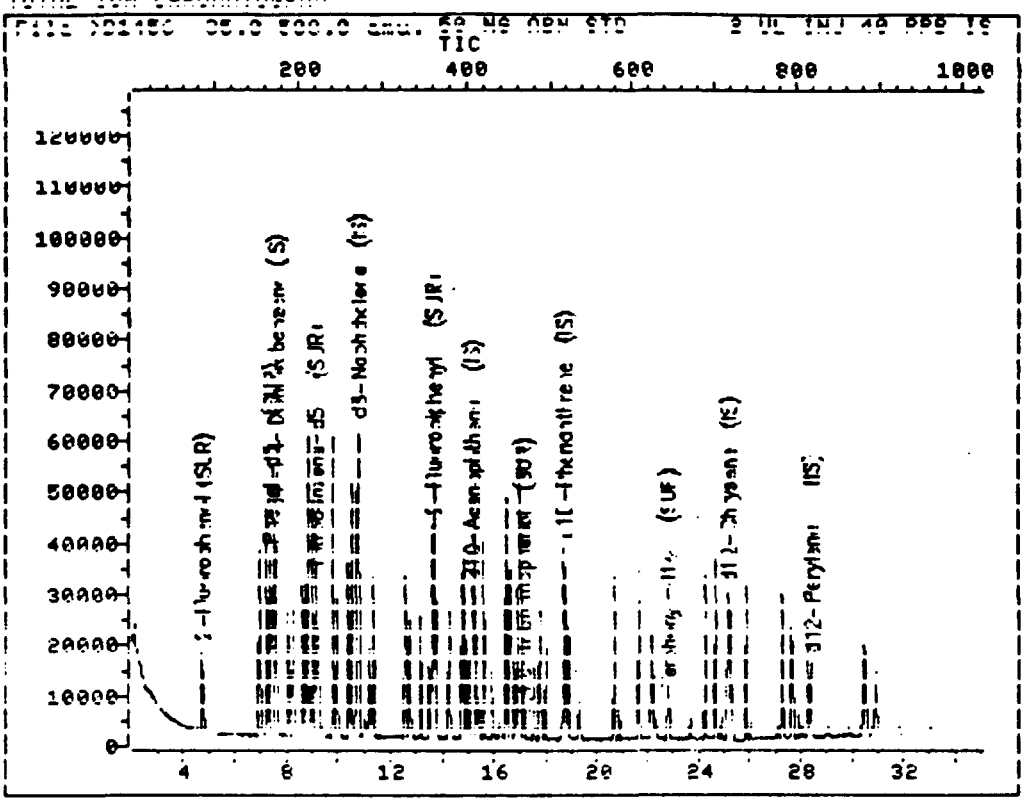
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880115 11:16

	Compound	R.T.	Scan#	Area	Conc	Units	Q
1)	*d4-1,4-Dichlorobenzene (IS)	7.58	173	12623	40.00	ng/uL	93
2)	2-Fluorophenol (SUR)	4.73	85	17912	29.14	ng/uL	100
3)	Phenol-d5 (SUR)	7.38	167	18561	18.35	ng/uL	100
4)	Phenol	7.41	168	26281	23.05	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.22	162	25026M	24.86	ng/uL	
6)	2-Chlorophenol	7.25	163	17202	24.94	ng/uL	97
7)	1,3-Dichlorobenzene	7.48	170	14330	22.17	ng/uL	87
8)	1,4-Dichlorobenzene	7.61	174	15878	25.10	ng/uL	94
9)	Benzyl Alcohol	8.25	194	15652	36.34	ng/uL	99
10)	1,2-Dichlorobenzene	8.06	188	17805	26.18	ng/uL	98
11)	2-Methylphenol	8.80	211	22347	29.46	ng/uL	93
12)	bis(2-Chloroisopropyl)ether	8.61	205	56213	28.32	ng/uL	91
13)	4-Methylphenol	9.22	224	21367	25.03	ng/uL	96
14)	N-Nitroso-Di-n-propylamine	9.00	217	26801	35.07	ng/uL	79
15)	Hexachloroethane	8.80	211	12922	29.47	ng/uL	98
16)	*d8-Naphthalene (IS)	10.77	272	48044	40.00	ng/uL	[illegible]
17)	Nitrobenzene-d5 (SUR)	9.13	221	29368	32.20	ng/uL	87
18)	Nitrobenzene	9.16	222	32720	28.86	ng/uL	97
19)	Isophorone	9.80	242	62722	33.65	ng/uL	88
20)	2-Nitrophenol	9.97	247	12248	30.62	ng/uL	99
21)	2,4-Dimethylphenol	10.42	261	18292	32.49	ng/uL	98
22)	Benzoic Acid	11.06	281	5158	24.53	ng/uL	92
23)	bis(-2-Chloroethoxy)Methane	10.55	265	37328M	35.34	ng/uL	
24)	2,4-Dichlorophenol	10.68	269	11367	25.22	ng/uL	89
25)	1,2,4-Trichlorobenzene	10.74	271	12032	23.60	ng/uL	95
26)	Naphthalene	10.81	273	46908	24.10	ng/uL	97
27)	4-Chloroaniline	11.19	285	22543	30.73	ng/uL	92
28)	Hexachlorobutadiene	11.39	291	6758	27.61	ng/uL	92
29)	4-Chloro-3-methylphenol	12.71	332	17941	30.56	ng/uL	97
30)	2-Methylnaphthalene	12.55	327	31216	31.93	ng/uL	98
31)	*d10-Acenaphthene (IS)	15.14	407	20362	40.00	ng/uL	98
32)	Hexachlorocyclopentadiene	13.16	346	9015	42.67	ng/uL	95
33)	2,4,6-Trichlorophenol	13.65	361	9522	39.87	ng/uL	90
34)	2,4,5-Trichlorophenol	13.65	361	9522	39.87	ng/uL	95
35)	2-Chloronaphthalene	13.75	364	29954	37.22	ng/uL	92
36)	2-Fluorobiphenyl (SUR)	13.65	361	42242	42.01	ng/uL	95
37)	2-Nitroaniline	14.26	380	10645	31.19	ng/uL	85
38)	Dimethyl Phthalate	14.88	399	32673	34.56	ng/uL	100
39)	Acenaphthylene	14.75	395	37969	30.00	ng/uL	93
40)	3-Nitroaniline	15.30	412	8256M	33.27	ng/uL	
41)	Acenaphthene	15.23	410	26579	32.61	ng/uL	96
42)	2,4-Dinitrophenol	15.59	421	993	4.83	ng/uL	100
43)	4-Nitrophenol	16.17	439	3687	48.14	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.62	422	37122	33.65	ng/uL	92
45)	2,4-Dinitrotoluene	15.91	431	10433	39.24	ng/uL	100
46)	2,6-Dinitrotoluene	14.97	402	6315	28.16	ng/uL	100
47)	Diethylphthalate	16.65	454	35571	38.85	ng/uL	88
48)	4-Chlorophenyl-phenylether	16.59	452	13315	39.74	ng/uL	100
49)	Fluorene	16.46	448	33104	43.56	ng/uL	99
50)	4-Nitroaniline	16.82	459	7607	42.11	ng/uL	90
51)	*d10-Phenanthrene (IS)	18.69	517	30307	40.00	ng/uL	97
52)	4,6-Dinitro-2-methylphenol	16.91	462	2197	23.00	ng/uL	100
53)	N-Nitrosodiphenylamine	16.94	463	18488	32.53	ng/uL	93
54)	2,4,6-Tribromophenol (SUR)	17.11	468	2832	26.69	ng/uL	81
55)	4-Bromophenyl-phenylether	17.75	488	8366	36.47	ng/uL	88
56)	Pentachloronitrobenzene	18.69	517	1475	27.95	ng/uL	100
57)	Hexachlorobenzene	17.98	495	8422	38.04	ng/uL	95
58)	Pentachlorophenol	18.59	514	308M	5.38	ng/uL	
59)	Phenanthrene	18.75	519	35175	31.22	ng/uL	98
60)	Anthracene	18.85	522	31969	26.85	ng/uL	98
61)	Di-n-Butylphthalate	20.69	579	48551	26.18	ng/uL	97
62)	Fluoranthene	21.66	609	27260	22.94	ng/uL	97
63)	*d12-Chrysene (IS)	25.18	718	22601	40.00	ng/uL	100
64)	Pyrene	21.66	609	27260	23.86	ng/uL	99
65)	Terphenyl-d14 (SUR)	22.79	644	15071	21.92	ng/uL	85
66)	Butylbenzylphthalate	24.28	690	19512M	28.79	ng/uL	
67)	3,3'-Dichlorobenzidine	25.31	722	8495	25.10	ng/uL	98
68)	Benzo(a)Anthracene	25.15	717	29337	27.72	ng/uL	96
69)	Bis(2-Ethylhexyl)Phthalate	25.86	739	27964	24.91	ng/uL	92
70)	Chrysene	25.25	720	21381	27.40	ng/uL	96
71)	*d12-Perylene (IS)	28.41	818	18388	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.98	793	40097	28.99	ng/uL	86
73)	Benzo(b)Fluoranthene	27.64	794	45649	26.58	ng/uL	100
74)	Benzo(k)Fluoranthene	27.64	794	45649	26.58	ng/uL	100
75)	Benzo(a)Pyrene	28.28	814	22180	29.61	ng/uL	95
76)	Indeno(1,2,3-cd)Pyrene	30.45	881	29619	35.22	ng/uL	87
77)	Dibenzo(a,h)Anthracene	30.51	883	23505	33.93	ng/uL	93
78)	Benzo(g,h,i)Perylene	30.93	896	23941	30.99	ng/uL	81

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >B1456::D1 Quant Output File: ^B1456::QT
Name: 50 NG BNA STD
Misc: 2 UL INJ 40 PPB IS

Id File: ID BNA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880115 11:16

Operator ID: USER6
Quant Time: 880118 09:24
Injected at: 880118 08:48

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 880118 10:09
Output File: ^B1457::QT Injected at: 880118 09:26
Data File: >B1457::D1 Dilution Factor: 1.00000
Name: 80 NG ABN STD
Misc: 2 UL INJ 40 PPB IS

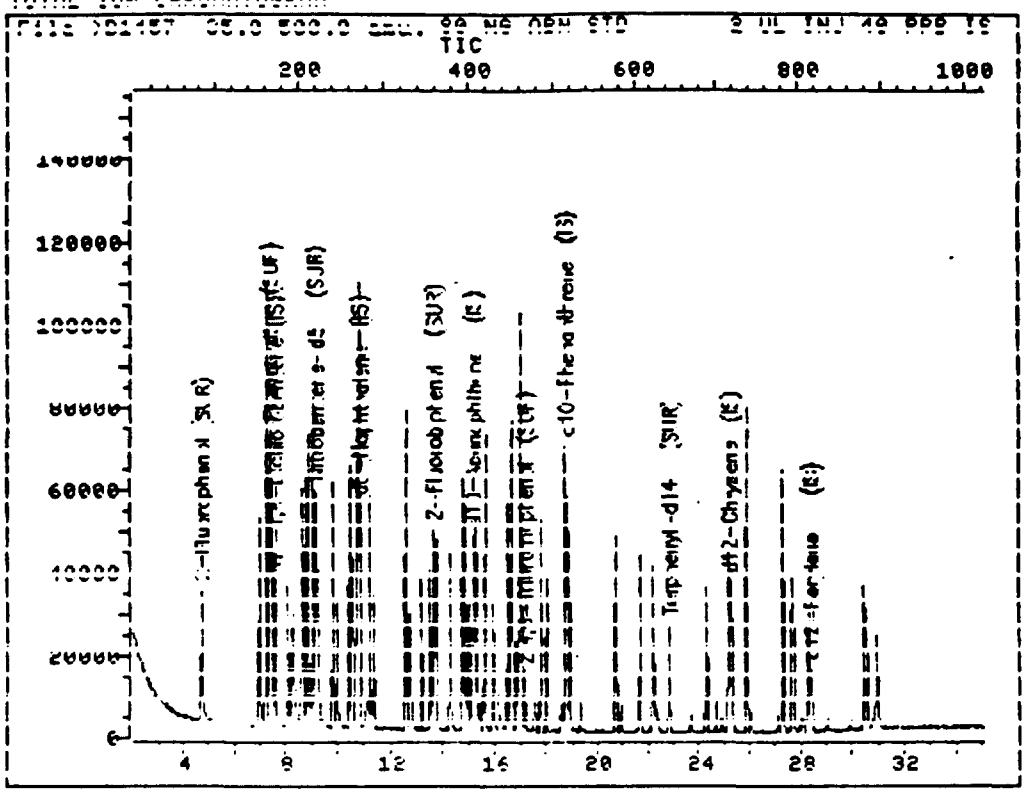
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880115 11:16

	Compound	R.T.	Scan#	Area	Conc	Units	Q
1)	*d4-1,4-Dichlorobenzene (IS)	7.58	172	12569	40.00	ng/uL	99
2)	2-Fluorophenol (SUR)	4.71	83	29087	47.52	ng/uL	100
3)	Phenol-d5 (SUR)	7.39	166	37349	37.08	ng/uL	100
4)	Phenol	7.42	167	49881	43.94	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.26	162	45811	45.71	ng/uL	83
6)	2-Chlorophenol	7.96	162	30211	43.99	ng/uL	97
7)	1,3-Dichlorobenzene	7.48	169	27118	42.14	ng/uL	89
8)	1,4-Dichlorobenzene	7.61	173	26530	42.25	ng/uL	95
9)	Benzyl Alcohol	8.26	193	21752	50.73	ng/uL	96
10)	1,2-Dichlorobenzene	8.07	187	26036	38.44	ng/uL	96
11)	2-Methylphenol	8.84	211	31598	41.84	ng/uL	96
12)	bis(2-Chloroisopropyl)ether	8.65	205	98600	49.88	ng/uL	98
13)	4-Methylphenol	9.23	223	32846	38.64	ng/uL	98
14)	N-Nitroso-Di-n-propylamine	9.04	217	45496	59.79	ng/uL	67
15)	Hexachloroethane	8.81	210	16408	37.58	ng/uL	93
16)	*1,4-Naphthalene (IS)	10.91	272	[illegible]	40.00	ng/uL	93
17)	Nitrobenzene-d5 (SUR)	9.13	220	44407	49.75	ng/uL	98
18)	Nitrobenzene	9.16	221	64090	57.61	ng/uL	88
19)	Isophorone	9.84	242	91587	50.60	ng/uL	82
20)	2-Nitrophenol	9.97	246	17062	43.62	ng/uL	89
21)	2,4-Dimethylphenol	10.46	261	24448	44.36	ng/uL	86
22)	Benzoic Acid	11.14	282	13429	65.26	ng/uL	89
24)	2,4-Dichlorophenol	10.72	269	17702	40.13	ng/uL	90
25)	1,2,4-Trichlorobenzene	10.75	270	22514	45.12	ng/uL	94
26)	Naphthalene	10.85	273	98637	51.77	ng/uL	99
27)	4-Chloroaniline	11.23	285	37829	52.68	ng/uL	89
28)	Hexachlorobutadiene	11.39	290	10988	45.86	ng/uL	96
29)	4-Chloro-3-methylphenol	12.72	331	30549	53.17	ng/uL	94
30)	2-Methylnaphthalene	12.59	327	50452	52.73	ng/uL	91
31)	*d10-Acenaphthene (IS)	15.17	407	25221	40.00	ng/uL	99
32)	Hexachlorocyclopentadiene	13.20	346	11889	45.43	ng/uL	99
33)	2,4,6-Trichlorophenol	13.69	361	13159	44.48	ng/uL	95
34)	2,4,5-Trichlorophenol	13.69	361	13159	44.48	ng/uL	90
35)	2-Chloronaphthalene	13.75	363	42745	42.88	ng/uL	94
36)	2-Fluorobiphenyl (SUR)	13.66	360	43633	45.90	ng/uL	94
37)	2-Nitroaniline	14.30	380	19777	46.79	ng/uL	80
38)	Dimethyl Phthalate	14.92	399	55419	47.32	ng/uL	100
39)	Acenaphthylene	14.79	395	72080	45.98	ng/uL	93
41)	Acenaphthene	15.24	409	42074	41.68	ng/uL	96
42)	2,4-Dinitrophenol	15.59	420	2756	39.43	ng/uL	100
43)	4-Nitrophenol	16.18	438	7954	83.84	ng/uL	100
44)	Dibenzofuran	15.66	422	63878	46.72	ng/uL	98
45)	2,4-Dinitrotoluene	15.95	431	16294	49.48	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
46)	2,6-Dinitrotoluene	15.01	402	11756	42.33	ng/uL	100
47)	Diethylphthalate	16.69	454	59402	52.38	ng/uL	87
48)	4-Chlorophenyl-phenylether	16.63	452	22833	55.02	ng/uL	100
49)	Fluorene	16.50	448	45762	48.61	ng/uL	99
50)	4-Nitroaniline	16.86	459	13221	59.09	ng/uL	86
51)	*d10-Phenanthrene (IS)	18.73	517	33548	40.00	ng/uL	98
52)	4,6-Dinitro-2-methylphenol	16.92	461	5538	52.37	ng/uL	100
53)	N-Nitrosodiphenylamine	16.98	463	29747	47.29	ng/uL	92
54)	2,4,6-Tribromophenol (SUR)	17.15	468	5746	48.93	ng/uL	95
55)	4-Bromophenyl-phenylether	17.79	488	12636	49.77	ng/uL	88
56)	Pentachloronitrobenzene	18.23	517	3260	55.80	ng/uL	100
57)	Hexachlorobenzene	18.02	495	14325	58.45	ng/uL	93
58)	Pentachlorophenol	18.60	513	3025	47.71	ng/uL	100
59)	Phenanthrene	18.79	519	60519	48.53	ng/uL	95
60)	Anthracene	18.89	522	56933	43.19	ng/uL	97
61)	Di-n-Butylphthalate	20.70	578	82666	40.27	ng/uL	97
62)	Fluoranthene	21.70	609	53825	40.18	ng/uL	88
63)	*d12-Chrysene (IS)	25.22	718	25734	40.00	ng/uL	100
64)	Pyrene	22.19	624	47296	36.08	ng/uL	85
65)	Terphenyl-d14 (SUR)	22.83	644	31100	39.72	ng/uL	91
66)	Butylbenzylphthalate	24.99	689	32426	42.02	ng/uL	94
67)	3,3'-Dichlorobenzidine	25.32	721	16498	42.81	ng/uL	99
68)	Benzo(a)Anthracene	25.19	717	48167	39.97	ng/uL	96
69)	Bis(2-Ethylhexyl)Phthalate	25.90	739	54464	42.61	ng/uL	97
70)	Chrysene	25.29	720	38122	42.90	ng/uL	94
71)	*d12-Perylene (IS)	28.42	817	22606	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.32	783	82290	48.40	ng/uL	86
73)	Benzo(b)Fluoranthene	27.68	794	85125	40.32	ng/uL	100
74)	Benzo(k)Fluoranthene	27.68	794	85125	40.32	ng/uL	100
75)	Benzo(a)Pyrene	28.32	814	39160	42.53	ng/uL	91
76)	Indeno(1,2,3-cd)Pyrene	30.49	881	52688	50.96	ng/uL	84
77)	Dibenzo(a,h)Anthracene	30.55	883	42485	49.89	ng/uL	95
78)	Benzo(g,h,i)Perylene	30.94	895	45332	47.73	ng/uL	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: 80 NG ABN STD
Misc: 2 UL INJ 40 PPB IS

Id File: ID BDA::12
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880115 11:16

Operator ID: USER6
Quant Time: 880118 10:09
Injected at: 880118 09:26

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 880118 10:56
Output File: ^B1458::QT Injected at: 880118 10:12
Data File: >B1458::D1 Dilution Factor: 1.00000
Name: 120NG ABN STD
Misc: 2 UL INJ 40 PPB IS

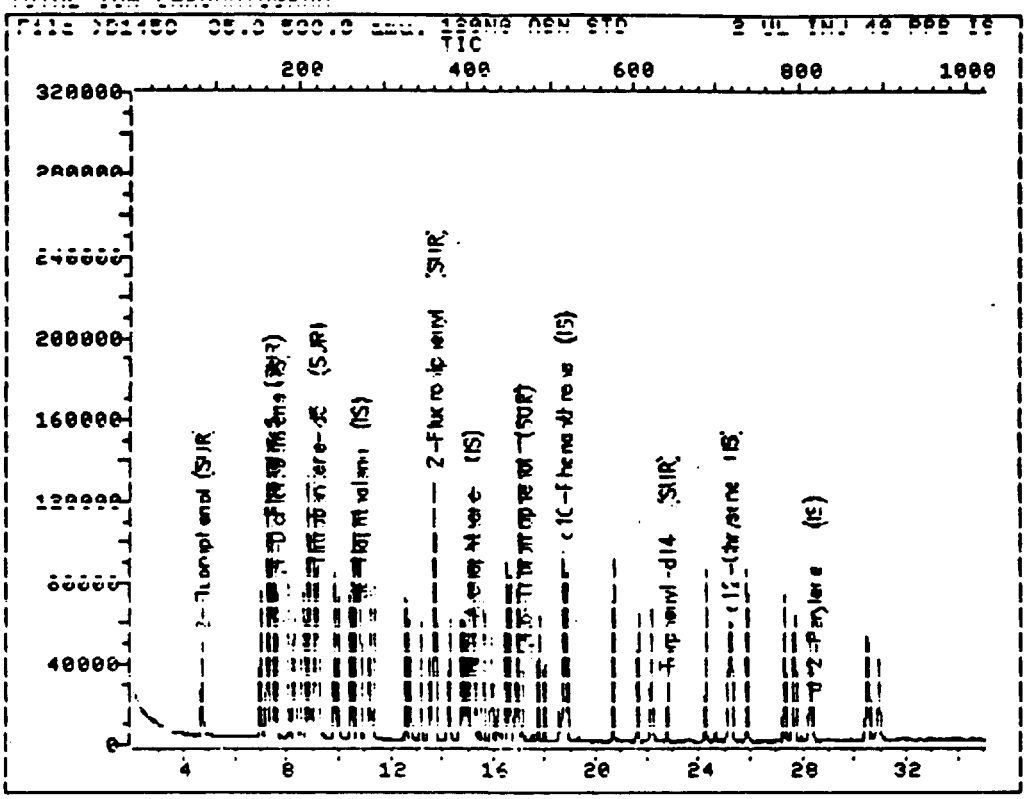
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880115 11:16

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.58	172	13936	40.00	ng/uL	92
2)	2-Fluorophenol (SUR)	4.70	83	41801	61.59	ng/uL	100
3)	Phenol-d5 (SUR)	7.39	166	55742	49.91	ng/uL	100
4)	Phenol	7.42	167	71704	56.97	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.26	162	81488	73.33	ng/uL	92
6)	2-Chlorophenol	7.26	162	41678	54.73	ng/uL	99
7)	1,3-Dichlorobenzene	7.45	168	42294	59.27	ng/uL	95
8)	1,4-Dichlorobenzene	7.61	173	42072	60.44	ng/uL	99
9)	Benzyl Alcohol	8.29	194	33774M	71.03	ng/uL	
10)	1,2-Dichlorobenzene	8.16	187	45195	60.19	ng/uL	97
11)	2-Methylphenol	8.84	211	51408	61.39	ng/uL	93
12)	bis(2-Chloroisopropyl)ether	8.65	205	160844	73.39	ng/uL	99
13)	4-Methylphenol	9.23	223	55993	59.41	ng/uL	96
14)	N-Nitroso-Di-n-propylamine	9.13	217	56619	67.11	ng/uL	78
15)	Hexachloroethane	8.81	210	28100	58.05	ng/uL	96
16)	*d8-Naphthalene (IS)	10.78	271	50961	40.00	ng/uL	88
17)	Nitrobenzene-d5 (SUR)	9.13	220	73938	76.43	ng/uL	95
18)	Nitrobenzene	9.16	221	98182	81.52	ng/uL	90
19)	Isophorone	9.84	242	149653	76.30	ng/uL	84
20)	2-Nitrophenol	9.97	246	28852	68.07	ng/uL	86
21)	2,4-Dimethylphenol	10.42	260	39287	65.78	ng/uL	97
22)	Benzoic Acid	11.17	283	18670	83.71	ng/uL	86
23)	bis(-2-Chloroethoxy)Methane	10.55	264	87402M	78.01	ng/uL	
24)	2,4-Dichlorophenol	10.68	268	35864	75.02	ng/uL	93
25)	1,2,4-Trichlorobenzene	10.75	270	37315	69.01	ng/uL	94
26)	Naphthalene	10.81	272	126808	61.41	ng/uL	98
27)	4-Chloroaniline	11.20	284	57149	73.43	ng/uL	98
28)	Hexachlorobutadiene	11.39	290	18170	69.98	ng/uL	95
29)	4-Chloro-3-methylphenol	12.72	331	43326	69.57	ng/uL	86
30)	2-Methylnaphthalene	12.56	326	72785	70.19	ng/uL	95
31)	*d10-Acenaphthene (IS)	15.14	406	28382	40.00	ng/uL	96
32)	Hexachlorocyclopentadiene	13.17	345	22873	77.66	ng/uL	98
33)	2,4,6-Trichlorophenol	13.66	360	22867	68.69	ng/uL	95
34)	2,4,5-Trichlorophenol	13.66	360	22867	68.69	ng/uL	90
35)	2-Chloronaphthalene	13.75	363	75312	67.13	ng/uL	94
36)	2-Fluorobiphenyl (SUR)	13.66	360	81449	76.13	ng/uL	95
37)	2-Nitroaniline	14.27	379	32637	68.61	ng/uL	92
38)	Dimethyl Phthalate	14.88	398	80919	61.39	ng/uL	100
39)	Acenaphthylene	14.75	394	110983	62.92	ng/uL	95
40)	3-Nitroaniline	15.40	411	25139M	72.33	ng/uL	
41)	Acenaphthene	15.24	409	83395	73.41	ng/uL	96
42)	2,4-Dinitrophenol	15.59	420	6931	102.65	ng/uL	100
43)	4-Nitrophenol	16.14	437	14351	134.43	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.63	421	93830	61.03	ng/uL	91
45)	2,4-Dinitrotoluene	15.95	431	25503	68.82	ng/uL	100
46)	2,6-Dinitrotoluene	15.01	402	25445	81.41	ng/uL	100
47)	Diethylphthalate	16.66	453	85420	66.93	ng/uL	92
48)	4-Chlorophenyl-phenylether	16.60	451	29629	63.45	ng/uL	100
49)	Fluorene	16.47	447	70594	66.64	ng/uL	95
50)	4-Nitroaniline	16.82	458	21930	87.09	ng/uL	85
51)	*d10-Phenanthrene (IS)	18.73	517	36541	40.00	ng/uL	97
52)	4,6-Dinitro-2-methylphenol	16.92	461	10455	90.77	ng/uL	100
53)	N-Nitrosodiphenylamine	16.98	463	43922	64.10	ng/uL	91
54)	2,4,6-Tribromophenol (SUR)	17.15	468	8399	65.66	ng/uL	94
55)	4-Bromophenyl-phenylether	17.76	487	19333	69.91	ng/uL	90
56)	Pentachloronitrobenzene	18.70	516	4435	69.70	ng/uL	100
57)	Hexachlorobenzene	17.99	494	18430	69.04	ng/uL	94
58)	Pentachlorophenol	18.57	512	7335	106.22	ng/uL	100
59)	Phenanthrene	18.76	518	106089	78.10	ng/uL	97
60)	Anthracene	18.89	522	92694	64.55	ng/uL	98
61)	Di-n-Butylphthalate	20.70	578	156325	69.92	ng/uL	96
62)	Fluoranthene	21.67	608	81417	55.80	ng/uL	97
63)	*d12-Chrysene (IS)	25.19	717	24946	40.00	ng/uL	100
64)	Pyrene	22.19	624	85240	66.38	ng/uL	78
65)	Terphenyl-d14 (SUR)	22.80	643	50075	65.97	ng/uL	89
66)	Butylbenzylphthalate	24.99	689	61126	81.72	ng/uL	92
67)	3,3'-Dichlorobenzidine	25.32	721	23615	63.22	ng/uL	99
68)	Benzo(a)Anthracene	25.16	716	89500	76.62	ng/uL	97
69)	Bis(2-Ethylhexyl)Phthalate	25.87	738	76925	62.09	ng/uL	99
70)	Chrysene	25.96	719	47210	55.39	ng/uL	98
71)	*d12-Perylene (IS)	28.42	817	25435	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.99	782	128080	66.95	ng/uL	97
73)	Benzo(b)fluoranthene	27.71	795	147638	62.16	ng/uL	100
74)	Benzo(k)fluoranthene	27.71	795	147638	62.16	ng/uL	100
75)	Benzo(a)Pyrene	28.29	813	70636	68.18	ng/uL	98
76)	Indeno(1,2,3-cd)Pyrene	30.46	880	86594	74.44	ng/uL	85
77)	Dibenzo(a,h)Anthracene	30.52	882	68318	71.30	ng/uL	99
78)	Benzo(g,h,i)Perylene	30.94	895	72616	67.95	ng/uL	92

* Compound is ISTD

TOTAL ION CHROMOTOGRAM



Data File: >B1458::D1 Quant Output File: ^B1458::QT
Name: 120NG ABN STD
Misc: 2 UL INJ 40 PPB IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880115 11:16

Operator ID: USER6
Quant Time: 880118 10:56
Injected at: 880118 10:12

3 2 00912

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 880118 11:40
Output File: ^B1459::QT Injected at: 880118 10:57
Data File: >B1459::D1 Dilution Factor: 1.00000
Name: 1BUNG ABN STD
Misc: 2 UL INJ 40 PPB IS

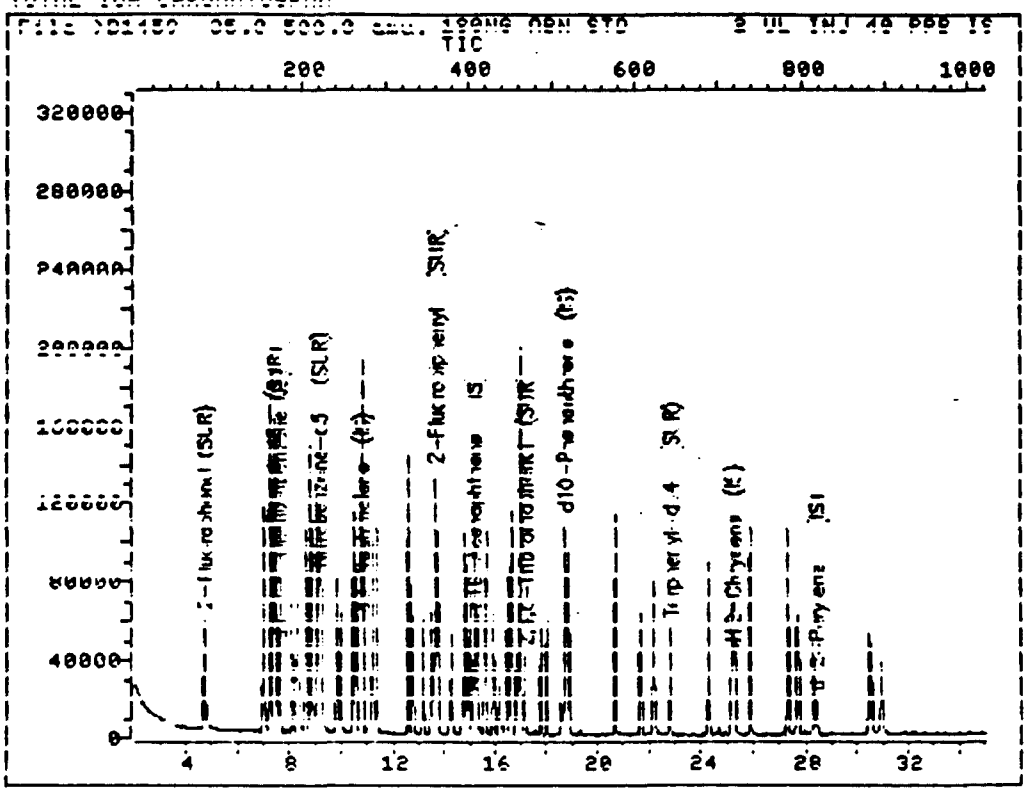
ID File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880115 11:16

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.58	172	17146	40.00	ng/uL	99
2)	2-Fluorophenol (SUR)	4.71	83	62586	74.95	ng/uL	100
3)	Phenol-d5 (SUR)	7.39	166	79988	58.21	ng/uL	100
4)	Phenol	7.42	167	114415	73.89	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.26	162	93108	68.10	ng/uL	91
6)	2-Chlorophenol	7.26	162	65508	69.92	ng/uL	98
7)	1,3-Dichlorobenzene	7.48	169	67721	77.14	ng/uL	93
8)	1,4-Dichlorobenzene	7.65	174	60256	70.35	ng/uL	89
9)	Benzyl Alcohol	8.29	194	41309	70.62	ng/uL	84
10)	1,2-Dichlorobenzene	8.07	187	49967	54.08	ng/uL	94
11)	2-Methylphenol	8.81	210	61700	59.89	ng/uL	90
12)	bis(2-Chloroisopropyl)ether	8.65	205	186113	69.02	ng/uL	99
13)	4-Methylphenol	9.23	223	64820	55.90	ng/uL	97
14)	N-Nitroso-Di-n-propylamine	8.97	215	8426	8.12	ng/uL	70
15)	Hexachloroethane	8.81	210	28763	48.29	ng/uL	97
16)	*1-5-Naphthalene (IS)	10.78	271	48305	40.00	ng/uL	96
17)	Nitrobenzene-d5 (SUR)	9.13	220	87429	95.35	ng/uL	96
18)	Nitrobenzene	9.10	222	133860	117.25	ng/uL	99
19)	Isophorone	9.84	242	178846	96.19	ng/uL	88
20)	2-Nitrophenol	9.97	246	32652	81.27	ng/uL	93
21)	2,4-Dimethylphenol	10.46	261	52706	93.10	ng/uL	88
22)	Benzoic Acid	11.14	282	19224	90.94	ng/uL	88
23)	bis(-2-Chloroethoxy)Methane	10.55	264	92285M	86.89	ng/uL	
24)	2,4-Dichlorophenol	10.68	268	43582	96.17	ng/uL	86
25)	1,2,4-Trichlorobenzene	10.75	270	44943	87.69	ng/uL	94
26)	Naphthalene	10.85	273	201645	103.02	ng/uL	98
27)	4-Chloroaniline	11.23	285	71266M	96.61	ng/uL	
28)	Hexachlorobutadiene	11.40	290	27262	110.77	ng/uL	98
29)	4-Chloro-3-methylphenol	12.72	331	61632	104.41	ng/uL	94
30)	2-Methylnaphthalene	12.59	327	110806	112.73	ng/uL	91
31)	*d10-Acenaphthene (IS)	15.18	407	25414	40.00	ng/uL	99
32)	Hexachlorocyclopentadiene	13.17	345	26043	98.76	ng/uL	97
33)	2,4,6-Trichlorophenol	13.66	360	26985	90.52	ng/uL	90
34)	2,4,5-Trichlorophenol	13.66	360	26985	90.52	ng/uL	93
35)	2-Chloronaphthalene	13.75	363	81664	81.29	ng/uL	99
36)	2-Fluorobiphenyl (SUR)	13.66	360	86731	90.54	ng/uL	93
37)	2-Nitroaniline	14.27	379	32717	76.81	ng/uL	83
38)	Dimethyl Phthalate	14.92	399	99637	84.43	ng/uL	100
39)	Acenaphthylene	14.79	395	134300	85.03	ng/uL	94
40)	3-Nitroaniline	15.31	411	2793?M	89.77	ng/uL	
41)	Acenaphthene	15.24	409	76739	75.44	ng/uL	95
42)	2,4-Dinitrophenol	15.60	420	7951	137.92	ng/uL	100
43)	4-Nitrophenol	16.47	447	7862	82.24	ng/uL	100

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	Dibenzofuran	15.66	422	113294	82.29	ng/uL	92
45)	2,4-Dinitrotoluene	15.95	431	31656	95.41	ng/uL	100
46)	2,6-Dinitrotoluene	15.01	402	20604	73.62	ng/uL	100
47)	Diethylphthalate	16.70	454	109466	95.78	ng/uL	85
48)	4-Chlorophenyl-phenylether	16.60	451	34957	83.60	ng/uL	100
49)	Fluorene	16.47	447	74084	78.10	ng/uL	98
50)	4-Nitroaniline	16.86	459	26276	116.54	ng/uL	89
51)	*d10-Phenanthrene (IS)	18.73	517	35228	40.00	ng/uL	99
52)	4,6-Dinitro-2-methylphenol	16.92	461	13887	125.06	ng/uL	100
53)	N-Nitrosodiphenylamine	16.99	463	58683	88.84	ng/uL	93
54)	2,4,6-Tribromophenol (SUR)	17.15	468	10865	88.11	ng/uL	93
55)	4-Bromophenyl-phenylether	17.76	487	19610	73.55	ng/uL	80
56)	Pentachloronitrobenzene	18.73	517	6235	101.64	ng/uL	100
57)	Hexachlorobenzene	17.99	494	26631	103.48	ng/uL	92
58)	Pentachlorophenol	18.57	512	9257	139.05	ng/uL	100
59)	Phenanthrene	18.80	519	122973	93.91	ng/uL	97
60)	Anthracene	18.89	522	104152	75.25	ng/uL	97
61)	Di-n-Butylphthalate	20.70	578	177992	82.58	ng/uL	96
62)	Fluoranthene	21.67	608	87434	62.16	ng/uL	96
63)	*d12-Chrysene (IS)	25.23	718	22760	40.00	ng/uL	100
64)	Pyrene	22.19	624	95230	81.28	ng/uL	84
65)	Terphenyl-d14 (SUR)	22.83	644	62017	89.55	ng/uL	96
66)	Butylbenzylphthalate	24.29	689	62404	91.44	ng/uL	95
67)	3,3'-Dichlorobenzidine	25.32	721	31383	92.08	ng/uL	98
68)	Benzo(a)Anthracene	25.19	717	94556	88.72	ng/uL	92
69)	Bis(2-Ethylhexyl)Phthalate	25.90	739	90915	80.43	ng/uL	96
70)	Chrysene	25.26	719	56617	72.04	ng/uL	95
71)	*d12-Perylene (IS)	28.42	817	21548	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.43	783	146613	90.47	ng/uL	96
73)	Benzo(b)fluoranthene	27.71	795	152403	75.74	ng/uL	100
74)	Benzo(k)Fluoranthene	27.71	795	152403	75.74	ng/uL	100
75)	Benzo(a)Pyrene	28.30	813	70703	80.55	ng/uL	97
76)	Indeno(1,2,3-cd)Pyrene	30.94	895	73959	75.05	ng/uL	88
77)	Dibenzo(a,h)Anthracene	30.56	883	69552	85.68	ng/uL	87
78)	Benzo(g,h,i)Perylene	30.94	895	73959	81.69	ng/uL	96

* Compound is ISTD

TOTAL ION CHROMOTOGRAM



Data File: ^B1459::D1 Quant Output File: ^B1459::QT
Name: 100NG BRN STD
Misc: 2 UL INJ 40 PPB IS

Id File: ID BNA::ID
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880115 11:16

Operator ID: USFR6
Quant Time: 880118 11:40
Injected at: 880118 10:57

Continuing Calibration Check
HSL Compounds

Case No: | Calibration Date: 01/19/88

Contractor: BCM | Time: 08:04

Contract No: | Laboratory ID: >B1465

Instrument ID: #1 | Initial Calibration Date: 01/18/88

Minimum RF for SPCC is 0.05 | Maximum % Diff for CCC is 25.0%

Compound	RF	RF	%Diff	CCC	SPCC
2-Fluorophenol (SUR)	1.90502	2.13433	12.04		
Phenol-d5 (SUR)	2.73014	3.01048	10.27		
Phenol	3.57694	3.89398	8.86	*	
bis(-2-Chloroethyl)Ether	3.57151	3.93074	10.06		
2-Chlorophenol	2.19143	2.10194	4.08		
1,3-Dichlorobenzene	2.00383	2.16098	7.84		
1,4-Dichlorobenzene	2.02532	2.15661	6.48	*	
Benzyl Alcohol	1.58868	1.45229	8.59		
1,2-Dichlorobenzene	1.95596	1.97536	.99		
2-Methylphenol	2.37949	2.27147	4.54		
bis(2-Chloroisopropyl)ether	6.80567	8.33378	22.45		
4-Methylphenol	2.28336	2.89815	26.92		
N-Nitroso-Di-n-propylamine	2.40953	3.35161	39.10		**
Hexachloroethane	1.26549	1.32043	4.34		
Nitrobenzene-d5 (SUR)	.92765	.72265	22.10		
Nitrobenzene	1.29895	1.08361	16.29		
Isophorone	1.93498	1.50666	22.14		
2-Nitrophenol	.35014	.21542	38.48	*	
2,4-Dimethylphenol	.55442	.42957	22.52		
Benzoic Acid	.19579	.15161	22.57		
bis(-2-Chloroethoxy)Methane	1.08719	1.10906	2.01		
2,4-Dichlorophenol	.40256	.29810	25.95		
1,2,4-Trichlorobenzene	.45496	.42769	5.99		
Naphthalene	1.87432	1.68799	9.94		
4-Chloroaniline	.76599	.72711	5.08		
Hexachlorobutadiene	.23844	.28298	18.68	*	
4-Chloro-3-methylphenol	.64851	.52714	18.72	*	
2-Methylnaphthalene	1.11747	.99135	11.29		
Hexachlorocyclopentadiene	.55592	.61836	11.23		**
2,4,6-Trichlorophenol	.58361	.48936	16.15	*	
2,4,5-Trichlorophenol	.58361	.48936	16.15		
2-Chloronaphthalene	1.91977	1.59161	16.66		

RF - Response Factor from daily standard file at 25.00 ng/uL

RF - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No:

Calibration Date: 01/19/88

Contractor: BCM

Time: 08:04

Contract No:

Laboratory ID: >B1465

Instrument ID: #1

Initial Calibration Date: 01/18/88

Minimum RF for SPCC is 0.05 Maximum % Diff for CCC is 25.0%

Compound	RF	RF	%Diff	CCC	SPCC
2-Fluorobiphenyl (SUR)	2.02741	1.58355	21.89		
2-Nitroaniline	.77396	.68672	11.27		
Dimethyl Phthalate	2.07203	2.04640	1.24		
Acenaphthylene	2.77986	2.68759	3.32		
3-Nitroaniline	.58264	.47090	19.18		
Acenaphthene	1.78541	1.96059	9.81	*	
2,4-Dinitrophenol	.10655	-	-		**
4-Nitrophenol	.25718	.14153	44.97		**
Dibenzofuran	2.40462	2.40039	.18		
2,4-Dinitrotoluene	.64723	.53524	17.30		
2,6-Dinitrotoluene	.48042	.45345	5.61		
Diethylphthalate	2.38951	2.42344	1.42		
4-Chlorophenyl-phenylether	.83868	.88430	5.44		
Fluorene	1.86317	1.79993	3.39		
4-Nitroaniline	.53047	.35735	32.64		
4,6-Dinitro-2-methylphenol	.14530	.02764	80.98		
N-Nitrosodiphenylamine	.83913	.67837	19.16	*	
2,4,6-Tribromophenol (SUR)	.15474	.09242	32.11		
Pentachloronitrobenzene	.08184	.05915	27.73		
4-Bromophenyl-phenylether	.35720	.29208	18.35		
Hexachlorobenzene	.39875	.30761	22.86		
Pentachlorophenol	.08210	.02099	74.44	*	
Phenanthrene	1.79992	1.54377	14.23		
Anthracene	1.67209	1.65662	.93		
Di-n-Butylphthalate	2.49542	2.08310	16.52		
Fluoranthene	1.41537	1.13776	19.61	*	
Pyrene	1.98509	2.01090	1.30		
Terphenyl-d14 (SUR)	1.20933	1.21393	.38		
Butylbenzylphthalate	1.38322	1.54545	11.73		
3,3'-Dichlorobenzidine	.62372	.58260	6.59		
Benzo(a)Anthracene	2.06566	1.86263	9.83		
Bis(2-Ethylhexyl)Phthalate	2.03830	2.42320	18.88		

RF - Response Factor from daily standard file at 25.00 ng/uL

RF - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: Calibration Date: 01/19/88

Contractor: BCM Time: 08:04

Contract No: Laboratory ID: >B1465

Instrument ID: #1 Initial Calibration Date: 01/18/88

Minimum RF for SPCC is 0.05 Maximum % Diff for CCC is 25.0%

Compound	RF	RF	%Diff	CCC	SPCC
Chrysene	1.42366	1.71505	20.47		
Di-n-octyl phthalate	3.48113	4.03039	15.78	*	
Benzo(b)fluoranthene	3.79713	3.88152	2.22		
Benzo(k)Fluoranthene	3.79713	3.88152	2.22		
Benzo(a)Pyrene	1.81007	1.90941	5.49	*	
Indeno(1,2,3-cd)Pyrene	2.11483	2.45514	16.09		
Dibenzo(a,h)Anthracene	1.85354	1.85825	.25		
Benzo(g,h,i)Perylene	1.87766	1.93929	3.28		

RF - Response Factor from daily standard file at 25.00 ng/uL

RF - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

3 2 00918

QUANT REPORT

Operator ID: USER6 Quant Rev: 6 Quant Time: 880119 09:44
Output File: ^B1465::QT Injected at: 880119 08:04
Data File: >B1465::D1 Dilution Factor: 1.00000
Name: 50 NG ABN STD
Misc: 2 UL INJ 40 PPB IS

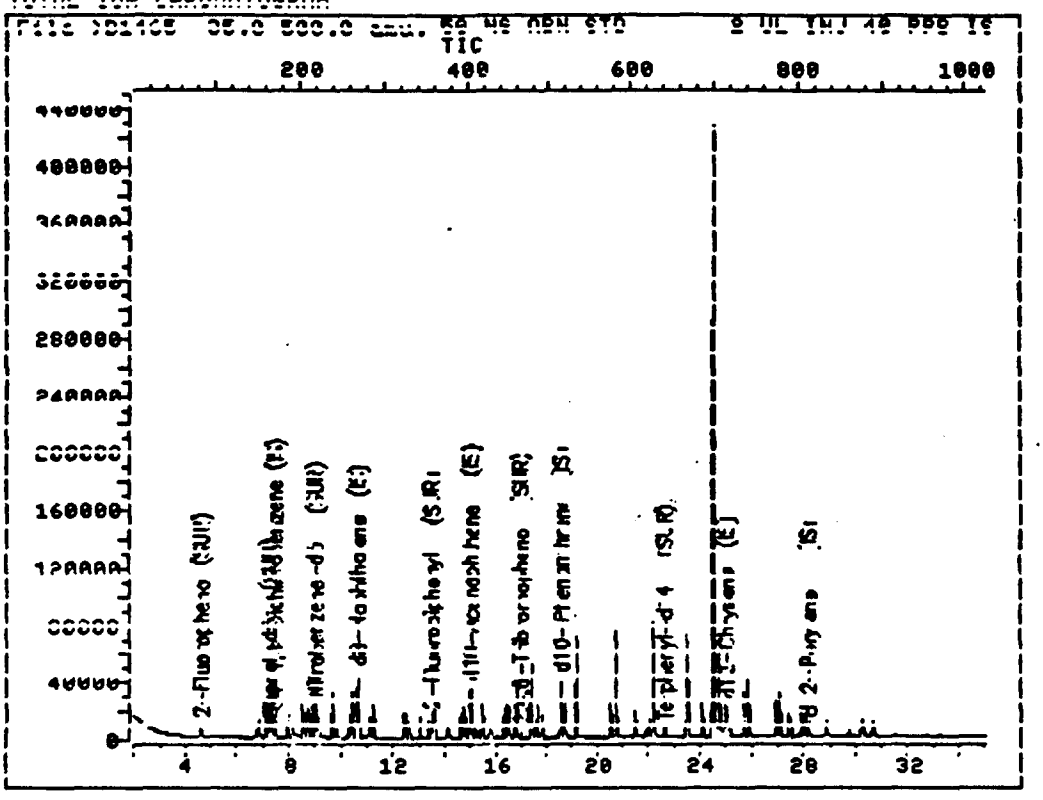
ID File: ID RDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880118 12:07

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene (IS)	7.45	170	6965	40.00	ng/uL	96
2)	2-Fluorophenol (SUR)	4.60	82	9291	28.01	ng/uL	100
3)	Phenol-d5 (SUR)	7.25	164	13105	27.57	ng/uL	100
4)	Phenol	7.28	165	16951	27.22	ng/uL	100
5)	bis(-2-Chloroethyl)Ether	7.12	160	17111	27.51	ng/uL	93
6)	2-Chlorophenol	7.12	160	9150	23.98	ng/uL	92
7)	1,3-Dichlorobenzene	7.35	167	9407	26.96	ng/uL	91
8)	1,4-Dichlorobenzene	7.51	172	9388	26.62	ng/uL	91
9)	Benzyl Alcohol	8.12	191	6322	22.85	ng/uL	98
10)	1,2-Dichlorobenzene	7.96	186	8599	25.25	ng/uL	87
11)	2-Methylphenol	8.71	209	9888	23.87	ng/uL	95
12)	bis(2-Chloroisopropyl)ether	8.51	203	36278	30.61	ng/uL	95
13)	4-Methylphenol	9.09	221	12616	31.73	ng/uL	97
14)	N-Nitroso-Di-n-propylamine	8.87	214	14590	34.77	ng/uL	71
15)	Hexachloroethane	8.67	208	5748	26.09	ng/uL	99
16)	*d8-Naphthalene (IS)	10.64	269	34077	40.00	ng/uL	90
17)	Nitrobenzene-d5 (SUR)	9.00	218	15391	19.48	ng/uL	85
18)	Nitrobenzene	9.03	219	21375	20.93	ng/uL	93
19)	Isophorone	9.68	239	32089	19.47	ng/uL	82
20)	2-Nitrophenol	9.84	244	4588	15.38	ng/uL	99
21)	2,4-Dimethylphenol	10.32	259	9149	19.37	ng/uL	90
22)	Benzoic Acid	10.90	277	3229	19.36	ng/uL	91
24)	2,4-Dichlorophenol	10.58	267	6349	18.51	ng/uL	91
25)	1,2,4-Trichlorobenzene	10.61	268	9109	23.50	ng/uL	91
26)	Naphthalene	10.68	270	35951	22.51	ng/uL	96
27)	4-Chloroaniline	11.10	283	15486	23.73	ng/uL	90
28)	Hexachlorobutadiene	11.26	288	6027	29.67	ng/uL	98
29)	4-Chloro-3-methylphenol	12.58	329	11227	20.32	ng/uL	96
30)	2-Methylnaphthalene	12.42	324	21114	22.18	ng/uL	97
31)	*d10-Acenaphthene (IS)	15.01	404	14301	40.00	ng/uL	91
32)	Hexachlorocyclopentadiene	13.03	343	5527	27.81	ng/uL	95
33)	2,4,6-Trichlorophenol	13.52	358	4374	20.96	ng/uL	94
34)	2,4,5-Trichlorophenol	13.52	358	4374	20.96	ng/uL	97
35)	2-Chloronaphthalene	13.58	360	14276	20.84	ng/uL	94
36)	2-Fluorobiphenyl (SUR)	13.49	357	14154	19.53	ng/uL	92
37)	2-Nitroaniline	14.13	377	6138	22.18	ng/uL	81
38)	Dimethyl Phthalate	14.75	396	18291	24.69	ng/uL	100
39)	Acenaphthylene	14.59	391	24022	24.17	ng/uL	93
40)	3-Nitroaniline	15.49	419	436	2.09	ng/uL	94
41)	Acenaphthene	15.07	406	17524	27.45	ng/uL	97
43)	4-Nitrophenol	16.07	437	1265	13.76	ng/uL	100
44)	Dibenzofuran	15.49	419	21455	24.96	ng/uL	97
45)	2,4-Dinitrotoluene	15.78	428	4784	20.67	ng/uL	101

	Compound	R.T.	Scan#	Area	Conc	Units	q
46)	2,6-Dinitrotoluene	14.84	399	4053	23.60	ng/uL	100
47)	Diethylphthalate	16.52	451	21661	25.35	ng/uL	84
48)	4-Chlorophenyl-phenylether	16.46	449	7904	26.36	ng/uL	100
49)	Fluorene	16.33	445	16088	24.15	ng/uL	99
50)	4-Nitroaniline	16.69	456	3194	16.84	ng/uL	83
51)	*d10-Phenanthrene (IS)	18.56	514	25237	40.00	ng/uL	98
53)	N-Nitrosodiphenylamine	16.81	460	10700	20.21	ng/uL	88
54)	2,4,6-Tribromophenol (SUR)	16.98	465	1535	15.72	ng/uL	90
55)	4-Bromophenyl-phenylether	17.62	485	4607	20.41	ng/uL	91
56)	Pentachloronitrobenzene	18.53	513	933	18.07	ng/uL	100
57)	Hexachlorobenzene	17.85	492	4852	19.29	ng/uL	94
59)	Phenanthrene	18.59	515	24350	21.44	ng/uL	97
60)	Anthracene	18.72	519	26130	24.77	ng/uL	96
61)	Di-n-Butylphthalate	20.53	575	32857	20.87	ng/uL	98
62)	Fluoranthene	21.50	605	17946	20.10	ng/uL	95
63)	*d12-Chrysene (IS)	25.02	714	13726	40.00	ng/uL	100
64)	Pyrene	21.98	620	17251	25.33	ng/uL	96
65)	Terphenyl-d14 (SUR)	22.63	640	10414	25.10	ng/uL	84
67)	3,3'-Dichlorobenzidine	25.15	718	4998	23.35	ng/uL	95
68)	Benzo(a)Anthracene	24.99	713	15979	22.54	ng/uL	92
69)	Bis(2-Ethylhexyl)Phthalate	25.70	735	20788	29.72	ng/uL	99
70)	Chrysene	25.05	715	14713	30.12	ng/uL	94
71)	*d12-Perylene (IS)	28.19	812	12478	40.00	ng/uL	100
72)	Di-n-octyl phthalate	27.12	779	31432	28.94	ng/uL	86
73)	Benzo(b)Fluoranthene	27.44	789	30271	25.56	ng/uL	100
74)	Benzo(k)Fluoranthene	27.44	789	30271	25.56	ng/uL	100
75)	Benzo(a)Pyrene	28.09	809	14891	26.37	ng/uL	93
76)	Indeno(1,2,3-cd)Pyrene	30.22	875	19147	29.02	ng/uL	91
77)	Dibenzo(a,h)Anthracene	30.29	877	14492	25.06	ng/uL	98
78)	Benzo(g,h,i)Perylene	30.68	889	15124	25.82	ng/uL	92

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: 50 NG ABN STD
Misc: 2 UL INJ 40 PPB IS

Id File: ID BDA::L2
Title: HP BNA Standards for Daily Calibration Rev E
Last Calibration: 880118 12:07

Operator ID: USER6
Quant Time: 880119 09:44
Injected at: 880119 08:04