Received 10/31/2011
Complaint 200323492 and
Project 2104

ALS Environmental

GC/MS Semivolatiles

Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 200323492

Work Order Number: 1110046

1. This report consists of 1 water sample. These samples were received cool and intact by ALS on 10/05/11.

2. The sample was prepared and analyzed according to SW-846, 3rd Edition procedures.

   The water sample was extracted using continuous liquid-liquid extractors, according to SW-846 Method 3520C utilizing SOP 617 Revision 14.

3. The extracts were analyzed using GC/MS with a DB-5MS capillary column according to SOP 506 Revision 19 based on SW-846 Method 8270D. The samples were analyzed using selective ion monitoring (SIM), in order to achieve lower reporting limits. All positive results were quantitated against the initial calibration standards using the internal standard technique. The identification of positive results was achieved by a comparison of the retention time and a limited number of major ions from the mass spectrum of the sample versus the daily calibration standard.

4. All initial calibration criteria were met. If average response factors were used in the initial calibration, %RSD was ≤20%. If linear or higher order regression calibrations were used in the initial calibration, the coefficient of determination (r^2) ≥0.99.

5. All initial calibration standards are verified by comparing a second source standard initial calibration verification (ICV) against the calibration curve. All target compounds in the second source verification had a %D ≤30%.

6. All compounds in each of the daily (continuing) calibration verifications were within 20%D.

7. All method blank criteria were met.

8. All laboratory control sample and laboratory control sample duplicate recoveries and RPDs were within the acceptance criteria.

9. Since a sample from this order number was not the selected quality control (QC) sample, matrix specific QC results are not included in this report.

10. The sample was extracted and analyzed within the established holding times.

11. All surrogate recoveries were within acceptance criteria.

12. All internal standard recoveries were within acceptance criteria.

13. Manual integrations are performed when needed to provide consistent and defensible data following the guidelines in SOP 939 Revision 4. The chromatographic data system marks the manual integrations with an m on the quantitation report. Whenever manual integrations are performed, before and after chromatograms of the peak that was manually integrated are included in the report along with the reason why the re-integration was necessary.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Emily Hellickson — 18 Oct. 11
Emily Hellickson — Date
Organics Primary Data Reviewer

Eric Bayless — 10/19/11
Organics Final Data Reviewer — Date

ALS
Data Qualifier Flags
Chromatography and Mass Spectrometry

U or ND:	**This flag indicates that the compound was analyzed for but not detected.**
J:	**This flag indicates an estimated value. This flag is used as follows: (1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the reporting limit (RL) but greater than the method detection limit (MDL); (3) when the retention time data indicate the presence of a compound that meets the GC identification criteria, and the result is less than the RL but greater than the MDL; and (4) the reported value is estimated.**
B:	**This flag is used when the analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user. This flag shall be used for a tentatively identified compound (TIC) as well as for a positively identified target compound.**
E:	**This flag identifies compounds whose concentration exceeds the upper level of the calibration range.**
A:	**This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.**
X:	**This flag indicates that the analyte was diluted below an accurate quantitation level.**
***:**	**This flag indicates that a spike recovery is equal to or outside the control criteria used.**
+:	**This flag indicates that the relative percent difference (RPD) equals or exceeds the control criteria.**

Chain of Custody

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1110046
Client Name: Colorado Oil & Gas Conservation Commission
Client Project Name: Complaint 200323492
Client Project Number:
Client PO Number: PHA 12-10

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
705323 Dahl	1110046-1		WATER	04-Oct-11	12:31
705323 Dahl	1110046-2		WATER	04-Oct-11	12:31

ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF 800-443-1511 PH (970) 490-1511 Fx (970) 490-1522

Chain-of-Custody

Form 202r8

WORKORDER #: 1110046

PROJECT NAME	Complaint [illegible]	SAMPLER	PK = Gintautas	DATE	4/6/2011	PAGE	1 of 1
PROJECT No.		SITE ID		TURNAROUND	7 Day	DISPOSAL	(By Lab) or Return to Client
		EDD FORMAT					
		PURCHASE ORDER					
OMPANY NAME	Colo Oil & Gas Cons Comm	BILL TO COMPANY					
ND REPORT TO	Peter Gintautas	INVOICE ATTN TO					
ADDRESS	PO Box 106	ADDRESS					
Y / STATE / ZIP	Trinidad CO 81082	CITY / STATE / ZIP					
PHONE	719-846-3091	PHONE					
FAX		FAX					
E-MAIL	peter.gintautas@state.co.us	E-MAIL					

1 [illegible] TICs; 2 TR Metals ICP; 3 TR Metals ICP/MS; 4 TOC; 5 Sulfide; 6 [illegible] PAH; 7 Dissolved Gases; 8 Dissolved ICP; 9 Dissolved ICP/MS; 10 Anions; 11 Alk (HCO3, CO3); 12 TDS + TSS; 13 pH; 14 Cond; 15 SAR calc; 16 Cation Anion Balance; 17 [illegible]

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
(1)	705323 Dahl	W	4/6/2011	12:29	3	1		X		(2)														
↓	↓	↓	↓	12:31	1	2			X	X														
				↓	1	3					X													
					1	4,7,2n Ac						X												
					7	8							X	X	X	X	X	X	X	X	X	X	X	

Regular ICP metals + P, S
Regular ICP/MS + Cerium, Lanthanum, Neodymium, Praseodymium, Thorium, Yttrium
"TSS" bottle = entire [illegible] to be filtered [illegible] [illegible] with weight of any sediment [illegible]

Zone (Circle): EST CST (MST) PST Matrix O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

etals or anions, please detail analytes below.

ments: Anions = Br, Cl, F, NO3, NO2, SO4
[illegible] = filter and preserve
upon receipt

QC PACKAGE (check below)	
	LEVEL I (Standard QC)
	LEVEL II (Std QC + forms)
X	LEVEL IV (Std QC + forms + raw data) w/ [illegible]

vative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	[signature]	Peter Gintautas	4/6/2011	16:45
RECEIVED BY	[signature]	Lauren Schmitz	10/5/11	1020
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

CONDITION OF SAMPLE UPON RECEIPT FORM

Client: COGCC Workorder No: 1110046

Project Manager: ARW Initials: LAS Date: 10/5/11

1. Does this project require any **special handling** in addition to standard Paragon procedures?		YES	(NO)
2. Are custody **seals** on **shipping containers** intact?	NONE	(YES)	NO
3. Are Custody seals on **sample containers** intact?	(NONE)	YES	NO
4. Is there a **COC (Chain-of-Custody) present** or other representative documents?		(YES)	NO
5. Are the **COC and bottle labels complete and legible**?		(YES)	NO
6. Is the **COC in agreement** with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		(YES)	NO
7. Were **airbills / shipping documents** present and/or removable?	DROP OFF	(YES)	NO
8. Are all **aqueous samples requiring preservation preserved correctly? (excluding volatiles)**	N/A	(YES)	NO
9. Are all aqueous **non-preserved samples pH 4-9**?	N/A	(YES)	NO
10. Is there **sufficient sample** for the requested analyses?		(YES)	NO
11. Were all samples placed in the **proper containers** for the requested analyses?		(YES)	NO
12. Are all samples within **holding times** for the requested analyses?		(YES)	NO
13. Were all sample containers received **intact**? (not broken or leaking, etc.)		(YES)	NO
14. Are all samples requiring **no** headspace (**VOC, GRO, RSK/MEE, Rx CN/S, radon**) headspace free? **Size of bubble**: ___ < green pea ___ > green pea	N/A	(YES)	NO
15. Do perchlorate LCMS-MS samples **have** headspace? (at least 1/3 of container required)	(N/A)	YES	NO
16. Were samples checked for and free from the presence of **residual chlorine?** (Applicable when PM has indicated samples are from a chlorinated water source; note if field preservation with sodium thiosulfate was not observed.)	(N/A)	YES	NO
17. Were the samples **shipped on ice**?		(YES)	NO
18. Were cooler temperatures measured at 0.1-6.0°C? **IR gun used*:** (#2) #4	RAD ONLY	(YES)	NO

Cooler #: 1

Temperature (°C): 5.2

No. of custody seals on cooler: 1

DOT Survey/ Acceptance Information

External µR/hr reading: 13

Background µR/hr reading: 12

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? (YES) NO / NA (If no, see Form 008.)

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

If applicable, was the client contacted? YES / NO / (NA) Contact: _____ Date/Time: _____

Project Manager Signature / Date: [signature] 10/7/11

*IR Gun #2: Oakton, SN 29922500201-0066 *IR Gun #4: Oakton, SN 2372220101-0002

1110046

PETER GINTAUTAS
719-846-3091
COLORADO OIL & GAS CONSERVATIO
213 CORUNDUM RD
TRINIDAD CO 81082

40 LBS

2 OF 2

DWT: 25,13

1020

FOLD HERE

SHIP TO:
AMY WOLF
970-490-1511
ALS LABORATORY GROUP
225 COMMERCE DRIVE
FORT COLLINS CO 80524-2762

CO 805 0-01

UPS NEXT DAY AIR

TRACKING #: 1Z 014 8WR 01 9337 6560

1

5.2°

BILLING: P/P

Reference#1: EPA frac Study

501

UIS 13.6.08 WNJE90 18.0A 07/2011

Analytical Results

GC/MS Semi-volatiles

Method SW8270SIMPAHD

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Lab ID: EX111011-13MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 11-Oct-11
Date Analyzed: 13-Oct-11

Prep Batch: EX111011-13
QCBatchID: EX111011-13-2
Run ID: SV111013-1
Cleanup: NONE
Basis: N/A
File Name: N3343

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier
91-20-3	NAPHTHALENE	1	0.1	0.1	0.033	U	
91-57-6	2-METHYLNAPHTHALENE	1	0.1	0.1	0.033	U	
90-12-0	1-METHYLNAPHTHALENE	1	0.1	0.1	0.033	U	
208-96-8	ACENAPHTHYLENE	1	0.1	0.1	0.033	U	
83-32-9	ACENAPHTHENE	1	0.1	0.1	0.033	U	
86-73-7	FLUORENE	1	0.1	0.1	0.033	U	
85-01-8	PHENANTHRENE	1	0.1	0.1	0.033	U	
120-12-7	ANTHRACENE	1	0.1	0.1	0.033	U	
206-44-0	FLUORANTHENE	1	0.1	0.1	0.033	U	
129-00-0	PYRENE	1	0.1	0.1	0.033	U	
56-55-3	BENZO(A)ANTHRACENE	1	0.1	0.1	0.033	U	
218-01-9	CHRYSENE	1	0.1	0.1	0.033	U	
205-99-2	BENZO(B)FLUORANTHENE	1	0.1	0.1	0.033	U	
207-08-9	BENZO(K)FLUORANTHENE	1	0.1	0.1	0.033	U	
50-32-8	BENZO(A)PYRENE	1	0.1	0.1	0.033	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	0.1	0.1	0.033	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	0.1	0.1	0.033	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	0.1	0.1	0.033	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
321-60-8	2-FLUOROBIPHENYL	1.86		2	93	21 - 106
4165-60-0	NITROBENZENE-D5	1.7		2	85	34 - 111
1718-51-0	TERPHENYL-D14	1.72		2	86	33 - 111

Data Package ID: *SV1110046-1*

GC/MS Semi-volatiles

Method SW8270SIMPAHD

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Field ID: 705323 Dahl
Lab ID: 1110046-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 04-Oct-11
Date Extracted: 11-Oct-11
Date Analyzed: 13-Oct-11
Prep Method: SW3520BN Rev C

Prep Batch: EX111011-13
QCBatchID: EX111011-13-2
Run ID: SV111013-1
Cleanup: NONE
Basis: As Received
File Name: N3347

Sample Aliquot: 1020 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier
91-20-3	NAPHTHALENE	1	0.098	0.098	0.033	U	
91-57-6	2-METHYLNAPHTHALENE	1	0.098	0.098	0.033	U	
90-12-0	1-METHYLNAPHTHALENE	1	0.098	0.098	0.033	U	
208-96-8	ACENAPHTHYLENE	1	0.098	0.098	0.033	U	
83-32-9	ACENAPHTHENE	1	0.098	0.098	0.033	U	
86-73-7	FLUORENE	1	0.098	0.098	0.033	U	
85-01-8	PHENANTHRENE	1	0.098	0.098	0.033	U	
120-12-7	ANTHRACENE	1	0.098	0.098	0.033	U	
206-44-0	FLUORANTHENE	1	0.098	0.098	0.033	U	
129-00-0	PYRENE	1	0.098	0.098	0.033	U	
56-55-3	BENZO(A)ANTHRACENE	1	0.098	0.098	0.033	U	
218-01-9	CHRYSENE	1	0.098	0.098	0.033	U	
205-99-2	BENZO(B)FLUORANTHENE	1	0.098	0.098	0.033	U	
207-08-9	BENZO(K)FLUORANTHENE	1	0.098	0.098	0.033	U	
50-32-8	BENZO(A)PYRENE	1	0.098	0.098	0.033	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	0.098	0.098	0.033	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	0.098	0.098	0.033	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	0.098	0.098	0.033	U	

Data Package ID: *SV1110046-1*

GC/MS Semi-volatiles

Method SW8270SIMPAHD

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Field ID: 705323 Dahl
Lab ID: 1110046-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 04-Oct-11
Date Extracted: 11-Oct-11
Date Analyzed: 13-Oct-11
Prep Method: SW3520BN Rev C

Prep Batch: EX111011-13
QCBatchID: EX111011-13-2
Run ID: SV111013-1
Cleanup: NONE
Basis: As Received
File Name: N3347

Sample Aliquot: 1020 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
321-60-8	2-FLUOROBIPHENYL	1.71		1.96	87	21 - 106
4165-60-0	NITROBENZENE-D5	1.62		1.96	83	34 - 111
1718-51-0	TERPHENYL-D14	1.56		1.96	79	33 - 111

Data Package ID: *SV1110046-1*

Supporting QA/QC Data

Surrogate Summary for GC/MS Semi-volatiles

Method SW8270SIMPAHD

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

PrepBatchID: EX111011-13

QC Batch ID: EX111011-13-2

Date Extracted: 10/11/2011

Surrogate Compound	Control Limits Lower	Upper
2,4,6-Tribromophenol		
2-Fluorobiphenyl	21	106
2-Fluorophenol		
Nitrobenzene-d5	34	111
Phenol-d5		
Terphenyl-d14	33	111

Lab ID	Client Sample ID	Date Collected	Date Received	246TB % Recovery	2FBP % Recovery	2FP % Recovery	ND5 % Recovery	PD5 % Recovery	TD14 % Recovery
EX111011-13MB	XXXXXXX	NA	XXXXXXX		93		85		86
EX111011-13LCS	XXXXXXX	NA	XXXXXXX		89		82		80
EX111011-13LCSD	XXXXXXX	NA	XXXXXXX		88		84		76
1110046-1	705323 Dahl	10/4/2011	10/5/2011		87		83		79

Data Package ID: *SV1110046-1*

GC/MS Semi-volatiles

Method SW8270SIMPAHD

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Lab ID: EX111011-13LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 10/11/2011
Date Analyzed: 10/13/2011
Prep Method: SW3520BNC

Prep Batch: EX111011-13
QCBatchID: EX111011-13-2
Run ID: SV111013-1
Cleanup: NONE
Basis: N/A
File Name: N3344

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
91-20-3	NAPHTHALENE	2	1.55	0.1		77	39 - 102%
91-57-6	2-METHYLNAPHTHALENE	2	1.53	0.1		77	46 - 104%
208-96-8	ACENAPHTHYLENE	2	1.62	0.1		81	50 - 107%
83-32-9	ACENAPHTHENE	2	1.67	0.1		84	47 - 108%
86-73-7	FLUORENE	2	1.58	0.1		79	50 - 112%
85-01-8	PHENANTHRENE	2	1.61	0.1		81	51 - 117%
120-12-7	ANTHRACENE	2	1.72	0.1		86	54 - 112%
206-44-0	FLUORANTHENE	2	1.66	0.1		83	54 - 116%
129-00-0	PYRENE	2	1.71	0.1		86	49 - 128%
56-55-3	BENZO(A)ANTHRACENE	2	1.63	0.1		82	56 - 109%
218-01-9	CHRYSENE	2	1.64	0.1		82	55 - 109%
205-99-2	BENZO(B)FLUORANTHENE	2	1.78	0.1		89	46 - 118%
207-08-9	BENZO(K)FLUORANTHENE	2	1.89	0.1		95	45 - 124%
50-32-8	BENZO(A)PYRENE	2	1.73	0.1		86	53 - 110%
193-39-5	INDENO(1,2,3-CD)PYRENE	2	1.76	0.1		88	43 - 125%
53-70-3	DIBENZO(A,H)ANTHRACENE	2	1.78	0.1		89	42 - 127%
191-24-2	BENZO(G,H,I)PERYLENE	2	1.74	0.1		87	38 - 123%

Data Package ID: *SV1110046-1*

GC/MS Semi-volatiles

Method SW8270SIMPAHD

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Lab ID: EX111011-13LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 10/11/2011
Date Analyzed: 10/13/2011
Prep Method: SW3520BNC

Prep Batch: EX111011-13
QCBatchID: EX111011-13-2
Run ID: SV111013-1
Cleanup: NONE
Basis: N/A
File Name: N3345

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
91-20-3	NAPHTHALENE	2	1.57	0.1		78	20	1
91-57-6	2-METHYLNAPHTHALENE	2	1.53	0.1		76	20	0
208-96-8	ACENAPHTHYLENE	2	1.61	0.1		80	20	0
83-32-9	ACENAPHTHENE	2	1.64	0.1		82	20	2
86-73-7	FLUORENE	2	1.53	0.1		77	20	3
85-01-8	PHENANTHRENE	2	1.57	0.1		79	20	3
120-12-7	ANTHRACENE	2	1.61	0.1		80	20	7
206-44-0	FLUORANTHENE	2	1.56	0.1		78	20	6
129-00-0	PYRENE	2	1.66	0.1		83	20	3
56-55-3	BENZO(A)ANTHRACENE	2	1.57	0.1		78	20	4
218-01-9	CHRYSENE	2	1.65	0.1		83	20	1
205-99-2	BENZO(B)FLUORANTHENE	2	1.77	0.1		89	20	0
207-08-9	BENZO(K)FLUORANTHENE	2	1.88	0.1		94	20	1
50-32-8	BENZO(A)PYRENE	2	1.64	0.1		82	20	5
193-39-5	INDENO(1,2,3-CD)PYRENE	2	1.5	0.1		75	20	16
53-70-3	DIBENZO(A,H)ANTHRACENE	2	1.49	0.1		74	20	18
191-24-2	BENZO(G,H,I)PERYLENE	2	1.46	0.1		73	20	18

Surrogate Recovery LCS/LCSD

CASNO	Target Analyte	Spike Added	LCS % Rec.	LCS Flag	LCSD % Rec.	LCSD Flag	Control Limits
321-60-8	2-FLUOROBIPHENYL	2	89		88		21 - 106
4165-60-0	NITROBENZENE-D5	2	82		84		34 - 111
1718-51-0	TERPHENYL-D14	2	80		76		33 - 111

Data Package ID: *SV1110046-1*

Prep Batch ID: EX111011-13

Start Date: 10/11/11
Start Time: 16:40
Prep Analyst: Ethan A. Arend

End Date: 10/12/11
End Time: 8:40

Concentration Method: CKIS
Extract Method: SW3520BNC
Initial Volume Units: ml
Final Volume Units: ml

Batch Created By: eaa
Date Created: 10/11/11
Time Created: 16:53
Validated By: JXK
Date Validated: 10/17/11
Time Validated: 12:18

Comments:

QC Batch ID: EX111011-13-2

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
EX111011-13	MB	XXXXXX	WATER	XXXXXX	1000	1	NONE	1	1110041
EX111011-13	LCS	XXXXXX	WATER	XXXXXX	1000	1	NONE	1	1110041
EX111011-13	LCSD	XXXXXX	WATER	XXXXXX	1000	1	NONE	1	1110041
1110041-1	SMP	XXXXXX	WATER	XXXXXX	1040	1	NONE	1	1110041
1110046-1	SMP	705323 Dahl	WATER	10/4/2011	1020	1	NONE	1	1110046

In generating this benchsheet, prep analyst states that all aspects of sample preparation as set forth in the appropriate SOP's (including Kuderna-Danish temperatures, proper flow settings on the N-evap, and final volumes) were properly adhered to (unless otherwise noted herein).

QC Types

CAR	Carrier reference sample		DUP	Laboratory Duplicate
LCS	Laboratory Control Sample		LCSD	Laboratory Control Sample Duplicate
MB	Method Blank		MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate		REP	Sample replicate
RVS	Reporting Level Verification Standar		SMP	Field Sample
SYS	Sample Yield Spike			

5B

Semi-Volatile Organic GC/MS Tuning And Mass Calibration--Decafluorotriphenylphosphine (DFTPP)

Lab Name: ALS Environmental -- FC
Work Order Number: 1110046
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200323492

DFTPP Injection Date: 10/12/2011
DFTPP Injection Time: 9:36
Instrument ID: HPSV1

Reported on: Tuesday, October 18, 2011

FileID: N3308

m/e	Ion Abundance Criteria SW8270SIMPAHD	% Relative Abundance
51	30.0 - 60.0 percent of mass 198	49.6
68	Less than 2.0 percent of mass 69	0
69	Mass 69 relative abundance of mass 198	43.6
70	Less than 2.0 percent of mass 69	0.2
127	40.0 - 60.0 percent of mass 198	49.8
197	Less than 1.0 percent of mass 198	0
198	Base peak, 100 percent of relative abundance	100
199	5.0 - 9.0 percent of mass 198	6.5
275	10.0 - 30.0 percent of mass 198	24.5
365	Greater than 1.00 percent of mass 198	3.1
441	Present, but less than mass 443 (percent of 443)	91
442	Greater than 40.0 percent of mass 198	95.8
443	17.0 - 23.0 percent of mass 442	18.3

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

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	QC BatchID
XXXXXXX	ICALSVSTD0500CSTD	N3309	10/12/2011	9:50	SV111012-1
XXXXXXX	ICALSVSTD0050CSTD	N3310	10/12/2011	10:10	SV111012-1
XXXXXXX	ICALSVSTD0100CSTD	N3311	10/12/2011	10:31	SV111012-1
XXXXXXX	ICALSVSTD0200CSTD	N3312	10/12/2011	10:51	SV111012-1
XXXXXXX	ICALSVSTD1000CSTD	N3313	10/12/2011	11:12	SV111012-1
XXXXXXX	ICALSVSTD2000CSTD	N3314	10/12/2011	11:32	SV111012-1
XXXXXXX	ICALSVSTD5000CSTD	N3315	10/12/2011	12:21	SV111012-1
XXXXXXX	ICVSVSTD2000ICV	N3316	10/12/2011	12:41	SV111012-1
XXXXXXX	EX111004-7MB	N3317	10/12/2011	13:02	EX111004-7-1
XXXXXXX	EX111004-7LCS	N3318	10/12/2011	13:22	EX111004-7-1
XXXXXXX	EX111004-7LCSD	N3319	10/12/2011	13:43	EX111004-7-1
XXXXXXX	1109346-4	N3320	10/12/2011	14:03	EX111004-7-1
XXXXXXX	1109346-4RR1	N3322	10/12/2011	14:44	EX111004-7-1

Data Package ID: *SV1110046-1*

5B

Semi-Volatile Organic GC/MS Tuning And Mass Calibration--Decafluorotriphenylphosphine (DFTPP)

Lab Name: ALS Environmental -- FC
Work Order Number: 1110046
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200323492

DFTPP Injection Date: 10/13/2011
DFTPP Injection Time: 17:08
Instrument ID: HPSV1

Reported on: Tuesday, October 18, 2011

FileID: N3332

m/e	Ion Abundance Criteria SW8270SIMPAHD	% Relative Abundance
51	30.0 - 60.0 percent of mass 198	59.6
68	Less than 2.0 percent of mass 69	0
69	Mass 69 relative abundance of mass 198	49.6
70	Less than 2.0 percent of mass 69	0.7
127	40.0 - 60.0 percent of mass 198	50.1
197	Less than 1.0 percent of mass 198	0
198	Base peak, 100 percent of relative abundance	100
199	5.0 - 9.0 percent of mass 198	6.5
275	10.0 - 30.0 percent of mass 198	24.3
365	Greater than 1.00 percent of mass 198	3.3
441	Present, but less than mass 443 (percent of 443)	53.9
442	Greater than 40.0 percent of mass 198	99.8
443	17.0 - 23.0 percent of mass 442	20.4

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

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	QC BatchID
XXXXXXX	CCV1CCV	N3333	10/13/2011	17:21	SV111013-1
XXXXXXX	EX111012-5MB	N3334	10/13/2011	17:45	EX111012-5-1
XXXXXXX	EX111012-5MB	N3334	10/13/2011	17:45	EX111012-5-2
XXXXXXX	EX111012-5LCS	N3335	10/13/2011	18:06	EX111012-5-1
XXXXXXX	EX111012-5LCS	N3335	10/13/2011	18:06	EX111012-5-2
XXXXXXX	EX111012-5LCSD	N3336	10/13/2011	18:27	EX111012-5-1
XXXXXXX	EX111012-5LCSD	N3336	10/13/2011	18:27	EX111012-5-2
XXXXXXX	1110062-1	N3337	10/13/2011	18:47	EX111012-5-2
XXXXXXX	1110067-1	N3338	10/13/2011	19:08	EX111012-5-1
XXXXXXX	1110067-2	N3339	10/13/2011	19:28	EX111012-5-1
XXXXXXX	1110067-3	N3340	10/13/2011	19:49	EX111012-5-1
XXXXXXX	1110067-4	N3341	10/13/2011	20:09	EX111012-5-1
XXXXXXX	1110067-5	N3342	10/13/2011	20:30	EX111012-5-1

Data Package ID: *SV1110046-1*

5B

Semi-Volatile Organic GC/MS Tuning And Mass Calibration--Decafluorotriphenylphosphine (DFTPP)

Lab Name: ALS Environmental -- FC
Work Order Number: 1110046
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200323492

DFTPP Injection Date: 10/13/2011
DFTPP Injection Time: 17:08
Instrument ID: HPSV1

Reported on: Tuesday, October 18, 2011

FileID: N3332

m/e	Ion Abundance Criteria SW8270SIMPAHD	% Relative Abundance
51	30.0 - 60.0 percent of mass 198	59.6
68	Less than 2.0 percent of mass 69	0
69	Mass 69 relative abundance of mass 198	49.6
70	Less than 2.0 percent of mass 69	0.7
127	40.0 - 60.0 percent of mass 198	50.1
197	Less than 1.0 percent of mass 198	0
198	Base peak, 100 percent of relative abundance	100
199	5.0 - 9.0 percent of mass 198	6.5
275	10.0 - 30.0 percent of mass 198	24.3
365	Greater than 1.00 percent of mass 198	3.3
441	Present, but less than mass 443 (percent of 443)	53.9
442	Greater than 40.0 percent of mass 198	99.8
443	17.0 - 23.0 percent of mass 442	20.4

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

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	QC BatchID
XXXXXXX	EX111011-13MB	N3343	10/13/2011	20:51	EX111011-13-2
XXXXXXX	EX111011-13MB	N3343	10/13/2011	20:51	EX111011-13-1
XXXXXXX	EX111011-13LCS	N3344	10/13/2011	21:11	EX111011-13-2
XXXXXXX	EX111011-13LCS	N3344	10/13/2011	21:11	EX111011-13-1
XXXXXXX	EX111011-13LCSD	N3345	10/13/2011	21:32	EX111011-13-1
XXXXXXX	EX111011-13LCSD	N3345	10/13/2011	21:32	EX111011-13-2
XXXXXXX	1110041-1	N3346	10/13/2011	21:52	EX111011-13-2
705323 Dahl	1110046-1	N3347	10/13/2011	22:13	EX111011-13-2
XXXXXXX	1110049-1	N3348	10/13/2011	22:34	EX111011-13-1
XXXXXXX	1110049-2	N3349	10/13/2011	22:54	EX111011-13-1
XXXXXXX	1110049-3	N3350	10/13/2011	23:15	EX111011-13-1
XXXXXXX	1110049-4	N3351	10/13/2011	23:35	EX111011-13-1
XXXXXXX	1110049-5	N3352	10/13/2011	23:56	EX111011-13-1

Data Package ID: *SV1110046-1*

FORM 6

	N3315.D 5000	N3314.D 2000	N3313.D 1000	N3309.D 500	N3312.D 200	N3311.D 100	N3310.D 50	Average	%RSD		Curve type	Corr (r2)	Higher Order Equation quad term	linear term	const term
Naphthalene-d8															
Nitrobenzene-d5	2.744	2.761	2.874	3.165	2.907	3.183	3.302	2.991	7.47		Ave RF	n/a			
Naphthalene	0.984	1.066	1.131	1.198	1.240	1.356	1.438	1.202	13.23		Ave RF	n/a			
2-Methylnaphthalene	0.690	0.763	0.803	0.863	0.881	0.916	0.976	0.842	11.57		Ave RF	n/a			
1-Methylnaphthalene	0.672	0.731	0.777	0.842	0.848	0.882	0.920	0.810	10.80		Ave RF	n/a			
Acenaphthene-d10															
2-Fluorobiphenyl	1.296	1.407	1.611	1.722	1.818	2.217		1.678	19.50		quadratic	1.000	-0.14678	1.45706	0.02670
Acenaphthylene	1.660	1.713	1.778	1.865	1.910	1.961	2.066	1.865	8.04		Ave RF	n/a			
Acenaphthene	1.079	1.160	1.239	1.283	1.321	1.428	1.486	1.282	10.76	CCC	Ave RF	n/a			
Fluorene	1.192	1.301	1.406	1.456	1.532	1.613	1.748	1.464	12.80		Ave RF	n/a			
Phenanthrene-d10															
Hexachlorobenzene	0.665	0.715	0.730	0.802	0.788	0.854	0.887	0.777	10.15		Ave RF	n/a			
Phenanthrene	0.968	1.069	1.131	1.211	1.284	1.326	1.460	1.207	13.80		Ave RF	n/a			
Anthracene	0.965	1.015	1.053	1.100	1.094	1.127	1.142	1.071	5.95		Ave RF	n/a			
Fluoranthene	1.035	1.146	1.245	1.330	1.316	1.388	1.352	1.259	10.08	CCC	Ave RF	n/a			
Chrysene-d12															
Pyrene	1.368	1.480	1.496	1.665	1.676	1.748	1.907	1.623	11.03		Ave RF	n/a			
p-Terphenyl-d14	0.731	0.784	0.850	1.121	0.843	0.934	1.020	0.897	15.25		Ave RF	n/a			
Benzo[a]anthracene	1.013	1.050	1.121	1.194	1.152	1.296	1.367	1.171	10.86		Ave RF	n/a			
Chrysene	1.046	1.127	1.189	1.273	1.334	1.382	1.330	1.240	9.96		Ave RF	n/a			
Perylene-d12															
Benzo[b]fluoranthene	1.259	1.336	1.263	1.409	1.395	1.575	1.411	1.378	7.86		Ave RF	n/a			
Benzo[k]fluoranthene	1.172	1.141	1.311	1.389	1.260	1.376	1.412	1.294	8.32	CCC	Ave RF	n/a			
Benzo[a]pyrene	1.052	1.037	1.066	1.135	1.022	1.063	1.128	1.072	4.05		Ave RF	n/a			
Indeno(1,2,3-c,d)pyrene	3.601	3.783	3.815	3.982	3.753	3.693	4.073	3.814	4.29		Ave RF	n/a			
Dibenzo[a,h]anthracene	2.902	3.050	3.028	3.081	2.945	2.672	3.242	2.988	5.92		Ave RF	n/a			
Benzo[g,h,i]perylene	3.032	3.313	3.396	3.596	3.498	3.371	3.834	3.434	7.26		Ave RF	n/a			

Average = 9.95

10-13-11

FORM 7
Continuing Calibration Verification Report

Data File : D:\HPCHEM\1\DATA\101211\N3316.D
Acq On: 10/12/2011 12:41
Sample: ICVSVSTD2000
Misc: ST110803-6

Vial: 9
Operator: jk SOP 506 Rev. 12
Inst: HPSV1
Multiplier: 1

Method: 101211SH
Title: GC-MS Semivolatiles SOP no. 506
Last Upd: Wed Oct 12 12:38:53 2011

		Compound	AvgRF	CCRF	Expt Conc	Found Conc	% Dev or % Drift	Area % Difference	R.T. Dev (min)	Curve Fit Type
1)	ISTD	Naphthalene-d8	1.000	1.000				97	0.01	Ave RF
3)		Naphthalene	1.202	1.126			-6.3	193	0.01	Ave RF
4)		2-Methylnaphthalene	0.842	0.775			-8.0	187	0.01	Ave RF
5)		1-Methylnaphthalene	0.810	0.752			-7.2	188	0.01	Ave RF
6)	ISTD	Acenaphthene-d10	1.000	1.000				95	0.01	Ave RF
8)		Acenaphthylene	1.865	1.824			-2.2	194	0.01	Ave RF
9)	CCC	Acenaphthene	1.282	1.217			-5.1	186	0.01	Ave RF
10)		Fluorene	1.464	1.304			-10.9	175	0.01	Ave RF
11)	ISTD	Phenanthrene-d10	1.000	1.000				93	0.00	Ave RF
12)		Hexachlorobenzene	0.777	0.761			-2.1	194	0.00	Ave RF
13)		Phenanthrene	1.207	1.095			-9.3	181	0.01	Ave RF
14)		Anthracene	1.071	1.104			3.1	196	0.00	Ave RF
15)	CCC	Fluoranthene	1.259	1.189			-5.5	178	0.01	Ave RF
16)	ISTD	Chrysene-d12	1.000	1.000				92	0.01	Ave RF
15)		Pyrene	1.623	1.458			-10.2	178	0.01	Ave RF
19)		Benzo[a]anthracene	1.171	1.110			-5.1	181	0.01	Ave RF
20)		Chrysene	1.240	1.169			-5.8	180	0.01	Ave RF
21)	ISTD	Perylene-d12	1.000	1.000				86	0.02	Ave RF
22)		Benzo[b]fluoranthene	1.378	1.321			-4.1	178	0.02	Ave RF
23)		Benzo[k]fluoranthene	1.294	1.363			5.3	177	0.02	Ave RF
24)	CCC	Benzo[a]pyrene	1.072	1.144			6.7	183	0.02	Ave RF
25)		Indeno[1,2,3-c,d]pyrene	3.814	3.640			-4.6	163	0.02	Ave RF
26)		Dibenzo[a,h]anthracene	2.988	2.905			-2.8	163	0.02	Ave RF
27)		Benzo[g,h,i]perylene	3.434	3.203			-6.7	161	0.03	Ave RF

Average of absolute value = 5.8

JC
10-12-11

FORM 7
Continuing Calibration Verification Report

Data File : D:\HPCHEM\1\DATA\101311\N3333.D
Acq On: 10/13/2011 17:21
Sample: CCV
Misc: ST111013-1 500 PPM

Vial: 2
Operator: jk SOP 506 Rev. 12
Inst: GC/MS Ins
Multiplier: 1

Method: 101211SH
Title: GC-MS Semivolatiles SOP no. 506
Last Upd: Thu Oct 13 17:51:00 2011

	Compound	AvgRF	CCRF	Expt Conc	Found Conc	% Dev or % Drift	Area % Difference	R.T. Dev (min)	Curve Fit Type
1) *ISTD	Naphthalene-d8	1.000	1.000				103	0.00	Ave RF
2)	Nitrobenzene-d5	2.991	3.035			1.5	54	0.00	Ave RF
3)	Naphthalene	1.202	1.224			1.8	56	0.00	Ave RF
4)	2-Methylnaphthalene	0.842	0.852			1.2	55	0.00	Ave RF
5)	1-Methylnaphthalene	0.810	0.814			0.5	54	0.00	Ave RF
6) *ISTD	Acenaphthene-d10	1.000	1.000				95	0.00	Ave RF
7)	2-Fluorobiphenyl	n/a	n/a	500	506.1793862	1.2	49	0.00	quadratic
8)	Acenaphthylene	1.865	1.832			-1.8	48	0.00	Ave RF
9)	Acenaphthene	1.282	1.297			1.1	50	0.00	Ave RF
10)	Fluorene	1.464	1.427			-2.5	48	0.00	Ave RF
11) *ISTD	Phenanthrene-d10	1.000	1.000				99	0.00	Ave RF
12)	Hexachlorobenzene	0.777	0.812			4.4	55	0.00	Ave RF
13)	Phenanthrene	1.207	1.206			-0.1	53	0.00	Ave RF
14)	Anthracene	1.071	1.049			-2.0	49	0.00	Ave RF
15)	Fluoranthene	1.259	1.248			-0.9	50	0.00	Ave RF
16) *ISTD	Chrysene-d12	1.000	1.000				92	0.00	Ave RF
17)	Pyrene	1.623	1.607			-1.0	49	0.00	Ave RF
18)	p-Terphenyl-d14	0.897	0.809			-9.8	44	0.00	Ave RF
19)	Benzo[a]anthracene	1.171	1.003			-14.3	41	0.00	Ave RF
20)	Chrysene	1.240	1.205			-2.8	46	0.00	Ave RF
21) *ISTD	Perylene-d12	1.000	1.000				82	0.00	Ave RF
22)	Benzo[b]fluoranthene	1.378	1.407			2.1	46	0.00	Ave RF
23)	Benzo[k]fluoranthene	1.294	1.226			-5.3	38	0.00	Ave RF
24)	Benzo[a]pyrene	1.072	0.967			-9.8	37	0.00	Ave RF
25)	Indeno(1,2,3-c,d)pyrene	3.814	3.443			-9.7	37	0.00	Ave RF
26)	Dibenzo[a,h]anthracene	2.988	2.657			-11.1	38	0.00	Ave RF
27)	Benzo[g,h,i]perylene	3.434	3.135			-8.7	38	0.00	Ave RF

Average of absolute value = 4.3

JH
10-14-11

8B

Semi-Volatile Internal Standard Area Summary

Lab Name: ALS Environmental -- FC
Work Order Number: 1110046
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200323492

Date Analyzed: 10/13/2011
Time Analyzed: 17:21
Reported on: Tuesday, October 18, 2011

Instrument ID: HPSV1
Lab File ID: N3333

	IS1		IS2		IS3		IS4		IS5		IS6	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
12 Hour STD			519316	5.32	270857	6.86	419980	8.16	333033	10.42	209945	11.97
Upper Limit			1038632	5.82	541714	7.36	839960	8.66	666066	10.9	419890	12.5
Lower Limit			259658	4.82	135428.5	6.36	209990	7.66	166516.5	9.92	104972.5	11.5
Lab Sample ID												
EX111011-13MB			527980	5.32	271151	6.86	405733	8.15	294446	10.44	173668	12.00
EX111011-13LCS			551427	5.32	285334	6.86	433911	8.16	335170	10.44	216388	12.00
EX111011-13LCSD			534329	5.32	271502	6.86	405756	8.16	297955	10.43	186111	12.00
1110041-1			513249	5.32	269082	6.86	417565	8.16	315643	10.43	178874	11.99
1110046-1			547172	5.32	281574	6.86	418474	8.16	302770	10.45	189080	12.01

Shaded values exceed established area count limits.

LIMS Version: 6.537

Upper Limit = + 100 percent of internal standard area.

Lower Limit = - 50 percent of internal standard area.

Supporting Raw Data

GCMS Semivolatile Instrument Run Log
ALS Laboratory Group

Sequence Name: D:\HPCHEM\1\SEQUENCE\101211S.S
Comment: HPSV-1 5973 MSDMS Serial Number US80210987
Data Path: D:\HPCHEM\1\DATA\101211\
Operator:jk SOP 506 Rev. 12 Analysis Date: October 12, 2011 SK
IS Amount and ID 40 ng/ul ST110217-4
Logbook Number: 2985

Line	Type	Vial	DataFile	Method	Sample Name	Dil.	RA?	Comment
1	DFTPP	1	N3308	DFTPP	50 ppm dftpp+PC	1	100	ST110310-1 9:36
2	Sample	2	N3309	101211SH	ICALSVSTD0500			ST110926-3
3	Sample	3	N3310	101211SH	ICALSVSTD0050			ST110922-8
4	Sample	4	N3311	101211SH	ICALSVSTD0100			ST110922-9
5	Sample	5	N3312	101211SH	ICALSVSTD0200			ST110922-10
6	Sample	6	N3313	101211SH	ICALSVSTD1000			ST110922-11
7	Sample	7	N3314	101211SH	ICALSVSTD2000			ST110922-12
8	Sample	8	N3315	101211SH	ICALSVSTD5000			ST110922-13
9	Sample	9	N3316	101211SH	ICVSVSTD2000			ST110303-6
10	Sample	10	N3317	101211SH	EX111004-7MB			
11	Sample	11	N3318	101211SH	EX111004-7LCS			
12	Sample	12	N3319	101211SH	EX111004-7LCSD			
13	Sample	13	N3320	101211SH	1109346-4 25X	25x		N3321
14	Sample	14	N3321	101211SH	1109346-4 5X	5x		
15	Sample	15	N3322	101211SH	1109346-4	1		
16	Sample	16	N3323	101211SH	INSTRUMENT BLANK			OK
17	Sample	16	N3324	101211SH	INSTRUMENT BLANK			OK
18	Sample	17	N3325	101211SH	EX111007-3MB			
19	Sample	18	N3326	101211SH	EX111007-3LCS			
20	Sample	19	N3327	101211SH	EX111007-3LCSD			
21	Sample	20	N3328	101211SH	1110017-1			
22	Sample	21	N3329	101211SH	1110017-4			
23	Sample	22	N3330	101211SH	1110017-5			17:25
24	Sample	16	N3331	101211SH	INSTRUMENT BLANK			

GCMS Semivolatile Instrument Run Log
ALS Laboratory Group

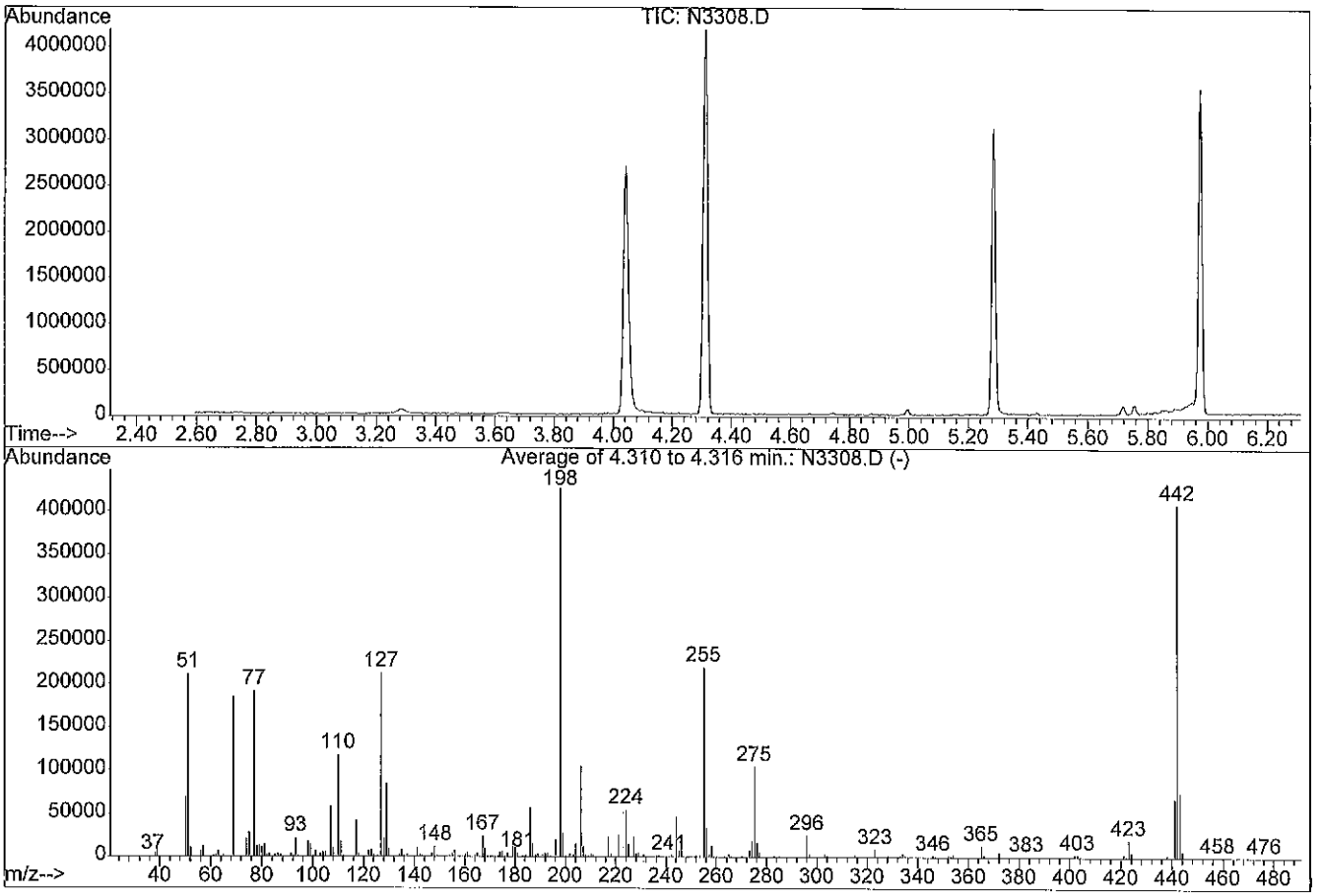
Sequence Name: D:\HPCHEM\1\SEQUENCE\101311S.S
Comment: HPSV-1 5973 MSDMS Serial Number US80210987
Data Path: D:\HPCHEM\1\DATA\101311\
Operator:jk SOP 506 Rev. 12 Analysis Date: October 13, 2011 JK
IS Amount and ID 40 µg/mL ST110217-4
Logbook Number: 2985

Line	Type	Vial	DataFile	Method	Sample Name	Dil.	RA?	Comment
1	DFTPP	1	N3332	DFTPP	50 ppm dftpp+PC	1	no	ST110310-1 17:08
2	Sample	2	N3333	101211SH	CCV			ST111013-1
3	Sample	3	N3334	101211SH	EX111012-5MB			
4	Sample	4	N3335	101211SH	EX111012-5LCS			
5	Sample	5	N3336	101211SH	EX111012-5LCSD			
6	Sample	6	N3337	101211SH	1110062-1			
7	Sample	7	N3338	101211SH	1110067-1			
8	Sample	8	N3339	101211SH	1110067-2			
9	Sample	9	N3340	101211SH	1110067-3			
10	Sample	10	N3341	101211SH	1110067-4			
11	Sample	11	N3342	101211SH	1110067-5			
12	Sample	12	N3343	101211SH	EX111011-13MB			
13	Sample	13	N3344	101211SH	EX111011-13LCS			
14	Sample	14	N3345	101211SH	EX111011-13LCSD			
15	Sample	15	N3346	101211SH	1110041-1			
16	Sample	16	N3347	101211SH	1110046-1			
17	Sample	17	N3348	101211SH	1110049-1			
18	Sample	18	N3349	101211SH	1110049-2			
19	Sample	19	N3350	101211SH	1110049-3			
20	Sample	20	N3351	101211SH	1110049-4			
21	Sample	21	N3352	101211SH	1110049-5			
22	Sample	22	N3353	101211SH	1110049-6			
23	Sample	23	N3354	101211SH	1110049-7			
24	Sample	24	N3355	101211SH	1110049-8			
25	Sample	25	N3356	101211SH	1110049-9			1:18

Calibration Raw Data

Data File : D:\HPCHEM\1\DATA\101211\N3308.D
Acq On : 12 Oct 2011 9:36
Sample : 50 ppm dftpp+PCP+DDT+benzidine
Misc : ST110902-1
MS Integration Params: rteint.p
Method : D:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP

Vial: 1
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00



AutoFind: Scans 605, 606, 607; Background Corrected with Scan 594

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	49.6	211691	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	43.6	186255	PASS
70	69	0.00	2	0.2	353	PASS
127	198	40	60	49.8	212736	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	426795	PASS
199	198	5	9	6.5	27949	PASS
275	198	10	30	24.5	104517	PASS
365	198	1	100	3.1	13190	PASS
441	443	0.01	100	91.0	68157	PASS
442	198	40	100	95.8	409024	PASS
443	442	17	23	18.3	74915	PASS

N3308.D DFTPP.M Wed Oct 12 09:44:18 2011

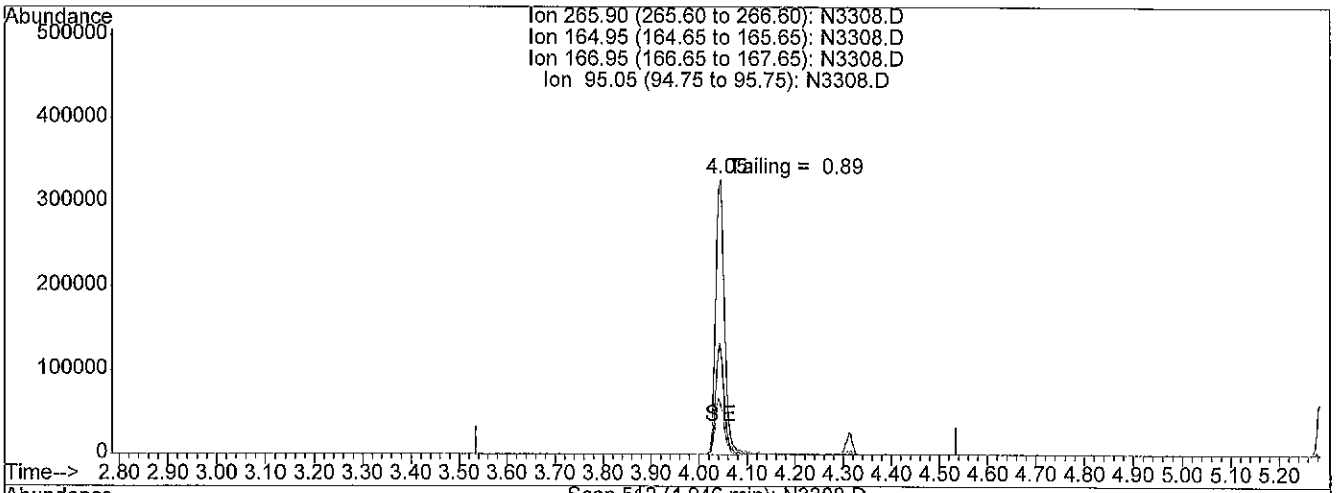
JK
10-12-11

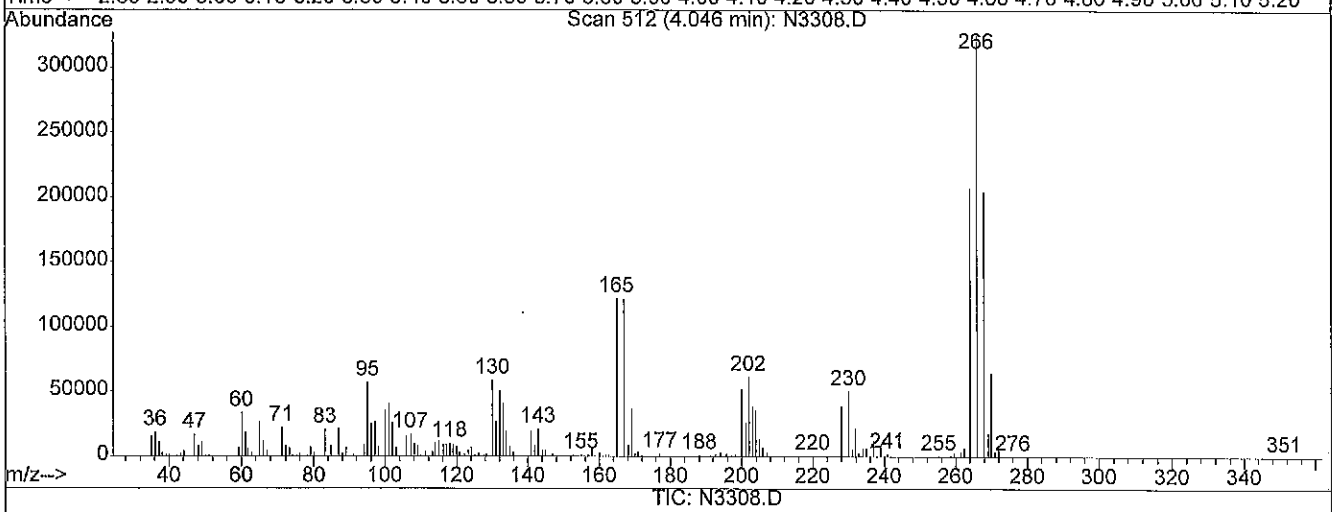
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3308.D
Acq On : 12 Oct 2011 9:36
Sample : 50 ppm dftpp+PCP+DDT+benzidine
Misc : ST110902-1
MS Integration Params: rteint.p
Quant Time: Oct 12 9:45 2011

Vial: 1
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Tue Oct 11 18:20:14 2011
Response via : Single Level Calibration





TIC: N3308.D

(1) Pentachlorophenol

4.05min 41.77

response 418377

Ion	Exp%	Act%
265.90	100	100
164.95	0.00	39.60#
166.95	0.00	38.06#
95.05	0.00	20.07#

DH
10-12-11

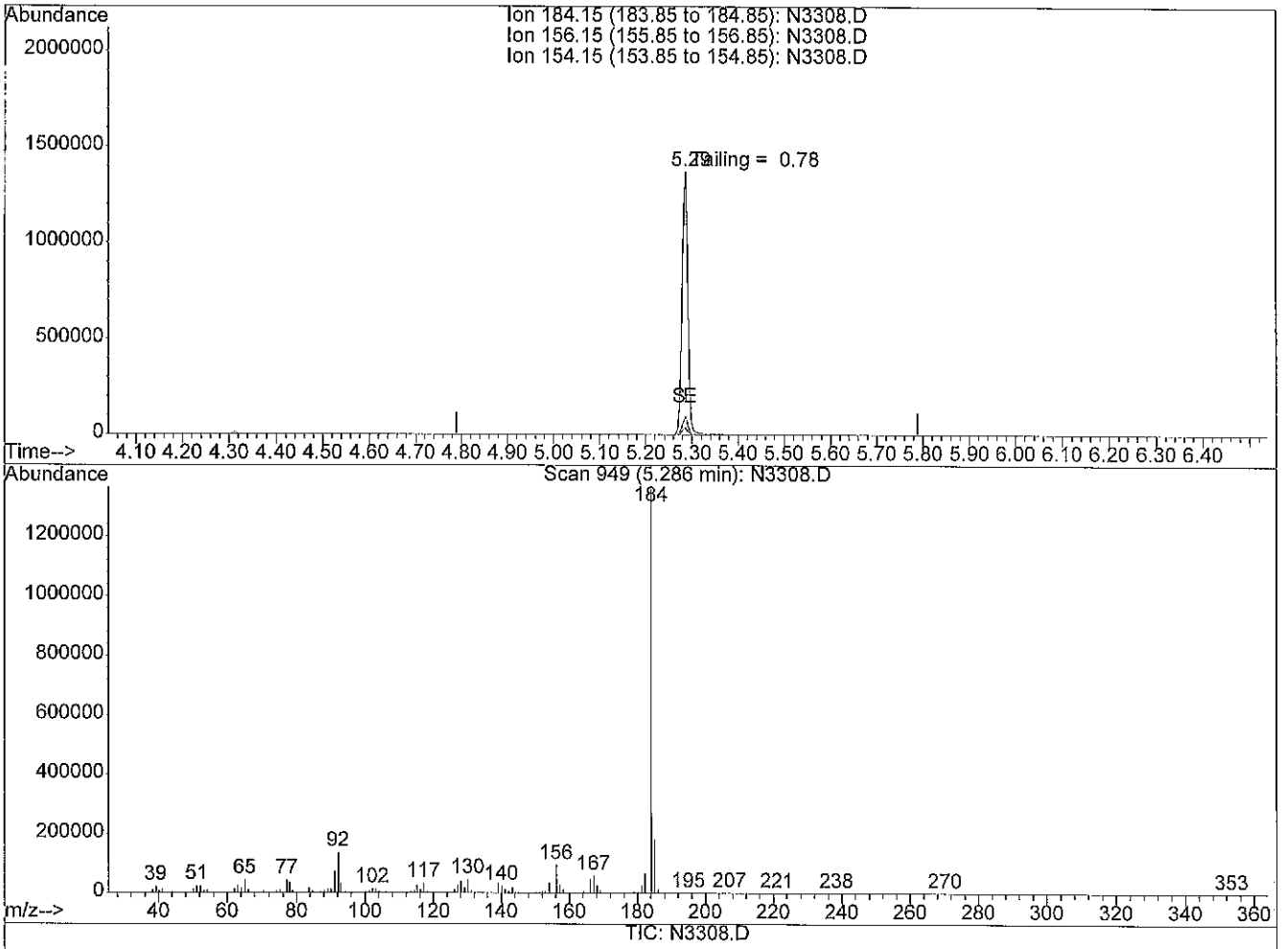
N3308.D DFTPP.M Wed Oct 12 09:45:26 2011

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3308.D
Acq On : 12 Oct 2011 9:36
Sample : 50 ppm dftpp+PCP+DDT+benzidine
Misc : ST110902-1
MS Integration Params: rteint.p
Quant Time: Oct 12 9:45 2011

Vial: 1
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Tue Oct 11 18:20:14 2011
Response via : Single Level Calibration



(3) Benzidine

5.29min 24.40

response 1178789

Ion	Exp%	Act%
184.15	100	100
156.15	0.00	6.47#
154.15	0.00	2.52#
0.00	0.00	0.00

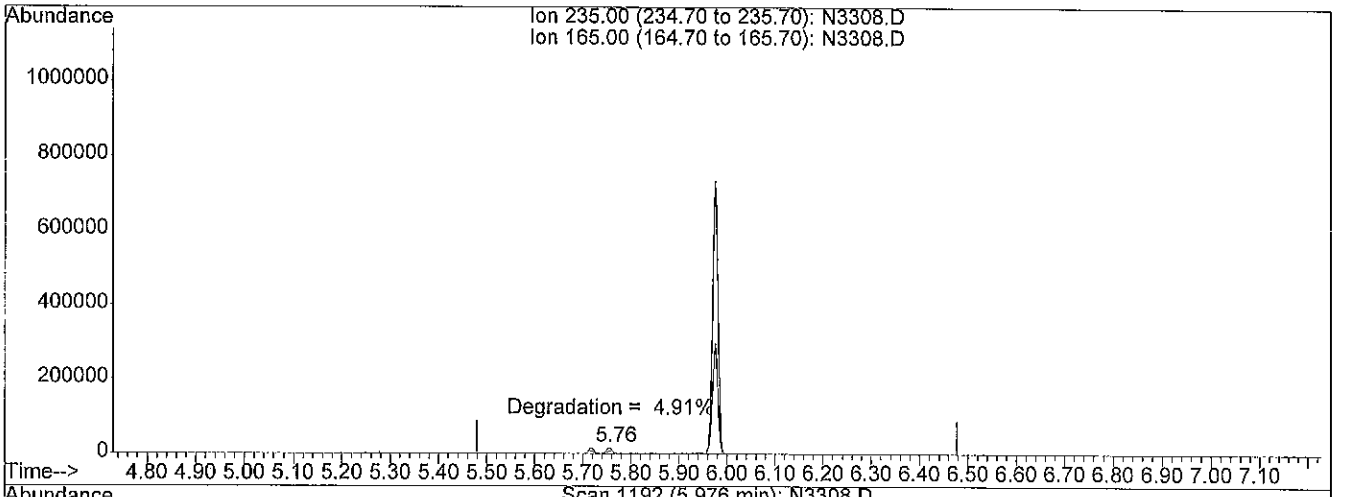
10-12-11

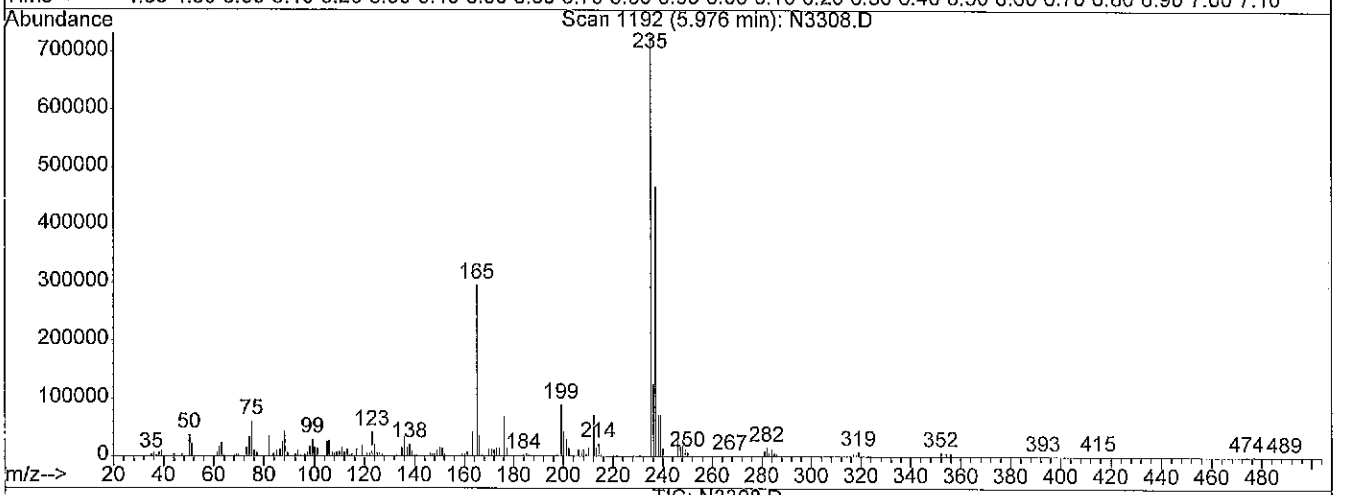
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3308.D
Acq On : 12 Oct 2011 9:36
Sample : 50 ppm dftpp+PCP+DDT+benzidine
Misc : ST110902-1
MS Integration Params: rteint.p
Quant Time: Oct 12 9:45 2011

Vial: 1
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Tue Oct 11 18:20:14 2011
Response via : Single Level Calibration





TIC: N3308.D

(4) DDT

5.98min 27.9150

response 579303

Ion	Exp%	Act%
235.00	100	100
165.00	0.00	41.21#
0.00	0.00	0.00
0.00	0.00	0.00

jk 10-12-11

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\101211\N3309.D Vial: 2
Acq On : 12 Oct 2011 9:50 Operator: jk SOP 506 Rev
Sample : ICALSVSTD0500 Inst : GC/MS Ins
Misc : ST110926-3 500 PPM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:26 2011 Quant Results File: 101211SH.RES

Quant Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:25:38 2011
Response via : Initial Calibration
DataAcq Meth : 101211SH

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.32	136	444016	4000.00	ng/ml	0.00
6) Acenaphthene-d10	6.86	164	242666	4000.00	ng/ml	0.00
11) Phenanthrene-d10	8.15	188	352005	4000.00	ng/ml	0.00
16) Chrysene-d12	10.43	240	286300	4000.00	ng/ml	0.00
21) Perylene-d12	12.00	264	185557	4000.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	4.66	82	175691	500.00	ng/ml	0.00
Spiked Amount 2000.000	Range 34 - 111		Recovery = 25.00%#			
7) 2-Fluorobiphenyl	6.25	172	52238	500.00	ng/ml	0.00
Spiked Amount 2000.000	Range 21 - 106		Recovery = 25.00%			
18) p-Terphenyl-d14	9.47	244	40134	500.00	ng/ml	0.00
Spiked Amount 2000.000	Range 33 - 111		Recovery = 25.00%#			
Target Compounds						Qvalue
3) Naphthalene	5.34	128	66480	500.00	ng/ml	100
4) 2-Methylnaphthalene	5.95	142	47906	500.00	ng/ml	100
5) 1-Methylnaphthalene	6.04	142	46713	500.00	ng/ml	100
8) Acenaphthylene	6.75	152	59603	500.00	ng/ml#	100
9) Acenaphthene	6.90	154	38921m	485.47	ng/ml	
10) Fluorene	7.34	166	44164	500.00	ng/ml	100
12) Hexachlorobenzene	7.81	284	35286	500.00	ng/ml	100
13) Phenanthrene	8.17	178	53306	500.00	ng/ml	100
14) Anthracene	8.21	178	48393	500.00	ng/ml	100
15) Fluoranthene	9.20	202	58518	500.00	ng/ml#	100
17) Pyrene	9.40	202	59570	500.00	ng/ml#	100
19) Benzo[a]anthracene	10.42	228	42738	500.00	ng/ml	100
20) Chrysene	10.46	228	45556	500.00	ng/ml	100
22) Benzo[b]fluoranthene	11.52	252	32683	500.00	ng/ml	100
23) Benzo[k]fluoranthene	11.55	252	32220	500.00	ng/ml	100
24) Benzo[a]pyrene	11.93	252	26337	500.00	ng/ml	100
25) Indeno(1,2,3-c,d)pyrene	13.57	276	92368	500.00	ng/ml	100
26) Dibenzo[a,h]anthracene	13.57	278	71462	500.00	ng/ml	100
27) Benzo[g,h,i]perylene	14.05	276	83412	500.00	ng/ml	100

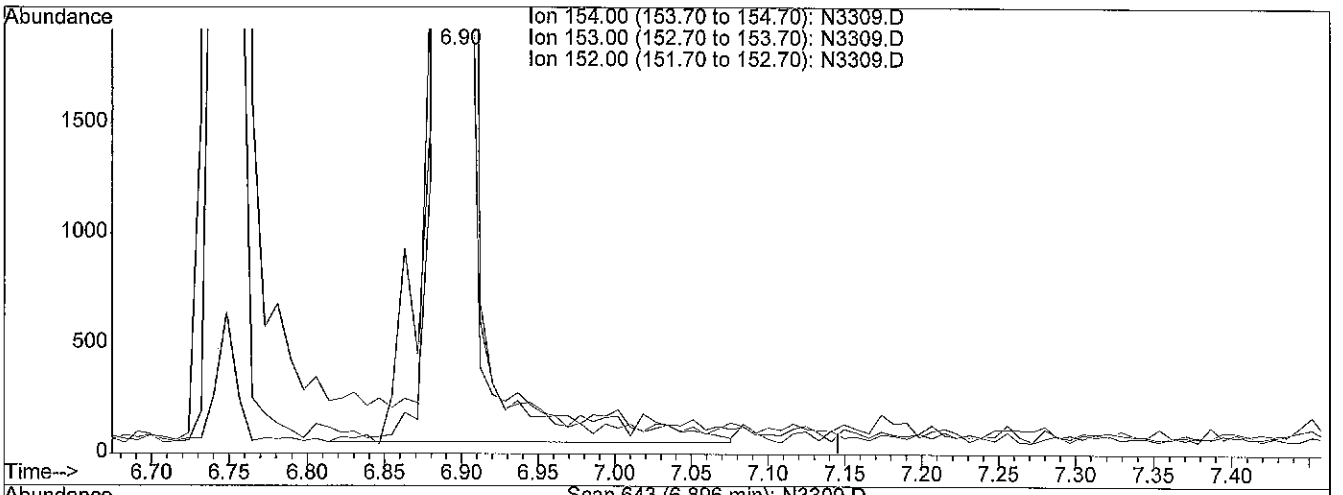
(#) = qualifier out of range (m) = manual integration
N3309.D 101211SH.M Wed Oct 12 10:26:41 2011 10-12-11

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3309.D
Acq On : 12 Oct 2011 9:50
Sample : ICALSVSTD0500
Misc : ST110926-3 500 PPM
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:25 2011

Vial: 2
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:25:38 2011
Response via : Multiple Level Calibration



TIC: N3309.D

(9) Acenaphthene (TMC)

6.90min 500.00ng/ml

response 40086

Ion	Exp%	Act%
154.00	100	100
153.00	101.00	100.98
152.00	48.70	48.75
0.00	0.00	0.00

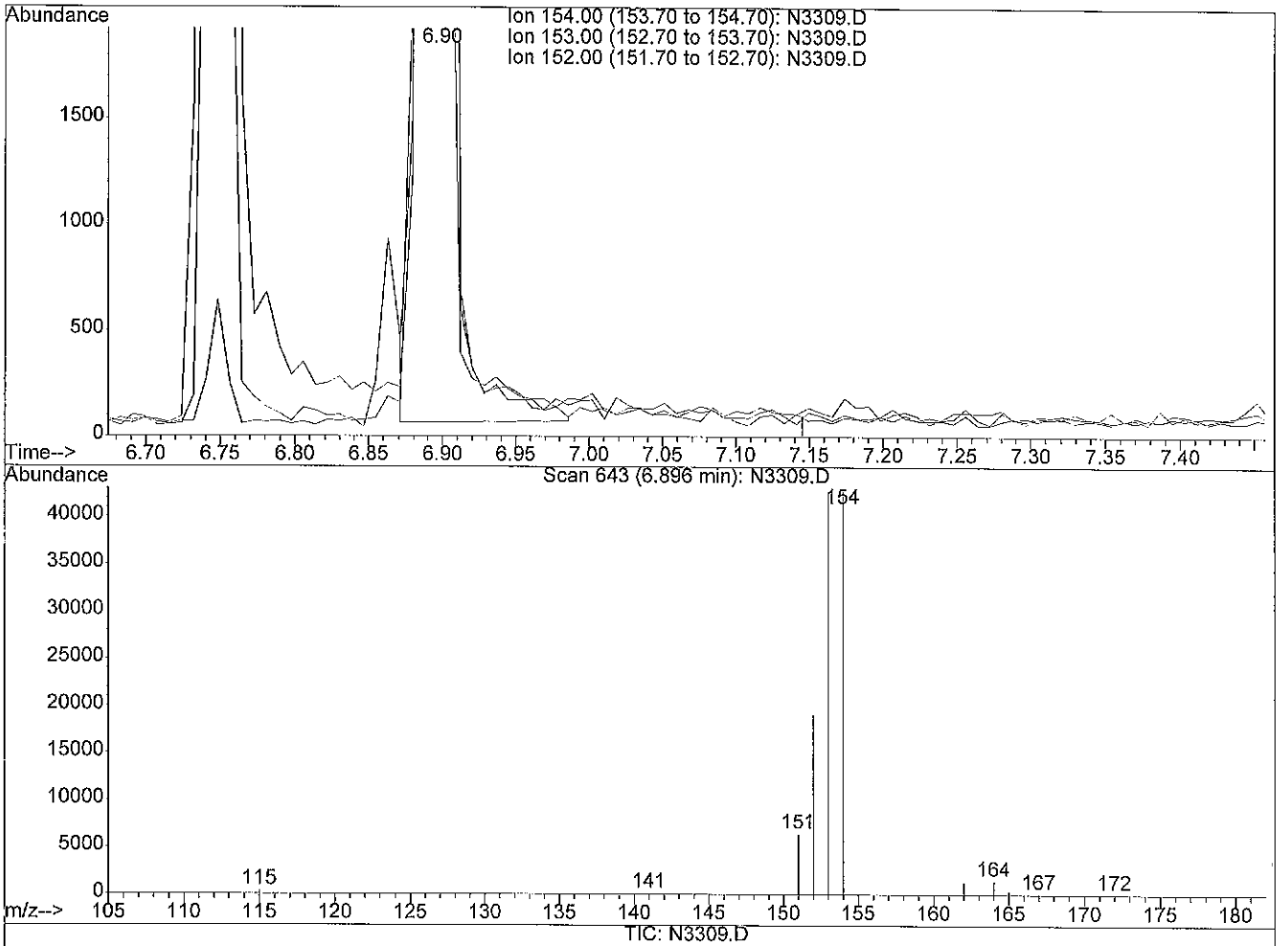
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3309.D
Acq On : 12 Oct 2011 9:50
Sample : ICALSVSTD0500
Misc : ST110926-3 500 PPM
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:26 2011

Vial: 2
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:25:38 2011
Response via : Multiple Level Calibration



(9) Acenaphthene (TMC)

6.90min 485.47ng/ml m

response 38921

Ion	Exp%	Act%
154.00	100	100
153.00	101.00	104.00
152.00	48.70	50.21
0.00	0.00	0.00

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials JCL *date* 10-12-11

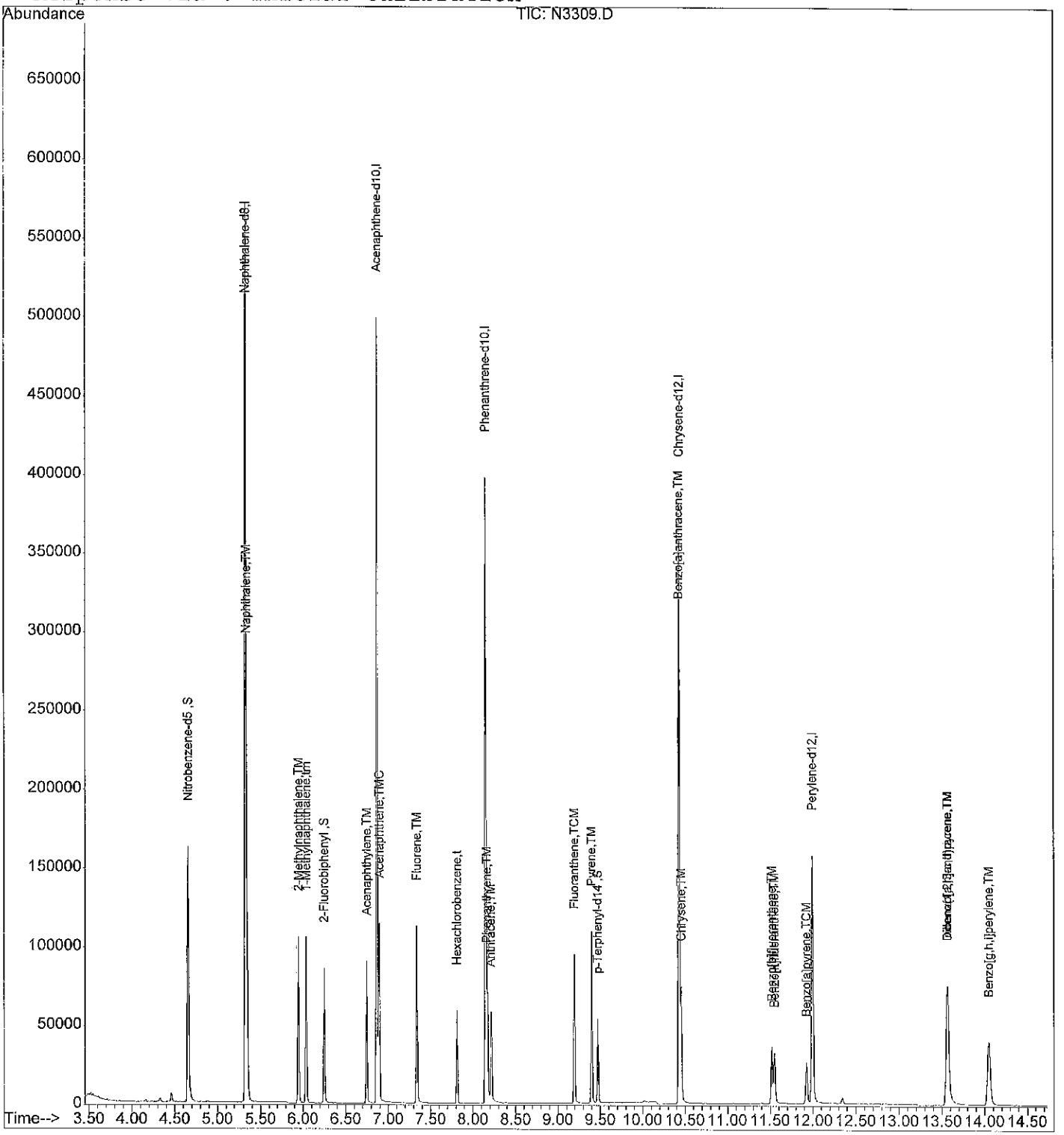
Quantitation Report

Data File : D:\HPCHEM\1\DATA\101211\N3309.D
Acq On : 12 Oct 2011 9:50
Sample : ICALSVSTD0500
Misc : ST110926-3 500 PPM
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:26 2011

Vial: 2
Operator: jk SOP 506
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 101211SH.RES

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:25:38 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\101211\N3310.D Vial: 3
Acq On : 12 Oct 2011 10:10 Operator: jk SOP 506 Rev
Sample : ICALSVSTD0050 Inst : GC/MS Ins
Misc : ST110822-8 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:29 2011 Quant Results File: 101211SH.RES

Quant Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:27:20 2011
Response via : Initial Calibration
DataAcq Meth : 101211SH

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.32	136	469976	4000.00	ng/ml	0.00
6) Acenaphthene-d10	6.85	164	264189	4000.00	ng/ml	0.00
11) Phenanthrene-d10	8.15	188	371945	4000.00	ng/ml	0.00
16) Chrysene-d12	10.43	240	287326	4000.00	ng/ml	0.00
21) Perylene-d12	11.99	264	204671	4000.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	4.65	82	19401m	46.80	ng/ml	0.00
Spiked Amount 2000.000	Range 34 - 111		Recovery =	2.34%#		
7) 2-Fluorobiphenyl	6.24	172	7449m	55.18	ng/ml	0.00
Spiked Amount 2000.000	Range 21 - 106		Recovery =	2.76%#		
18) p-Terphenyl-d14	9.47	244	3662	47.62	ng/ml	0.00
Spiked Amount 2000.000	Range 33 - 111		Recovery =	2.38%#		
Target Compounds						Qvalue
3) Naphthalene	5.34	128	8445	54.55	ng/ml#	93
4) 2-Methylnaphthalene	5.94	142	5748m	51.76	ng/ml	
5) 1-Methylnaphthalene	6.03	142	5403	52.22	ng/ml	93
8) Acenaphthylene	6.74	152	6829	51.28	ng/ml#	95
9) Acenaphthene	6.89	154	4840m	48.14	ng/ml	
10) Fluorene	7.33	166	5772	54.56	ng/ml	100
12) Hexachlorobenzene	7.82	284	4125m	47.99	ng/ml	
13) Phenanthrene	8.17	178	6789	54.65	ng/ml	94
14) Anthracene	8.21	178	5310	50.94	ng/ml	96
15) Fluoranthene	9.20	202	6285	50.41	ng/ml#	94
17) Pyrene	9.40	202	6849m	52.22	ng/ml	
19) Benzo[a]anthracene	10.42	228	4910	53.37	ng/ml#	94
20) Chrysene	10.45	228	4778	51.10	ng/ml	98
22) Benzo[b]fluoranthene	11.51	252	3610	50.03	ng/ml#	72
23) Benzo[k]fluoranthene	11.54	252	3613m	47.59	ng/ml	
24) Benzo[a]pyrene	11.92	252	2885	49.83	ng/ml#	71
25) Indeno(1,2,3-c,d)pyrene	13.56	276	10421	50.56	ng/ml	99
26) Dibenzo[a,h]anthracene	13.56	278	8294	51.27	ng/ml	98
27) Benzo[g,h,i]perylene	14.04	276	9810	51.60	ng/ml	96

(#) = qualifier out of range (m) = manual integration
N3310.D 101211SH.M Wed Oct 12 10:29:59 2011

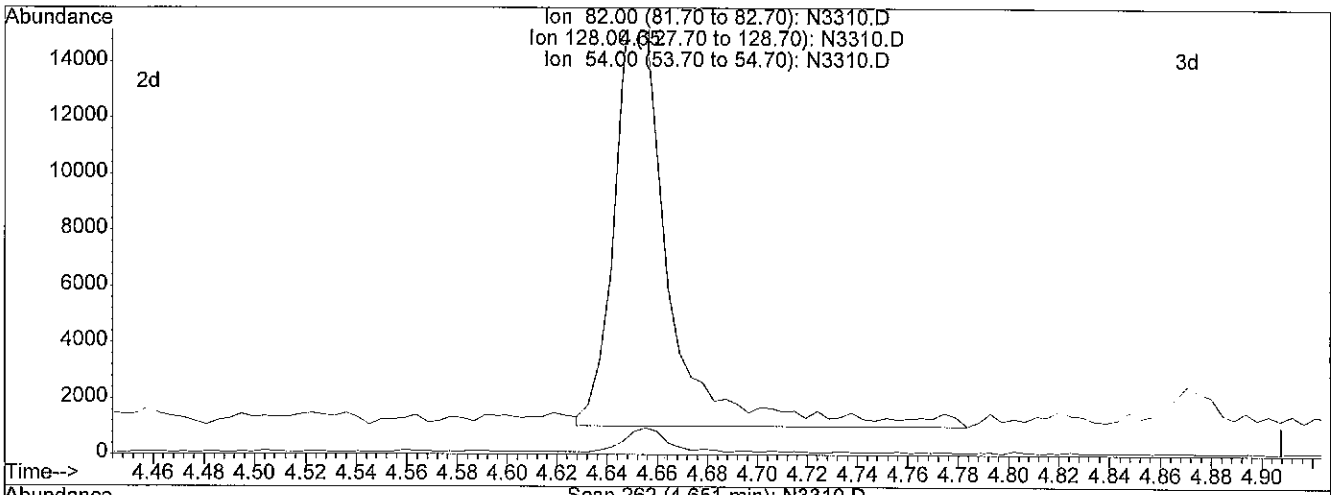
JC 10-12-11

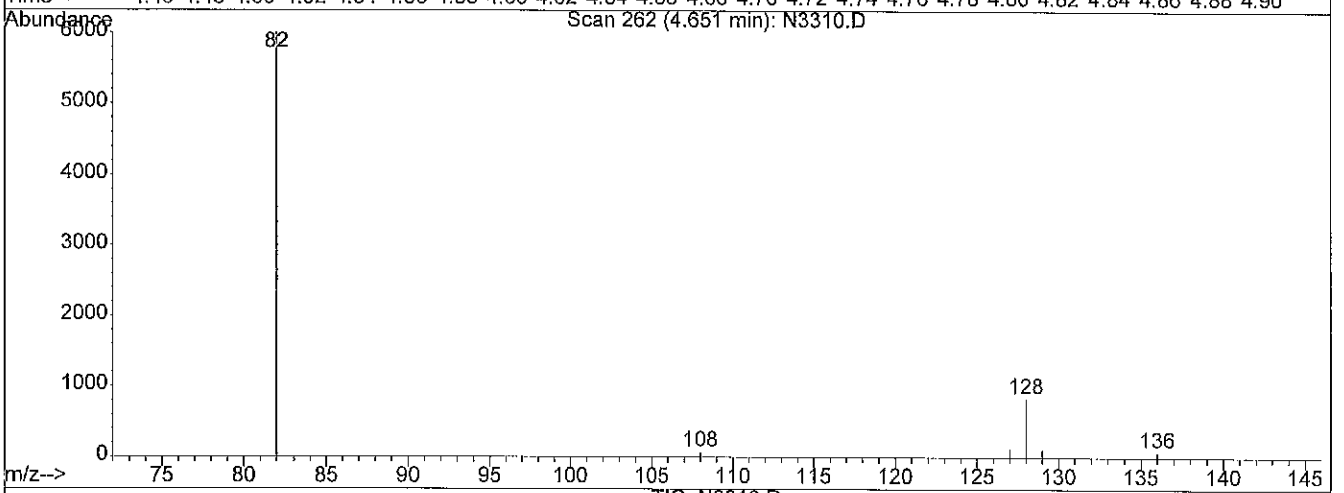
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3310.D
Acq On : 12 Oct 2011 10:10
Sample : ICALSVSTD0050
Misc : ST110822-8
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:27 2011

Vial: 3
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:27:20 2011
Response via : Multiple Level Calibration





TIC: N3310.D

(2) Nitrobenzene-d5 (S)

4.65min 55.14ng/ml

response 22860

Ion	Exp%	Act%
82.00	100	100
128.00	5.50	4.72
54.00	0.00	0.00
0.00	0.00	0.00

before

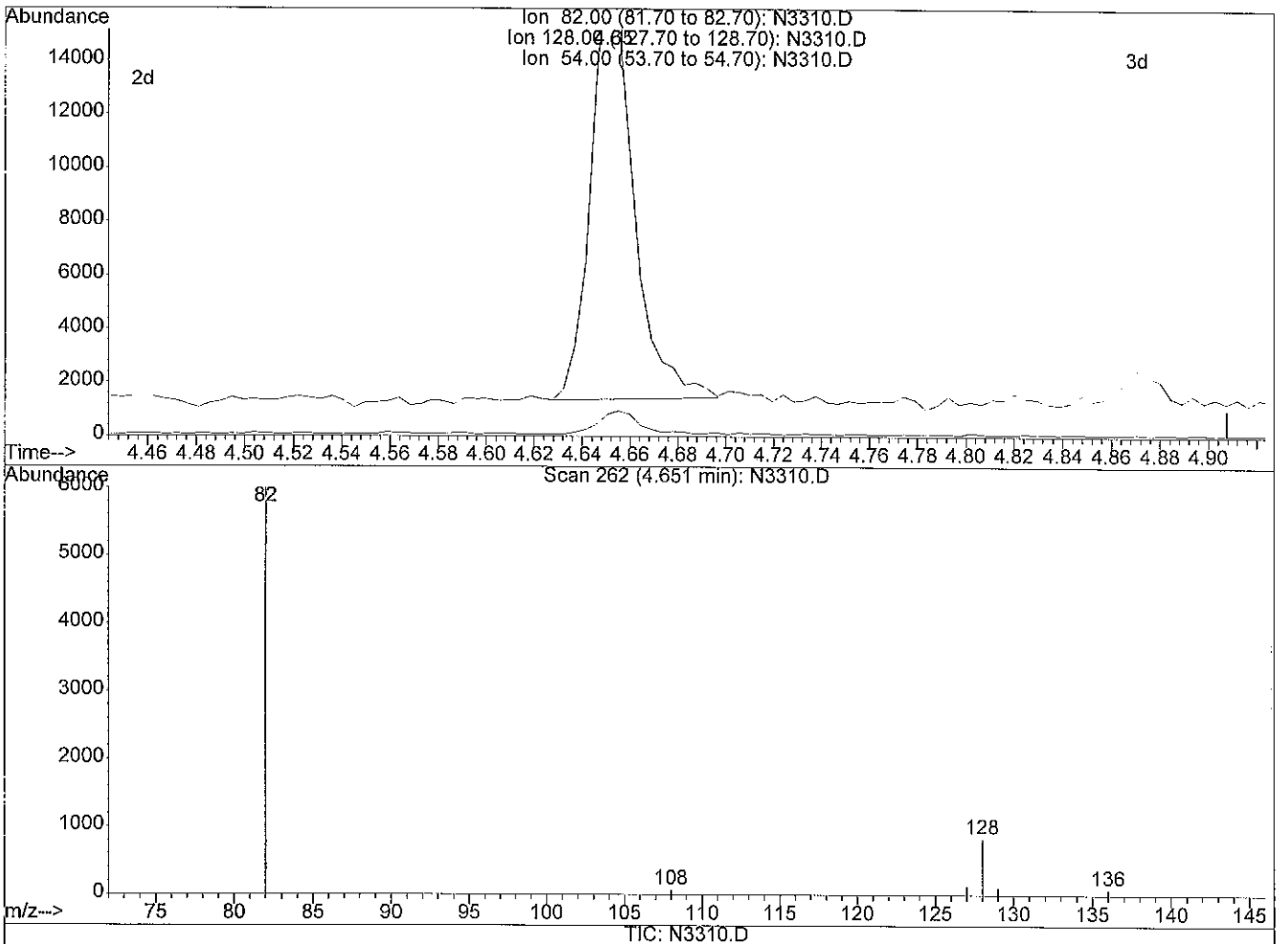
N3310.D 101211SH.M Wed Oct 12 10:27:54 2011

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3310.D
Acq On : 12 Oct 2011 10:10
Sample : ICALSVSTD0050
Misc : ST110822-8
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:27 2011

Vial: 3
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:27:20 2011
Response via : Multiple Level Calibration



(2) Nitrobenzene-d5 (S)

4.65min 46.80ng/ml m

response 19401

Ion	Exp%	Act%
82.00	100	100
128.00	5.50	5.57
54.00	0.00	0.00
0.00	0.00	0.00

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials DU *date* 10-12-11

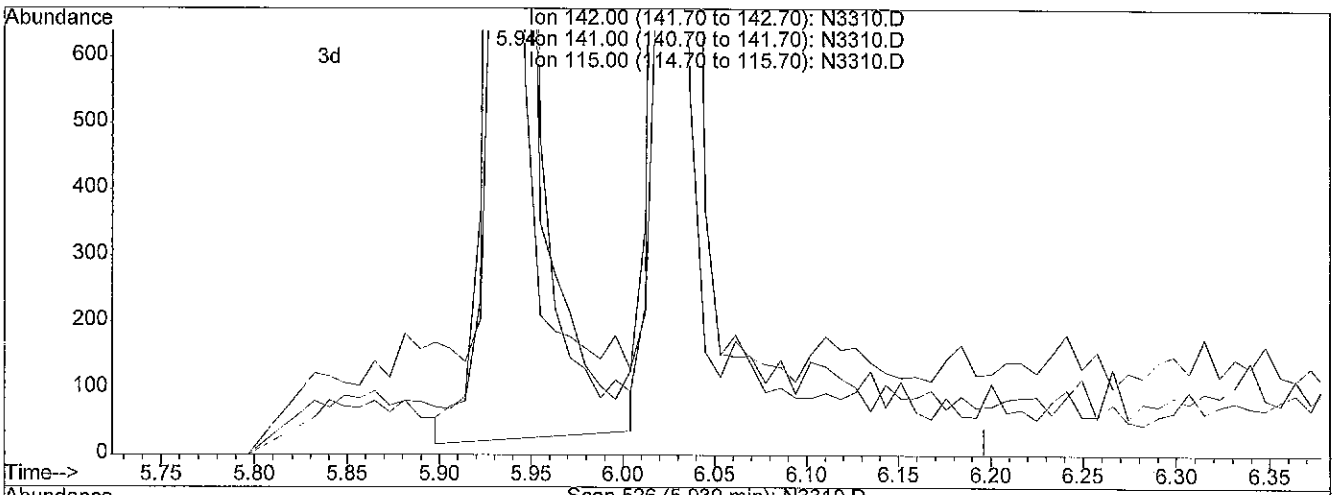
N3310.D 101211SH.M Wed Oct 12 10:27:59 2011

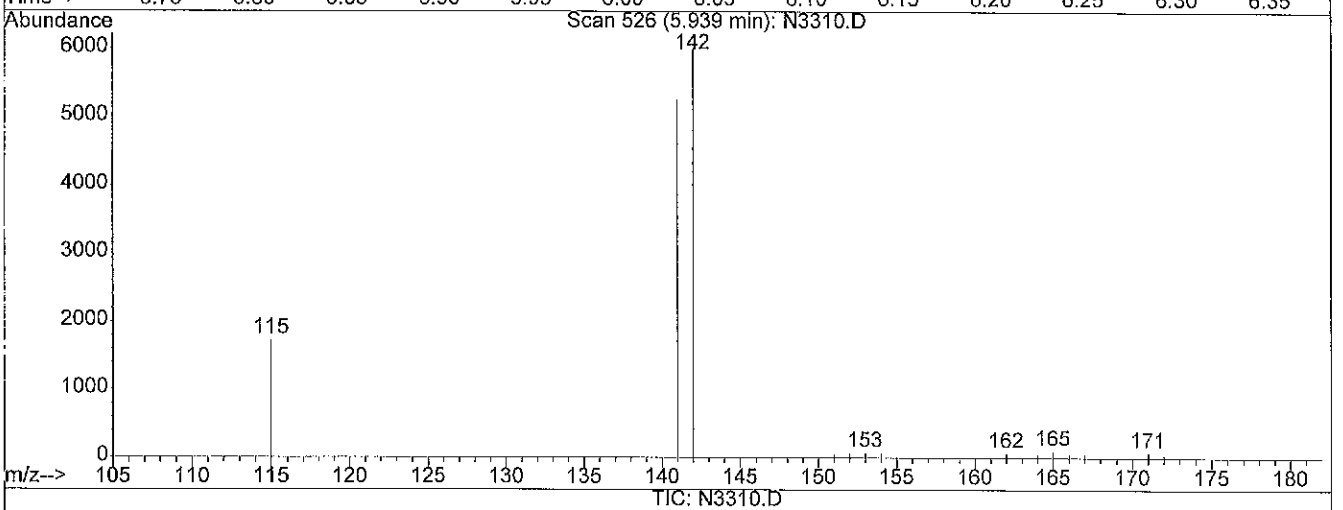
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3310.D
Acq On : 12 Oct 2011 10:10
Sample : ICALSVSTD0050
Misc : ST110822-8
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:27 2011

Vial: 3
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:27:20 2011
Response via : Multiple Level Calibration





TIC: N3310.D

(4) 2-Methylnaphthalene (TM)

5.94min 54.34ng/ml

response 6035

Ion	Exp%	Act%
142.00	100	100
141.00	83.60	90.34
115.00	28.30	34.12
0.00	0.00	0.00

Before

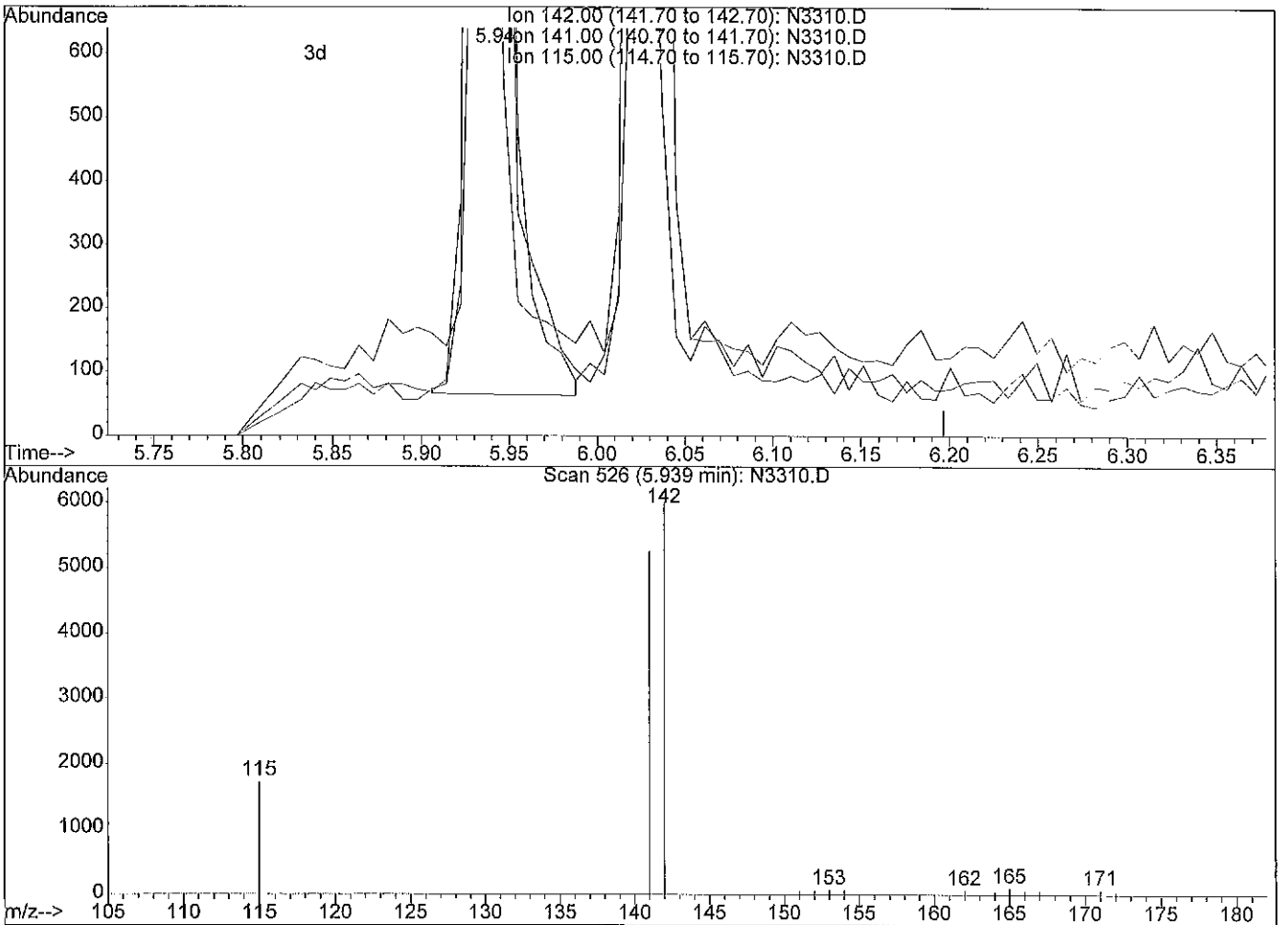
N3310.D 101211SH.M Wed Oct 12 10:28:07 2011

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3310.D
Acq On : 12 Oct 2011 10:10
Sample : ICALSVSTD0050
Misc : ST110822-8
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:28 2011

Vial: 3
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:27:20 2011
Response via : Multiple Level Calibration



(4) 2-Methylnaphthalene (TM)

5.94min 51.76ng/ml m

response 5748

Ion	Exp%	Act%
142.00	100	100
141.00	83.60	94.85
115.00	28.30	35.82
0.00	0.00	0.00

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials JC *date* 10-12-11

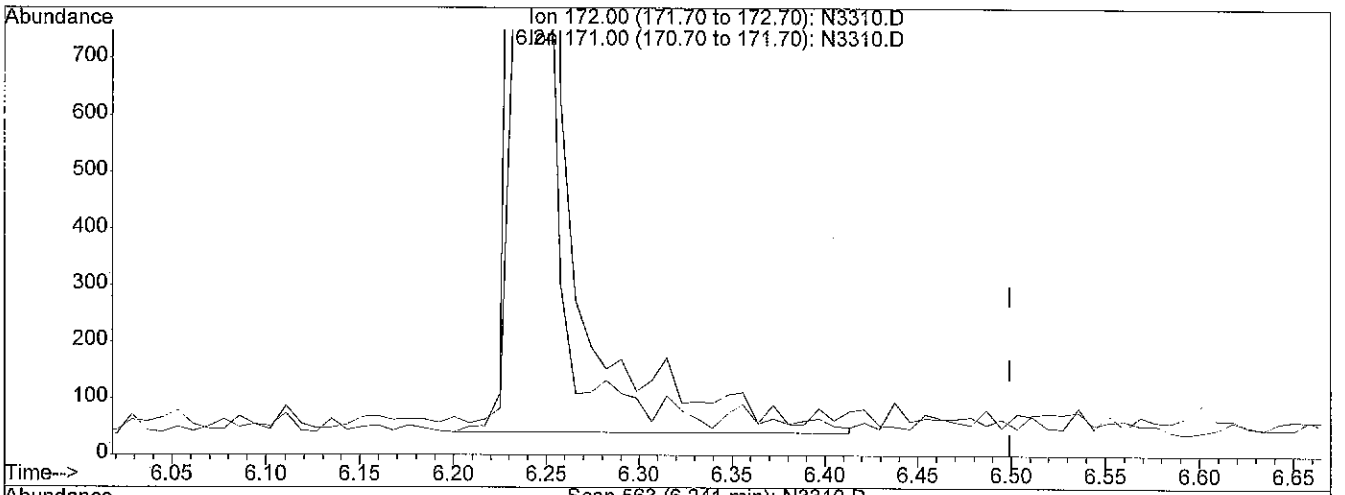
N3310.D 101211SH.M Wed Oct 12 10:28:12 2011

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3310.D
Acq On : 12 Oct 2011 10:10
Sample : ICALSVSTD0050
Misc : ST110822-8
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:28 2011

Vial: 3
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:27:20 2011
Response via : Multiple Level Calibration



(7) 2-Fluorobiphenyl (S)

6.24min 57.87ng/ml

response 7813

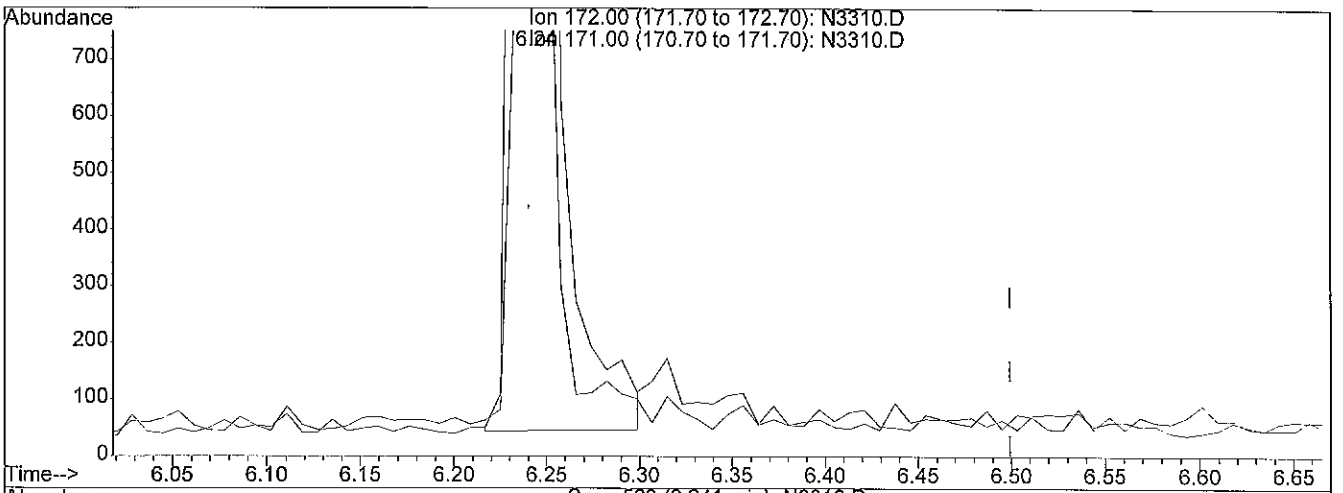
Ion	Exp%	Act%
172.00	100	100
171.00	38.00	32.42
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3310.D
Acq On : 12 Oct 2011 10:10
Sample : ICALSVSTD0050
Misc : ST110822-8
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:28 2011

Vial: 3
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:27:20 2011
Response via : Multiple Level Calibration



(7) 2-Fluorobiphenyl (S)

6.24min 55.18ng/ml m

response 7449

Ion	Exp%	Act%
172.00	100	100
171.00	38.00	34.00
0.00	0.00	0.00
0.00	0.00	0.00

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials JC *date* 10-12-11

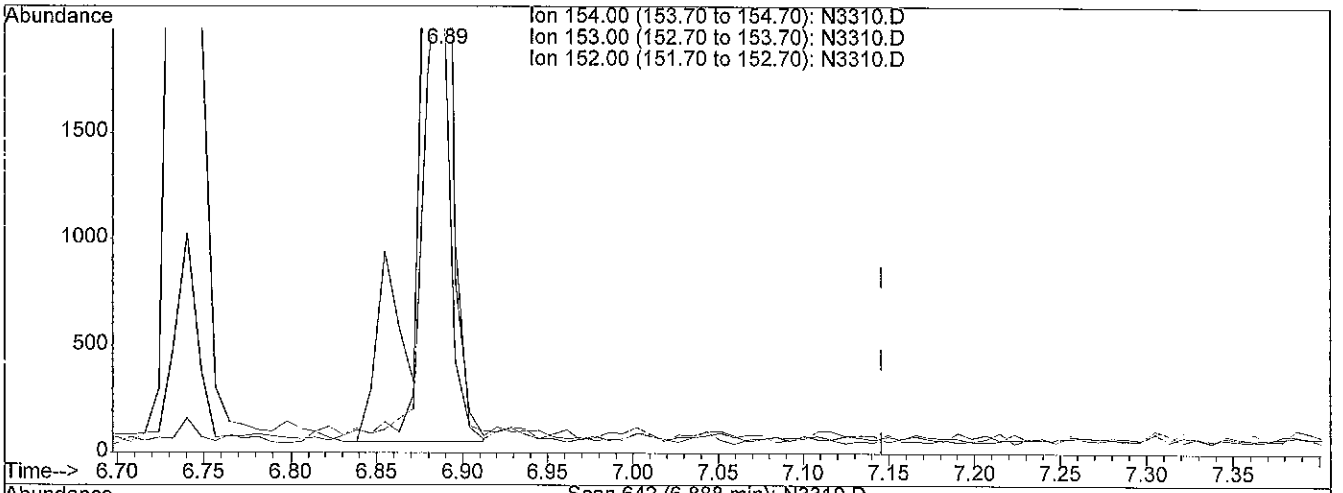
N3310.D 101211SH.M Wed Oct 12 10:28:43 2011

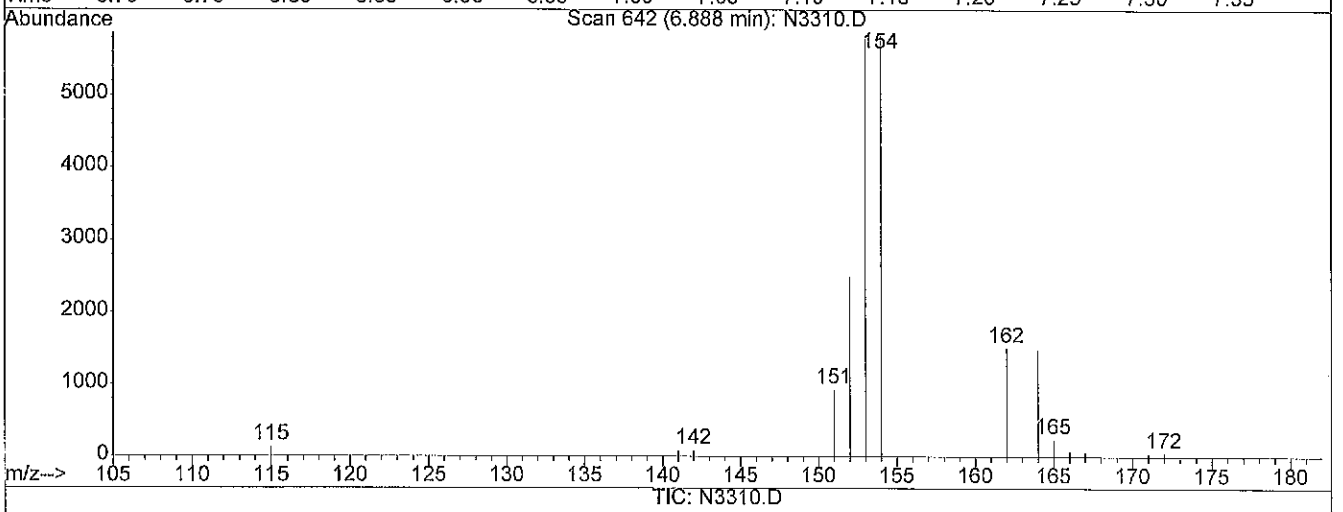
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3310.D
Acq On : 12 Oct 2011 10:10
Sample : ICALSVSTD0050
Misc : ST110822-8
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:28 2011

Vial: 3
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:27:20 2011
Response via : Multiple Level Calibration





TIC: N3310.D

(9) Acenaphthene (TMC)

6.89min 57.86ng/ml

response 5817

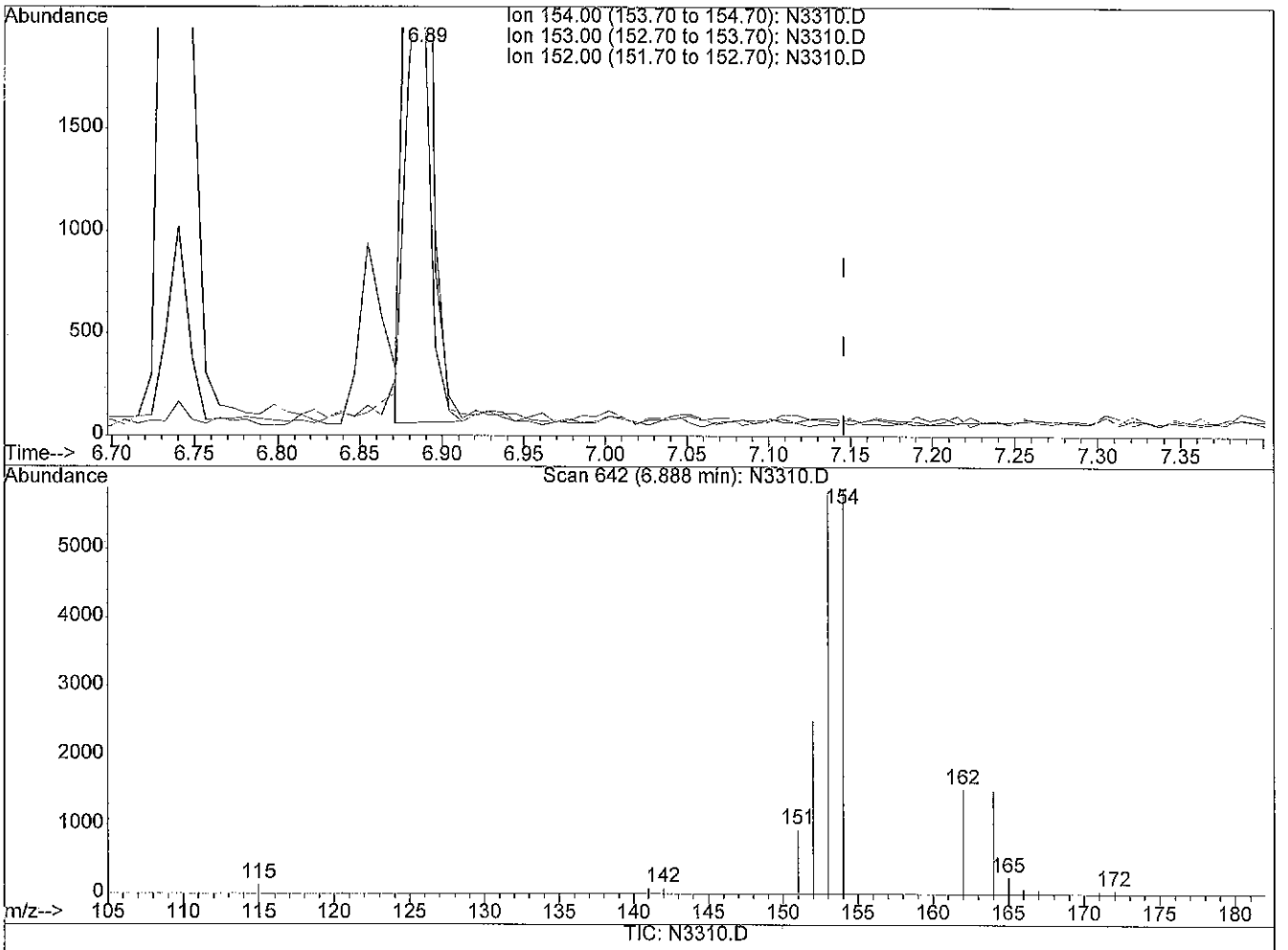
Ion	Exp%	Act%
154.00	100	100
153.00	104.00	91.99
152.00	50.20	42.07
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3310.D
Acq On : 12 Oct 2011 10:10
Sample : ICALSVSTD0050
Misc : ST110822-8
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:28 2011

Vial: 3
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:27:20 2011
Response via : Multiple Level Calibration



(9) Acenaphthene (TMC)

6.89min 48.14ng/ml m

response 4840

Ion	Exp%	Act%
154.00	100	100
153.00	104.00	110.56
152.00	50.20	50.56
0.00	0.00	0.00

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials JM *date* 10-13-11

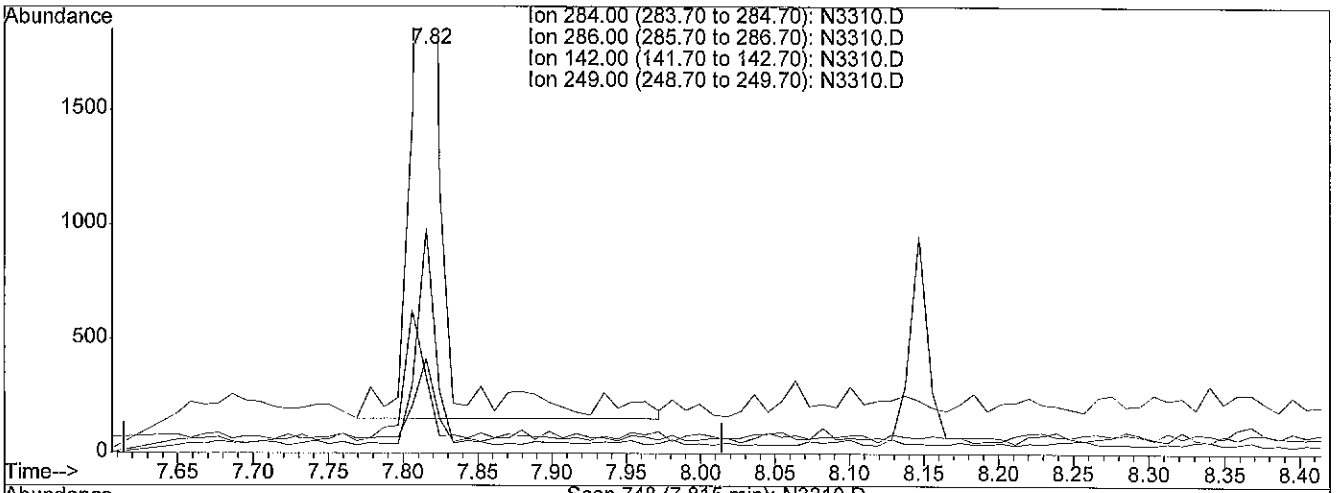
N3310.D 101211SH.M Wed Oct 12 10:28:56 2011

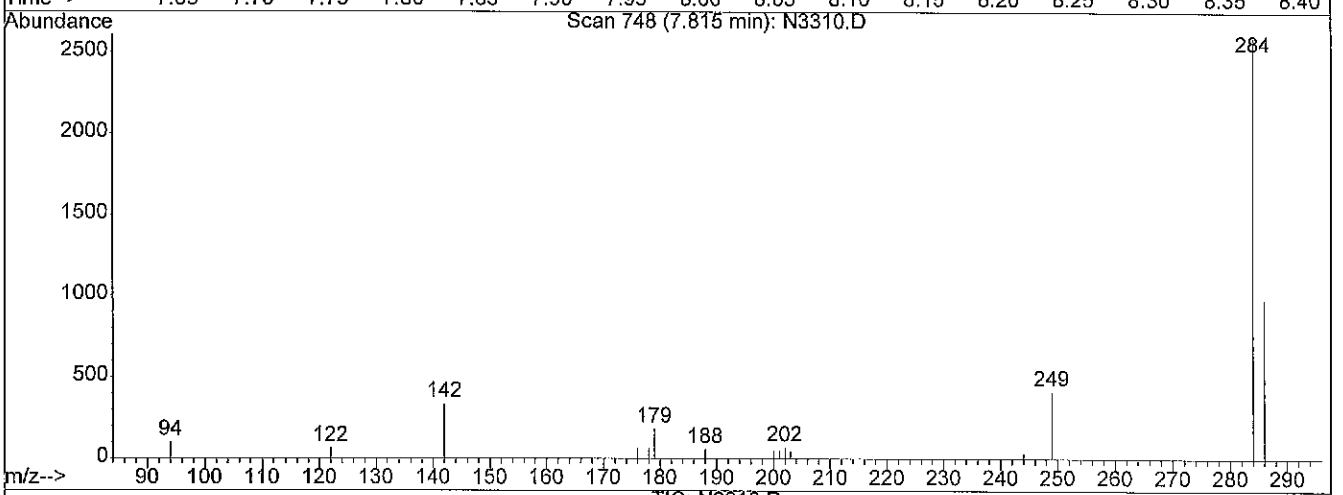
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3310.D
Acq On : 12 Oct 2011 10:10
Sample : ICALSVSTD0050
Misc : ST110822-8
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:28 2011

Vial: 3
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:27:20 2011
Response via : Multiple Level Calibration





TIC: N3310.D

(12) Hexachlorobenzene (t)

7.82min 56.62ng/ml

response 4867

Ion	Exp%	Act%
284.00	100	100
286.00	21.70	17.30#
142.00	12.30	11.59
249.00	8.00	9.43

N3310.D 101211SH.M Wed Oct 12 10:29:06 2011

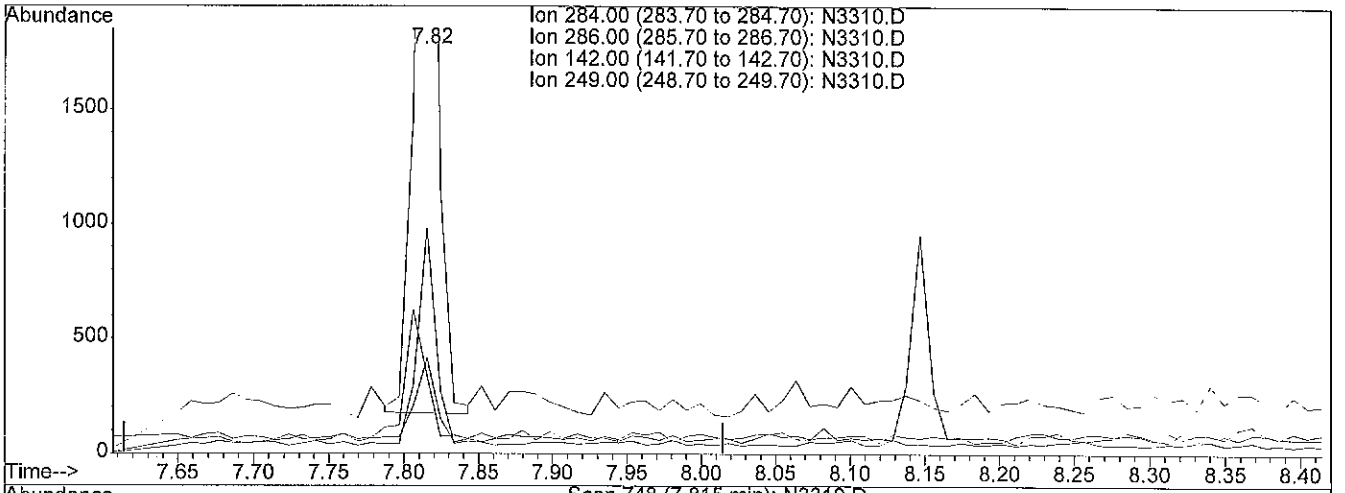
Quantitation Report (Qedit)

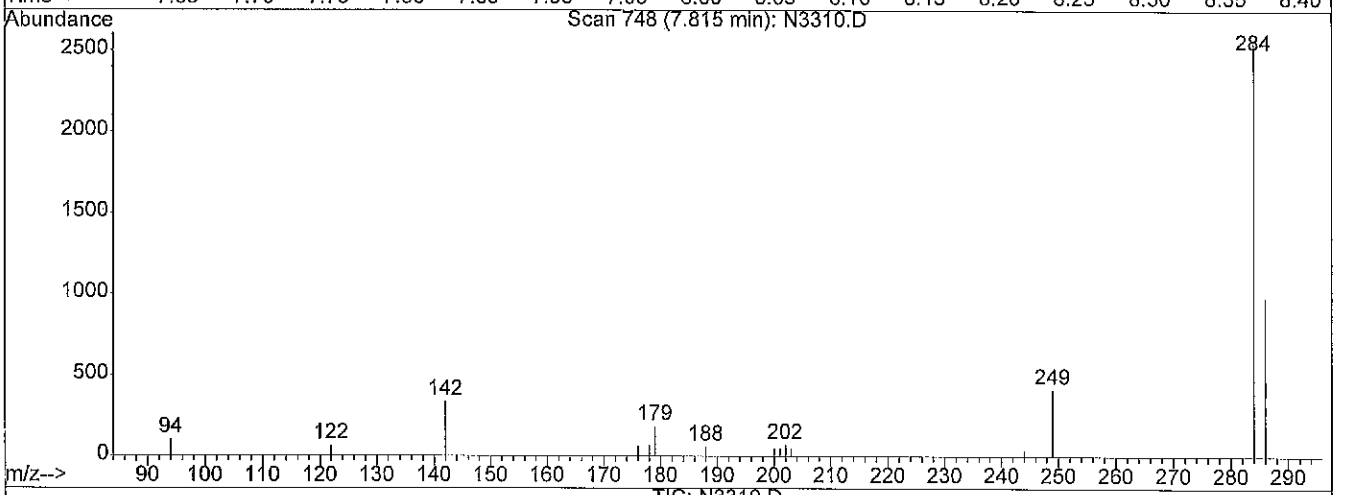
Data File : D:\HPCHEM\1\DATA\101211\N3310.D
Acq On : 12 Oct 2011 10:10
Sample : ICALSVSTD0050
Misc : ST110822-8
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:29 2011

Vial: 3
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:27:20 2011
Response via : Multiple Level Calibration





TIC: N3310.D

(12) Hexachlorobenzene (t)

7.82min 47.99ng/ml m

response 4125

Ion	Exp%	Act%
284.00	100	100
286.00	21.70	20.41
142.00	12.30	13.67
249.00	8.00	11.13#

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials JC *date* 10-12-11

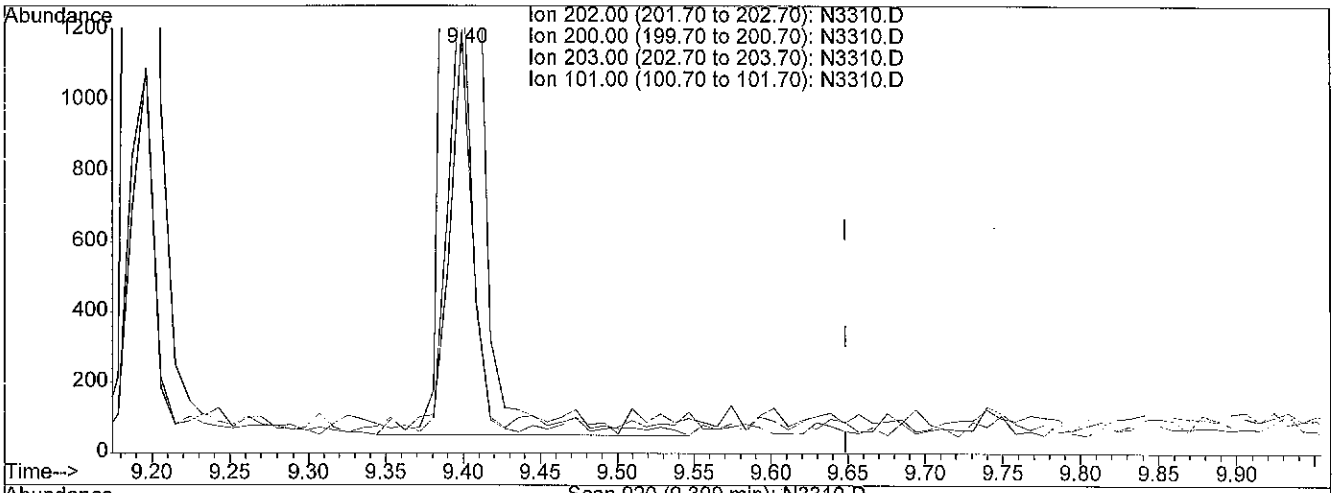
N3310.D 101211SH.M Wed Oct 12 10:29:12 2011

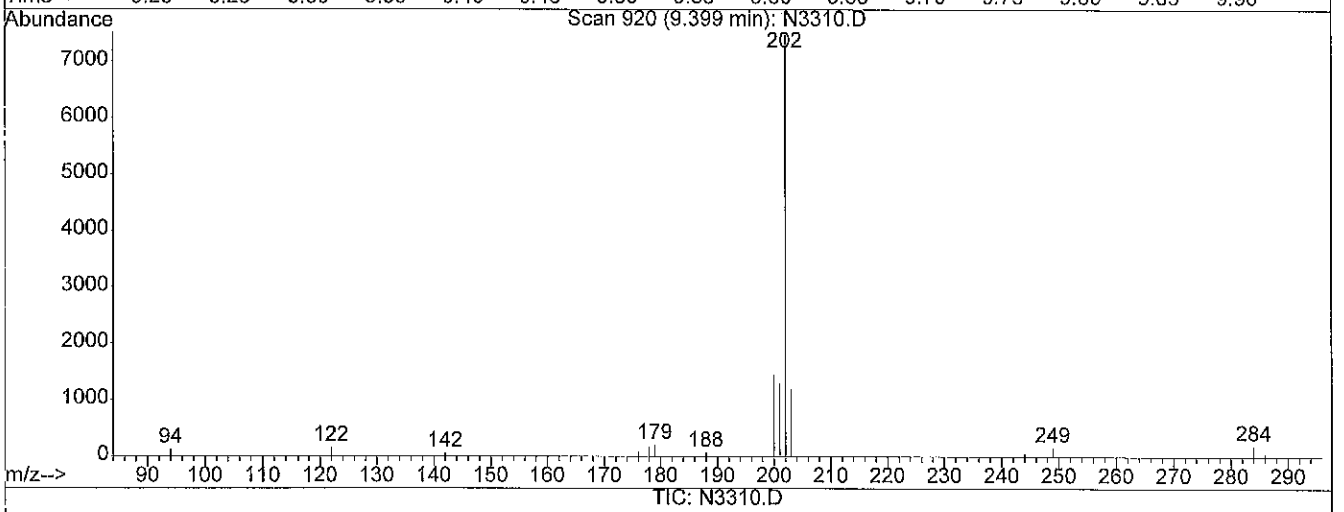
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3310.D
Acq On : 12 Oct 2011 10:10
Sample : ICALSVSTD0050
Misc : ST110822-8
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:29 2011

Vial: 3
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:27:20 2011
Response via : Multiple Level Calibration





TIC: N3310.D

(17) Pyrene (TM)

9.40min 54.42ng/ml

response 7137

Ion	Exp%	Act%
202.00	100	100
200.00	19.80	19.03
203.00	18.50	17.01
101.00	0.00	0.00

Before

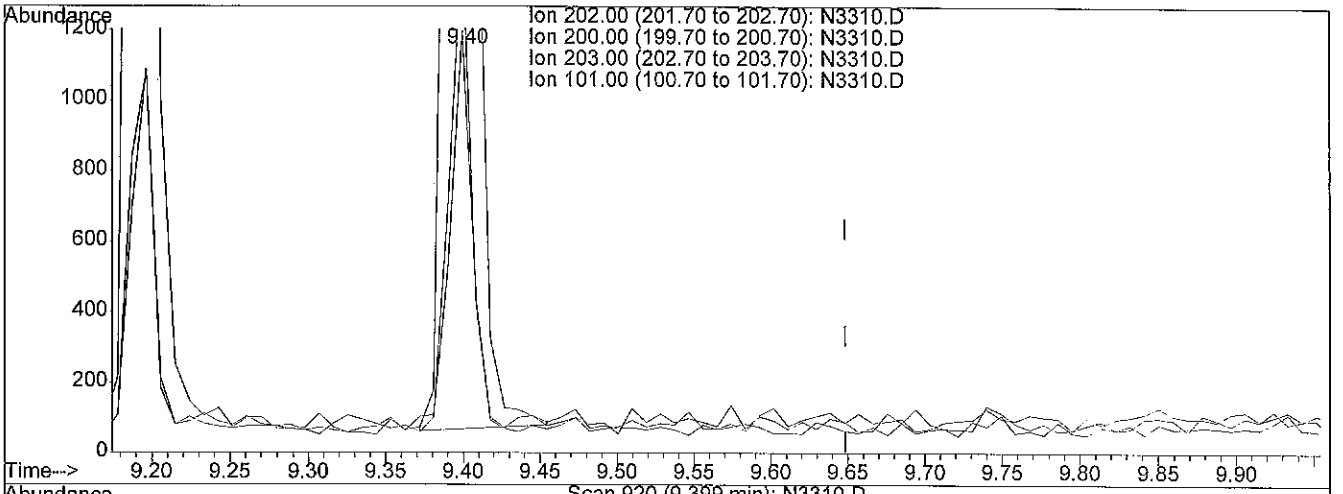
N3310.D 101211SH.M Wed Oct 12 10:29:22 2011

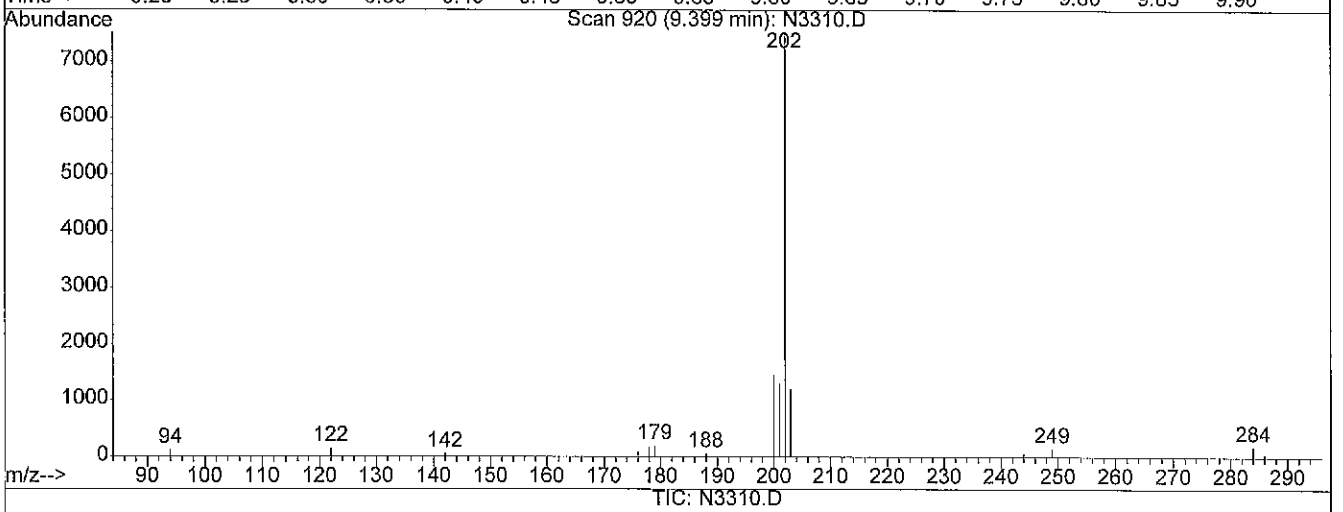
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3310.D
Acq On : 12 Oct 2011 10:10
Sample : ICALSVSTD0050
Misc : ST110822-8
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:29 2011

Vial: 3
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:27:20 2011
Response via : Multiple Level Calibration





TIC: N3310.D

(17) Pyrene (TM)

9.40min 52.22ng/ml m

response 6849

Ion	Exp%	Act%
202.00	100	100
200.00	19.80	19.83
203.00	18.50	17.73
101.00	0.00	0.00

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials JL *date* 10-12-11

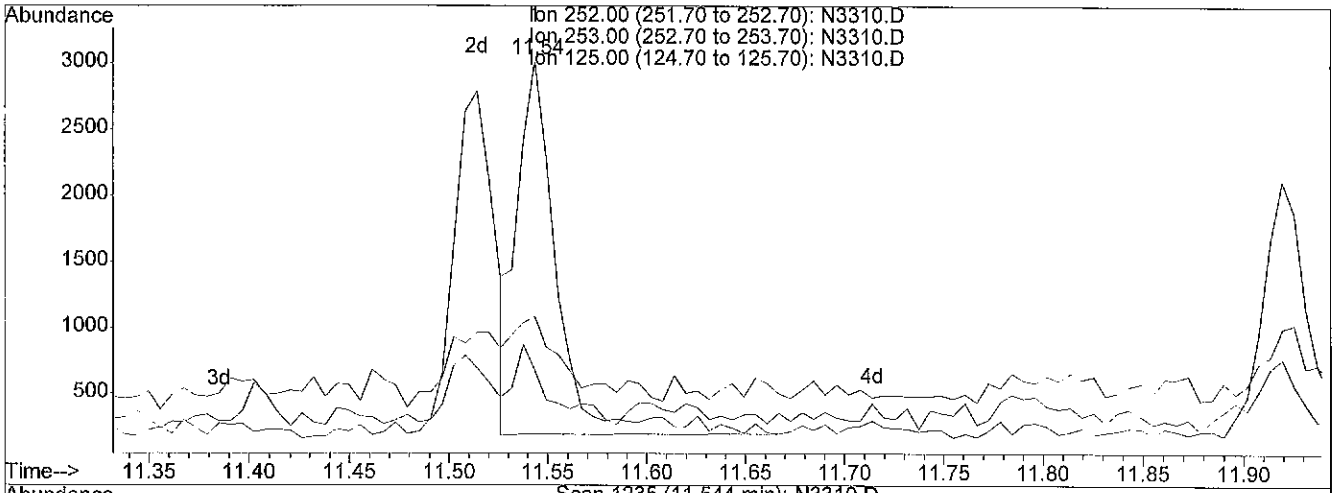
N3310.D 101211SH.M Wed Oct 12 10:29:29 2011

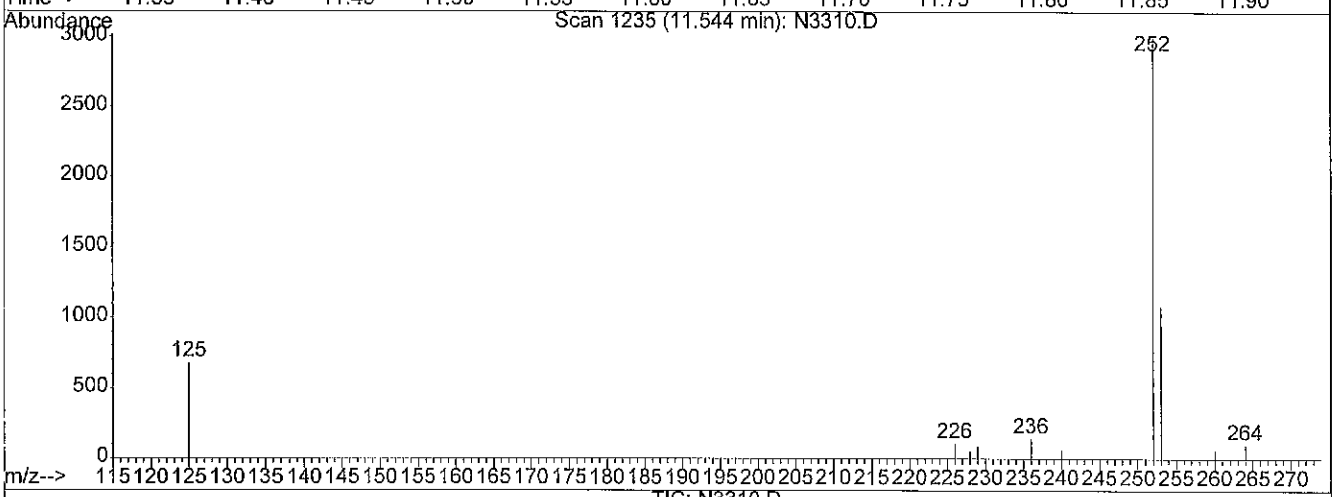
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3310.D
Acq On : 12 Oct 2011 10:10
Sample : ICALSVSTD0050
Misc : ST110822-8
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:29 2011

Vial: 3
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:27:20 2011
Response via : Multiple Level Calibration





(23) Benzo[k]fluoranthene (TM)

11.54min 53.19ng/ml

response 4038

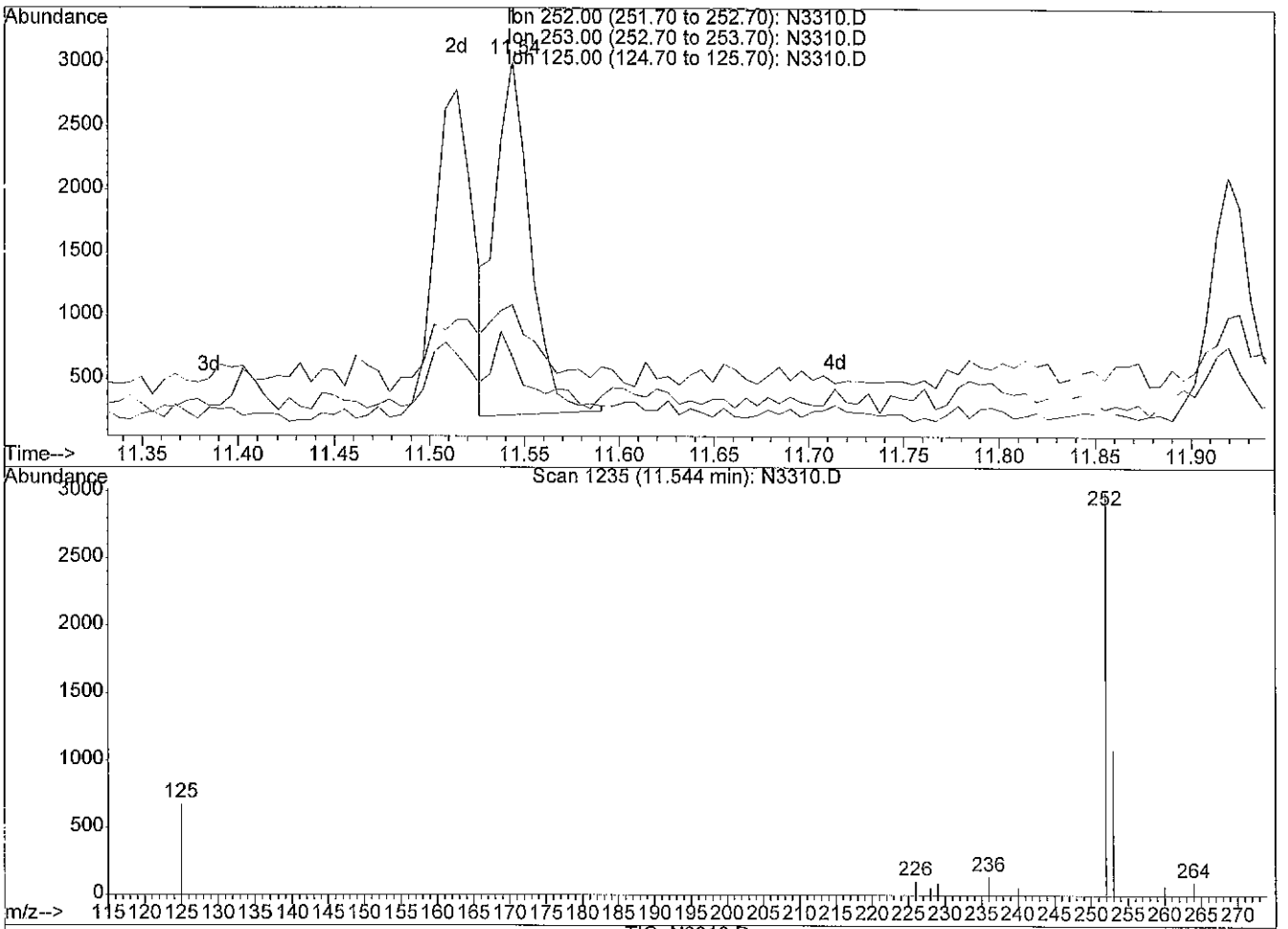
Ion	Exp%	Act%
252.00	100	100
253.00	22.70	62.93#
125.00	15.10	19.42
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3310.D
Acq On : 12 Oct 2011 10:10
Sample : ICALSVSTD0050
Misc : ST110822-8
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:29 2011

Vial: 3
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:27:20 2011
Response via : Multiple Level Calibration



(23) Benzo[k]fluoranthene (TM)

11.54min 47.59ng/ml m

response 3613

Ion	Exp%	Act%
252.00	100	100
253.00	22.70	70.33#
125.00	15.10	21.70#
0.00	0.00	0.00

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

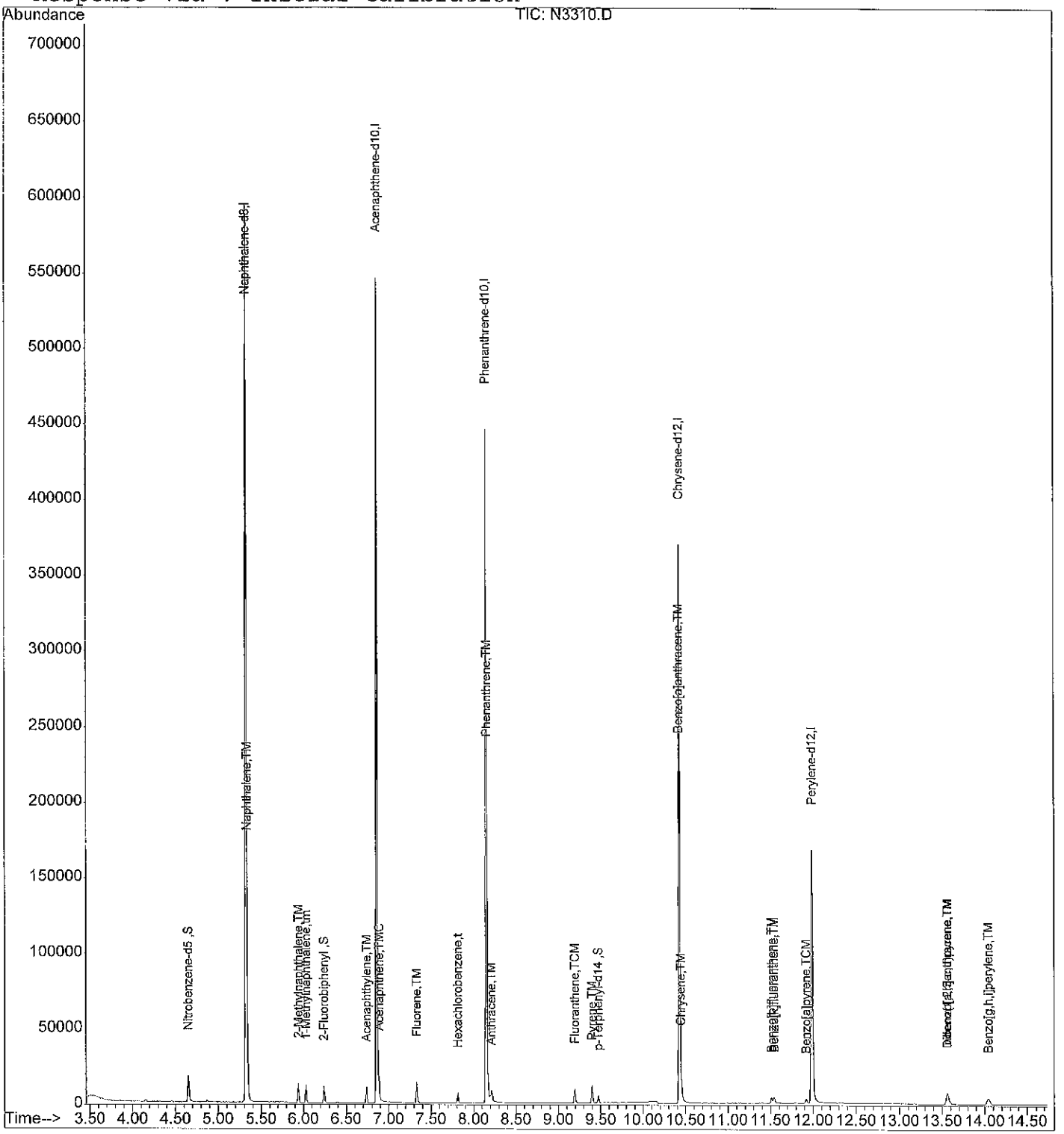
initials JK *date* 10-12-11

N3310.D 101211SH.M Wed Oct 12 10:29:46 2011

Quantitation Report

Data File : D:\HPCHEM\1\DATA\101211\N3310.D Vial: 3
Acq On : 12 Oct 2011 10:10 Operator: jk SOP 506
Sample : ICALSVSTD0050 Inst : GC/MS Ins
Misc : ST110822-8 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:29 2011 Quant Results File: 101211SH.RES

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:27:20 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\101211\N3311.D
Acq On : 12 Oct 2011 10:31
Sample : ICALSVSTD0100
Misc : ST110822-9
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:59 2011

Vial: 4
Operator: jk SOP 506 Rev
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 101211SH.RES

Quant Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:58:14 2011
Response via : Initial Calibration
DataAcq Meth : 101211SH

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.32	136	503949	4000.00	ng/ml	0.00
6) Acenaphthene-d10	6.86	164	279160	4000.00	ng/ml	0.00
11) Phenanthrene-d10	8.15	188	412592	4000.00	ng/ml	0.00
16) Chrysene-d12	10.42	240	342066	4000.00	ng/ml	-0.01
21) Perylene-d12	11.98	264	223032	4000.00	ng/ml	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	4.65	82	40099	98.94	ng/ml	0.00
Spiked Amount 2000.000	Range 34 - 111		Recovery =	4.95%#		
7) 2-Fluorobiphenyl	6.24	172	15469	107.35	ng/ml	0.00
Spiked Amount 2000.000	Range 21 - 106		Recovery =	5.37%#		
18) p-Terphenyl-d14	9.47	244	7986	91.11	ng/ml	0.00
Spiked Amount 2000.000	Range 33 - 111		Recovery =	4.56%#		
Target Compounds						Qvalue
3) Naphthalene	5.34	128	17082	101.91	ng/ml	99
4) 2-Methylnaphthalene	5.94	142	11539	99.64	ng/ml	92
5) 1-Methylnaphthalene	6.03	142	11115	100.12	ng/ml	98
8) Acenaphthylene	6.74	152	13689	98.17	ng/ml#	99
9) Acenaphthene	6.89	154	9965m	98.98	ng/ml	
10) Fluorene	7.33	166	11254m	99.62	ng/ml	
12) Hexachlorobenzene	7.82	284	8809m	99.24	ng/ml	
13) Phenanthrene	8.17	178	13682	99.53	ng/ml	98
14) Anthracene	8.21	178	11623	100.35	ng/ml	99
15) Fluoranthene	9.20	202	14315	102.31	ng/ml#	99
17) Pyrene	9.40	202	14928	98.49	ng/ml#	96
19) Benzo[a]anthracene	10.41	228	11082	100.79	ng/ml	98
20) Chrysene	10.45	228	11818	104.03	ng/ml	95
22) Benzo[b]fluoranthene	11.50	252	8781	107.50	ng/ml	96
23) Benzo[k]fluoranthene	11.53	252	7672	98.82	ng/ml#	92
24) Benzo[a]pyrene	11.91	252	5928	95.89	ng/ml	97
25) Indeno(1,2,3-c,d)pyrene	13.54	276	20589	94.29	ng/ml	100
26) Dibenzo[a,h]anthracene	13.55	278	14897	89.11	ng/ml	97
27) Benzo[g,h,i]perylene	14.03	276	18796	93.62	ng/ml	97

(#) = qualifier out of range (m) = manual integration
N3311.D 101211SH.M Wed Oct 12 11:00:11 2011

JK 10-12-11

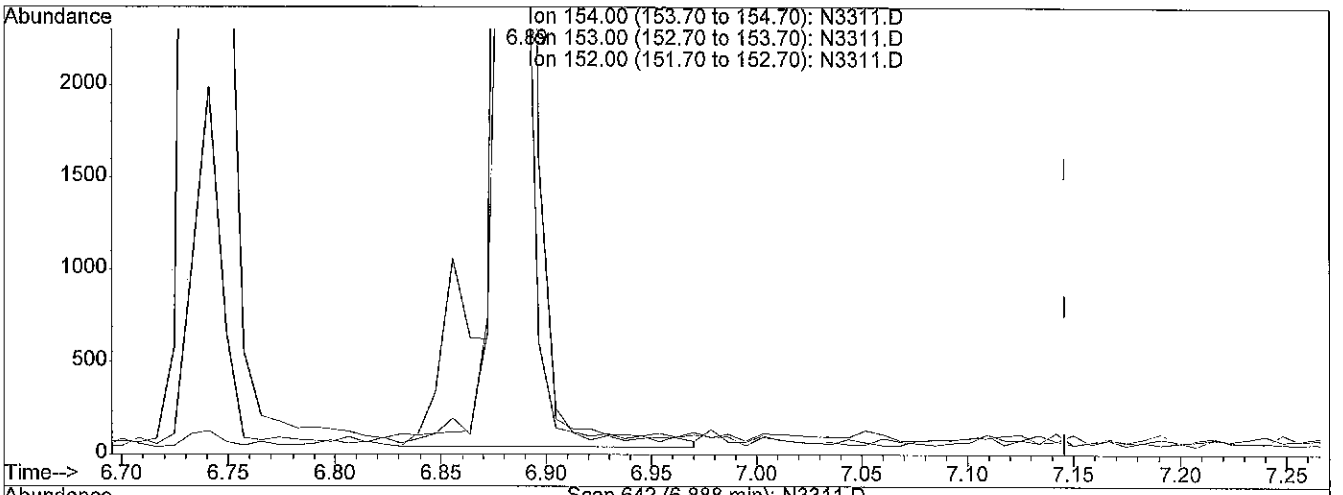
Quantitation Report (Qedit)

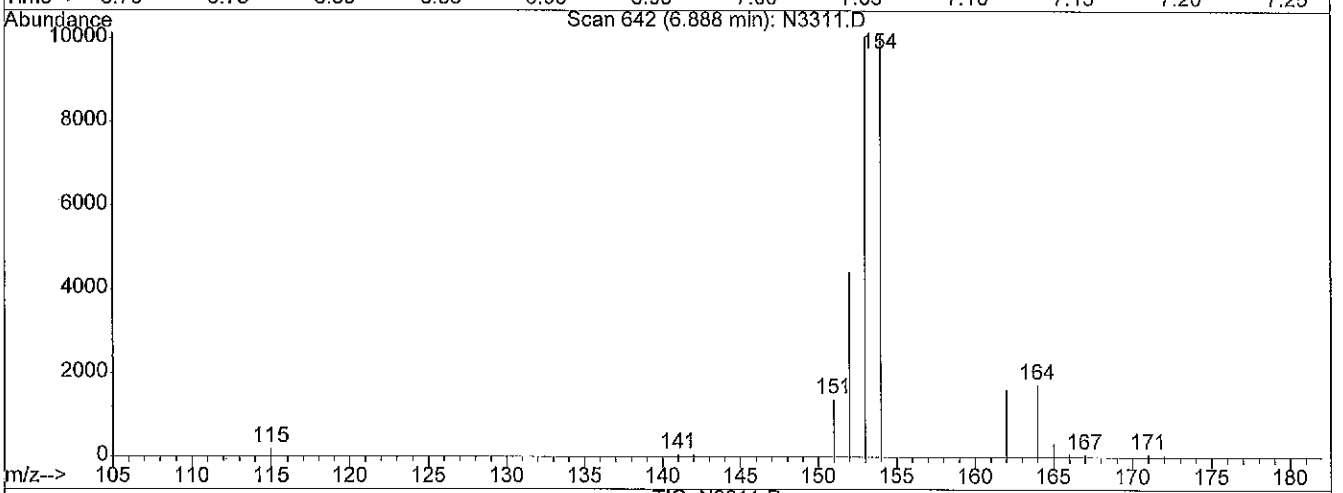
Data File : D:\HPCHEM\1\DATA\101211\N3311.D
Acq On : 12 Oct 2011 10:31
Sample : ICALSVSTD0100
Misc : ST110822-9
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:58 2011

Vial: 4
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:58:14 2011
Response via : Multiple Level Calibration





TIC: N3311.D

(9) Acenaphthene (TMC)

6.89min 109.45ng/ml

response 11019

Ion	Exp%	Act%
154.00	100	100
153.00	104.00	98.40
152.00	50.20	46.40
0.00	0.00	0.00

Before

N3311.D 101211SH.M Wed Oct 12 10:59:04 2011

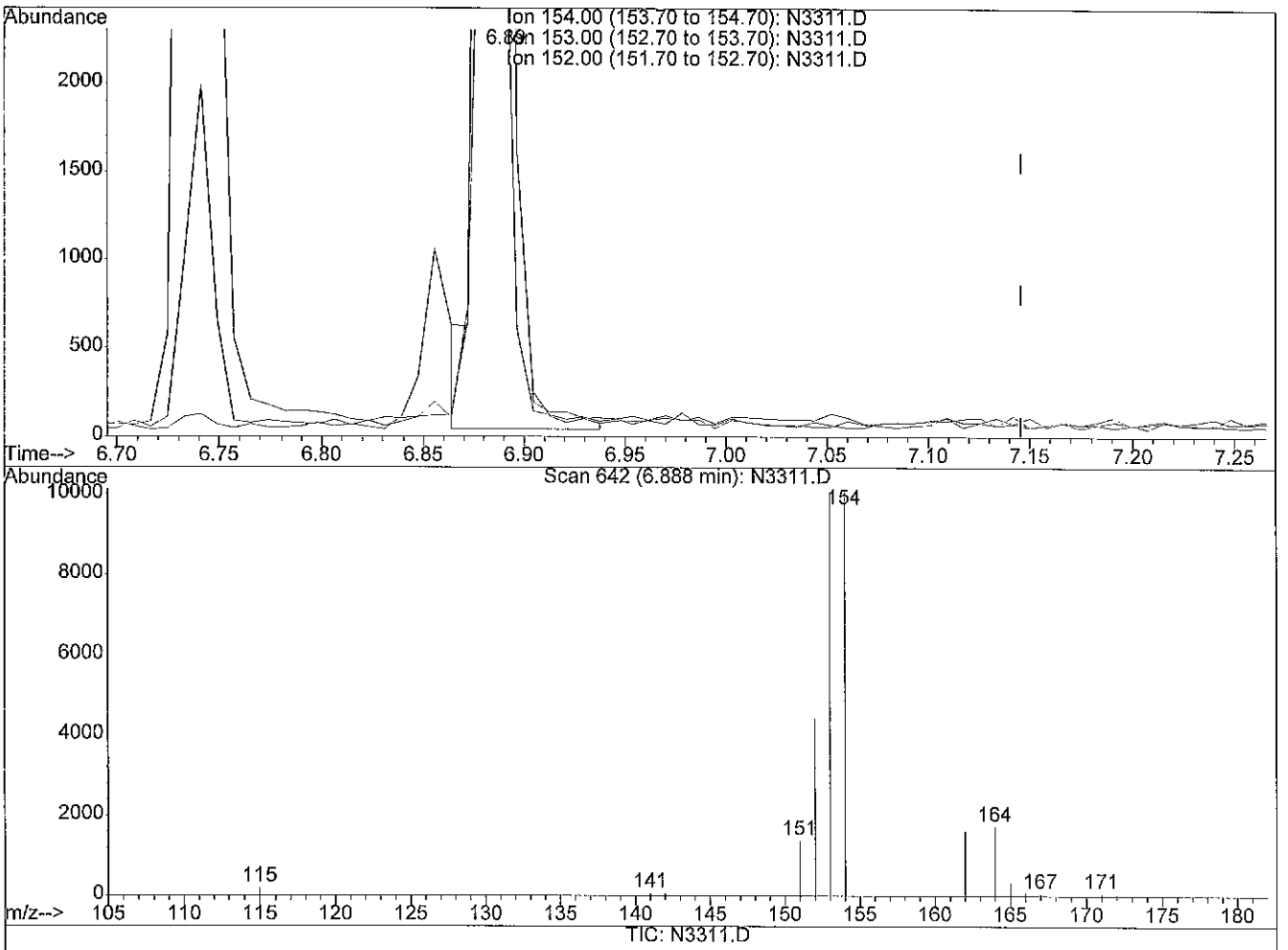
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3311.D
Acq On : 12 Oct 2011 10:31
Sample : ICALSVSTD0100
Misc : ST110822-9
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:59 2011

Vial: 4
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:58:14 2011
Response via : Multiple Level Calibration



(9) Acenaphthene (TMC)

6.89min 98.98ng/ml m

response 9965

Ion	Exp%	Act%
154.00	100	100
153.00	104.00	108.81
152.00	50.20	51.31
0.00	0.00	0.00

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

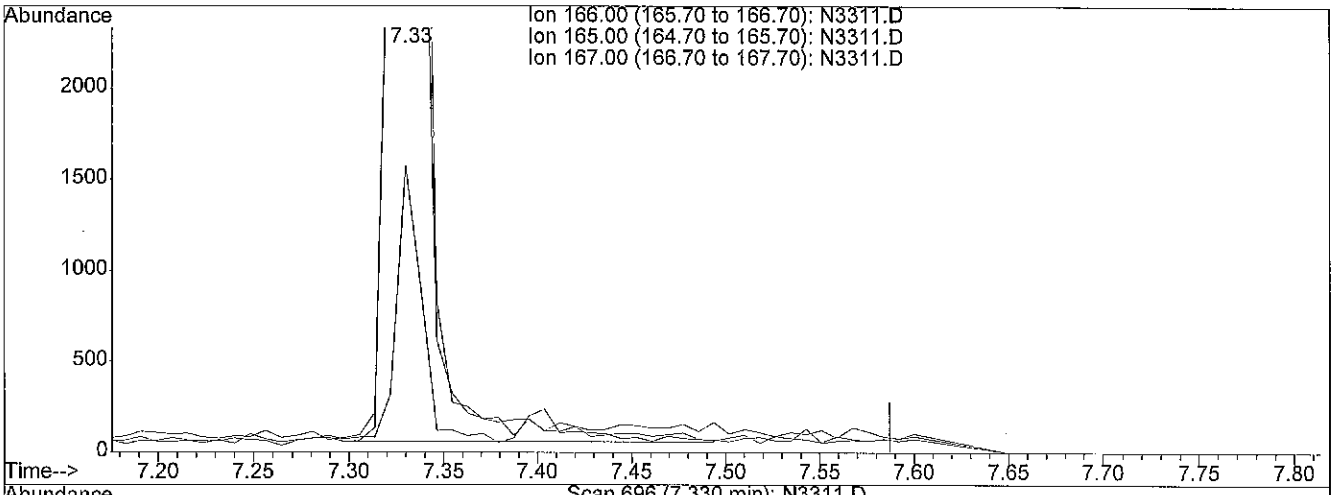
initials JK *date* 10-12-11

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3311.D
Acq On : 12 Oct 2011 10:31
Sample : ICALSVSTD0100
Misc : ST110822-9
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:59 2011

Vial: 4
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:58:14 2011
Response via : Multiple Level Calibration



TIC: N3311.D

(10) Fluorene (TM)

7.33min 102.08ng/ml

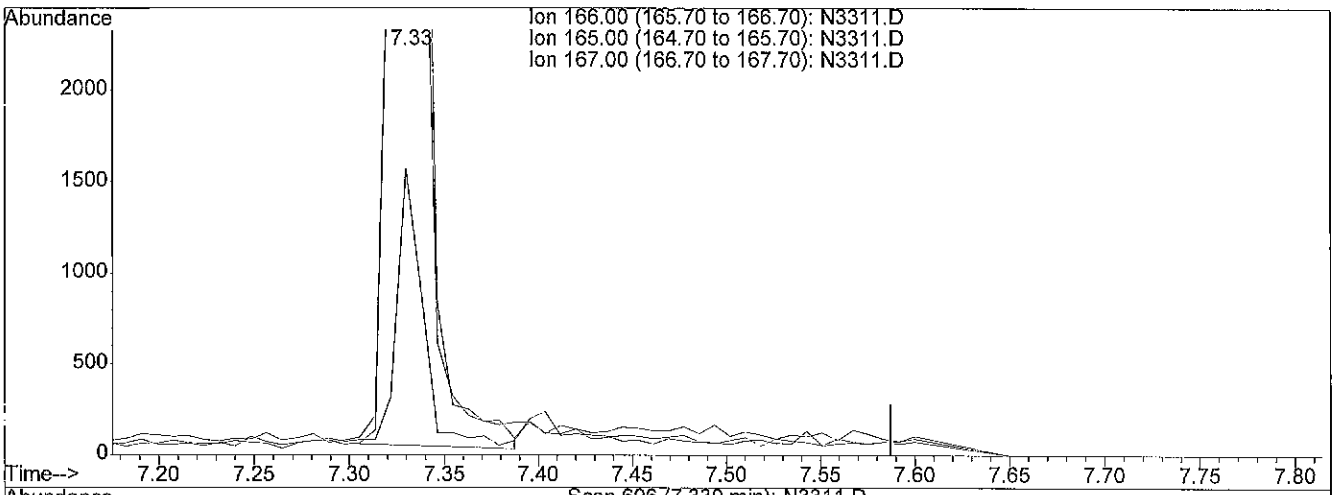
response 11532

Ion	Exp%	Act%
166.00	100	100
165.00	92.00	91.23
167.00	13.40	12.27
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3311.D Vial: 4
Acq On : 12 Oct 2011 10:31 Operator: jk SOP 50
Sample : ICALSVSTD0100 Inst : GC/MS Ins
Misc : ST110822-9 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:59 2011 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:58:14 2011
Response via : Multiple Level Calibration



TIC: N3311.D

(10) Fluorene (TM)

7.33min 99.62ng/ml m

response 11254

Ion	Exp%	Act%
166.00	100	100
165.00	92.00	93.49
167.00	13.40	12.57
0.00	0.00	0.00

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials JK *date* 10-12-11

N3311.D 101211SH.M Wed Oct 12 10:59:36 2011

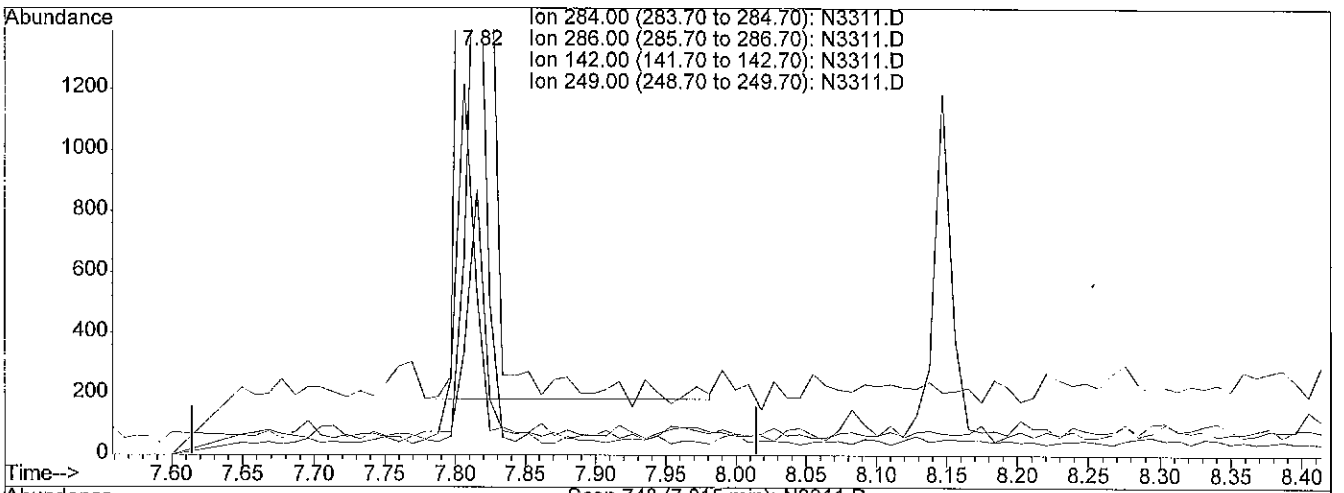
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3311.D
Acq On : 12 Oct 2011 10:31
Sample : ICALSVSTD0100
Misc : ST110822-9
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:59 2011

Vial: 4
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:58:14 2011
Response via : Multiple Level Calibration



(12) Hexachlorobenzene (t)

7.82min 103.72ng/ml

response 9207

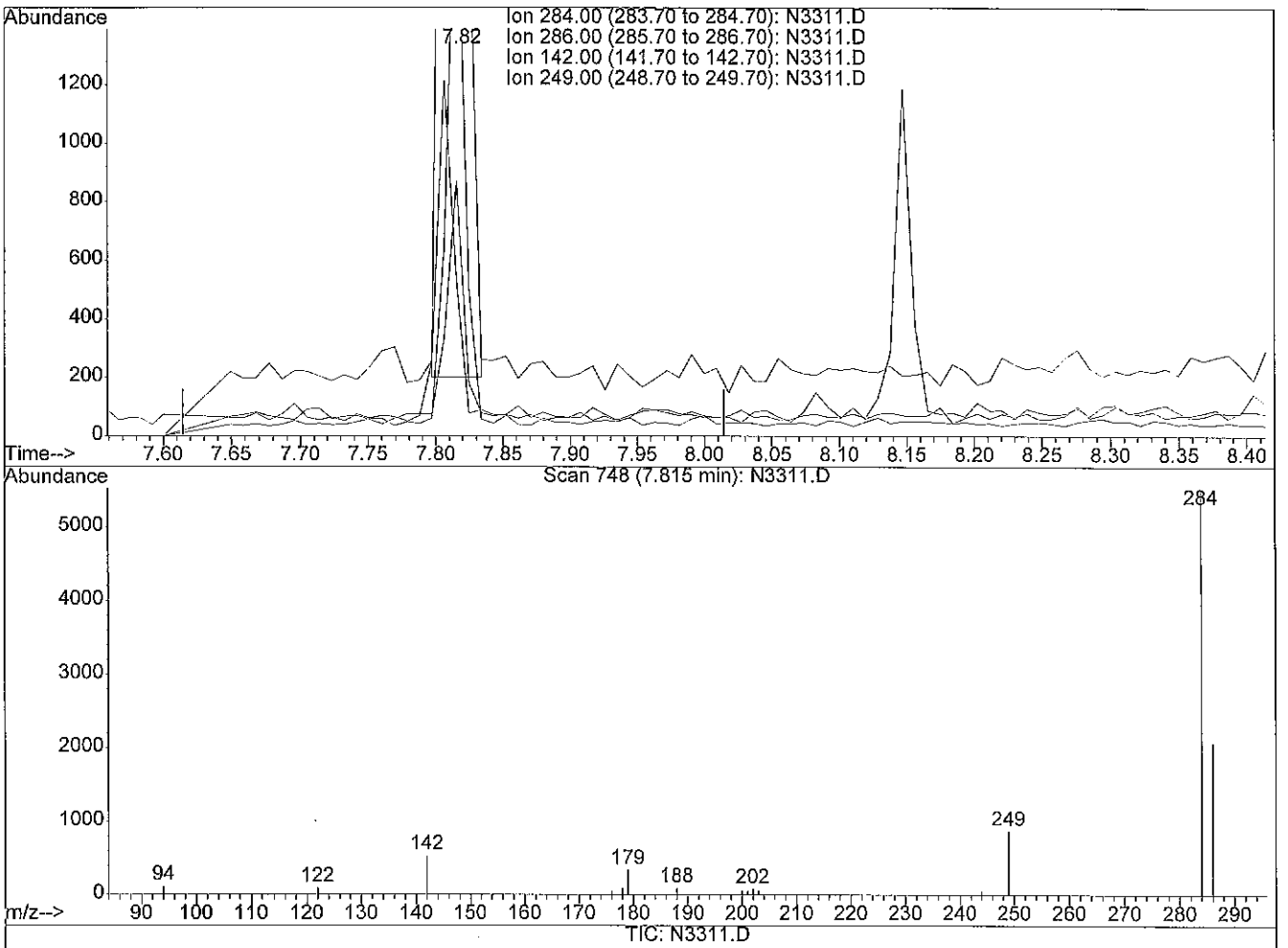
Ion	Exp%	Act%
284.00	100	100
286.00	21.70	19.16
142.00	12.30	11.84
249.00	8.00	10.02#

Before

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3311.D Vial: 4
Acq On : 12 Oct 2011 10:31 Operator: jk SOP 50
Sample : ICALSVSTD0100 Inst : GC/MS Ins
Misc : ST110822-9 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:59 2011 Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:58:14 2011
Response via : Multiple Level Calibration



(12) Hexachlorobenzene (t)

7.82min 99.24ng/ml m

response 8809

Ion	Exp%	Act%
284.00	100	100
286.00	21.70	20.02
142.00	12.30	12.37
249.00	8.00	10.48#

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

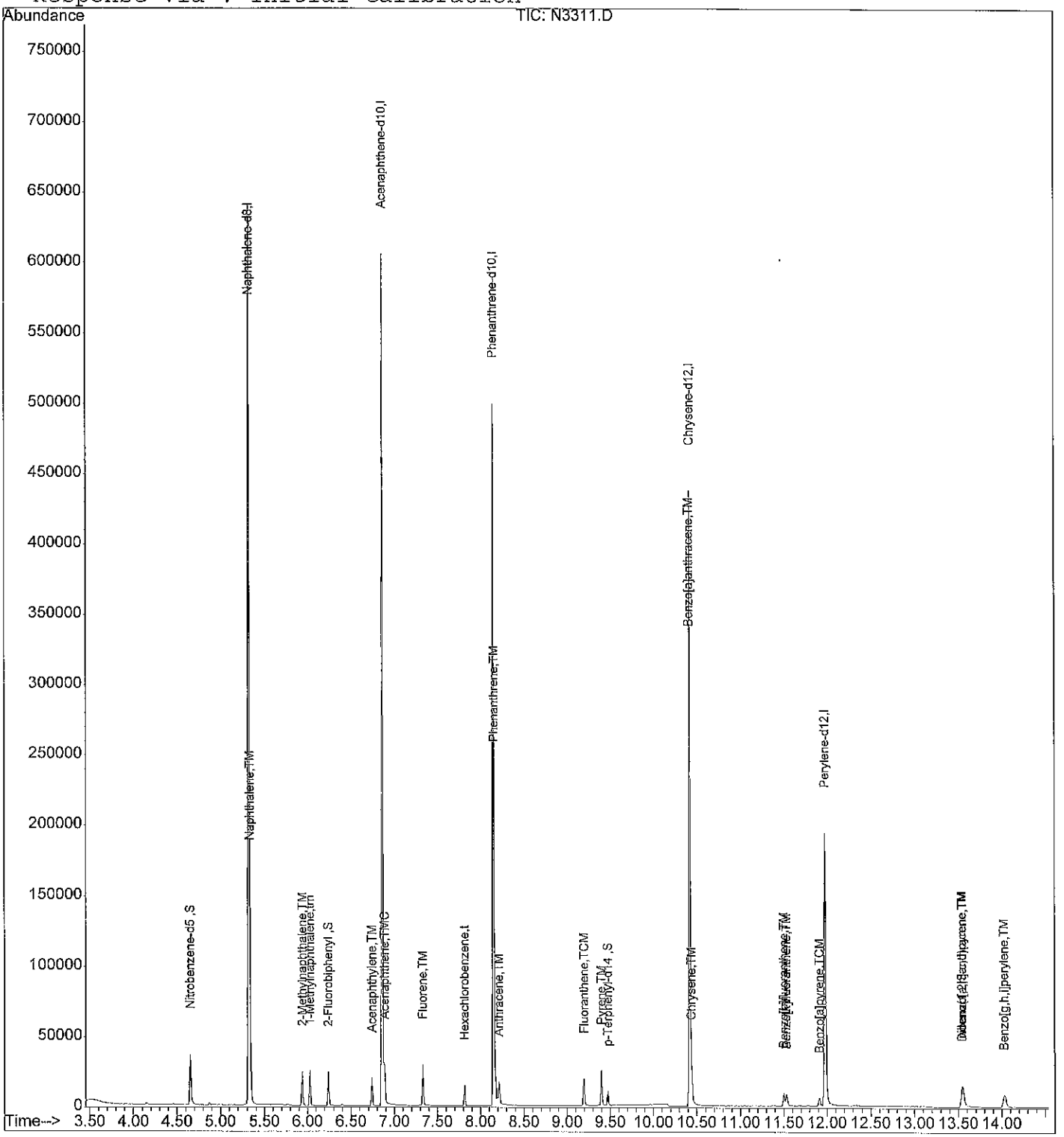
initials JC *date* 10-12-11

Quantitation Report

Data File : D:\HPCHEM\1\DATA\101211\N3311.D
Acq On : 12 Oct 2011 10:31
Sample : ICALSVSTD0100
Misc : ST110822-9
MS Integration Params: RTEINT.P
Quant Time: Oct 12 10:59 2011

Vial: 4
Operator: jk SOP 506
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 101211SH.RES

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 10:58:14 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\101211\N3312.D
Acq On : 12 Oct 2011 10:51
Sample : ICALSVSTD0200
Misc : ST110822-10
MS Integration Params: RTEINT.P
Quant Time: Oct 12 11:13 2011

Vial: 5
Operator: jk SOP 506 Rev
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 101211SH.RES

Quant Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 11:13:14 2011
Response via : Initial Calibration
DataAcq Meth : 101211SH

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.32	136	493912	4000.00	ng/ml	0.00
6) Acenaphthene-d10	6.86	164	272072	4000.00	ng/ml	0.00
11) Phenanthrene-d10	8.15	188	398415	4000.00	ng/ml	0.00
16) Chrysene-d12	10.43	240	325721	4000.00	ng/ml	0.00
21) Perylene-d12	12.00	264	227908	4000.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	4.65	82	71780	185.17	ng/ml	0.00
Spiked Amount 2000.000	Range 34 - 111		Recovery = 9.26%#			
7) 2-Fluorobiphenyl	6.24	172	24737	181.55	ng/ml	0.00
Spiked Amount 2000.000	Range 21 - 106		Recovery = 9.08%#			
18) p-Terphenyl-d14	9.47	244	13723	172.07	ng/ml	0.00
Spiked Amount 2000.000	Range 33 - 111		Recovery = 8.60%#			
Target Compounds						Qvalue
3) Naphthalene	5.34	128	30630	189.67	ng/ml	97
4) 2-Methylnaphthalene	5.94	142	21748	193.65	ng/ml	99
5) 1-Methylnaphthalene	6.03	142	20893	193.95	ng/ml	99
8) Acenaphthylene	6.74	152	25983	193.31	ng/ml#	99
9) Acenaphthene	6.88	154	17967m	189.65	ng/ml	
10) Fluorene	7.33	166	20834	193.01	ng/ml	99
12) Hexachlorobenzene	7.81	284	15691m	187.98	ng/ml	
13) Phenanthrene	8.16	178	25585	194.51	ng/ml	99
14) Anthracene	8.21	178	21797	196.14	ng/ml	98
15) Fluoranthene	9.20	202	26224	195.53	ng/ml#	99
17) Pyrene	9.40	202	27329	191.91	ng/ml#	98
19) Benzo[a]anthracene	10.42	228	18765	184.01	ng/ml	98
20) Chrysene	10.46	228	21731	200.67	ng/ml	97
22) Benzo[b]fluoranthene	11.52	252	15898	192.76	ng/ml	98
23) Benzo[k]fluoranthene	11.55	252	14356	185.36	ng/ml	96
24) Benzo[a]pyrene	11.93	252	11646	188.03	ng/ml	91
25) Indeno(1,2,3-c,d)pyrene	13.57	276	42771	193.70	ng/ml	100
26) Dibenzo[a,h]anthracene	13.57	278	33559	197.32	ng/ml	98
27) Benzo[g,h,i]perylene	14.06	276	39864	195.71	ng/ml	99

(#) = qualifier out of range (m) = manual integration
N3312.D 101211SH.M Wed Oct 12 11:14:15 2011

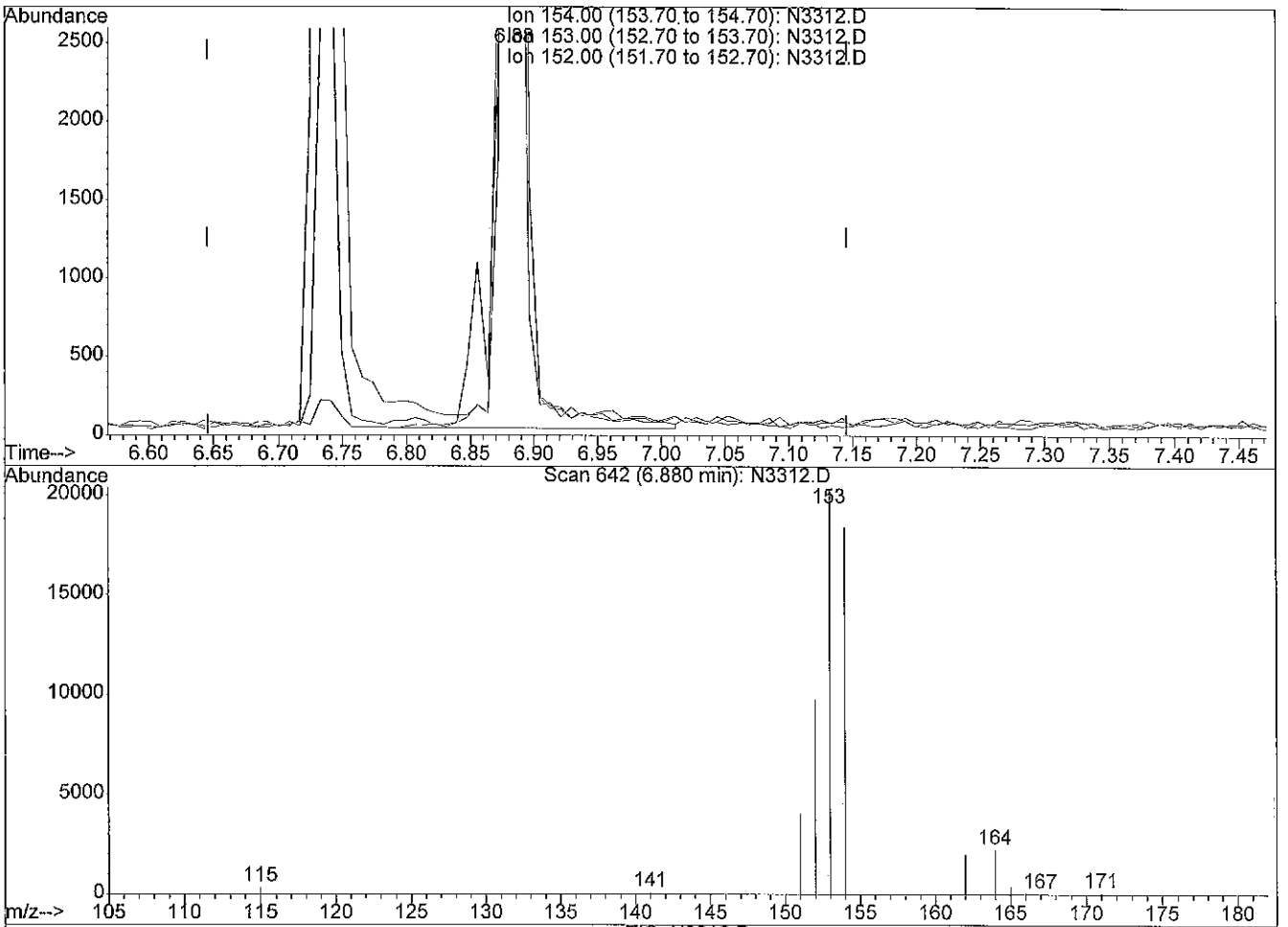
JK 10-12-11

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3312.D
Acq On : 12 Oct 2011 10:51
Sample : ICALSVSTD0200
Misc : ST110822-10
MS Integration Params: RTEINT.P
Quant Time: Oct 12 11:13 2011

Vial: 5
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 11:13:14 2011
Response via : Multiple Level Calibration



(9) Acenaphthene (TMC)

6.88min 200.27ng/ml

response 18973

Ion	Exp%	Act%
154.00	100	100
153.00	104.00	102.71
152.00	50.20	49.29
0.00	0.00	0.00

Before

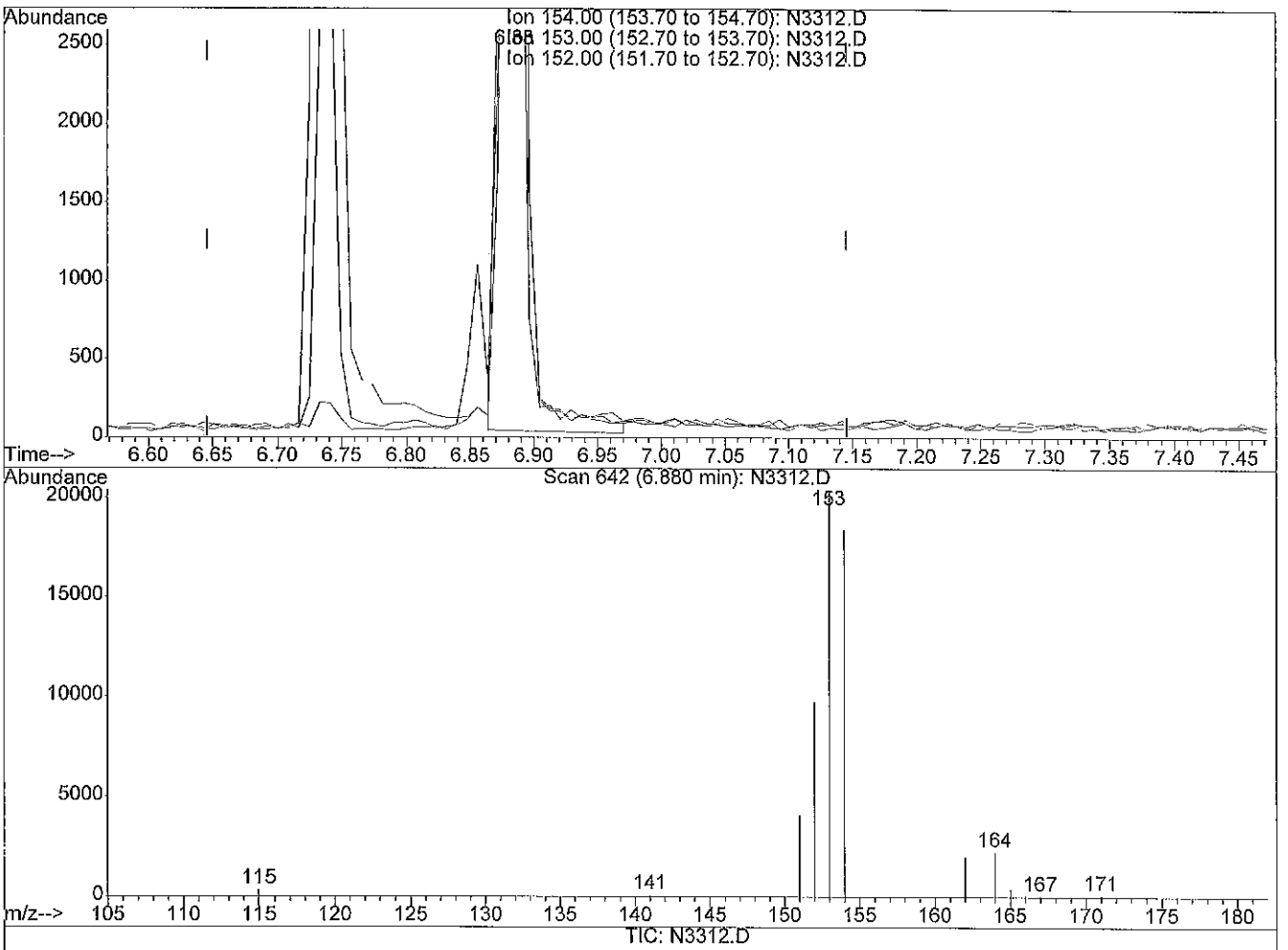
N3312.D 101211SH.M Wed Oct 12 11:13:37 2011

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3312.D
Acq On : 12 Oct 2011 10:51
Sample : ICALSVSTD0200
Misc : ST110822-10
MS Integration Params: RTEINT.P
Quant Time: Oct 12 11:13 2011

Vial: 5
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 11:13:14 2011
Response via : Multiple Level Calibration



(9) Acenaphthene (TMC)

6.88min 189.65ng/ml m

response 17967

Ion	Exp%	Act%
154.00	100	100
153.00	104.00	108.47
152.00	50.20	52.05
0.00	0.00	0.00

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

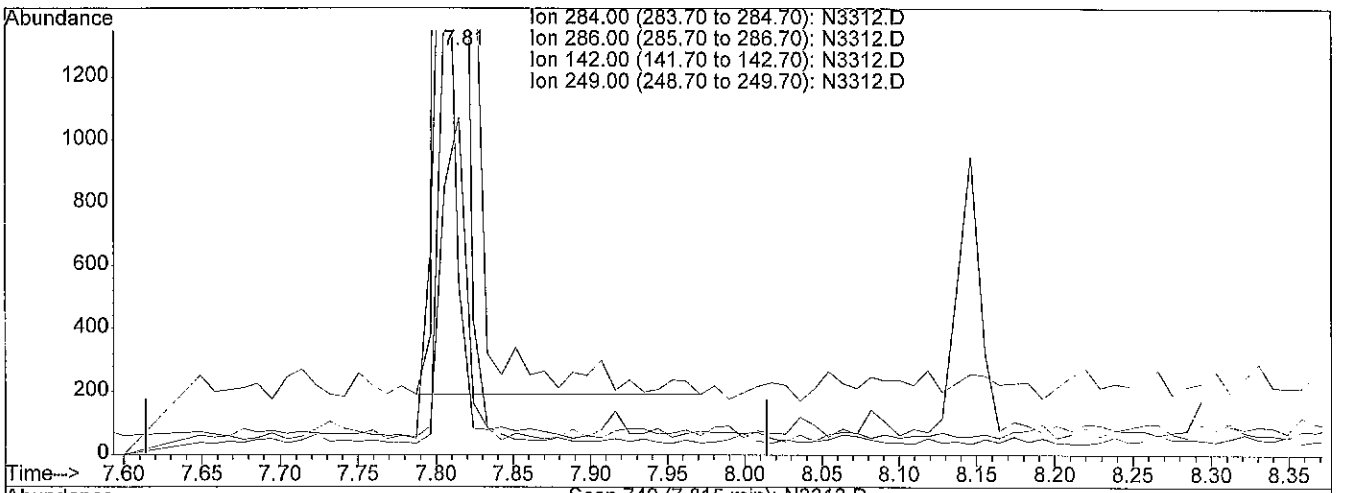
initials MC *date* 10-12-11

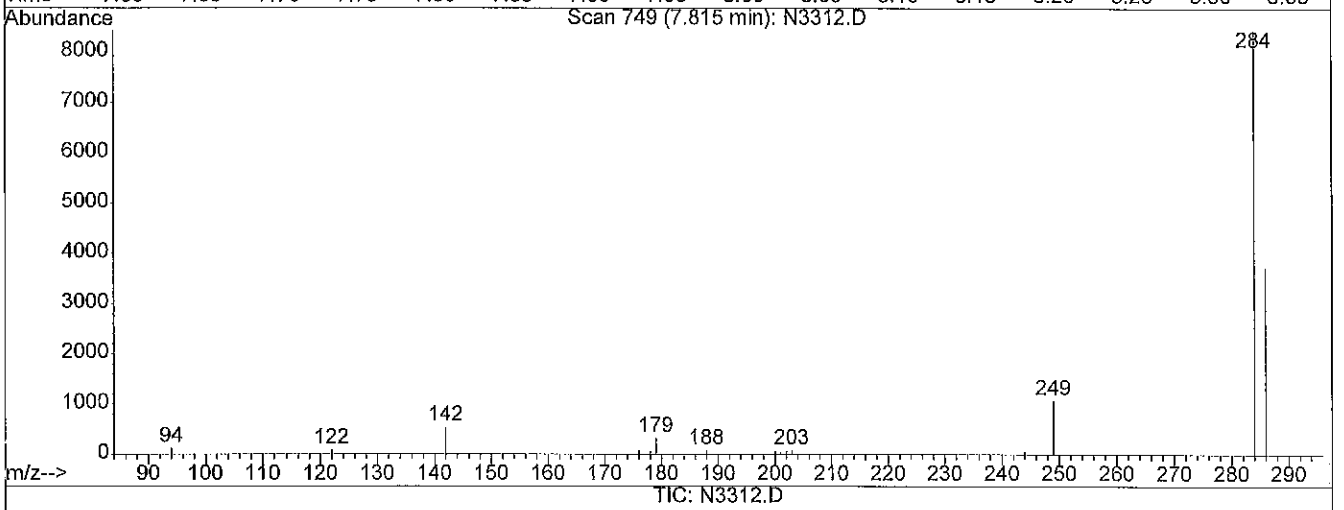
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3312.D
Acq On : 12 Oct 2011 10:51
Sample : ICALSVSTD0200
Misc : ST110822-10
MS Integration Params: RTEINT.P
Quant Time: Oct 12 11:13 2011

Vial: 5
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 11:13:14 2011
Response via : Multiple Level Calibration





(12) Hexachlorobenzene (t)

7.81min 193.05ng/ml

response 16114

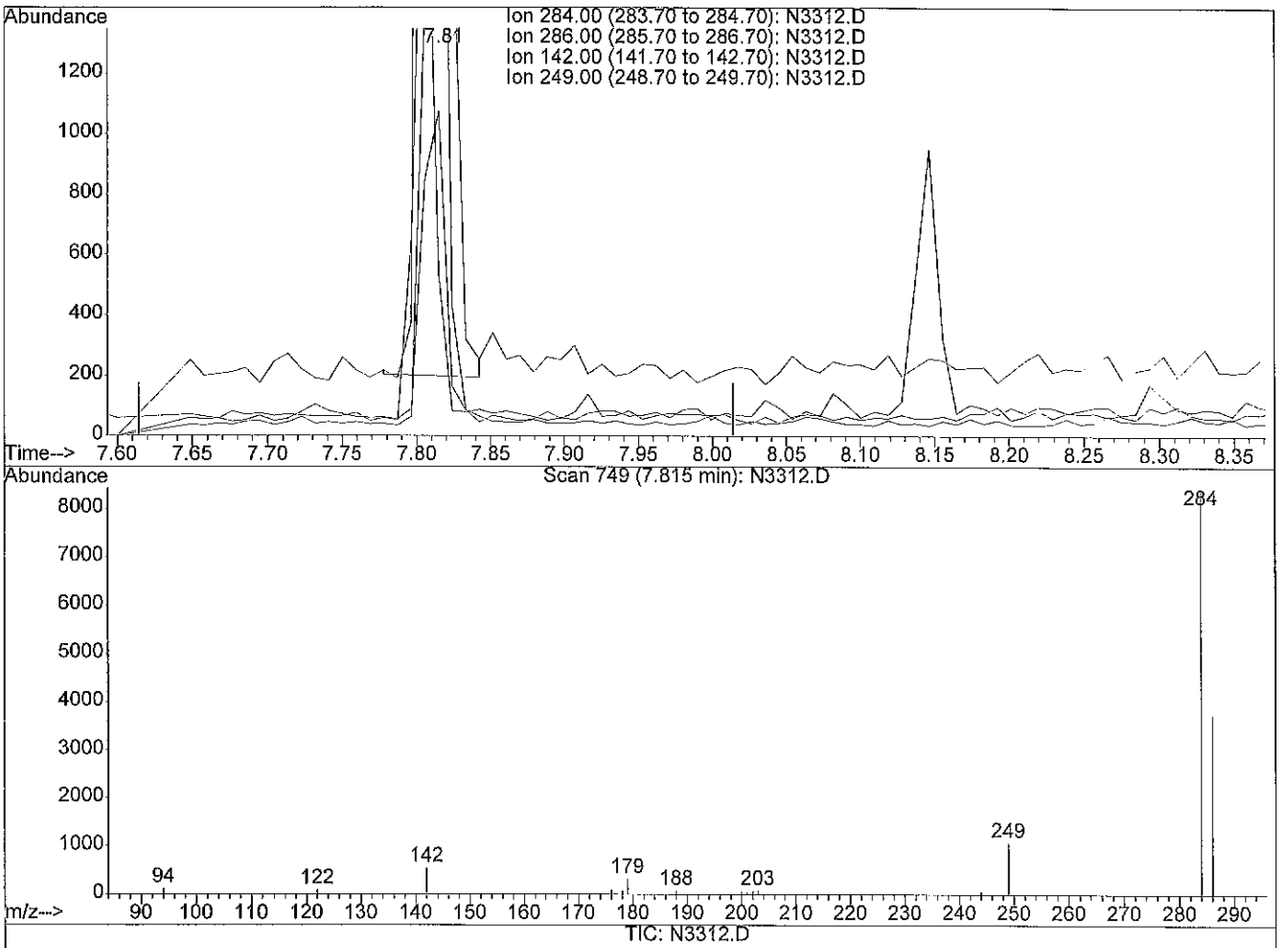
Ion	Exp%	Act%
284.00	100	100
286.00	21.70	19.68
142.00	12.30	12.18
249.00	8.00	6.88

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3312.D
Acq On : 12 Oct 2011 10:51
Sample : ICALSVSTD0200
Misc : ST110822-10
MS Integration Params: RTEINT.P
Quant Time: Oct 12 11:13 2011

Vial: 5
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 11:13:14 2011
Response via : Multiple Level Calibration



(12) Hexachlorobenzene (t)

7.81min 187.98ng/ml m

response 15691

Ion	Exp%	Act%
284.00	100	100
286.00	21.70	20.22
142.00	12.30	12.50
249.00	8.00	7.06

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

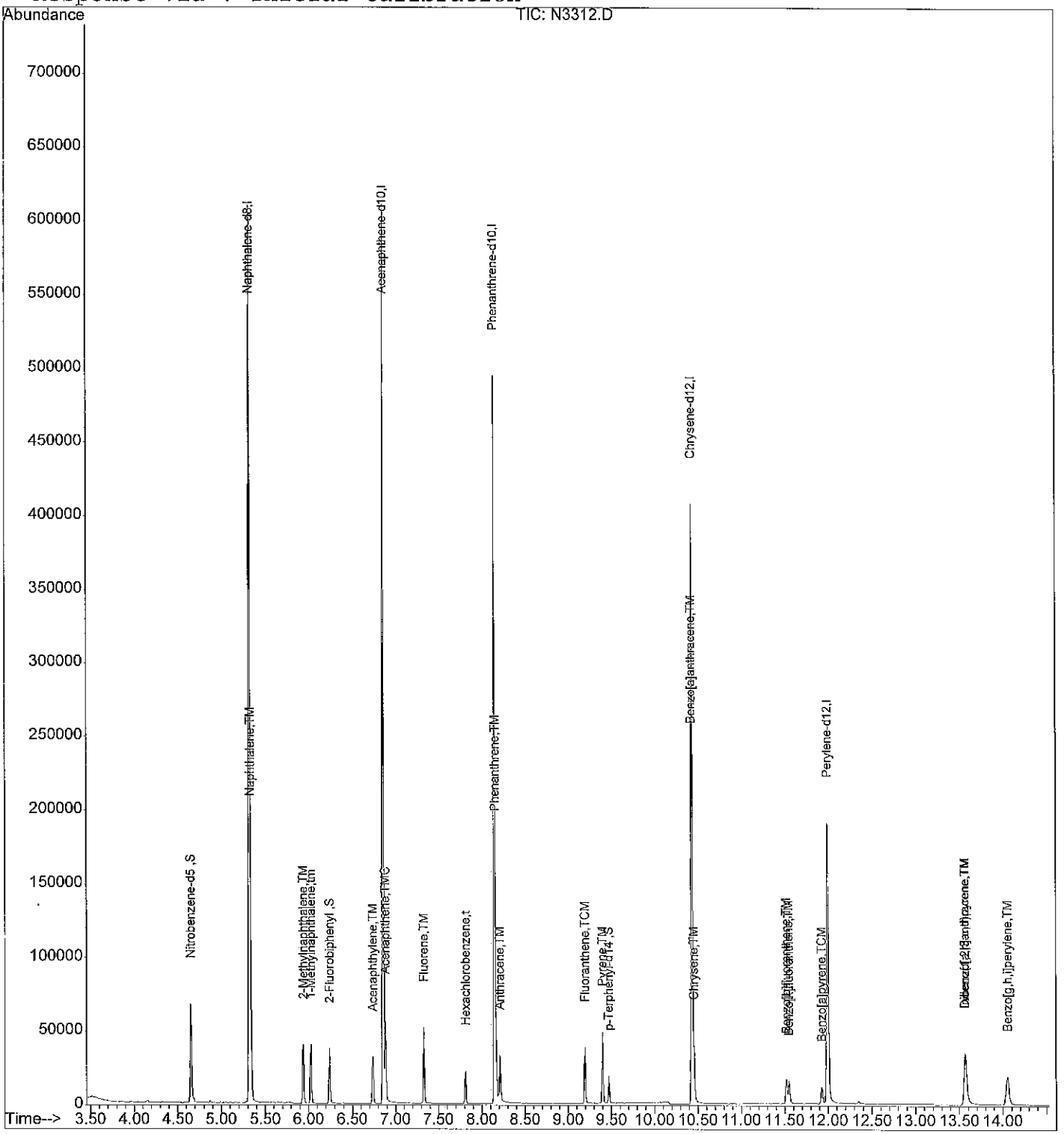
initials JK *date* 10-12-11

N3312.D 101211SH.M Wed Oct 12 11:13:59 2011

Data File : D:\HPCHEM\1\DATA\101211\N3312.D
Acq On : 12 Oct 2011 10:51
Sample : ICALSVSTD0200
Misc : ST110822-10
MS Integration Params: RTEINT.P
Quant Time: Oct 12 11:13 2011

Vial: 5
Operator: jk SOP 506
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 101211SH.RES

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 11:13:14 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\101211\N3313.D Vial: 6
Acq On : 12 Oct 2011 11:12 Operator: jk SOP 506 Rev
Sample : ICALSVSTD1000 Inst : GC/MS Ins
Misc : ST110822-11 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 11:42 2011 Quant Results File: 101211SH.RES

Quant Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 11:41:36 2011
Response via : Initial Calibration
DataAcq Meth : 101211SH

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.32	136	504057	4000.00	ng/ml	0.00
6) Acenaphthene-d10	6.86	164	284049	4000.00	ng/ml	0.00
11) Phenanthrene-d10	8.15	188	424733	4000.00	ng/ml	0.00
16) Chrysene-d12	10.43	240	363301	4000.00	ng/ml	0.00
21) Perylene-d12	11.98	264	256031	4000.00	ng/ml	-0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	4.65	82	362118	931.12	ng/ml	-0.01
Spiked Amount 2000.000	Range 34 - 111		Recovery = 46.56%			
7) 2-Fluorobiphenyl	6.24	172	114383	836.89	ng/ml	0.00
Spiked Amount 2000.000	Range 21 - 106		Recovery = 41.84%			
18) p-Terphenyl-d14	9.47	244	77202	891.45	ng/ml	0.00
Spiked Amount 2000.000	Range 33 - 111		Recovery = 44.57%			
Target Compounds						Qvalue
3) Naphthalene	5.33	128	142512	888.75	ng/ml	99
4) 2-Methylnaphthalene	5.93	142	101205	904.17	ng/ml	99
5) 1-Methylnaphthalene	6.02	142	97884	910.34	ng/ml	99
8) Acenaphthylene	6.73	152	126288	918.34	ng/ml#	99
9) Acenaphthene	6.88	154	87970	919.52	ng/ml	98
10) Fluorene	7.33	166	99853	906.72	ng/ml	98
12) Hexachlorobenzene	7.81	284	77533	899.01	ng/ml	100
13) Phenanthrene	8.16	178	120139	882.01	ng/ml	99
14) Anthracene	8.21	178	111798	954.42	ng/ml	99
15) Fluoranthene	9.20	202	132165	938.58	ng/ml#	97
17) Pyrene	9.40	202	135897	881.03	ng/ml#	99
19) Benzo[a]anthracene	10.41	228	101851	914.56	ng/ml	99
20) Chrysene	10.45	228	107977	913.31	ng/ml	97
22) Benzo[b]fluoranthene	11.51	252	80811	895.07	ng/ml	98
23) Benzo[k]fluoranthene	11.54	252	83926	971.50	ng/ml	98
24) Benzo[a]pyrene	11.91	252	68243m	973.81	ng/ml	
25) Indeno(1,2,3-c,d)pyrene	13.55	276	244210	987.56	ng/ml	99
26) Dibenzo[a,h]anthracene	13.55	278	193808	1011.49	ng/ml	99
27) Benzo[g,h,i]perylene	14.04	276	217402	959.66	ng/ml	100

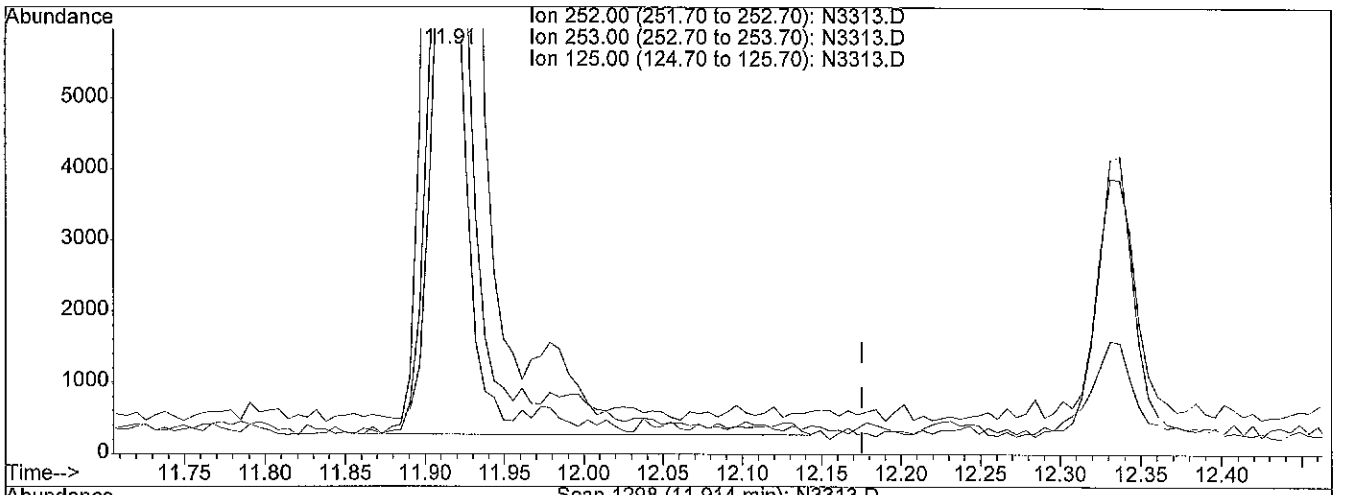
(#) = qualifier out of range (m) = manual integration
N3313.D 101211SH.M Wed Oct 12 11:42:30 2011 JM 10-12-11

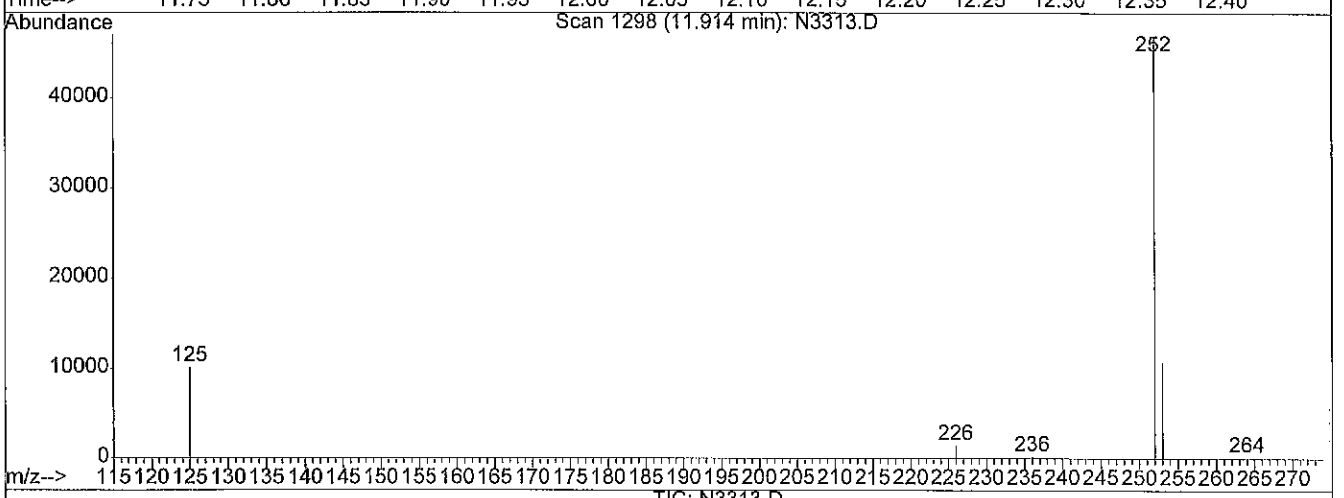
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3313.D
Acq On : 12 Oct 2011 11:12
Sample : ICALSVSTD1000
Misc : ST110822-11
MS Integration Params: RTEINT.P
Quant Time: Oct 12 11:41 2011

Vial: 6
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 11:41:36 2011
Response via : Multiple Level Calibration





(24) Benzo[a]pyrene (TCM)

11.91min 1028.37ng/ml

response 72066

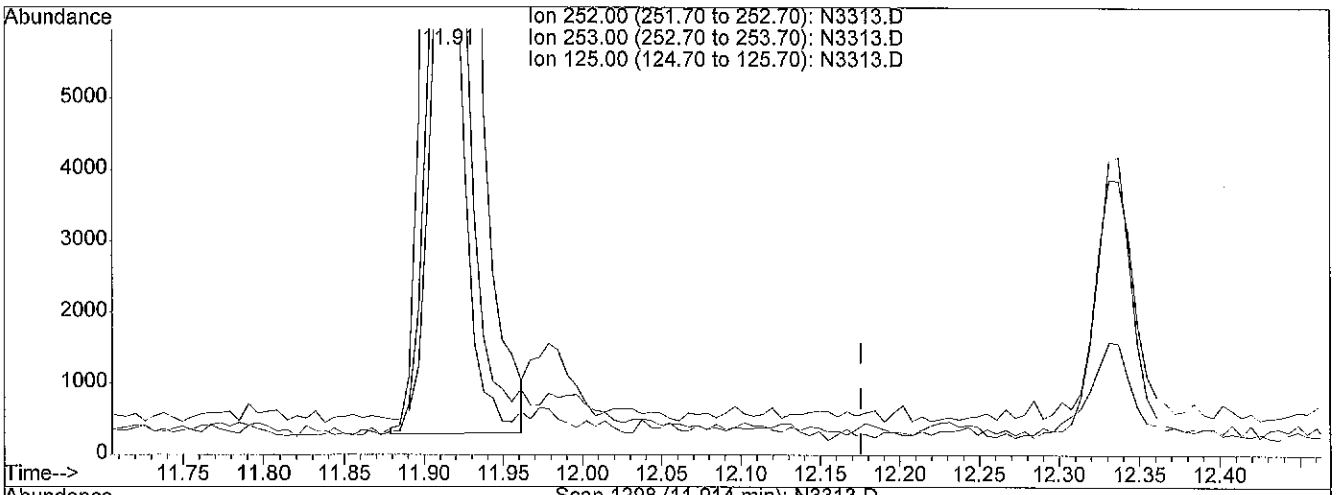
Ion	Exp%	Act%
252.00	100	100
253.00	22.70	21.27
125.00	18.30	19.24
0.00	0.00	0.00

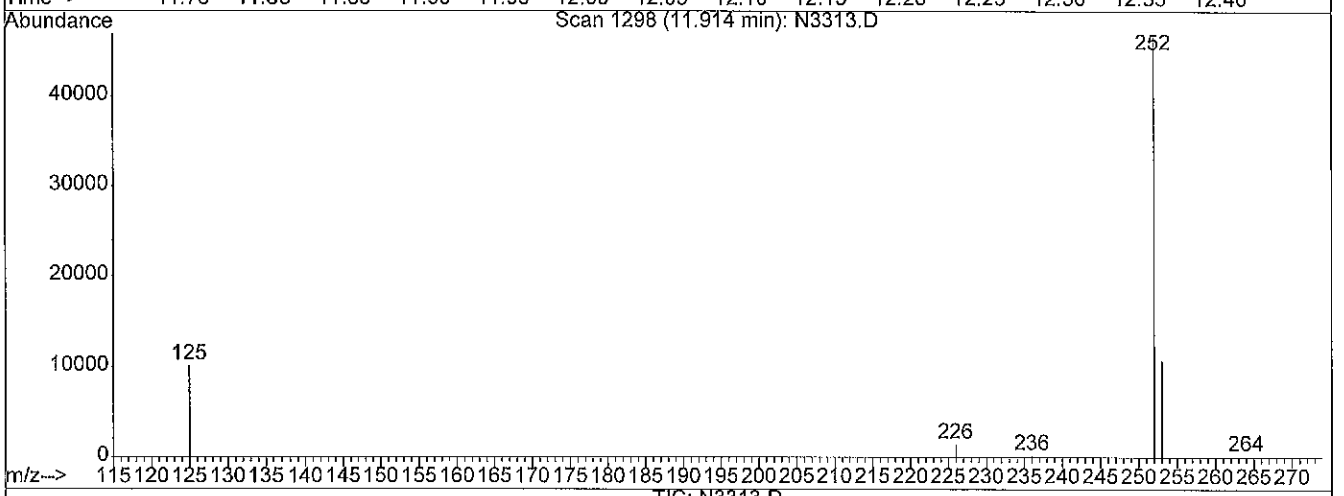
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3313.D
Acq On : 12 Oct 2011 11:12
Sample : ICALSVSTD1000
Misc : ST110822-11
MS Integration Params: RTEINT.P
Quant Time: Oct 12 11:42 2011

Vial: 6
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 11:41:36 2011
Response via : Multiple Level Calibration





TIC: N3313.D

(24) Benzo[a]pyrene (TCM)

11.91min 973.81ng/ml m

response 68243

Ion	Exp%	Act%
252.00	100	100
253.00	22.70	22.46
125.00	18.30	20.32
0.00	0.00	0.00

MANUAL RE-INTEGRATION

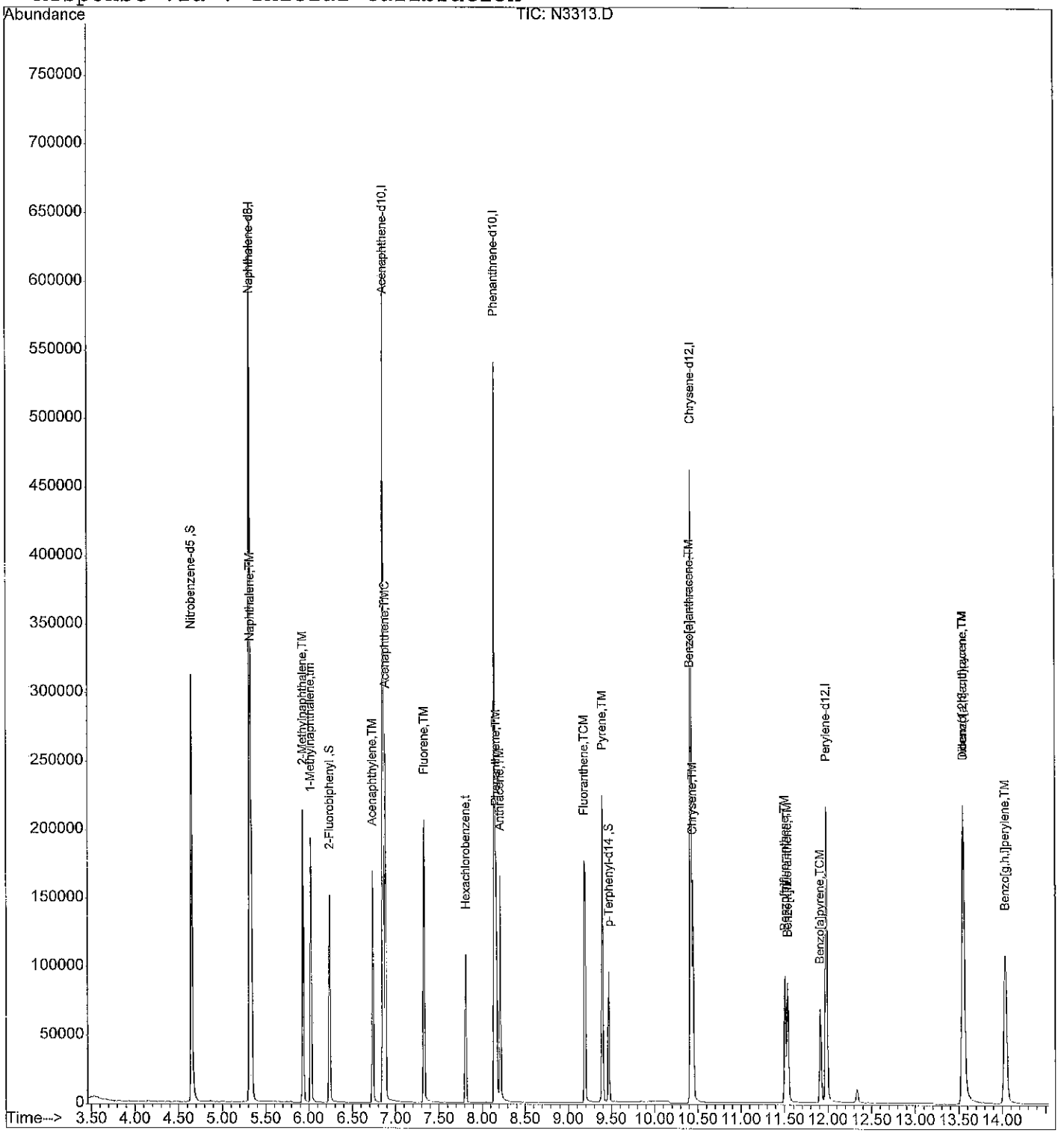
- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials JC *date* 10-12-11

N3313.D 101211SH.M Wed Oct 12 11:42:20 2011

Data File : D:\HPCHEM\1\DATA\101211\N3313.D Vial: 6
Acq On : 12 Oct 2011 11:12 Operator: jk SOP 506
Sample : ICALSVSTD1000 Inst : GC/MS Ins
Misc : ST110822-11 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 11:42 2011 Quant Results File: 101211SH.RES

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 11:41:36 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\101211\N3314.D Vial: 7
Acq On : 12 Oct 2011 11:32 Operator: jk SOP 506 Rev
Sample : ICALSVSTD2000 Inst : GC/MS Ins
Misc : ST110822-12 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 11:48 2011 Quant Results File: 101211SH.RES

Quant Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 11:47:47 2011
Response via : Initial Calibration
DataAcq Meth : 101211SH

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.32	136	503659	4000.00	ng/ml	0.00
6) Acenaphthene-d10	6.86	164	284110	4000.00	ng/ml	0.00
11) Phenanthrene-d10	8.15	188	421488	4000.00	ng/ml	0.00
16) Chrysene-d12	10.42	240	331899	4000.00	ng/ml	-0.01
21) Perylene-d12	11.98	264	235968	4000.00	ng/ml	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	4.65	82	695213	1821.05	ng/ml	0.00
Spiked Amount 2000.000	Range 34 - 111		Recovery = 91.05%			
7) 2-Fluorobiphenyl	6.24	172	199811	1603.05	ng/ml	0.00
Spiked Amount 2000.000	Range 21 - 106		Recovery = 80.15%			
18) p-Terphenyl-d14	9.47	244	130105	1694.67	ng/ml	0.00
Spiked Amount 2000.000	Range 33 - 111		Recovery = 84.73%			
Target Compounds						Qvalue
3) Naphthalene	5.34	128	268379	1721.65	ng/ml	98
4) 2-Methylnaphthalene	5.93	142	192194	1759.72	ng/ml	97
5) 1-Methylnaphthalene	6.03	142	184055	1755.06	ng/ml	99
8) Acenaphthylene	6.73	152	243395	1804.18	ng/ml#	97
9) Acenaphthene	6.88	154	164852	1763.51	ng/ml	98
10) Fluorene	7.33	166	184848	1724.41	ng/ml	97
12) Hexachlorobenzene	7.81	284	150634	1795.98	ng/ml	99
13) Phenanthrene	8.16	178	225286	1714.31	ng/ml	98
14) Anthracene	8.21	178	213908	1865.02	ng/ml	98
15) Fluoranthene	9.19	202	241484	1768.19	ng/ml#	95
17) Pyrene	9.40	202	245559	1780.80	ng/ml#	96
19) Benzo[a]anthracene	10.41	228	174230	1754.53	ng/ml	98
20) Chrysene	10.45	228	186963	1770.72	ng/ml	97
22) Benzo[b]fluoranthene	11.50	252	157575	1910.64	ng/ml	99
23) Benzo[k]fluoranthene	11.53	252	134589	1735.18	ng/ml	94
24) Benzo[a]pyrene	11.91	252	122408m	1918.29	ng/ml	
25) Indeno(1,2,3-c,d)pyrene	13.54	276	446372	1965.35	ng/ml	98
26) Dibenzo[a,h]anthracene	13.54	278	359824	2031.24	ng/ml	98
27) Benzo[g,h,i]perylene	14.03	276	390877	1892.28	ng/ml	99

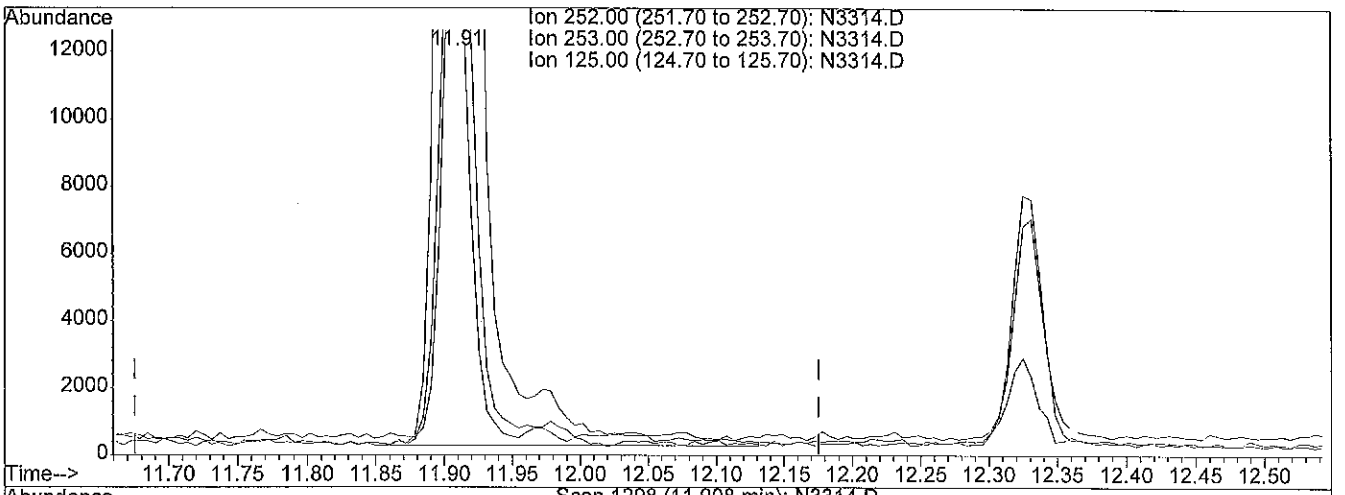
(#) = qualifier out of range (m) = manual integration
N3314.D 101211SH.M Wed Oct 12 11:49:23 2011 10-12-11

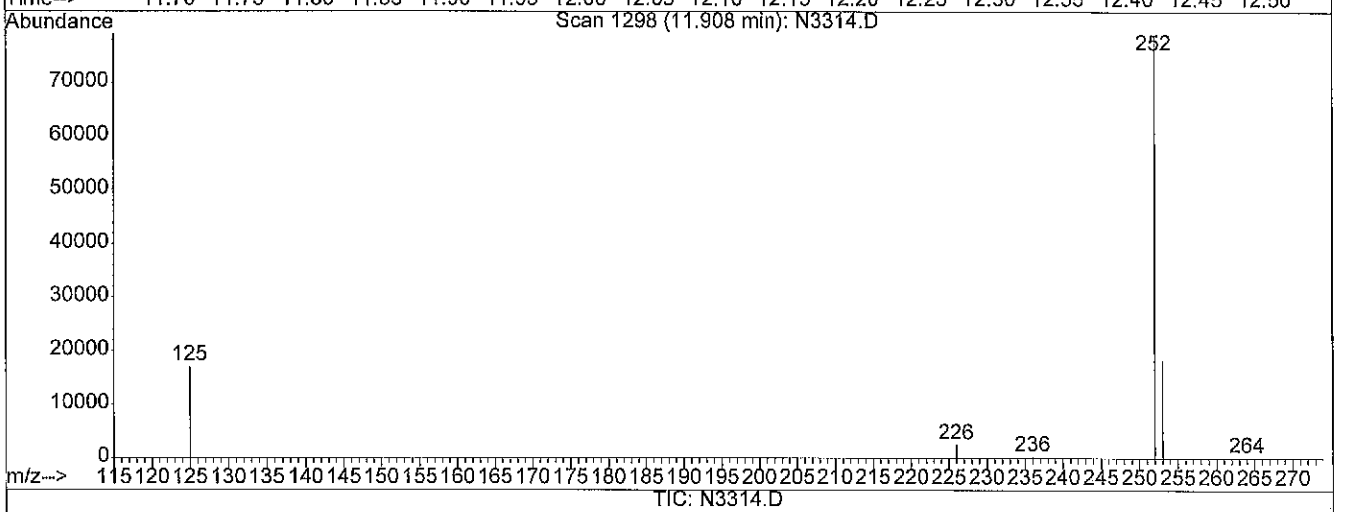
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3314.D
Acq On : 12 Oct 2011 11:32
Sample : ICALSVSTD2000
Misc : ST110822-12
MS Integration Params: RTEINT.P
Quant Time: Oct 12 11:47 2011

Vial: 7
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 11:47:47 2011
Response via : Multiple Level Calibration





TIC: N3314.D

(24) Benzo[a]pyrene (TCM)

11.91min 1988.85ng/ml

response 126910

Ion	Exp%	Act%
252.00	100	100
253.00	22.70	22.54
125.00	18.30	19.69
0.00	0.00	0.00

Sefon

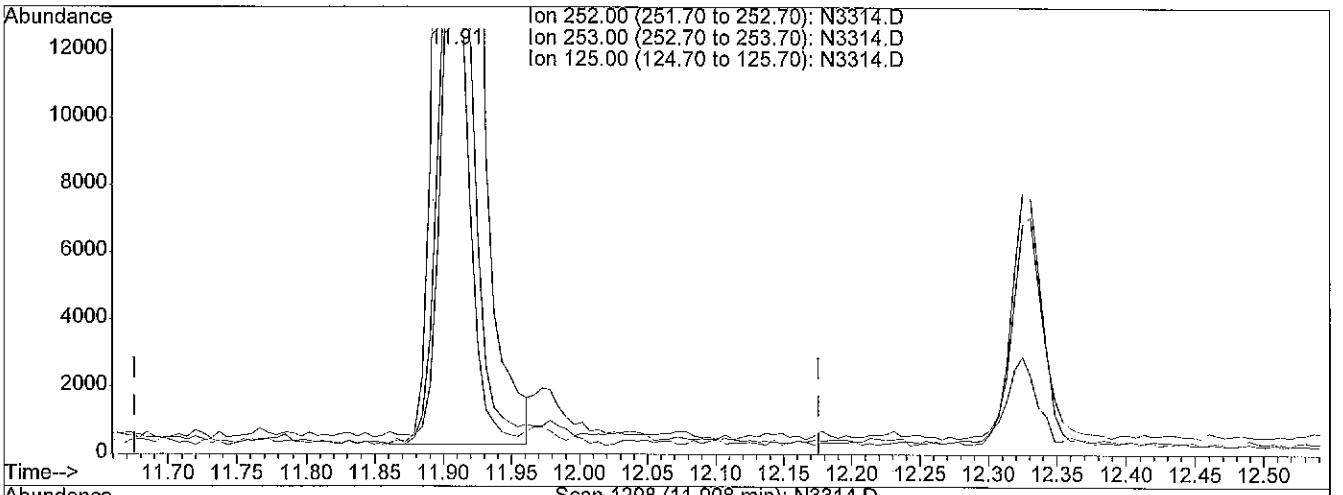
N3314.D 101211SH.M Wed Oct 12 11:48:21 2011

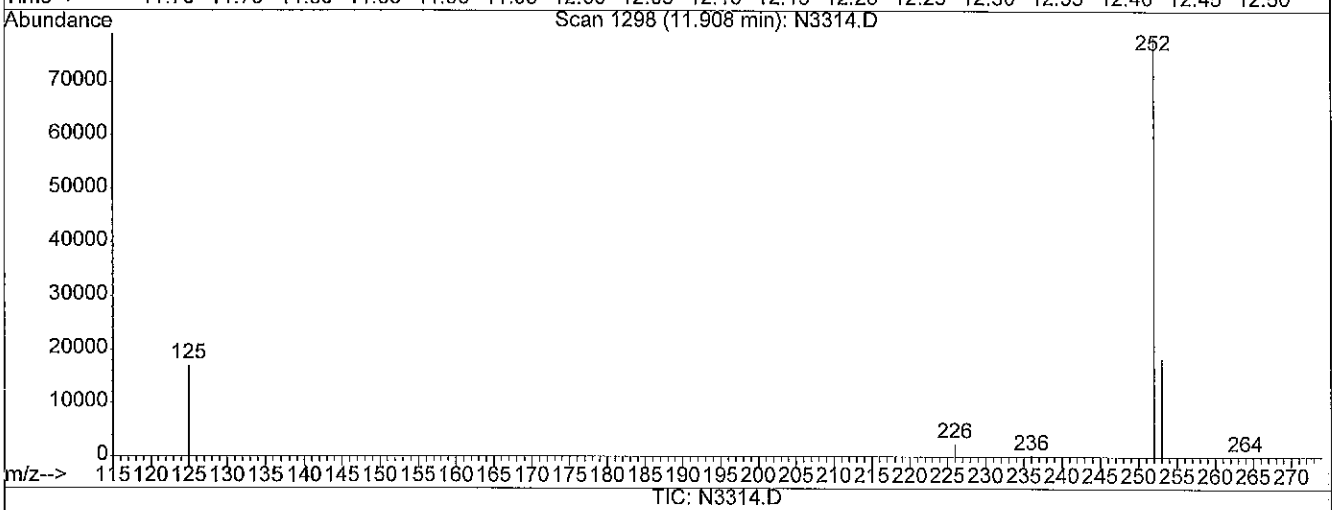
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3314.D
Acq On : 12 Oct 2011 11:32
Sample : ICALSVSTD2000
Misc : ST110822-12
MS Integration Params: RTEINT.P
Quant Time: Oct 12 11:48 2011

Vial: 7
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 11:47:47 2011
Response via : Multiple Level Calibration





TIC: N3314.D

(24) Benzo[a]pyrene (TCM)

11.91min 1918.29ng/ml m

response 122408

Ion	Exp%	Act%
252.00	100	100
253.00	22.70	23.37
125.00	18.30	20.42
0.00	0.00	0.00

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials MC *date* 10-12-11

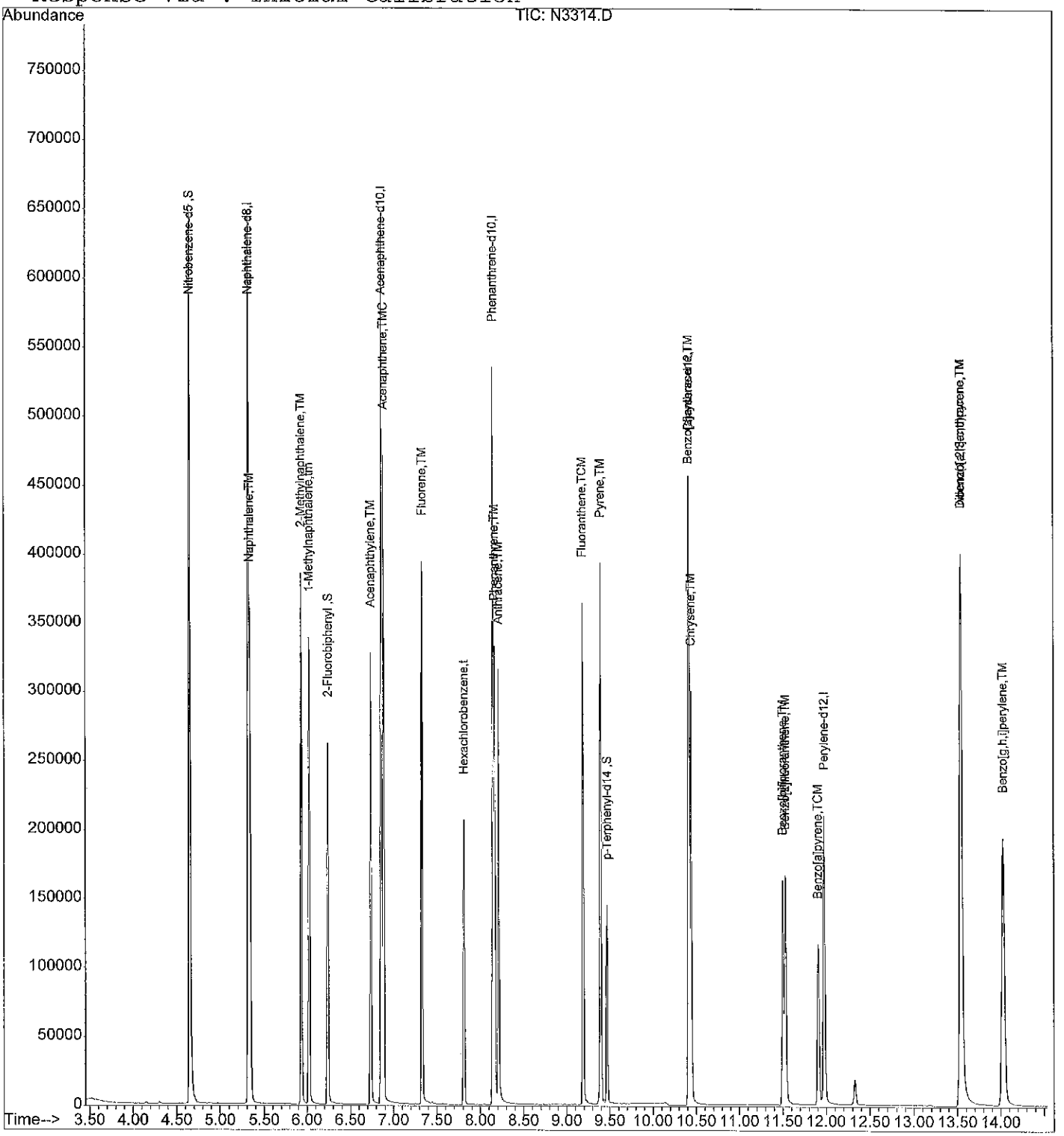
N3314.D 101211SH.M Wed Oct 12 11:48:27 2011

Quantitation Report

Data File : D:\HPCHEM\1\DATA\101211\N3314.D
Acq On : 12 Oct 2011 11:32
Sample : ICALSVSTD2000
Misc : ST110822-12
MS Integration Params: RTEINT.P
Quant Time: Oct 12 11:48 2011

Vial: 7
Operator: jk SOP 506
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 101211SH.RES

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 11:47:47 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\101211\N3315.D Vial: 8
Acq On : 12 Oct 2011 12:21 Operator: jk SOP 506 Rev
Sample : ICALSVSTD5000 Inst : GC/MS Ins
Misc : ST110822-13 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 12:36 2011 Quant Results File: 101211SH.RES

Quant Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 12:36:22 2011
Response via : Initial Calibration
DataAcq Meth : 101211SH

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.32	136	507723	4000.00	ng/ml	0.00
6) Acenaphthene-d10	6.86	164	281570	4000.00	ng/ml	0.00
11) Phenanthrene-d10	8.15	188	415224	4000.00	ng/ml	0.00
16) Chrysene-d12	10.42	240	323921	4000.00	ng/ml	-0.02
21) Perylene-d12	11.97	264	228403	4000.00	ng/ml	-0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	4.65	82	1741309	4586.99	ng/ml	0.00
Spiked Amount 2000.000	Range 34 - 111		Recovery = 229.35%#			
7) 2-Fluorobiphenyl	6.24	172	456206	3861.29	ng/ml	0.00
Spiked Amount 2000.000	Range 21 - 106		Recovery = 193.06%#			
18) p-Terphenyl-d14	9.46	244	295837	4070.62	ng/ml	0.00
Spiked Amount 2000.000	Range 33 - 111		Recovery = 203.53%#			
Target Compounds						Qvalue
3) Naphthalene	5.34	128	624563	4094.47	ng/ml	96
4) 2-Methylnaphthalene	5.94	142	437777	4095.99	ng/ml	99
5) 1-Methylnaphthalene	6.03	142	426600	4149.67	ng/ml	99
8) Acenaphthylene	6.73	152	584412	4451.05	ng/ml#	95
9) Acenaphthene	6.88	154	379941	4209.20	ng/ml	99
10) Fluorene	7.33	166	419704	4072.75	ng/ml	98
12) Hexachlorobenzene	7.81	284	345411	4280.64	ng/ml	99
13) Phenanthrene	8.16	178	502195	4007.44	ng/ml	96
14) Anthracene	8.21	178	500640	4504.08	ng/ml	96
15) Fluoranthene	9.19	202	537399	4112.46	ng/ml#	93
17) Pyrene	9.39	202	562009	4276.76	ng/ml#	94
19) Benzo[a]anthracene	10.40	228	410160	4327.06	ng/ml	96
20) Chrysene	10.44	228	423466	4216.70	ng/ml	95
22) Benzo[b]fluoranthene	11.49	252	359539	4568.65	ng/ml	97
23) Benzo[k]fluoranthene	11.52	252	334515	4525.97	ng/ml#	92
24) Benzo[a]pyrene	11.90	252	300426m	4893.42	ng/ml	
25) Indeno(1,2,3-c,d)pyrene	13.53	276	1028074	4720.11	ng/ml	98
26) Dibenzo[a,h]anthracene	13.53	278	828497	4855.17	ng/ml	98
27) Benzo[g,h,i]perylene	14.01	276	865554	4413.65	ng/ml	98

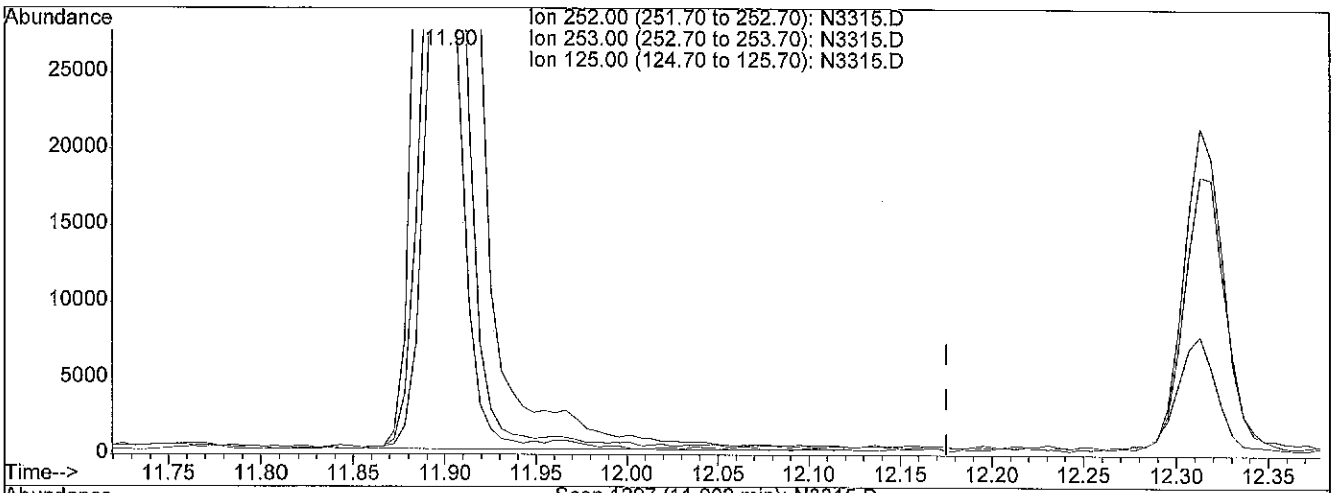
(#) = qualifier out of range (m) = manual integration JC 10-12-11
N3315.D 101211SH.M Wed Oct 12 12:37:04 2011

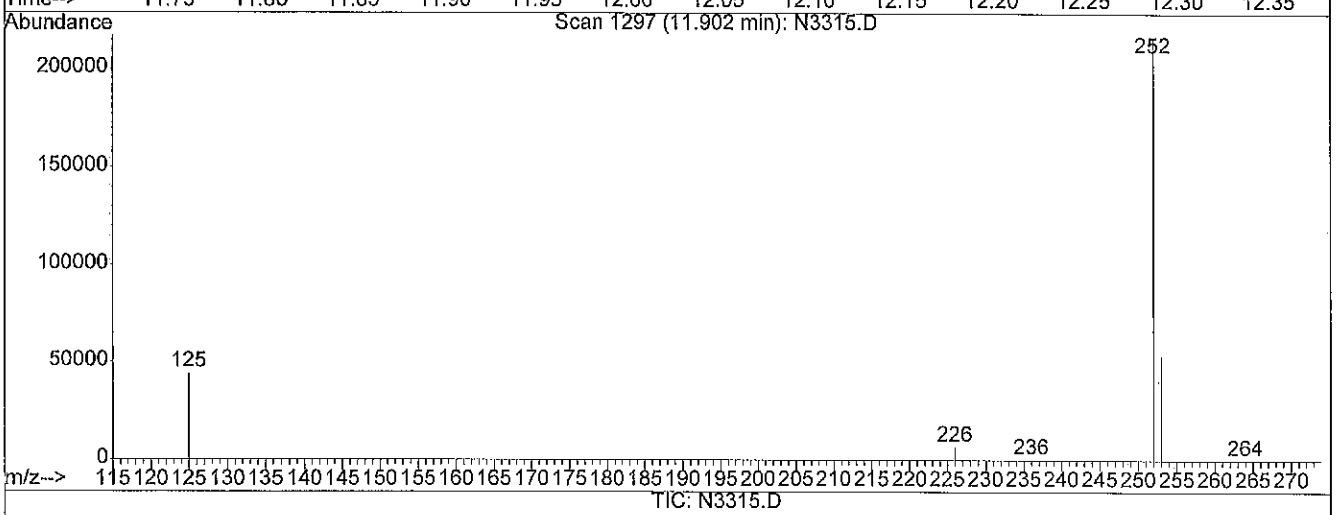
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3315.D
Acq On : 12 Oct 2011 12:21
Sample : ICALSVSTD5000
Misc : ST110822-13
MS Integration Params: RTEINT.P
Quant Time: Oct 12 12:36 2011

Vial: 8
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 12:36:22 2011
Response via : Multiple Level Calibration





(24) Benzo[a]pyrene (TCM)

11.90min 4996.01ng/ml

response 306724

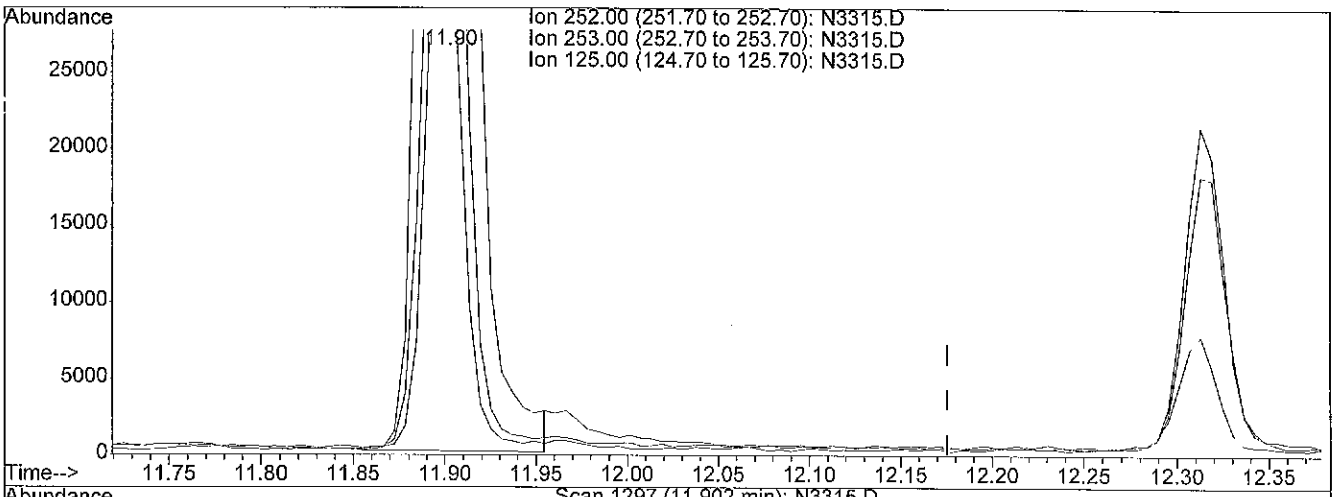
Ion	Exp%	Act%
252.00	100	100
253.00	22.70	24.09
125.00	18.30	21.49
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3315.D
Acq On : 12 Oct 2011 12:21
Sample : ICALSVSTD5000
Misc : ST110822-13
MS Integration Params: RTEINT.P
Quant Time: Oct 12 12:36 2011

Vial: 8
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 12:36:22 2011
Response via : Multiple Level Calibration



TIC: N3315.D

(24) Benzo[a]pyrene (TCM)

11.90min 4893.42ng/ml m

response 300426

Ion	Exp%	Act%
252.00	100	100
253.00	22.70	24.59
125.00	18.30	21.94
0.00	0.00	0.00

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

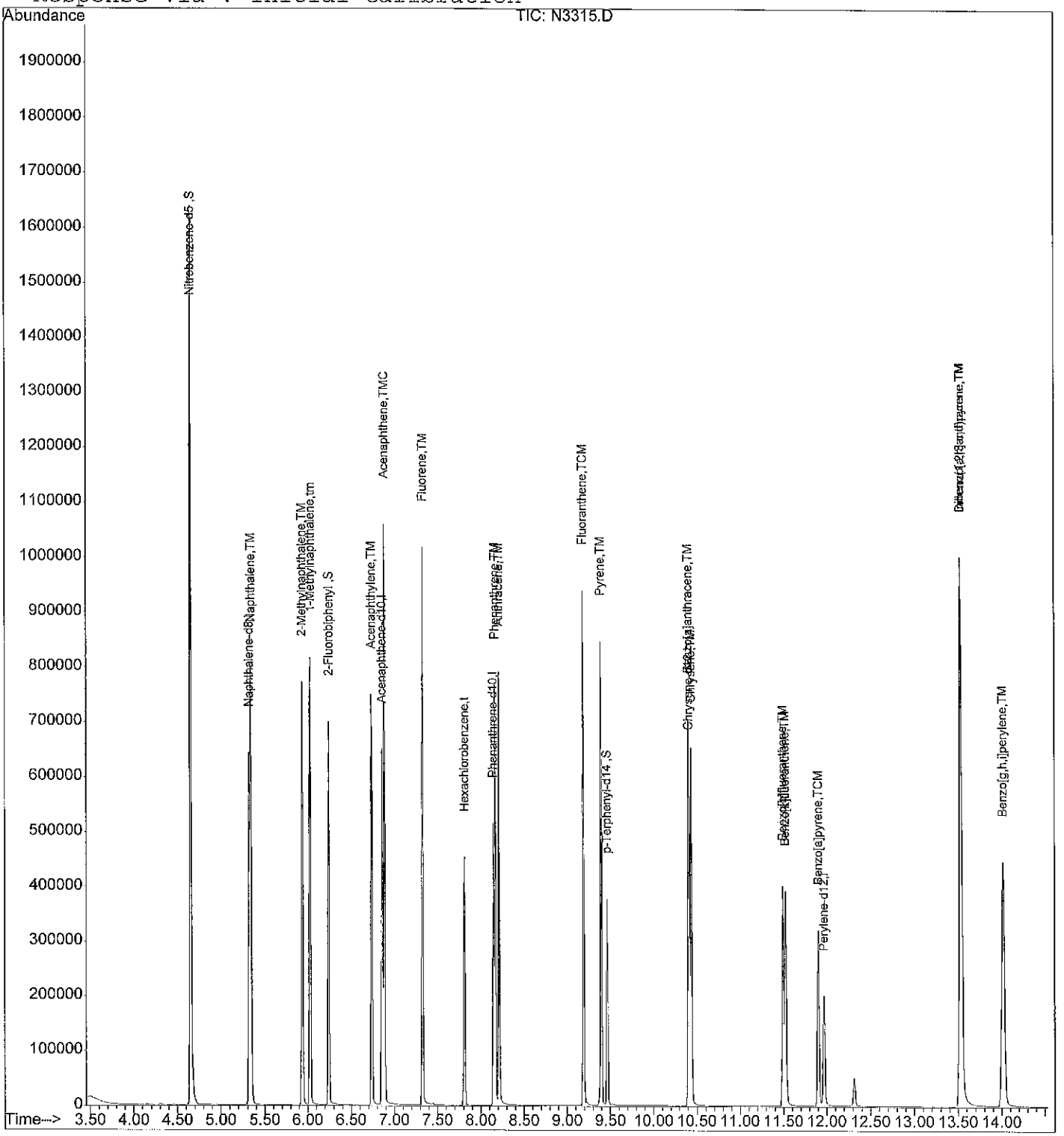
initials JK *date* 10-12-11

N3315.D 101211SH.M Wed Oct 12 12:36:54 2011

Data File : D:\HPCHEM\1\DATA\101211\N3315.D
Acq On : 12 Oct 2011 12:21
Sample : ICALSVSTD5000
Misc : ST110822-13
MS Integration Params: RTEINT.P
Quant Time: Oct 12 12:36 2011

Vial: 8
Operator: jk SOP 506
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 101211SH.RES

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 12:36:22 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\101211\N3316.D Vial: 9
Acq On : 12 Oct 2011 12:41 Operator: jk SOP 506 Rev
Sample : ICVSVSTD2000 Inst : GC/MS Ins
Misc : ST110803-6 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 12:57 2011 Quant Results File: 101211SH.RES

Quant Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 12:38:53 2011
Response via : Initial Calibration
DataAcq Meth : 101211SH

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.32	136	488968	4000.00	ng/ml	0.00
6) Acenaphthene-d10	6.86	164	268431	4000.00	ng/ml	0.00
11) Phenanthrene-d10	8.15	188	396251	4000.00	ng/ml	0.00
16) Chrysene-d12	10.42	240	332713	4000.00	ng/ml	-0.01
21) Perylene-d12	11.98	264	218104	4000.00	ng/ml	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	0.00	82	0d	0.00	ng/ml	
Spiked Amount 2000.000	Range 34 - 111		Recovery =	0.00%#		
7) 2-Fluorobiphenyl	6.24	172	2006	-1.00	ng/ml	0.00
Spiked Amount 2000.000	Range 21 - 106		Recovery =	-0.05%#		
18) p-Terphenyl-d14	0.00	244	0d	0.00	ng/ml	
Spiked Amount 2000.000	Range 33 - 111		Recovery =	0.00%#		
Target Compounds						Qvalue
3) Naphthalene	5.33	128	275217	1873.45	ng/ml#	31
4) 2-Methylnaphthalene	5.93	142	189405	1840.11	ng/ml	98
5) 1-Methylnaphthalene	6.03	142	183751	1855.96	ng/ml	99
8) Acenaphthylene	6.73	152	244790	1955.65	ng/ml#	97
9) Acenaphthene	6.88	154	163398	1898.82	ng/ml	97
10) Fluorene	7.33	166	174983	1781.13	ng/ml	98
12) Hexachlorobenzene	7.81	284	150746	1957.63	ng/ml	99
13) Phenanthrene	8.16	178	216895	1813.66	ng/ml	98
14) Anthracene	8.21	178	218733	2062.09	ng/ml	97
15) Fluoranthene	9.19	202	235618	1889.41	ng/ml#	95
17) Pyrene	9.39	202	242466	1796.35	ng/ml#	96
19) Benzo[a]anthracene	10.41	228	184720	1897.24	ng/ml	97
20) Chrysene	10.44	228	194441	1885.00	ng/ml	97
22) Benzo[b]fluoranthene	11.50	252	144087	1917.37	ng/ml	97
23) Benzo[k]fluoranthene	11.53	252	148619	2105.76	ng/ml	97
24) Benzo[a]pyrene	11.91	252	124701m	2133.33	ng/ml	
25) Indeno(1,2,3-c,d)pyrene	13.54	276	396986	1908.72	ng/ml	98
26) Dibenzo[a,h]anthracene	13.54	278	316806	1944.22	ng/ml	98
27) Benzo[g,h,i]perylene	14.02	276	349275	1865.13	ng/ml	99

(#) = qualifier out of range (m) = manual integration

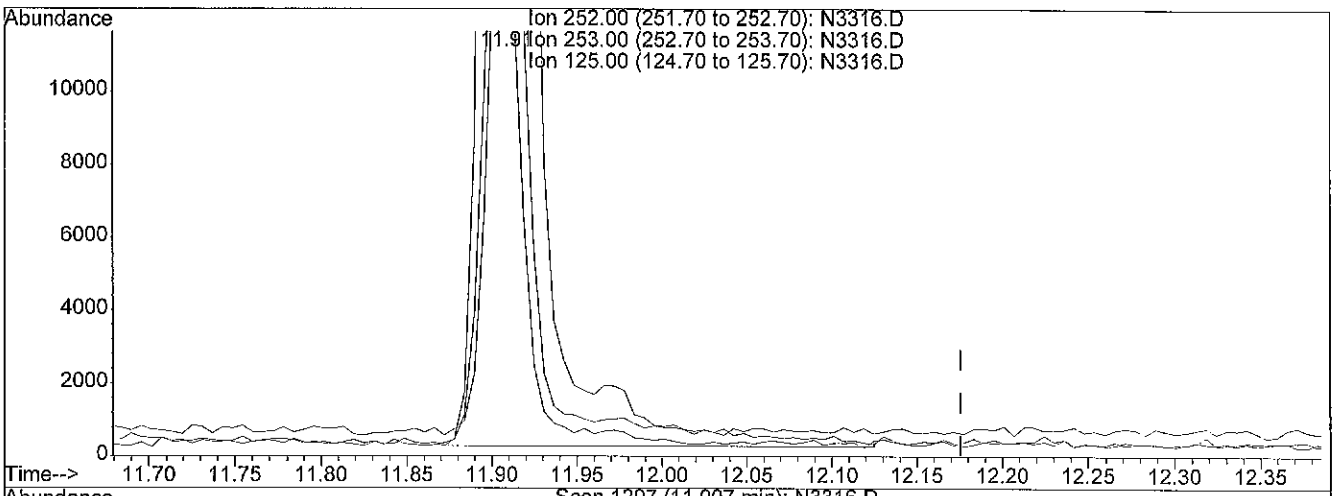
10-12-11

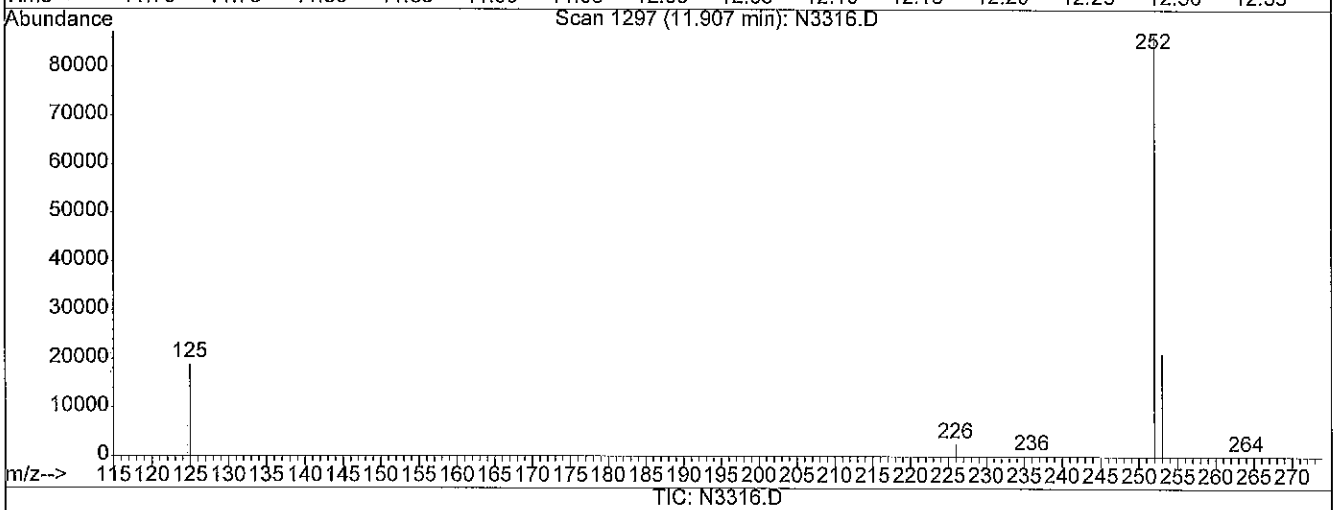
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3316.D
Acq On : 12 Oct 2011 12:41
Sample : ICVSVSTD2000
Misc : ST110803-6
MS Integration Params: RTEINT.P
Quant Time: Oct 12 12:57 2011

Vial: 9
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 12:38:53 2011
Response via : Multiple Level Calibration





(24) Benzo[a]pyrene (TCM)

11.91min 2220.56ng/ml

response 129800

Ion	Exp%	Act%
252.00	100	100
253.00	22.70	22.94
125.00	18.30	20.81
0.00	0.00	0.00

Before

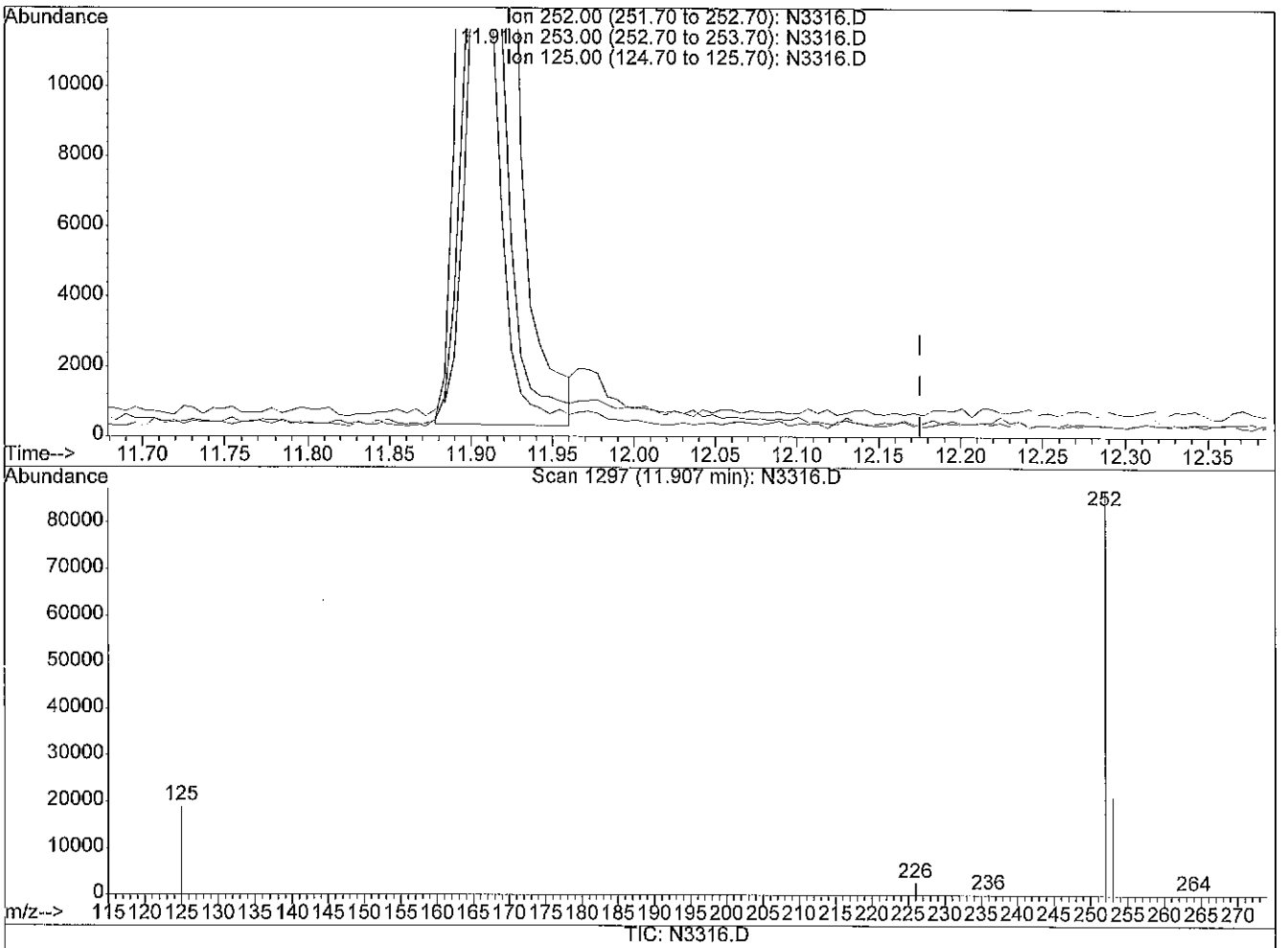
N3316.D 101211SH.M Wed Oct 12 12:57:25 2011

Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101211\N3316.D
Acq On : 12 Oct 2011 12:41
Sample : ICVSVSTD2000
Misc : ST110803-6
MS Integration Params: RTEINT.P
Quant Time: Oct 12 12:57 2011

Vial: 9
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 12:38:53 2011
Response via : Multiple Level Calibration



(24) Benzo[a]pyrene (TCM)

11.91min 2133.33ng/ml m

response 124701

Ion	Exp%	Act%
252.00	100	100
253.00	22.70	23.88
125.00	18.30	21.66
0.00	0.00	0.00

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

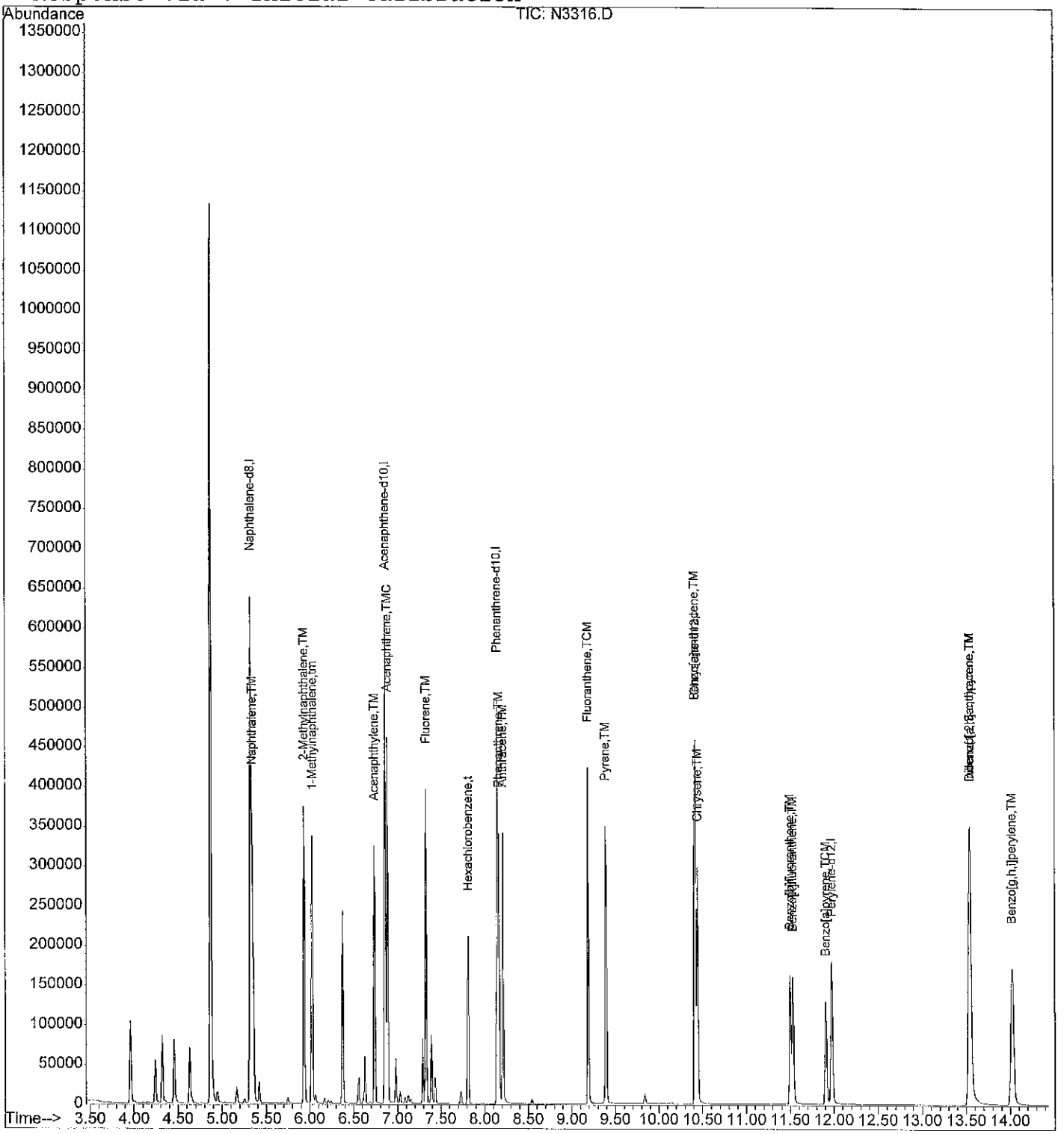
initials SL *date* 10-12-11

Quantitation Report

Data File : D:\HPCHEM\1\DATA\101211\N3316.D
Acq On : 12 Oct 2011 12:41
Sample : ICVSVSTD2000
Misc : ST110803-6
MS Integration Params: RTEINT.P
Quant Time: Oct 12 12:57 2011

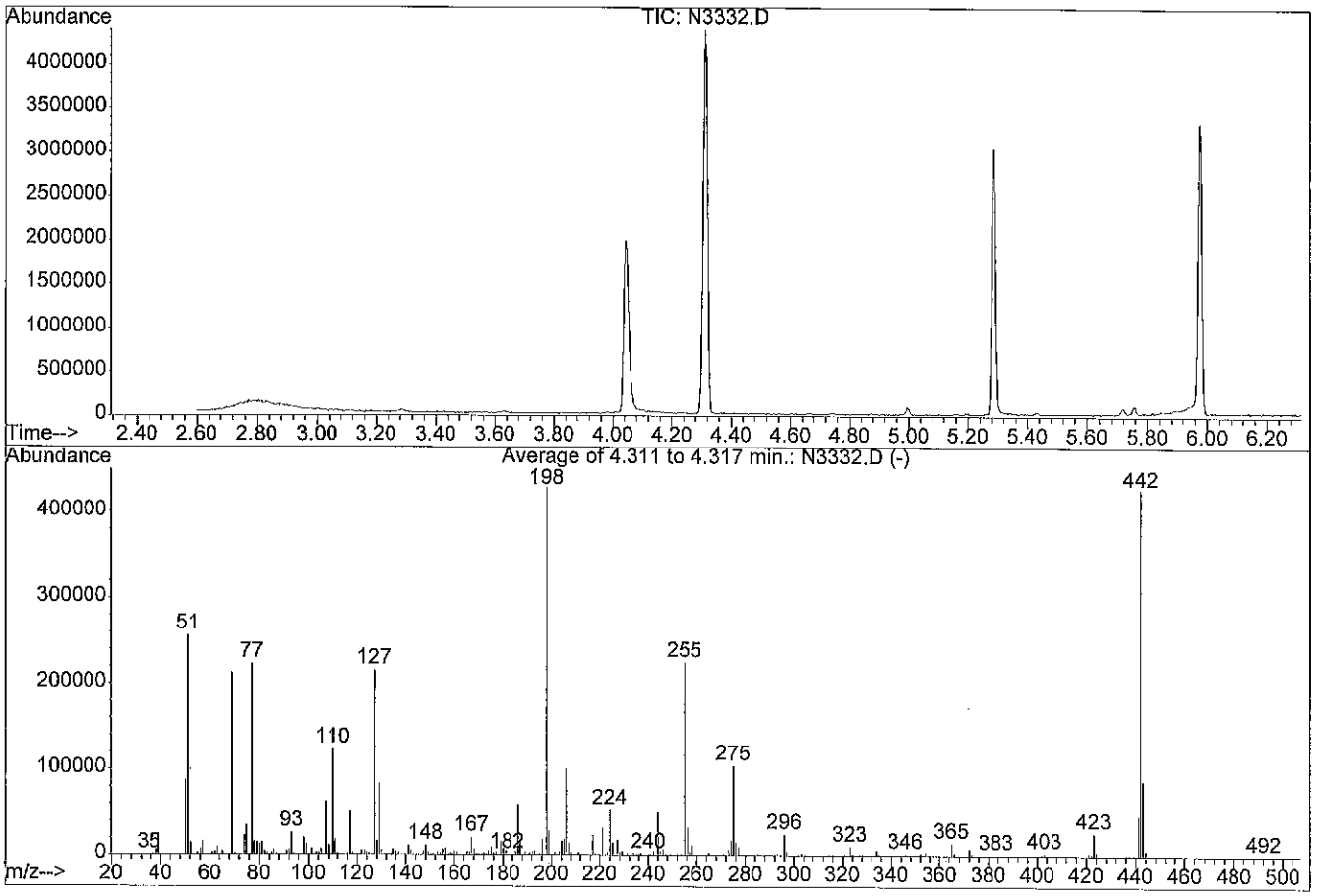
Vial: 9
Operator: jk SOP 506
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 101211SH.RES

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Wed Oct 12 12:38:53 2011
Response via : Initial Calibration



Data File : D:\HPCHEM\1\DATA\101311\N3332.D
Acq On : 13 Oct 2011 17:08
Sample : 50 ppm dftpp+PCP+DDT+benzidine
Misc : ST110902-1
MS Integration Params: rteint.p
Method : D:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP

Vial: 1
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00



AutoFind: Scans 605, 606, 607; Background Corrected with Scan 593

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	59.6	255808	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	49.6	212870	PASS
70	69	0.00	2	0.7	1461	PASS
127	198	40	60	50.1	215189	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	429120	PASS
199	198	5	9	6.5	27949	PASS
275	198	10	30	24.3	104208	PASS
365	198	1	100	3.3	14149	PASS
441	443	0.01	100	53.9	47032	PASS
442	198	40	100	99.8	428416	PASS
443	442	17	23	20.4	87267	PASS

N3332.D DFTPP.M Thu Oct 13 17:16:01 2011

SU
10-14-11

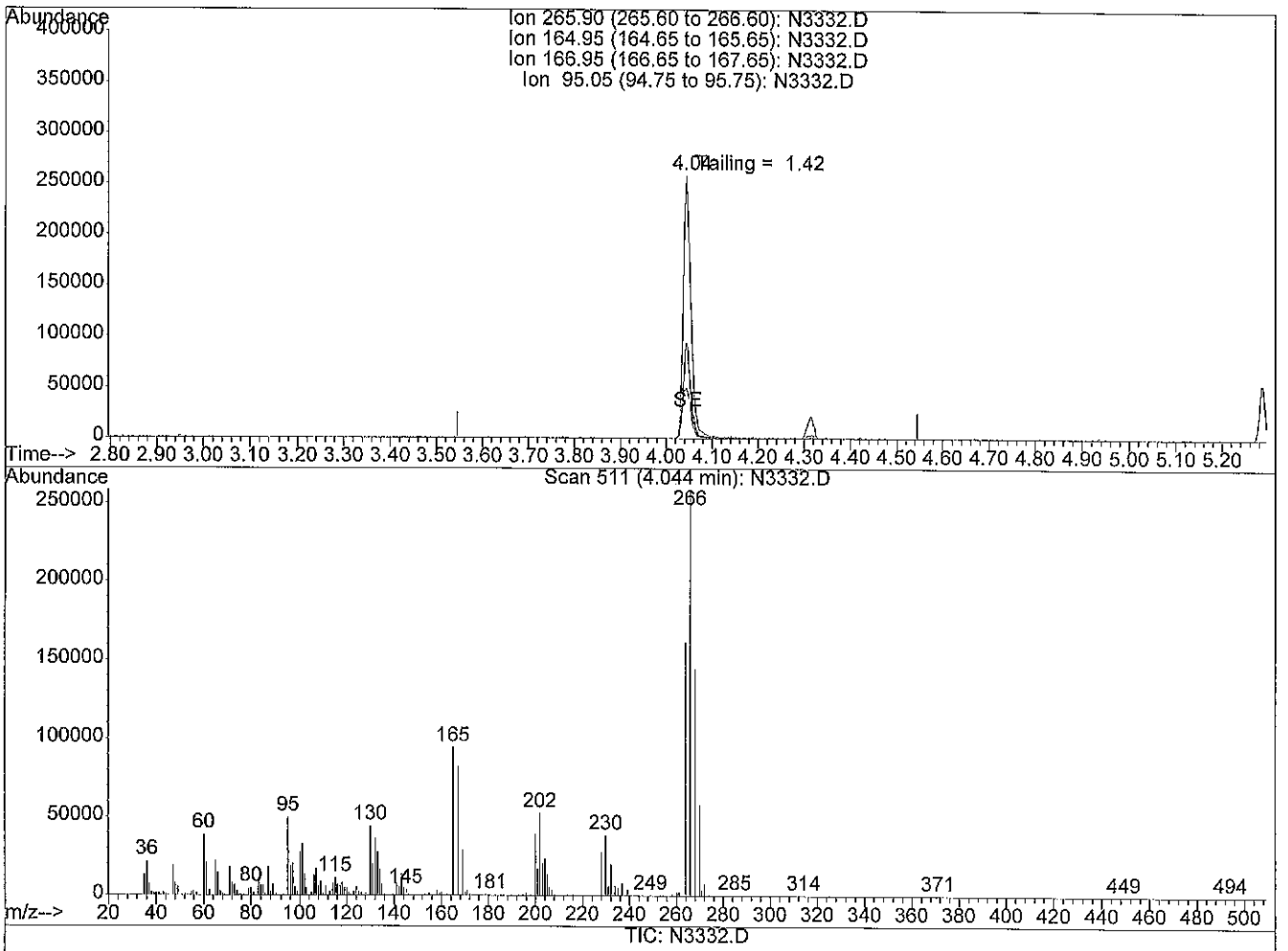
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101311\N3332.D
Acq On : 13 Oct 2011 17:08
Sample : 50 ppm dftpp+PCP+DDT+benzidine
Misc : ST110902-1
MS Integration Params: rteint.p
Quant Time: Oct 13 17:53 2011

Vial: 1
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Wed Oct 12 09:45:49 2011
Response via : Single Level Calibration



(1) Pentachlorophenol

4.04min 36.00

response 301265

Ion	Exp%	Act%
265.90	100	100
164.95	0.00	35.87#
166.95	0.00	34.56#
95.05	0.00	22.12#

JH
10-14-11

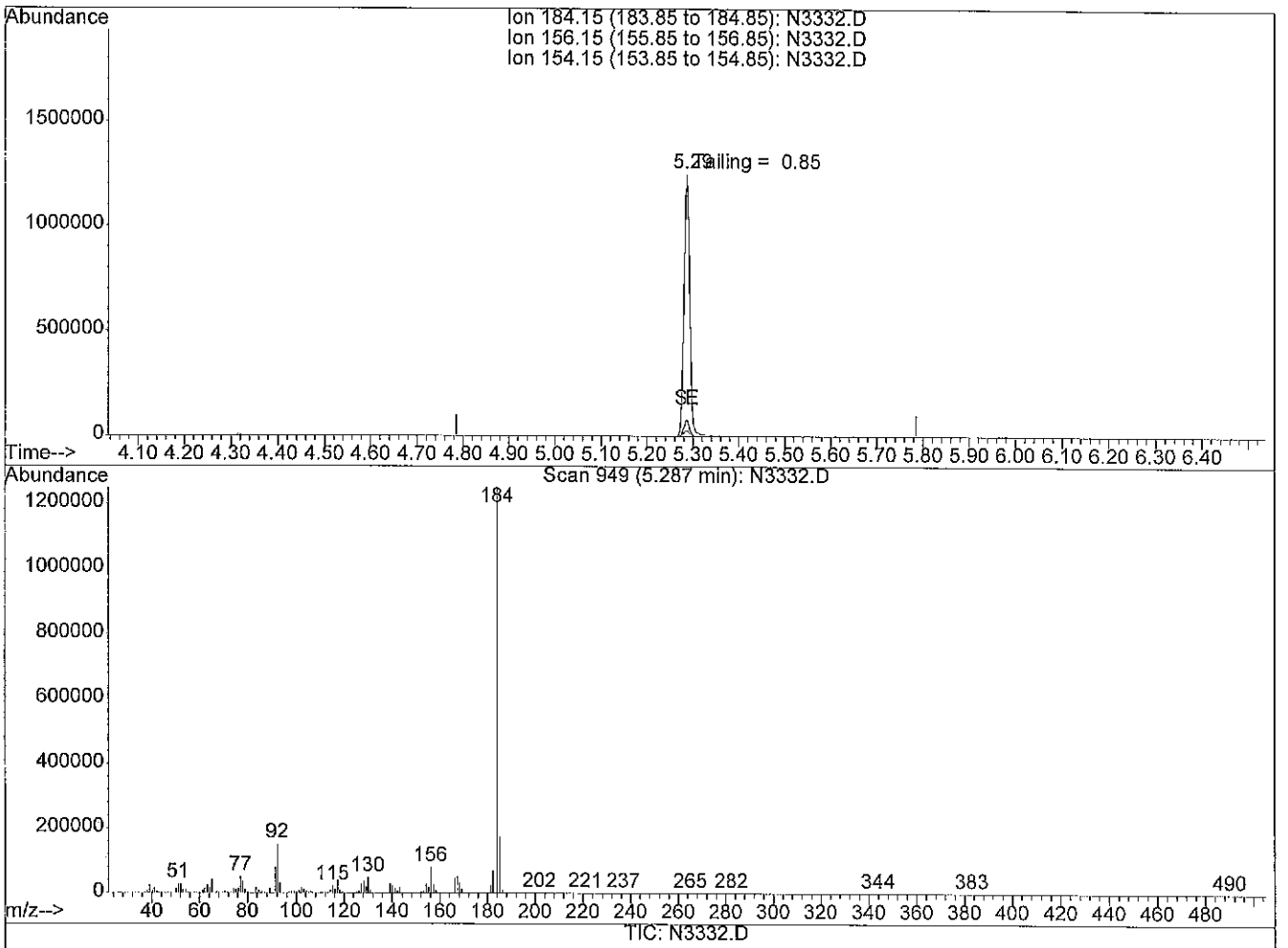
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101311\N3332.D
Acq On : 13 Oct 2011 17:08
Sample : 50 ppm dftpp+PCP+DDT+benzidine
Misc : ST110902-1
MS Integration Params: rteint.p
Quant Time: Oct 13 17:53 2011

Vial: 1
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Wed Oct 12 09:45:49 2011
Response via : Single Level Calibration



(3) Benzidine

5.29min 45.79

response 1079552

Ion	Exp%	Act%
184.15	100	100
156.15	0.00	6.04#
154.15	0.00	2.33#
0.00	0.00	0.00

10-14-11

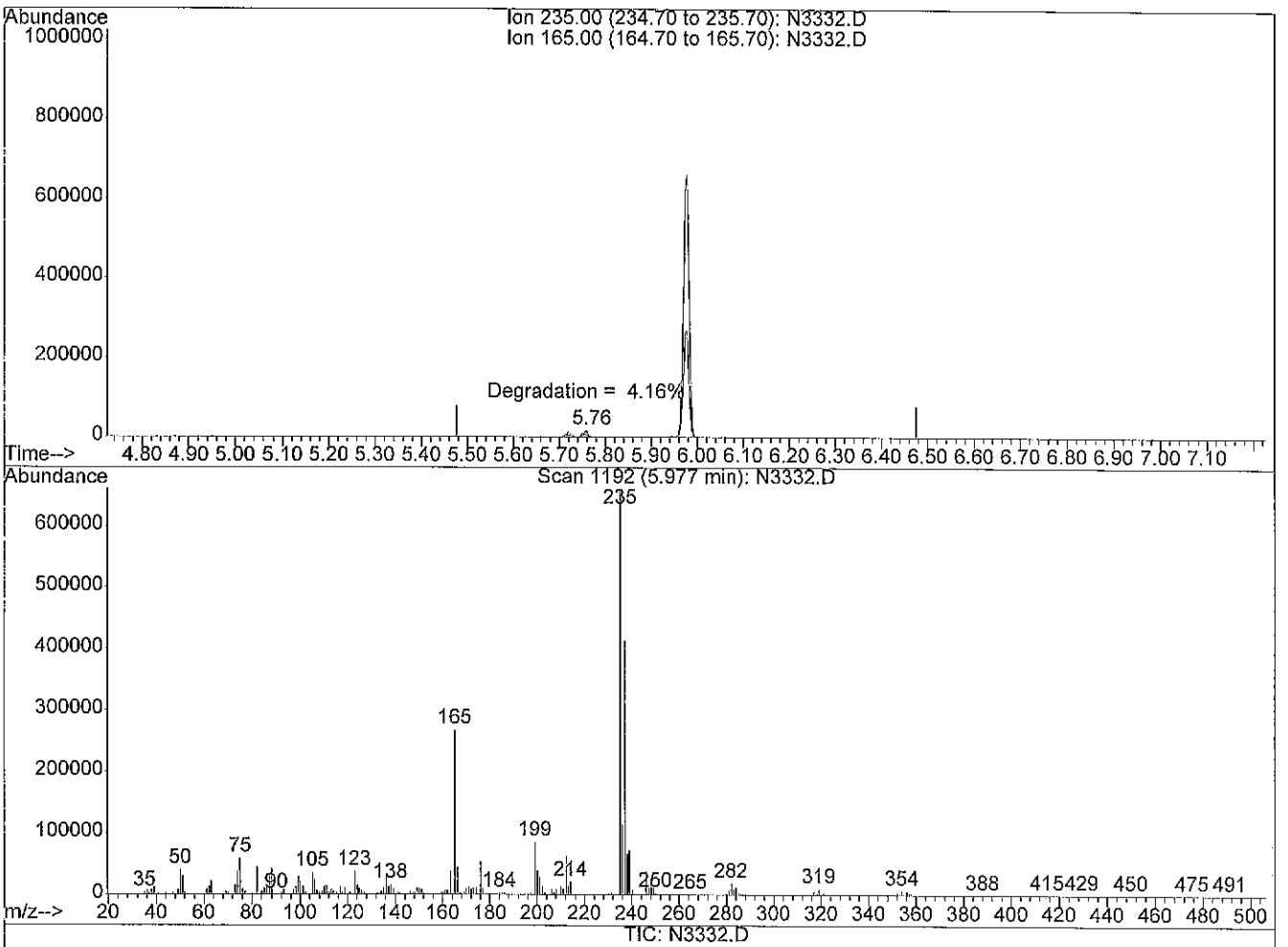
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101311\N3332.D
Acq On : 13 Oct 2011 17:08
Sample : 50 ppm dftpp+PCP+DDT+benzidine
Misc : ST110902-1
MS Integration Params: rteint.p
Quant Time: Oct 13 17:53 2011

Vial: 1
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Wed Oct 12 09:45:49 2011
Response via : Single Level Calibration



(4) DDT

5.98min 47.2350

response 547226

Ion	Exp%	Act%
235.00	100	100
165.00	0.00	41.22#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\101311\N3333.D Vial: 2
Acq On : 13 Oct 2011 17:21 Operator: jk SOP 506 Rev
Sample : CCV Inst : GC/MS Ins
Misc : ST111013-1 500 PPM Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 13 17:51 2011 Quant Results File: 101211SH.RES

Quant Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Oct 13 17:51:00 2011
Response via : Initial Calibration
DataAcq Meth : 101211SH

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.32	136	519316	4000.00	ng/ml	0.00
6) Acenaphthene-d10	6.86	164	270857	4000.00	ng/ml	0.00
11) Phenanthrene-d10	8.16	188	419980	4000.00	ng/ml	0.00
16) Chrysene-d12	10.42	240	333033	4000.00	ng/ml	0.00
21) Perylene-d12	11.97	264	209945	4000.00	ng/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	4.65	82	197040	507.46	ng/ml	0.00
Spiked Amount 2000.000	Range 34 - 111		Recovery = 25.37%#			
7) 2-Fluorobiphenyl	6.25	172	56538	506.18	ng/ml	0.00
Spiked Amount 2000.000	Range 21 - 106		Recovery = 25.31%			
18) p-Terphenyl-d14	9.48	244	33683	450.79	ng/ml	0.00
Spiked Amount 2000.000	Range 33 - 111		Recovery = 22.54%#			
Target Compounds						Qvalue
3) Naphthalene	5.34	128	79442	509.17	ng/ml	99
4) 2-Methylnaphthalene	5.94	142	55336	506.18	ng/ml	99
5) 1-Methylnaphthalene	6.04	142	52814	502.27	ng/ml	99
8) Acenaphthylene	6.75	152	62040	491.20	ng/ml#	100
9) Acenaphthene	6.90	154	43902m	505.61	ng/ml	
10) Fluorene	7.34	166	48320	487.44	ng/ml	99
12) Hexachlorobenzene	7.82	284	42607	522.04	ng/ml	97
13) Phenanthrene	8.17	178	63307	499.46	ng/ml	99
14) Anthracene	8.22	178	55076	489.89	ng/ml	99
15) Fluoranthene	9.20	202	65499	495.56	ng/ml#	99
17) Pyrene	9.41	202	66911	495.25	ng/ml#	99
19) Benzo[a]anthracene	10.40	228	41754	428.44	ng/ml	98
20) Chrysene	10.44	228	50182	486.02	ng/ml	99
22) Benzo[b]fluoranthene	11.50	252	36911	510.26	ng/ml	99
23) Benzo[k]fluoranthene	11.53	252	32162	473.41	ng/ml#	93
24) Benzo[a]pyrene	11.90	252	25368	450.85	ng/ml	97
25) Indeno(1,2,3-c,d)pyrene	13.54	276	90359	451.33	ng/ml	100
26) Dibenzo[a,h]anthracene	13.54	278	69717	444.48	ng/ml	99
27) Benzo[g,h,i]perylene	14.02	276	82266	456.37	ng/ml	98

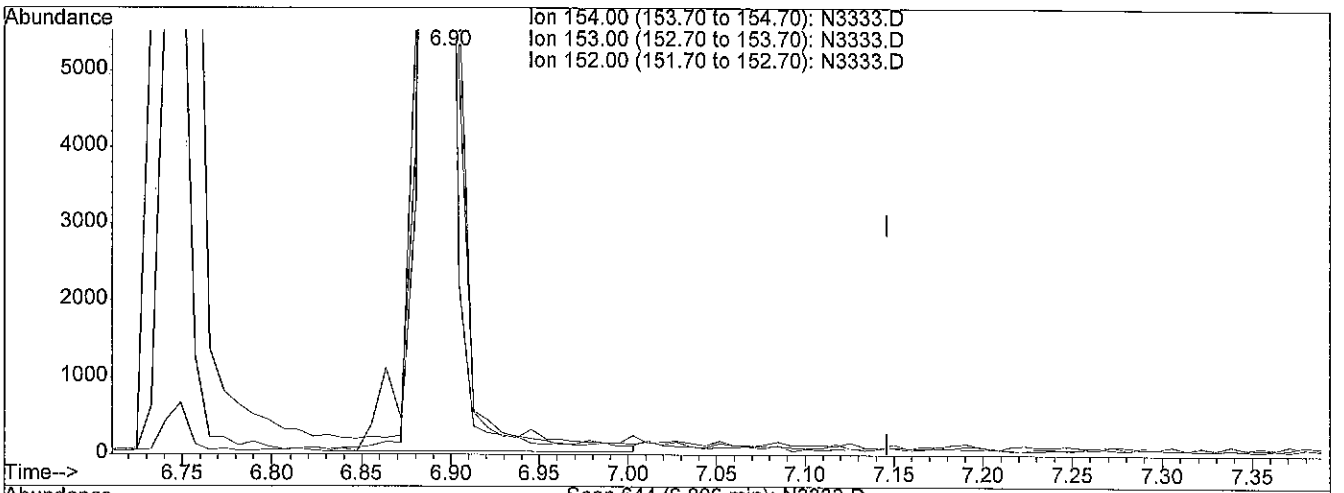
(#) = qualifier out of range (m) = manual integration

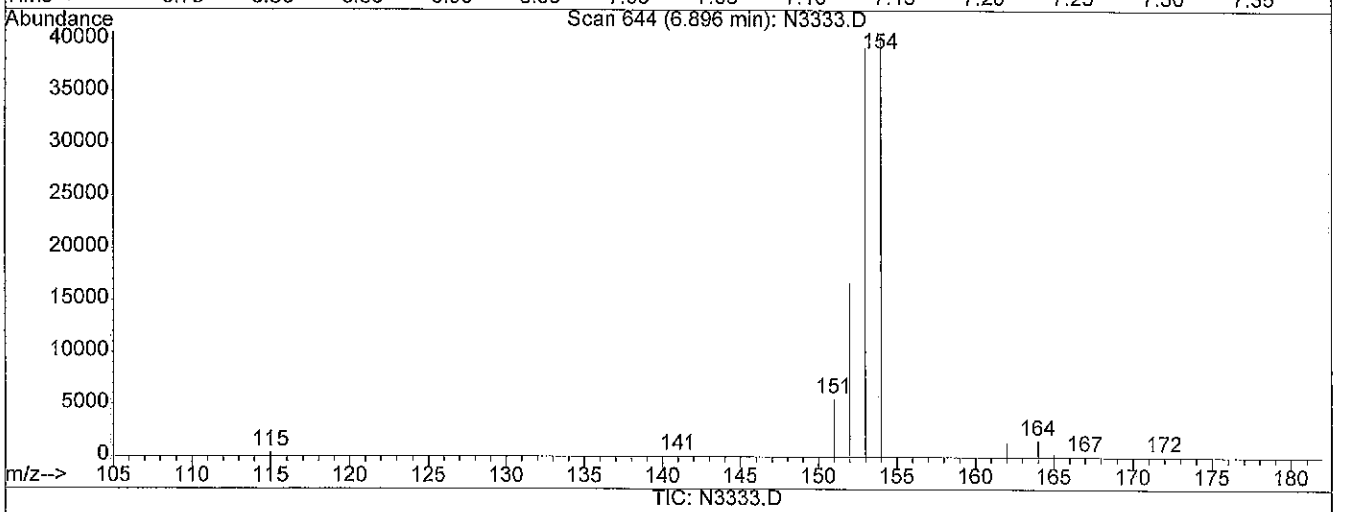
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101311\N3333.D
Acq On : 13 Oct 2011 17:21
Sample : CCV
Misc : ST111013-1 500 PPM
MS Integration Params: RTEINT.P
Quant Time: Oct 13 17:51 2011

Vial: 2
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Oct 13 17:51:00 2011
Response via : Multiple Level Calibration





TIC: N3333.D

(9) Acenaphthene (TMC)

6.90min 524.55ng/ml

response 45547

Ion	Exp%	Act%
154.00	100	100
153.00	104.00	101.03
152.00	50.20	47.37
0.00	0.00	0.00

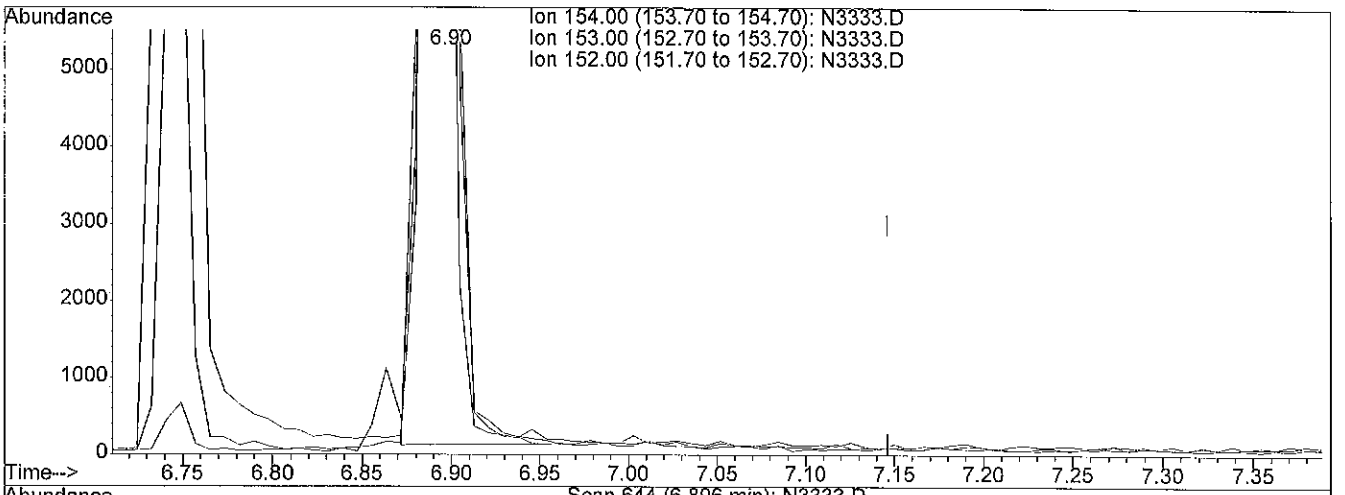
Sefon

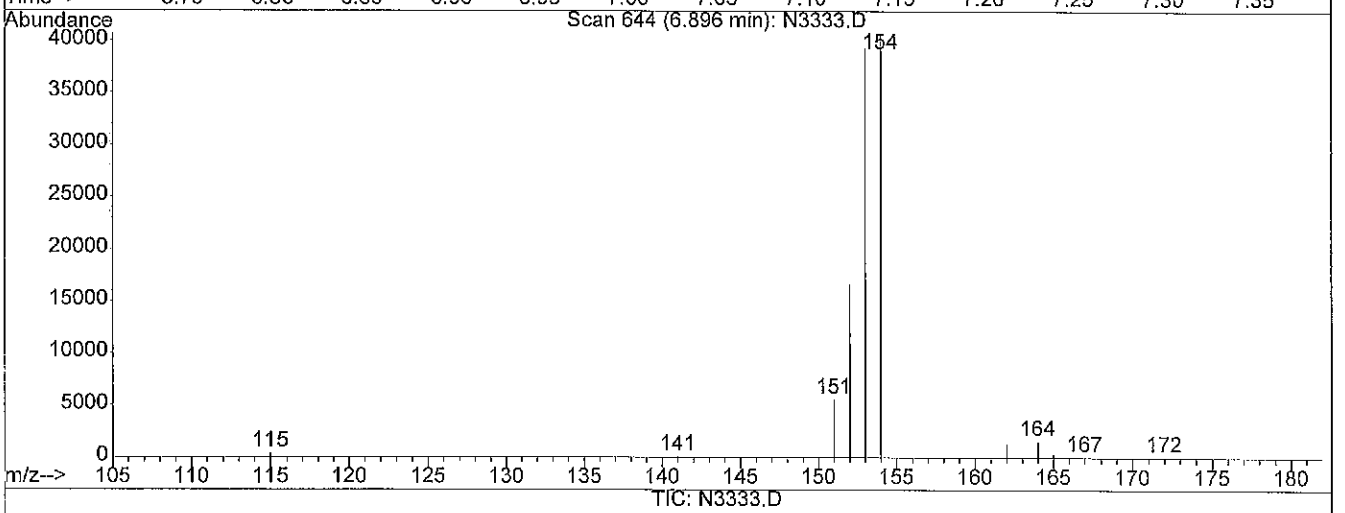
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101311\N3333.D
Acq On : 13 Oct 2011 17:21
Sample : CCV
Misc : ST111013-1 500 PPM
MS Integration Params: RTEINT.P
Quant Time: Oct 13 17:51 2011

Vial: 2
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Oct 13 17:51:00 2011
Response via : Multiple Level Calibration





TIC: N3333.D

(9) Acenaphthene (TMC)

6.90min 505.61ng/ml m

response 43902

Ion	Exp%	Act%
154.00	100	100
153.00	104.00	104.82
152.00	50.20	49.15
0.00	0.00	0.00

MANUAL RE-INTEGRATION

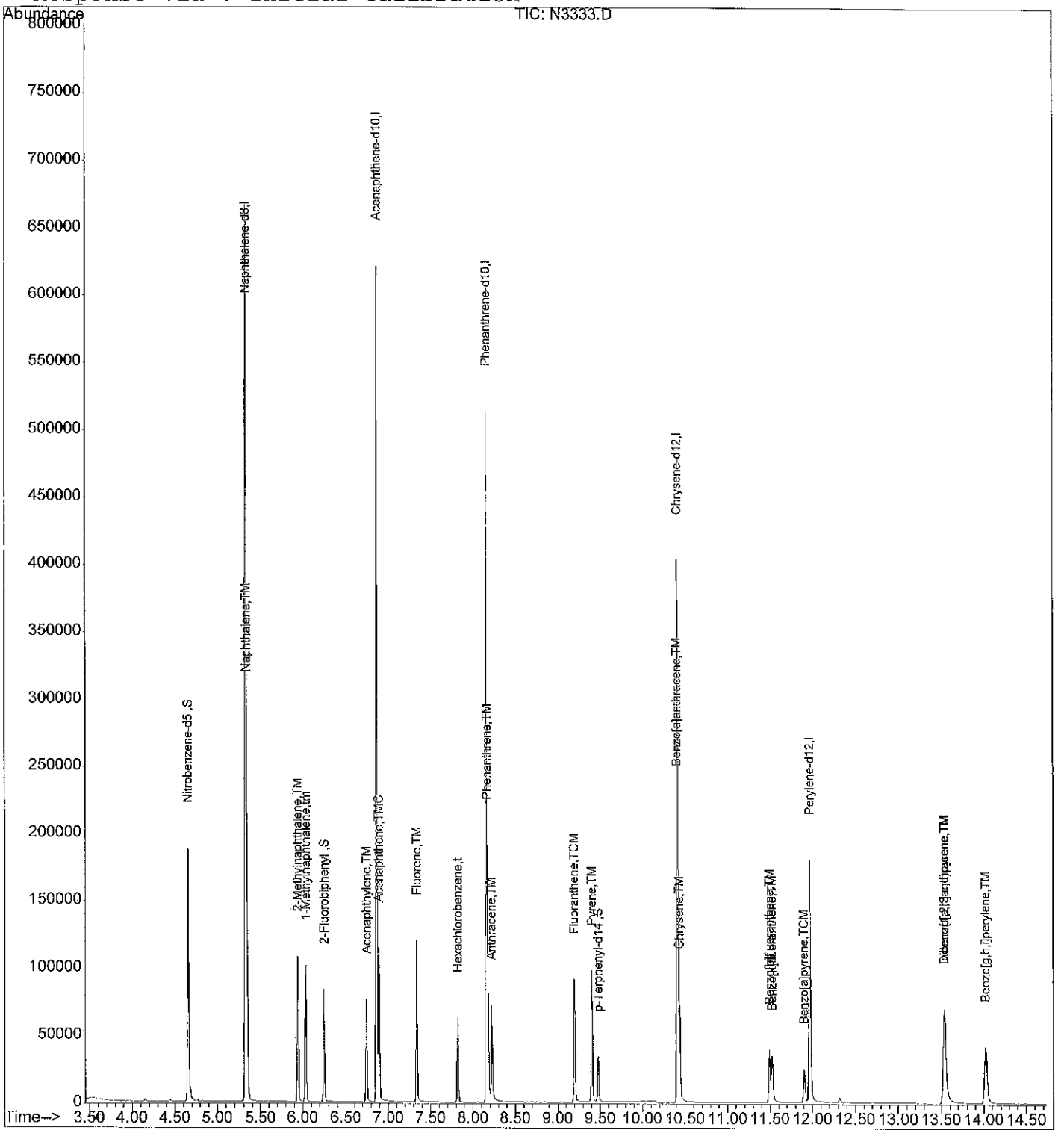
- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials JK *date* 10-14-11

Data File : D:\HPCHEM\1\DATA\101311\N3333.D
Acq On : 13 Oct 2011 17:21
Sample : CCV
Misc : ST111013-1 500 PPM
MS Integration Params: RTEINT.P
Quant Time: Oct 13 17:51 2011

Vial: 2
Operator: jk SOP 506
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: 101211SH.RES

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Oct 13 17:51:00 2011
Response via : Initial Calibration



Sample Raw Data

Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\DATA\101311\N3343.D
Acq On : 13 Oct 2011 20:51
Sample : EX111011-13MB
Misc : WATER EX111011-13
MS Integration Params: RTEINT.P
Quant Time: Oct 14 10:21 2011

Vial: 12
Operator: jk SOP 506 Rev
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 101211SH.RES

Quant Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Oct 13 17:51:00 2011
Response via : Initial Calibration
DataAcq Meth : 101211SH

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.32	136	527980	4000.00	ng/ml	0.00
6) Acenaphthene-d10	6.86	164	271151	4000.00	ng/ml	0.00
11) Phenanthrene-d10	8.15	188	405733	4000.00	ng/ml	0.00
16) Chrysene-d12	10.44	240	294446	4000.00	ng/ml	0.02
21) Perylene-d12	12.00	264	173668	4000.00	ng/ml	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	4.65	82	671330	1700.58	ng/ml	0.00
Spiked Amount 2000.000	Range 34 - 111		Recovery = 85.03%			
7) 2-Fluorobiphenyl	6.25	172	182507	1861.76	ng/ml	0.00
Spiked Amount 2000.000	Range 21 - 106		Recovery = 93.09%			
18) p-Terphenyl-d14	9.48	244	113631	1720.04	ng/ml	0.00
Spiked Amount 2000.000	Range 33 - 111		Recovery = 86.00%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
N3343.D 101211SH.M Fri Oct 14 10:21:56 2011

JH 10-24-11

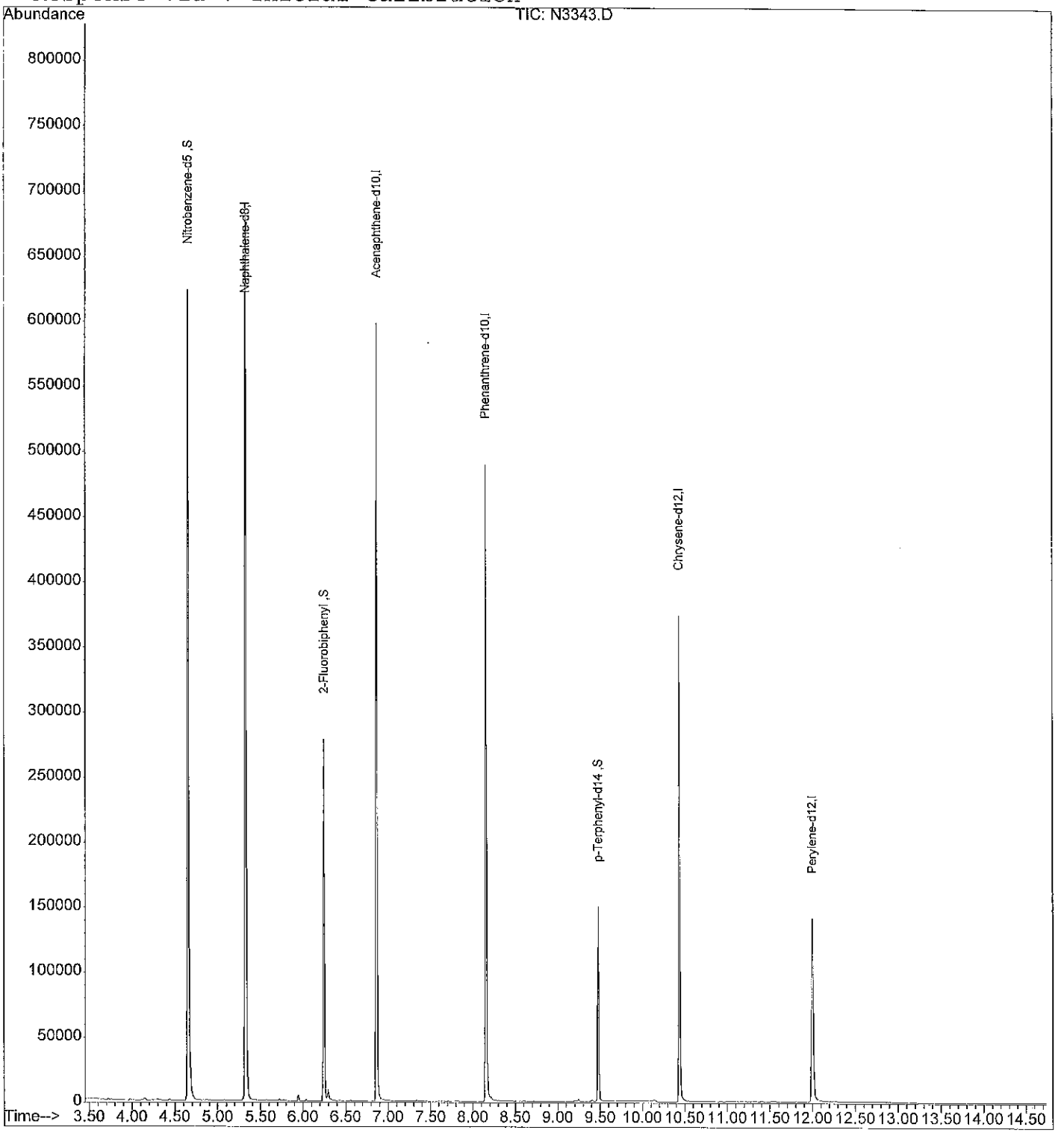
Quantitation Report

Data File : D:\HPCHEM\1\DATA\101311\N3343.D
Acq On : 13 Oct 2011 20:51
Sample : EX111011-13MB
Misc : WATER EX111011-13
MS Integration Params: RTEINT.P
Quant Time: Oct 14 10:21 2011

Vial: 12
Operator: jk SOP 506
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 101211SH.RES

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Oct 13 17:51:00 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : D:\HPCHEM\1\DATA\101311\N3347.D Vial: 16
Acq On : 13 Oct 2011 22:13 Operator: jk SOP 506 Rev
Sample : 1110046-1 Inst : GC/MS Ins
Misc : WATER EX111011-13 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 14 10:23 2011 Quant Results File: 101211SH.RES

Quant Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Oct 13 17:51:00 2011
Response via : Initial Calibration
DataAcq Meth : 101211SH

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.32	136	547172	4000.00	ng/ml	0.00
6) Acenaphthene-d10	6.86	164	281574	4000.00	ng/ml	0.00
11) Phenanthrene-d10	8.16	188	418474	4000.00	ng/ml	0.00
16) Chrysene-d12	10.45	240	302770	4000.00	ng/ml	0.03
21) Perylene-d12	12.01	264	189080	4000.00	ng/ml	0.04
System Monitoring Compounds						
2) Nitrobenzene-d5	4.65	82	676802	1654.31	ng/ml	0.00
Spiked Amount 2000.000	Range 34 - 111		Recovery =	82.72%		
7) 2-Fluorobiphenyl	6.25	172	178884	1747.67	ng/ml	0.00
Spiked Amount 2000.000	Range 21 - 106		Recovery =	87.38%		
18) p-Terphenyl-d14	9.48	244	107775	1586.54	ng/ml	0.00
Spiked Amount 2000.000	Range 33 - 111		Recovery =	79.33%		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
N3347.D 101211SH.M Fri Oct 14 10:23:55 2011

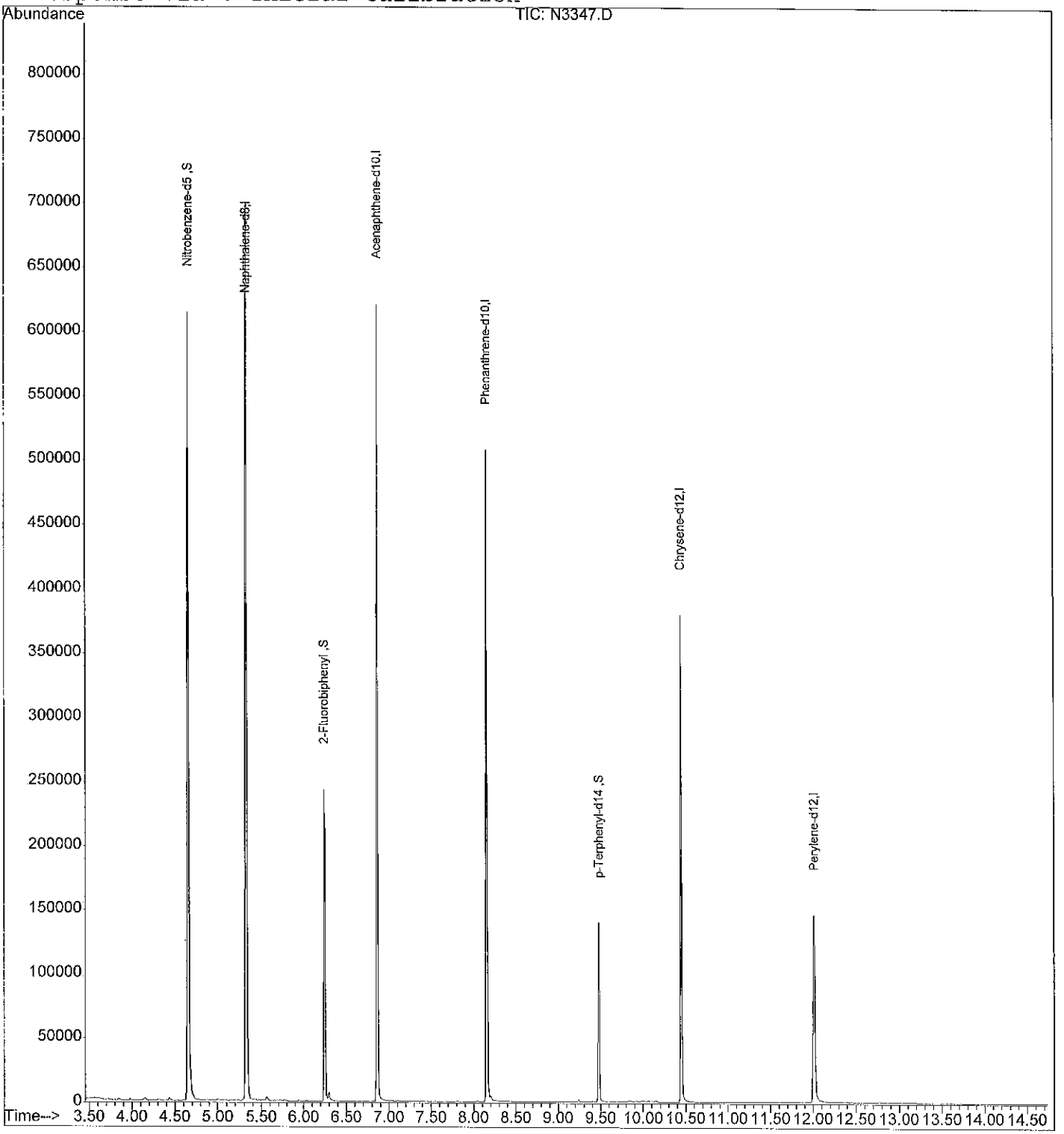
JK 10-14-11

Data File : D:\HPCHEM\1\DATA\101311\N3347.D
Acq On : 13 Oct 2011 22:13
Sample : 1110046-1
Misc : WATER EX111011-13
MS Integration Params: RTEINT.P
Quant Time: Oct 14 10:23 2011

Vial: 16
Operator: jk SOP 506
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 101211SH.RES

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Oct 13 17:51:00 2011
Response via : Initial Calibration



Raw Data Quality Control Samples

Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\101311\N3344.D Vial: 13
Acq On : 13 Oct 2011 21:11 Operator: jk SOP 506 Rev
Sample : EX111011-13LCS Inst : GC/MS Ins
Misc : WATER EX111011-13 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 14 10:22 2011 Quant Results File: 101211SH.RES

Quant Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Oct 13 17:51:00 2011
Response via : Initial Calibration
DataAcq Meth : 101211SH

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.32	136	551427	4000.00	ng/ml	0.00
6) Acenaphthene-d10	6.86	164	285334	4000.00	ng/ml	0.00
11) Phenanthrene-d10	8.16	188	433911	4000.00	ng/ml	0.00
16) Chrysene-d12	10.44	240	335170	4000.00	ng/ml	0.02
21) Perylene-d12	12.00	264	216388	4000.00	ng/ml	0.03
System Monitoring Compounds						
2) Nitrobenzene-d5	4.66	82	675970	1639.52	ng/ml	0.00
Spiked Amount 2000.000	Range 34 - 111		Recovery =	81.98%		
7) 2-Fluorobiphenyl	6.25	172	183517	1771.36	ng/ml	0.00
Spiked Amount 2000.000	Range 21 - 106		Recovery =	88.57%		
18) p-Terphenyl-d14	9.48	244	119965	1595.28	ng/ml	0.00
Spiked Amount 2000.000	Range 33 - 111		Recovery =	79.76%		
Target Compounds						Qvalue
3) Naphthalene	5.34	128	256570	1548.70	ng/ml	98
4) 2-Methylnaphthalene	5.94	142	177867	1532.29	ng/ml	98
5) 1-Methylnaphthalene	6.04	142	170000	1522.58	ng/ml	99
8) Acenaphthylene	6.75	152	214887	1615.05	ng/ml#	98
9) Acenaphthene	6.89	154	153183	1674.66	ng/ml	97
10) Fluorene	7.34	166	165062	1580.61	ng/ml	97
13) Phenanthrene	8.17	178	211334	1613.78	ng/ml	98
14) Anthracene	8.22	178	199248	1715.36	ng/ml	98
15) Fluoranthene	9.20	202	226088	1655.63	ng/ml#	95
17) Pyrene	9.41	202	232756	1711.77	ng/ml#	98
19) Benzo[a]anthracene	10.43	228	160192	1633.26	ng/ml	98
20) Chrysene	10.46	228	170431	1640.12	ng/ml	97
22) Benzo[b]fluoranthene	11.53	252	132447	1776.45	ng/ml	95
23) Benzo[k]fluoranthene	11.56	252	132482	1892.00	ng/ml	97
24) Benzo[a]pyrene	11.93	252	100227m	1728.24	ng/ml	
25) Indeno(1,2,3-c,d)pyrene	13.57	276	363878	1763.41	ng/ml	98
26) Dibenzo[a,h]anthracene	13.57	278	286981	1775.15	ng/ml	98
27) Benzo[g,h,i]perylene	14.06	276	323791	1742.76	ng/ml	98

(#) = qualifier out of range (m) = manual integration
N3344.D 101211SH.M Fri Oct 14 10:22:36 2011

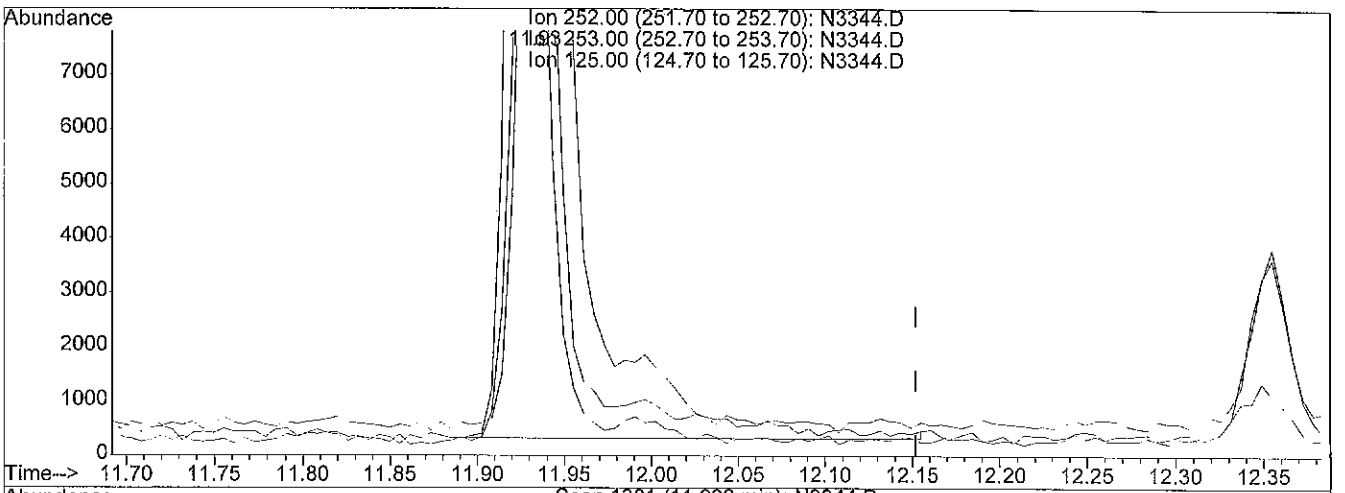
SC 10-14-11

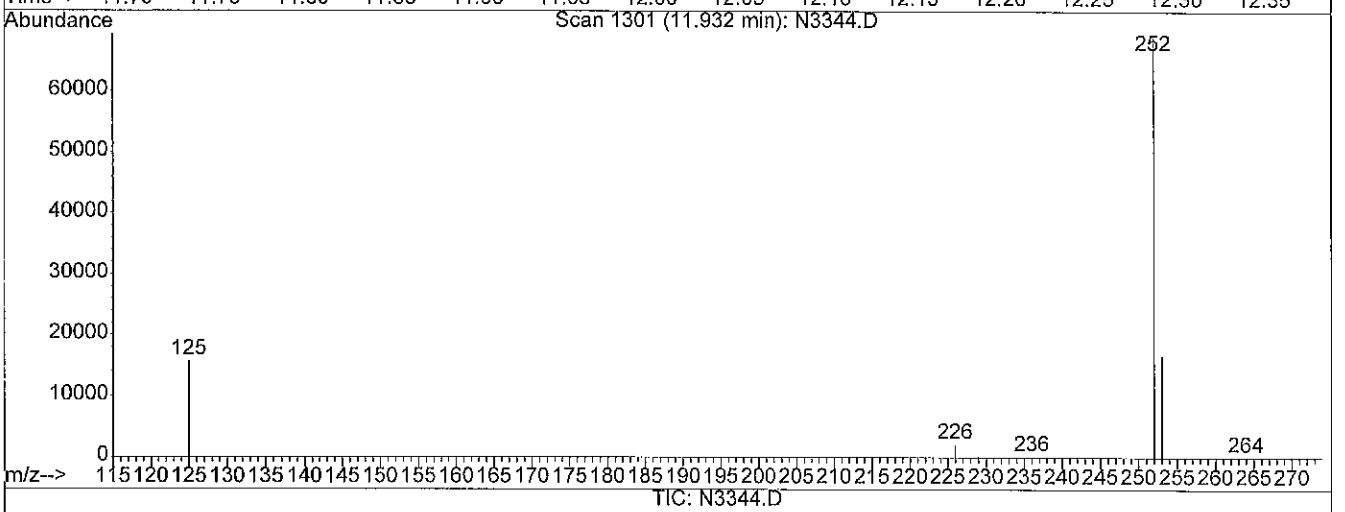
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101311\N3344.D
Acq On : 13 Oct 2011 21:11
Sample : EX111011-13LCS
Misc : WATER EX111011-13
MS Integration Params: RTEINT.P
Quant Time: Oct 14 10:22 2011

Vial: 13
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Oct 13 17:51:00 2011
Response via : Multiple Level Calibration





TIC: N3344.D

(24) Benzo[a]pyrene (TCM)

11.93min 1800.47ng/ml

response 104416

Ion	Exp%	Act%
252.00	100	100
253.00	22.70	23.54
125.00	18.30	20.52
0.00	0.00	0.00

before

N3344.D 101211SH.M Fri Oct 14 10:22:21 2011

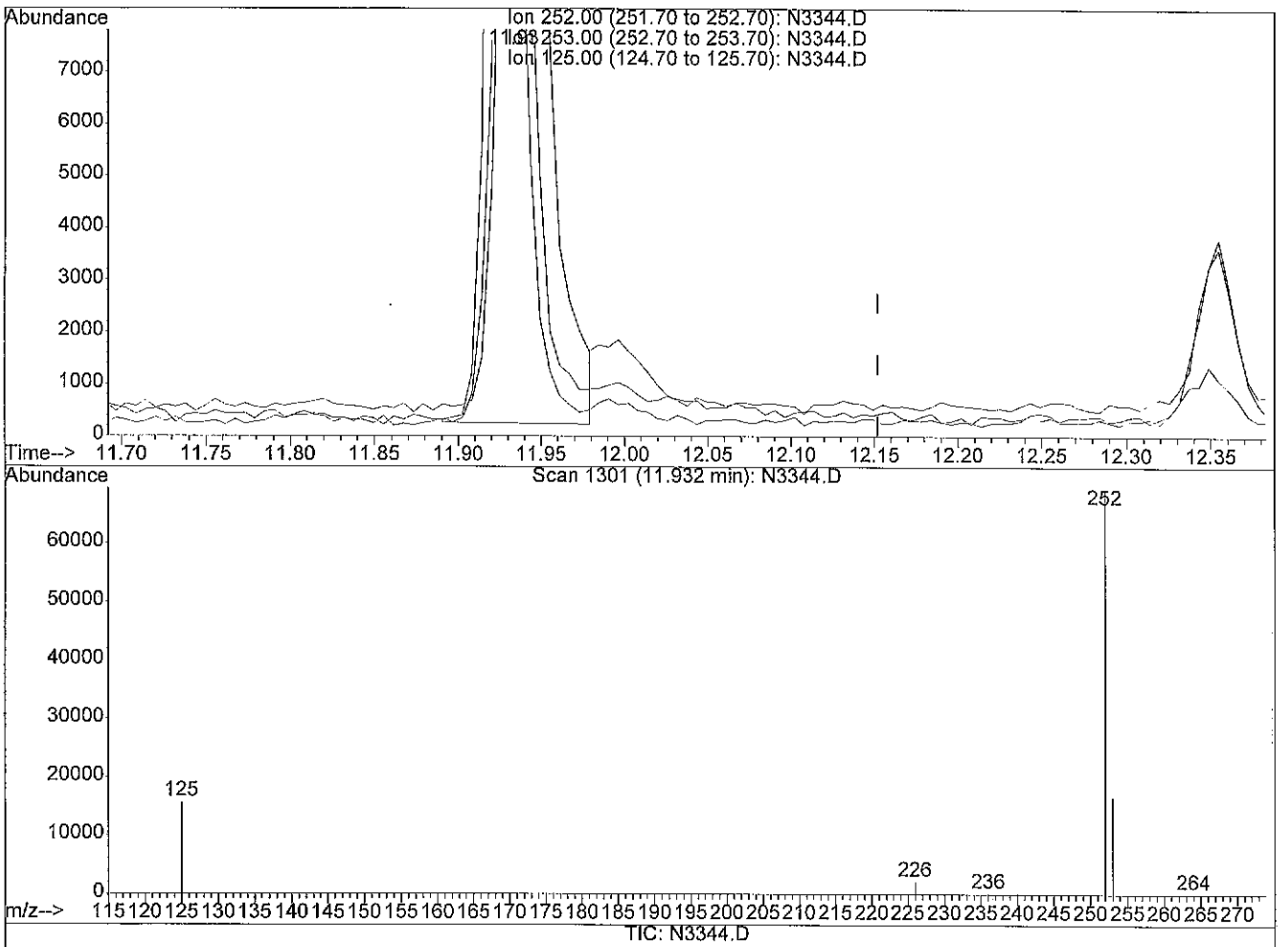
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101311\N3344.D
Acq On : 13 Oct 2011 21:11
Sample : EX111011-13LCS
Misc : WATER EX111011-13
MS Integration Params: RTEINT.P
Quant Time: Oct 14 10:22 2011

Vial: 13
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Oct 13 17:51:00 2011
Response via : Multiple Level Calibration



(24) Benzo[a]pyrene (TCM)

11.93min 1728.24ng/ml m

response 100227

Ion	Exp%	Act%
252.00	100	100
253.00	22.70	24.52
125.00	18.30	21.38
0.00	0.00	0.00

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

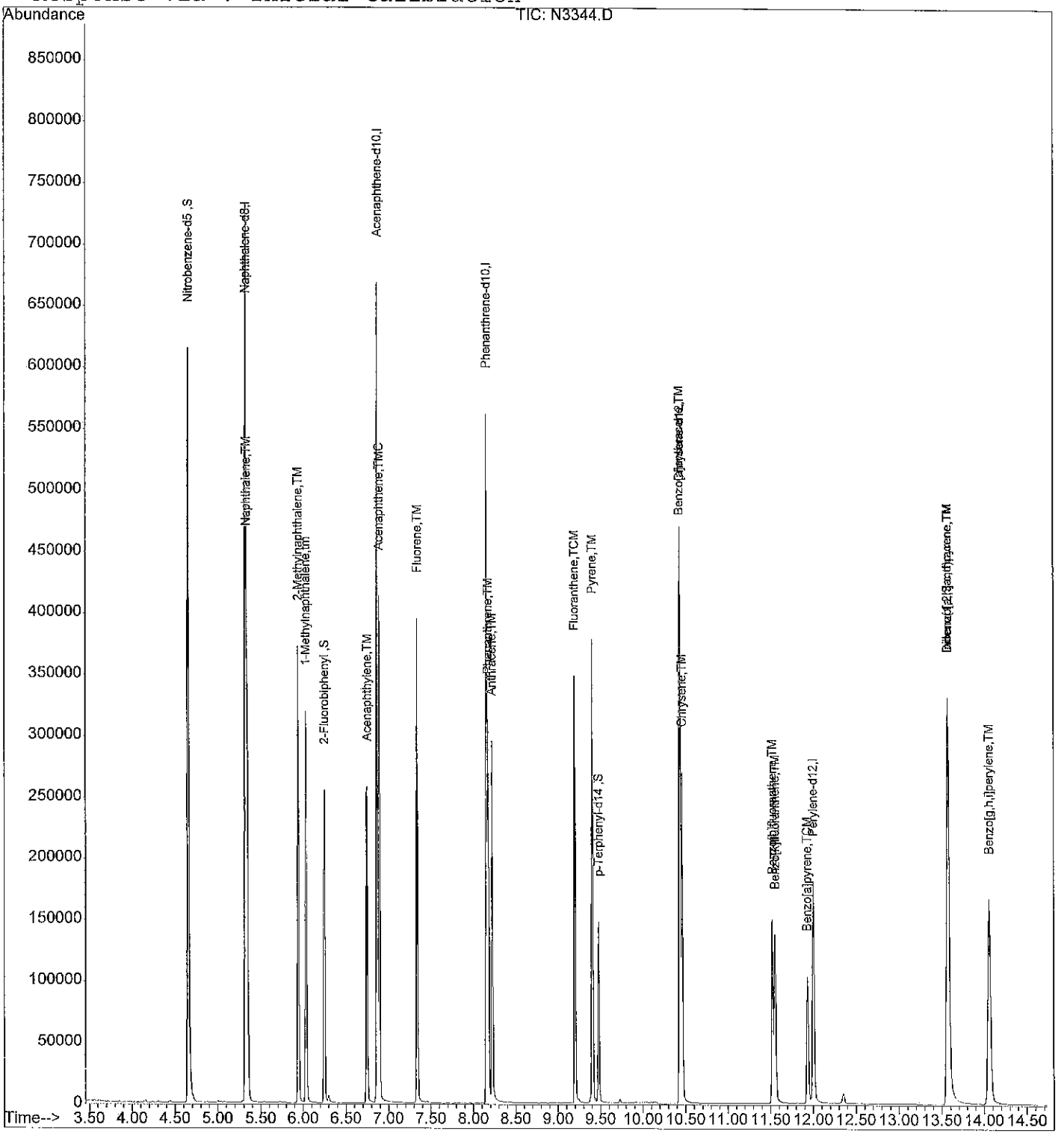
initials JK *date* 10-14-11

Data File : D:\HPCHEM\1\DATA\101311\N3344.D
Acq On : 13 Oct 2011 21:11
Sample : EX111011-13LCS
Misc : WATER EX111011-13
MS Integration Params: RTEINT.P
Quant Time: Oct 14 10:22 2011

Vial: 13
Operator: jk SOP 506
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 101211SH.RES

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Oct 13 17:51:00 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : D:\HPCHEM\1\DATA\101311\N3345.D Vial: 14
Acq On : 13 Oct 2011 21:32 Operator: jk SOP 506 Rev
Sample : EX111011-13LCSD Inst : GC/MS Ins
Misc : WATER EX111011-13 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 14 10:23 2011 Quant Results File: 101211SH.RES

Quant Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Oct 13 17:51:00 2011
Response via : Initial Calibration
DataAcq Meth : 101211SH

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.32	136	534329	4000.00	ng/ml	0.00
6) Acenaphthene-d10	6.86	164	271502	4000.00	ng/ml	0.00
11) Phenanthrene-d10	8.16	188	405756	4000.00	ng/ml	0.00
16) Chrysene-d12	10.43	240	297955	4000.00	ng/ml	0.02
21) Perylene-d12	12.00	264	186111	4000.00	ng/ml	0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	4.65	82	670371	1677.97	ng/ml	0.00
Spiked Amount 2000.000	Range 34 - 111		Recovery =	83.90%		
7) 2-Fluorobiphenyl	6.25	172	173192	1755.51	ng/ml	0.00
Spiked Amount 2000.000	Range 21 - 106		Recovery =	87.78%		
18) p-Terphenyl-d14	9.48	244	102233	1529.28	ng/ml	0.00
Spiked Amount 2000.000	Range 33 - 111		Recovery =	76.46%		
Target Compounds						Qvalue
3) Naphthalene	5.34	128	251294	1565.39	ng/ml	99
4) 2-Methylnaphthalene	5.94	142	171633	1525.90	ng/ml	99
5) 1-Methylnaphthalene	6.03	142	166475	1538.72	ng/ml	99
8) Acenaphthylene	6.74	152	203637	1608.47	ng/ml#	98
9) Acenaphthene	6.89	154	142542	1637.72	ng/ml	97
10) Fluorene	7.34	166	152415	1533.86	ng/ml	97
13) Phenanthrene	8.17	178	192494	1571.91	ng/ml	98
14) Anthracene	8.22	178	174523	1606.76	ng/ml	99
15) Fluoranthene	9.20	202	199166	1559.69	ng/ml#	96
17) Pyrene	9.41	202	200853	1661.65	ng/ml#	98
19) Benzo[a]anthracene	10.42	228	136594	1566.61	ng/ml	98
20) Chrysene	10.46	228	152660	1652.60	ng/ml	98
22) Benzo[b]fluoranthene	11.51	252	113671	1772.64	ng/ml	96
23) Benzo[k]fluoranthene	11.55	252	113362	1882.32	ng/ml	96
24) Benzo[a]pyrene	11.93	252	81934m	1642.65	ng/ml	
25) Indeno(1,2,3-c,d)pyrene	13.57	276	265484	1495.88	ng/ml	99
26) Dibenzo[a,h]anthracene	13.57	278	206604	1485.87	ng/ml	98
27) Benzo[g,h,i]perylene	14.05	276	233201	1459.36	ng/ml	98

OK ↓

(#) = qualifier out of range (m) = manual integration
N3345.D 101211SH.M Fri Oct 14 10:23:13 2011

10-14-11

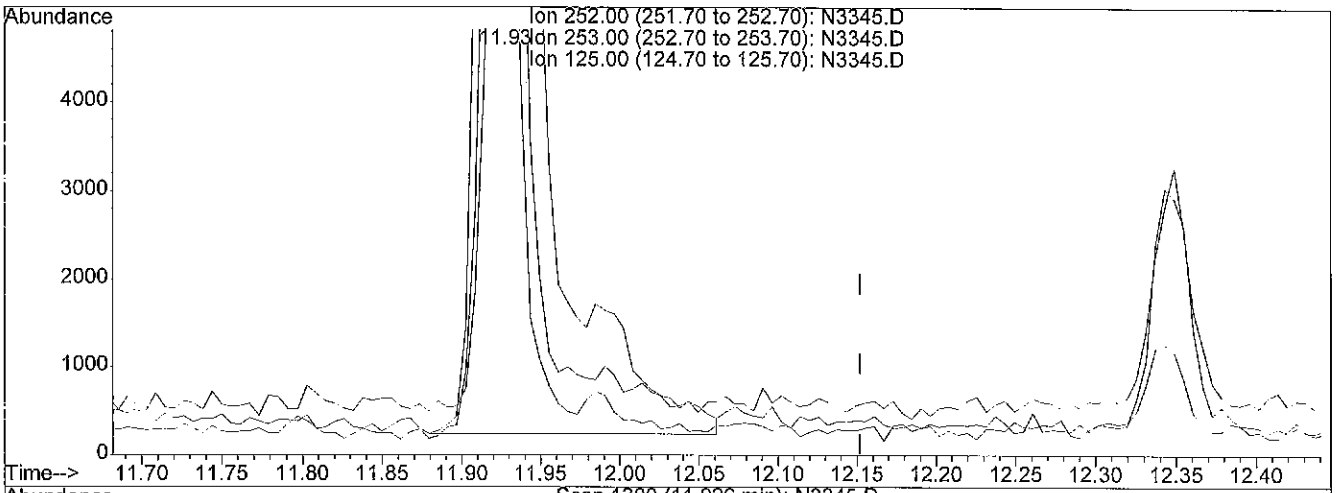
Quantitation Report (Qedit)

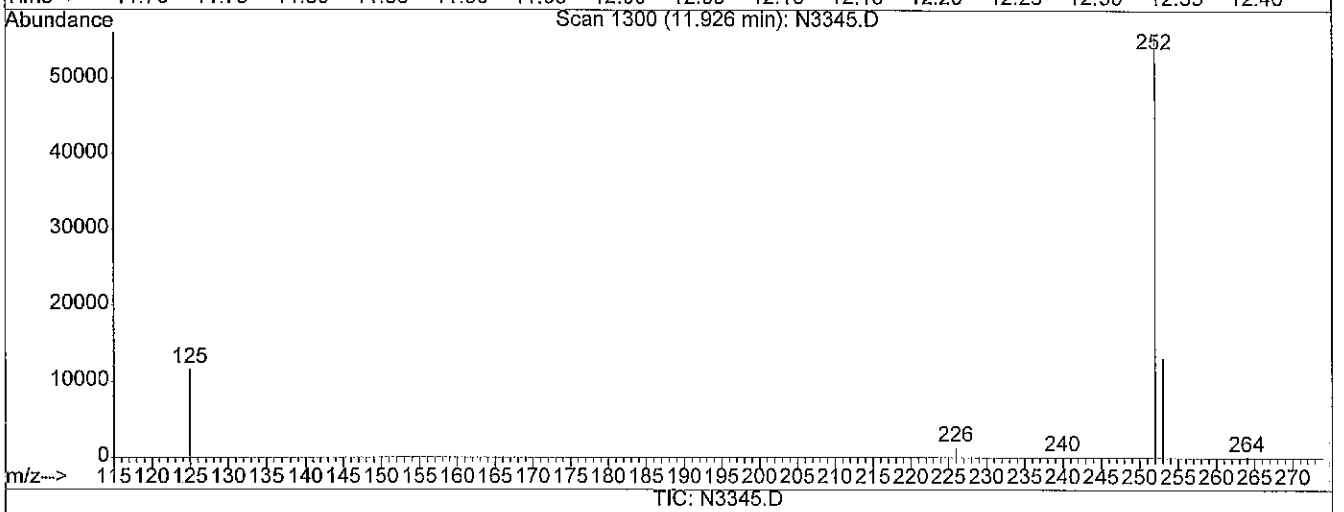
Data File : D:\HPCHEM\1\DATA\101311\N3345.D
Acq On : 13 Oct 2011 21:32
Sample : EX111011-13LCSD
Misc : WATER EX111011-13
MS Integration Params: RTEINT.P
Quant Time: Oct 14 10:22 2011

Vial: 14
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Oct 13 17:51:00 2011
Response via : Multiple Level Calibration





(24) Benzo[a]pyrene (TCM)

11.93min 1706.08ng/ml

response 85098

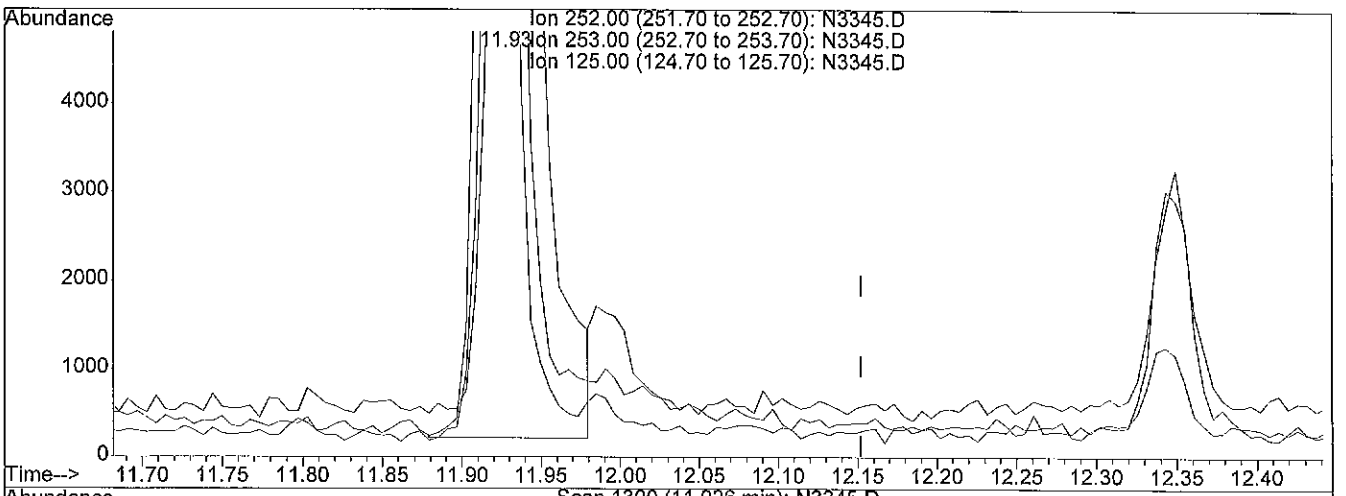
Ion	Exp%	Act%
252.00	100	100
253.00	22.70	23.15
125.00	18.30	20.16
0.00	0.00	0.00

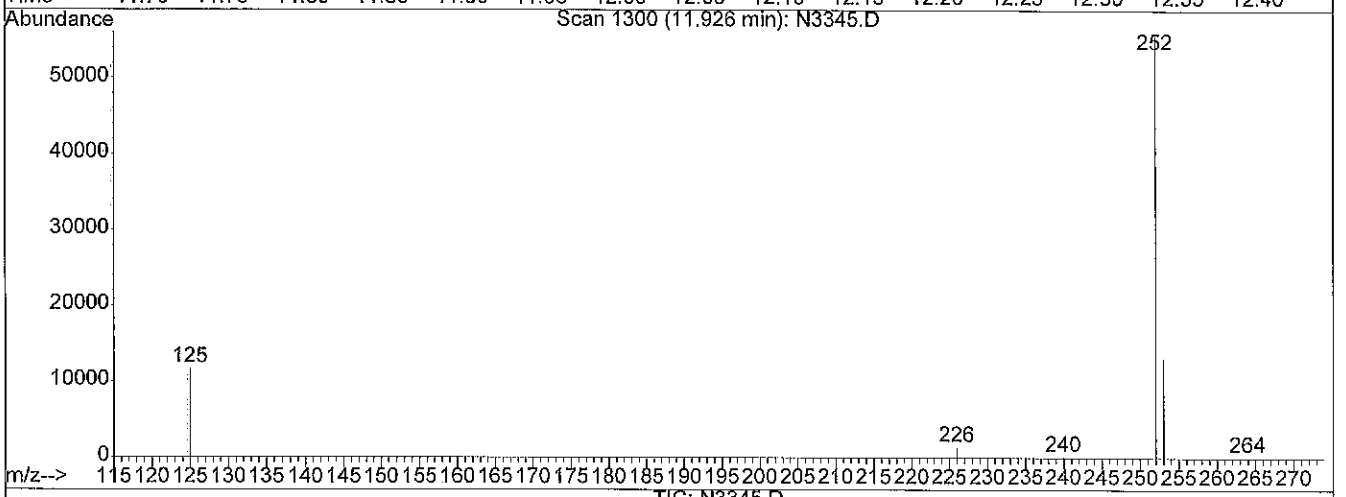
Quantitation Report (Qedit)

Data File : D:\HPCHEM\1\DATA\101311\N3345.D
Acq On : 13 Oct 2011 21:32
Sample : EX111011-13LCSD
Misc : WATER EX111011-13
MS Integration Params: RTEINT.P
Quant Time: Oct 14 10:23 2011

Vial: 14
Operator: jk SOP 50
Inst : GC/MS Ins
Multiplr: 1.00
Quant Results File: temp.res

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Oct 13 17:51:00 2011
Response via : Multiple Level Calibration





TIC: N3345.D

(24) Benzo[a]pyrene (TCM)

11.93min 1642.65ng/ml m

response 81934

Ion	Exp%	Act%
252.00	100	100
253.00	22.70	24.04
125.00	18.30	20.94
0.00	0.00	0.00

MANUAL RE-INTEGRATION

- ☐ missed peak assignment
- ☐ assigned incorrect name to peak
- ☑ over-integrated peak's area
- ☐ under-integrated peak's area
- ☐ other _____

initials JM *date* 10-14-11

N3345.D 101211SH.M Fri Oct 14 10:23:04 2011

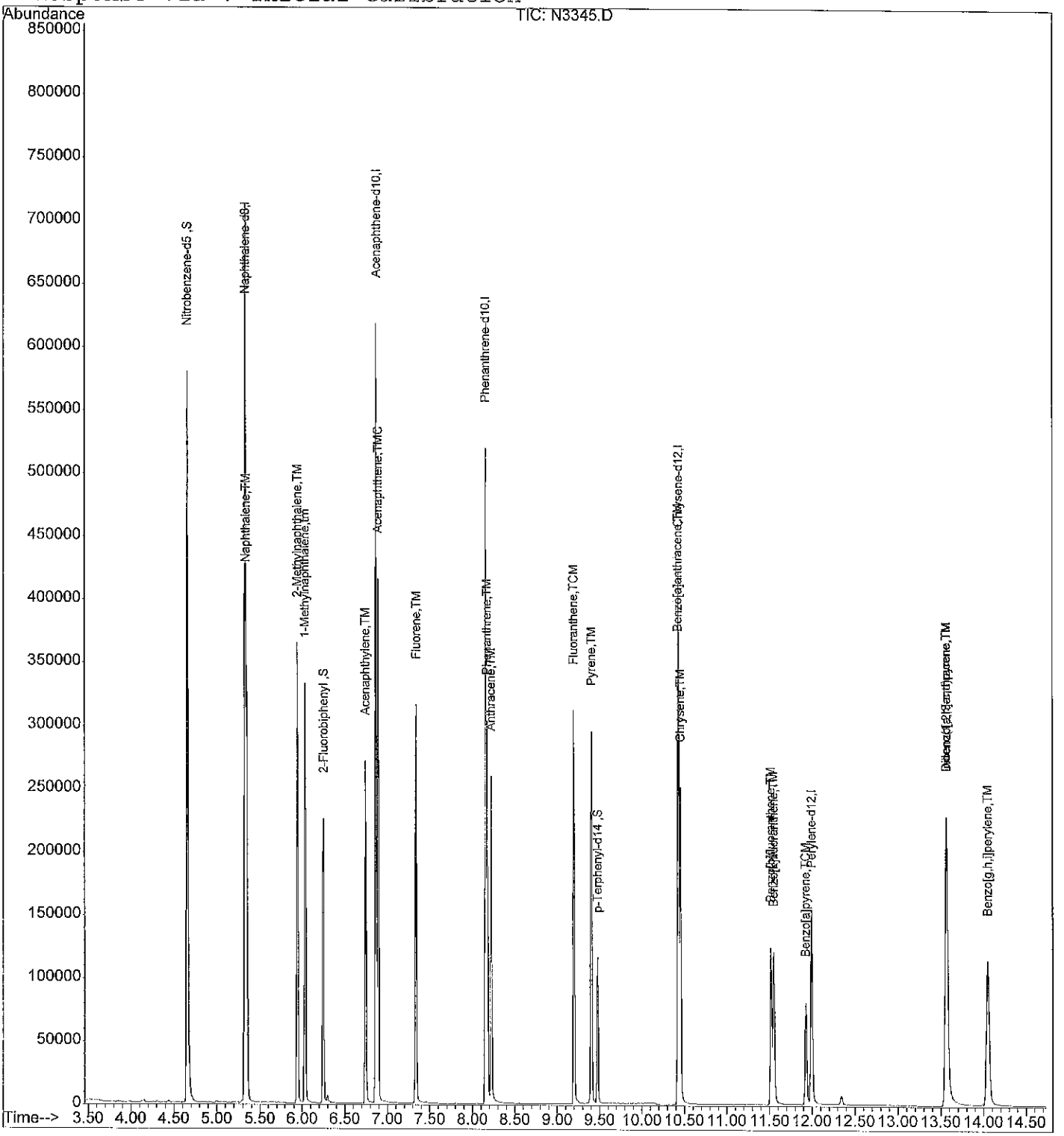
Quantitation Report

Data File : D:\HPCHEM\1\DATA\101311\N3345.D
Acq On : 13 Oct 2011 21:32
Sample : EX111011-13LCSD
Misc : WATER EX111011-13
MS Integration Params: RTEINT.P
Quant Time: Oct 14 10:23 2011

Vial: 14
Operator: jk SOP 506
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 101211SH.RES

Method : D:\HPCHEM\1\METHODS\101211SH.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Thu Oct 13 17:51:00 2011
Response via : Initial Calibration



Miscellaneous

ALS Laboratory Group

SEMIVOLATILES EXTRACTION / CLEANUP WORKSHEET

STAPAH

WO #s 1110049041,046 Matrix AQ Batch ID EX111011-13 Sur Code ST110921-4 MSpike Code ST110906-3 Balance ID NA Extr SOP/Rev 6/7/14 Extr Code: (8270D)

Extr Method: (3520C)CLE (3550C)SONC (3540C)SOX (3510C)SEP (3580A)Waste Dilution Initials EM Extr Start Date/Time 10/11/11 1640 Extr Stop Date/Time 10/12/11 0756 0840 10-13-11 YB

Lots: MeCl2 DE575 Hexane NA Acetone NA Florisil NA Silica Gel NA (See other GPC forms) H_2SO_4 NA NaOH 10-13-11 J46K51 Na_2SO_4 106134

Steam bath 160°C Proper N-Evap station flow settings used? (Y) Cleanup Code: (3620B)Florisil (3640A)GPC (See other forms) Silica Gel Cleanup SOP/Rev NIA Date/Time NIA

Initials NIA Reviewed by / date JYB 10-13-11 Form 609r15.doc (07/15/11)

Note: Each page is copied as completed and included with the workorder/run documentation; reviewed subsequently

SAMPLE								EXTRACT / CLEANUP					
Sample No.	Amount (g/(mL))	Initial pH	pH (≤2)	pH (11-13)	Surrogate (mL)	Matrix Spike (mL)	Sur / Matrix Spike Witnessed	Date KD (Initial)	Cleanup Date	Date KD (Final)	Final Volume (mL)	Date Vialed	Comments
WMB	1000	5	NA	12.8	1.0	NA	EM/YB	11-13-11	NIA	NIA	1.0	11-13-11	
1110041-1	1040	6		12.8									
1110046-1	1020	6		12.8									
1110049-1	470	4		12.8									
-2	420	6		12.8									
-3	455	6		12.8									
-4	465	6		12.8									
-5	460	6		12.8									
-6	455	6		12.8									
-7	450	6		12.8									
-8	445	6		12.8									
-9	460	6		12.8									
WLCS	1000	5		12.8		1.0							
WLCSD	1000	5		12.8									

10-13-11 YB