ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
T : +1 360 577 7222
F : +1 360 636 1068
www.alsglobal.com

October 20, 2015

Analytical Report for Service Request No: K1511029

Craig Hutchings
Integral Consulting, Inc.
1205 West Bay Drive NW
Olympia, WA 98502-4670

RE: Slip 1 Sediment Sampling / C1246

Dear Craig,

Enclosed are the results of the sample(s) submitted to our laboratory June 05, 2015
For your reference, these analyses have been assigned our service request number **K1511029.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at gregory.salata@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Gregory Salata, Ph.D.
Client Services
Manager

ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
T : +1 360 577 7222
F : +1 360 636 1068
www.alsglobal.com

Table of Contents

Acronyms
Qualifiers
State Certifications, Accreditations, And Licenses
Case Narrative
Chain of Custody
Total Solids
Polynuclear Aromatic Hydrocarbons
Raw Data
    Total Solids
    Polynuclear Aromatic Hydrocarbons

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEC UST	http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L14-51
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	Not available	-
Idaho DHW	http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx	-
ISO 17025	http://www.pjlabs.com/	L14-50
Louisiana DEQ	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	03016
Maine DHS	Not available	WA01276
Michigan DEQ	http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html	9949
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Montana DPHHS	http://www.dphhs.mt.gov/publichealth/	CERT0047
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/oqa/	WA005
North Carolina DWQ	http://www.dwqlab.org/	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/envserv/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wisconsin DNR	http://dnr.wi.gov/	998386840
Wyoming (EPA Region 8)	http://www.epa.gov/region8/water/dwhome/wyomingdi.html	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

ALS ENVIRONMENTAL

Client:	Integral Consulting, Incorporated	**Service Request No.:**	K1511029
Project:	Slip 1 Sediment Sampling/C1246	**Date Received:**	06/05/15
Sample Matrix:	Sediment		

Case Narrative

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Samples were received for analysis at ALS Environmental on 06/05/15 and logged under service request K1511029. The samples were stored refrigerated at 4 ºC upon receipt at the laboratory, then moved to frozen storage at –20ºC on August 12. At the request of the client, samples -007, -008, and -014 were analyzed for Alkylated PAHs under this service request.

Polynuclear Aromatic Hydrocarbons by EPA Method 8270

Holding Time Exceptions:
Samples for this project were stored refrigerated at 4 ºC for 54 days, then moved to frozen storage at –20ºC. The data is flagged to indicate the storage conditions at 4 ºC past the recommended holding time.

Matrix Spike Recovery Exceptions:
The matrix spike and/or duplicate matrix spike recovery of Fluoranthene, Pyrene, Benz(a)Anthracene, Chrysene, and Benzo(b)fluoranthene for sample SD0015 was outside control criteria. Recovery in the replicate Laboratory Control Samples (LCS/DLCS) was acceptable, which indicated the analytical batch was in control. The matrix spike outlier suggested a potential high bias in this matrix. No further corrective action was appropriate.

Elevated Detection Limits:
The detection limits were elevated for sample SD0015 due to less than optimal sample mass extracted for analysis. Due to analyst error, the sample was weighed using incorrect total solids information; this resulted in the sample being weighed light.

Sample SD0016 required dilution due to the presence of elevated levels of Anthracene and Fluoranthene. The reporting limits were adjusted to reflect the dilution.

Sample SD0014 required dilution due to the presence of elevated levels of Fluoranthene, Pyrene, Chrysene, and Benzo(b)fluoranthene. The reporting limits were adjusted to reflect the dilution.

Sample Notes and Discussion:
The results reported for C4-Dibenzothiophenes in samples SD0015, SD0016, and SD0014 may contain a slight bias. The chromatogram indicated the presence of non-target background components. The matrix interference may have resulted in a slight high bias in the affected sample. The results were flagged with "X" to indicate the issue.

No other anomalies associated with the analysis of these samples were observed.

Approved by_____

Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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www.alsglobal.com

Total Solids

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Integral Consulting, Incorporated	**Service Request:**	K1511029
Project:	Slip 1 Sediment Sampling/C1246	**Date Collected:**	06/4/15
Sample Matrix:	Sediment	**Date Received:**	06/5/15
Analysis Method:	160.3 Modified	**Units:**	Percent
Prep Method:	None	**Basis:**	As Received

Solids, Total

Sample Name	Lab Code	Result	MRL	MDL	Dil.	Date Analyzed	Q
SD0015	K1511029-001	**60.7**	-	-	1	10/12/15 10:47	
SD0016	K1511029-002	**76.6**	-	-	1	10/12/15 10:47	
SD0014	K1511029-003	**67.0**	-	-	1	10/12/15 10:47	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Integral Consulting, Incorporated	**Service Request:**	K1511029
Project	Slip 1 Sediment Sampling/C1246	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA
Analysis Method:	160.3 Modified	**Units:**	Percent
Prep Method:	None	**Basis:**	As Received

Replicate Sample Summary
Solids, Total

Sample Name:	Lab Code:	MRL	MDL	Sample Result	Duplicate Result	Average	RPD	RPD Limit	Date Analyzed
Batch QC	K1510991-001DUP	-	-	87.9	88.1	88.0	<1	20	10/12/15
Batch QC	K1511047-002DUP	-	-	99.8	100	99.9	<1	20	10/12/15

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Polynuclear Aromatic Hydrocarbons

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Client: Integral Consulting, Incorporated **Service Request:** K1511029
Project: Slip 1 Sediment Sampling/C1246

Cover Page - Organic Analysis Data Package
Polynuclear Aromatic Hydrocarbons

Sample Name	Lab Code	Date Collected	Date Received
SD0015	K1511029-001	06/04/2015	06/05/2015
SD0016	K1511029-002	06/04/2015	06/05/2015
SD0014	K1511029-003	06/04/2015	06/05/2015
SD0015MS	KWG1509628-1	06/04/2015	06/05/2015
SD0015DMS	KWG1509628-2	06/04/2015	06/05/2015

Analytical Results

Client: Integral Consulting, Incorporated
Project: Slip 1 Sediment Sampling/C1246
Sample Matrix: Sediment

Service Request: K1511029
Date Collected: 06/04/2015
Date Received: 06/05/2015

Polynuclear Aromatic Hydrocarbons

Sample Name: SD0015
Lab Code: K1511029-001

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8270D SIM

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**43**		5.9	0.71	1	10/07/15	10/10/15	KWG1509628	*
2-Methylnaphthalene	**24**		5.9	0.46	1	10/07/15	10/10/15	KWG1509628	*
1-Methylnaphthalene	**17**		5.9	0.61	1	10/07/15	10/10/15	KWG1509628	*
C1-Naphthalenes	**30**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
C2-Naphthalenes	**48**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
C3-Naphthalenes	**52**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
C4-Naphthalenes	**69**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
Acenaphthylene	**45**		5.9	0.70	1	10/07/15	10/10/15	KWG1509628	*
Acenaphthene	**64**		5.9	0.90	1	10/07/15	10/10/15	KWG1509628	*
Dibenzofuran	**46**		5.9	0.75	1	10/07/15	10/10/15	KWG1509628	*
Fluorene	**81**		5.9	0.72	1	10/07/15	10/10/15	KWG1509628	*
C1-Fluorenes	**45**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
C2-Fluorenes	ND	U	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
C3-Fluorenes	**100**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
Dibenzothiophene	**49**		5.9	0.36	1	10/07/15	10/10/15	KWG1509628	*
C1-Dibenzothiophenes	**73**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
C2-Dibenzothiophenes	**120**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
C3-Dibenzothiophenes	**120**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
C4-Dibenzothiophenes	**90**	JX	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
Phenanthrene	**680**		5.9	1.7	1	10/07/15	10/10/15	KWG1509628	*
Anthracene	**310**		5.9	0.69	1	10/07/15	10/10/15	KWG1509628	*
C1-Phenanthrenes/Anthracenes	**460**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
C2-Phenanthrenes/Anthracenes	**450**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
C3-Phenanthrenes/Anthracenes	**300**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
C4-Phenanthrenes/Anthracenes	**190**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
Fluoranthene	**2000**		5.9	1.2	1	10/07/15	10/10/15	KWG1509628	*
Pyrene	**1600**		5.9	0.90	1	10/07/15	10/10/15	KWG1509628	*
C1-Fluoranthenes/Pyrenes	**1100**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
Benz(a)anthracene	**950**		5.9	0.85	1	10/07/15	10/10/15	KWG1509628	*
Chrysene	**1300**		5.9	0.95	1	10/07/15	10/10/15	KWG1509628	*
C1-Chrysenes	**560**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
C2-Chrysenes	**400**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
C3-Chrysenes	**290**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*

Comments:

Analytical Results

Client:	Integral Consulting, Incorporated	**Service Request:**	K1511029
Project:	Slip 1 Sediment Sampling/C1246	**Date Collected:**	06/04/2015
Sample Matrix:	Sediment	**Date Received:**	06/05/2015

Polynuclear Aromatic Hydrocarbons

Sample Name:	SD0015	**Units:**	ug/Kg
Lab Code:	K1511029-001	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
C4-Chrysenes	**170**	J	5.9	5.9	1	10/07/15	10/10/15	KWG1509628	*
Benzo(b)fluoranthene†	**1500**		5.9	1.1	1	10/07/15	10/10/15	KWG1509628	*
Benzo(k)fluoranthene	**500**		5.9	1.1	1	10/07/15	10/10/15	KWG1509628	*
Benzo(e)pyrene	**770**		5.9	0.72	1	10/07/15	10/10/15	KWG1509628	*
Benzo(a)pyrene	**860**		5.9	0.90	1	10/07/15	10/10/15	KWG1509628	*
Perylene	**290**		5.9	0.85	1	10/07/15	10/10/15	KWG1509628	*
Indeno(1,2,3-cd)pyrene	**560**		5.9	1.1	1	10/07/15	10/10/15	KWG1509628	*
Dibenz(a,h)anthracene	**150**		5.9	0.95	1	10/07/15	10/10/15	KWG1509628	*
Benzo(g,h,i)perylene	**530**		5.9	1.1	1	10/07/15	10/10/15	KWG1509628	*

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	70	17-104	10/10/15	Acceptable
Fluoranthene-d10	85	27-106	10/10/15	Acceptable
Terphenyl-d14	63	35-109	10/10/15	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Analytical Results

Client: Integral Consulting, Incorporated
Project: Slip 1 Sediment Sampling/C1246
Sample Matrix: Sediment

Service Request: K1511029
Date Collected: 06/04/2015
Date Received: 06/05/2015

Polynuclear Aromatic Hydrocarbons

Sample Name: SD0016
Lab Code: K1511029-002

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8270D SIM

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**84**		3.6	0.60	1	10/07/15	10/10/15	KWG1509628	*
2-Methylnaphthalene	**140**		3.6	0.39	1	10/07/15	10/10/15	KWG1509628	*
1-Methylnaphthalene	**37**		3.6	0.51	1	10/07/15	10/10/15	KWG1509628	*
C1-Naphthalenes	**120**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
C2-Naphthalenes	**94**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
C3-Naphthalenes	**71**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
C4-Naphthalenes	**80**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
Acenaphthylene	**26**		3.6	0.59	1	10/07/15	10/10/15	KWG1509628	*
Acenaphthene	**130**		3.6	0.76	1	10/07/15	10/10/15	KWG1509628	*
Dibenzofuran	**160**		3.6	0.63	1	10/07/15	10/10/15	KWG1509628	*
Fluorene	**370**		3.6	0.61	1	10/07/15	10/10/15	KWG1509628	*
C1-Fluorenes	**43**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
C2-Fluorenes	**51**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
C3-Fluorenes	**98**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
Dibenzothiophene	**55**		3.6	0.30	1	10/07/15	10/10/15	KWG1509628	*
C1-Dibenzothiophenes	**48**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
C2-Dibenzothiophenes	**77**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
C3-Dibenzothiophenes	**140**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
C4-Dibenzothiophenes	**86**	JX	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
Phenanthrene	**1100**		3.6	1.4	1	10/07/15	10/10/15	KWG1509628	*
Anthracene	**2000**	D	36	5.8	10	10/07/15	10/10/15	KWG1509628	*
C1-Phenanthrenes/Anthracenes	**410**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
C2-Phenanthrenes/Anthracenes	**290**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
C3-Phenanthrenes/Anthracenes	**250**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
C4-Phenanthrenes/Anthracenes	**210**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
Fluoranthene	**1700**	D	36	9.8	10	10/07/15	10/10/15	KWG1509628	*
Pyrene	**1300**		3.6	0.76	1	10/07/15	10/10/15	KWG1509628	*
C1-Fluoranthenes/Pyrenes	**770**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
Benz(a)anthracene	**630**		3.6	0.72	1	10/07/15	10/10/15	KWG1509628	*
Chrysene	**880**		3.6	0.80	1	10/07/15	10/10/15	KWG1509628	*
C1-Chrysenes	**420**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
C2-Chrysenes	**330**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
C3-Chrysenes	**220**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*

Comments:

Analytical Results

Client:	Integral Consulting, Incorporated	**Service Request:**	K1511029
Project:	Slip 1 Sediment Sampling/C1246	**Date Collected:**	06/04/2015
Sample Matrix:	Sediment	**Date Received:**	06/05/2015

Polynuclear Aromatic Hydrocarbons

Sample Name:	SD0016	**Units:**	ug/Kg
Lab Code:	K1511029-002	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
C4-Chrysenes	**150**	J	3.6	3.6	1	10/07/15	10/10/15	KWG1509628	*
Benzo(b)fluoranthene†	**990**		3.6	0.92	1	10/07/15	10/10/15	KWG1509628	*
Benzo(k)fluoranthene	**330**		3.6	0.87	1	10/07/15	10/10/15	KWG1509628	*
Benzo(e)pyrene	**530**		3.6	0.61	1	10/07/15	10/10/15	KWG1509628	*
Benzo(a)pyrene	**660**		3.6	0.76	1	10/07/15	10/10/15	KWG1509628	*
Perylene	**190**		3.6	0.72	1	10/07/15	10/10/15	KWG1509628	*
Indeno(1,2,3-cd)pyrene	**430**		3.6	0.87	1	10/07/15	10/10/15	KWG1509628	*
Dibenz(a,h)anthracene	**120**		3.6	0.80	1	10/07/15	10/10/15	KWG1509628	*
Benzo(g,h,i)perylene	**410**		3.6	0.85	1	10/07/15	10/10/15	KWG1509628	*

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	78	17-104	10/10/15	Acceptable
Fluoranthene-d10	93	27-106	10/10/15	Acceptable
Terphenyl-d14	71	35-109	10/10/15	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Analytical Results

Client: Integral Consulting, Incorporated
Project: Slip 1 Sediment Sampling/C1246
Sample Matrix: Sediment

Service Request: K1511029
Date Collected: 06/04/2015
Date Received: 06/05/2015

Polynuclear Aromatic Hydrocarbons

Sample Name: SD0014
Lab Code: K1511029-003

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8270D SIM

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**55**		4.1	0.60	1	10/07/15	10/10/15	KWG1509628	*
2-Methylnaphthalene	**33**		4.1	0.39	1	10/07/15	10/10/15	KWG1509628	*
1-Methylnaphthalene	**22**		4.1	0.51	1	10/07/15	10/10/15	KWG1509628	*
C1-Naphthalenes	**39**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
C2-Naphthalenes	**63**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
C3-Naphthalenes	**69**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
C4-Naphthalenes	**84**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
Acenaphthylene	**68**		4.1	0.59	1	10/07/15	10/10/15	KWG1509628	*
Acenaphthene	**120**		4.1	0.76	1	10/07/15	10/10/15	KWG1509628	*
Dibenzofuran	**91**		4.1	0.63	1	10/07/15	10/10/15	KWG1509628	*
Fluorene	**150**		4.1	0.61	1	10/07/15	10/10/15	KWG1509628	*
C1-Fluorenes	**69**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
C2-Fluorenes	ND	U	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
C3-Fluorenes	**130**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
Dibenzothiophene	**96**		4.1	0.30	1	10/07/15	10/10/15	KWG1509628	*
C1-Dibenzothiophenes	**85**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
C2-Dibenzothiophenes	**130**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
C3-Dibenzothiophenes	**190**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
C4-Dibenzothiophenes	**110**	JX	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
Phenanthrene	**1500**		4.1	1.4	1	10/07/15	10/10/15	KWG1509628	*
Anthracene	**530**		4.1	0.58	1	10/07/15	10/10/15	KWG1509628	*
C1-Phenanthrenes/Anthracenes	**710**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
C2-Phenanthrenes/Anthracenes	**520**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
C3-Phenanthrenes/Anthracenes	**350**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
C4-Phenanthrenes/Anthracenes	**250**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
Fluoranthene	**3500**	D	41	9.8	10	10/07/15	10/10/15	KWG1509628	*
Pyrene	**3300**	D	41	7.6	10	10/07/15	10/10/15	KWG1509628	*
C1-Fluoranthenes/Pyrenes	**1600**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
Benz(a)anthracene	**1400**		4.1	0.72	1	10/07/15	10/10/15	KWG1509628	*
Chrysene	**1900**	D	41	8.0	10	10/07/15	10/10/15	KWG1509628	*
C1-Chrysenes	**840**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
C2-Chrysenes	**510**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
C3-Chrysenes	**310**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*

Comments:

Analytical Results

Client:	Integral Consulting, Incorporated	**Service Request:**	K1511029
Project:	Slip 1 Sediment Sampling/C1246	**Date Collected:**	06/04/2015
Sample Matrix:	Sediment	**Date Received:**	06/05/2015

Polynuclear Aromatic Hydrocarbons

Sample Name:	SD0014	**Units:**	ug/Kg
Lab Code:	K1511029-003	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
C4-Chrysenes	**230**	J	4.1	4.1	1	10/07/15	10/10/15	KWG1509628	*
Benzo(b)fluoranthene†	**2400**	D	41	9.2	10	10/07/15	10/10/15	KWG1509628	*
Benzo(k)fluoranthene	**790**		4.1	0.87	1	10/07/15	10/10/15	KWG1509628	*
Benzo(e)pyrene	**1200**		4.1	0.61	1	10/07/15	10/10/15	KWG1509628	*
Benzo(a)pyrene	**1500**		4.1	0.76	1	10/07/15	10/10/15	KWG1509628	*
Perylene	**470**		4.1	0.72	1	10/07/15	10/10/15	KWG1509628	*
Indeno(1,2,3-cd)pyrene	**960**		4.1	0.87	1	10/07/15	10/10/15	KWG1509628	*
Dibenz(a,h)anthracene	**250**		4.1	0.80	1	10/07/15	10/10/15	KWG1509628	*
Benzo(g,h,i)perylene	**890**		4.1	0.85	1	10/07/15	10/10/15	KWG1509628	*

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	83	17-104	10/10/15	Acceptable
Fluoranthene-d10	103	27-106	10/10/15	Acceptable
Terphenyl-d14	77	35-109	10/10/15	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	Integral Consulting, Incorporated	**Service Request:**	K1511029
Project:	Slip 1 Sediment Sampling/C1246	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA

Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KWG1509628-5	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	ND	U	2.7	0.60	1	10/07/15	10/10/15	KWG1509628	
2-Methylnaphthalene	ND	U	2.7	0.39	1	10/07/15	10/10/15	KWG1509628	
1-Methylnaphthalene	ND	U	2.7	0.51	1	10/07/15	10/10/15	KWG1509628	
C1-Naphthalenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
C2-Naphthalenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
C3-Naphthalenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
C4-Naphthalenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
Acenaphthylene	ND	U	2.7	0.59	1	10/07/15	10/10/15	KWG1509628	
Acenaphthene	ND	U	2.7	0.76	1	10/07/15	10/10/15	KWG1509628	
Dibenzofuran	ND	U	2.7	0.63	1	10/07/15	10/10/15	KWG1509628	
Fluorene	ND	U	2.7	0.61	1	10/07/15	10/10/15	KWG1509628	
C1-Fluorenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
C2-Fluorenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
C3-Fluorenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
Dibenzothiophene	ND	U	2.7	0.30	1	10/07/15	10/10/15	KWG1509628	
C1-Dibenzothiophenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
C2-Dibenzothiophenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
C3-Dibenzothiophenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
C4-Dibenzothiophenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
Phenanthrene	ND	U	2.7	1.4	1	10/07/15	10/10/15	KWG1509628	
Anthracene	ND	U	2.7	0.58	1	10/07/15	10/10/15	KWG1509628	
C1-Phenanthrenes/Anthracenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
C2-Phenanthrenes/Anthracenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
C3-Phenanthrenes/Anthracenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
C4-Phenanthrenes/Anthracenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
Fluoranthene	ND	U	2.7	0.98	1	10/07/15	10/10/15	KWG1509628	
Pyrene	ND	U	2.7	0.76	1	10/07/15	10/10/15	KWG1509628	
C1-Fluoranthenes/Pyrenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
Benz(a)anthracene	ND	U	2.7	0.72	1	10/07/15	10/10/15	KWG1509628	
Chrysene	ND	U	2.7	0.80	1	10/07/15	10/10/15	KWG1509628	
C1-Chrysenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
C2-Chrysenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
C3-Chrysenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	Integral Consulting, Incorporated	**Service Request:**	K1511029
Project:	Slip 1 Sediment Sampling/C1246	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA

Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KWG1509628-5	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
C4-Chrysenes	ND	U	2.7	2.7	1	10/07/15	10/10/15	KWG1509628	
Benzo(b)fluoranthene†	ND	U	2.7	0.92	1	10/07/15	10/10/15	KWG1509628	
Benzo(k)fluoranthene	ND	U	2.7	0.87	1	10/07/15	10/10/15	KWG1509628	
Benzo(e)pyrene	ND	U	2.7	0.61	1	10/07/15	10/10/15	KWG1509628	
Benzo(a)pyrene	ND	U	2.7	0.76	1	10/07/15	10/10/15	KWG1509628	
Perylene	ND	U	2.7	0.72	1	10/07/15	10/10/15	KWG1509628	
Indeno(1,2,3-cd)pyrene	ND	U	2.7	0.87	1	10/07/15	10/10/15	KWG1509628	
Dibenz(a,h)anthracene	ND	U	2.7	0.80	1	10/07/15	10/10/15	KWG1509628	
Benzo(g,h,i)perylene	ND	U	2.7	0.85	1	10/07/15	10/10/15	KWG1509628	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	60	17-104	10/10/15	Acceptable
Fluoranthene-d10	86	27-106	10/10/15	Acceptable
Terphenyl-d14	67	35-109	10/10/15	Acceptable

† Analyte Comments

Benzo(b)fluoranthene	This analyte cannot be separated from Benzo(j)fluoranthene.

Comments:

Client: Integral Consulting, Incorporated
Project: Slip 1 Sediment Sampling/C1246
Sample Matrix: Sediment

Service Request: K1511029

Surrogate Recovery Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3541
Analysis Method: 8270D SIM

Units: Percent
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
SD0015	K1511029-001	70	85	63
SD0016	K1511029-002	78	93	71
SD0014	K1511029-003	83	103	77
Method Blank	KWG1509628-5	60	86	67
SD0015MS	KWG1509628-1	78	97	73
SD0015DMS	KWG1509628-2	80	101	73
Lab Control Sample	KWG1509628-3	74	89	66
Duplicate Lab Control Sample	KWG1509628-4	86	98	71

Surrogate Recovery Control Limits (%)

Sur1	=	Fluorene-d10	17-104
Sur2	=	Fluoranthene-d10	27-106
Sur3	=	Terphenyl-d14	35-109

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Integral Consulting, Incorporated	**Service Request:**	K1511029
Project:	Slip 1 Sediment Sampling/C1246	**Date Analyzed:**	10/10/2015
		Time Analyzed:	05:57

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS20\DATA\101015\1010F004.D	**Lab Code:**	KWG1509829-2
Instrument ID:	MS20	**Analysis Lot:**	KWG1509829
Analysis Method:	8270D SIM		

		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	75,361	5.79	44,357	7.99	85,846	11.09
	Upper Limit ==>	150,722	6.29	88,714	8.49	171,692	11.59
	Lower Limit ==>	37,681	5.29	22,179	7.49	42,923	10.59
	ICAL Result ==>	86,156	5.86	47,981	8.10	90,906	11.22
Associated Analyses							
Method Blank	KWG1509628-5	77,729	5.79	45,749	8.00	84,547	11.09
SD0016DL	K1511029-002	77,761	5.79	47,533	8.00	89,038	11.09
SD0014DL	K1511029-003	79,685	5.79	47,442	8.00	89,902	11.09
Lab Control Sample	KWG1509628-3	79,648	5.79	45,939	7.99	86,802	11.09
Duplicate Lab Control Sample	KWG1509628-4	78,962	5.79	45,545	7.99	86,516	11.09
SD0015MS	KWG1509628-1	79,974	5.79	46,618	7.99	86,355	11.09
SD0015DMS	KWG1509628-2	79,443	5.79	45,708	7.99	82,662	11.09
SD0015	K1511029-001	79,673	5.79	47,795	7.99	85,903	11.09
SD0016	K1511029-002	78,945	5.79	46,724	7.99	86,208	11.09
SD0014	K1511029-003	78,247	5.79	46,911	7.99	84,002	11.09

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Integral Consulting, Incorporated
Project: Slip 1 Sediment Sampling/C1246

Service Request: K1511029
Date Analyzed: 10/10/2015
Time Analyzed: 05:57

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS20\DATA\101015\1010F004.D
Instrument ID: MS20
Analysis Method: 8270D SIM

Lab Code: KWG1509829-2
Analysis Lot: KWG1509829

		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**
	Results ==>	106,915	18.37	107,996	22.50
	Upper Limit ==>	213,830	18.87	215,992	23.00
	Lower Limit ==>	53,458	17.87	53,998	22.00
	ICAL Result ==>	105,742	18.51	109,538	22.67
Associated Analyses					
Method Blank	KWG1509628-5	107,822	18.37	110,836	22.50
SD0016DL	K1511029-002	109,673	18.37	112,130	22.50
SD0014DL	K1511029-003	109,537	18.37	112,385	22.50
Lab Control Sample	KWG1509628-3	107,788	18.37	109,003	22.50
Duplicate Lab Control Sample	KWG1509628-4	108,260	18.37	109,608	22.50
SD0015MS	KWG1509628-1	102,546	18.38	110,465	22.51
SD0015DMS	KWG1509628-2	101,270	18.37	109,774	22.51
SD0015	K1511029-001	103,804	18.38	112,455	22.51
SD0016	K1511029-002	101,742	18.38	110,113	22.51
SD0014	K1511029-003	100,067	18.39	109,508	22.52

Results flagged with an asterisk (*) indicate values outside control criteria.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Integral Consulting, Incorporated	**Service Request:**	K1511029
Project:	Slip 1 Sediment Sampling/C1246	**Date Extracted:**	10/07/2015
Sample Matrix:	Sediment	**Date Analyzed:**	10/10/2015

Matrix Spike/Duplicate Matrix Spike Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	SD0015	**Units:**	ug/Kg
Lab Code:	K1511029-001	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1509628

		SD0015MS KWG1509628-1 Matrix Spike			SD0015DMS KWG1509628-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	43	415	603	62	382	602	56	23-114	8	40
2-Methylnaphthalene	24	410	603	64	382	602	59	24-115	7	40
1-Methylnaphthalene	17	403	603	64	376	602	60	26-133	7	40
Acenaphthylene	45	449	603	67	447	602	67	32-117	0	40
Acenaphthene	64	463	603	66	457	602	65	33-118	1	40
Dibenzofuran	46	464	603	69	448	602	67	34-131	3	40
Fluorene	81	553	603	78	512	602	72	33-125	8	40
Dibenzothiophene	49	500	603	75	481	602	72	10-137	4	40
Phenanthrene	680	1390	603	118	1170	602	80	29-125	18	40
Anthracene	310	980	603	111	852	602	90	30-127	14	40
Fluoranthene	2000	3110E	603	180 *	2670E	602	108	35-139	15	40
Pyrene	1600	2570E	603	160 *	2160	602	92	27-134	17	40
Benz(a)anthracene	950	1740	603	131 *	1580	602	104	35-122	10	40
Chrysene	1300	2780E	603	245 *	2110	602	133 *	36-126	28	40
Benzo(b)fluoranthene	1500	2260	603	126 *	2150	602	109	35-124	5	40
Benzo(k)fluoranthene	500	1110	603	101	1050	602	91	38-124	5	40
Benzo(e)pyrene	770	1380	603	102	1330	602	94	37-133	4	40
Benzo(a)pyrene	860	1530	603	110	1450	602	98	37-123	5	40
Perylene	290	811	603	86	779	602	81	30-128	4	40
Indeno(1,2,3-cd)pyrene	560	1160	603	100	1080	602	87	28-133	7	40
Dibenz(a,h)anthracene	150	685	603	88	644	602	81	32-125	6	40
Benzo(g,h,i)perylene	530	1100	603	95	1010	602	80	33-128	9	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Integral Consulting, Incorporated	**Service Request:**	K1511029
Project:	Slip 1 Sediment Sampling/C1246	**Date Extracted:**	10/07/2015
Sample Matrix:	Sediment	**Date Analyzed:**	10/10/2015

Lab Control Spike/Duplicate Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method:	EPA 3541	**Units:**	ug/Kg
Analysis Method:	8270D SIM	**Basis:**	Dry
		Level:	Low
		Extraction Lot:	KWG1509628

	Lab Control Sample KWG1509628-3 Lab Control Spike			Duplicate Lab Control Sample KWG1509628-4 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	359	500	72	379	500	76	32-124	5	40
2-Methylnaphthalene	355	500	71	369	500	74	27-126	4	40
1-Methylnaphthalene	347	500	69	361	500	72	37-129	4	40
Acenaphthylene	370	500	74	385	500	77	38-126	4	40
Acenaphthene	354	500	71	370	500	74	39-124	5	40
Dibenzofuran	360	500	72	375	500	75	41-130	4	40
Fluorene	366	500	73	379	500	76	39-129	3	40
Dibenzothiophene	352	500	70	354	500	71	15-117	0	40
Phenanthrene	379	500	76	391	500	78	39-123	3	40
Anthracene	390	500	78	399	500	80	38-130	2	40
Fluoranthene	419	500	84	425	500	85	39-135	1	40
Pyrene	382	500	76	386	500	77	39-134	1	40
Benz(a)anthracene	412	500	82	407	500	81	46-120	1	40
Chrysene	409	500	82	408	500	82	49-120	0	40
Benzo(b)fluoranthene	439	500	88	435	500	87	51-121	1	40
Benzo(k)fluoranthene	419	500	84	423	500	85	55-120	1	40
Benzo(e)pyrene	423	500	85	420	500	84	56-122	1	40
Benzo(a)pyrene	427	500	85	424	500	85	49-122	1	40
Perylene	408	500	82	412	500	82	41-119	1	40
Indeno(1,2,3-cd)pyrene	434	500	87	435	500	87	40-128	0	40
Dibenz(a,h)anthracene	433	500	87	430	500	86	43-125	1	40
Benzo(g,h,i)perylene	422	500	84	421	500	84	49-122	0	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	Integral Consulting, Incorporated	**Service Request:**	K1511029
Project:	Slip 1 Sediment Sampling/C1246	**Date Extracted:**	10/07/2015
Sample Matrix:	Sediment	**Date Analyzed:**	10/10/2015
		Time Analyzed:	06:34

Method Blank Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Instrument ID:**	MS20
Lab Code:	KWG1509628-5	**File ID:**	J:\MS20\DATA\101015\1010F005.D
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1509628

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
SD0016	K1511029-002	J:\MS20\DATA\101015\1010F007.D	10/10/15	07:48
SD0014	K1511029-003	J:\MS20\DATA\101015\1010F008.D	10/10/15	08:25
Lab Control Sample	KWG1509628-3	J:\MS20\DATA\101015\1010F009.D	10/10/15	09:02
Duplicate Lab Control Sample	KWG1509628-4	J:\MS20\DATA\101015\1010F010.D	10/10/15	09:38
SD0015MS	KWG1509628-1	J:\MS20\DATA\101015\1010F011.D	10/10/15	10:15
SD0015DMS	KWG1509628-2	J:\MS20\DATA\101015\1010F012.D	10/10/15	10:52
SD0015	K1511029-001	J:\MS20\DATA\101015\1010F013.D	10/10/15	11:29
SD0016	K1511029-002	J:\MS20\DATA\101015\1010F014.D	10/10/15	12:06
SD0014	K1511029-003	J:\MS20\DATA\101015\1010F015.D	10/10/15	12:43

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	Integral Consulting, Incorporated	**Service Request:**	K1511029
Project:	Slip 1 Sediment Sampling/C1246	**Date Extracted:**	10/07/2015
Sample Matrix:	Sediment	**Date Analyzed:**	10/10/2015
		Time Analyzed:	09:02

Lab Control Sample Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Lab Control Sample	**Instrument ID:**	MS20
Lab Code:	KWG1509628-3	**File ID:**	J:\MS20\DATA\101015\1010F009.D
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1509628

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1509628-5	J:\MS20\DATA\101015\1010F005.D	10/10/15	06:34
SD0016	K1511029-002	J:\MS20\DATA\101015\1010F007.D	10/10/15	07:48
SD0014	K1511029-003	J:\MS20\DATA\101015\1010F008.D	10/10/15	08:25
SD0015MS	KWG1509628-1	J:\MS20\DATA\101015\1010F011.D	10/10/15	10:15
SD0015DMS	KWG1509628-2	J:\MS20\DATA\101015\1010F012.D	10/10/15	10:52
SD0015	K1511029-001	J:\MS20\DATA\101015\1010F013.D	10/10/15	11:29
SD0016	K1511029-002	J:\MS20\DATA\101015\1010F014.D	10/10/15	12:06
SD0014	K1511029-003	J:\MS20\DATA\101015\1010F015.D	10/10/15	12:43

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client: Integral Consulting, Incorporated
Project: Slip 1 Sediment Sampling/C1246

Service Request: K1511029
Date Analyzed: 10/10/2015
Time Analyzed: 05:20

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS20\DATA\101015\1010F003.D
Instrument ID: MS20
Column:

Analysis Method: 8270D SIM
Analysis Lot: KWG1509829

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	25.9	56930	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	29.4	64621	PASS
70	69	0	2	0.4	250	PASS
127	198	10	80	41.3	90557	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	44.9	219520	PASS
199	198	5	9	6.5	14300	PASS
275	198	10	60	34.0	74736	PASS
365	442	1	50	2.6	12778	PASS
441	443	0	100	83.3	78704	PASS
442	442	100	100	100.0	488640	PASS
443	442	15	24	19.3	94445	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1509829-2	J:\MS20\DATA\101015\1010F004.D	10/10/2015	05:57	
Method Blank	KWG1509628-5	J:\MS20\DATA\101015\1010F005.D	10/10/2015	06:34	
SD0016	K1511029-002	J:\MS20\DATA\101015\1010F007.D	10/10/2015	07:48	
SD0014	K1511029-003	J:\MS20\DATA\101015\1010F008.D	10/10/2015	08:25	
Lab Control Sample	KWG1509628-3	J:\MS20\DATA\101015\1010F009.D	10/10/2015	09:02	
Duplicate Lab Control Sample	KWG1509628-4	J:\MS20\DATA\101015\1010F010.D	10/10/2015	09:38	
SD0015MS	KWG1509628-1	J:\MS20\DATA\101015\1010F011.D	10/10/2015	10:15	
SD0015DMS	KWG1509628-2	J:\MS20\DATA\101015\1010F012.D	10/10/2015	10:52	
SD0015	K1511029-001	J:\MS20\DATA\101015\1010F013.D	10/10/2015	11:29	
SD0016	K1511029-002	J:\MS20\DATA\101015\1010F014.D	10/10/2015	12:06	
SD0014	K1511029-003	J:\MS20\DATA\101015\1010F015.D	10/10/2015	12:43	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

Client: Integral Consulting, Incorporated **Service Request:** K1511029
Project: Slip 1 Sediment Sampling/C1246 **Calibration Date:** 08/04/2015

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL14220 **Column:** MS
Instrument ID: MS20

Level ID	File ID	Level ID	File ID
A	J:\MS20\DATA\080415A\0804F007.D	G	J:\MS20\DATA\080415A\0804F013.D
B	J:\MS20\DATA\080415A\0804F008.D	H	J:\MS20\DATA\080415A\0804F014.D
C	J:\MS20\DATA\080415A\0804F009.D	I	J:\MS20\DATA\080415A\0804F015.D
D	J:\MS20\DATA\080415A\0804F010.D	J	J:\MS20\DATA\080415A\0804F016.D
E	J:\MS20\DATA\080415A\0804F011.D		
F	J:\MS20\DATA\080415A\0804F012.D		

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Naphthalene	A	2.0	1.09	B	4.0	1.02	C	8.0	1.01	D	20	1.00	E	100	0.946
	F	200	0.942	G	400	0.954	H	1000	0.882	I	1600	0.899	J	2000	0.877
2-Methylnaphthalene	A	2.0	0.809	B	4.0	0.721	C	8.0	0.696	D	20	0.694	E	100	0.663
	F	200	0.663	G	400	0.673	H	1000	0.636	I	1600	0.649	J	2000	0.635
1-Methylnaphthalene	A	2.0	0.653	B	4.0	0.608	C	8.0	0.626	D	20	0.639	E	100	0.601
	F	200	0.595	G	400	0.605	H	1000	0.560	I	1600	0.578	J	2000	0.564
Acenaphthylene	A	2.0	2.16	B	4.0	1.86	C	8.0	1.81	D	20	1.80	E	100	1.77
	F	200	1.76	G	400	1.80	H	1000	1.72	I	1600	1.74	J	2000	1.73
Acenaphthene	A	2.0	1.28	B	4.0	1.19	C	8.0	1.13	D	20	1.08	E	100	1.05
	F	200	1.04	G	400	1.04	H	1000	1.00	I	1600	1.01	J	2000	1.01
Dibenzofuran	A	2.0	1.86	B	4.0	1.70	C	8.0	1.67	D	20	1.67	E	100	1.64
	F	200	1.64	G	400	1.66	H	1000	1.59	I	1600	1.60	J	2000	1.57
Fluorene	A	2.0	1.60	B	4.0	1.38	C	8.0	1.34	D	20	1.32	E	100	1.29
	F	200	1.29	G	400	1.29	H	1000	1.22	I	1600	1.24	J	2000	1.22
Dibenzothiophene	A	2.0	1.19	B	4.0	1.12	C	8.0	1.00	D	20	1.00	E	100	0.960
	F	200	0.973	G	400	1.01	H	1000	0.953	I	1600	0.974	J	2000	0.970
Phenanthrene				B	4.0	1.17	C	8.0	1.14	D	20	1.11	E	100	1.01
	F	200	1.02	G	400	1.04	H	1000	0.969	I	1600	0.978	J	2000	0.971
Anthracene	A	2.0	1.26	B	4.0	1.05	C	8.0	1.04	D	20	1.02	E	100	0.978
	F	200	0.981	G	400	1.00	H	1000	0.945	I	1600	0.955	J	2000	0.955
Fluoranthene	A	2.0	1.43	B	4.0	1.23	C	8.0	1.18	D	20	1.20	E	100	1.14
	F	200	1.15	G	400	1.18	H	1000	1.11	I	1600	1.11	J	2000	1.12
Pyrene	A	2.0	1.33	B	4.0	1.14	C	8.0	1.09	D	20	1.09	E	100	1.02
	F	200	1.03	G	400	1.05	H	1000	1.03	I	1600	1.05	J	2000	1.05
Benz(a)anthracene				B	4.0	1.22	C	8.0	1.13	D	20	1.06	E	100	0.986
	F	200	0.996	G	400	1.02	H	1000	0.996	I	1600	1.02	J	2000	1.02
Chrysene	A	2.0	1.22	B	4.0	1.09	C	8.0	0.996	D	20	1.02	E	100	0.941
	F	200	0.950	G	400	0.955	H	1000	0.928	I	1600	0.951	J	2000	0.935

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Client: Integral Consulting, Incorporated **Service Request:** K1511029
Project: Slip 1 Sediment Sampling/C1246 **Calibration Date:** 08/04/2015

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL14220 **Column:** MS
Instrument ID: MS20

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Benzo(b)fluoranthene	A	2.0	1.19	B	4.0	1.09	C	8.0	1.07	D	20	1.06	E	100	0.996
	F	200	1.03	G	400	1.07	H	1000	1.03	I	1600	1.06	J	2000	1.05
Benzo(k)fluoranthene	A	2.0	1.35	B	4.0	1.09	C	8.0	1.07	D	20	1.07	E	100	1.05
	F	200	1.07	G	400	1.10	H	1000	1.04	I	1600	1.06	J	2000	1.02
Benzo(e)pyrene	A	2.0	1.19	B	4.0	1.05	C	8.0	1.03	D	20	1.03	E	100	0.983
	F	200	1.00	G	400	1.03	H	1000	0.988	I	1600	1.00	J	2000	0.986
Benzo(a)pyrene	A	2.0	1.14	B	4.0	1.01	C	8.0	0.951	D	20	0.977	E	100	0.932
	F	200	0.956	G	400	0.982	H	1000	0.943	I	1600	0.971	J	2000	0.958
Perylene	A	2.0	1.17	B	4.0	1.02	C	8.0	1.00	D	20	0.988	E	100	0.943
	F	200	0.959	G	400	0.983	H	1000	0.945	I	1600	0.971	J	2000	0.955
Indeno(1,2,3-cd)pyrene	A	2.0	1.24	B	4.0	1.11	C	8.0	1.01	D	20	1.04	E	100	0.980
	F	200	0.996	G	400	1.02	H	1000	0.977	I	1600	0.998	J	2000	0.986
Dibenz(a,h)anthracene	A	2.0	1.21	B	4.0	0.967	C	8.0	1.00	D	20	1.07	E	100	1.00
	F	200	1.01	G	400	1.03	H	1000	0.992	I	1600	1.02	J	2000	1.01
Benzo(g,h,i)perylene	A	2.0	1.31	B	4.0	1.13	C	8.0	1.10	D	20	1.16	E	100	1.07
	F	200	1.07	G	400	1.08	H	1000	1.02	I	1600	1.04	J	2000	1.02
Fluorene-d10				B	4.0	1.43	C	8.0	1.25	D	20	1.14	E	100	1.08
	F	200	1.08	G	400	1.09	H	1000	1.04	I	1600	1.06	J	2000	1.04
Fluoranthene-d10	A	2.0	1.19	B	4.0	1.10	C	8.0	1.00	D	20	1.03	E	100	0.977
	F	200	0.984	G	400	1.03	H	1000	0.990	I	1600	1.01	J	2000	1.02
Terphenyl-d14	A	2.0	1.00	B	4.0	0.848	C	8.0	0.771	D	20	0.765	E	100	0.719
	F	200	0.727	G	400	0.743	H	1000	0.724	I	1600	0.744	J	2000	0.744

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Client: Integral Consulting, Incorporated **Service Request:** K1511029
Project: Slip 1 Sediment Sampling/C1246 **Calibration Date:** 08/04/2015

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL14220 **Column:** MS
Instrument ID: MS20

		Calibration Evaluation					RRF Evaluation		
Analyte Name	Compound Type	Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
Naphthalene	MS	AverageRF	% RSD	7.0		≤ 20	0.962		0.70
2-Methylnaphthalene	MS	AverageRF	% RSD	7.6		≤ 20	0.684		0.40
1-Methylnaphthalene	MS	AverageRF	% RSD	5.1		≤ 20	0.603		0.01
Acenaphthylene	MS	AverageRF	% RSD	7.1		≤ 20	1.82		0.90
Acenaphthene	MS	AverageRF	% RSD	8.4		≤ 20	1.09		0.90
Dibenzofuran	MS	AverageRF	% RSD	4.9		≤ 20	1.66		0.80
Fluorene	MS	AverageRF	% RSD	8.4		≤ 20	1.32		0.90
Dibenzothiophene	MS	AverageRF	% RSD	7.8		≤ 20	1.02		0.01
Phenanthrene	MS	AverageRF	% RSD	7.2		≤ 20	1.04		0.70
Anthracene	MS	AverageRF	% RSD	9.1		≤ 20	1.02		0.70
Fluoranthene	MS	AverageRF	% RSD	8.0		≤ 20	1.18		0.60
Pyrene	MS	AverageRF	% RSD	8.4		≤ 20	1.09		0.60
Benz(a)anthracene	MS	AverageRF	% RSD	7.2		≤ 20	1.05		0.80
Chrysene	MS	AverageRF	% RSD	9.2		≤ 20	0.998		0.70
Benzo(b)fluoranthene	MS	AverageRF	% RSD	4.8		≤ 20	1.07		0.70
Benzo(k)fluoranthene	MS	AverageRF	% RSD	8.6		≤ 20	1.09		0.70
Benzo(e)pyrene	MS	AverageRF	% RSD	5.9		≤ 20	1.03		0.01
Benzo(a)pyrene	MS	AverageRF	% RSD	6.1		≤ 20	0.982		0.70
Perylene	MS	AverageRF	% RSD	6.8		≤ 20	0.993		0.01
Indeno(1,2,3-cd)pyrene	MS	AverageRF	% RSD	7.9		≤ 20	1.04		0.50
Dibenz(a,h)anthracene	MS	AverageRF	% RSD	6.7		≤ 20	1.03		0.40
Benzo(g,h,i)perylene	MS	AverageRF	% RSD	7.8		≤ 20	1.10		0.50
Fluorene-d10	SURR	AverageRF	% RSD	11.4		≤ 20	1.14		0.01
Fluoranthene-d10	SURR	AverageRF	% RSD	6.4		≤ 20	1.03		0.01
Terphenyl-d14	SURR	AverageRF	% RSD	11.2		≤ 20	0.779		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

QA/QC Results

Client: Integral Consulting, Incorporated
Project: Slip 1 Sediment Sampling/C1246

Service Request: K1511029
Calibration Date: 08/04/2015
Date Analyzed: 08/04/2015

Second Source Calibration Verification
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270D SIM

Calibration ID: CAL14220
Units: ng/ml

File ID: J:\MS20\DATA\080415A\0804F017.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	400	400	0.962	0.950	-1	NA	± 30 %	AverageRF
2-Methylnaphthalene	400	390	0.684	0.662	-3	NA	± 30 %	AverageRF
1-Methylnaphthalene	400	390	0.603	0.590	-2	NA	± 30 %	AverageRF
Acenaphthylene	400	390	1.82	1.78	-2	NA	± 30 %	AverageRF
Acenaphthene	400	390	1.09	1.05	-4	NA	± 30 %	AverageRF
Dibenzofuran	400	400	1.66	1.66	0	NA	± 30 %	AverageRF
Fluorene	400	390	1.32	1.28	-3	NA	± 30 %	AverageRF
Dibenzothiophene	400	400	1.02	1.02	0	NA	± 30 %	AverageRF
Phenanthrene	400	390	1.04	1.02	-3	NA	± 30 %	AverageRF
Anthracene	400	390	1.02	1.01	-1	NA	± 30 %	AverageRF
Fluoranthene	400	390	1.18	1.16	-2	NA	± 30 %	AverageRF
Pyrene	400	380	1.09	1.03	-6	NA	± 30 %	AverageRF
Benz(a)anthracene	400	380	1.05	1.01	-4	NA	± 30 %	AverageRF
Chrysene	400	390	0.998	0.978	-2	NA	± 30 %	AverageRF
Benzo(b)fluoranthene	400	410	1.07	1.08	1	NA	± 30 %	AverageRF
Benzo(k)fluoranthene	400	400	1.09	1.08	-1	NA	± 30 %	AverageRF
Benzo(e)pyrene	400	380	1.03	0.988	-4	NA	± 30 %	AverageRF
Benzo(a)pyrene	400	390	0.982	0.964	-2	NA	± 30 %	AverageRF
Perylene	400	410	0.993	1.01	1	NA	± 30 %	AverageRF
Indeno(1,2,3-cd)pyrene	400	380	1.04	0.985	-5	NA	± 30 %	AverageRF
Dibenz(a,h)anthracene	400	380	1.03	0.991	-4	NA	± 30 %	AverageRF
Benzo(g,h,i)perylene	400	390	1.10	1.07	-3	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Client: Integral Consulting, Incorporated
Project: Slip 1 Sediment Sampling/C1246

Service Request: K1511029
Date Analyzed: 10/10/2015

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270D SIM

Calibration Date: 08/04/2015
Calibration ID: CAL14220
Analysis Lot: KWG1509829
Units: ng/ml

File ID: J:\MS20\DATA\101015\1010F004.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	400	420	0.70	0.962	1.02	6	NA	± 20	AverageRF
2-Methylnaphthalene	400	420	0.40	0.684	0.710	4	NA	± 20	AverageRF
1-Methylnaphthalene	400	410	0.01	0.603	0.622	3	NA	± 20	AverageRF
Acenaphthylene	400	410	0.90	1.82	1.85	2	NA	± 20	AverageRF
Acenaphthene	400	400	0.90	1.09	1.07	-1	NA	± 20	AverageRF
Dibenzofuran	400	410	0.80	1.66	1.71	3	NA	± 20	AverageRF
Fluorene	400	400	0.90	1.32	1.33	1	NA	± 20	AverageRF
Dibenzothiophene	400	420	0.01	1.02	1.06	4	NA	± 20	AverageRF
Phenanthrene	400	410	0.70	1.04	1.06	1	NA	± 20	AverageRF
Anthracene	400	400	0.70	1.02	1.02	0	NA	± 20	AverageRF
Fluoranthene	400	430	0.60	1.18	1.26	6	NA	± 20	AverageRF
Pyrene	400	390	0.60	1.09	1.06	-2	NA	± 20	AverageRF
Benz(a)anthracene	400	410	0.80	1.05	1.07	2	NA	± 20	AverageRF
Chrysene	400	380	0.70	0.998	0.955	-4	NA	± 20	AverageRF
Benzo(b)fluoranthene	400	440	0.70	1.07	1.16	9	NA	± 20	AverageRF
Benzo(k)fluoranthene	400	420	0.70	1.09	1.14	4	NA	± 20	AverageRF
Benzo(e)pyrene	400	420	0.01	1.03	1.09	6	NA	± 20	AverageRF
Benzo(a)pyrene	400	430	0.70	0.982	1.05	7	NA	± 20	AverageRF
Perylene	400	420	0.01	0.993	1.04	4	NA	± 20	AverageRF
Indeno(1,2,3-cd)pyrene	400	430	0.50	1.04	1.12	8	NA	± 20	AverageRF
Dibenz(a,h)anthracene	400	430	0.40	1.03	1.11	8	NA	± 20	AverageRF
Benzo(g,h,i)perylene	400	410	0.50	1.10	1.13	3	NA	± 20	AverageRF
Fluorene-d10	400	390	0.01	1.14	1.10	-3	NA	± 20	AverageRF
Fluoranthene-d10	400	420	0.01	1.03	1.09	5	NA	± 20	AverageRF
Terphenyl-d14	400	400	0.01	0.779	0.788	1	NA	± 20	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

ALS Group USA, Corp. dba ALS Environmental

QA/QC Results

Client: Integral Consulting, Incorporated **Service Request:** K1511029
Project: Slip 1 Sediment Sampling/C1246

Analysis Run Log
Polynuclear Aromatic Hydrocarbons

Analysis Method: 8270D SIM **Analysis Lot:** KWG1509829
Instrument ID: MS20

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
1010F003.D	GC/MS Tuning - Decafluorotriphenylphosph	KWG1509829-1	10/10/2015	05:20		10/10/2015	05:50
1010F004.D	Continuing Calibration Verification	KWG1509829-2	10/10/2015	05:57		10/10/2015	06:27
1010F005.D	Method Blank	KWG1509628-5	10/10/2015	06:34		10/10/2015	07:04
1010F006.D	ZZZZZZ	ZZZZZZ	10/10/2015	07:11		10/10/2015	07:40
1010F007.D	SD0016	K1511029-002	10/10/2015	07:48		10/10/2015	08:18
1010F008.D	SD0014	K1511029-003	10/10/2015	08:25		10/10/2015	08:55
1010F009.D	Lab Control Sample	KWG1509628-3	10/10/2015	09:02		10/10/2015	09:31
1010F010.D	Duplicate Lab Control Sample	KWG1509628-4	10/10/2015	09:38		10/10/2015	10:07
1010F011.D	SD0015MS	KWG1509628-1	10/10/2015	10:15		10/10/2015	10:45
1010F012.D	SD0015DMS	KWG1509628-2	10/10/2015	10:52		10/10/2015	11:22
1010F013.D	SD0015	K1511029-001	10/10/2015	11:29		10/10/2015	11:58
1010F014.D	SD0016	K1511029-002	10/10/2015	12:06		10/10/2015	12:36
1010F015.D	SD0014	K1511029-003	10/10/2015	12:43		10/10/2015	13:13

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: Integral Consulting, Incorporated
Project: Slip 1 Sediment Sampling/C1246
Sample Matrix: Sediment

Service Request: K1511029
Date Extracted: 10/07/2015

Extraction Prep Log
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3541
Analysis Method: 8270D SIM

Extraction Lot: KWG1509628
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
SD0015	K1511029-001	06/04/15	06/05/15	13.989g	10ml	60.7	*
SD0016	K1511029-002	06/04/15	06/05/15	18.465g	10ml	76.6	*
SD0016DL	K1511029-002	06/04/15	06/05/15	18.465g	10ml	76.6	*
SD0014	K1511029-003	06/04/15	06/05/15	18.529g	10ml	67.0	*
SD0014DL	K1511029-003	06/04/15	06/05/15	18.529g	10ml	67.0	*
Method Blank	KWG1509628-5	NA	NA	18.529g	10ml	NA	
SD0015MS	KWG1509628-1	06/04/15	06/05/15	13.664g	10ml	60.7	
SD0015DMS	KWG1509628-2	06/04/15	06/05/15	13.673g	10ml	60.7	
Lab Control Sample	KWG1509628-3	NA	NA	10.000g	10ml	NA	
Duplicate Lab Control Sample	KWG1509628-4	NA	NA	10.000g	10ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Raw Data

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Total Solids

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Benchsheet

Service Request #:	**K1510951, K1510991, KQ1511631, K1511012, K1511029, K1511040, K1511047, K1511060, K1511174, K1511189, K1511328**	**Run #:**	**466469**
Test:	**TS**	**Balance ID:**	**K-Balance-16**
Method:	**160.3 Modified**		

Pan ID:	Lab Code:	Tare (g)	Wet Wt. (g)	Tare + Dry Wt. (g)	Dry Weight (g)	% Total Solids	RPD
	K1510951-011	1.27	2.67	3.81	2.54	95.1	
	K1510991-001	1.29	11.54	11.43	10.1	87.9	
	K1510991-001DUP	1.29	10.37	10.43	9.14	88.1	<1
	K1510991-002	1.31	12.01	11.94	10.6	88.5	
	K1511012-001	1.29	10.86	9.94	8.65	79.7	
	K1511012-002	1.29	11.25	10.44	9.15	81.3	
	K1511029-001	1.29	12.90	9.12	7.83	60.7	
	K1511029-002	1.30	15.30	13.02	11.7	76.6	
	K1511029-003	1.32	12.96	10.00	8.68	67.0	
	K1511040-001	1.30	19.18	16.68	15.4	80.2	
	K1511040-002	1.30	10.77	9.62	8.32	77.3	
	K1511047-001	1.30	15.11	16.39	15.1	99.9	
	K1511047-002	1.31	11.92	13.21	11.9	99.8	
	K1511047-002DUP	1.30	10.10	11.40	10.1	100	<1
	K1511060-005	1.31	13.62	10.21	8.90	65.3	
	K1511060-006	1.30	11.40	6.39	5.09	44.6	
	K1511060-007	1.30	13.17	9.73	8.43	64.0	
	K1511060-008	1.30	11.69	10.23	8.93	76.4	
	K1511174-001	1.30	18.88	5.27	3.97	21.0	
	K1511189-001	1.3221	27.8922	1.7694	0.447	1.60	
	K1511189-002	1.30	11.63	10.09	8.79	75.6	
	K1511328-001	1.30	15.38	13.61	12.3	80.0	

	Oven ID	Temp In	Temp Out	Date In	Time In	Date Out	Time Out	Thermometer ID
Oven1	K-OVEN-07	105	105	10/12/2015	10:47	10/13/2015	07:58	

	Cal EQID	Cal Start Value	Cal End Value	Start Date	Start Time	End Date	End Time
Calibration1	K-Balance-16	1.00, 99.99 - 0.9999, 99.9969	1.00, 100.00 - 1.0000, 99.9969	10/12/2015	10:22	10/12/2015	10:47
Calibration2	K-Balance-16	1.01, 100.00 - 0.9998, 99.9975	1.00, 99.98 - 1.0000, 99.9970	10/13/2015	08:26	10/13/2015	08:32

Comments: DJM USED BOTH BALANCE-16 AND BALANCE-43 Reviewed 10-13-15 L.J.

Polynuclear Aromatic Hydrocarbons

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Exception Report

Data File: J:\MS20\DATA\101015\1010F013.D
Lab ID: K1511029-001
RunType: SMPL
Matrix: SEDIMENT

Date Acquired: 10/10/2015 11:29
Date Quantitated: 10/12/2015 08:45
Batch ID: KWG1509829
Analysis Method: 8270D SIM
ListJoinID: LJ17229

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	125	NA	14		x
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA		x
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Co-elution	2-Methylnaphthalene	6.53	NA	NA	Narrate
	C1-Naphthalenes	6.53	NA	NA	

OCT 1 2 2015
Primary Review: _____

Secondary Review: OCT 1 2 2015

Printed: 10/12/2015 09:36:41
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS20\DATA\101015\1010F013.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 11:29	**Quant Date:**	10/12/2015 08:45	**Vial:**	11
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1511029-001			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	V	**Matrix:**	SEDIMENT
Prod Code:	8270D PAH Alk S	**Collect Date:**	06/04/2015	**Receive Date:**	06/05/2015

Analysis Lot:	KWG1509829	**Prep Lot:**	KWG1509628	**Report Group:**	K1511029
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1472848	**Prep Date:**	10/07/2015		

Quant Method:	J:\MS20\METHODS\080415SIMALK	**Calibration ID:**	CAL14220
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17229
Tune Ref:	J:\MS20\DATA\101015\1010F003.D	**Method ID:**	MJ1187
MB Ref:	J:\MS20\DATA\101015\1010F005.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.79	0.00	136	79673	200.00	OK
2	Acenaphthene-d10	7.99	0.00	164	47795	200.00	OK
3	Phenanthrene-d10	11.09	0.00	188	85903	200.00	OK
4	Chrysene-d12	18.38	0.01	240	103804	200.00	OK
5	Perylene-d12	22.51	0.01	264	112455	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	8.96	0.00	0.00	176	37994	139.95	70	17-104	OK
3	Fluoranthene-d10	14.26	0.04	0.00	212	75269	169.57	85	27-106	OK
4	Terphenyl-d14	15.54	0.00	0.00	244	50646	125.29	63	35-109	OK

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.80		0.00	128	14084	36.77	43		
1	2-Methylnaphthalene	6.53c		0.00	142	5657	20.77	24		
1	1-Methylnaphthalene	6.64		0.00	142	3399m	14.16	17		
1	C1-Naphthalenes	6.53c			142	9623m	25.12	30	J	
1	C2-Naphthalenes	7.46			156	15557m	40.61	48	J	
1	C3-Naphthalenes	8.65			170	17057m	44.53	52	J	
1	C4-Naphthalenes	9.85			184	22291m	58.19	69	J	
2	Acenaphthylene	7.76		0.00	152	16426	37.86	45		
2	Acenaphthene	8.05		0.00	154	14097	54.35	64		
2	Dibenzofuran	8.37		0.00	168	15495	39.07	46		
2	Fluorene	9.01		0.00	166	21676	68.76	81		
2	C1-Fluorenes	10.22			180	12137m	38.50	45	J	
2	C2-Fluorenes				194	0		5.9	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS20\DATA\101015\1010F013.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 11:29	**Quant Date:**	10/12/2015 08:45	**Vial:**	11
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1511029-001			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	C3-Fluorenes	13.09			208	27588m	87.52	100	J	
3	Dibenzothiophene	10.84		0.00	184	18262	41.85	49		
3	C1-Dibenzothiophenes	11.94			198	27128m	62.17	73	J	
3	C2-Dibenzothiophenes	13.04			212	45848m	105.07	120	J	
3	C3-Dibenzothiophenes	14.66			226	43282m	99.19	120	J	
3	C4-Dibenzothiophenes	15.54			240	33304m	76.33	90	JX	
3	Phenanthrene	11.15		0.00	178	260178	579.72	680		
3	Anthracene	11.27		0.00	178	115011	262.89	310		
3	C1-Phenanthrenes/Anthracenes	12.48			192	176946m	394.27	460	J	
3	C2-Phenanthrenes/Anthracenes	13.93			206	170133m	379.09	450	J	
3	C3-Phenanthrenes/Anthracenes	15.22			220	114106m	254.25	300	J	
3	C4-Phenanthrenes/Anthracenes	15.86			234	70630m	157.38	190	J	
3	Fluoranthene	14.30	0.03	0.00	202	875060	1,720	2000		
4	Pyrene	14.88	0.02	0.00	202	770053	1,365	1600		
4	C1-Fluoranthenes/Pyrenes	15.89			216	518447m	919.11	1100	J	
4	Benz(a)anthracene	18.36	0.01	0.00	228	439517	805.86	950		
4	Chrysene	18.45		0.00	228	575753	1,112	1300		
4	C1-Chrysenes	19.57			242	246856m	476.74	560	J	
4	C2-Chrysenes	20.84			256	175638m	339.20	400	J	
4	C3-Chrysenes	22.14			270	125703m	242.77	290	J	
4	C4-Chrysenes	23.52			284	75646m	146.09	170	J	
5	Benzo(b)fluoranthene	21.37	0.02	0.00	252	761305	1,271	1500		
5	Benzo(k)fluoranthene	21.44		0.00	252	259449	423.02	500		
5	Benzo(e)pyrene	22.16	0.01	0.00	252	377082	651.99	770		
5	Benzo(a)pyrene	22.32	0.01	0.00	252	403832	731.47	860		
5	Perylene	22.59	0.02	0.00	252	137975	247.02	290		
5	Indeno(1,2,3-cd)pyrene	26.32	0.02	0.00	276	274986	472.04	560		
5	Dibenz(a,h)anthracene	26.49	0.01	0.00	278	75989	131.03	150		
5	Benzo(g,h,i)perylene	27.08	0.01	0.00	276	276458	446.71	530		

Prep Amount:	13.989 g	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1
Solids:	60.7 %		

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 08:27:48 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.79	136	79673	200.00	ng/ml	0.00
11) Acenaphthene-d10	7.99	164	47795	200.00	ng/ml	-0.02
21) Phenanthrene-d10	11.09	188	85903	200.00	ng/ml	-0.02
37) Chrysene-d12	18.38	240	103804	200.00	ng/ml	-0.02
50) Perylene-d12	22.51	264	112455	200.00	ng/ml	-0.02
System Monitoring Compounds						
16) Fluorene-d10	8.96	176	37994	139.95	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 13.99%			
36) Fluoranthene-d10	14.26	212	75269	169.57	ng/ml	0.02
Spiked Amount 1000.000			Recovery = 16.96%			
43) Terphenyl-d14	15.54	244	50646	125.29	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 12.53%			
Target Compounds						Qvalue
2) Naphthalene	5.80	128	14084	36.77	ng/ml	100
3) 2-Methylnaphthalene	6.53	142	5657	20.77	ng/ml	100
4) 1-Methylnaphthalene	6.64	142	3399m	14.16	ng/ml	
5) Biphenyl	7.12	154	2485m	7.55	ng/ml	
6) 2,6-Dimethylnaphthalene	7.36	156	3832	16.00	ng/ml	99
7) C1-Naphthalenes	6.53	142	9623m	25.12	ng/ml	
8) C2-Naphthalenes	7.46	156	15557m	40.61	ng/ml	
9) C3-Naphthalenes	8.65	170	17057m	44.53	ng/ml	
10) C4-Naphthalenes	9.85	184	22291m	58.19	ng/ml	
12) Acenaphthylene	7.76	152	16426	37.86	ng/ml	99
13) Acenaphthene	8.05	154	14097	54.35	ng/ml	99
14) Dibenzofuran	8.37	168	15495	39.07	ng/ml	93
15) 2,3,5-Trimethylnaphthalene	8.77	170	3617m	14.23	ng/ml	
17) Fluorene	9.01	166	21676	68.76	ng/ml	98
18) C1-Fluorenes	10.22	180	12137m	38.50	ng/ml	
20) C3-Fluorenes	13.09	208	27588m	87.52	ng/ml	
22) Dibenzothiophene	10.84	184	18262	41.85	ng/ml	99
23) C1-Dibenzothiophenes	11.94	198	27128m	62.17	ng/ml	
24) C2-Dibenzothiophenes	13.04	212	45848m	105.07	ng/ml	
25) C3-Dibenzothiophenes	14.66	226	43282m	99.19	ng/ml	
26) C4-Dibenzothiophenes	15.54	240	33304m	76.33	ng/ml	
27) Phenanthrene	11.15	178	260178	579.72	ng/ml	99
28) Anthracene	11.27	178	115011	262.89	ng/ml	99
29) Carbazole	11.75	167	33497	85.16	ng/ml	98
30) 1-Methylphenanthrene	12.74	192	26446m	77.01	ng/ml	
31) C1-Phenanthrenes/Anthracen	12.48	192	176946m	394.27	ng/ml	
32) C2-Phenanthrenes/Anthracen	13.93	206	170133m	379.09	ng/ml	

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

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F013.D Vial: 11
Acq On : 10 Oct 2015 11:29 am Operator: LWeiskopf
Sample : K1511029-001 Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 08:27:48 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
33)	C3-Phenanthrenes/Anthracen	15.22	220	114106m	254.25 ng/ml	
34)	C4-Phenanthrenes/Anthracen	15.86	234	70630m	157.38 ng/ml	
35)	Fluoranthene	14.30	202	875060	1719.60 ng/ml	98
38)	Pyrene	14.88	202	770053	1365.16 ng/ml	94
39)	C1-Fluoranthenes/Pyrenes	15.89	216	518447m	919.11 ng/ml	
40)	C2-Fluoranthenes/Pyrenes	17.34	230	227566m	403.43 ng/ml	
41)	C3-Fluoranthenes/Pyrenes	18.31	244	137560m	243.87 ng/ml	
42)	C4-Fluoranthenes/Pyrenes	19.15	258	97925m	173.60 ng/mL	
44)	Benz(a)anthracene	18.36	228	439517	805.86 ng/ml	99
45)	Chrysene	18.45	228	575753	1111.93 ng/ml	100
46)	C1-Chrysenes	19.57	242	246856m	476.74 ng/ml	
47)	C2-Chrysenes	20.84	256	175638m	339.20 ng/ml	
48)	C3-Chrysenes	22.14	270	125703m	242.77 ng/ml	
49)	C4-Chrysenes	23.52	284	75646m	146.09 ng/ml	
51)	Benzo(b)fluoranthene	21.37	252	761305	1271.19 ng/ml	98
52)	Benzo(k)fluoranthene	21.44	252	259449	423.02 ng/ml	100
53)	Benzo(e)pyrene	22.16	252	377082	651.99 ng/ml	98
54)	Benzo(a)pyrene	22.32	252	403832	731.47 ng/ml	100
55)	Perylene	22.59	252	137975	247.02 ng/ml	99
56)	Indeno(1,2,3-cd)pyrene	26.32	276	274986	472.04 ng/ml	98
57)	Dibenz(a,h)anthracene	26.49	278	75989	131.03 ng/ml	99
58)	Benzo(g,h,i)perylene	27.08	276	276458	446.71 ng/ml	99

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

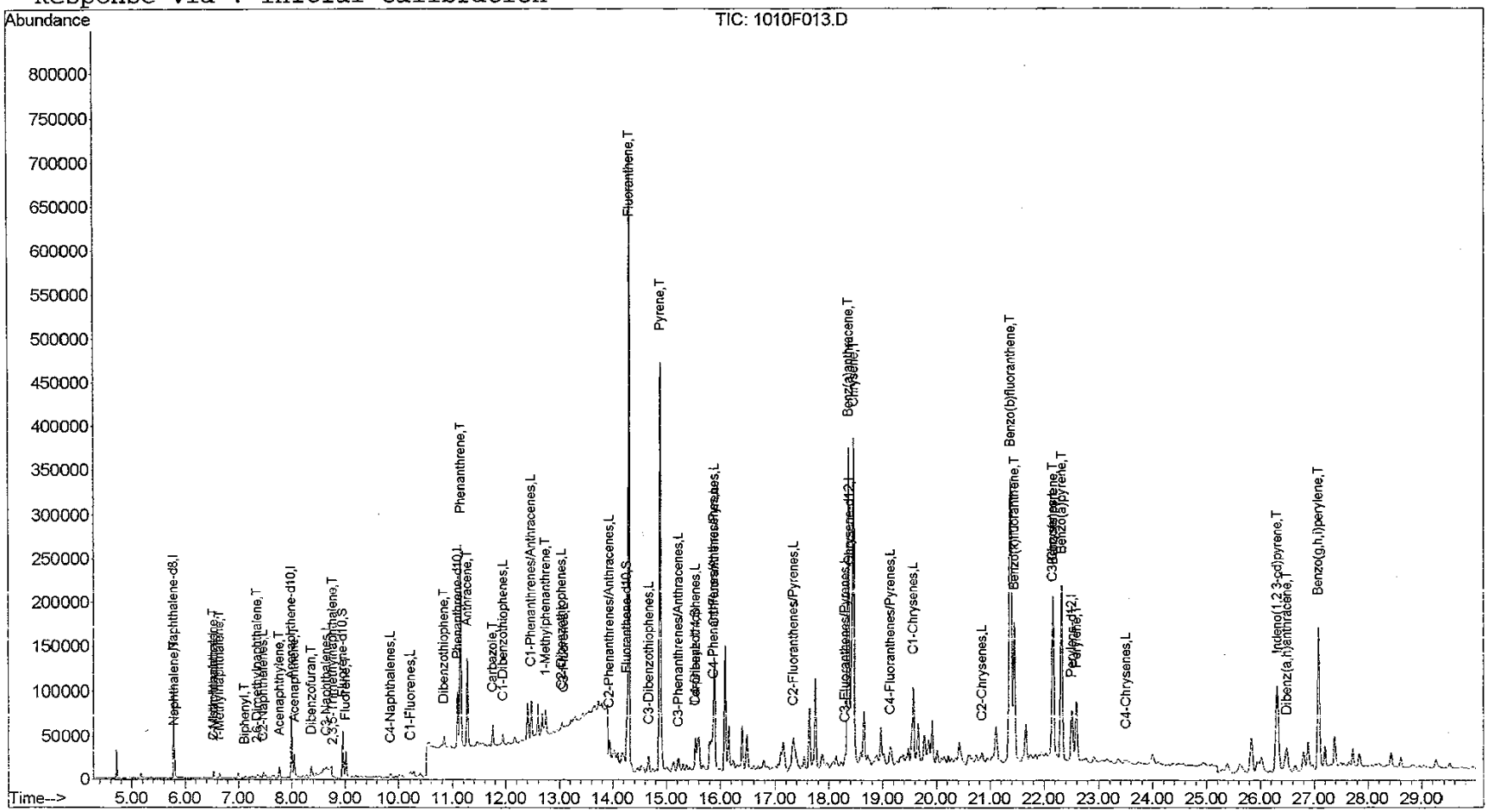
Quantitation Report (QT Reviewed)

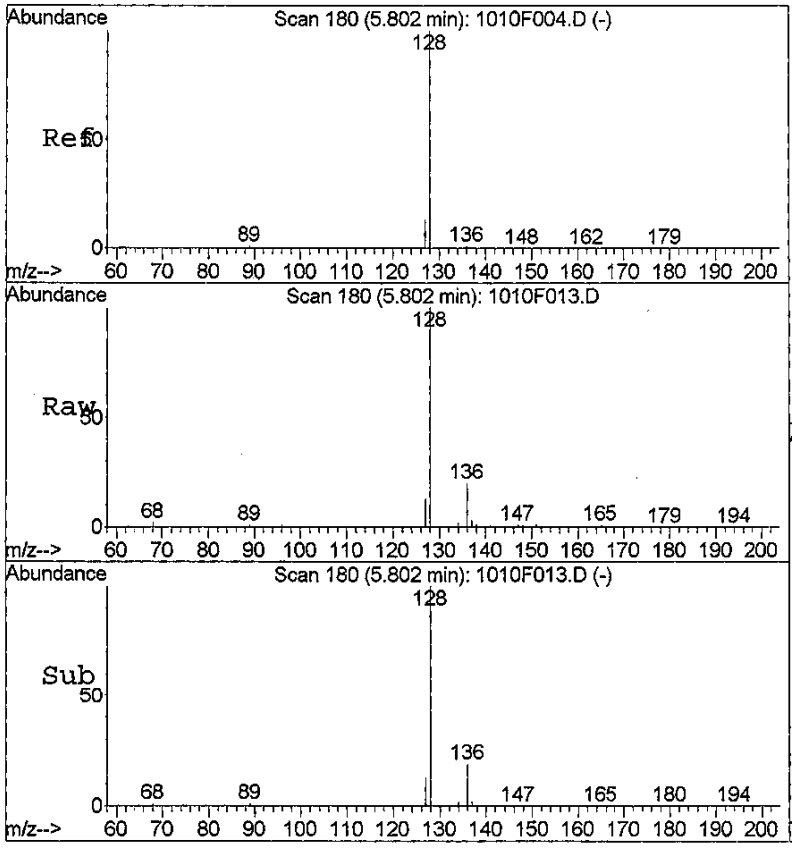
Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:45 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00

Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration

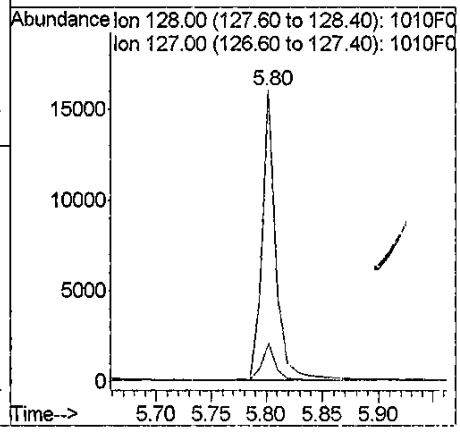


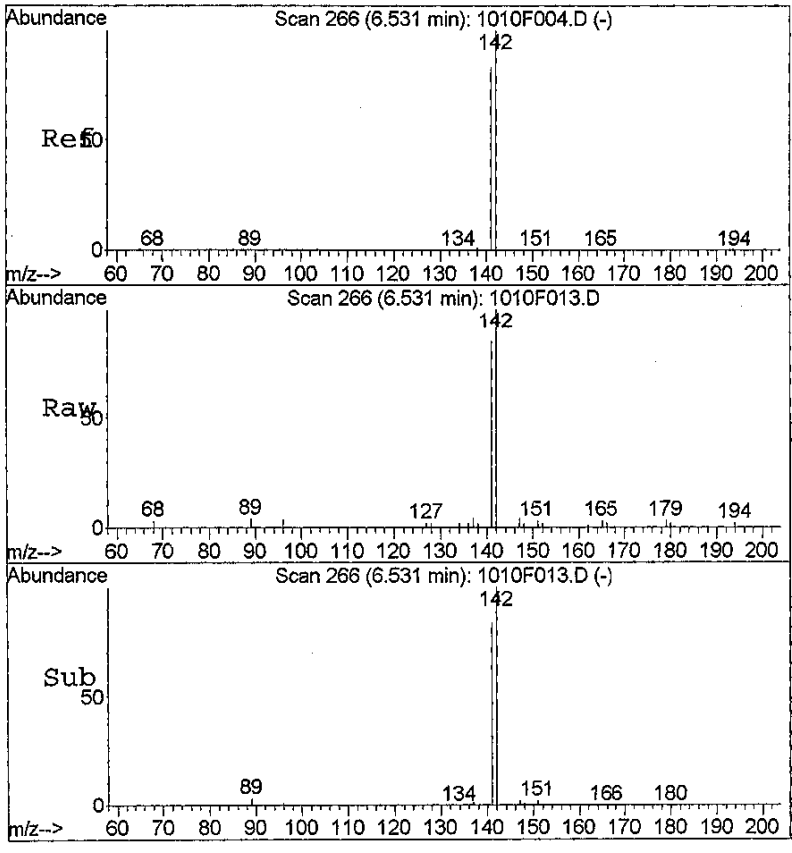


#2
Naphthalene
Concen: 36.77 ng/ml
RT: 5.80 min Scan# 180
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:128 Resp: 14084

Ion	Ratio	Lower	Upper
128	100		
127	12.8	0.0	42.7

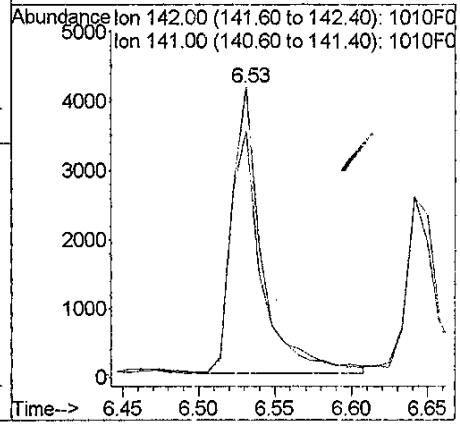


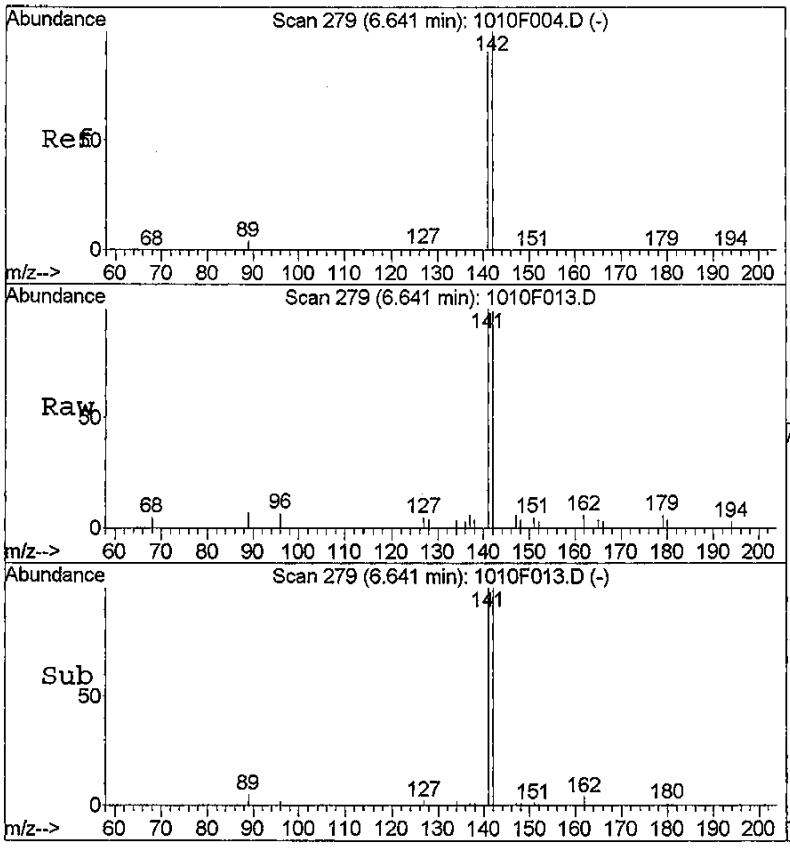


#3
2-Methylnaphthalene
Concen: 20.77 ng/ml
RT: 6.53 min Scan# 266
Delta R.T. -0.01 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:142 Resp: 5657

Ion	Ratio	Lower	Upper
142	100		
141	84.3	54.2	114.2

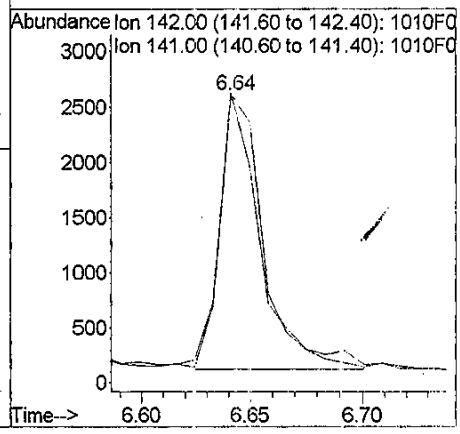


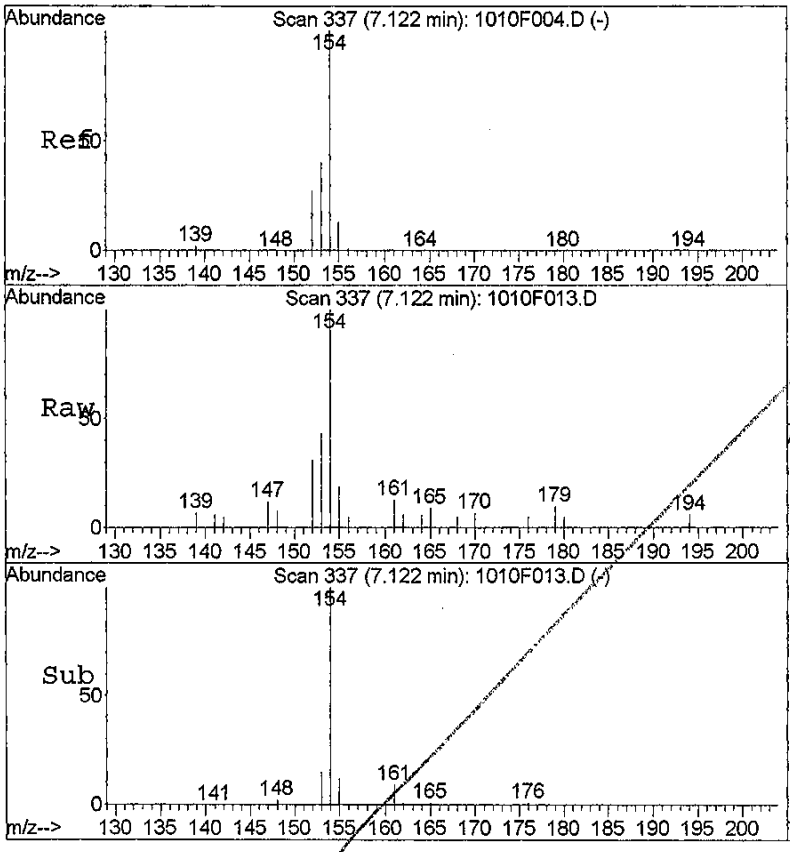


#4
1-Methylnaphthalene
Concen: 14.16 ng/ml m
RT: 6.64 min Scan# 279
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:142 Resp: 3399

Ion	Ratio	Lower	Upper
142	100		
141	100.6	60.2	120.2



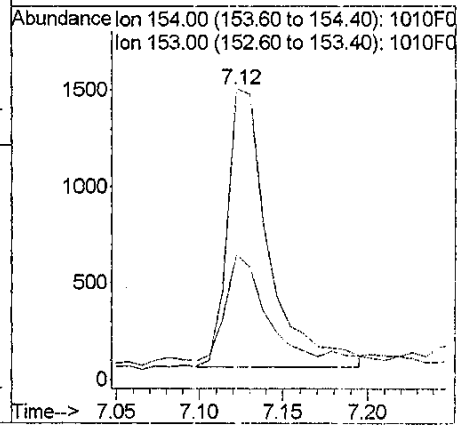


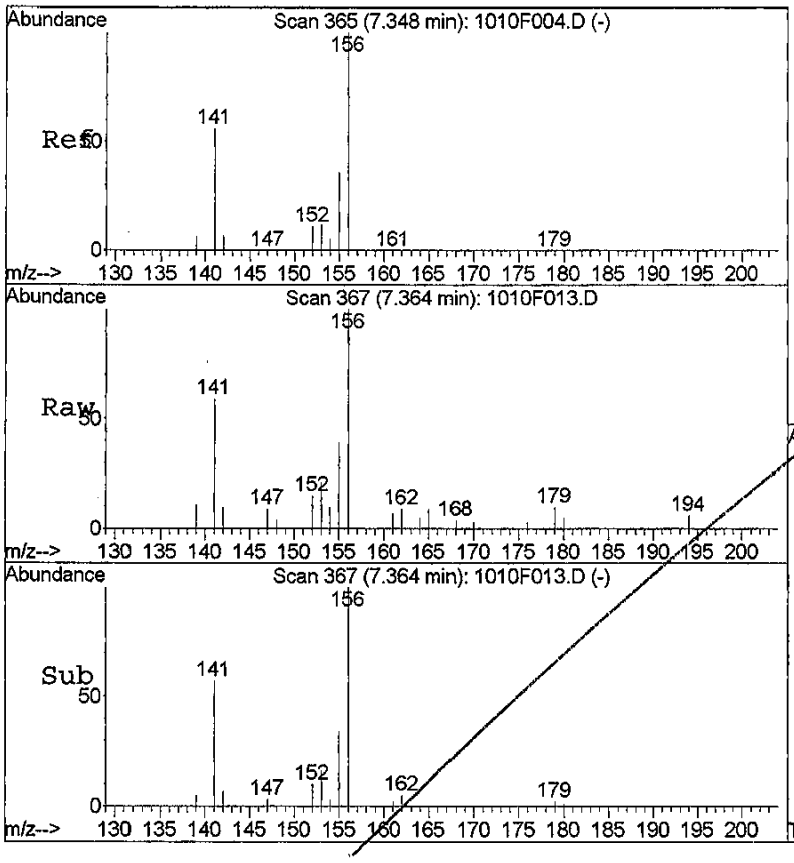
#5
Biphenyl
Concen: 7.55 ng/ml m
RT: 7.12 min Scan# 337
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

NT

Tgt Ion:154 Resp: 2485

Ion	Ratio	Lower	Upper
154	100		
153	43.0	10.0	70.0

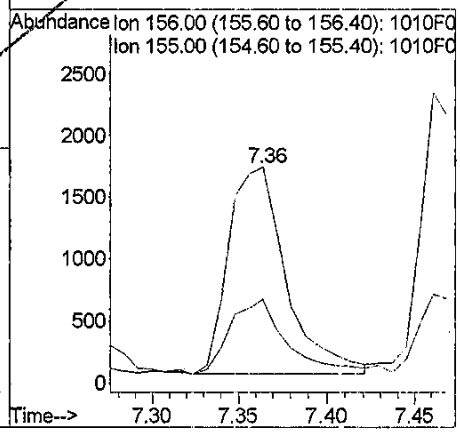


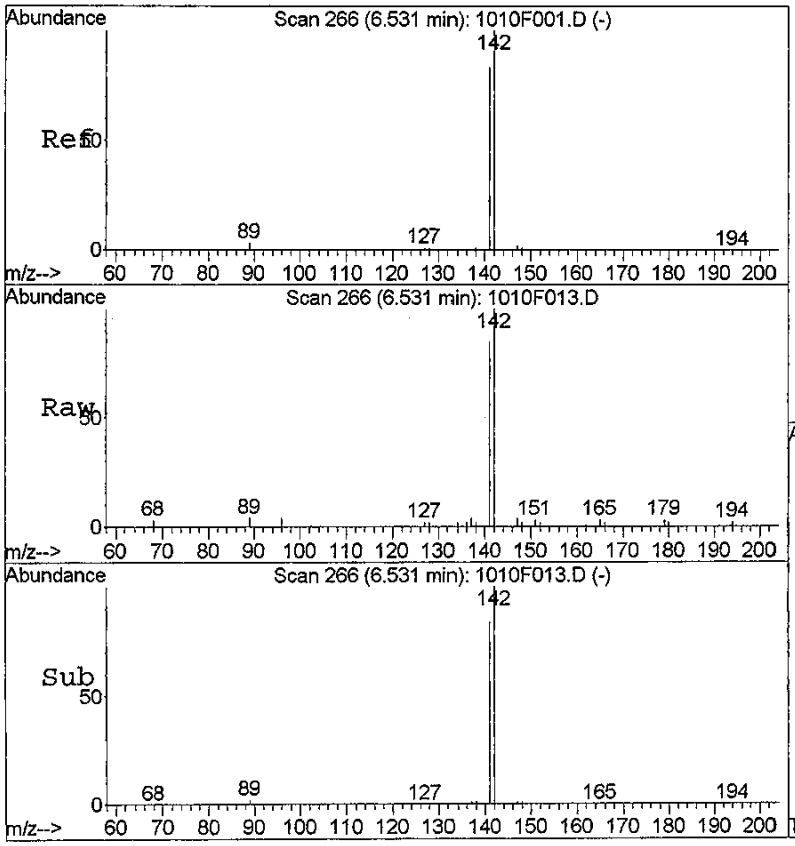


#6
2,6-Dimethylnaphthalene
Concen: 16.00 ng/ml NT
RT: 7.36 min Scan# 367
Delta R.T. -0.00 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:156 Resp: 3832

Ion	Ratio	Lower	Upper
156	100		
155	36.1	5.4	65.4

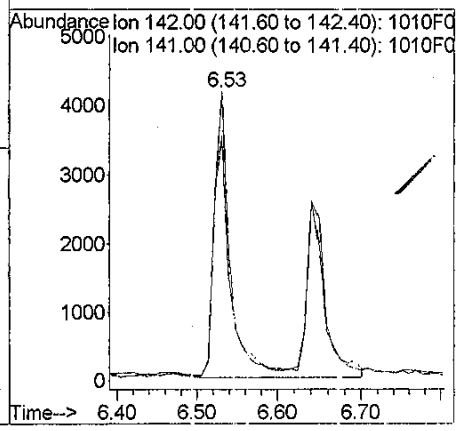


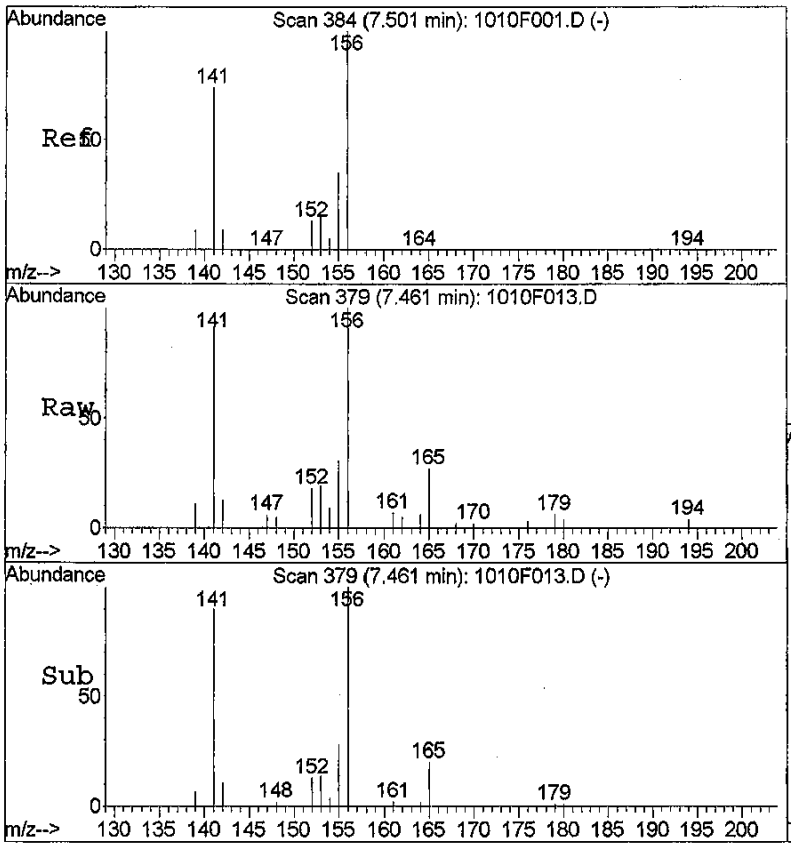


#7
C1-Naphthalenes
Concen: 25.12 ng/ml m
RT: 6.53 min Scan# 266
Delta R.T. -0.21 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:142 Resp: 9623

Ion	Ratio	Lower	Upper
142	100		
141	85.0	80.0	120.0

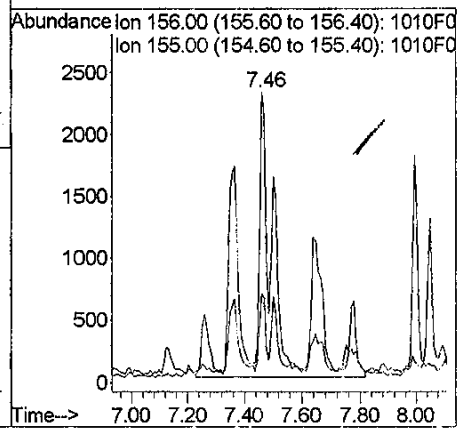


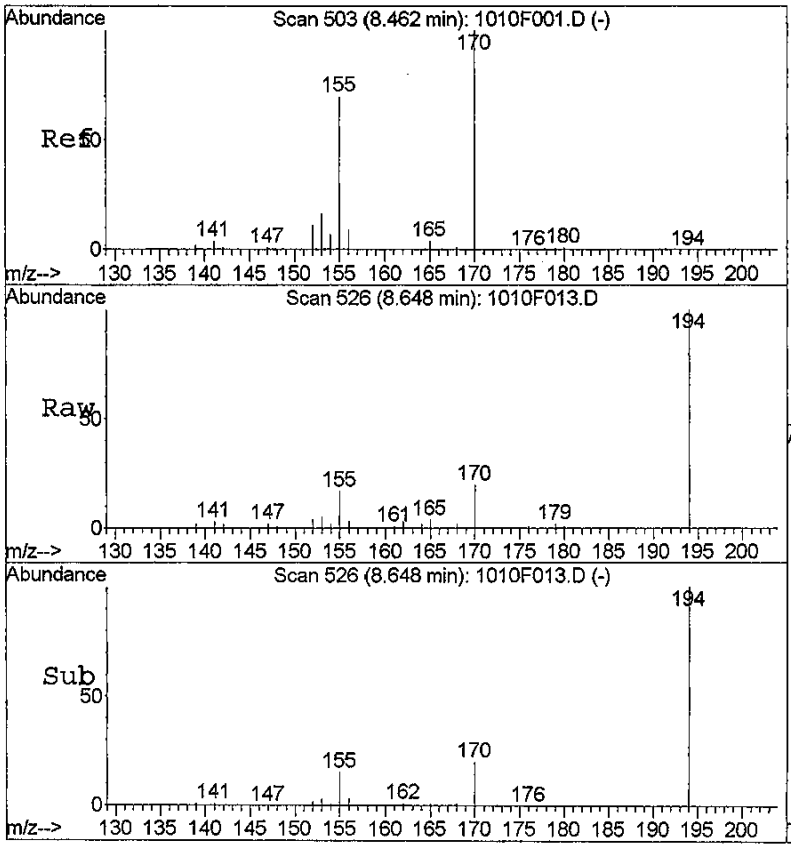


#8
C2-Naphthalenes
Concen: 40.61 ng/ml m
RT: 7.46 min Scan# 379
Delta R.T. -0.16 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:156 Resp: 15557

Ion	Ratio	Lower	Upper
156	100		
155	30.6	8.3	68.3

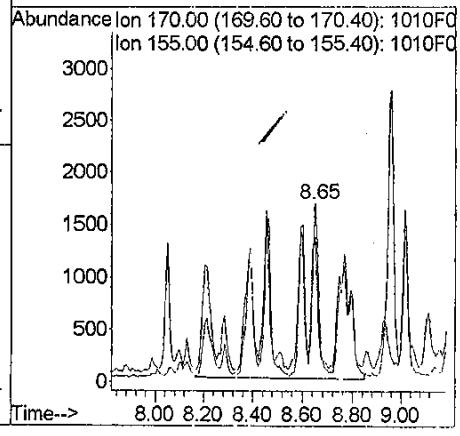


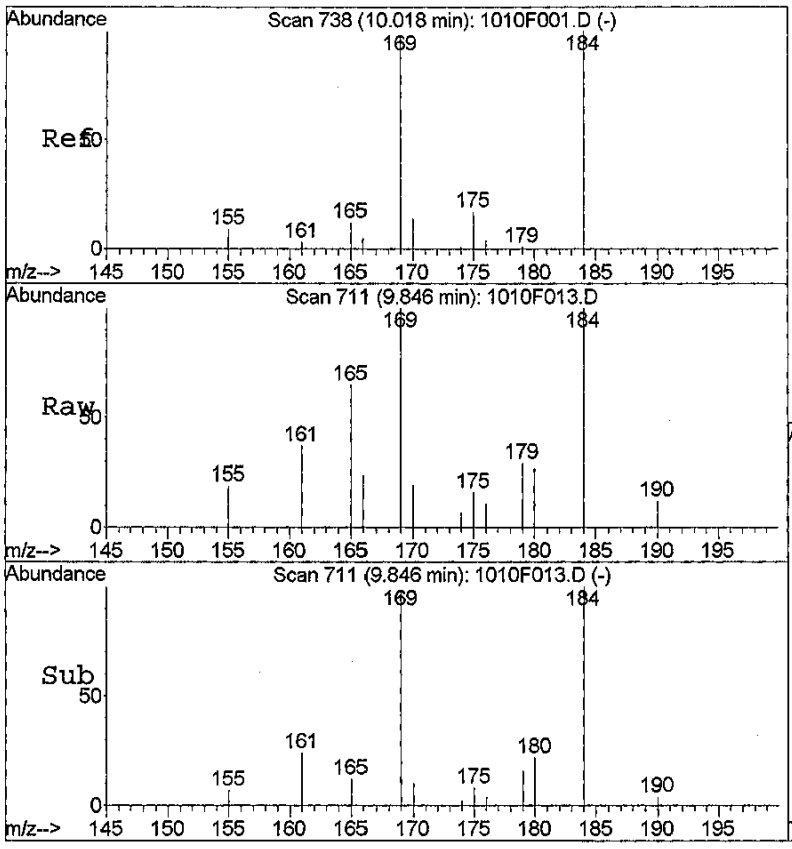


#9
C3-Naphthalenes
Concen: 44.53 ng/ml m
RT: 8.65 min Scan# 526
Delta R.T. 0.08 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:170 Resp: 17057

Ion	Ratio	Lower	Upper
170	100		
155	81.9	56.9	116.9

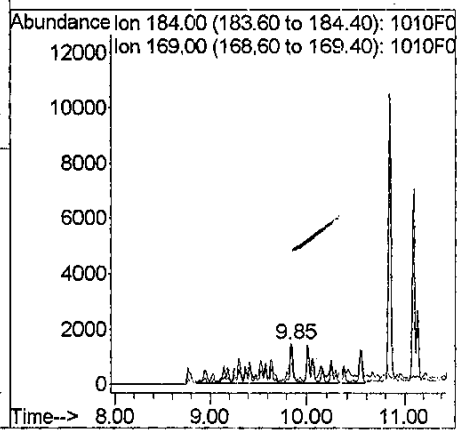


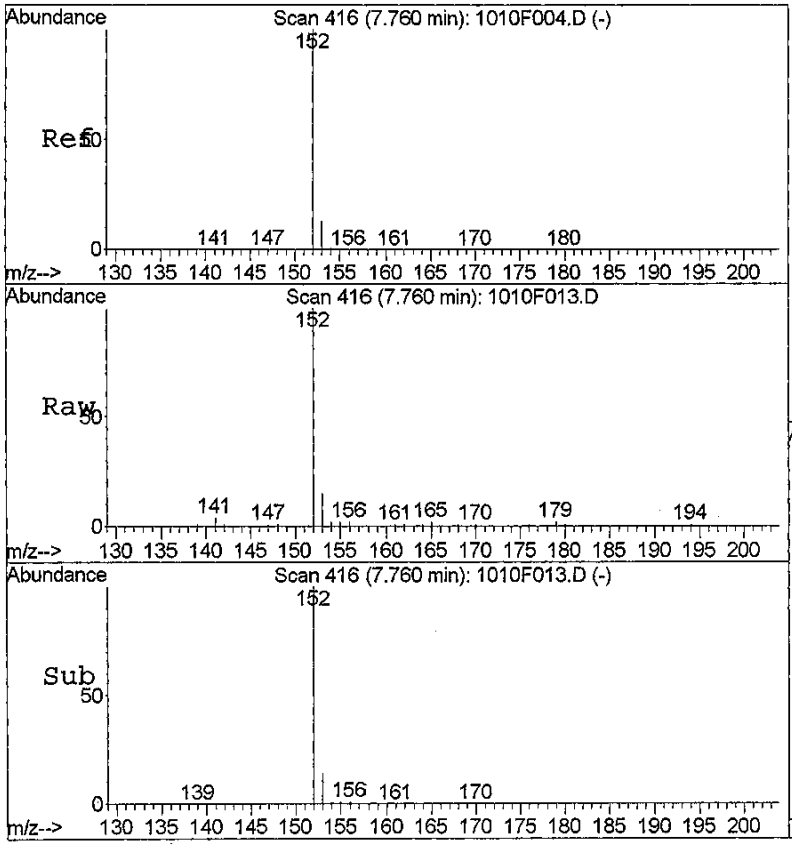


#10
C4-Naphthalenes
Concen: 58.19 ng/ml m
RT: 9.85 min Scan# 711
Delta R.T. -0.10 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:184 Resp: 22291

Ion	Ratio	Lower	Upper
184	100		
169	100.1	89.7	149.7

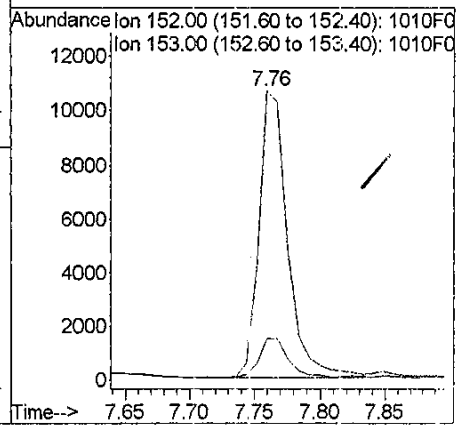


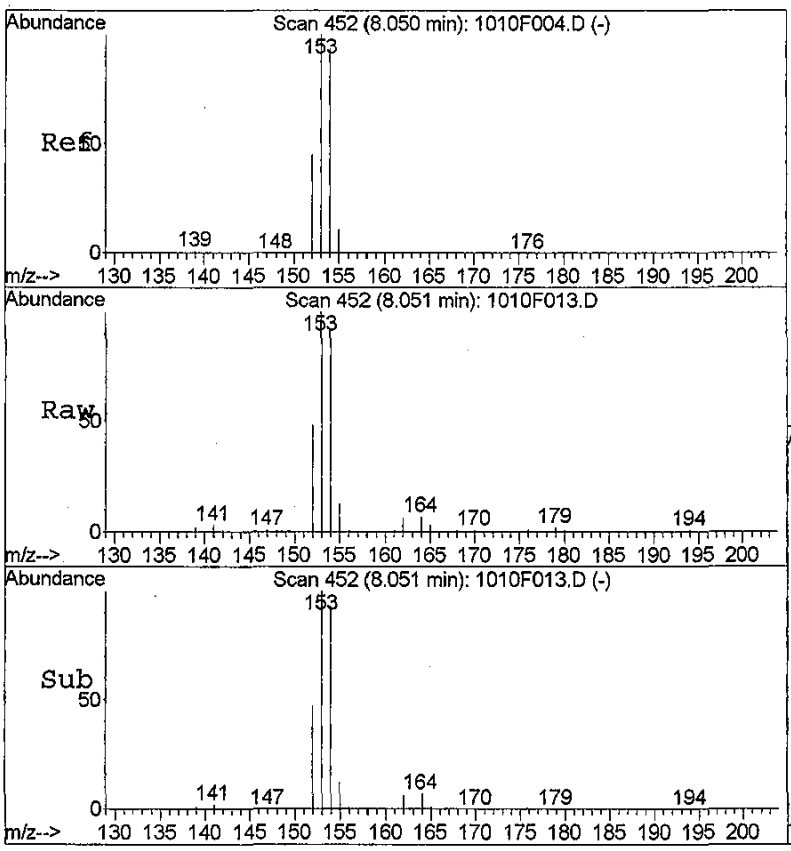


#12
Acenaphthylene
Concen: 37.86 ng/ml
RT: 7.76 min Scan# 416
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:152 Resp: 16426

Ion	Ratio	Lower	Upper
152	100		
153	13.7	0.0	43.2

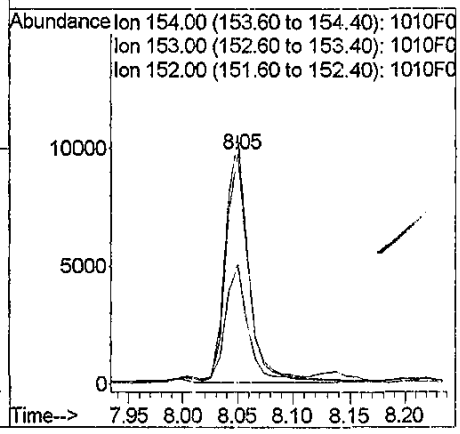


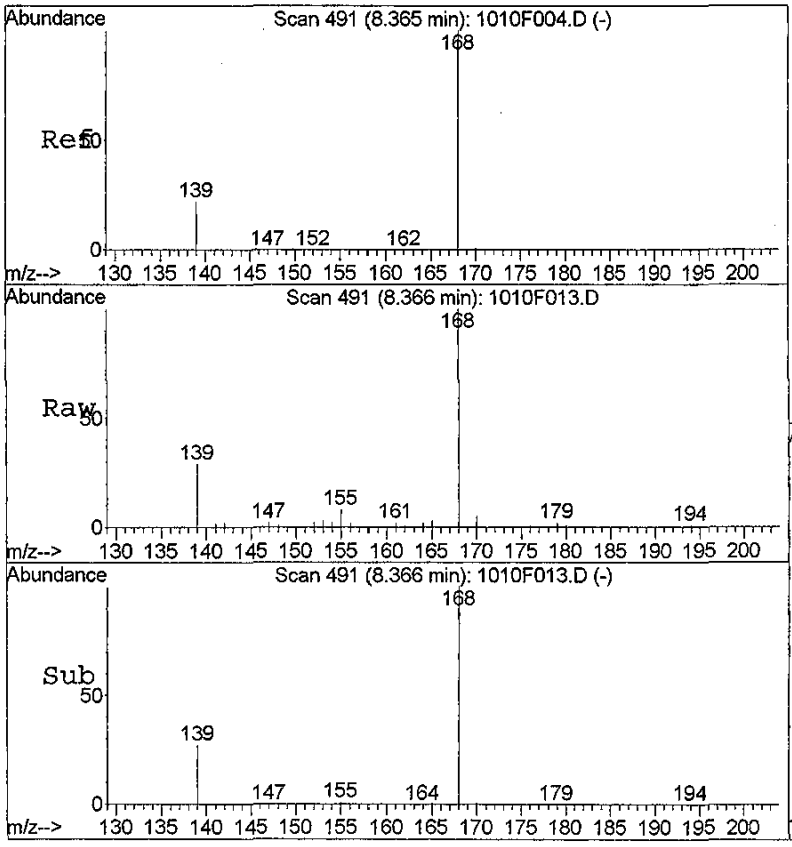


#13
Acenaphthene
Concen: 54.35 ng/ml
RT: 8.05 min Scan# 452
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:154 Resp: 14097

Ion	Ratio	Lower	Upper
154	100		
153	106.6	77.2	137.2
152	50.4	20.0	80.0

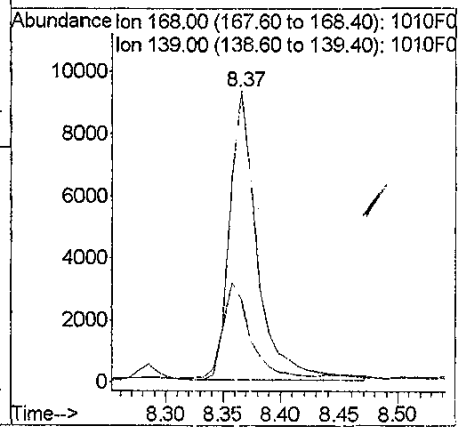


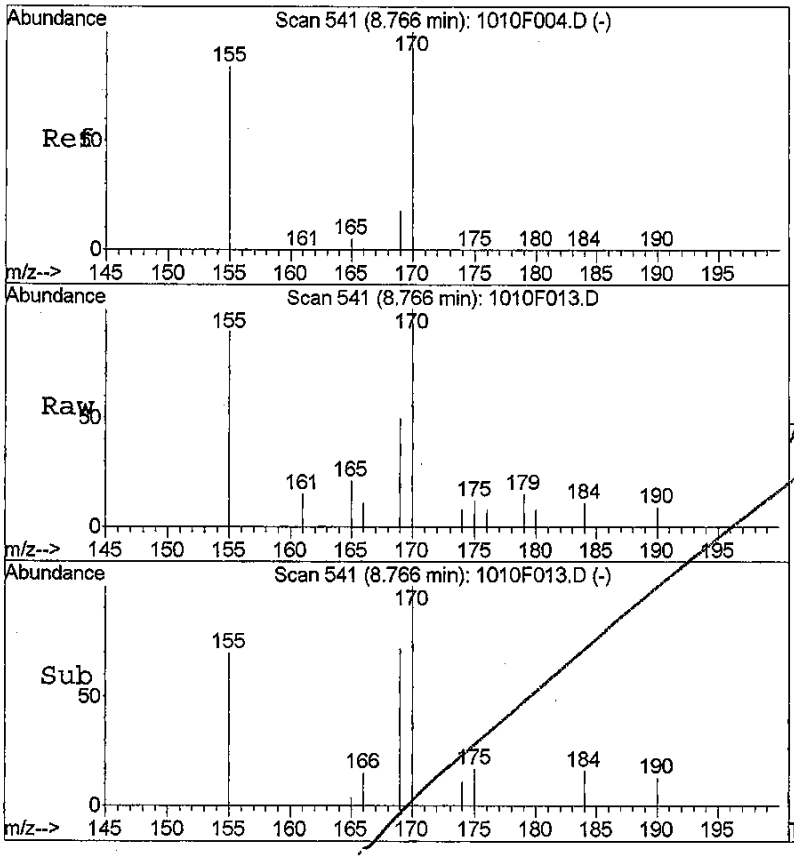


#14
Dibenzofuran
Concen: 39.07 ng/ml
RT: 8.37 min Scan# 491
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:168 Resp: 15495

Ion	Ratio	Lower	Upper
168	100		
139	27.3	0.0	54.0

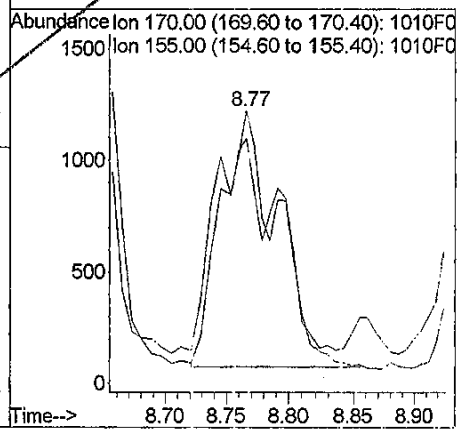


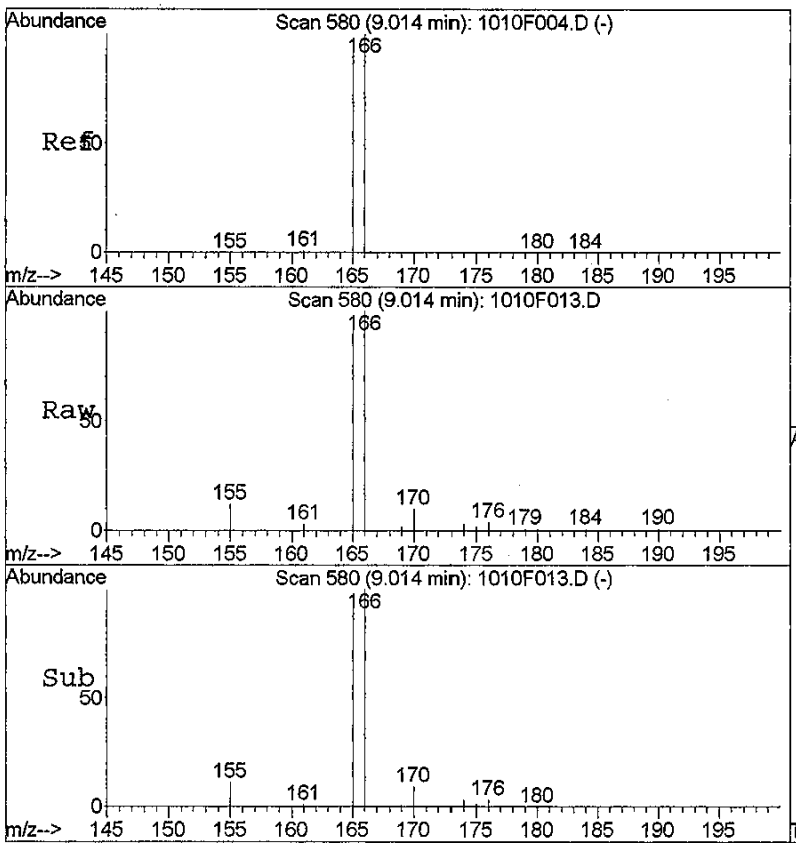


#15
2,3,5-Trimethylnaphthalene
Concen: 14.23 ng/ml m
RT: 8.77 min Scan# 541 NT
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:170 Resp: 3617

Ion	Ratio	Lower	Upper
170	100		
155	89.8	44.9	104.9

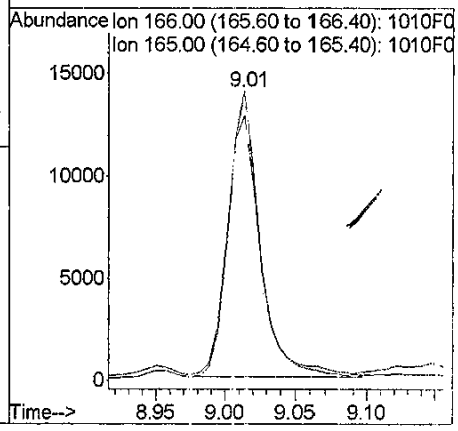


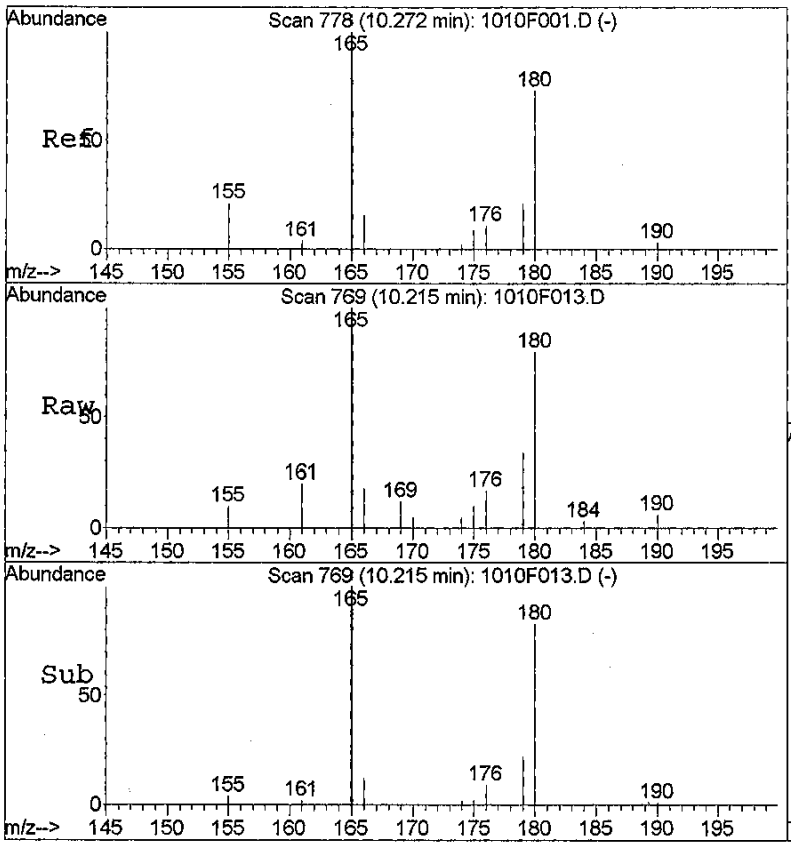


#17
Fluorene
Concen: 68.76 ng/ml
RT: 9.01 min Scan# 580
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:166 Resp: 21676

Ion	Ratio	Lower	Upper
166	100		
165	90.6	63.0	123.0

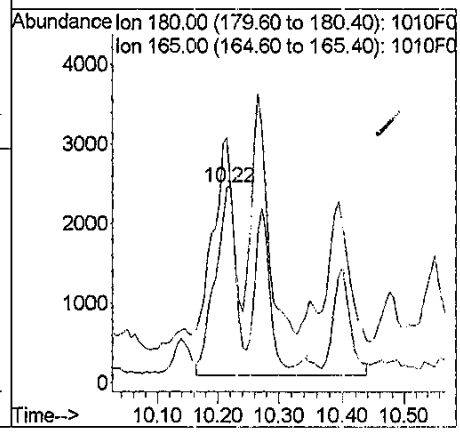


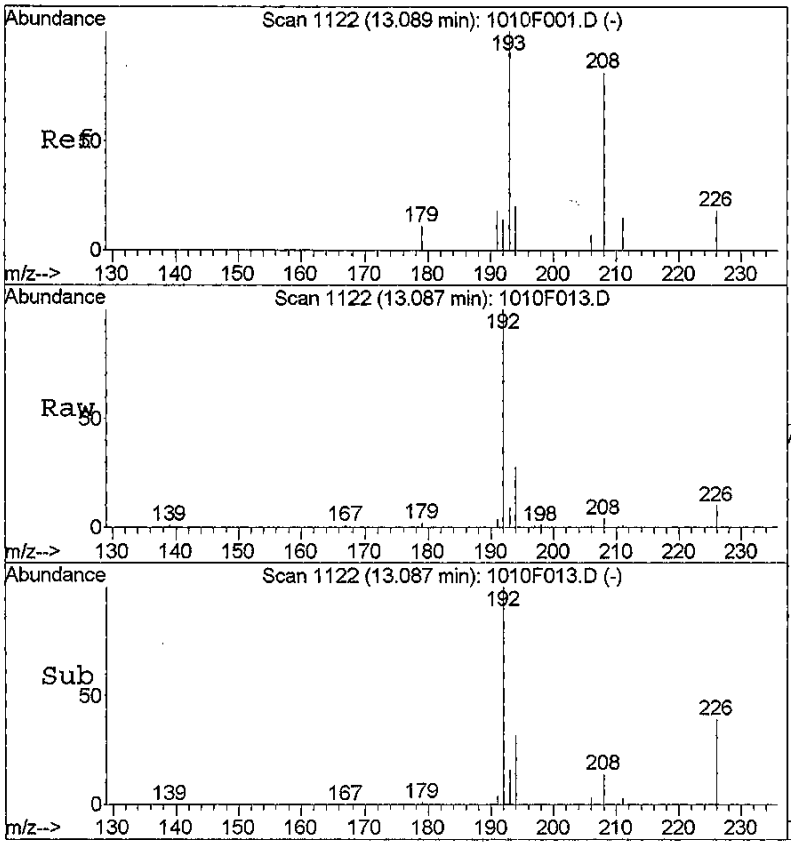


#18
C1-Fluorenes
Concen: 38.50 ng/ml m
RT: 10.22 min Scan# 769
Delta R.T. -0.05 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:180 Resp: 12137

Ion	Ratio	Lower	Upper
180	100		
165	125.2	148.7	208.7#

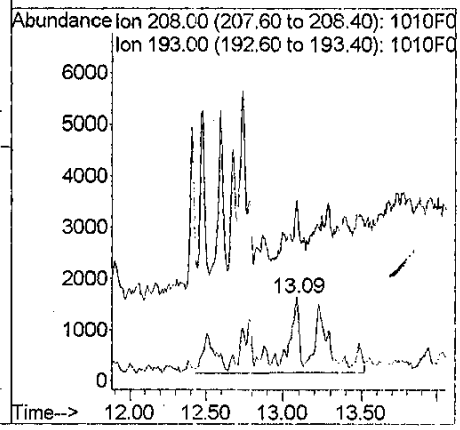


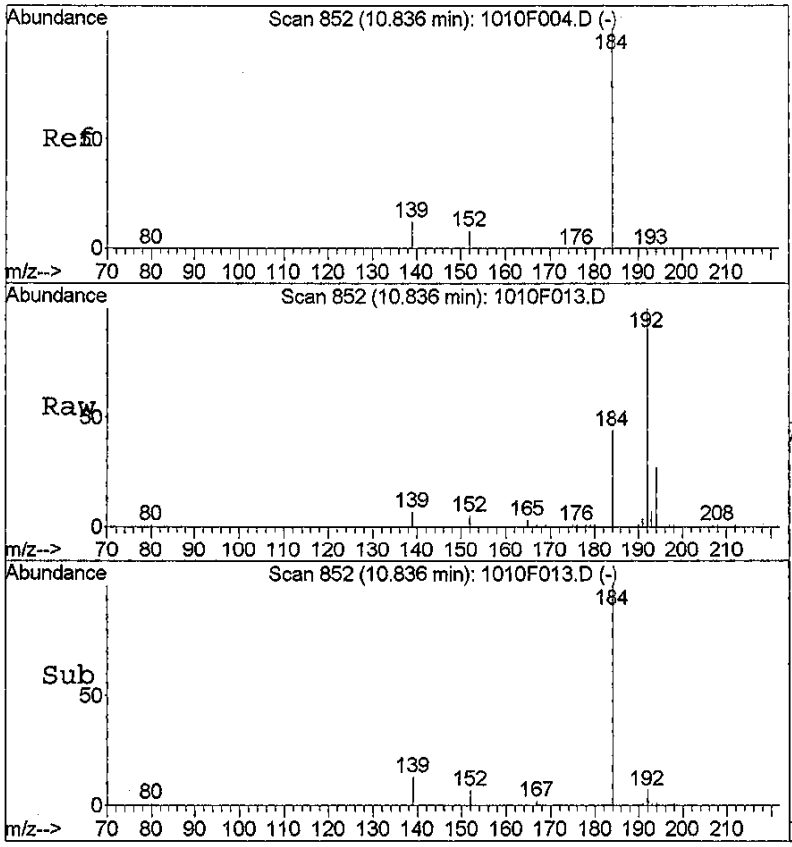


#20
C3-Fluorenes
Concen: 87.52 ng/ml m
RT: 13.09 min Scan# 1122
Delta R.T. 0.01 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:208 Resp: 27588

Ion	Ratio	Lower	Upper
208	100		
193	216.0	92.0	152.0#

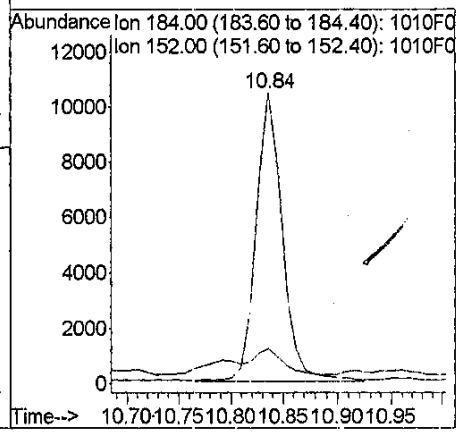


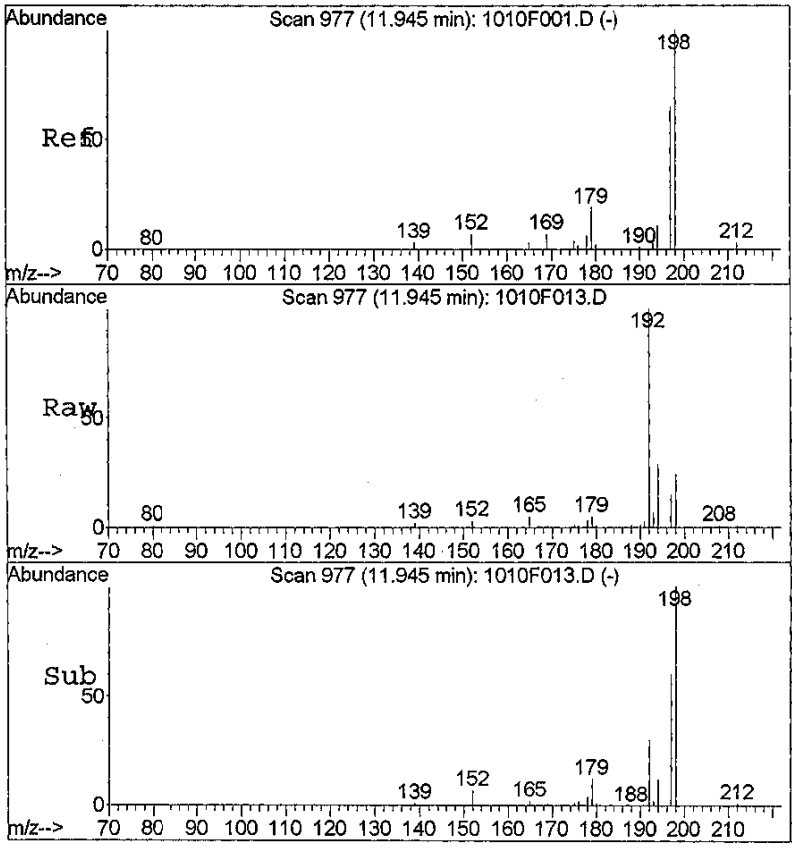


#22
Dibenzothiophene
Concen: 41.85 ng/ml
RT: 10.84 min Scan# 852
Delta R.T. -0.03 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:184 Resp: 18262

Ion	Ratio	Lower	Upper
184	100		
152	8.2	0.0	37.7

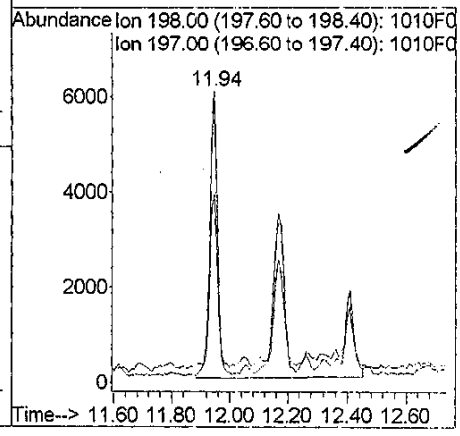


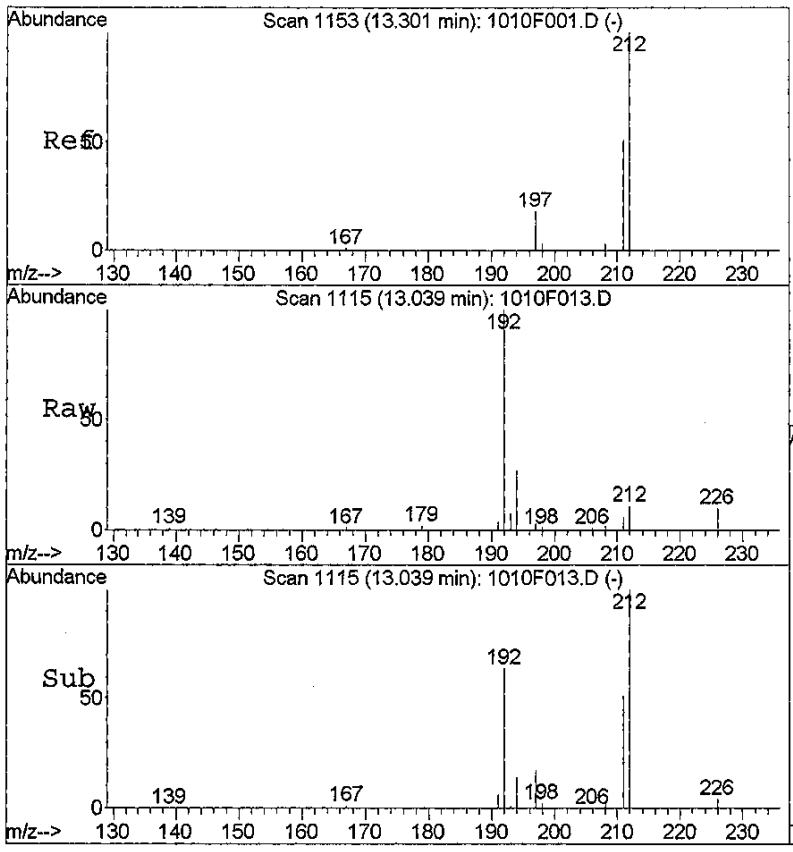


#23
C1-Dibenzothiophenes
Concen: 62.17 ng/ml m
RT: 11.94 min Scan# 977
Delta R.T. -0.53 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:198 Resp: 27128

Ion	Ratio	Lower	Upper
198	100		
197	64.4	74.1	134.1#

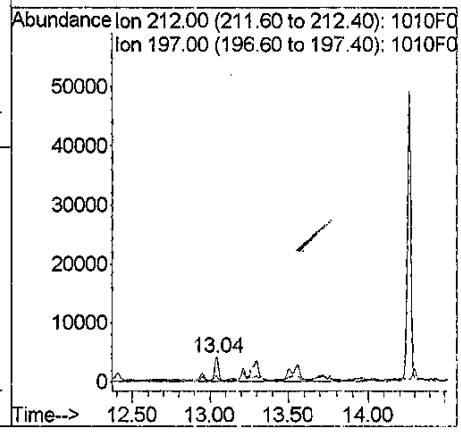


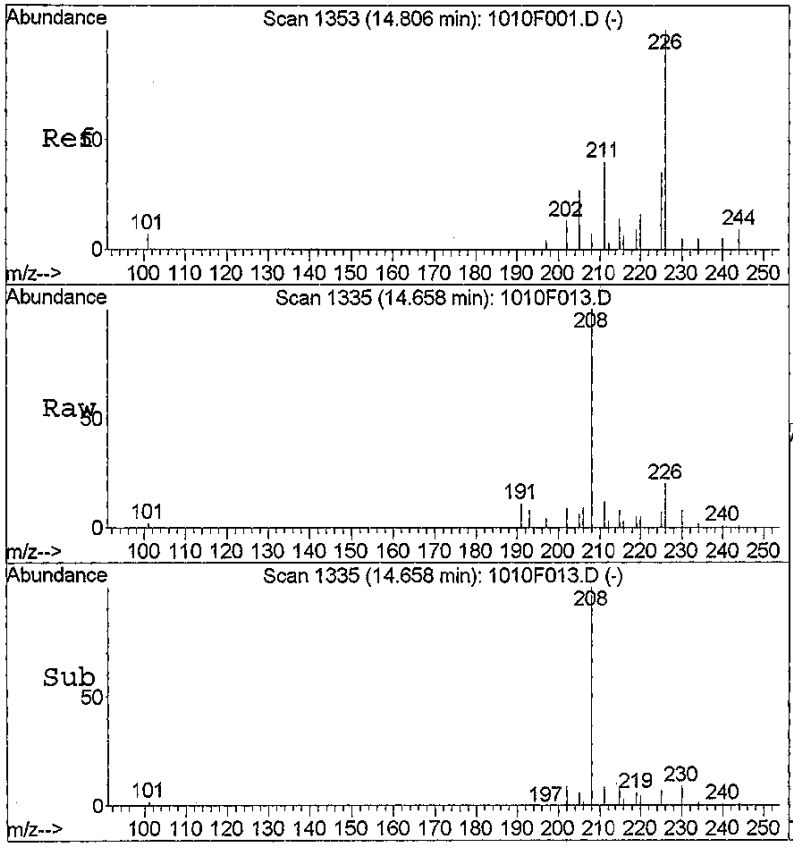


#24
C2-Dibenzothiophenes
Concen: 105.07 ng/ml m
RT: 13.04 min Scan# 1115
Delta R.T. -0.56 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:212 Resp: 45848

Ion	Ratio	Lower	Upper
212	100		
197	23.2	0.0	53.8

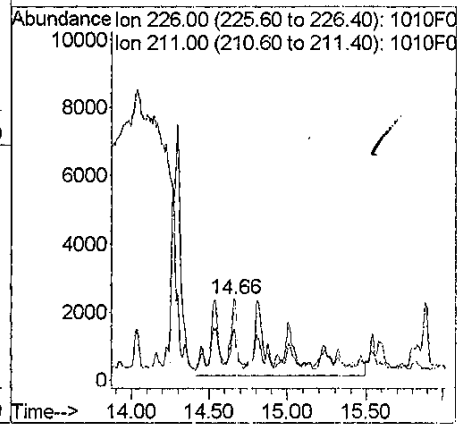


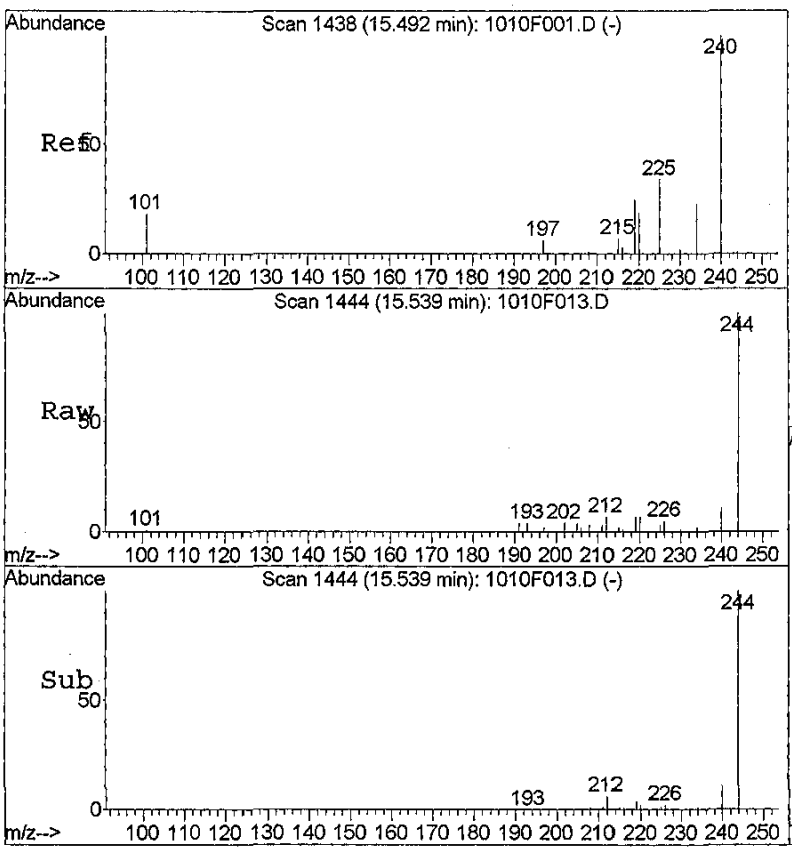


#25
C3-Dibenzothiophenes
Concen: 99.19 ng/ml m
RT: 14.66 min Scan# 1335
Delta R.T. -0.46 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:226 Resp: 43282

Ion	Ratio	Lower	Upper
226	100		
211	63.1	27.1	87.1

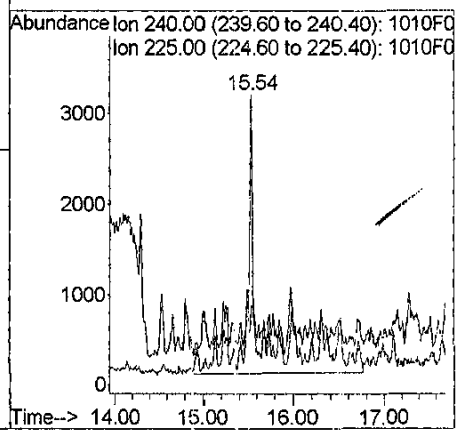


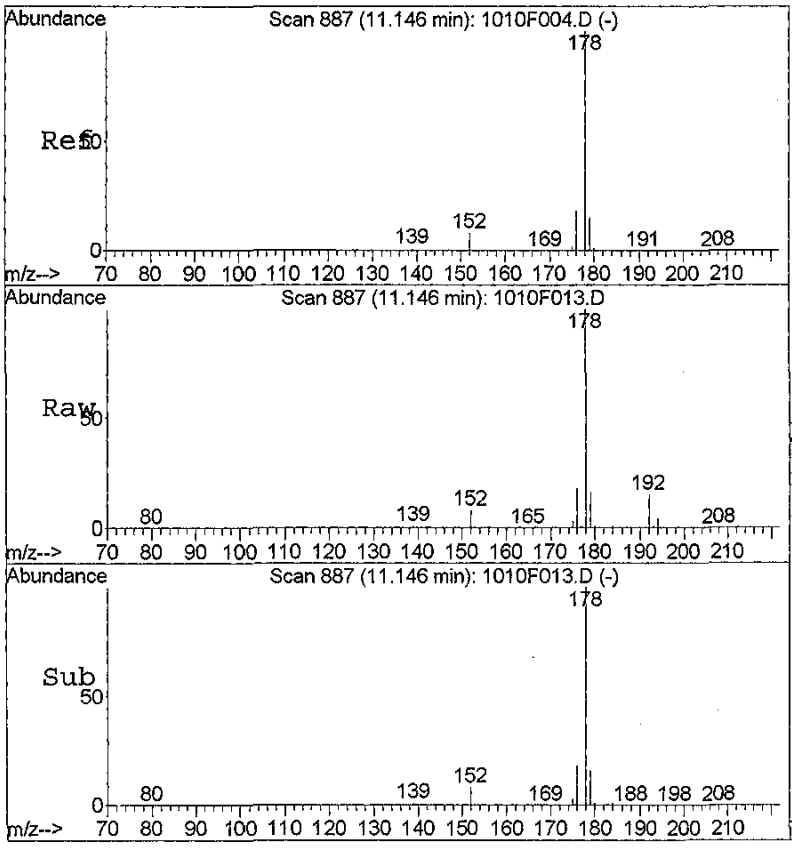


#26
C4-Dibenzothiophenes
Concen: 76.33 ng/ml m
RT: 15.54 min Scan# 1444
Delta R.T. -0.34 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:240 Resp: 33304

Ion	Ratio	Lower	Upper
240	100		
225	24.3	0.0	60.0

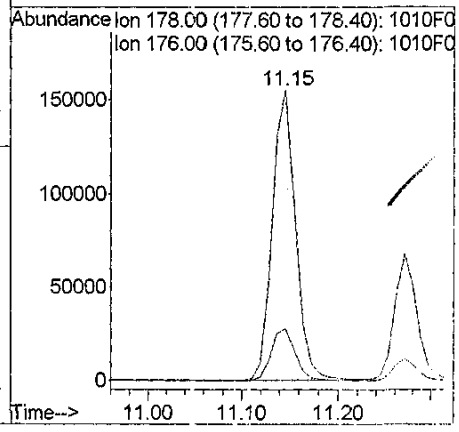


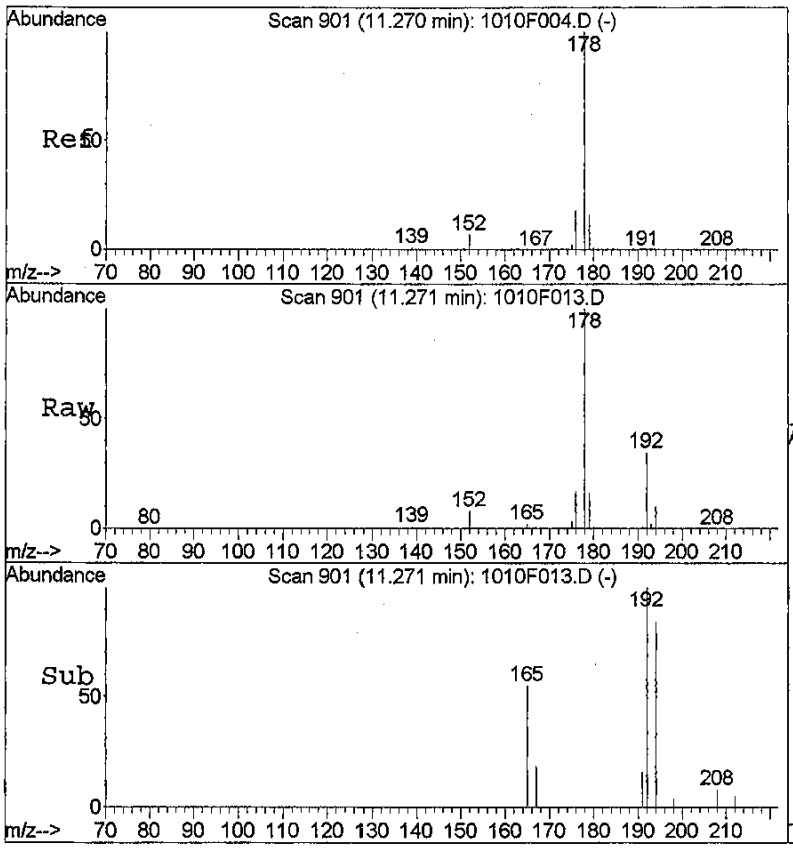


#27
Phenanthrene
Concen: 579.72 ng/ml
RT: 11.15 min Scan# 887
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:178 Resp: 260178

Ion	Ratio	Lower	Upper
178	100		
176	18.0	0.0	48.5

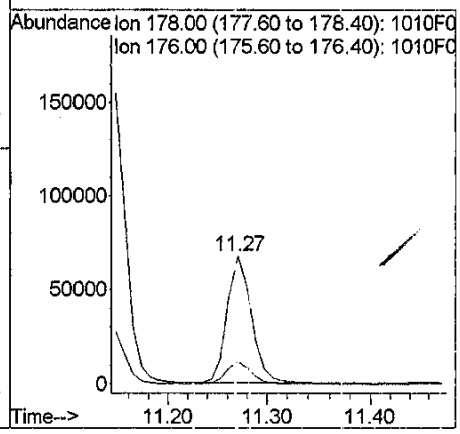


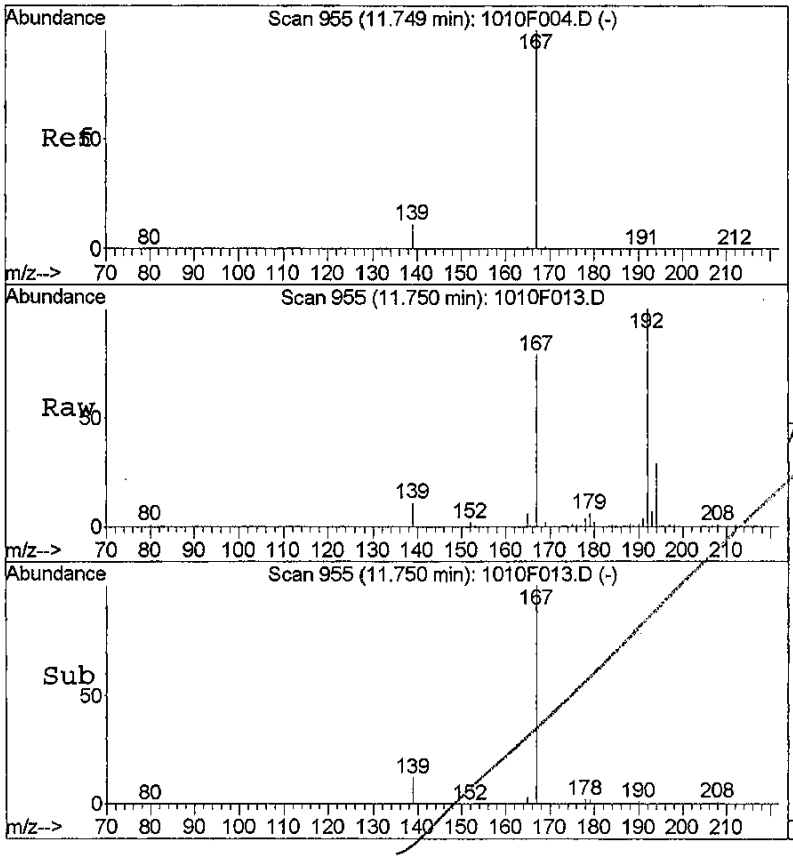


#28
Anthracene
Concen: 262.89 ng/ml
RT: 11.27 min Scan# 901
Delta R.T. -0.03 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:178 Resp: 115011

Ion	Ratio	Lower	Upper
178	100		
176	17.2	0.0	47.6



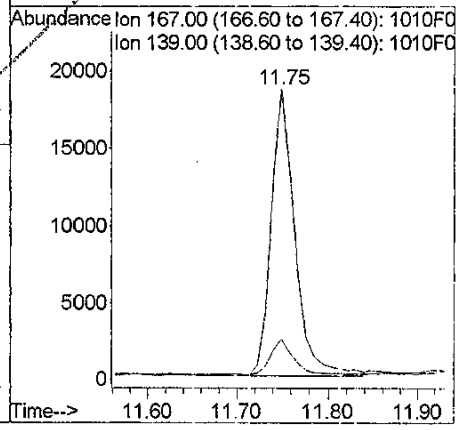


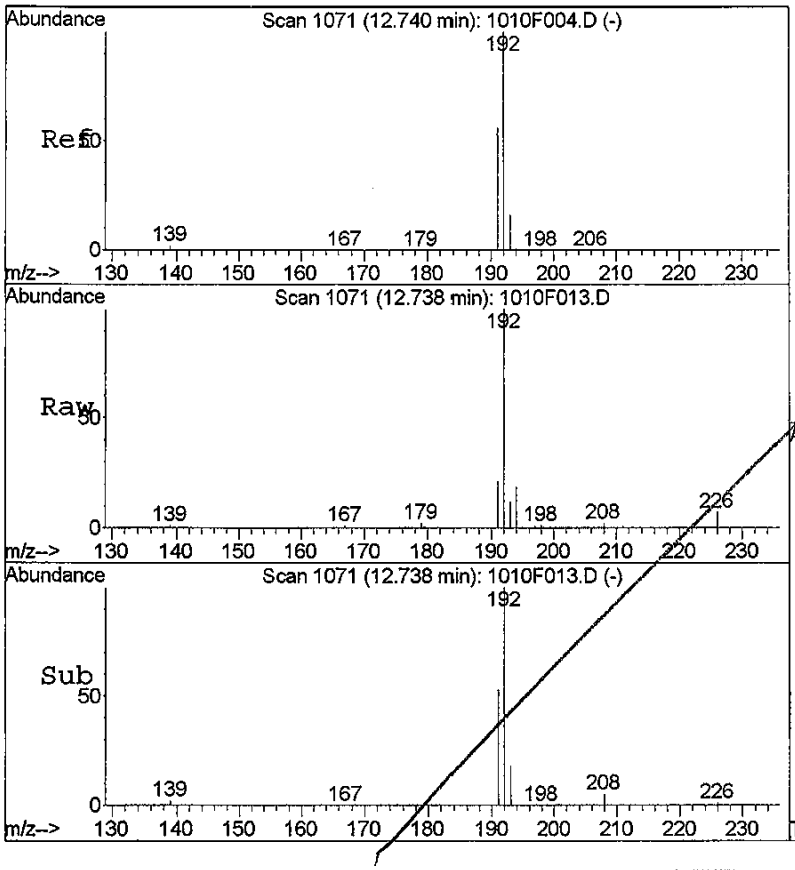
#29
Carbazole
Concen: 85.16 ng/ml
RT: 11.75 min Scan# 955
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

NT

Tgt Ion:167 Resp: 33497

Ion	Ratio	Lower	Upper
167	100		
139	12.6	0.0	41.8

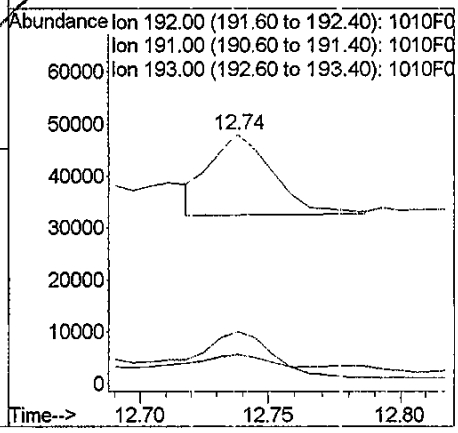


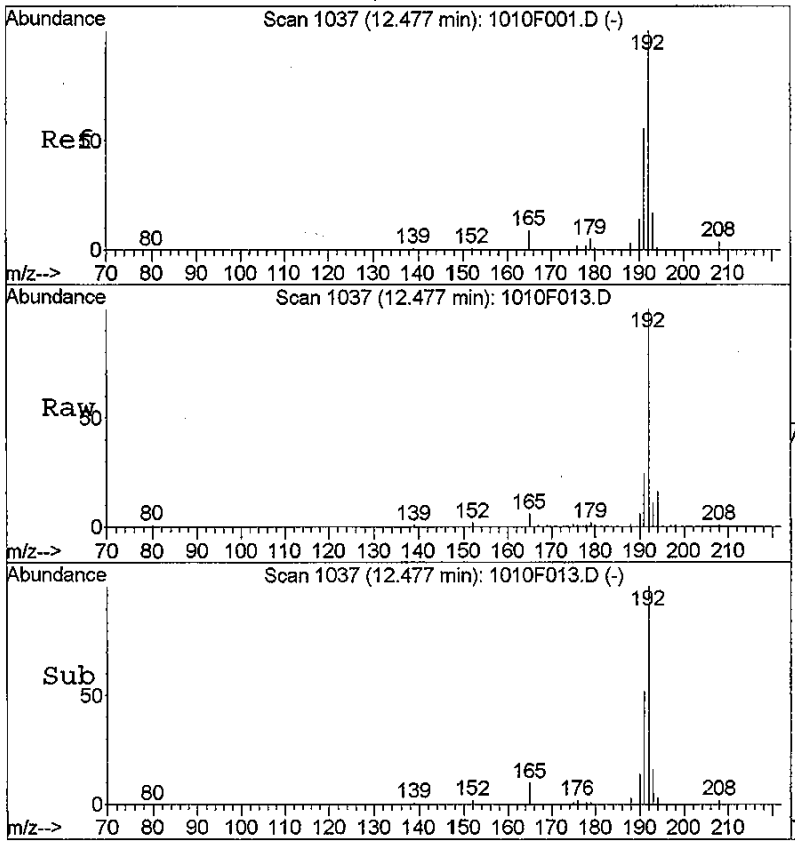


#30
1-Methylphenanthrene
Concen: 77.01 ng/ml m
RT: 12.74 min Scan# 1071
Delta R.T. -0.03 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:192 Resp: 26446

Ion	Ratio	Lower	Upper
192	100		
191	20.9	26.7	86.7#
193	11.7	0.0	45.6

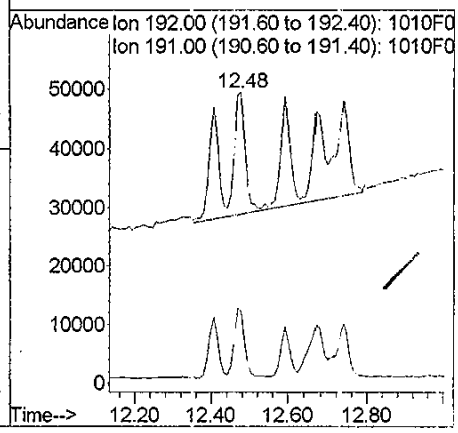


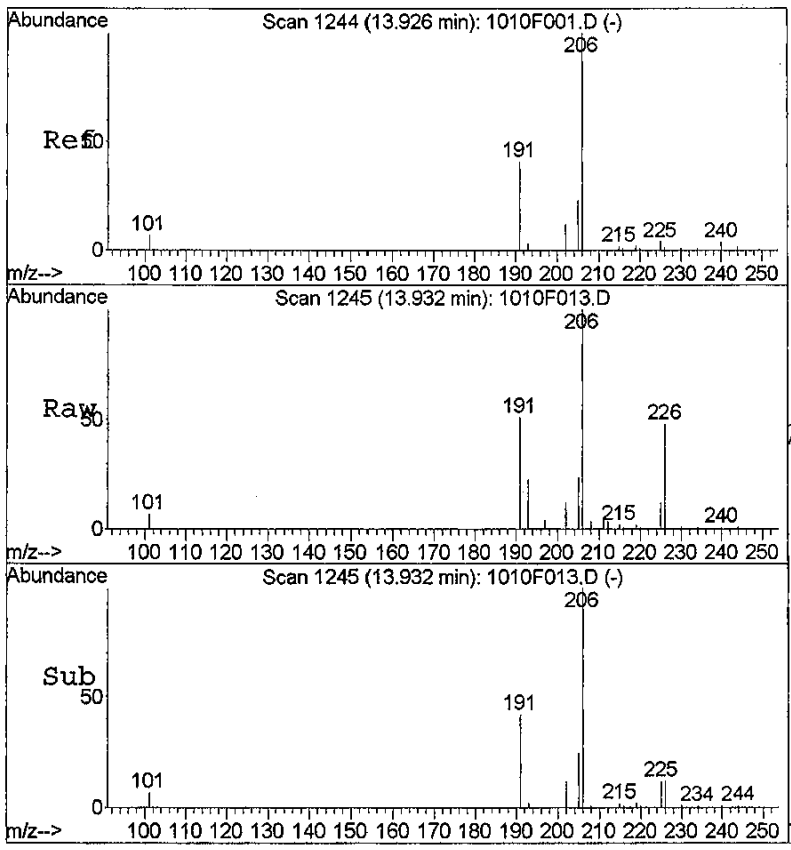


#31
C1-Phenanthrenes/Anthracenes
Concen: 394.27 ng/ml m
RT: 12.48 min Scan# 1037
Delta R.T. -0.29 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:192 Resp: 176946

Ion	Ratio	Lower	Upper
192	100		
191	24.8	25.3	85.3#

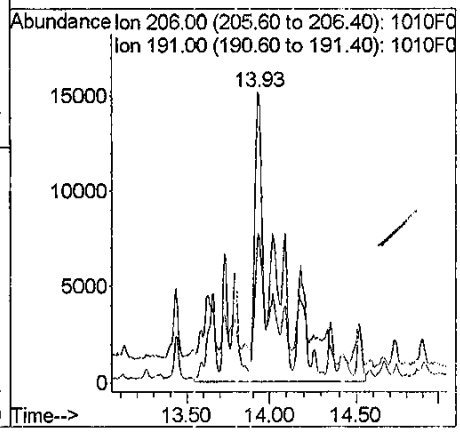


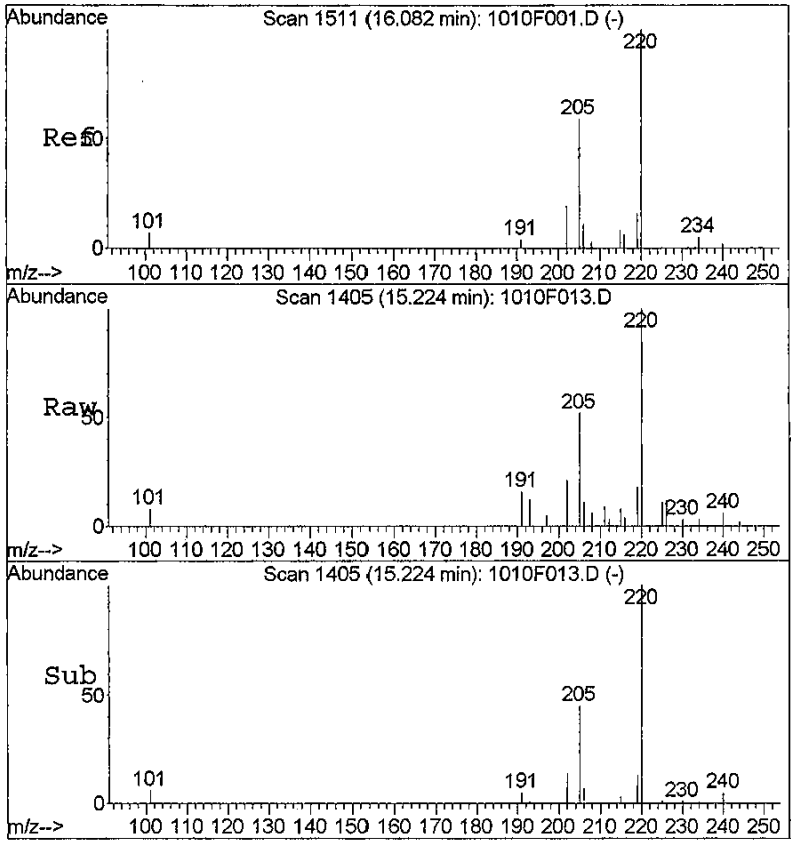


#32
C2-Phenanthrenes/Anthracenes
Concen: 379.09 ng/ml m
RT: 13.93 min Scan# 1245
Delta R.T. -0.30 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:206 Resp: 170133

Ion	Ratio	Lower	Upper
206	100		
191	51.1	15.6	75.6

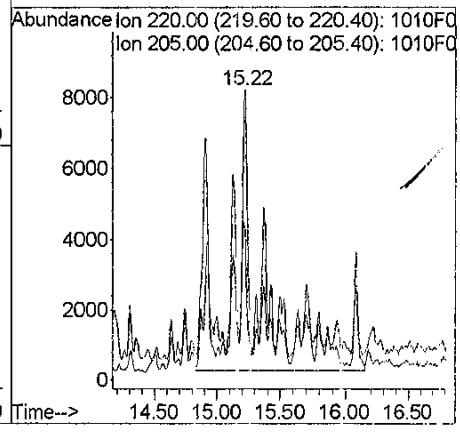


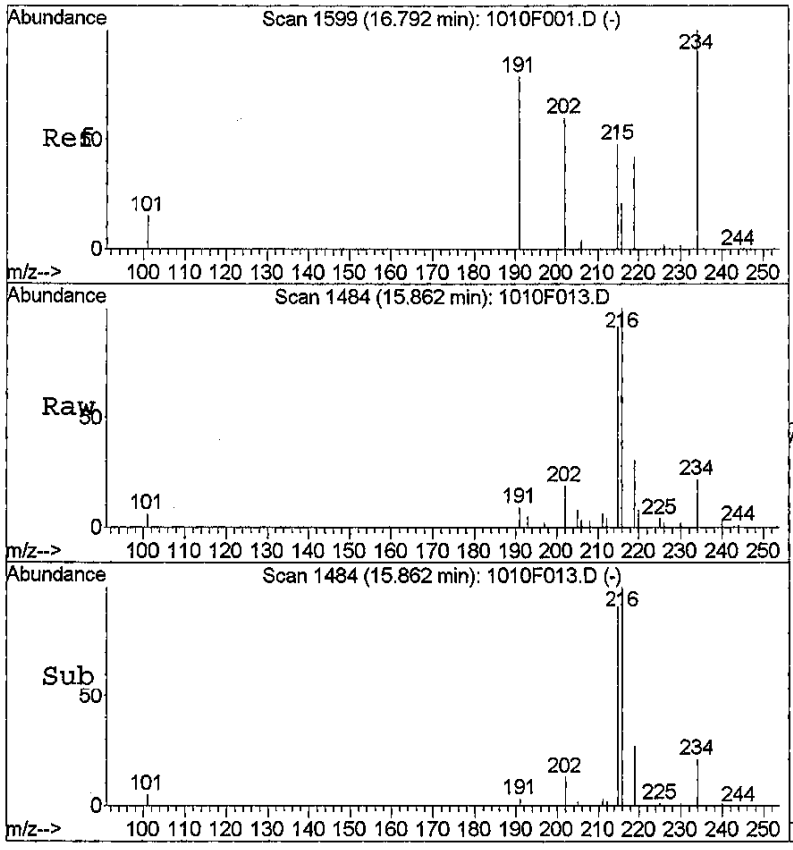


#33
C3-Phenanthrenes/Anthracenes
Concen: 254.25 ng/ml m
RT: 15.22 min Scan# 1405
Delta R.T. -0.31 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:220 Resp: 114106

Ion	Ratio	Lower	Upper
220	100		
205	51.5	20.0	80.0

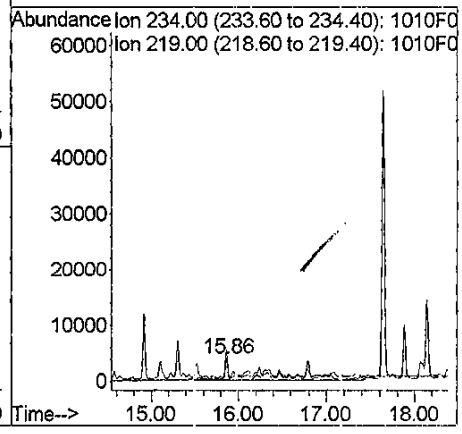


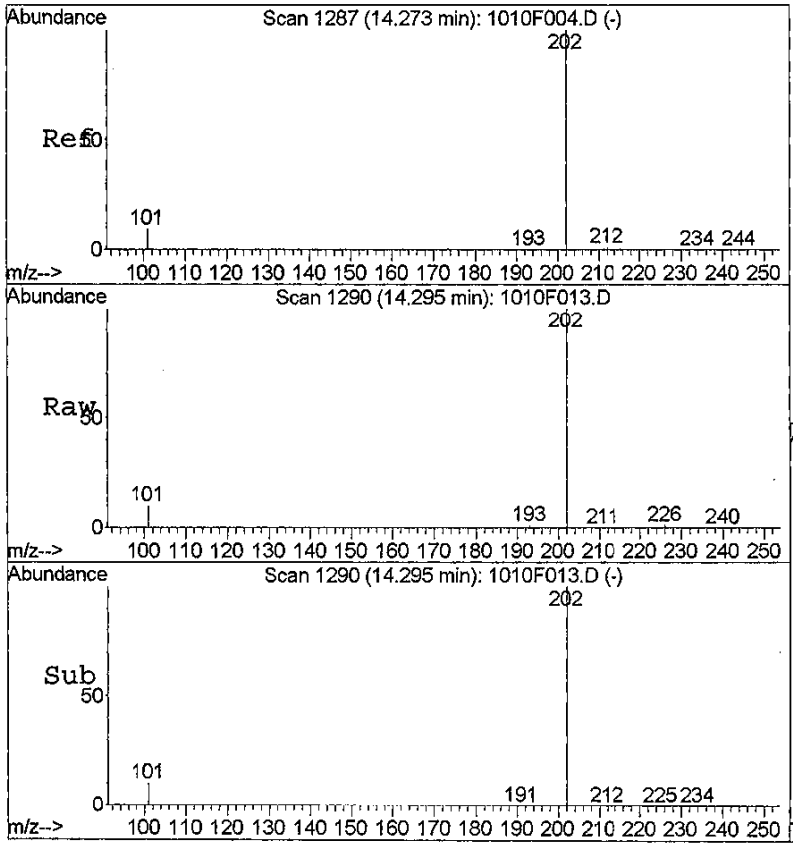


#34
C4-Phenanthrenes/Anthracenes
Concen: 157.38 ng/ml m
RT: 15.86 min Scan# 1484
Delta R.T. -1.24 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:234 Resp: 70630

Ion	Ratio	Lower	Upper
234	100		
219	139.6	17.7	77.7#

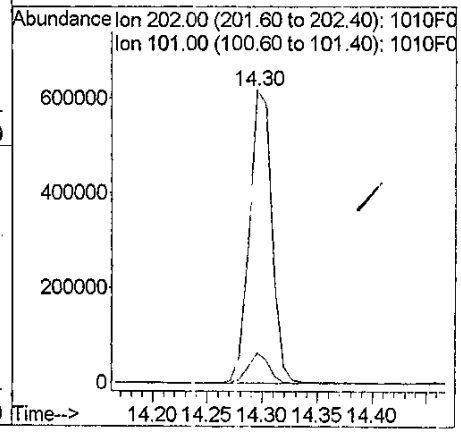


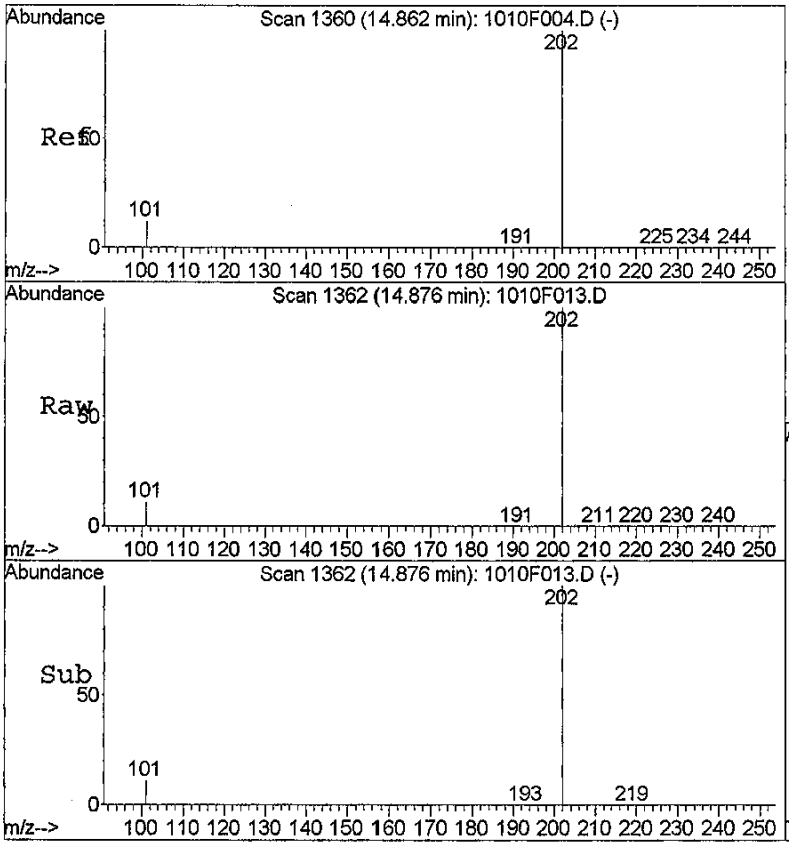


#35
Fluoranthene
Concen: 1719.60 ng/ml
RT: 14.30 min Scan# 1290
Delta R.T. -0.00 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:202 Resp: 875060

Ion	Ratio	Lower	Upper
202	100		
101	10.2	0.0	41.0

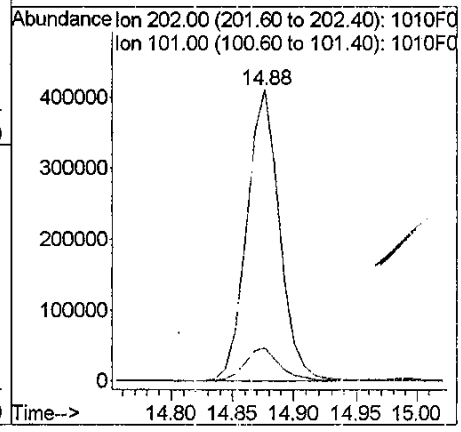


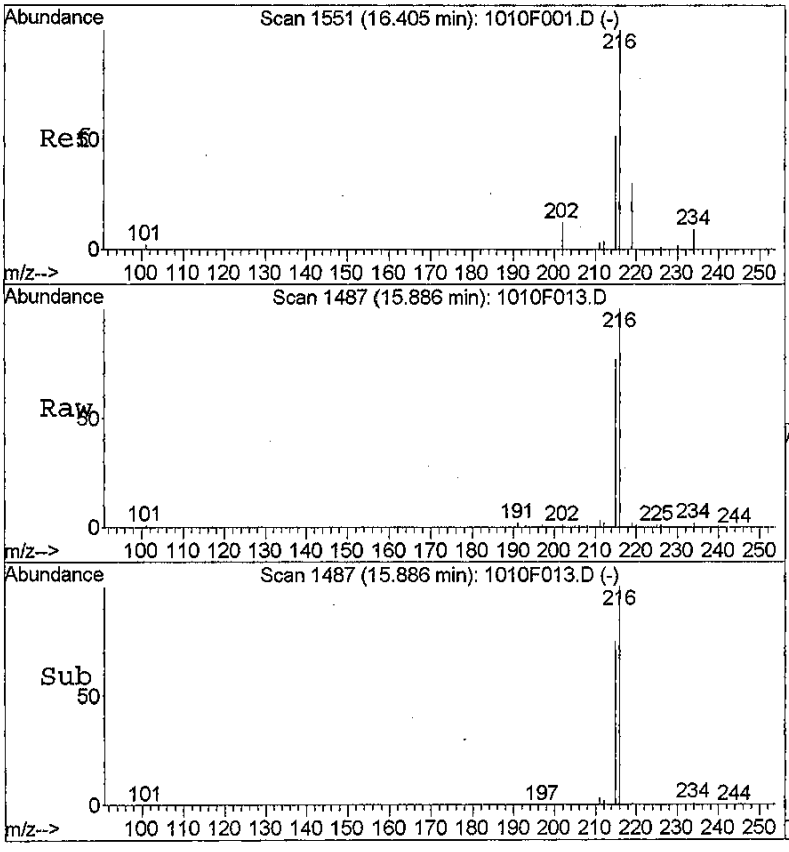


#38
Pyrene
Concen: 1365.16 ng/ml
RT: 14.88 min Scan# 1362
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:202 Resp: 770053

Ion	Ratio	Lower	Upper
202	100		
101	11.4	0.0	43.8

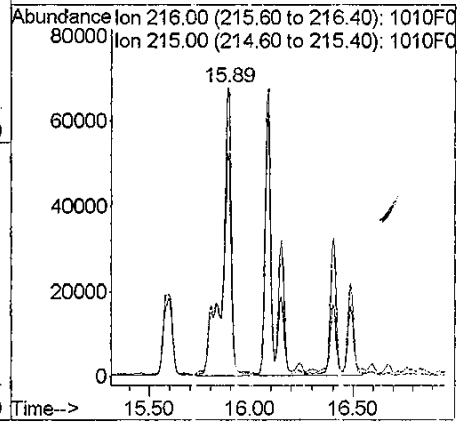


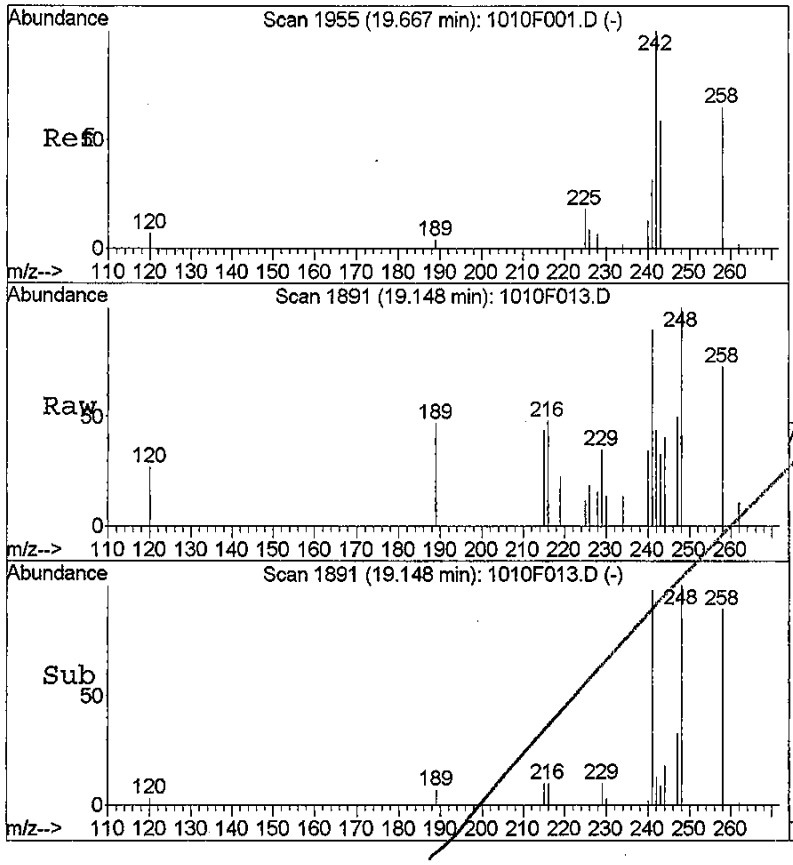


#39
C1-Fluoranthenes/Pyrenes
Concen: 919.11 ng/ml m
RT: 15.89 min Scan# 1487
Delta R.T. -0.67 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:216 Resp: 518447

Ion	Ratio	Lower	Upper
216	100		
215	77.1	54.8	114.8

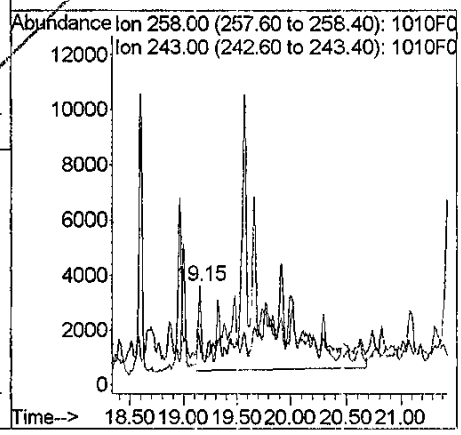


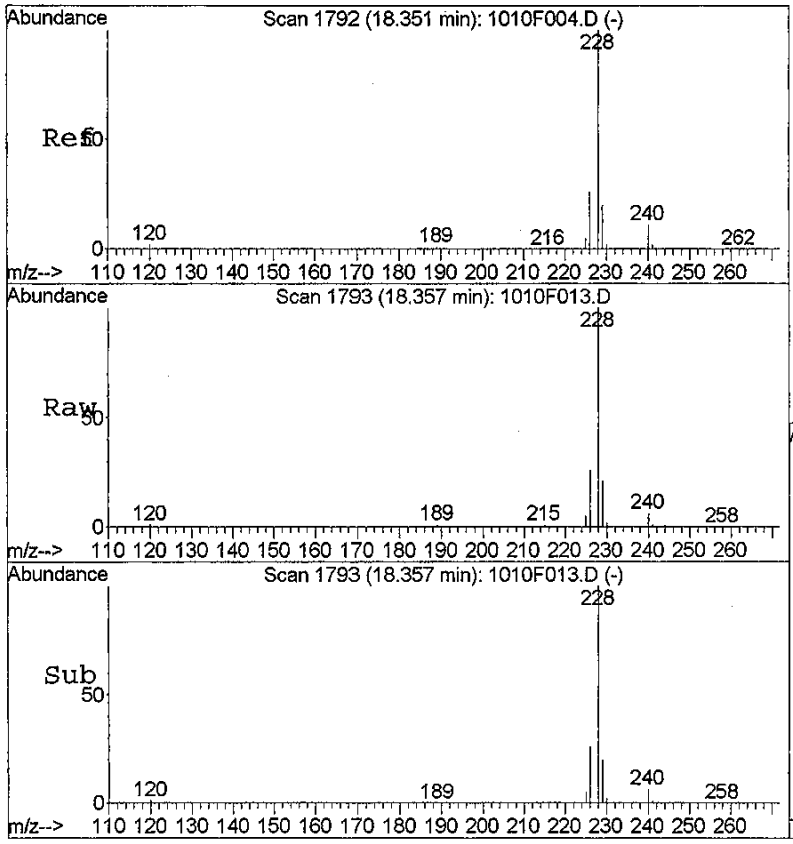


#42
C4-Fluoranthenes/Pyrenes
Concen: 173.60 ng/mL m
RT: 19.15 min Scan# 1891
Delta R.T. -0.84 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:258 Resp: 97925

Ion	Ratio	Lower	Upper
258	100		
243	44.4	30.0	70.0

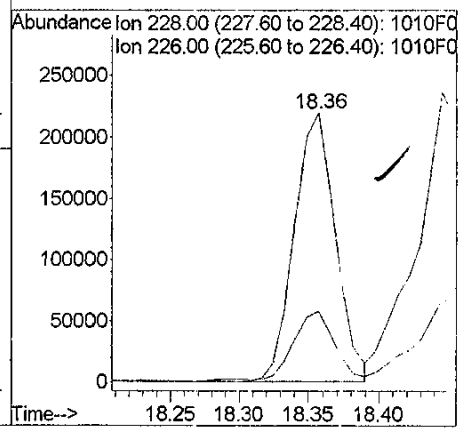


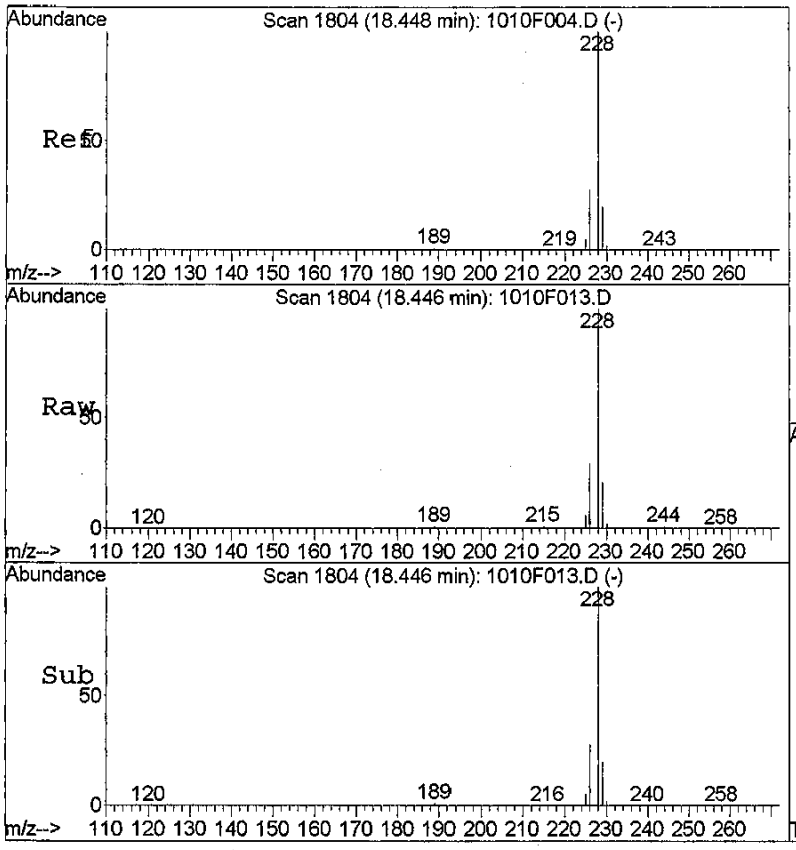


#44
Benz(a)anthracene
Concen: 805.86 ng/ml
RT: 18.36 min Scan# 1793
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:228 Resp: 439517

Ion	Ratio	Lower	Upper
228	100		
226	26.1	0.0	55.8

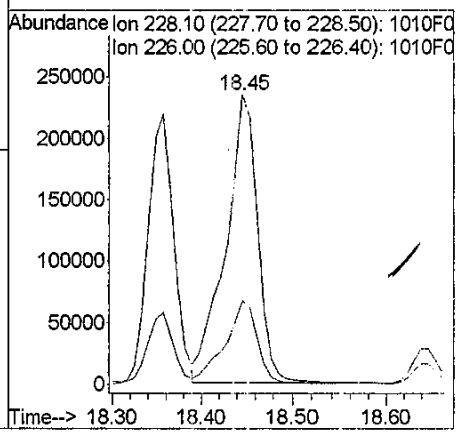


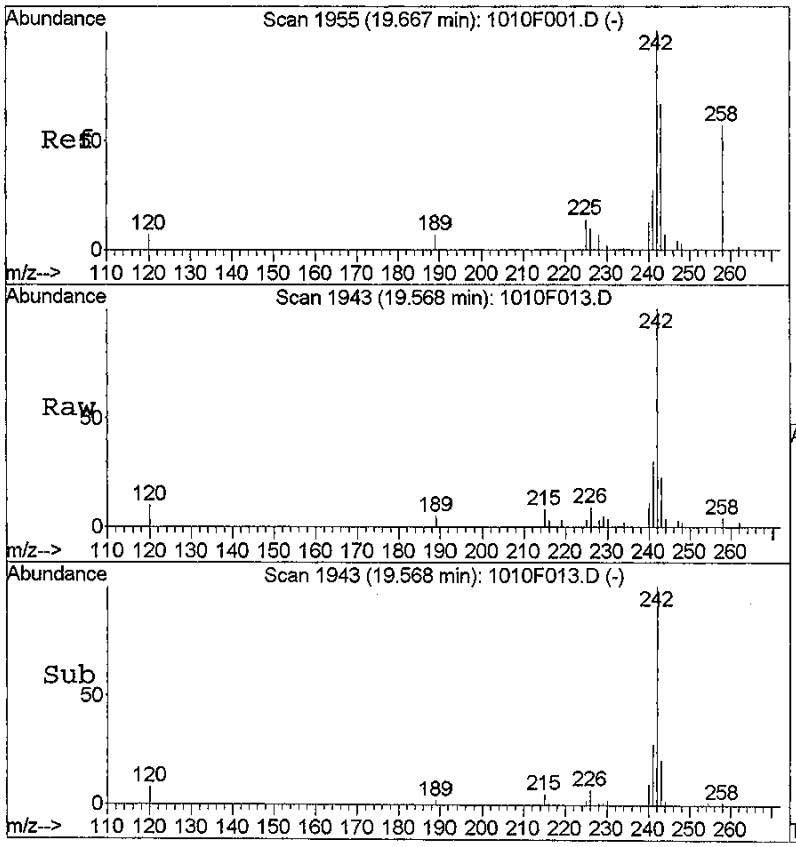


#45
Chrysene
Concen: 1111.93 ng/ml
RT: 18.45 min Scan# 1804
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:228 Resp: 575753

Ion	Ratio	Lower	Upper
228	100		
226	28.4	0.0	58.6

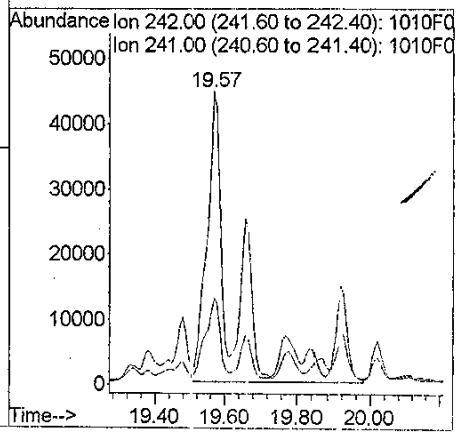


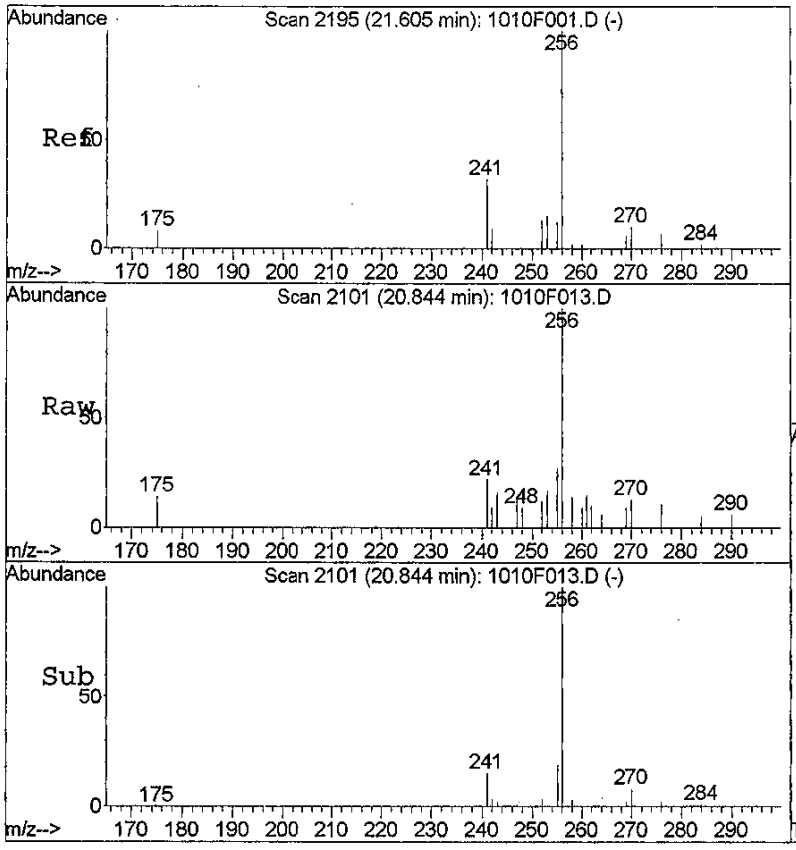


#46
C1-Chrysenes
Concen: 476.74 ng/ml m
RT: 19.57 min Scan# 1943
Delta R.T. -0.42 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:242 Resp: 246856

Ion	Ratio	Lower	Upper
242	100		
241	29.7	0.1	60.1

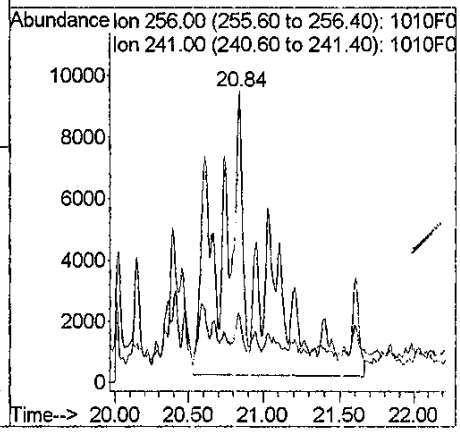


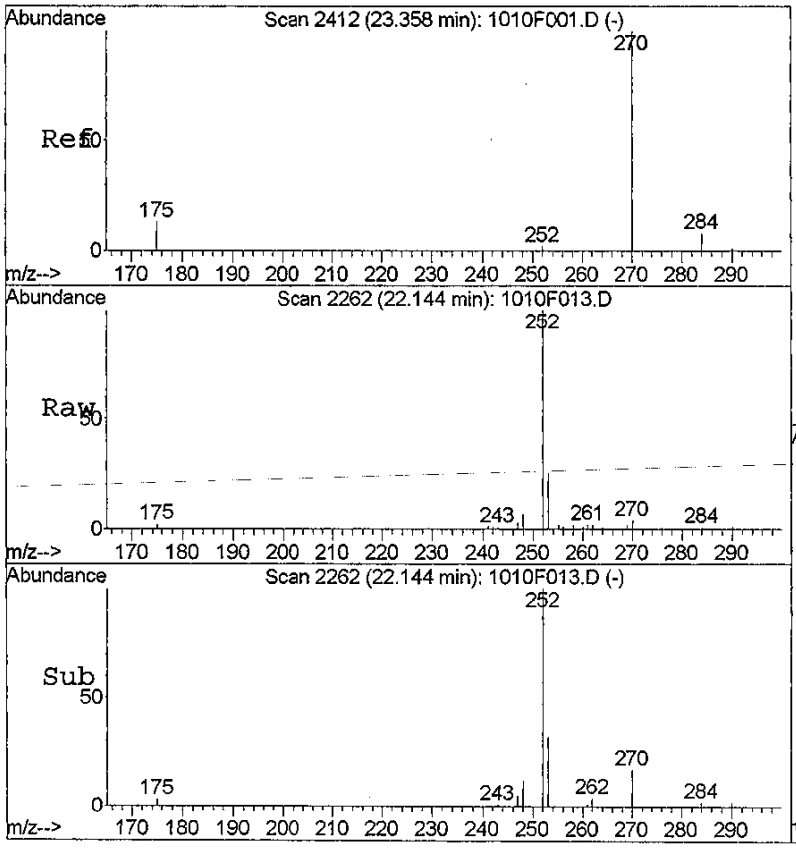


#47
C2-Chrysenes
Concen: 339.20 ng/ml m
RT: 20.84 min Scan# 2101
Delta R.T. -0.65 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:256 Resp: 175638

Ion	Ratio	Lower	Upper
256	100		
241	22.3	7.8	67.8

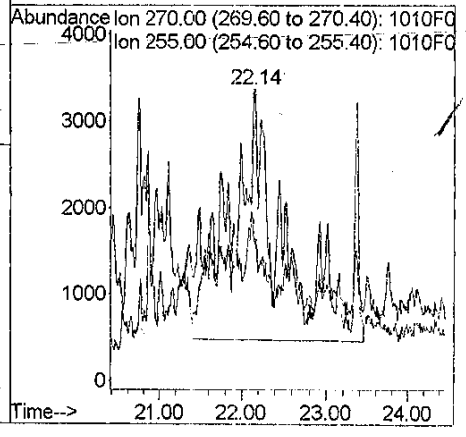


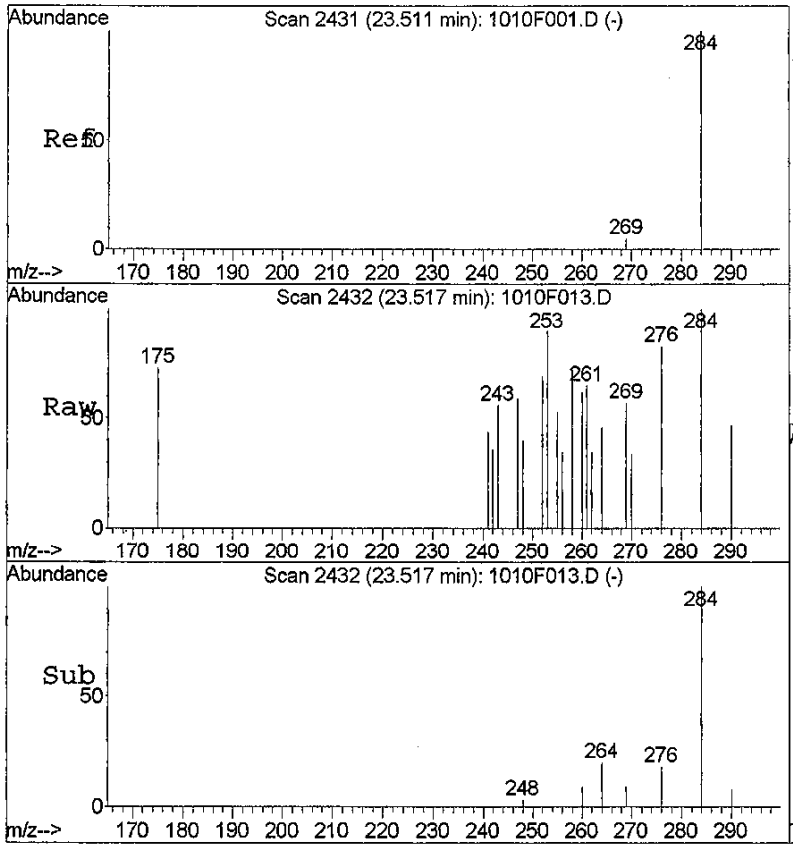


#48
C3-Chrysenes
Concen: 242.77 ng/ml m
RT: 22.14 min Scan# 2262
Delta R.T. -0.55 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:270 Resp: 125703

Ion	Ratio	Lower	Upper
270	100		
255	49.1	0.0	56.7

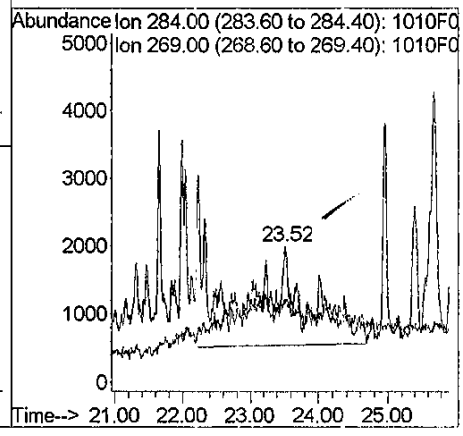


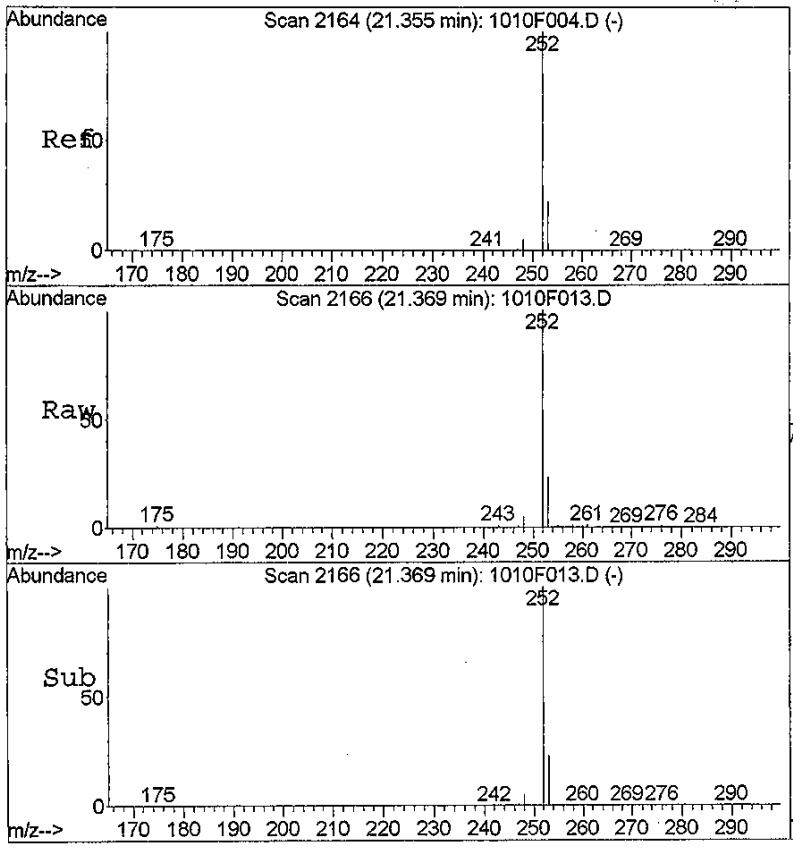


#49
C4-Chrysenes
Concen: 146.09 ng/ml m
RT: 23.52 min Scan# 2432
Delta R.T. -0.48 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:284 Resp: 75646

Ion	Ratio	Lower	Upper
284	100		
269	57.3	16.2	76.2

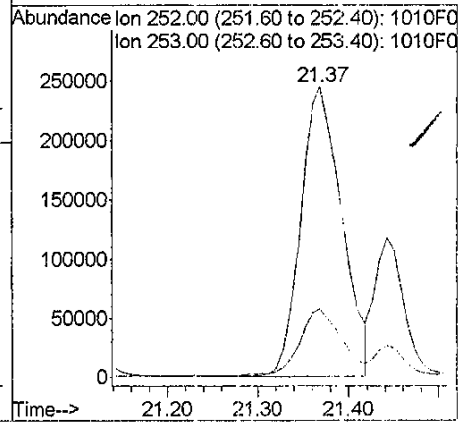


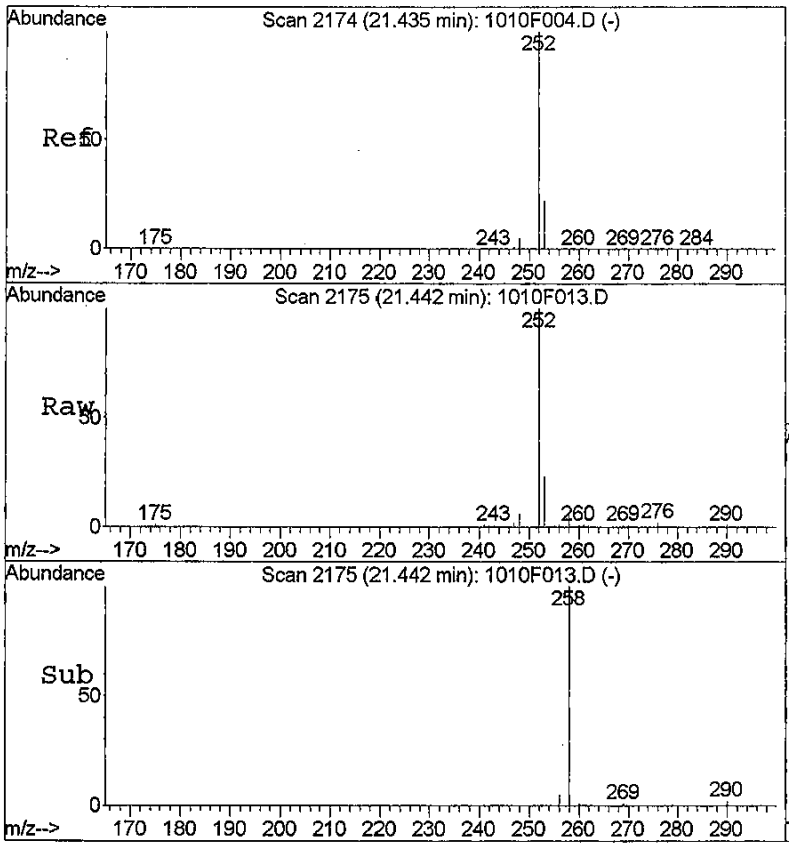


#51
Benzo(b)fluoranthene
Concen: 1271.19 ng/ml
RT: 21.37 min Scan# 2166
Delta R.T. -0.01 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:252 Resp: 761305

Ion	Ratio	Lower	Upper
252	100		
253	22.9	0.0	51.8

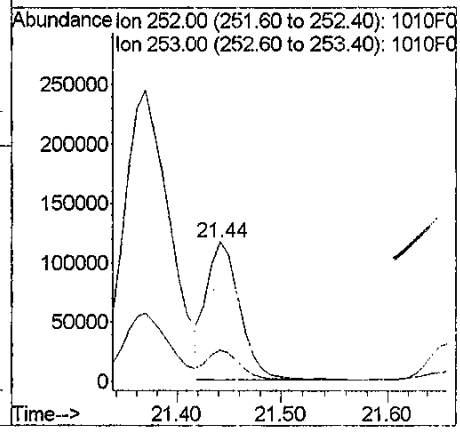


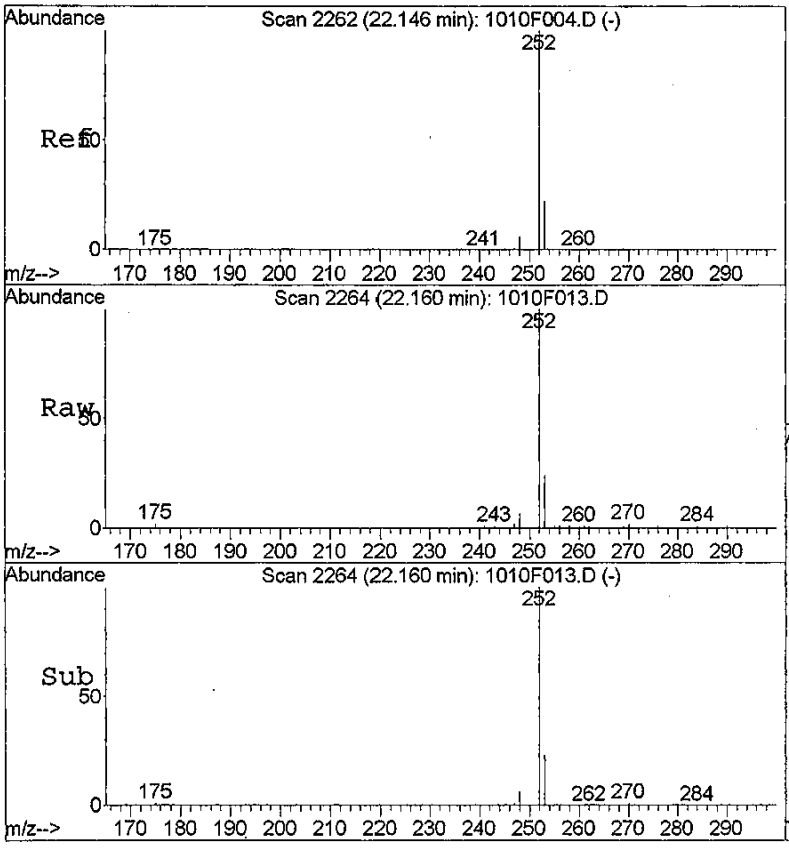


#52
Benzo(k)fluoranthene
Concen: 423.02 ng/ml
RT: 21.44 min Scan# 2175
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:252 Resp: 259449

Ion	Ratio	Lower	Upper
252	100		
253	21.7	0.0	51.7

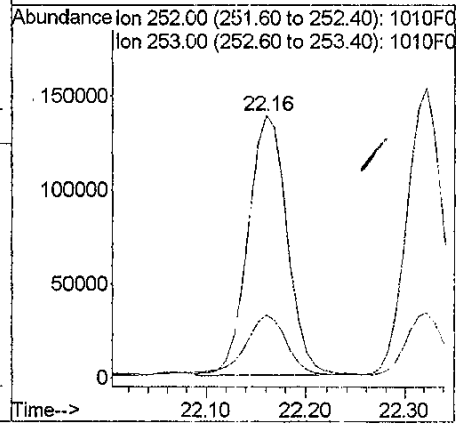


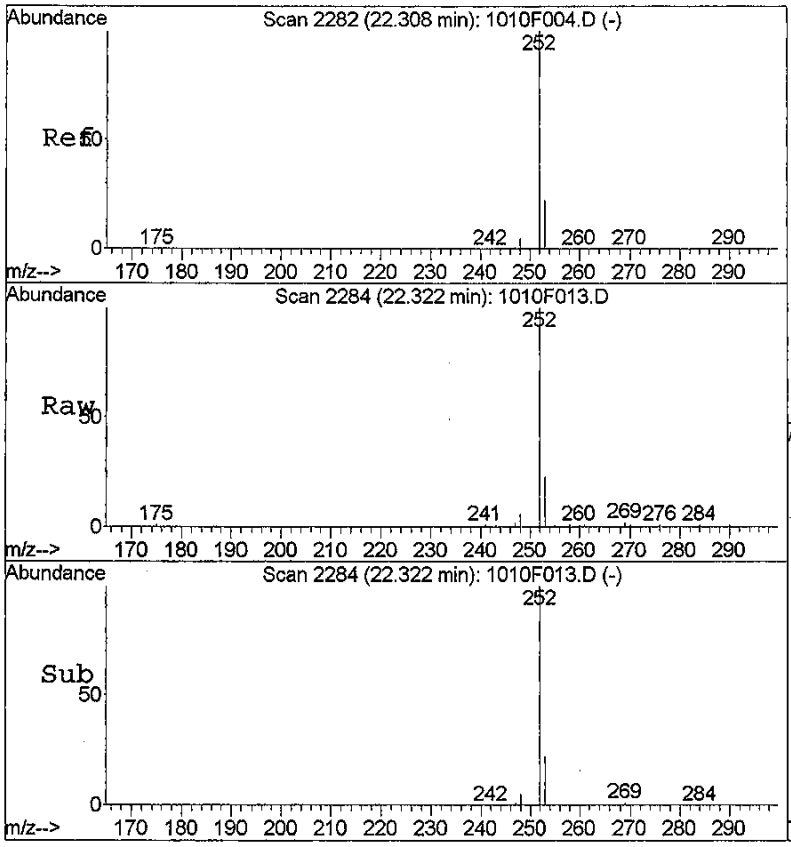


#53
Benzo(e)pyrene
Concen: 651.99 ng/ml
RT: 22.16 min Scan# 2264
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:252 Resp: 377082

Ion	Ratio	Lower	Upper
252	100		
253	23.0	0.0	52.0

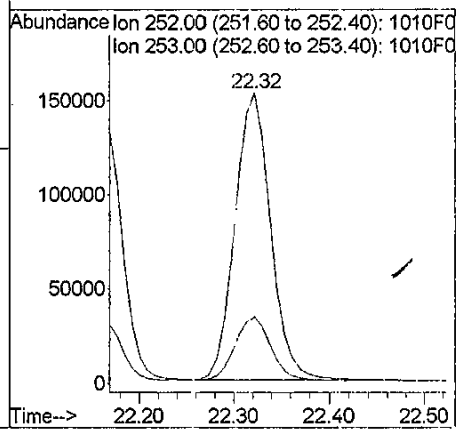


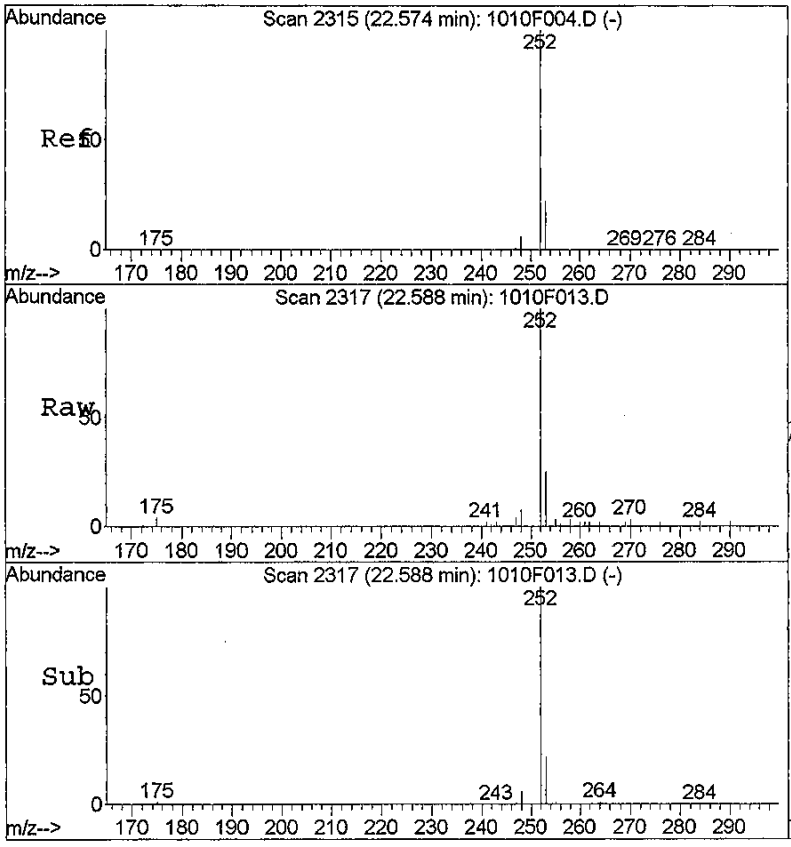


#54
Benzo(a)pyrene
Concen: 731.47 ng/ml
RT: 22.32 min Scan# 2284
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:252 Resp: 403832

Ion	Ratio	Lower	Upper
252	100		
253	21.9	0.0	51.8

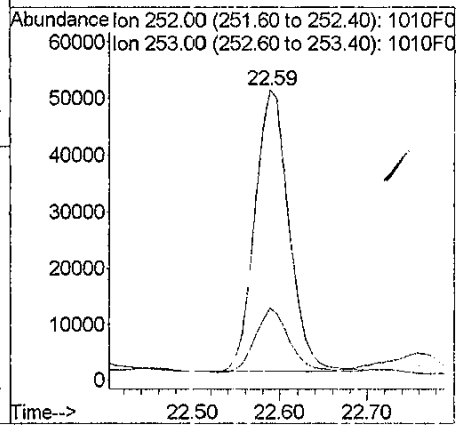


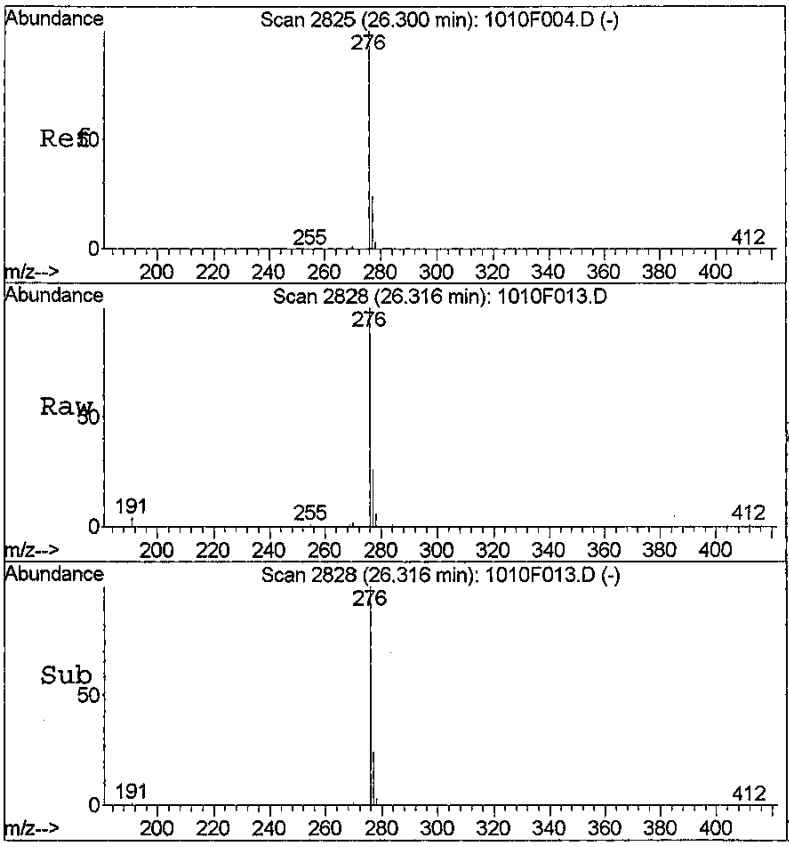


#55
Perylene
Concen: 247.02 ng/ml
RT: 22.59 min Scan# 2317
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:252 Resp: 137975

Ion	Ratio	Lower	Upper
252	100		
253	22.4	0.0	51.8

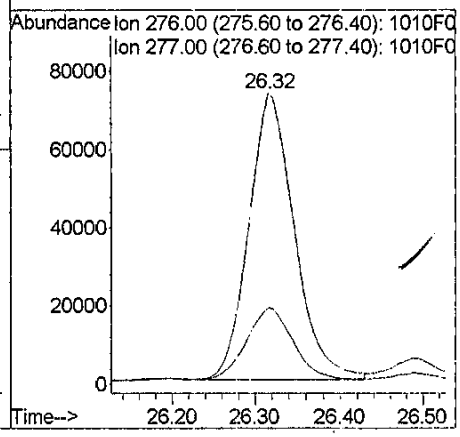


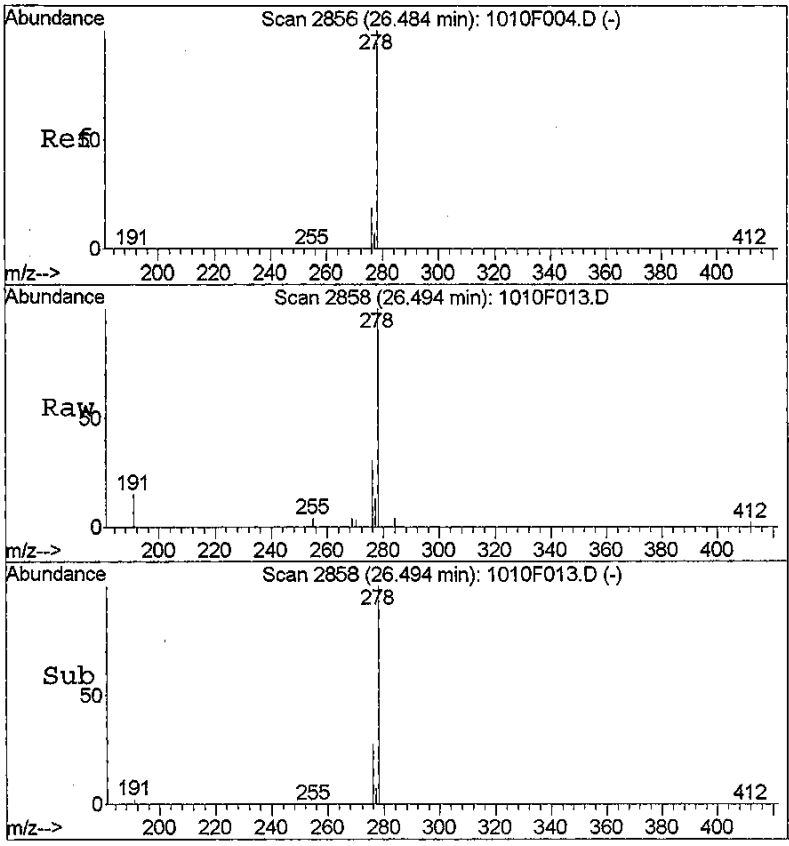


#56
Indeno(1,2,3-cd)pyrene
Concen: 472.04 ng/ml
RT: 26.32 min Scan# 2828
Delta R.T. -0.03 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:276 Resp: 274986

Ion	Ratio	Lower	Upper
276	100		
277	24.7	0.0	53.8

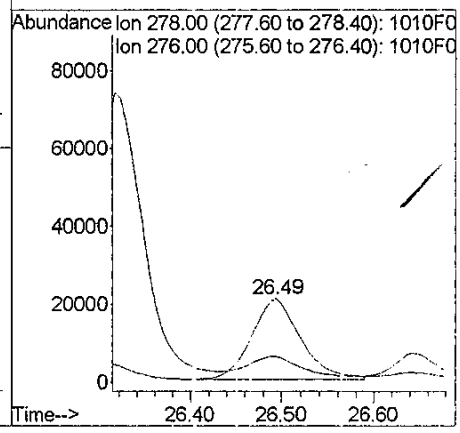


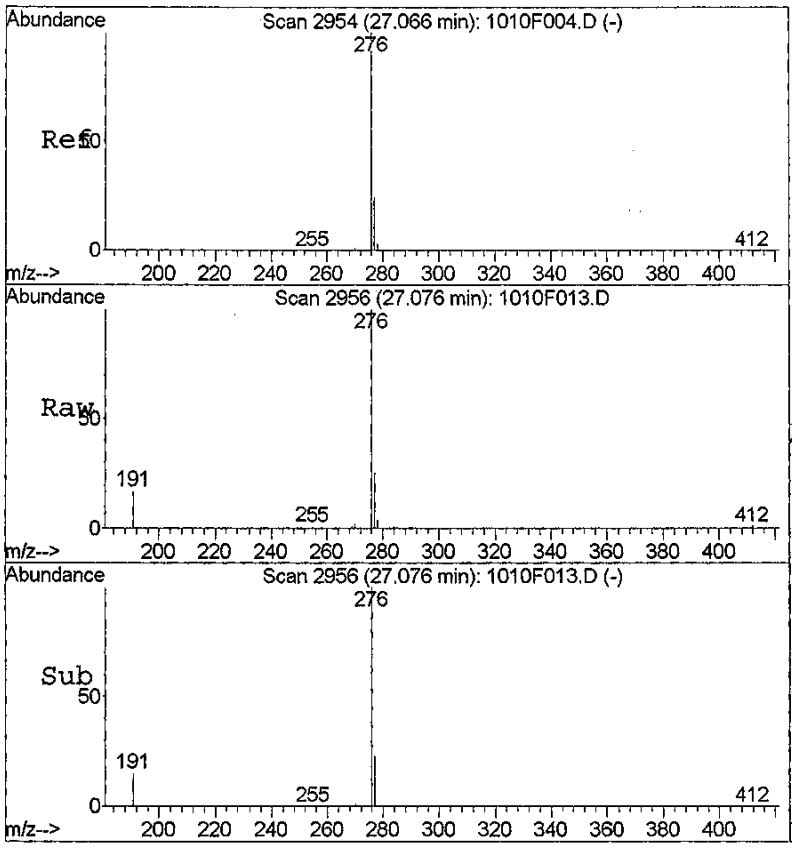


#57
Dibenz(a,h)anthracene
Concen: 131.03 ng/ml
RT: 26.49 min Scan# 2858
Delta R.T. -0.03 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:278 Resp: 75989

Ion	Ratio	Lower	Upper
278	100		
276	24.8	0.0	55.3

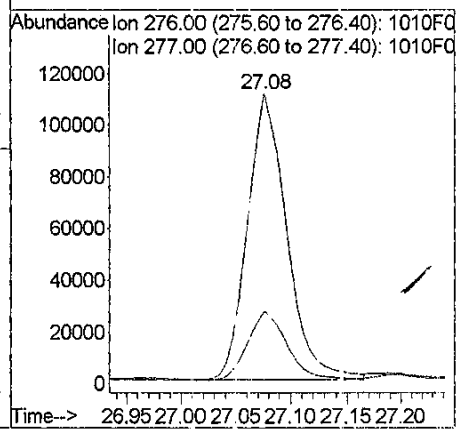




#58
Benzo(g,h,i)perylene
Concen: 446.71 ng/ml
RT: 27.08 min Scan# 2956
Delta R.T. -0.02 min
Lab File: 1010F013.D
Acq: 10 Oct 2015 11:29 am

Tgt Ion:276 Resp: 276458

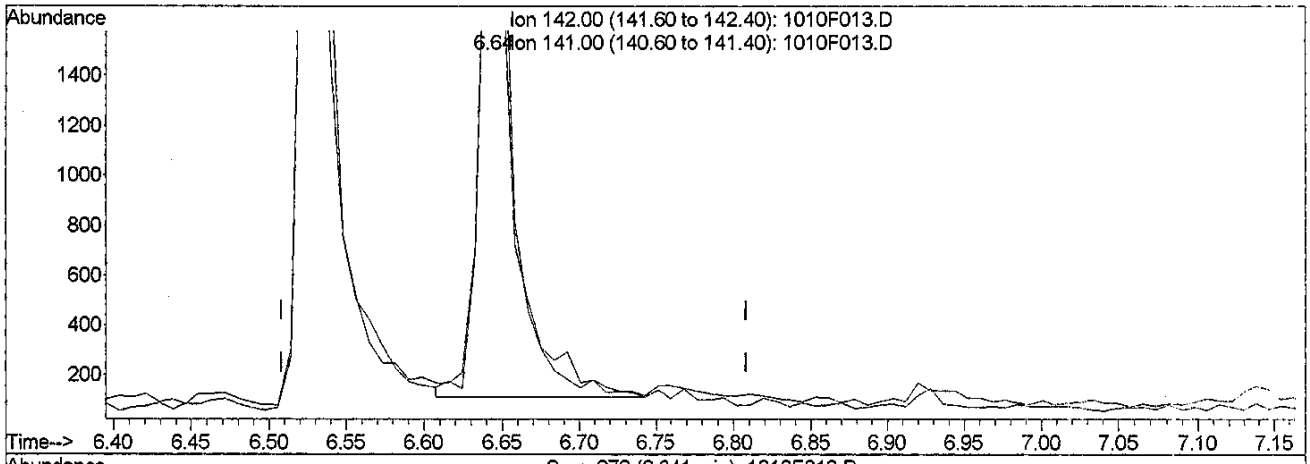
Ion	Ratio	Lower	Upper
276	100		
277	24.2	0.0	53.8

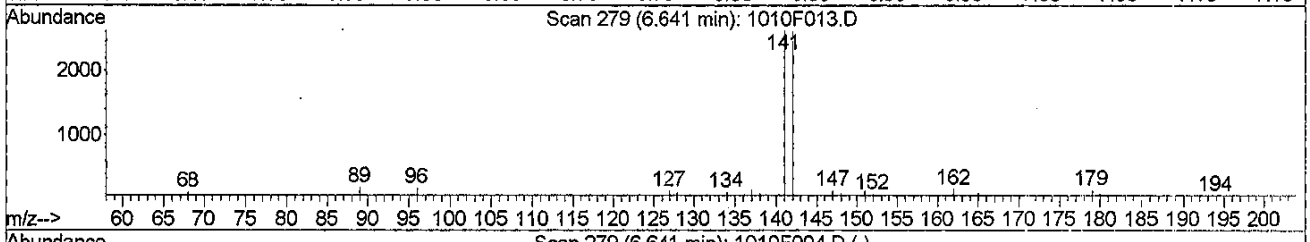


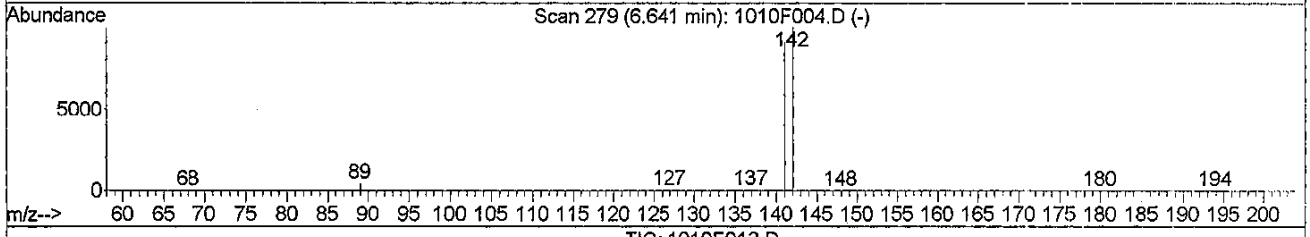
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F013.D Vial: 11
Acq On : 10 Oct 2015 11:29 am Operator: LWeiskopf
Sample : K1511029-001 Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:27 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F013.D

(4) 1-Methylnaphthalene (T)

6.64min 14.88ng/ml

response 3573

Ion	Exp%	Act%
142.00	100	100
141.00	90.20	100.36
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

10/12/15

OCT 12 2015

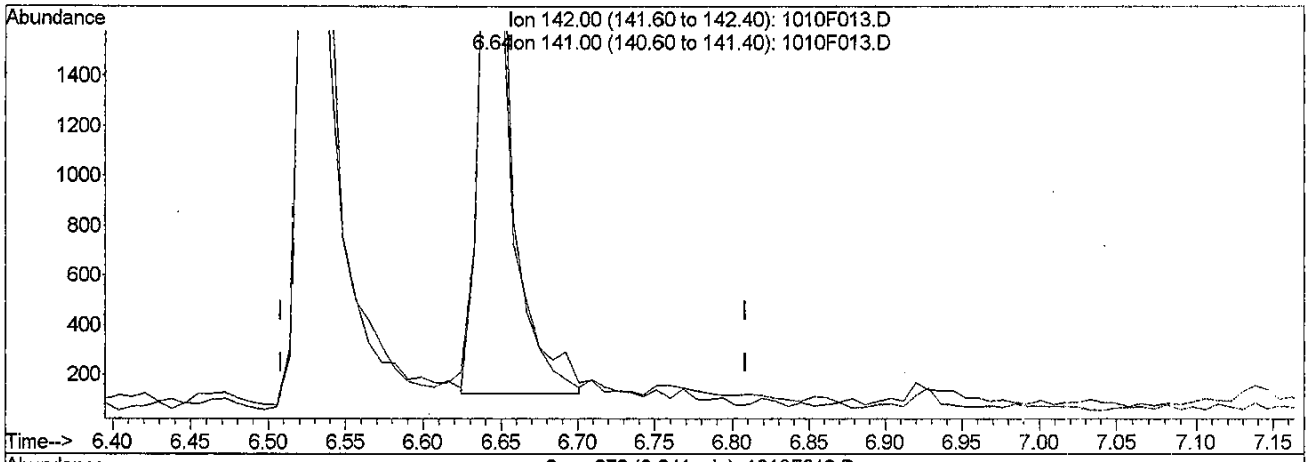
1010F013.D 080415SIMALK.M Mon Oct 12 08:42:02 2015

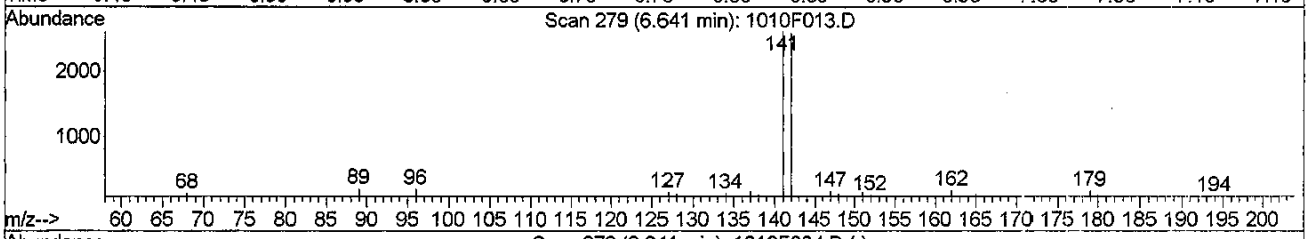
Quantitation Report (Qedit)

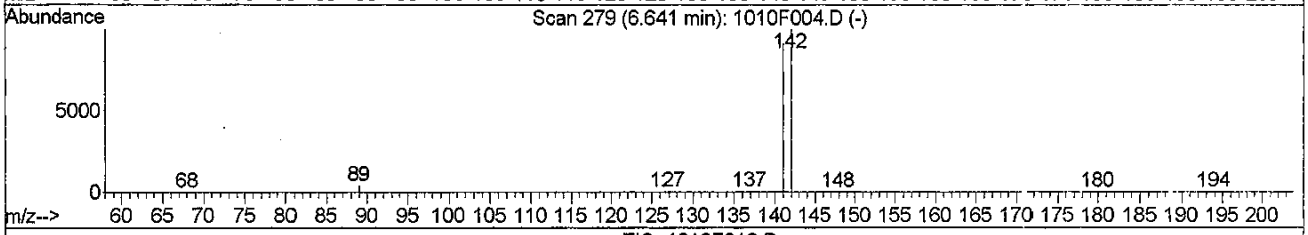
Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:41 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F013.D

(4) 1-Methylnaphthalene (T)

6.64min 14.16ng/ml m

response 3399

Ion	Exp%	Act%
142.00	100	100
141.00	90.20	100.57
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
BLC
10/12/15

OCT 12 2015

1010F013.D 080415SIMALK.M Mon Oct 12 08:42:07 2015

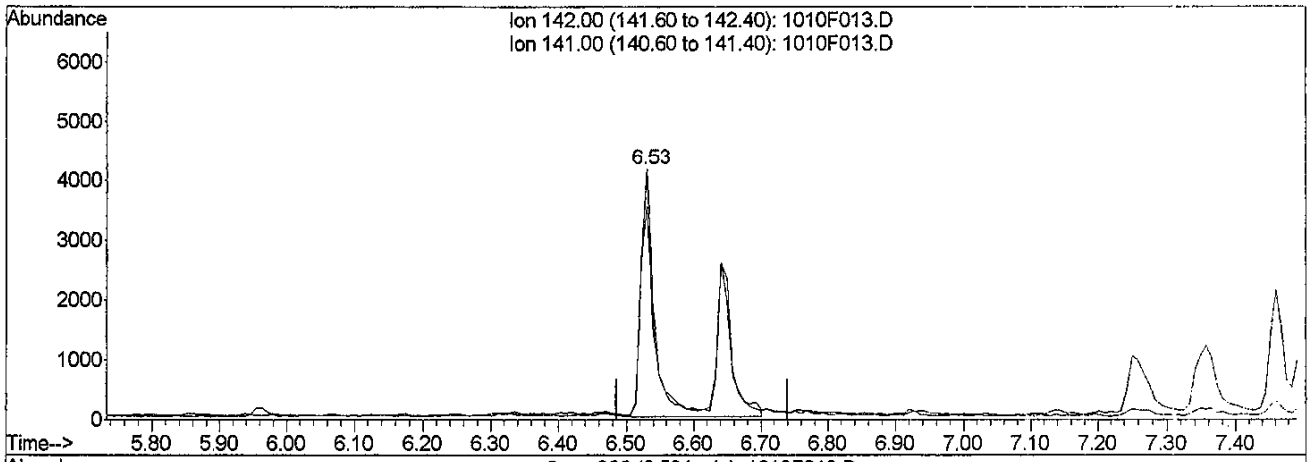
MANSON022624

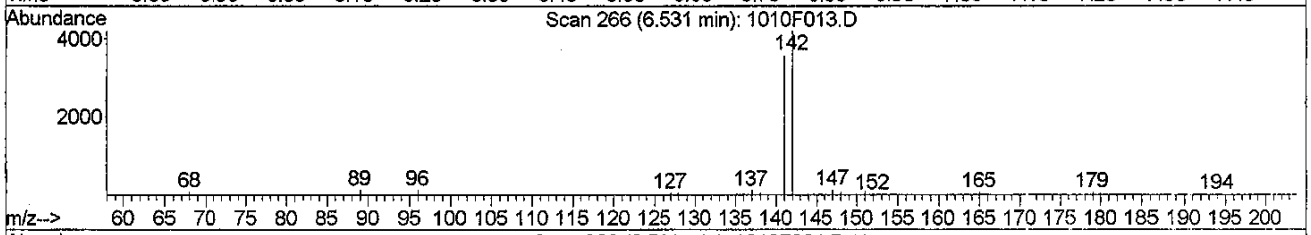
Quantitation Report (Qedit)

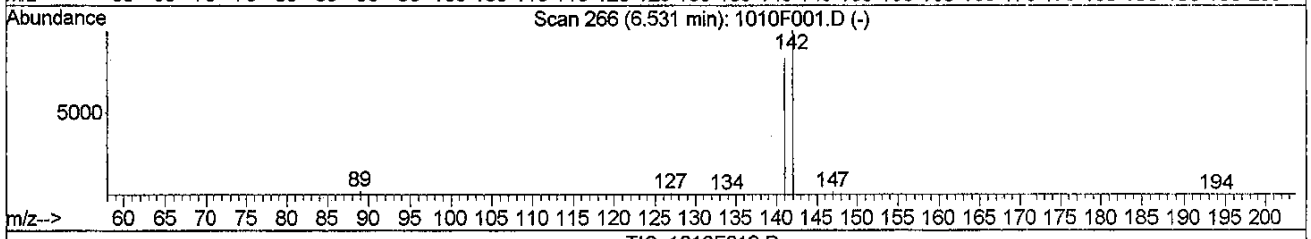
Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:42 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F013.D

(7) C1-Naphthalenes (L)

6.53min 25.12ng/ml m

response 9623

Ion	Exp%	Act%
142.00	100	100
141.00	100.00	84.99
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

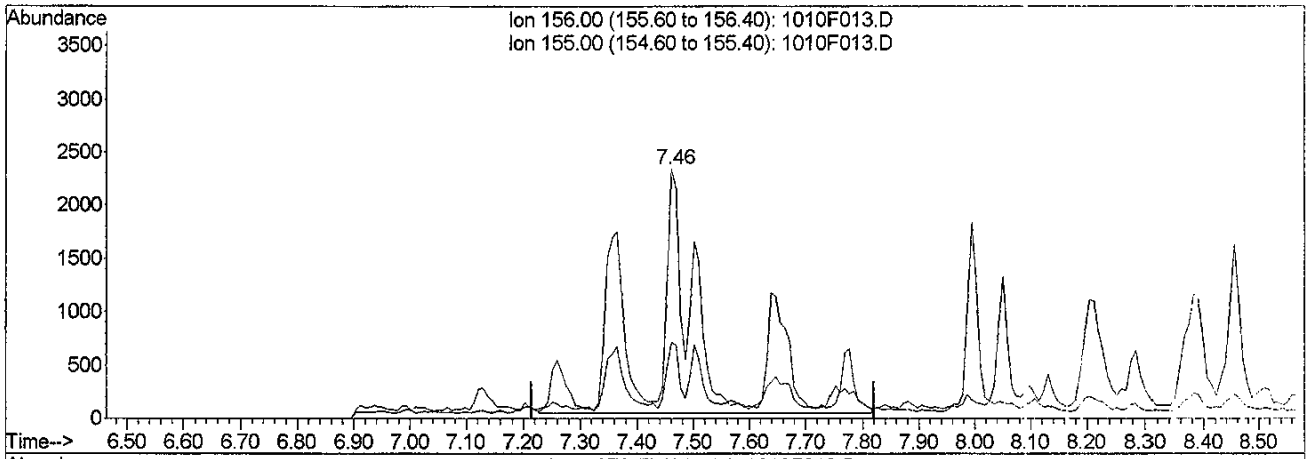
1010F013.D 080415SIMALK.M Mon Oct 12 08:43:08 2015

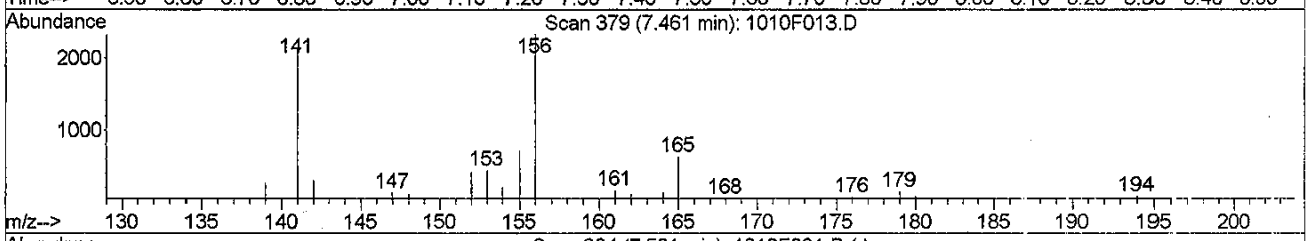
Quantitation Report (Qedit)

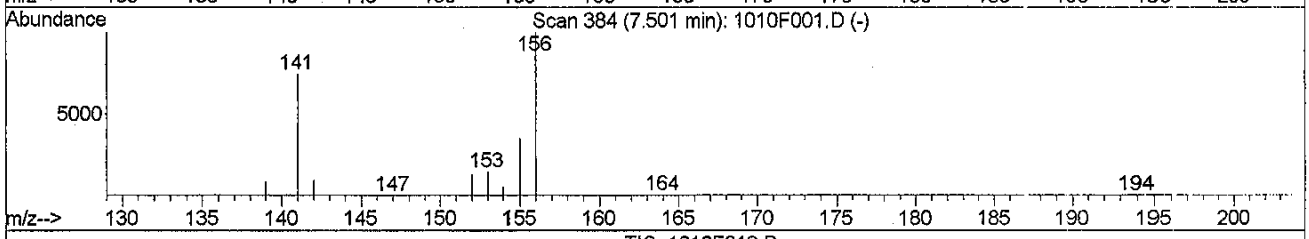
Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:42 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F013.D

(8) C2-Naphthalenes (L)

7.46min 40.61ng/ml m

response 15557

Ion	Exp%	Act%
156.00	100	100
155.00	38.30	30.61
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

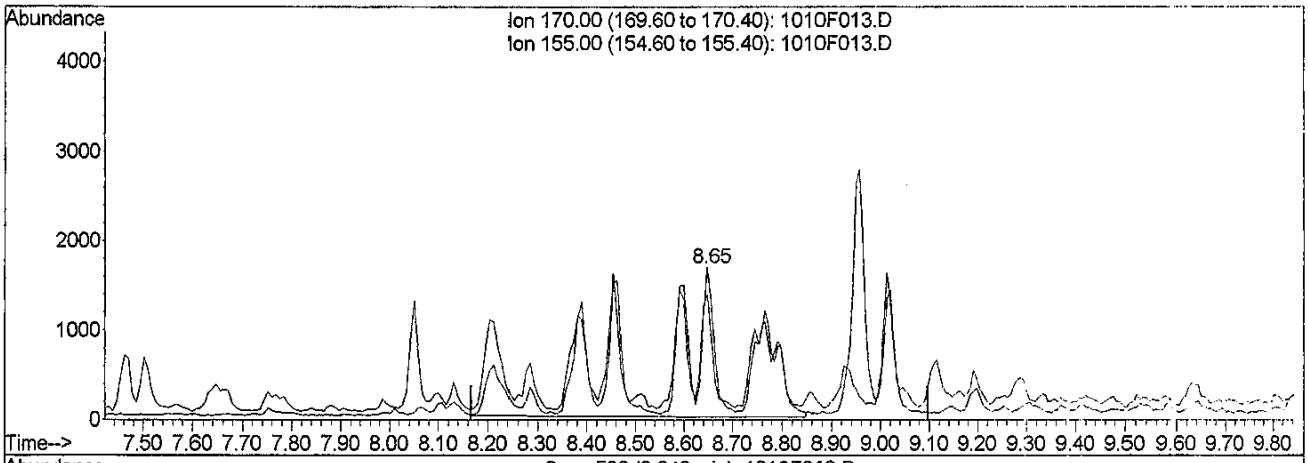
1010F013.D 080415SIMALK.M Mon Oct 12 08:43:14 2015

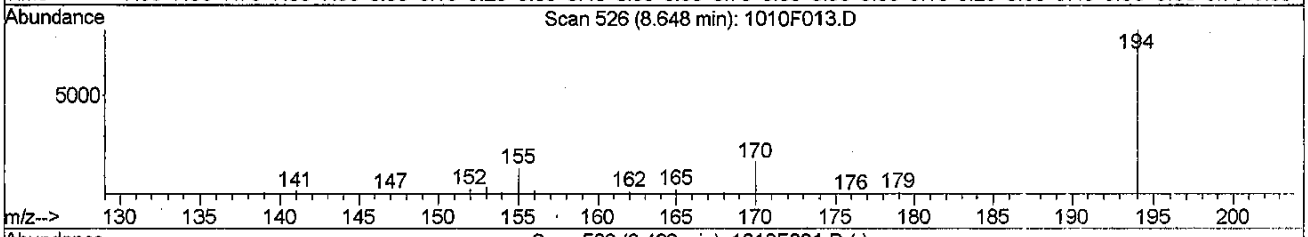
MANSON022626

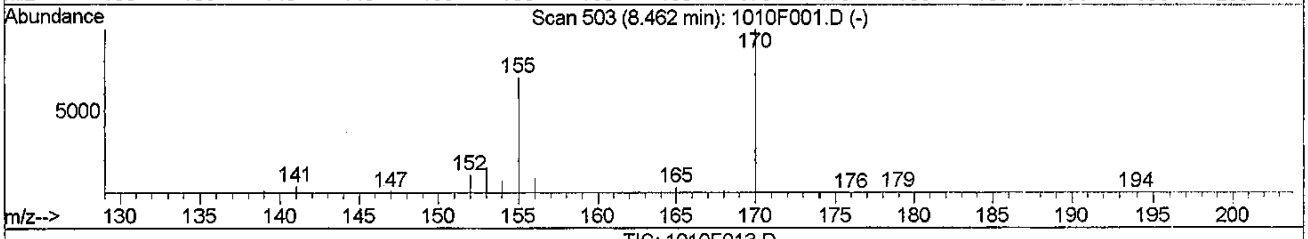
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F013.D Vial: 11
Acq On : 10 Oct 2015 11:29 am Operator: LWeiskopf
Sample : K1511029-001 Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:42 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F013.D

(9) C3-Naphthalenes (L)

8.65min 44.53ng/ml m

response 17057

Ion	Exp%	Act%
170.00	100	100
155.00	86.90	81.93
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration: h

After

Alkylated Range

10/12/15

OCT 12 2015

1010F013.D 080415SIMALK.M Mon Oct 12 08:43:20 2015

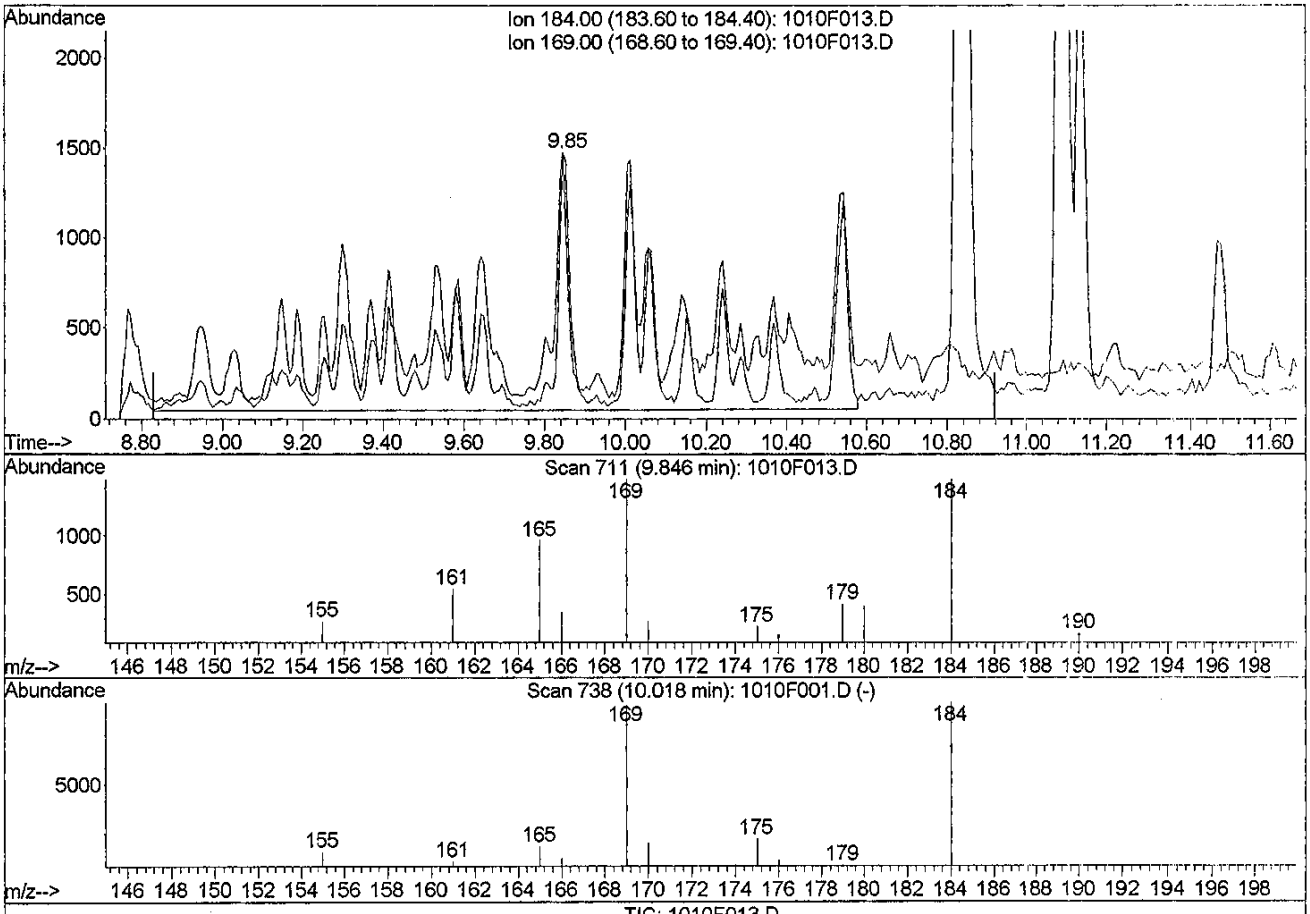
MANSON022627

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:42 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration



(10) C4-Naphthalenes (L)

9.85min 58.19ng/ml m

response 22291

Ion	Exp%	Act%
184.00	100	100
169.00	119.70	100.07
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Alkylated Range

10/12/15

OCT 1 2 2015

1010F013.D 080415SIMALK.M Mon Oct 12 08:43:29 2015

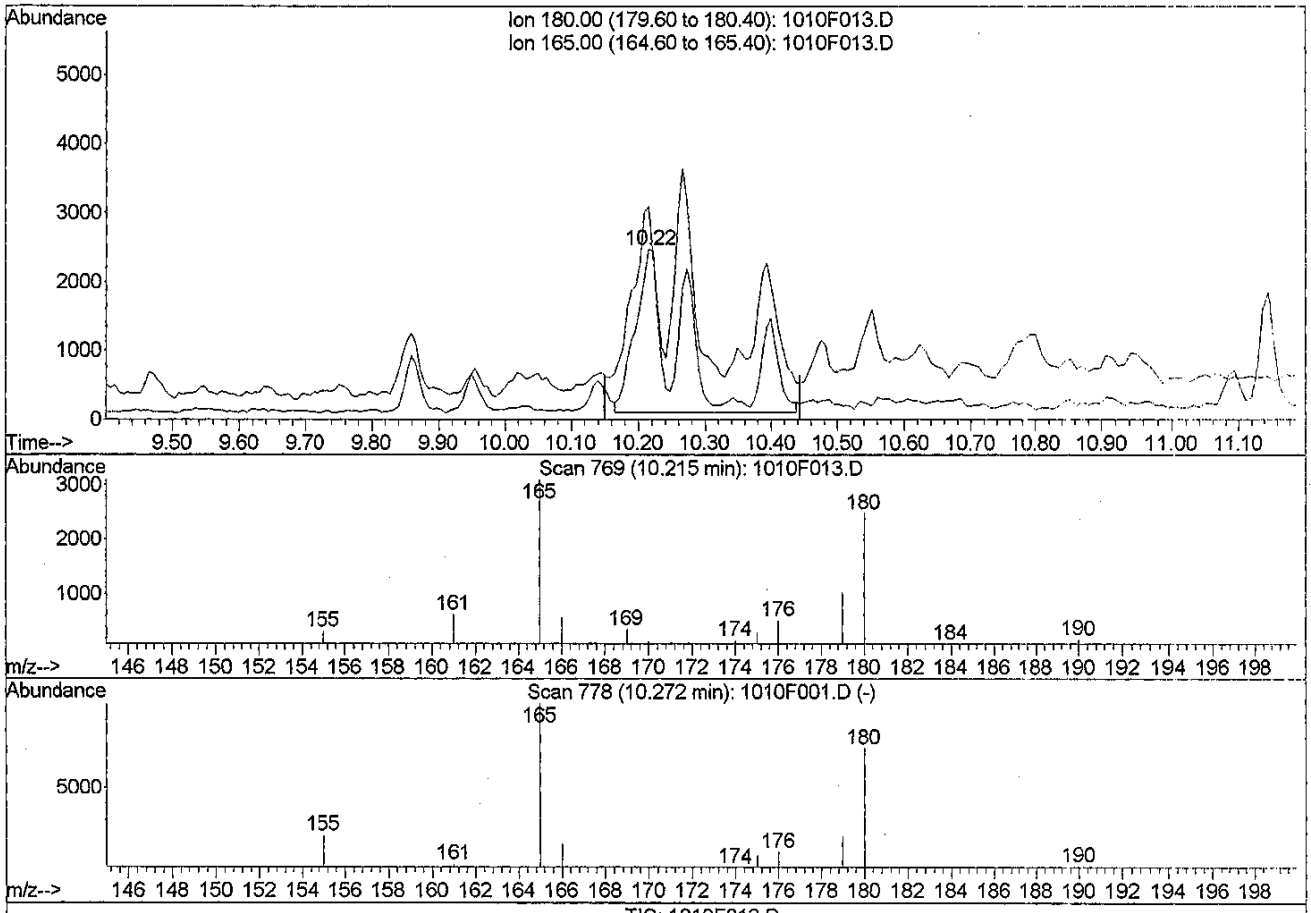
MANSON022628

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:43 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration



(18) C1-Fluorenes (L)

10.22min 38.50ng/ml m

response 12137

Ion	Exp%	Act%
180.00	100	100
165.00	178.70	125.24#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

1010F013.D 080415SIMALK.M Mon Oct 12 08:43:38 2015

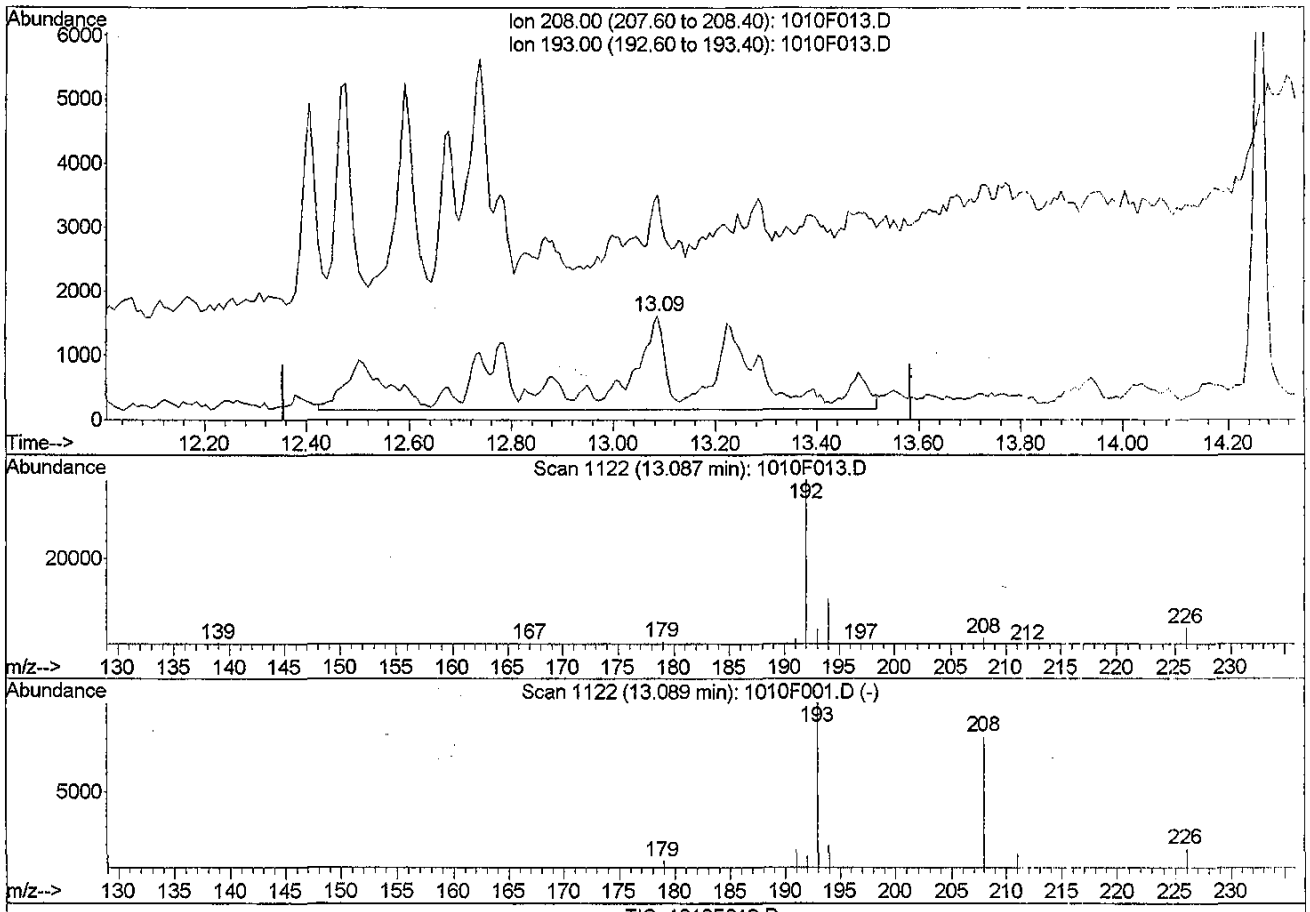
MANSON022629

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:43 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration



(20) C3-Fluorenes (L)

13.09min 87.52ng/ml m

response 27588

Ion	Exp%	Act%
208.00	100	100
193.00	122.00	216.04#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

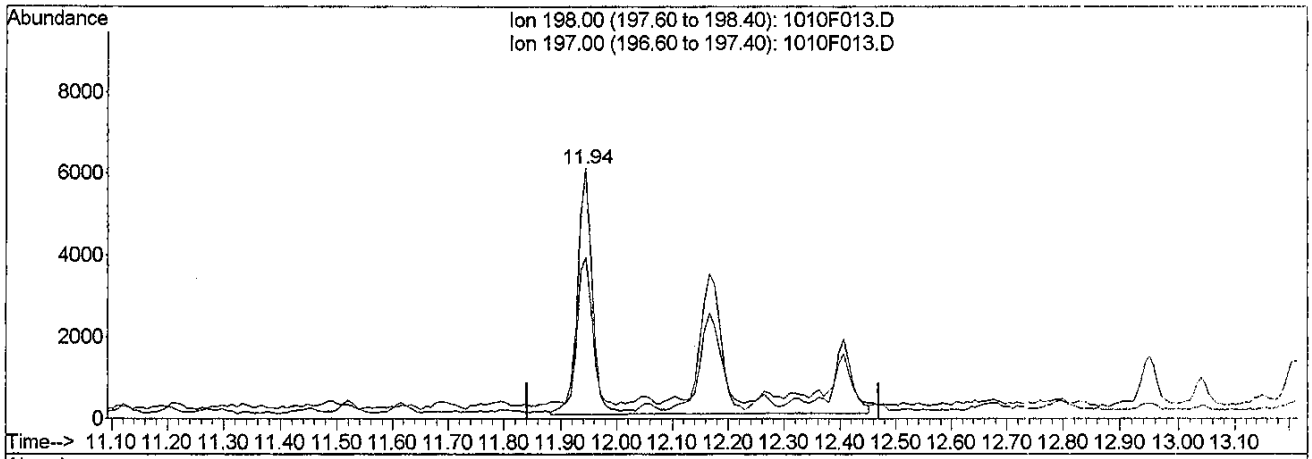
1010F013.D 080415SIMALK.M Mon Oct 12 08:43:49 2015

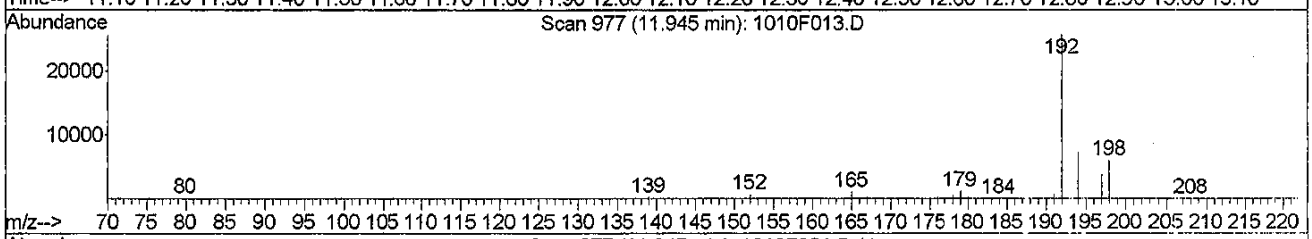
Quantitation Report (Qedit)

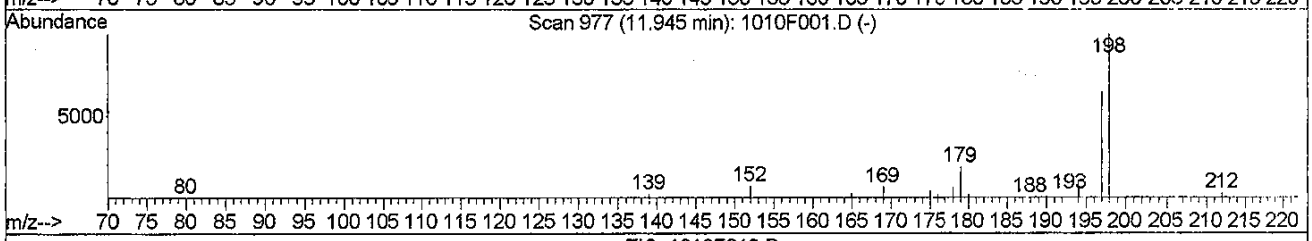
Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:43 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F013.D

(23) C1-Dibenzothiophenes (L)

11.94min 62.17ng/ml m

response 27128

Ion	Exp%	Act%
198.00	100	100
197.00	104.10	64.44#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

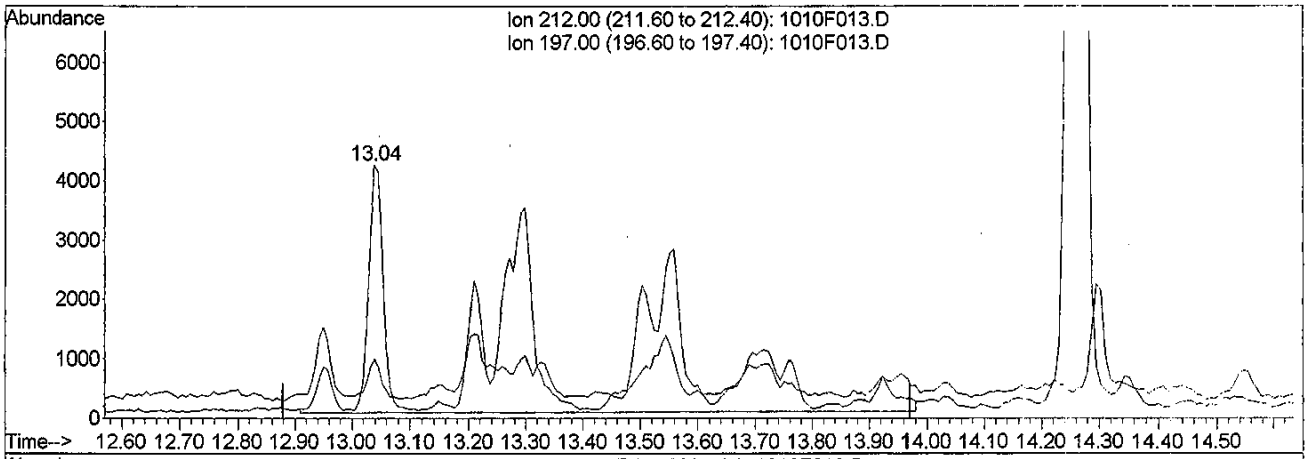
1010F013.D 080415SIMALK.M Mon Oct 12 08:43:55 2015

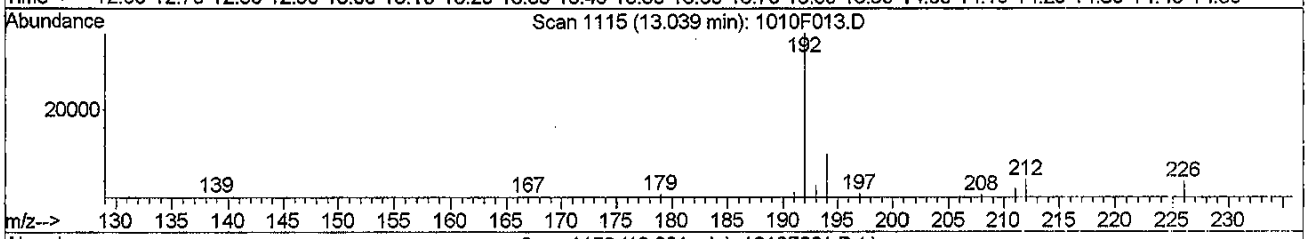
Quantitation Report (Qedit)

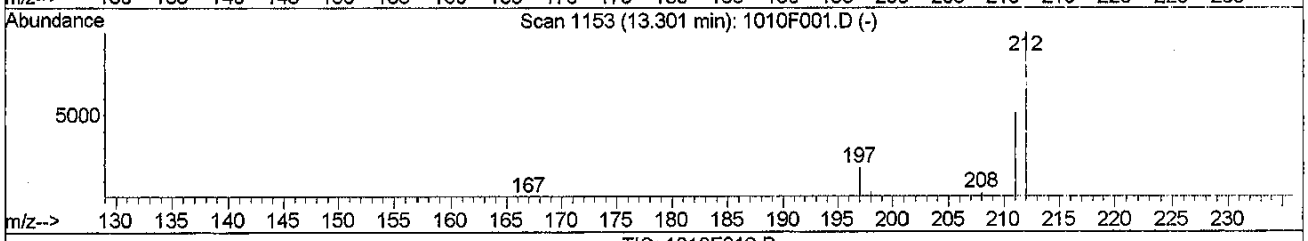
Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:43 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F013.D

(24) C2-Dibenzothiophenes (L)

13.04min 105.07ng/ml m

response 45848

Ion	Exp%	Act%
212.00	100	100
197.00	23.80	23.17
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

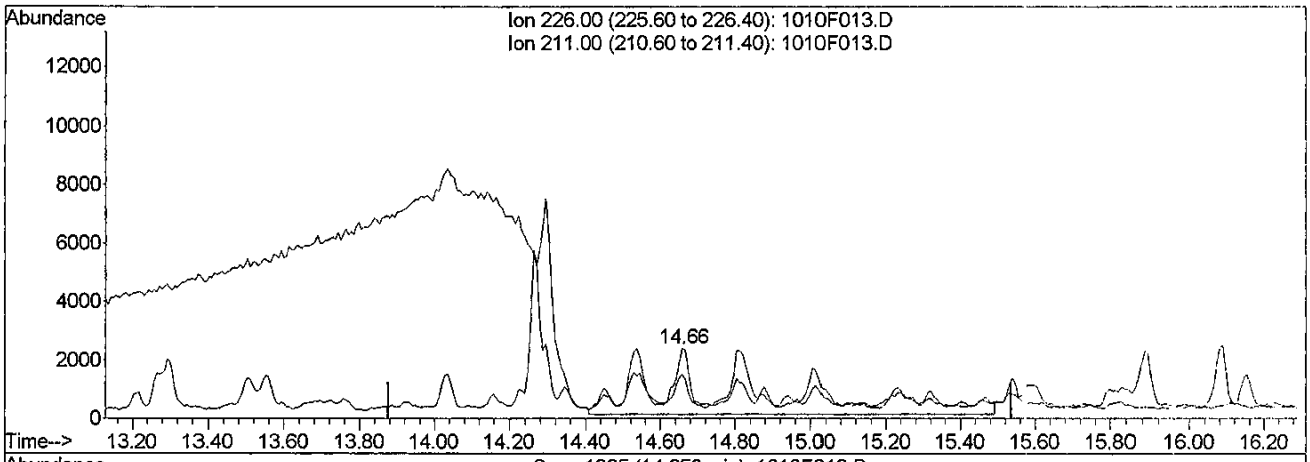
1010F013.D 080415SIMALK.M Mon Oct 12 08:44:03 2015

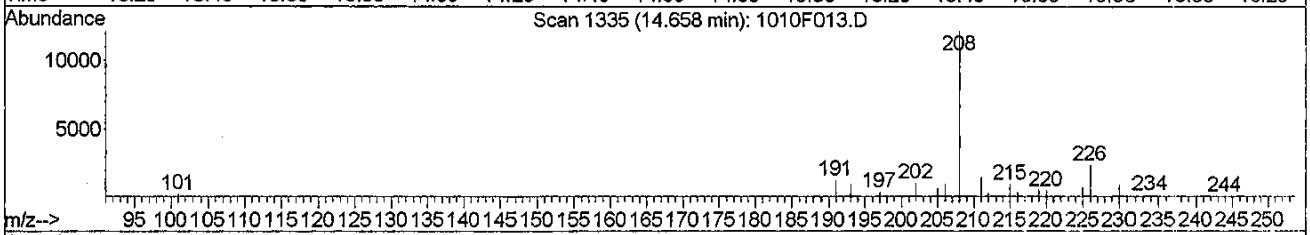
Quantitation Report (Qedit)

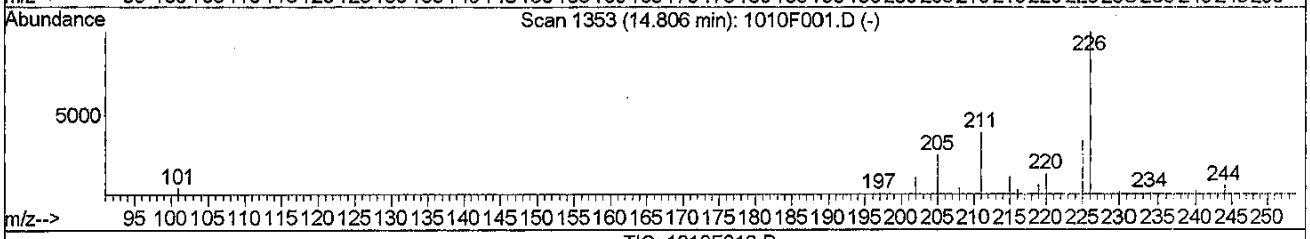
Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:43 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F013.D

(25) C3-Dibenzothiophenes (L)

14.66min 99.19ng/ml m

response 43282

Ion	Exp%	Act%
226.00	100	100
211.00	57.10	63.14
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

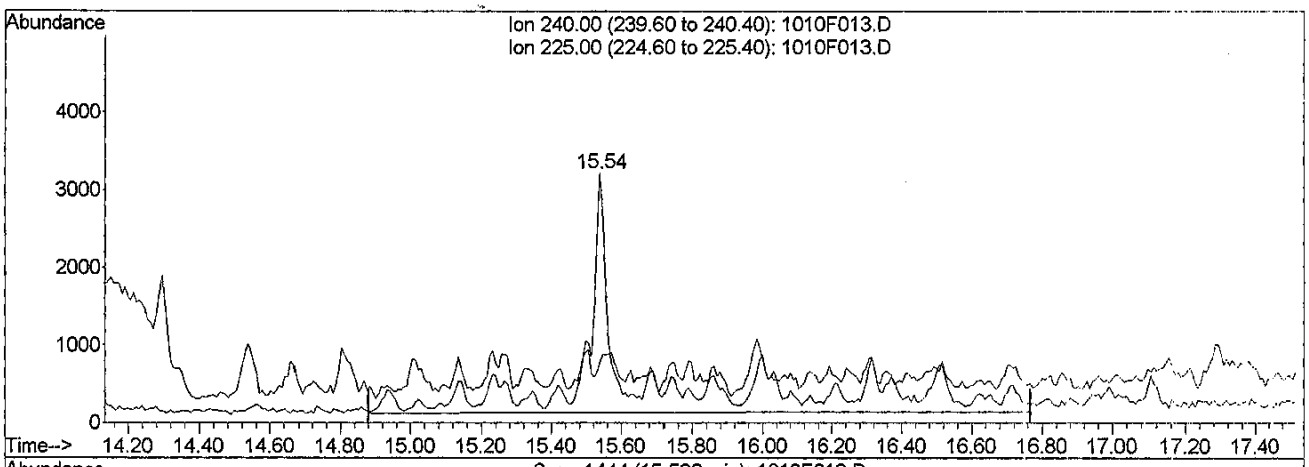
1010F013.D 080415SIMALK.M Mon Oct 12 08:44:10 2015

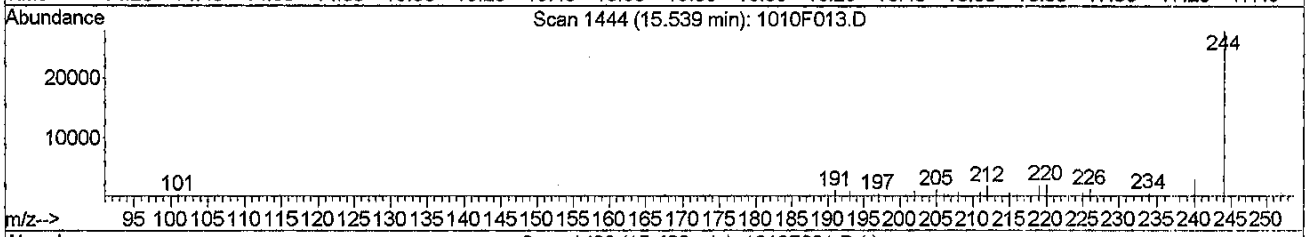
MANSON022633

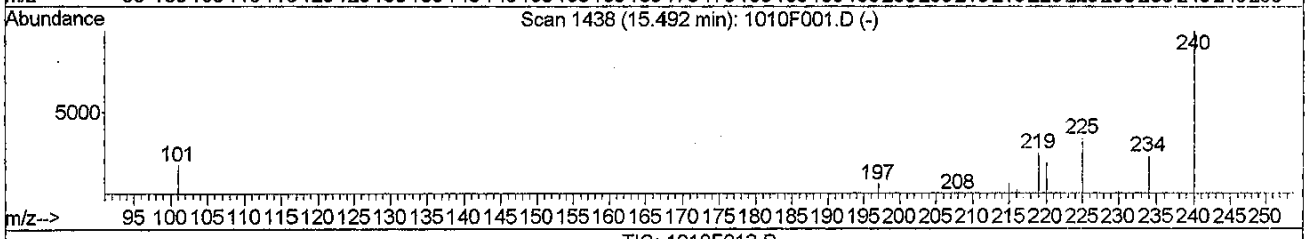
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F013.D Vial: 11
Acq On : 10 Oct 2015 11:29 am Operator: LWeiskopf
Sample : K1511029-001 Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:43 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F013.D

(26) C4-Dibenzothiophenes (L)

15.54min 76.33ng/ml m

response 33304

Ion	Exp%	Act%
240.00	100	100
225.00	30.00	24.30
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

1010F013.D 080415SIMALK.M Mon Oct 12 08:44:17 2015

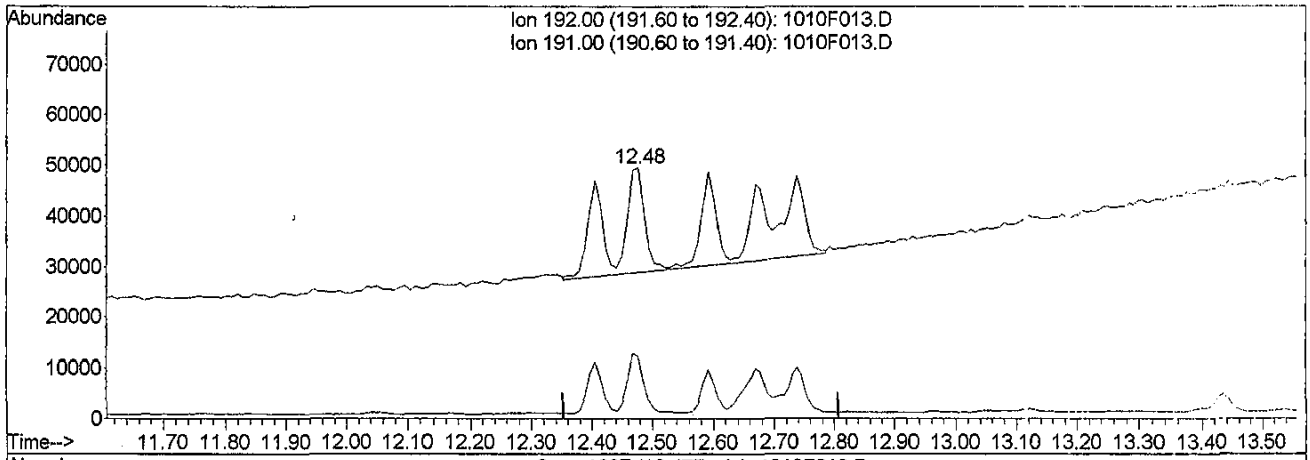
MANSON022634

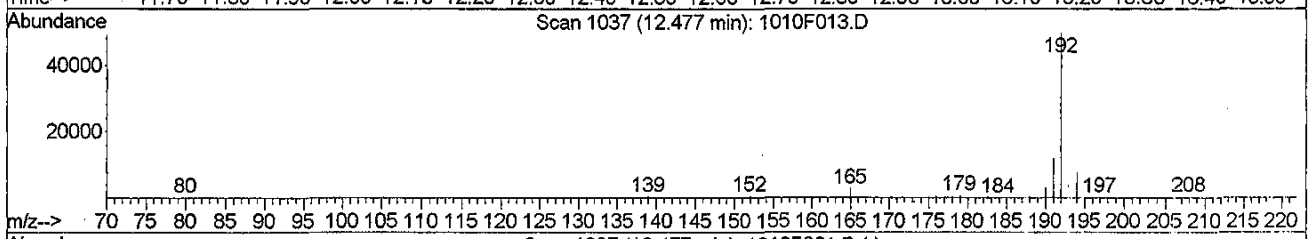
Quantitation Report (Qedit)

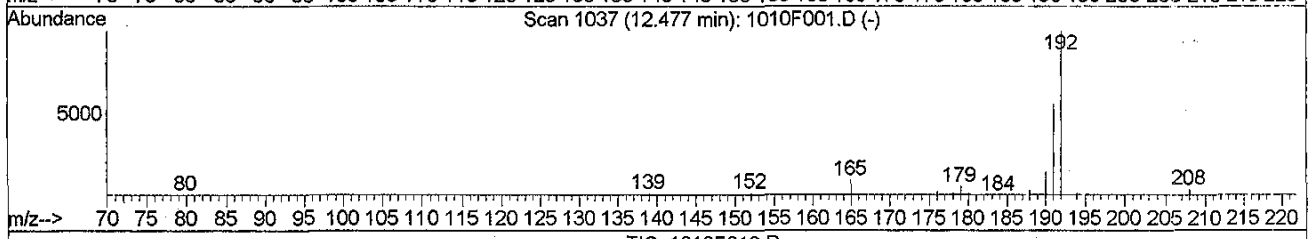
Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:43 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F013.D

(31) C1-Phenanthrenes/Anthracenes (L)

12.48min 394.27ng/ml m

response 176946

Ion	Exp%	Act%
192.00	100	100
191.00	55.30	24.77#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

1010F013.D 080415SIMALK.M Mon Oct 12 08:44:23 2015

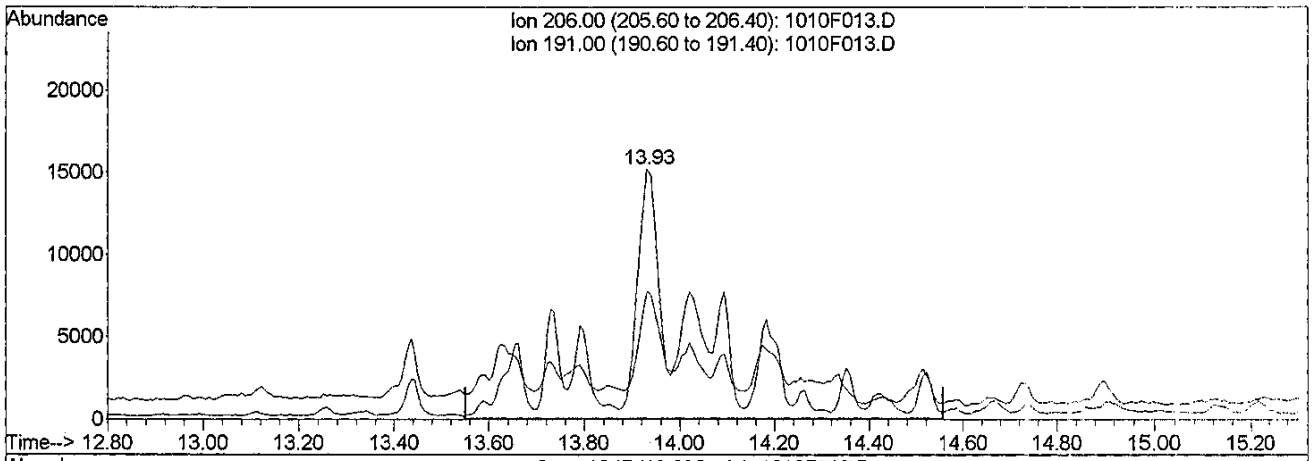
MANSON022635

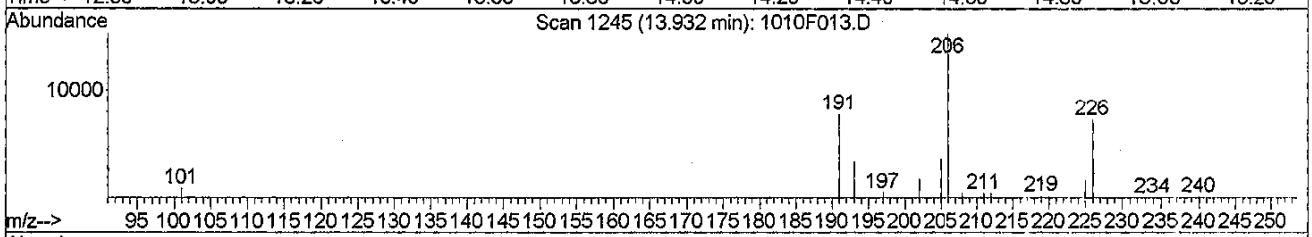
Quantitation Report (Qedit)

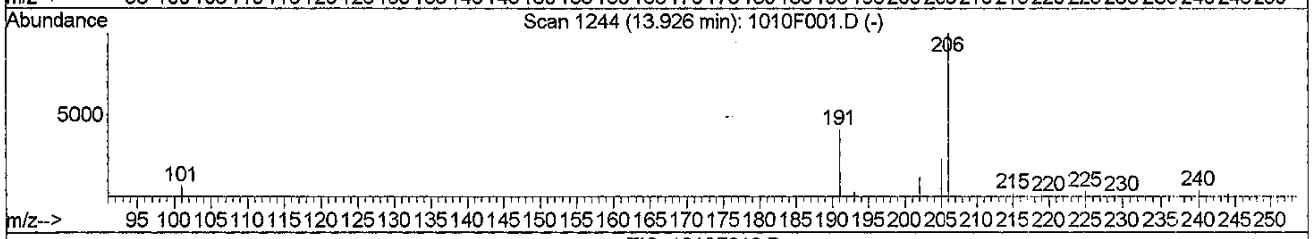
Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:43 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F013.D

(32) C2-Phenanthrenes/Anthracenes (L)

13.93min 379.09ng/ml m

response 170133

Ion	Exp%	Act%
206.00	100	100
191.00	45.60	51.09
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

1010F013.D 080415SIMALK.M Mon Oct 12 08:44:30 2015

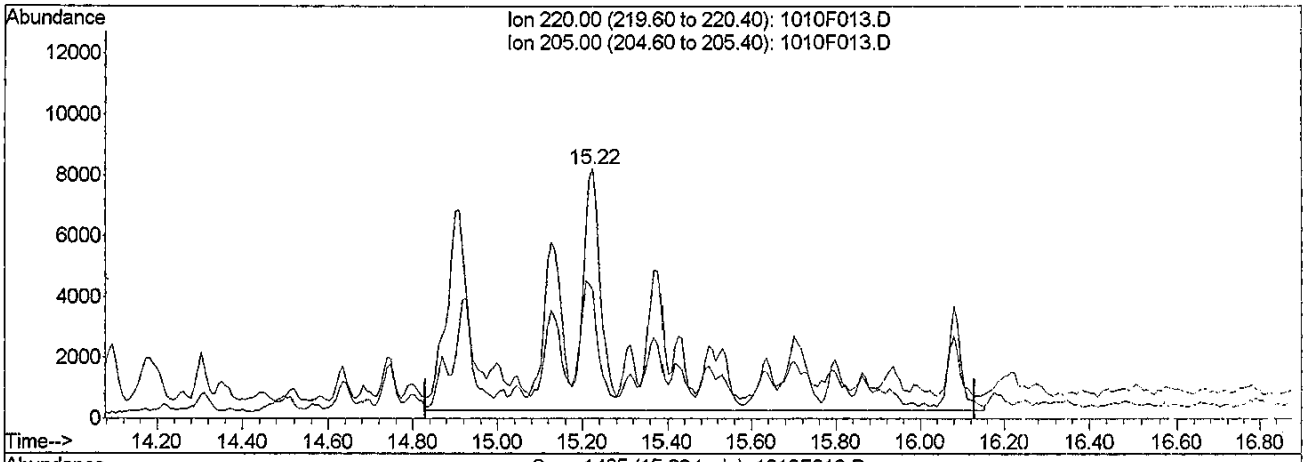
MANSON022636

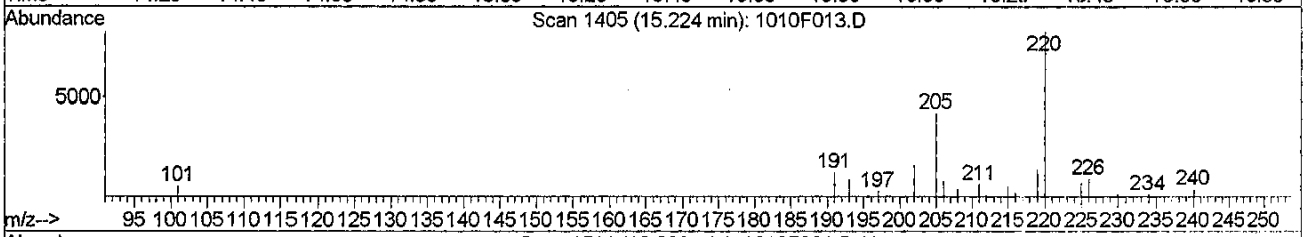
Quantitation Report (Qedit)

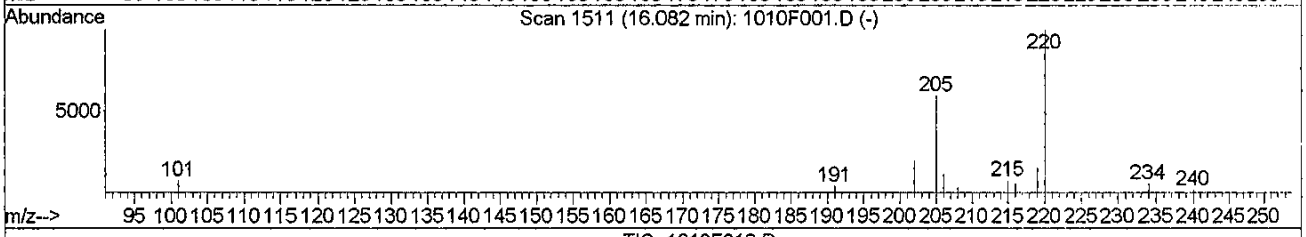
Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:44 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F013.D

(33) C3-Phenanthrenes/Anthracenes (L)

15.22min 254.25ng/ml m

response 114106

Ion	Exp%	Act%
220.00	100	100
205.00	50.00	51.50
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Alkylated Range

10/12/15

OCT 1 2 2015

1010F013.D 080415SIMALK.M Mon Oct 12 08:44:37 2015

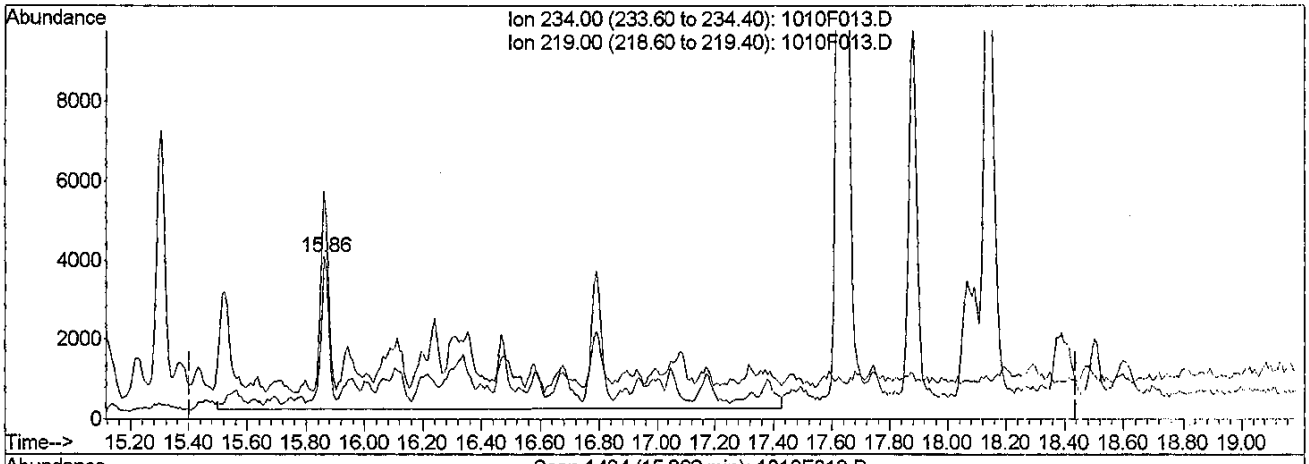
MANSON022637

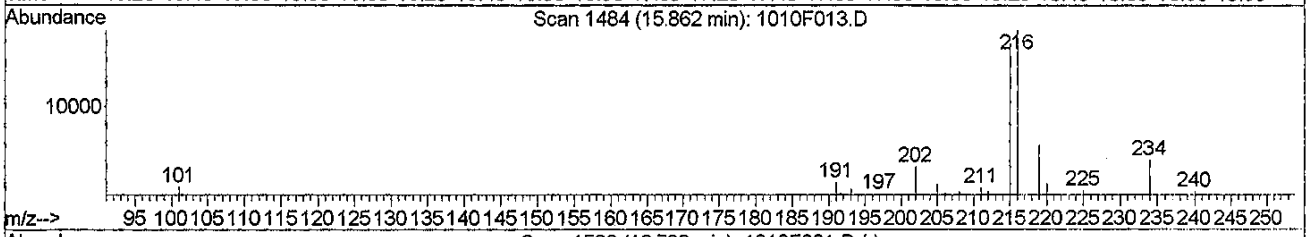
Quantitation Report (Qedit)

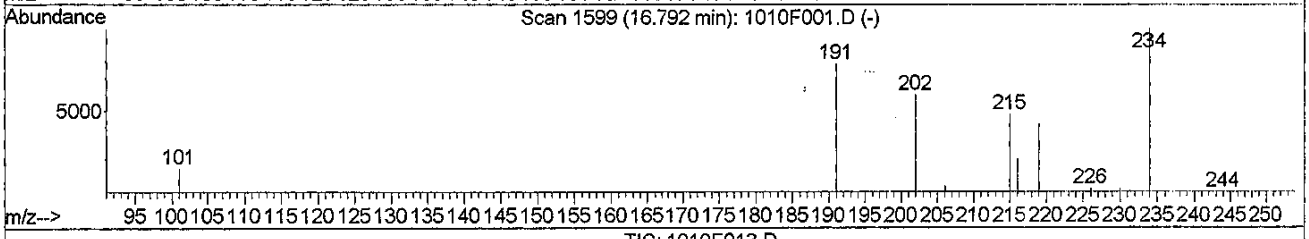
Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:44 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F013.D

(34) C4-Phenanthrenes/Anthracenes (L)

15.86min 157.38ng/ml m

response 70630

Ion	Exp%	Act%
234.00	100	100
219.00	47.70	139.57#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration: h

After

Alkylated Range

10/12/15

OCT 12 2015

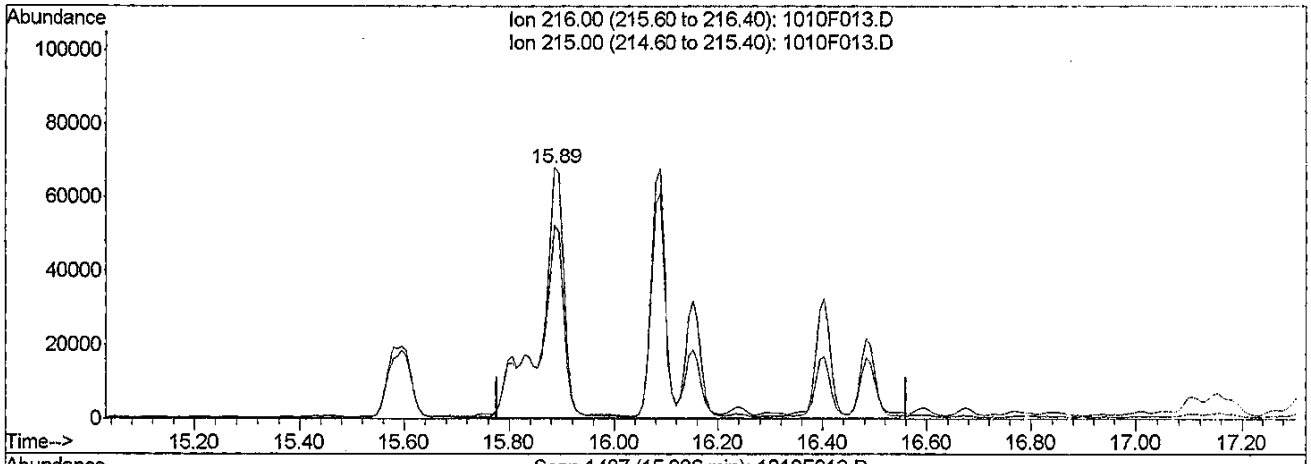
1010F013.D 080415SIMALK.M Mon Oct 12 08:44:46 2015

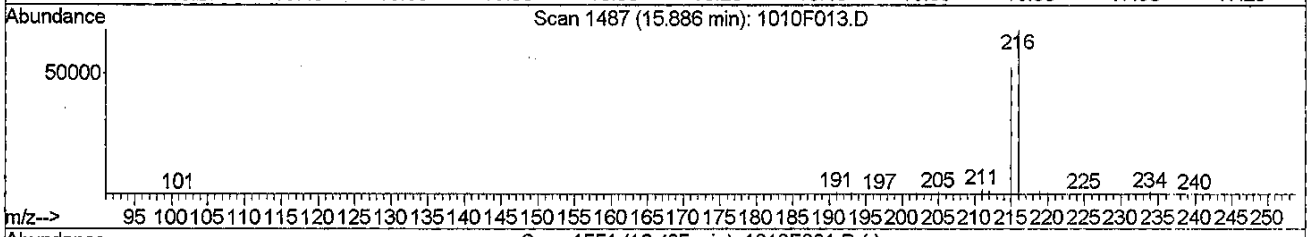
Quantitation Report (Qedit)

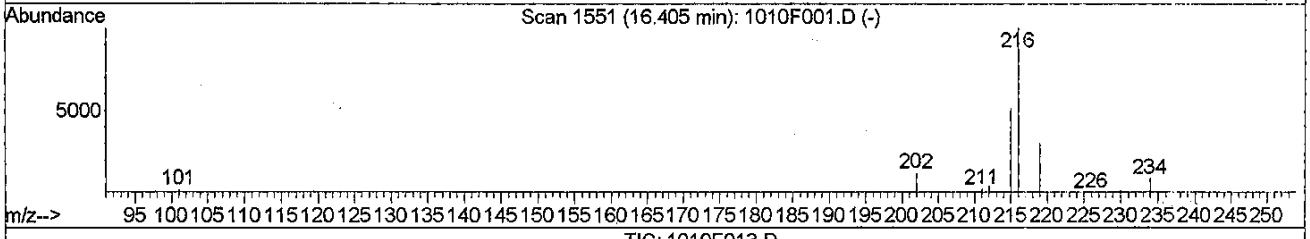
Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:44 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F013.D

(39) C1-Fluoranthenes/Pyrenes (L)

15.89min 919.11ng/ml m

response 518447

Ion	Exp%	Act%
216.00	100	100
215.00	84.80	77.13
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Alkylated Range

10/12/15

OCT 12 2015

1010F013.D 080415SIMALK.M Mon Oct 12 08:44:54 2015

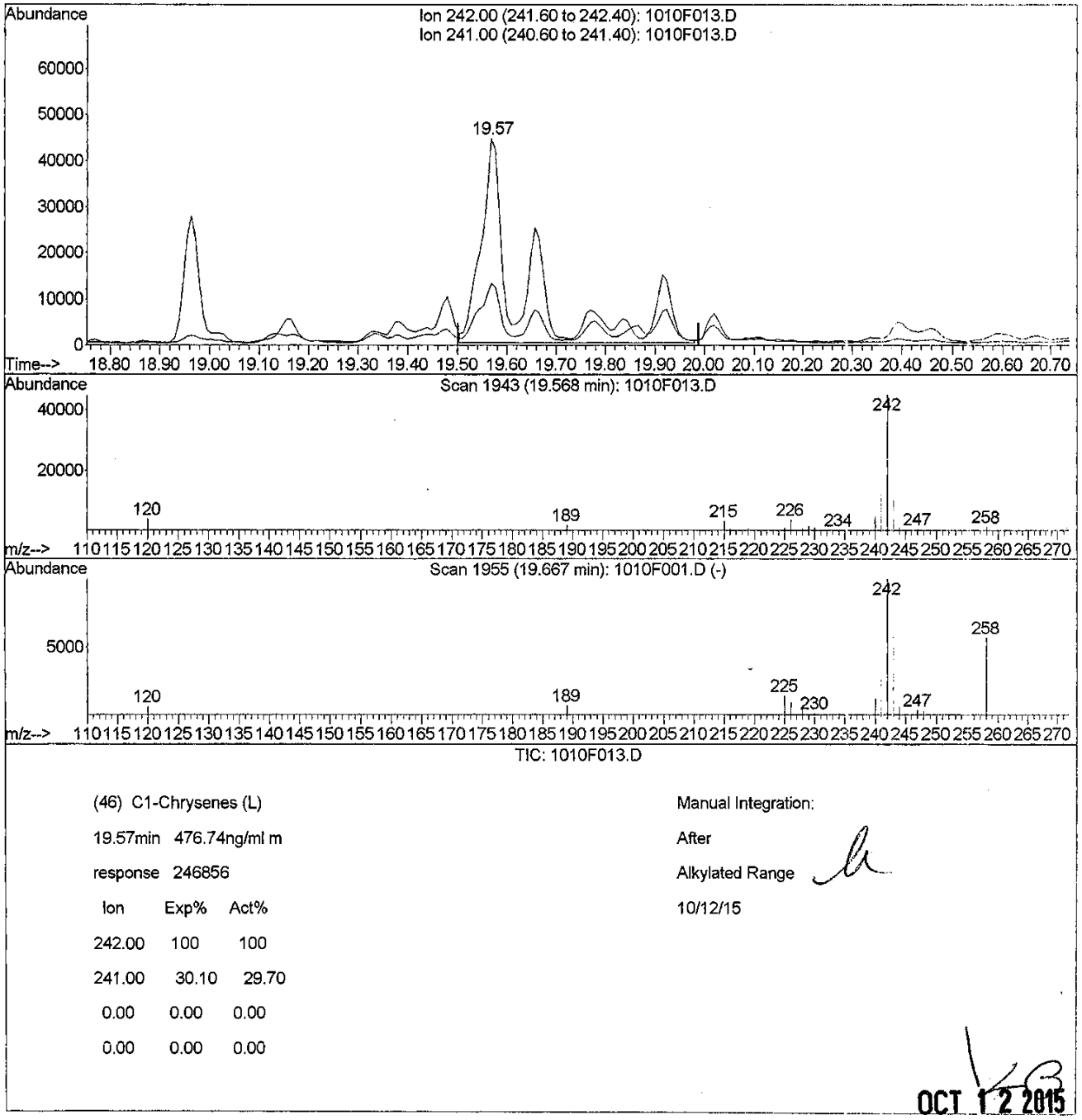
MANSON022639

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:44 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration



(46) C1-Chrysenes (L)

19.57min 476.74ng/ml m

response 246856

Ion	Exp%	Act%
242.00	100	100
241.00	30.10	29.70
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

1010F013.D 080415SIMALK.M Mon Oct 12 08:45:22 2015

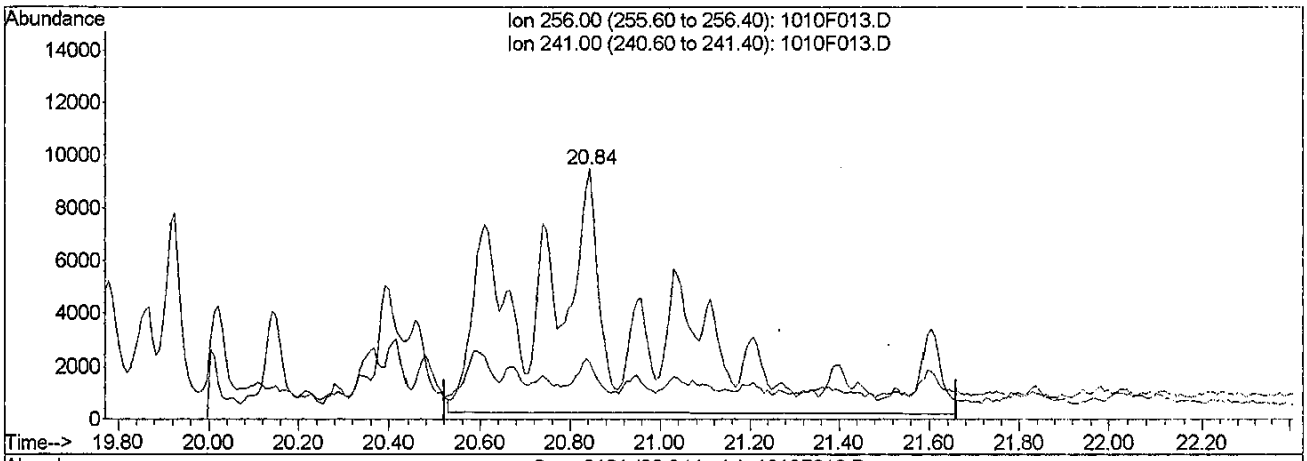
MANSON022640

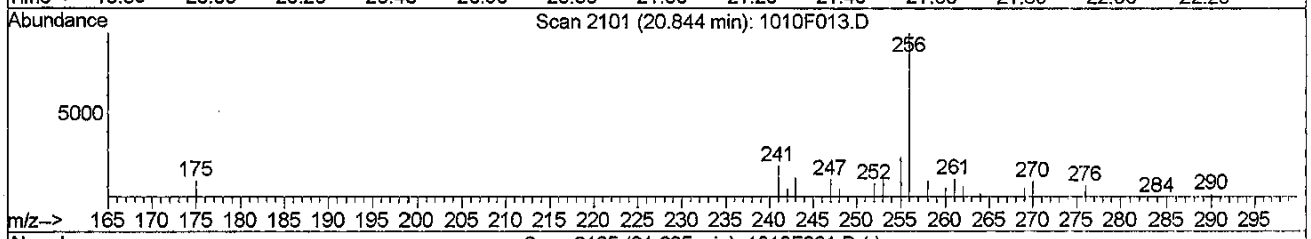
Quantitation Report (Qedit)

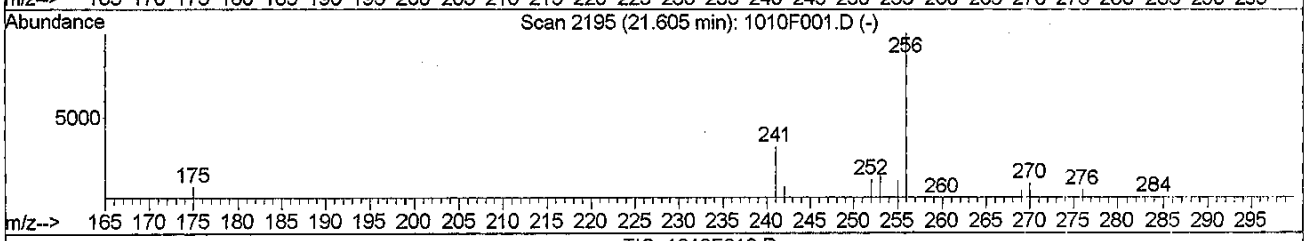
Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:44 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F013.D

(47) C2-Chrysenes (L)

20.84min 339.20ng/ml m

response 175638

Ion	Exp%	Act%
256.00	100	100
241.00	37.80	22.34
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

1010F013.D 080415SIMALK.M Mon Oct 12 08:45:28 2015

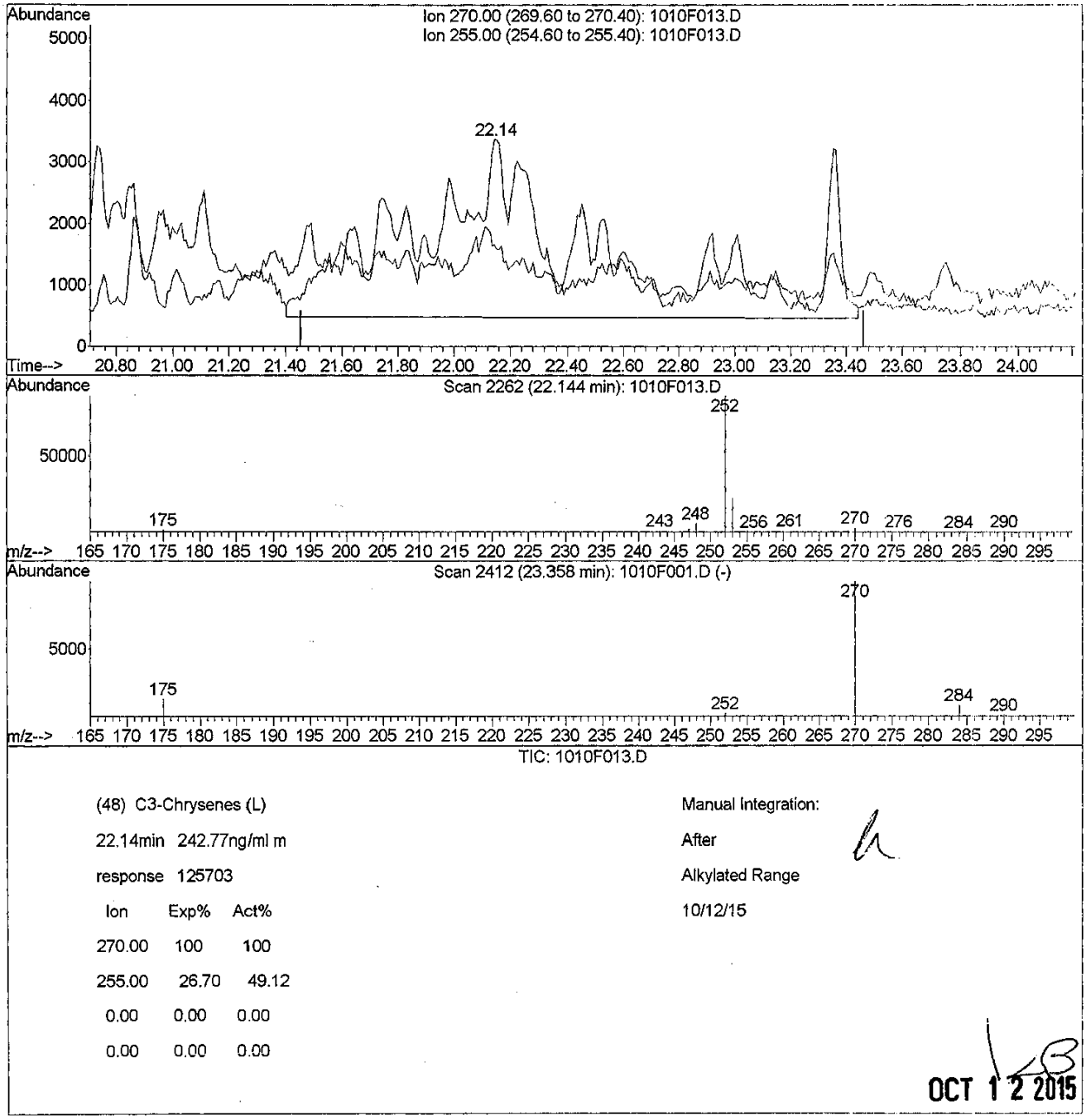
MANSON022641

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:45 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration



(48) C3-Chrysenes (L)

22.14min 242.77ng/ml m

response 125703

Ion	Exp%	Act%
270.00	100	100
255.00	26.70	49.12
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

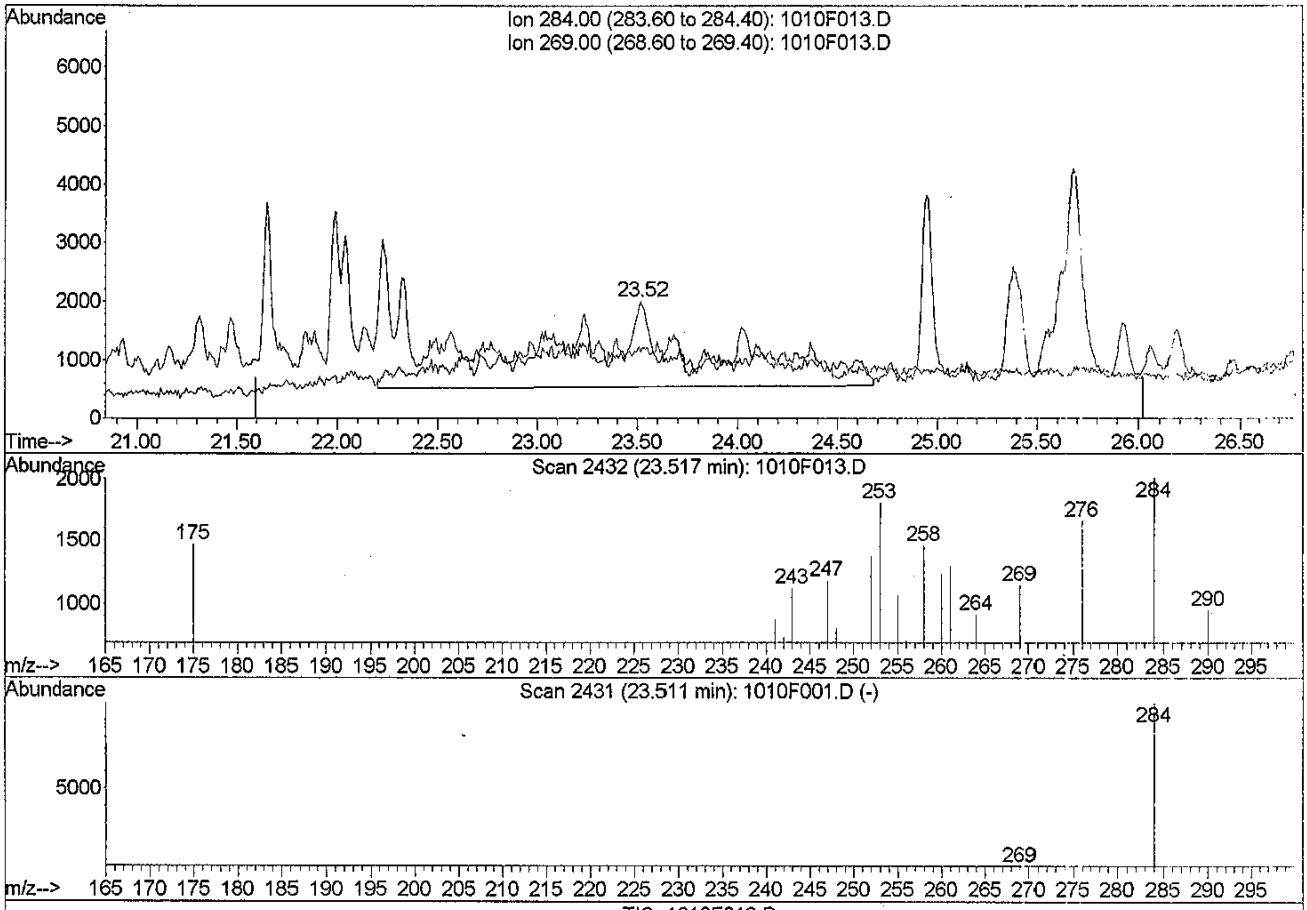
1010F013.D 080415SIMALK.M Mon Oct 12 08:45:36 2015

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F013.D
Acq On : 10 Oct 2015 11:29 am
Sample : K1511029-001
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:45 2015

Vial: 11
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration



(49) C4-Chrysenes (L)

23.52min 146.09ng/ml m

response 75646

Ion	Exp%	Act%
284.00	100	100
269.00	46.20	57.31
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

1010F013.D 080415SIMALK.M Mon Oct 12 08:45:47 2015

MANSON022643

Exception Report

Data File: J:\MS20\DATA\101015\1010F014.D
Lab ID: K1511029-002
RunType: SMPL
Matrix: SEDIMENT

Date Acquired: 10/10/2015 12:06
Date Quantitated: 10/12/2015 08:52
Batch ID: KWG1509829
Analysis Method: 8270D SIM
ListJoinID: LJ17229

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	125	NA	14		x
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA		x
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA		x
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Co-elution	2-Methylnaphthalene	6.52	NA	NA	Narrate
	C1-Naphthalenes	6.52	NA	NA	
Above Highest ICAL Level	Anthracene	2654.78	NA	2000	See 10X
	Fluoranthene	2197.58	NA	2000	

Primary Review: OCT 1 2 2015

Secondary Review: OCT 1 2 2015

Printed: 10/12/2015 09:36:44
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS20\DATA\101015\1010F014.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 12:06	**Quant Date:**	10/12/2015 08:52	**Vial:**	12
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1511029-002			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	V	**Matrix:**	SEDIMENT
Prod Code:	8270D PAH Alk S	**Collect Date:**	06/04/2015	**Receive Date:**	06/05/2015

Analysis Lot:	KWG1509829	**Prep Lot:**	KWG1509628	**Report Group:**	K1511029
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1472849	**Prep Date:**	10/07/2015		

Quant Method:	J:\MS20\METHODS\080415SIMALK	**Calibration ID:**	CAL14220
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17229
Tune Ref:	J:\MS20\DATA\101015\1010F003.D	**Method ID:**	MJ1187
MB Ref:	J:\MS20\DATA\101015\1010F005.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.79	0.00	136	78945	200.00	OK
2	Acenaphthene-d10	7.99	0.00	164	46724	200.00	OK
3	Phenanthrene-d10	11.09	0.00	188	86208	200.00	OK
4	Chrysene-d12	18.38	0.01	240	101742	200.00	OK
5	Perylene-d12	22.51	0.01	264	110113	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	8.96	0.00	0.00	176	41363	155.85	78	17-104 OK	
3	Fluoranthene-d10	14.23	0.01	0.00	212	83219	186.82	93	27-106 OK	
4	Terphenyl-d14	15.54	0.00	0.00	244	55967	141.26	71	35-109 OK	

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.80		0.00	128	44846	118.15	84		
1	2-Methylnaphthalene	6.52c	-0.01	0.00	142	53103	196.73	140		
1	1-Methylnaphthalene	6.64		0.00	142	12517	52.61	37		
1	C1-Naphthalenes	6.52c			142	66487m	175.17	120	J	
1	C2-Naphthalenes	7.50			156	50673m	133.50	94	J	
1	C3-Naphthalenes	8.74			170	38335m	101.00	71	J	
1	C4-Naphthalenes	10.54			184	43151m	113.69	80	J	
2	Acenaphthylene	7.76		0.00	152	15446	36.41	26		
2	Acenaphthene	8.05		0.00	154	46950	185.17	130		
2	Dibenzofuran	8.37		0.00	168	89039	229.67	160		
2	Fluorene	9.01		0.00	166	162610	527.67	370		
2	C1-Fluorenes	10.21			180	18806m	61.03	43	J	
2	C2-Fluorenes	11.47			194	22395m	72.67	51	J	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS20\DATA\101015\1010F014.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 12:06	**Quant Date:**	10/12/2015 08:52	**Vial:**	12
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1511029-002			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	C3-Fluorenes	13.09			208	42869m	139.11	98	J	
3	Dibenzothiophene	10.84		0.00	184	33758	77.09	55		
3	C1-Dibenzothiophenes	11.94			198	29966m	68.43	48	J	
3	C2-Dibenzothiophenes	13.04			212	47827m	109.22	77	J	
3	C3-Dibenzothiophenes	14.28			226	89712m	204.87	140	J	
3	C4-Dibenzothiophenes	15.54			240	53077m	121.21	86	JX	
3	Phenanthrene	11.15		0.00	178	714522	1,586	1100		
3	Anthracene	11.28	0.01	0.00	178	1165555	2,655	1900	E	NR
3	C1-Phenanthrenes/Anthracenes	12.59			192	258052m	572.95	410	J	
3	C2-Phenanthrenes/Anthracenes	13.93			206	183367m	407.13	290	J	
3	C3-Phenanthrenes/Anthracenes	15.23			220	157405m	349.49	250	J	
3	C4-Phenanthrenes/Anthracenes	16.79			234	132521m	294.24	210	J	
3	Fluoranthene	14.28	0.01	0.00	202	1122264	2,198	1600	E	NR
4	Pyrene	14.87	0.01	0.00	202	1015147	1,836	1300		
4	C1-Fluoranthenes/Pyrenes	15.90			216	598831m	1,083	770	J	
4	Benz(a)anthracene	18.36	0.01	0.00	228	474273	887.21	630		
4	Chrysene	18.45		0.00	228	632210	1,246	880		
4	C1-Chrysenes	19.57			242	304299m	599.59	420	J	
4	C2-Chrysenes	20.84			256	237140m	467.26	330	J	
4	C3-Chrysenes	22.14			270	156392m	308.16	220	J	
4	C4-Chrysenes	23.51			284	109689m	216.13	150	J	
5	Benzo(b)fluoranthene	21.36	0.01	0.00	252	820105	1,399	990		
5	Benzo(k)fluoranthene	21.44		0.00	252	278892	464.40	330		
5	Benzo(e)pyrene	22.16	0.01	0.00	252	425186	750.80	530		
5	Benzo(a)pyrene	22.32	0.01	0.00	252	502099	928.80	660		
5	Perylene	22.59	0.02	0.00	252	146304	267.50	190		
5	Indeno(1,2,3-cd)pyrene	26.31	0.01	0.00	276	347762	609.67	430		
5	Dibenz(a,h)anthracene	26.49	0.01	0.00	278	94066	165.65	120		
5	Benzo(g,h,i)perylene	27.08	0.01	0.00	276	349162	576.19	410		

Prep Amount:	18.465 g	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1
Solids:	76.6 %		

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
c: Result >= MRL, but MRL less than low point of ICAL
o: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F014.D Vial: 12
Acq On : 10 Oct 2015 12:06 pm Operator: LWeiskopf
Sample : K1511029-002 Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 08:27:49 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.79	136	78945	200.00	ng/ml	0.00
11) Acenaphthene-d10	7.99	164	46724	200.00	ng/ml	-0.02
21) Phenanthrene-d10	11.09	188	86208	200.00	ng/ml	-0.02
37) Chrysene-d12	18.38	240	101742	200.00	ng/ml	-0.01
50) Perylene-d12	22.51	264	110113	200.00	ng/ml	-0.02
System Monitoring Compounds						
16) Fluorene-d10	8.96	176	41363	155.85	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 15.58%			
36) Fluoranthene-d10	14.23	212	83219	186.82	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 18.68%			
43) Terphenyl-d14	15.54	244	55967	141.26	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 14.13%			
Target Compounds						Qvalue
2) Naphthalene	5.80	128	44846	118.15	ng/ml	100
3) 2-Methylnaphthalene	6.52	142	53103	196.73	ng/ml	95
4) 1-Methylnaphthalene	6.64	142	12517	52.61	ng/ml	100
5) Biphenyl	7.12	154	15536	47.65	ng/ml	99
6) 2,6-Dimethylnaphthalene	7.36	156	13420	56.56	ng/ml	96
7) C1-Naphthalenes	6.52	142	66487m	175.17	ng/ml	
8) C2-Naphthalenes	7.50	156	50673m	133.50	ng/ml	
9) C3-Naphthalenes	8.74	170	38335m	101.00	ng/ml	
10) C4-Naphthalenes	10.54	184	43151m	113.69	ng/ml	
12) Acenaphthylene	7.76	152	15446	36.41	ng/ml	98
13) Acenaphthene	8.05	154	46950	185.17	ng/ml	99
14) Dibenzofuran	8.37	168	89039	229.67	ng/ml	96
15) 2,3,5-Trimethylnaphthalene	8.74	170	13492m	54.28	ng/ml	
17) Fluorene	9.01	166	162610	527.67	ng/ml	97
18) C1-Fluorenes	10.21	180	18806m	61.03	ng/ml	
19) C2-Fluorenes	11.47	194	22395m	72.67	ng/ml	
20) C3-Fluorenes	13.09	208	42869m	139.11	ng/ml	
22) Dibenzothiophene	10.84	184	33758	77.09	ng/ml	100
23) C1-Dibenzothiophenes	11.94	198	29966m	68.43	ng/ml	
24) C2-Dibenzothiophenes	13.04	212	47827m	109.22	ng/ml	
25) C3-Dibenzothiophenes	14.28	226	89712m	204.87	ng/ml	
26) C4-Dibenzothiophenes	15.54	240	53077m	121.21	ng/ml	
27) Phenanthrene	11.15	178	714522	1586.45	ng/ml	100
28) Anthracene	11.28	178	1165555	2654.78	ng/ml	99
29) Carbazole	11.75	167	309353	783.65	ng/ml	99
30) 1-Methylphenanthrene	12.74	192	52092	151.15	ng/ml	97
31) C1-Phenanthrenes/Anthracen	12.59	192	258052m	572.95	ng/ml	

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

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 08:27:49 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
32)	C2-Phenanthrenes/Anthracen	13.93	206	183367m	407.13	ng/ml	
33)	C3-Phenanthrenes/Anthracen	15.23	220	157405m	349.49	ng/ml	
34)	C4-Phenanthrenes/Anthracen	16.79	234	132521m	294.24	ng/ml	
35)	Fluoranthene	14.28	202	1122264	2197.58	ng/ml	95
38)	Pyrene	14.87	202	1015147	1836.14	ng/ml	95
39)	C1-Fluoranthenes/Pyrenes	15.90	216	598831m	1083.13	ng/ml	
40)	C2-Fluoranthenes/Pyrenes	17.34	230	319437m	577.78	ng/ml	
41)	C3-Fluoranthenes/Pyrenes	18.71	244	213406m	386.00	ng/ml	
42)	C4-Fluoranthenes/Pyrenes	20.01	258	123775m	223.88	ng/mL	
44)	Benz(a)anthracene	18.36	228	474273	887.21	ng/ml	100
45)	Chrysene	18.45	228	632210	1245.71	ng/ml	99
46)	C1-Chrysenes	19.57	242	304299m	599.59	ng/ml	
47)	C2-Chrysenes	20.84	256	237140m	467.26	ng/ml	
48)	C3-Chrysenes	22.14	270	156392m	308.16	ng/ml	
49)	C4-Chrysenes	23.51	284	109689m	216.13	ng/ml	
51)	Benzo(b)fluoranthene	21.36	252	820105	1398.50	ng/ml	97
52)	Benzo(k)fluoranthene	21.44	252	278892	464.40	ng/ml	99
53)	Benzo(e)pyrene	22.16	252	425186	750.80	ng/ml	98
54)	Benzo(a)pyrene	22.32	252	502099	928.80	ng/ml	98
55)	Perylene	22.59	252	146304	267.50	ng/ml	100
56)	Indeno(1,2,3-cd)pyrene	26.31	276	347762	609.67	ng/ml	97
57)	Dibenz(a,h)anthracene	26.49	278	94066	165.65	ng/ml	98
58)	Benzo(g,h,i)perylene	27.08	276	349162	576.19	ng/ml	99

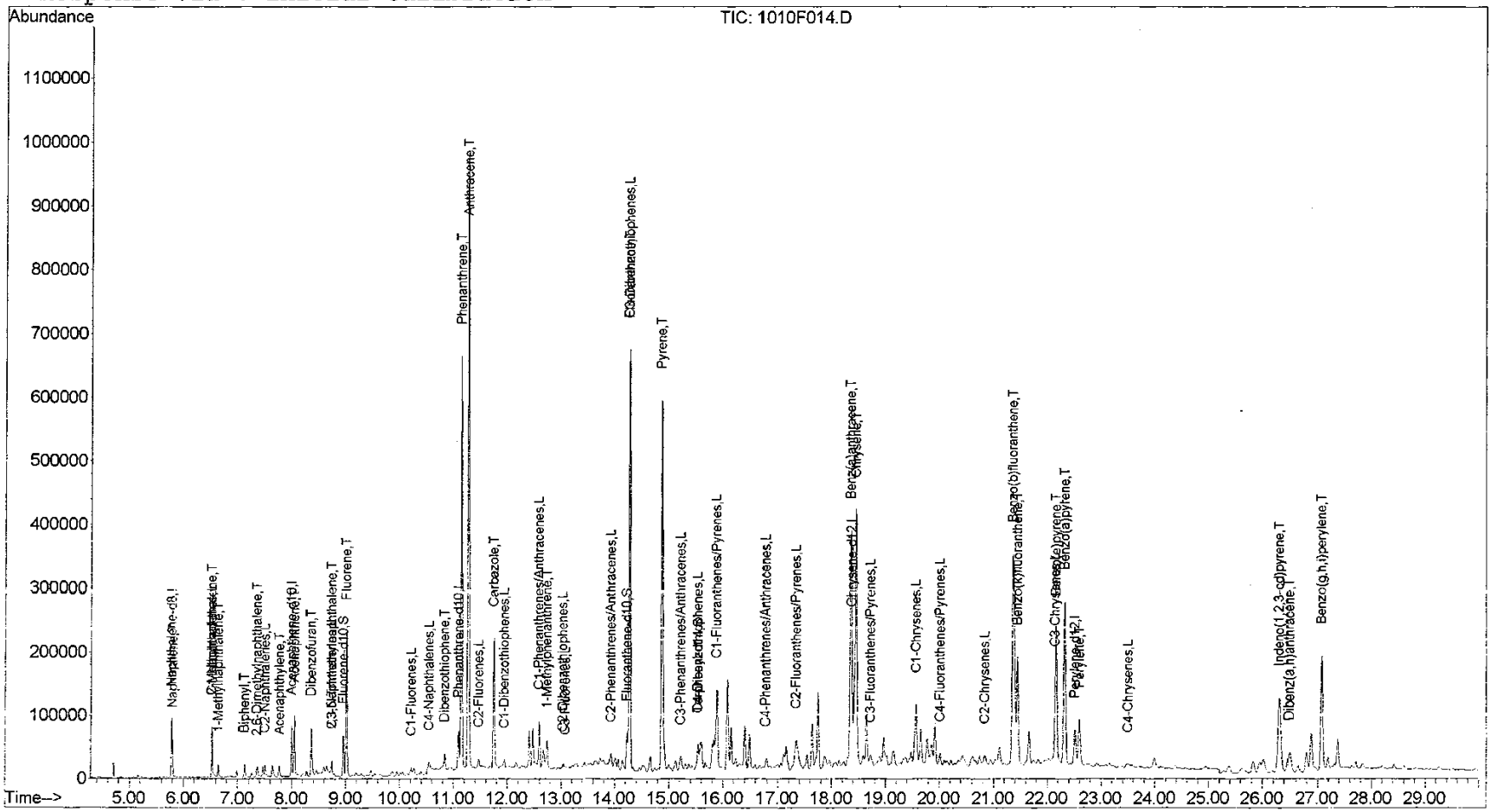
(#) = qualifier out of range (m) = manual integration

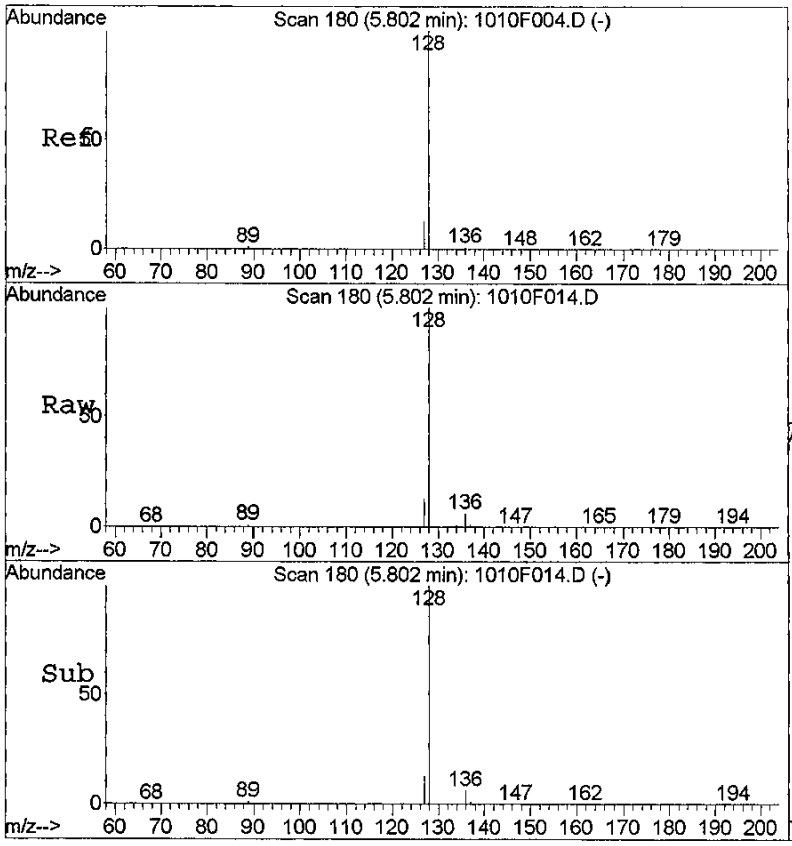
Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:52 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration

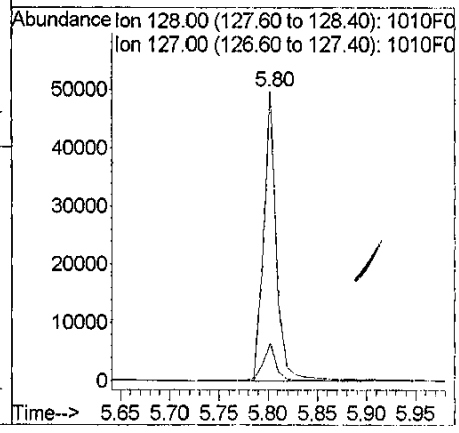


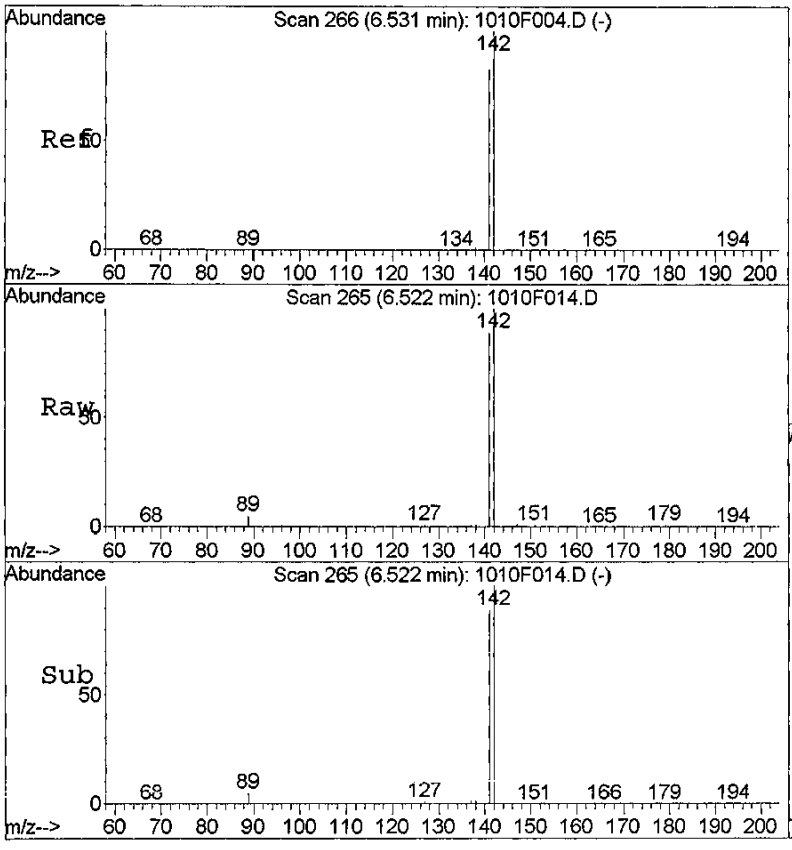


#2
Naphthalene
Concen: 118.15 ng/ml
RT: 5.80 min Scan# 180
Delta R.T. -0.02 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:128 Resp: 44846

Ion	Ratio	Lower	Upper
128	100		
127	12.9	0.0	42.7

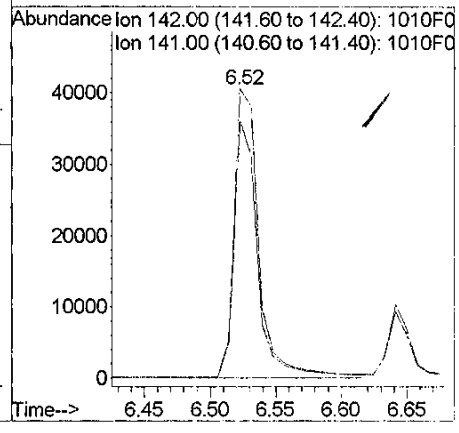


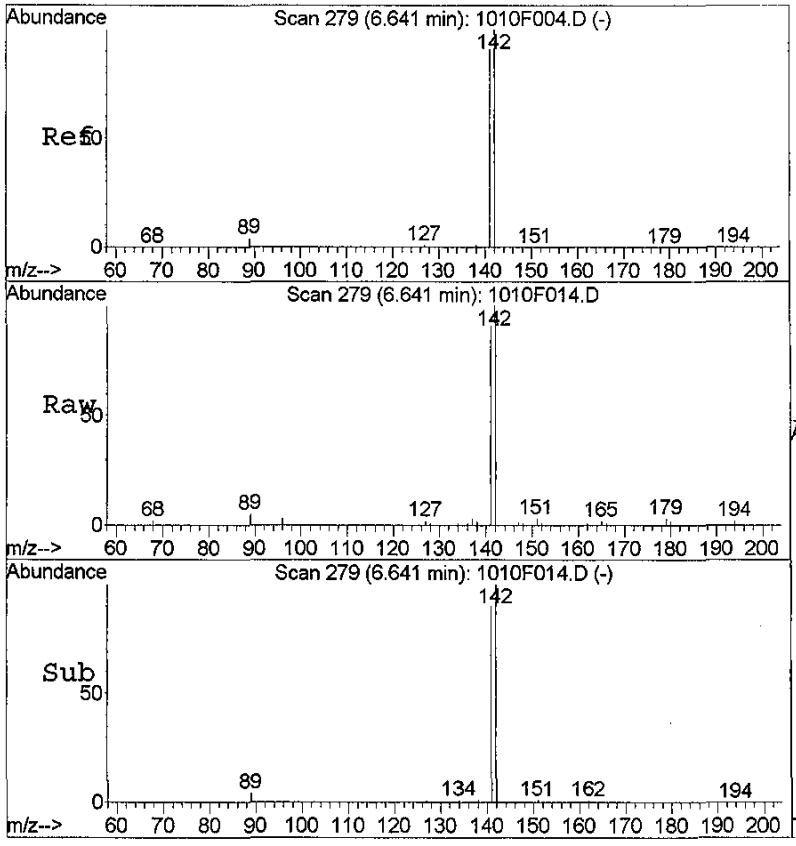


#3
2-Methylnaphthalene
Concen: 196.73 ng/ml
RT: 6.52 min Scan# 265
Delta R.T. -0.02 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:142 Resp: 53103

Ion	Ratio	Lower	Upper
142	100		
141	89.1	54.2	114.2

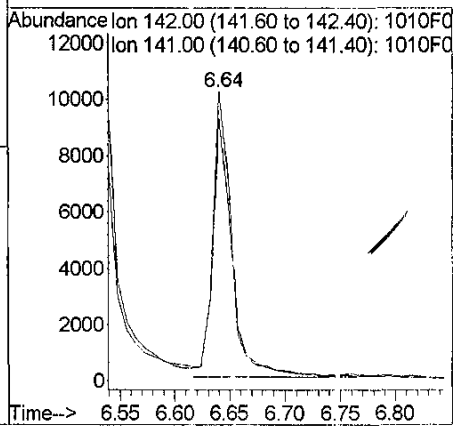


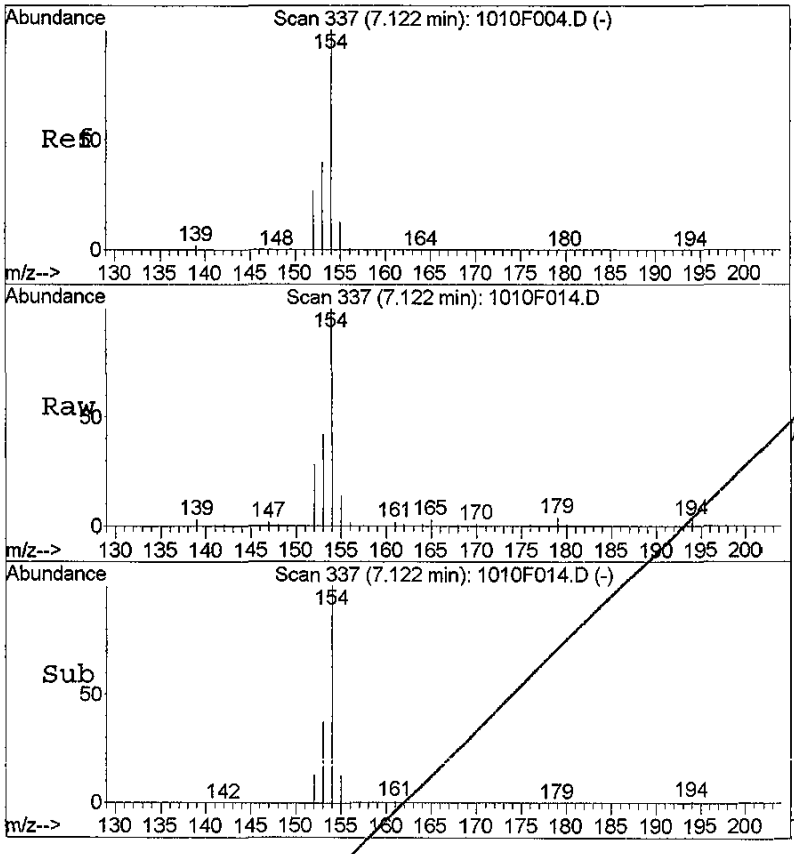


#4
1-Methylnaphthalene
Concen: 52.61 ng/ml
RT: 6.64 min Scan# 279
Delta R.T. -0.02 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:142 Resp: 12517

Ion	Ratio	Lower	Upper
142	100		
141	89.9	60.2	120.2

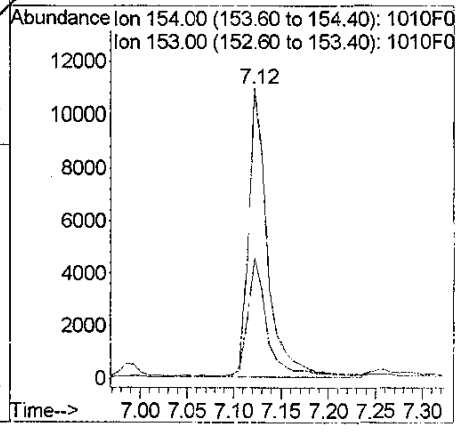




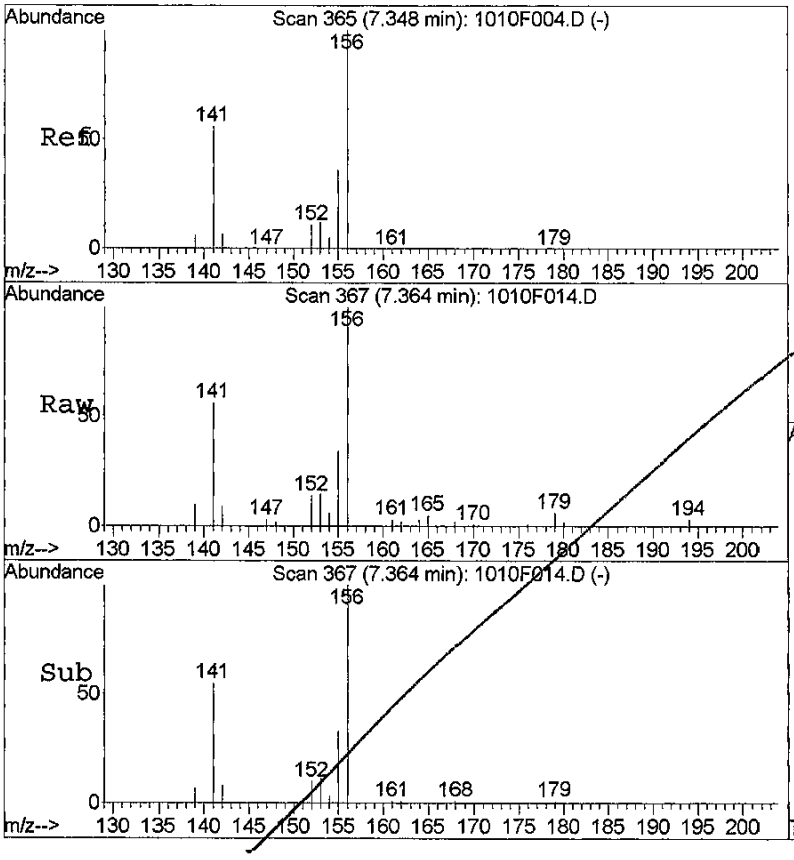
#5
Biphenyl
Concen: 47.65 ng/ml NT
RT: 7.12 min Scan# 337
Delta R.T. -0.02 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:154 Resp: 15536

Ion	Ratio	Lower	Upper
154	100		
153	40.8	10.0	70.0



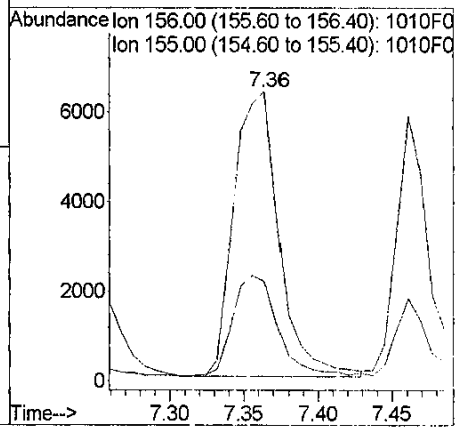
NT

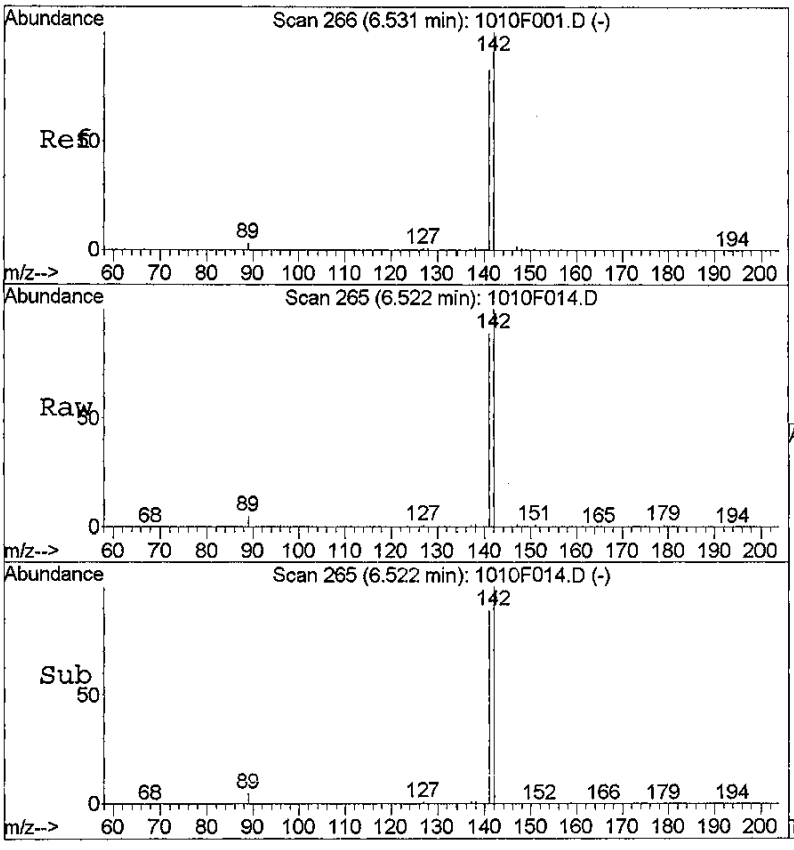


#6
2,6-Dimethylnaphthalene
Concen: 56.56 ng/ml
RT: 7.36 min Scan# 367
Delta R.T. -0.00 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:156 Resp: 13420

Ion	Ratio	Lower	Upper
156	100		
155	32.9	5.4	65.4

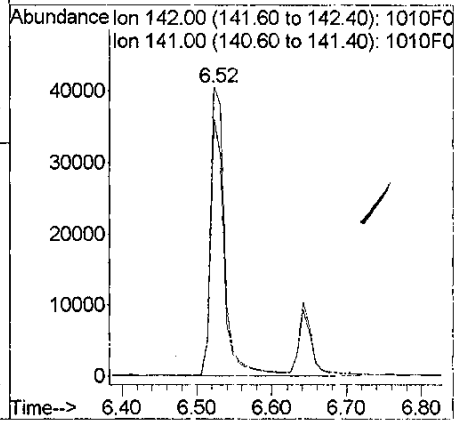


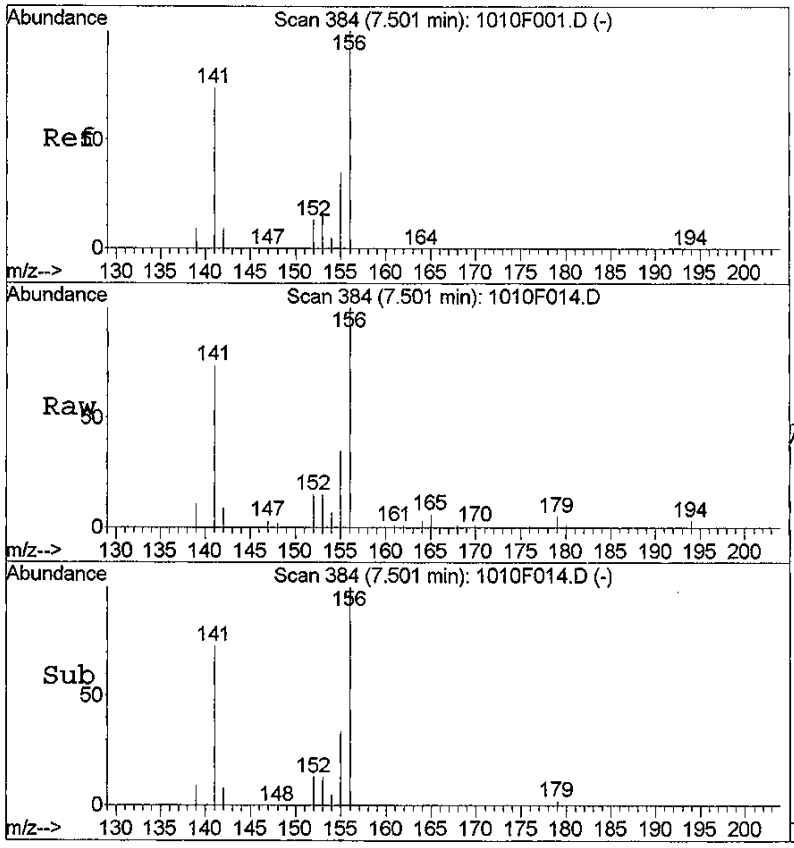


#7
C1-Naphthalenes
Concen: 175.17 ng/ml m
RT: 6.52 min Scan# 265
Delta R.T. -0.22 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:142 Resp: 66487

Ion	Ratio	Lower	Upper
142	100		
141	89.2	80.0	120.0

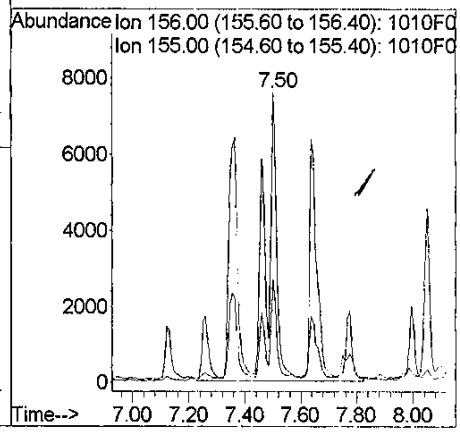


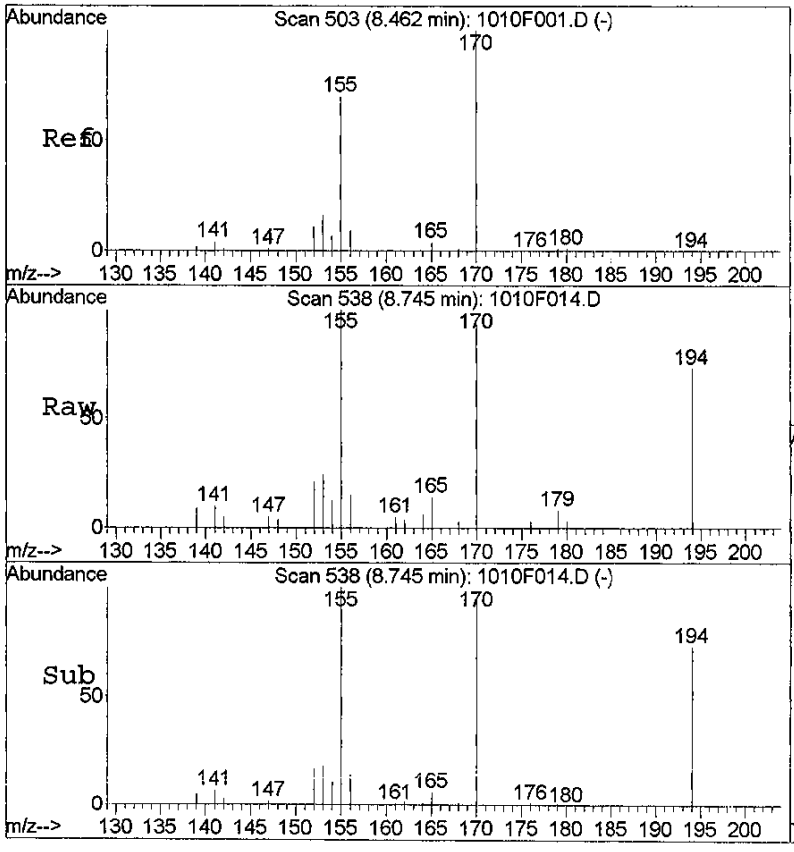


#8
C2-Naphthalenes
Concen: 133.50 ng/ml m
RT: 7.50 min Scan# 384
Delta R.T. -0.12 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:156 Resp: 50673

Ion	Ratio	Lower	Upper
156	100		
155	35.4	8.3	68.3

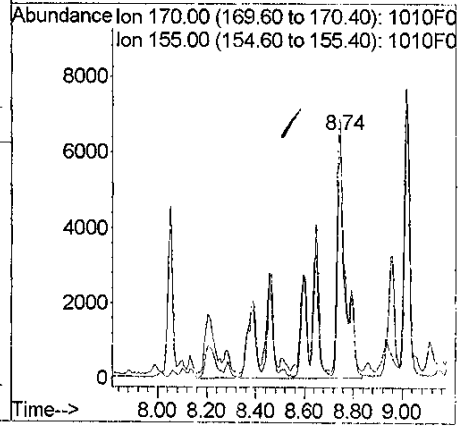


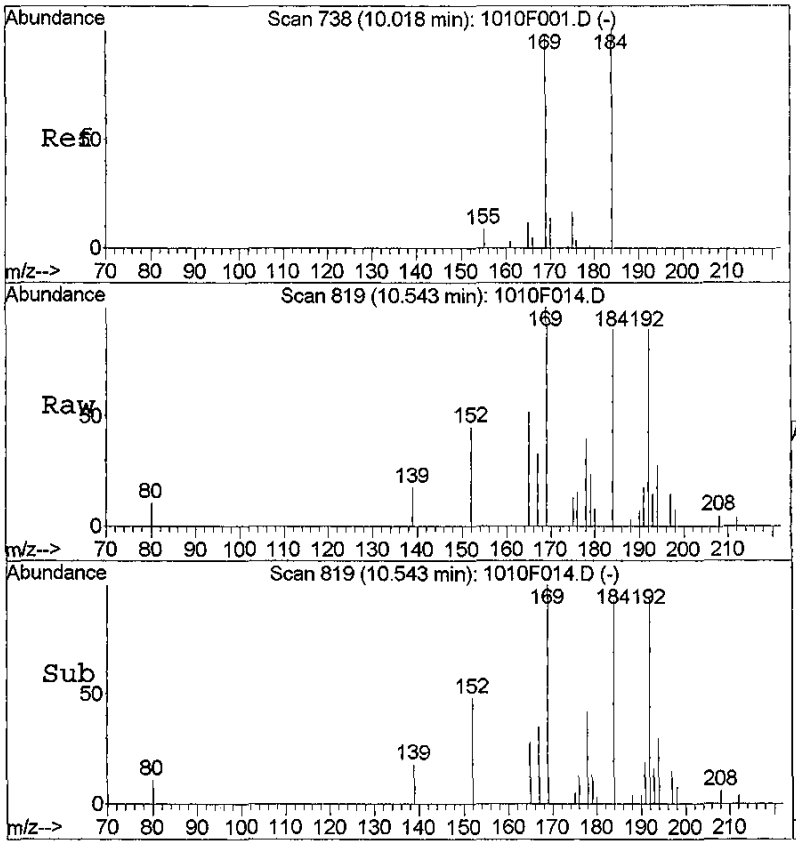


#9
C3-Naphthalenes
Concen: 101.00 ng/ml m
RT: 8.74 min Scan# 538
Delta R.T. 0.17 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:170 Resp: 38335

Ion	Ratio	Lower	Upper
170	100		
155	108.0	56.9	116.9

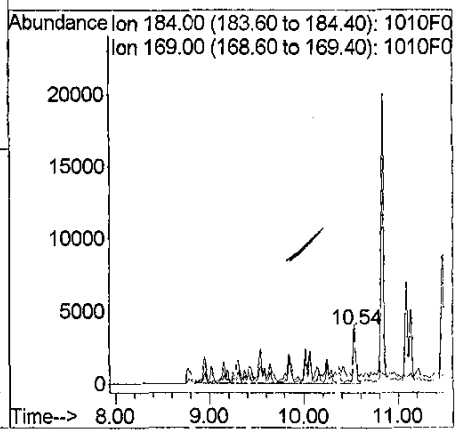


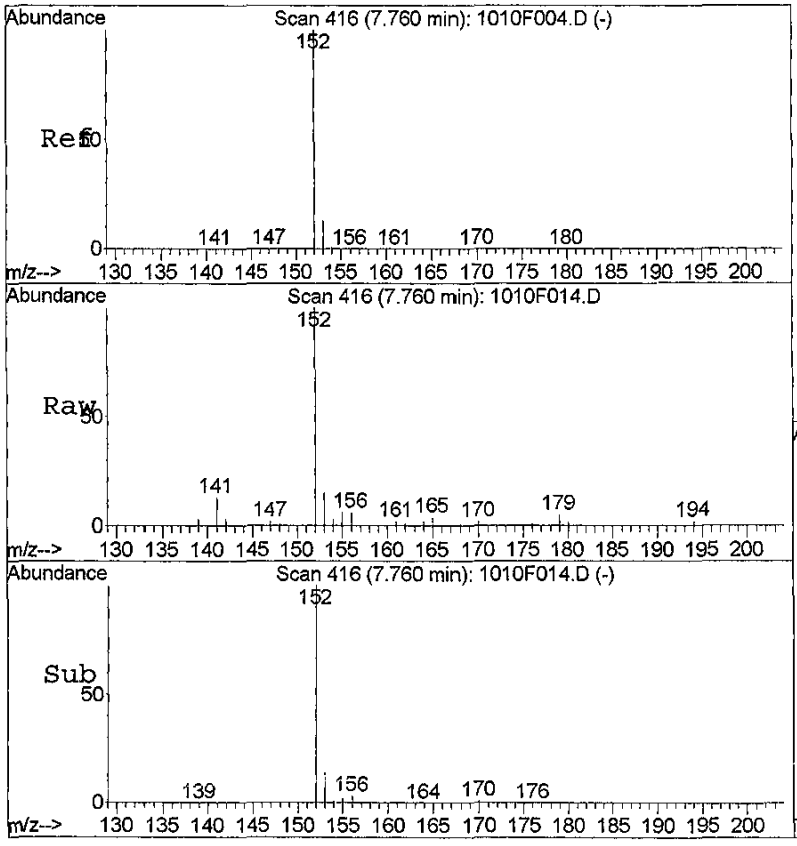


#10
C4-Naphthalenes
Concen: 113.69 ng/ml m
RT: 10.54 min Scan# 819
Delta R.T. 0.59 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:184 Resp: 43151

Ion	Ratio	Lower	Upper
184	100		
169	111.0	89.7	149.7

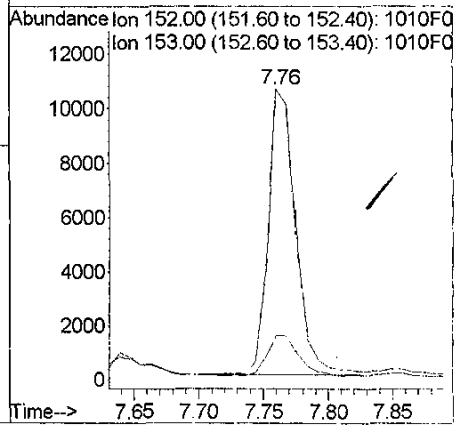


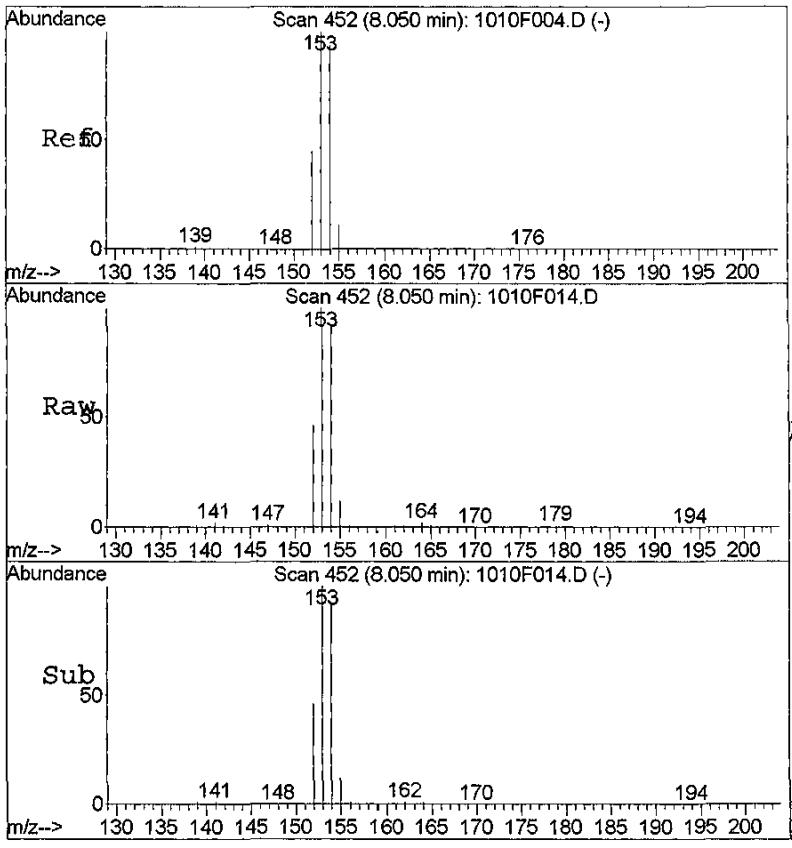


#12
Acenaphthylene
Concen: 36.41 ng/ml
RT: 7.76 min Scan# 416
Delta R.T. -0.02 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:152 Resp: 15446

Ion	Ratio	Lower	Upper
152	100		
153	14.0	0.0	43.2

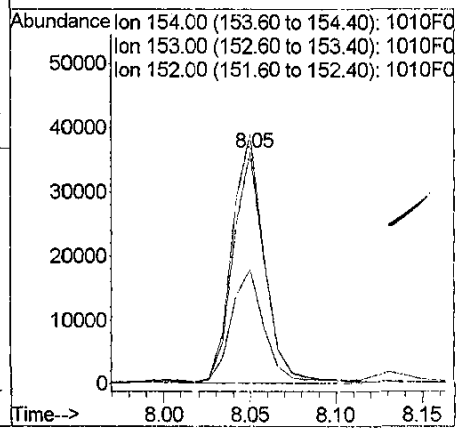


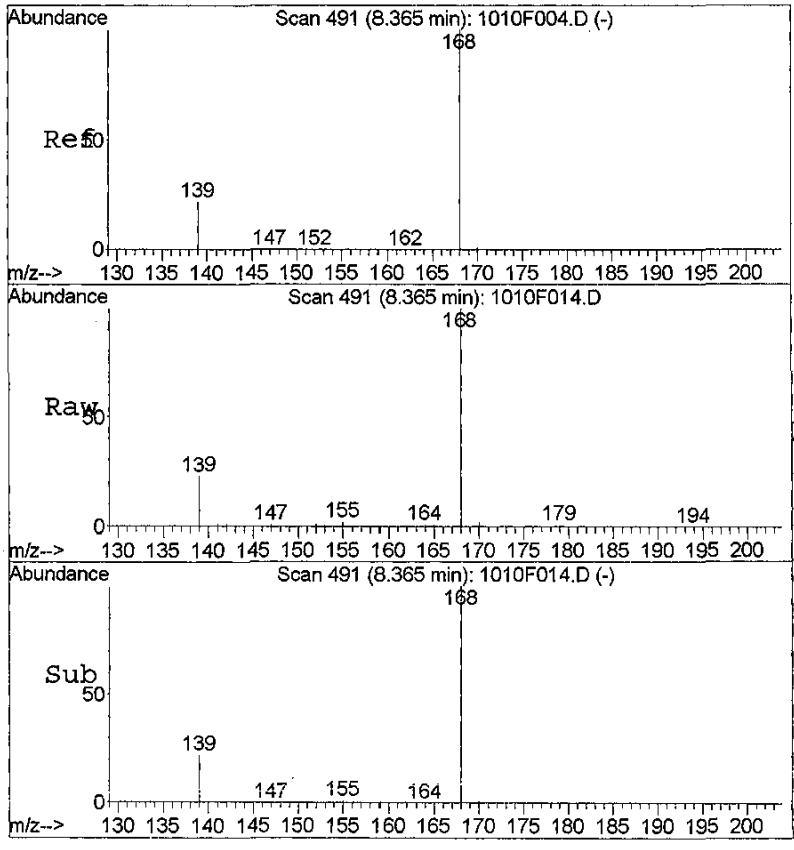


#13
Acenaphthene
Concen: 185.17 ng/ml
RT: 8.05 min Scan# 452
Delta R.T. -0.02 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:154 Resp: 46950

Ion	Ratio	Lower	Upper
154	100		
153	107.3	77.2	137.2
152	48.8	20.0	80.0

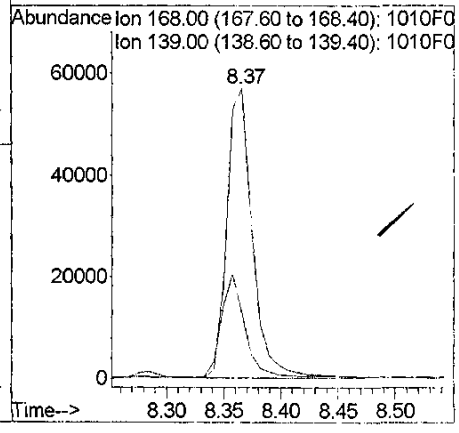


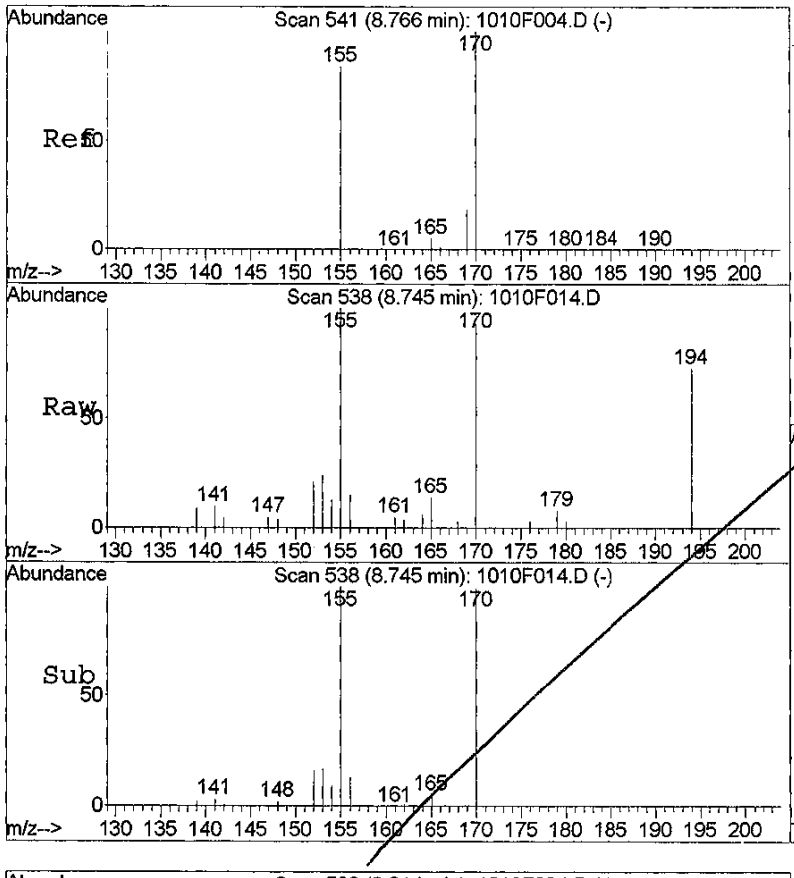


#14
Dibenzofuran
Concen: 229.67 ng/ml
RT: 8.37 min Scan# 491
Delta R.T. -0.02 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:168 Resp: 89039

Ion	Ratio	Lower	Upper
168	100		
139	22.1	0.0	54.0



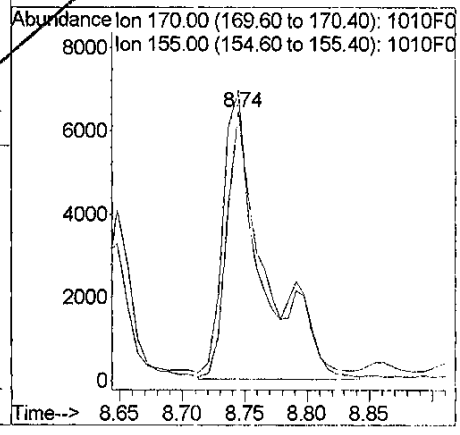


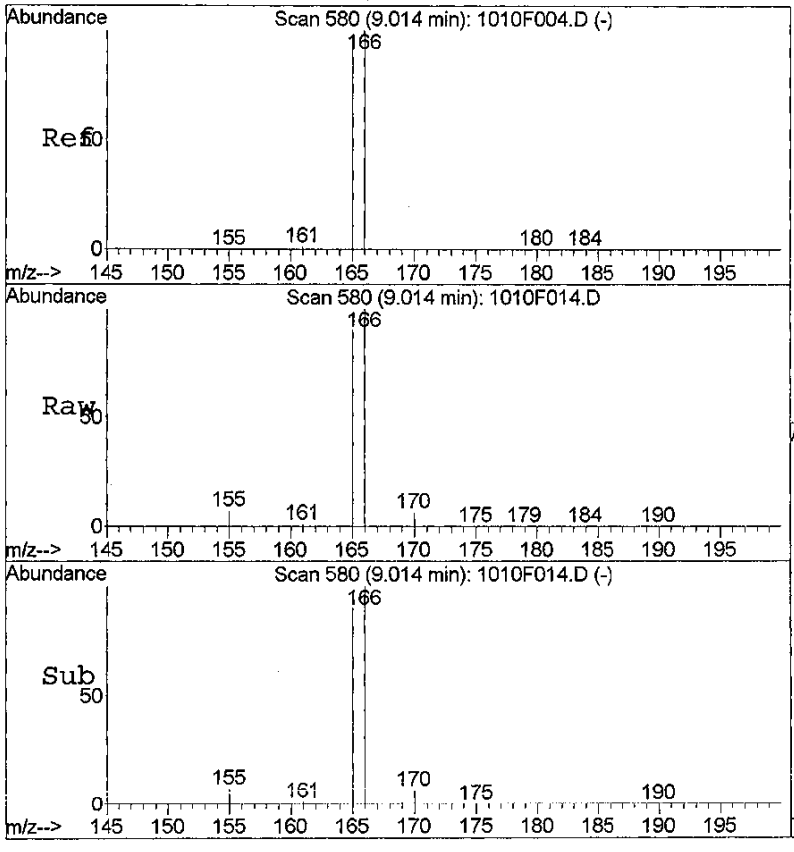
#15
2,3,5-Trimethylnaphthalene
Concen: 54.28 ng/ml m
RT: 8.74 min Scan# 538
Delta R.T. -0.04 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

NT

Tgt Ion:170 Resp: 13492

Ion	Ratio	Lower	Upper
170	100		
155	108.0	44.9	104.9#

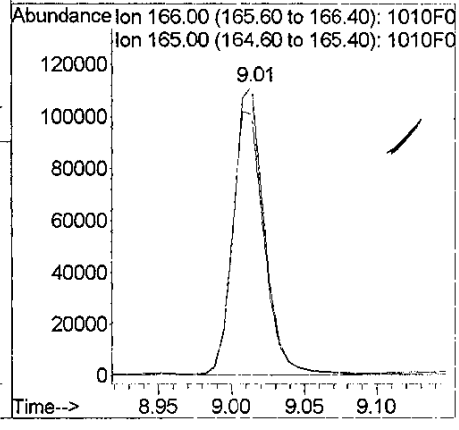


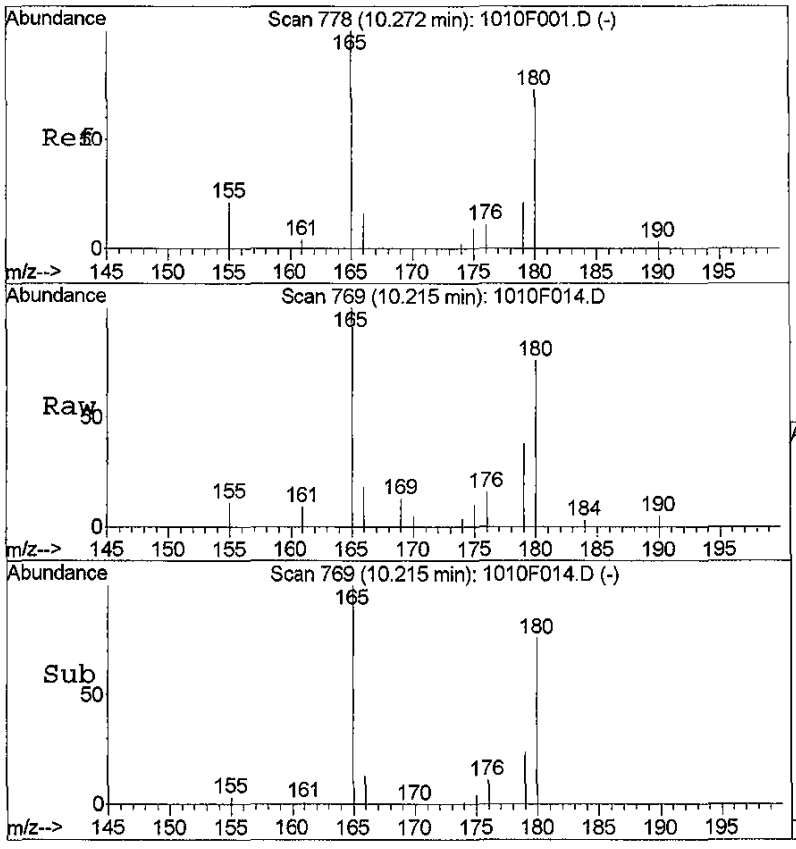


#17
Fluorene
Concen: 527.67 ng/ml
RT: 9.01 min Scan# 580
Delta R.T. -0.02 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:166 Resp: 162610

Ion	Ratio	Lower	Upper
166	100		
165	90.0	63.0	123.0

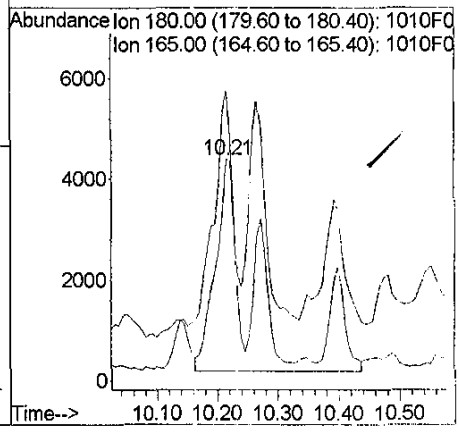


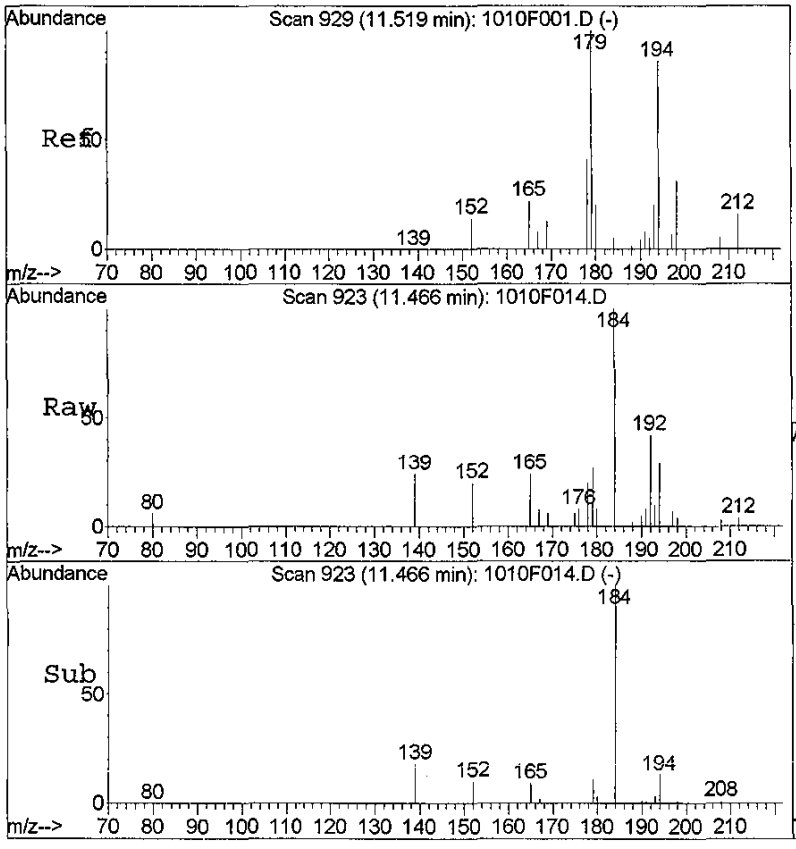


#18
C1-Fluorenes
Concen: 61.03 ng/ml m
RT: 10.21 min Scan# 769
Delta R.T. -0.06 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:180 Resp: 18806

Ion	Ratio	Lower	Upper
180	100		
165	131.3	148.7	208.7#

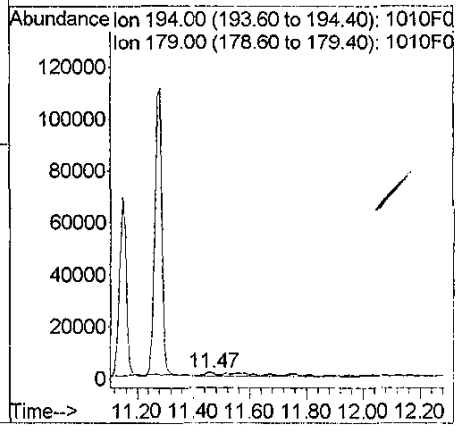


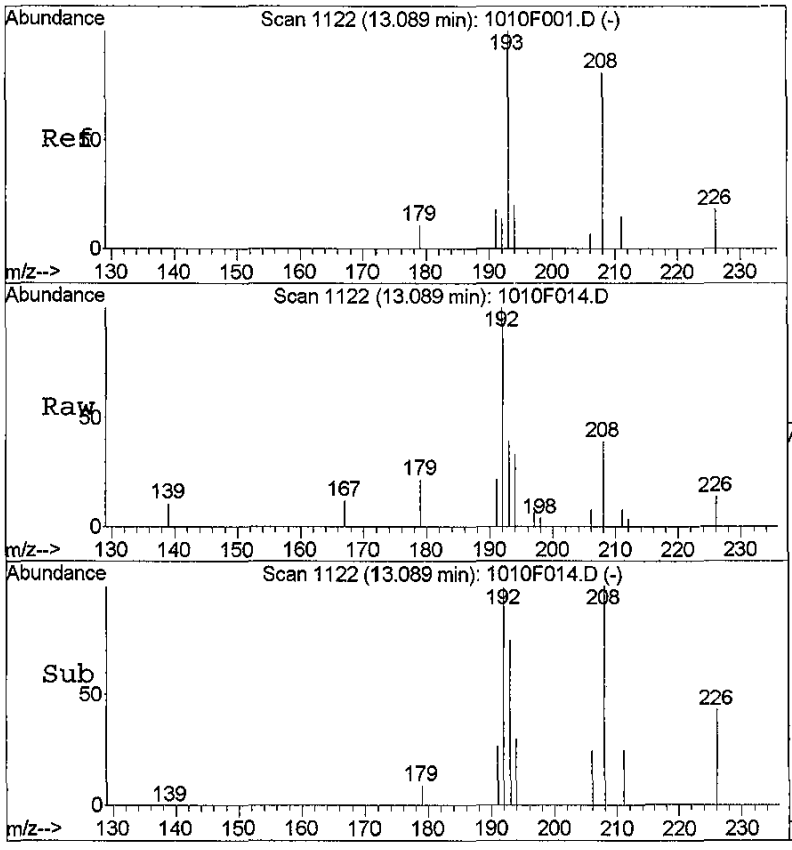


#19
C2-Fluorenes
Concen: 72.67 ng/ml m
RT: 11.47 min Scan# 923
Delta R.T. -0.34 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:194 Resp: 22395

Ion	Ratio	Lower	Upper
194	100		
179	93.7	107.0	167.0#

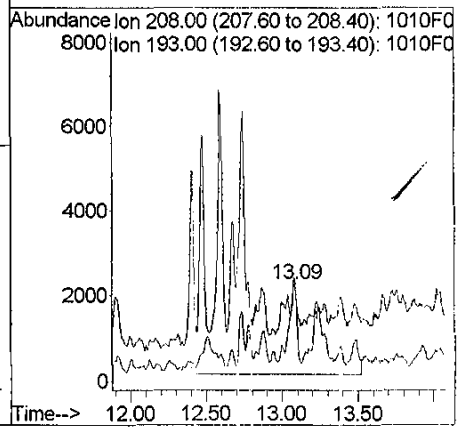


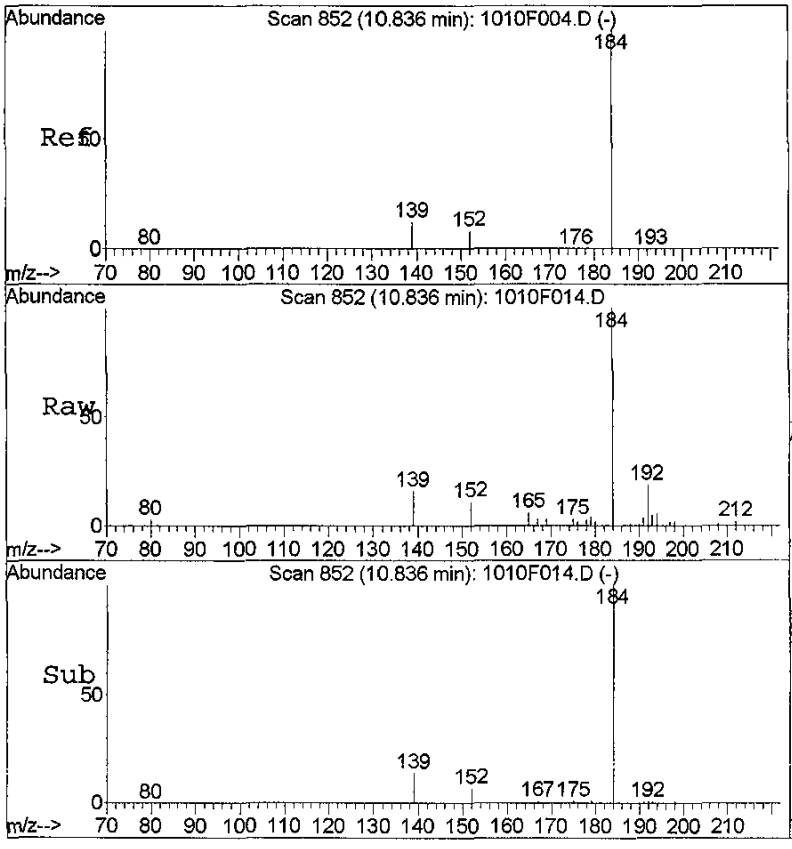


#20
C3-Fluorenes
Concen: 139.11 ng/ml m
RT: 13.09 min Scan# 1122
Delta R.T. 0.01 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:208 Resp: 42869

Ion	Ratio	Lower	Upper
208	100		
193	100.8	92.0	152.0

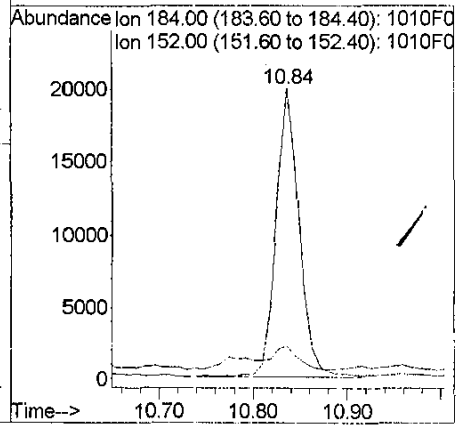


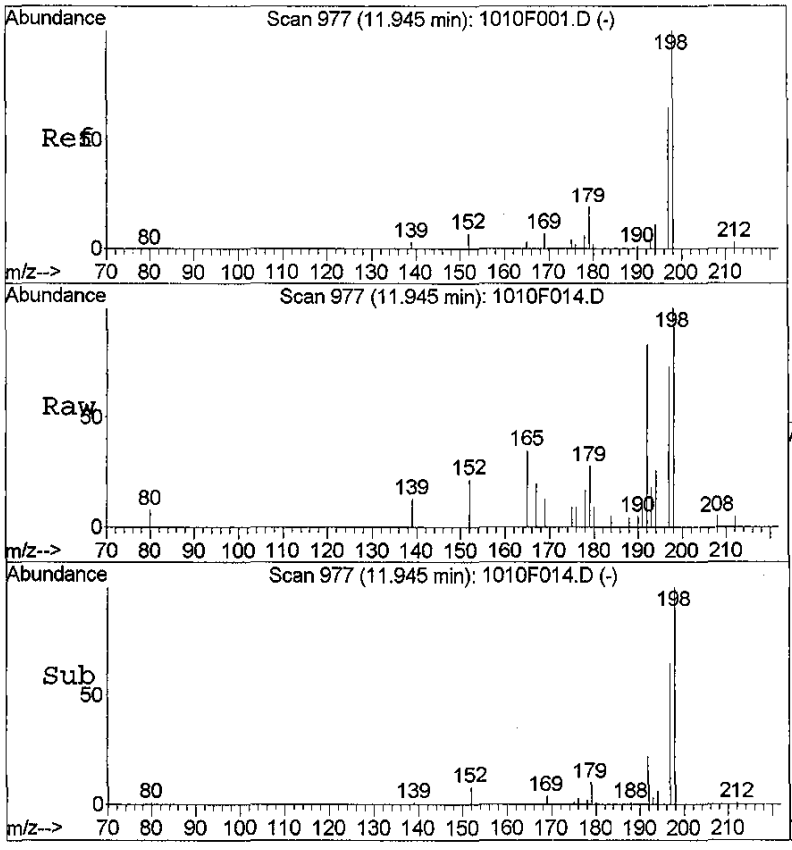


#22
Dibenzothiophene
Concen: 77.09 ng/ml
RT: 10.84 min Scan# 852
Delta R.T. -0.03 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:184 Resp: 33758

Ion	Ratio	Lower	Upper
184	100		
152	7.7	0.0	37.7

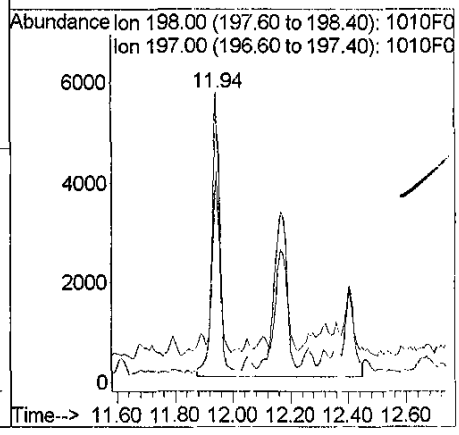


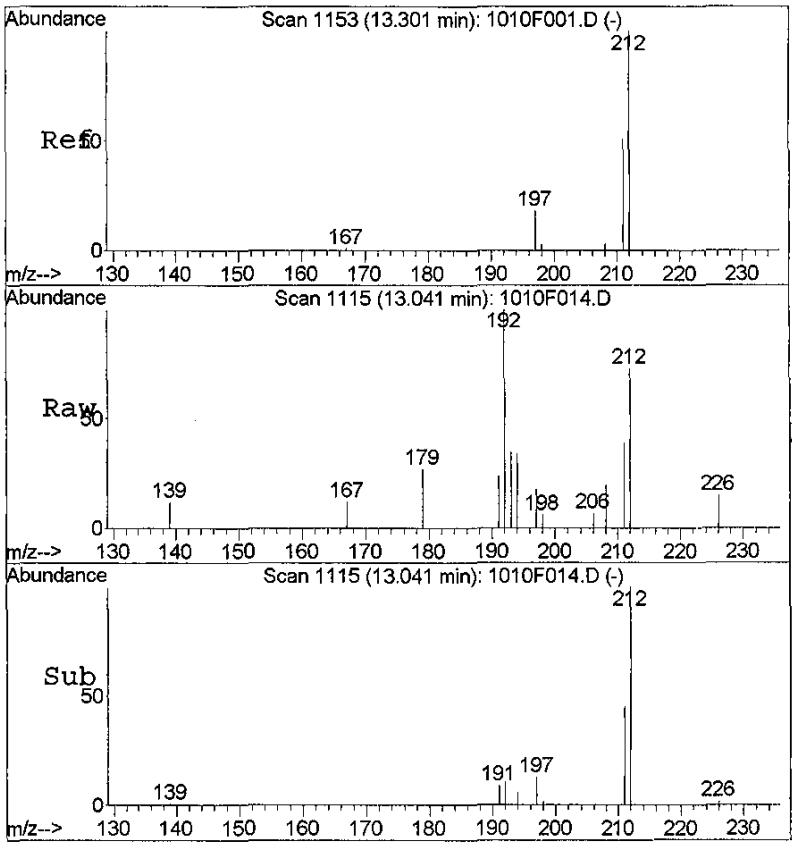


#23
C1-Dibenzothiophenes
Concen: 68.43 ng/ml m
RT: 11.94 min Scan# 977
Delta R.T. -0.53 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:198 Resp: 29966

Ion	Ratio	Lower	Upper
198	100		
197	73.1	74.1	134.1#

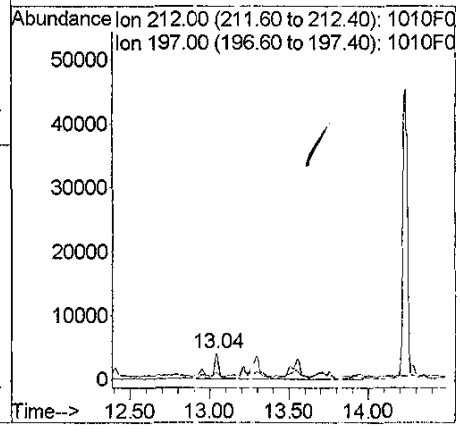


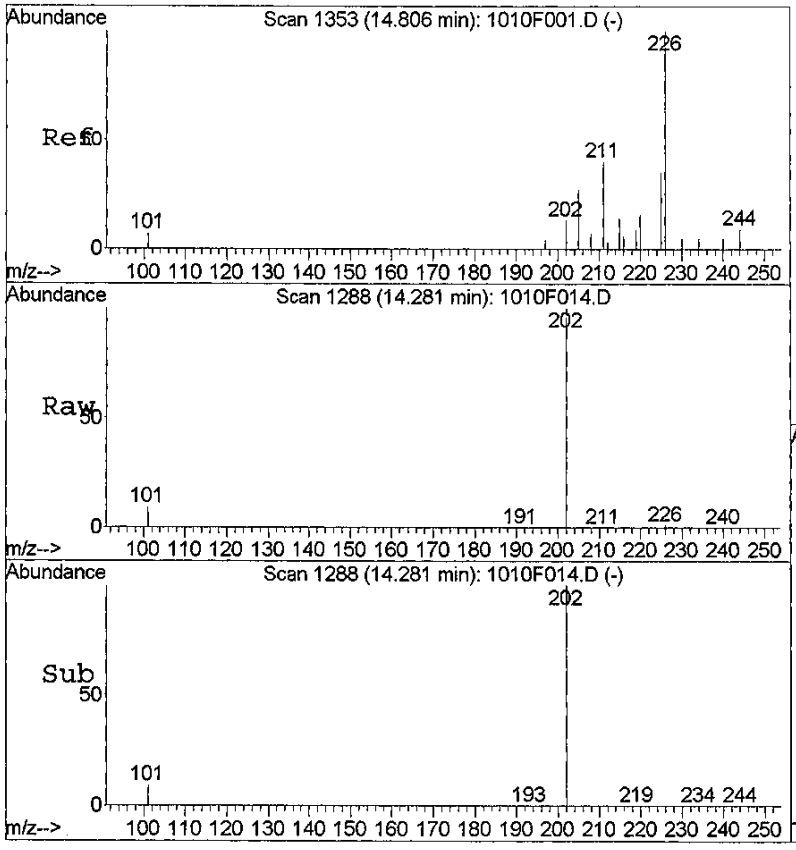


#24
C2-Dibenzothiophenes
Concen: 109.22 ng/ml m
RT: 13.04 min Scan# 1115
Delta R.T. -0.56 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:212 Resp: 47827

Ion	Ratio	Lower	Upper
212	100		
197	25.2	0.0	53.8

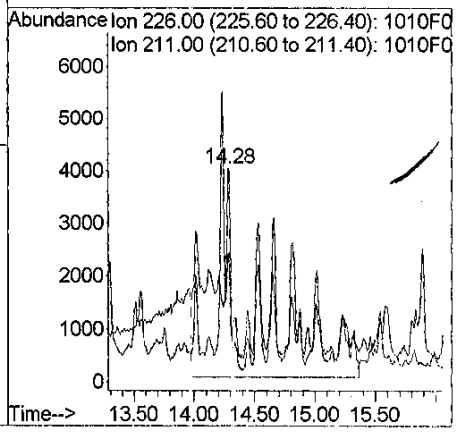


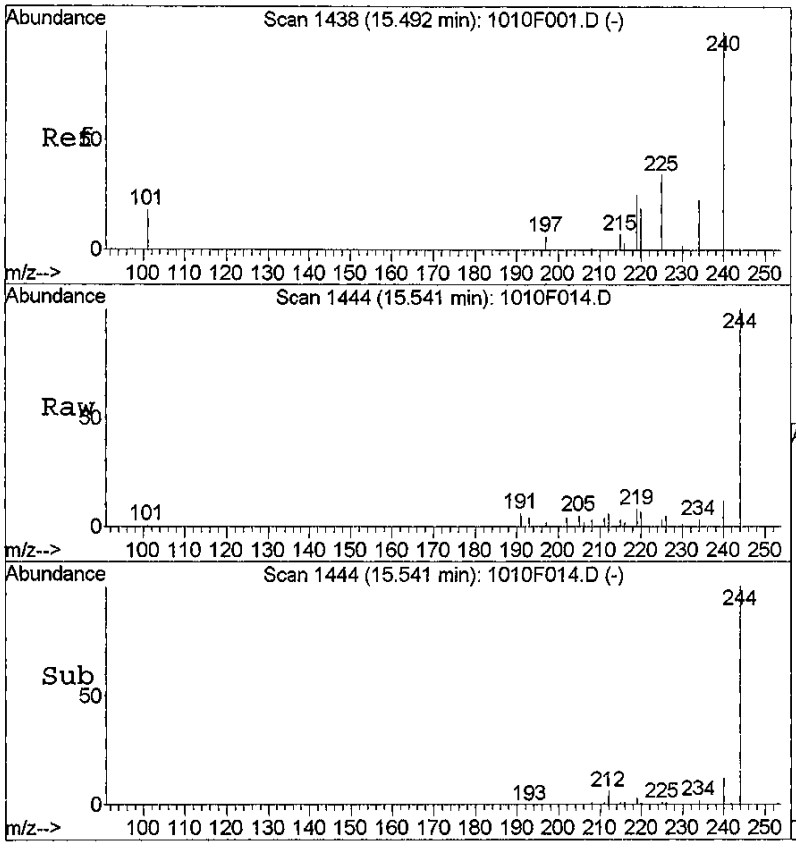


#25
C3-Dibenzothiophenes
Concen: 204.87 ng/ml m
RT: 14.28 min Scan# 1288
Delta R.T. -0.84 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:226 Resp: 89712

Ion	Ratio	Lower	Upper
226	100		
211	59.2	27.1	87.1

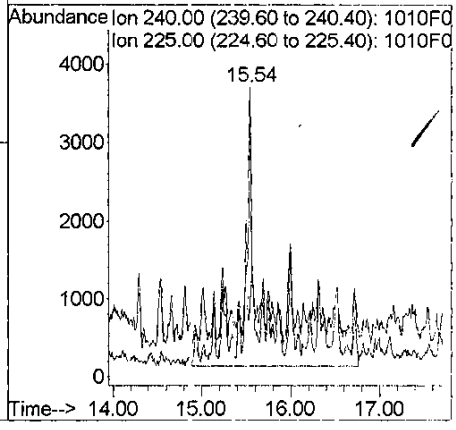


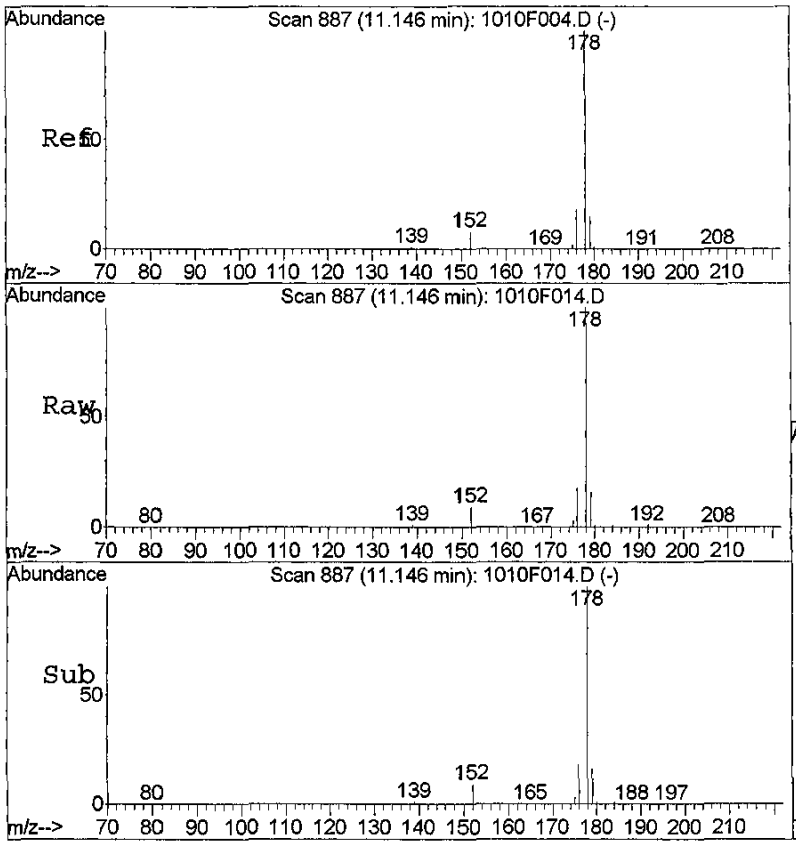


#26
C4-Dibenzothiophenes
Concen: 121.21 ng/ml m
RT: 15.54 min Scan# 1444
Delta R.T. -0.34 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:240 Resp: 53077

Ion	Ratio	Lower	Upper
240	100		
225	24.1	0.0	60.0

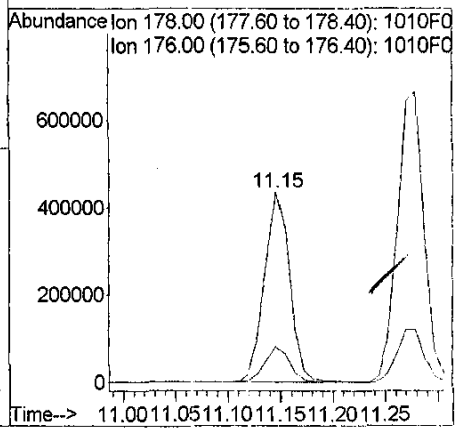


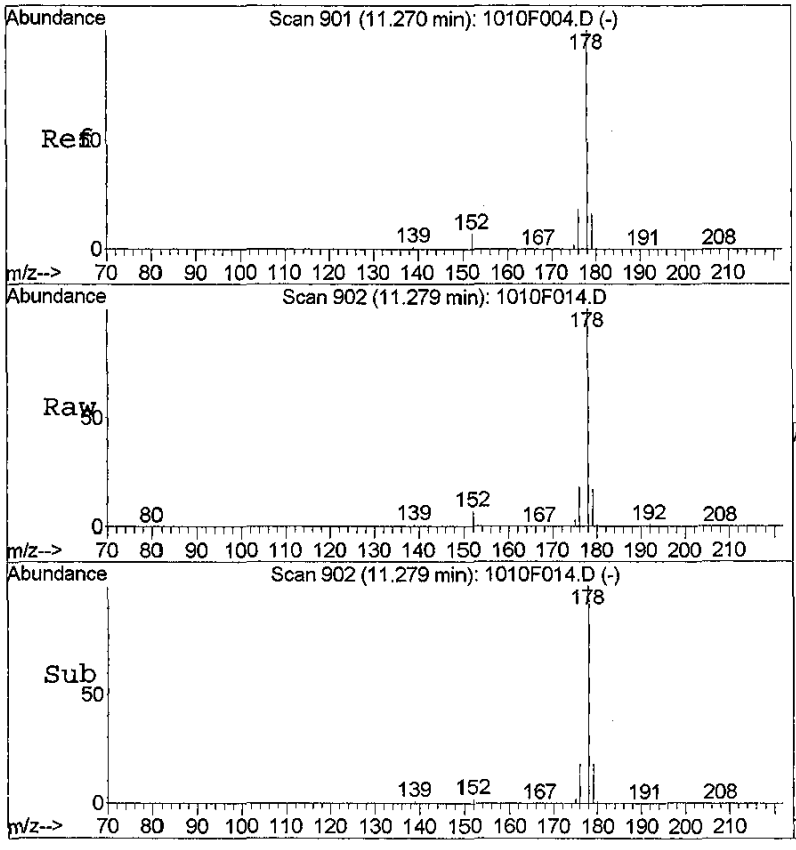


#27
Phenanthrene
Concen: 1586.45 ng/ml
RT: 11.15 min Scan# 887
Delta R.T. -0.02 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:178 Resp: 714522

Ion	Ratio	Lower	Upper
178	100		
176	18.5	0.0	48.5

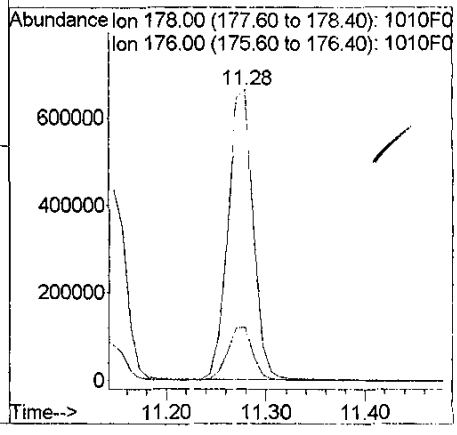


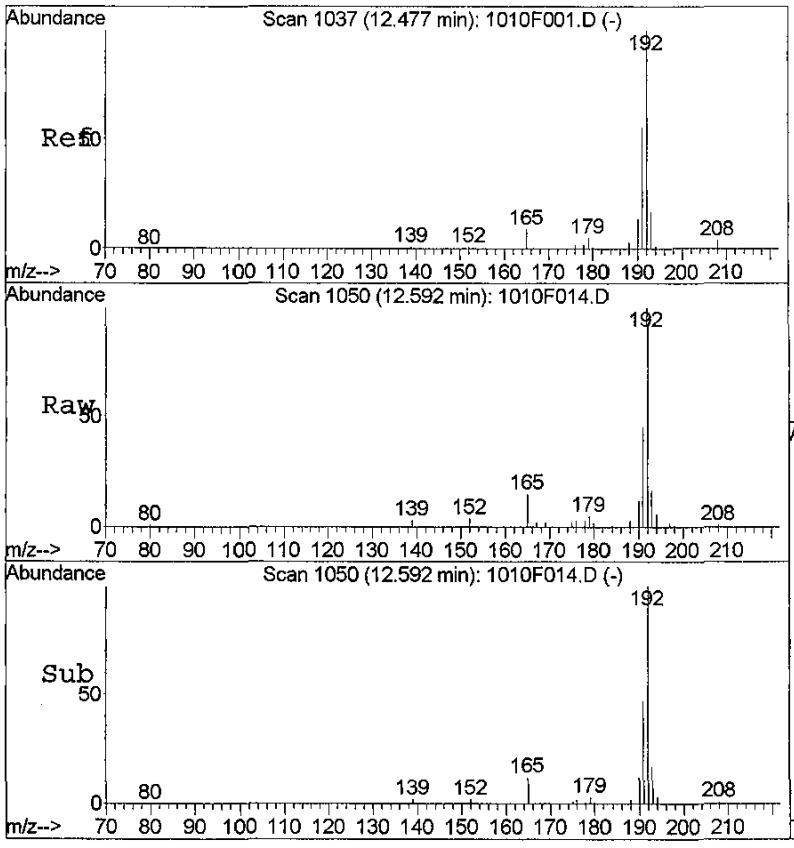


#28
Anthracene
Concen: 2654.78 ng/ml
RT: 11.28 min Scan# 902
Delta R.T. -0.02 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:178 Resp: 1165555

Ion	Ratio	Lower	Upper
178	100		
176	18.2	0.0	47.6

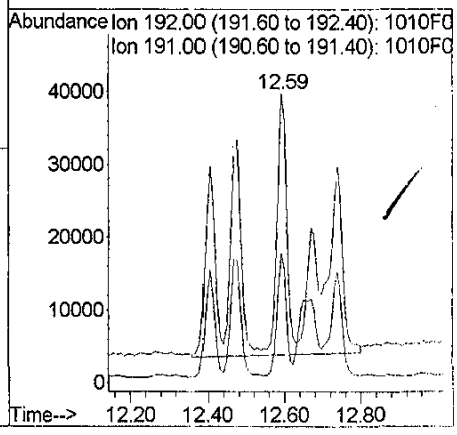


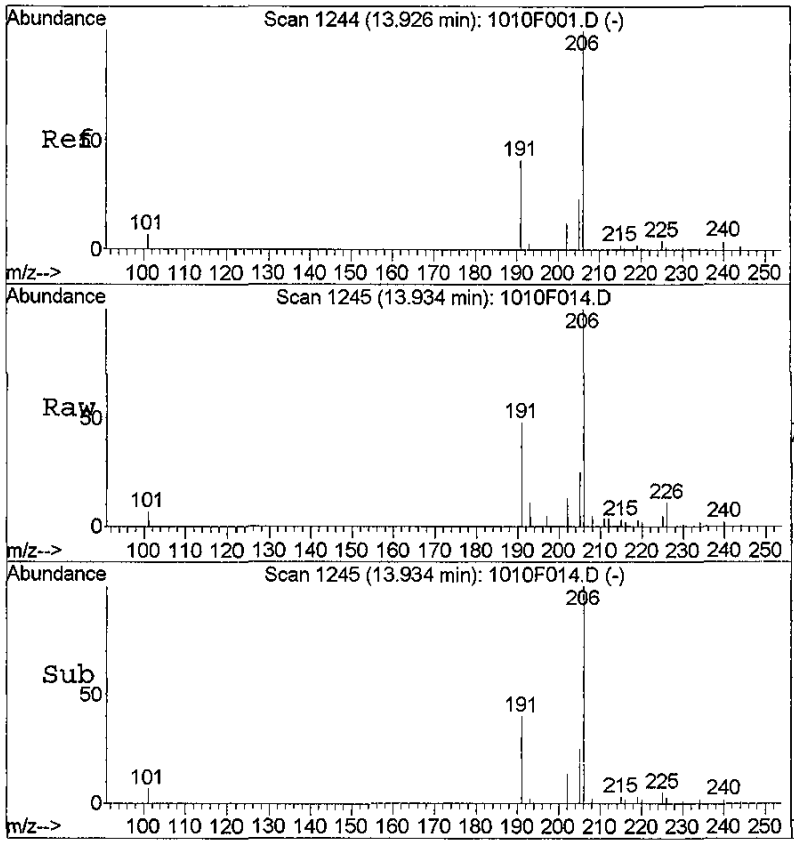


#31
C1-Phenanthrenes/Anthracenes
Concen: 572.95 ng/ml m
RT: 12.59 min Scan# 1050
Delta R.T. -0.18 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:192 Resp: 258052

Ion	Ratio	Lower	Upper
192	100		
191	44.7	25.3	85.3

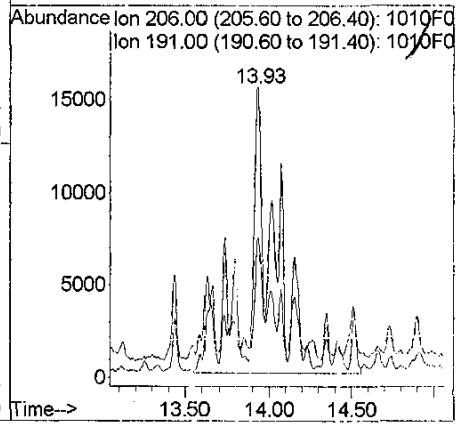


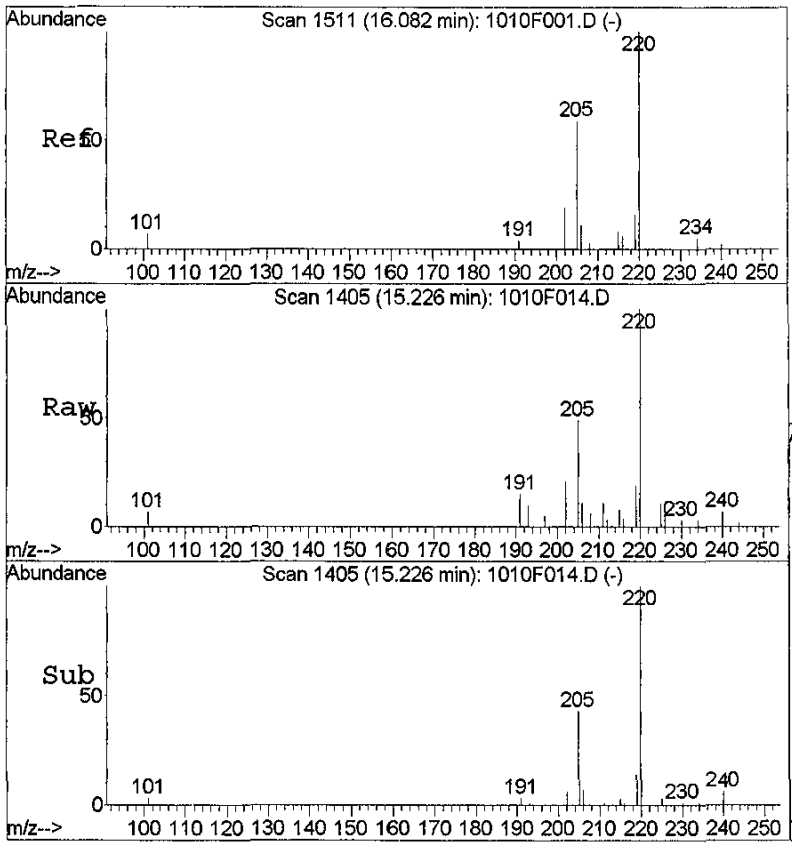


#32
C2-Phenanthrenes/Anthracenes
Concen: 407.13 ng/ml m
RT: 13.93 min Scan# 1245
Delta R.T. -0.30 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:206 Resp: 183367

Ion	Ratio	Lower	Upper
206	100		
191	48.4	15.6	75.6

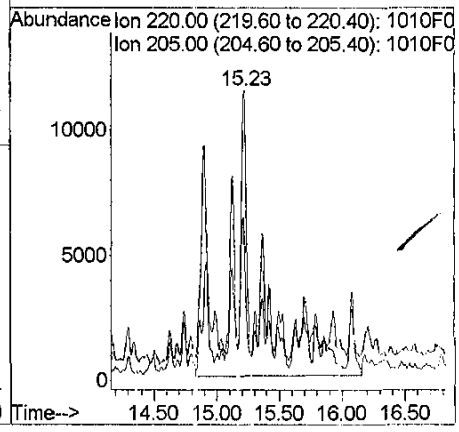


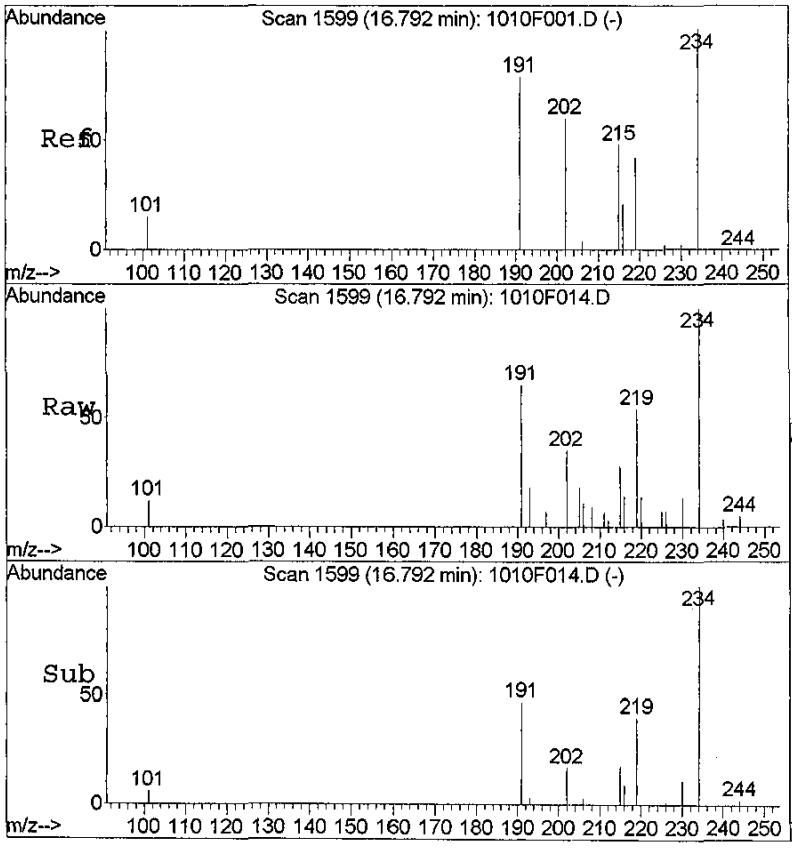


#33
C3-Phenanthrenes/Anthracenes
Concen: 349.49 ng/ml m
RT: 15.23 min Scan# 1405
Delta R.T. -0.30 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:220 Resp: 157405

Ion	Ratio	Lower	Upper
220	100		
205	49.2	20.0	80.0

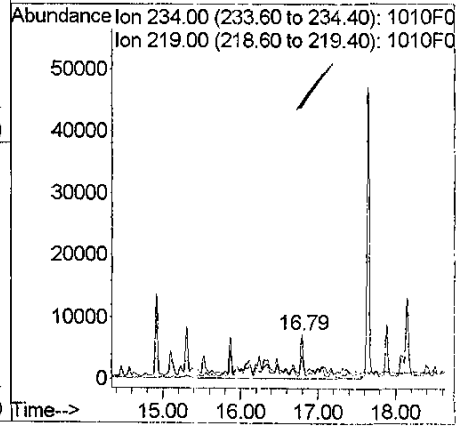


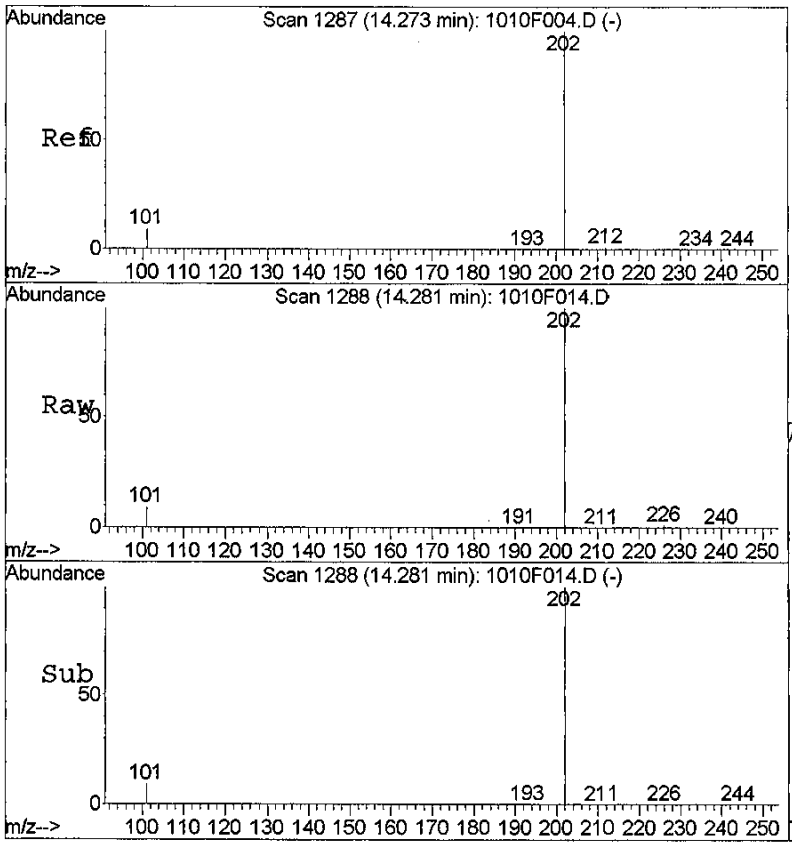


#34
C4-Phenanthrenes/Anthracenes
Concen: 294.24 ng/ml m
RT: 16.79 min Scan# 1599
Delta R.T. -0.31 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:234 Resp: 132521

Ion	Ratio	Lower	Upper
234	100		
219	53.8	17.7	77.7

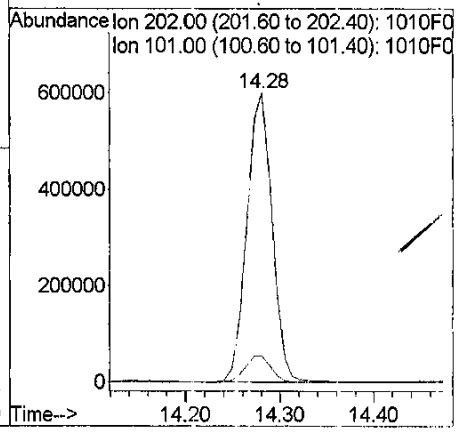


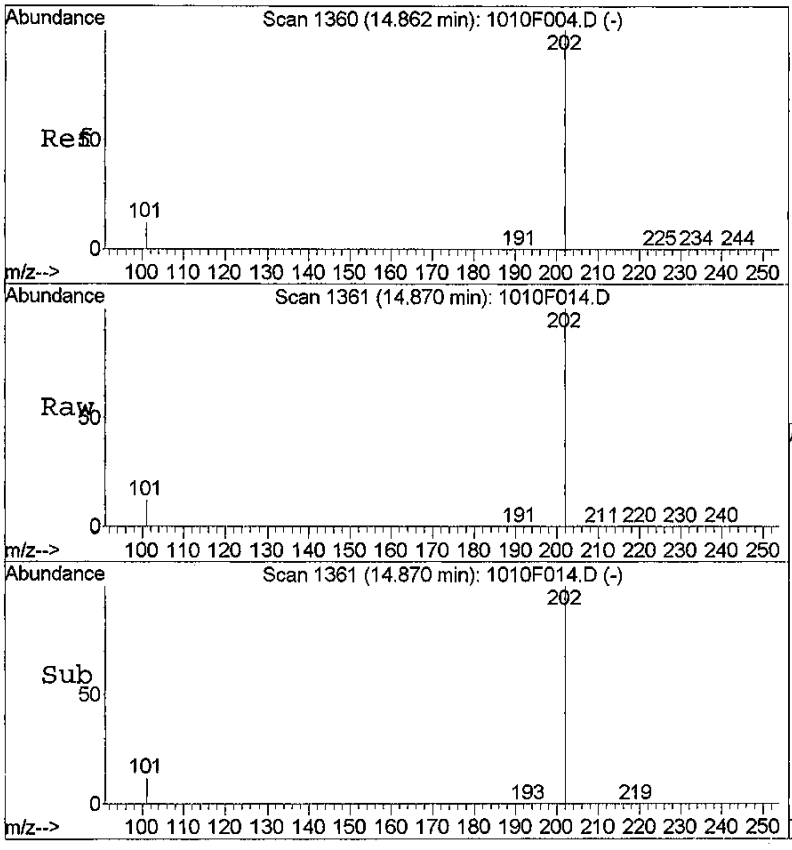


#35
Fluoranthene
Concen: 2197.58 ng/ml
RT: 14.28 min Scan# 1288
Delta R.T. -0.01 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:202 Resp: 1122264

Ion	Ratio	Lower	Upper
202	100		
101	9.0	0.0	41.0

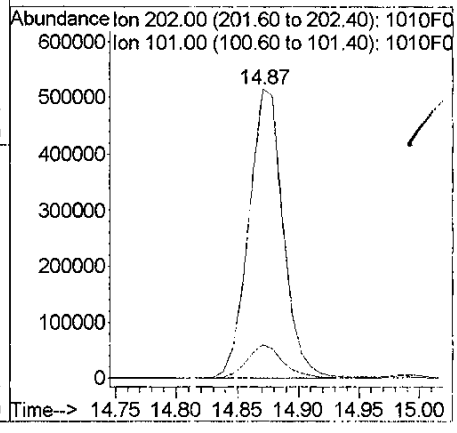


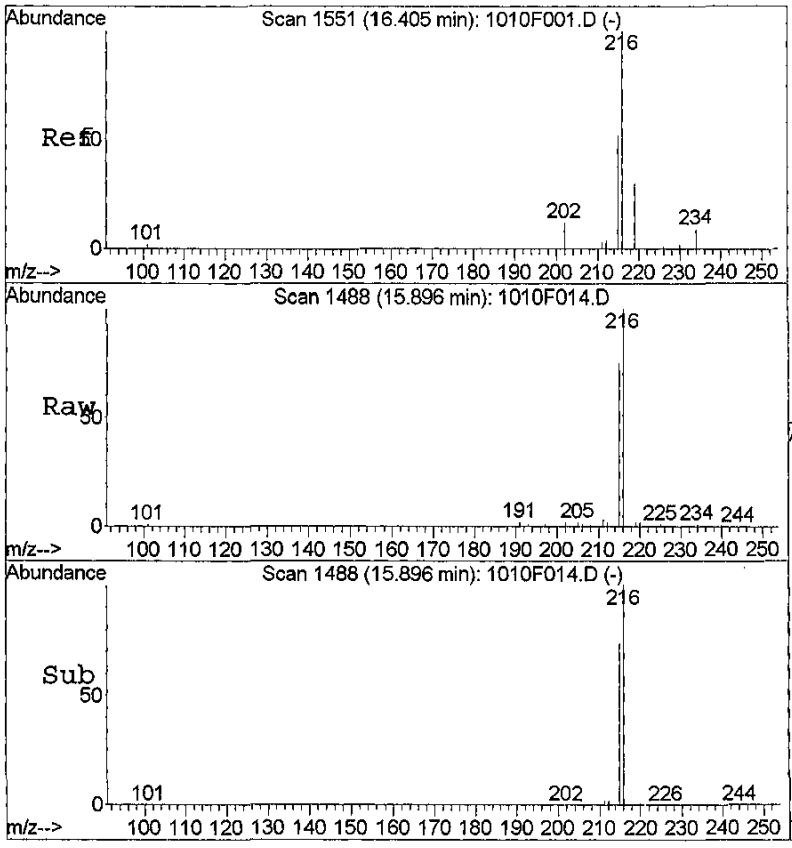


#38
Pyrene
Concen: 1836.14 ng/ml
RT: 14.87 min Scan# 1361
Delta R.T. -0.02 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:202 Resp: 1015147

Ion	Ratio	Lower	Upper
202	100		
101	11.7	0.0	43.8

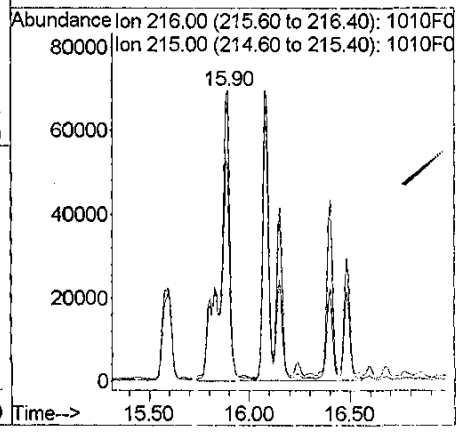


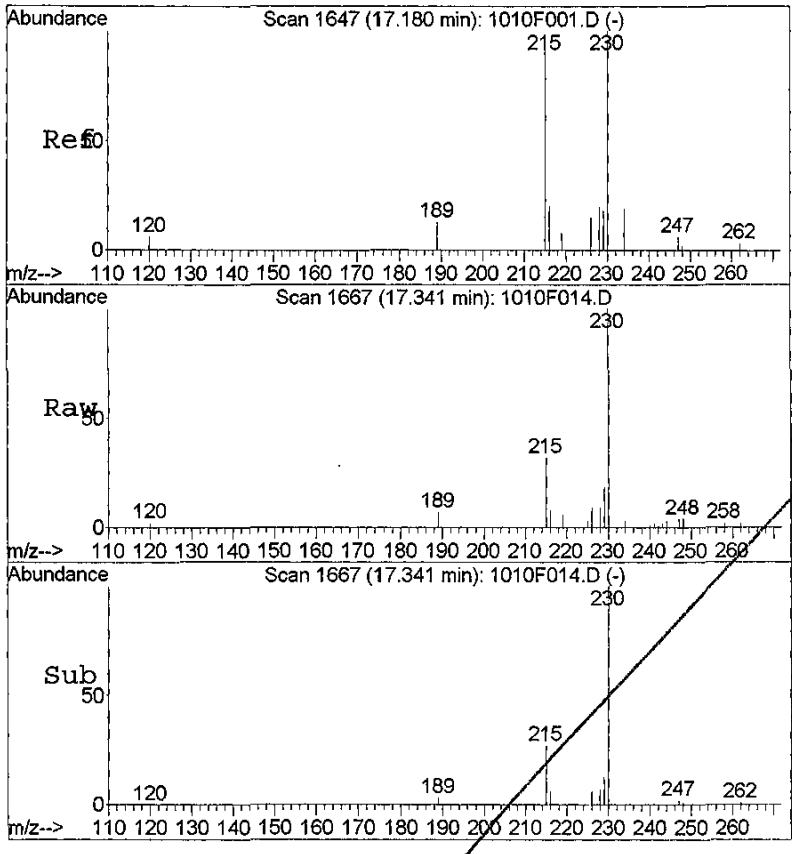


#39
C1-Fluoranthenes/Pyrenes
Concen: 1083.13 ng/ml m
RT: 15.90 min Scan# 1488
Delta R.T. -0.66 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:216 Resp: 598831

Ion	Ratio	Lower	Upper
216	100		
215	75.1	54.8	114.8



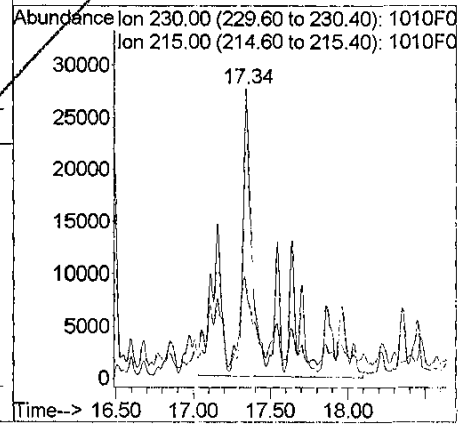


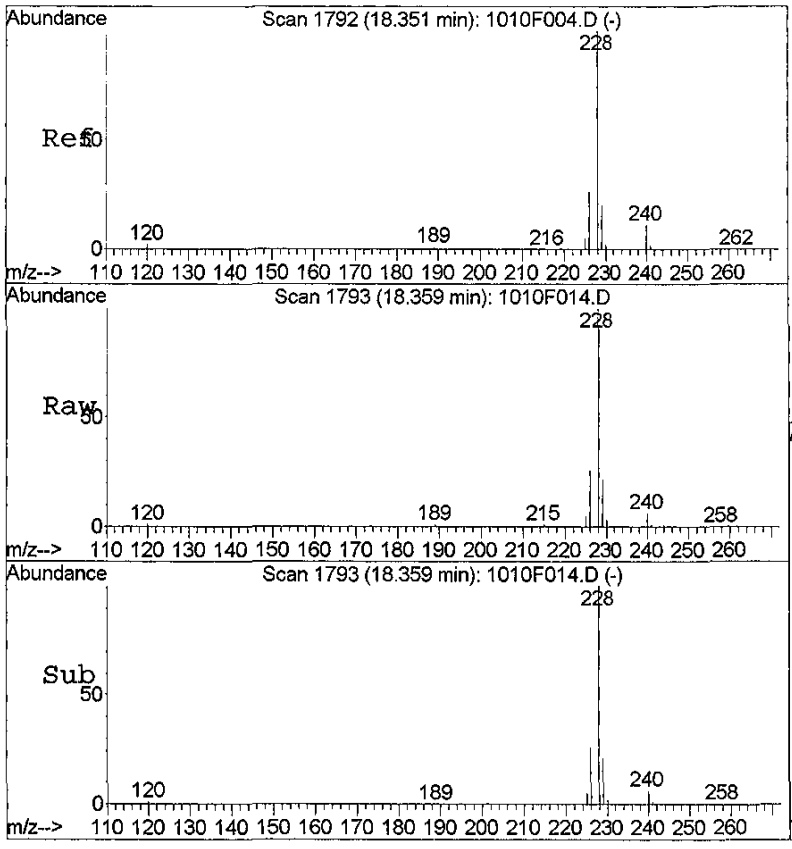
NT

#40
C2-Fluoranthenes/Pyrenes
Concen: 577.78 ng/ml m
RT: 17.34 min Scan# 1667
Delta R.T. -0.16 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:230 Resp: 319437

Ion	Ratio	Lower	Upper
230	100		
215	31.6	0.0	20.8#

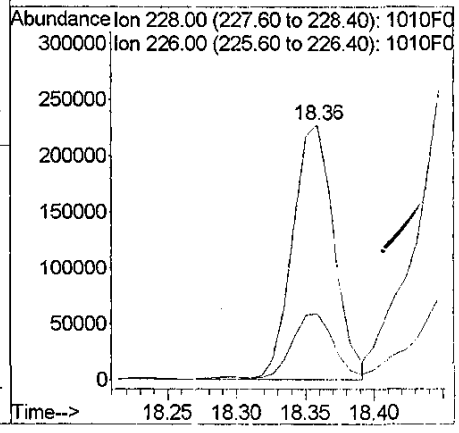


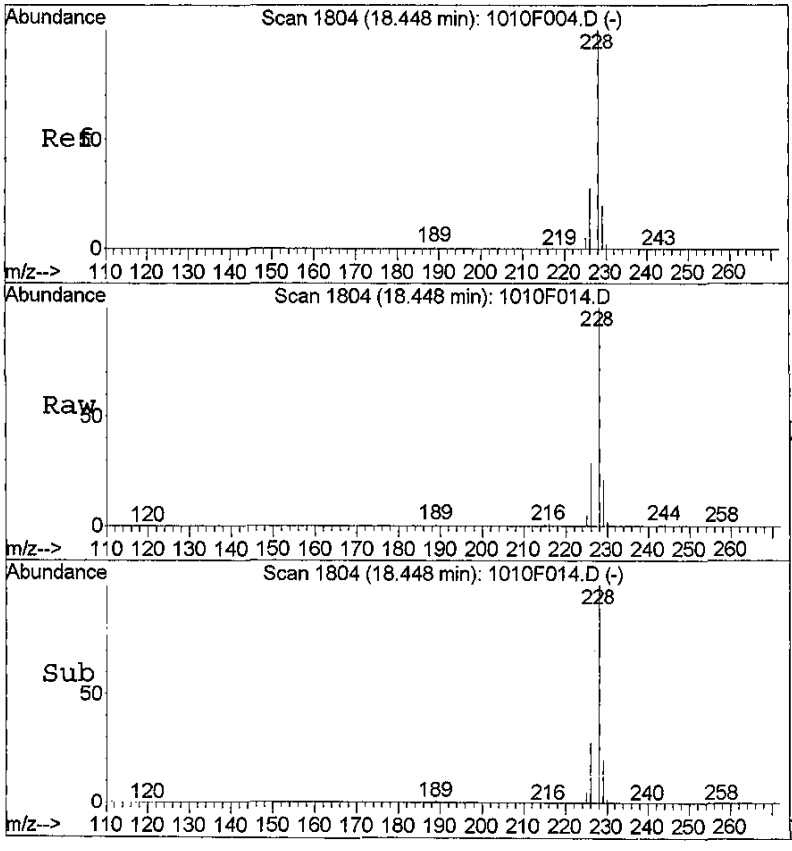


#44
Benz(a)anthracene
Concen: 887.21 ng/ml
RT: 18.36 min Scan# 1793
Delta R.T. -0.01 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:228 Resp: 474273

Ion	Ratio	Lower	Upper
228	100		
226	25.7	0.0	55.8

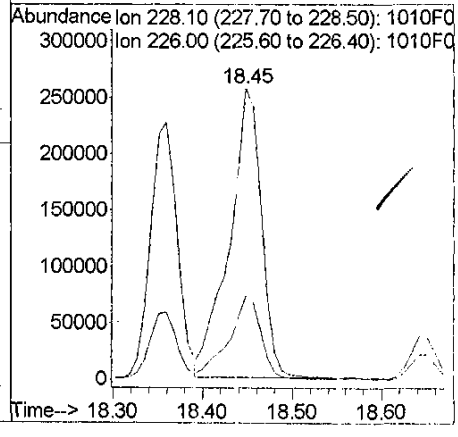


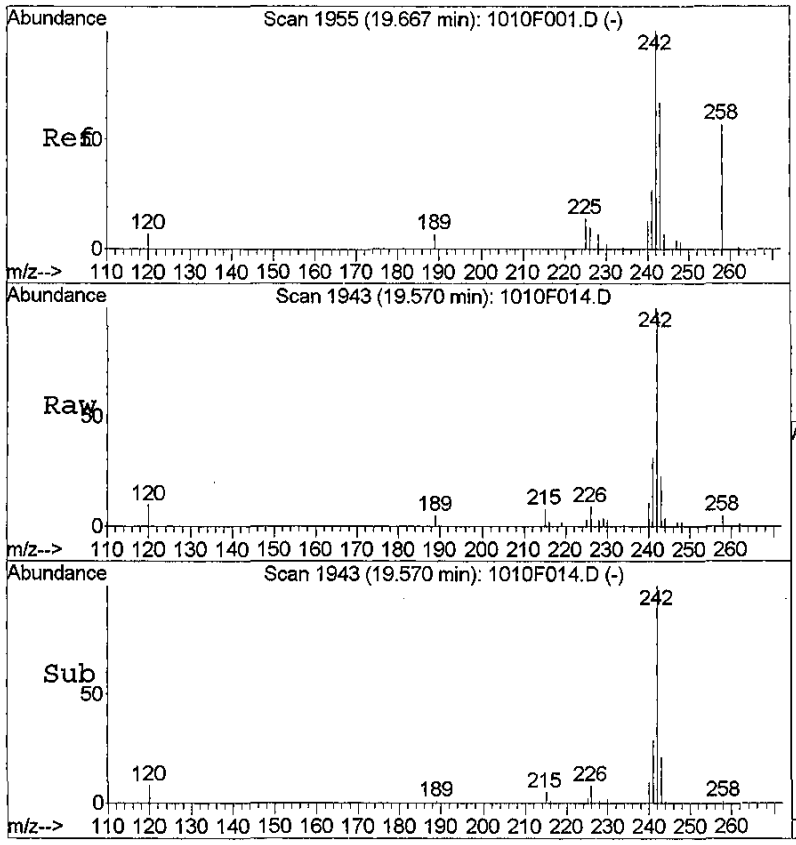


#45
Chrysene
Concen: 1245.71 ng/ml
RT: 18.45 min Scan# 1804
Delta R.T. -0.02 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:228 Resp: 632210

Ion	Ratio	Lower	Upper
228	100		
226	28.1	0.0	58.6

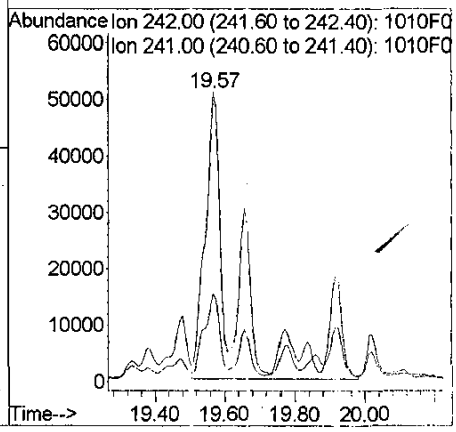


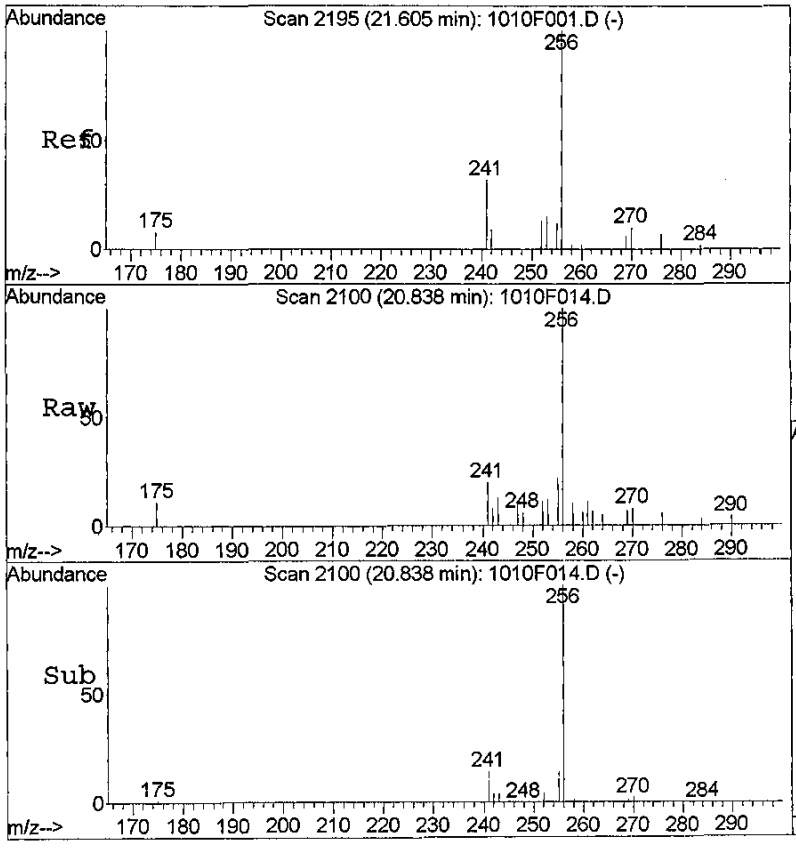


#46
C1-Chrysenes
Concen: 599.59 ng/ml m
RT: 19.57 min Scan# 1943
Delta R.T. -0.42 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:242 Resp: 304299

Ion	Ratio	Lower	Upper
242	100		
241	30.7	0.1	60.1

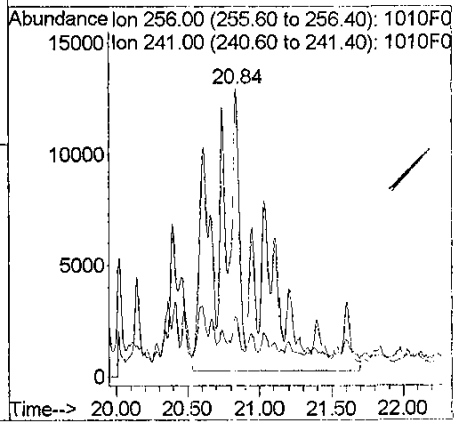


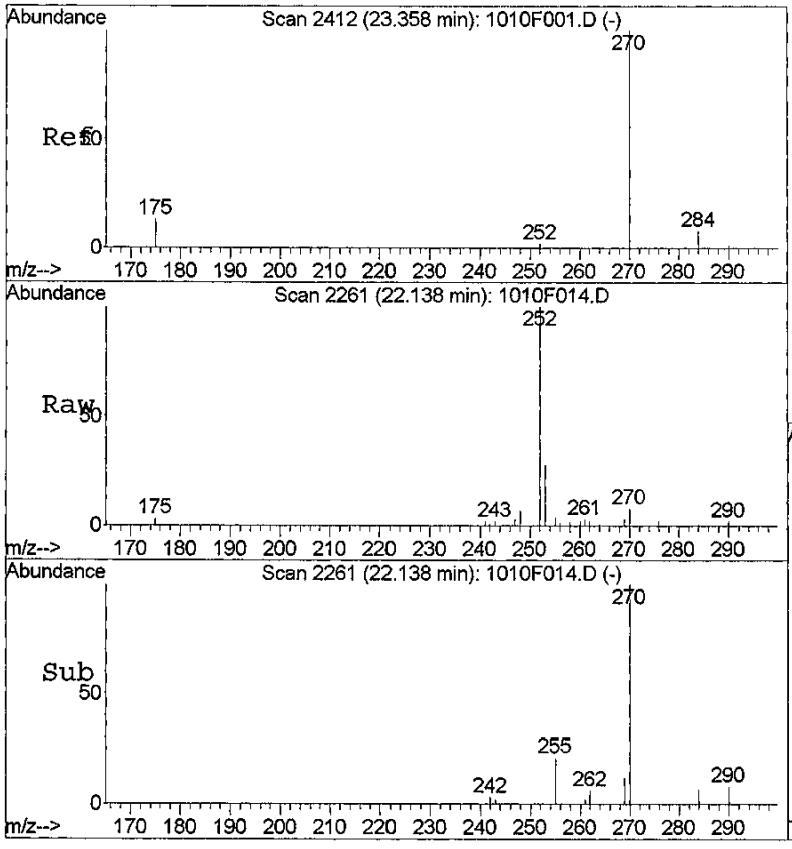


#47
C2-Chrysenes
Concen: 467.26 ng/ml m
RT: 20.84 min Scan# 2100
Delta R.T. -0.65 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:256 Resp: 237140

Ion	Ratio	Lower	Upper
256	100		
241	20.5	7.8	67.8

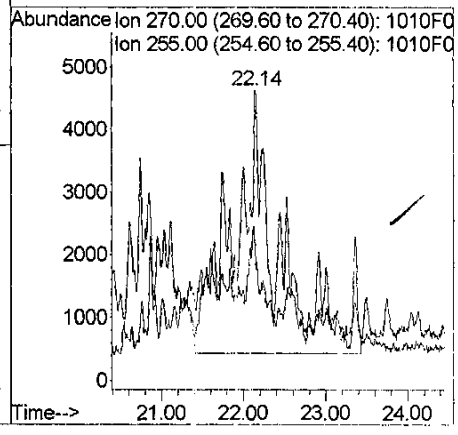


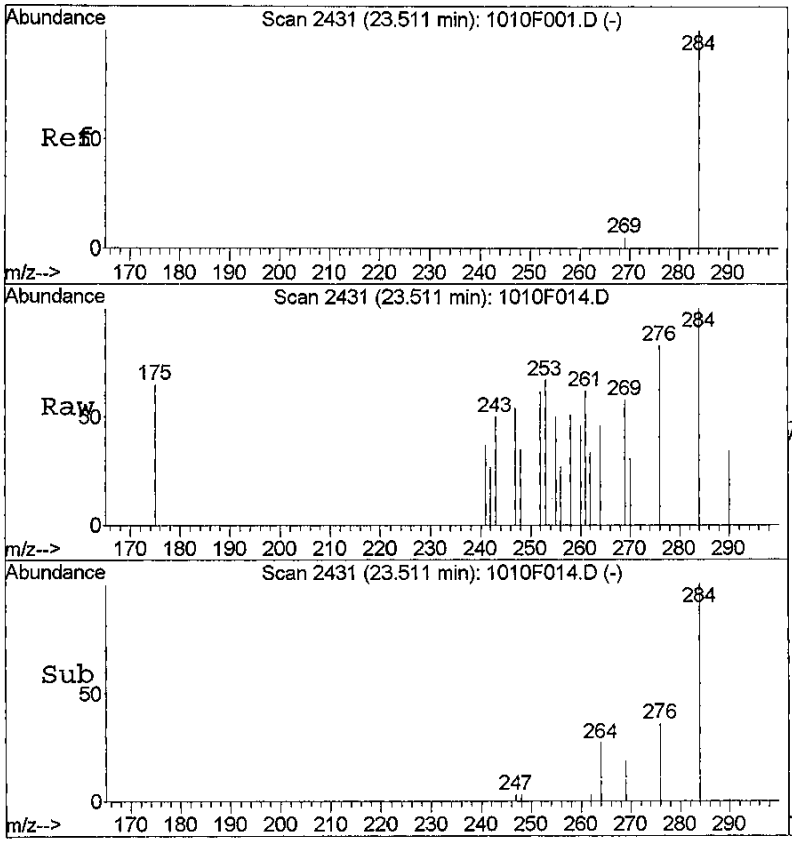


#48
C3-Chrysenes
Concen: 308.16 ng/ml m
RT: 22.14 min Scan# 2261
Delta R.T. -0.55 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:270 Resp: 156392

Ion	Ratio	Lower	Upper
270	100		
255	47.1	0.0	56.7

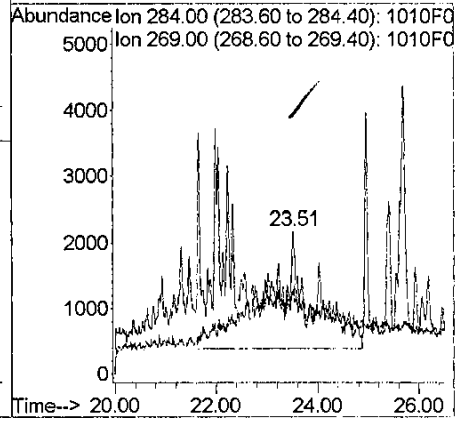


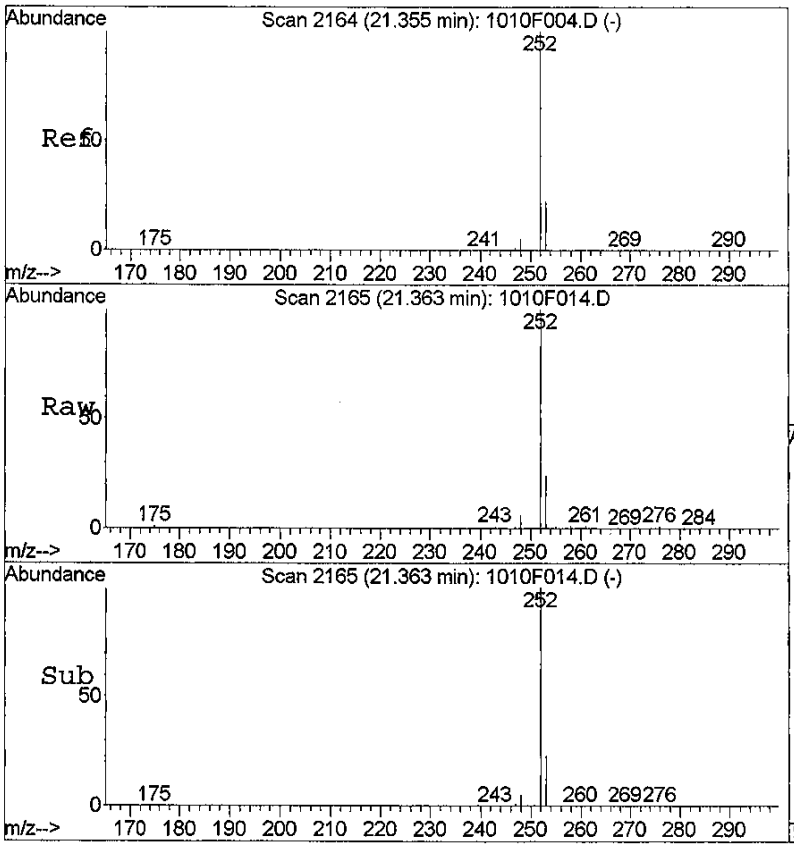


#49
C4-Chrysenes
Concen: 216.13 ng/ml m
RT: 23.51 min Scan# 2431
Delta R.T. -0.49 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:284 Resp: 109689

Ion	Ratio	Lower	Upper
284	100		
269	58.3	16.2	76.2

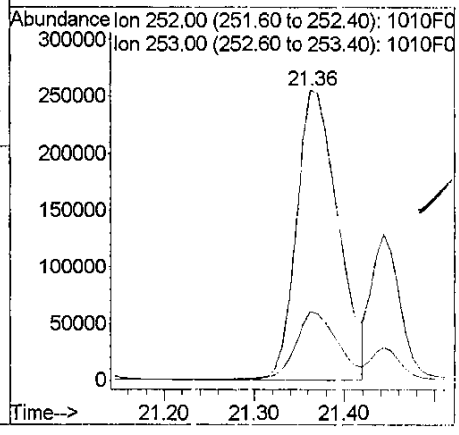


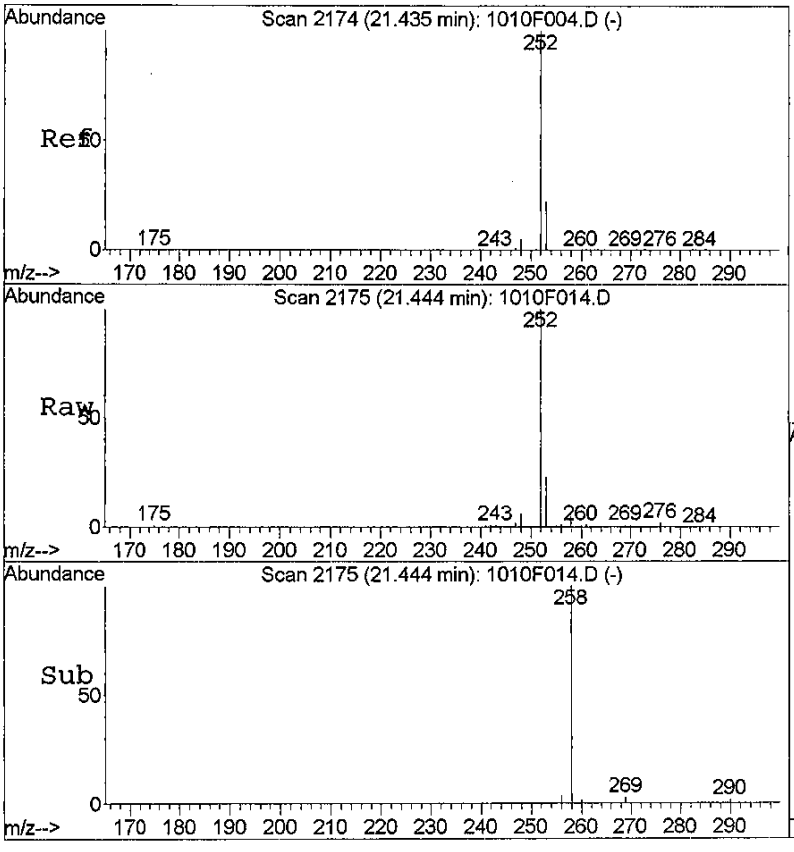


#51
Benzo(b)fluoranthene
Concen: 1398.50 ng/ml
RT: 21.36 min Scan# 2165
Delta R.T. -0.01 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:252 Resp: 820105

Ion	Ratio	Lower	Upper
252	100		
253	23.4	0.0	51.8

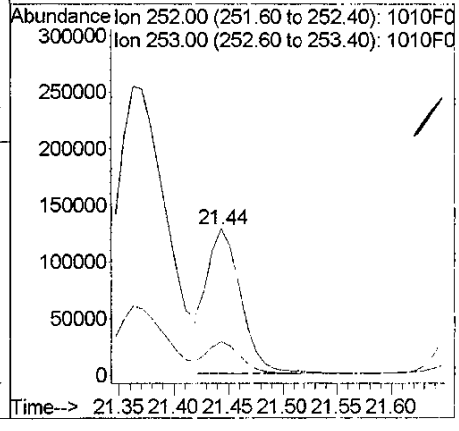


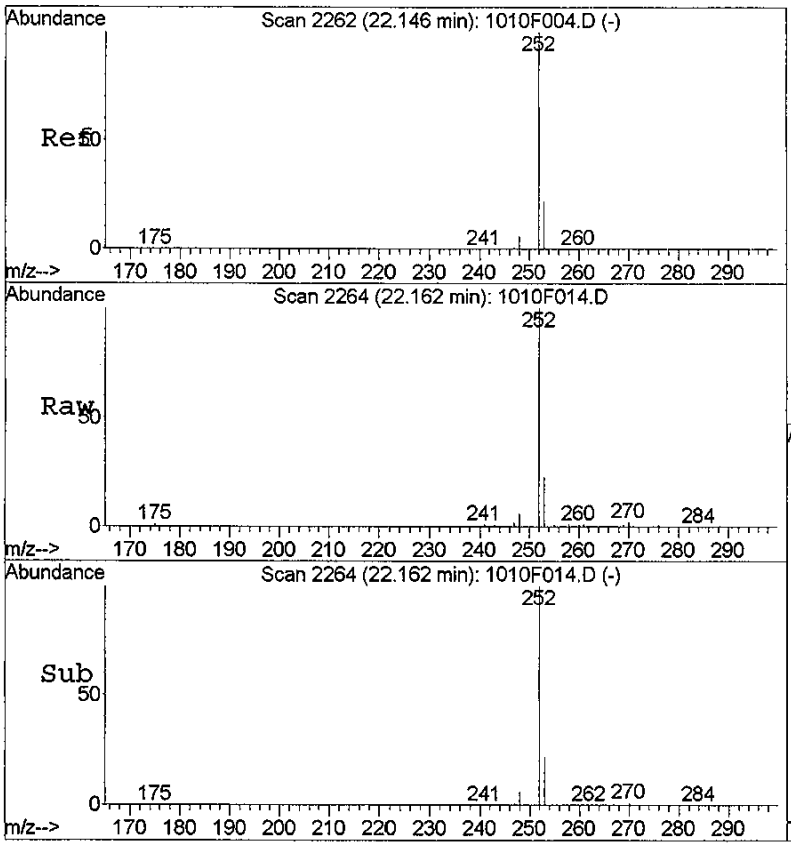


#52
Benzo(k)fluoranthene
Concen: 464.40 ng/ml
RT: 21.44 min Scan# 2175
Delta R.T. -0.02 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:252 Resp: 278892

Ion	Ratio	Lower	Upper
252	100		
253	22.0	0.0	51.7

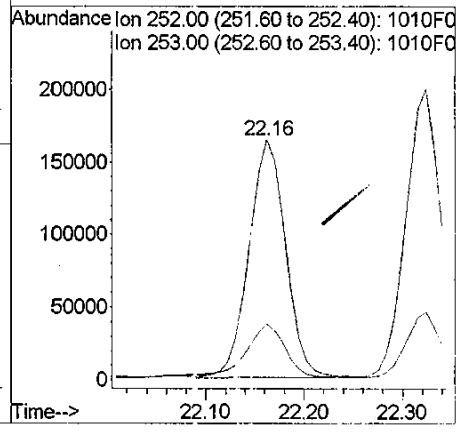


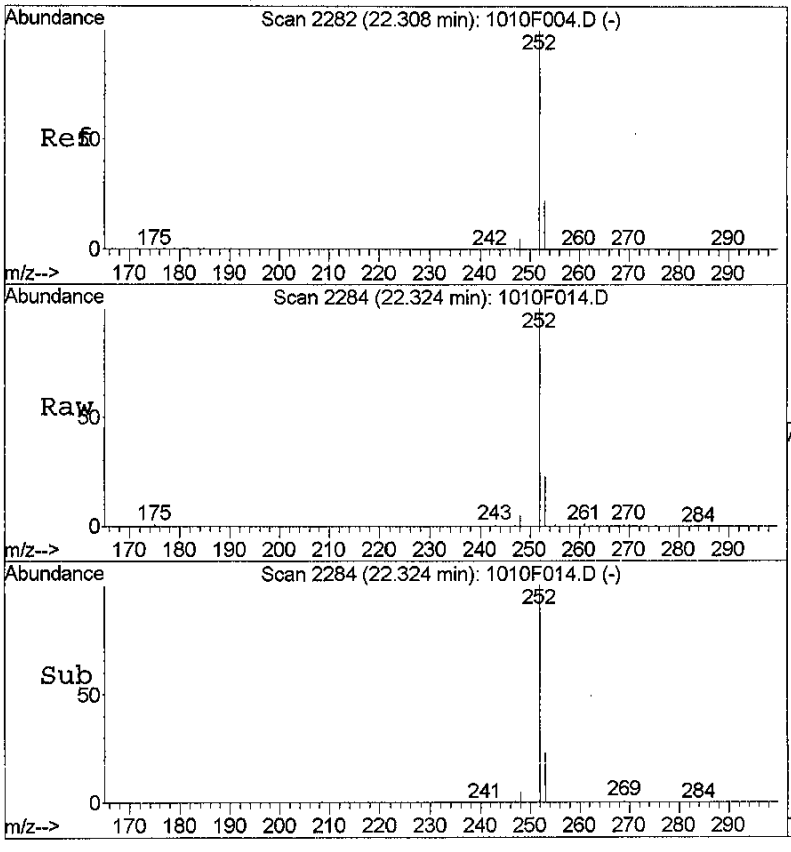


#53
Benzo(e)pyrene
Concen: 750.80 ng/ml
RT: 22.16 min Scan# 2264
Delta R.T. -0.01 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:252 Resp: 425186

Ion	Ratio	Lower	Upper
252	100		
253	22.7	0.0	52.0

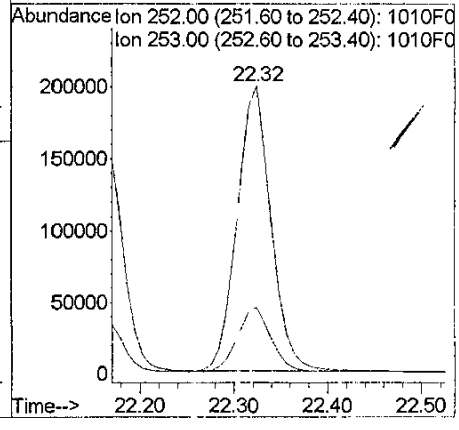


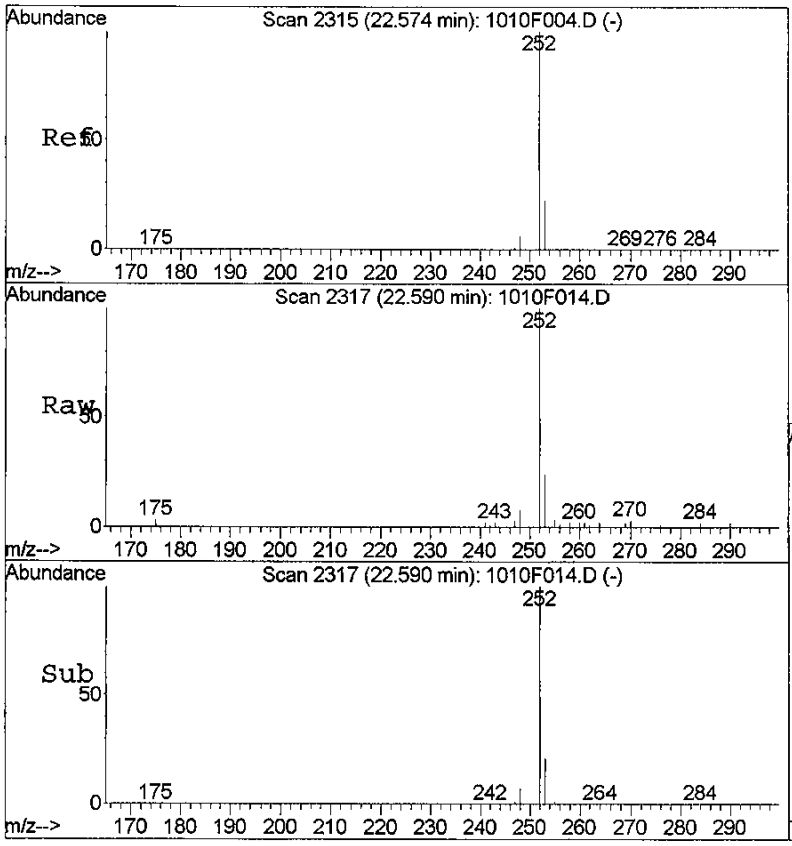


#54
Benzo(a)pyrene
Concen: 928.80 ng/ml
RT: 22.32 min Scan# 2284
Delta R.T. -0.01 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:252 Resp: 502099

Ion	Ratio	Lower	Upper
252	100		
253	22.5	0.0	51.8

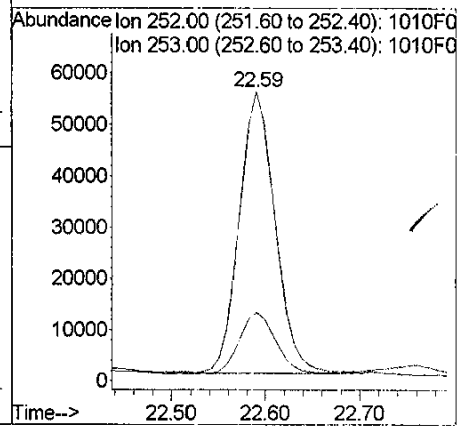


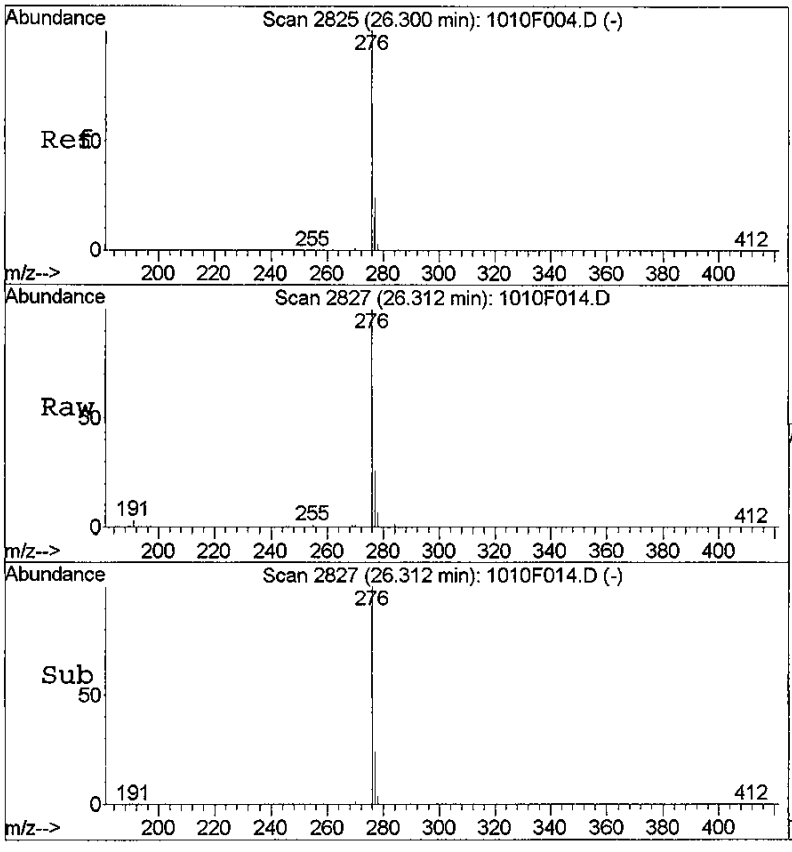


#55
Perylene
Concen: 267.50 ng/ml
RT: 22.59 min Scan# 2317
Delta R.T. -0.02 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:252 Resp: 146304

Ion	Ratio	Lower	Upper
252	100		
253	21.7	0.0	51.8

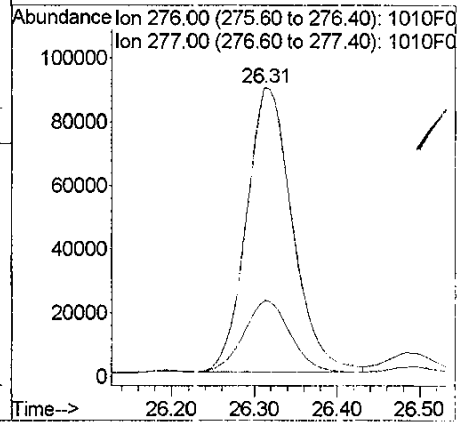


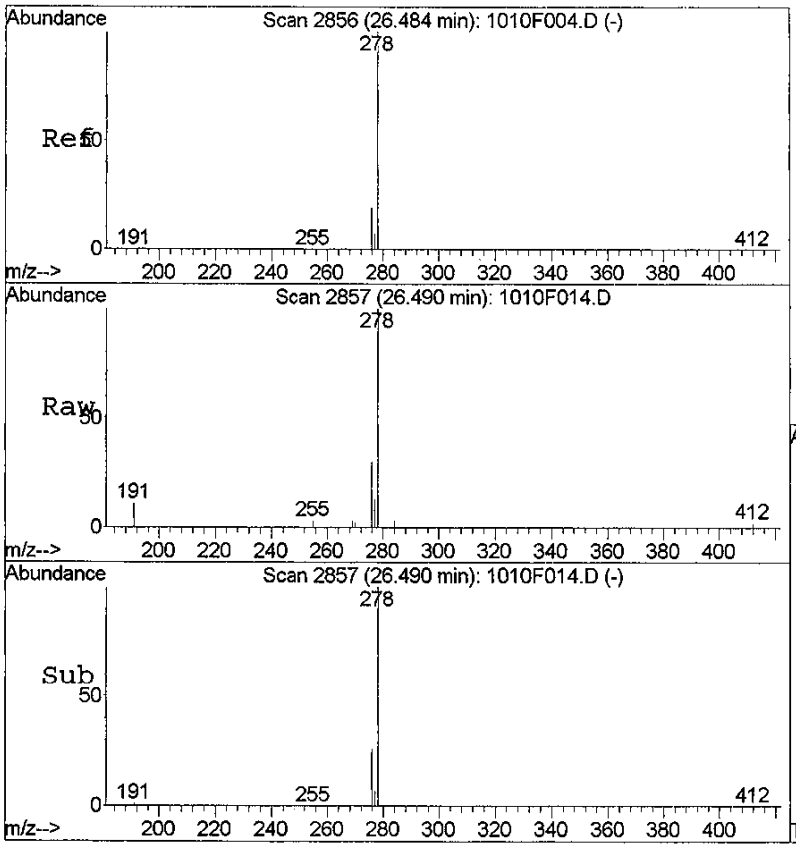


#56
Indeno(1,2,3-cd)pyrene
Concen: 609.67 ng/ml
RT: 26.31 min Scan# 2827
Delta R.T. -0.03 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:276 Resp: 347762

Ion	Ratio	Lower	Upper
276	100		
277	25.0	0.0	53.8

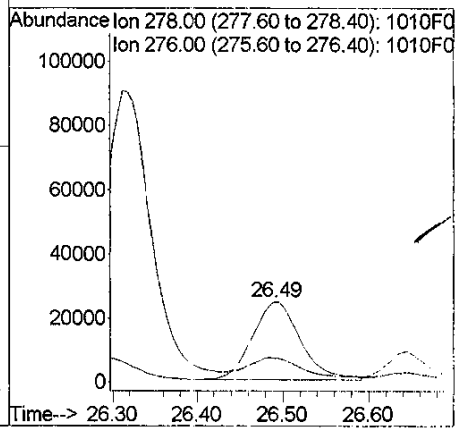


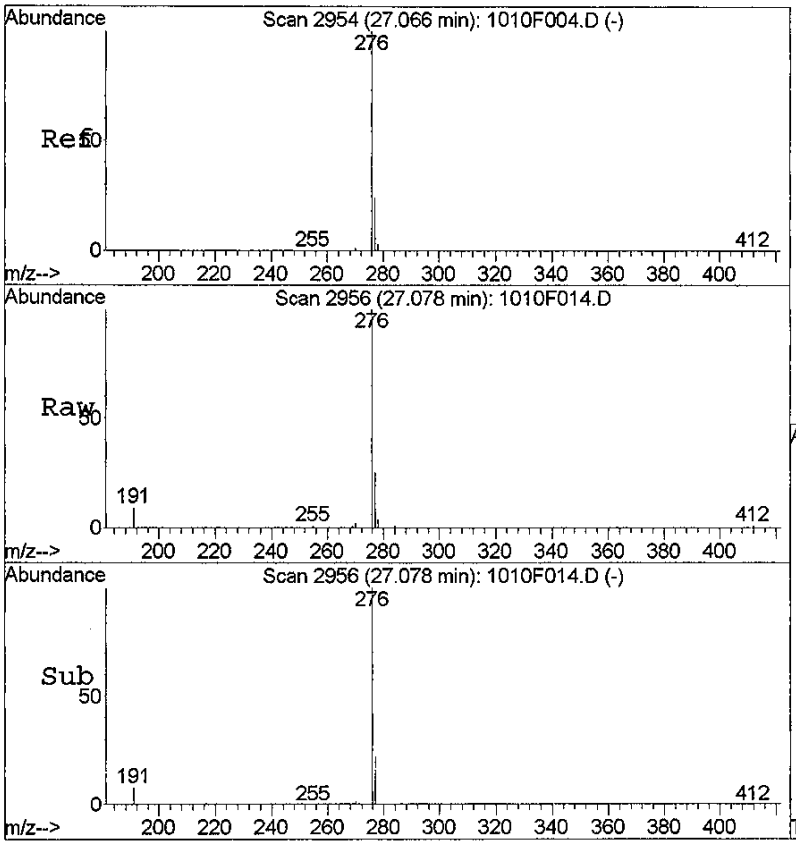


#57
Dibenz(a,h)anthracene
Concen: 165.65 ng/ml
RT: 26.49 min Scan# 2857
Delta R.T. -0.03 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:278 Resp: 94066

Ion	Ratio	Lower	Upper
278	100		
276	24.2	0.0	55.3

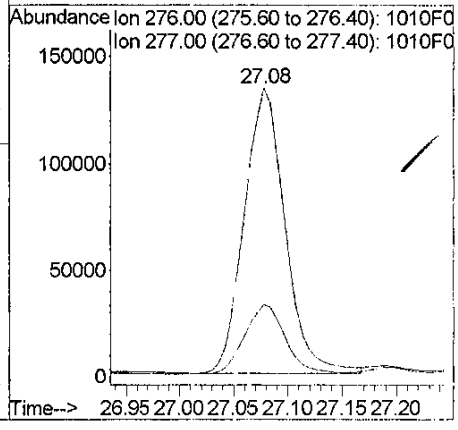




#58
Benzo(g,h,i)perylene
Concen: 576.19 ng/ml
RT: 27.08 min Scan# 2956
Delta R.T. -0.02 min
Lab File: 1010F014.D
Acq: 10 Oct 2015 12:06 pm

Tgt Ion:276 Resp: 349162

Ion	Ratio	Lower	Upper
276	100		
277	24.3	0.0	53.8

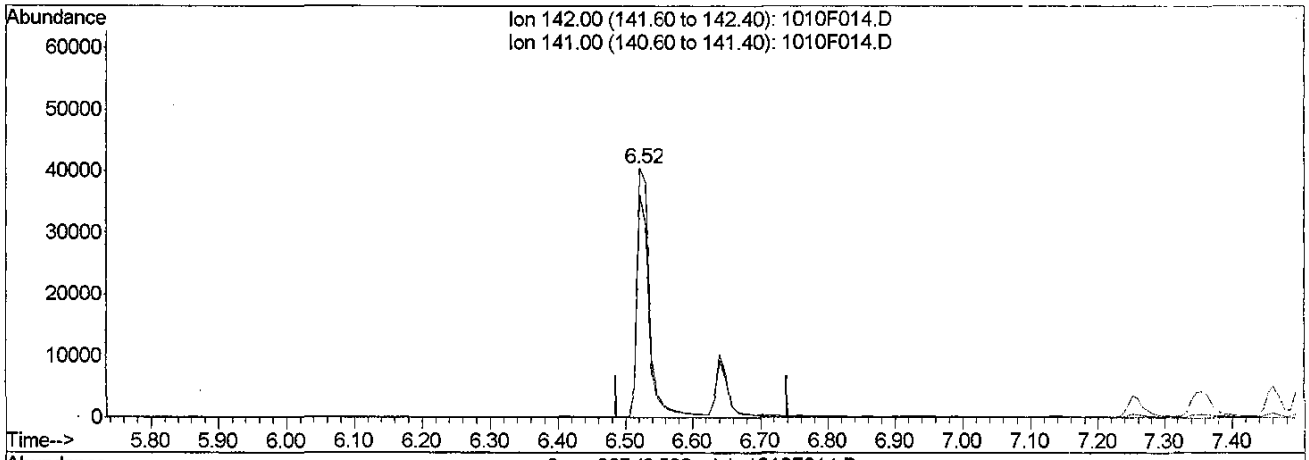


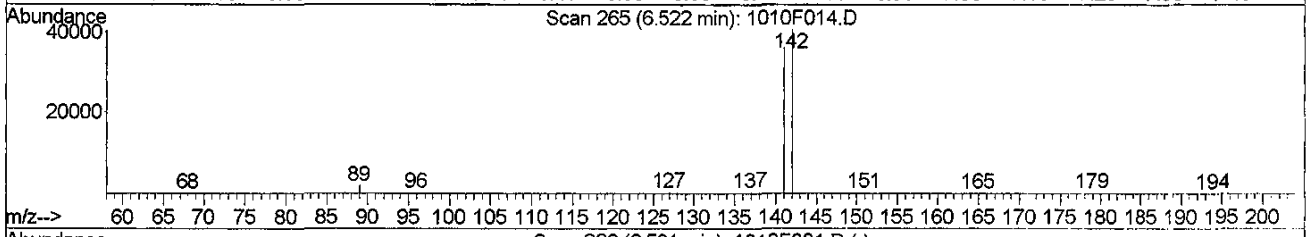
Quantitation Report (Qedit)

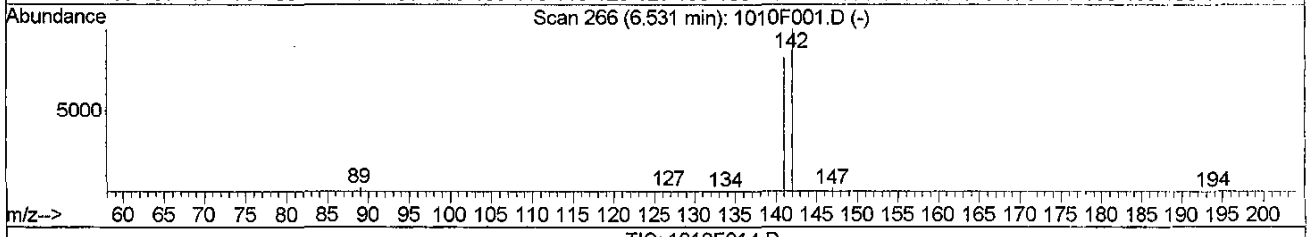
Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:46 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F014.D

(7) C1-Naphthalenes (L)

6.52min 175.17ng/ml m

response 66487

Ion	Exp%	Act%
142.00	100	100
141.00	100.00	89.20
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

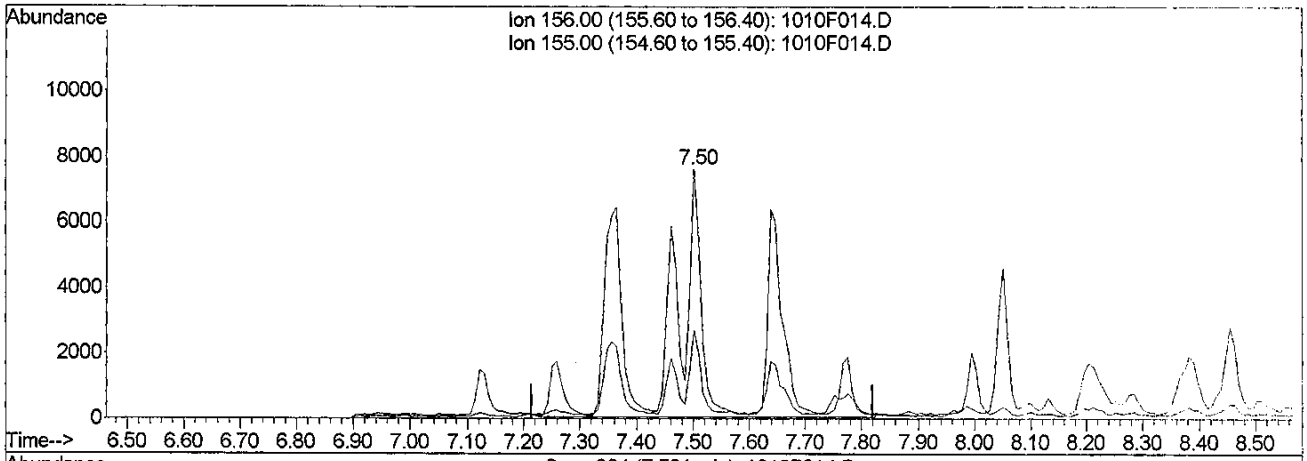
1010F014.D 080415SIMALK.M Mon Oct 12 08:47:04 2015

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:48 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration



(8) C2-Naphthalenes (L)

7.50min 133.50ng/ml m

response 50673

Ion	Exp%	Act%
156.00	100	100
155.00	38.30	35.36
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

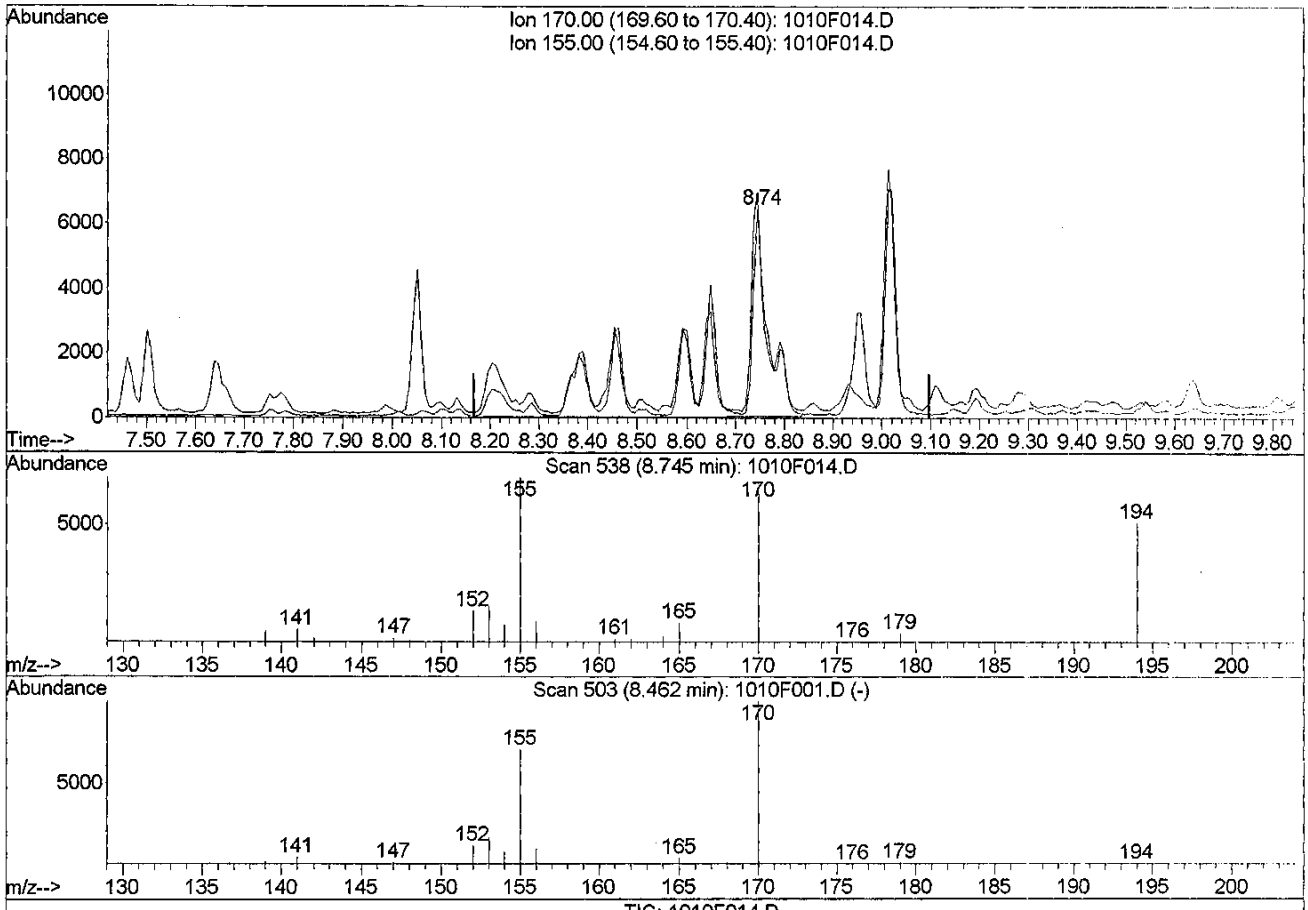
1010F014.D 080415SIMALK.M Mon Oct 12 08:49:33 2015

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:49 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration



(9) C3-Naphthalenes (L)

8.74min 101.00ng/ml m

response 38335

Ion	Exp%	Act%
170.00	100	100
155.00	86.90	107.96
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Alkylated Range

10/12/15

OCT 1 2 2015

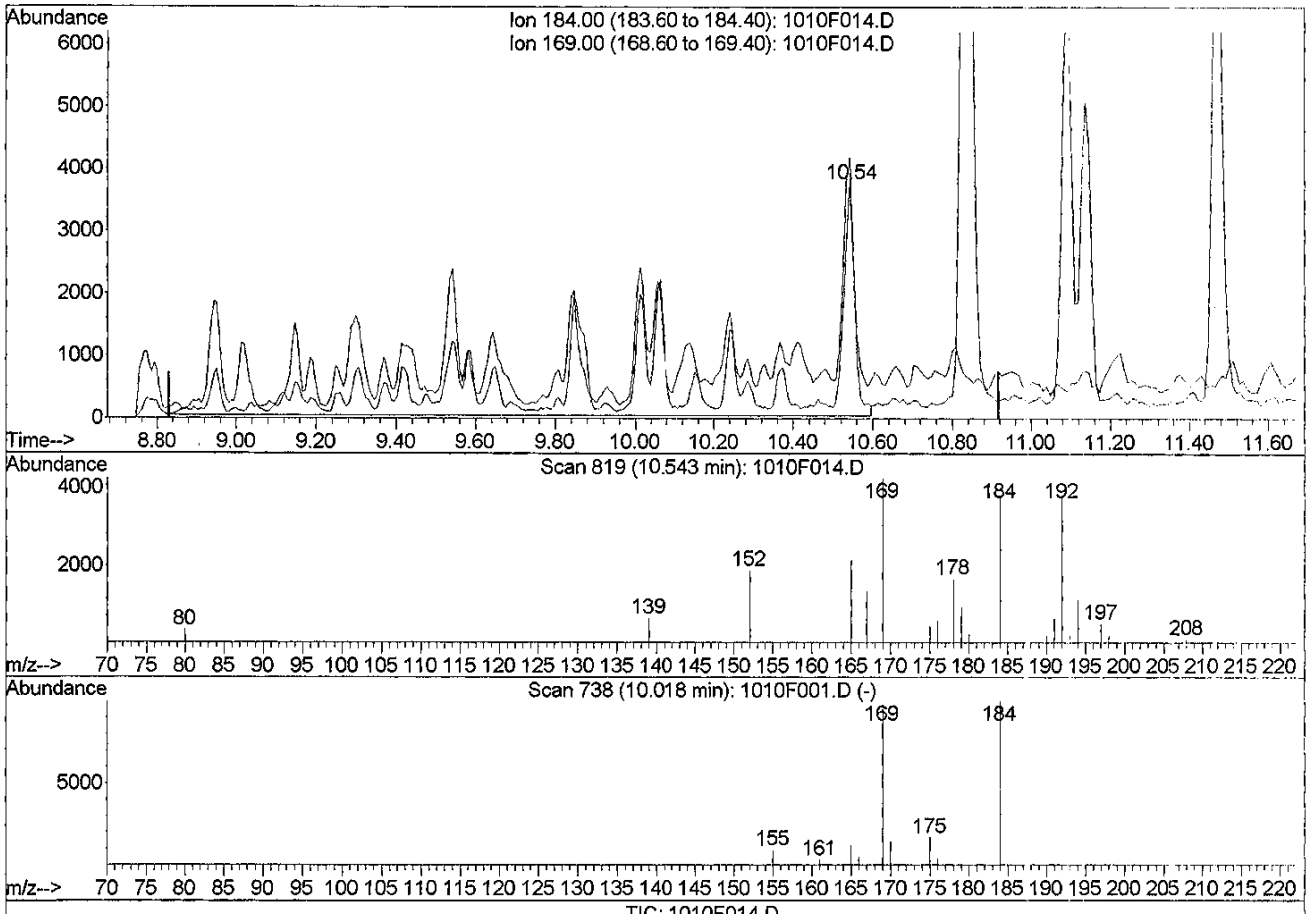
1010F014.D 080415SIMALK.M Mon Oct 12 08:50:04 2015

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:49 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration



(10) C4-Naphthalenes (L)

10.54min 113.69ng/ml m

response 43151

Ion	Exp%	Act%
184.00	100	100
169.00	119.70	110.97
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

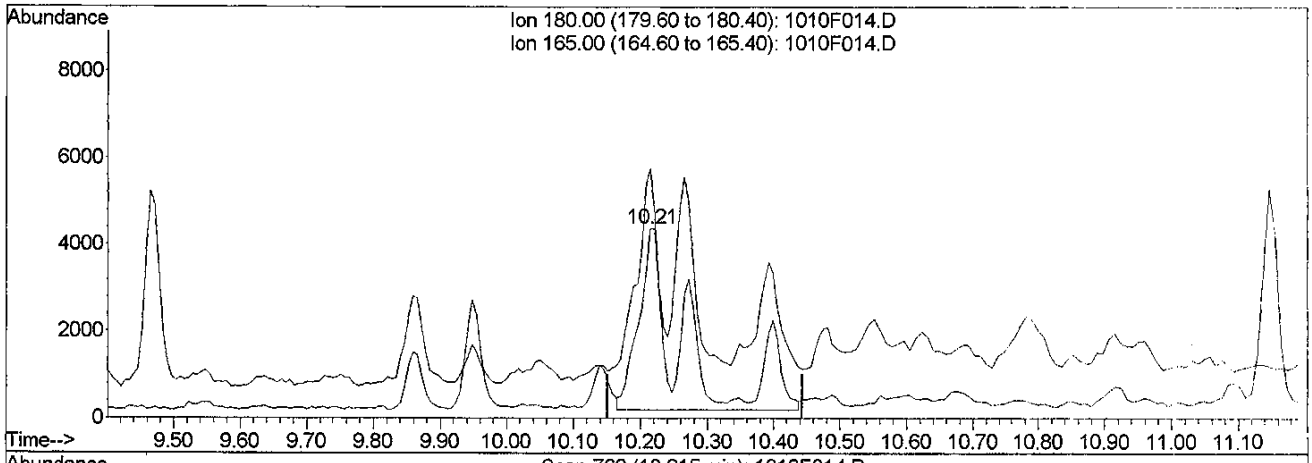
1010F014.D 080415SIMALK.M Mon Oct 12 08:50:14 2015

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:49 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration



(18) C1-Fluorenes (L)

10.21min 61.03ng/ml m

response 18806

Ion	Exp%	Act%
180.00	100	100
165.00	178.70	131.32#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

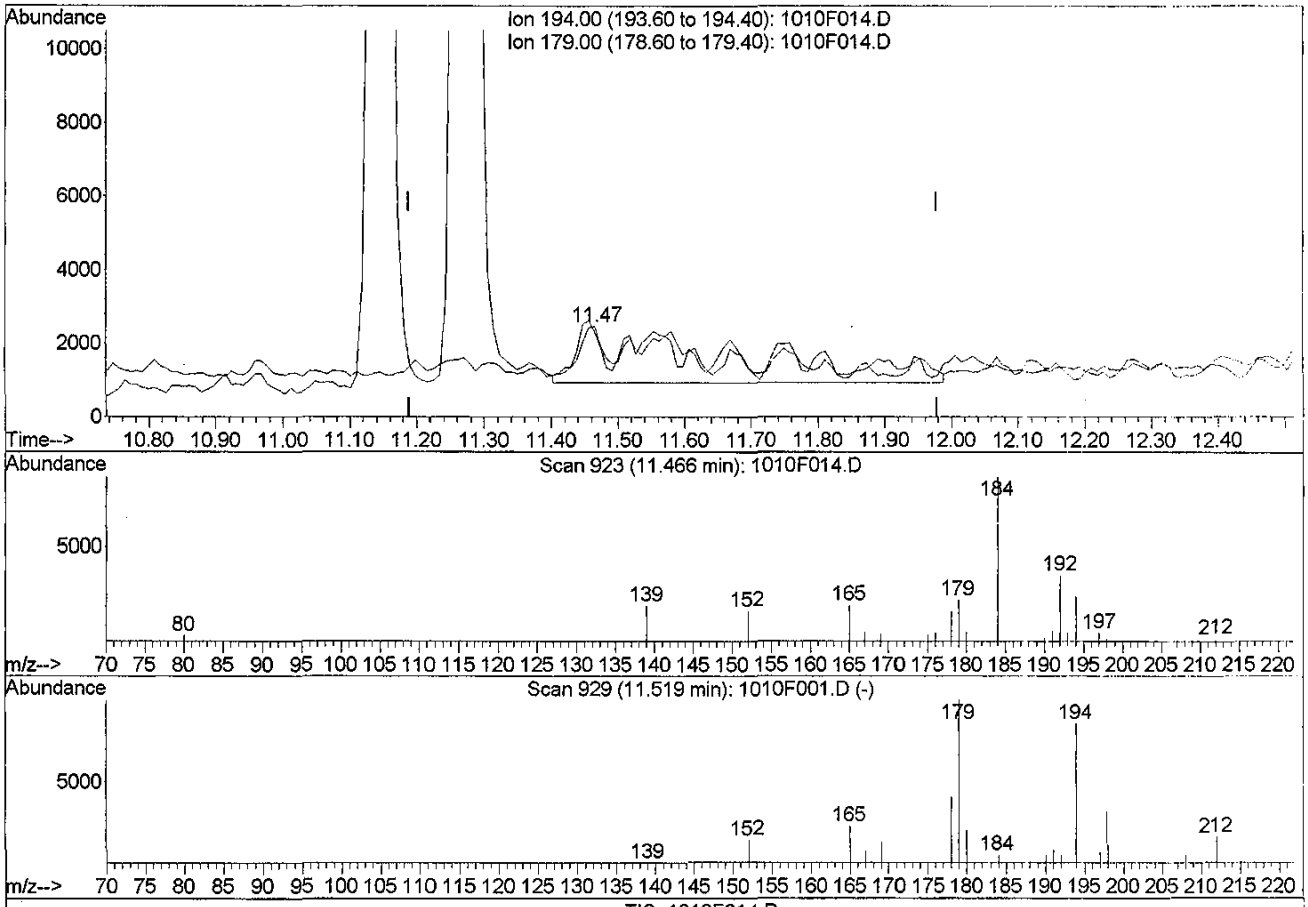
1010F014.D 080415SIMALK.M Mon Oct 12 08:50:21 2015

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:49 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration



(19) C2-Fluorenes (L)

11.47min 72.67ng/ml m

response 22395

Ion	Exp%	Act%
194.00	100	100
179.00	137.00	93.72#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

1010F014.D 080415SIMALK.M Mon Oct 12 08:50:31 2015

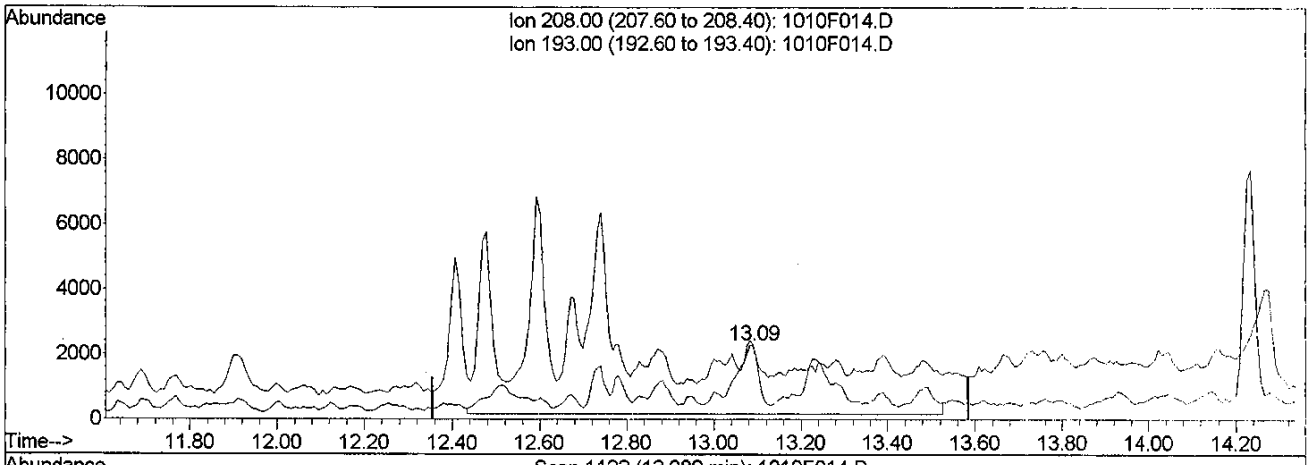
MANSON022678

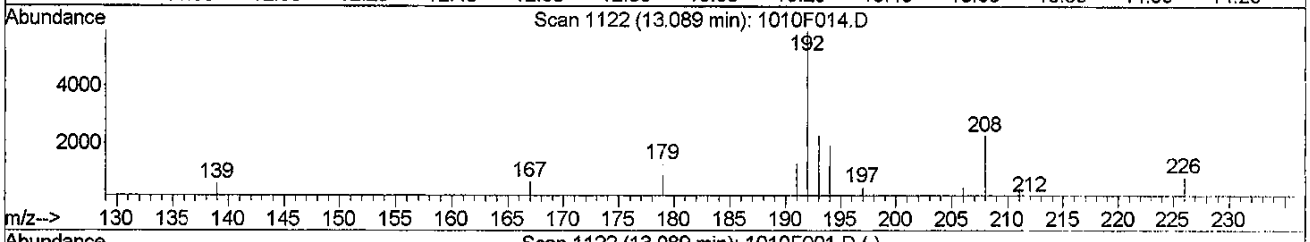
Quantitation Report (Qedit)

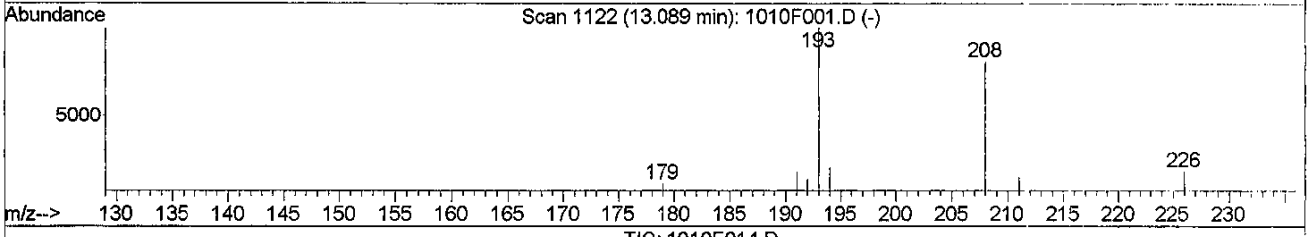
Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:50 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F014.D

(20) C3-Fluorenes (L)

13.09min 139.11ng/ml m

response 42869

Ion	Exp%	Act%
208.00	100	100
193.00	122.00	100.79
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

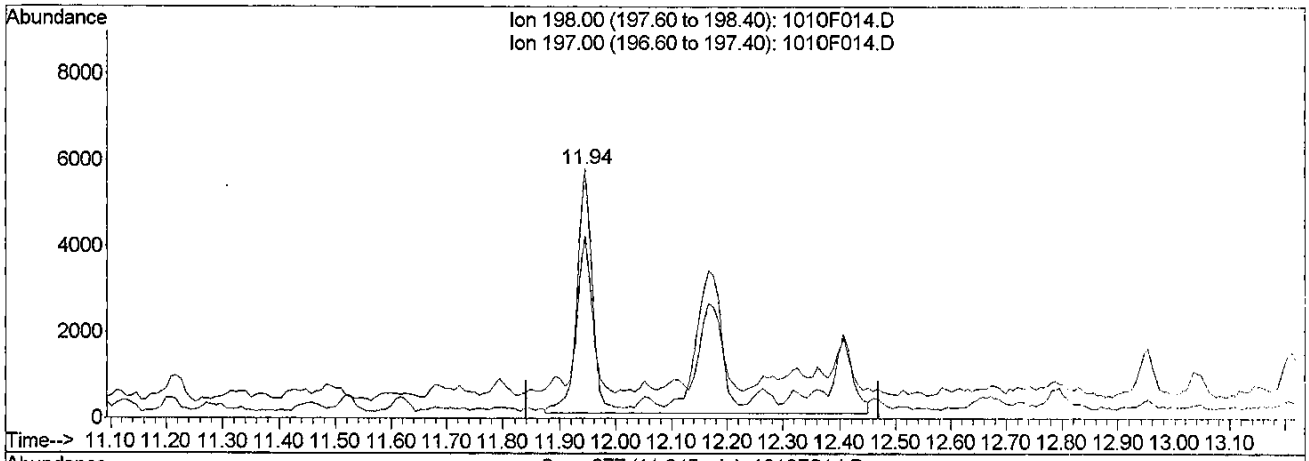
1010F014.D 080415SIMALK.M Mon Oct 12 08:50:37 2015

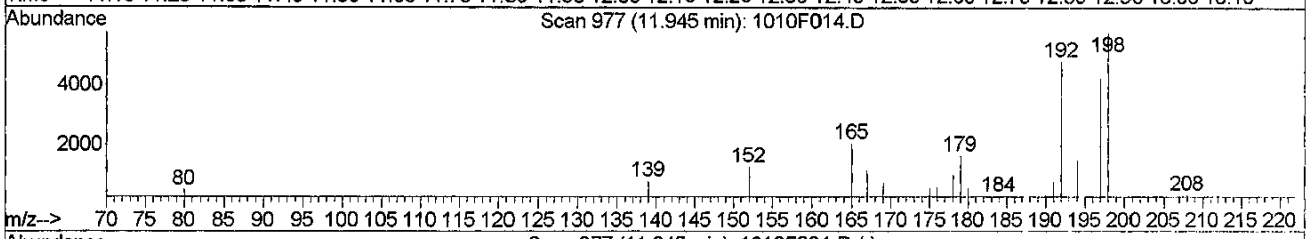
Quantitation Report (Qedit)

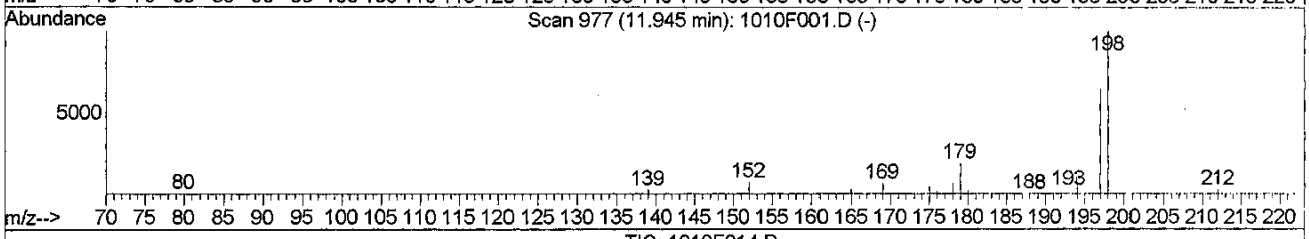
Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:50 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F014.D

(23) C1-Dibenzothiophenes (L)

11.94min 68.43ng/ml m

response 29966

Ion	Exp%	Act%
198.00	100	100
197.00	104.10	73.10#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

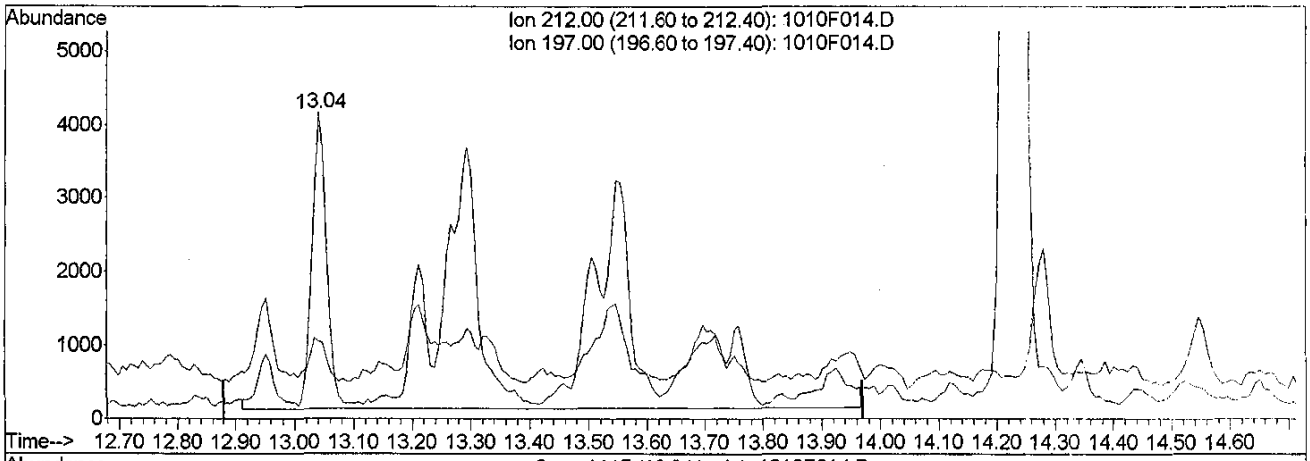
1010F014.D 080415SIMALK.M Mon Oct 12 08:50:45 2015

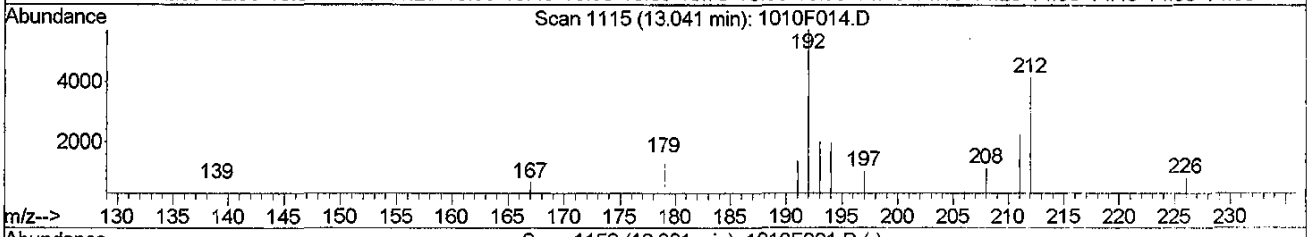
Quantitation Report (Qedit)

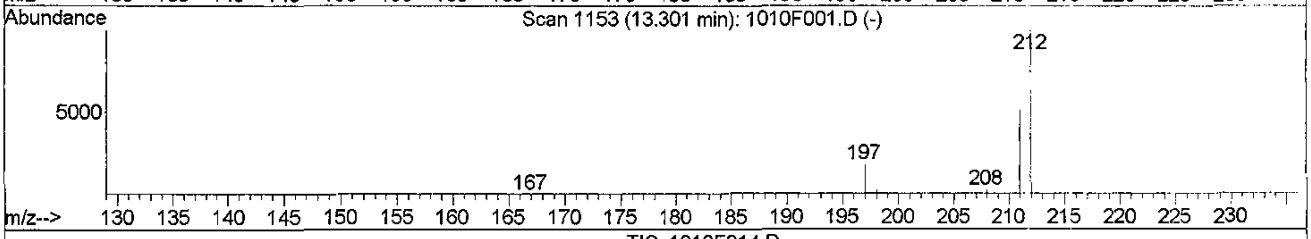
Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:50 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F014.D

(24) C2-Dibenzothiophenes (L)

13.04min 109.22ng/ml m

response 47827

Ion	Exp%	Act%
212.00	100	100
197.00	23.80	25.25
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

1010F014.D 080415SIMALK.M Mon Oct 12 08:50:53 2015

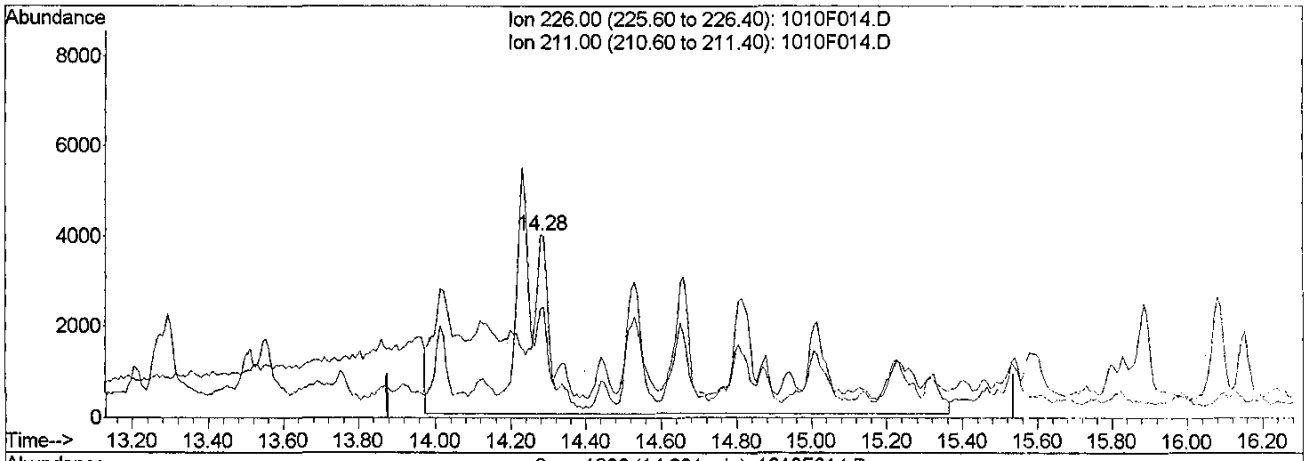
MANSON022681

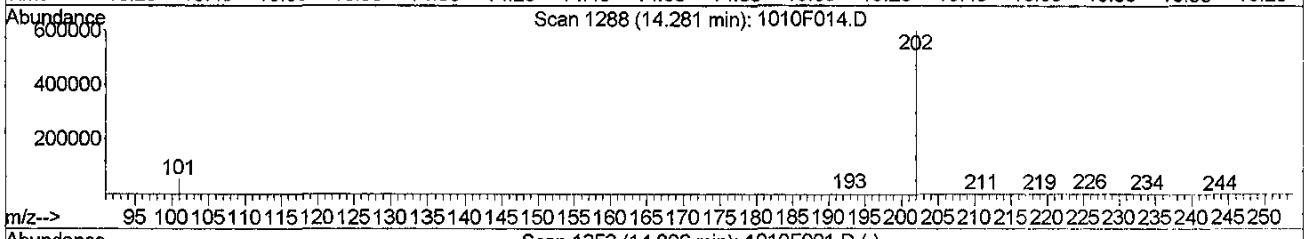
Quantitation Report (Qedit)

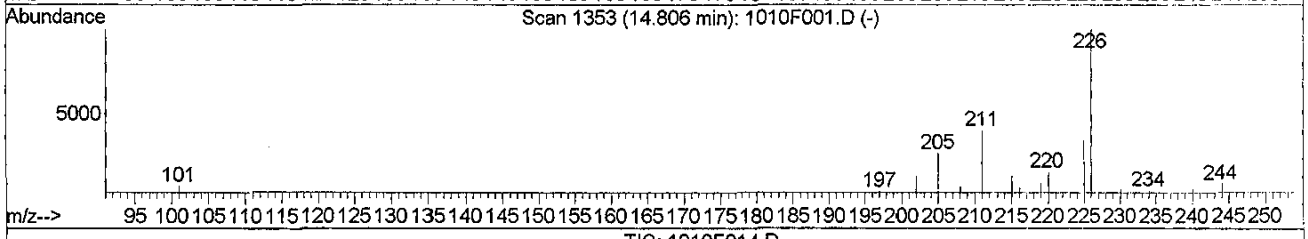
Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:50 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F014.D

(25) C3-Dibenzothiophenes (L)
14.28min 204.87ng/ml m
response 89712

Ion	Exp%	Act%
226.00	100	100
211.00	57.10	59.24
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

1010F014.D 080415SIMALK.M Mon Oct 12 08:51:09 2015

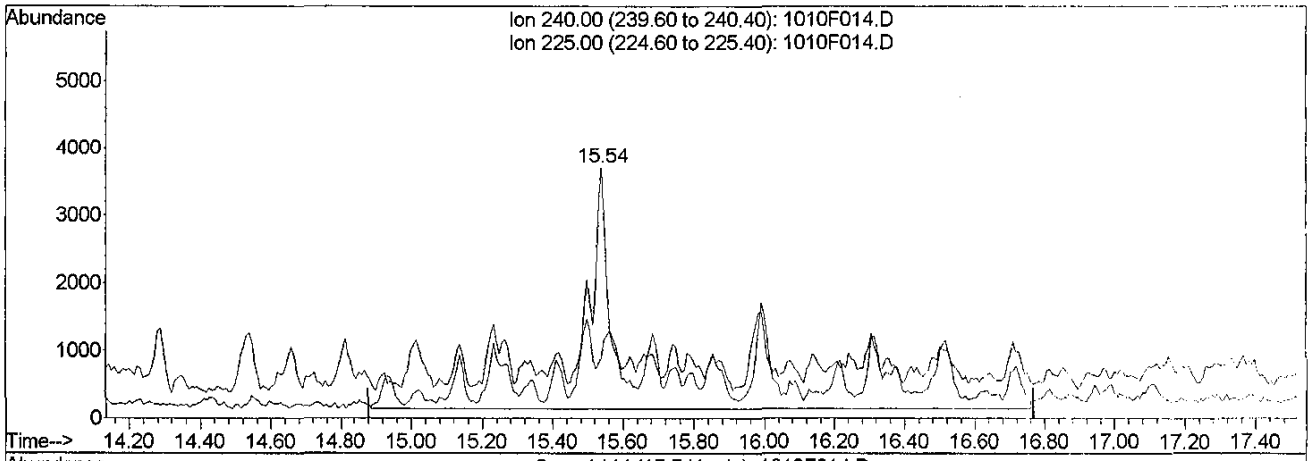
MANSON022682

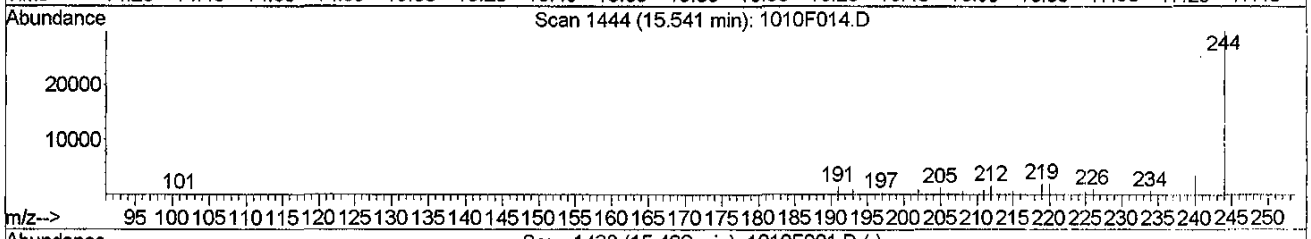
Quantitation Report (Qedit)

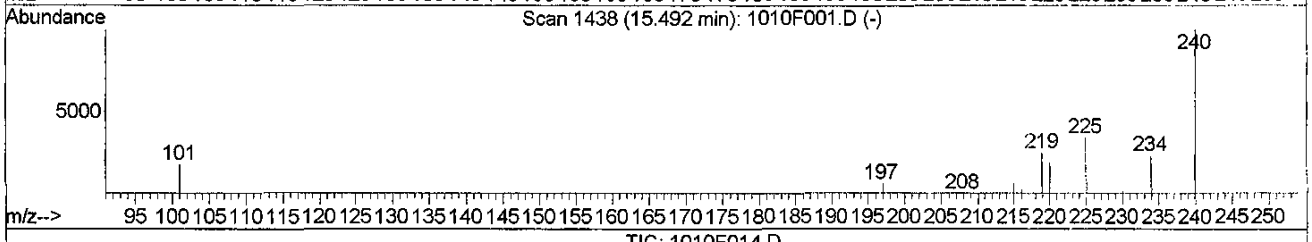
Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:50 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F014.D

(26) C4-Dibenzothiophenes (L)
15.54min 121.21ng/ml m
response 53077

Ion	Exp%	Act%
240.00	100	100
225.00	30.00	24.08
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

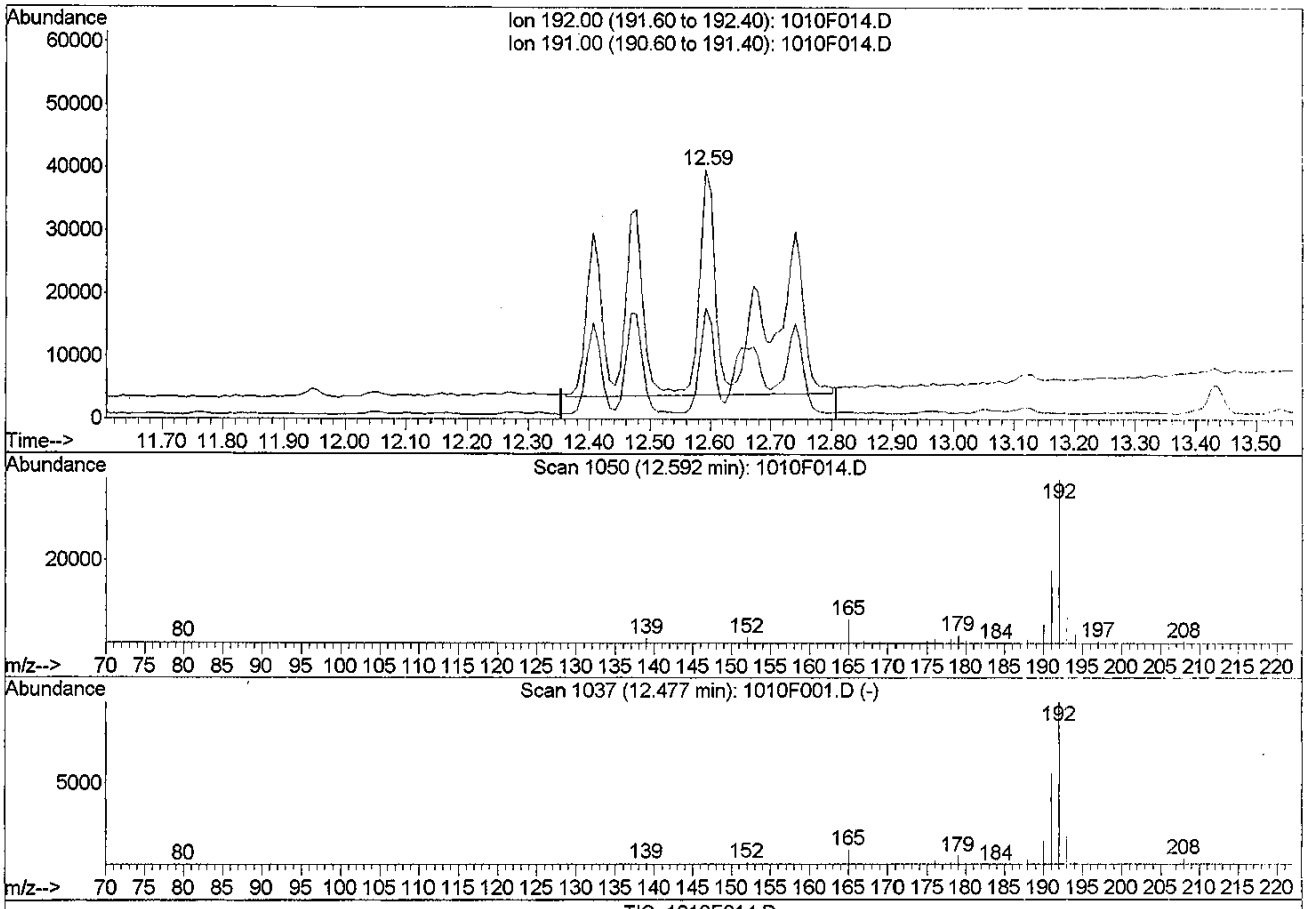
1010F014.D 080415SIMALK.M Mon Oct 12 08:51:16 2015

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:50 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration



(31) C1-Phenanthrenes/Anthracenes (L)

12.59min 572.95ng/ml m

response 258052

Ion	Exp%	Act%
192.00	100	100
191.00	55.30	44.69
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

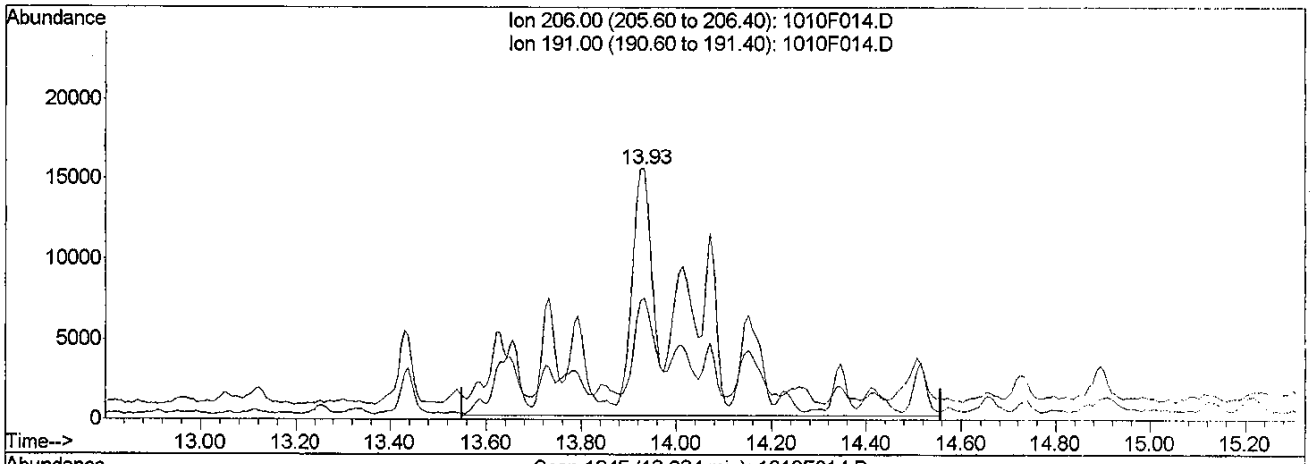
1010F014.D 080415SIMALK.M Mon Oct 12 08:51:23 2015

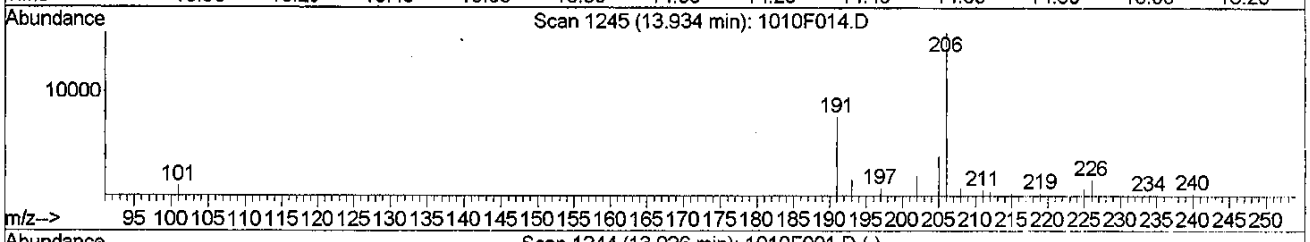
Quantitation Report (Qedit)

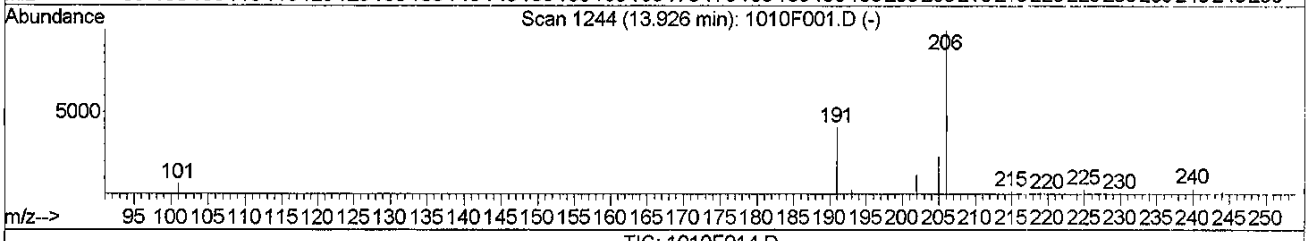
Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:50 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F014.D

(32) C2-Phenanthrenes/Anthracenes (L)

13.93min 407.13ng/ml m

response 183367

Ion	Exp%	Act%
206.00	100	100
191.00	45.60	48.35
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

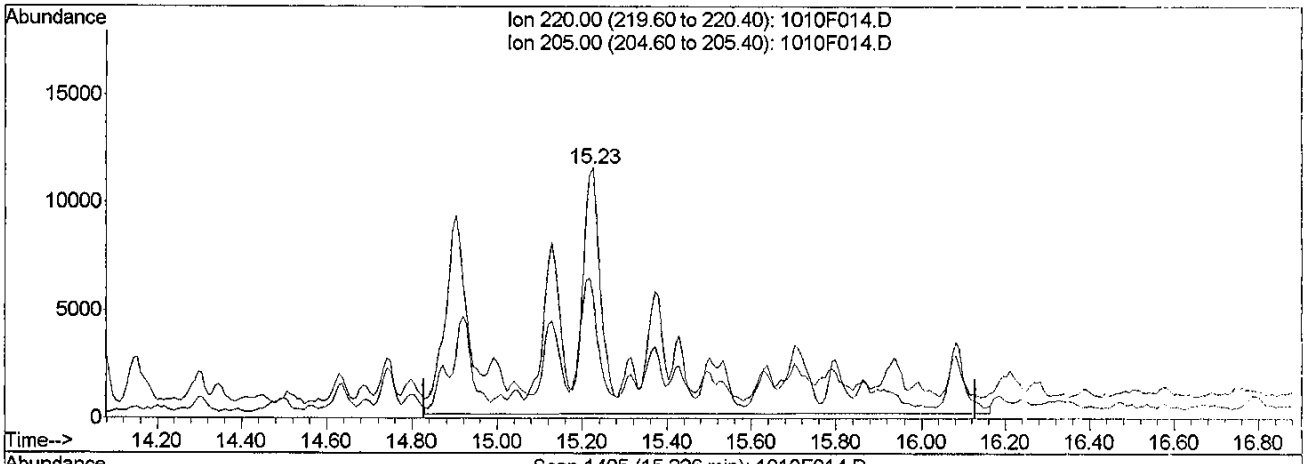
1010F014.D 080415SIMALK.M Mon Oct 12 08:51:29 2015

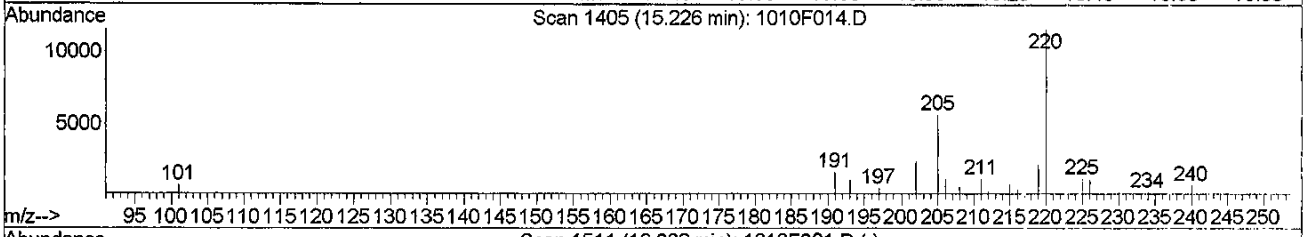
Quantitation Report (Qedit)

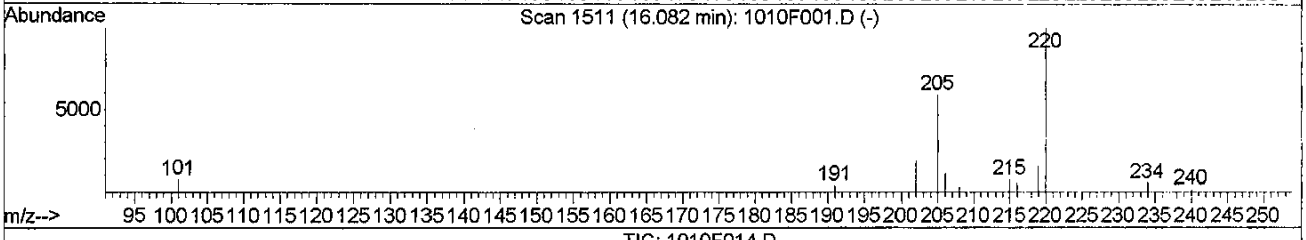
Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:51 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F014.D

(33) C3-Phenanthrenes/Anthracenes (L)

15.23min 349.49ng/ml m

response 157405

Ion	Exp%	Act%
220.00	100	100
205.00	50.00	49.22
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

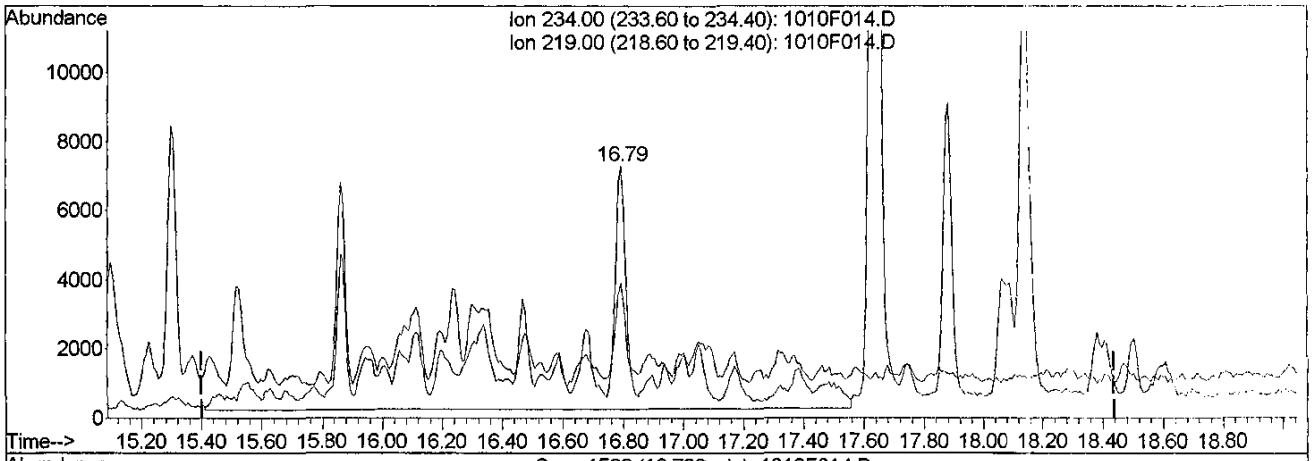
1010F014.D 080415SIMALK.M Mon Oct 12 08:51:36 2015

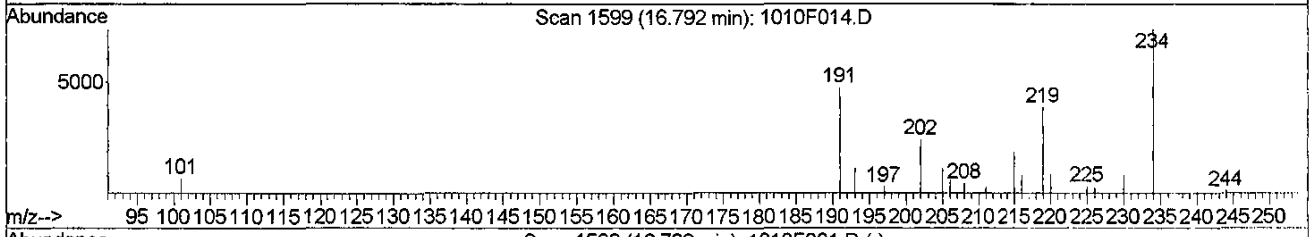
Quantitation Report (Qedit)

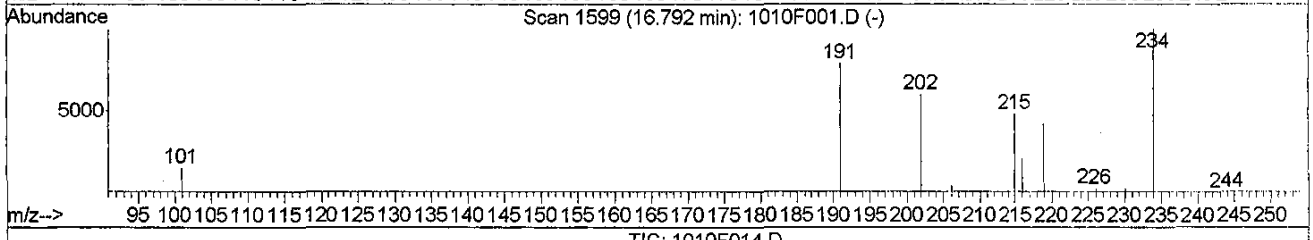
Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:51 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F014.D

(34) C4-Phenanthrenes/Anthracenes (L)

16.79min 294.24ng/ml m

response 132521

Ion	Exp%	Act%
234.00	100	100
219.00	47.70	53.82
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

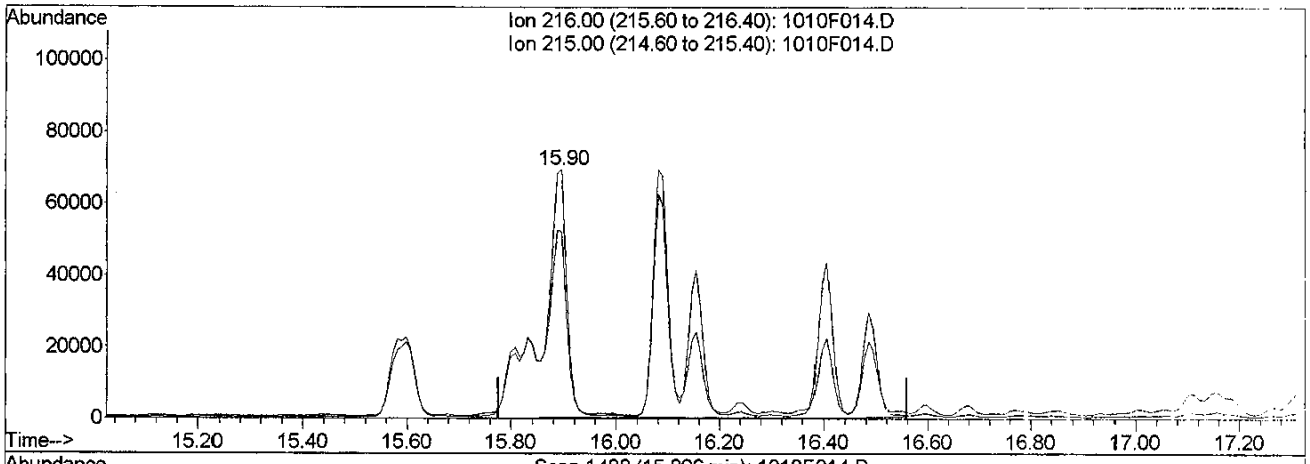
1010F014.D 080415SIMALK.M Mon Oct 12 08:51:45 2015

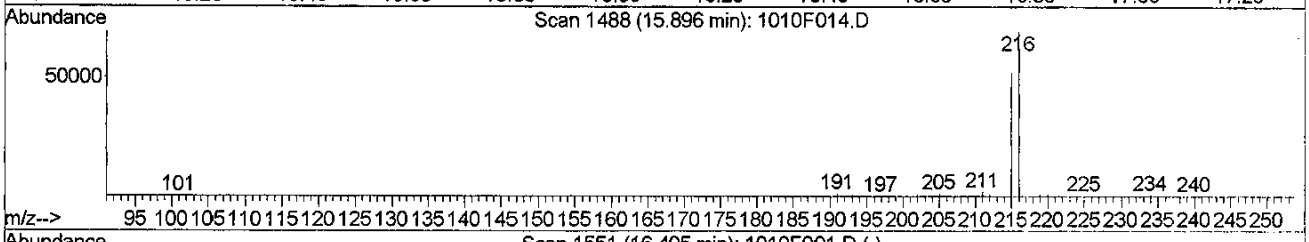
Quantitation Report (Qedit)

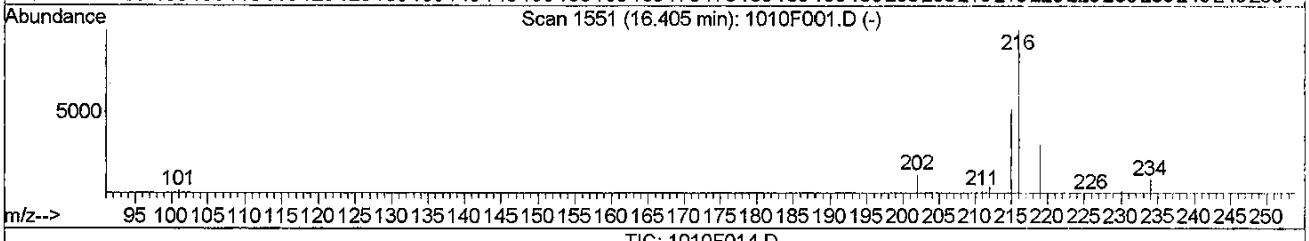
Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:51 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F014.D

(39) C1-Fluoranthenes/Pyrenes (L)

15.90min 1083.13ng/ml m

response 598831

Ion	Exp%	Act%
216.00	100	100
215.00	84.80	75.10
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

10/12/15

OCT 1 2 2015

1010F014.D 080415SIMALK.M Mon Oct 12 08:51:52 2015

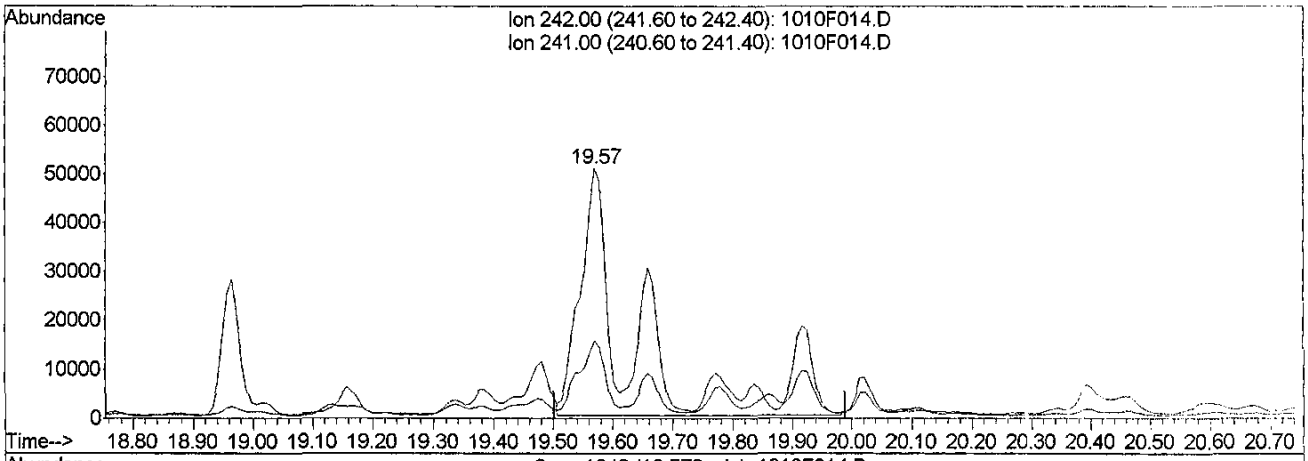
MANSON022688

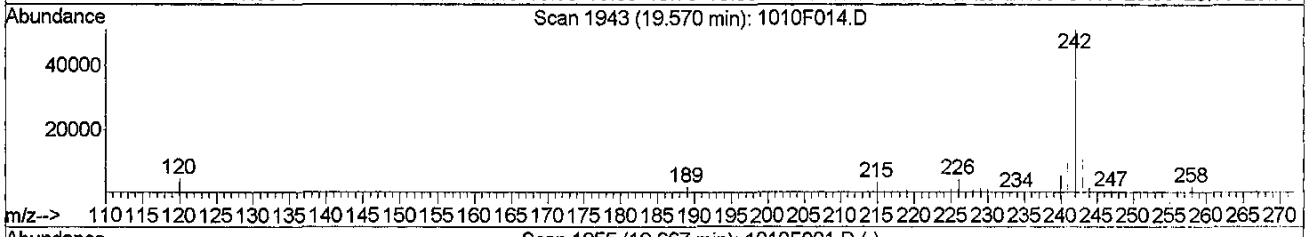
Quantitation Report (Qedit)

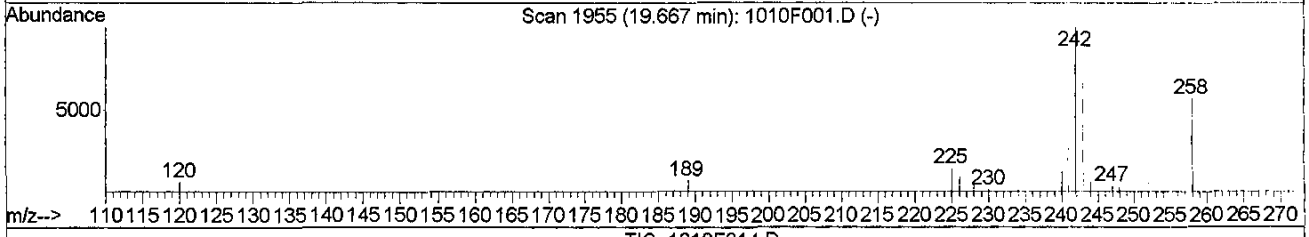
Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:51 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F014.D

(46) C1-Chrysenes (L)

19.57min 599.59ng/ml m

response 304299

Ion	Exp%	Act%
242.00	100	100
241.00	30.10	30.66
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

1010F014.D 080415SIMALK.M Mon Oct 12 08:52:30 2015

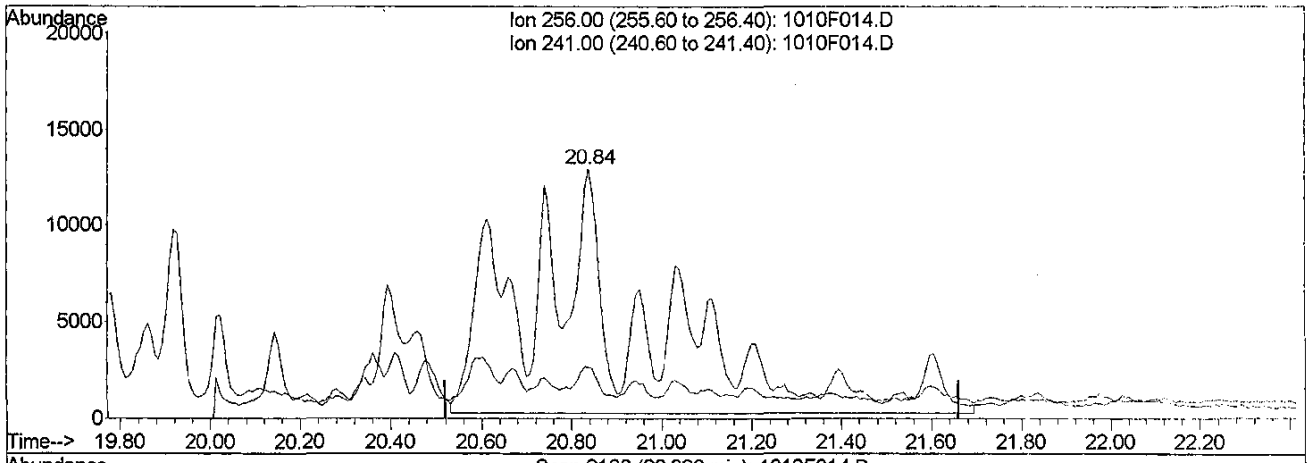
MANSON022689

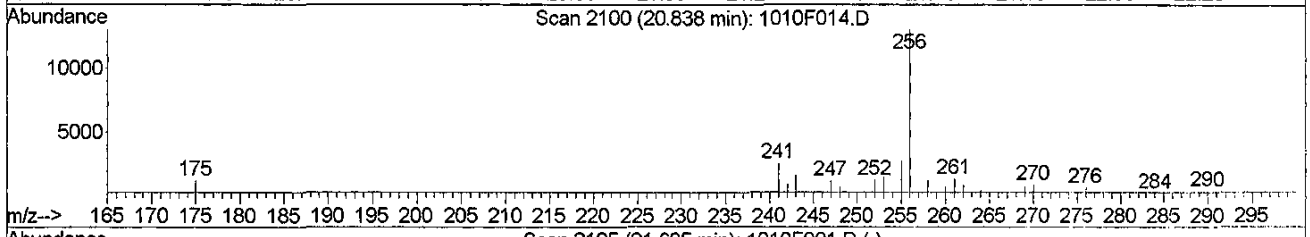
Quantitation Report (Qedit)

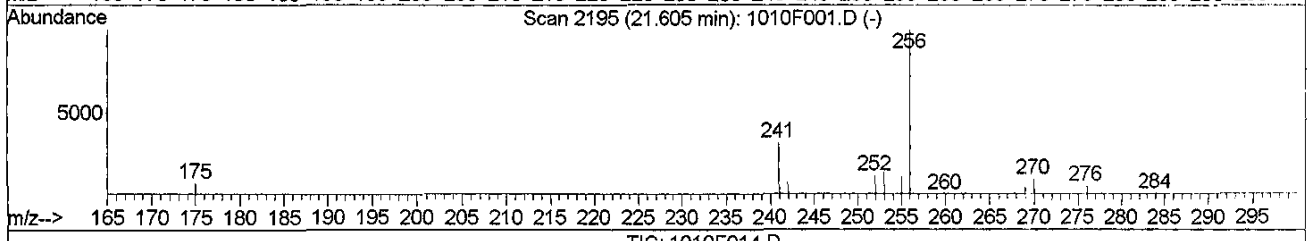
Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:52 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F014.D

(47) C2-Chrysenes (L)

20.84min 467.26ng/ml m

response 237140

Ion	Exp%	Act%
256.00	100	100
241.00	37.80	20.47
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Alkylated Range

10/12/15

OCT 1 2 2015

1010F014.D 080415SIMALK.M Mon Oct 12 08:52:37 2015

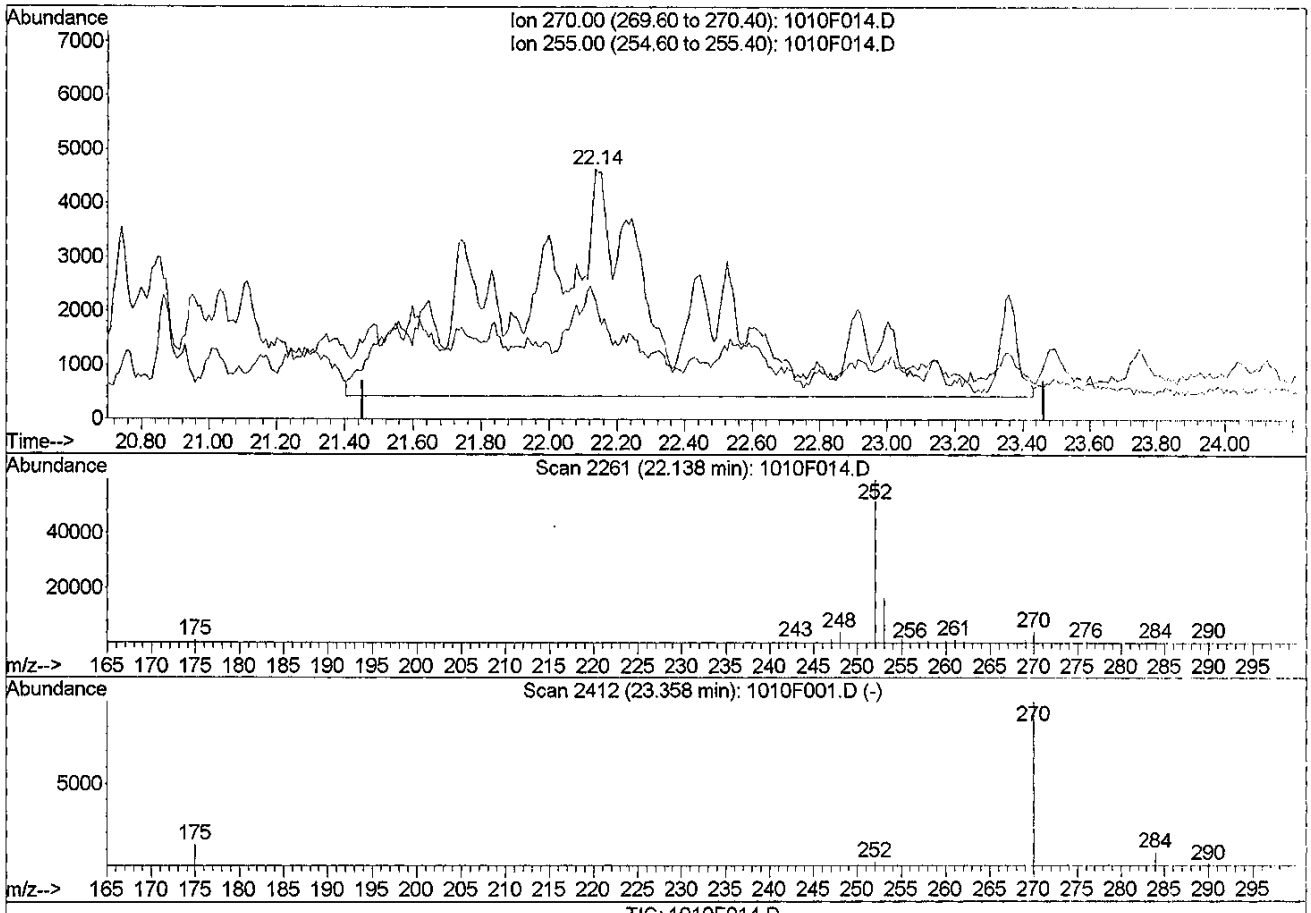
MANSON022690

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:52 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration



TIC: 1010F014.D

(48) C3-Chrysenes (L)

22.14min 308.16ng/ml m

response 156392

Ion	Exp%	Act%
270.00	100	100
255.00	26.70	47.13
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Alkylated Range

10/12/15

OCT 1 2 2015

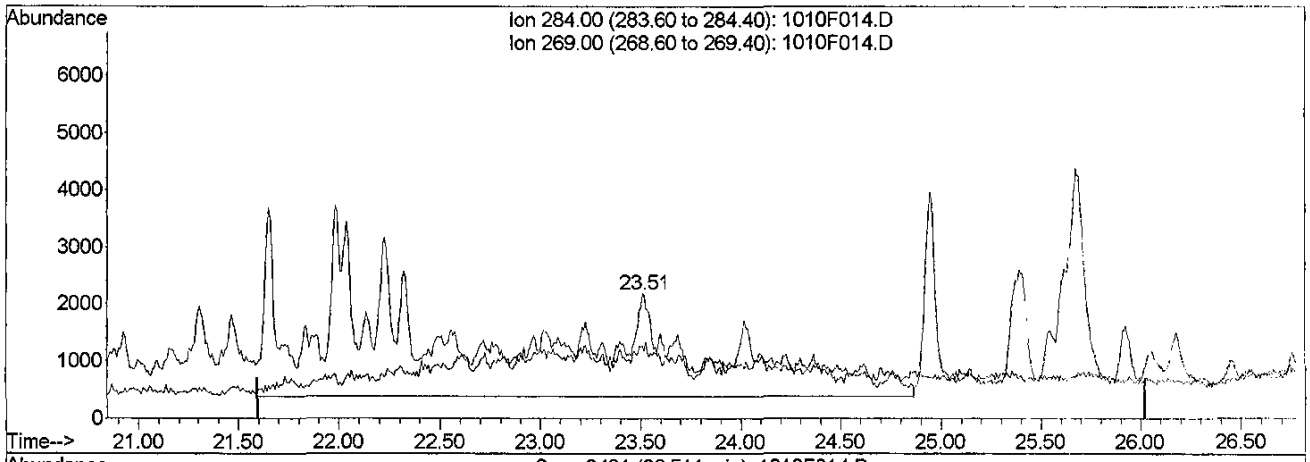
1010F014.D 080415SIMALK.M Mon Oct 12 08:52:45 2015

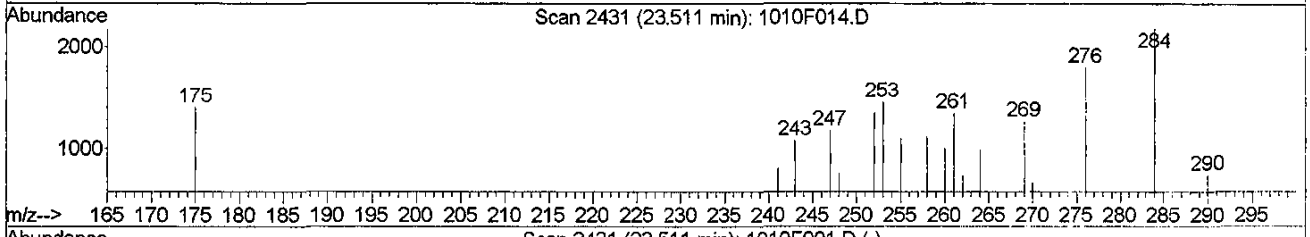
Quantitation Report (Qedit)

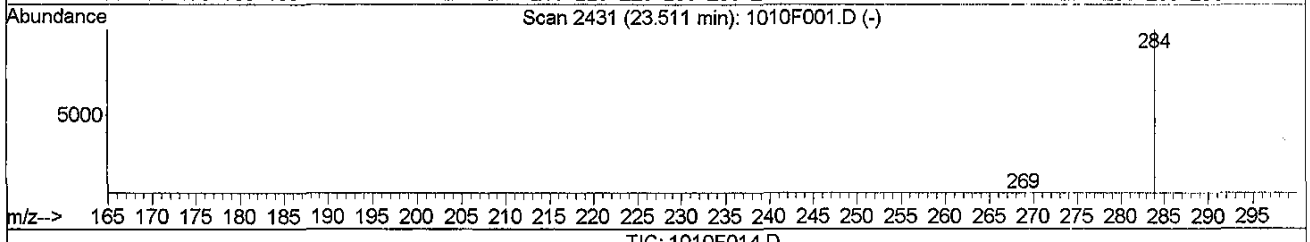
Data File : J:\MS20\DATA\101015\1010F014.D
Acq On : 10 Oct 2015 12:06 pm
Sample : K1511029-002
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:52 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F014.D

(49) C4-Chrysenes (L)

23.51min 216.13ng/ml m

response 109689

Ion	Exp%	Act%
284.00	100	100
269.00	46.20	58.30
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

1010F014.D 080415SIMALK.M Mon Oct 12 08:52:52 2015

MANSON022692

Exception Report

Data File: J:\MS20\DATA\101015\1010F007.D
Lab ID: K1511029-002
RunType: DL
Matrix: SEDIMENT

Date Acquired: 10/10/2015 07:48
Date Quantitated: 10/12/2015 08:36
Batch ID: KWG1509829
Analysis Method: 8270D SIM
ListJoinID: LJ17229

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	125	NA	14		x
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	*	NA	NA		x

MRL OK

Primary Review: OCT 1 2 2015

Secondary Review: OCT 1 2 2015

Printed: 10/12/2015 09:36:23
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS20\DATA\101015\1010F007.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 07:48	**Quant Date:**	10/12/2015 08:36	**Vial:**	5
Run Type:	DL			**Dilution:**	10.0
Lab ID:	K1511029-002			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	V	**Matrix:**	SEDIMENT
Prod Code:	8270D PAH Alk S	**Collect Date:**	06/04/2015	**Receive Date:**	06/05/2015

Analysis Lot:	KWG1509829	**Prep Lot:**	KWG1509628	**Report Group:**	K1511029
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1472849	**Prep Date:**	10/07/2015		

Quant Method:	J:\MS20\METHODS\080415SIMALK	**Calibration ID:**	CAL14220
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17229
Tune Ref:	J:\MS20\DATA\101015\1010F003.D	**Method ID:**	MJ1187
MB Ref:	J:\MS20\DATA\101015\1010F005.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.79	0.00	136	77761	200.00	OK
2	Acenaphthene-d10	8.00	0.01	164	47533	200.00	OK
3	Phenanthrene-d10	11.09	0.00	188	89038	200.00	OK
4	Chrysene-d12	18.37	0.00	240	109673	200.00	OK
5	Perylene-d12	22.50	0.00	264	112130	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
2	Fluorene-d10	8.96	0.00	0.00	176	4417	16.36	82	17-104	OK	NR
3	Fluoranthene-d10	14.22	0.00	0.00	212	8993	19.55	98	27-106	OK	NR
4	Terphenyl-d14	15.54	0.00	0.00	244	5659	13.25	66	35-109	OK	NR

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.80		0.00	128	4472	11.96	85	D	NR
1	2-Methylnaphthalene	6.53		0.00	142	4851	18.24	130	D	NR
1	1-Methylnaphthalene	6.65	0.01	0.00	142	1279	5.46	39	D	NR
1	C1-Naphthalenes				142	0		36	U	NR
1	C2-Naphthalenes				156	0		36	U	NR
1	C3-Naphthalenes				170	0		36	U	NR
1	C4-Naphthalenes				184	0		36	U	NR
2	Acenaphthylene	7.77	0.01	0.00	152	1566	3.63	26	JD	NR
2	Acenaphthene	8.05		0.00	154	4735	18.36	130	D	NR
2	Dibenzofuran	8.37		0.00	168	8795	22.30	160	D	NR
2	Fluorene	9.01		0.00	166	16773	53.50	380	D	NR
2	C1-Fluorenes				180	0		36	U	NR
2	C2-Fluorenes				194	0		36	U	NR

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS20\DATA\101015\1010F007.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 07:48	**Quant Date:**	10/12/2015 08:36	**Vial:**	5
Run Type:	DL			**Dilution:**	10.0
Lab ID:	K1511029-002			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	C3-Fluorenes				208	0		36	U	NR
3	Dibenzothiophene	10.84		0.00	184	3598m	7.96	56	D	NR
3	C1-Dibenzothiophenes				198	0		36	U	NR
3	C2-Dibenzothiophenes				212	0		36	U	NR
3	C3-Dibenzothiophenes				226	0		36	U	NR
3	C4-Dibenzothiophenes				240	0		36	U	NR
3	Phenanthrene	11.15		0.00	178	79274	170.42	1200	D	NR
3	Anthracene	11.27		0.00	178	129178	284.88	2000	D	
3	C1-Phenanthrenes/Anthracenes				192	0		36	U	NR
3	C2-Phenanthrenes/Anthracenes				206	0		36	U	NR
3	C3-Phenanthrenes/Anthracenes				220	0		36	U	NR
3	C4-Phenanthrenes/Anthracenes				234	0		36	U	NR
3	Fluoranthene	14.27		0.00	202	126614	240.05	1700	D	
4	Pyrene	14.86		0.00	202	111817	187.62	1300	D	NR
4	C1-Fluoranthenes/Pyrenes				216	0		36	U	NR
4	Benz(a)anthracene	18.35		0.00	228	50235	87.18	620	D	NR
4	Chrysene	18.44	-0.01	0.00	228	68768	125.70	890	D	NR
4	C1-Chrysenes				242	0		36	U	NR
4	C2-Chrysenes				256	0		36	U	NR
4	C3-Chrysenes				270	0		36	U	NR
4	C4-Chrysenes				284	0		36	U	NR
5	Benzo(b)fluoranthene	21.35		0.00	252	87877	147.16	1000	D	NR
5	Benzo(k)fluoranthene	21.44		0.00	252	30162	49.32	350	D	NR
5	Benzo(e)pyrene	22.15		0.00	252	44989	78.01	550	D	NR
5	Benzo(a)pyrene	22.31		0.00	252	51190	92.99	660	D	NR
5	Perylene	22.58	0.01	0.00	252	14551	26.13	180	D	NR
5	Indeno(1,2,3-cd)pyrene	26.30		0.00	276	36458	62.77	440	D	NR
5	Dibenz(a,h)anthracene	26.48		0.00	278	9099	15.74	110	D	NR
5	Benzo(g,h,i)perylene	27.07		0.00	276	36826	59.68	420	D	NR

Prep Amount:	18.465 g	**Dilution:**	10.0
Prep Final Vol:	10 ml	**Unit Factor:**	1
Solids:	76.6 %		

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F007.D Vial: 5
Acq On : 10 Oct 2015 7:48 am Operator: LWeiskopf
Sample : K1511029-002DIL 10X Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 08:27:46 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.79	136	77761	200.00 ng/ml	0.00
11) Acenaphthene-d10	8.00	164	47533	200.00 ng/ml	-0.02
21) Phenanthrene-d10	11.09	188	89038	200.00 ng/ml	-0.02
37) Chrysene-d12	18.37	240	109673	200.00 ng/ml	-0.03
50) Perylene-d12	22.50	264	112130	200.00 ng/ml	-0.03
System Monitoring Compounds					
16) Fluorene-d10	8.96	176	4417	16.36 ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	1.64%	
36) Fluoranthene-d10	14.22	212	8993	19.55 ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	1.96%	
43) Terphenyl-d14	15.54	244	5659	13.25 ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	1.33%	
Target Compounds					Qvalue
2) Naphthalene	5.80	128	4472	11.96 ng/ml	98
3) 2-Methylnaphthalene	6.53	142	4851	18.24 ng/ml	95
4) 1-Methylnaphthalene	6.65	142	1279	5.46 ng/ml	92
5) Biphenyl	7.13	154	1372	4.27 ng/ml	92
6) 2,6-Dimethylnaphthalene	7.36	156	1201	5.14 ng/ml	100
12) Acenaphthylene	7.77	152	1566	3.63 ng/ml	93
13) Acenaphthene	8.05	154	4735	18.36 ng/ml	97
14) Dibenzofuran	8.37	168	8795	22.30 ng/ml	98
15) 2,3,5-Trimethylnaphthalene	8.74	170	1424m	5.63 ng/ml	
17) Fluorene	9.01	166	16773	53.50 ng/ml	100
22) Dibenzothiophene	10.84	184	3598m	7.96 ng/ml	
27) Phenanthrene	11.15	178	79274	170.42 ng/ml	98
28) Anthracene	11.27	178	129178	284.88 ng/ml	100
29) Carbazole	11.75	167	30890	75.76 ng/ml	99
30) 1-Methylphenanthrene	12.74	192	4823m	13.55 ng/ml	
35) Fluoranthene	14.27	202	126614	240.05 ng/ml	95
38) Pyrene	14.86	202	111817	187.62 ng/ml	93
44) Benz(a)anthracene	18.35	228	50235	87.18 ng/ml	100
45) Chrysene	18.44	228	68768	125.70 ng/ml	99
51) Benzo(b)fluoranthene	21.35	252	87877	147.16 ng/ml	98
52) Benzo(k)fluoranthene	21.44	252	30162	49.32 ng/ml	97
53) Benzo(e)pyrene	22.15	252	44989	78.01 ng/ml	100
54) Benzo(a)pyrene	22.31	252	51190	92.99 ng/ml	98
55) Perylene	22.58	252	14551	26.13 ng/ml	92
56) Indeno(1,2,3-cd)pyrene	26.30	276	36458	62.77 ng/ml	99
57) Dibenz(a,h)anthracene	26.48	278	9099	15.74 ng/ml	97
58) Benzo(g,h,i)perylene	27.07	276	36826	59.68 ng/ml	99

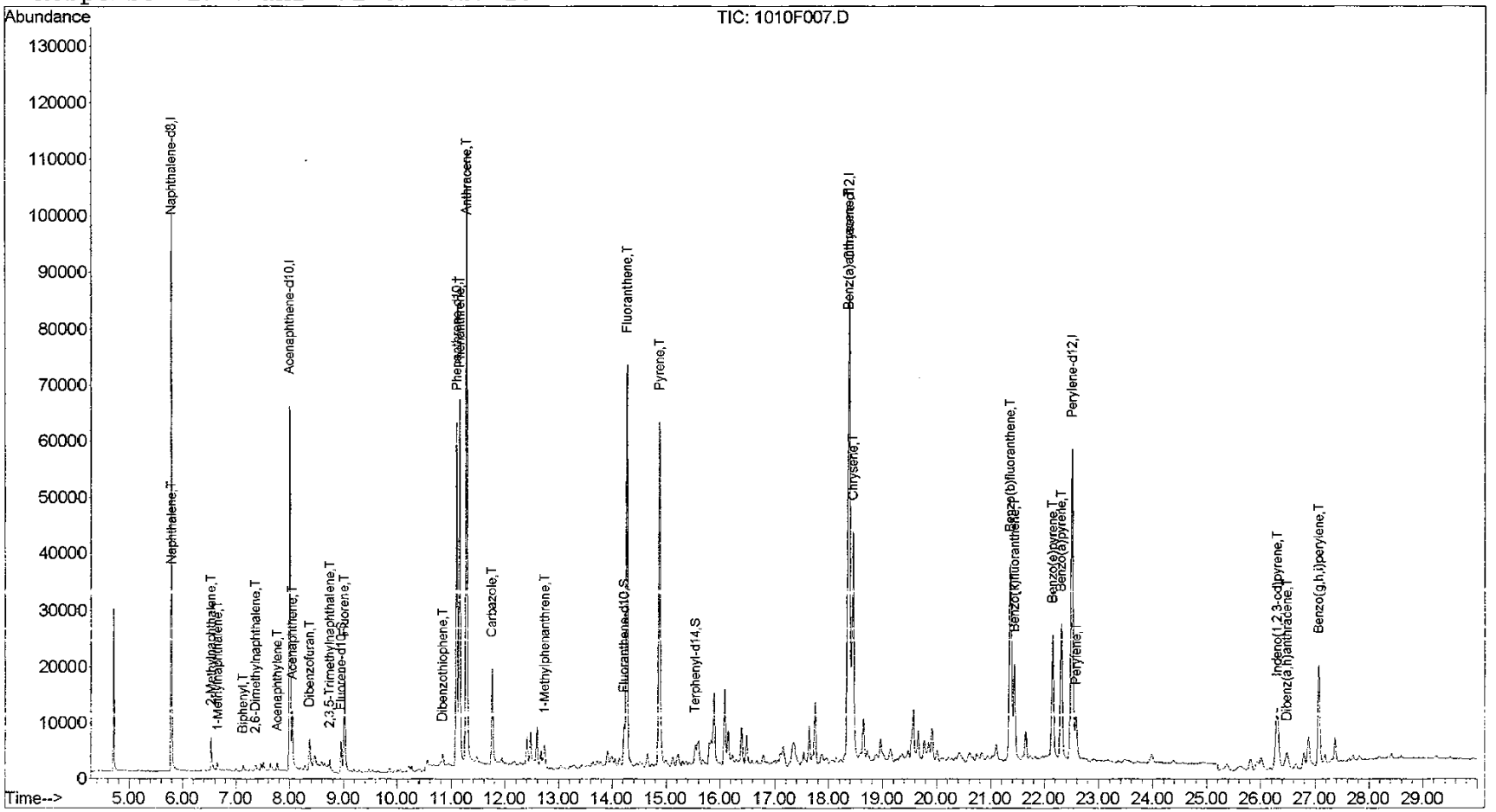
(#) = qualifier out of range (m) = manual integration

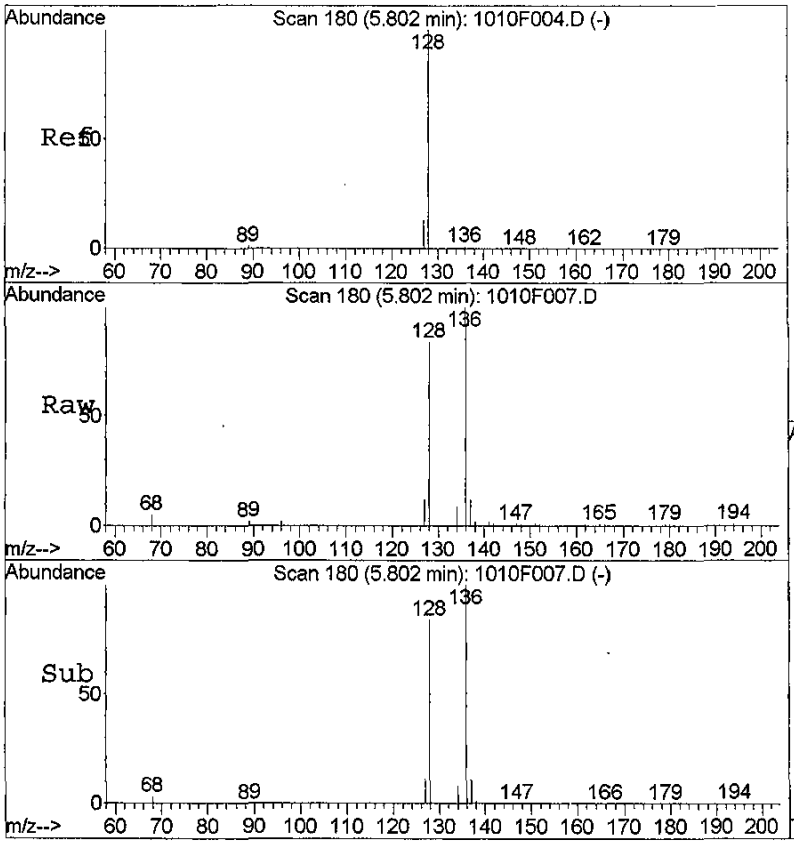
Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F007.D
Acq On : 10 Oct 2015 7:48 am
Sample : K1511029-002DIL 10X
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:36 2015

Vial: 5
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration

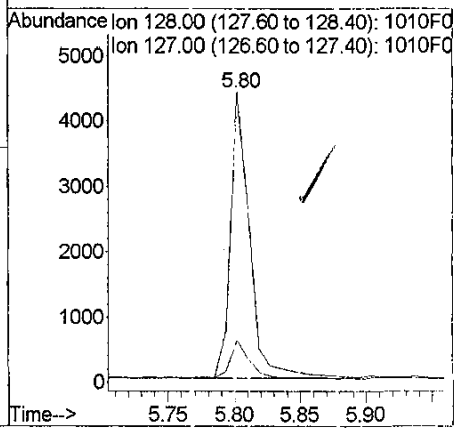


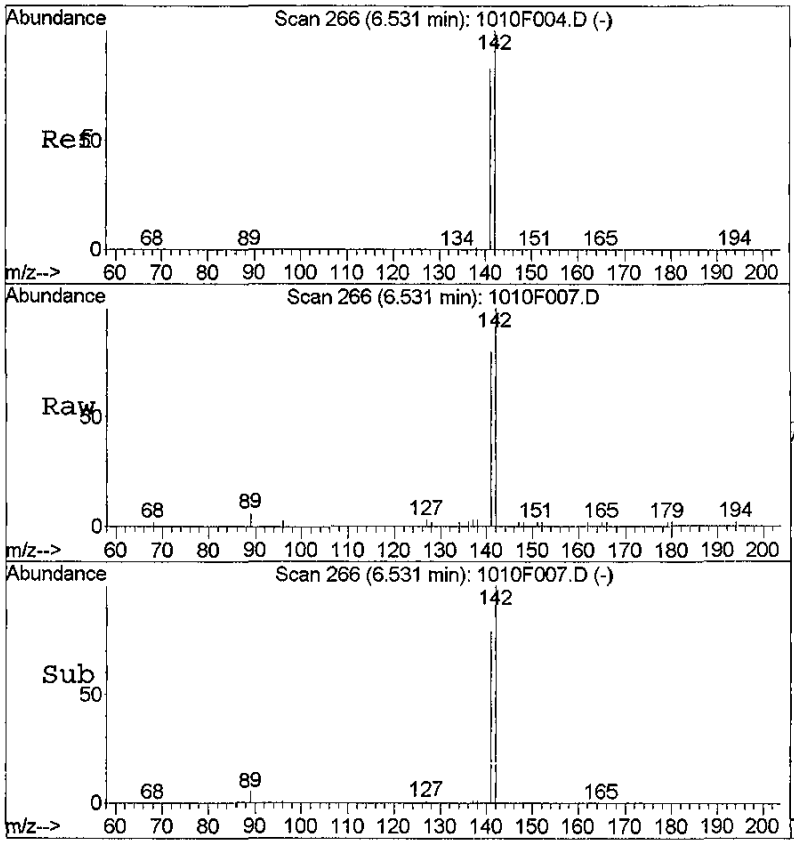


#2
Naphthalene
Concen: 11.96 ng/ml
RT: 5.80 min Scan# 180
Delta R.T. -0.02 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:128 Resp: 4472

Ion	Ratio	Lower	Upper
128	100		
127	13.5	0.0	42.7

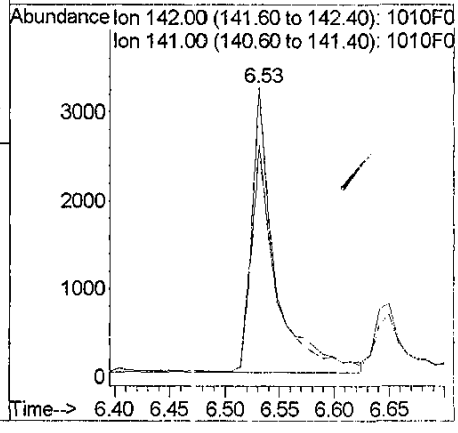


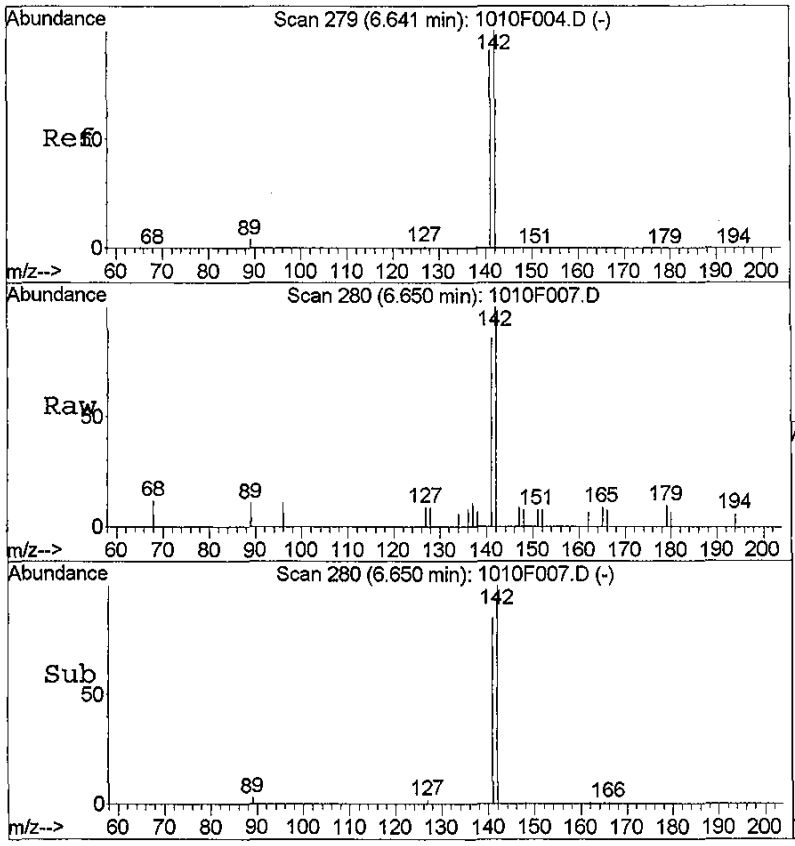


#3
2-Methylnaphthalene
Concen: 18.24 ng/ml
RT: 6.53 min Scan# 266
Delta R.T. -0.01 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:142 Resp: 4851

Ion	Ratio	Lower	Upper
142	100		
141	79.5	54.2	114.2

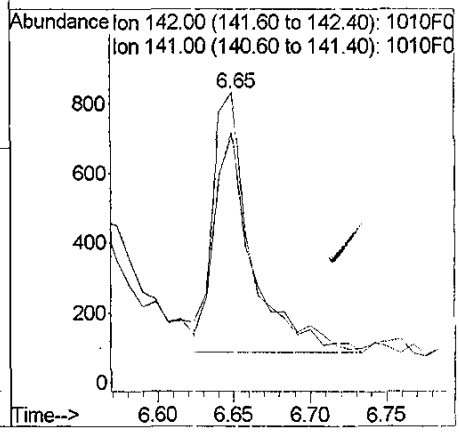


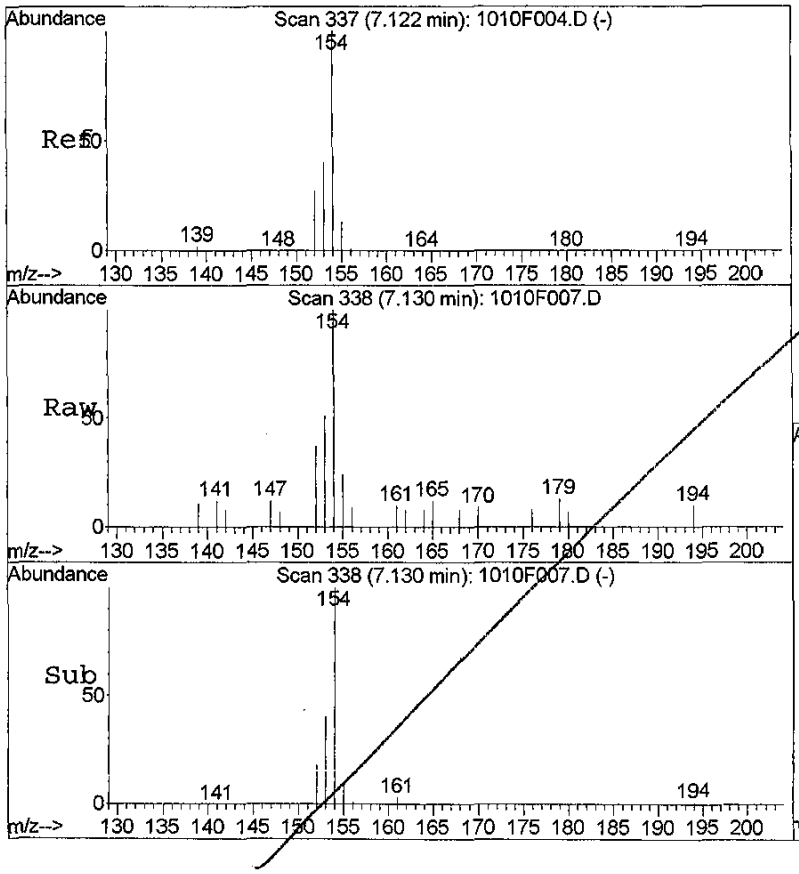


#4
1-Methylnaphthalene
Concen: 5.46 ng/ml
RT: 6.65 min Scan# 280
Delta R.T. -0.01 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:142 Resp: 1279

Ion	Ratio	Lower	Upper
142	100		
141	82.7	60.2	120.2



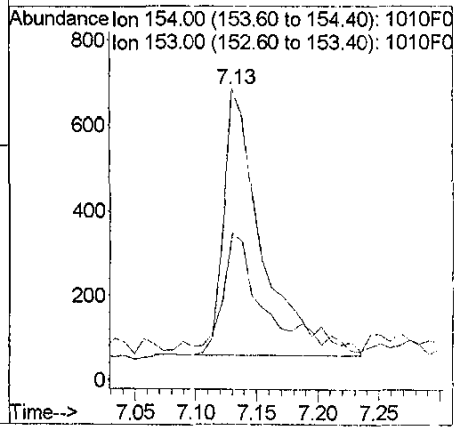


#5
Biphenyl
Concen: 4.27 ng/ml
RT: 7.13 min Scan# 338
Delta R.T. -0.01 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

NT

Tgt Ion:154 Resp: 1372

Ion	Ratio	Lower	Upper
154	100		
153	44.8	10.0	70.0



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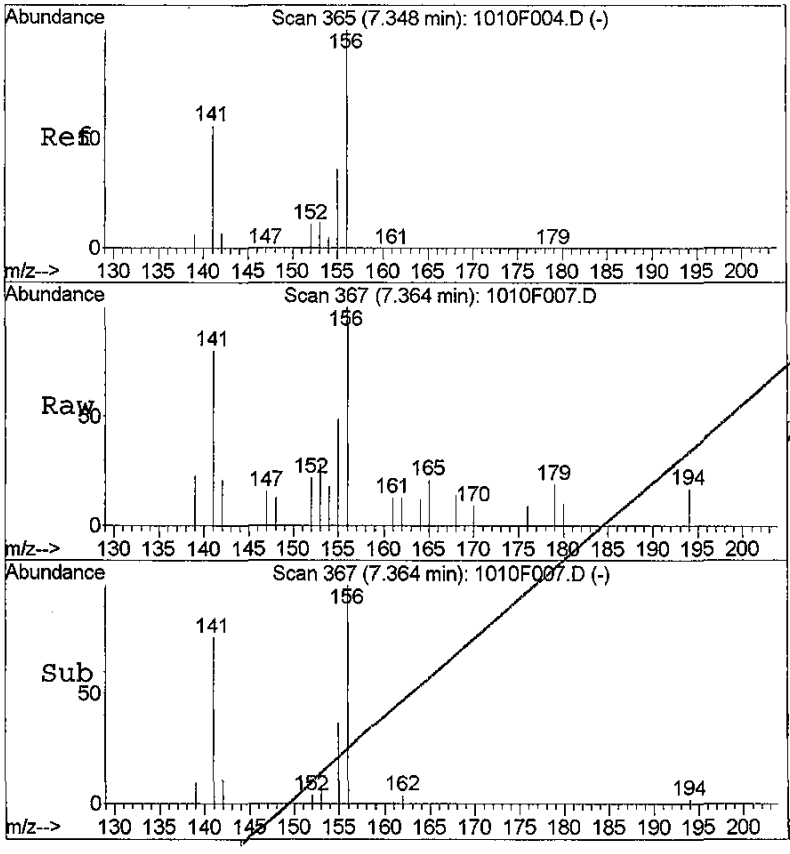
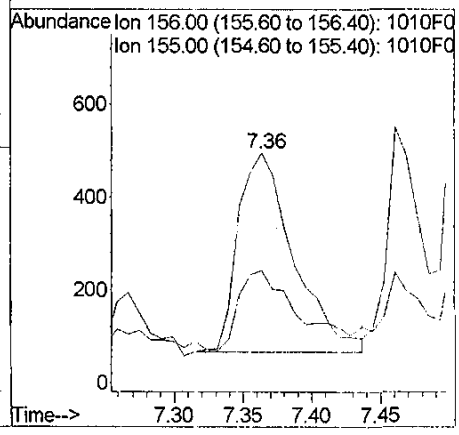
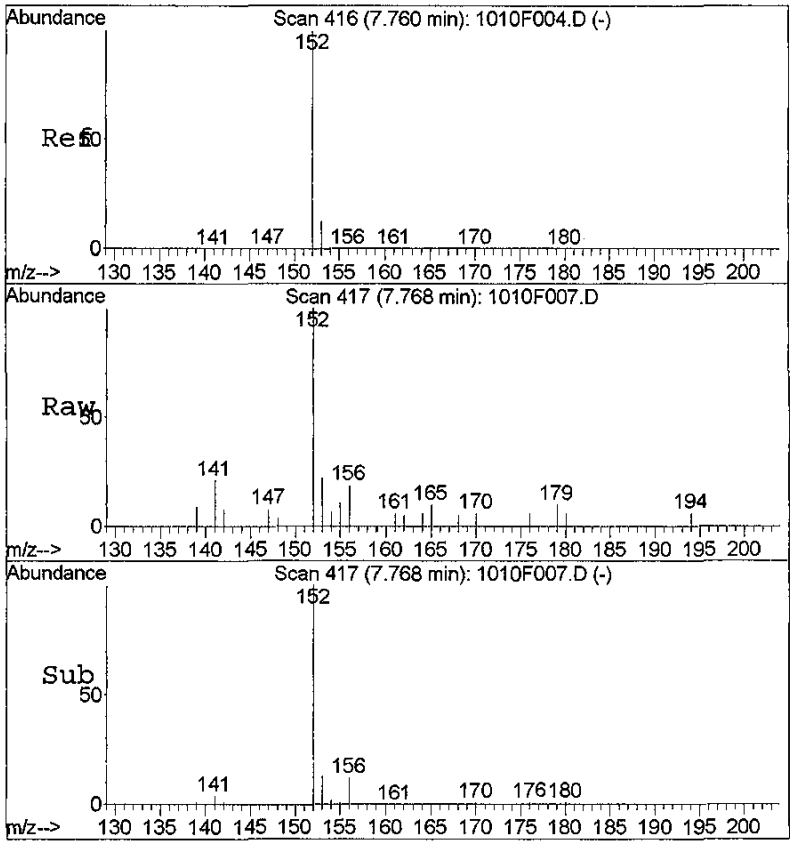


#6
2,6-Dimethylnaphthalene
Concen: 5.14 ng/ml
RT: 7.36 min Scan# 367
Delta R.T. -0.00 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:156 Resp: 1201

Ion	Ratio	Lower	Upper
156	100		
155	35.2	5.4	65.4

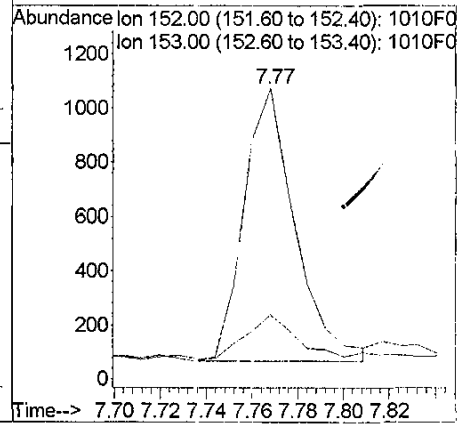


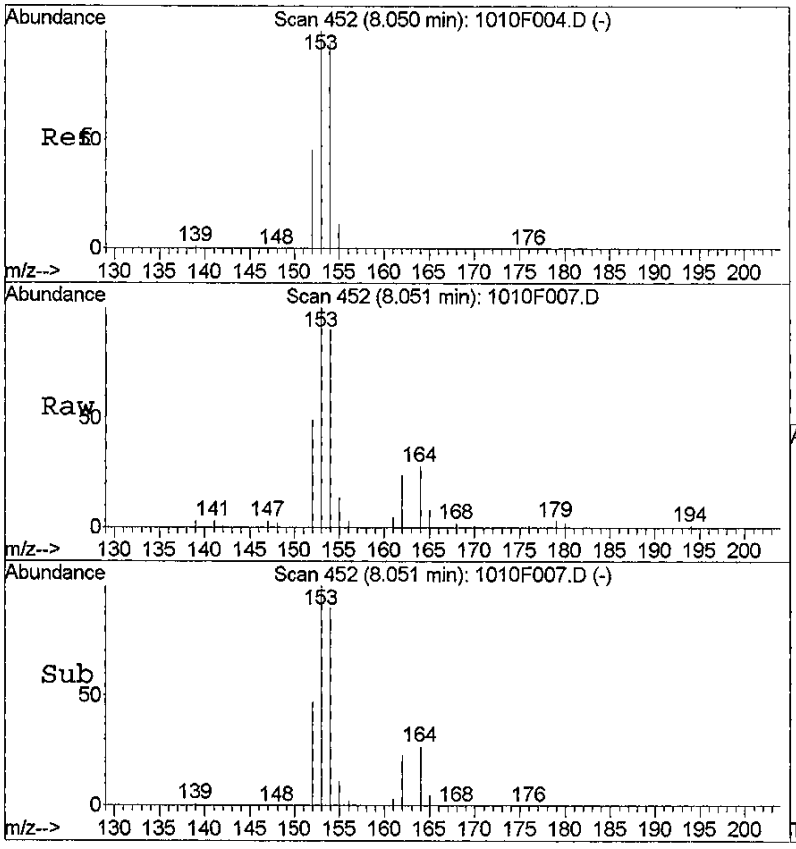


#12
Acenaphthylene
Concen: 3.63 ng/ml
RT: 7.77 min Scan# 417
Delta R.T. -0.01 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:152 Resp: 1566

Ion	Ratio	Lower	Upper
152	100		
153	16.1	0.0	43.2

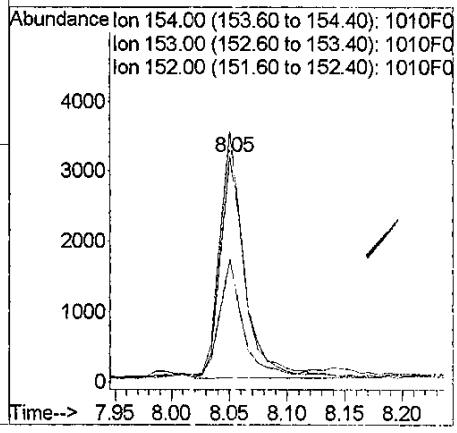


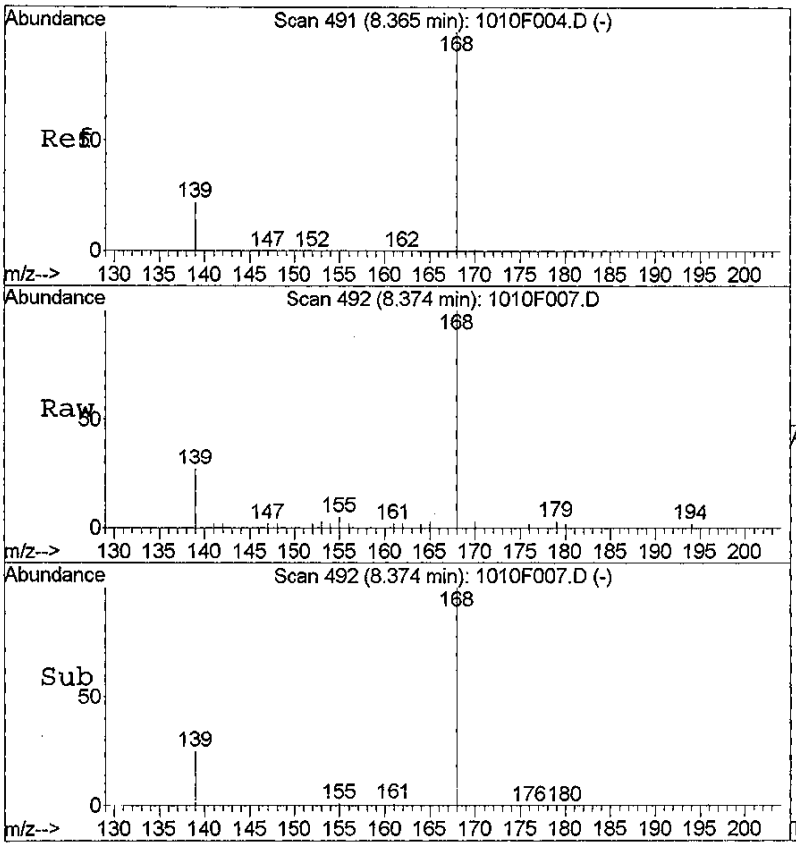


#13
Acenaphthene
Concen: 18.36 ng/ml
RT: 8.05 min Scan# 452
Delta R.T. -0.02 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:154 Resp: 4735

Ion	Ratio	Lower	Upper
154	100		
153	110.0	77.2	137.2
152	52.9	20.0	80.0

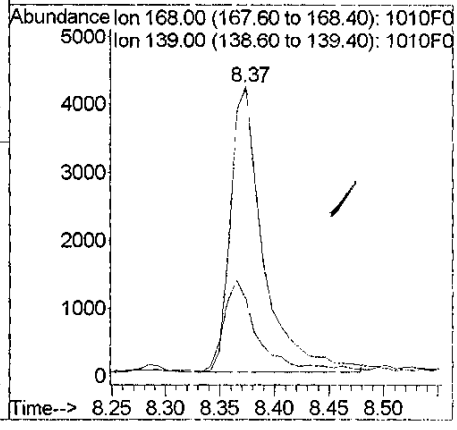




#14
Dibenzofuran
Concen: 22.30 ng/ml
RT: 8.37 min Scan# 492
Delta R.T. -0.01 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:168 Resp: 8795

Ion	Ratio	Lower	Upper
168	100		
139	25.0	0.0	54.0



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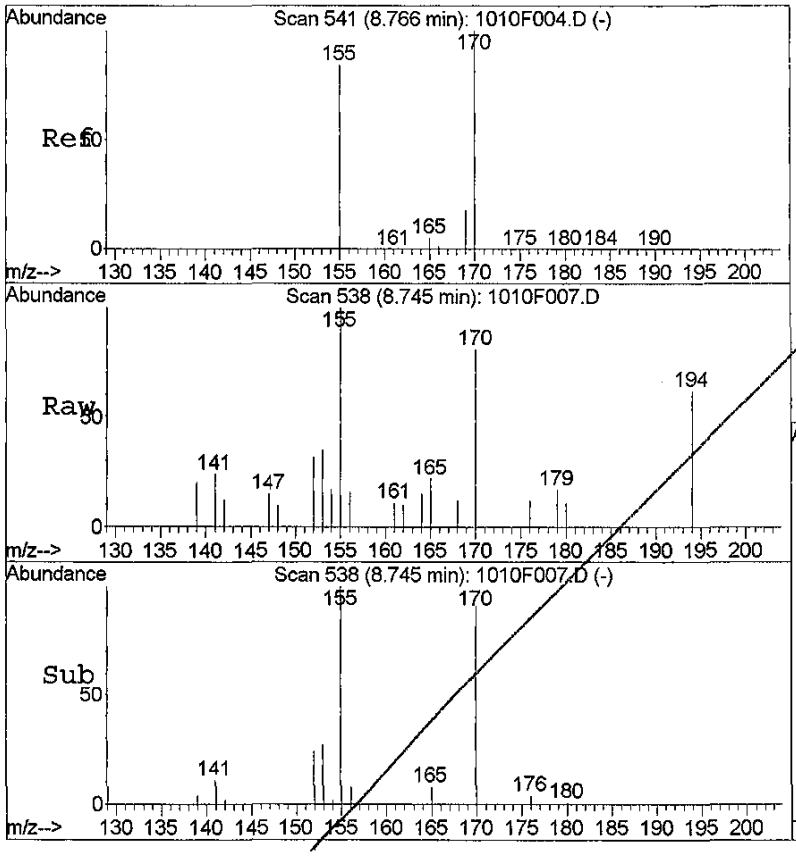
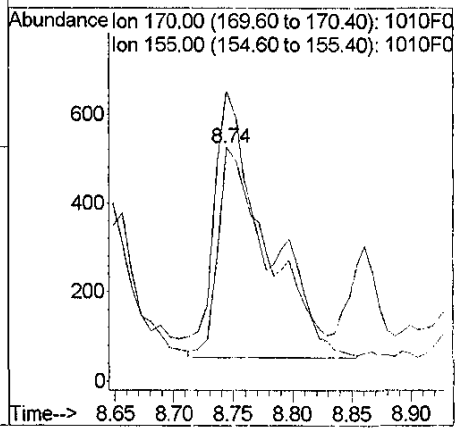
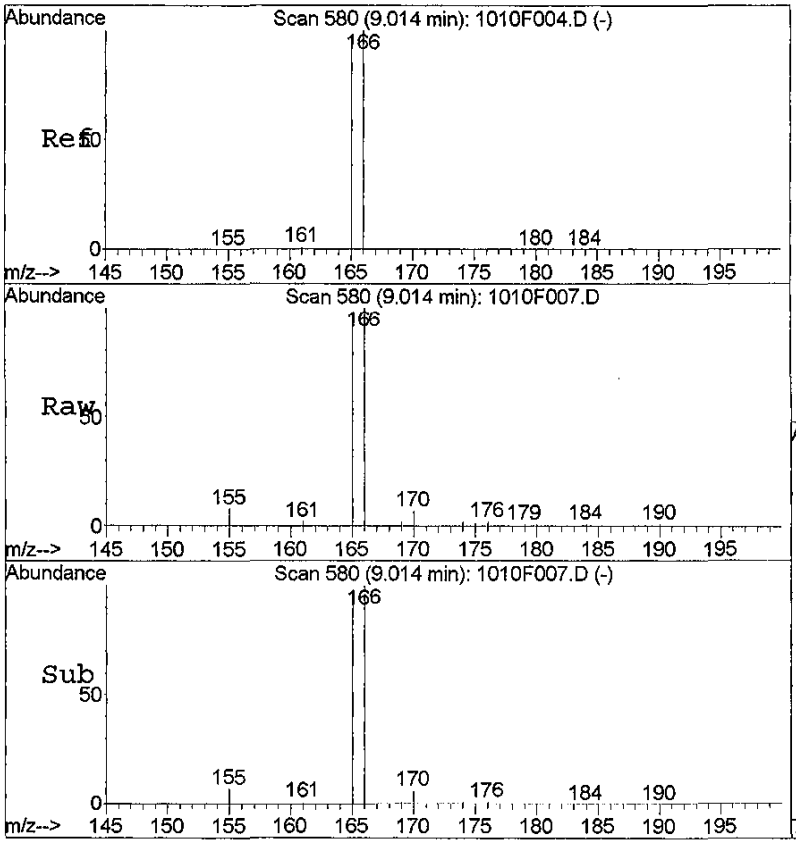


#15
2,3,5-Trimethylnaphthalene
Concen: 5.63 ng/ml m
RT: 8.74 min Scan# 538
Delta R.T. -0.04 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:170 Resp: 1424

Ion	Ratio	Lower	Upper
170	100		
155	123.8	44.9	104.9#

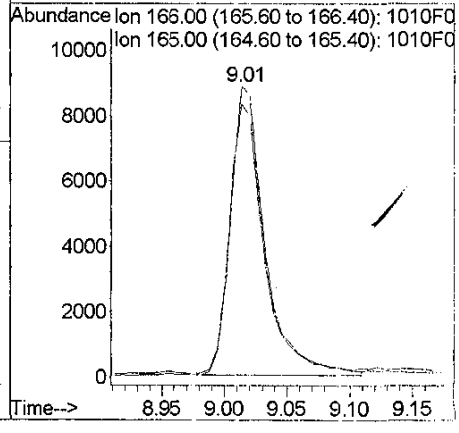


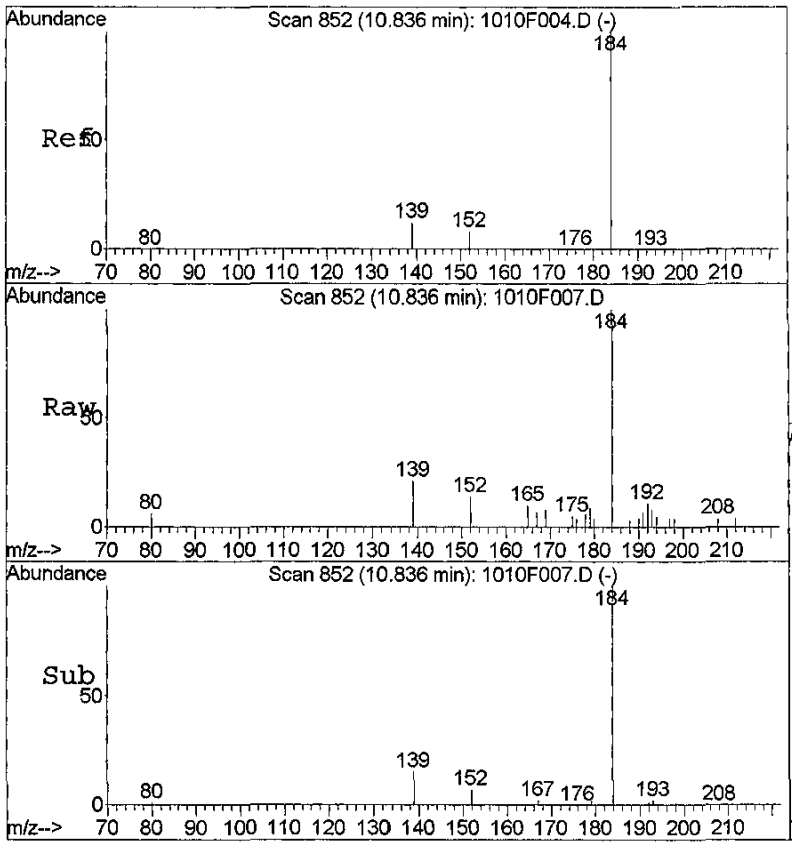


#17
Fluorene
Concen: 53.50 ng/ml
RT: 9.01 min Scan# 580
Delta R.T. -0.02 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:166 Resp: 16773

Ion	Ratio	Lower	Upper
166	100		
165	93.3	63.0	123.0

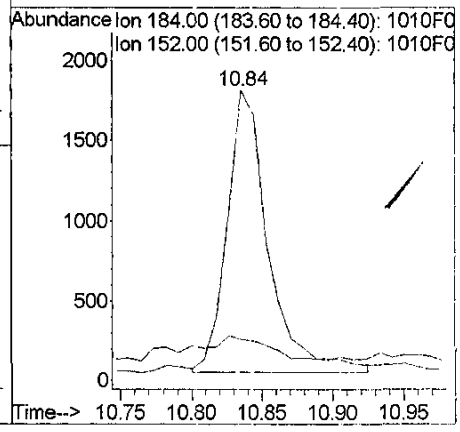


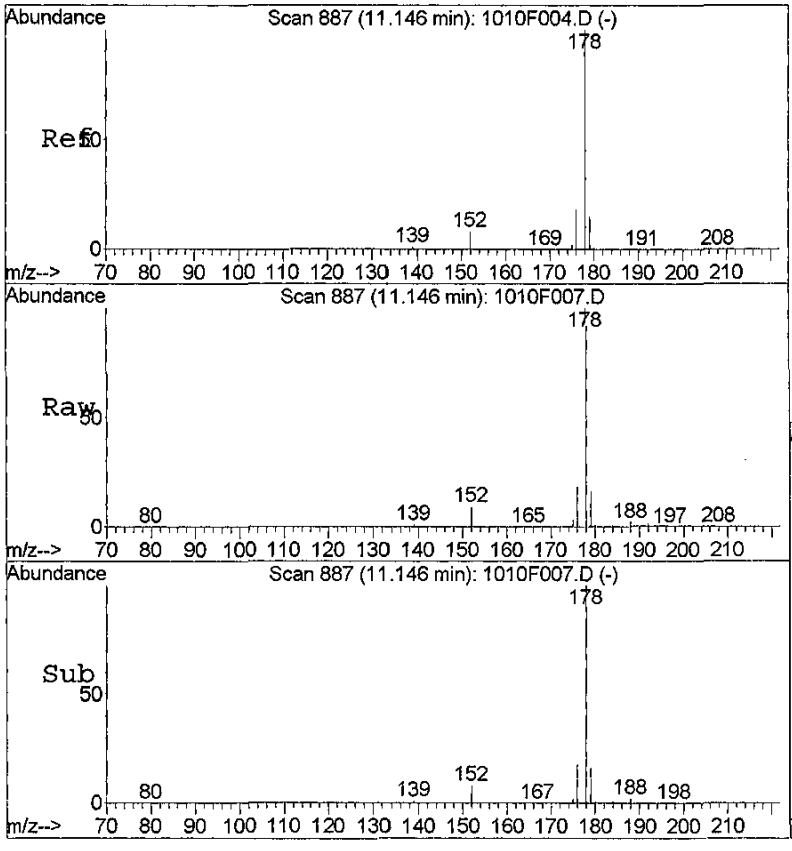


#22
Dibenzothiophene
Concen: 7.96 ng/ml m
RT: 10.84 min Scan# 852
Delta R.T. -0.03 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:184 Resp: 3598

Ion	Ratio	Lower	Upper
184	100		
152	14.3	0.0	37.7

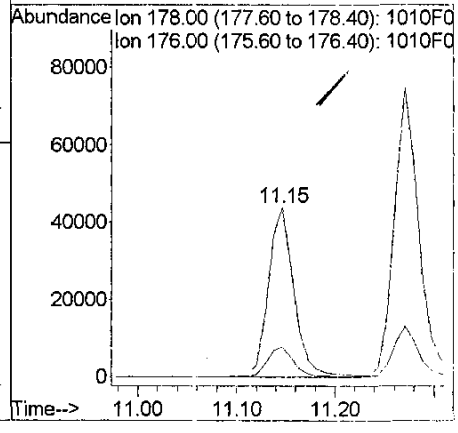


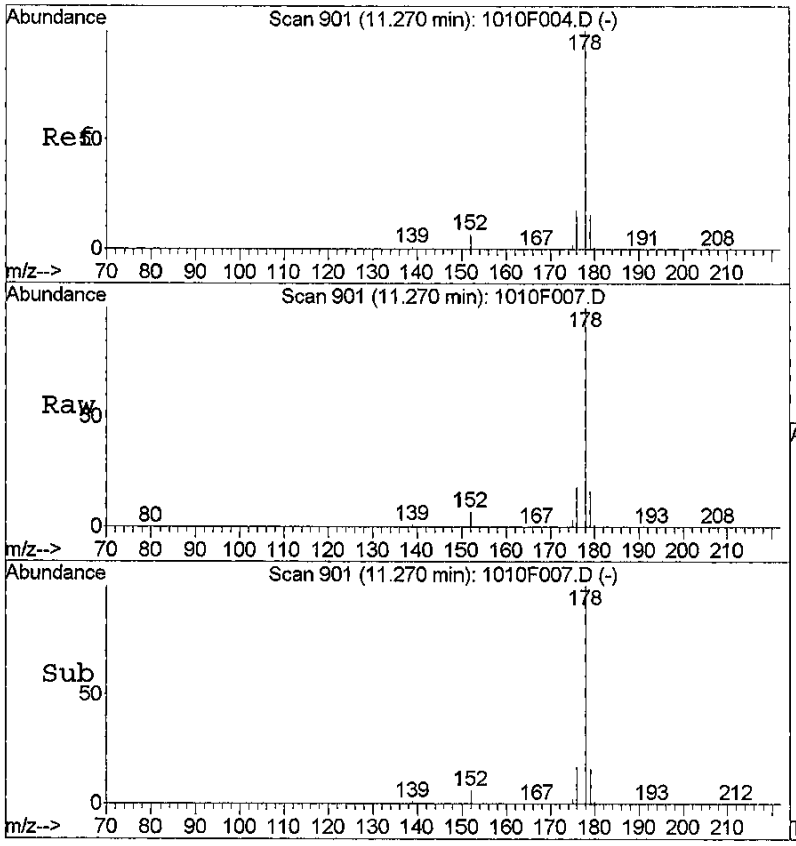


#27
Phenanthrene
Concen: 170.42 ng/ml
RT: 11.15 min Scan# 887
Delta R.T. -0.02 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:178 Resp: 79274

Ion	Ratio	Lower	Upper
178	100		
176	17.7	0.0	48.5

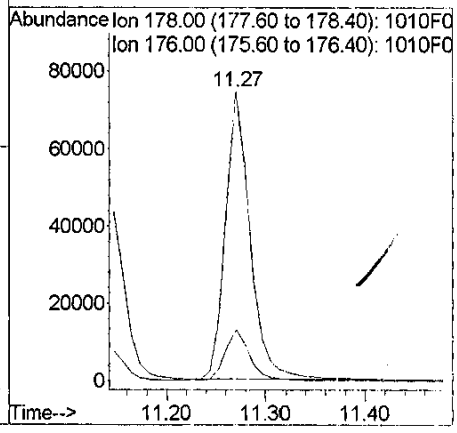


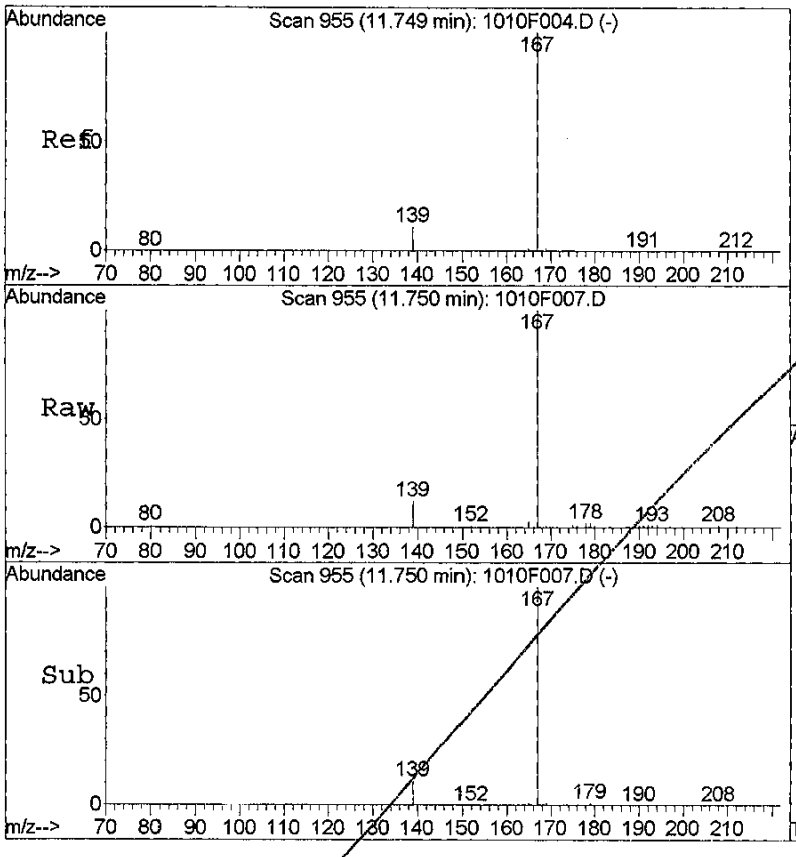


#28
Anthracene
Concen: 284.88 ng/ml
RT: 11.27 min Scan# 901
Delta R.T. -0.03 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:178 Resp: 129178

Ion	Ratio	Lower	Upper
178	100		
176	17.5	0.0	47.6

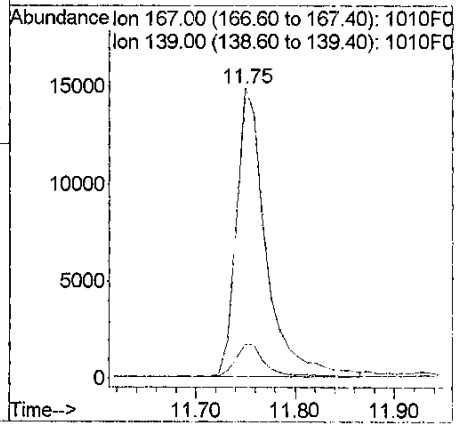


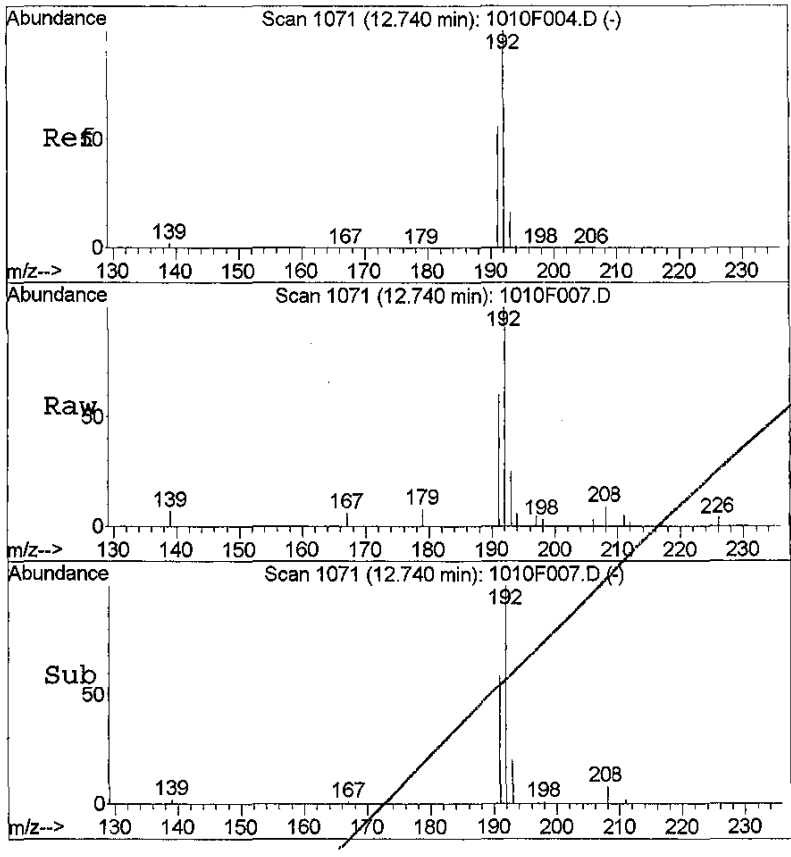


#29
Carbazole NT
Concen: 75.76 ng/ml
RT: 11.75 min Scan# 955
Delta R.T. -0.02 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:167 Resp: 30890

Ion	Ratio	Lower	Upper
167	100		
139	11.3	0.0	41.8

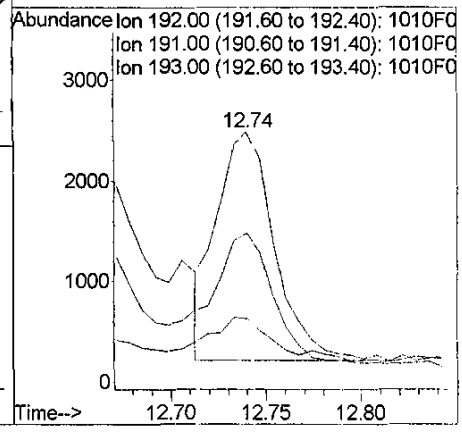


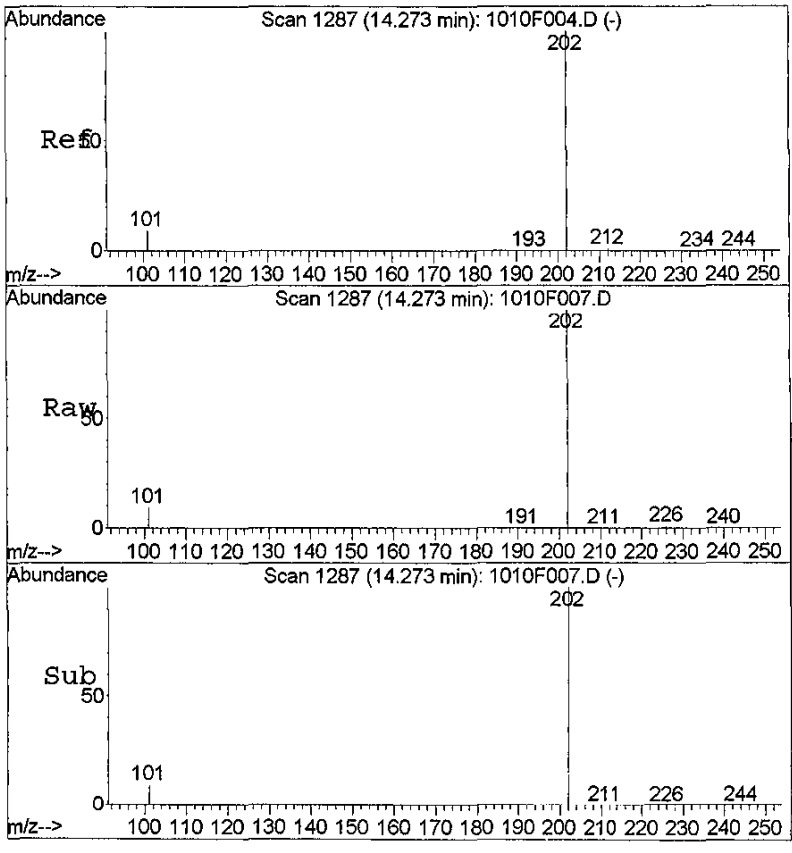


#30
1-Methylphenanthrene NT
Concen: 13.55 ng/ml m
RT: 12.74 min Scan# 1071
Delta R.T. -0.03 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:192 Resp: 4823

Ion	Ratio	Lower	Upper
192	100		
191	59.7	26.7	86.7
193	25.4	0.0	45.6

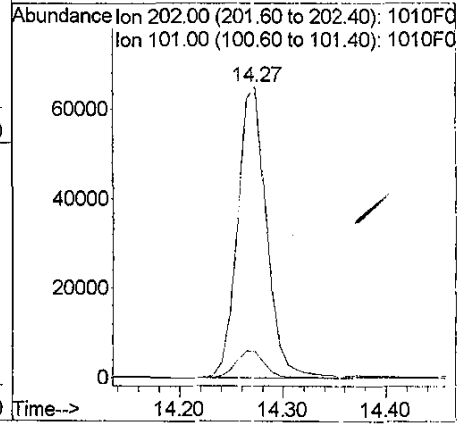


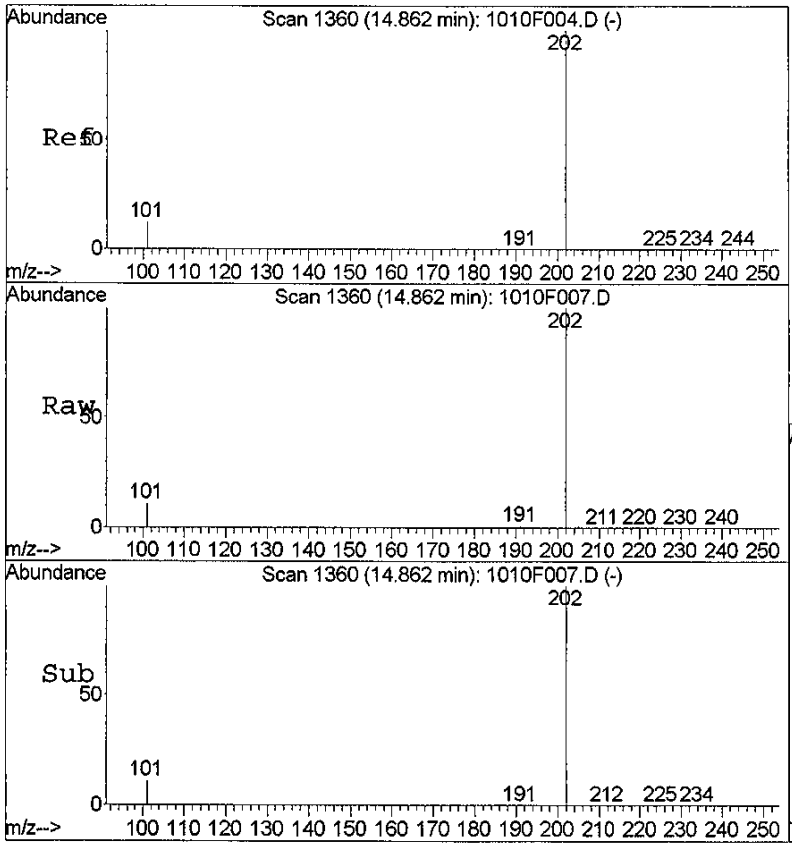


#35
Fluoranthene
Concen: 240.05 ng/ml
RT: 14.27 min Scan# 1287
Delta R.T. -0.02 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:202 Resp: 126614

Ion	Ratio	Lower	Upper
202	100		
101	8.9	0.0	41.0

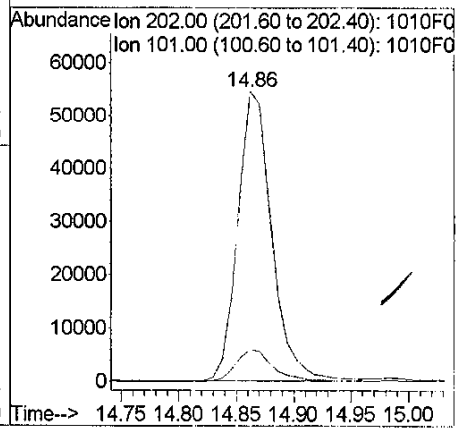


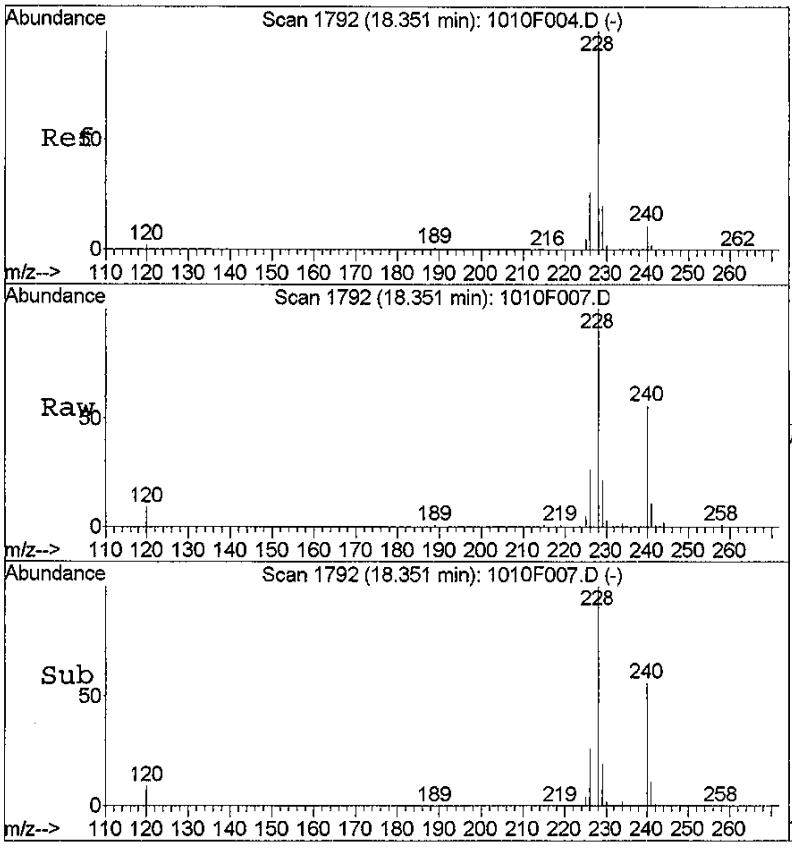


#38
Pyrene
Concen: 187.62 ng/ml
RT: 14.86 min Scan# 1360
Delta R.T. -0.03 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:202 Resp: 111817

Ion	Ratio	Lower	Upper
202	100		
101	10.8	0.0	43.8

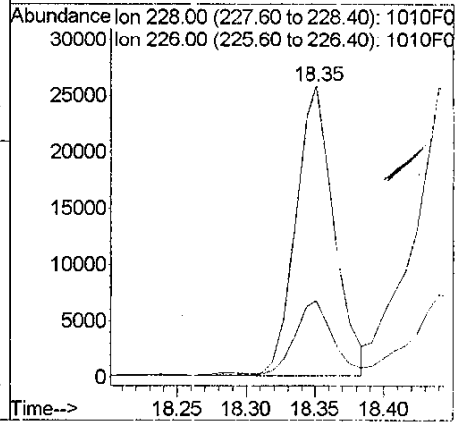


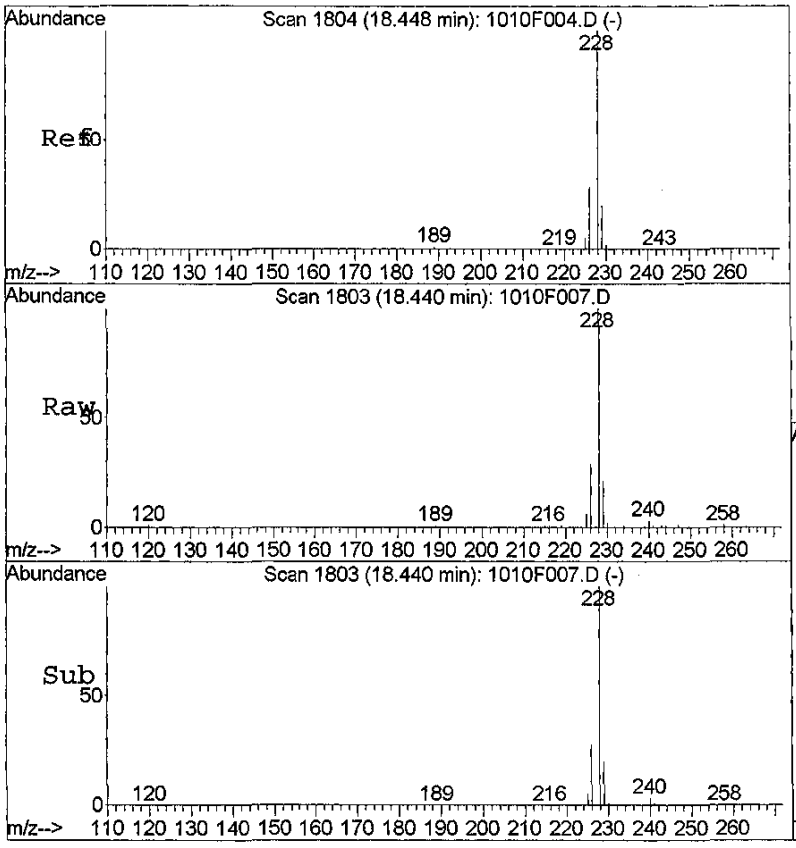


#44
Benz(a)anthracene
Concen: 87.18 ng/ml
RT: 18.35 min Scan# 1792
Delta R.T. -0.02 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:228 Resp: 50235

Ion	Ratio	Lower	Upper
228	100		
226	25.9	0.0	55.8

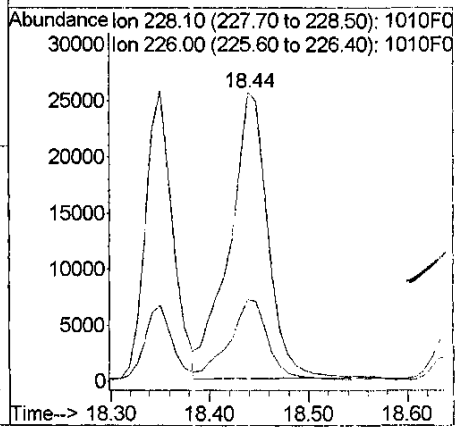


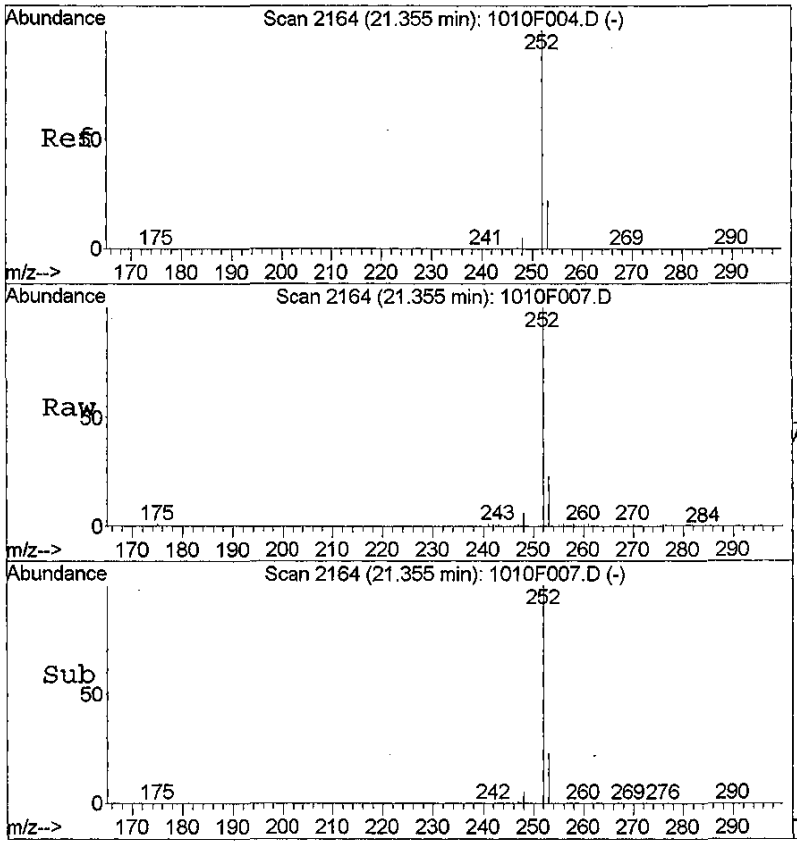


#45
Chrysene
Concen: 125.70 ng/ml
RT: 18.44 min Scan# 1803
Delta R.T. -0.03 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:228 Resp: 68768

Ion	Ratio	Lower	Upper
228	100		
226	27.9	0.0	58.6

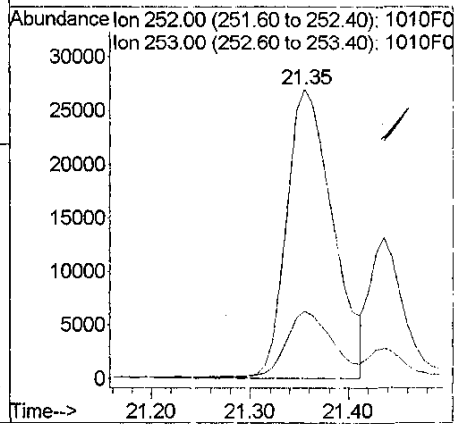


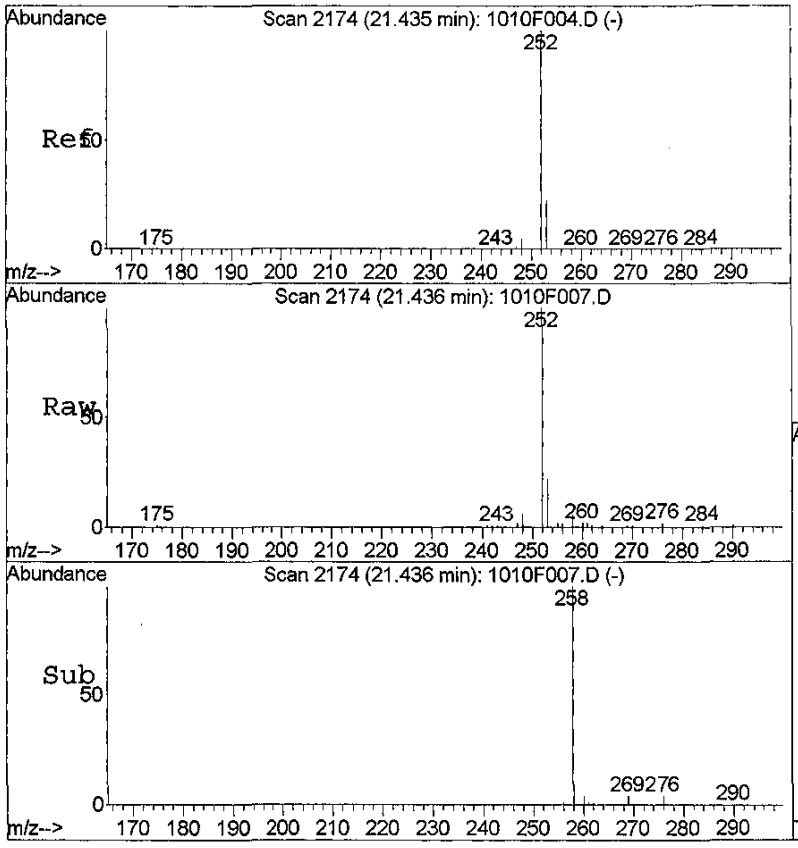


#51
Benzo(b)fluoranthene
Concen: 147.16 ng/ml
RT: 21.35 min Scan# 2164
Delta R.T. -0.02 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:252 Resp: 87877

Ion	Ratio	Lower	Upper
252	100		
253	22.6	0.0	51.8

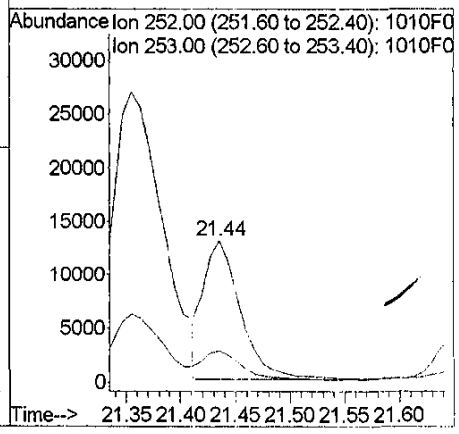


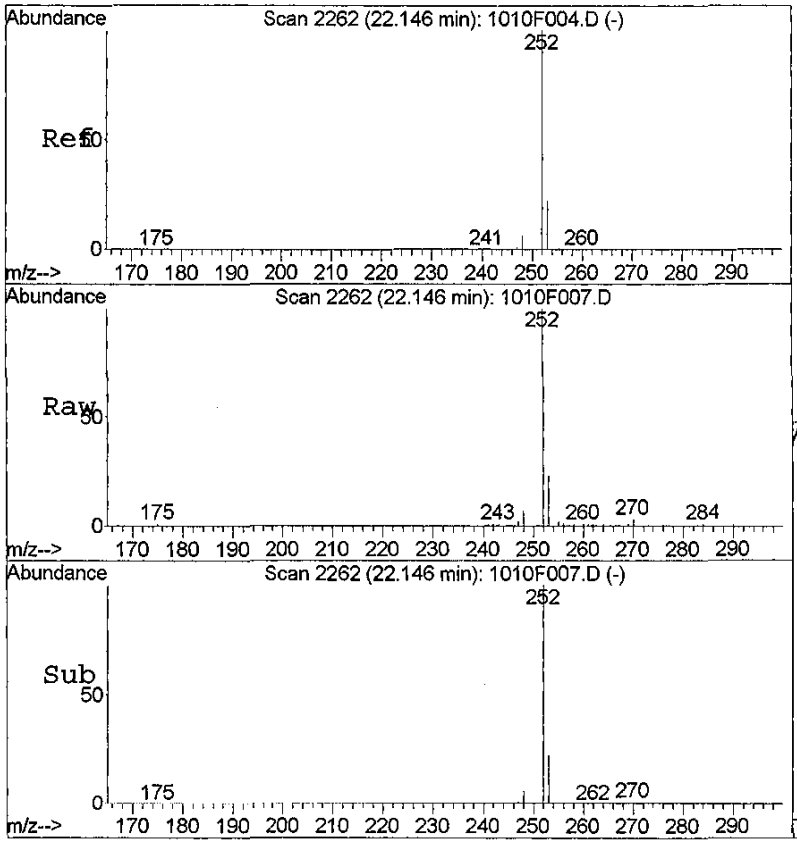


#52
Benzo(k)fluoranthene
Concen: 49.32 ng/ml
RT: 21.44 min Scan# 2174
Delta R.T. -0.03 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:252 Resp: 30162

Ion	Ratio	Lower	Upper
252	100		
253	20.5	0.0	51.7

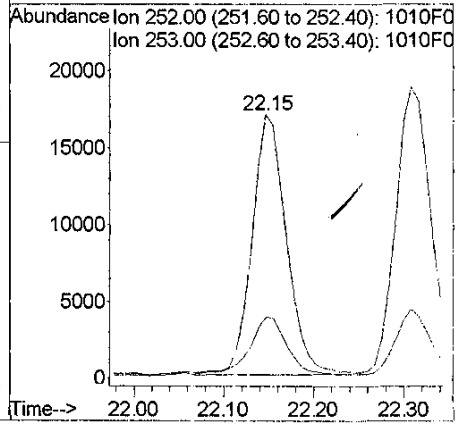


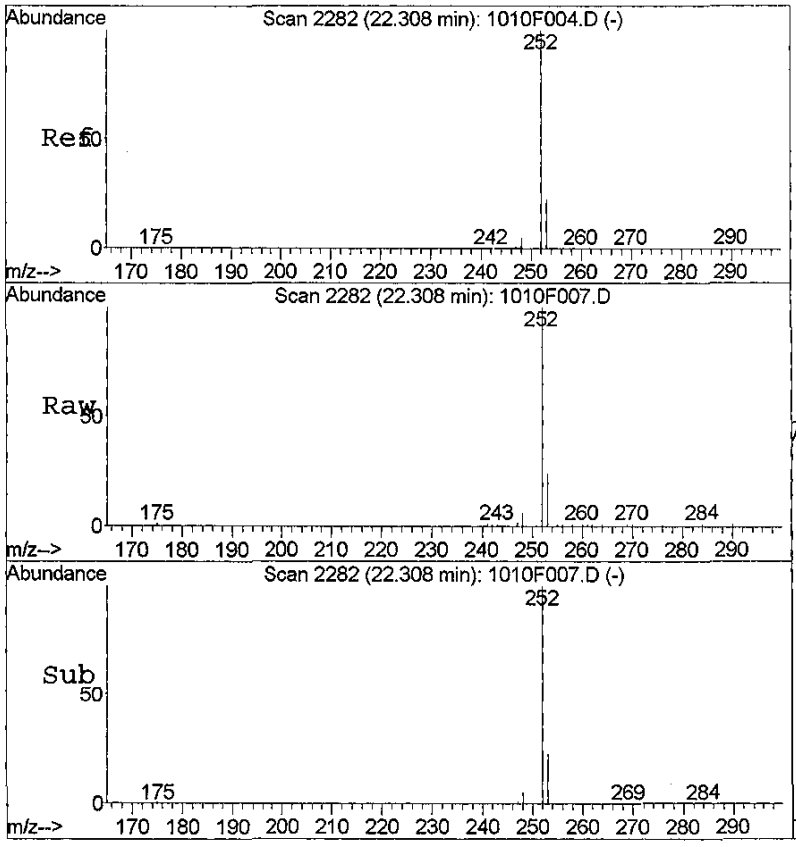


#53
Benzo(e)pyrene
Concen: 78.01 ng/ml
RT: 22.15 min Scan# 2262
Delta R.T. -0.03 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:252 Resp: 44989

Ion	Ratio	Lower	Upper
252	100		
253	21.9	0.0	52.0

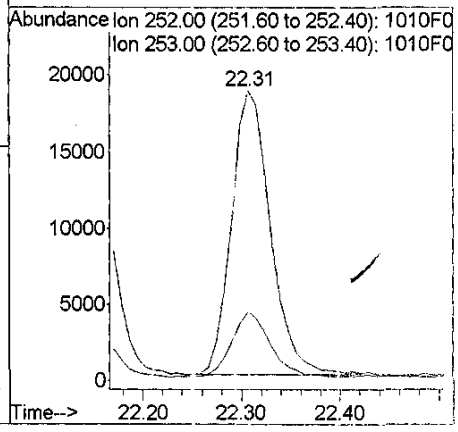


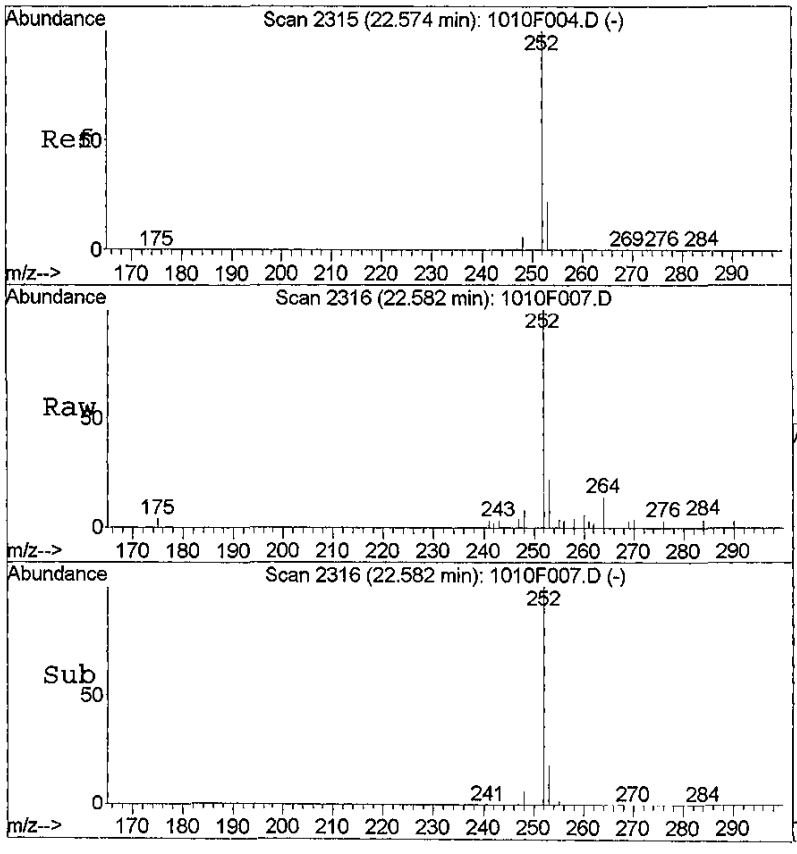


#54
Benzo(a)pyrene
Concen: 92.99 ng/ml
RT: 22.31 min Scan# 2282
Delta R.T. -0.03 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:252 Resp: 51190

Ion	Ratio	Lower	Upper
252	100		
253	22.7	0.0	51.8

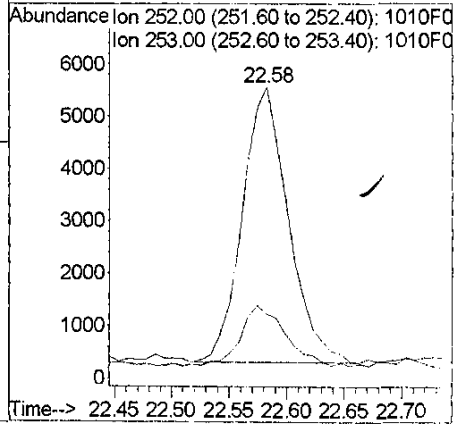


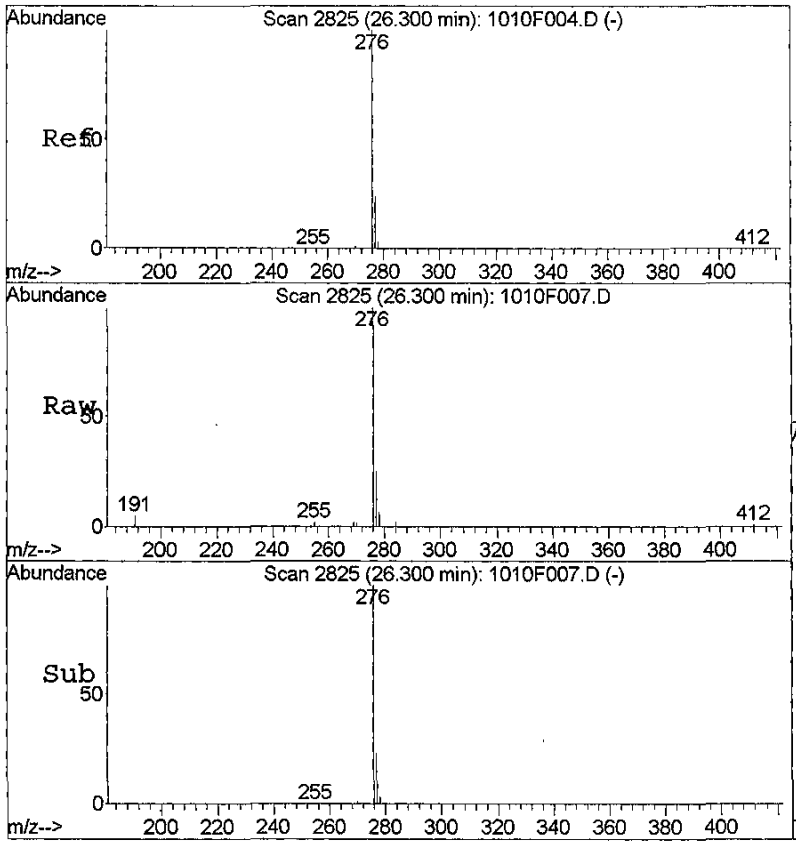


#55
Perylene
Concen: 26.13 ng/ml
RT: 22.58 min Scan# 2316
Delta R.T. -0.03 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:252 Resp: 14551

Ion	Ratio	Lower	Upper
252	100		
253	18.0	0.0	51.8

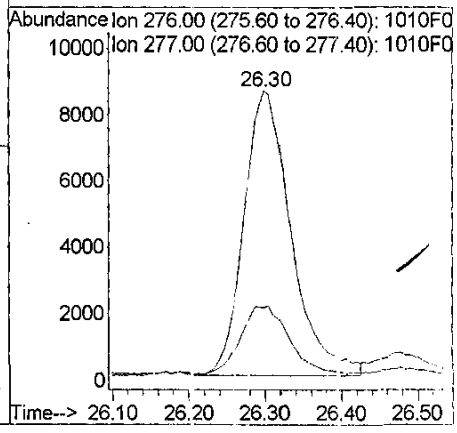


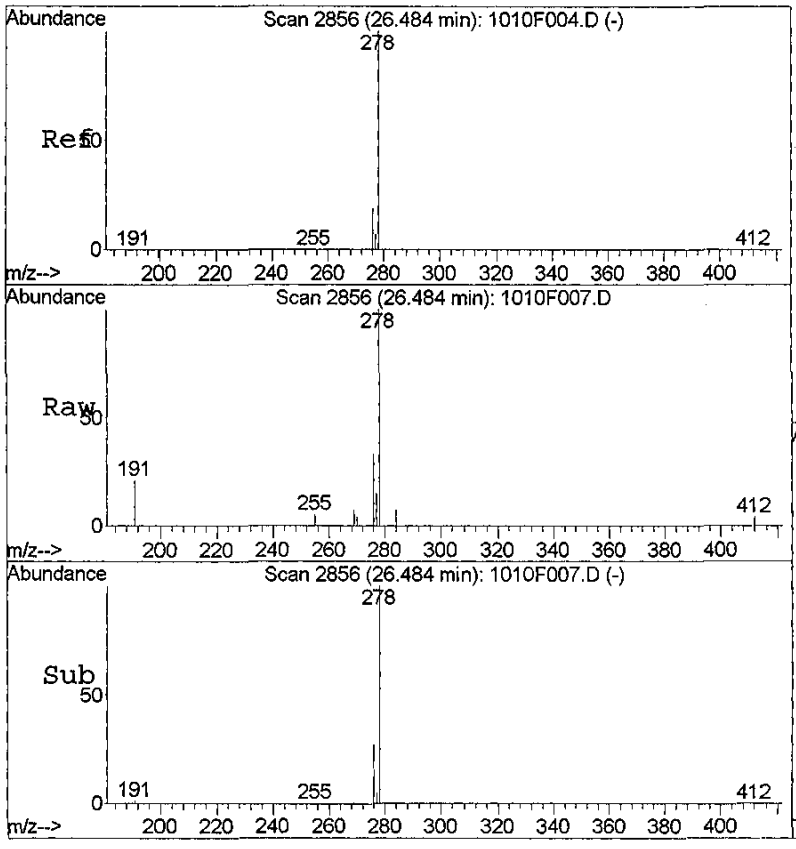


#56
Indeno(1,2,3-cd)pyrene
Concen: 62.77 ng/ml
RT: 26.30 min Scan# 2825
Delta R.T. -0.05 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:276 Resp: 36458

Ion	Ratio	Lower	Upper
276	100		
277	23.3	0.0	53.8

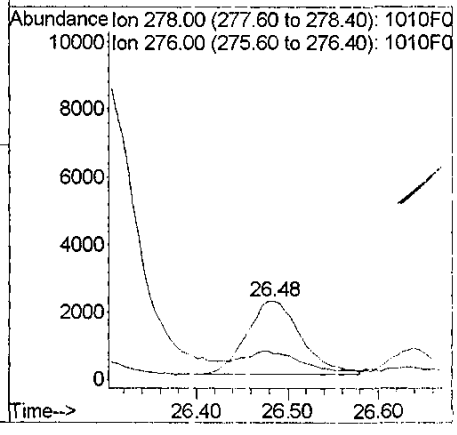


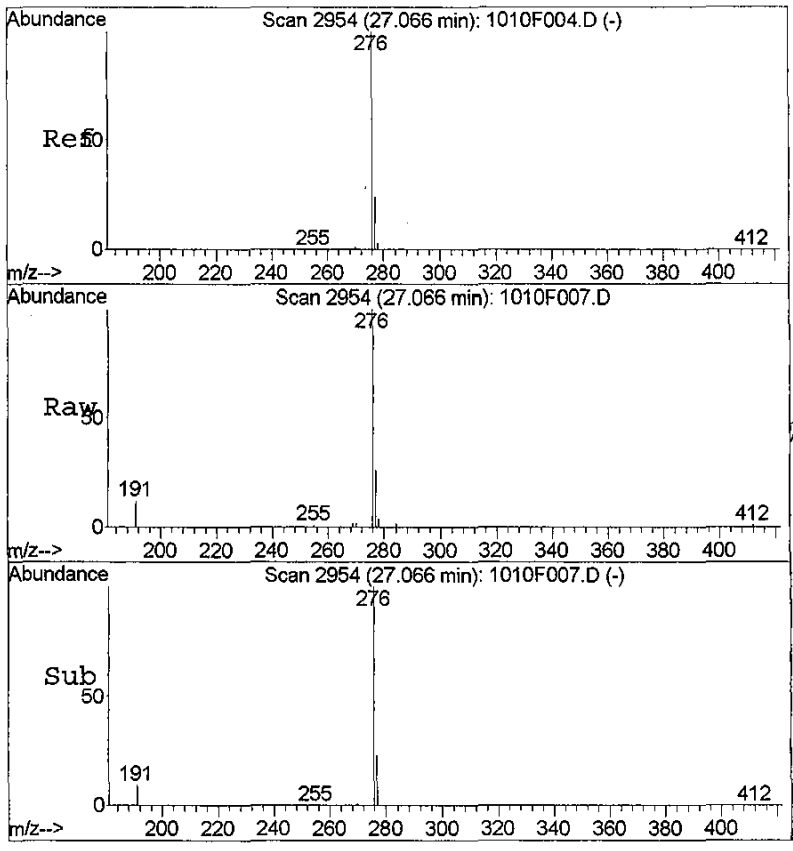


#57
Dibenz(a,h)anthracene
Concen: 15.74 ng/ml
RT: 26.48 min Scan# 2856
Delta R.T. -0.04 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:278 Resp: 9099

Ion	Ratio	Lower	Upper
278	100		
276	24.0	0.0	55.3

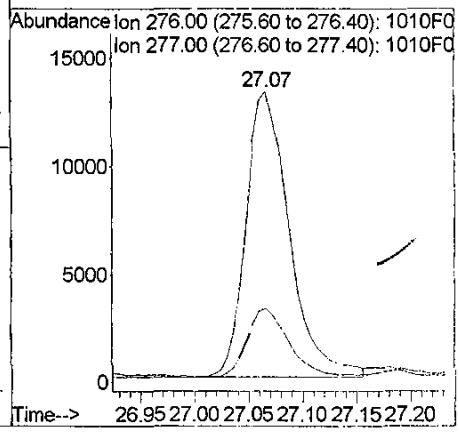




#58
Benzo(g,h,i)perylene
Concen: 59.68 ng/ml
RT: 27.07 min Scan# 2954
Delta R.T. -0.03 min
Lab File: 1010F007.D
Acq: 10 Oct 2015 7:48 am

Tgt Ion:276 Resp: 36826

Ion	Ratio	Lower	Upper
276	100		
277	24.5	0.0	53.8



Exception Report

Data File: J:\MS20\DATA\101015\1010F015.D
Lab ID: K1511029-003
RunType: SMPL
Matrix: SEDIMENT

Date Acquired: 10/10/2015 12:43
Date Quantitated: 10/12/2015 09:04
Batch ID: KWG1509829
Analysis Method: 8270D SIM
ListJoinID: LJ17229

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	125	NA	14		x
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA		x
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA		x
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Analyte Co-elution	2-Methylnaphthalene	6.53	NA	NA	Narrate
	C1-Naphthalenes	6.53	NA	NA	—
Above Highest ICAL Level	Fluoranthene	3885.67	NA	2000	E flag
	Pyrene	3848.89	NA	2000	—
	Chrysene	2365.81	NA	2000	—
	Benzo(b)fluoranthene	2718.03	NA	2000	—

Primary Review: OCT 1 2 2015
Secondary Review: OCT 1 2 2015

Printed: 10/12/2015 09:36:47
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS20\DATA\101015\1010F015.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 12:43	**Quant Date:**	10/12/2015 09:04	**Vial:**	13
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1511029-003			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	V	**Matrix:**	SEDIMENT
Prod Code:	8270D PAH Alk S	**Collect Date:**	06/04/2015	**Receive Date:**	06/05/2015

Analysis Lot:	KWG1509829	**Prep Lot:**	KWG1509628	**Report Group:**	K1511029
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1472847	**Prep Date:**	10/07/2015		

Quant Method:	J:\MS20\METHODS\080415SIMALK	**Calibration ID:**	CAL14220
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17229
Tune Ref:	J:\MS20\DATA\101015\1010F003.D	**Method ID:**	MJ1187
MB Ref:	J:\MS20\DATA\101015\1010F005.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.79	0.00	136	78247	200.00	OK
2	Acenaphthene-d10	7.99	0.00	164	46911	200.00	OK
3	Phenanthrene-d10	11.09	0.00	188	84002	200.00	OK
4	Chrysene-d12	18.39	0.02	240	100067	200.00	OK
5	Perylene-d12	22.52	0.02	264	109508	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	8.96	0.00	0.00	176	44376	166.53	83	17-104 OK	
3	Fluoranthene-d10	14.27	0.05	0.00	212	89148	205.39	103	27-106 OK	
4	Terphenyl-d14	15.54	0.00	0.00	244	60197	154.48	77	35-109 OK	

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.80		0.00	128	25751	68.45	55		
1	2-Methylnaphthalene	6.53c		0.00	142	11078	41.41	33		
1	1-Methylnaphthalene	6.64		0.00	142	6348m	26.92	22		
1	C1-Naphthalenes	6.53c			142	18272m	48.57	39	J	
1	C2-Naphthalenes	7.46			156	29461m	78.31	63	J	
1	C3-Naphthalenes	8.65			170	32024m	85.12	69	J	
1	C4-Naphthalenes	9.85			184	39180m	104.14	84	J	
2	Acenaphthylene	7.76		0.00	152	35793	84.05	68		
2	Acenaphthene	8.05		0.00	154	36471	143.27	120		
2	Dibenzofuran	8.37		0.00	168	44046	113.16	91		
2	Fluorene	9.01		0.00	166	58529	189.17	150		
2	C1-Fluorenes	10.22			180	26430m	85.42	69	J	
2	C2-Fluorenes				194	0		4.1	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS20\DATA\101015\1010F015.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 12:43	**Quant Date:**	10/12/2015 09:04	**Vial:**	13
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1511029-003			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	C3-Fluorenes	13.09			208	48098**m**	155.46	130	J	
3	Dibenzothiophene	10.84		0.00	184	50949	119.41	96		
3	C1-Dibenzothiophenes	11.95			198	44997**m**	105.46	85	J	
3	C2-Dibenzothiophenes	13.05			212	68865**m**	161.40	130	J	
3	C3-Dibenzothiophenes	14.30			226	100674**m**	235.94	190	J	
3	C4-Dibenzothiophenes	15.55			240	58379**m**	136.82	110	JX	
3	Phenanthrene	11.15		0.00	178	813809	1,854	1500		
3	Anthracene	11.27		0.00	178	279383	653.06	530		
3	C1-Phenanthrenes/Anthracenes	12.48			192	387637**m**	883.27	710	J	
3	C2-Phenanthrenes/Anthracenes	13.93			206	284137**m**	647.44	520	J	
3	C3-Phenanthrenes/Anthracenes	15.22			220	189896**m**	432.70	350	J	
3	C4-Phenanthrenes/Anthracenes	16.79			234	136214**m**	310.38	250	J	
3	Fluoranthene	14.32	0.05	0.00	202	1933563	3,886	3100	E	NR
4	Pyrene	14.88	0.02	0.00	202	2092904	3,849	3100	E	NR
4	C1-Fluoranthenes/Pyrenes	16.09			216	1083796**m**	1,993	1600	J	
4	Benz(a)anthracene	18.37	0.02	0.00	228	944739	1,797	1400		
4	Chrysene	18.46	0.01	0.00	228	1180903	2,366	1900	E	NR
4	C1-Chrysenes	19.58			242	518687**m**	1,039	840	J	
4	C2-Chrysenes	20.84			256	316085**m**	633.24	510	J	
4	C3-Chrysenes	22.16			270	191575**m**	383.80	310	J	
4	C4-Chrysenes	23.51			284	143570**m**	287.63	230	J	
5	Benzo(b)fluoranthene	21.39	0.04	0.00	252	1585144	2,718	2200	E	NR
5	Benzo(k)fluoranthene	21.46	0.02	0.00	252	585796	980.82	790		
5	Benzo(e)pyrene	22.18	0.03	0.00	252	814094	1,445	1200		
5	Benzo(a)pyrene	22.34	0.03	0.00	252	1016444	1,891	1500		
5	Perylene	22.60	0.03	0.00	252	314313	577.87	470		
5	Indeno(1,2,3-cd)pyrene	26.34	0.04	0.00	276	675123	1,190	960		
5	Dibenz(a,h)anthracene	26.50	0.02	0.00	278	176961	313.35	250		
5	Benzo(g,h,i)perylene	27.09	0.02	0.00	276	662549	1,099	890		

Prep Amount:	18.529 g	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1
Solids:	67.0 %		

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F015.D Vial: 13
Acq On : 10 Oct 2015 12:43 pm Operator: LWeiskopf
Sample : K1511029-003 Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 08:27:49 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.79	136	78247	200.00	ng/ml	0.00
11) Acenaphthene-d10	7.99	164	46911	200.00	ng/ml	-0.02
21) Phenanthrene-d10	11.09	188	84002	200.00	ng/ml	-0.02
37) Chrysene-d12	18.39	240	100067	200.00	ng/ml	0.00
50) Perylene-d12	22.52	264	109508	200.00	ng/ml	0.00
System Monitoring Compounds						
16) Fluorene-d10	8.96	176	44376	166.53	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 16.65%			
36) Fluoranthene-d10	14.27	212	89148	205.39	ng/ml	0.02
Spiked Amount 1000.000			Recovery = 20.54%			
43) Terphenyl-d14	15.54	244	60197	154.48	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 15.45%			
Target Compounds						Qvalue
2) Naphthalene	5.80	128	25751	68.45	ng/ml	100
3) 2-Methylnaphthalene	6.53	142	11078	41.41	ng/ml	98
4) 1-Methylnaphthalene	6.64	142	6348m	26.92	ng/ml	
5) Biphenyl	7.12	154	4577m	14.16	ng/ml	
6) 2,6-Dimethylnaphthalene	7.36	156	8268	35.16	ng/ml	98
7) C1-Naphthalenes	6.53	142	18272m	48.57	ng/ml	
8) C2-Naphthalenes	7.46	156	29461m	78.31	ng/ml	
9) C3-Naphthalenes	8.65	170	32024m	85.12	ng/ml	
10) C4-Naphthalenes	9.85	184	39180m	104.14	ng/ml	
12) Acenaphthylene	7.76	152	35793	84.05	ng/ml	98
13) Acenaphthene	8.05	154	36471	143.27	ng/ml	99
14) Dibenzofuran	8.37	168	44046	113.16	ng/ml	99
15) 2,3,5-Trimethylnaphthalene	8.77	170	6652m	26.66	ng/ml	
17) Fluorene	9.01	166	58529	189.17	ng/ml	99
18) C1-Fluorenes	10.22	180	26430m	85.42	ng/ml	
20) C3-Fluorenes	13.09	208	48098m	155.46	ng/ml	
22) Dibenzothiophene	10.84	184	50949	119.41	ng/ml	98
23) C1-Dibenzothiophenes	11.95	198	44997m	105.46	ng/ml	
24) C2-Dibenzothiophenes	13.05	212	68865m	161.40	ng/ml	
25) C3-Dibenzothiophenes	14.30	226	100674m	235.94	ng/ml	
26) C4-Dibenzothiophenes	15.55	240	58379m	136.82	ng/ml	
27) Phenanthrene	11.15	178	813809	1854.35	ng/ml	99
28) Anthracene	11.27	178	279383	653.06	ng/ml	98
29) Carbazole	11.75	167	90694	235.78	ng/ml	98
30) 1-Methylphenanthrene	12.74	192	54113	161.14	ng/ml	94
31) C1-Phenanthrenes/Anthracen	12.48	192	387637m	883.27	ng/ml	
32) C2-Phenanthrenes/Anthracen	13.93	206	284137m	647.44	ng/ml	

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

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 08:27:49 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
33)	C3-Phenanthrenes/Anthracen	15.22	220	189896m	432.70	ng/ml	
34)	C4-Phenanthrenes/Anthracen	16.79	234	136214m	310.38	ng/ml	
35)	Fluoranthene	14.32	202	1933563	3885.67	ng/ml	96
38)	Pyrene	14.88	202	2092904	3848.89	ng/ml	96
39)	C1-Fluoranthenes/Pyrenes	16.09	216	1083796m	1993.12	ng/ml	
40)	C2-Fluoranthenes/Pyrenes	17.34	230	488982m	899.25	ng/ml	
41)	C3-Fluoranthenes/Pyrenes	18.31	244	287934m	529.52	ng/ml	
42)	C4-Fluoranthenes/Pyrenes	19.16	258	168349m	309.60	ng/mL	
44)	Benz(a)anthracene	18.37	228	944739	1796.88	ng/ml	100
45)	Chrysene	18.46	228	1180903	2365.81	ng/ml	99
46)	C1-Chrysenes	19.58	242	518687m	1039.13	ng/ml	
47)	C2-Chrysenes	20.84	256	316085m	633.24	ng/ml	
48)	C3-Chrysenes	22.16	270	191575m	383.80	ng/ml	
49)	C4-Chrysenes	23.51	284	143570m	287.63	ng/ml	
51)	Benzo(b)fluoranthene	21.39	252	1585144	2718.03	ng/ml	97
52)	Benzo(k)fluoranthene	21.46	252	585796	980.82	ng/ml	98
53)	Benzo(e)pyrene	22.18	252	814094	1445.48	ng/ml	98
54)	Benzo(a)pyrene	22.34	252	1016444	1890.64	ng/ml	98
55)	Perylene	22.60	252	314313	577.87	ng/ml	100
56)	Indeno(1,2,3-cd)pyrene	26.34	276	675123	1190.11	ng/ml	99
57)	Dibenz(a,h)anthracene	26.50	278	176961	313.35	ng/ml	99
58)	Benzo(g,h,i)perylene	27.09	276	662549	1099.39	ng/ml	98

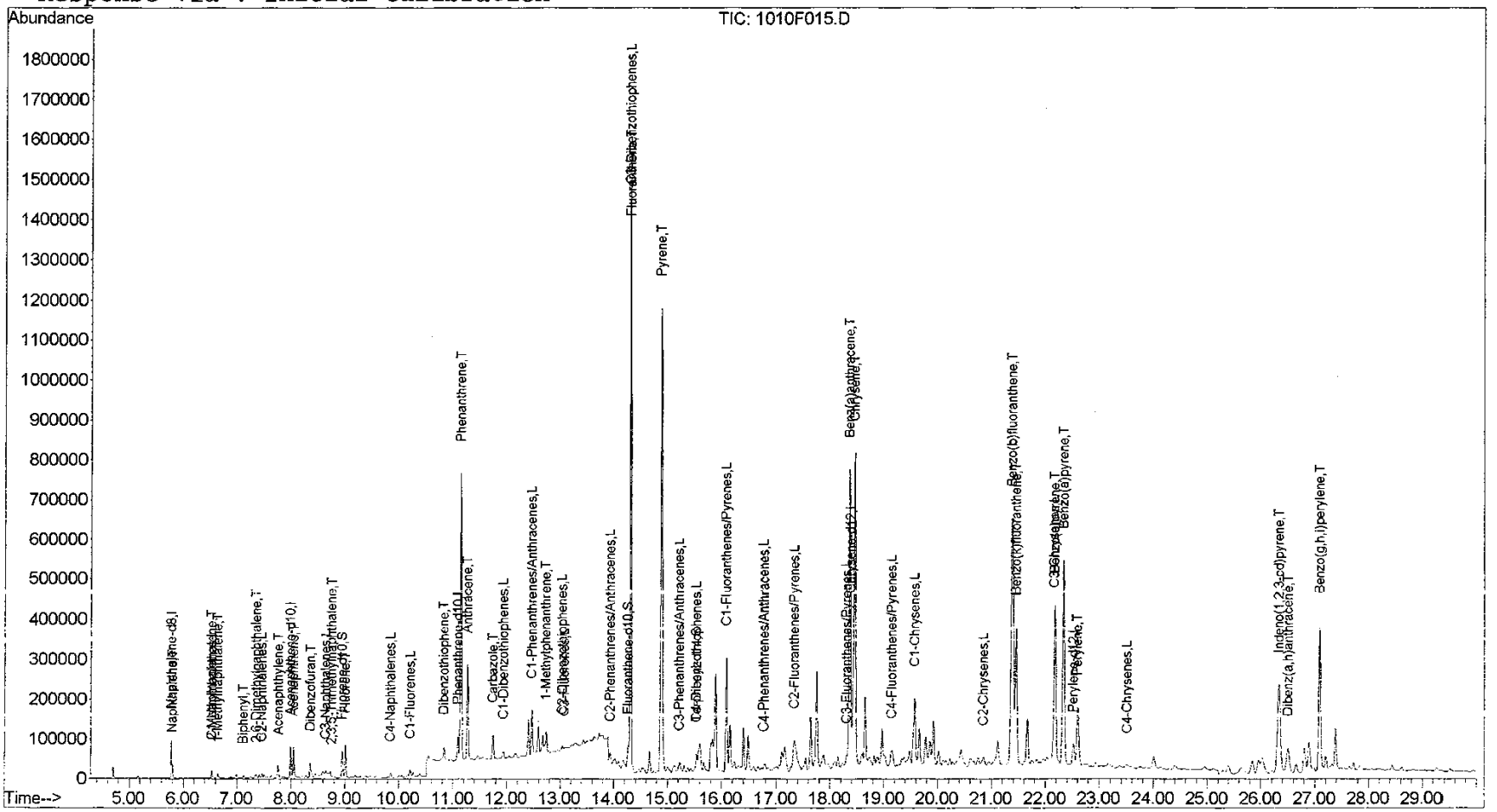
(#) = qualifier out of range (m) = manual integration

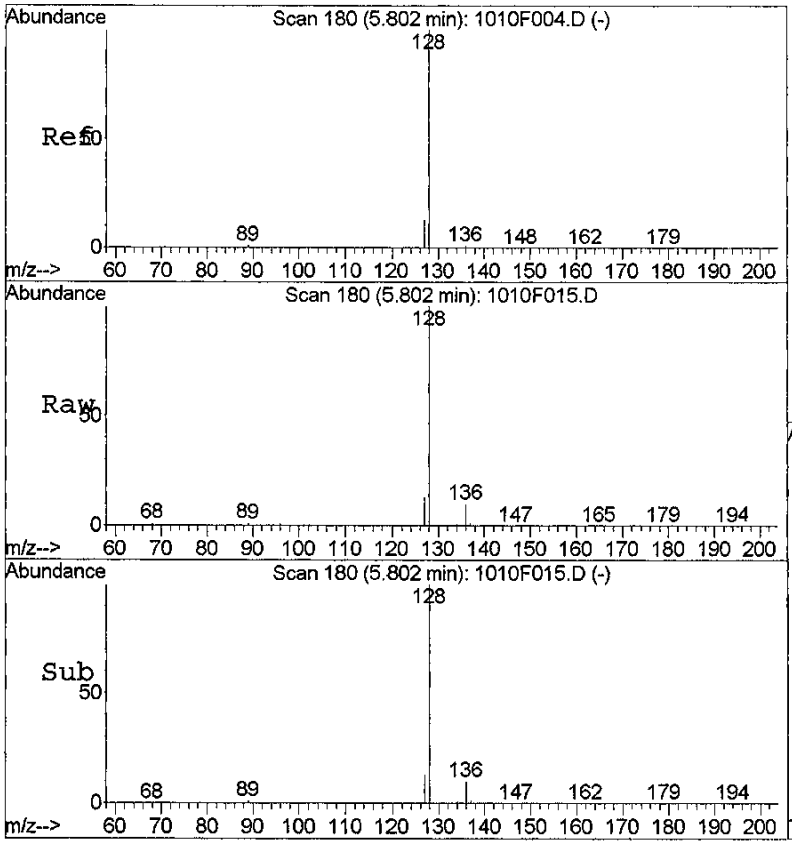
Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 9:04 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration

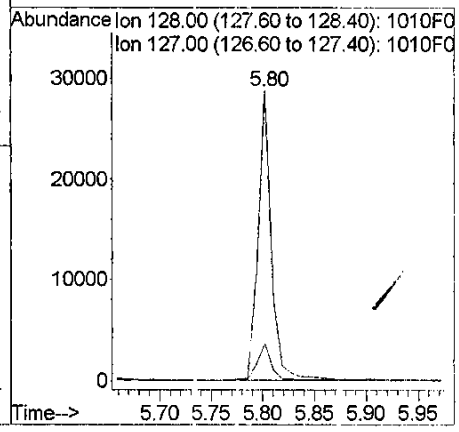


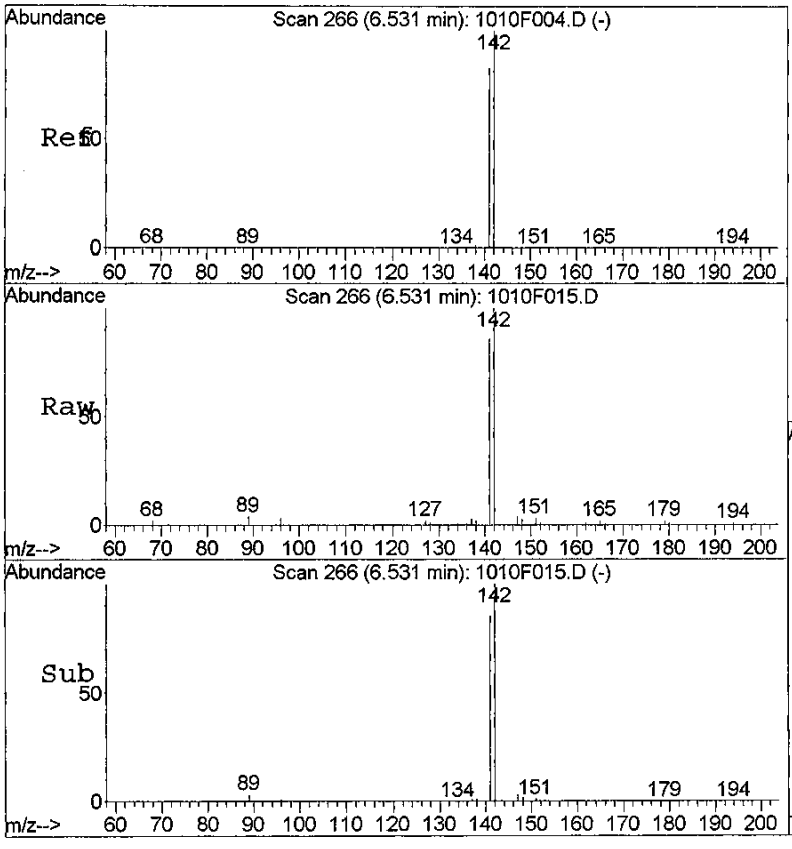


#2
Naphthalene
Concen: 68.45 ng/ml
RT: 5.80 min Scan# 180
Delta R.T. -0.02 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:128 Resp: 25751

Ion	Ratio	Lower	Upper
128	100		
127	12.6	0.0	42.7

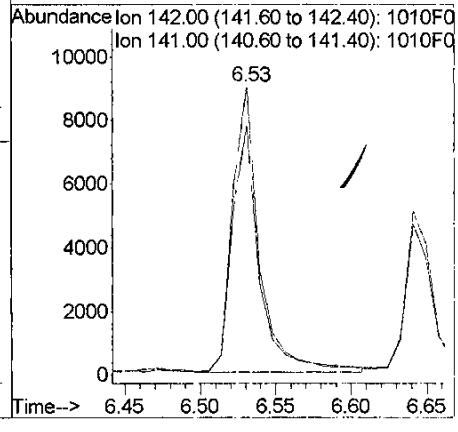


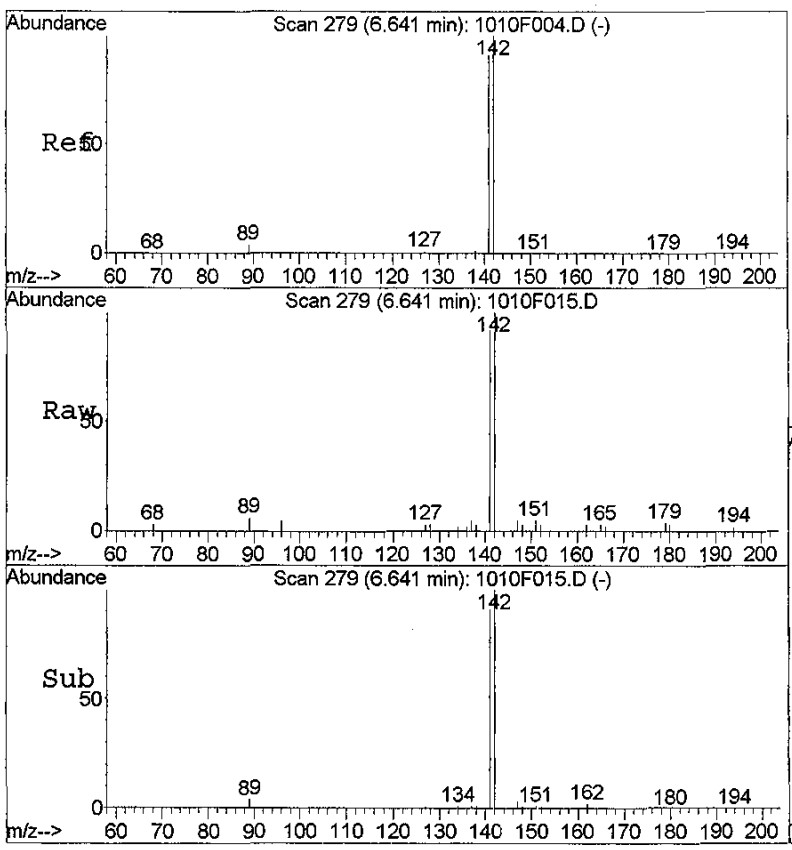


#3
2-Methylnaphthalene
Concen: 41.41 ng/ml
RT: 6.53 min Scan# 266
Delta R.T. -0.01 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:142 Resp: 11078

Ion	Ratio	Lower	Upper
142	100		
141	85.9	54.2	114.2

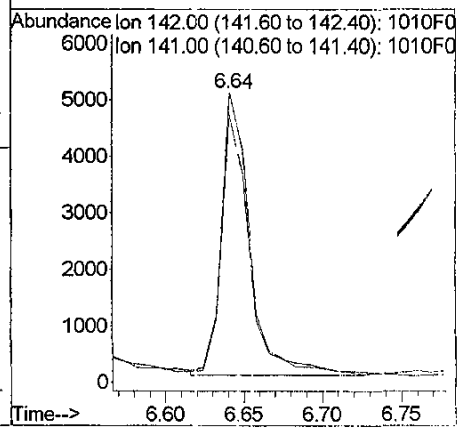


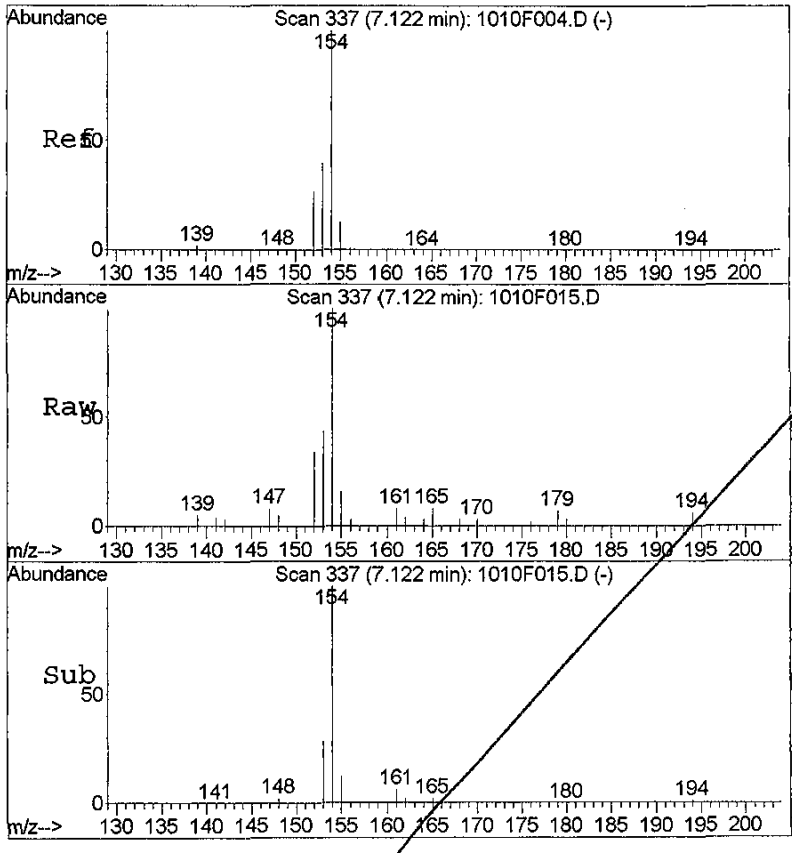


#4
1-Methylnaphthalene
Concen: 26.92 ng/ml m
RT: 6.64 min Scan# 279
Delta R.T. -0.02 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:142 Resp: 6348

Ion	Ratio	Lower	Upper
142	100		
141	92.2	60.2	120.2

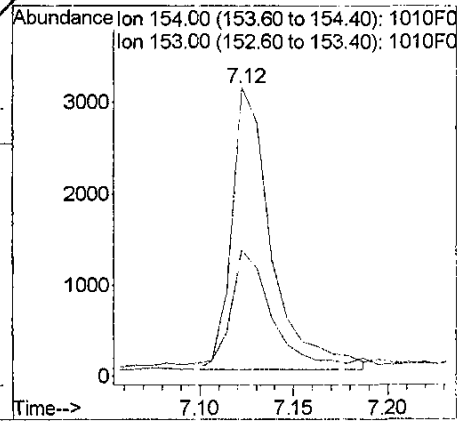


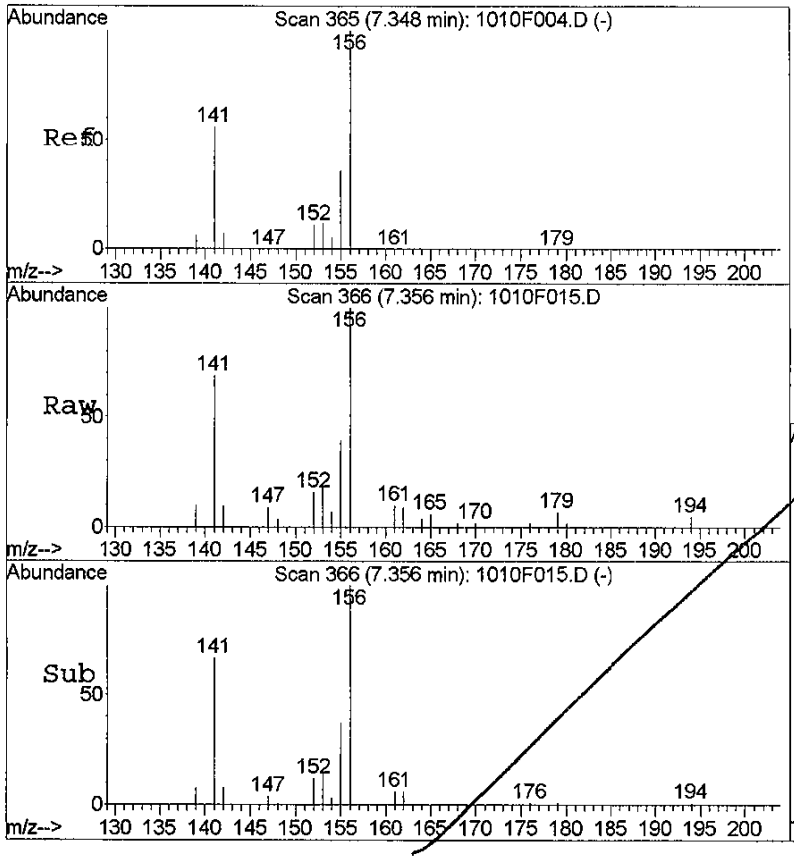


#5
Biphenyl
Concen: 14.16 ng/ml m
RT: 7.12 min Scan# 337
Delta R.T. -0.02 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:154 Resp: 4577

Ion	Ratio	Lower	Upper
154	100		
153	43.9	10.0	70.0

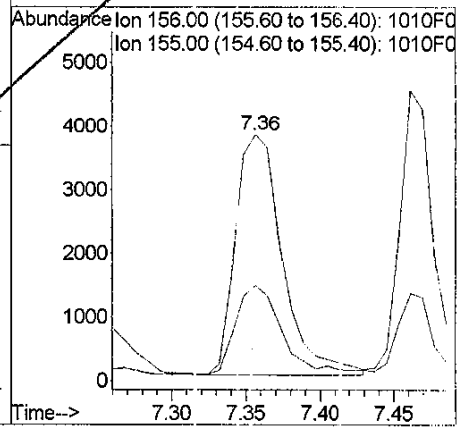


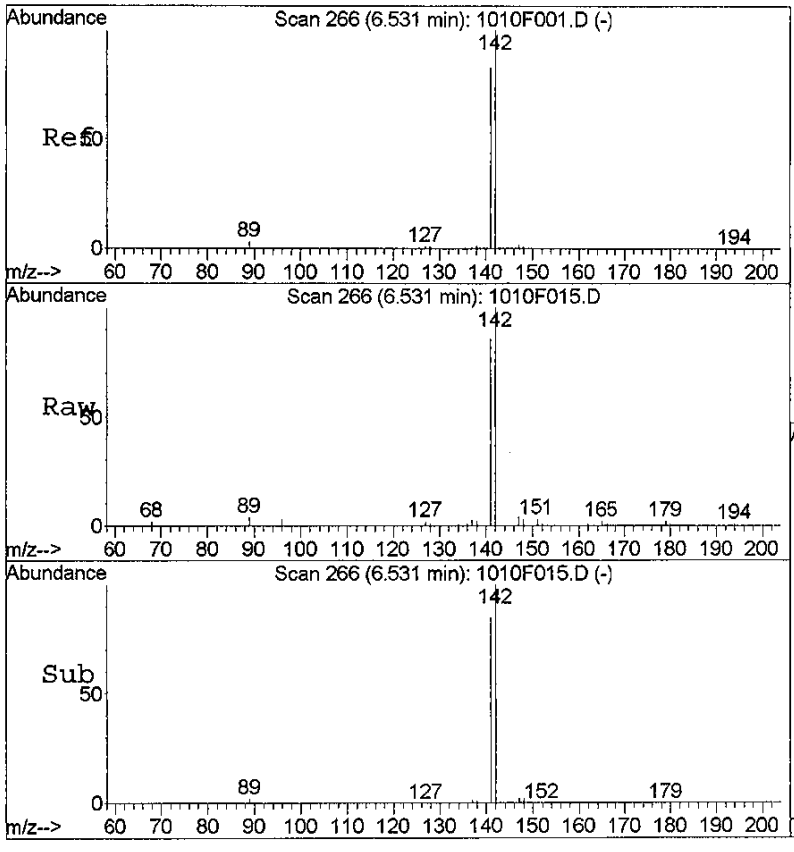


#6
2,6-Dimethylnaphthalene
Concen: 35.16 ng/ml
RT: 7.36 min Scan# 366
Delta R.T. -0.01 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:156 Resp: 8268

Ion	Ratio	Lower	Upper
156	100		
155	36.7	5.4	65.4

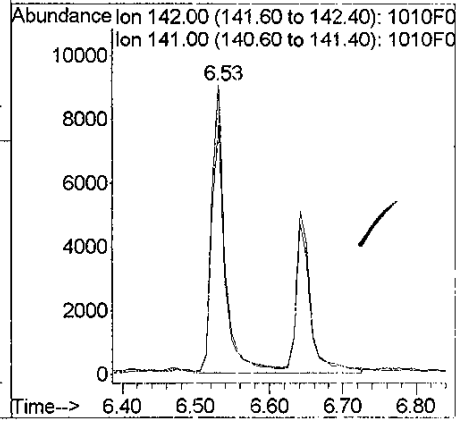


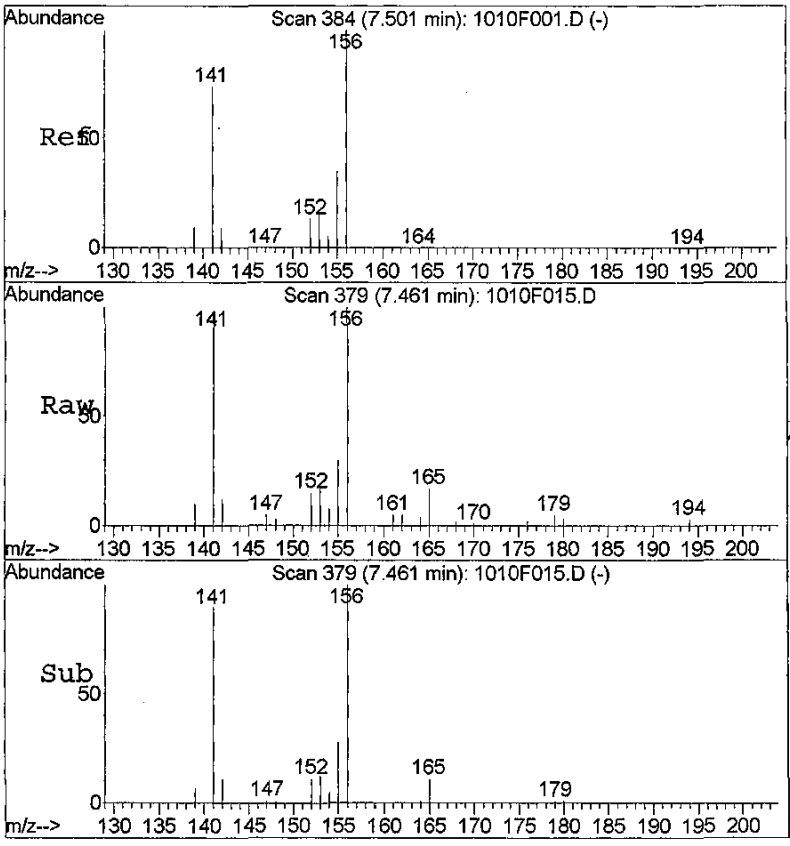


#7
C1-Naphthalenes
Concen: 48.57 ng/ml m
RT: 6.53 min Scan# 266
Delta R.T. -0.21 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:142 Resp: 18272

Ion	Ratio	Lower	Upper
142	100		
141	86.2	80.0	120.0

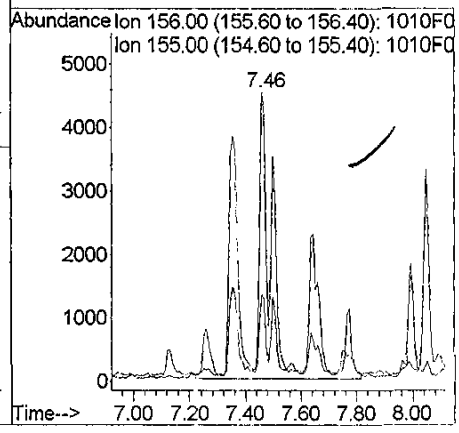


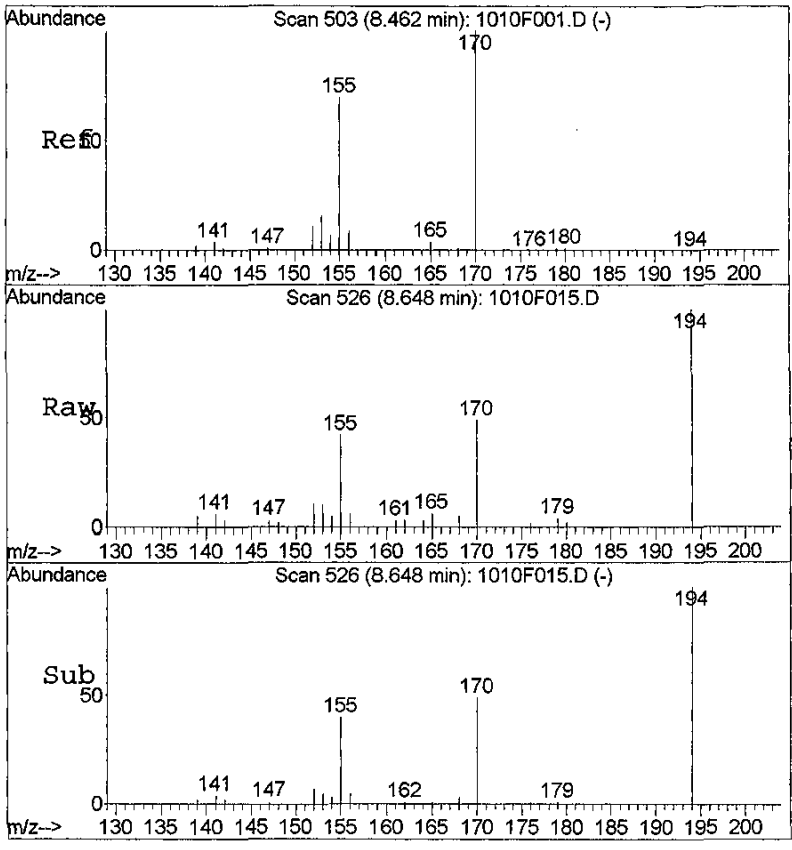


#8
C2-Naphthalenes
Concen: 78.31 ng/ml m
RT: 7.46 min Scan# 379
Delta R.T. -0.16 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:156 Resp: 29461

Ion	Ratio	Lower	Upper
156	100		
155	30.0	8.3	68.3

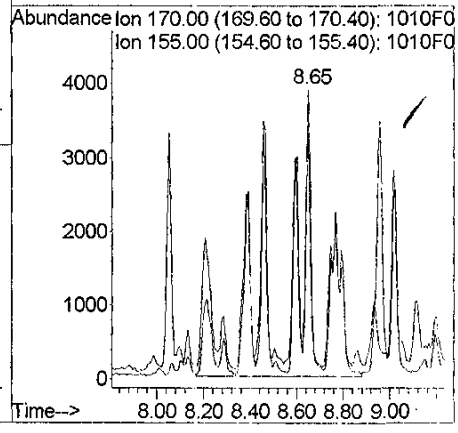


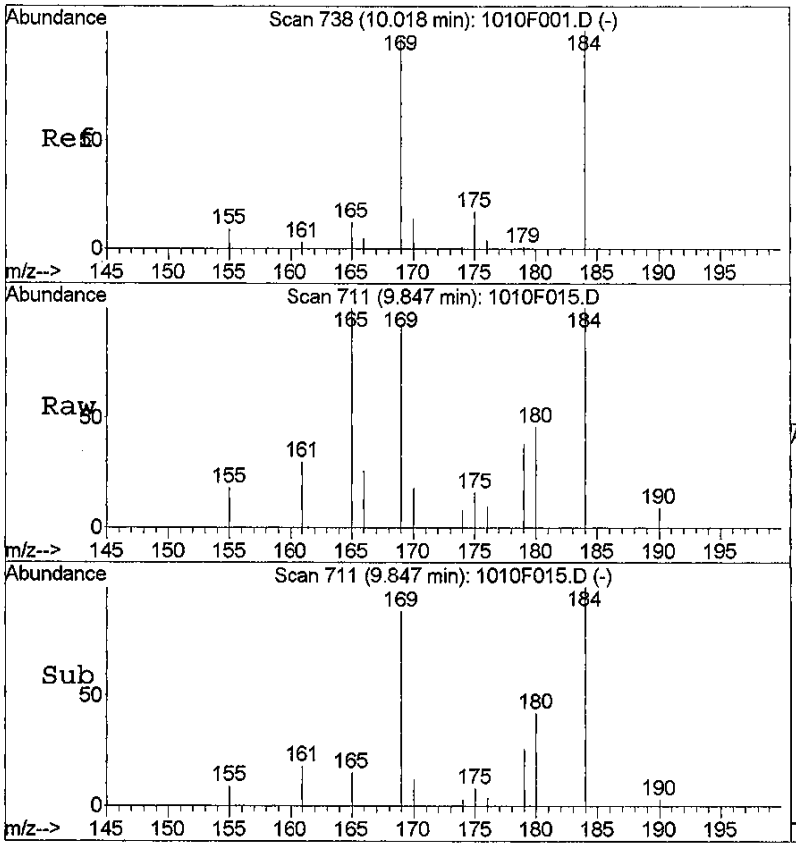


#9
C3-Naphthalenes
Concen: 85.12 ng/ml m
RT: 8.65 min Scan# 526
Delta R.T. 0.08 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:170 Resp: 32024

Ion	Ratio	Lower	Upper
170	100		
155	85.0	56.9	116.9

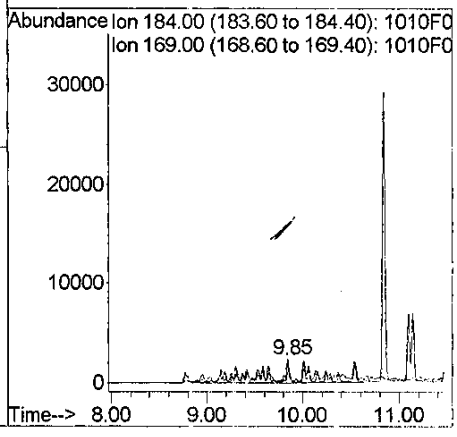


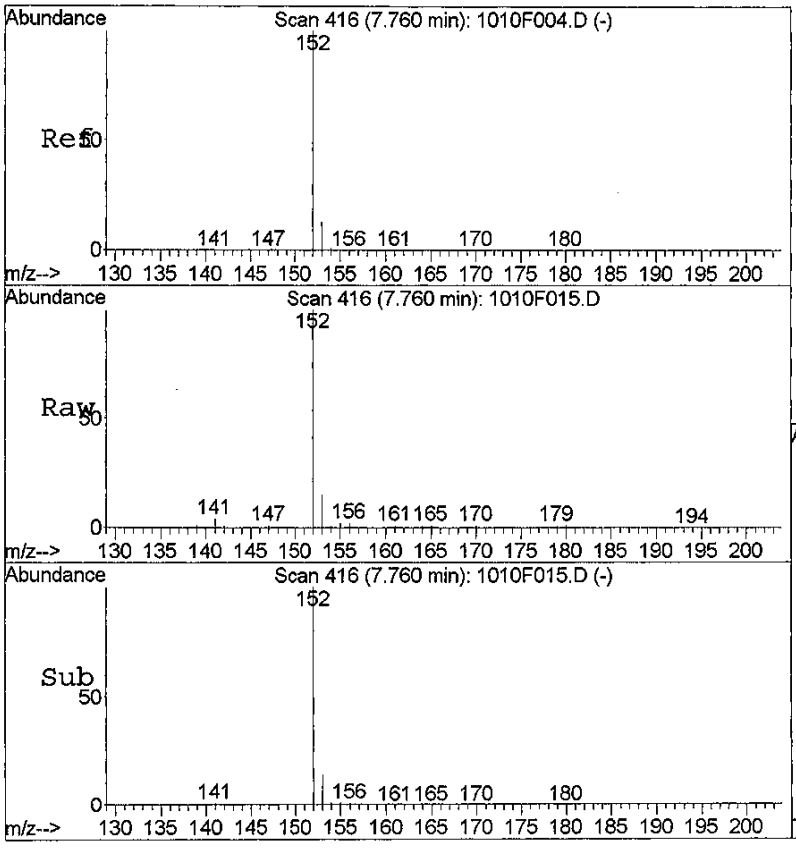


#10
C4-Naphthalenes
Concen: 104.14 ng/ml m
RT: 9.85 min Scan# 711
Delta R.T. -0.10 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:184 Resp: 39180

Ion	Ratio	Lower	Upper
184	100		
169	93.0	89.7	149.7

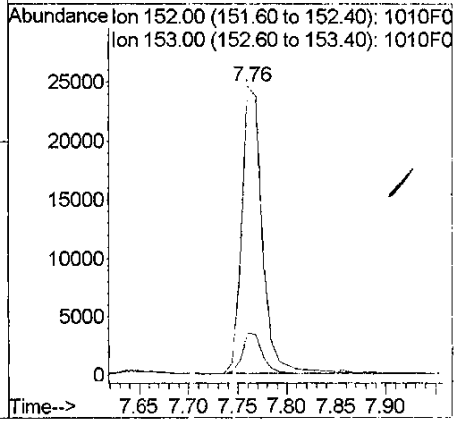


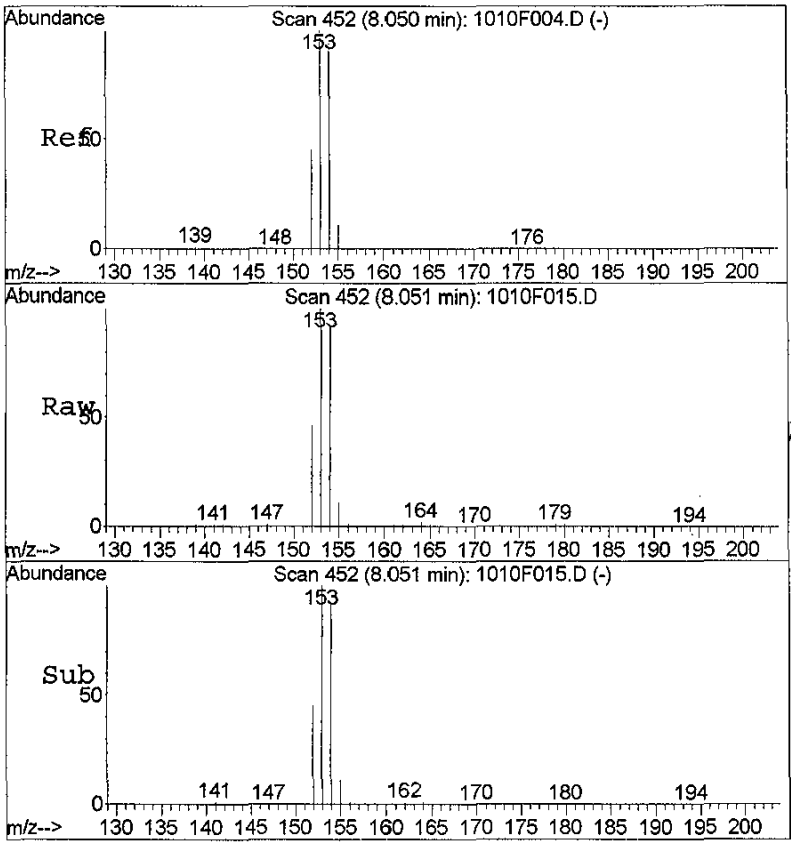


#12
Acenaphthylene
Concen: 84.05 ng/ml
RT: 7.76 min Scan# 416
Delta R.T. -0.02 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:152 Resp: 35793

Ion	Ratio	Lower	Upper
152	100		
153	14.0	0.0	43.2

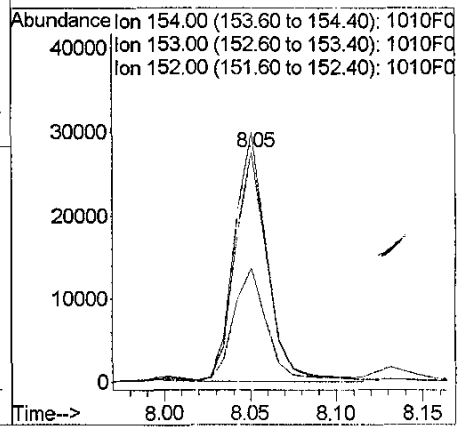


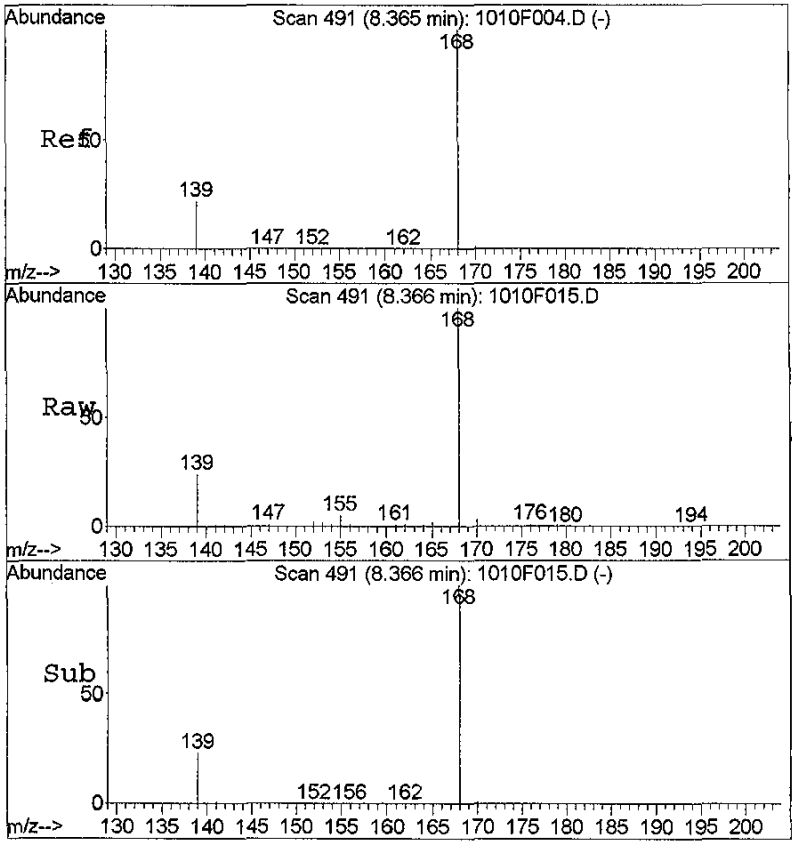


#13
Acenaphthene
Concen: 143.27 ng/ml
RT: 8.05 min Scan# 452
Delta R.T. -0.02 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:154 Resp: 36471

Ion	Ratio	Lower	Upper
154	100		
153	108.2	77.2	137.2
152	48.8	20.0	80.0

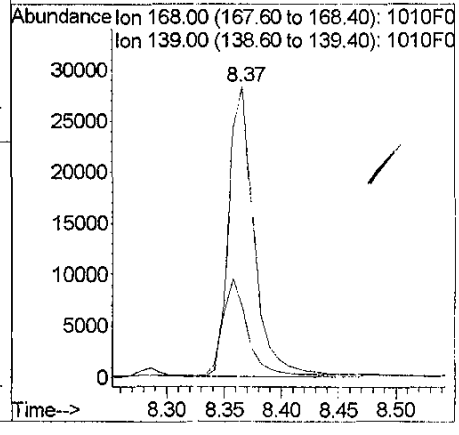


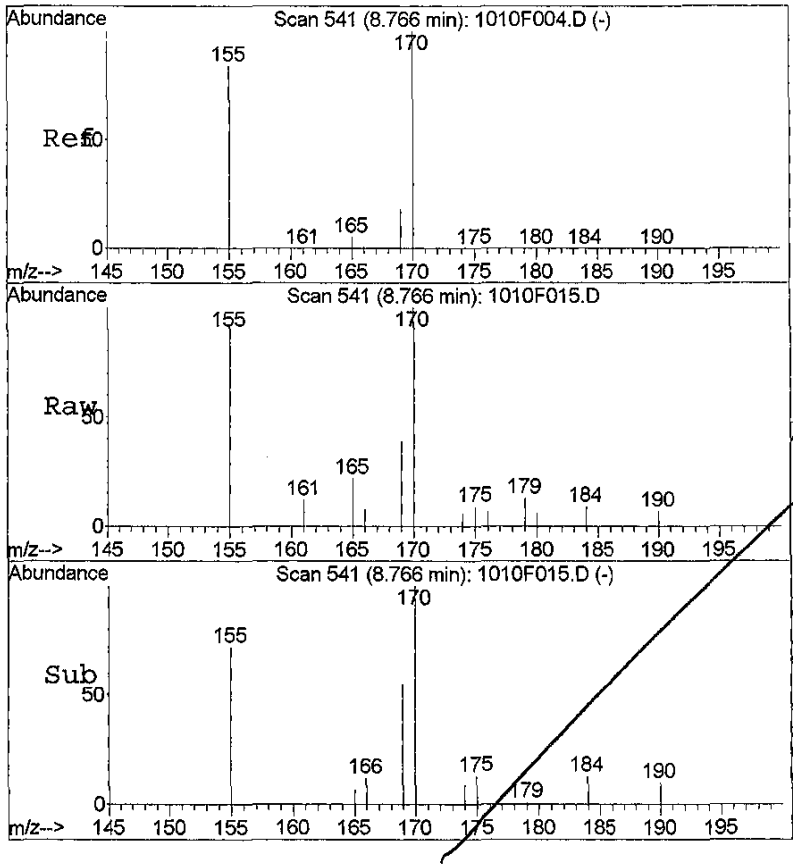


#14
Dibenzofuran
Concen: 113.16 ng/ml
RT: 8.37 min Scan# 491
Delta R.T. -0.02 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:168 Resp: 44046

Ion	Ratio	Lower	Upper
168	100		
139	23.4	0.0	54.0



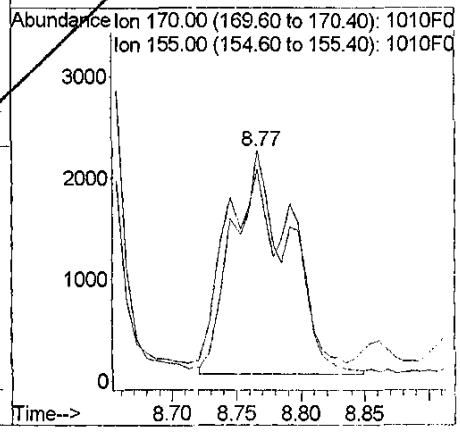


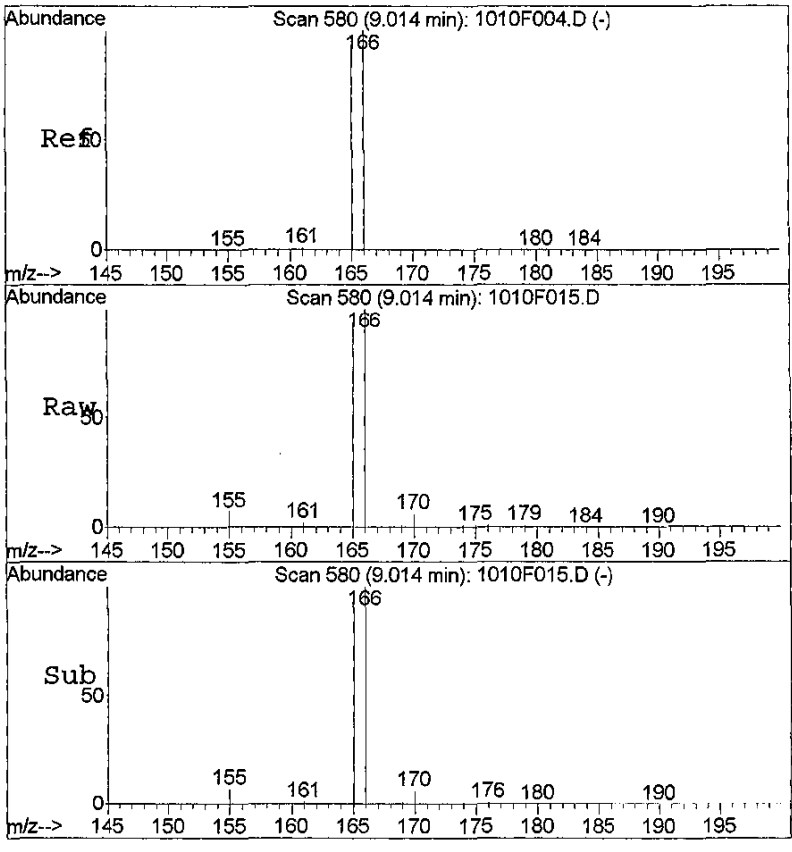
#15
2,3,5-Trimethylnaphthalene
Concen: 26.66 ng/ml m
RT: 8.77 min Scan# 541
Delta R.T. -0.02 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

NT

Tgt Ion:170 Resp: 6652

Ion	Ratio	Lower	Upper
170	100		
155	92.0	44.9	104.9

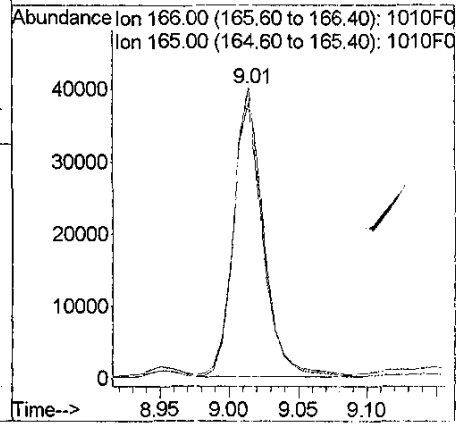


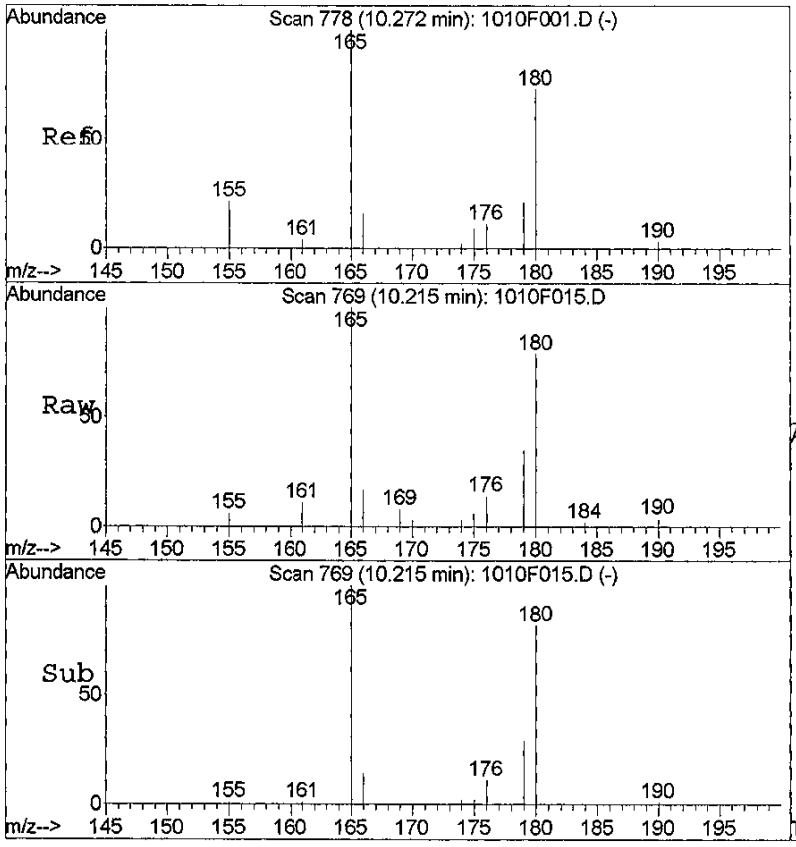


#17
Fluorene
Concen: 189.17 ng/ml
RT: 9.01 min Scan# 580
Delta R.T. -0.02 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:166 Resp: 58529

Ion	Ratio	Lower	Upper
166	100		
165	94.2	63.0	123.0

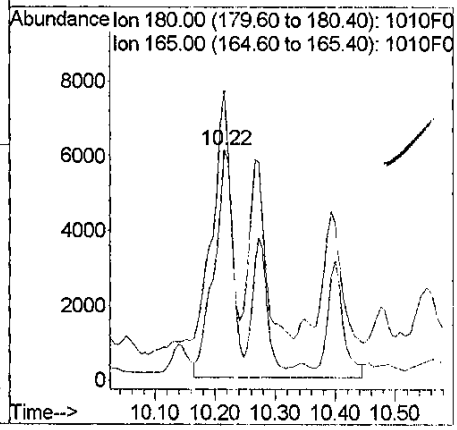


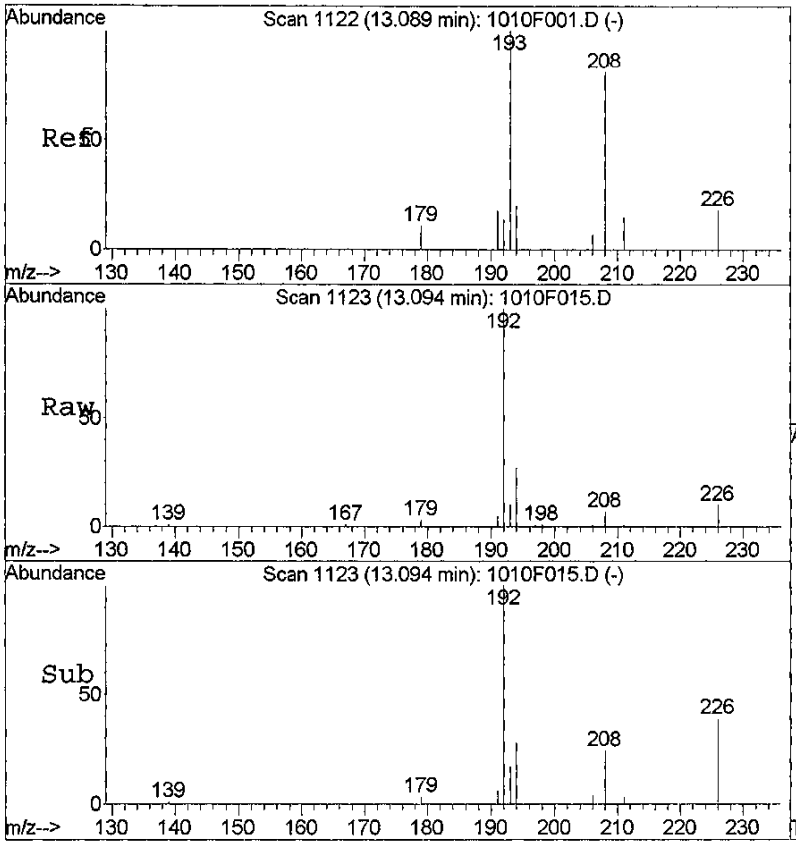


#18
C1-Fluorenes
Concen: 85.42 ng/ml m
RT: 10.22 min Scan# 769
Delta R.T. -0.05 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:180 Resp: 26430

Ion	Ratio	Lower	Upper
180	100		
165	126.2	148.7	208.7#

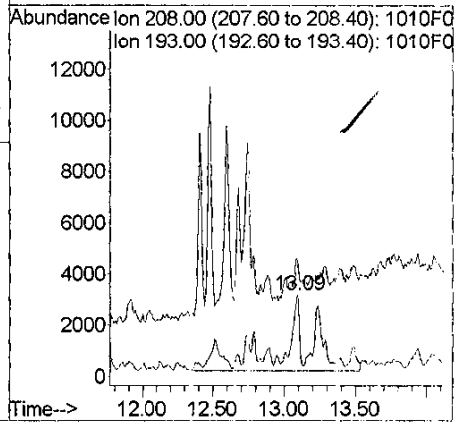


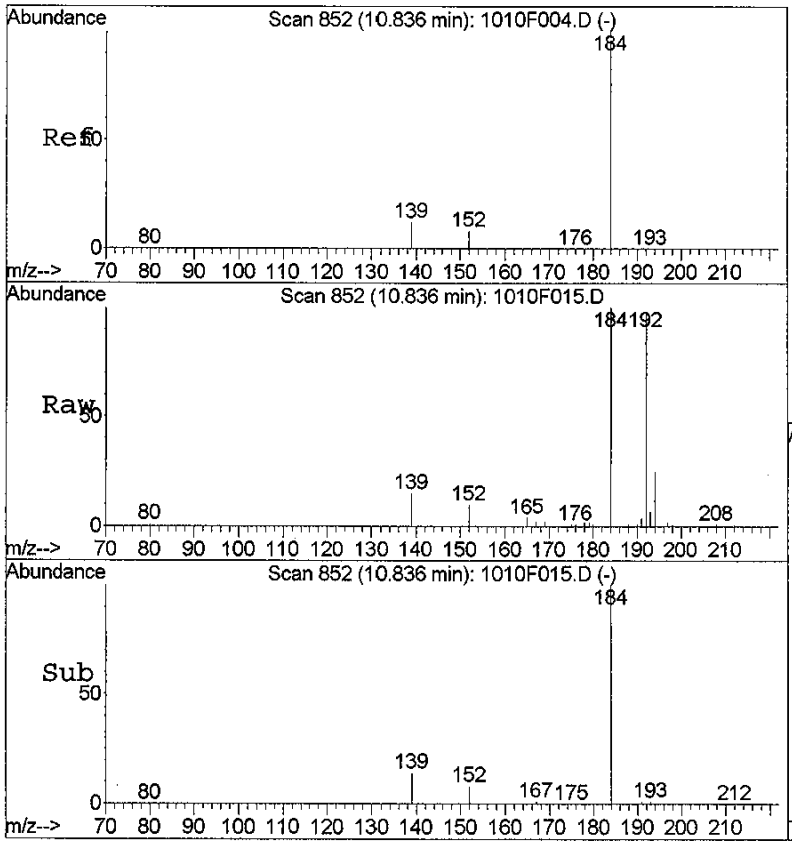


#20
C3-Fluorenes
Concen: 155.46 ng/ml m
RT: 13.09 min Scan# 1123
Delta R.T. 0.01 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:208 Resp: 48098

Ion	Ratio	Lower	Upper
208	100		
193	139.6	92.0	152.0

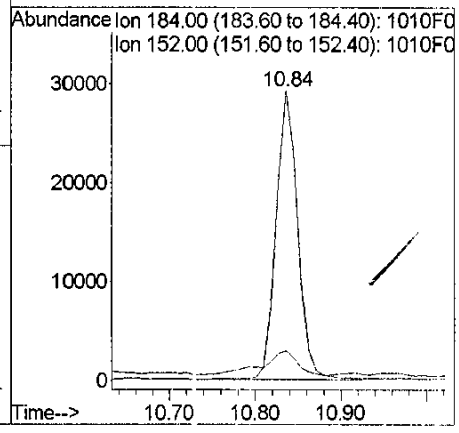


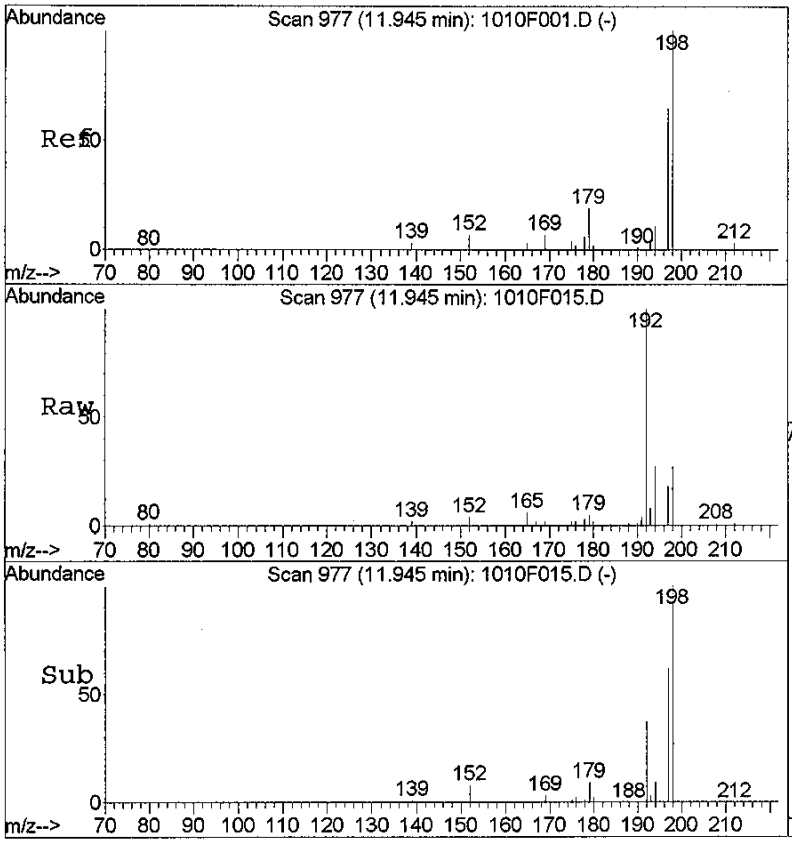


#22
Dibenzothiophene
Concen: 119.41 ng/ml
RT: 10.84 min Scan# 852
Delta R.T. -0.03 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:184 Resp: 50949

Ion	Ratio	Lower	Upper
184	100		
152	8.3	0.0	37.7

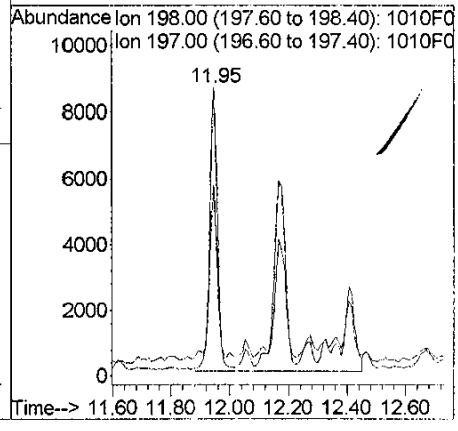


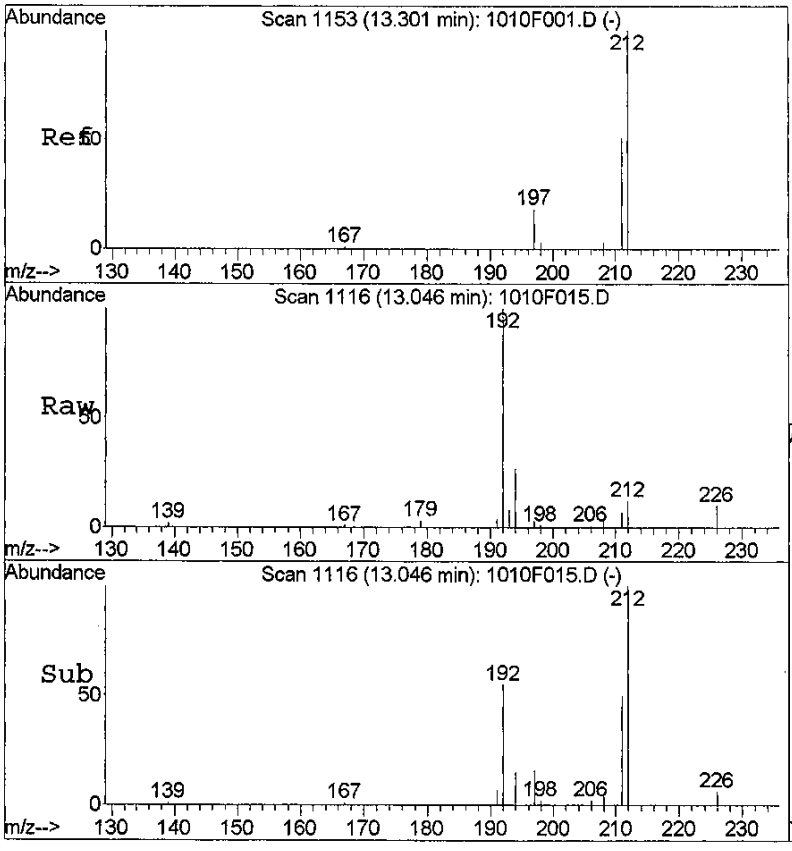


#23
C1-Dibenzothiophenes
Concen: 105.46 ng/ml m
RT: 11.95 min Scan# 977
Delta R.T. -0.52 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:198 Resp: 44997

Ion	Ratio	Lower	Upper
198	100		
197	66.4	74.1	134.1#

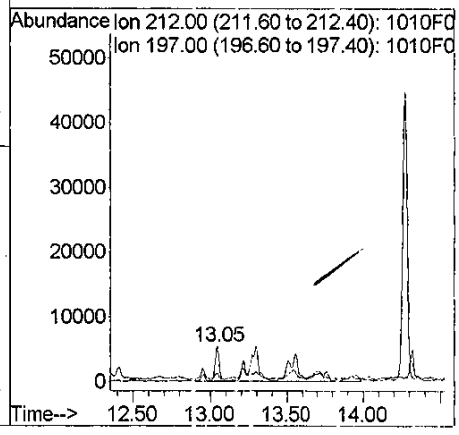


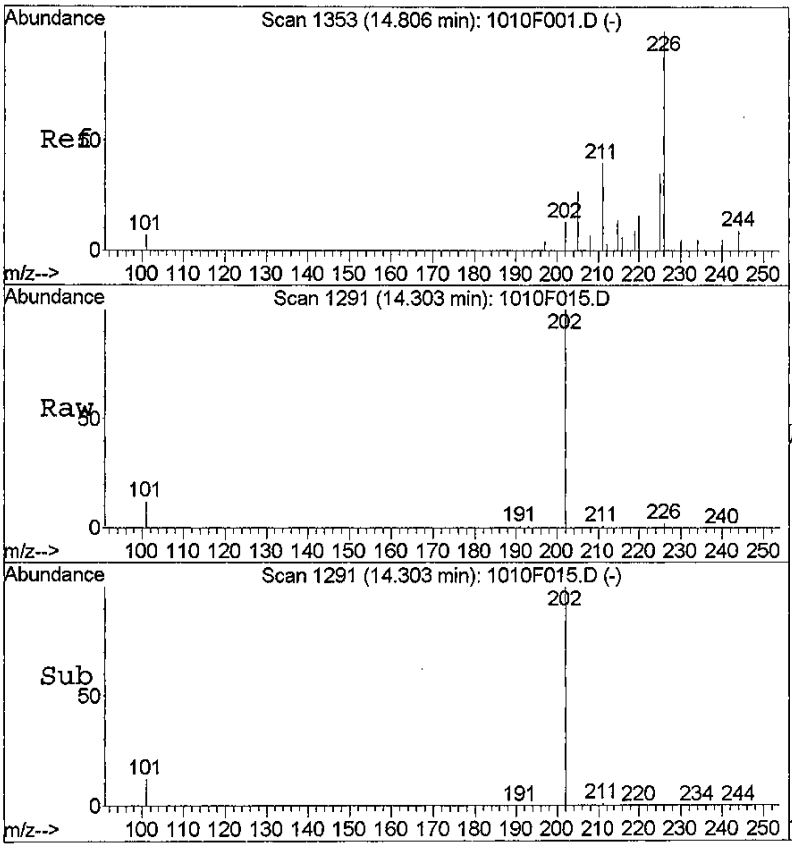


#24
C2-Dibenzothiophenes
Concen: 161.40 ng/ml m
RT: 13.05 min Scan# 1116
Delta R.T. -0.55 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:212 Resp: 68865

Ion	Ratio	Lower	Upper
212	100		
197	24.3	0.0	53.8

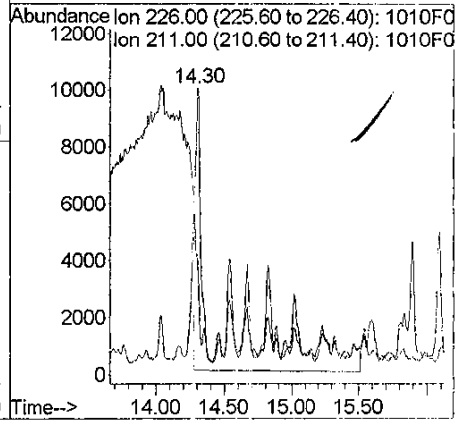


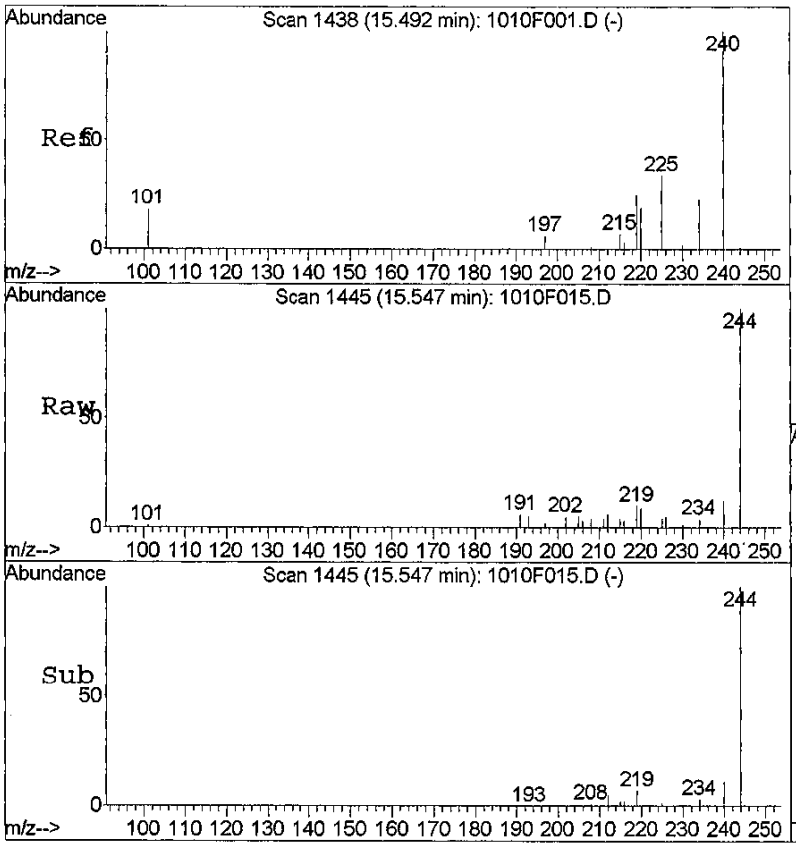


#25
C3-Dibenzothiophenes
Concen: 235.94 ng/ml m
RT: 14.30 min Scan# 1291
Delta R.T. -0.82 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:226 Resp: 100674

Ion	Ratio	Lower	Upper
226	100		
211	40.0	27.1	87.1

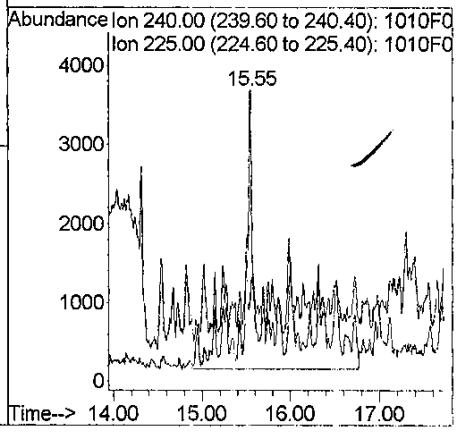


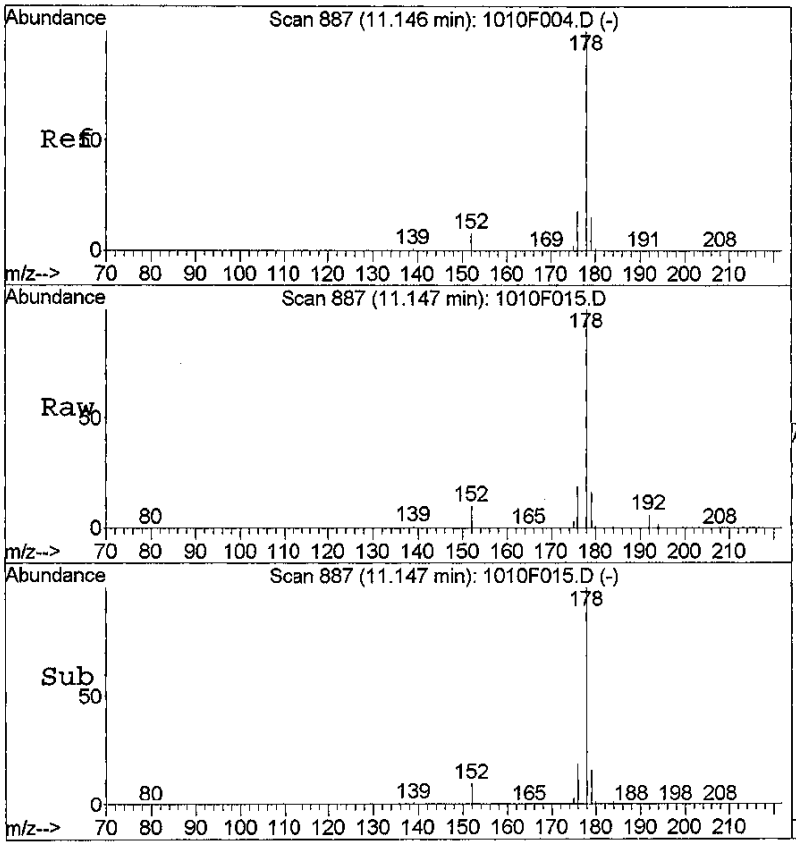


#26
C4-Dibenzothiophenes
Concen: 136.82 ng/ml m
RT: 15.55 min Scan# 1445
Delta R.T. -0.33 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:240 Resp: 58379

Ion	Ratio	Lower	Upper
240	100		
225	30.7	0.0	60.0

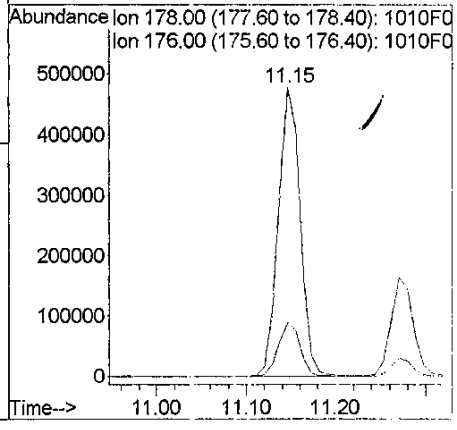


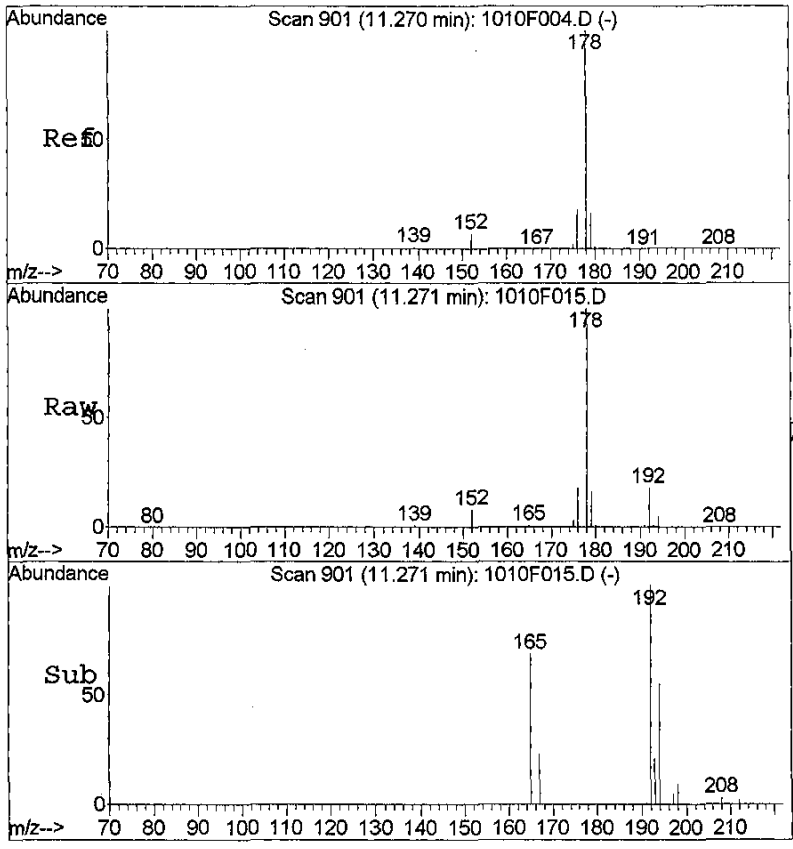


#27
Phenanthrene
Concen: 1854.35 ng/ml
RT: 11.15 min Scan# 887
Delta R.T. -0.02 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:178 Resp: 813809

Ion	Ratio	Lower	Upper
178	100		
176	18.9	0.0	48.5

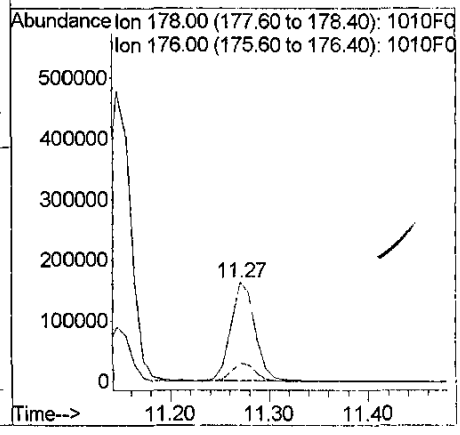


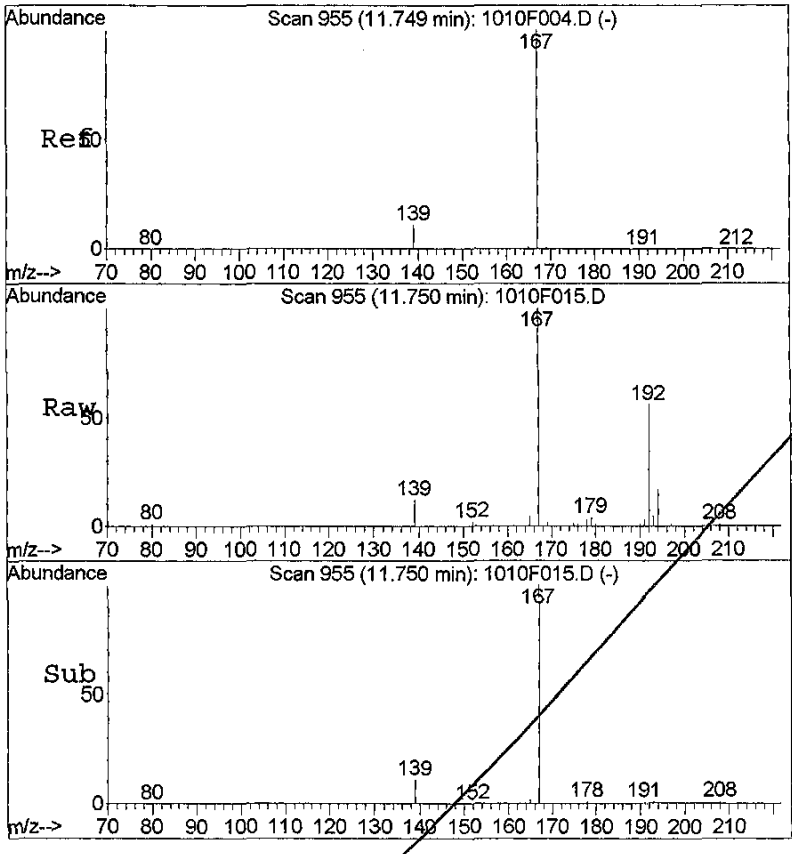


#28
Anthracene
Concen: 653.06 ng/ml
RT: 11.27 min Scan# 901
Delta R.T. -0.03 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:178 Resp: 279383

Ion	Ratio	Lower	Upper
178	100		
176	18.4	0.0	47.6



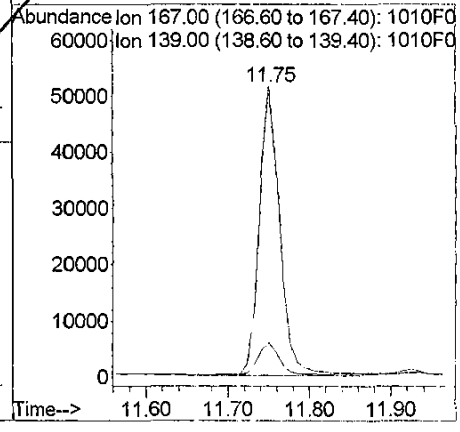


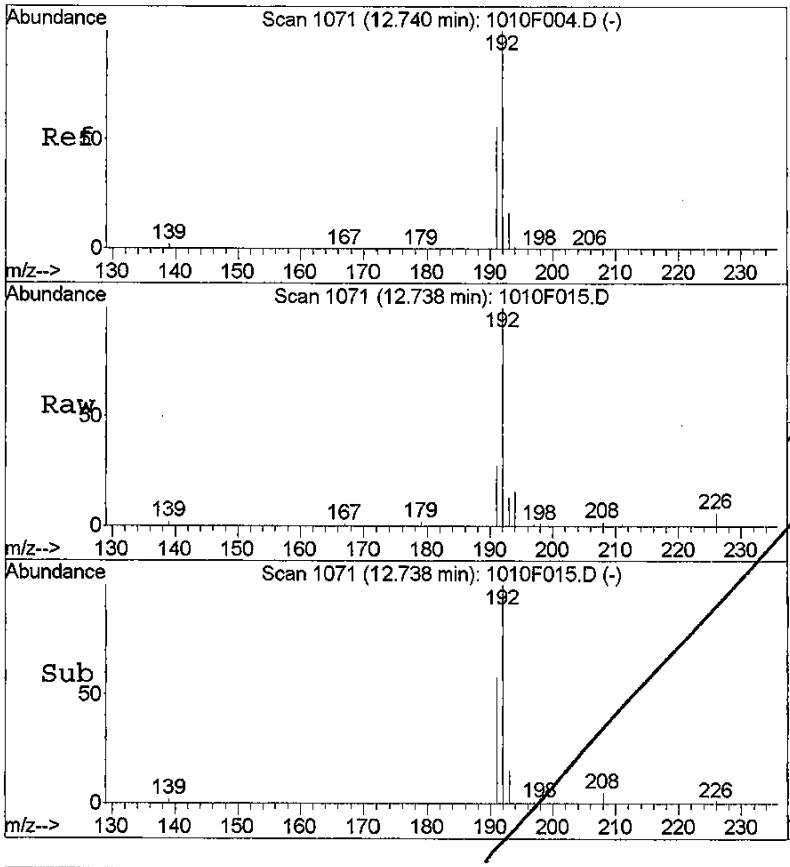
#29
Carbazole
Concen: 235.78 ng/ml
RT: 11.75 min Scan# 955
Delta R.T. -0.02 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

NT

Tgt Ion:167 Resp: 90694

Ion	Ratio	Lower	Upper
167	100		
139	11.1	0.0	41.8

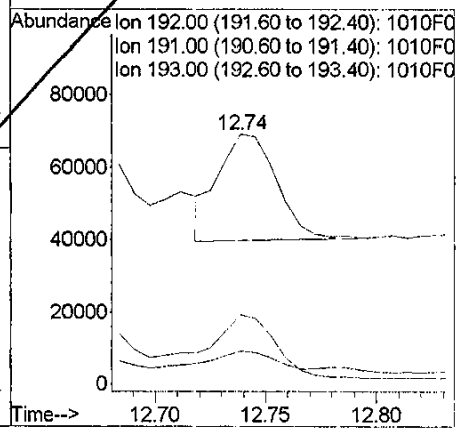


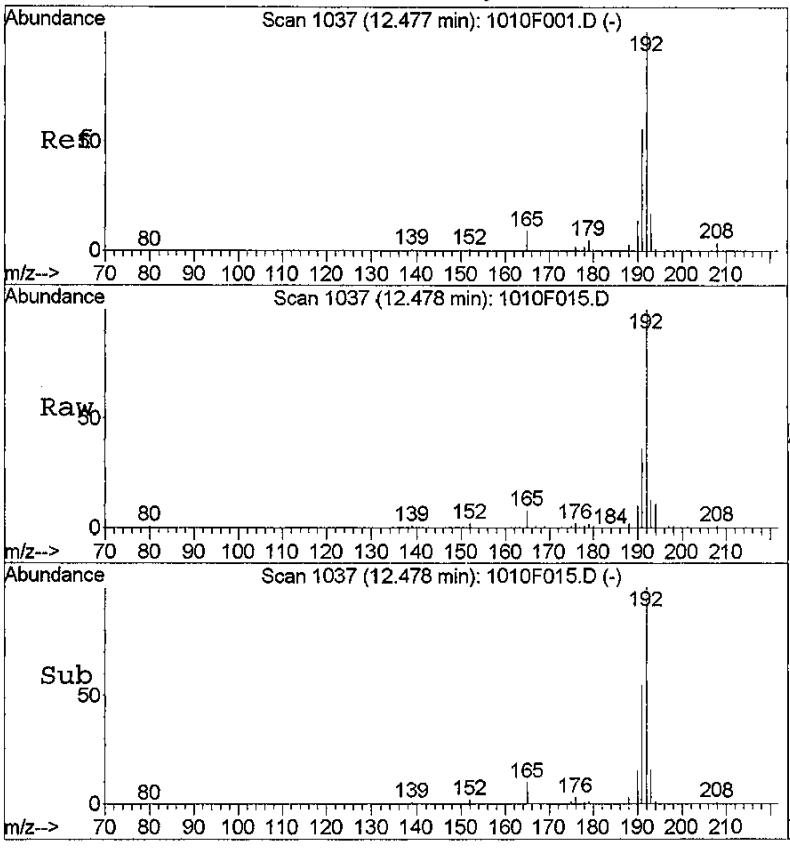


#30
1-Methylphenanthrene
Concen: 161.14 ng/ml
RT: 12.74 min Scan# 1071
Delta R.T. -0.03 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:192 Resp: 54113

Ion	Ratio	Lower	Upper
192	100		
191	61.1	26.7	86.7
193	18.3	0.0	45.6

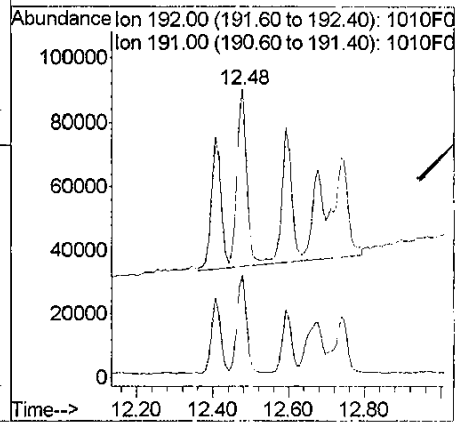


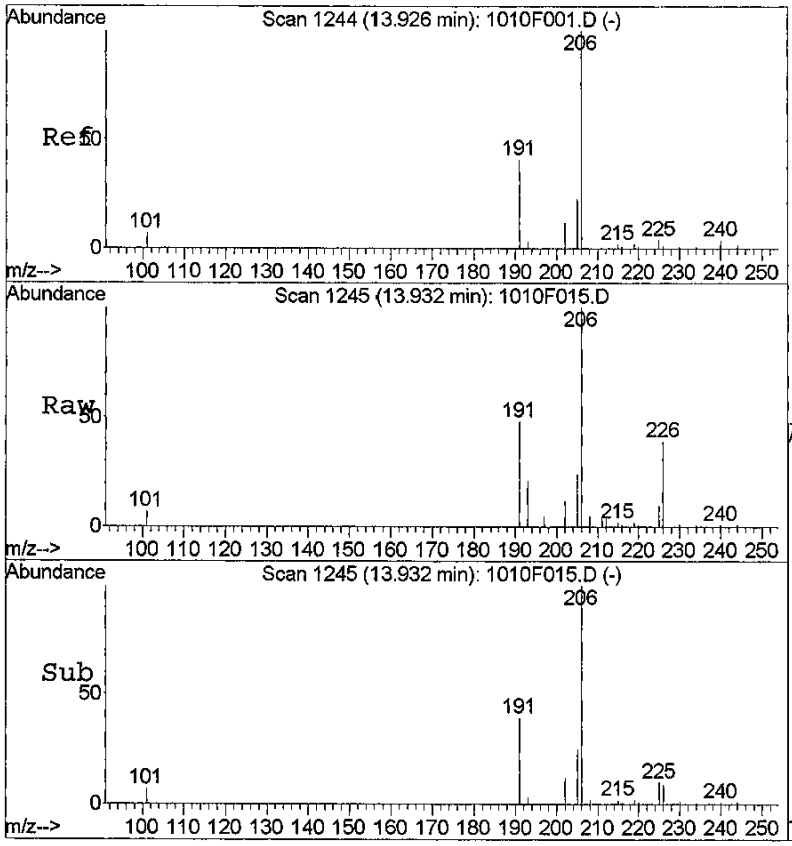


#31
C1-Phenanthrenes/Anthracenes
Concen: 883.27 ng/ml m
RT: 12.48 min Scan# 1037
Delta R.T. -0.29 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:192 Resp: 387637

Ion	Ratio	Lower	Upper
192	100		
191	35.8	25.3	85.3

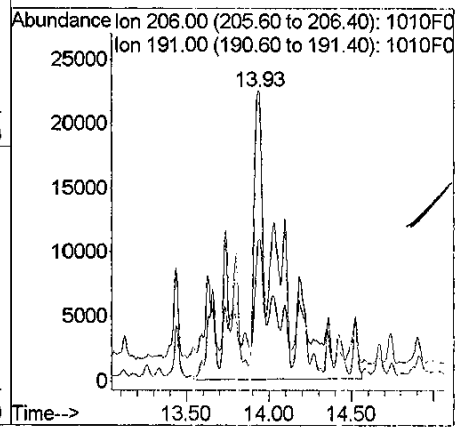


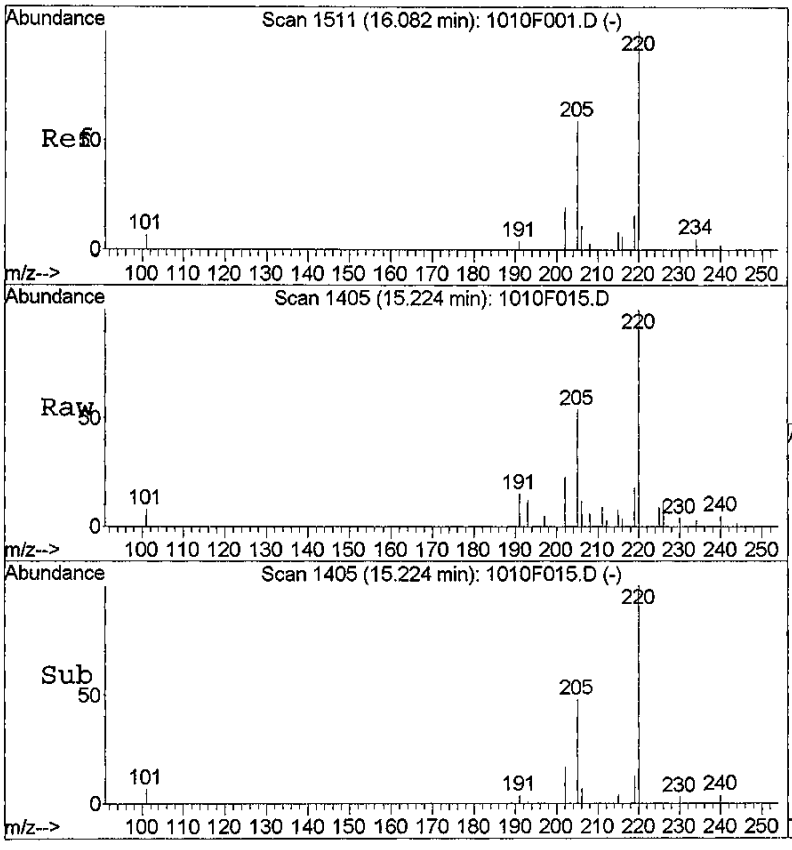


#32
C2-Phenanthrenes/Anthracenes
Concen: 647.44 ng/ml m
RT: 13.93 min Scan# 1245
Delta R.T. -0.30 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:206 Resp: 284137

Ion	Ratio	Lower	Upper
206	100		
191	48.1	15.6	75.6

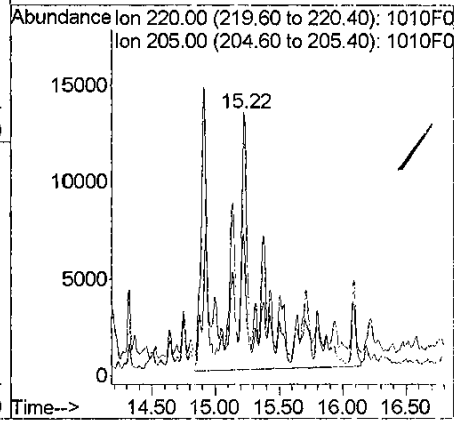


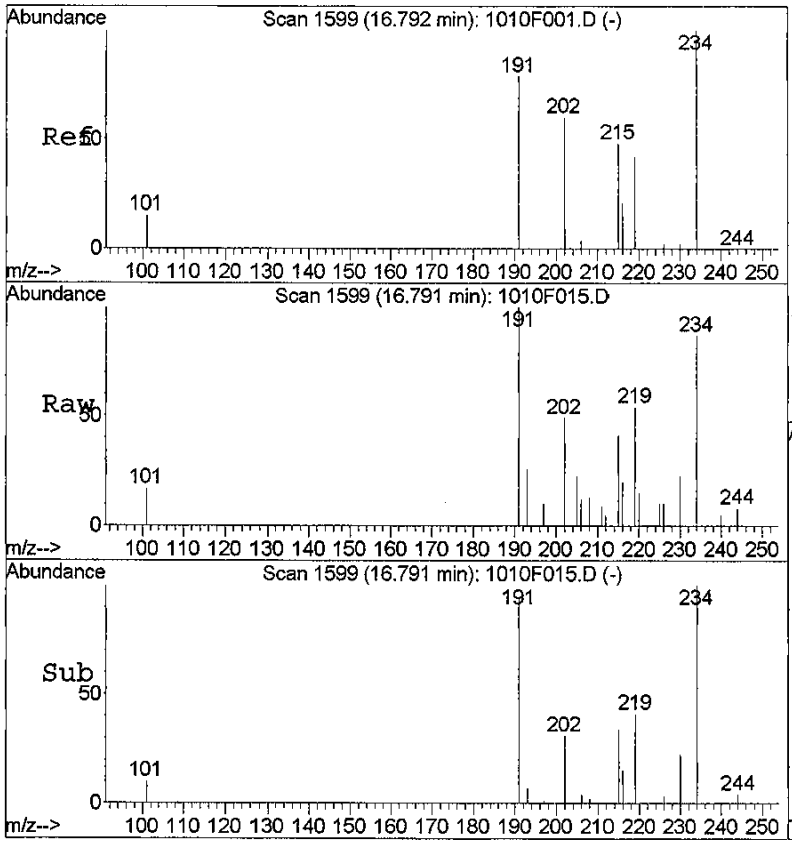


#33
C3-Phenanthrenes/Anthracenes
Concen: 432.70 ng/ml m
RT: 15.22 min Scan# 1405
Delta R.T. -0.31 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:220 Resp: 189896

Ion	Ratio	Lower	Upper
220	100		
205	53.9	20.0	80.0

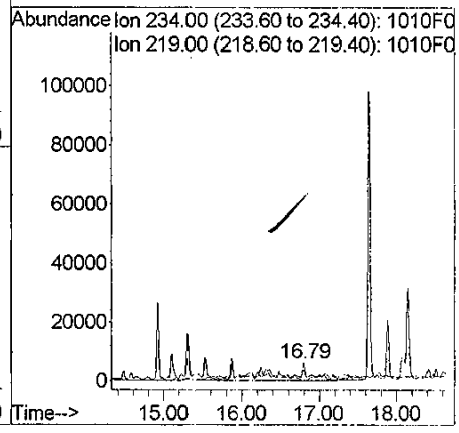


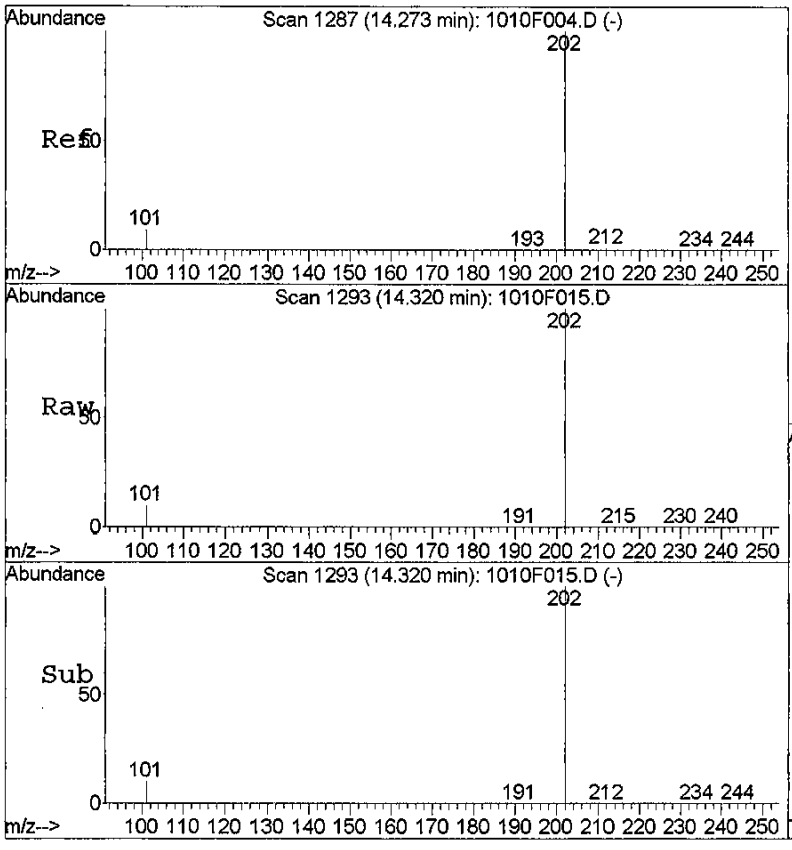


#34
C4-Phenanthrenes/Anthracenes
Concen: 310.38 ng/ml m
RT: 16.79 min Scan# 1599
Delta R.T. -0.31 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:234 Resp: 136214

Ion	Ratio	Lower	Upper
234	100		
219	62.3	17.7	77.7

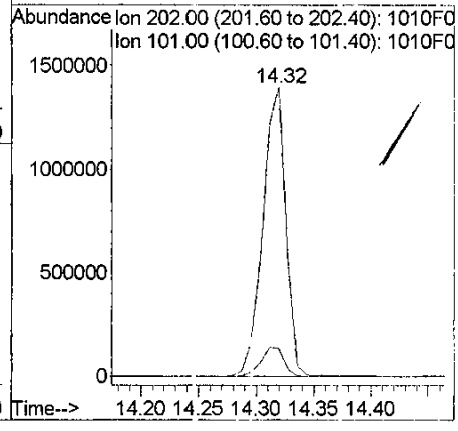


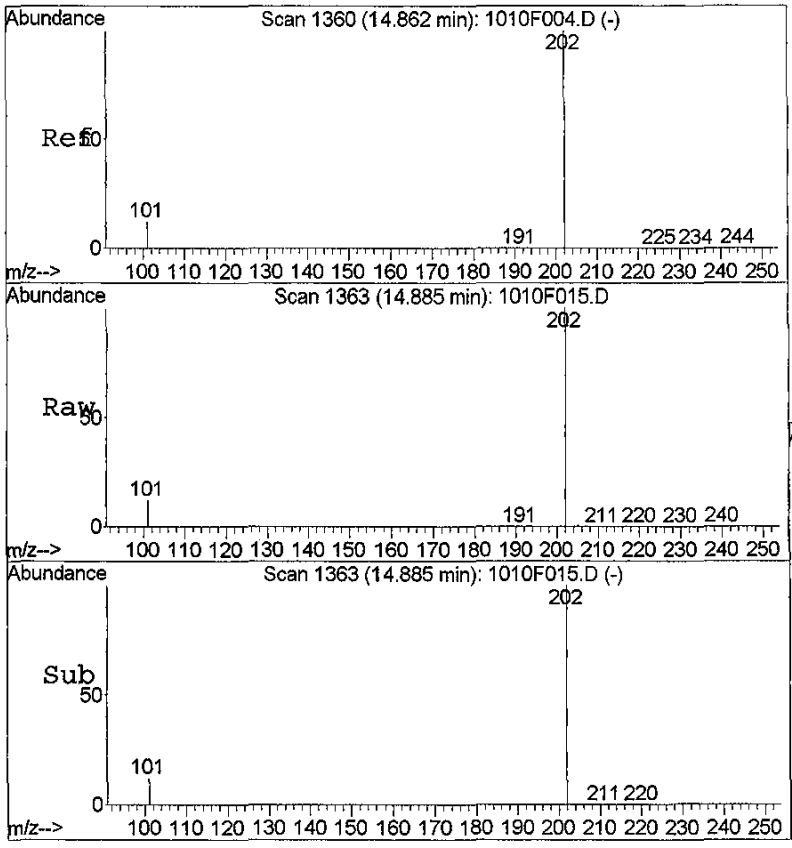


#35
Fluoranthene
Concen: 3885.67 ng/ml
RT: 14.32 min Scan# 1293
Delta R.T. 0.02 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:202 Resp: 1933563

Ion	Ratio	Lower	Upper
202	100		
101	9.6	0.0	41.0

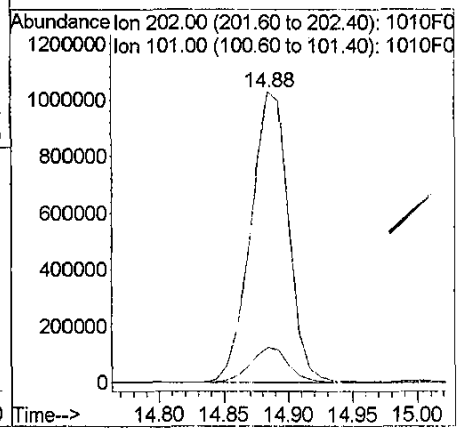


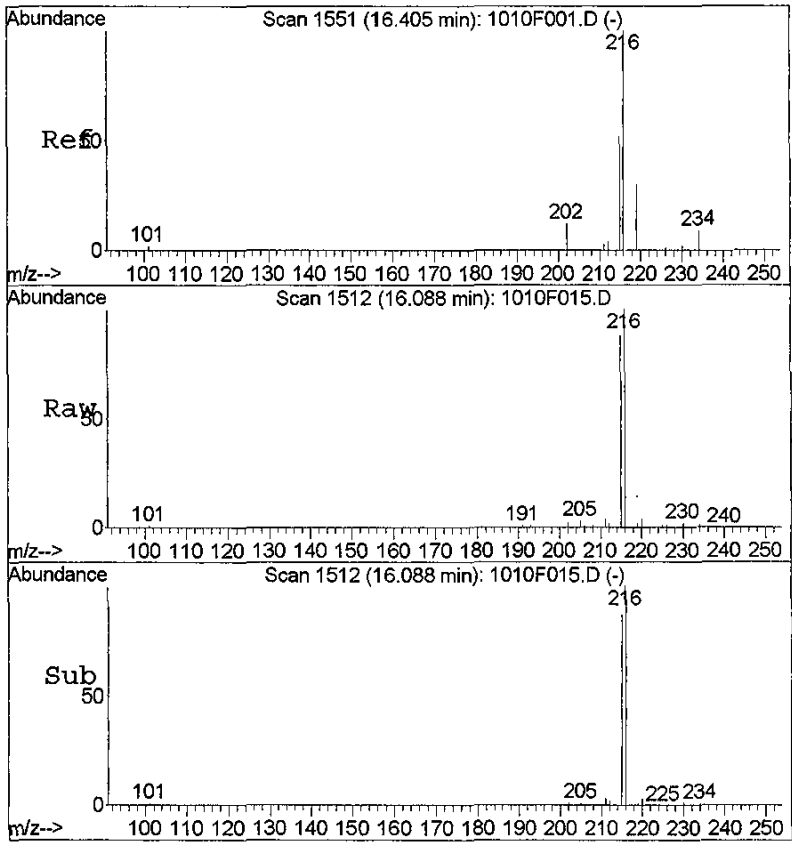


#38
Pyrene
Concen: 3848.89 ng/ml
RT: 14.88 min Scan# 1363
Delta R.T. -0.01 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:202 Resp: 2092904

Ion	Ratio	Lower	Upper
202	100		
101	12.2	0.0	43.8

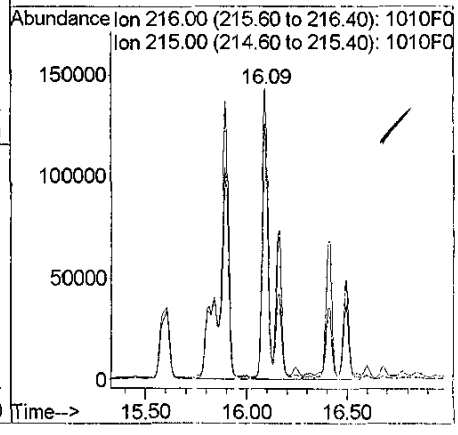


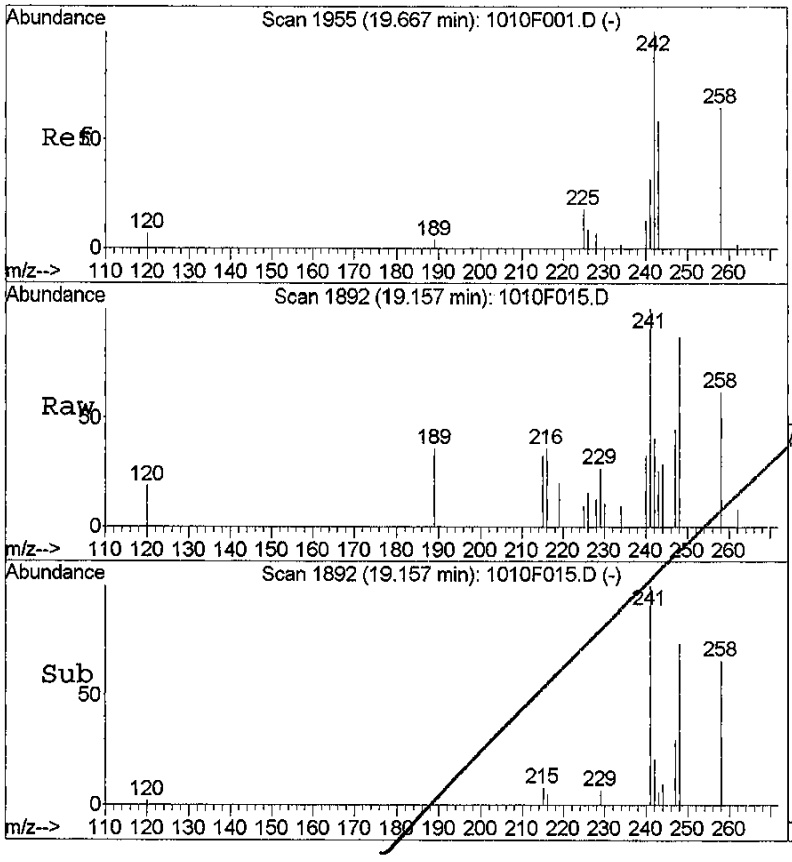


#39
C1-Fluoranthenes/Pyrenes
Concen: 1993.12 ng/ml m
RT: 16.09 min Scan# 1512
Delta R.T. -0.47 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:216 Resp: 1083796

Ion	Ratio	Lower	Upper
216	100		
215	87.9	54.8	114.8



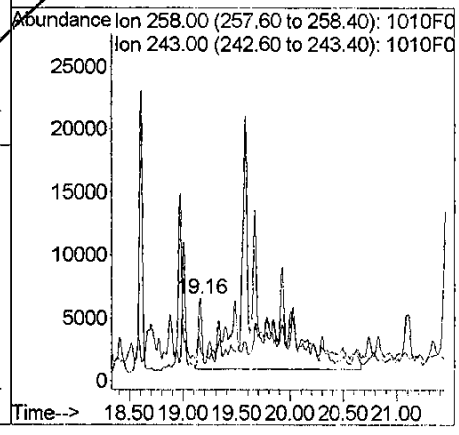


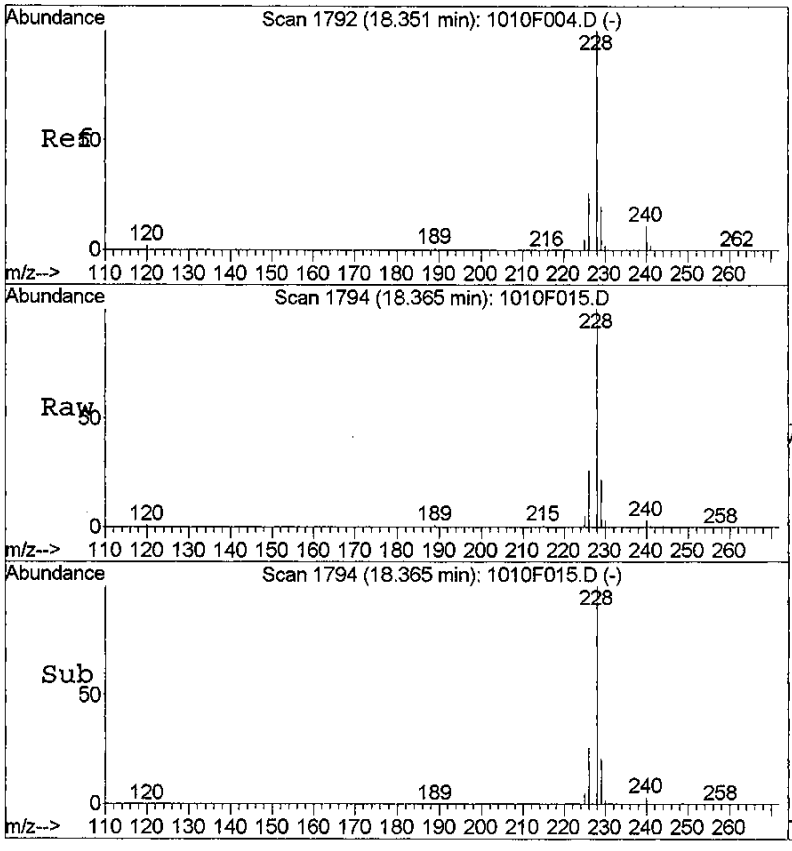
NT

#42
C4-Fluoranthenes/Pyrenes
Concen: 309.60 ng/mL m
RT: 19.16 min Scan# 1892
Delta R.T. -0.83 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:258 Resp: 168349

Ion	Ratio	Lower	Upper
258	100		
243	40.9	30.0	70.0

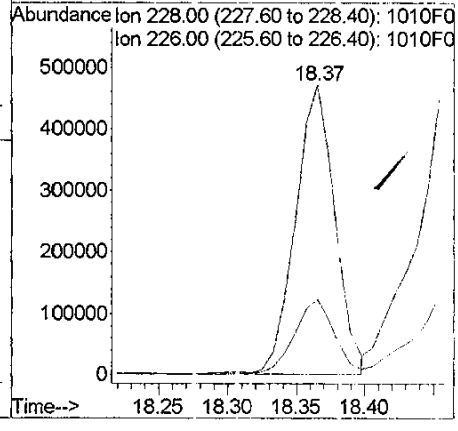


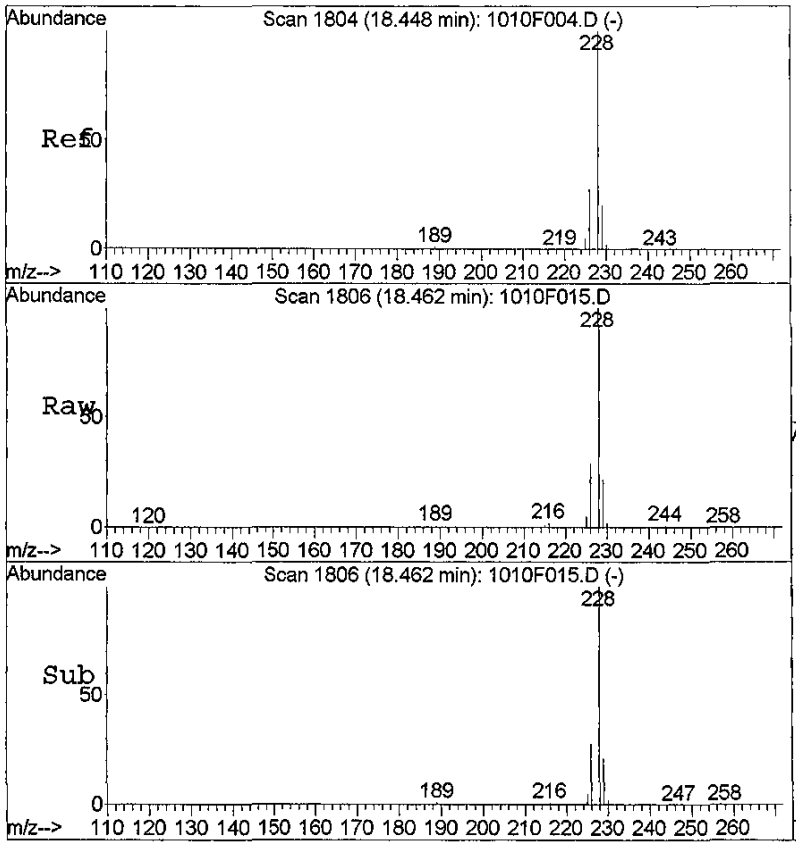


#44
Benz(a)anthracene
Concen: 1796.88 ng/ml
RT: 18.37 min Scan# 1794
Delta R.T. -0.01 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:228 Resp: 944739

Ion	Ratio	Lower	Upper
228	100		
226	25.8	0.0	55.8

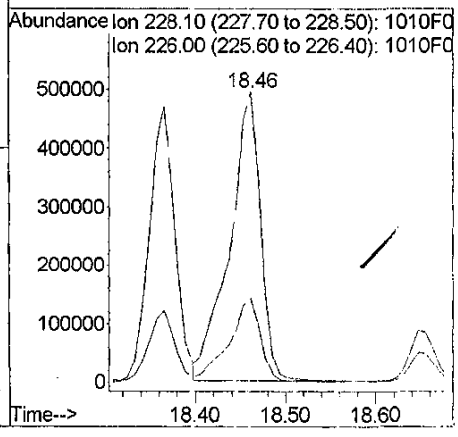


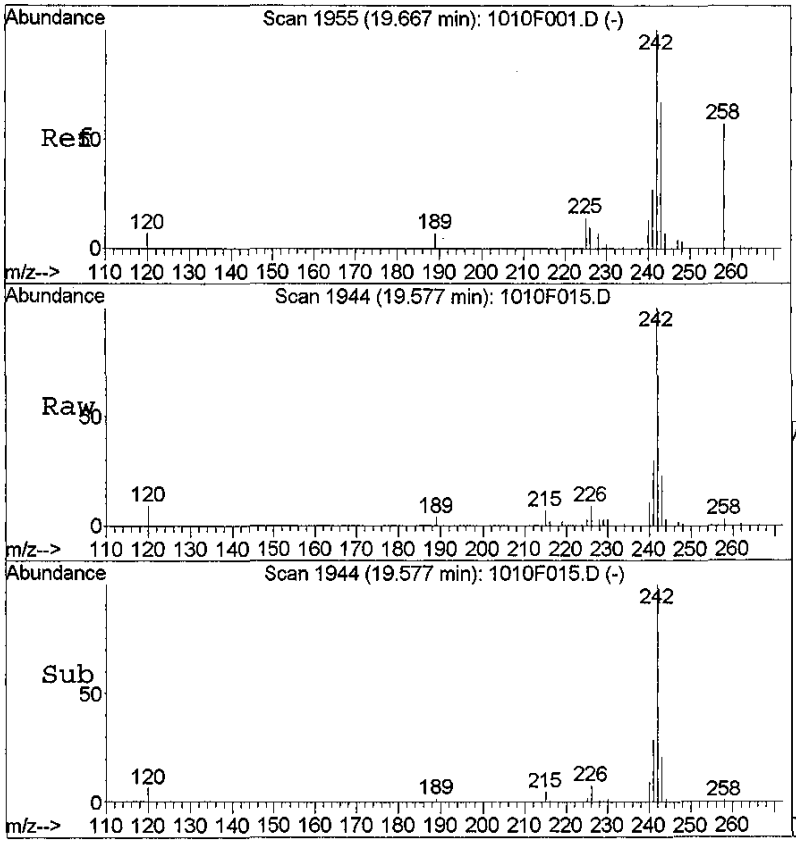


#45
Chrysene
Concen: 2365.81 ng/ml
RT: 18.46 min Scan# 1806
Delta R.T. -0.01 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:228 Resp: 1180903

Ion	Ratio	Lower	Upper
228	100		
226	28.3	0.0	58.6

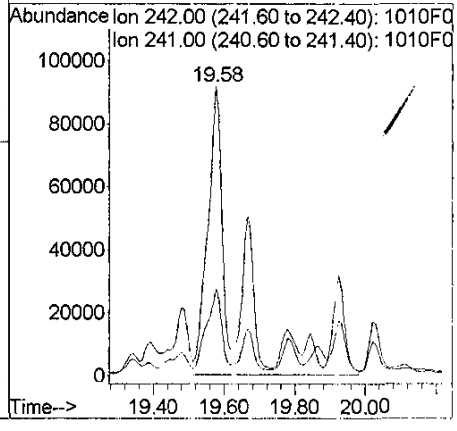


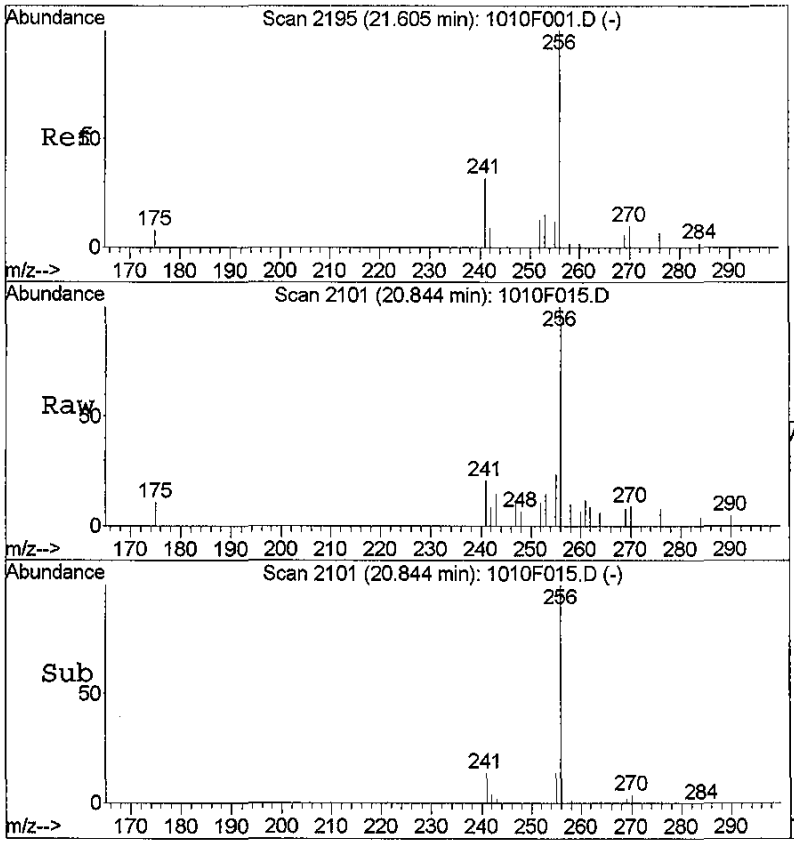


#46
C1-Chrysenes
Concen: 1039.13 ng/ml m
RT: 19.58 min Scan# 1944
Delta R.T. -0.41 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:242 Resp: 518687

Ion	Ratio	Lower	Upper
242	100		
241	30.0	0.1	60.1

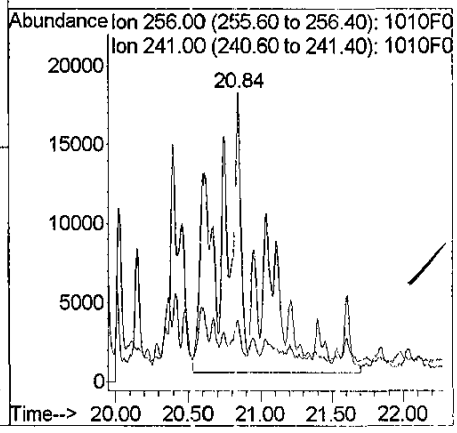


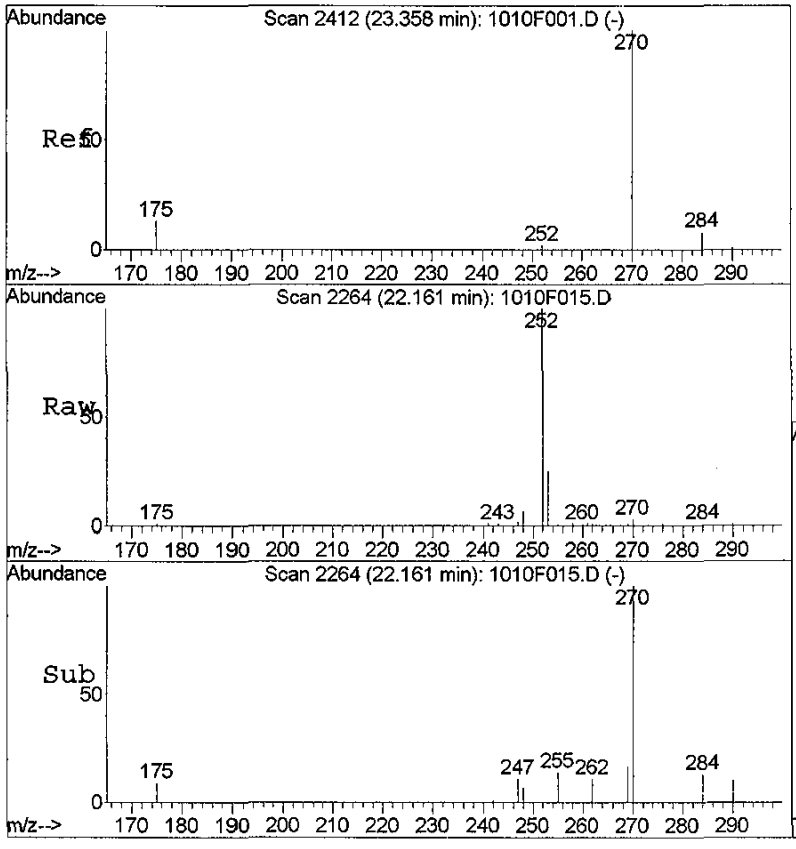


#47
C2-Chrysenes
Concen: 633.24 ng/ml m
RT: 20.84 min Scan# 2101
Delta R.T. -0.65 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:256 Resp: 316085

Ion	Ratio	Lower	Upper
256	100		
241	21.1	7.8	67.8

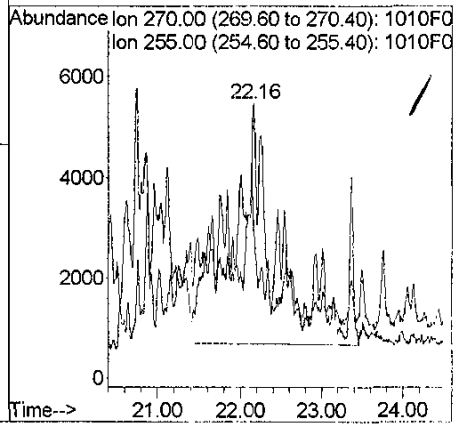


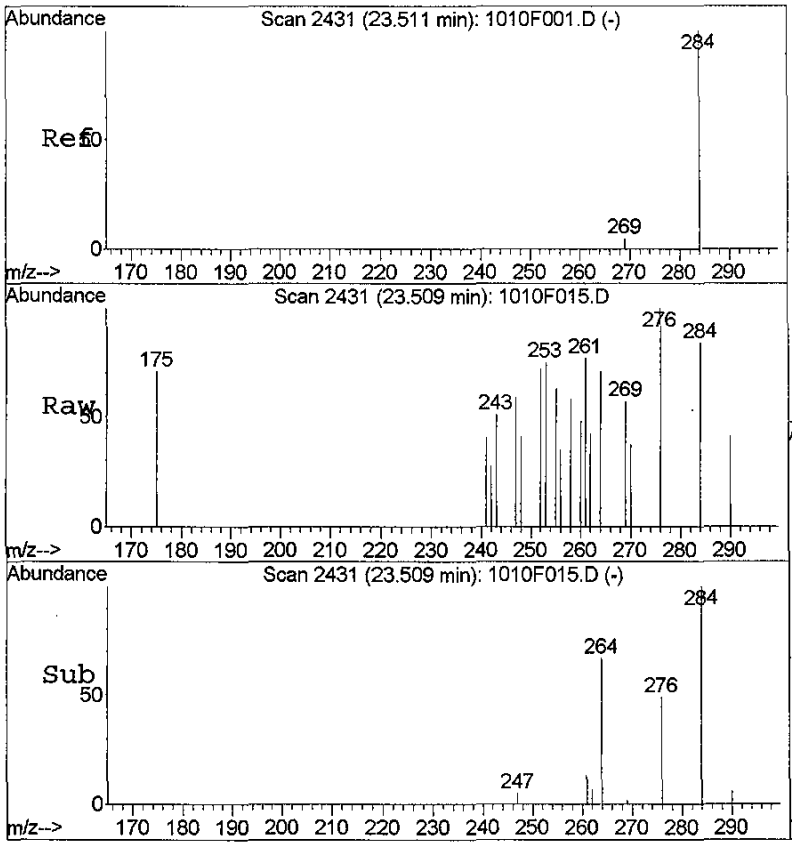


#48
C3-Chrysenes
Concen: 383.80 ng/ml m
RT: 22.16 min Scan# 2264
Delta R.T. -0.53 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:270 Resp: 191575

Ion	Ratio	Lower	Upper
270	100		
255	52.9	0.0	56.7

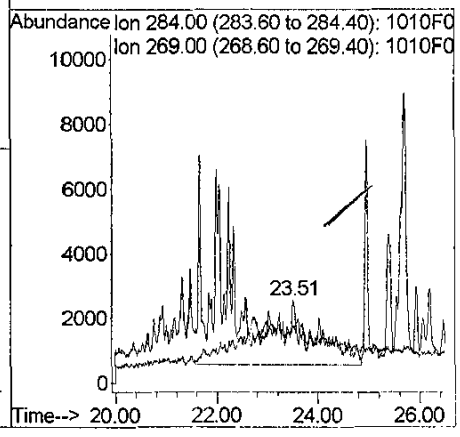


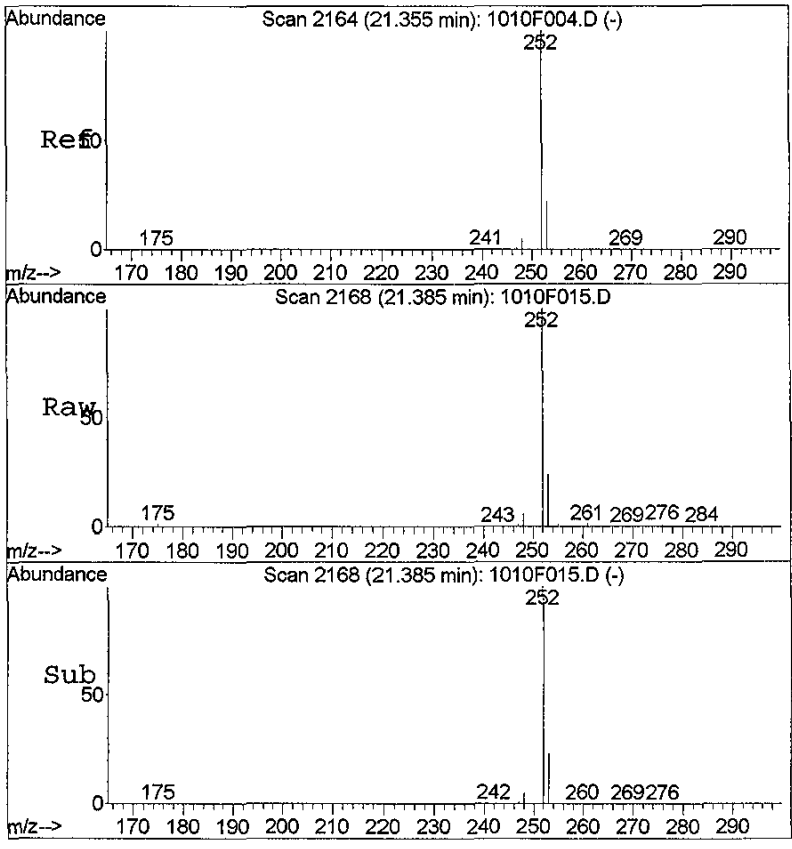


#49
C4-Chrysenes
Concen: 287.63 ng/ml m
RT: 23.51 min Scan# 2431
Delta R.T. -0.49 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:284 Resp: 143570

Ion	Ratio	Lower	Upper
284	100		
269	68.3	16.2	76.2

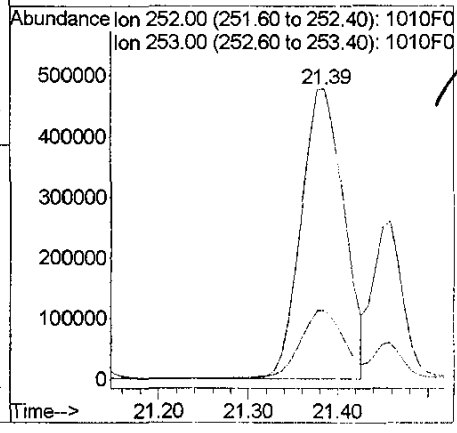


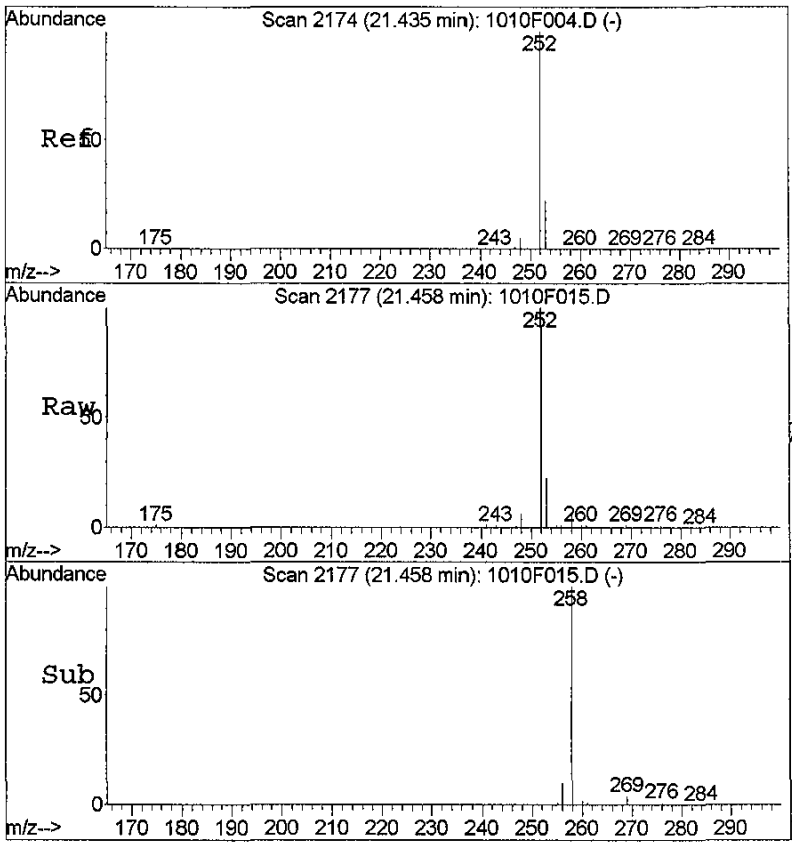


#51
Benzo(b)fluoranthene
Concen: 2718.03 ng/ml
RT: 21.39 min Scan# 2168
Delta R.T. 0.01 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:252 Resp: 1585144

Ion	Ratio	Lower	Upper
252	100		
253	23.2	0.0	51.8

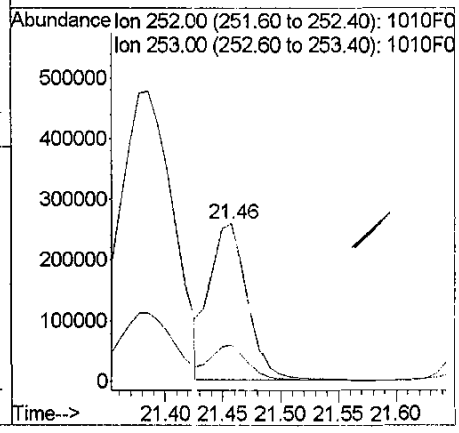


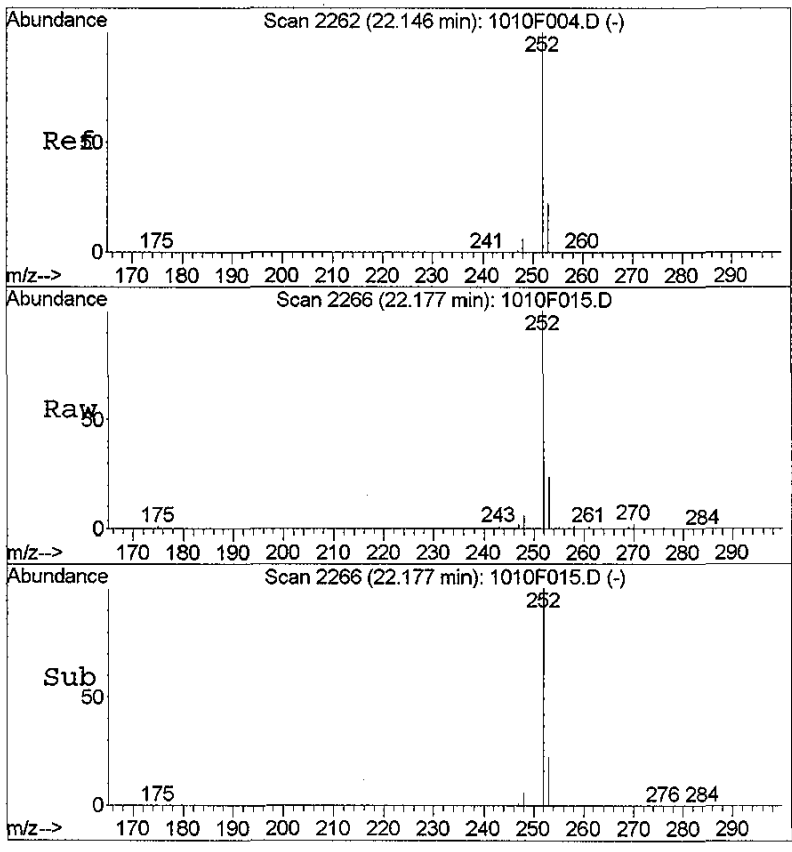


#52
Benzo(k)fluoranthene
Concen: 980.82 ng/ml
RT: 21.46 min Scan# 2177
Delta R.T. -0.01 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:252 Resp: 585796

Ion	Ratio	Lower	Upper
252	100		
253	22.7	0.0	51.7

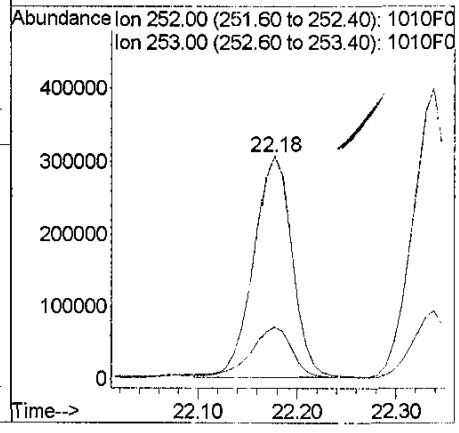


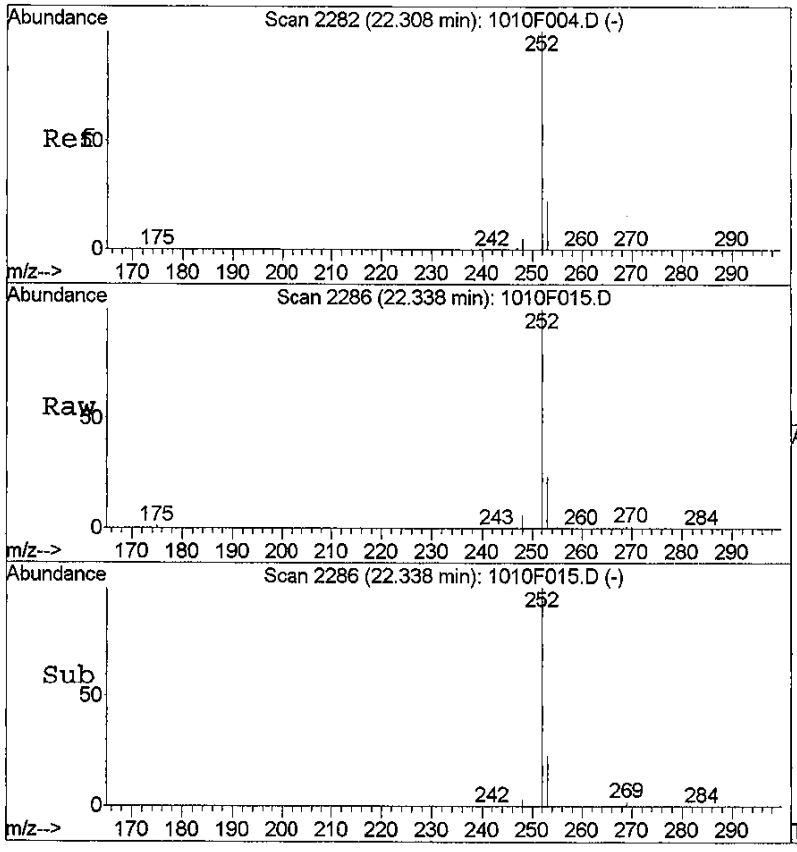


#53
Benzo(e)pyrene
Concen: 1445.48 ng/ml
RT: 22.18 min Scan# 2266
Delta R.T. 0.00 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:252 Resp: 814094

Ion	Ratio	Lower	Upper
252	100		
253	22.8	0.0	52.0

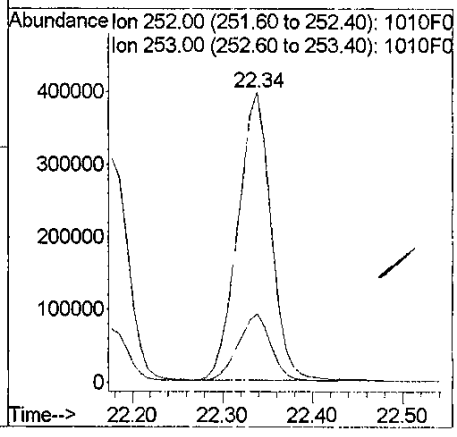


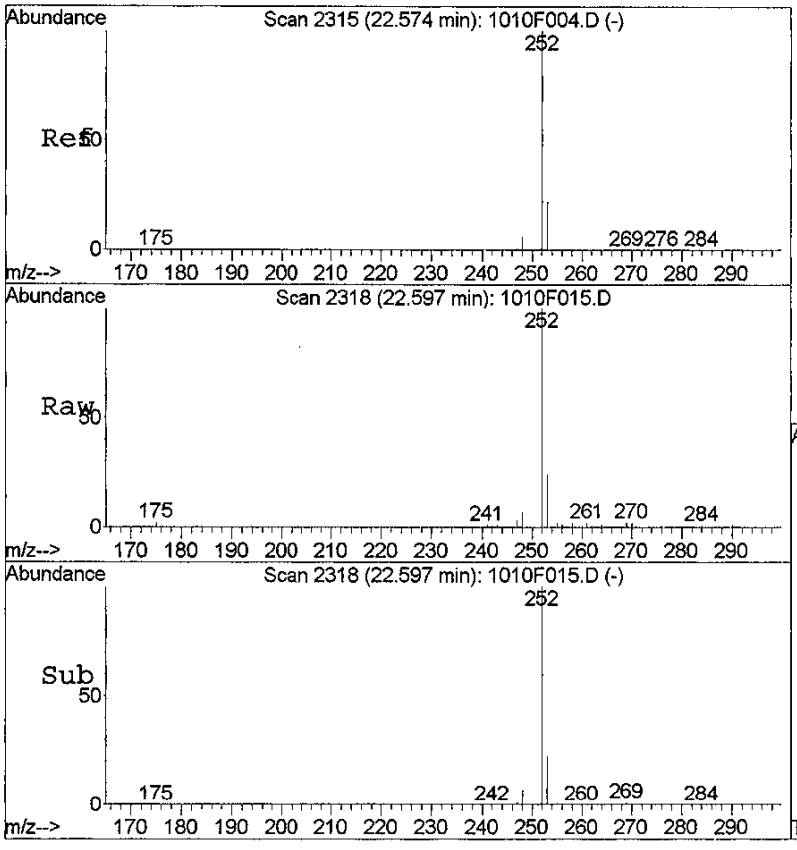


#54
Benzo(a)pyrene
Concen: 1890.64 ng/ml
RT: 22.34 min Scan# 2286
Delta R.T. 0.00 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:252 Resp: 1016444

Ion	Ratio	Lower	Upper
252	100		
253	22.9	0.0	51.8

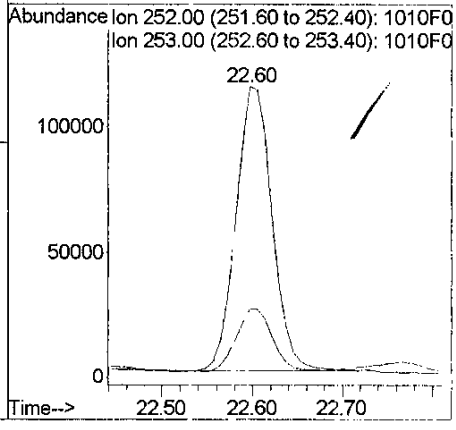


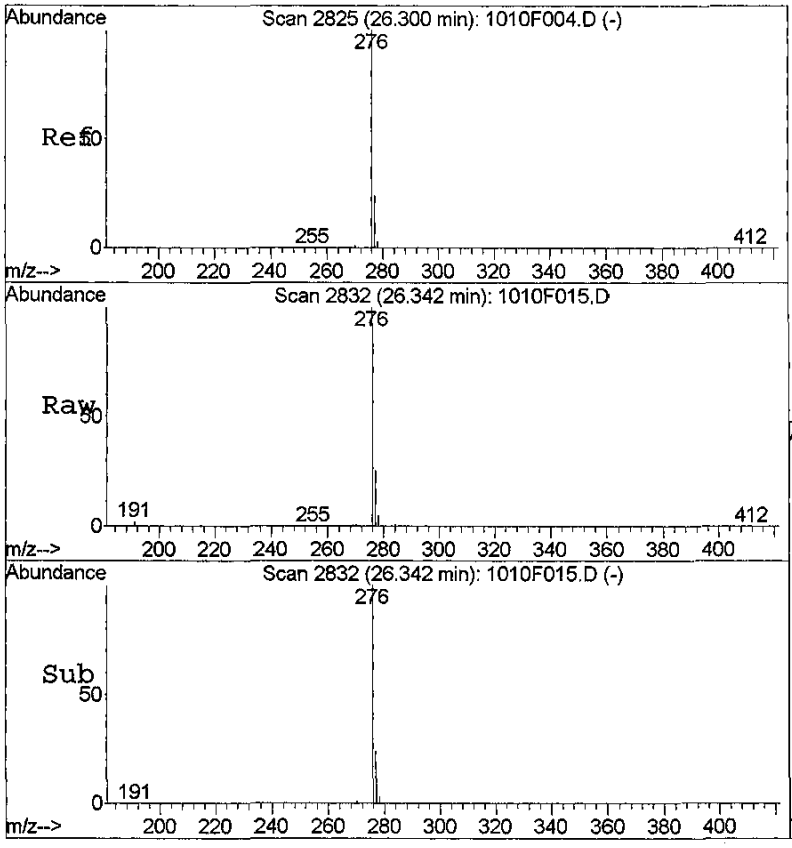


#55
Perylene
Concen: 577.87 ng/ml
RT: 22.60 min Scan# 2318
Delta R.T. -0.02 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:252 Resp: 314313

Ion	Ratio	Lower	Upper
252	100		
253	22.0	0.0	51.8

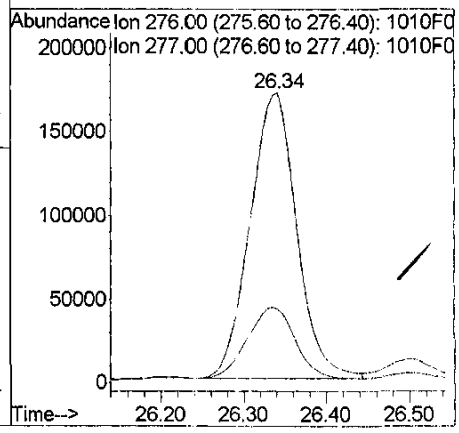


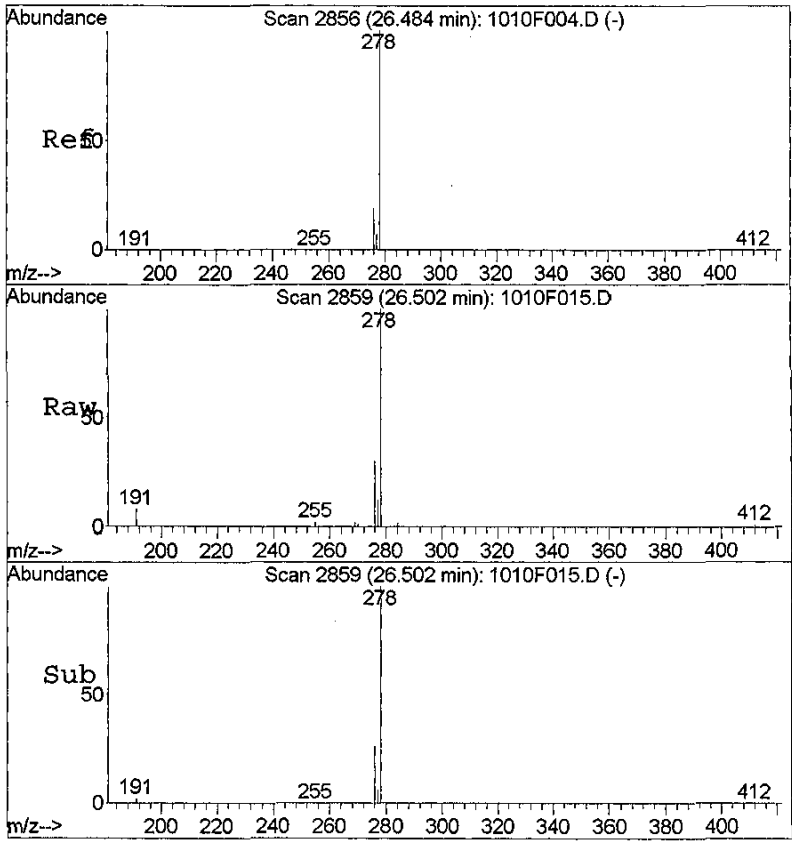


#56
Indeno(1,2,3-cd)pyrene
Concen: 1190.11 ng/ml
RT: 26.34 min Scan# 2832
Delta R.T. -0.00 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:276 Resp: 675123

Ion	Ratio	Lower	Upper
276	100		
277	24.5	0.0	53.8

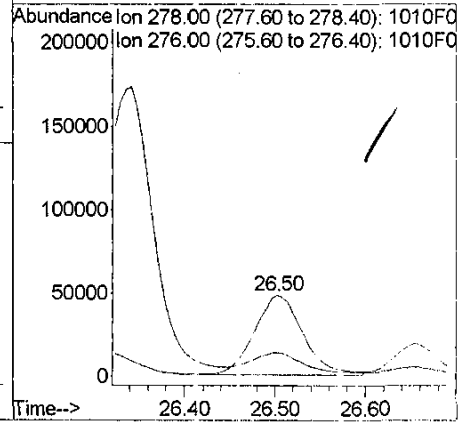


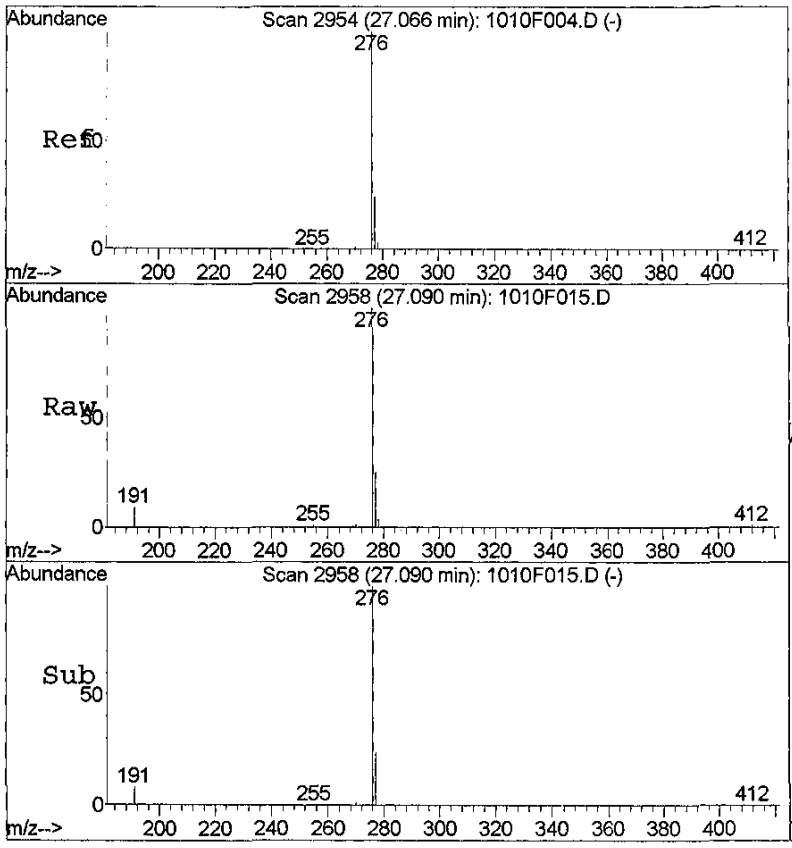


#57
Dibenz(a,h)anthracene
Concen: 313.35 ng/ml
RT: 26.50 min Scan# 2859
Delta R.T. -0.02 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:278 Resp: 176961

Ion	Ratio	Lower	Upper
278	100		
276	24.7	0.0	55.3

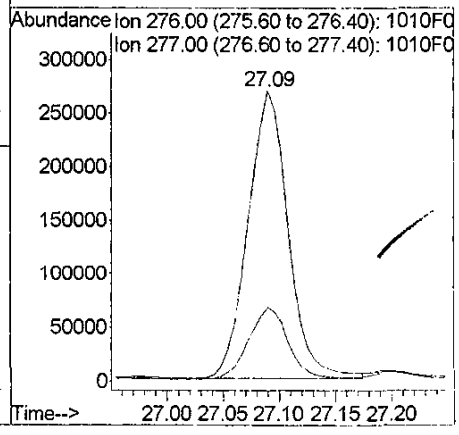




#58
Benzo(g,h,i)perylene
Concen: 1099.39 ng/ml
RT: 27.09 min Scan# 2958
Delta R.T. -0.00 min
Lab File: 1010F015.D
Acq: 10 Oct 2015 12:43 pm

Tgt Ion:276 Resp: 662549

Ion	Ratio	Lower	Upper
276	100		
277	24.8	0.0	53.8

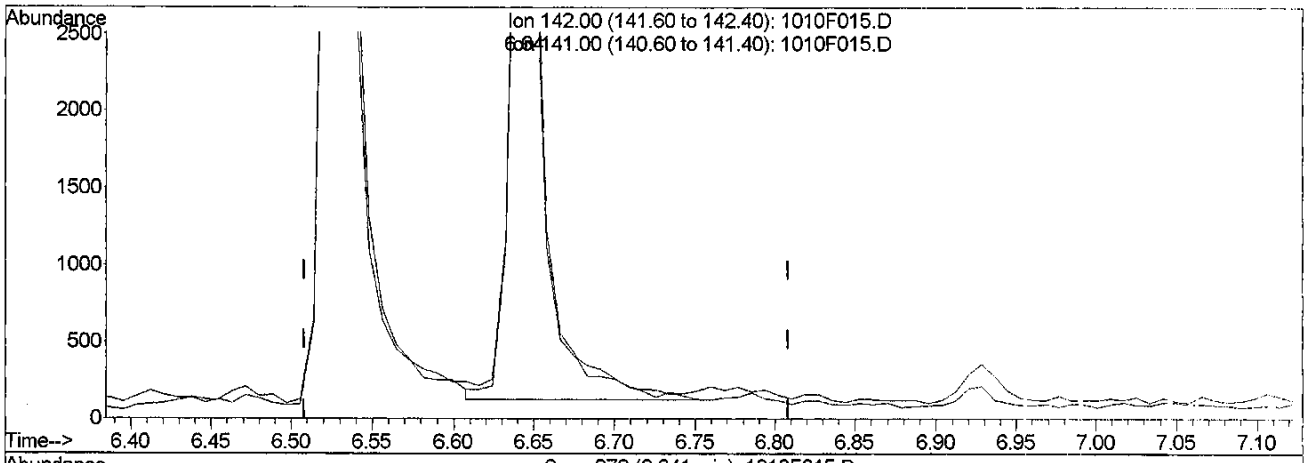


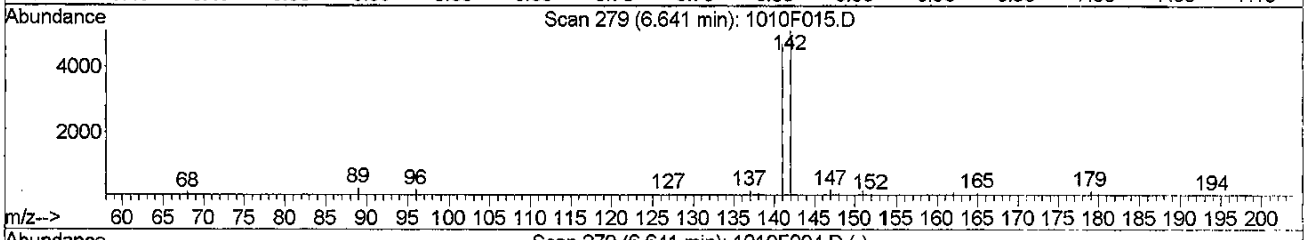
Quantitation Report (Qedit)

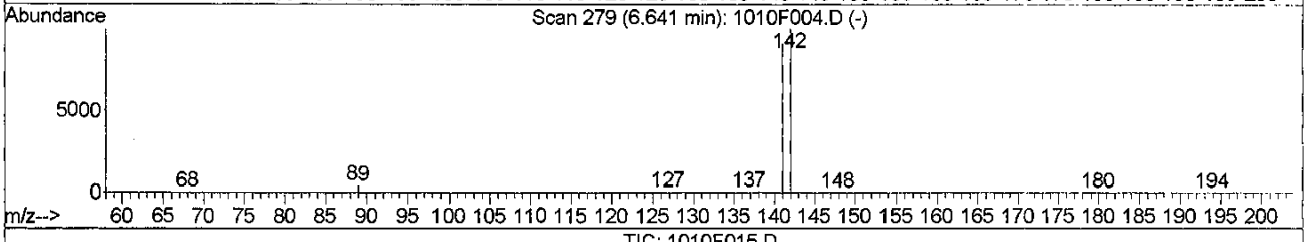
Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:27 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F015.D

(4) 1-Methylnaphthalene (T)

6.64min 27.32ng/ml

response 6442

Ion	Exp%	Act%
142.00	100	100
141.00	90.20	90.35
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

10/12/15

OCT 1 2 2015

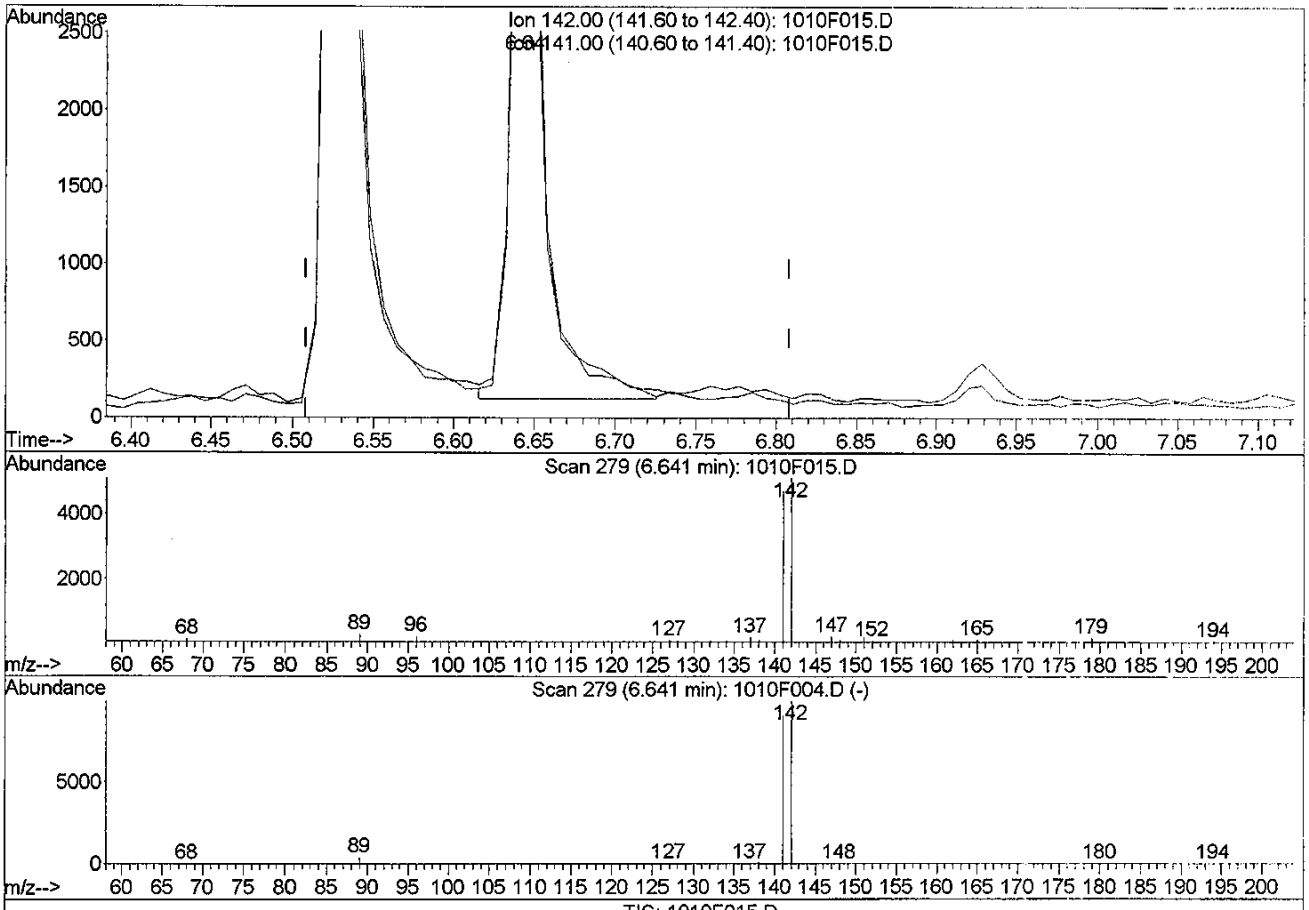
1010F015.D 080415SIMALK.M Mon Oct 12 08:54:41 2015

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:54 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration



(4) 1-Methylnaphthalene (T)

6.64min 26.92ng/ml m

response 6348

Ion	Exp%	Act%
142.00	100	100
141.00	90.20	92.24
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
BLC
10/12/15

OCT 12 2015

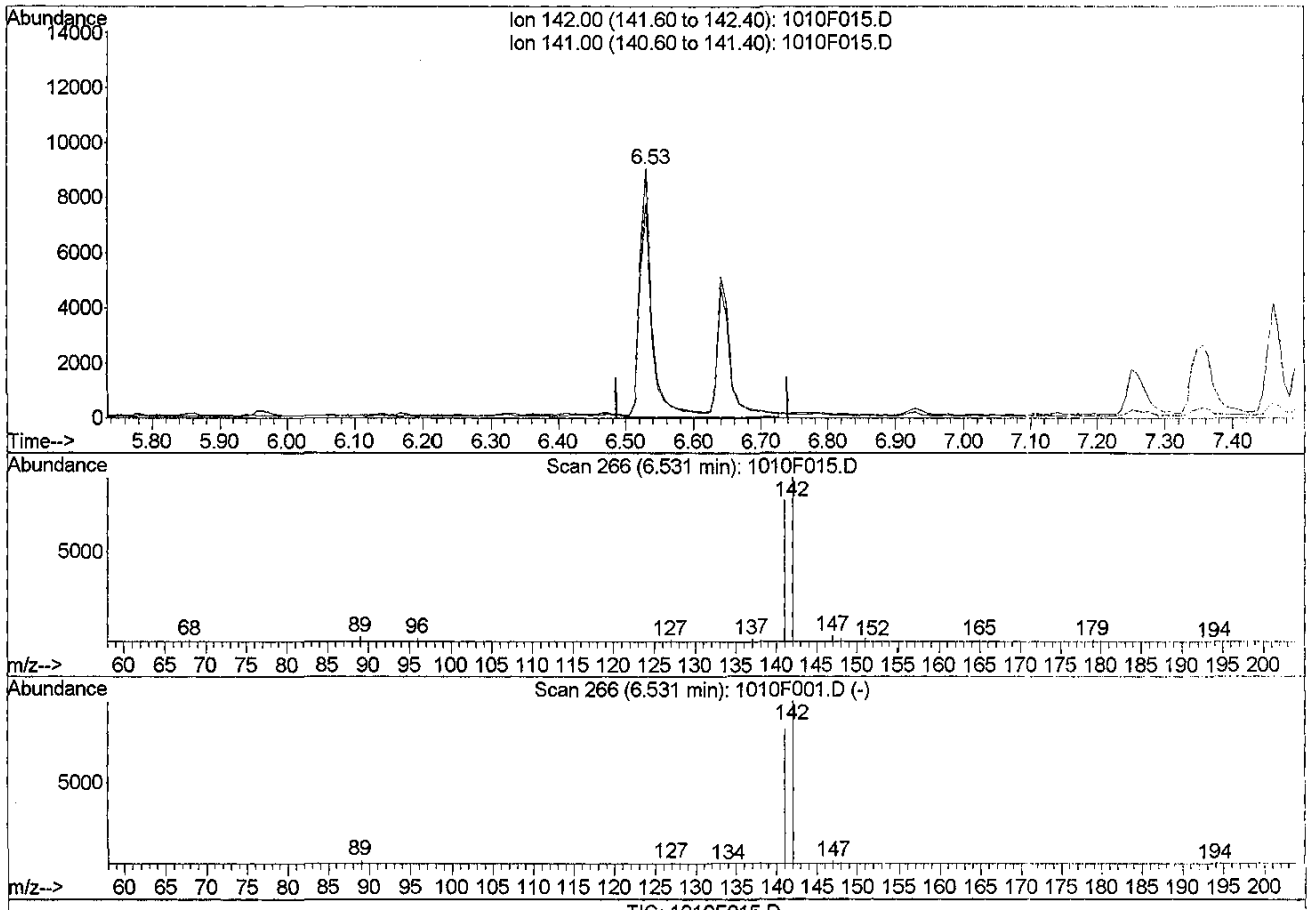
1010F015.D 080415SIMALK.M Mon Oct 12 08:54:51 2015

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:55 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration



(7) C1-Naphthalenes (L)

6.53min 48.57ng/ml m

response 18272

Ion	Exp%	Act%
142.00	100	100
141.00	100.00	86.19
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

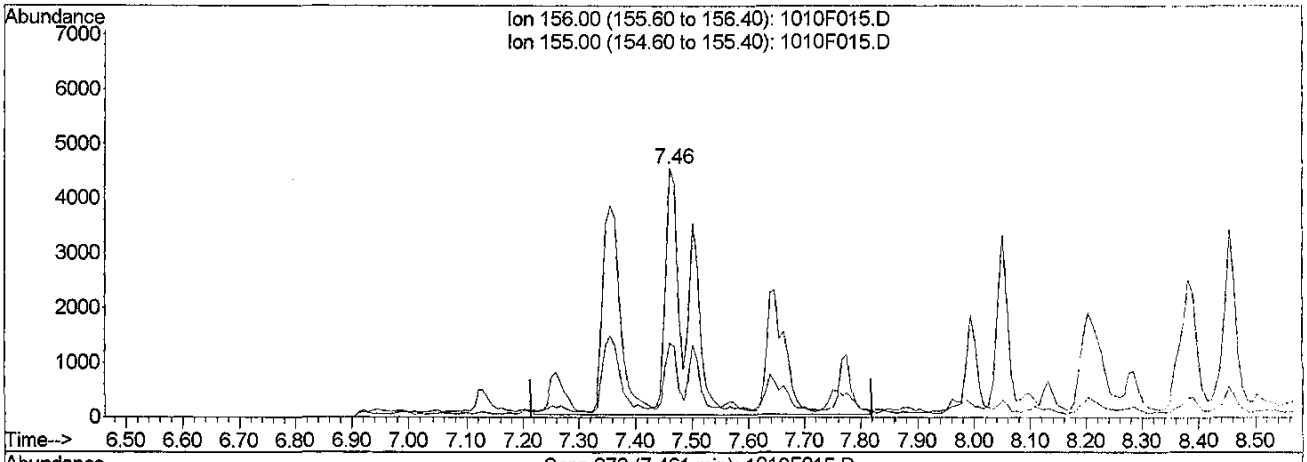
1010F015.D 080415SIMALK.M Mon Oct 12 08:55:40 2015

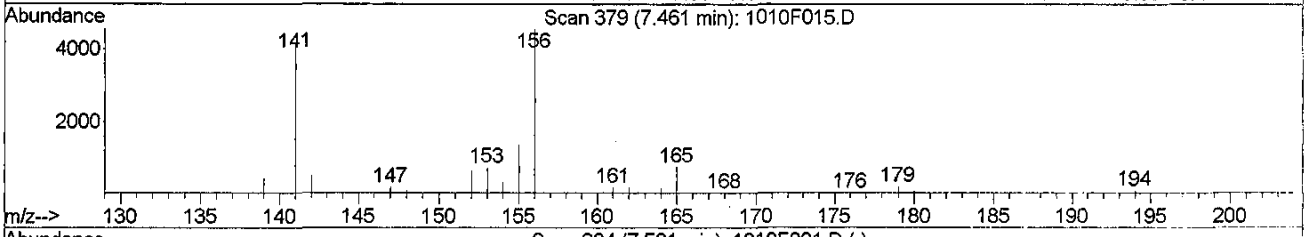
Quantitation Report (Qedit)

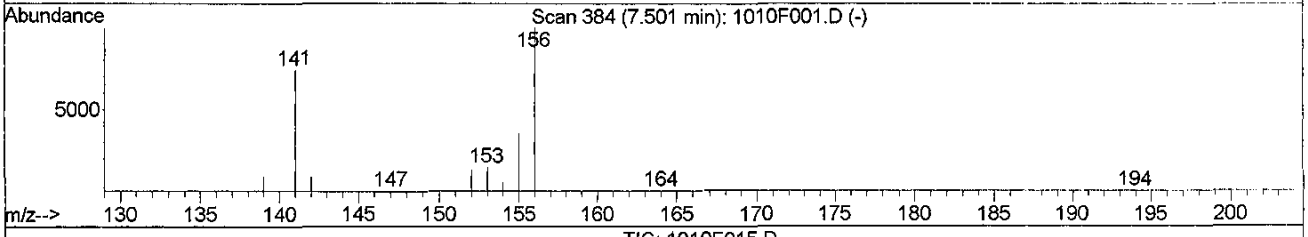
Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:55 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F015.D

(8) C2-Naphthalenes (L)

7.46min 78.31ng/ml m

response 29461

Ion	Exp%	Act%
156.00	100	100
155.00	38.30	30.05
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Alkylated Range

10/12/15

OCT 1 2 2015

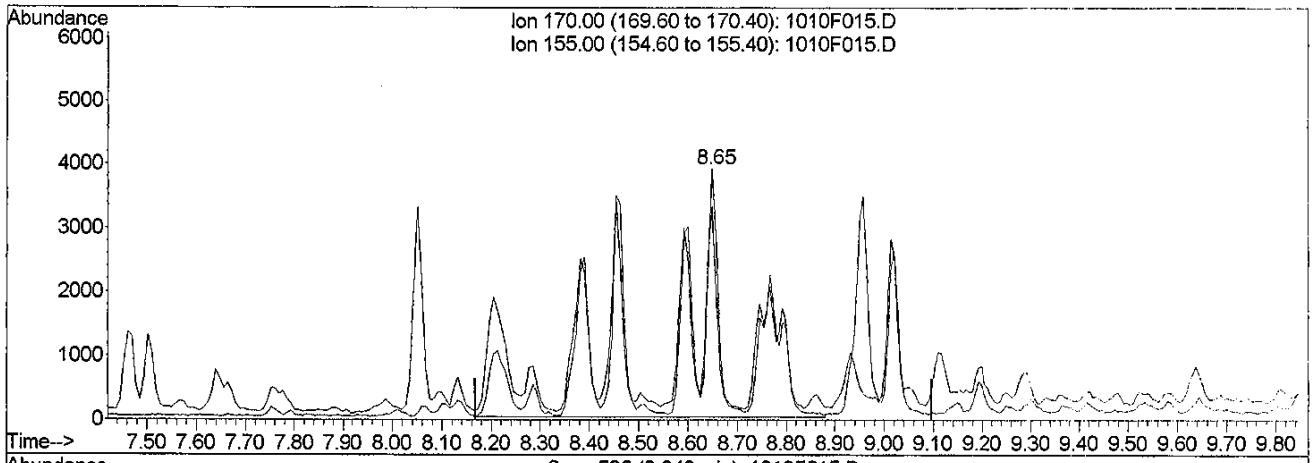
1010F015.D 080415SIMALK.M Mon Oct 12 08:55:49 2015

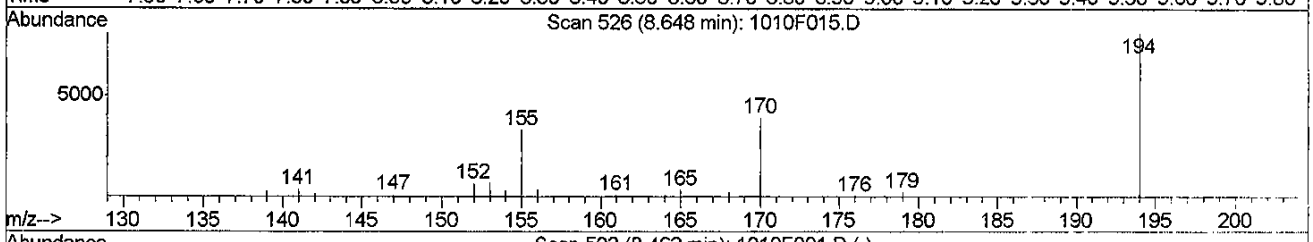
Quantitation Report (Qedit)

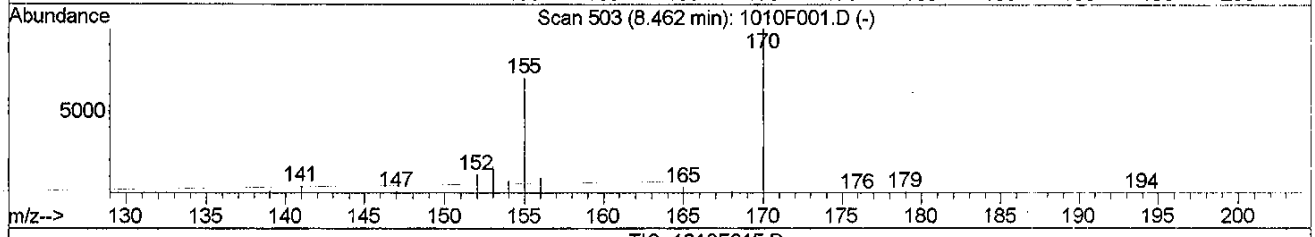
Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:55 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F015.D

(9) C3-Naphthalenes (L)

8.65min 85.12ng/ml m

response 32024

Ion	Exp%	Act%
170.00	100	100
155.00	86.90	84.96
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Alkylated Range

10/12/15

OCT 1 2 2015

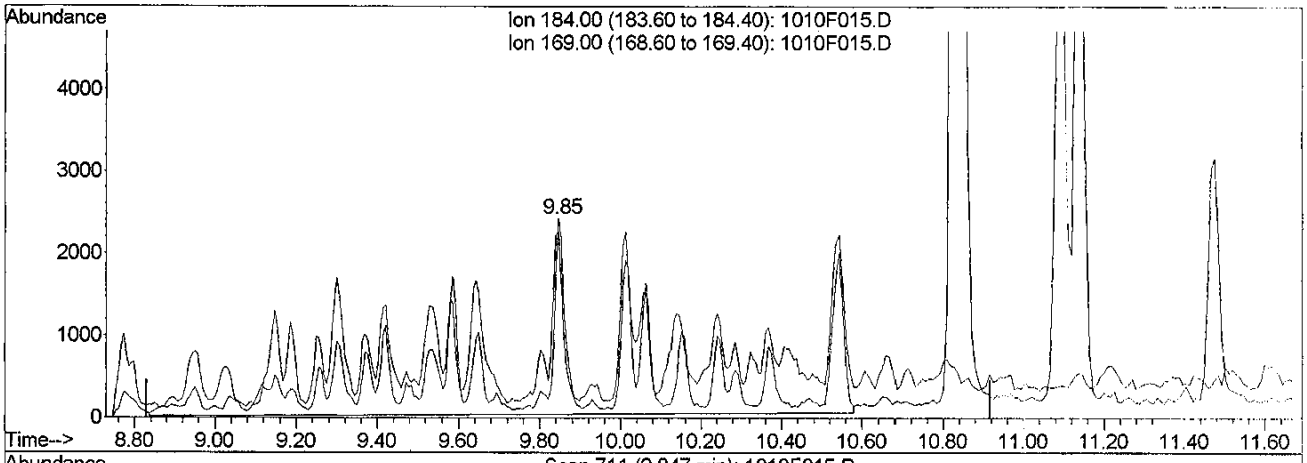
1010F015.D 080415SIMALK.M Mon Oct 12 08:55:58 2015

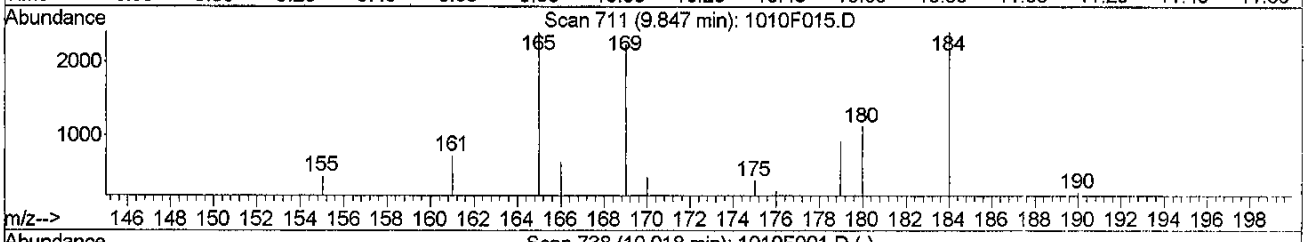
Quantitation Report (Qedit)

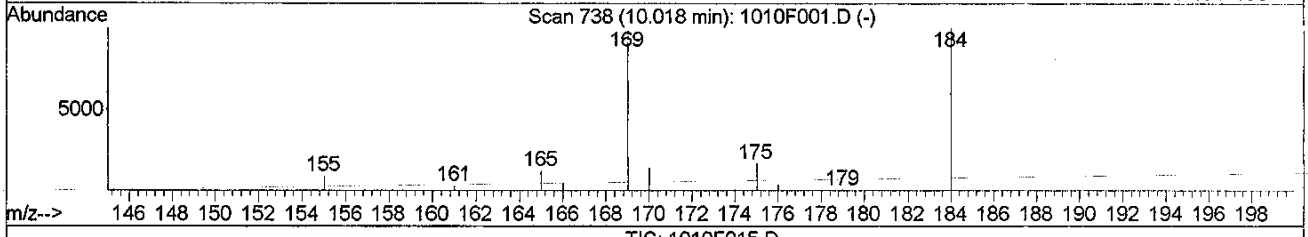
Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:58 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F015.D

(10) C4-Naphthalenes (L)

9.85min 104.14ng/ml m

response 39180

Ion	Exp%	Act%
184.00	100	100
169.00	119.70	93.03
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

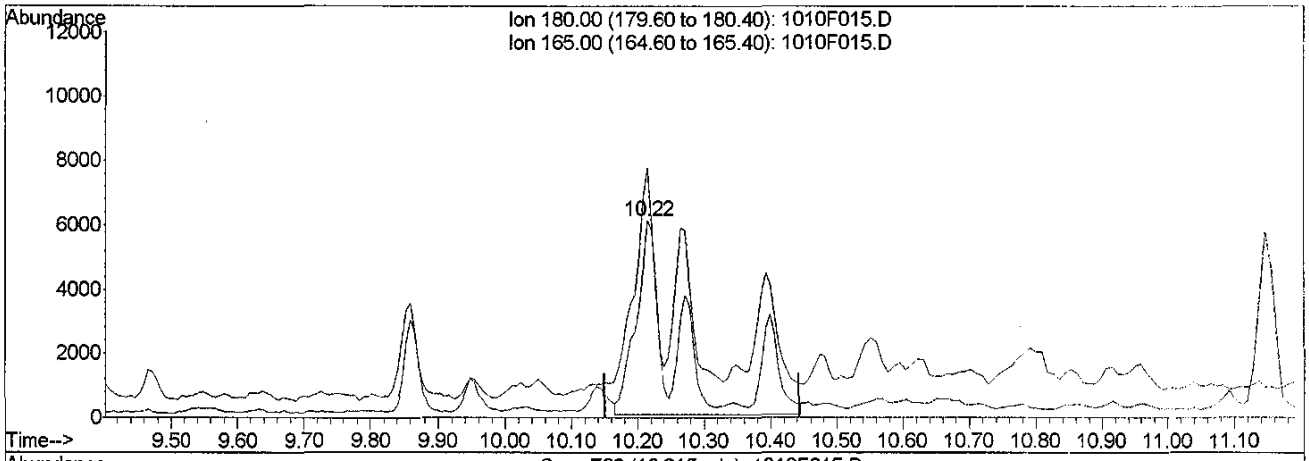
1010F015.D 080415SIMALK.M Mon Oct 12 08:59:13 2015

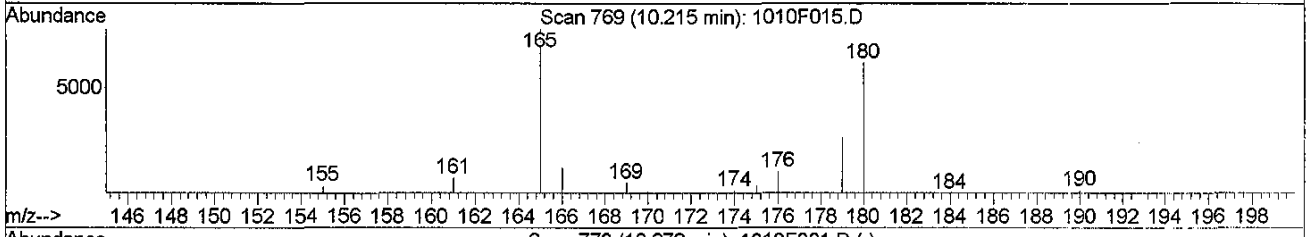
Quantitation Report (Qedit)

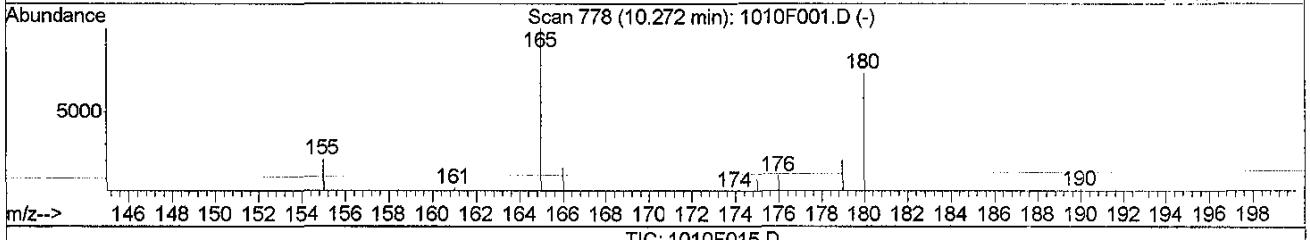
Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:58 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F015.D

(18) C1-Fluorenes (L)

10.22min 85.42ng/ml m

response 26430

Ion	Exp%	Act%
180.00	100	100
165.00	178.70	126.21#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

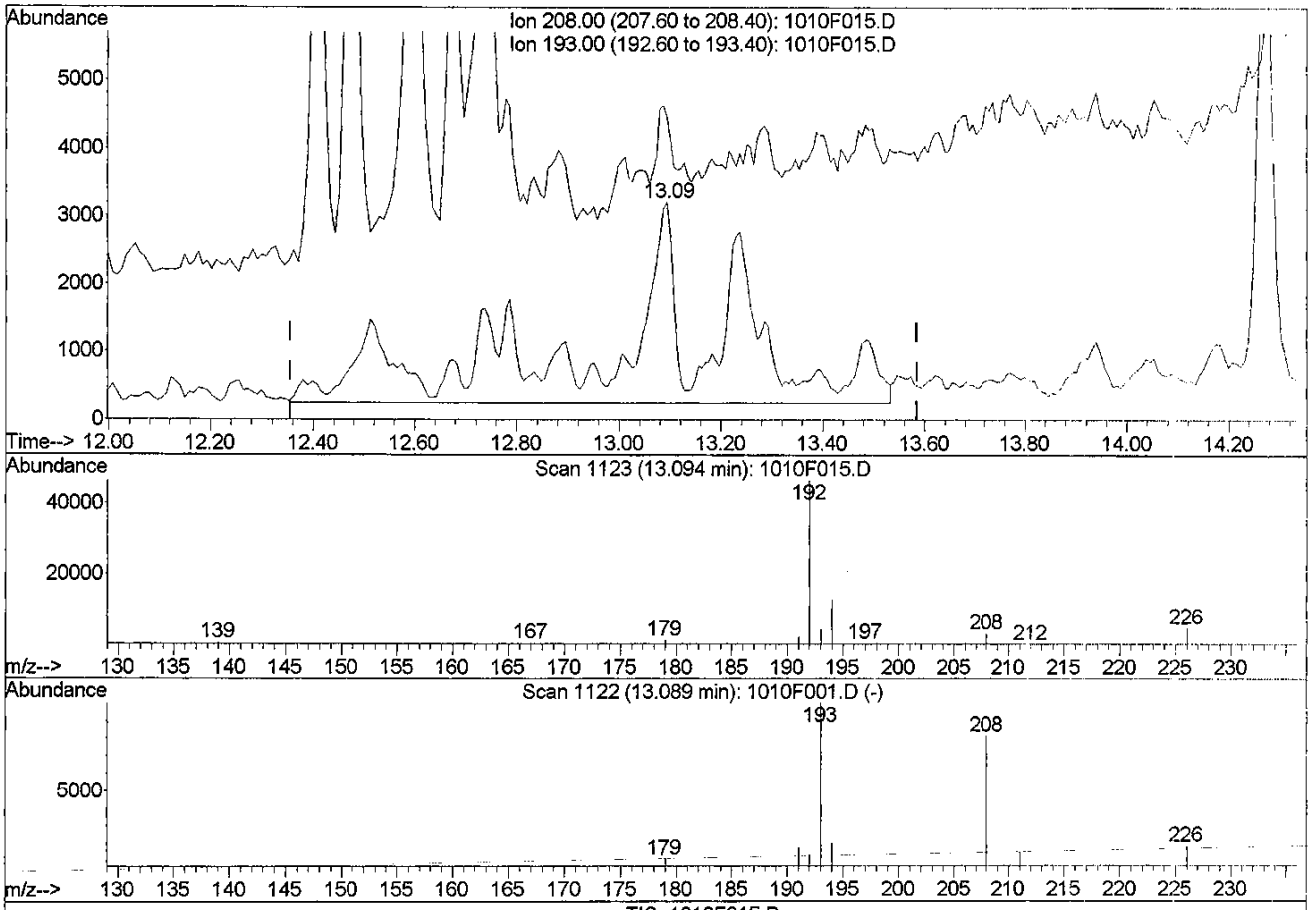
1010F015.D 080415SIMALK.M Mon Oct 12 08:59:20 2015

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:58 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration



(20) C3-Fluorenes (L)

13.09min 155.46ng/ml m

response 48098

Ion	Exp%	Act%
208.00	100	100
193.00	122.00	139.63
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Alkylated Range

10/12/15

OCT 1 2 2015

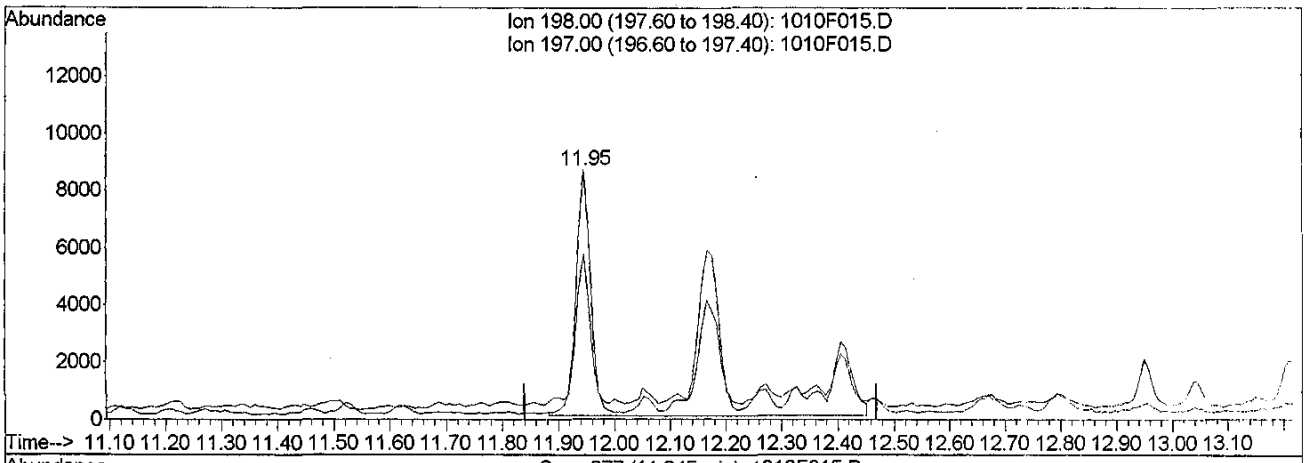
1010F015.D 080415SIMALK.M Mon Oct 12 08:59:33 2015

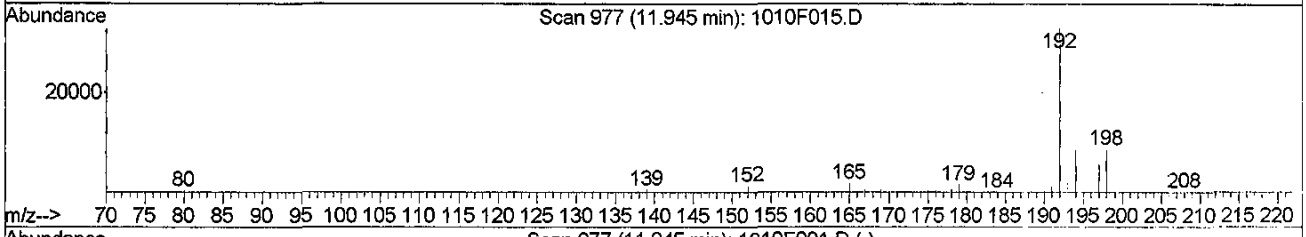
Quantitation Report (Qedit)

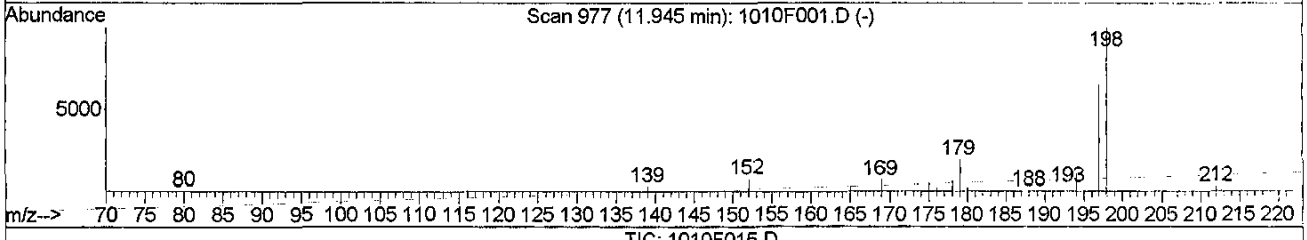
Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:59 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F015.D

(23) C1-Dibenzothiophenes (L)

11.95min 105.46ng/ml m

response 44997

Ion	Exp%	Act%
198.00	100	100
197.00	104.10	66.44#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

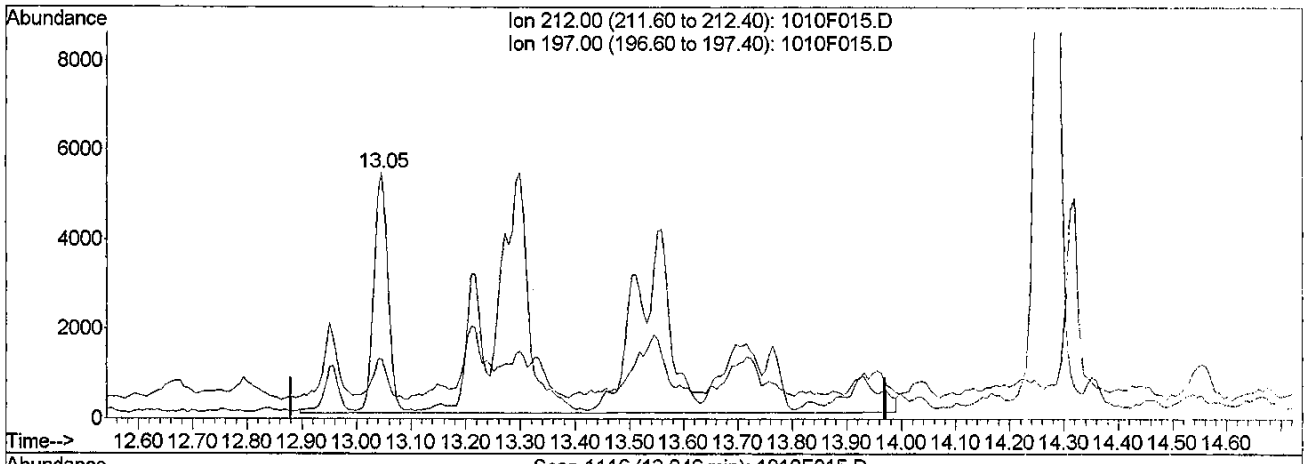
1010F015.D 080415SIMALK.M Mon Oct 12 08:59:42 2015

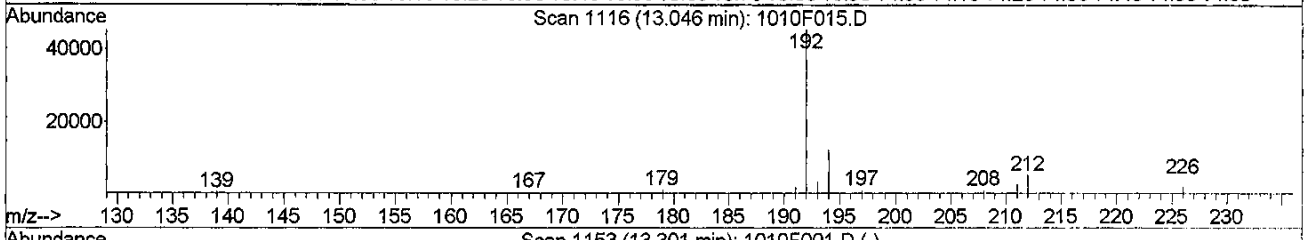
Quantitation Report (Qedit)

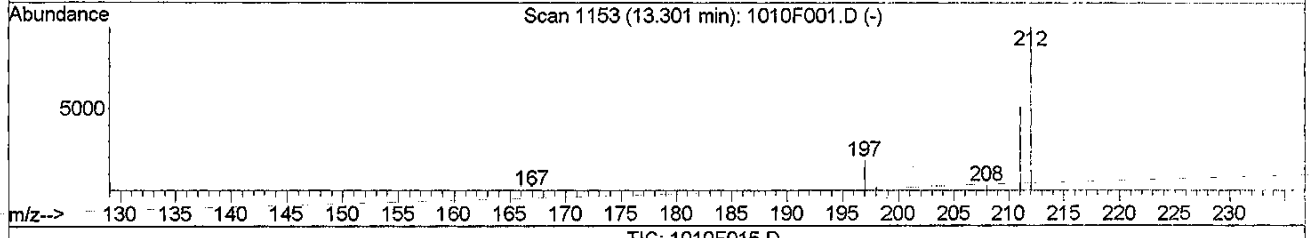
Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:59 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F015.D

(24) C2-Dibenzothiophenes (L)

13.05min 161.40ng/ml m

response 68865

Ion	Exp%	Act%
212.00	100	100
197.00	23.80	24.26
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

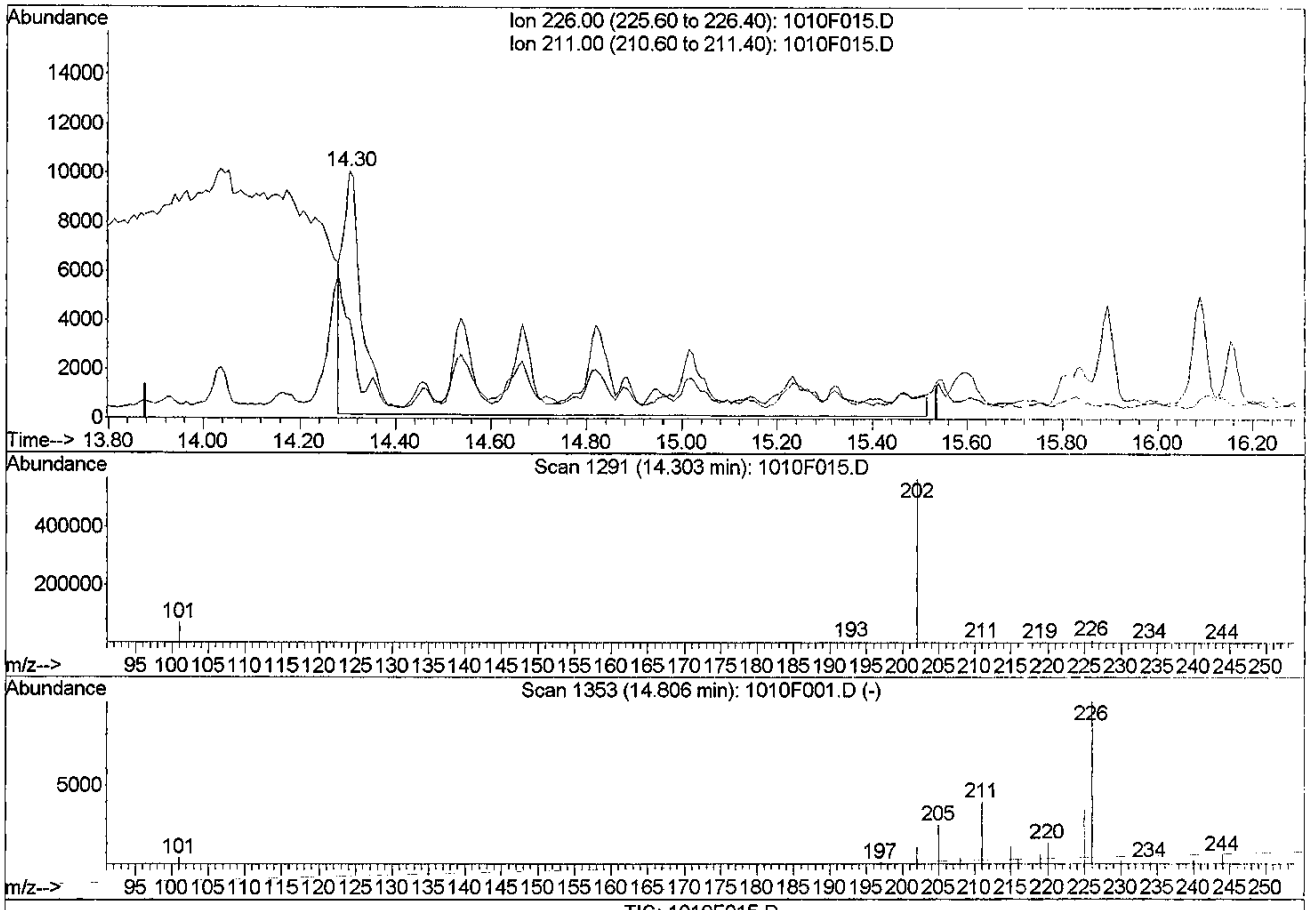
1010F015.D 080415SIMALK.M Mon Oct 12 08:59:55 2015

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:59 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration



(25) C3-Dibenzothiophenes (L)

14.30min 235.94ng/ml m

response 100674

Ion	Exp%	Act%
226.00	100	100
211.00	57.10	40.03
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

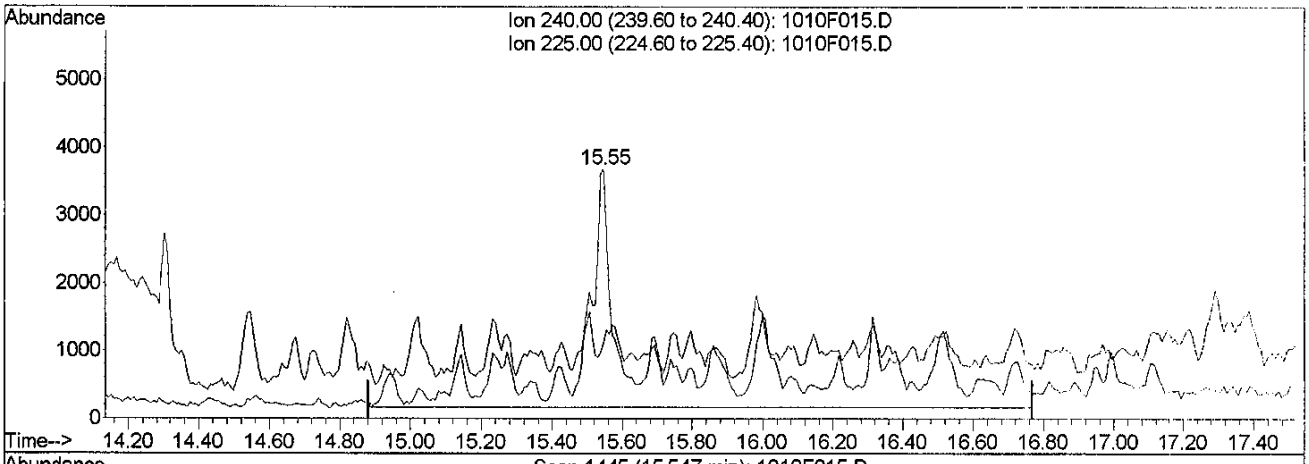
1010F015.D 080415SIMALK.M Mon Oct 12 09:00:32 2015

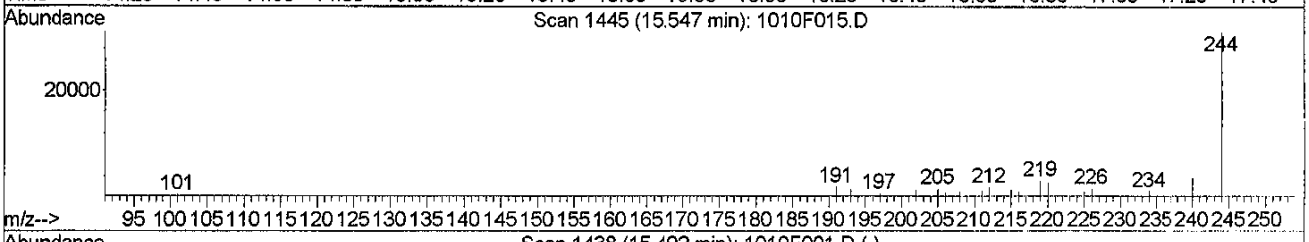
Quantitation Report (Qedit)

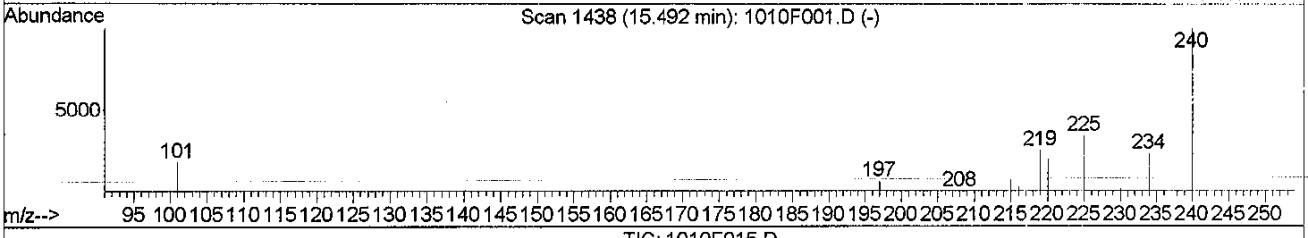
Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 9:00 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F015.D

(26) C4-Dibenzothiophenes (L)

15.55min 136.82ng/ml m

response 58379

Ion	Exp%	Act%
240.00	100	100
225.00	30.00	30.74
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

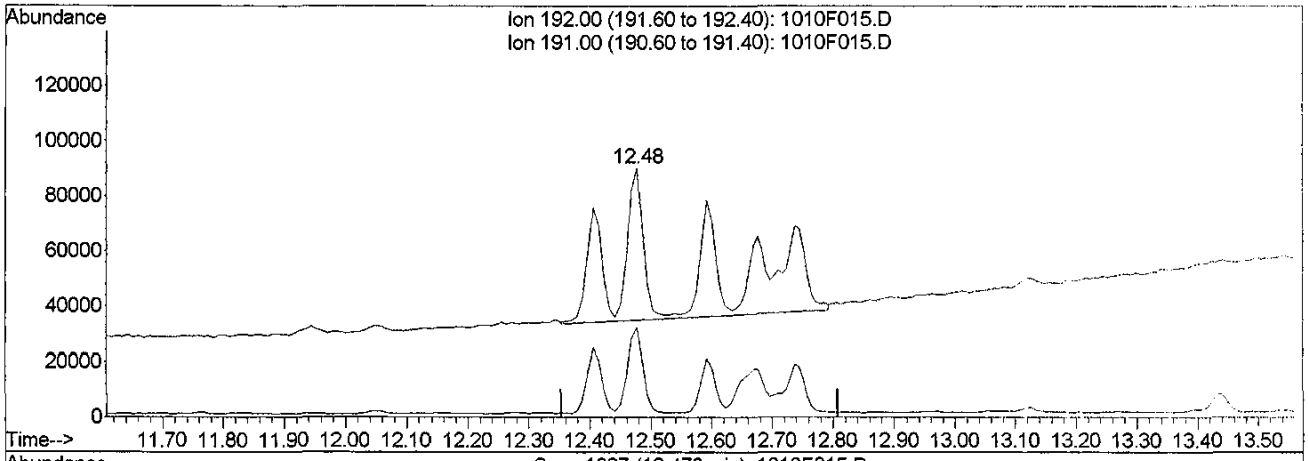
1010F015.D 080415SIMALK.M Mon Oct 12 09:00:42 2015

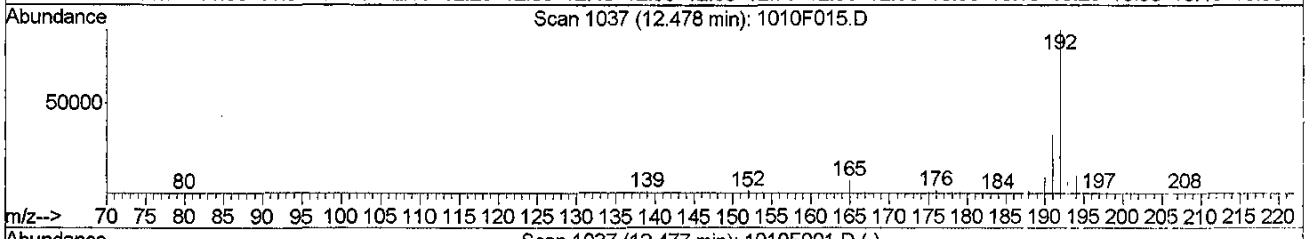
Quantitation Report (Qedit)

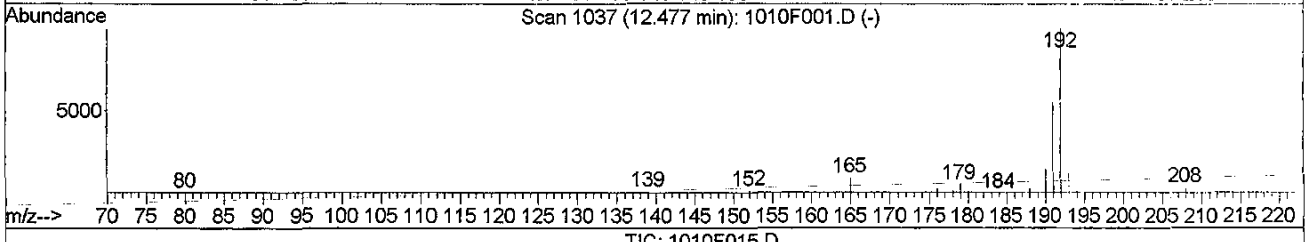
Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 9:00 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F015.D

(31) C1-Phenanthrenes/Anthracenes (L)

12.48min 883.27ng/ml m

response 387637

Ion	Exp%	Act%
192.00	100	100
191.00	55.30	35.78
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

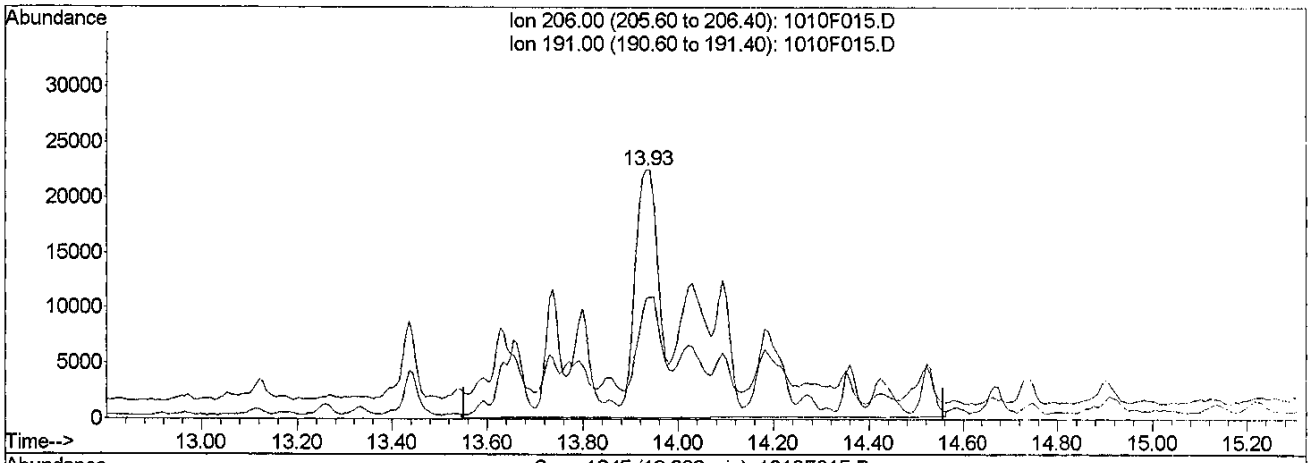
1010F015.D 080415SIMALK.M Mon Oct 12 09:00:55 2015

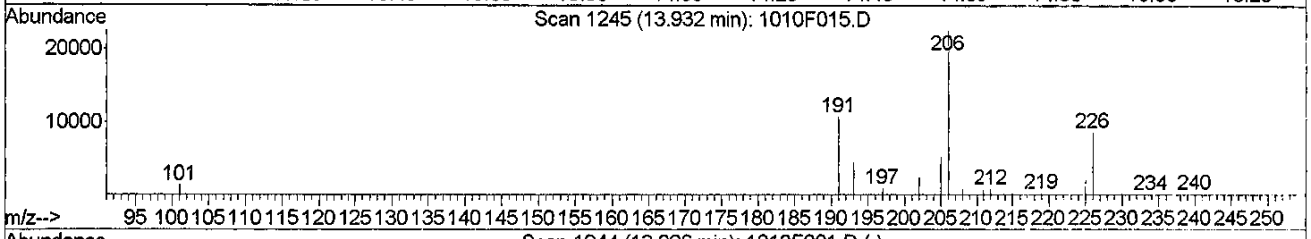
Quantitation Report (Qedit)

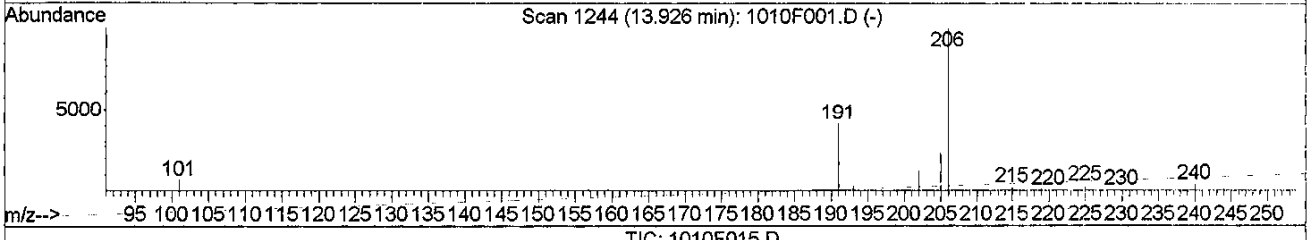
Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 9:00 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F015.D

(32) C2-Phenanthrenes/Anthracenes (L)

13.93min 647.44ng/ml m

response 284137

Ion	Exp%	Act%
206.00	100	100
191.00	45.60	48.06
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

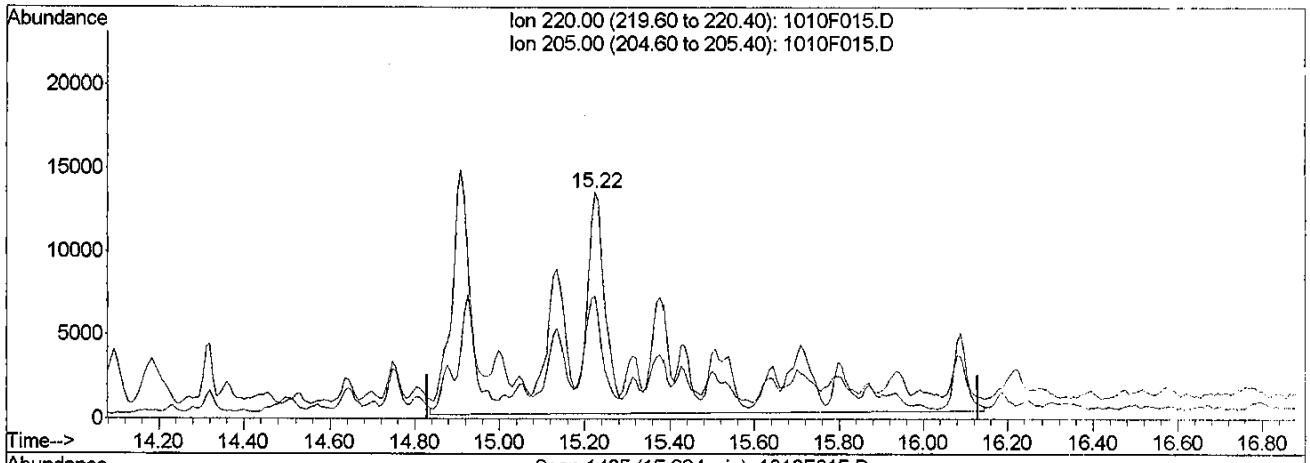
1010F015.D 080415SIMALK.M Mon Oct 12 09:01:03 2015

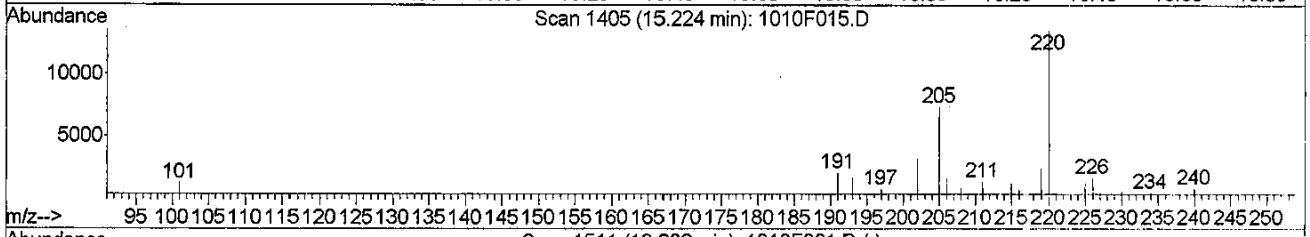
Quantitation Report (Qedit)

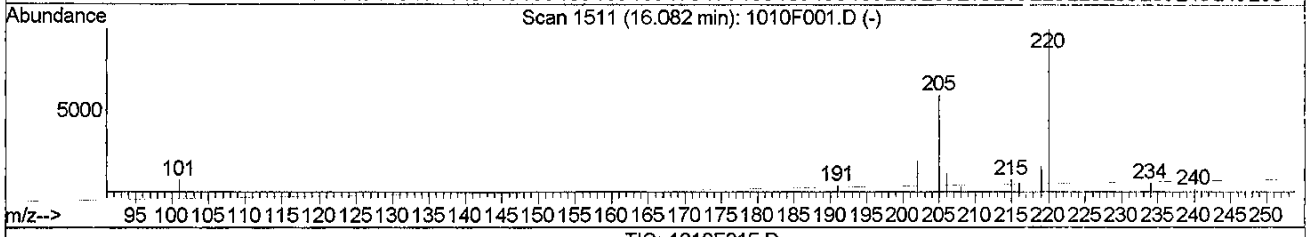
Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 9:00 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F015.D

(33) C3-Phenanthrenes/Anthracenes (L)

15.22min 432.70ng/ml m

response 189896

Ion	Exp%	Act%
220.00	100	100
205.00	50.00	53.91
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

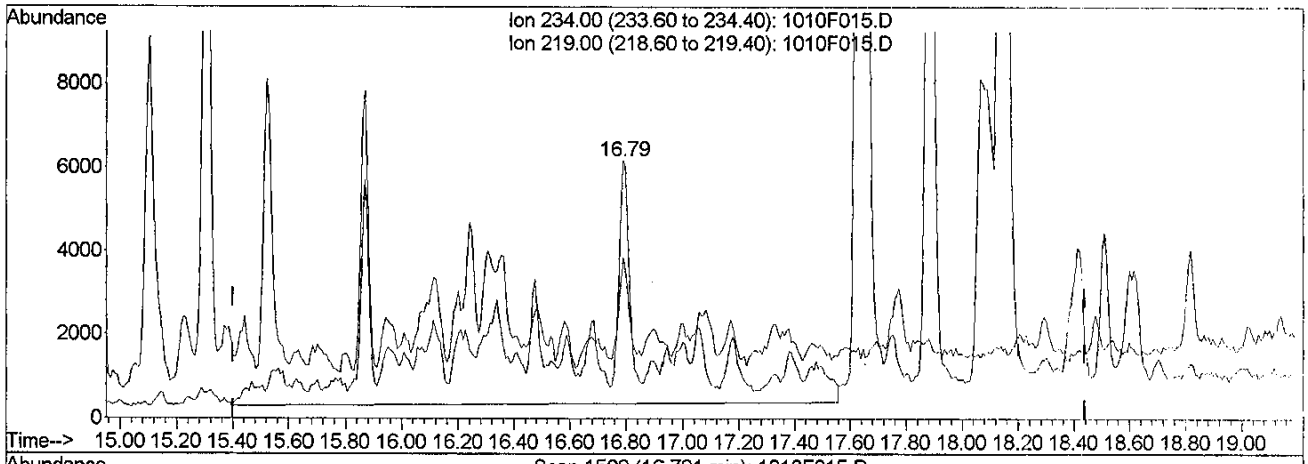
1010F015.D 080415SIMALK.M Mon Oct 12 09:01:10 2015

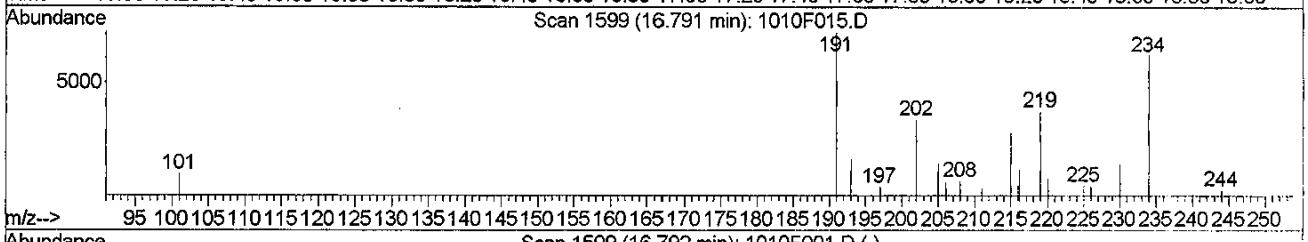
Quantitation Report (Qedit)

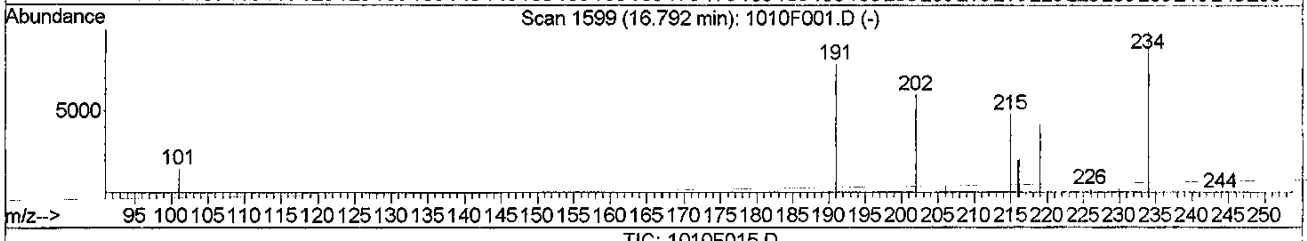
Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 9:00 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F015.D

(34) C4-Phenanthrenes/Anthracenes (L)

16.79min 310.38ng/ml m

response 136214

Ion	Exp%	Act%
234.00	100	100
219.00	47.70	62.27
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

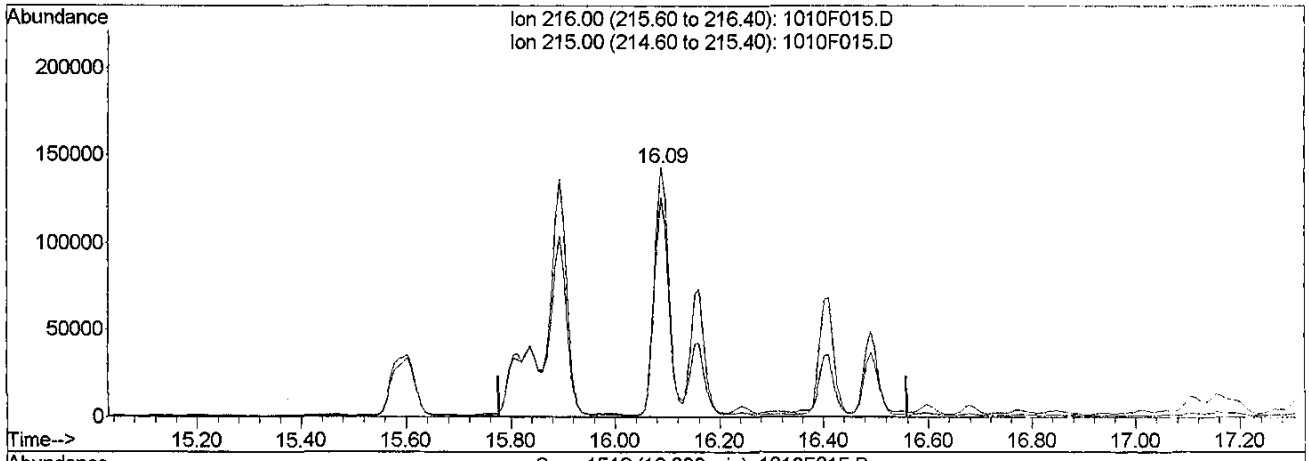
1010F015.D 080415SIMALK.M Mon Oct 12 09:01:18 2015

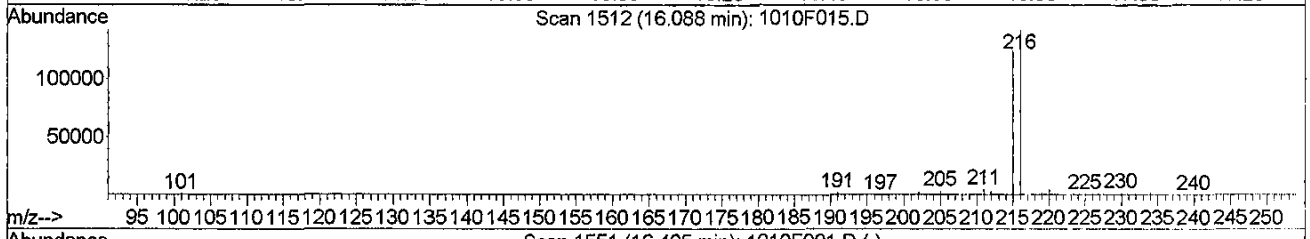
Quantitation Report (Qedit)

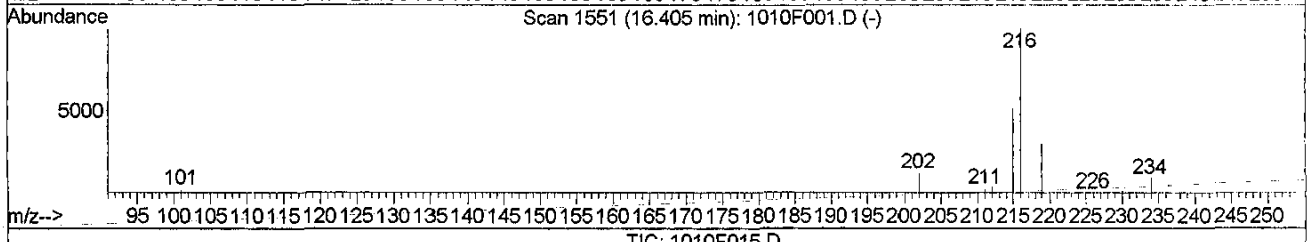
Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 9:00 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F015.D

(39) C1-Fluoranthenes/Pyrenes (L)
16.09min 1993.12ng/ml m
response 1083796

Ion	Exp%	Act%
216.00	100	100
215.00	84.80	87.93
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

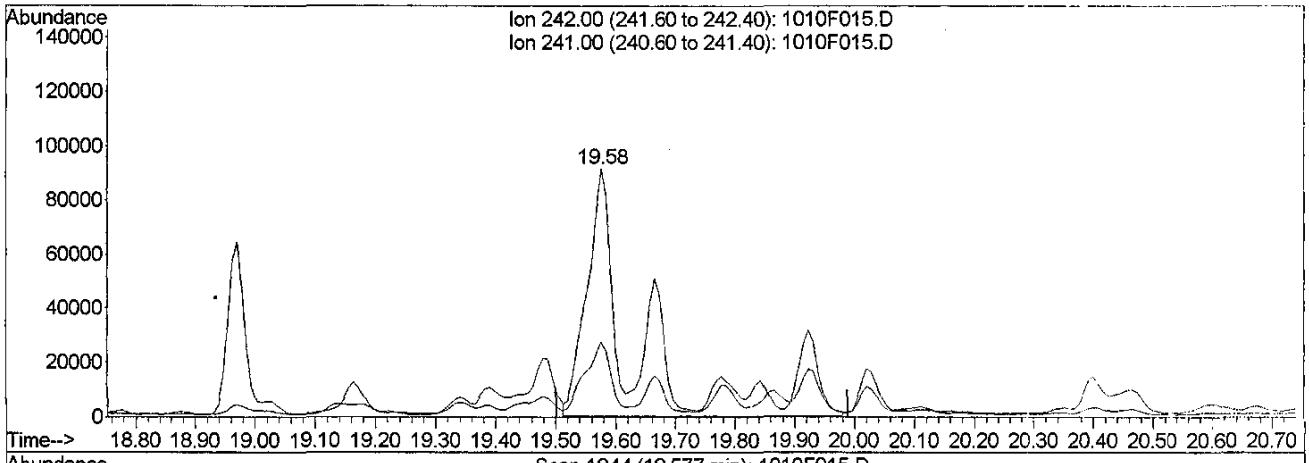
1010F015.D 080415SIMALK.M Mon Oct 12 09:01:26 2015

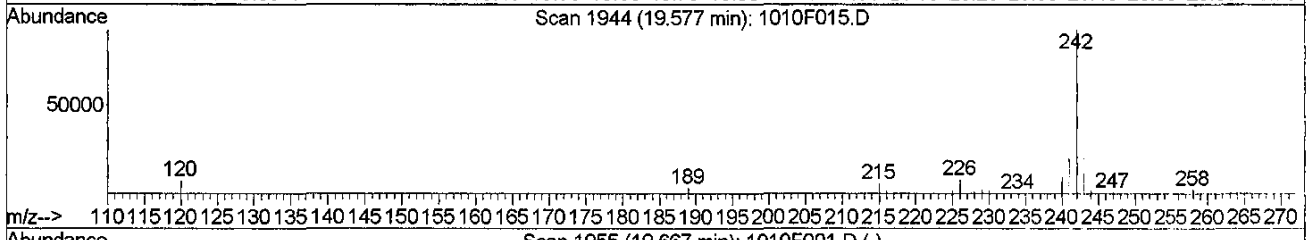
Quantitation Report (Qedit)

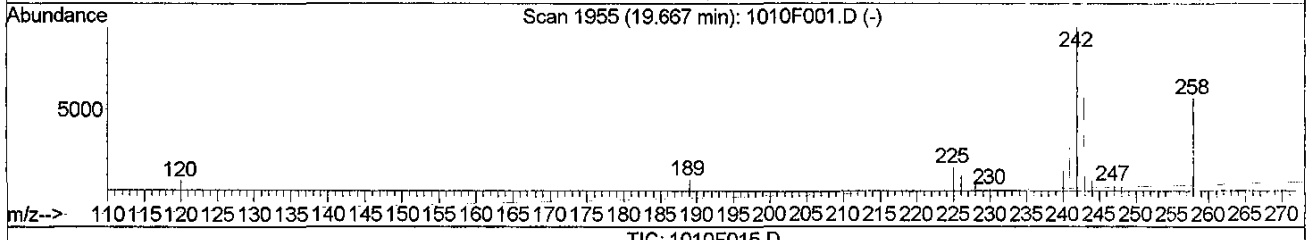
Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 9:03 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F015.D

(46) C1-Chrysenes (L)

19.58min 1039.13ng/ml m

response 518687

Ion	Exp%	Act%
242.00	100	100
241.00	30.10	29.99
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

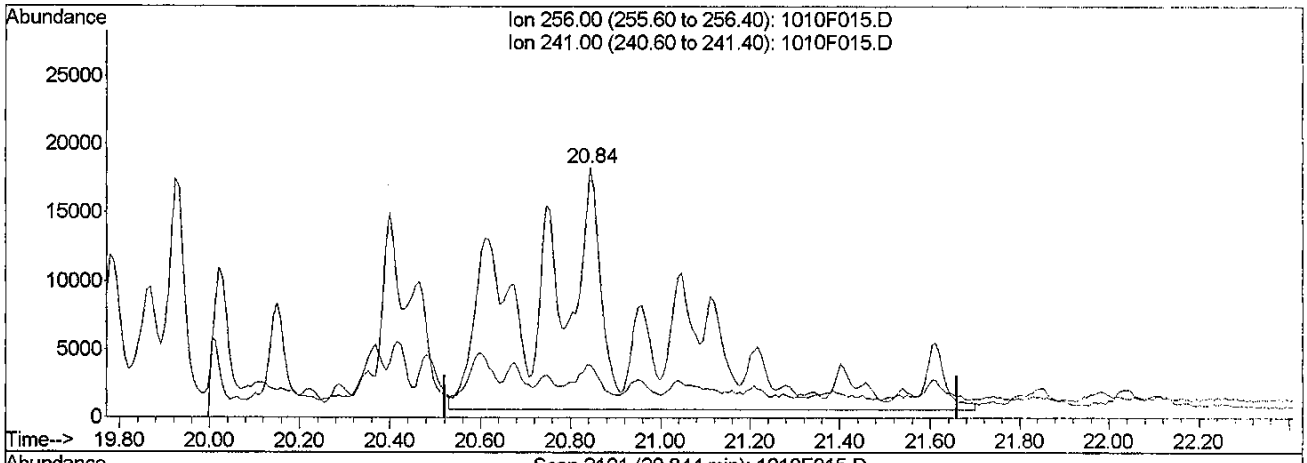
1010F015.D 080415SIMALK.M Mon Oct 12 09:03:56 2015

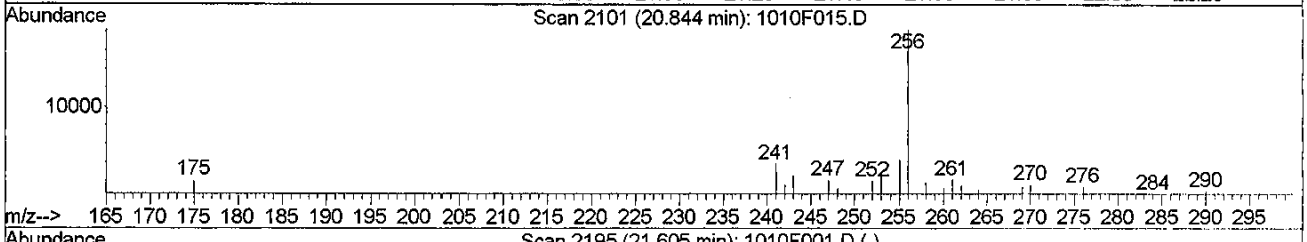
Quantitation Report (Qedit)

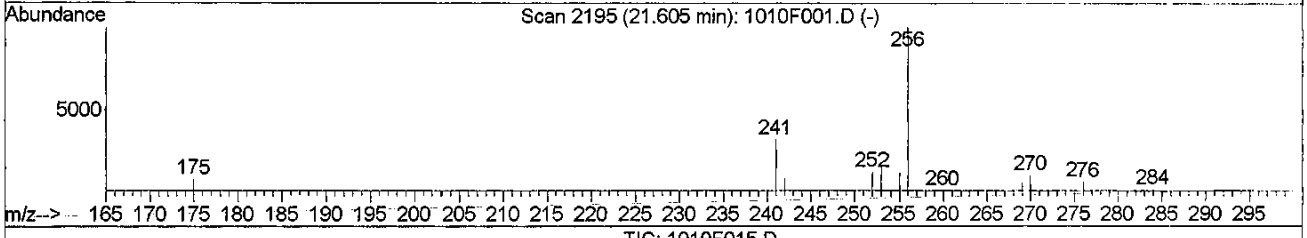
Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 9:03 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F015.D

(47) C2-Chrysenes (L)

20.84min 633.24ng/ml m

response 316085

Ion	Exp%	Act%
256.00	100	100
241.00	37.80	21.13
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 12 2015

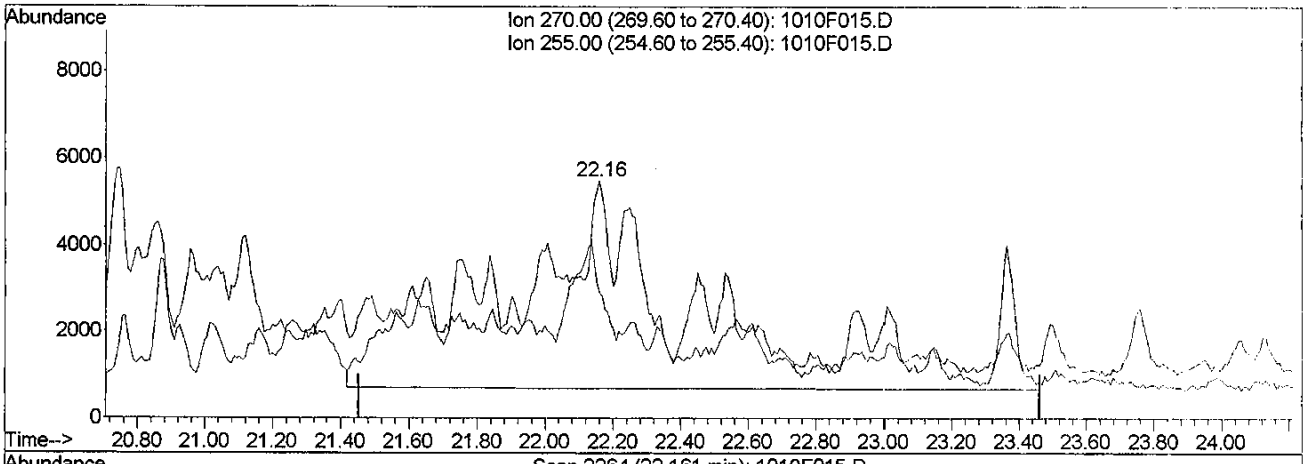
1010F015.D 080415SIMALK.M Mon Oct 12 09:04:10 2015

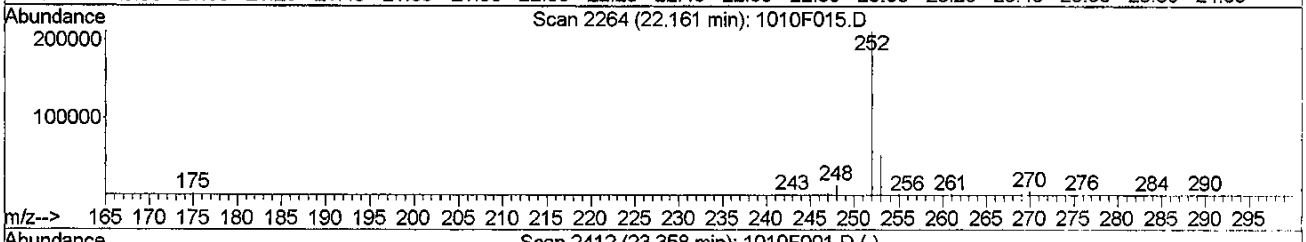
Quantitation Report (Qedit)

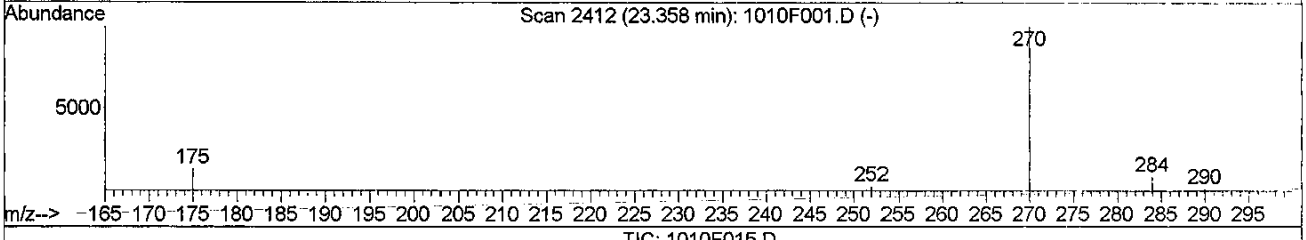
Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 9:04 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F015.D

(48) C3-Chrysenes (L)
22.16min 383.80ng/ml m
response 191575

Ion	Exp%	Act%
270.00	100	100
255.00	26.70	52.87
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

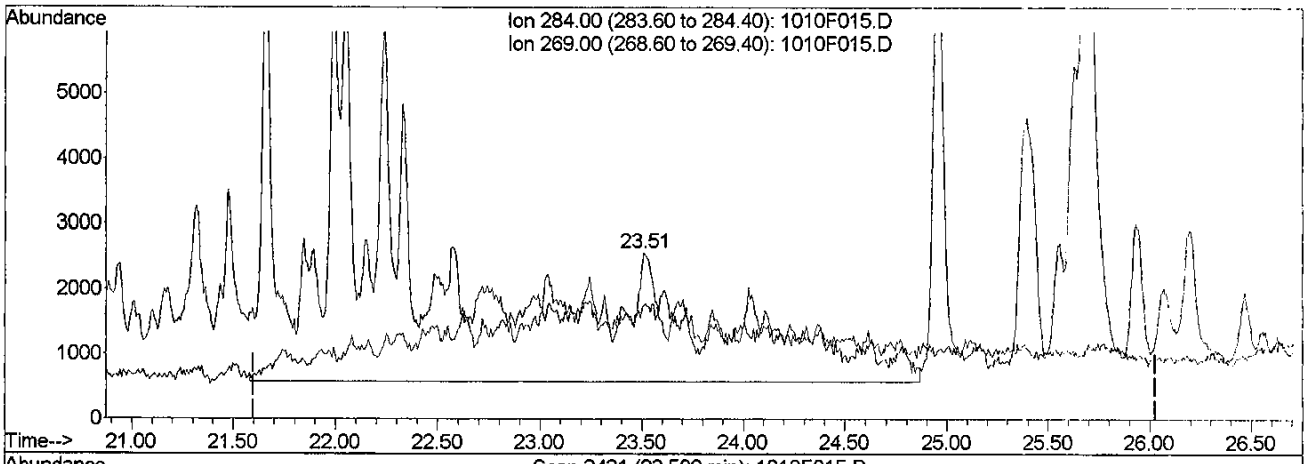
1010F015.D 080415SIMALK.M Mon Oct 12 09:04:43 2015

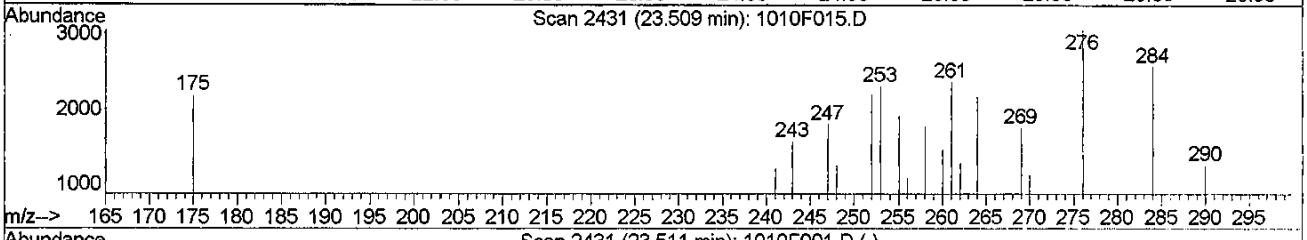
Quantitation Report (Qedit)

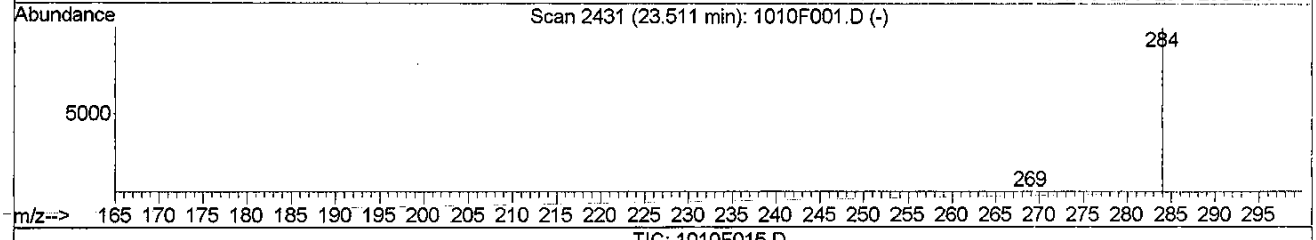
Data File : J:\MS20\DATA\101015\1010F015.D
Acq On : 10 Oct 2015 12:43 pm
Sample : K1511029-003
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 9:04 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Multiple Level Calibration







TIC: 1010F015.D

(49) C4-Chrysenes (L)

23.51min 287.63ng/ml m

response 143570

Ion	Exp%	Act%
284.00	100	100
269.00	46.20	68.32
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
Alkylated Range
10/12/15

OCT 1 2 2015

1010F015.D 080415SIMALK.M Mon Oct 12 09:04:54 2015

MANSON022762

Exception Report

Data File: J:\MS20\DATA\101015\1010F008.D
Lab ID: K1511029-003
RunType: DL
Matrix: SEDIMENT

Date Acquired: 10/10/2015 08:25
Date Quantitated: 10/12/2015 08:36
Batch ID: KWG1509829
Analysis Method: 8270D SIM
ListJoinID: LJ17229

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	125	NA	14		x
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: OCT 1 2 2015

Secondary Review: OCT 1 2 2015

Printed: 10/12/2015 09:36:26
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS20\DATA\101015\1010F008.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 08:25	**Quant Date:**	10/12/2015 08:36	**Vial:**	6
Run Type:	DL			**Dilution:**	10.0
Lab ID:	K1511029-003			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	V	**Matrix:**	SEDIMENT
Prod Code:	8270D PAH Alk S	**Collect Date:**	06/04/2015	**Receive Date:**	06/05/2015

Analysis Lot:	KWG1509829	**Prep Lot:**	KWG1509628	**Report Group:**	K1511029
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1472847	**Prep Date:**	10/07/2015		

Quant Method:	J:\MS20\METHODS\080415SIMALK	**Calibration ID:**	CAL14220
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ17229
Tune Ref:	J:\MS20\DATA\101015\1010F003.D	**Method ID:**	MJ1187
MB Ref:	J:\MS20\DATA\101015\1010F005.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.79	0.00	136	79685	200.00	OK
2	Acenaphthene-d10	8.00	0.01	164	47442	200.00	OK
3	Phenanthrene-d10	11.09	0.00	188	89902	200.00	OK
4	Chrysene-d12	18.37	0.00	240	109537	200.00	OK
5	Perylene-d12	22.50	0.00	264	112385	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
2	Fluorene-d10	8.96	0.00	0.00	176	4744	17.60	88	17-104	OK	NR
3	Fluoranthene-d10	14.22	0.00	0.00	212	9361	20.15	101	27-106	OK	NR
4	Terphenyl-d14	15.54	0.00	0.00	244	6093	14.28	71	35-109	OK	NR

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.80		0.00	128	2596m	6.78	55	D	NR
1	2-Methylnaphthalene	6.53		0.00	142	1105	4.06	33	JD	NR
1	1-Methylnaphthalene	6.65	0.01	0.00	142	560	2.33	19	JD	NR
1	C1-Naphthalenes				142	0		41	U	NR
1	C2-Naphthalenes				156	0		41	U	NR
1	C3-Naphthalenes				170	0		41	U	NR
1	C4-Naphthalenes				184	0		41	U	NR
2	Acenaphthylene	7.77	0.01	0.00	152	3561	8.27	67	D	NR
2	Acenaphthene	8.05		0.00	154	3543	13.76	110	D	NR
2	Dibenzofuran	8.37		0.00	168	4356	11.07	89	D	NR
2	Fluorene	9.02	0.01	0.00	166	6166	19.71	160	D	NR
2	C1-Fluorenes				180	0		41	U	NR
2	C2-Fluorenes				194	0		41	U	NR

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS20\DATA\101015\1010F008.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 08:25	**Quant Date:**	10/12/2015 08:36	**Vial:**	6
Run Type:	DL			**Dilution:**	10.0
Lab ID:	K1511029-003			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	C3-Fluorenes				208	0		41	U	NR
3	Dibenzothiophene	10.84		0.00	184	5548	12.15	98	D	NR
3	C1-Dibenzothiophenes				198	0		41	U	NR
3	C2-Dibenzothiophenes				212	0		41	U	NR
3	C3-Dibenzothiophenes				226	0		41	U	NR
3	C4-Dibenzothiophenes				240	0		41	U	NR
3	Phenanthrene	11.15		0.00	178	92128	196.15	1600	D	NR
3	Anthracene	11.27		0.00	178	30132	65.81	530	D	NR
3	C1-Phenanthrenes/Anthracenes				192	0		41	U	NR
3	C2-Phenanthrenes/Anthracenes				206	0		41	U	NR
3	C3-Phenanthrenes/Anthracenes				220	0		41	U	NR
3	C4-Phenanthrenes/Anthracenes				234	0		41	U	NR
3	Fluoranthene	14.27		0.00	202	233827	439.06	3500	D	
4	Pyrene	14.86		0.00	202	244095	410.09	3300	D	
4	C1-Fluoranthenes/Pyrenes				216	0		41	U	NR
4	Benz(a)anthracene	18.35		0.00	228	104559	181.68	1500	D	NR
4	Chrysene	18.44	-0.01	0.00	228	130578	238.98	1900	D	
4	C1-Chrysenes				242	0		41	U	NR
4	C2-Chrysenes				256	0		41	U	NR
4	C3-Chrysenes				270	0		41	U	NR
4	C4-Chrysenes				284	0		41	U	NR
5	Benzo(b)fluoranthene	21.35		0.00	252	175950	293.98	2400	D	
5	Benzo(k)fluoranthene	21.44		0.00	252	64768	105.67	850	D	NR
5	Benzo(e)pyrene	22.15		0.00	252	87880	152.04	1200	D	NR
5	Benzo(a)pyrene	22.31		0.00	252	109081	197.70	1600	D	NR
5	Perylene	22.58	0.01	0.00	252	32361	57.97	470	D	NR
5	Indeno(1,2,3-cd)pyrene	26.30		0.00	276	71427	122.69	990	D	NR
5	Dibenz(a,h)anthracene	26.48		0.00	278	17584	30.34	240	D	NR
5	Benzo(g,h,i)perylene	27.07		0.00	276	71907	116.26	940	D	NR

Prep Amount:	18.529 g	**Dilution:**	10.0
Prep Final Vol:	10 ml	**Unit Factor:**	1
Solids:	67.0 %		

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F008.D Vial: 6
Acq On : 10 Oct 2015 8:25 am Operator: LWeiskopf
Sample : K1511029-003DIL 10X Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 08:27:46 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.79	136	79685	200.00	ng/ml	0.00
11) Acenaphthene-d10	8.00	164	47442	200.00	ng/ml	-0.02
21) Phenanthrene-d10	11.09	188	89902	200.00	ng/ml	-0.02
37) Chrysene-d12	18.37	240	109537	200.00	ng/ml	-0.02
50) Perylene-d12	22.50	264	112385	200.00	ng/ml	-0.03
System Monitoring Compounds						
16) Fluorene-d10	8.96	176	4744	17.60	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 1.76%			
36) Fluoranthene-d10	14.22	212	9361	20.15	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 2.01%			
43) Terphenyl-d14	15.54	244	6093	14.28	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 1.43%			
Target Compounds						Qvalue
2) Naphthalene	5.80	128	2596m	6.78	ng/ml	
3) 2-Methylnaphthalene	6.53	142	1105	4.06	ng/ml	90
4) 1-Methylnaphthalene	6.65	142	560	2.33	ng/ml	97
5) Biphenyl	7.14	154	336m	1.02	ng/ml	
6) 2,6-Dimethylnaphthalene	7.37	156	718	3.00	ng/ml	85
12) Acenaphthylene	7.77	152	3561	8.27	ng/ml	95
13) Acenaphthene	8.05	154	3543	13.76	ng/ml	99
14) Dibenzofuran	8.37	168	4356	11.07	ng/ml	98
15) 2,3,5-Trimethylnaphthalene	8.77	170	795m	3.15	ng/ml	
17) Fluorene	9.02	166	6166	19.71	ng/ml	99
22) Dibenzothiophene	10.84	184	5548	12.15	ng/ml	95
27) Phenanthrene	11.15	178	92128	196.15	ng/ml	99
28) Anthracene	11.27	178	30132	65.81	ng/ml	100
29) Carbazole	11.76	167	9157	22.24	ng/ml	99
30) 1-Methylphenanthrene	12.74	192	7037	19.58	ng/ml	96
35) Fluoranthene	14.27	202	233827	439.06	ng/ml	94
38) Pyrene	14.86	202	244095	410.09	ng/ml	94
44) Benz(a)anthracene	18.35	228	104559	181.68	ng/ml	98
45) Chrysene	18.44	228	130578	238.98	ng/ml	97
51) Benzo(b)fluoranthene	21.35	252	175950	293.98	ng/ml	100
52) Benzo(k)fluoranthene	21.44	252	64768	105.67	ng/ml	100
53) Benzo(e)pyrene	22.15	252	87880	152.04	ng/ml	100
54) Benzo(a)pyrene	22.31	252	109081	197.70	ng/ml	99
55) Perylene	22.58	252	32361	57.97	ng/ml	99
56) Indeno(1,2,3-cd)pyrene	26.30	276	71427	122.69	ng/ml	100
57) Dibenz(a,h)anthracene	26.48	278	17584	30.34	ng/ml	99
58) Benzo(g,h,i)perylene	27.07	276	71907	116.26	ng/ml	100

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

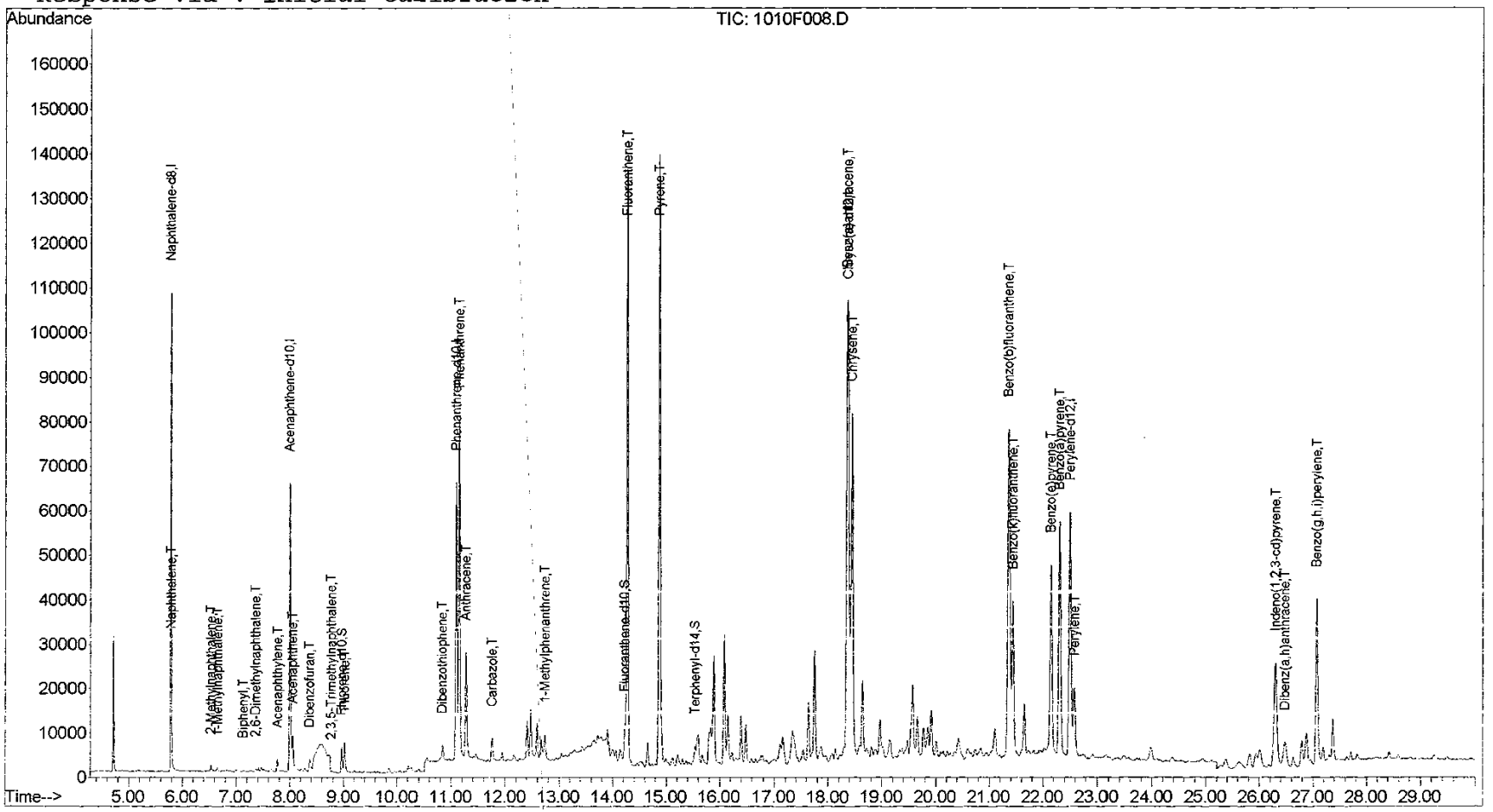
Quantitation Report (QT Reviewed)

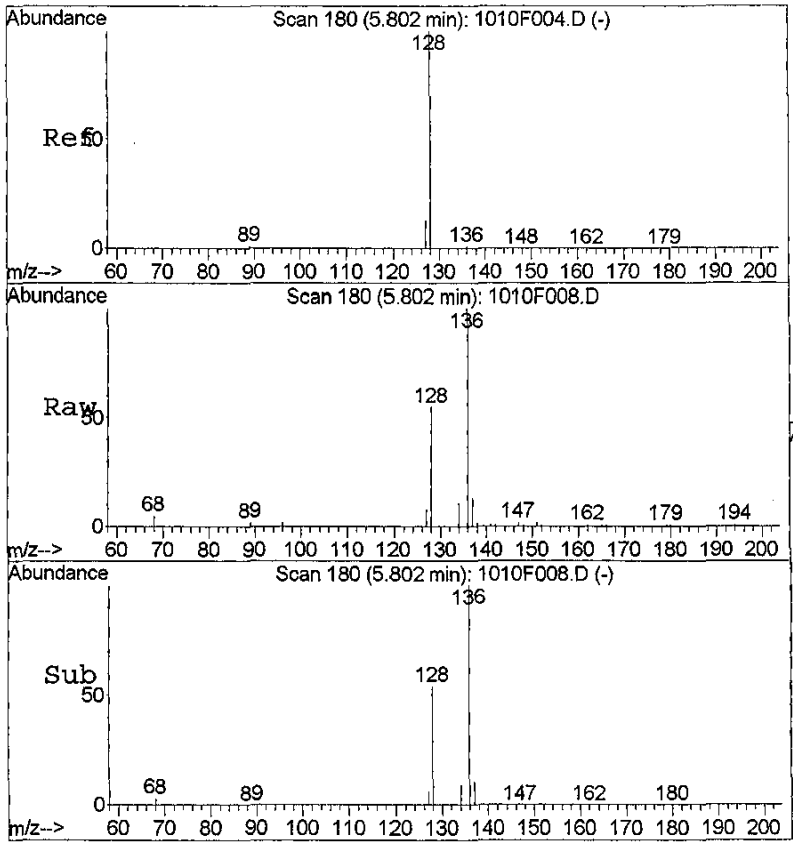
Data File : J:\MS20\DATA\101015\1010F008.D
Acq On : 10 Oct 2015 8:25 am
Sample : K1511029-003DIL 10X
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:36 2015

Vial: 6
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00

Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration

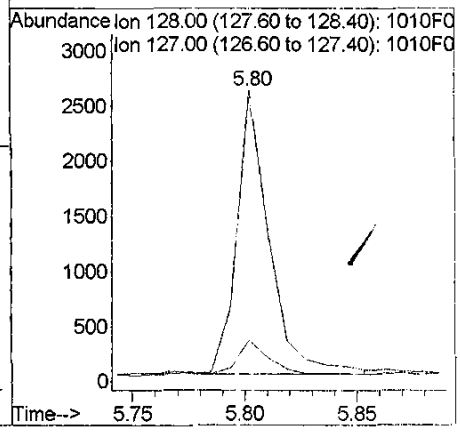


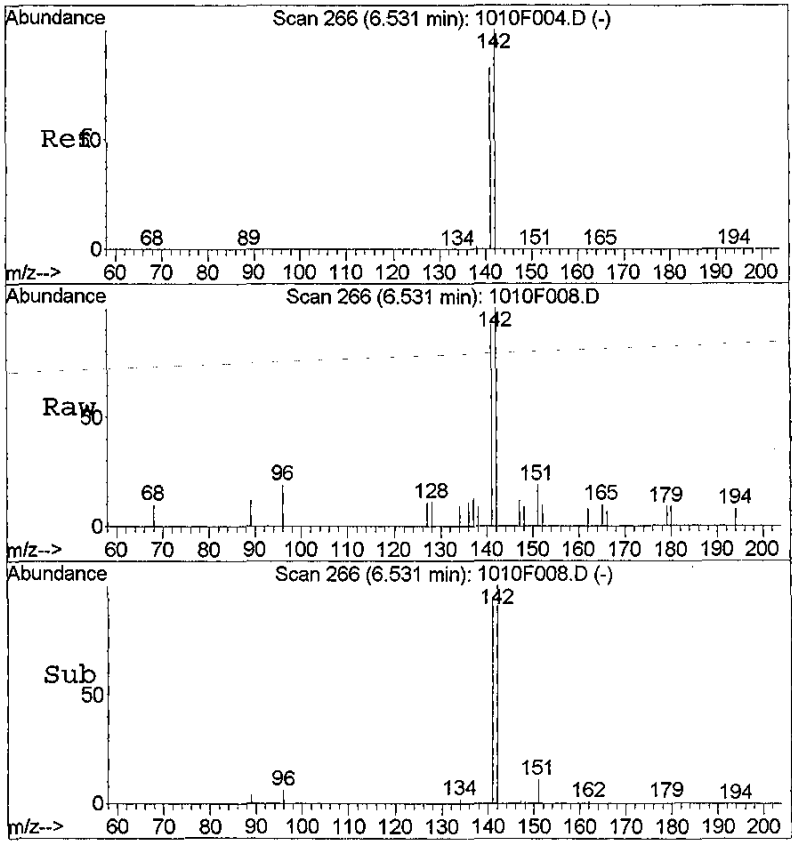


#2
Naphthalene
Concen: 6.78 ng/ml m
RT: 5.80 min Scan# 180
Delta R.T. -0.02 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:128 Resp: 2596

Ion	Ratio	Lower	Upper
128	100		
127	14.2	0.0	42.7

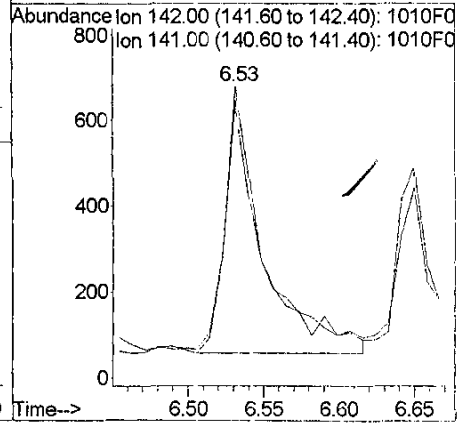


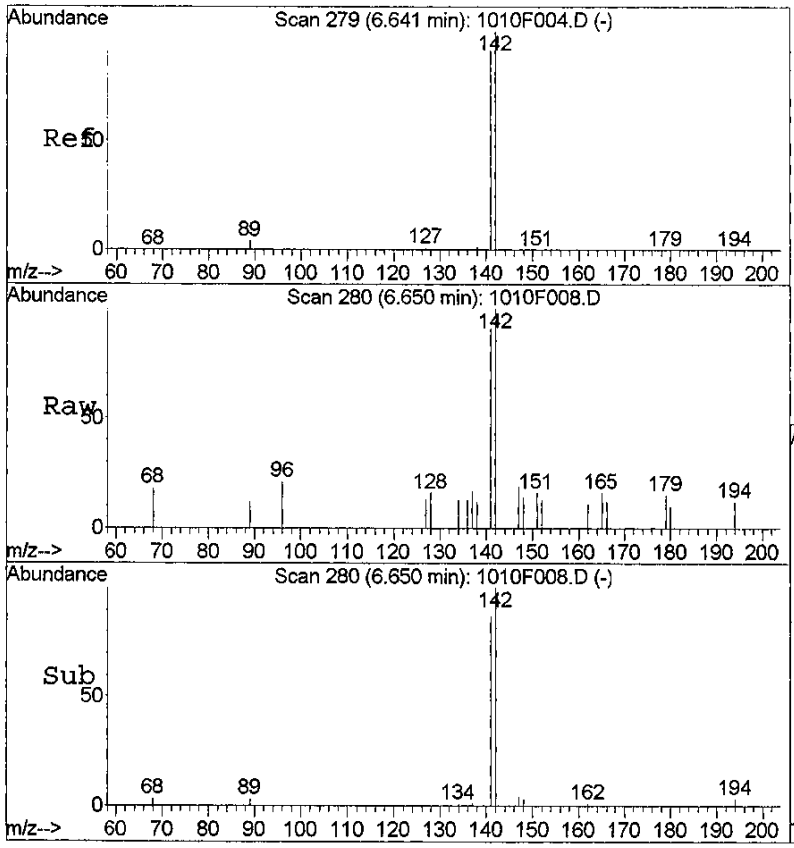


#3
2-Methylnaphthalene
Concen: 4.06 ng/ml
RT: 6.53 min Scan# 266
Delta R.T. -0.01 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:142 Resp: 1105

Ion	Ratio	Lower	Upper
142	100		
141	92.9	54.2	114.2

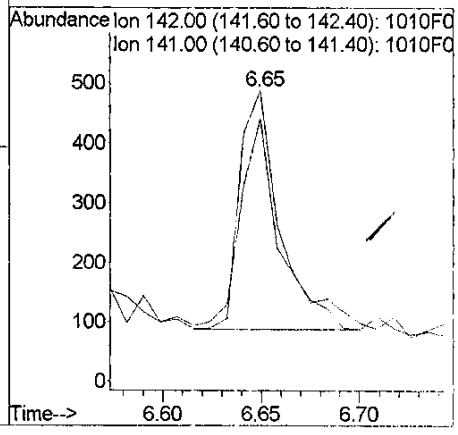


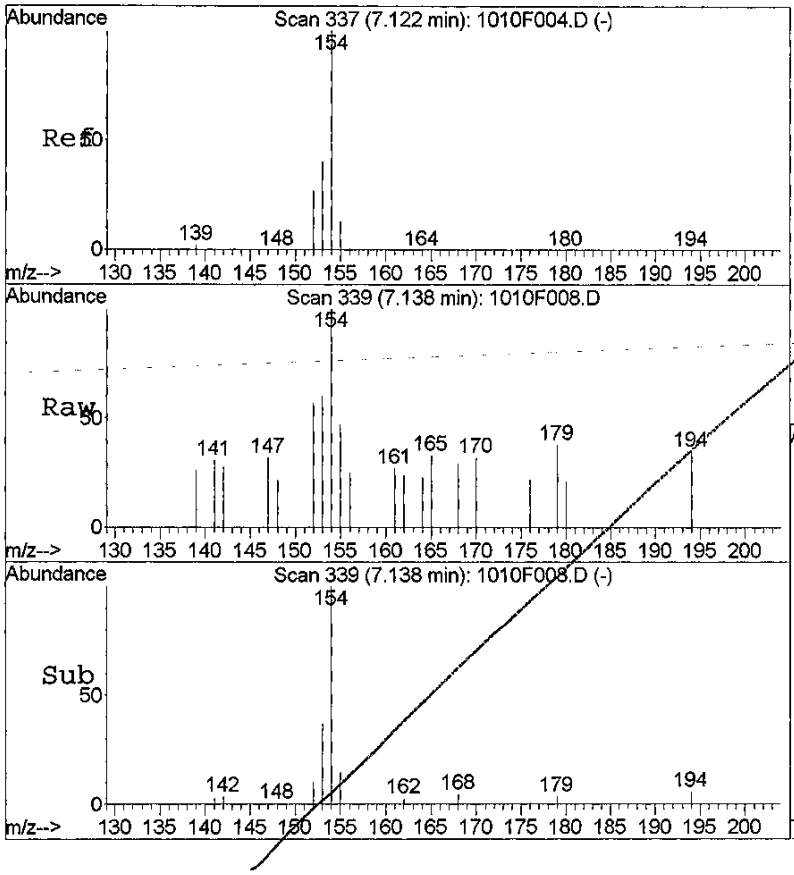


#4
1-Methylnaphthalene
Concen: 2.33 ng/ml
RT: 6.65 min Scan# 280
Delta R.T. -0.01 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:142 Resp: 560

Ion	Ratio	Lower	Upper
142	100		
141	87.0	60.2	120.2



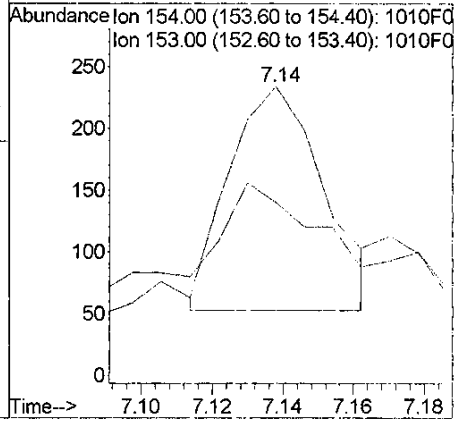


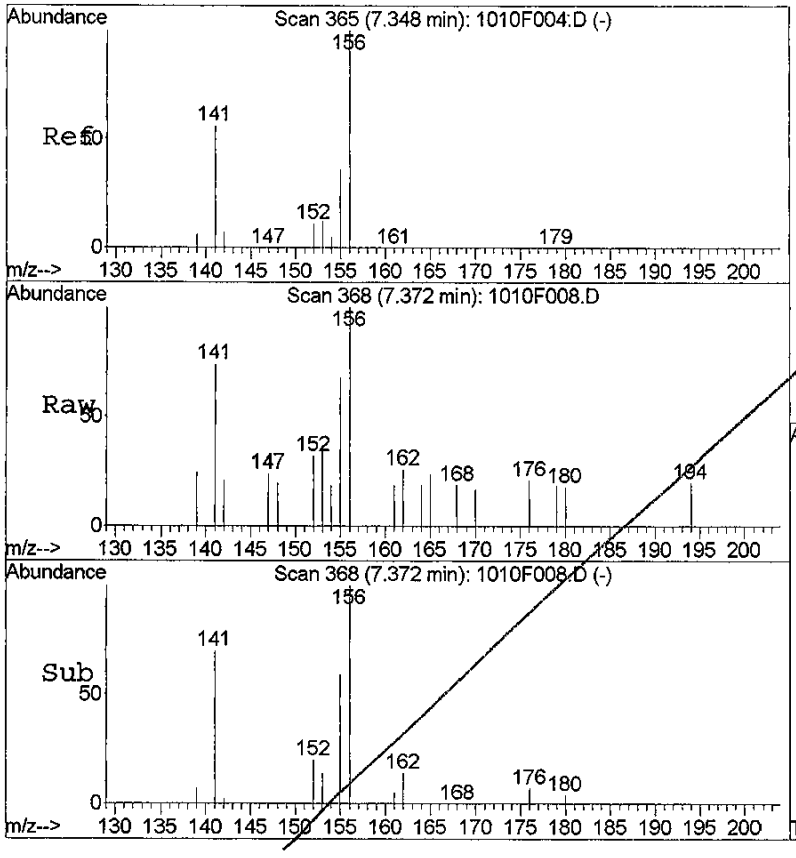
#5
Biphenyl
Concen: 1.02 ng/ml m
RT: 7.14 min Scan# 339
Delta R.T. -0.00 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

NT

Tgt Ion:154 Resp: 336

Ion	Ratio	Lower	Upper
154	100		
153	59.8	10.0	70.0



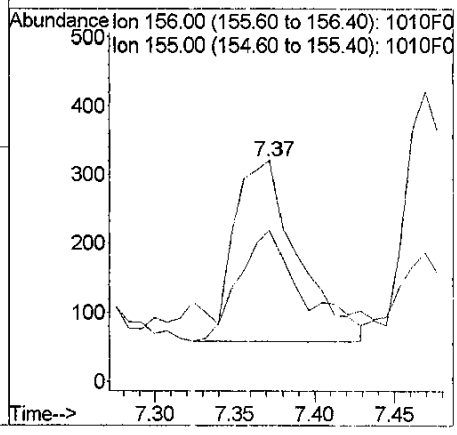


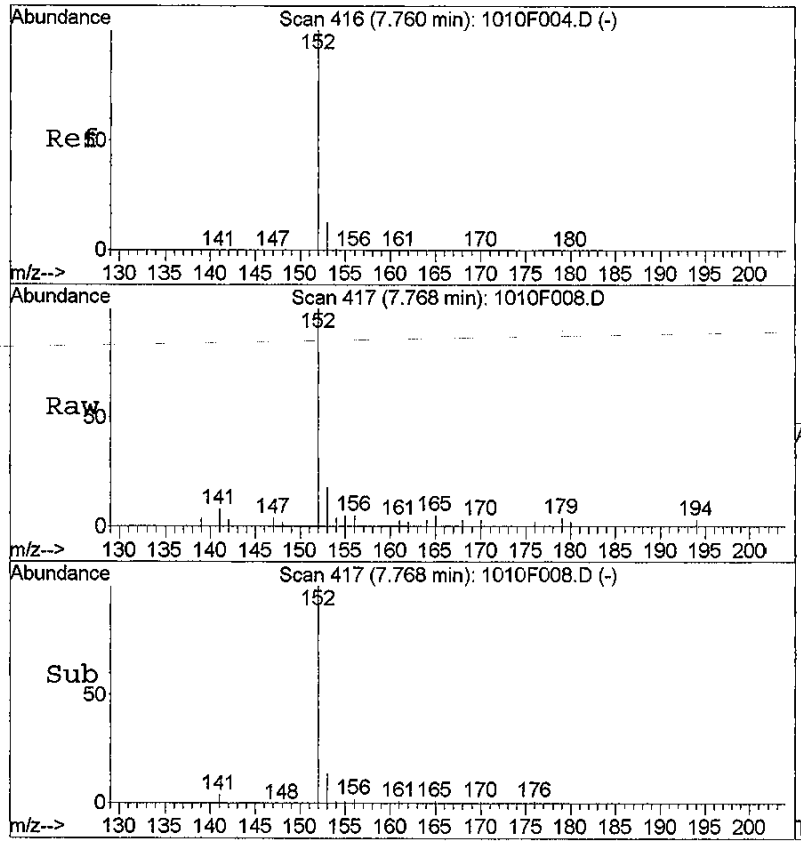
NT

#6
2,6-Dimethylnaphthalene
Concen: 3.00 ng/ml
RT: 7.37 min Scan# 368
Delta R.T. 0.01 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:156 Resp: 718

Ion	Ratio	Lower	Upper
156	100		
155	44.3	5.4	65.4

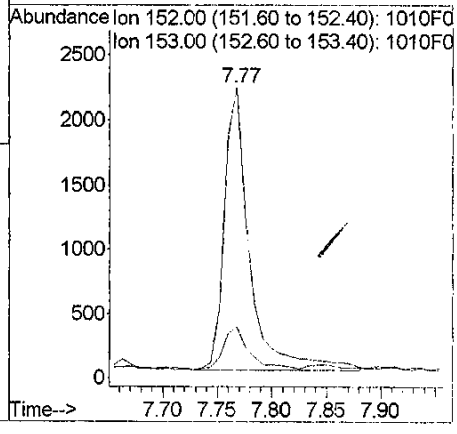


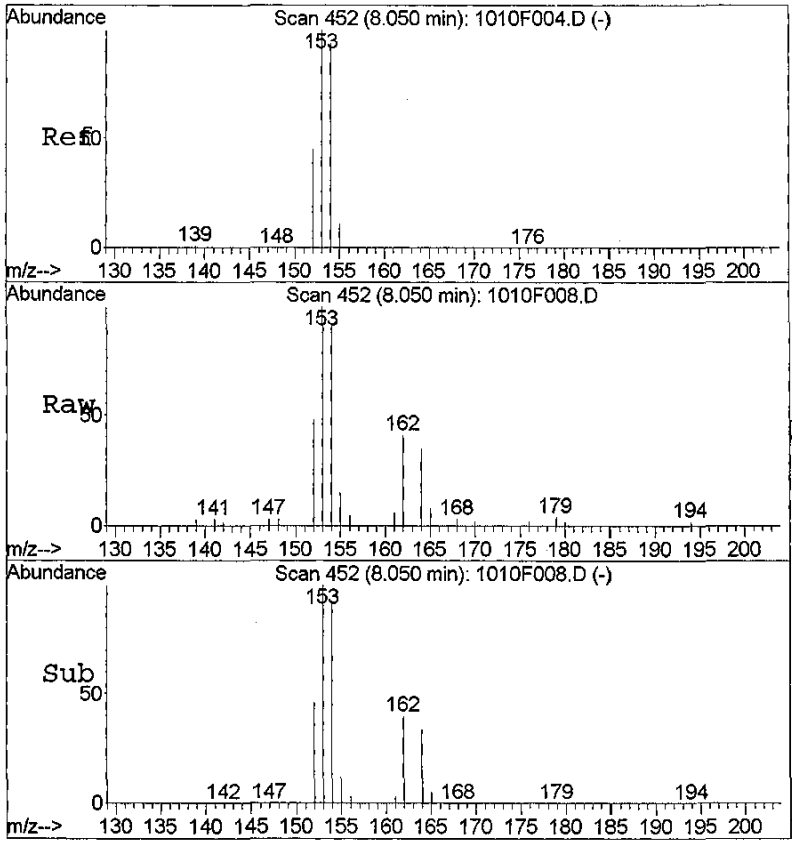


#12
Acenaphthylene
Concen: 8.27 ng/ml
RT: 7.77 min Scan# 417
Delta R.T. -0.01 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:152 Resp: 3561

Ion	Ratio	Lower	Upper
152	100		
153	15.3	0.0	43.2

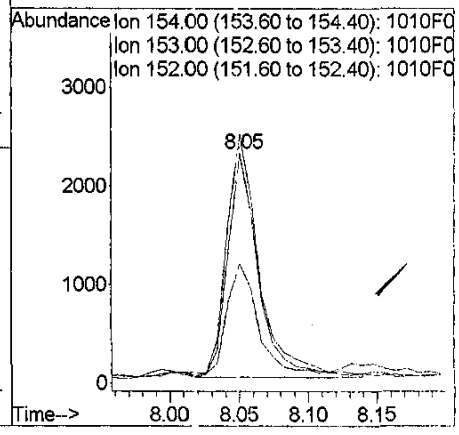


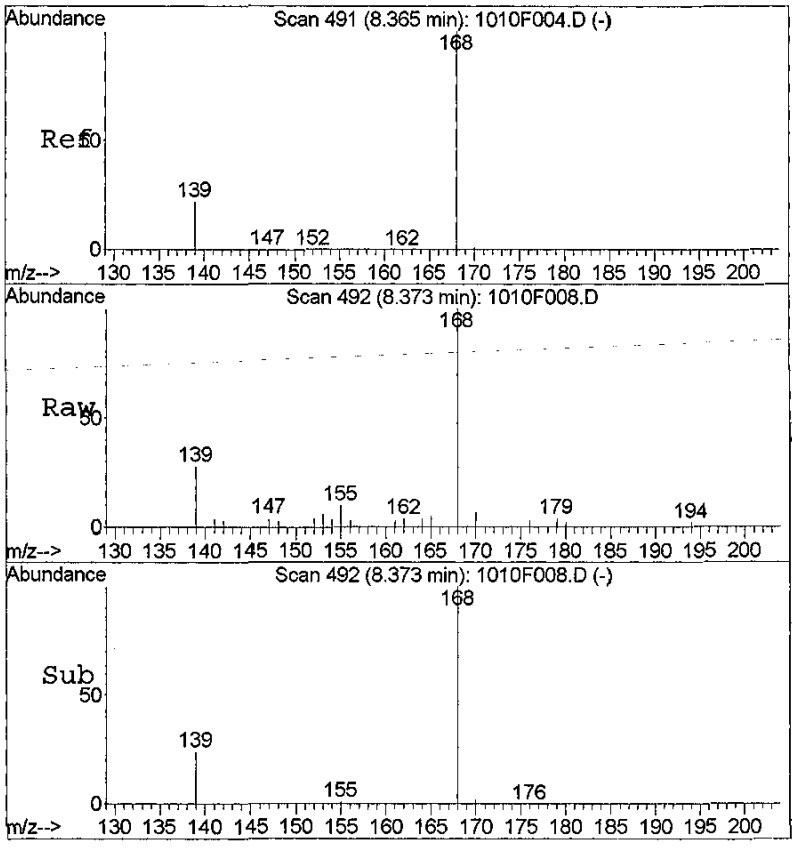


#13
Acenaphthene
Concen: 13.76 ng/ml
RT: 8.05 min Scan# 452
Delta R.T. -0.02 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:154 Resp: 3543

Ion	Ratio	Lower	Upper
154	100		
153	108.0	77.2	137.2
152	49.1	20.0	80.0

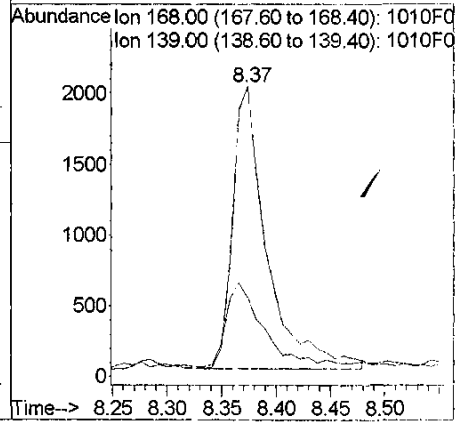




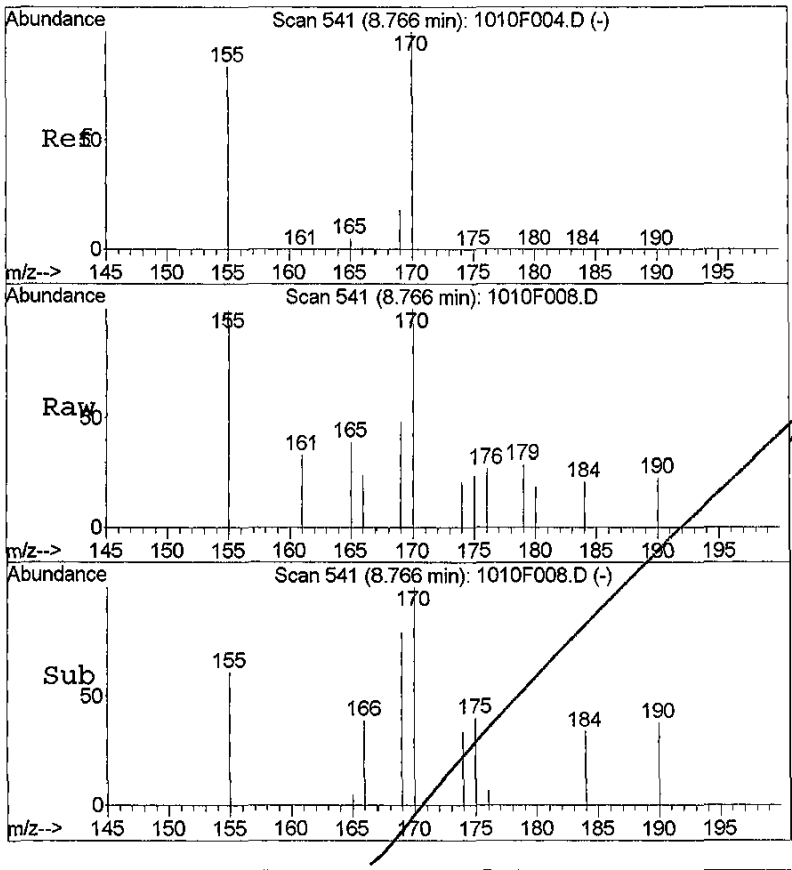
#14
Dibenzofuran
Concen: 11.07 ng/ml
RT: 8.37 min Scan# 492
Delta R.T. -0.01 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:168 Resp: 4356

Ion	Ratio	Lower	Upper
168	100		
139	24.7	0.0	54.0



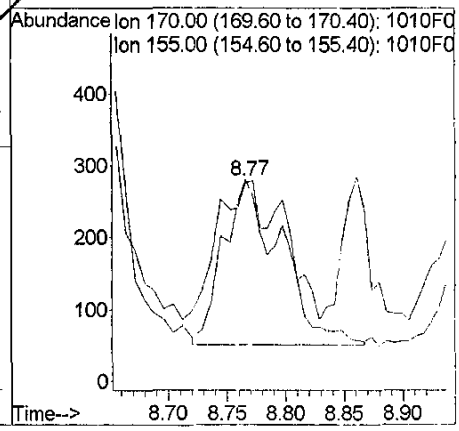
NT

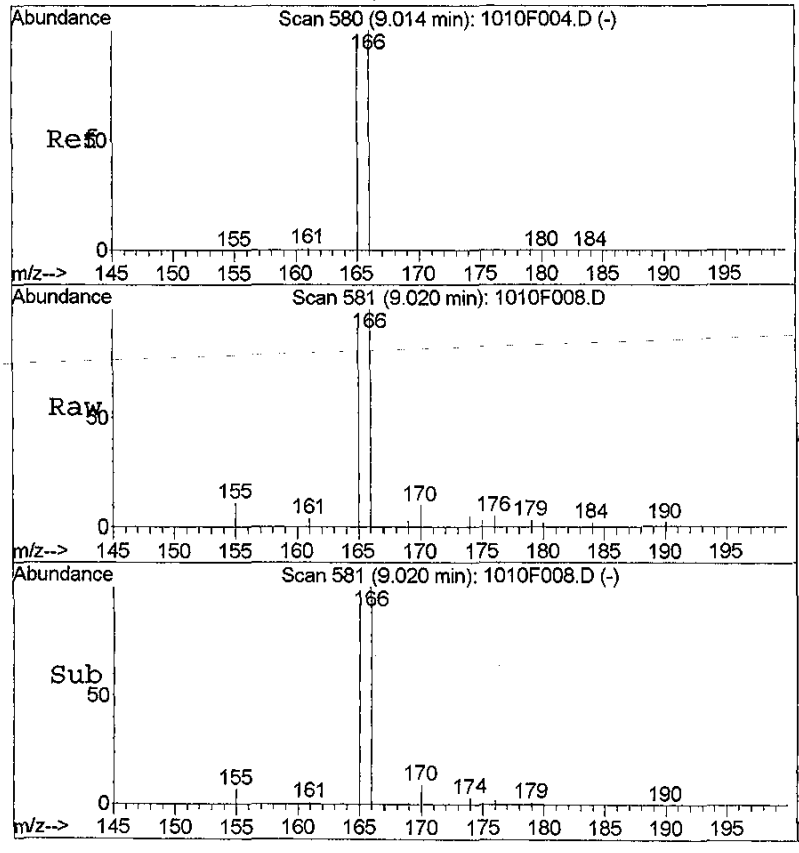


#15
2,3,5-Trimethylnaphthalene
Concen: 3.15 ng/ml m
RT: 8.77 min Scan# 541
Delta R.T. -0.02 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:170 Resp: 795

Ion	Ratio	Lower	Upper
170	100		
155	98.6	44.9	104.9

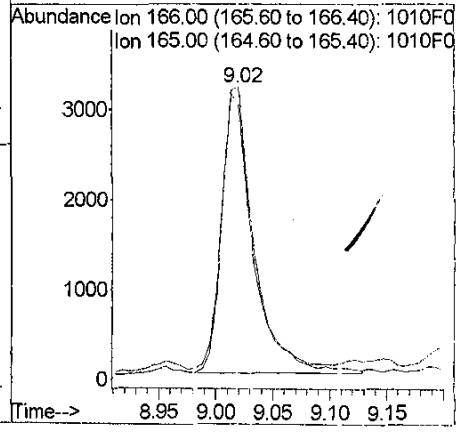


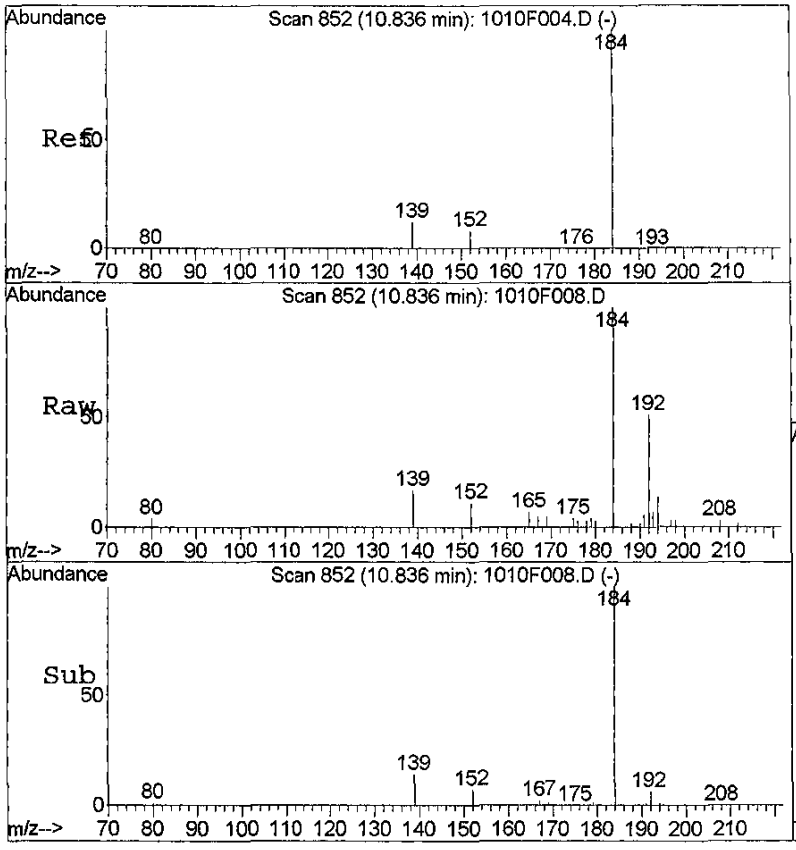


#17
Fluorene
Concen: 19.71 ng/ml
RT: 9.02 min Scan# 581
Delta R.T. -0.01 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:166 Resp: 6166

Ion	Ratio	Lower	Upper
166	100		
165	92.4	63.0	123.0

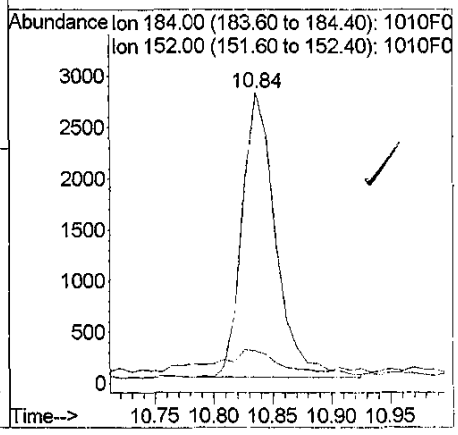


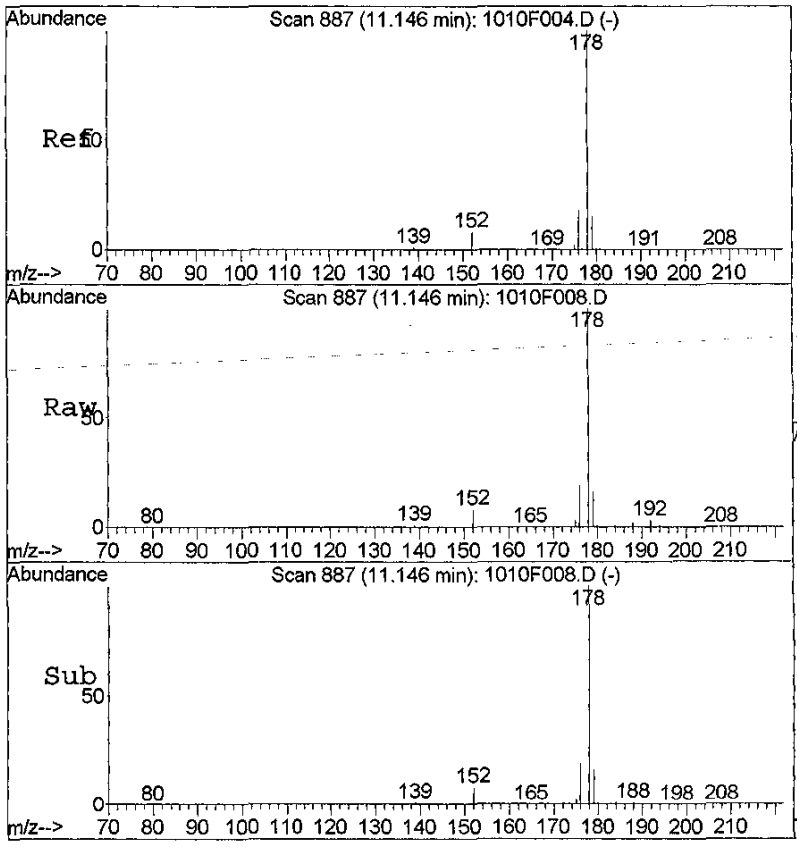


#22
Dibenzothiophene
Concen: 12.15 ng/ml
RT: 10.84 min Scan# 852
Delta R.T. -0.03 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:184 Resp: 5548

Ion	Ratio	Lower	Upper
184	100		
152	6.0	0.0	37.7

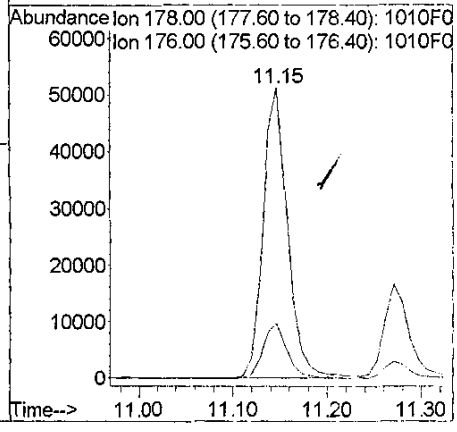


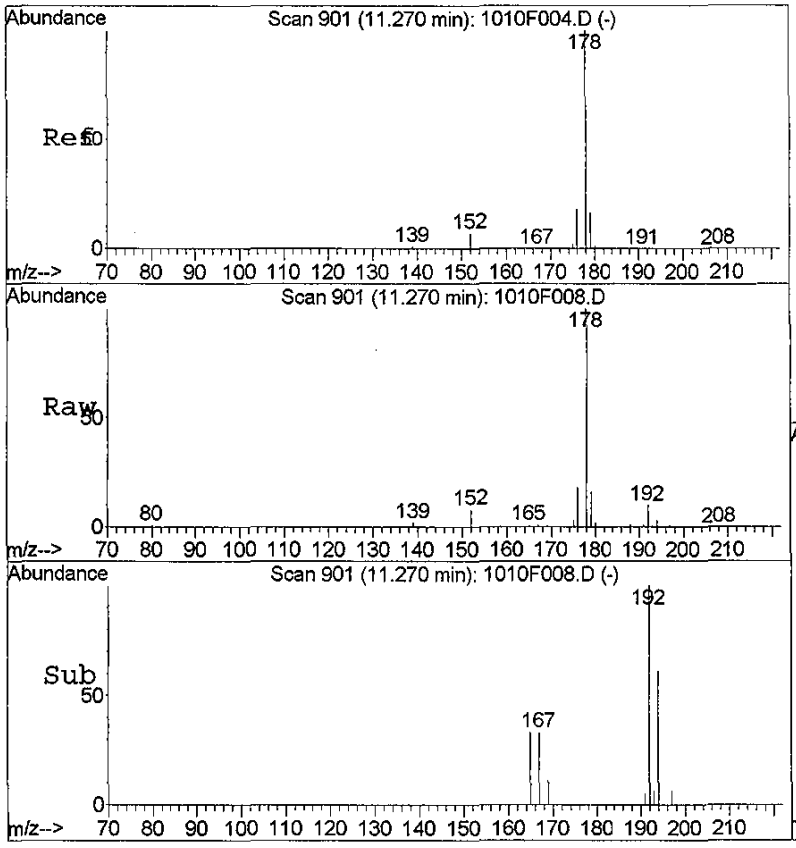


#27
Phenanthrene
Concen: 196.15 ng/ml
RT: 11.15 min Scan# 887
Delta R.T. -0.02 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:178 Resp: 92128

Ion	Ratio	Lower	Upper
178	100		
176	18.8	0.0	48.5

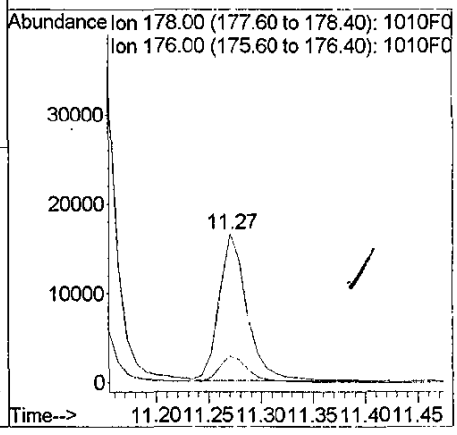


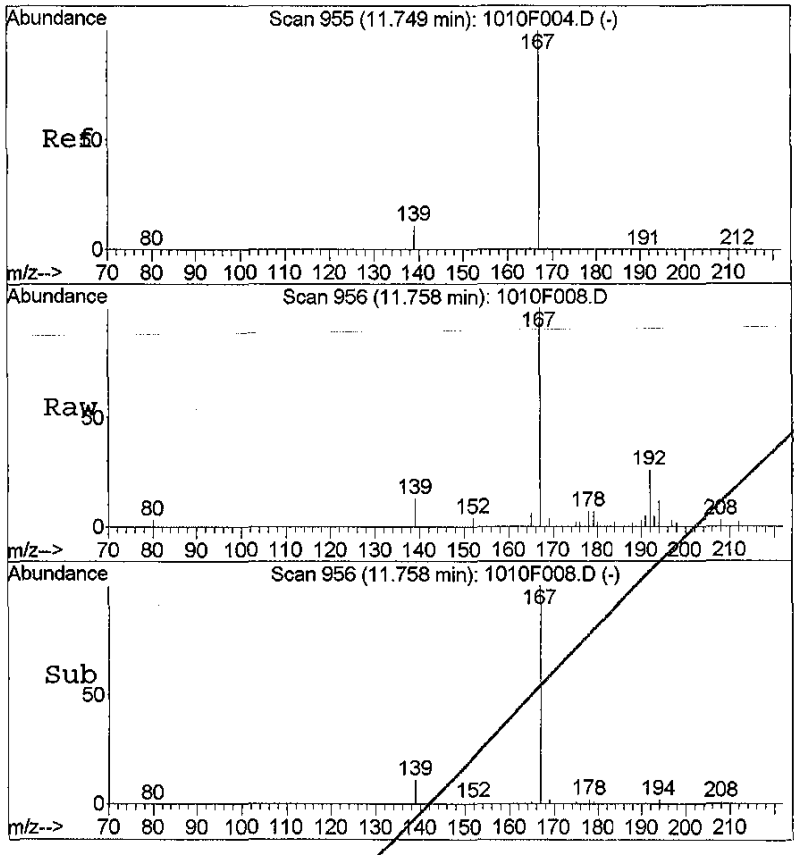


#28
Anthracene
Concen: 65.81 ng/ml
RT: 11.27 min Scan# 901
Delta R.T. -0.03 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:178 Resp: 30132

Ion	Ratio	Lower	Upper
178	100		
176	17.7	0.0	47.6



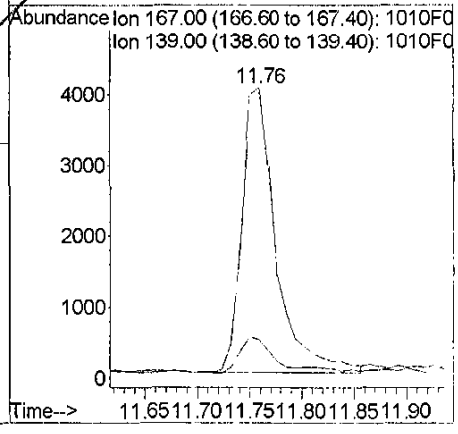


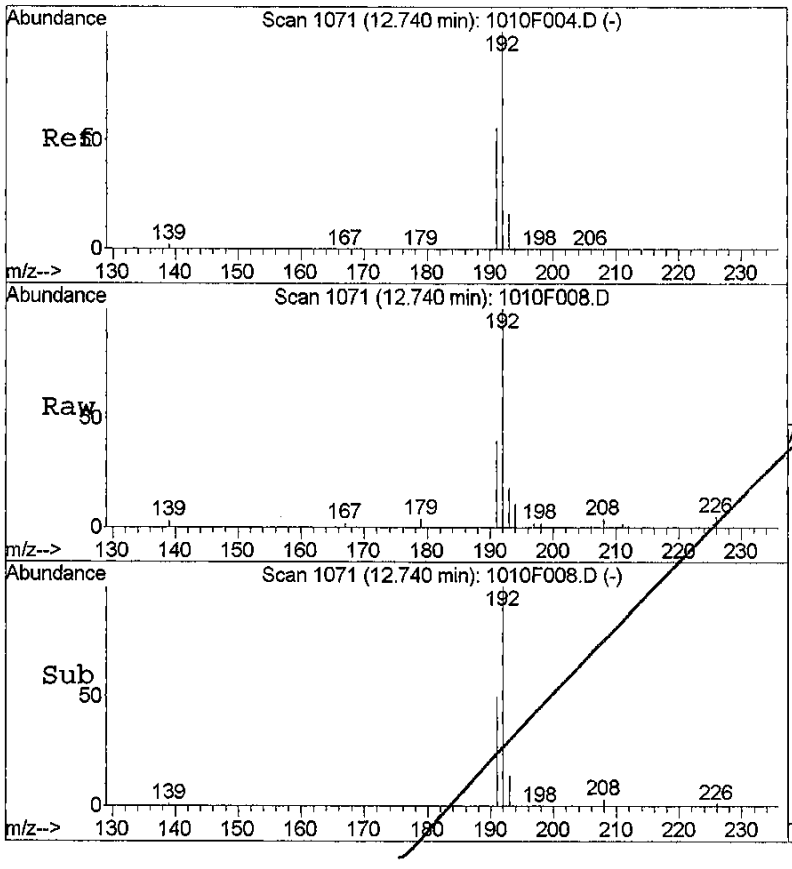
#29
Carbazole
Concen: 22.24 ng/ml
RT: 11.76 min Scan# 956
Delta R.T. -0.01 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

NT

Tgt Ion:167 Resp: 9157

Ion	Ratio	Lower	Upper
167	100		
139	11.5	0.0	41.8

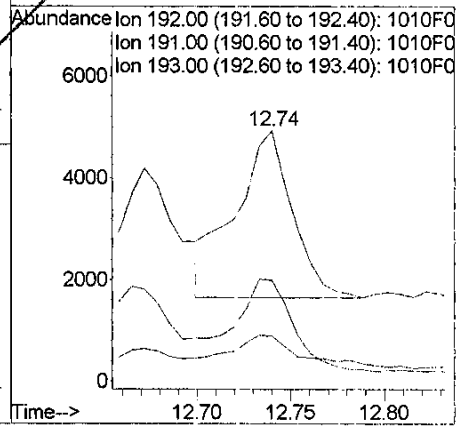


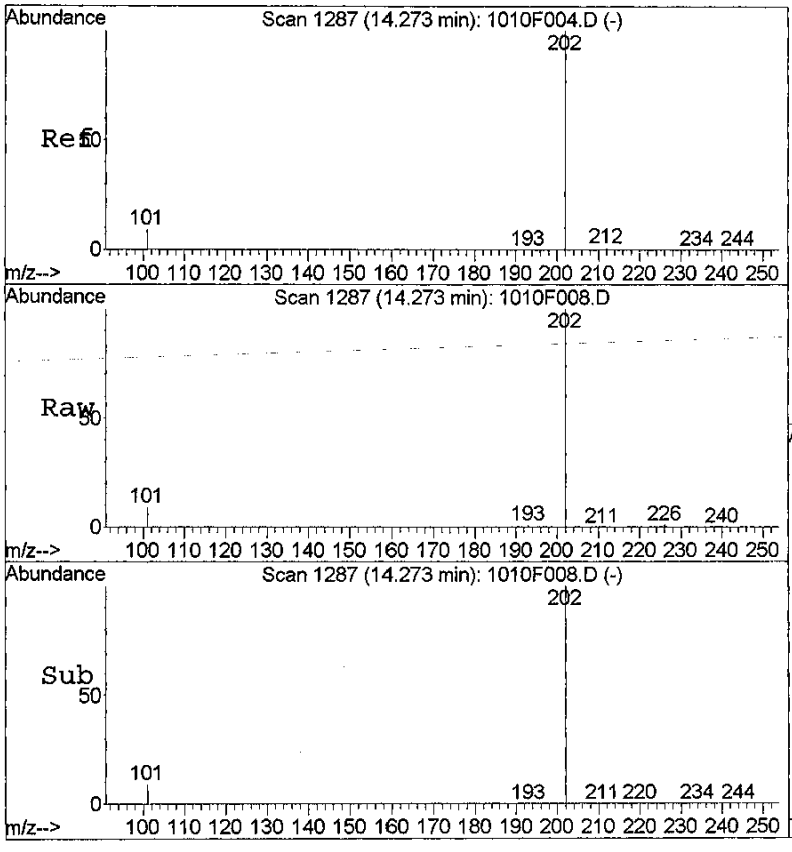


#30
1-Methylphenanthrene
Concen: 19.58 ng/ml
RT: 12.74 min Scan# 1071
Delta R.T. -0.03 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:192 Resp: 7037

Ion	Ratio	Lower	Upper
192	100		
191	53.3	26.7	86.7
193	16.5	0.0	45.6

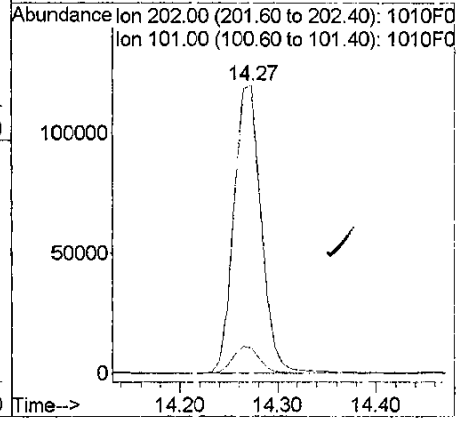


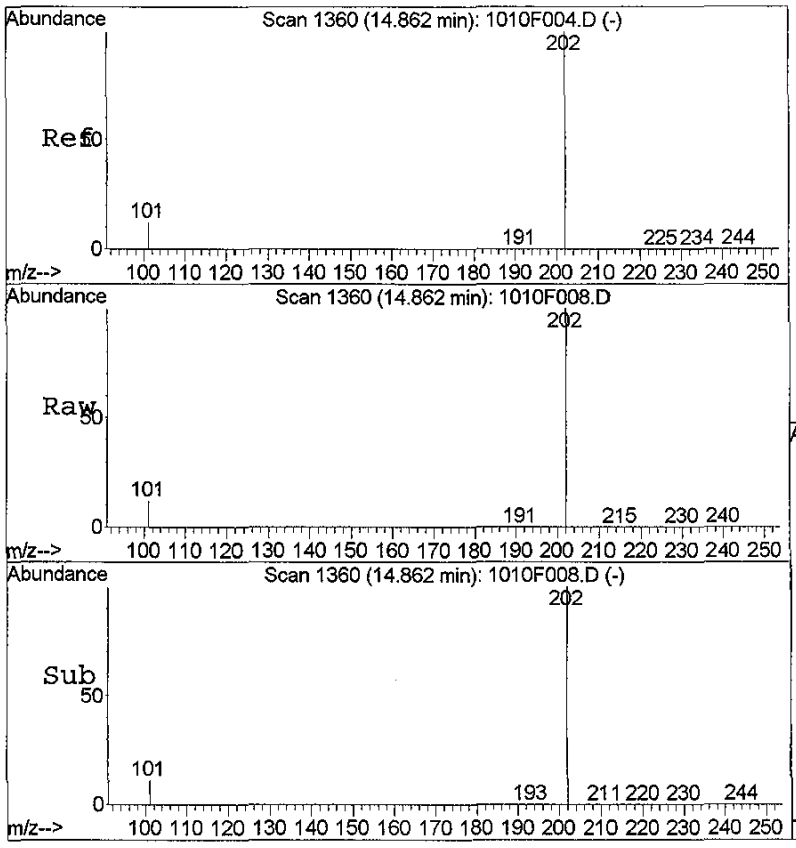


#35
Fluoranthene
Concen: 439.06 ng/ml
RT: 14.27 min Scan# 1287
Delta R.T. -0.02 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:202 Resp: 233827

Ion	Ratio	Lower	Upper
202	100		
101	8.9	0.0	41.0

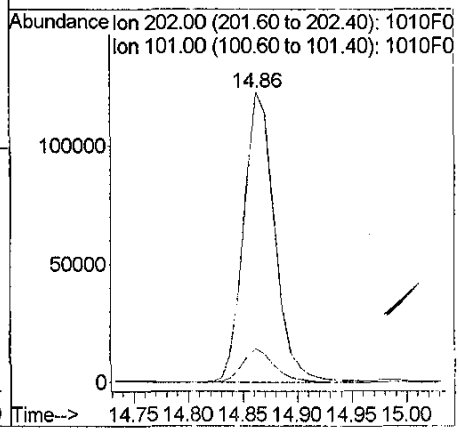


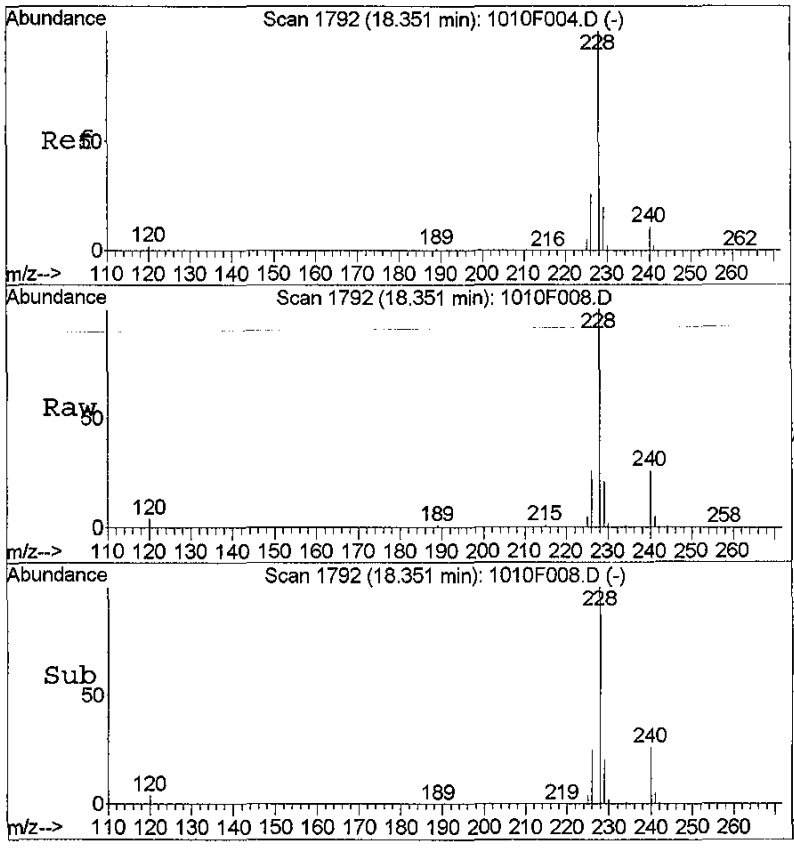


#38
Pyrene
Concen: 410.09 ng/ml
RT: 14.86 min Scan# 1360
Delta R.T. -0.03 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:202 Resp: 244095

Ion	Ratio	Lower	Upper
202	100		
101	11.5	0.0	43.8

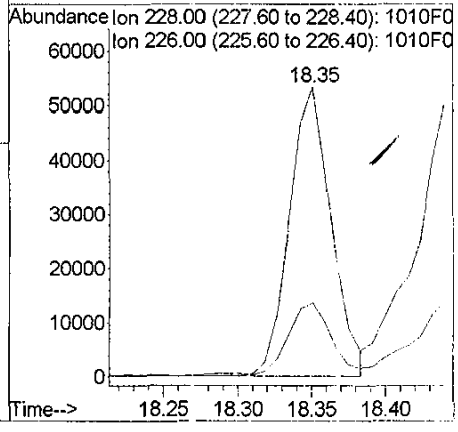


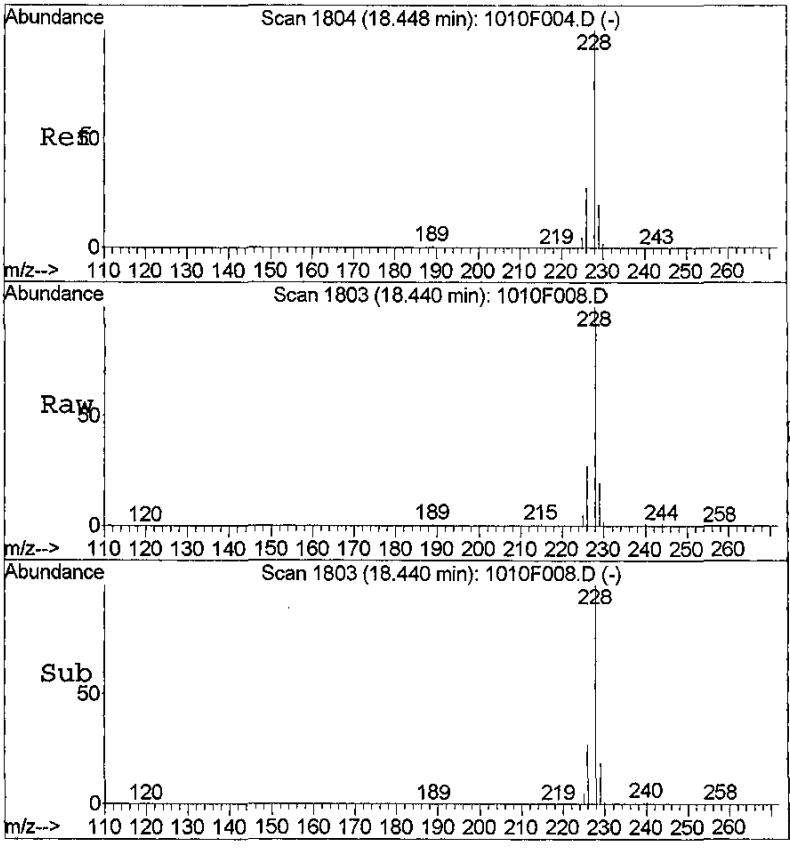


#44
Benz(a)anthracene
Concen: 181.68 ng/ml
RT: 18.35 min Scan# 1792
Delta R.T. -0.02 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:228 Resp: 104559

Ion	Ratio	Lower	Upper
228	100		
226	25.0	0.0	55.8

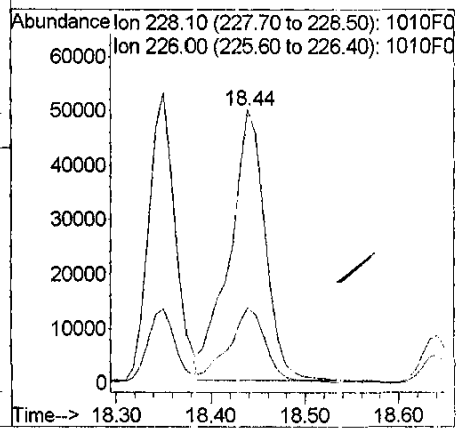


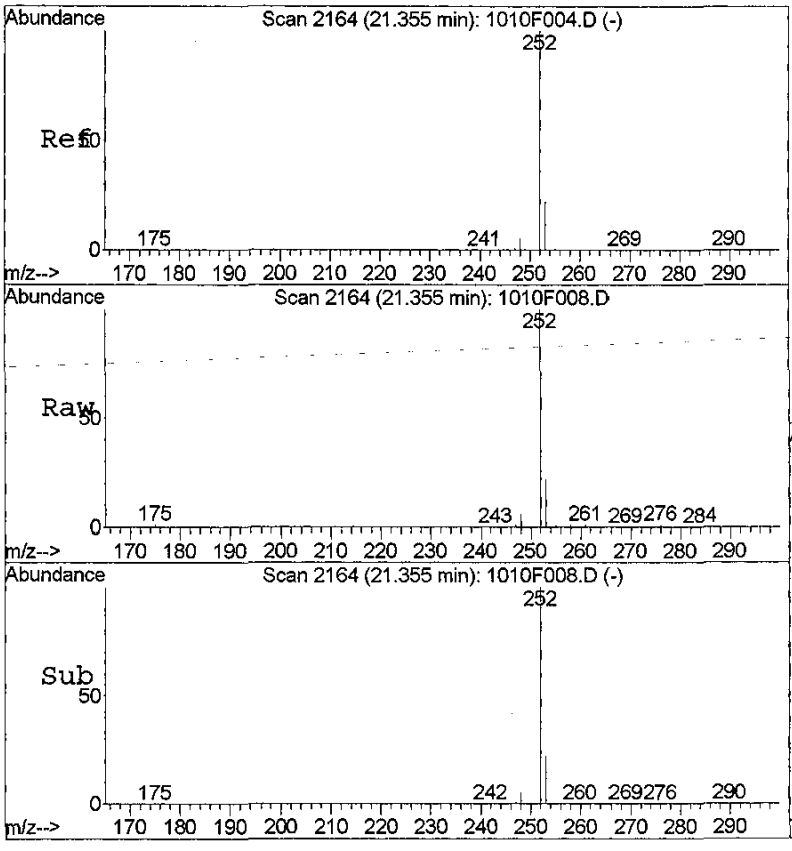


#45
Chrysene
Concen: 238.98 ng/ml
RT: 18.44 min Scan# 1803
Delta R.T. -0.03 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:228 Resp: 130578

Ion	Ratio	Lower	Upper
228	100		
226	27.3	0.0	58.6

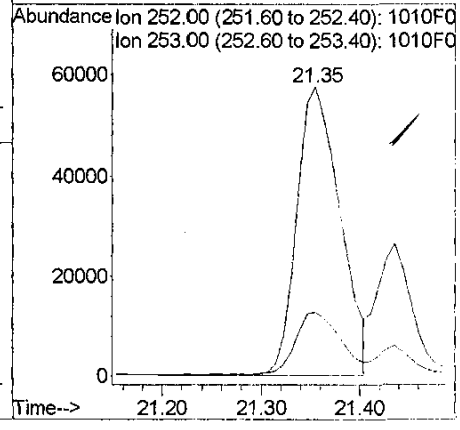


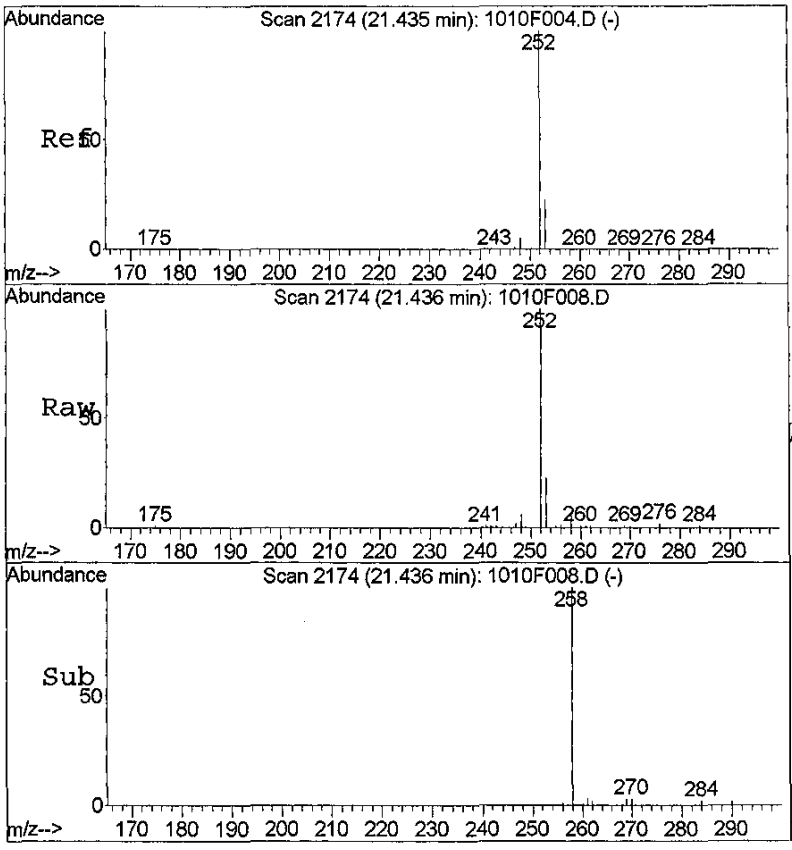


#51
Benzo(b)fluoranthene
Concen: 293.98 ng/ml
RT: 21.35 min Scan# 2164
Delta R.T. -0.02 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:252 Resp: 175950

Ion	Ratio	Lower	Upper
252	100		
253	21.8	0.0	51.8

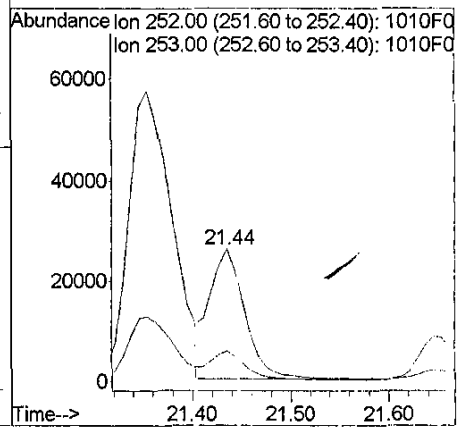


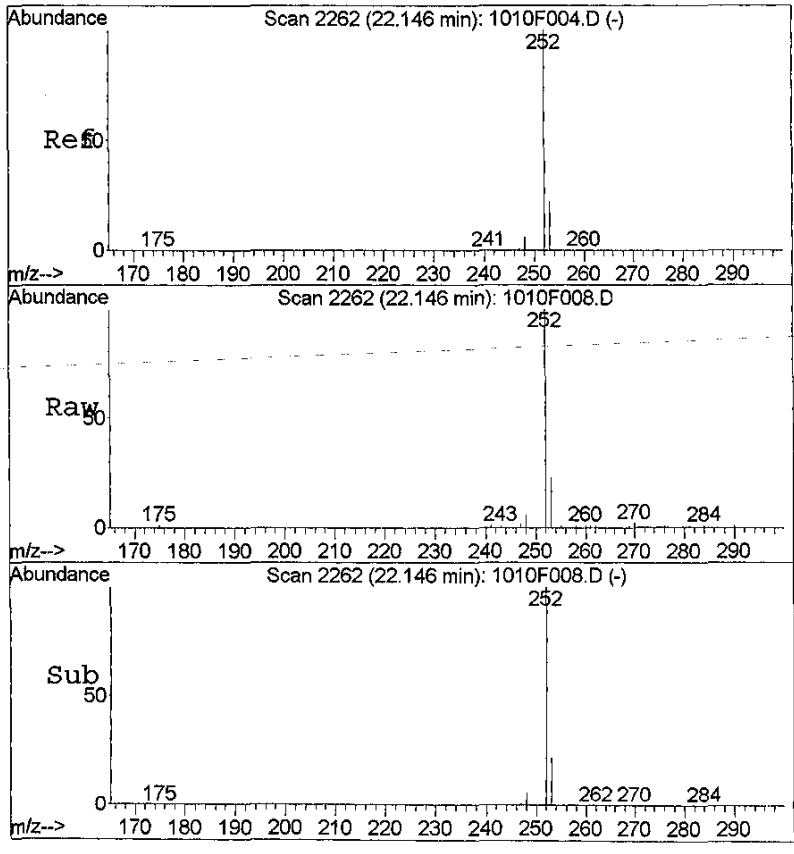


#52
Benzo(k)fluoranthene
Concen: 105.67 ng/ml
RT: 21.44 min Scan# 2174
Delta R.T. -0.03 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:252 Resp: 64768

Ion	Ratio	Lower	Upper
252	100		
253	21.6	0.0	51.7

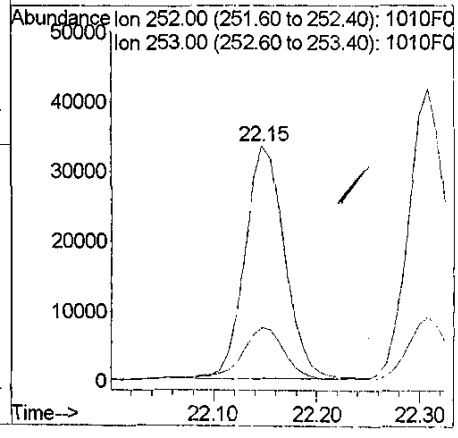


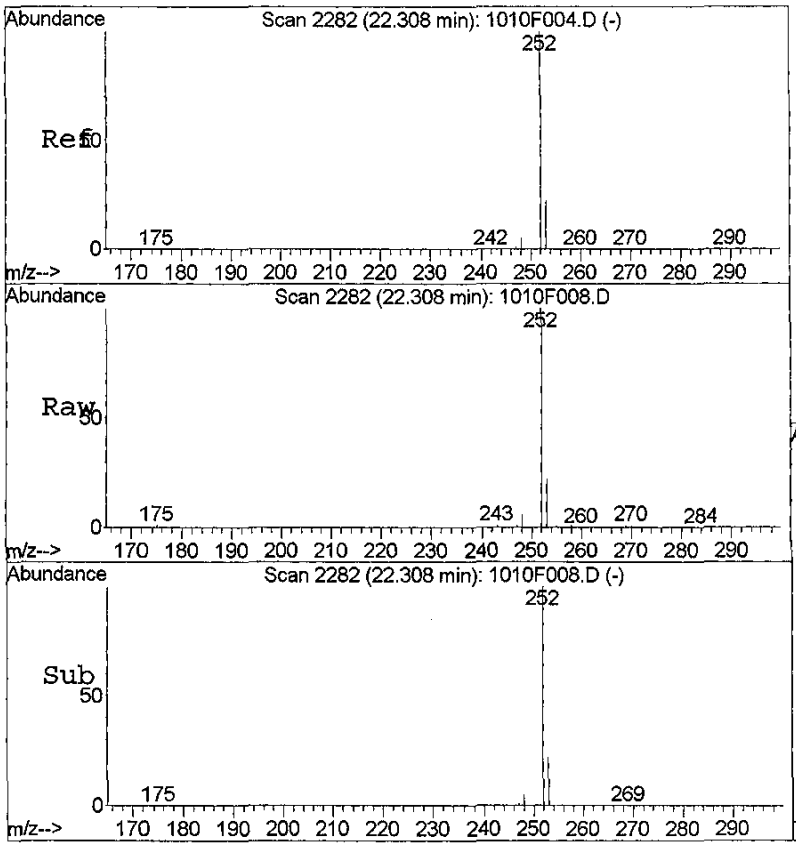


#53
Benzo(e)pyrene
Concen: 152.04 ng/ml
RT: 22.15 min Scan# 2262
Delta R.T. -0.03 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:252 Resp: 87880

Ion	Ratio	Lower	Upper
252	100		
253	22.0	0.0	52.0

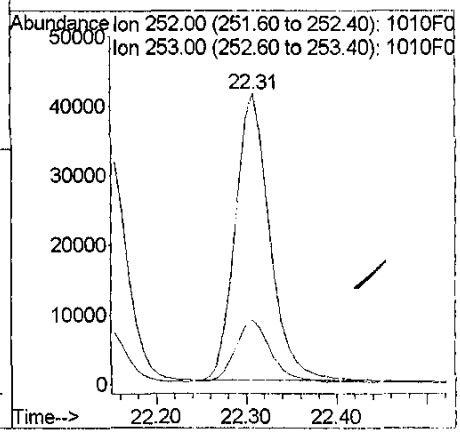


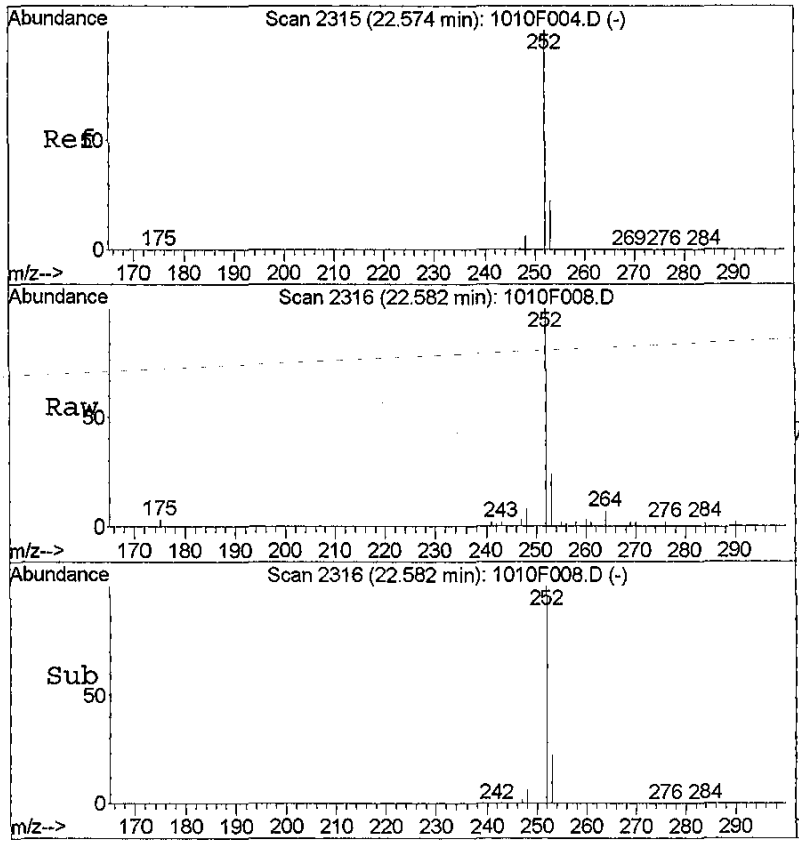


#54
Benzo(a)pyrene
Concen: 197.70 ng/ml
RT: 22.31 min Scan# 2282
Delta R.T. -0.03 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:252 Resp: 109081

Ion	Ratio	Lower	Upper
252	100		
253	21.5	0.0	51.8

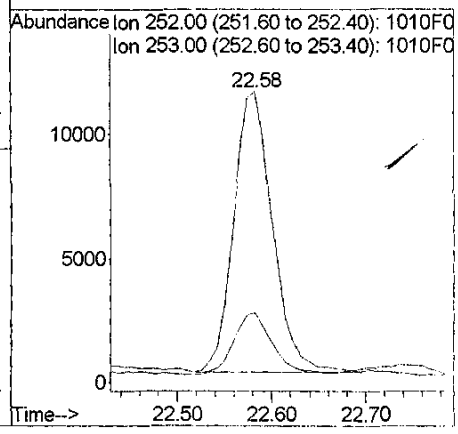


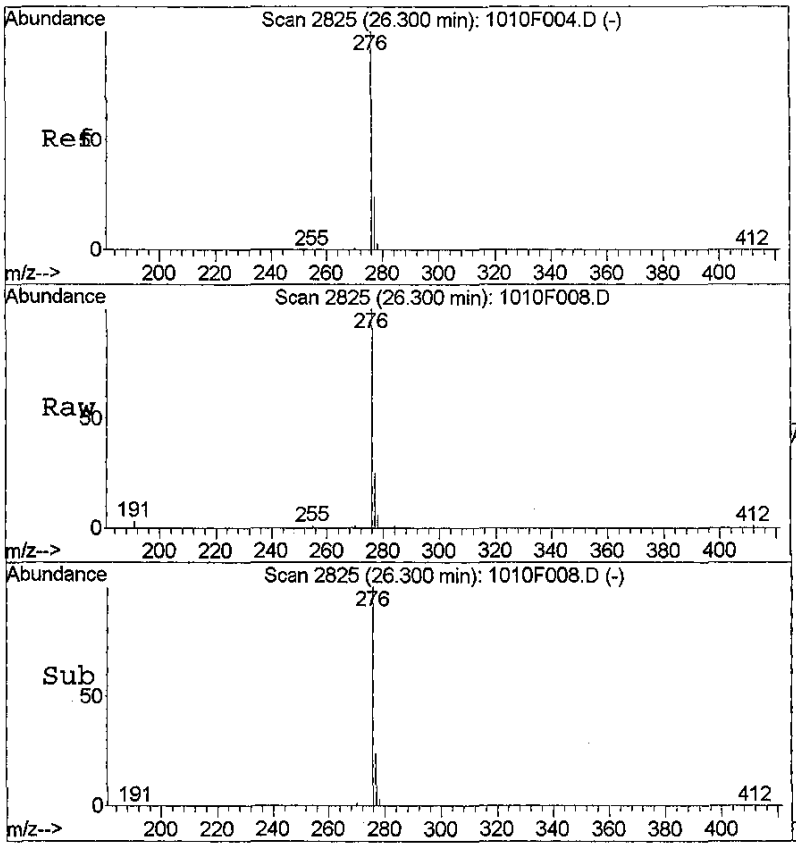


#55
Perylene
Concen: 57.97 ng/ml
RT: 22.58 min Scan# 2316
Delta R.T. -0.03 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:252 Resp: 32361

Ion	Ratio	Lower	Upper
252	100		
253	22.2	0.0	51.8

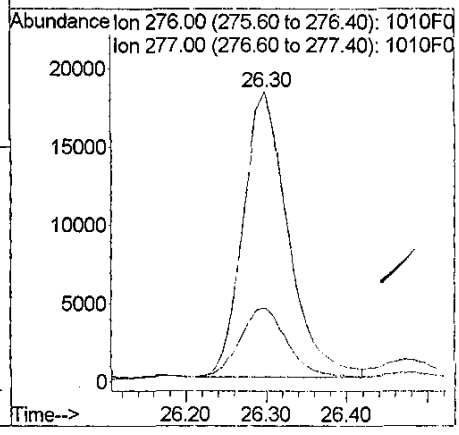


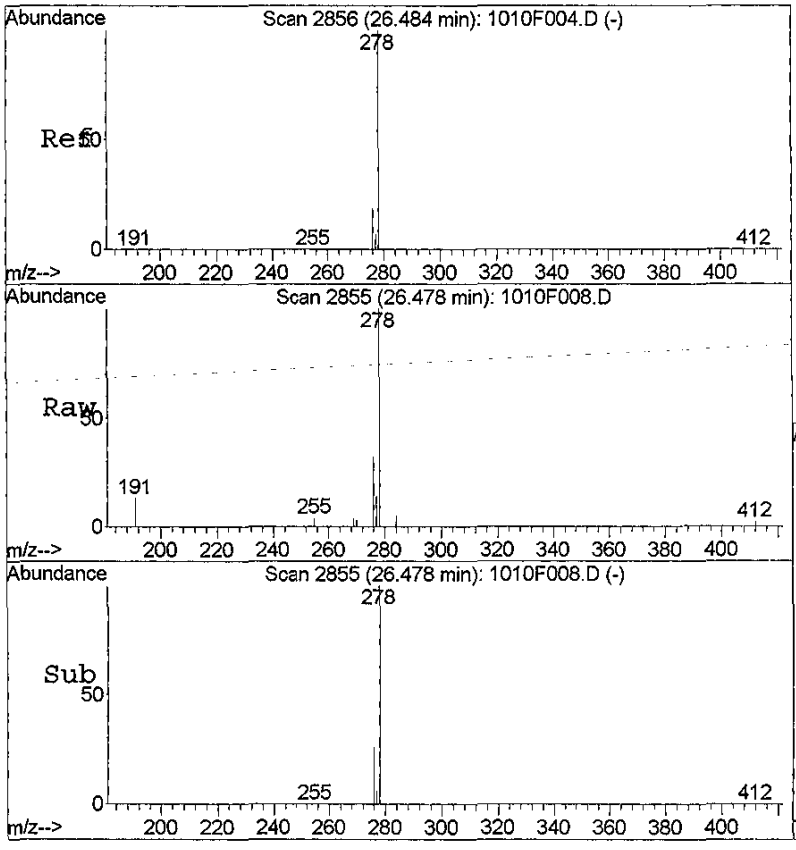


#56
Indeno(1,2,3-cd)pyrene
Concen: 122.69 ng/ml
RT: 26.30 min Scan# 2825
Delta R.T. -0.05 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:276 Resp: 71427

Ion	Ratio	Lower	Upper
276	100		
277	24.0	0.0	53.8

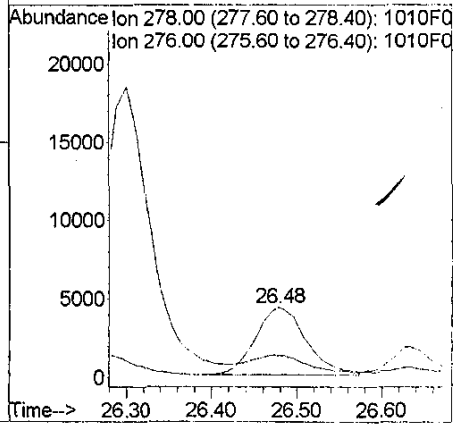


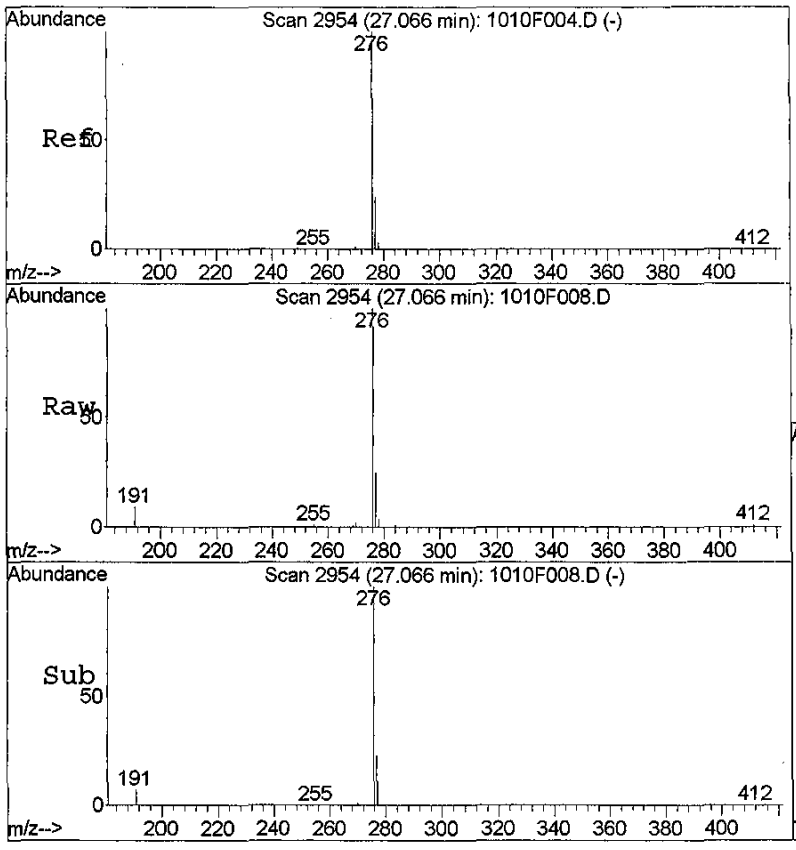


#57
Dibenz(a,h)anthracene
Concen: 30.34 ng/ml
RT: 26.48 min Scan# 2855
Delta R.T. -0.05 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:278 Resp: 17584

Ion	Ratio	Lower	Upper
278	100		
276	24.9	0.0	55.3

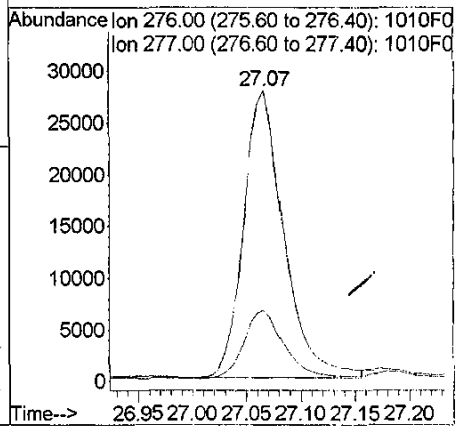




#58
Benzo(g,h,i)perylene
Concen: 116.26 ng/ml
RT: 27.07 min Scan# 2954
Delta R.T. -0.03 min
Lab File: 1010F008.D
Acq: 10 Oct 2015 8:25 am

Tgt Ion:276 Resp: 71907

Ion	Ratio	Lower	Upper
276	100		
277	23.9	0.0	53.8



Exception Report

Data File: J:\MS20\DATA\101015\1010F005.D
Lab ID: KWG1509628-5
RunType: MB
Matrix: SEDIMENT

Date Acquired: 10/10/2015 06:34
Date Quantitated: 10/12/2015 08:34
Batch ID: KWG1509829
Analysis Method: 8270D SIM
MethodJoinID: MJ1187

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

K11029

Primary Review: OCT 1 2 2015

Secondary Review: OCT 1 2 2015

Printed: 10/12/2015 09:36:17
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS20\DATA\101015\1010F005.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 06:34	**Quant Date:**	10/12/2015 08:34	**Vial:**	3
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1509628-5			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	SEDIMENT
Prod Code:	8270D PAH Alk S	**Collect Date:**		**Receive Date:**	10/08/2015

Analysis Lot:	KWG1509829	**Prep Lot:**	KWG1509628	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1472854	**Prep Date:**	10/07/2015		

Quant Method:	J:\MS20\METHODS\080415SIMALK	**Calibration ID:**	CAL14220
Title:			
Tune Ref:	J:\MS20\DATA\101015\1010F003.D	**Method ID:**	MJ1187
MB Ref:		**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.79	0.00	136	77729	200.00	OK
2	Acenaphthene-d10	8.00	0.01	164	45749	200.00	OK
3	Phenanthrene-d10	11.09	0.00	188	84547	200.00	OK
4	Chrysene-d12	18.37	0.00	240	107822	200.00	OK
5	Perylene-d12	22.50	0.00	264	110836	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	8.96	0.00	0.00	176	31056	119.51	60	17-104 OK	
3	Fluoranthene-d10	14.22	0.00	0.00	212	74895	171.44	86	27-106 OK	
4	Terphenyl-d14	15.54	0.00	0.00	244	56040	133.47	67	35-109 OK	

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.80		0.00	128	393	1.05	0.60	U	
1	2-Methylnaphthalene				142	0d		0.39	U	
1	1-Methylnaphthalene				142	0d		0.51	U	
1	Biphenyl				154	0d		0.54	U	
1	2,6-Dimethylnaphthalene				156	0d		0.36	U	
1	C1-Naphthalenes				142	0		2.7	U	
1	C2-Naphthalenes				156	0		2.7	U	
1	C3-Naphthalenes				170	0		2.7	U	
1	C4-Naphthalenes				184	0		2.7	U	
2	Acenaphthylene				152	0d		0.59	U	
2	Acenaphthene				154	0d		0.76	U	
2	Dibenzofuran				168	0d		0.63	U	
2	2,3,5-Trimethylnaphthalene				170	0		0.21	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS20\DATA\101015\1010F005.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 06:34	**Quant Date:**	10/12/2015 08:34	**Vial:**	3
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1509628-5			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Fluorene				166	0d		0.61	U	
2	C1-Fluorenes				180	0		2.7	U	
2	C2-Fluorenes				194	0		2.7	U	
2	C3-Fluorenes				208	0		2.7	U	
3	Dibenzothiophene				184	0d		0.30	U	
3	C1-Dibenzothiophenes				198	0		2.7	U	
3	C2-Dibenzothiophenes				212	0		2.7	U	
3	C3-Dibenzothiophenes				226	0		2.7	U	
3	C4-Dibenzothiophenes				240	0		2.7	U	
3	Phenanthrene	11.15		0.00	178	236	0.5300	1.4	U	
3	Anthracene				178	0d		0.58	U	
3	Carbazole				167	0d		2.3	U	
3	1-Methylphenanthrene				192	0d		0.28	U	
3	C1-Phenanthrenes/Anthracenes				192	0		2.7	U	
3	C2-Phenanthrenes/Anthracenes				206	0		2.7	U	
3	C3-Phenanthrenes/Anthracenes				220	0		2.7	U	
3	C4-Phenanthrenes/Anthracenes				234	0		2.7	U	
3	Fluoranthene				202	0d		0.98	U	
4	Pyrene				202	0d		0.76	U	
4	C1-Fluoranthenes/Pyrenes				216	0		2.7	U	
4	C2-Fluoranthenes/Pyrenes				230	0		2.7	U	
4	C3-Fluoranthenes/Pyrenes				244	0		2.7	U	
4	C4-Fluoranthenes/Pyrenes				258	0		2.7	U	
4	Benz(a)anthracene	18.37	0.02	0.00	228	352	0.6200	0.72	U	
4	Chrysene				228	0d		0.80	U	
4	C1-Chrysenes				242	0		2.7	U	
4	C2-Chrysenes				256	0		2.7	U	
4	C3-Chrysenes				270	0		2.7	U	
4	C4-Chrysenes				284	0		2.7	U	
5	Benzo(b)fluoranthene				252	0		0.92	U	
5	Benzo(k)fluoranthene				252	0d		0.87	U	
5	Benzo(e)pyrene				252	0d		0.61	U	
5	Benzo(a)pyrene				252	0d		0.76	U	
5	Perylene				252	0d		0.72	U	
5	Indeno(1,2,3-cd)pyrene				276	0		0.87	U	
5	Dibenz(a,h)anthracene				278	0d		0.80	U	
5	Benzo(g,h,i)perylene				276	0d		0.85	U	

Prep Amount:	18.529 g	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1
Solids:	%		

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F005.D Vial: 3
Acq On : 10 Oct 2015 6:34 am Operator: LWeiskopf
Sample : KWG1509628-5 MB Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 08:27:45 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.79	136	77729	200.00 ng/ml	0.00
11) Acenaphthene-d10	8.00	164	45749	200.00 ng/ml	-0.02
21) Phenanthrene-d10	11.09	188	84547	200.00 ng/ml	-0.02
37) Chrysene-d12	18.37	240	107822	200.00 ng/ml	-0.02
50) Perylene-d12	22.50	264	110836	200.00 ng/ml	-0.03
System Monitoring Compounds					
16) Fluorene-d10	8.96	176	31056	119.51 ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 11.95%		
36) Fluoranthene-d10	14.22	212	74895	171.44 ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 17.14%		
43) Terphenyl-d14	15.54	244	56040	133.47 ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 13.35%		
Target Compounds					Qvalue
2) Naphthalene	5.80	128	393	1.05 ng/ml	96
27) Phenanthrene	11.15	178	236	0.53 ng/ml	78
44) Benz(a)anthracene	18.37	228	352	0.62 ng/ml	49

(#) = qualifier out of range (m) = manual integration
1010F005.D 080415SIMALK.M Mon Oct 12 08:34:52 2015 Page 1

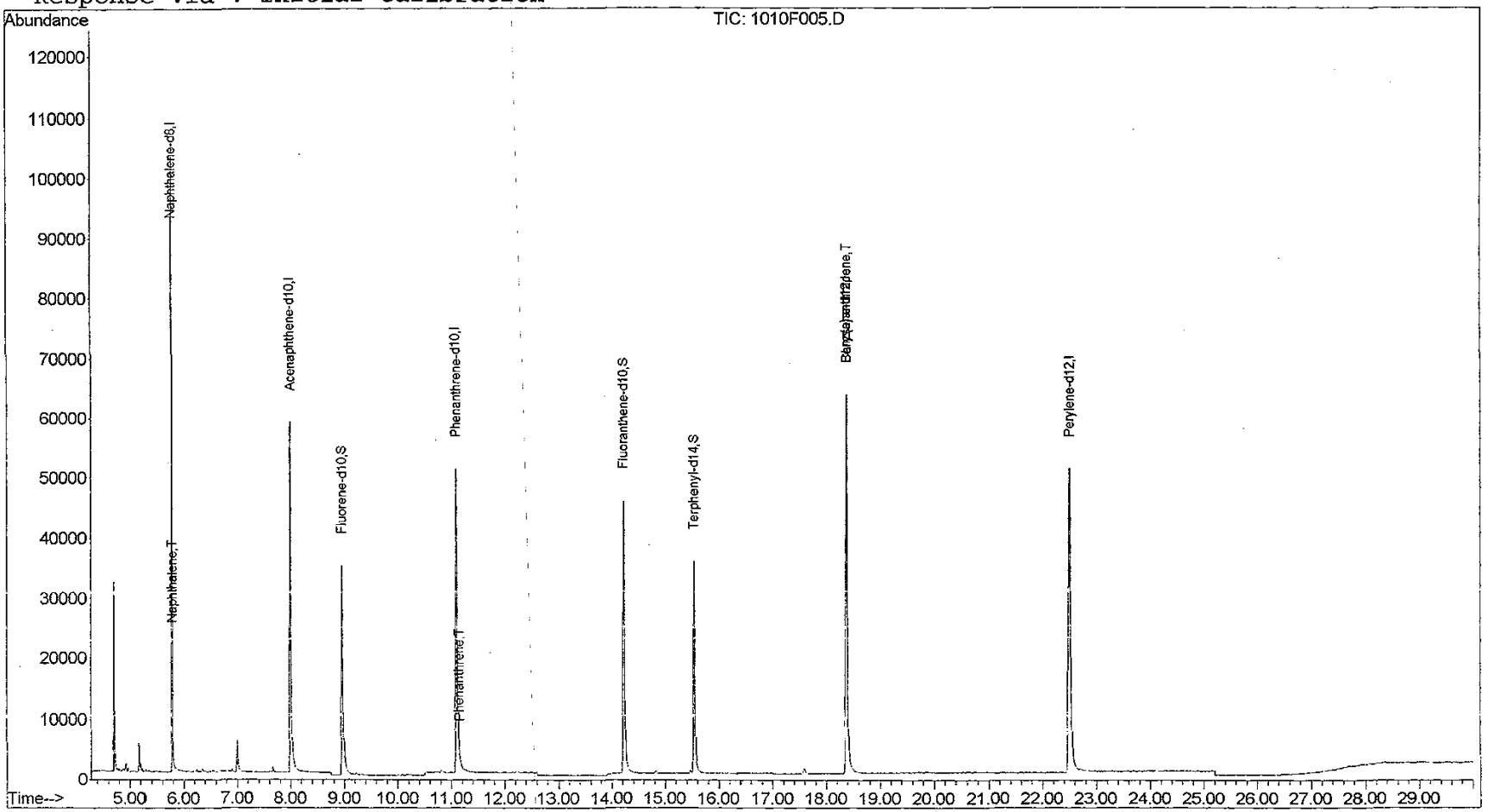
Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F005.D
Acq On : 10 Oct 2015 6:34 am
Sample : KWG1509628-5 MB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:34 2015

Vial: 3
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00

Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration



Exception Report

Data File: J:\MS20\DATA\101015\1010F011.D
Lab ID: KWG1509628-1 -- K1511029-001MS
RunType: MS
Matrix: SEDIMENT

Date Acquired: 10/10/2015 10:15
Date Quantitated: 10/12/2015 08:27
Batch ID: KWG1509829
Analysis Method: 8270D SIM
MethodJoinID: MJ1187

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA		x
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Above Highest ICAL Level	Fluoranthene	2579.89	NA	2000	E flag
	Pyrene	2132.89	NA	2000	
	Chrysene	2309.51	NA	2000	

Primary Review: OCT 1 2 2015

Secondary Review: OCT 1 2 2015

Printed: 10/12/2015 09:36:35
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS20\DATA\101015\1010F011.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 10:15	**Quant Date:**	10/12/2015 08:27	**Vial:**	9
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1509628-1 -- K1511029-001MS			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	SEDIMENT
Prod Code:	8270D PAH Alk S	**Collect Date:**		**Receive Date:**	10/14/2015

Analysis Lot:	KWG1509829	**Prep Lot:**	KWG1509628	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1472850	**Prep Date:**	10/07/2015		

Quant Method:	J:\MS20\METHODS\080415SIMALK	**Calibration ID:**	CAL14220
Title:			
Tune Ref:	J:\MS20\DATA\101015\1010F003.D	**Method ID:**	MJ1187
MB Ref:	J:\MS20\DATA\101015\1010F005.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.79	0.00	136	79974	200.00	OK
2	Acenaphthene-d10	7.99	0.00	164	46618	200.00	OK
3	Phenanthrene-d10	11.09	0.00	188	86355	200.00	OK
4	Chrysene-d12	18.38	0.01	240	102546	200.00	OK
5	Perylene-d12	22.51	0.01	264	110465	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	8.96	0.00	0.00	176	41496	156.70	78	17-104 OK	
3	Fluoranthene-d10	14.27	0.05	0.00	212	86659	194.21	97	27-106 OK	
4	Terphenyl-d14	15.54	0.00	0.00	244	58462	146.40	73	35-109 OK	

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.80		0.00	128	132223	343.87	415		
1	2-Methylnaphthalene	6.52	-0.01	0.00	142	93035	340.23	410		
1	1-Methylnaphthalene	6.64		0.00	142	80604	334.41	403		
1	Biphenyl	7.12		0.00	154	112156	339.58	409		
1	2,6-Dimethylnaphthalene	7.35		0.00	156	83881	348.97	421		
1	C1-Naphthalenes				142	0		6.1	U	
1	C2-Naphthalenes				156	0		6.1	U	
1	C3-Naphthalenes				170	0		6.1	U	
1	C4-Naphthalenes				184	0		6.1	U	
2	Acenaphthylene	7.76		0.00	152	157507	372.18	449		
2	Acenaphthene	8.05		0.00	154	97196	384.22	463		
2	Dibenzofuran	8.36	-0.01	0.00	168	148812	384.72	464		
2	2,3,5-Trimethylnaphthalene	8.77		0.00	170	91525	369.06	445		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS20\DATA\101015\1010F011.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 10:15	**Quant Date:**	10/12/2015 08:27	**Vial:**	9
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1509628-1 -- K1511029-001MS			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Fluorene	9.01		0.00	166	141033	458.69	553		
2	C1-Fluorenes				180	0		6.1	U	
2	C2-Fluorenes				194	0		6.1	U	
2	C3-Fluorenes				208	0		6.1	U	
3	Dibenzothiophene	10.84		0.00	184	182061	415.06	500		
3	C1-Dibenzothiophenes				198	0		6.1	U	
3	C2-Dibenzothiophenes				212	0		6.1	U	
3	C3-Dibenzothiophenes				226	0		6.1	U	
3	C4-Dibenzothiophenes				240	0		6.1	U	
3	Phenanthrene	11.15		0.00	178	521587	1,156	1390		
3	Anthracene	11.27		0.00	178	357397	812.65	980		
3	Carbazole	11.75		0.00	167	203926	515.70	622		
3	1-Methylphenanthrene	12.74		0.00	192	173441	502.41	606		
3	C1-Phenanthrenes/Anthracenes				192	0		6.1	U	
3	C2-Phenanthrenes/Anthracenes				206	0		6.1	U	
3	C3-Phenanthrenes/Anthracenes				220	0		6.1	U	
3	C4-Phenanthrenes/Anthracenes				234	0		6.1	U	
3	Fluoranthene	14.31	0.04	0.00	202	1319747	2,580	3110	E	
4	Pyrene	14.88	0.02	0.00	202	1188527	2,133	2570	E	
4	C1-Fluoranthenes/Pyrenes				216	0		6.1	U	
4	C2-Fluoranthenes/Pyrenes				230	0		6.1	U	
4	C3-Fluoranthenes/Pyrenes				244	0		6.1	U	
4	C4-Fluoranthenes/Pyrenes				258	0		6.1	U	
4	Benz(a)anthracene	18.35		0.00	228	776431	1,441	1740		
4	Chrysene	18.46	0.01	0.00	228	1181360	2,310	2780	E	
4	C1-Chrysenes				242	0		6.1	U	
4	C2-Chrysenes				256	0		6.1	U	
4	C3-Chrysenes				270	0		6.1	U	
4	C4-Chrysenes				284	0		6.1	U	
5	Benzo(b)fluoranthene	21.36	0.01	0.00	252	1101840	1,873	2260		
5	Benzo(k)fluoranthene	21.44		0.00	252	552460	916.99	1110		
5	Benzo(e)pyrene	22.16	0.01	0.00	252	651100	1,146	1380		
5	Benzo(a)pyrene	22.32	0.01	0.00	252	686140	1,265	1530		
5	Perylene	22.58	0.01	0.00	252	368952	672.45	811		
5	Indeno(1,2,3-cd)pyrene	26.31	0.01	0.00	276	548564	958.63	1160		
5	Dibenz(a,h)anthracene	26.48		0.00	278	323828	568.44	685		
5	Benzo(g,h,i)perylene	27.07		0.00	276	554696	912.45	1100		

Prep Amount:	13.664 g	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1
Solids:	60.7 %		

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F011.D Vial: 9
Acq On : 10 Oct 2015 10:15 am Operator: LWeiskopf
Sample : K1511029-001MS Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 08:27:48 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.79	136	79974	200.00	ng/ml	0.00
11) Acenaphthene-d10	7.99	164	46618	200.00	ng/ml	-0.02
21) Phenanthrene-d10	11.09	188	86355	200.00	ng/ml	-0.02
37) Chrysene-d12	18.38	240	102546	200.00	ng/ml	-0.02
50) Perylene-d12	22.51	264	110465	200.00	ng/ml	-0.02
System Monitoring Compounds						
16) Fluorene-d10	8.96	176	41496	156.70	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 15.67%			
36) Fluoranthene-d10	14.27	212	86659	194.21	ng/ml	0.03
Spiked Amount 1000.000			Recovery = 19.42%			
43) Terphenyl-d14	15.54	244	58462	146.40	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 14.64%			
Target Compounds						Qvalue
2) Naphthalene	5.80	128	132223	343.87	ng/ml	100
3) 2-Methylnaphthalene	6.52	142	93035	340.23	ng/ml	95
4) 1-Methylnaphthalene	6.64	142	80604	334.41	ng/ml	99
5) Biphenyl	7.12	154	112156	339.58	ng/ml	100
6) 2,6-Dimethylnaphthalene	7.35	156	83881	348.97	ng/ml	98
12) Acenaphthylene	7.76	152	157507	372.18	ng/ml	100
13) Acenaphthene	8.05	154	97196	384.22	ng/ml	98
14) Dibenzofuran	8.36	168	148812	384.72	ng/ml	78
15) 2,3,5-Trimethylnaphthalene	8.77	170	91525	369.06	ng/ml	89
17) Fluorene	9.01	166	141033	458.69	ng/ml	99
22) Dibenzothiophene	10.84	184	182061	415.06	ng/ml	99
27) Phenanthrene	11.15	178	521587	1156.11	ng/ml	100
28) Anthracene	11.27	178	357397	812.65	ng/ml	100
29) Carbazole	11.75	167	203926	515.70	ng/ml	98
30) 1-Methylphenanthrene	12.74	192	173441	502.41	ng/ml	99
35) Fluoranthene	14.31	202	1319747	2579.89	ng/ml	99
38) Pyrene	14.88	202	1188527	2132.89	ng/ml	94
44) Benz(a)anthracene	18.35	228	776431	1441.06	ng/ml	99
45) Chrysene	18.46	228	1181360	2309.51	ng/ml	100
51) Benzo(b)fluoranthene	21.36	252	1101840	1872.94	ng/ml	97
52) Benzo(k)fluoranthene	21.44	252	552460	916.99	ng/ml	98
53) Benzo(e)pyrene	22.16	252	651100	1146.06	ng/ml	99
54) Benzo(a)pyrene	22.32	252	686140	1265.20	ng/ml	98
55) Perylene	22.58	252	368952	672.45	ng/ml	99
56) Indeno(1,2,3-cd)pyrene	26.31	276	548564	958.63	ng/ml	98
57) Dibenz(a,h)anthracene	26.48	278	323828	568.44	ng/ml	96
58) Benzo(g,h,i)perylene	27.07	276	554696	912.45	ng/ml	99

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

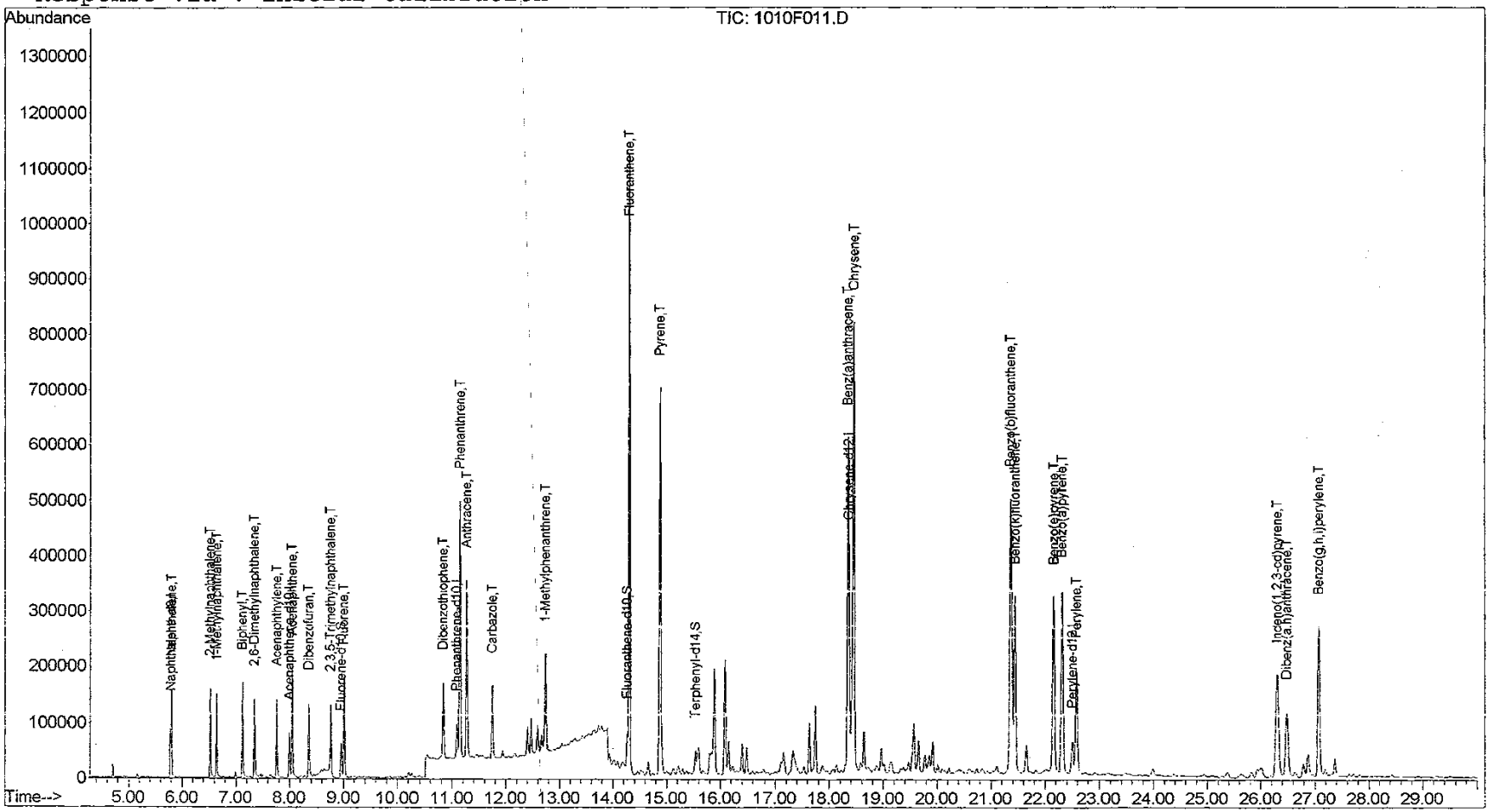
Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F011.D
Acq On : 10 Oct 2015 10:15 am
Sample : K1511029-001MS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:27 2015

Vial: 9
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00

Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration



Exception Report

Data File: J:\MS20\DATA\101015\1010F012.D
Lab ID: KWG1509628-2 -- K1511029-001DMS
RunType: DMS
Matrix: SEDIMENT

Date Acquired: 10/10/2015 10:52
Date Quantitated: 10/12/2015 08:38
Batch ID: KWG1509829
Analysis Method: 8270D SIM
MethodJoinID: MJ1187

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA		x
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Above Highest ICAL Level	Fluoranthene	2219.44	NA	2000	E flag

Primary Review: OCT 1 2 2015

Secondary Review: OCT 1 2 2015

Printed: 10/12/2015 09:36:38
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS20\DATA\101015\1010F012.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 10:52	**Quant Date:**	10/12/2015 08:38	**Vial:**	10
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1509628-2 -- K1511029-001DMS			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	SEDIMENT
Prod Code:	8270D PAH Alk S	**Collect Date:**		**Receive Date:**	10/14/2015

Analysis Lot:	KWG1509829	**Prep Lot:**	KWG1509628	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1472851	**Prep Date:**	10/07/2015		

Quant Method:	J:\MS20\METHODS\080415SIMALK	**Calibration ID:**	CAL14220
Title:			
Tune Ref:	J:\MS20\DATA\101015\1010F003.D	**Method ID:**	MJ1187
MB Ref:	J:\MS20\DATA\101015\1010F005.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.79	0.00	136	79443	200.00	OK
2	Acenaphthene-d10	7.99	0.00	164	45708	200.00	OK
3	Phenanthrene-d10	11.09	0.00	188	82662	200.00	OK
4	Chrysene-d12	18.37	0.00	240	101270	200.00	OK
5	Perylene-d12	22.51	0.01	264	109774	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
2	Fluorene-d10	8.96	0.00	0.00	176	41628	160.33	80	17-104	OK	
3	Fluoranthene-d10	14.26	0.04	0.00	212	86048	201.46	101	27-106	OK	
4	Terphenyl-d14	15.54	0.00	0.00	244	57884	146.78	73	35-109	OK	

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.80		0.00	128	120988	316.76	382		
1	2-Methylnaphthalene	6.52	-0.01	0.00	142	86074	316.87	382		
1	1-Methylnaphthalene	6.64		0.00	142	74673	311.88	376		
1	Biphenyl	7.12		0.00	154	105172	320.57	386		
1	2,6-Dimethylnaphthalene	7.35		0.00	156	79978	334.95	404		
1	C1-Naphthalenes				142	0		6.1	U	
1	C2-Naphthalenes				156	0		6.1	U	
1	C3-Naphthalenes				170	0		6.1	U	
1	C4-Naphthalenes				184	0		6.1	U	
2	Acenaphthylene	7.76		0.00	152	153900	370.89	447		
2	Acenaphthene	8.05		0.00	154	94108	379.42	457		
2	Dibenzofuran	8.36	-0.01	0.00	168	141045	371.90	448		
2	2,3,5-Trimethylnaphthalene	8.77		0.00	170	87141	358.37	432		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS20\DATA\101015\1010F012.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 10:52	**Quant Date:**	10/12/2015 08:38	**Vial:**	10
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1509628-2 -- K1511029-001DMS			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Fluorene	9.01		0.00	166	128113	424.97	512		
2	C1-Fluorenes				180	0		6.1	U	
2	C2-Fluorenes				194	0		6.1	U	
2	C3-Fluorenes				208	0		6.1	U	
3	Dibenzothiophene	10.84		0.00	184	167627	399.23	481		
3	C1-Dibenzothiophenes				198	0		6.1	U	
3	C2-Dibenzothiophenes				212	0		6.1	U	
3	C3-Dibenzothiophenes				226	0		6.1	U	
3	C4-Dibenzothiophenes				240	0		6.1	U	
3	Phenanthrene	11.15		0.00	178	417724	967.26	1170		
3	Anthracene	11.27		0.00	178	297590	706.90	852		
3	Carbazole	11.75		0.00	167	183025	483.52	583		
3	1-Methylphenanthrene	12.74		0.00	192	160193m	484.77	584		
3	C1-Phenanthrenes/Anthracenes				192	0		6.1	U	
3	C2-Phenanthrenes/Anthracenes				206	0		6.1	U	
3	C3-Phenanthrenes/Anthracenes				220	0		6.1	U	
3	C4-Phenanthrenes/Anthracenes				234	0		6.1	U	
3	Fluoranthene	14.32	0.05	0.00	202	1086806	2,219	2670	E	
4	Pyrene	14.88	0.02	0.00	202	986294	1,792	2160		
4	C1-Fluoranthenes/Pyrenes				216	0		6.1	U	
4	C2-Fluoranthenes/Pyrenes				230	0		6.1	U	
4	C3-Fluoranthenes/Pyrenes				244	0		6.1	U	
4	C4-Fluoranthenes/Pyrenes				258	0		6.1	U	
4	Benz(a)anthracene	18.36	0.01	0.00	228	695914	1,308	1580		
4	Chrysene	18.46	0.01	0.00	228	884458	1,751	2110		
4	C1-Chrysenes				242	0		6.1	U	
4	C2-Chrysenes				256	0		6.1	U	
4	C3-Chrysenes				270	0		6.1	U	
4	C4-Chrysenes				284	0		6.1	U	
5	Benzo(b)fluoranthene	21.36	0.01	0.00	252	1044125	1,786	2150		
5	Benzo(k)fluoranthene	21.44		0.00	252	521080	870.35	1050		
5	Benzo(e)pyrene	22.16	0.01	0.00	252	624340	1,106	1330		
5	Benzo(a)pyrene	22.32	0.01	0.00	252	650708	1,207	1450		
5	Perylene	22.59	0.02	0.00	252	352704	646.88	779		
5	Indeno(1,2,3-cd)pyrene	26.31	0.01	0.00	276	509482	895.94	1080		
5	Dibenz(a,h)anthracene	26.49	0.01	0.00	278	302506	534.36	644		
5	Benzo(g,h,i)perylene	27.08	0.01	0.00	276	503913	834.13	1010		

Prep Amount:	13.673 g	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1
Solids:	60.7 %		

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F012.D Vial: 10
Acq On : 10 Oct 2015 10:52 am Operator: LWeiskopf
Sample : K1511029-001DMS Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 08:27:48 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.79	136	79443	200.00	ng/ml	0.00
11) Acenaphthene-d10	7.99	164	45708	200.00	ng/ml	-0.02
21) Phenanthrene-d10	11.09	188	82662	200.00	ng/ml	-0.02
37) Chrysene-d12	18.37	240	101270	200.00	ng/ml	-0.02
50) Perylene-d12	22.51	264	109774	200.00	ng/ml	-0.02
System Monitoring Compounds						
16) Fluorene-d10	8.96	176	41628	160.33	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 16.03%			
36) Fluoranthene-d10	14.26	212	86048	201.46	ng/ml	0.02
Spiked Amount 1000.000			Recovery = 20.15%			
43) Terphenyl-d14	15.54	244	57884	146.78	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 14.68%			
Target Compounds						Qvalue
2) Naphthalene	5.80	128	120988	316.76	ng/ml	99
3) 2-Methylnaphthalene	6.52	142	86074	316.87	ng/ml	94
4) 1-Methylnaphthalene	6.64	142	74673	311.88	ng/ml	100
5) Biphenyl	7.12	154	105172	320.57	ng/ml	98
6) 2,6-Dimethylnaphthalene	7.35	156	79978	334.95	ng/ml	100
12) Acenaphthylene	7.76	152	153900	370.89	ng/ml	100
13) Acenaphthene	8.05	154	94108	379.42	ng/ml	99
14) Dibenzofuran	8.36	168	141045	371.90	ng/ml	82
15) 2,3,5-Trimethylnaphthalene	8.77	170	87141	358.37	ng/ml	92
17) Fluorene	9.01	166	128113	424.97	ng/ml	99
22) Dibenzothiophene	10.84	184	167627	399.23	ng/ml	99
27) Phenanthrene	11.15	178	417724	967.26	ng/ml	100
28) Anthracene	11.27	178	297590	706.90	ng/ml	99
29) Carbazole	11.75	167	183025	483.52	ng/ml	98
30) 1-Methylphenanthrene	12.74	192	160193m	484.77	ng/ml	
35) Fluoranthene	14.32	202	1086806	2219.44	ng/ml	98
38) Pyrene	14.88	202	986294	1792.27	ng/ml	93
44) Benz(a)anthracene	18.36	228	695914	1307.90	ng/ml	100
45) Chrysene	18.46	228	884458	1750.87	ng/ml	98
51) Benzo(b)fluoranthene	21.36	252	1044125	1786.01	ng/ml	97
52) Benzo(k)fluoranthene	21.44	252	521080	870.35	ng/ml	98
53) Benzo(e)pyrene	22.16	252	624340	1105.88	ng/ml	99
54) Benzo(a)pyrene	22.32	252	650708	1207.42	ng/ml	99
55) Perylene	22.59	252	352704	646.88	ng/ml	99
56) Indeno(1,2,3-cd)pyrene	26.31	276	509482	895.94	ng/ml	98
57) Dibenz(a,h)anthracene	26.49	278	302506	534.36	ng/ml	95
58) Benzo(g,h,i)perylene	27.08	276	503913	834.13	ng/ml	99

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

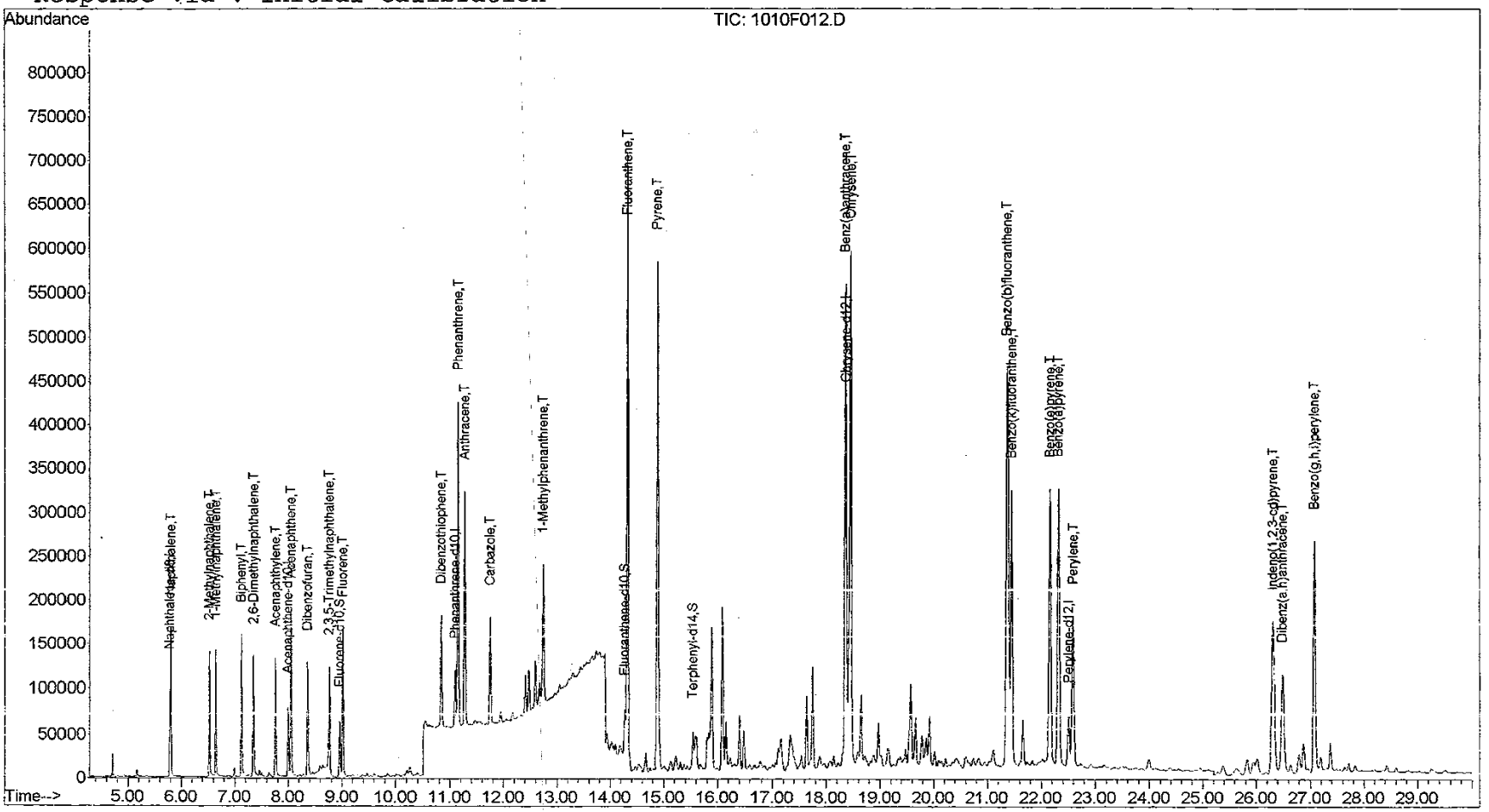
Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F012.D
Acq On : 10 Oct 2015 10:52 am
Sample : K1511029-001DMS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:38 2015

Vial: 10
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00

Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration



Exception Report

Data File: J:\MS20\DATA\101015\1010F009.D
Lab ID: KWG1509628-3
RunType: LCS
Matrix: SEDIMENT

Date Acquired: 10/10/2015 09:02
Date Quantitated: 10/12/2015 08:27
Batch ID: KWG1509829
Analysis Method: 8270D SIM
MethodJoinID: MJ1187

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

K11029

Primary Review: OCT 1 2 2015

Secondary Review: OCT 1 2 2015

Printed: 10/12/2015 09:36:29
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS20\DATA\101015\1010F009.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 09:02	**Quant Date:**	10/12/2015 08:27	**Vial:**	7
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1509628-3			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	SEDIMENT
Prod Code:	8270D PAH Alk S	**Collect Date:**		**Receive Date:**	10/08/2015

Analysis Lot:	KWG1509829	**Prep Lot:**	KWG1509628	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1472852	**Prep Date:**	10/07/2015		

Quant Method:	J:\MS20\METHODS\080415SIMALK	**Calibration ID:**	CAL14220
Title:			
Tune Ref:	J:\MS20\DATA\101015\1010F003.D	**Method ID:**	MJ1187
MB Ref:	J:\MS20\DATA\101015\1010F005.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.79	0.00	136	79648	200.00	OK
2	Acenaphthene-d10	7.99	0.00	164	45939	200.00	OK
3	Phenanthrene-d10	11.09	0.00	188	86802	200.00	OK
4	Chrysene-d12	18.37	0.00	240	107788	200.00	OK
5	Perylene-d12	22.50	0.00	264	109003	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	8.96	0.00	0.00	176	38733	148.43	74	17-104 OK	
3	Fluoranthene-d10	14.22	0.00	0.00	212	80186	178.78	89	27-106 OK	
4	Terphenyl-d14	15.54	0.00	0.00	244	55378	131.94	66	35-109 OK	

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.80		0.00	128	137354	358.68	359		
1	2-Methylnaphthalene	6.52	-0.01	0.00	142	96612	354.75	355		
1	1-Methylnaphthalene	6.64		0.00	142	83350	347.22	347		
1	Biphenyl	7.12		0.00	154	117878	358.37	358		
1	2,6-Dimethylnaphthalene	7.35		0.00	156	87422	365.19	365		
1	C1-Naphthalenes				142	0		5.0	U	
1	C2-Naphthalenes				156	0		5.0	U	
1	C3-Naphthalenes				170	0		5.0	U	
1	C4-Naphthalenes				184	0		5.0	U	
2	Acenaphthylene	7.76		0.00	152	154122	369.56	370		
2	Acenaphthene	8.05		0.00	154	88205	353.83	354		
2	Dibenzofuran	8.36	-0.01	0.00	168	137128	359.75	360		
2	2,3,5-Trimethylnaphthalene	8.77		0.00	170	88286	361.26	361		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS20\DATA\101015\1010F009.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 09:02	**Quant Date:**	10/12/2015 08:27	**Vial:**	7
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1509628-3			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Fluorene	9.01		0.00	166	111009	366.38	366		
2	C1-Fluorenes				180	0		5.0	U	
2	C2-Fluorenes				194	0		5.0	U	
2	C3-Fluorenes				208	0		5.0	U	
3	Dibenzothiophene	10.84		0.00	184	155416	352.49	352		
3	C1-Dibenzothiophenes				198	0		5.0	U	
3	C2-Dibenzothiophenes				212	0		5.0	U	
3	C3-Dibenzothiophenes				226	0		5.0	U	
3	C4-Dibenzothiophenes				240	0		5.0	U	
3	Phenanthrene	11.15		0.00	178	171862	378.97	379		
3	Anthracene	11.27		0.00	178	172433	390.06	390		
3	Carbazole	11.75		0.00	167	159248	400.64	401		
3	1-Methylphenanthrene	12.74		0.00	192	134661	388.07	388		
3	C1-Phenanthrenes/Anthracenes				192	0		5.0	U	
3	C2-Phenanthrenes/Anthracenes				206	0		5.0	U	
3	C3-Phenanthrenes/Anthracenes				220	0		5.0	U	
3	C4-Phenanthrenes/Anthracenes				234	0		5.0	U	
3	Fluoranthene	14.27		0.00	202	215657	419.40	419		
4	Pyrene	14.86		0.00	202	223733	381.98	382		
4	C1-Fluoranthenes/Pyrenes				216	0		5.0	U	
4	C2-Fluoranthenes/Pyrenes				230	0		5.0	U	
4	C3-Fluoranthenes/Pyrenes				244	0		5.0	U	
4	C4-Fluoranthenes/Pyrenes				258	0		5.0	U	
4	Benz(a)anthracene	18.35		0.00	228	233452	412.22	412		
4	Chrysene	18.45		0.00	228	219635	408.50	409		
4	C1-Chrysenes				242	0		5.0	U	
4	C2-Chrysenes				256	0		5.0	U	
4	C3-Chrysenes				270	0		5.0	U	
4	C4-Chrysenes				284	0		5.0	U	
5	Benzo(b)fluoranthene	21.35		0.00	252	254845	439.00	439		
5	Benzo(k)fluoranthene	21.43	-0.01	0.00	252	249252	419.27	419		
5	Benzo(e)pyrene	22.14	-0.01	0.00	252	236976	422.72	423		
5	Benzo(a)pyrene	22.31		0.00	252	228572	427.13	427		
5	Perylene	22.57		0.00	252	221145	408.46	408		
5	Indeno(1,2,3-cd)pyrene	26.29	-0.01	0.00	276	244896	433.70	434		
5	Dibenz(a,h)anthracene	26.48		0.00	278	243568	433.29	433		
5	Benzo(g,h,i)perylene	27.06	-0.01	0.00	276	252941	421.66	422		

Prep Amount:	10.000 g	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1
Solids:	%		

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F009.D Vial: 7
Acq On : 10 Oct 2015 9:02 am Operator: LWeiskopf
Sample : KWG1509628-3 LCS Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 08:27:47 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.79	136	79648	200.00	ng/ml	0.00
11) Acenaphthene-d10	7.99	164	45939	200.00	ng/ml	-0.02
21) Phenanthrene-d10	11.09	188	86802	200.00	ng/ml	-0.02
37) Chrysene-d12	18.37	240	107788	200.00	ng/ml	-0.02
50) Perylene-d12	22.50	264	109003	200.00	ng/ml	-0.03
System Monitoring Compounds						
16) Fluorene-d10	8.96	176	38733	148.43	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 14.84%			
36) Fluoranthene-d10	14.22	212	80186	178.78	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 17.88%			
43) Terphenyl-d14	15.54	244	55378	131.94	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 13.19%			
Target Compounds						Qvalue
2) Naphthalene	5.80	128	137354	358.68	ng/ml	100
3) 2-Methylnaphthalene	6.52	142	96612	354.75	ng/ml	95
4) 1-Methylnaphthalene	6.64	142	83350	347.22	ng/ml	98
5) Biphenyl	7.12	154	117878	358.37	ng/ml	100
6) 2,6-Dimethylnaphthalene	7.35	156	87422	365.19	ng/ml	99
12) Acenaphthylene	7.76	152	154122	369.56	ng/ml	100
13) Acenaphthene	8.05	154	88205	353.83	ng/ml	99
14) Dibenzofuran	8.36	168	137128	359.75	ng/ml	80
15) 2,3,5-Trimethylnaphthalene	8.77	170	88286	361.26	ng/ml	89
17) Fluorene	9.01	166	111009	366.38	ng/ml	98
22) Dibenzothiophene	10.84	184	155416	352.49	ng/ml	100
27) Phenanthrene	11.15	178	171862	378.97	ng/ml	100
28) Anthracene	11.27	178	172433	390.06	ng/ml	99
29) Carbazole	11.75	167	159248	400.64	ng/ml	98
30) 1-Methylphenanthrene	12.74	192	134661	388.07	ng/ml	100
35) Fluoranthene	14.27	202	215657	419.40	ng/ml	95
38) Pyrene	14.86	202	223733	381.98	ng/ml	94
44) Benz(a)anthracene	18.35	228	233452	412.22	ng/ml	99
45) Chrysene	18.45	228	219635	408.50	ng/ml	99
51) Benzo(b)fluoranthene	21.35	252	254845	439.00	ng/ml	99
52) Benzo(k)fluoranthene	21.43	252	249252	419.27	ng/ml	99
53) Benzo(e)pyrene	22.14	252	236976	422.72	ng/ml	100
54) Benzo(a)pyrene	22.31	252	228572	427.13	ng/ml	99
55) Perylene	22.57	252	221145	408.46	ng/ml	99
56) Indeno(1,2,3-cd)pyrene	26.29	276	244896	433.70	ng/ml	100
57) Dibenz(a,h)anthracene	26.48	278	243568	433.29	ng/ml	96
58) Benzo(g,h,i)perylene	27.06	276	252941	421.66	ng/ml	100

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

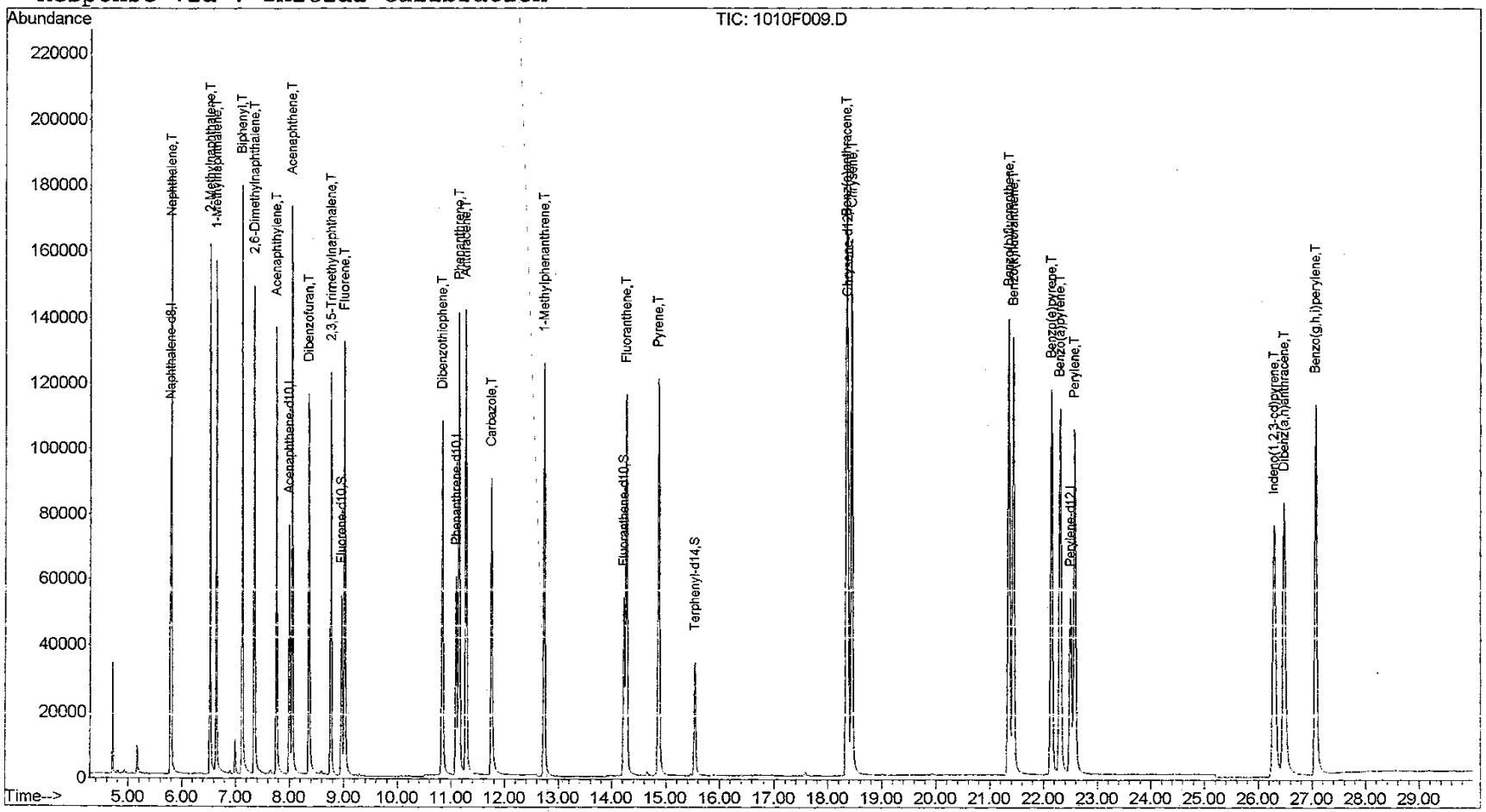
Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F009.D
Acq On : 10 Oct 2015 9:02 am
Sample : KWG1509628-3 LCS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:27 2015

Vial: 7
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00

Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration



Exception Report

Data File: J:\MS20\DATA\101015\1010F010.D
Lab ID: KWG1509628-4
RunType: DLCS
Matrix: SEDIMENT

Date Acquired: 10/10/2015 09:38
Date Quantitated: 10/12/2015 08:27
Batch ID: KWG1509829
Analysis Method: 8270D SIM
MethodJoinID: MJ1187

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

K11029

Primary Review: OCT 1 2 2015

Secondary Review: OCT 1 2 2015

Printed: 10/12/2015 09:36:32
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS20\DATA\101015\1010F010.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 09:38	**Quant Date:**	10/12/2015 08:27	**Vial:**	8
Run Type:	DLCS			**Dilution:**	1.0
Lab ID:	KWG1509628-4			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	SEDIMENT
Prod Code:	8270D PAH Alk S	**Collect Date:**		**Receive Date:**	10/08/2015

Analysis Lot:	KWG1509829	**Prep Lot:**	KWG1509628	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1472853	**Prep Date:**	10/07/2015		

Quant Method:	J:\MS20\METHODS\080415SIMALK	**Calibration ID:**	CAL14220
Title:			
Tune Ref:	J:\MS20\DATA\101015\1010F003.D	**Method ID:**	MJ1187
MB Ref:	J:\MS20\DATA\101015\1010F005.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.79	0.00	136	78962	200.00	OK
2	Acenaphthene-d10	7.99	0.00	164	45545	200.00	OK
3	Phenanthrene-d10	11.09	0.00	188	86516	200.00	OK
4	Chrysene-d12	18.37	0.00	240	108260	200.00	OK
5	Perylene-d12	22.50	0.00	264	109608	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	8.96	0.00	0.00	176	44553	172.21	86	17-104 OK	
3	Fluoranthene-d10	14.22	0.00	0.00	212	87370	195.44	98	27-106 OK	
4	Terphenyl-d14	15.54	0.00	0.00	244	59531	141.21	71	35-109 OK	

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.80		0.00	128	143819	378.82	379		
1	2-Methylnaphthalene	6.52	-0.01	0.00	142	99716	369.33	369		
1	1-Methylnaphthalene	6.64		0.00	142	85950	361.16	361		
1	Biphenyl	7.12		0.00	154	122004	374.13	374		
1	2,6-Dimethylnaphthalene	7.35		0.00	156	89646	377.73	378		
1	C1-Naphthalenes				142	0		5.0	U	
1	C2-Naphthalenes				156	0		5.0	U	
1	C3-Naphthalenes				170	0		5.0	U	
1	C4-Naphthalenes				184	0		5.0	U	
2	Acenaphthylene	7.76		0.00	152	159003	384.56	385		
2	Acenaphthene	8.05		0.00	154	91523	370.32	370		
2	Dibenzofuran	8.37		0.00	168	141715	375.00	375		
2	2,3,5-Trimethylnaphthalene	8.77		0.00	170	91793	378.86	379		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS20\DATA\101015\1010F010.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 09:38	**Quant Date:**	10/12/2015 08:27	**Vial:**	8
Run Type:	DLCS			**Dilution:**	1.0
Lab ID:	KWG1509628-4			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:** ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
2	Fluorene	9.01		0.00	166	113944	379.32	379		
2	C1-Fluorenes				180	0		5.0	U	
2	C2-Fluorenes				194	0		5.0	U	
2	C3-Fluorenes				208	0		5.0	U	
3	Dibenzothiophene	10.84		0.00	184	155504	353.86	354		
3	C1-Dibenzothiophenes				198	0		5.0	U	
3	C2-Dibenzothiophenes				212	0		5.0	U	
3	C3-Dibenzothiophenes				226	0		5.0	U	
3	C4-Dibenzothiophenes				240	0		5.0	U	
3	Phenanthrene	11.15		0.00	178	176840	391.24	391		
3	Anthracene	11.27		0.00	178	175995	399.44	399		
3	Carbazole	11.75		0.00	167	159658	403.00	403		
3	1-Methylphenanthrene	12.74		0.00	192	138018	399.06	399		
3	C1-Phenanthrenes/Anthracenes				192	0		5.0	U	
3	C2-Phenanthrenes/Anthracenes				206	0		5.0	U	
3	C3-Phenanthrenes/Anthracenes				220	0		5.0	U	
3	C4-Phenanthrenes/Anthracenes				234	0		5.0	U	
3	Fluoranthene	14.27		0.00	202	217957	425.28	425		
4	Pyrene	14.87	0.01	0.00	202	227271	386.33	386		
4	C1-Fluoranthenes/Pyrenes				216	0		5.0	U	
4	C2-Fluoranthenes/Pyrenes				230	0		5.0	U	
4	C3-Fluoranthenes/Pyrenes				244	0		5.0	U	
4	C4-Fluoranthenes/Pyrenes				258	0		5.0	U	
4	Benz(a)anthracene	18.35		0.00	228	231398	406.81	407		
4	Chrysene	18.45		0.00	228	220100	407.58	408		
4	C1-Chrysenes				242	0		5.0	U	
4	C2-Chrysenes				256	0		5.0	U	
4	C3-Chrysenes				270	0		5.0	U	
4	C4-Chrysenes				284	0		5.0	U	
5	Benzo(b)fluoranthene	21.35		0.00	252	254107	435.32	435		
5	Benzo(k)fluoranthene	21.43	-0.01	0.00	252	252640	422.62	423		
5	Benzo(e)pyrene	22.14	-0.01	0.00	252	236651	419.81	420		
5	Benzo(a)pyrene	22.31		0.00	252	228123	423.93	424		
5	Perylene	22.57		0.00	252	224555	412.47	412		
5	Indeno(1,2,3-cd)pyrene	26.29	-0.01	0.00	276	247203	435.37	435		
5	Dibenz(a,h)anthracene	26.48		0.00	278	243163	430.18	430		
5	Benzo(g,h,i)perylene	27.06	-0.01	0.00	276	253760	420.69	421		

Prep Amount:	10.000 g	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1
Solids:	%		

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / (Prep Amount x Solids)) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F010.D Vial: 8
Acq On : 10 Oct 2015 9:38 am Operator: LWeiskopf
Sample : KWG1509628-4 DLCS Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 12 08:27:47 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.79	136	78962	200.00 ng/ml	0.00
11) Acenaphthene-d10	7.99	164	45545	200.00 ng/ml	-0.02
21) Phenanthrene-d10	11.09	188	86516	200.00 ng/ml	-0.02
37) Chrysene-d12	18.37	240	108260	200.00 ng/ml	-0.02
50) Perylene-d12	22.50	264	109608	200.00 ng/ml	-0.03
System Monitoring Compounds					
16) Fluorene-d10	8.96	176	44553	172.21 ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 17.22%		
36) Fluoranthene-d10	14.22	212	87370	195.44 ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 19.54%		
43) Terphenyl-d14	15.54	244	59531	141.21 ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 14.12%		
Target Compounds					Qvalue
2) Naphthalene	5.80	128	143819	378.82 ng/ml	100
3) 2-Methylnaphthalene	6.52	142	99716	369.33 ng/ml	95
4) 1-Methylnaphthalene	6.64	142	85950	361.16 ng/ml	99
5) Biphenyl	7.12	154	122004	374.13 ng/ml	100
6) 2,6-Dimethylnaphthalene	7.35	156	89646	377.73 ng/ml	100
12) Acenaphthylene	7.76	152	159003	384.56 ng/ml	99
13) Acenaphthene	8.05	154	91523	370.32 ng/ml	97
14) Dibenzofuran	8.37	168	141715	375.00 ng/ml	94
15) 2,3,5-Trimethylnaphthalene	8.77	170	91793	378.86 ng/ml	92
17) Fluorene	9.01	166	113944	379.32 ng/ml	100
22) Dibenzothiophene	10.84	184	155504	353.86 ng/ml	100
27) Phenanthrene	11.15	178	176840	391.24 ng/ml	99
28) Anthracene	11.27	178	175995	399.44 ng/ml	98
29) Carbazole	11.75	167	159658	403.00 ng/ml	99
30) 1-Methylphenanthrene	12.74	192	138018	399.06 ng/ml	100
35) Fluoranthene	14.27	202	217957	425.28 ng/ml	95
38) Pyrene	14.87	202	227271	386.33 ng/ml	91
44) Benz(a)anthracene	18.35	228	231398	406.81 ng/ml	100
45) Chrysene	18.45	228	220100	407.58 ng/ml	100
51) Benzo(b)fluoranthene	21.35	252	254107	435.32 ng/ml	99
52) Benzo(k)fluoranthene	21.43	252	252640	422.62 ng/ml	100
53) Benzo(e)pyrene	22.14	252	236651	419.81 ng/ml	99
54) Benzo(a)pyrene	22.31	252	228123	423.93 ng/ml	100
55) Perylene	22.57	252	224555	412.47 ng/ml	99
56) Indeno(1,2,3-cd)pyrene	26.29	276	247203	435.37 ng/ml	99
57) Dibenz(a,h)anthracene	26.48	278	243163	430.18 ng/ml	95
58) Benzo(g,h,i)perylene	27.06	276	253760	420.69 ng/ml	99

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

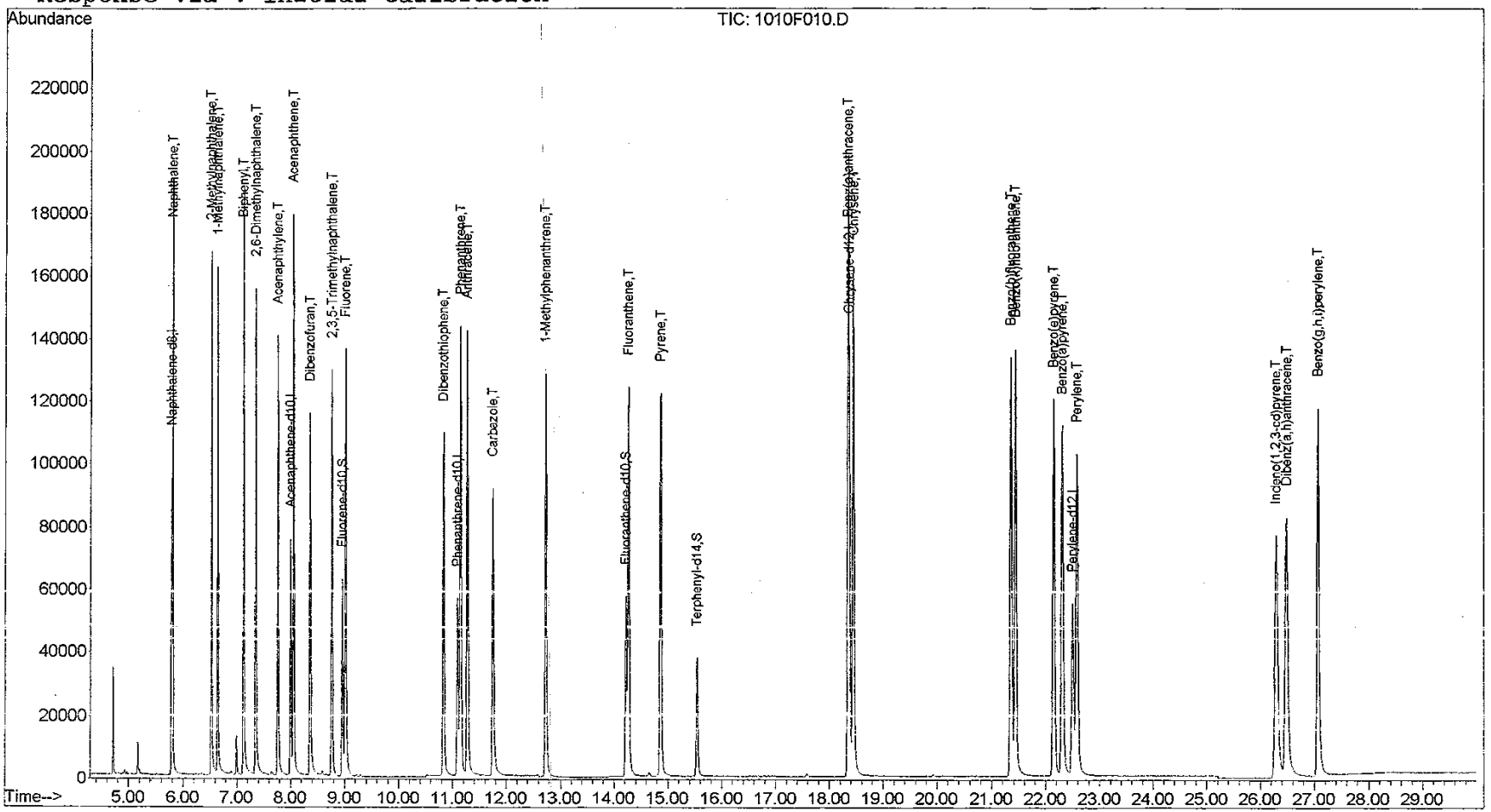
Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F010.D
Acq On : 10 Oct 2015 9:38 am
Sample : KWG1509628-4 DLCS
Misc :
MS Integration Params: RTEINT.P
Quant Time: Oct 12 8:27 2015

Vial: 8
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00

Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration



Preparation Information

Group ID:	KWG1509628	**Prep Method:**	EPA 3541	**Prep Date:**	10/07/15 11:20
Department:	Semivoa GCMS				

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.	Solids
K1511029-001	SD0015	8270D PAH Alk SIM	SEDIMENT	13.989g	10ml	
K1511029-002	SD0016	8270D PAH Alk SIM	SEDIMENT	18.465g	10ml	
K1511029-003	SD0014	8270D PAH Alk SIM	SEDIMENT	18.529g	10ml	
KWG1509628-1	Matrix Spike	8270D PAH Alk SIM	SEDIMENT	13.664g	10ml	
KWG1509628-2	Duplicate Matrix Spike	8270D PAH Alk SIM	SEDIMENT	13.673g	10ml	
KWG1509628-3	Lab Control Sample	8270D PAH Alk SIM	SEDIMENT	10.000g	10ml	
KWG1509628-4	Duplicate Lab Control Sampl	8270D PAH Alk SIM	SEDIMENT	10.000g	10ml	
KWG1509628-5	Method Blank	8270D PAH Alk SIM	SEDIMENT	18.529g	10ml	

Lab Code	Parent Lab Code	Comments
KWG1509628-1	K1511029-001	
KWG1509628-2	K1511029-001	

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1511029-001	1472848	SVM50-28C	20uL			LLee
K1511029-002	1472849	SVM50-28C	20uL			LLee
K1511029-003	1472847	SVM50-28C	20uL			LLee
KWG1509628-1	1472850	SVM50-28C	20uL	SVM50-74C	200uL	LLee
KWG1509628-2	1472851	SVM50-28C	20uL	SVM50-74C	200uL	LLee
KWG1509628-3	1472852	SVM50-28C	20uL	SVM50-74C	200uL	LLee
KWG1509628-4	1472853	SVM50-28C	20uL	SVM50-74C	200uL	LLee
KWG1509628-5	1472854	SVM50-28C	20uL			LLee

Comments: IS = SVM 50 - 36G

Started By: LMuresan Assisted By: Training Yes No

Completed By: SEldridg Assisted By: Yes No

Reviewed By: Elissa Bruno Date: 10-9-15 Storage: A.M20

Chain of Custody

Relinquished By: Susan Date: 10-8-15 Extracts Examined

Received By: Date: 10/12/15 Yes No

Preparation Information

Group ID:	KWG1509628	**Prep Method:**	EPA 3541	**Prep Date:**	10/7/15
Department:	Semivoa GCMS	[redacted]			

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. g	pH	Int. Vol. mL	Final Vol. mL	Surr. Added µL	Spike Added µL
1	K1511029-001	SD0015 O, B	.02	✓	8270D PAH Alk SIM	SEDIMENT	13.989	N/A	10	10	20	–
2	K1511029-002	SD0016 R, O	.02	✓	8270D PAH Alk SIM	SEDIMENT	18.465		10	10		–
3	K1511029-003	SD0014 SW	.02	✓	8270D PAH Alk SIM	SEDIMENT	18.529		10	10		–
4	KWG1509628-1	Matrix Spike K1511029-1	.02	✓	8270D PAH Alk SIM	SEDIMENT	13.664		10	10		200
5	KWG1509628-2	Duplicate Matrix Spike	.02	✓	8270D PAH Alk SIM	SEDIMENT	13.673		10	10		
6	KWG1509628-3	Lab Control Sample	–	–	8270D PAH Alk SIM	SEDIMENT	10.000		10	10		
7	KWG1509628-4	Duplicate Lab Control Sample	–	–	8270D PAH Alk SIM	SEDIMENT	10.000		10	10		
8	KWG1509628-5	Method Blank	–	–	8270D PAH Alk SIM	SEDIMENT	18.529		10	10		–

Comments: R-rocks O-organic matter, SW-standing water prep run # 241625

Surrogate ID: KP 600/150 ppm, SVM50-28C, KP 10/31/15, 20 µL, S81

Spike ID: SIM PAHMS 25 ppm, SVM50-74C, KP 2/17/16, 200 µL EPP 100

Witness: [signature] 10/7/15

Started By: LMuresan Assisted By:

Completed By: SE 10-8-15 Assisted By:

Total Solids

Test	RUNNO	Sample	% Solids	Basis	Date	In Stealth	Basis
TS	466469	K1511029-001	60.7	As Received	10/12/2015	60.7	As Received
TS	466469	K1511029-002	76.6	As Received	10/12/2015	76.6	As Received
TS	466469	K1511029-003	67.0	As Received	10/12/2015	67	As Received

Sample	Dry weight (g)	% TS	Weigh this amount (g)
1	10.00	60.7	16.48
2	10.00	76.6	13.06
3	10.00	67.0	14.94
4	30.00		#DIV/0!
5	30.00		#DIV/0!
6	30.00		#DIV/0!
7	30.00		#DIV/0!
8	30.00		#DIV/0!
9	30.00		#DIV/0!
10	30.00		#DIV/0!
11	30.00		#DIV/0!
12	30.00		#DIV/0!
13	30.00		#DIV/0!
14	30.00		#DIV/0!
15	30.00		#DIV/0!
16	30.00		#DIV/0!
17	30.00		#DIV/0!
18	30.00		#DIV/0!
19	30.00		#DIV/0!
20	30.00		#DIV/0!

MANSON022810

Sample		Dry weight (g)	% TS	Weigh this amount (g)	
7	1	10.00	54.9	18.22	14
8	2	10.00	73.5	13.62	15
14	3	10.00	54.8	18.26	16

Total Solids

Test	RUNNO	Sample	% Solids	Basis	Date	In Stealth	Basis
TS	448303	K1506128-001	40.5	As Received	6/9/2015	40.5	As Received
TS	448303	K1506128-002	41.9	As Received	6/9/2015	41.9	As Received
TS	448303	K1506128-003	39.8	As Received	6/9/2015	39.8	As Received
TS	448303	K1506128-004	45.3	As Received	6/9/2015	45.3	As Received
TS	448303	K1506128-005	40.6	As Received	6/9/2015	40.6	As Received
TS	448303	K1506128-006	38.7	As Received	6/9/2015	38.7	As Received
TS	448303	K1506128-007	54.9	As Received	6/9/2015	54.9	As Received
TS	448303	K1506128-008	73.5	As Received	6/9/2015	73.5	As Received
TS	448303	K1506128-009	43.4	As Received	6/9/2015	43.4	As Received
TS	448303	K1506128-010	47.2	As Received	6/9/2015	47.2	As Received
TS	448303	K1506128-011	46.2	As Received	6/9/2015	46.2	As Received
TS	448303	K1506128-012	50.1	As Received	6/9/2015	50.1	As Received
TS	448303	K1506128-013	46.6	As Received	6/9/2015	46.6	As Received
TS	448303	K1506128-014	54.8	As Received	6/9/2015	54.8	As Received

Additional Prep Information for EPA 3541
PAH

Service Request K1511029 **Workgroup** KWG1507628

Sulfate Lot # 148781 DCM (GC²) Lot # DN466 Glass Wool Lot# 3C714002
Date/Time/Initials Weighed: 10/6/15 1210 LM Balance ID: E-bal-3 Calibration Verified ☑
Storage Location (if not extracted same day): Sg-R-06
Soxtherm Start (Time/Date/Initial): 1120 10/7/15 LM
Soxtherm Stop (Time/Date/Initial): 1445 10/7/15 LM

N-Evap (Time/Date/Initial): 1104/10-8-15/Se N-Evap Therm. ID: X.SVM-010
Temp as measured: 20 °C Correction factor: 0.0 °C Adjusted temp: 20 °C

Hexane Exchange for Silica Gel (Time/Date/Initial): 1327/10-8-15/Se
Hexane Lot # 108975 N-Evap Therm. ID: X-SVM-010
Temp as measured: 20 °C Correction factor: 0.0 °C Adjusted temp: 20 °C

Silica Gel Clean-up (3630) (Time/Date/Initial): 1344/10-8-15/Se
Silica Column Lot # ext002-92S 1:1 Hexane/DCM Reagent Lot # ext002-30ee
Turbovap (Time/Date/Initial): 1400/10-8-15/Se Turbovap Therm. ID: K-TV-05
Temp as measured: 31 °C Correction factor: 1.0 °C Adjusted temp: 32 °C

Pipet Lots: Intermediate Volume 04715647 Final Volume 01415645

Extract Storage: Sassy Pants

Completed (Time/Date/Initial): 1537/10-8-15/Se

Comments/Observations:

Bench Sheet Review Check List	
☑	Hold Times Met (if no, Reason: frozen samples used)
☑	Prep date, dept, method, product code correct in stealth
☑	Spike Information correct
☑	Weights/Volumes and units correct on raw and final bench sheets
☑	Sample IDs have been checked—Bottle numbers appended if required
☑	Names present for: Started by, Completed by, relinquished by, and witnessed by.
☑	Training has been circled
☑	Extract Storage recorded
☑	Additional Prep Sheet completely filled out (NA or line out Blanks)
☑	All clean-ups have been noted on additional prep sheet
☑	Signed service request with Form V, if applicable, has been attached

Injection Log

Directory: J:\MS20\DATA\101015

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	99	1010F001.D	1.	CO 1582 SRM | SVM50-55B		10 Oct 2015 00:1
2	100	1010F002.D	1.	DCM		10 Oct 2015 00:4
3	1	1010F003.D	1.	DFTPP @ 10ug/mL | SVM51-32C		10 Oct 2015 05:2
4	2	1010F004.D	1.	SIM-PAH CCV @ 0.4ug/mL | SVM51-39C		10 Oct 2015 05:5
5	3	1010F005.D	1.	KWG1509628-5 MB		10 Oct 2015 06:3
6	4	1010F006.D	1.	K1511029-001DIL 10X		10 Oct 2015 07:1
7	5	1010F007.D	1.	K1511029-002DIL 10X		10 Oct 2015 07:4
8	6	1010F008.D	1.	K1511029-003DIL 10X		10 Oct 2015 08:2
9	7	1010F009.D	1.	KWG1509628-3 LCS		10 Oct 2015 09:0
10	8	1010F010.D	1.	KWG1509628-4 DLCS		10 Oct 2015 09:3
11	9	1010F011.D	1.	K1511029-001MS		10 Oct 2015 10:1
12	10	1010F012.D	1.	K1511029-001DMS		10 Oct 2015 10:5
13	11	1010F013.D	1.	K1511029-001	CAL 14220	10 Oct 2015 11:2
14	12	1010F014.D	1.	K1511029-002		10 Oct 2015 12:0
15	13	1010F015.D	1.	K1511029-003		10 Oct 2015 12:4
16	14	1010F016.D	1.	DCM	* Lims # 466471	10 Oct 2015 13:2
17	15	1010F017.D	1.	K1510416-017		10 Oct 2015 13:5
18	16	1010F018.D	1.	K1510418-007		10 Oct 2015 14:3
19	17	1010F019.D	1.	K1510418-014	10/12/15 VB files # 1 → 15	10 Oct 2015 15:1

DILUTION LOG MS 20

Date: 10/10/15 Prepared by: LWeiskopf Solvent Lot #: DL634

LAB ID.	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	COMMENTS
K511029-1	50ul	0.5mL	10X	
-2				
-3				

10/12/15

R:\SVM\DILUTION LOG.DOC

Exception Report

Data File: J:\MS20\DATA\101015\1010F003.D
Lab ID: KWG1509829-1
RunType: DFTPP
Matrix: WATER

Date Acquired: 10/10/2015 05:20
Date Quantitated:
Batch ID: KWG1509829
Analysis Method: DFTPP
ListJoinID: LJ1965

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: OCT 1 2 2015

Secondary Review: OCT 1 2 2015

Printed: 10/12/2015 09:36:11
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS20\DATA\101015\1010F003.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 05:20	**Quant Date:**		**Vial:**	1
Run Type:	DFTPP			**Dilution:**	1.0
Lab ID:	KWG1509829-1			**Soln Conc. Units:**	

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH ALK S	**Collect Date:**		**Receive Date:**	10/12/2015

Analysis Lot:	KWG1509829	**Prep Lot:**		**Report Group:**	
Analysis Method:	DFTPP	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS20\METHODS\DFTPPLVI.M	**Calibration ID:**	CAL14220
Title:		**Report List ID:**	LJ1965
Tune Ref:		**Method ID:**	MJ190
MB Ref:		**Quant based on Report List**	

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	25.9	56930	Pass
68	69	0	2	0.0	0	Pass
69	198	0	100	29.4	64621	Pass
70	69	0	2	0.4	250	Pass
127	198	10	80	41.3	90557	Pass
197	198	0	2	0.0	0	Pass
198	442	30	100	44.9	219520	Pass
199	198	5	9	6.5	14300	Pass
275	198	10	60	34.0	74736	Pass
365	442	1	50	2.6	12778	Pass
441	443	0.01	100	83.3	78704	Pass
442	442	100	100	100.0	488640	Pass
443	442	15	24	19.3	94445	Pass

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

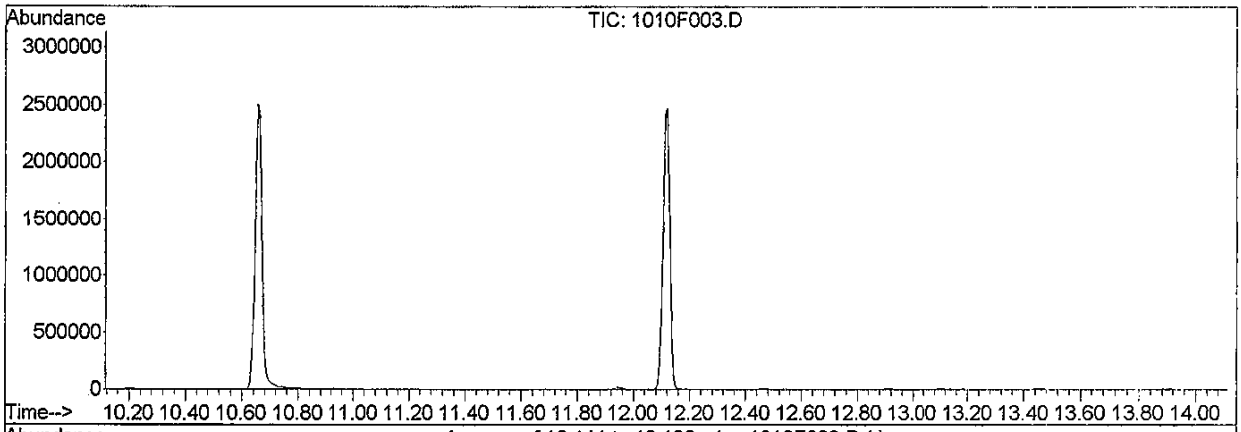
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

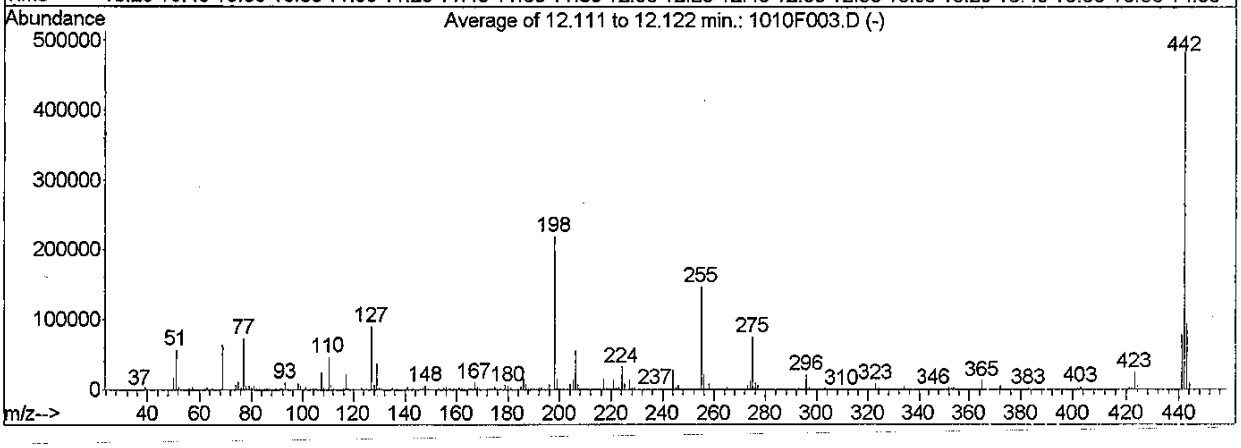
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

DFTPP

Data File : J:\MS20\DATA\101015\1010F003.D
Acq On : 10 Oct 2015 5:20 am
Sample : DFTPP @ 10ug/mL | SVM51-32C
Misc :
MS Integration Params: RTEINT.P
Method : J:\MS20\METHODS\DFTPPLVI.M (RTE Integrator)
Title : DFTPP

Vial: 1
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00





AutoFind: Scans 1466, 1467, 1468; Background Corrected with Scan 1456

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	25.9	56930	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	29.4	64621	PASS
70	69	0.00	2	0.4	250	PASS
127	198	10	80	41.3	90557	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	44.9	219520	PASS
199	198	5	9	6.5	14300	PASS
275	198	10	60	34.0	74736	PASS
365	442	1	50	2.6	12778	PASS
441	443	0.01	100	83.3	78704	PASS
442	442	30	100	100.0	488640	PASS
443	442	15	24	19.3	94445	PASS

1010F003.D DFTPPLVI.M Mon Oct 12 08:28:23 2015

Average of 12.111 to 12.122 min.: 1010F003.D
DFTPP @ 10ug/mL | SVM51-32C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.10	66	56.05	1998	71.00	71	82.05	1234
38.15	722	57.10	3780	72.95	307	83.05	1254
39.15	3786	57.90	203	73.20	141	85.05	1189
39.90	116	60.90	245	74.10	7048	86.15	2005
40.10	185	61.15	458	75.05	11188	87.05	957
41.20	250	62.05	949	76.15	2944	88.10	299
49.00	562	63.05	2704	77.10	72733	89.10	92
50.10	16440	64.10	438	78.05	5017	91.05	1257
51.10	56930	65.10	1117	79.05	5427	92.05	1712
52.15	3271	69.00	64621	80.05	3709	93.10	9421
55.10	291	70.20	250	81.10	5535	94.15	796

Average of 12.111 to 12.122 min.: 1010F003.D
DFTPP @ 10ug/mL | SVM51-32C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	110	106.00	265	118.95	214	130.05	3062
96.10	414	107.05	24834	120.00	446	131.15	776
97.00	125	108.05	3940	120.95	178	131.90	119
98.05	8404	110.00	46557	121.95	1061	132.20	359
99.05	5211	111.05	7327	122.20	584	134.05	1253
100.10	484	112.10	872	123.00	2497	135.05	3079
101.05	3317	113.05	284	124.00	1504	136.05	1277
101.90	95	115.30	97	125.05	1085	137.10	1323
102.95	1066	116.10	531	127.05	90557	137.90	438
104.05	2247	117.05	21208	128.05	7310	138.80	86
105.05	2212	118.05	1595	129.00	37584	140.15	418

Average of 12.111 to 12.122 min.: 1010F003.D
DFTPP @ 10ug/mL | SVM51-32C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
141.05	4841	151.00	607	160.05	1329	172.00	946
142.05	1487	151.40	241	161.05	2501	172.95	994
143.05	1118	151.80	227	162.00	655	173.20	576
144.05	366	152.10	141	164.15	328	174.05	2097
144.95	404	153.00	1665	165.00	2186	175.05	4167
146.05	914	154.00	1222	166.00	1039	176.00	993
147.05	2618	155.05	2630	167.05	9846	177.05	1892
148.00	5648	156.10	4114	168.05	3918	178.00	177
149.00	1138	157.10	809	169.00	730	179.00	7557
149.90	129	157.95	926	170.00	353	180.05	5158
150.10	121	159.05	692	171.10	311	181.10	2576

Average of 12.111 to 12.122 min.: 1010F003.D
DFTPP @ 10ug/mL | SVM51-32C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
181.95	381	191.05	805	201.60	848	211.70	182
182.30	202	192.05	2457	203.00	1781	213.10	157
182.70	102	193.05	2614	204.05	8243	214.95	840
183.10	174	194.00	610	205.10	13630	216.00	348
184.00	883	194.80	125	206.10	55986	217.00	15145
185.10	4040	196.05	7376	207.05	7374	218.05	2106
186.05	30717	198.00	219520	208.05	1597	219.30	103
187.05	7616	199.00	14300	209.05	733	220.00	125
188.05	834	200.00	1341	209.30	156	221.00	13440
188.95	1766	200.75	256	210.05	591	221.90	2961
189.95	230	201.40	375	211.05	2295	223.00	3476

Average of 12.111 to 12.122 min.: 1010F003.D
DFTPP @ 10ug/mL | SVM51-32C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
224.10	32453	234.95	894	243.05	2086	251.20	67
225.05	8214	235.80	234	244.05	28413	251.85	193
226.20	396	236.05	561	245.05	3881	252.15	260
227.00	13710	237.10	1177	246.05	5789	252.95	424
228.05	2309	238.00	168	246.95	1165	253.30	278
229.05	3099	238.95	712	248.05	334	255.00	146901
230.00	465	239.95	369	249.05	1145	256.05	21954
231.10	1166	240.20	221	249.90	97	257.00	1597
232.00	180	240.95	934	250.10	80	258.00	8699
233.00	382	241.90	366	250.70	90	259.00	1612
234.15	972	242.10	1283	250.95	213	260.10	186

Average of 12.111 to 12.122 min.: 1010F003.D
DFTPP @ 10ug/mL | SVM51-32C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
260.30	84	273.05	5442	285.05	1031	296.00	21002
260.95	271	274.05	12917	286.10	269	297.00	2680
263.00	96	275.00	74736	287.90	146	298.00	214
264.05	310	276.00	9852	288.80	87	300.85	268
265.00	3808	277.05	6513	290.70	67	301.20	127
265.90	363	277.90	1095	291.00	81	302.00	464
268.00	91	278.80	112	292.05	350	303.00	2853
269.95	212	282.00	94	292.30	114	303.80	238
271.00	159	283.00	631	292.95	1605	304.05	483
271.30	227	283.90	346	294.00	368	305.00	80
272.15	487	284.10	179	294.30	110	307.10	67

Average of 12.111 to 12.122 min.: 1010F003.D
DFTPP @ 10ug/mL | SVM51-32C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
307.90	230	319.80	67	333.00	814	345.95	1599
308.10	151	321.00	935	334.05	5007	347.00	272
309.05	290	322.10	139	335.05	1556	350.70	101
309.90	86	323.05	8520	336.00	137	351.00	113
310.15	229	324.05	1559	338.80	82	351.40	170
313.95	1216	324.80	106	339.80	101	352.05	2697
314.20	337	325.10	114	340.95	830	353.05	1654
315.05	2237	327.05	1471	341.90	122	353.95	3014
316.00	1317	328.00	814	342.20	173	355.05	723
317.00	163	329.10	76	343.00	70	359.00	78
317.25	229	332.15	562	344.90	85	363.80	95

Average of 12.111 to 12.122 min.: 1010F003.D
DFTPP @ 10ug/mL | SVM51-32C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
365.00	12778	390.00	717	415.05	209	443.05	94445
365.95	1475	390.20	343	420.10	75	444.05	9211
369.95	337	391.15	646	421.05	3254	445.10	241
371.05	869	392.10	501	422.05	2852		
372.05	5419	401.00	491	423.05	24613		
373.00	1436	402.00	2242	424.00	5218		
374.10	67	403.05	3856	425.15	467		
379.10	79	403.95	1267	437.60	69		
383.00	1662	404.90	73	439.25	526		
383.95	529	409.80	74	441.10	78704		
385.00	146	410.30	81	442.05	488640		

Exception Report

Data File: J:\MS20\DATA\101015\1010F004.D
Lab ID: KWG1509829-2
RunType: CCV
Matrix: WATER

Date Acquired: 10/10/2015 05:57
Date Quantitated: 10/10/2015 07:01
Batch ID: KWG1509829
Analysis Method: 8270D SIM
MethodJoinID: MJ1187

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Primary Review: OCT 1 2 2015

Secondary Review: OCT 1 2 2015

Quantitation Report

Data File:	J:\MS20\DATA\101015\1010F004.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 05:57	**Quant Date:**	10/10/2015 07:01	**Vial:**	2
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1509829-2			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH ALK S	**Collect Date:**		**Receive Date:**	10/12/2015

Analysis Lot:	KWG1509829	**Prep Lot:**		**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS20\METHODS\080415SIMALK	**Calibration ID:**	CAL14220
Title:			
Tune Ref:	J:\MS20\DATA\101015\1010F003.D	**Method ID:**	MJ1187
MB Ref:		**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Naphthalene-d8	5.79	-0.07	136	75361	200.00	OK
2	Acenaphthene-d10	7.99	-0.11	164	44357	200.00	OK
3	Phenanthrene-d10	11.09	-0.13	188	85846	200.00	OK
4	Chrysene-d12	18.37	-0.14	240	106915	200.00	OK
5	Perylene-d12	22.50	-0.17	264	107996	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
2	Fluorene-d10	8.96			176	97486	386.91		17-104	NA
3	Fluoranthene-d10	14.22			212	186311	420.02		27-106	NA
4	Terphenyl-d14	15.54			244	168450	404.61		35-109	NA

Target Compounds

Final Conc. Units:

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	5.80			128	153043	422.38			
1	2-Methylnaphthalene	6.53			142	107036	415.39			
1	1-Methylnaphthalene	6.64			142	93767	412.84			
1	Biphenyl	7.12			154	131597	422.84			
1	2,6-Dimethylnaphthalene	7.35			156	96443	425.79			
2	Acenaphthylene	7.76			152	163943	407.13			
2	Acenaphthene	8.05			154	95366	396.20			
2	Dibenzofuran	8.37			168	151777	412.38			
2	2,3,5-Trimethylnaphthalene	8.77			170	99250	420.61			
2	Fluorene	9.01			166	117683	402.26			
3	Dibenzothiophene	10.84			184	181387	415.98			
3	Phenanthrene	11.15			178	182088	405.99			
3	Anthracene	11.27			178	175121	400.55			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS20\DATA\101015\1010F004.D			**Instrument:**	MS20
Acqu Date:	10/10/2015 05:57	**Quant Date:**	10/10/2015 07:01	**Vial:**	2
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1509829-2			**Soln Conc. Units:**	ng/ml

Target Compounds **Final Conc. Units:**

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Carbazole	11.75			167	162324	412.93			
3	1-Methylphenanthrene	12.74			192	143372	417.77			
3	Fluoranthene	14.27			202	216633	425.99			
4	Pyrene	14.86			202	226634	390.09			
4	Benz(a)anthracene	18.35			228	228684	407.09			
4	Chrysene	18.45			228	204266	383.01			
5	Benzo(b)fluoranthene	21.35			252	251513	437.30			
5	Benzo(k)fluoranthene	21.44			252	245689	417.13			
5	Benzo(e)pyrene	22.15			252	234981	423.07			
5	Benzo(a)pyrene	22.31			252	226742	427.66			
5	Perylene	22.57			252	224000	417.59			
5	Indeno(1,2,3-cd)pyrene	26.30			276	241057	430.88			
5	Dibenz(a,h)anthracene	26.48			278	239809	430.58			
5	Benzo(g,h,i)perylene	27.07			276	244565	411.50			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F004.D Vial: 2
Acq On : 10 Oct 2015 5:57 am Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL | SVM51-39C Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 10 07:01:00 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Oct 08 06:59:56 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

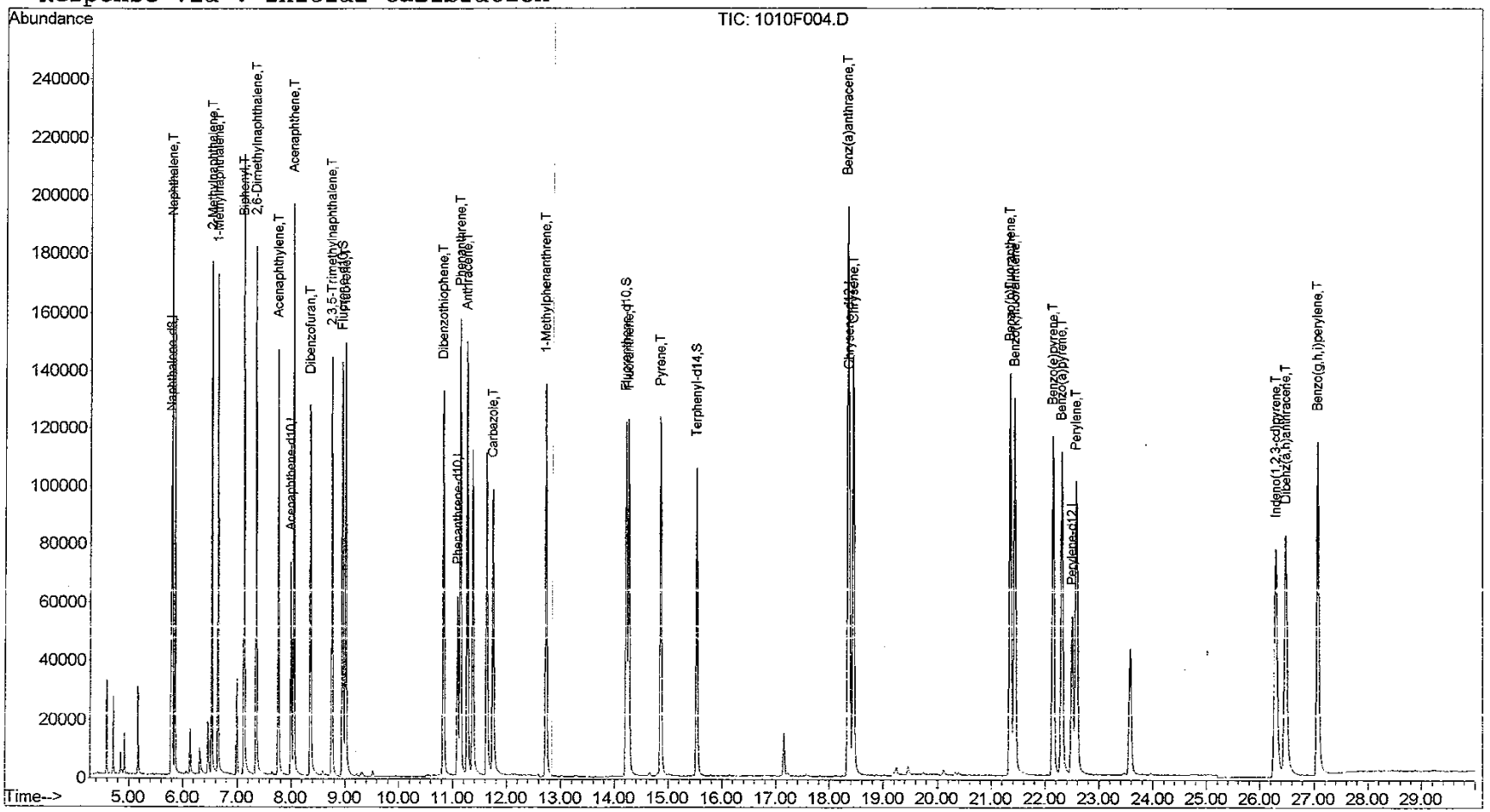
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.79	136	75361	200.00	ng/ml	0.00
11) Acenaphthene-d10	7.99	164	44357	200.00	ng/ml	-0.02
21) Phenanthrene-d10	11.09	188	85846	200.00	ng/ml	-0.02
37) Chrysene-d12	18.37	240	106915	200.00	ng/ml	-0.02
50) Perylene-d12	22.50	264	107996	200.00	ng/ml	-0.03
System Monitoring Compounds						
16) Fluorene-d10	8.96	176	97486	386.91	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 38.69%			
36) Fluoranthene-d10	14.22	212	186311	420.02	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 42.00%			
43) Terphenyl-d14	15.54	244	168450	404.61	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 40.46%			
Target Compounds						Qvalue
2) Naphthalene	5.80	128	153043	422.38	ng/ml	99
3) 2-Methylnaphthalene	6.53	142	107036	415.39	ng/ml	98
4) 1-Methylnaphthalene	6.64	142	93767	412.84	ng/ml	99
5) Biphenyl	7.12	154	131597	422.84	ng/ml	100
6) 2,6-Dimethylnaphthalene	7.35	156	96443	425.79	ng/ml	99
12) Acenaphthylene	7.76	152	163943	407.13	ng/ml	100
13) Acenaphthene	8.05	154	95366	396.20	ng/ml	98
14) Dibenzofuran	8.37	168	151777	412.38	ng/ml	96
15) 2,3,5-Trimethylnaphthalene	8.77	170	99250	420.61	ng/ml	89
17) Fluorene	9.01	166	117683	402.26	ng/ml	100
22) Dibenzothiophene	10.84	184	181387	415.98	ng/ml	100
27) Phenanthrene	11.15	178	182088	405.99	ng/ml	99
28) Anthracene	11.27	178	175121	400.55	ng/ml	100
29) Carbazole	11.75	167	162324	412.93	ng/ml	98
30) 1-Methylphenanthrene	12.74	192	143372	417.77	ng/ml	99
35) Fluoranthene	14.27	202	216633	425.99	ng/ml	95
38) Pyrene	14.86	202	226634	390.09	ng/ml	94
44) Benz(a)anthracene	18.35	228	228684	407.09	ng/ml	100
45) Chrysene	18.45	228	204266	383.01	ng/ml	99
51) Benzo(b)fluoranthene	21.35	252	251513	437.30	ng/ml	100
52) Benzo(k)fluoranthene	21.44	252	245689	417.13	ng/ml	98
53) Benzo(e)pyrene	22.15	252	234981	423.07	ng/ml	99
54) Benzo(a)pyrene	22.31	252	226742	427.66	ng/ml	99
55) Perylene	22.57	252	224000	417.59	ng/ml	100
56) Indeno(1,2,3-cd)pyrene	26.30	276	241057	430.88	ng/ml	100
57) Dibenz(a,h)anthracene	26.48	278	239809	430.58	ng/ml	96
58) Benzo(g,h,i)perylene	27.07	276	244565	411.50	ng/ml	99

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

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\101015\1010F004.D Vial: 2
Acq On : 10 Oct 2015 5:57 am Operator: LWeiskopf
Sample : SIM-PAH CCV @ 0.4ug/mL | SVM51-39C Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Oct 10 7:01 2015 Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Oct 12 08:27:26 2015
Response via : Initial Calibration



Injection Log

Directory: J:\MS20\DATA\080415a

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	100	0804F001.D	1.	DCM NR		4 Aug 2015 14:0
2	100	0804F002.D	1.	DCM		4 Aug 2015 14:3
3	1	0804F003.D	1.	DFTPP @ 10ug/mL | SVM50-64E NR		4 Aug 2015 15:1
4	1	0804F004.D	1.	DFTPP @ 10ug/mL | SVM50-64E		4 Aug 2015 15:5
5	2	0804F005.D	1.	IB		4 Aug 2015 16:2
6	4	0804F007.D	1.	SIM-ALKH ICAL @0.002ug/mL | SVM49-41B		4 Aug 2015 17:0
7	5	0804F008.D	1.	SIM-ALKH ICAL @0.004ug/mL | SVM49-41C		4 Aug 2015 17:4
8	6	0804F009.D	1.	SIM-ALKH ICAL @0.008ug/mL | SVM49-41D		4 Aug 2015 18:1
9	7	0804F010.D	1.	SIM-ALKH ICAL @0.02ug/mL | SVM49-41E		4 Aug 2015 18:5
10	8	0804F011.D	1.	SIM-ALKH ICAL @0.1ug/mL | SVM49-41F		4 Aug 2015 19:3
11	9	0804F012.D	1.	SIM-ALKH ICAL @0.2ug/mL | SVM49-41G		4 Aug 2015 20:1
12	10	0804F013.D	1.	SIM-ALKH ICAL @0.4ug/mL | SVM49-41H		4 Aug 2015 20:4
13	11	0804F014.D	1.	SIM-ALKH ICAL @1.0ug/mL | SVM49-41I		4 Aug 2015 21:2
14	12	0804F015.D	1.	SIM-ALKH ICAL @1.6ug/mL | SVM49-41J		4 Aug 2015 22:0
15	13	0804F016.D	1.	SIM-ALKH ICAL @2.0ug/mL | SVM49-41K		4 Aug 2015 22:3
16	14	0804F017.D	1.	SIM-ALKH ICV @0.4ug/mL | SVM50-64A		4 Aug 2015 23:1

CAL 14220
SIM-PAH-ALK ICAL

AUG 19 2015

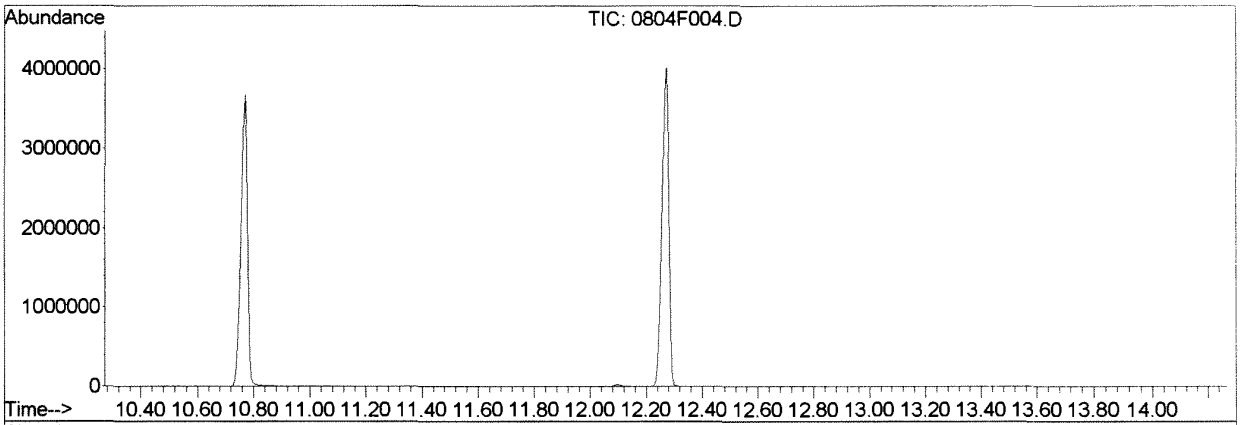
AUG 20 2015

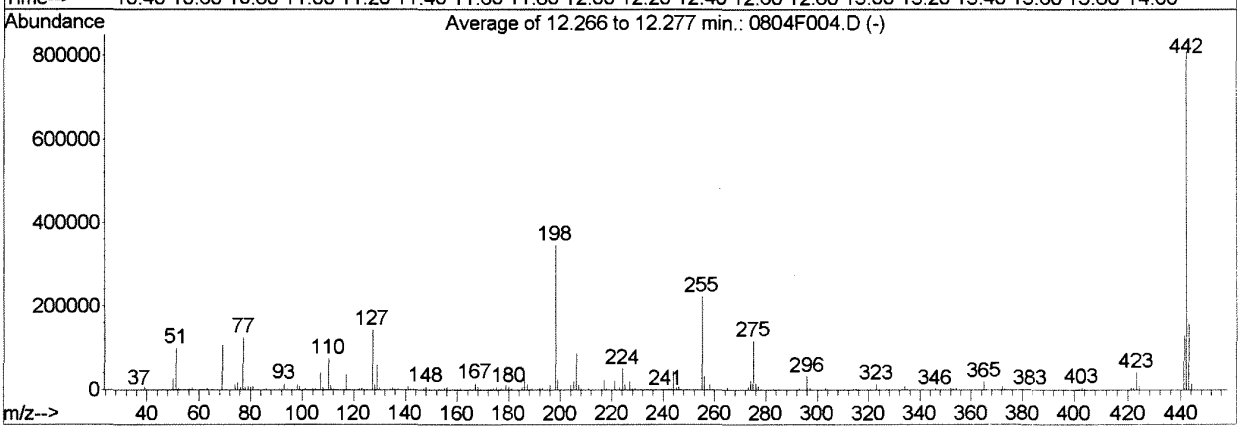
DFTPP

Data File : J:\MS20\DATA\080415A\0804F004.D
Acq On : 4 Aug 2015 3:51 pm
Sample : DFTPP @ 10ug/mL | SVM50-64E
Misc :
MS Integration Params: RTEINT.P
Method : J:\MS20\METHODS\DFTPPLVI.M (RTE Integrator)
Title : DFTPP

Vial: 1
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00

AUG 1 9 2015





AutoFind: Scans 1495, 1496, 1497; Background Corrected with Scan 1484

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	28.8	99704	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	30.7	106440	PASS
70	69	0.00	2	0.5	543	PASS
127	198	10	80	41.6	144154	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	42.8	346432	PASS
199	198	5	9	6.8	23728	PASS
275	198	10	60	33.7	116680	PASS
365	442	1	50	2.4	19445	PASS
441	443	0.01	100	81.3	128778	PASS
442	442	30	100	100.0	810197	PASS
443	442	15	24	19.6	158442	PASS

0804F004.D DFTPPLVI.M Wed Aug 19 11:02:44 2015

AUG 2 0 2015

MANSON022827

Average of 12.266 to 12.277 min.: 0804F004.D
DFTPP @ 10ug/mL | SVM50-64E
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.10	437	55.15	471	69.10	106440	81.10	8884
38.15	1466	56.10	2863	70.05	543	82.05	2246
39.15	6906	57.10	6511	73.00	305	83.10	2110
40.05	351	58.10	339	73.20	230	84.00	337
41.05	303	61.10	1323	74.10	12423	85.05	1421
44.00	31	62.10	1703	75.10	17831	86.10	2546
45.20	79	63.15	4454	76.20	6709	87.15	1065
50.10	27082	64.10	620	77.10	124904	88.05	490
51.10	99704	65.10	1867	78.10	8338	89.15	291
52.10	4976	66.10	66	79.10	8478	90.20	72
53.15	161	67.05	159	80.10	6607	91.10	2160

AUG 1 9 2015

Average of 12.266 to 12.277 min.: 0804F004.D
DFTPP @ 10ug/mL | SVM50-64E
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.10	2245	103.05	1805	117.10	36280	129.05	58248
93.10	15182	104.05	3236	118.05	2479	130.05	5040
94.10	1037	105.10	2913	119.00	353	131.10	778
95.10	313	107.10	39522	120.05	452	132.05	606
96.10	658	108.05	5956	121.05	175	133.00	166
96.90	165	110.05	74570	122.05	2982	134.05	1563
98.10	12315	111.10	10731	123.05	4084	135.05	4996
99.10	8595	112.10	1511	124.05	2287	136.05	1988
100.10	837	113.10	493	125.05	1866	137.10	2288
101.05	5145	115.10	75	127.10	144154	138.05	537
102.05	300	116.10	1776	128.10	11015	139.05	358

Average of 12.266 to 12.277 min.: 0804F004.D
DFTPP @ 10ug/mL | SVM50-64E
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
140.10	563	151.20	1055	161.95	1014	173.05	1808
141.05	7623	151.90	547	163.00	204	174.05	3413
142.05	2508	153.05	2493	164.05	313	175.10	6325
143.05	1526	154.05	1907	165.00	2874	176.05	1955
144.05	458	155.05	4068	166.10	2432	177.00	2975
144.95	431	156.10	6528	167.05	16489	178.00	1074
146.10	1333	157.10	1180	168.05	6923	179.00	11873
147.10	3897	158.00	1443	169.00	1099	180.05	7803
148.05	8461	159.05	1187	170.00	585	181.10	3545
149.05	1594	160.00	2444	171.05	777	182.05	628
150.10	467	161.05	3861	172.00	1235	183.00	433

Average of 12.266 to 12.277 min.: 0804F004.D
DFTPP @ 10ug/mL | SVM50-64E
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
184.05	955	194.90	157	207.05	10892	221.10	22048
185.10	5970	195.10	275	208.00	2865	223.05	5773
186.10	45136	196.05	11327	209.00	1038	224.10	50861
187.10	12968	198.00	346432	211.05	3375	225.10	13208
188.05	1122	199.00	23728	211.80	382	226.10	990
189.00	2758	200.00	1727	213.00	365	227.00	21114
190.05	456	201.50	1954	215.00	1039	228.05	3074
191.05	1371	203.05	2333	216.10	2059	229.00	4313
192.00	3973	204.10	12452	217.00	23253	229.90	212
193.05	4410	205.10	20672	218.00	2986	230.05	345
194.05	901	206.10	86685	219.05	327	231.05	1861

AUG 2 0 2015

Average of 12.266 to 12.277 min.: 0804F004.D
DFTPP @ 10ug/mL | SVM50-64E
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
231.95	295	243.15	3737	255.00	223146	266.00	869
233.05	385	244.10	44848	256.00	32757	269.90	87
234.00	1320	245.10	5789	257.05	2389	270.05	215
235.05	1534	246.00	8190	258.00	12638	270.95	478
236.00	1030	247.00	1787	259.00	2078	271.95	461
237.05	1730	248.00	453	260.00	412	273.00	7899
238.15	286	249.00	1548	261.00	438	274.05	21205
239.05	977	249.90	341	262.20	79	275.00	116680
239.95	826	251.10	437	263.00	79	276.05	15199
241.00	1262	252.05	451	264.00	462	277.00	9083
242.05	2837	253.15	1205	265.00	5299	278.00	1624

Average of 12.266 to 12.277 min.: 0804F004.D
DFTPP @ 10ug/mL | SVM50-64E
Modified:subtracted

AUG 1 9 2015

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
278.80	102	289.95	396	304.00	1082	315.00	4106
279.05	264	291.00	207	305.00	87	316.05	2202
280.90	96	292.05	596	308.05	521	317.05	494
281.90	193	293.00	2635	308.90	145	320.00	84
282.10	126	293.95	561	309.05	177	321.00	1368
283.05	1212	296.00	32450	310.05	573	322.00	242
284.05	674	297.00	4211	311.10	76	323.05	12914
285.10	1621	297.95	238	311.90	69	324.05	2254
286.05	268	301.05	501	312.90	110	324.95	287
288.10	83	302.05	620	313.15	274	325.70	69
289.00	419	303.05	3941	314.05	1746	326.05	218

Average of 12.266 to 12.277 min.: 0804F004.D
DFTPP @ 10ug/mL | SVM50-64E
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
327.00	2062	341.05	1639	360.90	74	374.00	166
328.00	1287	342.00	467	361.10	73	374.20	86
329.05	261	346.00	2594	363.80	278	376.95	171
332.05	1031	347.05	533	365.00	19445	383.00	2322
333.05	1275	350.20	81	366.00	2618	384.00	730
334.05	8938	351.05	277	367.10	114	385.05	175
335.05	2270	352.05	4525	369.90	173	390.05	1223
336.00	193	353.05	3083	370.20	325	390.90	311
338.80	71	354.05	4643	371.10	1190	391.05	662
339.05	191	355.05	783	372.05	8124	392.05	610
340.00	94	359.00	528	373.10	2159	393.00	72

Average of 12.266 to 12.277 min.: 0804F004.D
DFTPP @ 10ug/mL | SVM50-64E
Modified:subtracted

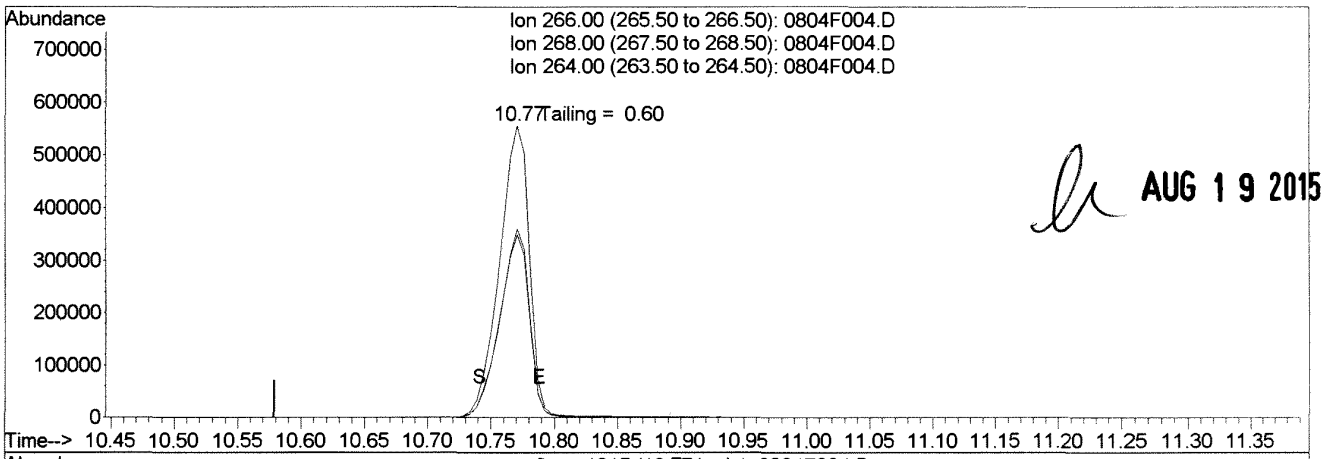
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
400.95	632	425.05	781	443.10	158442		
402.00	3961	435.70	76	444.05	14527		
403.00	5353	436.90	76	445.10	771		
404.00	2224	437.25	176				
405.05	386	437.60	104				
410.00	71	438.00	151				
415.00	80	438.20	230				
421.00	5405	438.70	245				
422.05	5186	439.60	304				
423.05	42005	441.10	128778				
424.10	8096	442.10	810197				

AUG 2 0 2015

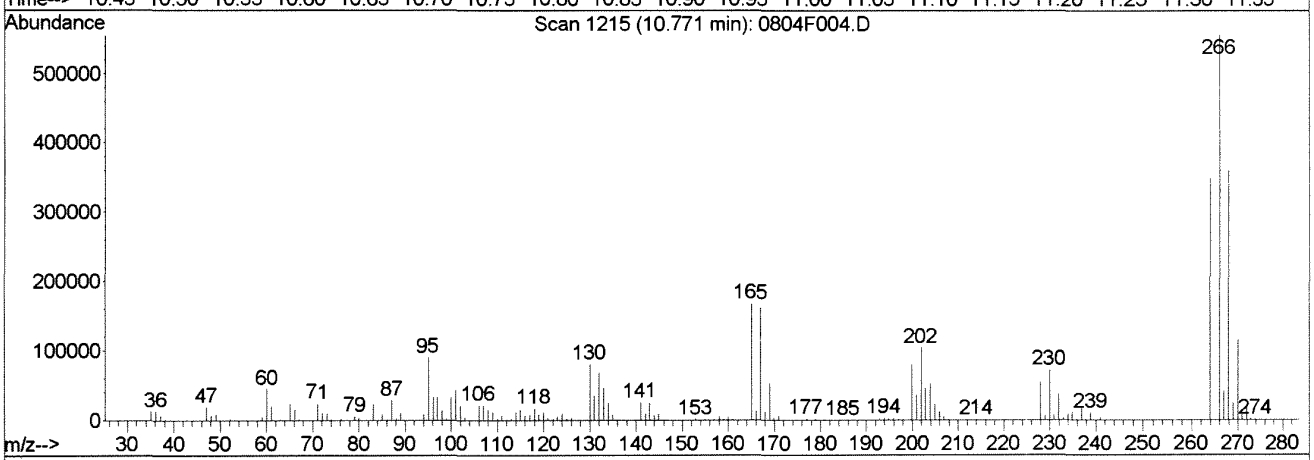
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F004.D Vial: 1
Acq On : 4 Aug 2015 3:51 pm Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM50-64E Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 11:02 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\DFTPPLVI.M (RTE Integrator)
Title : DFTPP
Last Update : Tue Feb 09 16:29:02 2010
Response via : Single Level Calibration



AUG 1 9 2015



(1) Pentachlorophenol

10.08min 0.00

response 0

Ion	Exp%	Act%
266.00	100	0.00
268.00	0.00	0.00
264.00	1.80	0.00#
0.00	0.00	0.00

AUG 2 0 2015

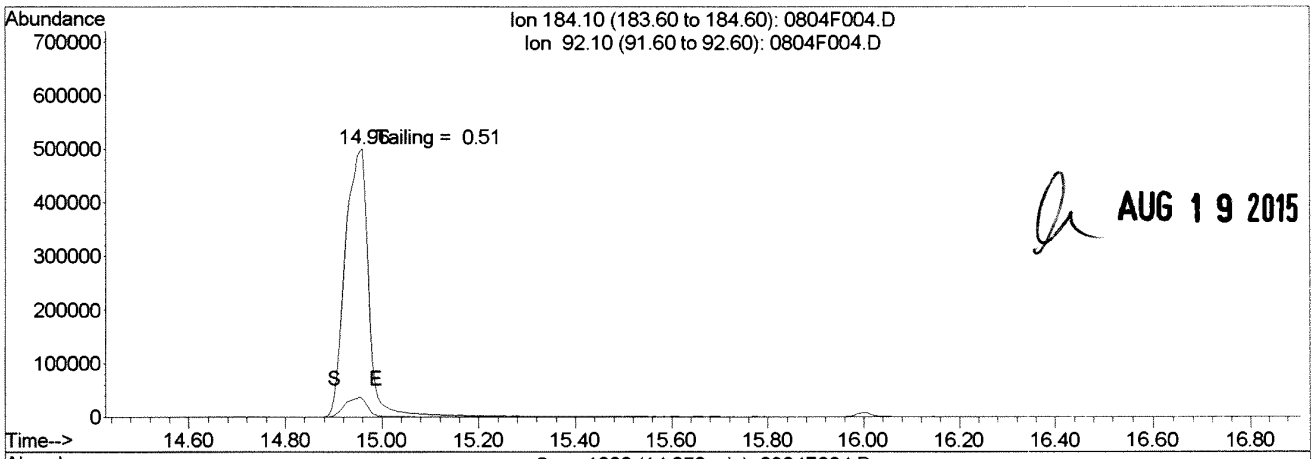
0804F004.D DFTPPLVI.M Wed Aug 19 11:02:58 2015

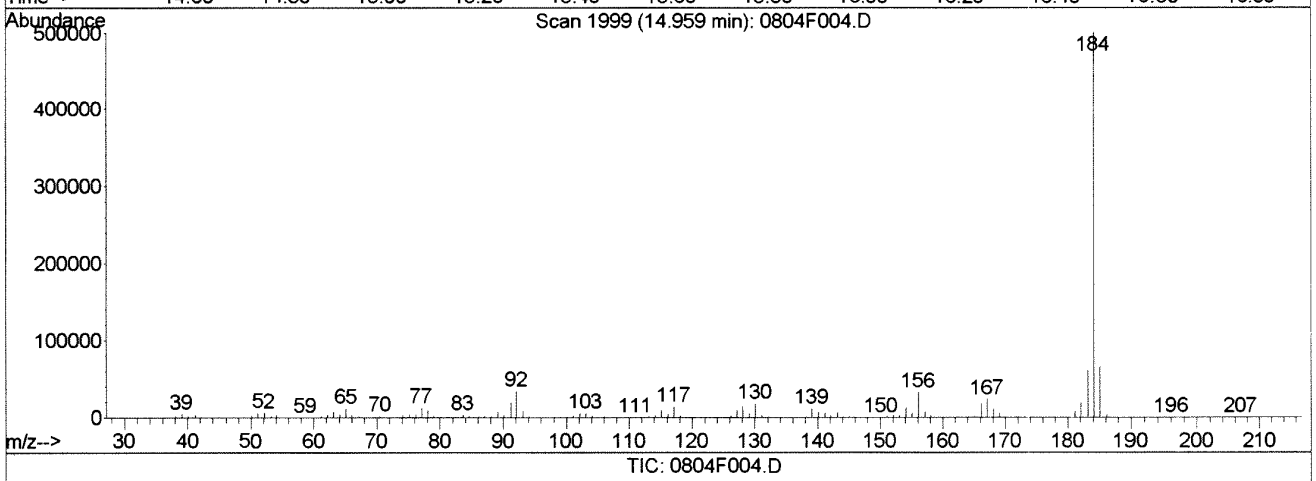
MANSON022830

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F004.D Vial: 1
Acq On : 4 Aug 2015 3:51 pm Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM50-64E Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 11:02 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\DFTPPLVI.M (RTE Integrator)
Title : DFTPP
Last Update : Tue Feb 09 16:29:02 2010
Response via : Single Level Calibration





(3) Benzidine

11.53min 0.00

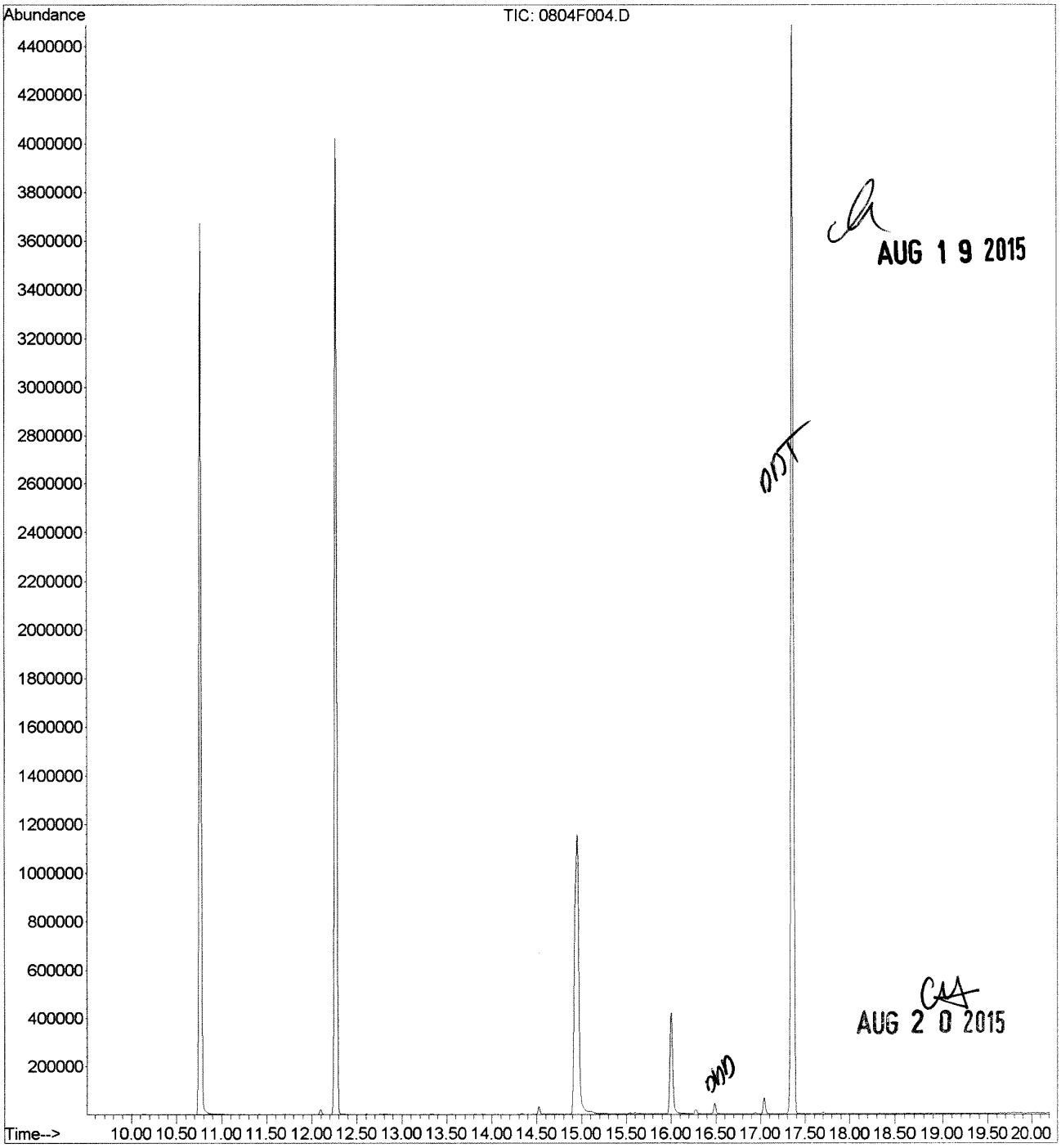
response 0

Ion	Exp%	Act%
184.10	100	0.00
92.10	0.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

AUG 2 0 2015

0804F004.D DFTPPLVI.M Wed Aug 19 11:03:11 2015

File : J:\MS20\DATA\080415A\0804F004.D
Operator : LWeiskopf
Acquired : 4 Aug 2015 3:51 pm using AcqMethod SIMLOC
Instrument : MS20
Sample Name: DFTPP @ 10ug/mL | SVM50-64E
Misc Info :
Vial Number: 1



1	4.483	rBV	0.096	11109	4.413	4.509
2	4.921	rVB	0.048	1921	4.910	4.958
3	5.492	rBV	0.053	2155	5.466	5.519
4	5.701	rBV	0.027	1051	5.690	5.717
5	5.765	rVB	0.027	977.00	5.760	5.786
6	5.808	rBV	0.032	1088	5.786	5.818
7	5.947	rBV	0.037	2443	5.931	5.968
8	5.995	rBV	0.027	1078	5.984	6.011
9	6.369	rBV	0.027	968.00	6.358	6.385
10	6.491	rBV	0.032	1171	6.465	6.497
11	6.727	rVB	0.043	1364	6.721	6.764
12	6.871	rBV	0.021	1019	6.860	6.881
13	6.897	rVB	0.032	1118	6.887	6.919
14	6.930	rBV	0.027	1020	6.919	6.946
15	7.042	rBV	0.037	1552	7.026	7.063
16	7.143	rBV	0.037	961.00	7.122	7.159
17	7.816	rVB	0.037	1243	7.811	7.848
18	7.923	rVB	0.043	937.00	7.907	7.950
19	8.057	rBV	0.027	957.00	8.035	8.062
20	8.425	rBV	0.037	1054	8.420	8.457
21	8.676	rBV	0.064	17719	8.650	8.714
22	9.013	rBV	0.027	1105	8.997	9.024
23	9.034	rVV	0.027	1171	9.024	9.050
24	9.451	rVB	0.032	1530	9.430	9.462
25	9.488	rBV	0.048	2059	9.462	9.510
26	9.894	rVV	0.032	1085	9.884	9.916
27	9.969	rVV	0.021	962.00	9.959	9.980
28	10.001	rVV	0.032	1080	9.991	10.023
29	10.065	rVV	0.059	1209	10.023	10.081
30	10.140	rBV	0.069	3806	10.114	10.183
31	10.600	rVB	0.037	1145	10.573	10.610
32	10.626	rVB	0.043	1018	10.610	10.653
33	10.658	rBV	0.043	1848	10.653	10.696
34	10.771	rBV	0.171	6000766	10.717	10.888
35	11.022	rVB	0.032	1302	11.016	11.048
36	11.059	rBV	0.037	1237	11.048	11.086
37	11.193	rBV	0.053	1042	11.150	11.203
38	11.417	rBV	0.037	1564	11.396	11.433
39	11.706	rVB	0.032	1216	11.689	11.722
40	11.946	rVB	0.027	993.00	11.925	11.951
41	11.962	rBV	0.037	1305	11.951	11.989
42	12.095	rVB	0.080	32681	12.053	12.133
43	12.272	rBV	0.139	6800317	12.213	12.352
44	12.603	rVV	0.048	3296	12.587	12.635
45	12.710	rVB	0.032	990.00	12.694	12.726
46	12.747	rBV	0.037	1328	12.726	12.763
47	12.790	rVV	0.032	2858	12.779	12.811
48	12.833	rVV	0.043	2807	12.811	12.854
49	13.212	rBV	0.053	1536	13.180	13.233
50	13.335	rVV	0.075	2665	13.297	13.372
51	13.559	rBV	0.064	941.00	13.527	13.591
52	13.810	rVB	0.032	1068	13.800	13.832
53	13.853	rBV	0.032	1157	13.832	13.864
54	13.923	rBV	0.027	936.00	13.907	13.933
55	13.976	rVV	0.048	1375	13.955	14.003
56	14.329	rVB	0.064	5278	14.302	14.366
57	14.521	rBV	0.069	49462	14.489	14.558
58	14.596	rBV	0.043	2274	14.558	14.601
59	14.708	rVB	0.027	987.00	14.692	14.719
60	14.954	rBV	0.208	3826347	14.873	15.082
61	15.536	rBV	0.059	7567	15.504	15.563

AUG 1 9 2015

AUG 2 0 2015

62	15.600	rVV	0.048		9911	15.573	15.621
63	15.643	rVB	0.096		6087	15.621	15.718
64	15.776	rBV	0.021		1124	15.766	15.787
65	15.814	rVV	0.021		958.00	15.808	15.830
66	16.001	rBV	0.171		910021	15.942	16.113
67	16.118	rVB	0.064		4259	16.113	16.177
68	16.273	rBV	0.085		37395	16.241	16.327
69	16.407	rVB	0.032		2484	16.396	16.428
70	16.487	rVV	0.080	DDD	74080	16.439	16.519
71	16.546	rVV	0.037		3252	16.524	16.562
72	16.599	rVB	0.032		1104	16.583	16.615
73	16.887	rBV	0.032		1392	16.877	16.909
74	16.941	rVB	0.064		9750	16.909	16.973
75	17.037	rBV	0.096		121869	16.994	17.090
76	17.176	rVB	0.037		1508	17.155	17.192
77	17.368	rBV	0.160	DDT	8577086	17.277	17.438
78	17.480	rVB	0.032		1588	17.470	17.502
79	17.705	rBV	0.069		12197	17.667	17.737
80	17.849	rVB	0.043		1602	17.838	17.881
81	17.961	rBV	0.027		1243	17.940	17.967
82	18.335	rVB	0.037		1622	18.319	18.357
83	18.410	rBV	0.048		1606	18.399	18.447
84	18.704	rBV	0.037		1888	18.682	18.720
85	18.837	rBV	0.037		2529	18.805	18.843
86	19.324	rVB	0.027		1370	19.308	19.334
87	19.575	rBV	0.016		1132	19.569	19.585
88	19.767	rBV	0.021		1866	19.756	19.778
89	19.794	rVB	0.069		8118	19.778	19.847
90	20.066	rVV	0.043		2419	20.050	20.093
91	20.104	rVB	0.021		1535	20.093	20.114
92	20.488	rVB	0.016		1255	20.483	20.499
93	20.654	rBV	0.021		1804	20.648	20.670
94	20.734	rBV	0.059		9584	20.713	20.771
95	21.257	rBV	0.032		3239	21.247	21.279
96	21.754	rVB	0.064		14088	21.728	21.792
97	22.112	rBV	0.016		1411	22.107	22.123
98	22.903	rVB	0.102		20994	22.865	22.967
99	24.190	rBV	0.134		41440	24.132	24.265
100	26.979	rBV	0.069		36785	26.952	27.022

DDT Breakdown = 0.9%

AUG 19 2015

AUG 20 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F005.D Vial: 2
Acq On : 4 Aug 2015 4:28 pm Operator: LWeiskopf
Sample : IB Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46:42 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.86	136	91116	200.00 ng/ml	0.00
11) Acenaphthene-d10	8.10	164	51430	200.00 ng/ml	0.00
21) Phenanthrene-d10	11.23	188	93997	200.00 ng/ml	0.00
37) Chrysene-d12	18.51	240	110297	200.00 ng/ml	0.00
50) Perylene-d12	22.67	264	111717	200.00 ng/ml	0.00
System Monitoring Compounds					
16) Fluorene-d10	9.07	176	283	0.98 ng/ml	0.00
Spiked Amount 1000.000			Recovery	= 0.10%	
36) Fluoranthene-d10	0.00	212	0	0.00 ng/ml	
Spiked Amount 1000.000			Recovery	= 0.00%	
43) Terphenyl-d14	0.00	244	0	0.00 ng/ml	
Spiked Amount 1000.000			Recovery	= 0.00%	
Target Compounds					Qvalue
27) Phenanthrene	11.28	178	151m	0.31 ng/ml	
44) Benz(a)anthracene	18.51	228	247m	0.47 ng/ml	

AUG 19 2015

AUG 20 2015

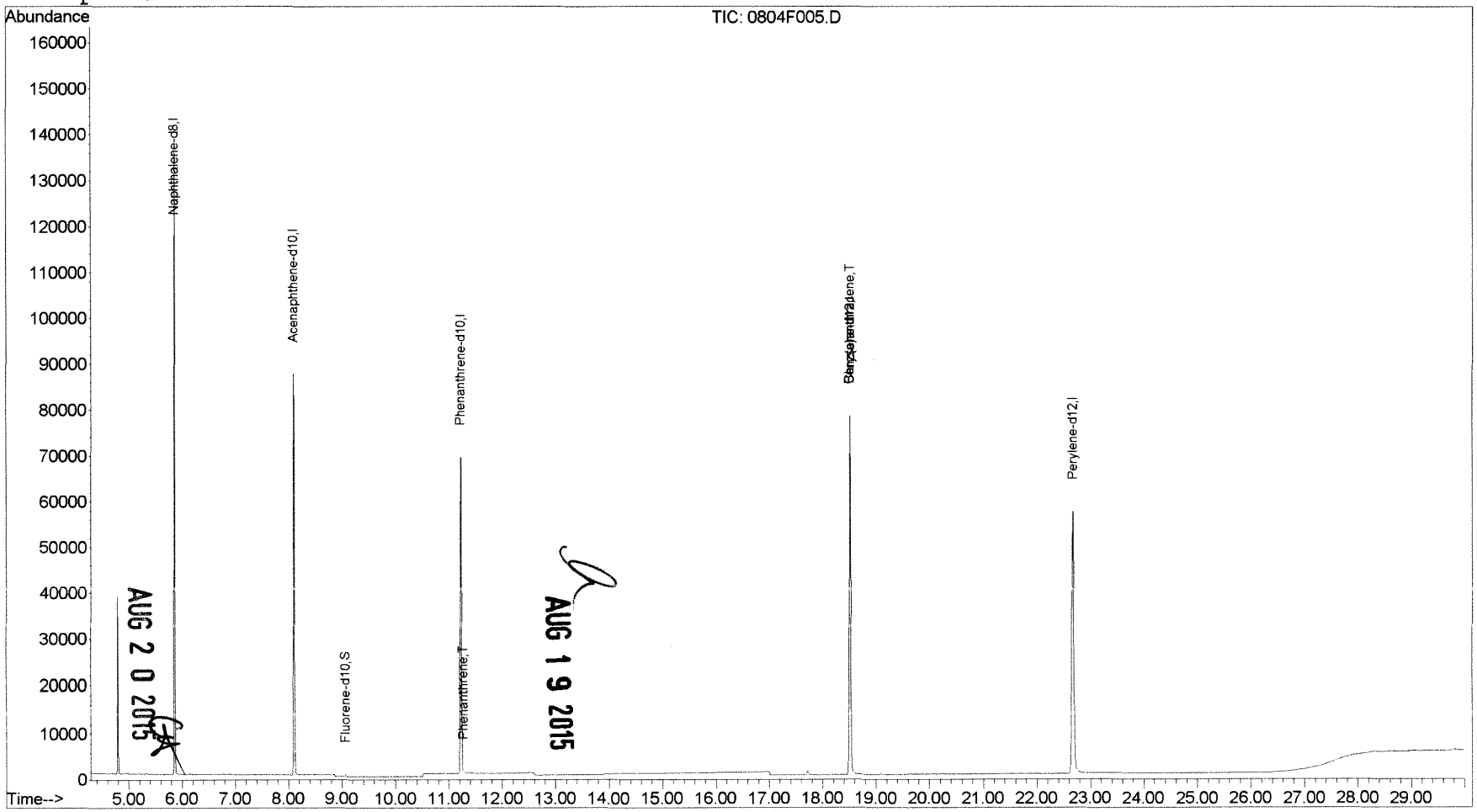
(#) = qualifier out of range (m) = manual integration
0804F005.D 080415SIMALK.M Wed Aug 19 11:00:18 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F005.D
Acq On : 4 Aug 2015 4:28 pm
Sample : IB
Misc :
MS Integration Params: RTEINT.P
Quant Time: Aug 19 11:00 2015

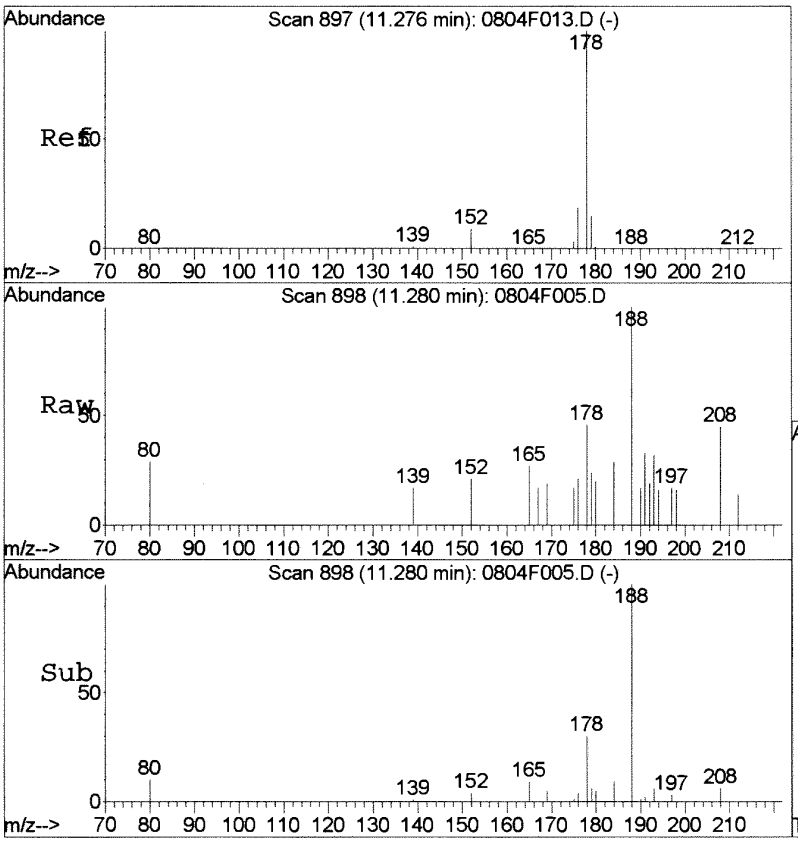
Vial: 2
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration



AUG 20 2015

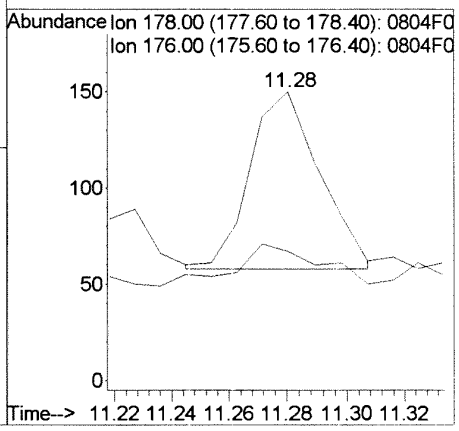
AUG 19 2015

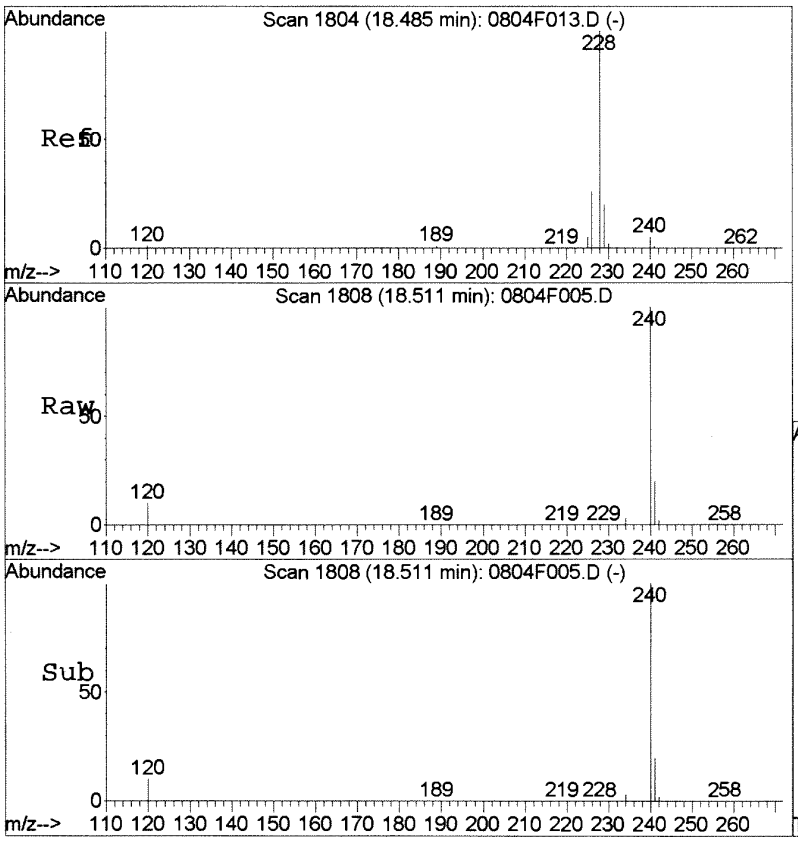


#27
Phenanthrene
Concen: 0.31 ng/ml m
RT: 11.28 min Scan# 898
Delta R.T. 0.00 min
Lab File: 0804F005.D
Acq: 4 Aug 2015 4:28 pm

Tgt Ion:178 Resp: 151

Ion	Ratio	Lower	Upper
178	100		
176	44.7	0.0	48.5

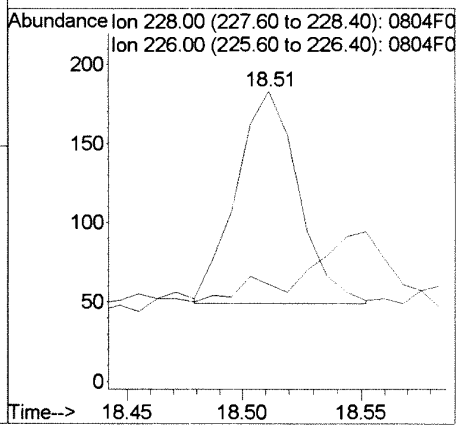




#44
Benz(a)anthracene
Concen: 0.47 ng/ml m
RT: 18.51 min Scan# 1808
Delta R.T. 0.03 min
Lab File: 0804F005.D
Acq: 4 Aug 2015 4:28 pm

Tgt Ion:228 Resp: 247

Ion	Ratio	Lower	Upper
228	100		
226	33.3	0.0	55.8



AUG 1 9 2015
AUG 1 9 2015
AUG 2 0 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F007.D Vial: 4
Acq On : 4 Aug 2015 5:05 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.002ug/mL | SVM49-41B Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46:42 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

AUG 19 2015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.86	136	88529	200.00	ng/ml	0.00
11) Acenaphthene-d10	8.11	164	50118	200.00	ng/ml	0.00
21) Phenanthrene-d10	11.22	188	94038	200.00	ng/ml	0.00
37) Chrysene-d12	18.51	240	106972	200.00	ng/ml	0.00
50) Perylene-d12	22.67	264	114704	200.00	ng/ml	0.00
System Monitoring Compounds						
16) Fluorene-d10	9.07	176	914	3.24	ng/ml	0.00
Spiked Amount 1000.000			Recovery	=	0.32%	
36) Fluoranthene-d10	14.36	212	1122	2.44	ng/ml	0.00
Spiked Amount 1000.000			Recovery	=	0.24%	
43) Terphenyl-d14	15.68	244	1073	2.61	ng/ml	0.00
Spiked Amount 1000.000			Recovery	=	0.26%	

Target Compounds						Qvalue
2) Naphthalene	5.88	128	962m	2.26	ng/ml	
3) 2-Methylnaphthalene	6.62	142	716	2.40	ng/ml	94
4) 1-Methylnaphthalene	6.73	142	578m	2.16	ng/ml	
5) Biphenyl	7.21	154	835m	2.27	ng/ml	
6) 2,6-Dimethylnaphthalene	7.45	156	625m	2.41	ng/ml	
12) Acenaphthylene	7.86	152	1083	2.47	ng/ml	94
13) Acenaphthene	8.16	154	644	2.39	ng/ml	97
14) Dibenzofuran	8.47	168	931m	2.23	ng/ml	
15) 2,3,5-Trimethylnaphthalene	8.88	170	651	2.61	ng/ml	85
17) Fluorene	9.13	166	800	2.47	ng/ml	99
22) Dibenzothiophene	10.97	184	1123	2.44	ng/ml	98
27) Phenanthrene	11.28	178	1388	2.82	ng/ml	98
28) Anthracene	11.41	178	1185	2.60	ng/ml	96
29) Carbazole	11.86	167	976	2.31	ng/ml	99
30) 1-Methylphenanthrene	12.87	192	915	2.51	ng/ml	94
35) Fluoranthene	14.41	202	1344	2.53	ng/ml	92
38) Pyrene	15.00	202	1420	2.52	ng/ml	100
44) Benz(a)anthracene	18.49	228	1597	3.15	ng/ml	92
45) Chrysene	18.58	228	1304	2.49	ng/ml	98
51) Benzo(b)fluoranthene	21.50	252	1364	2.36	ng/ml	94
52) Benzo(k)fluoranthene	21.59	252	1546	2.47	ng/ml	97
53) Benzo(e)pyrene	22.30	252	1363	2.32	ng/ml	92
54) Benzo(a)pyrene	22.47	252	1309	2.44	ng/ml	92
55) Perylene	22.75	252	1344	2.38	ng/ml	100
56) Indeno(1,2,3-cd)pyrene	26.49	276	1423	2.86	ng/ml	99
57) Dibenz(a,h)anthracene	26.67	278	1392	2.67	ng/ml	93
58) Benzo(g,h,i)perylene	27.19	276	1503m	2.54	ng/ml	

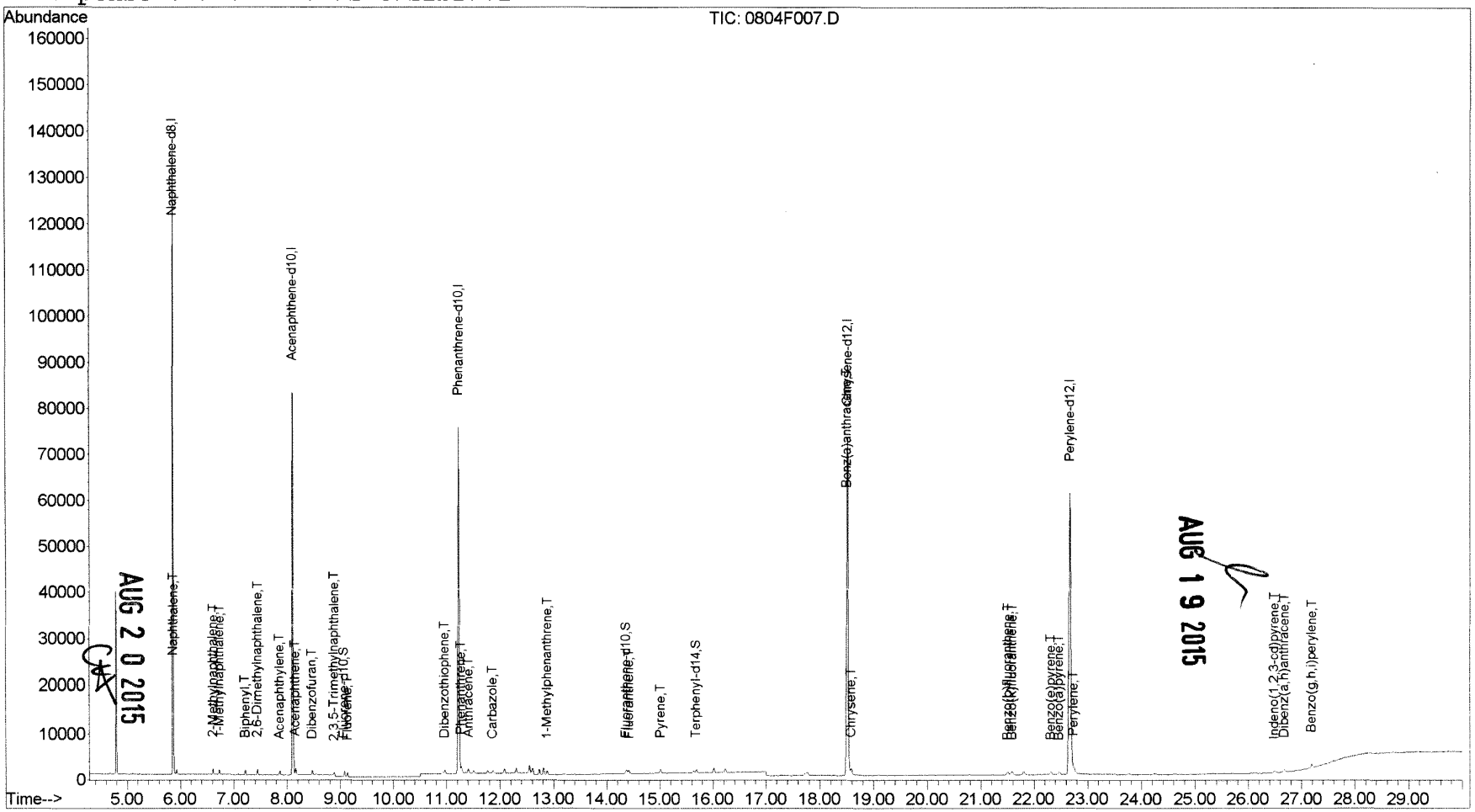
(#) = qualifier out of range (m) = manual integration

AUG 20 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F007.D Vial: 4
Acq On : 4 Aug 2015 5:05 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.002ug/mL | SVM49-41B Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:51 2015 Quant Results File: 080415SIMALK.RES

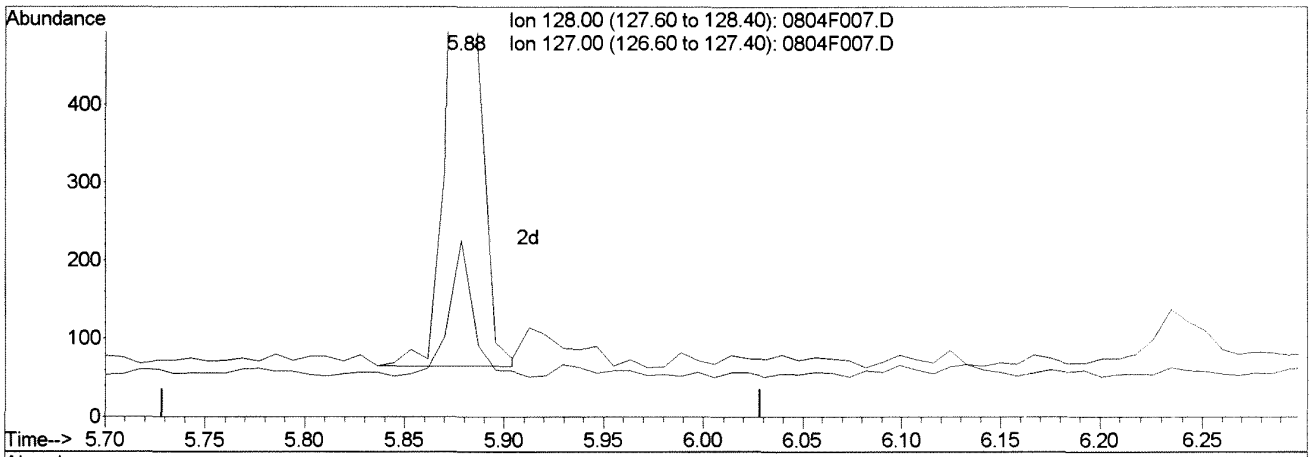
Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration

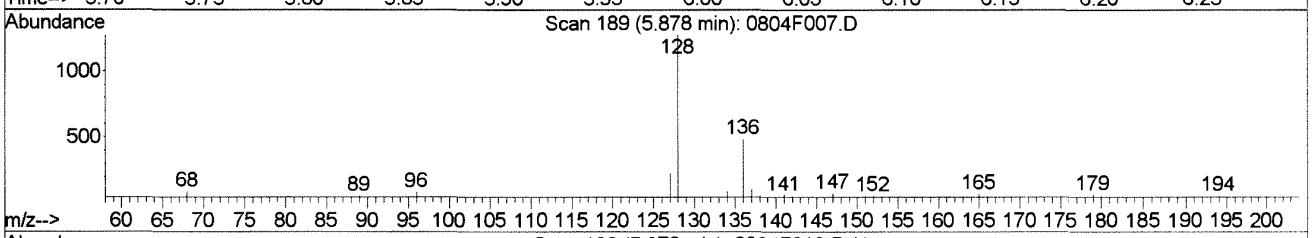


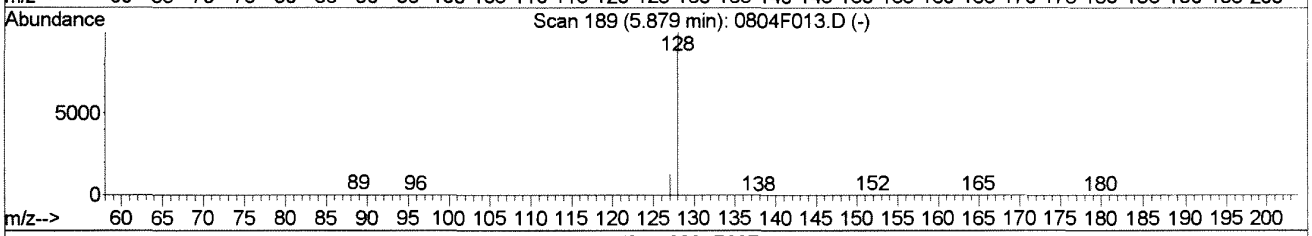
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F007.D Vial: 4
Acq On : 4 Aug 2015 5:05 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.002ug/mL | SVM49-41B Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F007.D

(2) Naphthalene (T)

5.88min 2.31ng/ml

response 982

Ion	Exp%	Act%
128.00	100	100
127.00	12.70	14.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/19/15

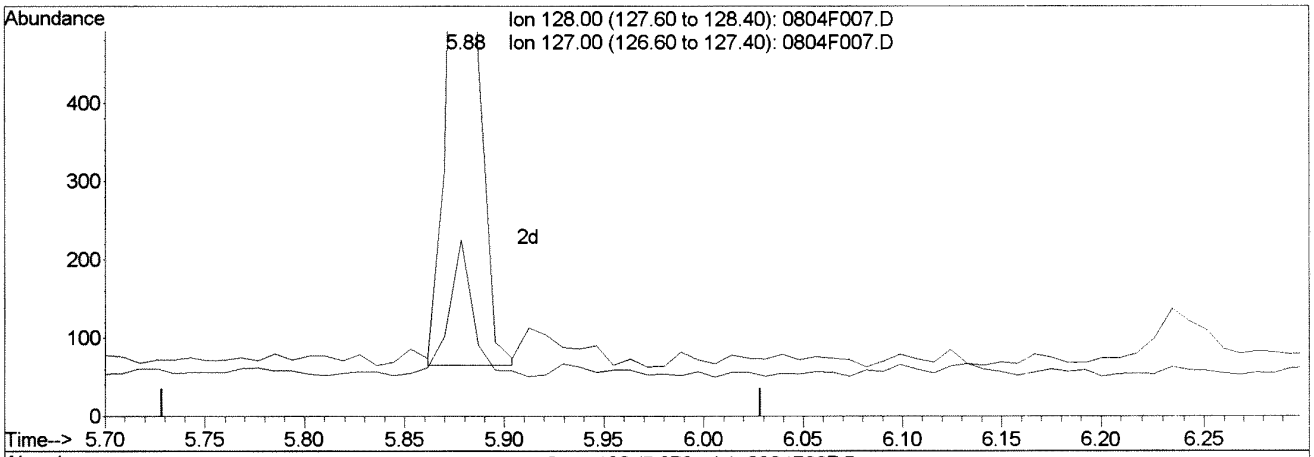
AUG 2 0 2015

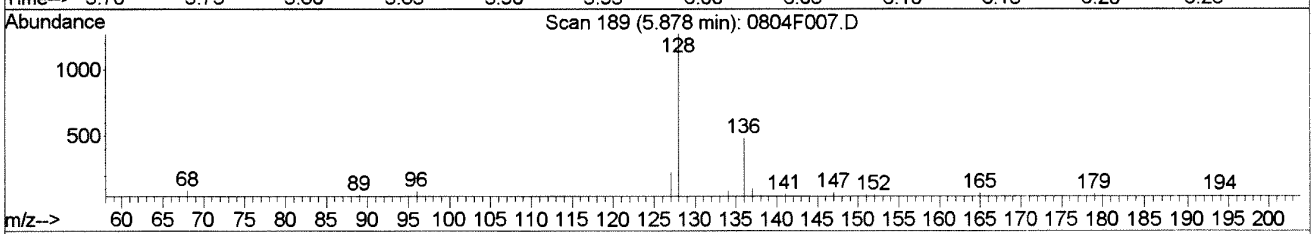
0804F007.D 080415SIMALK.M Wed Aug 19 10:49:51 2015

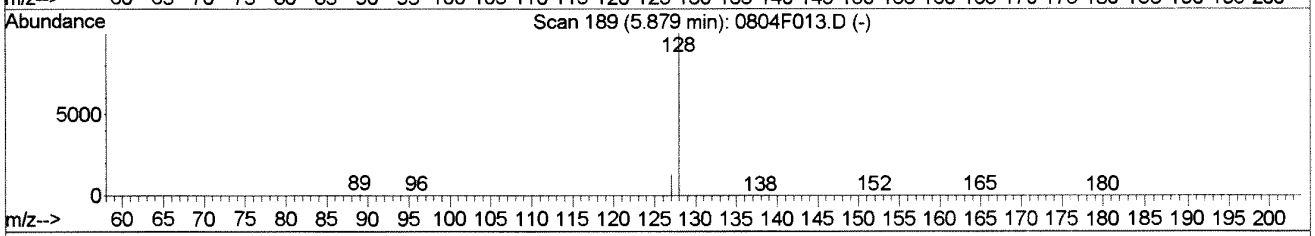
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F007.D Vial: 4
Acq On : 4 Aug 2015 5:05 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.002ug/mL | SVM49-41B Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:49 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F007.D

(2) Naphthalene (T)
5.88min 2.26ng/ml m
response 962

Ion	Exp%	Act%
128.00	100	100
127.00	12.70	17.77
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
BLC
08/19/15

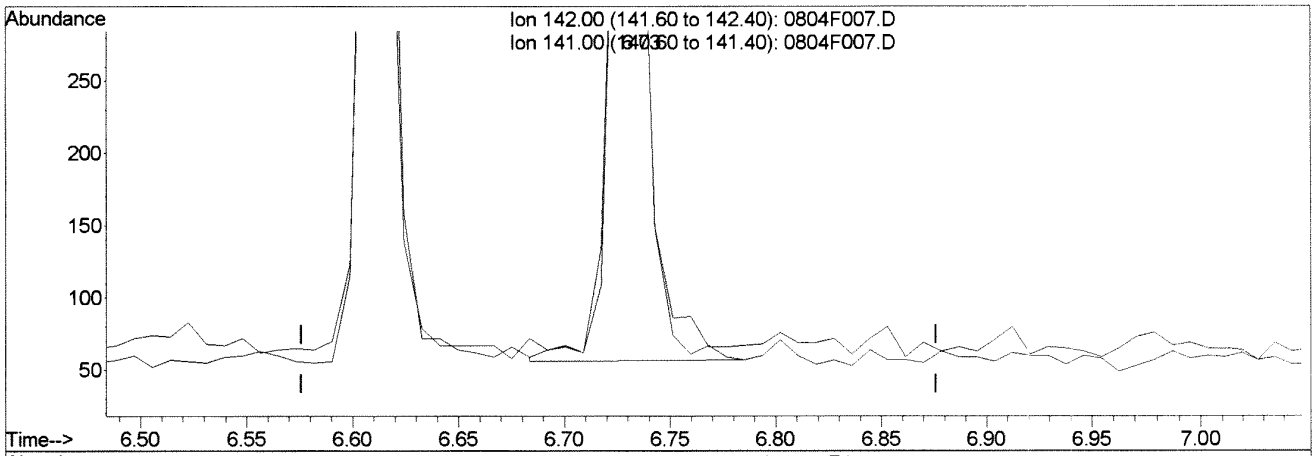
AUG 2 0 2015

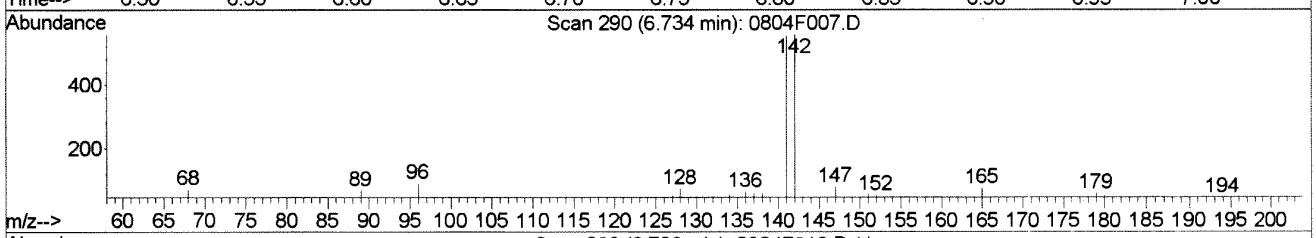
0804F007.D 080415SIMALK.M Wed Aug 19 10:49:57 2015

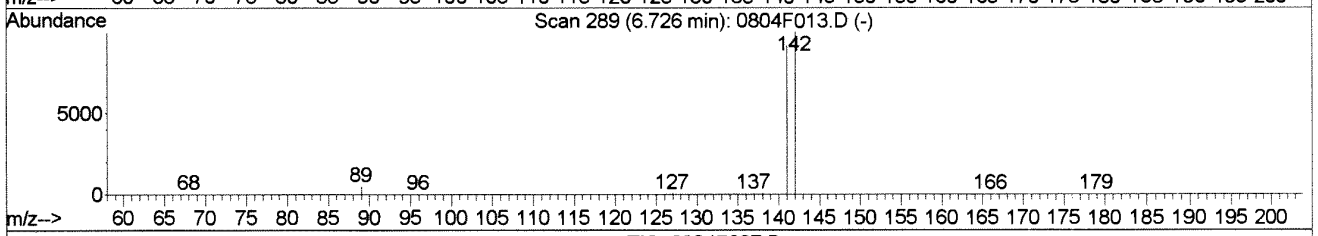
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F007.D Vial: 4
Acq On : 4 Aug 2015 5:05 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.002ug/mL | SVM49-41B Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:49 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F007.D

(4) 1-Methylnaphthalene (T)

6.73min 2.22ng/ml

response 595

Ion	Exp%	Act%
142.00	100	100
141.00	90.20	97.21
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/19/15

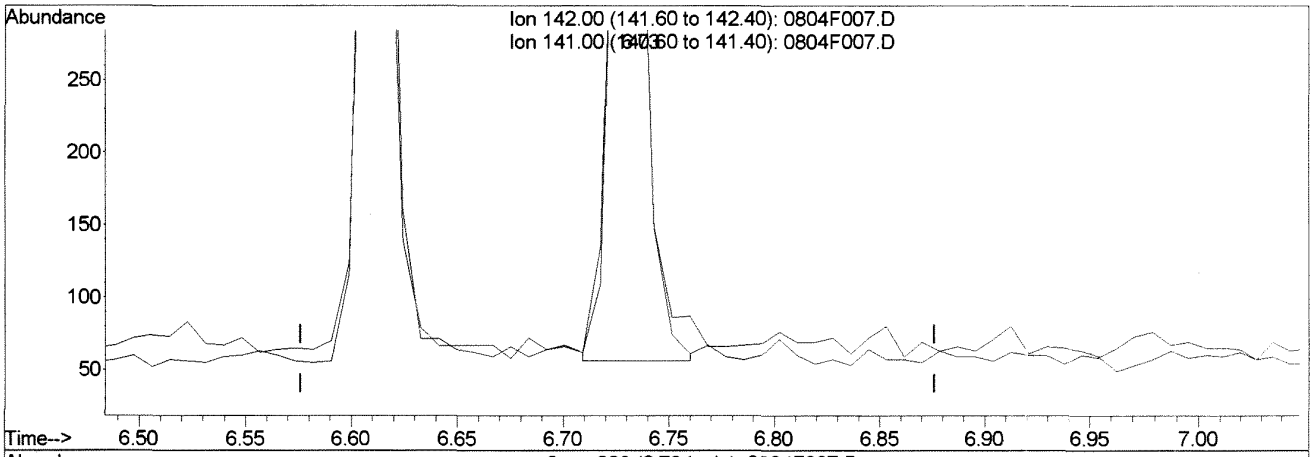
AUG 2 0 2015

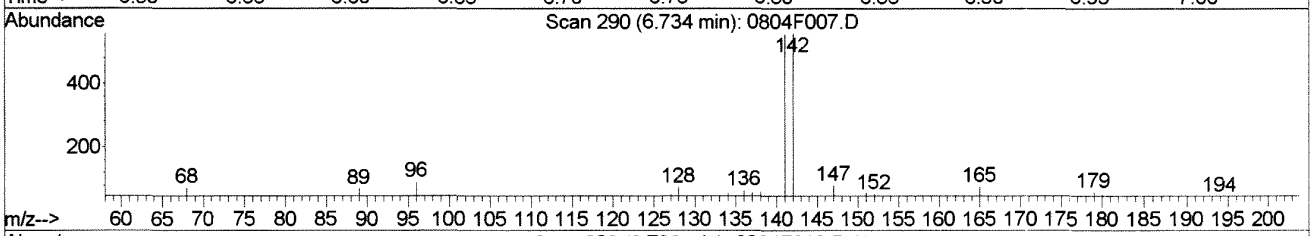
0804F007.D 080415SIMALK.M Wed Aug 19 10:50:02 2015

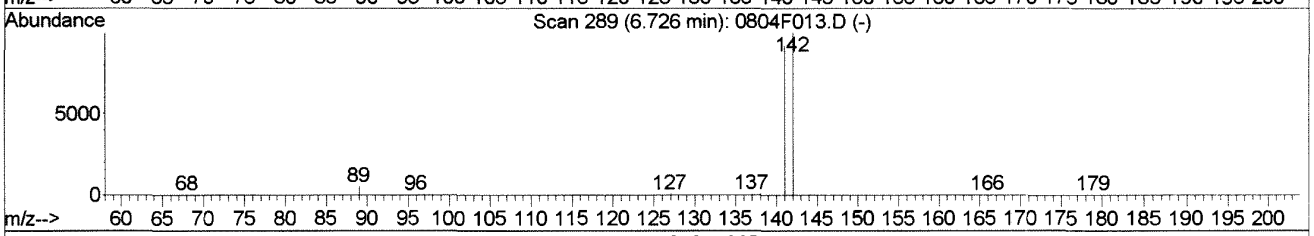
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F007.D Vial: 4
Acq On : 4 Aug 2015 5:05 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.002ug/mL | SVM49-41B Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:50 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F007.D

(4) 1-Methylnaphthalene (T)

6.73min 2.16ng/ml m

response 578

Ion	Exp%	Act%
142.00	100	100
141.00	90.20	99.28
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

BLC

08/19/15

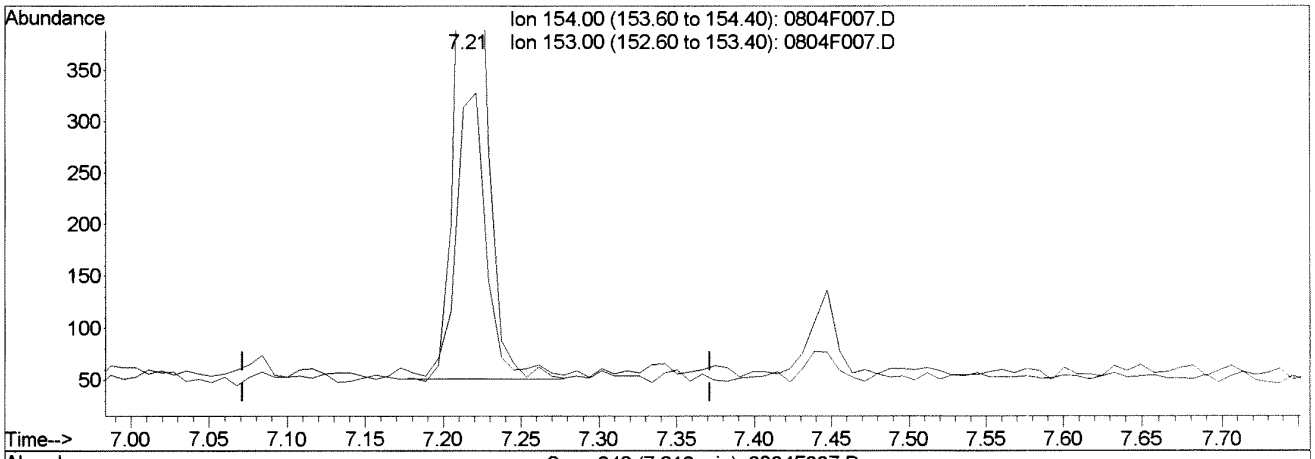
AUG 2 0 2015

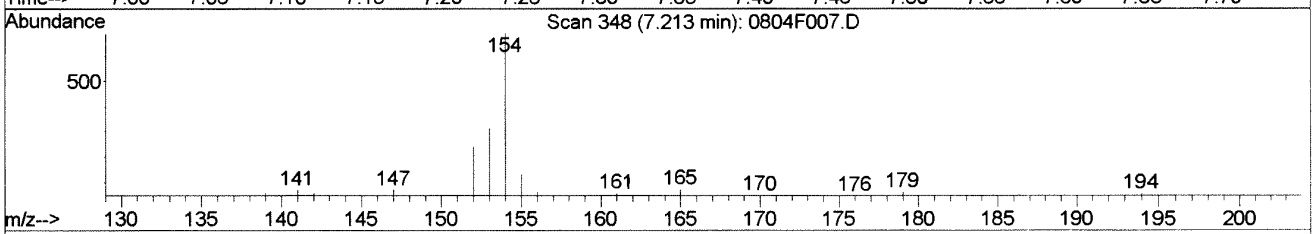
0804F007.D 080415SIMALK.M Wed Aug 19 10:50:06 2015

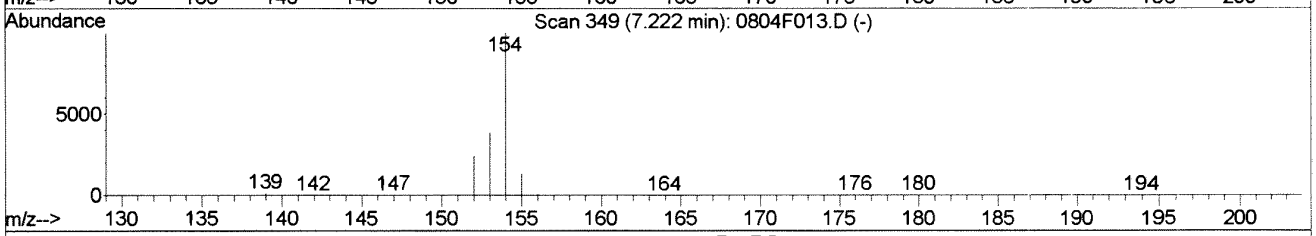
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F007.D Vial: 4
Acq On : 4 Aug 2015 5:05 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.002ug/mL | SVM49-41B Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:50 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F007.D

(5) Biphenyl (T)

7.21min 2.25ng/ml

response 830

Ion	Exp%	Act%
154.00	100	100
153.00	40.00	40.53
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/19/15

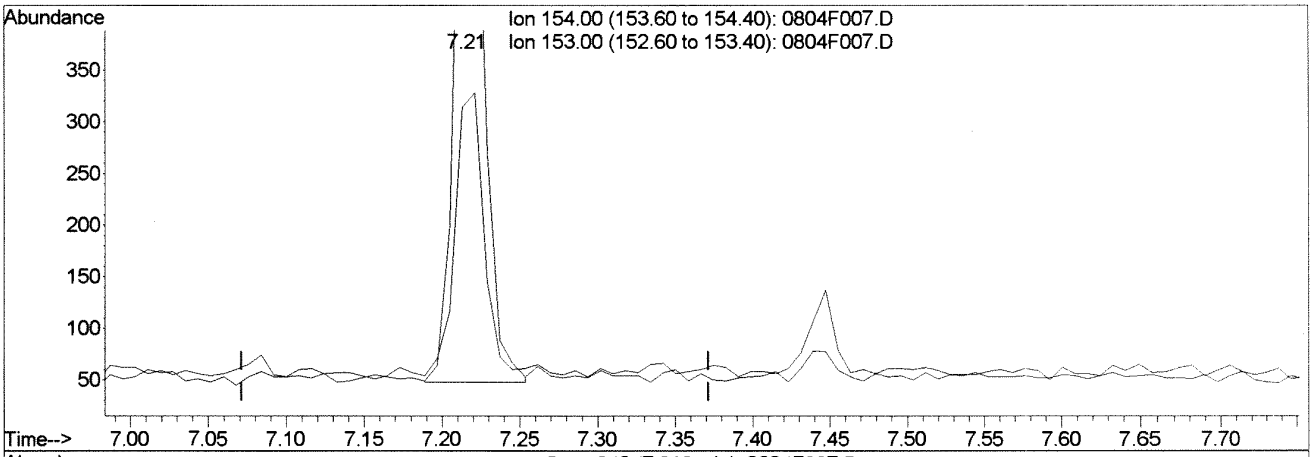
AUG 2 0 2015

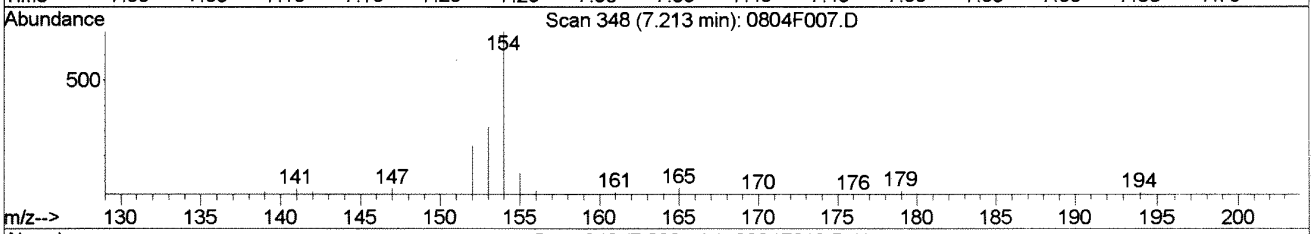
0804F007.D 080415SIMALK.M Wed Aug 19 10:50:11 2015

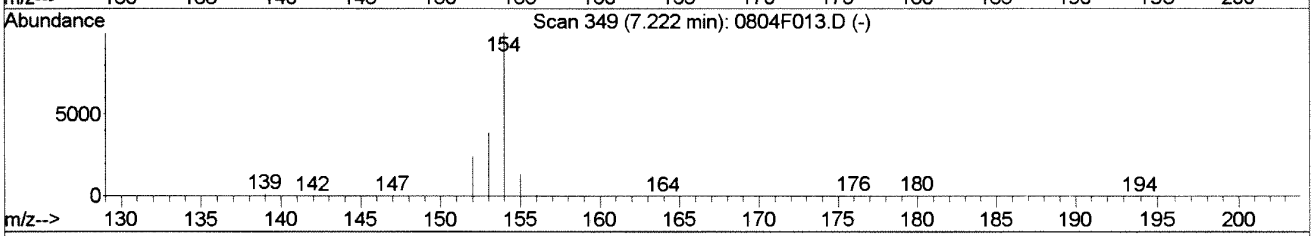
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F007.D Vial: 4
Acq On : 4 Aug 2015 5:05 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.002ug/mL | SVM49-41B Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:50 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F007.D

(5) Biphenyl (T)

7.21min 2.27ng/ml m

response 835

Ion	Exp%	Act%
154.00	100	100
153.00	40.00	45.51
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
BLC
08/19/15

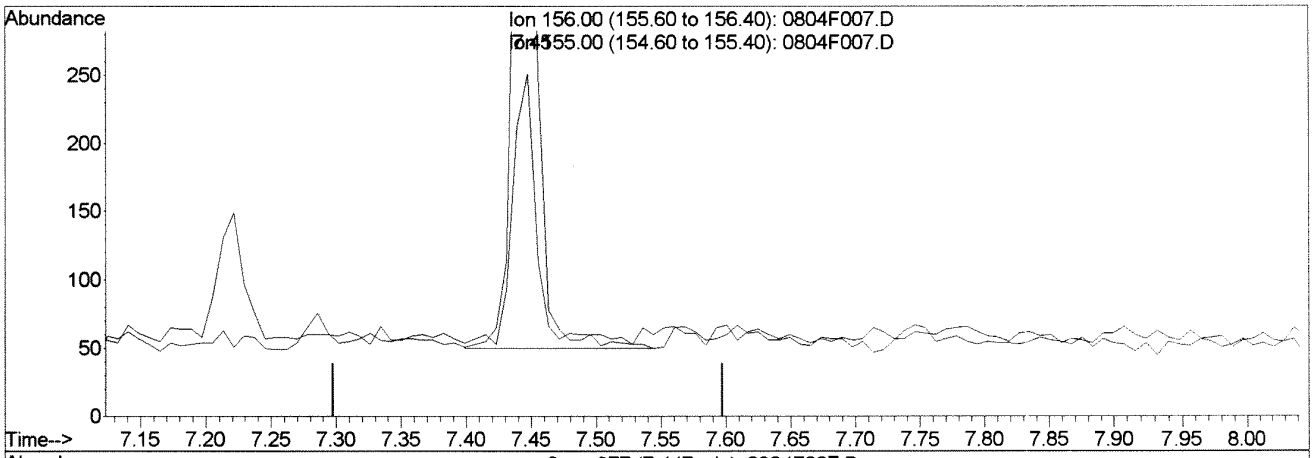
AUG 2 0 2015

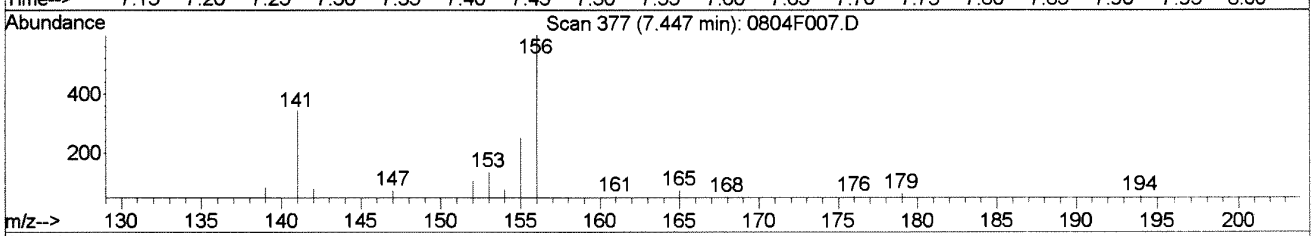
0804F007.D 080415SIMALK.M Wed Aug 19 10:50:15 2015

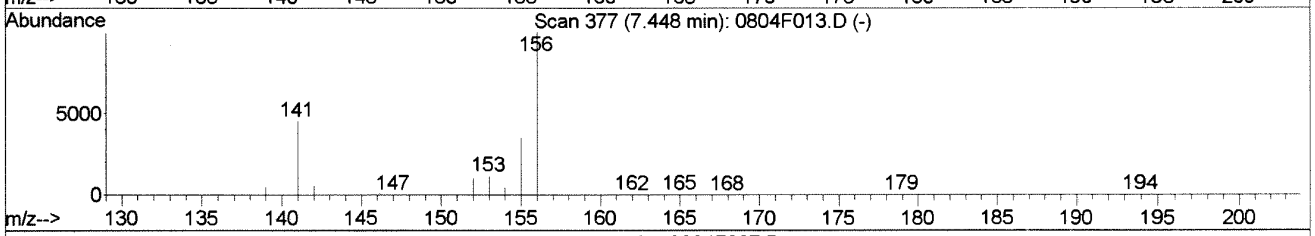
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F007.D Vial: 4
Acq On : 4 Aug 2015 5:05 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.002ug/mL | SVM49-41B Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:50 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F007.D

(6) 2,6-Dimethylnaphthalene (T)

7.45min 2.49ng/ml

response 645

Ion	Exp%	Act%
156.00	100	100
155.00	35.40	35.82
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/19/15

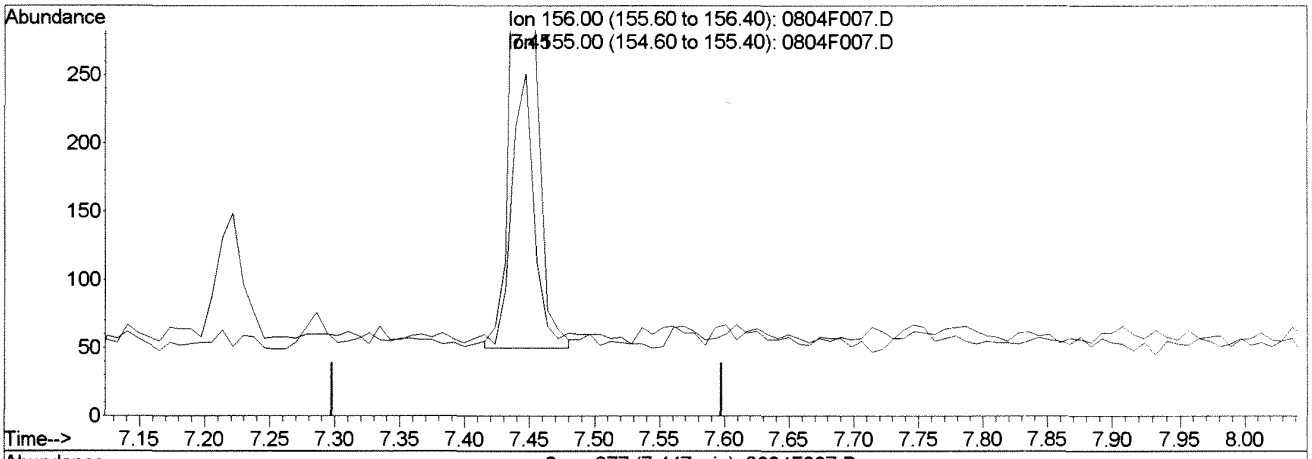
AUG 2 0 2015

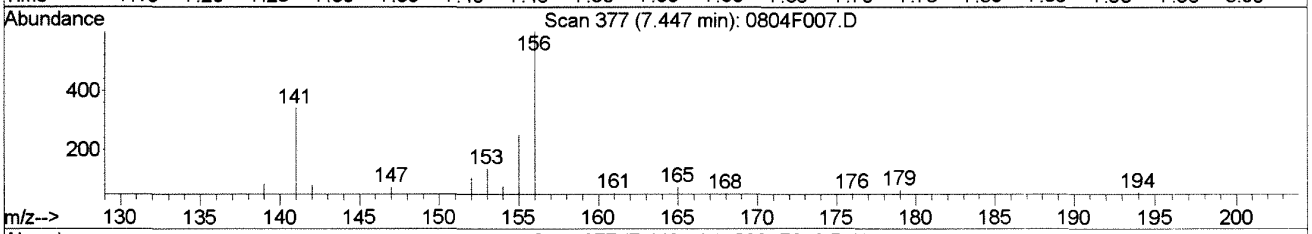
0804F007.D 080415SIMALK.M Wed Aug 19 10:50:21 2015

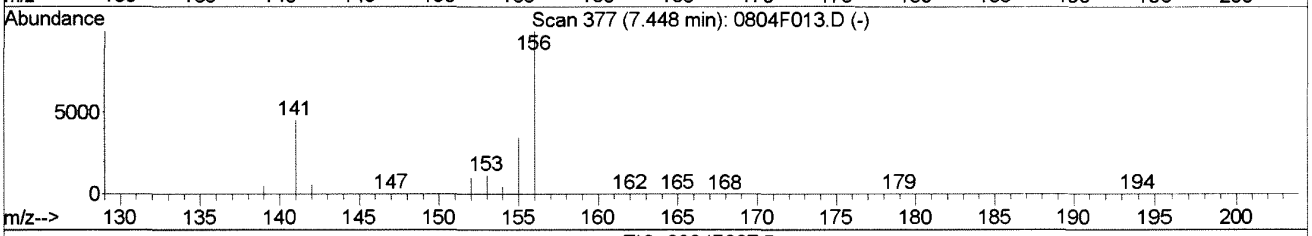
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F007.D Vial: 4
Acq On : 4 Aug 2015 5:05 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.002ug/mL | SVM49-41B Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:50 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F007.D

(6) 2,6-Dimethylnaphthalene (T)

7.45min 2.41ng/ml m

response 625

Ion	Exp%	Act%
156.00	100	100
155.00	35.40	41.83
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
BLC
08/19/15

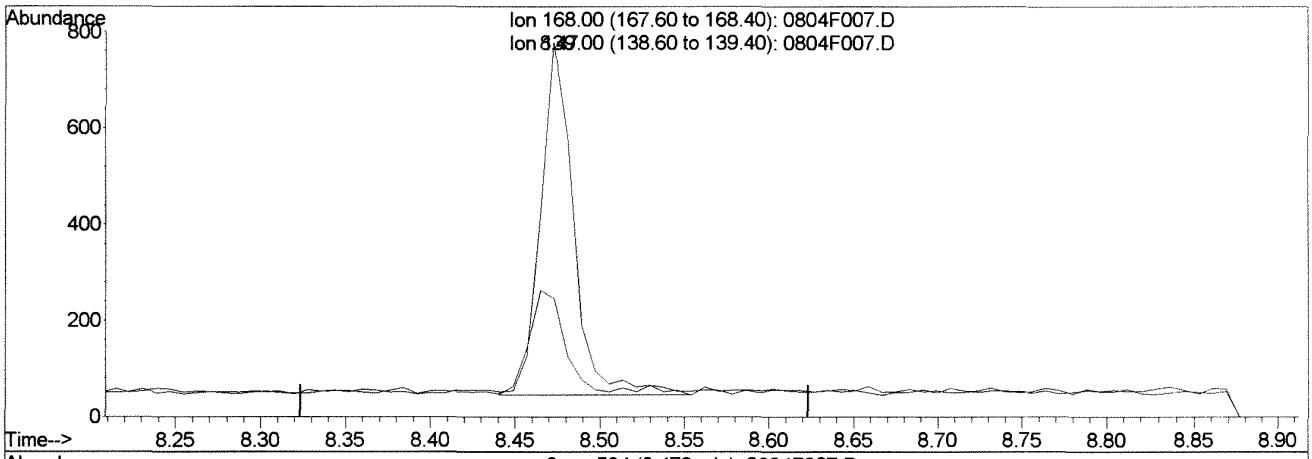
AUG 2 0 2015

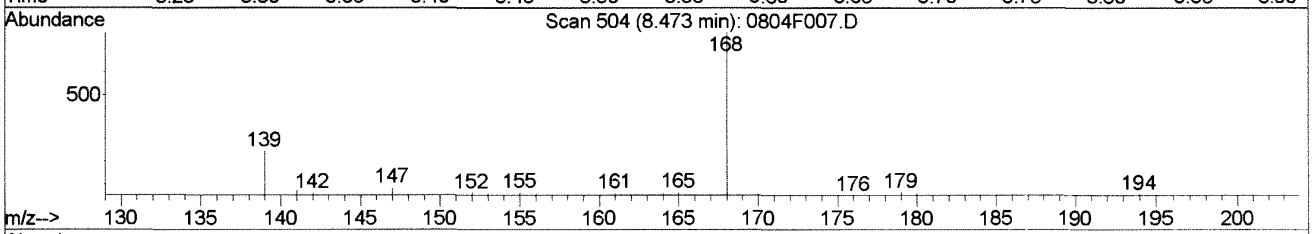
0804F007.D 080415SIMALK.M Wed Aug 19 10:50:27 2015

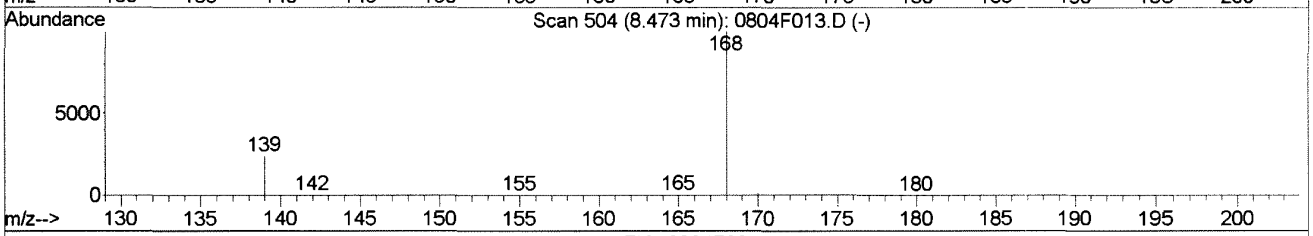
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F007.D Vial: 4
Acq On : 4 Aug 2015 5:05 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.002ug/mL | SVM49-41B Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:50 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F007.D

(14) Dibenzofuran (T)

8.47min 2.37ng/ml

response 987

Ion	Exp%	Act%
168.00	100	100
139.00	24.00	27.01
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/19/15

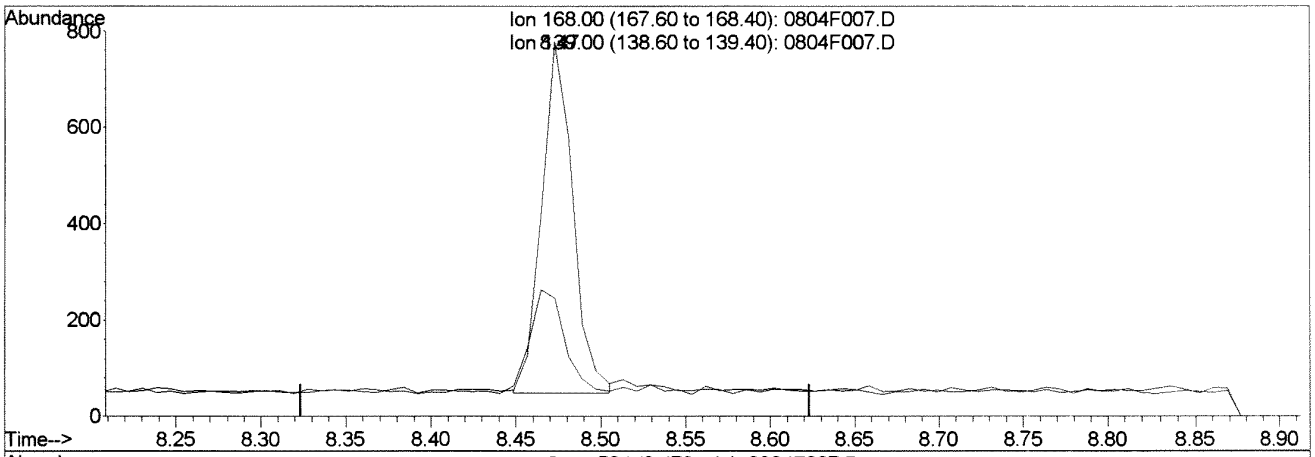
AUG 2 0 2015

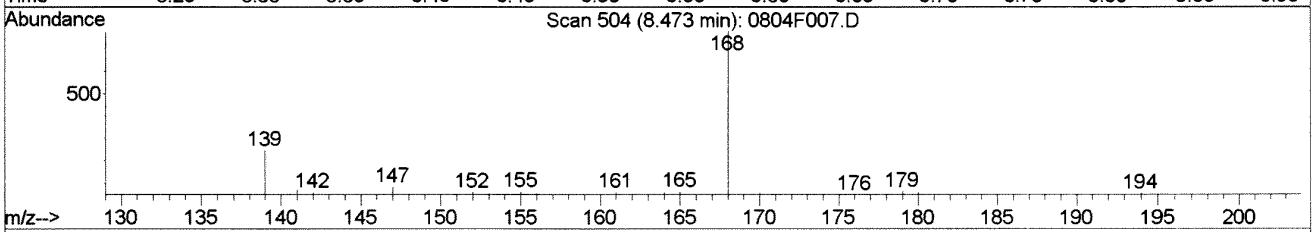
0804F007.D 080415SIMALK.M Wed Aug 19 10:50:41 2015

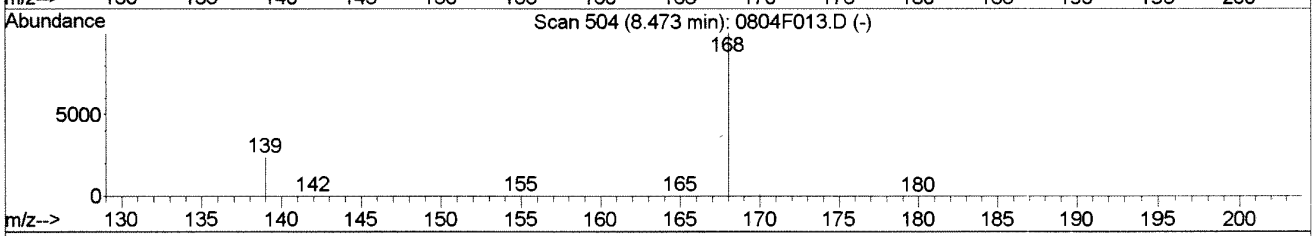
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F007.D Vial: 4
Acq On : 4 Aug 2015 5:05 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.002ug/mL | SVM49-41B Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:50 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F007.D

(14) Dibenzofuran (T)
8.47min 2.23ng/ml m
response 931

Ion	Exp%	Act%
168.00	100	100
139.00	24.00	31.49
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
BLC
08/19/15

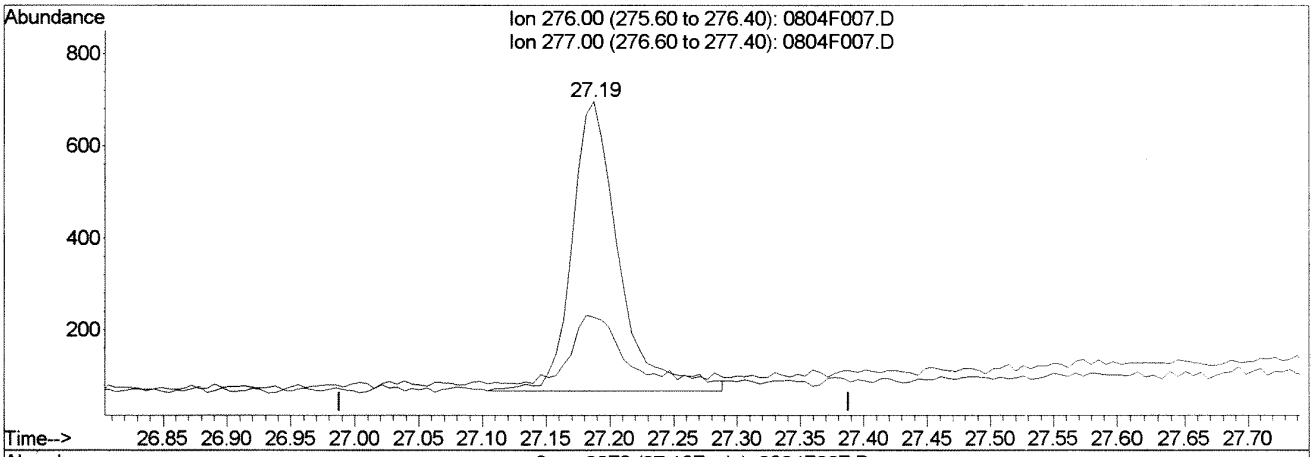
AUG 2 0 2015

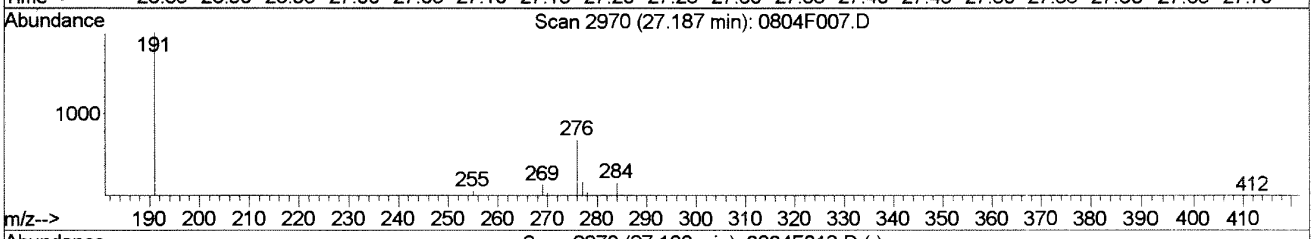
0804F007.D 080415SIMALK.M Wed Aug 19 10:50:45 2015

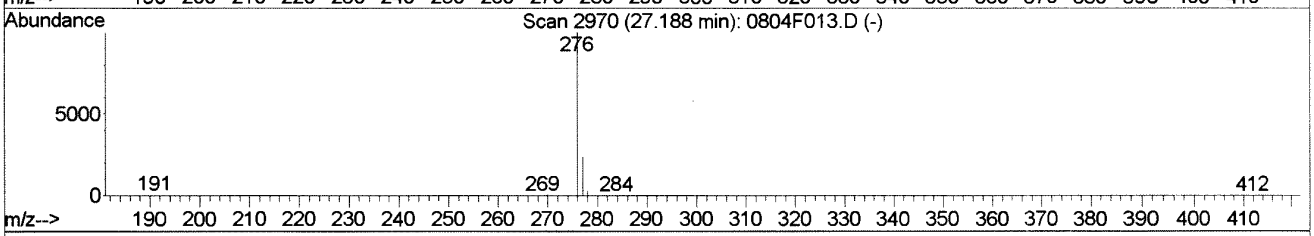
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F007.D Vial: 4
Acq On : 4 Aug 2015 5:05 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.002ug/mL | SVM49-41B Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:50 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F007.D

(58) Benzo(g,h,i)perylene (T)

27.19min 2.71ng/ml

response 1603

Ion	Exp%	Act%
276.00	100	100
277.00	23.80	22.93
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/19/15

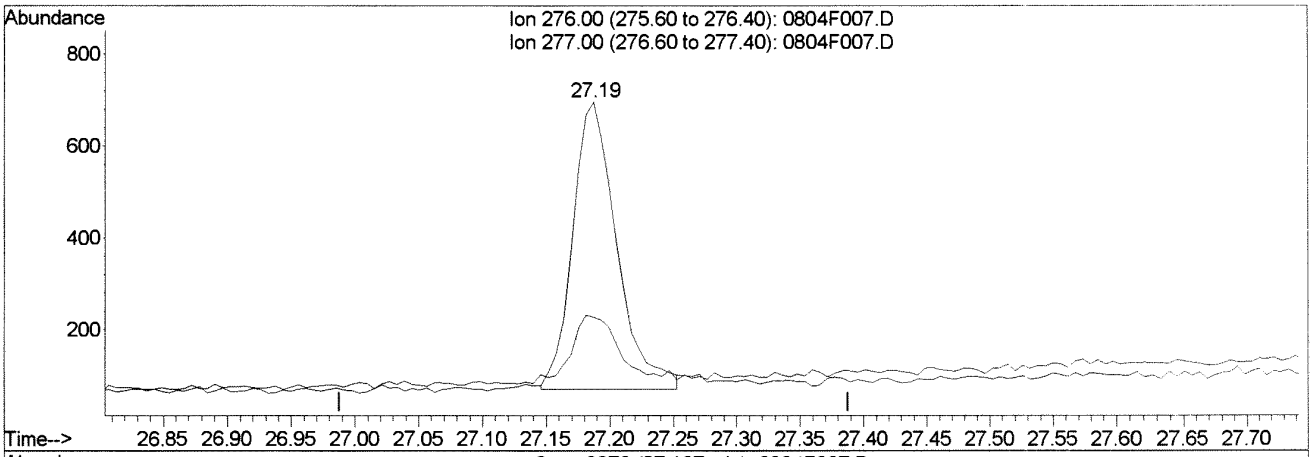
AUG 2 0 2015

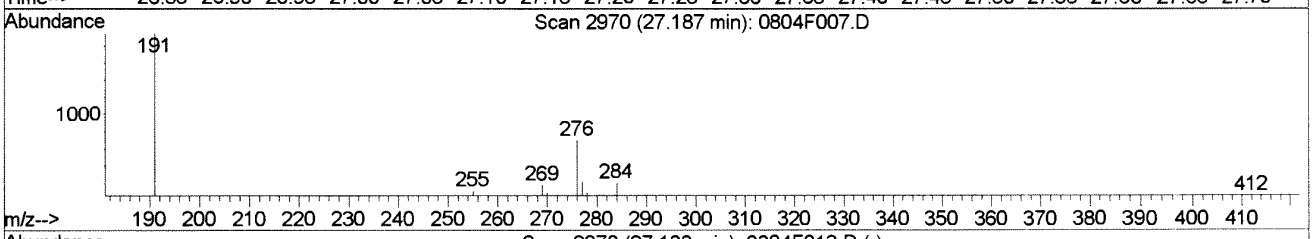
0804F007.D 080415SIMALK.M Wed Aug 19 10:51:30 2015

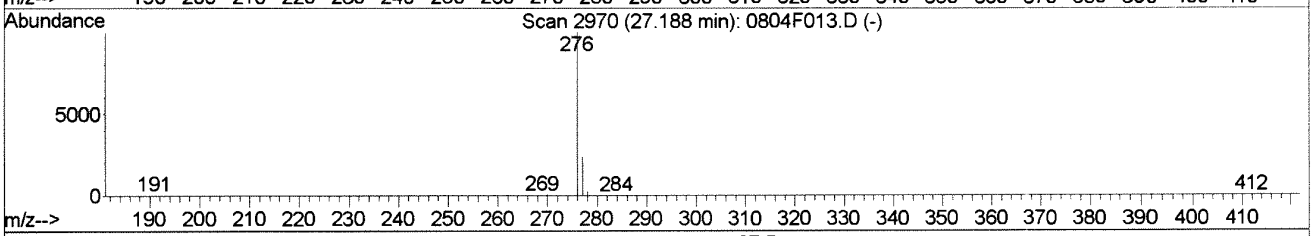
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F007.D Vial: 4
Acq On : 4 Aug 2015 5:05 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.002ug/mL | SVM49-41B Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:51 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F007.D

(58) Benzo(g,h,i)perylene (T)

27.19min 2.54ng/ml m

response 1503

Ion	Exp%	Act%
276.00	100	100
277.00	23.80	32.61
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
BLC
08/19/15

AUG 2 0 2015

0804F007.D 080415SIMALK.M Wed Aug 19 10:51:35 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F008.D Vial: 5
Acq On : 4 Aug 2015 5:42 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.004ug/mL | SVM49-41C Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46:44 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

AUG 19 2015

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.86	136	88781	200.00 ng/ml	0.00
11) Acenaphthene-d10	8.10	164	50198	200.00 ng/ml	0.00
21) Phenanthrene-d10	11.23	188	93913	200.00 ng/ml	0.00
37) Chrysene-d12	18.51	240	106680	200.00 ng/ml	0.00
50) Perylene-d12	22.67	264	112615	200.00 ng/ml	0.00
System Monitoring Compounds					
16) Fluorene-d10	9.08	176	1440	5.10 ng/ml	0.00
Spiked Amount 1000.000			Recovery	= 0.51%	
36) Fluoranthene-d10	14.36	212	2063	4.49 ng/ml	0.00
Spiked Amount 1000.000			Recovery	= 0.45%	
43) Terphenyl-d14	15.68	244	1809	4.41 ng/ml	0.00
Spiked Amount 1000.000			Recovery	= 0.44%	
Target Compounds					Qvalue
2) Naphthalene	5.88	128	1809	4.24 ng/ml	98
3) 2-Methylnaphthalene	6.62	142	1281	4.27 ng/ml	96
4) 1-Methylnaphthalene	6.73	142	1080	4.02 ng/ml	95
5) Biphenyl	7.22	154	1552	4.20 ng/ml	91
6) 2,6-Dimethylnaphthalene	7.45	156	1090	4.19 ng/ml	92
12) Acenaphthylene	7.87	152	1865	4.25 ng/ml	99
13) Acenaphthene	8.16	154	1194	4.43 ng/ml	97
14) Dibenzofuran	8.47	168	1711	4.10 ng/ml	95
15) 2,3,5-Trimethylnaphthalene	8.89	170	1158	4.64 ng/ml	95
17) Fluorene	9.13	166	1390	4.28 ng/ml	97
22) Dibenzothiophene	10.97	184	2104	4.57 ng/ml	98
27) Phenanthrene	11.28	178	2193	4.45 ng/ml	97
28) Anthracene	11.40	178	1975	4.34 ng/ml	99
29) Carbazole	11.87	167	1787	4.23 ng/ml	94
30) 1-Methylphenanthrene	12.88	192	1659	4.55 ng/ml	96
35) Fluoranthene	14.41	202	2304m	4.35 ng/ml	
38) Pyrene	15.01	202	2427	4.33 ng/ml	95
44) Benz(a)anthracene	18.49	228	2598	5.13 ng/ml	100
45) Chrysene	18.58	228	2316	4.43 ng/ml	100
51) Benzo(b)fluoranthene	21.50	252	2453	4.32 ng/ml	97
52) Benzo(k)fluoranthene	21.59	252	2458m	3.99 ng/ml	
53) Benzo(e)pyrene	22.31	252	2362m	4.09 ng/ml	
54) Benzo(a)pyrene	22.47	252	2268m	4.30 ng/ml	
55) Perylene	22.74	252	2291	4.13 ng/ml	99
56) Indeno(1,2,3-cd)pyrene	26.49	276	2507	5.13 ng/ml	99
57) Dibenz(a,h)anthracene	26.67	278	2178m	4.25 ng/ml	
58) Benzo(g,h,i)perylene	27.19	276	2547m	4.38 ng/ml	

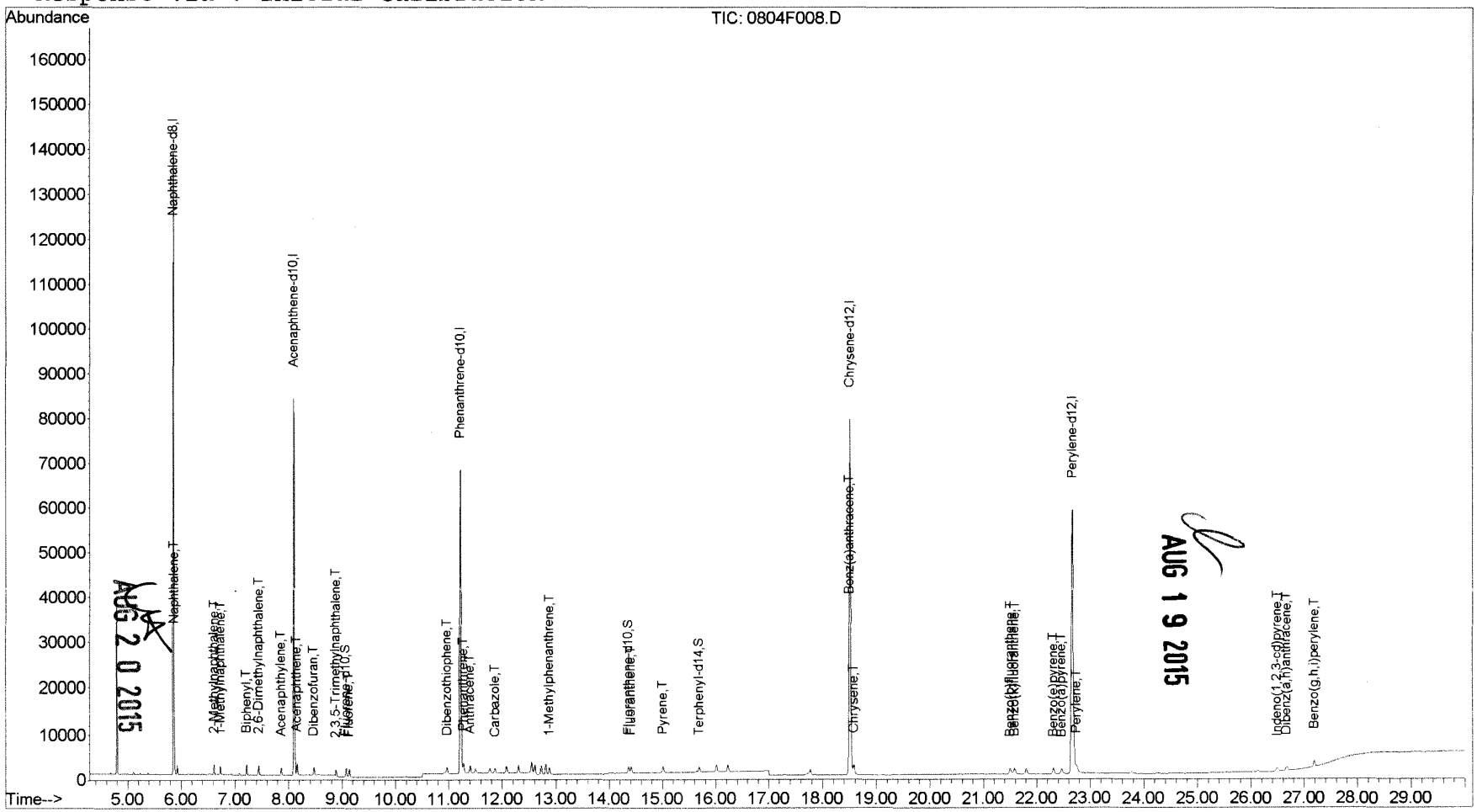
(#) = qualifier out of range (m) = manual integration

AUG 20 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F008.D Vial: 5
Acq On : 4 Aug 2015 5:42 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.004ug/mL | SVM49-41C Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:54 2015 Quant Results File: 080415SIMALK.RES

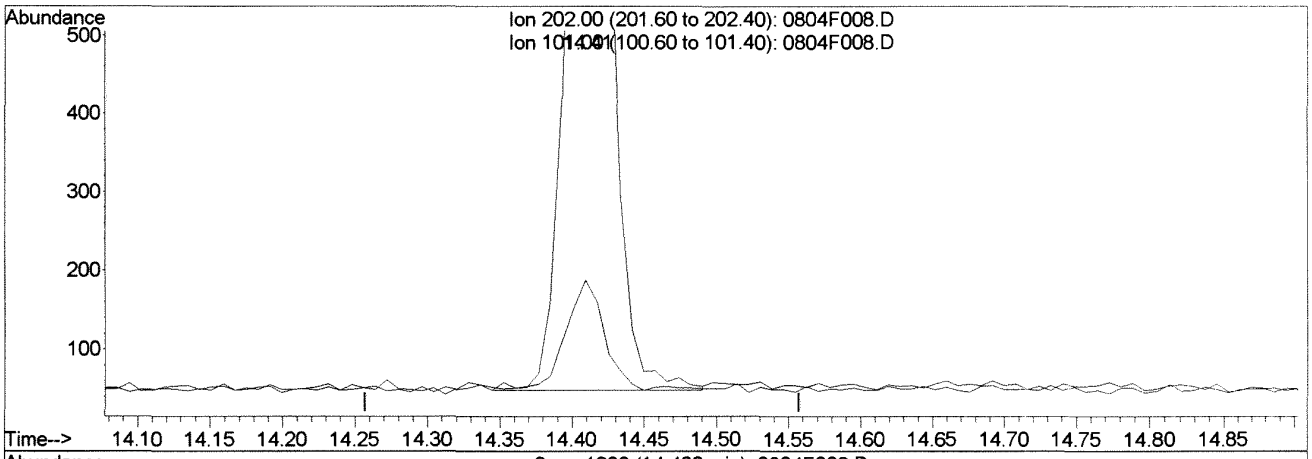
Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration

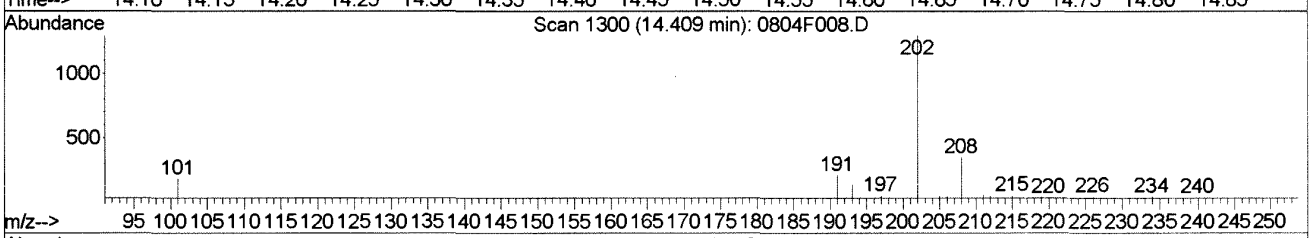


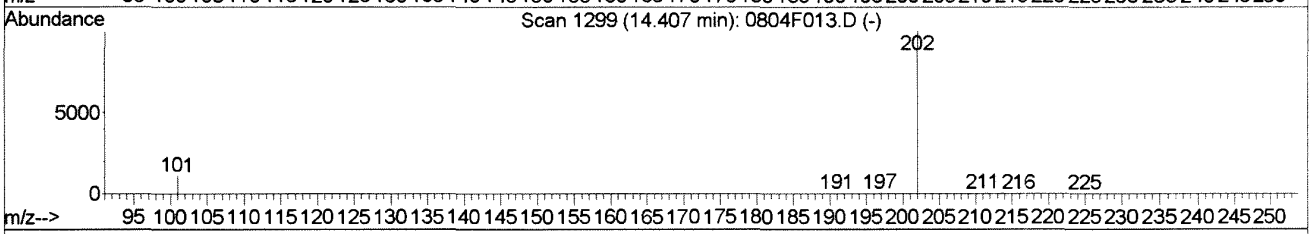
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F008.D Vial: 5
Acq On : 4 Aug 2015 5:42 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.004ug/mL | SVM49-41C Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F008.D

(35) Fluoranthene (T)
14.41min 4.43ng/ml
response 2344

Ion	Exp%	Act%
202.00	100	100
101.00	11.00	11.11
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
Before

08/19/15

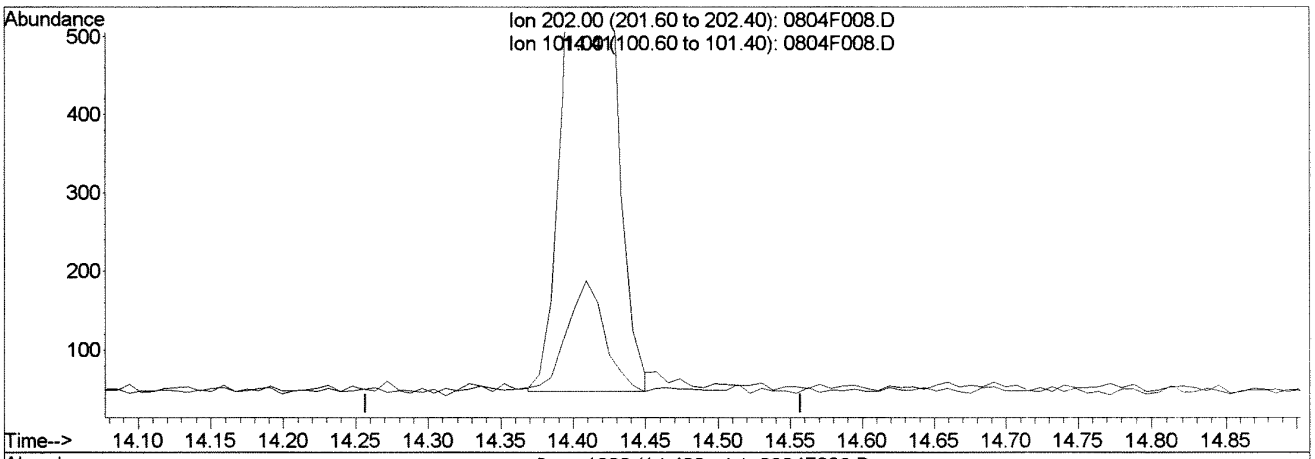
AUG 2 0 2015

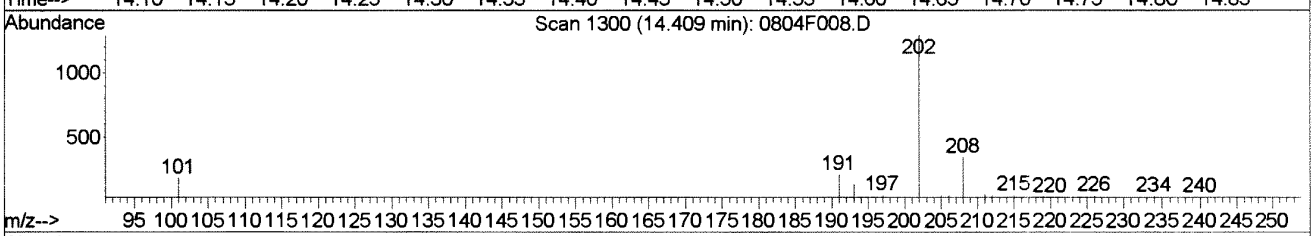
0804F008.D 080415SIMALK.M Wed Aug 19 10:52:01 2015

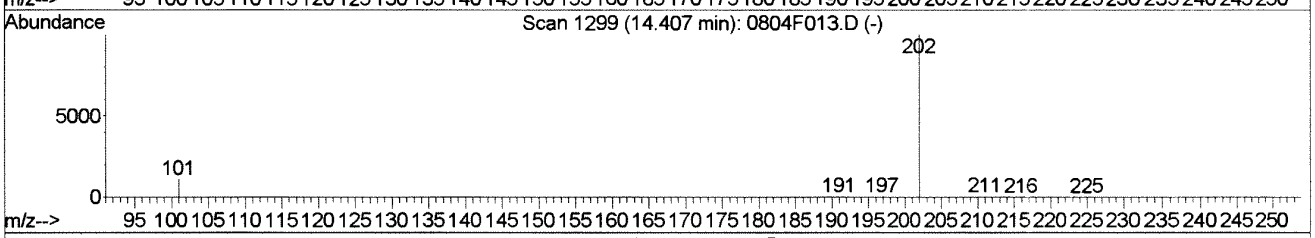
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F008.D Vial: 5
Acq On : 4 Aug 2015 5:42 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.004ug/mL | SVM49-41C Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:52 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F008.D

(35) Fluoranthene (T)
14.41min 4.35ng/ml m
response 2304

Ion	Exp%	Act%
202.00	100	100
101.00	11.00	14.57
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
BLC
08/19/15

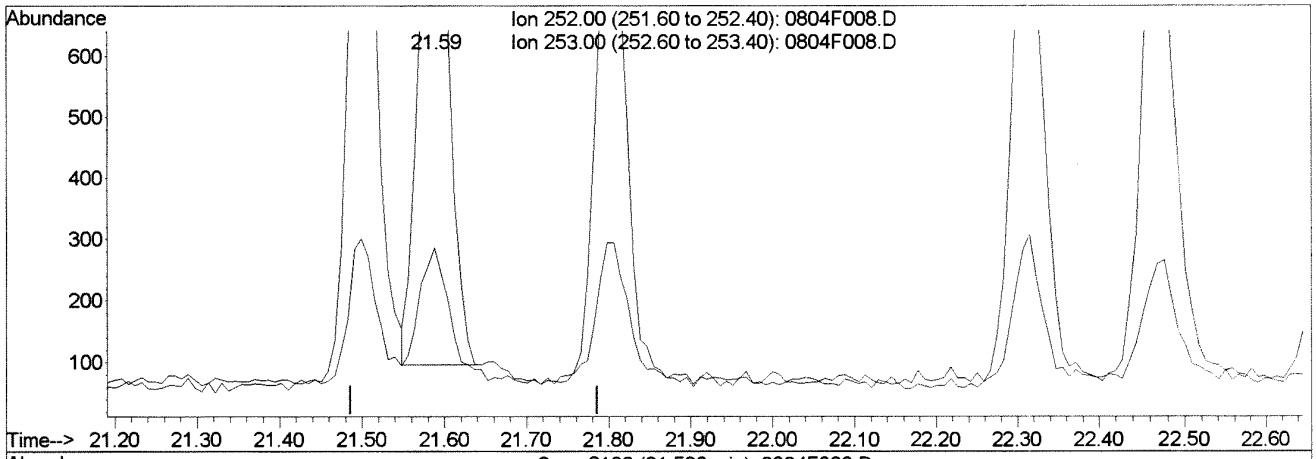
AUG 2 0 2015
GA

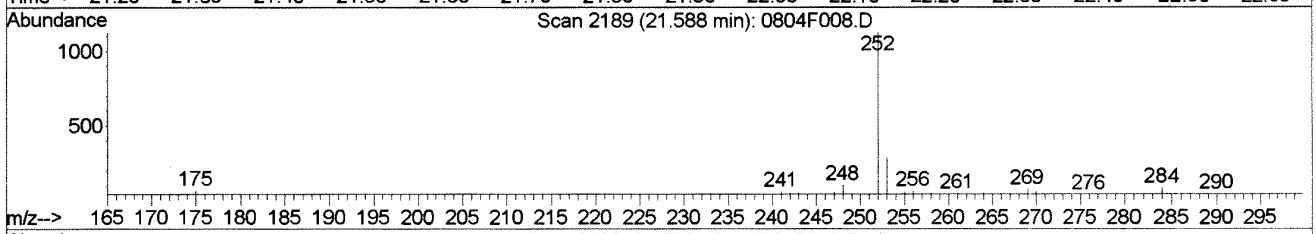
0804F008.D 080415SIMALK.M Wed Aug 19 10:52:05 2015

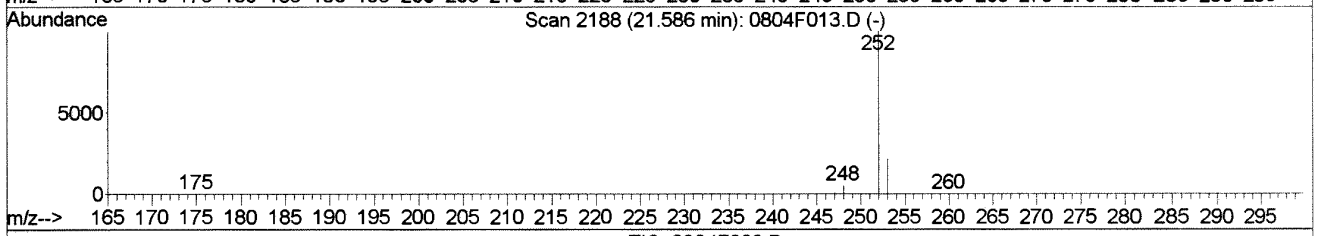
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F008.D Vial: 5
Acq On : 4 Aug 2015 5:42 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.004ug/mL | SVM49-41C Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:52 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F008.D

(52) Benzo(k)fluoranthene (T)

21.59min 3.77ng/ml

response 2319

Ion	Exp%	Act%
252.00	100	100
253.00	21.70	19.09
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/19/15

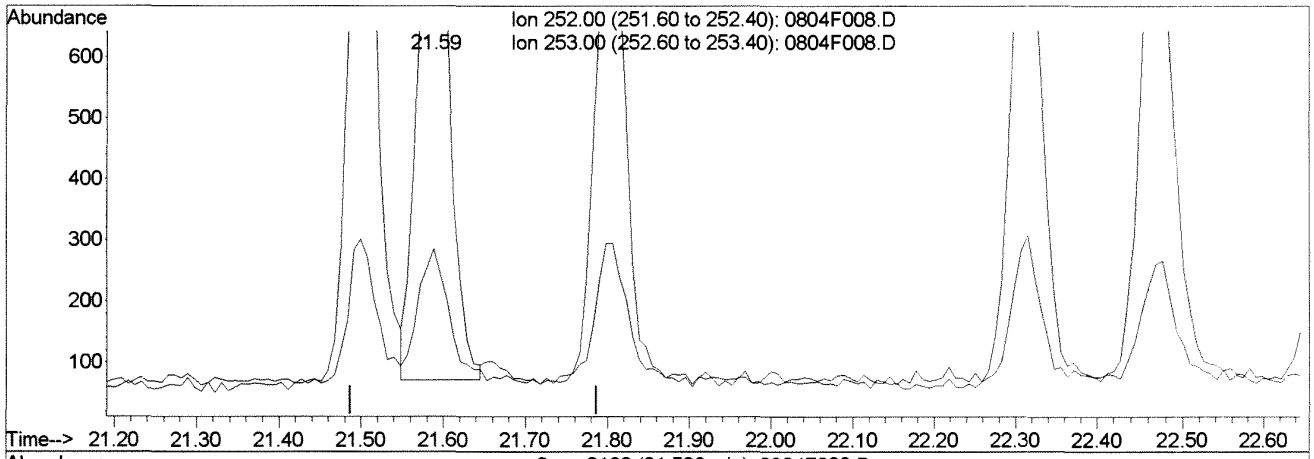
AUG 2 0 2015

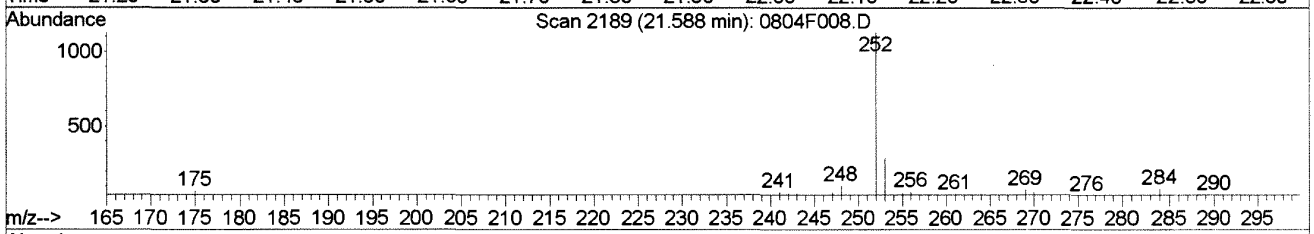
0804F008.D 080415SIMALK.M Wed Aug 19 10:52:21 2015

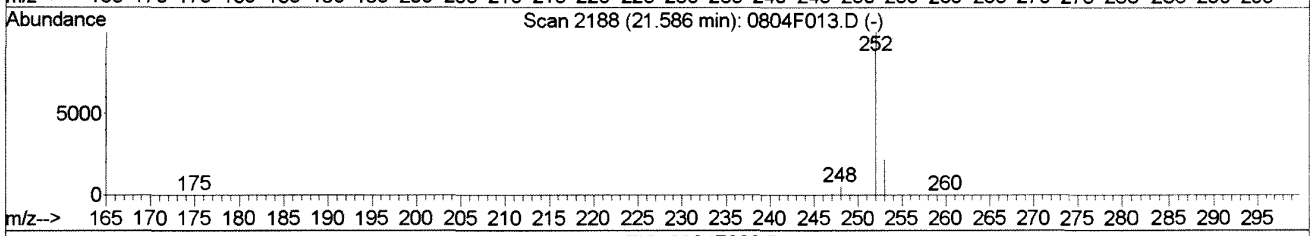
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F008.D Vial: 5
Acq On : 4 Aug 2015 5:42 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.004ug/mL | SVM49-41C Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:52 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F008.D

(52) Benzo(k)fluoranthene (T)

21.59min 3.99ng/ml m

response 2458

Ion	Exp%	Act%
252.00	100	100
253.00	21.70	25.35
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
BLC
08/19/15

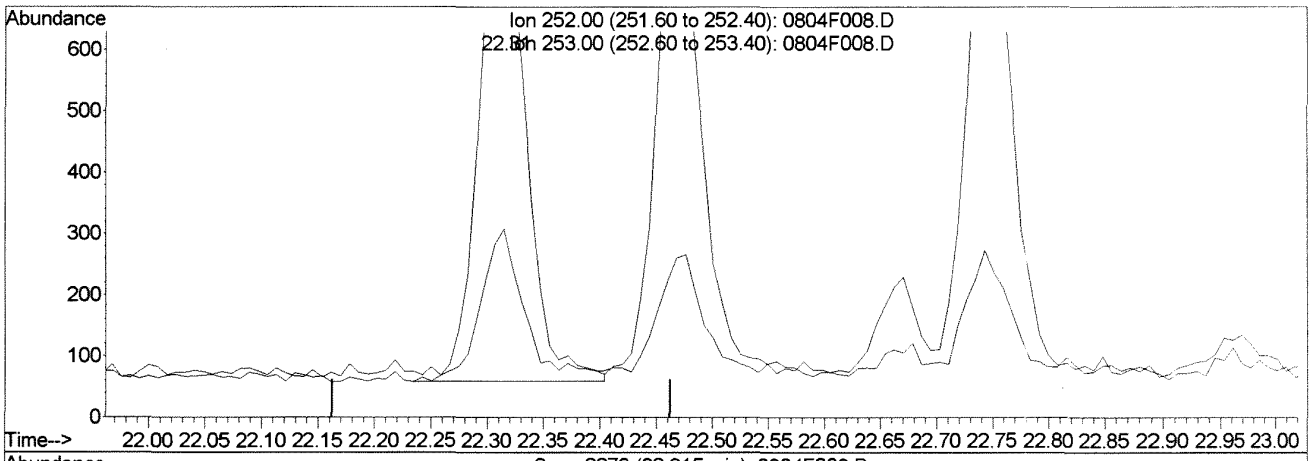
AUG 2 0 2015

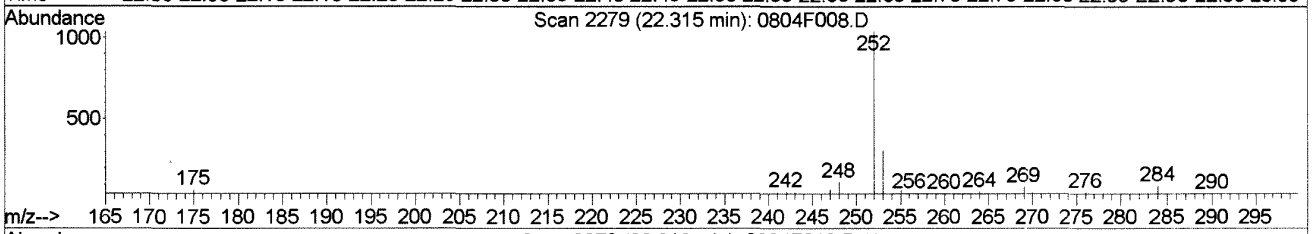
0804F008.D 080415SIMALK.M Wed Aug 19 10:52:28 2015

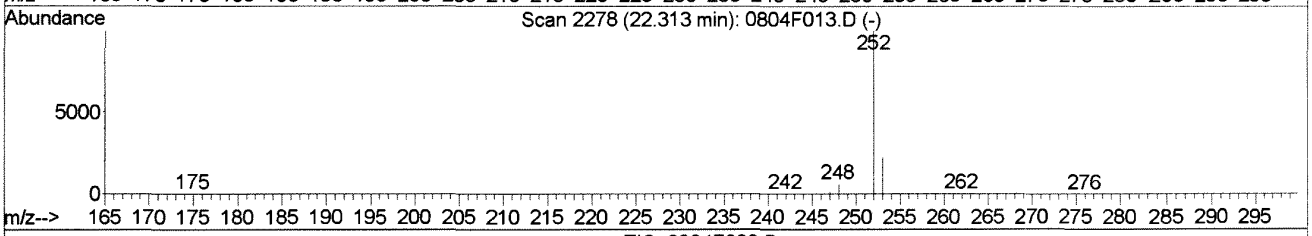
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F008.D Vial: 5
Acq On : 4 Aug 2015 5:42 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.004ug/mL | SVM49-41C Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:52 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F008.D

(53) Benzo(e)pyrene (T)

22.31min 4.19ng/ml

response 2417

Ion	Exp%	Act%
252.00	100	100
253.00	22.00	23.80
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/19/15

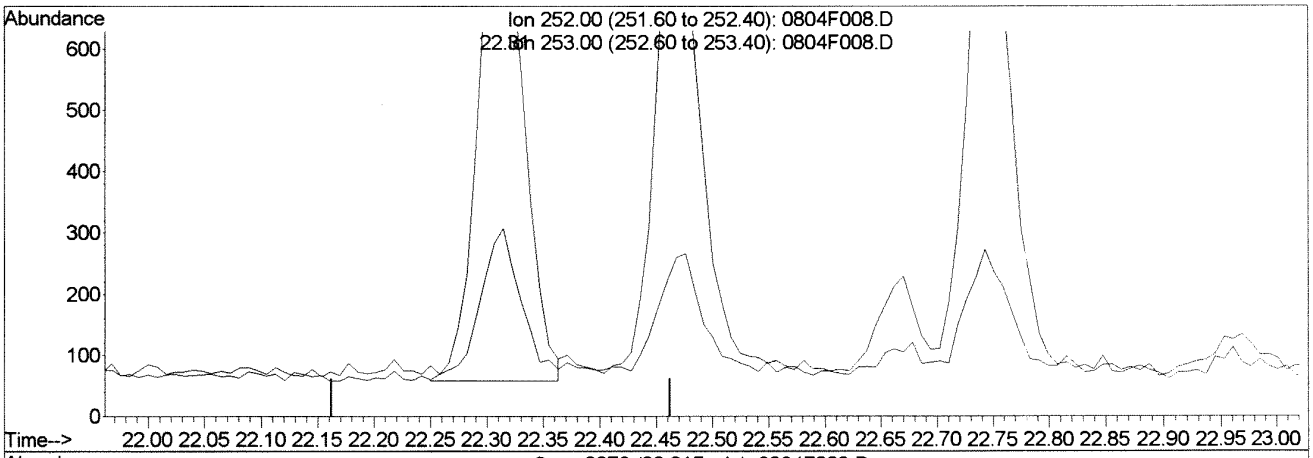
AUG 2 0 2015

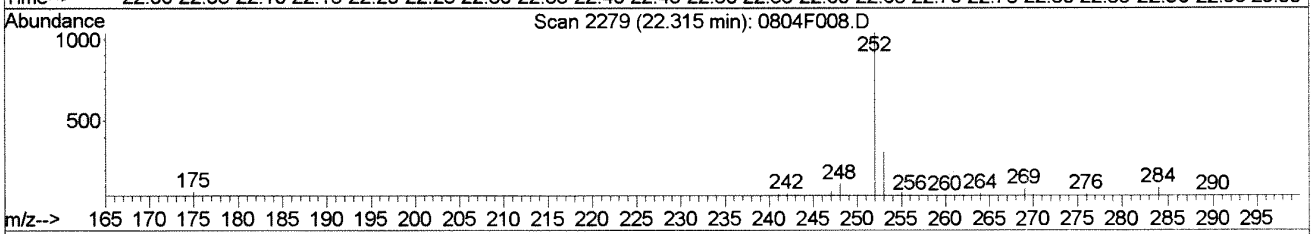
0804F008.D 080415SIMALK.M Wed Aug 19 10:52:34 2015

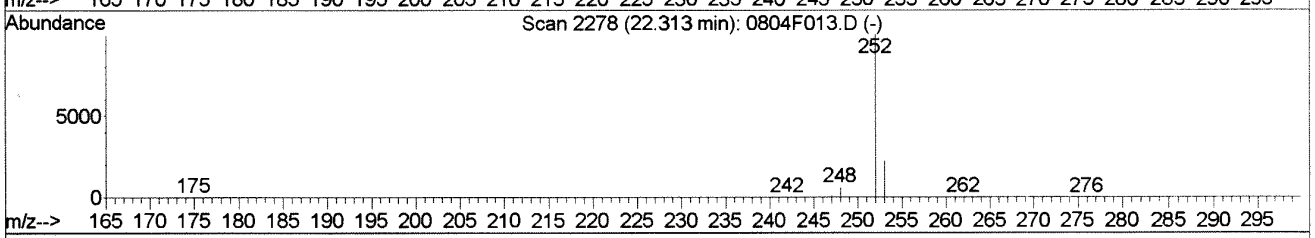
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F008.D Vial: 5
Acq On : 4 Aug 2015 5:42 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.004ug/mL | SVM49-41C Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:52 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F008.D

(53) Benzo(e)pyrene (T)
22.31min 4.09ng/ml m
response 2362

Ion	Exp%	Act%
252.00	100	100
253.00	22.00	29.67
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
BLC
08/19/15

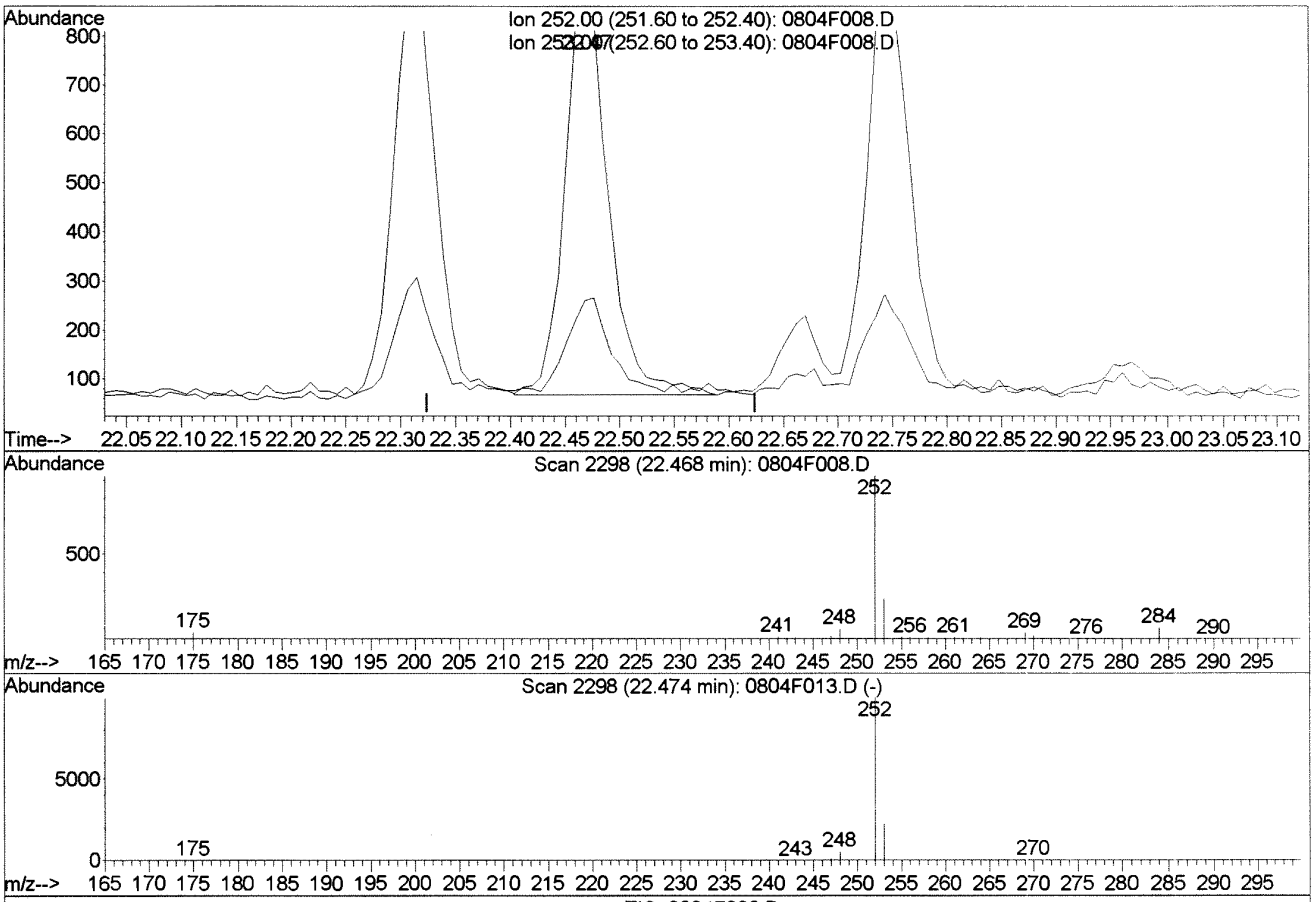
AUG 2 0 2015

0804F008.D 080415SIMALK.M Wed Aug 19 10:52:40 2015

Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F008.D Vial: 5
Acq On : 4 Aug 2015 5:42 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.004ug/mL | SVM49-41C Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:52 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration



(54) Benzo(a)pyrene (T)

22.47min 4.39ng/ml

response 2313

Ion	Exp%	Act%
252.00	100	100
253.00	21.80	21.45
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/19/15

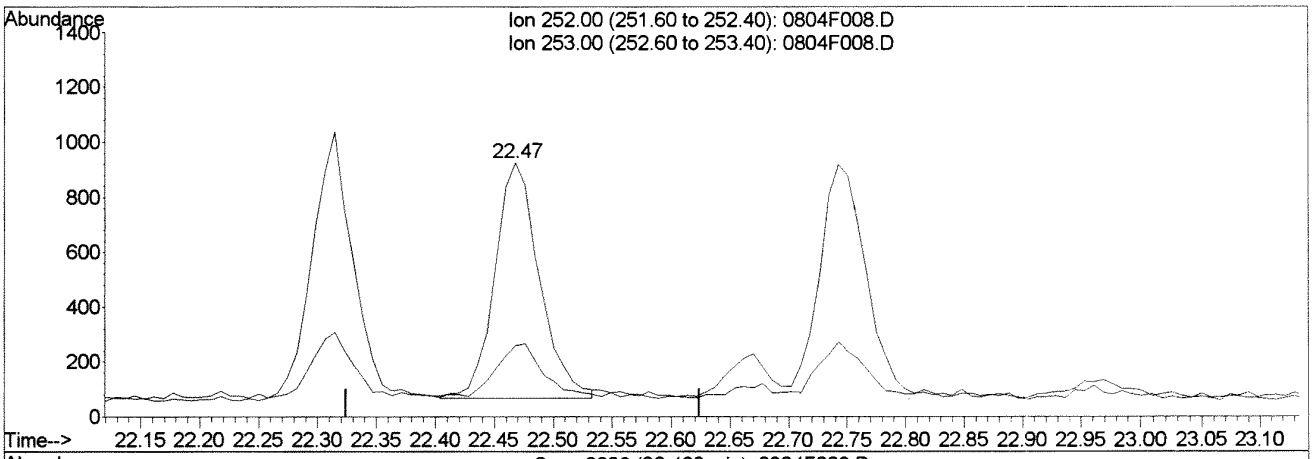
AUG 2 0 2015

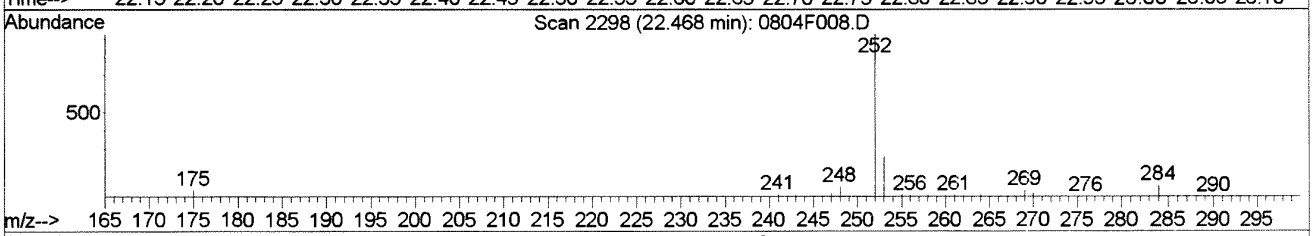
0804F008.D 080415SIMALK.M Wed Aug 19 10:52:45 2015

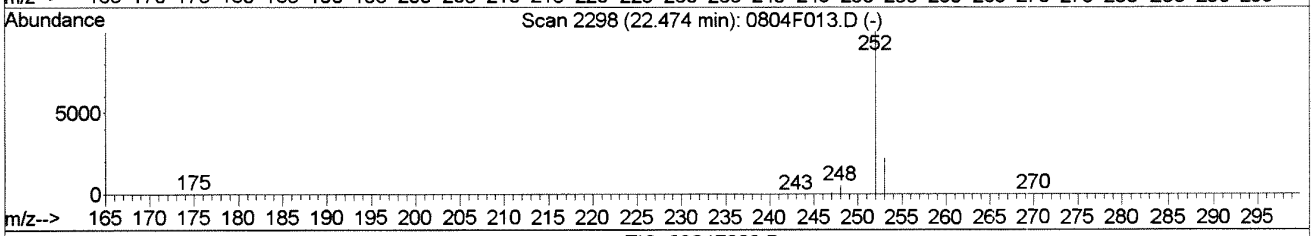
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F008.D Vial: 5
Acq On : 4 Aug 2015 5:42 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.004ug/mL | SVM49-41C Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:54 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 11:24:18 2015
Response via : Multiple Level Calibration







TIC: 0804F008.D

(54) Benzo(a)pyrene (T)

22.47min 4.30ng/ml m

response 2268

Ion	Exp%	Act%
252.00	100	100
253.00	21.80	28.11
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
BLC
08/19/15

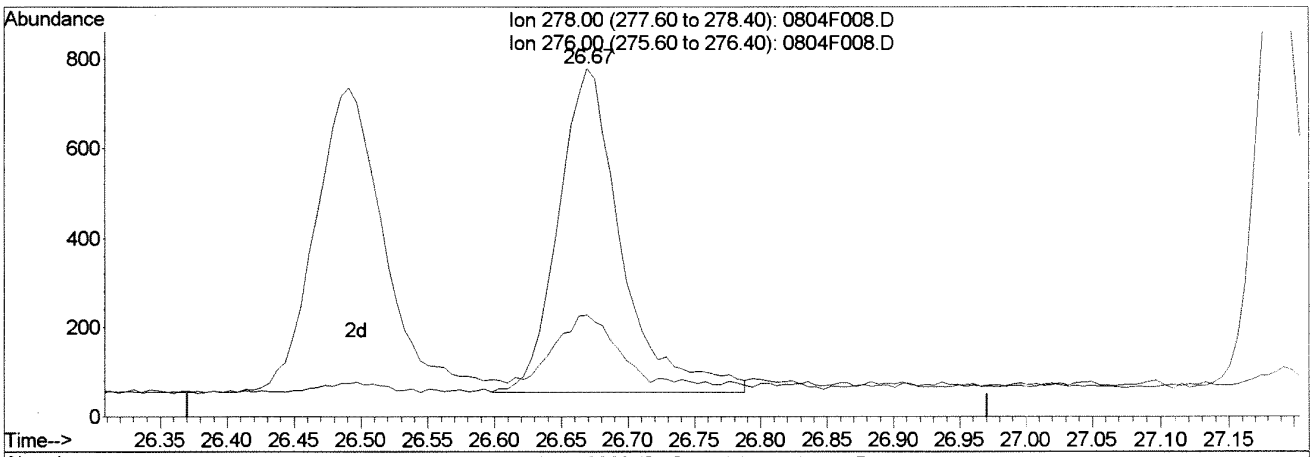
AUG 2 0 2015
CAA

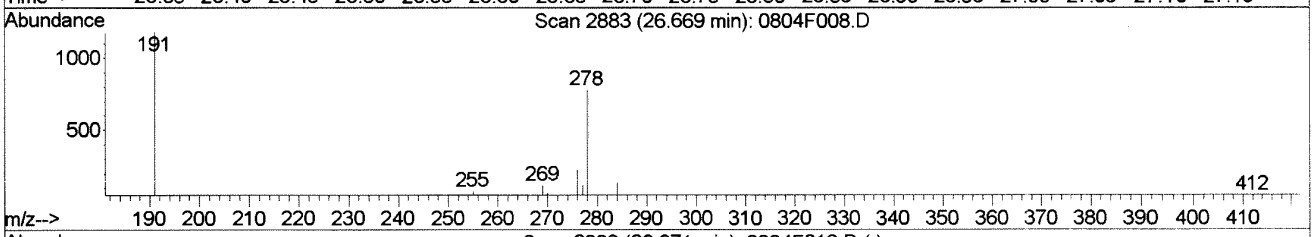
0804F008.D 080415SIMALK.M Wed Aug 19 12:52:26 2015

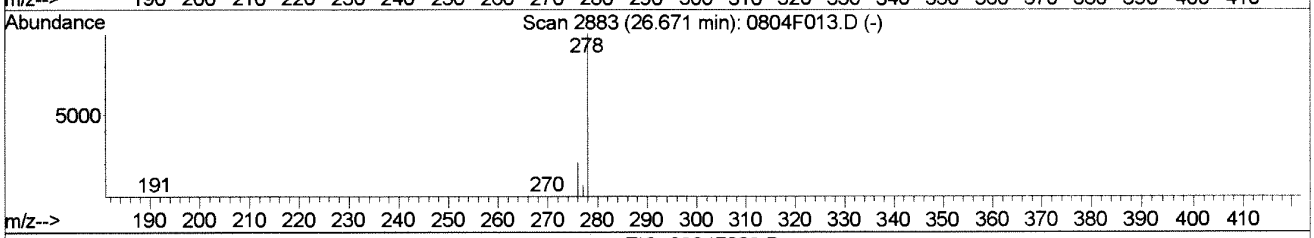
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F008.D Vial: 5
Acq On : 4 Aug 2015 5:42 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.004ug/mL | SVM49-41C Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:52 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F008.D

(57) Dibenz(a,h)anthracene (T)

26.67min 4.64ng/ml

response 2380

Ion	Exp%	Act%
278.00	100	100
276.00	25.30	21.79
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/19/15

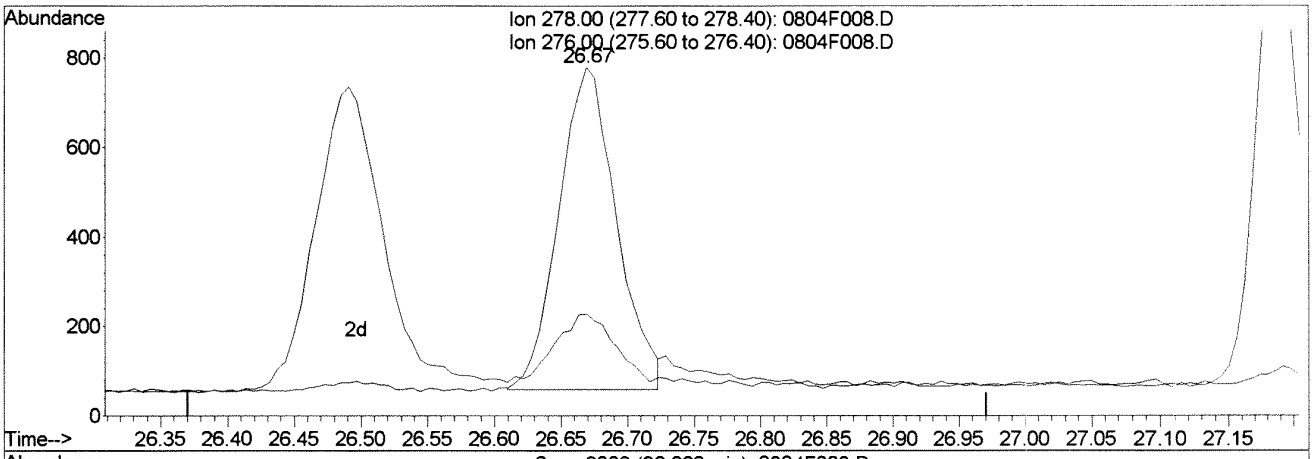
AUG 2 0 2015

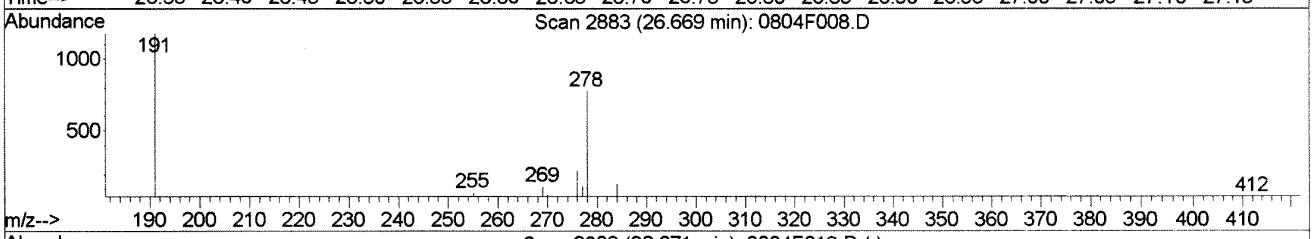
0804F008.D 080415SIMALK.M Wed Aug 19 10:53:53 2015

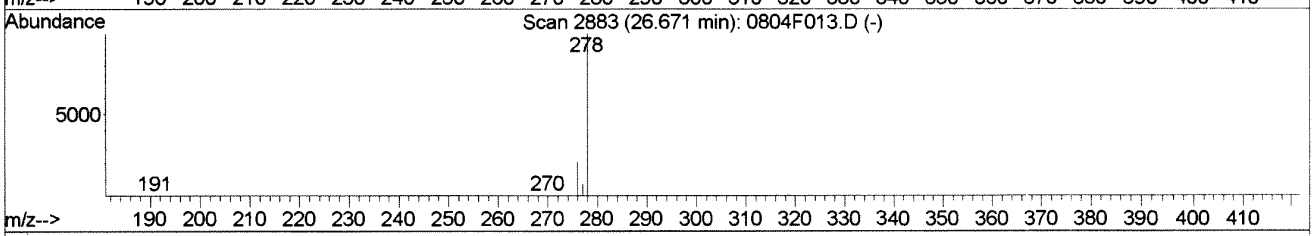
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F008.D Vial: 5
Acq On : 4 Aug 2015 5:42 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.004ug/mL | SVM49-41C Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:53 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F008.D

(57) Dibenz(a,h)anthracene (T)

26.67min 4.25ng/ml m

response 2178

Ion	Exp%	Act%
278.00	100	100
276.00	25.30	29.23
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

08/19/15

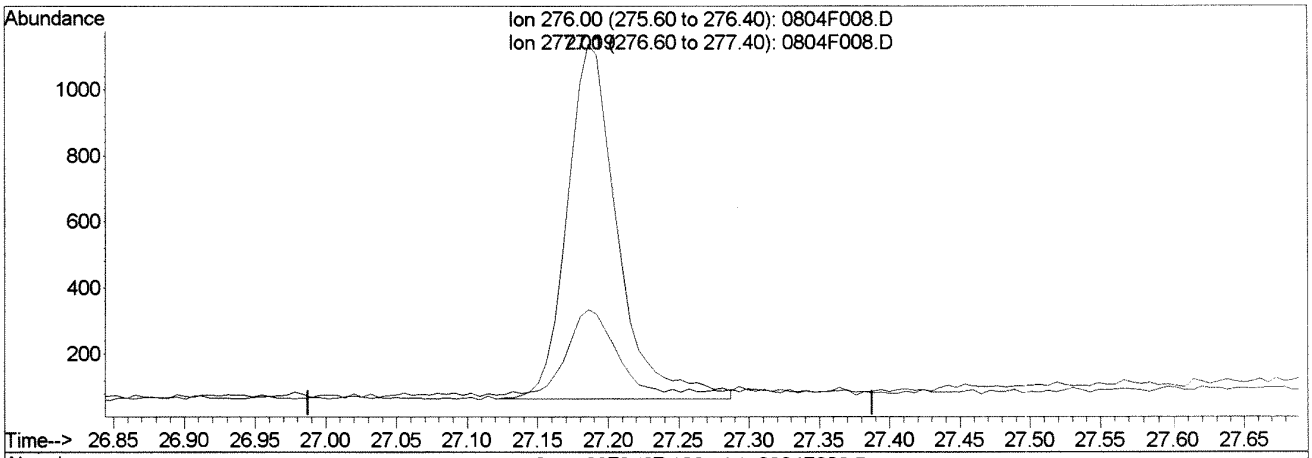
AUG 2 0 2015

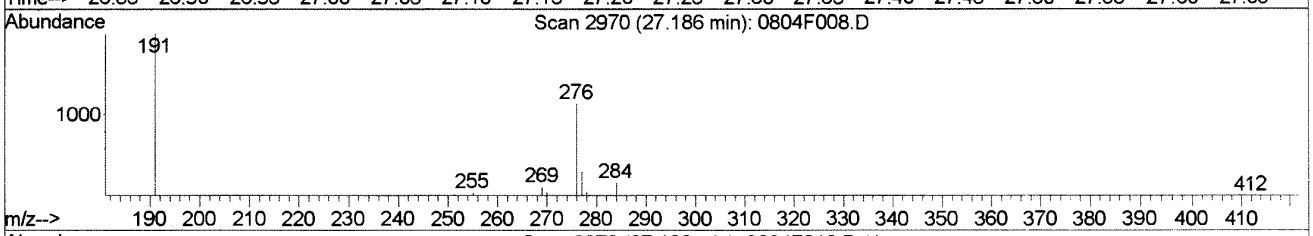
0804F008.D 080415SIMALK.M Wed Aug 19 10:53:59 2015

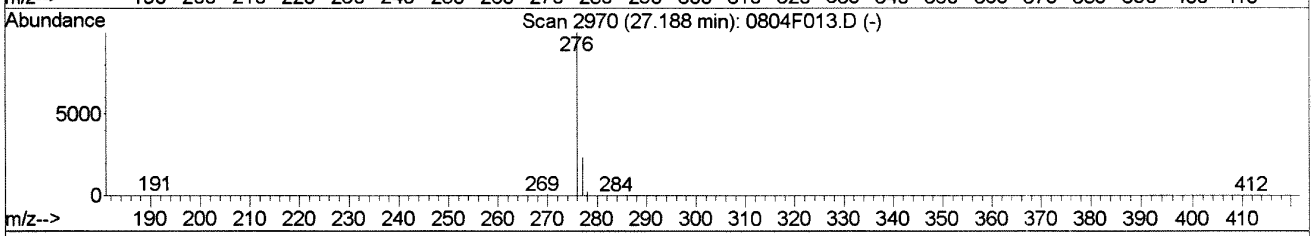
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F008.D Vial: 5
Acq On : 4 Aug 2015 5:42 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.004ug/mL | SVM49-41C Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:53 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F008.D

(58) Benzo(g,h,i)perylene (T)

27.19min 4.57ng/ml

response 2660

Ion	Exp%	Act%
276.00	100	100
277.00	23.80	23.95
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/19/15

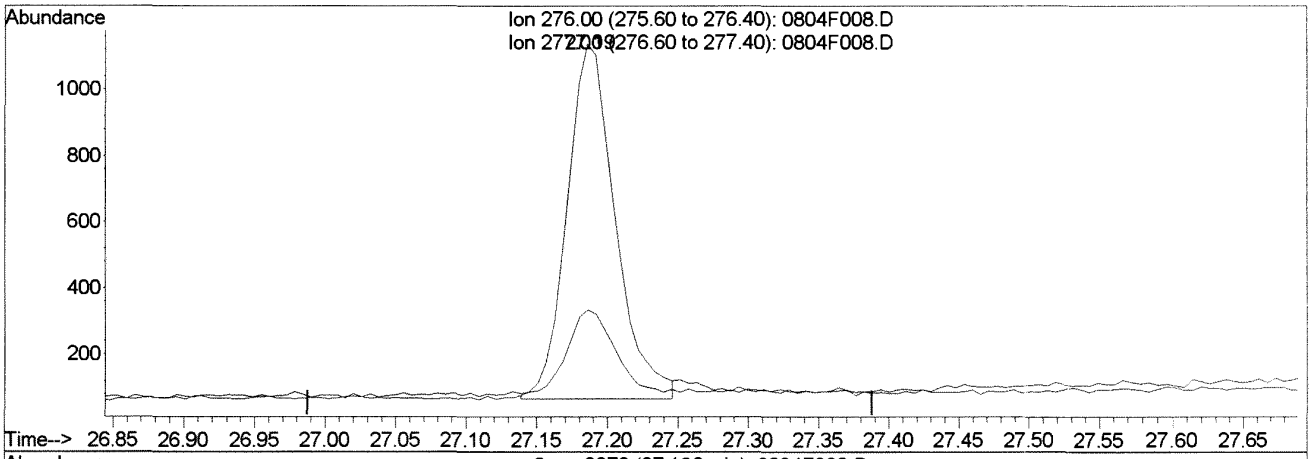
AUG 2 0 2015

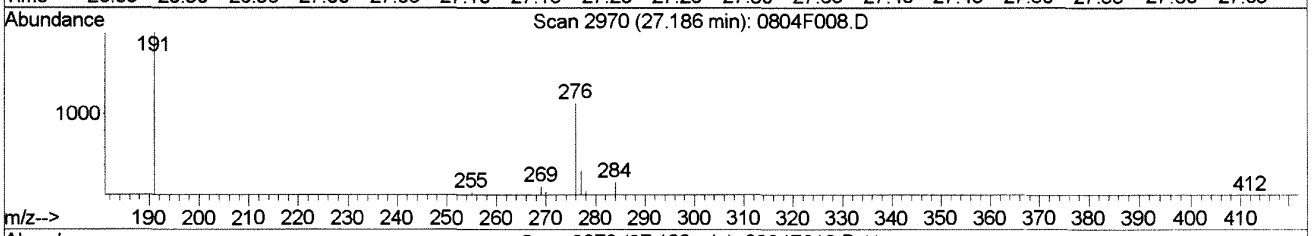
0804F008.D 080415SIMALK.M Wed Aug 19 10:54:23 2015

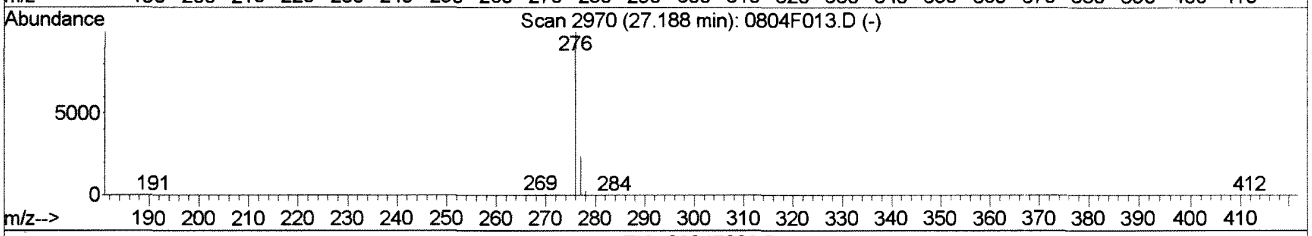
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F008.D Vial: 5
Acq On : 4 Aug 2015 5:42 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.004ug/mL | SVM49-41C Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:54 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F008.D

(58) Benzo(g,h,i)perylene (T)

27.19min 4.38ng/ml m

response 2547

Ion	Exp%	Act%
276.00	100	100
277.00	23.80	29.35
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
IC-Overintegrated
08/19/15

AUG 2 0 2015

0804F008.D 080415SIMALK.M Wed Aug 19 10:54:29 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F009.D Vial: 6
Acq On : 4 Aug 2015 6:19 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.008ug/mL | SVM49-41D Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46:44 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

AUG 19 2015

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.86	136	87531	200.00 ng/ml	0.00
11) Acenaphthene-d10	8.10	164	48994	200.00 ng/ml	0.00
21) Phenanthrene-d10	11.22	188	93651	200.00 ng/ml	0.00
37) Chrysene-d12	18.51	240	105351	200.00 ng/ml	0.00
50) Perylene-d12	22.67	264	111383	200.00 ng/ml	0.00
System Monitoring Compounds					
16) Fluorene-d10	9.07	176	2454	8.91 ng/ml	0.00
Spiked Amount 1000.000			Recovery	= 0.89%	
36) Fluoranthene-d10	14.36	212	3751	8.19 ng/ml	0.00
Spiked Amount 1000.000			Recovery	= 0.82%	
43) Terphenyl-d14	15.69	244	3249	8.01 ng/ml	0.00
Spiked Amount 1000.000			Recovery	= 0.80%	
Target Compounds					Qvalue
2) Naphthalene	5.88	128	3531	8.40 ng/ml	100
3) 2-Methylnaphthalene	6.62	142	2437	8.24 ng/ml	95
4) 1-Methylnaphthalene	6.73	142	2191	8.27 ng/ml	95
5) Biphenyl	7.22	154	2956	8.12 ng/ml	95
6) 2,6-Dimethylnaphthalene	7.45	156	2160	8.43 ng/ml	96
12) Acenaphthylene	7.86	152	3540m	8.27 ng/ml	
13) Acenaphthene	8.16	154	2223	8.45 ng/ml	96
14) Dibenzofuran	8.47	168	3264	8.01 ng/ml	98
15) 2,3,5-Trimethylnaphthalene	8.88	170	1968	8.07 ng/ml	88
17) Fluorene	9.13	166	2628	8.30 ng/ml	98
22) Dibenzothiophene	10.97	184	3763	8.20 ng/ml	96
27) Phenanthrene	11.28	178	4256	8.67 ng/ml	97
28) Anthracene	11.40	178	3897	8.58 ng/ml	99
29) Carbazole	11.86	167	3393	8.05 ng/ml	100
30) 1-Methylphenanthrene	12.88	192	2977	8.19 ng/ml	98
35) Fluoranthene	14.41	202	4411	8.35 ng/ml	99
38) Pyrene	15.00	202	4575	8.26 ng/ml	96
44) Benz(a)anthracene	18.49	228	4743	9.49 ng/ml	92
45) Chrysene	18.58	228	4198	8.14 ng/ml	99
51) Benzo(b)fluoranthene	21.50	252	4788	8.52 ng/ml	99
52) Benzo(k)fluoranthene	21.59	252	4749	7.80 ng/ml	99
53) Benzo(e)pyrene	22.31	252	4596	8.05 ng/ml	98
54) Benzo(a)pyrene	22.47	252	4238	8.13 ng/ml	97
55) Perylene	22.75	252	4462	8.14 ng/ml	92
56) Indeno(1,2,3-cd)pyrene	26.49	276	4510	9.34 ng/ml	96
57) Dibenz(a,h)anthracene	26.66	278	4465	8.81 ng/ml	91
58) Benzo(g,h,i)perylene	27.19	276	4903	8.52 ng/ml	99

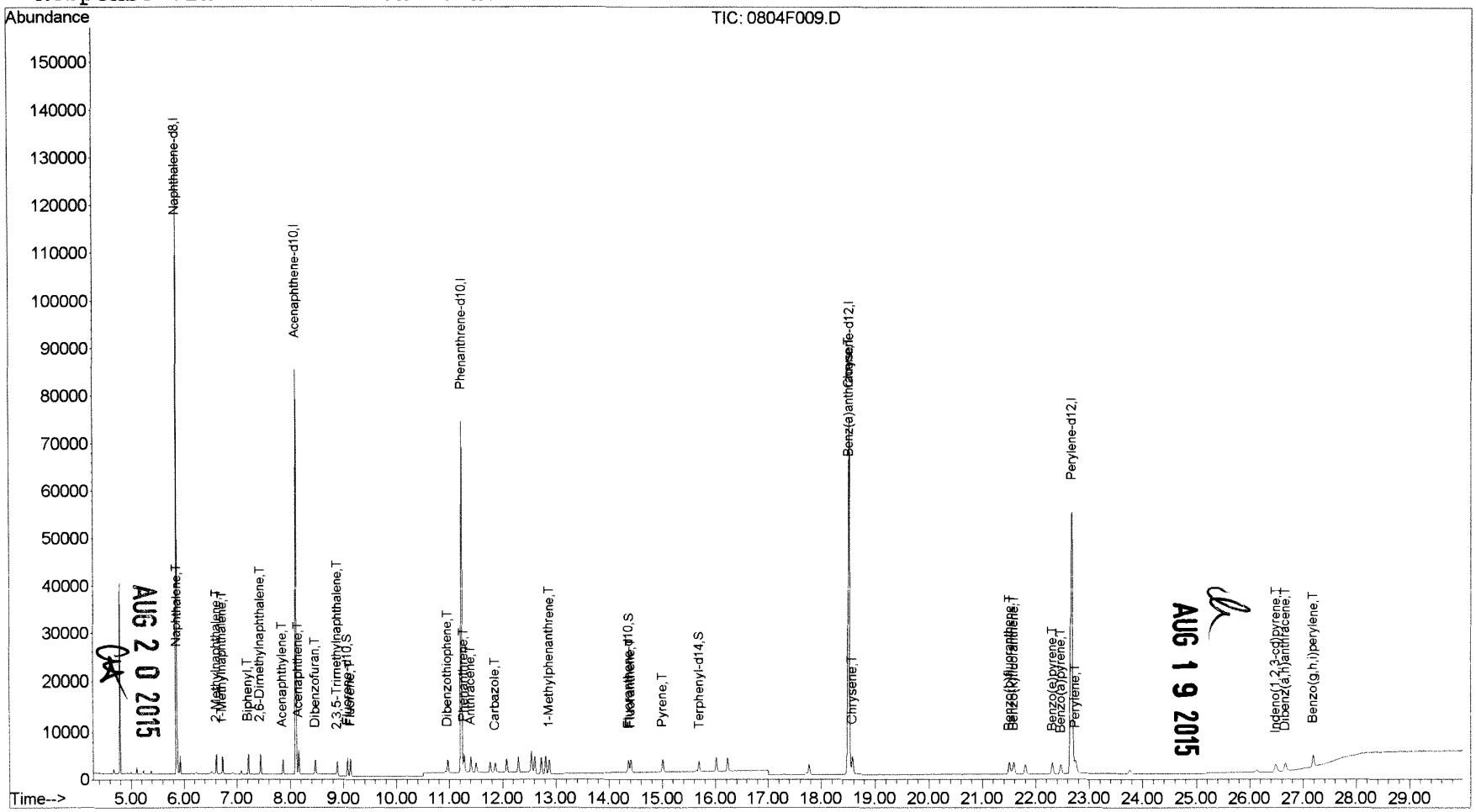
(#) = qualifier out of range (m) = manual integration
0804F009.D 080415SIMALK.M Wed Aug 19 10:59:20 2015 AUG 20 2015 Page 1

MANSON022866

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F009.D Vial: 6
Acq On : 4 Aug 2015 6:19 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.008ug/mL | SVM49-41D Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:54 2015 Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration

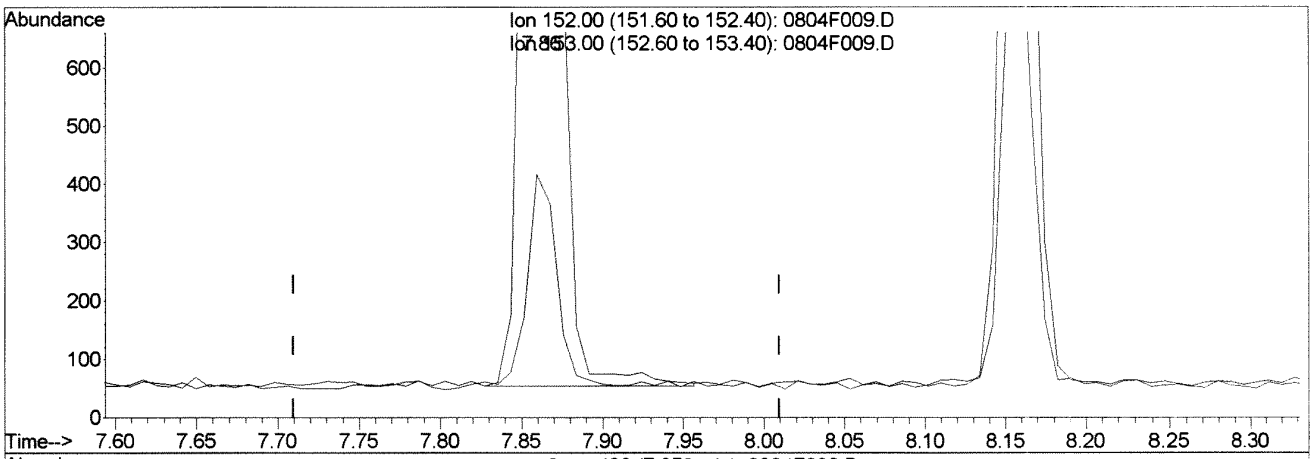


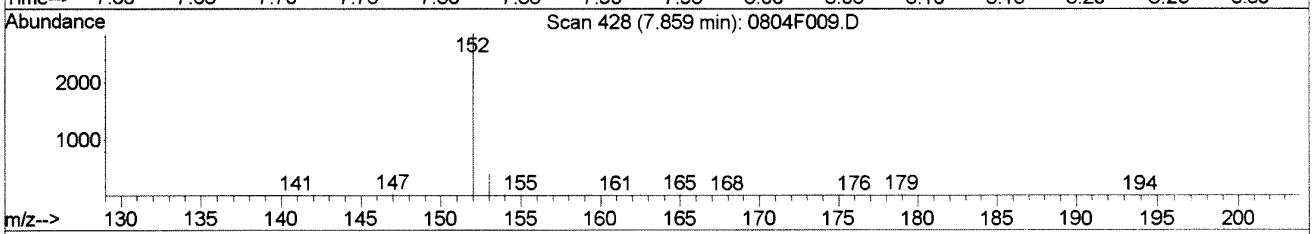
MANSON022867

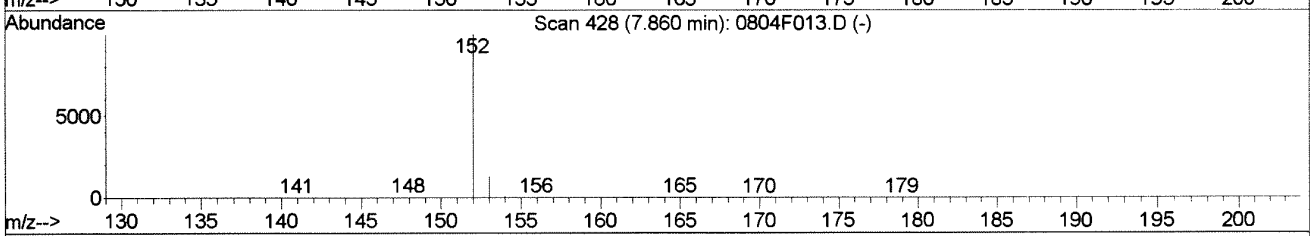
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F009.D Vial: 6
Acq On : 4 Aug 2015 6:19 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.008ug/mL | SVM49-41D Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F009.D

(12) Acenaphthylene (T)

7.86min 8.42ng/ml

response 3604

Ion	Exp%	Act%
152.00	100	100
153.00	13.20	12.73
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

08/19/15

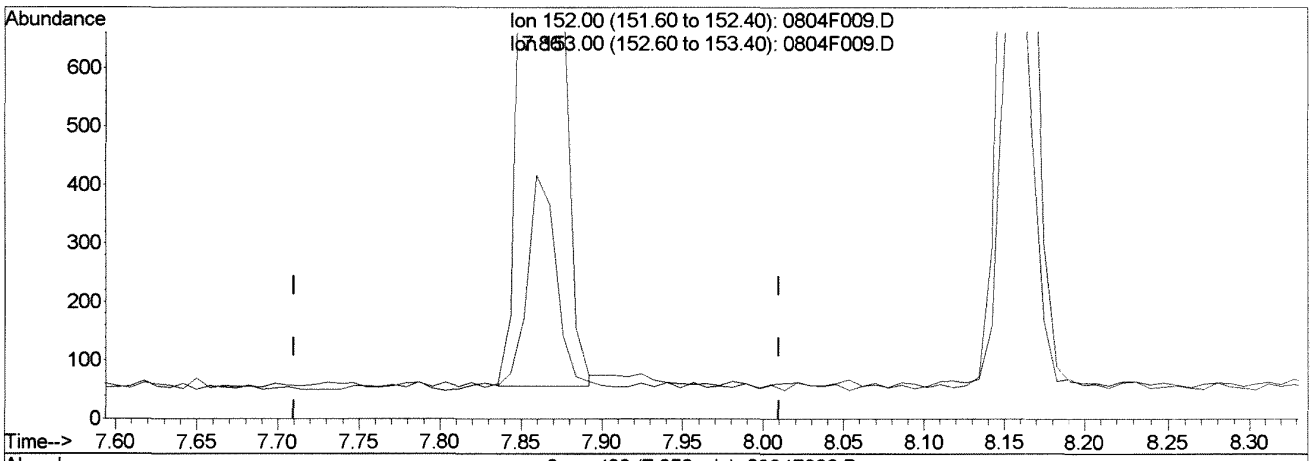
AUG 2 0 2015

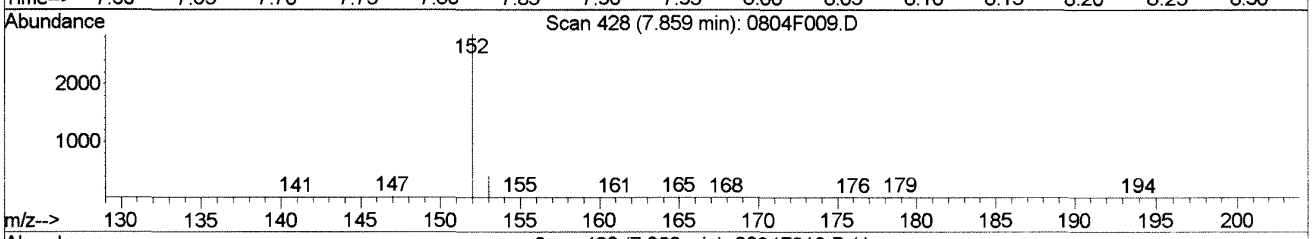
0804F009.D 080415SIMALK.M Wed Aug 19 10:54:51 2015

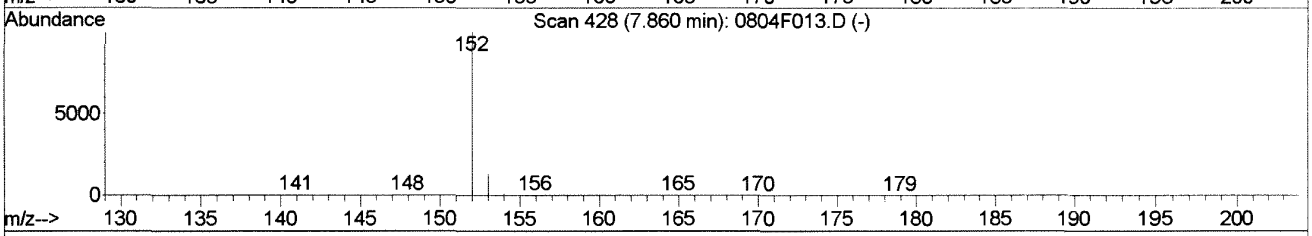
Quantitation Report (Qedit)

Data File : J:\MS20\DATA\080415A\0804F009.D Vial: 6
Acq On : 4 Aug 2015 6:19 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.008ug/mL | SVM49-41D Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:54 2015 Quant Results File: temp.res

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Multiple Level Calibration







TIC: 0804F009.D

(12) Acenaphthylene (T)

7.86min 8.27ng/ml m

response 3540

Ion	Exp%	Act%
152.00	100	100
153.00	13.20	14.63
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:
After
BLC
08/19/15

AUG 2 0 2015

0804F009.D 080415SIMALK.M Wed Aug 19 10:54:57 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F010.D Vial: 7
Acq On : 4 Aug 2015 6:56 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.02ug/mL | SVM49-41E Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46:45 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

AUG 19 2015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.86	136	86290	200.00	ng/ml	0.00
11) Acenaphthene-d10	8.10	164	49378	200.00	ng/ml	0.00
21) Phenanthrene-d10	11.23	188	92687	200.00	ng/ml	0.00
37) Chrysene-d12	18.51	240	105458	200.00	ng/ml	0.00
50) Perylene-d12	22.67	264	111447	200.00	ng/ml	0.00
System Monitoring Compounds						
16) Fluorene-d10	9.07	176	5651	20.36	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 2.04%			
36) Fluoranthene-d10	14.36	212	9507	20.98	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 2.10%			
43) Terphenyl-d14	15.68	244	8065	19.88	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 1.99%			
Target Compounds						Qvalue
2) Naphthalene	5.88	128	8651	20.88	ng/ml	100
3) 2-Methylnaphthalene	6.62	142	5992	20.56	ng/ml	99
4) 1-Methylnaphthalene	6.73	142	5512	21.09	ng/ml	95
5) Biphenyl	7.22	154	7306	20.35	ng/ml	99
6) 2,6-Dimethylnaphthalene	7.45	156	5346	21.17	ng/ml	98
12) Acenaphthylene	7.86	152	8895	20.62	ng/ml	98
13) Acenaphthene	8.16	154	5337	20.13	ng/ml	99
14) Dibenzofuran	8.47	168	8236	20.06	ng/ml	97
15) 2,3,5-Trimethylnaphthalene	8.89	170	5257	21.40	ng/ml	99
17) Fluorene	9.13	166	6510	20.39	ng/ml	97
22) Dibenzothiophene	10.97	184	9305	20.48	ng/ml	100
27) Phenanthrene	11.28	178	10318	21.23	ng/ml	99
28) Anthracene	11.40	178	9429	20.98	ng/ml	98
29) Carbazole	11.87	167	8567	20.55	ng/ml	98
30) 1-Methylphenanthrene	12.88	192	7574	21.05	ng/ml	99
35) Fluoranthene	14.41	202	11149	21.33	ng/ml	97
38) Pyrene	15.01	202	11465	20.68	ng/ml	100
44) Benz(a)anthracene	18.49	228	11220	22.42	ng/ml	99
45) Chrysene	18.58	228	10716	20.76	ng/ml	99
51) Benzo(b)fluoranthene	21.50	252	11857	21.08	ng/ml	100
52) Benzo(k)fluoranthene	21.59	252	11975	19.66	ng/ml	99
53) Benzo(e)pyrene	22.31	252	11438	20.03	ng/ml	98
54) Benzo(a)pyrene	22.47	252	10887	20.88	ng/ml	97
55) Perylene	22.74	252	11012	20.07	ng/ml	98
56) Indeno(1,2,3-cd)pyrene	26.48	276	11555	23.91	ng/ml	99
57) Dibenz(a,h)anthracene	26.66	278	11870	23.41	ng/ml	95
58) Benzo(g,h,i)perylene	27.19	276	12877	22.37	ng/ml	99

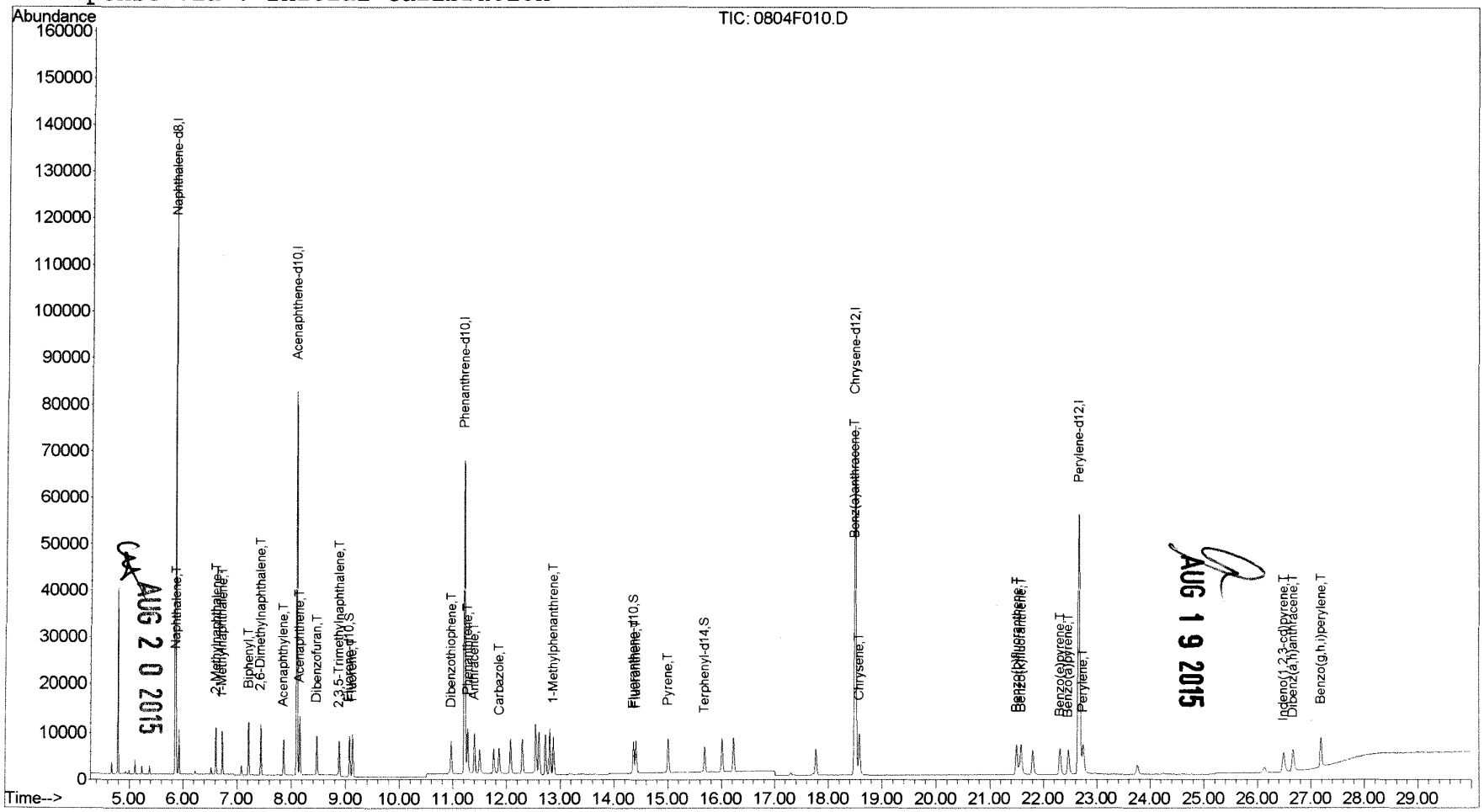
(#) = qualifier out of range (m) = manual integration

AUG 20 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F010.D Vial: 7
Acq On : 4 Aug 2015 6:56 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.02ug/mL | SVM49-41E Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46 2015 Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F011.D Vial: 8
Acq On : 4 Aug 2015 7:33 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.1ug/mL | SVM49-41F Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46:45 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

AUG 19 2015

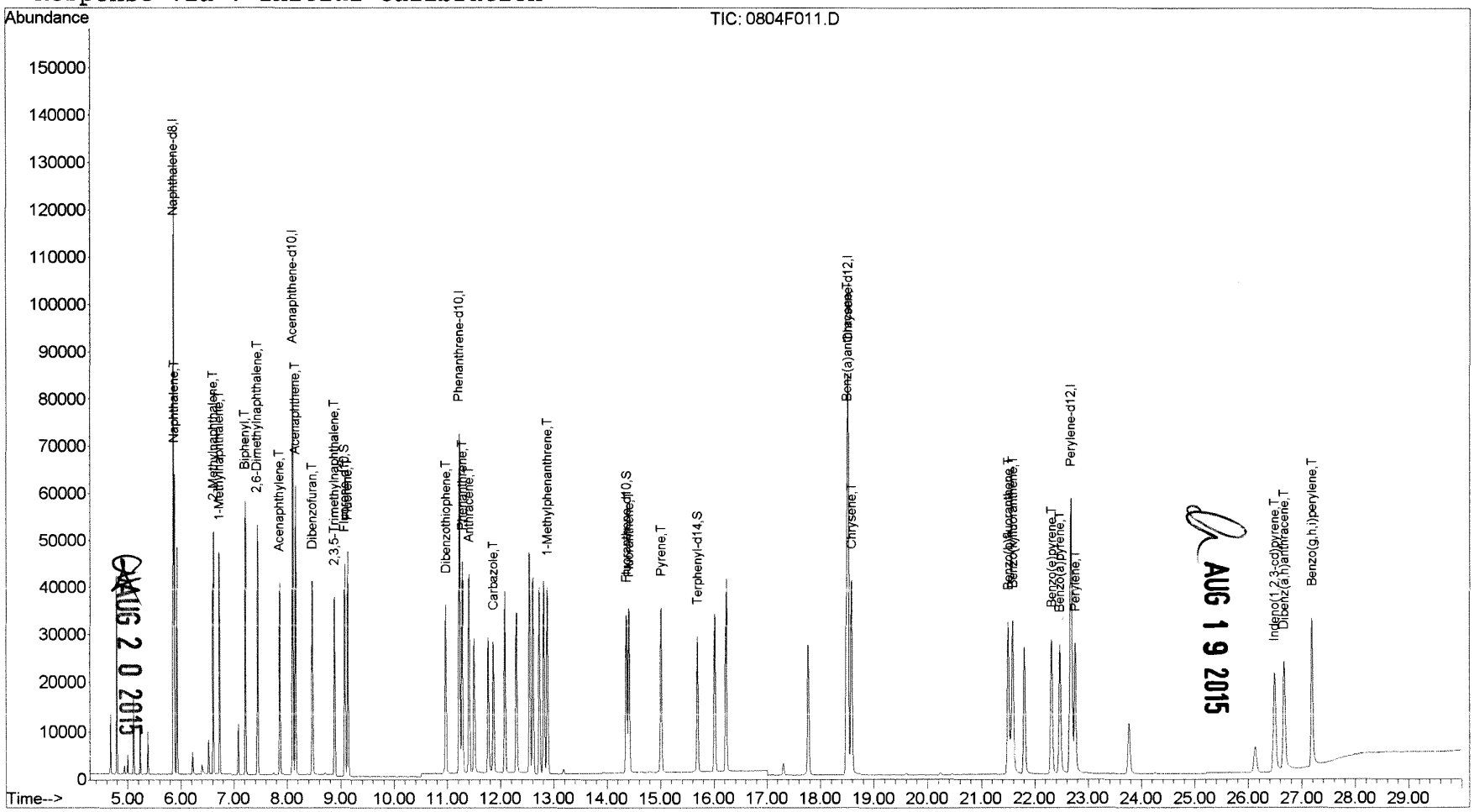
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.86	136	89551	200.00 ng/ml	0.00
11) Acenaphthene-d10	8.10	164	50201	200.00 ng/ml	0.00
21) Phenanthrene-d10	11.23	188	95811	200.00 ng/ml	0.00
37) Chrysene-d12	18.51	240	110314	200.00 ng/ml	0.00
50) Perylene-d12	22.67	264	115545	200.00 ng/ml	0.00
System Monitoring Compounds					
16) Fluorene-d10	9.07	176	27162	96.27 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 9.63%		
36) Fluoranthene-d10	14.36	212	46824	99.96 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 10.00%		
43) Terphenyl-d14	15.68	244	39661	93.44 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 9.34%		
Target Compounds					Qvalue
2) Naphthalene	5.88	128	42355	98.51 ng/ml	99
3) 2-Methylnaphthalene	6.62	142	29670	98.12 ng/ml	98
4) 1-Methylnaphthalene	6.73	142	26892	99.17 ng/ml	99
5) Biphenyl	7.21	154	36320	97.49 ng/ml	97
6) 2,6-Dimethylnaphthalene	7.45	156	26346	100.52 ng/ml	100
12) Acenaphthylene	7.86	152	44391	101.20 ng/ml	100
13) Acenaphthene	8.16	154	26267	97.47 ng/ml	100
14) Dibenzofuran	8.47	168	41061	98.38 ng/ml	97
15) 2,3,5-Trimethylnaphthalene	8.89	170	25923	103.78 ng/ml	98
17) Fluorene	9.13	166	32483	100.07 ng/ml	100
22) Dibenzothiophene	10.97	184	45973	97.89 ng/ml	99
27) Phenanthrene	11.28	178	48512	96.57 ng/ml	100
28) Anthracene	11.40	178	46849	100.85 ng/ml	100
29) Carbazole	11.86	167	42160	97.83 ng/ml	99
30) 1-Methylphenanthrene	12.88	192	37133	99.82 ng/ml	100
35) Fluoranthene	14.41	202	54704	101.26 ng/ml	98
38) Pyrene	15.01	202	56013	96.57 ng/ml	97
44) Benz(a)anthracene	18.49	228	54379	103.87 ng/ml	99
45) Chrysene	18.58	228	51881	96.07 ng/ml	100
51) Benzo(b)fluoranthene	21.50	252	57519	98.65 ng/ml	99
52) Benzo(k)fluoranthene	21.59	252	60683	96.10 ng/ml	98
53) Benzo(e)pyrene	22.31	252	56793	95.95 ng/ml	100
54) Benzo(a)pyrene	22.47	252	53854	99.60 ng/ml	99
55) Perylene	22.75	252	54463	95.75 ng/ml	100
56) Indeno(1,2,3-cd)pyrene	26.49	276	56621	112.99 ng/ml	100
57) Dibenz(a,h)anthracene	26.67	278	57803	109.94 ng/ml	96
58) Benzo(g,h,i)perylene	27.19	276	61876	103.69 ng/ml	99

(#) = qualifier out of range (m) = manual integration AUG 20 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F011.D Vial: 8
Acq On : 4 Aug 2015 7:33 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.1ug/mL | SVM49-41F Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46 2015 Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration



0804F011.D 080415SIMALK.M Wed Aug 19 10:59:22 2015 Page 2

MANSON022873

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F012.D Vial: 9
Acq On : 4 Aug 2015 8:10 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.2ug/mL | SVM49-41G Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46:46 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

AUG 1 9 2015

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.86	136	90533	200.00 ng/ml	0.00
11) Acenaphthene-d10	8.10	164	50600	200.00 ng/ml	0.00
21) Phenanthrene-d10	11.22	188	97157	200.00 ng/ml	0.00
37) Chrysene-d12	18.51	240	111204	200.00 ng/ml	0.00
50) Perylene-d12	22.67	264	116150	200.00 ng/ml	0.00
System Monitoring Compounds					
16) Fluorene-d10	9.07	176	54885	192.99 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 19.30%		
36) Fluoranthene-d10	14.36	212	95591	201.24 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 20.12%		
43) Terphenyl-d14	15.68	244	80883	189.03 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 18.90%		
Target Compounds					Qvalue
2) Naphthalene	5.88	128	85313	196.28 ng/ml	99
3) 2-Methylnaphthalene	6.61	142	59995	196.25 ng/ml	93
4) 1-Methylnaphthalene	6.73	142	53847	196.42 ng/ml	95
5) Biphenyl	7.21	154	74066	196.65 ng/ml	98
6) 2,6-Dimethylnaphthalene	7.44	156	52883	199.59 ng/ml	98
12) Acenaphthylene	7.86	152	89232	201.83 ng/ml	100
13) Acenaphthene	8.16	154	52712	194.05 ng/ml	99
14) Dibenzofuran	8.47	168	82934	197.15 ng/ml	98
15) 2,3,5-Trimethylnaphthalene	8.88	170	51640	205.10 ng/ml	87
17) Fluorene	9.13	166	65213	199.31 ng/ml	99
22) Dibenzothiophene	10.97	184	94496	198.42 ng/ml	98
27) Phenanthrene	11.28	178	98656	193.66 ng/ml	100
28) Anthracene	11.40	178	95300	202.31 ng/ml	99
29) Carbazole	11.86	167	86038	196.88 ng/ml	100
30) 1-Methylphenanthrene	12.88	192	73709	195.39 ng/ml	100
35) Fluoranthene	14.41	202	111908	204.29 ng/ml	98
38) Pyrene	15.00	202	114351	195.56 ng/ml	98
44) Benz(a)anthracene	18.48	228	110738	209.83 ng/ml	100
45) Chrysene	18.58	228	105696	194.16 ng/ml	98
51) Benzo(b)fluoranthene	21.51	252	119947	204.64 ng/ml	99
52) Benzo(k)fluoranthene	21.59	252	123869	195.15 ng/ml	100
53) Benzo(e)pyrene	22.31	252	116295	195.45 ng/ml	99
54) Benzo(a)pyrene	22.47	252	111071	204.35 ng/ml	99
55) Perylene	22.75	252	111338	194.72 ng/ml	100
56) Indeno(1,2,3-cd)pyrene	26.49	276	115654	229.59 ng/ml	99
57) Dibenz(a,h)anthracene	26.67	278	117705	222.71 ng/ml	95
58) Benzo(g,h,i)perylene	27.19	276	124483	207.52 ng/ml	100

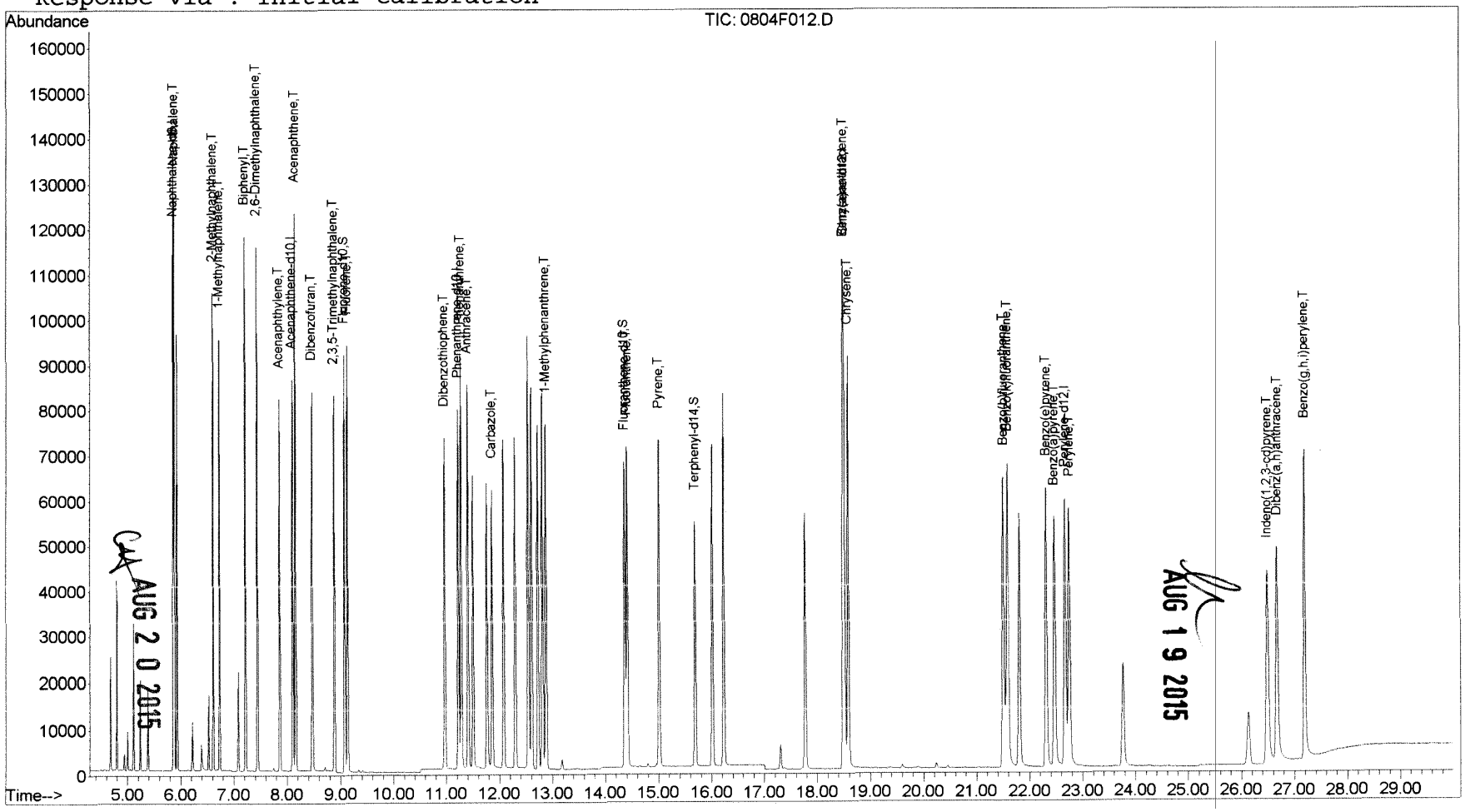
(#) = qualifier out of range (m) = manual integration
0804F012.D 080415SIMALK.M Wed Aug 19 10:59:24 2015 AUG 2 0 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F012.D
Acq On : 4 Aug 2015 8:10 pm
Sample : SIM-ALKH ICAL @0.2ug/mL | SVM49-41G
Misc :
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46 2015

Vial: 9
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F013.D Vial: 10
Acq On : 4 Aug 2015 8:46 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @0.4ug/mL | SVM49-41H Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46:46 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

AUG 19 2015

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.86	136	86156	200.00	ng/ml	0.00
11) Acenaphthene-d10	8.10	164	47981	200.00	ng/ml	0.00
21) Phenanthrene-d10	11.22	188	90906	200.00	ng/ml	0.00
37) Chrysene-d12	18.51	240	105742	200.00	ng/ml	0.00
50) Perylene-d12	22.67	264	109538	200.00	ng/ml	0.00
System Monitoring Compounds						
16) Fluorene-d10	9.07	176	104782	388.55	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 38.86%			
36) Fluoranthene-d10	14.36	212	186872	420.46	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 42.05%			
43) Terphenyl-d14	15.69	244	157162	386.26	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 38.63%			

Target Compounds						Qvalue
2) Naphthalene	5.88	128	164373	397.38	ng/ml	99
3) 2-Methylnaphthalene	6.62	142	115881	398.31	ng/ml	98
4) 1-Methylnaphthalene	6.73	142	104232	399.52	ng/ml	98
5) Biphenyl	7.22	154	141347	394.34	ng/ml	98
6) 2,6-Dimethylnaphthalene	7.45	156	101804	403.74	ng/ml	99
12) Acenaphthylene	7.86	152	173158	413.03	ng/ml	99
13) Acenaphthene	8.16	154	100279	389.31	ng/ml	99
14) Dibenzofuran	8.47	168	159575	400.04	ng/ml	100
15) 2,3,5-Trimethylnaphthalene	8.88	170	96311	403.40	ng/ml	86
17) Fluorene	9.13	166	123676	398.62	ng/ml	100
22) Dibenzothiophene	10.97	184	182990	410.66	ng/ml	97
27) Phenanthrene	11.28	178	189248	397.04	ng/ml	100
28) Anthracene	11.40	178	182204	413.40	ng/ml	99
29) Carbazole	11.86	167	167494	409.62	ng/ml	99
30) 1-Methylphenanthrene	12.88	192	141628	401.25	ng/ml	100
35) Fluoranthene	14.41	202	214133	417.78	ng/ml	99
38) Pyrene	15.00	202	223110	401.27	ng/ml	97
44) Benz(a)anthracene	18.48	228	216529	431.49	ng/ml	100
45) Chrysene	18.58	228	201945	390.12	ng/ml	100
51) Benzo(b)fluoranthene	21.51	252	234342	423.94	ng/ml	99
52) Benzo(k)fluoranthene	21.59	252	240130	401.14	ng/ml	99
53) Benzo(e)pyrene	22.31	252	225278	401.47	ng/ml	100
54) Benzo(a)pyrene	22.47	252	215209	419.85	ng/ml	99
55) Perylene	22.75	252	215299	399.27	ng/ml	100
56) Indeno(1,2,3-cd)pyrene	26.49	276	223691	470.87	ng/ml	99
57) Dibenz(a,h)anthracene	26.67	278	226161	453.76	ng/ml	96
58) Benzo(g,h,i)perylene	27.19	276	237551	419.92	ng/ml	100

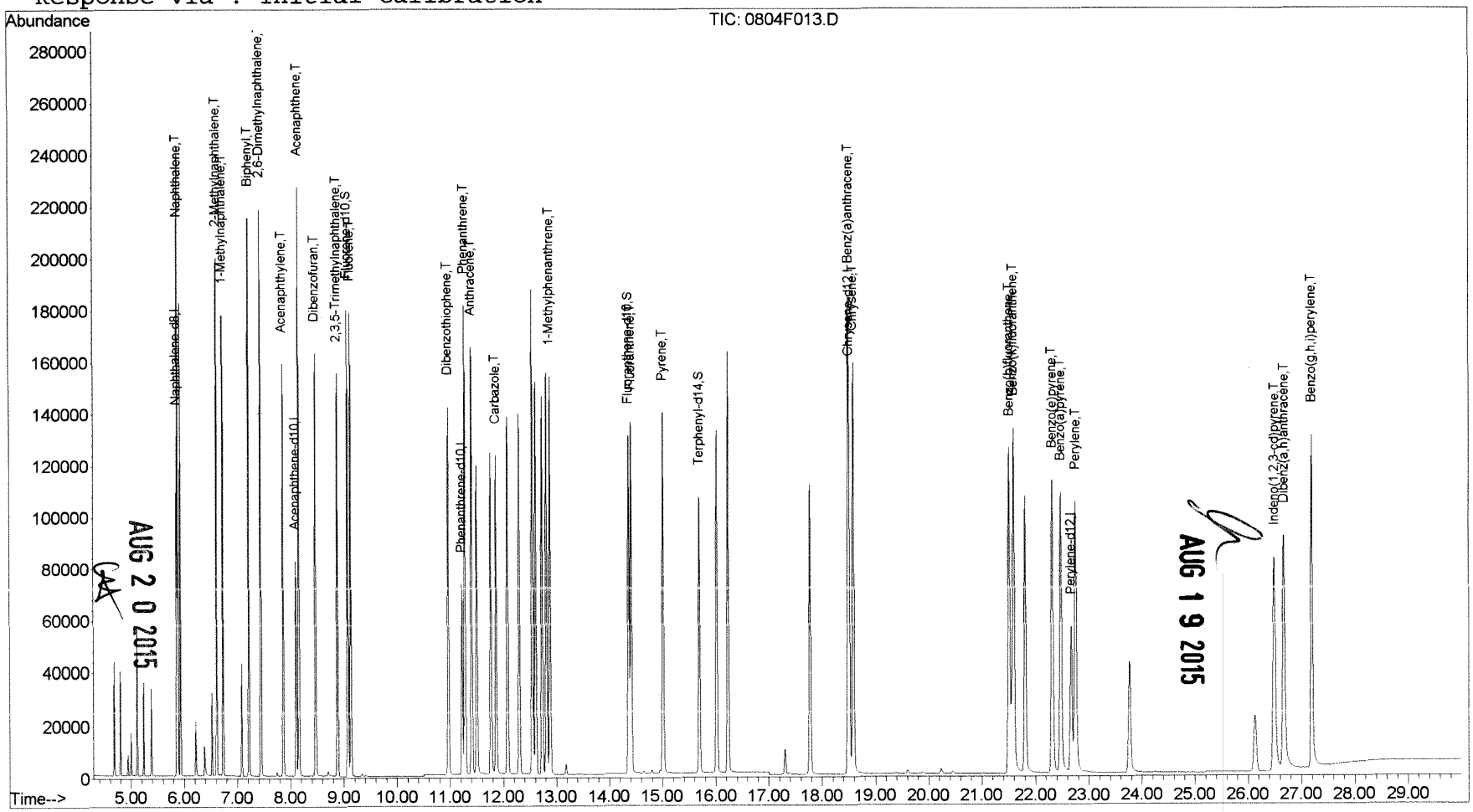
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F013.D
Acq On : 4 Aug 2015 8:46 pm
Sample : SIM-ALKH ICAL @0.4ug/mL | SVM49-41H
Misc :
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46 2015

Vial: 10
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F014.D Vial: 11
Acq On : 4 Aug 2015 9:23 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @1.0ug/mL | SVM49-41I Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46:46 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

AUG 19 2015

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.86	136	94657	200.00 ng/ml	0.00
11) Acenaphthene-d10	8.11	164	52254	200.00 ng/ml	0.00
21) Phenanthrene-d10	11.23	188	100514	200.00 ng/ml	0.00
37) Chrysene-d12	18.51	240	113993	200.00 ng/ml	0.00
50) Perylene-d12	22.67	264	120774	200.00 ng/ml	0.00
System Monitoring Compounds					
16) Fluorene-d10	9.08	176	270859	922.25 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 92.22%		
36) Fluoranthene-d10	14.36	212	497784	1012.96 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 101.30%		
43) Terphenyl-d14	15.69	244	412405	940.22 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 94.02%		

Target Compounds					Qvalue
2) Naphthalene	5.88	128	417245	918.12 ng/ml	99
3) 2-Methylnaphthalene	6.62	142	301103	942.01 ng/ml	97
4) 1-Methylnaphthalene	6.73	142	264994	924.50 ng/ml	95
5) Biphenyl	7.22	154	360348	915.04 ng/ml	99
6) 2,6-Dimethylnaphthalene	7.45	156	263031	949.47 ng/ml	98
12) Acenaphthylene	7.87	152	450631	986.99 ng/ml	99
13) Acenaphthene	8.16	154	262265	934.93 ng/ml	99
14) Dibenzofuran	8.47	168	415285	955.94 ng/ml	94
15) 2,3,5-Trimethylnaphthalene	8.89	170	266227	1023.90 ng/ml	95
17) Fluorene	9.13	166	318435	942.43 ng/ml	100
22) Dibenzothiophene	10.97	184	478867	971.94 ng/ml	100
27) Phenanthrene	11.28	178	487197	924.44 ng/ml	100
28) Anthracene	11.40	178	474815	974.33 ng/ml	99
29) Carbazole	11.87	167	440588	974.50 ng/ml	100
30) 1-Methylphenanthrene	12.88	192	368569	944.39 ng/ml	99
35) Fluoranthene	14.42	202	557140	983.08 ng/ml	97
38) Pyrene	15.01	202	586959	979.26 ng/ml	97
44) Benz(a)anthracene	18.49	228	567417	1048.88 ng/ml	100
45) Chrysene	18.59	228	528822	947.65 ng/ml	100
51) Benzo(b)fluoranthene	21.51	252	620881	1018.73 ng/ml	99
52) Benzo(k)fluoranthene	21.60	252	626808	949.69 ng/ml	98
53) Benzo(e)pyrene	22.32	252	596543	964.21 ng/ml	99
54) Benzo(a)pyrene	22.48	252	569160	1007.06 ng/ml	99
55) Perylene	22.75	252	570874	960.18 ng/ml	99
56) Indeno(1,2,3-cd)pyrene	26.50	276	589809	1126.03 ng/ml	99
57) Dibenz(a,h)anthracene	26.68	278	599010	1090.02 ng/ml	97
58) Benzo(g,h,i)perylene	27.20	276	618480	991.59 ng/ml	99

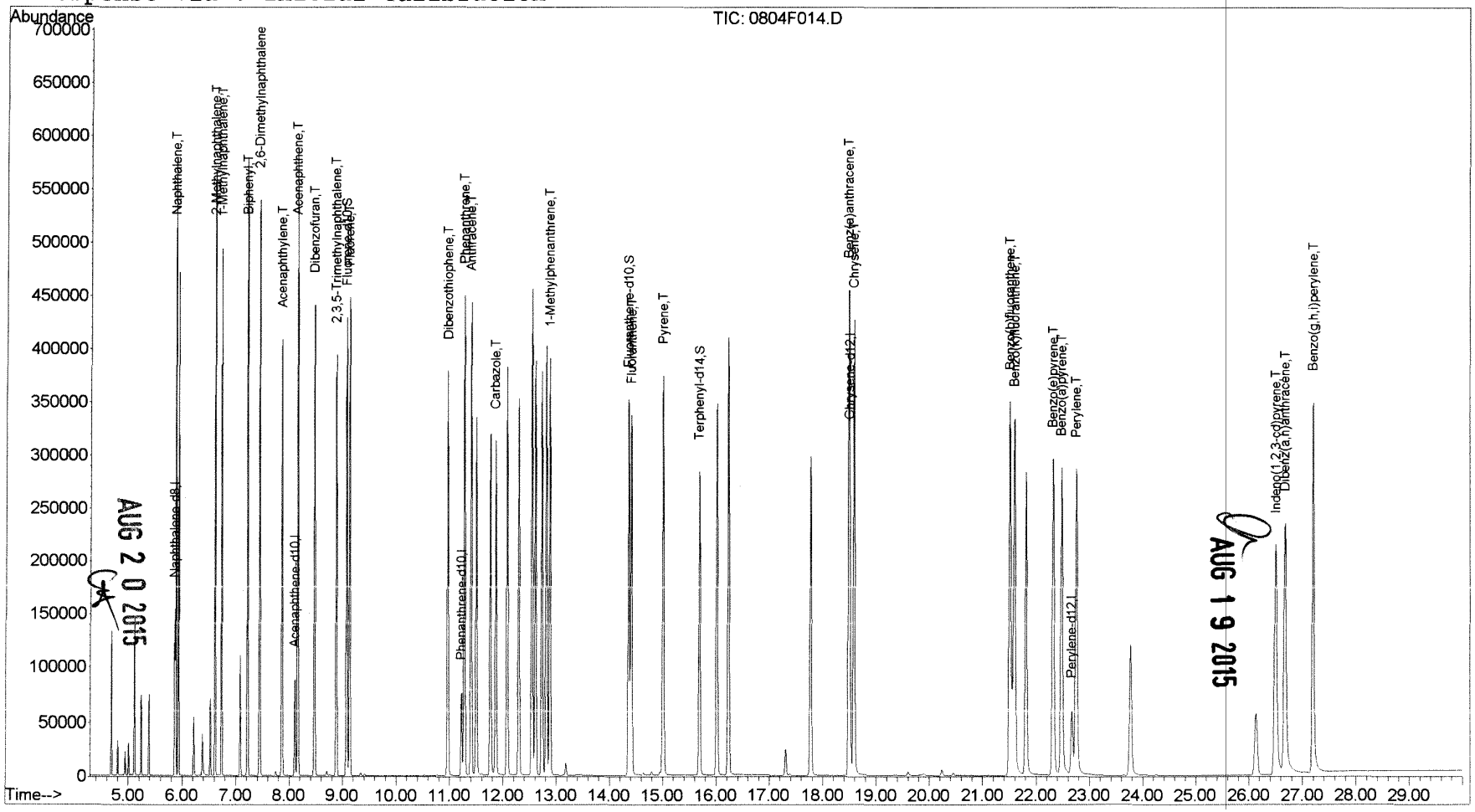
(#) = qualifier out of range (m) = manual integration

AUG 20 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F014.D Vial: 11
Acq On : 4 Aug 2015 9:23 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @1.0ug/mL | SVM49-41I Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46 2015 Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F015.D Vial: 12
Acq On : 4 Aug 2015 10:00 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @1.6ug/mL | SVM49-41J Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46:47 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

AUG 19 2015

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.86	136	89243	200.00 ng/ml	0.00
11) Acenaphthene-d10	8.11	164	50086	200.00 ng/ml	0.00
21) Phenanthrene-d10	11.22	188	96246	200.00 ng/ml	0.00
37) Chrysene-d12	18.52	240	108417	200.00 ng/ml	0.00
50) Perylene-d12	22.67	264	115228	200.00 ng/ml	0.00
System Monitoring Compounds					
16) Fluorene-d10	9.08	176	423482	1504.33 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 150.43%		
36) Fluoranthene-d10	14.36	212	780378	1658.44 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 165.84%		
43) Terphenyl-d14	15.69	244	645162	1546.52 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 154.65%		
Target Compounds					Qvalue
2) Naphthalene	5.88	128	641630	1497.52 ng/ml	98
3) 2-Methylnaphthalene	6.62	142	463528	1538.14 ng/ml	97
4) 1-Methylnaphthalene	6.73	142	412478	1526.34 ng/ml	95
5) Biphenyl	7.22	154	557312	1501.05 ng/ml	99
6) 2,6-Dimethylnaphthalene	7.45	156	410528	1571.79 ng/ml	99
12) Acenaphthylene	7.87	152	698067	1595.12 ng/ml	98
13) Acenaphthene	8.16	154	406503	1511.84 ng/ml	99
14) Dibenzofuran	8.47	168	641677	1541.01 ng/ml	88
15) 2,3,5-Trimethylnaphthalene	8.89	170	408928	1640.81 ng/ml	95
17) Fluorene	9.14	166	495182	1528.96 ng/ml	97
22) Dibenzothiophene	10.97	184	750229	1590.23 ng/ml	100
27) Phenanthrene	11.28	178	753200	1492.55 ng/ml	99
28) Anthracene	11.41	178	735595	1576.39 ng/ml	99
29) Carbazole	11.87	167	684980	1582.24 ng/ml	100
30) 1-Methylphenanthrene	12.89	192	570636	1526.99 ng/ml	100
35) Fluoranthene	14.41	202	857556	1580.27 ng/ml	100
38) Pyrene	15.01	202	913407	1602.27 ng/ml	98
44) Benz(a)anthracene	18.49	228	888633	1727.13 ng/ml	99
45) Chrysene	18.59	228	824868	1554.19 ng/ml	100
51) Benzo(b)fluoranthene	21.51	252	973896	1674.86 ng/ml	98
52) Benzo(k)fluoranthene	21.60	252	976961	1551.45 ng/ml	97
53) Benzo(e)pyrene	22.33	252	926223	1569.13 ng/ml	99
54) Benzo(a)pyrene	22.48	252	894980	1659.77 ng/ml	98
55) Perylene	22.76	252	895103	1577.98 ng/ml	99
56) Indeno(1,2,3-cd)pyrene	26.51	276	919827	1840.61 ng/ml	98
57) Dibenz(a,h)anthracene	26.68	278	939928	1792.71 ng/ml	97
58) Benzo(g,h,i)perylene	27.21	276	955869	1606.27 ng/ml	98

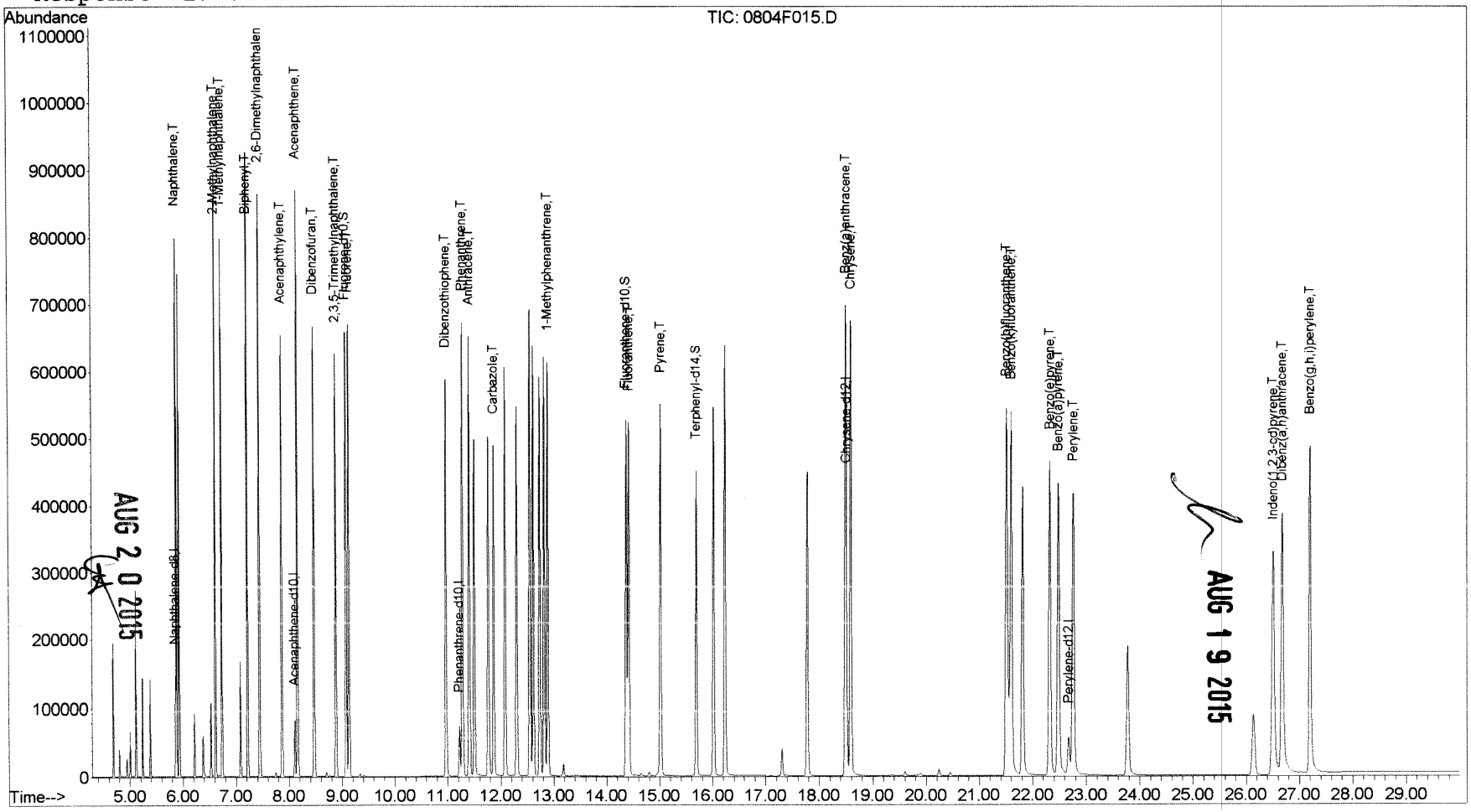
(#) = qualifier out of range (m) = manual integration AUG 20 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F015.D
Acq On : 4 Aug 2015 10:00 pm
Sample : SIM-ALKH ICAL @1.6ug/mL | SVM49-41J
Misc :
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46 2015

Vial: 12
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration



AUG 20 2015

AUG 19 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F016.D Vial: 13
Acq On : 4 Aug 2015 10:37 pm Operator: LWeiskopf
Sample : SIM-ALKH ICAL @2.0ug/mL | SVM49-41K Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46:47 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

AUG 1 9 2015

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.86	136	89081	200.00 ng/ml	0.00
11) Acenaphthene-d10	8.11	164	49518	200.00 ng/ml	0.00
21) Phenanthrene-d10	11.22	188	94401	200.00 ng/ml	0.00
37) Chrysene-d12	18.52	240	107676	200.00 ng/ml	0.00
50) Perylene-d12	22.67	264	116454	200.00 ng/ml	0.00
System Monitoring Compounds					
16) Fluorene-d10	9.08	176	515624	1852.65 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 185.27%		
36) Fluoranthene-d10	14.37	212	965307	2091.54 ng/ml	0.01
Spiked Amount 1000.000			Recovery = 209.15%		
43) Terphenyl-d14	15.69	244	801588	1934.71 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 193.47%		
Target Compounds					Qvalue
2) Naphthalene	5.88	128	781195	1826.57 ng/ml	98
3) 2-Methylnaphthalene	6.62	142	565258	1879.12 ng/ml	98
4) 1-Methylnaphthalene	6.73	142	502557	1863.05 ng/ml	95
5) Biphenyl	7.22	154	676856	1826.35 ng/ml	100
6) 2,6-Dimethylnaphthalene	7.45	156	499548	1916.10 ng/ml	99
12) Acenaphthylene	7.87	152	854958	1976.03 ng/ml	98
13) Acenaphthene	8.16	154	501115	1885.09 ng/ml	99
14) Dibenzofuran	8.47	168	777864	1889.49 ng/ml	86
15) 2,3,5-Trimethylnaphthalene	8.89	170	505998	2053.58 ng/ml	90
17) Fluorene	9.14	166	606351	1893.69 ng/ml	97
22) Dibenzothiophene	10.97	184	915832	1979.20 ng/ml	99
27) Phenanthrene	11.28	178	916165	1850.96 ng/ml	99
28) Anthracene	11.41	178	901786	1970.31 ng/ml	99
29) Carbazole	11.87	167	836229	1969.36 ng/ml	99
30) 1-Methylphenanthrene	12.89	192	698497	1905.67 ng/ml	100
35) Fluoranthene	14.42	202	1054988	1982.09 ng/ml	99
38) Pyrene	15.02	202	1129048	1994.17 ng/ml	96
44) Benz(a)anthracene	18.50	228	1103355	2159.22 ng/ml	100
45) Chrysene	18.59	228	1006489	1909.44 ng/ml	99
51) Benzo(b)fluoranthene	21.51	252	1224780	2084.14 ng/ml	97
52) Benzo(k)fluoranthene	21.60	252	1184982	1861.99 ng/ml	97
53) Benzo(e)pyrene	22.33	252	1148065	1924.49 ng/ml	98
54) Benzo(a)pyrene	22.49	252	1116004	2047.88 ng/ml	98
55) Perylene	22.76	252	1112041	1939.79 ng/ml	98
56) Indeno(1,2,3-cd)pyrene	26.52	276	1148640	2274.27 ng/ml	98
57) Dibenz(a,h)anthracene	26.69	278	1174378	2216.29 ng/ml	96
58) Benzo(g,h,i)perylene	27.21	276	1189228	1977.38 ng/ml	98

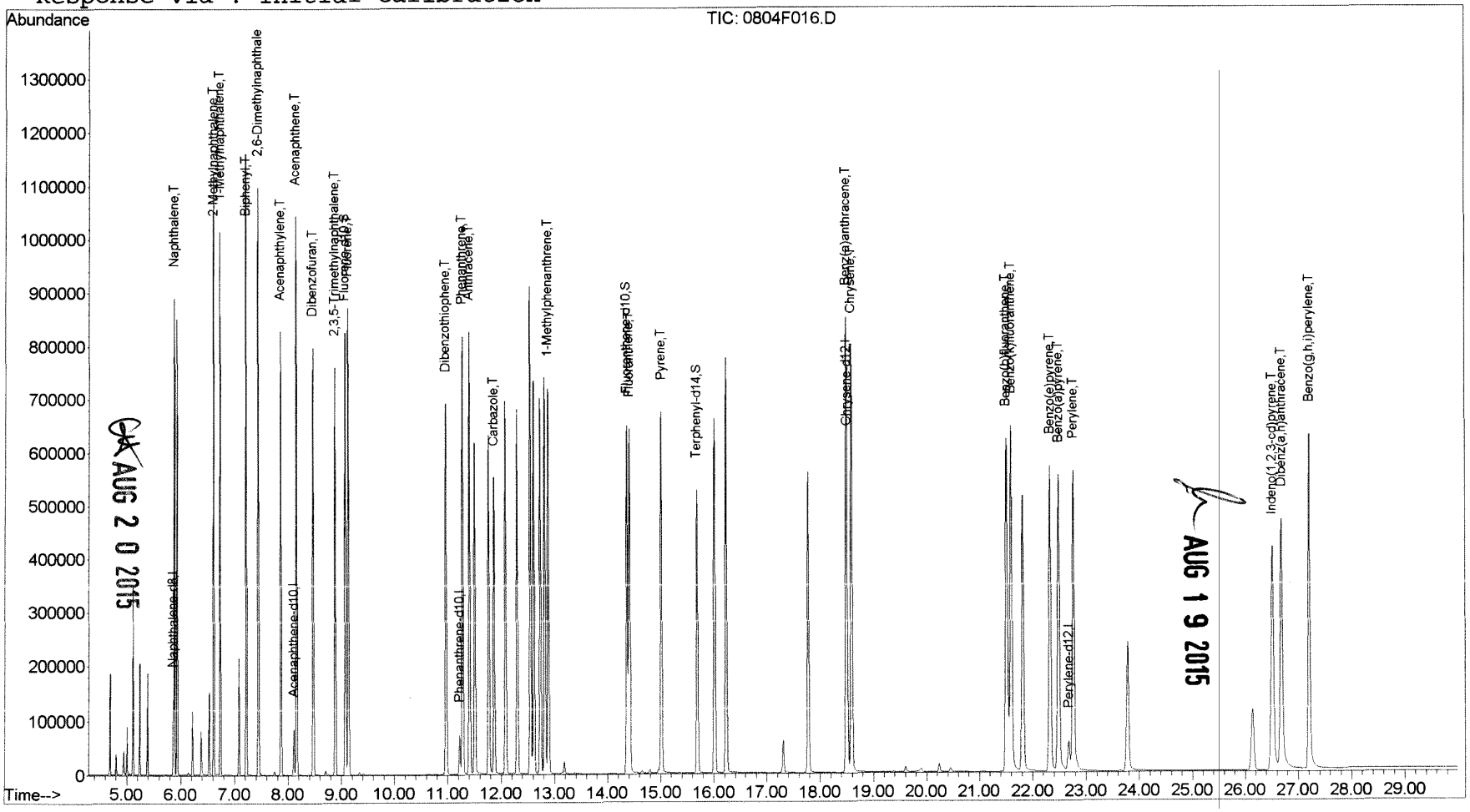
(#) = qualifier out of range (m) = manual integration AUG 2 0 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F016.D
Acq On : 4 Aug 2015 10:37 pm
Sample : SIM-ALKH ICAL @2.0ug/mL | SVM49-41K
Misc :
MS Integration Params: RTEINT.P
Quant Time: Aug 19 10:46 2015

Vial: 13
Operator: LWeiskopf
Inst : MS20
Multiplr: 1.00
Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 10:46:24 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F017.D Vial: 14
Acq On : 4 Aug 2015 11:14 pm Operator: LWeiskopf
Sample : SIM-ALKH ICV @0.4ug/mL | SVM50-64A Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 11:24:30 2015 Quant Results File: 080415SIMALK.RE

Quant Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 11:24:18 2015
Response via : Initial Calibration
DataAcq Meth : ENXPAHX

AUG 19 2015

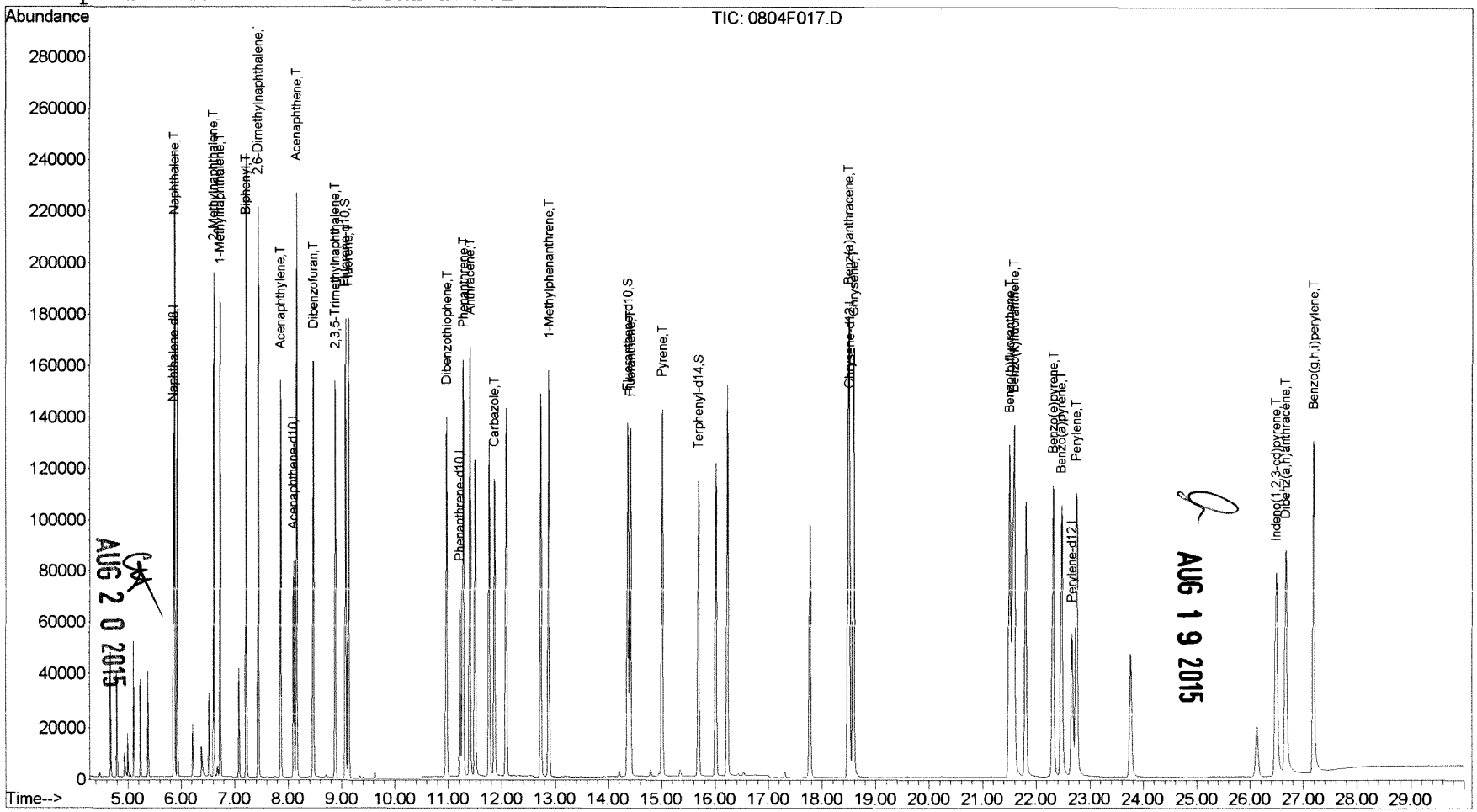
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Naphthalene-d8	5.86	136	86024	200.00 ng/ml	0.00
11) Acenaphthene-d10	8.10	164	48118	200.00 ng/ml	0.00
21) Phenanthrene-d10	11.22	188	91390	200.00 ng/ml	0.00
37) Chrysene-d12	18.51	240	106307	200.00 ng/ml	0.00
50) Perylene-d12	22.66	264	110042	200.00 ng/ml	0.00
System Monitoring Compounds					
16) Fluorene-d10	9.07	176	105962	387.68 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 38.77%		
36) Fluoranthene-d10	14.36	212	187953	398.02 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 39.80%		
43) Terphenyl-d14	15.68	244	165051	398.71 ng/ml	0.00
Spiked Amount 1000.000			Recovery = 39.87%		
Target Compounds					Qvalue
2) Naphthalene	5.88	128	163434	395.15 ng/ml	100
3) 2-Methylnaphthalene	6.62	142	113822	386.97 ng/ml	96
4) 1-Methylnaphthalene	6.73	142	101512	391.54 ng/ml	98
5) Biphenyl	7.21	154	143696	404.48 ng/ml	98
6) 2,6-Dimethylnaphthalene	7.45	156	103023	398.46 ng/ml	99
12) Acenaphthylene	7.86	152	170980	391.42 ng/ml	100
13) Acenaphthene	8.16	154	100606	385.30 ng/ml	99
14) Dibenzofuran	8.47	168	159618	399.79 ng/ml	100
15) 2,3,5-Trimethylnaphthalene	8.89	170	101879	398.00 ng/ml	99
17) Fluorene	9.13	166	122924	387.33 ng/ml	100
22) Dibenzothiophene	10.97	184	186484	401.72 ng/ml	98
27) Phenanthrene	11.28	178	185833	389.21 ng/ml	99
28) Anthracene	11.40	178	183821	394.95 ng/ml	100
29) Carbazole	11.86	167	171538	409.90 ng/ml	99
30) 1-Methylphenanthrene	12.88	192	144767	396.25 ng/ml	100
35) Fluoranthene	14.41	202	211579	390.81 ng/ml	99
38) Pyrene	15.01	202	218069	377.49 ng/ml	96
44) Benz(a)anthracene	18.49	228	213991	383.12 ng/ml	100
45) Chrysene	18.58	228	208041	392.32 ng/ml	99
51) Benzo(b)fluoranthene	21.50	252	237595	405.42 ng/ml	100
52) Benzo(k)fluoranthene	21.59	252	237453	395.65 ng/ml	99
53) Benzo(e)pyrene	22.31	252	217397	384.13 ng/ml	99
54) Benzo(a)pyrene	22.47	252	212229	392.84 ng/ml	100
55) Perylene	22.74	252	221817	405.84 ng/ml	100
56) Indeno(1,2,3-cd)pyrene	26.49	276	216822	380.36 ng/ml	100
57) Dibenz(a,h)anthracene	26.67	278	218080	384.29 ng/ml	96
58) Benzo(g,h,i)perylene	27.19	276	235411	388.73 ng/ml	100

(#) = qualifier out of range (m) = manual integration AUG 20 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS20\DATA\080415A\0804F017.D Vial: 14
Acq On : 4 Aug 2015 11:14 pm Operator: LWeiskopf
Sample : SIM-ALKH ICV @0.4ug/mL | SVM50-64A Inst : MS20
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 19 11:24 2015 Quant Results File: 080415SIMALK.RES

Method : J:\MS20\METHODS\080415SIMALK.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Aug 19 11:24:18 2015
Response via : Initial Calibration



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