ALS Environmental
ALS Group USA, Corp
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Kelso, WA 98626
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www.alsglobal.com

April 17, 2019

Analytical Report for Service Request No: K1810302
Revised Service Request No: K1810302.02

Janet Knox
Pacific Groundwater Group
2377 Eastlake Ave., East
Suite 200
Seattle, WA 98102

RE: DTNA Swan Island Lagoon Sediment / 2006-00115

Dear Janet,

Enclosed is the revised report for the sample(s) submitted to our laboratory October 22, 2018
For your reference, these analyses have been assigned our service request number **K1810302.**

The OC Pesticides were revised on 4/16/2019.

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.

We apologize for any inconvenience this may have created.

Please contact me if you have any questions. My extension is 3364. You may also contact me via email at howard.holmes@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Howard Holmes
Project Manager

REVISED
12:47 pm, Apr 17, 2019

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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 DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	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	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	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/EnvironmentalLabCertification/	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
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
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

REVISED
12:47 pm, Apr 17, 2019

ALS Environmental

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Date Received:** 10/22/2018
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 for the Tier level IV requested by the client.

Sample Receipt:

Twenty nine sediment samples were received for analysis at ALS Environmental on 10/22/2018. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4ºC upon receipt at the laboratory.

Semivolatiles by GC/MS:

Method 8270D, Polynuclear Aromatic Hydrocarbons 11/06,13/18: The results reported for the following compound in samples A1-0to30-102018 and H3-SC-99to114-102118 may contain a slight bias: Acenaphthylene and Benz(a)anthracene respectively. The chromatogram indicated the presence of non-target background components. The matrix interference may have resulted in a slight high bias in the affected samples. The results were flagged with “X” to indicate the issue.

Method 8270D, Polynuclear Aromatic Hydrocarbons 11/06/18: The recoveries of most analytes in Matrix Spikes (MS/MSD) KWG1805647-1/2 were outside the control limits listed in the results summary. The limits are default values temporarily in use until sufficient data points are generated to calculate statistical control limits. Based on the method and historic data, the recoveries observed were in the range expected for this procedure. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicated the analytical batch was in control. The matrix spike outlier suggested a potential low bias in this matrix. No further corrective action was taken.

Method 8270D, Low Level Semivolatile Organic Compounds by GC/MS 12/12/2018: The analysis of sample D6-SC-1to2-102118 for Bis(2-ethylhexyl) Phthalate was initially performed within the recommended holding time. Reanalysis at a dilution was required. The reanalysis was performed 2 days past the recommended holding time. The results from the second analysis were reported.
Method ALS SOP, Organochlorine Pesticides by GC/MS/MS 11/17/2018: The control criteria for matrix spike recovery of Aldrin for sample D6-SC-40to64-102118 were not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.
Method ALS SOP, Organochlorine Pesticides by GC/MS/MS 11/26/2018: The following analyte was flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS42\112618F003.D: 2,4'-DDT. In accordance with the EPA Method, 80% or more of the CCV analytes must have passed within 20% of the true value. The remaining analytes are allowed a 40% difference as per the ALS SOP. The CCV met these criteria. No further corrective action was required.

Semivoa GC:

Method ALS SOP, Butyltins 11/21/2018: The analysis of method Butyltins requires the use of dual column confirmation. When the Continuing Calibration Verification (CCV) criterion is met for both columns, the higher of the two sample results is generally reported. The primary evaluation criteria were not met on the confirmation column for Tri-n-proplytin. The results were reported from the column with an acceptable CCV. The data quality was not affected. No further corrective action was necessary.
Method Butyltins , Butyltins 11/21/2018: The matrix spike recovery of Tri-n-butylin Cation for sample K6-0to28-101918 were not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.
Method Butyltins , Butyltins 11/21/2018:Samples D6-SC-0to1-102118 and D6-1to2-102118 required dilution due to the presence of elevated levels of target analyte. The reporting limits are adjusted to reflect the dilution.

Approved by  Date 04/17/2019

Chain of Custody

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CHAIN OF CUSTODY

SR# K181032

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PAGE 1 OF ____ COC# ____

PROJECT NAME: DNA Subtidal Lagoon Sediment
PROJECT NUMBER: 2006-00115
PROJECT MANAGER: Janet Knox
COMPANY NAME: PGG
ADDRESS: 2377 Eastlake Ave E
CITY/STATE/ZIP: Seattle WA 98102
E-MAIL ADDRESS: janet@pgwg.com
PHONE #: 206 329 0141 FAX #:
SAMPLER'S SIGNATURE: JKK

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	REMARKS
K6-0to28-101918	10/19/18	0926		S	1	Phase 2
K4-0to28-101918		1348		S	1	"
M5-0to25-101918		1155		S	1	"
K4-0to28-101918		0811		S	1	"
07-0to27-101918		1536		S	1	"
05-0to27-101918		1423		S	1	"
K7-0to24-101918		1008		S	1	Phase 2
M6-0to26-101918		1118		S	1	Phase 2
M7-0to29-101918		1048		S	1	Phase 2
K5-0to27-101918		0850		S	1	Phase 2

Semivolatile Organics by GC/MS 625☐ 8270☐ 8270LL☐ SIM PAH☒
Volatile Organics 624☐ 8260☐ 8021☐ BTEX☐
Hydrocarbons (*see below) Gas☐ Diesel☐ Oil☐
Oil & Grease/TRPH 1664 HEM☐ 1664 SGT☐
PCBs Aroclors☐ Congeners☐
Pesticides/Herbicides 608☐ 8081☐ 8141☐ 8151☐
Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐
Metals, Total or Dissolved (See List below)
Cyanide☐ Hex-Chrom☐
(circle) pH, Cond., Cl, SO_4, PO4, F, NO_2, NO_3, BOD, TSS, TDS, Turb.
(circle) NH_3-N, COD, TKN, TOC, DOC, NO_2+NO_3, T-Phos
TOX 9020☐ AOX 1650☐ 506☐
Alkalinity☐ CO_3☐ HCO_3☐
Dioxins/Furans 1613☐ 8290☐
Dissolved Gases RSK 175☐ Methane☐ Ethane☐ Ethene☐ CO_2☐
TOC (ASTM D5390)

REPORT REQUIREMENTS

___ I. Routine Report: Method Blank, Surrogate, as required
___ II. Report Dup., MS, MSD as required
___ III. CLP Like Summary (no raw data)
___ IV. Data Validation Report
___ V. EDD

INVOICE INFORMATION

P.O. # ____
Bill To: ____

TURNAROUND REQUIREMENTS

____ 24 hr. ____ 48 hr.
____ 5 day
____ Standard (15 working days)
____ Provide FAX Results

Requested Report Date

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: ____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

☐ Sample Shipment contains USDA regulated soil samples (check box if applicable)

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: JKK	Signature: BBowman	Signature: BBowman	Signature: BBowman
Printed Name: J Knox	Printed Name: B Bowman	Printed Name: B Bowman	Printed Name: B Bowman
Date/Time: 10/20/18 9:45	Date/Time: 10/22/18 0925	Date/Time: 10/22/18 1041	Date/Time: 10/22/18 1041
Firm: PGG	Firm: ALS	Firm: ALS	Firm: ALS

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CHAIN OF CUSTODY

SR# 61810302

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PROJECT NAME: DTNA Swan Island Lagoon Sediment
PROJECT NUMBER: 2006-00115
PROJECT MANAGER: Janet Knox
COMPANY NAME: PGG
ADDRESS: 2377 Eastlake Ave E
CITY/STATE/ZIP: Seattle WA 98102
E-MAIL ADDRESS: janet@pgwg.com
PHONE #: 206 329 0141 FAX #:
SAMPLER'S SIGNATURE: [signature]

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS		Semivolatile Organics by GC/MS 625☐ 8270☐ SIM PAH☒	Volatile Organics 624☐ 8260☐ 8270LL☐	Hydrocarbons (*see below) Diesel☐ Oil☐ Gas☐ 8021☐ BTEX☐	Oil & Grease/TRPH 1664 HEM☐ 1664 SGT☐	PCBs Aroclors☐ Congeners☐	Pesticides/Herbicides 608☐ 8081☐ 8141☐ 8151☐	Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐	Metals, Total or Dissolved (See List below)	Cyanide☐ Hex-Chrom☐	(circle) pH, Cond., Cl, SO4, PO4, F, NO2, NO3, BOD, TSS, TDS, Turb.	(circle) NH3-N, COD, TKN, TOC, DOC, NO2+NO3, T-Phos	TOX 9020☐ AOX 1650☐ 506☐	Alkalinity☐ CO3☐ HCO3☐	Dioxins/Furans 1613☐ 8290☐	Dissolved Gases RSK 175☐ CO2☐ Methane☐ Ethane☐ Ethene☐	ALS SAP Tributyltin	ASchive	REMARKS
S15-Oto26-101918	10/19/18	1311		S	1																				phase2
O6-Oto27-101918	"	1457		S	1																				phase2
M4-Oto26-101918	10/19/18	1311		S	1																				phase2
I7-Oto26-101918	10/19/18	1612																					X		
Q6-Oto27-102018	10/20/18	0919																					X		
A1-Oto30-102018	10/20/18	1205																					X		
S5-Oto27-102018	10/20/18	1023																					X		
S4-Oto28-102018	10/20/18	1058																					X		
Q5-Oto29-102018	10/20/18	0845																					X		
Q4-Oto27-102018	10/20/18	0816		S	1																		X		

REPORT REQUIREMENTS

___ I. Routine Report: Method Blank, Surrogate, as required
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___ III. CLP Like Summary (no raw data)
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Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

*INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: _____ (CIRCLE ONE)

SPECIAL INSTRUCTIONS/COMMENTS:

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RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: [signature]	Signature: [signature]	Signature: [signature]	Signature: [signature]
Date/Time: 10/20/18 925	Date/Time: 10/22/18 0927	Date/Time: 10/22/18 1041	Date/Time: 10/22/18 1041
Printed Name: J. Price	Printed Name: BBeckman	Printed Name: BBeckman	Printed Name: BBeckman
Firm: PGG	Firm: ALV	Firm: ALV	Firm: ALV

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CHAIN OF CUSTODY

SR# K1810302

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PAGE ____ OF ____ COC# ____

PROJECT NAME: DNA Swan Island Lagoon Sediment
PROJECT NUMBER: 2006-00115
PROJECT MANAGER: Janet Knox
COMPANY NAME: PGG
ADDRESS: 2377 Eastlake Ave E
CITY/STATE/ZIP: Seattle WA 98102
E-MAIL ADDRESS: janet@pgwg.com
PHONE #: 206-329-0141 FAX #:
SAMPLER'S SIGNATURE:

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	REMARKS
SG-Oto25-102018	102018	0940		S	1	~~Archive~~
D6-SC-64to88-102118	10/21/18	1740		S	1	Phase 1
D6-SC-40to64-102118		1650		S	1	
H3-SC-89to114-102118		1430		S	1	
~~D6-SC~~						
D6-SC-88to108-102118		1750		S	1	
H3-SC-46to63-102118		1250		S	1	
D6-SC-061-102118		1600		S	1	
H3-SC-162-102118		1155		S	1	
D6-SC-162-102118		1625		S	1	Phase 1

Semivolatile Organics by GC/MS 625☐ 8270☐ 8270LL☐ SIM PAH☒
Volatile Organics 624☐ 8260☐ 8021☐ BTEX☐
Hydrocarbons (*see below) Gas☐ Diesel☐ Oil☐
Oil & Grease/TRPH 1664 HEM☐ 1664 SGT☐
PCBs Aroclors☐ Congeners☐
Pesticides/Herbicides 608☐ 8081☐ 8141☐ 8151☐ (1699M)
Chlorophenolics - 8151M Tri☐ Tetra☐ PCP☐
Metals, Total or Dissolved (See List below)
Cyanide☐ Hex-Chrom☐
(circle) pH, Cond., Cl, SO_4, PO_4, F, NO_2, NO_3, BOD, TSS, TDS, Turb.
(circle) NH_3-N, COD, TKN, TOC, DOC, NO_2+NO_3, T-Phos
TOX 9020☐ AOX 1650☐ 506☐
Alkalinity☐ CO_3☐ HCO_3☐
Dioxins/Furans 1613☐ 8290☐
Dissolved Gases RSK 175☐ CO_2☐ Methane☐ Ethane☐ Ethene☐
Tributyltin ALS SOP

REPORT REQUIREMENTS

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SPECIAL INSTRUCTIONS/COMMENTS:

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Signature:	Signature:	Signature:	Signature:
Date/Time: 10/22/18 925	Date/Time: 10/22/18 0925	Date/Time: 10/22/18 1045	Date/Time: 10/22/18 1045
Printed Name: J. Price	Printed Name: B Bowman	Printed Name: B Bowman	Printed Name: B Bowman
Firm: PGG	Firm: HV	Firm: HV	Firm: HV

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PC HH

Cooler Receipt and Preservation Form

Client PGE Service Request K1810302

Received: 10/22/18 Opened: 10/22/18 By: BR Unloaded: 10/22/18 By: BR

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID NA	Tracking Number NA	Filed
5.4	5.4	6.2	6.2	0.0	376			
9.1	9.0			-0.1	360			
3.1	3.2	1.9	2.0	+0.1	379			
5.7	5.6	1.9	1.8	-0.1	360			

4. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA Y N
   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: _____

Total Solids

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Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/19/18 - 10/21/18
Sample Matrix:	Sediment	**Date Received:**	10/22/18
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
K6-0to28-101918	K1810302-001	**32.1**	-	-	1	10/24/18 09:11	
O4-0to28-101918	K1810302-002	**30.2**	-	-	1	10/24/18 09:11	
M5-0to25-101918	K1810302-003	**36.7**	-	-	1	10/24/18 09:11	
K4-0to28-101918	K1810302-004	**34.2**	-	-	1	10/24/18 09:11	
O7-0to27-101918	K1810302-005	**33.8**	-	-	1	10/24/18 13:18	
O5-0to27-101918	K1810302-006	**33.6**	-	-	1	10/24/18 13:18	
K7-0to24-101918	K1810302-007	**35.7**	-	-	1	10/24/18 13:18	
M6-0to26-101918	K1810302-008	**33.4**	-	-	1	10/24/18 13:18	
M7-0to29-101918	K1810302-009	**31.6**	-	-	1	10/24/18 13:18	
K5-0to27-101918	K1810302-010	**30.6**	-	-	1	10/24/18 13:18	
515-0to26-101918	K1810302-011	**39.7**	-	-	1	10/24/18 13:18	
O6-0to27-101918	K1810302-012	**30.8**	-	-	1	10/24/18 13:18	
M4-0to26-101918	K1810302-013	**39.9**	-	-	1	10/24/18 13:18	
A1-0to30-102018	K1810302-016	**54.7**	-	-	1	11/06/18 15:36	
D6-SC-64to88-102118	K1810302-022	**66.0**	-	-	1	10/24/18 13:18	
D6-SC-40to64-102118	K1810302-023	**54.7**	-	-	1	10/24/18 13:18	
H3-SC-99to114-102118	K1810302-024	**69.9**	-	-	1	10/24/18 13:18	
D6-SC-88to108-102118	K1810302-025	**71.5**	-	-	1	10/24/18 13:18	
H3-SC-46to63-102118	K1810302-026	**67.8**	-	-	1	10/24/18 13:18	
D6-SC-0to1-102118	K1810302-027	**42.9**	-	-	1	10/24/18 13:18	
H3-SC-1to2-102118	K1810302-028	**52.0**	-	-	1	10/24/18 13:18	
D6-SC-1to2-102118	K1810302-029	**45.9**	-	-	1	10/24/18 13:18	

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/19/18 - 10/21/18
Sample Matrix:	Sediment	**Date Received:**	10/22/18
Analysis Method:	160.3 Modified	**Units:**	Percent
Prep Method:	None	**Basis:**	As Received

Replicate Sample Summary

Inorganic Parameters

Sample Name:	Lab Code:	MRL	Sample Result	Duplicate Result	Average	RPD	RPD Limit	Date Analyzed
O4-0to28-101918	K1810302-002DUP	-	30.2	30.3	30.3	<1	20	10/24/18
O6-0to27-101918	K1810302-012DUP	-	30.8	30.8	30.8	<1	20	10/24/18
A1-0to30-102018	K1810302-016DUP	-	54.7	54.5	54.6	<1	20	11/06/18
D6-SC-1to2-102118	K1810302-029DUP	-	45.9	45.9	45.9	<1	20	10/24/18

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.

Butyltins

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Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/19/18 09:26
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	K6-0to28-101918	**Units:**	ug/Kg
Lab Code:	K1810302-001	**Basis:**	Dry

Butyltins

Analysis Method: ALS SOP
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Tri-n-butyltin Cation	**220**	3.1	1.4	1	11/21/18 05:43	10/30/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tri-n-propyltin	69	10 - 120	11/21/18 05:43	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/20/18 12:05
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	A1-0to30-102018	**Units:**	ug/Kg
Lab Code:	K1810302-016	**Basis:**	Dry

Butyltins

Analysis Method: ALS SOP
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Tri-n-butyltin Cation	ND U	1.8	0.79	1	12/01/18 16:20	11/19/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tri-n-propyltin	52	10 - 120	12/01/18 16:20	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 17:40
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	D6-SC-64to88-102118	**Units:**	ug/Kg
Lab Code:	K1810302-022	**Basis:**	Dry

Butyltins

Analysis Method: ALS SOP
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Tri-n-butyltin Cation	**1.2 J**	1.5	0.65	1	11/21/18 03:30	10/30/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tri-n-propyltin	49	10 - 120	11/21/18 03:30	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 16:50
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	D6-SC-40to64-102118	**Units:**	ug/Kg
Lab Code:	K1810302-023	**Basis:**	Dry

Butyltins

Analysis Method: ALS SOP
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Tri-n-butyltin Cation	**29**	1.8	0.79	1	11/21/18 06:40	10/30/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tri-n-propyltin	63	10 - 120	11/21/18 06:40	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 14:30
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	H3-SC-99to114-102118	**Units:**	ug/Kg
Lab Code:	K1810302-024	**Basis:**	Dry

Butyltins

Analysis Method: ALS SOP
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Tri-n-butyltin Cation	ND U	1.4	0.61	1	11/21/18 07:00	10/30/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tri-n-propyltin	51	10 - 120	11/21/18 07:00	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 17:50
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	D6-SC-88to108-102118	**Units:**	ug/Kg
Lab Code:	K1810302-025	**Basis:**	Dry

Butyltins

Analysis Method: ALS SOP
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Tri-n-butyltin Cation	**0.59 JP**	1.4	0.59	1	11/21/18 07:18	10/30/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tri-n-propyltin	60	10 - 120	11/21/18 07:18	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 12:50
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	H3-SC-46to63-102118	**Units:**	ug/Kg
Lab Code:	K1810302-026	**Basis:**	Dry

Butyltins

Analysis Method: ALS SOP
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Tri-n-butyltin Cation	**1.1 J**	1.4	0.63	1	11/21/18 07:37	10/30/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tri-n-propyltin	65	10 - 120	11/21/18 07:37	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 16:00
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	D6-SC-0to1-102118	**Units:**	ug/Kg
Lab Code:	K1810302-027	**Basis:**	Dry

Butyltins

Analysis Method: ALS SOP
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Tri-n-butyltin Cation	**210**	23	10	10	12/04/18 18:52	10/30/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tri-n-propyltin	46	10 - 120	12/04/18 18:52	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 11:55
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	H3-SC-1to2-102118	**Units:**	ug/Kg
Lab Code:	K1810302-028	**Basis:**	Dry

Butyltins

Analysis Method: ALS SOP
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Tri-n-butyltin Cation	**1.2 J**	1.9	0.82	1	11/21/18 08:14	10/30/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tri-n-propyltin	63	10 - 120	11/21/18 08:14	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 16:15
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	D6-SC-1to2-102118	**Units:**	ug/Kg
Lab Code:	K1810302-029	**Basis:**	Dry

Butyltins

Analysis Method: ALS SOP
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Tri-n-butyltin Cation	**1200**	22	9.4	10	12/04/18 19:10	10/30/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tri-n-propyltin	53	10 - 120	12/04/18 19:10	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KQ1815421-04	**Basis:**	Dry

Butyltins

Analysis Method: ALS SOP
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Tri-n-butyltin Cation	ND U	0.99	0.43	1	11/21/18 03:11	10/30/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tri-n-propyltin	40	10 - 120	11/21/18 03:11	

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Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KQ1815422-04	**Basis:**	Dry

Butyltins

Analysis Method: ALS SOP
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Tri-n-butyltin Cation	ND U	0.98	0.43	1	11/21/18 05:24	10/30/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tri-n-propyltin	57	10 - 120	11/21/18 05:24	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KQ1816241-04	**Basis:**	Dry

Butyltins

Analysis Method: ALS SOP
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Tri-n-butyltin Cation	ND U	0.98	0.43	1	12/01/18 17:34	11/19/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tri-n-propyltin	76	10 - 120	12/01/18 17:34	

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Confirmation Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115
SRM Matrix: Sediment

Service Request: K1810302
Date Collected: 10/19/18 09:26
Date Received: 10/22/18

Sample Name: K6-0to28-101918
Lab Code: K1810302-001

Units: ug/Kg
Basis: Dry
Percent Solids: 32.1

Butyltins

Analytical Method: ALS SOP
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Tri-n-butyltin Cation	1.4	220	220	<1		1	11/21/18 05:43

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Confirmation Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115
SRM Matrix: Sediment

Service Request: K1810302
Date Collected: 10/21/18 17:40
Date Received: 10/22/18

Sample Name: D6-SC-64to88-102118
Lab Code: K1810302-022

Units: ug/Kg
Basis: Dry
Percent Solids: 66.0

Butyltins

Analytical Method: ALS SOP
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Tri-n-butyltin Cation	0.65	1.2	1.5	22	J	1	11/21/18 03:30

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Confirmation Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115
SRM Matrix: Sediment

Service Request: K1810302
Date Collected: 10/21/18 16:50
Date Received: 10/22/18

Sample Name: D6-SC-40to64-102118
Lab Code: K1810302-023

Units: ug/Kg
Basis: Dry
Percent Solids: 54.7

Butyltins

Analytical Method: ALS SOP
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Tri-n-butyltin Cation	0.79	29	30	3		1	11/21/18 06:40

Confirmation Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115
SRM Matrix: Sediment

Service Request: K1810302
Date Collected: 10/21/18 17:50
Date Received: 10/22/18

Sample Name: D6-SC-88to108-102118
Lab Code: K1810302-025

Units: ug/Kg
Basis: Dry
Percent Solids: 71.5

Butyltins

Analytical Method: ALS SOP
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Tri-n-butyltin Cation	0.59	0.59	0.92	44	JP	1	11/21/18 07:18

Confirmation Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115
SRM Matrix: Sediment

Service Request: K1810302
Date Collected: 10/21/18 12:50
Date Received: 10/22/18

Sample Name: H3-SC-46to63-102118
Lab Code: K1810302-026

Units: ug/Kg
Basis: Dry
Percent Solids: 67.8

Butyltins

Analytical Method: ALS SOP
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Tri-n-butyltin Cation	0.63	1.1	1.2	9	J	1	11/21/18 07:37

Confirmation Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115
SRM Matrix: Sediment

Service Request: K1810302
Date Collected: 10/21/18 16:00
Date Received: 10/22/18

Sample Name: D6-SC-0to1-102118
Lab Code: K1810302-027

Units: ug/Kg
Basis: Dry
Percent Solids: 42.9

Butyltins

Analytical Method: ALS SOP
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Tri-n-butyltin Cation	10	210	220	5		10	12/04/18 18:52

Confirmation Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115
SRM Matrix: Sediment

Service Request: K1810302
Date Collected: 10/21/18 11:55
Date Received: 10/22/18

Sample Name: H3-SC-1to2-102118
Lab Code: K1810302-028

Units: ug/Kg
Basis: Dry
Percent Solids: 52.0

Butyltins

Analytical Method: ALS SOP
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Tri-n-butyltin Cation	0.82	1.2	1.4	15	J	1	11/21/18 08:14

Confirmation Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115
SRM Matrix: Sediment

Service Request: K1810302
Date Collected: 10/21/18 16:15
Date Received: 10/22/18

Sample Name: D6-SC-1to2-102118
Lab Code: K1810302-029

Units: ug/Kg
Basis: Dry
Percent Solids: 45.9

Butyltins

Analytical Method: ALS SOP
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Tri-n-butyltin Cation	9.4	1200	1300	8		10	12/04/18 19:10

Confirmation Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115
SRM Matrix: Sediment

Service Request: K1810302
Date Collected: 10/21/18 17:40
Date Received: 10/22/18

Sample Name: D6-SC-64to88-102118
Lab Code: KQ1815421-01

Units: ug/Kg
Basis: Dry
Percent Solids: 66.0

Butyltins

Analytical Method: ALS SOP
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Tri-n-butyltin Cation	0.65	22.6	24.8	9		1	11/21/18 03:49

Confirmation Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115
SRM Matrix: Sediment

Service Request: K1810302
Date Collected: 10/21/18 17:40
Date Received: 10/22/18

Sample Name: D6-SC-64to88-102118
Lab Code: KQ1815421-02

Units: ug/Kg
Basis: Dry
Percent Solids: 66.0

Butyltins

Analytical Method: ALS SOP
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Tri-n-butyltin Cation	0.65	24.3	25.1	3		1	11/21/18 04:08

Confirmation Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115
SRM Matrix: Sediment

Service Request: K1810302
Date Collected: NA
Date Received:

Sample Name: Lab Control Sample
Lab Code: KQ1815421-03

Units: ug/Kg
Basis: Dry

Butyltins

Analytical Method: ALS SOP
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Tri-n-butyltin Cation	0.43	12.4	14.8	18		1	11/21/18 02:52

Confirmation Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115
SRM Matrix: Sediment

Service Request: K1810302
Date Collected: 10/19/18 09:26
Date Received: 10/22/18

Sample Name: K6-0to28-101918
Lab Code: KQ1815422-01

Units: ug/Kg
Basis: Dry
Percent Solids: 32.1

Butyltins

Analytical Method: ALS SOP
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Tri-n-butyltin Cation	1.4	375	400	6	E	1	11/21/18 06:02

Confirmation Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115
SRM Matrix: Sediment

Service Request: K1810302
Date Collected: 10/19/18 09:26
Date Received: 10/22/18

Sample Name: K6-0to28-101918
Lab Code: KQ1815422-02

Units: ug/Kg
Basis: Dry
Percent Solids: 32.1

Butyltins

Analytical Method: ALS SOP
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Tri-n-butyltin Cation	1.4	260	262	<1		1	11/21/18 06:22

Confirmation Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115
SRM Matrix: Sediment

Service Request: K1810302
Date Collected: NA
Date Received:

Sample Name: Lab Control Sample
Lab Code: KQ1815422-03

Units: ug/Kg
Basis: Dry

Butyltins

Analytical Method: ALS SOP
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Tri-n-butyltin Cation	0.43	15.6	16.1	3		1	11/21/18 05:05

Confirmation Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115
SRM Matrix: Sediment

Service Request: K1810302
Date Collected: NA
Date Received:

Sample Name: Lab Control Sample
Lab Code: KQ1816241-03

Units: ug/Kg
Basis: Dry

Butyltins

Analytical Method: ALS SOP
Prep Method: Method

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Tri-n-butyltin Cation	0.43	15.6	15.0	4		1	12/01/18 17:16

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115
Sample Matrix: Sediment

SURROGATE RECOVERY SUMMARY
Butyltins

Analysis Method: ALS SOP
Extraction Method: Method

Sample Name	Lab Code	Tri-n-propyltin 10-120
K6-0to28-101918	K1810302-001	69
A1-0to30-102018	K1810302-016	52
D6-SC-64to88-102118	K1810302-022	49
D6-SC-40to64-102118	K1810302-023	63
H3-SC-99to114-102118	K1810302-024	51
D6-SC-88to108-102118	K1810302-025	60
H3-SC-46to63-102118	K1810302-026	65
D6-SC-0to1-102118	K1810302-027	46
H3-SC-1to2-102118	K1810302-028	63
D6-SC-1to2-102118	K1810302-029	53
Method Blank	KQ1815421-04	40
Method Blank	KQ1815422-04	57
Method Blank	KQ1816241-04	76
Lab Control Sample	KQ1815421-03	44
Lab Control Sample	KQ1815422-03	61
Lab Control Sample	KQ1816241-03	69
D6-SC-64to88-102118	KQ1815421-01	50
D6-SC-64to88-102118	KQ1815421-02	63
K6-0to28-101918	KQ1815422-01	78
K6-0to28-101918	KQ1815422-02	75

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18
Sample Matrix:	Sediment	**Date Received:**	10/22/18
		Date Analyzed:	11/21/18
		Date Extracted:	10/30/18

Duplicate Matrix Spike Summary
Butyltins

Sample Name:	D6-SC-64to88-102118	**Units:**	ug/Kg
Lab Code:	K1810302-022	**Basis:**	Dry
Analysis Method:	ALS SOP		
Prep Method:	Method		

		Matrix Spike KQ1815421-01			Duplicate Matrix Spike KQ1815421-02					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Tri-n-butyltin Cation	1.2 J	22.6	33.7	63	24.3	33.4	69	10-115	8	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.

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/19/18
Sample Matrix:	Sediment	**Date Received:**	10/22/18
		Date Analyzed:	11/21/18
		Date Extracted:	10/30/18

Duplicate Matrix Spike Summary
Butyltins

Sample Name:	K6-0to28-101918	**Units:**	ug/Kg
Lab Code:	K1810302-001	**Basis:**	Dry
Analysis Method:	ALS SOP		
Prep Method:	Method		

		Matrix Spike KQ1815422-01			Duplicate Matrix Spike KQ1815422-02					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Tri-n-butyltin Cation	220	375 E	68.3	233 *	260	68.1	66	10-115	36	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.

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/21/18
Sample Matrix:	Sediment	**Date Extracted:**	10/30/18

Lab Control Sample Summary
Butyltins

Analysis Method:	ALS SOP	**Units:**	ug/Kg
Prep Method:	Method	**Basis:**	Dry
		Analysis Lot:	615992

Lab Control Sample
KQ1815421-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Tri-n-butyltin Cation	12.4	22.3	56	10-122

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/21/18
Sample Matrix:	Sediment	**Date Extracted:**	10/30/18

Lab Control Sample Summary
Butyltins

Analysis Method:	ALS SOP	**Units:**	ug/Kg
Prep Method:	Method	**Basis:**	Dry
		Analysis Lot:	615992

Lab Control Sample
KQ1815422-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Tri-n-butyltin Cation	15.6	22.3	70	10-122

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	12/01/18
Sample Matrix:	Sediment	**Date Extracted:**	11/19/18

Lab Control Sample Summary
Butyltins

Analysis Method:	ALS SOP	**Units:**	ug/Kg
Prep Method:	Method	**Basis:**	Dry
		Analysis Lot:	617147

Lab Control Sample
KQ1816241-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Tri-n-butyltin Cation	15.6	22.3	70	10-122

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/21/18 03:11
Sample Matrix:	Sediment	**Date Extracted:**	10/30/18

Method Blank Summary
Butyltins

Sample Name:	Method Blank	**Instrument ID:**	K-GC-26
Lab Code:	KQ1815421-04	**File ID:**	J:\GC26\DATA\112018\1120F031.D\
Analysis Method:	ALS SOP	**Analysis Lot:**	615992
Prep Method:	Method	**Extraction Lot:**	324893

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1815421-03	J:\GC26\DATA\112018\1120F030.D\	11/21/18 02:52
D6-SC-64to88-102118	K1810302-022	J:\GC26\DATA\112018\1120F032.D\	11/21/18 03:30
D6-SC-64to88-102118MS	KQ1815421-01	J:\GC26\DATA\112018\1120F033.D\	11/21/18 03:49
D6-SC-64to88-102118DMS	KQ1815421-02	J:\GC26\DATA\112018\1120F034.D\	11/21/18 04:08

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/21/18 05:24
Sample Matrix:	Sediment	**Date Extracted:**	10/30/18

Method Blank Summary
Butyltins

Sample Name:	Method Blank	**Instrument ID:**	K-GC-26
Lab Code:	KQ1815422-04	**File ID:**	J:\GC26\DATA\112018\1120F038.D\
Analysis Method:	ALS SOP	**Analysis Lot:**	615992
Prep Method:	Method	**Extraction Lot:**	324894

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1815422-03	J:\GC26\DATA\112018\1120F037.D\	11/21/18 05:05
K6-0to28-101918	K1810302-001	J:\GC26\DATA\112018\1120F039.D\	11/21/18 05:43
K6-0to28-101918MS	KQ1815422-01	J:\GC26\DATA\112018\1120F040.D\	11/21/18 06:02
K6-0to28-101918DMS	KQ1815422-02	J:\GC26\DATA\112018\1120F041.D\	11/21/18 06:22
D6-SC-40to64-102118	K1810302-023	J:\GC26\DATA\112018\1120F042.D\	11/21/18 06:40
H3-SC-99to114-102118	K1810302-024	J:\GC26\DATA\112018\1120F043.D\	11/21/18 07:00
D6-SC-88to108-102118	K1810302-025	J:\GC26\DATA\112018\1120F044.D\	11/21/18 07:18
H3-SC-46to63-102118	K1810302-026	J:\GC26\DATA\112018\1120F045.D\	11/21/18 07:37
H3-SC-1to2-102118	K1810302-028	J:\GC26\DATA\112018\1120F047.D\	11/21/18 08:14

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/21/18 03:11
Sample Matrix:	Sediment	**Date Extracted:**	10/30/18

Method Blank Summary
Butyltins

Sample Name:	Method Blank	**Instrument ID:**	K-GC-26
Lab Code:	KQ1815421-04	**File ID:**	J:\GC26\DATA\112018\1120F031.D\
Analysis Method:	ALS SOP	**Analysis Lot:**	615992,617518
Prep Method:	Method	**Extraction Lot:**	324893

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1815421-03	J:\GC26\DATA\112018\1120F030.D\	11/21/18 02:52
D6-SC-64to88-102118	K1810302-022	J:\GC26\DATA\112018\1120F032.D\	11/21/18 03:30
D6-SC-64to88-102118MS	KQ1815421-01	J:\GC26\DATA\112018\1120F033.D\	11/21/18 03:49
D6-SC-64to88-102118DMS	KQ1815421-02	J:\GC26\DATA\112018\1120F034.D\	11/21/18 04:08

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/21/18 05:24
Sample Matrix:	Sediment	**Date Extracted:**	10/30/18

Method Blank Summary
Butyltins

Sample Name:	Method Blank	**Instrument ID:**	K-GC-26
Lab Code:	KQ1815422-04	**File ID:**	J:\GC26\DATA\112018\1120F038.D\
Analysis Method:	ALS SOP	**Analysis Lot:**	615992,617518
Prep Method:	Method	**Extraction Lot:**	324894

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1815422-03	J:\GC26\DATA\112018\1120F037.D\	11/21/18 05:05
K6-0to28-101918	K1810302-001	J:\GC26\DATA\112018\1120F039.D\	11/21/18 05:43
K6-0to28-101918MS	KQ1815422-01	J:\GC26\DATA\112018\1120F040.D\	11/21/18 06:02
K6-0to28-101918DMS	KQ1815422-02	J:\GC26\DATA\112018\1120F041.D\	11/21/18 06:22
D6-SC-40to64-102118	K1810302-023	J:\GC26\DATA\112018\1120F042.D\	11/21/18 06:40
H3-SC-99to114-102118	K1810302-024	J:\GC26\DATA\112018\1120F043.D\	11/21/18 07:00
D6-SC-88to108-102118	K1810302-025	J:\GC26\DATA\112018\1120F044.D\	11/21/18 07:18
H3-SC-46to63-102118	K1810302-026	J:\GC26\DATA\112018\1120F045.D\	11/21/18 07:37
H3-SC-1to2-102118	K1810302-028	J:\GC26\DATA\112018\1120F047.D\	11/21/18 08:14
D6-SC-0to1-102118	K1810302-027	J:\GC26\DATA\120418B\1204F017.D\	12/04/18 18:52
D6-SC-1to2-102118	K1810302-029	J:\GC26\DATA\120418B\1204F018.D\	12/04/18 19:10

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	12/01/18 17:34
Sample Matrix:	Sediment	**Date Extracted:**	11/19/18

Method Blank Summary
Butyltins

Sample Name:	Method Blank	**Instrument ID:**	K-GC-26
Lab Code:	KQ1816241-04	**File ID:**	J:\GC26\DATA\120118\1201F023.D\
Analysis Method:	ALS SOP	**Analysis Lot:**	617147
Prep Method:	Method	**Extraction Lot:**	325830

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
A1-0to30-102018	K1810302-016	J:\GC26\DATA\120118\1201F019.D\	12/01/18 16:20
Lab Control Sample	KQ1816241-03	J:\GC26\DATA\120118\1201F022.D\	12/01/18 17:16

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/21/18 02:52
Sample Matrix:	Sediment	**Date Extracted:**	10/30/18

Lab Control Sample Summary
Butyltins

Sample Name:	Lab Control Sample	**Instrument ID:**	K-GC-26
Lab Code:	KQ1815421-03	**File ID:**	J:\GC26\DATA\112018\1120F030.D\
Analysis Method:	ALS SOP	**Analysis Lot:**	615992
Prep Method:	Method	**Extraction Lot:**	324893

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1815421-04	J:\GC26\DATA\112018\1120F031.D\	11/21/18 03:11
D6-SC-64to88-102118	K1810302-022	J:\GC26\DATA\112018\1120F032.D\	11/21/18 03:30
D6-SC-64to88-102118MS	KQ1815421-01	J:\GC26\DATA\112018\1120F033.D\	11/21/18 03:49
D6-SC-64to88-102118DMS	KQ1815421-02	J:\GC26\DATA\112018\1120F034.D\	11/21/18 04:08

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/21/18 05:05
Sample Matrix:	Sediment	**Date Extracted:**	10/30/18

Lab Control Sample Summary
Butyltins

Sample Name:	Lab Control Sample	**Instrument ID:**	K-GC-26
Lab Code:	KQ1815422-03	**File ID:**	J:\GC26\DATA\112018\1120F037.D\
Analysis Method:	ALS SOP	**Analysis Lot:**	615992
Prep Method:	Method	**Extraction Lot:**	324894

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1815422-04	J:\GC26\DATA\112018\1120F038.D\	11/21/18 05:24
K6-0to28-101918	K1810302-001	J:\GC26\DATA\112018\1120F039.D\	11/21/18 05:43
K6-0to28-101918MS	KQ1815422-01	J:\GC26\DATA\112018\1120F040.D\	11/21/18 06:02
K6-0to28-101918DMS	KQ1815422-02	J:\GC26\DATA\112018\1120F041.D\	11/21/18 06:22
D6-SC-40to64-102118	K1810302-023	J:\GC26\DATA\112018\1120F042.D\	11/21/18 06:40
H3-SC-99to114-102118	K1810302-024	J:\GC26\DATA\112018\1120F043.D\	11/21/18 07:00
D6-SC-88to108-102118	K1810302-025	J:\GC26\DATA\112018\1120F044.D\	11/21/18 07:18
H3-SC-46to63-102118	K1810302-026	J:\GC26\DATA\112018\1120F045.D\	11/21/18 07:37
H3-SC-1to2-102118	K1810302-028	J:\GC26\DATA\112018\1120F047.D\	11/21/18 08:14

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/21/18 02:52
Sample Matrix:	Sediment	**Date Extracted:**	10/30/18

Lab Control Sample Summary
Butyltins

Sample Name:	Lab Control Sample	**Instrument ID:**	K-GC-26
Lab Code:	KQ1815421-03	**File ID:**	J:\GC26\DATA\112018\1120F030.D\
Analysis Method:	ALS SOP	**Analysis Lot:**	615992,617518
Prep Method:	Method	**Extraction Lot:**	324893

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1815421-04	J:\GC26\DATA\112018\1120F031.D\	11/21/18 03:11
D6-SC-64to88-102118	K1810302-022	J:\GC26\DATA\112018\1120F032.D\	11/21/18 03:30
D6-SC-64to88-102118MS	KQ1815421-01	J:\GC26\DATA\112018\1120F033.D\	11/21/18 03:49
D6-SC-64to88-102118DMS	KQ1815421-02	J:\GC26\DATA\112018\1120F034.D\	11/21/18 04:08

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/21/18 05:05
Sample Matrix:	Sediment	**Date Extracted:**	10/30/18

Lab Control Sample Summary
Butyltins

Sample Name:	Lab Control Sample	**Instrument ID:**	K-GC-26
Lab Code:	KQ1815422-03	**File ID:**	J:\GC26\DATA\112018\1120F037.D\
Analysis Method:	ALS SOP	**Analysis Lot:**	615992,617518
Prep Method:	Method	**Extraction Lot:**	324894

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1815422-04	J:\GC26\DATA\112018\1120F038.D\	11/21/18 05:24
K6-0to28-101918	K1810302-001	J:\GC26\DATA\112018\1120F039.D\	11/21/18 05:43
K6-0to28-101918MS	KQ1815422-01	J:\GC26\DATA\112018\1120F040.D\	11/21/18 06:02
K6-0to28-101918DMS	KQ1815422-02	J:\GC26\DATA\112018\1120F041.D\	11/21/18 06:22
D6-SC-40to64-102118	K1810302-023	J:\GC26\DATA\112018\1120F042.D\	11/21/18 06:40
H3-SC-99to114-102118	K1810302-024	J:\GC26\DATA\112018\1120F043.D\	11/21/18 07:00
D6-SC-88to108-102118	K1810302-025	J:\GC26\DATA\112018\1120F044.D\	11/21/18 07:18
H3-SC-46to63-102118	K1810302-026	J:\GC26\DATA\112018\1120F045.D\	11/21/18 07:37
H3-SC-1to2-102118	K1810302-028	J:\GC26\DATA\112018\1120F047.D\	11/21/18 08:14
D6-SC-0to1-102118	K1810302-027	J:\GC26\DATA\120418B\1204F017.D\	12/04/18 18:52
D6-SC-1to2-102118	K1810302-029	J:\GC26\DATA\120418B\1204F018.D\	12/04/18 19:10

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	12/01/18 17:16
Sample Matrix:	Sediment	**Date Extracted:**	11/19/18

Lab Control Sample Summary
Butyltins

Sample Name:	Lab Control Sample	**Instrument ID:**	K-GC-26
Lab Code:	KQ1816241-03	**File ID:**	J:\GC26\DATA\120118\1201F022.D\
Analysis Method:	ALS SOP	**Analysis Lot:**	617147
Prep Method:	Method	**Extraction Lot:**	325830

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
A1-0to30-102018	K1810302-016	J:\GC26\DATA\120118\1201F019.D\	12/01/18 16:20
Method Blank	KQ1816241-04	J:\GC26\DATA\120118\1201F023.D\	12/01/18 17:34

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 9/17/2018

Initial Calibration Summary
Butyltins

Calibration ID: KC1800436 **Signal ID:** RTX-1
Instrument ID: K-GC-26

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1800436-01	OT5-010A @ 2PPB	J:\GC26\DATA\091718\0917F004.D	09/17/2018 14:55
02	KC1800436-02	OT5-010B @ 5PPB	J:\GC26\DATA\091718\0917F005.D	09/17/2018 15:13
03	KC1800436-03	OT5-010C @ 10PPB	J:\GC26\DATA\091718\0917F006.D	09/17/2018 15:32
04	KC1800436-04	OT5-010D @ 20PPB	J:\GC26\DATA\091718\0917F007.D	09/17/2018 15:50
05	KC1800436-05	OT5-010K@50 PPB	J:\GC26\DATA\091718\0917F008.D	09/17/2018 16:08
06	KC1800436-06	OT5-010E @ 200 PPB	J:\GC26\DATA\091718\0917F009.D	09/17/2018 16:27
07	KC1800436-07	OT5-010F @ 500 PPB	J:\GC26\DATA\091718\0917F010.D	09/17/2018 16:45

Analyte

Tri-n-butyltin Cation

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.782	7.605E4	02	4.455	7.24E4	03	8.910	6.65E4	04	17.820	6.585E4
05	44.550	6.93E4	06	178.200	6.9E4	07	445.500	6.747E4			

Tri-n-propyltin

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	6.839E4	02	5.000	5.283E4	03	10.000	4.594E4	04	20.000	5.002E4
05	50.000	5.595E4	06	200.000	5.459E4	07	500.000	5.511E4			

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 9/17/2018

Initial Calibration Summary
Butyltins

Calibration ID: KC1800436 **Signal ID:** RTX-1
Instrument ID: K-GC-26

		Calibration Evaluation				Calibration Evaluation	
Analyte Name	Compound Type	Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
Tri-n-butyltin Cation	TRG	Average RF	% RSD	5.2	≤20	6.951E4	
Tri-n-propyltin	SURR	Average RF	% RSD	12.7	≤20	5.469E4	

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 9/17/2018

Initial Calibration Summary
Butyltins

Calibration ID: KC1800436 **Signal ID:** RTX-35
Instrument ID: K-GC-26

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1800436-01	OT5-010A @ 2PPB	J:\GC26\DATA\091718\0917F004.D	09/17/2018 14:55
02	KC1800436-02	OT5-010B @ 5PPB	J:\GC26\DATA\091718\0917F005.D	09/17/2018 15:13
03	KC1800436-03	OT5-010C @ 10PPB	J:\GC26\DATA\091718\0917F006.D	09/17/2018 15:32
04	KC1800436-04	OT5-010D @ 20PPB	J:\GC26\DATA\091718\0917F007.D	09/17/2018 15:50
05	KC1800436-05	OT5-010K@50 PPB	J:\GC26\DATA\091718\0917F008.D	09/17/2018 16:08
06	KC1800436-06	OT5-010E @ 200 PPB	J:\GC26\DATA\091718\0917F009.D	09/17/2018 16:27
07	KC1800436-07	OT5-010F @ 500 PPB	J:\GC26\DATA\091718\0917F010.D	09/17/2018 16:45

Analyte

Tri-n-butyltin Cation

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.782	1.246E5	02	4.455	9.429E4	03	8.910	1.125E5	04	17.820	9.717E4
05	44.550	1.058E5	06	178.200	9.935E4	07	445.500	9.552E4			

Tri-n-propyltin

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	7.47E4	02	5.000	7.544E4	03	10.000	7.709E4	04	20.000	7.852E4
05	50.000	8.615E4	06	200.000	7.943E4	07	500.000	7.633E4			

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 9/17/2018

Initial Calibration Summary
Butyltins

Calibration ID: KC1800436 **Signal ID:** RTX-35
Instrument ID: K-GC-26

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
Tri-n-butyltin Cation	TRG	Average RF	% RSD	10.6	≤20	1.042E5	
Tri-n-propyltin	SURR	Average RF	% RSD	4.9	≤20	7.824E4	

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 9/17/2018

Initial Calibration Verification Summary
Butyltins

Calibration ID: KC1800436 **Signal ID:** RTX-1
Instrument ID: K-GC-26

#	Lab Code	Sample Name	File Location	Acquisition Date
08	KC1800436-08	OT5-09P @ 50PPB ICV	J:\GC26\DATA\091718\0917F012.D	09/17/2018 17:22

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	52.9	6.951E4	8.251E4	18.71	±25	Average RF

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 9/17/2018

Initial Calibration Verification Summary
Butyltins

Calibration ID: KC1800436 **Signal ID:** RTX-35
Instrument ID: K-GC-26

#	Lab Code	Sample Name	File Location	Acquisition Date
08	KC1800436-08	OT5-09P @ 50PPB ICV	J:\GC26\DATA\091718\0917F012.D	09/17/2018 17:22

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	50.1	1.042E5	1.172E5	12.50	±25	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/20/18 22:52

Continuing Calibration Verification (CCV) Summary
Butyltins

Analysis Method:	ALS SOP	**Calibration Date:**	9/17/2018
File ID:	J:\GC26\DATA\112018\1120F017.D\	**Calibration ID:**	KC1800436
Signal ID:	RTX-1	**Analysis Lot:**	615992
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	40.5	6.951E4	6.316E4	-9.1	NA	±25	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-propyltin	50.0	48.1	5.469E4	5.264E4	-3.7	NA	±25	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/20/18 22:52

Continuing Calibration Verification (CCV) Summary
Butyltins

Analysis Method:	ALS SOP	**Calibration Date:**	9/17/2018
File ID:	J:\GC26\DATA\112018\1120F017.D\	**Calibration ID:**	KC1800436
Signal ID:	RTX-35	**Analysis Lot:**	615992
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	42.6	1.042E5	9.956E4	-4.4	NA	±25	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-propyltin	50.0	49.2	7.824E4	7.693E4	-1.7	NA	±25	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/21/18 04:27

Continuing Calibration Verification (CCV) Summary
Butyltins

Analysis Method:	ALS SOP	**Calibration Date:**	9/17/2018
File ID:	J:\GC26\DATA\112018\1120F035.D\	**Calibration ID:**	KC1800436
Signal ID:	RTX-1	**Analysis Lot:**	615992
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	33.9	6.951E4	5.285E4	-24.0	NA	±25	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-propyltin	50.0	41.5	5.469E4	4.542E4	-17.0	NA	±25	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/21/18 04:27

Continuing Calibration Verification (CCV) Summary
Butyltins

Analysis Method:	ALS SOP	**Calibration Date:**	9/17/2018
File ID:	J:\GC26\DATA\112018\1120F035.D\	**Calibration ID:**	KC1800436
Signal ID:	RTX-35	**Analysis Lot:**	615992
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	37.8	1.042E5	8.835E4	-15.2	NA	±25	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-propyltin	50.0	37.1	7.824E4	5.802E4	-25.8*	NA	±25	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/21/18 08:52

Continuing Calibration Verification (CCV) Summary
Butyltins

Analysis Method:	ALS SOP	**Calibration Date:**	9/17/2018
File ID:	J:\GC26\DATA\112018\1120F049.D\	**Calibration ID:**	KC1800436
Signal ID:	RTX-1	**Analysis Lot:**	615992
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	34.7	6.951E4	5.409E4	-22.2	NA	±25	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-propyltin	50.0	37.9	5.469E4	4.142E4	-24.3	NA	±25	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/21/18 08:52

Continuing Calibration Verification (CCV) Summary
Butyltins

Analysis Method:	ALS SOP	**Calibration Date:**	9/17/2018
File ID:	J:\GC26\DATA\112018\1120F049.D\	**Calibration ID:**	KC1800436
Signal ID:	RTX-35	**Analysis Lot:**	615992
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	35.0	1.042E5	8.186E4	-21.4	NA	±25	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-propyltin	50.0	43.2	7.824E4	6.754E4	-13.7	NA	±25	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	12/01/18 14:29

Continuing Calibration Verification (CCV) Summary
Butyltins

Analysis Method:	ALS SOP	**Calibration Date:**	9/17/2018
File ID:	J:\GC26\DATA\120118\1201F013.D\	**Calibration ID:**	KC1800436
Signal ID:	RTX-35	**Analysis Lot:**	617147
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	33.0	1.042E5	7.727E4	-25.8*	NA	±25	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-propyltin	50.0	41.0	7.824E4	6.423E4	-17.9	NA	±25	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	12/01/18 14:29

Continuing Calibration Verification (CCV) Summary
Butyltins

Analysis Method:	ALS SOP	**Calibration Date:**	9/17/2018
File ID:	J:\GC26\DATA\120118\1201F013.D\	**Calibration ID:**	KC1800436
Signal ID:	RTX-1	**Analysis Lot:**	617147
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	34.6	6.951E4	5.397E4	-22.4	NA	±25	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-propyltin	50.0	39.6	5.469E4	4.337E4	-20.7	NA	±25	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	12/01/18 17:53

Continuing Calibration Verification (CCV) Summary
Butyltins

Analysis Method:	ALS SOP	**Calibration Date:**	9/17/2018
File ID:	J:\GC26\DATA\120118\1201F024.D\	**Calibration ID:**	KC1800436
Signal ID:	RTX-1	**Analysis Lot:**	617147
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	35.1	6.951E4	5.482E4	-21.1	NA	±25	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-propyltin	50.0	38.0	5.469E4	4.156E4	-24.0	NA	±25	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	12/01/18 17:53

Continuing Calibration Verification (CCV) Summary
Butyltins

Analysis Method:	ALS SOP	**Calibration Date:**	9/17/2018
File ID:	J:\GC26\DATA\120118\1201F024.D\	**Calibration ID:**	KC1800436
Signal ID:	RTX-35	**Analysis Lot:**	617147
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	35.7	1.042E5	8.348E4	-19.9	NA	±25	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-propyltin	50.0	40.5	7.824E4	6.339E4	-19.0	NA	±25	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	12/04/18 17:57

Continuing Calibration Verification (CCV) Summary
Butyltins

Analysis Method:	ALS SOP	**Calibration Date:**	9/17/2018
File ID:	J:\GC26\DATA\120418B\1204F014.D\	**Calibration ID:**	KC1800436
Signal ID:	RTX-35	**Analysis Lot:**	617518
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	33.8	1.042E5	7.897E4	-24.2	NA	±25	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-propyltin	50.0	38.9	7.824E4	6.091E4	-22.2	NA	±25	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	12/04/18 17:57

Continuing Calibration Verification (CCV) Summary
Butyltins

Analysis Method:	ALS SOP	**Calibration Date:**	9/17/2018
File ID:	J:\GC26\DATA\120418B\1204F014.D\	**Calibration ID:**	KC1800436
Signal ID:	RTX-1	**Analysis Lot:**	617518
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	38.2	6.951E4	5.967E4	-14.2	NA	±25	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-propyltin	50.0	40.3	5.469E4	4.411E4	-19.3	NA	±25	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	12/04/18 19:28

Continuing Calibration Verification (CCV) Summary
Butyltins

Analysis Method:	ALS SOP	**Calibration Date:**	9/17/2018
File ID:	J:\GC26\DATA\120418B\1204F019.D\	**Calibration ID:**	KC1800436
Signal ID:	RTX-35	**Analysis Lot:**	617518
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	35.5	1.042E5	8.298E4	-20.4	NA	±25	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-propyltin	50.0	40.3	7.824E4	6.298E4	-19.5	NA	±25	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	12/04/18 19:28

Continuing Calibration Verification (CCV) Summary
Butyltins

Analysis Method:	ALS SOP	**Calibration Date:**	9/17/2018
File ID:	J:\GC26\DATA\120418B\1204F019.D\	**Calibration ID:**	KC1800436
Signal ID:	RTX-1	**Analysis Lot:**	617518
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	35.9	6.951E4	5.602E4	-19.4	NA	±25	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Tri-n-propyltin	50.0	39.9	5.469E4	4.363E4	-20.2	NA	±25	Average RF

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QA/QC Report

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Analysis Run Log
Butyltins

Analysis Method: ALS SOP **Analysis Lot:**615992
Instrument ID:K-GC-26

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\GC26\DATA\112018\1120F017.D\	Continuing Calibration Verification	KQ1817284-01	11/20/2018	22:52:00	
J:\GC26\DATA\112018\1120F018.D\	ZZZZZZZ	ZZZZZZZ	11/20/2018	23:10:00	
J:\GC26\DATA\112018\1120F019.D\	ZZZZZZZ	ZZZZZZZ	11/20/2018	23:29:00	
J:\GC26\DATA\112018\1120F020.D\	ZZZZZZZ	ZZZZZZZ	11/20/2018	23:47:00	
J:\GC26\DATA\112018\1120F021.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	00:06:00	
J:\GC26\DATA\112018\1120F022.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	00:24:00	
J:\GC26\DATA\112018\1120F023.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	00:42:00	
J:\GC26\DATA\112018\1120F024.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	01:01:00	
J:\GC26\DATA\112018\1120F025.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	01:19:00	
J:\GC26\DATA\112018\1120F026.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	01:38:00	
J:\GC26\DATA\112018\1120F027.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	01:56:00	
J:\GC26\DATA\112018\1120F028.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	02:15:00	
J:\GC26\DATA\112018\1120F029.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	02:33:00	
J:\GC26\DATA\112018\1120F030.D\	Lab Control Sample	KQ1815421-03	11/21/2018	02:52:00	
J:\GC26\DATA\112018\1120F031.D\	Method Blank	KQ1815421-04	11/21/2018	03:11:00	
J:\GC26\DATA\112018\1120F032.D\	D6-SC-64to88-102118	K1810302-022	11/21/2018	03:30:00	
J:\GC26\DATA\112018\1120F033.D\	D6-SC-64to88-102118 MS	KQ1815421-01	11/21/2018	03:49:00	
J:\GC26\DATA\112018\1120F034.D\	D6-SC-64to88-102118 DMS	KQ1815421-02	11/21/2018	04:08:00	
J:\GC26\DATA\112018\1120F035.D\	Continuing Calibration Verification	KQ1817284-03	11/21/2018	04:27:00	
J:\GC26\DATA\112018\1120F036.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	04:45:00	
J:\GC26\DATA\112018\1120F037.D\	Lab Control Sample	KQ1815422-03	11/21/2018	05:05:00	
J:\GC26\DATA\112018\1120F038.D\	Method Blank	KQ1815422-04	11/21/2018	05:24:00	
J:\GC26\DATA\112018\1120F039.D\	K6-0to28-101918	K1810302-001	11/21/2018	05:43:00	
J:\GC26\DATA\112018\1120F040.D\	K6-0to28-101918 MS	KQ1815422-01	11/21/2018	06:02:00	
J:\GC26\DATA\112018\1120F041.D\	K6-0to28-101918 DMS	KQ1815422-02	11/21/2018	06:22:00	
J:\GC26\DATA\112018\1120F042.D\	D6-SC-40to64-102118	K1810302-023	11/21/2018	06:40:00	
J:\GC26\DATA\112018\1120F043.D\	H3-SC-99to114-102118	K1810302-024	11/21/2018	07:00:00	
J:\GC26\DATA\112018\1120F044.D\	D6-SC-88to108-102118	K1810302-025	11/21/2018	07:18:00	
J:\GC26\DATA\112018\1120F045.D\	H3-SC-46to63-102118	K1810302-026	11/21/2018	07:37:00	
J:\GC26\DATA\112018\1120F046.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	07:55:00	
J:\GC26\DATA\112018\1120F047.D\	H3-SC-1to2-102118	K1810302-028	11/21/2018	08:14:00	
J:\GC26\DATA\112018\1120F048.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	08:34:00	
J:\GC26\DATA\112018\1120F049.D\	Continuing Calibration Verification	KQ1817284-05	11/21/2018	08:52:00	
J:\GC26\DATA\112018\1120F050.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	09:11:00	
J:\GC26\DATA\112018\1120F051.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	09:30:00	
J:\GC26\DATA\112018\1120F052.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	09:49:00	
J:\GC26\DATA\112018\1120F053.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	10:08:00	
J:\GC26\DATA\112018\1120F054.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	10:28:00	
J:\GC26\DATA\112018\1120F055.D\	ZZZZZZZ	ZZZZZZZ	11/21/2018	10:47:00	

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QA/QC Report

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Analysis Run Log
Butyltins

Analysis Method: **Analysis Lot:**617147
Instrument ID:K-GC-26

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\GC26\DATA\120118\1201F003.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	11:23:00	
J:\GC26\DATA\120118\1201F004.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	11:41:00	
J:\GC26\DATA\120118\1201F006.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	12:18:00	
J:\GC26\DATA\120118\1201F007.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	12:37:00	
J:\GC26\DATA\120118\1201F009.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	13:14:00	
J:\GC26\DATA\120118\1201F010.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	13:33:00	
J:\GC26\DATA\120118\1201F011.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	13:51:00	
J:\GC26\DATA\120118\1201F012.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	14:10:00	
J:\GC26\DATA\120118\1201F013.D\	Continuing Calibration Verification	KQ1817582-02	12/1/2018	14:29:00	
J:\GC26\DATA\120118\1201F014.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	14:47:00	
J:\GC26\DATA\120118\1201F016.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	15:25:00	
J:\GC26\DATA\120118\1201F017.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	15:43:00	
J:\GC26\DATA\120118\1201F019.D\	A1-0to30-102018	K1810302-016	12/1/2018	16:20:00	
J:\GC26\DATA\120118\1201F020.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	16:38:00	
J:\GC26\DATA\120118\1201F021.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	16:57:00	
J:\GC26\DATA\120118\1201F022.D\	Lab Control Sample	KQ1816241-03	12/1/2018	17:16:00	
J:\GC26\DATA\120118\1201F023.D\	Method Blank	KQ1816241-04	12/1/2018	17:34:00	
J:\GC26\DATA\120118\1201F024.D\	Continuing Calibration Verification	KQ1817582-03	12/1/2018	17:53:00	
J:\GC26\DATA\120118\1201F025.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	18:12:00	
J:\GC26\DATA\120118\1201F027.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	18:50:00	
J:\GC26\DATA\120118\1201F028.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	19:09:00	
J:\GC26\DATA\120118\1201F029.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	19:28:00	
J:\GC26\DATA\120118\1201F030.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	19:47:00	
J:\GC26\DATA\120118\1201F031.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	20:06:00	
J:\GC26\DATA\120118\1201F032.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	20:25:00	
J:\GC26\DATA\120118\1201F033.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	20:44:00	
J:\GC26\DATA\120118\1201F034.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	21:03:00	
J:\GC26\DATA\120118\1201F035.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	21:23:00	
J:\GC26\DATA\120118\1201F036.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	21:42:00	
J:\GC26\DATA\120118\1201F037.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	22:01:00	
J:\GC26\DATA\120118\1201F038.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	22:20:00	
J:\GC26\DATA\120118\1201F039.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	22:40:00	
J:\GC26\DATA\120118\1201F040.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	22:59:00	
J:\GC26\DATA\120118\1201F041.D\	ZZZZZZZ	ZZZZZZZ	12/1/2018	23:19:00	

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Analysis Run Log
Butyltins

Analysis Method: ALS SOP **Analysis Lot:**617518
Instrument ID:K-GC-26

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\GC26\DATA\120418B\1204F014.D\	Continuing Calibration Verification	KQ1817717-01	12/4/2018	17:57:00	
J:\GC26\DATA\120418B\1204F015.D\	ZZZZZZZ	ZZZZZZZ	12/4/2018	18:15:00	
J:\GC26\DATA\120418B\1204F016.D\	ZZZZZZZ	ZZZZZZZ	12/4/2018	18:33:00	
J:\GC26\DATA\120418B\1204F017.D\	D6-SC-0to1-102118	K1810302-027	12/4/2018	18:52:00	
J:\GC26\DATA\120418B\1204F018.D\	D6-SC-1to2-102118	K1810302-029	12/4/2018	19:10:00	
J:\GC26\DATA\120418B\1204F019.D\	Continuing Calibration Verification	KQ1817717-02	12/4/2018	19:28:00	
J:\GC26\DATA\120418B\1204F020.D\	ZZZZZZZ	ZZZZZZZ	12/4/2018	19:47:00	
J:\GC26\DATA\120418B\1204F021.D\	ZZZZZZZ	ZZZZZZZ	12/4/2018	20:05:00	
J:\GC26\DATA\120418B\1204F024.D\	ZZZZZZZ	ZZZZZZZ	12/4/2018	21:01:00	
J:\GC26\DATA\120418B\1204F025.D\	ZZZZZZZ	ZZZZZZZ	12/4/2018	21:20:00	
J:\GC26\DATA\120418B\1204F026.D\	ZZZZZZZ	ZZZZZZZ	12/4/2018	21:38:00	
J:\GC26\DATA\120418B\1204F027.D\	ZZZZZZZ	ZZZZZZZ	12/4/2018	21:57:00	
J:\GC26\DATA\120418B\1204F028.D\	ZZZZZZZ	ZZZZZZZ	12/4/2018	22:15:00	
J:\GC26\DATA\120418B\1204F029.D\	ZZZZZZZ	ZZZZZZZ	12/4/2018	22:33:00	

Prep Summary Report

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115
Sample Matrix: Sediment

Butyltins

Prep Method: Method **Extraction Lot:** 324894
Analytical Method: ALS SOP **Extraction Date:** 10/30/18 17:05

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
K6-0to28-101918	K1810302-001	10/19/18	10/22/18	20.197 g	4 mL	32.1
D6-SC-40to64-102118	K1810302-023	10/21/18	10/22/18	20.111 g	4 mL	54.7
H3-SC-99to114-102118	K1810302-024	10/21/18	10/22/18	20.189 g	4 mL	69.9
D6-SC-88to108-102118	K1810302-025	10/21/18	10/22/18	20.388 g	4 mL	71.5
H3-SC-46to63-102118	K1810302-026	10/21/18	10/22/18	20.371 g	4 mL	67.8
D6-SC-0to1-102118	K1810302-027	10/21/18	10/22/18	20.235 g	4 mL	42.9
H3-SC-1to2-102118	K1810302-028	10/21/18	10/22/18	20.172 g	4 mL	52.0
D6-SC-1to2-102118	K1810302-029	10/21/18	10/22/18	20.037 g	4 mL	45.9
Matrix Spike	KQ1815422-01MS	10/19/18	10/22/18	20.319 g	4 mL	32.1
Duplicate Matrix Spike	KQ1815422-02DMS	10/19/18	10/22/18	20.390 g	4 mL	32.1
Lab Control Sample	KQ1815422-03LCS	NA	NA	20.00 g	4 mL	
Method Blank	KQ1815422-04MB	NA	NA	20.3900 g	4 mL	

Prep Summary Report

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115
Sample Matrix: Sediment

Butyltins

Prep Method: Method **Extraction Lot:** 325830
Analytical Method: ALS SOP **Extraction Date:** 11/19/18 18:38

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
A1-0to30-102018	K1810302-016	10/20/18	10/22/18	20.007 g	4 mL	54.7
Lab Control Sample	KQ1816241-03LCS	NA	NA	20.00 g	4 mL	
Method Blank	KQ1816241-04MB	NA	NA	20.3210 g	4 mL	

Prep Summary Report

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115
Sample Matrix: Sediment

Butyltins

Prep Method: Method **Extraction Lot:** 324893
Analytical Method: ALS SOP **Extraction Date:** 10/30/18 17:05

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
D6-SC-64to88-102118	K1810302-022	10/21/18	10/22/18	20.238 g	4 mL	66.0
Matrix Spike	KQ1815421-01MS	10/21/18	10/22/18	20.054 g	4 mL	66.0
Duplicate Matrix Spike	KQ1815421-02DMS	10/21/18	10/22/18	20.231 g	4 mL	66.0
Lab Control Sample	KQ1815421-03LCS	NA	NA	20.00 g	4 mL	
Method Blank	KQ1815421-04MB	NA	NA	20.2380 g	4 mL	

Organochlorine Pesticides

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

REVISED
12:48 pm, Apr 17, 2019

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/20/18 12:05
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	A1-0to30-102018	**Units:**	ug/Kg
Lab Code:	K1810302-016	**Basis:**	Dry

Organochlorine Pesticides by GC/MS/MS

Analysis Method: ALS SOP
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4'-DDD	ND U	0.091	0.063	1	11/26/18 21:57	11/7/18	
2,4'-DDE	ND U	0.091	0.079	1	11/26/18 21:57	11/7/18	
2,4'-DDT	ND U	0.094	0.094	1	11/26/18 21:57	11/7/18	*
4,4'-DDD	ND U	0.091	0.035	1	11/26/18 21:57	11/7/18	
4,4'-DDE	ND U	0.091	0.070	1	11/26/18 21:57	11/7/18	
4,4'-DDT	ND U	0.091	0.047	1	11/26/18 21:57	11/7/18	
Aldrin	ND U	0.091	0.079	1	11/26/18 21:57	11/7/18	
alpha-Chlordane	ND U	0.18	0.062	1	11/26/18 21:57	11/7/18	
cis-Nonachlor	ND U	0.097	0.097	1	11/26/18 21:57	11/7/18	
Dieldrin	ND U	0.20	0.077	1	11/26/18 21:57	11/7/18	
gamma-BHC (Lindane)	ND U	0.091	0.031	1	11/26/18 21:57	11/7/18	
gamma-Chlordane	ND U	0.18	0.064	1	11/26/18 21:57	11/7/18	
Heptachlor	ND U	0.091	0.039	1	11/26/18 21:57	11/7/18	
Oxychlordane	ND U	0.20	0.13	1	11/26/18 21:57	11/7/18	
trans-Nonachlor	ND U	0.18	0.058	1	11/26/18 21:57	11/7/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
S_4,4'DDD-d4	84	5 - 120	11/26/18 21:57	
S_4,4'-DDT-d4	99	13 - 200	11/26/18 21:57	
S_Aldrin-13C12	58	10 - 143	11/26/18 21:57	
S_Endrin-13C12	79	20 - 157	11/26/18 21:57	
S_GBHCD6	61	5 - 124	11/26/18 21:57	
S_Heptachlor-13C10	78	10 - 177	11/26/18 21:57	
S_Heptachlrepox13C10	65	8 - 146	11/26/18 21:57	
S_Oxychlordane-13C10	63	5 - 144	11/26/18 21:57	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 17:40
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	D6-SC-64to88-102118	**Units:**	ug/Kg
Lab Code:	K1810302-022	**Basis:**	Dry

Organochlorine Pesticides by GC/MS/MS

Analysis Method: ALS SOP
Prep Method: EPA 3541

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4'-DDD	ND	U	0.075	0.063	1	11/16/18 23:56	10/31/18	
2,4'-DDE	**0.088**		0.079	0.079	1	11/16/18 23:56	10/31/18	
2,4'-DDT	ND	U	0.094	0.094	1	11/16/18 23:56	10/31/18	
4,4'-DDD	**0.46**		0.075	0.035	1	11/16/18 23:56	10/31/18	
4,4'-DDE	**0.74**		0.075	0.070	1	11/16/18 23:56	10/31/18	
4,4'-DDT	ND	U	0.075	0.047	1	11/16/18 23:56	10/31/18	
Aldrin	ND	U	0.079	0.079	1	11/16/18 23:56	10/31/18	
alpha-Chlordane	ND	U	0.15	0.062	1	11/16/18 23:56	10/31/18	
cis-Nonachlor	ND	U	0.097	0.097	1	11/16/18 23:56	10/31/18	
Dieldrin	ND	U	0.20	0.077	1	11/16/18 23:56	10/31/18	
gamma-BHC (Lindane)	ND	U	0.075	0.031	1	11/16/18 23:56	10/31/18	
gamma-Chlordane	ND	U	0.15	0.064	1	11/16/18 23:56	10/31/18	
Heptachlor	ND	U	0.075	0.039	1	11/16/18 23:56	10/31/18	
Oxychlordane	ND	U	0.20	0.13	1	11/16/18 23:56	10/31/18	
trans-Nonachlor	ND	U	0.15	0.058	1	11/16/18 23:56	10/31/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
S_4,4'DDD-d4	82	5 - 120	11/16/18 23:56	
S_4,4'-DDT-d4	120	13 - 200	11/16/18 23:56	
S_Aldrin-13C12	51	10 - 143	11/16/18 23:56	
S_Endrin-13C12	78	20 - 157	11/16/18 23:56	
S_GBHCD6	58	5 - 124	11/16/18 23:56	
S_Heptachlor-13C10	75	10 - 177	11/16/18 23:56	
S_Heptachlrepox13C10	59	8 - 146	11/16/18 23:56	
S_Oxychlordane-13C10	58	5 - 144	11/16/18 23:56	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 16:50
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	D6-SC-40to64-102118	**Units:**	ug/Kg
Lab Code:	K1810302-023	**Basis:**	Dry

Organochlorine Pesticides by GC/MS/MS

Analysis Method: ALS SOP
Prep Method: EPA 3541

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4'-DDD	ND	U	0.091	0.063	1	11/17/18 00:14	10/31/18	
2,4'-DDE	**1.2**		0.091	0.079	1	11/17/18 00:14	10/31/18	
2,4'-DDT	ND	U	0.094	0.094	1	11/17/18 00:14	10/31/18	
4,4'-DDD	**4.1**		0.091	0.035	1	11/17/18 00:14	10/31/18	
4,4'-DDE	**8.9**		0.091	0.070	1	11/17/18 00:14	10/31/18	
4,4'-DDT	ND	U	0.091	0.047	1	11/17/18 00:14	10/31/18	
Aldrin	ND	U	0.091	0.079	1	11/17/18 00:14	10/31/18	
alpha-Chlordane	**0.14**	**J**	0.18	0.062	1	11/17/18 00:14	10/31/18	
cis-Nonachlor	ND	U	0.097	0.097	1	11/17/18 00:14	10/31/18	
Dieldrin	ND	U	0.20	0.077	1	11/17/18 00:14	10/31/18	
gamma-BHC (Lindane)	ND	U	0.091	0.031	1	11/17/18 00:14	10/31/18	
gamma-Chlordane	**0.46**		0.18	0.064	1	11/17/18 00:14	10/31/18	
Heptachlor	ND	U	0.091	0.039	1	11/17/18 00:14	10/31/18	
Oxychlordane	ND	U	0.20	0.13	1	11/17/18 00:14	10/31/18	
trans-Nonachlor	ND	U	0.18	0.058	1	11/17/18 00:14	10/31/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
S_4,4'DDD-d4	36	5 - 120	11/17/18 00:14	
S_4,4'-DDT-d4	83	13 - 200	11/17/18 00:14	
S_Aldrin-13C12	27	10 - 143	11/17/18 00:14	
S_Endrin-13C12	40	20 - 157	11/17/18 00:14	
S_GBHCD6	30	5 - 124	11/17/18 00:14	
S_Heptachlor-13C10	42	10 - 177	11/17/18 00:14	
S_Heptachlrepox13C10	32	8 - 146	11/17/18 00:14	
S_Oxychlordane-13C10	30	5 - 144	11/17/18 00:14	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 14:30
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	H3-SC-99to114-102118	**Units:**	ug/Kg
Lab Code:	K1810302-024	**Basis:**	Dry

Organochlorine Pesticides by GC/MS/MS

Analysis Method: ALS SOP
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4'-DDD	ND U	0.071	0.063	1	11/17/18 00:32	10/31/18	
2,4'-DDE	ND U	0.079	0.079	1	11/17/18 00:32	10/31/18	
2,4'-DDT	ND U	0.094	0.094	1	11/17/18 00:32	10/31/18	
4,4'-DDD	ND U	0.071	0.035	1	11/17/18 00:32	10/31/18	
4,4'-DDE	ND U	0.071	0.070	1	11/17/18 00:32	10/31/18	
4,4'-DDT	ND U	0.071	0.047	1	11/17/18 00:32	10/31/18	
Aldrin	ND U	0.079	0.079	1	11/17/18 00:32	10/31/18	
alpha-Chlordane	ND U	0.14	0.062	1	11/17/18 00:32	10/31/18	
cis-Nonachlor	ND U	0.097	0.097	1	11/17/18 00:32	10/31/18	
Dieldrin	ND U	0.20	0.077	1	11/17/18 00:32	10/31/18	
gamma-BHC (Lindane)	ND U	0.071	0.031	1	11/17/18 00:32	10/31/18	
gamma-Chlordane	ND U	0.14	0.064	1	11/17/18 00:32	10/31/18	
Heptachlor	ND U	0.071	0.039	1	11/17/18 00:32	10/31/18	
Oxychlordane	ND U	0.20	0.13	1	11/17/18 00:32	10/31/18	
trans-Nonachlor	ND U	0.14	0.058	1	11/17/18 00:32	10/31/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
S_4,4'DDD-d4	73	5 - 120	11/17/18 00:32	
S_4,4'-DDT-d4	98	13 - 200	11/17/18 00:32	
S_Aldrin-13C12	48	10 - 143	11/17/18 00:32	
S_Endrin-13C12	71	20 - 157	11/17/18 00:32	
S_GBHCD6	49	5 - 124	11/17/18 00:32	
S_Heptachlor-13C10	66	10 - 177	11/17/18 00:32	
S_Heptachlrepox13C10	53	8 - 146	11/17/18 00:32	
S_Oxychlordane-13C10	52	5 - 144	11/17/18 00:32	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 17:50
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	D6-SC-88to108-102118	**Units:**	ug/Kg
Lab Code:	K1810302-025	**Basis:**	Dry

Organochlorine Pesticides by GC/MS/MS

Analysis Method: ALS SOP
Prep Method: EPA 3541

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4'-DDD	ND	U	0.070	0.063	1	11/16/18 17:46	10/31/18	
2,4'-DDE	ND	U	0.079	0.079	1	11/16/18 17:46	10/31/18	
2,4'-DDT	ND	U	0.094	0.094	1	11/16/18 17:46	10/31/18	
4,4'-DDD	**0.043**	**J**	0.070	0.035	1	11/16/18 17:46	10/31/18	
4,4'-DDE	**0.11**		0.070	0.070	1	11/16/18 17:46	10/31/18	
4,4'-DDT	ND	U	0.070	0.047	1	11/16/18 17:46	10/31/18	
Aldrin	ND	U	0.079	0.079	1	11/16/18 17:46	10/31/18	
alpha-Chlordane	ND	U	0.14	0.062	1	11/16/18 17:46	10/31/18	
cis-Nonachlor	ND	U	0.097	0.097	1	11/16/18 17:46	10/31/18	
Dieldrin	ND	U	0.20	0.077	1	11/16/18 17:46	10/31/18	
gamma-BHC (Lindane)	ND	U	0.070	0.031	1	11/16/18 17:46	10/31/18	
gamma-Chlordane	ND	U	0.14	0.064	1	11/16/18 17:46	10/31/18	
Heptachlor	ND	U	0.070	0.039	1	11/16/18 17:46	10/31/18	
Oxychlordane	ND	U	0.20	0.13	1	11/16/18 17:46	10/31/18	
trans-Nonachlor	ND	U	0.14	0.058	1	11/16/18 17:46	10/31/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
S_4,4'DDD-d4	60	5 - 120	11/16/18 17:46	
S_4,4'-DDT-d4	80	13 - 200	11/16/18 17:46	
S_Aldrin-13C12	46	10 - 143	11/16/18 17:46	
S_Endrin-13C12	58	20 - 157	11/16/18 17:46	
S_GBHCD6	44	5 - 124	11/16/18 17:46	
S_Heptachlor-13C10	52	10 - 177	11/16/18 17:46	
S_Heptachlrepox13C10	48	8 - 146	11/16/18 17:46	
S_Oxychlordane-13C10	47	5 - 144	11/16/18 17:46	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 12:50
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	H3-SC-46to63-102118	**Units:**	ug/Kg
Lab Code:	K1810302-026	**Basis:**	Dry

Organochlorine Pesticides by GC/MS/MS

Analysis Method: ALS SOP
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4'-DDD	ND U	0.073	0.063	1	11/17/18 00:49	10/31/18	
2,4'-DDE	ND U	0.079	0.079	1	11/17/18 00:49	10/31/18	
2,4'-DDT	ND U	0.094	0.094	1	11/17/18 00:49	10/31/18	
4,4'-DDD	ND Ui	0.59	0.59	1	11/17/18 00:49	10/31/18	
4,4'-DDE	**0.13**	0.073	0.070	1	11/17/18 00:49	10/31/18	
4,4'-DDT	ND U	0.073	0.047	1	11/17/18 00:49	10/31/18	
Aldrin	ND U	0.079	0.079	1	11/17/18 00:49	10/31/18	
alpha-Chlordane	ND U	0.15	0.062	1	11/17/18 00:49	10/31/18	
cis-Nonachlor	ND U	0.097	0.097	1	11/17/18 00:49	10/31/18	
Dieldrin	ND U	0.20	0.077	1	11/17/18 00:49	10/31/18	
gamma-BHC (Lindane)	ND U	0.073	0.031	1	11/17/18 00:49	10/31/18	
gamma-Chlordane	ND U	0.15	0.064	1	11/17/18 00:49	10/31/18	
Heptachlor	ND U	0.073	0.039	1	11/17/18 00:49	10/31/18	
Oxychlordane	ND U	0.20	0.13	1	11/17/18 00:49	10/31/18	
trans-Nonachlor	ND U	0.15	0.058	1	11/17/18 00:49	10/31/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
S_4,4'DDD-d4	66	5 - 120	11/17/18 00:49	
S_4,4'-DDT-d4	112	13 - 200	11/17/18 00:49	
S_Aldrin-13C12	42	10 - 143	11/17/18 00:49	
S_Endrin-13C12	65	20 - 157	11/17/18 00:49	
S_GBHCD6	46	5 - 124	11/17/18 00:49	
S_Heptachlor-13C10	64	10 - 177	11/17/18 00:49	
S_Heptachlrepox13C10	47	8 - 146	11/17/18 00:49	
S_Oxychlordane-13C10	47	5 - 144	11/17/18 00:49	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 16:00
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	D6-SC-0to1-102118	**Units:**	ug/Kg
Lab Code:	K1810302-027	**Basis:**	Dry

Organochlorine Pesticides by GC/MS/MS

Analysis Method: ALS SOP
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4'-DDD	ND U	0.12	0.073	1	11/17/18 01:07	10/31/18	
2,4'-DDE	**0.15**	0.12	0.092	1	11/17/18 01:07	10/31/18	
2,4'-DDT	ND U	0.12	0.11	1	11/17/18 01:07	10/31/18	
4,4'-DDD	**1.8**	0.12	0.041	1	11/17/18 01:07	10/31/18	
4,4'-DDE	**2.8**	0.12	0.081	1	11/17/18 01:07	10/31/18	
4,4'-DDT	ND U	0.12	0.055	1	11/17/18 01:07	10/31/18	
Aldrin	ND U	0.12	0.092	1	11/17/18 01:07	10/31/18	
alpha-Chlordane	**0.18 J**	0.23	0.072	1	11/17/18 01:07	10/31/18	
cis-Nonachlor	ND U	0.12	0.12	1	11/17/18 01:07	10/31/18	
Dieldrin	ND U	0.23	0.089	1	11/17/18 01:07	10/31/18	
gamma-BHC (Lindane)	ND U	0.12	0.036	1	11/17/18 01:07	10/31/18	
gamma-Chlordane	**0.29**	0.23	0.074	1	11/17/18 01:07	10/31/18	
Heptachlor	ND U	0.12	0.046	1	11/17/18 01:07	10/31/18	
Oxychlordane	ND U	0.23	0.16	1	11/17/18 01:07	10/31/18	
trans-Nonachlor	**0.20 J**	0.23	0.067	1	11/17/18 01:07	10/31/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
S_4,4'DDD-d4	70	5 - 120	11/17/18 01:07	
S_4,4'-DDT-d4	100	13 - 200	11/17/18 01:07	
S_Aldrin-13C12	44	10 - 143	11/17/18 01:07	
S_Endrin-13C12	67	20 - 157	11/17/18 01:07	
S_GBHCD6	50	5 - 124	11/17/18 01:07	
S_Heptachlor-13C10	69	10 - 177	11/17/18 01:07	
S_Heptachlrepox13C10	50	8 - 146	11/17/18 01:07	
S_Oxychlordane-13C10	48	5 - 144	11/17/18 01:07	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 11:55
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	H3-SC-1to2-102118	**Units:**	ug/Kg
Lab Code:	K1810302-028	**Basis:**	Dry

Organochlorine Pesticides by GC/MS/MS

Analysis Method: ALS SOP
Prep Method: EPA 3541

Analyte Name	Result		MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4'-DDD	ND	U	0.096	0.063	1	11/17/18 01:25	10/31/18	
2,4'-DDE	**2.4**		0.096	0.079	1	11/17/18 01:25	10/31/18	
2,4'-DDT	ND	U	0.096	0.094	1	11/17/18 01:25	10/31/18	
4,4'-DDD	**13**		0.096	0.035	1	11/17/18 01:25	10/31/18	
4,4'-DDE	**19**		0.096	0.070	1	11/17/18 01:25	10/31/18	
4,4'-DDT	**2.0**		0.096	0.047	1	11/17/18 01:25	10/31/18	
Aldrin	ND	U	0.096	0.079	1	11/17/18 01:25	10/31/18	
alpha-Chlordane	**0.33**		0.19	0.062	1	11/17/18 01:25	10/31/18	
cis-Nonachlor	**0.19**		0.097	0.097	1	11/17/18 01:25	10/31/18	
Dieldrin	ND	U	0.20	0.077	1	11/17/18 01:25	10/31/18	
gamma-BHC (Lindane)	ND	U	0.096	0.031	1	11/17/18 01:25	10/31/18	
gamma-Chlordane	**1.0**		0.19	0.064	1	11/17/18 01:25	10/31/18	
Heptachlor	ND	U	0.096	0.039	1	11/17/18 01:25	10/31/18	
Oxychlordane	ND	U	0.20	0.13	1	11/17/18 01:25	10/31/18	
trans-Nonachlor	**0.13**	**J**	0.19	0.058	1	11/17/18 01:25	10/31/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
S_4,4'DDD-d4	50	5 - 120	11/17/18 01:25	
S_4,4'-DDT-d4	132	13 - 200	11/17/18 01:25	
S_Aldrin-13C12	37	10 - 143	11/17/18 01:25	
S_Endrin-13C12	59	20 - 157	11/17/18 01:25	
S_GBHCD6	37	5 - 124	11/17/18 01:25	
S_Heptachlor-13C10	57	10 - 177	11/17/18 01:25	
S_Heptachlrepox13C10	36	8 - 146	11/17/18 01:25	
S_Oxychlordane-13C10	31	5 - 144	11/17/18 01:25	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 16:15
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	D6-SC-1to2-102118	**Units:**	ug/Kg
Lab Code:	K1810302-029	**Basis:**	Dry

Organochlorine Pesticides by GC/MS/MS

Analysis Method: ALS SOP
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4'-DDD	ND U	0.11	0.069	1	11/17/18 01:42	10/31/18	
2,4'-DDE	**0.43**	0.11	0.086	1	11/17/18 01:42	10/31/18	
2,4'-DDT	ND U	0.11	0.11	1	11/17/18 01:42	10/31/18	
4,4'-DDD	**1.8**	0.11	0.038	1	11/17/18 01:42	10/31/18	
4,4'-DDE	**4.6**	0.11	0.076	1	11/17/18 01:42	10/31/18	
4,4'-DDT	ND U	0.11	0.051	1	11/17/18 01:42	10/31/18	
Aldrin	ND U	0.11	0.086	1	11/17/18 01:42	10/31/18	
alpha-Chlordane	**0.15 J**	0.22	0.067	1	11/17/18 01:42	10/31/18	
cis-Nonachlor	**0.19**	0.11	0.11	1	11/17/18 01:42	10/31/18	
Dieldrin	ND U	0.22	0.084	1	11/17/18 01:42	10/31/18	
gamma-BHC (Lindane)	**0.13**	0.11	0.034	1	11/17/18 01:42	10/31/18	
gamma-Chlordane	**0.45**	0.22	0.070	1	11/17/18 01:42	10/31/18	
Heptachlor	ND U	0.11	0.043	1	11/17/18 01:42	10/31/18	
Oxychlordane	ND U	0.22	0.15	1	11/17/18 01:42	10/31/18	
trans-Nonachlor	**0.24**	0.22	0.063	1	11/17/18 01:42	10/31/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
S_4,4'DDD-d4	49	5 - 120	11/17/18 01:42	
S_4,4'-DDT-d4	95	13 - 200	11/17/18 01:42	
S_Aldrin-13C12	35	10 - 143	11/17/18 01:42	
S_Endrin-13C12	49	20 - 157	11/17/18 01:42	
S_GBHCD6	36	5 - 124	11/17/18 01:42	
S_Heptachlor-13C10	52	10 - 177	11/17/18 01:42	
S_Heptachlrepox13C10	38	8 - 146	11/17/18 01:42	
S_Oxychlordane-13C10	35	5 - 144	11/17/18 01:42	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KQ1815430-04	**Basis:**	Dry

Organochlorine Pesticides by GC/MS/MS

Analysis Method: ALS SOP
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4'-DDD	ND U	0.063	0.063	1	11/16/18 22:46	10/31/18	
2,4'-DDE	ND U	0.079	0.079	1	11/16/18 22:46	10/31/18	
2,4'-DDT	ND U	0.094	0.094	1	11/16/18 22:46	10/31/18	
4,4'-DDD	ND U	0.049	0.035	1	11/16/18 22:46	10/31/18	
4,4'-DDE	ND U	0.070	0.070	1	11/16/18 22:46	10/31/18	
4,4'-DDT	ND U	0.049	0.047	1	11/16/18 22:46	10/31/18	
Aldrin	ND U	0.079	0.079	1	11/16/18 22:46	10/31/18	
alpha-Chlordane	ND U	0.098	0.062	1	11/16/18 22:46	10/31/18	
cis-Nonachlor	ND U	0.097	0.097	1	11/16/18 22:46	10/31/18	
Dieldrin	ND U	0.20	0.077	1	11/16/18 22:46	10/31/18	
gamma-BHC (Lindane)	ND U	0.049	0.031	1	11/16/18 22:46	10/31/18	
gamma-Chlordane	ND U	0.098	0.064	1	11/16/18 22:46	10/31/18	
Heptachlor	ND U	0.049	0.039	1	11/16/18 22:46	10/31/18	
Oxychlordane	ND U	0.20	0.13	1	11/16/18 22:46	10/31/18	
trans-Nonachlor	ND U	0.098	0.058	1	11/16/18 22:46	10/31/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
S_4,4'DDD-d4	69	5 - 120	11/16/18 22:46	
S_4,4'-DDT-d4	92	13 - 200	11/16/18 22:46	
S_Aldrin-13C12	46	10 - 143	11/16/18 22:46	
S_Endrin-13C12	61	20 - 157	11/16/18 22:46	
S_GBHCD6	45	5 - 124	11/16/18 22:46	
S_Heptachlor-13C10	59	10 - 177	11/16/18 22:46	
S_Heptachlrepox13C10	49	8 - 146	11/16/18 22:46	
S_Oxychlordane-13C10	49	5 - 144	11/16/18 22:46	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KQ1815510-04	**Basis:**	Dry

Organochlorine Pesticides by GC/MS/MS

Analysis Method: ALS SOP
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4'-DDD	ND U	0.063	0.063	1	11/16/18 16:36	10/31/18	
2,4'-DDE	ND U	0.079	0.079	1	11/16/18 16:36	10/31/18	
2,4'-DDT	ND U	0.094	0.094	1	11/16/18 16:36	10/31/18	
4,4'-DDD	ND U	0.049	0.035	1	11/16/18 16:36	10/31/18	
4,4'-DDE	ND U	0.070	0.070	1	11/16/18 16:36	10/31/18	
4,4'-DDT	ND U	0.049	0.047	1	11/16/18 16:36	10/31/18	
Aldrin	ND U	0.079	0.079	1	11/16/18 16:36	10/31/18	
alpha-Chlordane	ND U	0.098	0.062	1	11/16/18 16:36	10/31/18	
cis-Nonachlor	ND U	0.097	0.097	1	11/16/18 16:36	10/31/18	
Dieldrin	ND U	0.20	0.077	1	11/16/18 16:36	10/31/18	
gamma-BHC (Lindane)	ND U	0.049	0.031	1	11/16/18 16:36	10/31/18	
gamma-Chlordane	ND U	0.098	0.064	1	11/16/18 16:36	10/31/18	
Heptachlor	ND U	0.049	0.039	1	11/16/18 16:36	10/31/18	
Oxychlordane	ND U	0.20	0.13	1	11/16/18 16:36	10/31/18	
trans-Nonachlor	ND U	0.098	0.058	1	11/16/18 16:36	10/31/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
S_4,4'DDD-d4	69	5 - 120	11/16/18 16:36	
S_4,4'-DDT-d4	75	13 - 200	11/16/18 16:36	
S_Aldrin-13C12	63	10 - 143	11/16/18 16:36	
S_Endrin-13C12	78	20 - 157	11/16/18 16:36	
S_GBHCD6	63	5 - 124	11/16/18 16:36	
S_Heptachlor-13C10	62	10 - 177	11/16/18 16:36	
S_Heptachlrepox13C10	64	8 - 146	11/16/18 16:36	
S_Oxychlordane-13C10	63	5 - 144	11/16/18 16:36	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KQ1816244-04	**Basis:**	Dry

Organochlorine Pesticides by GC/MS/MS

Analysis Method: ALS SOP
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2,4'-DDD	ND U	0.063	0.063	1	11/26/18 20:29	11/7/18	
2,4'-DDE	ND U	0.079	0.079	1	11/26/18 20:29	11/7/18	
2,4'-DDT	ND U	0.094	0.094	1	11/26/18 20:29	11/7/18	
4,4'-DDD	ND U	0.050	0.035	1	11/26/18 20:29	11/7/18	
4,4'-DDE	ND U	0.070	0.070	1	11/26/18 20:29	11/7/18	
4,4'-DDT	ND U	0.050	0.047	1	11/26/18 20:29	11/7/18	
Aldrin	ND U	0.079	0.079	1	11/26/18 20:29	11/7/18	
alpha-Chlordane	ND U	0.099	0.062	1	11/26/18 20:29	11/7/18	
cis-Nonachlor	ND U	0.097	0.097	1	11/26/18 20:29	11/7/18	
Dieldrin	ND U	0.20	0.077	1	11/26/18 20:29	11/7/18	
gamma-BHC (Lindane)	ND U	0.050	0.031	1	11/26/18 20:29	11/7/18	
gamma-Chlordane	ND U	0.099	0.064	1	11/26/18 20:29	11/7/18	
Heptachlor	ND U	0.050	0.039	1	11/26/18 20:29	11/7/18	
Oxychlordane	ND U	0.20	0.13	1	11/26/18 20:29	11/7/18	
trans-Nonachlor	ND U	0.099	0.058	1	11/26/18 20:29	11/7/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
S_4,4'DDD-d4	88	5 - 120	11/26/18 20:29	
S_4,4'-DDT-d4	107	13 - 200	11/26/18 20:29	
S_Aldrin-13C12	61	10 - 143	11/26/18 20:29	
S_Endrin-13C12	86	20 - 157	11/26/18 20:29	
S_GBHCD6	65	5 - 124	11/26/18 20:29	
S_Heptachlor-13C10	86	10 - 177	11/26/18 20:29	
S_Heptachlrepox13C10	70	8 - 146	11/26/18 20:29	
S_Oxychlordane-13C10	69	5 - 144	11/26/18 20:29	

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115
Sample Matrix: Sediment

SURROGATE RECOVERY SUMMARY
Organochlorine Pesticides by GC/MS/MS

Analysis Method: ALS SOP
Extraction Method: EPA 3541

Sample Name	Lab Code	S_4,4'DDD-d4 5-120	S_4,4'-DDT-d4 13-200	S_Aldrin-13C12 10-143
A1-0to30-102018	K1810302-016	84	99	58
D6-SC-64to88-102118	K1810302-022	82	120	51
D6-SC-40to64-102118	K1810302-023	36	83	27
H3-SC-99to114-102118	K1810302-024	73	98	48
D6-SC-88to108-102118	K1810302-025	60	80	46
H3-SC-46to63-102118	K1810302-026	66	112	42
D6-SC-0to1-102118	K1810302-027	70	100	44
H3-SC-1to2-102118	K1810302-028	50	132	37
D6-SC-1to2-102118	K1810302-029	49	95	35
Method Blank	KQ1815430-04	69	92	46
Method Blank	KQ1815510-04	69	75	63
Method Blank	KQ1816244-04	88	107	61
Lab Control Sample	KQ1815430-03	70	88	46
Lab Control Sample	KQ1815510-03	79	88	67
Lab Control Sample	KQ1816244-03	89	102	67
D6-SC-40to64-102118	KQ1815430-01	51	88	35
D6-SC-40to64-102118	KQ1815430-02	51	92	37
A1-0to30-102018	KQ1816244-01	85	102	69
A1-0to30-102018	KQ1816244-02	85	102	69

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115
Sample Matrix: Sediment

SURROGATE RECOVERY SUMMARY
Organochlorine Pesticides by GC/MS/MS

Analysis Method: ALS SOP
Extraction Method: EPA 3541

Sample Name	Lab Code	S_Endrin-13C12 20-157	S_GBHCD6 5-124	S_Heptachlor-13C10 10-177
A1-0to30-102018	K1810302-016	79	61	78
D6-SC-64to88-102118	K1810302-022	78	58	75
D6-SC-40to64-102118	K1810302-023	40	30	42
H3-SC-99to114-102118	K1810302-024	71	49	66
D6-SC-88to108-102118	K1810302-025	58	44	52
H3-SC-46to63-102118	K1810302-026	65	46	64
D6-SC-0to1-102118	K1810302-027	67	50	69
H3-SC-1to2-102118	K1810302-028	59	37	57
D6-SC-1to2-102118	K1810302-029	49	36	52
Method Blank	KQ1815430-04	61	45	59
Method Blank	KQ1815510-04	78	63	62
Method Blank	KQ1816244-04	86	65	86
Lab Control Sample	KQ1815430-03	64	45	58
Lab Control Sample	KQ1815510-03	81	66	70
Lab Control Sample	KQ1816244-03	92	75	91
D6-SC-40to64-102118	KQ1815430-01	54	37	55
D6-SC-40to64-102118	KQ1815430-02	52	38	56
A1-0to30-102018	KQ1816244-01	88	73	90
A1-0to30-102018	KQ1816244-02	88	73	90

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115
Sample Matrix: Sediment

SURROGATE RECOVERY SUMMARY
Organochlorine Pesticides by GC/MS/MS

Analysis Method: ALS SOP
Extraction Method: EPA 3541

Sample Name	Lab Code	S_Heptachlrepox13C10 8-146	S_Oxychlordane-13C10 5-144
A1-0to30-102018	K1810302-016	65	63
D6-SC-64to88-102118	K1810302-022	59	58
D6-SC-40to64-102118	K1810302-023	32	30
H3-SC-99to114-102118	K1810302-024	53	52
D6-SC-88to108-102118	K1810302-025	48	47
H3-SC-46to63-102118	K1810302-026	47	47
D6-SC-0to1-102118	K1810302-027	50	48
H3-SC-1to2-102118	K1810302-028	36	31
D6-SC-1to2-102118	K1810302-029	38	35
Method Blank	KQ1815430-04	49	49
Method Blank	KQ1815510-04	64	63
Method Blank	KQ1816244-04	70	69
Lab Control Sample	KQ1815430-03	47	48
Lab Control Sample	KQ1815510-03	66	65
Lab Control Sample	KQ1816244-03	76	72
D6-SC-40to64-102118	KQ1815430-01	40	38
D6-SC-40to64-102118	KQ1815430-02	41	38
A1-0to30-102018	KQ1816244-01	75	73
A1-0to30-102018	KQ1816244-02	75	73

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Analyzed:**11/16/18 16:18

Internal Standard Area and RT SUMMARY
Organochlorine Pesticides by GC/MS/MS

File ID: Y:\MS42\data\111618\111618F018.D **Lab Code:**KQ1816988-01
Instrument ID: K-MS-42 **Analysis Lot:**615706
Analysis Method: ALS SOP **Signal ID:**1

		Pyrene-d10	
		Area	**RT**
	Result ==>	10,374,820	9.725
	Upper Limit ==>	20,749,640	10.23
	Lower Limit ==>	5,187,410	9.23
Associated Analyses			
Method Blank	KQ1815510-04	7945179.059	9.725
Lab Control Sample	KQ1815510-03	8864969.716	9.725
D6-SC-88to108-102118	K1810302-025	10021362.05	9.725
Method Blank	KQ1815430-04	12395829.1	9.725
Lab Control Sample	KQ1815430-03	15498090.9	9.729
D6-SC-40to64-102118MS	KQ1815430-01	10784629.87	9.749
D6-SC-40to64-102118DMS	KQ1815430-02	10320433.58	9.756
D6-SC-64to88-102118	K1810302-022	12221847.46	9.731
D6-SC-40to64-102118	K1810302-023	10620181.75	9.750
H3-SC-99to114-102118	K1810302-024	12266669.94	9.732
H3-SC-46to63-102118	K1810302-026	12657461.06	9.739
D6-SC-0to1-102118	K1810302-027	12278376.04	9.736
H3-SC-1to2-102118	K1810302-028	8081765.134	9.763
D6-SC-1to2-102118	K1810302-029	10696292.14	9.750

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QA/QC Report

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Analyzed:**11/26/18 11:48

Internal Standard Area and RT SUMMARY
Organochlorine Pesticides by GC/MS/MS

File ID: J:\MS42\Data\112618\112618F003.D **Lab Code:**KQ1817669-01
Instrument ID: K-MS-42 **Analysis Lot:**617367
Analysis Method: ALS SOP **Signal ID:**1

		Pyrene-d10	
		Area	**RT**
	Result ==>	7,371,425	9.764
	Upper Limit ==>	14,742,849	10.26
	Lower Limit ==>	3,685,712	9.26
Associated Analyses			
Method Blank	KQ1816244-04	10437348.58	9.752
Lab Control Sample	KQ1816244-03	8282225.553	9.750
A1-0to30-102018MS	KQ1816244-01	8149401.545	9.750
A1-0to30-102018DMS	KQ1816244-02	8149401.545	9.750
A1-0to30-102018	K1810302-016	10080709.65	9.750

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18
Sample Matrix:	Sediment	**Date Received:**	10/22/18
		Date Analyzed:	11/16/18
		Date Extracted:	10/31/18

Duplicate Matrix Spike Summary
Organochlorine Pesticides by GC/MS/MS

Sample Name:	D6-SC-40to64-102118	**Units:**	ug/Kg
Lab Code:	K1810302-023	**Basis:**	Dry
Analysis Method:	ALS SOP		
Prep Method:	EPA 3541		

		Matrix Spike KQ1815430-01			Duplicate Matrix Spike KQ1815430-02					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
2,4'-DDD	ND U	2.40	1.81	133	2.19	1.80	122	32-169	9	40
2,4'-DDE	1.2	2.63	1.81	77	2.64	1.80	79	43-155	<1	40
2,4'-DDT	ND U	1.44	1.81	79	1.45	1.80	81	55-161	1	40
4,4'-DDD	4.1	5.42	1.81	74	5.58	1.80	84	10-190	3	40
4,4'-DDE	8.9	9.11	1.81	10 #	8.91	1.80	0 #	35-162	2	40
4,4'-DDT	ND U	1.26	1.81	69	1.38	1.80	77	24-183	9	40
Aldrin	ND U	60.2 E	1.81	3327 *	61.1 E	1.80	3402 *	52-151	1	40
alpha-Chlordane	0.14 J	1.92	1.81	98	1.86	1.80	96	31-156	3	40
cis-Nonachlor	ND U	1.51	1.81	84	1.46	1.80	81	27-144	4	40
Dieldrin	ND U	1.38	1.81	76	1.97	1.80	110	28-150	35	40
gamma-BHC (Lindane)	ND U	1.38	1.81	76	1.35	1.80	75	64-135	2	40
gamma-Chlordane	0.46	2.23	1.81	98	2.23	1.80	98	31-158	<1	40
Heptachlor	ND U	1.75	1.81	97	1.79	1.80	100	76-117	3	40
Oxychlordane	ND U	1.46	1.81	81	1.36	1.80	75	53-144	7	40
trans-Nonachlor	ND U	1.67	1.81	92	1.62	1.80	90	35-153	3	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.

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/20/18
Sample Matrix:	Sediment	**Date Received:**	10/22/18
		Date Analyzed:	11/26/18
		Date Extracted:	11/7/18

Duplicate Matrix Spike Summary
Organochlorine Pesticides by GC/MS/MS

Sample Name:	A1-0to30-102018	**Units:**	ug/Kg
Lab Code:	K1810302-016	**Basis:**	Dry
Analysis Method:	ALS SOP		
Prep Method:	EPA 3541		

		Matrix Spike KQ1816244-01			**Duplicate Matrix Spike** KQ1816244-02					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
2,4'-DDD	ND U	1.76	1.82	97	1.76	1.82	97	32-169	<1	40
2,4'-DDE	ND U	1.61	1.82	88	1.61	1.82	88	43-155	<1	40
2,4'-DDT	ND U	1.50	1.82	82	1.65	1.82	90	55-161	10	40
4,4'-DDD	ND U	1.96	1.82	107	1.78	1.82	98	10-190	10	40
4,4'-DDE	ND U	1.41	1.82	77	1.41	1.82	77	35-162	<1	40
4,4'-DDT	ND U	1.71	1.82	94	1.71	1.82	94	24-183	<1	40
Aldrin	ND U	1.80	1.82	99	1.80	1.82	99	52-151	<1	40
alpha-Chlordane	ND U	1.93	1.82	106	1.93	1.82	106	31-156	<1	40
cis-Nonachlor	ND U	1.86	1.82	102	1.86	1.82	102	27-144	<1	40
Dieldrin	ND U	1.46	1.82	80	1.46	1.82	80	28-150	<1	40
gamma-BHC (Lindane)	ND U	1.88	1.82	103	1.88	1.82	103	64-135	<1	40
gamma-Chlordane	ND U	1.82	1.82	100	1.82	1.82	100	31-158	<1	40
Heptachlor	ND U	1.91	1.82	105	1.91	1.82	105	76-117	<1	40
Oxychlordane	ND U	1.78	1.82	98	1.78	1.82	98	53-144	<1	40
trans-Nonachlor	ND U	1.47	1.82	81	1.47	1.82	81	35-153	<1	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.

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/16/18
Sample Matrix:	Sediment	**Date Extracted:**	10/31/18

Lab Control Sample Summary
Organochlorine Pesticides by GC/MS/MS

Analysis Method:	ALS SOP	**Units:**	ug/Kg
Prep Method:	EPA 3541	**Basis:**	Dry
		Analysis Lot:	615706

Lab Control Sample
KQ1815430-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
2,4'-DDD	1.55	2.00	77	73-122
2,4'-DDE	1.45	2.00	72	54-145
2,4'-DDT	1.77	2.00	89	77-118
4,4'-DDD	2.08	2.00	104	74-117
4,4'-DDE	1.39	2.00	69	66-132
4,4'-DDT	1.79	2.00	90	78-116
Aldrin	1.93	2.00	96	74-122
alpha-Chlordane	1.96	2.00	98	74-130
cis-Nonachlor	1.96	2.00	98	69-134
Dieldrin	1.50	2.00	75	62-131
gamma-BHC (Lindane)	1.91	2.00	96	79-116
gamma-Chlordane	1.99	2.00	99	76-128
Heptachlor	2.07	2.00	103	81-114
Oxychlordane	1.94	2.00	97	59-141
trans-Nonachlor	1.90	2.00	95	76-124

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/16/18
Sample Matrix:	Sediment	**Date Extracted:**	10/31/18

Lab Control Sample Summary
Organochlorine Pesticides by GC/MS/MS

Analysis Method:	ALS SOP	**Units:**	ug/Kg
Prep Method:	EPA 3541	**Basis:**	Dry
		Analysis Lot:	615706

Lab Control Sample
KQ1815510-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
2,4'-DDD	1.86	2.00	93	73-122
2,4'-DDE	1.85	2.00	92	54-145
2,4'-DDT	1.88	2.00	94	77-118
4,4'-DDD	2.00	2.00	100	74-117
4,4'-DDE	1.70	2.00	85	66-132
4,4'-DDT	1.86	2.00	93	78-116
Aldrin	2.02	2.00	101	74-122
alpha-Chlordane	1.99	2.00	99	74-130
cis-Nonachlor	2.04	2.00	102	69-134
Dieldrin	1.68	2.00	84	62-131
gamma-BHC (Lindane)	1.88	2.00	94	79-116
gamma-Chlordane	2.06	2.00	103	76-128
Heptachlor	1.93	2.00	96	81-114
Oxychlordane	1.95	2.00	98	59-141
trans-Nonachlor	1.91	2.00	96	76-124

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/26/18
Sample Matrix:	Sediment	**Date Extracted:**	11/07/18

Lab Control Sample Summary
Organochlorine Pesticides by GC/MS/MS

Analysis Method:	ALS SOP	**Units:**	ug/Kg
Prep Method:	EPA 3541	**Basis:**	Dry
		Analysis Lot:	617367

Lab Control Sample
KQ1816244-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
2,4'-DDD	1.91	2.00	95	73-122
2,4'-DDE	1.76	2.00	88	54-145
2,4'-DDT	1.72	2.00	86	77-118
4,4'-DDD	2.21	2.00	111	74-117
4,4'-DDE	1.53	2.00	76	66-132
4,4'-DDT	1.97	2.00	99	78-116
Aldrin	2.11	2.00	106	74-122
alpha-Chlordane	2.23	2.00	111	74-130
cis-Nonachlor	2.15	2.00	107	69-134
Dieldrin	1.56	2.00	78	62-131
gamma-BHC (Lindane)	2.00	2.00	100	79-116
gamma-Chlordane	2.12	2.00	106	76-128
Heptachlor	2.09	2.00	105	81-114
Oxychlordane	2.04	2.00	102	59-141
trans-Nonachlor	1.65	2.00	83	76-124

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/16/18 16:36
Sample Matrix:	Sediment	**Date Extracted:**	10/31/18

Method Blank Summary
Organochlorine Pesticides by GC/MS/MS

Sample Name:	Method Blank	**Instrument ID:**	K-MS-42
Lab Code:	KQ1815510-04	**File ID:**	Y:\MS42\data\111618\111618F019.D
Analysis Method:	ALS SOP	**Analysis Lot:**	615706
Prep Method:	EPA 3541	**Extraction Lot:**	325017

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1815510-03	Y:\MS42\data\111618\111618F020.D	11/16/18 16:53
D6-SC-88to108-102118	K1810302-025	Y:\MS42\data\111618\111618F023.D	11/16/18 17:46

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/16/18 22:46
Sample Matrix:	Sediment	**Date Extracted:**	10/31/18

Method Blank Summary
Organochlorine Pesticides by GC/MS/MS

Sample Name:	Method Blank	**Instrument ID:**	K-MS-42
Lab Code:	KQ1815430-04	**File ID:**	Y:\MS42\data\111618\111618F040.D
Analysis Method:	ALS SOP	**Analysis Lot:**	615706
Prep Method:	EPA 3541	**Extraction Lot:**	324902

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1815430-03	Y:\MS42\data\111618\111618F041.D	11/16/18 23:04
D6-SC-40to64-102118MS	KQ1815430-01	Y:\MS42\data\111618\111618F042.D	11/16/18 23:21
D6-SC-40to64-102118DMS	KQ1815430-02	Y:\MS42\data\111618\111618F043.D	11/16/18 23:39
D6-SC-64to88-102118	K1810302-022	Y:\MS42\data\111618\111618F044.D	11/16/18 23:56
D6-SC-40to64-102118	K1810302-023	Y:\MS42\data\111618\111618F045.D	11/17/18 00:14
H3-SC-99to114-102118	K1810302-024	Y:\MS42\data\111618\111618F046.D	11/17/18 00:32
H3-SC-46to63-102118	K1810302-026	Y:\MS42\data\111618\111618F047.D	11/17/18 00:49
D6-SC-0to1-102118	K1810302-027	Y:\MS42\data\111618\111618F048.D	11/17/18 01:07
H3-SC-1to2-102118	K1810302-028	Y:\MS42\data\111618\111618F049.D	11/17/18 01:25
D6-SC-1to2-102118	K1810302-029	Y:\MS42\data\111618\111618F050.D	11/17/18 01:42

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/16/18 16:36
Sample Matrix:	Sediment	**Date Extracted:**	10/31/18

Method Blank Summary
Organochlorine Pesticides by GC/MS/MS

Sample Name:	Method Blank	**Instrument ID:**	K-MS-42
Lab Code:	KQ1815510-04	**File ID:**	Y:\MS42\data\111618\111618F019.D
Analysis Method:	ALS SOP	**Analysis Lot:**	615706
Prep Method:	EPA 3541	**Extraction Lot:**	325017

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1815510-03	Y:\MS42\data\111618\111618F020.D	11/16/18 16:53
D6-SC-88to108-102118	K1810302-025	Y:\MS42\data\111618\111618F023.D	11/16/18 17:46

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/16/18 22:46
Sample Matrix:	Sediment	**Date Extracted:**	10/31/18

Method Blank Summary
Organochlorine Pesticides by GC/MS/MS

Sample Name:	Method Blank	**Instrument ID:**	K-MS-42
Lab Code:	KQ1815430-04	**File ID:**	Y:\MS42\data\111618\111618F040.D
Analysis Method:	ALS SOP	**Analysis Lot:**	615706
Prep Method:	EPA 3541	**Extraction Lot:**	324902

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1815430-03	Y:\MS42\data\111618\111618F041.D	11/16/18 23:04
D6-SC-40to64-102118MS	KQ1815430-01	Y:\MS42\data\111618\111618F042.D	11/16/18 23:21
D6-SC-40to64-102118DMS	KQ1815430-02	Y:\MS42\data\111618\111618F043.D	11/16/18 23:39
D6-SC-64to88-102118	K1810302-022	Y:\MS42\data\111618\111618F044.D	11/16/18 23:56
D6-SC-40to64-102118	K1810302-023	Y:\MS42\data\111618\111618F045.D	11/17/18 00:14
H3-SC-99to114-102118	K1810302-024	Y:\MS42\data\111618\111618F046.D	11/17/18 00:32
H3-SC-46to63-102118	K1810302-026	Y:\MS42\data\111618\111618F047.D	11/17/18 00:49
D6-SC-0to1-102118	K1810302-027	Y:\MS42\data\111618\111618F048.D	11/17/18 01:07
H3-SC-1to2-102118	K1810302-028	Y:\MS42\data\111618\111618F049.D	11/17/18 01:25
D6-SC-1to2-102118	K1810302-029	Y:\MS42\data\111618\111618F050.D	11/17/18 01:42

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/26/18 20:29
Sample Matrix:	Sediment	**Date Extracted:**	11/07/18

Method Blank Summary
Organochlorine Pesticides by GC/MS/MS

Sample Name:	Method Blank	**Instrument ID:**	K-MS-42
Lab Code:	KQ1816244-04	**File ID:**	J:\MS42\Data\112618\112618F031.D
Analysis Method:	ALS SOP	**Analysis Lot:**	617367
Prep Method:	EPA 3541	**Extraction Lot:**	325840

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1816244-03	J:\MS42\Data\112618\112618F032.D	11/26/18 20:46
A1-0to30-102018MS	KQ1816244-01	J:\MS42\Data\112618\112618F033.D	11/26/18 21:04
A1-0to30-102018DMS	KQ1816244-02	J:\MS42\Data\112618\112618F034.D	11/26/18 21:22
A1-0to30-102018	K1810302-016	J:\MS42\Data\112618\112618F036.D	11/26/18 21:57

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/16/18 16:53
Sample Matrix:	Sediment	**Date Extracted:**	10/31/18

Lab Control Sample Summary
Organochlorine Pesticides by GC/MS/MS

Sample Name:	Lab Control Sample	**Instrument ID:**	K-MS-42
Lab Code:	KQ1815510-03	**File ID:**	Y:\MS42\data\111618\111618F020.D
Analysis Method:	ALS SOP	**Analysis Lot:**	615706
Prep Method:	EPA 3541	**Extraction Lot:**	325017

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1815510-04	Y:\MS42\data\111618\111618F019.D	11/16/18 16:36
D6-SC-88to108-102118	K1810302-025	Y:\MS42\data\111618\111618F023.D	11/16/18 17:46

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/16/18 23:04
Sample Matrix:	Sediment	**Date Extracted:**	10/31/18

Lab Control Sample Summary
Organochlorine Pesticides by GC/MS/MS

Sample Name:	Lab Control Sample	**Instrument ID:**	K-MS-42
Lab Code:	KQ1815430-03	**File ID:**	Y:\MS42\data\111618\111618F041.D
Analysis Method:	ALS SOP	**Analysis Lot:**	615706
Prep Method:	EPA 3541	**Extraction Lot:**	324902

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1815430-04	Y:\MS42\data\111618\111618F040.D	11/16/18 22:46
D6-SC-40to64-102118MS	KQ1815430-01	Y:\MS42\data\111618\111618F042.D	11/16/18 23:21
D6-SC-40to64-102118DMS	KQ1815430-02	Y:\MS42\data\111618\111618F043.D	11/16/18 23:39
D6-SC-64to88-102118	K1810302-022	Y:\MS42\data\111618\111618F044.D	11/16/18 23:56
D6-SC-40to64-102118	K1810302-023	Y:\MS42\data\111618\111618F045.D	11/17/18 00:14
H3-SC-99to114-102118	K1810302-024	Y:\MS42\data\111618\111618F046.D	11/17/18 00:32
H3-SC-46to63-102118	K1810302-026	Y:\MS42\data\111618\111618F047.D	11/17/18 00:49
D6-SC-0to1-102118	K1810302-027	Y:\MS42\data\111618\111618F048.D	11/17/18 01:07
H3-SC-1to2-102118	K1810302-028	Y:\MS42\data\111618\111618F049.D	11/17/18 01:25
D6-SC-1to2-102118	K1810302-029	Y:\MS42\data\111618\111618F050.D	11/17/18 01:42

ALS Group USA, Corp.
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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/16/18 16:53
Sample Matrix:	Sediment	**Date Extracted:**	10/31/18

Lab Control Sample Summary
Organochlorine Pesticides by GC/MS/MS

Sample Name:	Lab Control Sample	**Instrument ID:**	K-MS-42
Lab Code:	KQ1815510-03	**File ID:**	Y:\MS42\data\111618\111618F020.D
Analysis Method:	ALS SOP	**Analysis Lot:**	615706
Prep Method:	EPA 3541	**Extraction Lot:**	325017

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1815510-04	Y:\MS42\data\111618\111618F019.D	11/16/18 16:36
D6-SC-88to108-102118	K1810302-025	Y:\MS42\data\111618\111618F023.D	11/16/18 17:46

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/16/18 23:04
Sample Matrix:	Sediment	**Date Extracted:**	10/31/18

Lab Control Sample Summary
Organochlorine Pesticides by GC/MS/MS

Sample Name:	Lab Control Sample	**Instrument ID:**	K-MS-42
Lab Code:	KQ1815430-03	**File ID:**	Y:\MS42\data\111618\111618F041.D
Analysis Method:	ALS SOP	**Analysis Lot:**	615706
Prep Method:	EPA 3541	**Extraction Lot:**	324902

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1815430-04	Y:\MS42\data\111618\111618F040.D	11/16/18 22:46
D6-SC-40to64-102118MS	KQ1815430-01	Y:\MS42\data\111618\111618F042.D	11/16/18 23:21
D6-SC-40to64-102118DMS	KQ1815430-02	Y:\MS42\data\111618\111618F043.D	11/16/18 23:39
D6-SC-64to88-102118	K1810302-022	Y:\MS42\data\111618\111618F044.D	11/16/18 23:56
D6-SC-40to64-102118	K1810302-023	Y:\MS42\data\111618\111618F045.D	11/17/18 00:14
H3-SC-99to114-102118	K1810302-024	Y:\MS42\data\111618\111618F046.D	11/17/18 00:32
H3-SC-46to63-102118	K1810302-026	Y:\MS42\data\111618\111618F047.D	11/17/18 00:49
D6-SC-0to1-102118	K1810302-027	Y:\MS42\data\111618\111618F048.D	11/17/18 01:07
H3-SC-1to2-102118	K1810302-028	Y:\MS42\data\111618\111618F049.D	11/17/18 01:25
D6-SC-1to2-102118	K1810302-029	Y:\MS42\data\111618\111618F050.D	11/17/18 01:42

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/26/18 20:46
Sample Matrix:	Sediment	**Date Extracted:**	11/07/18

Lab Control Sample Summary
Organochlorine Pesticides by GC/MS/MS

Sample Name:	Lab Control Sample	**Instrument ID:**	K-MS-42
Lab Code:	KQ1816244-03	**File ID:**	J:\MS42\Data\112618\112618F032.D
Analysis Method:	ALS SOP	**Analysis Lot:**	617367
Prep Method:	EPA 3541	**Extraction Lot:**	325840

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1816244-04	J:\MS42\Data\112618\112618F031.D	11/26/18 20:29
A1-0to30-102018MS	KQ1816244-01	J:\MS42\Data\112618\112618F033.D	11/26/18 21:04
A1-0to30-102018DMS	KQ1816244-02	J:\MS42\Data\112618\112618F034.D	11/26/18 21:22
A1-0to30-102018	K1810302-016	J:\MS42\Data\112618\112618F036.D	11/26/18 21:57

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Analyzed:**11/16/18 16:18

Tune Summary
Organochlorine Pesticides by GC/MS/MS

File ID: Y:\MS42\data\111618\111618F018.D **Analytical Method:** ALS SOP
Instrument ID: K-MS-42 **Analysis Lot:** 615706

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	KQ1816988-01	Y:\MS42\data\111618\111618F018.D	11/16/18 16:18	
Method Blank	KQ1815510-04	Y:\MS42\data\111618\111618F019.D	11/16/18 16:36	
Lab Control Sample	KQ1815510-03	Y:\MS42\data\111618\111618F020.D	11/16/18 16:53	
D6-SC-88to108-102118	K1810302-025	Y:\MS42\data\111618\111618F023.D	11/16/18 17:46	
Method Blank	KQ1815430-04	Y:\MS42\data\111618\111618F040.D	11/16/18 22:46	
Lab Control Sample	KQ1815430-03	Y:\MS42\data\111618\111618F041.D	11/16/18 23:04	
D6-SC-40to64-102118	KQ1815430-01	Y:\MS42\data\111618\111618F042.D	11/16/18 23:21	
D6-SC-40to64-102118	KQ1815430-02	Y:\MS42\data\111618\111618F043.D	11/16/18 23:39	
D6-SC-64to88-102118	K1810302-022	Y:\MS42\data\111618\111618F044.D	11/16/18 23:56	
D6-SC-40to64-102118	K1810302-023	Y:\MS42\data\111618\111618F045.D	11/17/18 00:14	
H3-SC-99to114-102118	K1810302-024	Y:\MS42\data\111618\111618F046.D	11/17/18 00:32	
H3-SC-46to63-102118	K1810302-026	Y:\MS42\data\111618\111618F047.D	11/17/18 00:49	
D6-SC-0to1-102118	K1810302-027	Y:\MS42\data\111618\111618F048.D	11/17/18 01:07	
H3-SC-1to2-102118	K1810302-028	Y:\MS42\data\111618\111618F049.D	11/17/18 01:25	
D6-SC-1to2-102118	K1810302-029	Y:\MS42\data\111618\111618F050.D	11/17/18 01:42	

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Analyzed:**11/26/18 11:48

Tune Summary
Organochlorine Pesticides by GC/MS/MS

File ID: J:\MS42\Data\112618\112618F003.D **Analytical Method:** ALS SOP
Instrument ID: K-MS-42 **Analysis Lot:** 617367

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	KQ1817669-01	J:\MS42\Data\112618\112618F003.D	11/26/18 11:48	
Method Blank	KQ1816244-04	J:\MS42\Data\112618\112618F031.D	11/26/18 20:29	
Lab Control Sample	KQ1816244-03	J:\MS42\Data\112618\112618F032.D	11/26/18 20:46	
A1-0to30-102018	KQ1816244-01	J:\MS42\Data\112618\112618F033.D	11/26/18 21:04	
A1-0to30-102018	KQ1816244-02	J:\MS42\Data\112618\112618F034.D	11/26/18 21:22	
A1-0to30-102018	K1810302-016	J:\MS42\Data\112618\112618F036.D	11/26/18 21:57	

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 11/16/2018

Initial Calibration Summary
Organochlorine Pesticides by GC/MS/MS

Calibration ID: KC1900105 **Signal ID:** 1
Instrument ID: K-MS-42

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1900105-01	OC PEST ICAL 0.5ng/mL SVM59-48A	Y:\MS42\data\111618\111618F007.D	11/16/2018 13:04
02	KC1900105-02	OC PEST ICAL 1ng/mL SVM59-48B	Y:\MS42\data\111618\111618F008.D	11/16/2018 13:22
03	KC1900105-03	OC PEST ICAL 2ng/mL SVM59-48C	Y:\MS42\data\111618\111618F009.D	11/16/2018 13:40
04	KC1900105-04	OC PEST ICAL5ng/mL SVM59-48D	Y:\MS42\data\111618\111618F010.D	11/16/2018 13:57
05	KC1900105-05	OC PEST ICAL 10ng/mL SVM59-48E	Y:\MS42\data\111618\111618F011.D	11/16/2018 14:15
06	KC1900105-06	OC PEST ICAL 20ng/mL SVM59-48F	Y:\MS42\data\111618\111618F012.D	11/16/2018 14:32
07	KC1900105-07	OC PEST ICAL 40ng/mL SVM59-48G	Y:\MS42\data\111618\111618F013.D	11/16/2018 14:50
08	KC1900105-08	OC PEST ICAL 60ng/mL SVM59-48H	Y:\MS42\data\111618\111618F014.D	11/16/2018 15:08
09	KC1900105-09	OC PEST ICAL 80ng/mL SVM59-48I	Y:\MS42\data\111618\111618F015.D	11/16/2018 15:25
10	KC1900105-10	OC PEST ICAL 100ng/mL SVM59-48J	Y:\MS42\data\111618\111618F016.D	11/16/2018 15:43

Analyte

2,4'-DDD

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5	1.261	02	1	1.224	03	2	1.178	04	5	1.079
05	10	0.9427	06	20	1.017	07	40	1.047	08	60	1.03
09	80	1.021	10	100	0.9601						

2,4'-DDE

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5	1.112	02	1	1.066	03	2	0.9964	04	5	0.9684
05	10	0.9857	06	20	0.9682	07	40	0.8315	08	60	0.868
09	80	0.8943	10	100	0.8158						

2,4'-DDT

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5	2.569	02	1	2.415	03	2	2.223	04	5	2.091
05	10	2.002	06	20	2.313	07	40	2.153	08	60	2.109
09	80	2.217	10	100	2.327						

4,4'-DDD

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5	1.962	02	1	1.748	03	2	1.715	04	5	1.582
05	10	1.611	06	20	1.612	07	40	1.491	08	60	1.499
09	80	1.442	10	100	1.485						

4,4'-DDE

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5	1.062	02	1	1.011	03	2	0.9602	04	5	0.8859
05	10	0.7818	06	20	0.8616	07	40	0.8292	08	60	0.8033
09	80	0.8039	10	100	0.7151						

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 11/16/2018

Initial Calibration Summary
Organochlorine Pesticides by GC/MS/MS

Calibration ID: KC1900105 **Signal ID:** 1
Instrument ID: K-MS-42

Analyte

4,4'-DDT

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5	1.262	02	1	1.153	03	2	1.199	04	5	1.117
05	10	1.136	06	20	1.174	07	40	1.085	08	60	1.118
09	80	1.161	10	100	1.165						

Aldrin

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5	4.305	02	1	2.563	03	2	1.61	04	5	0.9942
05	10	0.8166	06	20	0.7263	07	40	0.632	08	60	0.6534
09	80	0.6433	10	100	0.6223						

Dieldrin

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5	1.619	02	1	1.579	03	2	1.599	04	5	1.513
05	10	1.404	06	20	1.488	07	40	1.434	08	60	1.533
09	80	1.582	10	100	1.503						

Heptachlor

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5	1.394	02	1	1.262	03	2	1.253	04	5	1.114
05	10	1.096	06	20	1.124	07	40	1.092	08	60	1.097
09	80	1.103	10	100	1.057						

Oxychlordane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5	3.238	02	1	2.791	03	2	2.867	04	5	2.599
05	10	2.71	06	20	2.603	07	40	2.523	08	60	2.543
09	80	2.605	10	100	2.563						

S_4,4'-DDT-d4

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5	1.492	02	5	1.453	03	5	1.504	04	5	1.524
05	5	1.622	06	5	1.576	07	5	1.658	08	5	1.721
09	5	1.688	10	5	1.631						

S_4,4'DDD-d4

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5	3.157	02	5	3.283	03	5	3.287	04	5	3.32
05	5	3.165	06	5	3.478	07	5	3.703	08	5	3.817
09	5	4.136	10	5	4.17						

S_Aldrin-13C12

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	20	0.5193	02	20	0.5077	03	20	0.4804	04	20	0.5141
05	20	0.5112	06	20	0.5702	07	20	0.5257	08	20	0.5312
09	20	0.5958	10	20	0.5126						

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 11/16/2018

Initial Calibration Summary
Organochlorine Pesticides by GC/MS/MS

Calibration ID: KC1900105 **Signal ID:** 1
Instrument ID: K-MS-42

Analyte

S_Endrin-13C12

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	20	0.177	02	20	0.183	03	20	0.1731	04	20	0.176
05	20	0.1718	06	20	0.1917	07	20	0.1865	08	20	0.1858
09	20	0.1969	10	20	0.1858						

S_GBHCD6

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	20	1.328	02	20	1.305	03	20	1.255	04	20	1.351
05	20	1.443	06	20	1.563	07	20	1.356	08	20	1.409
09	20	1.596	10	20	1.343						

S_Heptachlor-13C10

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	20	0.543	02	20	0.5492	03	20	0.5195	04	20	0.5578
05	20	0.591	06	20	0.6313	07	20	0.5827	08	20	0.5948
09	20	0.6094	10	20	0.5895						

S_Heptachlrepox13C10

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	20	0.168	02	20	0.1782	03	20	0.1684	04	20	0.1782
05	20	0.1798	06	20	0.2042	07	20	0.1783	08	20	0.1871
09	20	0.2101	10	20	0.1857						

S_Oxychlordane-13C10

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	20	0.3485	02	20	0.363	03	20	0.3367	04	20	0.363
05	20	0.3664	06	20	0.413	07	20	0.3629	08	20	0.3782
09	20	0.4199	10	20	0.3833						

alpha-Chlordane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5	2.866	02	1	2.479	03	2	2.573	04	5	2.305
05	10	2.332	06	20	2.321	07	40	2.261	08	60	2.338
09	80	2.314	10	100	2.286						

cis-Nonachlor

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5	0.6615	02	1	0.5948	03	2	0.6225	04	5	0.5659
05	10	0.5567	06	20	0.5674	07	40	0.5856	08	60	0.5834
09	80	0.5695	10	100	0.5621						

gamma-BHC (Lindane)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5	2.362	02	1	2.223	03	2	2.138	04	5	2.023
05	10	2.017	06	20	2.066	07	40	1.951	08	60	2.021
09	80	2.032	10	100	2.087						

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 11/16/2018

Initial Calibration Summary
Organochlorine Pesticides by GC/MS/MS

Calibration ID: KC1900105 **Signal ID:** 1
Instrument ID: K-MS-42

Analyte

gamma-Chlordane

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5	1.111	02	1	0.9846	03	2	1.046	04	5	0.9322
05	10	0.9264	06	20	0.9043	07	40	0.9128	08	60	0.9219
09	80	0.9581	10	100	0.9388						

trans-Nonachlor

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.5	1.73	02	1	1.64	03	2	1.592	04	5	1.404
05	10	1.556	06	20	1.449	07	40	1.55	08	60	1.461
09	80	1.584	10	100	1.529						

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 11/16/2018

Initial Calibration Summary
Organochlorine Pesticides by GC/MS/MS

Calibration ID: KC1900105 **Signal ID:** 1
Instrument ID: K-MS-42

		Calibration Evaluation				Calibration Evaluation	
Analyte Name	Compound Type	Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
2,4'-DDD	TRG	Average RF	% RSD	10.1	≤20	1.076	0.01
2,4'-DDE	TRG	Average RF	% RSD	10.3	≤20	0.9506	0.01
2,4'-DDT	TRG	Average RF	% RSD	7.5	≤20	2.242	0.01
4,4'-DDD	TRG	Average RF	% RSD	9.8	≤20	1.615	0.01
4,4'-DDE	TRG	Average RF	% RSD	12.5	≤20	0.8714	0.01
4,4'-DDT	TRG	Average RF	% RSD	4.3	≤20	1.157	0.01
Aldrin	TRG	Quadratic	COD	0.9993	≥	1.357	0.01
Dieldrin	TRG	Average RF	% RSD	4.7	≤20	1.526	0.01
Heptachlor	TRG	Average RF	% RSD	9.3	≤20	1.159	0.01
Oxychlordane	TRG	Average RF	% RSD	8.1	≤20	2.704	0.01
S_4,4'-DDT-d4	SURR	Average RF	% RSD	5.7	≤	1.587	0.01
S_4,4'DDD-d4	SURR	Average RF	% RSD	10.8	≤	3.552	0.01
S_Aldrin-13C12	SURR	Average RF	% RSD	6.3	≤	0.5268	0.01
S_Endrin-13C12	SURR	Average RF	% RSD	4.5	≤	0.1828	0.01
S_GBHCD6	SURR	Average RF	% RSD	7.9	≤	1.395	0.01
S_Heptachlor-13C10	SURR	Average RF	% RSD	5.9	≤	0.5768	0.01
S_Heptachlrepox13C10	SURR	Average RF	% RSD	7.5	≤	0.1838	0.01
S_Oxychlordane-13C10	SURR	Average RF	% RSD	7.0	≤	0.3735	0.01
alpha-Chlordane	TRG	Average RF	% RSD	7.8	≤20	2.408	0.01
cis-Nonachlor	TRG	Average RF	% RSD	5.6	≤20	0.5869	0.01
gamma-BHC (Lindane)	TRG	Average RF	% RSD	5.8	≤20	2.092	0.01
gamma-Chlordane	TRG	Average RF	% RSD	6.9	≤20	0.9637	0.01
trans-Nonachlor	TRG	Average RF	% RSD	6.2	≤20	1.549	0.01

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 11/16/2018

Initial Calibration Verification Summary
Organochlorine Pesticides by GC/MS/MS

Calibration ID: KC1900105 **Signal ID:** 1
Instrument ID: K-MS-42

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1900105-11	OC PEST ICV 20ng/mL SVM59-48K	Y:\MS42\data\111618\111618F018.D	11/16/2018 16:18

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
2,4'-DDD	20.0	20.6	1.076E0	1.11E0	3.16	±25	Average RF
2,4'-DDE	20.0	20.5	9.506E-1	9.742E-1	2.48	±25	Average RF
2,4'-DDT	20.0	17.8	2.242E0	2.0E0	-10.783	±25	Average RF
4,4'-DDD	20.0	20.1	1.615E0	1.62E0	0.320	±25	Average RF
4,4'-DDE	20.0	20.7	8.714E-1	9.034E-1	3.68	±25	Average RF
4,4'-DDT	20.0	19.1	1.157E0	1.104E0	-4.551	±25	Average RF
Aldrin	20.0	19.4	1.357E0	6.941E-1	-2.945	±25	Quadratic
alpha-Chlordane	20.0	18.6	2.408E0	2.243E0	-6.832	±25	Average RF
cis-Nonachlor	20.0	16.9	5.869E-1	4.95E-1	-15.672	±25	Average RF
Dieldrin	20.0	19.2	1.526E0	1.462E0	-4.168	±25	Average RF
gamma-BHC (Lindane)	20.0	19.3	2.092E0	2.019E0	-3.491	±25	Average RF
gamma-Chlordane	20.0	19.0	9.637E-1	9.15E-1	-5.056	±25	Average RF
Heptachlor	20.0	19.1	1.159E0	1.106E0	-4.610	±25	Average RF
Oxychlordane	20.0	19.6	2.704E0	2.65E0	-1.998	±25	Average RF
trans-Nonachlor	20.0	17.7	1.549E0	1.367E0	-11.742	±25	Average RF

Analyte Name	Expected	Result	Average RF	SSV RF	Rec.	Criteria	Curve Fit
S_4,4'DDD-d4	5.00	4.73	3.552E0	3.363E0	94.6	50-200	Average RF
S_4,4'-DDT-d4	5.00	4.71	1.587E0	1.494E0	94.2	50-200	Average RF
S_Aldrin-13C12	20.0	19.7	5.268E-1	5.179E-1	98.5	50-200	Average RF
S_Endrin-13C12	20.0	19.4	1.828E-1	1.772E-1	97.0	50-200	Average RF
S_GBHCD6	20.0	20.0	1.395E0	1.391E0	100	50-200	Average RF
S_Heptachlor-13C10	20.0	19.2	5.768E-1	5.534E-1	96.0	50-200	Average RF
S_Heptachlrepox13C10	20.0	20.6	1.838E-1	1.894E-1	103	50-200	Average RF
S_Oxychlordane-13C10	20.0	20.8	3.735E-1	3.892E-1	104	50-200	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/16/18 16:18

Continuing Calibration Verification (CCV) Summary
Organochlorine Pesticides by GC/MS/MS

Analysis Method:	ALS SOP	**Calibration Date:**	11/16/2018
File ID:	Y:\MS42\data\111618\111618F018.D	**Calibration ID:**	KC1900105
Signal ID:	1	**Analysis Lot:**	615706
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4'-DDD	20.0	20.6	1.0759	1.1099	3.2	NA	±25	Average RF
2,4'-DDE	20.0	20.5	0.9506	0.9742	2.5	NA	±25	Average RF
2,4'-DDT	20.0	17.8	2.242	2.0002	-10.8	NA	±25	Average RF
4,4'-DDD	20.0	20.1	1.6147	1.6199	0.3	NA	±25	Average RF
4,4'-DDE	20.0	20.7	0.8714	0.9034	3.7	NA	±25	Average RF
4,4'-DDT	20.0	19.1	1.157	1.1043	-4.6	NA	±25	Average RF
Aldrin	20.0	19.4	1.3566	0.6941	NA	-2.9	±25	Quadratic
alpha-Chlordane	20.0	18.6	2.4076	2.2431	-6.8	NA	±25	Average RF
cis-Nonachlor	20.0	16.9	0.5869	0.495	-15.7	NA	±25	Average RF
Dieldrin	20.0	19.2	1.5255	1.4619	-4.2	NA	±25	Average RF
gamma-BHC (Lindane)	20.0	19.3	2.092	2.019	-3.5	NA	±25	Average RF
gamma-Chlordane	20.0	19.0	0.9637	0.915	-5.1	NA	±25	Average RF
Heptachlor	20.0	19.1	1.1592	1.1058	-4.6	NA	±25	Average RF
Oxychlordane	20.0	19.6	2.7041	2.65	-2.0	NA	±25	Average RF
trans-Nonachlor	20.0	17.7	1.5494	1.3675	-11.7	NA	±25	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
S_4,4'DDD-d4	5.00	4.73	3.5517	3.3625	94.7	NA	50-200	Average RF
S_4,4'-DDT-d4	5.00	4.71	1.5869	1.4944	94.2	NA	50-200	Average RF
S_Aldrin-13C12	20.0	19.7	0.5268	0.5179	98.3	NA	50-200	Average RF
S_Endrin-13C12	20.0	19.4	0.1828	0.1772	97.0	NA	50-200	Average RF
S_GBHCD6	20.0	20.0	1.3949	1.3914	100	NA	50-200	Average RF
S_Heptachlor-13C10	20.0	19.2	0.5768	0.5534	95.9	NA	50-200	Average RF
S_Heptachlrepox13C10	20.0	20.6	0.1838	0.1894	103	NA	50-200	Average RF
S_Oxychlordane-13C10	20.0	20.8	0.3735	0.3892	104	NA	50-200	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/26/18 11:48

Continuing Calibration Verification (CCV) Summary
Organochlorine Pesticides by GC/MS/MS

Analysis Method:	ALS SOP	**Calibration Date:**	11/16/2018
File ID:	J:\MS42\Data\112618\112618F003.D	**Calibration ID:**	KC1900105
Signal ID:	1	**Analysis Lot:**	617367
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
2,4'-DDD	20.0	16.5	1.0759	0.8879	-17.5	NA	±25	Average RF
2,4'-DDE	20.0	19.0	0.9506	0.9044	-4.9	NA	±25	Average RF
2,4'-DDT	20.0	14.0	2.242	1.5668	-30.1*	NA	±25	Average RF
4,4'-DDD	20.0	19.0	1.6147	1.5314	-5.2	NA	±25	Average RF
4,4'-DDE	20.0	16.1	0.8714	0.7	-19.7	NA	±25	Average RF
4,4'-DDT	20.0	18.2	1.157	1.0522	-9.1	NA	±25	Average RF
Aldrin	20.0	19.7	1.3566	0.7042	NA	-1.3	±25	Quadratic
alpha-Chlordane	20.0	18.0	2.4076	2.1668	-10.0	NA	±25	Average RF
cis-Nonachlor	20.0	17.4	0.5869	0.5096	-13.2	NA	±25	Average RF
Dieldrin	20.0	16.8	1.5255	1.2783	-16.2	NA	±25	Average RF
gamma-BHC (Lindane)	20.0	18.3	2.092	1.9159	-8.4	NA	±25	Average RF
gamma-Chlordane	20.0	18.6	0.9637	0.8945	-7.2	NA	±25	Average RF
Heptachlor	20.0	19.0	1.1592	1.1041	-4.8	NA	±25	Average RF
Oxychlordane	20.0	18.7	2.7041	2.5231	-6.7	NA	±25	Average RF
trans-Nonachlor	20.0	16.0	1.5494	1.2428	-19.8	NA	±25	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
S_4,4'DDD-d4	5.00	5.12	3.5517	3.6338	102	NA	50-200	Average RF
S_4,4'-DDT-d4	5.00	5.60	1.5869	1.7761	112	NA	50-200	Average RF
S_Aldrin-13C12	20.0	22.0	0.5268	0.58	110	NA	50-200	Average RF
S_Endrin-13C12	20.0	22.2	0.1828	0.2026	111	NA	50-200	Average RF
S_GBHCD6	20.0	23.7	1.3949	1.6496	118	NA	50-200	Average RF
S_Heptachlor-13C10	20.0	24.3	0.5768	0.6999	121	NA	50-200	Average RF
S_Heptachlrepox13C10	20.0	22.3	0.1838	0.2046	111	NA	50-200	Average RF
S_Oxychlordane-13C10	20.0	22.1	0.3735	0.4129	111	NA	50-200	Average RF

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Analysis Run Log
Organochlorine Pesticides by GC/MS/MS

Analysis Method: ALS SOP **Analysis Lot:**615706
Instrument ID:K-MS-42

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
Y:\MS42\data\111618\111618F018.D	Continuing Calibration Verification	KQ1816988-01	11/16/2018	16:18	
Y:\MS42\data\111618\111618F019.D	Method Blank	KQ1815510-04	11/16/2018	16:36	
Y:\MS42\data\111618\111618F020.D	Lab Control Sample	KQ1815510-03	11/16/2018	16:53	
Y:\MS42\data\111618\111618F021.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	17:11	
Y:\MS42\data\111618\111618F022.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	17:29	
Y:\MS42\data\111618\111618F023.D	D6-SC-88to108-102118	K1810302-025	11/16/2018	17:46	
Y:\MS42\data\111618\111618F024.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	18:04	
Y:\MS42\data\111618\111618F025.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	18:22	
Y:\MS42\data\111618\111618F026.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	18:39	
Y:\MS42\data\111618\111618F027.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	18:57	
	ZZZZZZZ	ZZZZZZZ	11/16/2018	19:14	
Y:\MS42\data\111618\111618F028.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	19:14	
Y:\MS42\data\111618\111618F029.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	19:32	
Y:\MS42\data\111618\111618F030.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	19:50	
Y:\MS42\data\111618\111618F031.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	20:07	
Y:\MS42\data\111618\111618F032.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	20:25	
Y:\MS42\data\111618\111618F033.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	20:42	
Y:\MS42\data\111618\111618F034.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	21:00	
Y:\MS42\data\111618\111618F035.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	21:18	
Y:\MS42\data\111618\111618F036.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	21:35	
Y:\MS42\data\111618\111618F037.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	21:53	
Y:\MS42\data\111618\111618F038.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	22:11	
Y:\MS42\data\111618\111618F039.D	ZZZZZZZ	ZZZZZZZ	11/16/2018	22:28	
Y:\MS42\data\111618\111618F040.D	Method Blank	KQ1815430-04	11/16/2018	22:46	
Y:\MS42\data\111618\111618F041.D	Lab Control Sample	KQ1815430-03	11/16/2018	23:04	
Y:\MS42\data\111618\111618F042.D	D6-SC-40to64-102118 MS	KQ1815430-01	11/16/2018	23:21	
Y:\MS42\data\111618\111618F043.D	D6-SC-40to64-102118 DMS	KQ1815430-02	11/16/2018	23:39	
Y:\MS42\data\111618\111618F044.D	D6-SC-64to88-102118	K1810302-022	11/16/2018	23:56	
Y:\MS42\data\111618\111618F045.D	D6-SC-40to64-102118	K1810302-023	11/17/2018	00:14	
Y:\MS42\data\111618\111618F046.D	H3-SC-99to114-102118	K1810302-024	11/17/2018	00:32	
Y:\MS42\data\111618\111618F047.D	H3-SC-46to63-102118	K1810302-026	11/17/2018	00:49	
Y:\MS42\data\111618\111618F048.D	D6-SC-0to1-102118	K1810302-027	11/17/2018	01:07	
Y:\MS42\data\111618\111618F049.D	H3-SC-1to2-102118	K1810302-028	11/17/2018	01:25	
Y:\MS42\data\111618\111618F050.D	D6-SC-1to2-102118	K1810302-029	11/17/2018	01:42	

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Analysis Run Log
Organochlorine Pesticides by GC/MS/MS

Analysis Method: ALS SOP **Analysis Lot:**617367
Instrument ID:K-MS-42

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\MS42\Data\112618\112618F003.D	Continuing Calibration Verification	KQ1817669-01	11/26/2018	11:48	
J:\MS42\Data\112618\112618F003.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	11:48	
J:\MS42\Data\112618\112618F004.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	12:33	
J:\MS42\Data\112618\112618F005.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	12:51	
J:\MS42\Data\112618\112618F006.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	13:08	
J:\MS42\Data\112618\112618F007.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	13:26	
J:\MS42\Data\112618\112618F008.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	13:44	
J:\MS42\Data\112618\112618F009.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	14:01	
J:\MS42\Data\112618\112618F010.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	14:19	
J:\MS42\Data\112618\112618F011.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	14:36	
J:\MS42\Data\112618\112618F012.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	14:54	
J:\MS42\Data\112618\112618F013.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	15:12	
J:\MS42\Data\112618\112618F014.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	15:29	
J:\MS42\Data\112618\112618F015.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	15:47	
J:\MS42\Data\112618\112618F016.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	16:05	
J:\MS42\Data\112618\112618F017.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	16:22	
J:\MS42\Data\112618\112618F018.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	16:40	
J:\MS42\Data\112618\112618F019.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	16:57	
J:\MS42\Data\112618\112618F020.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	17:15	
J:\MS42\Data\112618\112618F021.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	17:33	
J:\MS42\Data\112618\112618F022.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	17:50	
J:\MS42\Data\112618\112618F023.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	18:08	
J:\MS42\Data\112618\112618F024.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	18:25	
J:\MS42\Data\112618\112618F025.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	18:43	
J:\MS42\Data\112618\112618F026.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	19:01	
J:\MS42\Data\112618\112618F027.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	19:18	
J:\MS42\Data\112618\112618F028.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	19:36	
J:\MS42\Data\112618\112618F029.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	19:54	
J:\MS42\Data\112618\112618F030.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	20:11	
J:\MS42\Data\112618\112618F031.D	Method Blank	KQ1816244-04	11/26/2018	20:29	
J:\MS42\Data\112618\112618F032.D	Lab Control Sample	KQ1816244-03	11/26/2018	20:46	
J:\MS42\Data\112618\112618F033.D	A1-0to30-102018 MS	KQ1816244-01	11/26/2018	21:04	
J:\MS42\Data\112618\112618F034.D	A1-0to30-102018 DMS	KQ1816244-02	11/26/2018	21:22	
J:\MS42\Data\112618\112618F035.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	21:39	
J:\MS42\Data\112618\112618F036.D	A1-0to30-102018	K1810302-016	11/26/2018	21:57	
J:\MS42\Data\112618\112618F037.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	22:15	
J:\MS42\Data\112618\112618F039.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	22:50	
J:\MS42\Data\112618\112618F039.D	ZZZZZZZ	ZZZZZZZ	11/26/2018	22:50	

Prep Summary Report

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115
Sample Matrix: Sediment

Organochlorine Pesticides by GC/MS/MS

Prep Method: EPA 3541 **Extraction Lot:** 325840
Analytical Method: ALS SOP **Extraction Date:** 11/07/18 11:10

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
A1-0to30-102018	K1810302-016	10/20/18	10/22/18	20.021 g	1 mL	54.7
Matrix Spike	KQ1816244-01MS	10/20/18	10/22/18	20.054 g	1 mL	54.7
Duplicate Matrix Spike	KQ1816244-02DMS	10/20/18	10/22/18	20.057 g	1 mL	54.7
Lab Control Sample	KQ1816244-03LCS	NA	NA	10 g	1 mL	
Method Blank	KQ1816244-04MB	NA	NA	20.1660 g	1 mL	

Prep Summary Report

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115
Sample Matrix: Sediment

Organochlorine Pesticides by GC/MS/MS

Prep Method: EPA 3541 **Extraction Lot:** 324902
Analytical Method: ALS SOP **Extraction Date:** 10/31/18 12:14

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
D6-SC-64to88-102118	K1810302-022	10/21/18	10/22/18	20.271 g	1 mL	66.0
D6-SC-40to64-102118	K1810302-023	10/21/18	10/22/18	20.061 g	1 mL	54.7
H3-SC-99to114-102118	K1810302-024	10/21/18	10/22/18	20.101 g	1 mL	69.9
H3-SC-46to63-102118	K1810302-026	10/21/18	10/22/18	20.219 g	1 mL	67.8
D6-SC-0to1-102118	K1810302-027	10/21/18	10/22/18	20.197 g	1 mL	42.9
H3-SC-1to2-102118	K1810302-028	10/21/18	10/22/18	20.001 g	1 mL	52.0
D6-SC-1to2-102118	K1810302-029	10/21/18	10/22/18	20.181 g	1 mL	45.9
Matrix Spike	KQ1815430-01MS	10/21/18	10/22/18	20.212 g	1 mL	54.7
Duplicate Matrix Spike	KQ1815430-02DMS	10/21/18	10/22/18	20.361 g	1 mL	54.7
Lab Control Sample	KQ1815430-03LCS	NA	NA	10 g	1 mL	
Method Blank	KQ1815430-04MB	NA	NA	20.3640 g	1 mL	

Prep Summary Report

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115
Sample Matrix: Sediment

Organochlorine Pesticides by GC/MS/MS

Prep Method: EPA 3541 **Extraction Lot:** 325017
Analytical Method: ALS SOP **Extraction Date:** 10/31/18 17:12

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
D6-SC-88to108-102118	K1810302-025	10/21/18	10/22/18	20.049 g	1 mL	71.5
Lab Control Sample	KQ1815510-03LCS	NA	NA	10 g	1 mL	
Method Blank	KQ1815510-04MB	NA	NA	20.3810 g	1 mL	

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

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Cover Page - Organic Analysis Data Package
Polynuclear Aromatic Hydrocarbons

Sample Name	Lab Code	Date Collected	Date Received
A1-0to30-102018	K1810302-016	10/20/2018	10/22/2018
D6-SC-64to88-102118	K1810302-022	10/21/2018	10/22/2018
D6-SC-40to64-102118	K1810302-023	10/21/2018	10/22/2018
H3-SC-99to114-102118	K1810302-024	10/21/2018	10/22/2018
D6-SC-88to108-102118	K1810302-025	10/21/2018	10/22/2018
H3-SC-46to63-102118	K1810302-026	10/21/2018	10/22/2018
D6-SC-0to1-102118	K1810302-027	10/21/2018	10/22/2018
H3-SC-1to2-102118	K1810302-028	10/21/2018	10/22/2018
D6-SC-1to2-102118	K1810302-029	10/21/2018	10/22/2018
D6-SC-64to88-102118MS	KWG1805647-1	10/21/2018	10/22/2018
D6-SC-64to88-102118DMS	KWG1805647-2	10/21/2018	10/22/2018

Analytical Results

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/20/2018
Sample Matrix:	Sediment	**Date Received:**	10/22/2018

Polynuclear Aromatic Hydrocarbons

Sample Name:	A1-0to30-102018	**Units:**	ug/Kg
Lab Code:	K1810302-016	**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	**0.25**	J	0.92	0.089	1	11/07/18	11/13/18	KWG1805796	
2-Methylnaphthalene	**0.16**	J	0.92	0.047	1	11/07/18	11/13/18	KWG1805796	
Acenaphthylene	**0.16**	JX	0.46	0.029	1	11/07/18	11/13/18	KWG1805796	
Acenaphthene	**0.055**	J	0.46	0.032	1	11/07/18	11/13/18	KWG1805796	
Dibenzofuran	**0.097**	J	0.46	0.022	1	11/07/18	11/13/18	KWG1805796	
Fluorene	**0.083**	J	0.46	0.039	1	11/07/18	11/13/18	KWG1805796	
Phenanthrene	**0.41**	J	0.46	0.033	1	11/07/18	11/13/18	KWG1805796	
Anthracene	**0.045**	J	0.46	0.026	1	11/07/18	11/13/18	KWG1805796	
Fluoranthene	**0.24**	J	0.46	0.032	1	11/07/18	11/13/18	KWG1805796	
Pyrene	**0.22**	J	0.46	0.032	1	11/07/18	11/13/18	KWG1805796	
Benz(a)anthracene	**0.089**	J	0.46	0.033	1	11/07/18	11/13/18	KWG1805796	
Chrysene	**0.070**	J	0.46	0.027	1	11/07/18	11/13/18	KWG1805796	
Benzo(b)fluoranthene†	**0.12**	J	0.46	0.057	1	11/07/18	11/13/18	KWG1805796	
Benzo(k)fluoranthene	ND	U	0.46	0.045	1	11/07/18	11/13/18	KWG1805796	
Benzo(a)pyrene	ND	U	0.46	0.036	1	11/07/18	11/13/18	KWG1805796	
Indeno(1,2,3-cd)pyrene	ND	U	0.46	0.064	1	11/07/18	11/13/18	KWG1805796	
Dibenz(a,h)anthracene	ND	U	0.46	0.058	1	11/07/18	11/13/18	KWG1805796	
Benzo(g,h,i)perylene	**0.17**	J	0.46	0.059	1	11/07/18	11/13/18	KWG1805796	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	69	26-102	11/13/18	Acceptable
Fluoranthene-d10	65	23-110	11/13/18	Acceptable
Terphenyl-d14	76	27-115	11/13/18	Acceptable

† Analyte Comments

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

Comments:

Analytical Results

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/2018
Sample Matrix:	Sediment	**Date Received:**	10/22/2018

Polynuclear Aromatic Hydrocarbons

Sample Name:	D6-SC-64to88-102118	**Units:**	ug/Kg
Lab Code:	K1810302-022	**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	**2.7**		0.76	0.089	1	11/01/18	11/06/18	KWG1805647	
2-Methylnaphthalene	**1.9**		0.76	0.047	1	11/01/18	11/06/18	KWG1805647	
Acenaphthylene	**1.4**		0.38	0.029	1	11/01/18	11/06/18	KWG1805647	
Acenaphthene	**2.1**		0.38	0.032	1	11/01/18	11/06/18	KWG1805647	
Dibenzofuran	**0.93**		0.38	0.022	1	11/01/18	11/06/18	KWG1805647	
Fluorene	**1.7**		0.38	0.039	1	11/01/18	11/06/18	KWG1805647	
Phenanthrene	**21**		0.38	0.033	1	11/01/18	11/06/18	KWG1805647	
Anthracene	**3.3**		0.38	0.026	1	11/01/18	11/06/18	KWG1805647	
Fluoranthene	**26**		0.38	0.032	1	11/01/18	11/06/18	KWG1805647	
Pyrene	**28**		0.38	0.032	1	11/01/18	11/06/18	KWG1805647	
Benz(a)anthracene	**12**		0.38	0.033	1	11/01/18	11/06/18	KWG1805647	
Chrysene	**15**		0.38	0.027	1	11/01/18	11/06/18	KWG1805647	
Benzo(b)fluoranthene†	**15**		0.38	0.057	1	11/01/18	11/06/18	KWG1805647	
Benzo(k)fluoranthene	**5.7**		0.38	0.045	1	11/01/18	11/06/18	KWG1805647	
Benzo(a)pyrene	**15**		0.38	0.036	1	11/01/18	11/06/18	KWG1805647	
Indeno(1,2,3-cd)pyrene	**9.7**		0.38	0.064	1	11/01/18	11/06/18	KWG1805647	
Dibenz(a,h)anthracene	**2.2**		0.38	0.058	1	11/01/18	11/06/18	KWG1805647	
Benzo(g,h,i)perylene	**10**		0.38	0.059	1	11/01/18	11/06/18	KWG1805647	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	64	26-102	11/06/18	Acceptable
Fluoranthene-d10	74	23-110	11/06/18	Acceptable
Terphenyl-d14	73	27-115	11/06/18	Acceptable

† Analyte Comments

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

Comments:

Analytical Results

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/2018
Sample Matrix:	Sediment	**Date Received:**	10/22/2018

Polynuclear Aromatic Hydrocarbons

Sample Name:	D6-SC-40to64-102118	**Units:**	ug/Kg
Lab Code:	K1810302-023	**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	**29**	D	4.6	0.45	5	11/01/18	11/06/18	KWG1805647	
2-Methylnaphthalene	**20**	D	4.6	0.24	5	11/01/18	11/06/18	KWG1805647	
Acenaphthylene	**19**	D	2.3	0.15	5	11/01/18	11/06/18	KWG1805647	
Acenaphthene	**20**	D	2.3	0.16	5	11/01/18	11/06/18	KWG1805647	
Dibenzofuran	**12**	D	2.3	0.11	5	11/01/18	11/06/18	KWG1805647	
Fluorene	**18**	D	2.3	0.20	5	11/01/18	11/06/18	KWG1805647	
Phenanthrene	**220**	D	2.3	0.17	5	11/01/18	11/06/18	KWG1805647	
Anthracene	**38**	D	2.3	0.13	5	11/01/18	11/06/18	KWG1805647	
Fluoranthene	**280**	D	2.3	0.16	5	11/01/18	11/06/18	KWG1805647	
Pyrene	**320**	D	2.3	0.16	5	11/01/18	11/06/18	KWG1805647	
Benz(a)anthracene	**120**	D	2.3	0.17	5	11/01/18	11/06/18	KWG1805647	
Chrysene	**160**	D	2.3	0.14	5	11/01/18	11/06/18	KWG1805647	
Benzo(b)fluoranthene†	**170**	D	2.3	0.29	5	11/01/18	11/06/18	KWG1805647	
Benzo(k)fluoranthene	**54**	D	2.3	0.23	5	11/01/18	11/06/18	KWG1805647	
Benzo(a)pyrene	**140**	D	2.3	0.18	5	11/01/18	11/06/18	KWG1805647	
Indeno(1,2,3-cd)pyrene	**120**	D	2.3	0.32	5	11/01/18	11/06/18	KWG1805647	
Dibenz(a,h)anthracene	**23**	D	2.3	0.29	5	11/01/18	11/06/18	KWG1805647	
Benzo(g,h,i)perylene	**130**	D	2.3	0.30	5	11/01/18	11/06/18	KWG1805647	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	78	26-102	11/06/18	Acceptable
Fluoranthene-d10	88	23-110	11/06/18	Acceptable
Terphenyl-d14	83	27-115	11/06/18	Acceptable

† Analyte Comments

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

Comments:

Analytical Results

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/2018
Sample Matrix:	Sediment	**Date Received:**	10/22/2018

Polynuclear Aromatic Hydrocarbons

Sample Name:	H3-SC-99to114-102118	**Units:**	ug/Kg
Lab Code:	K1810302-024	**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	**2.0**		0.72	0.089	1	11/01/18	11/06/18	KWG1805647	
2-Methylnaphthalene	**0.73**		0.72	0.047	1	11/01/18	11/06/18	KWG1805647	
Acenaphthylene	**0.70**		0.36	0.029	1	11/01/18	11/06/18	KWG1805647	
Acenaphthene	**0.29**	J	0.36	0.032	1	11/01/18	11/06/18	KWG1805647	
Dibenzofuran	**0.40**		0.36	0.022	1	11/01/18	11/06/18	KWG1805647	
Fluorene	**0.38**		0.36	0.039	1	11/01/18	11/06/18	KWG1805647	
Phenanthrene	**2.4**		0.36	0.033	1	11/01/18	11/06/18	KWG1805647	
Anthracene	**0.47**		0.36	0.026	1	11/01/18	11/06/18	KWG1805647	
Fluoranthene	**2.7**		0.36	0.032	1	11/01/18	11/06/18	KWG1805647	
Pyrene	**3.4**		0.36	0.032	1	11/01/18	11/06/18	KWG1805647	
Benz(a)anthracene	**0.97**	X	0.36	0.033	1	11/01/18	11/06/18	KWG1805647	
Chrysene	**1.2**		0.36	0.027	1	11/01/18	11/06/18	KWG1805647	
Benzo(b)fluoranthene†	**2.0**		0.36	0.057	1	11/01/18	11/06/18	KWG1805647	
Benzo(k)fluoranthene	**0.53**		0.36	0.045	1	11/01/18	11/06/18	KWG1805647	
Benzo(a)pyrene	**1.6**		0.36	0.036	1	11/01/18	11/06/18	KWG1805647	
Indeno(1,2,3-cd)pyrene	**1.5**		0.36	0.064	1	11/01/18	11/06/18	KWG1805647	
Dibenz(a,h)anthracene	**0.14**	J	0.36	0.058	1	11/01/18	11/06/18	KWG1805647	
Benzo(g,h,i)perylene	**1.8**		0.36	0.059	1	11/01/18	11/06/18	KWG1805647	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	67	26-102	11/06/18	Acceptable
Fluoranthene-d10	72	23-110	11/06/18	Acceptable
Terphenyl-d14	75	27-115	11/06/18	Acceptable

† Analyte Comments

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

Comments:

Analytical Results

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/2018
Sample Matrix:	Sediment	**Date Received:**	10/22/2018

Polynuclear Aromatic Hydrocarbons

Sample Name:	D6-SC-88to108-102118	**Units:**	ug/Kg
Lab Code:	K1810302-025	**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	**0.71**		0.70	0.089	1	11/01/18	11/07/18	KWG1805648	
2-Methylnaphthalene	**0.45**	J	0.70	0.047	1	11/01/18	11/07/18	KWG1805648	
Acenaphthylene	**0.41**		0.35	0.029	1	11/01/18	11/07/18	KWG1805648	
Acenaphthene	**0.39**		0.35	0.032	1	11/01/18	11/07/18	KWG1805648	
Dibenzofuran	**0.29**	J	0.35	0.022	1	11/01/18	11/07/18	KWG1805648	
Fluorene	**0.34**	J	0.35	0.039	1	11/01/18	11/07/18	KWG1805648	
Phenanthrene	**3.1**		0.35	0.033	1	11/01/18	11/07/18	KWG1805648	
Anthracene	**0.52**		0.35	0.026	1	11/01/18	11/07/18	KWG1805648	
Fluoranthene	**3.5**		0.35	0.032	1	11/01/18	11/07/18	KWG1805648	
Pyrene	**4.2**		0.35	0.032	1	11/01/18	11/07/18	KWG1805648	
Benz(a)anthracene	**1.5**		0.35	0.033	1	11/01/18	11/07/18	KWG1805648	
Chrysene	**2.0**		0.35	0.027	1	11/01/18	11/07/18	KWG1805648	
Benzo(b)fluoranthene†	**2.5**		0.35	0.057	1	11/01/18	11/07/18	KWG1805648	
Benzo(k)fluoranthene	**0.80**		0.35	0.045	1	11/01/18	11/07/18	KWG1805648	
Benzo(a)pyrene	**2.0**		0.35	0.036	1	11/01/18	11/07/18	KWG1805648	
Indeno(1,2,3-cd)pyrene	**1.5**		0.35	0.064	1	11/01/18	11/07/18	KWG1805648	
Dibenz(a,h)anthracene	**0.28**	J	0.35	0.058	1	11/01/18	11/07/18	KWG1805648	
Benzo(g,h,i)perylene	**1.7**		0.35	0.059	1	11/01/18	11/07/18	KWG1805648	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	61	26-102	11/07/18	Acceptable
Fluoranthene-d10	69	23-110	11/07/18	Acceptable
Terphenyl-d14	72	27-115	11/07/18	Acceptable

† Analyte Comments

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

Comments:

Analytical Results

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/2018
Sample Matrix:	Sediment	**Date Received:**	10/22/2018

Polynuclear Aromatic Hydrocarbons

Sample Name:	H3-SC-46to63-102118	**Units:**	ug/Kg
Lab Code:	K1810302-026	**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	**18**		0.74	0.089	1	11/01/18	11/06/18	KWG1805647	
2-Methylnaphthalene	**8.3**		0.74	0.047	1	11/01/18	11/06/18	KWG1805647	
Acenaphthylene	**13**		0.37	0.029	1	11/01/18	11/06/18	KWG1805647	
Acenaphthene	**5.1**		0.37	0.032	1	11/01/18	11/06/18	KWG1805647	
Dibenzofuran	**3.3**		0.37	0.022	1	11/01/18	11/06/18	KWG1805647	
Fluorene	**7.5**		0.37	0.039	1	11/01/18	11/06/18	KWG1805647	
Phenanthrene	**84**		0.37	0.033	1	11/01/18	11/06/18	KWG1805647	
Anthracene	**22**		0.37	0.026	1	11/01/18	11/06/18	KWG1805647	
Fluoranthene	**170**	D	3.7	0.32	10	11/01/18	11/07/18	KWG1805647	
Pyrene	**200**	D	3.7	0.32	10	11/01/18	11/07/18	KWG1805647	
Benz(a)anthracene	**79**	D	3.7	0.33	10	11/01/18	11/07/18	KWG1805647	
Chrysene	**89**	D	3.7	0.27	10	11/01/18	11/07/18	KWG1805647	
Benzo(b)fluoranthene†	**99**	D	3.7	0.57	10	11/01/18	11/07/18	KWG1805647	
Benzo(k)fluoranthene	**38**	D	3.7	0.45	10	11/01/18	11/07/18	KWG1805647	
Benzo(a)pyrene	**100**	D	3.7	0.36	10	11/01/18	11/07/18	KWG1805647	
Indeno(1,2,3-cd)pyrene	**78**	D	3.7	0.64	10	11/01/18	11/07/18	KWG1805647	
Dibenz(a,h)anthracene	**11**	D	3.7	0.58	10	11/01/18	11/07/18	KWG1805647	
Benzo(g,h,i)perylene	**88**	D	3.7	0.59	10	11/01/18	11/07/18	KWG1805647	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	67	26-102	11/06/18	Acceptable
Fluoranthene-d10	79	23-110	11/07/18	Acceptable
Terphenyl-d14	80	27-115	11/07/18	Acceptable

† Analyte Comments

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

Comments:

Analytical Results

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/2018
Sample Matrix:	Sediment	**Date Received:**	10/22/2018

Polynuclear Aromatic Hydrocarbons

Sample Name:	D6-SC-0to1-102118	**Units:**	ug/Kg
Lab Code:	K1810302-027	**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	**17**	D	5.9	0.52	5	11/01/18	11/06/18	KWG1805647	
2-Methylnaphthalene	**7.9**	D	5.9	0.28	5	11/01/18	11/06/18	KWG1805647	
Acenaphthylene	**13**	D	3.0	0.17	5	11/01/18	11/06/18	KWG1805647	
Acenaphthene	**13**	D	3.0	0.19	5	11/01/18	11/06/18	KWG1805647	
Dibenzofuran	**7.6**	D	3.0	0.13	5	11/01/18	11/06/18	KWG1805647	
Fluorene	**14**	D	3.0	0.23	5	11/01/18	11/06/18	KWG1805647	
Phenanthrene	**100**	D	3.0	0.20	5	11/01/18	11/06/18	KWG1805647	
Anthracene	**30**	D	3.0	0.16	5	11/01/18	11/06/18	KWG1805647	
Fluoranthene	**270**	D	3.0	0.19	5	11/01/18	11/06/18	KWG1805647	
Pyrene	**250**	D	3.0	0.19	5	11/01/18	11/06/18	KWG1805647	
Benz(a)anthracene	**110**	D	3.0	0.20	5	11/01/18	11/06/18	KWG1805647	
Chrysene	**230**	D	3.0	0.16	5	11/01/18	11/06/18	KWG1805647	
Benzo(b)fluoranthene†	**210**	D	3.0	0.34	5	11/01/18	11/06/18	KWG1805647	
Benzo(k)fluoranthene	**66**	D	3.0	0.27	5	11/01/18	11/06/18	KWG1805647	
Benzo(a)pyrene	**120**	D	3.0	0.21	5	11/01/18	11/06/18	KWG1805647	
Indeno(1,2,3-cd)pyrene	**110**	D	3.0	0.38	5	11/01/18	11/06/18	KWG1805647	
Dibenz(a,h)anthracene	**25**	D	3.0	0.34	5	11/01/18	11/06/18	KWG1805647	
Benzo(g,h,i)perylene	**110**	D	3.0	0.35	5	11/01/18	11/06/18	KWG1805647	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	71	26-102	11/06/18	Acceptable
Fluoranthene-d10	77	23-110	11/06/18	Acceptable
Terphenyl-d14	79	27-115	11/06/18	Acceptable

† Analyte Comments

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

Comments:

Analytical Results

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/2018
Sample Matrix:	Sediment	**Date Received:**	10/22/2018

Polynuclear Aromatic Hydrocarbons

Sample Name:	H3-SC-1to2-102118	**Units:**	ug/Kg
Lab Code:	K1810302-028	**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	**81**	D	9.6	0.89	10	11/01/18	11/06/18	KWG1805647	
2-Methylnaphthalene	**39**	D	9.6	0.47	10	11/01/18	11/06/18	KWG1805647	
Acenaphthylene	**29**	D	4.8	0.29	10	11/01/18	11/06/18	KWG1805647	
Acenaphthene	**78**	D	4.8	0.32	10	11/01/18	11/06/18	KWG1805647	
Dibenzofuran	**31**	D	4.8	0.22	10	11/01/18	11/06/18	KWG1805647	
Fluorene	**52**	D	4.8	0.39	10	11/01/18	11/06/18	KWG1805647	
Phenanthrene	**450**	D	4.8	0.33	10	11/01/18	11/06/18	KWG1805647	
Anthracene	**74**	D	4.8	0.26	10	11/01/18	11/06/18	KWG1805647	
Fluoranthene	**610**	D	4.8	0.32	10	11/01/18	11/06/18	KWG1805647	
Pyrene	**670**	D	4.8	0.32	10	11/01/18	11/06/18	KWG1805647	
Benz(a)anthracene	**250**	D	4.8	0.33	10	11/01/18	11/06/18	KWG1805647	
Chrysene	**360**	D	4.8	0.27	10	11/01/18	11/06/18	KWG1805647	
Benzo(b)fluoranthene†	**370**	D	4.8	0.57	10	11/01/18	11/06/18	KWG1805647	
Benzo(k)fluoranthene	**130**	D	4.8	0.45	10	11/01/18	11/06/18	KWG1805647	
Benzo(a)pyrene	**300**	D	4.8	0.36	10	11/01/18	11/06/18	KWG1805647	
Indeno(1,2,3-cd)pyrene	**250**	D	4.8	0.64	10	11/01/18	11/06/18	KWG1805647	
Dibenz(a,h)anthracene	**50**	D	4.8	0.58	10	11/01/18	11/06/18	KWG1805647	
Benzo(g,h,i)perylene	**250**	D	4.8	0.59	10	11/01/18	11/06/18	KWG1805647	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	81	26-102	11/06/18	Acceptable
Fluoranthene-d10	91	23-110	11/06/18	Acceptable
Terphenyl-d14	86	27-115	11/06/18	Acceptable

† Analyte Comments

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

Comments:

Analytical Results

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/2018
Sample Matrix:	Sediment	**Date Received:**	10/22/2018

Polynuclear Aromatic Hydrocarbons

Sample Name:	D6-SC-1to2-102118	**Units:**	ug/Kg
Lab Code:	K1810302-029	**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	**46**	D	11	0.97	10	11/01/18	11/06/18	KWG1805647	
2-Methylnaphthalene	**40**	D	11	0.51	10	11/01/18	11/06/18	KWG1805647	
Acenaphthylene	**31**	D	5.4	0.32	10	11/01/18	11/06/18	KWG1805647	
Acenaphthene	**54**	D	5.4	0.35	10	11/01/18	11/06/18	KWG1805647	
Dibenzofuran	**21**	D	5.4	0.24	10	11/01/18	11/06/18	KWG1805647	
Fluorene	**36**	D	5.4	0.43	10	11/01/18	11/06/18	KWG1805647	
Phenanthrene	**430**	D	5.4	0.36	10	11/01/18	11/06/18	KWG1805647	
Anthracene	**74**	D	5.4	0.29	10	11/01/18	11/06/18	KWG1805647	
Fluoranthene	**560**	D	5.4	0.35	10	11/01/18	11/06/18	KWG1805647	
Pyrene	**590**	D	5.4	0.35	10	11/01/18	11/06/18	KWG1805647	
Benz(a)anthracene	**230**	D	5.4	0.36	10	11/01/18	11/06/18	KWG1805647	
Chrysene	**330**	D	5.4	0.30	10	11/01/18	11/06/18	KWG1805647	
Benzo(b)fluoranthene†	**360**	D	5.4	0.62	10	11/01/18	11/06/18	KWG1805647	
Benzo(k)fluoranthene	**120**	D	5.4	0.49	10	11/01/18	11/06/18	KWG1805647	
Benzo(a)pyrene	**280**	D	5.4	0.39	10	11/01/18	11/06/18	KWG1805647	
Indeno(1,2,3-cd)pyrene	**210**	D	5.4	0.70	10	11/01/18	11/06/18	KWG1805647	
Dibenz(a,h)anthracene	**51**	D	5.4	0.63	10	11/01/18	11/06/18	KWG1805647	
Benzo(g,h,i)perylene	**220**	D	5.4	0.64	10	11/01/18	11/06/18	KWG1805647	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	83	26-102	11/06/18	Acceptable
Fluoranthene-d10	93	23-110	11/06/18	Acceptable
Terphenyl-d14	91	27-115	11/06/18	Acceptable

† Analyte Comments

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

Comments:

Analytical Results

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA

Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KWG1805647-4	**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	0.50	0.089	1	11/01/18	11/06/18	KWG1805647	
2-Methylnaphthalene	ND	U	0.50	0.047	1	11/01/18	11/06/18	KWG1805647	
Acenaphthylene	ND	U	0.25	0.029	1	11/01/18	11/06/18	KWG1805647	
Acenaphthene	ND	U	0.25	0.032	1	11/01/18	11/06/18	KWG1805647	
Dibenzofuran	ND	U	0.25	0.022	1	11/01/18	11/06/18	KWG1805647	
Fluorene	ND	U	0.25	0.039	1	11/01/18	11/06/18	KWG1805647	
Phenanthrene	ND	U	0.25	0.033	1	11/01/18	11/06/18	KWG1805647	
Anthracene	ND	U	0.25	0.026	1	11/01/18	11/06/18	KWG1805647	
Fluoranthene	ND	U	0.25	0.032	1	11/01/18	11/06/18	KWG1805647	
Pyrene	ND	U	0.25	0.032	1	11/01/18	11/06/18	KWG1805647	
Benz(a)anthracene	ND	U	0.25	0.033	1	11/01/18	11/06/18	KWG1805647	
Chrysene	ND	U	0.25	0.027	1	11/01/18	11/06/18	KWG1805647	
Benzo(b)fluoranthene†	ND	U	0.25	0.057	1	11/01/18	11/06/18	KWG1805647	
Benzo(k)fluoranthene	ND	U	0.25	0.045	1	11/01/18	11/06/18	KWG1805647	
Benzo(a)pyrene	ND	U	0.25	0.036	1	11/01/18	11/06/18	KWG1805647	
Indeno(1,2,3-cd)pyrene	ND	U	0.25	0.064	1	11/01/18	11/06/18	KWG1805647	
Dibenz(a,h)anthracene	ND	U	0.25	0.058	1	11/01/18	11/06/18	KWG1805647	
Benzo(g,h,i)perylene	ND	U	0.25	0.059	1	11/01/18	11/06/18	KWG1805647	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	77	26-102	11/06/18	Acceptable
Fluoranthene-d10	74	23-110	11/06/18	Acceptable
Terphenyl-d14	82	27-115	11/06/18	Acceptable

† Analyte Comments

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

Comments:

Analytical Results

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA

Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KWG1805648-4	**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	0.50	0.089	1	11/01/18	11/07/18	KWG1805648	
2-Methylnaphthalene	ND	U	0.50	0.047	1	11/01/18	11/07/18	KWG1805648	
Acenaphthylene	ND	U	0.25	0.029	1	11/01/18	11/07/18	KWG1805648	
Acenaphthene	ND	U	0.25	0.032	1	11/01/18	11/07/18	KWG1805648	
Dibenzofuran	ND	U	0.25	0.022	1	11/01/18	11/07/18	KWG1805648	
Fluorene	ND	U	0.25	0.039	1	11/01/18	11/07/18	KWG1805648	
Phenanthrene	ND	U	0.25	0.033	1	11/01/18	11/07/18	KWG1805648	
Anthracene	ND	U	0.25	0.026	1	11/01/18	11/07/18	KWG1805648	
Fluoranthene	ND	U	0.25	0.032	1	11/01/18	11/07/18	KWG1805648	
Pyrene	ND	U	0.25	0.032	1	11/01/18	11/07/18	KWG1805648	
Benz(a)anthracene	ND	U	0.25	0.033	1	11/01/18	11/07/18	KWG1805648	
Chrysene	ND	U	0.25	0.027	1	11/01/18	11/07/18	KWG1805648	
Benzo(b)fluoranthene†	ND	U	0.25	0.057	1	11/01/18	11/07/18	KWG1805648	
Benzo(k)fluoranthene	ND	U	0.25	0.045	1	11/01/18	11/07/18	KWG1805648	
Benzo(a)pyrene	ND	U	0.25	0.036	1	11/01/18	11/07/18	KWG1805648	
Indeno(1,2,3-cd)pyrene	ND	U	0.25	0.064	1	11/01/18	11/07/18	KWG1805648	
Dibenz(a,h)anthracene	ND	U	0.25	0.058	1	11/01/18	11/07/18	KWG1805648	
Benzo(g,h,i)perylene	ND	U	0.25	0.059	1	11/01/18	11/07/18	KWG1805648	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	76	26-102	11/07/18	Acceptable
Fluoranthene-d10	71	23-110	11/07/18	Acceptable
Terphenyl-d14	85	27-115	11/07/18	Acceptable

† Analyte Comments

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

Comments:

Analytical Results

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA

Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KWG1805796-6	**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	0.50	0.089	1	11/07/18	11/14/18	KWG1805796	
2-Methylnaphthalene	ND	U	0.50	0.047	1	11/07/18	11/14/18	KWG1805796	
Acenaphthylene	ND	U	0.25	0.029	1	11/07/18	11/14/18	KWG1805796	
Acenaphthene	ND	U	0.25	0.032	1	11/07/18	11/14/18	KWG1805796	
Dibenzofuran	ND	U	0.25	0.022	1	11/07/18	11/14/18	KWG1805796	
Fluorene	ND	U	0.25	0.039	1	11/07/18	11/14/18	KWG1805796	
Phenanthrene	ND	U	0.25	0.033	1	11/07/18	11/14/18	KWG1805796	
Anthracene	ND	U	0.25	0.026	1	11/07/18	11/14/18	KWG1805796	
Fluoranthene	ND	U	0.25	0.032	1	11/07/18	11/14/18	KWG1805796	
Pyrene	ND	U	0.25	0.032	1	11/07/18	11/14/18	KWG1805796	
Benz(a)anthracene	**0.035**	J	0.25	0.033	1	11/07/18	11/14/18	KWG1805796	
Chrysene	ND	U	0.25	0.027	1	11/07/18	11/14/18	KWG1805796	
Benzo(b)fluoranthene†	ND	U	0.25	0.057	1	11/07/18	11/14/18	KWG1805796	
Benzo(k)fluoranthene	ND	U	0.25	0.045	1	11/07/18	11/14/18	KWG1805796	
Benzo(a)pyrene	ND	U	0.25	0.036	1	11/07/18	11/14/18	KWG1805796	
Indeno(1,2,3-cd)pyrene	ND	U	0.25	0.064	1	11/07/18	11/14/18	KWG1805796	
Dibenz(a,h)anthracene	ND	U	0.25	0.058	1	11/07/18	11/14/18	KWG1805796	
Benzo(g,h,i)perylene	ND	U	0.25	0.059	1	11/07/18	11/14/18	KWG1805796	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	72	26-102	11/14/18	Acceptable
Fluoranthene-d10	67	23-110	11/14/18	Acceptable
Terphenyl-d14	75	27-115	11/14/18	Acceptable

† Analyte Comments

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

Comments:

QA/QC Report

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115
Sample Matrix: Sediment

Surrogate Recovery Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3541 **Units:** Percent
Analysis Method: 8270D SIM **Level:** Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
A1-0to30-102018	K1810302-016	69	65	76
D6-SC-64to88-102118	K1810302-022	64	74	73
D6-SC-40to64-102118	K1810302-023	78 D	88 D	83 D
H3-SC-99to114-102118	K1810302-024	67	72	75
D6-SC-88to108-102118	K1810302-025	61	69	72
H3-SC-46to63-102118	K1810302-026	67	79 D	80 D
D6-SC-0to1-102118	K1810302-027	71 D	77 D	79 D
H3-SC-1to2-102118	K1810302-028	81 D	91 D	86 D
D6-SC-1to2-102118	K1810302-029	83 D	93 D	91 D
Method Blank	KWG1805647-4	77	74	82
Method Blank	KWG1805648-4	76	71	85
Method Blank	KWG1805796-6	72	67	75
D6-SC-64to88-102118MS	KWG1805647-1	59	63	62
D6-SC-64to88-102118DMS	KWG1805647-2	66	76	75
Lab Control Sample	KWG1805647-3	69	72	80
Lab Control Sample	KWG1805648-3	67	67	79
Lab Control Sample	KWG1805796-5	78	79	87

Surrogate Recovery Control Limits (%)

Sur1	=	Fluorene-d10	26-102
Sur2	=	Fluoranthene-d10	23-110
Sur3	=	Terphenyl-d14	27-115

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

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

QA/QC Report

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Service Request: K1810302
Date Analyzed: 11/06/2018
Time Analyzed: 05:35

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\110618\1106F002.D
Instrument ID: MS14
Analysis Method: 8270D SIM

Lab Code: KWG1806026-2
Analysis Lot: KWG1806026

		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	65,709	4.76	29,101	6.32	61,986	7.56
	Upper Limit ==>	131,418	5.26	58,202	6.82	123,972	8.06
	Lower Limit ==>	32,855	4.26	14,551	5.82	30,993	7.06
	ICAL Result ==>	60,855	4.80	25,959	6.35	53,916	7.59
Associated Analyses							
Method Blank	KWG1805647-4	65,972	4.75	30,783	6.32	64,291	7.56
Lab Control Sample	KWG1805647-3	65,546	4.75	28,835	6.32	60,321	7.56
D6-SC-64to88-102118MS	KWG1805647-1	62,327	4.75	28,259	6.32	58,242	7.56
D6-SC-64to88-102118DMS	KWG1805647-2	77,390	4.77	34,034	6.32	69,590	7.56
D6-SC-64to88-102118	K1810302-022	64,779	4.76	31,116	6.32	62,562	7.56
H3-SC-99to114-102118	K1810302-024	76,113	4.77	35,381	6.32	69,817	7.56
H3-SC-46to63-102118	K1810302-026	69,352	4.76	32,994	6.32	68,766	7.56
D6-SC-40to64-102118	K1810302-023	67,296	4.76	32,506	6.32	69,642	7.57
D6-SC-0to1-102118	K1810302-027	69,062	4.76	32,521	6.32	67,622	7.56
H3-SC-1to2-102118	K1810302-028	69,825	4.76	32,597	6.32	70,272	7.57
D6-SC-1to2-102118	K1810302-029	70,610	4.76	31,230	6.32	68,450	7.56

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

QA/QC Report

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Service Request: K1810302
Date Analyzed: 11/06/2018
Time Analyzed: 05:35

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\110618\1106F002.D
Instrument ID: MS14
Analysis Method: 8270D SIM

Lab Code: KWG1806026-2
Analysis Lot: KWG1806026

		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**
	Results ==>	76,116	10.11	89,350	13.27
	Upper Limit ==>	152,232	10.61	178,700	13.77
	Lower Limit ==>	38,058	9.61	44,675	12.77
	ICAL Result ==>	68,964	10.15	73,742	13.30
Associated Analyses					
Method Blank	KWG1805647-4	71,910	10.10	77,915	13.26
Lab Control Sample	KWG1805647-3	67,170	10.11	75,180	13.27
D6-SC-64to88-102118MS	KWG1805647-1	76,306	10.12	90,998	13.35
D6-SC-64to88-102118DMS	KWG1805647-2	93,895	10.13	104,092	13.37
D6-SC-64to88-102118	K1810302-022	84,977	10.12	94,970	13.36
H3-SC-99to114-102118	K1810302-024	90,602	10.11	101,246	13.31
H3-SC-46to63-102118	K1810302-026	0*	0.00	0*	0.00
D6-SC-40to64-102118	K1810302-023	94,309	10.16	99,845	13.45
D6-SC-0to1-102118	K1810302-027	87,908	10.13	99,389	13.36
H3-SC-1to2-102118	K1810302-028	91,298	10.15	99,613	13.41
D6-SC-1to2-102118	K1810302-029	88,853	10.14	96,486	13.39

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

QA/QC Report

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Service Request: K1810302
Date Analyzed: 11/07/2018
Time Analyzed: 05:26

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\110718\1107F002.D
Instrument ID: MS14
Analysis Method: 8270D SIM

Lab Code: KWG1806028-2
Analysis Lot: KWG1806028

		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	68,316	4.76	31,023	6.32	63,263	7.56
	Upper Limit ==>	136,632	5.26	62,046	6.82	126,526	8.06
	Lower Limit ==>	34,158	4.26	15,512	5.82	31,632	7.06
	ICAL Result ==>	60,855	4.80	25,959	6.35	53,916	7.59
Associated Analyses							
Method Blank	KWG1805648-4	66,217	4.77	30,623	6.32	62,346	7.56
Lab Control Sample	KWG1805648-3	67,640	4.77	28,738	6.32	58,606	7.56
D6-SC-88to108-102118	K1810302-025	65,217	4.76	31,966	6.32	65,358	7.56
H3-SC-46to63-102118DL	K1810302-026	66,314	4.76	32,688	6.32	64,217	7.56

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

QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/07/2018
		Time Analyzed:	05:26

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS14\DATA\110718\1107F002.D	**Lab Code:**	KWG1806028-2
Instrument ID:	MS14	**Analysis Lot:**	KWG1806028
Analysis Method:	8270D SIM		

		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**
	Results ==>	75,807	10.11	86,791	13.28
	Upper Limit ==>	151,614	10.61	173,582	13.78
	Lower Limit ==>	37,904	9.61	43,396	12.78
	ICAL Result ==>	68,964	10.15	73,742	13.30
Associated Analyses					
Method Blank	KWG1805648-4	65,001	10.11	70,697	13.28
Lab Control Sample	KWG1805648-3	62,189	10.11	68,354	13.28
D6-SC-88to108-102118	K1810302-025	81,980	10.11	92,591	13.31
H3-SC-46to63-102118DL	K1810302-026	84,552	10.12	93,683	13.32

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

QA/QC Report

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Service Request: K1810302
Date Analyzed: 11/13/2018
Time Analyzed: 05:23

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\111318\1113F002.D
Instrument ID: MS14
Analysis Method: 8270D SIM

Lab Code: KWG1806206-2
Analysis Lot: KWG1806206

		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	68,170	4.75	31,155	6.31	63,370	7.54
	Upper Limit ==>	136,340	5.25	62,310	6.81	126,740	8.04
	Lower Limit ==>	34,085	4.25	15,578	5.81	31,685	7.04
	ICAL Result ==>	60,855	4.80	25,959	6.35	53,916	7.59
Associated Analyses							
A1-0to30-102018	K1810302-016	60,499	4.75	34,026	6.31	73,523	7.55

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

QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/13/2018
		Time Analyzed:	05:23

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID:	J:\MS14\DATA\111318\1113F002.D	**Lab Code:**	KWG1806206-2
Instrument ID:	MS14	**Analysis Lot:**	KWG1806206
Analysis Method:	8270D SIM		

		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**
	Results ==>	87,204	10.09	94,936	13.25
	Upper Limit ==>	174,408	10.59	189,872	13.75
	Lower Limit ==>	43,602	9.59	47,468	12.75
	ICAL Result ==>	68,964	10.15	73,742	13.30
Associated Analyses					
A1-0to30-102018	K1810302-016	74,466	10.10	81,808	13.29

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

QA/QC Report

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Service Request: K1810302
Date Analyzed: 11/14/2018
Time Analyzed: 06:17

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\111418\1114F002.D
Instrument ID: MS14
Analysis Method: 8270D SIM

Lab Code: KWG1806235-2
Analysis Lot: KWG1806235

		Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	58,386	4.75	27,245	6.31	66,920	7.55
	Upper Limit ==>	116,772	5.25	54,490	6.81	133,840	8.05
	Lower Limit ==>	29,193	4.25	13,623	5.81	33,460	7.05
	ICAL Result ==>	60,855	4.80	25,959	6.35	53,916	7.59
Associated Analyses							
Method Blank	KWG1805796-6	59,123	4.74	31,330	6.31	73,826	7.55
Lab Control Sample	KWG1805796-5	60,453	4.75	29,887	6.31	65,739	7.55

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

QA/QC Report

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Service Request: K1810302
Date Analyzed: 11/14/2018
Time Analyzed: 06:17

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\111418\1114F002.D
Instrument ID: MS14
Analysis Method: 8270D SIM

Lab Code: KWG1806235-2
Analysis Lot: KWG1806235

		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**
	Results ==>	75,302	10.10	83,299	13.29
	Upper Limit ==>	150,604	10.60	166,598	13.79
	Lower Limit ==>	37,651	9.60	41,650	12.79
	ICAL Result ==>	68,964	10.15	73,742	13.30
Associated Analyses					
Method Blank	KWG1805796-6	83,472	10.10	90,973	13.28
Lab Control Sample	KWG1805796-5	75,453	10.10	83,033	13.29

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

QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Extracted:**	11/01/2018
Sample Matrix:	Sediment	**Date Analyzed:**	11/06/2018

Matrix Spike/Duplicate Matrix Spike Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	D6-SC-64to88-102118	**Units:**	ug/Kg
Lab Code:	K1810302-022	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1805647

		D6-SC-64to88-102118MS KWG1805647-1 Matrix Spike			D6-SC-64to88-102118DMS KWG1805647-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	2.7	39.1	75.4	48 *	43.9	75.6	55 *	70-130	12	40
2-Methylnaphthalene	1.9	38.3	75.4	48 *	42.9	75.6	54 *	70-130	11	40
Acenaphthylene	1.4	42.9	75.4	55 *	48.8	75.6	63 *	70-130	13	40
Acenaphthene	2.1	42.7	75.4	54 *	48.1	75.6	61 *	70-130	12	40
Dibenzofuran	0.93	41.6	75.4	54 *	47.2	75.6	61 *	70-130	13	40
Fluorene	1.7	45.4	75.4	58 *	50.6	75.6	65 *	70-130	11	40
Phenanthrene	21	59.3	75.4	50 *	67.9	75.6	62 *	70-130	14	40
Anthracene	3.3	50.7	75.4	63 *	58.1	75.6	73	70-130	14	40
Fluoranthene	26	59.5	75.4	44 *	73.0	75.6	62 *	70-130	20	40
Pyrene	28	60.1	75.4	43 *	71.6	75.6	58 *	70-130	17	40
Benz(a)anthracene	12	55.0	75.4	58 *	63.3	75.6	68 *	70-130	14	40
Chrysene	15	56.4	75.4	55 *	65.3	75.6	67 *	70-130	15	40
Benzo(b)fluoranthene	15	56.2	75.4	54 *	66.1	75.6	67 *	70-130	16	40
Benzo(k)fluoranthene	5.7	49.7	75.4	58 *	58.6	75.6	70	70-130	16	40
Benzo(a)pyrene	15	61.4	75.4	62 *	71.2	75.6	75	70-130	15	40
Indeno(1,2,3-cd)pyrene	9.7	59.7	75.4	66 *	67.5	75.6	77	70-130	12	40
Dibenz(a,h)anthracene	2.2	52.7	75.4	67 *	59.9	75.6	76	70-130	13	40
Benzo(g,h,i)perylene	10	53.9	75.4	58 *	60.9	75.6	67 *	70-130	12	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.

QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Extracted:**	11/01/2018
Sample Matrix:	Sediment	**Date Analyzed:**	11/06/2018

Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method:	EPA 3541	**Units:**	ug/Kg
Analysis Method:	8270D SIM	**Basis:**	Dry
		Level:	Low
		Extraction Lot:	KWG1805647

	Lab Control Sample KWG1805647-3 Lab Control Spike			
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**
Naphthalene	61.4	100	61	48-77
2-Methylnaphthalene	61.3	100	61	52-85
Acenaphthylene	68.9	100	69	51-80
Acenaphthene	67.1	100	67	51-82
Dibenzofuran	66.6	100	67	14-125
Fluorene	68.0	100	68	52-83
Phenanthrene	67.3	100	67	48-85
Anthracene	72.5	100	72	56-87
Fluoranthene	66.9	100	67	45-96
Pyrene	72.7	100	73	59-98
Benz(a)anthracene	80.9	100	81	65-97
Chrysene	77.2	100	77	63-100
Benzo(b)fluoranthene	84.5	100	85	63-99
Benzo(k)fluoranthene	79.2	100	79	62-99
Benzo(a)pyrene	82.7	100	83	64-103
Indeno(1,2,3-cd)pyrene	86.1	100	86	61-105
Dibenz(a,h)anthracene	80.2	100	80	56-104
Benzo(g,h,i)perylene	79.1	100	79	56-101

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.

QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Extracted:**	11/01/2018
Sample Matrix:	Sediment	**Date Analyzed:**	11/07/2018

Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method:	EPA 3541	**Units:**	ug/Kg
Analysis Method:	8270D SIM	**Basis:**	Dry
		Level:	Low
		Extraction Lot:	KWG1805648

	Lab Control Sample KWG1805648-3 Lab Control Spike			
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**
Naphthalene	61.6	100	62	48-77
2-Methylnaphthalene	60.8	100	61	52-85
Acenaphthylene	68.5	100	69	51-80
Acenaphthene	66.5	100	66	51-82
Dibenzofuran	66.1	100	66	14-125
Fluorene	66.6	100	67	52-83
Phenanthrene	66.0	100	66	48-85
Anthracene	70.9	100	71	56-87
Fluoranthene	63.8	100	64	45-96
Pyrene	72.5	100	72	59-98
Benz(a)anthracene	78.8	100	79	65-97
Chrysene	75.3	100	75	63-100
Benzo(b)fluoranthene	81.6	100	82	63-99
Benzo(k)fluoranthene	77.1	100	77	62-99
Benzo(a)pyrene	80.9	100	81	64-103
Indeno(1,2,3-cd)pyrene	86.9	100	87	61-105
Dibenz(a,h)anthracene	85.2	100	85	56-104
Benzo(g,h,i)perylene	80.0	100	80	56-101

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.

QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Extracted:**	11/07/2018
Sample Matrix:	Sediment	**Date Analyzed:**	11/14/2018

Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method:	EPA 3541	**Units:**	ug/Kg
Analysis Method:	8270D SIM	**Basis:**	Dry
		Level:	Low
		Extraction Lot:	KWG1805796

Lab Control Sample
KWG1805796-5
Lab Control Spike

Analyte Name	Result	Spike Amount	%Rec	%Rec Limits
Naphthalene	63.7	100	64	48-77
2-Methylnaphthalene	67.3	100	67	52-85
Acenaphthylene	68.6	100	69	51-80
Acenaphthene	68.4	100	68	51-82
Dibenzofuran	67.8	100	68	14-125
Fluorene	72.0	100	72	52-83
Phenanthrene	68.9	100	69	48-85
Anthracene	74.2	100	74	56-87
Fluoranthene	68.9	100	69	45-96
Pyrene	73.4	100	73	59-98
Benz(a)anthracene	82.2	100	82	65-97
Chrysene	79.0	100	79	63-100
Benzo(b)fluoranthene	84.4	100	84	63-99
Benzo(k)fluoranthene	81.1	100	81	62-99
Benzo(a)pyrene	85.3	100	85	64-103
Indeno(1,2,3-cd)pyrene	85.9	100	86	61-105
Dibenz(a,h)anthracene	82.2	100	82	56-104
Benzo(g,h,i)perylene	73.4	100	73	56-101

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.

QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Extracted:**	11/01/2018
Sample Matrix:	Sediment	**Date Analyzed:**	11/06/2018
		Time Analyzed:	07:30

Method Blank Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Instrument ID:**	MS14
Lab Code:	KWG1805647-4	**File ID:**	J:\MS14\DATA\110618\1106F006.D
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1805647

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1805647-3	J:\MS14\DATA\110618\1106F007.D	11/06/18	07:59
D6-SC-64to88-102118MS	KWG1805647-1	J:\MS14\DATA\110618\1106F008.D	11/06/18	08:27
D6-SC-64to88-102118DMS	KWG1805647-2	J:\MS14\DATA\110618\1106F009.D	11/06/18	08:56
D6-SC-64to88-102118	K1810302-022	J:\MS14\DATA\110618\1106F010.D	11/06/18	09:25
H3-SC-99to114-102118	K1810302-024	J:\MS14\DATA\110618\1106F011.D	11/06/18	09:53
H3-SC-46to63-102118	K1810302-026	J:\MS14\DATA\110618\1106F012.D	11/06/18	10:22
D6-SC-40to64-102118	K1810302-023	J:\MS14\DATA\110618\1106F022.D	11/06/18	15:10
D6-SC-0to1-102118	K1810302-027	J:\MS14\DATA\110618\1106F023.D	11/06/18	15:39
H3-SC-1to2-102118	K1810302-028	J:\MS14\DATA\110618\1106F024.D	11/06/18	16:08
D6-SC-1to2-102118	K1810302-029	J:\MS14\DATA\110618\1106F025.D	11/06/18	16:37
H3-SC-46to63-102118	K1810302-026	J:\MS14\DATA\110718\1107F008.D	11/07/18	08:27

QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Extracted:**	11/01/2018
Sample Matrix:	Sediment	**Date Analyzed:**	11/07/2018
		Time Analyzed:	05:56

Method Blank Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Instrument ID:**	MS14
Lab Code:	KWG1805648-4	**File ID:**	J:\MS14\DATA\110718\1107F003.D
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1805648

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1805648-3	J:\MS14\DATA\110718\1107F004.D	11/07/18	06:26
D6-SC-88to108-102118	K1810302-025	J:\MS14\DATA\110718\1107F006.D	11/07/18	07:26

QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Extracted:**	11/07/2018
Sample Matrix:	Sediment	**Date Analyzed:**	11/14/2018
		Time Analyzed:	06:42

Method Blank Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Instrument ID:**	MS14
Lab Code:	KWG1805796-6	**File ID:**	J:\MS14\DATA\111418\1114F003.D
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1805796

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
A1-0to30-102018	K1810302-016	J:\MS14\DATA\111318\1113F026.D	11/13/18	15:32
Lab Control Sample	KWG1805796-5	J:\MS14\DATA\111418\1114F004.D	11/14/18	07:08

QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Extracted:**	11/01/2018
Sample Matrix:	Sediment	**Date Analyzed:**	11/06/2018
		Time Analyzed:	07:59

Lab Control Sample Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Lab Control Sample	**Instrument ID:**	MS14
Lab Code:	KWG1805647-3	**File ID:**	J:\MS14\DATA\110618\1106F007.D
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1805647

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1805647-4	J:\MS14\DATA\110618\1106F006.D	11/06/18	07:30
D6-SC-64to88-102118MS	KWG1805647-1	J:\MS14\DATA\110618\1106F008.D	11/06/18	08:27
D6-SC-64to88-102118DMS	KWG1805647-2	J:\MS14\DATA\110618\1106F009.D	11/06/18	08:56
D6-SC-64to88-102118	K1810302-022	J:\MS14\DATA\110618\1106F010.D	11/06/18	09:25
H3-SC-99to114-102118	K1810302-024	J:\MS14\DATA\110618\1106F011.D	11/06/18	09:53
H3-SC-46to63-102118	K1810302-026	J:\MS14\DATA\110618\1106F012.D	11/06/18	10:22
D6-SC-40to64-102118	K1810302-023	J:\MS14\DATA\110618\1106F022.D	11/06/18	15:10
D6-SC-0to1-102118	K1810302-027	J:\MS14\DATA\110618\1106F023.D	11/06/18	15:39
H3-SC-1to2-102118	K1810302-028	J:\MS14\DATA\110618\1106F024.D	11/06/18	16:08
D6-SC-1to2-102118	K1810302-029	J:\MS14\DATA\110618\1106F025.D	11/06/18	16:37
H3-SC-46to63-102118	K1810302-026	J:\MS14\DATA\110718\1107F008.D	11/07/18	08:27

QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Extracted:**	11/01/2018
Sample Matrix:	Sediment	**Date Analyzed:**	11/07/2018
		Time Analyzed:	06:26

Lab Control Sample Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Lab Control Sample	**Instrument ID:**	MS14
Lab Code:	KWG1805648-3	**File ID:**	J:\MS14\DATA\110718\1107F004.D
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1805648

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1805648-4	J:\MS14\DATA\110718\1107F003.D	11/07/18	05:56
D6-SC-88to108-102118	K1810302-025	J:\MS14\DATA\110718\1107F006.D	11/07/18	07:26

QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Extracted:**	11/07/2018
Sample Matrix:	Sediment	**Date Analyzed:**	11/14/2018
		Time Analyzed:	07:08

Lab Control Sample Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Lab Control Sample	**Instrument ID:**	MS14
Lab Code:	KWG1805796-5	**File ID:**	J:\MS14\DATA\111418\1114F004.D
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1805796

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
A1-0to30-102018	K1810302-016	J:\MS14\DATA\111318\1113F026.D	11/13/18	15:32
Method Blank	KWG1805796-6	J:\MS14\DATA\111418\1114F003.D	11/14/18	06:42

QA/QC Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Service Request: K1810302
Date Analyzed: 11/06/2018
Time Analyzed: 05:06

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\110618\1106F001.D
Instrument ID: MS14
Column:

Analysis Method: 8270D SIM
Analysis Lot: KWG1806026

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	41.1	96829	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	42.3	99561	PASS
70	69	0	2	0.8	792	PASS
127	198	10	80	48.1	113298	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	43.7	235477	PASS
199	198	5	9	6.7	15817	PASS
275	198	10	60	36.8	86610	PASS
365	442	1	50	2.7	14505	PASS
441	443	0	100	73.5	78210	PASS
442	442	100	100	100.0	539029	PASS
443	442	15	24	19.7	106368	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1806026-2	J:\MS14\DATA\110618\1106F002.D	11/06/2018	05:35	
Method Blank	KWG1805647-4	J:\MS14\DATA\110618\1106F006.D	11/06/2018	07:30	
Lab Control Sample	KWG1805647-3	J:\MS14\DATA\110618\1106F007.D	11/06/2018	07:59	
D6-SC-64to88-102118MS	KWG1805647-1	J:\MS14\DATA\110618\1106F008.D	11/06/2018	08:27	
D6-SC-64to88-102118DMS	KWG1805647-2	J:\MS14\DATA\110618\1106F009.D	11/06/2018	08:56	
D6-SC-64to88-102118	K1810302-022	J:\MS14\DATA\110618\1106F010.D	11/06/2018	09:25	
H3-SC-99to114-102118	K1810302-024	J:\MS14\DATA\110618\1106F011.D	11/06/2018	09:53	
H3-SC-46to63-102118	K1810302-026	J:\MS14\DATA\110618\1106F012.D	11/06/2018	10:22	
D6-SC-40to64-102118	K1810302-023	J:\MS14\DATA\110618\1106F022.D	11/06/2018	15:10	
D6-SC-0to1-102118	K1810302-027	J:\MS14\DATA\110618\1106F023.D	11/06/2018	15:39	
H3-SC-1to2-102118	K1810302-028	J:\MS14\DATA\110618\1106F024.D	11/06/2018	16:08	
D6-SC-1to2-102118	K1810302-029	J:\MS14\DATA\110618\1106F025.D	11/06/2018	16:37	

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

QA/QC Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Service Request: K1810302
Date Analyzed: 11/07/2018
Time Analyzed: 04:55

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\110718\1107F001.D
Instrument ID: MS14
Column:

Analysis Method: 8270D SIM
Analysis Lot: KWG1806028

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	40.7	98834	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	42.4	103141	PASS
70	69	0	2	0.8	832	PASS
127	198	10	80	47.9	116466	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	44.4	243029	PASS
199	198	5	9	7.1	17181	PASS
275	198	10	60	37.9	92040	PASS
365	442	1	50	2.8	15565	PASS
441	443	0	100	75.3	79482	PASS
442	442	100	100	100.0	547541	PASS
443	442	15	24	19.3	105498	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1806028-2	J:\MS14\DATA\110718\1107F002.D	11/07/2018	05:26	
Method Blank	KWG1805648-4	J:\MS14\DATA\110718\1107F003.D	11/07/2018	05:56	
Lab Control Sample	KWG1805648-3	J:\MS14\DATA\110718\1107F004.D	11/07/2018	06:26	
D6-SC-88to108-102118	K1810302-025	J:\MS14\DATA\110718\1107F006.D	11/07/2018	07:26	
H3-SC-46to63-102118	K1810302-026	J:\MS14\DATA\110718\1107F008.D	11/07/2018	08:27	

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

QA/QC Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Service Request: K1810302
Date Analyzed: 11/13/2018
Time Analyzed: 04:58

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\111318\1113F001.D
Instrument ID: MS14
Column:

Analysis Method: 8270D SIM
Analysis Lot: KWG1806206

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	42.8	164981	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	42.5	163966	PASS
70	69	0	2	0.7	1087	PASS
127	198	10	80	50.1	193189	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	47.0	385685	PASS
199	198	5	9	6.6	25589	PASS
275	198	10	60	36.8	142002	PASS
365	442	1	50	3.1	25504	PASS
441	443	0	100	77.0	119946	PASS
442	442	100	100	100.0	821312	PASS
443	442	15	24	19.0	155837	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1806206-2	J:\MS14\DATA\111318\1113F002.D	11/13/2018	05:23	
A1-0to30-102018	K1810302-016	J:\MS14\DATA\111318\1113F026.D	11/13/2018	15:32	

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

QA/QC Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Service Request: K1810302
Date Analyzed: 11/14/2018
Time Analyzed: 05:51

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\111418\1114F001.D
Instrument ID: MS14
Column:

Analysis Method: 8270D SIM
Analysis Lot: KWG1806235

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	46.5	157589	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	46.9	158868	PASS
70	69	0	2	0.7	1054	PASS
127	198	10	80	51.6	174890	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	48.5	339050	PASS
199	198	5	9	6.8	22890	PASS
275	198	10	60	35.0	118562	PASS
365	442	1	50	3.4	24040	PASS
441	443	0	100	75.3	101050	PASS
442	442	100	100	100.0	698368	PASS
443	442	15	24	19.2	134280	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1806235-2	J:\MS14\DATA\111418\1114F002.D	11/14/2018	06:17	
Method Blank	KWG1805796-6	J:\MS14\DATA\111418\1114F003.D	11/14/2018	06:42	
Lab Control Sample	KWG1805796-5	J:\MS14\DATA\111418\1114F004.D	11/14/2018	07:08	

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

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Calibration Date:** 07/11/2018

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL15779 **Column:** MS
Instrument ID: MS14

Level ID	File ID	Level ID	File ID
A	J:\MS14\DATA\071118\0711F003.D	G	J:\MS14\DATA\071118\0711F009.D
B	J:\MS14\DATA\071118\0711F004.D	H	J:\MS14\DATA\071118\0711F010.D
C	J:\MS14\DATA\071118\0711F005.D	I	J:\MS14\DATA\071118\0711F011.D
D	J:\MS14\DATA\071118\0711F006.D	J	J:\MS14\DATA\071118\0711F012.D
E	J:\MS14\DATA\071118\0711F007.D		
F	J:\MS14\DATA\071118\0711F008.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	1.42	B	4.0	1.31	C	8.0	1.19	D	20	1.15	E	100	1.13
	F	200	1.11	G	400	1.09	H	1000	1.06	I	1600	1.03	J	2000	1.07
2-Methylnaphthalene	A	2.0	0.789	B	4.0	0.741	C	8.0	0.734	D	20	0.715	E	100	0.718
	F	200	0.692	G	400	0.662	H	1000	0.650	I	1600	0.627	J	2000	0.635
Acenaphthylene	A	2.0	2.52	B	4.0	2.35	C	8.0	2.29	D	20	2.33	E	100	2.37
	F	200	2.41	G	400	2.42	H	1000	2.41	I	1600	2.43	J	2000	2.34
Acenaphthene	A	2.0	1.44	B	4.0	1.38	C	8.0	1.33	D	20	1.38	E	100	1.38
	F	200	1.39	G	400	1.38	H	1000	1.35	I	1600	1.38	J	2000	1.32
Dibenzofuran	A	2.0	2.25	B	4.0	2.12	C	8.0	2.21	D	20	2.09	E	100	2.22
	F	200	2.29	G	400	2.24	H	1000	2.22	I	1600	2.24	J	2000	2.11
Fluorene	A	2.0	1.81	B	4.0	1.68	C	8.0	1.62	D	20	1.64	E	100	1.70
	F	200	1.68	G	400	1.67	H	1000	1.60	I	1600	1.63	J	2000	1.56
Phenanthrene	A	2.0	1.33	B	4.0	1.33	C	8.0	1.25	D	20	1.23	E	100	1.25
	F	200	1.25	G	400	1.22	H	1000	1.23	I	1600	1.22	J	2000	1.16
Anthracene	A	2.0	1.20	B	4.0	1.17	C	8.0	1.17	D	20	1.14	E	100	1.21
	F	200	1.22	G	400	1.22	H	1000	1.22	I	1600	1.21	J	2000	1.17
Fluoranthene	A	2.0	1.50	B	4.0	1.44	C	8.0	1.44	D	20	1.41	E	100	1.54
	F	200	1.60	G	400	1.58	H	1000	1.63	I	1600	1.65	J	2000	1.62
Pyrene	A	2.0	1.49	B	4.0	1.46	C	8.0	1.38	D	20	1.37	E	100	1.34
	F	200	1.29	G	400	1.32	H	1000	1.33	I	1600	1.39	J	2000	1.36
Benz(a)anthracene	A	2.0	1.50	B	4.0	1.32	C	8.0	1.26	D	20	1.19	E	100	1.20
	F	200	1.23	G	400	1.27	H	1000	1.32	I	1600	1.34	J	2000	1.31
Chrysene	A	2.0	1.23	B	4.0	1.21	C	8.0	1.23	D	20	1.20	E	100	1.24
	F	200	1.25	G	400	1.25	H	1000	1.26	I	1600	1.28	J	2000	1.24
Benzo(b)fluoranthene	A	2.0	1.19	B	4.0	1.16	C	8.0	1.15	D	20	1.16	E	100	1.20
	F	200	1.26	G	400	1.30	H	1000	1.34	I	1600	1.32	J	2000	1.27
Benzo(k)fluoranthene	A	2.0	1.16	B	4.0	1.17	C	8.0	1.13	D	20	1.19	E	100	1.23
	F	200	1.26	G	400	1.29	H	1000	1.29	I	1600	1.29	J	2000	1.25

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

† SPCC Compound **‡ CCC Compound**

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Calibration Date:** 07/11/2018

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL15779 **Column:** MS
Instrument ID: MS14

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Benzo(a)pyrene	A	2.0	1.09	B	4.0	1.01	C	8.0	1.03	D	20	1.04	E	100	1.05
	F	200	1.07	G	400	1.11	H	1000	1.15	I	1600	1.16	J	2000	1.12
Indeno(1,2,3-cd)pyrene	A	2.0	1.23	B	4.0	1.10	C	8.0	1.06	D	20	1.06	E	100	1.07
	F	200	1.08	G	400	1.05	H	1000	1.01	I	1600	0.996	J	2000	0.959
Dibenz(a,h)anthracene	A	2.0	1.12	B	4.0	1.10	C	8.0	1.09	D	20	1.17	E	100	1.12
	F	200	1.10	G	400	1.07	H	1000	1.02	I	1600	1.00	J	2000	0.971
Benzo(g,h,i)perylene	A	2.0	1.44	B	4.0	1.37	C	8.0	1.31	D	20	1.34	E	100	1.28
	F	200	1.27	G	400	1.21	H	1000	1.12	I	1600	1.07	J	2000	1.04
Fluorene-d10				B	4.0	1.49	C	8.0	1.33	D	20	1.28	E	100	1.25
	F	200	1.24	G	400	1.25	H	1000	1.21	I	1600	1.24	J	2000	1.20
Fluoranthene-d10	A	2.0	1.18	B	4.0	1.19	C	8.0	1.15	D	20	1.11	E	100	1.20
	F	200	1.26	G	400	1.31	H	1000	1.40	I	1600	1.42	J	2000	1.39
Terphenyl-d14				B	4.0	1.05	C	8.0	0.934	D	20	0.867	E	100	0.832
	F	200	0.823	G	400	0.835	H	1000	0.837	I	1600	0.830	J	2000	0.801

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

† SPCC Compound **‡ CCC Compound**

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Calibration Date:** 07/11/2018

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL15779 **Column:** MS
Instrument ID: MS14

		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	10.7		≤ 20	1.15		0.70
2-Methylnaphthalene	MS	AverageRF	% RSD	7.5		≤ 20	0.696		0.40
Acenaphthylene	MS	AverageRF	% RSD	2.7		≤ 20	2.39		0.90
Acenaphthene	MS	AverageRF	% RSD	2.3		≤ 20	1.37		0.90
Dibenzofuran	MS	AverageRF	% RSD	3.1		≤ 20	2.20		0.80
Fluorene	MS	AverageRF	% RSD	4.1		≤ 20	1.66		0.90
Phenanthrene	MS	AverageRF	% RSD	4.1		≤ 20	1.25		0.70
Anthracene	MS	AverageRF	% RSD	2.4		≤ 20	1.19		0.70
Fluoranthene	MS	AverageRF	% RSD	5.8		≤ 20	1.54		0.60
Pyrene	MS	AverageRF	% RSD	4.5		≤ 20	1.37		0.60
Benz(a)anthracene	MS	AverageRF	% RSD	6.8		≤ 20	1.29		0.80
Chrysene	MS	AverageRF	% RSD	1.9		≤ 20	1.24		0.70
Benzo(b)fluoranthene	MS	AverageRF	% RSD	5.7		≤ 20	1.24		0.70
Benzo(k)fluoranthene	MS	AverageRF	% RSD	4.7		≤ 20	1.23		0.70
Benzo(a)pyrene	MS	AverageRF	% RSD	4.7		≤ 20	1.08		0.70
Indeno(1,2,3-cd)pyrene	MS	AverageRF	% RSD	6.9		≤ 20	1.06		0.50
Dibenz(a,h)anthracene	MS	AverageRF	% RSD	5.7		≤ 20	1.08		0.40
Benzo(g,h,i)perylene	MS	AverageRF	% RSD	10.7		≤ 20	1.24		0.50
Fluorene-d10	SURR	AverageRF	% RSD	6.9		≤ 20	1.28		0.01
Fluoranthene-d10	SURR	AverageRF	% RSD	9.0		≤ 20	1.26		0.01
Terphenyl-d14	SURR	AverageRF	% RSD	8.9		≤ 20	0.867		0.01

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

† SPCC Compound **‡ CCC Compound**

QA/QC Results

Client: Pacific Groundwater Group (PGG)
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Service Request: K1810302
Calibration Date: 07/11/2018
Date Analyzed: 07/11/2018

Second Source Calibration Verification
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270D SIM

Calibration ID: CAL15779
Units: ng/ml

File ID: J:\MS14\DATA\071118\0711F013.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	400	370	1.15	1.06	-8	NA	± 30 %	AverageRF
2-Methylnaphthalene	400	390	0.696	0.683	-2	NA	± 30 %	AverageRF
Acenaphthylene	400	390	2.39	2.33	-2	NA	± 30 %	AverageRF
Acenaphthene	400	380	1.37	1.32	-4	NA	± 30 %	AverageRF
Dibenzofuran	400	370	2.20	2.05	-7	NA	± 30 %	AverageRF
Fluorene	400	390	1.66	1.60	-4	NA	± 30 %	AverageRF
Phenanthrene	400	380	1.25	1.19	-4	NA	± 30 %	AverageRF
Anthracene	400	400	1.19	1.18	-1	NA	± 30 %	AverageRF
Fluoranthene	400	410	1.54	1.60	4	NA	± 30 %	AverageRF
Pyrene	400	350	1.37	1.21	-12	NA	± 30 %	AverageRF
Benz(a)anthracene	400	380	1.29	1.22	-6	NA	± 30 %	AverageRF
Chrysene	400	390	1.24	1.20	-3	NA	± 30 %	AverageRF
Benzo(b)fluoranthene	400	410	1.24	1.27	2	NA	± 30 %	AverageRF
Benzo(k)fluoranthene	400	420	1.23	1.28	4	NA	± 30 %	AverageRF
Benzo(a)pyrene	400	400	1.08	1.08	0	NA	± 30 %	AverageRF
Indeno(1,2,3-cd)pyrene	400	370	1.06	0.993	-7	NA	± 30 %	AverageRF
Dibenz(a,h)anthracene	400	380	1.08	1.03	-4	NA	± 30 %	AverageRF
Benzo(g,h,i)perylene	400	370	1.24	1.14	-9	NA	± 30 %	AverageRF

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

† SPCC Compound **‡ CCC Compound**

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Analyzed:** 11/06/2018

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard **Calibration Date:** 07/11/2018
Analysis Method: 8270D SIM **Calibration ID:** CAL15779
Analysis Lot: KWG1806026
Units: ng/ml

File ID: J:\MS14\DATA\110618\1106F002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	400	380	0.70	1.15	1.11	-4	NA	± 20	AverageRF
2-Methylnaphthalene	400	390	0.40	0.696	0.672	-3	NA	± 20	AverageRF
Acenaphthylene	400	420	0.90	2.39	2.50	5	NA	± 20	AverageRF
Acenaphthene	400	410	0.90	1.37	1.40	2	NA	± 20	AverageRF
Dibenzofuran	400	420	0.80	2.20	2.32	6	NA	± 20	AverageRF
Fluorene	400	420	0.90	1.66	1.73	5	NA	± 20	AverageRF
Phenanthrene	400	400	0.70	1.25	1.23	-1	NA	± 20	AverageRF
Anthracene	400	360	0.70	1.19	1.09	-9	NA	± 20	AverageRF
Fluoranthene	400	390	0.60	1.54	1.51	-2	NA	± 20	AverageRF
Pyrene	400	380	0.60	1.37	1.31	-5	NA	± 20	AverageRF
Benz(a)anthracene	400	410	0.80	1.29	1.34	4	NA	± 20	AverageRF
Chrysene	400	400	0.70	1.24	1.24	0	NA	± 20	AverageRF
Benzo(b)fluoranthene	400	410	0.70	1.24	1.28	4	NA	± 20	AverageRF
Benzo(k)fluoranthene	400	400	0.70	1.23	1.22	-1	NA	± 20	AverageRF
Benzo(a)pyrene	400	440	0.70	1.08	1.19	10	NA	± 20	AverageRF
Indeno(1,2,3-cd)pyrene	400	460	0.50	1.06	1.23	16	NA	± 20	AverageRF
Dibenz(a,h)anthracene	400	440	0.40	1.08	1.18	10	NA	± 20	AverageRF
Benzo(g,h,i)perylene	400	420	0.50	1.24	1.32	6	NA	± 20	AverageRF
Fluorene-d10	400	380	0.01	1.28	1.23	-4	NA	± 20	AverageRF
Fluoranthene-d10	400	380	0.01	1.26	1.19	-6	NA	± 20	AverageRF
Terphenyl-d14	400	380	0.01	0.867	0.826	-5	NA	± 20	AverageRF

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

† SPCC Compound **‡ CCC Compound**

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Analyzed:** 11/07/2018

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard **Calibration Date:** 07/11/2018
Analysis Method: 8270D SIM **Calibration ID:** CAL15779
Analysis Lot: KWG1806028
Units: ng/ml

File ID: J:\MS14\DATA\110718\1107F002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	400	380	0.70	1.15	1.10	-5	NA	± 20	AverageRF
2-Methylnaphthalene	400	390	0.40	0.696	0.682	-2	NA	± 20	AverageRF
Acenaphthylene	400	410	0.90	2.39	2.46	3	NA	± 20	AverageRF
Acenaphthene	400	400	0.90	1.37	1.38	1	NA	± 20	AverageRF
Dibenzofuran	400	410	0.80	2.20	2.25	2	NA	± 20	AverageRF
Fluorene	400	400	0.90	1.66	1.66	0	NA	± 20	AverageRF
Phenanthrene	400	390	0.70	1.25	1.23	-2	NA	± 20	AverageRF
Anthracene	400	360	0.70	1.19	1.06	-11	NA	± 20	AverageRF
Fluoranthene	400	380	0.60	1.54	1.46	-5	NA	± 20	AverageRF
Pyrene	400	380	0.60	1.37	1.29	-6	NA	± 20	AverageRF
Benz(a)anthracene	400	410	0.80	1.29	1.33	2	NA	± 20	AverageRF
Chrysene	400	400	0.70	1.24	1.24	0	NA	± 20	AverageRF
Benzo(b)fluoranthene	400	420	0.70	1.24	1.29	4	NA	± 20	AverageRF
Benzo(k)fluoranthene	400	400	0.70	1.23	1.21	-1	NA	± 20	AverageRF
Benzo(a)pyrene	400	440	0.70	1.08	1.20	11	NA	± 20	AverageRF
Indeno(1,2,3-cd)pyrene	400	460	0.50	1.06	1.22	15	NA	± 20	AverageRF
Dibenz(a,h)anthracene	400	440	0.40	1.08	1.18	10	NA	± 20	AverageRF
Benzo(g,h,i)perylene	400	430	0.50	1.24	1.32	6	NA	± 20	AverageRF
Fluorene-d10	400	370	0.01	1.28	1.19	-7	NA	± 20	AverageRF
Fluoranthene-d10	400	370	0.01	1.26	1.15	-9	NA	± 20	AverageRF
Terphenyl-d14	400	380	0.01	0.867	0.815	-6	NA	± 20	AverageRF

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

† SPCC Compound **‡ CCC Compound**

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Analyzed:** 11/13/2018

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard **Calibration Date:** 07/11/2018
Analysis Method: 8270D SIM **Calibration ID:** CAL15779
Analysis Lot: KWG1806206
Units: ng/ml

File ID: J:\MS14\DATA\111318\1113F002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	400	350	0.70	1.15	1.00	-13	NA	± 20	AverageRF
2-Methylnaphthalene	400	360	0.40	0.696	0.623	-10	NA	± 20	AverageRF
Acenaphthylene	400	360	0.90	2.39	2.17	-9	NA	± 20	AverageRF
Acenaphthene	400	360	0.90	1.37	1.23	-10	NA	± 20	AverageRF
Dibenzofuran	400	350	0.80	2.20	1.91	-13	NA	± 20	AverageRF
Fluorene	400	350	0.90	1.66	1.46	-12	NA	± 20	AverageRF
Phenanthrene	400	350	0.70	1.25	1.09	-12	NA	± 20	AverageRF
Anthracene	400	370	0.70	1.19	1.10	-8	NA	± 20	AverageRF
Fluoranthene	400	390	0.60	1.54	1.50	-2	NA	± 20	AverageRF
Pyrene	400	350	0.60	1.37	1.18	-14	NA	± 20	AverageRF
Benz(a)anthracene	400	370	0.80	1.29	1.19	-8	NA	± 20	AverageRF
Chrysene	400	360	0.70	1.24	1.10	-11	NA	± 20	AverageRF
Benzo(b)fluoranthene	400	380	0.70	1.24	1.18	-5	NA	± 20	AverageRF
Benzo(k)fluoranthene	400	370	0.70	1.23	1.13	-8	NA	± 20	AverageRF
Benzo(a)pyrene	400	390	0.70	1.08	1.05	-3	NA	± 20	AverageRF
Indeno(1,2,3-cd)pyrene	400	370	0.50	1.06	0.985	-7	NA	± 20	AverageRF
Dibenz(a,h)anthracene	400	370	0.40	1.08	0.990	-8	NA	± 20	AverageRF
Benzo(g,h,i)perylene	400	330	0.50	1.24	1.02	-18	NA	± 20	AverageRF
Fluorene-d10	400	390	0.01	1.28	1.26	-2	NA	± 20	AverageRF
Fluoranthene-d10	400	460	0.01	1.26	1.45	15	NA	± 20	AverageRF
Terphenyl-d14	400	400	0.01	0.867	0.858	-1	NA	± 20	AverageRF

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

† SPCC Compound **‡ CCC Compound**

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Analyzed:** 11/14/2018

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard **Calibration Date:** 07/11/2018
Analysis Method: 8270D SIM **Calibration ID:** CAL15779
Analysis Lot: KWG1806235
Units: ng/ml

File ID: J:\MS14\DATA\111418\1114F002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	400	350	0.70	1.15	0.996	-14	NA	± 20	AverageRF
2-Methylnaphthalene	400	350	0.40	0.696	0.609	-13	NA	± 20	AverageRF
Acenaphthylene	400	360	0.90	2.39	2.13	-11	NA	± 20	AverageRF
Acenaphthene	400	360	0.90	1.37	1.22	-11	NA	± 20	AverageRF
Dibenzofuran	400	360	0.80	2.20	1.96	-11	NA	± 20	AverageRF
Fluorene	400	390	0.90	1.66	1.63	-2	NA	± 20	AverageRF
Phenanthrene	400	340	0.70	1.25	1.07	-14	NA	± 20	AverageRF
Anthracene	400	360	0.70	1.19	1.07	-11	NA	± 20	AverageRF
Fluoranthene	400	330	0.60	1.54	1.27	-17	NA	± 20	AverageRF
Pyrene	400	350	0.60	1.37	1.19	-13	NA	± 20	AverageRF
Benz(a)anthracene	400	360	0.80	1.29	1.17	-10	NA	± 20	AverageRF
Chrysene	400	350	0.70	1.24	1.10	-11	NA	± 20	AverageRF
Benzo(b)fluoranthene	400	380	0.70	1.24	1.18	-5	NA	± 20	AverageRF
Benzo(k)fluoranthene	400	370	0.70	1.23	1.12	-8	NA	± 20	AverageRF
Benzo(a)pyrene	400	380	0.70	1.08	1.04	-4	NA	± 20	AverageRF
Indeno(1,2,3-cd)pyrene	400	360	0.50	1.06	0.966	-9	NA	± 20	AverageRF
Dibenz(a,h)anthracene	400	360	0.40	1.08	0.969	-10	NA	± 20	AverageRF
Benzo(g,h,i)perylene	400	320	0.50	1.24	1.01	-19	NA	± 20	AverageRF
Fluorene-d10	400	440	0.01	1.28	1.41	10	NA	± 20	AverageRF
Fluoranthene-d10	400	390	0.01	1.26	1.21	-4	NA	± 20	AverageRF
Terphenyl-d14	400	400	0.01	0.867	0.868	0	NA	± 20	AverageRF

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

† SPCC Compound **‡ CCC Compound**

QA/QC Results

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Analysis Run Log
Polynuclear Aromatic Hydrocarbons

Analysis Method: 8270D SIM **Analysis Lot:** KWG1806026
Instrument ID: MS14

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
1106F001.D	GC/MS Tuning - Decafluorotriphenylphosph	KWG1806026-1	11/6/2018	05:06		11/6/2018	05:26
1106F002.D	Continuing Calibration Verification	KWG1806026-2	11/6/2018	05:35		11/6/2018	05:54
1106F003.D	ZZZZZZ	ZZZZZZ	11/6/2018	06:04		11/6/2018	06:23
1106F004.D	ZZZZZZ	ZZZZZZ	11/6/2018	06:33		11/6/2018	06:52
1106F005.D	ZZZZZZ	ZZZZZZ	11/6/2018	07:01		11/6/2018	07:20
1106F006.D	Method Blank	KWG1805647-4	11/6/2018	07:30		11/6/2018	07:49
1106F007.D	Lab Control Sample	KWG1805647-3	11/6/2018	07:59		11/6/2018	08:18
1106F008.D	D6-SC-64to88-102118MS	KWG1805647-1	11/6/2018	08:27		11/6/2018	08:46
1106F009.D	D6-SC-64to88-102118DMS	KWG1805647-2	11/6/2018	08:56		11/6/2018	09:15
1106F010.D	D6-SC-64to88-102118	K1810302-022	11/6/2018	09:25		11/6/2018	09:44
1106F011.D	H3-SC-99to114-102118	K1810302-024	11/6/2018	09:53		11/6/2018	10:12
1106F012.D	H3-SC-46to63-102118	K1810302-026	11/6/2018	10:22		11/6/2018	10:41
1106F013.D	ZZZZZZ	ZZZZZZ	11/6/2018	10:51		11/6/2018	11:10
1106F014.D	ZZZZZZ	ZZZZZZ	11/6/2018	11:20		11/6/2018	11:39
1106F015.D	ZZZZZZ	ZZZZZZ	11/6/2018	11:49		11/6/2018	12:08
1106F016.D	ZZZZZZ	ZZZZZZ	11/6/2018	12:18		11/6/2018	12:37
1106F017.D	ZZZZZZ	ZZZZZZ	11/6/2018	12:46		11/6/2018	13:05
1106F018.D	ZZZZZZ	ZZZZZZ	11/6/2018	13:15		11/6/2018	13:34
1106F019.D	ZZZZZZ	ZZZZZZ	11/6/2018	13:44		11/6/2018	14:03
1106F020.D	ZZZZZZ	ZZZZZZ	11/6/2018	14:13		11/6/2018	14:32
1106F021.D	ZZZZZZ	ZZZZZZ	11/6/2018	14:42		11/6/2018	15:01
1106F022.D	D6-SC-40to64-102118	K1810302-023	11/6/2018	15:10		11/6/2018	15:29
1106F023.D	D6-SC-0to1-102118	K1810302-027	11/6/2018	15:39		11/6/2018	15:58
1106F024.D	H3-SC-1to2-102118	K1810302-028	11/6/2018	16:08		11/6/2018	16:27
1106F025.D	D6-SC-1to2-102118	K1810302-029	11/6/2018	16:37		11/6/2018	16:56

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

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QA/QC Results

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Analysis Run Log
Polynuclear Aromatic Hydrocarbons

Analysis Method: 8270D SIM **Analysis Lot:** KWG1806028
Instrument ID: MS14

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
1107F001.D	GC/MS Tuning - Decafluorotriphenylphosph	KWG1806028-1	11/7/2018	04:55		11/7/2018	05:15
1107F002.D	Continuing Calibration Verification	KWG1806028-2	11/7/2018	05:26		11/7/2018	05:45
1107F003.D	Method Blank	KWG1805648-4	11/7/2018	05:56		11/7/2018	06:15
1107F004.D	Lab Control Sample	KWG1805648-3	11/7/2018	06:26		11/7/2018	06:45
1107F005.D	ZZZZZZ	ZZZZZZ	11/7/2018	06:56		11/7/2018	07:15
1107F006.D	D6-SC-88to108-102118	K1810302-025	11/7/2018	07:26		11/7/2018	07:45
1107F007.D	ZZZZZZ	ZZZZZZ	11/7/2018	07:56		11/7/2018	08:15
1107F008.D	H3-SC-46to63-102118	K1810302-026	11/7/2018	08:27		11/7/2018	08:46
1107F009.D	ZZZZZZ	ZZZZZZ	11/7/2018	08:58		11/7/2018	09:17
1107F010.D	ZZZZZZ	ZZZZZZ	11/7/2018	09:28		11/7/2018	09:47
1107F011.D	ZZZZZZ	ZZZZZZ	11/7/2018	09:59		11/7/2018	10:18
1107F012.D	ZZZZZZ	ZZZZZZ	11/7/2018	10:29		11/7/2018	10:48
1107F013.D	ZZZZZZ	ZZZZZZ	11/7/2018	10:59		11/7/2018	11:18
1107F014.D	ZZZZZZ	ZZZZZZ	11/7/2018	11:30		11/7/2018	11:49
1107F015.D	ZZZZZZ	ZZZZZZ	11/7/2018	12:00		11/7/2018	12:19
1107F016.D	ZZZZZZ	ZZZZZZ	11/7/2018	12:31		11/7/2018	12:50
1107F017.D	ZZZZZZ	ZZZZZZ	11/7/2018	13:01		11/7/2018	13:20
1107F018.D	ZZZZZZ	ZZZZZZ	11/7/2018	13:32		11/7/2018	13:51
1107F019.D	ZZZZZZ	ZZZZZZ	11/7/2018	14:02		11/7/2018	14:21
1107F020.D	ZZZZZZ	ZZZZZZ	11/7/2018	14:32		11/7/2018	14:51
1107F021.D	ZZZZZZ	ZZZZZZ	11/7/2018	15:03		11/7/2018	15:22
1107F022.D	ZZZZZZ	ZZZZZZ	11/7/2018	15:33		11/7/2018	15:52
1107F023.D	ZZZZZZ	ZZZZZZ	11/7/2018	16:03		11/7/2018	16:22
1107F024.D	ZZZZZZ	ZZZZZZ	11/7/2018	16:33		11/7/2018	16:52

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

QA/QC Results

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Analysis Run Log
Polynuclear Aromatic Hydrocarbons

Analysis Method: 8270D SIM **Analysis Lot:** KWG1806206
Instrument ID: MS14

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
1113F001.D	GC/MS Tuning - Decafluorotriphenylphosph	KWG1806206-1	11/13/2018	04:58		11/13/2018	05:18
1113F002.D	Continuing Calibration Verification	KWG1806206-2	11/13/2018	05:23		11/13/2018	05:42
1113F003.D	ZZZZZZ	ZZZZZZ	11/13/2018	05:48		11/13/2018	06:07
1113F004.D	ZZZZZZ	ZZZZZZ	11/13/2018	06:13		11/13/2018	06:32
1113F005.D	ZZZZZZ	ZZZZZZ	11/13/2018	06:38		11/13/2018	06:57
1113F006.D	ZZZZZZ	ZZZZZZ	11/13/2018	07:03		11/13/2018	07:22
1113F009.D	ZZZZZZ	ZZZZZZ	11/13/2018	08:19		11/13/2018	08:38
1113F010.D	ZZZZZZ	ZZZZZZ	11/13/2018	08:44		11/13/2018	09:03
1113F011.D	ZZZZZZ	ZZZZZZ	11/13/2018	09:09		11/13/2018	09:28
1113F012.D	ZZZZZZ	ZZZZZZ	11/13/2018	09:35		11/13/2018	09:54
1113F013.D	ZZZZZZ	ZZZZZZ	11/13/2018	10:00		11/13/2018	10:19
1113F014.D	ZZZZZZ	ZZZZZZ	11/13/2018	10:25		11/13/2018	10:44
1113F015.D	ZZZZZZ	ZZZZZZ	11/13/2018	10:51		11/13/2018	11:10
1113F016.D	ZZZZZZ	ZZZZZZ	11/13/2018	11:16		11/13/2018	11:35
1113F017.D	ZZZZZZ	ZZZZZZ	11/13/2018	11:42		11/13/2018	12:01
1113F018.D	ZZZZZZ	ZZZZZZ	11/13/2018	12:07		11/13/2018	12:26
1113F019.D	ZZZZZZ	ZZZZZZ	11/13/2018	12:33		11/13/2018	12:52
1113F020.D	ZZZZZZ	ZZZZZZ	11/13/2018	12:58		11/13/2018	13:17
1113F021.D	ZZZZZZ	ZZZZZZ	11/13/2018	13:24		11/13/2018	13:43
1113F022.D	ZZZZZZ	ZZZZZZ	11/13/2018	13:49		11/13/2018	14:08
1113F023.D	ZZZZZZ	ZZZZZZ	11/13/2018	14:15		11/13/2018	14:34
1113F024.D	ZZZZZZ	ZZZZZZ	11/13/2018	14:41		11/13/2018	15:00
1113F025.D	ZZZZZZ	ZZZZZZ	11/13/2018	15:06		11/13/2018	15:25
1113F026.D	A1-0to30-102018	K1810302-016	11/13/2018	15:32		11/13/2018	15:51

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

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QA/QC Results

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Analysis Run Log
Polynuclear Aromatic Hydrocarbons

Analysis Method: 8270D SIM **Analysis Lot:** KWG1806235
Instrument ID: MS14

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
1114F001.D	GC/MS Tuning - Decafluorotriphenylphosph	KWG1806235-1	11/14/2018	05:51		11/14/2018	06:11
1114F002.D	Continuing Calibration Verification	KWG1806235-2	11/14/2018	06:17		11/14/2018	06:36
1114F003.D	Method Blank	KWG1805796-6	11/14/2018	06:42		11/14/2018	07:01
1114F004.D	Lab Control Sample	KWG1805796-5	11/14/2018	07:08		11/14/2018	07:27
1114F005.D	ZZZZZZ	ZZZZZZ	11/14/2018	07:33		11/14/2018	07:52
1114F006.D	ZZZZZZ	ZZZZZZ	11/14/2018	07:58		11/14/2018	08:17
1114F007.D	ZZZZZZ	ZZZZZZ	11/14/2018	08:23		11/14/2018	08:42
1114F008.D	ZZZZZZ	ZZZZZZ	11/14/2018	08:48		11/14/2018	09:07
1114F009.D	ZZZZZZ	ZZZZZZ	11/14/2018	09:14		11/14/2018	09:33
1114F010.D	ZZZZZZ	ZZZZZZ	11/14/2018	09:40		11/14/2018	09:59
1114F011.D	ZZZZZZ	ZZZZZZ	11/14/2018	10:05		11/14/2018	10:24
1114F012.D	ZZZZZZ	ZZZZZZ	11/14/2018	10:30		11/14/2018	10:49
1114F013.D	ZZZZZZ	ZZZZZZ	11/14/2018	10:56		11/14/2018	11:15
1114F014.D	ZZZZZZ	ZZZZZZ	11/14/2018	11:21		11/14/2018	11:40
1114F015.D	ZZZZZZ	ZZZZZZ	11/14/2018	11:46		11/14/2018	12:05
1114F016.D	ZZZZZZ	ZZZZZZ	11/14/2018	12:12		11/14/2018	12:31
1114F017.D	ZZZZZZ	ZZZZZZ	11/14/2018	12:39		11/14/2018	12:58
1114F018.D	ZZZZZZ	ZZZZZZ	11/14/2018	13:05		11/14/2018	13:24
1114F019.D	ZZZZZZ	ZZZZZZ	11/14/2018	13:31		11/14/2018	13:50
1114F020.D	ZZZZZZ	ZZZZZZ	11/14/2018	13:57		11/14/2018	14:16
1114F021.D	ZZZZZZ	ZZZZZZ	11/14/2018	14:25		11/14/2018	14:44
1114F022.D	ZZZZZZ	ZZZZZZ	11/14/2018	14:51		11/14/2018	15:10
1114F023.D	ZZZZZZ	ZZZZZZ	11/14/2018	15:17		11/14/2018	15:36
1114F024.D	ZZZZZZ	ZZZZZZ	11/14/2018	15:43		11/14/2018	16:02
1114F025.D	ZZZZZZ	ZZZZZZ	11/14/2018	16:09		11/14/2018	16:28
1114F026.D	ZZZZZZ	ZZZZZZ	11/14/2018	16:35		11/14/2018	16:54
1114F027.D	ZZZZZZ	ZZZZZZ	11/14/2018	17:01		11/14/2018	17:20
1114F028.D	ZZZZZZ	ZZZZZZ	11/14/2018	17:27		11/14/2018	17:46

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

QA/QC Results

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Extracted:** 11/01/2018
Sample Matrix: Sediment

Extraction Prep Log
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3541 **Extraction Lot:** KWG1805647
Analysis Method: 8270D SIM **Level:** Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
D6-SC-64to88-102118	K1810302-022	10/21/18	10/22/18	40.237g	2mL	66	
D6-SC-40to64-102118	K1810302-023	10/21/18	10/22/18	40.117g	2mL	54.7	
H3-SC-99to114-102118	K1810302-024	10/21/18	10/22/18	40.111g	2mL	69.9	
H3-SC-46to63-102118	K1810302-026	10/21/18	10/22/18	40.236g	2mL	67.8	
H3-SC-46to63-102118DL	K1810302-026	10/21/18	10/22/18	40.236g	2mL	67.8	
D6-SC-0to1-102118	K1810302-027	10/21/18	10/22/18	40.092g	2mL	42.9	
H3-SC-1to2-102118	K1810302-028	10/21/18	10/22/18	40.131g	2mL	52	
D6-SC-1to2-102118	K1810302-029	10/21/18	10/22/18	40.362g	2mL	45.9	
Method Blank	KWG1805647-4	NA	NA	40.436g	2mL	NA	
D6-SC-64to88-102118MS	KWG1805647-1	10/21/18	10/22/18	40.185g	2mL	66	
D6-SC-64to88-102118DMS	KWG1805647-2	10/21/18	10/22/18	40.109g	2mL	66	
Lab Control Sample	KWG1805647-3	NA	NA	20.000g	2mL	NA	

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

QA/QC Results

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Extracted:** 11/01/2018
Sample Matrix: Sediment

Extraction Prep Log
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3541 **Extraction Lot:** KWG1805648
Analysis Method: 8270D SIM **Level:** Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
D6-SC-88to108-102118	K1810302-025	10/21/18	10/22/18	40.018g	2mL	71.5	
Method Blank	KWG1805648-4	NA	NA	40.334g	2mL	NA	
Lab Control Sample	KWG1805648-3	NA	NA	20.000g	2mL	NA	

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

QA/QC Results

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Extracted:** 11/07/2018
Sample Matrix: Sediment

Extraction Prep Log
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3541 **Extraction Lot:** KWG1805796
Analysis Method: 8270D SIM **Level:** Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
A1-0to30-102018	K1810302-016	10/20/18	10/22/18	40.044g	2mL	54.7	
Method Blank	KWG1805796-6	NA	NA	40.332g	2mL	NA	
Lab Control Sample	KWG1805796-5	NA	NA	20.000g	2mL	NA	

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

Low Level Semivolatile Organic Compounds by GC/MS

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

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/20/18 12:05
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	A1-0to30-102018	**Units:**	ug/Kg
Lab Code:	K1810302-016	**Basis:**	Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Bis(2-ethylhexyl) Phthalate	**12 J**	91	8.9	1	11/14/18 16:18	11/7/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
p-Terphenyl-d14	64	30 - 102	11/14/18 16:18	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 17:40
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	D6-SC-64to88-102118	**Units:**	ug/Kg
Lab Code:	K1810302-022	**Basis:**	Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Bis(2-ethylhexyl) Phthalate	**10 J**	76	8.9	1	11/17/18 23:38	10/31/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
p-Terphenyl-d14	59	30 - 102	11/17/18 23:38	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 16:50
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	D6-SC-40to64-102118	**Units:**	ug/Kg
Lab Code:	K1810302-023	**Basis:**	Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Bis(2-ethylhexyl) Phthalate	**760**	91	8.9	1	11/18/18 00:07	10/31/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
p-Terphenyl-d14	59	30 - 102	11/18/18 00:07	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 14:30
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	H3-SC-99to114-102118	**Units:**	ug/Kg
Lab Code:	K1810302-024	**Basis:**	Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Bis(2-ethylhexyl) Phthalate	ND U	71	8.9	1	11/17/18 23:10	10/31/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
p-Terphenyl-d14	58	30 - 102	11/17/18 23:10	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 17:50
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	D6-SC-88to108-102118	**Units:**	ug/Kg
Lab Code:	K1810302-025	**Basis:**	Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Bis(2-ethylhexyl) Phthalate	ND U	70	8.9	1	11/18/18 00:35	10/31/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
p-Terphenyl-d14	62	30 - 102	11/18/18 00:35	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 12:50
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	H3-SC-46to63-102118	**Units:**	ug/Kg
Lab Code:	K1810302-026	**Basis:**	Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Bis(2-ethylhexyl) Phthalate	**29 J**	74	8.9	1	11/18/18 01:03	11/1/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
p-Terphenyl-d14	61	30 - 102	11/18/18 01:03	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 16:00
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	D6-SC-0to1-102118	**Units:**	ug/Kg
Lab Code:	K1810302-027	**Basis:**	Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Bis(2-ethylhexyl) Phthalate	**580**	120	11	1	11/18/18 01:31	10/31/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
p-Terphenyl-d14	61	30 - 102	11/18/18 01:31	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 11:55
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	H3-SC-1to2-102118	**Units:**	ug/Kg
Lab Code:	K1810302-028	**Basis:**	Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Bis(2-ethylhexyl) Phthalate	**120**	96	8.9	1	11/18/18 01:59	10/31/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
p-Terphenyl-d14	52	30 - 102	11/18/18 01:59	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18 16:15
Sample Matrix:	Sediment	**Date Received:**	10/22/18 10:45
Sample Name:	D6-SC-1to2-102118	**Units:**	ug/Kg
Lab Code:	K1810302-029	**Basis:**	Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Bis(2-ethylhexyl) Phthalate	**5800**	1100	97	10	12/12/18 00:34	10/31/18	*

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
p-Terphenyl-d14	52	30 - 102	11/18/18 02:27	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KQ1815427-04	**Basis:**	Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Bis(2-ethylhexyl) Phthalate	ND U	50	8.9	1	11/17/18 21:17	10/31/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
p-Terphenyl-d14	65	30 - 102	11/17/18 21:17	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KQ1815507-04	**Basis:**	Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Bis(2-ethylhexyl) Phthalate	ND U	50	8.9	1	11/18/18 04:21	11/1/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
p-Terphenyl-d14	58	30 - 102	11/18/18 04:21	

Analytical Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KQ1816032-04	**Basis:**	Dry

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3541

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Bis(2-ethylhexyl) Phthalate	ND U	50	8.9	1	11/14/18 12:03	11/7/18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
p-Terphenyl-d14	67	30 - 102	11/14/18 12:03	

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115
Sample Matrix: Sediment

SURROGATE RECOVERY SUMMARY
Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3541

Sample Name	Lab Code	p-Terphenyl-d14 30-102
A1-0to30-102018	K1810302-016	64
D6-SC-64to88-102118	K1810302-022	59
D6-SC-40to64-102118	K1810302-023	59
H3-SC-99to114-102118	K1810302-024	58
D6-SC-88to108-102118	K1810302-025	62
H3-SC-46to63-102118	K1810302-026	61
D6-SC-0to1-102118	K1810302-027	61
H3-SC-1to2-102118	K1810302-028	52
D6-SC-1to2-102118	K1810302-029	52
Method Blank	KQ1815427-04	65
Method Blank	KQ1815507-04	58
Method Blank	KQ1816032-04	67
Lab Control Sample	KQ1815427-03	60
Lab Control Sample	KQ1815507-03	69
Lab Control Sample	KQ1816032-03	66
H3-SC-99to114-102118	KQ1815427-01	63
H3-SC-99to114-102118	KQ1815427-02	59

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QA/QC Report

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Analyzed:**11/14/18 09:22

Internal Standard Area and RT SUMMARY
Low Level Semivolatile Organic Compounds by GC/MS

File ID: J:\MS29\DATA\111418\1114F002.D\ **Lab Code:**KQ1816925-02
Instrument ID: K-MS-29 **Analysis Lot:**615539
Analysis Method: 8270D **Signal ID:**1

		Chrysene-d12	
		Area	**RT**
	Result ==>	182,932	15.64
	Upper Limit ==>	365,864	16.14
	Lower Limit ==>	91,466	15.14
Associated Analyses			
Method Blank	KQ1816032-04	206934	15.65
Lab Control Sample	KQ1816032-03	200343	15.64
A1-0to30-102018	K1810302-016	226239	15.64

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QA/QC Report

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Analyzed:**11/17/18 16:07

Internal Standard Area and RT SUMMARY
Low Level Semivolatile Organic Compounds by GC/MS

File ID: J:\MS29\DATA\111718\1117F002.D\ **Lab Code:**KQ1816930-02
Instrument ID: K-MS-29 **Analysis Lot:**615546
Analysis Method: 8270D **Signal ID:**1

		Chrysene-d12	
		Area	**RT**
	Result ==>	184,564	15.65
	Upper Limit ==>	369,128	16.15
	Lower Limit ==>	92,282	15.15
Associated Analyses			
Method Blank	KQ1815427-04	201052	15.65
Lab Control Sample	KQ1815427-03	203115	15.65
H3-SC-99to114-102118MS	KQ1815427-01	244949	15.65
H3-SC-99to114-102118DMS	KQ1815427-02	250144	15.65
H3-SC-99to114-102118	K1810302-024	233660	15.65
D6-SC-64to88-102118	K1810302-022	242635	15.65
D6-SC-40to64-102118	K1810302-023	246594	15.67
D6-SC-88to108-102118	K1810302-025	216793	15.65
H3-SC-46to63-102118	K1810302-026	230947	15.67
D6-SC-0to1-102118	K1810302-027	227589	15.67
H3-SC-1to2-102118	K1810302-028	240665	15.71
D6-SC-1to2-102118	K1810302-029	237314	15.69

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QA/QC Report

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Analyzed:**11/18/18 03:52

Internal Standard Area and RT SUMMARY
Low Level Semivolatile Organic Compounds by GC/MS

File ID: J:\MS29\DATA\111718\1117F027.D\ **Lab Code:**KQ1816931-02
Instrument ID: K-MS-29 **Analysis Lot:**615547
Analysis Method: 8270D **Signal ID:**1

		Chrysene-d12	
		Area	**RT**
	Result ==>	185,313	15.65
	Upper Limit ==>	370,626	16.15
	Lower Limit ==>	92,657	15.15
Associated Analyses			
Method Blank	KQ1815507-04	196256	15.65
Lab Control Sample	KQ1815507-03	186152	15.65

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QA/QC Report

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Analyzed:**12/11/18 15:03

Internal Standard Area and RT SUMMARY
Low Level Semivolatile Organic Compounds by GC/MS

File ID: J:\MS29\DATA\121118\1211F002.D\ **Lab Code:**KQ1818460-02
Instrument ID: K-MS-29 **Analysis Lot:**619456
Analysis Method: 8270D **Signal ID:**1

		Chrysene-d12	
		Area	**RT**
	Result ==>	104,369	15.60
	Upper Limit ==>	208,738	16.10
	Lower Limit ==>	52,185	15.10
Associated Analyses			
D6-SC-1to2-102118	K1810302-029	115917	15.60

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Collected:**	10/21/18
Sample Matrix:	Sediment	**Date Received:**	10/22/18
		Date Analyzed:	11/17/18
		Date Extracted:	10/31/18

Duplicate Matrix Spike Summary
Low Level Semivolatile Organic Compounds by GC/MS

Sample Name:	H3-SC-99to114-102118	**Units:**	ug/Kg
Lab Code:	K1810302-024	**Basis:**	Dry
Analysis Method:	8270D		
Prep Method:	EPA 3541		

		Matrix Spike			Duplicate Matrix Spike					
		KQ1815427-01			KQ1815427-02					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Bis(2-ethylhexyl) Phthalate	ND U	129	178	72	133	179	75	23-123	4	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.

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/17/18
Sample Matrix:	Sediment	**Date Extracted:**	10/31/18

Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method:	8270D	**Units:**	ug/Kg
Prep Method:	EPA 3541	**Basis:**	Dry
		Analysis Lot:	615546

Lab Control Sample
KQ1815427-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bis(2-ethylhexyl) Phthalate	170	250	68	39-113

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/18/18
Sample Matrix:	Sediment	**Date Extracted:**	11/01/18

Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method:	8270D	**Units:**	ug/Kg
Prep Method:	EPA 3541	**Basis:**	Dry
		Analysis Lot:	615547

Lab Control Sample
KQ1815507-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bis(2-ethylhexyl) Phthalate	188	250	75	39-113

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/14/18
Sample Matrix:	Sediment	**Date Extracted:**	11/07/18

Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method:	8270D	**Units:**	ug/Kg
Prep Method:	EPA 3541	**Basis:**	Dry
		Analysis Lot:	615539

Lab Control Sample
KQ1816032-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Bis(2-ethylhexyl) Phthalate	183	250	73	39-113

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/17/18 21:17
Sample Matrix:	Sediment	**Date Extracted:**	10/31/18

Method Blank Summary
Low Level Semivolatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Instrument ID:**	K-MS-29
Lab Code:	KQ1815427-04	**File ID:**	J:\MS29\DATA\111718\1117F013.D\
Analysis Method:	8270D	**Analysis Lot:**	615546,619456
Prep Method:	EPA 3541	**Extraction Lot:**	324899

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1815427-03	J:\MS29\DATA\111718\1117F014.D\	11/17/18 21:46
H3-SC-99to114-102118MS	KQ1815427-01	J:\MS29\DATA\111718\1117F015.D\	11/17/18 22:14
H3-SC-99to114-102118DMS	KQ1815427-02	J:\MS29\DATA\111718\1117F016.D\	11/17/18 22:42
H3-SC-99to114-102118	K1810302-024	J:\MS29\DATA\111718\1117F017.D\	11/17/18 23:10
D6-SC-64to88-102118	K1810302-022	J:\MS29\DATA\111718\1117F018.D\	11/17/18 23:38
D6-SC-40to64-102118	K1810302-023	J:\MS29\DATA\111718\1117F019.D\	11/18/18 00:07
D6-SC-88to108-102118	K1810302-025	J:\MS29\DATA\111718\1117F020.D\	11/18/18 00:35
D6-SC-0to1-102118	K1810302-027	J:\MS29\DATA\111718\1117F022.D\	11/18/18 01:31
H3-SC-1to2-102118	K1810302-028	J:\MS29\DATA\111718\1117F023.D\	11/18/18 01:59
D6-SC-1to2-102118	K1810302-029	J:\MS29\DATA\111718\1117F024.D\	11/18/18 02:27
D6-SC-1to2-102118	K1810302-029	J:\MS29\DATA\121118\1211F022.D\	12/12/18 00:34

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	NA
Sample Matrix:	Sediment	**Date Extracted:**	11/01/18

Method Blank Summary
Low Level Semivolatile Organic Compounds by GC/MS

Sample Name:		**Instrument ID:**	
Lab Code:		**File ID:**	
Analysis Method:	8270D	**Analysis Lot:**	615546,619456
Prep Method:	EPA 3541	**Extraction Lot:**	325014

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
H3-SC-46to63-102118	K1810302-026	J:\MS29\DATA\111718\1117F021.D\	11/18/18 01:03

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/18/18 04:21
Sample Matrix:	Sediment	**Date Extracted:**	11/01/18

Method Blank Summary
Low Level Semivolatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Instrument ID:**	K-MS-29
Lab Code:	KQ1815507-04	**File ID:**	J:\MS29\DATA\111718\1117F028.D\
Analysis Method:	8270D	**Analysis Lot:**	615546,615547
Prep Method:	EPA 3541	**Extraction Lot:**	325014

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
H3-SC-46to63-102118	K1810302-026	J:\MS29\DATA\111718\1117F021.D\	11/18/18 01:03
Lab Control Sample	KQ1815507-03	J:\MS29\DATA\111718\1117F029.D\	11/18/18 04:49

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/14/18 12:03
Sample Matrix:	Sediment	**Date Extracted:**	11/07/18

Method Blank Summary
Low Level Semivolatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Instrument ID:**	K-MS-29
Lab Code:	KQ1816032-04	**File ID:**	J:\MS29\DATA\111418\1114F004.D\
Analysis Method:	8270D	**Analysis Lot:**	615539
Prep Method:	EPA 3541	**Extraction Lot:**	325584

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ1816032-03	J:\MS29\DATA\111418\1114F005.D\	11/14/18 12:31
A1-0to30-102018	K1810302-016	J:\MS29\DATA\111418\1114F013.D\	11/14/18 16:18

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/17/18 21:46
Sample Matrix:	Sediment	**Date Extracted:**	10/31/18

Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Sample Name:	Lab Control Sample	**Instrument ID:**	K-MS-29
Lab Code:	KQ1815427-03	**File ID:**	J:\MS29\DATA\111718\1117F014.D\
Analysis Method:	8270D	**Analysis Lot:**	615546,619456
Prep Method:	EPA 3541	**Extraction Lot:**	324899

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1815427-04	J:\MS29\DATA\111718\1117F013.D\	11/17/18 21:17
H3-SC-99to114-102118MS	KQ1815427-01	J:\MS29\DATA\111718\1117F015.D\	11/17/18 22:14
H3-SC-99to114-102118DMS	KQ1815427-02	J:\MS29\DATA\111718\1117F016.D\	11/17/18 22:42
H3-SC-99to114-102118	K1810302-024	J:\MS29\DATA\111718\1117F017.D\	11/17/18 23:10
D6-SC-64to88-102118	K1810302-022	J:\MS29\DATA\111718\1117F018.D\	11/17/18 23:38
D6-SC-40to64-102118	K1810302-023	J:\MS29\DATA\111718\1117F019.D\	11/18/18 00:07
D6-SC-88to108-102118	K1810302-025	J:\MS29\DATA\111718\1117F020.D\	11/18/18 00:35
D6-SC-0to1-102118	K1810302-027	J:\MS29\DATA\111718\1117F022.D\	11/18/18 01:31
H3-SC-1to2-102118	K1810302-028	J:\MS29\DATA\111718\1117F023.D\	11/18/18 01:59
D6-SC-1to2-102118	K1810302-029	J:\MS29\DATA\111718\1117F024.D\	11/18/18 02:27
D6-SC-1to2-102118	K1810302-029	J:\MS29\DATA\121118\1211F022.D\	12/12/18 00:34

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	NA
Sample Matrix:	Sediment	**Date Extracted:**	11/01/18

Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Sample Name:		**Instrument ID:**	
Lab Code:		**File ID:**	
Analysis Method:	8270D	**Analysis Lot:**	615546,619456
Prep Method:	EPA 3541	**Extraction Lot:**	325014

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
H3-SC-46to63-102118	K1810302-026	J:\MS29\DATA\111718\1117F021.D\	11/18/18 01:03

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/18/18 04:49
Sample Matrix:	Sediment	**Date Extracted:**	11/01/18

Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Sample Name:	Lab Control Sample	**Instrument ID:**	K-MS-29
Lab Code:	KQ1815507-03	**File ID:**	J:\MS29\DATA\111718\1117F029.D\
Analysis Method:	8270D	**Analysis Lot:**	615546,615547
Prep Method:	EPA 3541	**Extraction Lot:**	325014

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
H3-SC-46to63-102118	K1810302-026	J:\MS29\DATA\111718\1117F021.D\	11/18/18 01:03
Method Blank	KQ1815507-04	J:\MS29\DATA\111718\1117F028.D\	11/18/18 04:21

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QA/QC Report

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/14/18 12:31
Sample Matrix:	Sediment	**Date Extracted:**	11/07/18

Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Sample Name:	Lab Control Sample	**Instrument ID:**	K-MS-29
Lab Code:	KQ1816032-03	**File ID:**	J:\MS29\DATA\111418\1114F005.D\
Analysis Method:	8270D	**Analysis Lot:**	615539
Prep Method:	EPA 3541	**Extraction Lot:**	325584

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ1816032-04	J:\MS29\DATA\111418\1114F004.D\	11/14/18 12:03
A1-0to30-102018	K1810302-016	J:\MS29\DATA\111418\1114F013.D\	11/14/18 16:18

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Analyzed:**11/14/18 08:54

Tune Summary
Low Level Semivolatile Organic Compounds by GC/MS

File ID: J:\MS29\DATA\111418\1114F001.D\ **Analytical Method:** 8270D
Instrument ID: K-MS-29 **Analysis Lot:** 615539

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	36.61	422677	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	41.39	477923	Pass
70	69	0	2	0.45	2172	Pass
127	198	10	80	47.02	542890	Pass
197	198	0	2	0.00	0	Pass
198	442	30	100	74.35	1154560	Pass
199	198	5	9	6.67	77037	Pass
275	198	10	60	28.74	331776	Pass
365	442	1	50	2.00	31008	Pass
441	443	0.01	100	79.59	239752	Pass
442	442	30	100	100.00	1552917	Pass
443	442	15	24	19.40	301248	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	KQ1816925-02	J:\MS29\DATA\111418\1114F002.D\	11/14/18 09:22	
Method Blank	KQ1816032-04	J:\MS29\DATA\111418\1114F004.D\	11/14/18 12:03	
Lab Control Sample	KQ1816032-03	J:\MS29\DATA\111418\1114F005.D\	11/14/18 12:31	
A1-0to30-102018	K1810302-016	J:\MS29\DATA\111418\1114F013.D\	11/14/18 16:18	

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Analyzed:**11/17/18 15:39

Tune Summary
Low Level Semivolatile Organic Compounds by GC/MS

File ID: J:\MS29\DATA\111718\1117F001.D\ **Analytical Method:** 8270D
Instrument ID: K-MS-29 **Analysis Lot:** 615546

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	34.46	407978	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	39.22	464311	Pass
70	69	0	2	0.49	2281	Pass
127	198	10	80	45.83	542528	Pass
197	198	0	2	0.00	0	Pass
198	442	30	100	66.85	1183850	Pass
199	198	5	9	6.76	80048	Pass
275	198	10	60	29.83	353152	Pass
365	442	1	50	1.96	34752	Pass
441	443	0.01	100	79.69	272661	Pass
442	442	30	100	100.00	1771008	Pass
443	442	15	24	19.32	342165	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	KQ1816930-02	J:\MS29\DATA\111718\1117F002.D\	11/17/18 16:07	
Method Blank	KQ1815427-04	J:\MS29\DATA\111718\1117F013.D\	11/17/18 21:17	
Lab Control Sample	KQ1815427-03	J:\MS29\DATA\111718\1117F014.D\	11/17/18 21:46	
H3-SC-99to114-102118	KQ1815427-01	J:\MS29\DATA\111718\1117F015.D\	11/17/18 22:14	
H3-SC-99to114-102118	KQ1815427-02	J:\MS29\DATA\111718\1117F016.D\	11/17/18 22:42	
H3-SC-99to114-102118	K1810302-024	J:\MS29\DATA\111718\1117F017.D\	11/17/18 23:10	
D6-SC-64to88-102118	K1810302-022	J:\MS29\DATA\111718\1117F018.D\	11/17/18 23:38	
D6-SC-40to64-102118	K1810302-023	J:\MS29\DATA\111718\1117F019.D\	11/18/18 00:07	
D6-SC-88to108-102118	K1810302-025	J:\MS29\DATA\111718\1117F020.D\	11/18/18 00:35	
H3-SC-46to63-102118	K1810302-026	J:\MS29\DATA\111718\1117F021.D\	11/18/18 01:03	
D6-SC-0to1-102118	K1810302-027	J:\MS29\DATA\111718\1117F022.D\	11/18/18 01:31	
H3-SC-1to2-102118	K1810302-028	J:\MS29\DATA\111718\1117F023.D\	11/18/18 01:59	
D6-SC-1to2-102118	K1810302-029	J:\MS29\DATA\111718\1117F024.D\	11/18/18 02:27	

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Analyzed:**11/18/18 03:24

Tune Summary
Low Level Semivolatile Organic Compounds by GC/MS

File ID: J:\MS29\DATA\111718\1117F026.D\ **Analytical Method:** 8270D
Instrument ID: K-MS-29 **Analysis Lot:** 615547

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	34.75	423232	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	40.01	487298	Pass
70	69	0	2	0.46	2242	Pass
127	198	10	80	46.04	560682	Pass
197	198	0	2	0.00	0	Pass
198	442	30	100	70.49	1217856	Pass
199	198	5	9	6.73	81954	Pass
275	198	10	60	29.11	354560	Pass
365	442	1	50	1.95	33650	Pass
441	443	0.01	100	78.15	263104	Pass
442	442	30	100	100.00	1727786	Pass
443	442	15	24	19.49	336682	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	KQ1816931-02	J:\MS29\DATA\111718\1117F027.D\	11/18/18 03:52	
Method Blank	KQ1815507-04	J:\MS29\DATA\111718\1117F028.D\	11/18/18 04:21	
Lab Control Sample	KQ1815507-03	J:\MS29\DATA\111718\1117F029.D\	11/18/18 04:49	

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115 **Date Analyzed:**12/11/18 14:34

Tune Summary
Low Level Semivolatile Organic Compounds by GC/MS

File ID: J:\MS29\DATA\121118\1211F001.D\ **Analytical Method:** 8270D
Instrument ID: K-MS-29 **Analysis Lot:** 619456

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	36.34	417732	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	38.94	447563	Pass
70	69	0	2	0.48	2130	Pass
127	198	10	80	44.95	516650	Pass
197	198	0	2	0.00	0	Pass
198	442	30	100	69.06	1149416	Pass
199	198	5	9	6.63	76210	Pass
275	198	10	60	30.81	354112	Pass
365	442	1	50	2.32	38610	Pass
441	443	0.01	100	84.11	269248	Pass
442	442	30	100	100.00	1664402	Pass
443	442	15	24	19.23	320106	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	KQ1818460-02	J:\MS29\DATA\121118\1211F002.D\	12/11/18 15:03	
D6-SC-1to2-102118	K1810302-029	J:\MS29\DATA\121118\1211F022.D\	12/12/18 00:34	

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 11/6/2018

Initial Calibration Summary
Low Level Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1800516 **Signal ID:** 1
Instrument ID: K-MS-29

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1800516-01	SVO_LL ICAL @ 0.05ppm | SVM59-69C	J:\MS29\DATA\110618A\1106A003.D	11/06/2018 14:33
02	KC1800516-02	SVO_LL ICAL @ 0.10ppm | SVM59-69D	J:\MS29\DATA\110618A\1106A004.D	11/06/2018 15:01
03	KC1800516-03	SVO_LL ICAL @ 0.20ppm | SVM59-69E	J:\MS29\DATA\110618A\1106A005.D	11/06/2018 15:30
04	KC1800516-04	SVO_LL ICAL @ 0.50ppm | SVM59-69F	J:\MS29\DATA\110618A\1106A006.D	11/06/2018 15:58
05	KC1800516-05	SVO_LL ICAL @ 1.0ppm | SVM59-69G	J:\MS29\DATA\110618A\1106A007.D	11/06/2018 16:27
06	KC1800516-06	SVO_LL ICAL @ 2.0ppm | SVM59-69H	J:\MS29\DATA\110618A\1106A008.D	11/06/2018 16:55
07	KC1800516-07	SVO_LL ICAL @ 3.0ppm | SVM59-69I	J:\MS29\DATA\110618A\1106A009.D	11/06/2018 17:23
08	KC1800516-08	SVO_LL ICAL @ 5.0ppm | SVM59-69J	J:\MS29\DATA\110618A\1106A010.D	11/06/2018 17:52
09	KC1800516-09	SVO_LL ICAL @ 7.0ppm | SVM59-69K	J:\MS29\DATA\110618A\1106A011.D	11/06/2018 18:20
10	KC1800516-10	SVO_LL ICAL @ 10ppm | SVM59-69L	J:\MS29\DATA\110618A\1106A012.D	11/06/2018 18:48

Analyte

Bis(2-ethylhexyl) Phthalate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	50.000	0.7365	02	100.000	0.7638	03	200.000	0.7799	04	500.000	0.7432
05	1000.000	0.8336	06	2000.000	0.8704	07	3000.000	0.9469	08	5000.000	0.9807
09	7000.000	0.9593	10	10000.000	0.8905						

p-Terphenyl-d14

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	200.000	1.093	04	500.000	0.9527	05	1000.000	0.9712	06	2000.000	0.9746
07	3000.000	1.037	08	5000.000	1.066	09	7000.000	1.024	10	10000.000	0.9392

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 11/6/2018

Initial Calibration Summary
Low Level Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1800516 **Signal ID:** 1
Instrument ID: K-MS-29

		Calibration Evaluation				Calibration Evaluation	
Analyte Name	Compound Type	Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
Bis(2-ethylhexyl) Phthalate	TRG	Average RF	% RSD	10.9	≤20	0.8505	0.010
p-Terphenyl-d14	SURR	Average RF	% RSD	5.6	≤20	1.007	0.010

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 11/29/2018

Initial Calibration Summary
Low Level Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1800541 **Signal ID:** 1
Instrument ID: K-MS-29

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC1800541-01	SVO_LL ICAL @ 0.05ppm | SVM59-69C	J:\MS29\DATA\112918\1129F003.D	11/29/2018 16:08
02	KC1800541-02	SVO_LL ICAL @ 0.10ppm | SVM59-69D	J:\MS29\DATA\112918\1129F004.D	11/29/2018 16:36
03	KC1800541-03	SVO_LL ICAL @ 0.20ppm | SVM59-69E	J:\MS29\DATA\112918\1129F005.D	11/29/2018 17:05
04	KC1800541-04	SVO_LL ICAL @ 0.50ppm | SVM59-69F	J:\MS29\DATA\112918\1129F006.D	11/29/2018 17:33
05	KC1800541-05	SVO_LL ICAL @ 1.0ppm | SVM59-69G	J:\MS29\DATA\112918\1129F007.D	11/29/2018 18:02
06	KC1800541-06	SVO_LL ICAL @ 2.0ppm | SVM59-69H	J:\MS29\DATA\112918\1129F008.D	11/29/2018 18:30
07	KC1800541-07	SVO_LL ICAL @ 3.0ppm | SVM59-69I	J:\MS29\DATA\112918\1129F009.D	11/29/2018 18:59
08	KC1800541-08	SVO_LL ICAL @ 5.0ppm | SVM59-69J	J:\MS29\DATA\112918\1129F010.D	11/29/2018 19:27
09	KC1800541-09	SVO_LL ICAL @ 7.0ppm | SVM59-69K	J:\MS29\DATA\112918\1129F011.D	11/29/2018 19:56
10	KC1800541-10	SVO_LL ICAL @ 10ppm | SVM59-69L	J:\MS29\DATA\112918\1129F012.D	11/29/2018 20:24

Analyte

Bis(2-ethylhexyl) Phthalate

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	50.000	0.9326	02	100.000	0.8946	03	200.000	0.9411	04	500.000	0.9042
05	1000.000	0.9414	06	2000.000	1.015	07	3000.000	1.047	08	5000.000	1.058
09	7000.000	1.068	10	10000.000	1.036						

p-Terphenyl-d14

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
03	200.000	1.023	04	500.000	0.9821	05	1000.000	1.008	06	2000.000	0.9546
07	3000.000	1.002	08	5000.000	1.022	09	7000.000	1.053	10	10000.000	1.02

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 11/29/2018

Initial Calibration Summary
Low Level Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1800541 **Signal ID:** 1
Instrument ID: K-MS-29

		Calibration Evaluation				Calibration Evaluation	
Analyte Name	Compound Type	Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
Bis(2-ethylhexyl) Phthalate	TRG	Average RF	% RSD	6.9	≤20	0.9838	0.010
p-Terphenyl-d14	SURR	Average RF	% RSD	2.9	≤20	1.008	0.010

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 11/6/2018

Initial Calibration Verification Summary
Low Level Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1800516 **Signal ID:** 1
Instrument ID: K-MS-29

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1800516-11	SVO_LL ICV @ 3.0ppm | SVM59-63B	J:\MS29\DATA\110618A\1106A013.D	11/06/2018 19:17

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Bis(2-ethylhexyl) Phthalate	3000	2930	8.505E-1	8.32E-1	-2.173	±30	Average RF

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
p-Terphenyl-d14	3000	2810	1.007E0	9.447E-1	-6.195	±30	Average RF

Client: Pacific Groundwater Group (PGG) **Service Request:** K1810302
Project: DTNA Swan Island Lagoon Sediment **Calibration Date:** 11/29/2018

Initial Calibration Verification Summary
Low Level Semivolatile Organic Compounds by GC/MS

Calibration ID: KC1800541 **Signal ID:** 1
Instrument ID: K-MS-29

#	Lab Code	Sample Name	File Location	Acquisition Date
11	KC1800541-11	SVO_LL ICV @ 3.0ppm | SVM59-63B	J:\MS29\DATA\112918\1129F013.D	11/29/2018 20:53

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Bis(2-ethylhexyl) Phthalate	3000	2750	9.838E-1	9.027E-1	-8.241	±30	Average RF

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
p-Terphenyl-d14	3000	2660	1.008E0	8.93E-1	-11.405	±30	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/14/18 09:22

Continuing Calibration Verification (CCV) Summary
Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method:	8270D	**Calibration Date:**	11/6/2018
File ID:	J:\MS29\DATA\111418\1114F002.D\	**Calibration ID:**	KC1800516
Signal ID:	1	**Analysis Lot:**	615539
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Bis(2-ethylhexyl) Phthalate	3000	3140	0.8505	0.8904	4.7	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
p-Terphenyl-d14	3000	2680	1.0071	0.9002	-10.6	NA	±20	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/17/18 16:07

Continuing Calibration Verification (CCV) Summary
Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method:	8270D	**Calibration Date:**	11/6/2018
File ID:	J:\MS29\DATA\111718\1117F002.D\	**Calibration ID:**	KC1800516
Signal ID:	1	**Analysis Lot:**	615546
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Bis(2-ethylhexyl) Phthalate	3000	3060	0.8505	0.8685	2.1	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
p-Terphenyl-d14	3000	2690	1.0071	0.902	-10.4	NA	±20	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	11/18/18 03:52

Continuing Calibration Verification (CCV) Summary
Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method:	8270D	**Calibration Date:**	11/6/2018
File ID:	J:\MS29\DATA\111718\1117F027.D\	**Calibration ID:**	KC1800516
Signal ID:	1	**Analysis Lot:**	615547
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Bis(2-ethylhexyl) Phthalate	1500	3430	0.8505	0.9724	14.3	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
p-Terphenyl-d14	1500	2840	1.0071	0.9547	-5.2	NA	±20	Average RF

Client:	Pacific Groundwater Group (PGG)	**Service Request:**	K1810302
Project:	DTNA Swan Island Lagoon Sediment/2006-00115	**Date Analyzed:**	12/11/18 15:03

Continuing Calibration Verification (CCV) Summary
Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method:	8270D	**Calibration Date:**	11/29/2018
File ID:	J:\MS29\DATA\121118\1211F002.D\	**Calibration ID:**	KC1800541
Signal ID:	1	**Analysis Lot:**	619456
		Units:	ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
Bis(2-ethylhexyl) Phthalate	3000	3020	0.9838	0.9909	0.7	NA	±20	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	% D	% Drift	Criteria	Curve Fit
p-Terphenyl-d14	3000	2830	1.008	0.9523	-5.5	NA	±20	Average RF

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Analysis Run Log
Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: **Analysis Lot:**615539
Instrument ID:K-MS-29

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\MS29\DATA\111418\1114F001.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	08:54:00	
J:\MS29\DATA\111418\1114F001.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	08:54:00	
J:\MS29\DATA\111418\1114F002.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	09:22:00	
J:\MS29\DATA\111418\1114F002.D\	Continuing Calibration Verification	KQ1816925-02	11/14/2018	09:22:00	
J:\MS29\DATA\111418\1114F004.D\	Method Blank	KQ1816032-04	11/14/2018	12:03:00	
J:\MS29\DATA\111418\1114F005.D\	Lab Control Sample	KQ1816032-03	11/14/2018	12:31:00	
J:\MS29\DATA\111418\1114F006.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	13:00:00	
J:\MS29\DATA\111418\1114F007.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	13:28:00	
J:\MS29\DATA\111418\1114F008.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	13:56:00	
J:\MS29\DATA\111418\1114F009.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	14:25:00	
J:\MS29\DATA\111418\1114F010.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	14:53:00	
J:\MS29\DATA\111418\1114F011.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	15:21:00	
J:\MS29\DATA\111418\1114F012.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	15:50:00	
J:\MS29\DATA\111418\1114F013.D\	A1-0to30-102018	K1810302-016	11/14/2018	16:18:00	
J:\MS29\DATA\111418\1114F014.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	17:31:00	
J:\MS29\DATA\111418\1114F015.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	17:59:00	
J:\MS29\DATA\111418\1114F016.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	18:27:00	
J:\MS29\DATA\111418\1114F017.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	18:55:00	
J:\MS29\DATA\111418\1114F018.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	19:23:00	
J:\MS29\DATA\111418\1114F019.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	19:52:00	
J:\MS29\DATA\111418\1114F020.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	20:20:00	
J:\MS29\DATA\111418\1114F021.D\	ZZZZZZZ	ZZZZZZZ	11/14/2018	20:48:00	

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Analysis Run Log
Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: **Analysis Lot:**615546
Instrument ID:K-MS-29

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\MS29\DATA\111718\1117F001.D\	ZZZZZZZ	ZZZZZZZ	11/17/2018	15:39:00	
J:\MS29\DATA\111718\1117F002.D\	Continuing Calibration Verification	KQ1816930-02	11/17/2018	16:07:00	
J:\MS29\DATA\111718\1117F003.D\	ZZZZZZZ	ZZZZZZZ	11/17/2018	16:36:00	
J:\MS29\DATA\111718\1117F004.D\	ZZZZZZZ	ZZZZZZZ	11/17/2018	17:04:00	
J:\MS29\DATA\111718\1117F005.D\	ZZZZZZZ	ZZZZZZZ	11/17/2018	17:32:00	
J:\MS29\DATA\111718\1117F006.D\	ZZZZZZZ	ZZZZZZZ	11/17/2018	18:00:00	
J:\MS29\DATA\111718\1117F007.D\	ZZZZZZZ	ZZZZZZZ	11/17/2018	18:28:00	
J:\MS29\DATA\111718\1117F008.D\	ZZZZZZZ	ZZZZZZZ	11/17/2018	18:56:00	
J:\MS29\DATA\111718\1117F009.D\	ZZZZZZZ	ZZZZZZZ	11/17/2018	19:25:00	
J:\MS29\DATA\111718\1117F010.D\	ZZZZZZZ	ZZZZZZZ	11/17/2018	19:53:00	
J:\MS29\DATA\111718\1117F011.D\	ZZZZZZZ	ZZZZZZZ	11/17/2018	20:21:00	
J:\MS29\DATA\111718\1117F012.D\	ZZZZZZZ	ZZZZZZZ	11/17/2018	20:49:00	
J:\MS29\DATA\111718\1117F013.D\	Method Blank	KQ1815427-04	11/17/2018	21:17:00	
J:\MS29\DATA\111718\1117F014.D\	Lab Control Sample	KQ1815427-03	11/17/2018	21:46:00	
J:\MS29\DATA\111718\1117F015.D\	H3-SC-99to114-102118 MS	KQ1815427-01	11/17/2018	22:14:00	
J:\MS29\DATA\111718\1117F016.D\	H3-SC-99to114-102118 DMS	KQ1815427-02	11/17/2018	22:42:00	
J:\MS29\DATA\111718\1117F017.D\	H3-SC-99to114-102118	K1810302-024	11/17/2018	23:10:00	
J:\MS29\DATA\111718\1117F018.D\	D6-SC-64to88-102118	K1810302-022	11/17/2018	23:38:00	
J:\MS29\DATA\111718\1117F019.D\	D6-SC-40to64-102118	K1810302-023	11/18/2018	00:07:00	
J:\MS29\DATA\111718\1117F020.D\	D6-SC-88to108-102118	K1810302-025	11/18/2018	00:35:00	
J:\MS29\DATA\111718\1117F021.D\	H3-SC-46to63-102118	K1810302-026	11/18/2018	01:03:00	
J:\MS29\DATA\111718\1117F022.D\	D6-SC-0to1-102118	K1810302-027	11/18/2018	01:31:00	
J:\MS29\DATA\111718\1117F023.D\	H3-SC-1to2-102118	K1810302-028	11/18/2018	01:59:00	
J:\MS29\DATA\111718\1117F024.D\	D6-SC-1to2-102118	K1810302-029	11/18/2018	02:27:00	

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Analysis Run Log
Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: **Analysis Lot:**615547
Instrument ID:K-MS-29

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\MS29\DATA\111718\1117F026.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	03:24:00	
J:\MS29\DATA\111718\1117F026.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	03:24:00	
J:\MS29\DATA\111718\1117F027.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	03:52:00	
J:\MS29\DATA\111718\1117F027.D\	Continuing Calibration Verification	KQ1816931-02	11/18/2018	03:52:00	
J:\MS29\DATA\111718\1117F028.D\	Method Blank	KQ1815507-04	11/18/2018	04:21:00	
J:\MS29\DATA\111718\1117F029.D\	Lab Control Sample	KQ1815507-03	11/18/2018	04:49:00	
J:\MS29\DATA\111718\1117F030.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	05:17:00	
J:\MS29\DATA\111718\1117F031.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	05:45:00	
J:\MS29\DATA\111718\1117F032.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	06:13:00	
J:\MS29\DATA\111718\1117F033.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	06:42:00	
J:\MS29\DATA\111718\1117F034.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	07:10:00	
J:\MS29\DATA\111718\1117F035.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	07:38:00	
J:\MS29\DATA\111718\1117F036.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	08:06:00	
J:\MS29\DATA\111718\1117F037.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	08:35:00	
J:\MS29\DATA\111718\1117F038.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	09:03:00	
J:\MS29\DATA\111718\1117F039.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	09:31:00	
J:\MS29\DATA\111718\1117F040.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	10:00:00	
J:\MS29\DATA\111718\1117F041.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	10:28:00	
J:\MS29\DATA\111718\1117F042.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	10:56:00	
J:\MS29\DATA\111718\1117F043.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	11:24:00	
J:\MS29\DATA\111718\1117F044.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	11:53:00	
J:\MS29\DATA\111718\1117F045.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	12:21:00	
J:\MS29\DATA\111718\1117F046.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	12:49:00	
J:\MS29\DATA\111718\1117F047.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	13:17:00	
J:\MS29\DATA\111718\1117F048.D\	ZZZZZZZ	ZZZZZZZ	11/18/2018	13:46:00	

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115

Analysis Run Log
Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: **Analysis Lot:**619456
Instrument ID:K-MS-29

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\MS29\DATA\121118\1211F001.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	14:34:00	
J:\MS29\DATA\121118\1211F002.D\	Continuing Calibration Verification	KQ1818460-02	12/11/2018	15:03:00	
J:\MS29\DATA\121118\1211F004.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	16:01:00	
J:\MS29\DATA\121118\1211F005.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	16:29:00	
J:\MS29\DATA\121118\1211F006.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	16:58:00	
J:\MS29\DATA\121118\1211F007.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	17:26:00	
J:\MS29\DATA\121118\1211F008.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	17:55:00	
J:\MS29\DATA\121118\1211F009.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	18:23:00	
J:\MS29\DATA\121118\1211F010.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	18:52:00	
J:\MS29\DATA\121118\1211F011.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	19:20:00	
J:\MS29\DATA\121118\1211F012.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	19:49:00	
J:\MS29\DATA\121118\1211F013.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	20:17:00	
J:\MS29\DATA\121118\1211F014.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	20:46:00	
J:\MS29\DATA\121118\1211F015.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	21:14:00	
J:\MS29\DATA\121118\1211F016.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	21:43:00	
J:\MS29\DATA\121118\1211F017.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	22:11:00	
J:\MS29\DATA\121118\1211F018.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	22:40:00	
J:\MS29\DATA\121118\1211F019.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	23:08:00	
J:\MS29\DATA\121118\1211F020.D\	ZZZZZZZ	ZZZZZZZ	12/11/2018	23:37:00	
J:\MS29\DATA\121118\1211F021.D\	ZZZZZZZ	ZZZZZZZ	12/12/2018	00:05:00	
J:\MS29\DATA\121118\1211F022.D\	D6-SC-1to2-102118	K1810302-029	12/12/2018	00:34:00	*
J:\MS29\DATA\121118\1211F024.D\	ZZZZZZZ	ZZZZZZZ	12/12/2018	01:31:00	

Prep Summary Report

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115
Sample Matrix: Sediment

Low Level Semivolatile Organic Compounds by GC/MS

Prep Method: EPA 3541 **Extraction Lot:** 325584
Analytical Method: 8270D **Extraction Date:** 11/07/18 11:19

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
A1-0to30-102018	K1810302-016	10/20/18	10/22/18	40.065 g	2 mL	54.7
Lab Control Sample	KQ1816032-03LCS	NA	NA	20.00 g	2 mL	
Method Blank	KQ1816032-04MB	NA	NA	40.3880 g	2 mL	

Prep Summary Report

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115
Sample Matrix: Sediment

Low Level Semivolatile Organic Compounds by GC/MS

Prep Method: EPA 3541 **Extraction Lot:** 324899
Analytical Method: 8270D **Extraction Date:** 10/31/18 17:12

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
D6-SC-64to88-102118	K1810302-022	10/21/18	10/22/18	40.089 g	2 mL	66.0
D6-SC-40to64-102118	K1810302-023	10/21/18	10/22/18	40.257 g	2 mL	54.7
H3-SC-99to114-102118	K1810302-024	10/21/18	10/22/18	40.066 g	2 mL	69.9
D6-SC-88to108-102118	K1810302-025	10/21/18	10/22/18	40.238 g	2 mL	71.5
D6-SC-0to1-102118	K1810302-027	10/21/18	10/22/18	40.147 g	2 mL	42.9
H3-SC-1to2-102118	K1810302-028	10/21/18	10/22/18	40.137 g	2 mL	52.0
D6-SC-1to2-102118	K1810302-029	10/21/18	10/22/18	40.230 g	2 mL	45.9
D6-SC-1to2-102118	K1810302-029	10/21/18	10/22/18	40.230 g	2 mL	45.9
Matrix Spike	KQ1815427-01MS	10/21/18	10/22/18	40.261 g	2 mL	69.9
Duplicate Matrix Spike	KQ1815427-02DMS	10/21/18	10/22/18	40.043 g	2 mL	69.9
Lab Control Sample	KQ1815427-03LCS	NA	NA	20.00 g	2 mL	
Method Blank	KQ1815427-04MB	NA	NA	40.3670 g	2 mL	

Prep Summary Report

Client: Pacific Groundwater Group (PGG) **Service Request:**K1810302
Project: DTNA Swan Island Lagoon Sediment/2006-00115
Sample Matrix: Sediment

Low Level Semivolatile Organic Compounds by GC/MS

Prep Method: EPA 3541 **Extraction Lot:** 325014
Analytical Method: 8270D **Extraction Date:** 11/01/18 00:41

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
H3-SC-46to63-102118	K1810302-026	10/21/18	10/22/18	40.112 g	2 mL	67.8
Lab Control Sample	KQ1815507-03LCS	NA	NA	20.00 g	2 mL	
Method Blank	KQ1815507-04MB	NA	NA	40.3630 g	2 mL	

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 #: K1810302, KQ1816183
Run #: 613983
Test: TS
Balance ID: K-BALANCE-50
Method: 160.3 Modified

Matrix	Lab Code	Tare (g)	Wet Wt. (g)	Tare + Dry Wt. (g)	Dry Weight (g)	% Total Solids	RPD
Sediment	K1810302-016	1.297	10.286	6.924	5.63	54.7	
Sediment	K1810302-016DUP	1.287	10.934	7.247	5.96	54.5	<1

	Oven ID	Temp In	Temp Out	Date In	Time In	Date Out	Time Out	Thermometer ID
Oven1	K-Oven-07	105	105	11/6/2018	15:36	11/7/2018	08:35	

	Cal EQID	Cal Start Value	Cal End Value	Start Date	Start Time	End Date	End Time
Calibration1	K-BALANCE-50	1.000, 99.999	1.001, 100.000	11/6/2018	09:04	11/6/2018	15:36
Calibration2	K-BALANCE-50	1.000, 99.999	0.998, 99.999	11/7/2018	09:57	11/7/2018	09:58

Comments: DJM SN 42868. Reviewed by SC 11/7/18

Butyltins

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

Preparation Information Benchsheet

Prep Run#: 325830 **Prep WorkFlow:** OrgExtTINS14 **Status:** Prepped
Team: Semivoa GC/TANDREWS **Prep Method:** Method **Prep Date/Time:** 11/19/18 06:38 PM
Number of Copies to make: 4

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1810270-001	N3-0to26-101518	.02	ALS SOP/BUTYLTINS		Sediment	20.148g	4.00mL	APOSEY K-BALANCE-48 11062018 / Samples Previously
2	K1810946-001	FMA-NORTH-110518	.02	ALS SOP/BUTYLTINS		Soil	20.020g	4.00mL	APOSEY K-BALANCE-48 11092018APOSEY
3	K1810946-002	FMA-SOUTH-110518	.02	ALS SOP/BUTYLTINS		Soil	20.154g	4.00mL	APOSEY K-BALANCE-48 11092018 / Limited sample,
4	K1810565-001RE	102618-POS-PDS	.05	ALS SOP/BUTYLTINS		Sediment	20.321g	4.00mL	AJEFFRIES k-balance-47APOSEY K-Balance-48
5	KQ1816241-01	K1810270-001 MS	.02	ALS SOP/BUTYLTINS		Solid	20.096g	4.00mL	APOSEY K-BALANCE-48 11062018
6	KQ1816241-02	K1810270-001 DMS	.02	ALS SOP/BUTYLTINS		Solid	20.009g	4.00mL	APOSEY K-BALANCE-48 11062018
7	K1810302-016	A1-0to30-102018	.02	ALS SOP/BUTYLTINS		Sediment	20.007g	4.00mL	APOSEY K-BALANCE-48 11062018 / Samples Previously
8	KQ1816241-03	LCS		ALS SOP/BUTYLTINS		Solid	20.00g	4.00mL	
9	KQ1816241-04	MB		ALS SOP/BUTYLTINS		Solid	20.3210g	4.00mL	

Spiking Solutions

Name: Butyltins Surrogate Inventory ID 192828 Logbook Ref: OT5-10M Expires On: 04/08/2019

K1810270-001	100.00µL	K1810302-016	100.00µL	K1810565-001	100.00µL	K1810946-001	100.00µL	K1810946-002	100.00µL	KQ1816241-01	100.00µL
KQ1816241-02	100.00µL	KQ1816241-03	100.00µL	KQ1816241-04	100.00µL						

Name: Butyltins Spike 5ppm Inventory ID 194362 Logbook Ref: OT5-010L Expires On: 04/08/2019

KQ1816241-01	100.00µL	KQ1816241-02	100.00µL	KQ1816241-03	100.00µL	KQ1816241-04	100.00µL

Preparation Steps

Step:	Weigh	Step:	Extraction	Step:	Final Volume
Started:	11/19/18 18:38	Started:	11/19/18 18:38	Started:	11/29/18 13:35
Finished:	11/19/18 18:50	Finished:	11/20/18 11:32	Finished:	11/29/18 13:35
By:	~~TPOTTSCHM~~DT	By:	TANDREWS	By:	CWILLIAMS
Comments:	APOSEY JW 11/30/18	Comments:		Comments:	

Comments: 11/14

Reviewed By: [signature] Date: 11/30/18

Chain of Custody

Relinquished By: [signature] Date: 11/29/18

Received By: [signature] Date: 12/1/18

Extracts Examined
Yes No

Preparation Information Benchsheet

Due 11/14

Prep Run#: 325830
Team: Semivoa GC/TANDREWS
Number of Copies to make: 4

Prep WorkFlow: OrgExtTINS14
Prep Method: Method

Status: Draft
Prep Date/Time: 11/6/18 16:14 PM

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. g	pH	Int. Vol	Final Vol mL	Surr Amt µL	Spike Amt µL
1	**K1810270-001**	N3-0to26-101518	.02	✓	ALS SOP / BUTYLTINS	Sediment	20.148	NA	NA	4	100	—
2	**K1810946-001**	FMA-NORTH-110518	.02	✓	ALS SOP / BUTYLTINS	Soil	20.020			4		—
3	**K1810946-002**	FMA-SOUTH-110518	.02	✓	ALS SOP / BUTYLTINS	Soil	20.154			4		—
4	**K1810565-001RE**	102618-POS-PDS	.05	✓	ALS SOP / BUTYLTINS	Sediment	20.321			4		—
5	**KQ1816241-01**	K1810270-001 MS	.02	✓	ALS SOP / BUTYLTINS	Solid	20.096			4		100
6	**KQ1816241-02**	K1810270-001 DMS	.02	✓	ALS SOP / BUTYLTINS	Solid	20.009			4		100
7	**K1810302-016**	A1-0to30-102018	.02	✓	ALS SOP / BUTYLTINS	Sediment	20.007			4		—
8	**KQ1816241-03**	LCS		—	ALS SOP / BUTYLTINS	Solid	20.000			4		100
9	**KQ1816241-04**	MB		—	ALS SOP / BUTYLTINS	Solid	20.321	—	—	4	—	—

Comments:

Surrogate ID: 192,828-OT5-10M 192,828-OT5-10M 192,828-OT5-10M 192,828-OT5-10M 192,828-OT5-1

Spike ID: 192,828-OT5-10M 194,362-OT5-010L 192,828-OT5-10M 194,362-OT5-010L 192,828-OT5-10

Witnessed By: DMadden

Analyst: TAndrews

Assisted By: DMadden

Additional Prep Information for Method
Organotins in Soil

Service Request # K1810270/0946/0565/0302 **Work Group #** KQ18/6241

Weighed (time/date/initial): 16:26 / 11.6.18 Balance ID: K-Bal-48 Calibration Verified ☐

Storage Location (if not extracted same day): Hood

DCM Lot # D4514 Sulfate Lot # 178434 Glass Wool Lot # 21317999

0.1% Tropolone in DCM # Ext 002 13G Hydrochloric Acid Lot # 55315

Tumbler Start (time/date/initial): 1835 - 11.19.18 TJ

Tumbler Stop (time/date/initial): 11:32 11.20.18 TJ

Solvent Exchange to Hexane (time/date/initial): 14:55 11/26/18 CW Hexane Lot# 195734

S-Evap (time/date/initial): 1431 11/26/18 KRP S-Evap Thermometer ID: X-SVM-06

Temp as measured: 72 °C Correction factor: 0.0 °C Adjusted temp: 72 °C

N-Evap (time/date/initial): 15:30 11/26/18 CW N-Evap Thermometer ID: X-SVM-004

Water Wash (time/date/initial): 13:30 11/27/18 CW

N-Evap (time/date/initial): 13:42 11/27/18 CW N-Evap Thermometer ID: X-SVM-004

Derivatization Start (time/date/initial): 15:55 11/27/18 CW Grignard Lot # Suotin01 74K

Derivatization Stop (time/date/initial): 12:10 11/28/18 CW

N-Evap (time/date/initial): 12:20 11/28/18 CW N-Evap Thermometer ID: X-SVM-004

Pipette (2 mL) Lot # 16418646

DMD Clean-up (time/date/initial): 15:42 11/28/18 CW DMD Lot # DMD-28AA

N-Evap (time/date/initial): 09:25 11/29/18 CW N-Evap Thermometer ID: X-SVM-004

Alumina/Silica Gel Clean-up (3610/3630)(time/date/initial): 10:00 11/29/18 CW

Alumina Lot # 5313-0034 Silica Gel Lot # Suotin01 94E Pentane Lot # 58087

N-Evap (time/date/initial): 10:25 11/29/18 CW N-Evap Thermometer ID: X-SVM-004

Pipette (1 mL) Lot # 20717645

Vial: Blue Vial Storage: TMS A1-A9

Archive Storage: Soil

Bench Sheet Review Check List	
☐	Hold times met (if no, reason: 10270 ~~rec past hold~~ frozen 10565 RE past hold 10302 frozen
☐	Prep date, time, method, department, product code correct in stealth
☐	Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
☐	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 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

325830

Pre-Prep Information Benchsheet

Prep Run #: ~~326545~~ **Prep Method:** **Team:** **Container Lot No:** 100118-1TW **Prep Due Date:** Nov-13-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810565-001	.05	BUTYLTINS	20.321g	Frozen pulled on 11/12/2018	PrepComments:AJEFFRIES k-balance-47APOSEY K-Balance-48 11132018
~~2~~	~~K1810565-001 MS~~ KQ1816799-01	~~.05~~	~~BUTYLTINS~~	~~20.268g~~		~~PrepComments:AJEFFRIES k-balance-47APOSEY K-Balance-48 11132018~~
~~3~~	~~K1810565-001 DMS~~ KQ1816799-02	~~.05~~	~~BUTYLTINS~~	~~20.376g~~		~~PrepComments:AJEFFRIES k-balance-47APOSEY K-Balance-48 11132018~~

QC not need, sample moved to another batch 11-20-18 TF

Relinquished By:	Date/Time: 11-15-18 9:43	Received By:	Date/Time:

325830

Pre-Prep Information Benchsheet

Prep Run #: ~~326109~~ **Prep Method:** **Team:** **Container Lot No:** 100118-1TW **Prep Due Date:** Nov-19-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810946-001	.02	BUTYLTINS	20.020g	Limited sample. No QC	PrepComments:APOSEY K-BALANCE-48 11092018
2	K1810946-002	.02	BUTYLTINS	20.154g	Limited sample, lots of rocks	PrepComments:APOSEY K-BALANCE-48 11092018

Relinquished By:	Date/Time: 11-9-2018 12:06	Received By:	Date/Time:

Pre-Prep Information Benchsheet

Prep Run #: 325830 **Prep Method:** **Team:** **Container Lot No:** 100118-1tw **Prep Due Date:**

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810270-001	.02	BUTYLTINS	20.148g	Samples Previously Frozen . Pulled 11/05/2018. Jar cracked/broken loss of water. Limited sample v	PrepComments:APOSEY K-BALANCE-48 11062018
2	K1810270-001 MS KQ1816241-01	.02	BUTYLTINS	20.096g		PrepComments:APOSEY K-BALANCE-48 11062018
3	K1810270-001 DMS KQ1816241-02	.02	BUTYLTINS	20.009g		PrepComments:APOSEY K-BALANCE-48 11062018
4	K1810302-016	.02	BUTYLTINS	20.007g	Samples Previously Frozen . Pulled 11/05/2018. Jar cracked/broken. Limited sample volume	PrepComments:APOSEY K-BALANCE-48 11062018

Relinquished By: APy	Date/Time: 11.6.18 16:26	Received By:	Date/Time:

Preparation Information Benchsheet

Prep Run#: 324893 **Prep WorkFlow:** OrgExtTINS14 **Status:** Prepped
Team: Semivoa GC/TANDREWS **Prep Method:** Method **Prep Date/Time:** 10/30/18 05:05 PM
Number of Copies to make: 1

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1810302-022	D6-SC-64to88-102118	.01	ALS SOP/BUTYLTINS		Sediment	20.238g	4.00mL	GBEATLEY k-balance-49
2	KQ1815421-01	K1810302-022 MS	.01	ALS SOP/BUTYLTINS		Solid	20.054g	4.00mL	GBEATLEY k-balance-49
3	KQ1815421-02	K1810302-022 DMS	.01	ALS SOP/BUTYLTINS		Solid	20.231g	4.00mL	GBEATLEY k-balance-49
4	KQ1815421-03	LCS		ALS SOP/BUTYLTINS		Solid	20.00g	4.00mL	
5	KQ1815421-04	MB		ALS SOP/BUTYLTINS		Solid	20.2380g	4.00mL	

Spiking Solutions

Name: Butyltins Surrogate Inventory ID 192828 Logbook Ref: OT5-10M Expires On: 04/08/2019

K1810302-022 100.00µL KQ1815421-01 100.00µL KQ1815421-02 100.00µL KQ1815421-03 100.00µL KQ1815421-04 100.00µL

Name: Butyltins Spike 5ppm Inventory ID 194362 Logbook Ref: OT5-010L Expires On: 04/08/2019

KQ1815421-01 100.00µL KQ1815421-02 100.00µL KQ1815421-03 100.00µL

Preparation Steps

Step:	Weigh	Step:	Extraction	Step:	Final Volume
Started:	10/30/18 17:05	Started:	10/30/18 17:05	Started:	11/20/18 15:59
Finished:	10/30/18 17:15	Finished:	10/31/18 09:35	Finished:	11/20/18 15:59
By:	~~TJONES~~	By:	TANDREWS	By:	CWILLIAMS
Comments:	GBEATLEY JW 11/21/18	Comments:		Comments:	

Comments:

Reviewed By: Date: 11/21/18

Chain of Custody

Relinquished By: Date: 11/20/18

Received By: Date: 11/20/18

Extracts Examined (Yes) No

Preparation Information Benchsheet

Due 11/19

Prep Run#: 324893
Team: Semivoa GC/TANDREWS
Number of Copies to make: 1

Prep WorkFlow: OrgExtTINS14
Prep Method: Method

[redacted]

Status: Draft
Prep Date/Time: 10/24/18 14:18 PM

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext.	pH	Int. Vol	Final Vol (mL)	Surr Amt (µL)	Spike Amt (µL)
1	**K1810302-022**	D6-SC-64to88-102118	.01	✓	ALS SOP / BUTYLTINS	Sediment	20.238	NA	NA	4	100	—
2	**KQ1815421-01**	K1810302-022 MS	.01	✓	ALS SOP / BUTYLTINS	Solid	20.054			4		100
3	**KQ1815421-02**	K1810302-022 DMS	.01	✓	ALS SOP / BUTYLTINS	Solid	20.231			4		
4	**KQ1815421-03**	LCS			ALS SOP / BUTYLTINS	Solid	20.000			4		—
5	**KQ1815421-04**	MB			ALS SOP / BUTYLTINS	Solid	20.238	—		4	—	—

Comments:

Surrogate ID: OTS-10M 5ppm xp 4.8-19 100µL 2B

Spike ID: OTS-10L 5ppm xp 4.8-19 100µL 2B

Witnessed By:

Analyst:

Assisted By:

Additional Prep Information for Method
Organotins in Soil

Service Request # K1810302 **Work Group #** KQ1815421

Weighed (time/date/initial): 1445/10.24.18 Balance ID: K-Bal- 49 Calibration Verified ☐

Storage Location (if not extracted same day): Hood

DCM Lot # DU 301 Sulfate Lot # 178434 Glass Wool Lot # 21317999

0.1% Tropolone in DCM # Ext 00213F Hydrochloric Acid Lot # 55315

Tumbler Start (time/date/initial): 1705 10.30.18 TF

Tumbler Stop (time/date/initial): 0935 10.31.18 TF

Solvent Exchange to Hexane (time/date/initial): 15:45 11/8/18 CW Hexane Lot# 195734

S-Evap (time/date/initial): 15:30 11/8/18 CW S-Evap Thermometer ID: X-SUM-011

Temp as measured: 72 °C Correction factor: 0.0 °C Adjusted temp: 72 °C

N-Evap (time/date/initial): 16:43 11/8/18 CW N-Evap Thermometer ID: X-SUM-004

Water Wash (time/date/initial): ~~09:40~~ 09:10 11/9/18 CW

N-Evap (time/date/initial): 09:35 EECW 11/9/18 CW N-Evap Thermometer ID: X-SUM-004

Derivatization Start (time/date/initial): 10:37 11/9/18 CW Grignard Lot # SUOTIN0174K

Derivatization Stop (time/date/initial): 14:05 11/9/18 CW

N-Evap (time/date/initial): 14:30 11/9/18 CW N-Evap Thermometer ID: SUM-001

Pipette (2 mL) Lot # 164 18646

DMD Clean-up (time/date/initial): 07:50 11/14/18 CW DMD Lot # DMD28Z

N-Evap (time/date/initial): 13:33 11/19/18 CW N-Evap Thermometer ID: X-SUM-004

Alumina/Silica Gel Clean-up (3610/3630)(time/date/initial): 14:50 11/19/18 CW

Alumina Lot #S313-0034 Silica Gel Lot # SUOTIN0194E Pentane Lot # 58087

N-Evap (time/date/initial): 08:27 11/20/18 CW N-Evap Thermometer ID: X-SUM-004

Pipette (1 mL) Lot # 20717645

Vial: Blue Vial Storage: TINS C1-C5

Archive Storage: Mahjong

Bench Sheet Review Check List	
☑	Hold times met (if no, reason:)
☑	Prep date, time, method, department, product code correct in stealth
☑	Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
☑	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 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

Pre-Prep Information Benchsheet

Prep Run #: 324893 **Prep Method:** **Team:** **Container Lot No:** 081318-1TW **Prep Due Date:** Nov-09-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810302-022	.01	BUTYLTINS	20.238g		PrepComments:GBEATLEY k-balancc-49
2	K1810302-022 MS KQ1815421-01	.01	BUTYLTINS	20.054g		PrepComments:GBEATLEY k-balance-49
3	K1810302-022 DMS KQ1815421-02	.01	BUTYLTINS	20.231g		PrepComments:GBEATLEY k-balance-49

Relinquished By:	Date/Time: 10/24/18 1745	Received By:	Date/Time: 10.29.18

Preparation Information Benchsheet 11/19

ep Run#: 324894
eam: Semivoa GC/TANDREWS
Number of Copies to make: 1

Prep WorkFlow: OrgExtTINS14
Prep Method: Method

Status: Prepped
Prep Date/Time: 10/30/18 05:05 PM

Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
K1810302-001	K6-0to28-101918	.01	ALS SOP/BUTYLTINS		Sediment	20.197g	4.00mL	APOSEY K-BALANCE-48 10232018
KQ1815422-01	K1810302-001 MS	.01	ALS SOP/BUTYLTINS		Solid	20.319g	4.00mL	APOSEY K-BALANCE-48 10232018
KQ1815422-02	K1810302-001 DMS	.01	ALS SOP/BUTYLTINS		Solid	20.390g	4.00mL	APOSEY K-BALANCE-48 10232018
K1810302-023	D6-SC-40to64-102118	.01	ALS SOP/BUTYLTINS		Sediment	20.111g	4.00mL	GBEATLEY k-balance-49
K1810302-024	H3-SC-99to114-102118	.01	ALS SOP/BUTYLTINS		Sediment	20.189g	4.00mL	GBEATLEY k-balance-49
K1810302-025	D6-SC-88to108-102118	.01	ALS SOP/BUTYLTINS		Sediment	20.388g	4.00mL	GBEATLEY k-balance-49
K1810302-026	H3-SC-46to63-102118	.01	ALS SOP/BUTYLTINS		Sediment	20.371g	4.00mL	GBEATLEY k-balance-49
K1810302-027	D6-SC-0to1-102118	.01	ALS SOP/BUTYLTINS		Sediment	20.235g	4.00mL	GBEATLEY k-balance-49
K1810302-028	H3-SC-1to2-102118	.01	ALS SOP/BUTYLTINS		Sediment	20.172g	4.00mL	GBEATLEY k-balance-49
K1810302-029	D6-SC-1to2-102118	.01	ALS SOP/BUTYLTINS		Sediment	20.037g	4.00mL	GBEATLEY k-balance-49DMADDEN K-Balance-50
KQ1815422-03	LCS		ALS SOP/BUTYLTINS		Solid	20.00g	4.00mL	
KQ1815422-04	MB		ALS SOP/BUTYLTINS		Solid	20.3900g	4.00mL	

piking Solutions

Name: Butyltins Surrogate Inventory ID 192828 Logbook Ref: OT5-10M Expires On: 04/08/2019

K1810302-001	100.00µL	K1810302-023	100.00µL	K1810302-024	100.00µL	K1810302-025	100.00µL	K1810302-026	100.00µL	K1810302-027	100.00µL
K1810302-028	100.00µL	K1810302-029	100.00µL	KQ1815422-01	100.00µL	KQ1815422-02	100.00µL	KQ1815422-03	100.00µL	KQ1815422-04	100.00µL

Name: Butyltins Spike 5ppm Inventory ID 194362 Logbook Ref: OT5-010L Expires On: 04/08/2019

KQ1815422-01	100.00µL	KQ1815422-02	100.00µL	KQ1815422-03	100.00µL

reparation Steps

ep:	Weigh	Step:	Extraction	Step:	Final Volume
arted:	10/30/18 17:05	Started:	10/30/18 17:05	Started:	11/20/18 16:01
nished:	10/30/18 17:15	Finished:	10/31/18 09:35	Finished:	11/20/18 16:01
y:	~~TJONES~~	By:	TANDREWS	By:	CWILLIAMS
omments:	GBEATLEY JC 11/21/18	Comments:		Comments:	

omments:

eviewed By: _____ Date: 11/21/18

Page 252 of 1561

Preparation Information Benchsheet

Prep Run#: 324894
Team: Semivoa GC/TANDREWS

Prep WorkFlow: OrgExtTINS14
Prep Method: Method

Status: Prepped
Prep Date/Time: 10/30/18 05:05 PM

Chain of Custody

Relinquished By:	CW	Date:	11/20/18	Extracts Examined
Received By:	SA	Date:	11/20/18	(Yes) No

Preparation Information Benchsheet

Due 11/19

ep Run#: 324894 **Prep WorkFlow:** OrgExtTINS14 **Status:** Draft
am: Semivoa GC/TANDREWS **Prep Method:** Method **Prep Date/Time:** 10/24/18 14:19 PM
Number of Copies to make: 1

	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext.	pH	Int. Vol	Final Vol (mL)	Surr Amt	Spike Amt
	K1810302-001	K6-0to28-101918	.01		ALS SOP / BUTYLTINS	Sediment	20.197	n/a	NA	4	100	—
	KQ1815422-01	K1810302-001 MS	.01		ALS SOP / BUTYLTINS	Solid	20.319			4		100
	KQ1815422-02	K1810302-001 DMS	.01		ALS SOP / BUTYLTINS	Solid	20.390			4		100
	K1810302-002	O4-0to28-101918	.01		ALS SOP / BUTYLTINS	Sediment	20.071			4		—
	K1810302-003	M5-0to25-101918	.01		ALS SOP / BUTYLTINS	Sediment	20.167			4		—
	K1810302-004	K4-0to28-101918	.01		ALS SOP / BUTYLTINS	Sediment	20.146			4		—
	K1810302-005	O7-0to27-101918	.01		ALS SOP / BUTYLTINS	Sediment	20.135			4		—
	K1810302-006	O5-0to27-101918	.01		ALS SOP / BUTYLTINS	Sediment	20.105			4		—
	K1810302-007	K7-0to24-101918	.01		ALS SOP / BUTYLTINS	Sediment	20.323			4		—
)	K1810302-008	M6-0to26-101918	.01		ALS SOP / BUTYLTINS	Sediment	20.391			4		—
1	K1810302-009	M7-0to29-101918	.01		ALS SOP / BUTYLTINS	Sediment	20.190			4		—
2	K1810302-010	K5-0to27-101918	.01		ALS SOP / BUTYLTINS	Sediment	20.114			4		—
3	K1810302-011	515-0to26-101918	.01		ALS SOP / BUTYLTINS	Sediment	20.046			4		—
4	K1810302-012	O6-0to27-101918	.01		ALS SOP / BUTYLTINS	Sediment	20.107			4		—
5	K1810302-013	M4-0to26-101918	.01		ALS SOP / BUTYLTINS	Sediment	20.100			4		—
6	K1810302-023	D6-SC-40to64-102118	.01		ALS SOP / BUTYLTINS	Sediment	20.111			4		—
7	K1810302-024	H3-SC-99to114-102118	.01		ALS SOP / BUTYLTINS	Sediment	20.189			4		—
8	K1810302-025	D6-SC-88to108-102118	.01		ALS SOP / BUTYLTINS	Sediment	20.388			4		—
9	K1810302-026	H3-SC-46to63-102118	.01		ALS SOP / BUTYLTINS	Sediment	20.371			4		—
0	K1810302-027	D6-SC-0to1-102118	.01		ALS SOP / BUTYLTINS	Sediment	20.235			4		—
1	K1810302-028	H3-SC-1to2-102118	.01		ALS SOP / BUTYLTINS	Sediment	20.172			4		—
2	K1810302-029	D6-SC-1to2-102118	.01		ALS SOP / BUTYLTINS	Sediment	20.037			4		—
3	KQ1815422-03	LCS			ALS SOP / BUTYLTINS	Solid	20.000			4		100
4	KQ1815422-04	MB			ALS SOP / BUTYLTINS	Solid	20.391			4		—

Samples K1810302-002 thru K1810302-13 were cancelled by the client 11/20/18 CW

Comments: ~1-2mL of extract splashed out while vortexing after grignard - SE 11-9-18

Surrogate ID: OTS-10M 5ppm xp 4.8.18/9 100µL 2B Spike ID: OTS-10L 5ppm xp 4.8.18/9 100µL 2B

Witnessed By: —

Analyst: Assisted By: —

Additional Prep Information for Method
Organotins in Soil

Service Request # 1810302 **Work Group #** KQ1815422

Weighed (time/date/initial): 1445/10.24.18 Balance ID: *K-Bal-48/49* Calibration Verified ☐

Storage Location (if not extracted same day): Hood

DCM Lot # DU 301 Sulfate Lot # 178434 Glass Wool Lot # 21317999

0.1% Tropolone in DCM # Ext 002 13F Hydrochloric Acid Lot # SS315

Tumbler Start (time/date/initial): 1705 10.30.18 TT

Tumbler Stop (time/date/initial): 0935 - 103118 TT

Solvent Exchange to Hexane (time/date/initial): 16:10 11/8/18 CW Hexane Lot# 195734

S-Evap (time/date/initial): 15:45 11/8/18 CW S-Evap Thermometer ID: X-SUM-011

Temp as measured: 72 °C Correction factor: 0.0 °C Adjusted temp: 72 °C

N-Evap (time/date/initial): 16:43 11/8/18 CW N-Evap Thermometer ID: ~~X-SUM-004~~

Water Wash (time/date/initial): 09:10 11/9/18 CW

N-Evap (time/date/initial): 09:35 11/9/18 CW N-Evap Thermometer ID: X-SUM-004

Derivatization Start (time/date/initial): 10:37 11/9/18 CW Grignard Lot # SUOTINO174K

Derivatization Stop (time/date/initial): 14:05 11/9/18 CW

N-Evap (time/date/initial): 14:30 11/9/18 CW N-Evap Thermometer ID: SUM-001

Pipette (2 mL) Lot # 16418646

DMD Clean-up (time/date/initial): 07:50 11/14/18 CW DMD Lot # DMD 287

N-Evap (time/date/initial): 13:33 11/19/18 CW N-Evap Thermometer ID: X-SUM-004

Alumina/Silica Gel Clean-up (3610/3630)(time/date/initial): 16:40 11/19/18 CW

Alumina Lot # 5313-0034 Silica Gel Lot # SUOTINO194F Pentane Lot # 58087

N-Evap (time/date/initial): 08:27 11/20/18 CW N-Evap Thermometer ID: X-SUM-004

Pipette (1 mL) Lot # 20717645

Vial: Blue Vial Storage: Tins A1-B2

Archive Storage: Mahjong

Bench Sheet Review Check List

- ☑ Hold times met (if no, reason: _____)
- ☑ Prep date, time, method, department, product code correct in stealth
- ☑ Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
- ☑ 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 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

Pre-Prep Information Benchsheet

Prep Run #: 324894 **Prep Method:** **Team:** **Container Lot No:** 081318-1TW **Prep Due Date:** Nov-09-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810302-001	.01	BUTYLTINS	20.197g		PrepComments:APOSEY K-BALANCE-48 10232018
2	K1810302-001 MS KQ1815422-01	.01	BUTYLTINS	20.319g		PrepComments:APOSEY K-BALANCE-48 10232018
3	K1810302-001 DMS KQ1815422-02	.01	BUTYLTINS	20.390g		PrepComments:APOSEY K-BALANCE-48 10232018
4	K1810302-002	.01	BUTYLTINS	20.071g		PrepComments:APOSEY K-BALANCE-48 10242018
5	K1810302-003	.01	BUTYLTINS	20.167g		PrepComments:APOSEY K-BALANCE-48 10242018
6	K1810302-004	.01	BUTYLTINS	20.146g		PrepComments:APOSEY K-BALANCE-48 10242018
7	K1810302-005		BUTYLTINS	20.135g		PrepComments:GBEATLEY k-balance-49
8	K1810302-006		BUTYLTINS	20.105g		PrepComments:GBEATLEY k-balance-49
9	K1810302-007		BUTYLTINS	20.323g		PrepComments:GBEATLEY k-balance-49
10	K1810302-008		BUTYLTINS	20.391g		PrepComments:GBEATLEY k-balance-49
11	K1810302-009		BUTYLTINS	20.190g		PrepComments:GBEATLEY k-balance-49
12	K1810302-010		BUTYLTINS	20.114g		PrepComments:GBEATLEY k-balance-49
13	K1810302-011		BUTYLTINS	20.046g		PrepComments:GBEATLEY k-balance-49
14	K1810302-012		BUTYLTINS	20.107g		PrepComments:GBEATLEY k-balance-49
15	K1810302-013		BUTYLTINS	20.100g		PrepComments:GBEATLEY k-balance-49
16	K1810302-023		BUTYLTINS	20.111g		PrepComments:GBEATLEY k-balance-49
17	K1810302-024		BUTYLTINS	20.189g		PrepComments:GBEATLEY k-balance-49
18	K1810302-025		BUTYLTINS	20.388g		PrepComments:GBEATLEY k-balance-49
19	K1810302-026	.01	BUTYLTINS	20.371g		PrepComments:GBEATLEY k-balance-49
20	K1810302-027		BUTYLTINS	20.235g		PrepComments:GBEATLEY k-balance-49
21	K1810302-028		BUTYLTINS	20.172g		PrepComments:GBEATLEY k-balance-49
22	K1810302-029	.01	BUTYLTINS	20.037g		PrepComments:GBEATLEY k-balance-49

Relinquished By:	Date/Time:	Received By:	Date/Time:
	10/24/18 1445		10.29.18

1st 11/27/18
2nd 11/29/18

Validation Report

Data File: J:\GC26\DATA\112018\1120F039.D\
Lab ID: K1810302-001
RunType: N/A
Matrix: Sediment

Date Acquired: 11/21/18 05:43:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery - RTX-35	Tri-n-propyltin	-26		25	RO

Primary Review: _____

Printed: 11/27/18 14:37
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F039.D\	**Instrument:**	K-GC-26
Acqu Date:	11/21/18 05:43:00	**Vial:**	37
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-001	**Raw Units:**	ng/mL

Bottle ID:	K1810302-001.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/19/18	**Receive Date:**	10/22/18

Analysis Lot:	615992	**Prep Lot:**	324894	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	10/30/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.04	7.65	4733835	7397754	86.557	94.555^{CCV}	69	76	69	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Tri-n-butyltin Cation	9.63 $^{+0.01}$	9.12 $^{-0.01}$	25163719	36362313	362.020	349.011	220	220	**220**	Y

Prep Amount:	20.197 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	32.10

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

Printed: 11/27/18 14:37
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F039.D Vial: 34
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 5:43 am Operator: SAA
Sample : K1810302-001 Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:30 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.036	7.651	4733835	7397754	86.557	94.555
	Target Compounds						
3)	Tri-n-but...	9.626	9.121	25163719	36362313	362.020	349.011
4)	Di-n-buty...	10.693	10.364	18444943	28267698	160.456	162.314
5)	n-Butyltin	11.550	11.121	6284966	10027232	60.803	62.684

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

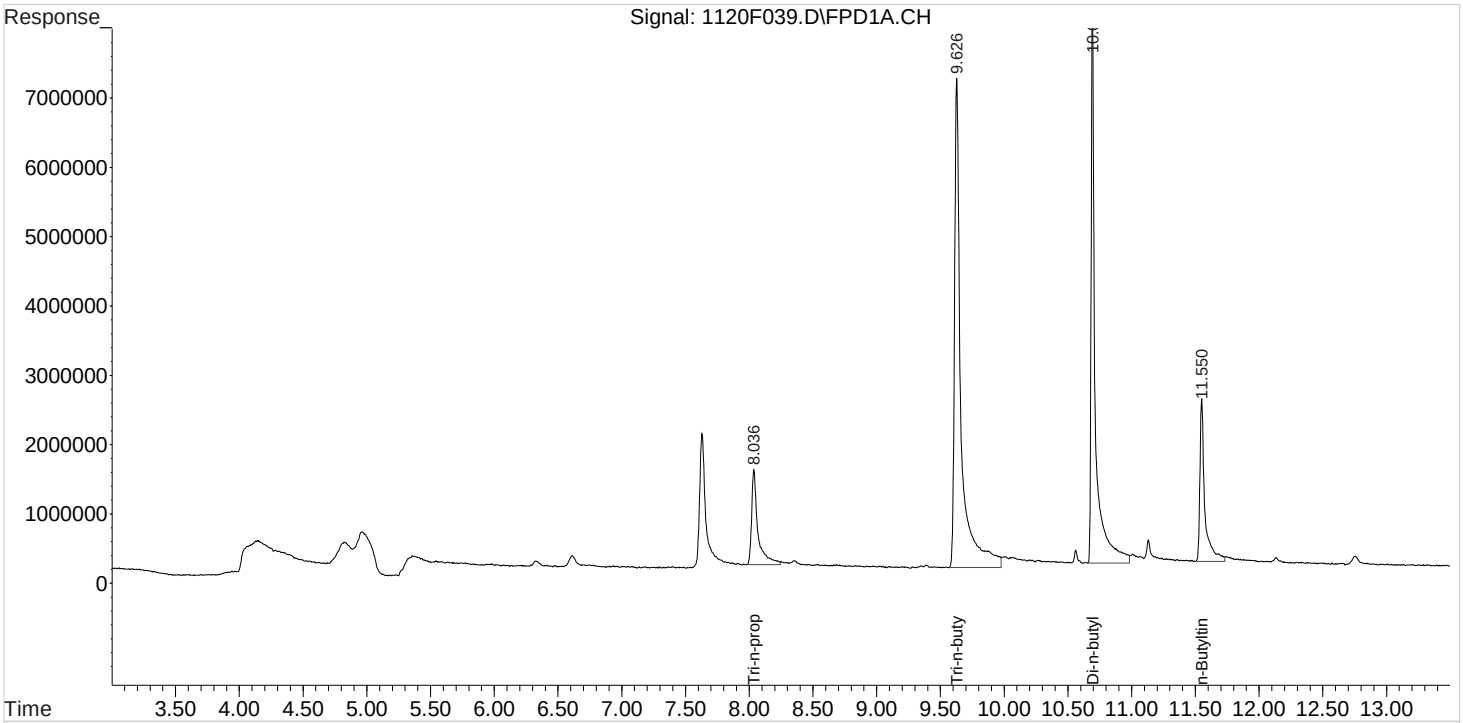
Quantitation Report (QT Reviewed)

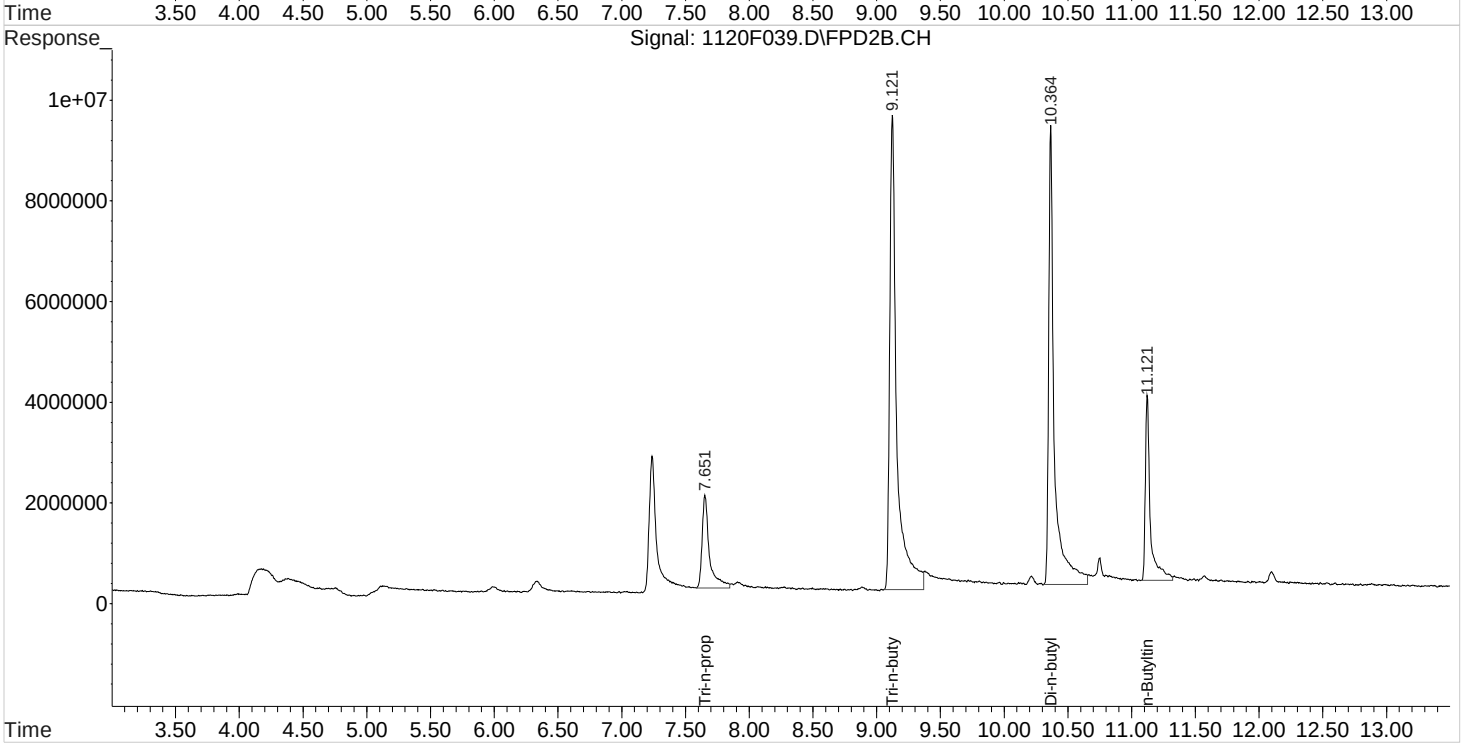
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F039.D Vial: 34
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 5:43 am Operator: SAA
Sample : K1810302-001 Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:30 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





Quantitation Report (Not Reviewed)

1st 12/02/18
2nd 12/06/18

Data File : J:\GC26\DATA\120118\1201F019.D Vial: 15
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 01 Dec 2018 4:20 pm Operator: SMURRAY
Sample : K1810302-016 Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 02 09:56:57 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Sat Dec 01 10:21:19 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.059	7.663	3794609	5050748	69.384	64.557
	Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

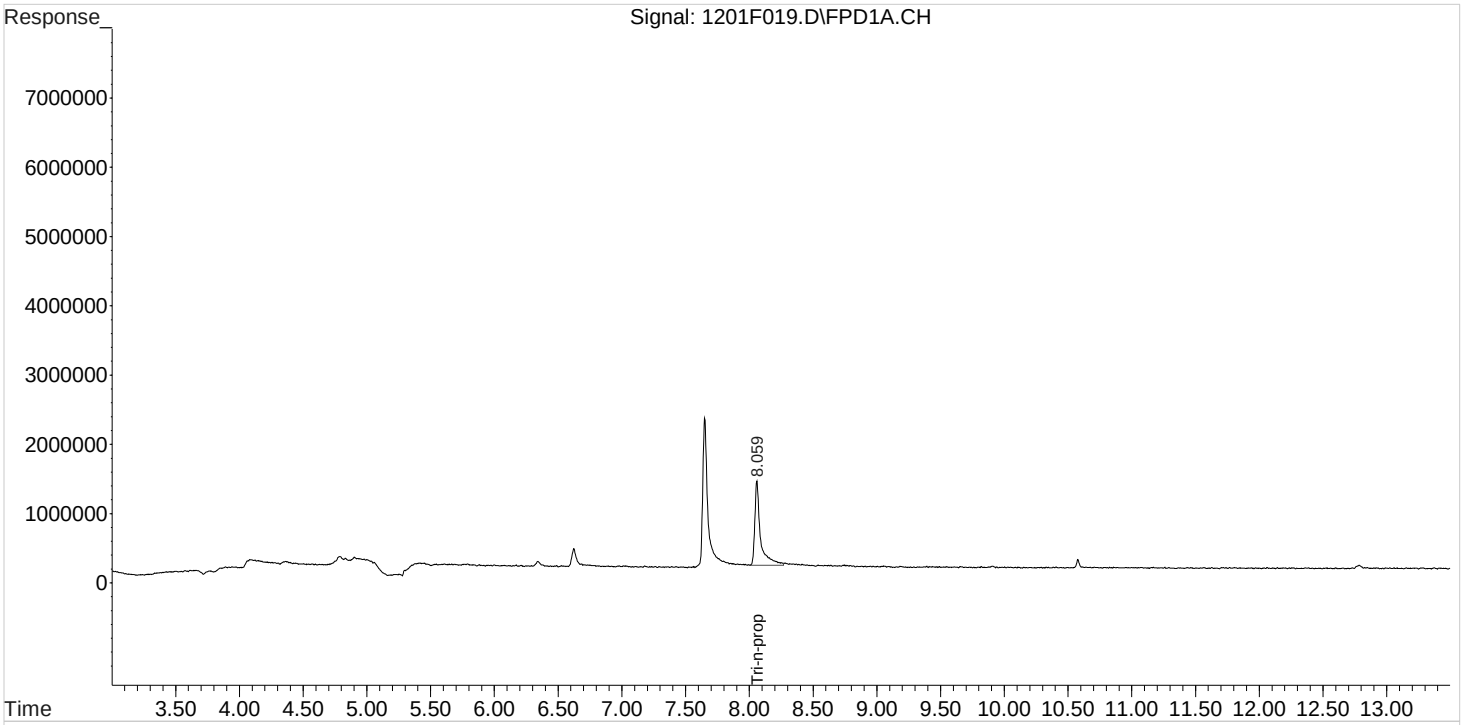
Quantitation Report (Not Reviewed)

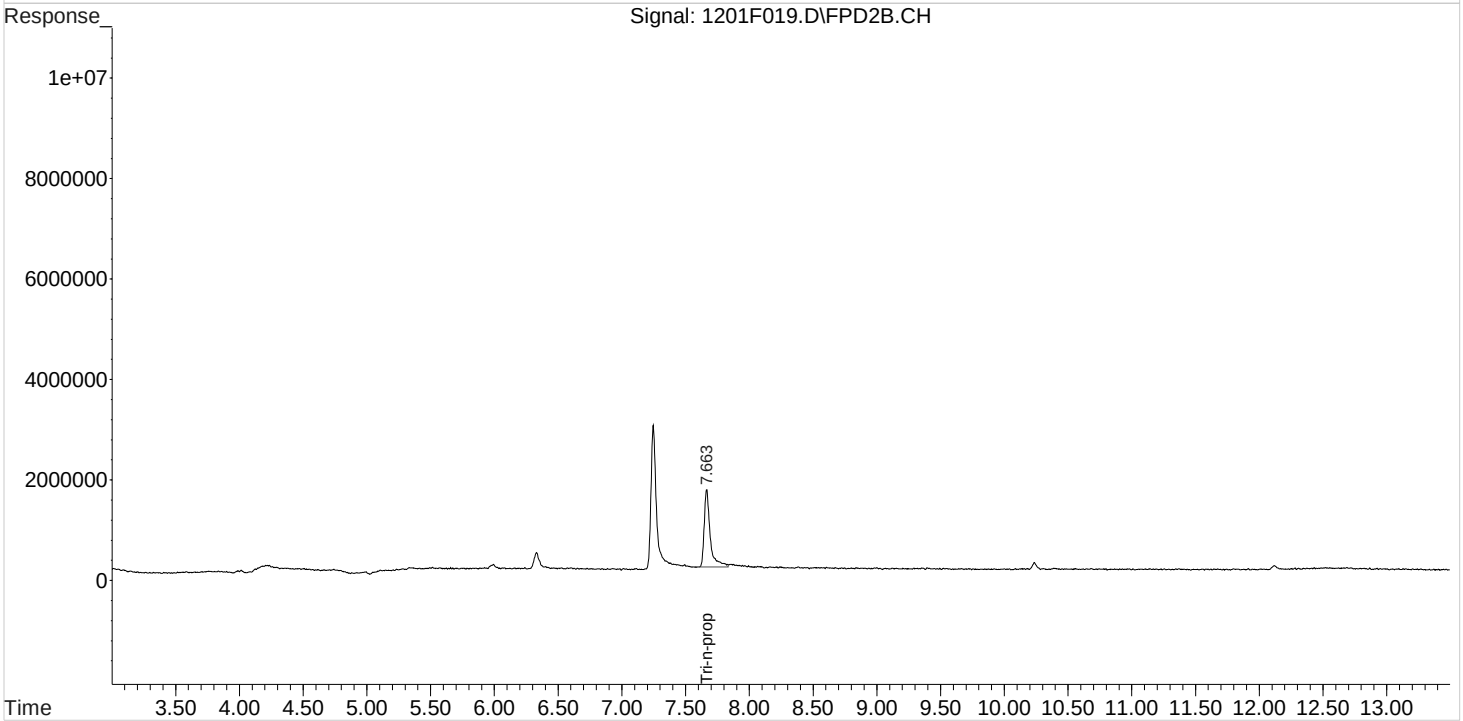
1st 12/02/18
2nd 12/06/18

Data File : J:\GC26\DATA\120118\1201F019.D Vial: 15
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 01 Dec 2018 4:20 pm Operator: SMURRAY
Sample : K1810302-016 Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 02 09:56:57 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Sat Dec 01 10:21:19 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





1st 12/02/18
2nd 12/06/18

Validation Report

Data File: J:\GC26\DATA\120118\1201F019.D\
Lab ID: K1810302-016
RunType: N/A
Matrix: Sediment

Date Acquired: 12/1/18 16:20:00
Batch ID: 617147
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time		X
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Sample Exceptions

Exception Categories	Result	Corrective Action
Preparation Hold Time	Prep Date/Time: 11/19/2018 1838 Hold Date/Time: 11/03/2018 2359	Sample was frozen, hold time NA

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery - RTX-35	Tri-n-butyltin Cation	-26		25	RO

Primary Review: _____

Secondary Review: _____

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1st 12/02/18
2nd 12/06/18

Quantitation Report

Data File:	J:\GC26\DATA\120118\1201F019.D\	**Instrument:**	K-GC-26
Acqu Date:	12/1/18 16:20:00	**Vial:**	20
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-016	**Raw Units:**	ng/mL

Bottle ID:	K1810302-016.02	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/20/18	**Receive Date:**	10/22/18

Analysis Lot:	617147	**Prep Lot:**	325830	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	11/19/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.06 +0.01	7.66	3794609	5050748	69.384	64.557	56	52	52	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Tri-n-butyltin Cation	0.00	0.00	0	0	0.000	0.000 CCV RO	0U	0U	0.79 U	Y

Prep Amount:	20.007 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	54.70

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

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1st 11/27/18
2nd 11/29/18

Validation Report

Data File: J:\GC26\DATA\112018\1120F032.D\
Lab ID: K1810302-022
RunType: N/A
Matrix: Sediment

Date Acquired: 11/21/18 03:30:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - RTX-35	Tri-n-propyltin	-26		25	RO

Primary Review: _____

Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F032.D\	**Instrument:**	K-GC-26
Acqu Date:	11/21/18 03:30:00	**Vial:**	25
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-022	**Raw Units:**	ng/mL

Bottle ID:	K1810302-022.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615992	**Prep Lot:**	324893	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	10/30/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.04	7.65 -0.01	3335343	5486579	60.986	70.127 CCV	49	56	49	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Tri-n-butyltin Cation	9.63	9.12	276632	536457	3.980	5.149	1.2J	1.5	**1.2** J	Y

Prep Amount:	20.238 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	66.00

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

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Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F032.D Vial: 29
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 3:30 am Operator: SAA
Sample : K1810302-022 Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:09 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	Tri-n-pro...	8.036	7.650	3335343	5486579	60.986	70.127	
	Target Compounds							
3)	Tri-n-but...	9.626	9.120	276632	536457	3.980	5.149	#
4)	Di-n-buty...	10.693	10.364	250184	507673	2.176	2.915	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

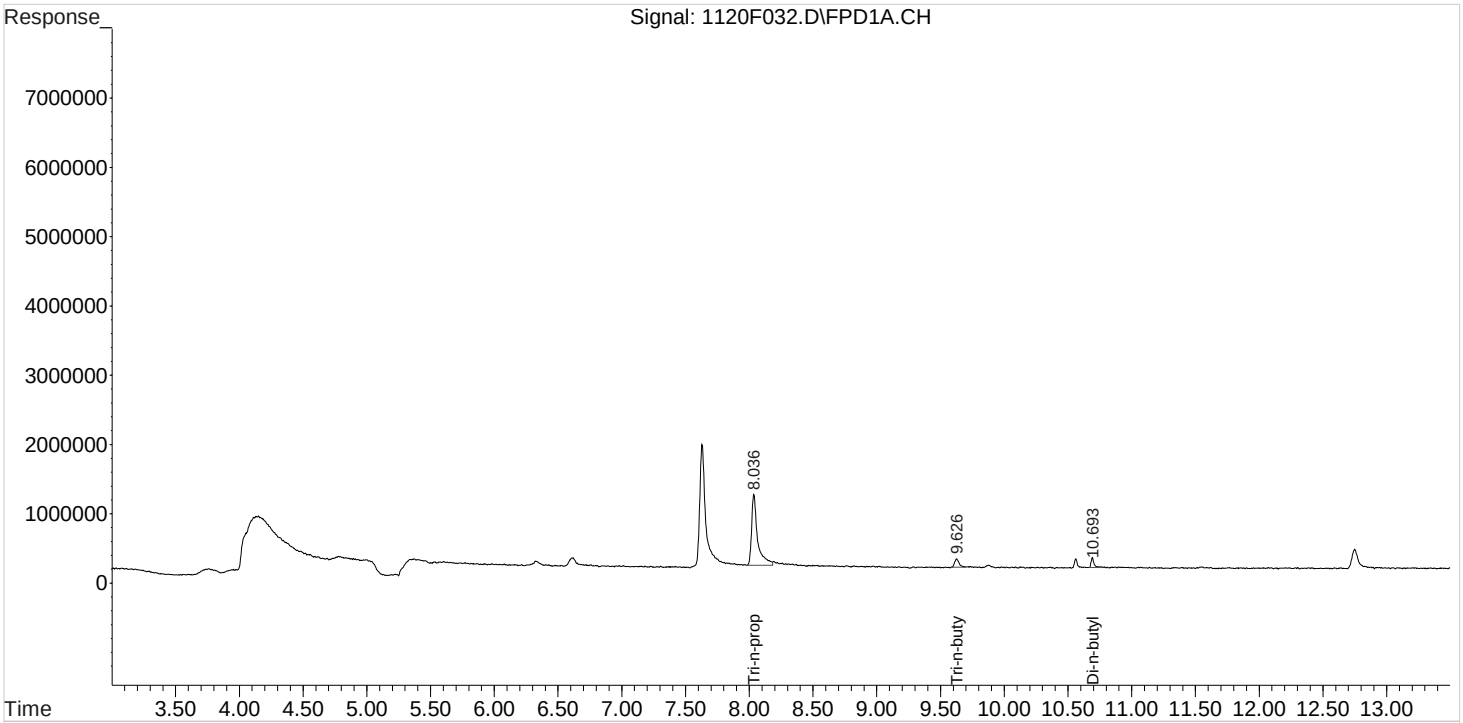
Quantitation Report (QT Reviewed)

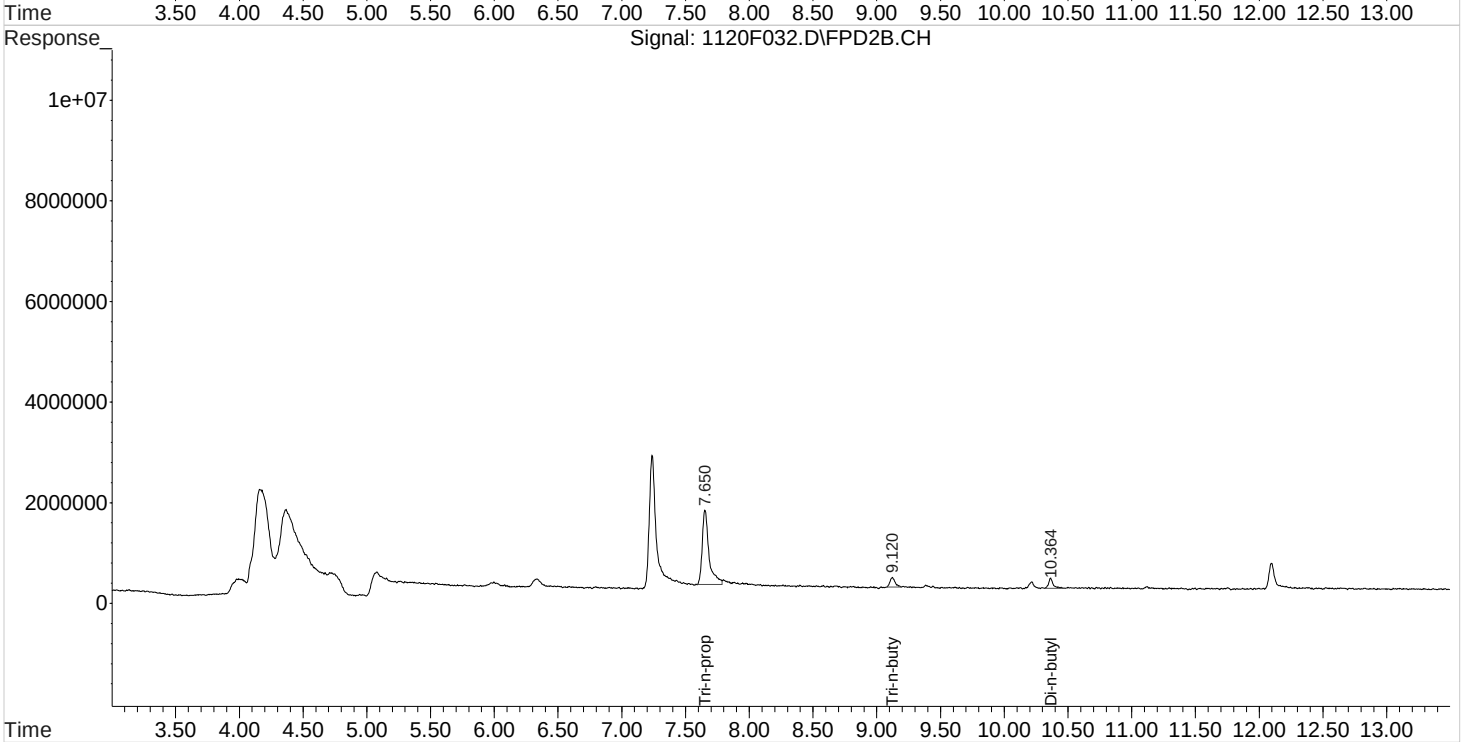
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F032.D Vial: 29
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 3:30 am Operator: SAA
Sample : K1810302-022 Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:09 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





1st 11/27/18
2nd 11/29/18

Validation Report

Data File: J:\GC26\DATA\112018\1120F042.D\
Lab ID: K1810302-023
RunType: N/A
Matrix: Sediment

Date Acquired: 11/21/18 06:40:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery - RTX-35	Tri-n-propyltin	-26		25	RO

Primary Review: _____

Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F042.D\	**Instrument:**	K-GC-26
Acqu Date:	11/21/18 06:40:00	**Vial:**	38
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-023	**Raw Units:**	ng/mL

Bottle ID:	K1810302-023.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615992	**Prep Lot:**	324894	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	10/30/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.04	7.66 +0.01	4328888	6914443	79.153	88.378CCV	63	71	63	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Tri-n-butyltin Cation	9.63 +0.01	9.13	5566342	8487582	80.081	81.465	29	30	**29**	Y

Prep Amount:	20.111 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	54.70

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

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Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F042.D Vial: 37
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 6:40 am Operator: SAA
Sample : K1810302-023 Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:39 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	Tri-n-pro...	8.040	7.658	4328888	6914443	79.153	88.378	
	Target Compounds							
3)	Tri-n-but...	9.634	9.128	5566342	8487582	80.081	81.465	
4)	Di-n-buty...	10.697	10.368	1448634	2428783	12.602	13.946	
5)	n-Butyltin	11.554	11.125	302733	588244	2.929	3.677	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

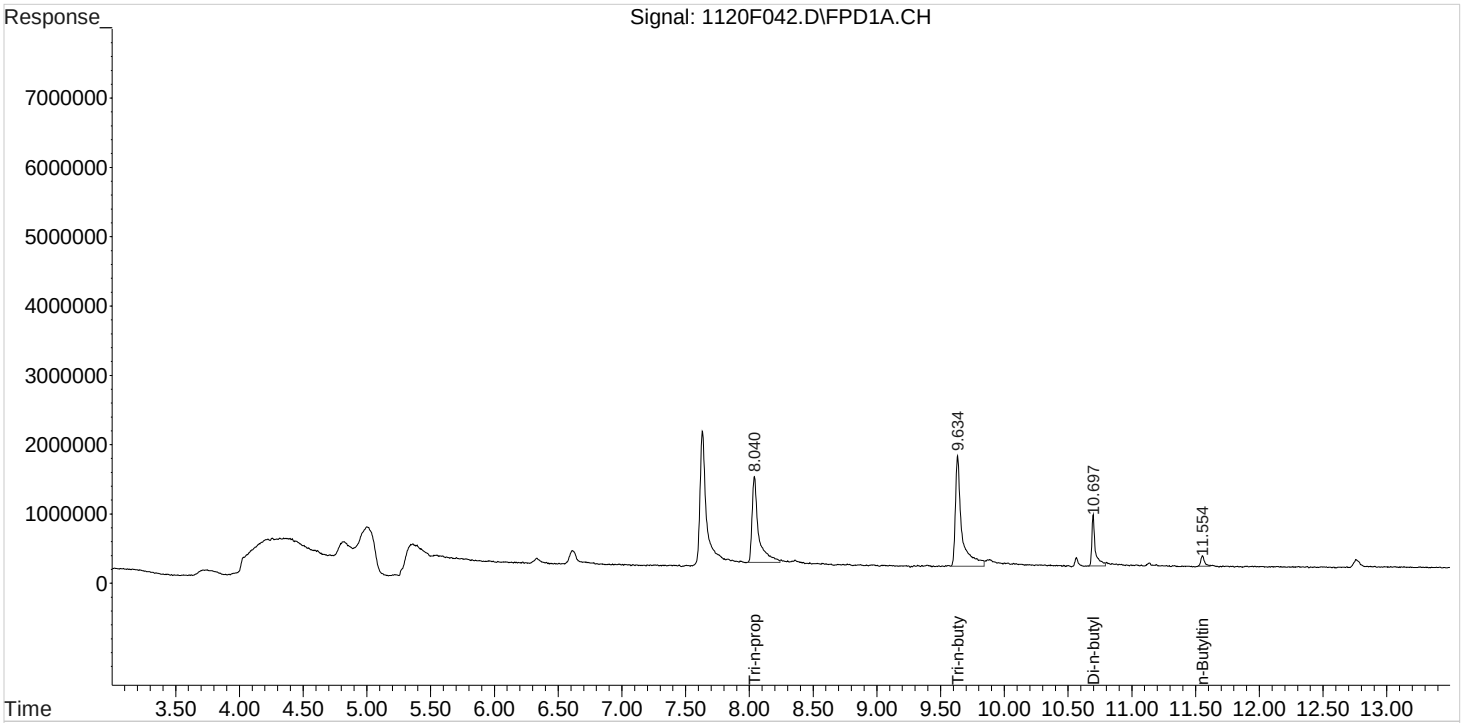
Quantitation Report (QT Reviewed)

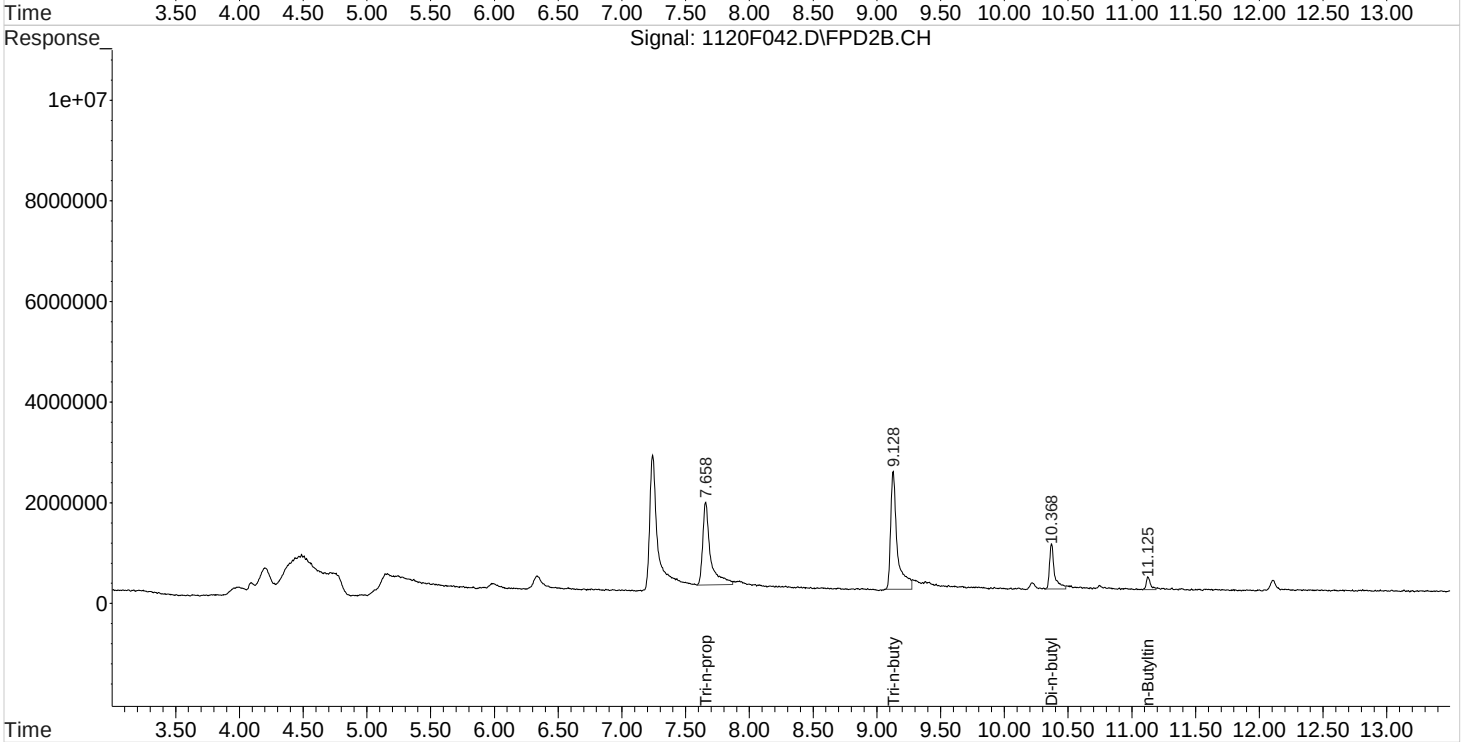
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F042.D Vial: 37
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 6:40 am Operator: SAA
Sample : K1810302-023 Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:39 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





1st 11/27/18
2nd 11/29/18

Validation Report

Data File: J:\GC26\DATA\112018\1120F043.D\
Lab ID: K1810302-024
RunType: N/A
Matrix: Sediment

Date Acquired: 11/21/18 07:00:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery - RTX-35	Tri-n-propyltin	-26		25	RO

Primary Review: _____

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Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F043.D\	**Instrument:**	K-GC-26
Acqu Date:	11/21/18 07:00:00	**Vial:**	39
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-024	**Raw Units:**	ng/mL

Bottle ID:	K1810302-024.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615992	**Prep Lot:**	324894	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	10/30/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.04	7.65	3470404	5468742	63.456	69.899[CCV]	51	56	51	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Tri-n-butyltin Cation	0.00	0.00	0	0	0.000	0.000	0U	0U	0.61 U	Y

Prep Amount:	20.189 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	69.90

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

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Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F043.D Vial: 38
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 7:00 am Operator: SAA
Sample : K1810302-024 Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 27 12:34:06 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Tue Sep 18 10:07:12 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.038	7.653	3470404	5468742	63.456	69.899
	Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

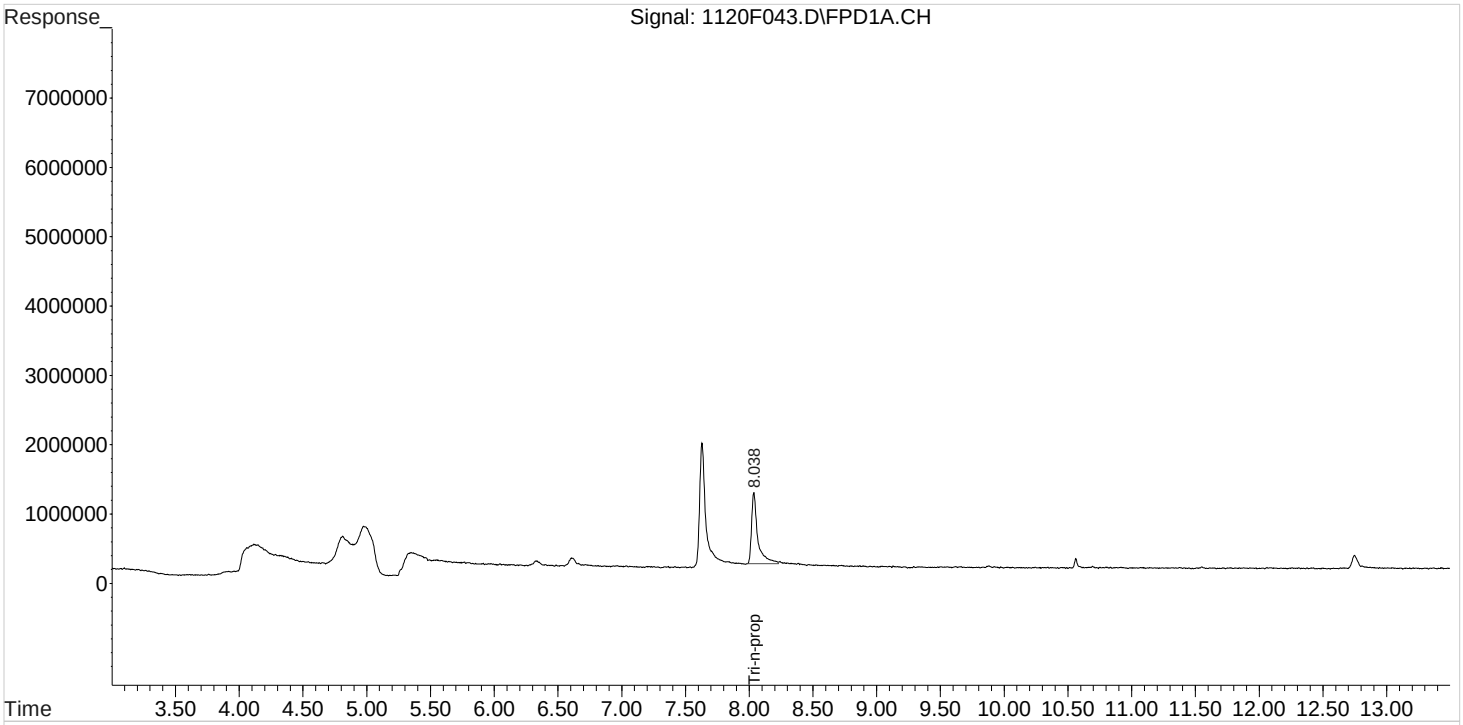
Quantitation Report (QT Reviewed)

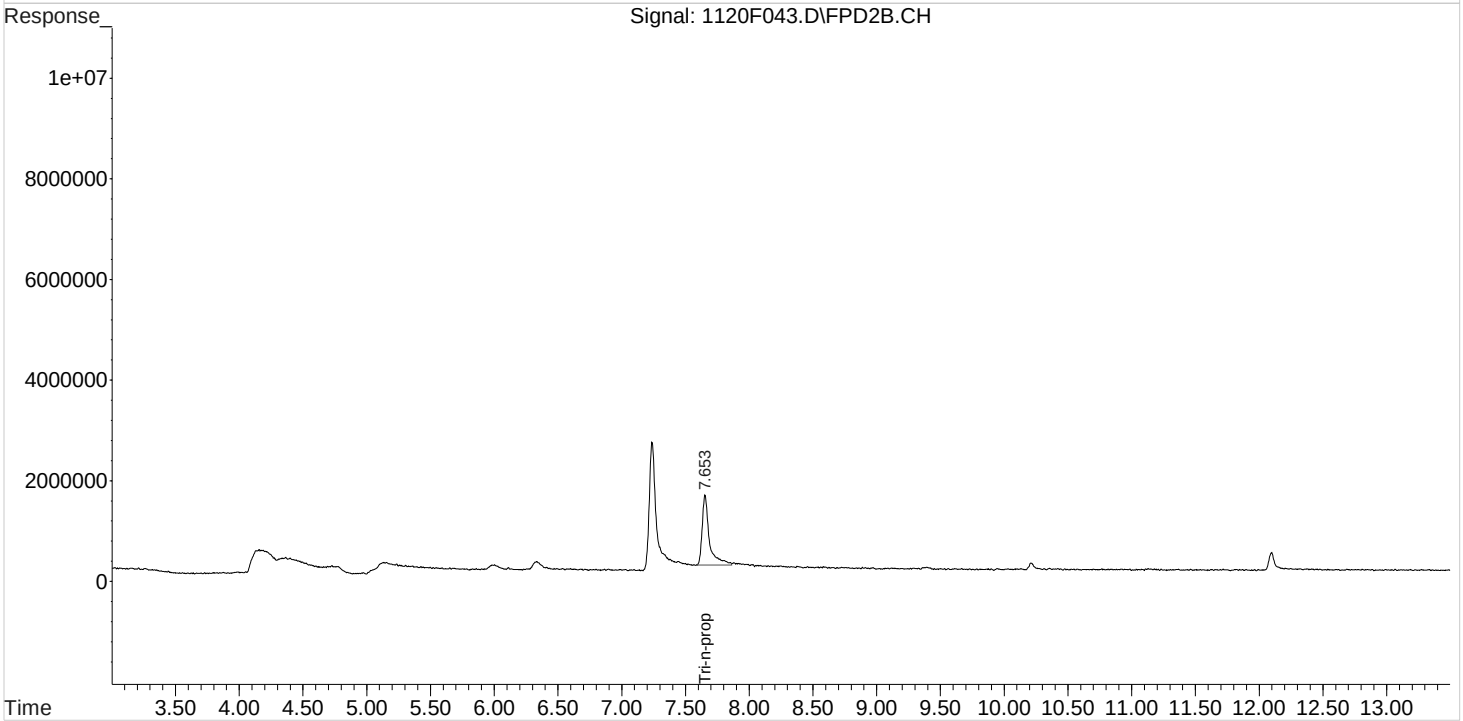
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F043.D Vial: 38
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 7:00 am Operator: SAA
Sample : K1810302-024 Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 27 12:34:06 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Tue Sep 18 10:07:12 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





1st 11/27/18
2nd 11/29/18

Validation Report

Data File: J:\GC26\DATA\112018\1120F044.D\
Lab ID: K1810302-025
RunType: N/A
Matrix: Sediment

Date Acquired: 11/21/18 07:18:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery - RTX-35	Tri-n-propyltin	-26		25	RO

Primary Review: _____

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Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F044.D\	**Instrument:**	K-GC-26
Acqu Date:	11/21/18 07:18:00	**Vial:**	40
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-025	**Raw Units:**	ng/mL

Bottle ID:	K1810302-025.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615992	**Prep Lot:**	324894	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	10/30/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.04	7.65	4133728	6172015	75.584	78.888[CCV]	60	63	60	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc		Rpt?
Tri-n-butyltin Cation	9.62	9.12 -0.01	150320	347678	2.163	3.337	0.59J	0.92J	**0.59** J	P	Y

Prep Amount:	20.388 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	71.50

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

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Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F044.D Vial: 39
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 7:18 am Operator: SAA
Sample : K1810302-025 Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 27 12:33:04 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	Tri-n-pro...	8.037	7.651	4133728	6172015	75.584	78.888	
	Target Compounds							
3)	Tri-n-but...	9.623	9.121	150320	347678	2.163	3.337	#
4)	Di-n-buty...	10.690	10.365	143498	228868	1.248	1.314	
5)	n-Butyltin	11.547	11.125	102514	238923	0.992	1.494	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

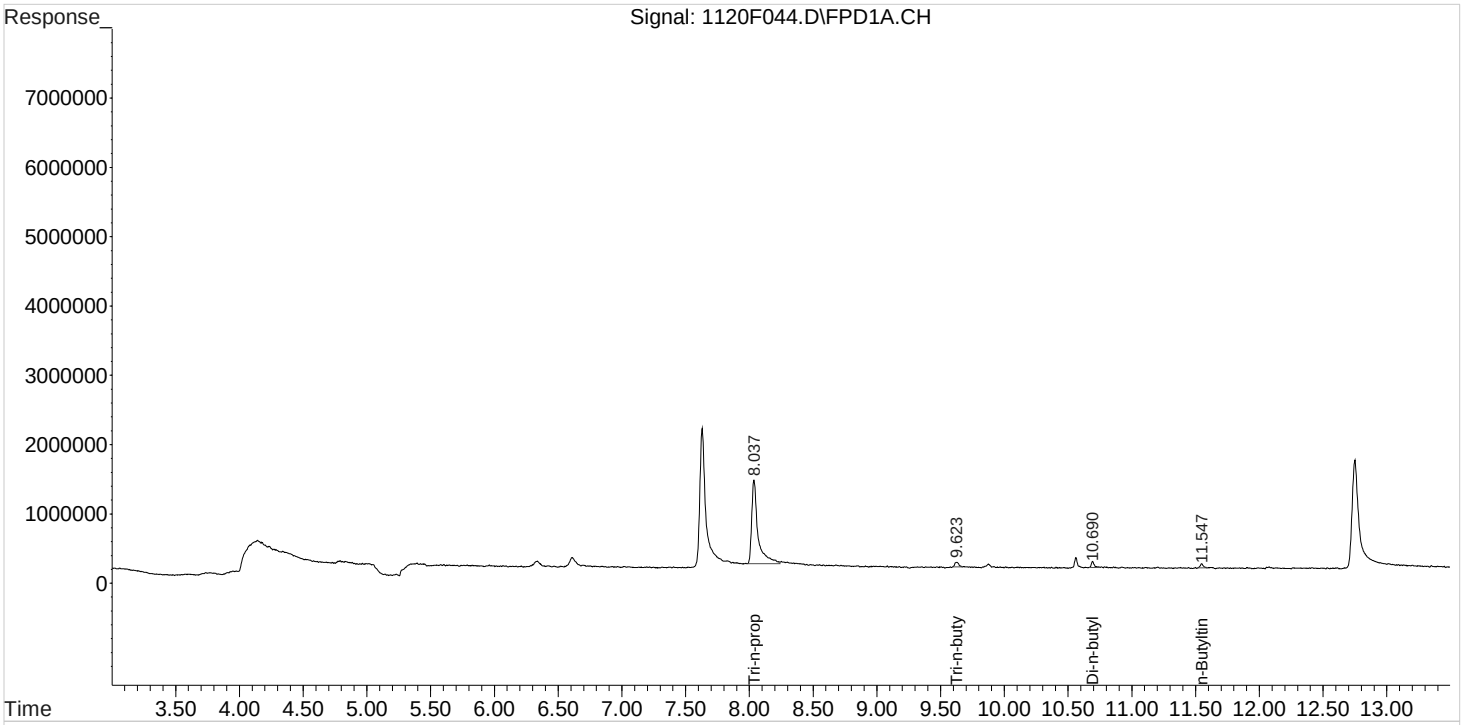
Quantitation Report (QT Reviewed)

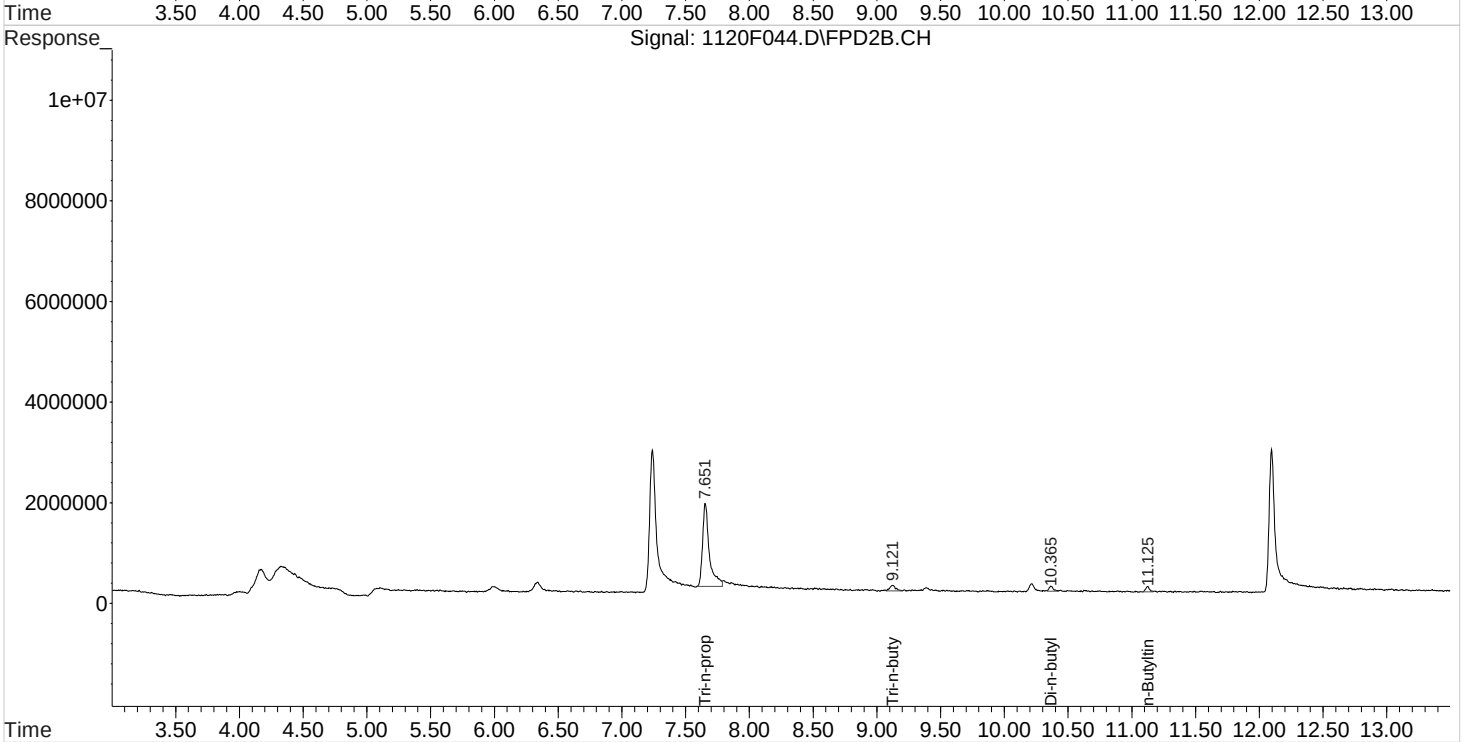
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F044.D Vial: 39
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 7:18 am Operator: SAA
Sample : K1810302-025 Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 27 12:33:04 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





1st 11/27/18
2nd 11/29/18

Validation Report

Data File: J:\GC26\DATA\112018\1120F045.D\
Lab ID: K1810302-026
RunType: N/A
Matrix: Sediment

Date Acquired: 11/21/18 07:37:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery - RTX-35	Tri-n-propyltin	-26		25	RO

Primary Review: _____

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Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F045.D\	**Instrument:**	K-GC-26
Acqu Date:	11/21/18 07:37:00	**Vial:**	41
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-026	**Raw Units:**	ng/mL

Bottle ID:	K1810302-026.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615992	**Prep Lot:**	324894	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	10/30/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.04	7.65	4431283	6277994	81.025	80.243^{CCV}	65	64	65	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Tri-n-butyltin Cation	9.63 $^{+0.01}$	9.13	261932	422335	3.768	4.054	1.1J	1.2J	**1.1** J	Y

Prep Amount:	20.371 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	67.80

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

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Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F045.D Vial: 40
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 7:37 am Operator: SAA
Sample : K1810302-026 Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 27 12:33:06 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	Tri-n-pro...	8.035	7.653	4431283	6277994	81.025	80.243	
	Target Compounds							
3)	Tri-n-but...	9.625	9.126	261932	422335	3.768	4.054	
4)	Di-n-buty...	10.692	10.366	221535	367909	1.927	2.113	
5)	n-Butyltin	11.545	11.133	65673	139915	0.635	0.875	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

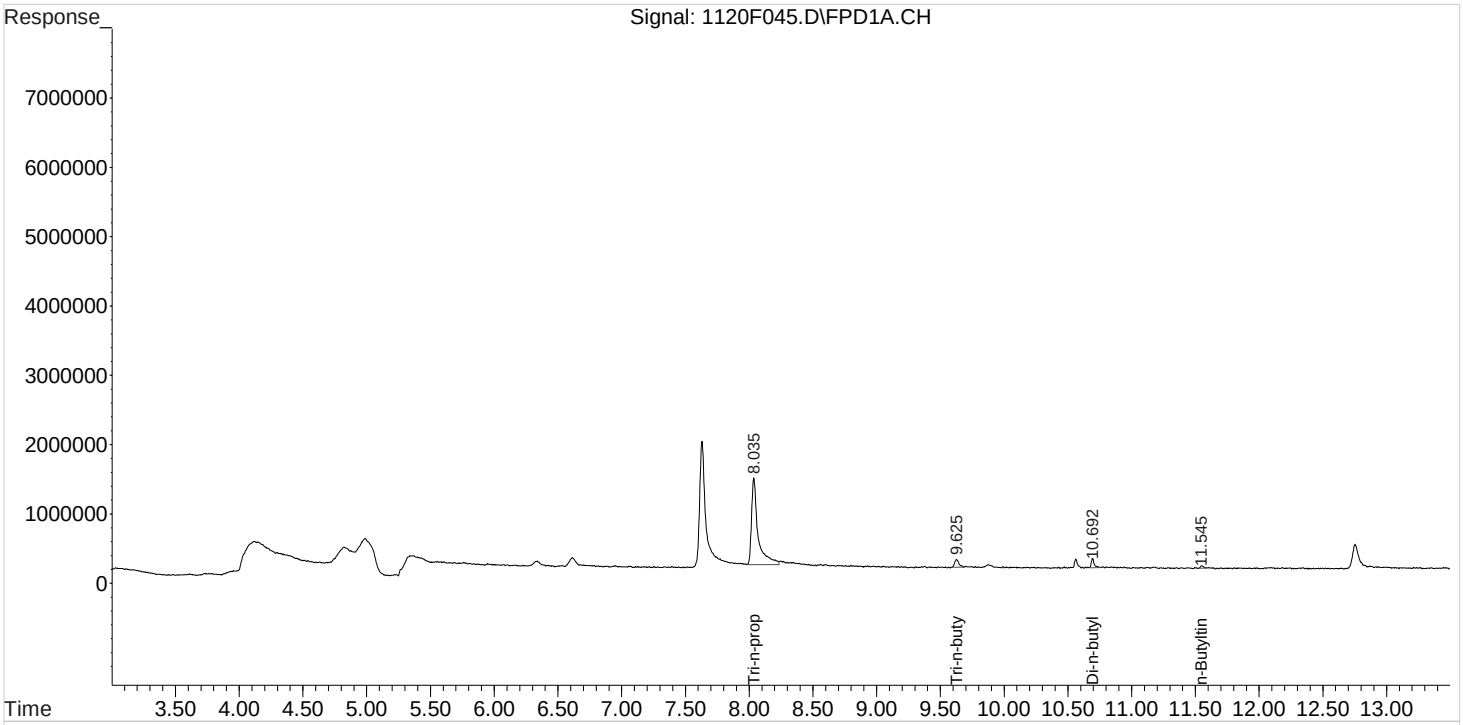
Quantitation Report (QT Reviewed)

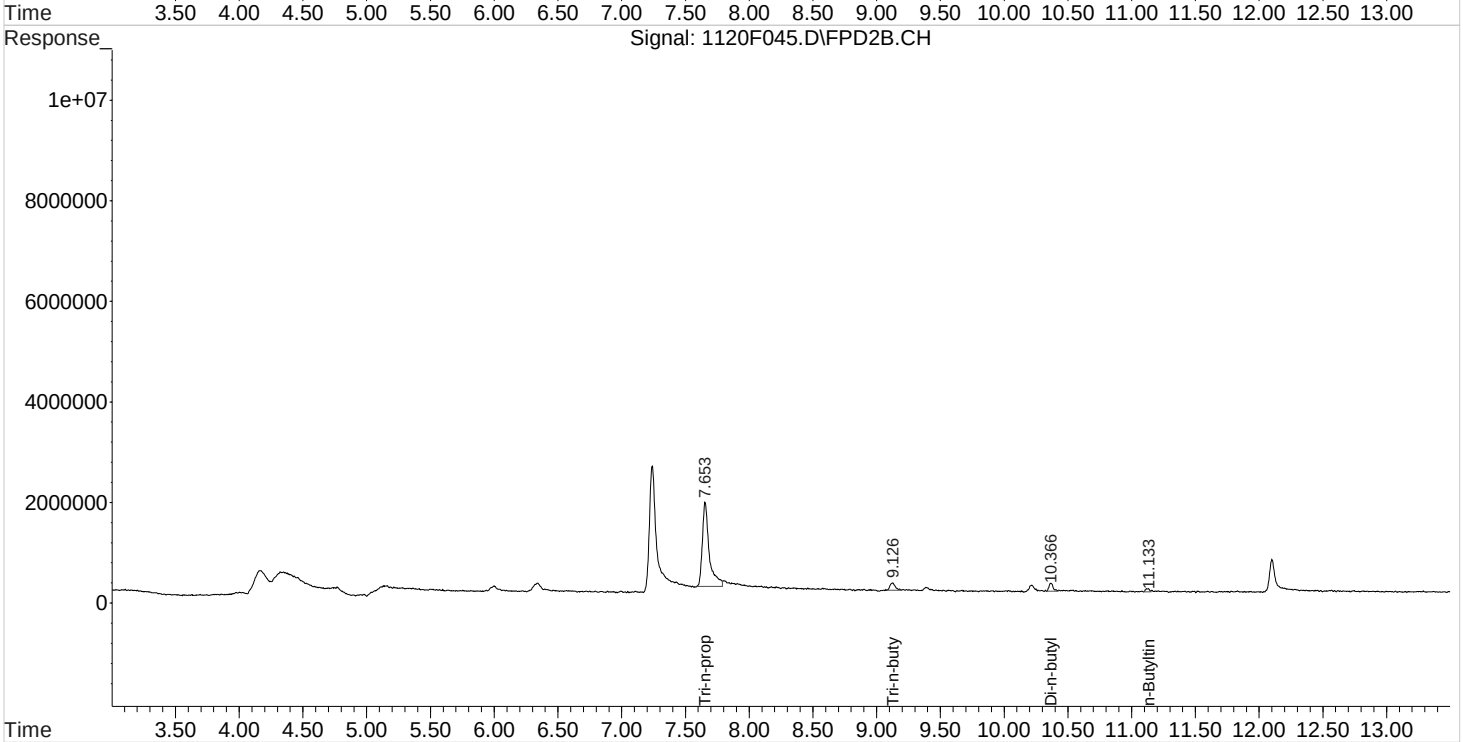
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F045.D Vial: 40
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 7:37 am Operator: SAA
Sample : K1810302-026 Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 27 12:33:06 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





1st 12/05/18
2nd 12/06/18

Validation Report

Data File: J:\GC26\DATA\120418B\1204F017.D\
Lab ID: K1810302-027
RunType: N/A
Matrix: Sediment

Date Acquired: 12/4/18 18:52:00
Batch ID: 617518
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Printed: 12/7/18 13:07
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Secondary Review: _____

1st 12/05/18
2nd 12/06/18

Quantitation Report

Data File:	J:\GC26\DATA\120418B\1204F017.D\	**Instrument:**	K-GC-26
Acqu Date:	12/4/18 18:52:00	**Vial:**	7
Run Type:	N/A	**Dilution:**	10
Lab ID:	K1810302-027	**Raw Units:**	ng/mL

Bottle ID:	K1810302-027.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	617518	**Prep Lot:**	324894	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	10/30/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.06 +0.01	7.66	314680	473106	5.754	6.047	46	48	46	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Tri-n-butyltin Cation	9.65	9.14	3153066	4882691	45.362	46.865	210	220	**210**	Y

Prep Amount:	20.235 g	**Dilution:**	10
Prep Final Amount:	4.00 mL	**Basis Factor:**	42.90

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

Printed: 12/7/18 13:07
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Quantitation Report (QT Reviewed)

1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F017.D Vial: 14
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 6:52 pm Operator: SAA
Sample : K1810302-027 @ 10X Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:13:55 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.055	7.660	314680	473106	5.754	6.047m
	Target Compounds						
2)	Tetrabuty...	0.000	7.920	0	43007	N.D. d	0.459 #
3)	Tri-n-but...	9.652	9.140	3153066	4882691	45.362	46.865m
4)	Di-n-buty...	10.705	10.380	1902751	2961369	16.552	17.004
5)	n-Butyltin	11.565	11.133	274513	378662	2.656m	2.367m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

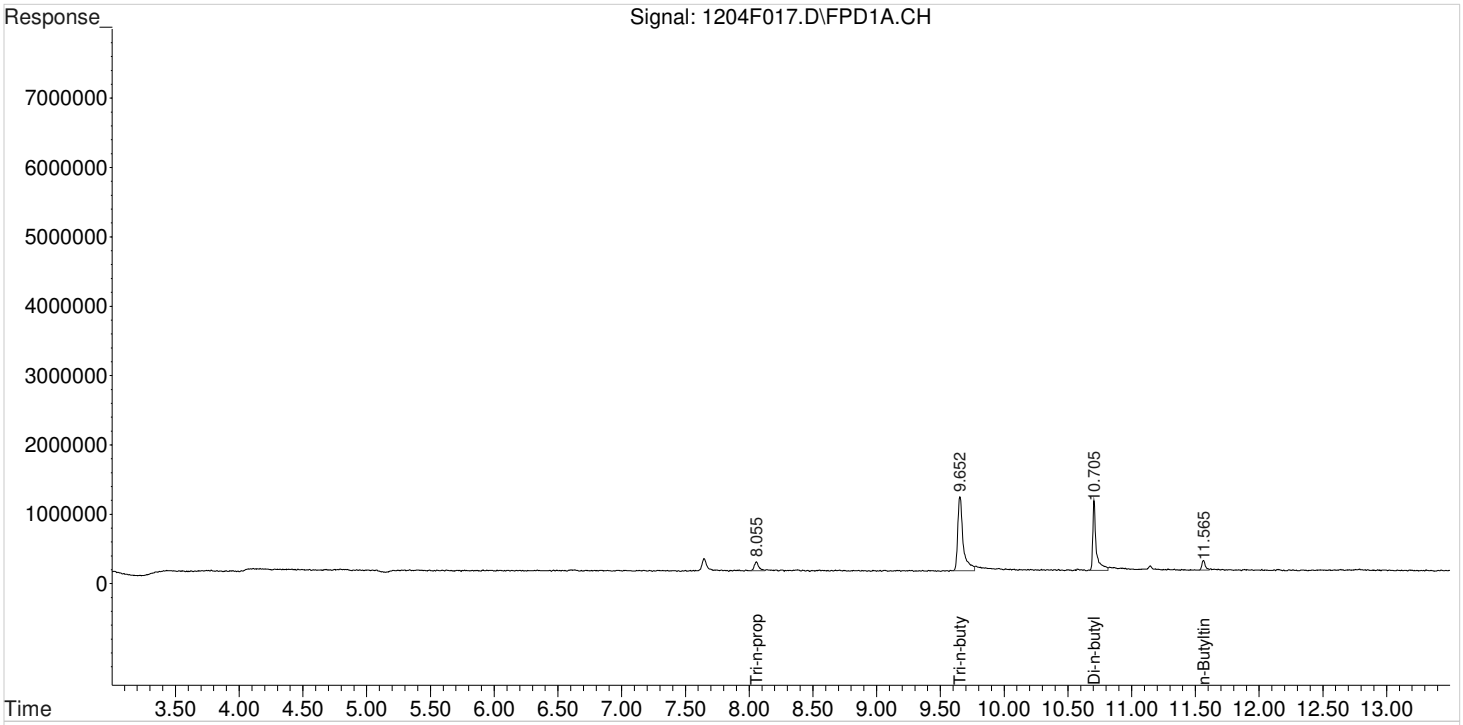
Quantitation Report (QT Reviewed)

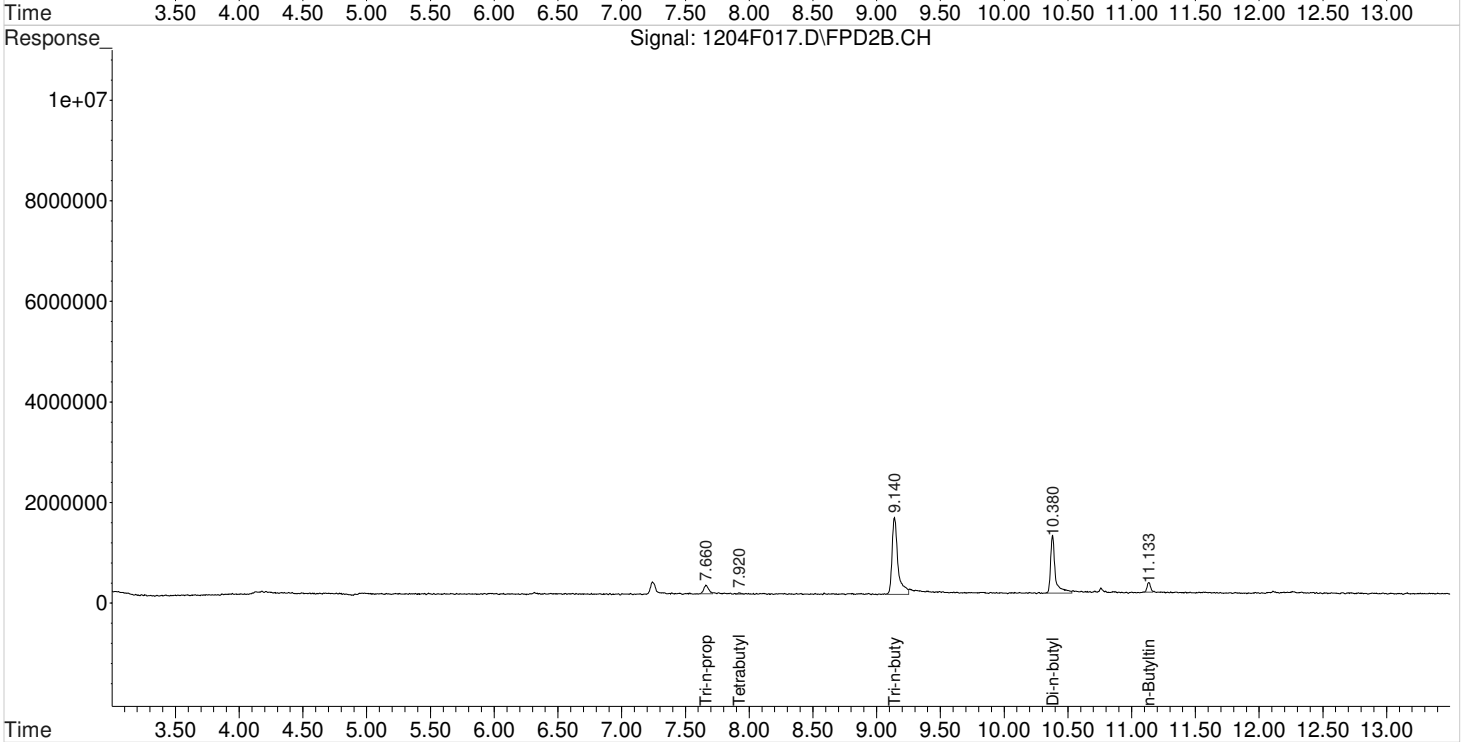
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F017.D Vial: 14
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 6:52 pm Operator: SAA
Sample : K1810302-027 @ 10X Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:13:55 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





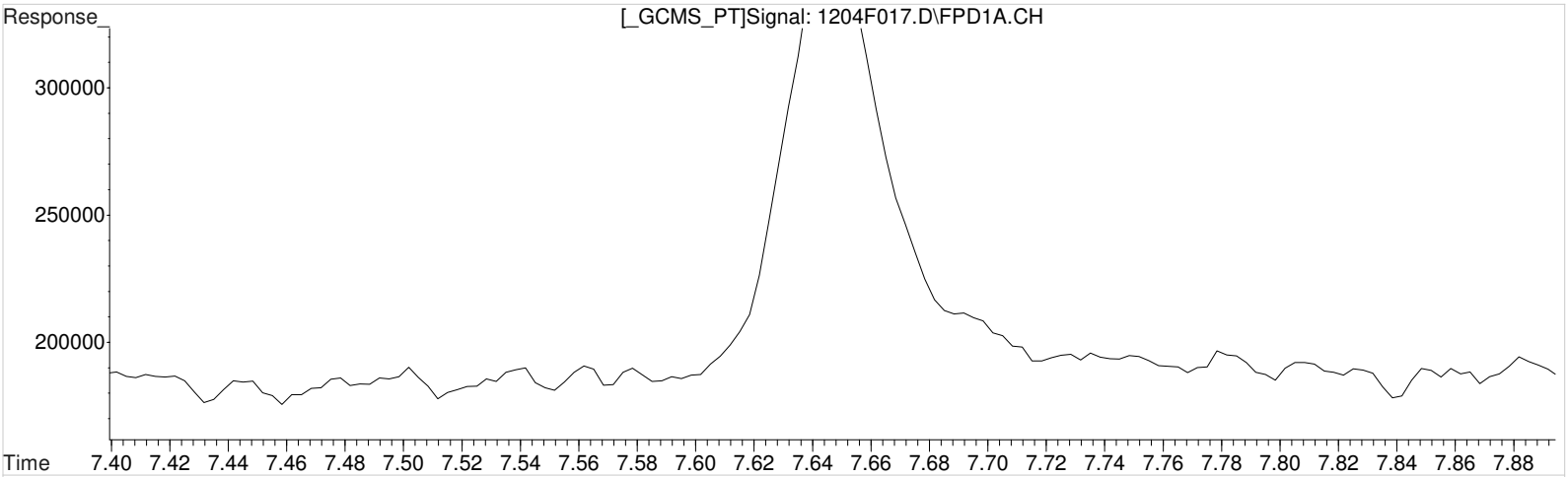
Quantitation Report (Qedit)

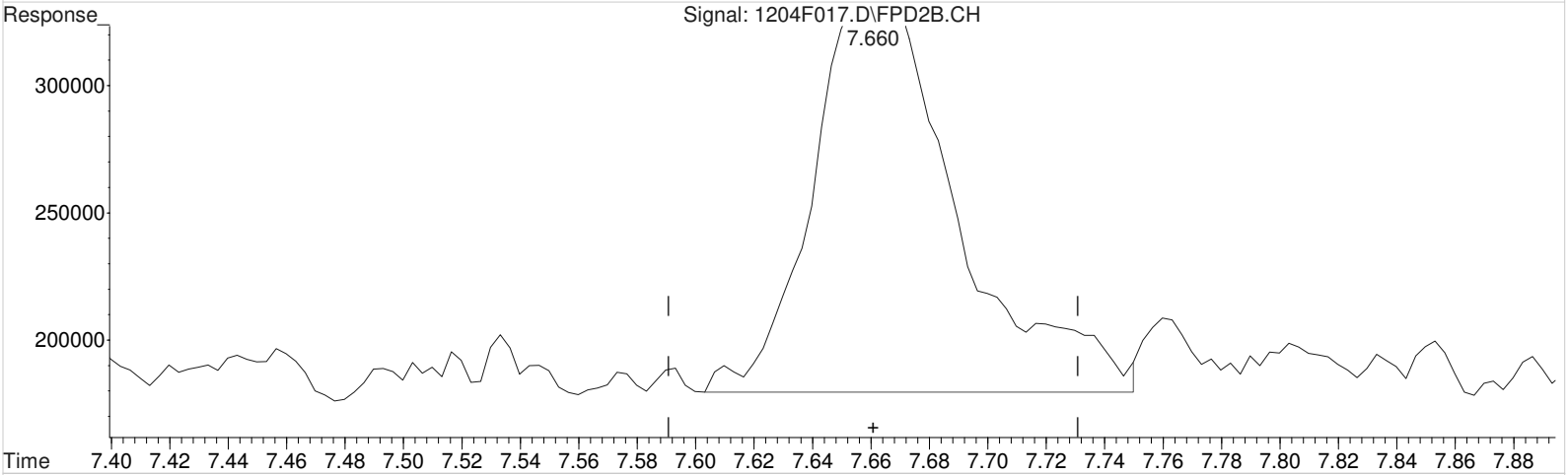
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F017.D Vial: 14
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 6:52 pm Operator: SAA
Sample : K1810302-027 @ 10X Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:11:56 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(1) Tri-n-propyltin (S)

8.055min 5.754 ng/mL

response 314680

Manual Integration:

Before

12/05/18

(1) Tri-n-propyltin #2 (S)

7.660min 7.035 ng/mL

response 550438

(+) = Expected Retention Time

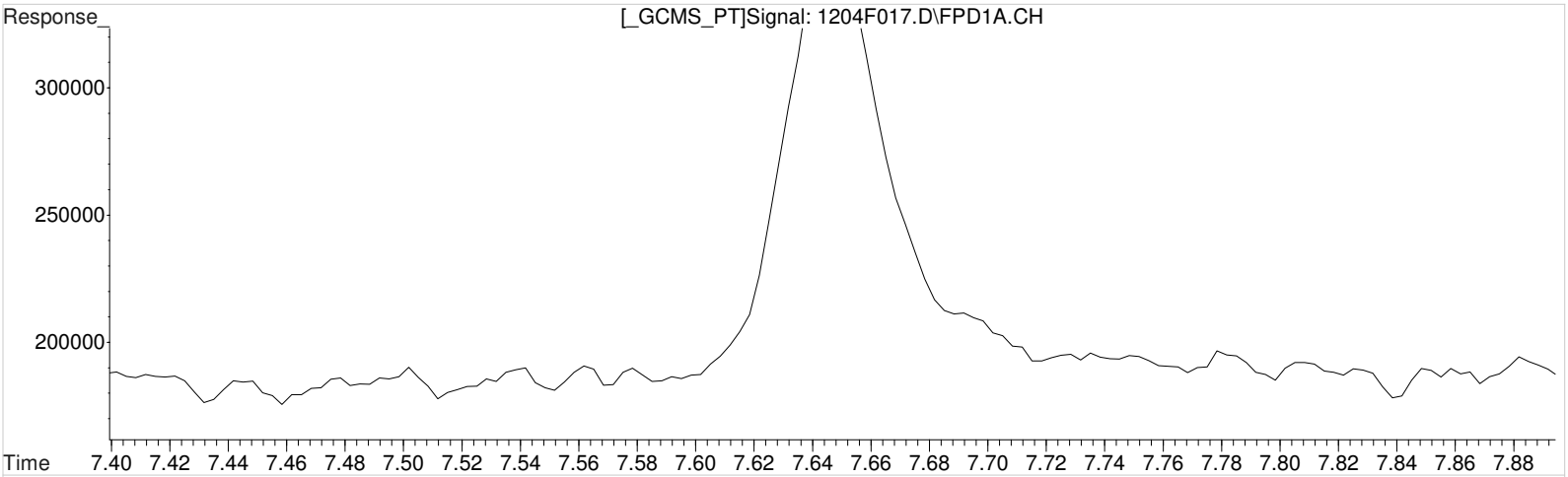
Quantitation Report (Qedit)

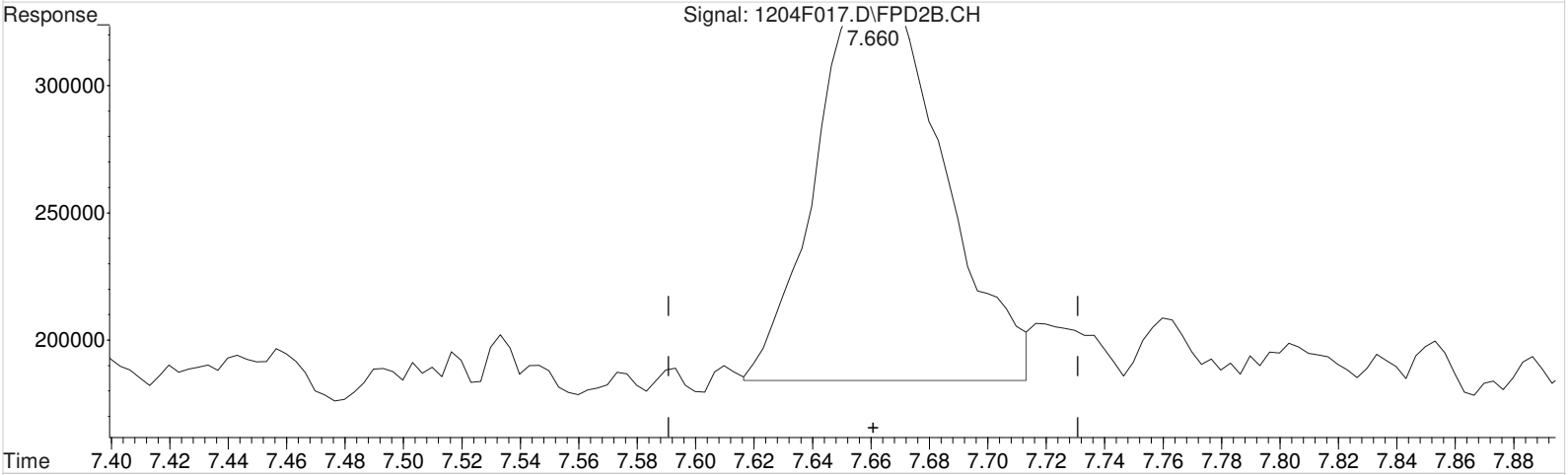
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F017.D Vial: 14
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 6:52 pm Operator: SAA
Sample : K1810302-027 @ 10X Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:11:56 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(1) Tri-n-propyltin (S)

8.055min 5.754 ng/mL

response 314680

Manual Integration:

After

Baseline/Shoulder

12/05/18

(1) Tri-n-propyltin #2 (S)

7.660min 6.047 ng/mL m

response 473106

(+) = Expected Retention Time

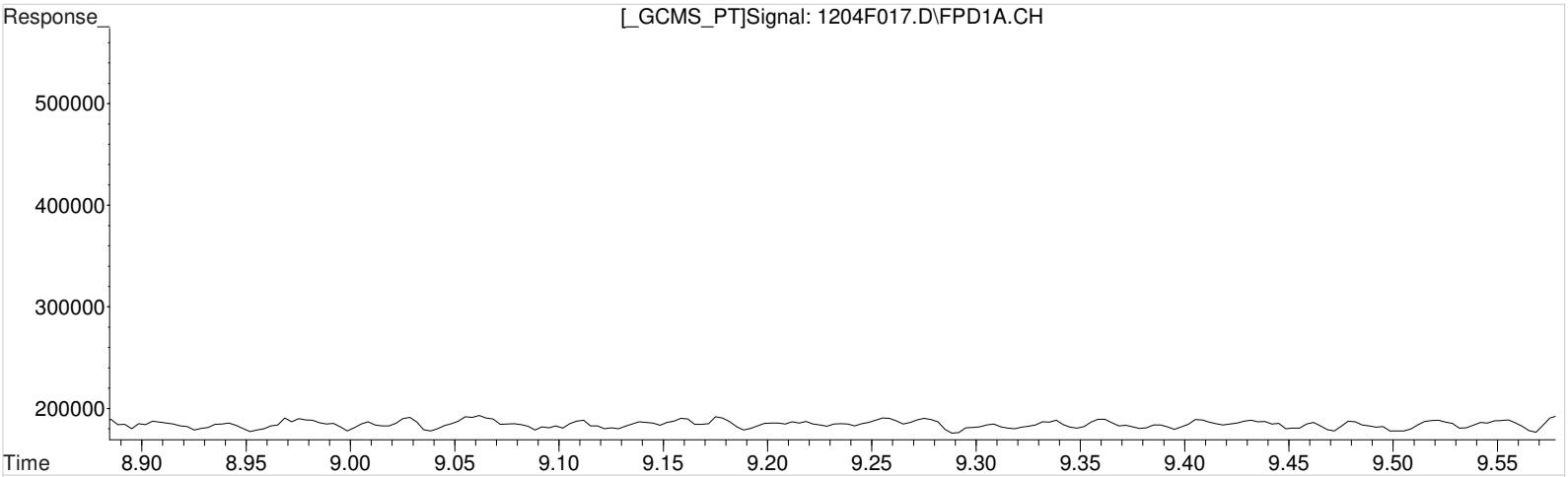
Quantitation Report (Qedit)

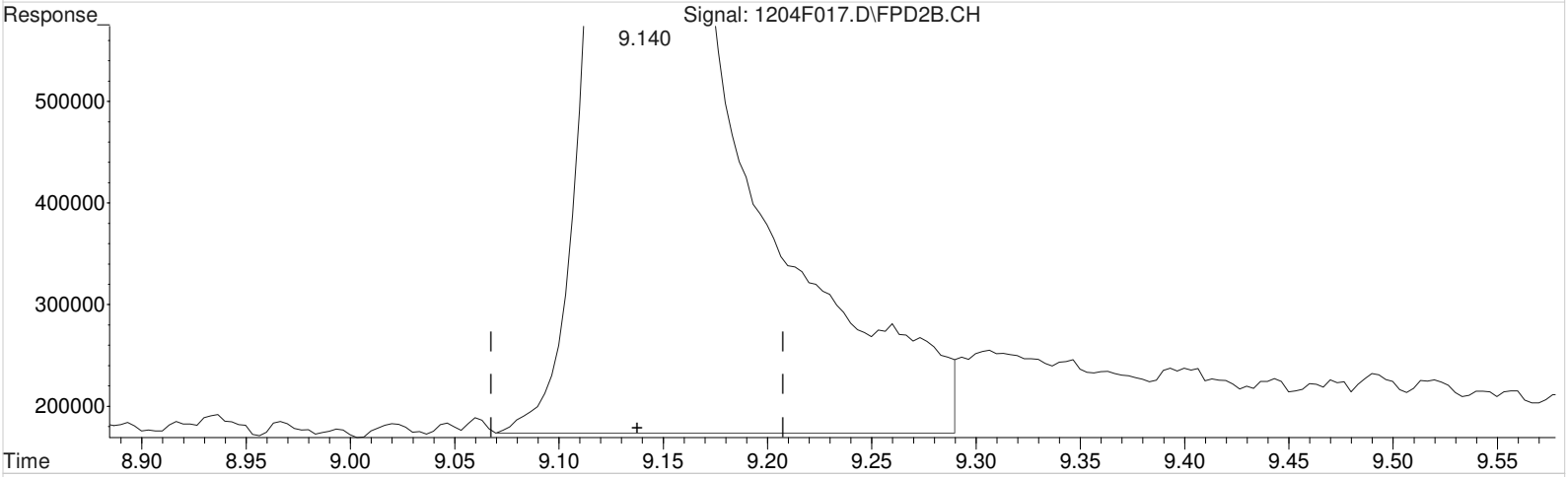
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F017.D Vial: 14
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 6:52 pm Operator: SAA
Sample : K1810302-027 @ 10X Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:11:56 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(3) Tri-n-butyltin

9.652min 45.362 ng/mL

response 3153066

Manual Integration:

Before

12/05/18

(3) Tri-n-butyltin #2

9.140min 49.060 ng/mL

response 5111425

(+) = Expected Retention Time

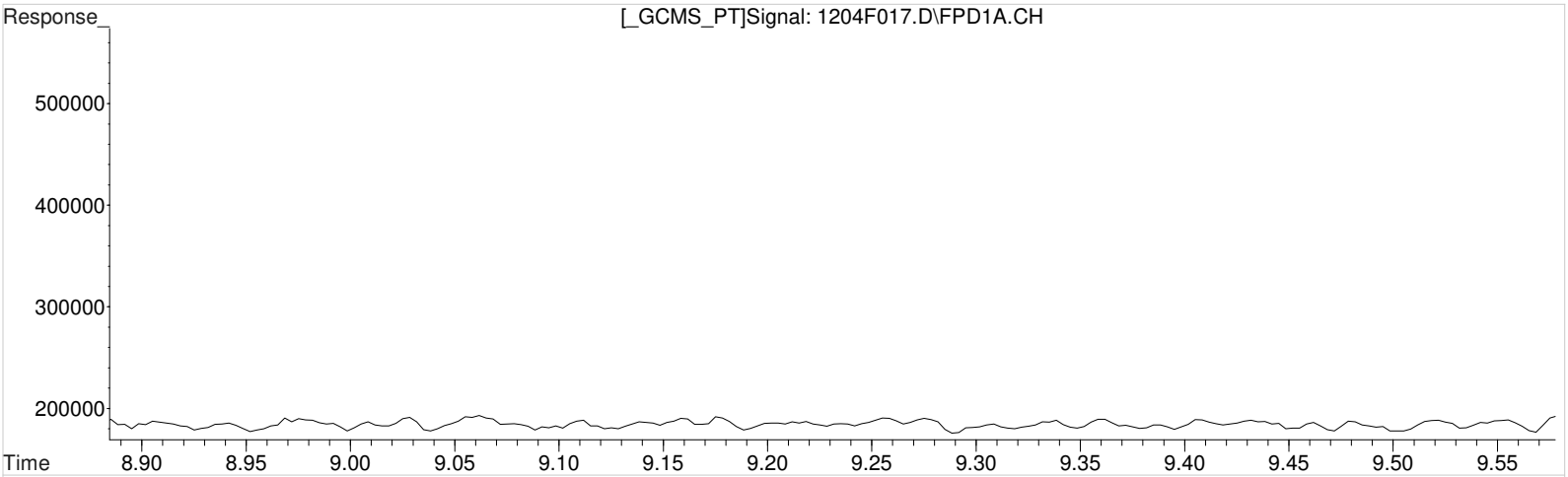
Quantitation Report (Qedit)

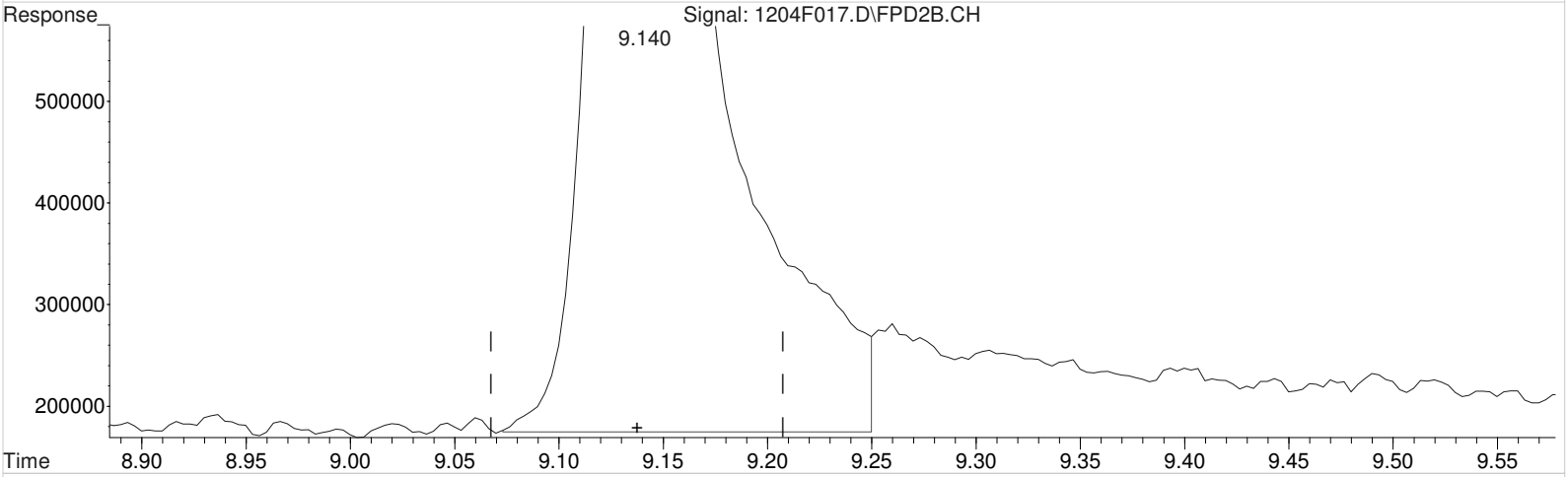
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F017.D Vial: 14
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 6:52 pm Operator: SAA
Sample : K1810302-027 @ 10X Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:11:56 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(3) Tri-n-butyltin

9.652min 45.362 ng/mL

response 3153066

(3) Tri-n-butyltin #2

9.140min 46.865 ng/mL m

response 4882691

Manual Integration:

After

Baseline/Shoulder

12/05/18

(+) = Expected Retention Time

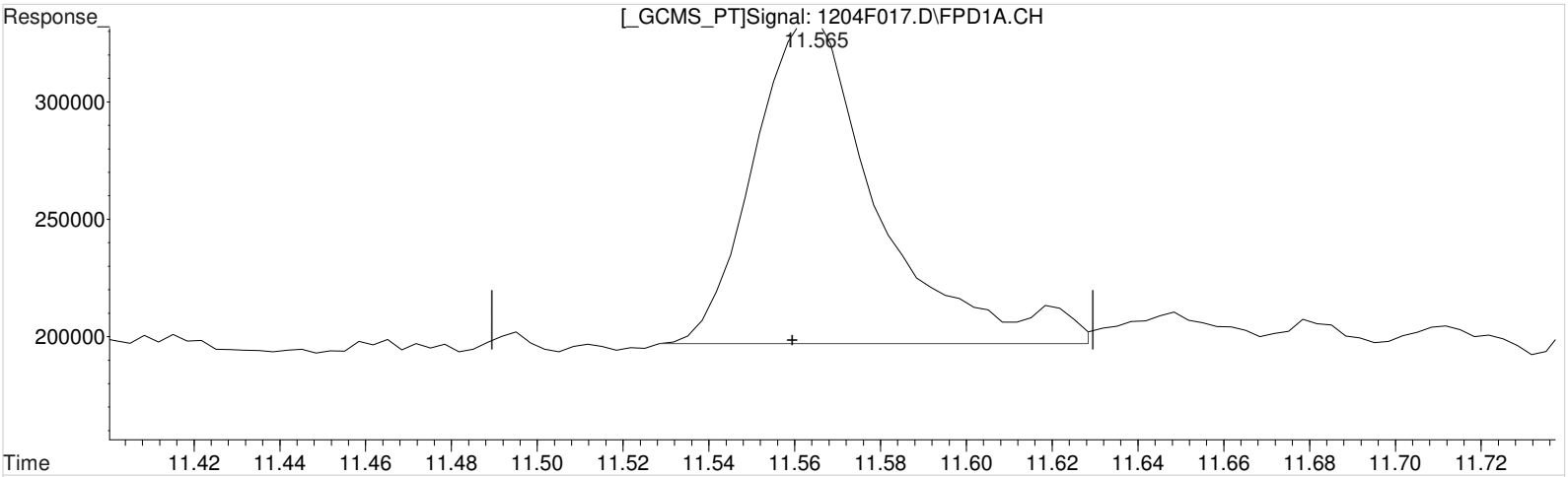
Quantitation Report (Qedit)

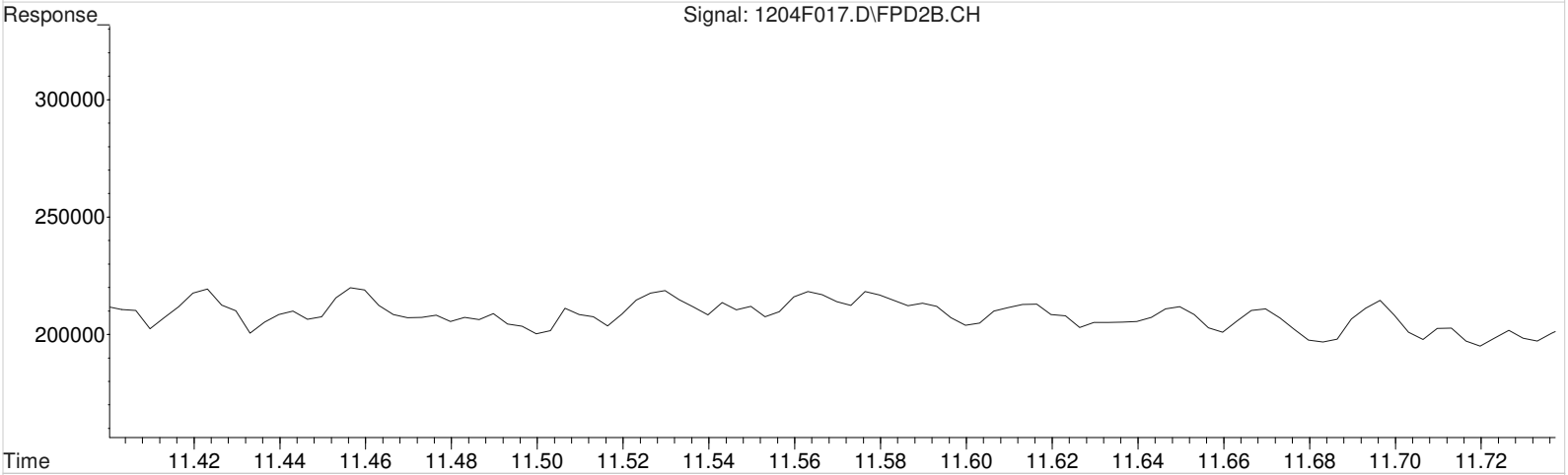
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F017.D Vial: 14
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 6:52 pm Operator: SAA
Sample : K1810302-027 @ 10X Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:11:56 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(5) n-Butyltin

11.565min 2.692 ng/mL

response 278289

Manual Integration:

Before

12/05/18

(5) n-Butyltin #2

11.133min 2.534 ng/mL

response 405313

(+) = Expected Retention Time

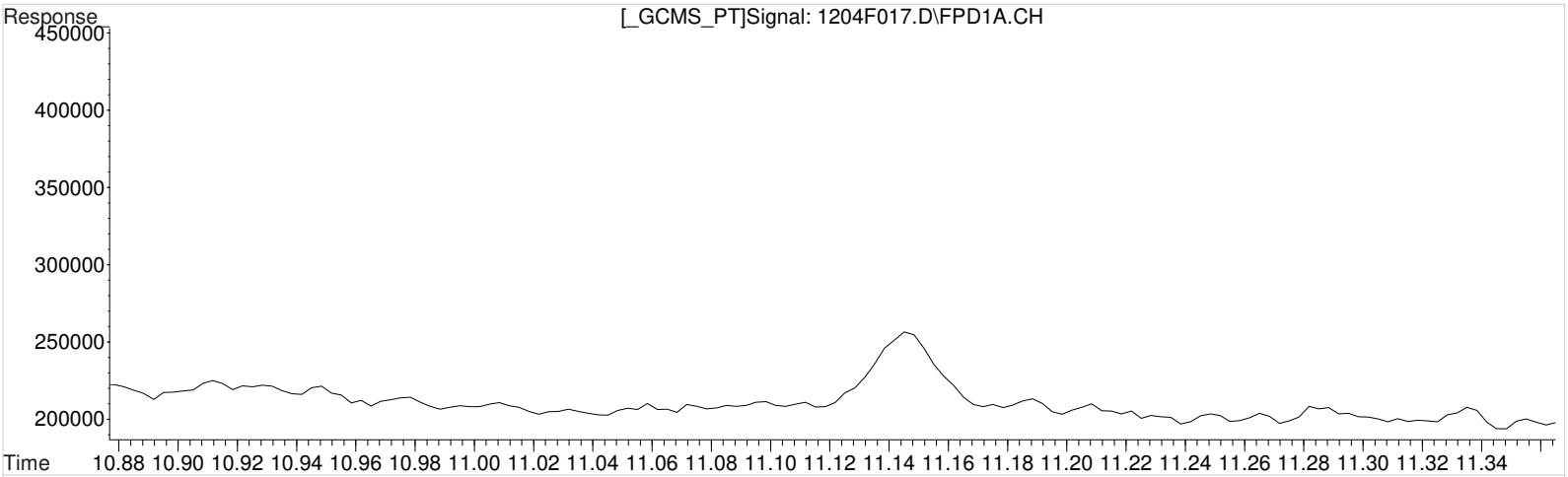
Quantitation Report (Qedit)

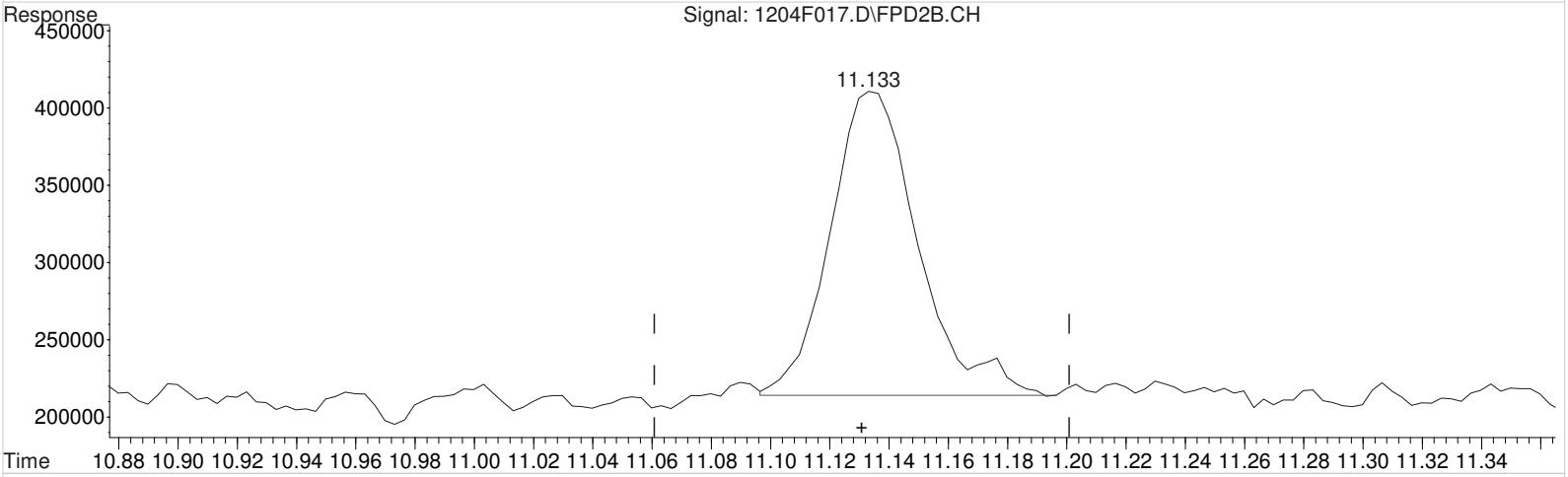
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F017.D Vial: 14
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 6:52 pm Operator: SAA
Sample : K1810302-027 @ 10X Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:11:56 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(5) n-Butyltin

11.565min 2.656 ng/mL m

response 274513

(5) n-Butyltin #2

11.133min 2.534 ng/mL

response 405313

Manual Integration:

Before

12/05/18

(+) = Expected Retention Time

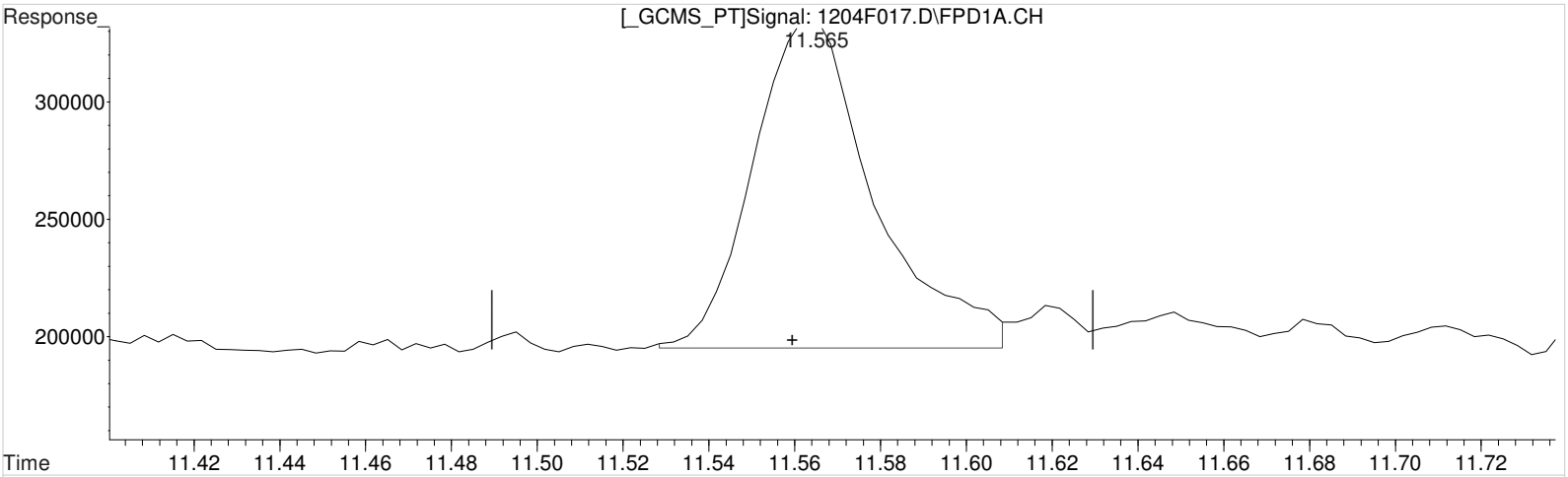
Quantitation Report (Qedit)

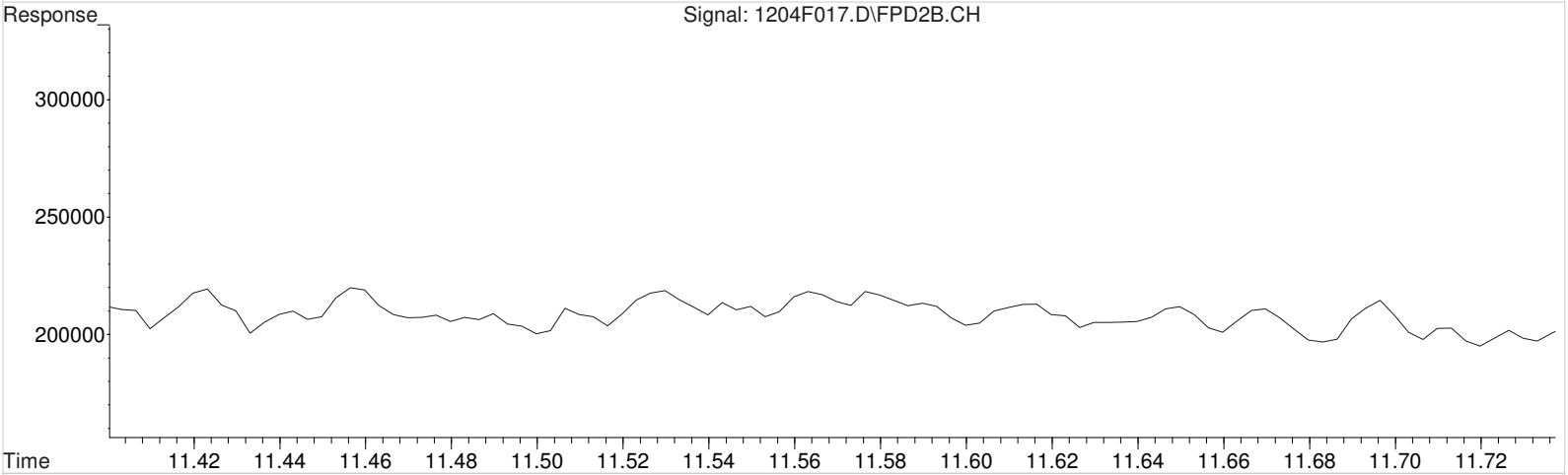
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F017.D Vial: 14
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 6:52 pm Operator: SAA
Sample : K1810302-027 @ 10X Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:11:56 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(5) n-Butyltin

11.565min 2.656 ng/mL m

response 274513

Manual Integration:

After

Baseline/Shoulder

12/05/18

(5) n-Butyltin #2

11.133min 2.534 ng/mL

response 405313

(+) = Expected Retention Time

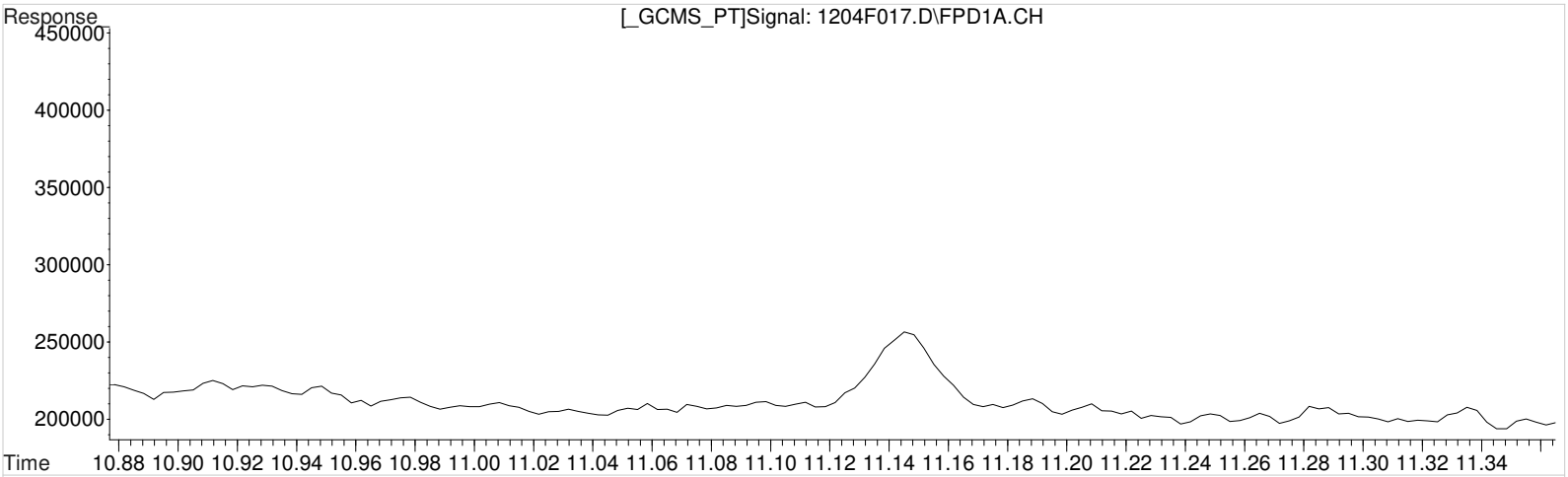
Quantitation Report (Qedit)

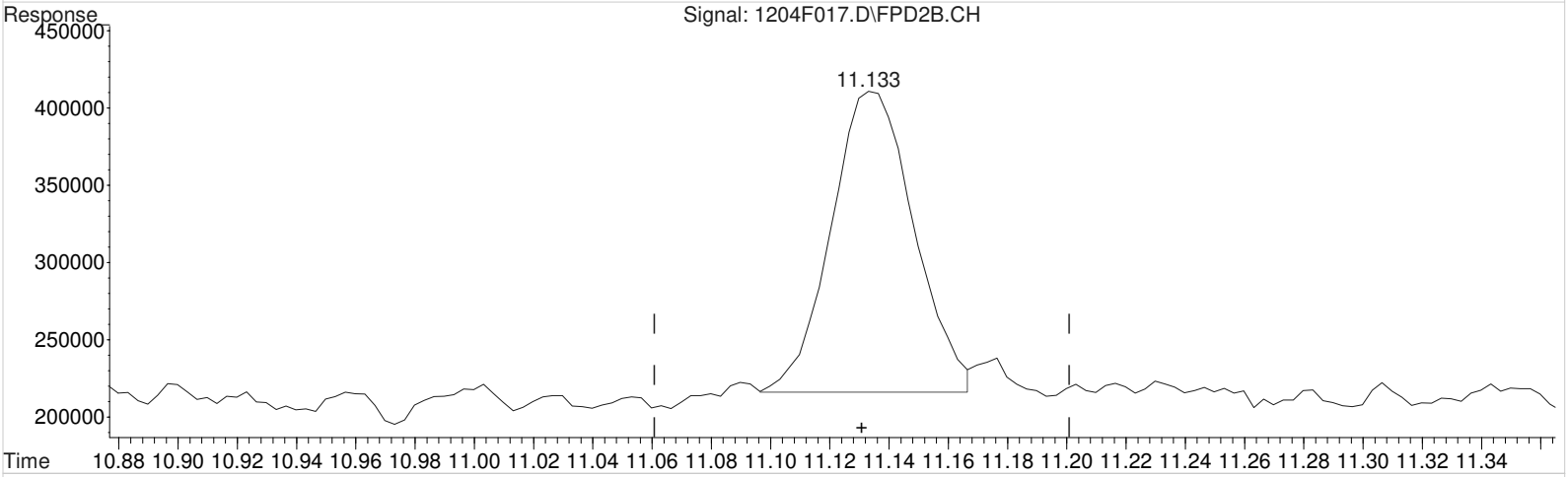
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F017.D Vial: 14
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 6:52 pm Operator: SAA
Sample : K1810302-027 @ 10X Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:11:56 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(5) n-Butyltin

11.565min 2.656 ng/mL m

response 274513

Manual Integration:

After

Baseline/Shoulder

12/05/18

(5) n-Butyltin #2

11.133min 2.367 ng/mL m

response 378662

(+) = Expected Retention Time

1st 11/27/18
2nd 11/29/18

Validation Report

Data File: J:\GC26\DATA\112018\1120F047.D\
Lab ID: K1810302-028
RunType: N/A
Matrix: Sediment

Date Acquired: 11/21/18 08:14:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery - RTX-35	Tri-n-propyltin	-26		25	RO

Primary Review: _____

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Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F047.D\	**Instrument:**	K-GC-26
Acqu Date:	11/21/18 08:14:00	**Vial:**	43
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-028	**Raw Units:**	ng/mL

Bottle ID:	K1810302-028.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615992	**Prep Lot:**	324894	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	10/30/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.04	7.66 +0.01	4336532	6245330	79.293	79.825 CCV	63	64	63	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Tri-n-butyltin Cation	9.63 +0.01	9.13	214609	377314	3.087	3.622	1.2J	1.4J	**1.2** J	Y

Prep Amount:	20.172 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	52.00

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

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Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F047.D Vial: 42
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 8:14 am Operator: SAA
Sample : K1810302-028 Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 27 12:33:12 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	Tri-n-pro...	8.041	7.655	4336532	6245330	79.293	79.825	
	Target Compounds							
3)	Tri-n-but...	9.634	9.132	214609	377314	3.087	3.622	
4)	Di-n-buty...	10.698	10.369	333654	661820	2.903	3.800	#
5)	n-Butyltin	11.558	11.129	225435	309388	2.181	1.934	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

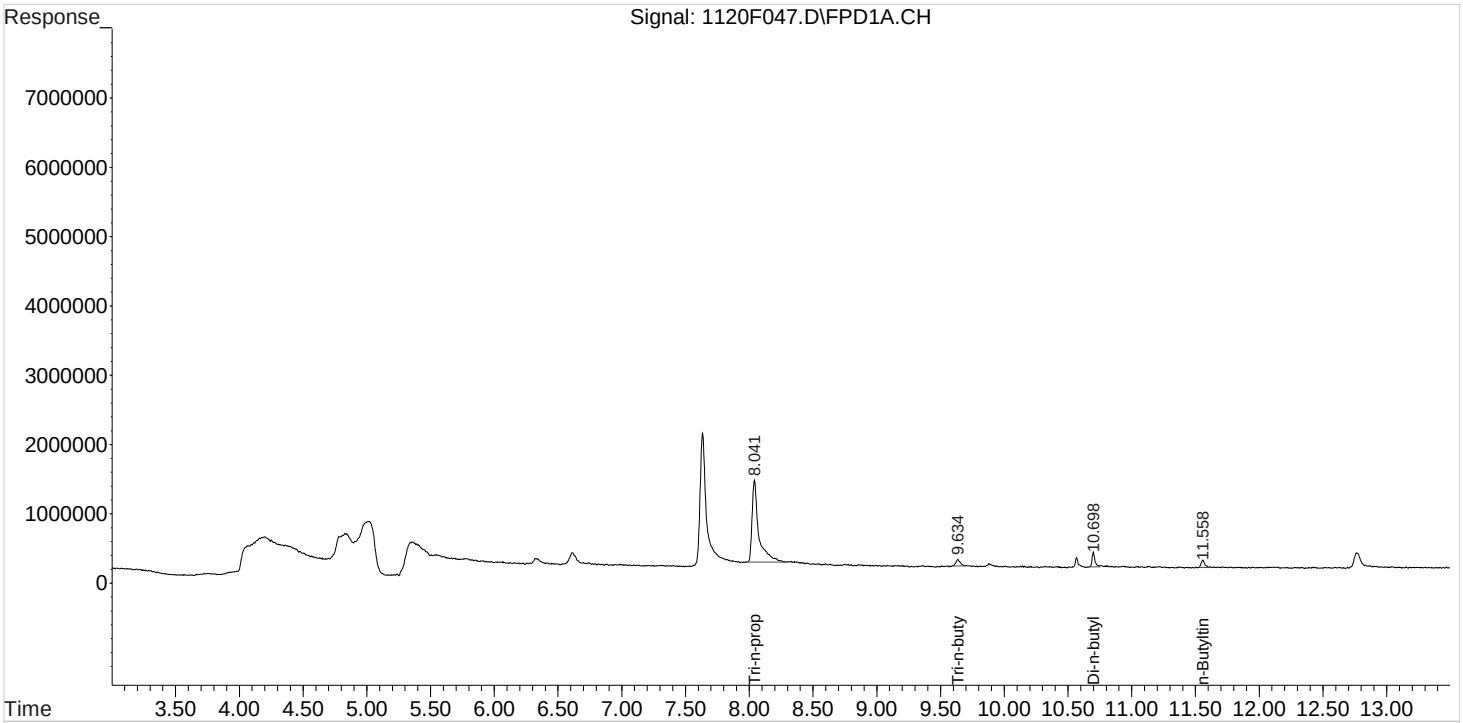
Quantitation Report (QT Reviewed)

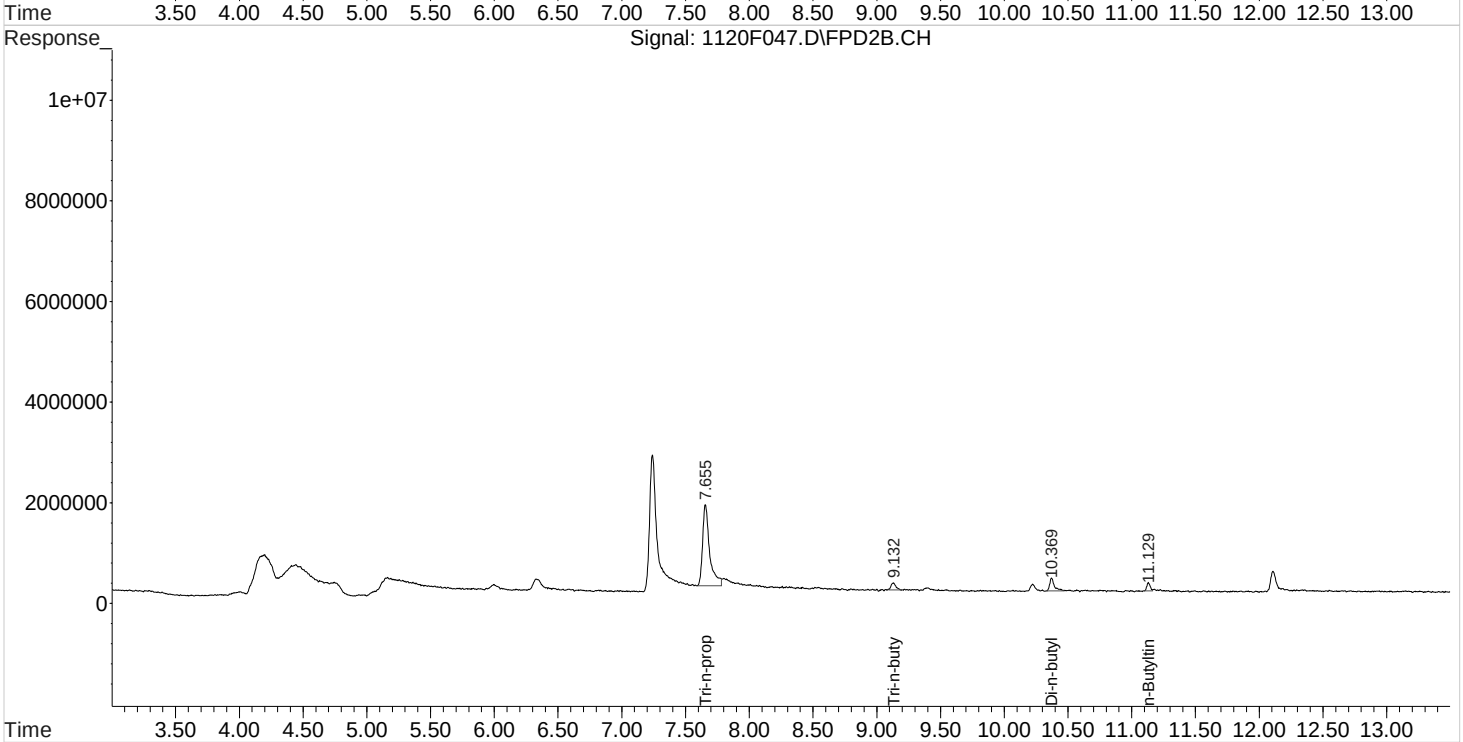
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F047.D Vial: 42
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 8:14 am Operator: SAA
Sample : K1810302-028 Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 27 12:33:12 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





1st 12/05/18
2nd 12/06/18

Validation Report

Data File: J:\GC26\DATA\120418B\1204F018.D\
Lab ID: K1810302-029
RunType: N/A
Matrix: Sediment

Date Acquired: 12/4/18 19:10:00
Batch ID: 617518
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

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Secondary Review: _____

1st 12/05/18
2nd 12/06/18

Quantitation Report

Data File:	J:\GC26\DATA\120418B\1204F018.D\	**Instrument:**	K-GC-26
Acqu Date:	12/4/18 19:10:00	**Vial:**	8
Run Type:	N/A	**Dilution:**	10
Lab ID:	K1810302-029	**Raw Units:**	ng/mL

Bottle ID:	K1810302-029.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	617518	**Prep Lot:**	324894	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	10/30/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.06 +0.01	7.66	360642	643453	6.594	8.224	53	66	53	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Tri-n-butyltin Cation	9.66 +0.01	9.14	20113465	28636546	289.364	274.858	1300	1200	**1200**	Y

Prep Amount:	20.037 g	**Dilution:**	10
Prep Final Amount:	4.00 mL	**Basis Factor:**	45.90

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

Printed: 12/7/18 13:07
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Quantitation Report (QT Reviewed)

1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F018.D Vial: 15
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 7:10 pm Operator: SAA
Sample : K1810302-029 @ 10X Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:51:16 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S Tri-n-pro...	8.060	7.661	360642	643453	6.594m	8.224	
	Target Compounds							
2)	Tetrabuty...	8.390	7.928	64723	128773	1.062m	1.374	#
3)	Tri-n-but...	9.657	9.141	20113465	28636546	289.364	274.858	
4)	Di-n-buty...	10.707	10.381	9524899	13379816	82.859	76.827	
5)	n-Butyltin	11.567	11.135	1803244	2634838	17.445	16.471	

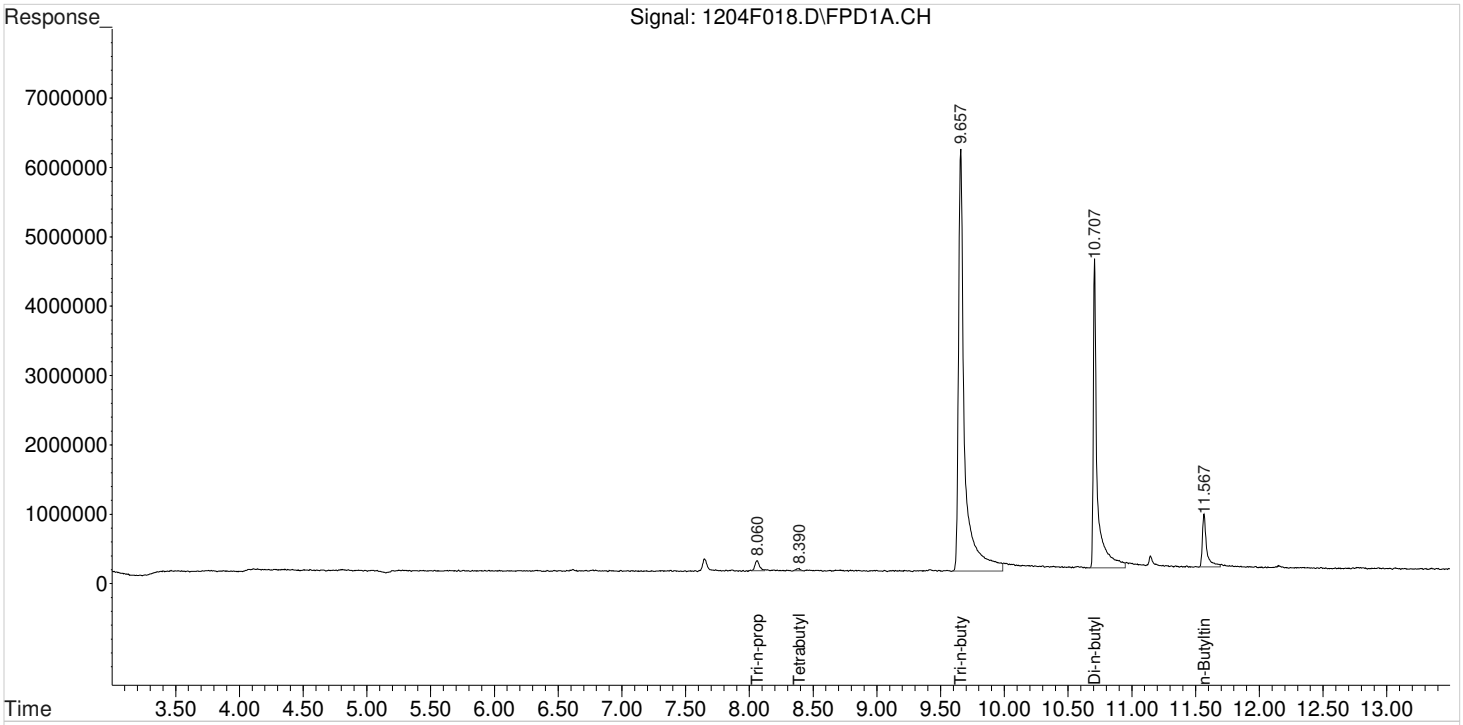
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

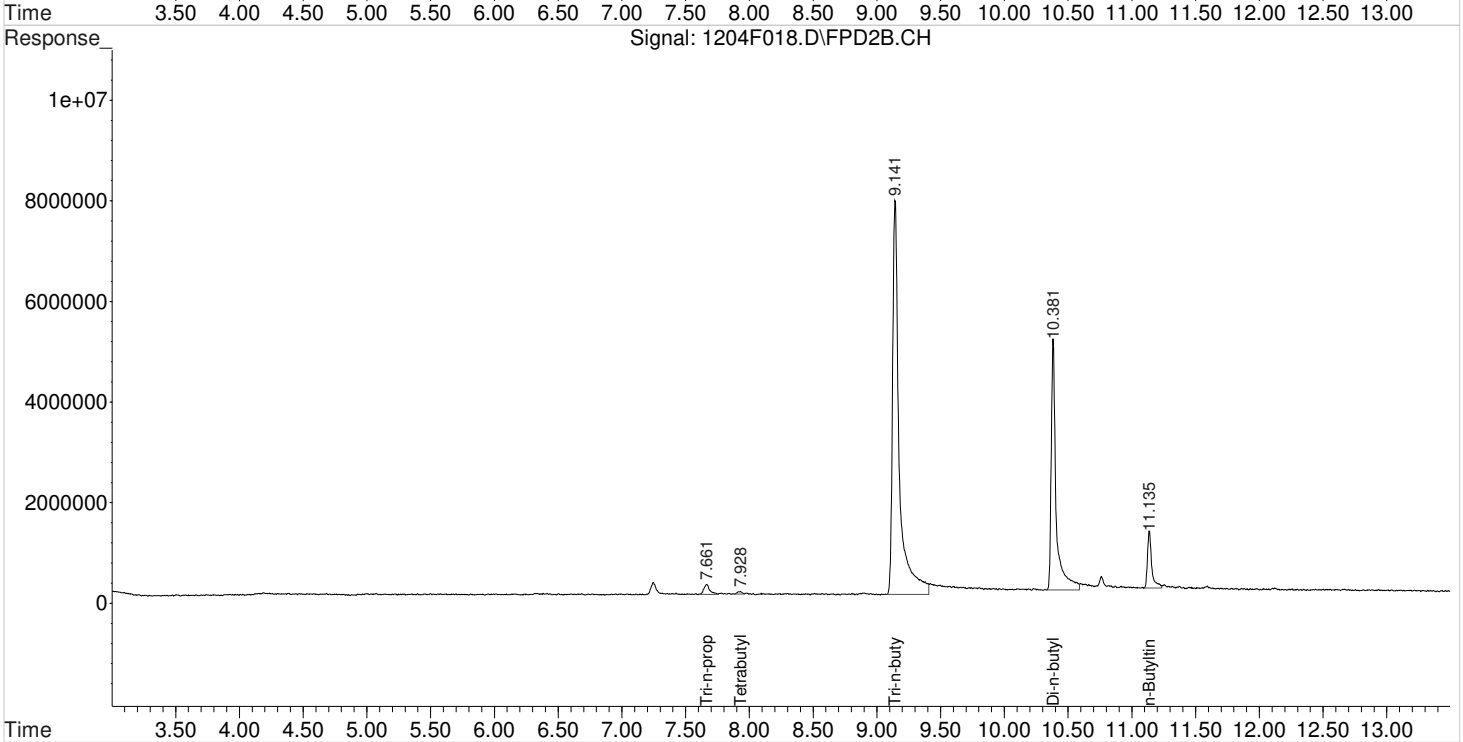
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F018.D Vial: 15
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 7:10 pm Operator: SAA
Sample : K1810302-029 @ 10X Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:51:16 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





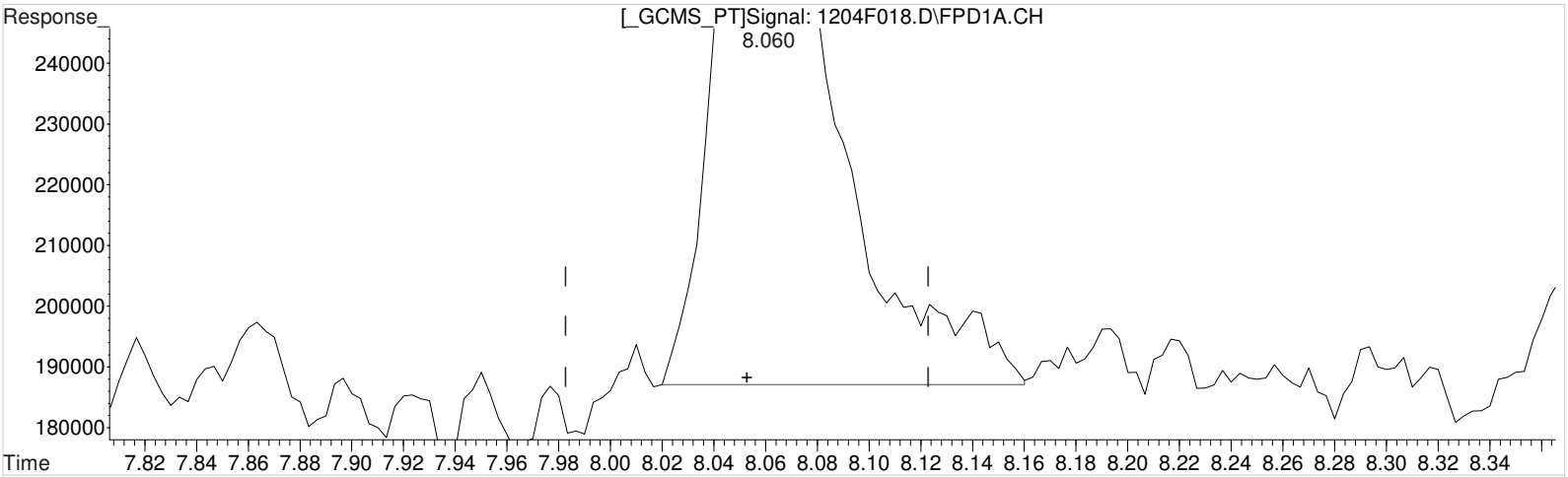
Quantitation Report (Qedit)

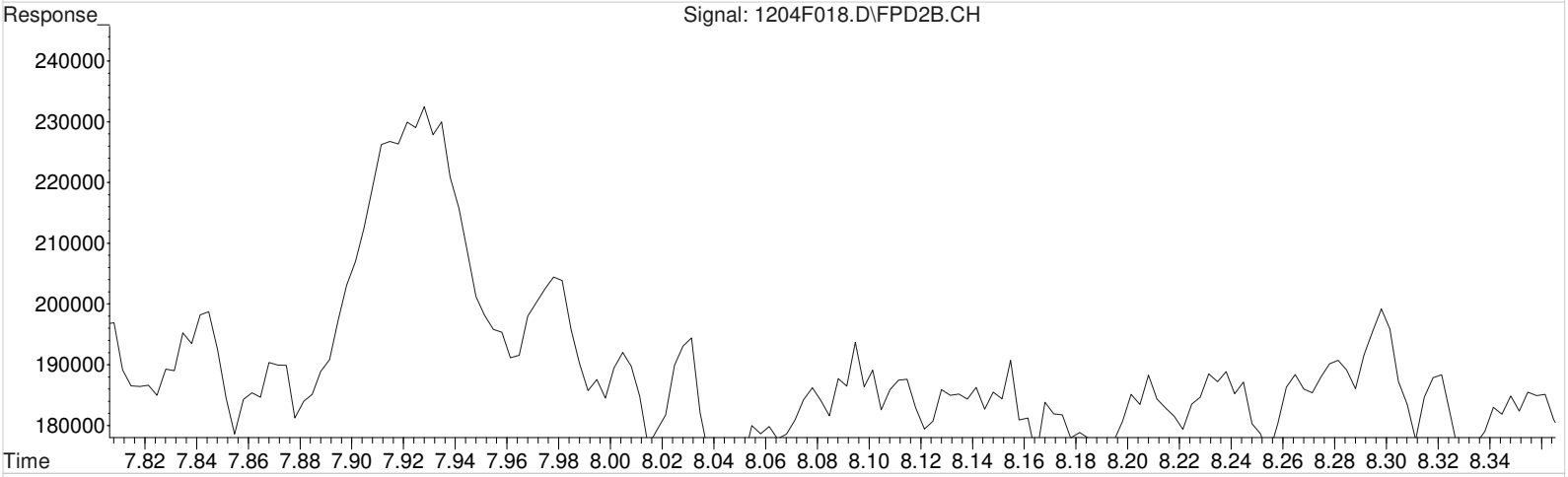
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F018.D Vial: 15
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 7:10 pm Operator: SAA
Sample : K1810302-029 @ 10X Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:14:05 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(1) Tri-n-propyltin (S)

8.060min 6.874 ng/mL

response 375956

Manual Integration:

Before

12/05/18

(1) Tri-n-propyltin #2 (S)

7.661min 8.224 ng/mL

response 643453

(+) = Expected Retention Time

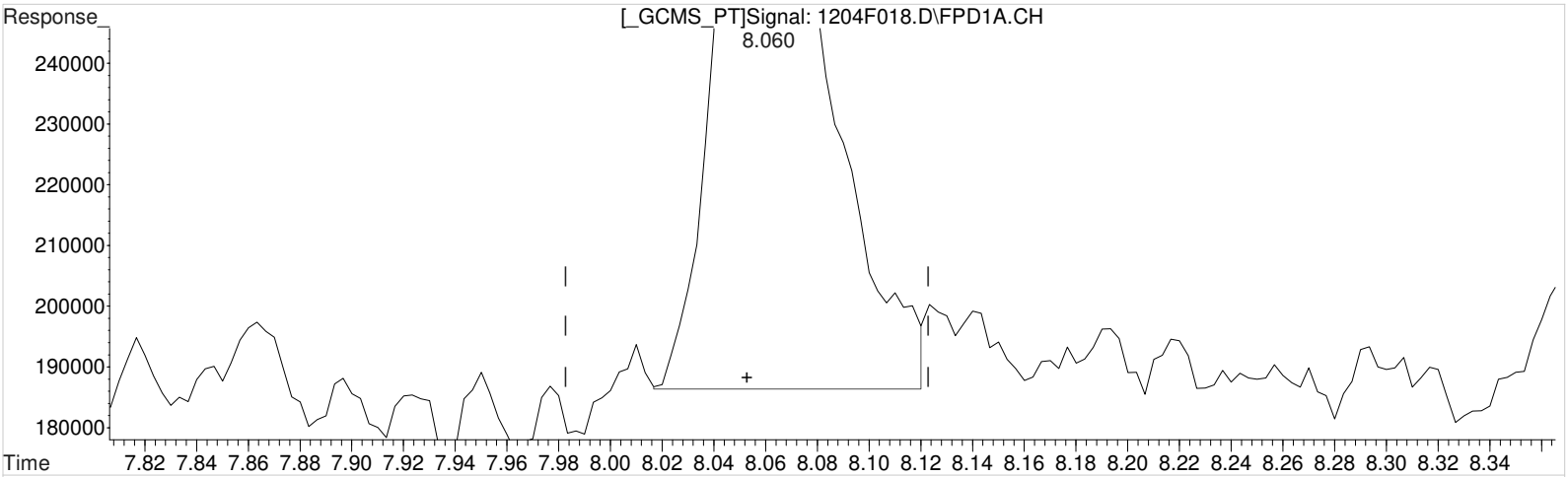
Quantitation Report (Qedit)

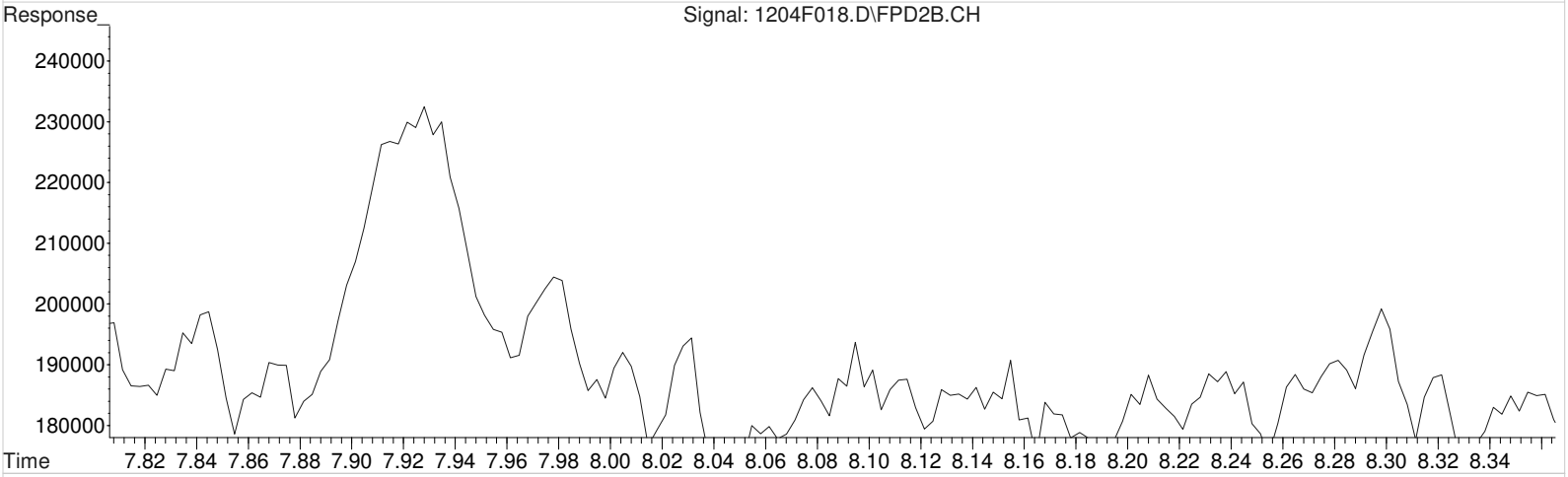
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F018.D Vial: 15
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 7:10 pm Operator: SAA
Sample : K1810302-029 @ 10X Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:14:05 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(1) Tri-n-propyltin (S)

8.060min 6.594 ng/mL m

response 360642

Manual Integration:

After

Baseline/Shoulder

12/05/18

(1) Tri-n-propyltin #2 (S)

7.661min 8.224 ng/mL

response 643453

(+) = Expected Retention Time

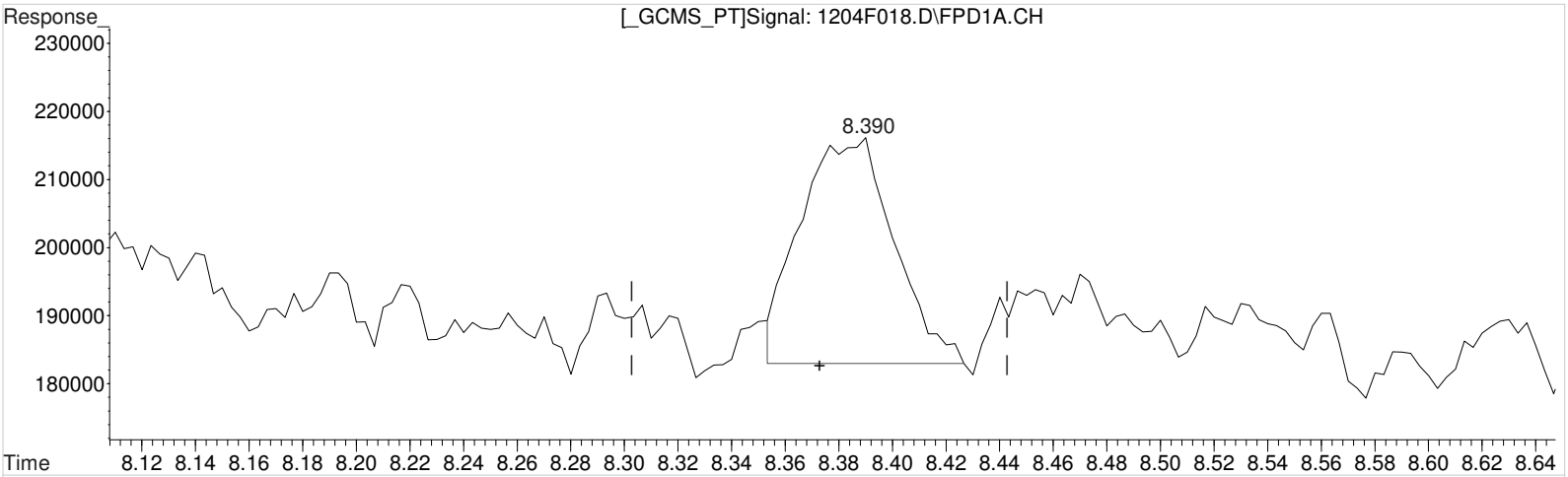
Quantitation Report (Qedit)

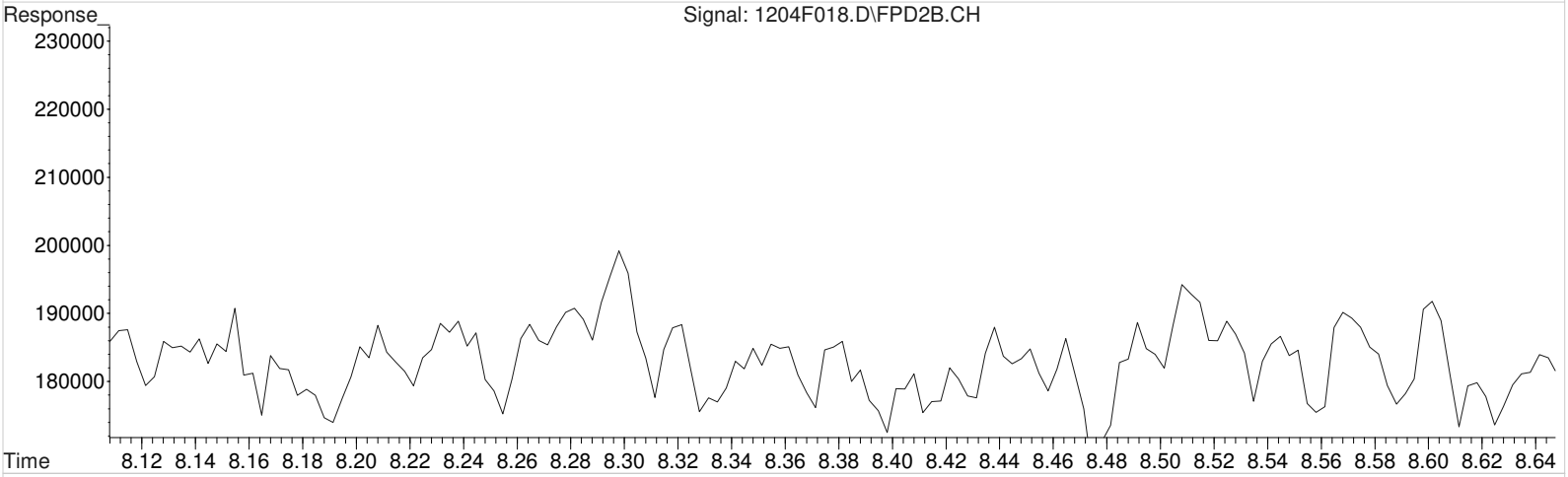
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F018.D Vial: 15
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 7:10 pm Operator: SAA
Sample : K1810302-029 @ 10X Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:14:05 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(2) Tetrabutyltin

8.390min 1.312 ng/mL

response 79964

Manual Integration:

Before

12/05/18

(2) Tetrabutyltin #2

7.928min 1.374 ng/mL

response 128773

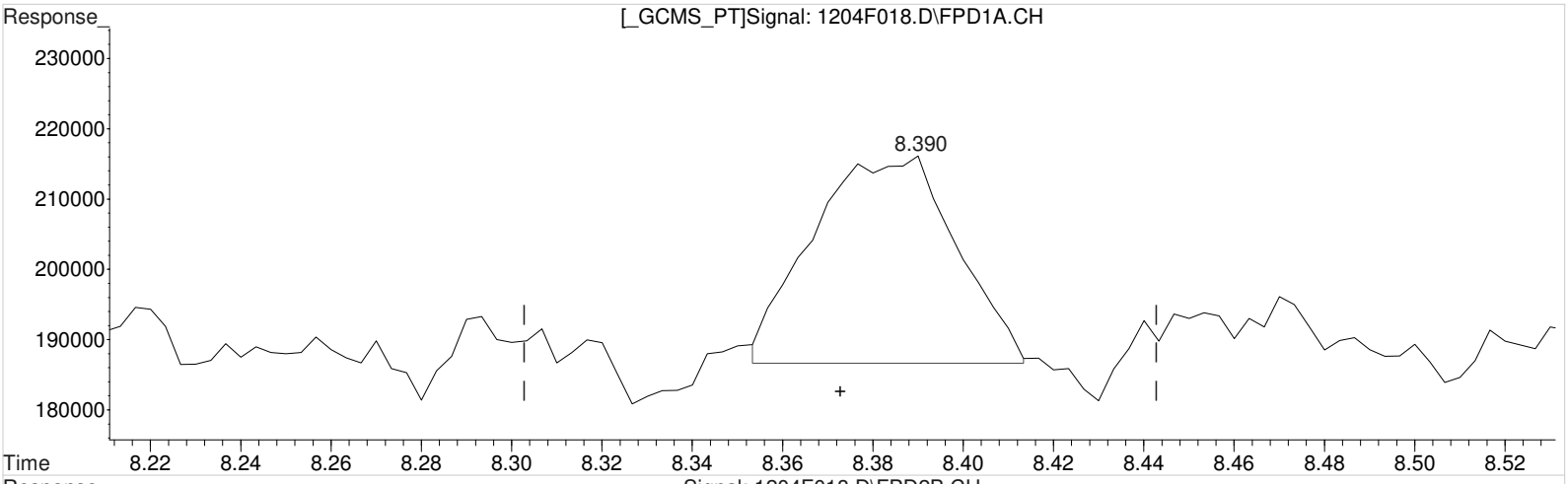
(+) = Expected Retention Time

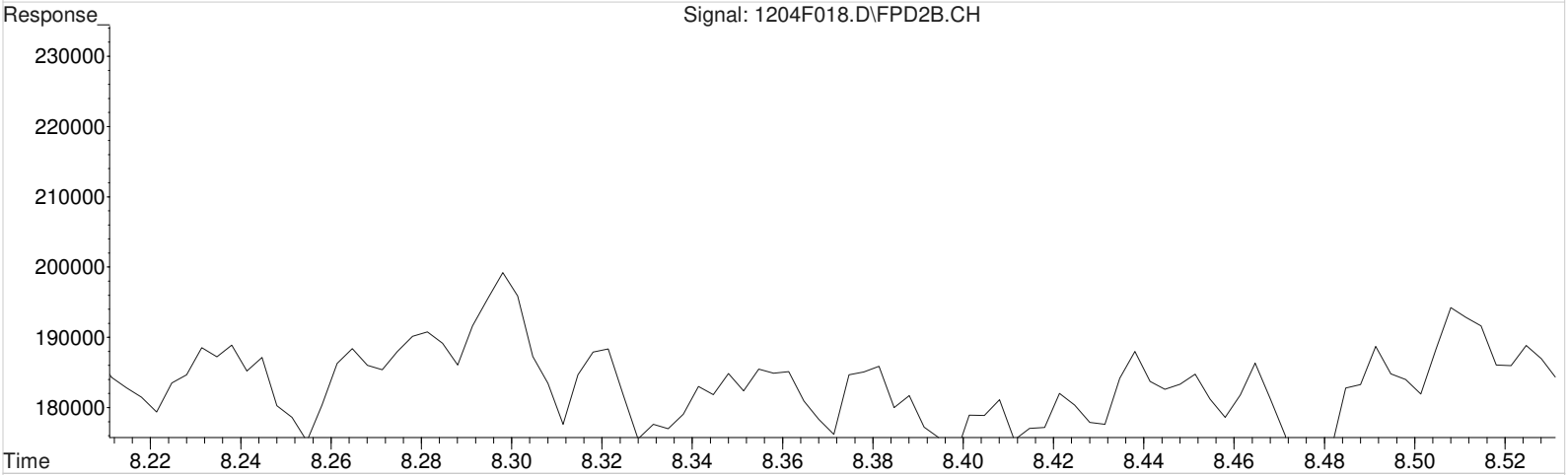
1st 8dh 12/05/18
2nd TP 12/06/18

Data File : J:\GC26\DATA\120418B\1204F018.D Vial: 15
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 7:10 pm Operator: SAA
Sample : K1810302-029 @ 10X Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:14:49 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(2) Tetrabutyltin

8.390min 1.062 ng/mL m

response 64723

Manual Integration:

After

Baseline/Shoulder

12/05/18

(2) Tetrabutyltin #2

7.928min 1.374 ng/mL

response 128773

(+) = Expected Retention Time

Validation Report

1st 11/27/18
2nd 11/29/18

Data File: J:\GC26\DATA\112018\1120F031.D\
Lab ID: KQ1815421-04
RunType: MB
Matrix: Sediment

Date Acquired: 11/21/18 03:11:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - RTX-35	Tri-n-propyltin	-26		25	RO

Primary Review: _____

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Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F031.D\	**Instrument:**	K-GC-26
Acqu Date:	11/21/18 03:11:00	**Vial:**	24
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1815421-04	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615992	**Prep Lot:**	324893	**Report Group:**	KQ1815421
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	10/30/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.03 -0.01	7.66	2744111	4493181	50.175	57.430CCV	40	46	40	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Tri-n-butyltin Cation	0.00	0.00	0	0	0.000	0.000	0U	0U	0.43 U	Y

Prep Amount:	20.2380 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	100.00

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

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Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F031.D Vial: 28
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 3:11 am Operator: SAA
Sample : KQ1815421-004 MB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:06 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.035	7.656	2744111	4493181	50.175	57.430
	Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

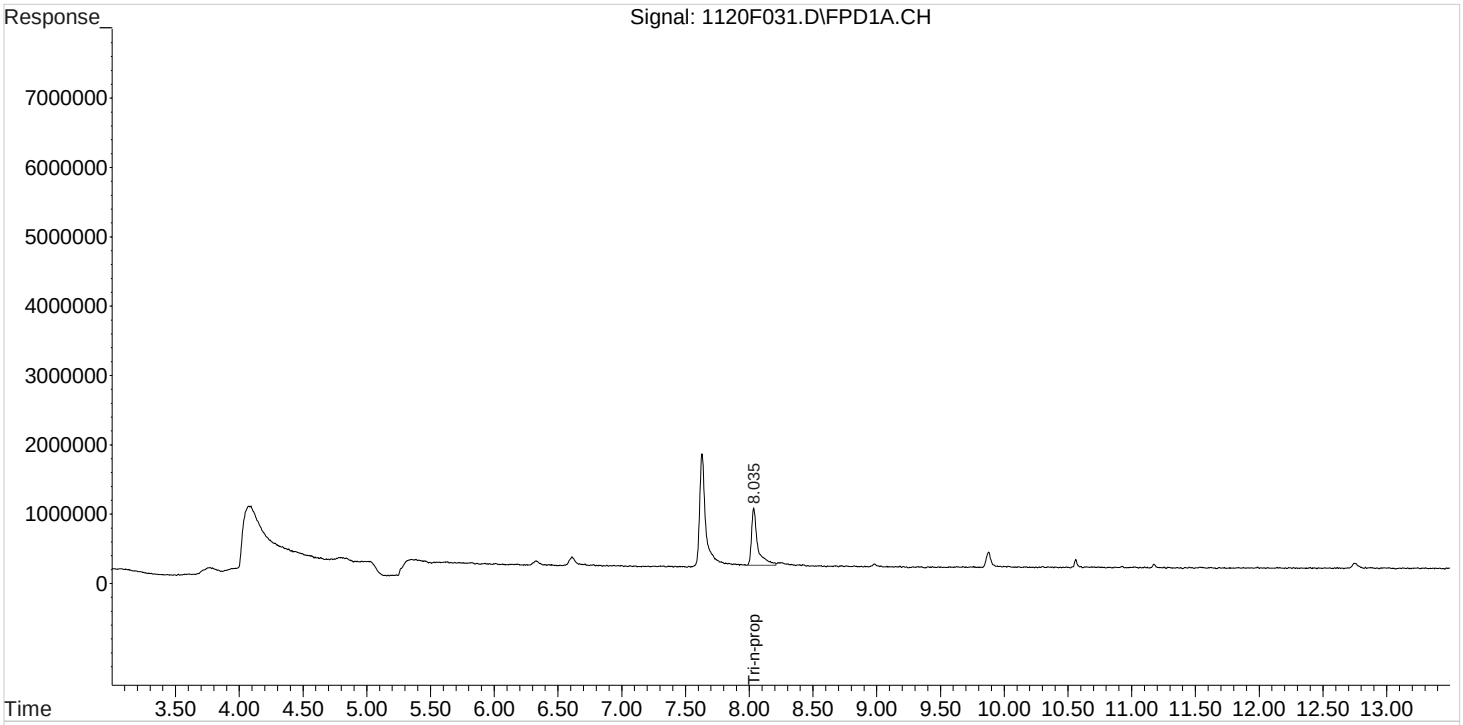
Quantitation Report (QT Reviewed)

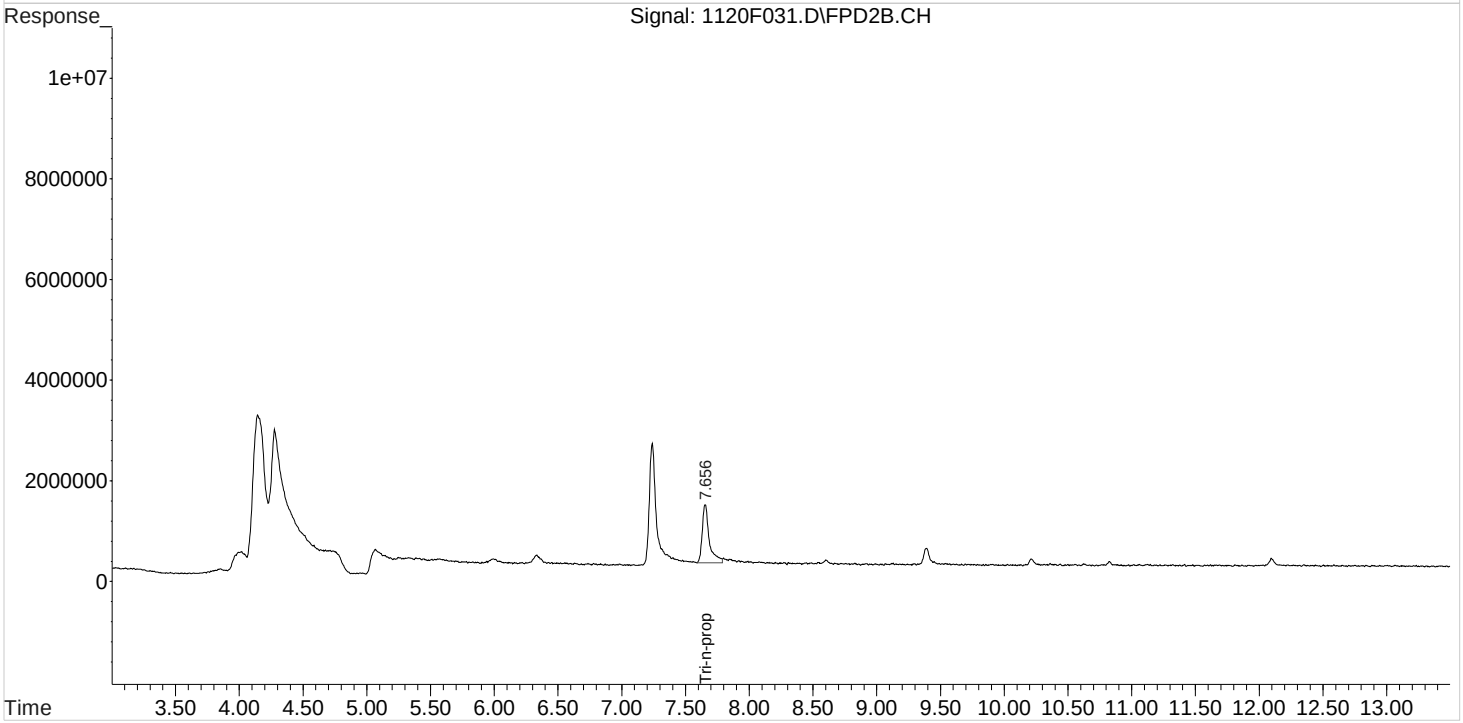
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F031.D Vial: 28
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 3:11 am Operator: SAA
Sample : KQ1815421-004 MB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:06 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





Validation Report

1st 11/27/18
2nd 11/29/18

Data File: J:\GC26\DATA\112018\1120F038.D\
Lab ID: KQ1815422-04
RunType: MB
Matrix: Sediment

Date Acquired: 11/21/18 05:24:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery - RTX-35	Tri-n-propyltin	-26		25	RO

Primary Review: _____

Printed: 11/27/18 14:37
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Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F038.D\	**Instrument:**	K-GC-26
Acqu Date:	11/21/18 05:24:00	**Vial:**	48
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1815422-04	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615992	**Prep Lot:**	324894	**Report Group:**	KQ1815422
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	10/30/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.03 -0.01	7.65	3916956	6216913	71.621	79.462CCV	57	64	57	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Tri-n-butyltin Cation	0.00	0.00	0	0	0.000	0.000	0U	0U	0.43 U	Y

Prep Amount:	20.3900 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	100.00

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

Printed: 11/27/18 14:37
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Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F038.D Vial: 33
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 5:24 am Operator: SAA
Sample : KQ1815422-004 MB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:27 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.035	7.652	3916956	6216913	71.621	79.462
	Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

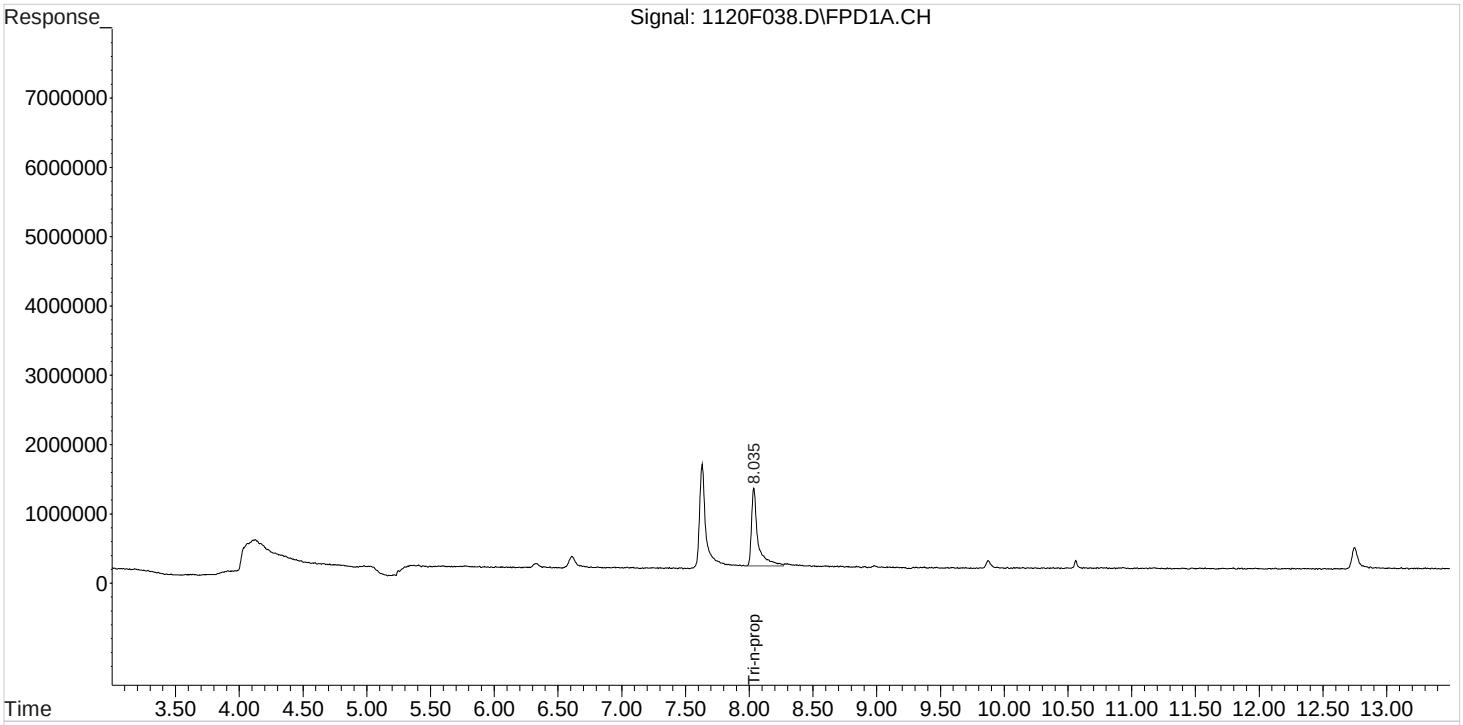
Quantitation Report (QT Reviewed)

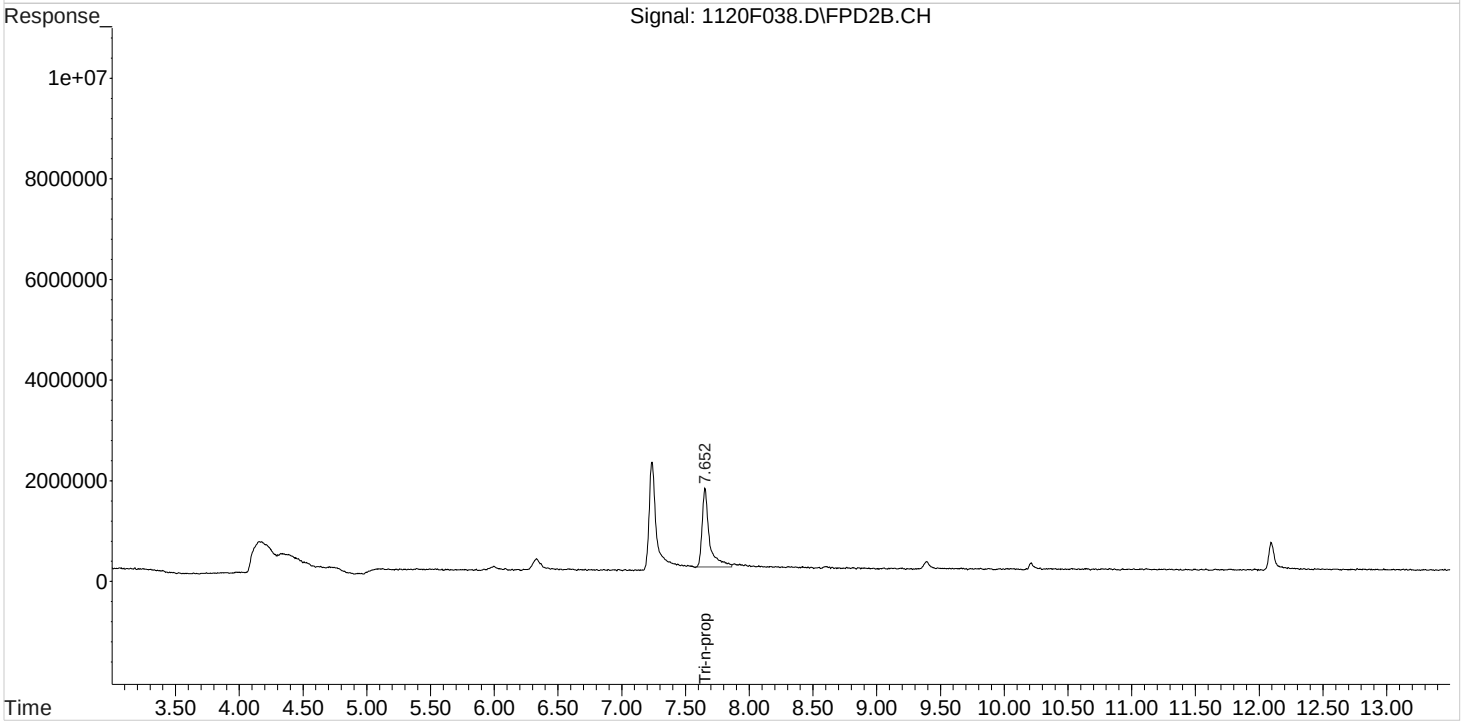
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F038.D Vial: 33
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 5:24 am Operator: SAA
Sample : KQ1815422-004 MB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:27 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





Quantitation Report (Not Reviewed)

1st 12/02/18
2nd 12/06/18

Data File : J:\GC26\DATA\120118\1201F023.D Vial: 19
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 01 Dec 2018 5:34 pm Operator: SMURRAY
Sample : KQ1816241-04 MB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 02 09:57:08 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Sat Dec 01 10:21:19 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.058	7.666	5212790	7418824	95.315	94.825
	Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

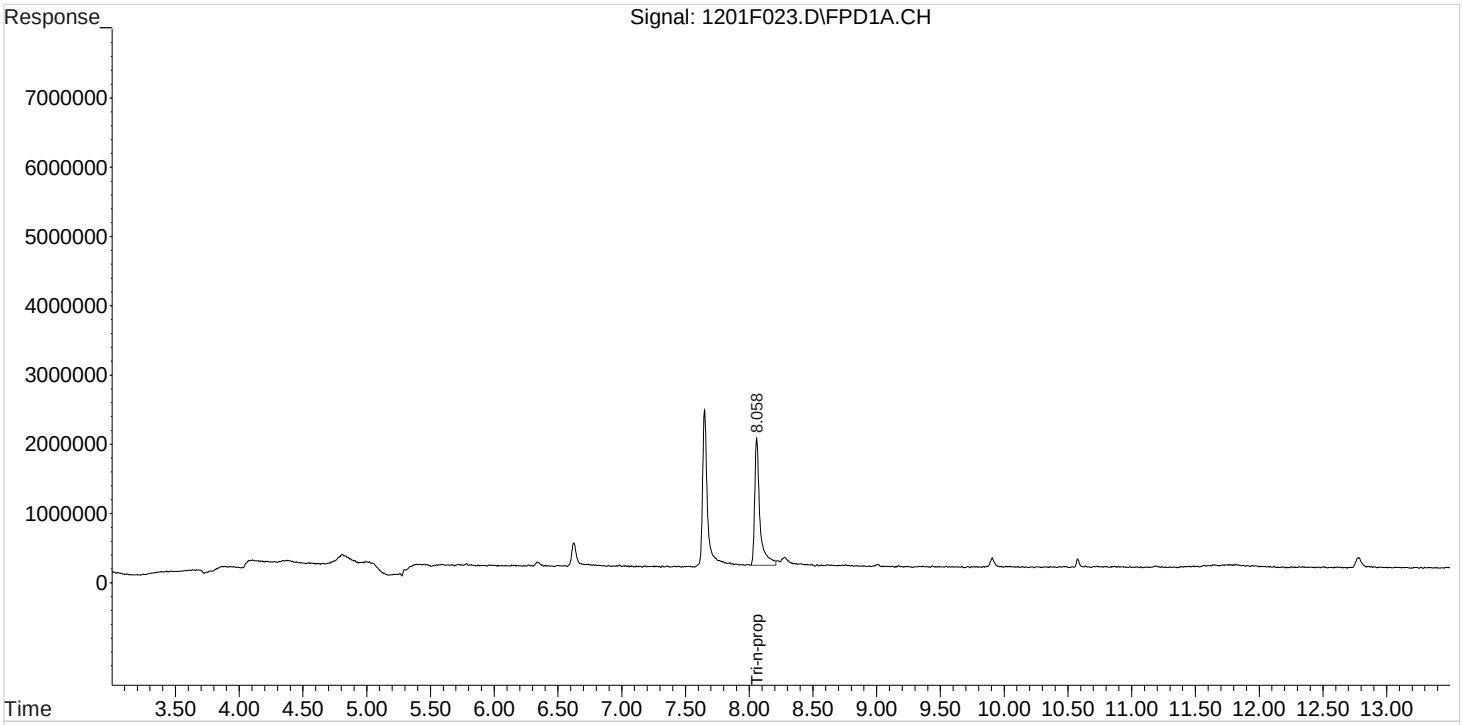
Quantitation Report (Not Reviewed)

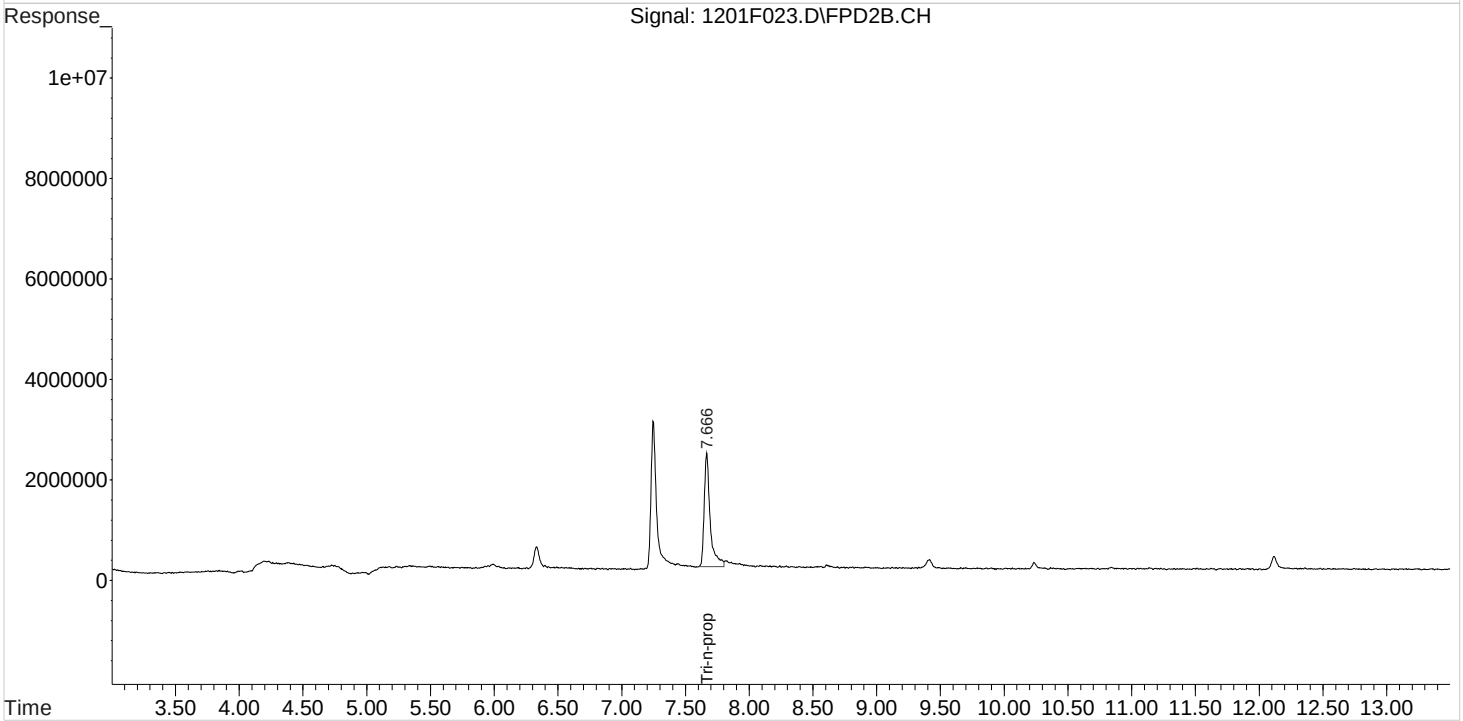
1st 12/02/18
2nd 12/06/18

Data File : J:\GC26\DATA\120118\1201F023.D Vial: 19
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 01 Dec 2018 5:34 pm Operator: SMURRAY
Sample : KQ1816241-04 MB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 02 09:57:08 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Sat Dec 01 10:21:19 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





Validation Report

1st 12/02/18
2nd 12/06/18

Data File: J:\GC26\DATA\120118\1201F023.D\
Lab ID: KQ1816241-04
RunType: MB
Matrix: Sediment

Date Acquired: 12/1/18 17:34:00
Batch ID: 617147
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery - RTX-35	Tri-n-butyltin Cation	-26		25	RO

Primary Review: _____

Secondary Review: _____

1st 12/02/18
2nd 12/06/18

Quantitation Report

Data File:	J:\GC26\DATA\120118\1201F023.D\	**Instrument:**	K-GC-26
Acqu Date:	12/1/18 17:34:00	**Vial:**	22
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1816241-04	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/20/18	**Receive Date:**	10/22/18

Analysis Lot:	617147	**Prep Lot:**	325830	**Report Group:**	KQ1816241
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	11/19/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	17560

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.06 +0.01	7.67 +0.01	5212790	7418824	95.315	94.825	76	76	76	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2		Final Conc 1	Final Conc 2	Primary Conc	Rpt?
n-Butyltin Cation	0.00	0.00	0	0	0.000	0.000		0U	0U	0.26 U	Y
Di-n-butyltin Cation	0.00	0.00	0	0	0.000	0.000		0U	0U	0.19 U	Y
Tri-n-butyltin Cation	0.00	0.00	0	0	0.000	0.000 CCV	RO	0U	0U	0.43 U	Y
Tetra-n-butyltin	0.00	0.00	0	0	0.000	0.000		0U	0U	0.44 U	Y

Prep Amount:	20.3210 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	100.00

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

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1st 11/27/18
2nd 11/29/18

Validation Report

Data File: J:\GC26\DATA\112018\1120F030.D\
Lab ID: KQ1815421-03
RunType: LCS
Matrix: Sediment

Date Acquired: 11/21/18 02:52:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - RTX-35	Tri-n-propyltin	-26		25	RO

Primary Review: _____

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Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F030.D\	**Instrument:**	K-GC-26
Acqu Date:	11/21/18 02:52:00	**Vial:**	23
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1815421-03	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615992	**Prep Lot:**	324893	**Report Group:**	KQ1815421
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	10/30/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.03 -0.01	7.66	2981646	4821343	54.519	61.625 CCV	44	49	44	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Tri-n-butyltin Cation	9.63	9.12	4317816	7705413	62.119	73.958	12.4	14.8	**12.4**	Y

Prep Amount:	20.00 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	100.00

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

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Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F030.D Vial: 27
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 2:52 am Operator: SAA
Sample : KQ1815421-003 LCS Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:03 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.035	7.656	2981646	4821343	54.519	61.625
	Target Compounds						
2)	Tetrabuty...	8.358	7.909	4226555	7249113	69.330	77.368
3)	Tri-n-but...	9.628	9.123	4317816	7705413	62.119	73.958
4)	Di-n-buty...	10.695	10.366	6523715	10972346	56.751	63.004
5)	n-Butyltin	11.551	11.123	3676202	6480146	35.565	40.510

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

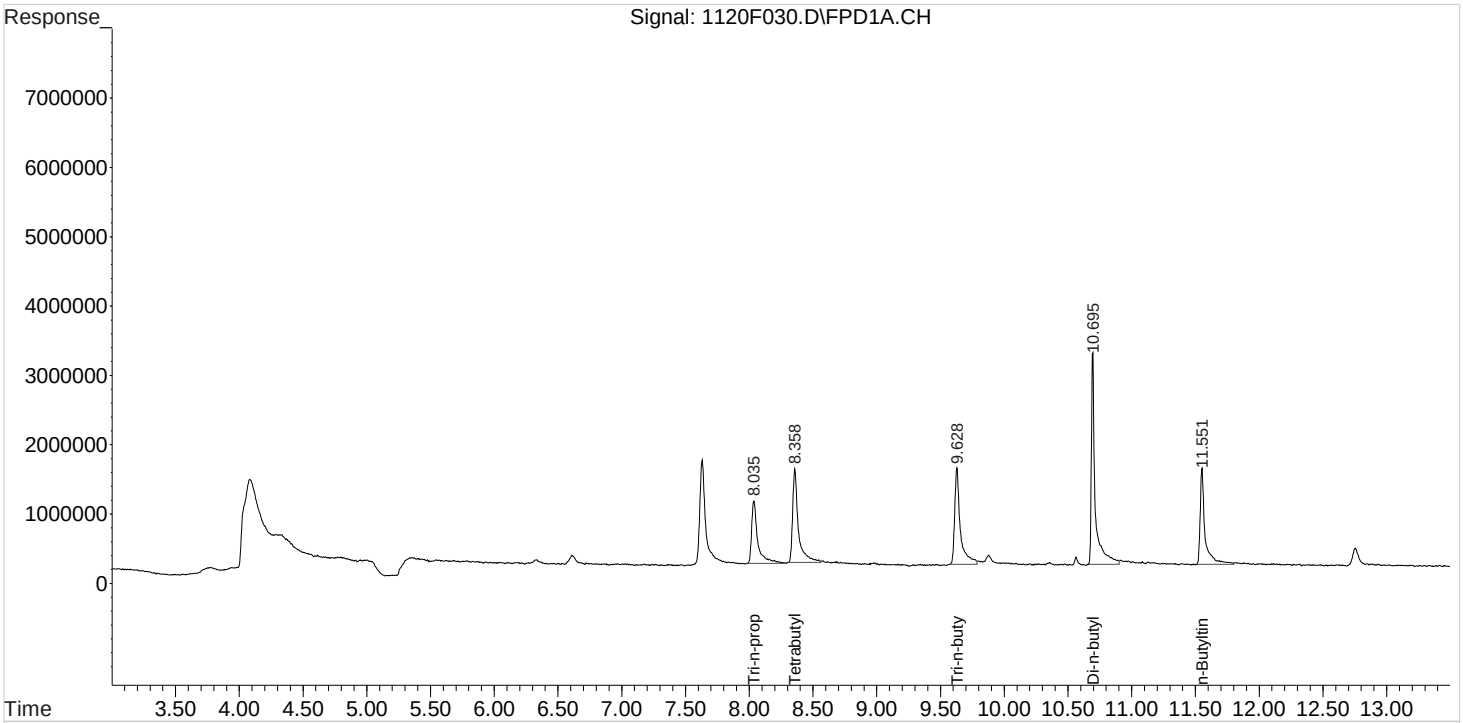
Quantitation Report (QT Reviewed)

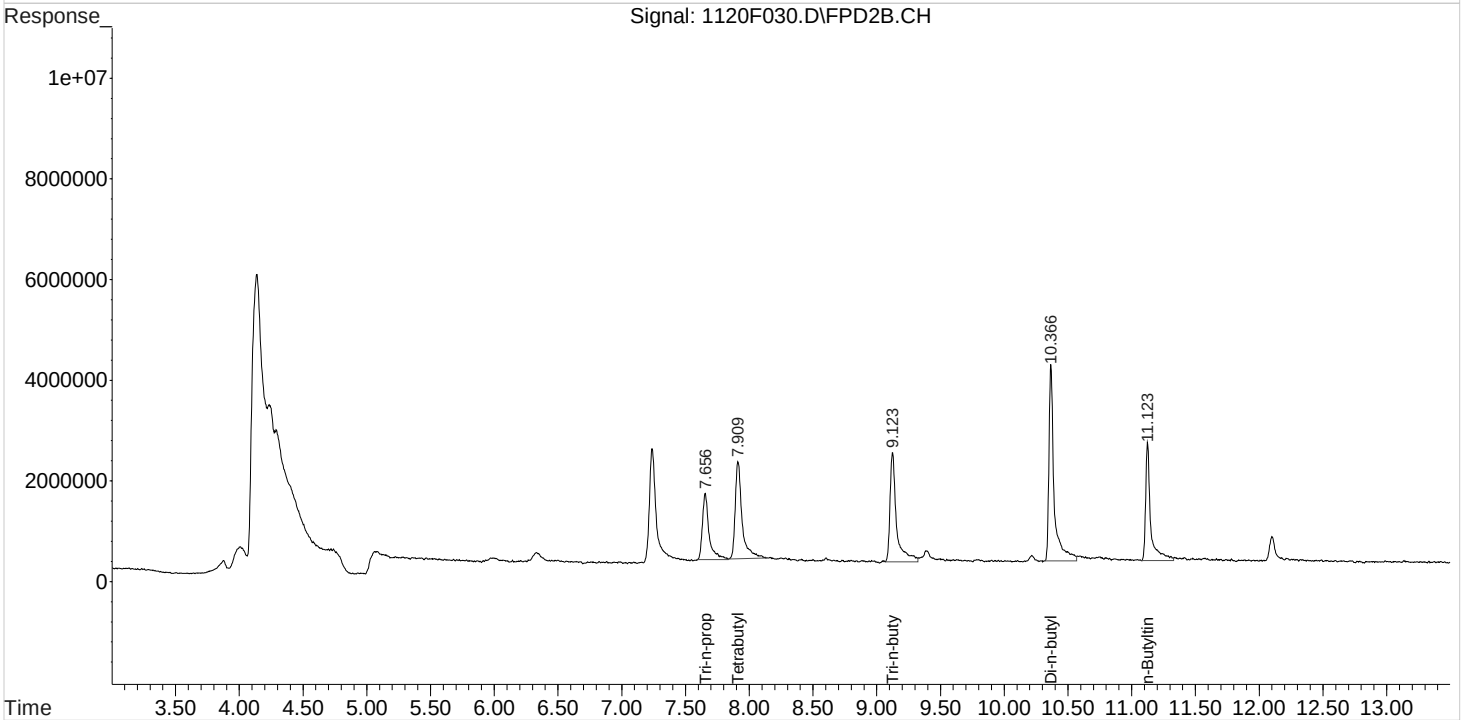
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F030.D Vial: 27
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 2:52 am Operator: SAA
Sample : KQ1815421-003 LCS Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:03 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





1st 11/27/18
2nd 11/29/18

Validation Report

Data File: J:\GC26\DATA\112018\1120F037.D\
Lab ID: KQ1815422-03
RunType: LCS
Matrix: Sediment

Date Acquired: 11/21/18 05:05:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery - RTX-35	Tri-n-propyltin	-26		25	RO

Primary Review: _____

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Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F037.D\	**Instrument:**	K-GC-26
Acqu Date:	11/21/18 05:05:00	**Vial:**	47
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1815422-03	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615992	**Prep Lot:**	324894	**Report Group:**	KQ1815422
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	10/30/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.03 -0.01	7.65	4190451	6361992	76.622	81.317 CCV	61	65	61	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Tri-n-butyltin Cation	9.63 +0.01	9.12 -0.01	5600602	8151585	80.573	78.240	16.1	15.6	**15.6**	Y

Prep Amount:	20.00 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	100.00

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

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Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F037.D Vial: 32
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 5:05 am Operator: SAA
Sample : KQ1815422-003 LCS Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:24 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.034	7.652	4190451	6361992	76.622	81.317
	Target Compounds						
2)	Tetrabuty...	8.354	7.912	5846791	8856351	95.907	94.522
3)	Tri-n-but...	9.628	9.119	5600602	8151585	80.573	78.240
4)	Di-n-buty...	10.691	10.366	8358815	13860618	72.715	79.588
5)	n-Butyltin	11.548	11.119	6909273	10809842	66.843	67.576

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

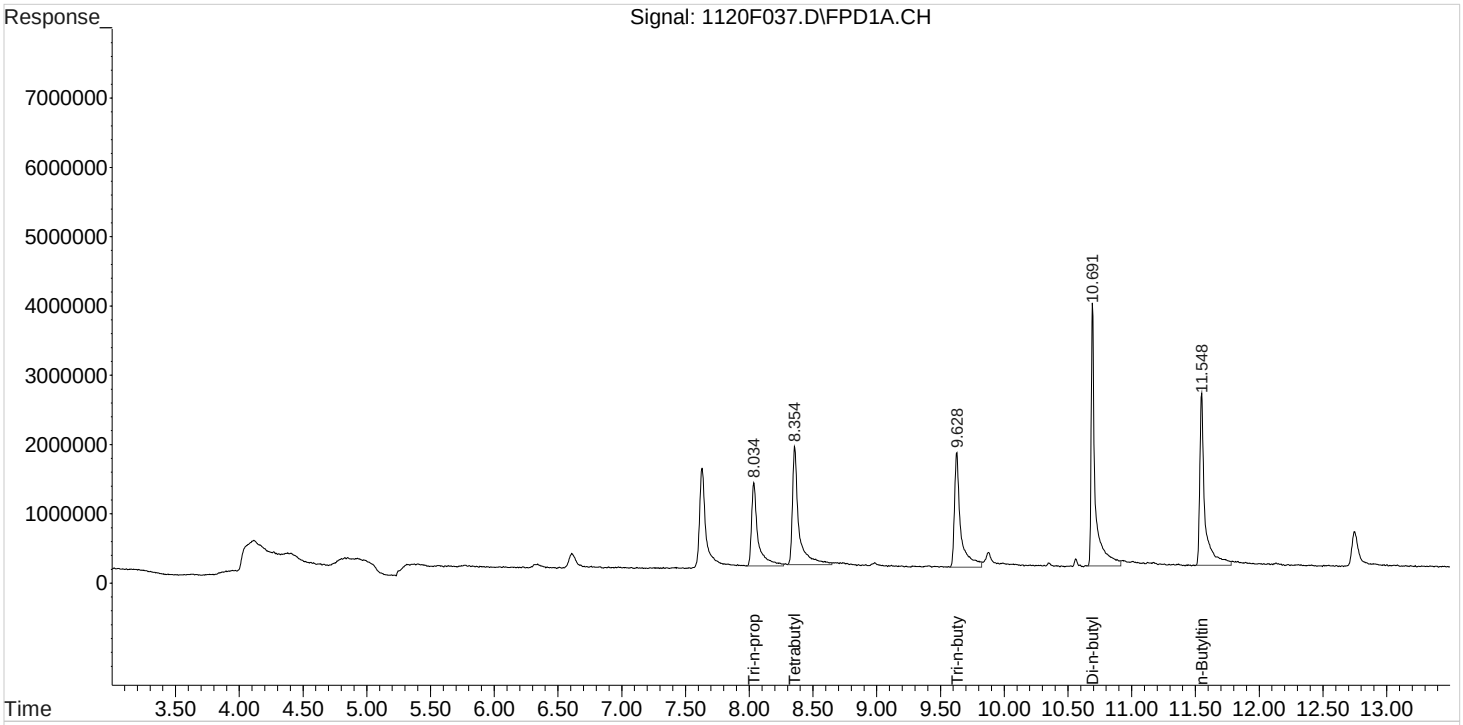
Quantitation Report (QT Reviewed)

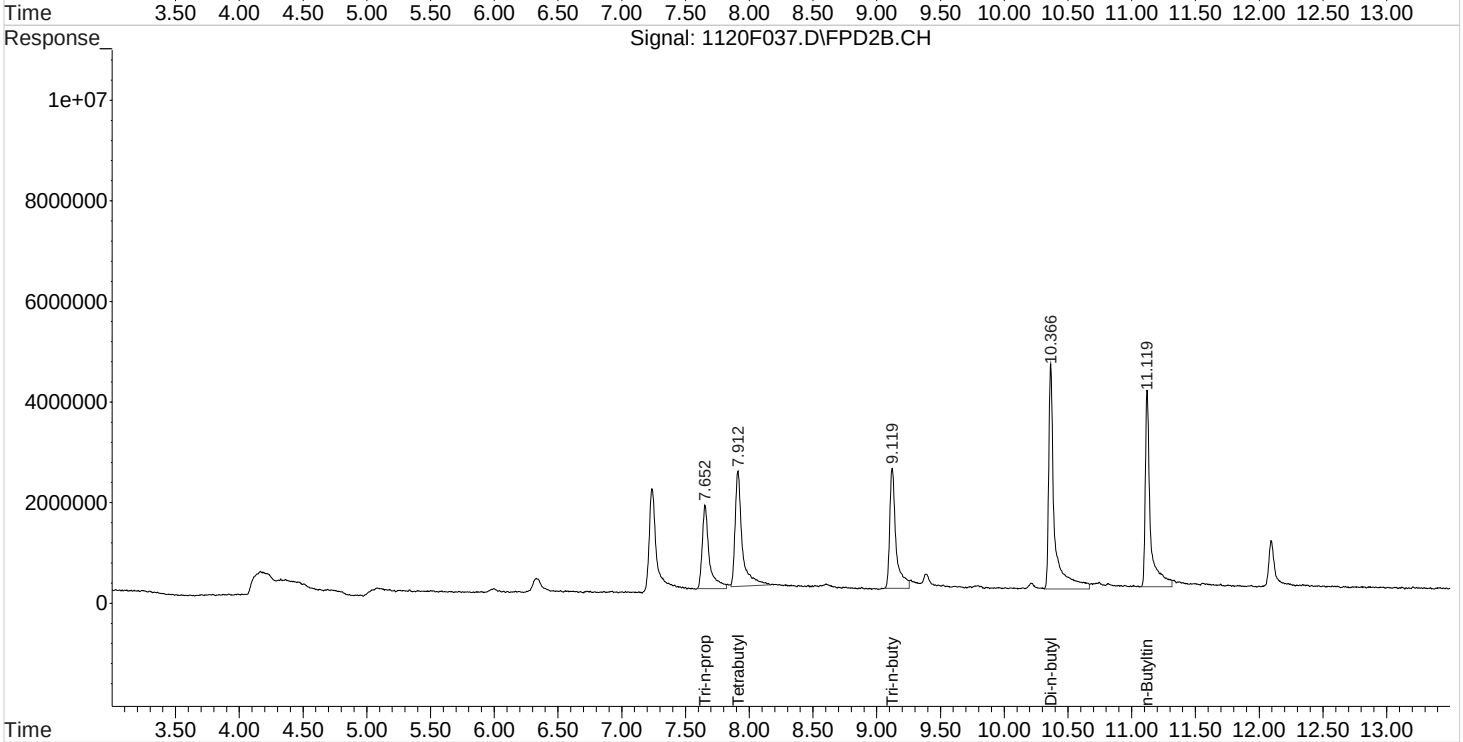
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F037.D Vial: 32
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 5:05 am Operator: SAA
Sample : KQ1815422-003 LCS Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:24 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





Quantitation Report (Not Reviewed)

1st 12/02/18
2nd 12/06/18

Data File : J:\GC26\DATA\120118\1201F022.D Vial: 18
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 01 Dec 2018 5:16 pm Operator: SMURRAY
Sample : KQ1816241-03 LCS Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 02 09:57:05 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Sat Dec 01 10:21:19 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.056	7.664	5125720	6777533	93.723	86.628
	Target Compounds						
2)	Tetrabuty...	8.379	7.924	5578806	8158816	91.511	87.077
3)	Tri-n-but...	9.656	9.141	5411286	7806793	77.850	74.931
4)	Di-n-buty...	10.709	10.381	7579118	10577744	65.932	60.738
5)	n-Butyltin	11.566	11.137	7819691	11048648	75.651	69.069

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

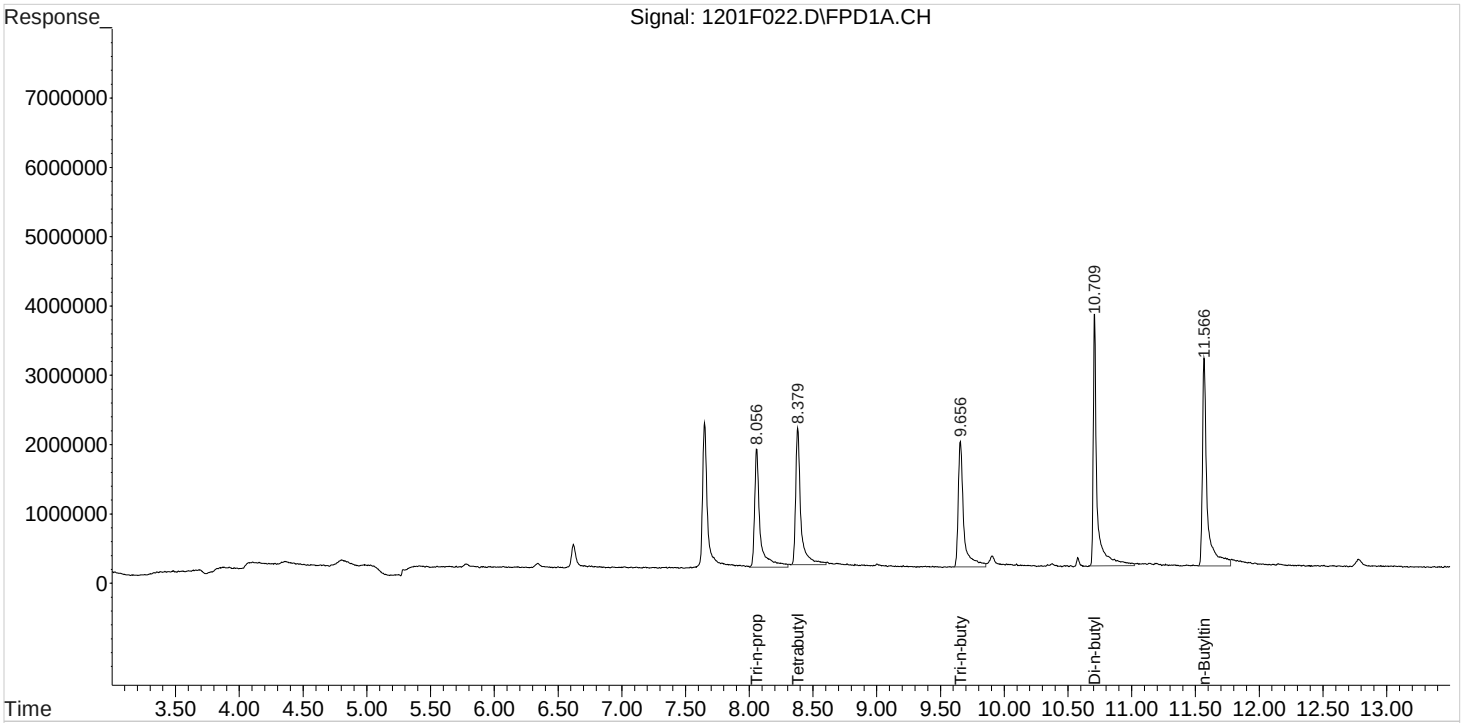
Quantitation Report (Not Reviewed)

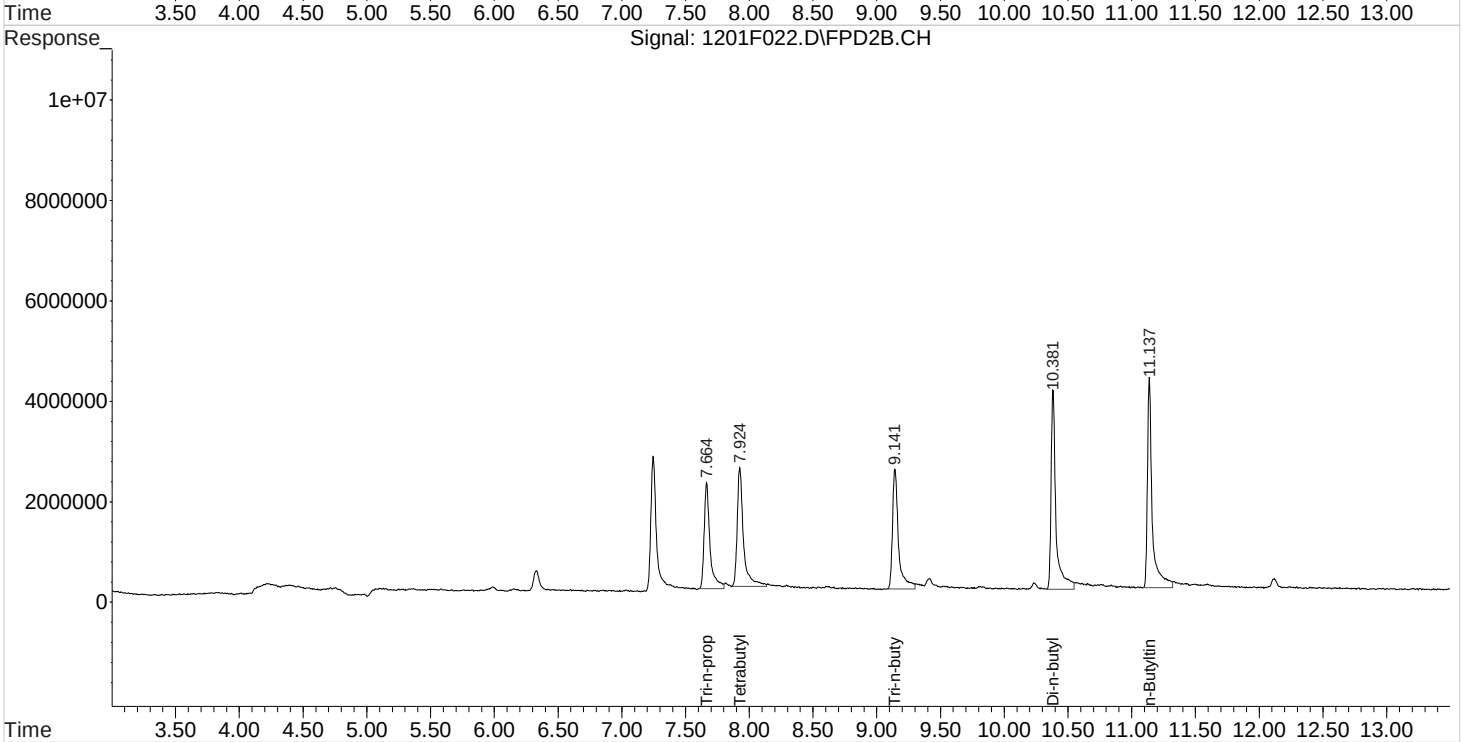
1st 12/02/18
2nd 12/06/18

Data File : J:\GC26\DATA\120118\1201F022.D Vial: 18
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 01 Dec 2018 5:16 pm Operator: SMURRAY
Sample : KQ1816241-03 LCS Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 02 09:57:05 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Sat Dec 01 10:21:19 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





1st 12/02/18
2nd 12/06/18

Validation Report

Data File: J:\GC26\DATA\120118\1201F022.D\
Lab ID: KQ1816241-03
RunType: LCS
Matrix: Sediment

Date Acquired: 12/1/18 17:16:00
Batch ID: 617147
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery - RTX-35	Tri-n-butyltin Cation	-26		25	RO

Primary Review: _____

Secondary Review: _____

1st 12/02/18
2nd 12/06/18

Quantitation Report

Data File:	J:\GC26\DATA\120118\1201F022.D\	**Instrument:**	K-GC-26
Acqu Date:	12/1/18 17:16:00	**Vial:**	21
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1816241-03	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/20/18	**Receive Date:**	10/22/18

Analysis Lot:	617147	**Prep Lot:**	325830	**Report Group:**	KQ1816241
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	11/19/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	17560

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.06 +0.01	7.66	5125720	6777533	93.723	86.628	75	69	69	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2		Final Conc 1	Final Conc 2	Primary Conc	Rpt?
n-Butyltin Cation	11.57 +0.01	11.14	7819691	11048648	75.651	69.069		15.1	13.8	**13.8**	Y
Di-n-butyltin Cation	10.71 +0.01	10.38	7579118	10577744	65.932	60.738		13.2	12.1	**12.1**	Y
Tri-n-butyltin Cation	9.66 +0.01	9.14	5411286	7806793	77.850	74.931 CCV	RO	15.6	15.0	**15.0**	Y
Tetra-n-butyltin	8.38 +0.01	7.92	5578806	8158816	91.511	87.077		18.3	17.4	**17.4**	Y

Prep Amount:	20.00 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	100.00

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

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1st 12/02/18
2nd 12/06/18

Lab Control Spike Summary Report

QAP Name: LAB QAP
List Name: 4-1095-01
Spec Set: #926 v. 1
List ID: #17560

Lab Control Spike Information

Data File:	J:\GC26\DATA\120118\1201F022.D\	**Instrument:**	K-GC-26
Lab ID:	KQ1816241-03	**Dilution:**	1
Client ID:	Lab Control Sample	**Units:**	ug/Kg
Test:	ALS SOP/BUTYLTINS	**Acqu Date:**	12/1/18 17:16:00
Matrix:	Sediment		

	LCS			% Rec
Parameter Name	**Result**	**Expected**	**% Rec**	**Limits**
n-Butyltin Cation	13.8	15.6	89	10 - 150
Di-n-butyltin Cation	12.1	19.2	63	12 - 136
Tri-n-butyltin Cation	15.0	22.3	67	10 - 122
Tetra-n-butyltin	17.4	25.0	70	19 - 130
Tri-n-propyltin			69	10 - 120

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

1st 12/02/18
2nd 12/06/18

Lab Control Spike Summary Report

QAP Name: LAB QAP
List Name: 1-1095-01 TBT ONLY
Spec Set: #926 v. 1
List ID: #18688

Lab Control Spike Information

Data File:	J:\GC26\DATA\120118\1201F022.D\	**Instrument:**	K-GC-26
Lab ID:	KQ1816241-03	**Dilution:**	1
Client ID:	Lab Control Sample	**Units:**	ug/Kg
Test:	ALS SOP/BUTYLTINS	**Acqu Date:**	12/1/18 17:16:00
Matrix:	Sediment		

	LCS			% Rec
Parameter Name	**Result**	**Expected**	**% Rec**	**Limits**
Tri-n-butyltin Cation	15.0	22.3	67	10 - 122
Tri-n-propyltin			69	10 - 120

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

1st 11/27/18
2nd 11/29/18

Validation Report

Data File: J:\GC26\DATA\112018\1120F033.D\
Lab ID: KQ1815421-01
RunType: MS
Matrix: Sediment

Date Acquired: 11/21/18 03:49:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - RTX-35	Tri-n-propyltin	-26		25	RO

Primary Review: _____

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Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F033.D\	**Instrument:**	K-GC-26
Acqu Date:	11/21/18 03:49:00	**Vial:**	21
Run Type:	MS	**Dilution:**	1
Lab ID:	KQ1815421-01	**Raw Units:**	ng/mL

Bottle ID:	K1810302-022.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615992	**Prep Lot:**	324893	**Report Group:**	KQ1815421
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	10/30/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.04	7.65 -0.01	3425435	5536250	62.633	70.762 CCV	50	57	50	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Tri-n-butyltin Cation	9.63	9.12	5188335	8540012	74.642	81.968	22.6	24.8	**22.6**	Y

Prep Amount:	20.054 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	66.00

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

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Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F033.D Vial: 30
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 3:49 am Operator: SAA
Sample : K1810302-022 MS Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:12 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.036	7.651	3425435	5536250	62.633	70.762
	Target Compounds						
2)	Tetrabuty...	8.356	7.914	4738821	7911409	77.733	84.437
3)	Tri-n-but...	9.626	9.124	5188335	8540012	74.642	81.968
4)	Di-n-buty...	10.693	10.364	6534058	10715607	56.841	61.529
5)	n-Butyltin	11.549	11.124	1406420	2320268	13.606	14.505

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

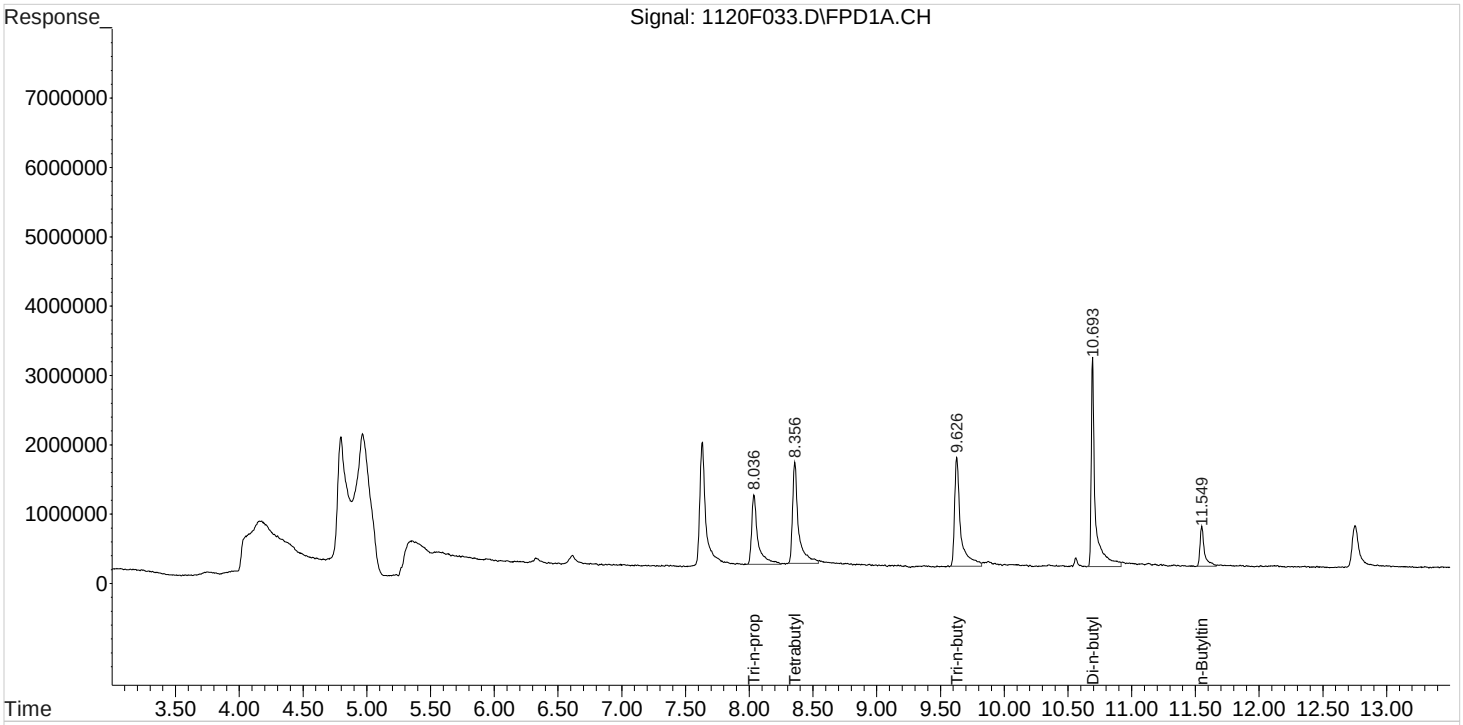
Quantitation Report (QT Reviewed)

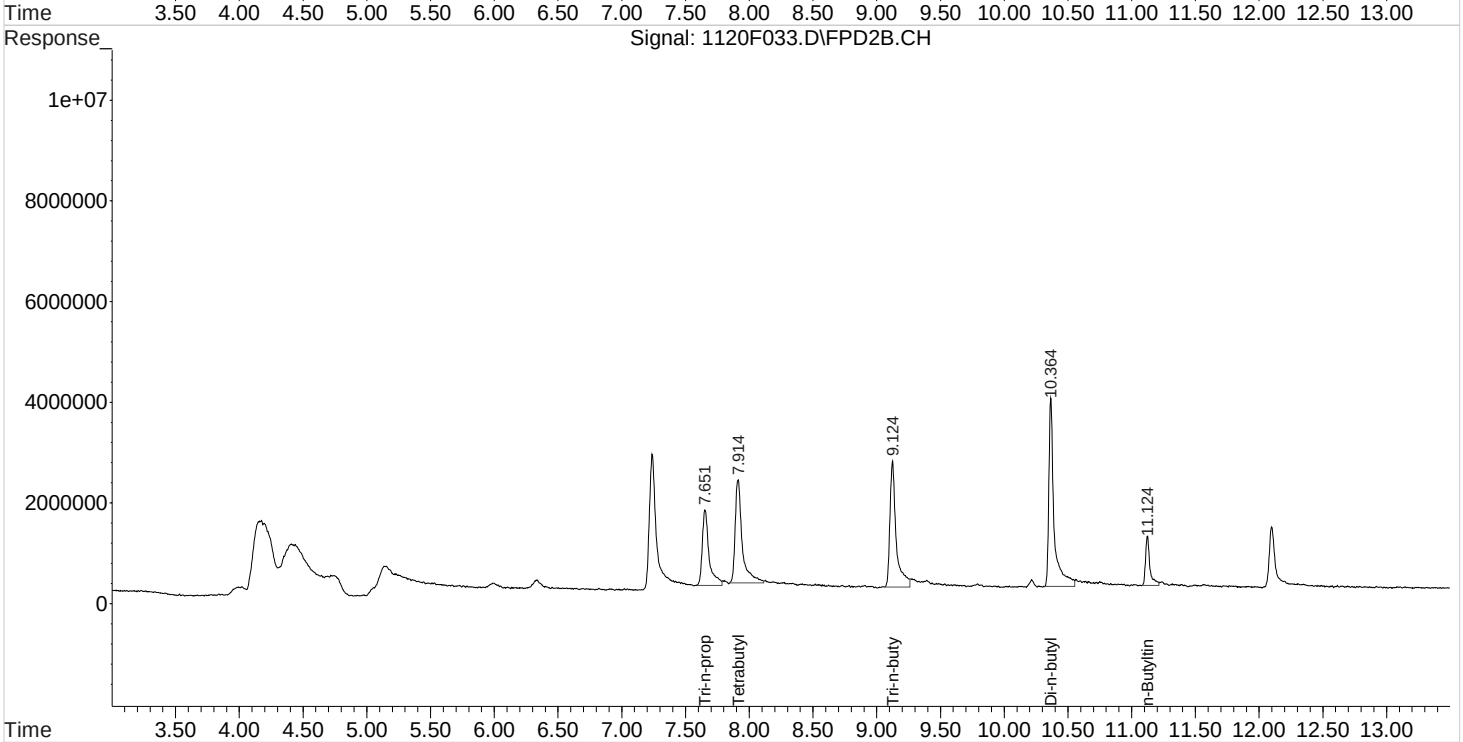
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F033.D Vial: 30
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 3:49 am Operator: SAA
Sample : K1810302-022 MS Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:12 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





1st 11/27/18
2nd 11/29/18

Validation Report

Data File: J:\GC26\DATA\112018\1120F040.D\
Lab ID: KQ1815422-01
RunType: MS
Matrix: Sediment

Date Acquired: 11/21/18 06:02:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level		X
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery - RTX-35	Tri-n-propyltin	-26		25	RO
Above Highest ICAL Level - RTX-1	Tri-n-butyltin Cation	651.742		445.5	narr
Above Highest ICAL Level - RTX-35	Tri-n-butyltin Cation	610.738		445.5	narr

Primary Review: _____

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Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F040.D\	**Instrument:**	K-GC-26
Acqu Date:	11/21/18 06:02:00	**Vial:**	45
Run Type:	MS	**Dilution:**	1
Lab ID:	KQ1815422-01	**Raw Units:**	ng/mL

Bottle ID:	K1810302-001.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/19/18	**Receive Date:**	10/22/18

Analysis Lot:	615992	**Prep Lot:**	324894	**Report Group:**	KQ1815422
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	10/30/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.04	7.65	5298994	7935039	96.891	101.423 CCV	78	81	78	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Tri-n-butyltin Cation	9.63 +0.01	9.12 -0.01	45302113	63630731	651.742	610.738	400E	375E	**375** E	Y

Prep Amount:	20.319 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	32.10

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

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Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F040.D Vial: 35
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 6:02 am Operator: SAA
Sample : K1810302-001 MS Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:33 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.038	7.653	5298994	7935039	96.891	101.423
	Target Compounds						
2)	Tetrabuty...	8.358	7.913	6479845	9579473	106.291	102.240
3)	Tri-n-but...	9.628	9.123	45302113	63630731	651.742	610.738
4)	Di-n-buty...	10.692	10.366	30419139	46106522	264.622	264.745
5)	n-Butyltin	11.552	11.123	11196502	17167114	108.319	107.317

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

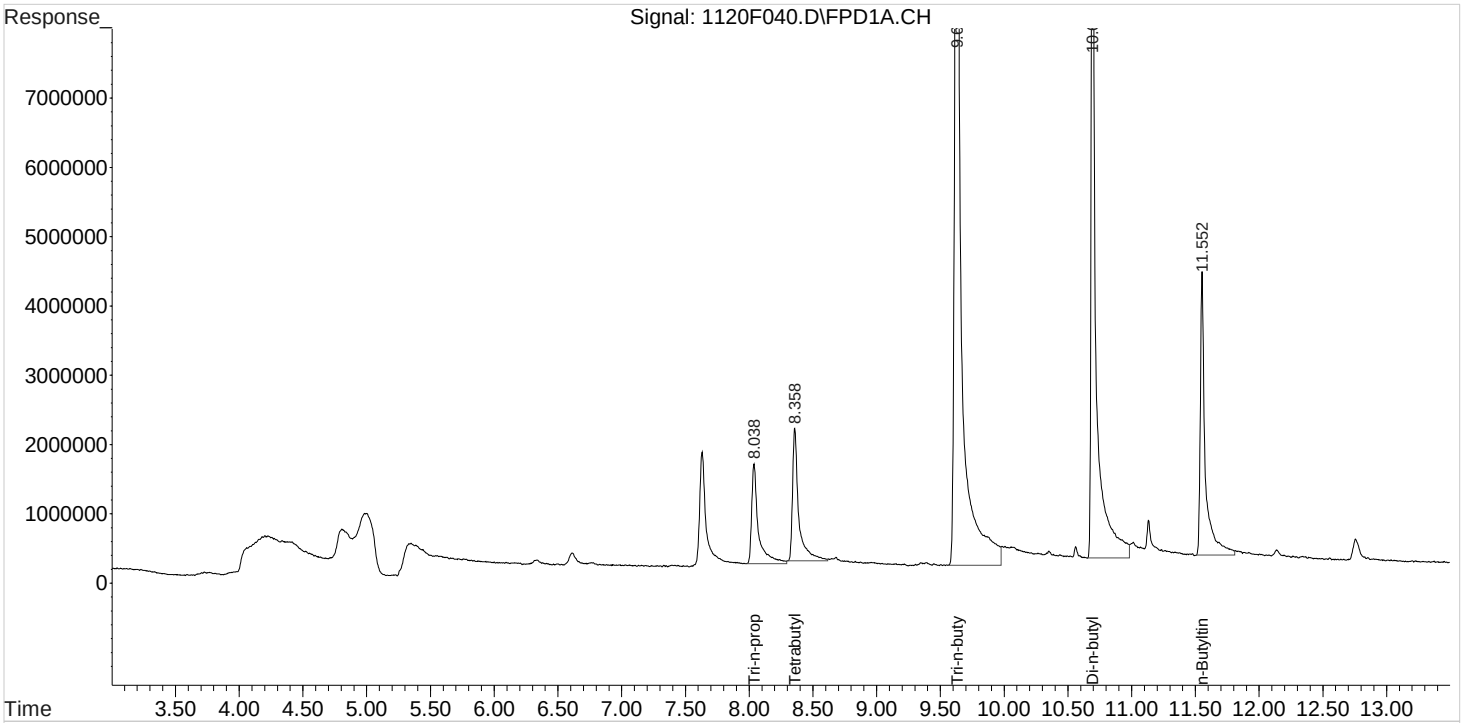
Quantitation Report (QT Reviewed)

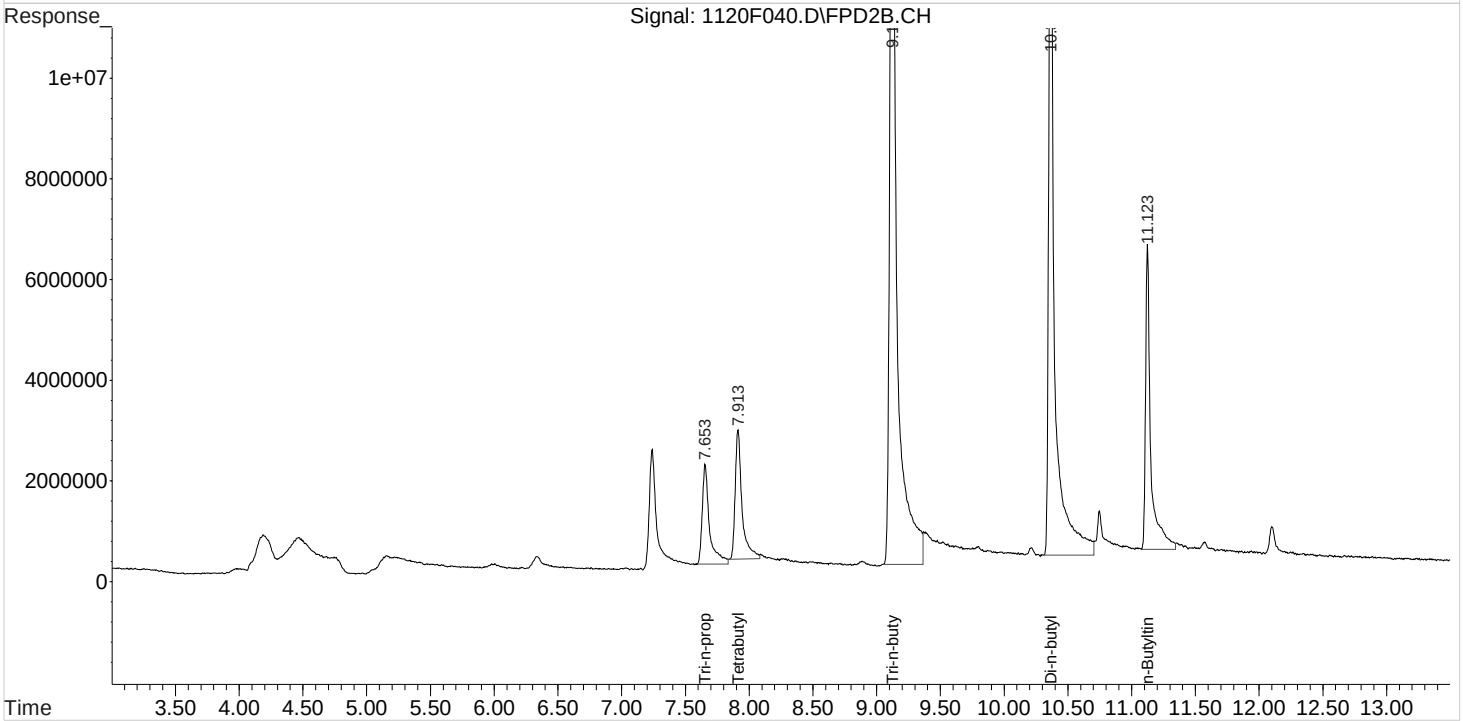
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F040.D Vial: 35
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 6:02 am Operator: SAA
Sample : K1810302-001 MS Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:33 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





1st 11/27/18
2nd 11/29/18

Validation Report

Data File: J:\GC26\DATA\112018\1120F034.D\
Lab ID: KQ1815421-02
RunType: DMS
Matrix: Sediment

Date Acquired: 11/21/18 04:08:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Continuing Calibration Recovery (Closing)		X
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery (Closing) - RTX-35	Tri-n-propyltin	-26		25	RO

Primary Review: _____

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Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F034.D\	**Instrument:**	K-GC-26
Acqu Date:	11/21/18 04:08:00	**Vial:**	22
Run Type:	DMS	**Dilution:**	1
Lab ID:	KQ1815421-02	**Raw Units:**	ng/mL

Bottle ID:	K1810302-022.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615992	**Prep Lot:**	324893	**Report Group:**	KQ1815421
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	10/30/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.04	7.65 -0.01	4293281	6933169	78.502	88.617 CCV	63	71	63	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Tri-n-butyltin Cation	9.63	9.12	5644888	8719323	81.211	83.689	24.3	25.1	**24.3**	Y

Prep Amount:	20.231 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	66.00

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

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Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F034.D Vial: 31
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 4:08 am Operator: SAA
Sample : K1810302-022 DMS Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:15 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.037	7.654	4293281	6933169	78.502	88.617
	Target Compounds						
2)	Tetrabuty...	8.357	7.911	5239022	8174562	85.938	87.246
3)	Tri-n-but...	9.627	9.124	5644888	8719323	81.211	83.689
4)	Di-n-buty...	10.693	10.364	6819218	11574309	59.322	66.460
5)	n-Butyltin	11.550	11.121	1190049	1943483	11.513	12.149

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

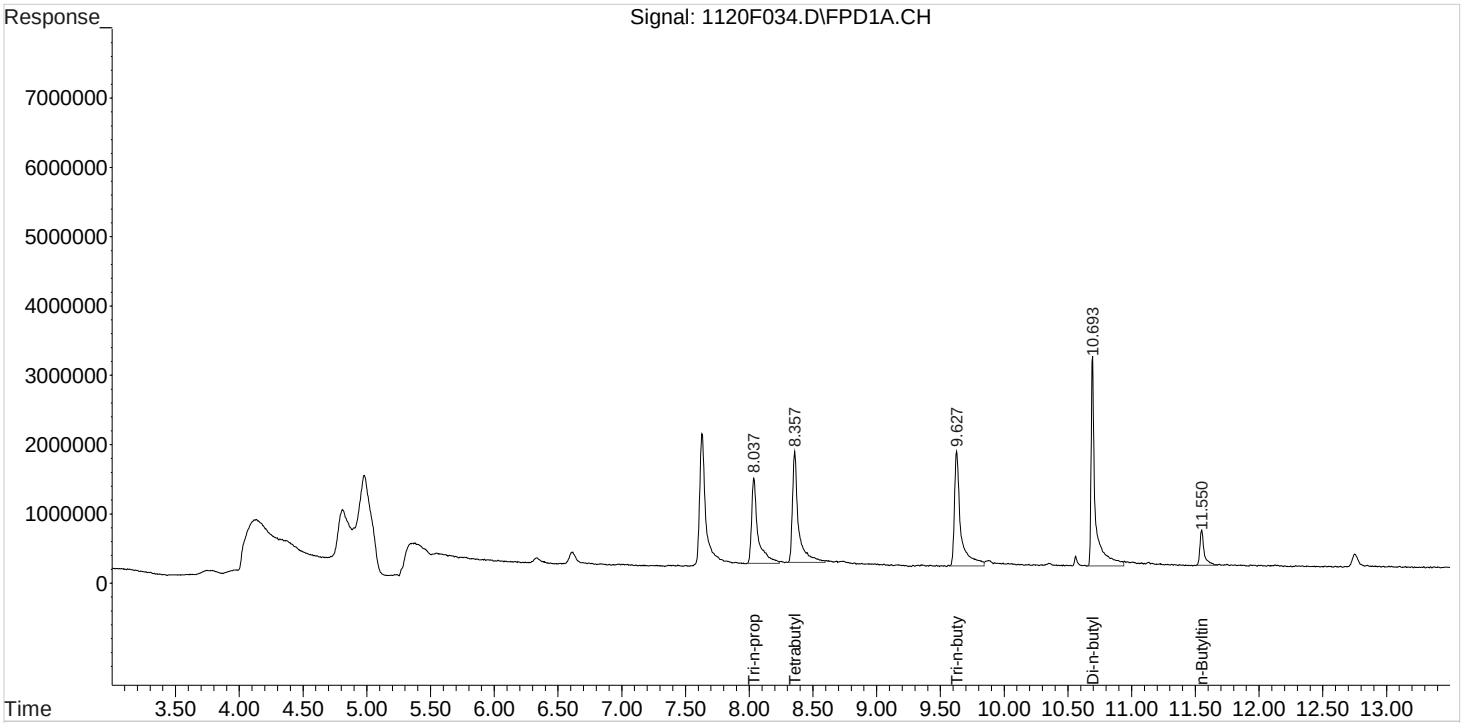
Quantitation Report (QT Reviewed)

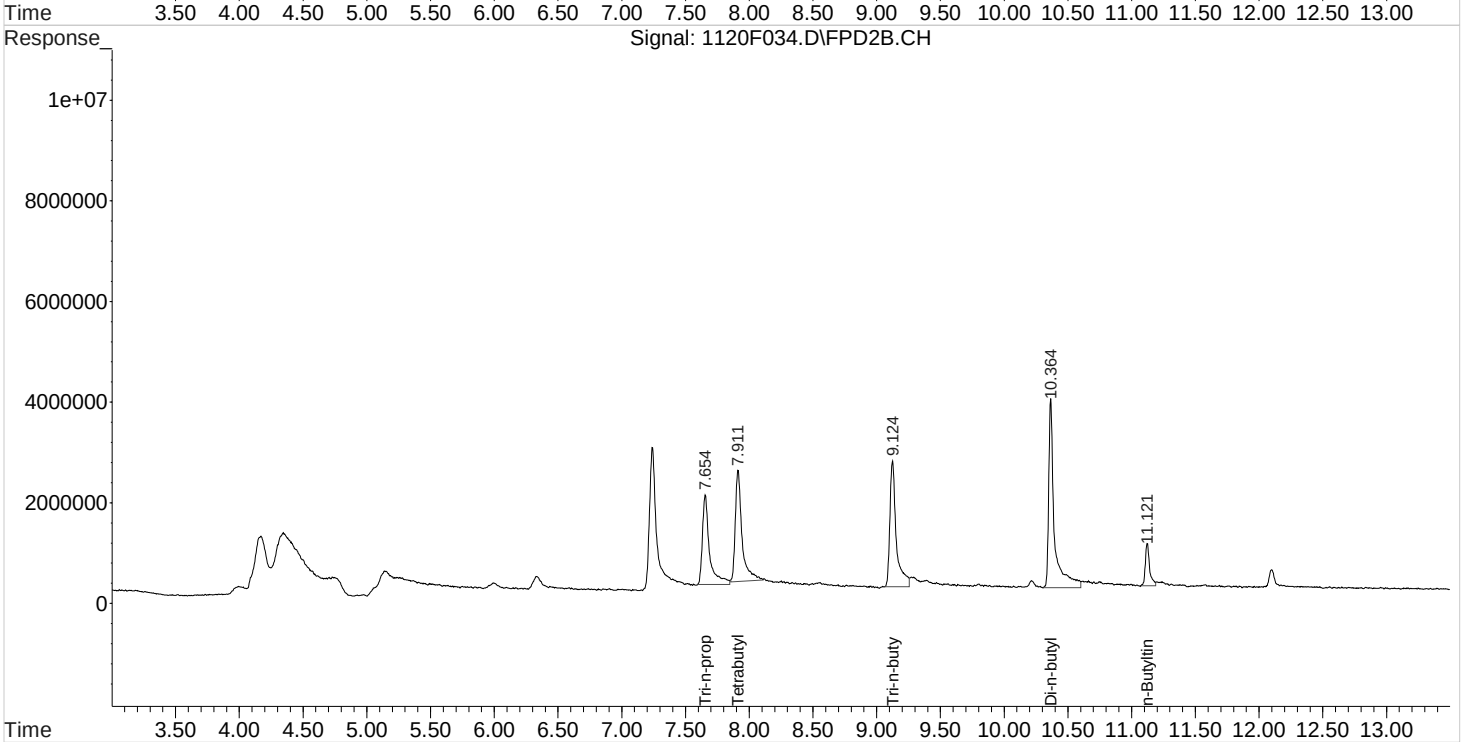
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F034.D Vial: 31
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 4:08 am Operator: SAA
Sample : K1810302-022 DMS Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:15 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





Validation Report

1st 11/27/18
2nd 11/29/18

Data File: J:\GC26\DATA\112018\1120F041.D\
Lab ID: KQ1815422-02
RunType: DMS
Matrix: Sediment

Date Acquired: 11/21/18 06:22:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Continuing Calibration Recovery (Closing)	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery - RTX-35	Tri-n-propyltin	-26		25	RO

Primary Review: _____

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Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F041.D\	**Instrument:**	K-GC-26
Acqu Date:	11/21/18 06:22:00	**Vial:**	46
Run Type:	DMS	**Dilution:**	1
Lab ID:	KQ1815422-02	**Raw Units:**	ng/mL

Bottle ID:	K1810302-001.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/19/18	**Receive Date:**	10/22/18

Analysis Lot:	615992	**Prep Lot:**	324894	**Report Group:**	KQ1815422
Analysis	ALS SOP	**Prep Method:**	Method		
		Prep Date:	10/30/18		

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	% Rec	% Rec Criteria	Rpt?
Tri-n-propyltin	8.03 -0.01	7.65	5103526	7692689	93.317	98.325CCV	75	79	75	10 - 120	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Primary Conc	Rpt?
Tri-n-butyltin Cation	9.63 +0.01	9.12 -0.01	29623375	44605147	426.179	428.128	260	262	**260**	Y

Prep Amount:	20.390 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	32.10

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

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Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F041.D Vial: 36
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 6:22 am Operator: SAA
Sample : K1810302-001 DMS Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:36 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.035	7.653	5103526	7692689	93.317	98.325
	Target Compounds						
2)	Tetrabuty...	8.358	7.909	5794971	8449732	95.057	90.182
3)	Tri-n-but...	9.628	9.123	29623375	44605147	426.179	428.128
4)	Di-n-buty...	10.695	10.366	30408281	46666468	264.528	267.960
5)	n-Butyltin	11.548	11.123	9916580	15406172	95.937	96.309

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

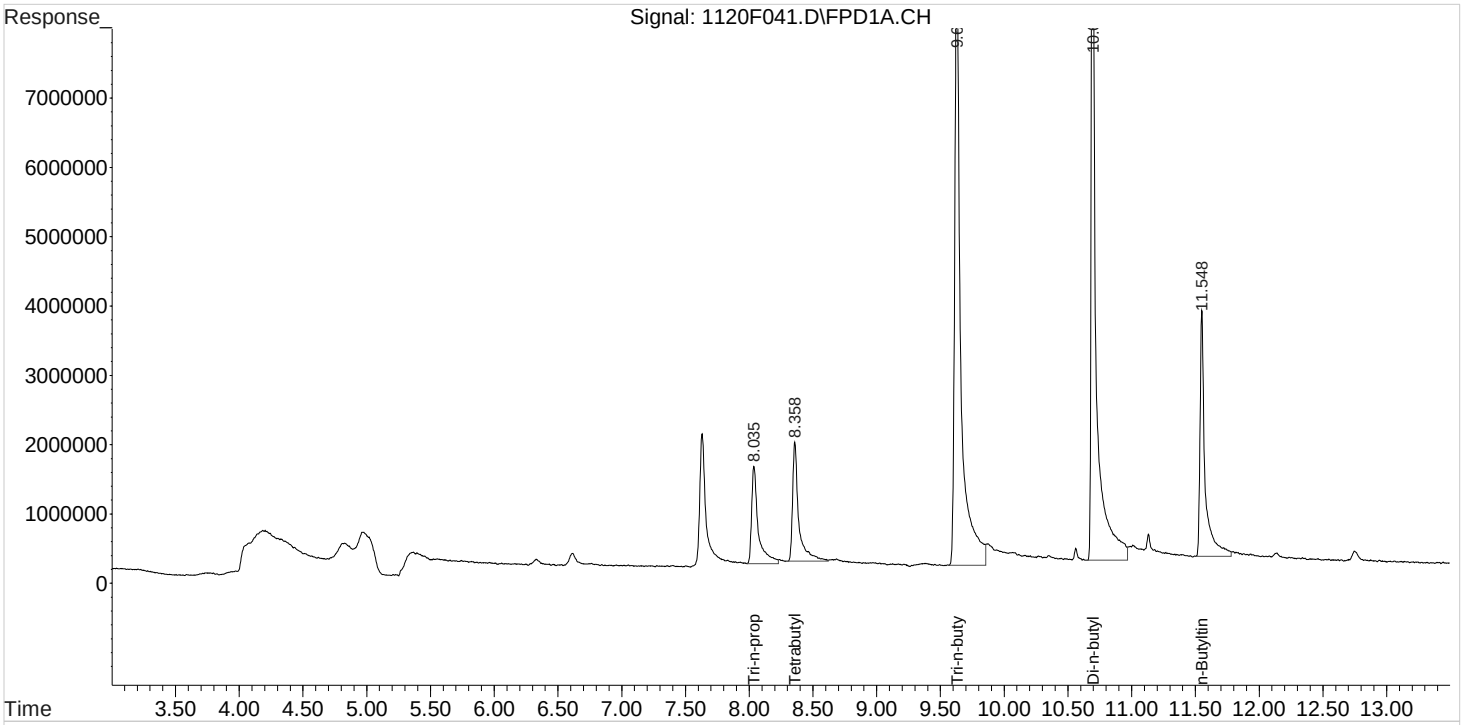
Quantitation Report (QT Reviewed)

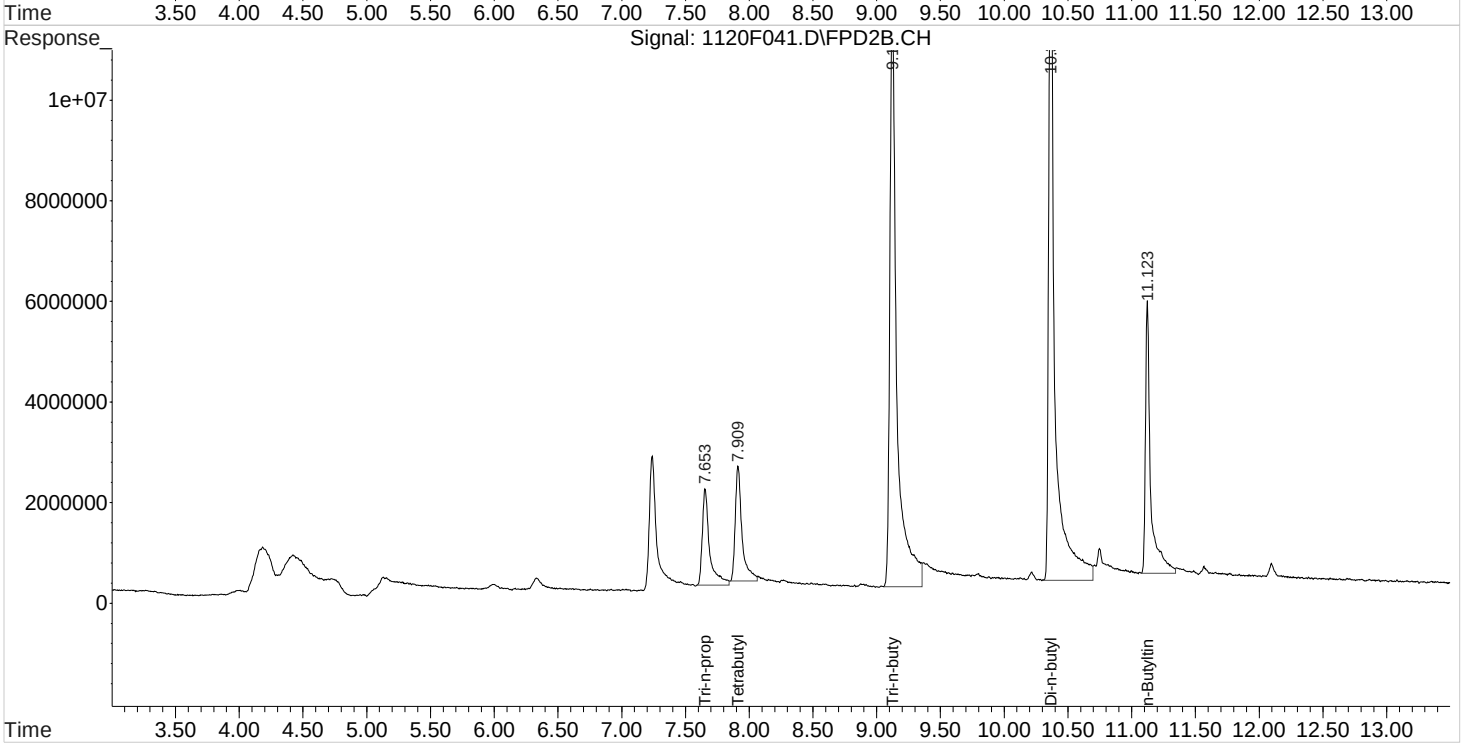
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F041.D Vial: 36
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 6:22 am Operator: SAA
Sample : K1810302-001 DMS Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:36 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





1st 11/27/18
2nd 11/29/18

Validation Report

Data File: J:\GC26\DATA\112018\1120F017.D\
Lab ID: KQ1817284-01
RunType: CCV
Matrix: Paint Chips

Date Acquired: 11/20/18 22:52:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F017.D\	**Instrument:**	K-GC-26
Acqu Date:	11/20/18 22:52:00	**Vial:**	12
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1817284-01	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	II	**Matrix:**	Paint Chips
Prod Code:	BUTYLTINS	**Collect Date:**	10/30/18	**Receive Date:**	11/2/18

Analysis Lot:	615992	**Prep Lot:**		**Report Group:**	KQ1817284
Analysis	ALS SOP	**Prep Method:**			
		Prep Date:			

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
Tri-n-propyltin	8.04	7.66	2632141	3846556	48.128	49.165			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Tri-n-butyltin Cation	9.63	9.12	2813830	4435423	40.481	42.572	40.5	42.6	Y

Prep Amount:	20.00 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	100.00

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

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Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F017.D Vial: 1
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 20 Nov 2018 10:52 pm Operator: SAA
Sample : OT5-010K @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:22:24 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	Tri-n-pro...	8.036	7.657	2632141	3846556	48.128	49.165	
	Target Compounds							
2)	Tetrabuty...	8.356	7.914	2539099	5024212	41.650	53.622	#
3)	Tri-n-but...	9.626	9.121	2813830	4435423	40.481	42.572	
4)	Di-n-buty...	10.689	10.364	4309236	6314622	37.487	36.259	
5)	n-Butyltin	11.546	11.121	2798182	4594777	27.071	28.724	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

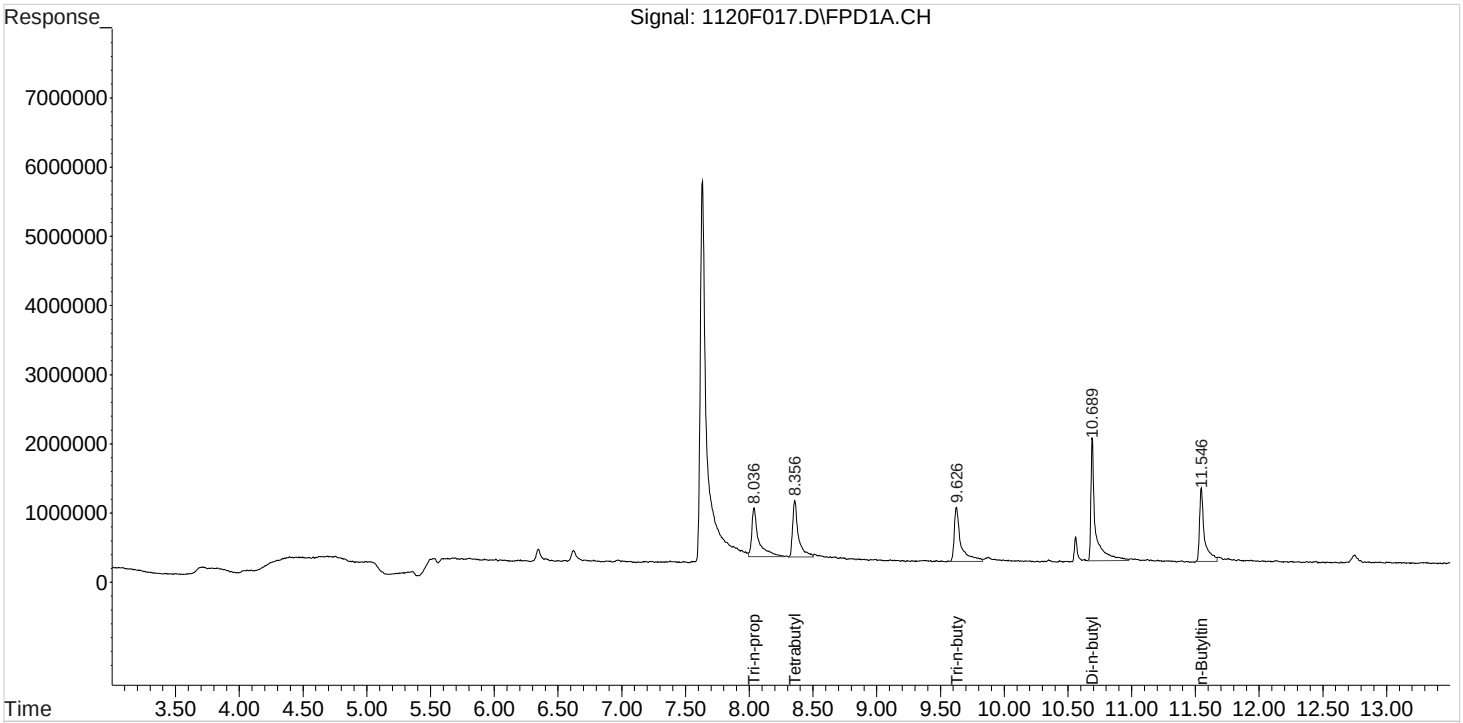
Quantitation Report (QT Reviewed)

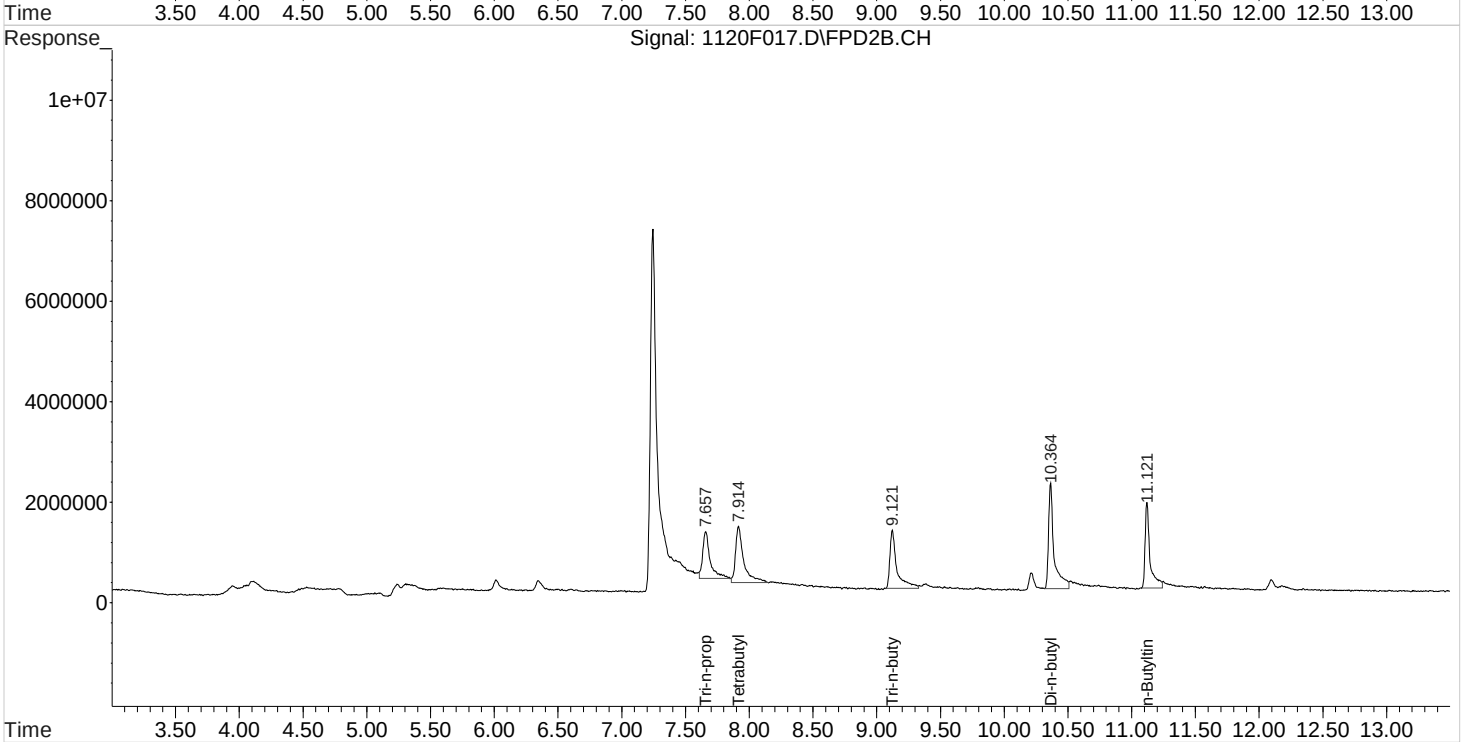
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F017.D Vial: 1
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 20 Nov 2018 10:52 pm Operator: SAA
Sample : OT5-010K @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:22:24 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





1st 11/27/18
2nd 11/29/18

Validation Report

Data File: J:\GC26\DATA\112018\1120F035.D\
Lab ID: KQ1817284-03
RunType: CCV
Matrix: Paint Chips

Date Acquired: 11/21/18 04:27:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F035.D\	**Instrument:**	K-GC-26
Acqu Date:	11/21/18 04:27:00	**Vial:**	14
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1817284-03	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	II	**Matrix:**	Paint Chips
Prod Code:	BUTYLTINS	**Collect Date:**	10/30/18	**Receive Date:**	11/2/18

Analysis Lot:	615992	**Prep Lot:**		**Report Group:**	KQ1817284
Analysis	ALS SOP	**Prep Method:**			
		Prep Date:			

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
Tri-n-propyltin	8.04	7.65	2270960	2900875	41.524	37.078			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Tri-n-butyltin Cation	9.62	9.13	2354482	3935904	33.873	37.777	33.9	37.8	Y

Prep Amount:	20.00 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	100.00

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

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Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F035.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 4:27 am Operator: SAA
Sample : OT5-010K @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:18 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1) S	Tri-n-pro...	8.038	7.652	2270960	2900875	41.524	37.078	
	Target Compounds							
2)	Tetrabuty...	8.358	7.912	2077222	4000164	34.073	42.693	#
3)	Tri-n-but...	9.625	9.126	2354482	3935904	33.873	37.777	
4)	Di-n-buty...	10.691	10.362	3663256	6060464	31.867	34.799	
5)	n-Butyltin	11.545	11.119	2448363	4467326	23.686	27.927	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

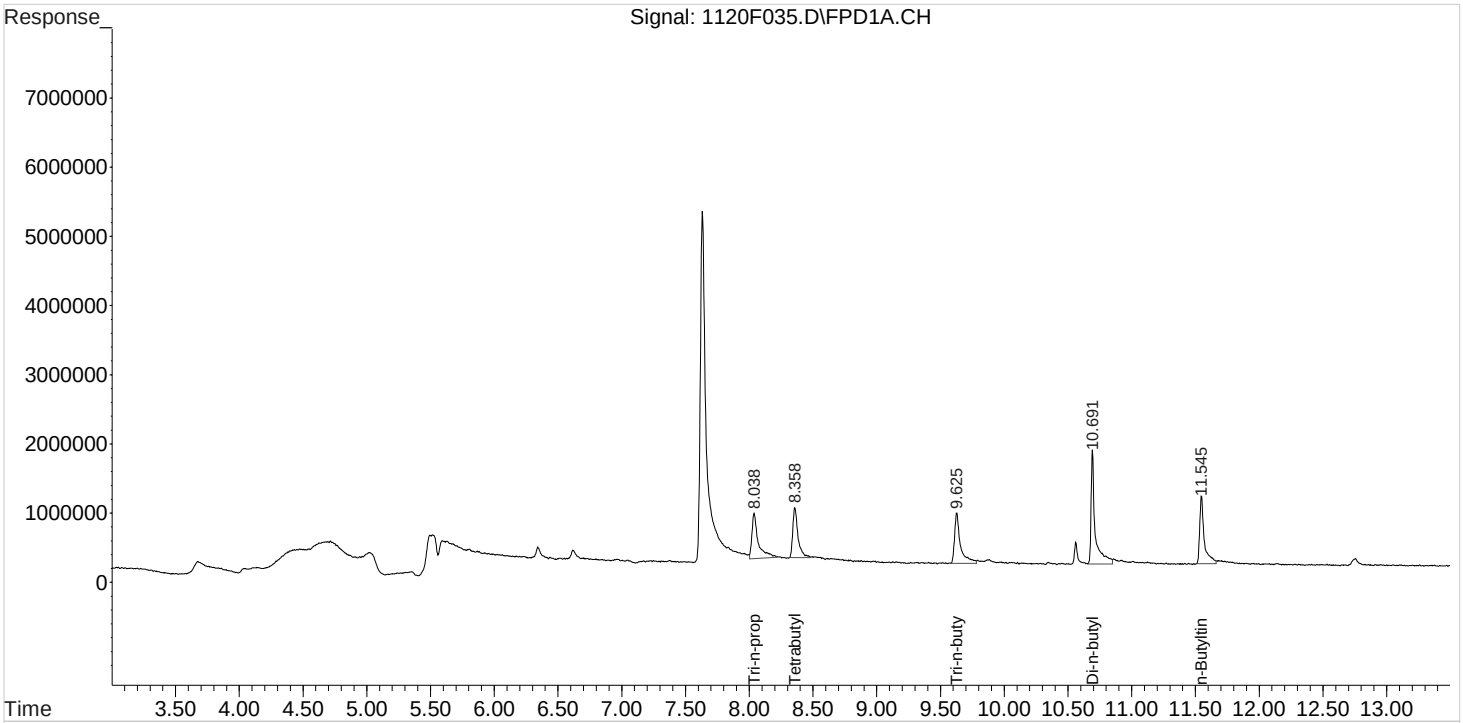
Quantitation Report (QT Reviewed)

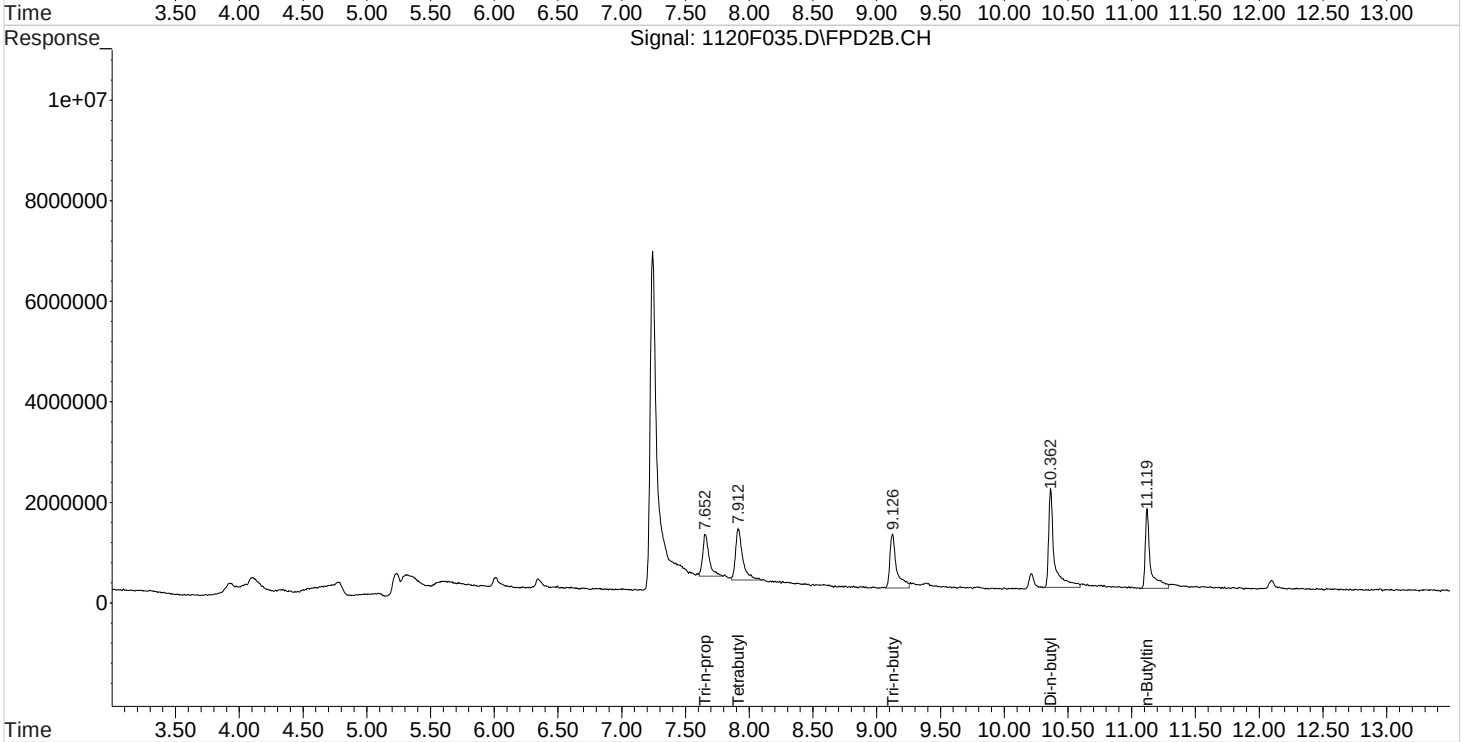
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F035.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 4:27 am Operator: SAA
Sample : OT5-010K @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 21 07:23:18 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





1st 11/27/18
2nd 11/29/18

Validation Report

Data File: J:\GC26\DATA\112018\1120F049.D\
Lab ID: KQ1817284-05
RunType: CCV
Matrix: Paint Chips

Date Acquired: 11/21/18 08:52:00
Batch ID: 615992
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st 11/27/18
2nd 11/29/18

Quantitation Report

Data File:	J:\GC26\DATA\112018\1120F049.D\	**Instrument:**	K-GC-26
Acqu Date:	11/21/18 08:52:00	**Vial:**	16
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1817284-05	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	II	**Matrix:**	Paint Chips
Prod Code:	BUTYLTINS	**Collect Date:**	10/30/18	**Receive Date:**	11/2/18

Analysis Lot:	615992	**Prep Lot:**		**Report Group:**	KQ1817284
Analysis	ALS SOP	**Prep Method:**			
		Prep Date:			

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	18688

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
Tri-n-propyltin	8.04	7.66	2071019	3376989	37.868	43.163			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
Tri-n-butyltin Cation	9.63	9.13	2409544	3647007	34.665	35.005	34.7	35.0	Y

Prep Amount:	20.00 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	100.00

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

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Quantitation Report (QT Reviewed)

1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F049.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 8:52 am Operator: SAA
Sample : OT5-010K @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 27 12:33:18 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.039	7.660	2071019	3376989	37.868	43.163
	Target Compounds						
2)	Tetrabuty...	8.358	7.920	2098746	3553613	34.427	37.927
3)	Tri-n-but...	9.629	9.126	2409544	3647007	34.665	35.005
4)	Di-n-buty...	10.692	10.366	3794888	5890591	33.013	33.824
5)	n-Butyltin	11.545	11.120	2436603	4378788	23.573	27.373

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

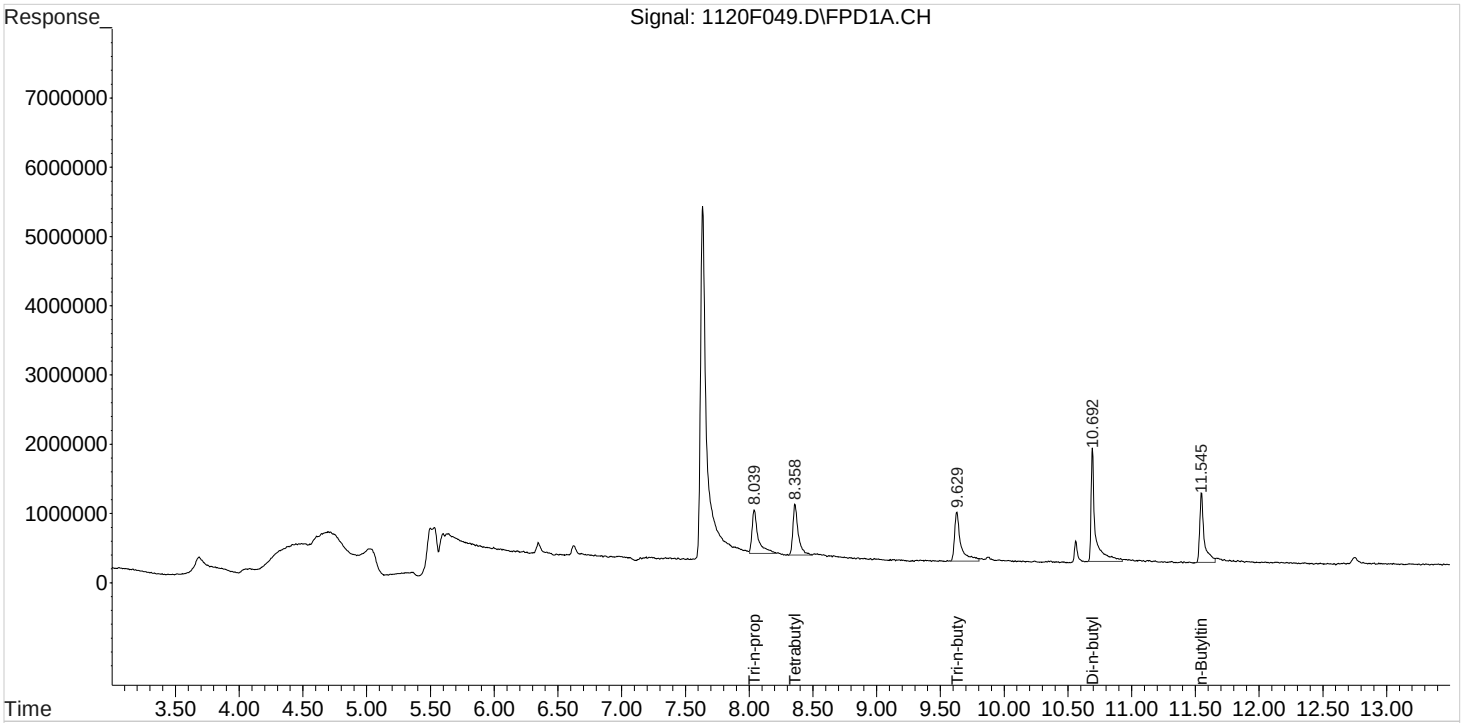
Quantitation Report (QT Reviewed)

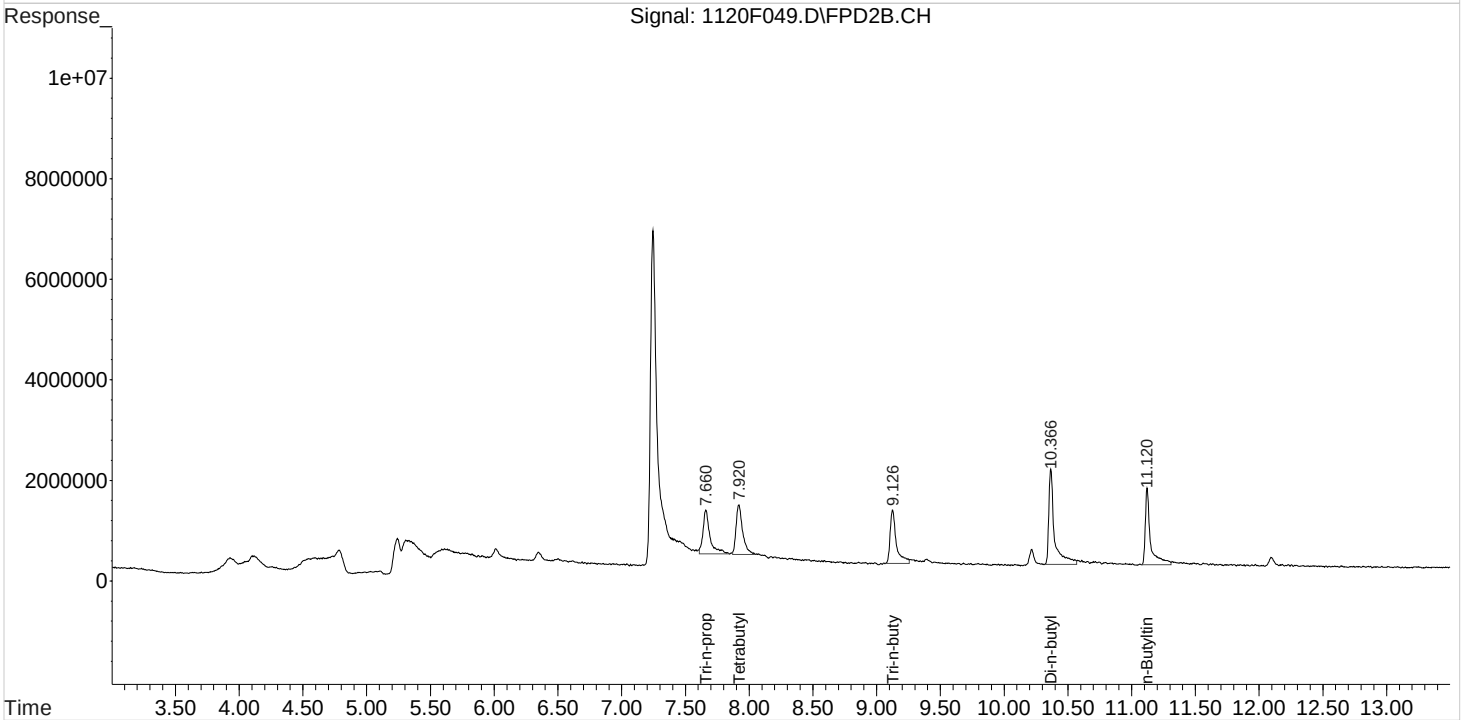
1st 11/27/18
2nd 11/29/18

Data File : J:\GC26\DATA\112018\1120F049.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 21 Nov 2018 8:52 am Operator: SAA
Sample : OT5-010K @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Nov 27 12:33:18 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Fri Sep 21 09:40:15 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





Quantitation Report (Not Reviewed)

1st 12/02/18
2nd 12/06/18

Data File : J:\GC26\DATA\120118\1201F013.D Vial: 1
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 01 Dec 2018 2:29 pm Operator: SMURRAY
Sample : OT5-011B 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 02 09:56:44 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Sat Dec 01 10:21:19 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.051	7.659	2168335	3211267	39.648	41.045
	Target Compounds						
2)	Tetrabuty...	8.374	7.919	2621070	3910923	42.994	41.741
3)	Tri-n-but...	9.654	9.139	2404334	3442272	34.590	33.039
4)	Di-n-buty...	10.704	10.379	3751644	5642039	32.636	32.397
5)	n-Butyltin	11.564	11.135	3126163	4187645	30.244	26.178

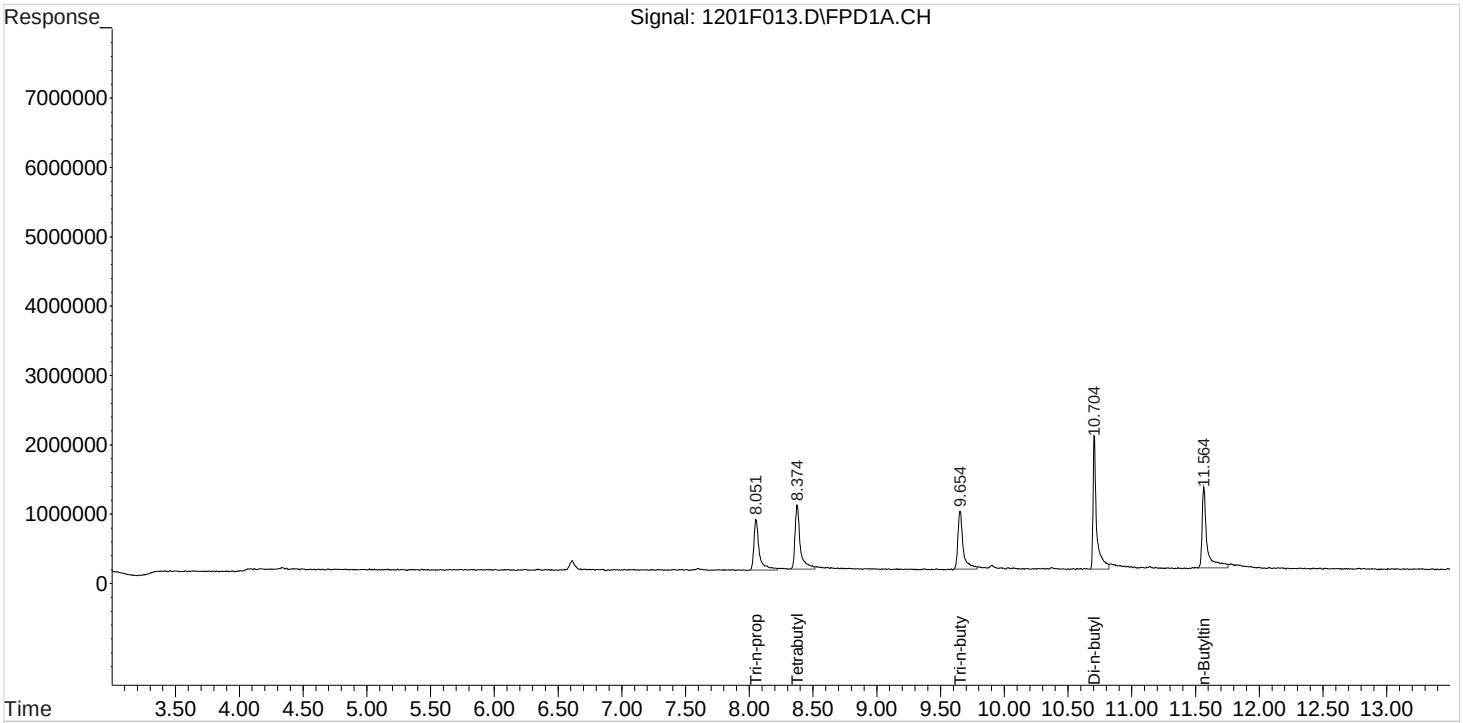
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

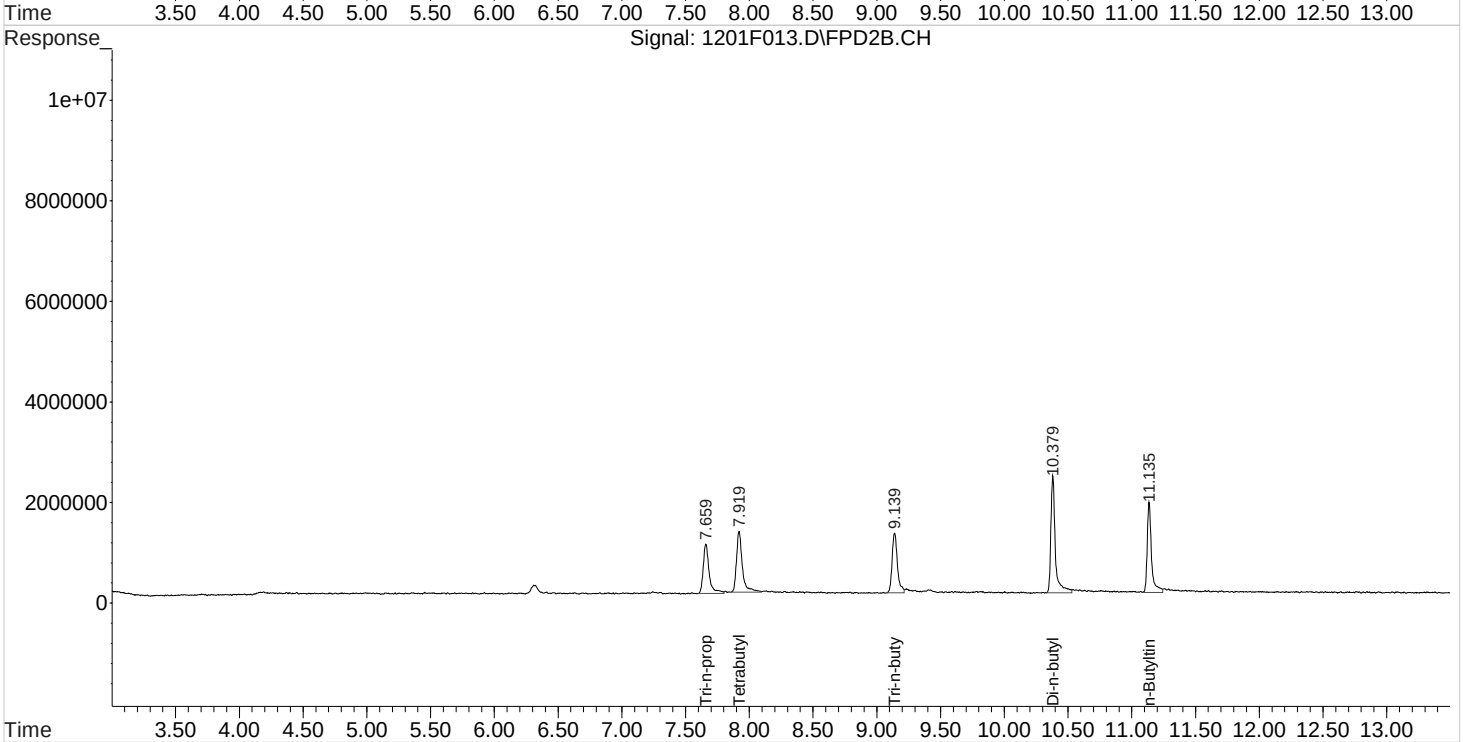
1st 12/02/18
2nd 12/06/18

Data File : J:\GC26\DATA\120118\1201F013.D Vial: 1
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 01 Dec 2018 2:29 pm Operator: SMURRAY
Sample : OT5-011B 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 02 09:56:44 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Sat Dec 01 10:21:19 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





1st 12/02/18
2nd 12/06/18

Validation Report

Data File: J:\GC26\DATA\120118\1201F013.D\
Lab ID: KQ1817582-02
RunType: CCV
Matrix: Sediment

Date Acquired: 12/1/18 14:29:00
Batch ID: 617147
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st 12/02/18
2nd 12/06/18

Quantitation Report

Data File:	J:\GC26\DATA\120118\1201F013.D\	**Instrument:**	K-GC-26
Acqu Date:	12/1/18 14:29:00	**Vial:**	8
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1817582-02	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	II	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/5/18	**Receive Date:**	10/23/18

Analysis Lot:	617147	**Prep Lot:**		**Report Group:**	KQ1817582
Analysis	ALS SOP	**Prep Method:**			
		Prep Date:			

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	17560

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
Tri-n-propyltin	8.05	7.66	2168335	3211267	39.648	41.045			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
n-Butyltin Cation	11.56	11.14	3126163	4187645	30.244	26.178	30.2	26.2	Y
Di-n-butyltin Cation	10.70	10.38	3751644	5642039	32.636	32.397	32.6	32.4	Y
Tri-n-butyltin Cation	9.65	9.14	2404334	3442272	34.590	33.039	34.6	33.0	Y
Tetra-n-butyltin	8.37	7.92	2621070	3910923	42.994	41.741	43.0	41.7	Y

Prep Amount:	20.00 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	100.00

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

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1st 12/02/18
2nd 12/06/18

Continuing Calibration Verification Summary

Calibration ID: KC1800436 **Spec Set:** #926 v. 1

QAP Name: LAB QAP **List ID:** #17560

List Name: 4-1095-01 **Signal ID:** RTX-1

Data File: J:\GC26\DATA\120118\1201F013.D\

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
n-Butyltin Cation	31.2	30.2	1.034E5	1.004E5	-3		± 25%	Average RF
Di-n-butyltin Cation	38.3	32.6	1.150E5	9.789E4	-15		± 25%	Average RF
Tri-n-butyltin Cation	44.6	34.6	6.951E4	5.397E4	-22		± 25%	Average RF
Tetra-n-butyltin	50.0	43.0	6.096E4	5.242E4	-14		± 25%	Average RF
Tri-n-propyltin	50.0	39.6	5.469E4	4.337E4	-21		± 25%	Average RF

Calibration ID: KC1800436 **Spec Set:** #926 v. 1

QAP Name: LAB QAP **List ID:** #17560

List Name: 4-1095-01 **Signal ID:** RTX-35

Data File: J:\GC26\DATA\120118\1201F013.D\

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
n-Butyltin Cation	31.2	26.2	1.600E5	1.344E5	-16		± 25%	Average RF
Di-n-butyltin Cation	38.3	32.4	1.742E5	1.472E5	-15		± 25%	Average RF
Tri-n-butyltin Cation	44.6	33.0	1.042E5	7.727E4	-26	*	± 25%	Average RF
Tetra-n-butyltin	50.0	41.7	9.370E4	7.822E4	-17		± 25%	Average RF
Tri-n-propyltin	50.0	41.0	7.824E4	6.423E4	-18		± 25%	Average RF

1 Compounds Failed CCV Criteria (20.00 Percent)

1st 12/02/18
2nd 12/06/18

Continuing Calibration Verification Summary

Calibration ID: KC1800436 **Spec Set:** #926 v. 1

QAP Name: LAB QAP **List ID:** #18688

List Name: 1-1095-01 TBT ONLY **Signal ID:** RTX-1

Data File: J:\GC26\DATA\120118\1201F013.D\

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	34.6	6.951E4	5.397E4	-22		± 25%	Average RF
Tri-n-propyltin	50.0	39.6	5.469E4	4.337E4	-21		± 25%	Average RF

Calibration ID: KC1800436 **Spec Set:** #926 v. 1

QAP Name: LAB QAP **List ID:** #18688

List Name: 1-1095-01 TBT ONLY **Signal ID:** RTX-35

Data File: J:\GC26\DATA\120118\1201F013.D\

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	33.0	1.042E5	7.727E4	-26 *		± 25%	Average RF
Tri-n-propyltin	50.0	41.0	7.824E4	6.423E4	-18		± 25%	Average RF

1 Compounds Failed CCV Criteria (50.00 Percent)

Quantitation Report (Not Reviewed)

1st 12/02/18
2nd 12/06/18

Data File : J:\GC26\DATA\120118\1201F024.D Vial: 34
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 01 Dec 2018 5:53 pm Operator: SMURRAY
Sample : OT5-011B 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 02 09:57:10 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Sat Dec 01 10:21:19 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.053	7.661	2077859	3169734	37.993	40.514
	Target Compounds						
2)	Tetrabuty...	8.377	7.921	2523803	3729847	41.399	39.808
3)	Tri-n-but...	9.653	9.138	2442412	3719019	35.138	35.696
4)	Di-n-buty...	10.707	10.378	3772919	5829365	32.821	33.472
5)	n-Butyltin	11.563	11.135	2772442	4243070	26.822	26.525

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

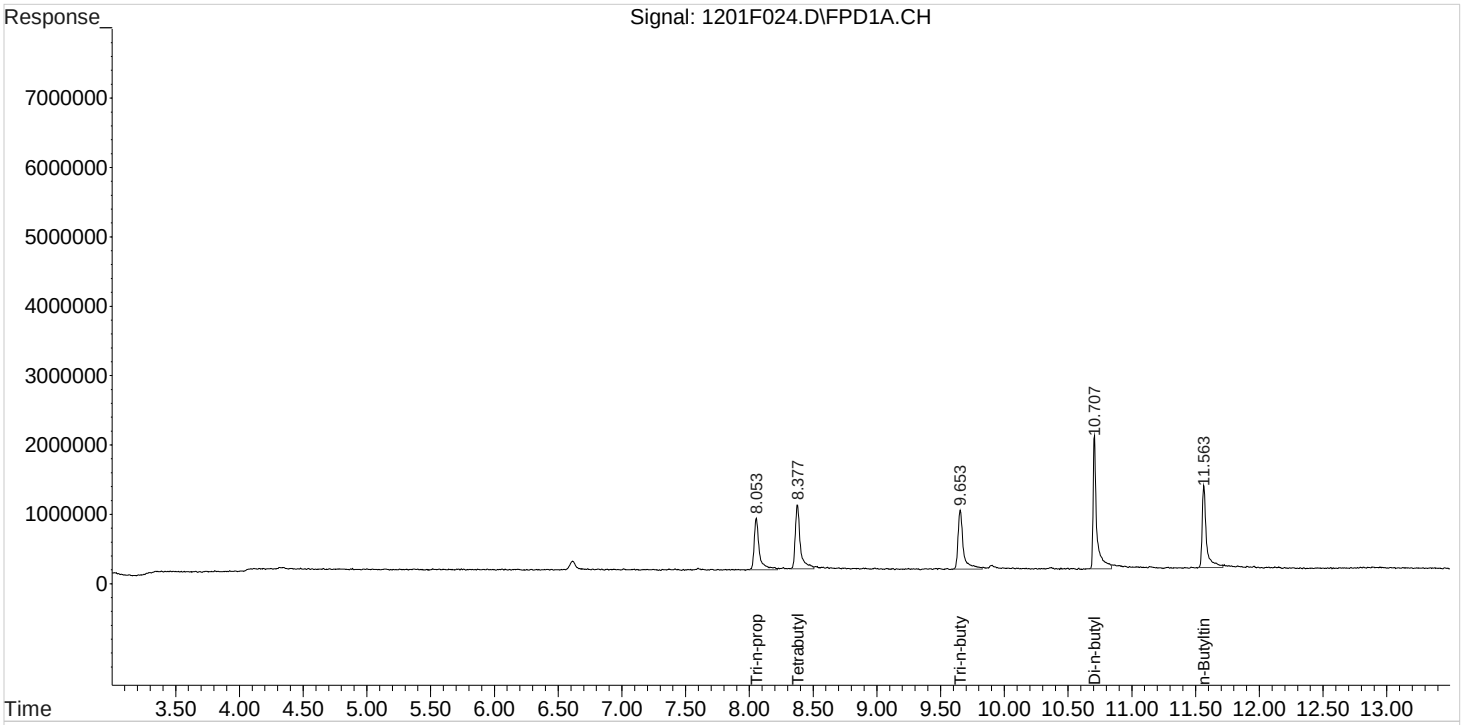
Quantitation Report (Not Reviewed)

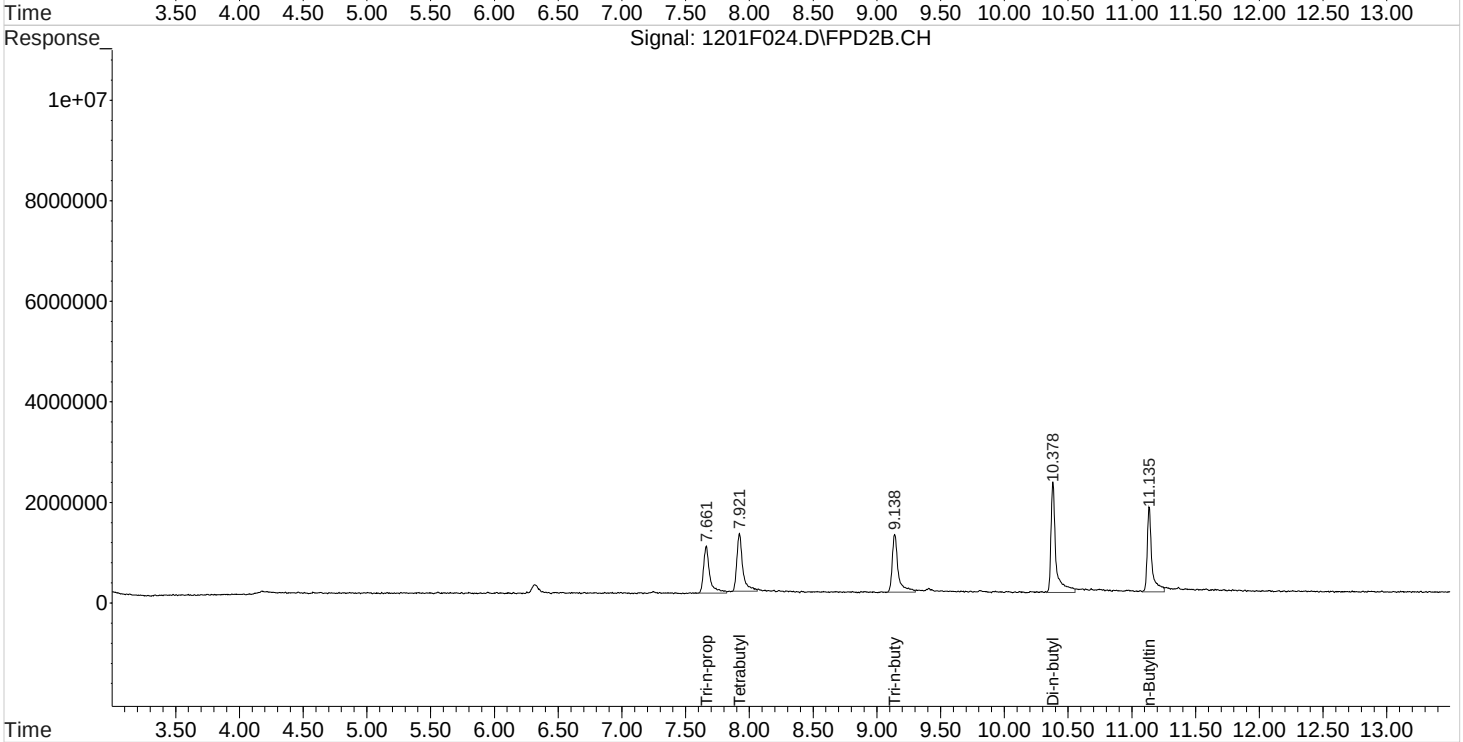
1st 12/02/18
2nd 12/06/18

Data File : J:\GC26\DATA\120118\1201F024.D Vial: 34
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 01 Dec 2018 5:53 pm Operator: SMURRAY
Sample : OT5-011B 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 02 09:57:10 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Sat Dec 01 10:21:19 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





1st 12/02/18
2nd 12/06/18

Validation Report

Data File: J:\GC26\DATA\120118\1201F024.D\
Lab ID: KQ1817582-03
RunType: CCV
Matrix: Sediment

Date Acquired: 12/1/18 17:53:00
Batch ID: 617147
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st 12/02/18
2nd 12/06/18

Quantitation Report

Data File:	J:\GC26\DATA\120118\1201F024.D\	**Instrument:**	K-GC-26
Acqu Date:	12/1/18 17:53:00	**Vial:**	7
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1817582-03	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	II	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/5/18	**Receive Date:**	10/23/18

Analysis Lot:	617147	**Prep Lot:**		**Report Group:**	KQ1817582
Analysis	ALS SOP	**Prep Method:**			
		Prep Date:			

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	17560

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
Tri-n-propyltin	8.05	7.66	2077859	3169734	37.993	40.514			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
n-Butyltin Cation	11.56	11.13	2772442	4243070	26.822	26.525	26.8	26.5	Y
Di-n-butyltin Cation	10.71	10.38	3772919	5829365	32.821	33.472	32.8	33.5	Y
Tri-n-butyltin Cation	9.65	9.14	2442412	3719019	35.138	35.696	35.1	35.7	Y
Tetra-n-butyltin	8.38	7.92	2523803	3729847	41.399	39.808	41.4	39.8	Y

Prep Amount:	20.00 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	100.00

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

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1st 12/02/18
2nd 12/06/18

Continuing Calibration Verification Summary

Calibration ID: KC1800436 **Spec Set:** #926 v. 1

QAP Name: LAB QAP **List ID:** #17560

List Name: 4-1095-01 **Signal ID:** RTX-1

Data File: J:\GC26\DATA\120118\1201F024.D\

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
n-Butyltin Cation	31.2	26.8	1.034E5	8.900E4	-14		± 25%	Average RF
Di-n-butyltin Cation	38.3	32.8	1.150E5	9.845E4	-14		± 25%	Average RF
Tri-n-butyltin Cation	44.6	35.1	6.951E4	5.482E4	-21		± 25%	Average RF
Tetra-n-butyltin	50.0	41.4	6.096E4	5.048E4	-17		± 25%	Average RF
Tri-n-propyltin	50.0	38.0	5.469E4	4.156E4	-24		± 25%	Average RF

Calibration ID: KC1800436 **Spec Set:** #926 v. 1

QAP Name: LAB QAP **List ID:** #17560

List Name: 4-1095-01 **Signal ID:** RTX-35

Data File: J:\GC26\DATA\120118\1201F024.D\

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
n-Butyltin Cation	31.2	26.5	1.600E5	1.362E5	-15		± 25%	Average RF
Di-n-butyltin Cation	38.3	33.5	1.742E5	1.521E5	-13		± 25%	Average RF
Tri-n-butyltin Cation	44.6	35.7	1.042E5	8.348E4	-20		± 25%	Average RF
Tetra-n-butyltin	50.0	39.8	9.370E4	7.460E4	-20		± 25%	Average RF
Tri-n-propyltin	50.0	40.5	7.824E4	6.339E4	-19		± 25%	Average RF

1st 12/02/18
2nd 12/06/18

Continuing Calibration Verification Summary

Calibration ID: KC1800436 **Spec Set:** #926 v. 1

QAP Name: LAB QAP **List ID:** #18688

List Name: 1-1095-01 TBT ONLY **Signal ID:** RTX-1

Data File: J:\GC26\DATA\120118\1201F024.D\

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	35.1	6.951E4	5.482E4	-21		± 25%	Average RF
Tri-n-propyltin	50.0	38.0	5.469E4	4.156E4	-24		± 25%	Average RF

Calibration ID: KC1800436 **Spec Set:** #926 v. 1

QAP Name: LAB QAP **List ID:** #18688

List Name: 1-1095-01 TBT ONLY **Signal ID:** RTX-35

Data File: J:\GC26\DATA\120118\1201F024.D\

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Tri-n-butyltin Cation	44.6	35.7	1.042E5	8.348E4	-20		± 25%	Average RF
Tri-n-propyltin	50.0	40.5	7.824E4	6.339E4	-19		± 25%	Average RF

1st 12/05/18
2nd 12/06/18

Validation Report

Data File: J:\GC26\DATA\120418B\1204F014.D\
Lab ID: KQ1817717-01
RunType: CCV
Matrix: Sediment

Date Acquired: 12/4/18 17:57:00
Batch ID: 617518
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st 12/05/18
2nd 12/06/18

Quantitation Report

Data File:	J:\GC26\DATA\120418B\1204F014.D\	**Instrument:**	K-GC-26
Acqu Date:	12/4/18 17:57:00	**Vial:**	1
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1817717-01	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	617518	**Prep Lot:**		**Report Group:**	KQ1817717
Analysis	ALS SOP	**Prep Method:**			
		Prep Date:			

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	17560

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
Tri-n-propyltin	8.05	7.66	2205513	3045349	40.327	38.924			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
n-Butyltin Cation	11.56	11.13	2615049	4112846	25.299	25.711	25.3	25.7	Y
Di-n-butyltin Cation	10.70	10.38	4039488	5950650	35.140	34.169	35.1	34.2	Y
Tri-n-butyltin Cation	9.65	9.14	2658328	3518050	38.244	33.767	38.2	33.8	Y
Tetra-n-butyltin	8.37	7.92	2494374	3917074	40.916	41.806	40.9	41.8	Y

Prep Amount:	20.00 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	100.00

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

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Quantitation Report (QT Reviewed)

1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F014.D Vial: 1
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 5:57 pm Operator: SAA
Sample : OT5-011B @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 07:55:41 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Sat Dec 01 10:21:19 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.053	7.661	2205513	3045349	40.327	38.924m
	Target Compounds						
2)	Tetrabuty...	8.373	7.921	2494374	3917074	40.916m	41.806
3)	Tri-n-but...	9.649	9.137	2658328	3518050	38.244	33.767
4)	Di-n-buty...	10.703	10.377	4039488	5950650	35.140	34.169
5)	n-Butyltin	11.559	11.131	2615049	4112846	25.299	25.711

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

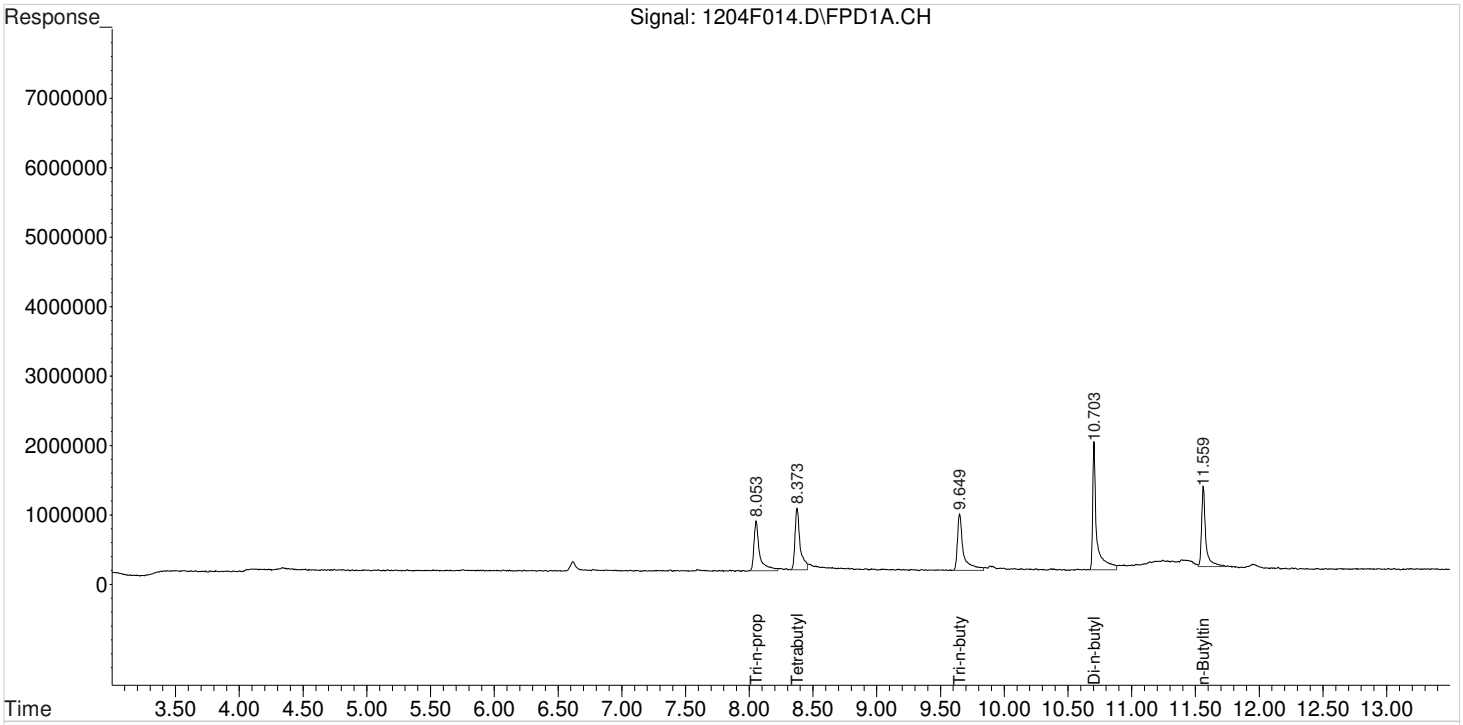
Quantitation Report (QT Reviewed)

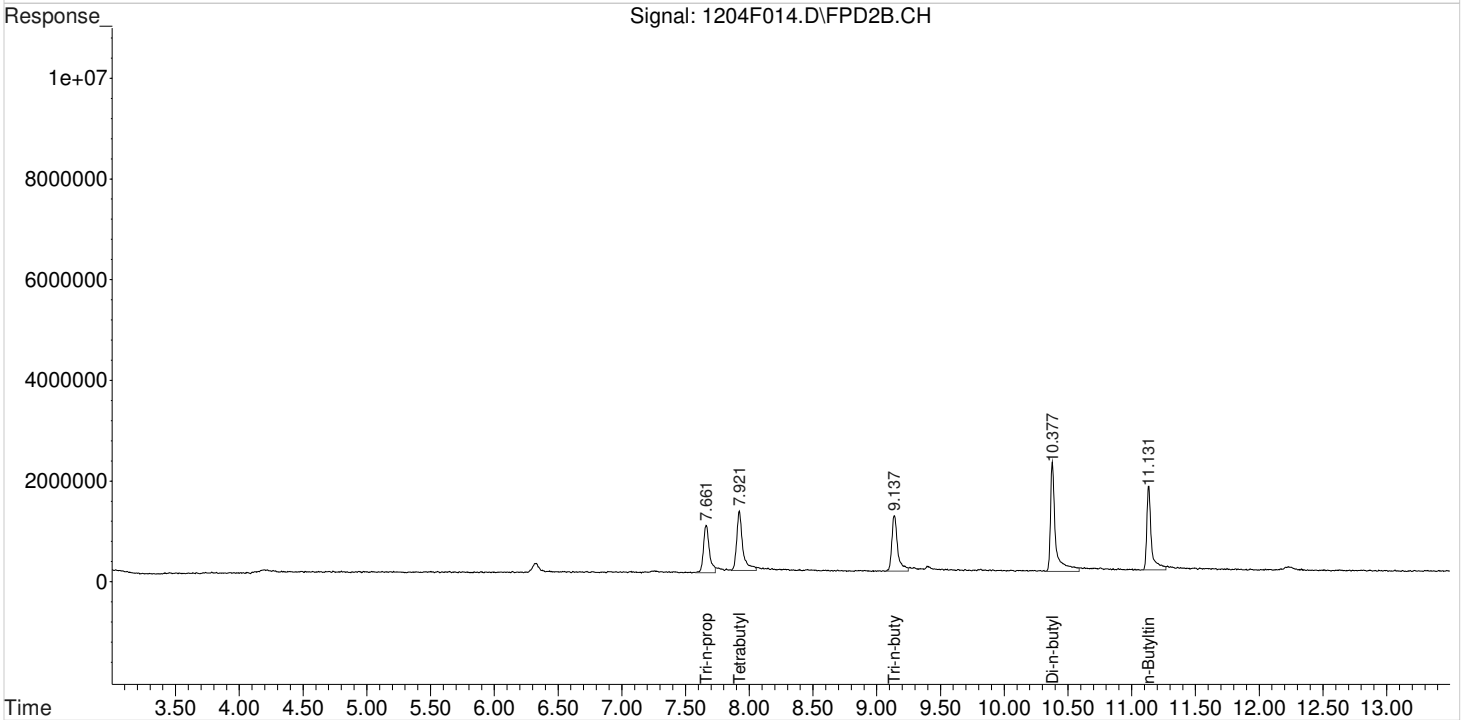
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F014.D Vial: 1
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 5:57 pm Operator: SAA
Sample : OT5-011B @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 07:55:41 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Sat Dec 01 10:21:19 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





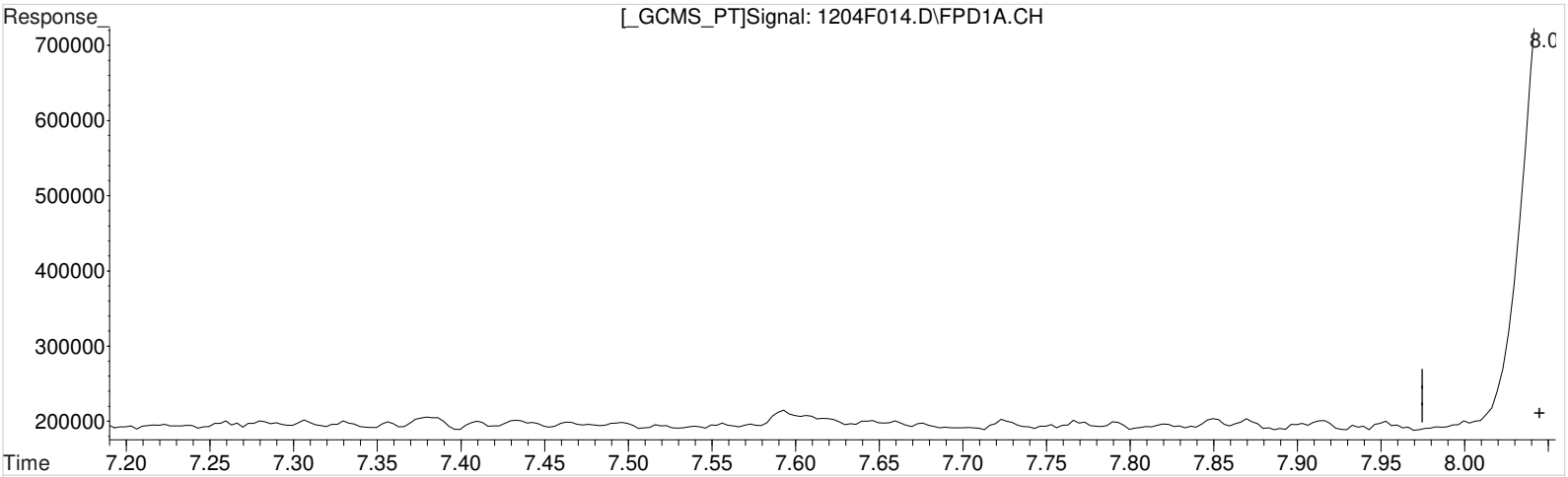
Quantitation Report (Qedit)

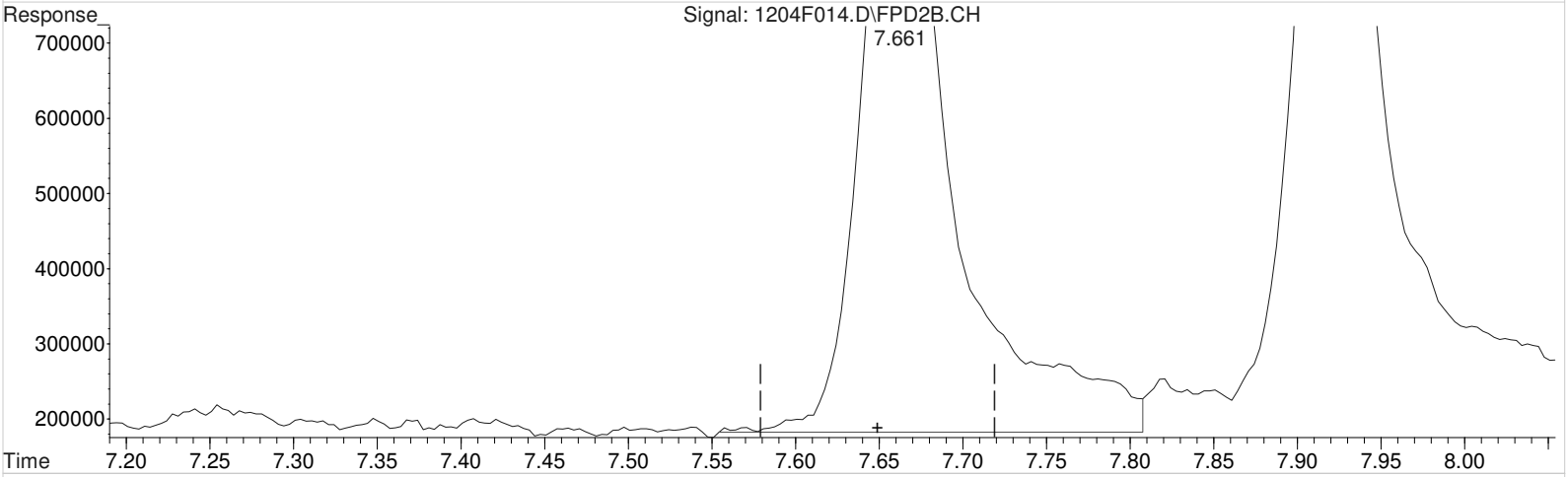
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F014.D Vial: 1
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 5:57 pm Operator: SAA
Sample : OT5-011B @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 07:53:49 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Sat Dec 01 10:21:19 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(1) Tri-n-propyltin (S)

8.053min 40.327 ng/mL

response 2205513

Manual Integration:

Before

12/05/18

(1) Tri-n-propyltin #2 (S)

7.661min 43.032 ng/mL

response 3366710

(+) = Expected Retention Time

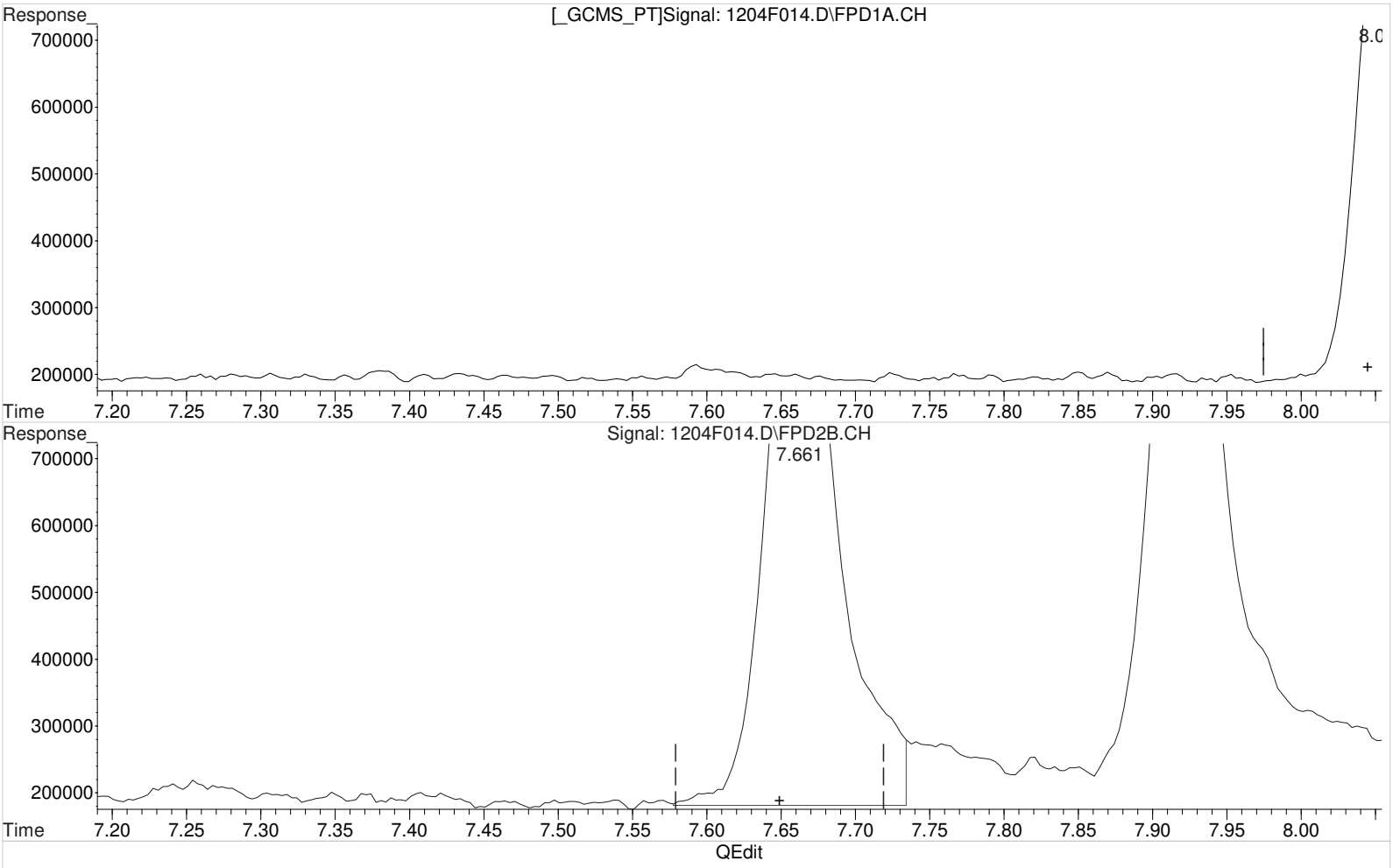
Quantitation Report (Qedit)

1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F014.D Vial: 1
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 5:57 pm Operator: SAA
Sample : OT5-011B @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 07:53:49 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Sat Dec 01 10:21:19 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m



QEdit

(1) Tri-n-propyltin (S)

8.053min 40.327 ng/mL

response 2205513

Manual Integration:

After

Baseline/Shoulder

12/05/18

(1) Tri-n-propyltin #2 (S)

7.661min 38.924 ng/mL m

response 3045349

(+) = Expected Retention Time

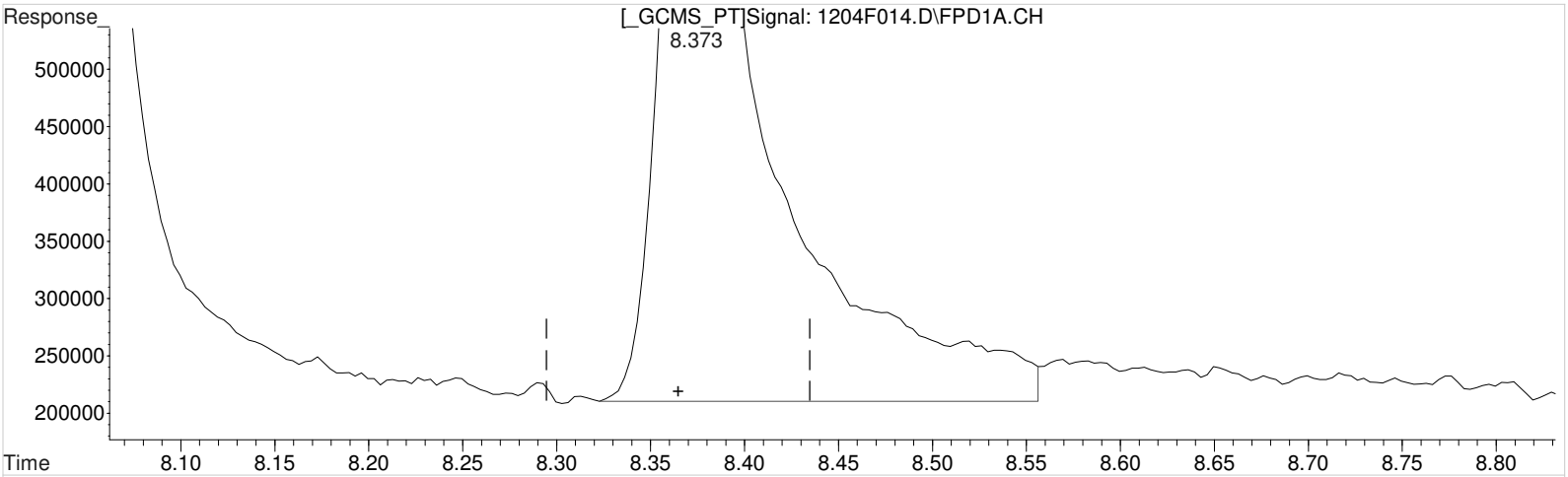
Quantitation Report (Qedit)

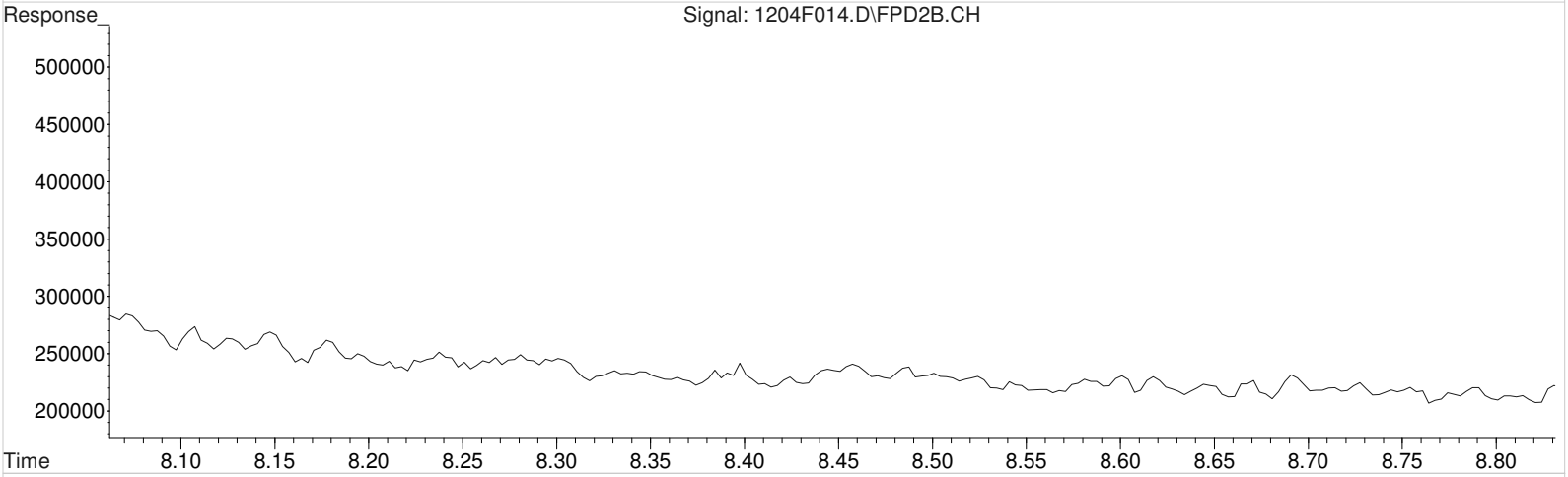
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F014.D Vial: 1
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 5:57 pm Operator: SAA
Sample : OT5-011B @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 07:53:49 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Sat Dec 01 10:21:19 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(2) Tetrabutyltin

8.373min 46.259 ng/mL

response 2820093

Manual Integration:

Before

12/05/18

(2) Tetrabutyltin #2

7.921min 41.806 ng/mL

response 3917074

(+) = Expected Retention Time

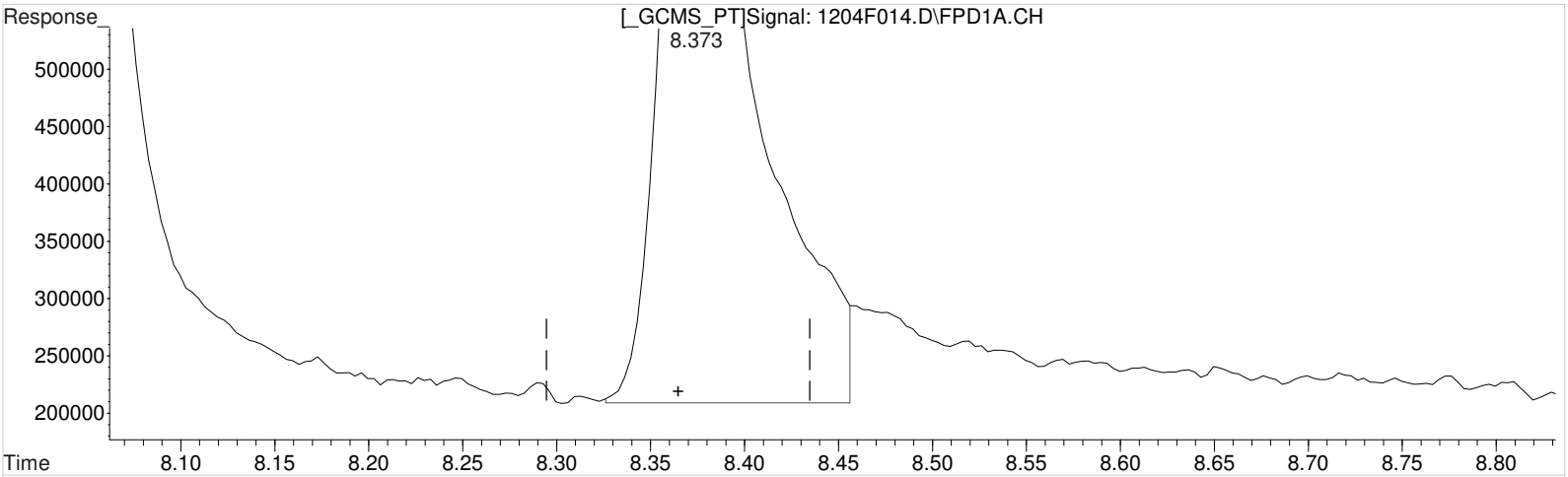
Quantitation Report (Qedit)

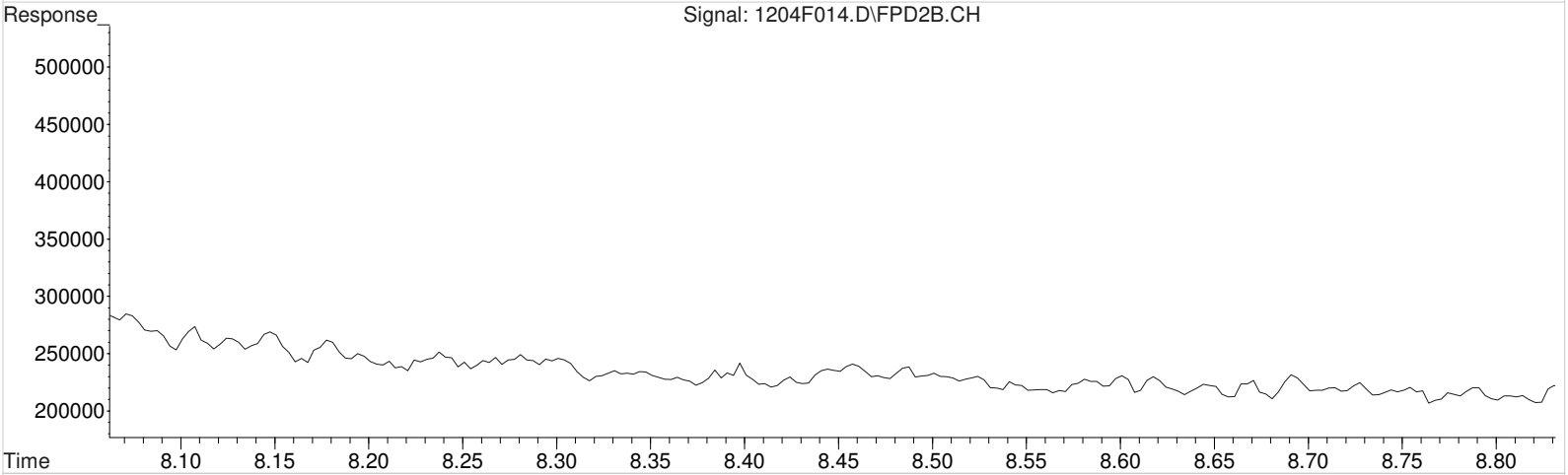
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F014.D Vial: 1
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 5:57 pm Operator: SAA
Sample : OT5-011B @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 07:53:49 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Sat Dec 01 10:21:19 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(2) Tetrabutyltin

8.373min 40.916 ng/mL m

response 2494374

Manual Integration:

After

Baseline/Shoulder

12/05/18

(2) Tetrabutyltin #2

7.921min 41.806 ng/mL

response 3917074

(+) = Expected Retention Time

1st 8dh 12/05/18
2nd TP 12/06/18

Validation Report

Data File: J:\GC26\DATA\120418B\1204F019.D\
Lab ID: KQ1817717-02
RunType: CCV
Matrix: Sediment

Date Acquired: 12/4/18 19:28:00
Batch ID: 617518
Analysis Method: ALS SOP/BUTYLTINS

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	
Analyte Coelutions	X	

Primary Review: _____

Secondary Review: _____

1st 12/05/18
2nd 12/06/18

Quantitation Report

Data File:	J:\GC26\DATA\120418B\1204F019.D\	**Instrument:**	K-GC-26
Acqu Date:	12/4/18 19:28:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1817717-02	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	BUTYLTINS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	617518	**Prep Lot:**		**Report Group:**	KQ1817717
Analysis	ALS SOP	**Prep Method:**			
		Prep Date:			

Title:	Butyltins	**Calibration ID:**	KC1800436
		Report List ID:	17560

Surrogate Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	% Rec 1	% Rec 2	Rpt?
Tri-n-propyltin	8.06	7.67	2181580	3149102	39.890	40.251			Y

Target Compounds

Parameter Name	RT 1	RT 2	Resp 1	Resp 2	Solution Conc 1	Solution Conc 2	Final Conc 1	Final Conc 2	Rpt?
n-Butyltin Cation	11.56	11.14	2965187	4052331	28.686	25.333	28.7	25.3	Y
Di-n-butyltin Cation	10.71	10.38	3841814	5188792	33.421	29.794	33.4	29.8	Y
Tri-n-butyltin Cation	9.66	9.14	2495650	3696803	35.904	35.483	35.9	35.5	Y
Tetra-n-butyltin	8.38	7.93	2535409	3858108	41.589	41.177	41.6	41.2	Y

Prep Amount:	20.00 g	**Dilution:**	1
Prep Final Amount:	4.00 mL	**Basis Factor:**	100.00

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

Printed: 12/7/18 13:07
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Quantitation Report (QT Reviewed)

1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F019.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 7:28 pm Operator: SAA
Sample : OT5-011B @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:09:27 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.057	7.665	2181580	3149102	39.890	40.251
	Target Compounds						
2)	Tetrabuty...	8.381	7.925	2535409	3858108	41.589	41.177
3)	Tri-n-but...	9.657	9.142	2495650	3696803	35.904	35.483
4)	Di-n-buty...	10.707	10.382	3841814	5188792	33.421	29.794m
5)	n-Butyltin	11.564	11.135	2965187	4052331	28.686	25.333m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

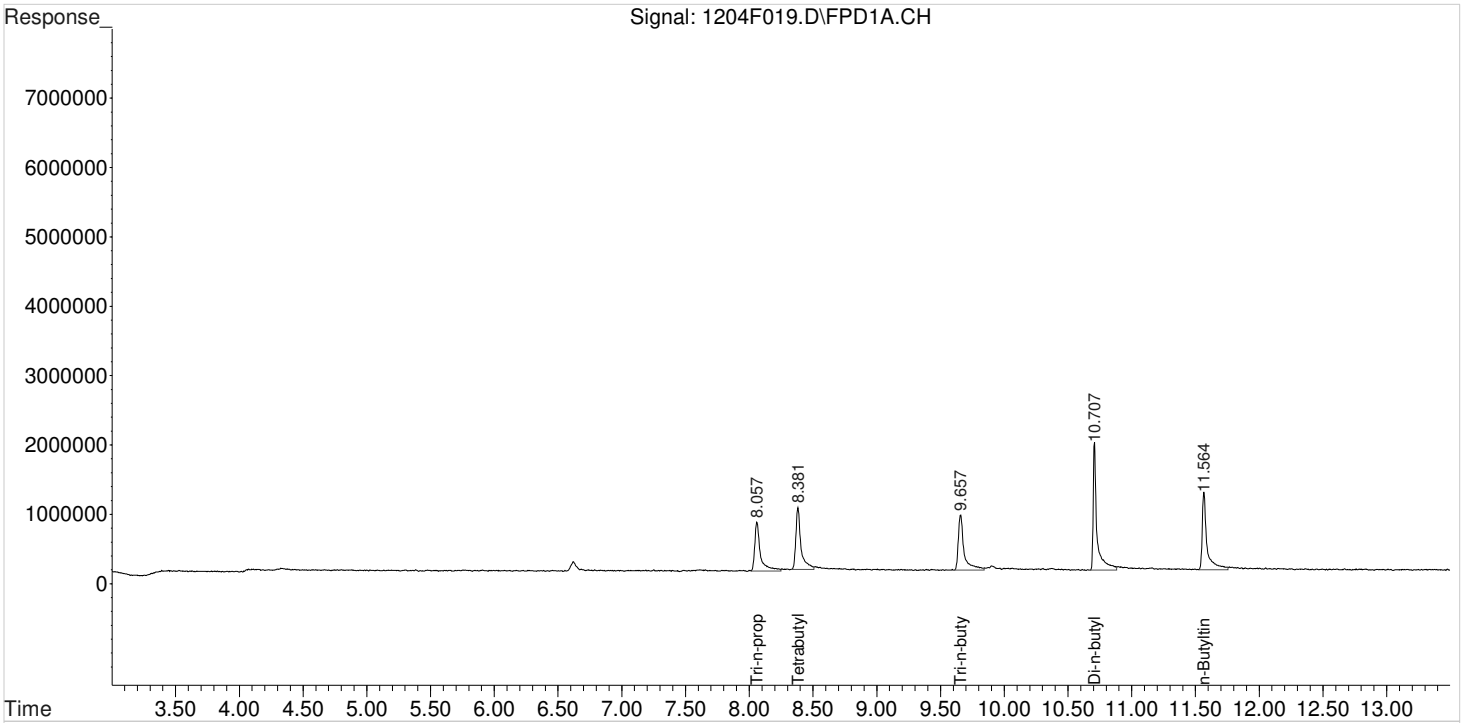
Quantitation Report (QT Reviewed)

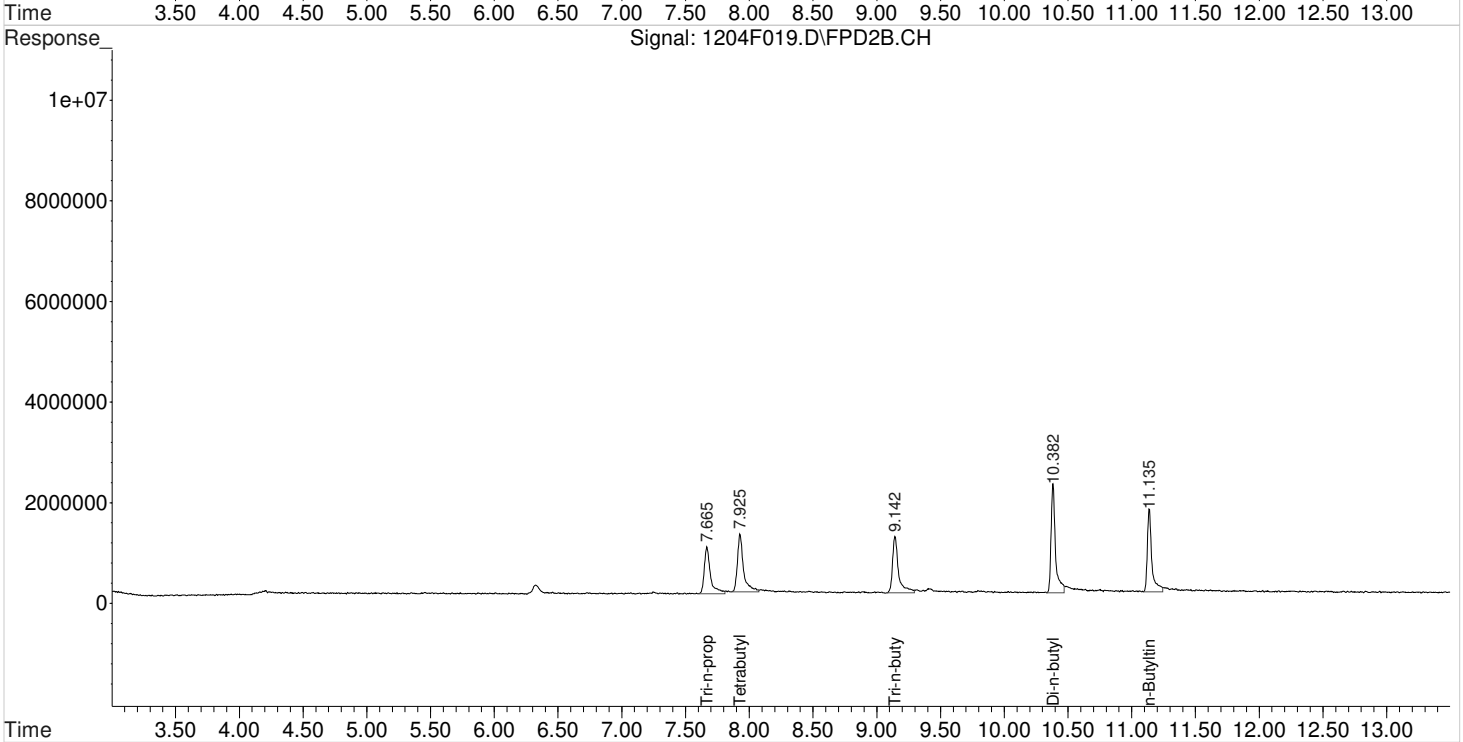
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F019.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 7:28 pm Operator: SAA
Sample : OT5-011B @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:09:27 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





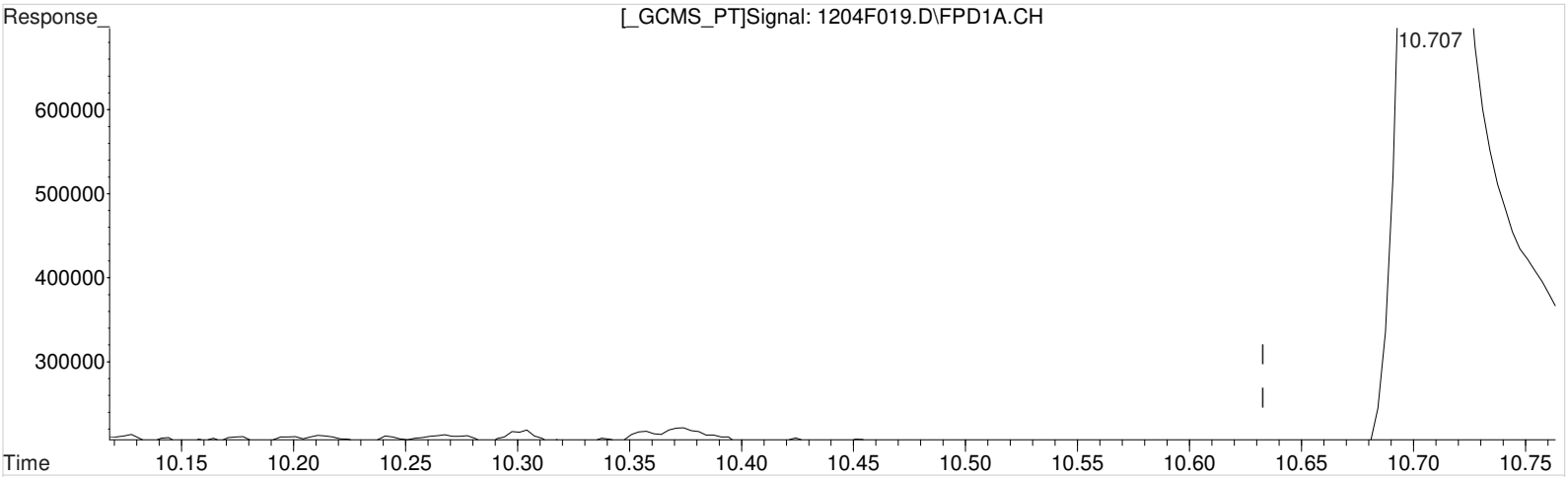
Quantitation Report (Qedit)

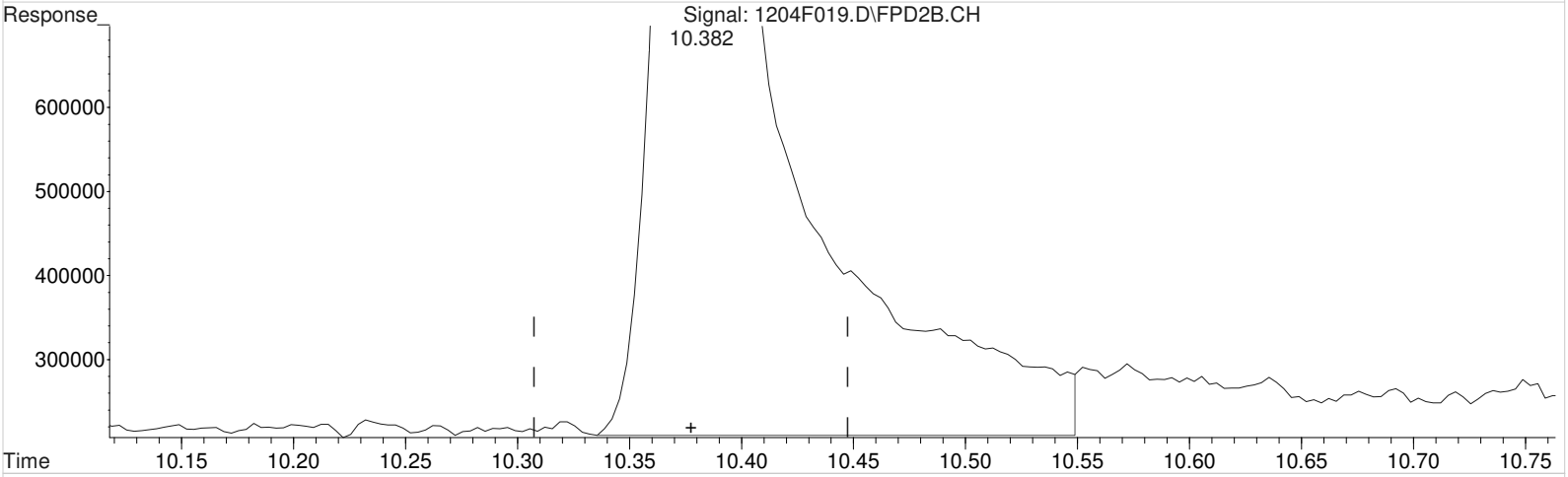
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F019.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 7:28 pm Operator: SAA
Sample : OT5-011B @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:08:09 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(4) Di-n-butyltin

10.707min 33.421 ng/mL

response 3841814

Manual Integration:

Before

12/05/18

(4) Di-n-butyltin #2

10.382min 32.597 ng/mL

response 5676856

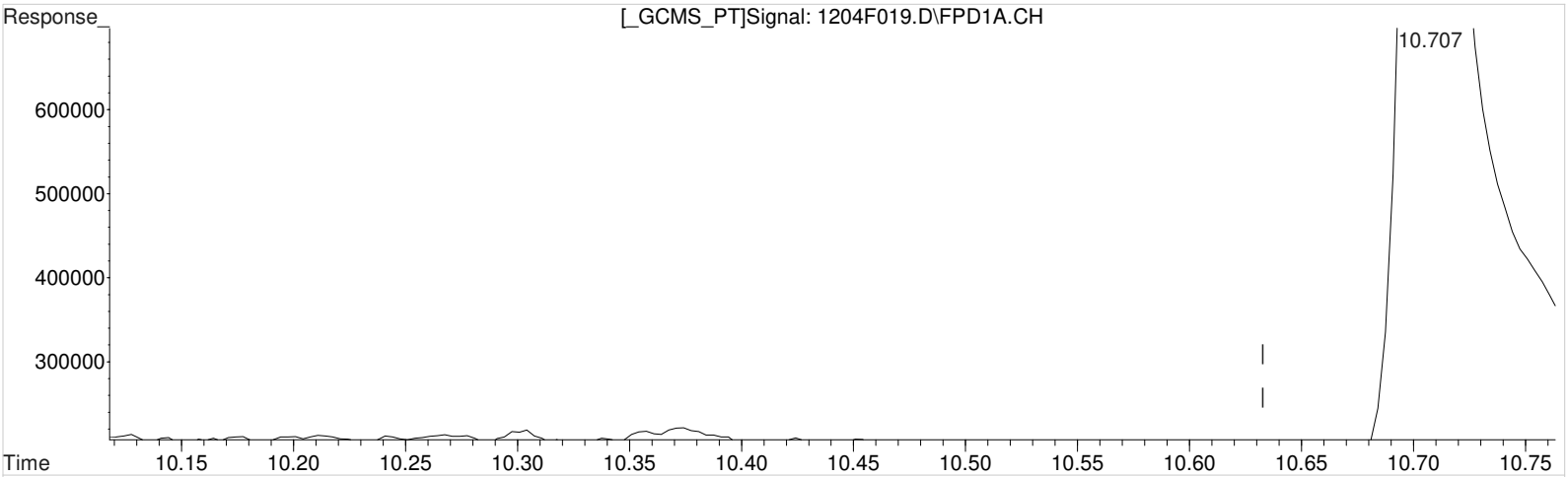
(+) = Expected Retention Time

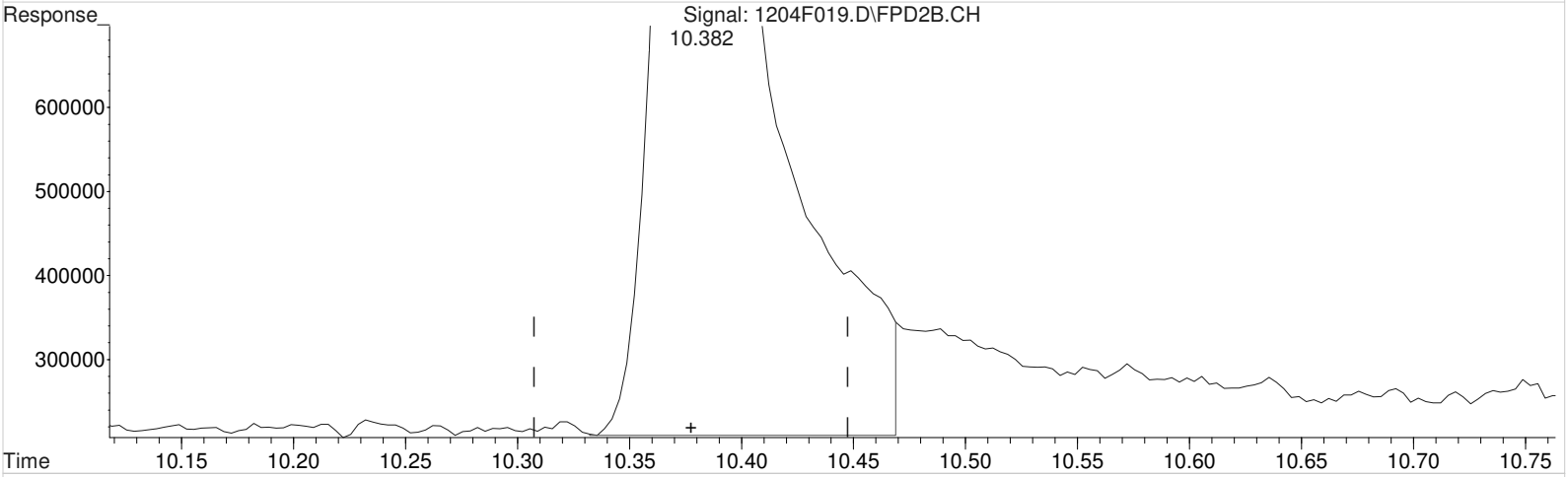
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F019.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 7:28 pm Operator: SAA
Sample : OT5-011B @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:08:09 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(4) Di-n-butyltin

10.707min 33.421 ng/mL

response 3841814

Manual Integration:

After

Baseline/Shoulder

12/05/18

(4) Di-n-butyltin #2

10.382min 29.794 ng/mL m

response 5188792

(+) = Expected Retention Time

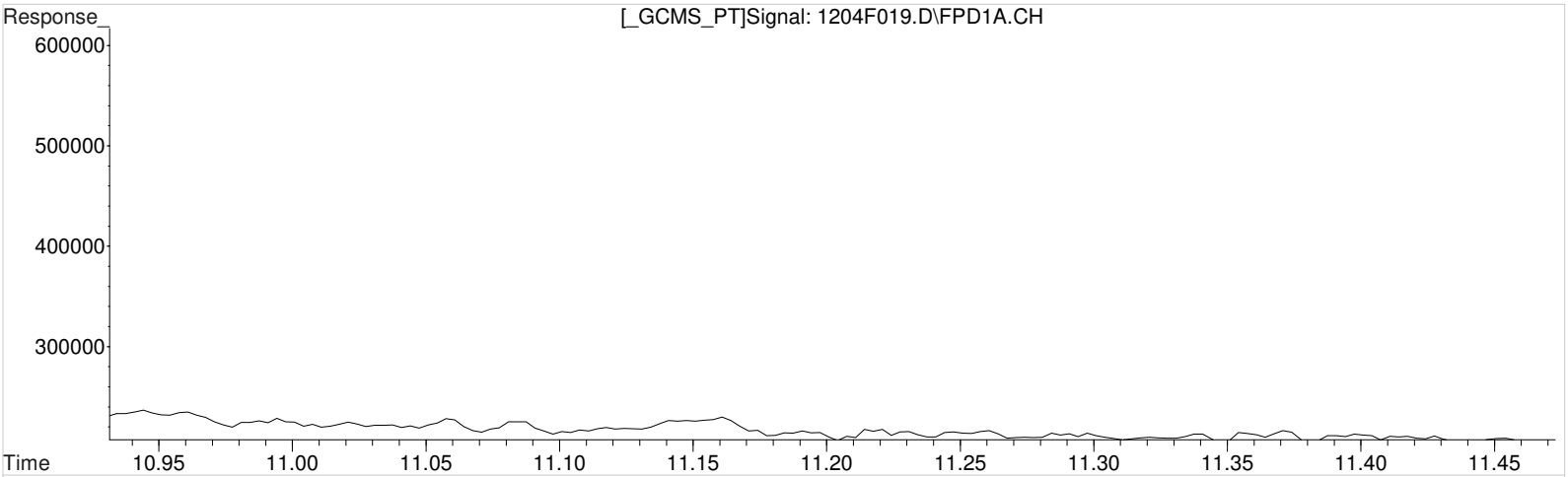
Quantitation Report (Qedit)

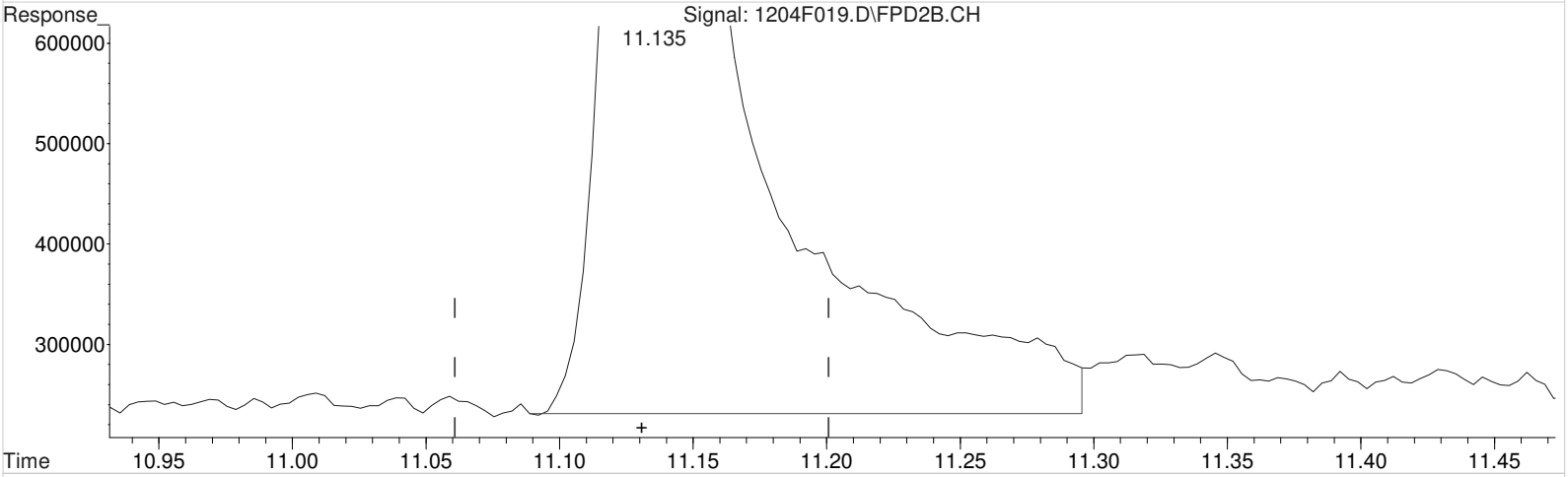
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F019.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 7:28 pm Operator: SAA
Sample : OT5-011B @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:08:09 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(5) n-Butyltin

11.564min 28.686 ng/mL

response 2965187

Manual Integration:

Before

12/05/18

(5) n-Butyltin #2

11.135min 26.613 ng/mL

response 4257214

(+) = Expected Retention Time

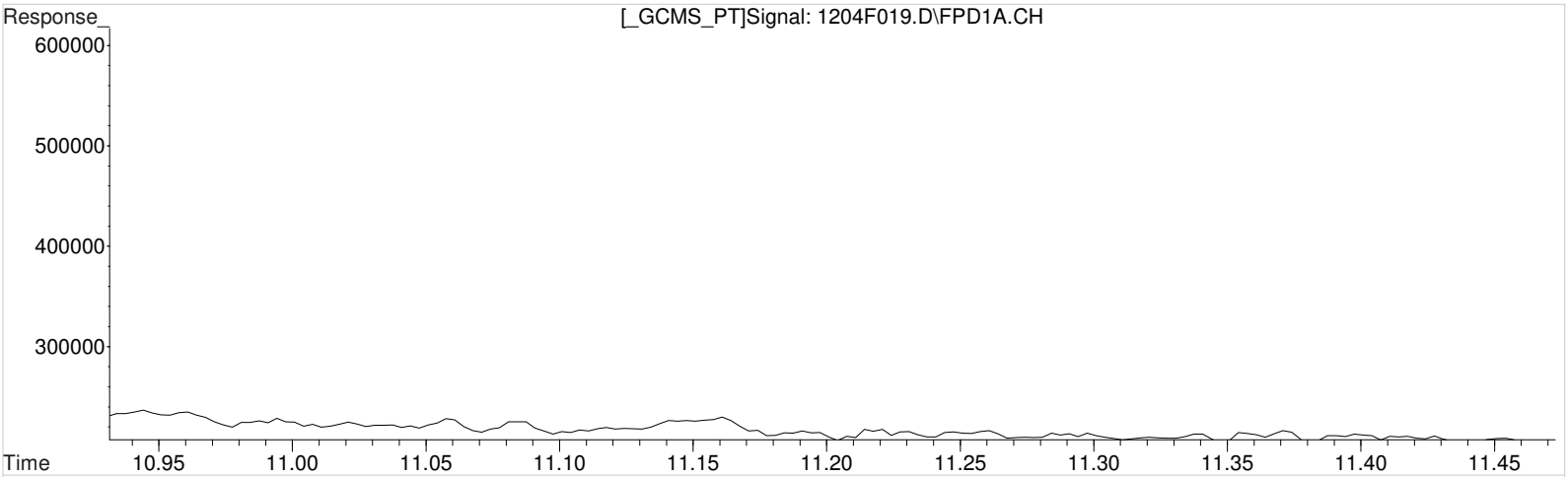
Quantitation Report (Qedit)

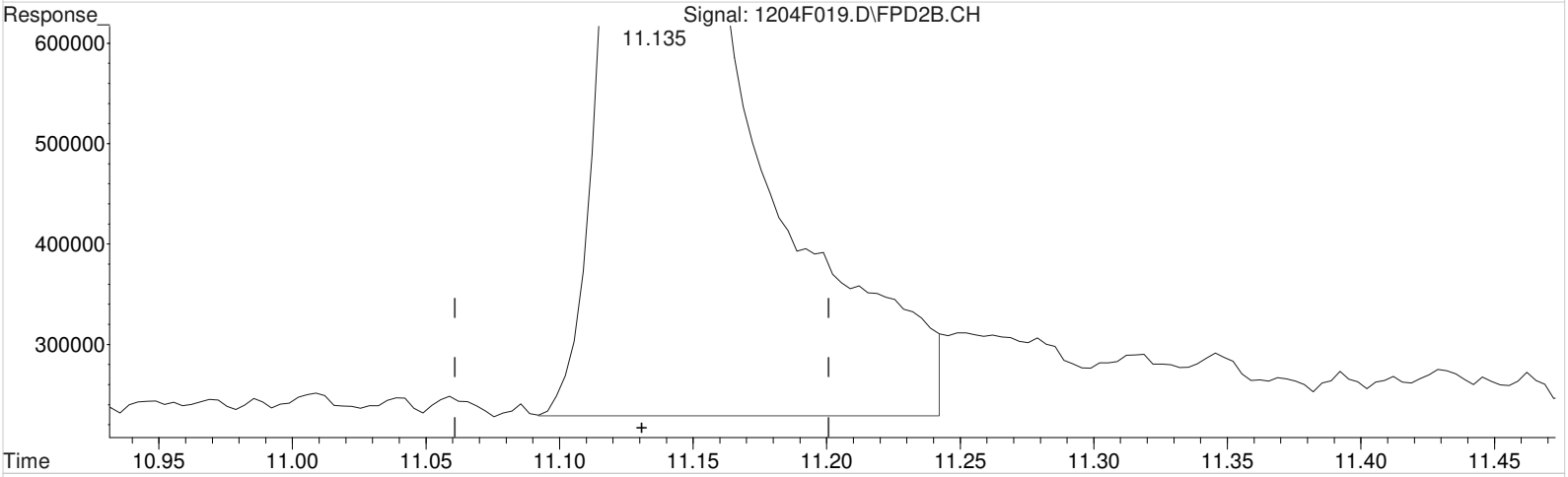
1st 12/05/18
2nd 12/06/18

Data File : J:\GC26\DATA\120418B\1204F019.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 04 Dec 2018 7:28 pm Operator: SAA
Sample : OT5-011B @ 50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Dec 05 08:08:09 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Dec 05 07:58:40 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(5) n-Butyltin

11.564min 28.686 ng/mL

response 2965187

Manual Integration:

After

Baseline/Shoulder

12/05/18

(5) n-Butyltin #2

11.135min 25.333 ng/mL m

response 4052331

(+) = Expected Retention Time

Sequence Name: C:\GC26\SEQ\091718.SEQ

Comment: Butyltins by Krone
Operator: SAA
Data Path: C:\GC26\DATA\091718\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SOLN	100	0917F001	OTIN1	PRIMER
2	SOLN	100	0917F002	OTIN1	PRIMER
3	IB	1	0917F003	OTIN1	IB
4	ICAL	2	0917F004	OTIN1	OT5-010A @ 2PPB
5	ICAL	3	0917F005	OTIN1	OT5-010B @ 5PPB
6	ICAL	4	0917F006	OTIN1	OT5-010C @ 10PPB
7	ICAL	5	0917F007	OTIN1	OT5-010D @ 20PPB
8	ICAL	6	0917F008	OTIN1	OT5-010K@50 PPB
9	ICAL	7	0917F009	OTIN1	OT5-010E @ 200 PPB
10	ICAL	8	0917F010	OTIN1	OT5-010F @ 500 PPB
11	IB	1	0917F011	OTIN1	IB
12	ICAL	9	0917F012	OTIN1	OT5-09P @ 50PPB ICV
13					

Cal: KC18000436

09/18/18 SA

Last Modified: Mon Sep 17 13:56:13 2018 Page: 1

Quantitation Report (QT Reviewed)

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F003.D Vial: 1
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 2:36 pm Operator: SAA
Sample : IB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 10:11:19 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Tue Sep 18 10:00:45 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

		Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
		System Monitoring Compounds							
1)	S	Tri-n-pro...	0.000	7.646f	0	18190	N.D.	0.232	#
		Target Compounds							
2)		Tetrabuty...	0.000	7.926f	0	29918	N.D.	0.319	#
3)		Tri-n-but...	0.000	9.110	0	18005	N.D.	0.173	#
5)		n-Butyltin	11.526	0.000	35324	0	0.342	N.D.	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

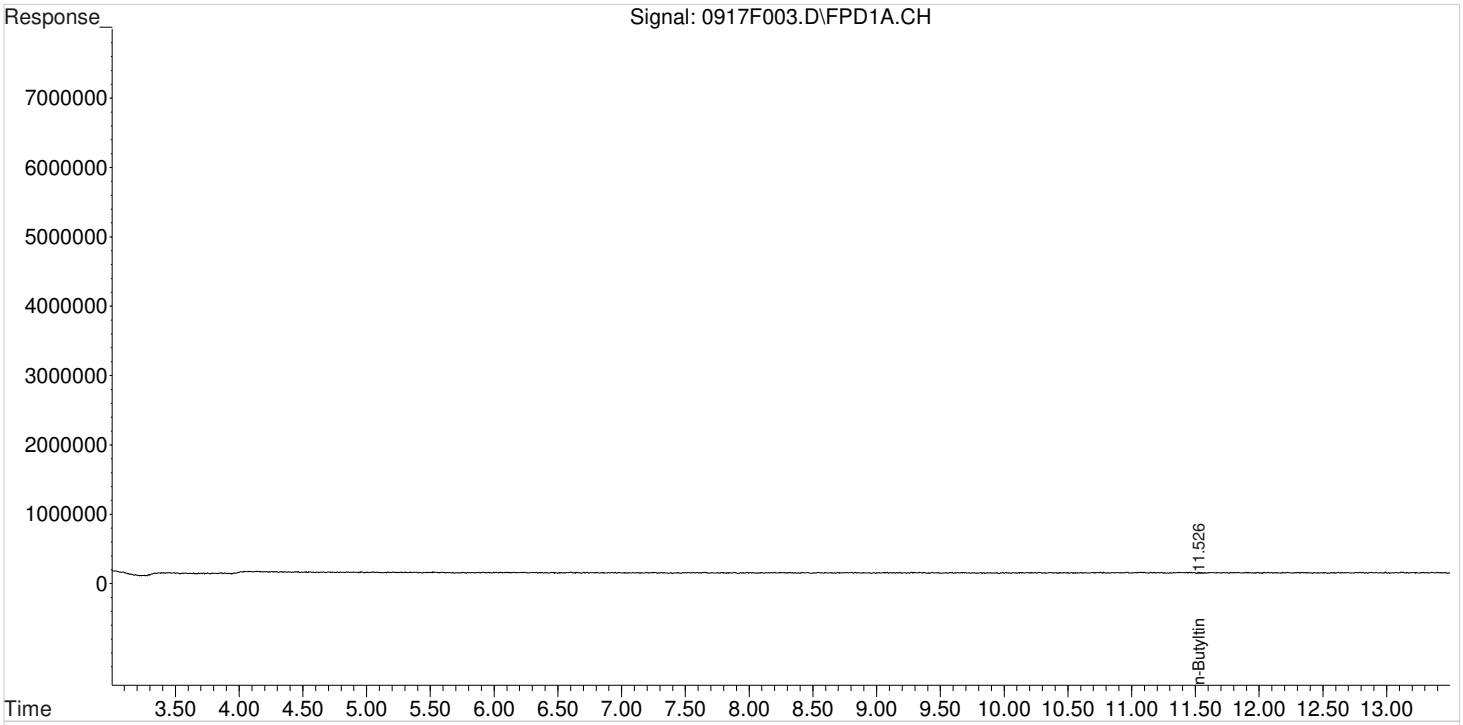
Quantitation Report (QT Reviewed)

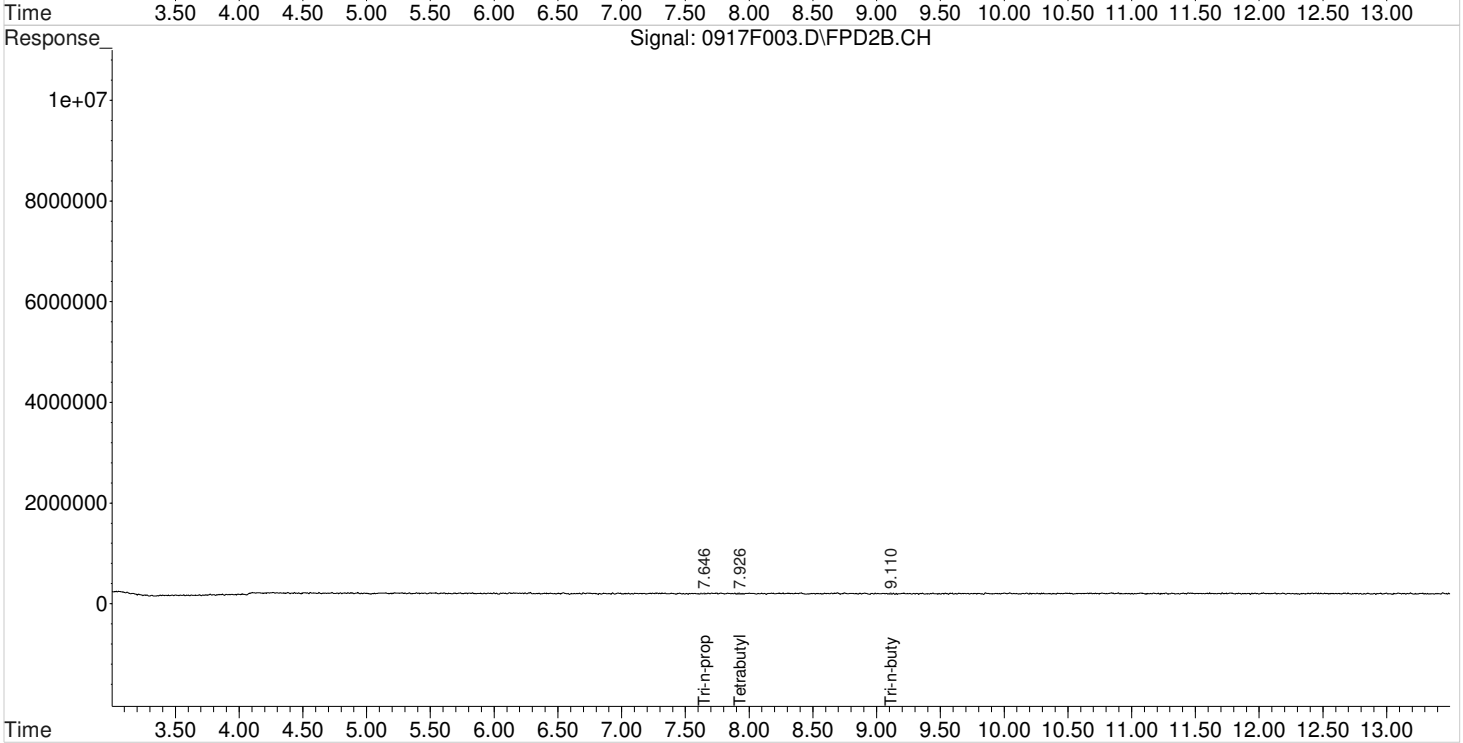
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F003.D Vial: 1
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 2:36 pm Operator: SAA
Sample : IB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 10:11:19 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Tue Sep 18 10:00:45 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





Quantitation Report (QT Reviewed)

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F004.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 2:55 pm Operator: SAA
Sample : OT5-010A @ 2PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:44:13 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	7.994	7.614	136780	149407	3.141	1.503m#
	Target Compounds						
2)	Tetrabuty...	8.317	7.871	109766	194011	2.111	1.764m
3)	Tri-n-but...	9.594	9.097	135520	222119	2.484	1.910m
4)	Di-n-buty...	10.677	10.347	188324	292846	1.951	1.425 #
5)	n-Butyltin	11.534	11.111	115125	239789	1.255	1.306

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

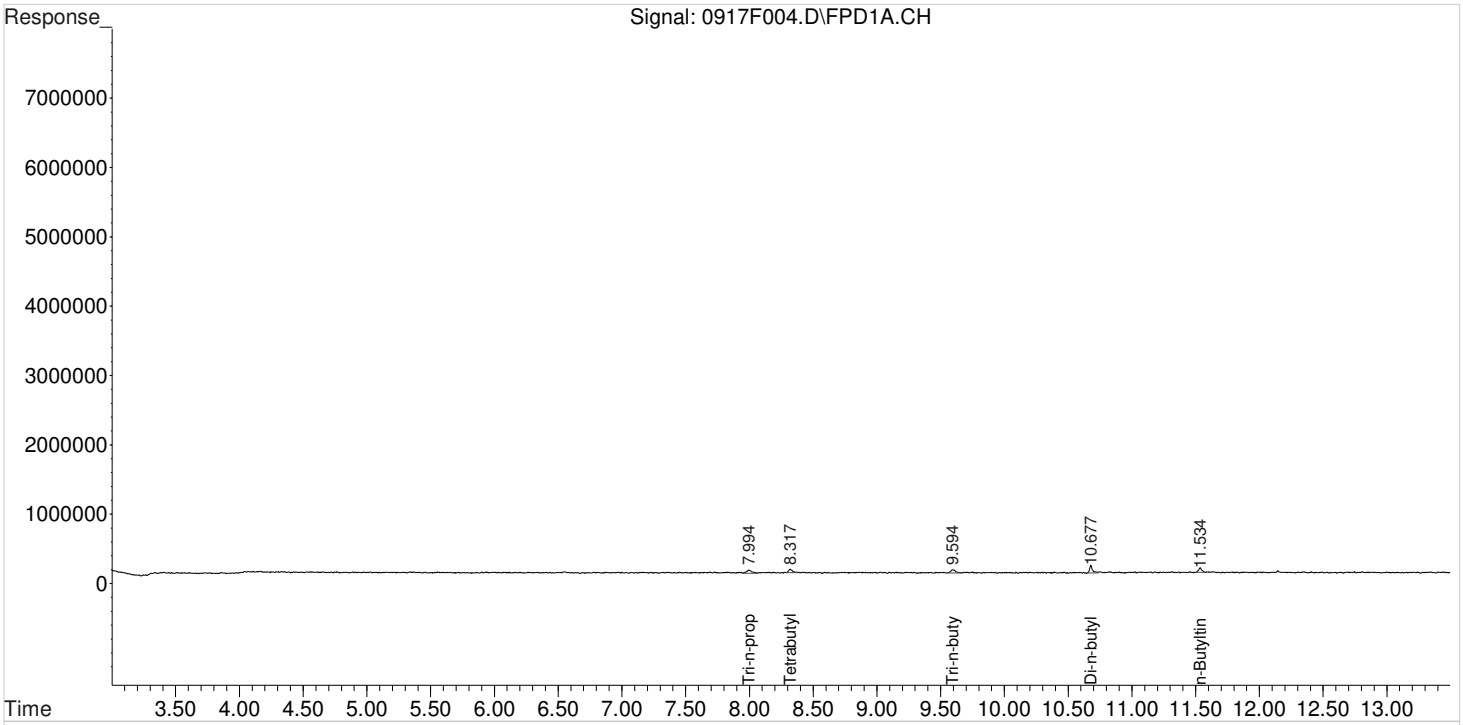
Quantitation Report (QT Reviewed)

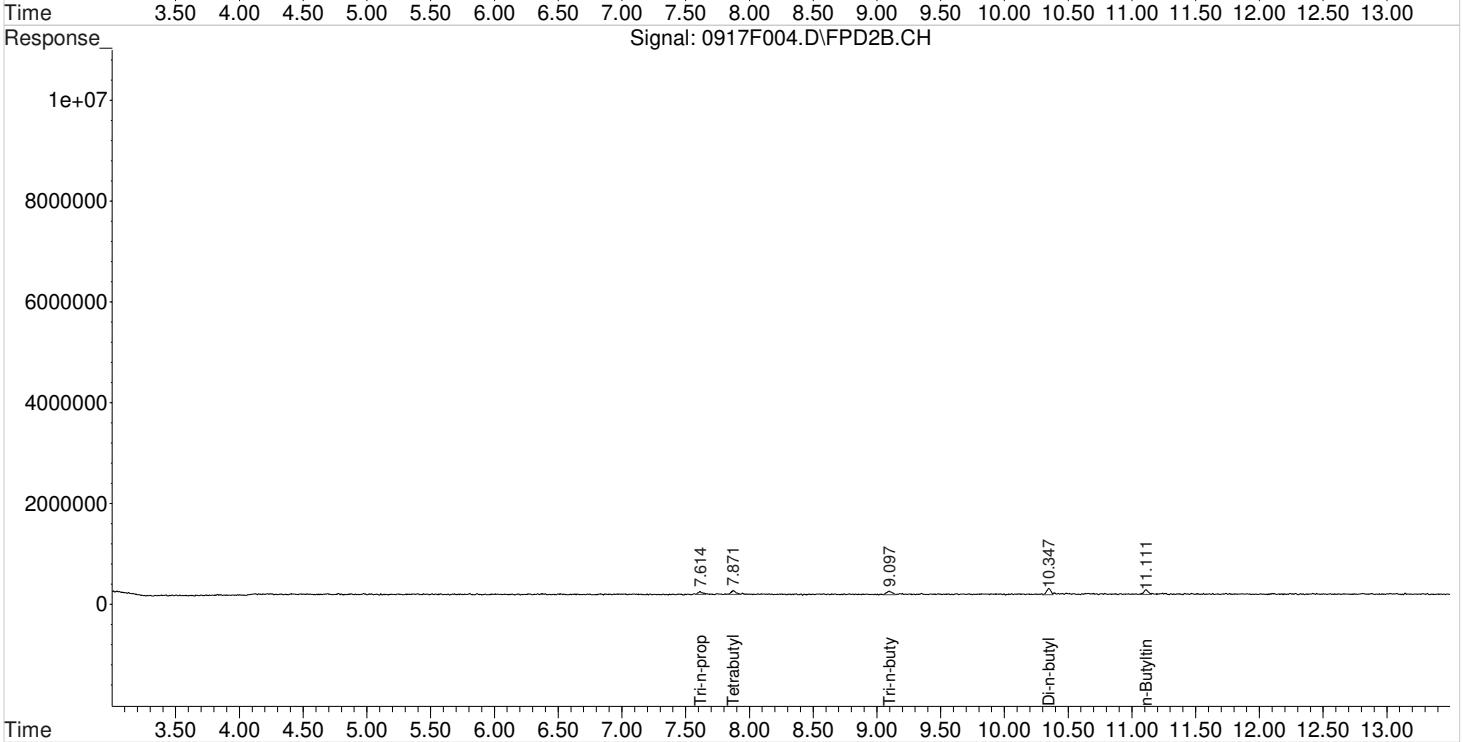
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F004.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 2:55 pm Operator: SAA
Sample : OT5-010A @ 2PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:44:13 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





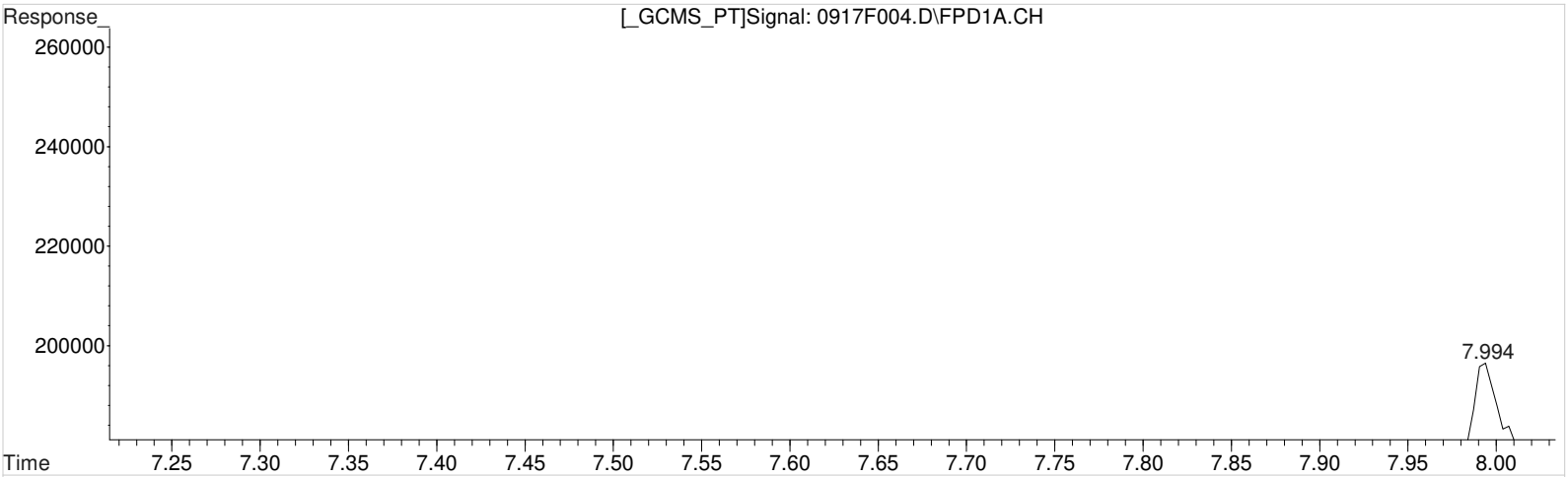
Quantitation Report (Qedit)

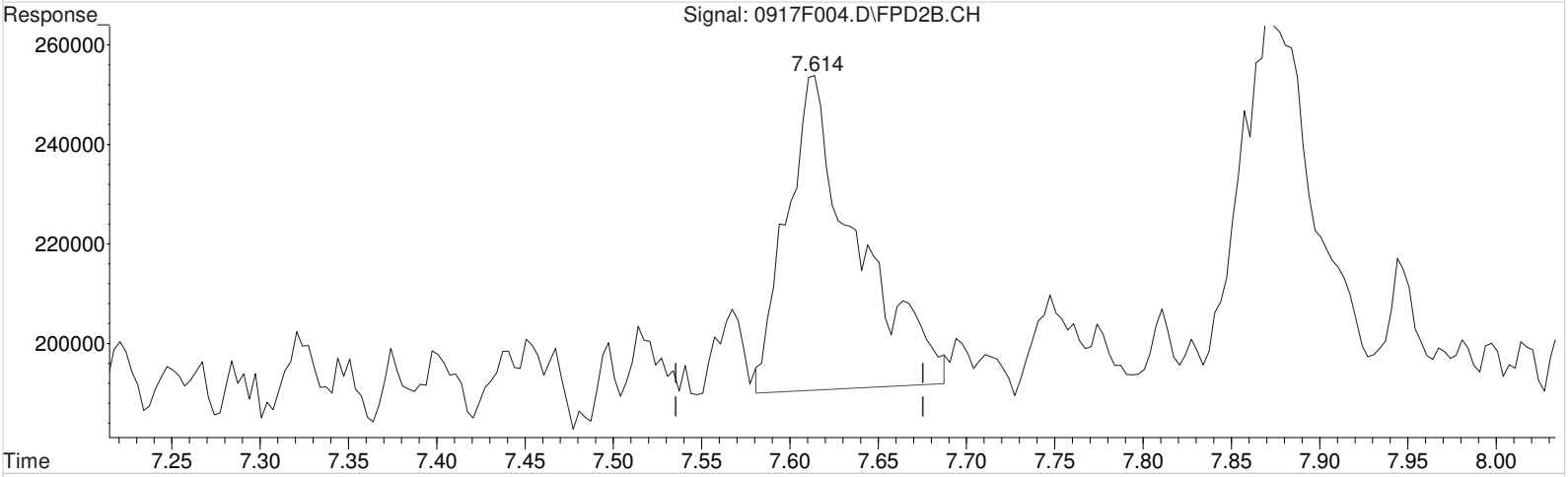
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F004.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 2:55 pm Operator: SAA
Sample : OT5-010A @ 2PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:42:08 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(1) Tri-n-propyltin (S)

7.994min 3.141 ng/mL

response 136780

Manual Integration:

Before

09/18/18

(1) Tri-n-propyltin #2 (S)

7.614min 1.753 ng/mL

response 174242

(+) = Expected Retention Time

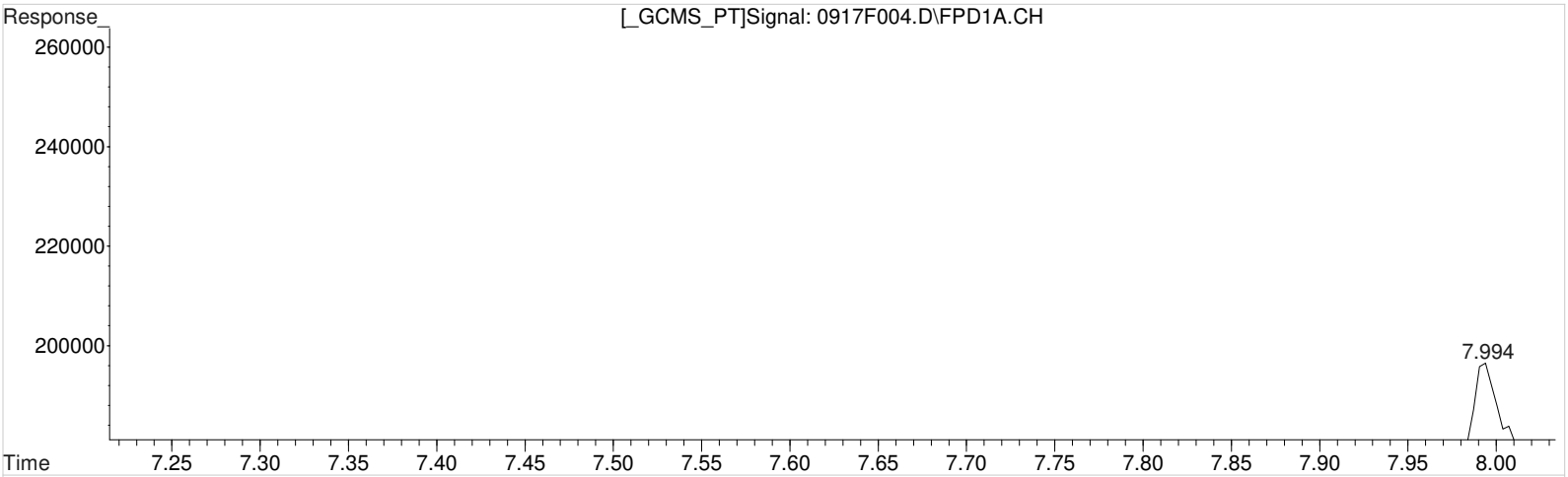
Quantitation Report (Qedit)

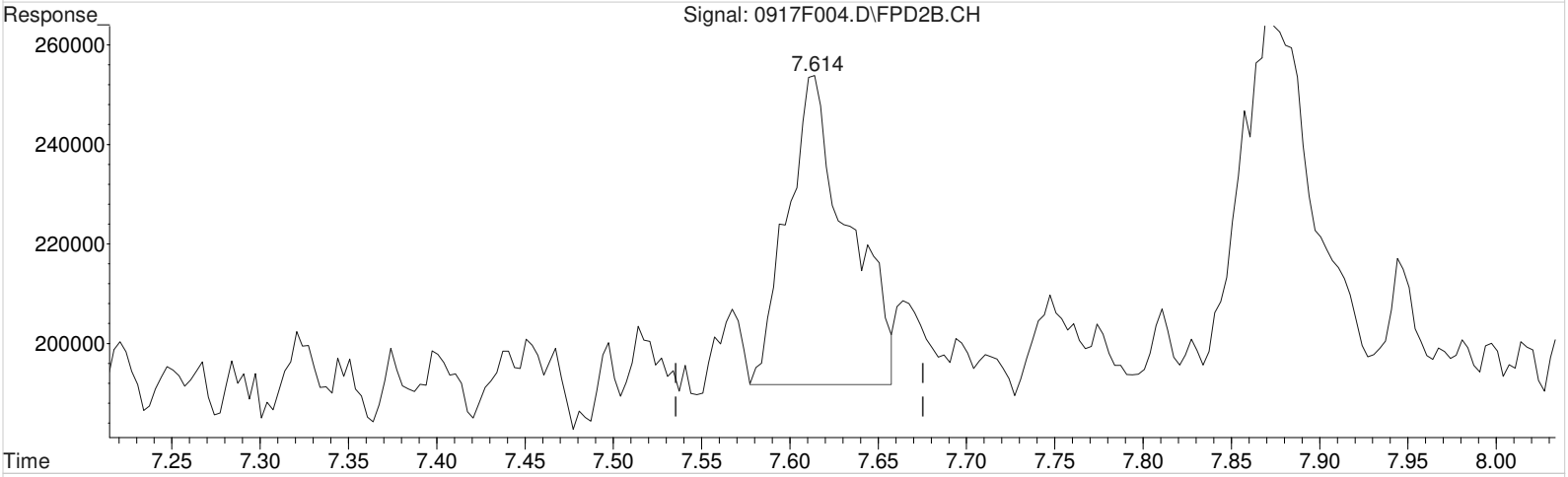
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F004.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 2:55 pm Operator: SAA
Sample : OT5-010A @ 2PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:42:08 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(1) Tri-n-propyltin (S)

7.994min 3.141 ng/mL

response 136780

Manual Integration:

After

Baseline/Shoulder

09/18/18

(1) Tri-n-propyltin #2 (S)

7.614min 1.503 ng/mL m

response 149407

(+) = Expected Retention Time

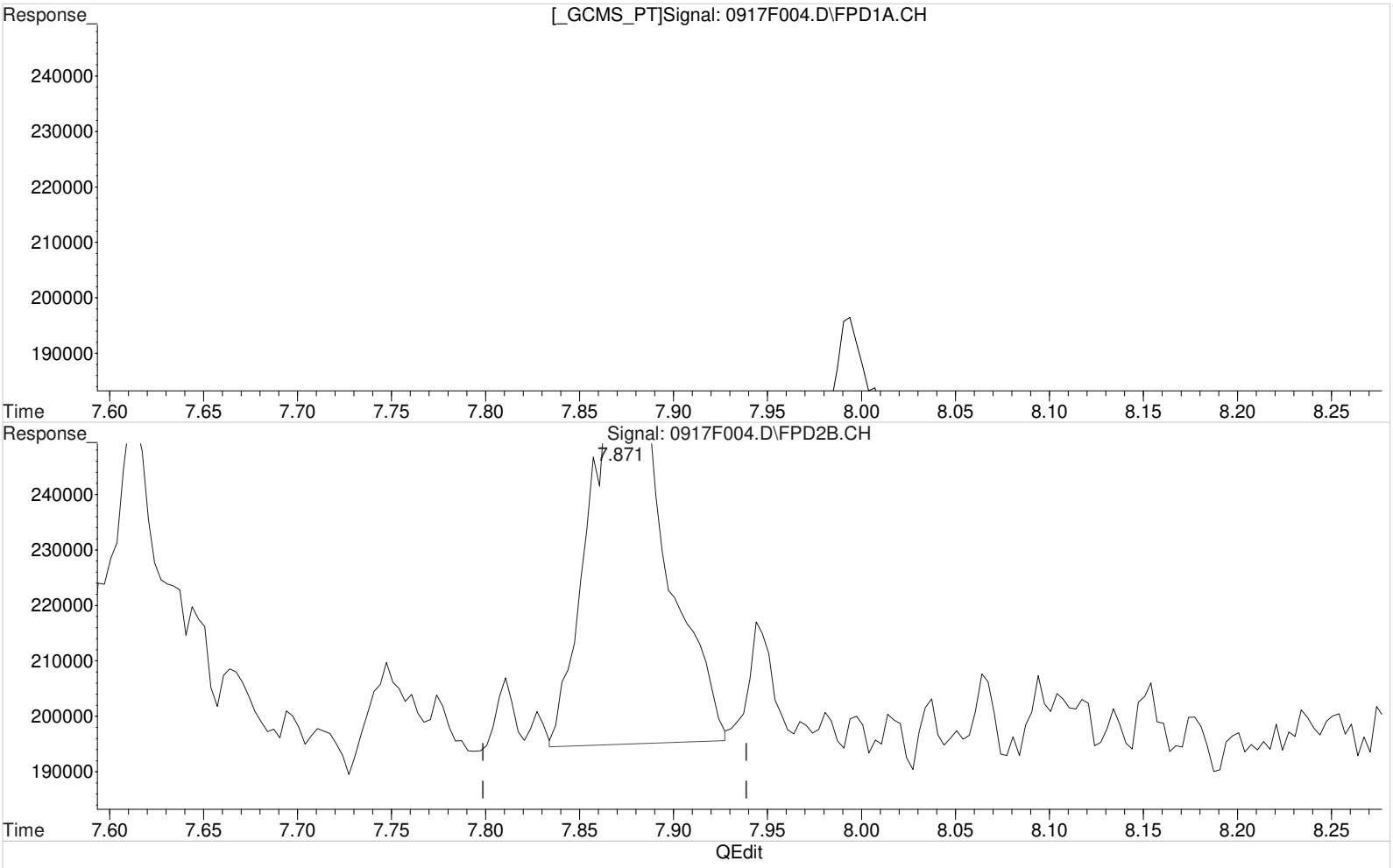
Quantitation Report (Qedit)

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F004.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 2:55 pm Operator: SAA
Sample : OT5-010A @ 2PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:42:08 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m



QEdit

(2) Tetrabutyltin

8.317min 2.111 ng/mL

response 109766

Manual Integration:

Before

09/18/18

(2) Tetrabutyltin #2

7.871min 1.787 ng/mL

response 196534

(+) = Expected Retention Time

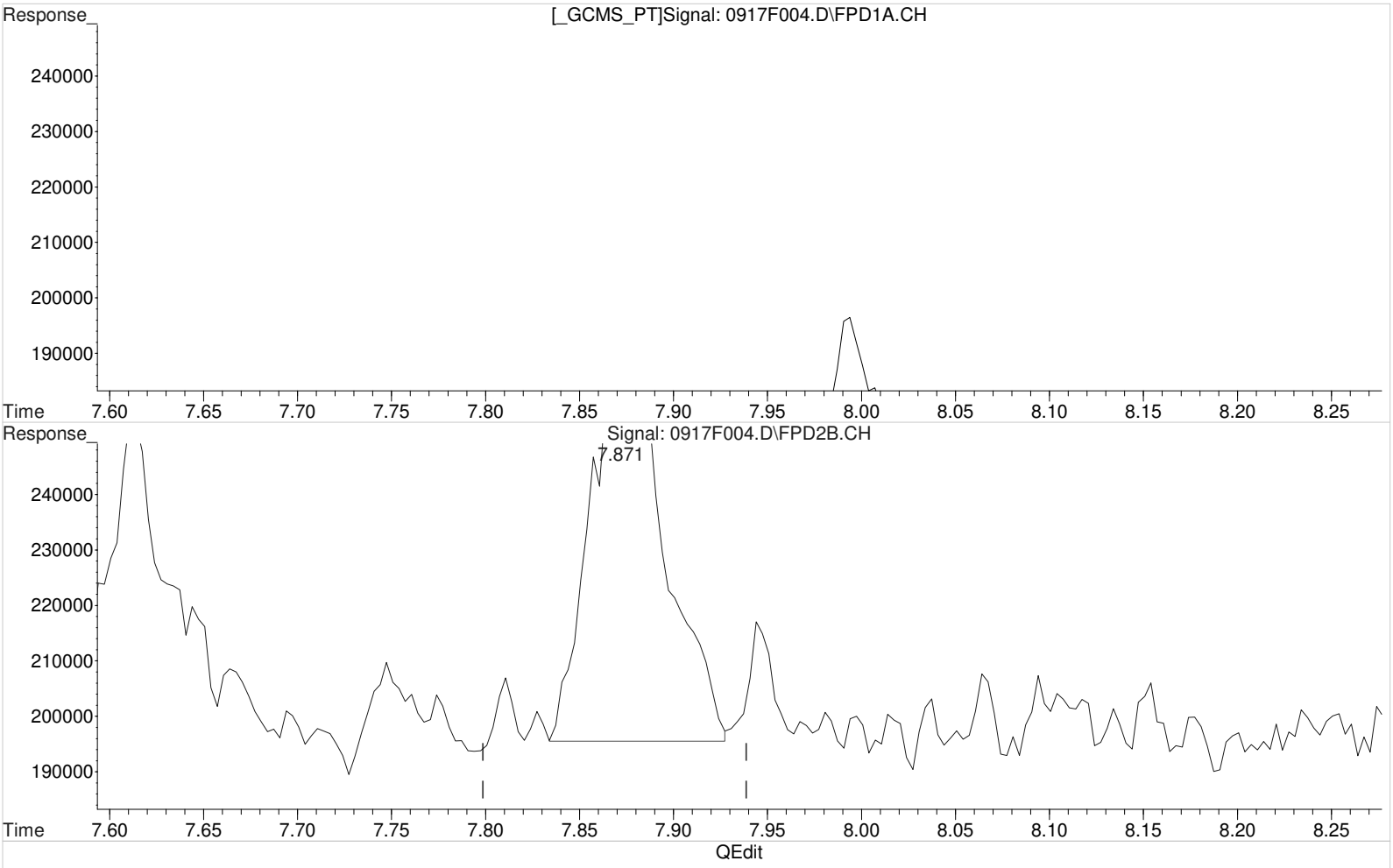
Quantitation Report (Qedit)

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F004.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 2:55 pm Operator: SAA
Sample : OT5-010A @ 2PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:42:08 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m



QEdit

(2) Tetrabutyltin

8.317min 2.111 ng/mL

response 109766

Manual Integration:

After

Baseline/Shoulder

09/18/18

(2) Tetrabutyltin #2

7.871min 1.764 ng/mL m

response 194011

(+) = Expected Retention Time

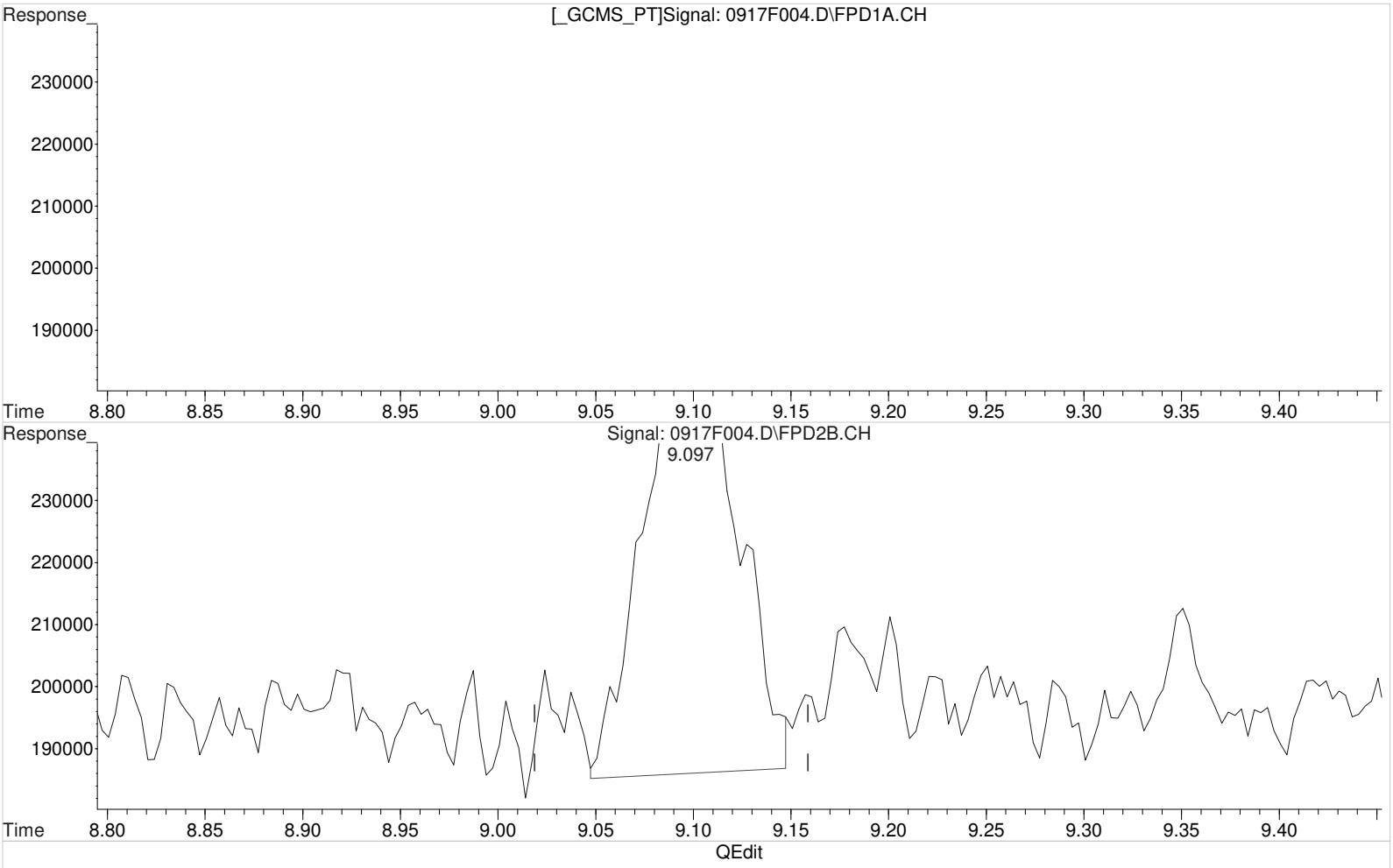
Quantitation Report (Qedit)

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F004.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 2:55 pm Operator: SAA
Sample : OT5-010A @ 2PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:42:08 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m



QEdit

(3) Tri-n-butyltin

9.594min 2.484 ng/mL

response 135520

(3) Tri-n-butyltin #2

9.097min 1.936 ng/mL

response 225109

Manual Integration:

Before

09/18/18

(+) = Expected Retention Time

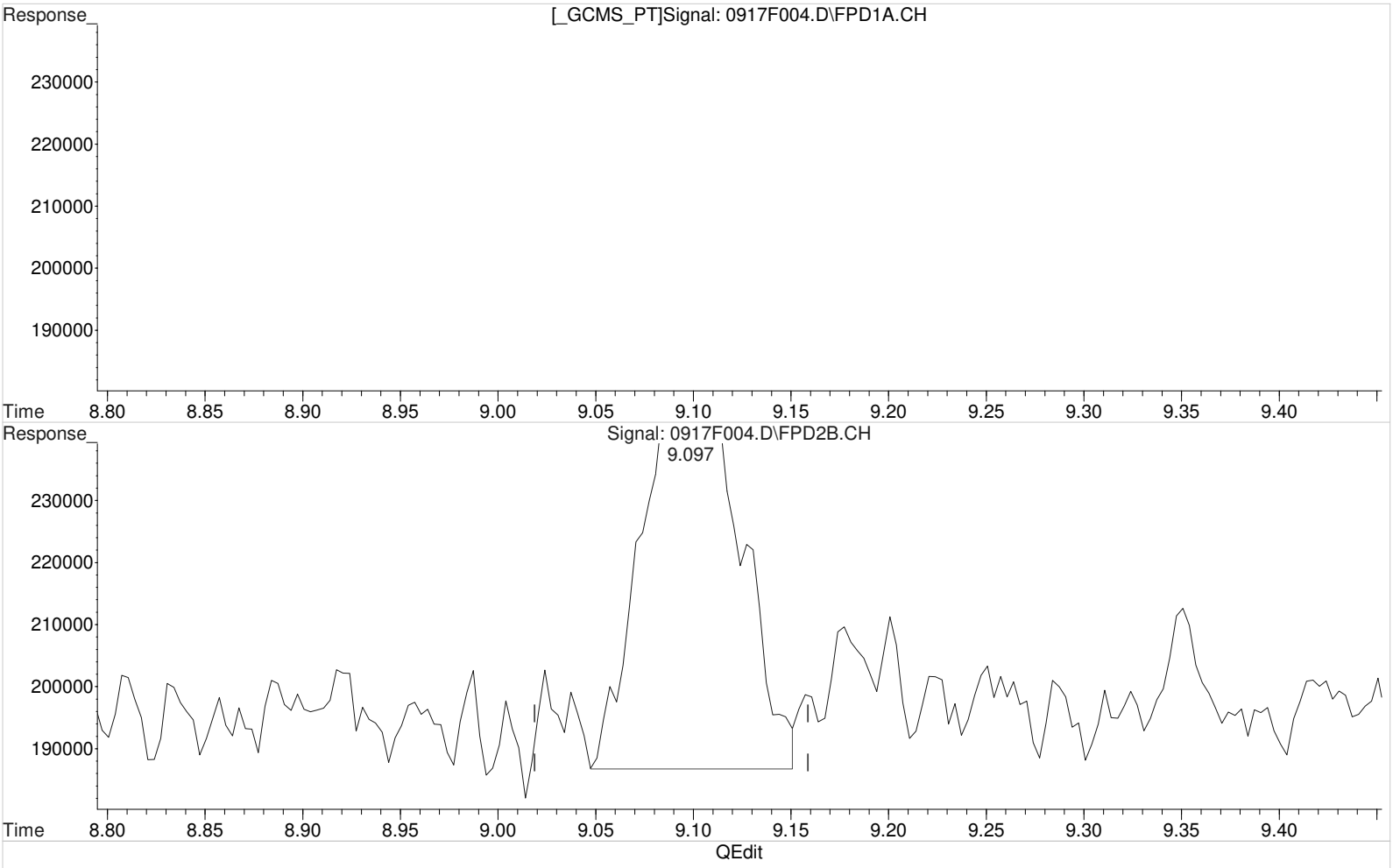
Quantitation Report (Qedit)

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F004.D Vial: 2
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 2:55 pm Operator: SAA
Sample : OT5-010A @ 2PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:42:08 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m



QEdit

(3) Tri-n-butyltin

9.594min 2.484 ng/mL

response 135520

Manual Integration:

After

Baseline/Shoulder

09/18/18

(3) Tri-n-butyltin #2

9.097min 1.910 ng/mL m

response 222119

(+) = Expected Retention Time

Initial Calibration - Detailed Report

Calibration ID: KC1800436 **Instrument ID:** K-GC-26
Column Name: RTX-1

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1800436-01	OT5-010A @ 2PPB	J:\GC26\DATA\091718\0917F004.D	09/17/2018 14:55
02	KC1800436-02	OT5-010B @ 5PPB	J:\GC26\DATA\091718\0917F005.D	09/17/2018 15:13
03	KC1800436-03	OT5-010C @ 10PPB	J:\GC26\DATA\091718\0917F006.D	09/17/2018 15:32
04	KC1800436-04	OT5-010D @ 20PPB	J:\GC26\DATA\091718\0917F007.D	09/17/2018 15:50
05	KC1800436-05	OT5-010K@50 PPB	J:\GC26\DATA\091718\0917F008.D	09/17/2018 16:08
06	KC1800436-06	OT5-010E @ 200 PPB	J:\GC26\DATA\091718\0917F009.D	09/17/2018 16:27
07	KC1800436-07	OT5-010F @ 500 PPB	J:\GC26\DATA\091718\0917F010.D	09/17/2018 16:45

Analyte **Curve Fit** **Weighting**

Di-n-butyltin Cation

Average RF **RSD = 7.793** **Average RF = 1.15E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.533	1.228E5	02	3.833	1.059E5	03	7.665	1.063E5	04	15.330	1.046E5
05	38.325	1.235E5	06	153.300	1.233E5	07	383.250	1.182E5			

Tetra-n-butyltin

Average RF **RSD = 8.488** **Average RF = 6.096E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	5.488E4	02	5.000	5.406E4	03	10.000	5.808E4	04	20.000	6.346E4
05	50.000	6.437E4	06	200.000	6.622E4	07	500.000	6.567E4			

Tri-n-butyltin Cation

Average RF **RSD = 5.189** **Average RF = 6.951E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.782	7.605E4	02	4.455	7.24E4	03	8.910	6.65E4	04	17.820	6.585E4
05	44.550	6.93E4	06	178.200	6.9E4	07	445.500	6.747E4			

n-Butyltin Cation

Average RF **RSD = 7.147** **Average RF = 1.034E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.246	9.24E4	02	3.115	9.934E4	03	6.230	1.041E5	04	12.460	9.746E4
05	31.150	1.118E5	06	124.600	1.12E5	07	311.500	1.064E5			

Tri-n-propyltin

Average RF **RSD = 12.74** **Average RF = 5.469E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	6.839E4	02	5.000	5.283E4	03	10.000	4.594E4	04	20.000	5.002E4
05	50.000	5.595E4	06	200.000	5.459E4	07	500.000	5.511E4			

Initial Calibration - Detailed Report

Calibration ID: KC1800436 **Instrument ID:** K-GC-26
Column Name: RTX-1

Analyte

Di-n-butyltin Cation

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.533	1.64	6.9	02	3.833	3.53	-7.9	03	7.665	7.09	-7.5
04	15.330	13.9	-9.0	05	38.325	41.2	7.4	06	153.300	164	7.3
07	383.250	394	2.8								

Tetra-n-butyltin

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.000	1.80	-10.0	02	5.000	4.43	-11.3	03	10.000	9.53	-4.7
04	20.000	20.8	4.1	05	50.000	52.8	5.6	06	200.000	217	8.6
07	500.000	539	7.7								

Tri-n-butyltin Cation

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.782	1.95	9.4	02	4.455	4.64	4.2	03	8.910	8.52	-4.3
04	17.820	16.9	-5.3	05	44.550	44.4	-0.3	06	178.200	177	-0.7
07	445.500	432	-2.9								

n-Butyltin Cation

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.246	1.11	-10.6	02	3.115	2.99	-3.9	03	6.230	6.27	0.7
04	12.460	11.7	-5.7	05	31.150	33.7	8.2	06	124.600	135	8.4
07	311.500	321	3.0								

Tri-n-propyltin

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.000	2.50	25.0	02	5.000	4.83	-3.4	03	10.000	8.40	-16.0
04	20.000	18.3	-8.5	05	50.000	51.2	2.3	06	200.000	200	-0.2
07	500.000	504	0.8								

Calibration ID: KC1800436 **Instrument ID:** K-GC-26
Column Name: RTX-35

#	Lab Code	Sample Name	File Location	Aquisition Date
01	KC1800436-01	OT5-010A @ 2PPB	J:\GC26\DATA\091718\0917F004.D\0917F004c.d	09/17/2018 14:55
02	KC1800436-02	OT5-010B @ 5PPB	J:\GC26\DATA\091718\0917F005.D\0917F005c.d	09/17/2018 15:13
03	KC1800436-03	OT5-010C @ 10PPB	J:\GC26\DATA\091718\0917F006.D\0917F006c.d	09/17/2018 15:32
04	KC1800436-04	OT5-010D @ 20PPB	J:\GC26\DATA\091718\0917F007.D\0917F007c.d	09/17/2018 15:50
05	KC1800436-05	OT5-010K@50 PPB	J:\GC26\DATA\091718\0917F008.D\0917F008c.d	09/17/2018 16:08
06	KC1800436-06	OT5-010E @ 200 PPB	J:\GC26\DATA\091718\0917F009.D\0917F009c.d	09/17/2018 16:27
07	KC1800436-07	OT5-010F @ 500 PPB	J:\GC26\DATA\091718\0917F010.D\0917F010c.d	09/17/2018 16:45

Initial Calibration - Detailed Report

Calibration ID: KC1800436 **Instrument ID:** K-GC-26
Column Name: RTX-35

Analyte **Curve Fit** **Weighting**

Di-n-butyltin Cation

Average RF **RSD = 6.659** **Average RF = 1.742E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.533	1.91E5	02	3.833	1.605E5	03	7.665	1.816E5	04	15.330	1.656E5
05	38.325	1.847E5	06	153.300	1.706E5	07	383.250	1.65E5			

Tetra-n-butyltin

Average RF **RSD = 5.173** **Average RF = 9.37E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	9.701E4	02	5.000	8.957E4	03	10.000	1.021E5	04	20.000	9.142E4
05	50.000	9.517E4	06	200.000	9.281E4	07	500.000	8.782E4			

Tri-n-butyltin Cation

Average RF **RSD = 10.63** **Average RF = 1.042E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.782	1.246E5	02	4.455	9.429E4	03	8.910	1.125E5	04	17.820	9.717E4
05	44.550	1.058E5	06	178.200	9.935E4	07	445.500	9.552E4			

n-Butyltin Cation

Average RF **RSD = 10.69** **Average RF = 1.6E5**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	1.246	1.924E5	02	3.115	1.615E5	03	6.230	1.505E5	04	12.460	1.421E5
05	31.150	1.705E5	06	124.600	1.55E5	07	311.500	1.476E5			

Tri-n-propyltin

Average RF **RSD = 4.931** **Average RF = 7.824E4**

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	2.000	7.47E4	02	5.000	7.544E4	03	10.000	7.709E4	04	20.000	7.852E4
05	50.000	8.615E4	06	200.000	7.943E4	07	500.000	7.633E4			

Initial Calibration - Detailed Report

Calibration ID: KC1800436 **Instrument ID:** K-GC-26
Column Name: RTX-35

Analyte

Di-n-butyltin Cation

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.533	1.68	9.7	02	3.833	3.53	-7.8	03	7.665	7.99	4.3
04	15.330	14.6	-4.9	05	38.325	40.7	6.1	06	153.300	150	-2.0
07	383.250	363	-5.2								

Tetra-n-butyltin

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.000	2.07	3.5	02	5.000	4.78	-4.4	03	10.000	10.9	8.9
04	20.000	19.5	-2.4	05	50.000	50.8	1.6	06	200.000	198	-0.9
07	500.000	469	-6.3								

Tri-n-butyltin Cation

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.782	2.13	19.6	02	4.455	4.03	-9.5	03	8.910	9.62	8.0
04	17.820	16.6	-6.7	05	44.550	45.3	1.6	06	178.200	170	-4.6
07	445.500	408	-8.3								

n-Butyltin Cation

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	1.246	1.50	20.3	02	3.115	3.15	1.0	03	6.230	5.86	-5.9
04	12.460	11.1	-11.2	05	31.150	33.2	6.6	06	124.600	121	-3.1
07	311.500	287	-7.7								

Tri-n-propyltin

#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D	#	Amount	Calculated Conc	%D
01	2.000	1.91	-4.5	02	5.000	4.82	-3.6	03	10.000	9.85	-1.5
04	20.000	20.1	0.4	05	50.000	55.1	10.1	06	200.000	203	1.5
07	500.000	488	-2.4								

Initial Calibration Verification Summary Report

Calibration ID:	KC1800436	**Instrument ID:**	K-GC-26
Datafile ID:	J:\GC26\DATA\091718\0917F012.D	**Column Name:**	RTX-35

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Di-n-butyltin Cation	KC1800436-08	T	Average RF	38.3250	32.367	ng/mL	-15.5	<= 25
Tetra-n-butyltin	KC1800436-08	T	Average RF	50	40.241	ng/mL	-19.5	<= 25
Tri-n-butyltin Cation	KC1800436-08	T	Average RF	44.55	50.118	ng/mL	12.5	<= 25
n-Butyltin Cation	KC1800436-08	T	Average RF	31.15	27.152	ng/mL	-12.8	<= 25

Calibration ID:	KC1800436	**Instrument ID:**	K-GC-26
Datafile ID:	J:\GC26\DATA\091718\0917F012.D	**Column Name:**	RTX-1

Analyte	Lab Code	Type	Curve Fit	True Value	Calc Conc	Units	Result	Criteria
Di-n-butyltin Cation	KC1800436-08	T	Average RF	38.3250	33.392	ng/mL	-12.9	<= 25
Tetra-n-butyltin	KC1800436-08	T	Average RF	50	44.756	ng/mL	-10.5	<= 25
Tri-n-butyltin Cation	KC1800436-08	T	Average RF	44.55	52.883	ng/mL	18.7	<= 25
n-Butyltin Cation	KC1800436-08	T	Average RF	31.15	29.524	ng/mL	-5.2	<= 25

Quantitation Report (QT Reviewed)

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F005.D Vial: 3
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:13 pm Operator: SAA
Sample : OT5-010B @ 5PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:47:24 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	7.998	7.618	264161	377218	6.067m	3.796m#
	Target Compounds						
2)	Tetrabuty...	8.322	7.878	270286	447857	5.199	4.072
3)	Tri-n-but...	9.602	9.098	322537	420043	5.913	3.612m#
4)	Di-n-buty...	10.678	10.348	405751	615257	4.203	2.994m#
5)	n-Butyltin	11.535	11.112	309456	503223	3.373m	2.742m

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

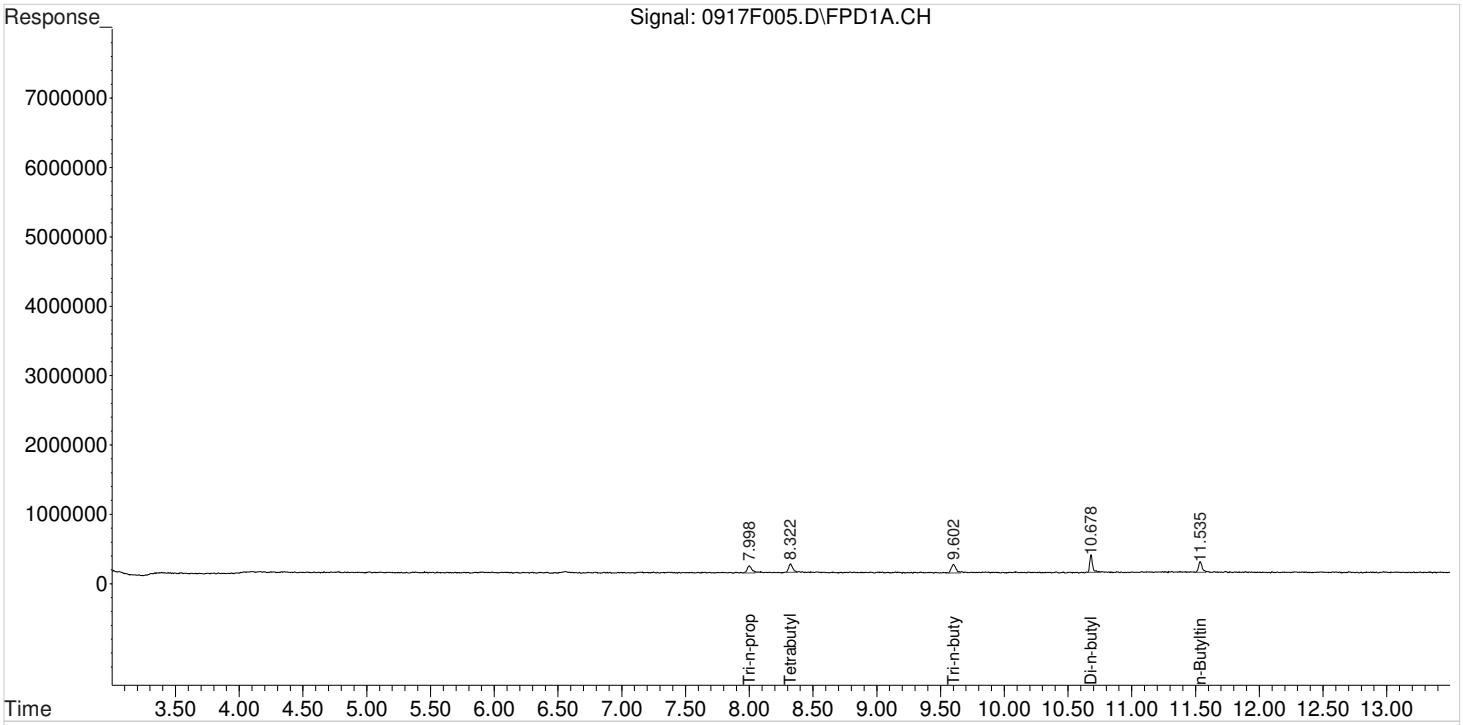
Quantitation Report (QT Reviewed)

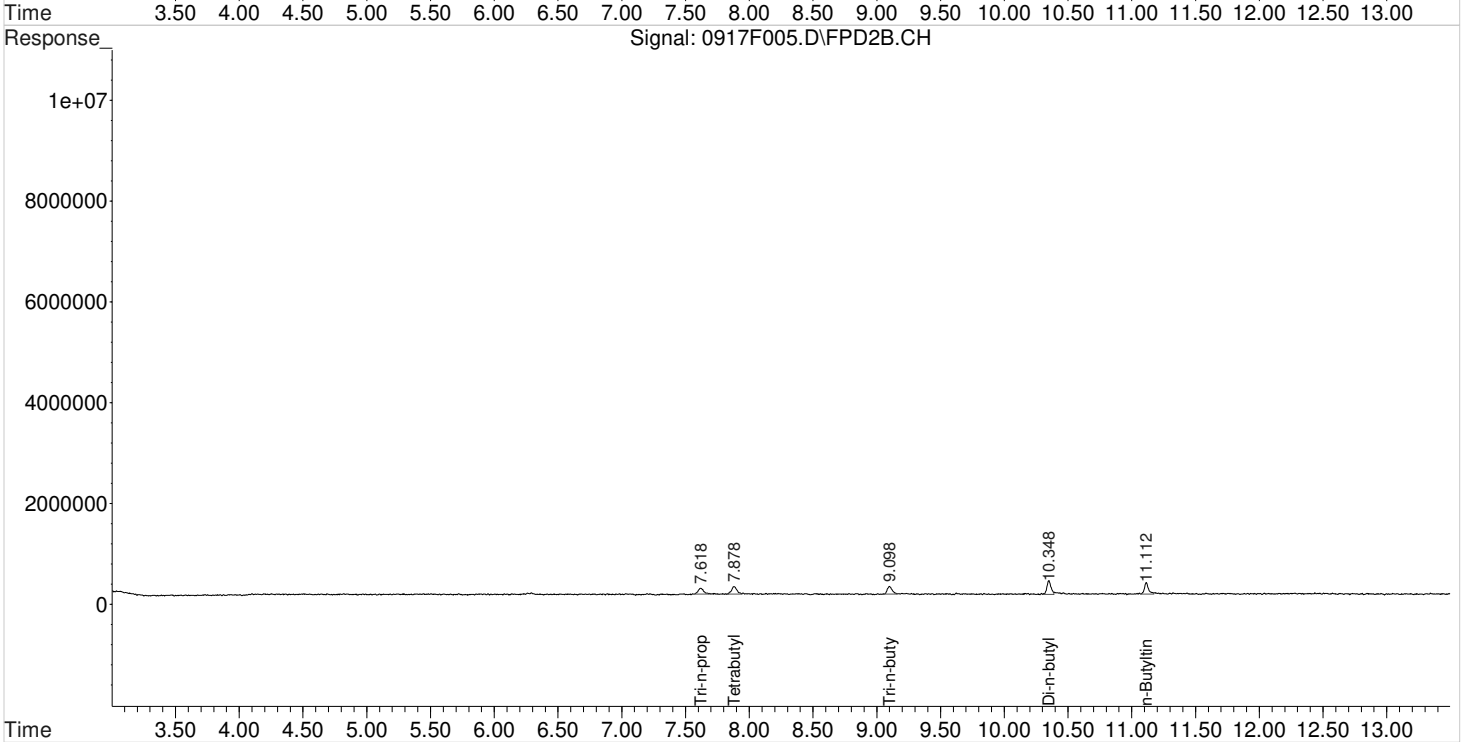
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F005.D Vial: 3
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:13 pm Operator: SAA
Sample : OT5-010B @ 5PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:47:24 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m



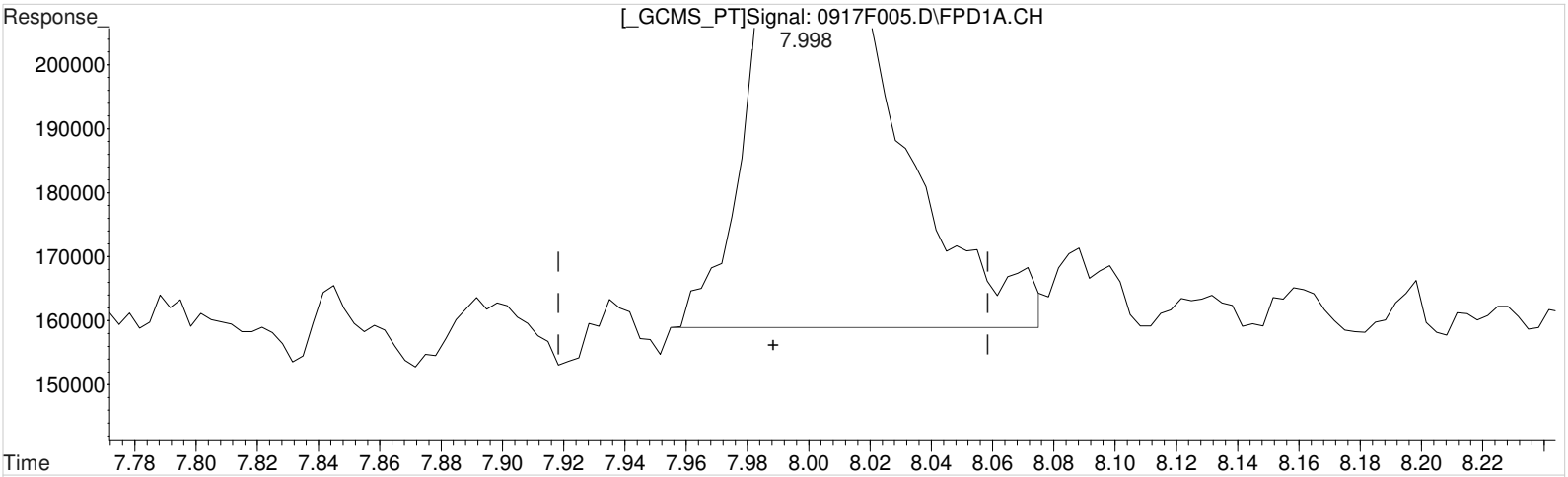


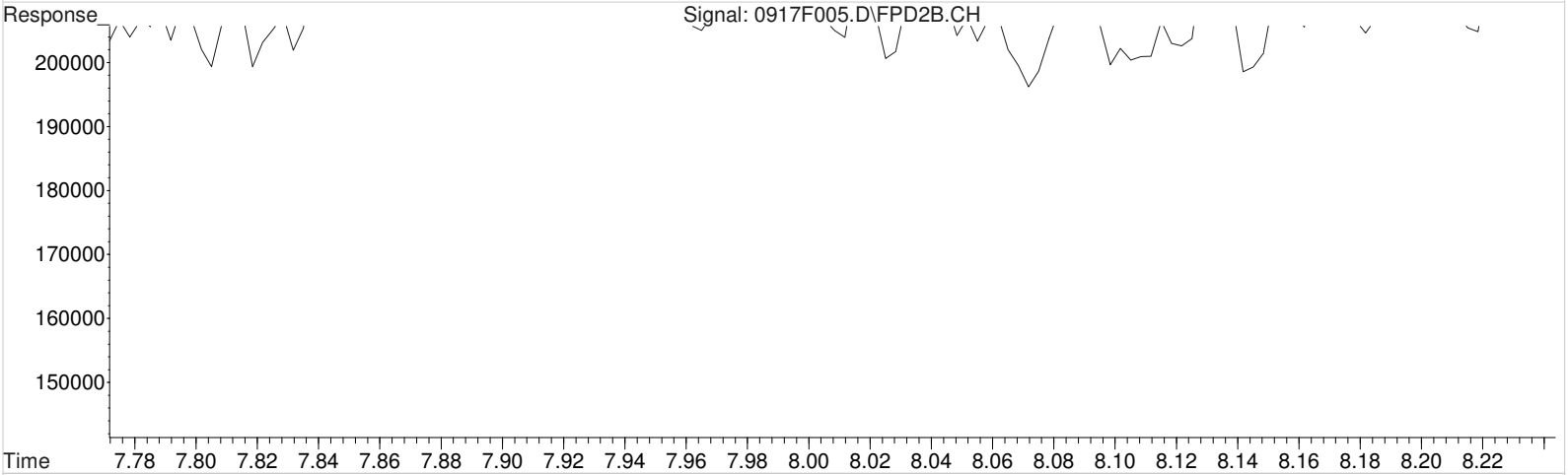
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F005.D Vial: 3
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:13 pm Operator: SAA
Sample : OT5-010B @ 5PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:44:40 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(1) Tri-n-propyltin (S)

7.998min 5.865 ng/mL

response 255389

Manual Integration:

Before

09/18/18

(1) Tri-n-propyltin #2 (S)

7.618min 4.928 ng/mL

response 489767

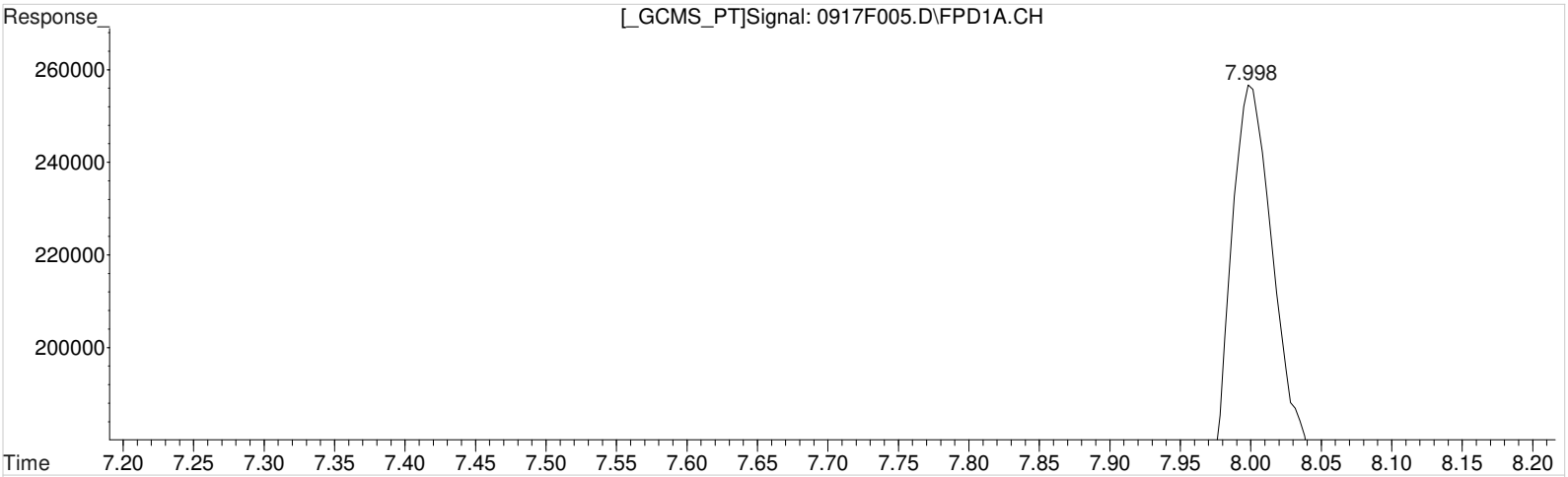
(+) = Expected Retention Time

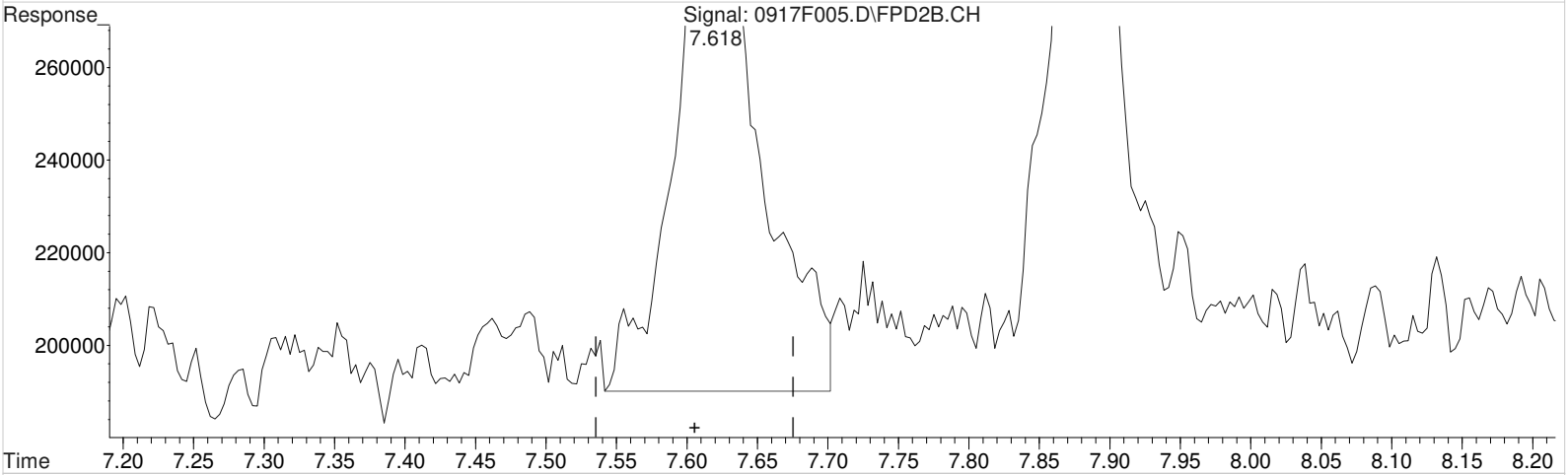
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F005.D Vial: 3
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:13 pm Operator: SAA
Sample : OT5-010B @ 5PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:44:40 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(1) Tri-n-propyltin (S)

7.998min 6.067 ng/mL m

response 264161

Manual Integration:

Before

09/18/18

(1) Tri-n-propyltin #2 (S)

7.618min 4.928 ng/mL

response 489767

(+) = Expected Retention Time

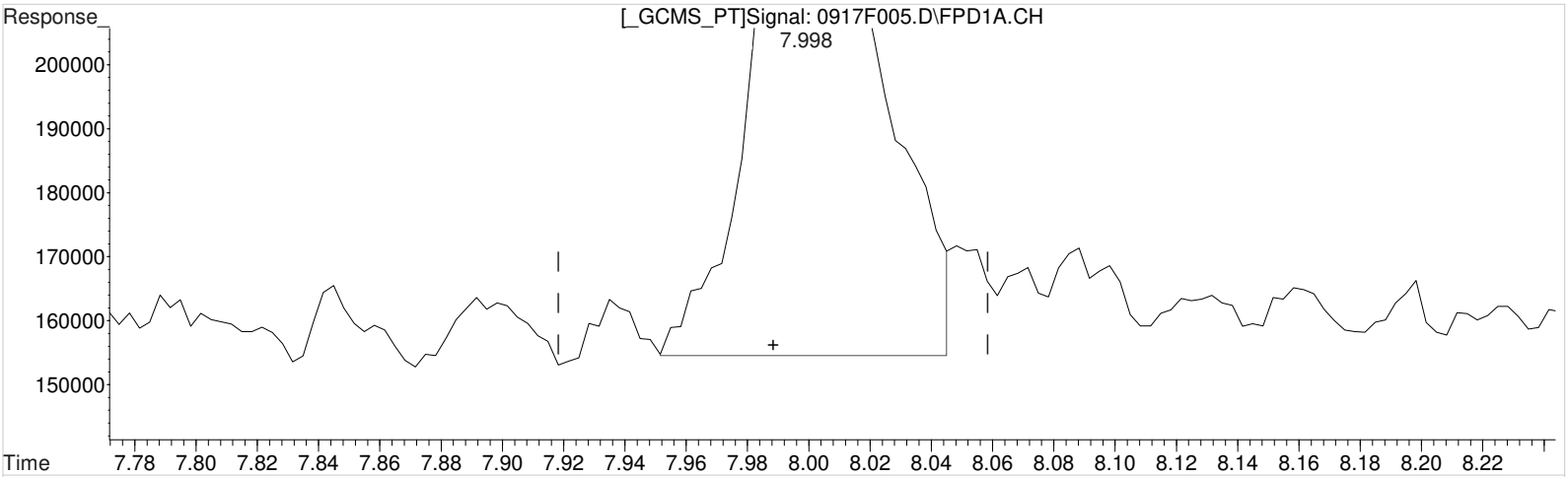
Quantitation Report (Qedit)

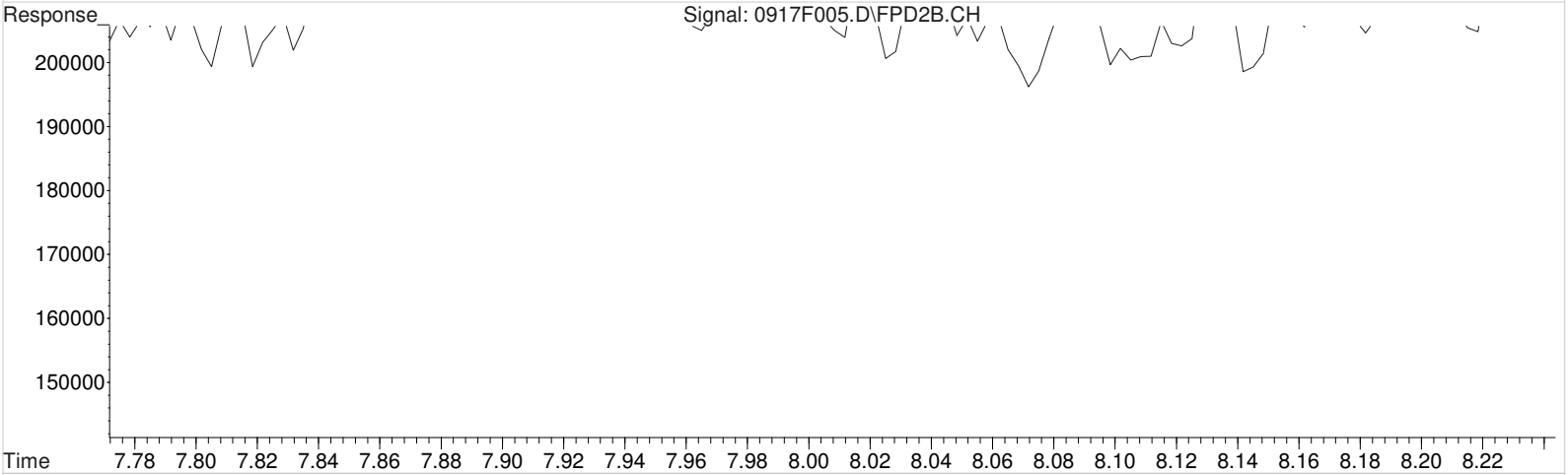
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F005.D Vial: 3
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:13 pm Operator: SAA
Sample : OT5-010B @ 5PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:44:40 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(1) Tri-n-propyltin (S)

7.998min 6.067 ng/mL m

response 264161

Manual Integration:

After

Baseline/Shoulder

09/18/18

(1) Tri-n-propyltin #2 (S)

7.618min 4.928 ng/mL

response 489767

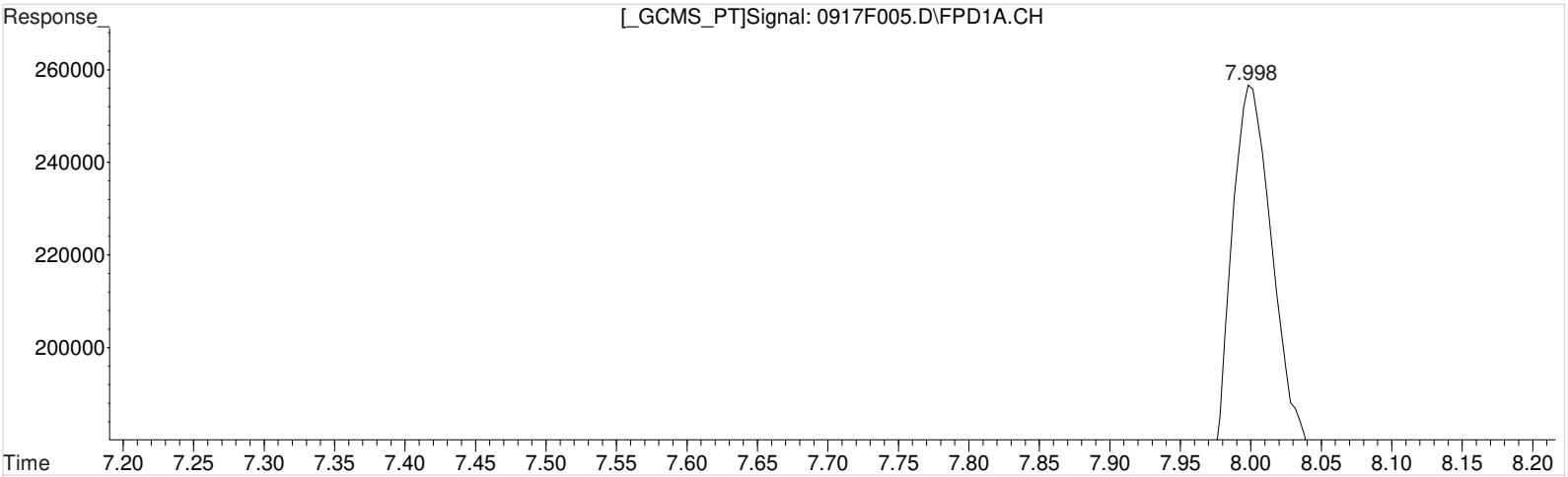
(+) = Expected Retention Time

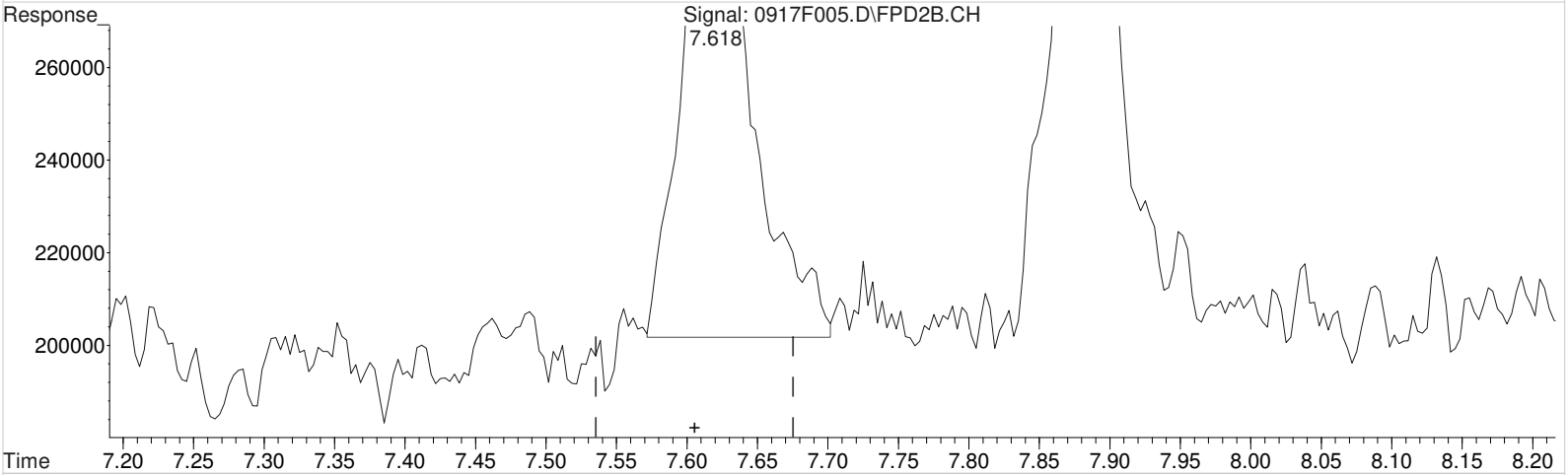
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F005.D Vial: 3
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:13 pm Operator: SAA
Sample : OT5-010B @ 5PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:44:40 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(1) Tri-n-propyltin (S)

7.998min 6.067 ng/mL m

response 264161

Manual Integration:

After

Baseline/Shoulder

09/18/18

(1) Tri-n-propyltin #2 (S)

7.618min 3.796 ng/mL m

response 377218

(+) = Expected Retention Time

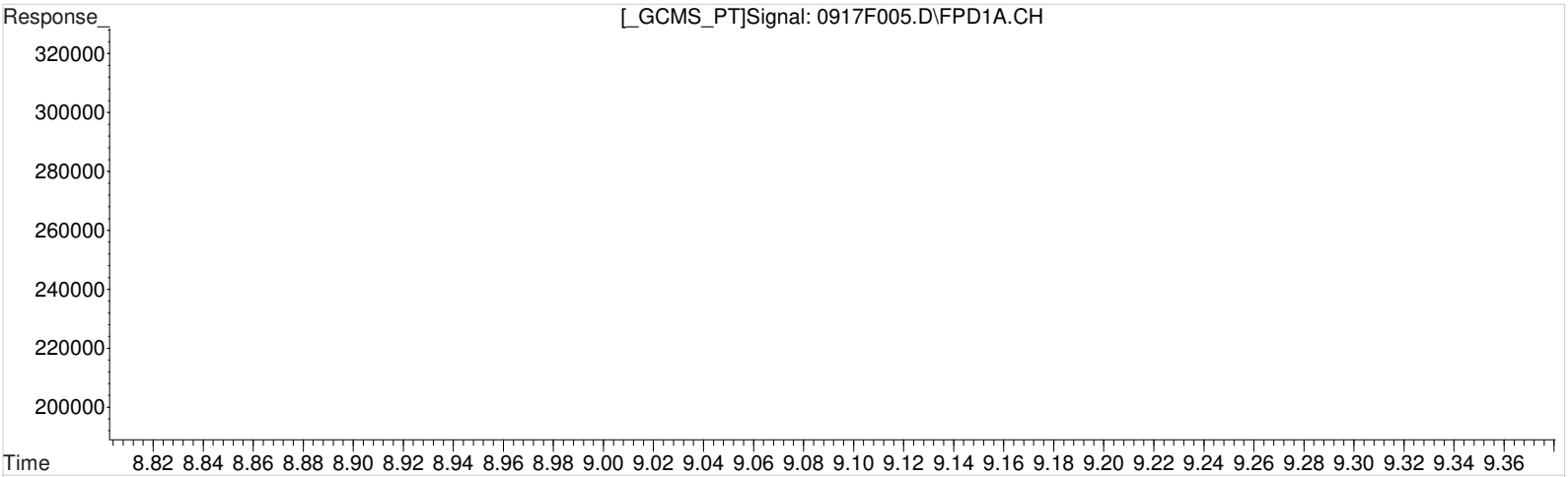
Quantitation Report (Qedit)

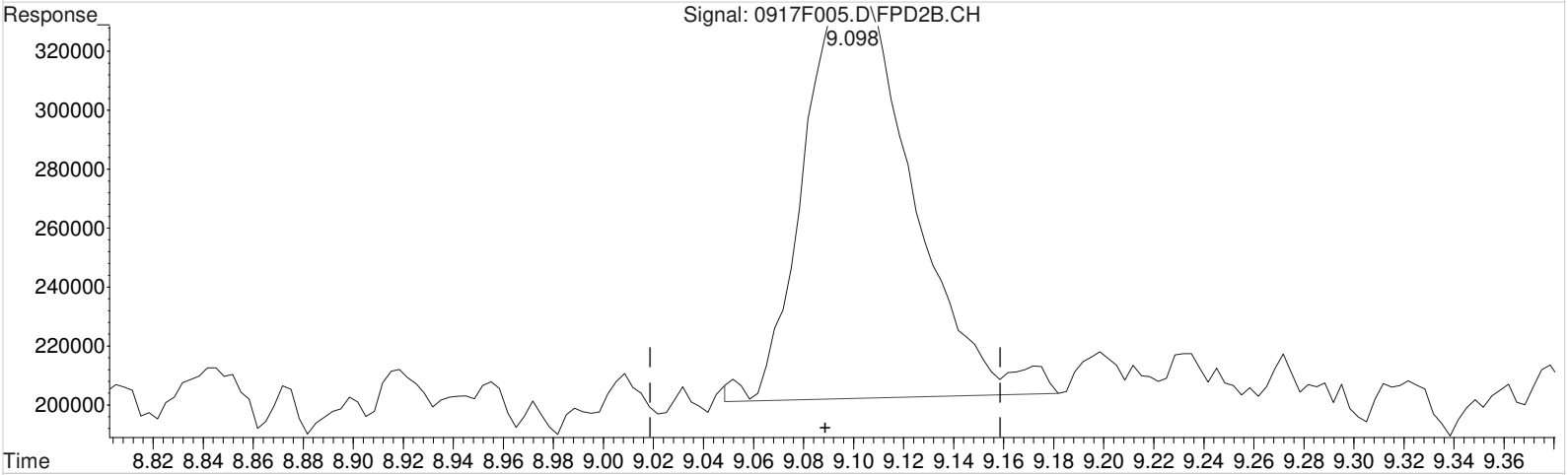
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F005.D Vial: 3
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:13 pm Operator: SAA
Sample : OT5-010B @ 5PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:44:40 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(3) Tri-n-butyltin

9.602min 5.913 ng/mL

response 322537

(3) Tri-n-butyltin #2

9.098min 3.661 ng/mL

response 425820

Manual Integration:

Before

09/18/18

(+) = Expected Retention Time

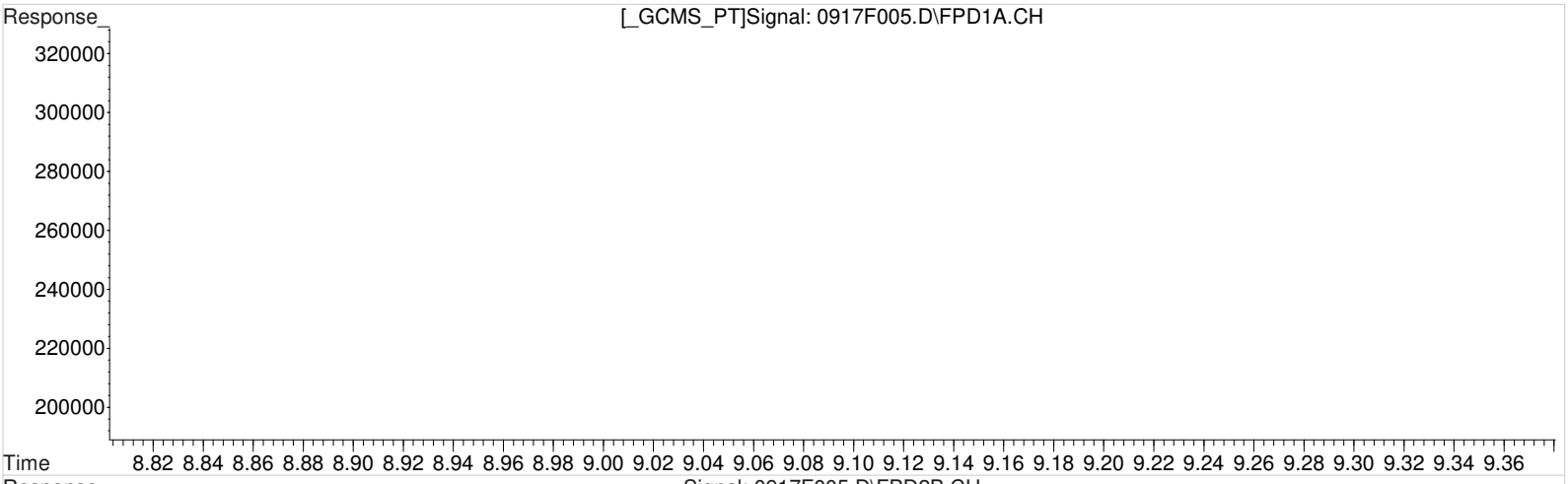
Quantitation Report (Qedit)

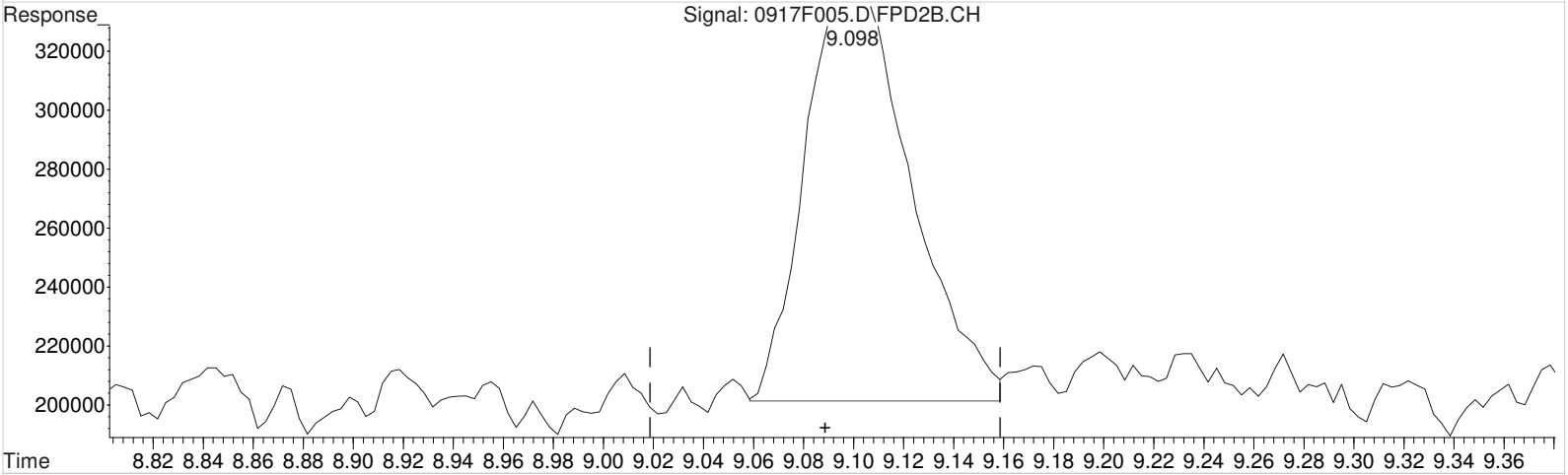
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F005.D Vial: 3
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:13 pm Operator: SAA
Sample : OT5-010B @ 5PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:44:40 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(3) Tri-n-butyltin

9.602min 5.913 ng/mL

response 322537

Manual Integration:

After

Baseline/Shoulder

09/18/18

(3) Tri-n-butyltin #2

9.098min 3.612 ng/mL m

response 420043

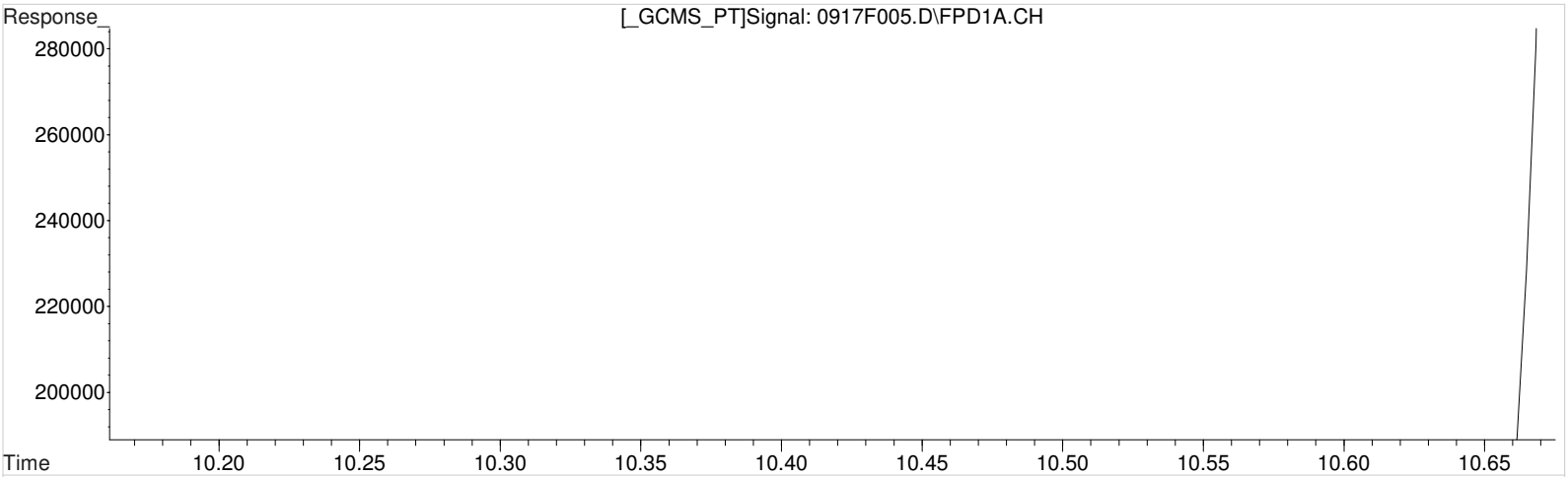
(+) = Expected Retention Time

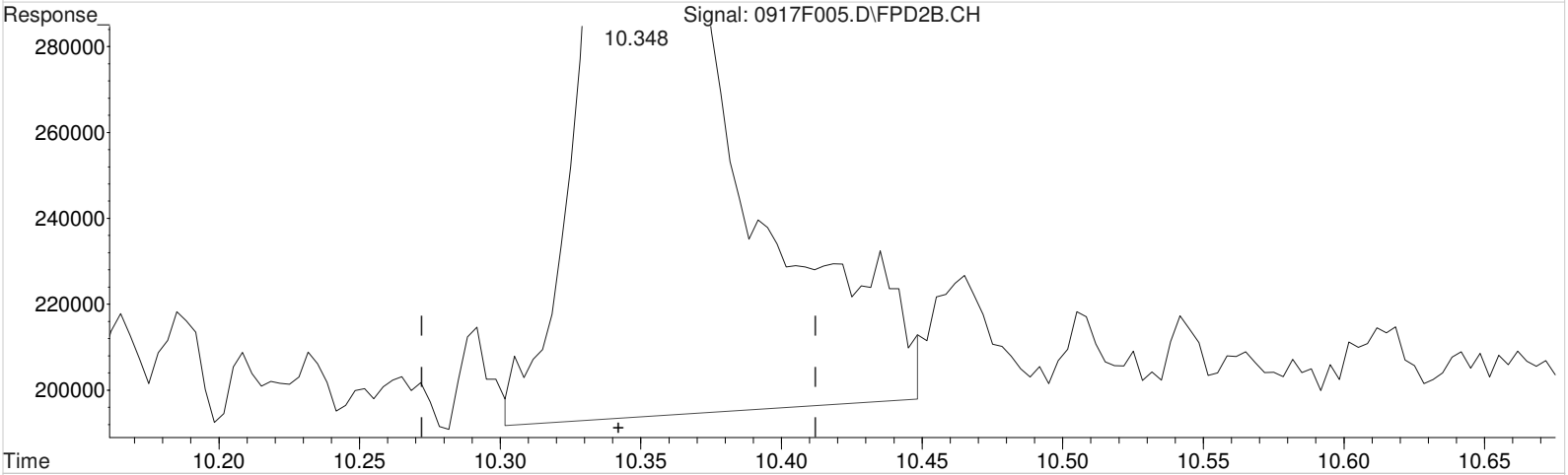
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F005.D Vial: 3
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:13 pm Operator: SAA
Sample : OT5-010B @ 5PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:44:40 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(4) Di-n-butyltin

10.678min 4.203 ng/mL

response 405751

Manual Integration:

Before

09/18/18

(4) Di-n-butyltin #2

10.348min 3.619 ng/mL

response 743750

(+) = Expected Retention Time

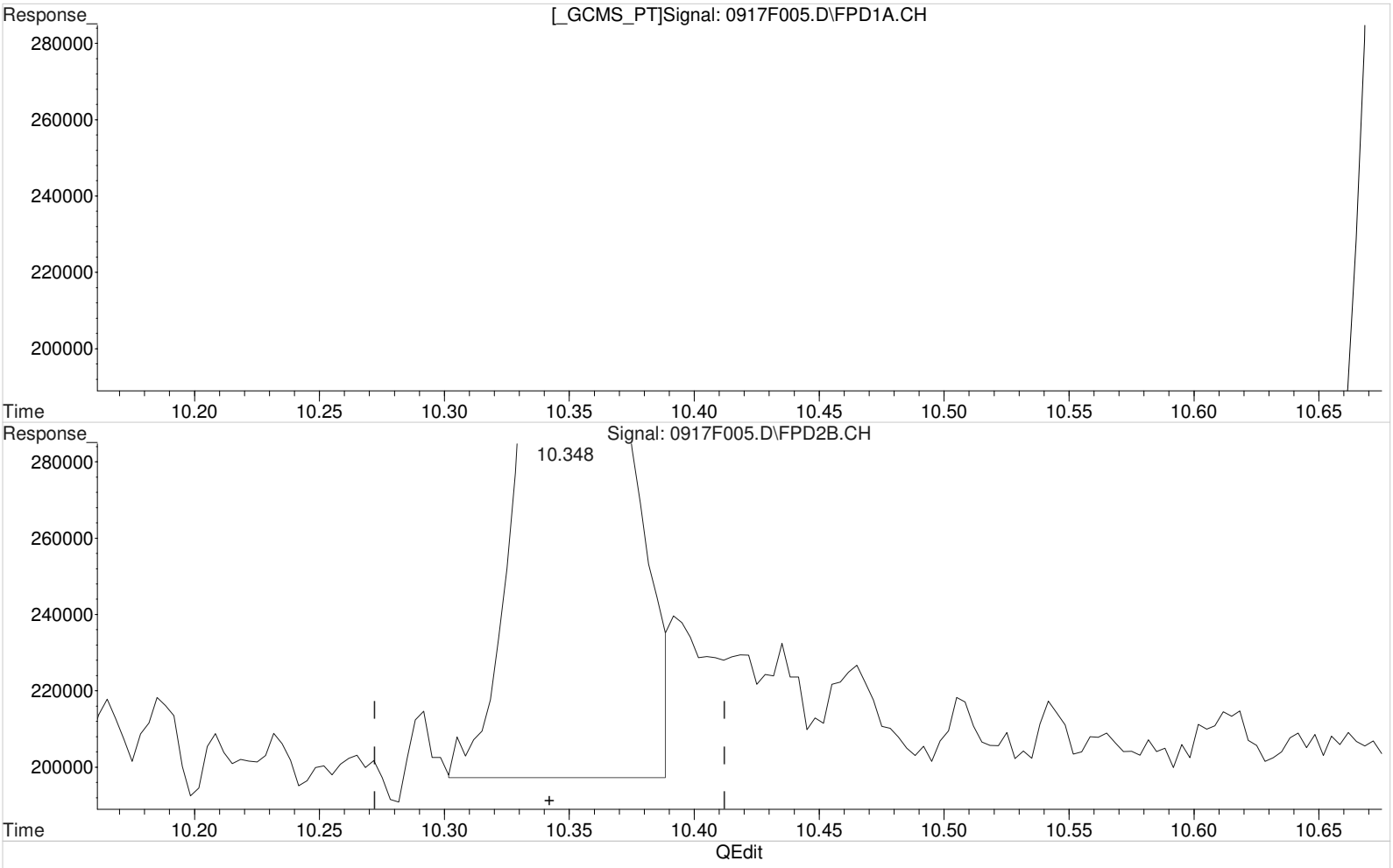
Quantitation Report (Qedit)

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F005.D Vial: 3
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:13 pm Operator: SAA
Sample : OT5-010B @ 5PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:44:40 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m



QEdit

(4) Di-n-butyltin

10.678min 4.203 ng/mL

response 405751

Manual Integration:

After

Baseline/Shoulder

09/18/18

(4) Di-n-butyltin #2

10.348min 2.994 ng/mL m

response 615257

(+) = Expected Retention Time

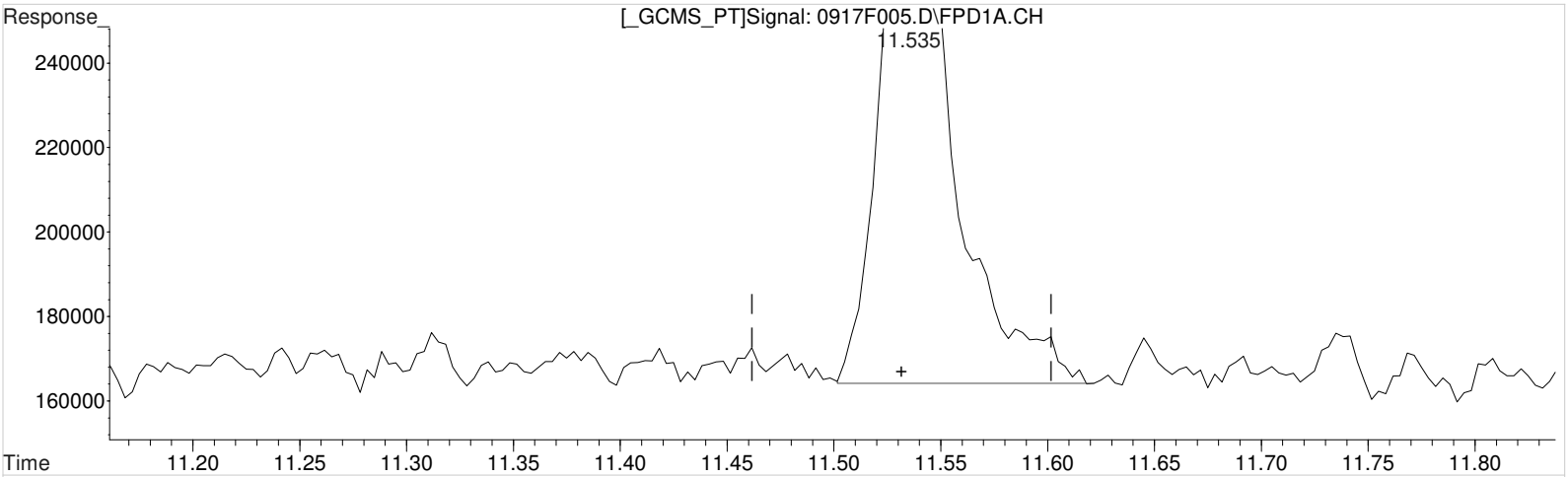
Quantitation Report (Qedit)

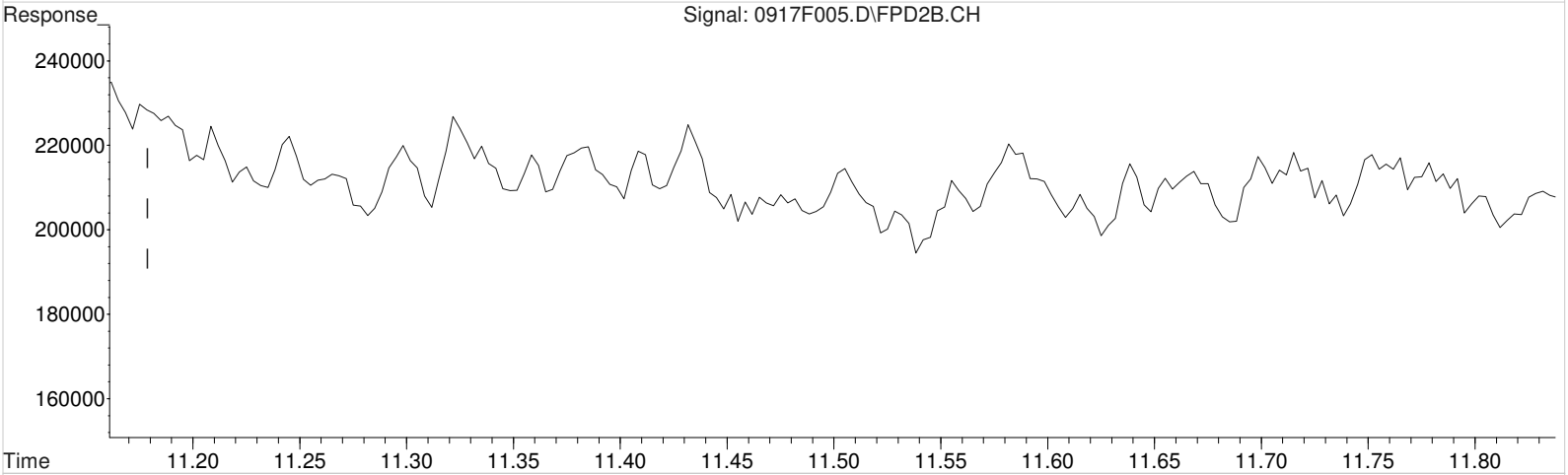
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F005.D Vial: 3
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:13 pm Operator: SAA
Sample : OT5-010B @ 5PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:44:40 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(5) n-Butyltin

11.535min 3.559 ng/mL

response 326552

Manual Integration:

Before

09/18/18

(5) n-Butyltin #2

11.112min 3.013 ng/mL

response 552955

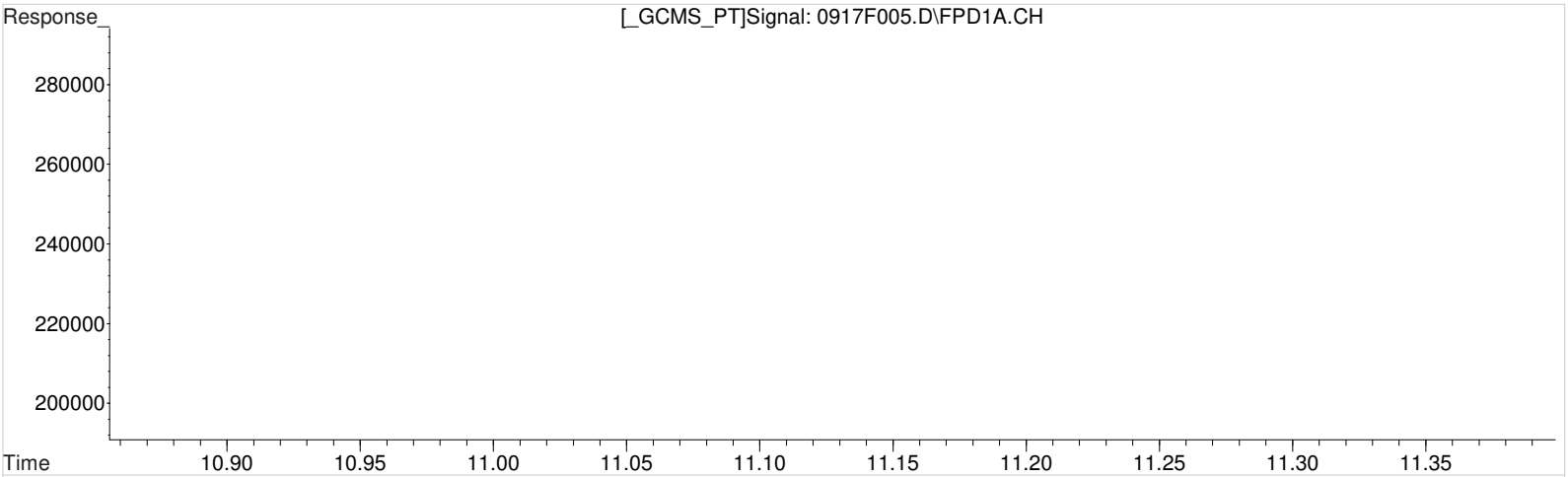
(+) = Expected Retention Time

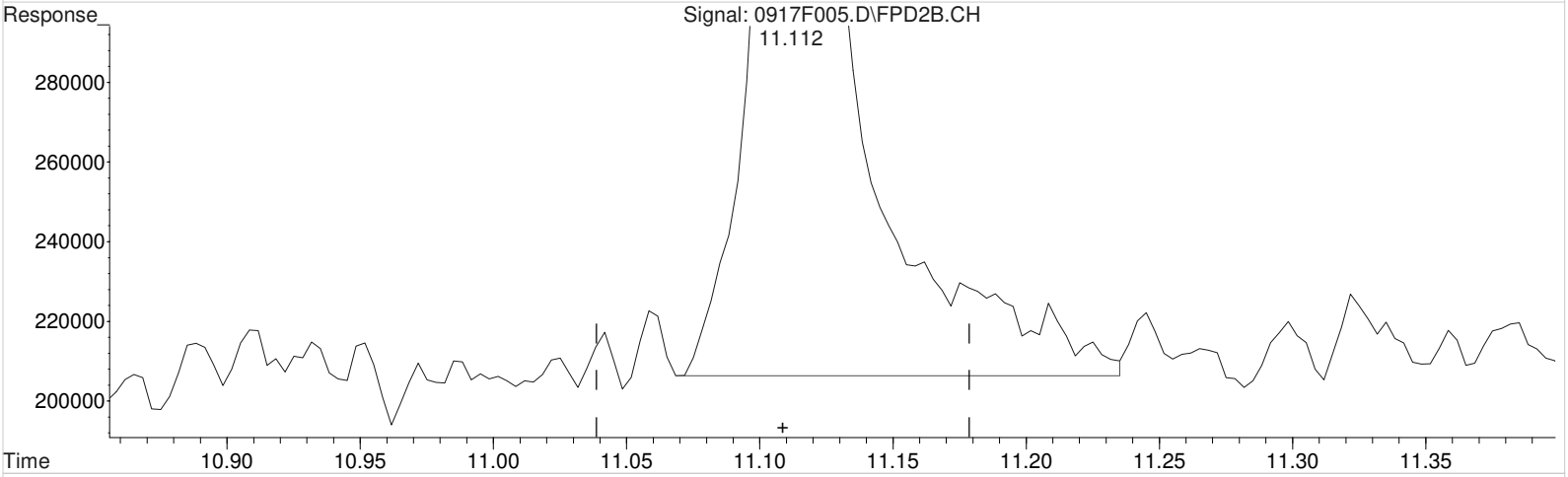
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F005.D Vial: 3
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:13 pm Operator: SAA
Sample : OT5-010B @ 5PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:44:40 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(5) n-Butyltin

11.535min 3.373 ng/mL m

response 309456

Manual Integration:

Before

09/18/18

(5) n-Butyltin #2

11.112min 3.013 ng/mL

response 552955

(+) = Expected Retention Time

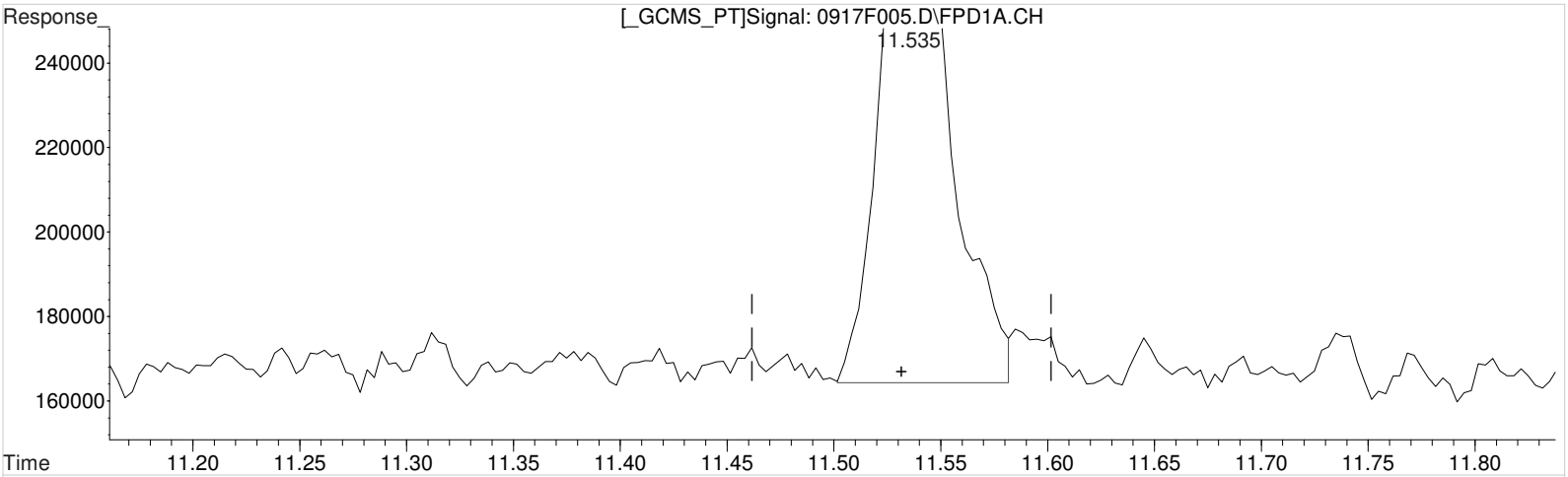
Quantitation Report (Qedit)

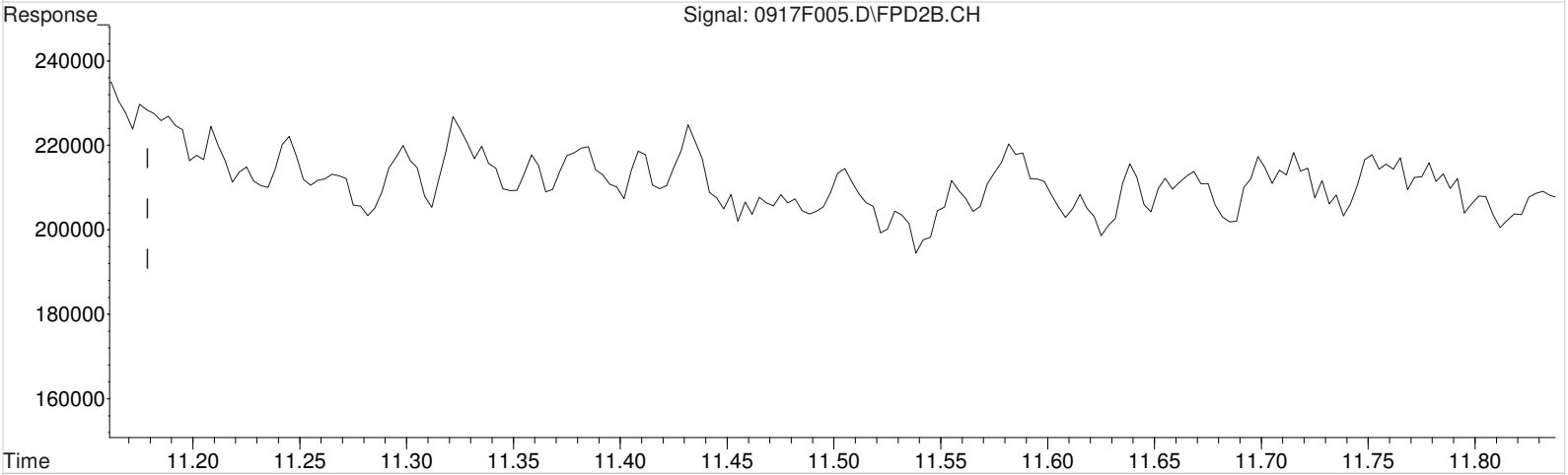
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F005.D Vial: 3
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:13 pm Operator: SAA
Sample : OT5-010B @ 5PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:44:40 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(5) n-Butyltin

11.535min 3.373 ng/mL m

response 309456

Manual Integration:

After

Baseline/Shoulder

09/18/18

(5) n-Butyltin #2

11.112min 3.013 ng/mL

response 552955

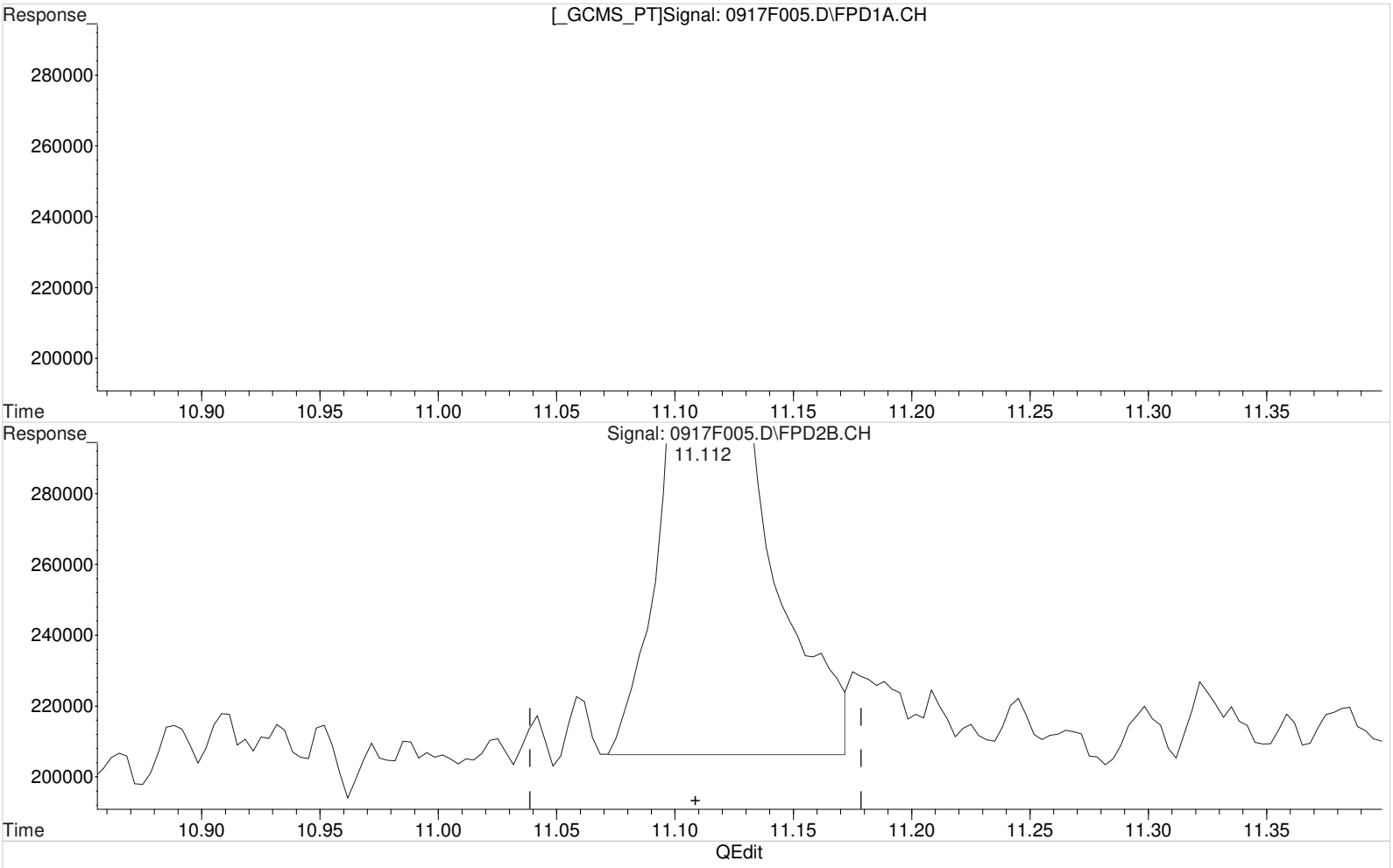
(+) = Expected Retention Time

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F005.D Vial: 3
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:13 pm Operator: SAA
Sample : OT5-010B @ 5PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:44:40 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m



(5) n-Butyltin

11.535min 3.373 ng/mL m

response 309456

Manual Integration:

After

Baseline/Shoulder

09/18/18

(5) n-Butyltin #2

11.112min 2.742 ng/mL m

response 503223

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F006.D Vial: 4
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:32 pm Operator: SAA
Sample : OT5-010C @ 10PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:49:50 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
1) S	Tri-n-pro...	8.006	7.626	459388	770923	10.550m	7.757 #
	Target Compounds						
2)	Tetrabuty...	8.326	7.883	580762	1020802	11.171m	9.280
3)	Tri-n-but...	9.603	9.103	592543	1002341	10.863	8.619
4)	Di-n-buty...	10.683	10.353	814890	1391803	8.441m	6.772
5)	n-Butyltin	11.539	11.116	648548	937500	7.069	5.108m#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

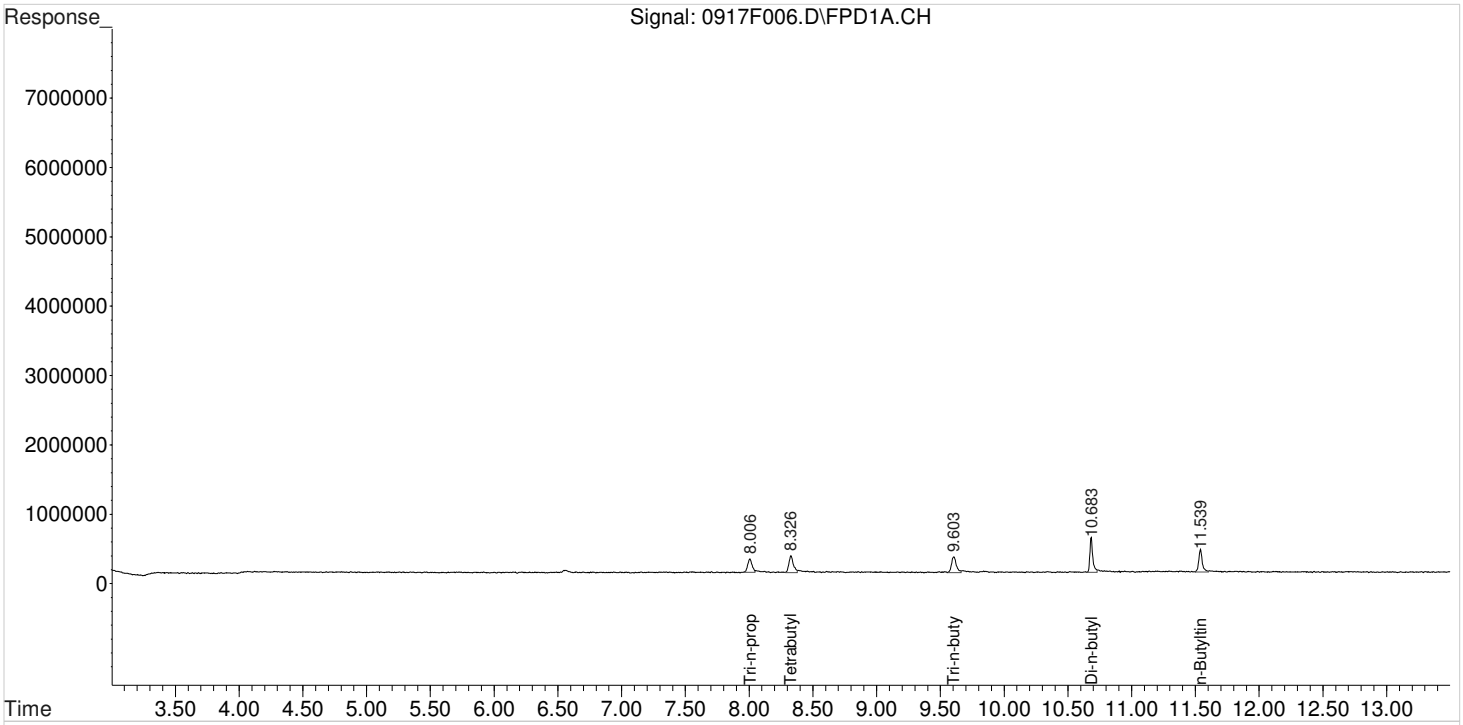
Quantitation Report (QT Reviewed)

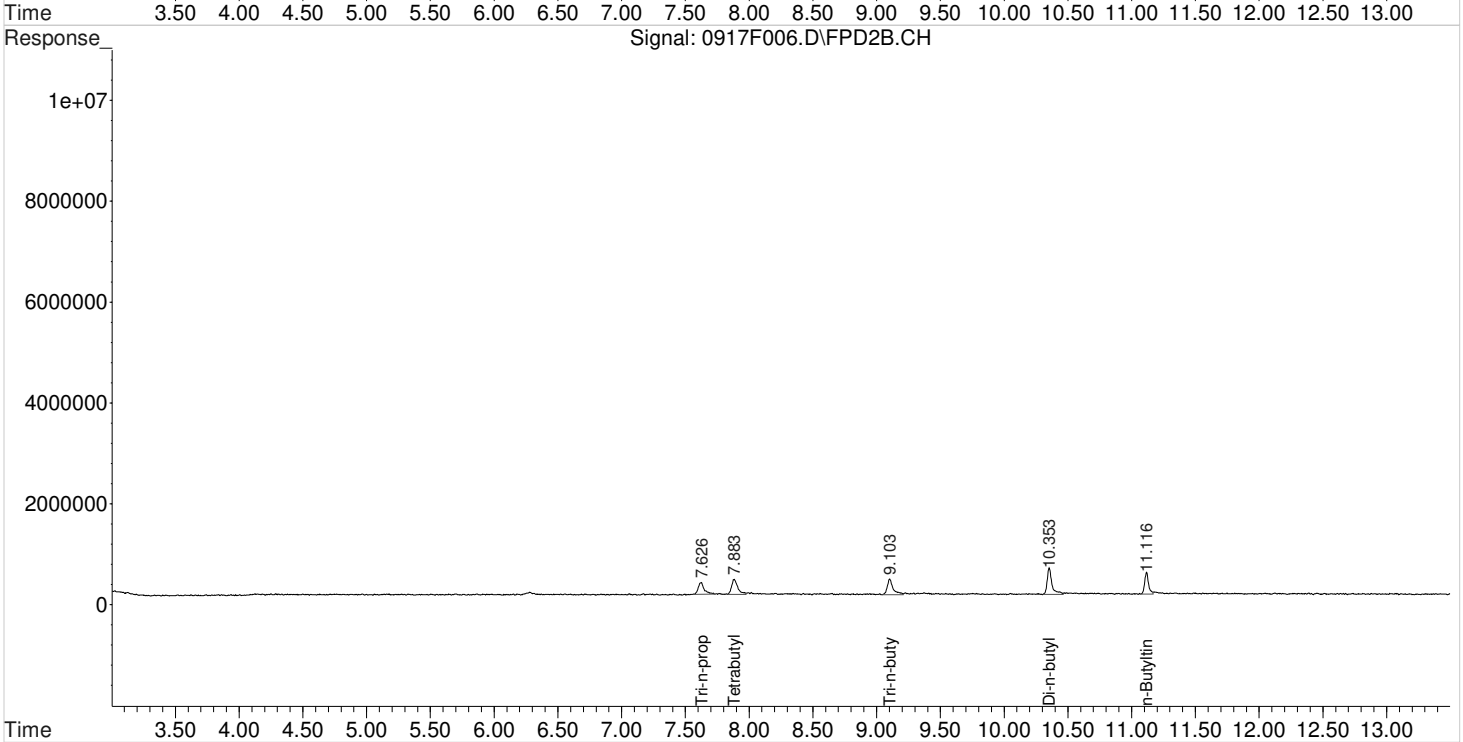
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F006.D Vial: 4
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:32 pm Operator: SAA
Sample : OT5-010C @ 10PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:49:50 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





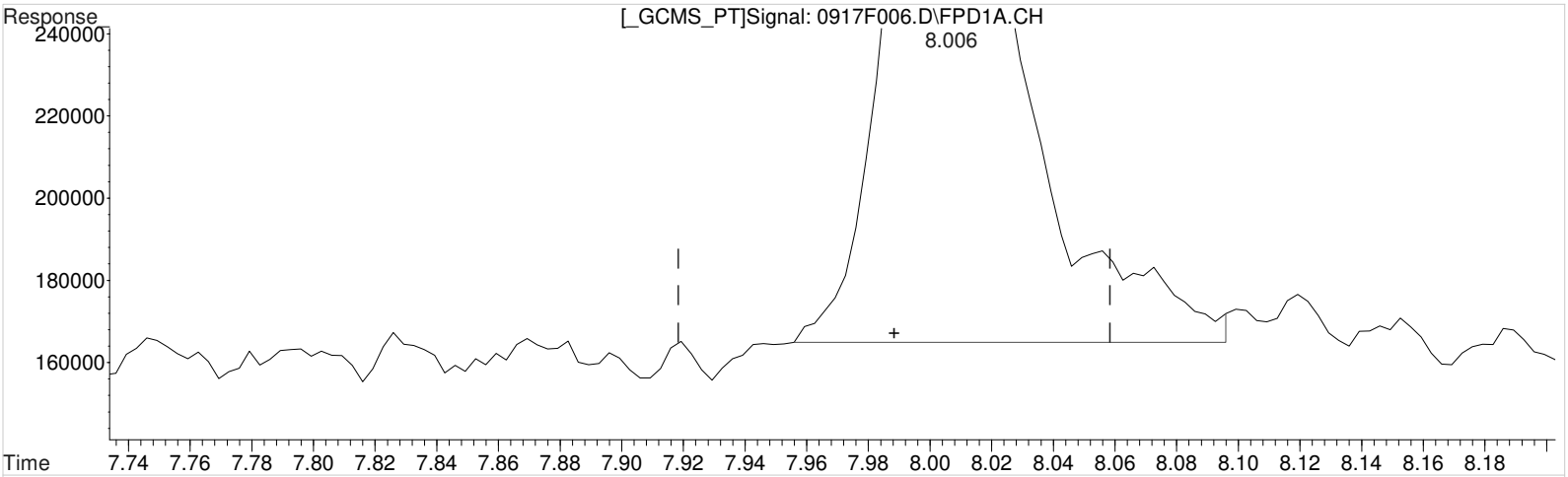
Quantitation Report (Qedit)

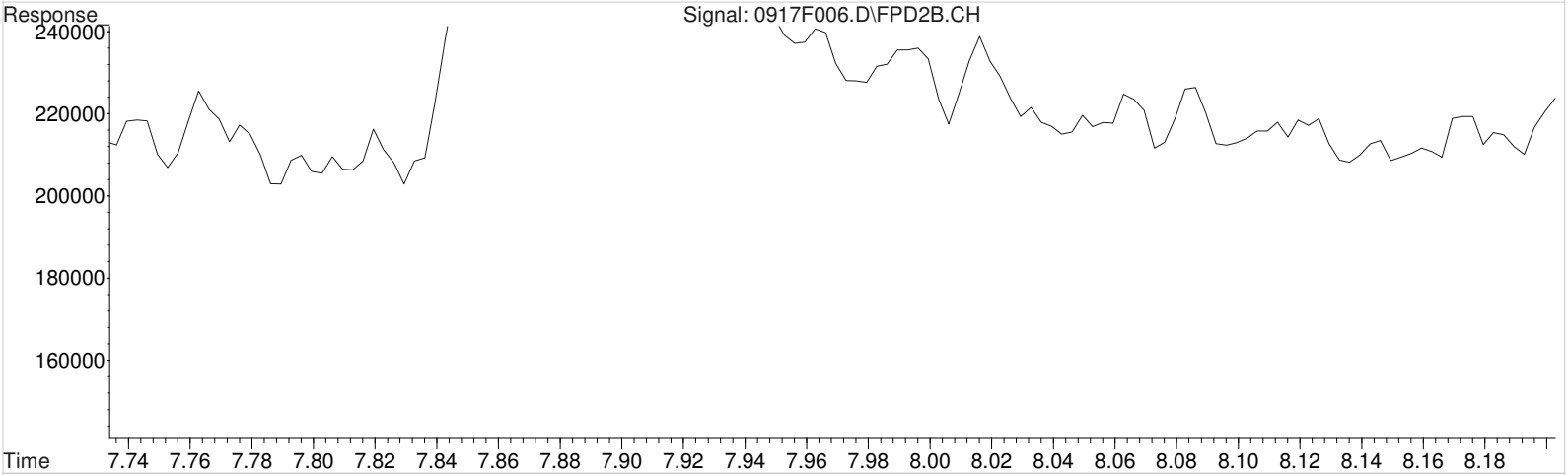
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F006.D Vial: 4
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:32 pm Operator: SAA
Sample : OT5-010C @ 10PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:47:36 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(1) Tri-n-propyltin (S)

8.006min 11.443 ng/mL

response 498268

Manual Integration:

Before

09/18/18

(1) Tri-n-propyltin #2 (S)

7.626min 7.757 ng/mL

response 770923

(+) = Expected Retention Time

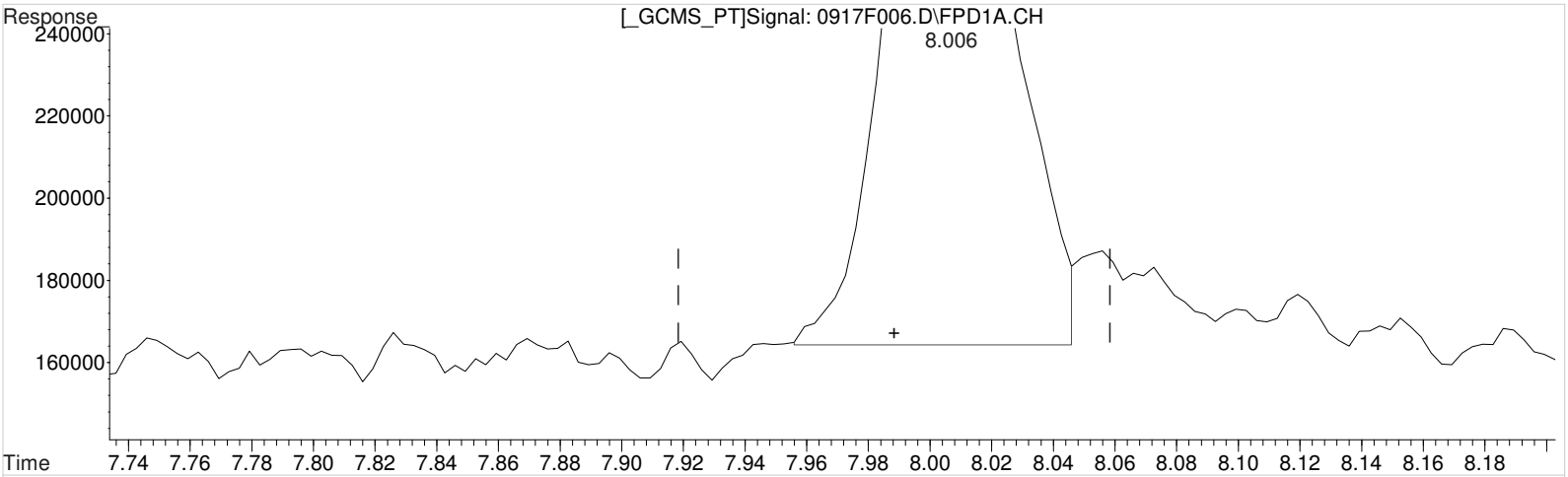
Quantitation Report (Qedit)

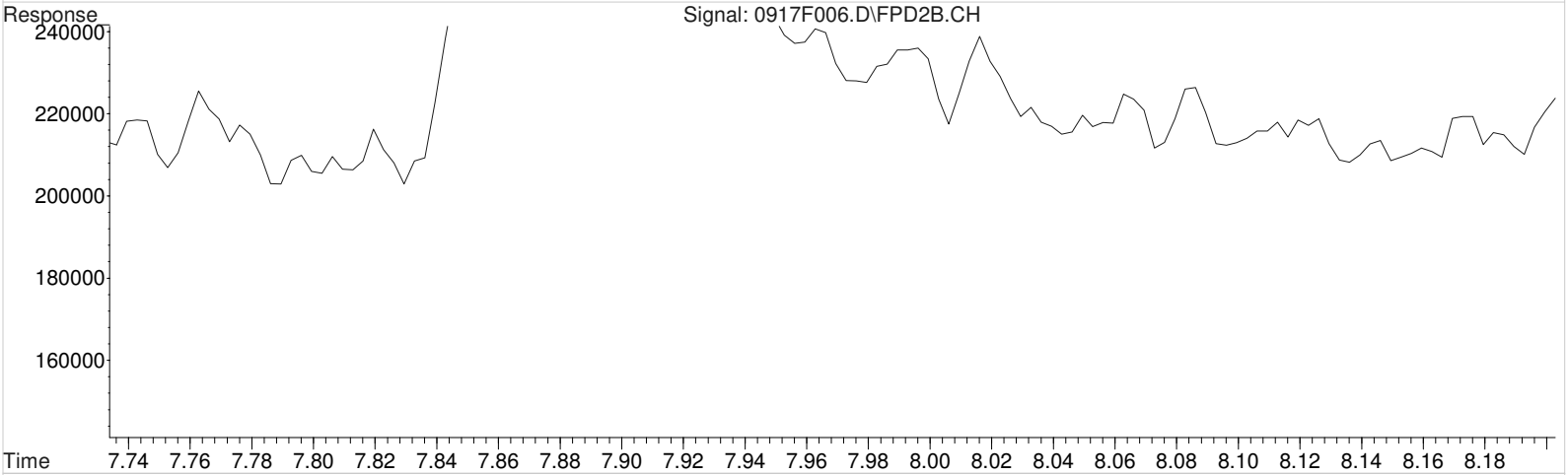
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F006.D Vial: 4
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:32 pm Operator: SAA
Sample : OT5-010C @ 10PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:47:36 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(1) Tri-n-propyltin (S)

8.006min 10.550 ng/mL m

response 459388

Manual Integration:

After

Baseline/Shoulder

09/18/18

(1) Tri-n-propyltin #2 (S)

7.626min 7.757 ng/mL

response 770923

(+) = Expected Retention Time

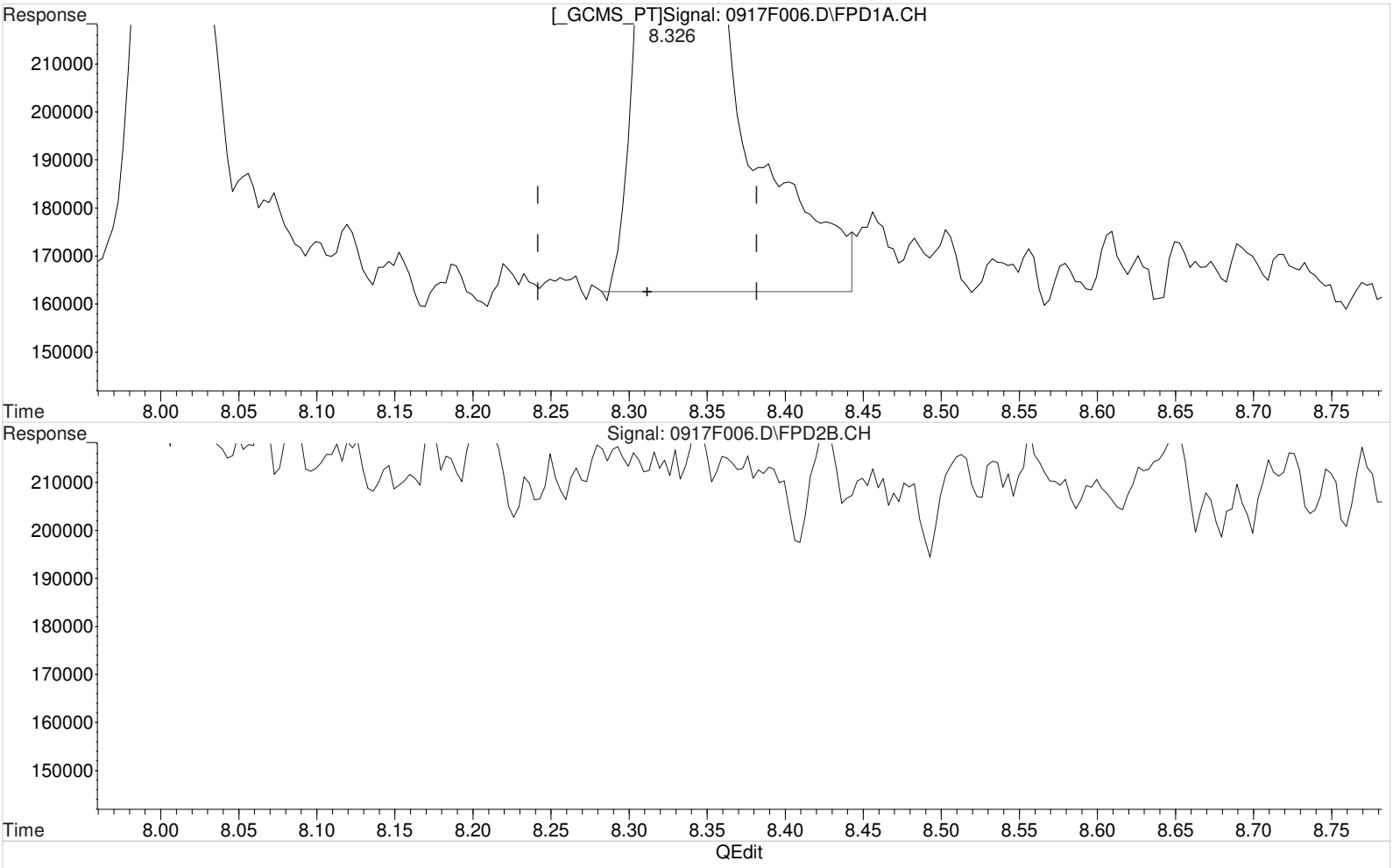
Quantitation Report (Qedit)

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F006.D Vial: 4
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:32 pm Operator: SAA
Sample : OT5-010C @ 10PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:47:36 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m



QEdit

(2) Tetrabutyltin

8.326min 12.374 ng/mL

response 643304

Manual Integration:

Before

09/18/18

(2) Tetrabutyltin #2

7.883min 9.280 ng/mL

response 1020802

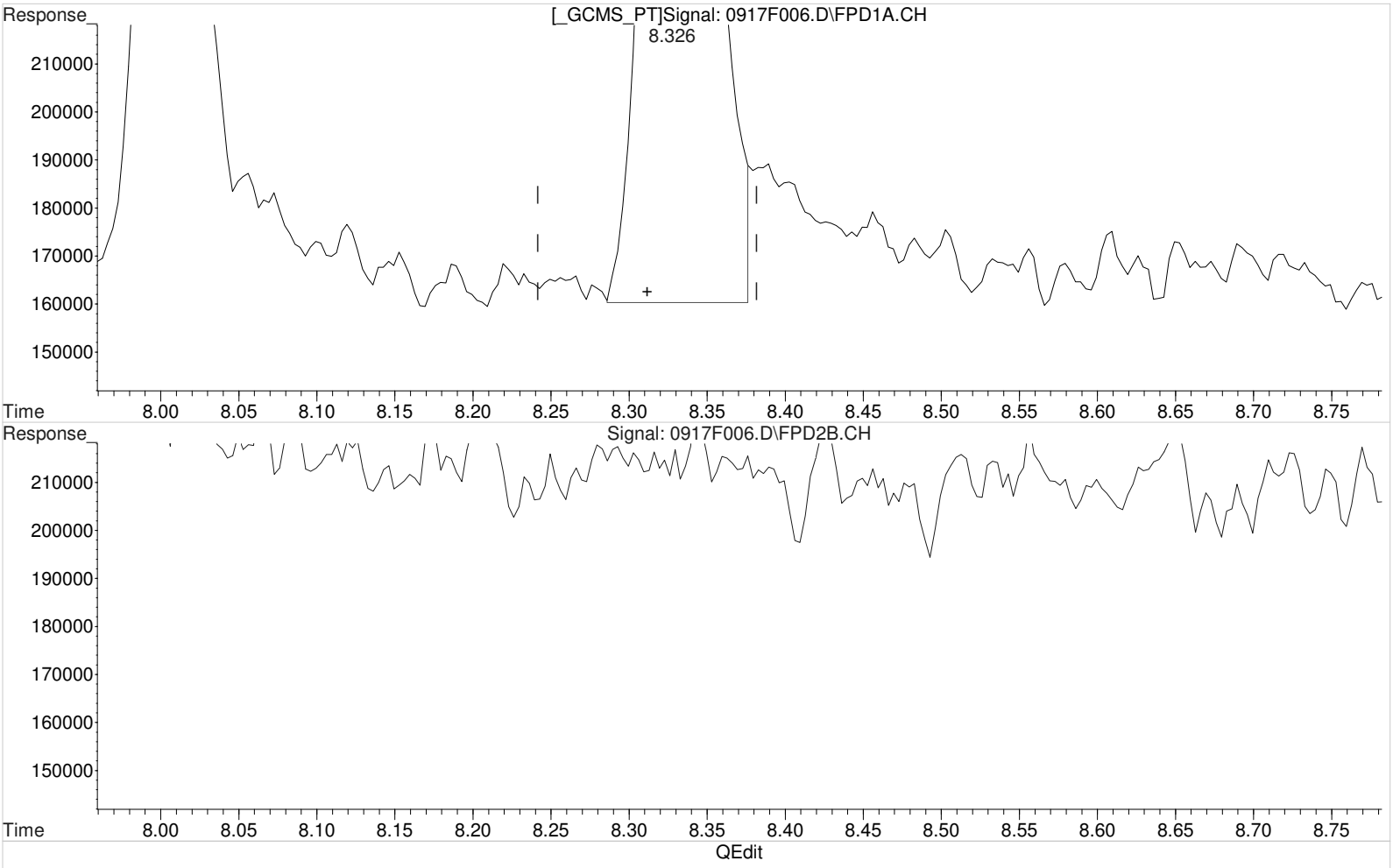
(+) = Expected Retention Time

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F006.D Vial: 4
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:32 pm Operator: SAA
Sample : OT5-010C @ 10PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:47:36 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m



QEdit

(2) Tetrabutyltin

8.326min 11.171 ng/mL m

response 580762

Manual Integration:

After

Baseline/Shoulder

09/18/18

(2) Tetrabutyltin #2

7.883min 9.280 ng/mL

response 1020802

(+) = Expected Retention Time

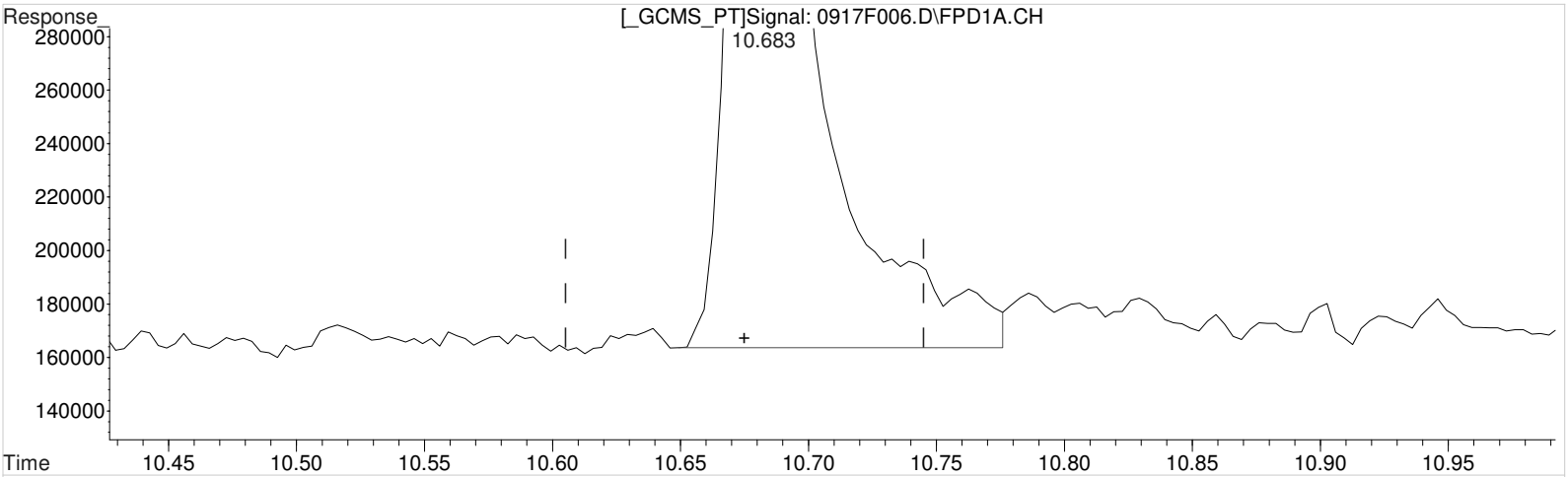
Quantitation Report (Qedit)

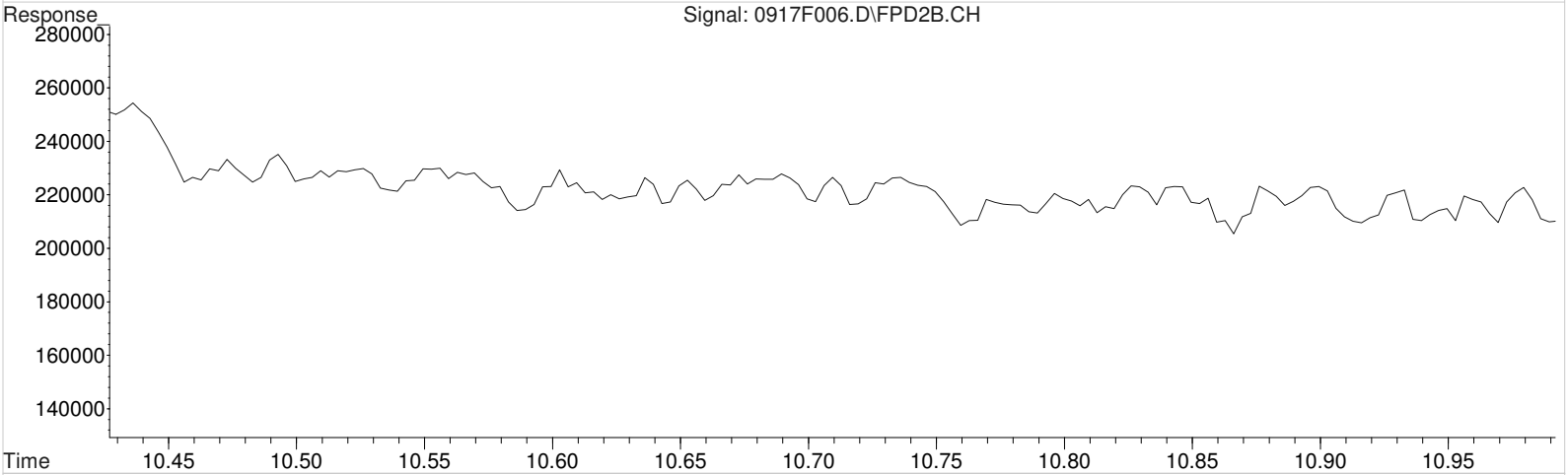
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F006.D Vial: 4
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:32 pm Operator: SAA
Sample : OT5-010C @ 10PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:47:36 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(4) Di-n-butyltin

10.683min 9.076 ng/mL

response 876176

Manual Integration:

Before

09/18/18

(4) Di-n-butyltin #2

10.353min 6.772 ng/mL

response 1391803

(+) = Expected Retention Time

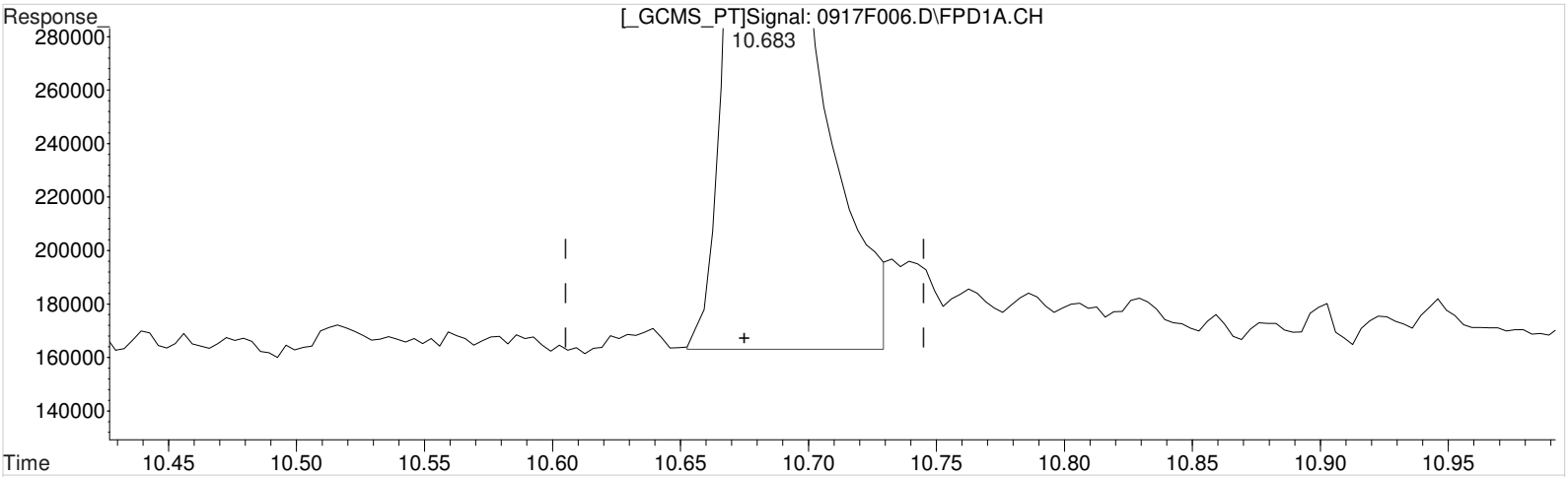
Quantitation Report (Qedit)

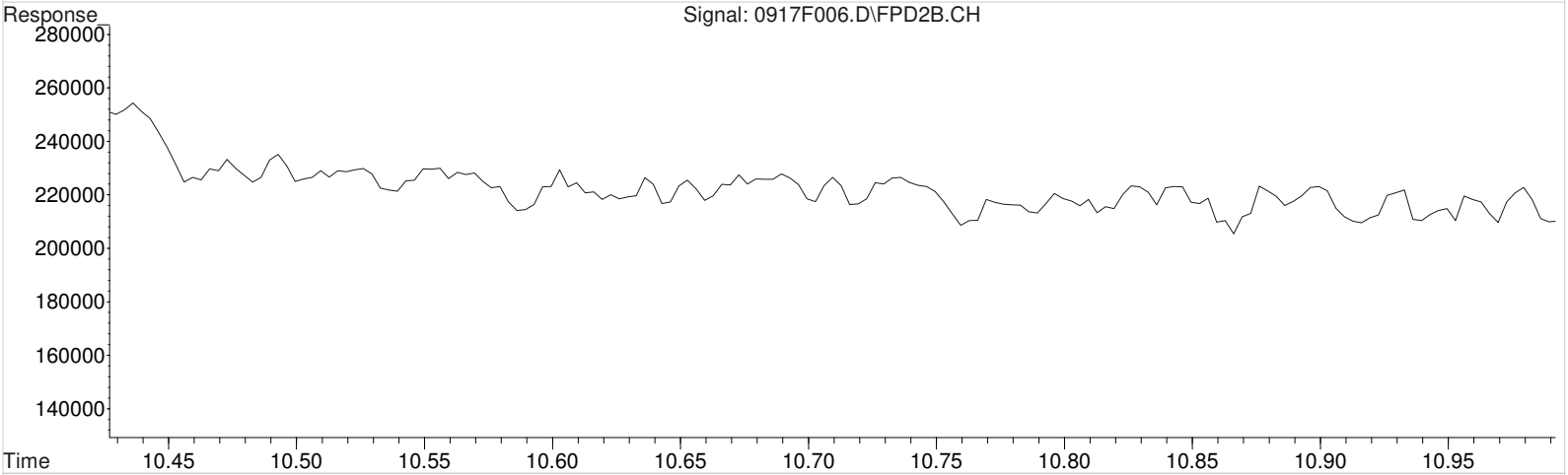
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F006.D Vial: 4
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:32 pm Operator: SAA
Sample : OT5-010C @ 10PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:47:36 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(4) Di-n-butyltin

10.683min 8.441 ng/mL m

response 814890

Manual Integration:

After

Baseline/Shoulder

09/18/18

(4) Di-n-butyltin #2

10.353min 6.772 ng/mL

response 1391803

(+) = Expected Retention Time

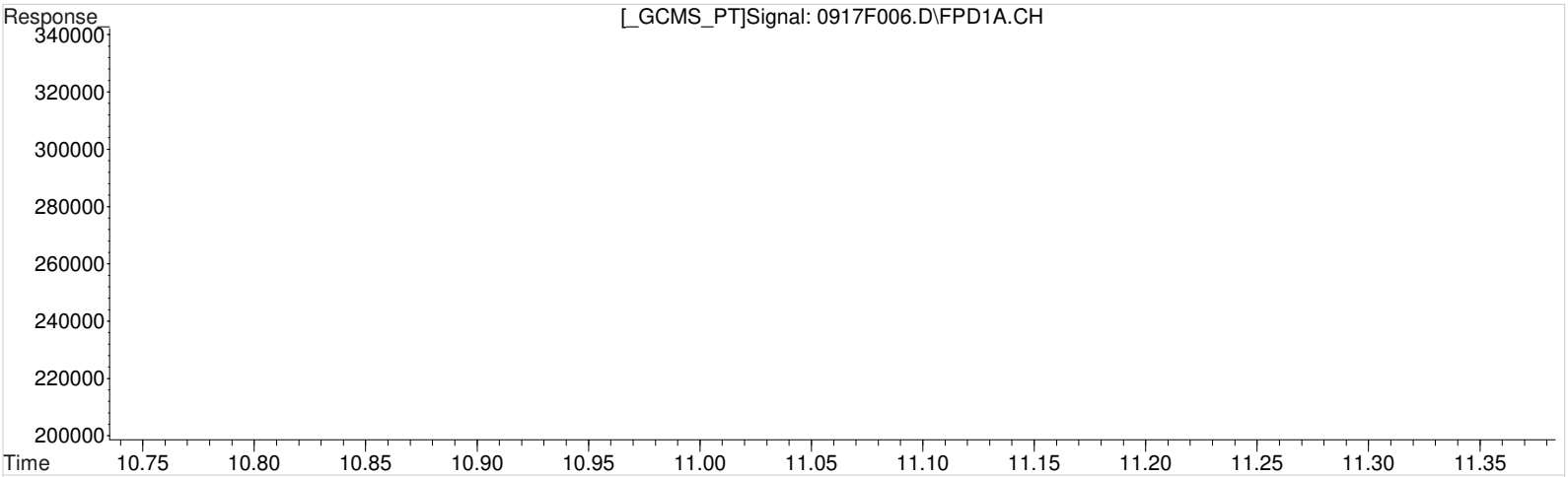
Quantitation Report (Qedit)

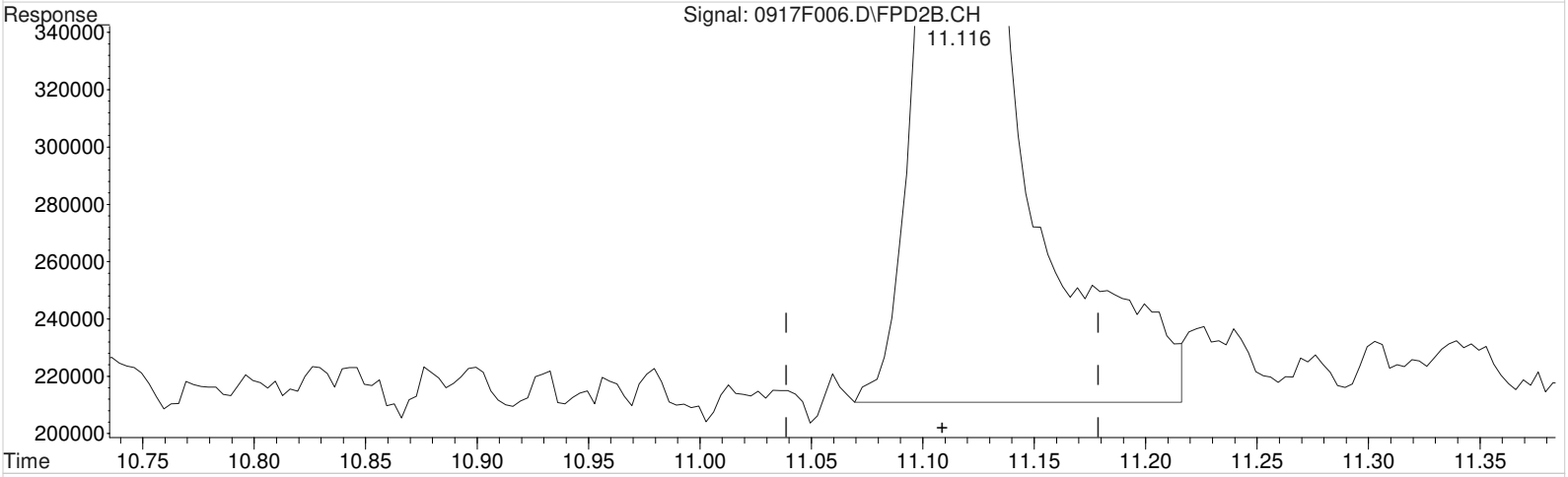
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F006.D Vial: 4
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:32 pm Operator: SAA
Sample : OT5-010C @ 10PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:47:36 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(5) n-Butyltin

11.539min 7.069 ng/mL

response 648548

(5) n-Butyltin #2

11.116min 5.597 ng/mL

response 1027399

Manual Integration:

Before

09/18/18

(+) = Expected Retention Time

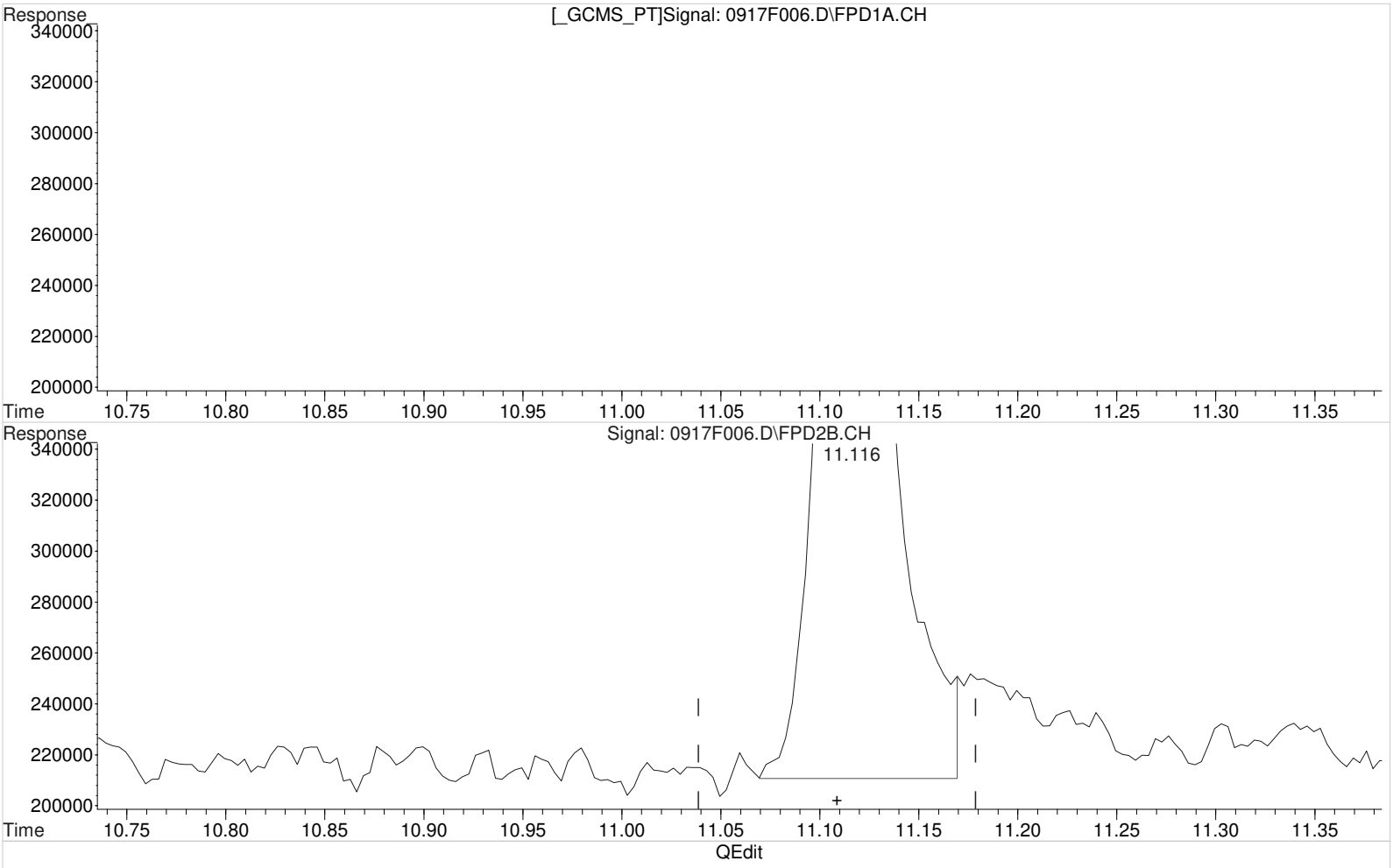
Quantitation Report (Qedit)

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F006.D Vial: 4
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:32 pm Operator: SAA
Sample : OT5-010C @ 10PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:47:36 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m



QEdit

(5) n-Butyltin

11.539min 7.069 ng/mL

response 648548

Manual Integration:

After

Baseline/Shoulder

09/18/18

(5) n-Butyltin #2

11.116min 5.108 ng/mL m

response 937500

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F007.D Vial: 5
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:50 pm Operator: SAA
Sample : OT5-010D @ 20PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:51:22 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S Tri-n-pro...	8.004	7.627	1000322	1570376	22.973	15.801	#
	Target Compounds							
2)	Tetrabuty...	8.330	7.884	1269276	1828470	24.414	16.623	#
3)	Tri-n-but...	9.607	9.104	1173371	1731538	21.510	14.889	#
4)	Di-n-buty...	10.684	10.354	1603141	2538425	16.606m	12.351	#
5)	n-Butyltin	11.540	11.117	1214324	1770749	13.235	9.647m	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

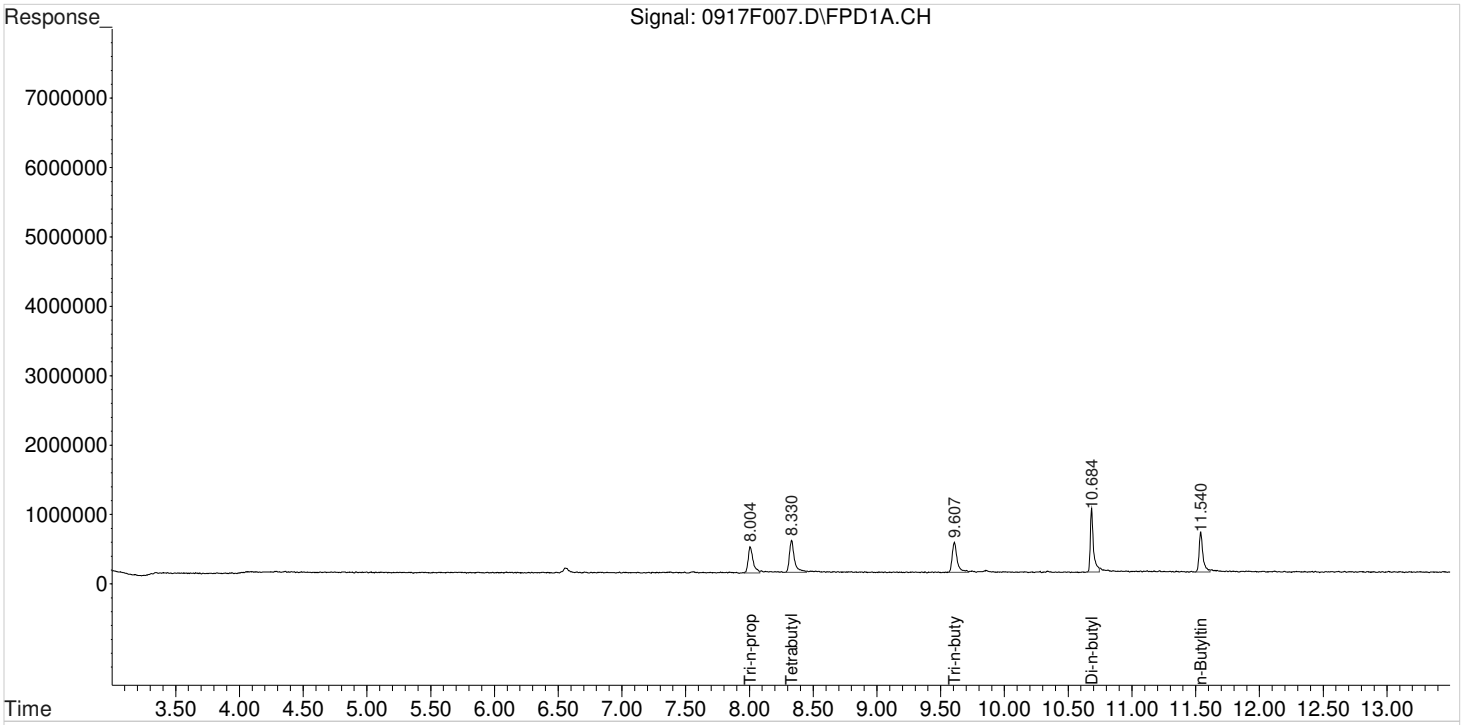
Quantitation Report (QT Reviewed)

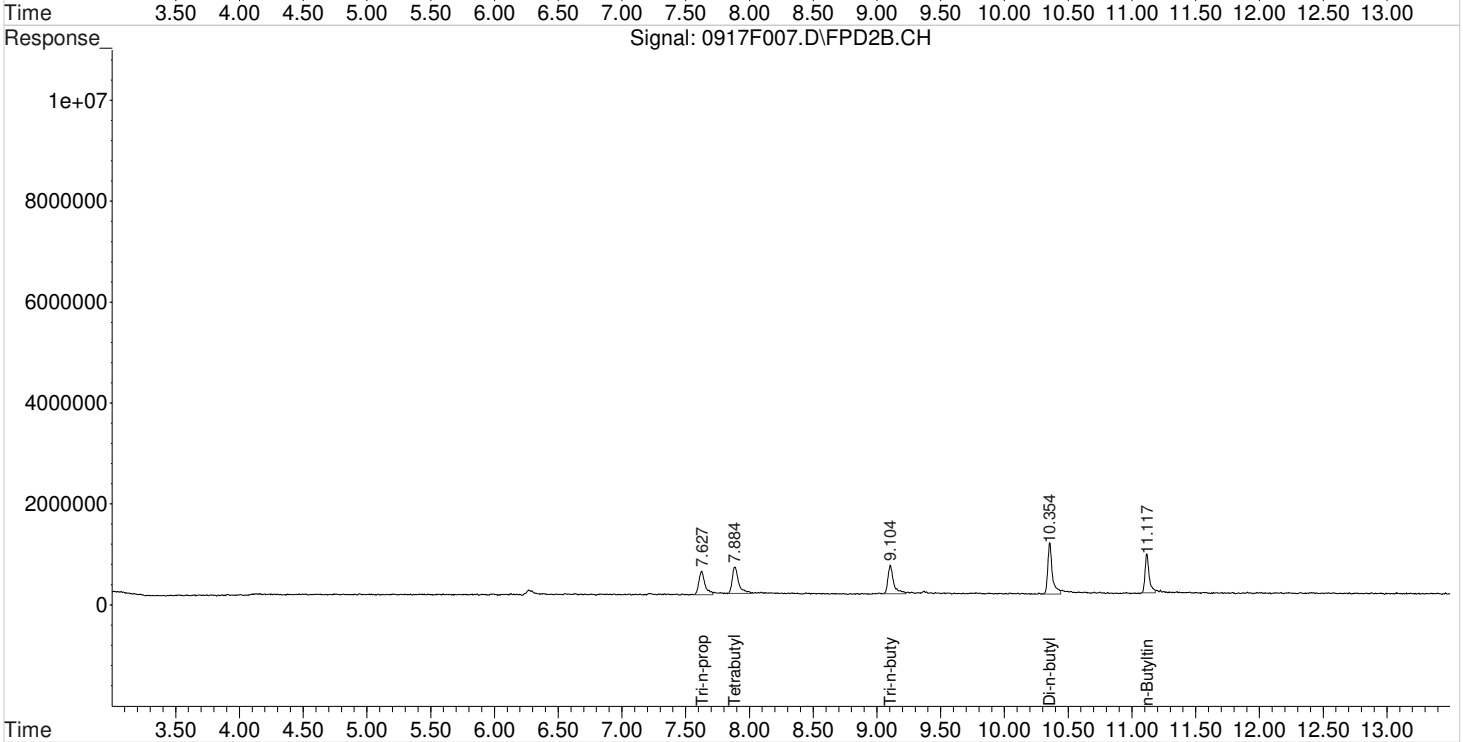
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F007.D Vial: 5
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:50 pm Operator: SAA
Sample : OT5-010D @ 20PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:51:22 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





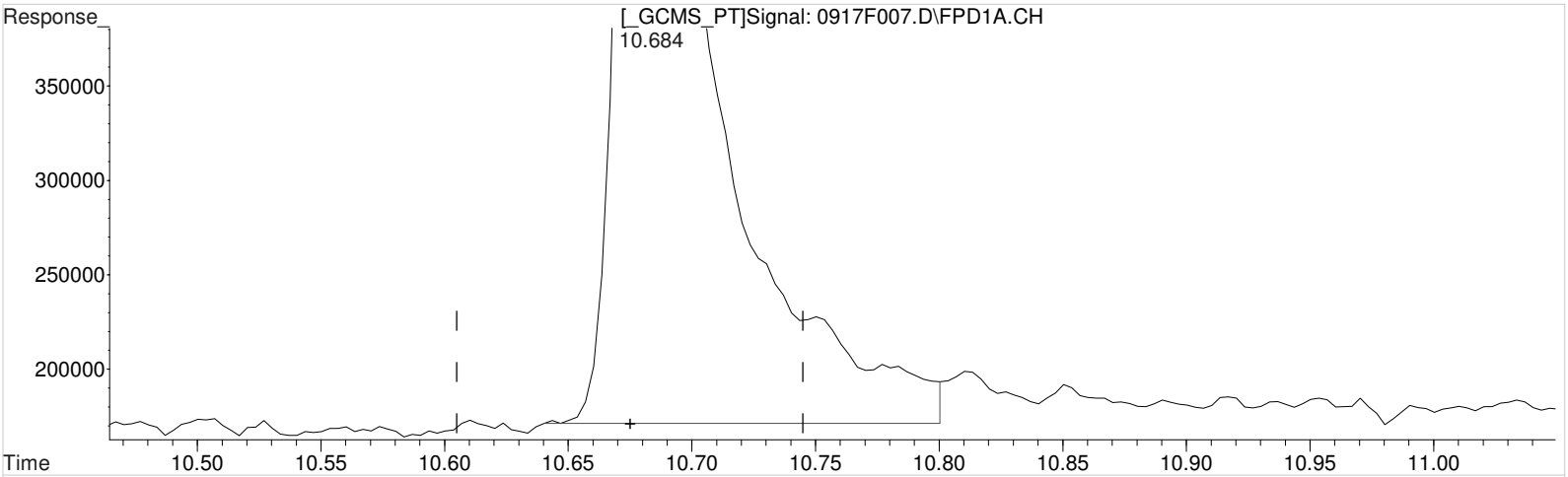
Quantitation Report (Qedit)

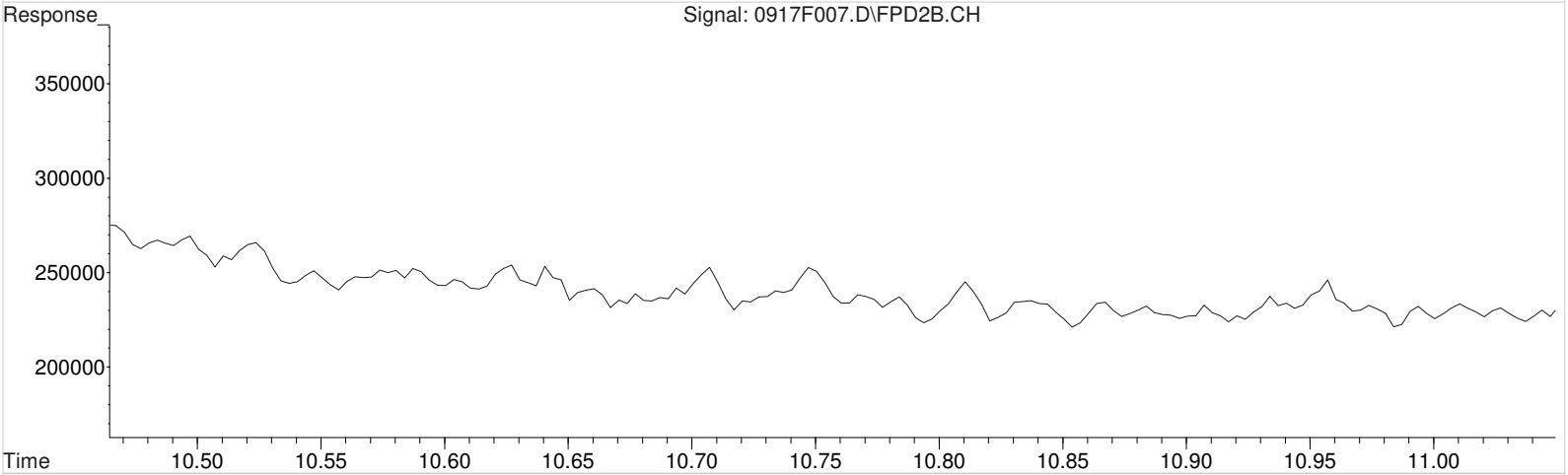
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F007.D Vial: 5
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:50 pm Operator: SAA
Sample : OT5-010D @ 20PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:50:11 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(4) Di-n-butyltin

10.684min 17.833 ng/mL

response 1721576

Manual Integration:

Before

09/18/18

(4) Di-n-butyltin #2

10.354min 12.351 ng/mL

response 2538425

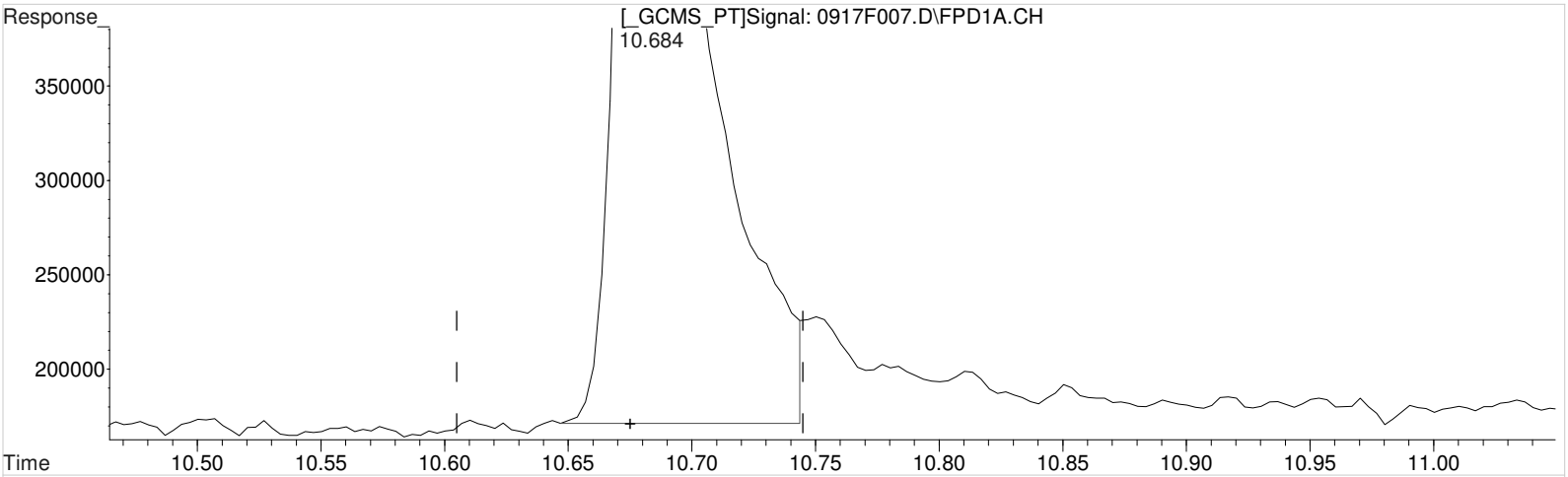
(+) = Expected Retention Time

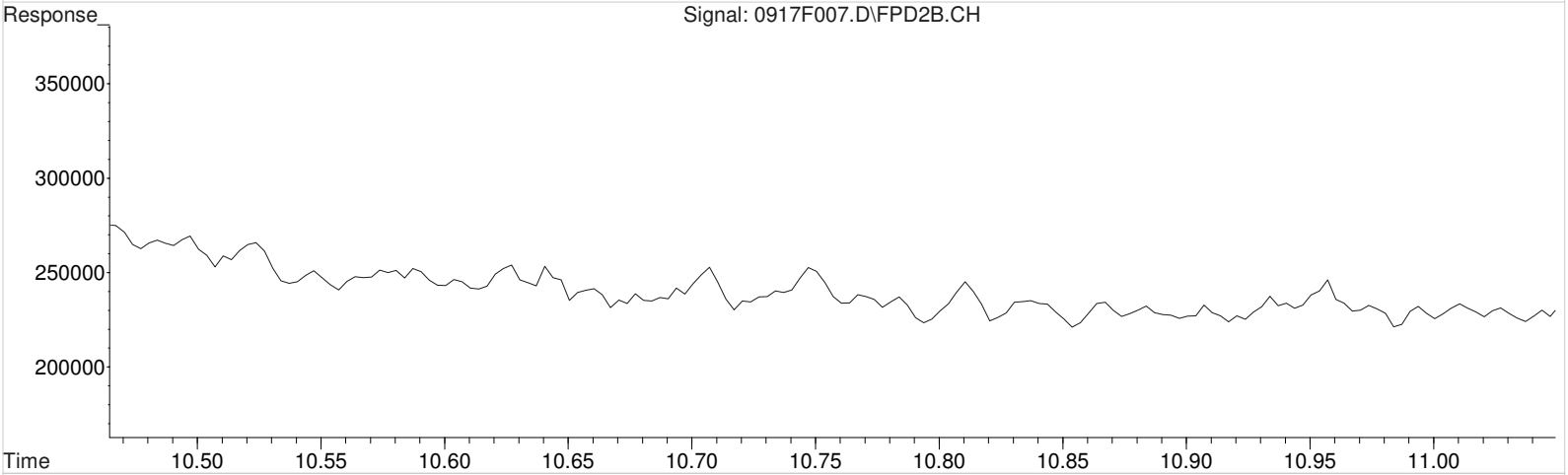
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F007.D Vial: 5
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:50 pm Operator: SAA
Sample : OT5-010D @ 20PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:50:11 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(4) Di-n-butyltin

10.684min 16.606 ng/mL m

response 1603141

Manual Integration:

After

Baseline/Shoulder

09/18/18

(4) Di-n-butyltin #2

10.354min 12.351 ng/mL

response 2538425

(+) = Expected Retention Time

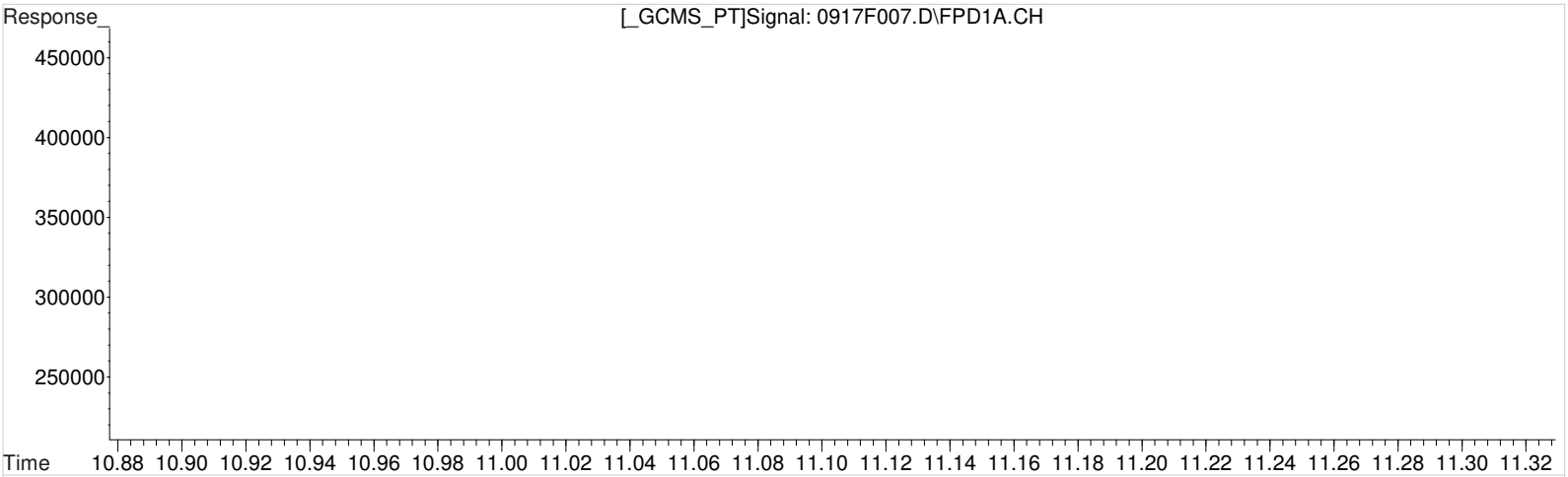
Quantitation Report (Qedit)

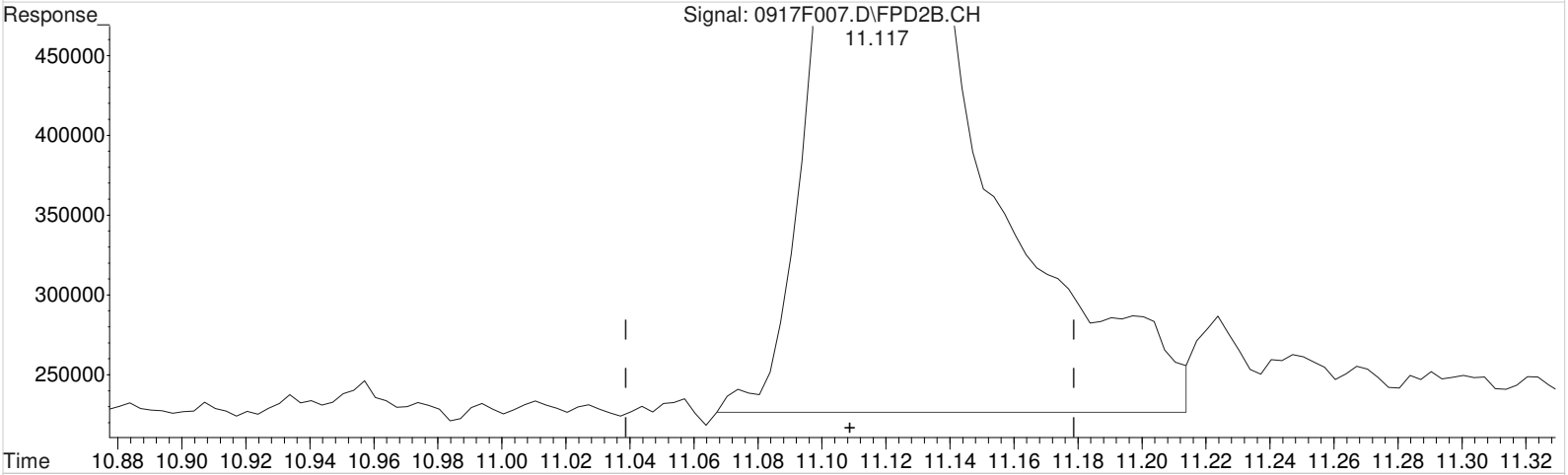
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F007.D Vial: 5
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:50 pm Operator: SAA
Sample : OT5-010D @ 20PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:50:11 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(5) n-Butyltin

11.540min 13.235 ng/mL

response 1214324

Manual Integration:

Before

09/18/18

(5) n-Butyltin #2

11.117min 10.521 ng/mL

response 1931146

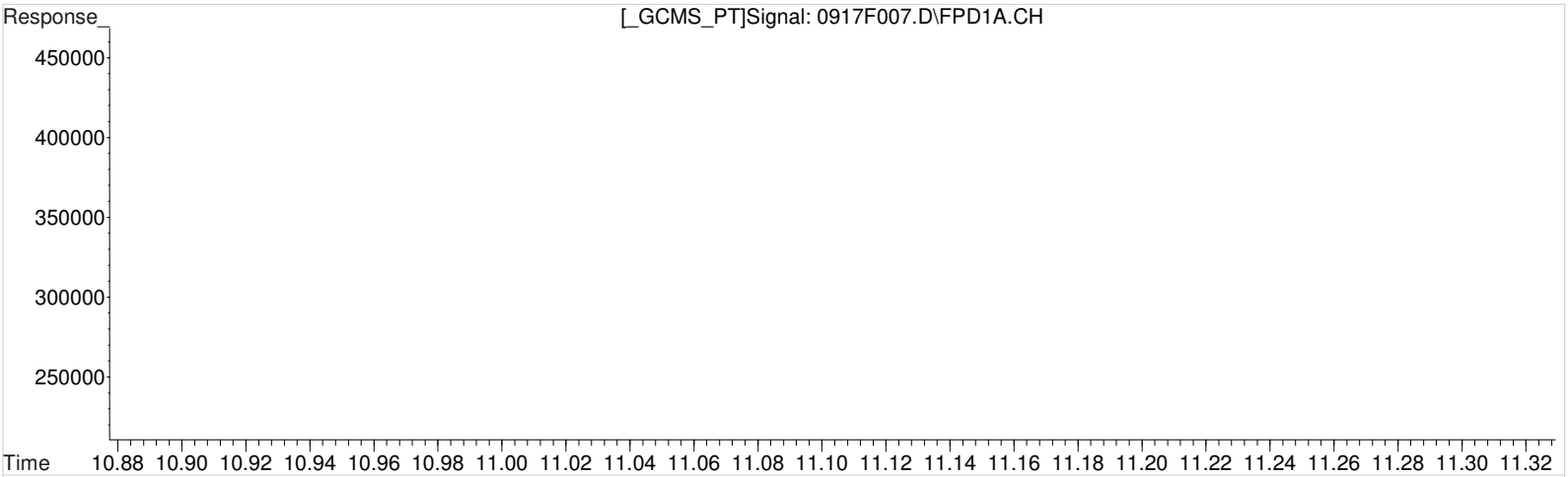
(+) = Expected Retention Time

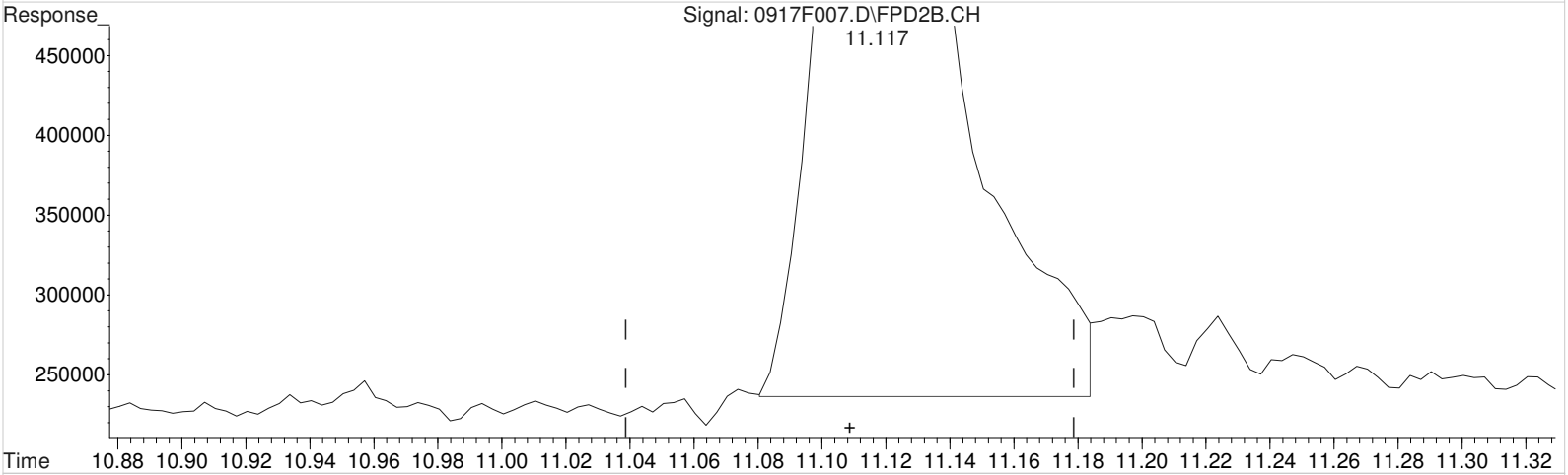
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F007.D Vial: 5
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 3:50 pm Operator: SAA
Sample : OT5-010D @ 20PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:50:11 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(5) n-Butyltin

11.540min 13.235 ng/mL

response 1214324

Manual Integration:

After

Baseline/Shoulder

09/18/18

(5) n-Butyltin #2

11.117min 9.647 ng/mL m

response 1770749

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F008.D Vial: 6
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 4:08 pm Operator: SAA
Sample : OT5-010K@50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:41:15 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S Tri-n-pro...	8.004	7.621	2797695	4307358	64.252	43.341	#
	Target Compounds							
2)	Tetrabuty...	8.331	7.885	3218508	4758354	61.907	43.259	#
3)	Tri-n-but...	9.604	9.105	3087278	4715252	56.597	40.544	#
4)	Di-n-buty...	10.684	10.355	4733323	7079281	49.030	34.446	#
5)	n-Butyltin	11.538	11.118	3482758	5311485	37.959	28.937	

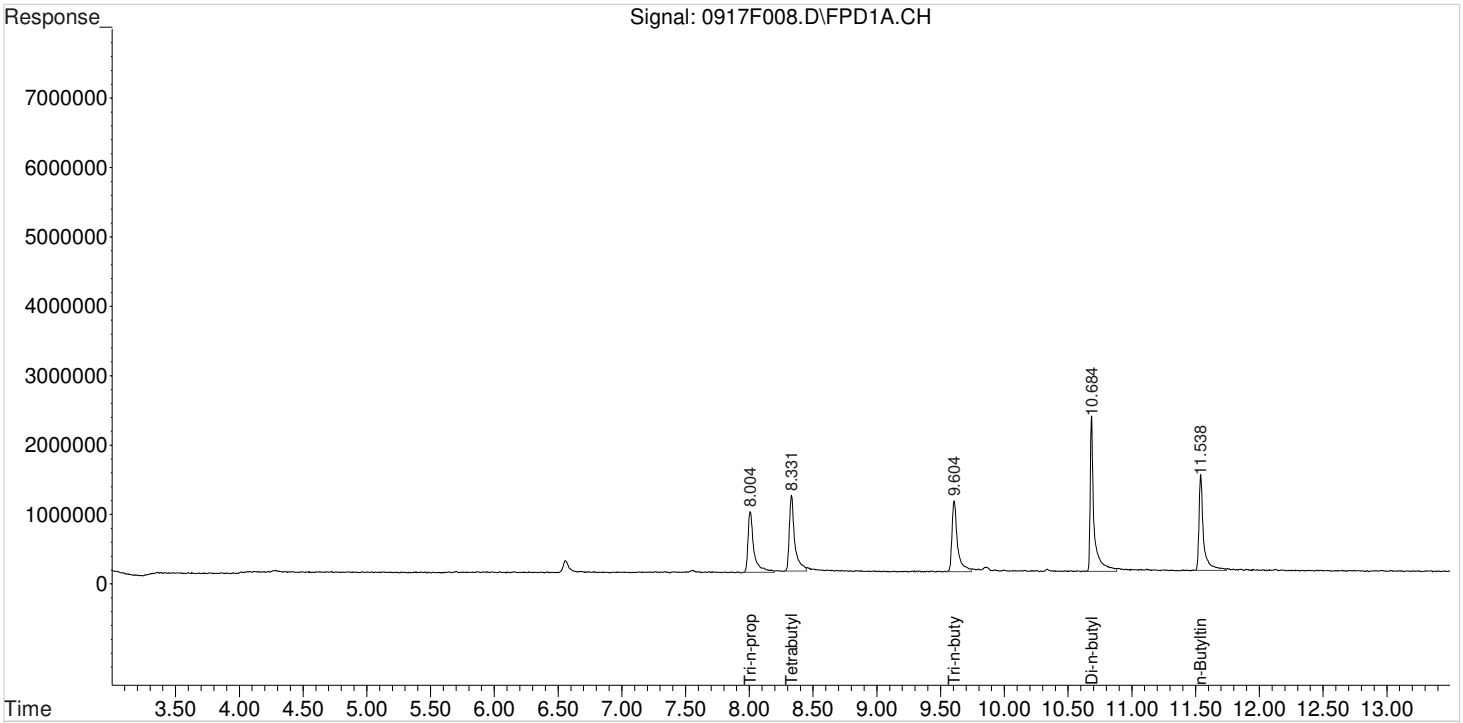
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

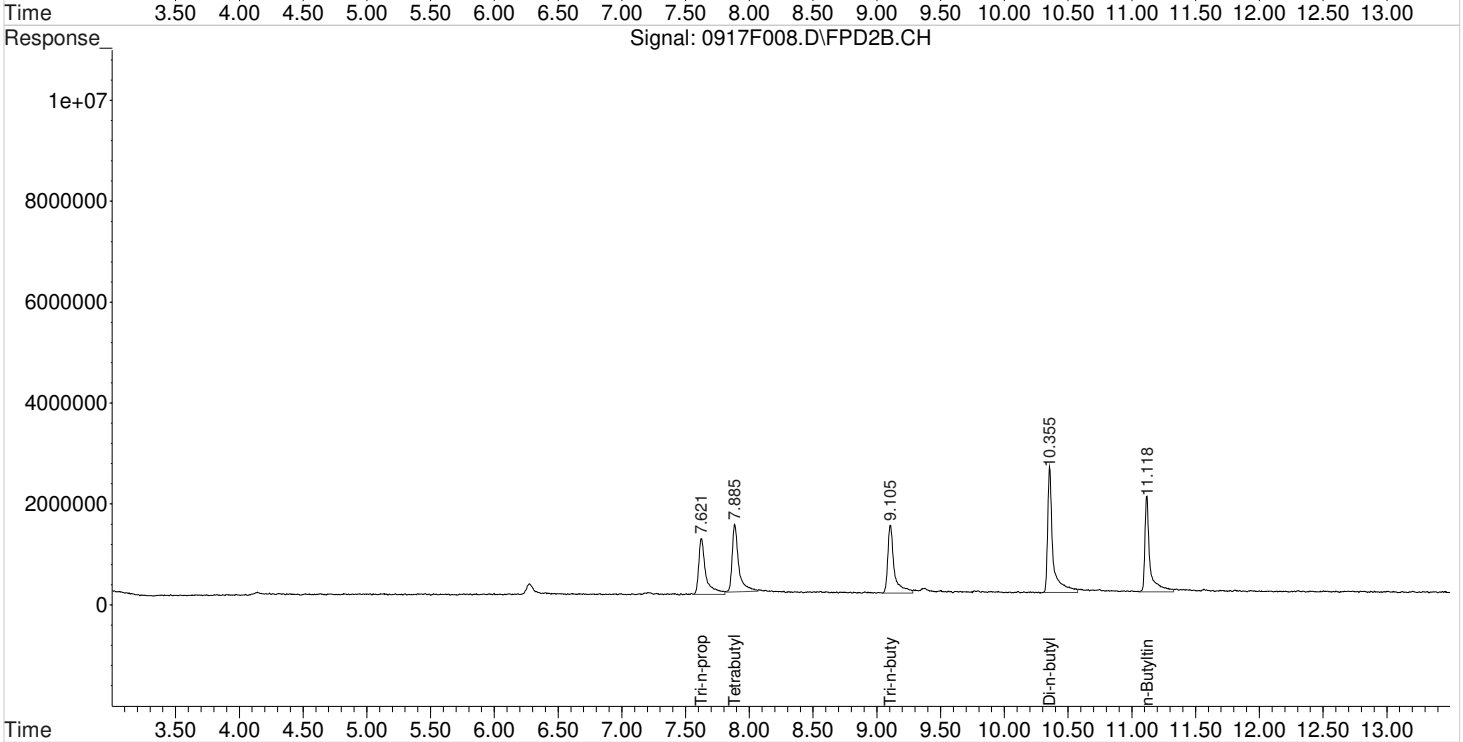
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F008.D Vial: 6
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 4:08 pm Operator: SAA
Sample : OT5-010K@50 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:41:15 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





Quantitation Report (QT Reviewed)

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F009.D Vial: 7
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 4:27 pm Operator: SAA
Sample : OT5-010E @ 200 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:52:04 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S Tri-n-pro...	8.008	7.622	10918297	15885758	250.749	159.842	#
	Target Compounds							
2)	Tetrabuty...	8.332	7.885	13244521	18561728	254.756	168.748	m#
3)	Tri-n-but...	9.608	9.105	12295658	17704439	225.406	152.233	#
4)	Di-n-buty...	10.685	10.355	18907216	26155501	195.849	127.265	#
5)	n-Butyltin	11.542	11.115	13956740	19316210	152.118	105.235	#

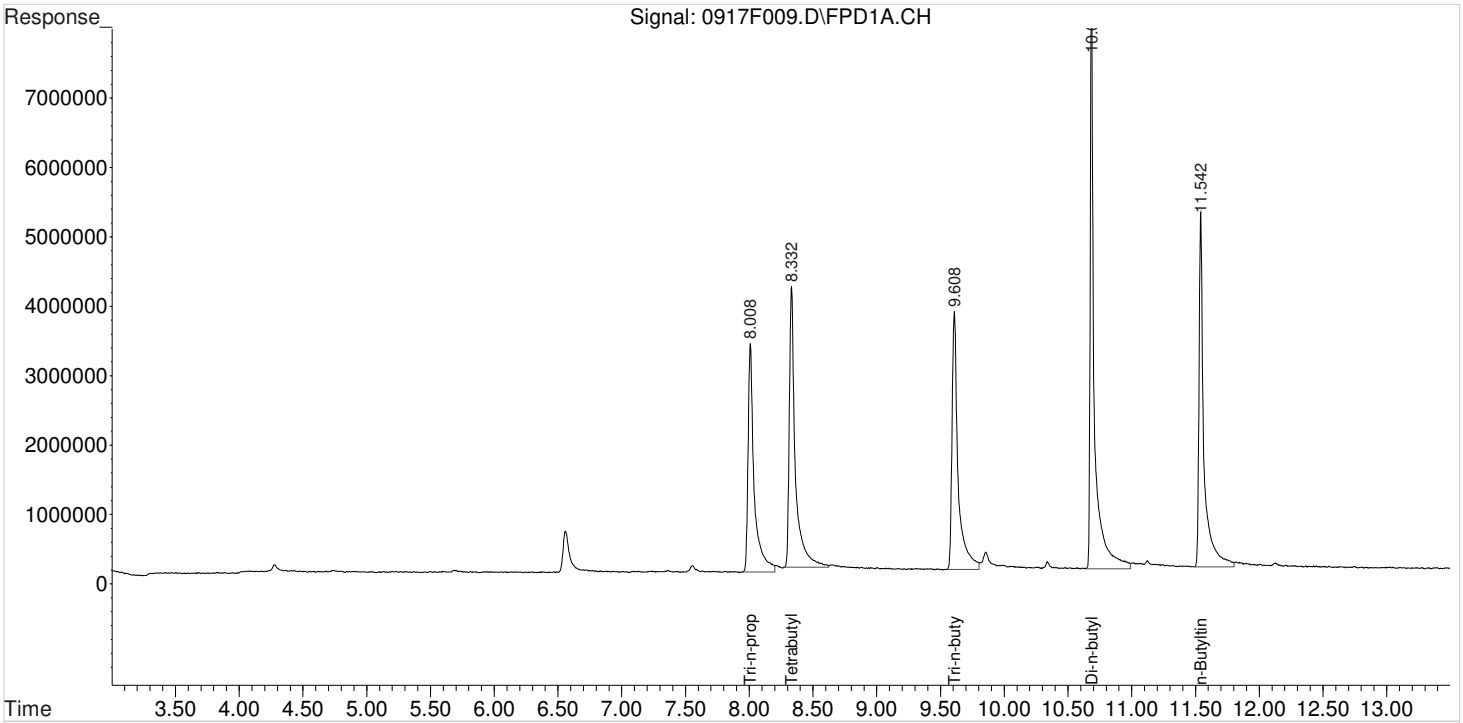
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

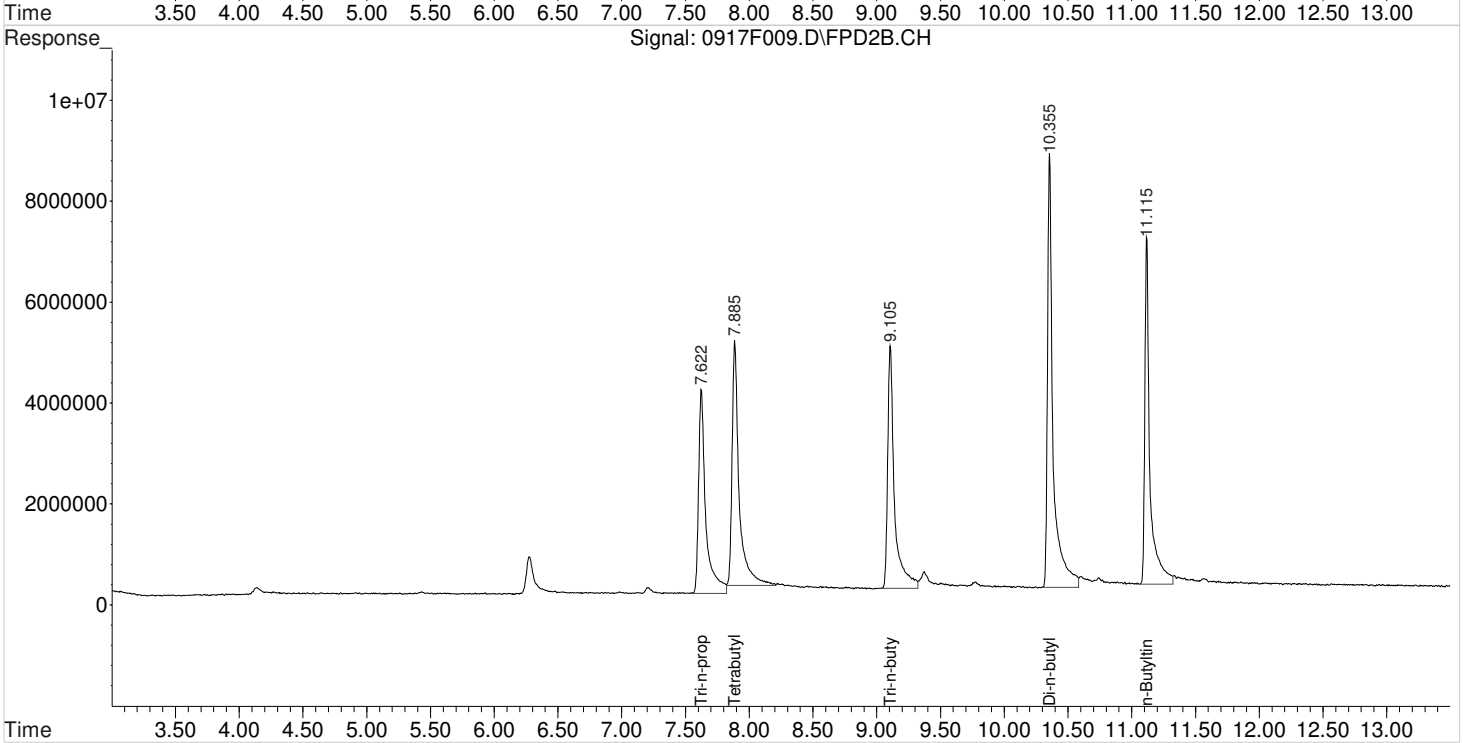
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F009.D Vial: 7
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 4:27 pm Operator: SAA
Sample : OT5-010E @ 200 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:52:04 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





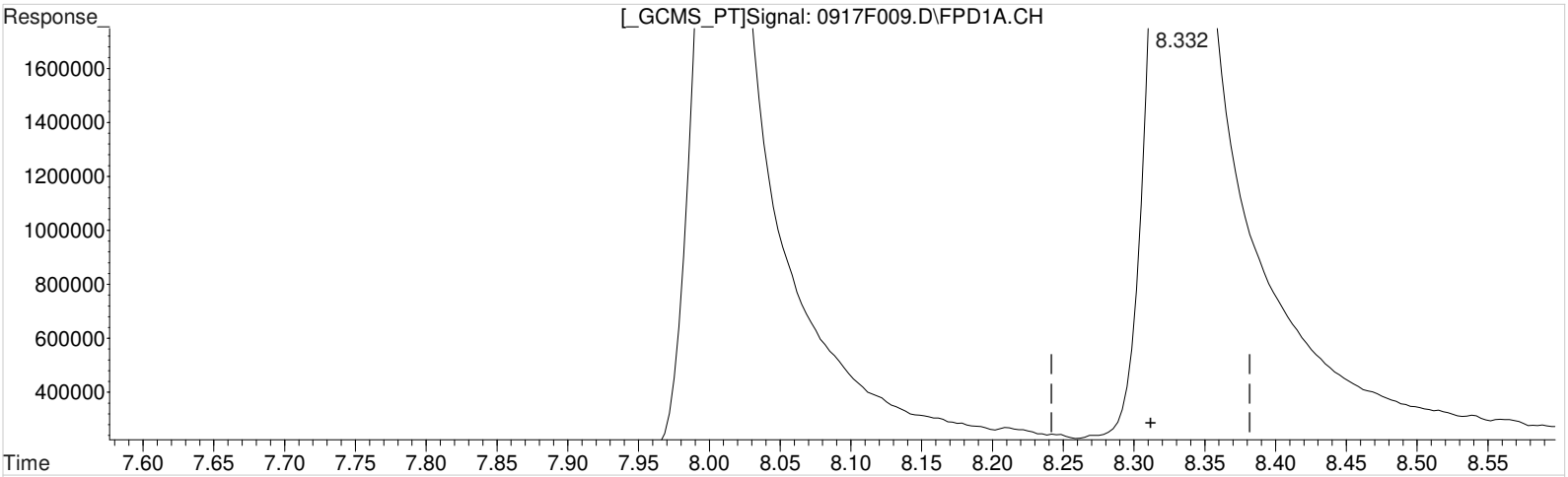
Quantitation Report (Qedit)

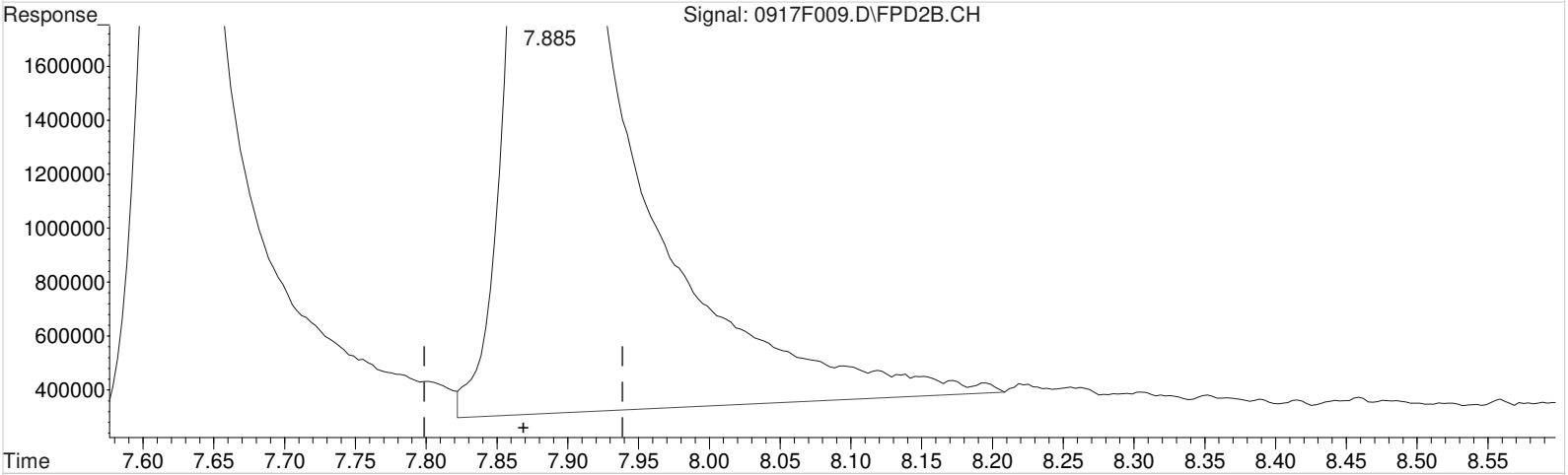
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F009.D Vial: 7
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 4:27 pm Operator: SAA
Sample : OT5-010E @ 200 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:51:44 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(2) Tetrabutyltin

8.332min 254.756 ng/mL

response 13244521

Manual Integration:

Before

09/18/18

(2) Tetrabutyltin #2

7.885min 177.827 ng/mL

response 19560360

(+) = Expected Retention Time

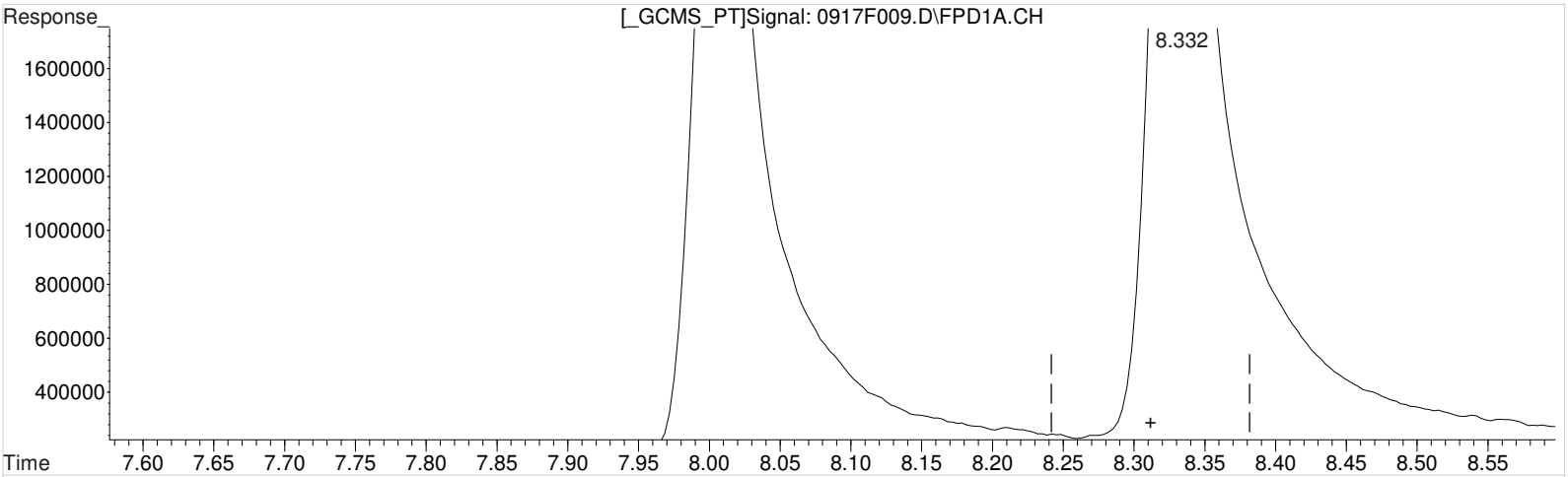
Quantitation Report (Qedit)

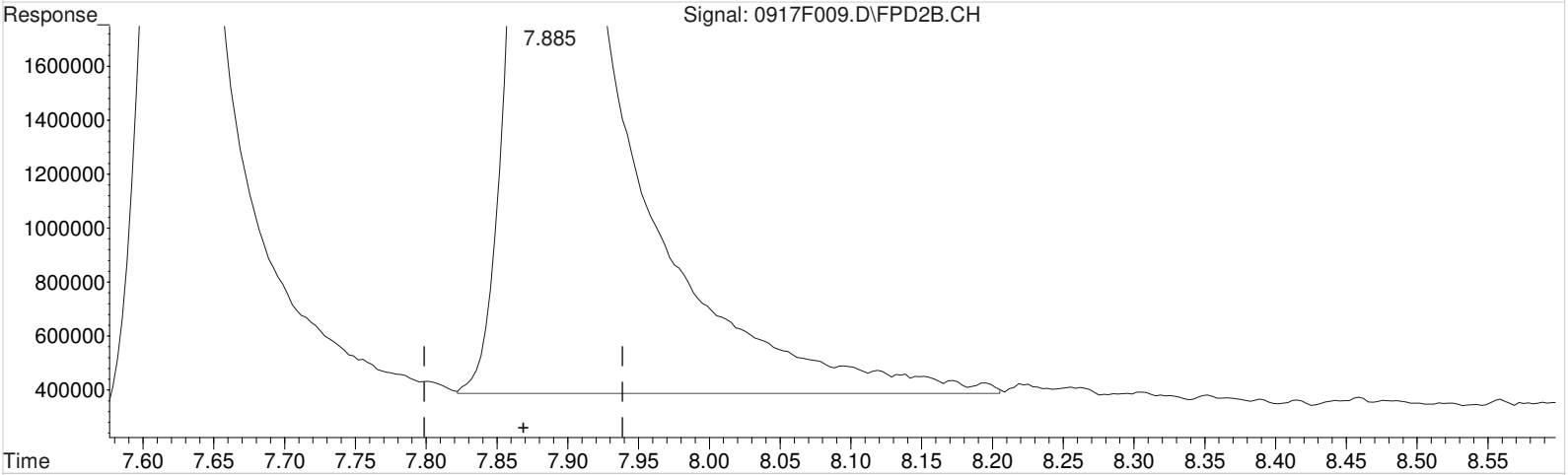
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F009.D Vial: 7
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 4:27 pm Operator: SAA
Sample : OT5-010E @ 200 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:51:44 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(2) Tetrabutyltin

8.332min 254.756 ng/mL

response 13244521

Manual Integration:

After

Baseline/Shoulder

09/18/18

(2) Tetrabutyltin #2

7.885min 168.748 ng/mL m

response 18561728

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F010.D Vial: 8
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 4:45 pm Operator: SAA
Sample : OT5-010F @ 500 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:57:26 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL	
	System Monitoring Compounds							
1)	S Tri-n-pro...	8.008	7.625	27554709	38163720	632.820	384.002	#
	Target Compounds							
2)	Tetrabuty...	8.331	7.888	32834159	43908007	631.559	399.176m	#
3)	Tri-n-but...	9.608	9.105	30057567	42552723	551.021	365.892	#
4)	Di-n-buty...	10.685	10.355	45309843	63243238	469.339	307.723	#
5)	n-Butyltin	11.541	11.118	33157121	45986502	361.388m	250.536	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

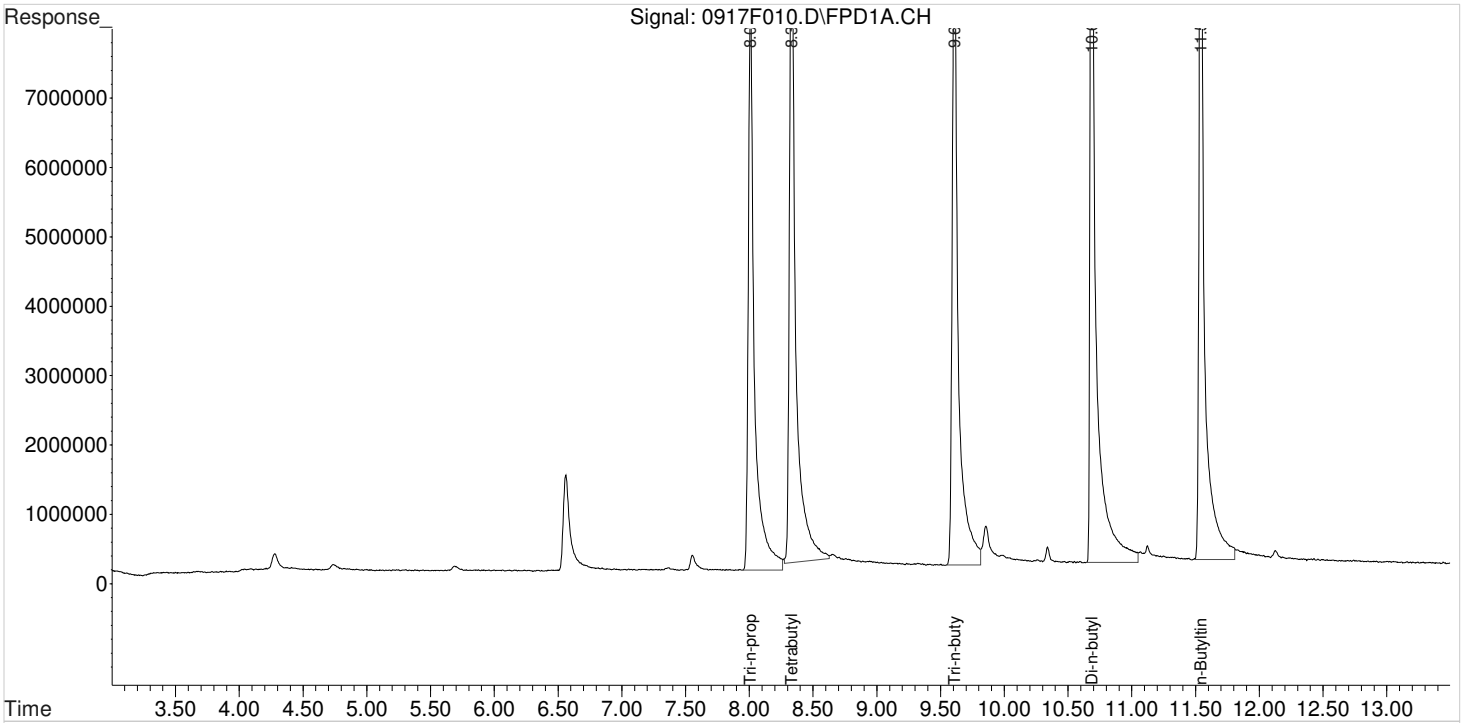
Quantitation Report (QT Reviewed)

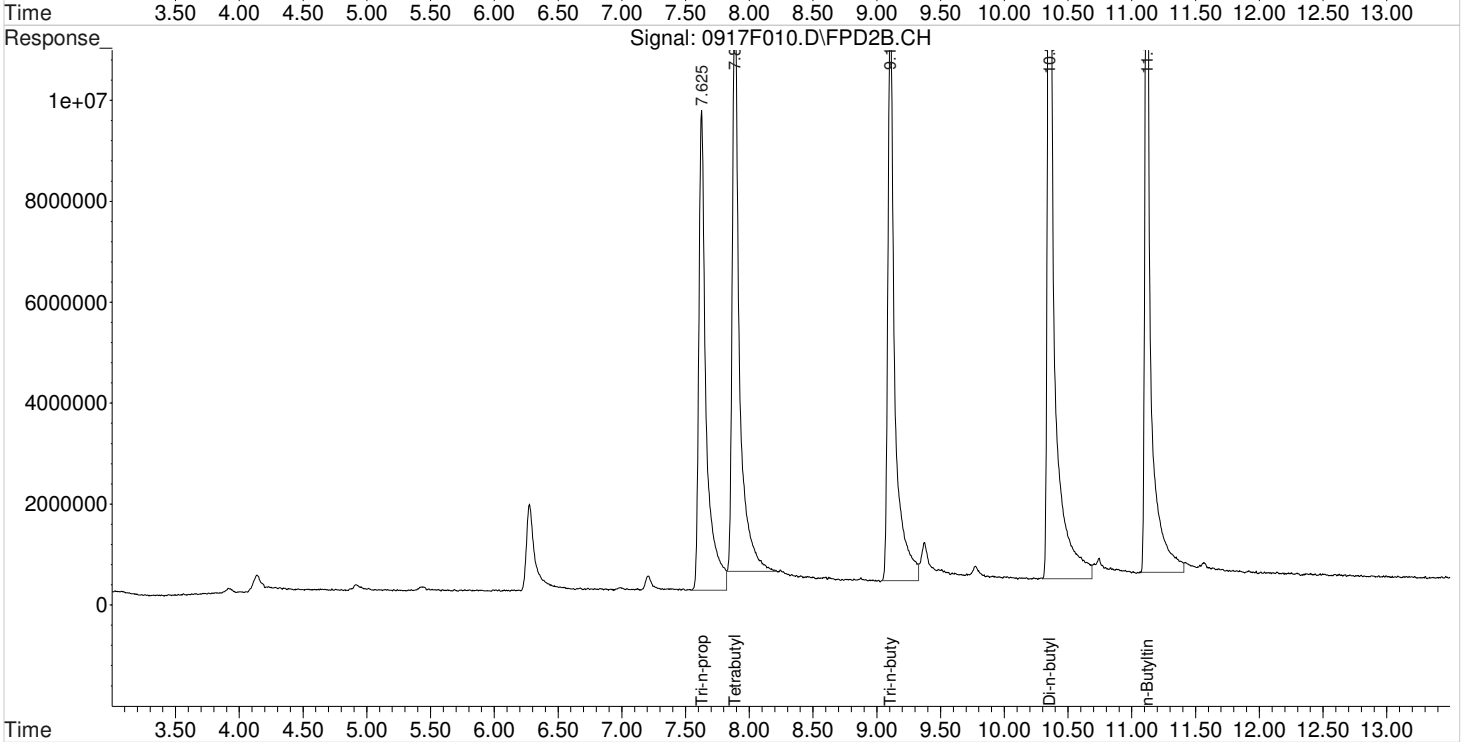
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F010.D Vial: 8
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 4:45 pm Operator: SAA
Sample : OT5-010F @ 500 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:57:26 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





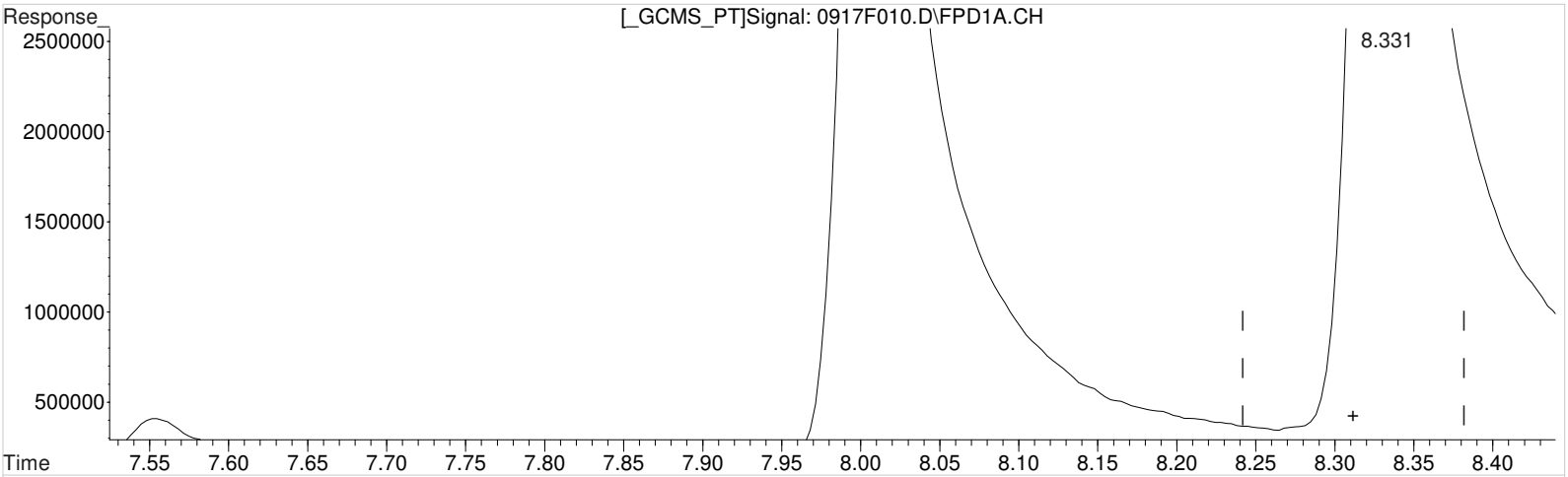
Quantitation Report (Qedit)

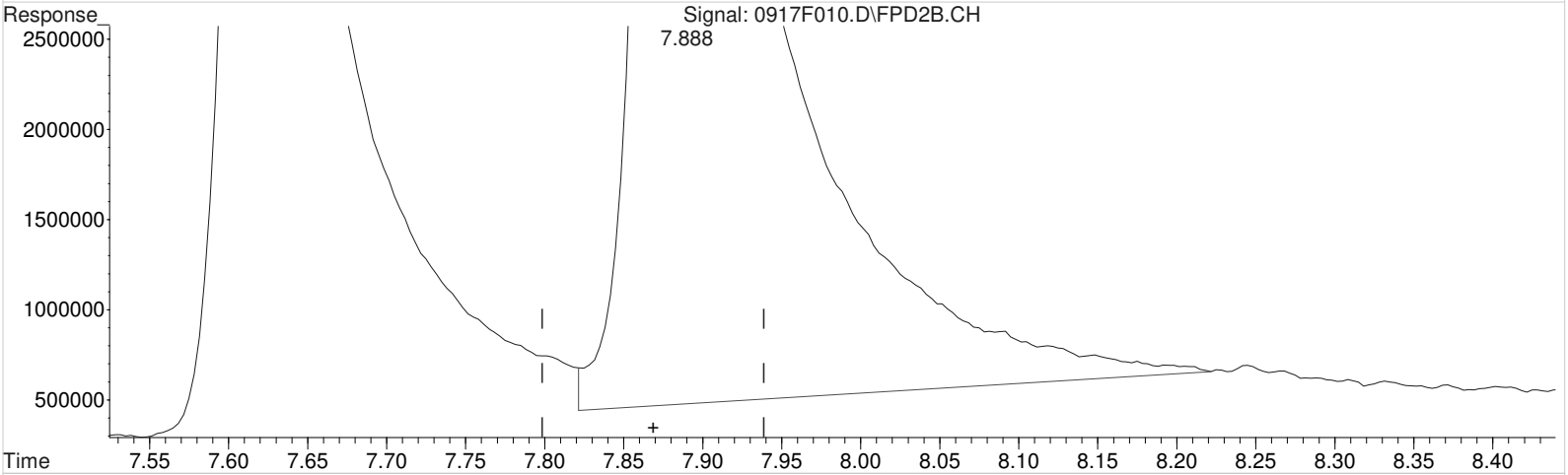
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F010.D Vial: 8
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 4:45 pm Operator: SAA
Sample : OT5-010F @ 500 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:52:37 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(2) Tetrabutyltin

8.331min 631.559 ng/mL

response 32834159

Manual Integration:

Before

09/18/18

(2) Tetrabutyltin #2

7.888min 425.095 ng/mL

response 46758969

(+) = Expected Retention Time

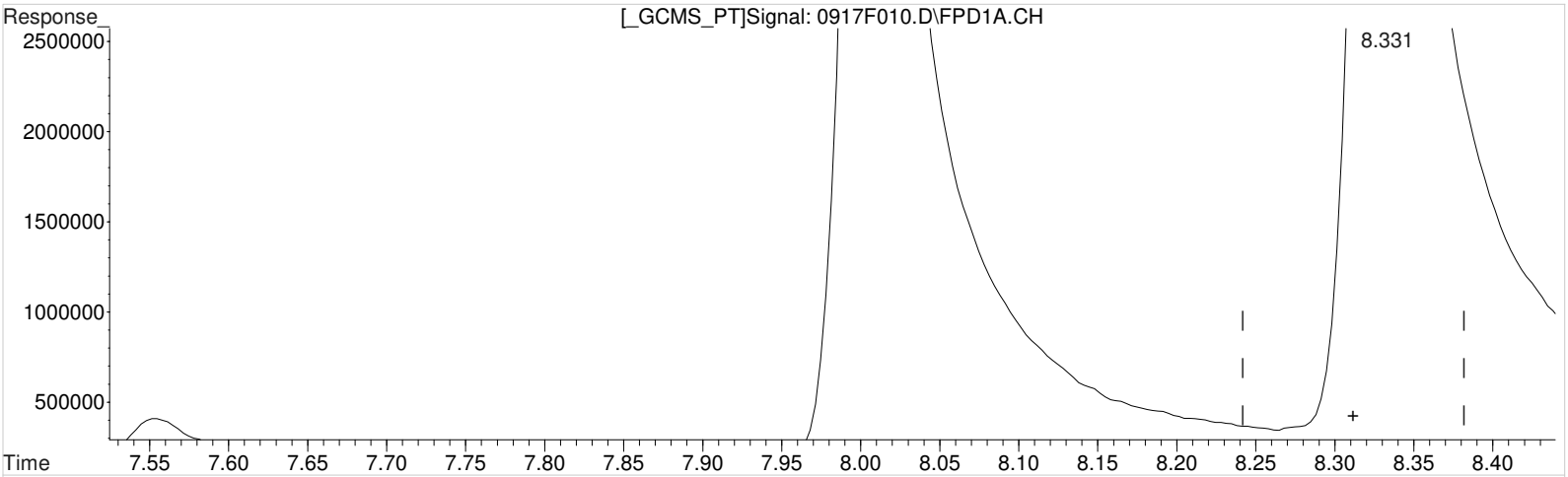
Quantitation Report (Qedit)

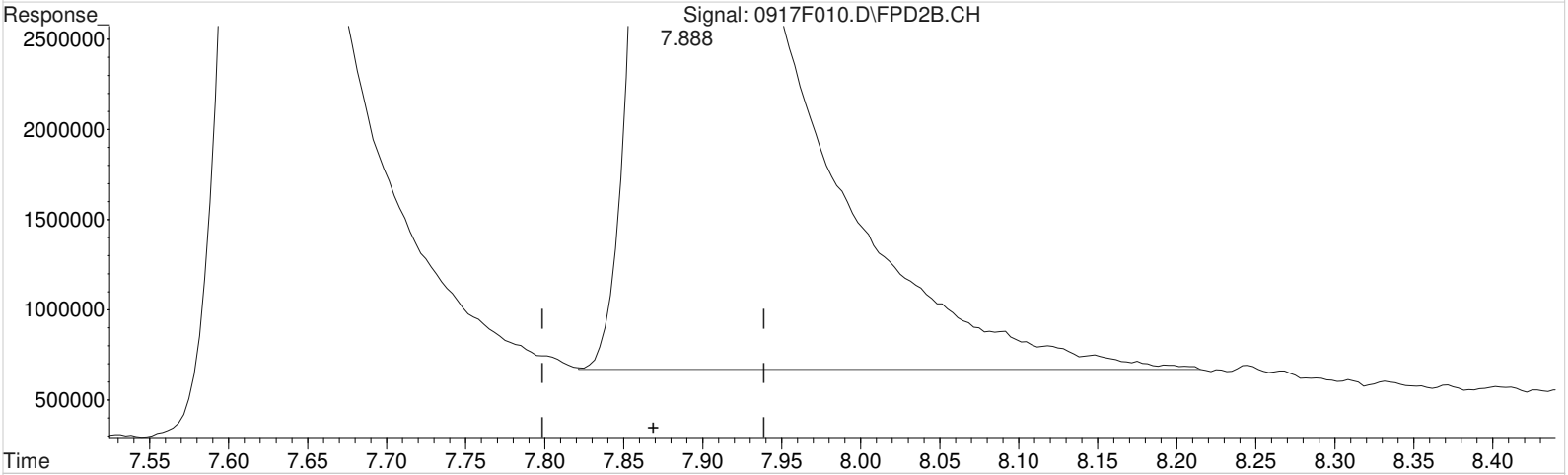
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F010.D Vial: 8
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 4:45 pm Operator: SAA
Sample : OT5-010F @ 500 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:52:37 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(2) Tetrabutyltin

8.331min 631.559 ng/mL

response 32834159

Manual Integration:

After

Baseline/Shoulder

09/18/18

(2) Tetrabutyltin #2

7.888min 399.176 ng/mL m

response 43908007

(+) = Expected Retention Time

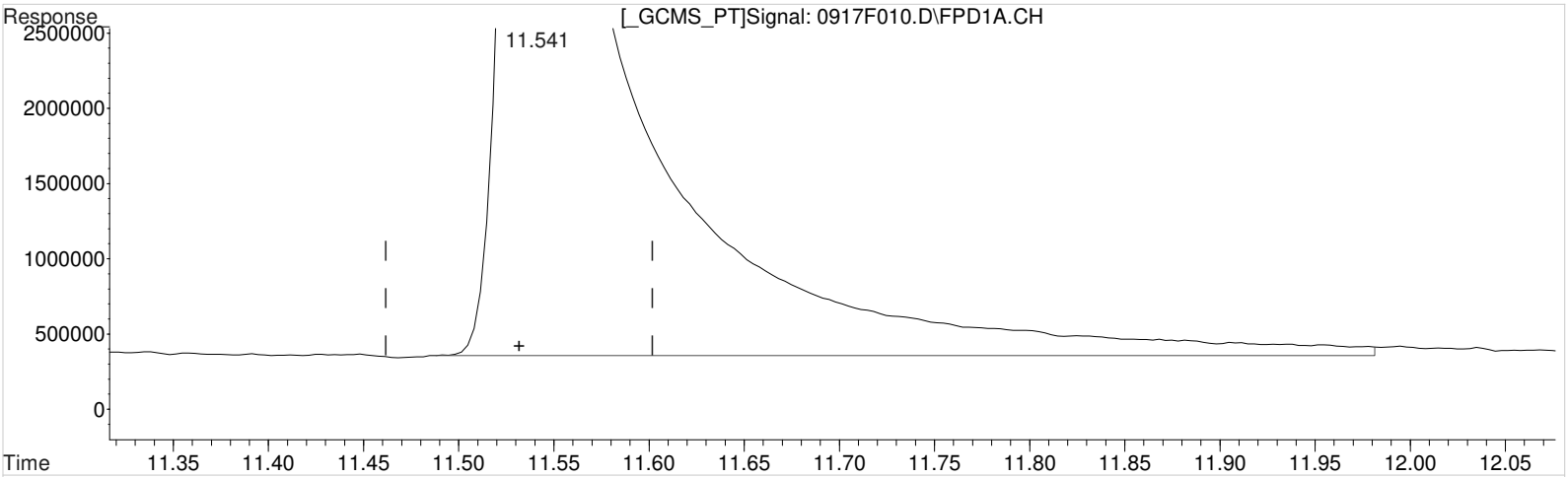
Quantitation Report (Qedit)

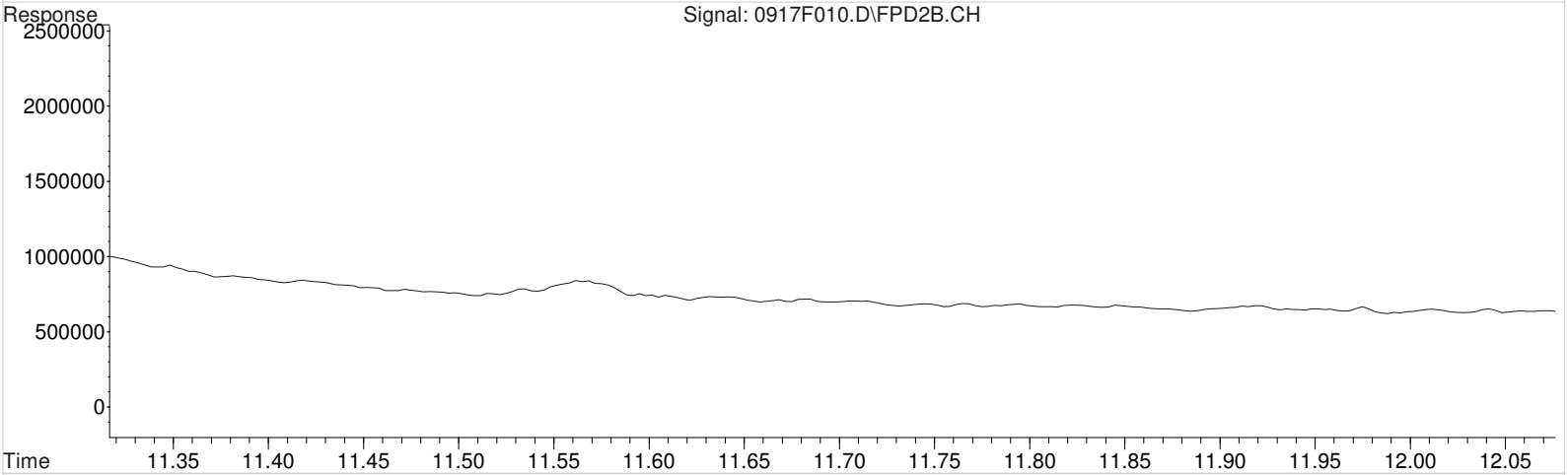
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F010.D Vial: 8
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 4:45 pm Operator: SAA
Sample : OT5-010F @ 500 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:52:37 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(5) n-Butyltin

11.541min 370.273 ng/mL

response 33972291

Manual Integration:

Before

09/18/18

(5) n-Butyltin #2

11.118min 250.536 ng/mL

response 45986502

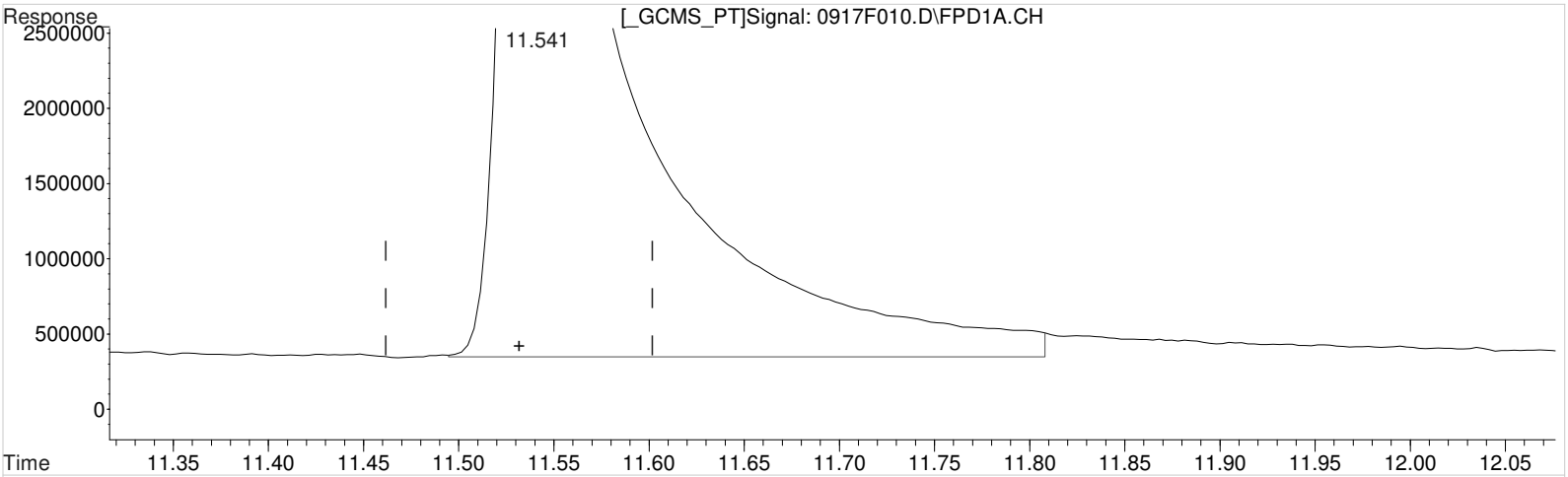
(+) = Expected Retention Time

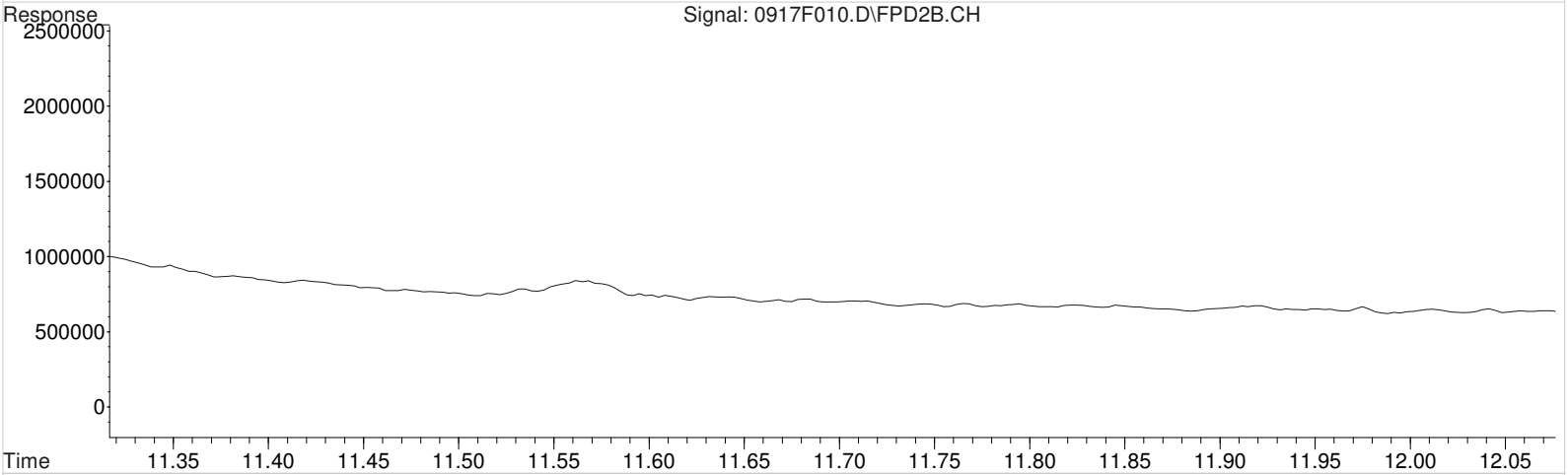
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F010.D Vial: 8
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 4:45 pm Operator: SAA
Sample : OT5-010F @ 500 PPB Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 09:52:37 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Wed Sep 12 12:38:42 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





QEdit

(5) n-Butyltin

11.541min 361.388 ng/mL m

response 33157121

Manual Integration:

After

Baseline/Shoulder

09/18/18

(5) n-Butyltin #2

11.118min 250.536 ng/mL

response 45986502

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F012.D Vial: 9
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 5:22 pm Operator: SAA
Sample : OT5-09P @ 50PPB ICV Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 10:07:50 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Tue Sep 18 10:00:45 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m

	Compound	RT#1	RT#2	Resp#1	Resp#2	ng/mL	ng/mL
	System Monitoring Compounds						
	Target Compounds						
2)	Tetrabuty...	8.332	7.889	2728446	3770443	44.756	40.241
3)	Tri-n-but...	9.609	9.109	3675883	5221633	52.883	50.118
4)	Di-n-buty...	10.686	10.359	3838496	5636775	33.392	32.367
5)	n-Butyltin	11.542	11.119	3051800	4343351	29.524	27.152

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

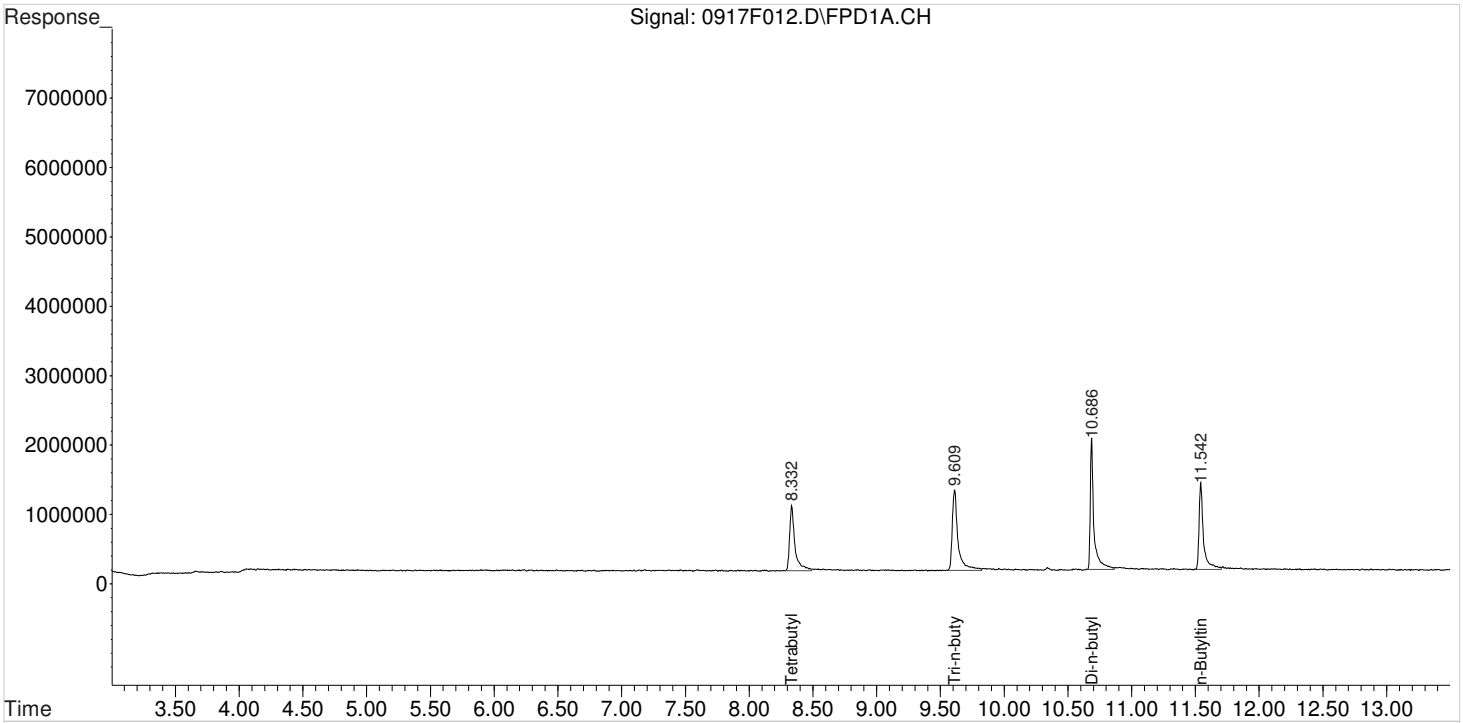
Quantitation Report (QT Reviewed)

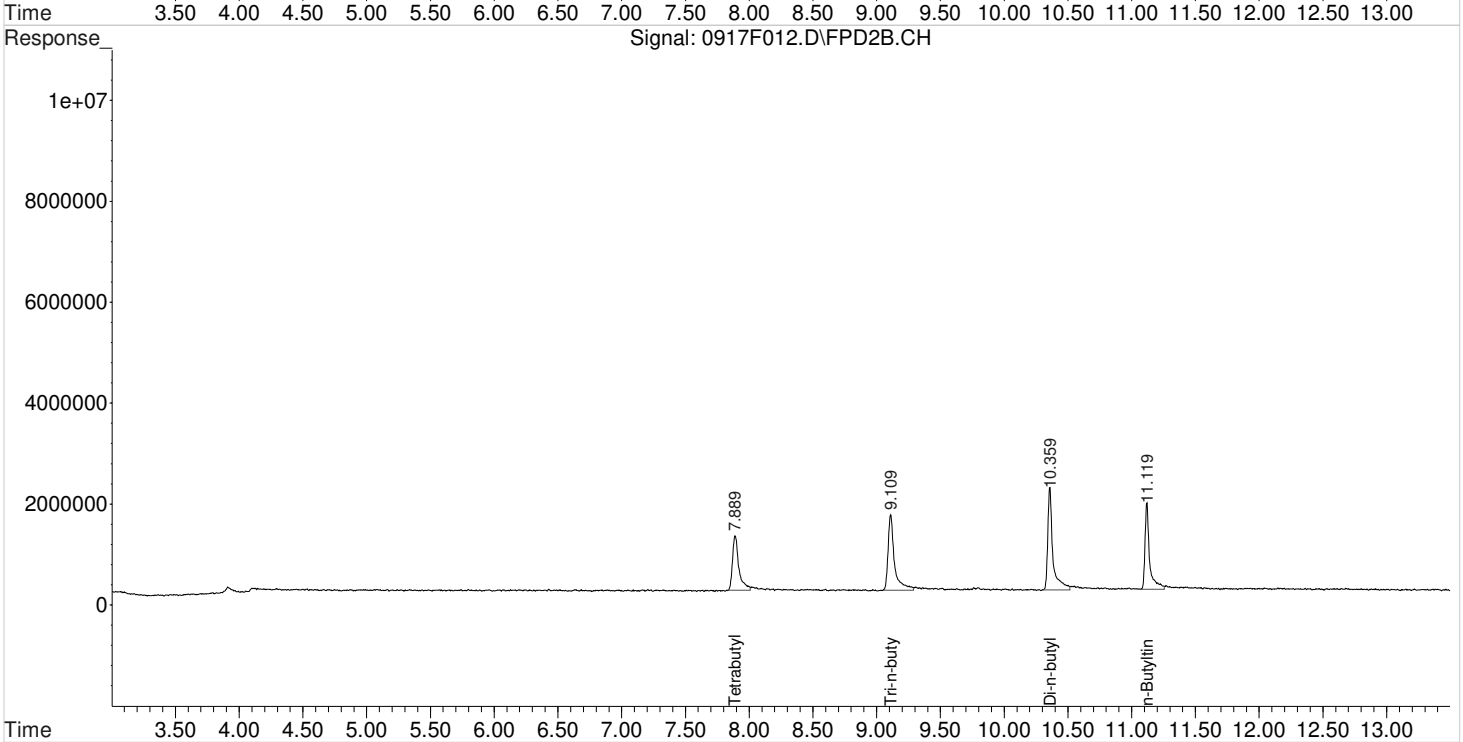
1st 09/18/18
2nd 09/18/18

Data File : J:\GC26\DATA\091718\0917F012.D Vial: 9
Signal(s) : Signal #1: FPD1A.CH Signal #2: FPD2B.CH
Acq On : 17 Sep 2018 5:22 pm Operator: SAA
Sample : OT5-09P @ 50PPB ICV Inst : GC26
Misc : Multiplr: 1.00
Integration File signal 1: rteint.p
Integration File signal 2: RTEINT2.P
Quant Time: Sep 18 10:07:50 2018
Quant Results File: GC26-091718-HTIN.RES

Quant Method : J:\GC26\METHODS\GC26-091718-HTIN.M
Quant Title : Hexylated Butyltins CAL KC1800264
QLast Update : Tue Sep 18 10:00:45 2018
Response via : Initial Calibration
DataAcq Meth:OTIN1.M

Volume Inj. : 25 µL
Signal #1 Phase : RTX-1 Signal #2 Phase: RTX-35
Signal #1 Info : 320µm/1.0µm/30m Signal #2 Info : 320µm/1.0µm/30m





Comment: Butyltins by Krone
Operator: SAA
Data Path: C:\GC26\DATA\112018\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SOLN	100	1120F001	OTIN1	PRIMER
2	SOLN	100	1120F002	OTIN1	PRIMER
3	CCV	1	1120F003	OTIN1	OT5-010K @ 50 PPB Tetrak, ok
4	IB	3	1120F004	OTIN1	IB
5	SMPL	4	1120F005	OTIN1	K1809861-045 LOQ
6	SMPL	5	1120F006	OTIN1	KQ1816567-001 LOD
7	SMPL	6	1120F007	OTIN1	KQ1816567-002 LOD
8	SMPL	7	1120F008	OTIN1	KQ1816567-003 MB
9	SMPL	8	1120F009	OTIN1	KQ1816088-005 LOD
10	SMPL	9	1120F010	OTIN1	KQ1816088-006 LOD
11	SMPL	10	1120F011	OTIN1	KQ1816088-007 LOD
12	SMPL	11	1120F012	OTIN1	KQ1816088-003 LCS
13	SMPL	12	1120F013	OTIN1	KQ1816088-004 MB
14	CCV	1	1120F017	OTIN1	OT5-010K @ 50 PPB ok,ok
15	IB	3	1120F018	OTIN1	IB
16	SMPL	16	1120F019	OTIN1	KQ1816339-001 LCS
17	SMPL	17	1120F020	OTIN1	KQ1816339-002 DLCS
18	SMPL	18	1120F021	OTIN1	KQ1816339-003 MB
19	SMPL	19	1120F022	OTIN1	K1810683-005
20	SMPL	20	1120F023	OTIN1	KQ1815770-003 LCS
21	SMPL	21	1120F024	OTIN1	KQ1815770-004 MB
22	SMPL	22	1120F025	OTIN1	K1810458-001
23	SMPL	23	1120F026	OTIN1	K1810458-002 dil
24	SMPL	24	1120F027	OTIN1	K1810458-002 MS dil
25	SMPL	25	1120F028	OTIN1	K1810458-002 DMS dil
26	SMPL	26	1120F029	OTIN1	K1810458-003 dil
27	SMPL	27	1120F030	OTIN1	KQ1815421-003 LCS
28	SMPL	28	1120F031	OTIN1	KQ1815421-004 MB
29	SMPL	29	1120F032	OTIN1	K1810302-022
30	SMPL	30	1120F033	OTIN1	K1810302-022 MS
31	SMPL	31	1120F034	OTIN1	K1810302-022 DMS
32	CCV	2	1120F035	OTIN1	OT5-010K @ 50 PPB tetra V, surr ok
33	IB	3	1120F036	OTIN1	IB
34	SMPL	32	1120F037	OTIN1	KQ1815422-003 LCS
35	SMPL	33	1120F038	OTIN1	KQ1815422-004 MB
36	SMPL	34	1120F039	OTIN1	K1810302-001
37	SMPL	35	1120F040	OTIN1	K1810302-001 MS
38	SMPL	36	1120F041	OTIN1	K1810302-001 DMS
39	SMPL	37	1120F042	OTIN1	K1810302-023
40	SMPL	38	1120F043	OTIN1	K1810302-024
41	SMPL	39	1120F044	OTIN1	K1810302-025
42	SMPL	40	1120F045	OTIN1	K1810302-026
43	SMPL	41	1120F046	OTIN1	K1810302-027 dil

Run: 615992
Cal: KC1800436

Last Modified: Tue Nov 20 18:49:10 2018

Page: 1

Sequence Name: C:\CDS\SEQUENCE\1120F01.S

Line	Type	Vial	DataFile	Method	Sample Name
44	SMPL	42	1120F047	OTIN1	K1810302-028
45	SMPL	43	1120F048	OTIN1	K1810302-029 dil
46	CCV	2	1120F049	OTIN1	OT5-010K @ 50 PPB Tet b, OK
47	IB	3	1120F050	OTIN1	IB
48	SMPL	13	1120F051	OTIN1	K1810725-001 10X dil
49	SMPL	14	1120F052	OTIN1	K1810725-001 MS 10X dil
50	SMPL	15	1120F053	OTIN1	K1810725-001 DMS 10X dil
51	CCV	2	1120F054	OTIN1	OT5-010K @ 50 PPB all L, tri/di/mono V
52	IB	3	1120F055	OTIN1	IB

Last Modified: Tue Nov 20 18:49:10 2018 Page: 2

Sequence Name: C:\GC26\SEQUENCE\120418B.S
Comment: Butyltins by Krone
Operator: SAA
Data Path: C:\GC26\DATA\120418B\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SOLN	100	1204F001	OTIN1	PRIMER
2	SOLN	100	1204F002	OTIN1	PRIMER
3	CCV	1	1204F003	OTIN1	OT5-011B 50 PPB
4	IB	3	1204F004	OTIN1	IB
5	SMPL	4	1204F005	OTIN1	KQ1809861-045 LOQ 625 UL
6	CCV	1	1204F014	OTIN1	OT5-011B @ 50 PPB ok,ok
7	IB	3	1204F015	OTIN1	IB
8	SMPL	13	1204F016	OTIN1	K1810458-003 @ 10X
9	SMPL	14	1204F017	OTIN1	K1810302-027 @ 10X
10	SMPL	15	1204F018	OTIN1	K1810302-029 @ 10X
11	CCV	2	1204F019	OTIN1	OT5-011B @ 50 PPB ok,ok
12	IB	3	1204F020	OTIN1	IB
13	SMPL	16	1204F021	OTIN1	K1810491-005 QC-1
14	SMPL	17	1204F022	OTIN1	K1810491-005 QC-2
15	SMPL	18	1204F023	OTIN1	K1810491-005 QC-4
16	SMPL	19	1204F024	OTIN1	K1810491-001
17	SMPL	20	1204F025	OTIN1	K1810491-002
18	SMPL	21	1204F026	OTIN1	K1810491-003
19	SMPL	22	1204F027	OTIN1	K1810491-004
20	CCV	2	1204F028	OTIN1	OT5-011B @ 50 PPB ok,ok
21	IB	3	1204F029	OTIN1	IB

Run: 617518
CAL: KC1800436

Last Modified: Tue Dec 04 17:49:35 2018 Page: 1

DILUTION LOG

LAB ID.	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	DATE	By:	Solvent Lot #	COMMENTS / **Ext. Date**
K1810458-3	100 ul	1mL	10X	12/04/18	SA	196293	
K1810302-27	"	"	"	"	"		
K1810302-29	"	"	"	"	"		

QUALITY TRACKING FORM

Ext. Date: _____

DOD? : YES ☐

WORK ORDER #: K1810491 EXTRACT LOCATION: _____

TEST: Tins DATE REQUESTED: _____

SAMPLE #: All DATE DESIRED: _____

MATRIX: _____ REQUESTED BY: _____

QUALITY DEFICIENCY: (DOES PC NEED TO BE NOTIFIED? YES ☐ NO ☐)
Notified on/ by: _____

cloudy, dark samples

CORRECTIVE ACTION NEEDED:

Please put all trough tins cleanups

For Copper Clean-ups--Date Copper Cleaned: _____
ANALYST: CWilliams
DATE COMPLETED: 12/4/18

REASON FOR QTF/OUTCOME: (copy to prep lab 'Work Order' box)

- ☐ Reext/Prep. Technique (A)
- ☐ Reext/Matrix (B)
- ☐ Reext/GPC Loss (C)
- ☐ Reext/ASE (D)
- ☐ Clean-up Needed (E)
- ☐ HT Missed (Primary) (F)
- ☐ HT Missed Upon Reext. (G)
- ☐ Other (H)_____
- ☐ NCAR Filed (I)
- ☐ HT Missed (Received Past HT) (J)
- ☐ HT Missed (Analytical) (K)

Additional Prep Information for Method
Organotins in Soil

Service Request # K1810491 **Work Group #** —

Weighed (time/date/initial): _____ Balance ID: *K-Bal-*_____ Calibration Verified ☐

Storage Location (if not extracted same day): _____

DCM Lot # — Sulfate Lot # — Glass Wool Lot # —

0.1% Tropolone in DCM # — Hydrochloric Acid Lot # —

Tumbler Start (time/date/initial): —

Tumbler Stop (time/date/initial): —

Solvent Exchange to Hexane (time/date/initial): 15:10 12/3/18 CW Hexane Lot# 195734

S-Evap (time/date/initial): — S-Evap Thermometer ID: —

Temp as measured: — °C Correction factor: — °C Adjusted temp: — °C

N-Evap (time/date/initial): 15:10 12/3/18 CW N-Evap Thermometer ID: SUM-001

Water Wash (time/date/initial): —

N-Evap (time/date/initial): — N-Evap Thermometer ID: —

Derivatization Start (time/date/initial): 16:10 12/3/18 CW Grignard Lot # 500tin01 74L

Derivatization Stop (time/date/initial): 10:00 12/4/18 CW

N-Evap (time/date/initial): 10:15 12/4/18 CW N-Evap Thermometer ID: X-SUM-004

Pipette (2 mL) Lot # —

DMD Clean-up (time/date/initial): 12:55 12/4/18 CW DMD Lot # DMD 28 AA

N-Evap (time/date/initial): 13:07 12/4/18 CW N-Evap Thermometer ID: X-SUM-004

Alumina/Silica Gel Clean-up (3610/3630)(time/date/initial): 14:40 12/4/18 CW

Alumina Lot # 3313-0034 Silica Gel Lot # 500tin01946 Pentane Lot # 58087

N-Evap (time/date/initial): 14:50 12/4/18 CW N-Evap Thermometer ID: X-SUM-004

Pipette (1/2 mL) Lot # 3 0408617

Vial: Blue Vial Storage: _____

Archive Storage: _____

Bench Sheet Review Check List
☐ Hold times met (if no, reason: _____)
☐ Prep date, time, method, department, product code correct in stealth
☐ Spike information and Q.C. correct (insufficient volume or mass recorded if no Q.C.)
☐ 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 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

Sequence Name: C:\GC26\SEQUENCE\[illegible]
Comment: Butyltins by Krone
Operator: SMURRAY
Data Path: C:\GC26\DATA\120118\
Pre-Seq Cmd:
Post-Seq Cmd:

CAL: KC1800MB6
RUN: 617 147 615183 ff

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SOLN	100	1201F001	OTIN1	PRIMER
2	SOLN	100	1201F002	OTIN1	PRIMER
3	CCV	1	1201F003	OTIN1	OT5-011B 50 PPB Surr ↓, OK
4	IB	2	1201F004	OTIN1	IB
5	SMPL	3	1201F005	OTIN1	K1810320-001 -NR CCV
6	SMPL	4	1201F006	OTIN1	K1810320-002 TBT only
7	SMPL	5	1201F007	OTIN1	K1810320-003
8	SMPL	6	1201F008	OTIN1	K1810320-004 -NR CCV
9	MS	7	1201F009	OTIN1	K1810320-002MS
10	DMS	8	1201F010	OTIN1	K1810320-002DMS
11	LCS	9	1201F011	OTIN1	KQ1815368-03 LCS
12	MB	10	1201F012	OTIN1	KQ1815368-04 MB
13	CCV	1	1201F013	OTIN1	OT5-011B 50 PPB - OK, TBT ↓
14	IB	2	1201F014	OTIN1	IB
15	SMPL	11	1201F015	OTIN1	K1810270-001 - NR CCV
16	SMPL	12	1201F016	OTIN1	K1810946-001
17	SMPL	13	1201F017	OTIN1	K1810946-002
18	SMPL	14	1201F018	OTIN1	K1810565-001RE -NR CCV - report original
19	SMPL	15	1201F019	OTIN1	K1810302-016 - frozen
20	MS	16	1201F020	OTIN1	K1810270-001MS
21	DMS	17	1201F021	OTIN1	K1810270-001DMS
22	LCS	18	1201F022	OTIN1	KQ1816241-03 LCS
23	MB	19	1201F023	OTIN1	KQ1816241-04 MB
24	CCV	34	1201F024	OTIN1	OT5-011B 50 PPB ok, OK
25	IB	35	1201F025	OTIN1	IB
26	SMPL	20	1201F026	OTIN1	K1810565-001 - original
27	SMPL	21	1201F027	OTIN1	K1810565-002
28	MS	22	1201F028	OTIN1	K1810565-001MS
29	DMS	23	1201F029	OTIN1	K1810565-001DMS
30	LCS	24	1201F030	OTIN1	KQ1815898-03 LCS
31	MB	25	1201F031	OTIN1	KQ1815898-04 MB
32	SMPL	26	1201F032	OTIN1	K1810683-001
33	SMPL	27	1201F033	OTIN1	K1810683-002
34	SMPL	28	1201F034	OTIN1	K1810683-003
35	SMPL	29	1201F035	OTIN1	K1810683-004
36	MS	30	1201F036	OTIN1	K1810683-002MS
37	DMS	31	1201F037	OTIN1	K1810683-002DMS
38	LCS	32	1201F038	OTIN1	KQ1816028-03 LCS
39	MB	33	1201F039	OTIN1	KQ1816028-04 MB
40	CCV	34	1201F040	OTIN1	OT5-011B 50 PPB Surr ↓, OK
41	IB	35	1201F041	OTIN1	IB

Last Modified: Sat Dec 01 10:44:17 2018 Page: 1

Comment: Butyltins by Krone
Operator: SMURRAY
Data Path: C:\GC26\DATA\120218\
Pre-Seq Cmd:
Post-Seq Cmd:

GC: KC1800C136
RUN: 617148

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	SOLN	100	1202F001	OTIN1	PRIMER
2	SOLN	100	1202F002	OTIN1	PRIMER
3	CCV	34	1202F003	OTIN1	OT5-011B 50 PPB ok, ok
4	IB	35	1202F004	OTIN1	IB
5	SMPL	3	1202F005	OTIN1	K1810320-001
6	SMPL	6	1202F006	OTIN1	K1810320-004
7	SMPL	11	1202F007	OTIN1	K1810270-001
8	SMPL	14	1202F008	OTIN1	K1810565-001RE NR, Report original
9	CCV	34	1202F009	OTIN1	OT5-011B 50 PPB ok, ok
10	IB	35	1202F010	OTIN1	IB
11					

Last Modified: Sun Dec 02 10:27:56 2018 Page: 1

Organochlorine Pesticides

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

REVISED
12:50 pm, Apr 17, 2019

Preparation Information Benchsheet

4

Prep Run#: 325840
Team: Semivoa GCMS/KPRESCOTT
Number of Copies to make: 3

Prep WorkFlow: OrgExtS(14)
Prep Method: EPA 3541

Status: Prepped
Prep Date/Time: 11/7/18 11:10 AM

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1810270-001	N3-0to26-101518	.02	ALS SOP/OC_Pest		Sediment	20.166g	1.00mL	APOSEY K-BALANCE-48 11062018 / Samples
2	K1810302-016	A1-0to30-102018	.02	ALS SOP/OC_Pest		Sediment	20.021g	1.00mL	APOSEY K-BALANCE-48 11062018 / Samples
3	K1810644-019	Pesticides	.01	ALS SOP/OC_Pest		Soil	~~0.0000g~~ 0.532g	1.00mL	
4	KQ1816244-05	K1810644-019 DUP	.01	ALS SOP/OC_Pest		Solid	~~0.0000g~~ 1.043g	1.00mL	
5	KQ1816244-01	K1810302-016 MS	.02	ALS SOP/OC_Pest		Solid	20.054g	1.00mL	APOSEY K-BALANCE-48 11062018
6	KQ1816244-02	K1810302-016 DMS	.02	ALS SOP/OC_Pest		Solid	20.057g	1.00mL	APOSEY K-BALANCE-48 11062018
7	KQ1816244-03	LCS		ALS SOP/OC_Pest		Solid	10g	1.00mL	
8	KQ1816244-04	MB		ALS SOP/OC_Pest		Solid	20.1660g	1.00mL	

Spiking Solutions

Name: Pesticide/OC_Pest Surrogate Inventory ID 193176 Logbook Ref: SVM59-85A Expires On: 04/03/2019

K1810270-001 50.00µL K1810302-016 50.00µL K1810644-019 50.00µL KQ1816244-01 50.00µL KQ1816244-02 50.00µL KQ1816244-03 50.00µL
KQ1816244-04 50.00µL KQ1816244-05 50.00µL

Name: Pesticide/OC_Pest Spike Inventory ID 194507 Logbook Ref: SVM59-78F Expires On: 02/28/2019

K1810270-001 50.00µL KQ1816244-01 50.00µL KQ1816244-02 50.00µL KQ1816244-03 50.00µL

Preparation Steps

Step:	Weigh	Step:	Extraction	Step:	Final Volume
Started:	11/7/18 11:10	Started:	11/7/18 11:10	Started:	11/13/18 16:18
Finished:	11/7/18 19:05	Finished:	11/7/18 19:05	Finished:	11/13/18 16:18
By:	~~KPRESCOTT~~	By:	KPRESCOTT	By:	TPOTTSCHMIDT
Comments	APOSEY 8w 11/15/18	Comments		Comments	

Comments: IS = SVM59-45C 1542

Reviewed By: _____ Date: 11/15/18

Chain of Custody

Relinquished By: TP Date: 11/13/18

Received By: eb Date: 11-26-18

~~Extracts Examined~~ Yes No

Preparation Information Benchsheet

Prep Run#: 325840
Team: Semivoa GCMS/KPRESCOTT
Number of Copies to make: 3

Prep WorkFlow: OrgExtS(14)
Prep Method: EPA 3541

Status: Draft
Prep Date/Time: 11/7/18 07:40 AM

#	Lab Code	Client ID		B#	√	Method /Test	Matrix	Amt. Ext. g	pH	Int. Vol mL	Final Vol mL	Surr Amt µL	Spike Amt µL
1	**K1810270-001**	N3-0to26-101518	9A	.02	✓	ALS SOP / OC_Pest	Sediment	20.166	N/A	10	1	100	–
2	**K1810302-016**	A1-0to30-102018	9B	.02	✓	ALS SOP / OC_Pest	Sediment	20.021		10	1		–
3	**K1810644-019**	Pesticides	7D	.01	✓	ALS SOP / OC_Pest	Soil	0.532		10	1		–
4	**KQ1816244-05**	K1810644-019 DUP	7E	.01	✓	ALS SOP / OC_Pest	Solid	1.043		10	1		–
5	**KQ1816244-01**	K1810302-016 MS	9C	.02	✓	ALS SOP / OC_Pest	Solid	20.054		10	1		100
6	**KQ1816244-02**	K1810302-016 DMS	9D	.02	✓	ALS SOP / OC_Pest	Solid	20.057		10	1		
7	**KQ1816244-03**	LCS	9E	–	–	ALS SOP / OC_Pest	Solid	10.000		10	1		
8	**KQ1816244-04**	MB	9F	–	–	ALS SOP / OC_Pest	Solid	20.166		10	1		–

Comments:

Surrogate ID: SVM459-85A 0.5/2.0ug/mL XP:04/03/19 100uL spp-2B

Spike ID: SVM459-78F 200ng/mL XP:02/28/19 100uL spp-2B

Witnessed By: 11/7/18

Analyst: Kat Rae Prescott

Assisted By: KV

Preparation Information Benchsheet

Prep Run#: 313977
Team: Semivoa GCMS/KPRESCOTT
Number of Copies to make: 1

Prep WorkFlow: OrgExtS(14)
Prep Method: EPA 3541

Status: Prepped
Prep Date/Time: 5/16/18 ~~10:21 AM~~ 05:10P.M (PSTM)

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1803855-019	Pesticides	.02	ALS SOP/OC_Pest		Soil	0.5440g	1.00mL	
2	KQ1806425-01	K1803855-019 DUP	.02	ALS SOP/OC_Pest		Solid	1.0260g	1.00mL	
3	KQ1806425-02	LCS		ALS SOP/OC_Pest		Solid	10g	1.00mL	
4	KQ1806425-03	DLCS		ALS SOP/OC_Pest		Solid	10g	1.00mL	
5	KQ1806425-04	MB		ALS SOP/OC_Pest		Solid	10g	1.00mL	

Spiking Solutions

Name: Pesticide/OC_Pest Spike Inventory ID 189497 Logbook Ref: SVM58-73D Expires On: 08/31/2018

KQ1806425-02 100.00µL KQ1806425-03 100.00µL

Name: Pesticide/OC_Pest Surrogate Inventory ID 190026 Logbook Ref: SVM58-84B Expires On: 11/07/2018

K1803855-019 100.00µL KQ1806425-01 100.00µL KQ1806425-02 100.00µL KQ1806425-03 100.00µL KQ1806425-04 100.00µL

Preparation Steps

Step:	Weigh	Step:	Extraction	Step:	Final Volume
Started:	5/16/18 10:21	Started:	5/17/18 07:55	Started:	5/24/18 18:04
Finished:	5/16/18 13:56	Finished:	5/17/18 07:55	Finished:	5/24/18 18:04
By:	KPRESCOTT	By:	KPRESCOTT	By:	SANDREWS
Comments		Comments		Comments	

Comments: _____

Reviewed By: [signature] Date: 5-25-18

Chain of Custody

Relinquished By: [signature] Date: 05/24/18

Received By: _____ Date: _____

Extracts Examined
Yes No

Pre-Prep Information Benchsheet

Prep Run #: 325840 **Prep Method:** **Team:** **Container Lot No:** 100118-1tw **Prep Due Date:**

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810270-001	.02	OC_Pest	20.166g	Samples Previously Frozen . Pulled 11/05/2018. Jar cracked/broken loss of water. Limited sample v	PrepComments:APOSEY K-BALANCE-48 11062018
2	K1810302-016	.02	OC_Pest	20.021g	Samples Previously Frozen . Pulled 11/05/2018. Jar cracked/broken. Limited sample volume	PrepComments:APOSEY K-BALANCE-48 11062018
3	K1810302-016 MS KQ1816244-01	.02	OC_Pest	20.054g		PrepComments:APOSEY K-BALANCE-48 11062018
4	K1810302-016 DMS KQ1816244-02	.02	OC_Pest	20.057g		PrepComments:APOSEY K-BALANCE-48 11062018

Relinquished By: APy	Date/Time: 11-6-18 16:28	Received By: KRP	Date/Time: 11/07/18

GPC RUNLOG

Run Date: 11/8/2018 **Calibration Date:** 11/7/2018

GPC #: 5 **Program Number:** BNA & PEST

Lab I.D.	Position	Test	Dilution	Comments
BLANK	1	PEST	NA	N/A
BLANK	2	PEST	NA	N/A
KQ1816244-04 MB	3	PEST	NA	N/A
KQ1816244-03 LCS	4	PEST	NA	N/A
K1810270-01	5	PEST	NA	N/A
K1810302-16	6	PEST	NA	N/A
K1810644-19	7	PEST	NA	N/A
K1810644-19 DUP	8	PEST	NA	N/A
K1810302-16 MS	9	PEST	NA	N/A
K1810302-16 DMS	10	PEST	NA	N/A
BLANK	11	PEST	NA	N/A
BLANK	12	PEST	NA	N/A
KQ1815728-04 MB	13	PEST	NA	N/A
KQ1815728-03 LCS	14	PEST	NA	N/A
K1810417-22	15	PEST	NA	N/A
K1810417-23	16	PEST	NA	N/A
K1810417-24	17	PEST	NA	N/A
K1810417-25	18	PEST	NA	N/A
K1810417-26	19	PEST	NA	N/A
K1810417-23 MS	20	PEST	NA	N/A
K1810417-23 DMS	21	PEST	NA	N/A
BLANK	22	8270	NA	N/A
BLANK	23	8270	NA	N/A
KQ1816005-04 MB	24	8270	NA	N/A
KQ1816005-03 LCS	25	8270	NA	N/A
K1810426-01	26	8270	NA	N/A
K1810548-01	27	8270	NA	N/A
K1810548-02	28	8270	NA	N/A
K1810669-01	29	8270	NA	N/A
K1810669-02	30	8270	NA	N/A
K1810669-02 MS	31	8270	NA	N/A
K1810669-02 DMS	32	8270	NA	N/A
KQ1816005-05 SRM	33	8270	NA	N/A

Final Volume Calculation

Intermediate Volume before GPC: 10 mL

Aliquot taken from intermediate volume:	**10**	mL
Aliquot diluted up to....	**10**	mL
Volume Injected onto column:	**5**	mL
GPC'd Extract brought to the Final Volume of:	**0.5**	mL
Calculated True Final Volume:	**1**	mL

Filter Lot # FC8051

Operator Date and Initial: TP 11/8/18

Additional Prep Information for EPA 3541
OC Pesticides by GCMS

Service Request K1810270/K1810302/0644 **Workgroup** KQ1816244

Sulfate Lot # 18E085209 DCM (GC^2) Lot # DU301 Glass Wool Lot # 21317999

Date/Time/Initials Weighed: — Balance ID: — Calibration Verified —

Storage Location (if not extracted same day): —

Soxtherm/s unit I.D# K-SOX-09/07

Soxtherm Start (Time/Date/Initial): 1110 11/7/18 KP

Soxtherm Stop (Time/Date/Initial): 1905 11/7/18 KV

N-Evap (Time/Date/Initial): 07:47 11/8/18 TP N-Evap Therm. ID: X-SVM-010

Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

GPC Clean-up (3640): Start 14:09 11/8/18 TP (Time/Date/Initial)

S-Evap (Time/Date/Initial): 0902 11/12/18 BG S-Evap Therm. ID: DWB-46

Temp as measured: 74 °C Correction factor: 0.0 °C Adjusted temp: 74.0 °C

Hexane Exchange for Carbon (Time/Date/Initial): 0912 11/12/18 BG

Hexane Lot # 196293

N-Evap (Time/Date/Initial): 10:23 11/12/18 TP N-Evap Therm. ID: X-SVM-010

Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Carbon Clean-up (Time/Date/Initial): 1435 11/12/18 BG

Carbon Column Lot # 10384005 4:1 Hexane/DCM Lot # EX1002-324

N-Evap (Time/Date/Initial): 10:19 11/13/18 TP ~~N-Evap~~ turbovap Therm. ID: K-Turbovap-005

Temp as measured: 27.0 °C Correction factor: 0.0 °C Adjusted temp: 27.0 °C

Pipet Lots: Intermediate Volume 149/8647 Final Volume 30408617

Extract Storage: J.T.T

Completed (Time/Date/Initial): 11:40 11/13/18 TP

Comments/Observations: —

Bench Sheet Review Check List	
☑	Hold Times Met (if no, Reason: Prev Frozen)
☑	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

Preparation Information Benchsheet

Prep Run#: 324902
Team: Semivoa GCMS/KPRESCOTT
Number of Copies to make: 1

Prep WorkFlow: OrgExtS(14)
Prep Method: EPA 3541

Status: Prepped
Prep Date/Time: 10/31/18 12:14 PM

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1810302-001	K6-0to28-101918	.01	ALS SOP/OC_Pest		Sediment	20.364g	1.00mL	APOSEY K-BALANCE-48 10232018
2	K1810302-002	O4-0to28-101918	.01	ALS SOP/OC_Pest		Sediment	20.061g	1.00mL	APOSEY K-BALANCE-48 10242018
3	K1810302-003	M5-0to25-101918	.01	ALS SOP/OC_Pest		Sediment	20.214g	1.00mL	APOSEY K-BALANCE-48 10242018
4	K1810302-004	K4-0to28-101918	.01	ALS SOP/OC_Pest		Sediment	20.337g	1.00mL	APOSEY K-BALANCE-48 10242018
5	K1810302-005	O7-0to27-101918	.01	ALS SOP/OC_Pest		Sediment	20.038g	1.00mL	GBEATLEY k-balance-49
6	K1810302-006	O5-0to27-101918	.01	ALS SOP/OC_Pest		Sediment	20.120g	1.00mL	GBEATLEY k-balance-49
7	K1810302-007	K7-0to24-101918	.01	ALS SOP/OC_Pest		Sediment	20.074g	1.00mL	GBEATLEY k-balance-49
8	K1810302-008	M6-0to26-101918	.01	ALS SOP/OC_Pest		Sediment	20.026g	1.00mL	GBEATLEY k-balance-49
9	K1810302-009	M7-0to29-101918	.01	ALS SOP/OC_Pest		Sediment	20.111g	1.00mL	GBEATLEY k-balance-49
10	K1810302-010	K5-0to27-101918	.01	ALS SOP/OC_Pest		Sediment	20.115g	1.00mL	GBEATLEY k-balance-49
11	K1810302-011	515-0to26-101918	.01	ALS SOP/OC_Pest		Sediment	20.212g	1.00mL	GBEATLEY k-balance-49
12	K1810302-012	O6-0to27-101918	.01	ALS SOP/OC_Pest		Sediment	20.140g	1.00mL	GBEATLEY k-balance-49
13	K1810302-013	M4-0to26-101918	.01	ALS SOP/OC_Pest		Sediment	20.245g	1.00mL	GBEATLEY k-balance-49
14	K1810302-022	D6-SC-64to88-102118	.01	ALS SOP/OC_Pest		Sediment	20.271g	1.00mL	GBEATLEY k-balance-49
15	K1810302-023	D6-SC-40to64-102118	.01	ALS SOP/OC_Pest		Sediment	20.061g	1.00mL	GBEATLEY k-balance-49
16	K1810302-024	H3-SC-99to114-102118	.01	ALS SOP/OC_Pest		Sediment	20.101g	1.00mL	GBEATLEY k-balance-49
17	K1810302-026	H3-SC-46to63-102118	.01	ALS SOP/OC_Pest		Sediment	20.219g	1.00mL	GBEATLEY k-balance-49
18	K1810302-027	D6-SC-0to1-102118	.01	ALS SOP/OC_Pest		Sediment	20.197g	1.00mL	GBEATLEY k-balance-49
19	K1810302-028	H3-SC-1to2-102118	.01	ALS SOP/OC_Pest		Sediment	20.001g	1.00mL	GBEATLEY k-balance-49
20	K1810302-029	D6-SC-1to2-102118	.01	ALS SOP/OC_Pest		Sediment	20.181g	1.00mL	GBEATLEY k-balance-49
21	KQ1815430-01	K1810302-023 MS	.01	ALS SOP/OC_Pest		Solid	20.212g	1.00mL	GBEATLEY k-balance-49
22	KQ1815430-02	K1810302-023 DMS	.01	ALS SOP/OC_Pest		Solid	20.361g	1.00mL	GBEATLEY k-balance-49
23	KQ1815430-03	LCS		ALS SOP/OC_Pest		Solid	10g	1.00mL	
24	KQ1815430-04	MB		ALS SOP/OC_Pest		Solid	20.3640g	1.00mL	

Spiking Solutions

Name: Pesticide/OC_Pest Surrogate Inventory ID 193176 Logbook Ref: SVM59-85A Expires On: 04/03/2019

K1810302-001	100.00µL	K1810302-002	100.00µL	K1810302-003	100.00µL	K1810302-004	100.00µL	K1810302-005	100.00µL	K1810302-006	100.00µL
K1810302-007	100.00µL	K1810302-008	100.00µL	K1810302-009	100.00µL	K1810302-010	100.00µL	K1810302-011	100.00µL	K1810302-012	100.00µL
K1810302-013	100.00µL	K1810302-022	100.00µL	K1810302-023	100.00µL	K1810302-024	100.00µL	K1810302-026	100.00µL	K1810302-027	100.00µL
K1810302-028	100.00µL	K1810302-029	100.00µL	KQ1815430-01	100.00µL	KQ1815430-02	100.00µL	KQ1815430-03	100.00µL	KQ1815430-04	100.00µL

Name: Pesticide/OC_Pest Spike Inventory ID 194507 Logbook Ref: SVM59-78F Expires On: 02/28/2019

Preparation Information Benchsheet

Prep Run#: 324902
Team: Semivoa GCMS/KPRESCOTT
KQ1815430-01 100.00µL KQ1815430-02 100.00µL KQ1815430-03 100.00µL

Prep WorkFlow: OrgExtS(14)
Prep Method: EPA 3541

Status: Prepped
Prep Date/Time: 10/31/18 12:14 PM

Preparation Steps

Step:	Weigh	Step:	Extraction	Step:	Final Volume
Started:	10/31/18 12:14	Started:	10/31/18 12:14	Started:	11/7/18 16:17
Finished:	11/1/18 07:15	Finished:	11/1/18 07:15	Finished:	11/7/18 16:17
By:	~~KPRESCOTT~~	By:	KPRESCOTT	By:	TPOTTSCHMIDT
Comments	GBEATLEY SW 11/9/18	Comments		Comments	

Comments: IS = SVM59-45C MS 42

Reviewed By: _____ Date: 11/9/18

Chain of Custody

Relinquished By: TP Date: 11/7/18

Received By: _____ Date: 12 11-16-18 EE 11-16-18 eb

Extracts Examined: (Yes) No

Preparation Information Benchsheet

Prep Run#: 324902
Team: Semivoa GCMS/KPRESCOTT
Number of Copies to make: 1

Prep WorkFlow: OrgExtS(14)
Prep Method: EPA 3541

Status: Draft
Prep Date/Time: 10/31/18 08:30 AM

#	Lab Code	Client ID		B#	√	Method /Test	Matrix	Amt. Ext. g	pH	Int. Vol mL	Final Vol mL	Surr Amt µL	Spike Amt µL
1	~~K1810302-001~~	~~K6-0to28-101918~~	~~QC~~	~~.01~~	~~✓~~	~~ALS SOP / OC_Pest~~	~~Sediment~~	*	N/A			100	-
2	~~K1810302-002~~	~~O4-0to28-101918~~	~~QD~~	~~.01~~	~~✓~~	~~ALS SOP / OC_Pest~~	~~Sediment~~	*					-
3	~~K1810302-003~~	~~M5-0to25-101918~~	~~QE~~	~~.01~~	~~✓~~	~~ALS SOP / OC_Pest~~	~~Sediment~~	*					-
4	~~K1810302-004~~	~~K4-0to28-101918~~	~~QF~~	~~.01~~	~~✓~~	~~ALS SOP / OC_Pest~~	~~Sediment~~	*					-
5	~~K1810302-005~~	~~O7-0to27-101918~~	~~FB~~	~~.01~~	~~✓~~	~~ALS SOP / OC_Pest~~	~~Sediment~~	*					-
6	~~K1810302-006~~	~~O5-0to27-101918~~	~~FC~~	~~.01~~	~~✓~~	~~ALS SOP / OC_Pest~~	~~Sediment~~	*					-
7	~~K1810302-007~~	~~K7-0to24-101918~~	~~FD~~	~~.01~~	~~✓~~	~~ALS SOP / OC_Pest~~	~~Sediment~~	*					-
8	~~K1810302-008~~	~~M6-0to26-101918~~	~~FE~~	~~.01~~	~~✓~~	~~ALS SOP / OC_Pest~~	~~Sediment~~	*					-
9	~~K1810302-009~~	~~M7-0to29-101918~~	~~FF~~	~~.01~~	~~✓~~	~~ALS SOP / OC_Pest~~	~~Sediment~~	*					-
10	~~K1810302-010~~	~~K5-0to27-101918~~	~~8A~~	~~.01~~	~~✓~~	~~ALS SOP / OC_Pest~~	~~Sediment~~	*					-
11	~~K1810302-011~~	~~515-0to26-101918~~	~~8B~~	~~.01~~	~~✓~~	~~ALS SOP / OC_Pest~~	~~Sediment~~	*					-
12	~~K1810302-012~~	~~O6-0to27-101918~~	~~8C~~	~~.01~~	~~✓~~	~~ALS SOP / OC_Pest~~	~~Sediment~~	*					-
13	~~K1810302-013~~	~~M4-0to26-101918~~	~~8E~~	~~.01~~	~~✓~~	~~ALS SOP / OC_Pest~~	~~Sediment~~	*					-
14	K1810302-022	D6-SC-64to88-102118	8F	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1	100	-
15	K1810302-023	D6-SC-40to64-102118	1A	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
16	K1810302-024	H3-SC-99to114-102118	1B	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
17	K1810302-026	H3-SC-46to63-102118	1C	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
18	K1810302-027	D6-SC-0to1-102118	1D	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
19	K1810302-028	H3-SC-1to2-102118	1E	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
20	K1810302-029	D6-SC-1to2-102118	1F	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
21	KQ1815430-01	K1810302-023 MS	2A	.01	✓	ALS SOP / OC_Pest	Solid	*		10	1		100
22	KQ1815430-02	K1810302-023 DMS	2B	.01	✓	ALS SOP / OC_Pest	Solid	*		10	1		100
23	KQ1815430-03	LCS	2C	-	-	ALS SOP / OC_Pest	Solid	10.000		10	1		-
24	KQ1815430-04	MB	2D	-	-	ALS SOP / OC_Pest	Solid	20.364		10	1		-

Comments: *See Pre-Prep Information Benchsheet. KRP 10/31/18.
*Canceled per PM TP 11/2/18

Surrogate ID: SVM959-78E 50/200 ng/mL XP: 04/03/19 100 µL spp 2B

Spike ID: SVM959-78F 200 ng/mL XP: 02/28/19 100 µL spp 2B

Witnessed By: 10/31/18

Analyst: Kai Rae Prescott

Assisted By: KV

GPC RUNLOG

Run Date: 11/2/2018 **Calibration Date:** 10/30/2018

GPC #: 5 **Program Number:** PEST

Lab I.D.	Position	Test	Dilution	Comments
BLANK	1	PEST	NA	N/A
BLANK	2	PEST	NA	N/A
KQ1815510-4 MB	3	PEST	NA	N/A
KQ1815510-3 LCS	4	PEST	NA	N/A
K1810302-25	5	PEST	NA	N/A
K1810305-01	6	PEST	NA	N/A
K1810305-02	7	PEST	NA	N/A
K1810305-03	8	PEST	NA	N/A
K1810305-04	9	PEST	NA	N/A
K1810305-05	10	PEST	NA	N/A
K1810305-06	11	PEST	NA	N/A
K1810305-07	12	PEST	NA	N/A
K1810305-08	13	PEST	NA	N/A
K1810305-09	14	PEST	NA	N/A
K1810305-10	15	PEST	NA	N/A
K1810305-11	16	PEST	NA	N/A
K1810305-12	17	PEST	NA	N/A
K1810305-13	18	PEST	NA	N/A
K1810305-14	19	PEST	NA	N/A
K1810305-15	20	PEST	NA	N/A
K1810305-16	21	PEST	NA	N/A
K1810305-03 MS	22	PEST	NA	N/A
K1810305-03 DMS	23	PEST	NA	N/A
BLANK	24	PEST	NA	N/A
BLANK	25	PEST	NA	N/A
KQ1815430-04 MB	26	PEST	NA	N/A
KQ1815430-03 LCS	27	PEST	NA	N/A
K1810302-22	28	PEST	NA	N/A
K1810302-23	29	PEST	NA	N/A
K1810302-24	30	PEST	NA	N/A
K1810302-26	31	PEST	NA	N/A
K1810302-27	32	PEST	NA	N/A
K1810302-28	33	PEST	NA	N/A
K1810302-29	34	PEST	NA	N/A
K1810302-23 MS	35	PEST	NA	N/A
K1810302-23 DMS	36	PEST	NA	N/A

Final Volume Calculation

Intermediate Volume before GPC:	**10**	mL
Aliquot taken from intermediate volume:	**10**	mL
Aliquot diluted up to....	**10**	mL
Volume Injected onto column:	**5**	mL
GPC'd Extract brought to the Final Volume of:	**0.5**	mL
Calculated True Final Volume:	**1**	mL

Filter Lot # FC8051

Operator Date and Initial: TP 11/2/18

Additional Prep Information for EPA 3541
OC Pesticides by GCMS

Service Request K1810302 **Workgroup** KQ1815430

Sulfate Lot # 178434 DCM (GC^2) Lot # DU301 Glass Wool Lot # 21317999

Date/Time/Initials Weighed: — Balance ID: — Calibration Verified —

Storage Location (if not extracted same day): —

Soxtherm/s unit I.D# K-SOX-07/08/09/01/02

Soxtherm Start (Time/Date/Initial): 1214 10/31/18 ~~TP~~ ZKP

Soxtherm Stop (Time/Date/Initial): 0715 11/01/18 ZKP

N-Evap (Time/Date/Initial): 07:59 11/2/18 BG N-Evap Therm. ID: K-SVM-010

Temp as measured: 20 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

GPC Clean-up (3640): Start 10:02 11/2/18 TP (Time/Date/Initial)

S-Evap (Time/Date/Initial): 13:20 11/5/18 BG S-Evap Therm. ID: DWB 46

Temp as measured: 75 °C Correction factor: 0.0 °C Adjusted temp: 75.0 °C

Hexane Exchange for Carbon (Time/Date/Initial): 13:31 11/5/18 BG

Hexane Lot # 192699

N-Evap (Time/Date/Initial): ~~13:42 11/5/18 TP~~ 09:43 11/6/18 TP ① N-Evap Therm. ID: ~~DWB-46~~ K-SVM-010 ①

Temp as measured: ~~74.0~~ ① 20.0 °C Correction factor: ~~0.0~~ ① 0.0 °C Adjusted temp: ~~74.0~~ ① 20.0 °C

Carbon Clean-up (Time/Date/Initial): 11:50 11/6/18 BG

Carbon Column Lot # 10384005 1:1 Hexane/DCM Lot # EXT002-32X

turbovap ~~N-Evap~~ (Time/Date/Initial): 08:21 11/7/18 TP turbovap ~~N-Evap~~ Therm. ID: K-Turbovap-005

Temp as measured: 29.0 °C Correction factor: 0.0 °C Adjusted temp: 29.0 °C

Pipet Lots: Intermediate Volume 14918647 Final Volume 30408617

Extract Storage: Fozzie Bear

Completed (Time/Date/Initial): 10:57 11/7/18 TP/BG

Comments/Observations: ① EE TP 11/5/18

Bench Sheet Review Check List	
☑	Hold Times Met (if no, Reason:)
☑	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

Service Request Summary

29 - 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved

Folder #: K1810302
Client Name: Pacific Groundwater Group (PGG)
Project Name: DTNA Swan Island Lagoon Sediment
Project Number: 2006-00115
P.O. Number:

Report To: Janet Knox
Pacific Groundwater Group
2377 Eastlake Ave., East
Suite 200
Seattle, WA 98102
Phone Number: 206-329-0141 Ext. 222
Cell Number:
Fax Number: (206) 329-6968
E-mail: janet@pgwg.com

Project Chemist: Howard Holmes
Logged By: CGRAVES
Date Received: 10/22/18
Time Received: 1045
Archive? Y, 6 Months, Y
Folder Due Date: 11/26/18
Internal Due Date: 11/19/18
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Report to MDL?: Y
Merged?: Y Batch QC?: N
PC Approved?: Y
State of Sampling Location: OR
EDD: Pacific Ground Water Group, EQL 5.0

Location: BOX 675 (K-Krypton Cart)

				SVG	SVM			SMO	Soils Prep
Lab Samp No.	**Client Samp No.**	**Matrix**	**Collected**	ALS SOP/ BUTYLTINS	8270D/ PAH SIM ULL	8270D/ SVO LL	ALS SOP/ OC_Pest	Archive/ Archive -20C	160.3 Modified/ TS
K1810302-001	K6-0to28-101918	Sediment	10/19/18 0926	IV	IV	IV	IV	IV	IV
K1810302-002	O4-0to28-101918	Sediment	10/19/18 1348	IV	IV	IV	IV	IV	IV
K1810302-003	M5-0to25-101918	Sediment	10/19/18 1155	IV	IV	IV	IV	IV	IV
K1810302-004	K4-0to28-101918	Sediment	10/19/18 0811	IV	IV	IV	IV	IV	IV
K1810302-005	O7-0to27-101918	Sediment	10/19/18 1536	IV	IV	IV	IV	IV	IV
K1810302-006	O5-0to27-101918	Sediment	10/19/18 1423	IV	IV	IV	IV	IV	IV
K1810302-007	K7-0to24-101918	Sediment	10/19/18 1008	IV	IV	IV	IV	IV	IV
K1810302-008	M6-0to26-101918	Sediment	10/19/18 1118	IV	IV	IV	IV	IV	IV
K1810302-009	M7-0to29-101918	Sediment	10/19/18 1048	IV	IV	IV	IV	IV	IV
K1810302-010	K5-0to27-101918	Sediment	10/19/18 0850	IV	IV	IV	IV	IV	IV
K1810302-011	515-0to26-101918	Sediment	10/19/18 1311	IV	IV	IV	IV	IV	IV
K1810302-012	O6-0to27-101918	Sediment	10/19/18 1457	IV	IV	IV	IV	IV	IV
K1810302-013	M4-0to26-101918	Sediment	10/19/18 1311	IV	IV	IV	IV	IV	IV
K1810302-014	I7-0to26-101918	Sediment	10/19/18 1612					IV	
K1810302-015	Q6-0to27-102018	Sediment	10/20/18 0919					IV	
K1810302-016	A1-0to30-102018	Sediment	10/20/18 1205					IV	
K1810302-017	S5-0to27-102018	Sediment	10/20/18 1023					IV	
K1810302-018	S4-0to28-102018	Sediment	10/20/18 1059					IV	
K1810302-019	Q5-0to29-102018	Sediment	10/20/18 0845					IV	
K1810302-020	Q4-0to27-102018	Sediment	10/20/18 0816					IV	

Service Request Summary

Folder #: **K1810302**
Client Name: Pacific Groundwater Group (PGG)
Project Name: DTNA Swan Island Lagoon Sediment
Project Number: 2006-00115
P.O. Number:

Report To: Janet Knox
Pacific Groundwater Group
2377 Eastlake Ave., East
Suite 200
Seattle, WA 98102
Phone Number: 206-329-0141 Ext. 222
Cell Number:
Fax Number: (206) 329-6968
E-mail: janet@pgwg.com

Project Chemist: Howard Holmes
Logged By: CGRAVES
Date Received: 10/22/18
Time Received: 1045
Archive? Y, 6 Months, Y
Folder Due Date: 11/26/18
Internal Due Date: 11/19/18
QAP: LAB QAP
Qualifier Set: Lab Standard
Formset: Lab Standard
Report to MDL?: Y
Merged?: Y Batch QC?: N
PC Approved?: Y
State of Sampling Location: OR
EDD: Pacific Ground Water Group, EQL 5.0

					SVG	SVM			SMO	Soils Prep
					ALS SOP/ BUTYLTINS	8270D/ PAH SIM ULL	8270D/ SVO LL	ALS SOP/ OC_Pest	Archive/ Archive -20C	160.3 Modified/ TS
K1810302-021	S6-0to25-102018	Sediment	10/20/18	0948					IV	
K1810302-022	D6-SC-64to88-102118	Sediment	10/21/18	1740	IV	IV	IV	IV	IV	IV
K1810302-023	D6-SC-40to64-102118	Sediment	10/21/18	1650	IV	IV	IV	IV	IV	IV
K1810302-024	H3-SC-99to114-102118	Sediment	10/21/18	1430	IV	IV	IV	IV	IV	IV
K1810302-025	D6-SC-88to108-102118	Sediment	10/21/18	1750	IV	IV	IV	IV	IV	IV
K1810302-026	H3-SC-46to63-102118	Sediment	10/21/18	1250	IV	IV	IV	IV	IV	IV
K1810302-027	D6-SC-0to1-102118	Sediment	10/21/18	1600	IV	IV	IV	IV	IV	IV
K1810302-028	H3-SC-1to2-102118	Sediment	10/21/18	1155	IV	IV	IV	IV	IV	IV
K1810302-029	D6-SC-1to2-102118	Sediment	10/21/18	1615	IV	IV	IV	IV	IV	IV

Test Comments:

Group	Test/Method	Samples	Comments
SMO	Archive -20C/Archive	1-29	Cores-$144/6 months Jars-$48/6 months
Semivoa GC	BUTYLTINS/ALS SOP	1-13, 22-29	TBT
Semivoa GCMS	OC_Pest/ALS SOP	1-13, 22-29	Portland Harbor list
Semivoa GCMS	SVO LL/8270D	1-13, 22-29	Bis(2-ethylhexyl)phthalate

Pre-Prep Information Benchsheet

Prep Run #: 324902 **Prep Method:** **Team:** **Container Lot No:** 071618-1TW **Prep Due Date:** Nov-09-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810302-001	.01	OC_Pest	20.364g		PrepComments:APOSEY K-BALANCE-48 10232018
2	K1810302-002	.01	OC_Pest	20.061g		PrepComments:APOSEY K-BALANCE-48 10242018
3	K1810302-003	.01	OC_Pest	20.214g		PrepComments:APOSEY K-BALANCE-48 10242018
4	K1810302-004	.01	OC_Pest	20.337g		PrepComments:APOSEY K-BALANCE-48 10242018
5	K1810302-005		OC_Pest	20.038g		PrepComments:GBEATLEY k-balance-49
6	K1810302-006		OC_Pest	20.120g		PrepComments:GBEATLEY k-balance-49
7	K1810302-007		OC_Pest	20.074g		PrepComments:GBEATLEY k-balance-49
8	K1810302-008		OC_Pest	20.026g		PrepComments:GBEATLEY k-balance-49
9	K1810302-009		OC_Pest	20.111g		PrepComments:GBEATLEY k-balance-49
10	K1810302-010		OC_Pest	20.115g		PrepComments:GBEATLEY k-balance-49
11	K1810302-011		OC_Pest	20.212g		PrepComments:GBEATLEY k-balance-49
12	K1810302-012		OC_Pest	20.140g		PrepComments:GBEATLEY k-balance-49
13	K1810302-013		OC_Pest	20.245g		PrepComments:GBEATLEY k-balance-49
14	K1810302-022	.01	OC_Pest	20.271g		PrepComments:GBEATLEY k-balance-49
15	K1810302-023		OC_Pest	20.061g		PrepComments:GBEATLEY k-balance-49
16	K1810302-023 MS KQ1815430-01		OC_Pest	20.212g		PrepComments:GBEATLEY k-balance-49
17	K1810302-023 DMS KQ1815430-02		OC_Pest	20.361g		PrepComments:GBEATLEY k-balance-49
18	K1810302-024		OC_Pest	20.101g		PrepComments:GBEATLEY k-balance-49
19	K1810302-026	.01	OC_Pest	20.219g		PrepComments:GBEATLEY k-balance-49
20	K1810302-027		OC_Pest	20.197g		PrepComments:GBEATLEY k-balance-49
21	K1810302-028		OC_Pest	20.001g		PrepComments:GBEATLEY k-balance-49
22	K1810302-029	.01	OC_Pest	20.181g		PrepComments:GBEATLEY k-balance-49

Relinquished By:	Date/Time: 10/24/18 1445	Received By:	Date/Time: 10/30/18

Preparation Information Benchsheet

Prep Run#: 325017
Team: Semivoa GCMS/KPRESCOTT
Number of Copies to make: 2

Prep WorkFlow: OrgExtS(14)
Prep Method: EPA 3541

Status: Prepped
Prep Date/Time: 10/31/18 05:12 PM

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1810302-025	D6-SC-88to108-102118	.01	ALS SOP/OC_Pest		Sediment	20.049g	1.00mL	GBEATLEY k-balance-49
2	K1810305-001	H3-SC-29to46-102118	.01	ALS SOP/OC_Pest		Sediment	20.193g	1.00mL	GBEATLEY k-balance-49
3	K1810305-002	H3-SC-85to99-102118	.01	ALS SOP/OC_Pest		Sediment	20.077g	1.00mL	GBEATLEY k-balance-49
4	K1810305-003	R4-SC-138to142-102118	.01	ALS SOP/OC_Pest		Sediment	20.370g	1.00mL	GBEATLEY k-balance-49
5	K1810305-004	H3-SC-0to1-102118	.01	ALS SOP/OC_Pest		Sediment	20.283g	1.00mL	GBEATLEY k-balance-49
6	K1810305-005	H3-SC-2to29-102118	.01	ALS SOP/OC_Pest		Sediment	20.175g	1.00mL	GBEATLEY k-balance-49
7	K1810305-006	H3-SC-63to85-102118	.01	ALS SOP/OC_Pest		Sediment	20.243g	1.00mL	GBEATLEY k-balance-49
8	K1810305-007	D6-SC-108to123-102118	.01	ALS SOP/OC_Pest		Sediment	20.098g	1.00mL	GBEATLEY k-balance-49
9	K1810305-008	D6-SC-2to4-102118	.01	ALS SOP/OC_Pest		Sediment	20.381g	1.00mL	GBEATLEY k-balance-49
10	K1810305-009	R4-SC-0to1-102118	.01	ALS SOP/OC_Pest		Sediment	20.172g	1.00mL	GBEATLEY k-balance-49
11	K1810305-010	R4-SC-1to2-102118	.01	ALS SOP/OC_Pest		Sediment	20.223g	1.00mL	GBEATLEY k-balance-49
12	K1810305-011	R4-SC-6to8-102118	.01	ALS SOP/OC_Pest		Sediment	20.186g	1.00mL	GBEATLEY k-balance-49
13	K1810305-012	R4-SC-2to4-102118	.01	ALS SOP/OC_Pest		Sediment	20.195g	1.00mL	GBEATLEY k-balance-49
14	K1810305-013	R4-SC-4to6-102118	.01	ALS SOP/OC_Pest		Sediment	20.182g	1.00mL	GBEATLEY k-balance-49
15	K1810305-014	R4-SC-8to10-102118	.01	ALS SOP/OC_Pest		Sediment	20.274g	1.00mL	GBEATLEY k-balance-49
16	K1810305-015	R4-SC-10to12-102118	.01	ALS SOP/OC_Pest		Sediment	20.176g	1.00mL	GBEATLEY k-balance-49
17	K1810305-016	R4-SC-120to138-102118	.01	ALS SOP/OC_Pest		Sediment	20.207g	1.00mL	GBEATLEY k-balance-49
18	KQ1815510-01	K1810305-003 MS	.01	ALS SOP/OC_Pest		Solid	20.302g	1.00mL	GBEATLEY k-balance-49
19	KQ1815510-02	K1810305-003 DMS	.01	ALS SOP/OC_Pest		Solid	20.150g	1.00mL	GBEATLEY k-balance-49
20	KQ1815510-03	LCS		ALS SOP/OC_Pest		Solid	10g	1.00mL	
21	KQ1815510-04	MB		ALS SOP/OC_Pest		Solid	20.3810g	1.00mL	

Spiking Solutions

Name: Pesticide/OC_Pest Surrogate Inventory ID 193176 Logbook Ref: SVM59-85A Expires On: 04/03/2019

K1810302-025	100.00µL	K1810305-001	100.00µL	K1810305-002	100.00µL	K1810305-003	100.00µL	K1810305-004	100.00µL	K1810305-005	100.00µL
K1810305-006	100.00µL	K1810305-007	100.00µL	K1810305-008	100.00µL	K1810305-009	100.00µL	K1810305-010	100.00µL	K1810305-011	100.00µL
K1810305-012	100.00µL	K1810305-013	100.00µL	K1810305-014	100.00µL	K1810305-015	100.00µL	K1810305-016	100.00µL	KQ1815510-01	100.00µL
KQ1815510-02	100.00µL	KQ1815510-03	100.00µL	KQ1815510-04	100.00µL						

Name: Pesticide/OC_Pest Spike Inventory ID 194507 Logbook Ref: SVM59-78F Expires On: 02/28/2019

KQ1815510-01	100.00µL	KQ1815510-02	100.00µL	KQ1815510-03	100.00µL

Preparation Information Benchsheet

Prep Run#: 325017
Team: Semivoa GCMS/KPRESCOTT

Prep WorkFlow: OrgExtS(14)
Prep Method: EPA 3541

Status: Prepped
Prep Date/Time: 10/31/18 05:12 PM

Preparation Steps

Step:	Weigh	Step:	Extraction	Step:	Final Volume
Started:	10/31/18 17:12	Started:	10/31/18 17:12	Started:	11/7/18 16:17
Finished:	11/1/18 07:12	Finished:	11/1/18 07:12	Finished:	11/7/18 16:17
By:	~~KPRESCOTT~~ GBEATLEY JW 11/9/18	By:	KPRESCOTT	By:	TPOTTSCHMIDT
Comments		Comments		Comments	

Comments: IS=SVM59-45C NS42

Reviewed By: [signature] Date: 11/9/18

Chain of Custody

Relinquished By: TP Date: 11/7/18

Received By: [signature] Date: 11-16-18

Extracts Examined: ~~Yes~~ Yes No

Preparation Information Benchsheet

Prep Run#: 325017
Team: Semivoa GCMS/KPRESCOTT
Number of Copies to make: 2

Prep WorkFlow: OrgExtS(14)
Prep Method: EPA 3541

Status: Draft
Prep Date/Time: 10/31/18 08:30 AM

#	Lab Code	Client ID		B#	√	Method /Test	Matrix	Amt. Ext. g	pH	Int. Vol mL	Final Vol mL	Surr Amt µL	Spike Amt µL
1	K1810302-025	D6-SC-88to108-102118	2E	.01	✓	ALS SOP / OC_Pest	Sediment	*	N/A	10	1	100	-
2	K1810305-001	H3-SC-29to46-102118	2F	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
3	K1810305-002	H3-SC-85to99-102118	3A	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
~~4~~	~~K1810305-003~~	~~R4-SC-138to142-102118~~	~~3B~~	~~.01~~	~~✓~~	~~ALS SOP / OC_Pest~~	~~Sediment~~	~~*~~		~~10~~	~~1~~		~~-~~
5	K1810305-004	H3-SC-0to1-102118	3C	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
6	K1810305-005	H3-SC-2to29-102118	3D	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
7	K1810305-006	H3-SC-63to85-102118	3E	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
8	K1810305-007	D6-SC-108to123-102118	3F	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
9	K1810305-008	D6-SC-2to4-102118	9A	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
10	K1810305-009	R4-SC-0to1-102118	9B	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
11	K1810305-010	R4-SC-1to2-102118	9C	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
12	K1810305-011	R4-SC-6to8-102118	9D	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
13	K1810305-012	R4-SC-2to4-102118	9E	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
14	K1810305-013	R4-SC-4to6-102118	9F	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
15	K1810305-014	R4-SC-8to10-102118	7B	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
16	K1810305-015	R4-SC-10to12-102118	7C	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
17	K1810305-016	R4-SC-120to138-102118	7D	.01	✓	ALS SOP / OC_Pest	Sediment	*		10	1		-
18	KQ1815510-01	K1810305-003 MS	7E	.01	✓	ALS SOP / OC_Pest	Solid	*		10	1		100
19	KQ1815510-02	K1810305-003 DMS	7F	.01	✓	ALS SOP / OC_Pest	Solid	*		10	1		
20	KQ1815510-03	LCS	8A	-	-	ALS SOP / OC_Pest	Solid	10.000		10	1		
21	KQ1815510-04	MB	8B	-	-	ALS SOP / OC_Pest	Solid	20.381		10	1		-

Comments: *See Pre-Prep Information Benchsheet. KLP 10/31/18.
~~* corrected as per PM TP 11/2/18~~ EE TP 11/2/18

Surrogate ID: SVM59-78E 50/200ng/mL XP:04/03/19 100uL spp-2B

Spike ID: SVM59-78E 200ng/mL XP:07/28/19 100uL spp-2B

Witnessed By: 10/31/18

Analyst: Kai Lee Prescott

Assisted By: KV

GPC RUNLOG

Run Date: 11/2/2018 **Calibration Date:** 10/30/2018

GPC #: 5 **Program Number:** PEST

Lab I.D.	Position	Test	Dilution	Comments
BLANK	1	PEST	NA	N/A
BLANK	2	PEST	NA	N/A
KQ1815510-4 MB	3	PEST	NA	N/A
KQ1815510-3 LCS	4	PEST	NA	N/A
K1810302-25	5	PEST	NA	N/A
K1810305-01	6	PEST	NA	N/A
K1810305-02	7	PEST	NA	N/A
K1810305-03	8	PEST	NA	N/A
K1810305-04	9	PEST	NA	N/A
K1810305-05	10	PEST	NA	N/A
K1810305-06	11	PEST	NA	N/A
K1810305-07	12	PEST	NA	N/A
K1810305-08	13	PEST	NA	N/A
K1810305-09	14	PEST	NA	N/A
K1810305-10	15	PEST	NA	N/A
K1810305-11	16	PEST	NA	N/A
K1810305-12	17	PEST	NA	N/A
K1810305-13	18	PEST	NA	N/A
K1810305-14	19	PEST	NA	N/A
K1810305-15	20	PEST	NA	N/A
K1810305-16	21	PEST	NA	N/A
K1810305-03 MS	22	PEST	NA	N/A
K1810305-03 DMS	23	PEST	NA	N/A
BLANK	24	PEST	NA	N/A
BLANK	25	PEST	NA	N/A
KQ1815430-04 MB	26	PEST	NA	N/A
KQ1815430-03 LCS	27	PEST	NA	N/A
K1810302-22	28	PEST	NA	N/A
K1810302-23	29	PEST	NA	N/A
K1810302-24	30	PEST	NA	N/A
K1810302-26	31	PEST	NA	N/A
K1810302-27	32	PEST	NA	N/A
K1810302-28	33	PEST	NA	N/A
K1810302-29	34	PEST	NA	N/A
K1810302-23 MS	35	PEST	NA	N/A
K1810302-23 DMS	36	PEST	NA	N/A

Final Volume Calculation

Intermediate Volume before GPC:	**10**	mL
Aliquot taken from intermediate volume:	**10**	mL
Aliquot diluted up to....	**10**	mL
Volume Injected onto column:	**5**	mL
GPC'd Extract brought to the Final Volume of:	**0.5**	mL
Calculated True Final Volume:	**1**	mL

Filter Lot # FC8051

Operator Date and Initial: TP 11/2/18

Additional Prep Information for EPA 3541

OC Pesticides by GCMS

Service Request K1810302/0305 **Workgroup** KQ1815510

Sulfate Lot # 178434 DCM (GC^2) Lot # D0301 Glass Wool Lot # 213179999

Date/Time/Initials Weighed: — Balance ID: — Calibration Verified —

Storage Location (if not extracted same day): —

Soxtherm/s unit I.D# K-50X-02/03/07/08/09

Soxtherm Start (Time/Date/Initial): 1712 10/31/18 TP

Soxtherm Stop (Time/Date/Initial): 0712 11/1/18 TP

N-Evap (Time/Date/Initial): 08:28 11/2/18 BG N-Evap Therm. ID: X-SVM-010

Temp as measured: 20 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

GPC Clean-up (3640): Start 10:02 11/2/18 TP (Time/Date/Initial)

S-Evap (Time/Date/Initial): 13:34 11/5/18 BG S-Evap Therm. ID: DWB-46

Temp as measured: 75 °C Correction factor: 0.0 °C Adjusted temp: 75.0 °C

Hexane Exchange for Carbon (Time/Date/Initial): 13:46 11/5/18 BG

Hexane Lot # 192699

N-Evap (Time/Date/Initial): ~~13:28 11/5/18 TP~~ 09:20 11/6/18 TP ① N-Evap Therm. ID: ~~DWB-46~~ X-SVM-010 ①

Temp as measured: 20.0 °C Correction factor: ~~0.0~~ 0.0 ① °C Adjusted temp: ~~75.0~~ 20.0 ① °C

Carbon Clean-up (Time/Date/Initial): 11:15 11/6/18 BG/TP

Carbon Column Lot # 10384005 1:1 Hexane/DCM Lot # Ext002-32X

turbovap ~~N-Evap~~ (Time/Date/Initial): 08:21 11/7/18 TP ~~N-Evap~~ turbovap Therm. ID: K-Turbovap2-005

Temp as measured: 29.0 °C Correction factor: 0.0 °C Adjusted temp: 29.0 °C

Pipet Lots: Intermediate Volume 14918647 Final Volume 30408617

Extract Storage: Fozzie Bear

Completed (Time/Date/Initial): 11:31 11/7/18 TP/BG

Comments/Observations: ① EE TP 11/5/18

Bench Sheet Review Check List	
☑	Hold Times Met (if no, Reason:)
☑	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

323017

Pre-Prep Information Benchsheet

Prep Run #: ~~324900~~ **Prep Method:** **Team:** **Container Lot No:** 071618-1TW **Prep Due Date:** Nov-09-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810302-025		OC_Pest	20.049g		PrepComments:GBEATLEY k-balance-49
2	~~K1810302-025 MS KQ1815428.01~~		~~OC_Pest~~	~~20.333g~~		PrepComments:GBEATLEY k-balance-49
3	~~K1810302-025 DMS KQ1815428.02~~		~~OC_Pest~~	~~20.150g~~		PrepComments:GBEATLEY k-balance-49

Sample batched w/prep run #323017. QC not needed. ZKP 10/31/18.

Relinquished By:	Date/Time:	Received By:	Date/Time:
GBeatley	10/24/18 1445	ZKP	10/30/18

Pre-Prep Information Benchsheet

Prep Run #: 325017 **Prep Method:** **Team:** **Container Lot No:** 052118-1BNU **Prep Due Date:** Nov-09-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810305-001	.01	OC_Pest	20.193g		PrepComments:GBEATLEY k-balance-49
2	K1810305-002	.01	OC_Pest	20.077g		PrepComments:GBEATLEY k-balance-49
3	K1810305-003	.01	OC_Pest	20.370g		PrepComments:GBEATLEY k-balance-49
4	K1810305-003 MS KQ1815510-01	.01	OC_Pest	20.302g		PrepComments:GBEATLEY k-balance-49
5	K1810305-003 DMS KQ1815510-02	.01	OC_Pest	20.150g		PrepComments:GBEATLEY k-balance-49
6	K1810305-004	.01	OC_Pest	20.283g		PrepComments:GBEATLEY k-balance-49
7	K1810305-005	.01	OC_Pest	20.175g		PrepComments:GBEATLEY k-balance-49
8	K1810305-006	.01	OC_Pest	20.243g		PrepComments:GBEATLEY k-balance-49
9	K1810305-007	.01	OC_Pest	20.098g		PrepComments:GBEATLEY k-balance-49
10	K1810305-008	.01	OC_Pest	20.381g		PrepComments:GBEATLEY k-balance-49
11	K1810305-009	.01	OC_Pest	20.172g		PrepComments:GBEATLEY k-balance-49
12	K1810305-010	.01	OC_Pest	20.223g		PrepComments:GBEATLEY k-balance-49
13	K1810305-011	.01	OC_Pest	20.186g		PrepComments:GBEATLEY k-balance-49
14	K1810305-012	.01	OC_Pest	20.195g		PrepComments:GBEATLEY k-balance-49
15	K1810305-013	.01	OC_Pest	20.182g		PrepComments:GBEATLEY k-balance-49
16	K1810305-014	.01	OC_Pest	20.274g		PrepComments:GBEATLEY k-balance-49
17	K1810305-015	.01	OC_Pest	20.176g		PrepComments:GBEATLEY k-balance-49
18	K1810305-016	.01	OC_Pest	20.207g		PrepComments:GBEATLEY k-balance-49

Relinquished By: GBeatley	Date/Time: 10/25/18 1400	Received By: [illegible]	Date/Time: 10/30/18 1730

Validation Report

Data File: J:\MS42\Data\112618\112618F036.D
Lab ID: K1810302-016
RunType: N/A
Matrix: Sediment

Date Acquired: 11/26/18 21:57
Batch ID: 617367
Analysis Method: ALS SOP/OC_Pest

Validations

Validation Categories	Pass	Fail
Preparation Hold Time		X
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Sample Exceptions

Exception Categories	Result	Corrective Action
Preparation Hold Time	Prep Date/Time: 11/07/2018 1110 Hold Date/Time: 11/03/2018 2359	Frozen Sample Used

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	2,4'-DDT	-30		25	<40, ok

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File:	J:\MS42\Data\112618\112618F036.D	**Instrument:**	K-MS-42
Acqu Date:	11/26/18 21:57	**Vial:**	35
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-016	**Raw Units:**	ng/mL

Bottle ID:	K1810302-016.02	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest	**Collect Date:**	10/20/18	**Receive Date:**	10/22/18

Analysis Lot:	617367	**Prep Lot:**	325840	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	11/7/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.750	-0.01	10080709.65	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.683	-0.02	1501584.885	4.193975208	84	5 - 120	Y
S_4,4'-DDT-d4	12.878	-0.01	793814.5271	4.962298254	99	13 - 200	Y
S_Aldrin-13C12	7.980		619772.5625	11.67037784	58	10 - 143	Y
S_Endrin-13C12	11.277	-0.01	292771.0698	15.89111542	79	20 - 157	Y
S_GBHCD6	6.000	-0.01	1713120.355	12.18294256	61	5 - 124	Y
S_Heptachlor-13C10	7.245	-0.01	902770.2222	15.52608326	78	10 - 177	Y
S_Heptachlrepox13C10	8.840	-0.01	242170.7195	13.07144699	65	8 - 146	Y
S_Oxychlordane-13C10	8.838	-0.01	477285.4056	12.67651259	63	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.604	-0.01	0	0	0	U	Y
2,4'-DDE	9.473		0	0	0	U	Y
2,4'-DDT	11.760	-0.10	0	0	0	U	Y
4,4'-DDD	11.760	-0.02	0	0	0	U	Y
4,4'-DDE	10.394	-0.01	7000.379905	0.026751011	0.0024	U	Y
4,4'-DDT	13.049	+0.10	0	0	0	U	Y
Aldrin	7.976	-0.02	0	0	0	U	Y
alpha-Chlordane	9.809	-0.01	0	0	0	U	Y
cis-Nonachlor	11.669	-0.12	0	0	0	U	Y
Dieldrin	10.594	-0.04	0	0	0	U	Y
gamma-BHC (Lindane)	6.050	-0.01	0	0	0	U	Y
gamma-Chlordane	9.456	-0.01	0	0	0	U	Y

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

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Data File:	J:\MS42\Data\112618\112618F036.D	**Instrument:**	K-MS-42
Acqu Date:	11/26/18 21:57	**Vial:**	35
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-016	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.235	-0.02	0	0	0	U	Y
Oxychlordane	8.886	+0.03	0	0	0	U	Y
trans-Nonachlor	9.809	-0.08	0	0	0	U	Y

Prep Amount:	20.021 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	54.70

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

Validation Report

Data File: Y:\MS42\data\111618\111618F044.D
Lab ID: K1810302-022
RunType: N/A
Matrix: Sediment

Date Acquired: 11/16/18 23:56
Batch ID: 615706
Analysis Method: ALS SOP/OC_Pest_MS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	Y:\MS42\data\111618\111618F044.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 23:56	**Vial:**	27
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-022	**Raw Units:**	ng/mL

Bottle ID:	K1810302-022.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest_MS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615706	**Prep Lot:**	324902	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.731	+0.01	12221847.46	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.663	+0.01	1773469.306	4.08558165	82	5 - 120	Y
S_4,4'-DDT-d4	12.858		1166163.25	6.012809154	120	13 - 200	Y
S_Aldrin-13C12	7.959	+0.01	657731.9285	10.2154086	51	10 - 143	Y
S_Endrin-13C12	11.256	+0.01	348064.165	15.58259496	78	20 - 157	Y
S_GBHCD6	5.987		1970201.857	11.556579	58	5 - 124	Y
S_Heptachlor-13C10	7.225		1053961.977	14.95078087	75	10 - 177	Y
S_Heptachlrepox13C10	8.813		265464.7985	11.81852346	59	8 - 146	Y
S_Oxychlordane-13C10	8.818		529484.114	11.5992209	58	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.584	+0.01	0	0	0	U	Y
2,4'-DDE	9.446	+0.01	399183.8287	1.183925507	0.088		Y
2,4'-DDT	11.834	+0.01	0	0	0	U	Y
4,4'-DDD	11.747	+0.01	3519723.935	6.145490036	0.46		Y
4,4'-DDE	10.372	+0.01	3058977.81	9.897399961	0.74		Y
4,4'-DDT	12.921		0	0	0	U	Y
Aldrin	7.949	-0.01	0	0	0	U	Y
alpha-Chlordane	9.782		14495.73261	0.227422755	0.017	U	Y
cis-Nonachlor	11.750	-0.01	0	0	0	U	Y
Dieldrin	10.641	+0.04	0	0	0	U	Y
gamma-BHC (Lindane)	6.044		0	0	0	U	Y
gamma-Chlordane	9.436	+0.01	15440.5965	0.605215391	0.045	U	Y

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

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Data File:	Y:\MS42\data\111618\111618F044.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 23:56	**Vial:**	27
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-022	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.222	-0.01	0	0	0	U	Y
Oxychlordane	0		0	0	0	U	Y
trans-Nonachlor	9.856	-0.01	0	0	0	U	Y

Prep Amount:	20.271 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	66.00

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

Validation Report

Data File: Y:\MS42\data\111618\111618F045.D
Lab ID: K1810302-023
RunType: N/A
Matrix: Sediment

Date Acquired: 11/17/18 00:14
Batch ID: 615706
Analysis Method: ALS SOP/OC_Pest_MS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	Y:\MS42\data\111618\111618F045.D	**Instrument:**	K-MS-42
Acqu Date:	11/17/18 00:14	**Vial:**	28
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-023	**Raw Units:**	ng/mL

Bottle ID:	K1810302-023.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest_MS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615706	**Prep Lot:**	324902	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.750	+0.03	10620181.75	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.676	+0.02	685260.9063	1.816732913	36	5 - 120	Y
S_4,4'-DDT-d4	12.872	+0.01	703162.5065	4.17233032	83	13 - 200	Y
S_Aldrin-13C12	7.965	+0.01	306535.9188	5.478896532	27	10 - 143	Y
S_Endrin-13C12	11.270	+0.02	156156.7014	8.045369705	40	20 - 157	Y
S_GBHCD6	5.994	+0.01	887396.0897	5.990195398	30	5 - 124	Y
S_Heptachlor-13C10	7.234	+0.01	509532.9879	8.317946995	42	10 - 177	Y
S_Heptachlrepox13C10	8.827	+0.01	122977.741	6.300684048	32	8 - 146	Y
S_Oxychlordane-13C10	8.831	+0.01	235261.9093	5.931061288	30	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.597	+0.02	0	0	0	U	Y
2,4'-DDE	9.453	+0.01	1756886.505	13.48536995	1.2		Y
2,4'-DDT	11.854	+0.03	0	0	0	U	Y
4,4'-DDD	11.760	+0.03	9892007.861	44.69923498	4.1		Y
4,4'-DDE	10.387	+0.02	11685149.56	97.84683662	8.9		Y
4,4'-DDT	12.929	+0.01	0	0	0	U	Y
Aldrin	7.955	-0.01	0	0	0	U	Y
alpha-Chlordane	9.802	+0.02	44487.29976	1.570836957	0.14	J	Y
cis-Nonachlor	11.776	+0.02	0	0	0	U	Y
Dieldrin	10.532	-0.07	0	0	0	U	Y
gamma-BHC (Lindane)	6.051	+0.01	0	0	0	U	Y
gamma-Chlordane	9.443	+0.01	57416.05129	5.065012584	0.46		Y

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

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Data File:	Y:\MS42\data\111618\111618F045.D	**Instrument:**	K-MS-42
Acqu Date:	11/17/18 00:14	**Vial:**	28
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-023	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.237	+0.01	0	0	0	U	Y
Oxychlordane	8.826		0	0	0	U	Y
trans-Nonachlor	9.879	+0.02	0	0	0	U	Y

Prep Amount:	20.061 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	54.70

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

Validation Report

Data File: Y:\MS42\data\111618\111618F046.D
Lab ID: K1810302-024
RunType: N/A
Matrix: Sediment

Date Acquired: 11/17/18 00:32
Batch ID: 615706
Analysis Method: ALS SOP/OC_Pest_MS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	Y:\MS42\data\111618\111618F046.D	**Instrument:**	K-MS-42
Acqu Date:	11/17/18 00:32	**Vial:**	29
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-024	**Raw Units:**	ng/mL

Bottle ID:	K1810302-024.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest_MS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615706	**Prep Lot:**	324902	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.732	+0.01	12266669.94	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.657		1593162.528	3.656793868	73	5 - 120	Y
S_4,4'-DDT-d4	12.864	+0.01	949364.1869	4.877093619	98	13 - 200	Y
S_Aldrin-13C12	7.953		619703.2239	9.589605751	48	10 - 143	Y
S_Endrin-13C12	11.250		318485.4126	14.20627423	71	20 - 157	Y
S_GBHCD6	5.987		1659815.811	9.70037771	49	5 - 124	Y
S_Heptachlor-13C10	7.225		932918.8465	13.18538995	66	10 - 177	Y
S_Heptachlrepox13C10	8.820	+0.01	240216.0172	10.65536724	53	8 - 146	Y
S_Oxychlordane-13C10	8.818		480003.9036	10.47685258	52	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.558	-0.02	0	0	0	U	Y
2,4'-DDE	9.439		0	0	0	U	Y
2,4'-DDT	11.747	-0.08	0	0	0	U	Y
4,4'-DDD	11.747	+0.01	0	0	0	U	Y
4,4'-DDE	10.364	0.00	15986.12578	0.057577342	0.0041	U	Y
4,4'-DDT	13.029	+0.11	0	0	0	U	Y
Aldrin	7.956	-0.01	0	0	0	U	Y
alpha-Chlordane	9.775	-0.01	0	0	0	U	Y
cis-Nonachlor	11.791	+0.04	0	0	0	U	Y
Dieldrin	10.568	-0.03	0	0	0	U	Y
gamma-BHC (Lindane)	6.037	-0.01	0	0	0	U	Y
gamma-Chlordane	9.633	+0.20	0	0	0	U	Y

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

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Data File:	Y:\MS42\data\111618\111618F046.D	**Instrument:**	K-MS-42
Acqu Date:	11/17/18 00:32	**Vial:**	29
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-024	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.222	-0.01	0	0	0	U	Y
Oxychlordane	8.738	-0.09	0	0	0	U	Y
trans-Nonachlor	9.868	+0.01	0	0	0	U	Y

Prep Amount:	20.101 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	69.90

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

Validation Report

Data File: Y:\MS42\data\111618\111618F023.D
Lab ID: K1810302-025
RunType: N/A
Matrix: Sediment

Date Acquired: 11/16/18 17:46
Batch ID: 615706
Analysis Method: ALS SOP/OC_Pest_MS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	Y:\MS42\data\111618\111618F023.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 17:46	**Vial:**	6
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-025	**Raw Units:**	ng/mL

Bottle ID:	K1810302-025.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest_MS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615706	**Prep Lot:**	325017	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.725		10021362.05	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.656	0.00	1068750.427	3.002732369	60	5 - 120	Y
S_4,4'-DDT-d4	12.852	-0.01	634211.1104	3.988063095	80	13 - 200	Y
S_Aldrin-13C12	7.958	+0.01	485391.5594	9.194098337	46	10 - 143	Y
S_Endrin-13C12	11.250		211549.375	11.5505409	58	20 - 157	Y
S_GBHCD6	5.987		1232375.92	8.816006032	44	5 - 124	Y
S_Heptachlor-13C10	7.220	-0.01	603634.9425	10.4429551	52	10 - 177	Y
S_Heptachlrepox13C10	8.814	+0.00	176874.7336	9.6035585	48	8 - 146	Y
S_Oxychlordane-13C10	8.811	-0.01	354079.9775	9.45991774	47	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.571	-0.01	0	0	0	U	Y
2,4'-DDE	9.433	-0.01	42328.98584	0.208322739	0.015	U	Y
2,4'-DDT	11.740	-0.09	0	0	0	U	Y
4,4'-DDD	11.740	+0.01	211582.3947	0.61302025	0.043	J	Y
4,4'-DDE	10.365		298016.3983	1.600045493	0.11		Y
4,4'-DDT	13.022	+0.10	0	0	0	U	Y
Aldrin	7.948	-0.01	0	0	0	U	Y
alpha-Chlordane	9.795	+0.01	0	0	0	U	Y
cis-Nonachlor	11.756		0	0	0	U	Y
Dieldrin	10.574	-0.03	0	0	0	U	Y
gamma-BHC (Lindane)	6.044		0	0	0	U	Y
gamma-Chlordane	9.436	+0.01	0	0	0	U	Y

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

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Data File:	Y:\MS42\data\111618\111618F023.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 17:46	**Vial:**	6
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-025	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.224	-0.01	0	0	0	U	Y
Oxychlordane	8.859	+0.03	0	0	0	U	Y
trans-Nonachlor	9.848	-0.01	0	0	0	U	Y

Prep Amount:	20.049 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	71.50

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

Validation Report

Data File: Y:\MS42\data\111618\111618F047.D
Lab ID: K1810302-026
RunType: N/A
Matrix: Sediment

Date Acquired: 11/17/18 00:49
Batch ID: 615706
Analysis Method: ALS SOP/OC_Pest_MS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	Y:\MS42\data\111618\111618F047.D	**Instrument:**	K-MS-42
Acqu Date:	11/17/18 00:49	**Vial:**	30
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-026	**Raw Units:**	ng/mL

Bottle ID:	K1810302-026.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest_MS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615706	**Prep Lot:**	324902	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.739	+0.01	12657461.06	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.676	+0.02	1490315.657	3.315116089	66	5 - 120	Y
S_4,4'-DDT-d4	12.872	+0.01	1127705.172	5.614407098	112	13 - 200	Y
S_Aldrin-13C12	7.958	+0.01	553758.3247	8.304573732	42	10 - 143	Y
S_Endrin-13C12	11.263	+0.01	298821.2202	12.91760985	65	20 - 157	Y
S_GBHCD6	5.987		1633786.985	9.253462296	46	5 - 124	Y
S_Heptachlor-13C10	7.227	+0.00	937593.881	12.84233386	64	10 - 177	Y
S_Heptachlrepox13C10	8.821	+0.01	219872.3019	9.451855285	47	8 - 146	Y
S_Oxychlordane-13C10	8.825	+0.01	441712.9589	9.343428886	47	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.523	-0.05	0	0	0	U	Y
2,4'-DDE	9.446	+0.01	76963.43213	0.271632216	0.020	U	Y
2,4'-DDT	11.753	-0.08	0	0	0	U	Y
4,4'-DDD	11.753	+0.02	3551175.228	7.378454988	0.54	Ui	Y
4,4'-DDE	10.387	+0.02	465225.2974	1.791238968	0.13		Y
4,4'-DDT	13.056	+0.14	0	0	0	U	Y
Aldrin	7.955	-0.01	0	0	0	U	Y
alpha-Chlordane	9.808	+0.03	0	0	0	U	Y
cis-Nonachlor	11.756		0	0	0	U	Y
Dieldrin	10.525	-0.08	0	0	0	U	Y
gamma-BHC (Lindane)	6.051	+0.01	0	0	0	U	Y
gamma-Chlordane	9.436	+0.01	0	0	0	U	Y

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

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Data File:	Y:\MS42\data\111618\111618F047.D	**Instrument:**	K-MS-42
Acqu Date:	11/17/18 00:49	**Vial:**	30
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-026	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.230	+0.00	0	0	0	U	Y
Oxychlordane	8.679	-0.15	0	0	0	U	Y
trans-Nonachlor	9.808	-0.06	0	0	0	U	Y

Prep Amount:	20.219 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	67.80

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

Validation Report

Data File: Y:\MS42\data\111618\111618F048.D
Lab ID: K1810302-027
RunType: N/A
Matrix: Sediment

Date Acquired: 11/17/18 01:07
Batch ID: 615706
Analysis Method: ALS SOP/OC_Pest_MS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	Y:\MS42\data\111618\111618F048.D	**Instrument:**	K-MS-42
Acqu Date:	11/17/18 01:07	**Vial:**	31
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-027	**Raw Units:**	ng/mL

Bottle ID:	K1810302-027.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest_MS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615706	**Prep Lot:**	324902	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.736	+0.01	12278376.04	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.670	+0.01	1517104.359	3.478897259	70	5 - 120	Y
S_4,4'-DDT-d4	12.858		978075.7907	5.019801071	100	13 - 200	Y
S_Aldrin-13C12	7.959	+0.01	568738.0955	8.792554452	44	10 - 143	Y
S_Endrin-13C12	11.256	+0.01	298761.3578	13.31376304	67	20 - 157	Y
S_GBHCD6	5.987		1706495.99	9.963679974	50	5 - 124	Y
S_Heptachlor-13C10	7.225		973418.573	13.74467547	69	10 - 177	Y
S_Heptachlrepox13C10	8.820	+0.01	226975.046	10.0584329	50	8 - 146	Y
S_Oxychlordane-13C10	8.824	+0.01	442401.1331	9.646905948	48	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.590	+0.01	0	0	0	U	Y
2,4'-DDE	9.446	+0.01	369465.2213	1.280953078	0.15		Y
2,4'-DDT	11.841	+0.01	0	0	0	U	Y
4,4'-DDD	11.747	+0.01	7510604.631	15.32960761	1.8		Y
4,4'-DDE	10.372	+0.01	6339228.577	23.97670093	2.8		Y
4,4'-DDT	12.928	+0.01	0	0	0	U	Y
Aldrin	7.949	-0.01	0	0	0	U	Y
alpha-Chlordane	9.796	+0.01	82136.64072	1.542294776	0.18	J	Y
cis-Nonachlor	11.763	+0.01	12955.60563	0.997871445	0.12	U	Y
Dieldrin	10.621	+0.02	0	0	0	U	Y
gamma-BHC (Lindane)	6.050	+0.01	0	0	0	U	Y
gamma-Chlordane	9.436	+0.01	52828.36546	2.478276551	0.29		Y

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

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Data File:	Y:\MS42\data\111618\111618F048.D	**Instrument:**	K-MS-42
Acqu Date:	11/17/18 01:07	**Vial:**	31
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-027	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.235	+0.01	0	0	0	U	Y
Oxychlordane	8.846	+0.02	0	0	0	U	Y
trans-Nonachlor	9.872	+0.01	59345.9706	1.731540619	0.20	J	Y

Prep Amount:	20.197 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	42.90

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

Validation Report

Data File: Y:\MS42\data\111618\111618F049.D
Lab ID: K1810302-028
RunType: N/A
Matrix: Sediment

Date Acquired: 11/17/18 01:25
Batch ID: 615706
Analysis Method: ALS SOP/OC_Pest_MS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	Y:\MS42\data\111618\111618F049.D	**Instrument:**	K-MS-42
Acqu Date:	11/17/18 01:25	**Vial:**	32
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-028	**Raw Units:**	ng/mL

Bottle ID:	K1810302-028.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest_MS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615706	**Prep Lot:**	324902	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.763	+0.04	8081765.134	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.697	+0.04	710501.0902	2.475287225	50	5 - 120	Y
S_4,4'-DDT-d4	12.884	+0.03	847579.136	6.60889664	132	13 - 200	Y
S_Aldrin-13C12	7.972	+0.02	311994.9433	7.327992348	37	10 - 143	Y
S_Endrin-13C12	11.277	+0.03	174193.3387	11.79349824	59	20 - 157	Y
S_GBHCD6	6.001	+0.01	831226.9413	7.373417296	37	5 - 124	Y
S_Heptachlor-13C10	7.241	+0.02	527852.8532	11.32354577	57	10 - 177	Y
S_Heptachlrepox13C10	8.840	+0.03	106162.0401	7.147533023	36	8 - 146	Y
S_Oxychlordane-13C10	8.844	+0.03	185064.3921	6.130972716	31	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.537	-0.04	0	0	0	U	Y
2,4'-DDE	9.466	+0.03	3427194.43	25.37167321	2.4		Y
2,4'-DDT	11.774	-0.05	0	0	0	U	Y
4,4'-DDD	11.774	+0.04	31303973.75	136.4288806	13		Y
4,4'-DDE	10.394	+0.03	24940110.73	201.4197717	19		Y
4,4'-DDT	12.941	+0.02	4078695.903	20.79614498	2.0		Y
Aldrin	7.969	+0.01	0	0	0	U	Y
alpha-Chlordane	9.815	+0.03	75435.67714	3.386106468	0.33		Y
cis-Nonachlor	11.798	+0.04	10584.36442	1.948834799	0.19		Y
Dieldrin	10.533	-0.07	0	0	0	U	Y
gamma-BHC (Lindane)	6.057	+0.01	0	0	0	U	Y
gamma-Chlordane	9.463	+0.03	93089.18468	10.43939153	1.0		Y

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

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Data File:	Y:\MS42\data\111618\111618F049.D	**Instrument:**	K-MS-42
Acqu Date:	11/17/18 01:25	**Vial:**	32
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-028	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.244	+0.02	0	0	0	U	Y
Oxychlordane	8.893	+0.07	0	0	0	U	Y
trans-Nonachlor	9.886	+0.02	19850.05575	1.384511423	0.13	J	Y

Prep Amount:	20.001 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	52.00

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

Validation Report

Data File: Y:\MS42\data\111618\111618F050.D
Lab ID: K1810302-029
RunType: N/A
Matrix: Sediment

Date Acquired: 11/17/18 01:42
Batch ID: 615706
Analysis Method: ALS SOP/OC_Pest_MS

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	Y:\MS42\data\111618\111618F050.D	**Instrument:**	K-MS-42
Acqu Date:	11/17/18 01:42	**Vial:**	33
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-029	**Raw Units:**	ng/mL

Bottle ID:	K1810302-029.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest_MS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615706	**Prep Lot:**	324902	**Report Group:**	K1810302
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.750	+0.03	10696292.14	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.677	+0.02	936510.6035	2.46516799	49	5 - 120	Y
S_4,4'-DDT-d4	12.878	+0.02	804653.8858	4.740572405	95	13 - 200	Y
S_Aldrin-13C12	7.966	+0.01	398207.0167	7.066743521	35	10 - 143	Y
S_Endrin-13C12	11.270	+0.02	190055.6133	9.72220498	49	20 - 157	Y
S_GBHCD6	5.994	+0.01	1062992.318	7.124465662	36	5 - 124	Y
S_Heptachlor-13C10	7.232	+0.01	638429.4735	10.34797721	52	10 - 177	Y
S_Heptachlrepox13C10	8.827	+0.01	149177.9167	7.588648237	38	8 - 146	Y
S_Oxychlordane-13C10	8.824	+0.01	278578.2082	6.973111799	35	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.597	+0.02	0	0	0	U	Y
2,4'-DDE	9.459	+0.02	715484.1168	4.018485564	0.43		Y
2,4'-DDT	11.861	+0.03	0	0	0	U	Y
4,4'-DDD	11.760	+0.03	5052941.022	16.70717894	1.8		Y
4,4'-DDE	10.387	+0.02	6955844.954	42.61923644	4.6		Y
4,4'-DDT	12.935	+0.01	0	0	0	U	Y
Aldrin	7.956	-0.01	0	0	0	U	Y
alpha-Chlordane	9.802	+0.02	47857.69939	1.427089984	0.15	J	Y
cis-Nonachlor	11.791	+0.04	14030.12658	1.716119614	0.19		Y
Dieldrin	10.641	+0.04	0	0	0	U	Y
gamma-BHC (Lindane)	6.057	+0.01	130883.1131	1.177132716	0.13		Y
gamma-Chlordane	9.449	+0.02	56397.14152	4.20154265	0.45		Y

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

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Data File:	Y:\MS42\data\111618\111618F050.D	**Instrument:**	K-MS-42
Acqu Date:	11/17/18 01:42	**Vial:**	33
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-029	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.242	+0.01	0	0	0	U	Y
Oxychlordane	8.826		0	0	0	U	Y
trans-Nonachlor	9.886	+0.02	47551.72357	2.203316059	0.24		Y

Prep Amount:	20.181 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	45.90

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

Validation Report

Data File: Y:\MS42\data\111618\111618F040.D
Lab ID: KQ1815430-04
RunType: MB
Matrix: Sediment

Date Acquired: 11/16/18 22:46
Batch ID: 615706
Analysis Method: ALS SOP/OC_Pest_MS

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	Y:\MS42\data\111618\111618F040.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 22:46	**Vial:**	23
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1815430-04	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest_MS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615706	**Prep Lot:**	324902	**Report Group:**	KQ1815430
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.725		12395829.1	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.657		1523420.835	3.460281158	69	5 - 120	Y
S_4,4'-DDT-d4	12.858		906229.7307	4.606994072	92	13 - 200	Y
S_Aldrin-13C12	7.959	+0.01	602937.2876	9.232944821	46	10 - 143	Y
S_Endrin-13C12	11.250		276068.9462	12.18594759	61	20 - 157	Y
S_GBHCD6	5.987		1569983.457	9.079771599	45	5 - 124	Y
S_Heptachlor-13C10	7.225		843857.7359	11.80237604	59	10 - 177	Y
S_Heptachlrepox13C10	8.813		221677.3316	9.73058264	49	8 - 146	Y
S_Oxychlordane-13C10	8.818		452186.1912	9.766848688	49	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	0		0	0	0	U	Y
2,4'-DDE	9.426	-0.01	0	0	0	U	Y
2,4'-DDT	11.747	-0.08	0	0	0	U	Y
4,4'-DDD	11.814	+0.08	0	0	0	U	Y
4,4'-DDE	10.372	+0.01	0	0	0	U	Y
4,4'-DDT	0		0	0	0	U	Y
Aldrin	7.956	-0.01	0	0	0	U	Y
alpha-Chlordane	9.856	+0.07	0	0	0	U	Y
cis-Nonachlor	11.723	-0.03	0	0	0	U	Y
Dieldrin	10.600		0	0	0	U	Y
gamma-BHC (Lindane)	6.037	-0.01	0	0	0	U	Y
gamma-Chlordane	9.416	-0.01	0	0	0	U	Y

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

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Data File:	Y:\MS42\data\111618\111618F040.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 22:46	**Vial:**	23
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1815430-04	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.229		0	0	0	U	Y
Oxychlordane	0		0	0	0	U	Y
trans-Nonachlor	9.856	-0.01	0	0	0	U	Y

Prep Amount:	20.3640 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

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

Validation Report

Data File: Y:\MS42\data\111618\111618F019.D
Lab ID: KQ1815510-04
RunType: MB
Matrix: Sediment

Date Acquired: 11/16/18 16:36
Batch ID: 615706
Analysis Method: ALS SOP/OC_Pest_MS

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	Y:\MS42\data\111618\111618F019.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 16:36	**Vial:**	2
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1815510-04	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest_MS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615706	**Prep Lot:**	325017	**Report Group:**	KQ1815510
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.725		7945179.059	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.657		969360.2193	3.435172741	69	5 - 120	Y
S_4,4'-DDT-d4	12.851	-0.01	475022.135	3.767602578	75	13 - 200	Y
S_Aldrin-13C12	7.952	0.00	527950.3228	12.61342553	63	10 - 143	Y
S_Endrin-13C12	11.244	-0.01	226410.7268	15.59231637	78	20 - 157	Y
S_GBHCD6	5.987		1394677.407	12.58419687	63	5 - 124	Y
S_Heptachlor-13C10	7.220	-0.01	568953.7671	12.41506734	62	10 - 177	Y
S_Heptachlrepox13C10	8.814	+0.00	186830.4407	12.79490569	64	8 - 146	Y
S_Oxychlordane-13C10	8.818		372750.5785	12.56109154	63	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.564	-0.01	0	0	0	U	Y
2,4'-DDE	9.433	-0.01	5363.676236	0.029103986	0.0014	U	Y
2,4'-DDT	11.740	-0.09	0	0	0	U	Y
4,4'-DDD	11.814	+0.08	0	0	0	U	Y
4,4'-DDE	10.371	+0.01	9306.325585	0.055088573	0.0027	U	Y
4,4'-DDT	12.915	-0.01	0	0	0	U	Y
Aldrin	7.955	-0.01	0	0	0	U	Y
alpha-Chlordane	9.781	0.00	0	0	0	U	Y
cis-Nonachlor	11.736	-0.02	0	0	0	U	Y
Dieldrin	10.588	-0.01	0	0	0	U	Y
gamma-BHC (Lindane)	6.037	-0.01	0	0	0	U	Y
gamma-Chlordane	9.416	-0.01	0	0	0	U	Y

Data File:	Y:\MS42\data\111618\111618F019.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 16:36	**Vial:**	2
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1815510-04	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.217	-0.01	0	0	0	U	Y
Oxychlordane	8.826		0	0	0	U	Y
trans-Nonachlor	9.862	0.00	0	0	0	U	Y

Prep Amount:	20.3810 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

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

Validation Report

Data File: J:\MS42\Data\112618\112618F031.D
Lab ID: KQ1816244-04
RunType: MB
Matrix: Soil

Date Acquired: 11/26/18 20:29
Batch ID: 617367
Analysis Method: ALS SOP/OC_Pest

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	2,4'-DDT	-30		25	<40, ok

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File:	J:\MS42\Data\112618\112618F031.D	**Instrument:**	K-MS-42
Acqu Date:	11/26/18 20:29	**Vial:**	30
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1816244-04	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	I	**Matrix:**	Soil
Prod Code:	OC_Pest	**Collect Date:**		**Receive Date:**	11/1/18

Analysis Lot:	617367	**Prep Lot:**	325840	**Report Group:**	KQ1816244
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	11/7/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.752	-0.01	10437348.58	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.690	-0.01	1631495.343	4.40111511	88	5 - 120	Y
S_4,4'-DDT-d4	12.879	-0.01	887921.8364	5.360921848	107	13 - 200	Y
S_Aldrin-13C12	7.979	0.00	668092.0236	12.15037763	61	10 - 143	Y
S_Endrin-13C12	11.270	-0.02	329522.6957	17.27477789	86	20 - 157	Y
S_GBHCD6	6.000	-0.01	1886546.293	12.95784278	65	5 - 124	Y
S_Heptachlor-13C10	7.240	-0.01	1037539.48	17.23416453	86	10 - 177	Y
S_Heptachlrepox13C10	8.834	-0.01	269277.4577	14.03792606	70	8 - 146	Y
S_Oxychlordane-13C10	8.838	-0.01	534127.3911	13.70147762	69	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.611	+0.00	0	0	0	U	Y
2,4'-DDE	9.466	-0.01	0	0	0	U	Y
2,4'-DDT	11.753	-0.11	0	0	0	U	Y
4,4'-DDD	11.613	-0.17	0	0	0	U	Y
4,4'-DDE	10.387	-0.01	0	0	0	U	Y
4,4'-DDT	12.936	-0.01	0	0	0	U	Y
Aldrin	7.975	-0.02	0	0	0	U	Y
alpha-Chlordane	9.815	-0.01	0	0	0	U	Y
cis-Nonachlor	11.756	-0.04	0	0	0	U	Y
Dieldrin	10.681	+0.05	0	0	0	U	Y
gamma-BHC (Lindane)	6.051	-0.01	0	0	0	U	Y
gamma-Chlordane	0		0	0	0	U	Y

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

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Data File:	J:\MS42\Data\112618\112618F031.D	**Instrument:**	K-MS-42
Acqu Date:	11/26/18 20:29	**Vial:**	30
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1816244-04	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.237	-0.02	0	0	0	U	Y
Oxychlordane	8.866	+0.01	0	0	0	U	Y
trans-Nonachlor	9.879	-0.01	0	0	0	U	Y

Prep Amount:	20.1660 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

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

Validation Report

Data File: Y:\MS42\data\111618\111618F041.D
Lab ID: KQ1815430-03
RunType: LCS
Matrix: Sediment

Date Acquired: 11/16/18 23:04
Batch ID: 615706
Analysis Method: ALS SOP/OC_Pest_MS

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	Y:\MS42\data\111618\111618F041.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 23:04	**Vial:**	24
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1815430-03	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest_MS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615706	**Prep Lot:**	324902	**Report Group:**	KQ1815430
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.729	+0.00	15498090.9	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.657		1929086.086	3.504616341	70	5 - 120	Y
S_4,4'-DDT-d4	12.851	-0.01	1082414.674	4.40119281	88	13 - 200	Y
S_Aldrin-13C12	7.959	+0.01	745365.1285	9.129238306	46	10 - 143	Y
S_Endrin-13C12	11.250		362717.1466	12.80581462	64	20 - 157	Y
S_GBHCD6	5.987		1948916.121	9.015096331	45	5 - 124	Y
S_Heptachlor-13C10	7.227	+0.00	1033142.808	11.55734146	58	10 - 177	Y
S_Heptachlrepox13C10	8.814	+0.00	268833.7932	9.43840907	47	8 - 146	Y
S_Oxychlordane-13C10	8.818		559723.6	9.669592193	48	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.578	+0.00	6430521.896	15.4913383	1.55		Y
2,4'-DDE	9.439		5309741.78	14.47761112	1.45		Y
2,4'-DDT	11.828		8614587.999	17.74929219	1.77		Y
4,4'-DDD	11.734		12979496.74	20.83424844	2.08		Y
4,4'-DDE	10.371	+0.01	4666390.038	13.88026949	1.39		Y
4,4'-DDT	12.921		4487394.427	17.91605307	1.79		Y
Aldrin	7.969	+0.01	514725.1497	19.29476435	1.93		Y
alpha-Chlordane	9.788	+0.01	1320259.705	19.59442083	1.96		Y
cis-Nonachlor	11.756		322073.0039	19.60712022	1.96		Y
Dieldrin	10.601	+0.00	415307.154	15.01112529	1.50		Y
gamma-BHC (Lindane)	6.044		3902990.617	19.1459226	1.91		Y
gamma-Chlordane	9.436	+0.01	536510.2641	19.89313551	1.99		Y

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

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Data File:	Y:\MS42\data\111618\111618F041.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 23:04	**Vial:**	24
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1815430-03	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.230	+0.00	1239571.544	20.6997969	2.07		Y
Oxychlordane	8.826		1467837.007	19.3961758	1.94		Y
trans-Nonachlor	9.862	0.00	825036.1024	19.02641704	1.90		Y

Prep Amount:	10 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

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

Validation Report

Data File: Y:\MS42\data\111618\111618F020.D
Lab ID: KQ1815510-03
RunType: LCS
Matrix: Sediment

Date Acquired: 11/16/18 16:53
Batch ID: 615706
Analysis Method: ALS SOP/OC_Pest_MS

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	Y:\MS42\data\111618\111618F020.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 16:53	**Vial:**	3
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1815510-03	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest_MS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615706	**Prep Lot:**	325017	**Report Group:**	KQ1815510
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.725		8864969.716	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.657		1249595.964	3.968802013	79	5 - 120	Y
S_4,4'-DDT-d4	12.851	-0.01	616201.5811	4.380265947	88	13 - 200	Y
S_Aldrin-13C12	7.953		622151.5878	13.32179157	67	10 - 143	Y
S_Endrin-13C12	11.250		261927.201	16.16667375	81	20 - 157	Y
S_GBHCD6	5.987		1638689.223	13.25179682	66	5 - 124	Y
S_Heptachlor-13C10	7.225		720866.7477	14.09787086	70	10 - 177	Y
S_Heptachlrepox13C10	8.813		214569.1378	13.16992009	66	8 - 146	Y
S_Oxychlordane-13C10	8.818		429778.2331	12.98015574	65	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.570	-0.01	4990560.186	18.55983066	1.86		Y
2,4'-DDE	9.433	-0.01	4390103.371	18.4790758	1.85		Y
2,4'-DDT	11.828		5206219.724	18.84255898	1.88		Y
4,4'-DDD	11.734		8067511.947	19.99132582	2.00		Y
4,4'-DDE	10.365		3693524.168	16.96054494	1.70		Y
4,4'-DDT	12.921		2651342.945	18.59451544	1.86		Y
Aldrin	7.963		447260.7326	20.21131741	2.02		Y
alpha-Chlordane	9.789	+0.01	1027117.416	19.85282702	1.99		Y
cis-Nonachlor	11.750	-0.01	256921.381	20.36990193	2.04		Y
Dieldrin	10.600		335769.8511	16.80633515	1.68		Y
gamma-BHC (Lindane)	6.037	-0.01	3223839.069	18.80826332	1.88		Y
gamma-Chlordane	9.429		425980.6281	20.57047206	2.06		Y

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

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Data File:	Y:\MS42\data\111618\111618F020.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 16:53	**Vial:**	3
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1815510-03	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.229		805099.6708	19.26857064	1.93		Y
Oxychlordane	8.826		1135936.038	19.54885655	1.95		Y
trans-Nonachlor	9.863		636998.7592	19.13162447	1.91		Y

Prep Amount:	10 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

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

Printed: 4/16/19 16:14

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Validation Report

Data File: J:\MS42\Data\112618\112618F032.D
Lab ID: KQ1816244-03
RunType: LCS
Matrix: Soil

Date Acquired: 11/26/18 20:46
Batch ID: 617367
Analysis Method: ALS SOP/OC_Pest

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	2,4'-DDT	-30		25	<40, ok

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File:	J:\MS42\Data\112618\112618F032.D	**Instrument:**	K-MS-42
Acqu Date:	11/26/18 20:46	**Vial:**	31
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1816244-03	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	I	**Matrix:**	Soil
Prod Code:	OC_Pest	**Collect Date:**		**Receive Date:**	11/1/18

Analysis Lot:	617367	**Prep Lot:**	325840	**Report Group:**	KQ1816244
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	11/7/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.750	-0.01	8282225.553	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.683	-0.02	1309806.792	4.452739224	89	5 - 120	Y
S_4,4'-DDT-d4	12.878	-0.01	668564.7481	5.086878296	102	13 - 200	Y
S_Aldrin-13C12	7.973	-0.01	586169.4088	13.43444634	67	10 - 143	Y
S_Endrin-13C12	11.277	-0.01	277803.6524	18.35304908	92	20 - 157	Y
S_GBHCD6	6.000	-0.01	1724449.094	14.92652637	75	5 - 124	Y
S_Heptachlor-13C10	7.239	-0.01	872010.9599	18.25369045	91	10 - 177	Y
S_Heptachlrepox13C10	8.834	-0.01	229889.7602	15.10308664	76	8 - 146	Y
S_Oxychlordane-13C10	8.838	-0.01	448312.0122	14.49259199	72	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.604	-0.01	5370633.146	19.05515893	1.91		Y
2,4'-DDE	9.459	-0.01	4375204.104	17.56977476	1.76		Y
2,4'-DDT	11.861		5154651.948	17.19475813	1.72		Y
4,4'-DDD	11.767	-0.01	9368439.163	22.14785118	2.21		Y
4,4'-DDE	10.387	-0.01	3481746.653	15.2531099	1.53		Y
4,4'-DDT	12.941	-0.01	3055090.217	19.7479643	1.97		Y
Aldrin	7.983	-0.01	438377.3015	21.11698543	2.11		Y
alpha-Chlordane	9.809	-0.01	1201424.007	22.26191968	2.23		Y
cis-Nonachlor	11.783	-0.01	282857.6047	21.49911537	2.15		Y
Dieldrin	10.621	-0.01	330015.2557	15.57428038	1.56		Y
gamma-BHC (Lindane)	6.057		3600754.98	19.96250929	2.00		Y
gamma-Chlordane	9.449	-0.01	458470.682	21.22413591	2.12		Y

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

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Data File:	J:\MS42\Data\112618\112618F032.D	**Instrument:**	K-MS-42
Acqu Date:	11/26/18 20:46	**Vial:**	31
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1816244-03	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.249	-0.01	1058311.55	20.93854191	2.09		Y
Oxychlordane	8.846	-0.01	1236749.248	20.40389957	2.04		Y
trans-Nonachlor	9.886	-0.01	574116.8381	16.53018013	1.65		Y

Prep Amount:	10 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	100.00

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

Validation Report

Data File: Y:\MS42\data\111618\111618F042.D
Lab ID: KQ1815430-01
RunType: MS
Matrix: Sediment

Date Acquired: 11/16/18 23:21
Batch ID: 615706
Analysis Method: ALS SOP/OC_Pest_MS

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Above Highest ICAL Level	Aldrin	7346275.337		3968716.235	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	Y:\MS42\data\111618\111618F042.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 23:21	**Vial:**	25
Run Type:	MS	**Dilution:**	1
Lab ID:	KQ1815430-01	**Raw Units:**	ng/mL

Bottle ID:	K1810302-023.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest_MS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615706	**Prep Lot:**	324902	**Report Group:**	KQ1815430
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.749	+0.02	10784629.87	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.690	+0.03	974854.8474	2.54508205	51	5 - 120	Y
S_4,4'-DDT-d4	12.871	+0.01	752130.6336	4.394838904	88	13 - 200	Y
S_Aldrin-13C12	7.966	+0.01	402763.876	7.08906477	35	10 - 143	Y
S_Endrin-13C12	11.270	+0.02	212547.3642	10.78370025	54	20 - 157	Y
S_GBHCD6	5.994	+0.01	1112387.249	7.394455252	37	5 - 124	Y
S_Heptachlor-13C10	7.232	+0.01	683445.0692	10.98687445	55	10 - 177	Y
S_Heptachlrepox13C10	8.834	+0.02	160046.8854	8.074862257	40	8 - 146	Y
S_Oxychlordane-13C10	8.831	+0.01	305213.862	7.577252391	38	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.604	+0.03	5572459.519	26.56447836	2.40		Y
2,4'-DDE	9.459	+0.02	5390819.752	29.08639982	2.63		Y
2,4'-DDT	11.854	+0.03	5357890.699	15.88695886	1.44		Y
4,4'-DDD	11.760	+0.03	18848705.39	59.87053852	5.42		Y
4,4'-DDE	10.390	+0.03	17104227.17	100.6773953	9.11		Y
4,4'-DDT	12.941	+0.02	2418761.948	13.89765792	1.26		Y
Aldrin	7.963		7346275.337	665.4226187	60.2	E	Y
alpha-Chlordane	9.808	+0.03	779642.855	21.21964579	1.92		Y
cis-Nonachlor	11.783	+0.03	149995.4654	16.74584173	1.51		Y
Dieldrin	10.614	+0.01	247217.1344	15.24876839	1.38		Y
gamma-BHC (Lindane)	6.050	+0.01	1770303.88	15.21471281	1.38		Y
gamma-Chlordane	9.449	+0.02	363060.6612	24.68730967	2.23		Y

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

Data File:	Y:\MS42\data\111618\111618F042.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 23:21	**Vial:**	25
Run Type:	MS	**Dilution:**	1
Lab ID:	KQ1815430-01	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.242	+0.01	764940.3186	19.30984471	1.75		Y
Oxychlordane	8.846	+0.02	665177.653	16.11926718	1.46		Y
trans-Nonachlor	9.880	+0.02	436522.3348	18.46119853	1.67		Y

Prep Amount:	20.212 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	54.70

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

Validation Report

Data File: J:\MS42\Data\112618\112618F033.D
Lab ID: KQ1816244-01
RunType: MS
Matrix: Sediment

Date Acquired: 11/26/18 21:04
Batch ID: 617367
Analysis Method: ALS SOP/OC_Pest

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	2,4'-DDT	-30		25	<40, ok

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File:	J:\MS42\Data\112618\112618F033.D	**Instrument:**	K-MS-42
Acqu Date:	11/26/18 21:04	**Vial:**	32
Run Type:	MS	**Dilution:**	1
Lab ID:	KQ1816244-01	**Raw Units:**	ng/mL

Bottle ID:	K1810302-016.02	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest	**Collect Date:**	10/20/18	**Receive Date:**	10/22/18

Analysis Lot:	617367	**Prep Lot:**	325840	**Report Group:**	KQ1816244
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	11/7/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.750	-0.01	8149401.545	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.690	-0.01	1236261.494	4.271217647	85	5 - 120	Y
S_4,4'-DDT-d4	12.878	-0.01	659563.5632	5.100184249	102	13 - 200	Y
S_Aldrin-13C12	7.973	-0.01	595591.6428	13.87287762	69	10 - 143	Y
S_Endrin-13C12	11.277	-0.01	260892.2062	17.51671711	88	20 - 157	Y
S_GBHCD6	6.000	-0.01	1668137.458	14.67444027	73	5 - 124	Y
S_Heptachlor-13C10	7.245	-0.01	841550.0536	17.90317374	90	10 - 177	Y
S_Heptachlrepox13C10	8.840	-0.01	224567.616	14.99389798	75	8 - 146	Y
S_Oxychlordane-13C10	8.838	-0.01	444232.342	14.59476815	73	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.597	-0.01	5140798.243	19.3247793	1.76		Y
2,4'-DDE	9.466	-0.01	4143650.787	17.62982166	1.61		Y
2,4'-DDT	11.861		4852419.913	16.40748135	1.50		Y
4,4'-DDD	11.767	-0.01	8571140.733	21.46840983	1.96		Y
4,4'-DDE	10.394	-0.01	3334825.82	15.47858596	1.41		Y
4,4'-DDT	12.941	-0.01	2859390.833	18.73521289	1.71		Y
Aldrin	7.983	-0.01	420329.2478	19.78483102	1.80		Y
alpha-Chlordane	9.809	-0.01	1130936.217	21.14825895	1.93		Y
cis-Nonachlor	11.791		266550.4317	20.44571595	1.86		Y
Dieldrin	10.621	-0.01	318457.5376	16.00303485	1.46		Y
gamma-BHC (Lindane)	6.057		3602548.339	20.64666552	1.88		Y
gamma-Chlordane	9.456	-0.01	427500.3874	19.97216583	1.82		Y

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

Data File:	J:\MS42\Data\112618\112618F033.D	**Instrument:**	K-MS-42
Acqu Date:	11/26/18 21:04	**Vial:**	32
Run Type:	MS	**Dilution:**	1
Lab ID:	KQ1816244-01	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.249	-0.01	1020291.593	20.91699051	1.91		Y
Oxychlordane	8.846	-0.01	1173918.453	19.54517905	1.78		Y
trans-Nonachlor	9.886	-0.01	555114.2047	16.129832	1.47		Y

Prep Amount:	20.054 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	54.70

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

Validation Report

Data File: Y:\MS42\data\111618\111618F043.D
Lab ID: KQ1815430-02
RunType: DMS
Matrix: Sediment

Date Acquired: 11/16/18 23:39
Batch ID: 615706
Analysis Method: ALS SOP/OC_Pest_MS

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Above Highest ICAL Level	Aldrin	7451392.113		3968716.235	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	Y:\MS42\data\111618\111618F043.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 23:39	**Vial:**	26
Run Type:	DMS	**Dilution:**	1
Lab ID:	KQ1815430-02	**Raw Units:**	ng/mL

Bottle ID:	K1810302-023.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest_MS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615706	**Prep Lot:**	324902	**Report Group:**	KQ1815430
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.756	+0.03	10320433.58	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.683	+0.03	937269.9016	2.557018115	51	5 - 120	Y
S_4,4'-DDT-d4	12.878	+0.02	752669.658	4.595802882	92	13 - 200	Y
S_Aldrin-13C12	7.965	+0.01	404457.3607	7.439067127	37	10 - 143	Y
S_Endrin-13C12	11.277	+0.03	198018.5467	10.49845169	52	20 - 157	Y
S_GBHCD6	5.994	+0.01	1101894.18	7.654157132	38	5 - 124	Y
S_Heptachlor-13C10	7.234	+0.01	668007.948	11.22172129	56	10 - 177	Y
S_Heptachlrepox13C10	8.834	+0.02	154905.0938	8.166968792	41	8 - 146	Y
S_Oxychlordane-13C10	8.831	+0.01	295262.0591	7.659888444	38	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.598	+0.02	4928077.449	24.43470944	2.19		Y
2,4'-DDE	9.459	+0.02	5243406.066	29.42550572	2.64		Y
2,4'-DDT	11.854	+0.03	5464995.228	16.19293515	1.45		Y
4,4'-DDD	11.761	+0.03	18825452.76	62.1945533	5.58		Y
4,4'-DDE	10.388	+0.02	16210986.03	99.2460501	8.91		Y
4,4'-DDT	12.941	+0.02	2674435.532	15.35569552	1.38		Y
Aldrin	7.962	0.00	7451392.113	680.3381402	61.1	E	Y
alpha-Chlordane	9.808	+0.03	736443.4114	20.71945932	1.86		Y
cis-Nonachlor	11.783	+0.03	140621.6767	16.22847588	1.46		Y
Dieldrin	10.628	+0.03	332080.4333	21.98615786	1.97		Y
gamma-BHC (Lindane)	6.051	+0.01	1735090.572	15.05407934	1.35		Y
gamma-Chlordane	9.449	+0.02	353132.6193	24.82155677	2.23		Y

Data File:	Y:\MS42\data\111618\111618F043.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 23:39	**Vial:**	26
Run Type:	DMS	**Dilution:**	1
Lab ID:	KQ1815430-02	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.244	+0.02	773327.5387	19.9726959	1.79		Y
Oxychlordane	8.839	+0.01	602485.1493	15.09213218	1.36		Y
trans-Nonachlor	9.880	+0.02	413368.3846	18.07121242	1.62		Y

Prep Amount:	20.361 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	54.70

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

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Validation Report

Data File: J:\MS42\Data\112618\112618F034.D
Lab ID: KQ1816244-02
RunType: DMS
Matrix: Sediment

Date Acquired: 11/26/18 21:22
Batch ID: 617367
Analysis Method: ALS SOP/OC_Pest

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery		X
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Continuing Calibration Recovery	2,4'-DDT	-30		25	<40, ok

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File:	J:\MS42\Data\112618\112618F034.D	**Instrument:**	K-MS-42
Acqu Date:	11/26/18 21:22	**Vial:**	33
Run Type:	DMS	**Dilution:**	1
Lab ID:	KQ1816244-02	**Raw Units:**	ng/mL

Bottle ID:	K1810302-016.02	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest	**Collect Date:**	10/20/18	**Receive Date:**	10/22/18

Analysis Lot:	617367	**Prep Lot:**	325840	**Report Group:**	KQ1816244
Analysis	ALS SOP	**Prep Method:**	EPA 3541		
		Prep Date:	11/7/18		

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.750	-0.01	8149401.545	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
S_4,4'DDD-d4	11.690	-0.01	1236261.494	4.271217647	85	5 - 120	Y
S_4,4'-DDT-d4	12.878	-0.01	659563.5632	5.100184249	102	13 - 200	Y
S_Aldrin-13C12	7.973	-0.01	595591.6428	13.87287762	69	10 - 143	Y
S_Endrin-13C12	11.277	-0.01	260892.2062	17.51671711	88	20 - 157	Y
S_GBHCD6	6.000	-0.01	1668137.458	14.67444027	73	5 - 124	Y
S_Heptachlor-13C10	7.245	-0.01	841550.0536	17.90317374	90	10 - 177	Y
S_Heptachlrepox13C10	8.840	-0.01	224567.616	14.99389798	75	8 - 146	Y
S_Oxychlordane-13C10	8.838	-0.01	444232.342	14.59476815	73	5 - 144	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
2,4'-DDD	10.597	-0.01	5140798.243	19.3247793	1.76		Y
2,4'-DDE	9.466	-0.01	4143650.787	17.62982166	1.61		Y
2,4'-DDT	11.767	-0.09	8571140.733	18.05774254	1.65		Y
4,4'-DDD	11.861	+0.08	4852419.913	19.50076556	1.78		Y
4,4'-DDE	10.394	-0.01	3334825.82	15.47858596	1.41		Y
4,4'-DDT	12.941	-0.01	2859390.833	18.73521289	1.71		Y
Aldrin	7.983	-0.01	420329.2478	19.78483102	1.80		Y
alpha-Chlordane	9.809	-0.01	1130936.217	21.14825895	1.93		Y
cis-Nonachlor	11.791		266550.4317	20.44571595	1.86		Y
Dieldrin	10.621	-0.01	318457.5376	16.00303485	1.46		Y
gamma-BHC (Lindane)	6.057		3602548.339	20.64666552	1.88		Y
gamma-Chlordane	9.456	-0.01	427500.3874	19.97216583	1.82		Y

Data File:	J:\MS42\Data\112618\112618F034.D	**Instrument:**	K-MS-42
Acqu Date:	11/26/18 21:22	**Vial:**	33
Run Type:	DMS	**Dilution:**	1
Lab ID:	KQ1816244-02	**Raw Units:**	ng/mL

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Heptachlor	7.249	-0.01	1020291.593	20.91699051	1.91		Y
Oxychlordane	8.846	-0.01	1173918.453	19.54517905	1.78		Y
trans-Nonachlor	9.886	-0.01	555114.2047	16.129832	1.47		Y

Prep Amount:	20.057 g	**Dilution:**	1
Prep Final Amount:	1.00 mL	**Basis Factor:**	54.70

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

Validation Report

Data File: Y:\MS42\data\111618\111618F018.D
Lab ID: KQ1816988-01
RunType: CCV
Matrix: Sediment

Date Acquired: 11/16/18 16:18
Batch ID: 615706
Analysis Method: ALS SOP/OC_Pest_MS

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Internal Standards	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

Quantitation Report

Data File:	Y:\MS42\data\111618\111618F018.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 16:18	**Vial:**	1
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1816988-01	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest_MS	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615706	**Prep Lot:**		**Report Group:**	KQ1816988
Analysis	ALS SOP	**Prep Method:**			
		Prep Date:			

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.725		10374819.79	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
S_4,4'DDD-d4	11.657		1744273.87	4.733705004	Y
S_4,4'-DDT-d4	12.858		775203.8106	4.708583371	Y
S_Aldrin-13C12	7.953		1074657.952	19.66225716	Y
S_Endrin-13C12	11.250		367656.7133	19.3900651	Y
S_GBHCD6	5.987		2887197.027	19.9503853	Y
S_Heptachlor-13C10	7.225		1148215.326	19.18750779	Y
S_Heptachlrepox13C10	8.813		393081.4526	20.61555973	Y
S_Oxychlordane-13C10	8.818		807632.0681	20.84230451	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2,4'-DDD	10.577		7743775.532	20.63157611	Y
2,4'-DDE	9.439		6796933.074	20.49620391	Y
2,4'-DDT	11.828		6202330.239	17.84346469	Y
4,4'-DDD	11.734		11302129.82	20.06398573	Y
4,4'-DDE	10.365		6303174.533	20.73543394	Y
4,4'-DDT	12.921		3424337.016	19.08984354	Y
Aldrin	7.963		745969.3789	19.41103421	Y
alpha-Chlordane	9.782		1811606.978	18.63361471	Y
cis-Nonachlor	11.756		399742.7043	16.86553406	Y
Dieldrin	10.600		537488.9831	19.16633127	Y
gamma-BHC (Lindane)	6.044		5829133.012	19.30187431	Y
gamma-Chlordane	9.429		738947.31	18.98885343	Y

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N: Presumptive evidence of compound

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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

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Data File:	Y:\MS42\data\111618\111618F018.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 16:18	**Vial:**	1
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1816988-01	**Raw Units:**	ng/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Heptachlor	7.229		1269699.468	19.07798231	Y
Oxychlordane	8.826		2140265.07	19.60044387	Y
trans-Nonachlor	9.863		1104435.317	17.65161346	Y

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

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Validation Report

Data File: J:\MS42\Data\112618\112618F003.D
Lab ID: KQ1817669-02
RunType: CCV
Matrix: Plant Tissue

Date Acquired: 11/26/18 11:48
Batch ID: 617367
Analysis Method: ALS SOP/OC_Pest

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Above Highest ICAL Level	X	

Primary Review: _____

Secondary Review: _____

Quantitation Report

Data File:	J:\MS42\Data\112618\112618F003.D	**Instrument:**	K-MS-42
Acqu Date:	11/26/18 11:48	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1817669-02	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	II	**Matrix:**	Plant Tissue
Prod Code:	OC_Pest	**Collect Date:**	10/17/18	**Receive Date:**	10/19/18

Analysis Lot:	617367	**Prep Lot:**		**Report Group:**	KQ1817669
Analysis	ALS SOP	**Prep Method:**			
		Prep Date:			

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18469

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2,4'-DDT	11.861		4102655.721	13.97699025	Y
4,4'-DDD	11.781		8204033.629	18.96770969	Y

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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

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Quantitation Report

Data File:	J:\MS42\Data\112618\112618F003.D	**Instrument:**	K-MS-42
Acqu Date:	11/26/18 11:48	**Vial:**	1
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1817669-01	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Soil
Prod Code:	OC_Pest	**Collect Date:**	10/22/18	**Receive Date:**	10/24/18

Analysis Lot:	617367	**Prep Lot:**		**Report Group:**	KQ1817669
Analysis	ALS SOP	**Prep Method:**			
		Prep Date:			

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.764		7371424.664	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
S_4,4'DDD-d4	11.703		1339319.314	5.115637678	Y
S_4,4'-DDT-d4	12.884		654623.5283	5.596224217	Y
S_Aldrin-13C12	7.980		855113.7134	22.01993927	Y
S_Endrin-13C12	11.290		298724.3886	22.17361885	Y
S_GBHCD6	6.007		2432017.948	23.65215802	Y
S_Heptachlor-13C10	7.252		1031915.284	24.26992337	Y
S_Heptachlrepox13C10	8.847		301574.5624	22.26057689	Y
S_Oxychlordane-13C10	8.851		608780.1474	22.1116827	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2,4'-DDD	10.610		4756511.534	16.50436227	Y
2,4'-DDE	9.473		4845250.334	19.02861602	Y
2,4'-DDT	11.861		4102655.721	13.97699025	Y
4,4'-DDD	11.781		8204033.629	18.96770969	Y
4,4'-DDE	10.400		3750312.871	16.06763062	Y
4,4'-DDT	12.948		2755061.797	18.18785577	Y
Aldrin	7.996		602166.5174	19.73759826	Y
alpha-Chlordane	9.822		1319134.581	18.00011606	Y
cis-Nonachlor	11.791		310210.2888	17.36316223	Y
Dieldrin	10.634		381856.9693	16.75876319	Y
gamma-BHC (Lindane)	6.057		4659436.665	18.31633495	Y
gamma-Chlordane	9.463		544532.289	18.56359053	Y

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e: Result >= MRL, but MRL less than low point of ICAL
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Data File:	J:\MS42\Data\112618\112618F003.D	**Instrument:**	K-MS-42
Acqu Date:	11/26/18 11:48	**Vial:**	1
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1817669-01	**Raw Units:**	ng/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Heptachlor	7.255		1139382.935	19.04936524	Y
Oxychlordane	8.859		1536018.653	18.66155831	Y
trans-Nonachlor	9.892		756607.5713	16.042346	Y

U: Undetected at or above MDL
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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

Injection Log

Batch Data Path	Y:\MS42\data\111618\QuantResults\111618 oc pest ical.batch.bin				
Analysis Time	11/20/2018 10:57:01 AM	**Analyst Name**	CORP\alkls.nouser	**Report Generator Name**	CORP\elissa.bruno
Calibration Last Update	11/20/2018 10:57:00 AM	**Analyze Quant Version**	B.09.00	**Report Quant Version**	B.09.00

Sequence Table

Data File	Name	Type	Vial	Vol.	Level	Acq. Method File	Acq. Date-Time
111618F005.D	OC PEST D/E BREAKDOWN SVM59-70F	QC	1	1	20	OC Pest_dMRM	11/16/2018 12:29:43 PM
111618F006.D	IB	Blank	2	1		OC Pest_dMRM	11/16/2018 12:47:19 PM
111618F007.D	OC PEST ICAL 0.5ng/mL SVM59-48A	Cal	3	1	0.5	OC Pest_dMRM	11/16/2018 1:04:54 PM
111618F008.D	OC PEST ICAL 1ng/mL SVM59-48B	Cal	4	1	1	OC Pest_dMRM	11/16/2018 1:22:31 PM
111618F009.D	OC PEST ICAL 2ng/mL SVM59-48C	Cal	5	1	2	OC Pest_dMRM	11/16/2018 1:40:12 PM
111618F010.D	OC PEST ICAL5ng/mL SVM59-48D	Cal	6	1	5	OC Pest_dMRM	11/16/2018 1:57:46 PM
111618F011.D	OC PEST ICAL 10ng/mL SVM59-48E	Cal	7	1	10	OC Pest_dMRM	11/16/2018 2:15:21 PM
111618F012.D	OC PEST ICAL 20ng/mL SVM59-48F	Cal	8	1	20	OC Pest_dMRM	11/16/2018 2:32:59 PM
111618F013.D	OC PEST ICAL 40ng/mL SVM59-48G	Cal	9	1	40	OC Pest_dMRM	11/16/2018 2:50:39 PM
111618F014.D	OC PEST ICAL 60ng/mL SVM59-48H	Cal	10	1	60	OC Pest_dMRM	11/16/2018 3:08:17 PM
111618F015.D	OC PEST ICAL 80ng/mL SVM59-48I	Cal	11	1	80	OC Pest_dMRM	11/16/2018 3:25:54 PM
111618F016.D	OC PEST ICAL 100ng/mL SVM59-48J	Cal	12	1	100	OC Pest_dMRM	11/16/2018 3:43:29 PM
111618F018.D	OC PEST ICV 20ng/mL SVM59-48K	CC	13	1	20	OC Pest_dMRM	11/16/2018 4:18:45 PM

Revision

OC Pest ICAL KC1900105

MAR 14 2019 lb

Quantitative Analysis Sample Report

Data File	Y:\MS42\data\111618\111618F007.D	**Vial**	3
Acq. Date-Time	11/16/2018 1:04:54 PM	**Acq Operator**	EBruno
Name	OC PEST ICAL 0.5ng/mL SVM59-48A	**Instrument Name**	MS42
Info.		**Instrument Type**	QQQ
Quant Time	3/14/2019 10:04:01 AM	**Inj Vol**	1
Quant Method	110618 OC PEST ICAL.batch.bin		
Last Update	3/14/2019 10:04:01 AM		
Acq. Method File	OC Pest_dMRM	**Tune File Name**	atunes.eihs.tune.xml
Batch File Name	Y:\MS42\data\111618\QuantResults\111618 oc pest ical.batch.bin		

Internal Standards	**RT**	**Transition**	**Response**	**Conc. Units**	**Dev(Min)**
Hexachlorobenzene-13C6(IS)	5.686	289.8 -> 254.8	1056496	20.000 ng/ml	0.006
γ-BHC-d6(IS)	5.987	223.9 -> 187.0	2088961	20.000 ng/ml	0.005
Heptachlor-13C10(IS)	7.227	276.8 -> 241.8	853911	20.000 ng/ml	0.011
Chorpyrifos-d10(IS)	7.641	199.9 -> 171.9	1122652	20.000 ng/ml	0.000
Aldrin-13C(IS)	7.958	269.8 -> 200.0	816641	20.000 ng/ml	0.005
Octachlorostyrene-13C8(IS)	8.543	315.8 -> 245.8	568089	20.000 ng/ml	0.005
Isodrin-13C12(IS)	8.626	199.9 -> 130.1	889186	20.000 ng/ml	0.009
Heptachlor epoxide-13C10(IS)	8.814	362.8 -> 270.0	264168	20.000 ng/ml	0.009
Oxychlordane-13C10(IS)	8.811	190.0 -> 125.0	548085	20.000 ng/ml	0.006
Pyrene-d10	9.725	212.0 -> 208.0	7863270	100.000 ng/ml	0.007
Endrin-13C12(IS)	11.250	269.8 -> 200.0	278342	20.000 ng/ml	0.002
4,4'-DDD d4(IS)	11.656	243.0 -> 173.1	1241029	5.000 ng/ml	0.007
4,4'-DDT-d4(IS)	12.859	243.0 -> 173.1	586462	5.000 ng/ml	0.008
Endrin ketone-13C12(IS)	13.855	327.9 -> 291.8	33051	20.000 ng/ml	0.005
Methoxychlor-d6(IS)	14.065	233.0 -> 141.0	1635583	20.000 ng/ml	0.005
Mirex-13C10(IS)	14.941	276.8 -> 241.8	505351	5.000 ng/ml	0.011

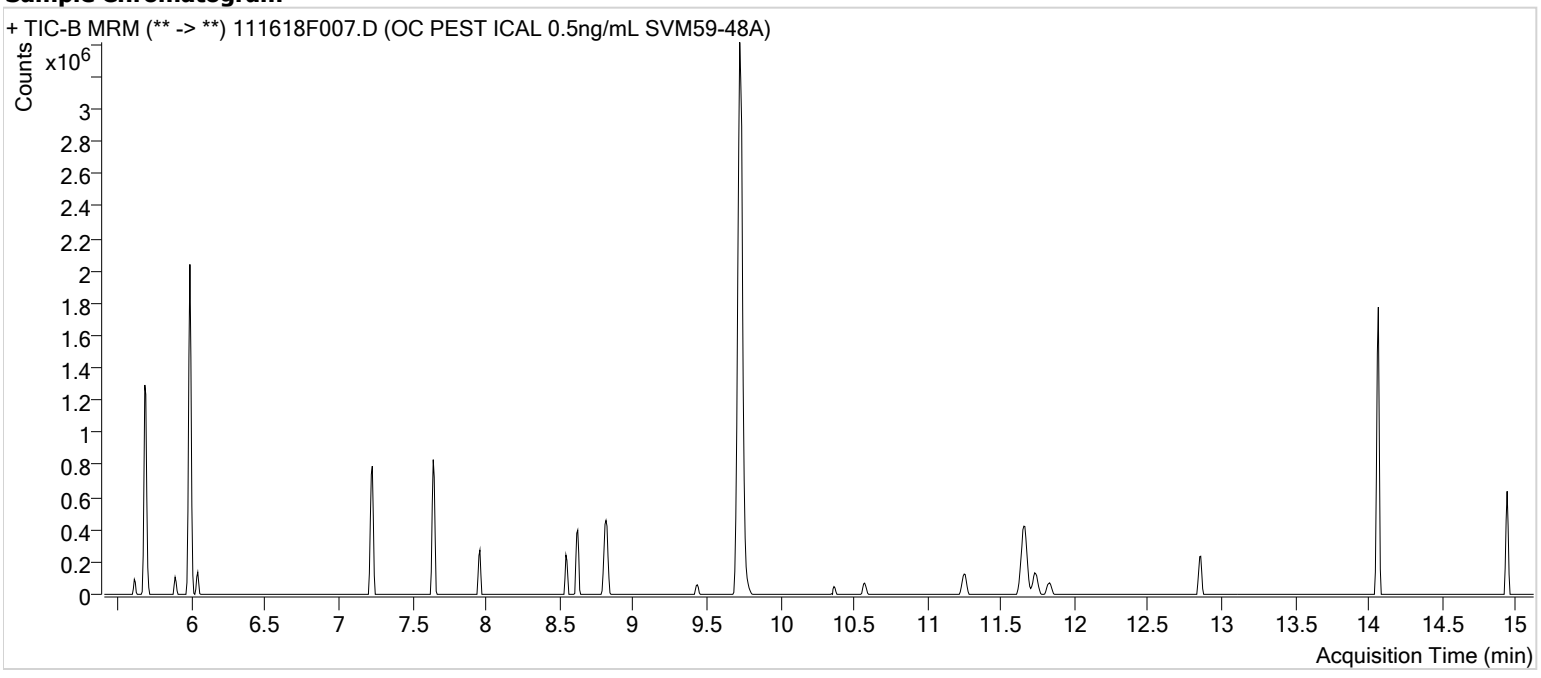
System Monitoring Compounds	**RT**	**Transition**	**Response**	**Conc. Units**	
Hexachlorobenzene-13C6	5.677	289.8 -> 254.8	1056496	18.253 ng/ml	
		Spiked Amount =	20.0	Recovery =	*91.3 %*
γ-BHC-d6	5.983	223.9 -> 187.0	2088961	19.045 ng/ml	
		Spiked Amount =	20.0	Recovery =	*95.2 %*
Heptachlor-13C10	7.216	276.8 -> 241.8	853911	18.827 ng/ml	
		Spiked Amount =	20.0	Recovery =	*94.1 %*
Chorpyrifos-d10	7.640	199.9 -> 171.9	1122652	19.730 ng/ml	
		Spiked Amount =	20.0	Recovery =	*98.7 %*
Aldrin-13C	7.952	269.8 -> 200.0	816638	19.714 ng/ml	
		Spiked Amount =	20.0	Recovery =	*98.6 %*
Octachlorostyrene-13C8	8.540	315.8 -> 245.8	568089	19.153 ng/ml	
		Spiked Amount =	20.0	Recovery =	*95.8 %*
Isodrin-13C12	8.616	199.9 -> 130.1	889186	19.673 ng/ml	
		Spiked Amount =	20.0	Recovery =	*98.4 %*
Heptachlor epoxide-13C10	8.805	362.8 -> 270.0	264168	18.280 ng/ml	
		Spiked Amount =	20.0	Recovery =	*91.4 %*
Oxychlordane-13C10	8.809	190.0 -> 125.0	548085	18.662 ng/ml	
		Spiked Amount =	20.0	Recovery =	*93.3 %*
Endrin-13C12	11.247	269.8 -> 200.0	278342	19.368 ng/ml	
		Spiked Amount =	20.0	Recovery =	*96.8 %*
4,4'-DDD d4	11.652	243.0 -> 173.1	1241029	4.444 ng/ml	
		Spiked Amount =	5.0	Recovery =	*88.9 %*
4,4'-DDT-d4	12.851	243.0 -> 173.1	586462	4.700 ng/ml	
		Spiked Amount =	5.0	Recovery =	*94.0 %*
Endrin ketone-13C12	13.850	327.9 -> 291.8	33051	18.573 ng/ml	
		Spiked Amount =	20.0	Recovery =	*92.9 %*
Methoxychlor-d6	14.060	233.0 -> 141.0	1635583	19.837 ng/ml	
		Spiked Amount =	20.0	Recovery =	*99.2 %*
Mirex-13C10	14.930	276.8 -> 241.8	505351	4.195 ng/ml	
		Spiked Amount =	5.0	Recovery =	*83.9 %*

Quantitative Analysis Sample Report

Target Compounds	ISTD	RT	Transition	Resp.	Conc.	Units	Qvalue
α-BHC	γ-BHC-d6(IS)	5.613	181.1 -> 145.1	84862	0.568	ng/ml	92
Hexachlorobenzene	Hexachlorobenzene-13C6(IS)	5.686	283.8 -> 213.9	58403	0.611	ng/ml	95
β-BHC	γ-BHC-d6(IS)	5.890	181.1 -> 145.1	106230	0.562	ng/ml	96
γ-BHC(Lindane)	γ-BHC-d6(IS)	6.044	181.1 -> 145.1	123335	0.564	ng/ml	95
δ-BHC	γ-BHC-d6(IS)	6.404	181.1 -> 145.1	49948	0.574	ng/ml	99
Heptachlor	Heptachlor-13C10(IS)	7.230	271.7 -> 236.9	29760	0.601	ng/ml	1
Chorpyrifos	Chorpyrifos-d10(IS)	7.725	196.9 -> 169.0	49814	0.629	ng/ml	99
Aldrin	Aldrin-13C(IS)	7.955	254.9 -> 220.0	87884	0.421	ng/ml	10
Octachlorostyrene	Octachlorostyrene-13C8(IS)	8.556	342.8 -> 307.8	42801	0.585	ng/ml	99
Isodrin	Isodrin-13C12(IS)	8.633	193.0 -> 123.0	27455	0.602	ng/ml	95
Heptachlor epoxide	Heptachlor epoxide-13C10(IS)	8.823	352.8 -> 262.9	8251	0.549	ng/ml	98
Oxychlordane	Oxychlordane-13C10(IS)	8.826	114.9 -> 51.1	44367	0.599	ng/ml	98
γ-Chlordane(trans)	Oxychlordane-13C10(IS)	9.430	271.8 -> 236.9	15226	0.577	ng/ml	98
2,4'-DDE	4,4'-DDD d4(IS)	9.440	246.0 -> 176.2	137990	0.585	ng/ml	98
α-Chlordane(cis)	Oxychlordane-13C10(IS)	9.782	271.8 -> 236.9	39271	0.595	ng/ml	96
Endosulfan I	Endrin-13C12(IS)	9.805	206.9 -> 172.0	8977	0.514	ng/ml	99
trans-Nanochlor	Oxychlordane-13C10(IS)	9.862	271.8 -> 236.9	23699	0.558	ng/ml	92
4,4' -DDE	4,4'-DDD d4(IS)	10.365	246.0 -> 176.2	131805	0.609	ng/ml	98
2,4'-DDD	4,4'-DDD d4(IS)	10.577	235.0 -> 165.1	156454	0.586	ng/ml	99
Dieldrin	Endrin-13C12(IS)	10.594	262.9 -> 193.0	11269	0.531	ng/ml	90
Endosulfan II	Endrin-13C12(IS)	11.247	206.9 -> 172.0	30367	0.000	ng/ml	81
Endrin	Endrin-13C12(IS)	11.258	262.8 -> 193.0	12125	0.635	ng/ml	100
4,4'-DDD	4,4'-DDD d4(IS)	11.733	235.0 -> 165.1	243480	0.608	ng/ml	95
cis-Nonachlor	Oxychlordane-13C10(IS)	11.756	271.8 -> 236.9	9064	0.564	ng/ml	88
2,4'-DDT	4,4'-DDT-d4(IS)	11.834	235.0 -> 165.1	150685	0.573	ng/ml	92
Endrin aldehyde	Endrin-13C12(IS)	12.091	249.9 -> 214.9	2930	0.544	ng/ml	97
Endosulfan sulfate	Endrin-13C12(IS)	12.804	271.9 -> 237.0	17751	0.543	ng/ml	97
4,4'-DDT	4,4'-DDT-d4(IS)	12.916	235.0 -> 165.1	73999	0.545	ng/ml	99
Endrin ketone	Endrin ketone-13C12(IS)	13.861	147.0 -> 111.0	8092	0.696	ng/ml	78
Methoxychlor	Methoxychlor-d6(IS)	14.101	227.0 -> 141.1	63559	0.609	ng/ml	86
Mirex	Mirex-13C10(IS)	14.943	271.8 -> 236.8	78961	0.485	ng/ml	91

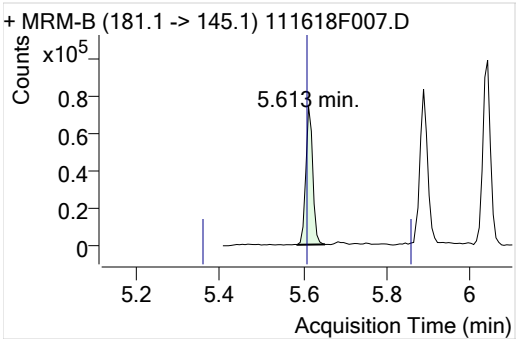
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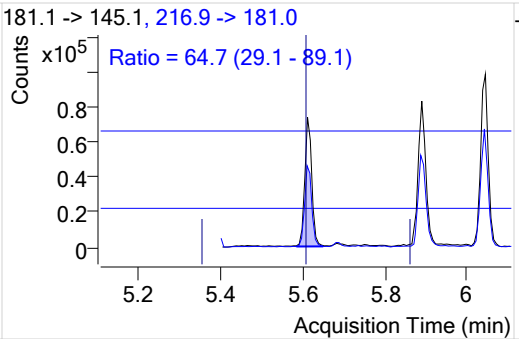
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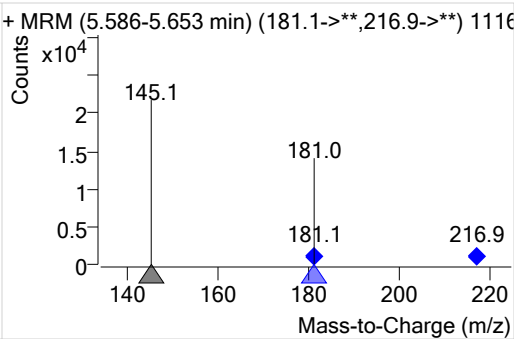


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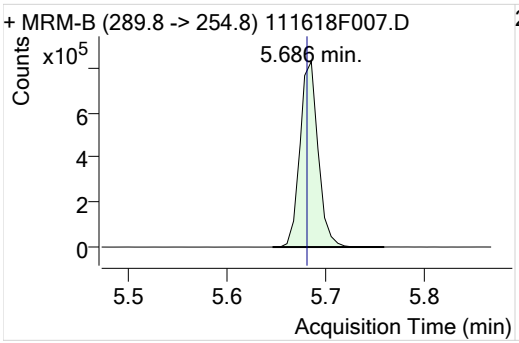
α-BHC

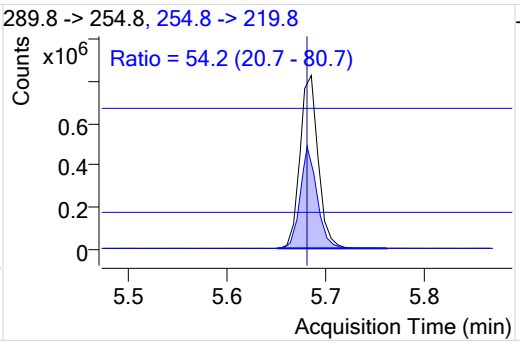


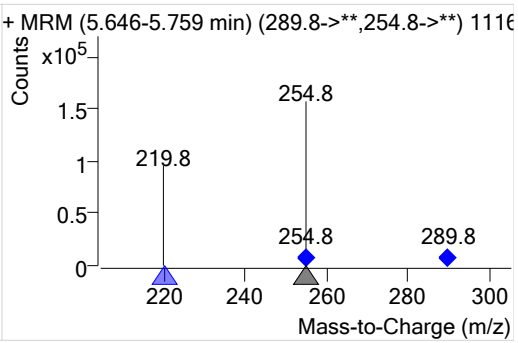




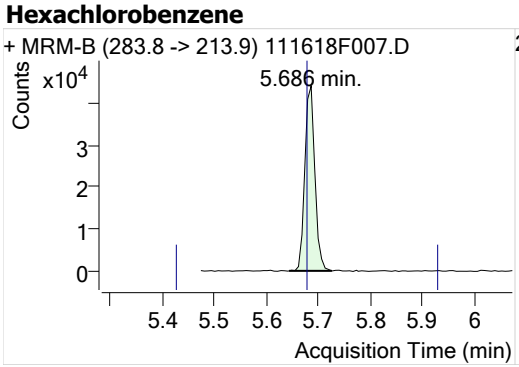
Hexachlorobenzene-13C6

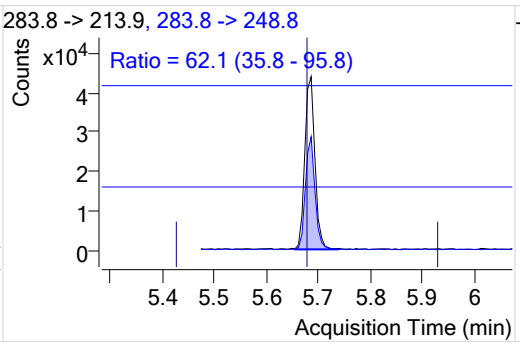


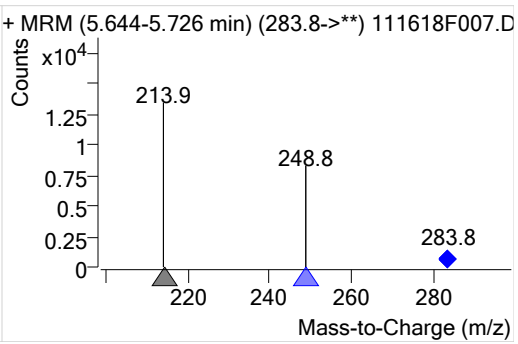




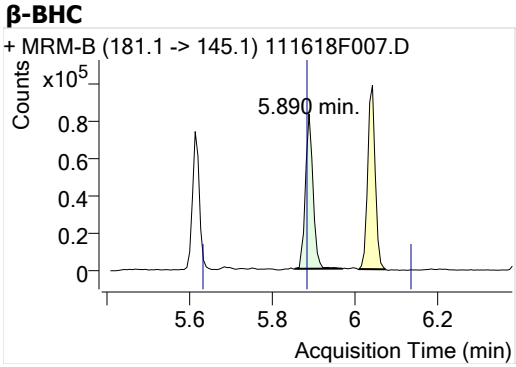
Hexachlorobenzene

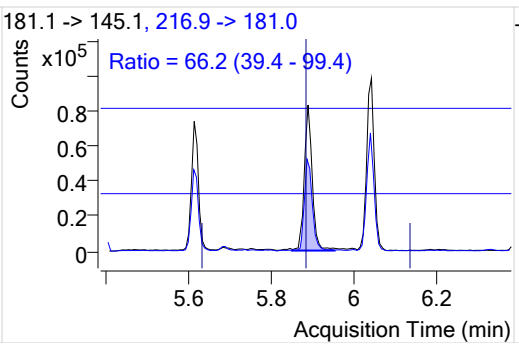


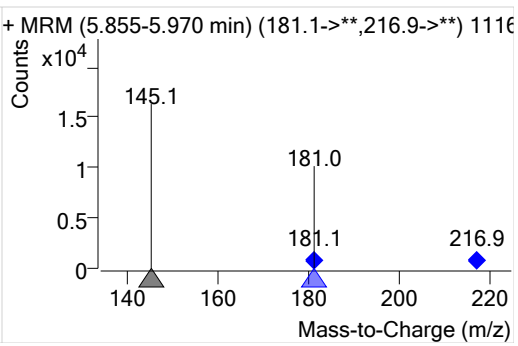




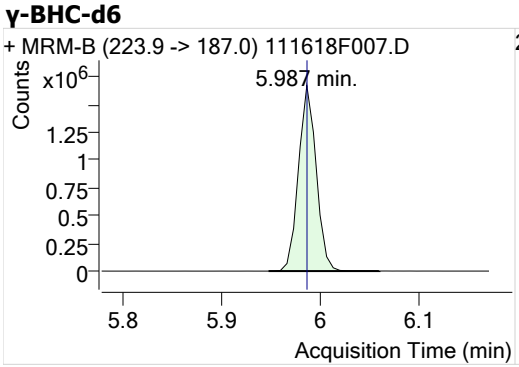
β-BHC

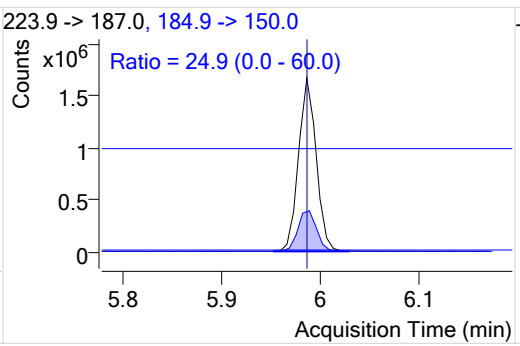


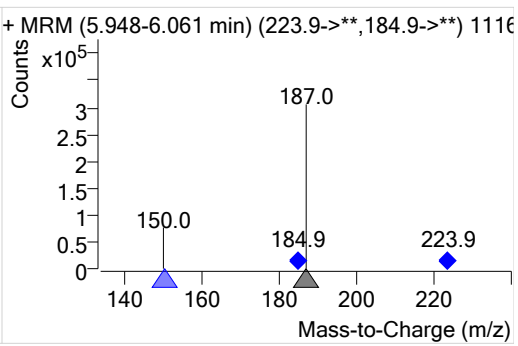




γ-BHC-d6

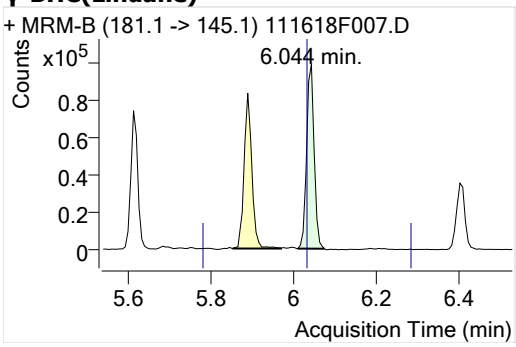


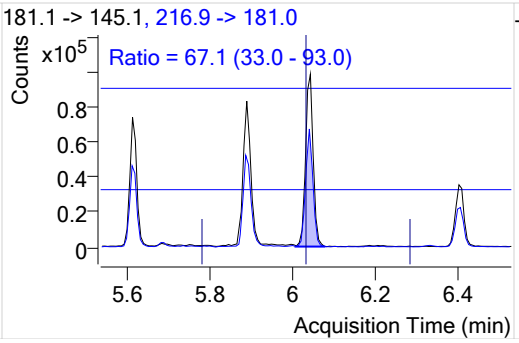


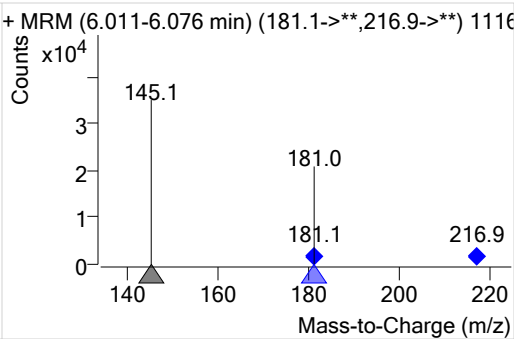


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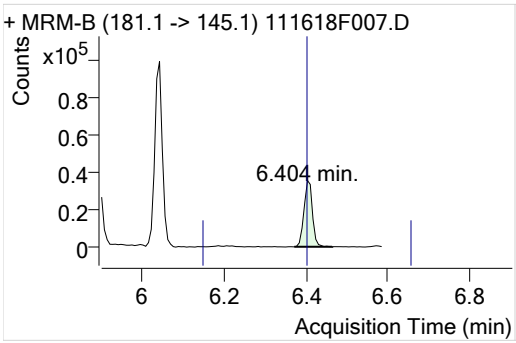
γ-BHC(Lindane)

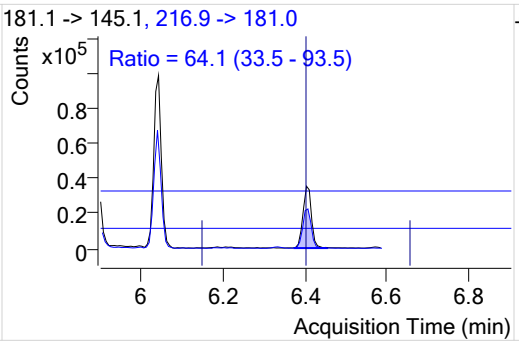


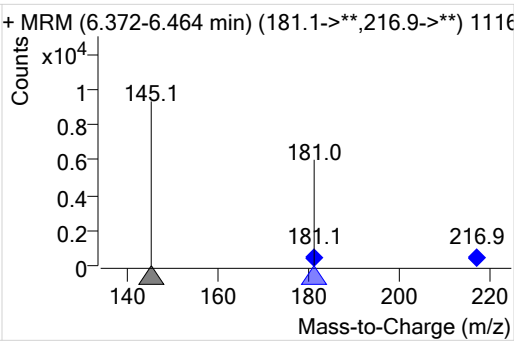




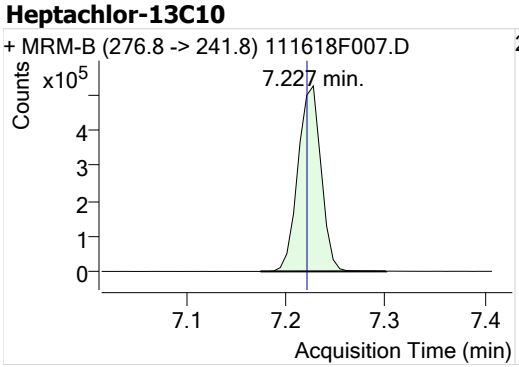
δ-BHC

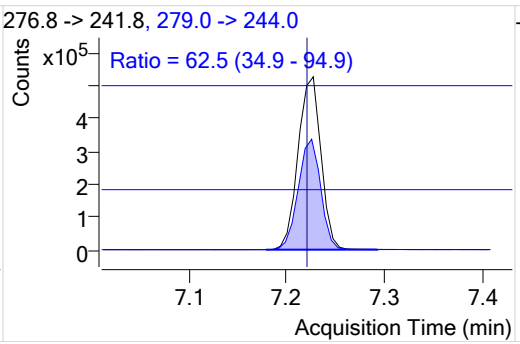


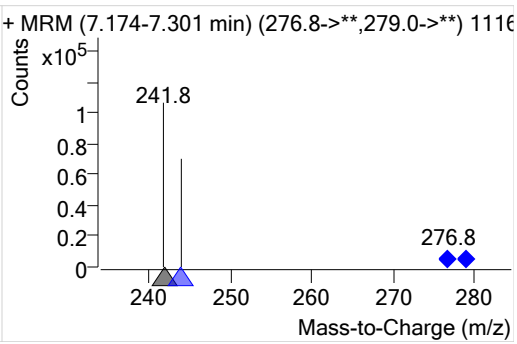




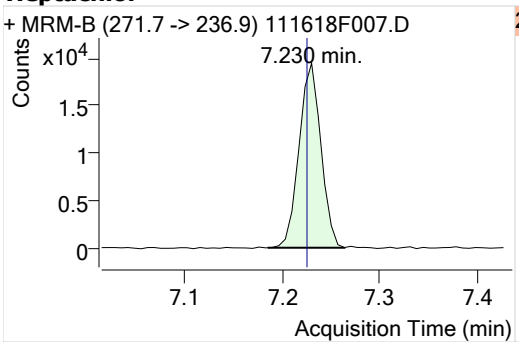
Heptachlor-13C10

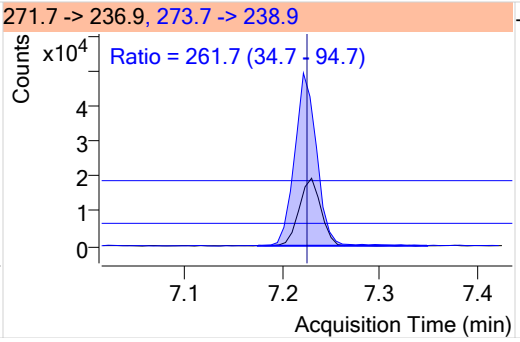


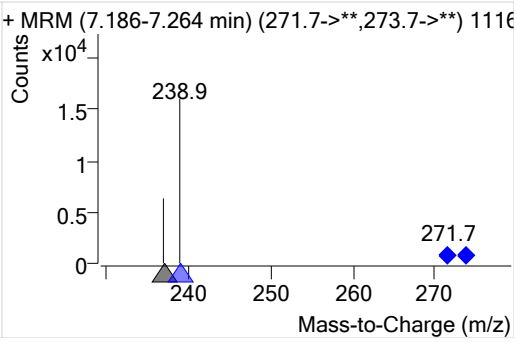




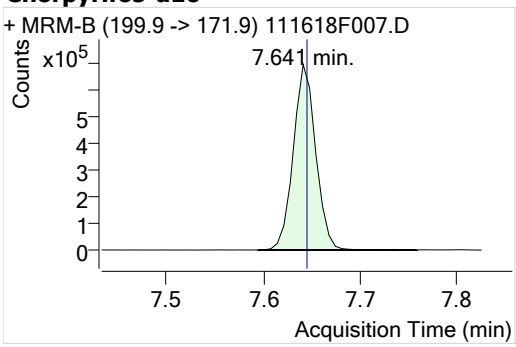
Heptachlor

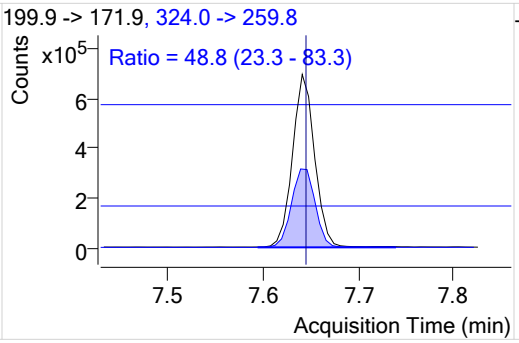


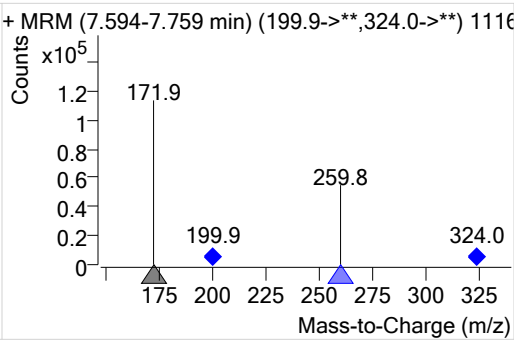




Chorpyrifos-d10

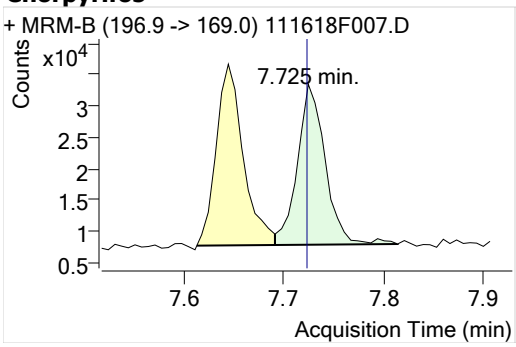


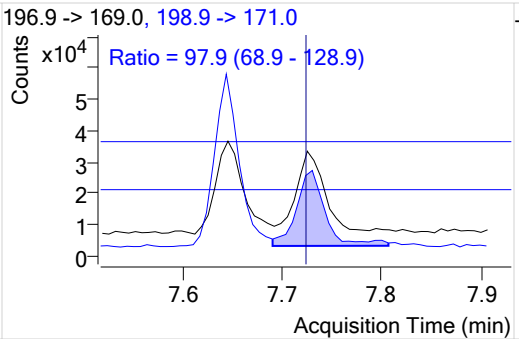


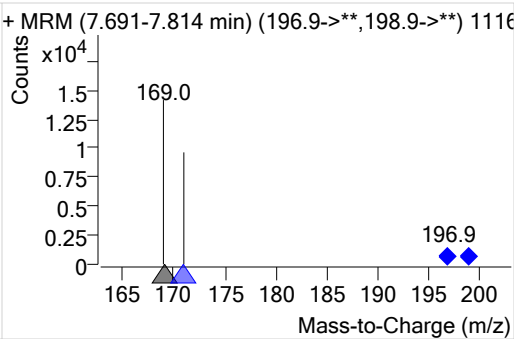


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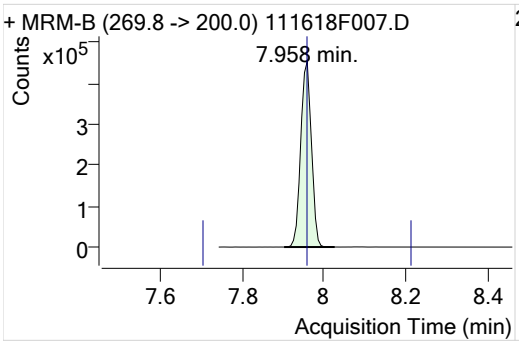
Chorpyrifos

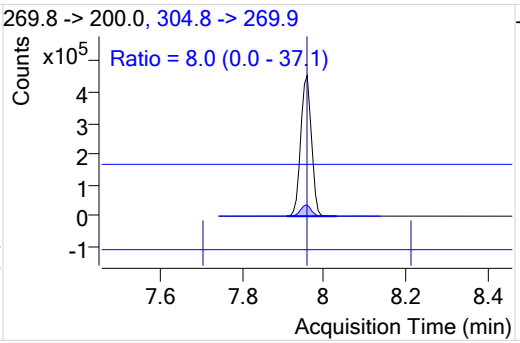


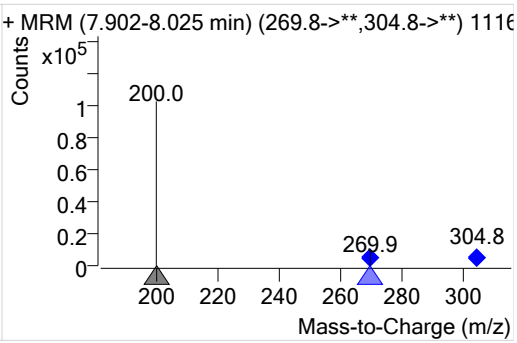




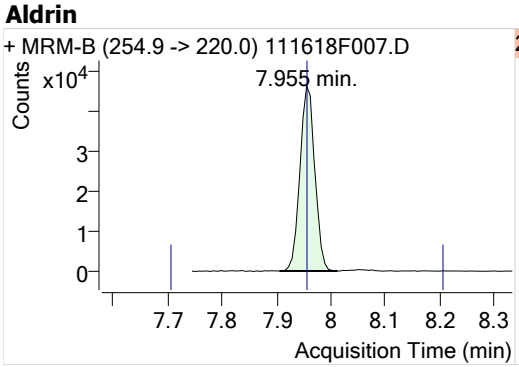
Aldrin-13C

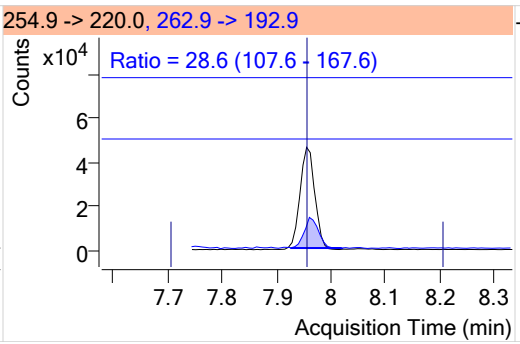


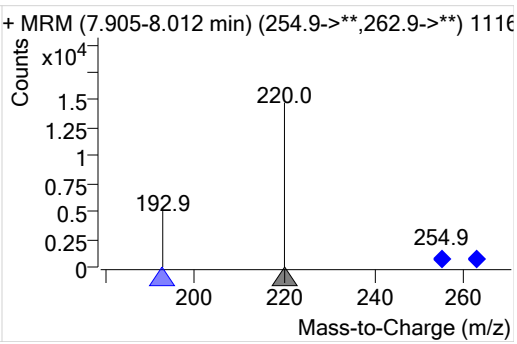




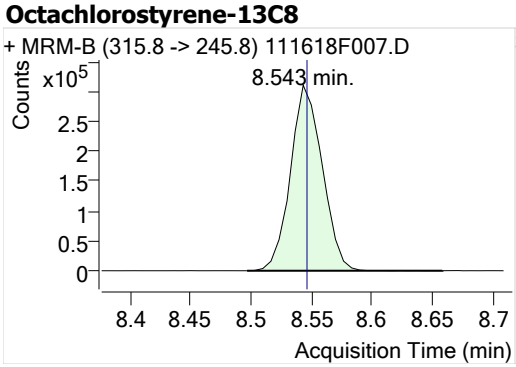
Aldrin

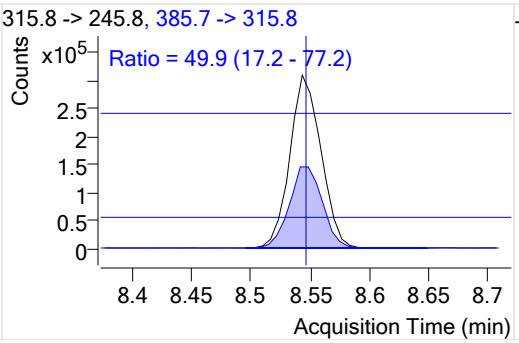


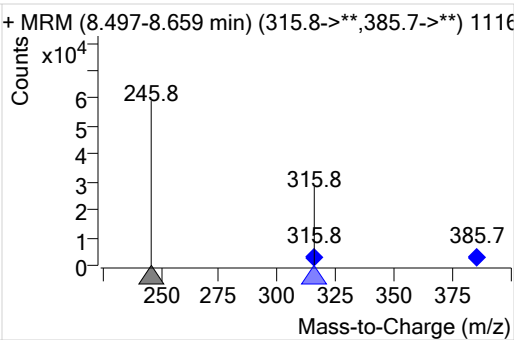




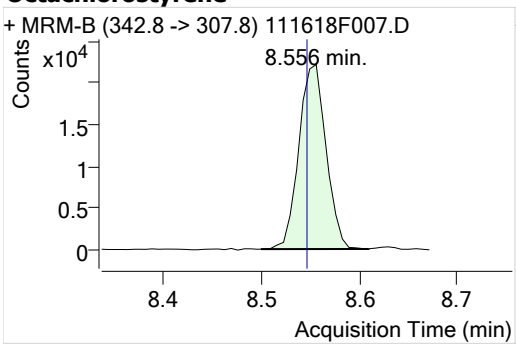
Octachlorostyrene-13C8

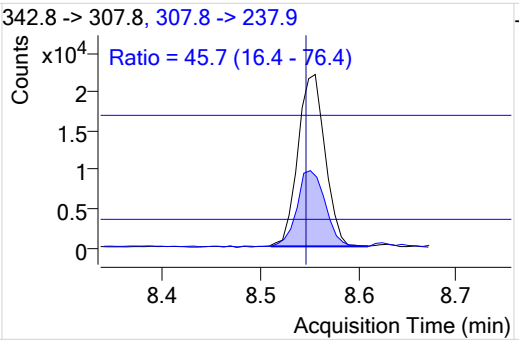


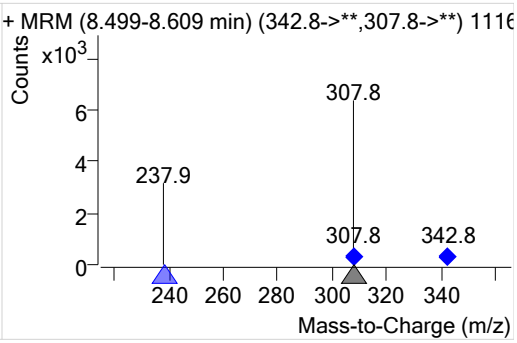




Octachlorostyrene

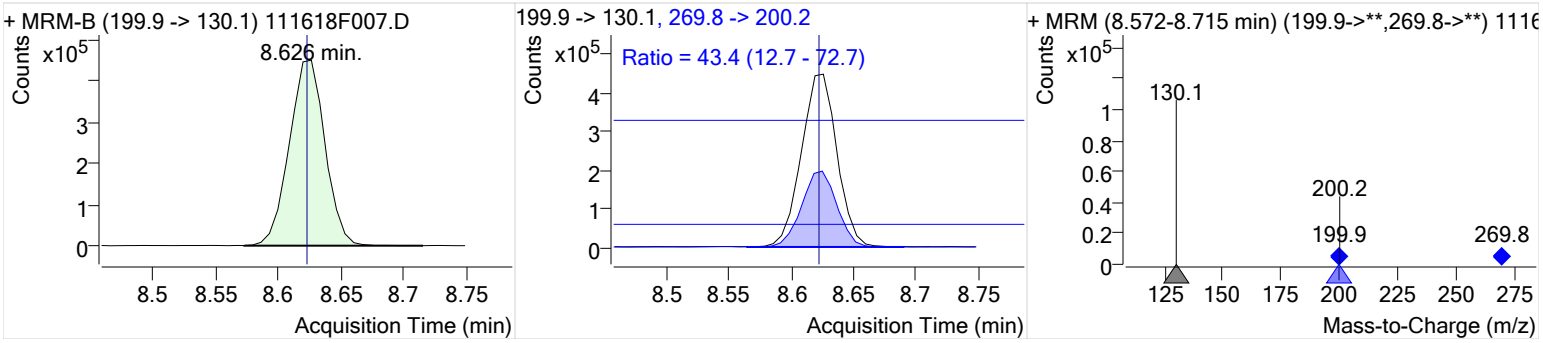




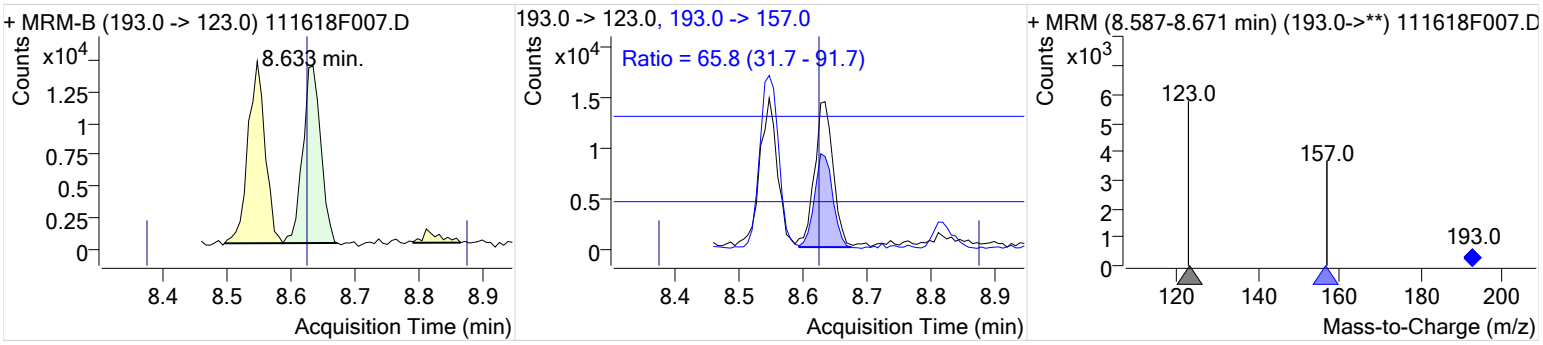


Quantitative Analysis Sample Report

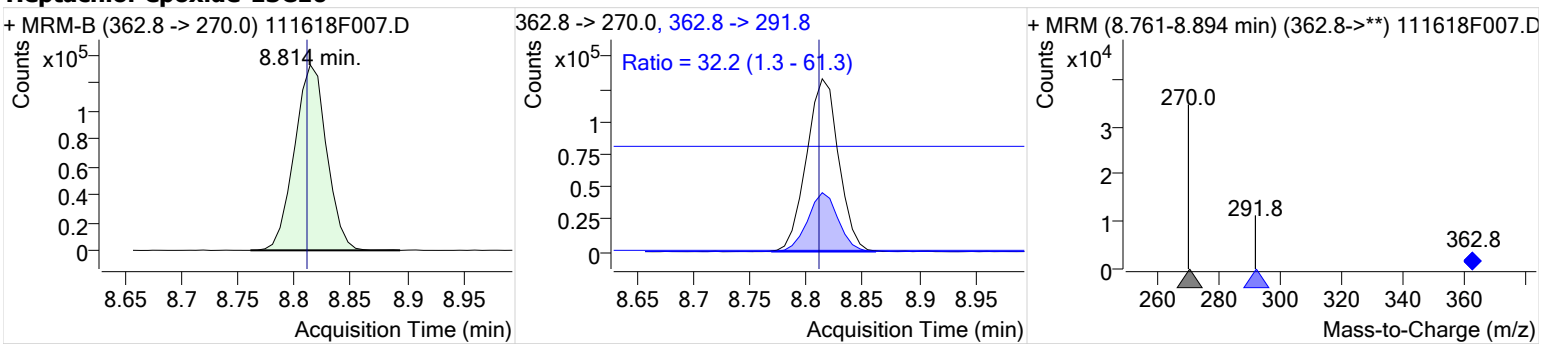
Isodrin-13C12



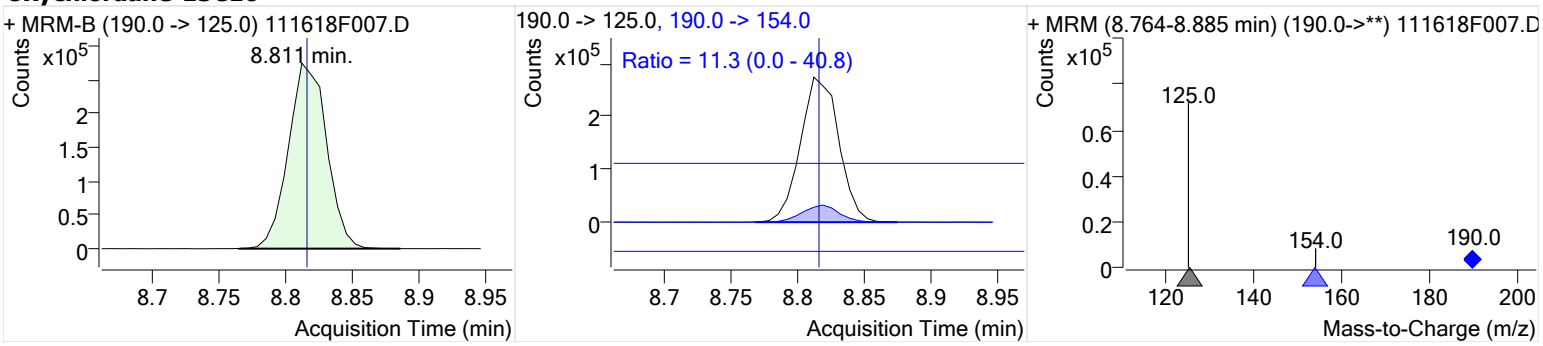
Isodrin



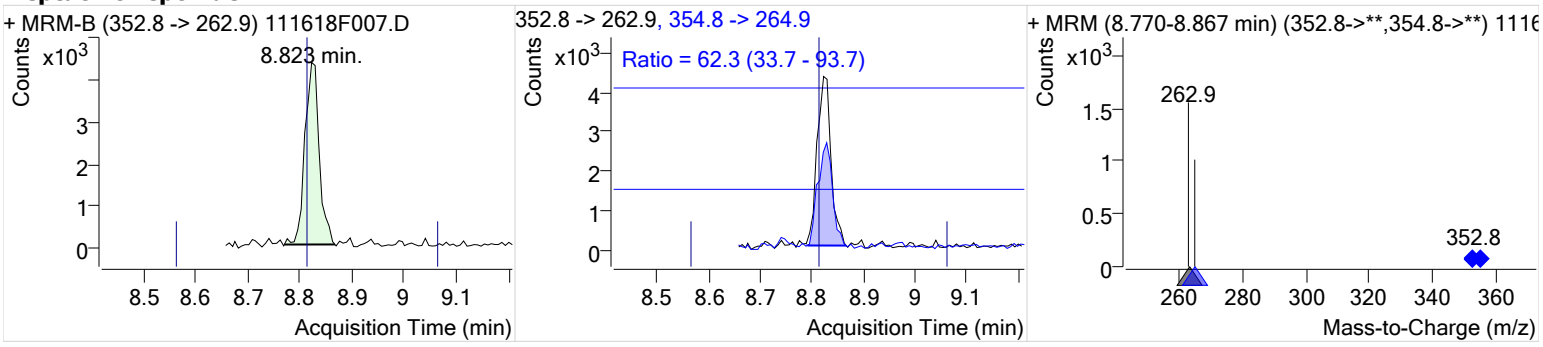
Heptachlor epoxide-13C10



Oxychlordane-13C10

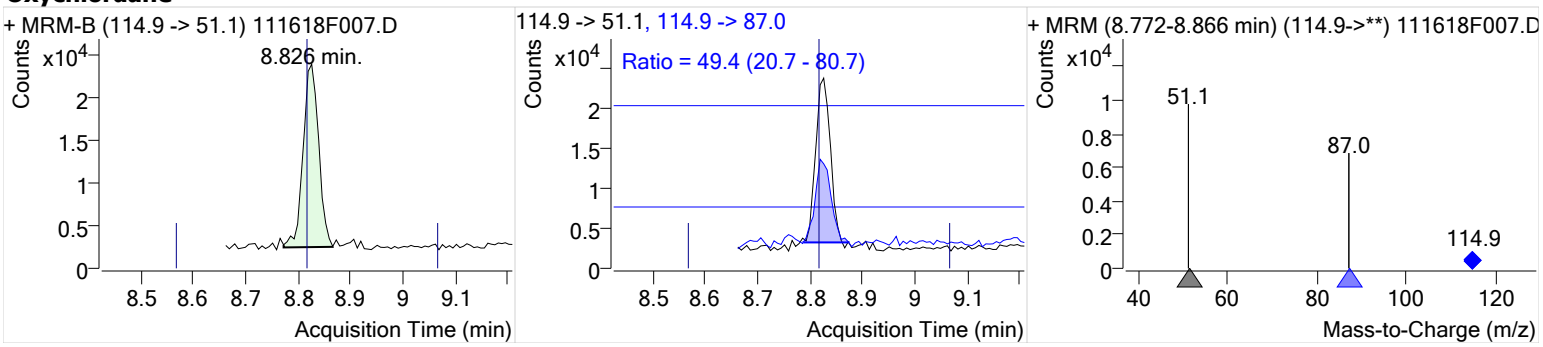


Heptachlor epoxide

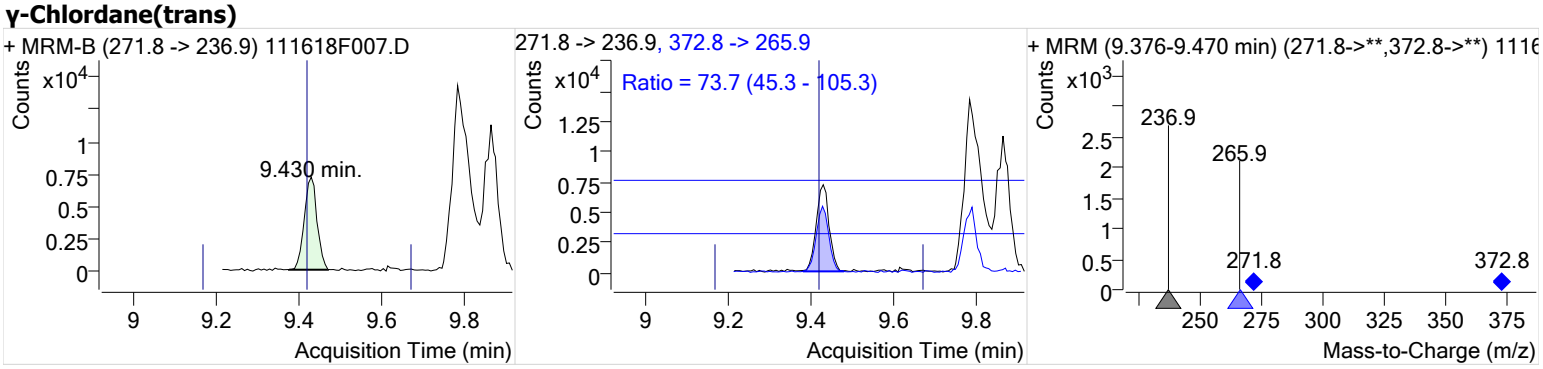


Quantitative Analysis Sample Report

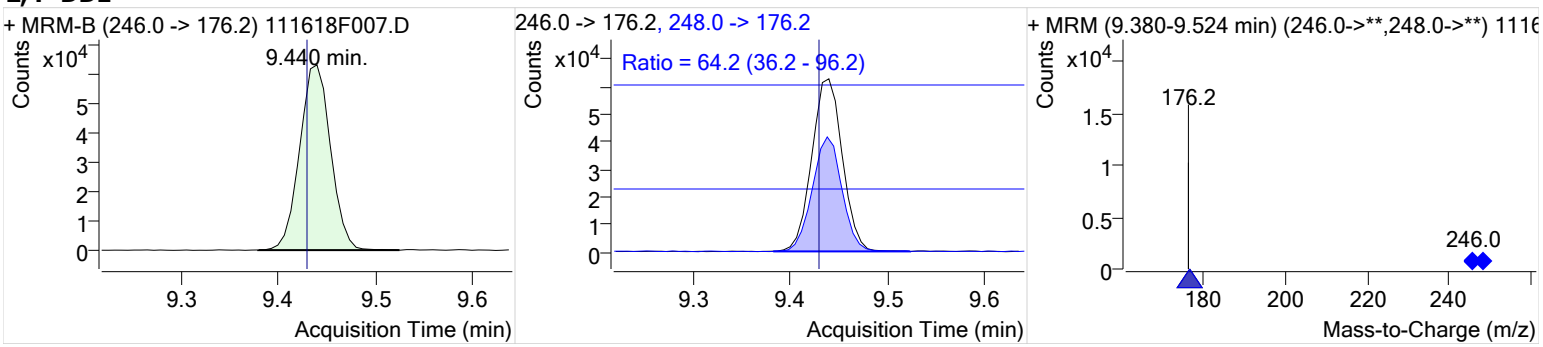
Oxychlordane



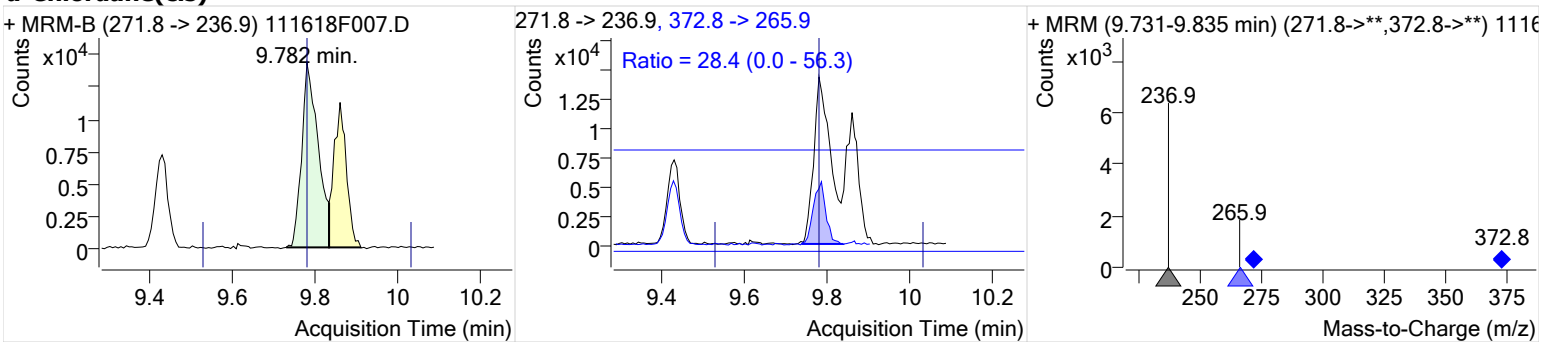
γ-Chlordane(trans)



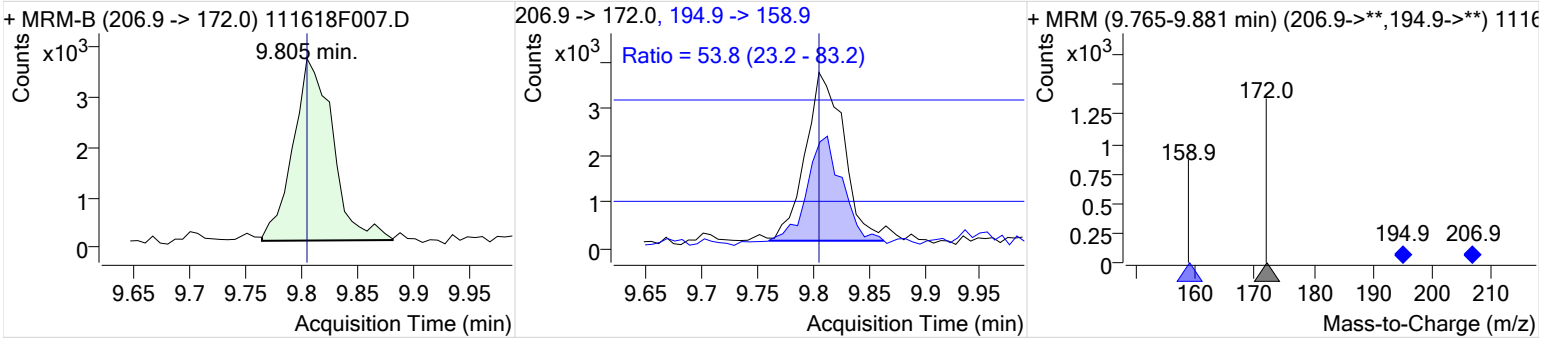
2,4'-DDE



α-Chlordane(cis)

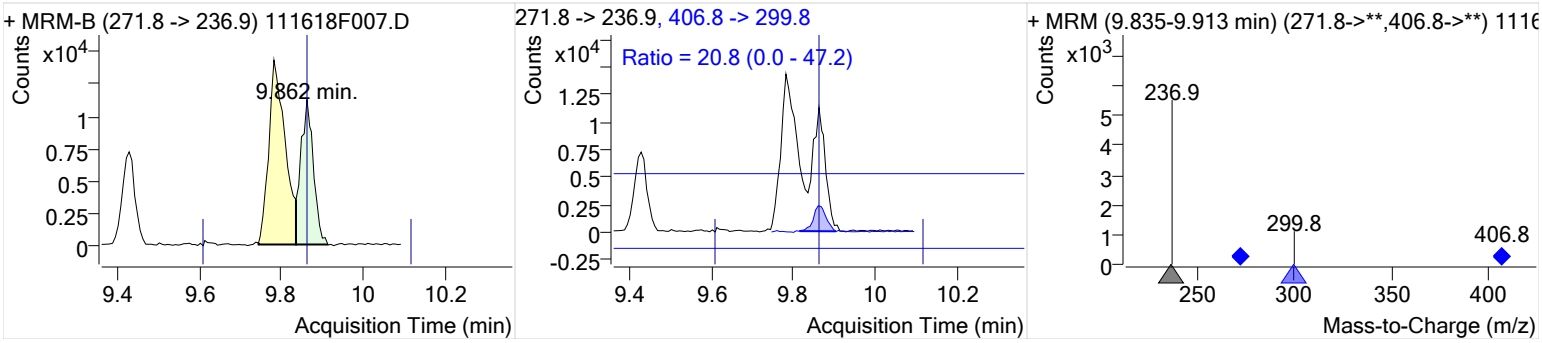


Endosulfan I

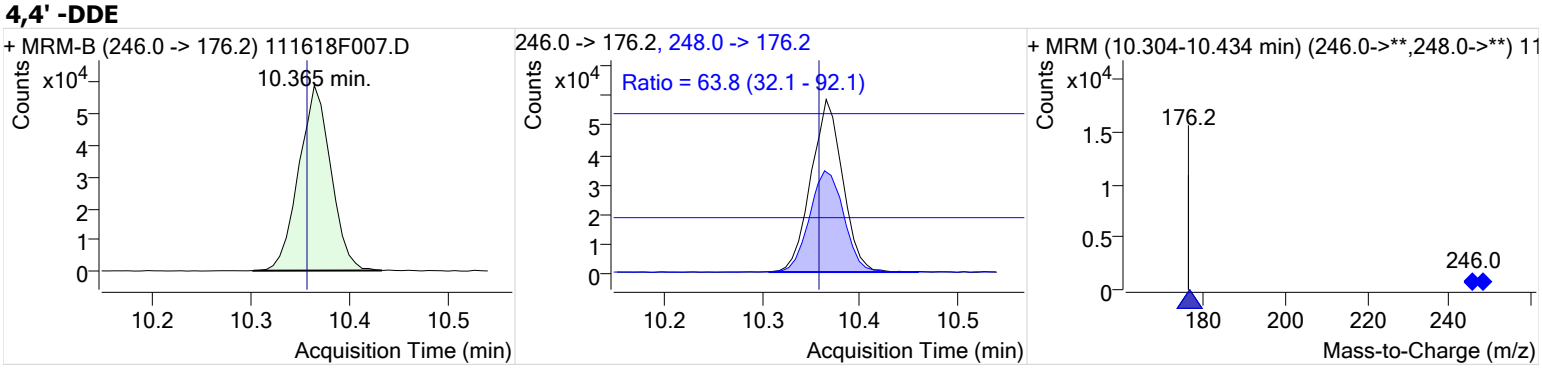


Quantitative Analysis Sample Report

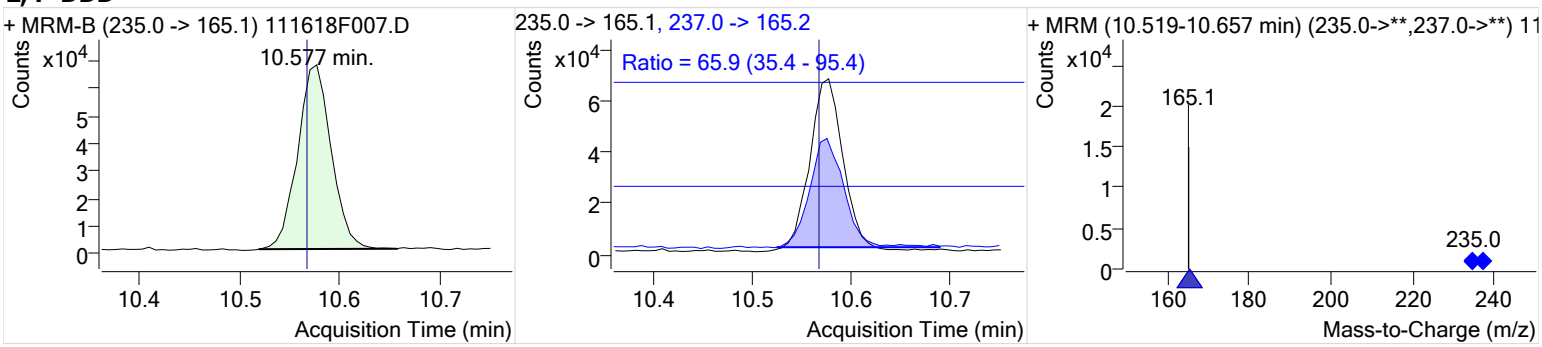
trans-Nanochlor



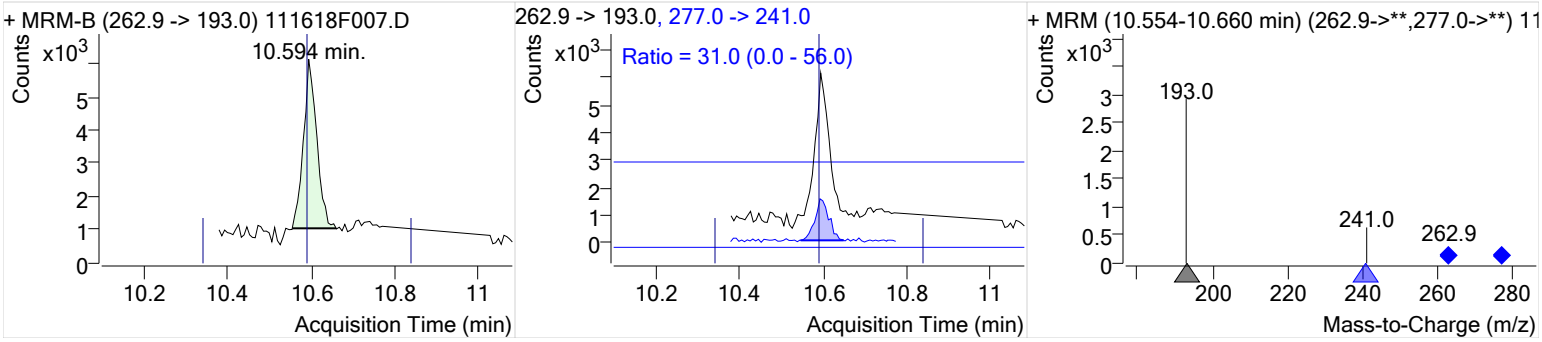
4,4' -DDE



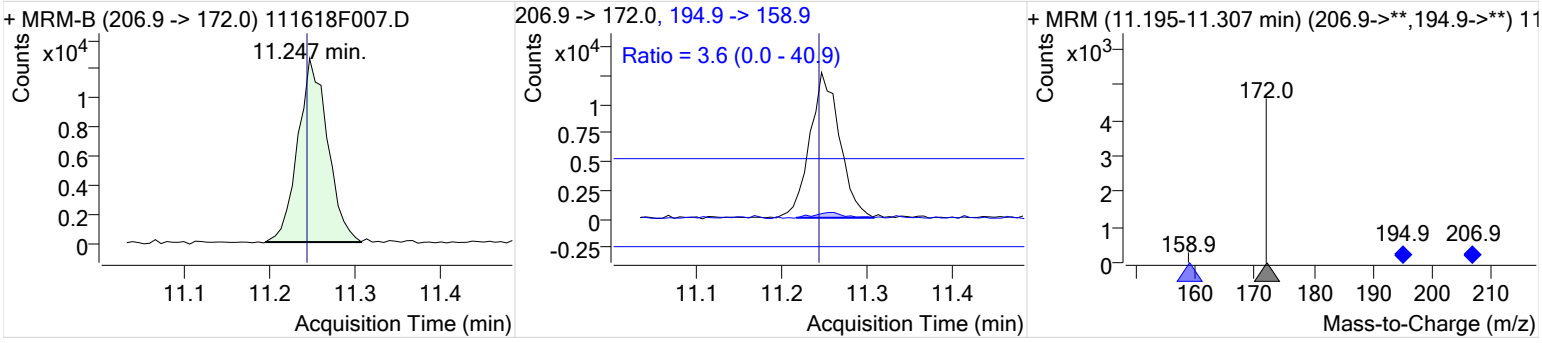
2,4'-DDD



Dieldrin

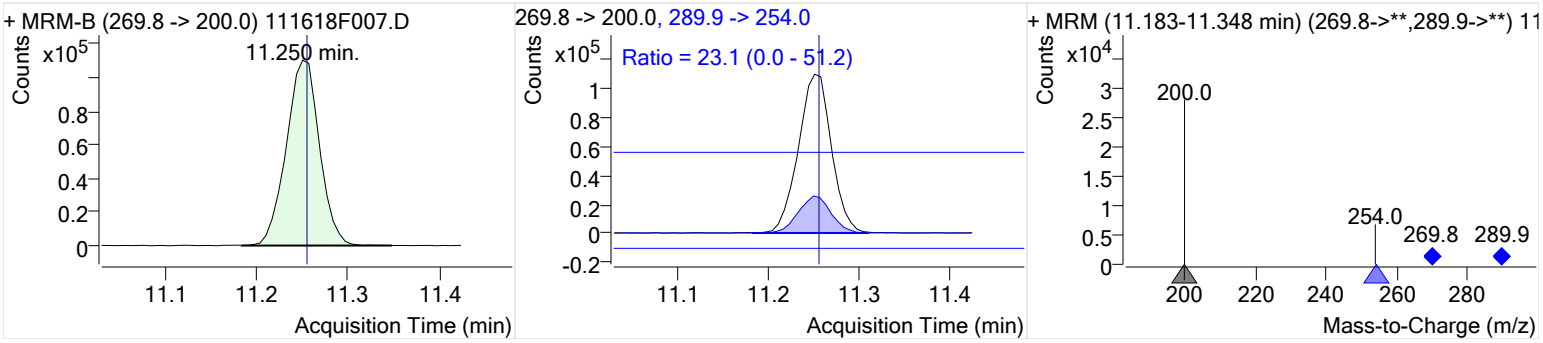


Endosulfan II

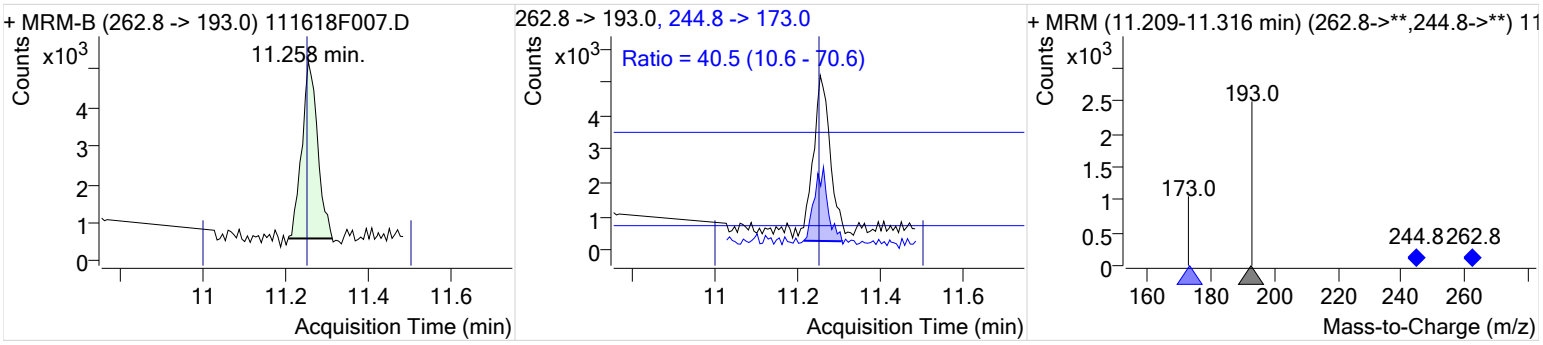


Quantitative Analysis Sample Report

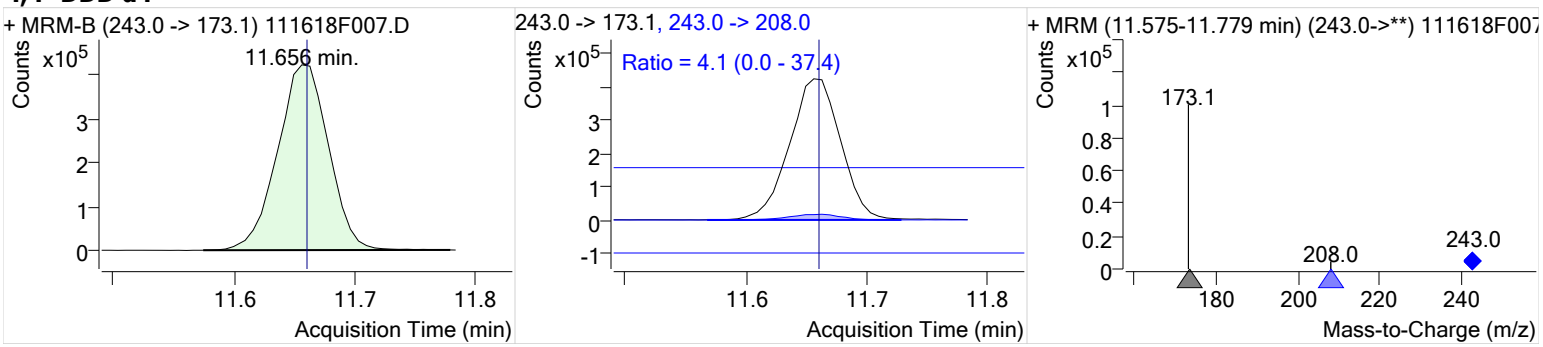
Endrin-13C12



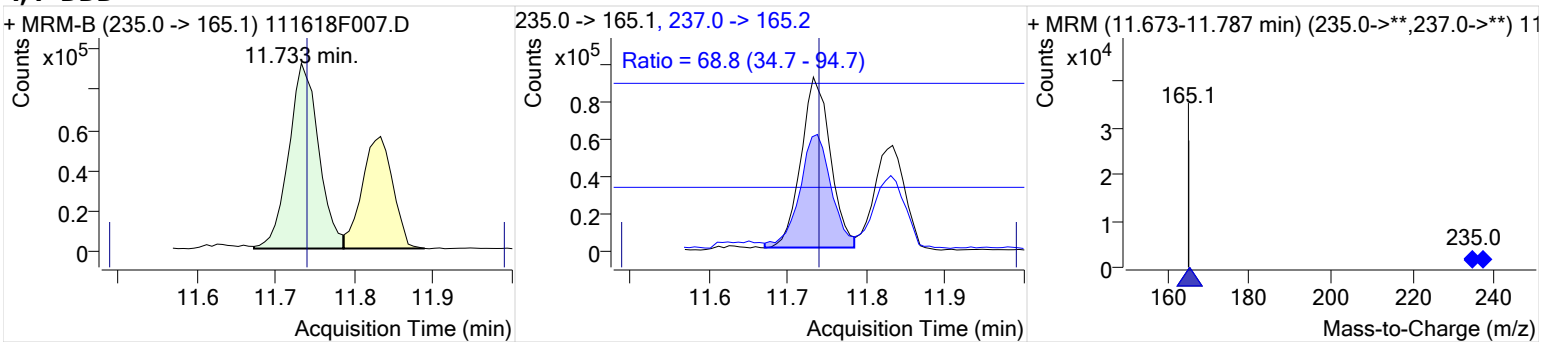
Endrin



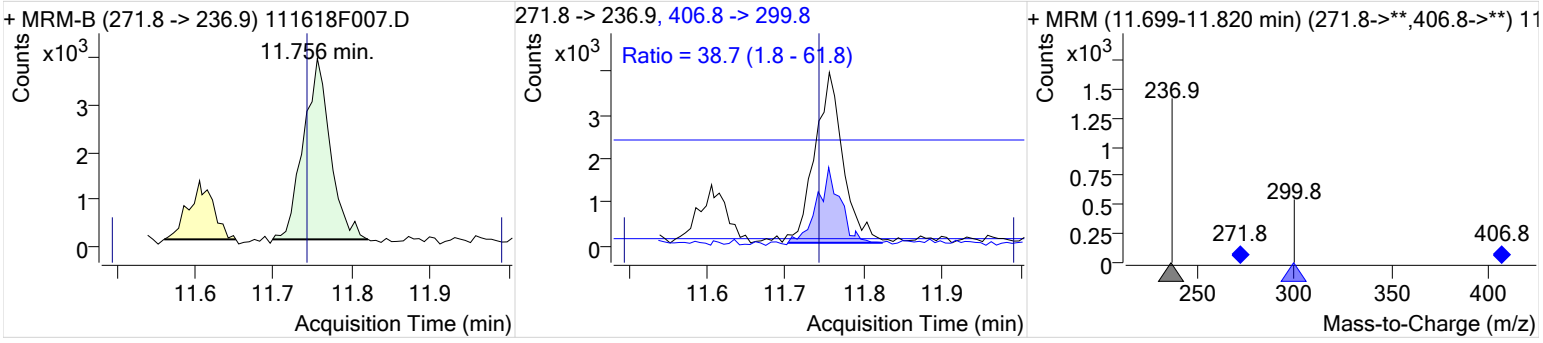
4,4'-DDD d4



4,4'-DDD

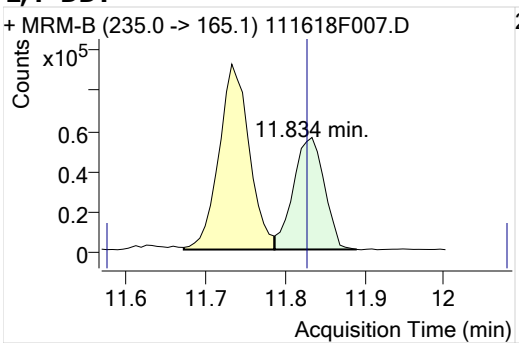


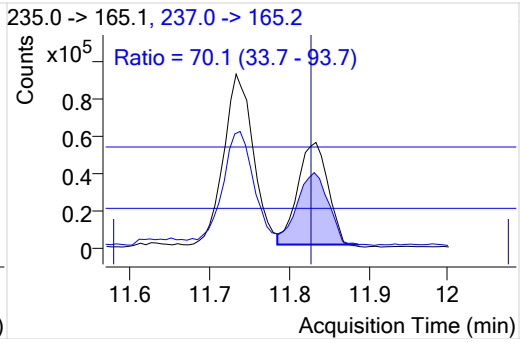
cis-Nonachlor

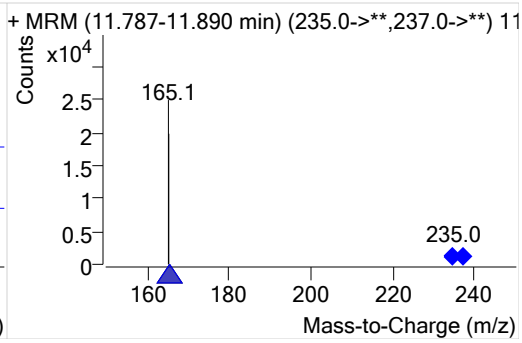


Quantitative Analysis Sample Report

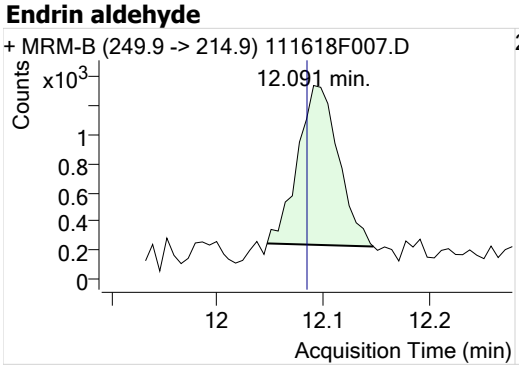
2,4'-DDT

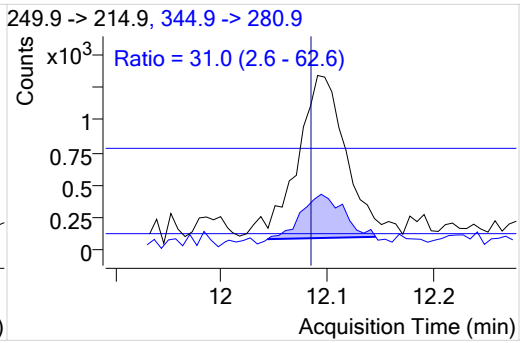


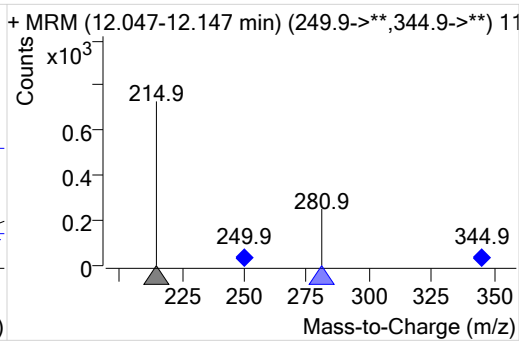




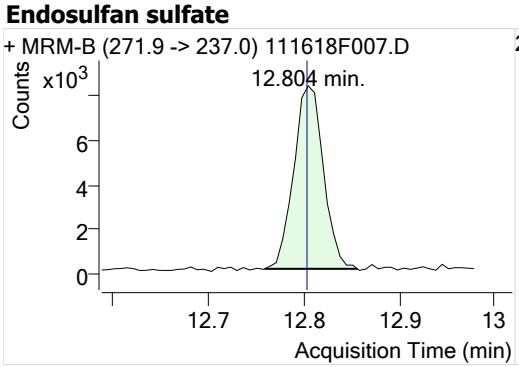
Endrin aldehyde

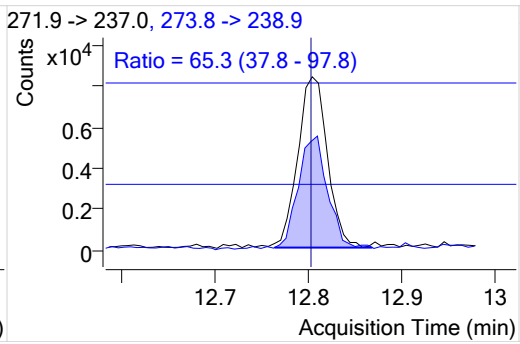


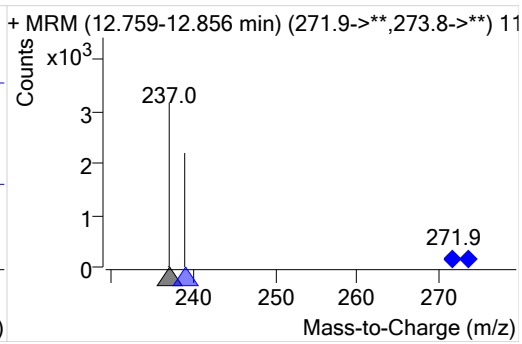




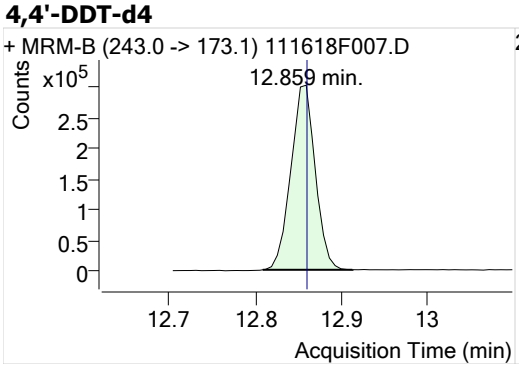
Endosulfan sulfate

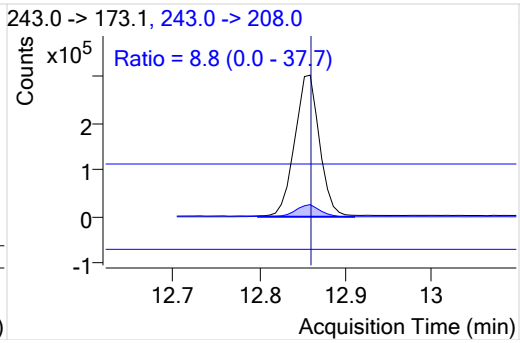


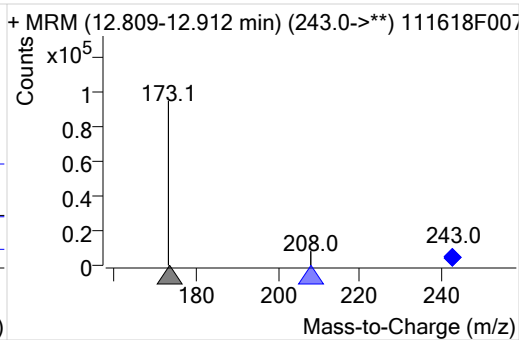




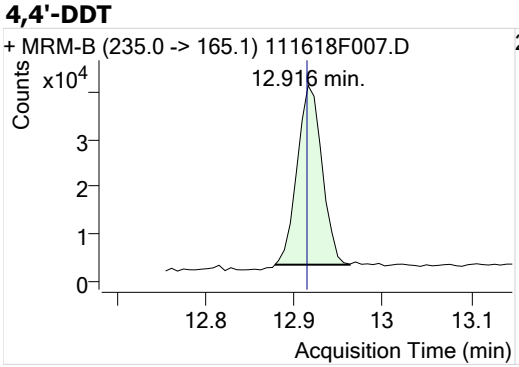
4,4'-DDT-d4

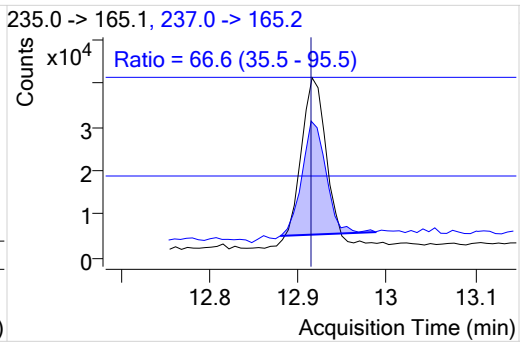


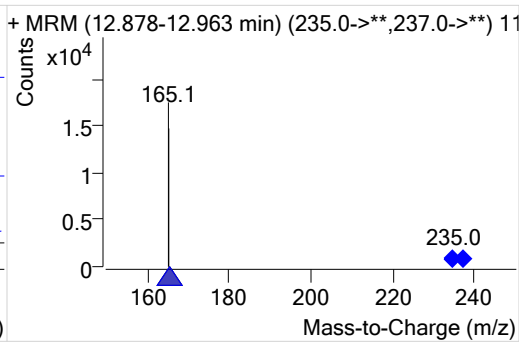




4,4'-DDT

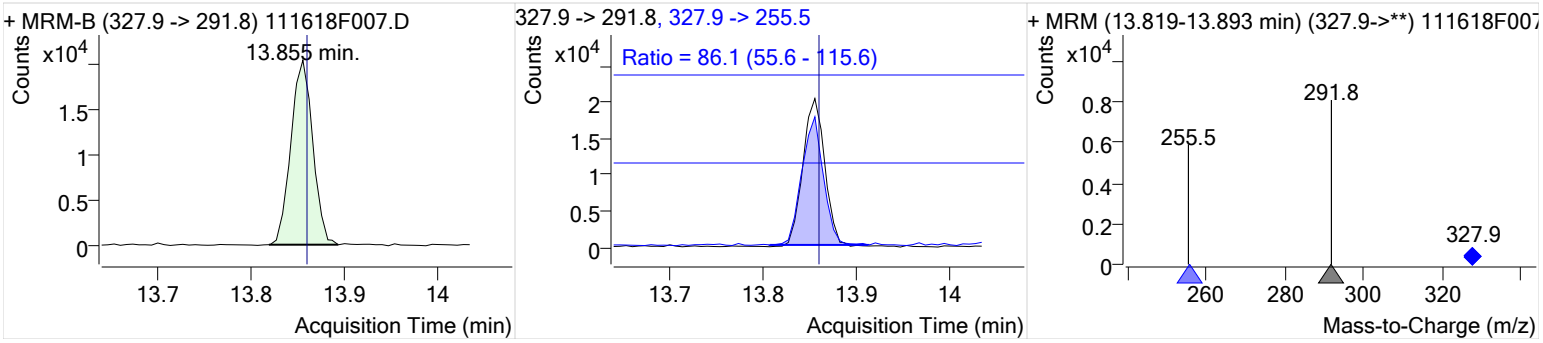




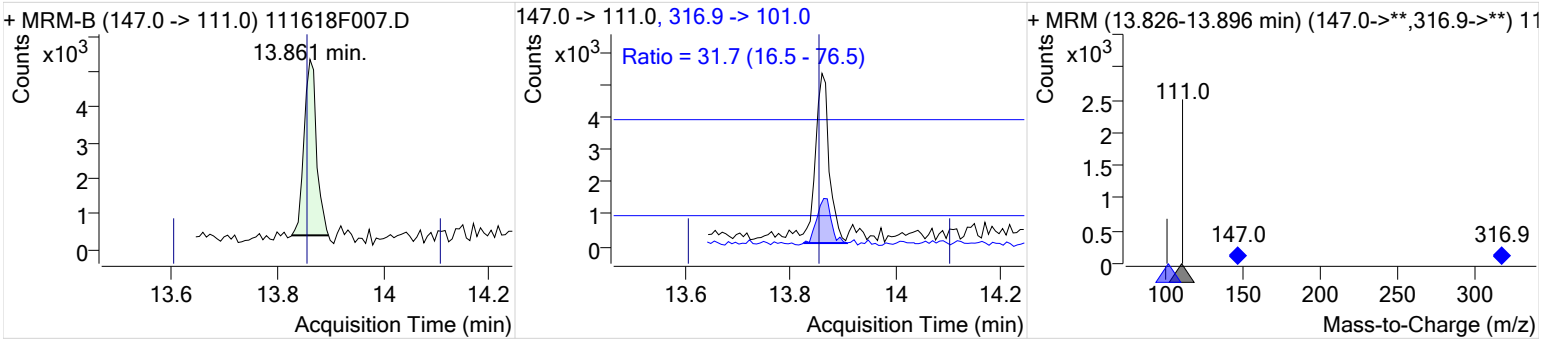


Quantitative Analysis Sample Report

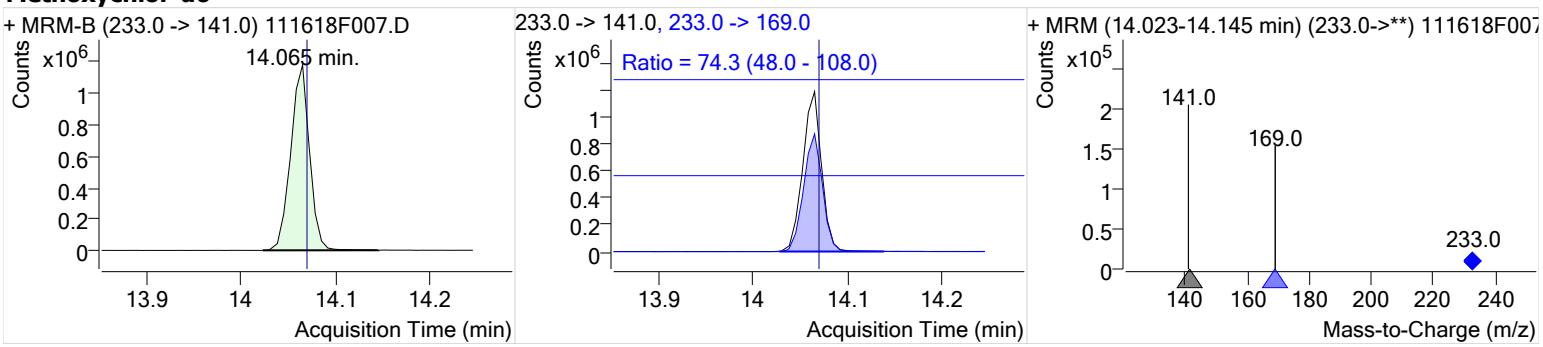
Endrin ketone-13C12



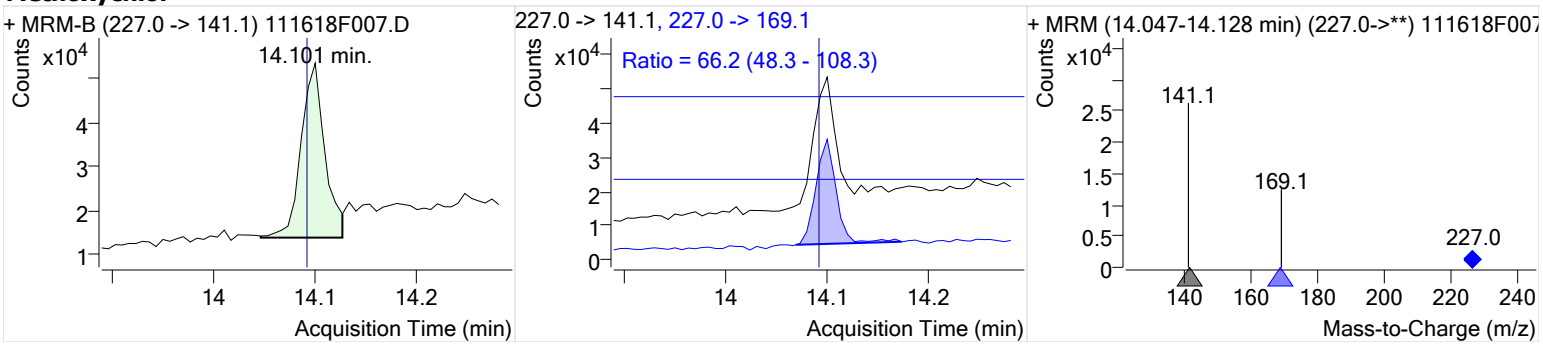
Endrin ketone



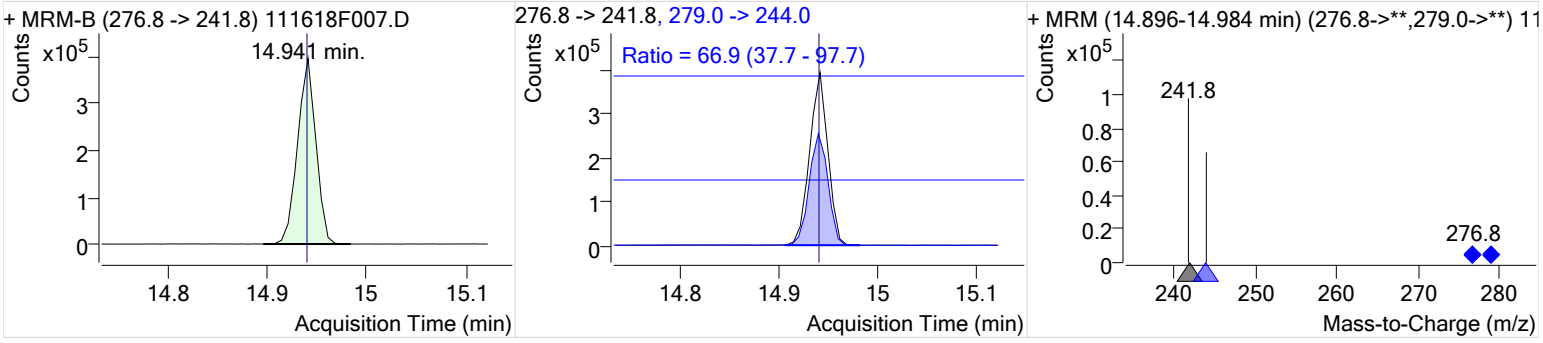
Methoxychlor-d6



Methoxychlor

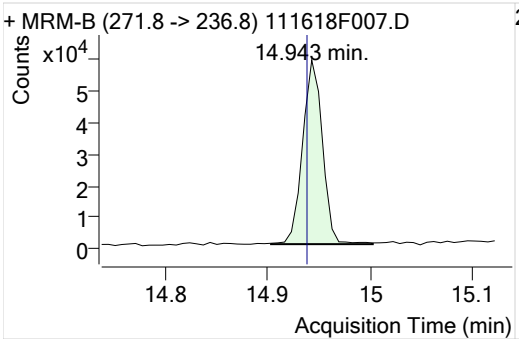


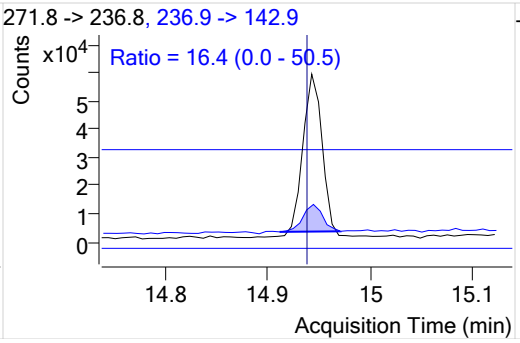
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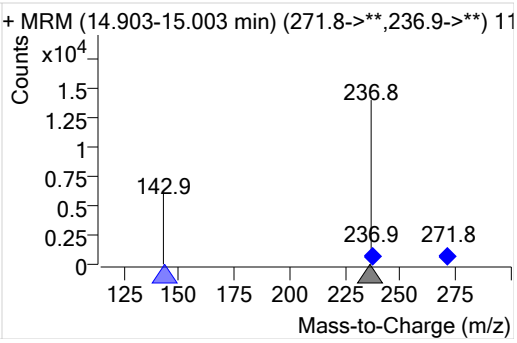


Quantitative Analysis Sample Report

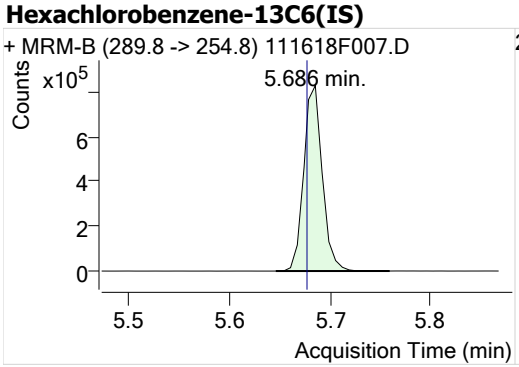
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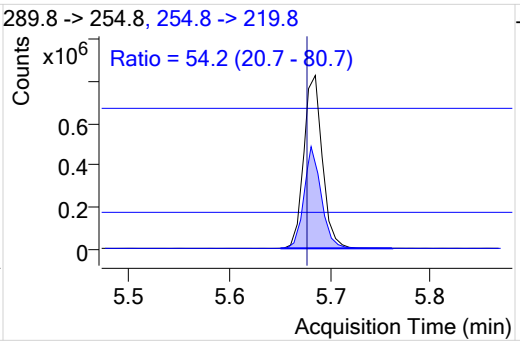


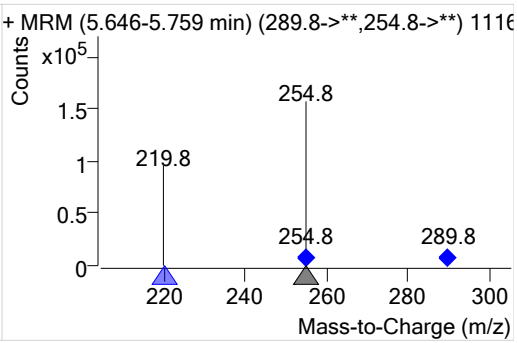




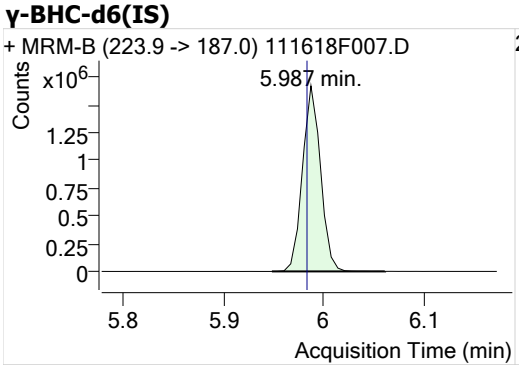
Hexachlorobenzene-13C6(IS)

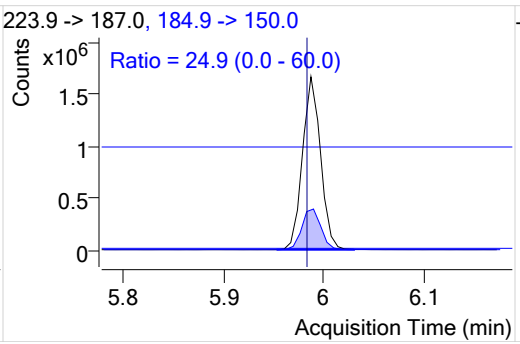


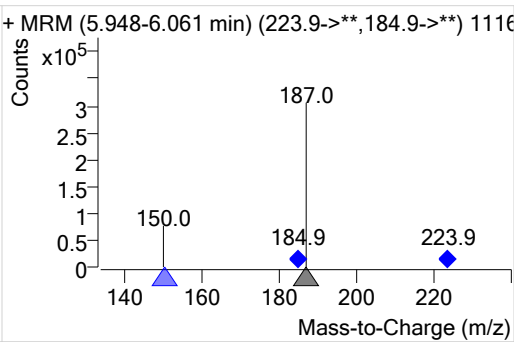




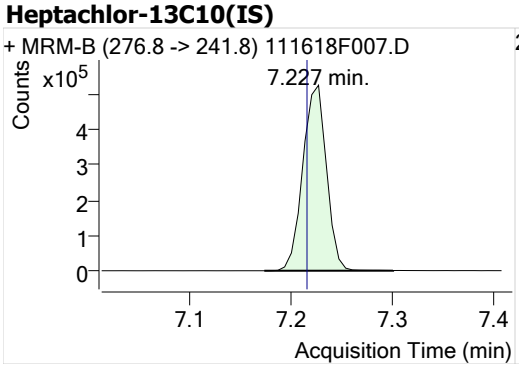
γ-BHC-d6(IS)

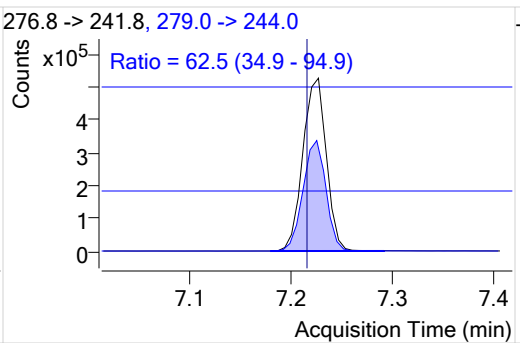


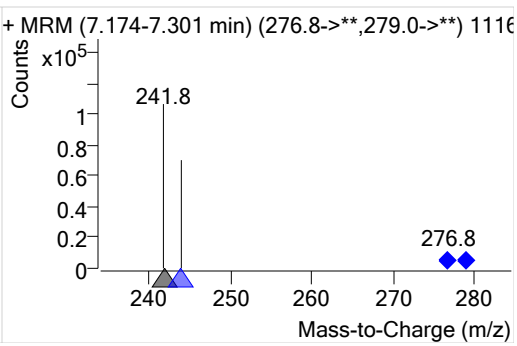




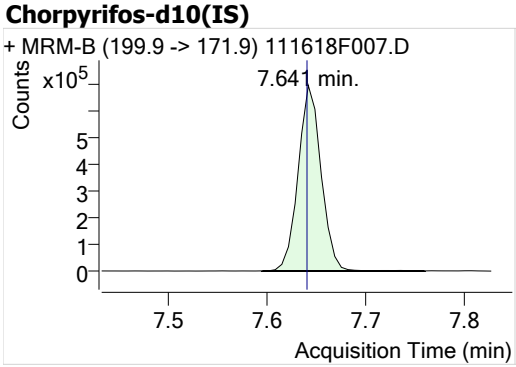
Heptachlor-13C10(IS)

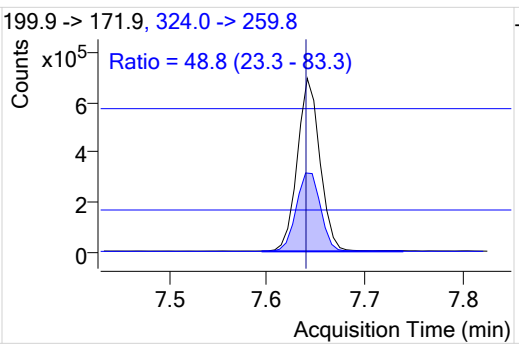


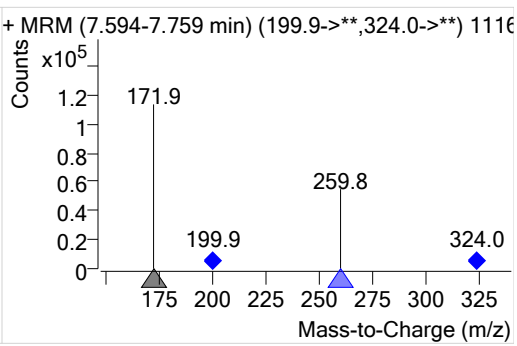




Chorpyrifos-d10(IS)

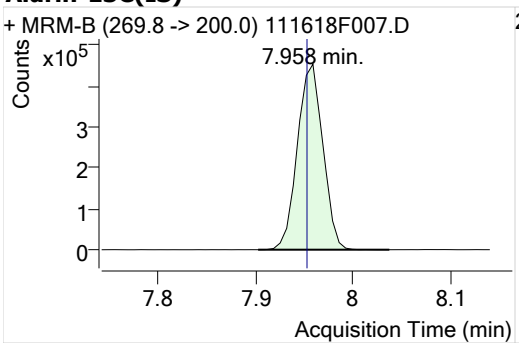


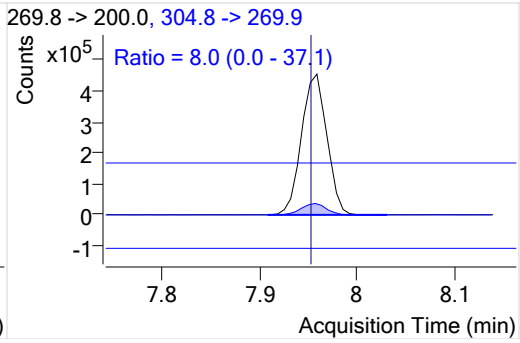


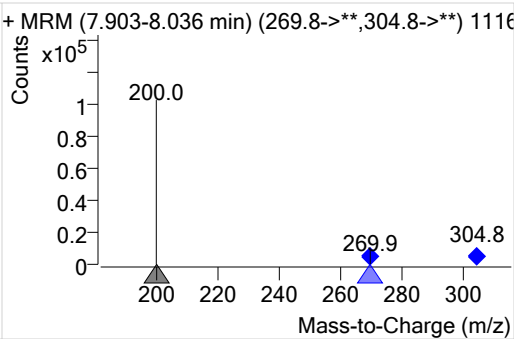


Quantitative Analysis Sample Report

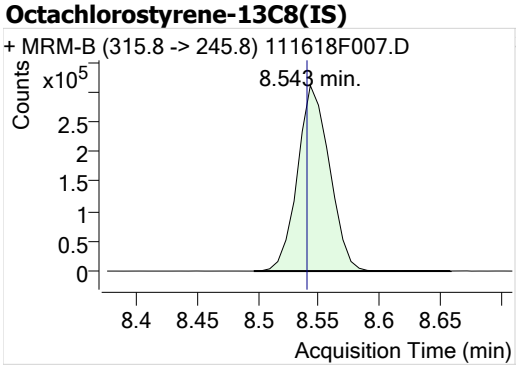
Aldrin-13C(IS)

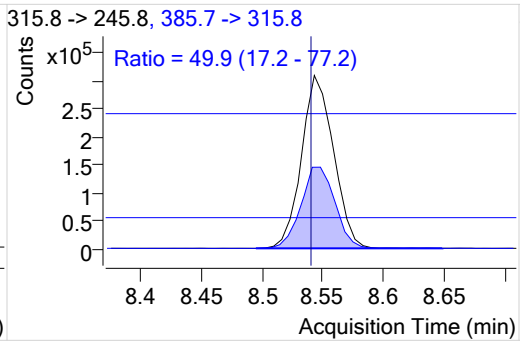


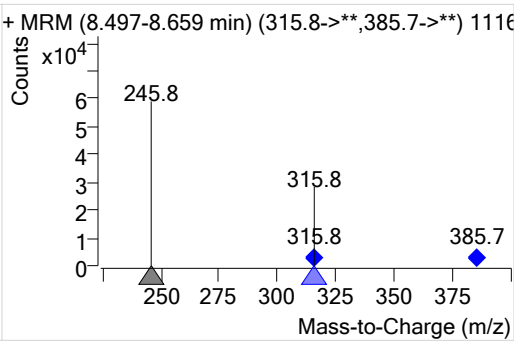




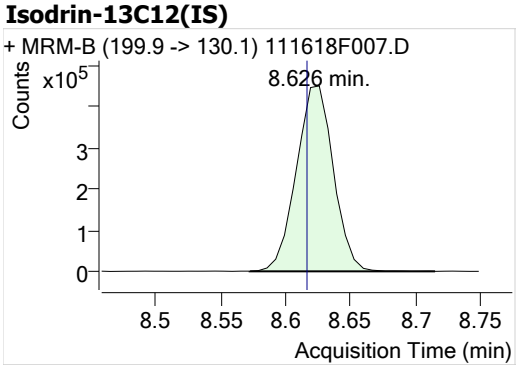
Octachlorostyrene-13C8(IS)

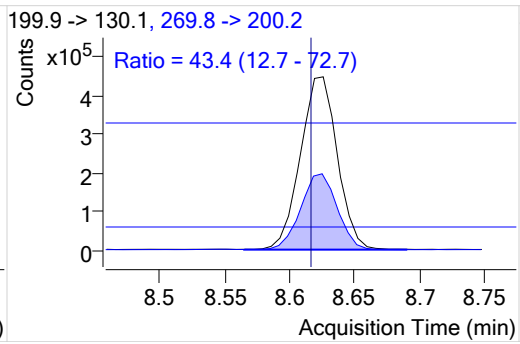


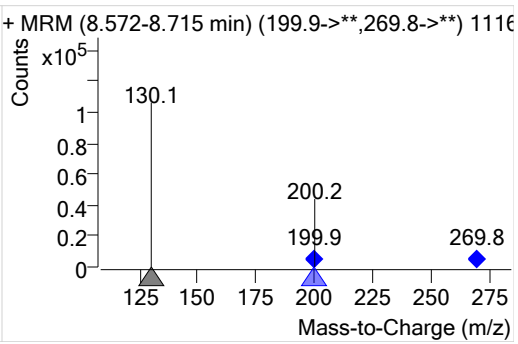




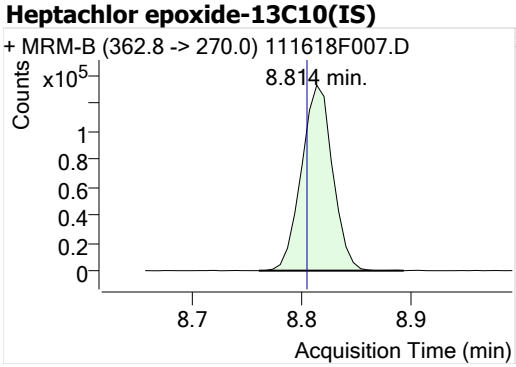
Isodrin-13C12(IS)

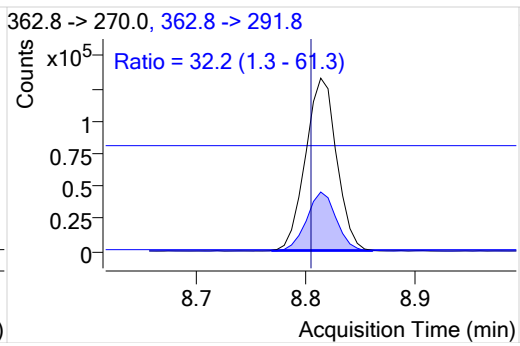


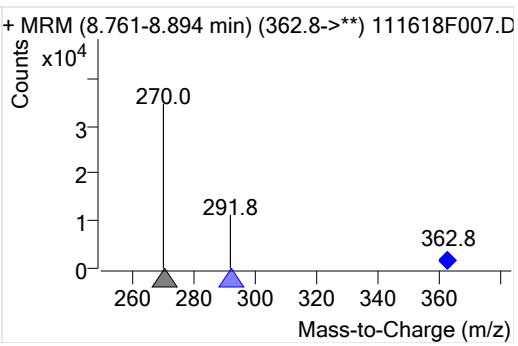




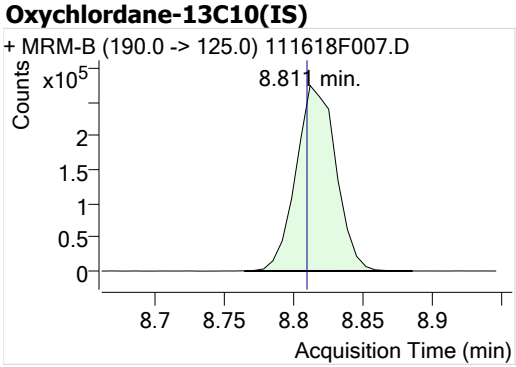
Heptachlor epoxide-13C10(IS)

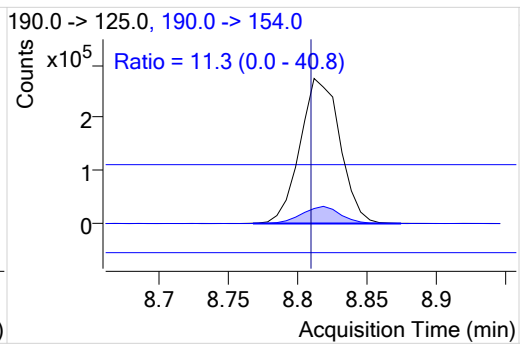


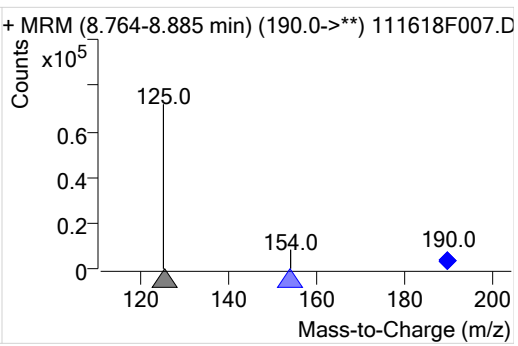




Oxychlordane-13C10(IS)

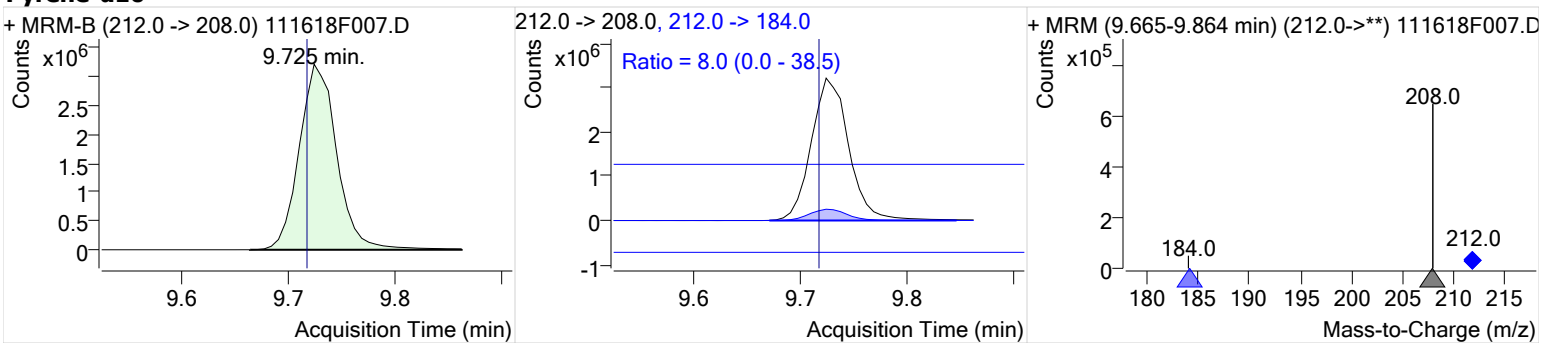




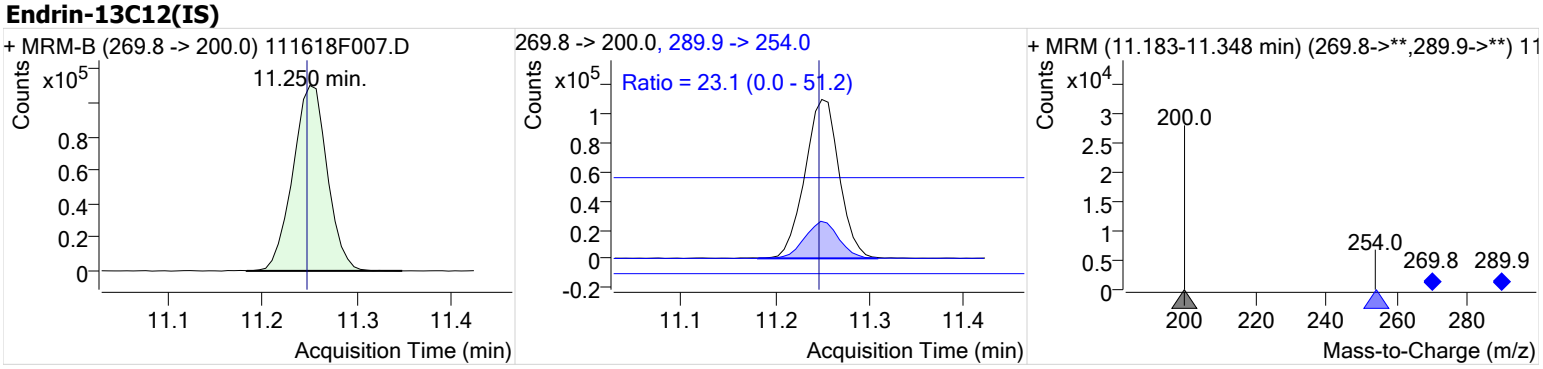


Quantitative Analysis Sample Report

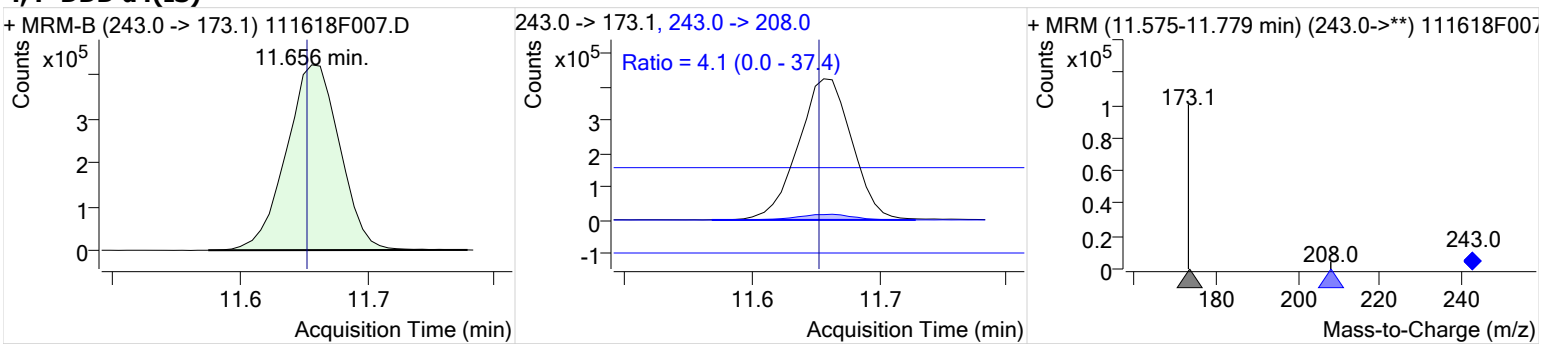
Pyrene-d10



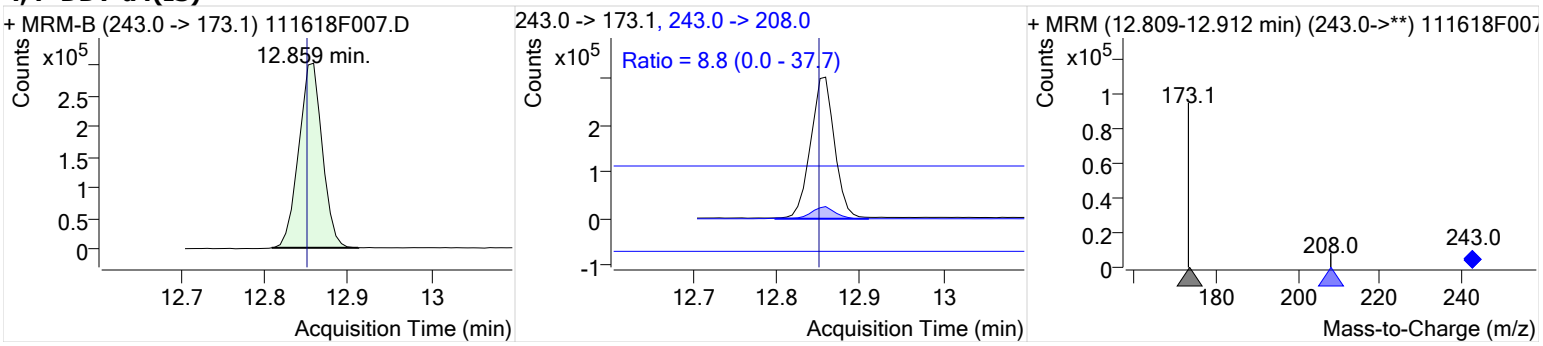
Endrin-13C12(IS)



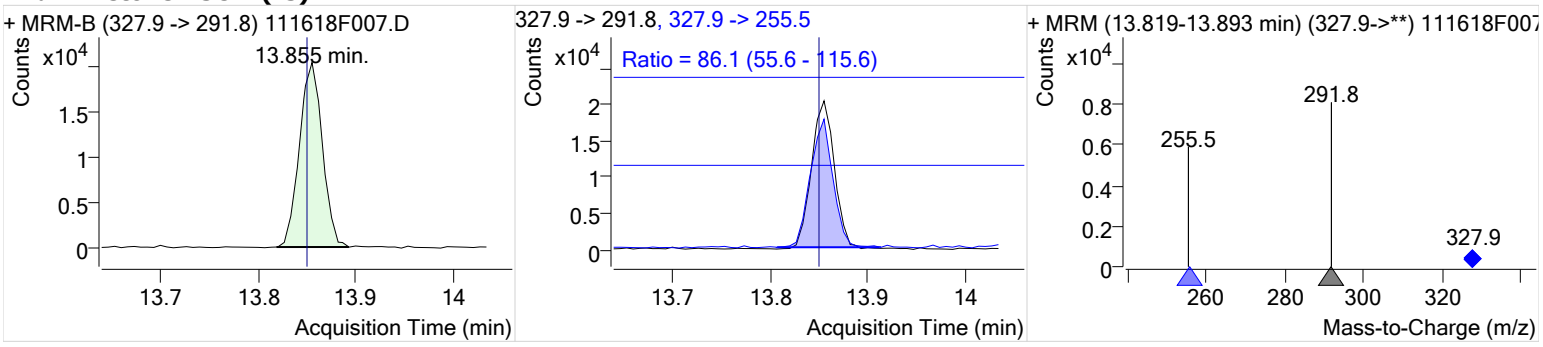
4,4'-DDD d4(IS)



4,4'-DDT-d4(IS)

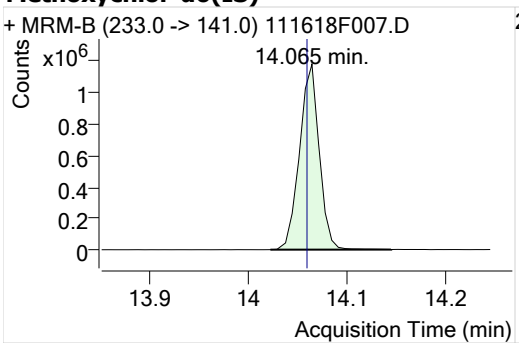


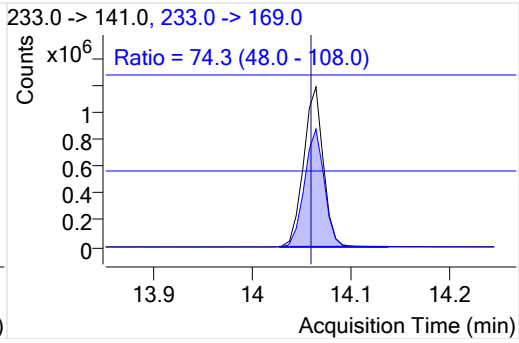
Endrin ketone-13C12(IS)

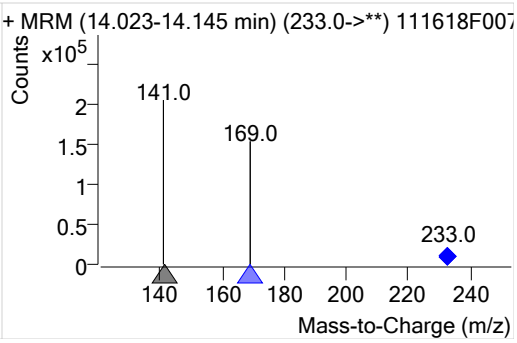


Quantitative Analysis Sample Report

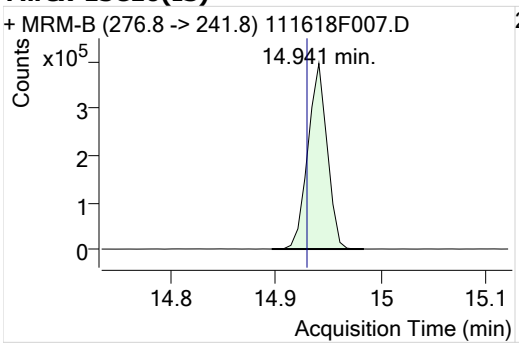
Methoxychlor-d6(IS)

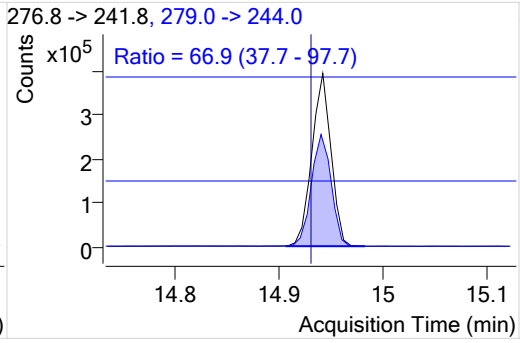


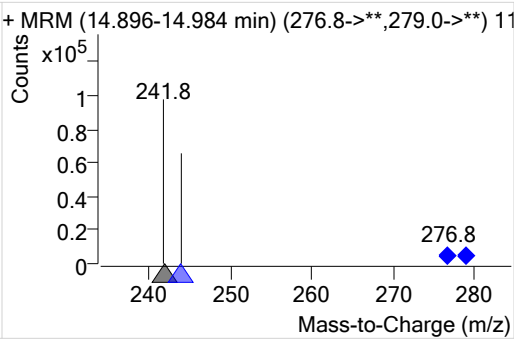




Mirex-13C10(IS)







Quantitative Analysis Sample Report

Data File	Y:\MS42\data\111618\111618F008.D	**Vial**	4
Acq. Date-Time	11/16/2018 1:22:31 PM	**Acq Operator**	EBruno
Name	OC PEST ICAL 1ng/mL SVM59-48B	**Instrument Name**	MS42
Info.		**Instrument Type**	QQQ
Quant Time	3/14/2019 10:04:01 AM	**Inj Vol**	1
Quant Method	110618 OC PEST ICAL.batch.bin		
Last Update	3/14/2019 10:04:01 AM		
Acq. Method File	OC Pest_dMRM	**Tune File Name**	atunes.eihs.tune.xml
Batch File Name	Y:\MS42\data\111618\QuantResults\111618 oc pest ical.batch.bin		

Internal Standards	RT	Transition	Response	Conc. Units	Dev(Min)
Hexachlorobenzene-13C6(IS)	5.685	289.8 -> 254.8	1336710	20.000 ng/ml	0.006
γ-BHC-d6(IS)	5.987	223.9 -> 187.0	2605641	20.000 ng/ml	0.005
Heptachlor-13C10(IS)	7.225	276.8 -> 241.8	1096902	20.000 ng/ml	0.009
Chorpyrifos-d10(IS)	7.641	199.9 -> 171.9	1443684	20.000 ng/ml	0.000
Aldrin-13C(IS)	7.953	269.8 -> 200.0	1013979	20.000 ng/ml	0.000
Octachlorostyrene-13C8(IS)	8.549	315.8 -> 245.8	732513	20.000 ng/ml	0.008
Isodrin-13C12(IS)	8.625	199.9 -> 130.1	1099593	20.000 ng/ml	0.008
Heptachlor epoxide-13C10(IS)	8.814	362.8 -> 270.0	355852	20.000 ng/ml	0.009
Oxychlordane-13C10(IS)	8.818	190.0 -> 125.0	725133	20.000 ng/ml	0.009
Pyrene-d10	9.725	212.0 -> 208.0	9986978	100.000 ng/ml	0.006
Endrin-13C12(IS)	11.250	269.8 -> 200.0	365478	20.000 ng/ml	0.003
4,4'-DDD d4(IS)	11.657	243.0 -> 173.1	1639274	5.000 ng/ml	0.004
4,4'-DDT-d4(IS)	12.851	243.0 -> 173.1	725744	5.000 ng/ml	0.003
Endrin ketone-13C12(IS)	13.855	327.9 -> 291.8	41741	20.000 ng/ml	0.005
Methoxychlor-d6(IS)	14.065	233.0 -> 141.0	2023984	20.000 ng/ml	0.005
Mirex-13C10(IS)	14.941	276.8 -> 241.8	659697	5.000 ng/ml	0.010

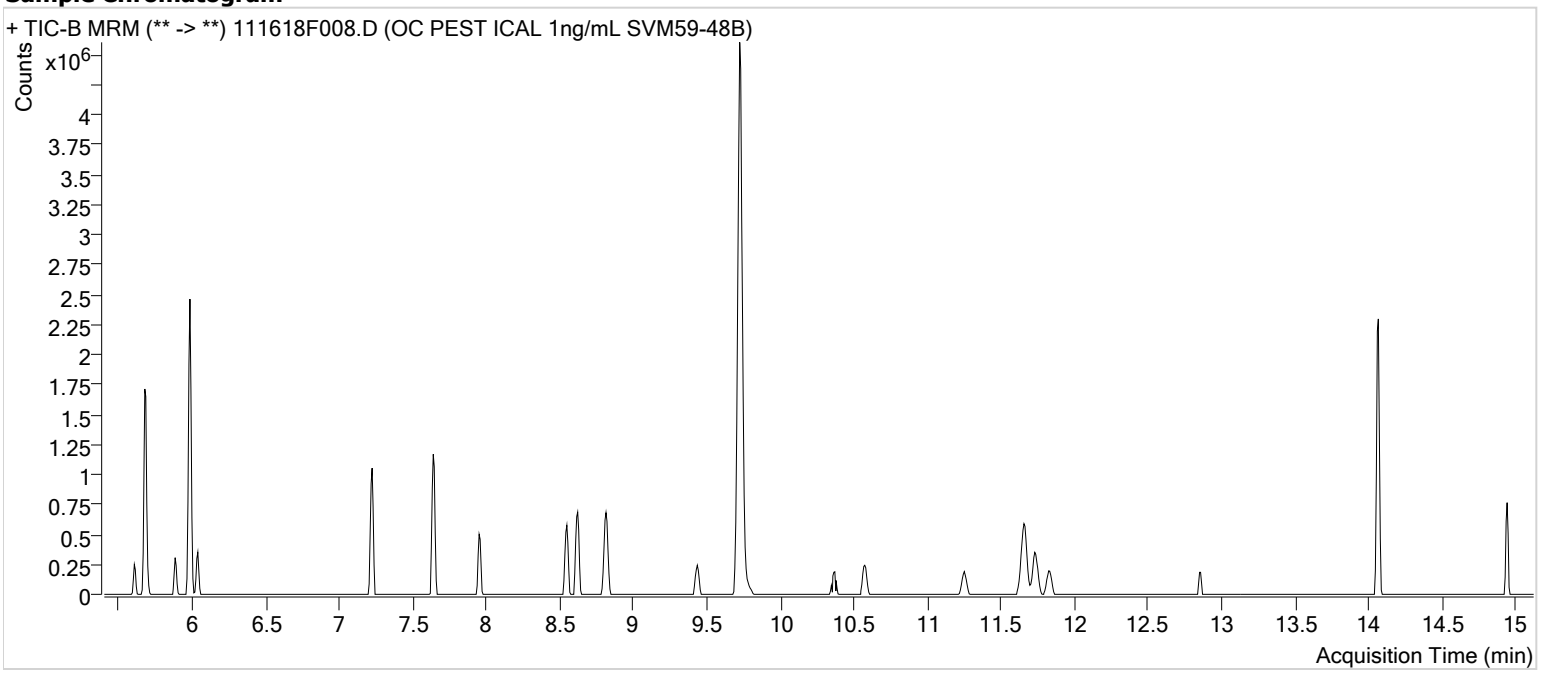
System Monitoring Compounds	RT	Transition	Response	Conc. Units	
Hexachlorobenzene-13C6	5.677	289.8 -> 254.8	1336710	18.183 ng/ml	
		Spiked Amount =	20.0	Recovery =	*90.9 %*
γ-BHC-d6	5.983	223.9 -> 187.0	2605641	18.704 ng/ml	
		Spiked Amount =	20.0	Recovery =	*93.5 %*
Heptachlor-13C10	7.216	276.8 -> 241.8	1096902	19.042 ng/ml	
		Spiked Amount =	20.0	Recovery =	*95.2 %*
Chorpyrifos-d10	7.640	199.9 -> 171.9	1443684	19.977 ng/ml	
		Spiked Amount =	20.0	Recovery =	*99.9 %*
Aldrin-13C	7.952	269.8 -> 200.0	1013979	19.273 ng/ml	
		Spiked Amount =	20.0	Recovery =	*96.4 %*
Octachlorostyrene-13C8	8.540	315.8 -> 245.8	732513	19.445 ng/ml	
		Spiked Amount =	20.0	Recovery =	*97.2 %*
Isodrin-13C12	8.616	199.9 -> 130.1	1099593	19.155 ng/ml	
		Spiked Amount =	20.0	Recovery =	*95.8 %*
Heptachlor epoxide-13C10	8.805	362.8 -> 270.0	355852	19.388 ng/ml	
		Spiked Amount =	20.0	Recovery =	*96.9 %*
Oxychlordane-13C10	8.809	190.0 -> 125.0	725133	19.440 ng/ml	
		Spiked Amount =	20.0	Recovery =	*97.2 %*
Endrin-13C12	11.247	269.8 -> 200.0	365478	20.024 ng/ml	
		Spiked Amount =	20.0	Recovery =	*100.1 %*
4,4'-DDD d4	11.652	243.0 -> 173.1	1639274	4.622 ng/ml	
		Spiked Amount =	5.0	Recovery =	*92.4 %*
4,4'-DDT-d4	12.851	243.0 -> 173.1	725744	4.579 ng/ml	
		Spiked Amount =	5.0	Recovery =	*91.6 %*
Endrin ketone-13C12	13.850	327.9 -> 291.8	41741	18.468 ng/ml	
		Spiked Amount =	20.0	Recovery =	*92.3 %*
Methoxychlor-d6	14.060	233.0 -> 141.0	2023984	19.328 ng/ml	
		Spiked Amount =	20.0	Recovery =	*96.6 %*
Mirex-13C10	14.930	276.8 -> 241.8	659697	4.312 ng/ml	
		Spiked Amount =	5.0	Recovery =	*86.2 %*

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Target Compounds	ISTD	RT	Transition	Resp.	Conc.	Units	Qvalue
α-BHC	γ-BHC-d6(IS)	5.613	181.1 -> 145.1	194585	1.044	ng/ml	93
Hexachlorobenzene	Hexachlorobenzene-13C6(IS)	5.686	283.8 -> 213.9	132245	1.093	ng/ml	97
β-BHC	γ-BHC-d6(IS)	5.890	181.1 -> 145.1	249415	1.058	ng/ml	97
γ-BHC(Lindane)	γ-BHC-d6(IS)	6.044	181.1 -> 145.1	289558	1.062	ng/ml	96
δ-BHC	γ-BHC-d6(IS)	6.405	181.1 -> 145.1	115789	1.066	ng/ml	98
Heptachlor	Heptachlor-13C10(IS)	7.229	271.7 -> 236.9	69217	1.089	ng/ml	1
Chorpyrifos	Chorpyrifos-d10(IS)	7.731	196.9 -> 169.0	113480	1.114	ng/ml	97
Aldrin	Aldrin-13C(IS)	7.956	254.9 -> 220.0	129921	1.083	ng/ml	23
Octachlorostyrene	Octachlorostyrene-13C8(IS)	8.555	342.8 -> 307.8	97737	1.037	ng/ml	97
Isodrin	Isodrin-13C12(IS)	8.633	193.0 -> 123.0	59229	1.050	ng/ml	92
Heptachlor epoxide	Heptachlor epoxide-13C10(IS)	8.822	352.8 -> 262.9	20747	1.024	ng/ml	97
Oxychlordane	Oxychlordane-13C10(IS)	8.826	114.9 -> 51.1	101180	1.032	ng/ml	99
γ-Chlordane(trans)	Oxychlordane-13C10(IS)	9.429	271.8 -> 236.9	35700	1.022	ng/ml	95
2,4'-DDE	4,4'-DDD d4(IS)	9.439	246.0 -> 176.2	349362	1.121	ng/ml	96
α-Chlordane(cis)	Oxychlordane-13C10(IS)	9.781	271.8 -> 236.9	89883	1.030	ng/ml	96
Endosulfan I	Endrin-13C12(IS)	9.811	206.9 -> 172.0	22533	0.984	ng/ml	97
trans-Nanochlor	Oxychlordane-13C10(IS)	9.862	271.8 -> 236.9	59458	1.058	ng/ml	98
4,4' -DDE	4,4'-DDD d4(IS)	10.364	246.0 -> 176.2	331306	1.160	ng/ml	97
2,4'-DDD	4,4'-DDD d4(IS)	10.578	235.0 -> 165.1	401261	1.138	ng/ml	100
Dieldrin	Endrin-13C12(IS)	10.594	262.9 -> 193.0	28855	1.035	ng/ml	90
Endosulfan II	Endrin-13C12(IS)	11.240	206.9 -> 172.0	43224	0.958	ng/ml	82
Endrin	Endrin-13C12(IS)	11.265	262.8 -> 193.0	27002	1.077	ng/ml	92
4,4'-DDD	4,4'-DDD d4(IS)	11.734	235.0 -> 165.1	572982	1.082	ng/ml	97
cis-Nonachlor	Oxychlordane-13C10(IS)	11.756	271.8 -> 236.9	21567	1.013	ng/ml	85
2,4'-DDT	4,4'-DDT-d4(IS)	11.828	235.0 -> 165.1	350526	1.077	ng/ml	96
Endrin aldehyde	Endrin-13C12(IS)	12.091	249.9 -> 214.9	7670	1.084	ng/ml	97
Endosulfan sulfate	Endrin-13C12(IS)	12.803	271.9 -> 237.0	41306	0.962	ng/ml	99
4,4'-DDT	4,4'-DDT-d4(IS)	12.915	235.0 -> 165.1	167299	0.996	ng/ml	97
Endrin ketone	Endrin ketone-13C12(IS)	13.861	147.0 -> 111.0	16579	1.128	ng/ml	89
Methoxychlor	Methoxychlor-d6(IS)	14.101	227.0 -> 141.1	131270	1.016	ng/ml	92
Mirex	Mirex-13C10(IS)	14.943	271.8 -> 236.8	174524	0.977	ng/ml	93

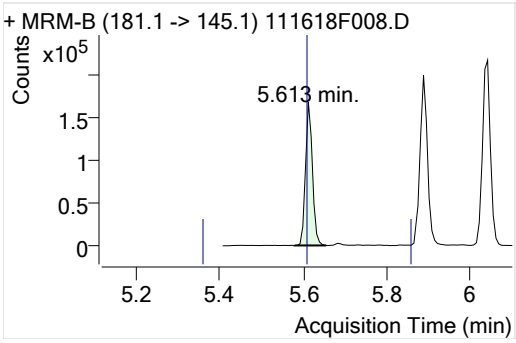
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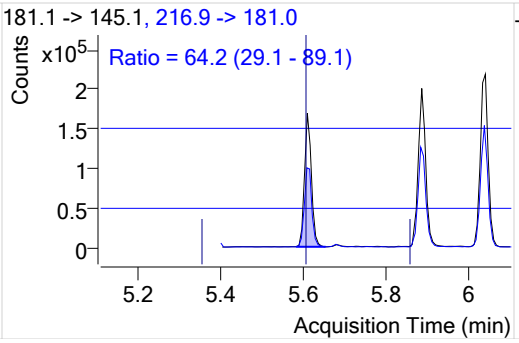
Sample Chromatogram

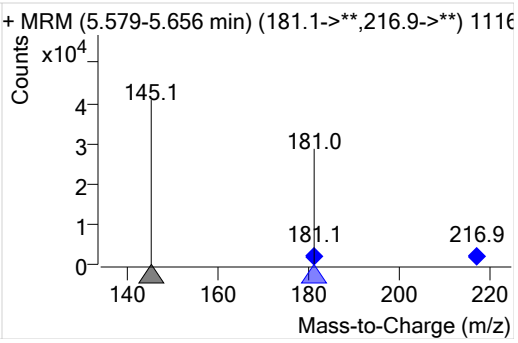


Quantitative Analysis Sample Report

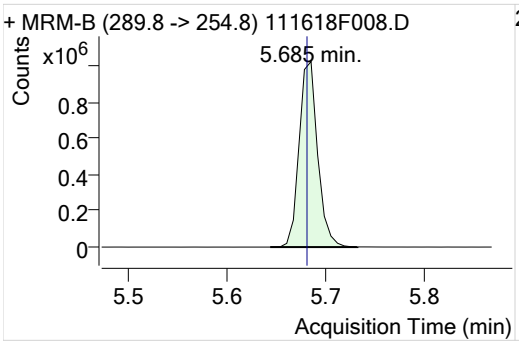
α-BHC

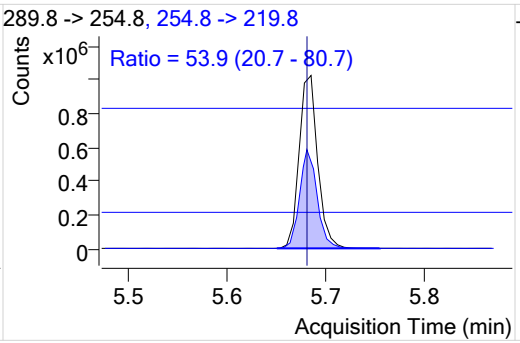


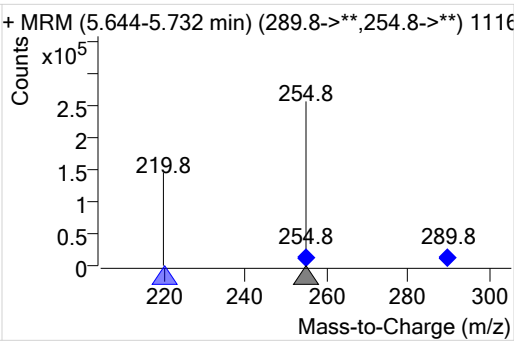




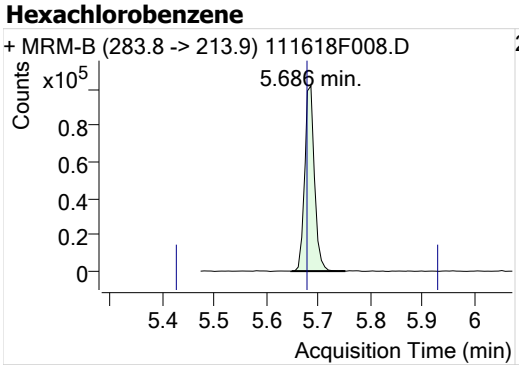
Hexachlorobenzene-13C6

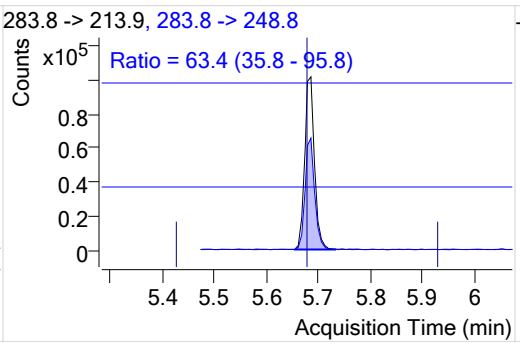


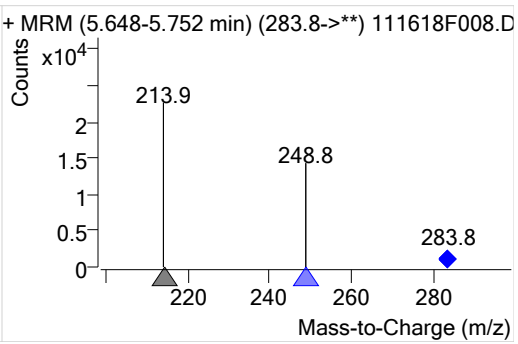




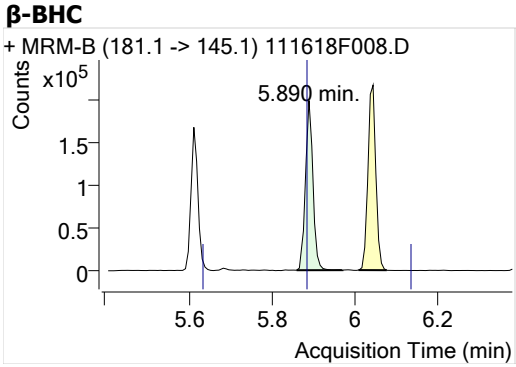
Hexachlorobenzene

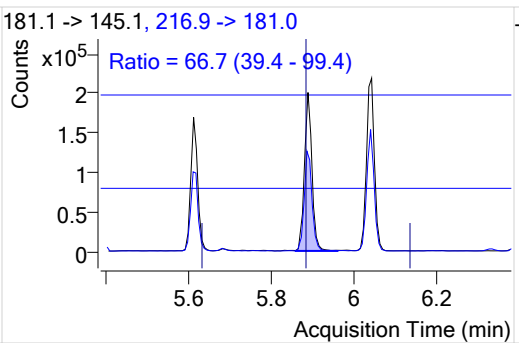


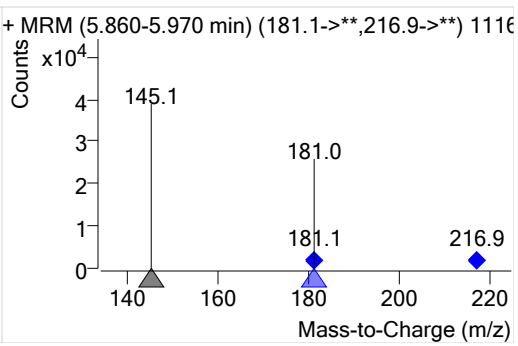




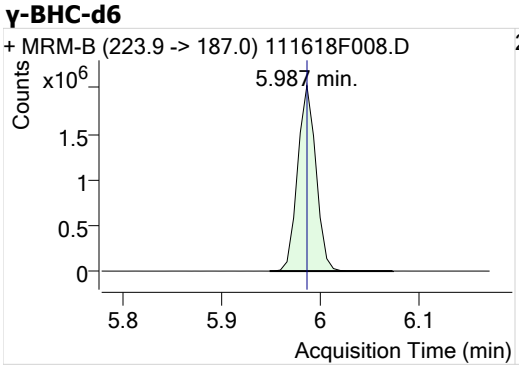
β-BHC

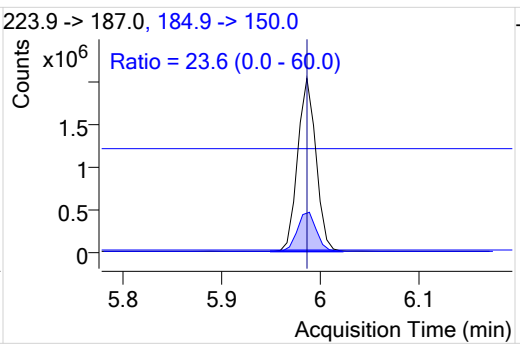


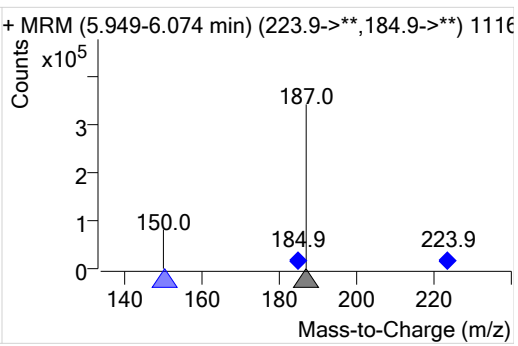




γ-BHC-d6

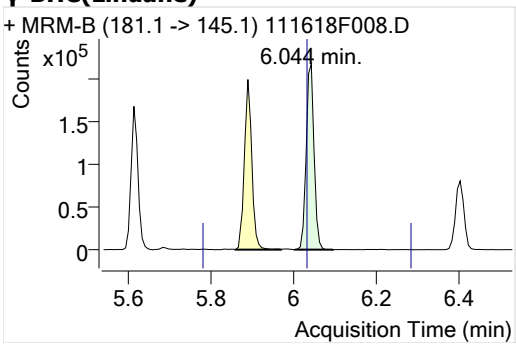


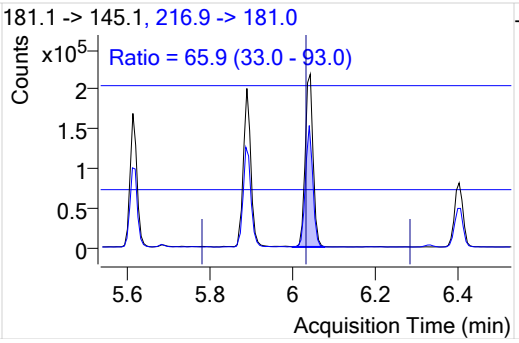


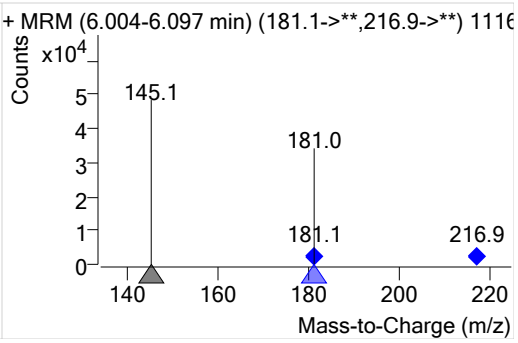


Quantitative Analysis Sample Report

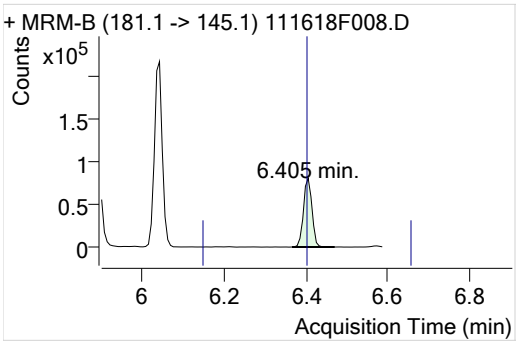
γ-BHC(Lindane)

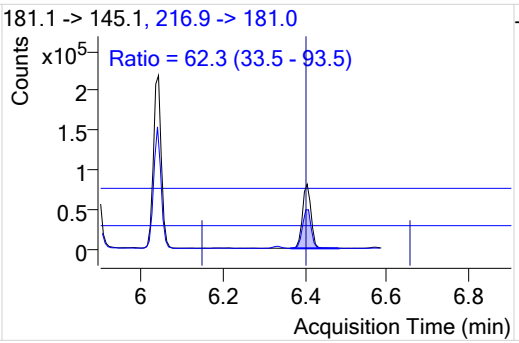


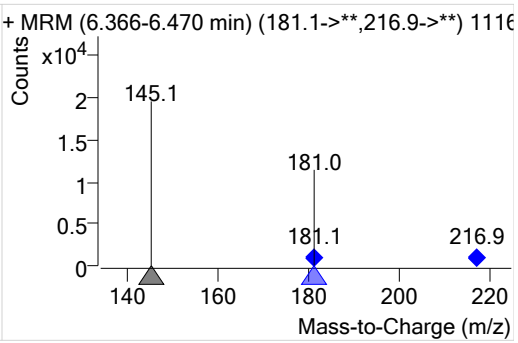




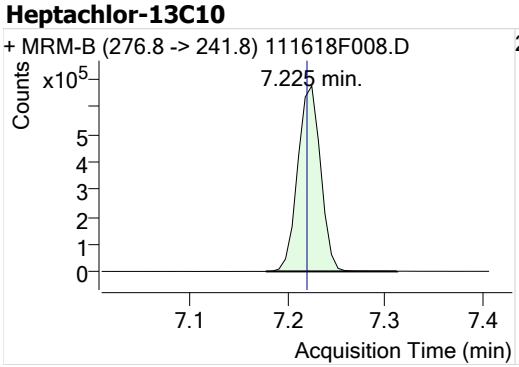
δ-BHC

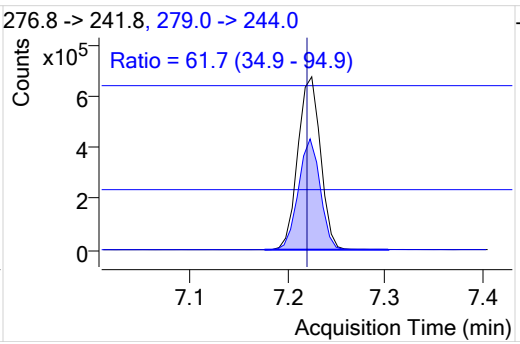


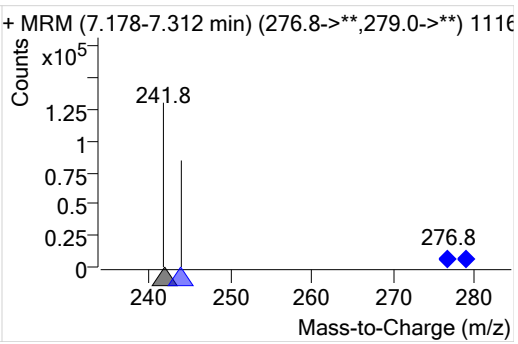




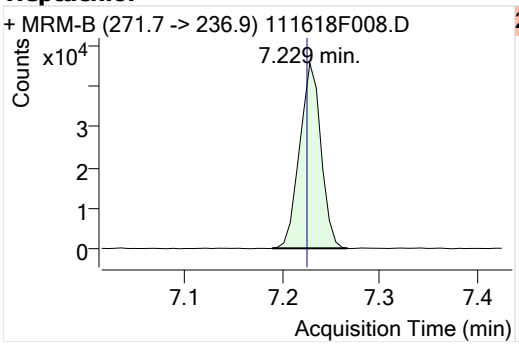
Heptachlor-13C10

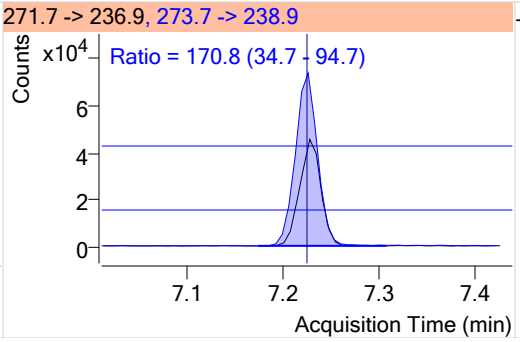


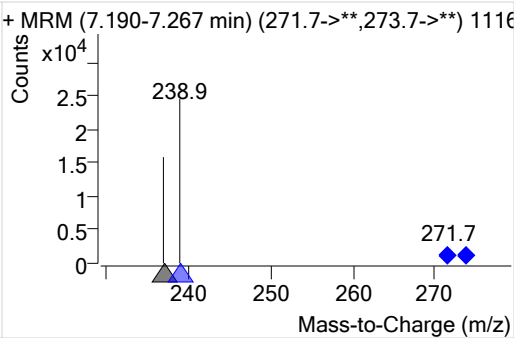




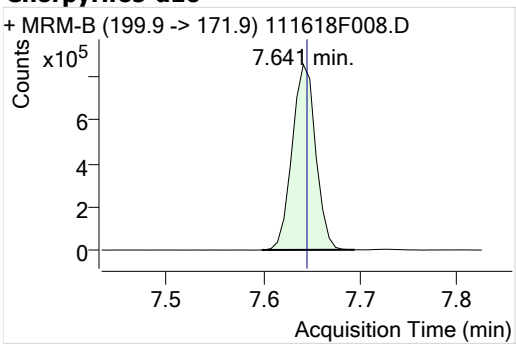
Heptachlor

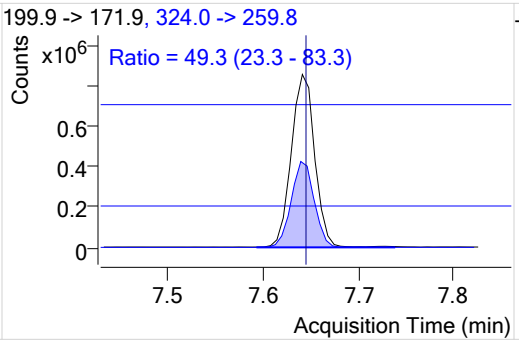


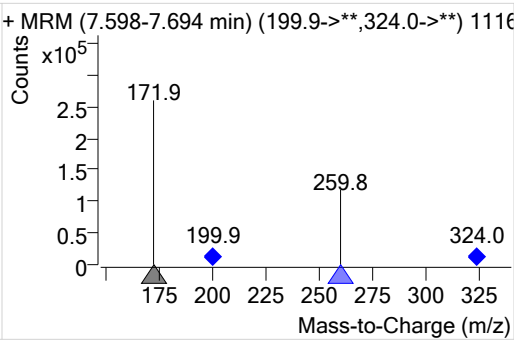




Chorpyrifos-d10

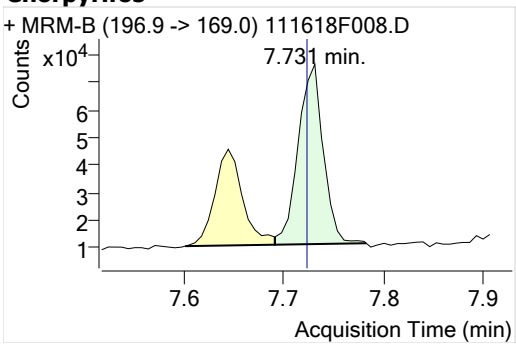


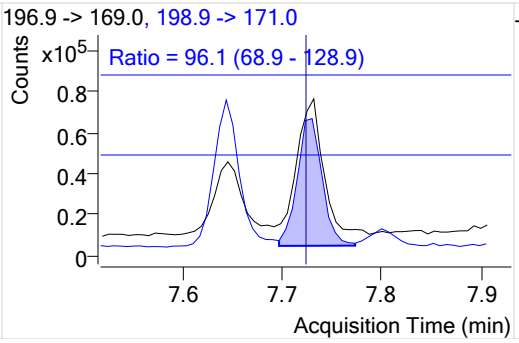


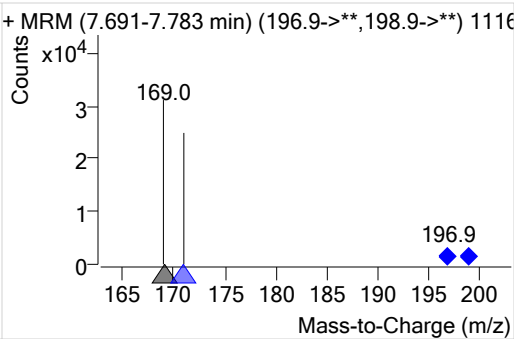


Quantitative Analysis Sample Report

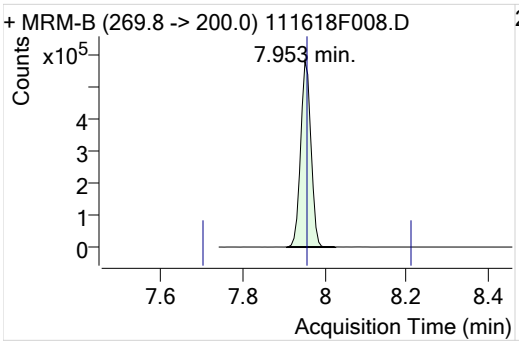
Chorpyrifos

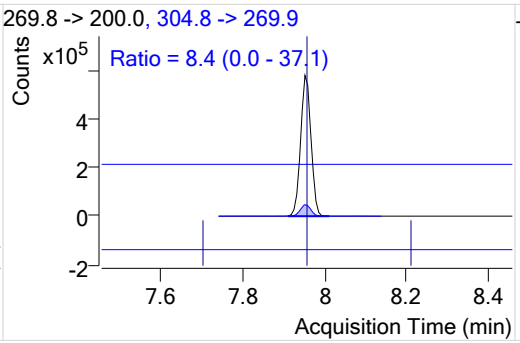


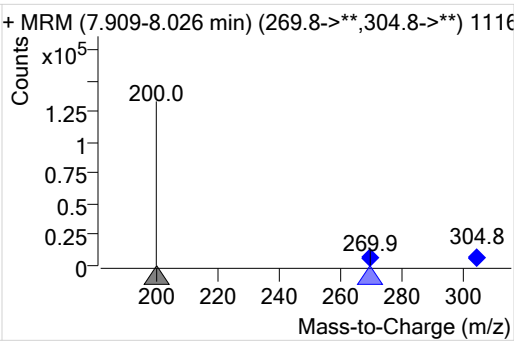




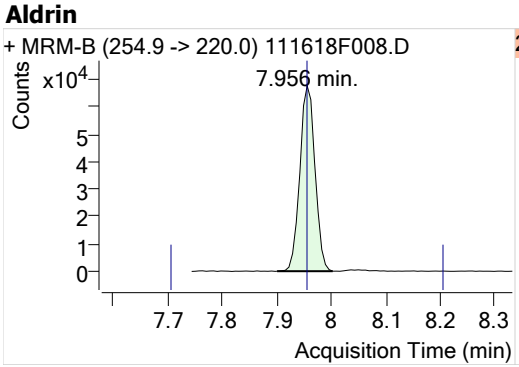
Aldrin-13C

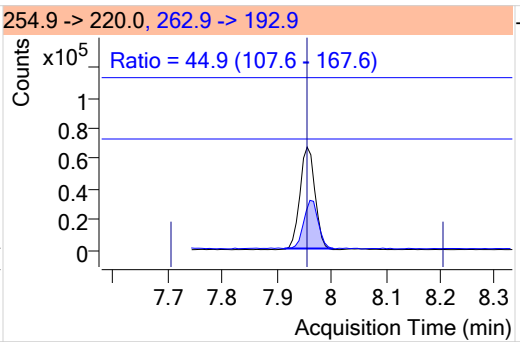


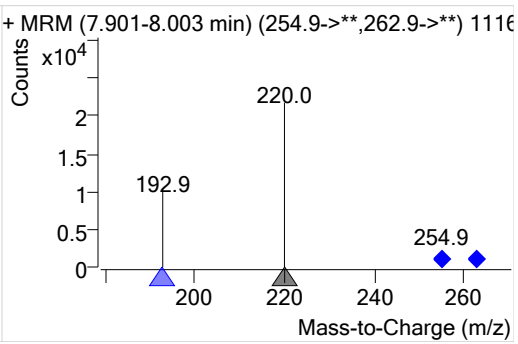




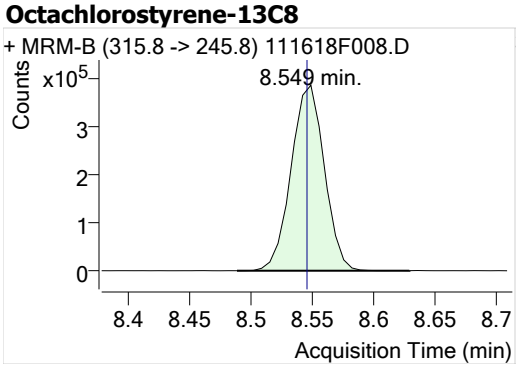
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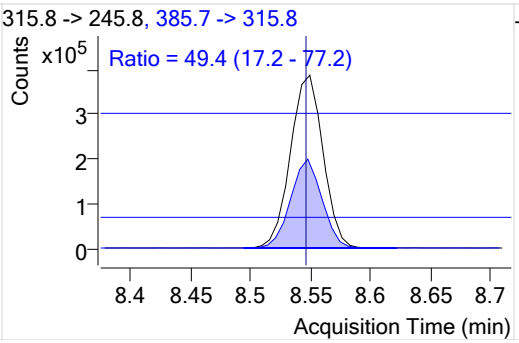


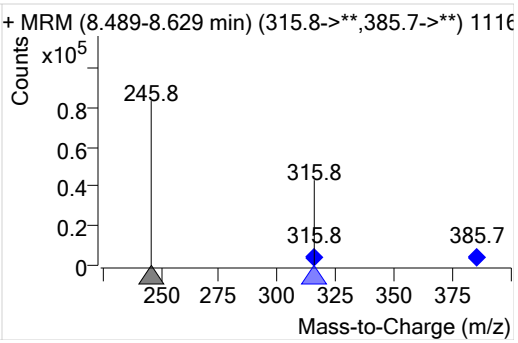




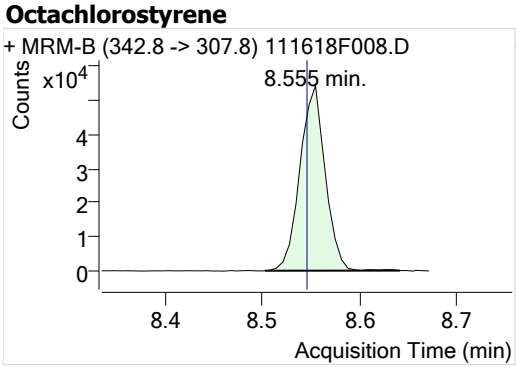
Octachlorostyrene-13C8

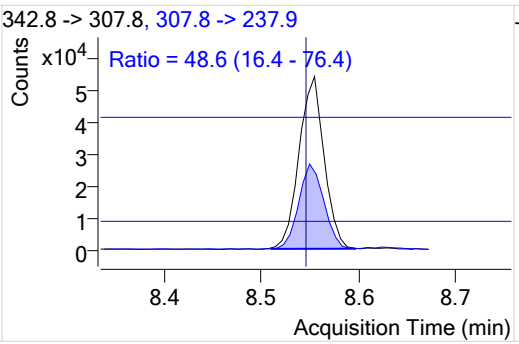


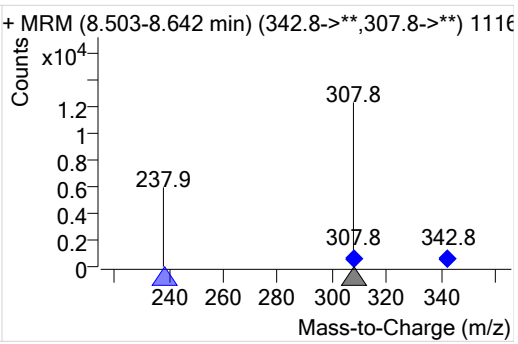




Octachlorostyrene

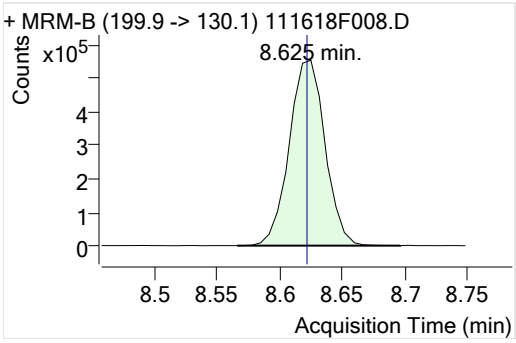


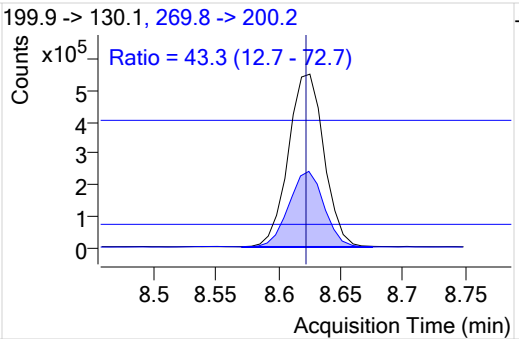


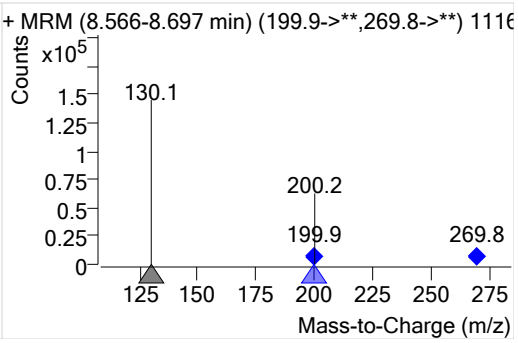


Quantitative Analysis Sample Report

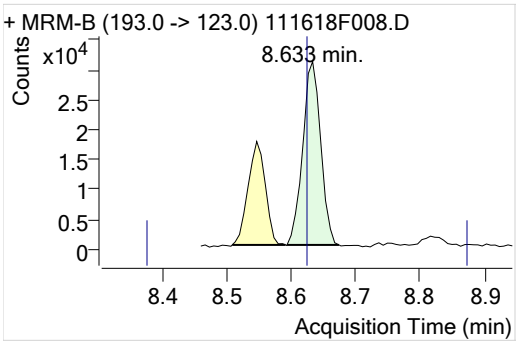
Isodrin-13C12

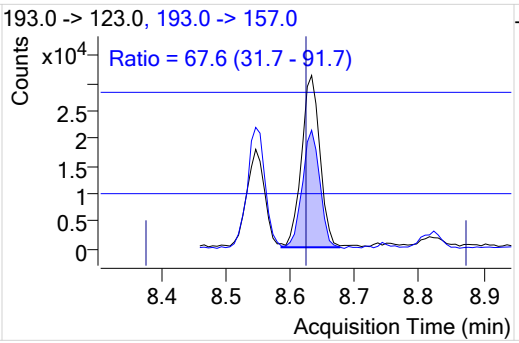


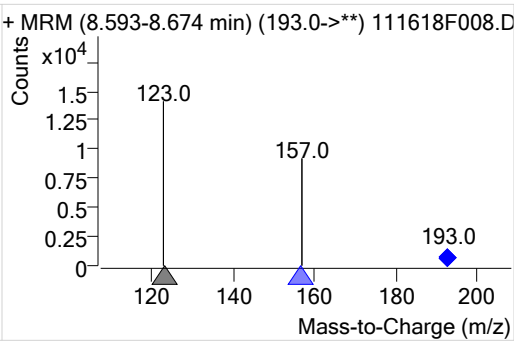




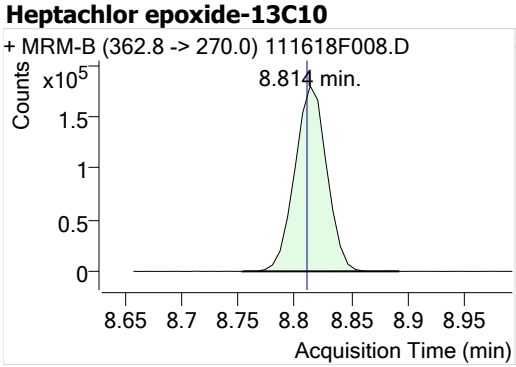
Isodrin

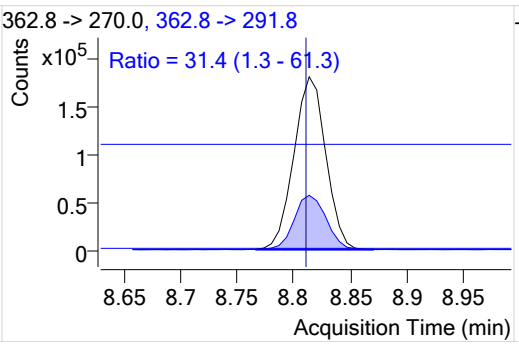


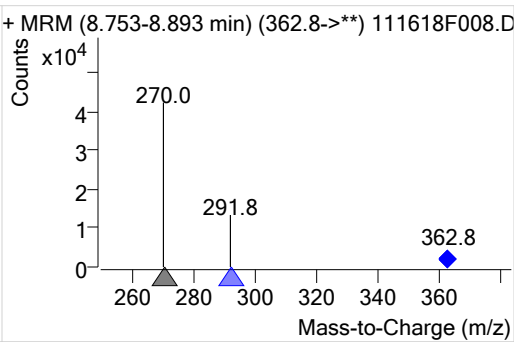




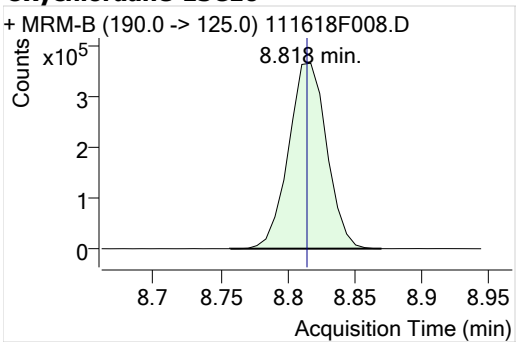
Heptachlor epoxide-13C10

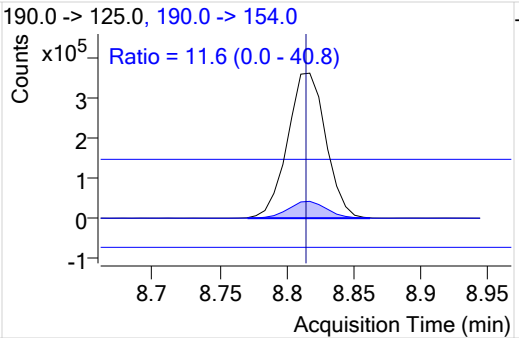


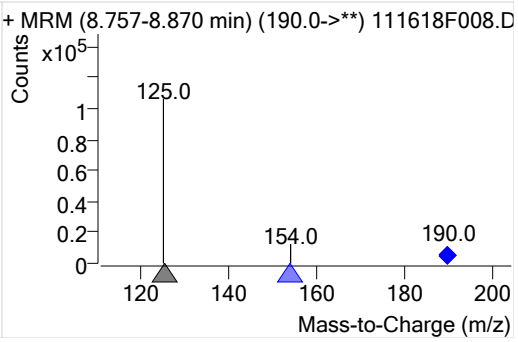




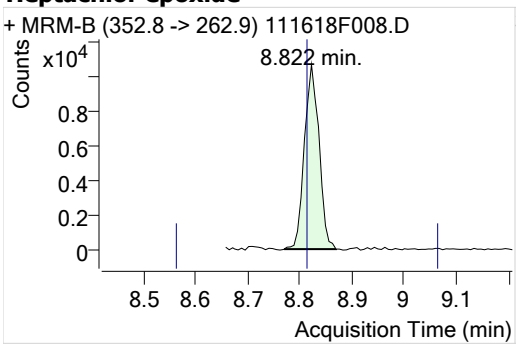
Oxychlordane-13C10

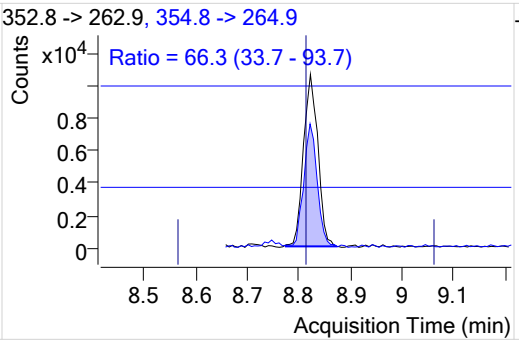


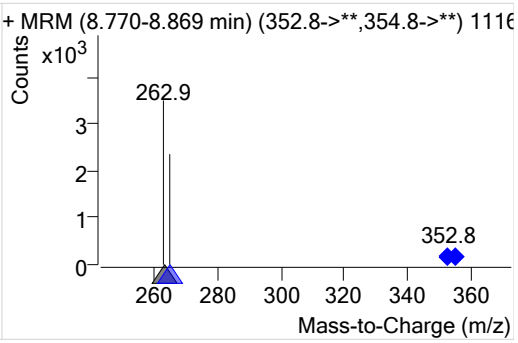




Heptachlor epoxide

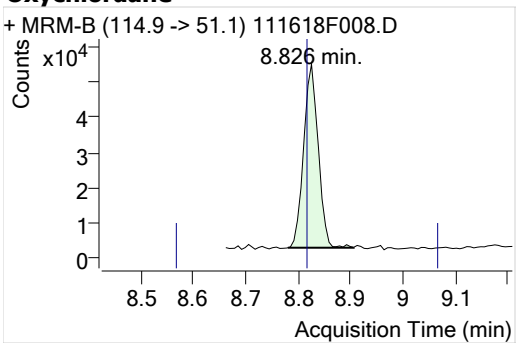


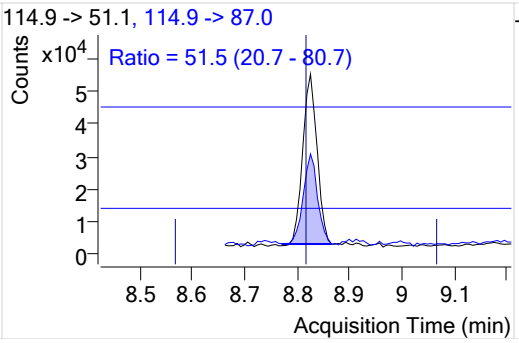


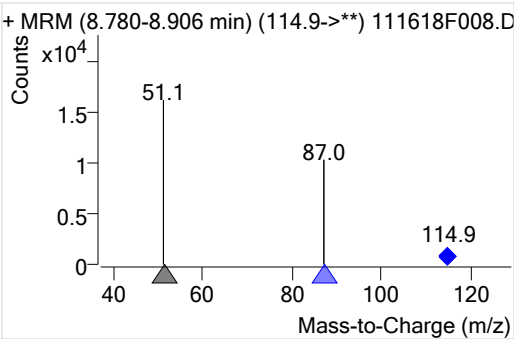


Quantitative Analysis Sample Report

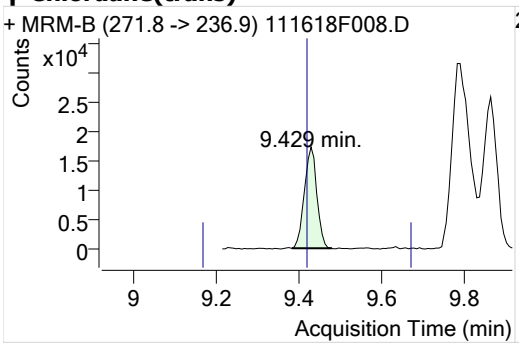
Oxychlordane

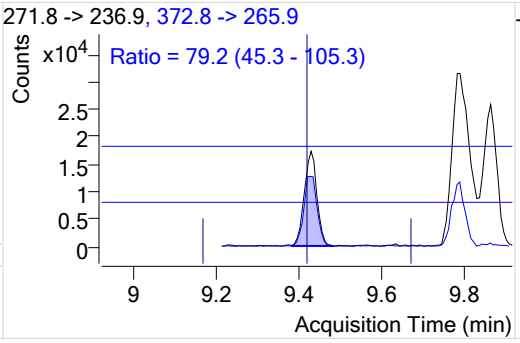


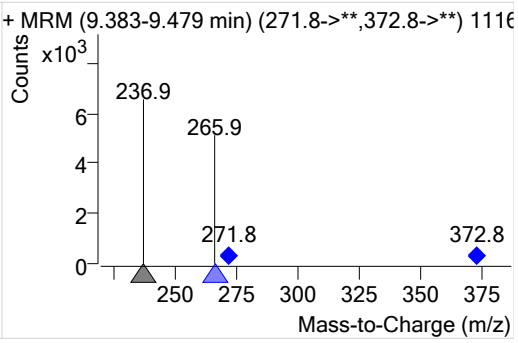




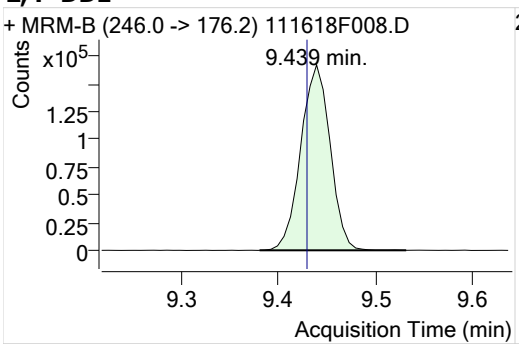
γ-Chlordane(trans)

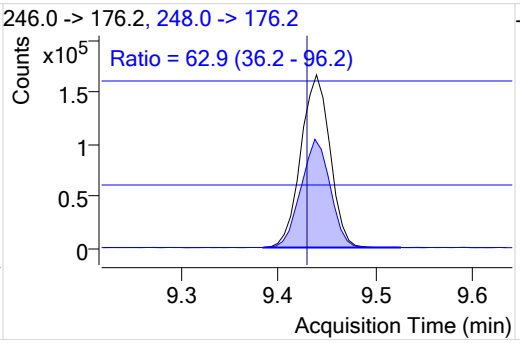


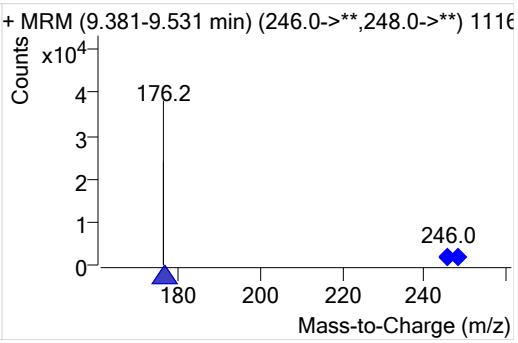




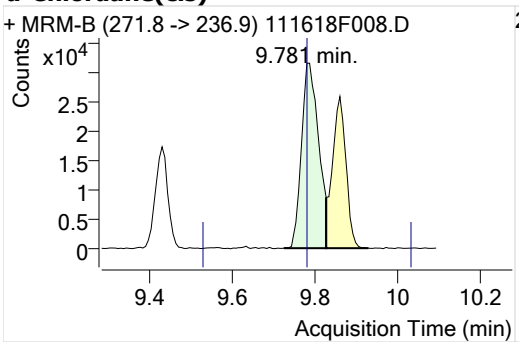
2,4'-DDE

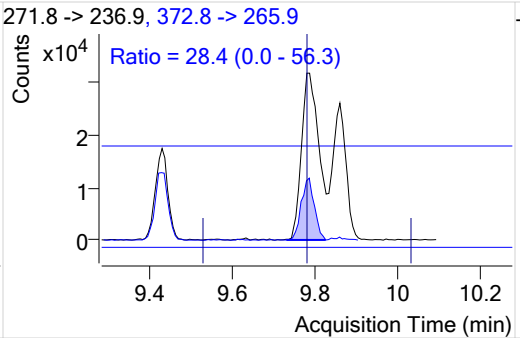


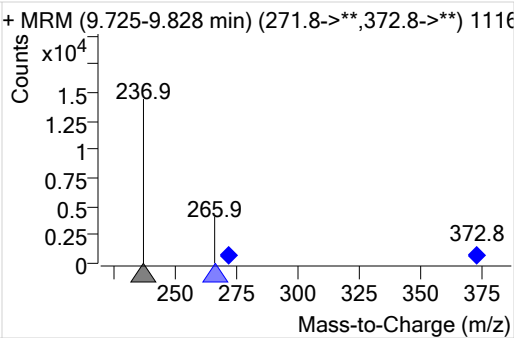




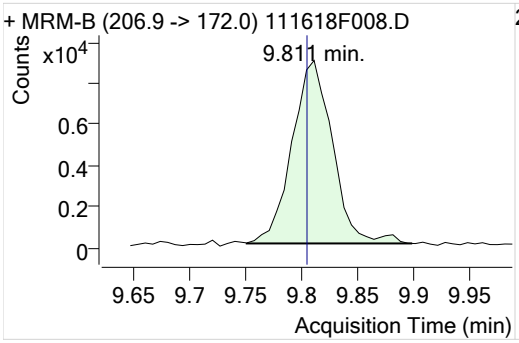
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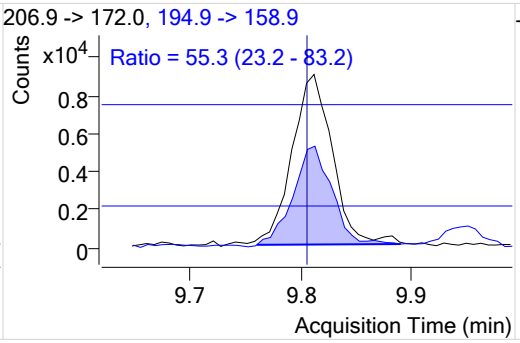


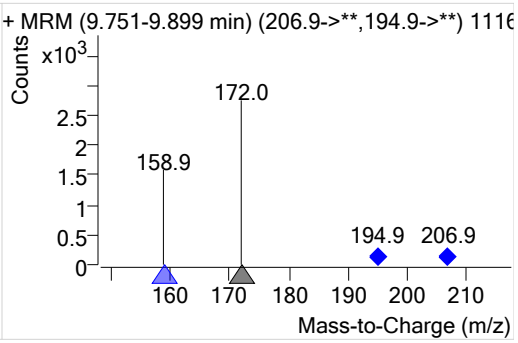




Endosulfan I

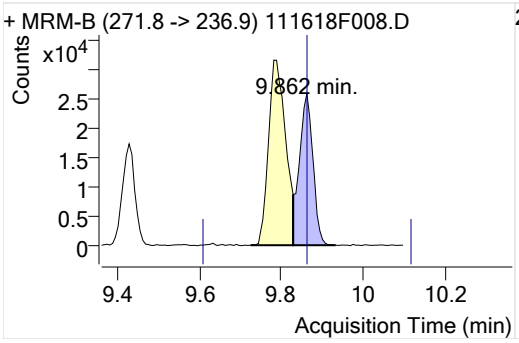


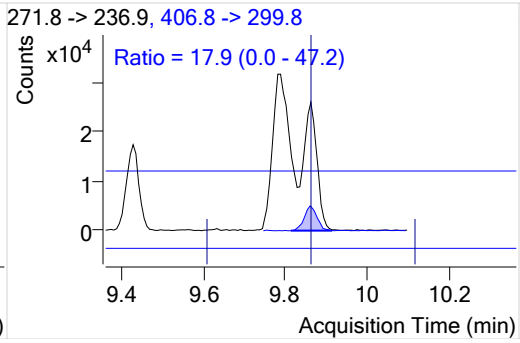


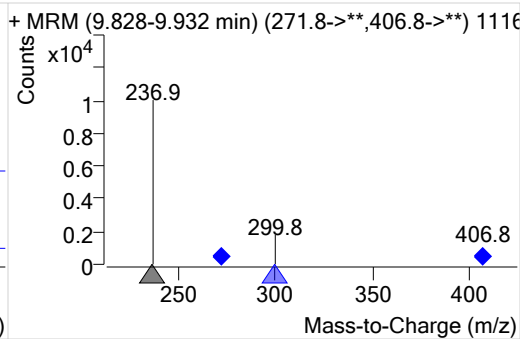


Quantitative Analysis Sample Report

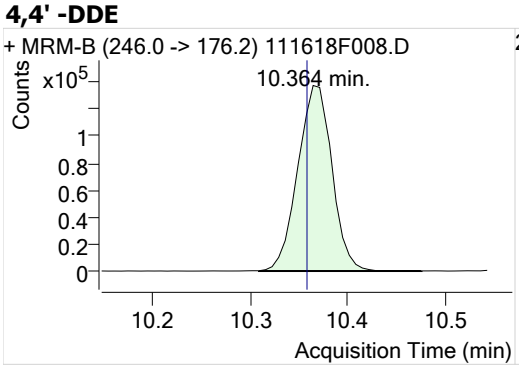
trans-Nanochlor

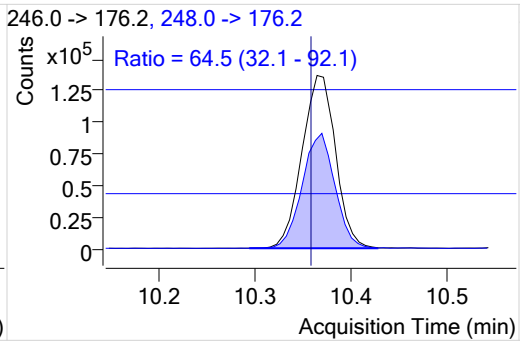


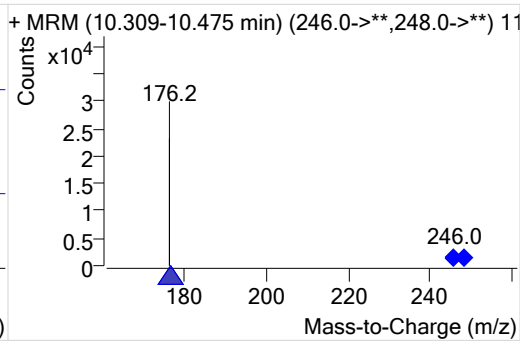




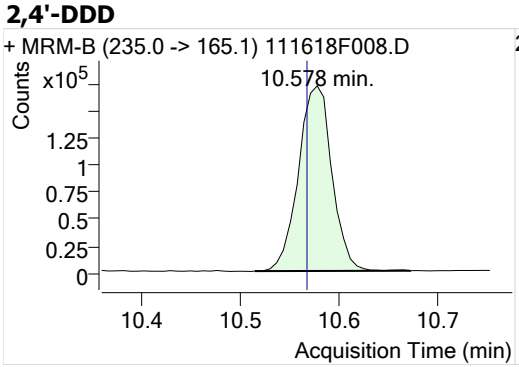
4,4' -DDE

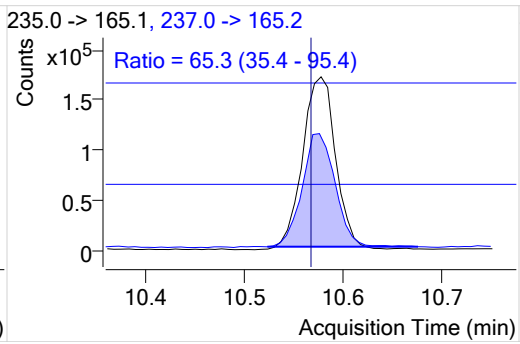


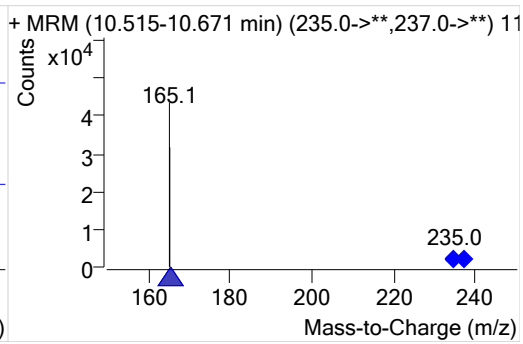




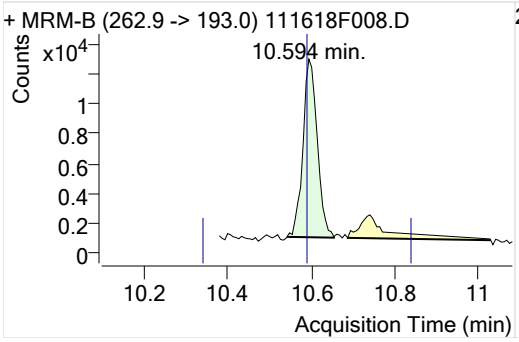
2,4'-DDD

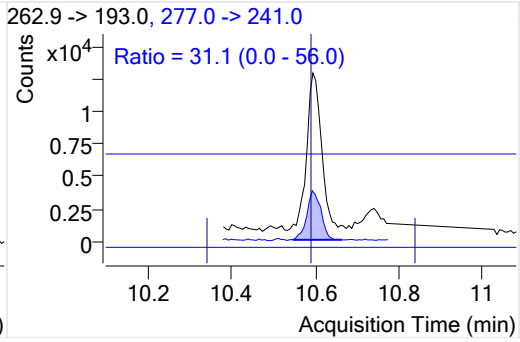


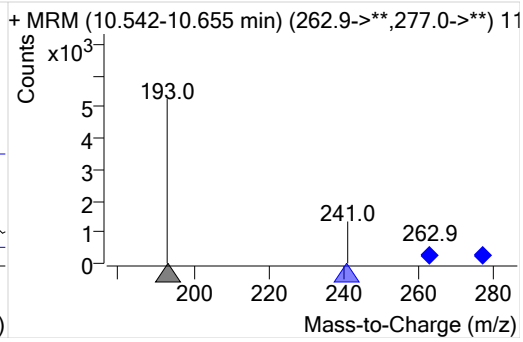




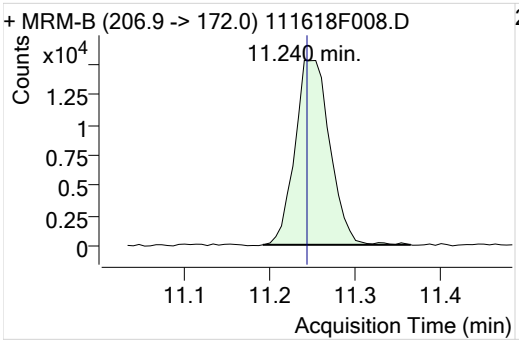
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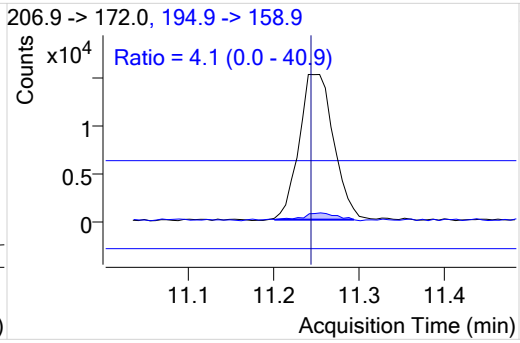


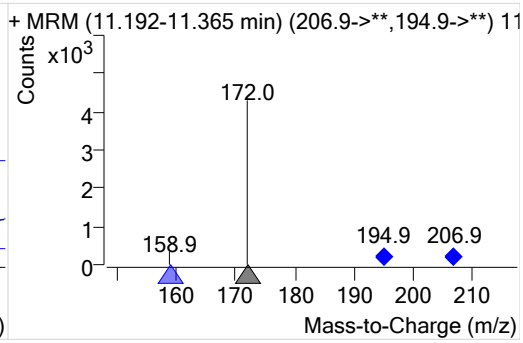




Endosulfan II

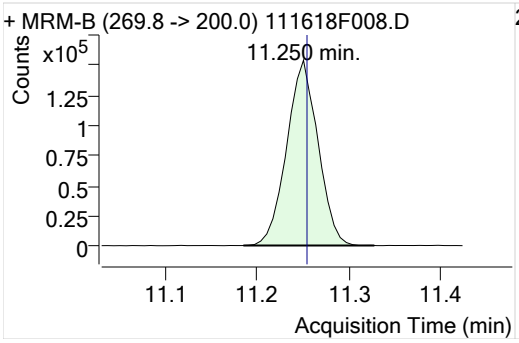


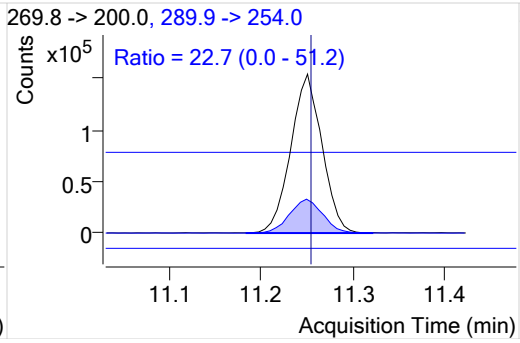


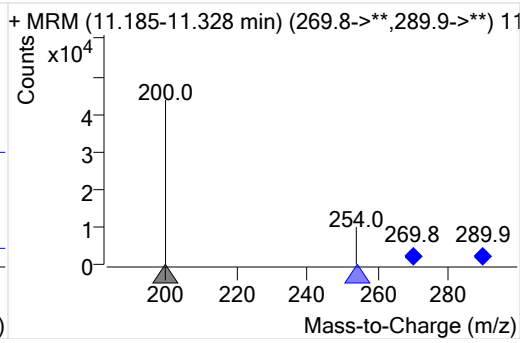


Quantitative Analysis Sample Report

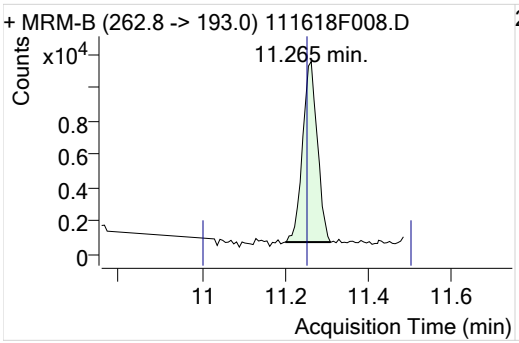
Endrin-13C12

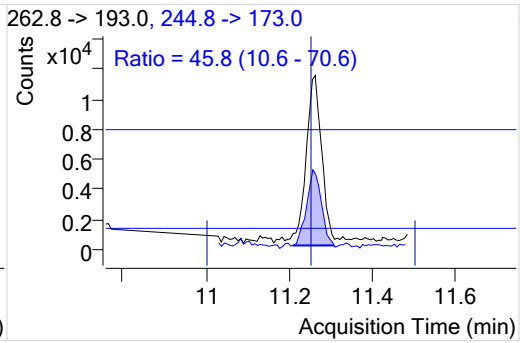


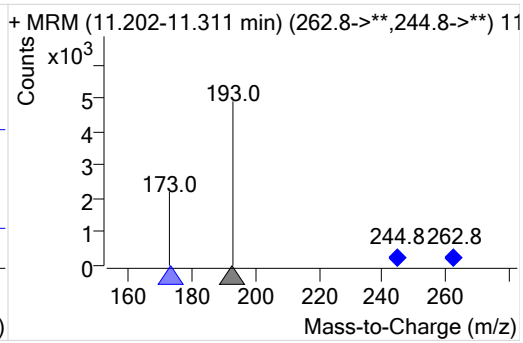




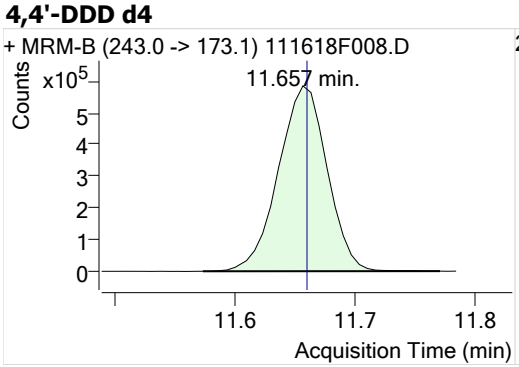
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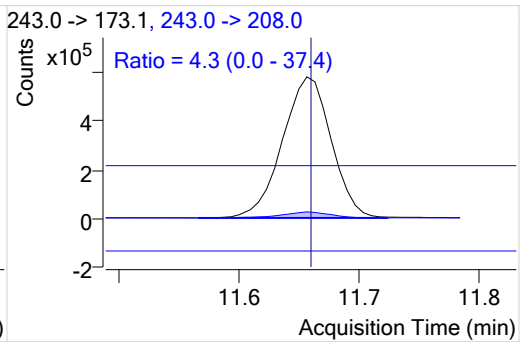


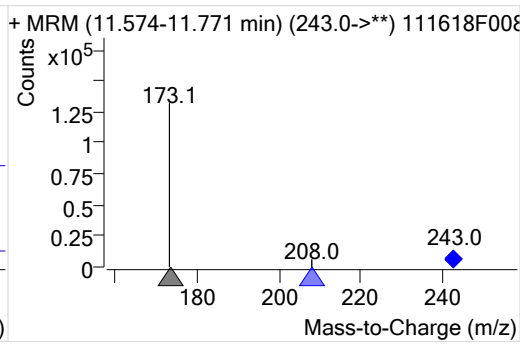




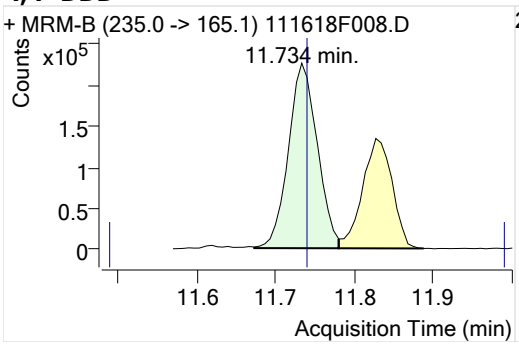
4,4'-DDD d4

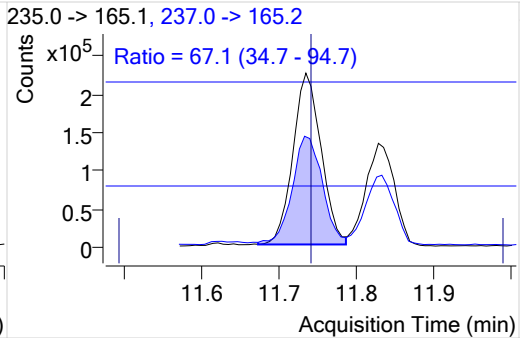


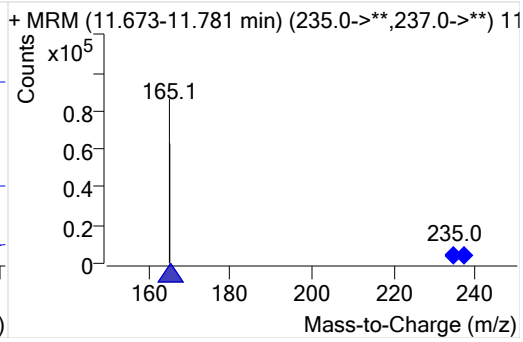




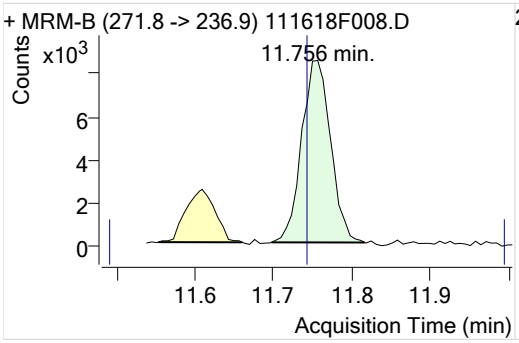
4,4'-DDD

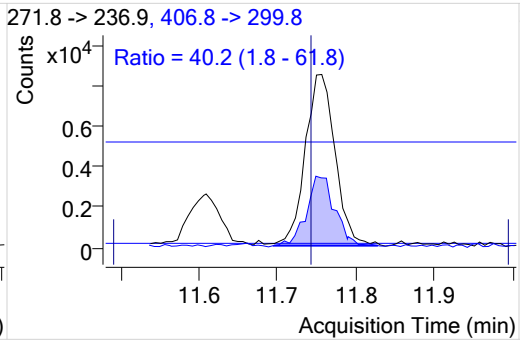


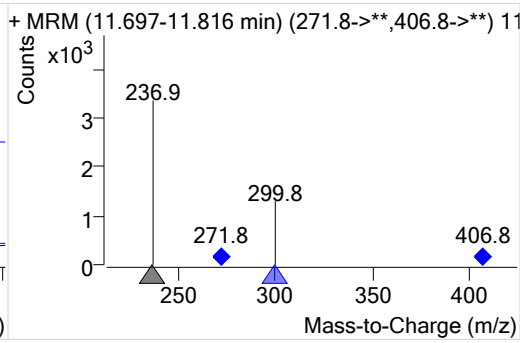




cis-Nonachlor

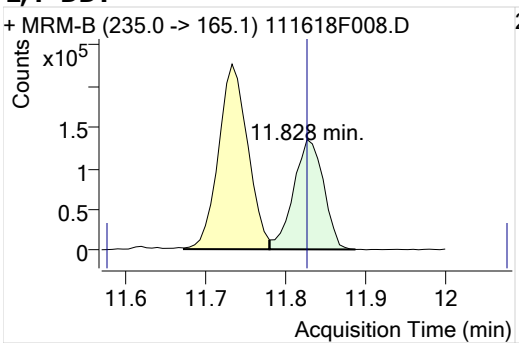


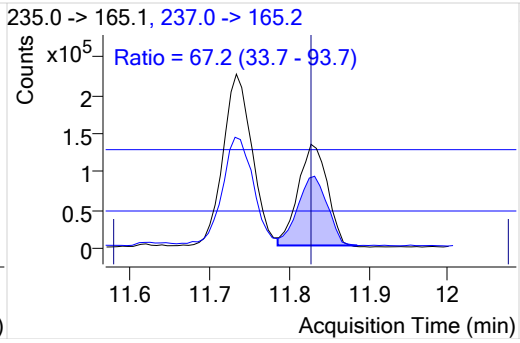


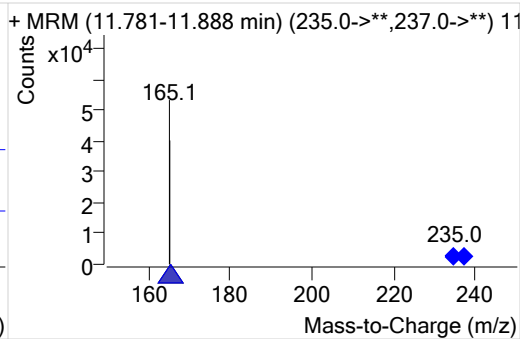


Quantitative Analysis Sample Report

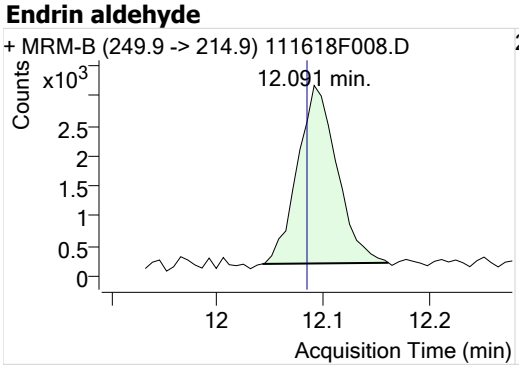
2,4'-DDT

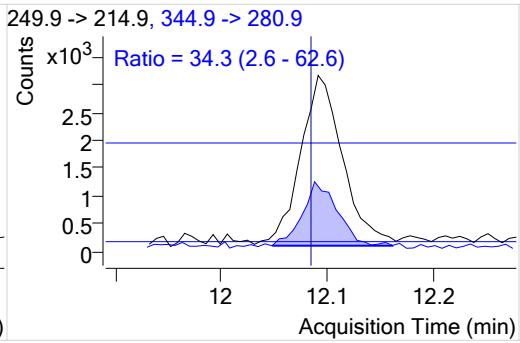


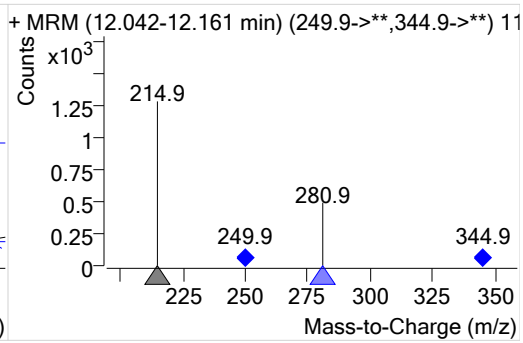




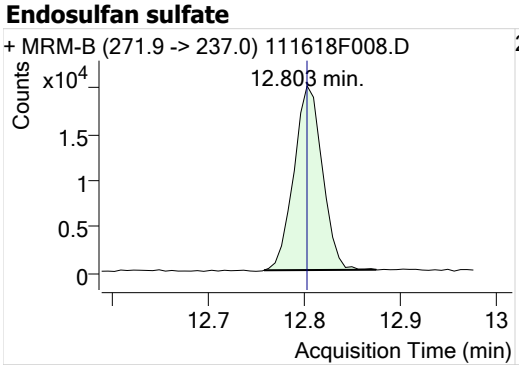
Endrin aldehyde

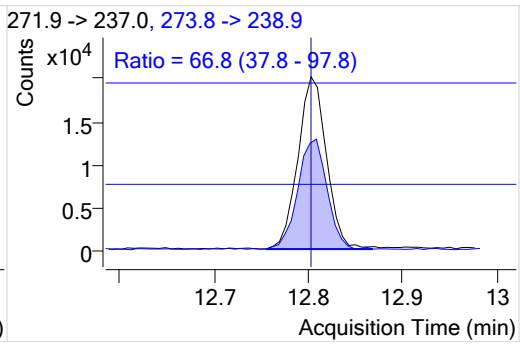


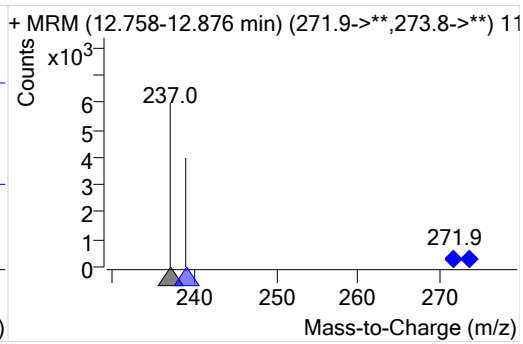




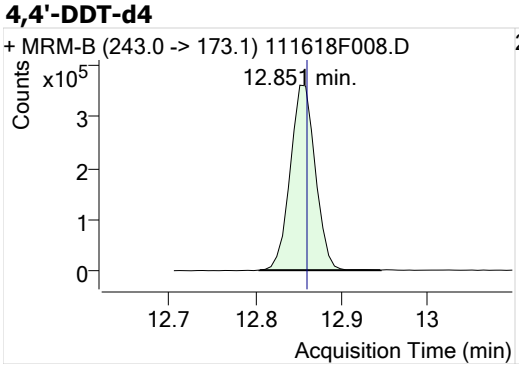
Endosulfan sulfate

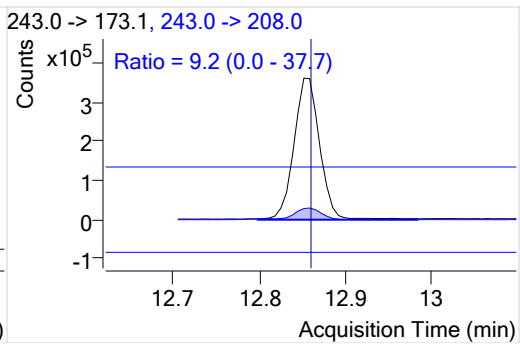


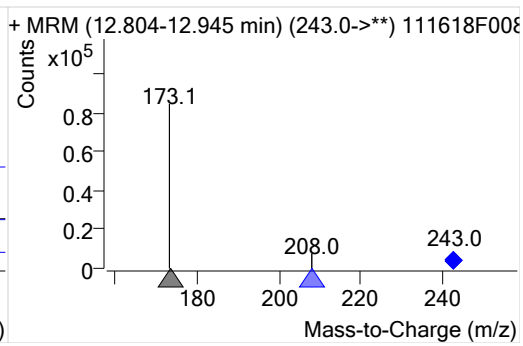




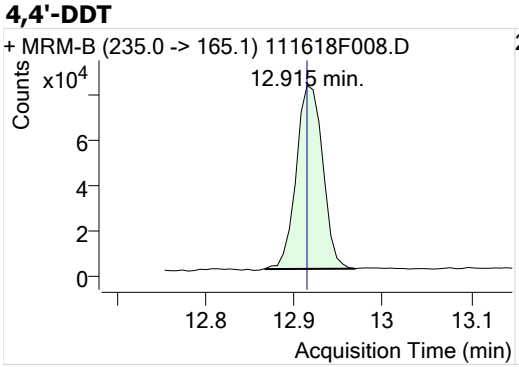
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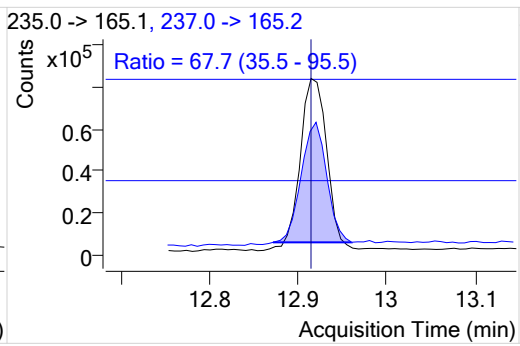


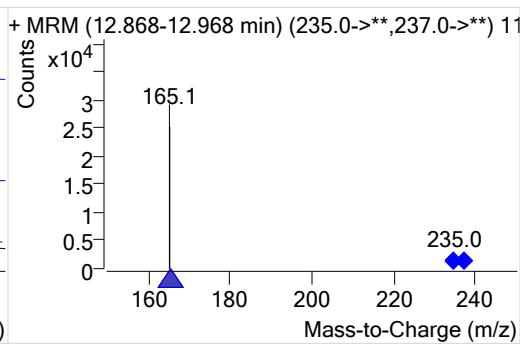




4,4'-DDT

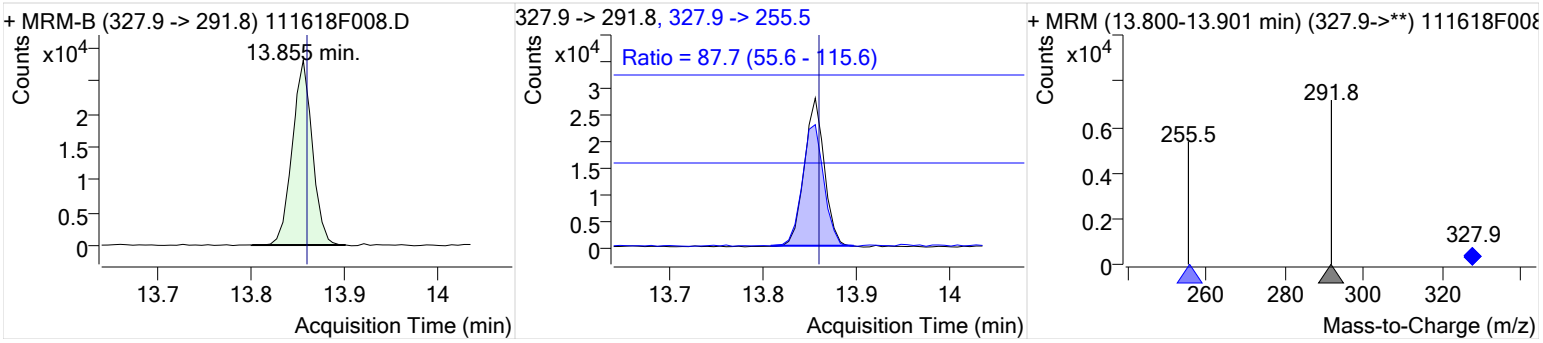




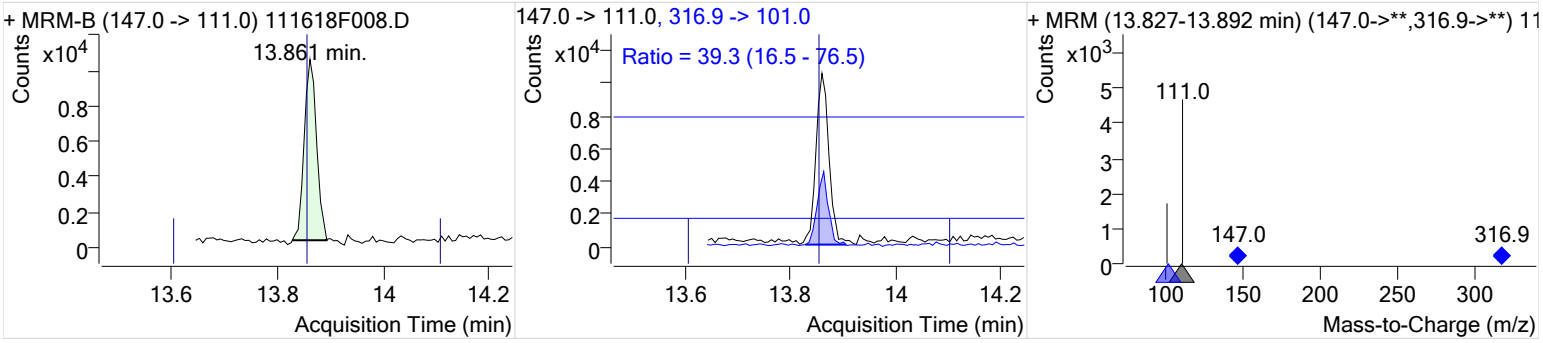


Quantitative Analysis Sample Report

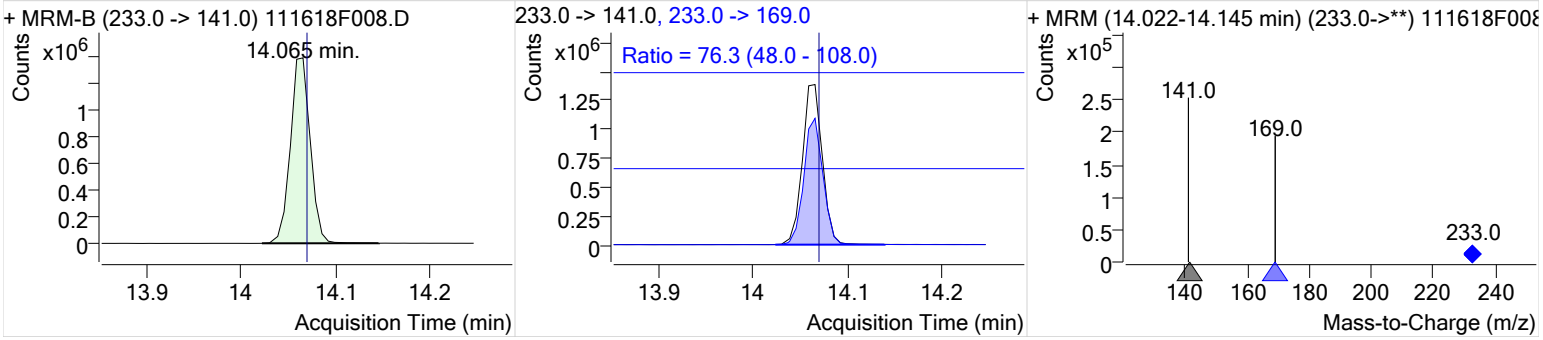
Endrin ketone-13C12



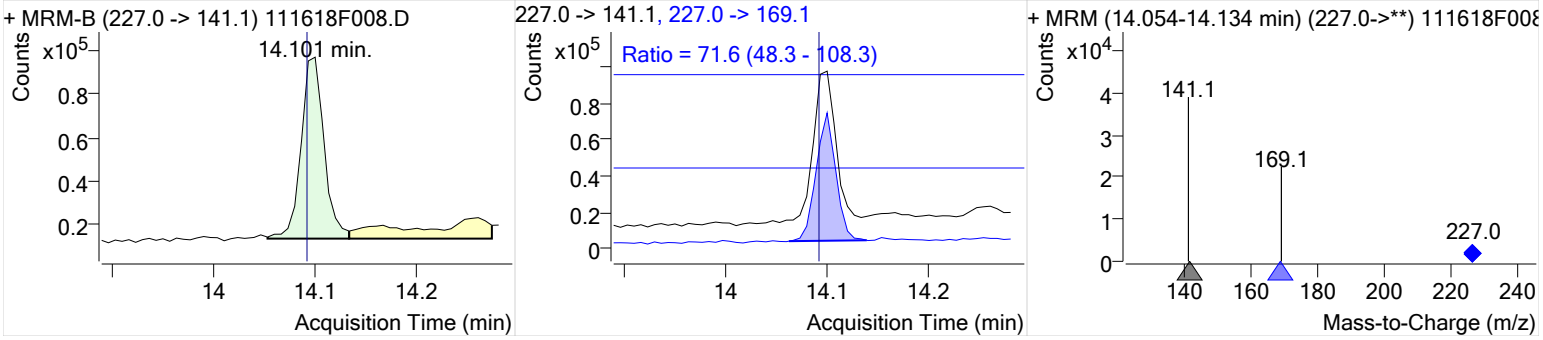
Endrin ketone



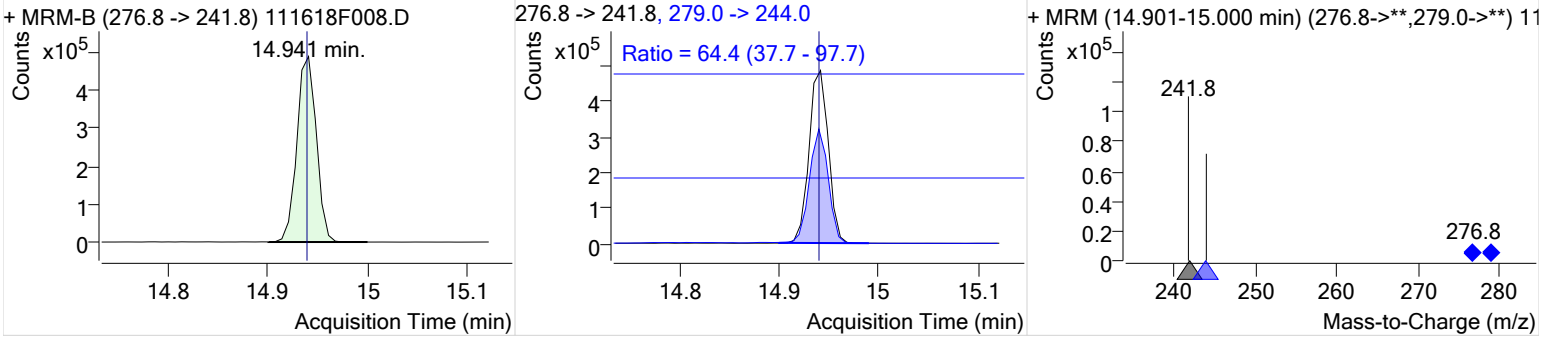
Methoxychlor-d6



Methoxychlor

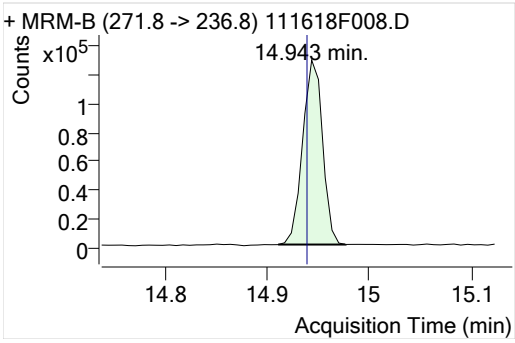


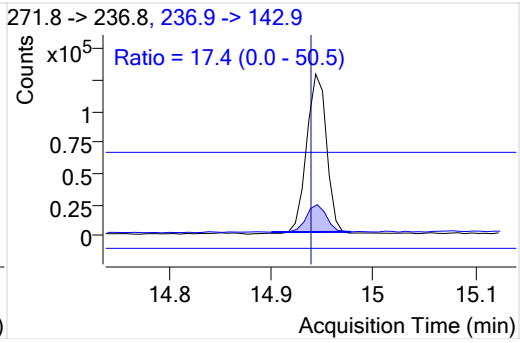
Mirex-13C10

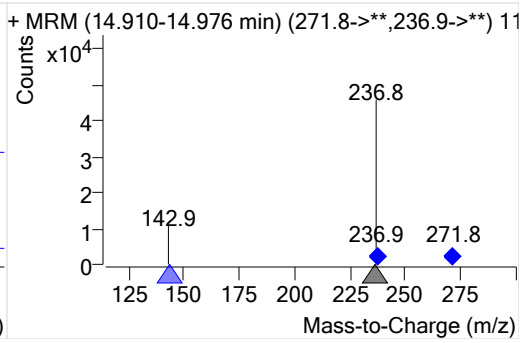


Quantitative Analysis Sample Report

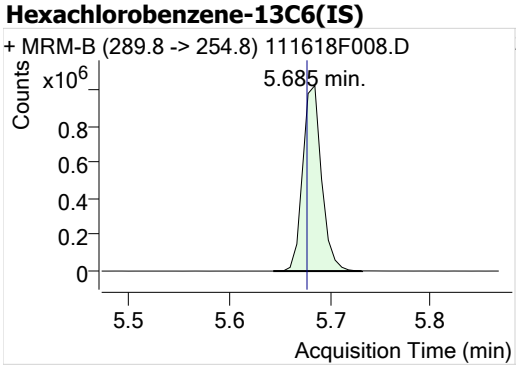
Mirex

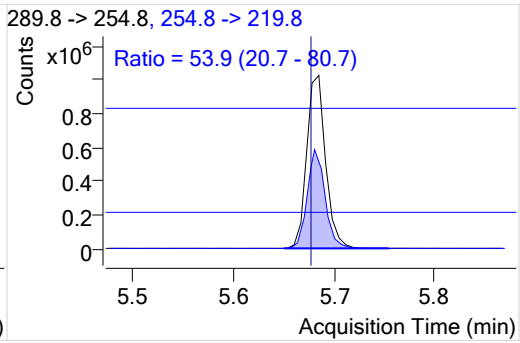


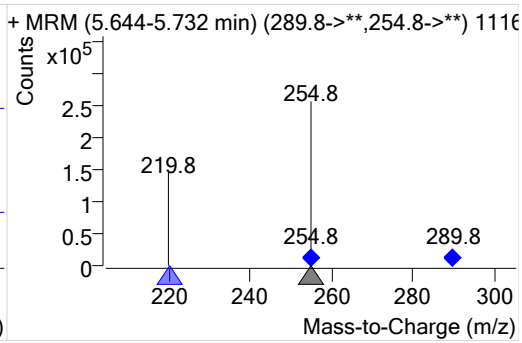




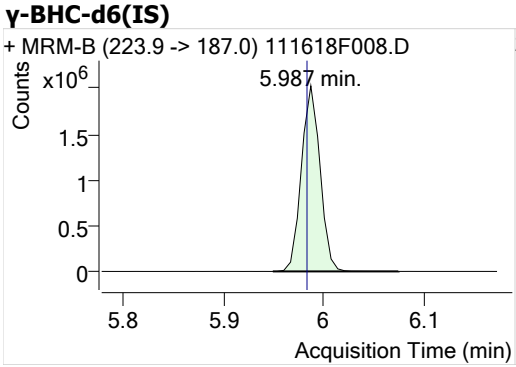
Hexachlorobenzene-13C6(IS)

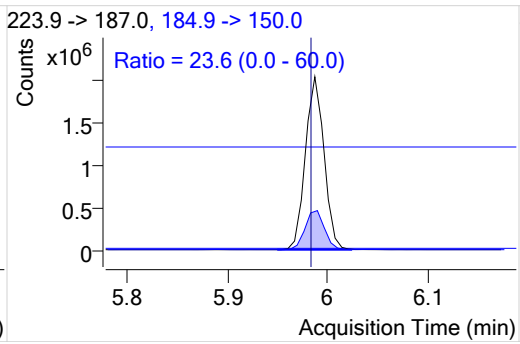


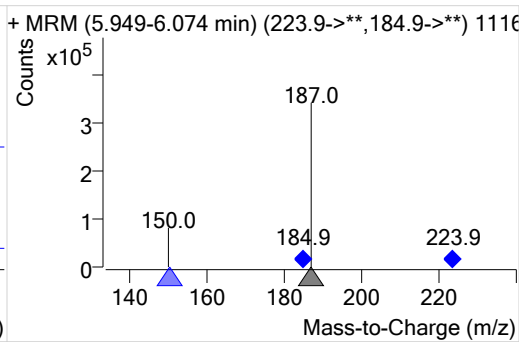




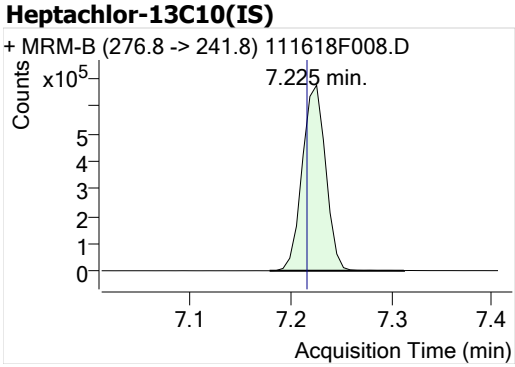
γ-BHC-d6(IS)

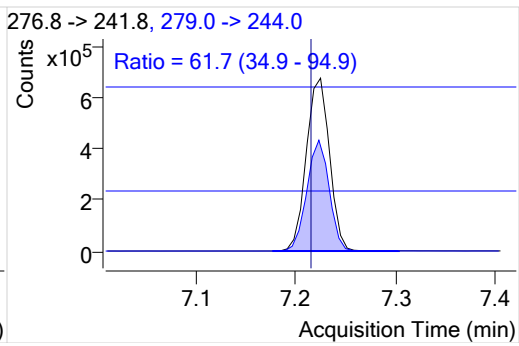


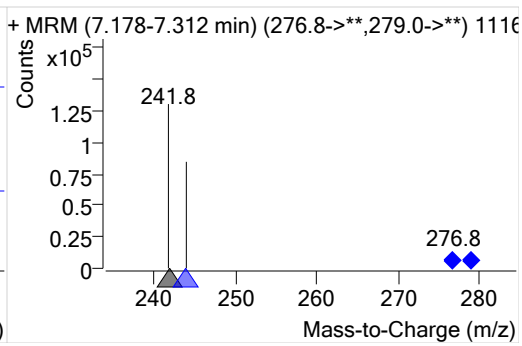




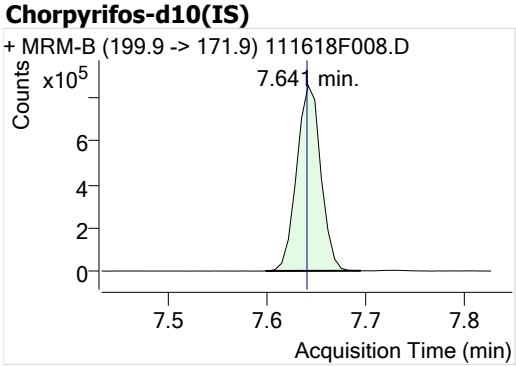
Heptachlor-13C10(IS)

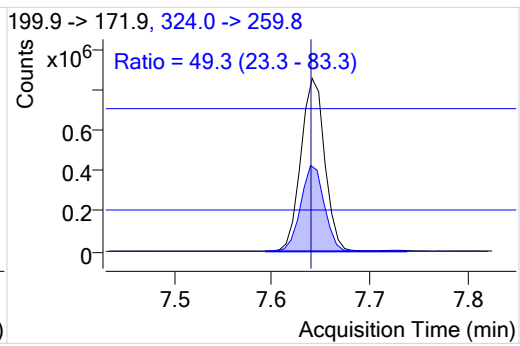


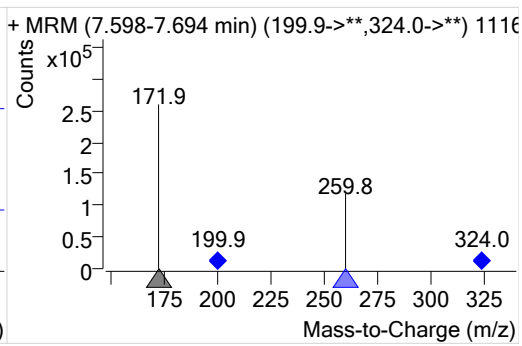




Chorpyrifos-d10(IS)

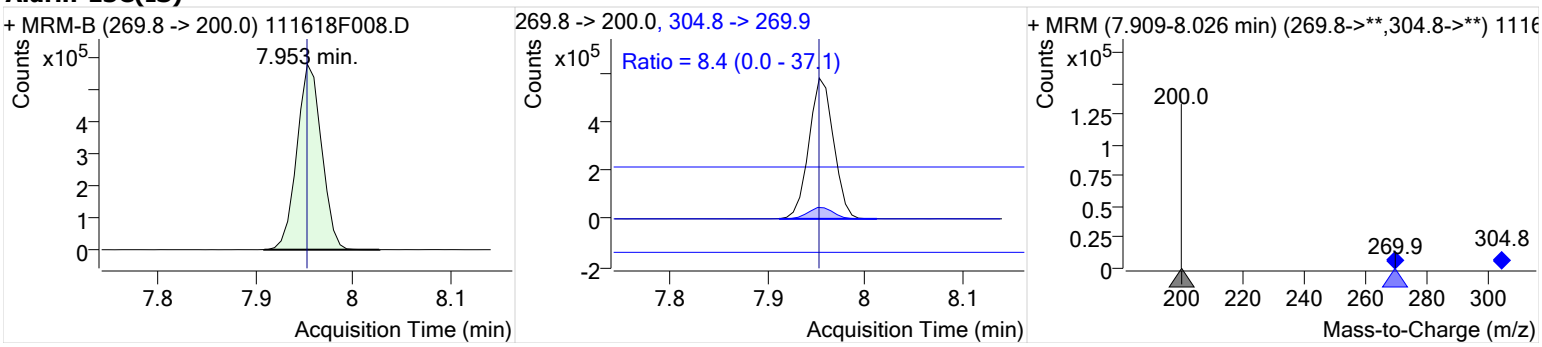




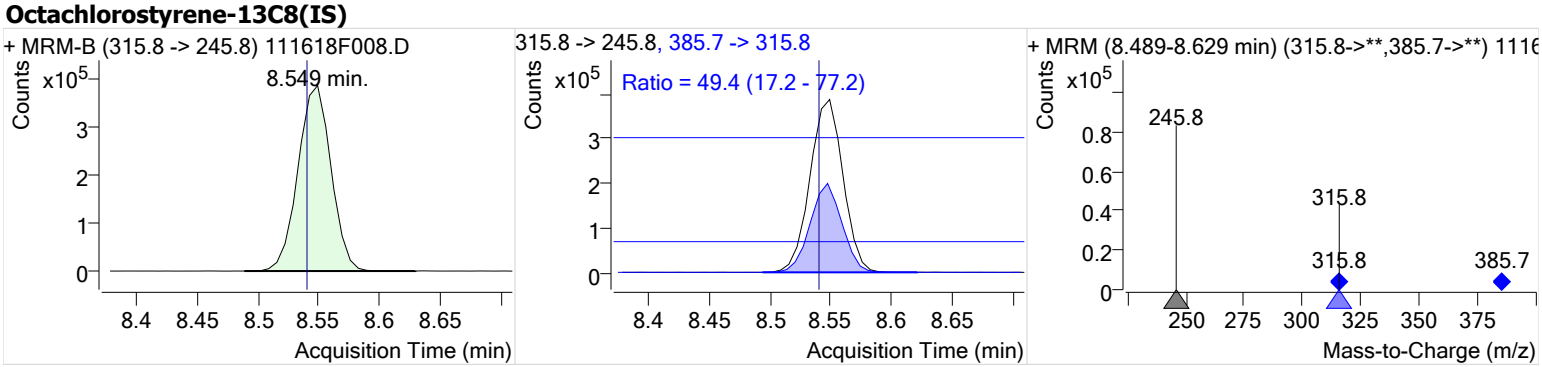


Quantitative Analysis Sample Report

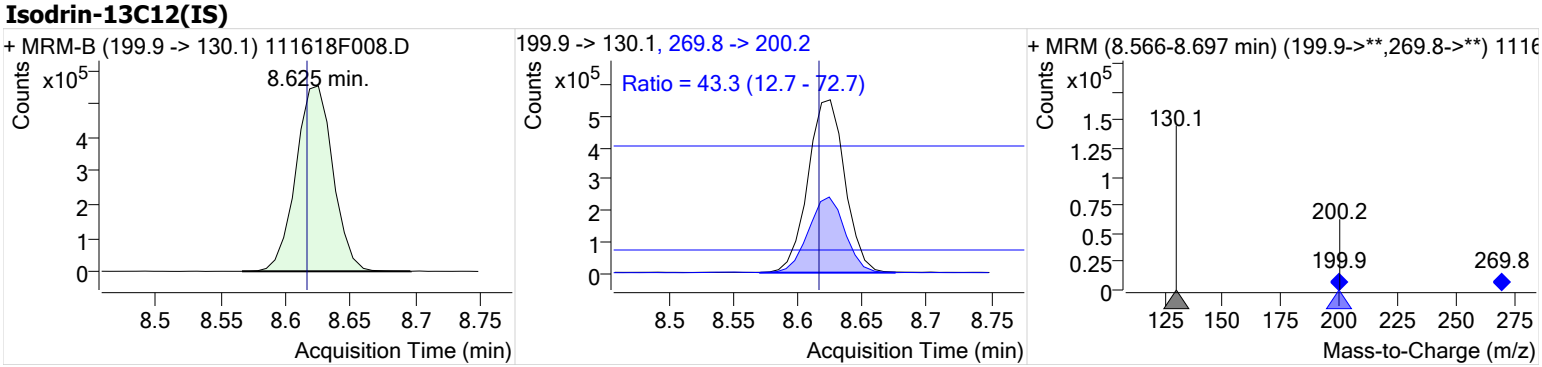
Aldrin-13C(IS)



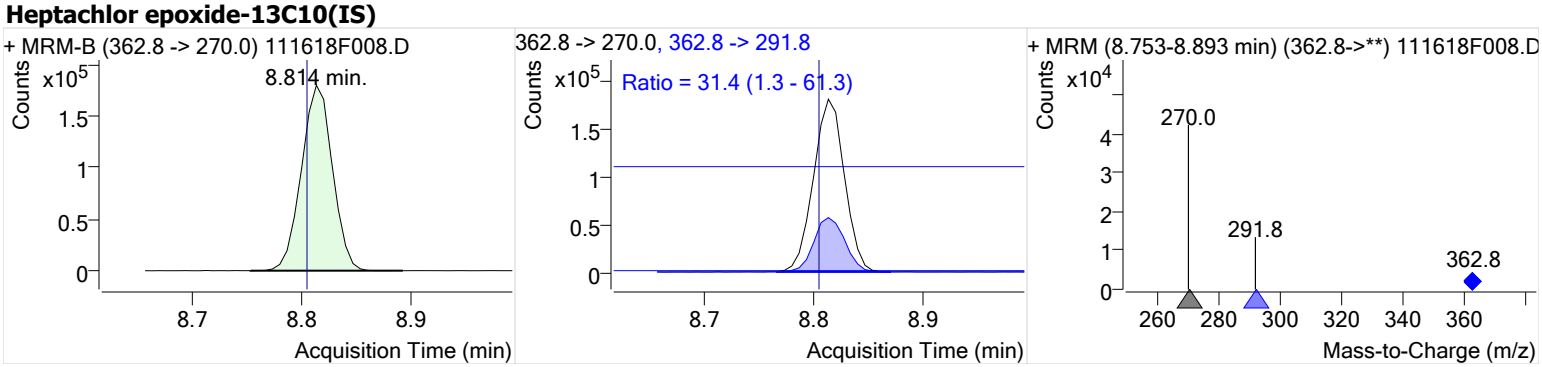
Octachlorostyrene-13C8(IS)



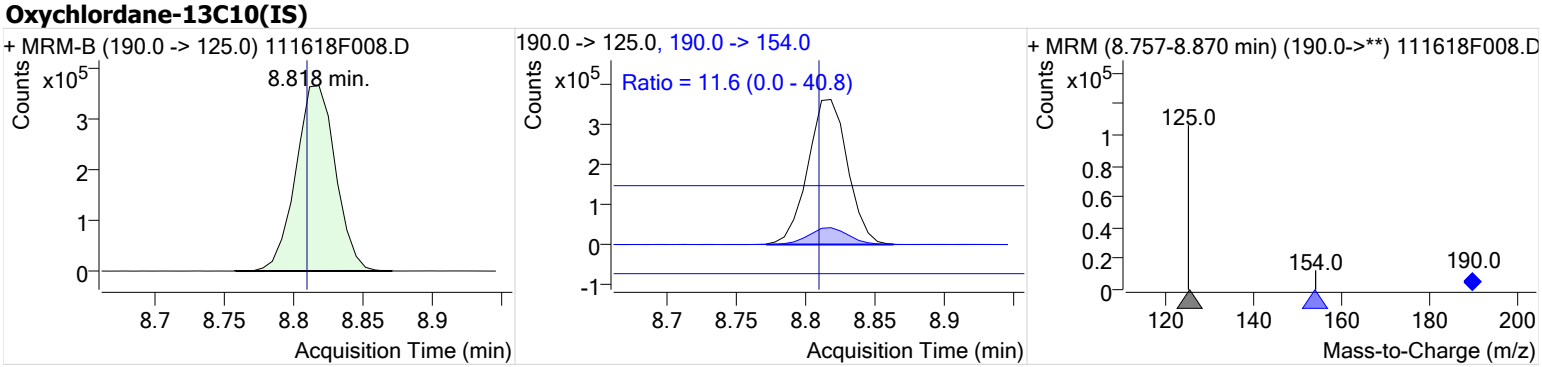
Isodrin-13C12(IS)



Heptachlor epoxide-13C10(IS)

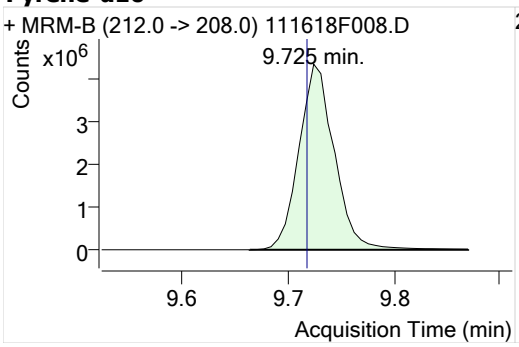


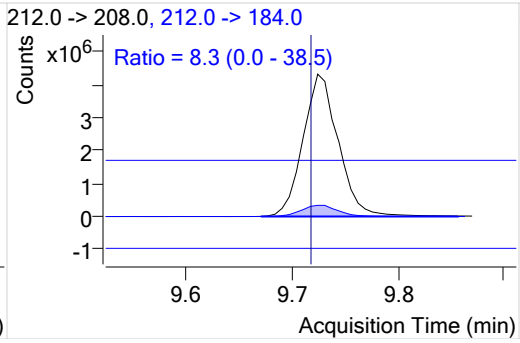
Oxychlordane-13C10(IS)

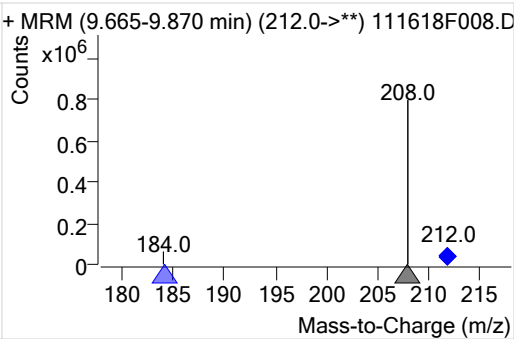


Quantitative Analysis Sample Report

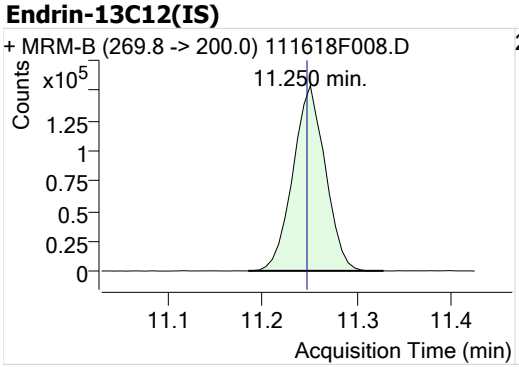
Pyrene-d10

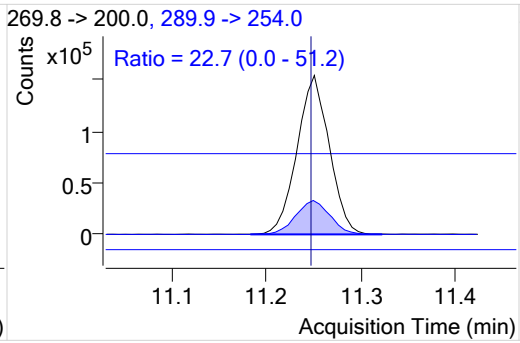


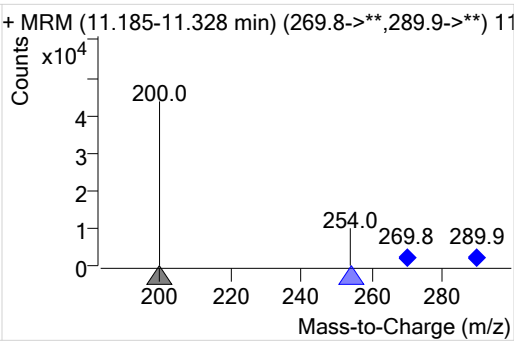




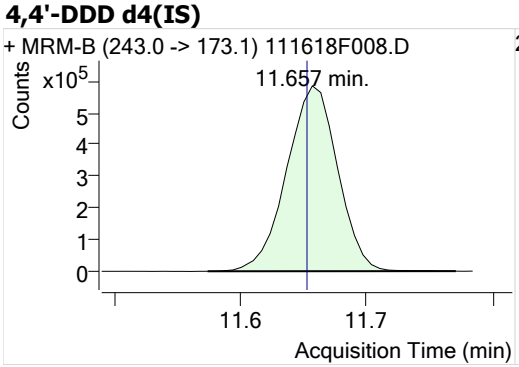
Endrin-13C12(IS)

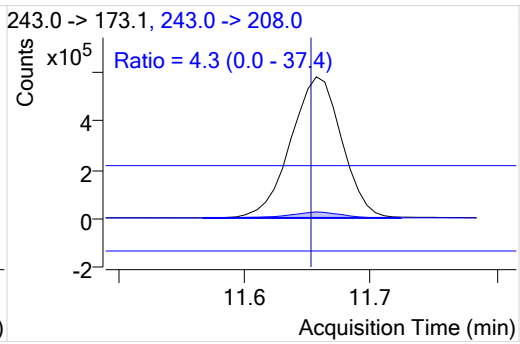


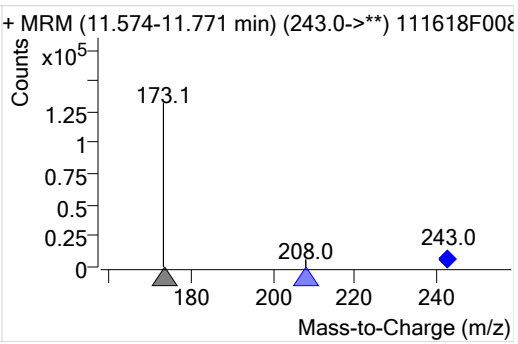




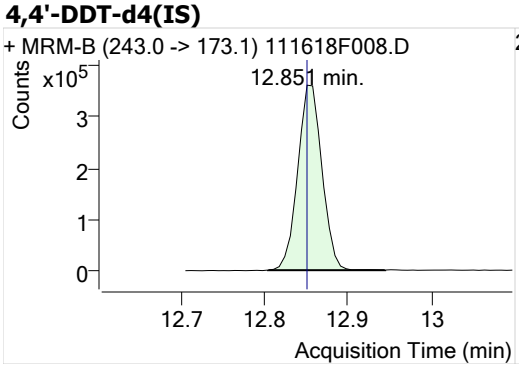
4,4'-DDD d4(IS)

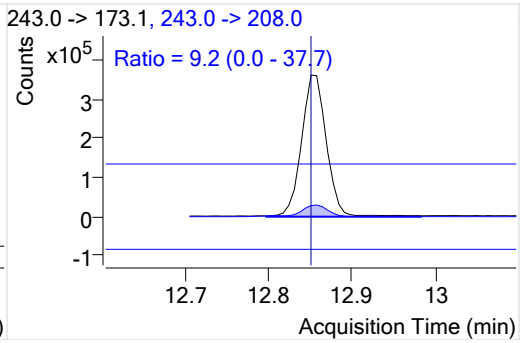


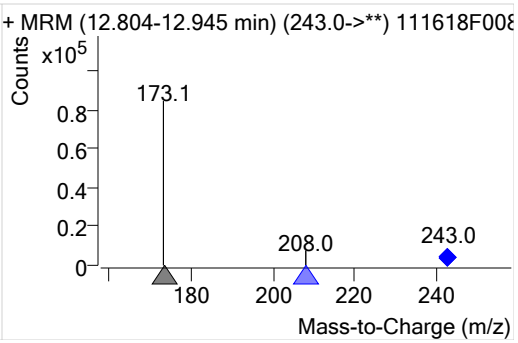




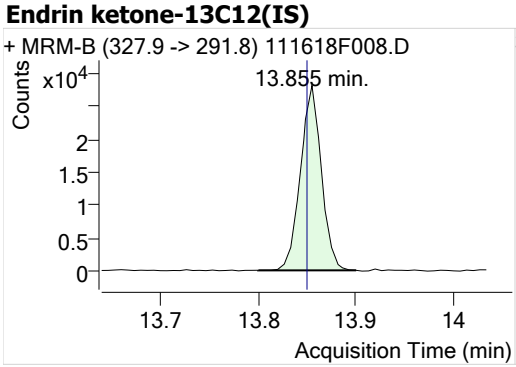
4,4'-DDT-d4(IS)

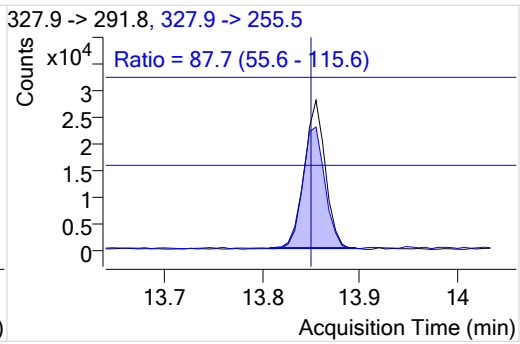


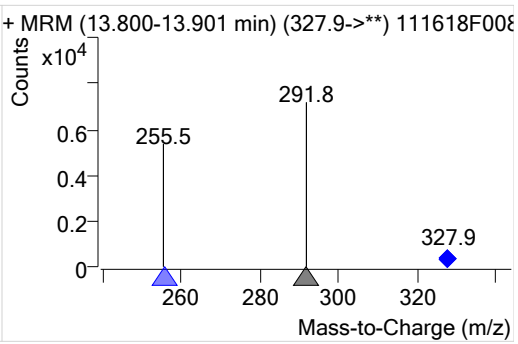




Endrin ketone-13C12(IS)

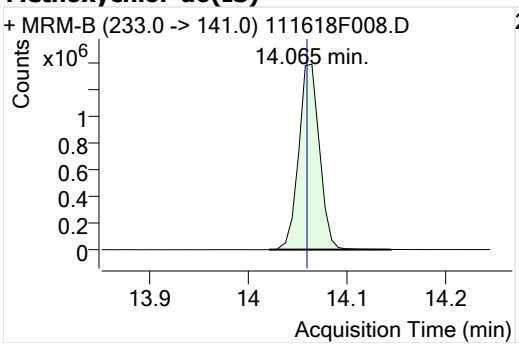


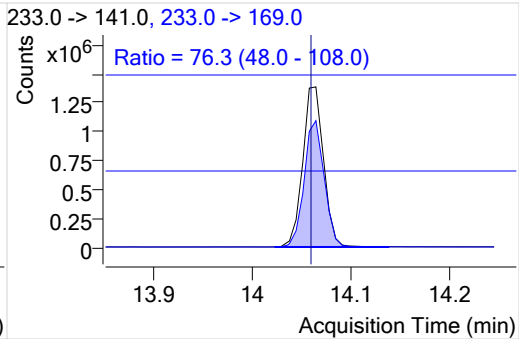


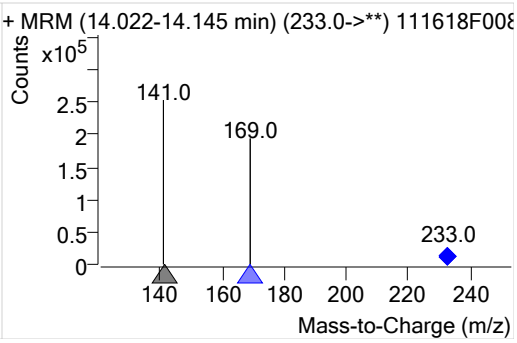


Quantitative Analysis Sample Report

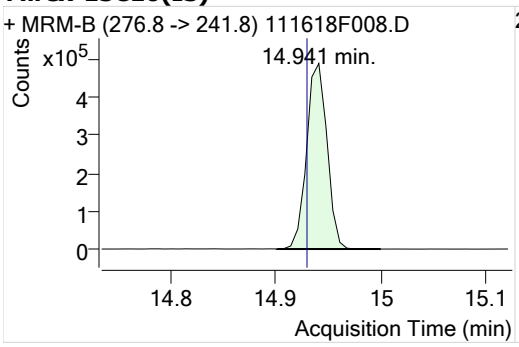
Methoxychlor-d6(IS)

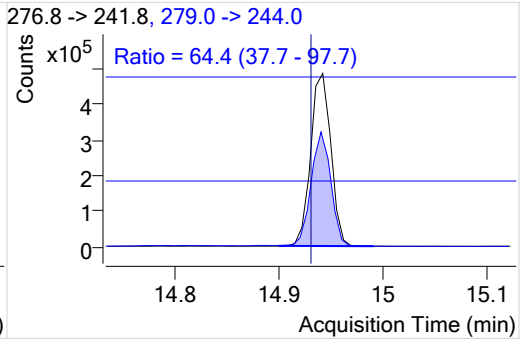


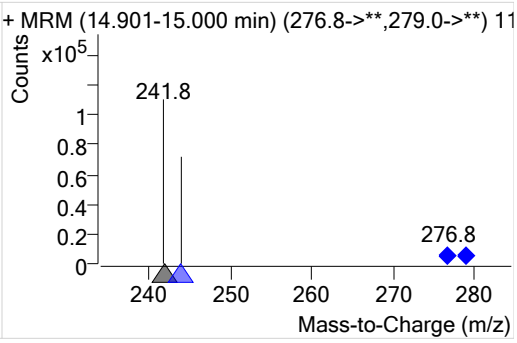




Mirex-13C10(IS)







Quantitative Analysis Sample Report

Data File	Y:\MS42\data\111618\111618F009.D	**Vial**	5
Acq. Date-Time	11/16/2018 1:40:12 PM	**Acq Operator**	EBruno
Name	OC PEST ICAL 2ng/mL SVM59-48C	**Instrument Name**	MS42
Info.		**Instrument Type**	QQQ
Quant Time	3/14/2019 10:04:01 AM	**Inj Vol**	1
Quant Method	110618 OC PEST ICAL.batch.bin		
Last Update	3/14/2019 10:04:01 AM		
Acq. Method File	OC Pest_dMRM	**Tune File Name**	atunes.eihs.tune.xml
Batch File Name	Y:\MS42\data\111618\QuantResults\111618 oc pest ical.batch.bin		

Internal Standards	**RT**	**Transition**	**Response**	**Conc. Units**	**Dev(Min)**
Hexachlorobenzene-13C6(IS)	5.686	289.8 -> 254.8	1303208	20.000 ng/ml	0.006
γ-BHC-d6(IS)	5.987	223.9 -> 187.0	2652438	20.000 ng/ml	0.005
Heptachlor-13C10(IS)	7.220	276.8 -> 241.8	1097745	20.000 ng/ml	0.007
Chorpyrifos-d10(IS)	7.641	199.9 -> 171.9	1445003	20.000 ng/ml	0.001
Aldrin-13C(IS)	7.959	269.8 -> 200.0	1014999	20.000 ng/ml	0.005
Octachlorostyrene-13C8(IS)	8.550	315.8 -> 245.8	735834	20.000 ng/ml	0.009
Isodrin-13C12(IS)	8.619	199.9 -> 130.1	1090183	20.000 ng/ml	0.003
Heptachlor epoxide-13C10(IS)	8.814	362.8 -> 270.0	355850	20.000 ng/ml	0.009
Oxychlordane-13C10(IS)	8.818	190.0 -> 125.0	711471	20.000 ng/ml	0.009
Pyrene-d10	9.732	212.0 -> 208.0	10565294	100.000 ng/ml	0.013
Endrin-13C12(IS)	11.250	269.8 -> 200.0	365734	20.000 ng/ml	0.003
4,4'-DDD d4(IS)	11.657	243.0 -> 173.1	1736441	5.000 ng/ml	0.004
4,4'-DDT-d4(IS)	12.851	243.0 -> 173.1	794678	5.000 ng/ml	0.003
Endrin ketone-13C12(IS)	13.855	327.9 -> 291.8	44724	20.000 ng/ml	0.005
Methoxychlor-d6(IS)	14.058	233.0 -> 141.0	2204620	20.000 ng/ml	0.002
Mirex-13C10(IS)	14.941	276.8 -> 241.8	692057	5.000 ng/ml	0.010

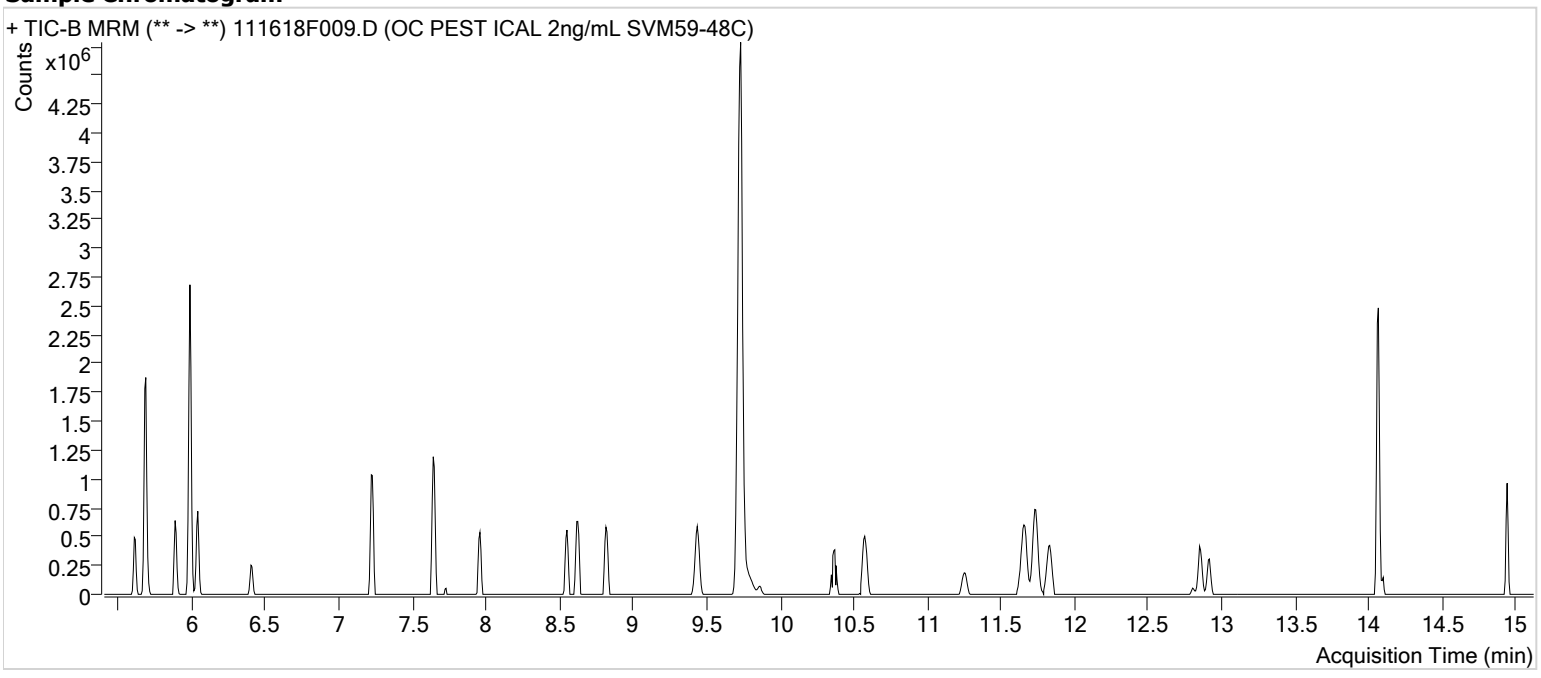
System Monitoring Compounds	**RT**	**Transition**	**Response**	**Conc. Units**	
Hexachlorobenzene-13C6	5.677	289.8 -> 254.8	1303208	16.757 ng/ml	
		Spiked Amount =	20.0	Recovery =	*83.8 %*
γ-BHC-d6	5.983	223.9 -> 187.0	2652438	17.998 ng/ml	
		Spiked Amount =	20.0	Recovery =	*90.0 %*
Heptachlor-13C10	7.216	276.8 -> 241.8	1097745	18.013 ng/ml	
		Spiked Amount =	20.0	Recovery =	*90.1 %*
Chorpyrifos-d10	7.640	199.9 -> 171.9	1445003	18.901 ng/ml	
		Spiked Amount =	20.0	Recovery =	*94.5 %*
Aldrin-13C	7.952	269.8 -> 200.0	1015016	18.236 ng/ml	
		Spiked Amount =	20.0	Recovery =	*91.2 %*
Octachlorostyrene-13C8	8.540	315.8 -> 245.8	735834	18.464 ng/ml	
		Spiked Amount =	20.0	Recovery =	*92.3 %*
Isodrin-13C12	8.616	199.9 -> 130.1	1090183	17.951 ng/ml	
		Spiked Amount =	20.0	Recovery =	*89.8 %*
Heptachlor epoxide-13C10	8.805	362.8 -> 270.0	355850	18.326 ng/ml	
		Spiked Amount =	20.0	Recovery =	*91.6 %*
Oxychlordane-13C10	8.809	190.0 -> 125.0	711471	18.030 ng/ml	
		Spiked Amount =	20.0	Recovery =	*90.1 %*
Endrin-13C12	11.247	269.8 -> 200.0	365734	18.941 ng/ml	
		Spiked Amount =	20.0	Recovery =	*94.7 %*
4,4'-DDD d4	11.652	243.0 -> 173.1	1736441	4.627 ng/ml	
		Spiked Amount =	5.0	Recovery =	*92.5 %*
4,4'-DDT-d4	12.851	243.0 -> 173.1	794678	4.740 ng/ml	
		Spiked Amount =	5.0	Recovery =	*94.8 %*
Endrin ketone-13C12	13.850	327.9 -> 291.8	44724	18.705 ng/ml	
		Spiked Amount =	20.0	Recovery =	*93.5 %*
Methoxychlor-d6	14.060	233.0 -> 141.0	2204620	19.901 ng/ml	
		Spiked Amount =	20.0	Recovery =	*99.5 %*
Mirex-13C10	14.930	276.8 -> 241.8	692057	4.276 ng/ml	
		Spiked Amount =	5.0	Recovery =	*85.5 %*

Quantitative Analysis Sample Report

Target Compounds	ISTD	RT	Transition	Resp.	Conc.	Units	Qvalue
α-BHC	γ-BHC-d6(IS)	5.613	181.1 -> 145.1	383275	2.021	ng/ml	91
Hexachlorobenzene	Hexachlorobenzene-13C6(IS)	5.686	283.8 -> 213.9	273115	2.315	ng/ml	95
β-BHC	γ-BHC-d6(IS)	5.890	181.1 -> 145.1	507271	2.114	ng/ml	97
γ-BHC(Lindane)	γ-BHC-d6(IS)	6.044	181.1 -> 145.1	567029	2.044	ng/ml	97
δ-BHC	γ-BHC-d6(IS)	6.404	181.1 -> 145.1	229254	2.073	ng/ml	97
Heptachlor	Heptachlor-13C10(IS)	7.230	271.7 -> 236.9	137506	2.161	ng/ml	35
Chorpyrifos	Chorpyrifos-d10(IS)	7.725	196.9 -> 169.0	230570	2.260	ng/ml	93
Aldrin	Aldrin-13C(IS)	7.962	254.9 -> 220.0	163459	2.145	ng/ml	44
Octachlorostyrene	Octachlorostyrene-13C8(IS)	8.549	342.8 -> 307.8	193178	2.040	ng/ml	95
Isodrin	Isodrin-13C12(IS)	8.634	193.0 -> 123.0	114544	2.048	ng/ml	92
Heptachlor epoxide	Heptachlor epoxide-13C10(IS)	8.829	352.8 -> 262.9	42676	2.107	ng/ml	97
Oxychlordane	Oxychlordane-13C10(IS)	8.826	114.9 -> 51.1	203948	2.120	ng/ml	98
γ-Chlordane(trans)	Oxychlordane-13C10(IS)	9.429	271.8 -> 236.9	74453	2.172	ng/ml	97
2,4'-DDE	4,4'-DDD d4(IS)	9.439	246.0 -> 176.2	692095	2.096	ng/ml	99
α-Chlordane(cis)	Oxychlordane-13C10(IS)	9.788	271.8 -> 236.9	183054	2.137	ng/ml	98
Endosulfan I	Endrin-13C12(IS)	9.811	206.9 -> 172.0	44317	1.933	ng/ml	98
trans-Nanochlor	Oxychlordane-13C10(IS)	9.862	271.8 -> 236.9	113264	2.055	ng/ml	94
4,4' -DDE	4,4'-DDD d4(IS)	10.371	246.0 -> 176.2	666910	2.204	ng/ml	98
2,4'-DDD	4,4'-DDD d4(IS)	10.578	235.0 -> 165.1	817992	2.189	ng/ml	96
Dieldrin	Endrin-13C12(IS)	10.594	262.9 -> 193.0	58481	2.096	ng/ml	93
Endosulfan II	Endrin-13C12(IS)	11.247	206.9 -> 172.0	47010	2.221	ng/ml	84
Endrin	Endrin-13C12(IS)	11.265	262.8 -> 193.0	52770	2.102	ng/ml	96
4,4'-DDD	4,4'-DDD d4(IS)	11.740	235.0 -> 165.1	1191528	2.125	ng/ml	99
cis-Nonachlor	Oxychlordane-13C10(IS)	11.756	271.8 -> 236.9	44289	2.121	ng/ml	85
2,4'-DDT	4,4'-DDT-d4(IS)	11.828	235.0 -> 165.1	706566	1.983	ng/ml	94
Endrin aldehyde	Endrin-13C12(IS)	12.091	249.9 -> 214.9	14590	2.061	ng/ml	95
Endosulfan sulfate	Endrin-13C12(IS)	12.803	271.9 -> 237.0	90222	2.100	ng/ml	96
4,4'-DDT	4,4'-DDT-d4(IS)	12.921	235.0 -> 165.1	381139	2.073	ng/ml	98
Endrin ketone	Endrin ketone-13C12(IS)	13.861	147.0 -> 111.0	34502	2.192	ng/ml	88
Methoxychlor	Methoxychlor-d6(IS)	14.101	227.0 -> 141.1	294905	2.096	ng/ml	92
Mirex	Mirex-13C10(IS)	14.943	271.8 -> 236.8	351463	2.086	ng/ml	94

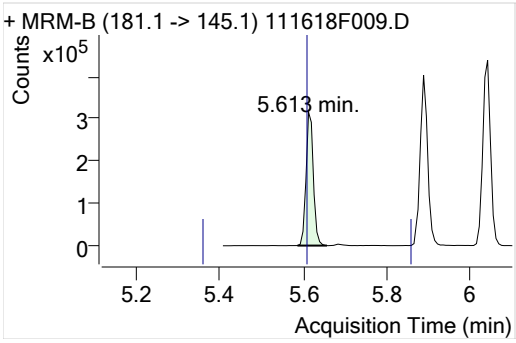
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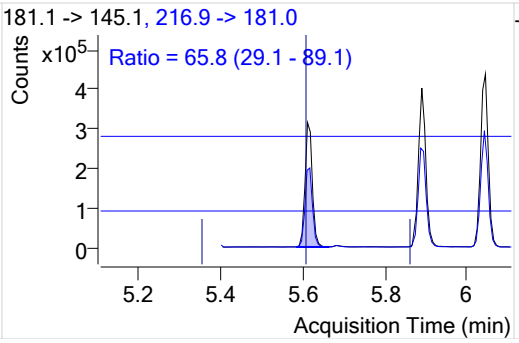
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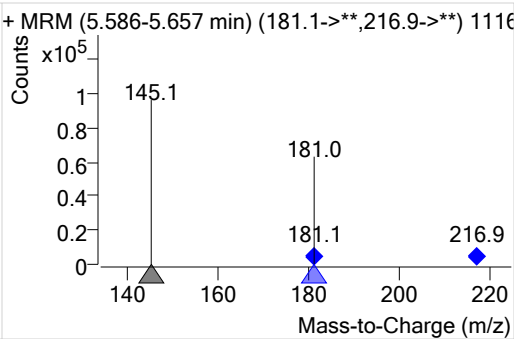


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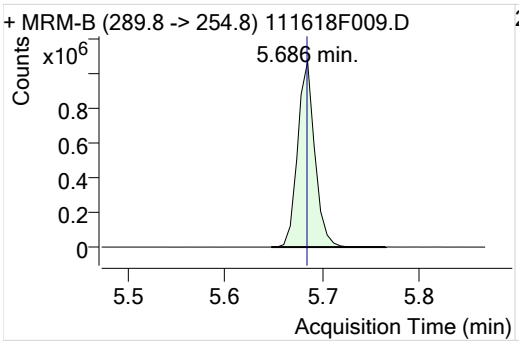
α-BHC

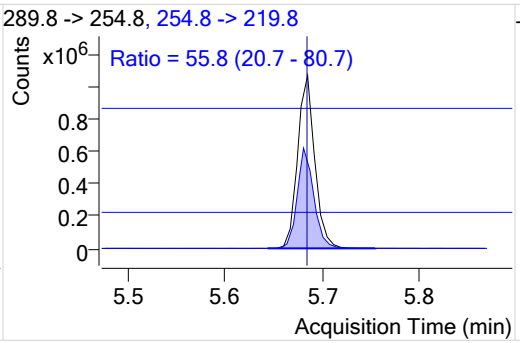


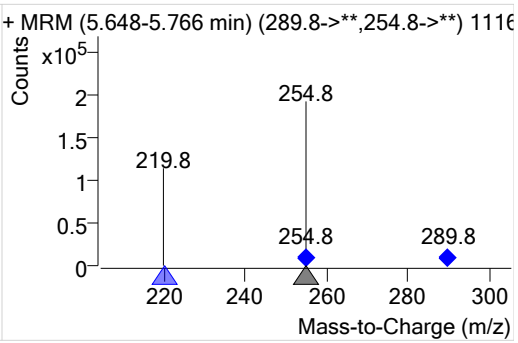




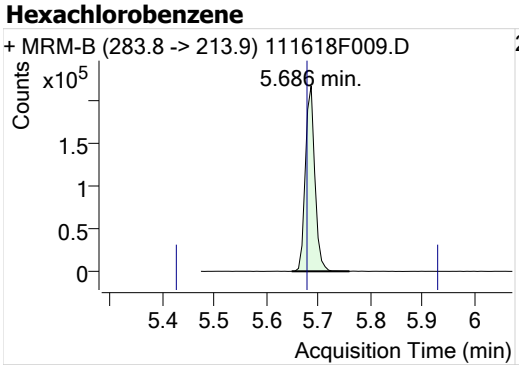
Hexachlorobenzene-13C6

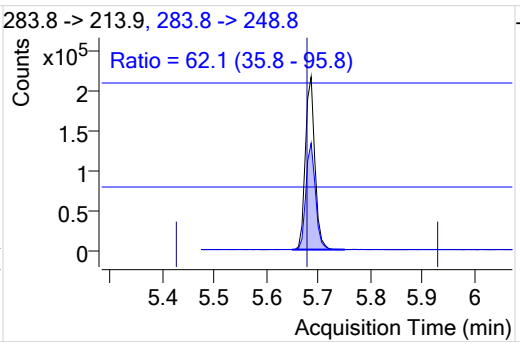


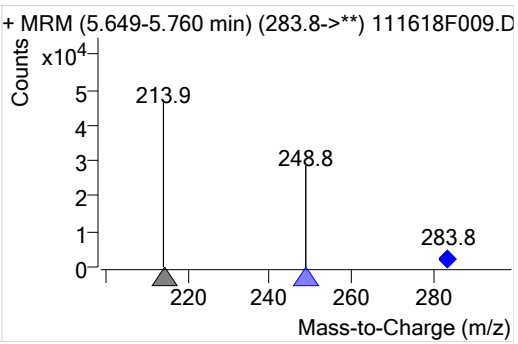




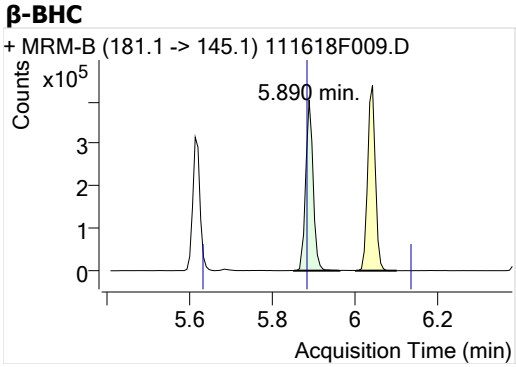
Hexachlorobenzene

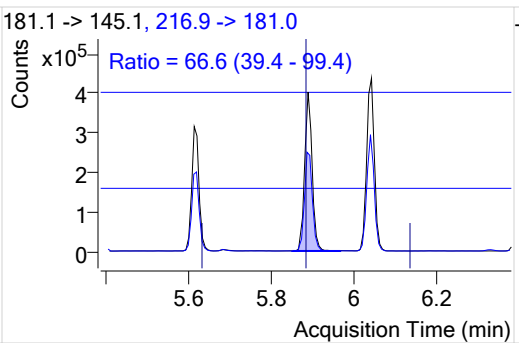


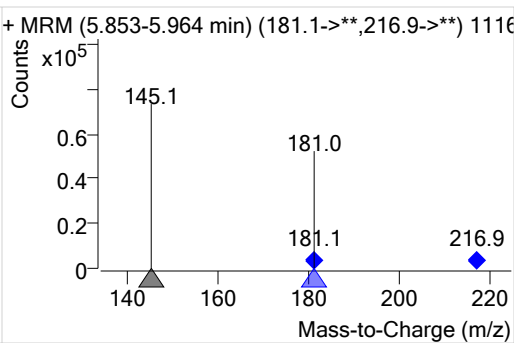




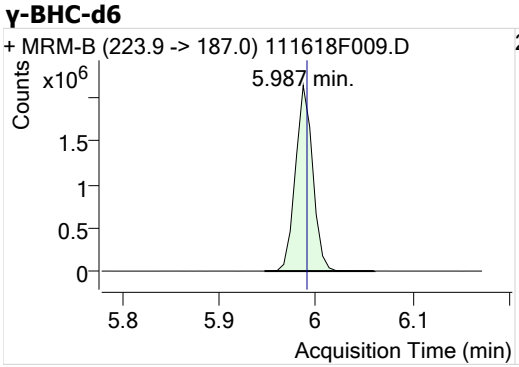
β-BHC

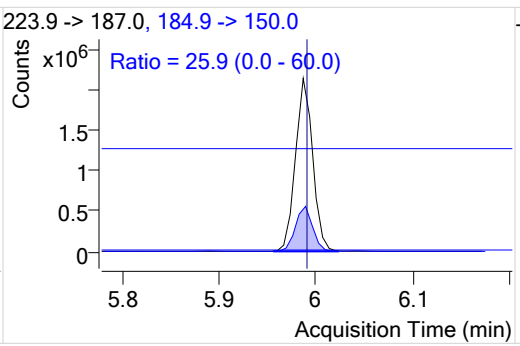


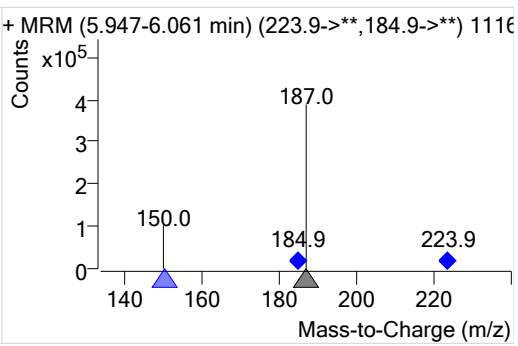




γ-BHC-d6

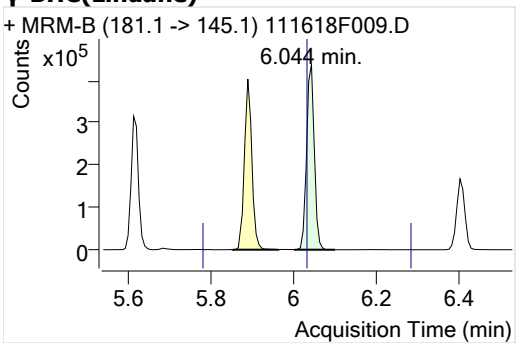


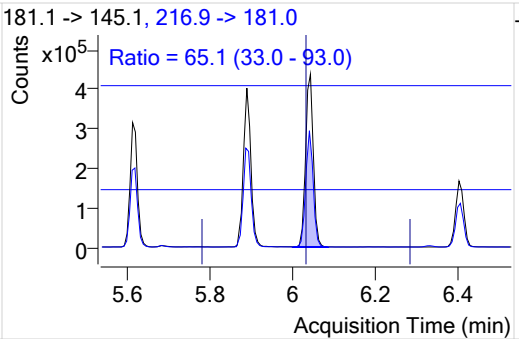


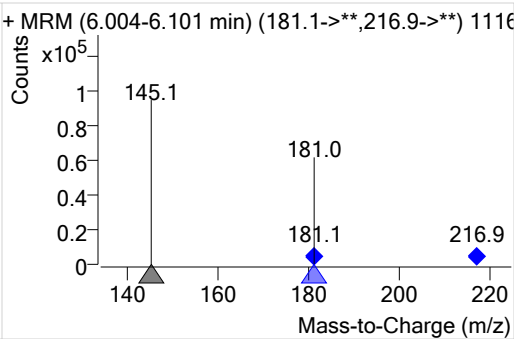


Quantitative Analysis Sample Report

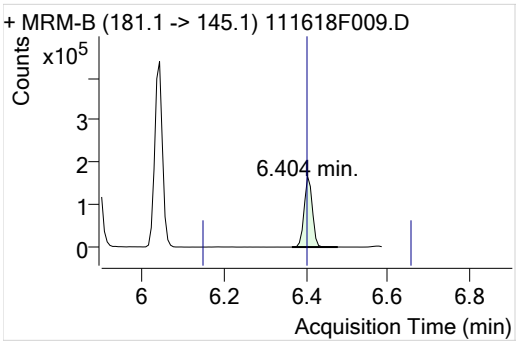
γ-BHC(Lindane)

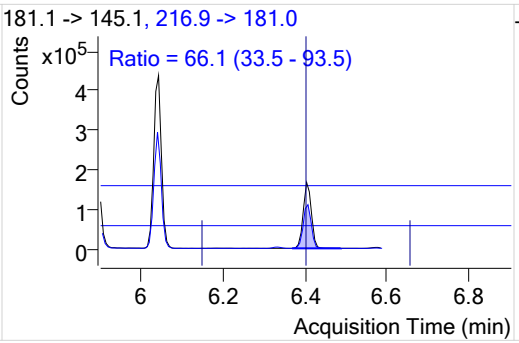


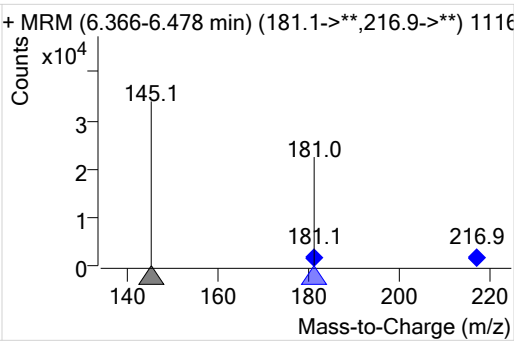




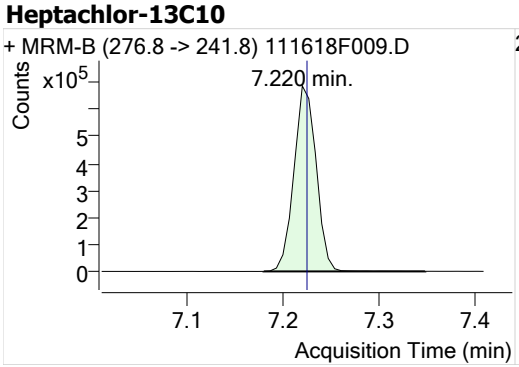
δ-BHC

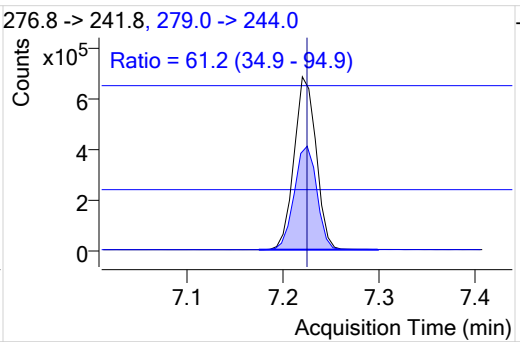


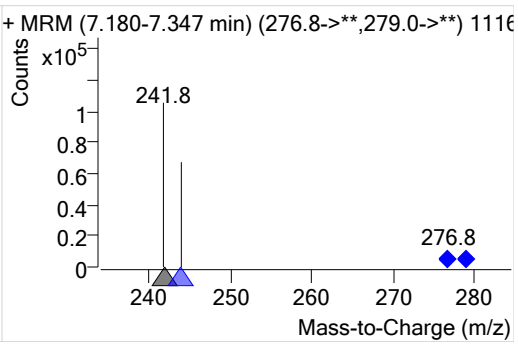




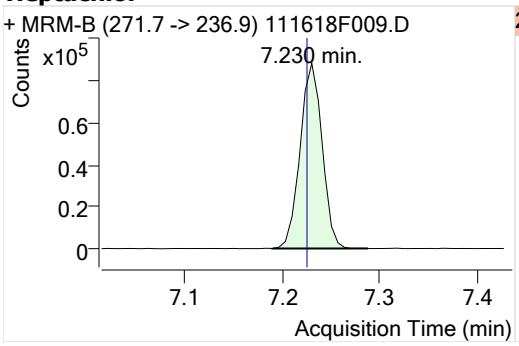
Heptachlor-13C10

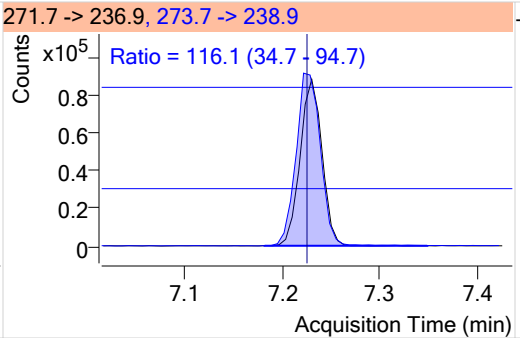


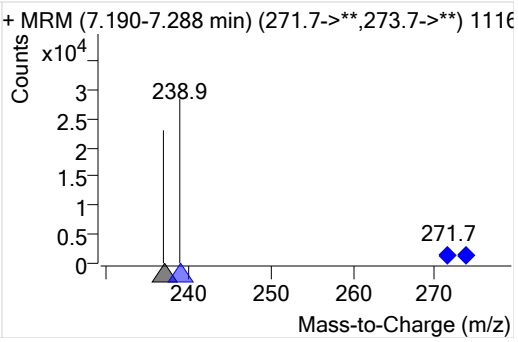




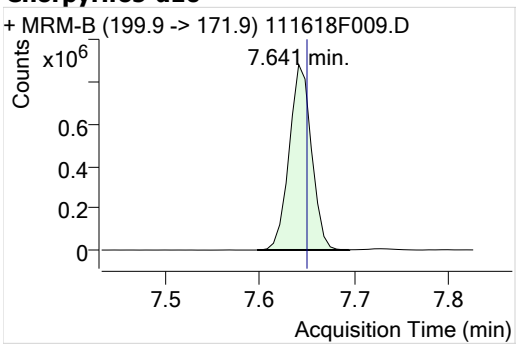
Heptachlor

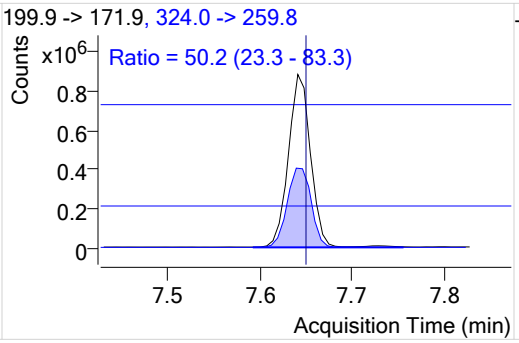


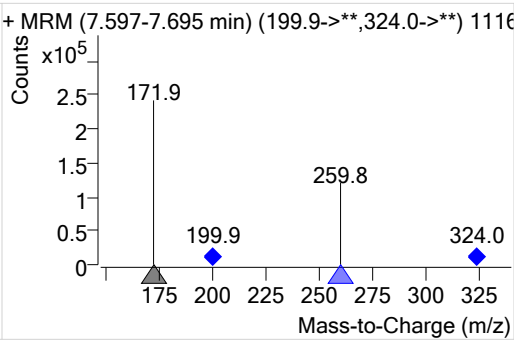




Chorpyrifos-d10

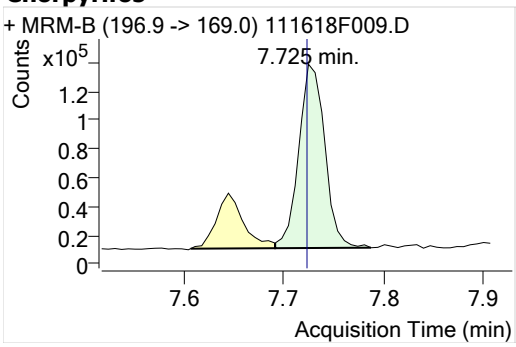


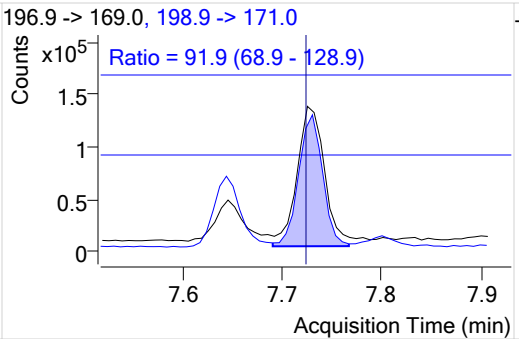


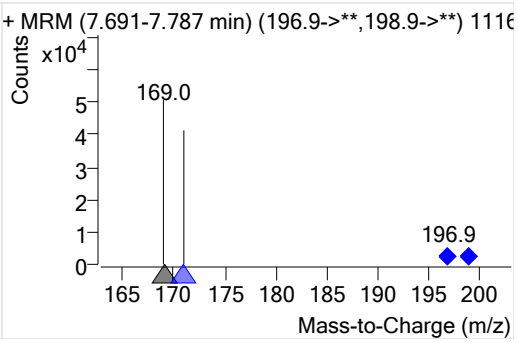


Quantitative Analysis Sample Report

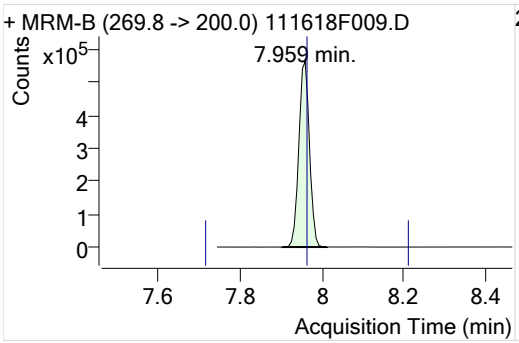
Chorpyrifos

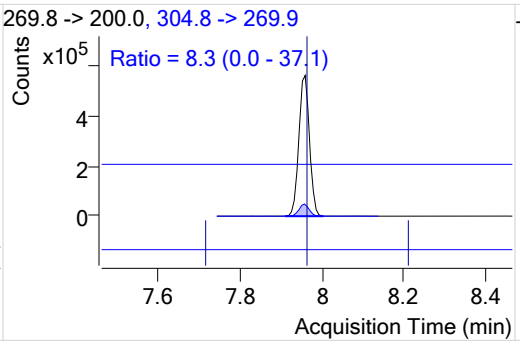


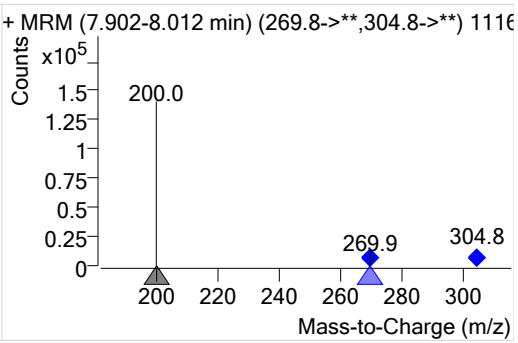




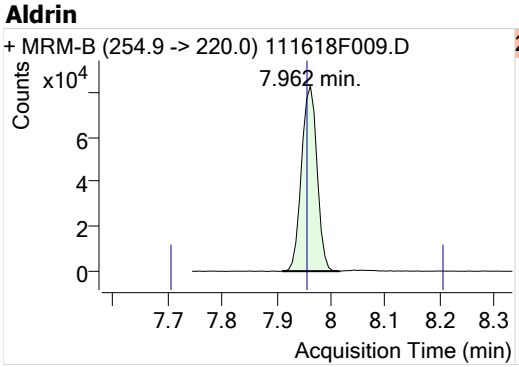
Aldrin-13C

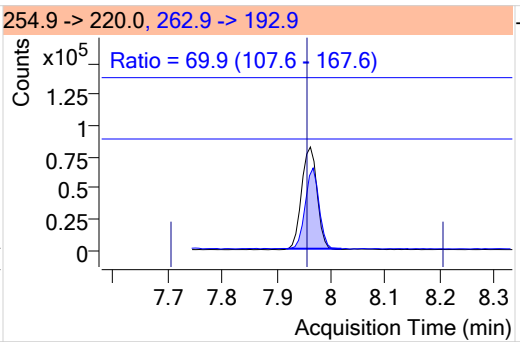


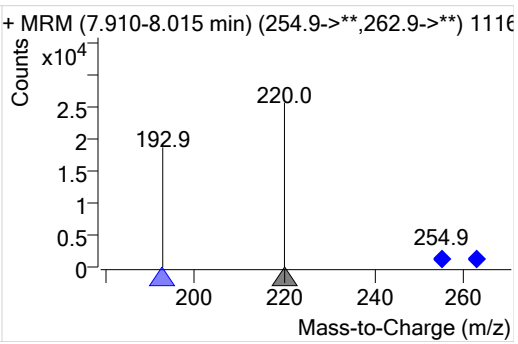




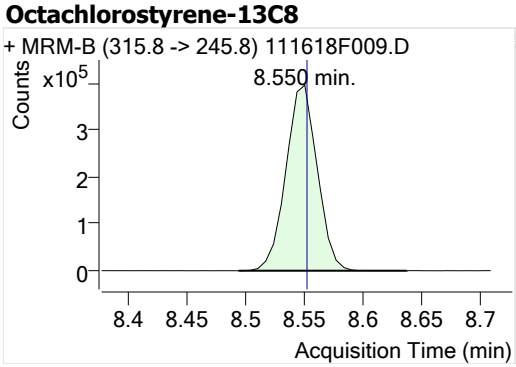
Aldrin

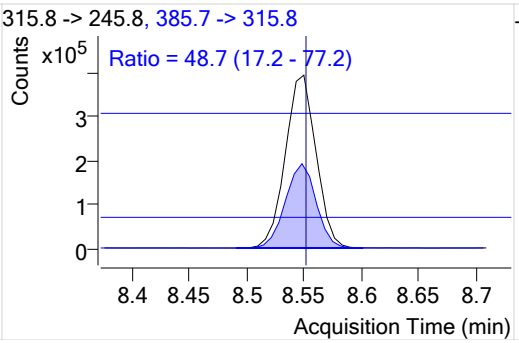


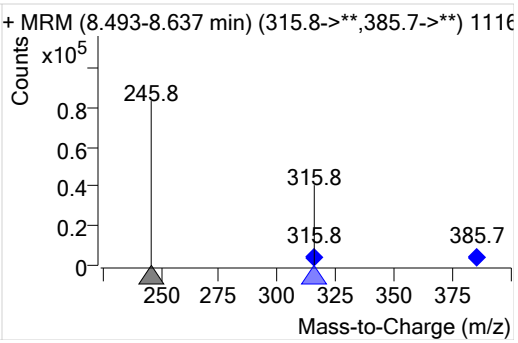




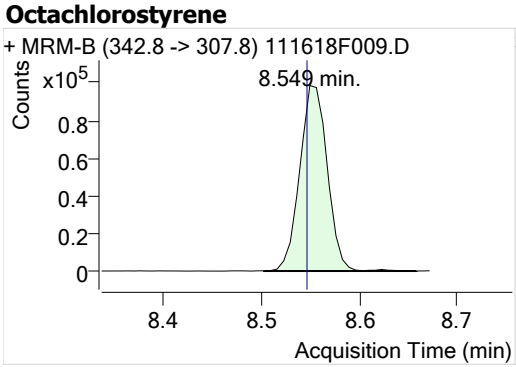
Octachlorostyrene-13C8

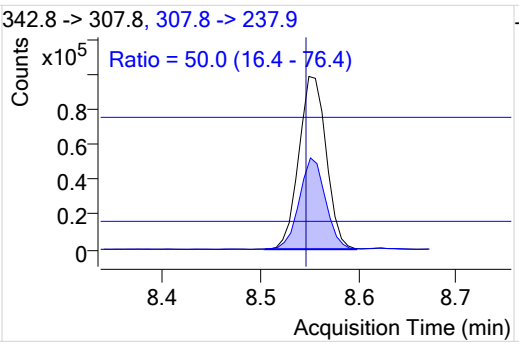


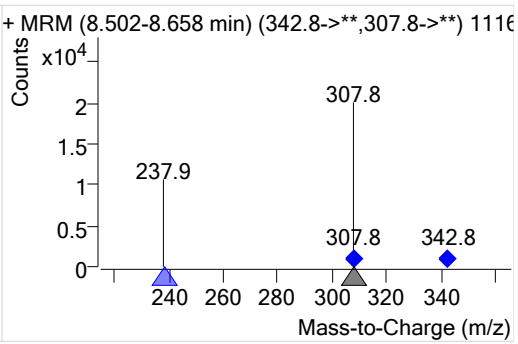




Octachlorostyrene

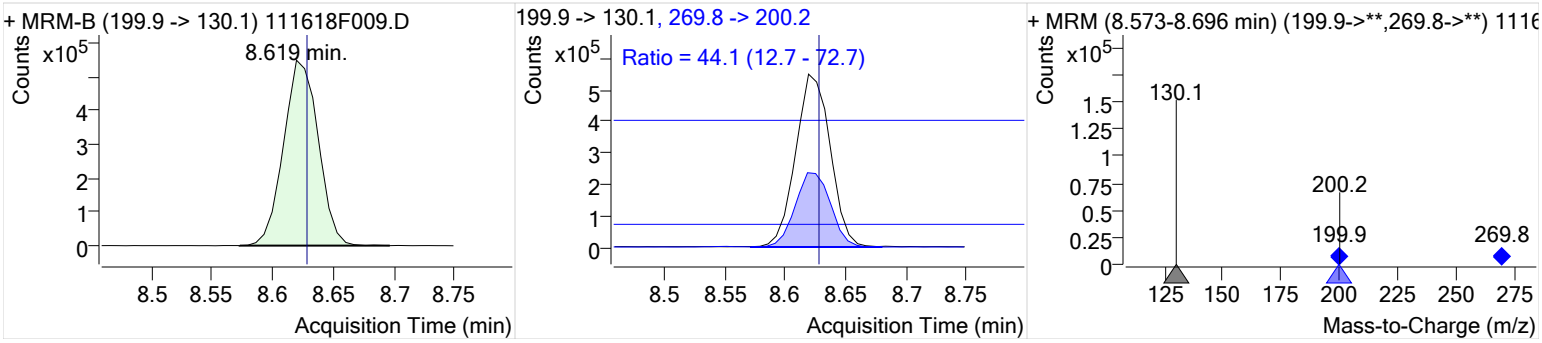




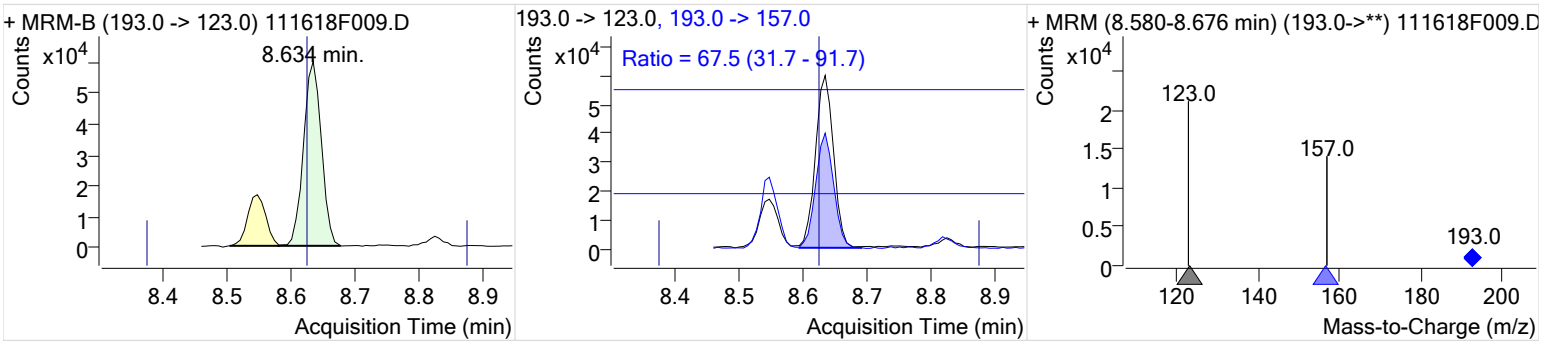


Quantitative Analysis Sample Report

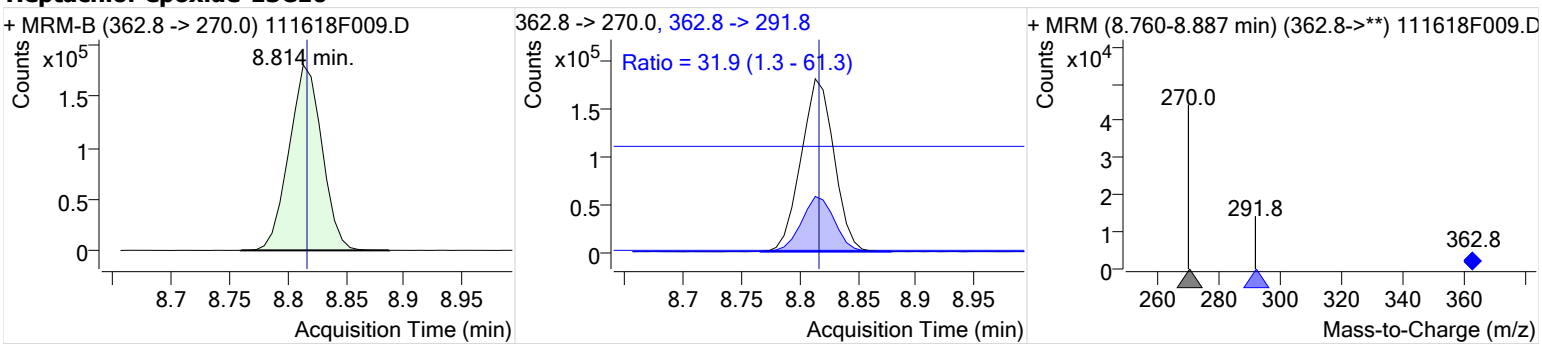
Isodrin-13C12



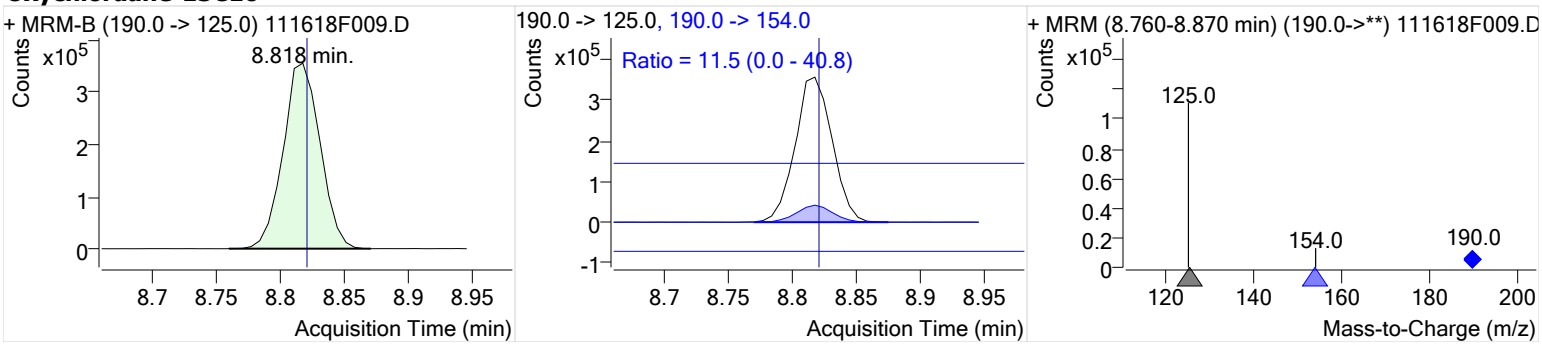
Isodrin



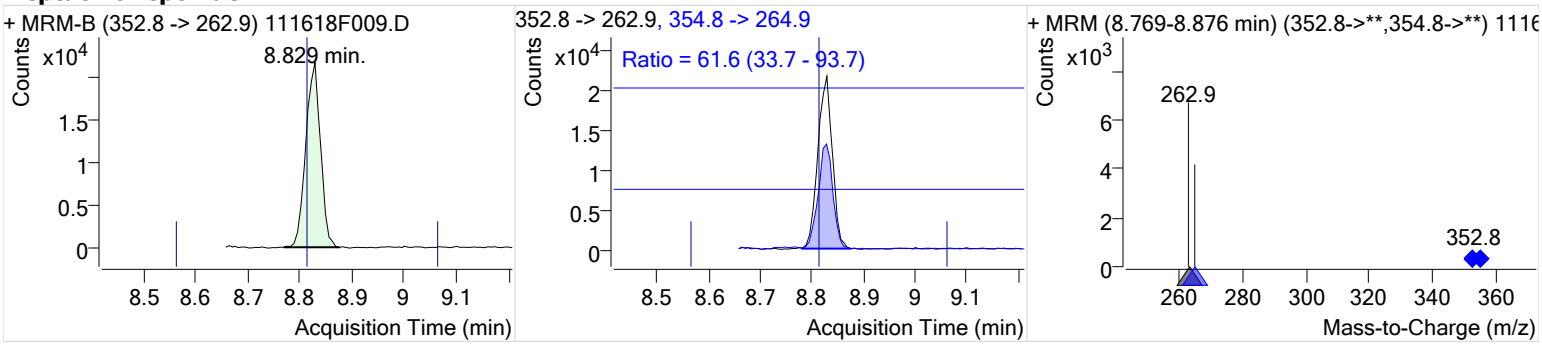
Heptachlor epoxide-13C10



Oxychlordane-13C10

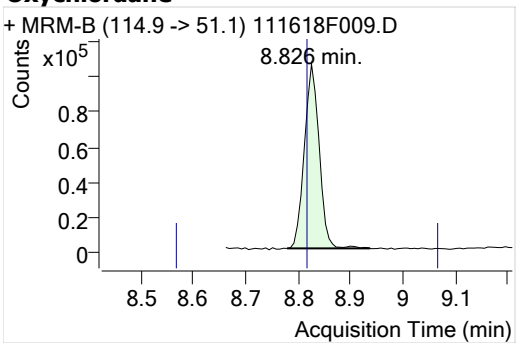


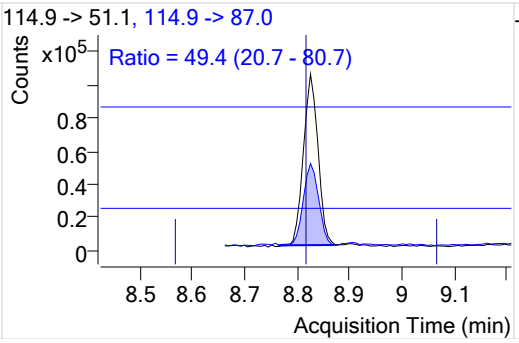
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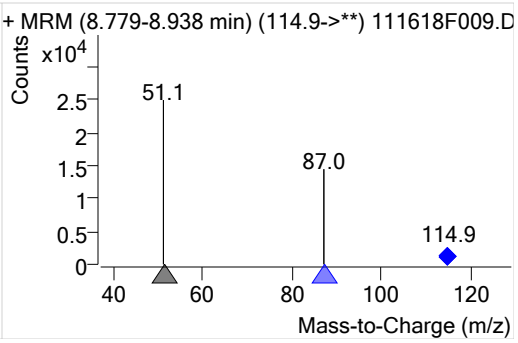


Quantitative Analysis Sample Report

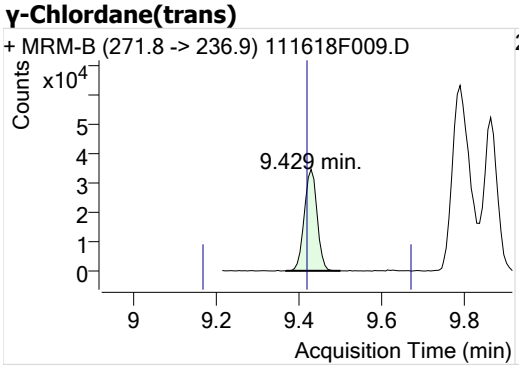
Oxychlordane

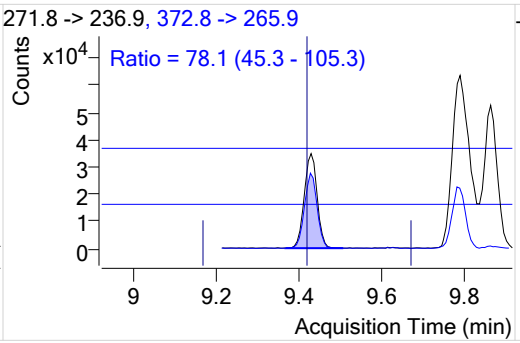


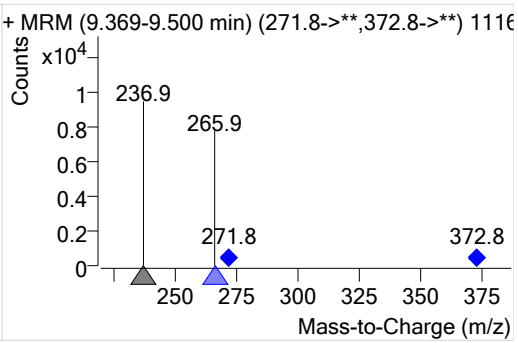




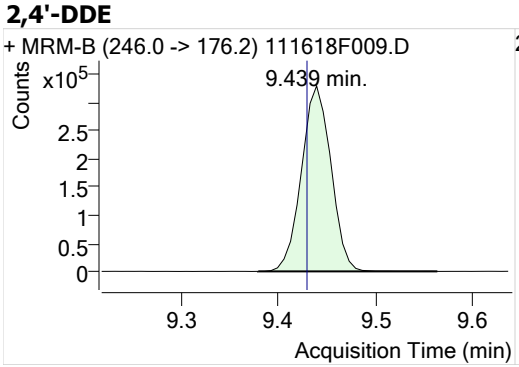
γ-Chlordane(trans)

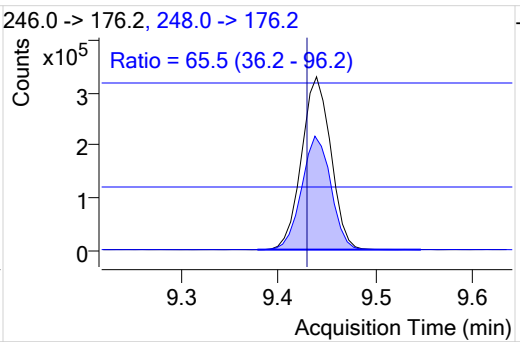


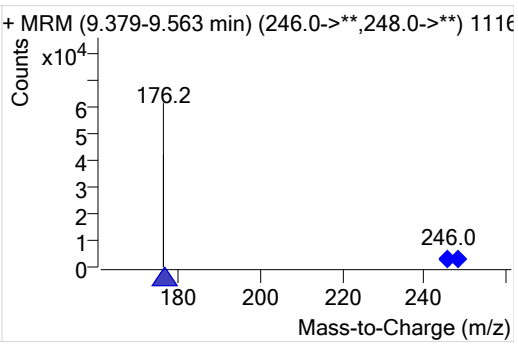




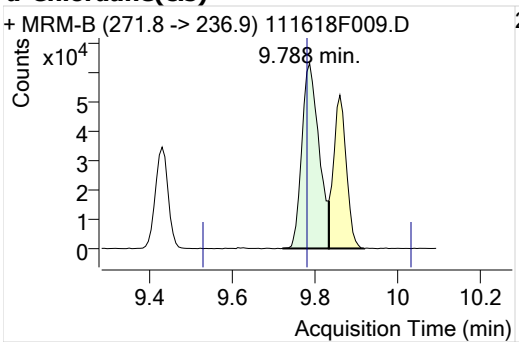
2,4'-DDE

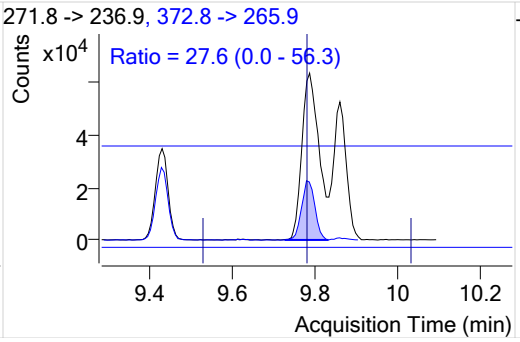


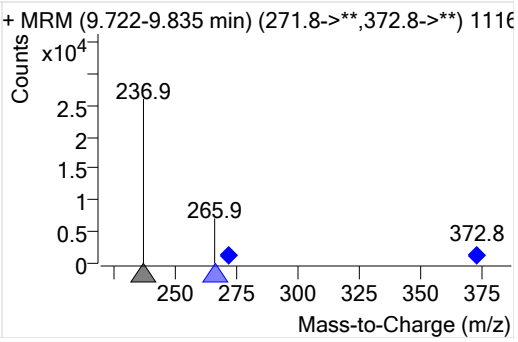




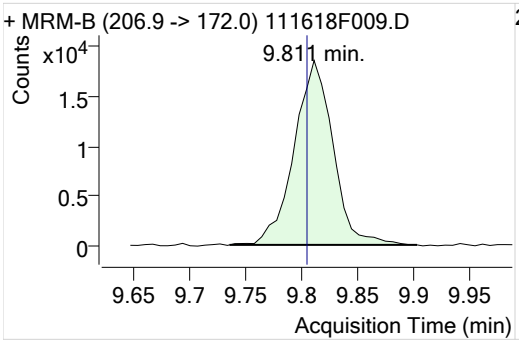
α-Chlordane(cis)

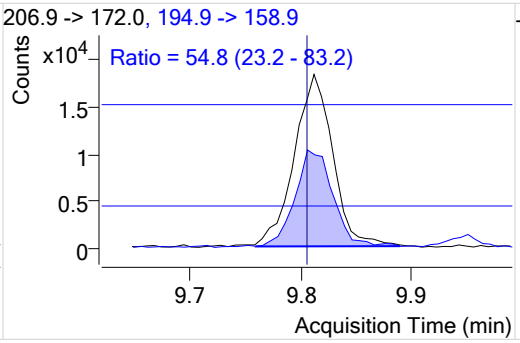


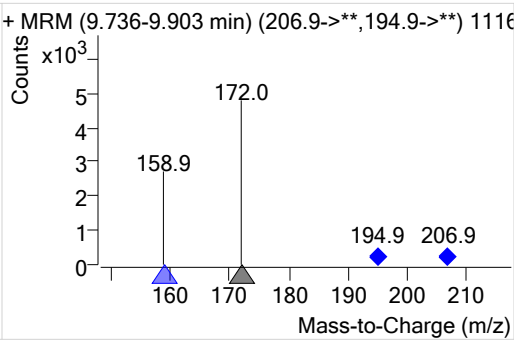




Endosulfan I

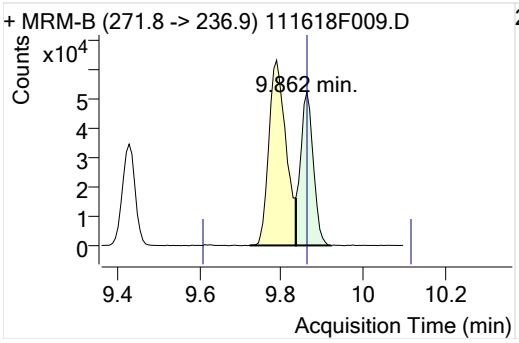


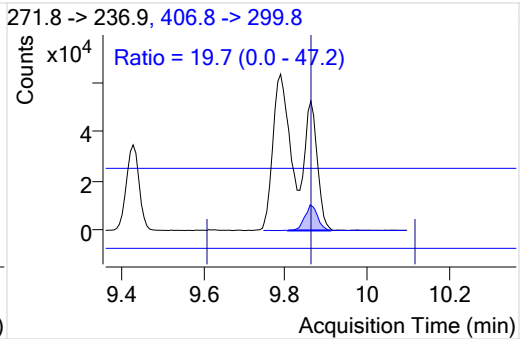


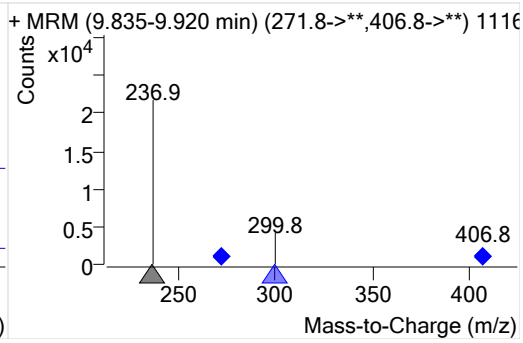


Quantitative Analysis Sample Report

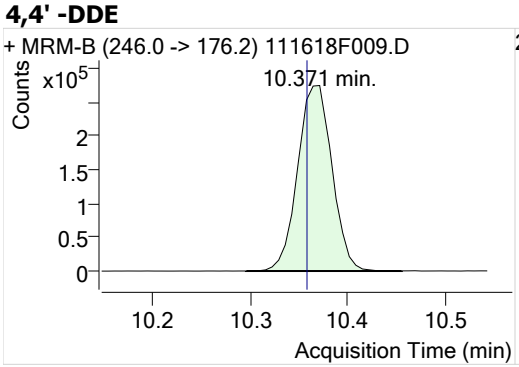
trans-Nanochlor

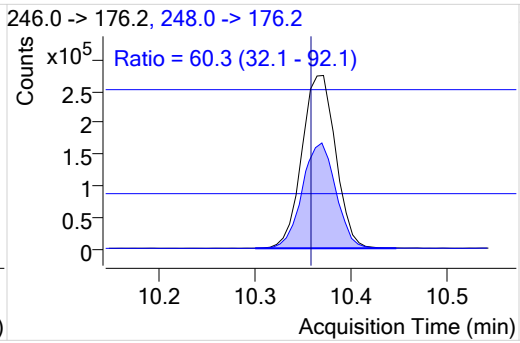


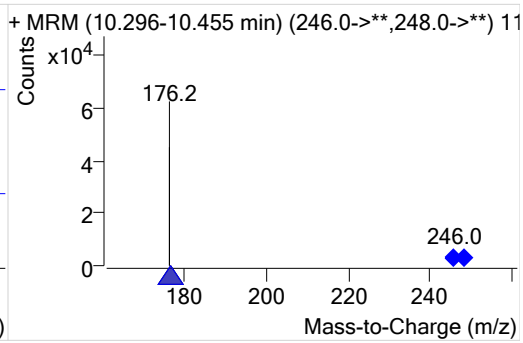




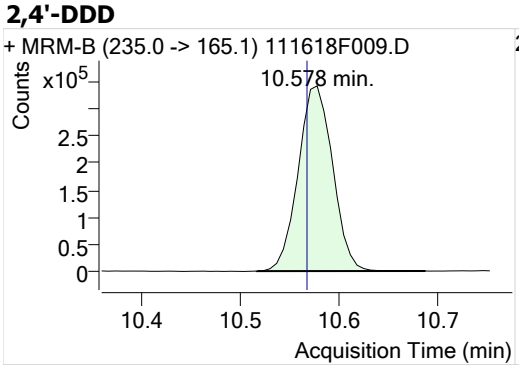
4,4' -DDE

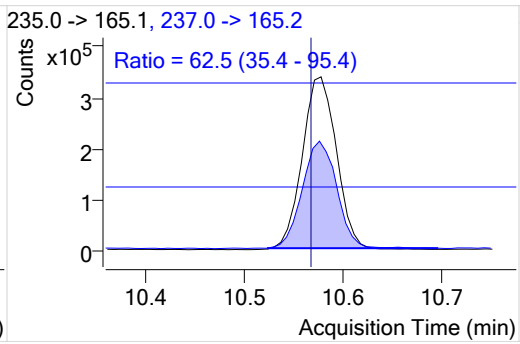


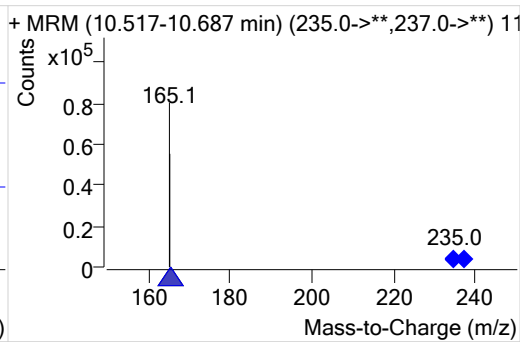




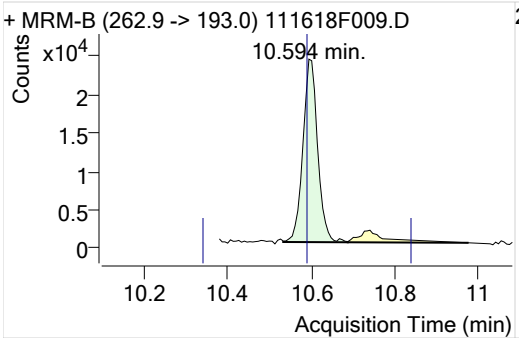
2,4'-DDD

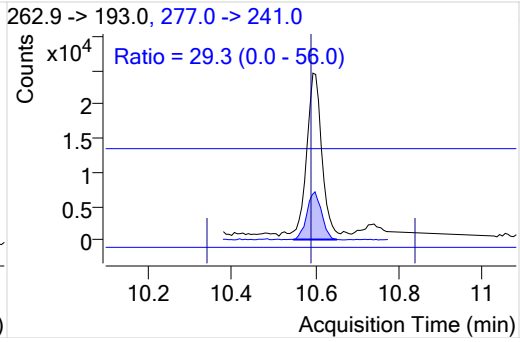


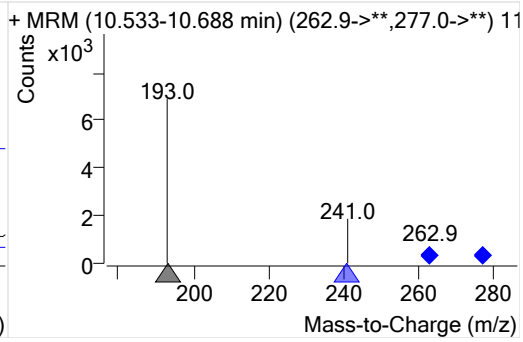




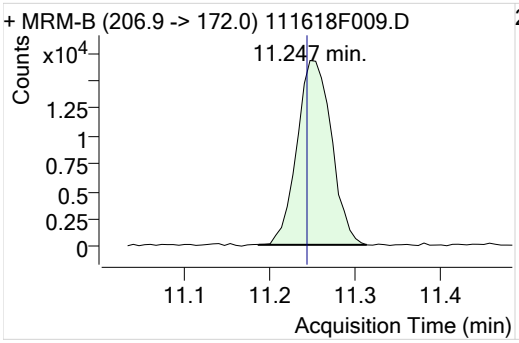
Dieldrin

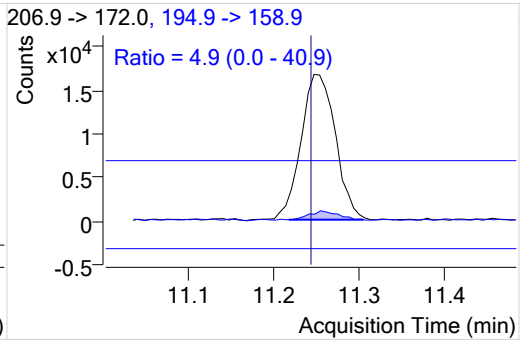


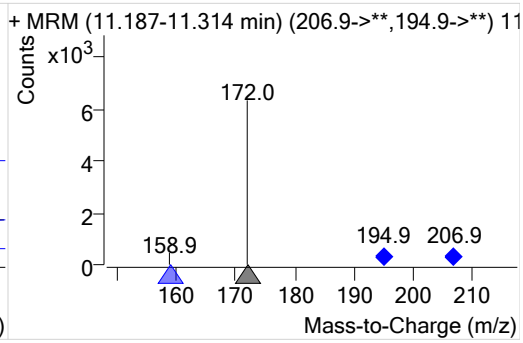




Endosulfan II

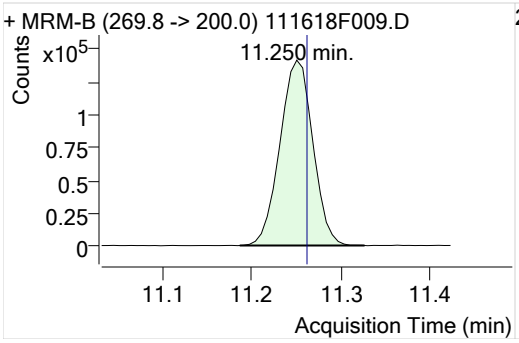


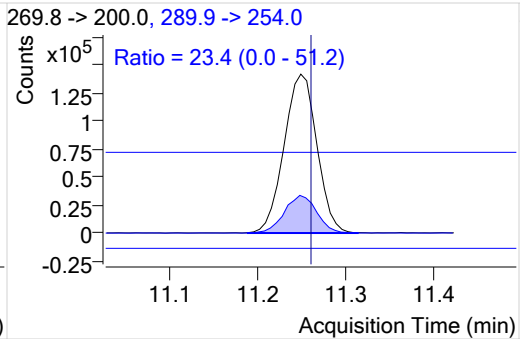


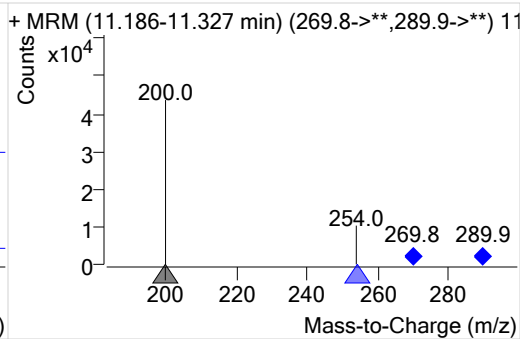


Quantitative Analysis Sample Report

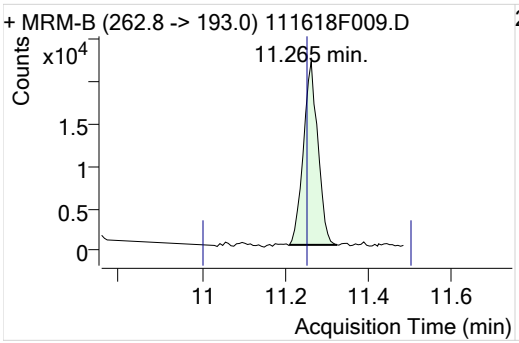
Endrin-13C12

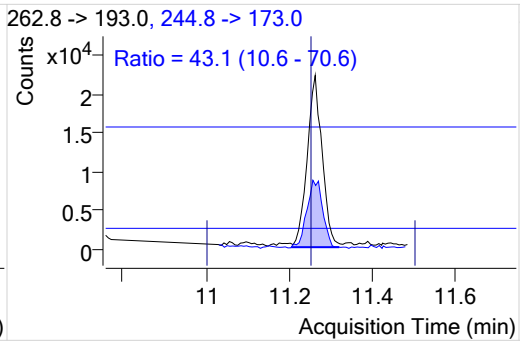


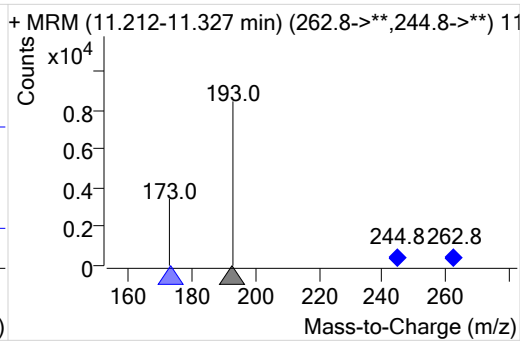




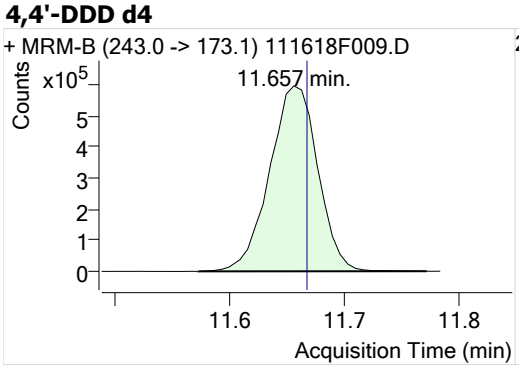
Endrin

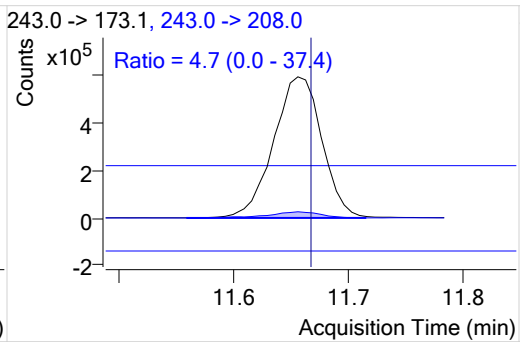


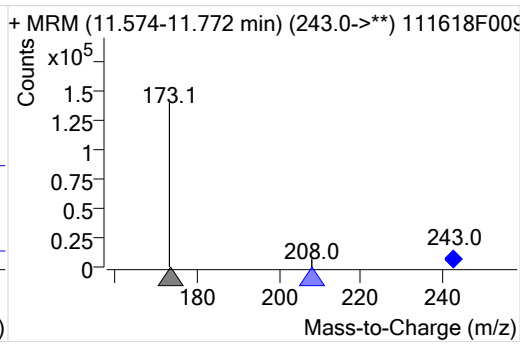




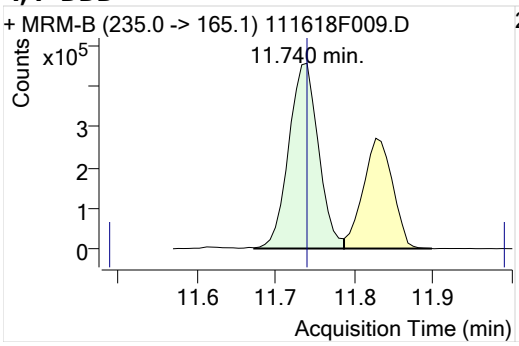
4,4'-DDD d4

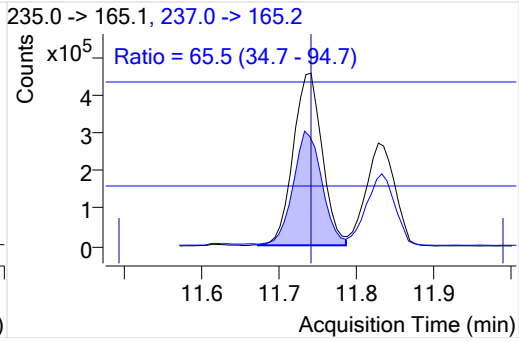


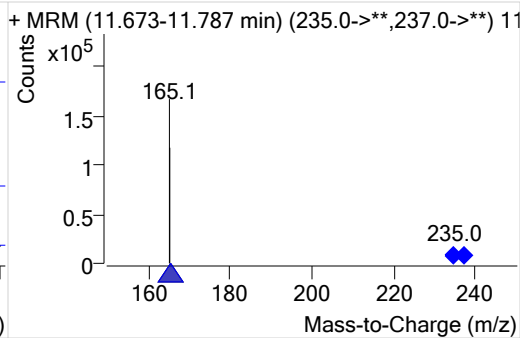




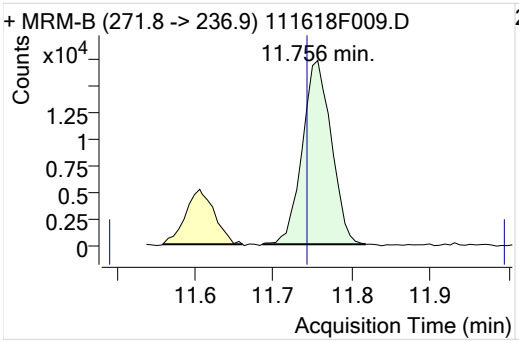
4,4'-DDD

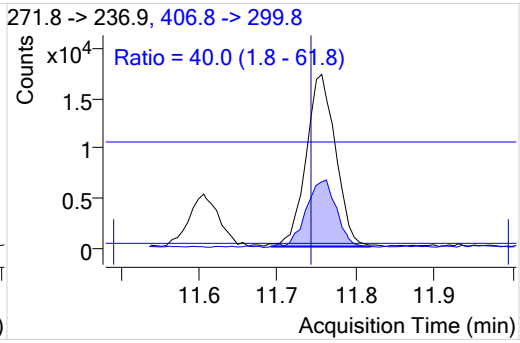


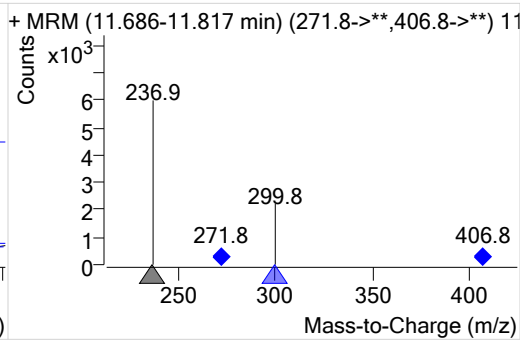




cis-Nonachlor

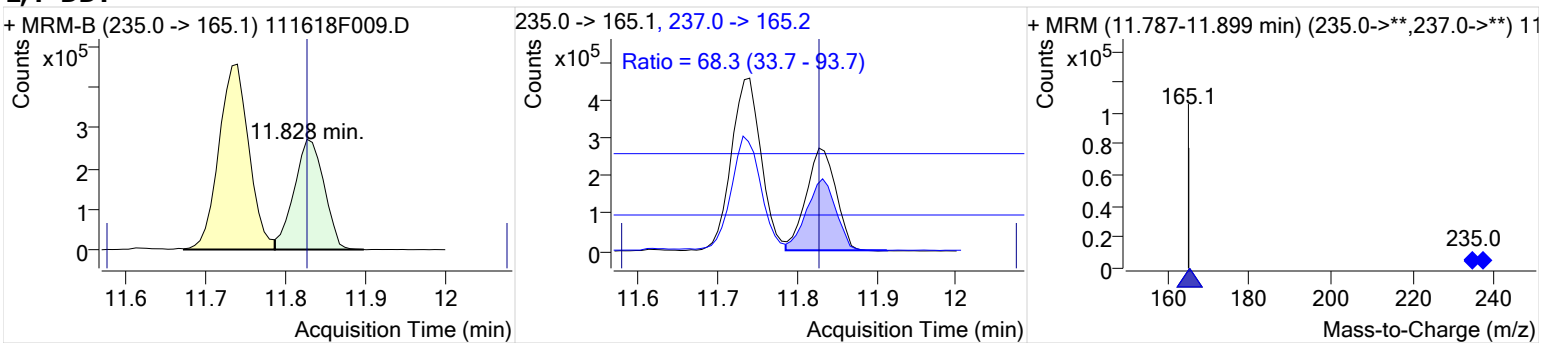




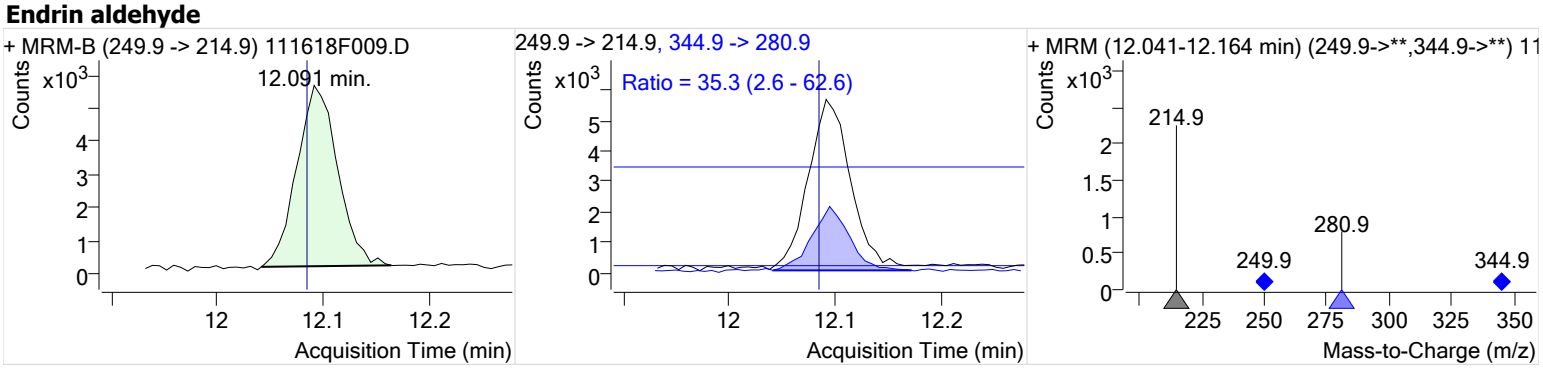


Quantitative Analysis Sample Report

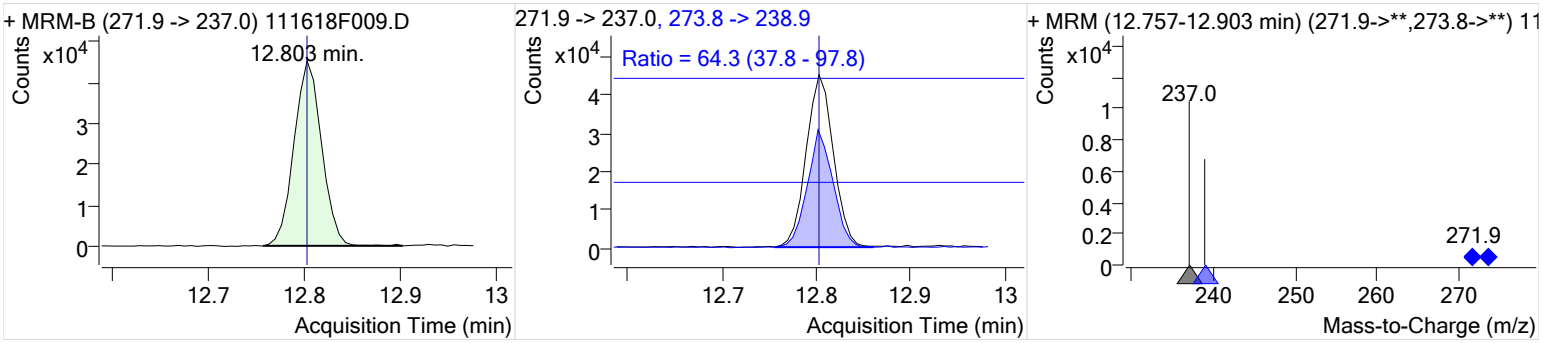
2,4'-DDT



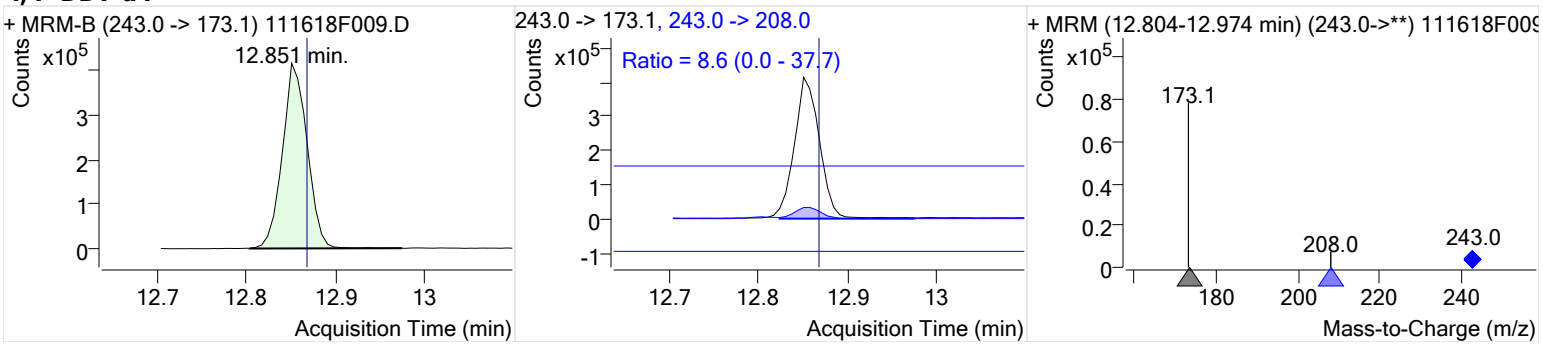
Endrin aldehyde



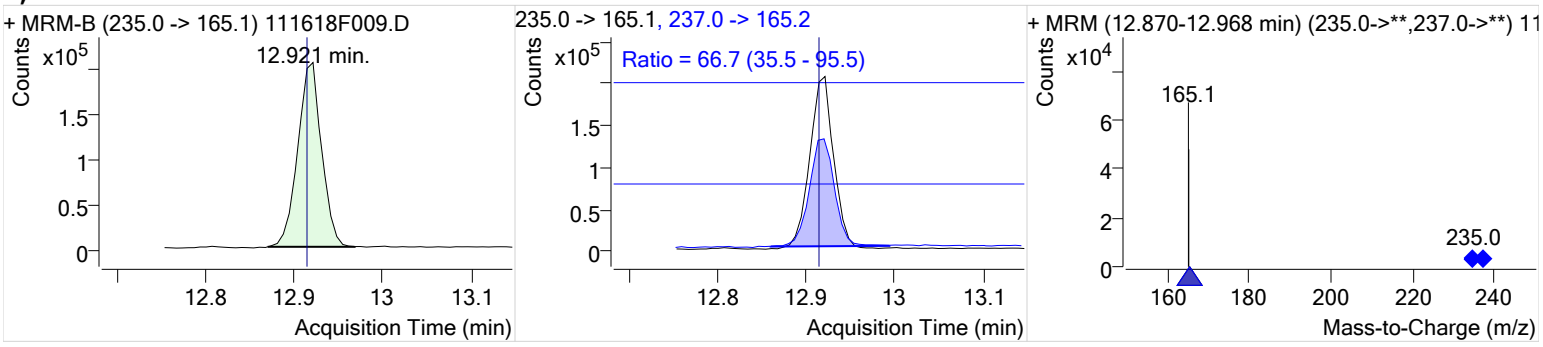
Endosulfan sulfate



4,4'-DDT-d4

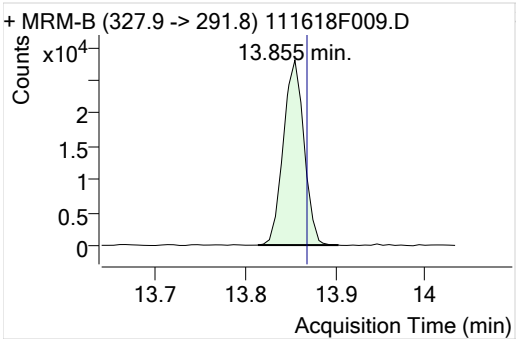


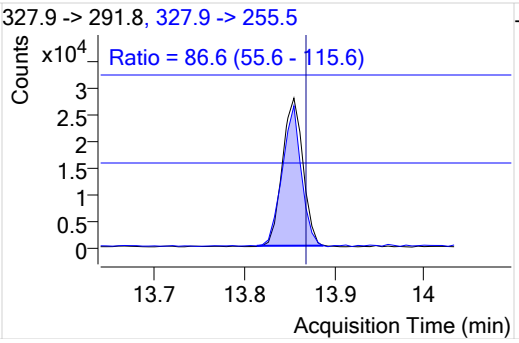
4,4'-DDT

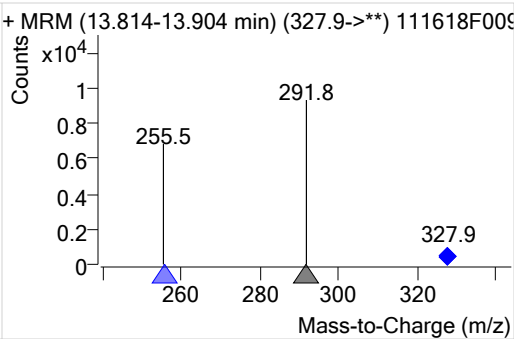


Quantitative Analysis Sample Report

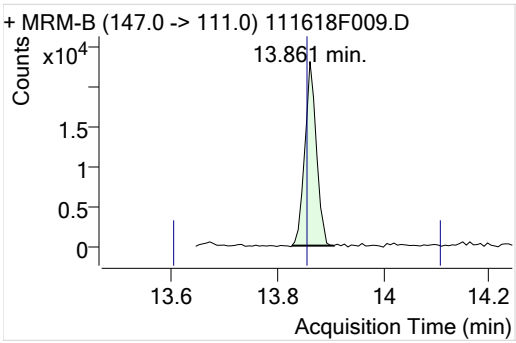
Endrin ketone-13C12

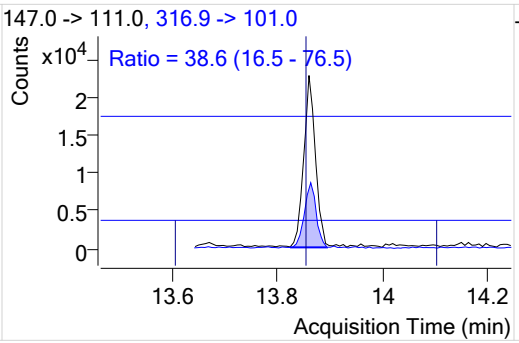


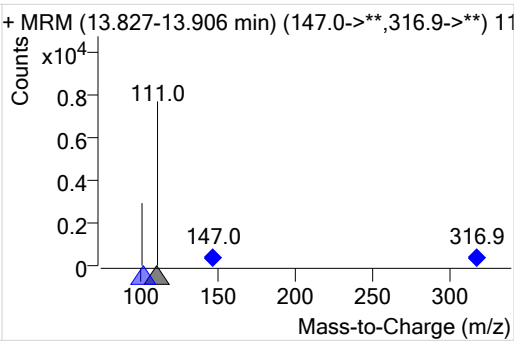




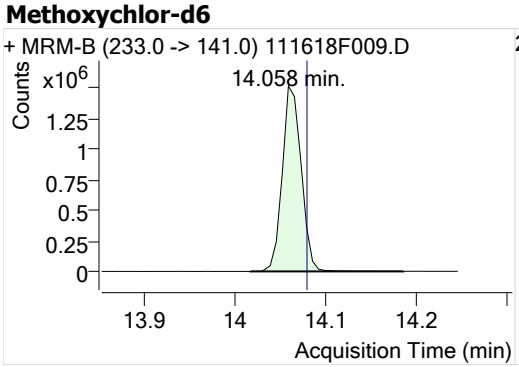
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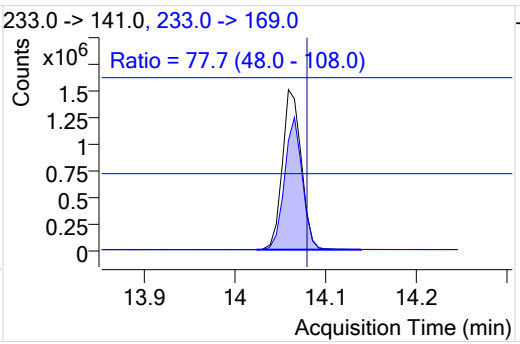


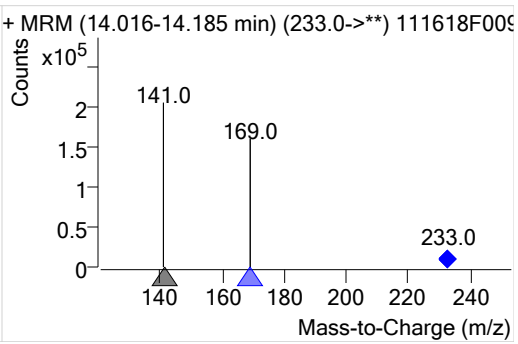




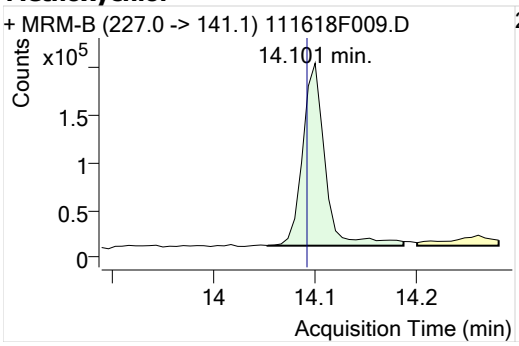
Methoxychlor-d6

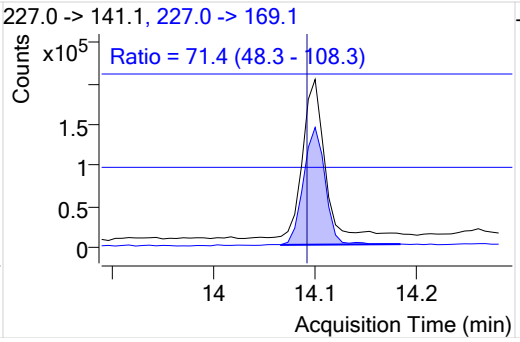


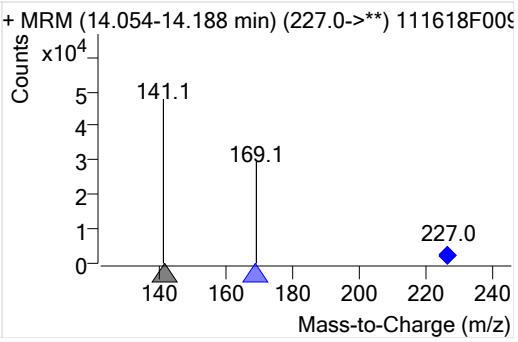




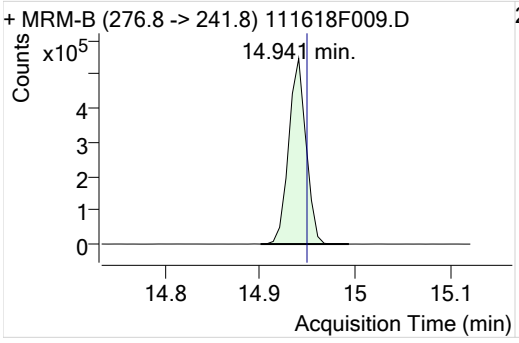
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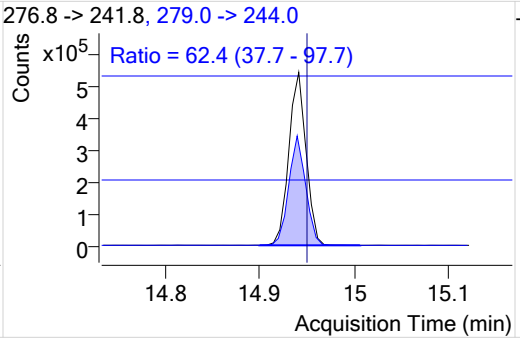


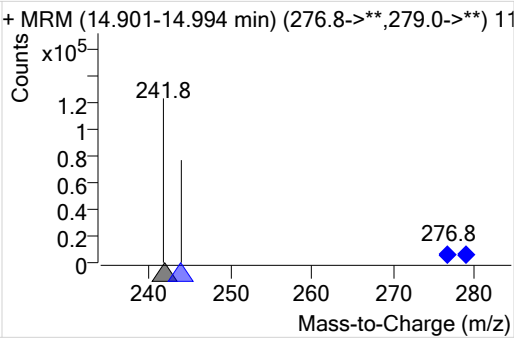




Mirex-13C10

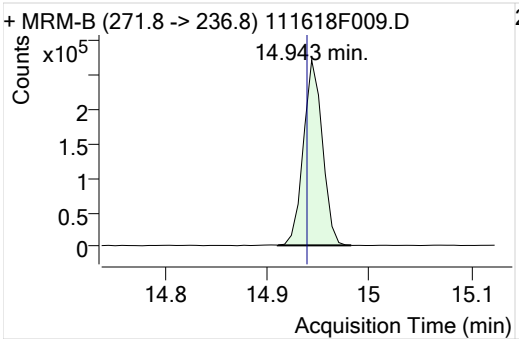


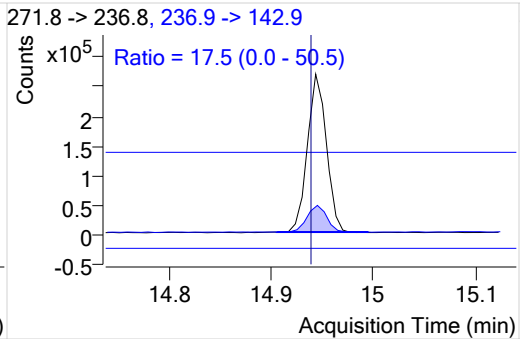


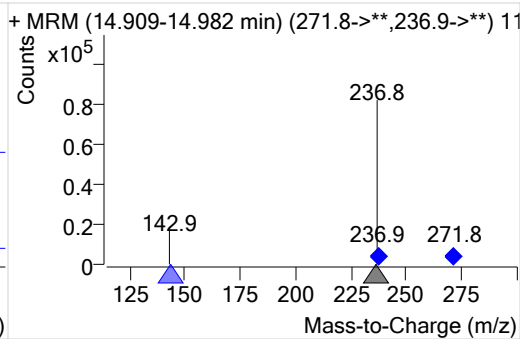


Quantitative Analysis Sample Report

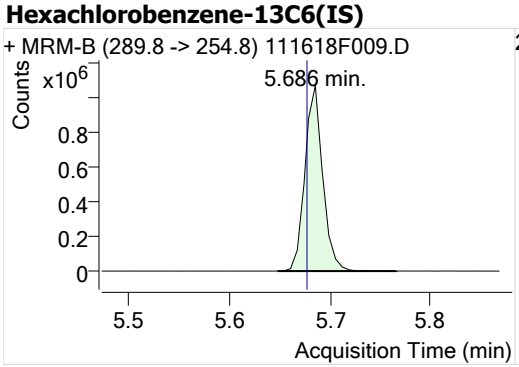
Mirex

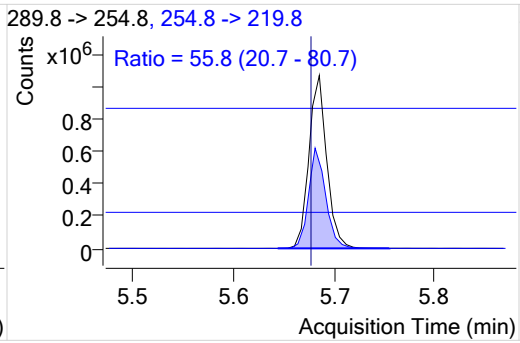


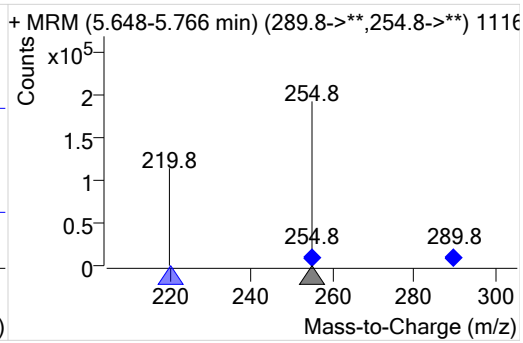




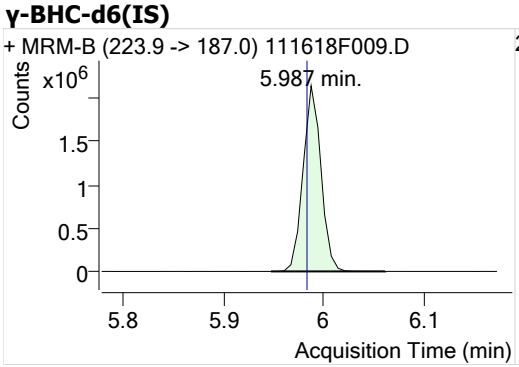
Hexachlorobenzene-13C6(IS)

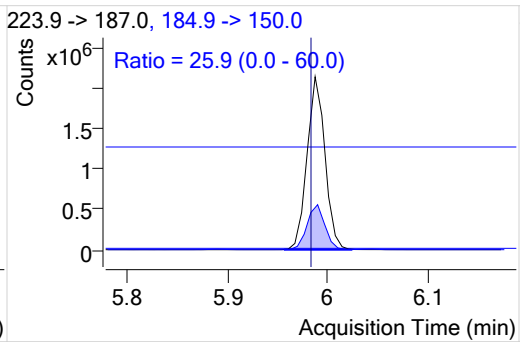


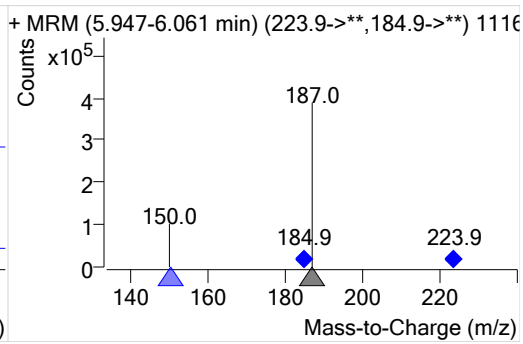




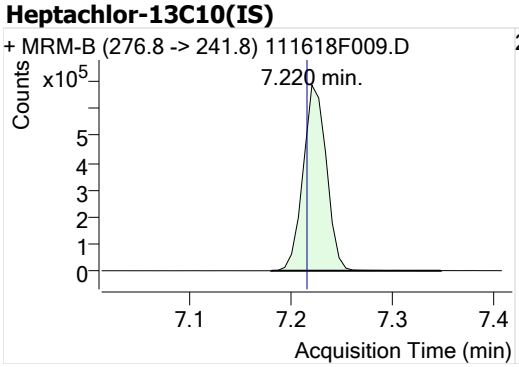
γ-BHC-d6(IS)

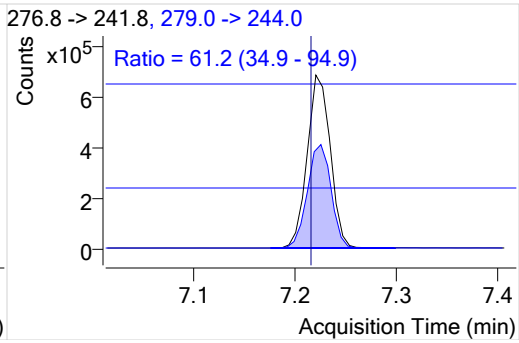


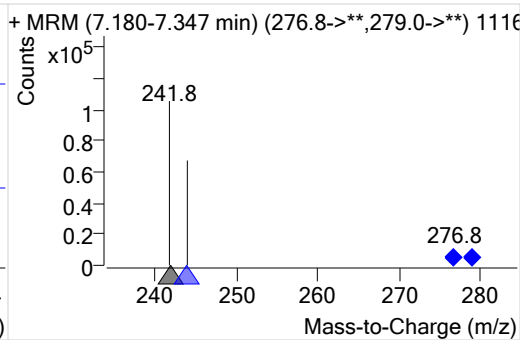




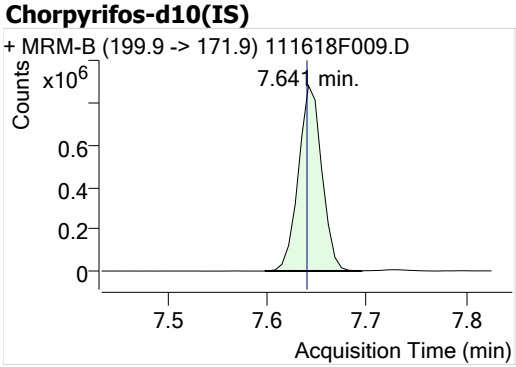
Heptachlor-13C10(IS)

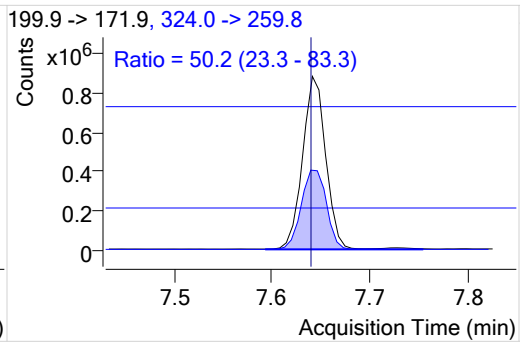


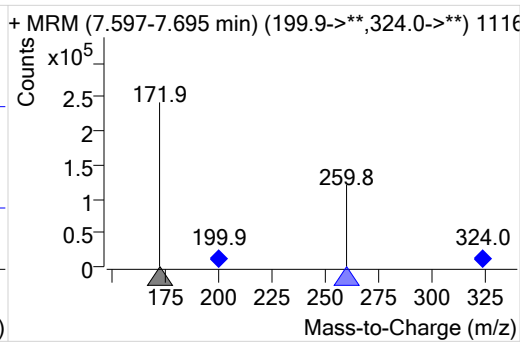




Chorpyrifos-d10(IS)

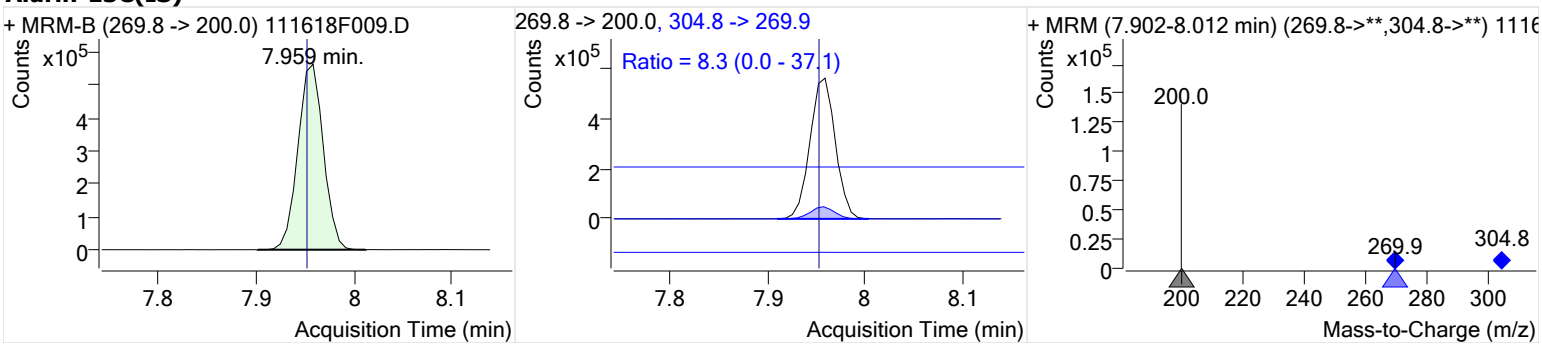




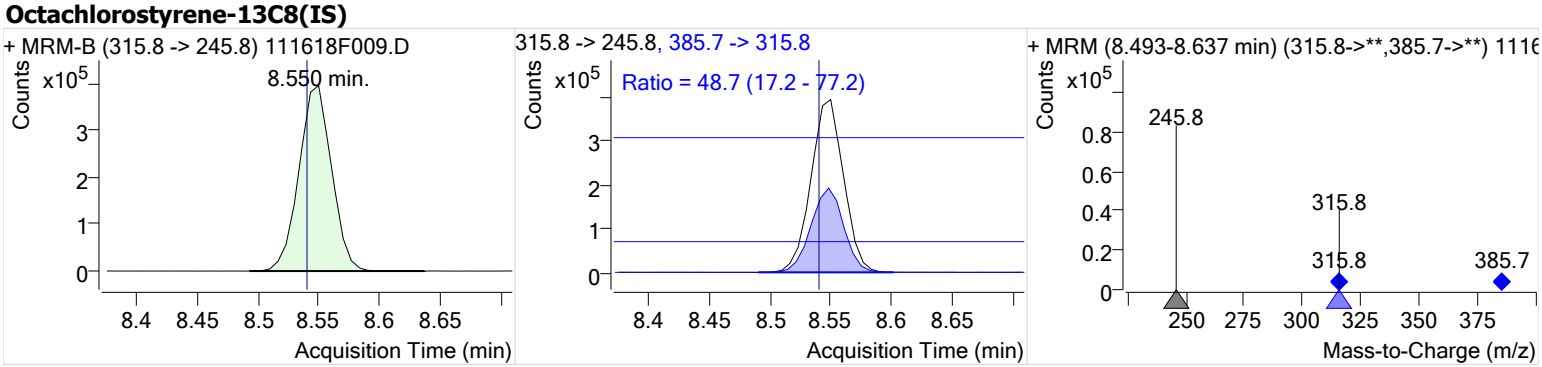


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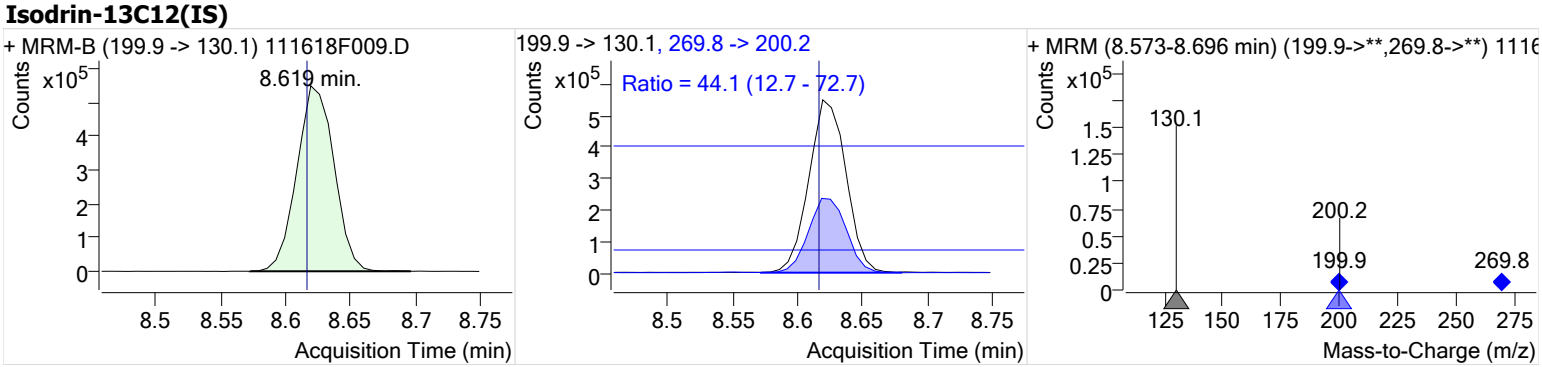
Aldrin-13C(IS)



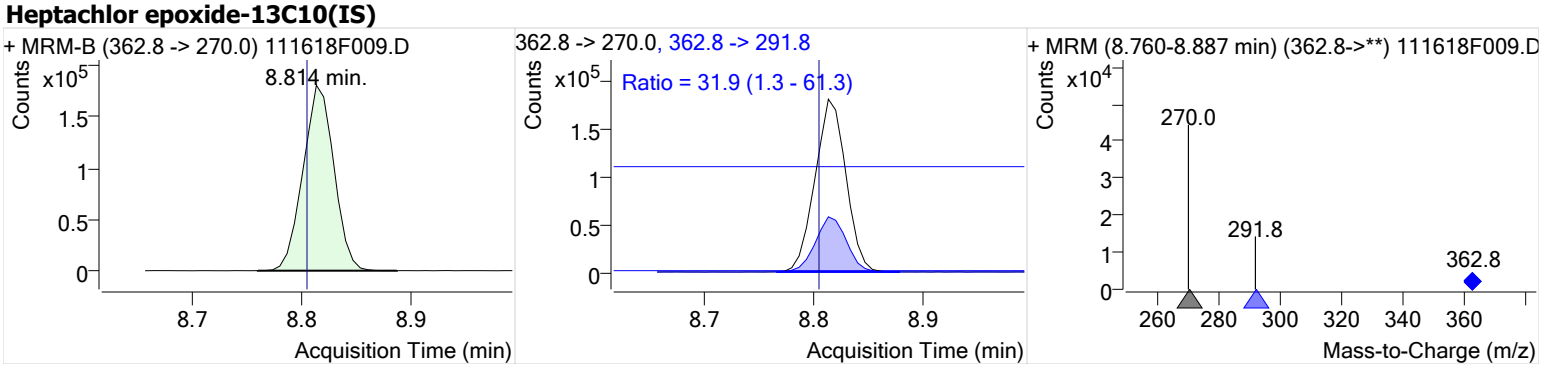
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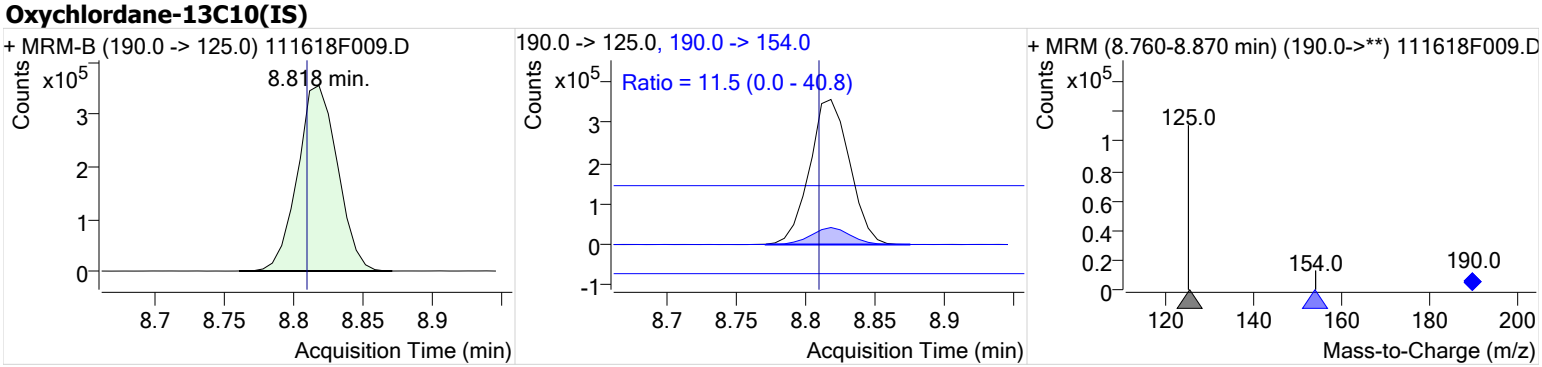
Isodrin-13C12(IS)



Heptachlor epoxide-13C10(IS)

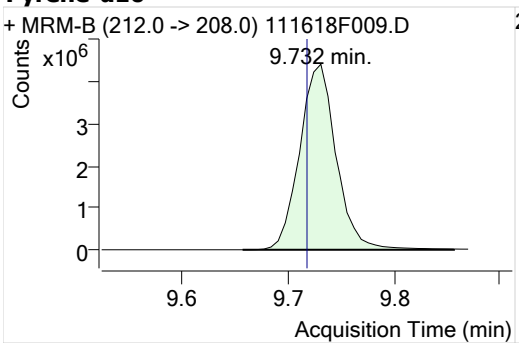


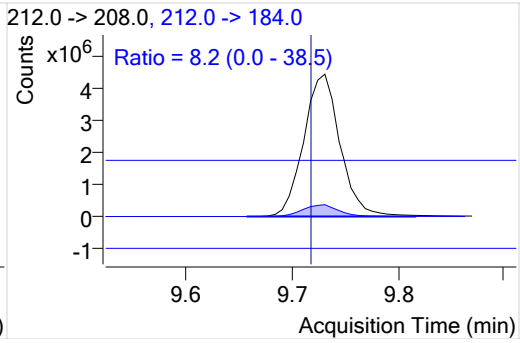
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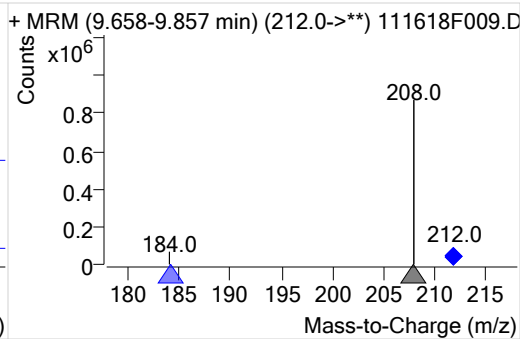


Quantitative Analysis Sample Report

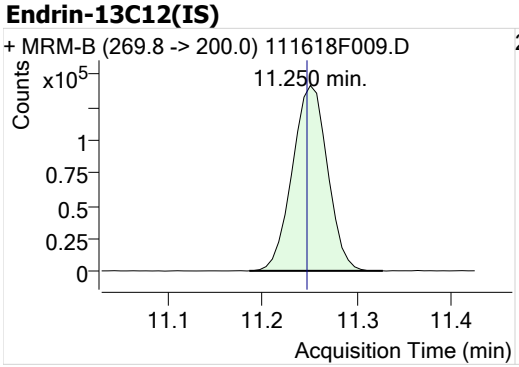
Pyrene-d10

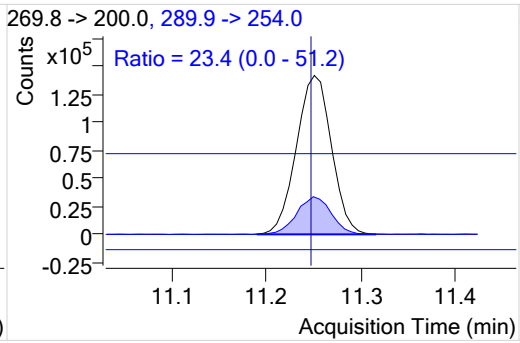


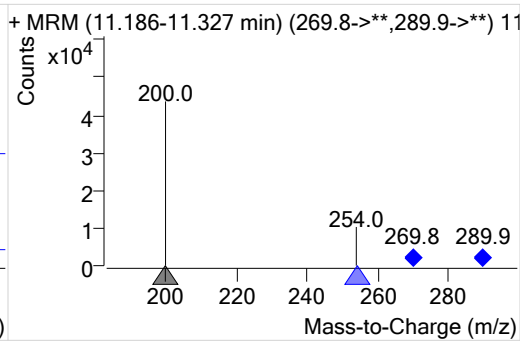




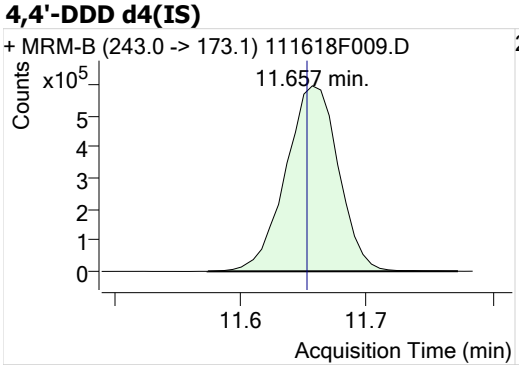
Endrin-13C12(IS)

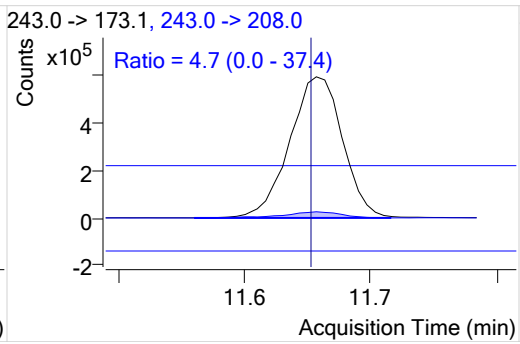


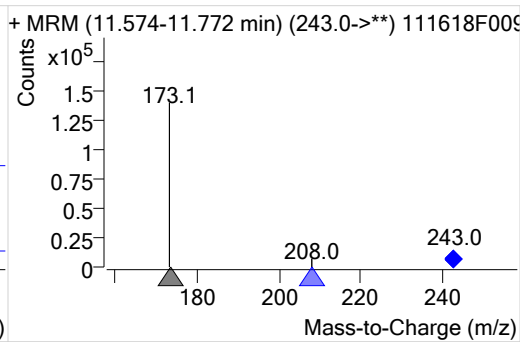




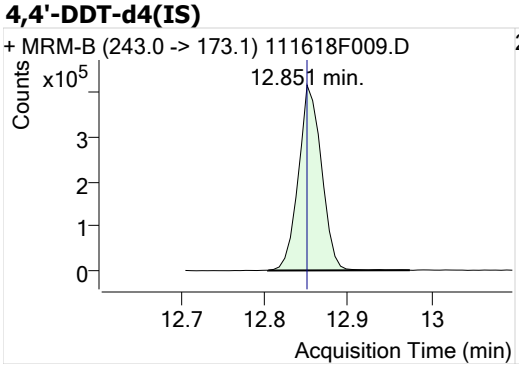
4,4'-DDD d4(IS)

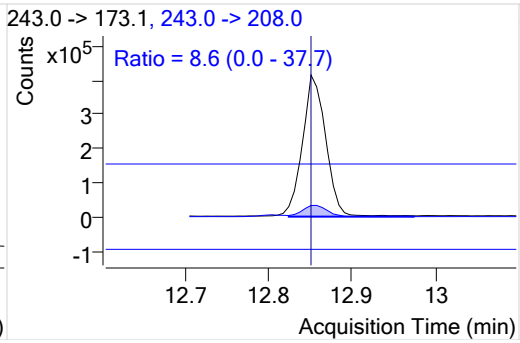


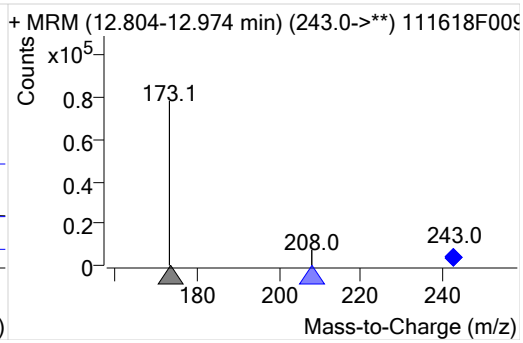




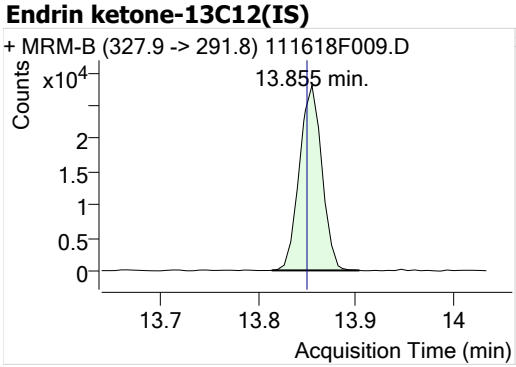
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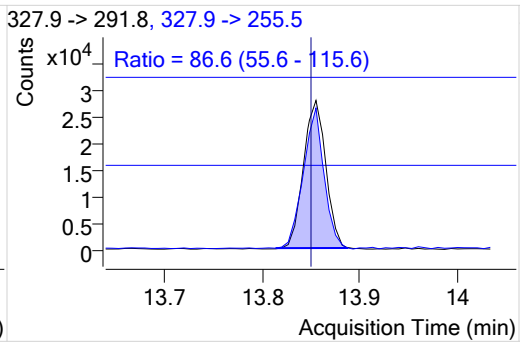


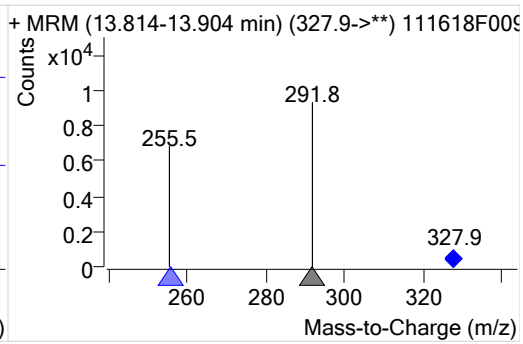




Endrin ketone-13C12(IS)

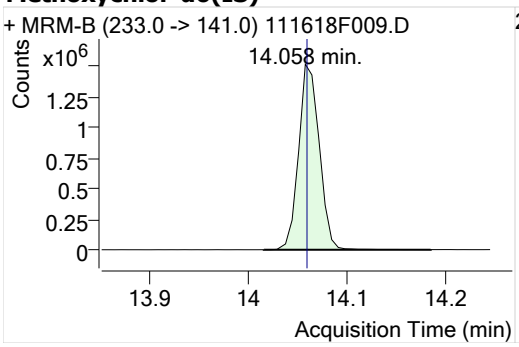


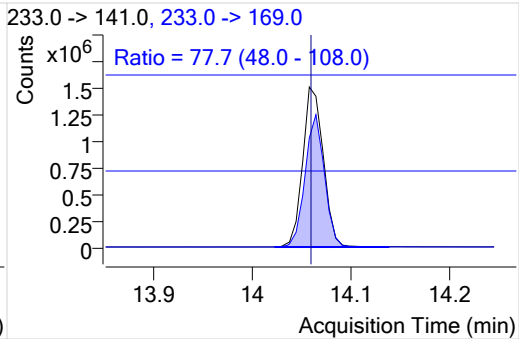


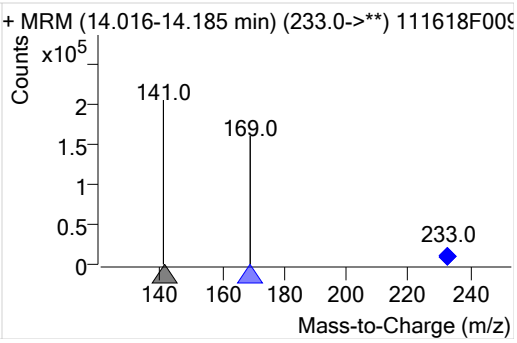


Quantitative Analysis Sample Report

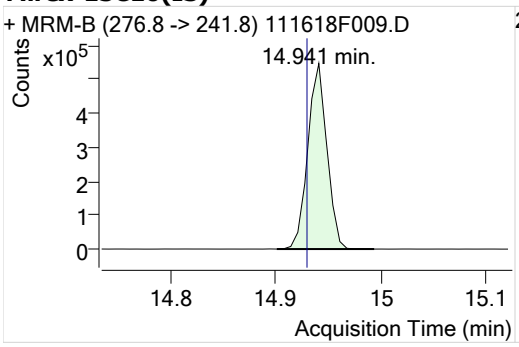
Methoxychlor-d6(IS)

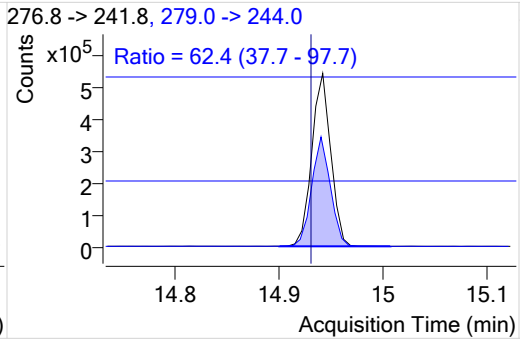


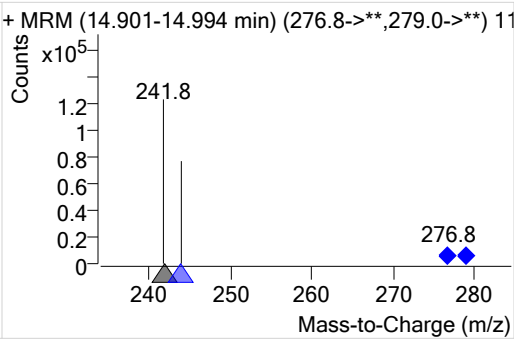




Mirex-13C10(IS)







Quantitative Analysis Sample Report

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Name	OC PEST ICAL5ng/mL SVM59-48D	**Instrument Name**	MS42
Info.		**Instrument Type**	QQQ
Quant Time	3/14/2019 10:04:01 AM	**Inj Vol**	1
Quant Method	110618 OC PEST ICAL.batch.bin		
Last Update	3/14/2019 10:04:01 AM		
Acq. Method File	OC Pest_dMRM	**Tune File Name**	atunes.eihs.tune.xml
Batch File Name	Y:\MS42\data\111618\QuantResults\111618 oc pest ical.batch.bin		

Internal Standards	**RT**	**Transition**	**Response**	**Conc. Units**	**Dev(Min)**
Hexachlorobenzene-13C6(IS)	5.685	289.8 -> 254.8	1284316	20.000 ng/ml	0.006
γ-BHC-d6(IS)	5.987	223.9 -> 187.0	2525948	20.000 ng/ml	0.005
Heptachlor-13C10(IS)	7.225	276.8 -> 241.8	1043151	20.000 ng/ml	0.009
Chorpyrifos-d10(IS)	7.641	199.9 -> 171.9	1335606	20.000 ng/ml	0.000
Aldrin-13C(IS)	7.959	269.8 -> 200.0	960947	20.000 ng/ml	0.003
Octachlorostyrene-13C8(IS)	8.549	315.8 -> 245.8	695065	20.000 ng/ml	0.008
Isodrin-13C12(IS)	8.625	199.9 -> 130.1	1028558	20.000 ng/ml	0.008
Heptachlor epoxide-13C10(IS)	8.813	362.8 -> 270.0	333358	20.000 ng/ml	0.009
Oxychlordane-13C10(IS)	8.818	190.0 -> 125.0	678984	20.000 ng/ml	0.009
Pyrene-d10	9.731	212.0 -> 208.0	9351237	100.000 ng/ml	0.010
Endrin-13C12(IS)	11.250	269.8 -> 200.0	329193	20.000 ng/ml	0.001
4,4'-DDD d4(IS)	11.657	243.0 -> 173.1	1552333	5.000 ng/ml	0.001
4,4'-DDT-d4(IS)	12.858	243.0 -> 173.1	712422	5.000 ng/ml	0.007
Endrin ketone-13C12(IS)	13.855	327.9 -> 291.8	41006	20.000 ng/ml	0.005
Methoxychlor-d6(IS)	14.065	233.0 -> 141.0	1844302	20.000 ng/ml	0.005
Mirex-13C10(IS)	14.941	276.8 -> 241.8	641611	5.000 ng/ml	0.010

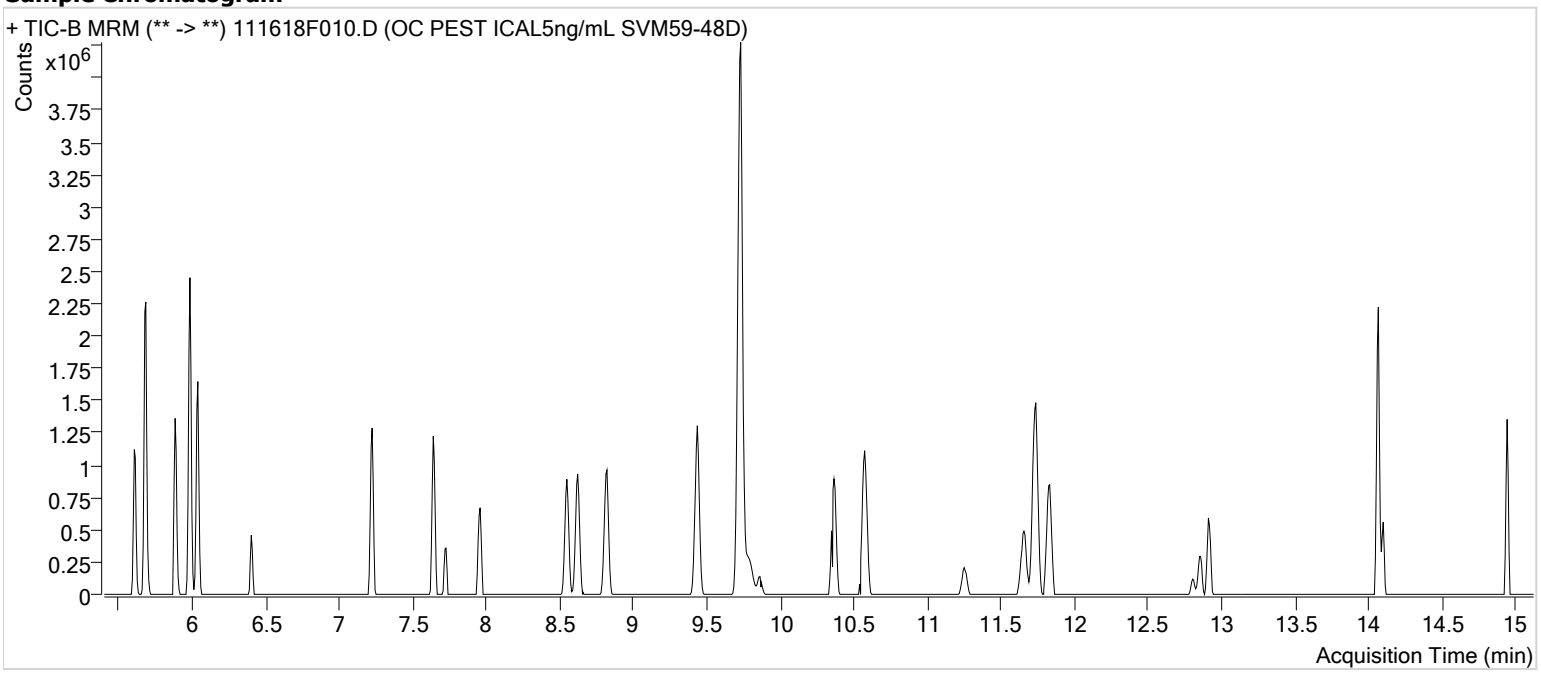
System Monitoring Compounds	**RT**	**Transition**	**Response**	**Conc. Units**	
Hexachlorobenzene-13C6	5.677	289.8 -> 254.8	1284316	18.658 ng/ml	
		Spiked Amount =	20.0	Recovery =	*93.3 %*
γ-BHC-d6	5.983	223.9 -> 187.0	2525948	19.365 ng/ml	
		Spiked Amount =	20.0	Recovery =	*96.8 %*
Heptachlor-13C10	7.216	276.8 -> 241.8	1043151	19.340 ng/ml	
		Spiked Amount =	20.0	Recovery =	*96.7 %*
Chorpyrifos-d10	7.640	199.9 -> 171.9	1335606	19.738 ng/ml	
		Spiked Amount =	20.0	Recovery =	*98.7 %*
Aldrin-13C	7.952	269.8 -> 200.0	961587	19.519 ng/ml	
		Spiked Amount =	20.0	Recovery =	*97.6 %*
Octachlorostyrene-13C8	8.540	315.8 -> 245.8	695065	19.705 ng/ml	
		Spiked Amount =	20.0	Recovery =	*98.5 %*
Isodrin-13C12	8.616	199.9 -> 130.1	1028558	19.135 ng/ml	
		Spiked Amount =	20.0	Recovery =	*95.7 %*
Heptachlor epoxide-13C10	8.805	362.8 -> 270.0	333358	19.397 ng/ml	
		Spiked Amount =	20.0	Recovery =	*97.0 %*
Oxychlordane-13C10	8.809	190.0 -> 125.0	678984	19.440 ng/ml	
		Spiked Amount =	20.0	Recovery =	*97.2 %*
Endrin-13C12	11.247	269.8 -> 200.0	329193	19.262 ng/ml	
		Spiked Amount =	20.0	Recovery =	*96.3 %*
4,4'-DDD d4	11.652	243.0 -> 173.1	1552333	4.674 ng/ml	
		Spiked Amount =	5.0	Recovery =	*93.5 %*
4,4'-DDT-d4	12.851	243.0 -> 173.1	712422	4.801 ng/ml	
		Spiked Amount =	5.0	Recovery =	*96.0 %*
Endrin ketone-13C12	13.850	327.9 -> 291.8	41006	19.377 ng/ml	
		Spiked Amount =	20.0	Recovery =	*96.9 %*
Methoxychlor-d6	14.060	233.0 -> 141.0	1844302	18.810 ng/ml	
		Spiked Amount =	20.0	Recovery =	*94.0 %*
Mirex-13C10	14.930	276.8 -> 241.8	641611	4.479 ng/ml	
		Spiked Amount =	5.0	Recovery =	*89.6 %*

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Target Compounds	ISTD	RT	Transition	Resp.	Conc.	Units	Qvalue
α-BHC	γ-BHC-d6(IS)	5.613	181.1 -> 145.1	894381	4.952	ng/ml	96
Hexachlorobenzene	Hexachlorobenzene-13C6(IS)	5.686	283.8 -> 213.9	588301	5.060	ng/ml	99
β-BHC	γ-BHC-d6(IS)	5.890	181.1 -> 145.1	1084469	4.746	ng/ml	98
γ-BHC(Lindane)	γ-BHC-d6(IS)	6.044	181.1 -> 145.1	1277805	4.836	ng/ml	97
δ-BHC	γ-BHC-d6(IS)	6.405	181.1 -> 145.1	493338	4.685	ng/ml	98
Heptachlor	Heptachlor-13C10(IS)	7.229	271.7 -> 236.9	290572	4.806	ng/ml	75
Chorpyrifos	Chorpyrifos-d10(IS)	7.725	196.9 -> 169.0	451529	4.789	ng/ml	96
Aldrin	Aldrin-13C(IS)	7.963	254.9 -> 220.0	238833	4.971	ng/ml	72
Octachlorostyrene	Octachlorostyrene-13C8(IS)	8.548	342.8 -> 307.8	428933	4.795	ng/ml	97
Isodrin	Isodrin-13C12(IS)	8.633	193.0 -> 123.0	257444	4.878	ng/ml	97
Heptachlor epoxide	Heptachlor epoxide-13C10(IS)	8.822	352.8 -> 262.9	89397	4.712	ng/ml	100
Oxychlordane	Oxychlordane-13C10(IS)	8.826	114.9 -> 51.1	441231	4.806	ng/ml	99
γ-Chlordane(trans)	Oxychlordane-13C10(IS)	9.429	271.8 -> 236.9	158232	4.837	ng/ml	99
2,4'-DDE	4,4'-DDD d4(IS)	9.439	246.0 -> 176.2	1503266	5.094	ng/ml	95
α-Chlordane(cis)	Oxychlordane-13C10(IS)	9.789	271.8 -> 236.9	391325	4.788	ng/ml	98
Endosulfan I	Endrin-13C12(IS)	9.812	206.9 -> 172.0	96286	4.666	ng/ml	99
trans-Nanochlor	Oxychlordane-13C10(IS)	9.856	271.8 -> 236.9	238407	4.532	ng/ml	92
4,4' -DDE	4,4'-DDD d4(IS)	10.365	246.0 -> 176.2	1375276	5.084	ng/ml	98
2,4'-DDD	4,4'-DDD d4(IS)	10.577	235.0 -> 165.1	1675039	5.015	ng/ml	98
Dieldrin	Endrin-13C12(IS)	10.594	262.9 -> 193.0	124546	4.960	ng/ml	95
Endosulfan II	Endrin-13C12(IS)	11.253	206.9 -> 172.0	48845	4.657	ng/ml	88
Endrin	Endrin-13C12(IS)	11.264	262.8 -> 193.0	107033	4.738	ng/ml	98
4,4'-DDD	4,4'-DDD d4(IS)	11.740	235.0 -> 165.1	2455875	4.899	ng/ml	100
cis-Nonachlor	Oxychlordane-13C10(IS)	11.756	271.8 -> 236.9	96063	4.821	ng/ml	87
2,4'-DDT	4,4'-DDT-d4(IS)	11.828	235.0 -> 165.1	1489772	4.664	ng/ml	97
Endrin aldehyde	Endrin-13C12(IS)	12.091	249.9 -> 214.9	32043	5.028	ng/ml	97
Endosulfan sulfate	Endrin-13C12(IS)	12.803	271.9 -> 237.0	184890	4.781	ng/ml	96
4,4'-DDT	4,4'-DDT-d4(IS)	12.915	235.0 -> 165.1	795644	4.826	ng/ml	99
Endrin ketone	Endrin ketone-13C12(IS)	13.861	147.0 -> 111.0	67397	4.669	ng/ml	91
Methoxychlor	Methoxychlor-d6(IS)	14.101	227.0 -> 141.1	554900	4.715	ng/ml	100
Mirex	Mirex-13C10(IS)	14.943	271.8 -> 236.8	734493	5.016	ng/ml	94

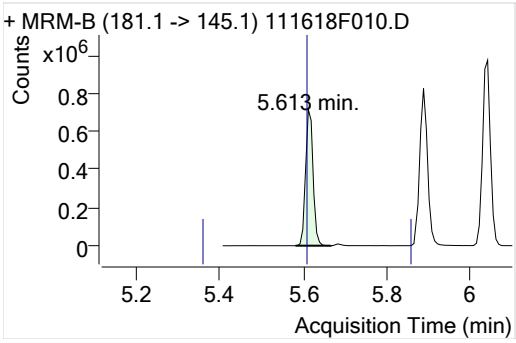
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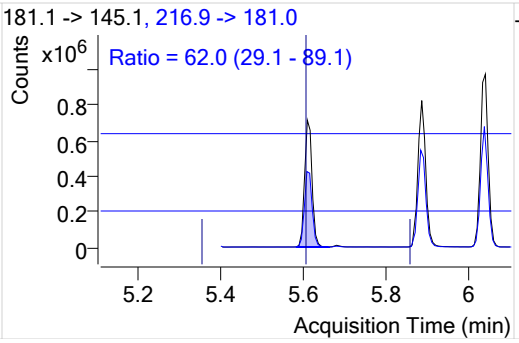
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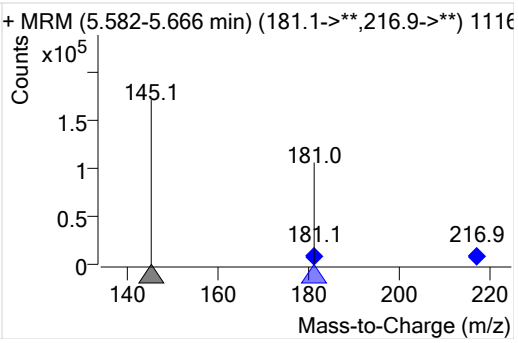


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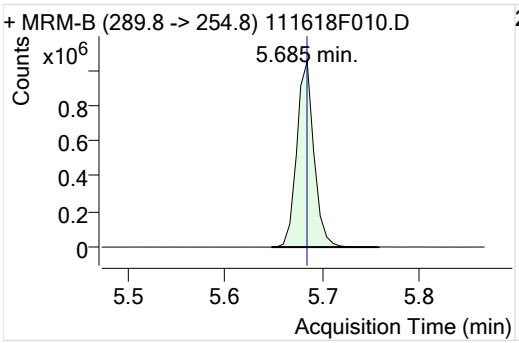
α-BHC

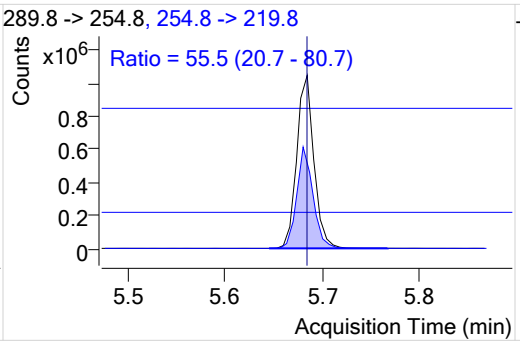


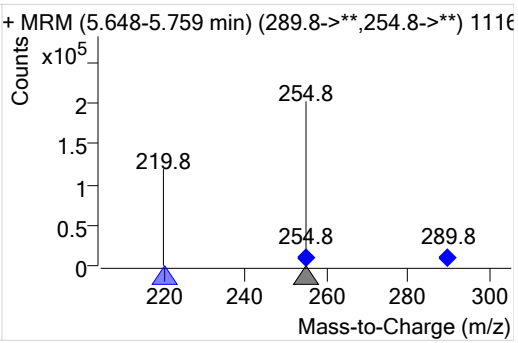




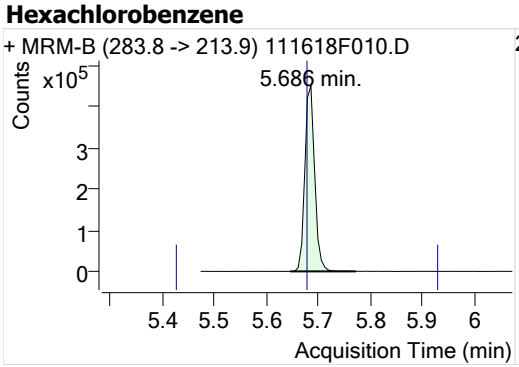
Hexachlorobenzene-13C6

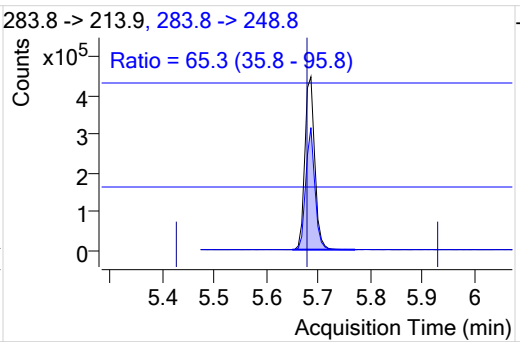


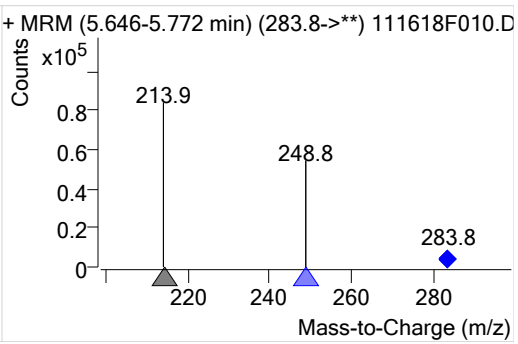




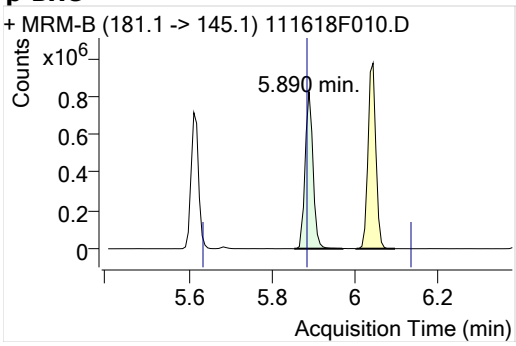
Hexachlorobenzene

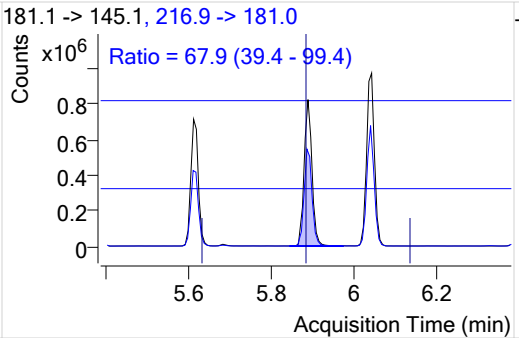


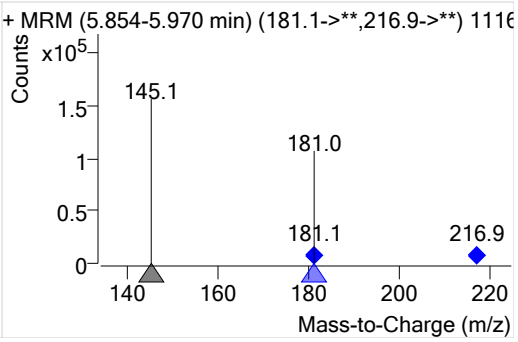




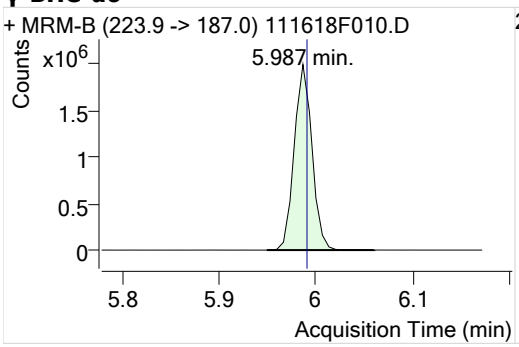
β-BHC

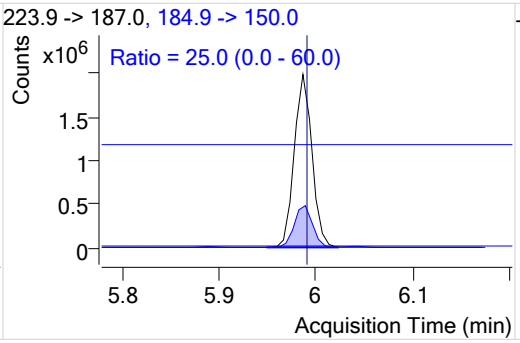


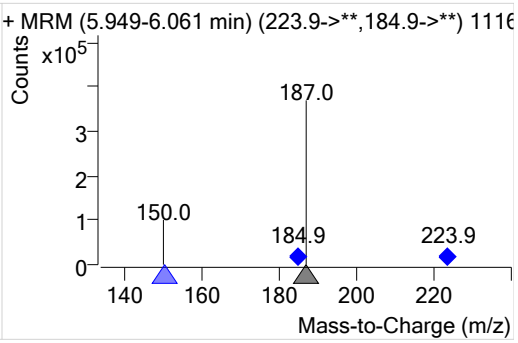




γ-BHC-d6

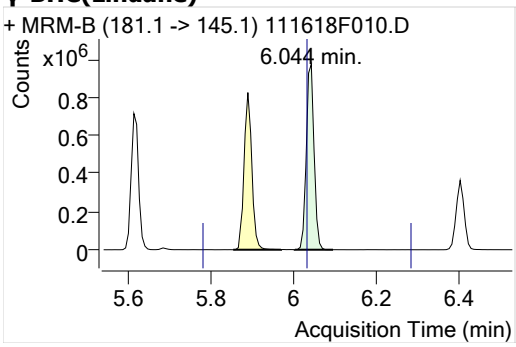


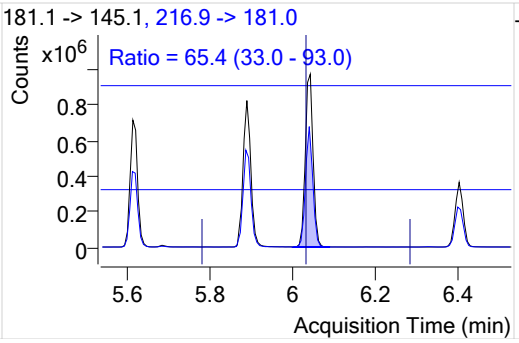


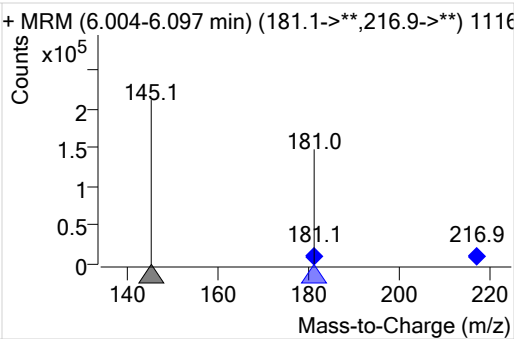


Quantitative Analysis Sample Report

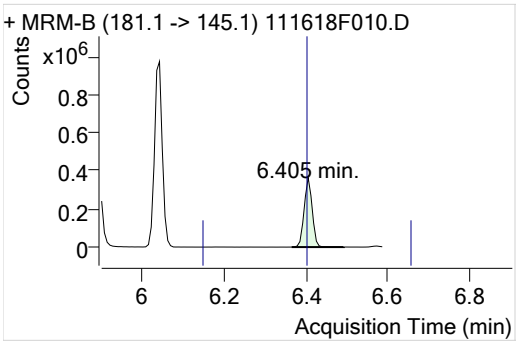
γ-BHC(Lindane)

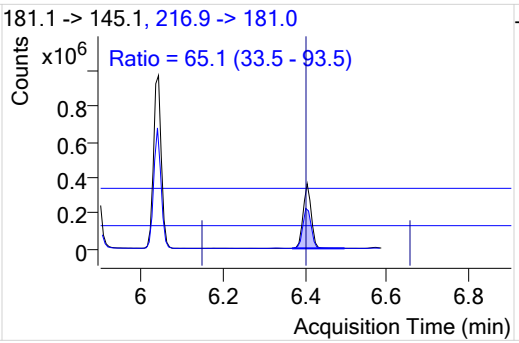


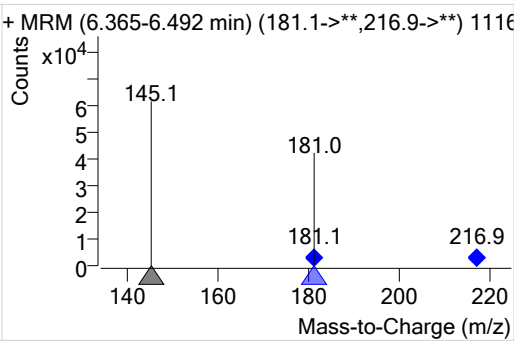




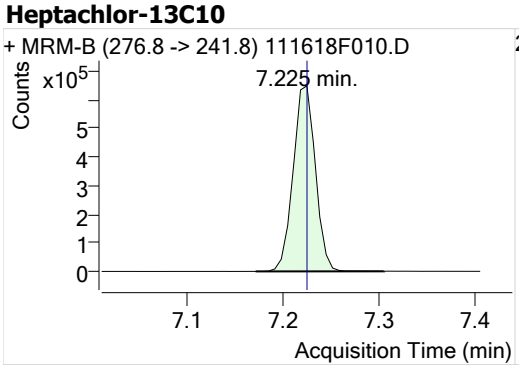
δ-BHC

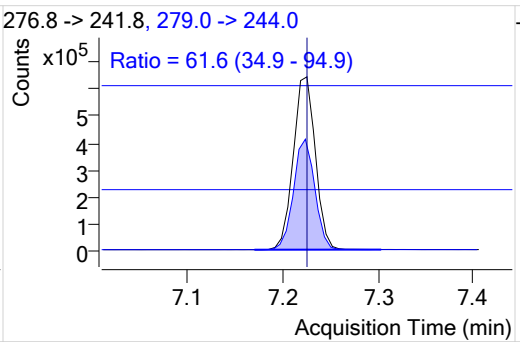


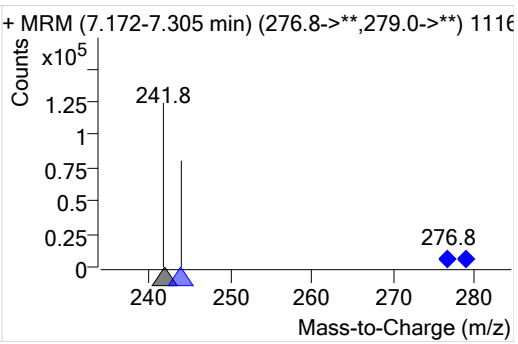




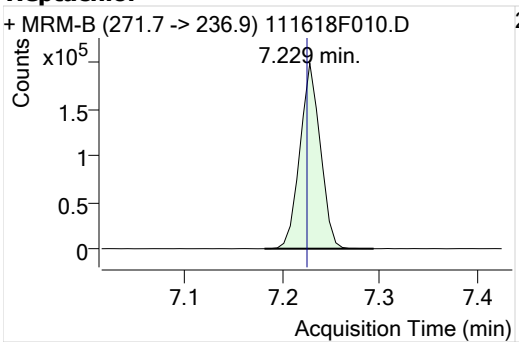
Heptachlor-13C10

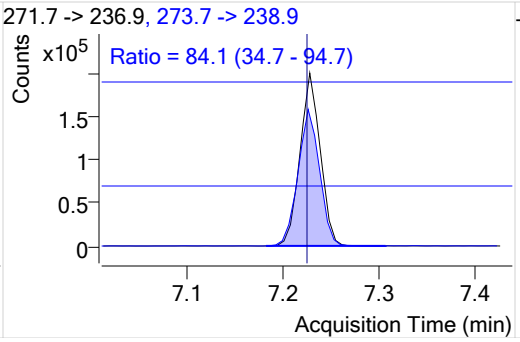


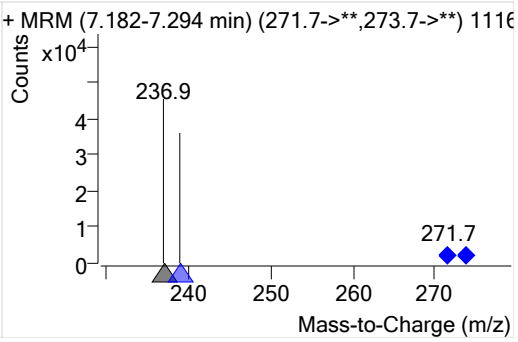




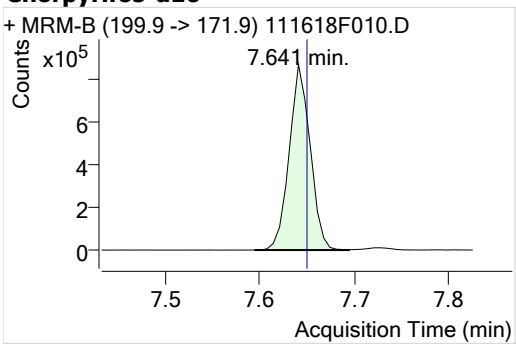
Heptachlor

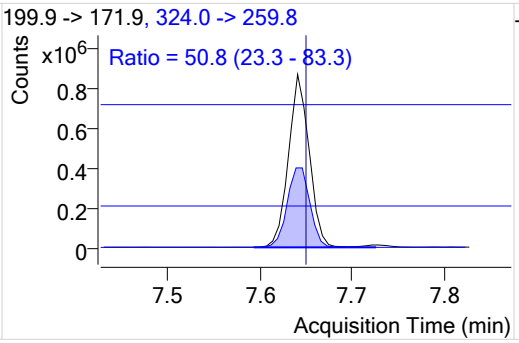


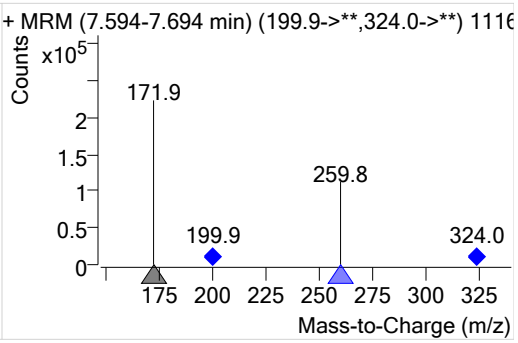




Chorpyrifos-d10

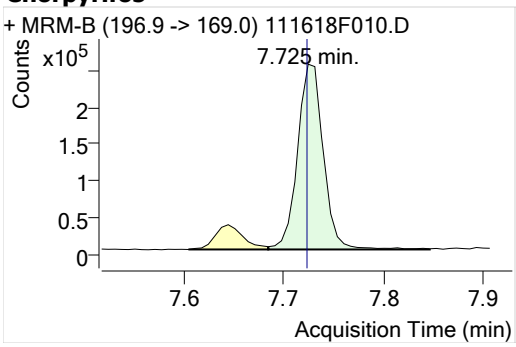


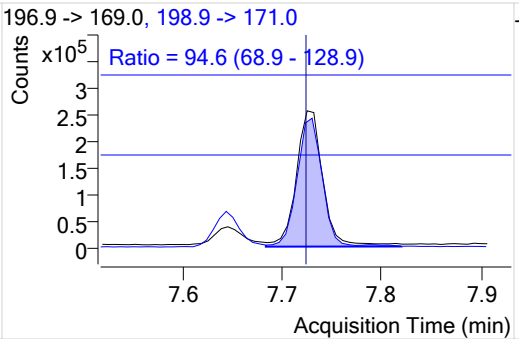


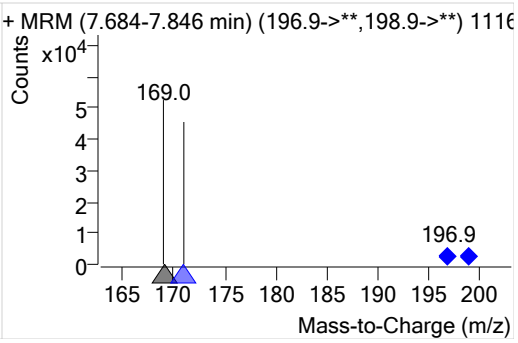


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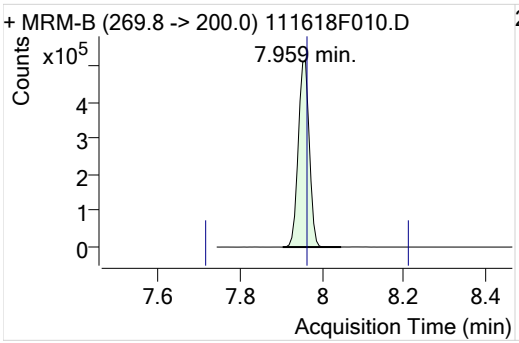
Chorpyrifos

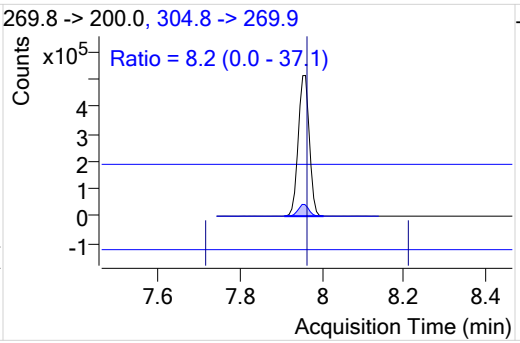


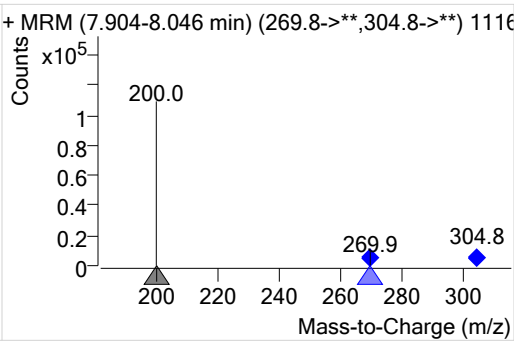




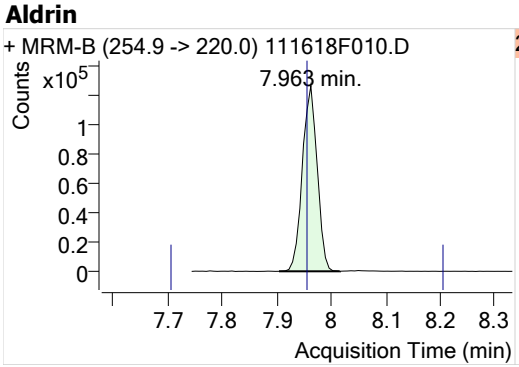
Aldrin-13C

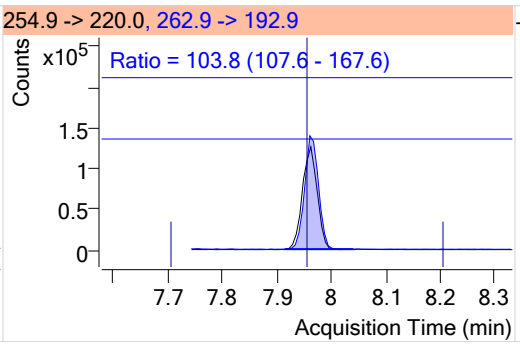


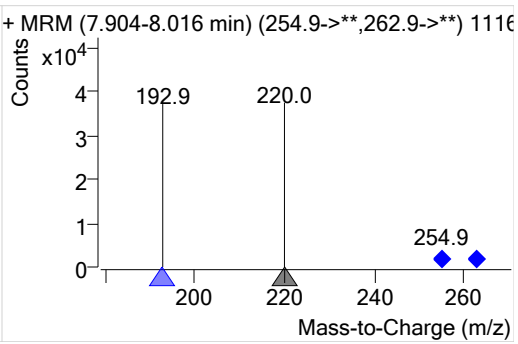




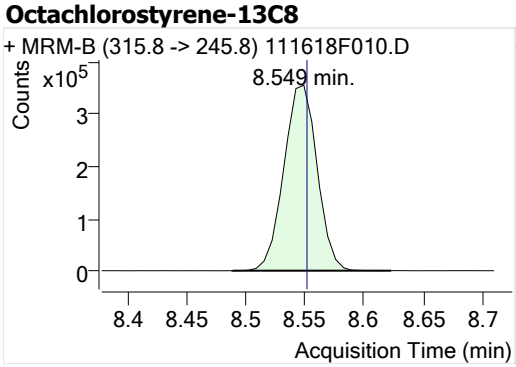
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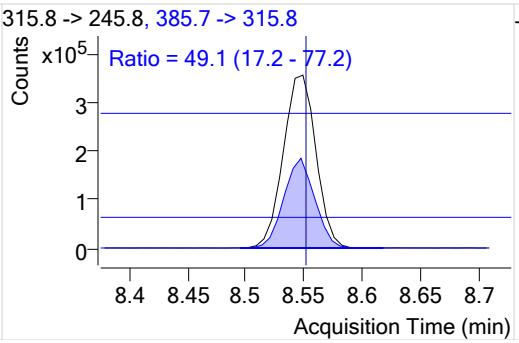


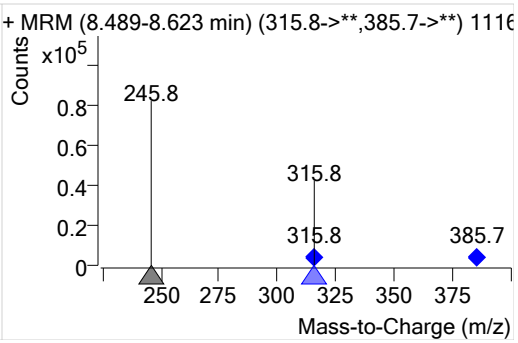




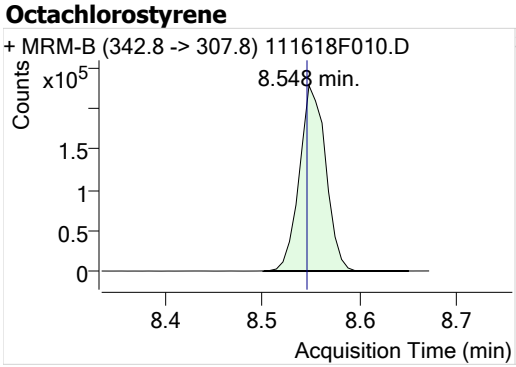
Octachlorostyrene-13C8

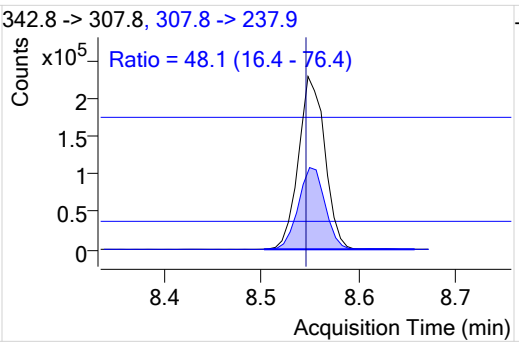


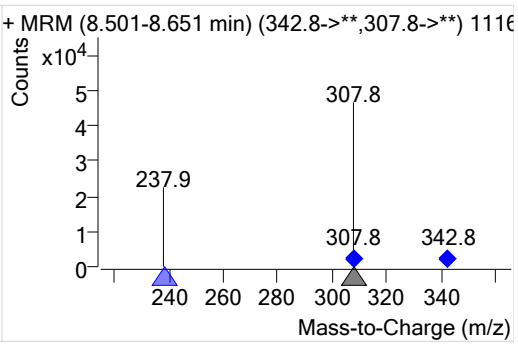




Octachlorostyrene

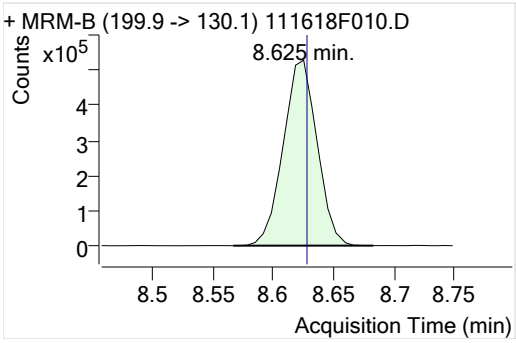


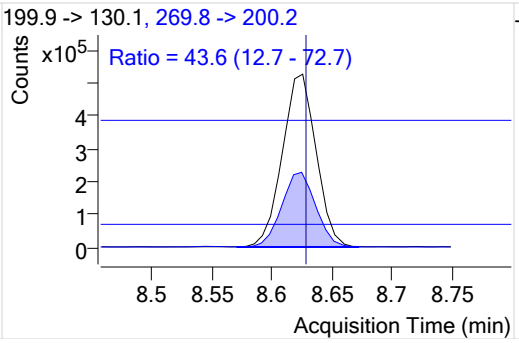


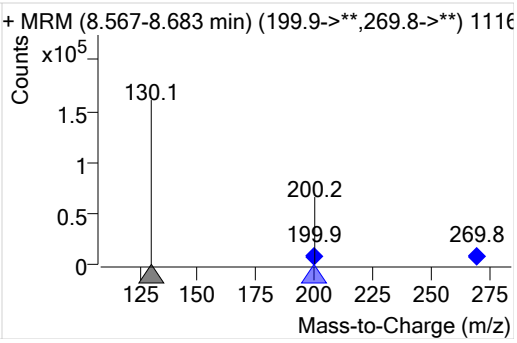


Quantitative Analysis Sample Report

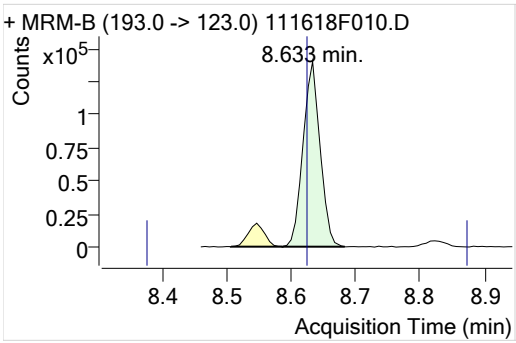
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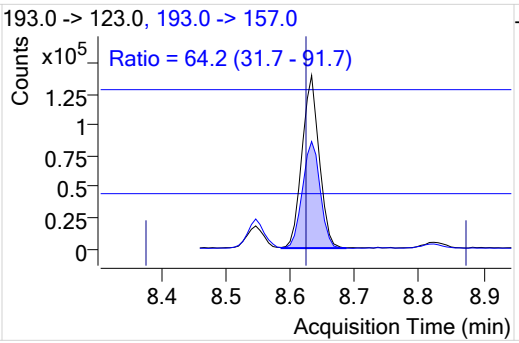


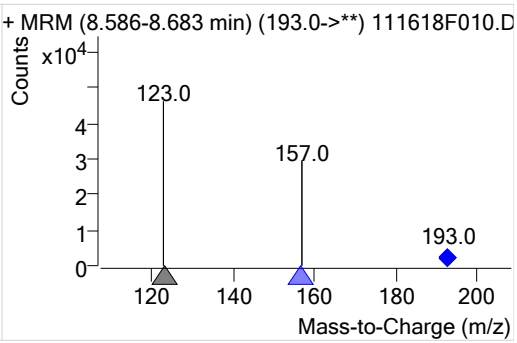




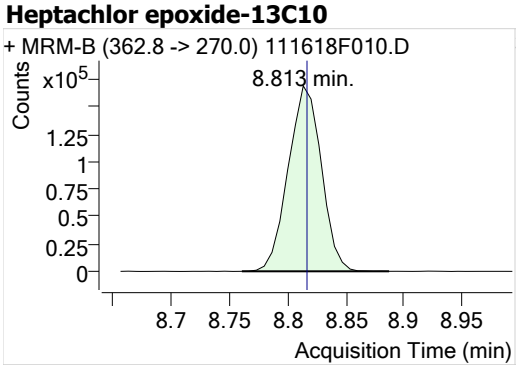
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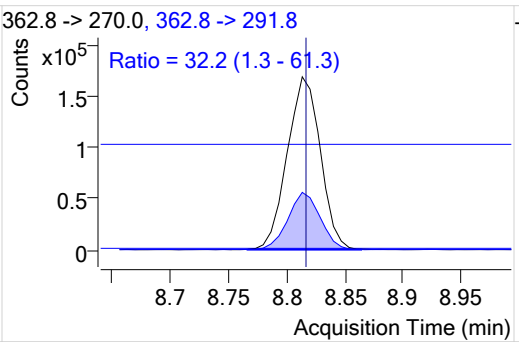


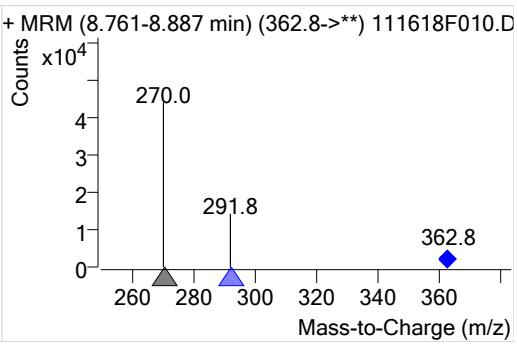




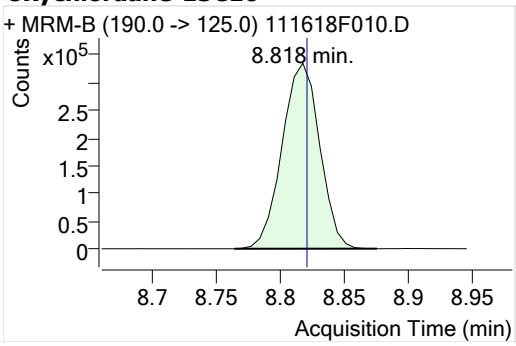
Heptachlor epoxide-13C10

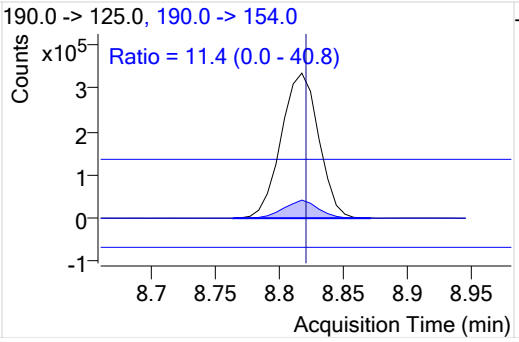


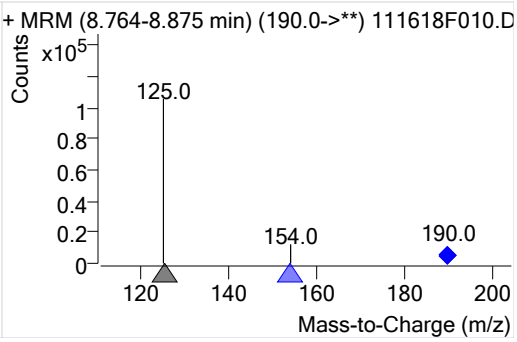




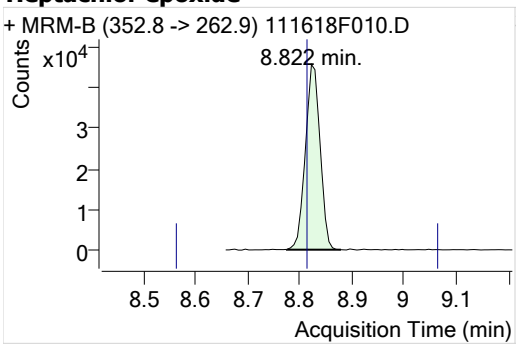
Oxychlordane-13C10

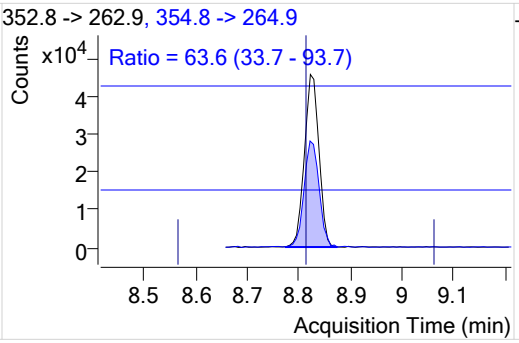


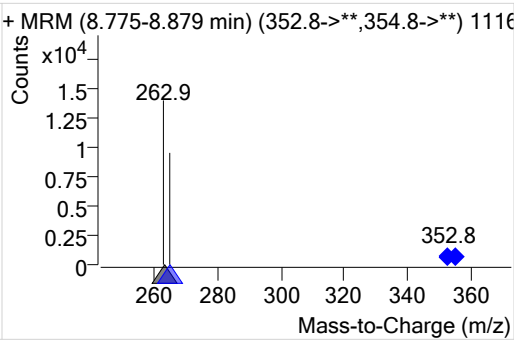




Heptachlor epoxide

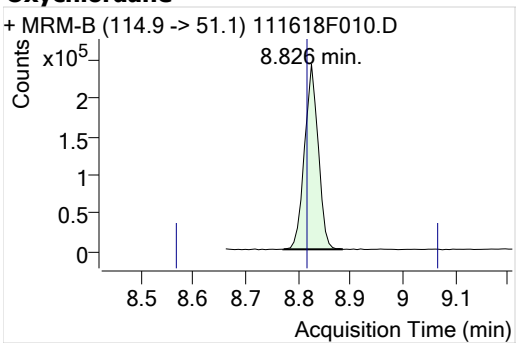


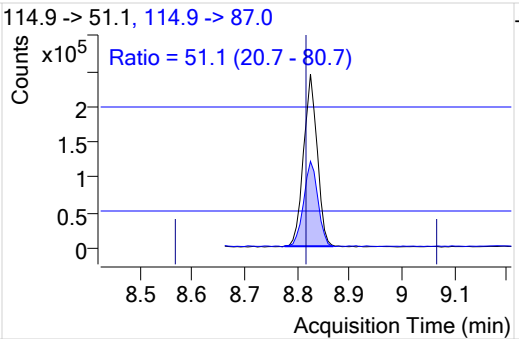


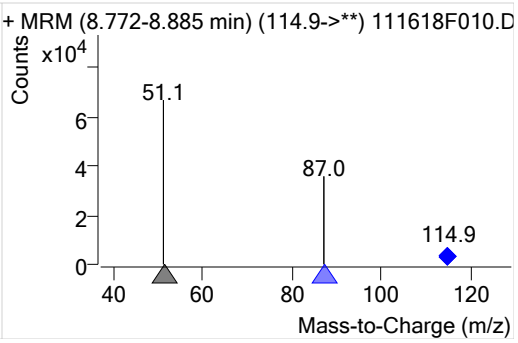


Quantitative Analysis Sample Report

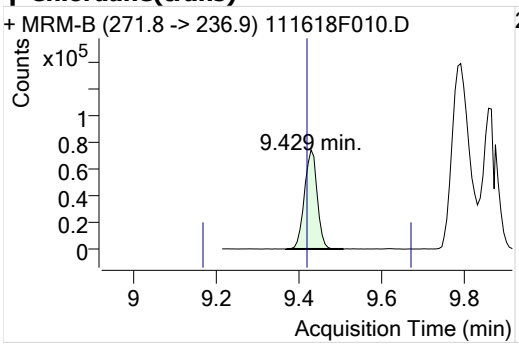
Oxychlordane

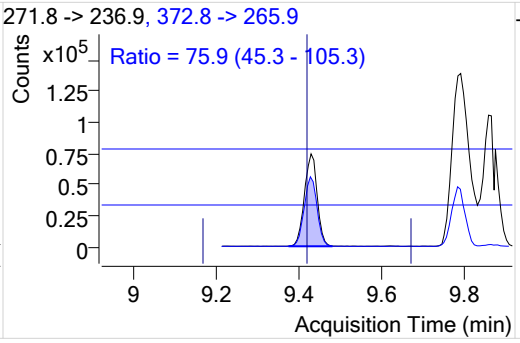


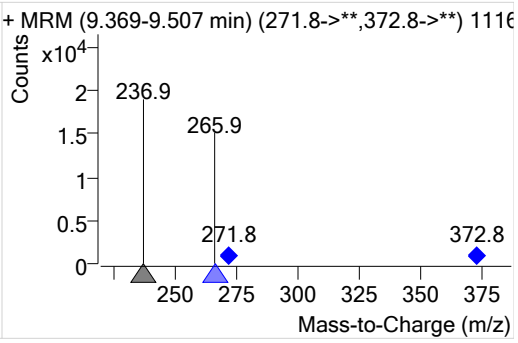




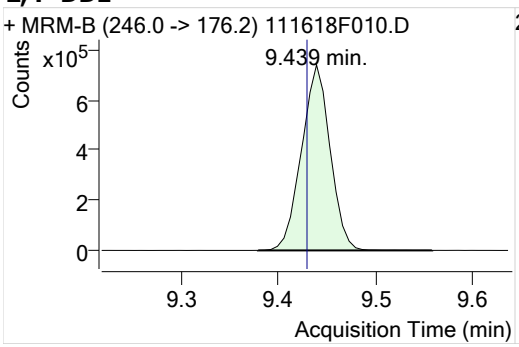
γ-Chlordane(trans)

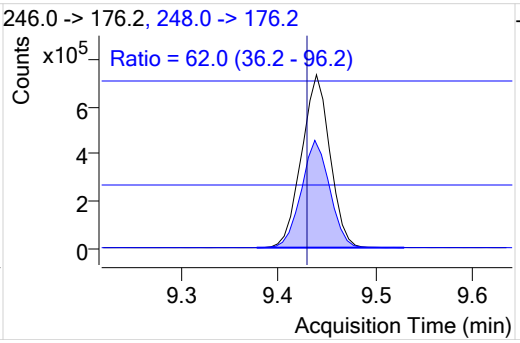


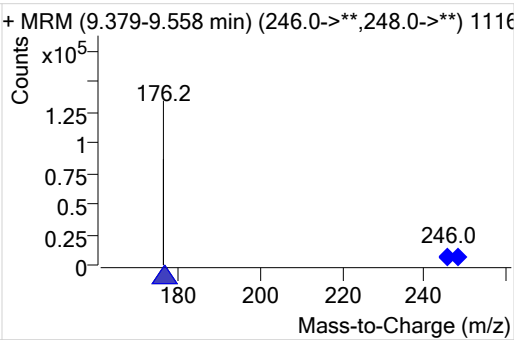




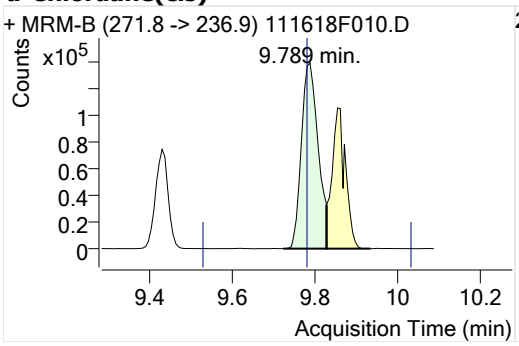
2,4'-DDE

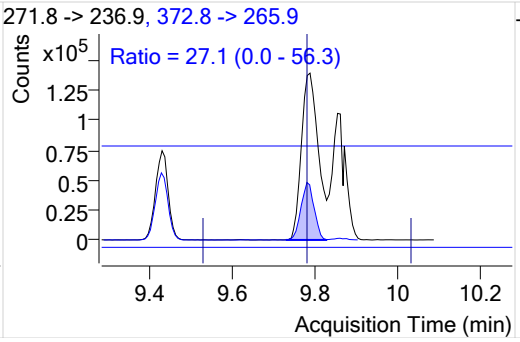


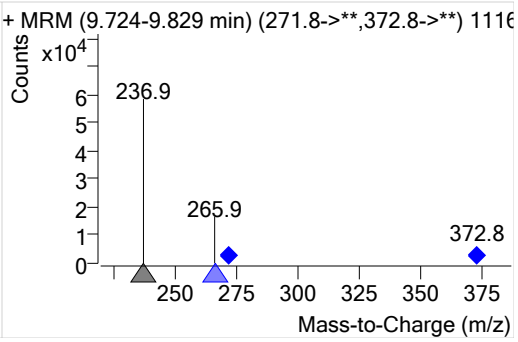




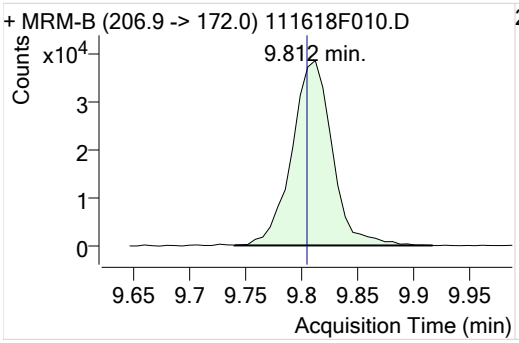
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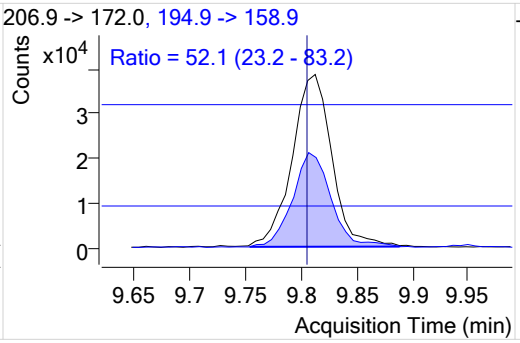


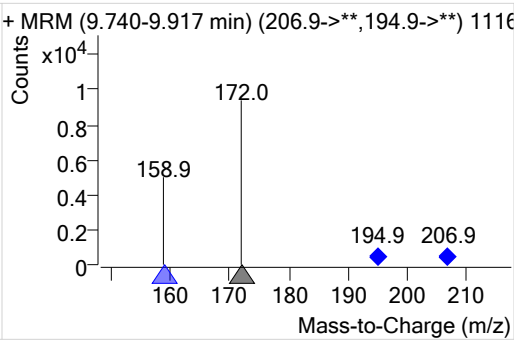




Endosulfan I

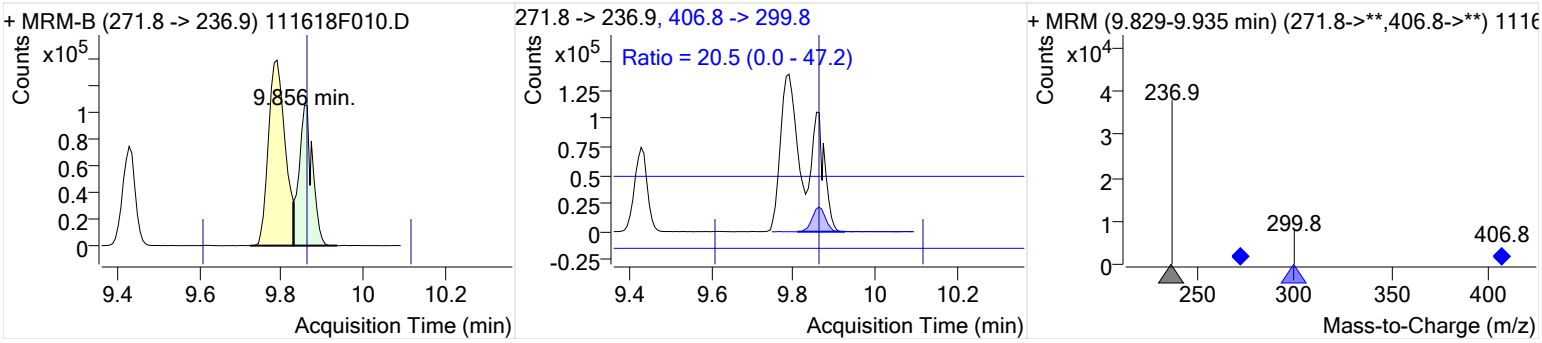




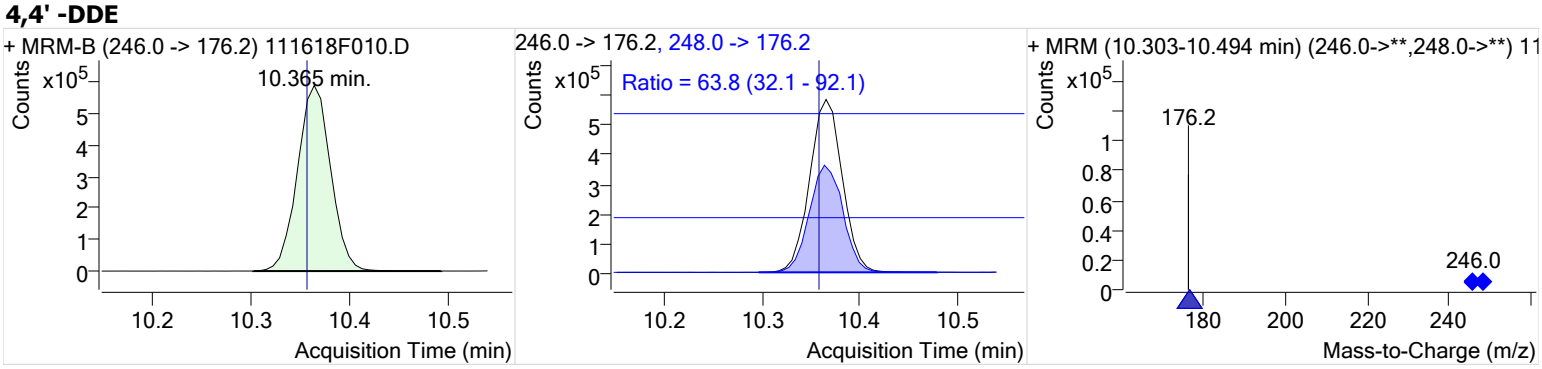


Quantitative Analysis Sample Report

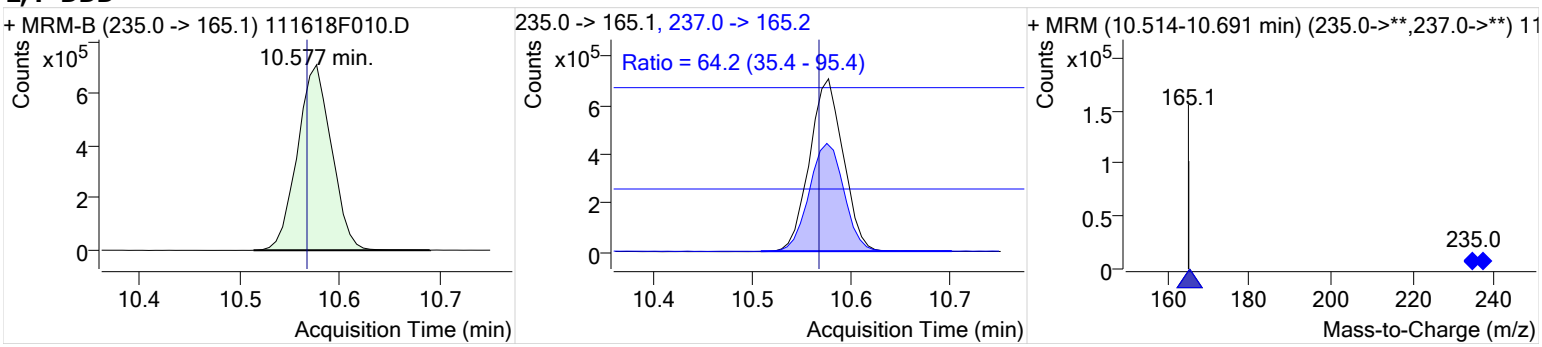
trans-Nanochlor



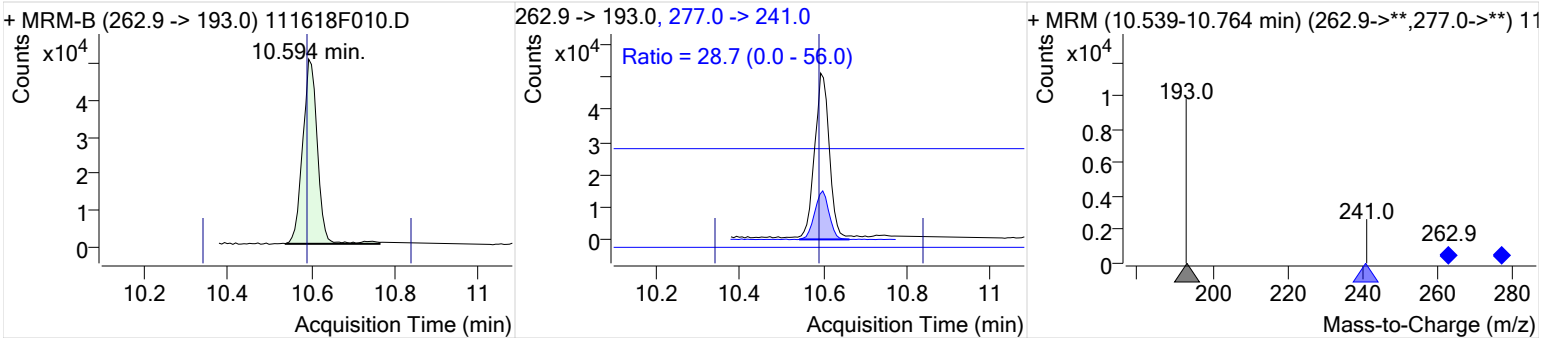
4,4' -DDE



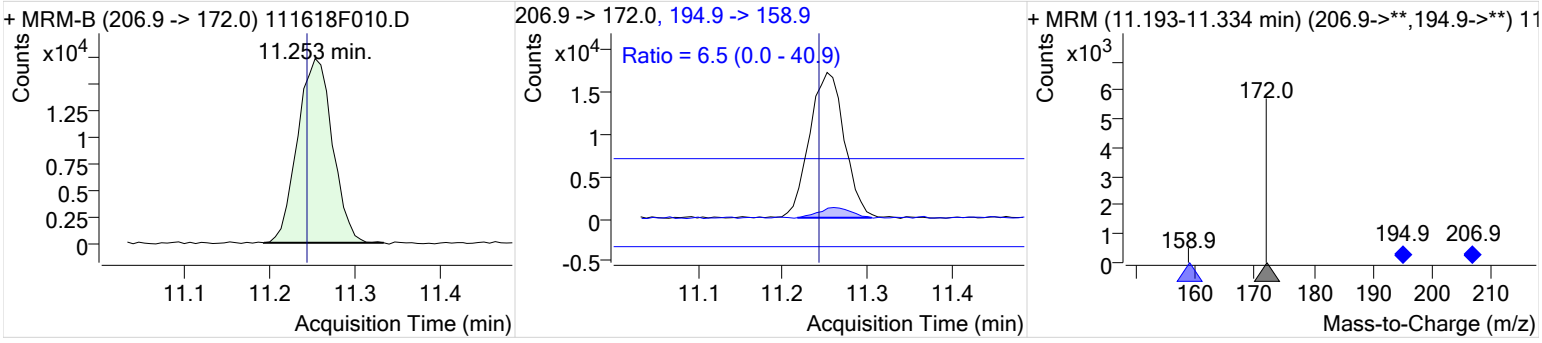
2,4'-DDD



Dieldrin

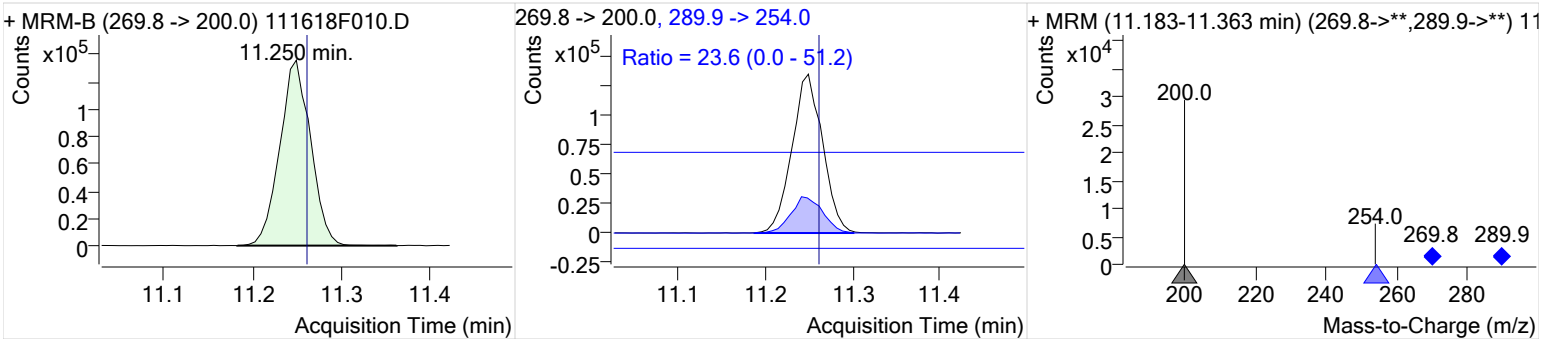


Endosulfan II

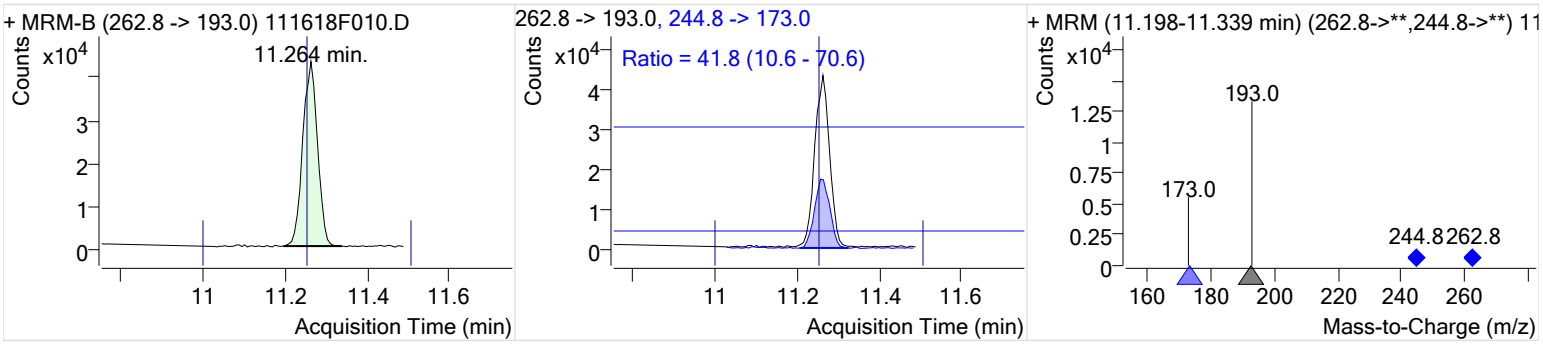


Quantitative Analysis Sample Report

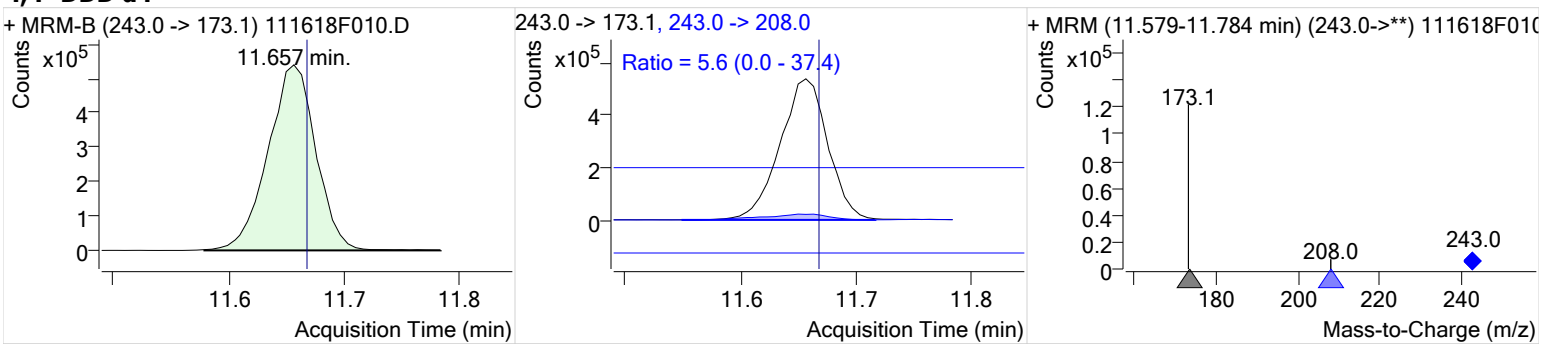
Endrin-13C12



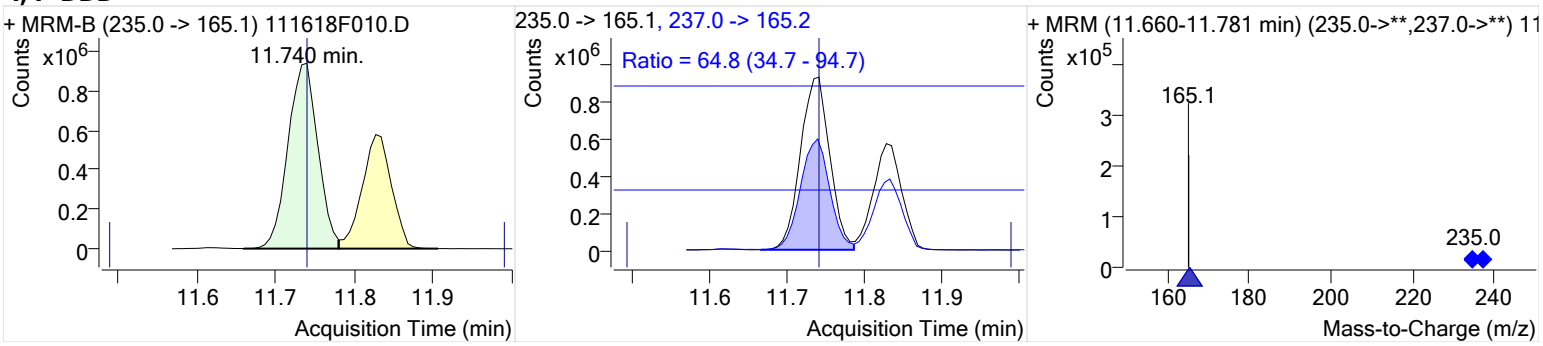
Endrin



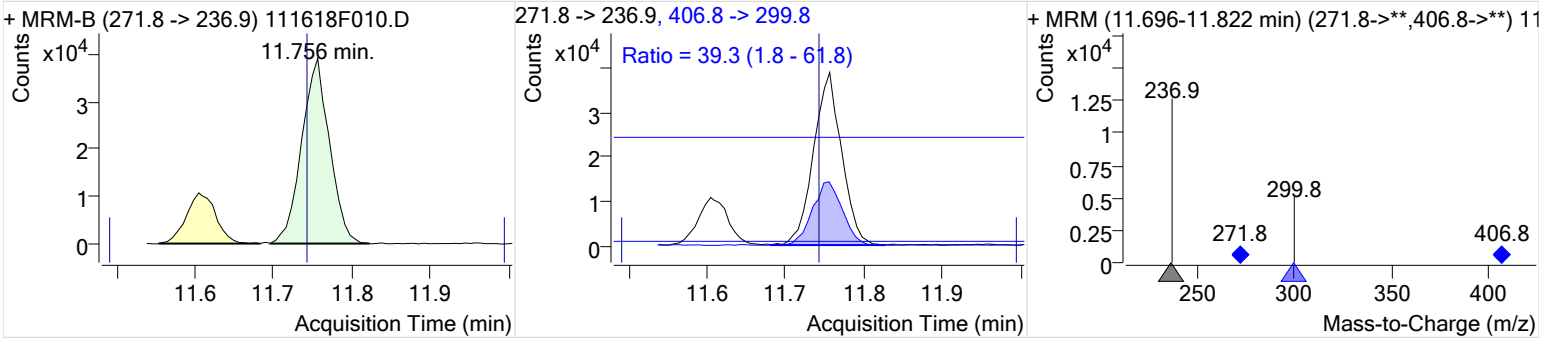
4,4'-DDD d4



4,4'-DDD

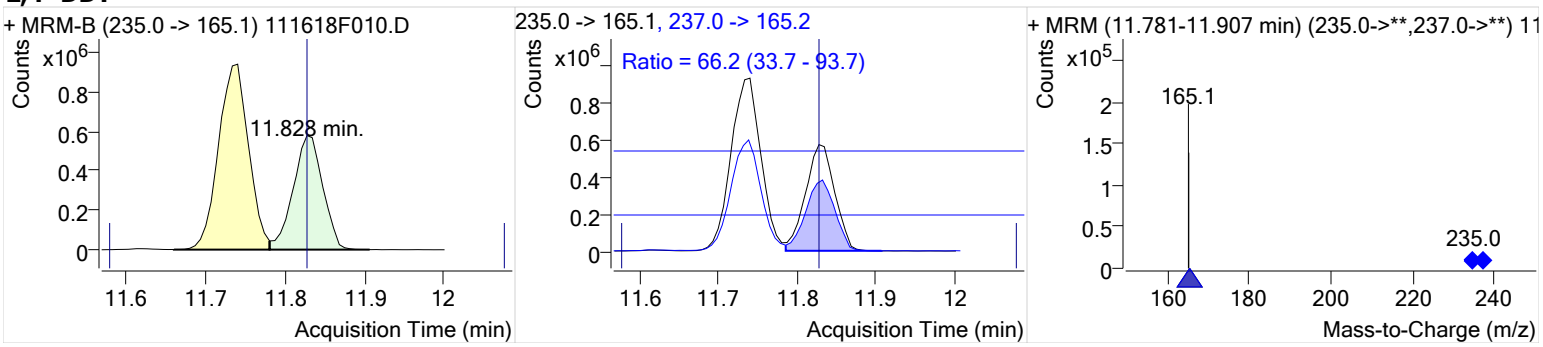


cis-Nonachlor

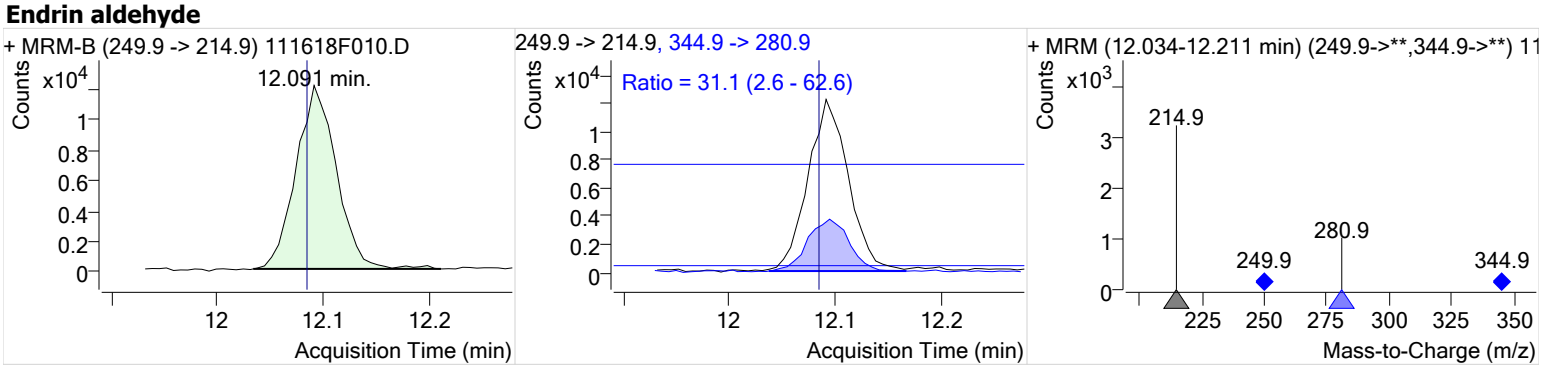


Quantitative Analysis Sample Report

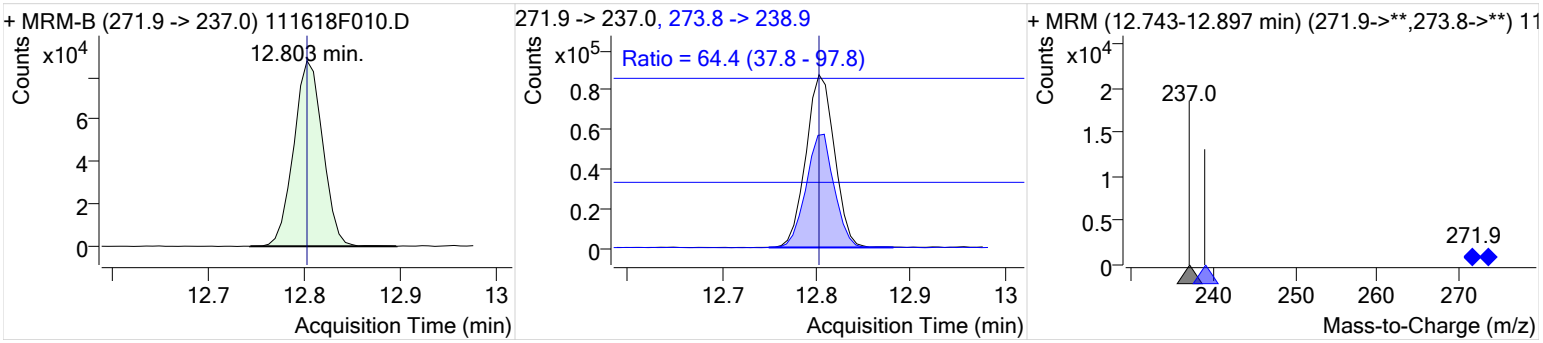
2,4'-DDT



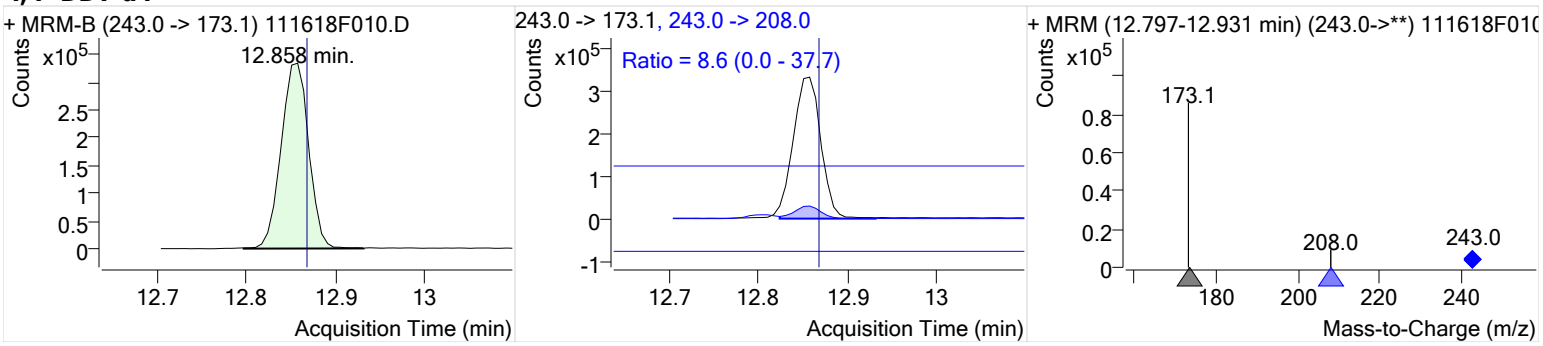
Endrin aldehyde



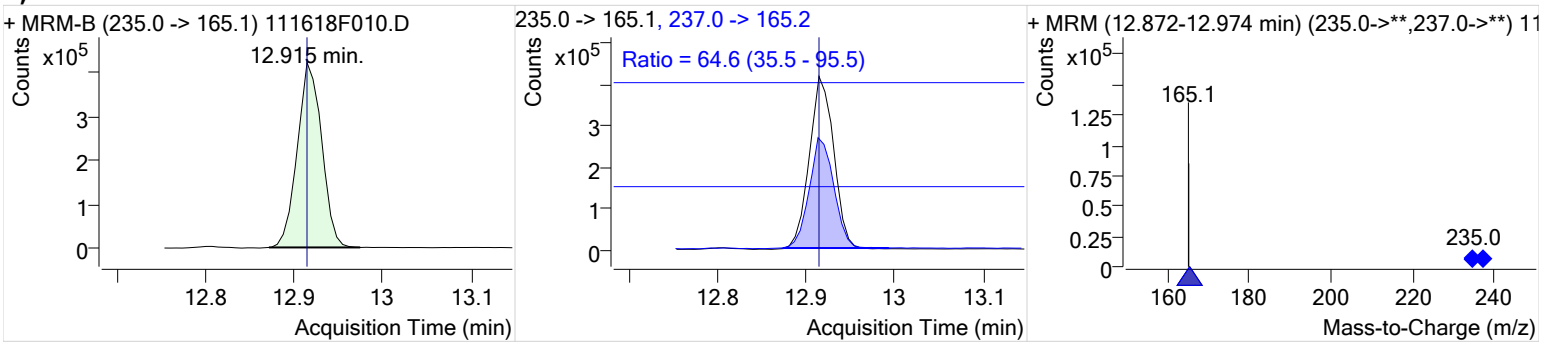
Endosulfan sulfate



4,4'-DDT-d4

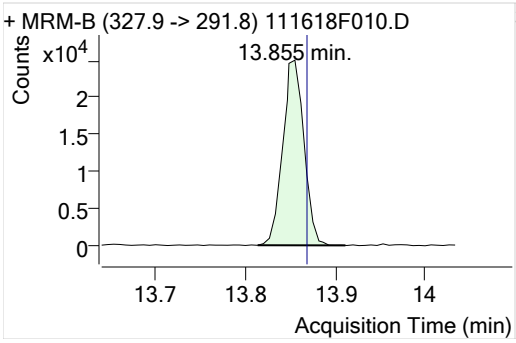


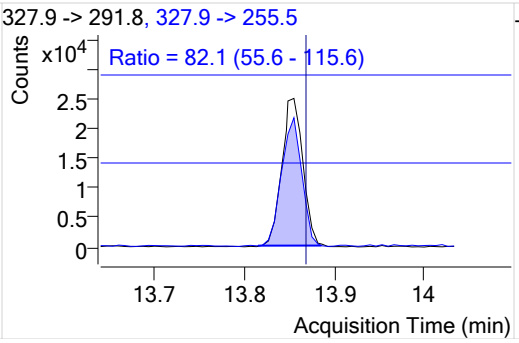
4,4'-DDT

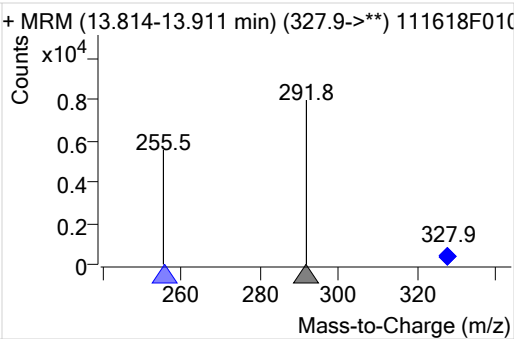


Quantitative Analysis Sample Report

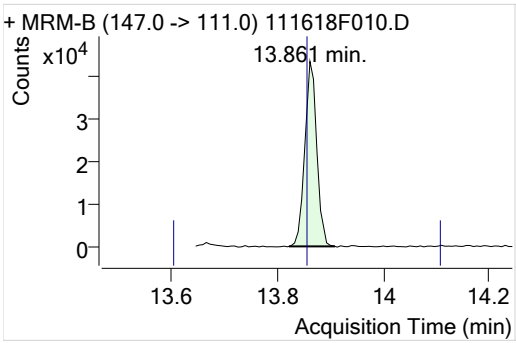
Endrin ketone-13C12

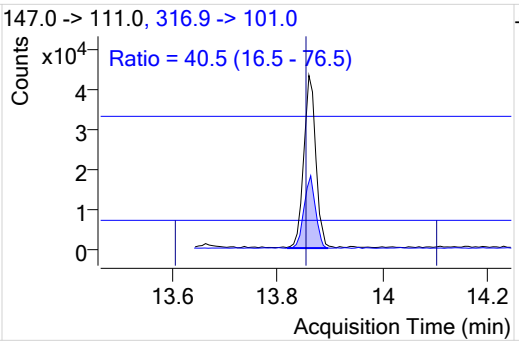


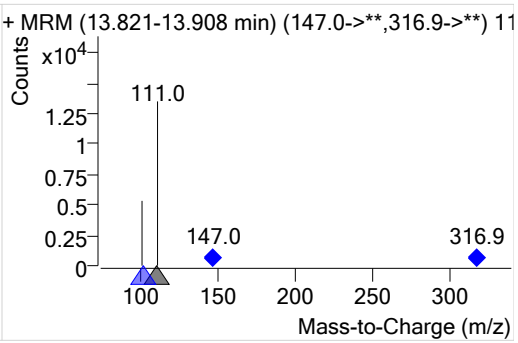




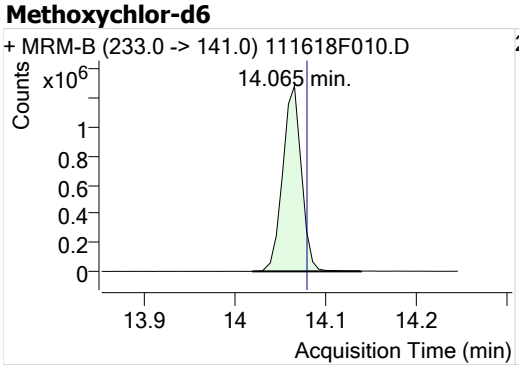
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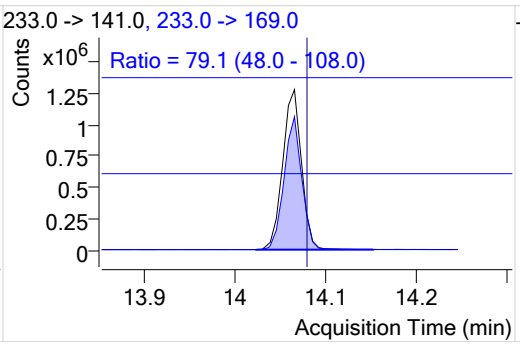


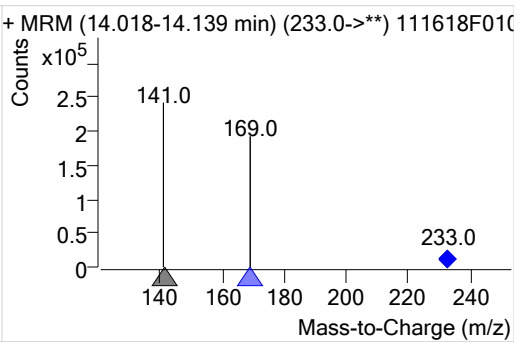




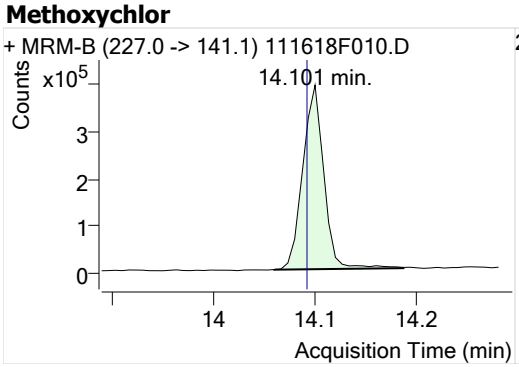
Methoxychlor-d6

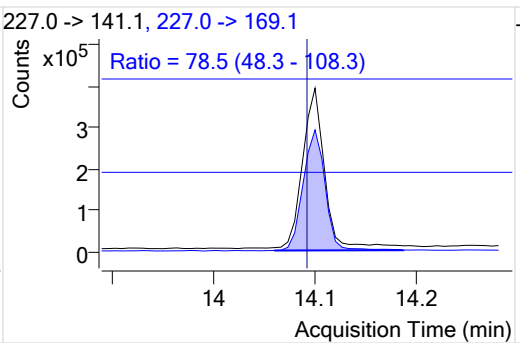


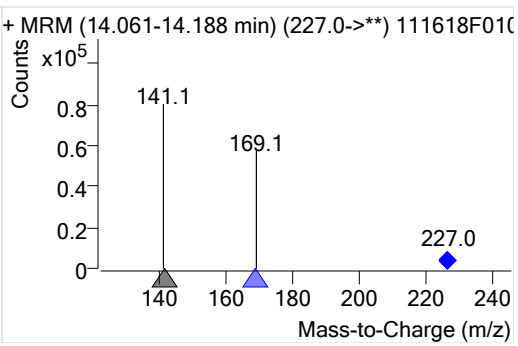




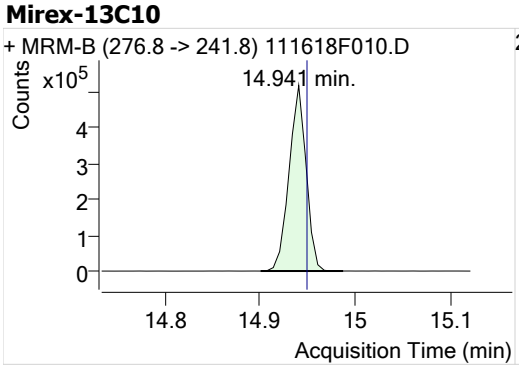
Methoxychlor

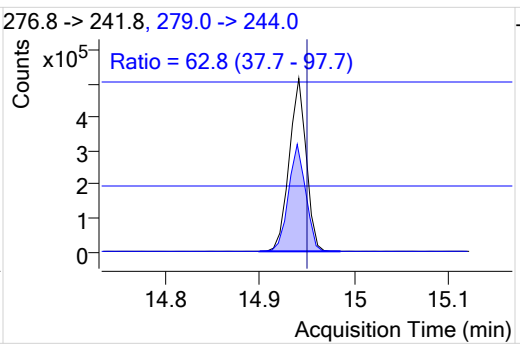


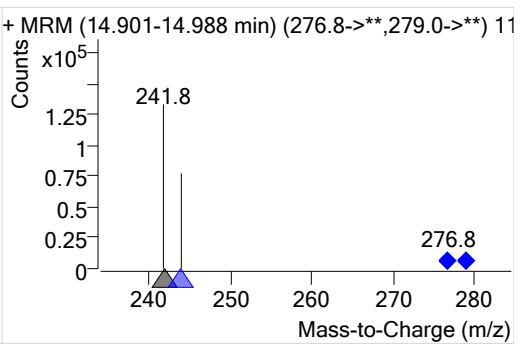




Mirex-13C10

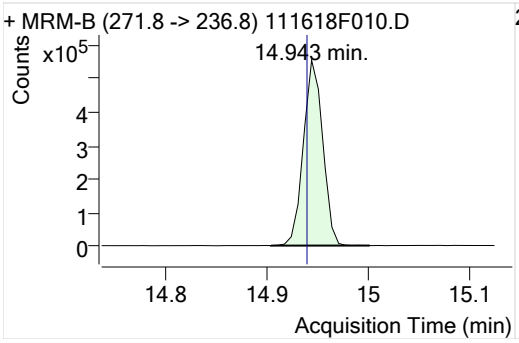


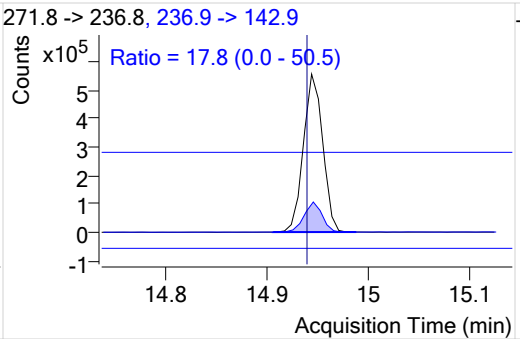


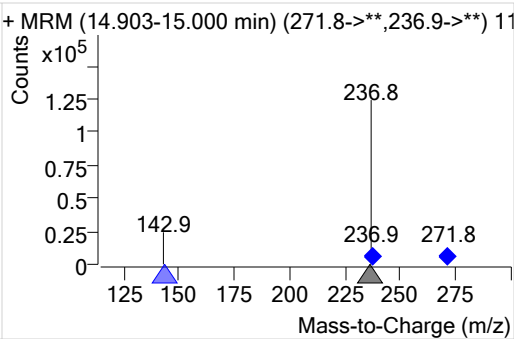


Quantitative Analysis Sample Report

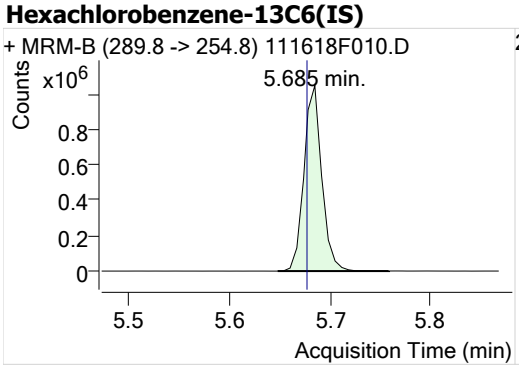
Mirex

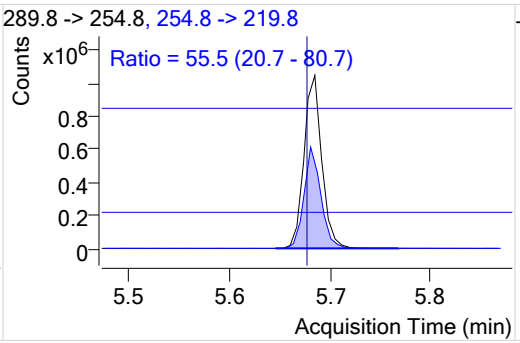


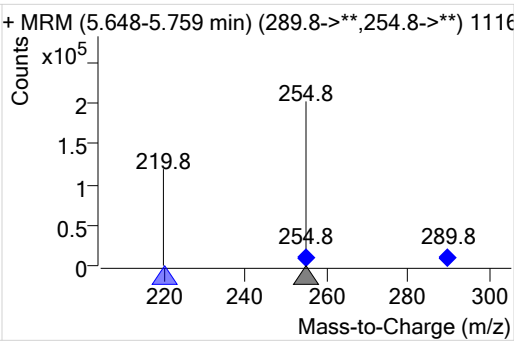




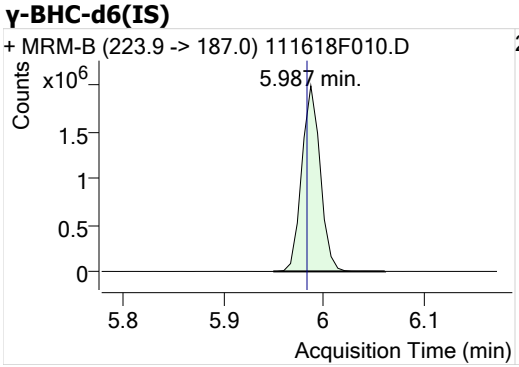
Hexachlorobenzene-13C6(IS)

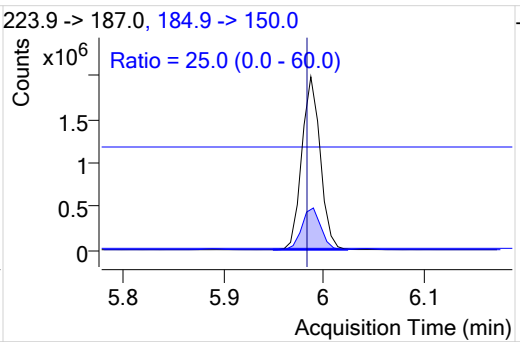


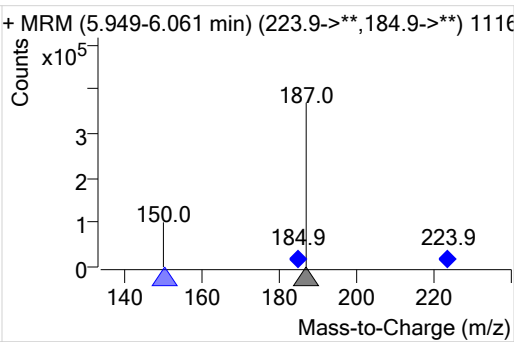




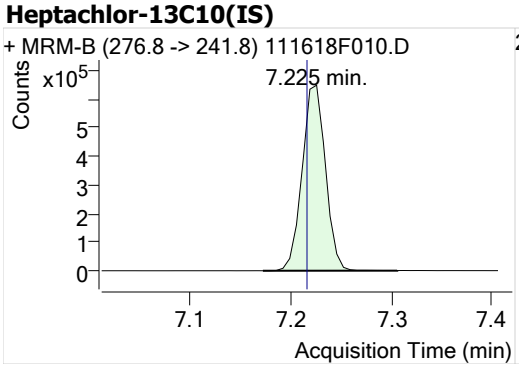
γ-BHC-d6(IS)

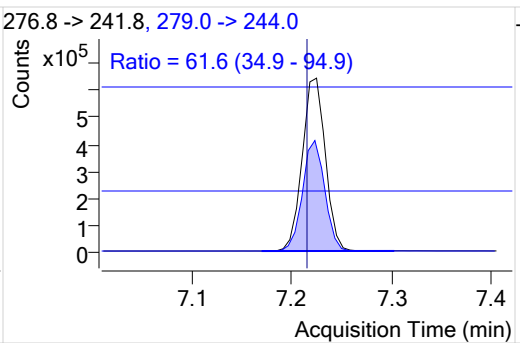


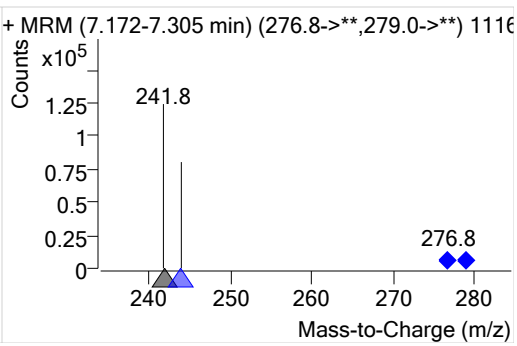




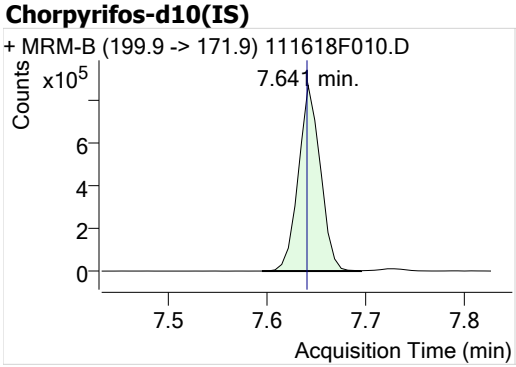
Heptachlor-13C10(IS)

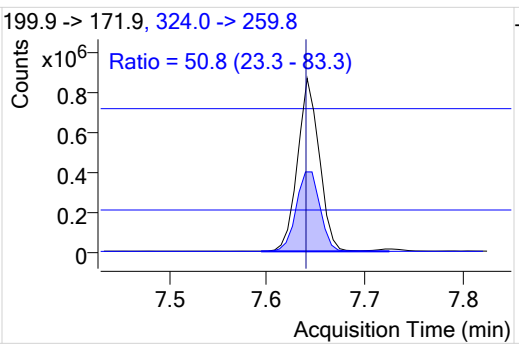


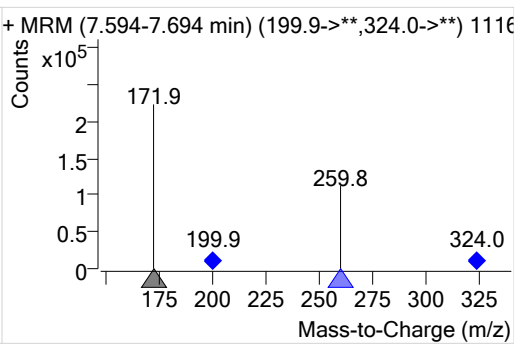




Chorpyrifos-d10(IS)

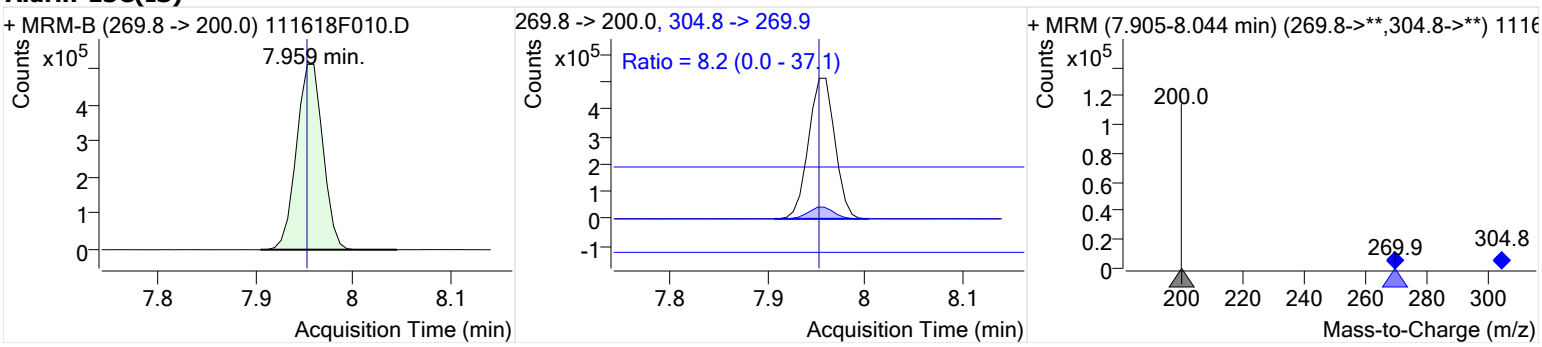




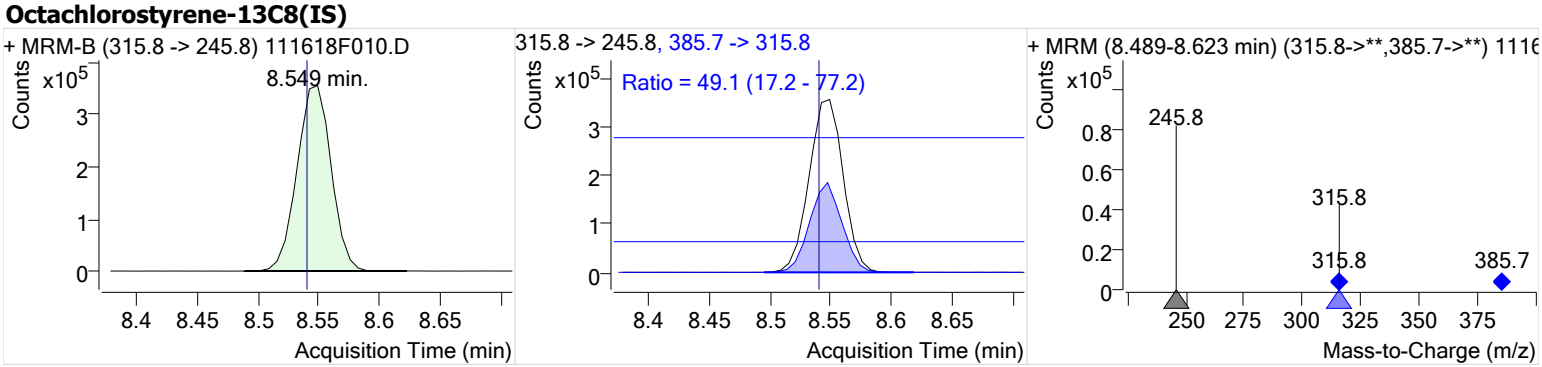


Quantitative Analysis Sample Report

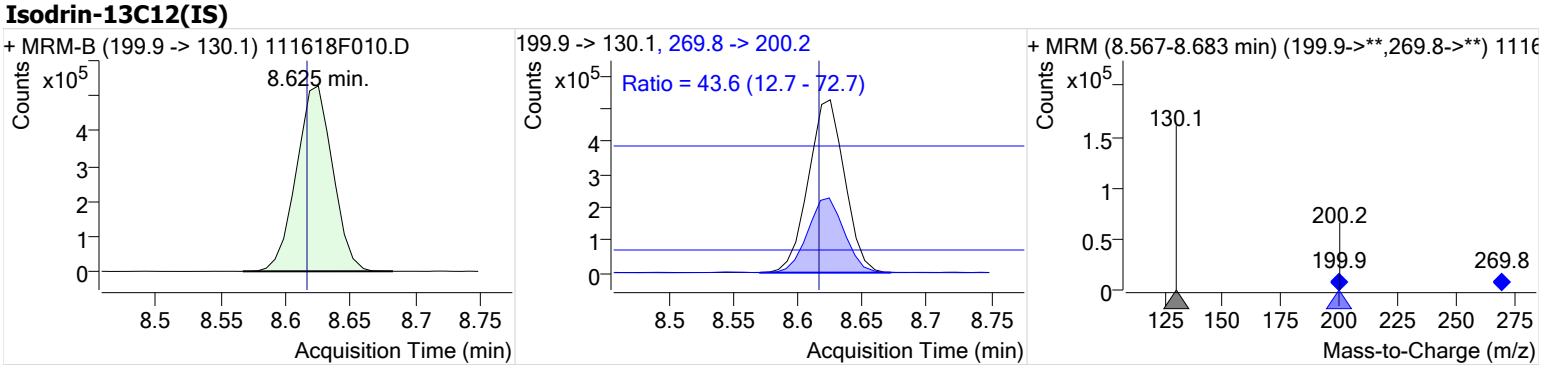
Aldrin-13C(IS)



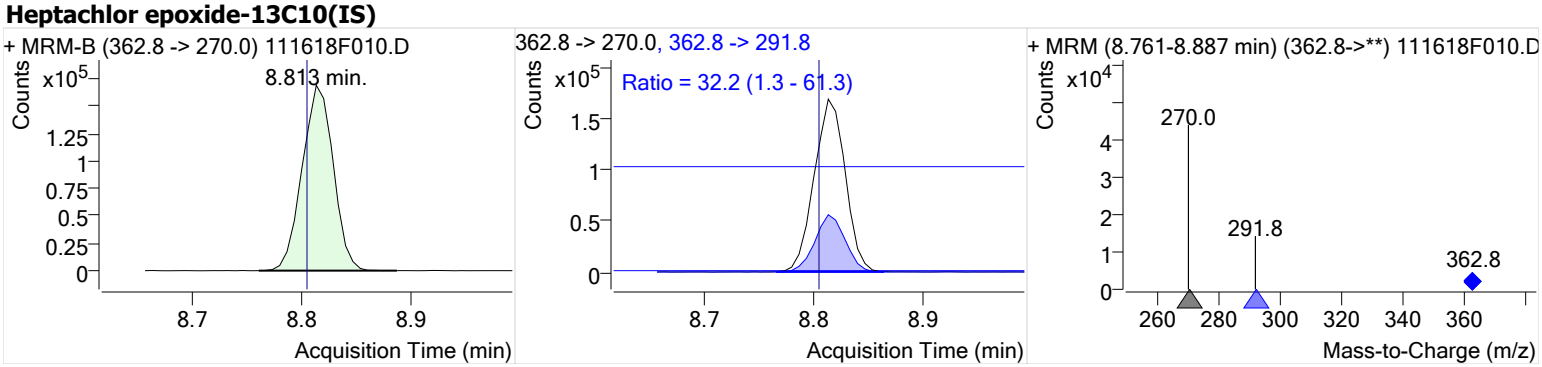
Octachlorostyrene-13C8(IS)



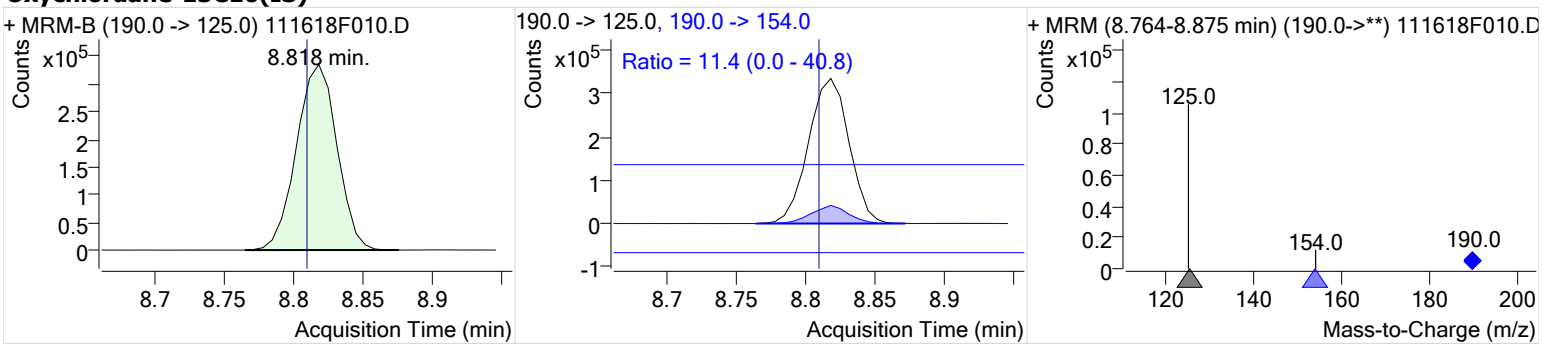
Isodrin-13C12(IS)



Heptachlor epoxide-13C10(IS)

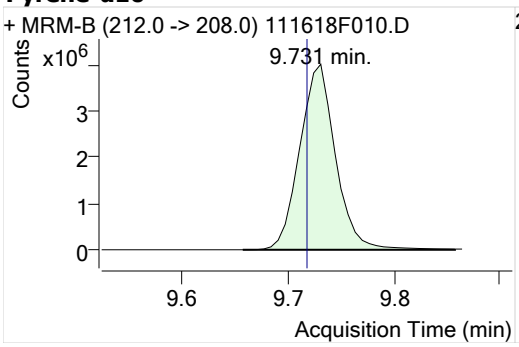


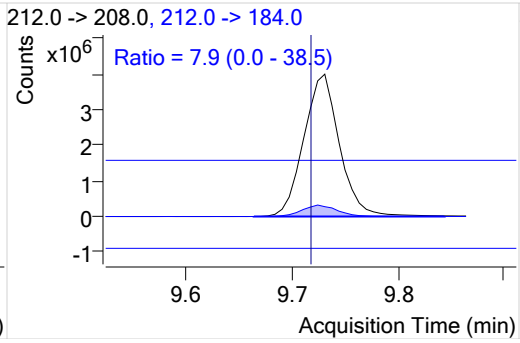
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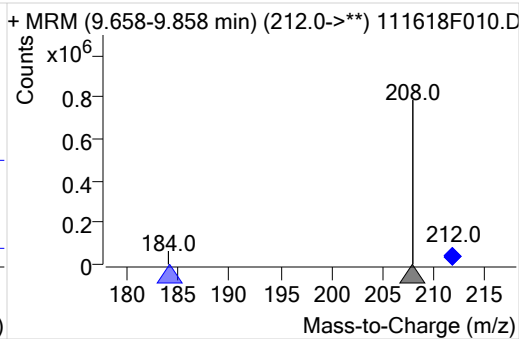


Quantitative Analysis Sample Report

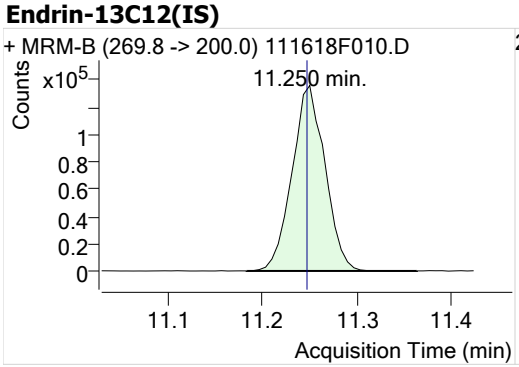
Pyrene-d10

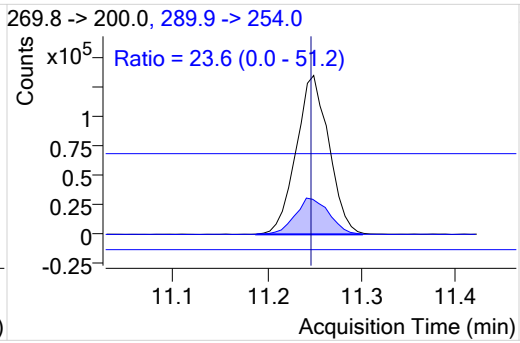


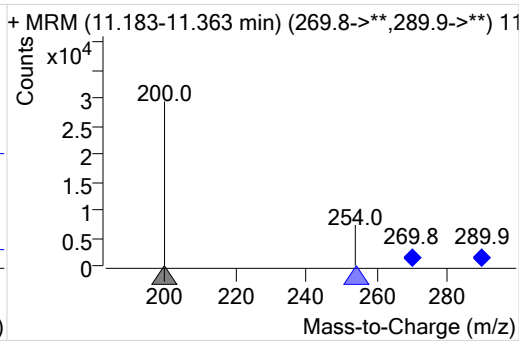




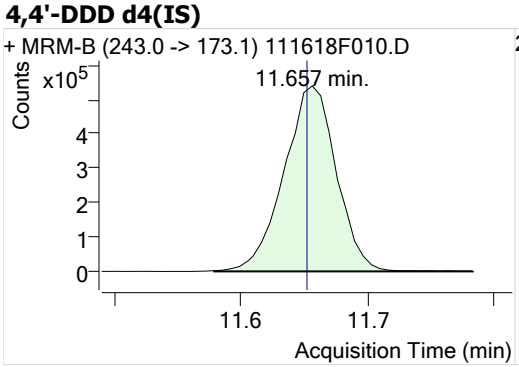
Endrin-13C12(IS)

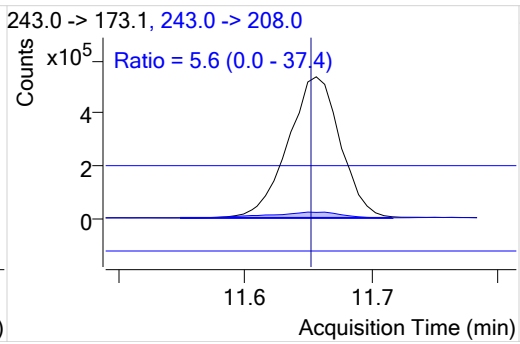


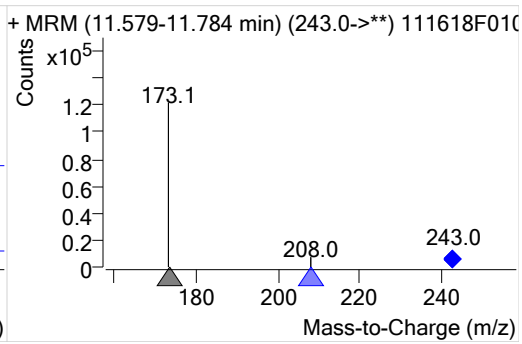




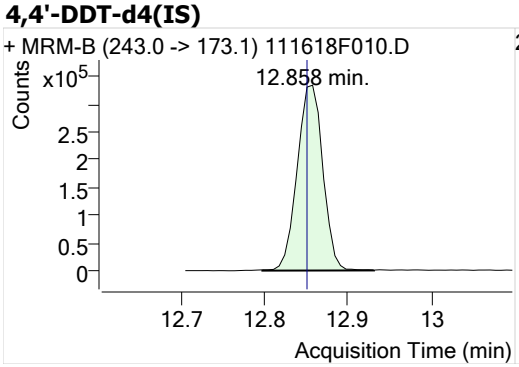
4,4'-DDD d4(IS)

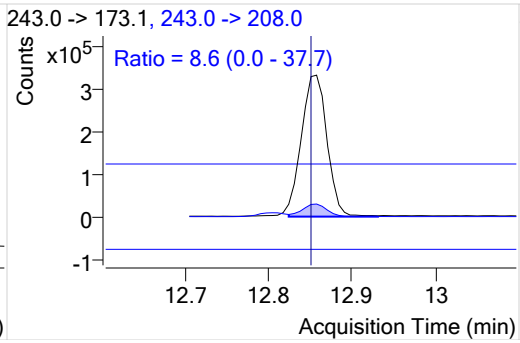


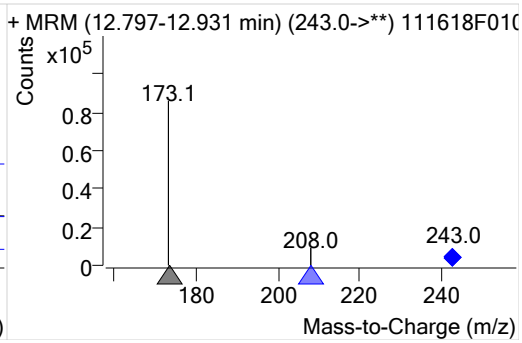




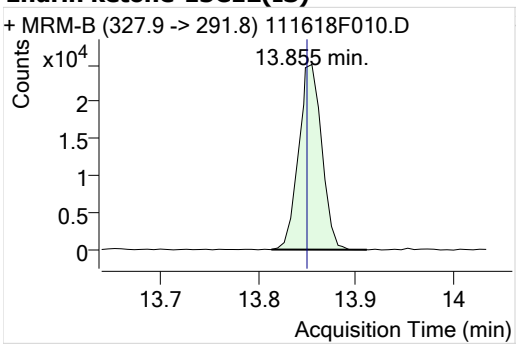
4,4'-DDT-d4(IS)

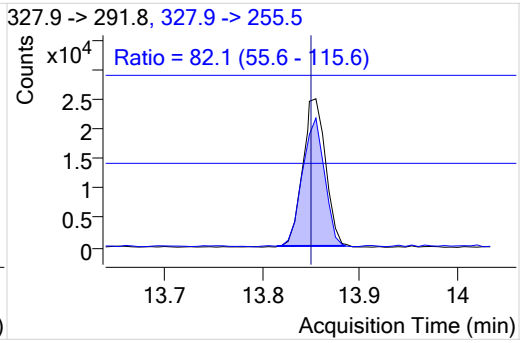


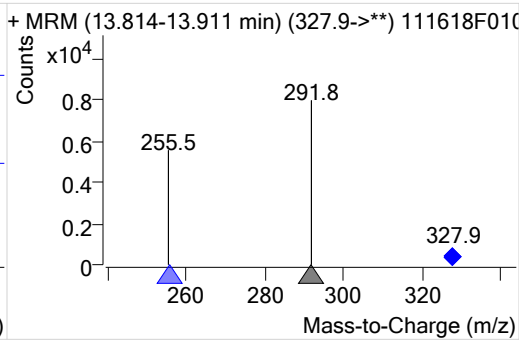




Endrin ketone-13C12(IS)

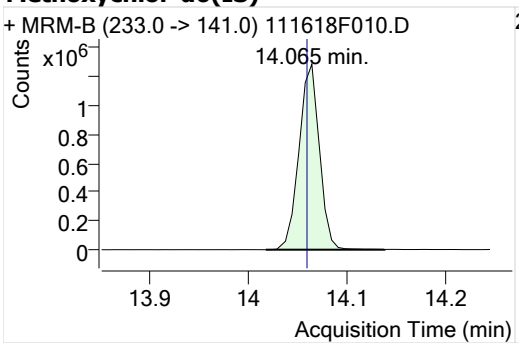


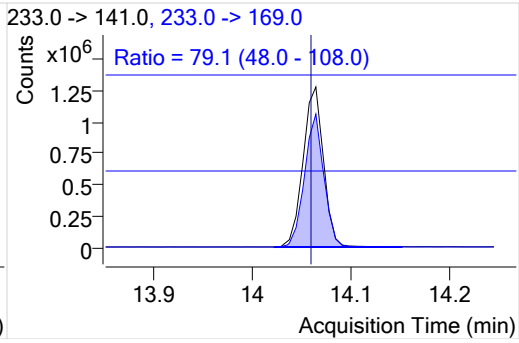


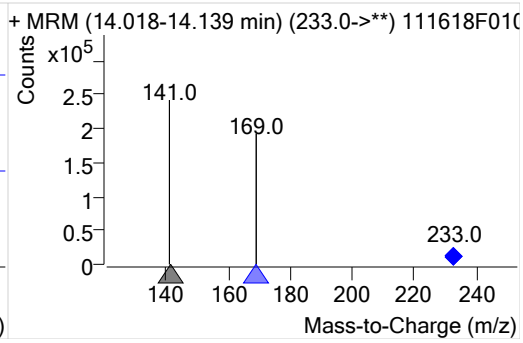


Quantitative Analysis Sample Report

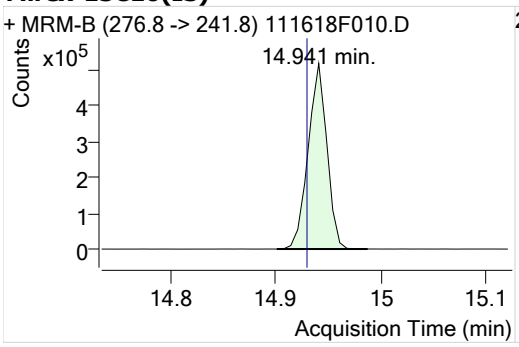
Methoxychlor-d6(IS)

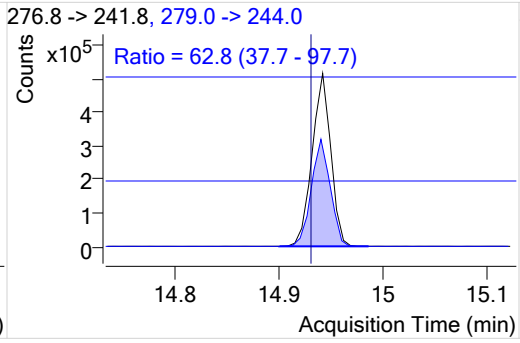


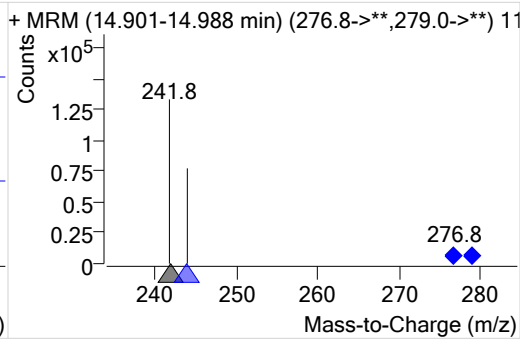




Mirex-13C10(IS)







Quantitative Analysis Sample Report

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Acq. Date-Time	11/16/2018 2:15:21 PM	**Acq Operator**	EBruno
Name	OC PEST ICAL 10ng/mL SVM59-48E	**Instrument Name**	MS42
Info.		**Instrument Type**	QQQ
Quant Time	3/14/2019 10:04:01 AM	**Inj Vol**	1
Quant Method	110618 OC PEST ICAL.batch.bin		
Last Update	3/14/2019 10:04:01 AM		
Acq. Method File	OC Pest_dMRM	**Tune File Name**	atunes.eihs.tune.xml
Batch File Name	Y:\MS42\data\111618\QuantResults\111618 oc pest ical.batch.bin		

Internal Standards	RT	Transition	Response	Conc. Units	Dev(Min)
Hexachlorobenzene-13C6(IS)	5.686	289.8 -> 254.8	1333387	20.000 ng/ml	0.006
γ-BHC-d6(IS)	5.987	223.9 -> 187.0	2533370	20.000 ng/ml	0.002
Heptachlor-13C10(IS)	7.220	276.8 -> 241.8	1037233	20.000 ng/ml	0.007
Chorpyrifos-d10(IS)	7.641	199.9 -> 171.9	1191336	20.000 ng/ml	0.000
Aldrin-13C(IS)	7.952	269.8 -> 200.0	895530	20.000 ng/ml	0.001
Octachlorostyrene-13C8(IS)	8.543	315.8 -> 245.8	680659	20.000 ng/ml	0.005
Isodrin-13C12(IS)	8.619	199.9 -> 130.1	1036043	20.000 ng/ml	0.002
Heptachlor epoxide-13C10(IS)	8.814	362.8 -> 270.0	315550	20.000 ng/ml	0.009
Oxychlordane-13C10(IS)	8.818	190.0 -> 125.0	643125	20.000 ng/ml	0.009
Pyrene-d10	9.725	212.0 -> 208.0	8775933	100.000 ng/ml	0.007
Endrin-13C12(IS)	11.250	269.8 -> 200.0	301523	20.000 ng/ml	0.002
4,4'-DDD d4(IS)	11.656	243.0 -> 173.1	1389000	5.000 ng/ml	0.004
4,4'-DDT-d4(IS)	12.859	243.0 -> 173.1	711562	5.000 ng/ml	0.008
Endrin ketone-13C12(IS)	13.855	327.9 -> 291.8	40136	20.000 ng/ml	0.005
Methoxychlor-d6(IS)	14.058	233.0 -> 141.0	1864256	20.000 ng/ml	0.002
Mirex-13C10(IS)	14.941	276.8 -> 241.8	652083	5.000 ng/ml	0.011

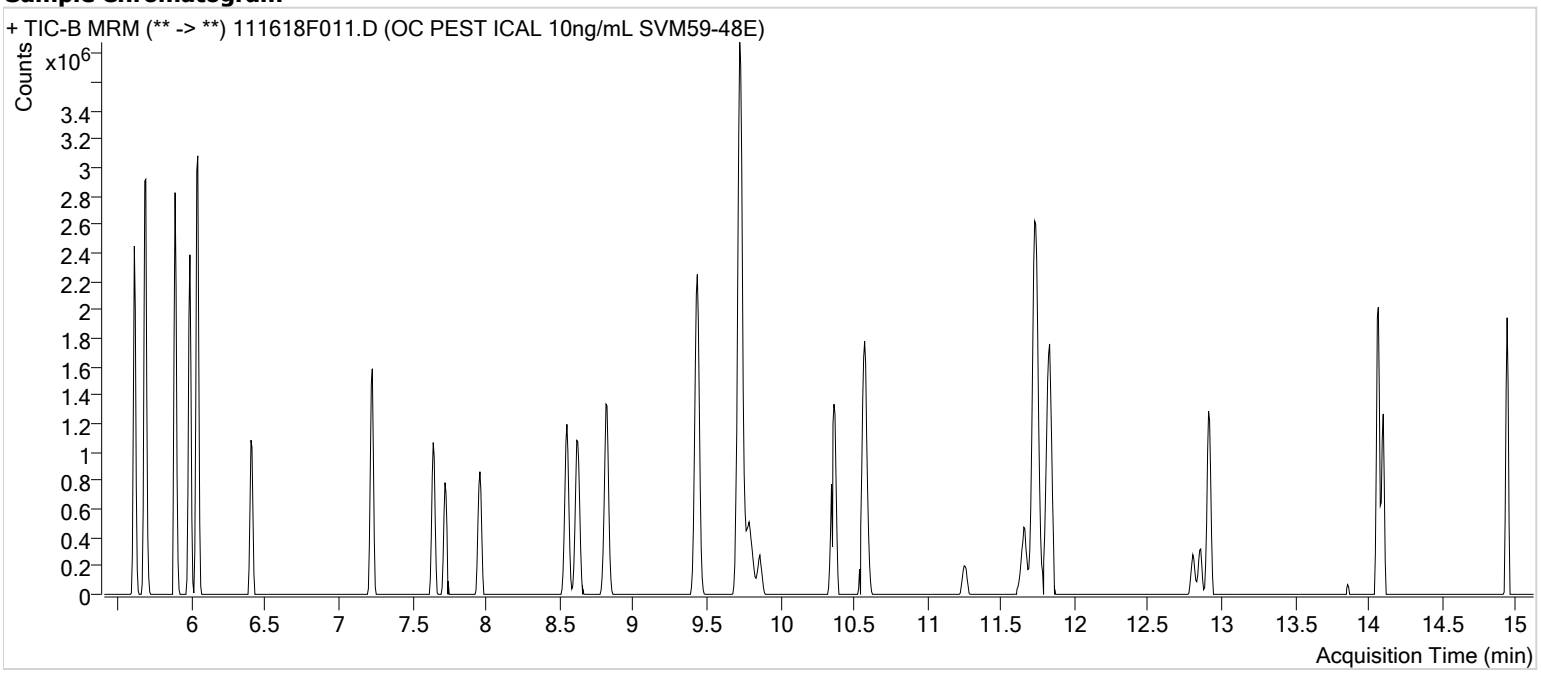
System Monitoring Compounds	RT	Transition	Response	Conc. Units
Hexachlorobenzene-13C6	5.677	289.8 -> 254.8	1333387	20.641 ng/ml
		Spiked Amount =	20.0	Recovery = *103.2 %*
γ-BHC-d6	5.983	223.9 -> 187.0	2533370	20.695 ng/ml
		Spiked Amount =	20.0	Recovery = *103.5 %*
Heptachlor-13C10	7.216	276.8 -> 241.8	1037233	20.491 ng/ml
		Spiked Amount =	20.0	Recovery = *102.5 %*
Chorpyrifos-d10	7.640	199.9 -> 171.9	1191336	18.760 ng/ml
		Spiked Amount =	20.0	Recovery = *93.8 %*
Aldrin-13C	7.952	269.8 -> 200.0	897256	19.407 ng/ml
		Spiked Amount =	20.0	Recovery = *97.0 %*
Octachlorostyrene-13C8	8.540	315.8 -> 245.8	680659	20.562 ng/ml
		Spiked Amount =	20.0	Recovery = *102.8 %*
Isodrin-13C12	8.616	199.9 -> 130.1	1036043	20.538 ng/ml
		Spiked Amount =	20.0	Recovery = *102.7 %*
Heptachlor epoxide-13C10	8.805	362.8 -> 270.0	315550	19.564 ng/ml
		Spiked Amount =	20.0	Recovery = *97.8 %*
Oxychlordane-13C10	8.809	190.0 -> 125.0	643125	19.621 ng/ml
		Spiked Amount =	20.0	Recovery = *98.1 %*
Endrin-13C12	11.247	269.8 -> 200.0	301523	18.799 ng/ml
		Spiked Amount =	20.0	Recovery = *94.0 %*
4,4'-DDD d4	11.652	243.0 -> 173.1	1389000	4.456 ng/ml
		Spiked Amount =	5.0	Recovery = *89.1 %*
4,4'-DDT-d4	12.851	243.0 -> 173.1	711562	5.109 ng/ml
		Spiked Amount =	5.0	Recovery = *102.2 %*
Endrin ketone-13C12	13.850	327.9 -> 291.8	40136	20.209 ng/ml
		Spiked Amount =	20.0	Recovery = *101.0 %*
Methoxychlor-d6	14.060	233.0 -> 141.0	1864256	20.260 ng/ml
		Spiked Amount =	20.0	Recovery = *101.3 %*
Mirex-13C10	14.930	276.8 -> 241.8	652083	4.850 ng/ml
		Spiked Amount =	5.0	Recovery = *97.0 %*

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Target Compounds	ISTD	RT	Transition	Resp.	Conc.	Units	Qvalue
α-BHC	γ-BHC-d6(IS)	5.613	181.1 -> 145.1	1755906	9.693	ng/ml	91
Hexachlorobenzene	Hexachlorobenzene-13C6(IS)	5.686	283.8 -> 213.9	1174567	9.731	ng/ml	98
β-BHC	γ-BHC-d6(IS)	5.890	181.1 -> 145.1	2199061	9.595	ng/ml	96
γ-BHC(Lindane)	γ-BHC-d6(IS)	6.037	181.1 -> 145.1	2555092	9.642	ng/ml	98
δ-BHC	γ-BHC-d6(IS)	6.404	181.1 -> 145.1	1013099	9.592	ng/ml	100
Heptachlor	Heptachlor-13C10(IS)	7.230	271.7 -> 236.9	568225	9.451	ng/ml	86
Chorpyrifos	Chorpyrifos-d10(IS)	7.725	196.9 -> 169.0	743256	8.838	ng/ml	100
Aldrin	Aldrin-13C(IS)	7.962	254.9 -> 220.0	365651	10.139	ng/ml	92
Octachlorostyrene	Octachlorostyrene-13C8(IS)	8.549	342.8 -> 307.8	850241	9.706	ng/ml	97
Isodrin	Isodrin-13C12(IS)	8.633	193.0 -> 123.0	510155	9.597	ng/ml	93
Heptachlor epoxide	Heptachlor epoxide-13C10(IS)	8.823	352.8 -> 262.9	179378	9.989	ng/ml	96
Oxychlordane	Oxychlordane-13C10(IS)	8.826	114.9 -> 51.1	871527	10.023	ng/ml	100
γ-Chlordane(trans)	Oxychlordane-13C10(IS)	9.430	271.8 -> 236.9	297887	9.613	ng/ml	99
2,4'-DDE	4,4'-DDD d4(IS)	9.440	246.0 -> 176.2	2738381	10.370	ng/ml	95
α-Chlordane(cis)	Oxychlordane-13C10(IS)	9.788	271.8 -> 236.9	750032	9.688	ng/ml	96
Endosulfan I	Endrin-13C12(IS)	9.812	206.9 -> 172.0	182381	9.649	ng/ml	98
trans-Nanochlor	Oxychlordane-13C10(IS)	9.862	271.8 -> 236.9	500271	10.041	ng/ml	97
4,4' -DDE	4,4'-DDD d4(IS)	10.365	246.0 -> 176.2	2171922	8.972	ng/ml	96
2,4'-DDD	4,4'-DDD d4(IS)	10.577	235.0 -> 165.1	2618942	8.762	ng/ml	99
Dieldrin	Endrin-13C12(IS)	10.594	262.9 -> 193.0	211677	9.204	ng/ml	91
Endosulfan II	Endrin-13C12(IS)	11.260	206.9 -> 172.0	57807	9.956	ng/ml	96
Endrin	Endrin-13C12(IS)	11.264	262.8 -> 193.0	195177	9.432	ng/ml	98
4,4'-DDD	4,4'-DDD d4(IS)	11.733	235.0 -> 165.1	4474027	9.974	ng/ml	99
cis-Nonachlor	Oxychlordane-13C10(IS)	11.756	271.8 -> 236.9	179021	9.485	ng/ml	86
2,4'-DDT	4,4'-DDT-d4(IS)	11.834	235.0 -> 165.1	2849701	8.932	ng/ml	95
Endrin aldehyde	Endrin-13C12(IS)	12.097	249.9 -> 214.9	55756	9.552	ng/ml	99
Endosulfan sulfate	Endrin-13C12(IS)	12.804	271.9 -> 237.0	357163	10.083	ng/ml	96
4,4'-DDT	4,4'-DDT-d4(IS)	12.916	235.0 -> 165.1	1616493	9.818	ng/ml	97
Endrin ketone	Endrin ketone-13C12(IS)	13.861	147.0 -> 111.0	131223	9.288	ng/ml	91
Methoxychlor	Methoxychlor-d6(IS)	14.101	227.0 -> 141.1	1079319	9.073	ng/ml	95
Mirex	Mirex-13C10(IS)	14.943	271.8 -> 236.8	1453733	10.097	ng/ml	95

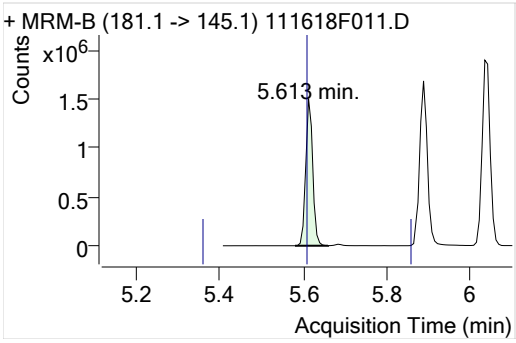
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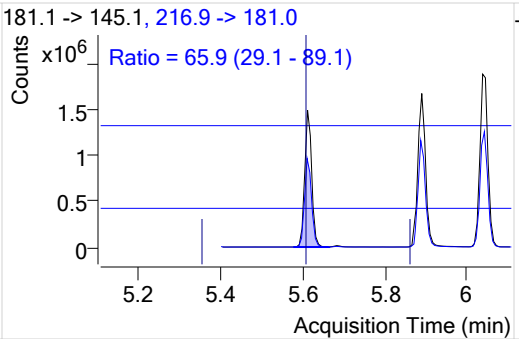
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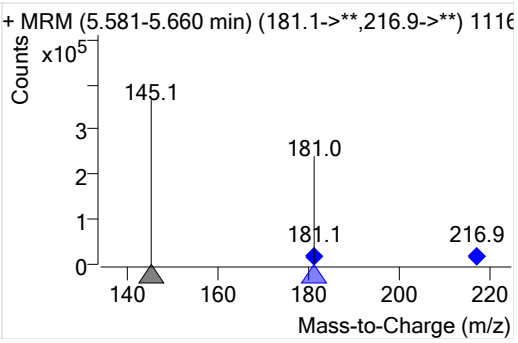


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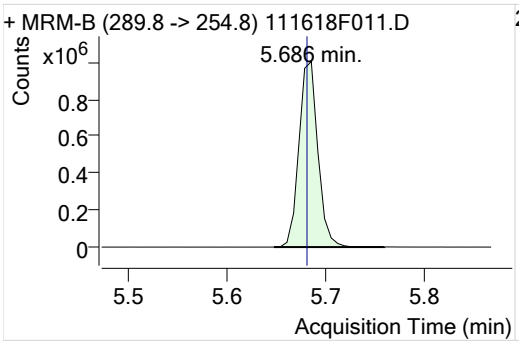
α-BHC

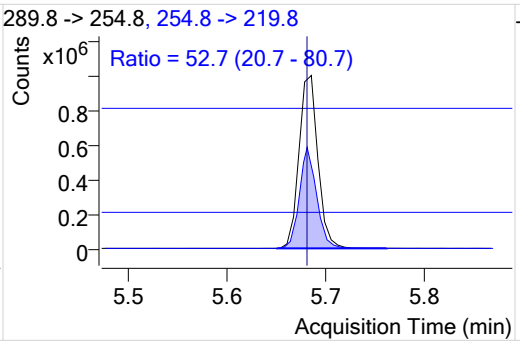


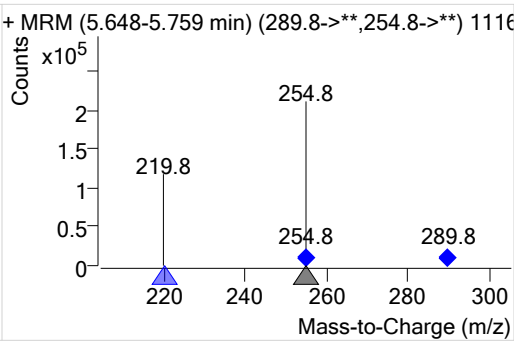




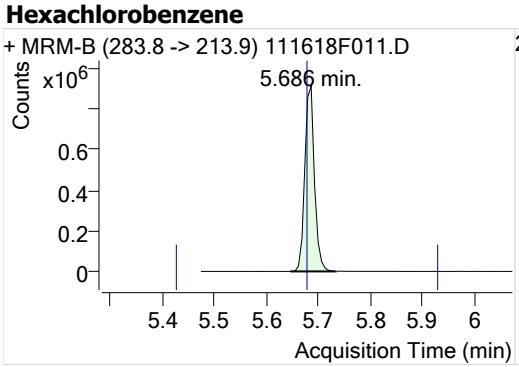
Hexachlorobenzene-13C6

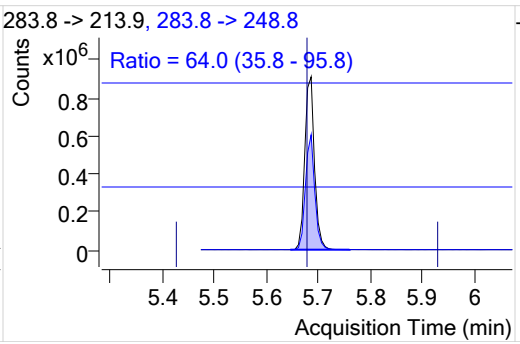


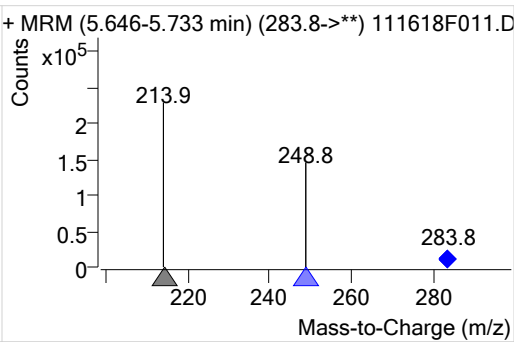




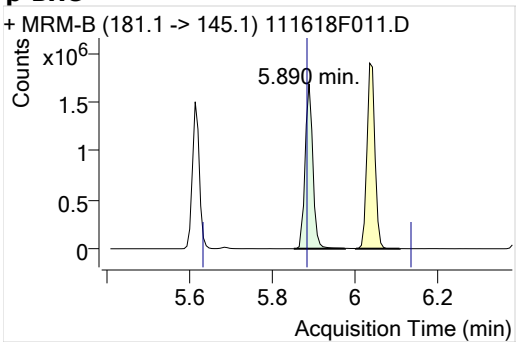
Hexachlorobenzene

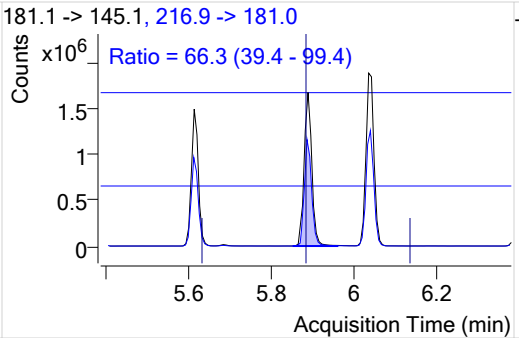


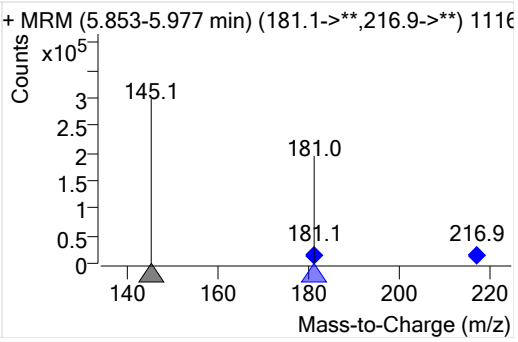




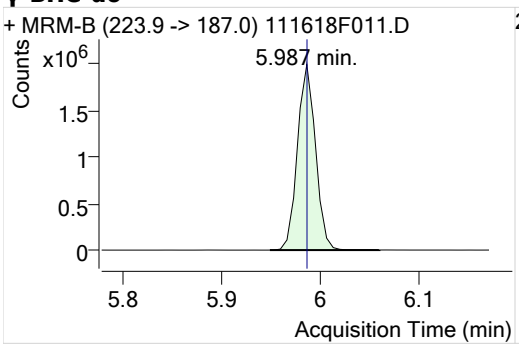
β-BHC

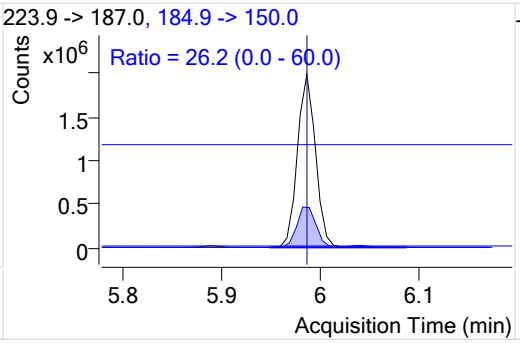


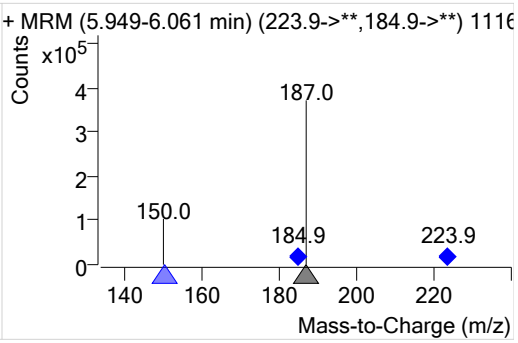




γ-BHC-d6

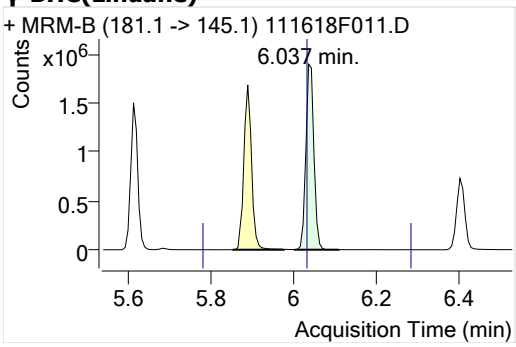


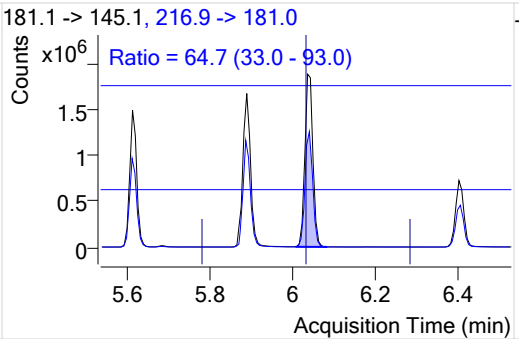


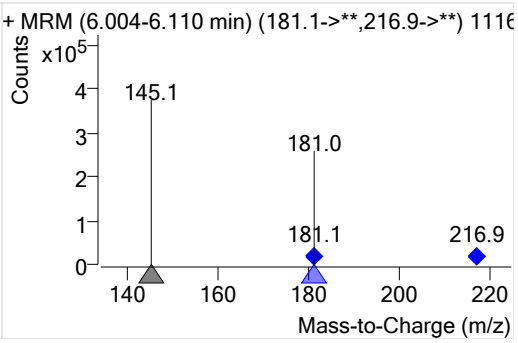


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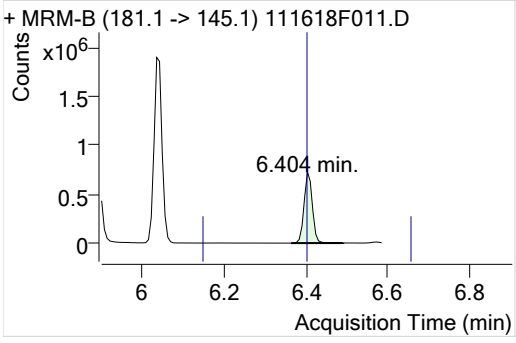
γ-BHC(Lindane)

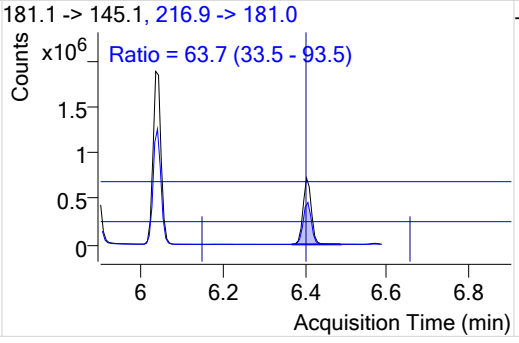


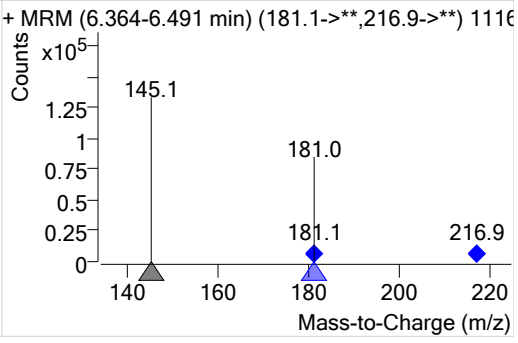




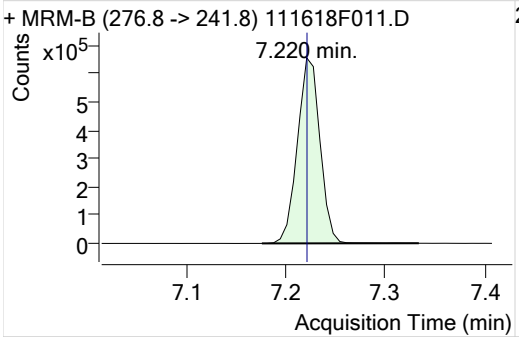
δ-BHC

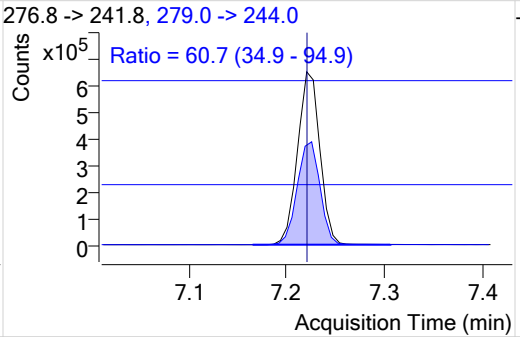


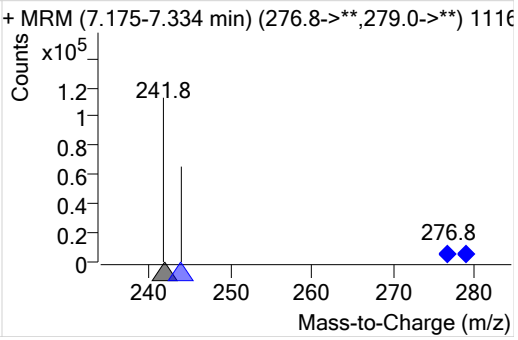




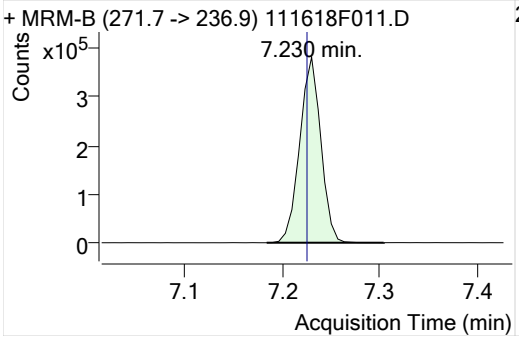
Heptachlor-13C10

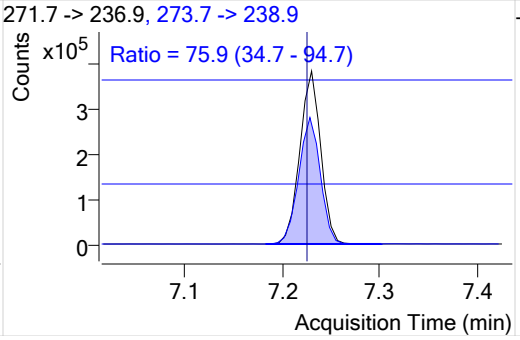


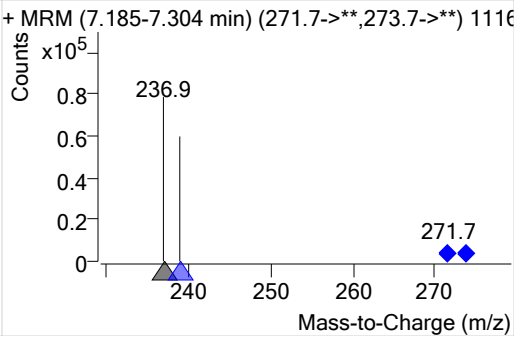




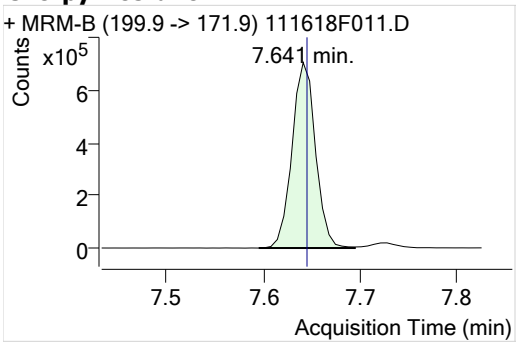
Heptachlor

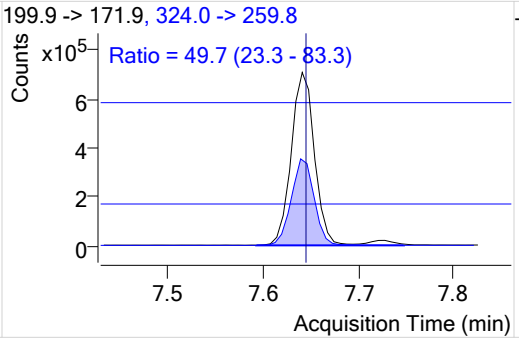


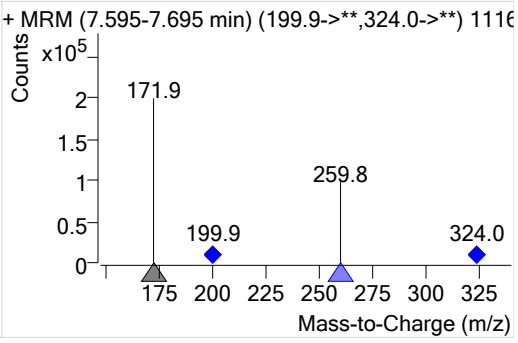




Chorpyrifos-d10

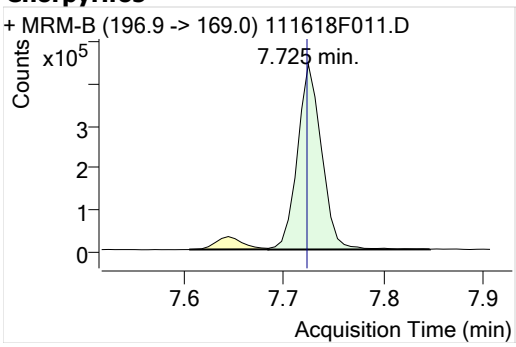


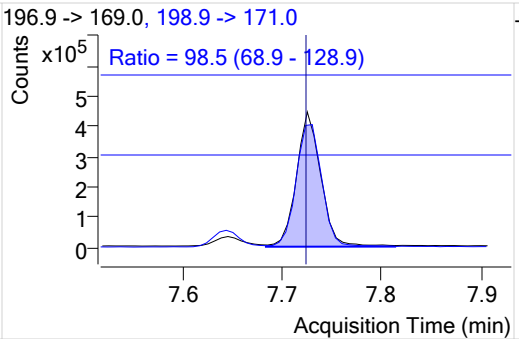


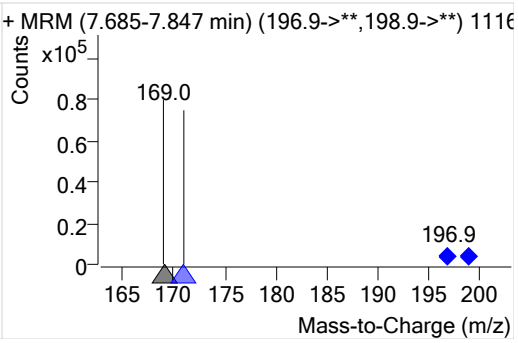


Quantitative Analysis Sample Report

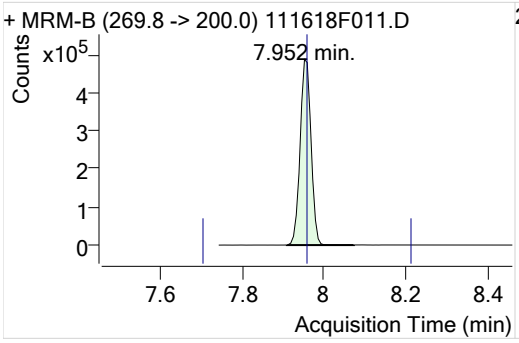
Chorpyrifos

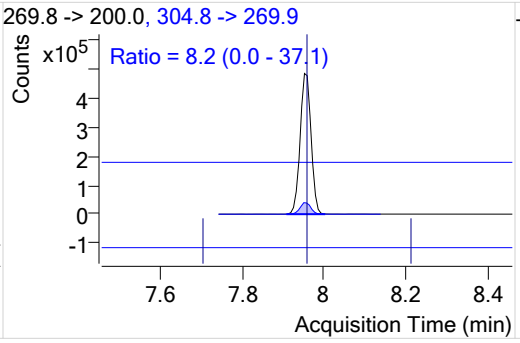


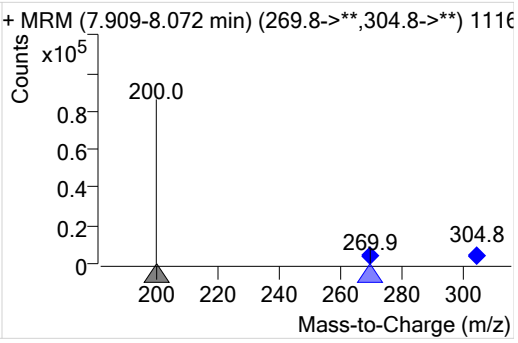




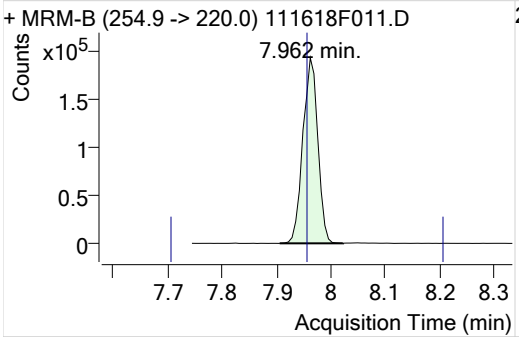
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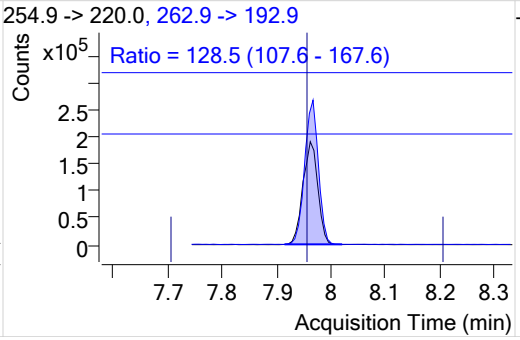


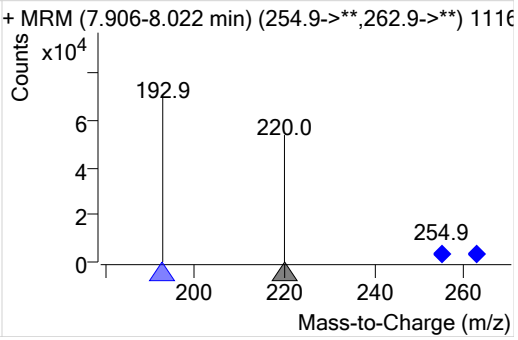




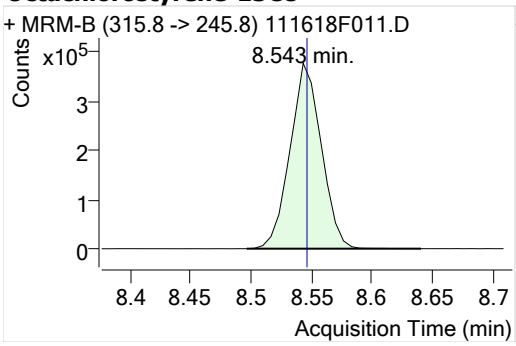
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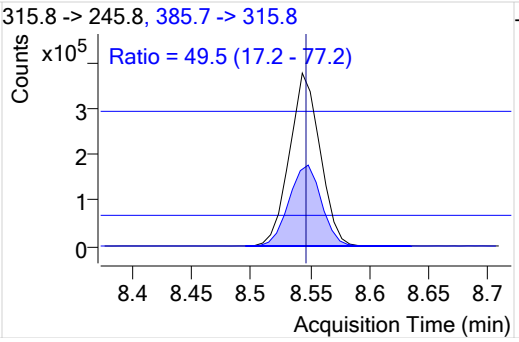


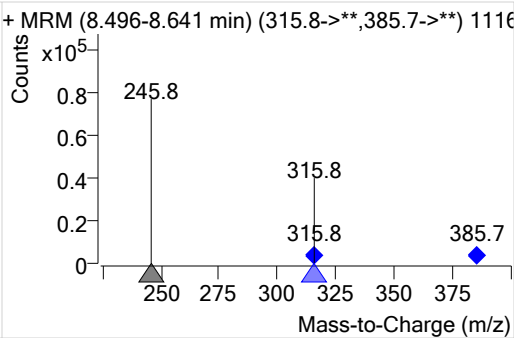




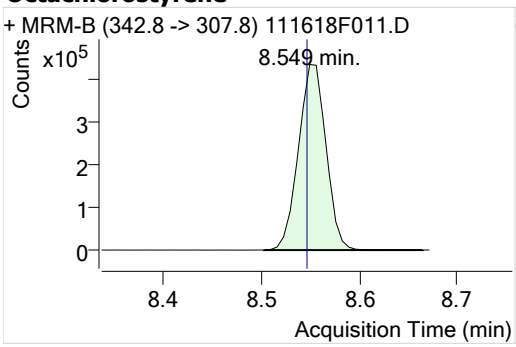
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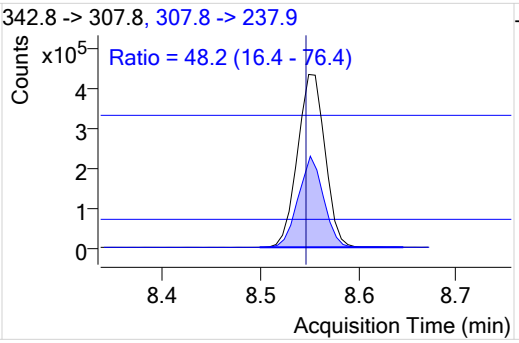


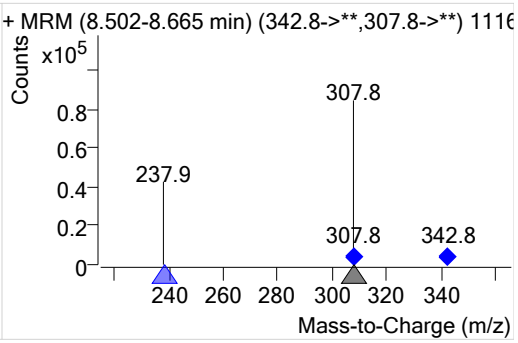




Octachlorostyrene

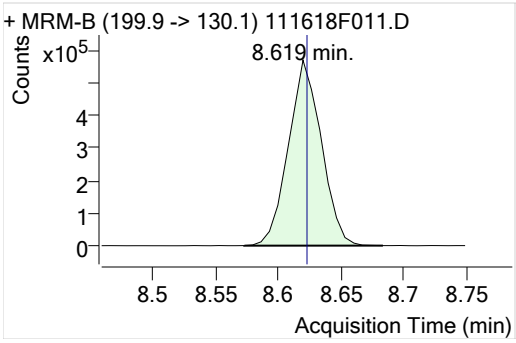


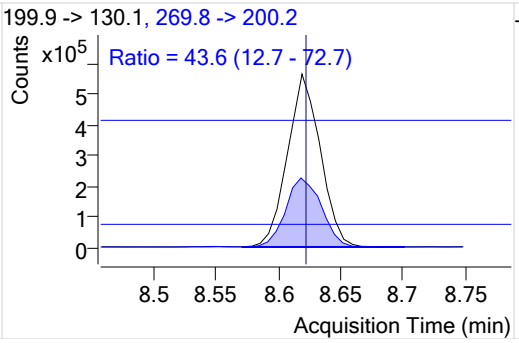


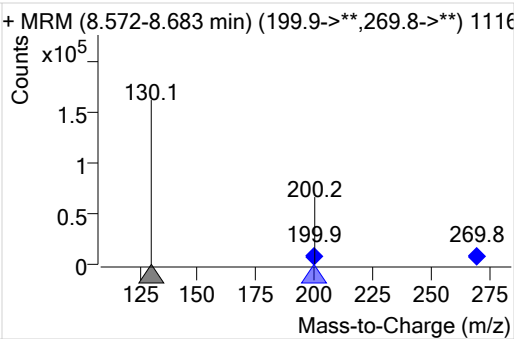


Quantitative Analysis Sample Report

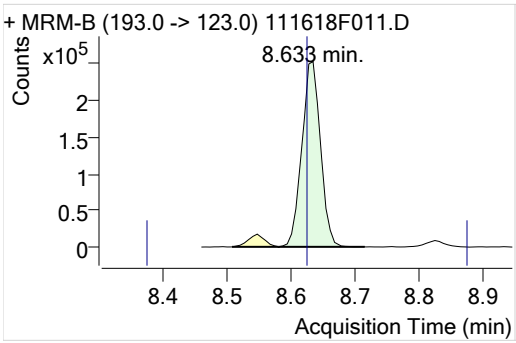
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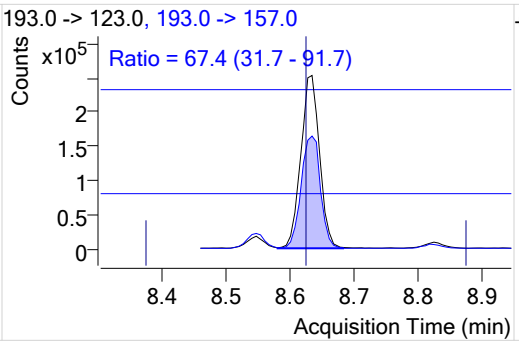


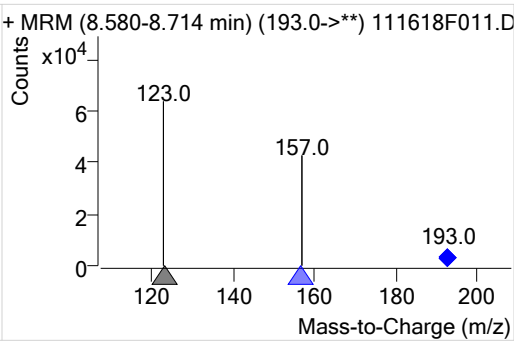




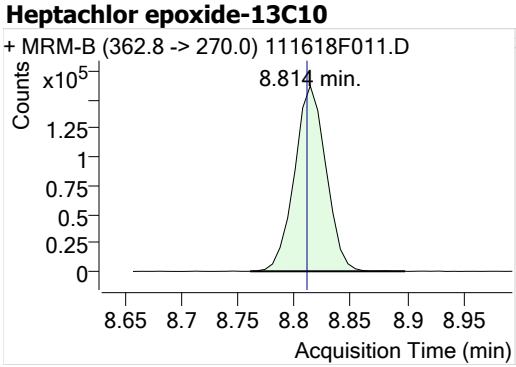
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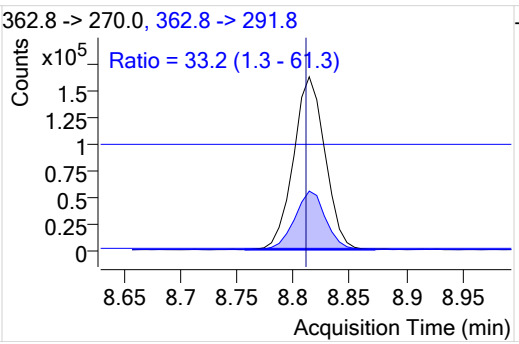


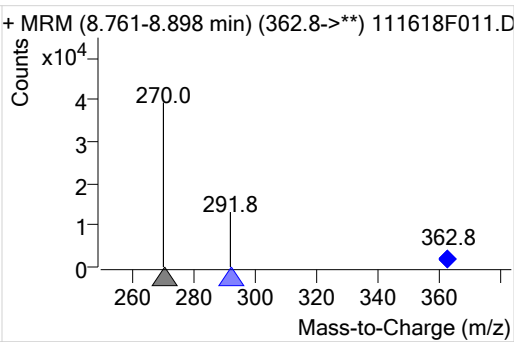




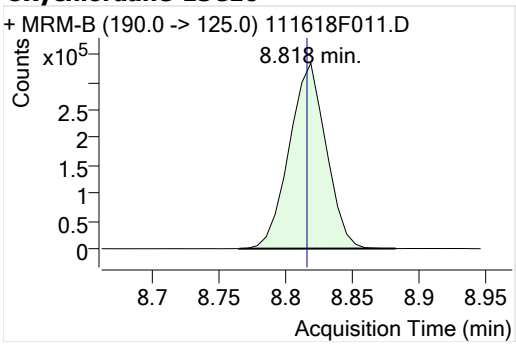
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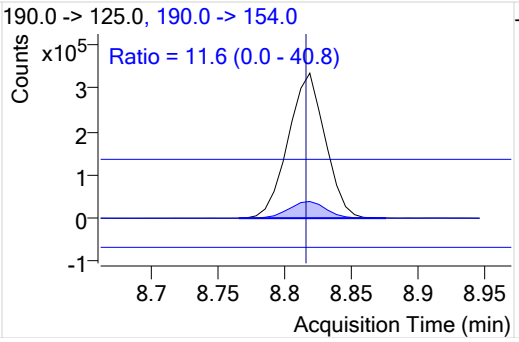


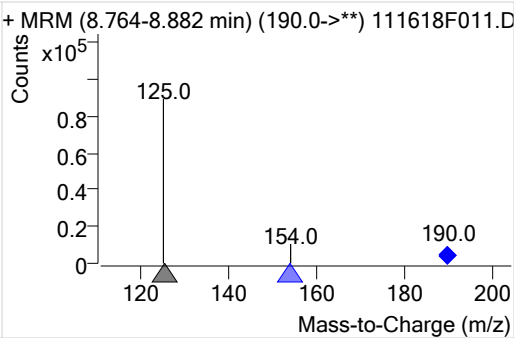




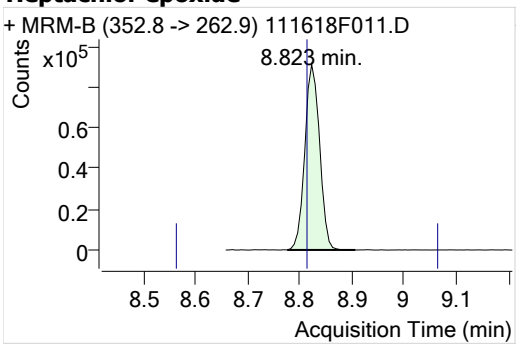
Oxychlordane-13C10

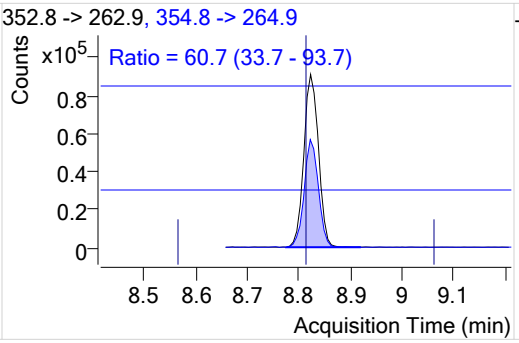


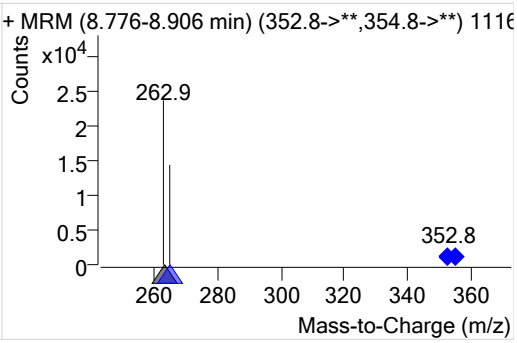




Heptachlor epoxide

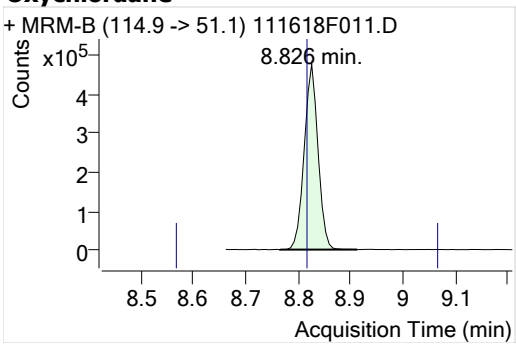


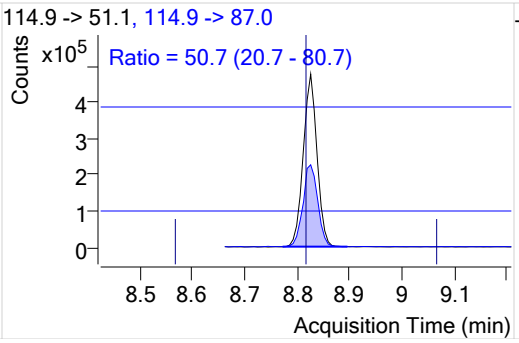


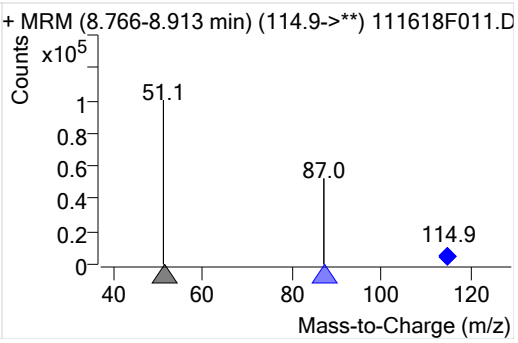


Quantitative Analysis Sample Report

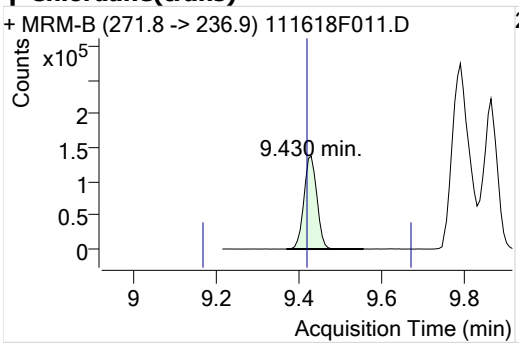
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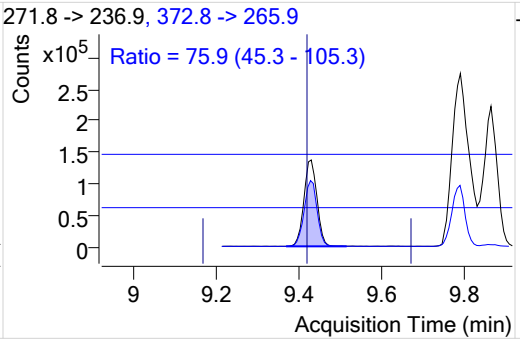


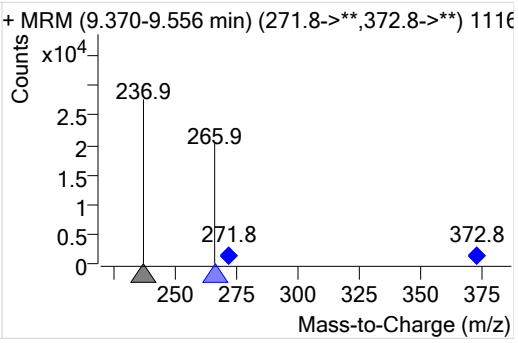




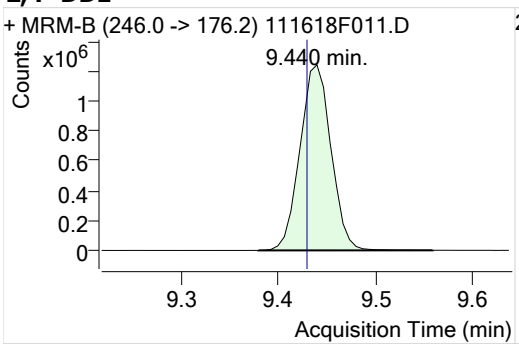
γ-Chlordane(trans)

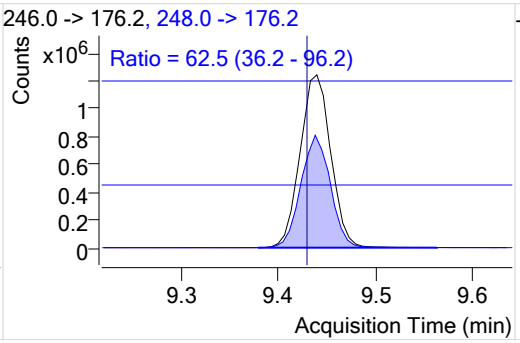


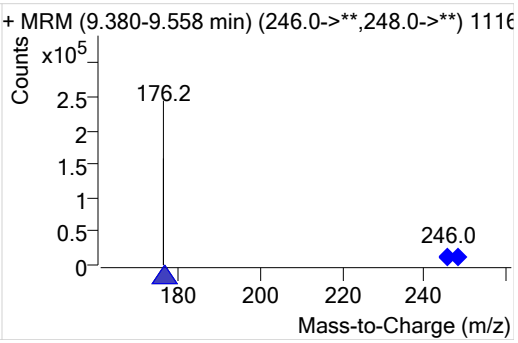




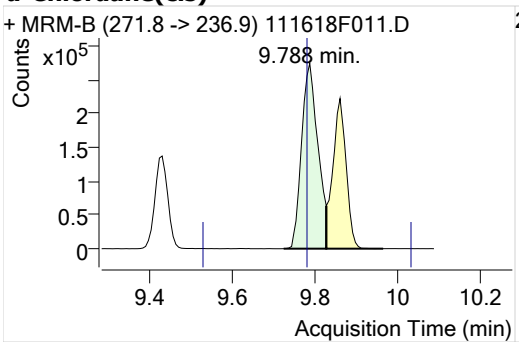
2,4'-DDE

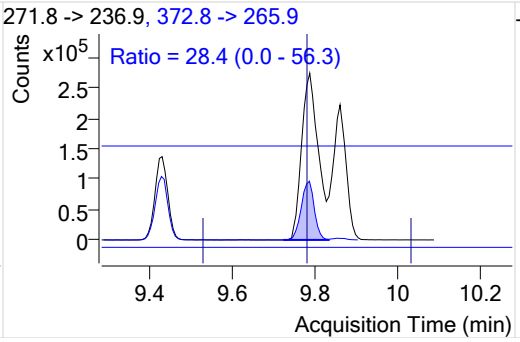


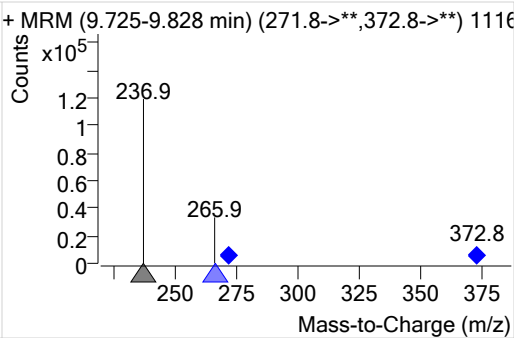




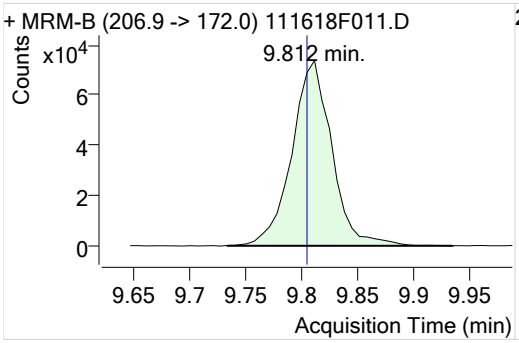
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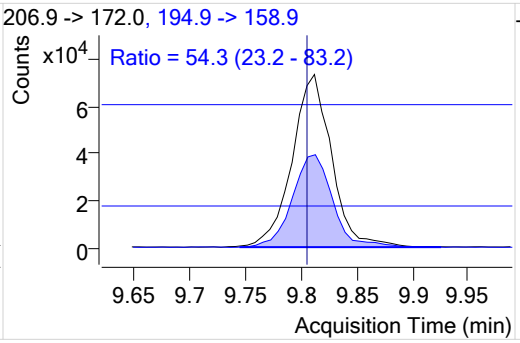


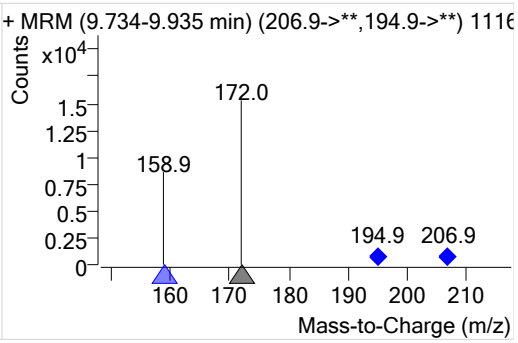




Endosulfan I

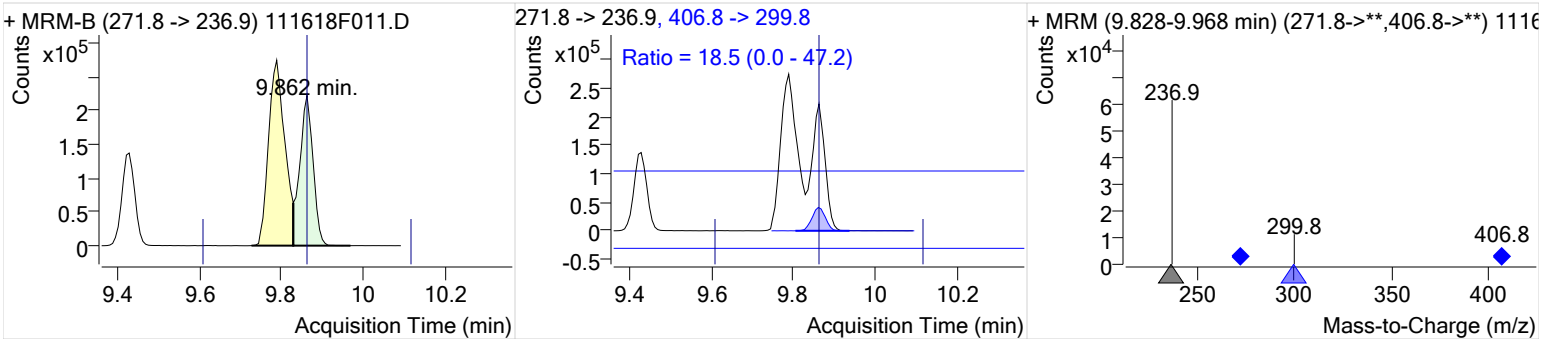




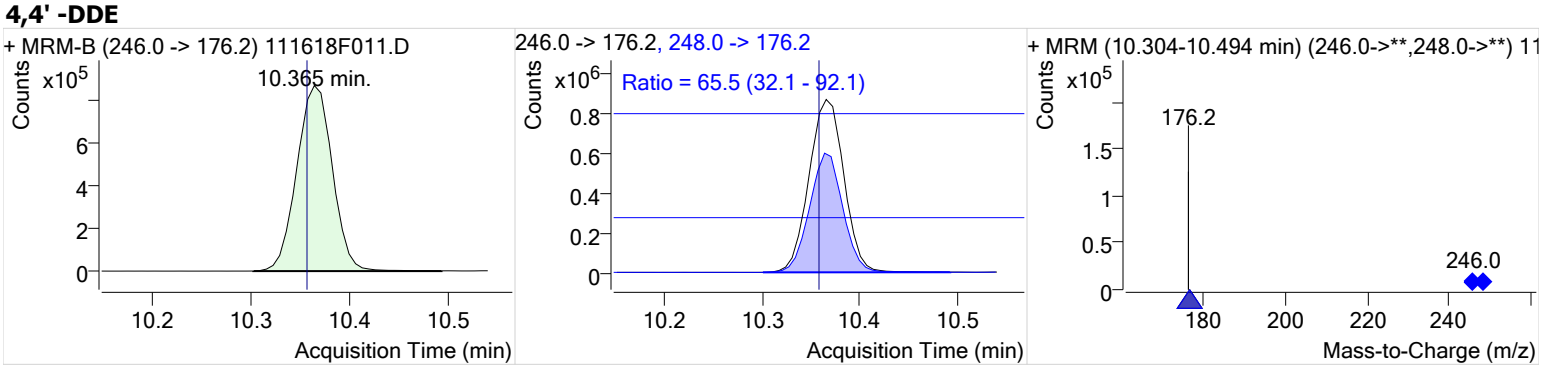


Quantitative Analysis Sample Report

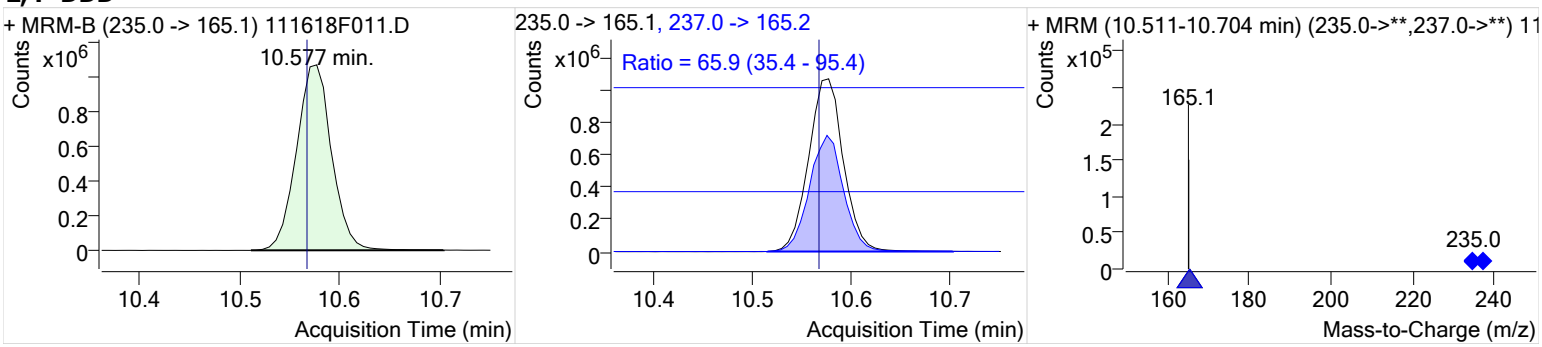
trans-Nanochlor



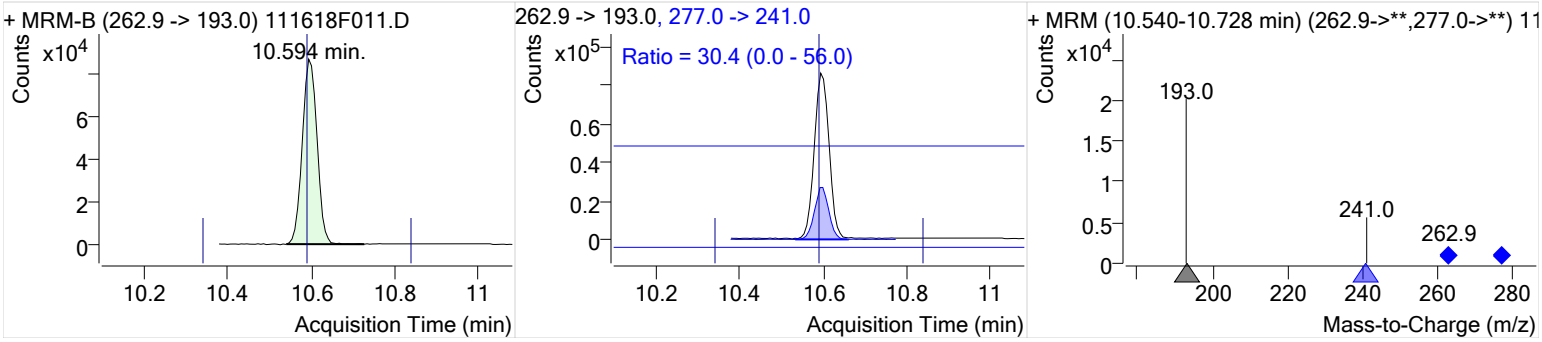
4,4' -DDE



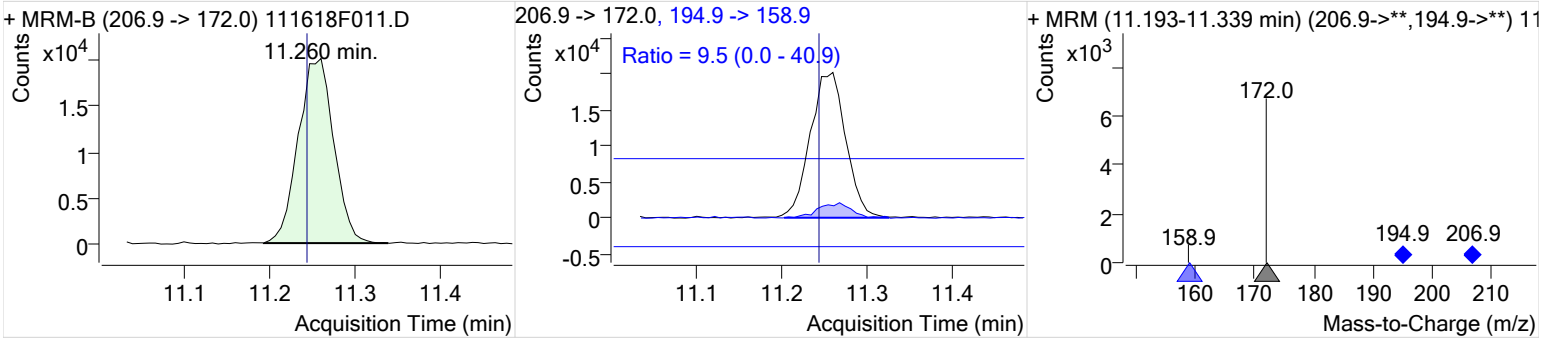
2,4'-DDD



Dieldrin

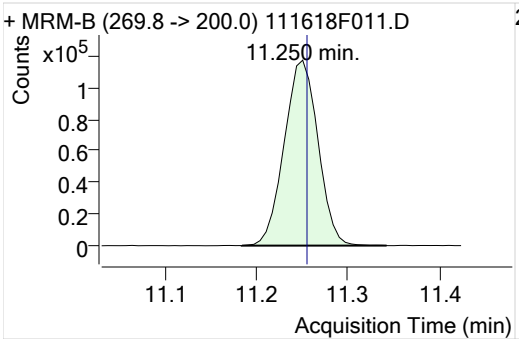


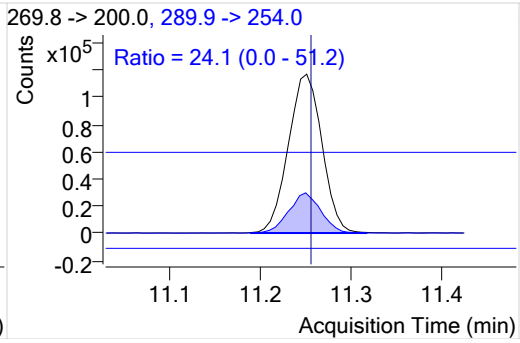
Endosulfan II

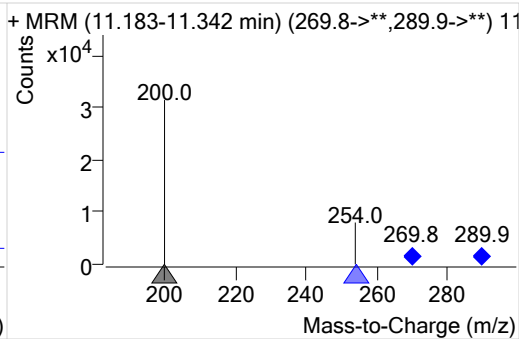


Quantitative Analysis Sample Report

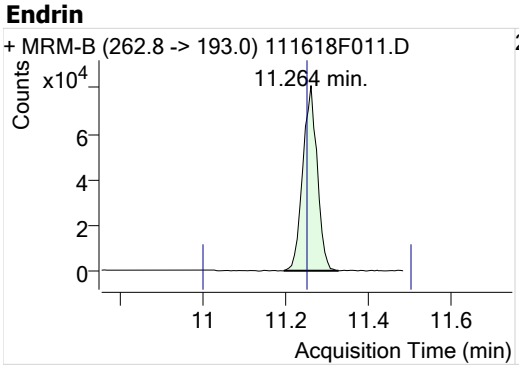
Endrin-13C12

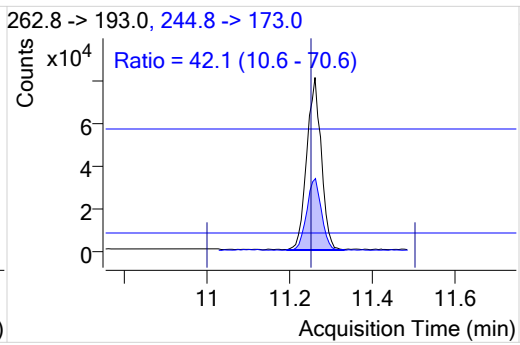


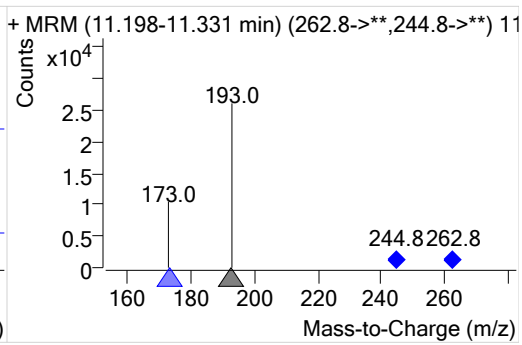




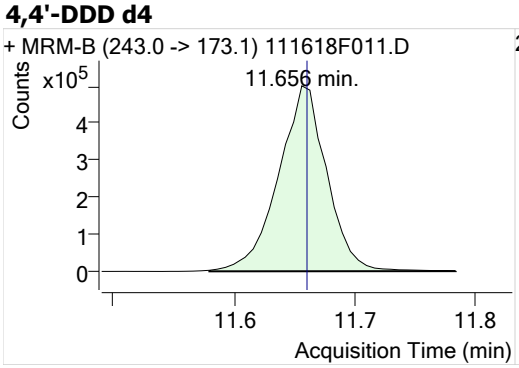
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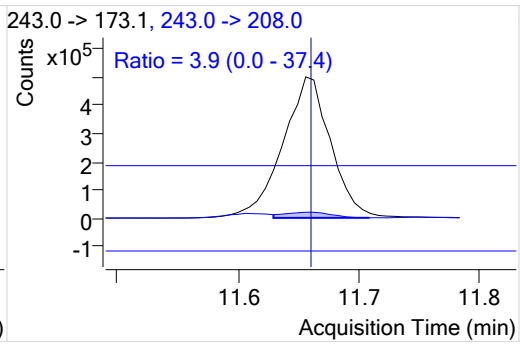


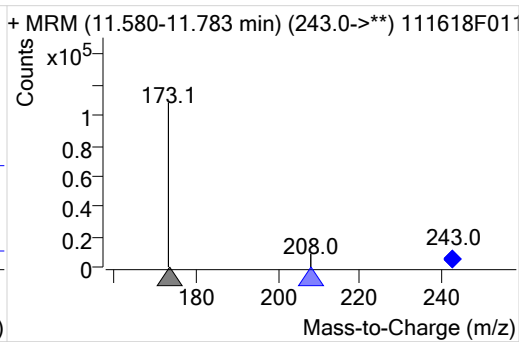




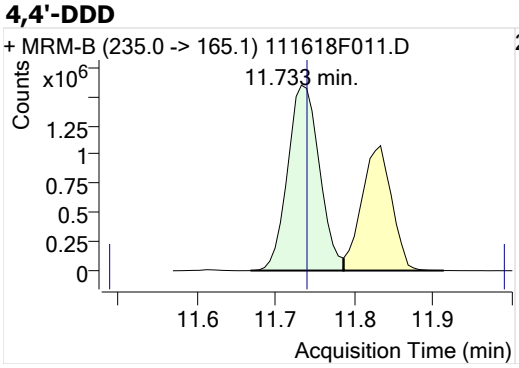
4,4'-DDD d4

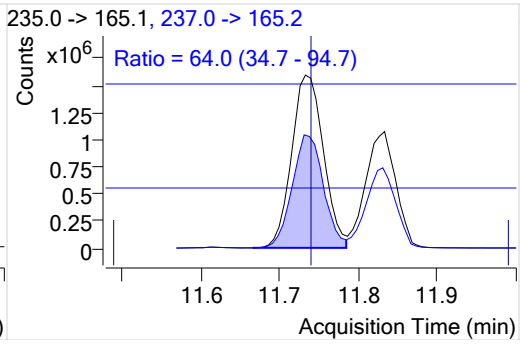


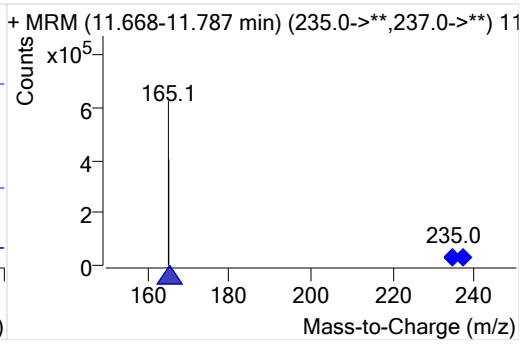




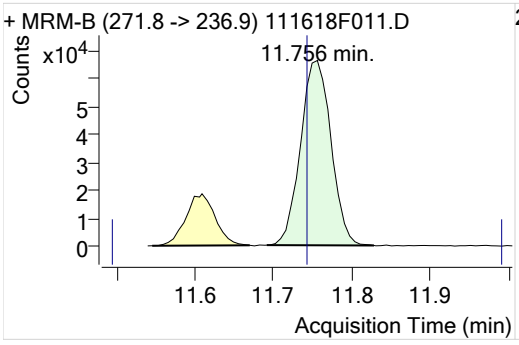
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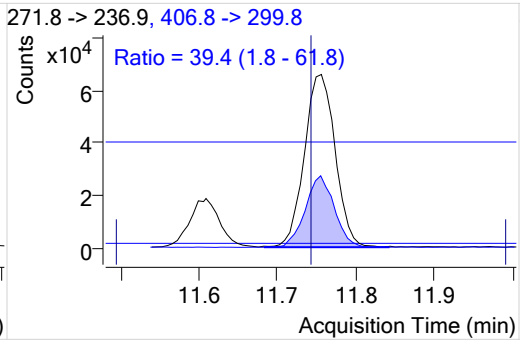


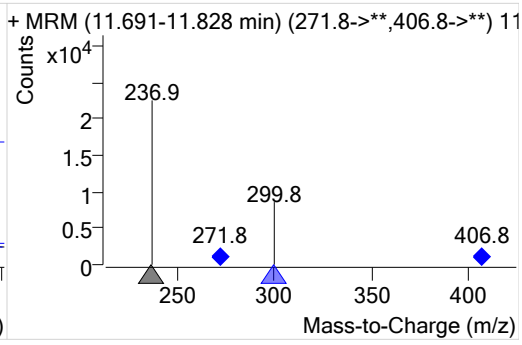




cis-Nonachlor

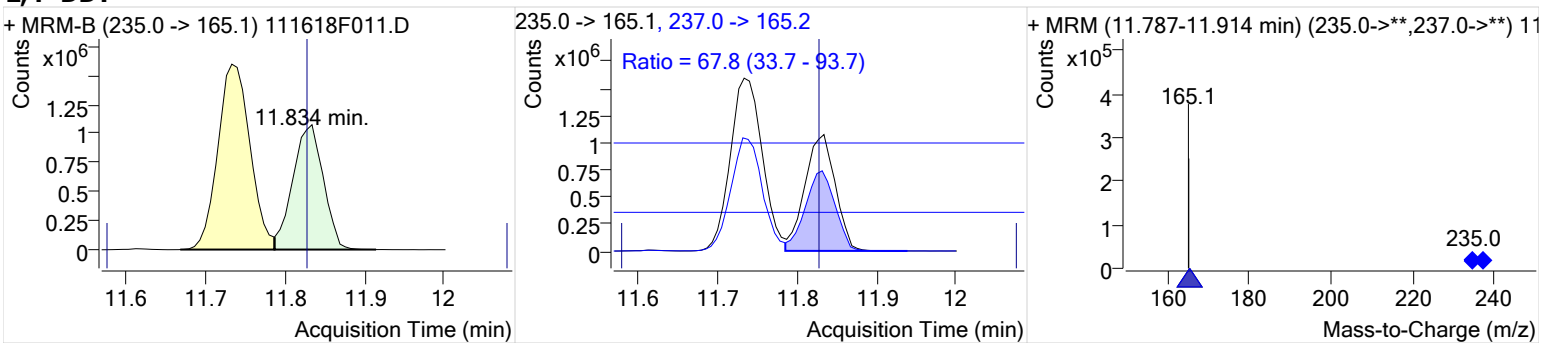




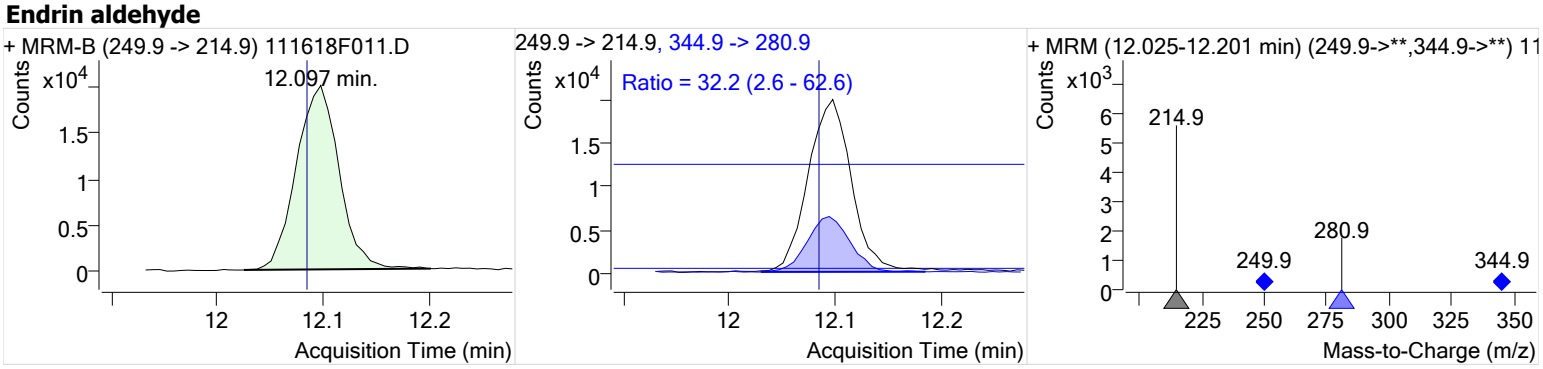


Quantitative Analysis Sample Report

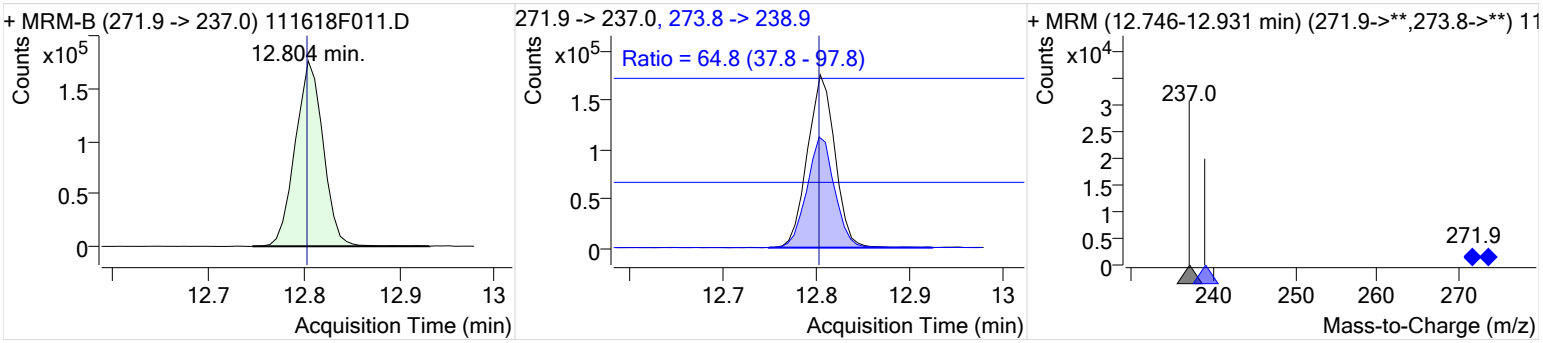
2,4'-DDT



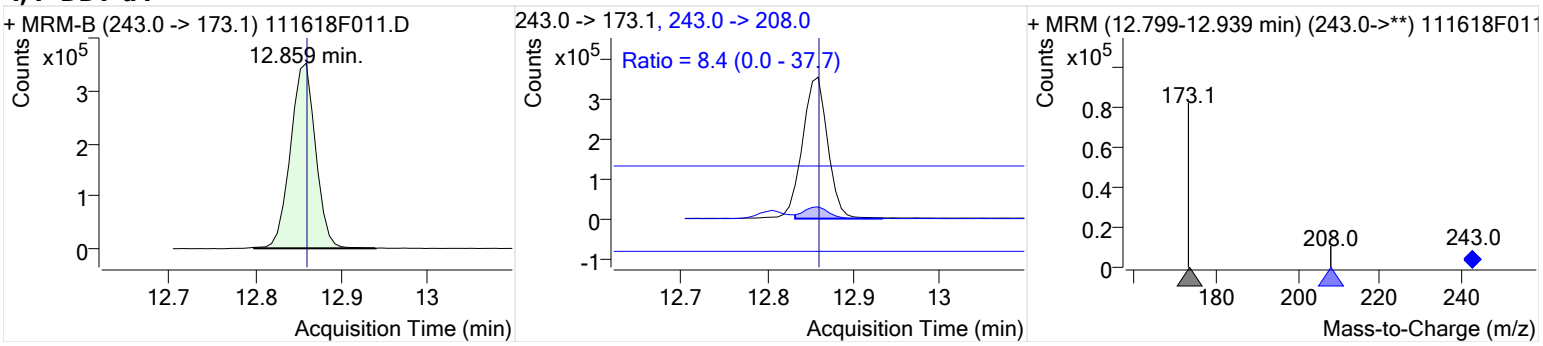
Endrin aldehyde



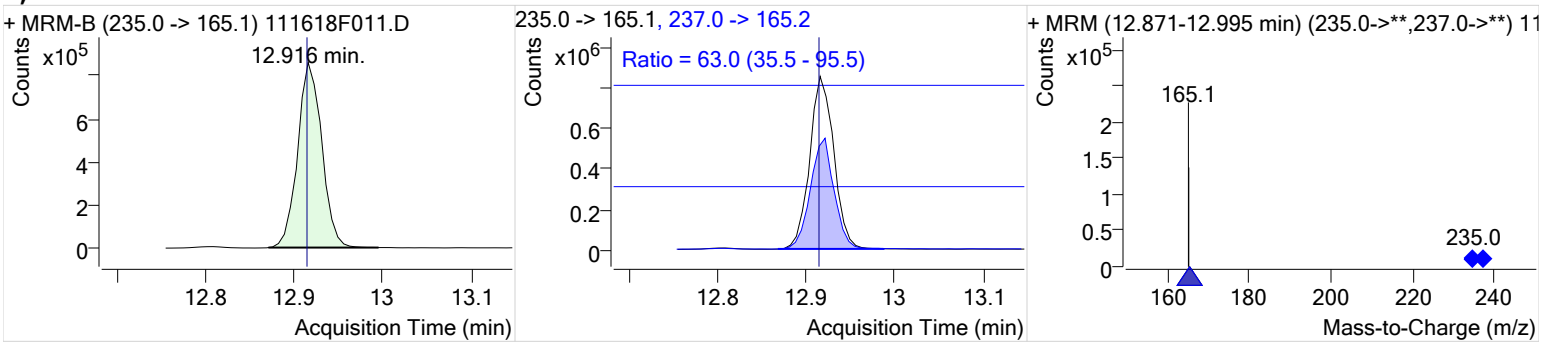
Endosulfan sulfate



4,4'-DDT-d4

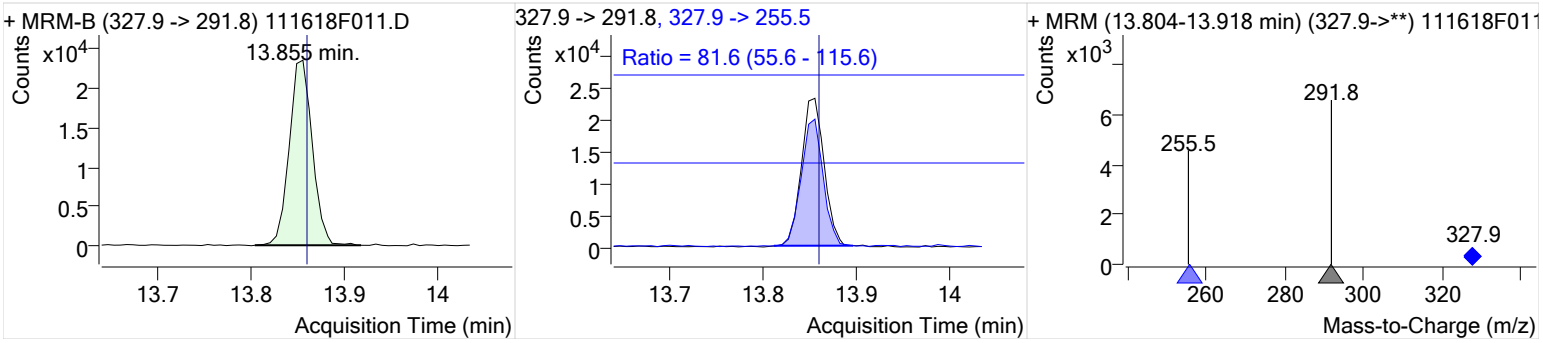


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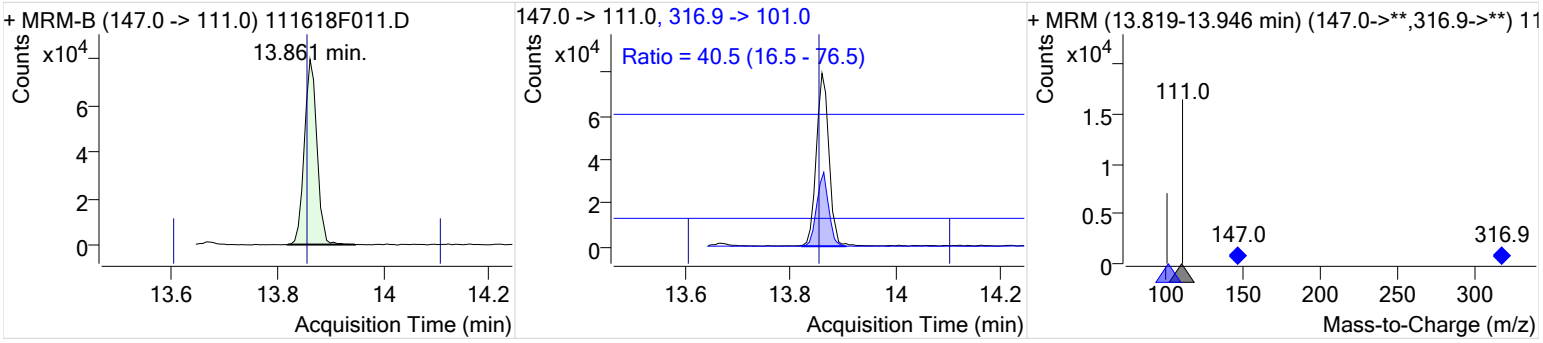


Quantitative Analysis Sample Report

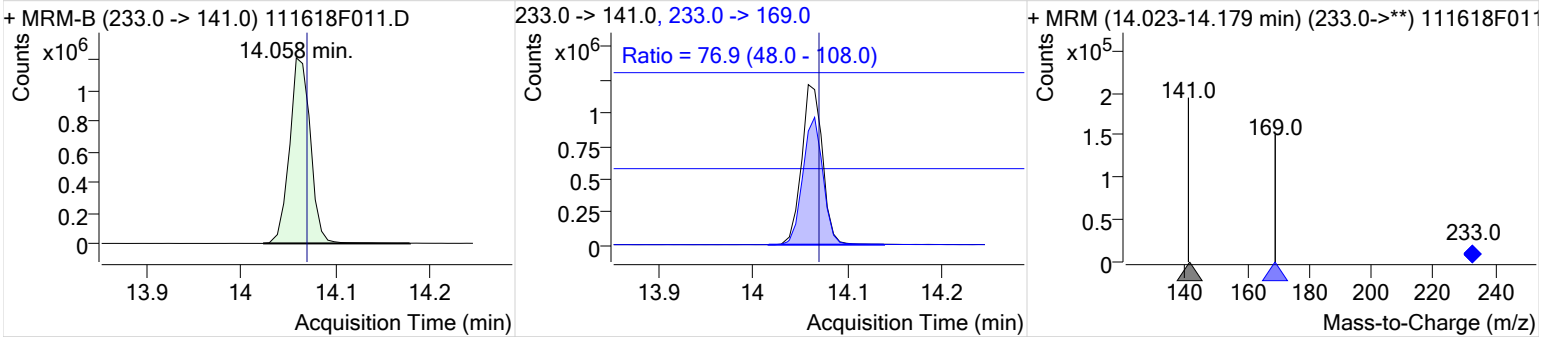
Endrin ketone-13C12



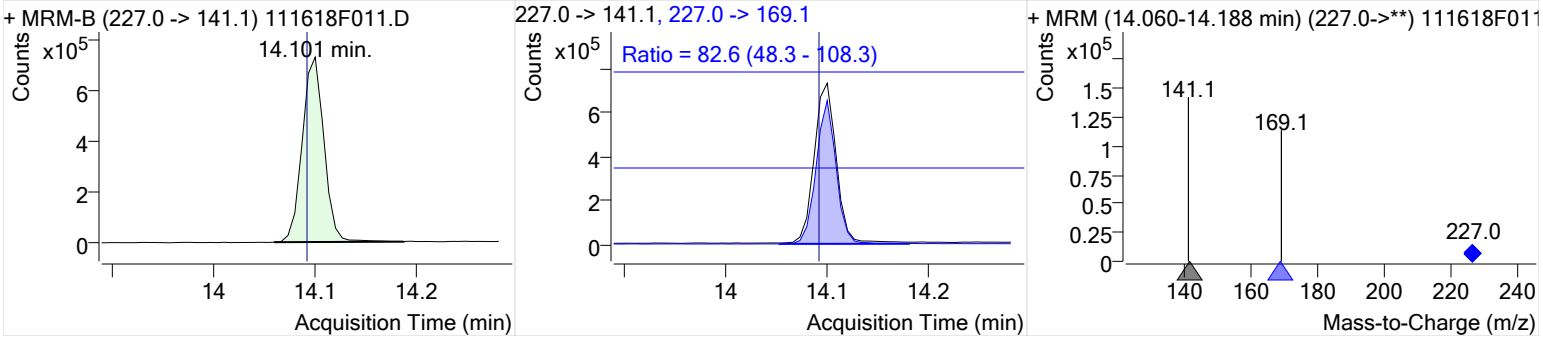
Endrin ketone



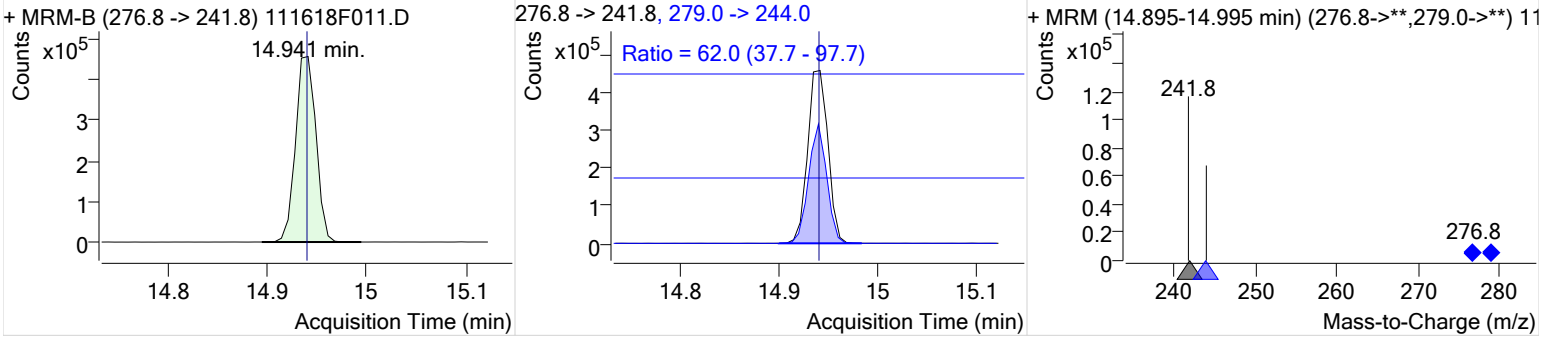
Methoxychlor-d6



Methoxychlor

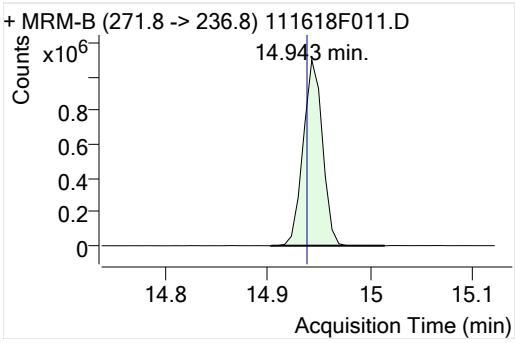


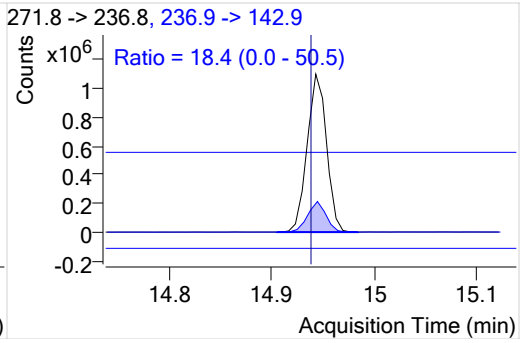
Mirex-13C10

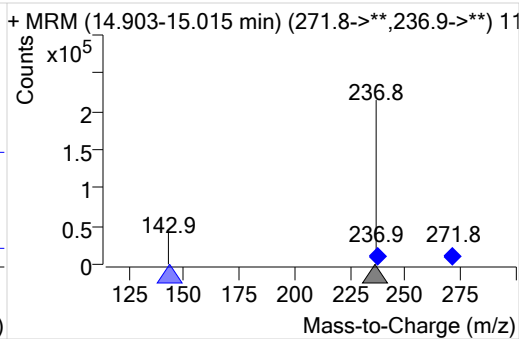


Quantitative Analysis Sample Report

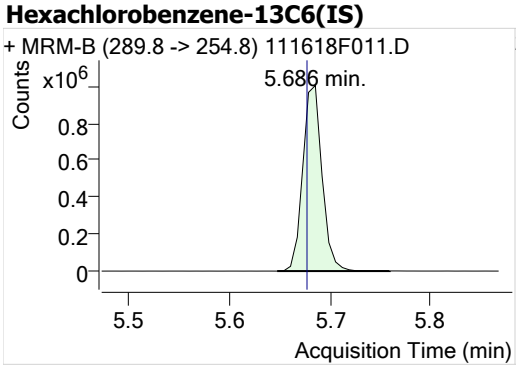
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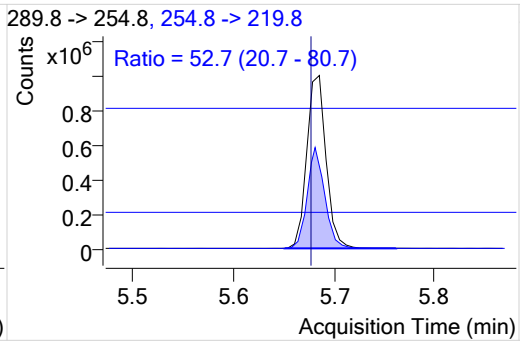


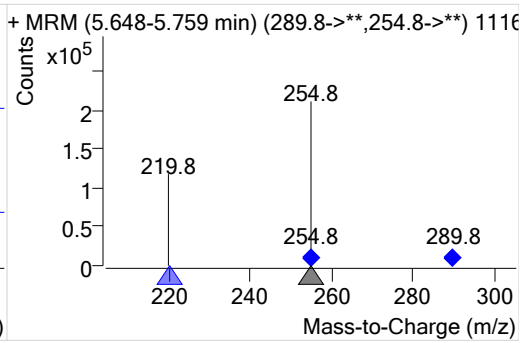




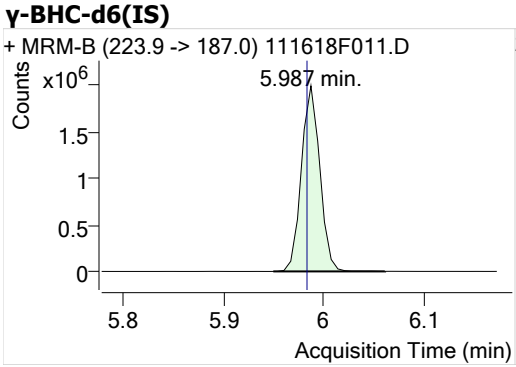
Hexachlorobenzene-13C6(IS)

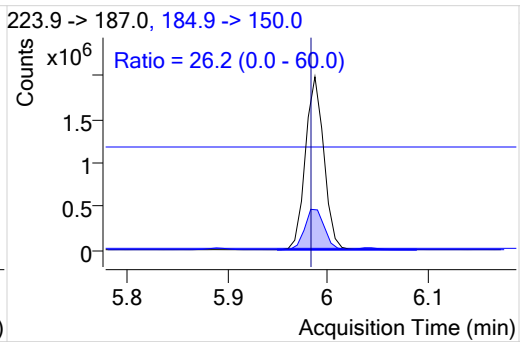


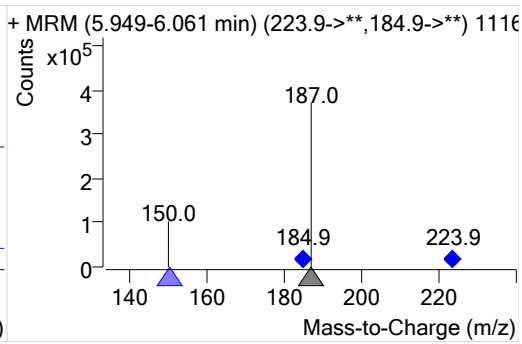




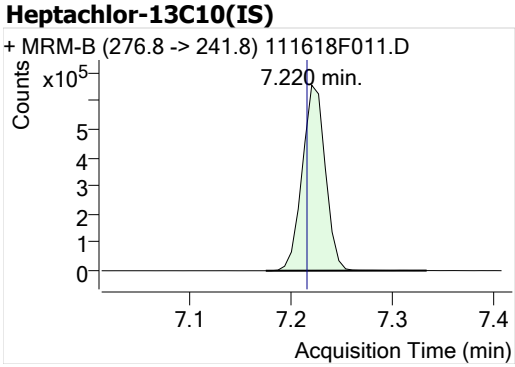
γ-BHC-d6(IS)

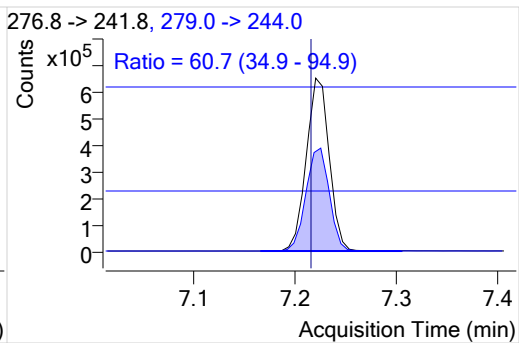


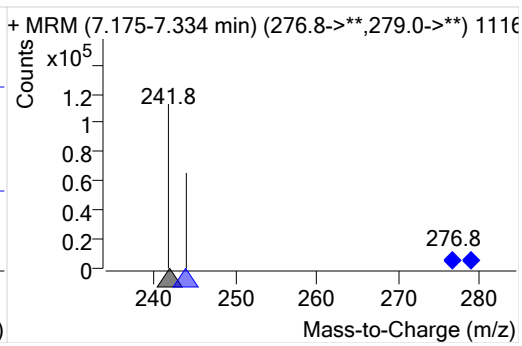




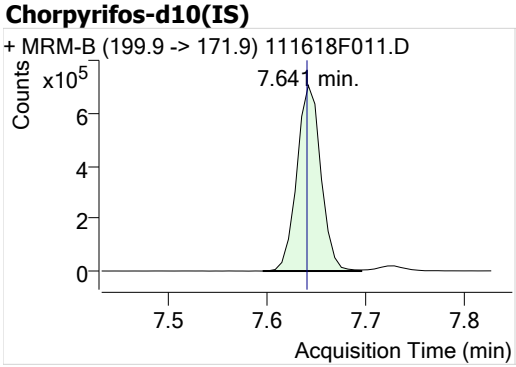
Heptachlor-13C10(IS)

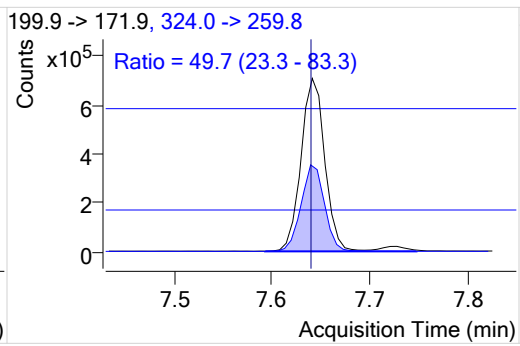


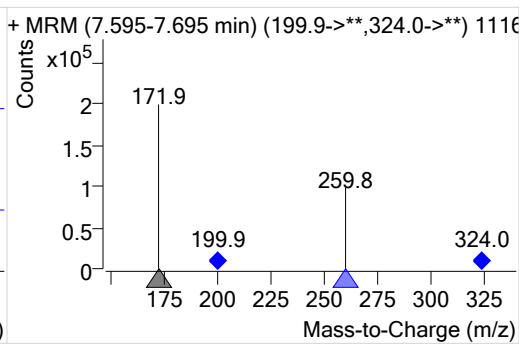




Chorpyrifos-d10(IS)

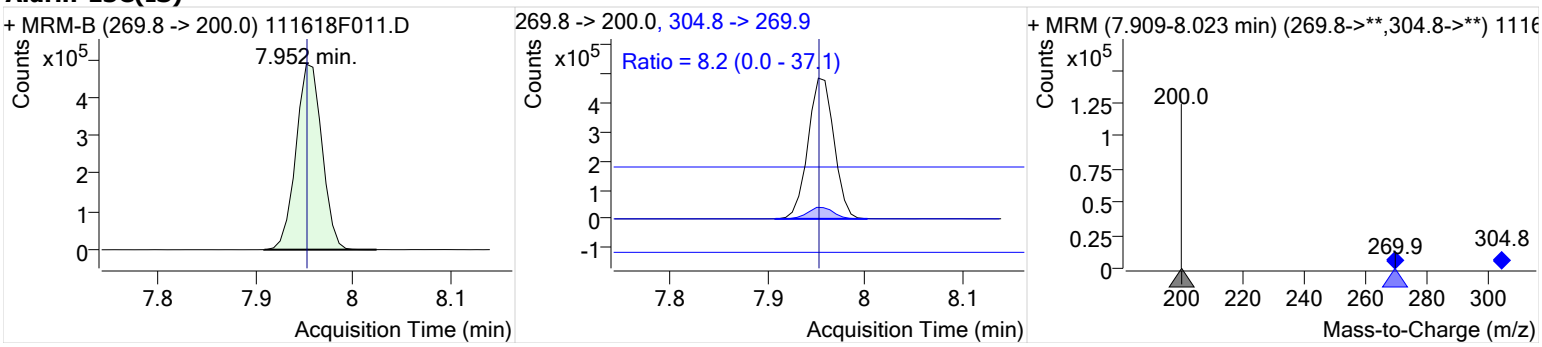




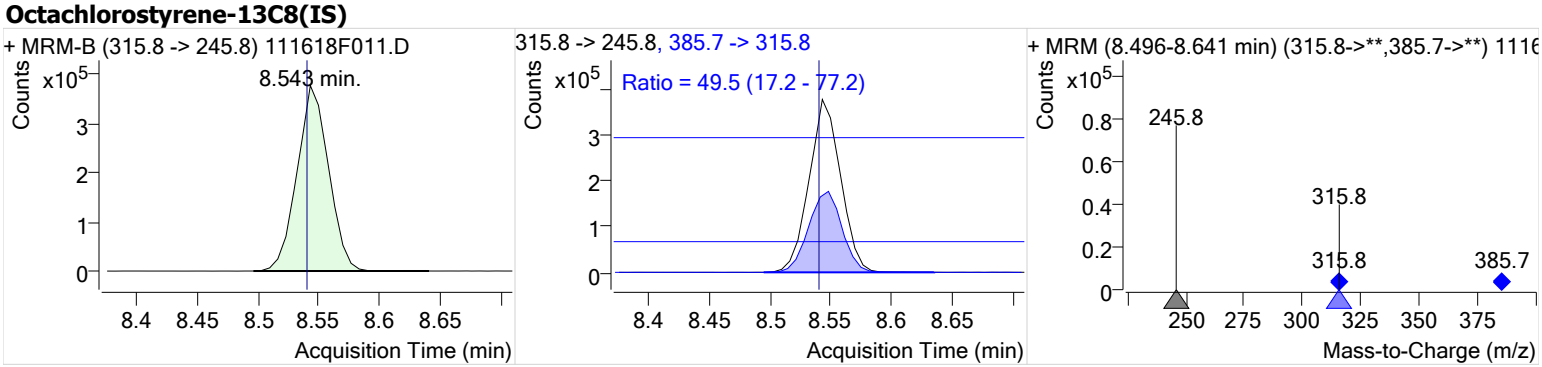


Quantitative Analysis Sample Report

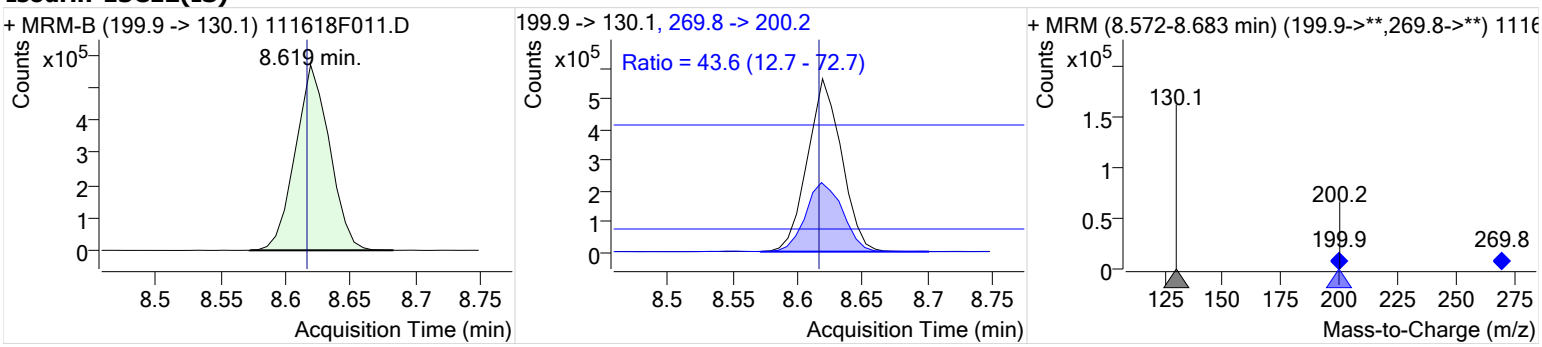
Aldrin-13C(IS)



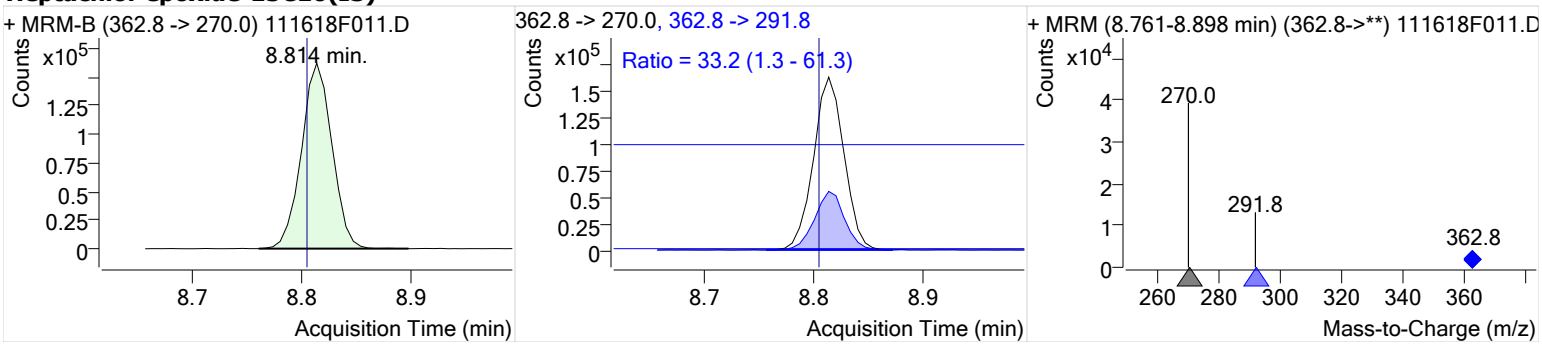
Octachlorostyrene-13C8(IS)



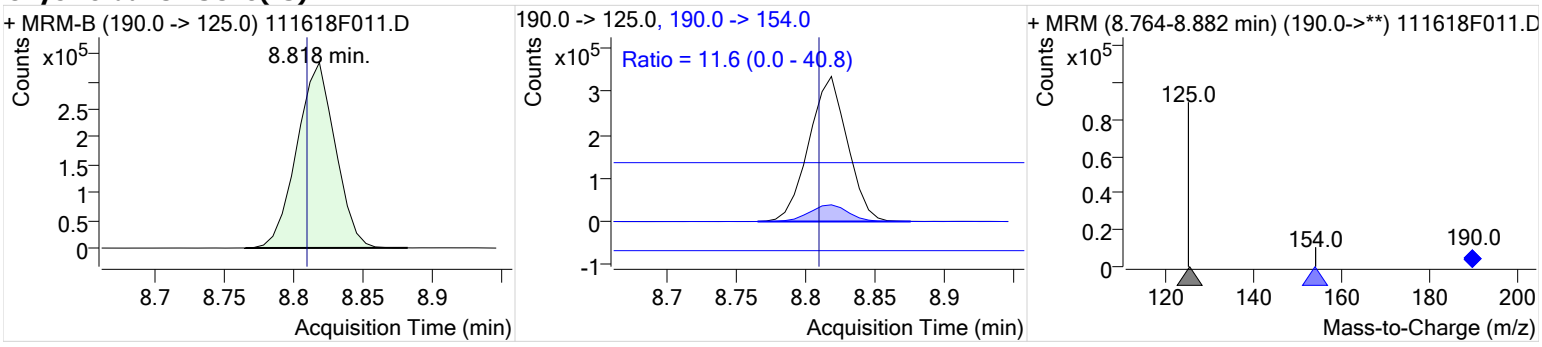
Isodrin-13C12(IS)



Heptachlor epoxide-13C10(IS)

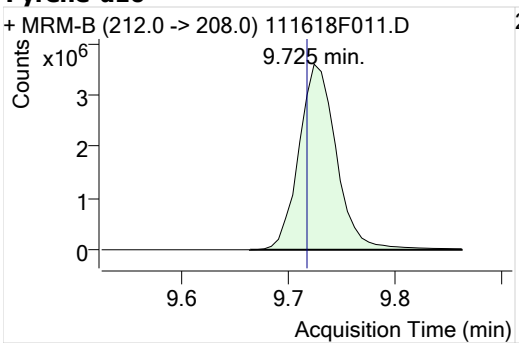


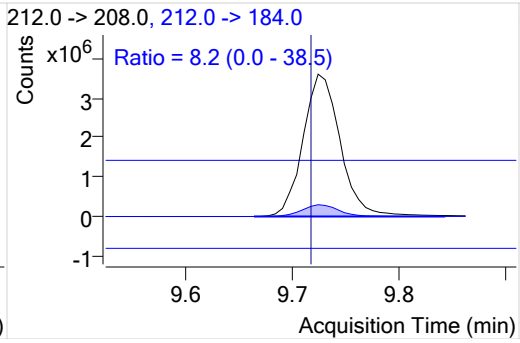
Oxychlordane-13C10(IS)

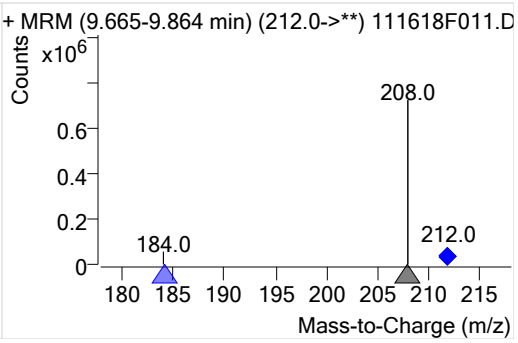


Quantitative Analysis Sample Report

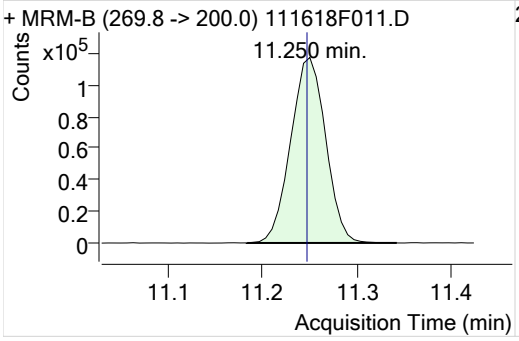
Pyrene-d10

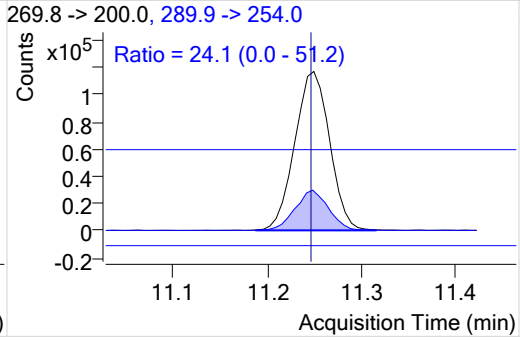


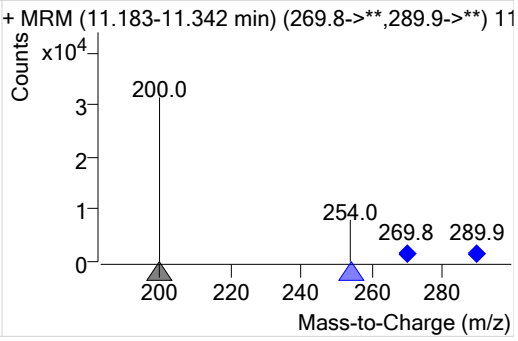




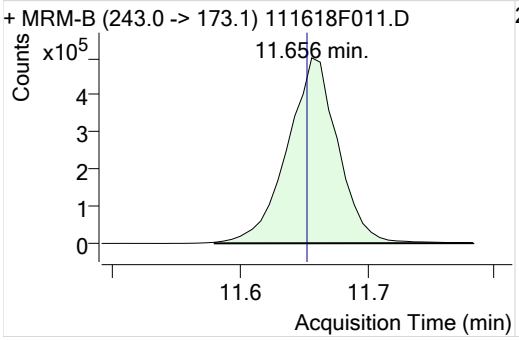
Endrin-13C12(IS)

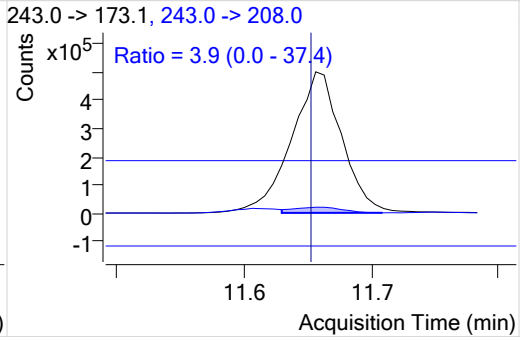


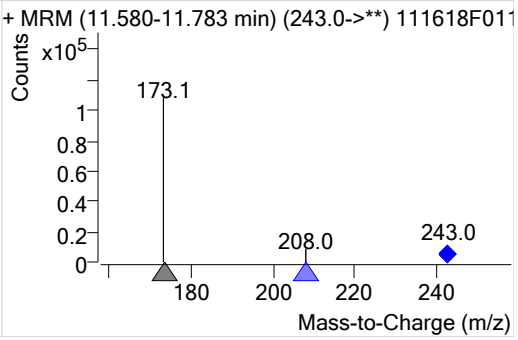




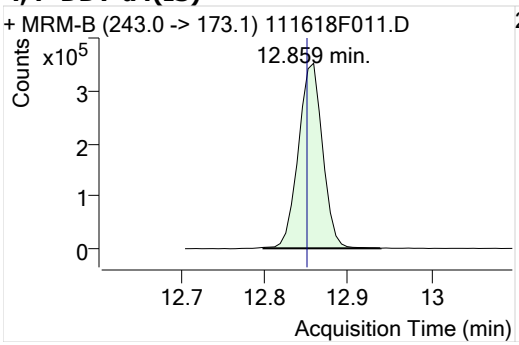
4,4'-DDD d4(IS)

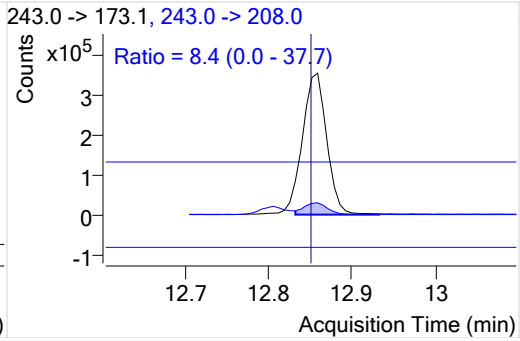


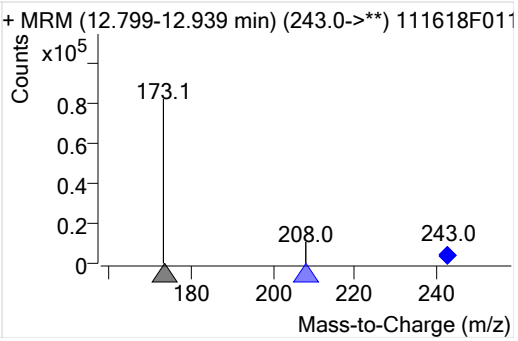




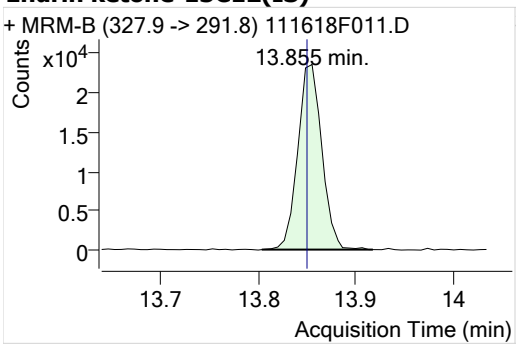
4,4'-DDT-d4(IS)

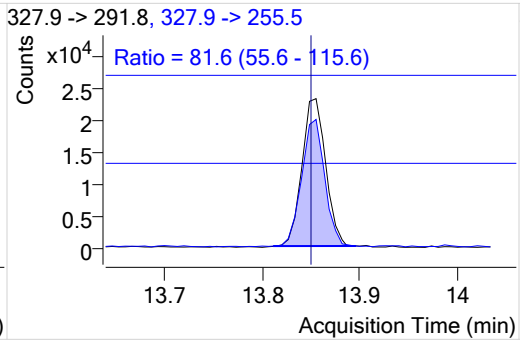


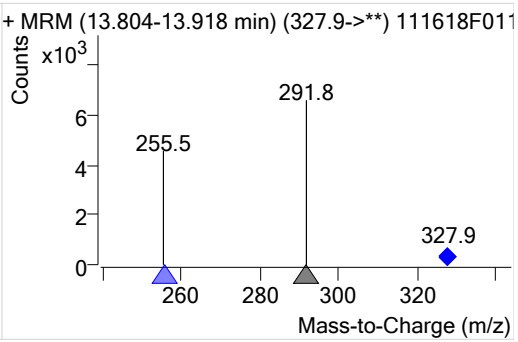




Endrin ketone-13C12(IS)

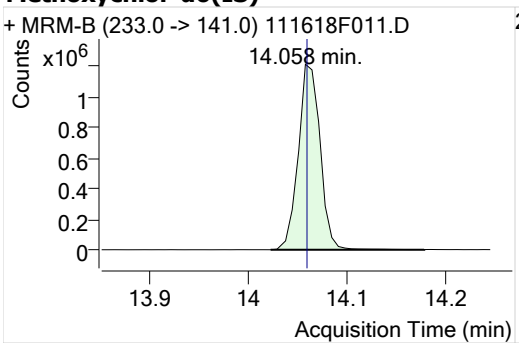


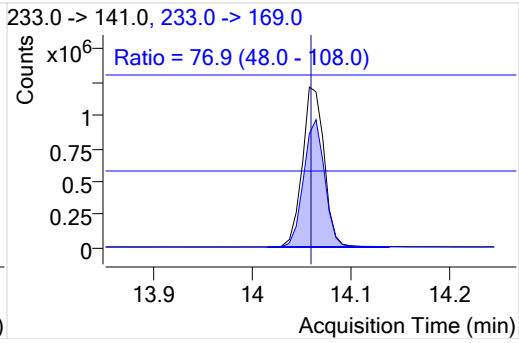


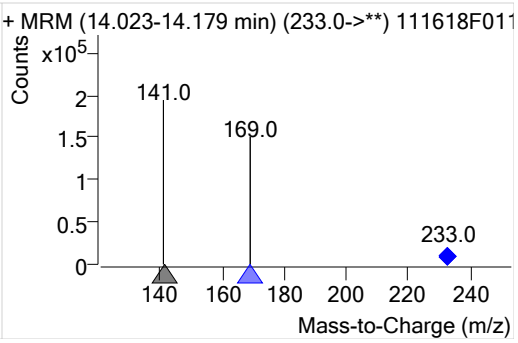


Quantitative Analysis Sample Report

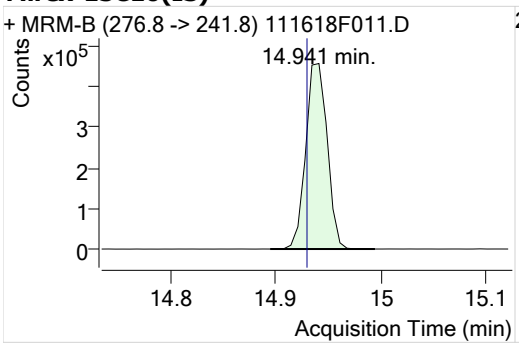
Methoxychlor-d6(IS)

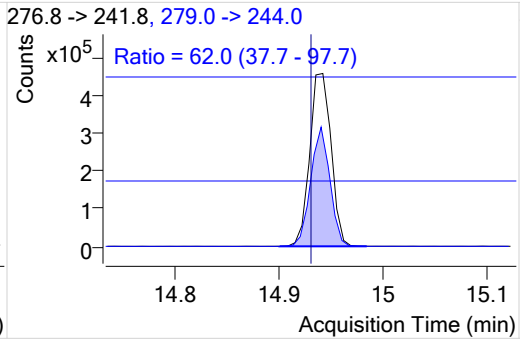


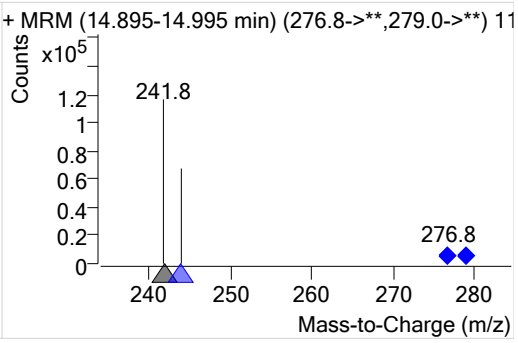




Mirex-13C10(IS)







Quantitative Analysis Sample Report

Data File	Y:\MS42\data\111618\111618F012.D	**Vial**	8
Acq. Date-Time	11/16/2018 2:32:59 PM	**Acq Operator**	EBruno
Name	OC PEST ICAL 20ng/mL SVM59-48F	**Instrument Name**	MS42
Info.		**Instrument Type**	QQQ
Quant Time	3/14/2019 10:04:01 AM	**Inj Vol**	1
Quant Method	110618 OC PEST ICAL.batch.bin		
Last Update	3/14/2019 10:04:01 AM		
Acq. Method File	OC Pest_dMRM	**Tune File Name**	atunes.eihs.tune.xml
Batch File Name	Y:\MS42\data\111618\QuantResults\111618 oc pest ical.batch.bin		

Internal Standards	**RT**	**Transition**	**Response**	**Conc. Units**	**Dev(Min)**
Hexachlorobenzene-13C6(IS)	5.685	289.8 -> 254.8	1328746	20.000 ng/ml	0.006
γ-BHC-d6(IS)	5.987	223.9 -> 187.0	2472969	20.000 ng/ml	0.002
Heptachlor-13C10(IS)	7.225	276.8 -> 241.8	998843	20.000 ng/ml	0.009
Chorpyrifos-d10(IS)	7.639	199.9 -> 171.9	1178797	20.000 ng/ml	0.002
Aldrin-13C(IS)	7.959	269.8 -> 200.0	902138	20.000 ng/ml	0.006
Octachlorostyrene-13C8(IS)	8.542	315.8 -> 245.8	665970	20.000 ng/ml	0.005
Isodrin-13C12(IS)	8.619	199.9 -> 130.1	1042222	20.000 ng/ml	0.005
Heptachlor epoxide-13C10(IS)	8.813	362.8 -> 270.0	323122	20.000 ng/ml	0.009
Oxychlordane-13C10(IS)	8.818	190.0 -> 125.0	653398	20.000 ng/ml	0.009
Pyrene-d10	9.725	212.0 -> 208.0	7910853	100.000 ng/ml	0.006
Endrin-13C12(IS)	11.250	269.8 -> 200.0	303277	20.000 ng/ml	0.002
4,4'-DDD d4(IS)	11.657	243.0 -> 173.1	1375852	5.000 ng/ml	0.004
4,4'-DDT-d4(IS)	12.858	243.0 -> 173.1	623244	5.000 ng/ml	0.007
Endrin ketone-13C12(IS)	13.849	327.9 -> 291.8	36655	20.000 ng/ml	0.002
Methoxychlor-d6(IS)	14.065	233.0 -> 141.0	1724136	20.000 ng/ml	0.005
Mirex-13C10(IS)	14.941	276.8 -> 241.8	661279	5.000 ng/ml	0.010

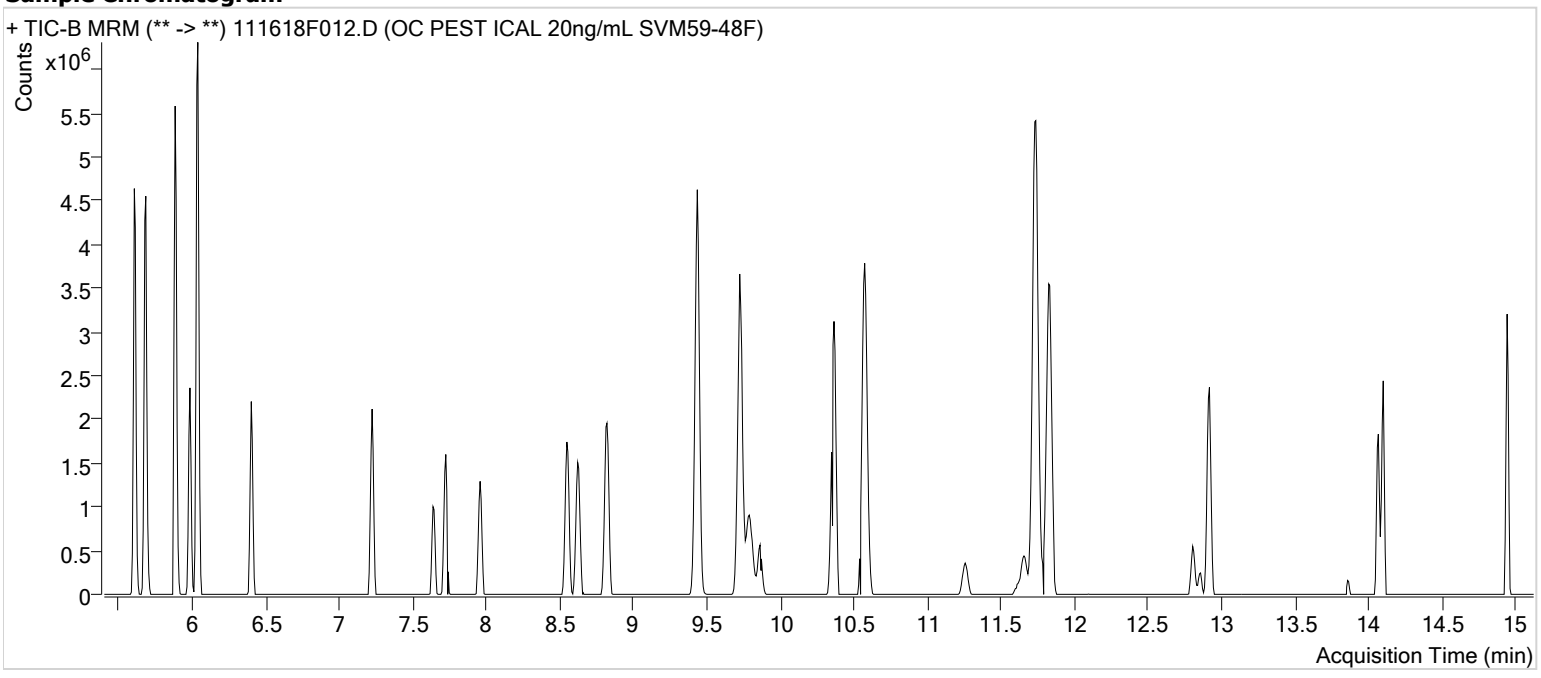
System Monitoring Compounds	**RT**	**Transition**	**Response**	**Conc. Units**	
Hexachlorobenzene-13C6	5.677	289.8 -> 254.8	1328746	22.818 ng/ml	
		Spiked Amount =	20.0	Recovery =	*114.1 %*
γ-BHC-d6	5.983	223.9 -> 187.0	2472969	22.410 ng/ml	
		Spiked Amount =	20.0	Recovery =	*112.1 %*
Heptachlor-13C10	7.216	276.8 -> 241.8	998843	21.890 ng/ml	
		Spiked Amount =	20.0	Recovery =	*109.5 %*
Chorpyrifos-d10	7.640	199.9 -> 171.9	1178797	20.592 ng/ml	
		Spiked Amount =	20.0	Recovery =	*103.0 %*
Aldrin-13C	7.952	269.8 -> 200.0	902138	21.647 ng/ml	
		Spiked Amount =	20.0	Recovery =	*108.2 %*
Octachlorostyrene-13C8	8.540	315.8 -> 245.8	665970	22.318 ng/ml	
		Spiked Amount =	20.0	Recovery =	*111.6 %*
Isodrin-13C12	8.616	199.9 -> 130.1	1042222	22.920 ng/ml	
		Spiked Amount =	20.0	Recovery =	*114.6 %*
Heptachlor epoxide-13C10	8.805	362.8 -> 270.0	323122	22.225 ng/ml	
		Spiked Amount =	20.0	Recovery =	*111.1 %*
Oxychlordane-13C10	8.809	190.0 -> 125.0	653398	22.114 ng/ml	
		Spiked Amount =	20.0	Recovery =	*110.6 %*
Endrin-13C12	11.247	269.8 -> 200.0	303277	20.977 ng/ml	
		Spiked Amount =	20.0	Recovery =	*104.9 %*
4,4'-DDD d4	11.652	243.0 -> 173.1	1375852	4.897 ng/ml	
		Spiked Amount =	5.0	Recovery =	*97.9 %*
4,4'-DDT-d4	12.851	243.0 -> 173.1	623244	4.965 ng/ml	
		Spiked Amount =	5.0	Recovery =	*99.3 %*
Endrin ketone-13C12	13.850	327.9 -> 291.8	36655	20.474 ng/ml	
		Spiked Amount =	20.0	Recovery =	*102.4 %*
Methoxychlor-d6	14.060	233.0 -> 141.0	1724136	20.786 ng/ml	
		Spiked Amount =	20.0	Recovery =	*103.9 %*
Mirex-13C10	14.930	276.8 -> 241.8	661279	5.456 ng/ml	
		Spiked Amount =	5.0	Recovery =	*109.1 %*

Quantitative Analysis Sample Report

Target Compounds	ISTD	RT	Transition	Resp.	Conc.	Units	Qvalue
α-BHC	γ-BHC-d6(IS)	5.613	181.1 -> 145.1	3513798	19.871	ng/ml	96
Hexachlorobenzene	Hexachlorobenzene-13C6(IS)	5.686	283.8 -> 213.9	2391265	19.881	ng/ml	97
β-BHC	γ-BHC-d6(IS)	5.890	181.1 -> 145.1	4419696	19.755	ng/ml	95
γ-BHC(Lindane)	γ-BHC-d6(IS)	6.037	181.1 -> 145.1	5109774	19.754	ng/ml	98
δ-BHC	γ-BHC-d6(IS)	6.405	181.1 -> 145.1	1965470	19.064	ng/ml	100
Heptachlor	Heptachlor-13C10(IS)	7.229	271.7 -> 236.9	1123152	19.400	ng/ml	98
Chorpyrifos	Chorpyrifos-d10(IS)	7.730	196.9 -> 169.0	1469170	17.656	ng/ml	96
Aldrin	Aldrin-13C(IS)	7.963	254.9 -> 220.0	655265	20.458	ng/ml	98
Octachlorostyrene	Octachlorostyrene-13C8(IS)	8.555	342.8 -> 307.8	1648054	19.229	ng/ml	93
Isodrin	Isodrin-13C12(IS)	8.633	193.0 -> 123.0	1053927	19.709	ng/ml	95
Heptachlor epoxide	Heptachlor epoxide-13C10(IS)	8.829	352.8 -> 262.9	360776	19.620	ng/ml	98
Oxychlordane	Oxychlordane-13C10(IS)	8.826	114.9 -> 51.1	1700598	19.250	ng/ml	100
γ-Chlordane(trans)	Oxychlordane-13C10(IS)	9.429	271.8 -> 236.9	590863	18.768	ng/ml	99
2,4'-DDE	4,4'-DDD d4(IS)	9.439	246.0 -> 176.2	5328324	20.370	ng/ml	98
α-Chlordane(cis)	Oxychlordane-13C10(IS)	9.782	271.8 -> 236.9	1516587	19.281	ng/ml	98
Endosulfan I	Endrin-13C12(IS)	9.812	206.9 -> 172.0	366003	19.252	ng/ml	98
trans-Nanochlor	Oxychlordane-13C10(IS)	9.863	271.8 -> 236.9	946955	18.707	ng/ml	94
4,4' -DDE	4,4'-DDD d4(IS)	10.365	246.0 -> 176.2	4741914	19.777	ng/ml	98
2,4'-DDD	4,4'-DDD d4(IS)	10.577	235.0 -> 165.1	5596626	18.904	ng/ml	99
Dieldrin	Endrin-13C12(IS)	10.600	262.9 -> 193.0	451297	19.509	ng/ml	91
Endosulfan II	Endrin-13C12(IS)	11.253	206.9 -> 172.0	83463	20.088	ng/ml	99
Endrin	Endrin-13C12(IS)	11.264	262.8 -> 193.0	393821	18.922	ng/ml	99
4,4'-DDD	4,4'-DDD d4(IS)	11.740	235.0 -> 165.1	8872208 ***m***	19.968	ng/ml	100
cis-Nonachlor	Oxychlordane-13C10(IS)	11.756	271.8 -> 236.9	370712	19.333	ng/ml	89
2,4'-DDT	4,4'-DDT-d4(IS)	11.828	235.0 -> 165.1	5766524 ***m***	20.635	ng/ml	100
Endrin aldehyde	Endrin-13C12(IS)	12.098	249.9 -> 214.9	108216	18.431	ng/ml	98
Endosulfan sulfate	Endrin-13C12(IS)	12.803	271.9 -> 237.0	675747	18.967	ng/ml	97
4,4'-DDT	4,4'-DDT-d4(IS)	12.921	235.0 -> 165.1	2927244	20.298	ng/ml	100
Endrin ketone	Endrin ketone-13C12(IS)	13.861	147.0 -> 111.0	242152	18.768	ng/ml	92
Methoxychlor	Methoxychlor-d6(IS)	14.101	227.0 -> 141.1	2070335	18.818	ng/ml	99
Mirex	Mirex-13C10(IS)	14.943	271.8 -> 236.8	2873549	20.369	ng/ml	95

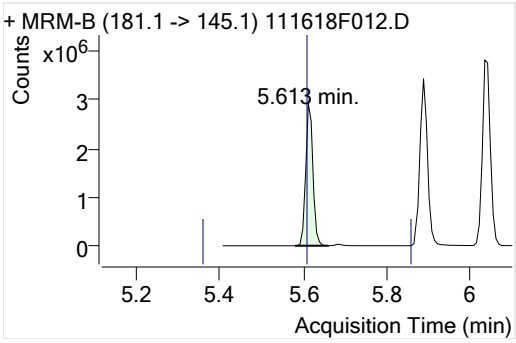
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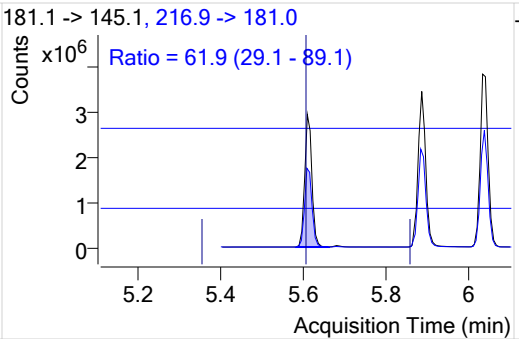
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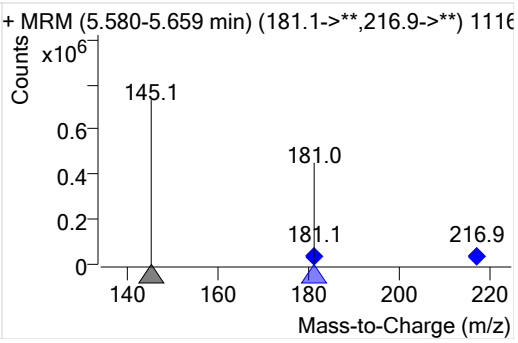


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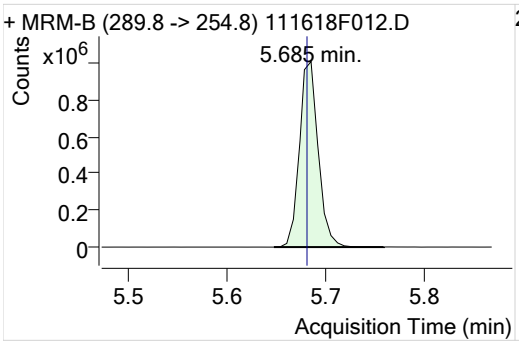
α-BHC

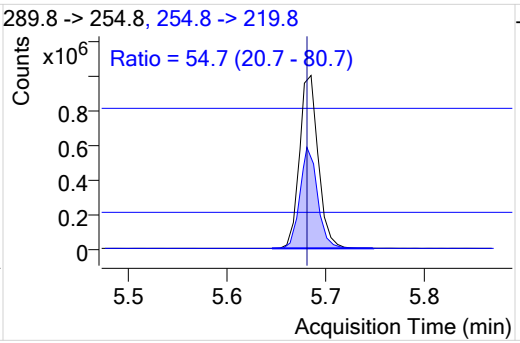


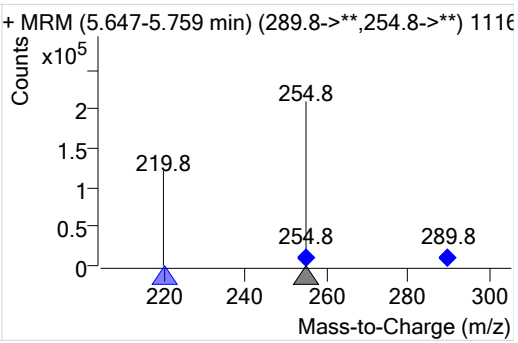




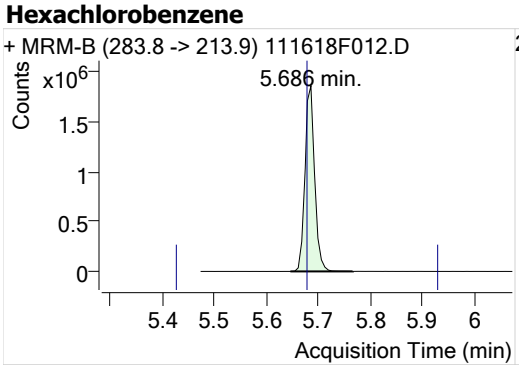
Hexachlorobenzene-13C6

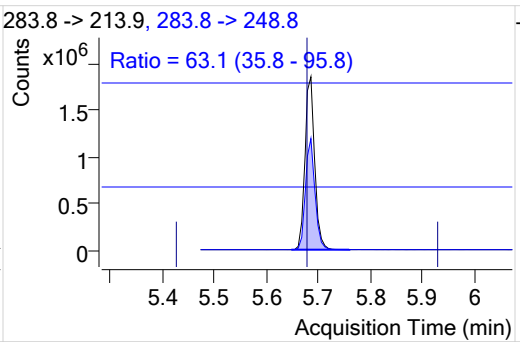


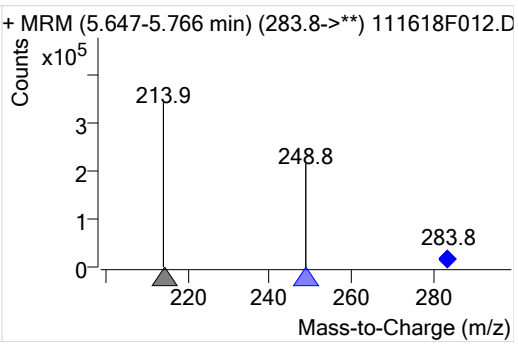




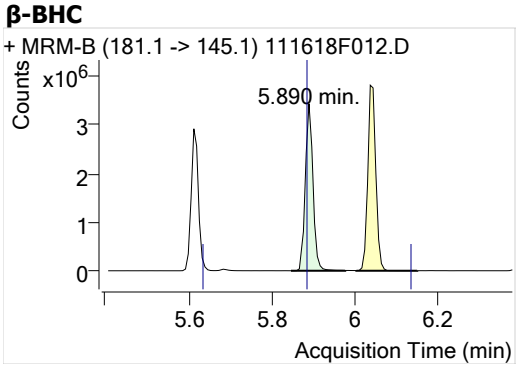
Hexachlorobenzene

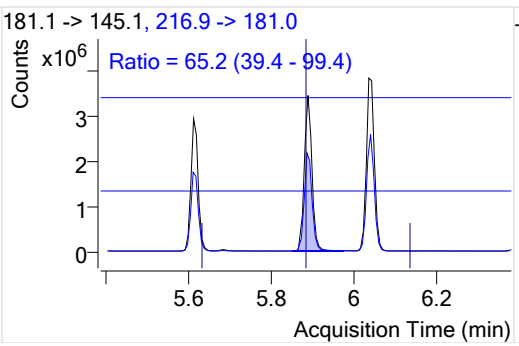


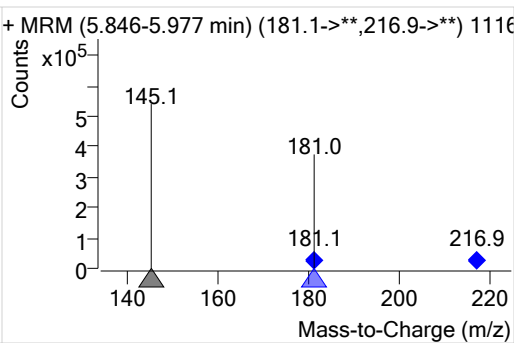




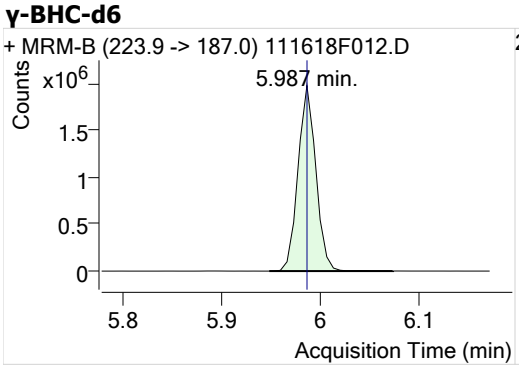
β-BHC

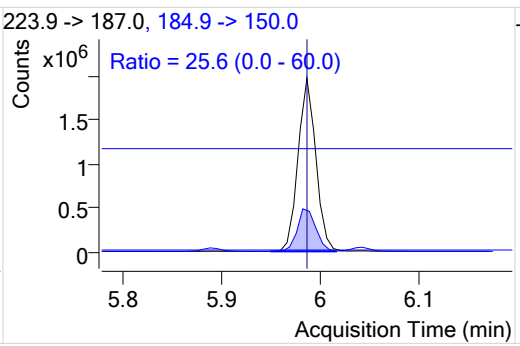


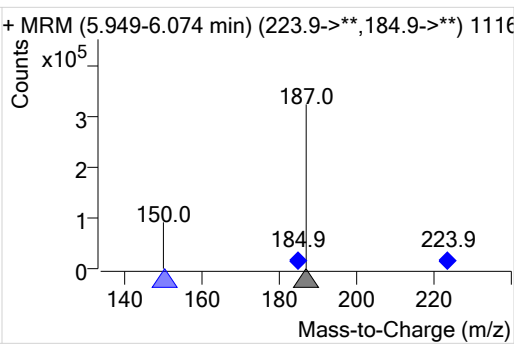




γ-BHC-d6

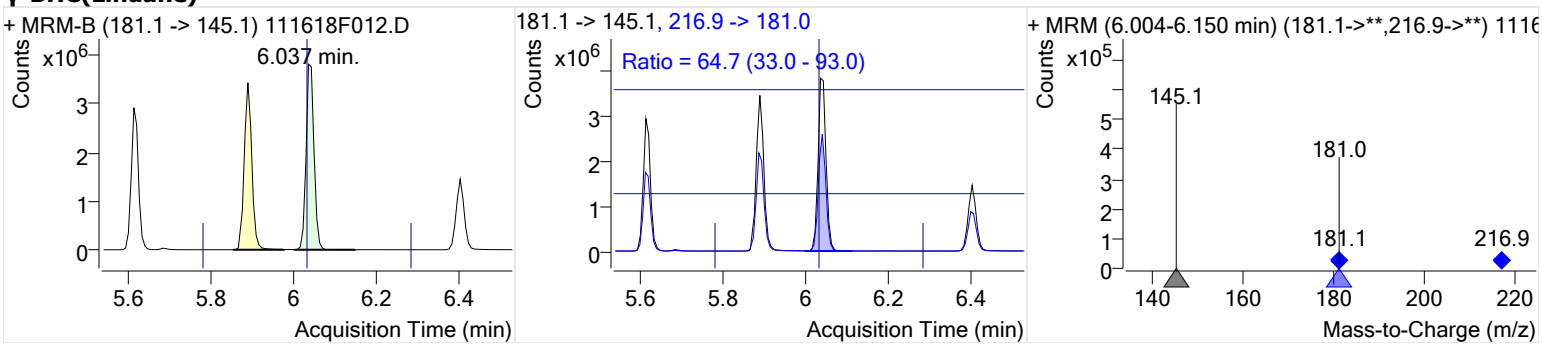




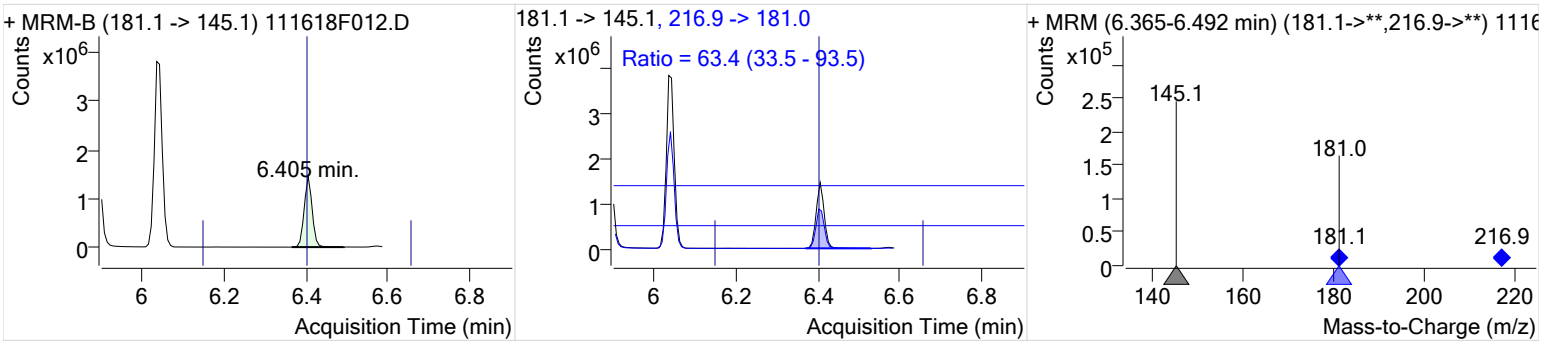


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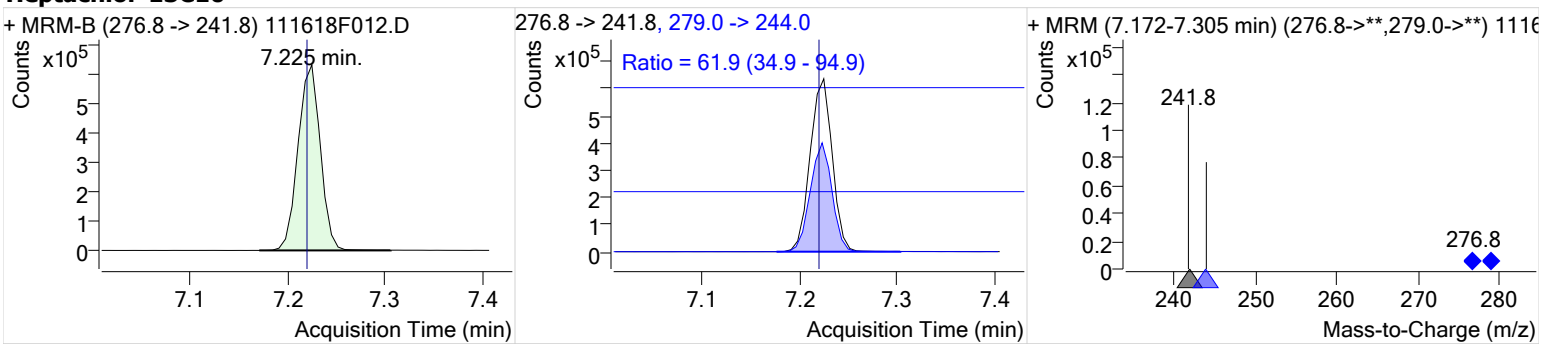
γ-BHC(Lindane)



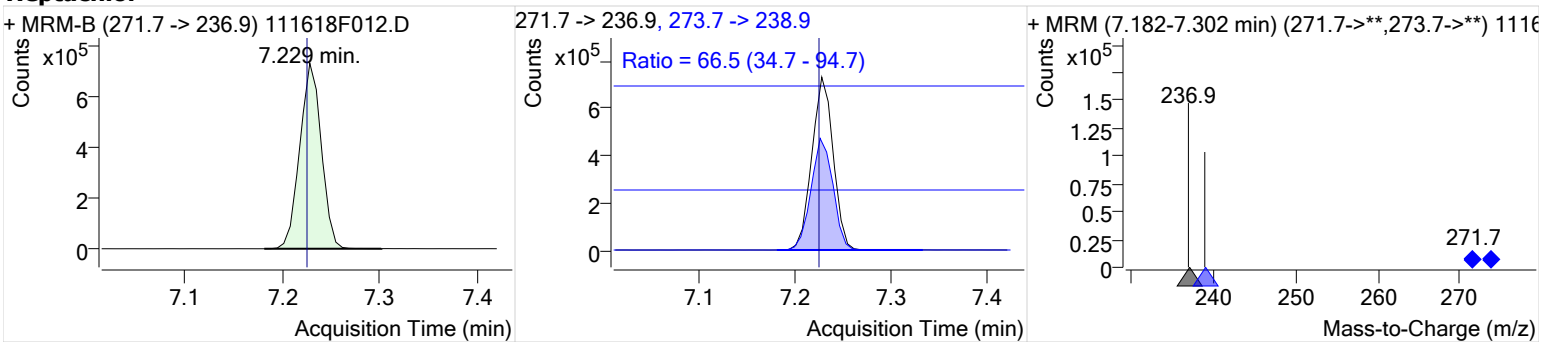
δ-BHC



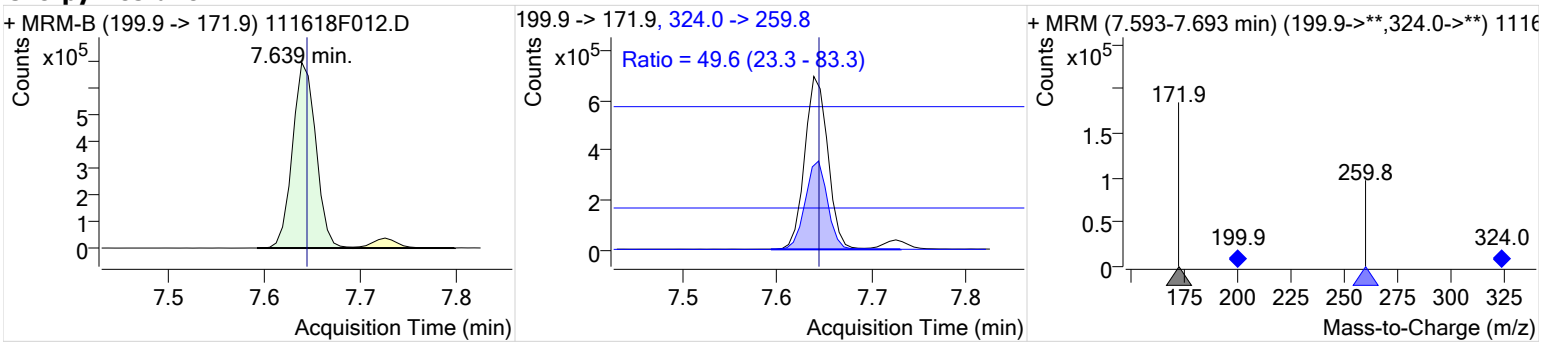
Heptachlor-13C10



Heptachlor

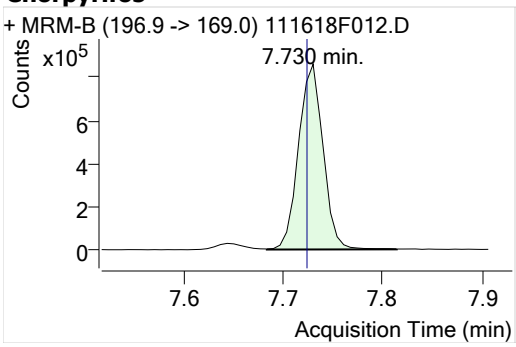


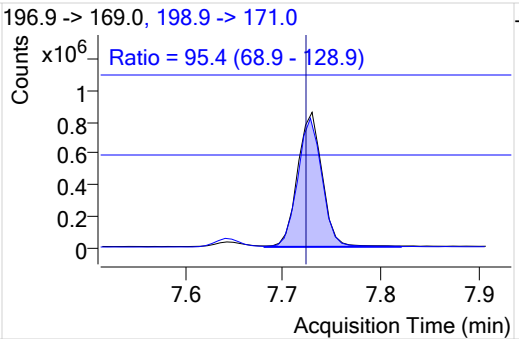
Chorpyrifos-d10

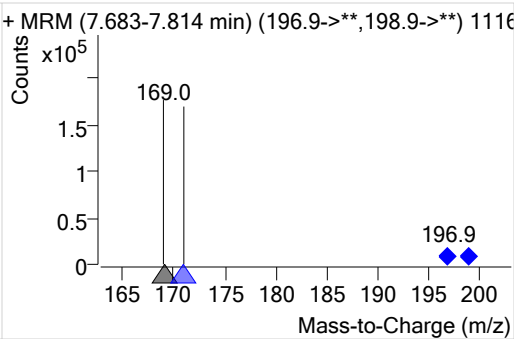


Quantitative Analysis Sample Report

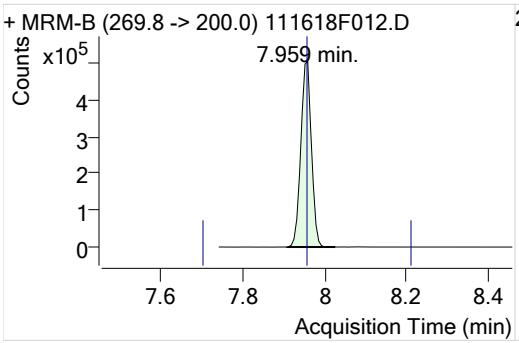
Chorpyrifos

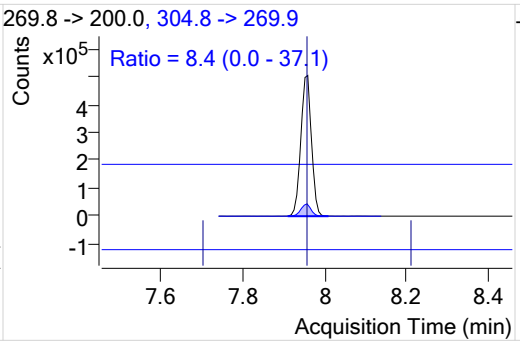


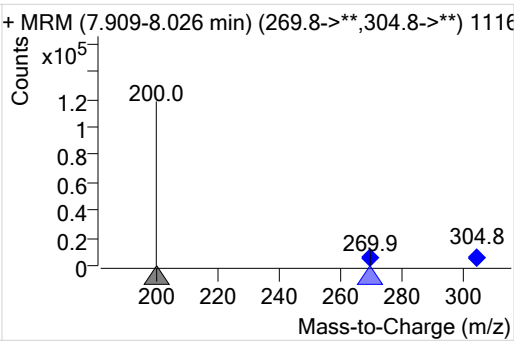




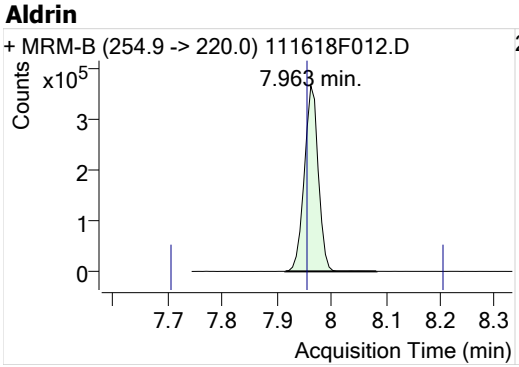
Aldrin-13C

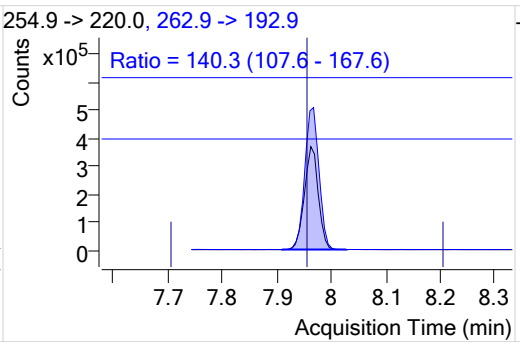


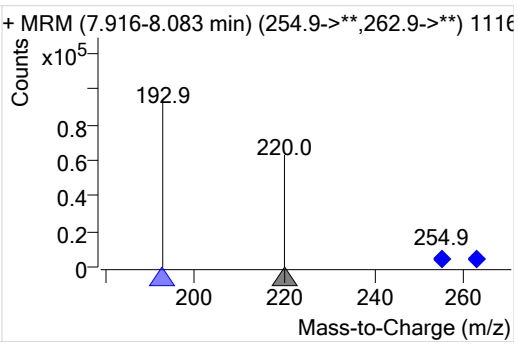




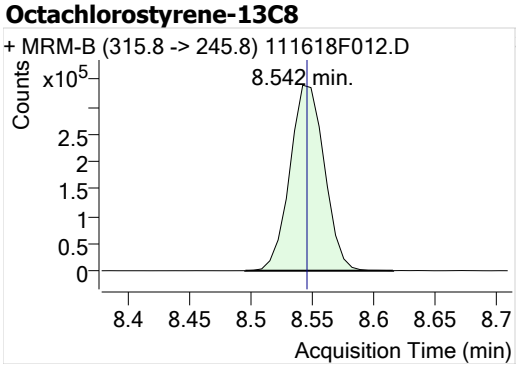
Aldrin

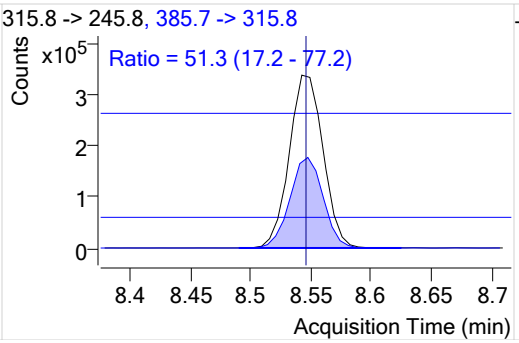


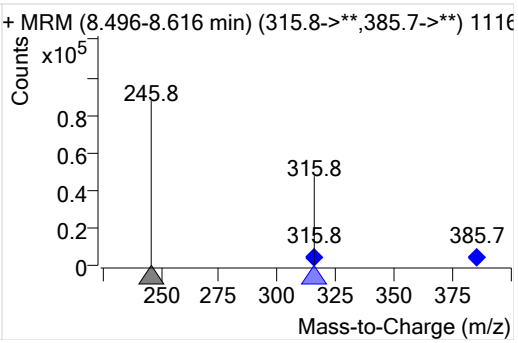




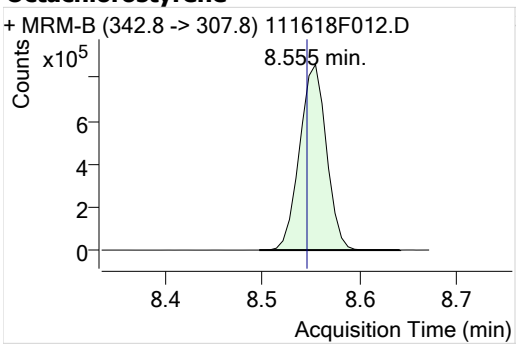
Octachlorostyrene-13C8

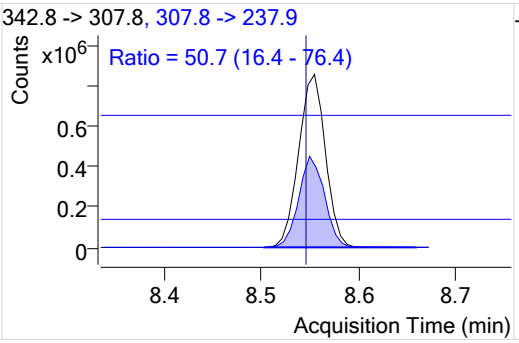


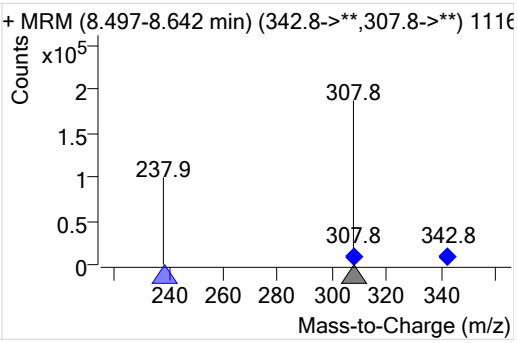




Octachlorostyrene

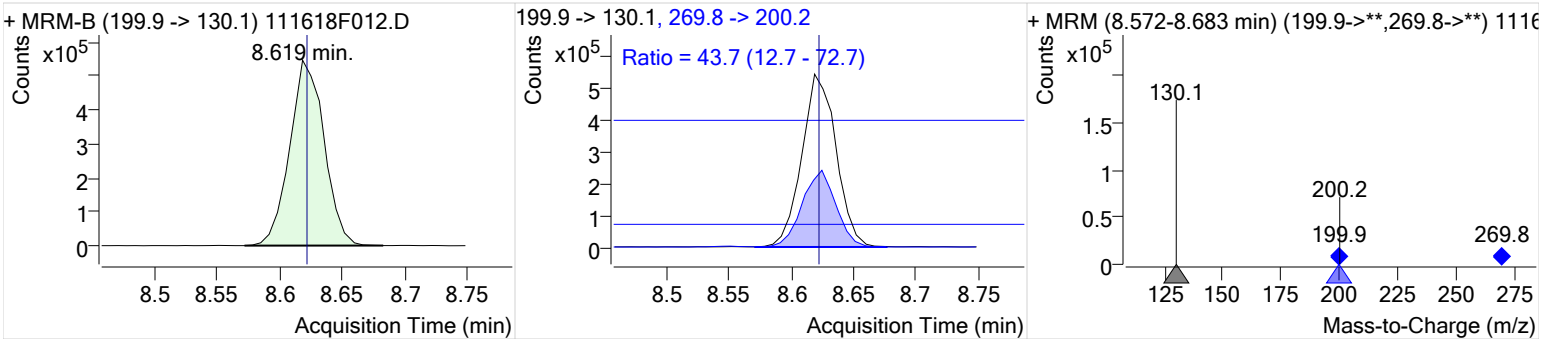




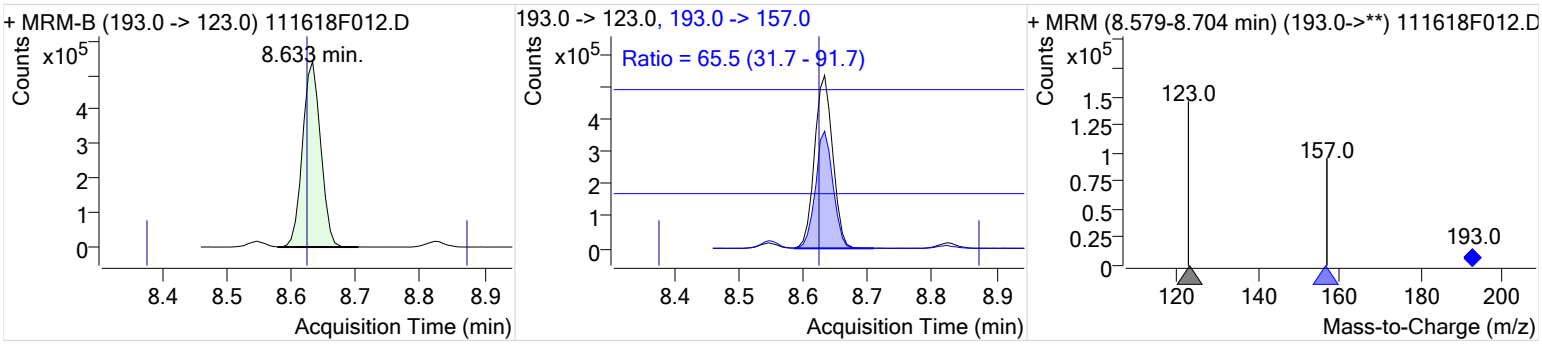


Quantitative Analysis Sample Report

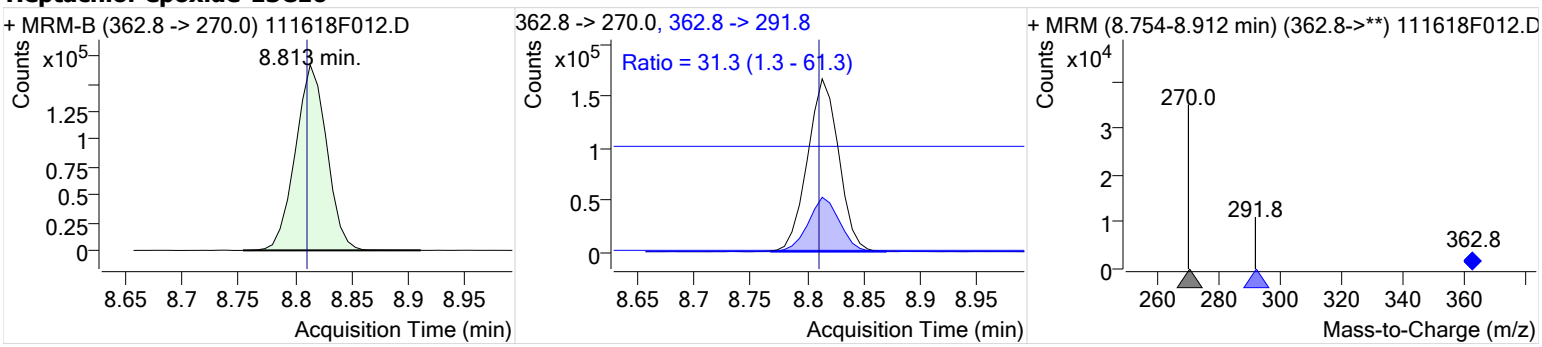
Isodrin-13C12



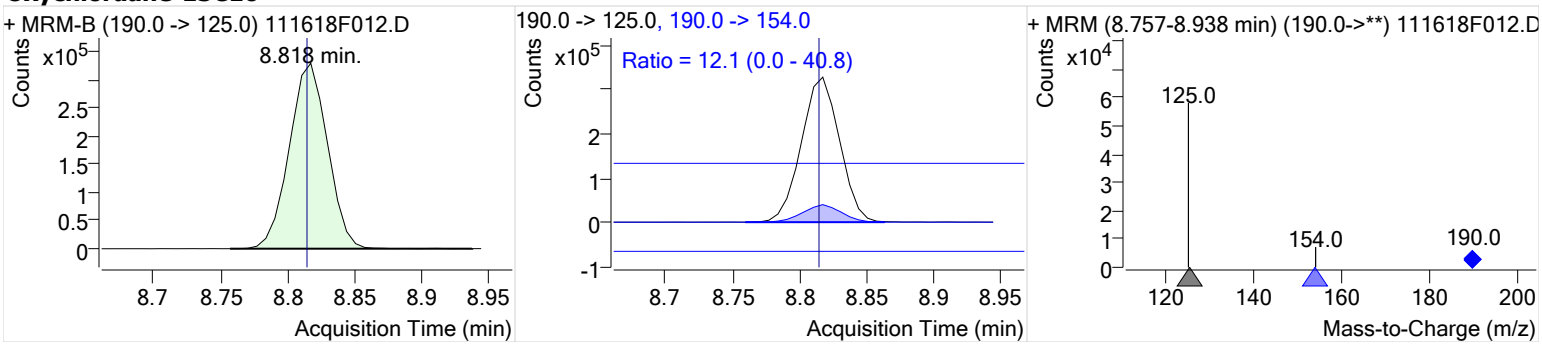
Isodrin



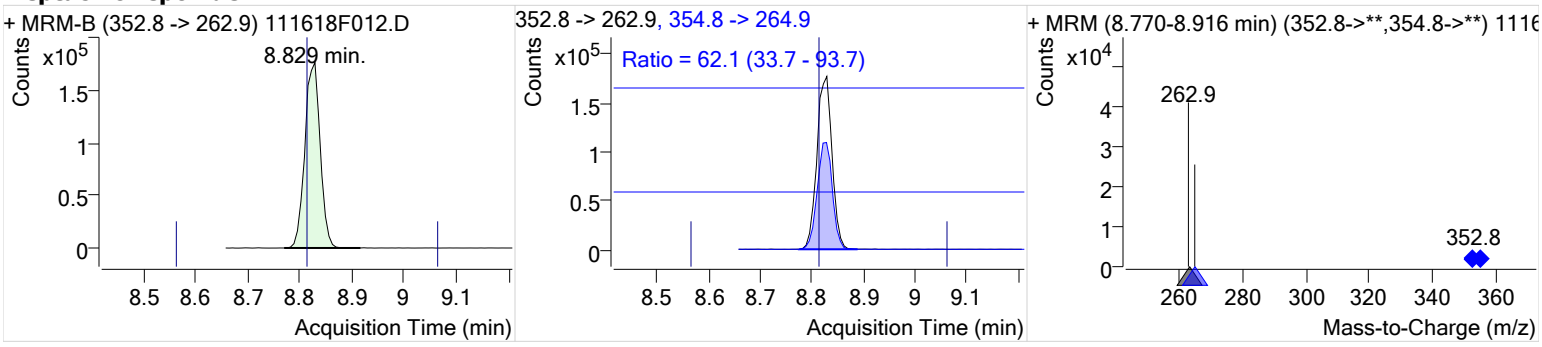
Heptachlor epoxide-13C10



Oxychlordane-13C10

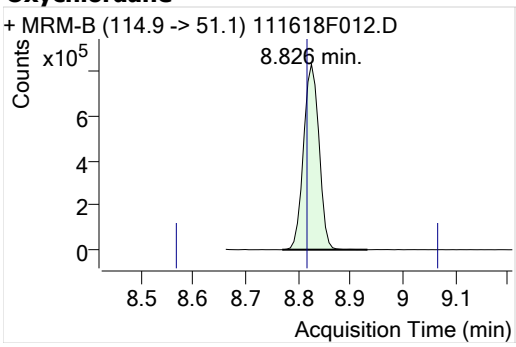


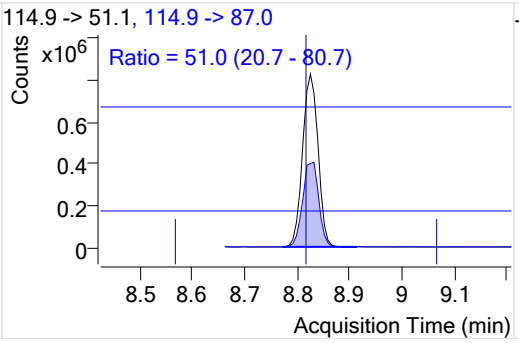
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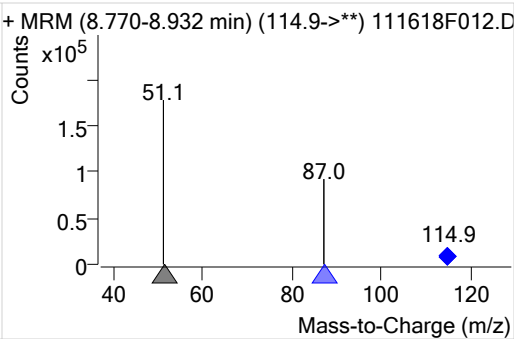


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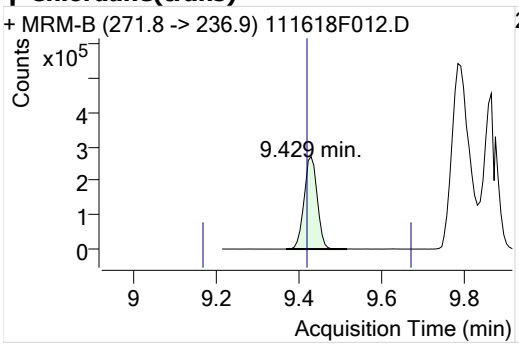
Oxychlordane

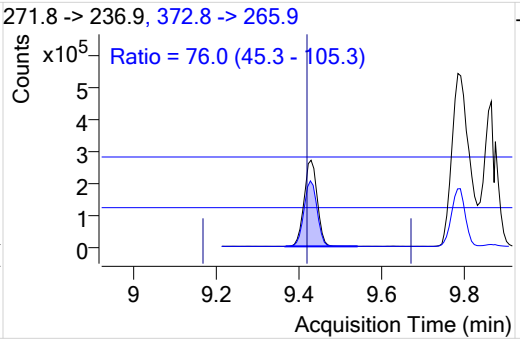


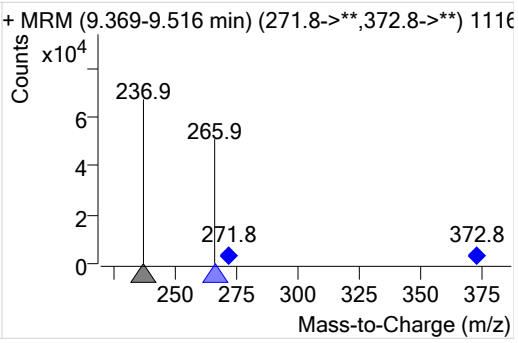




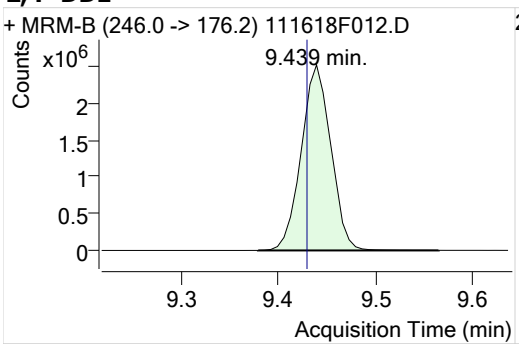
γ-Chlordane(trans)

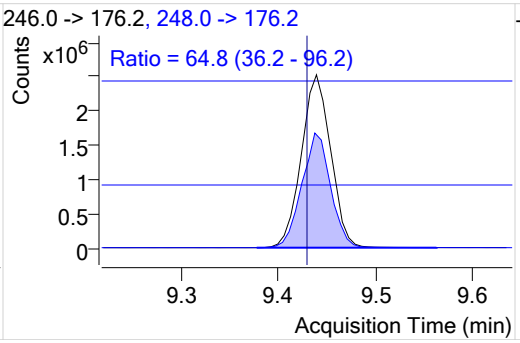


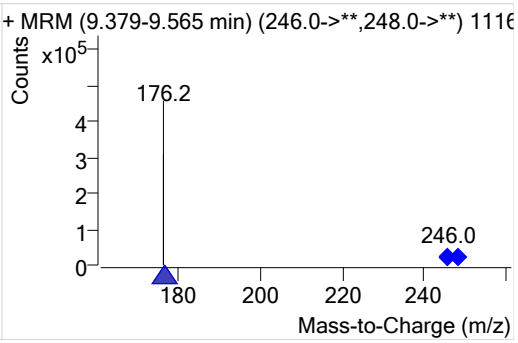




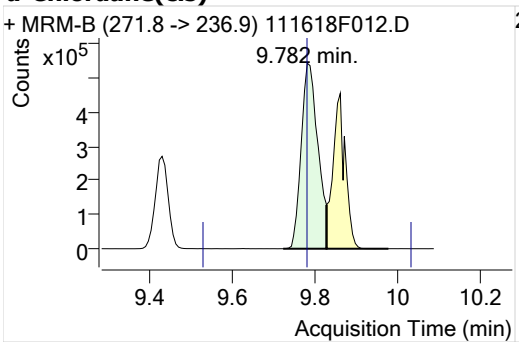
2,4'-DDE

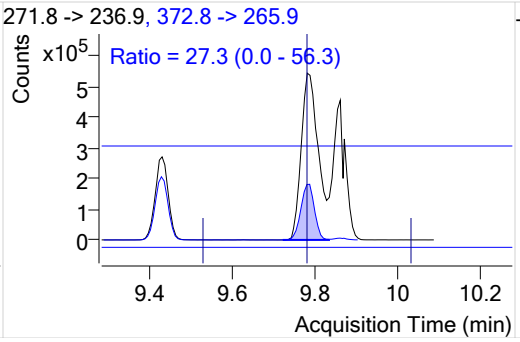


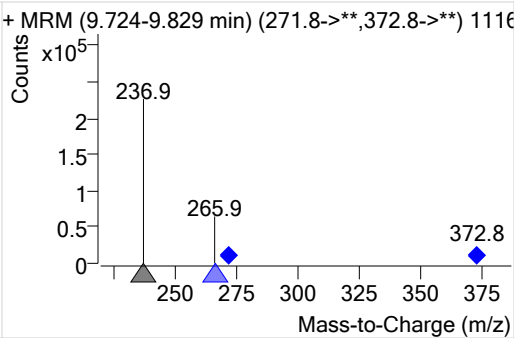




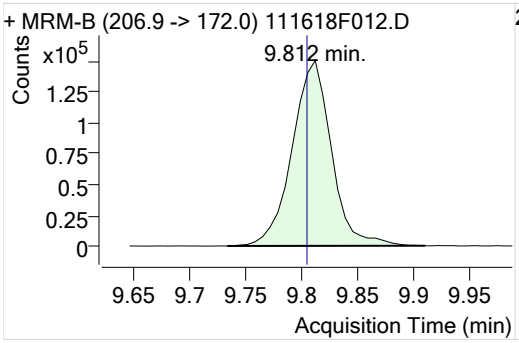
α-Chlordane(cis)

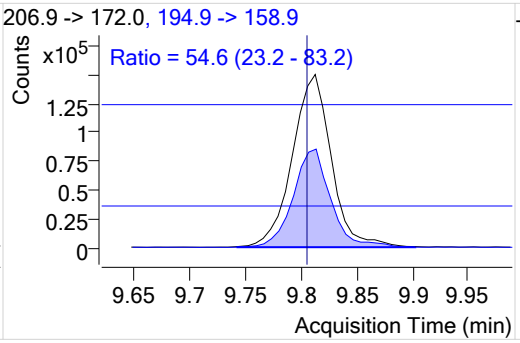


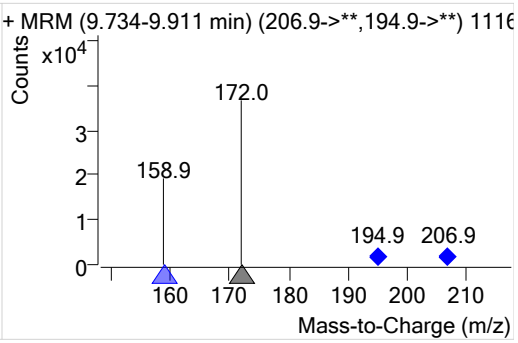




Endosulfan I

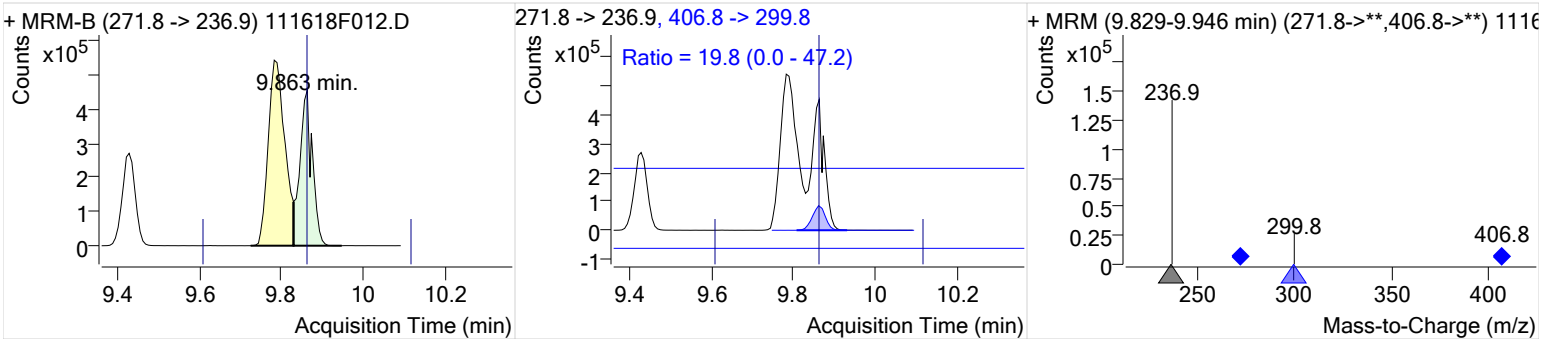




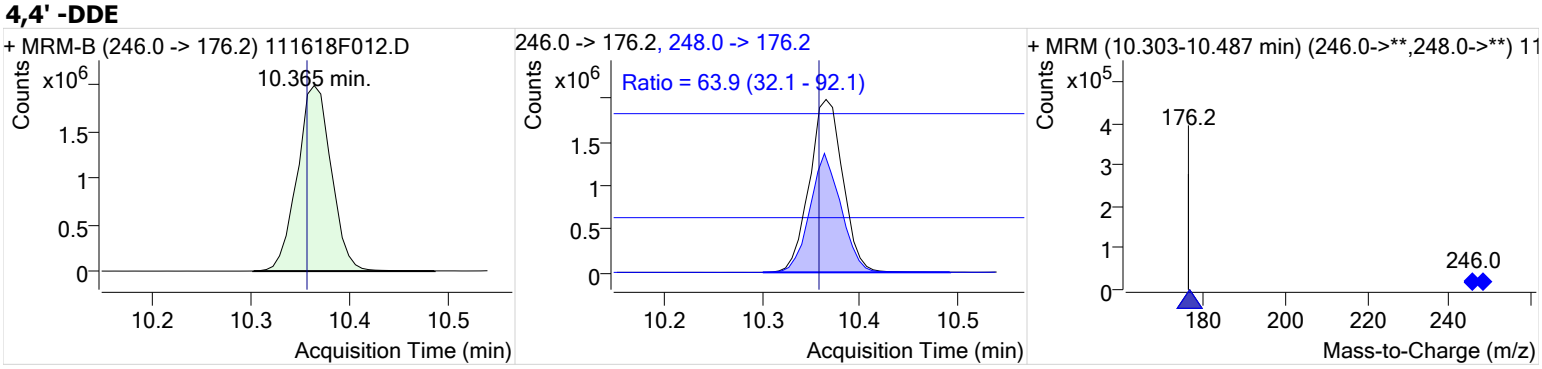


Quantitative Analysis Sample Report

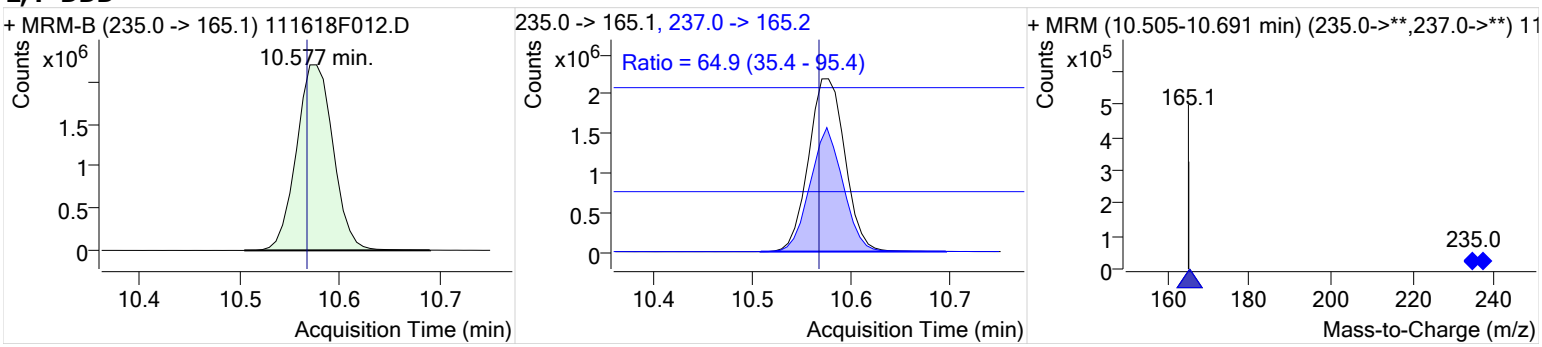
trans-Nanochlor



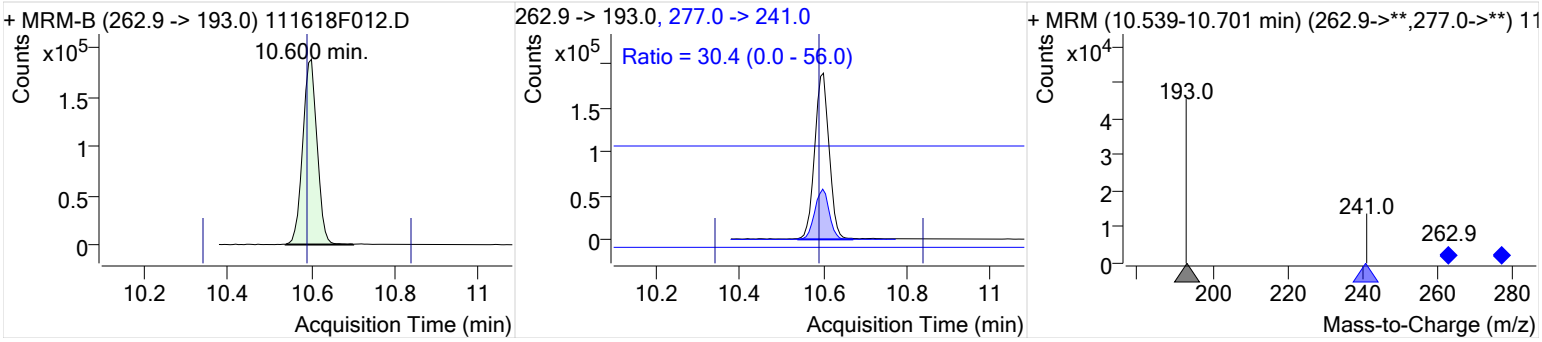
4,4' -DDE



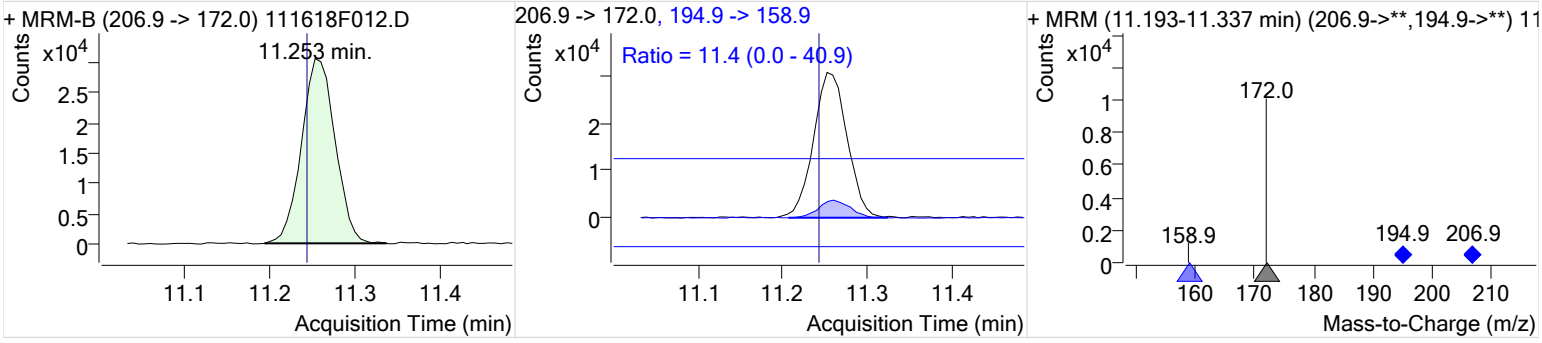
2,4'-DDD



Dieldrin

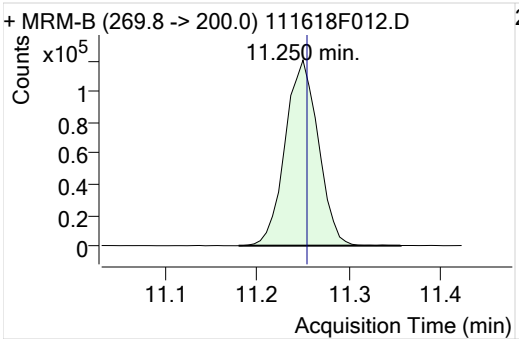


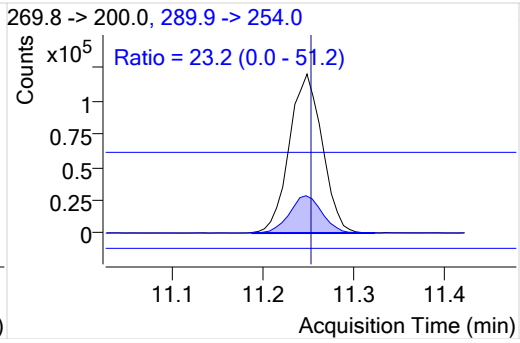
Endosulfan II

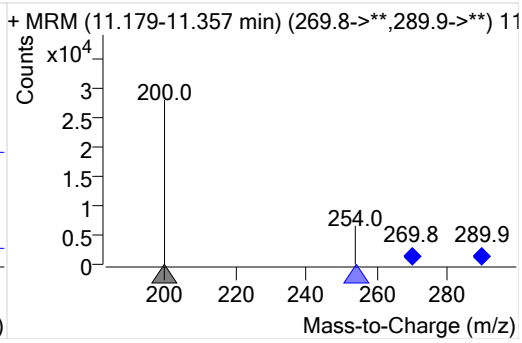


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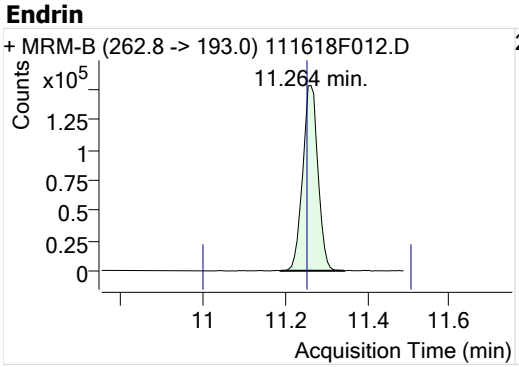
Endrin-13C12

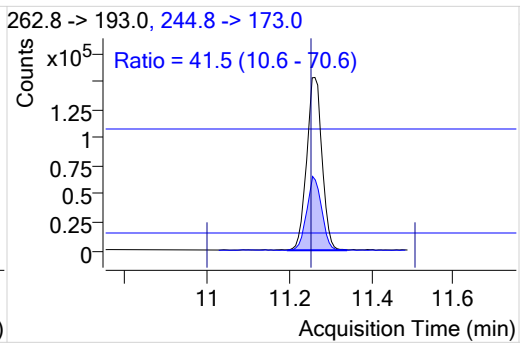


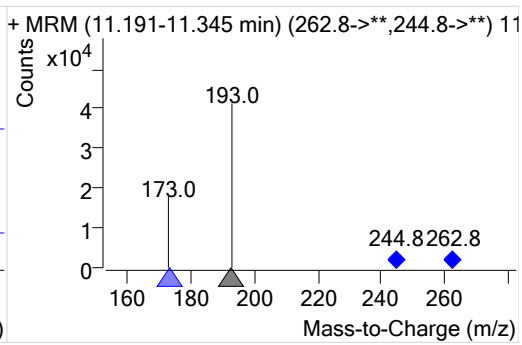




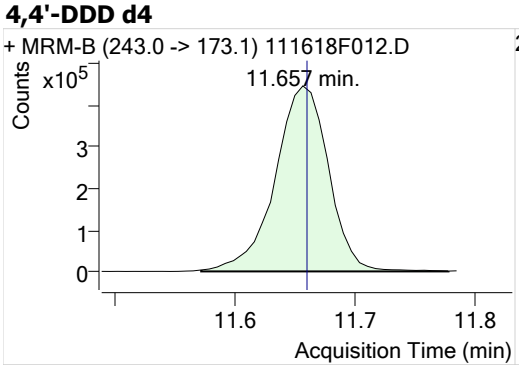
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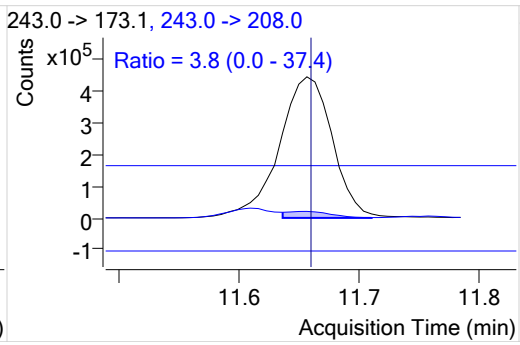


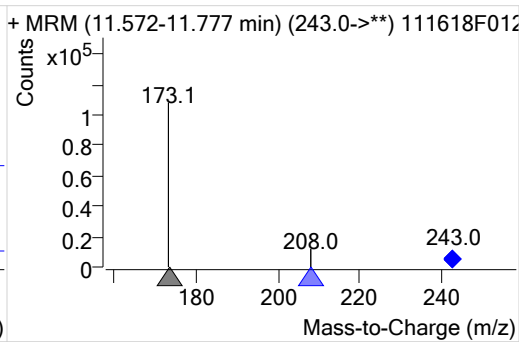




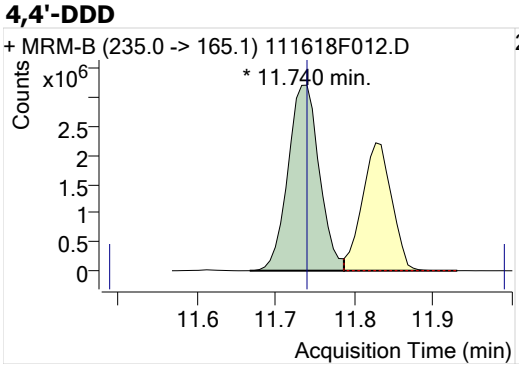
4,4'-DDD d4

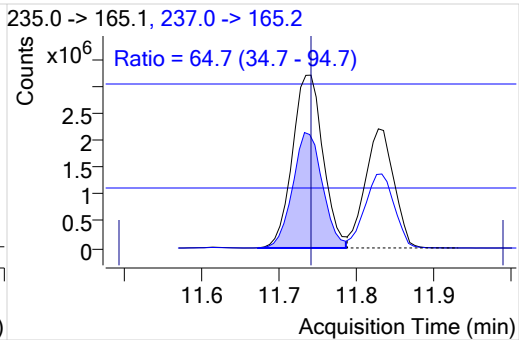


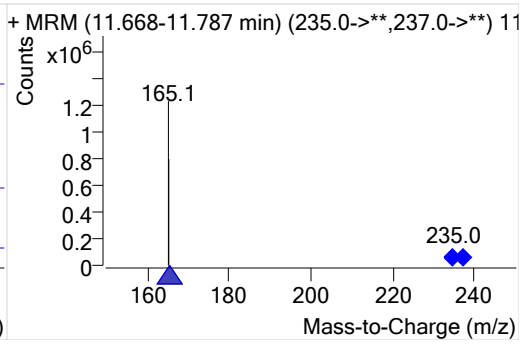




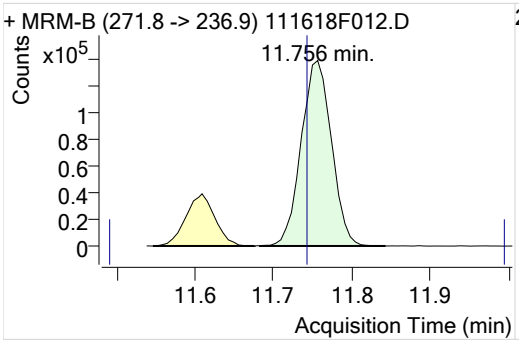
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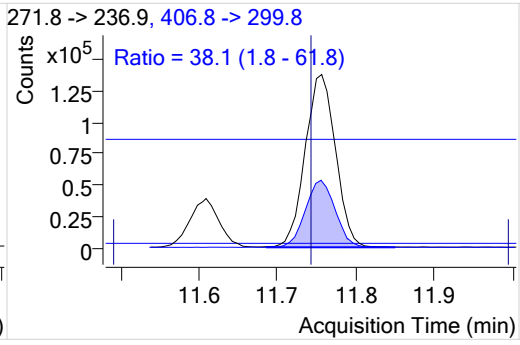


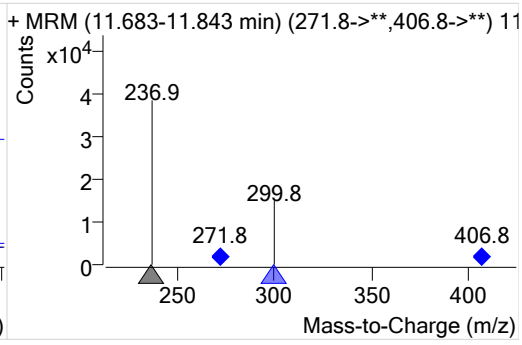




cis-Nonachlor

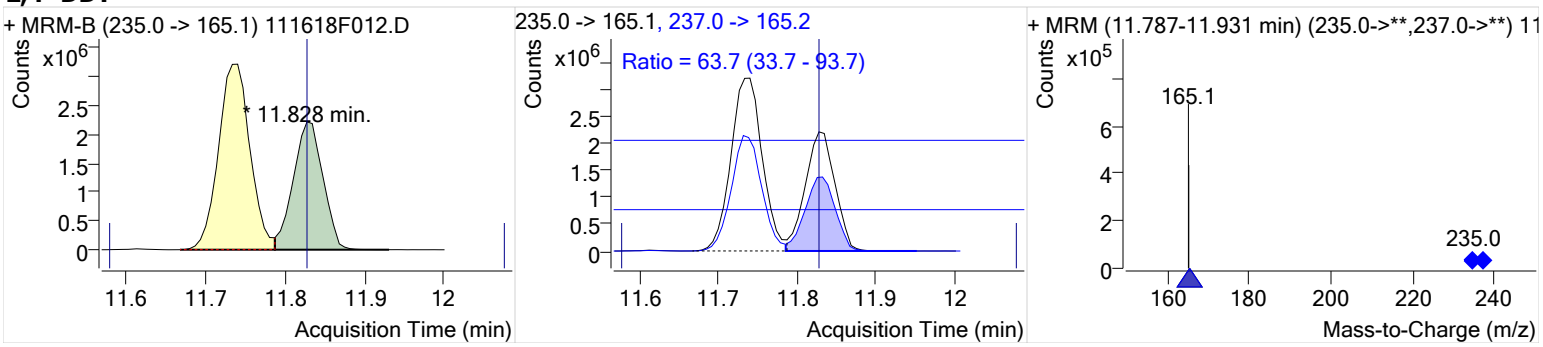




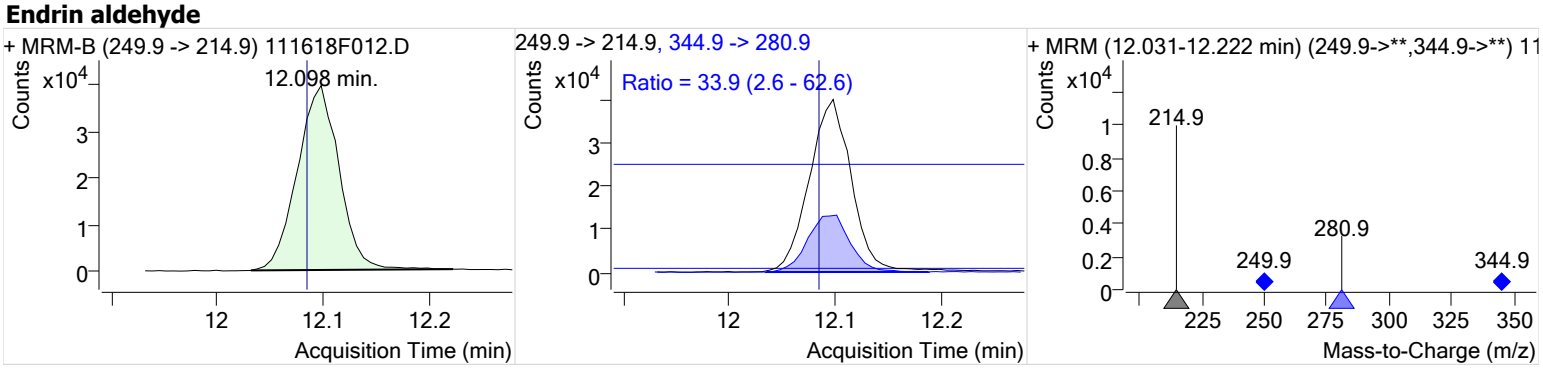


Quantitative Analysis Sample Report

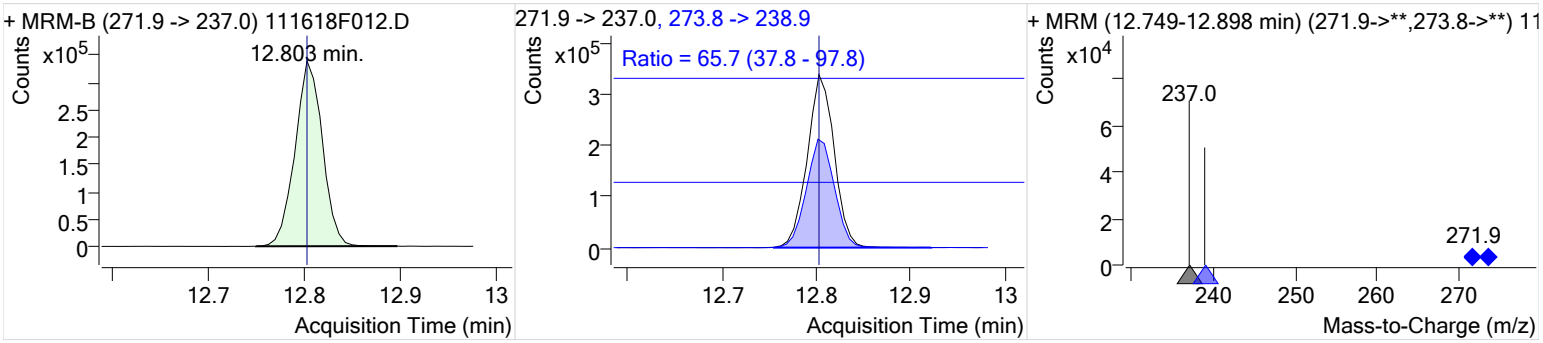
2,4'-DDT



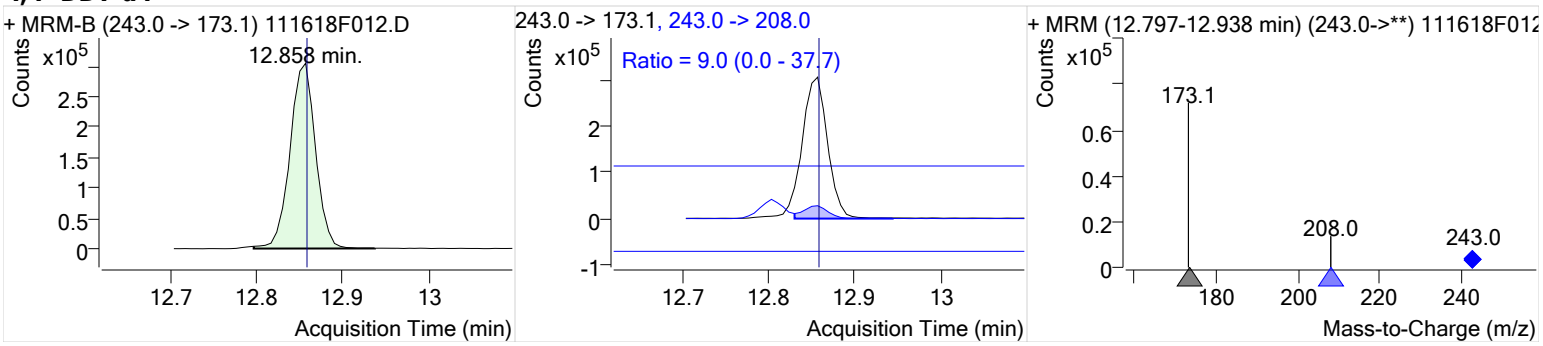
Endrin aldehyde



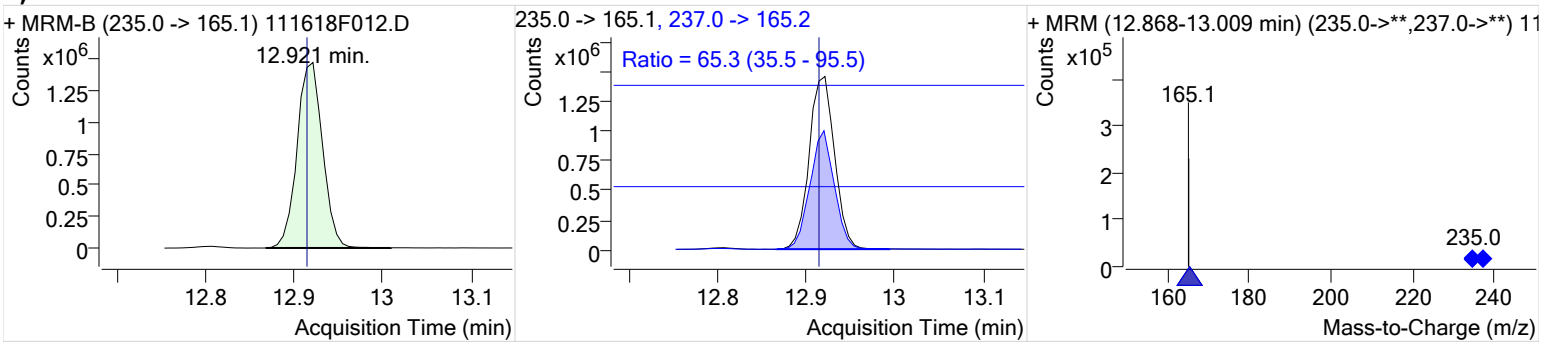
Endosulfan sulfate



4,4'-DDT-d4

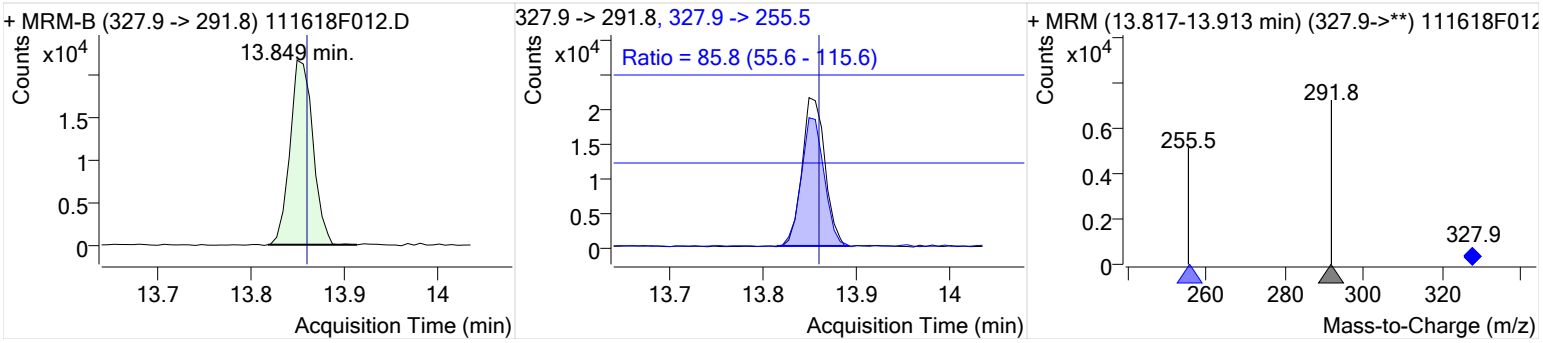


4,4'-DDT

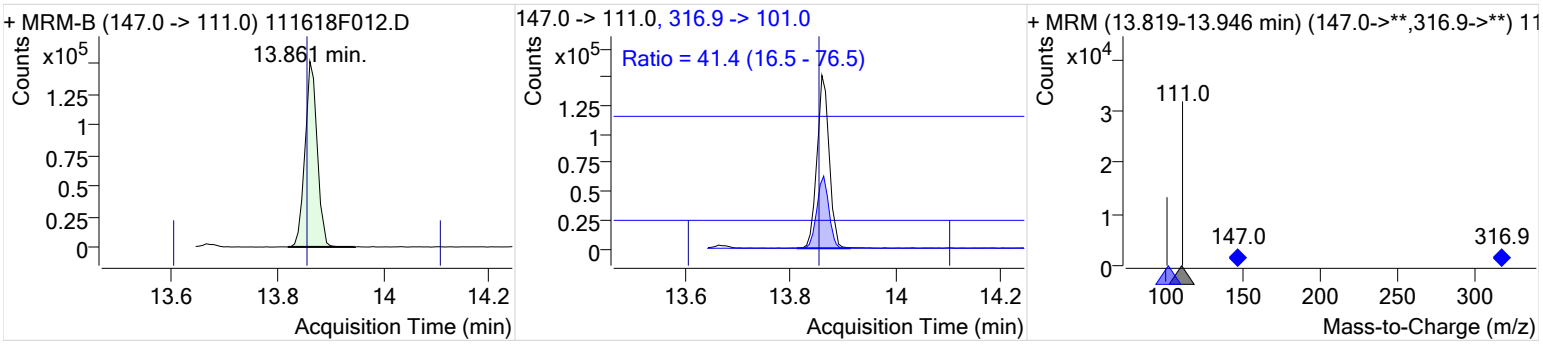


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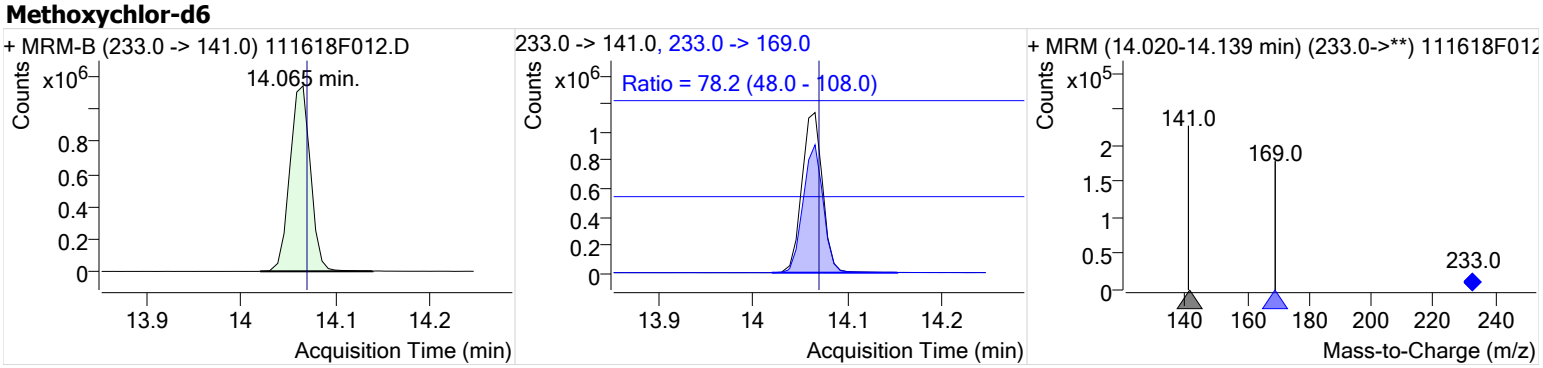
Endrin ketone-13C12



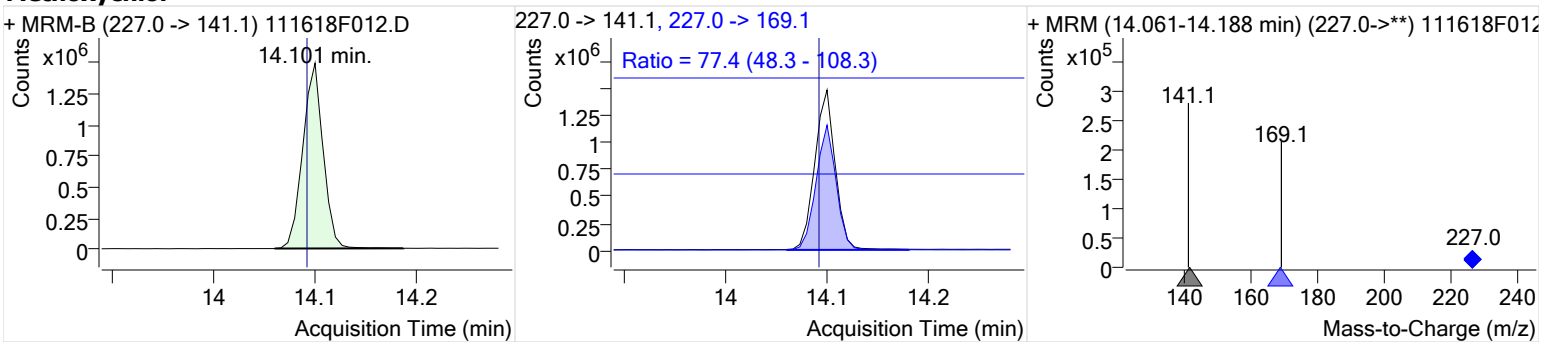
Endrin ketone



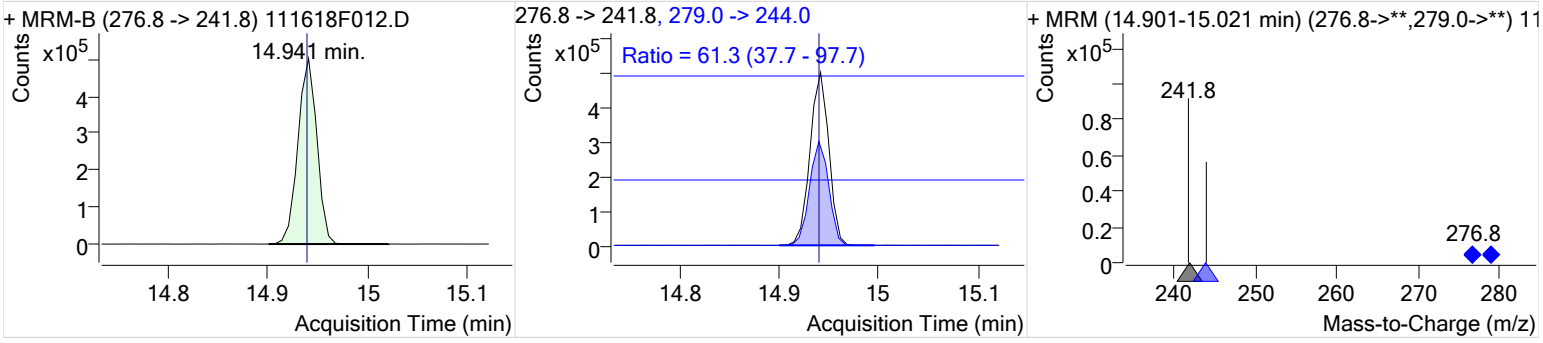
Methoxychlor-d6



Methoxychlor

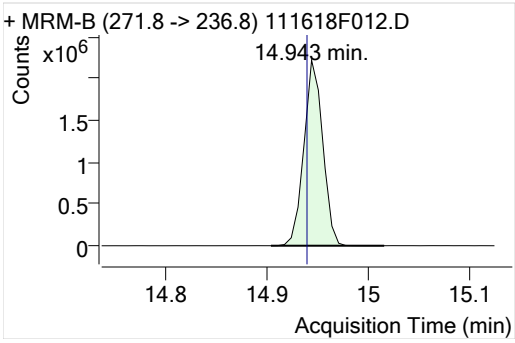


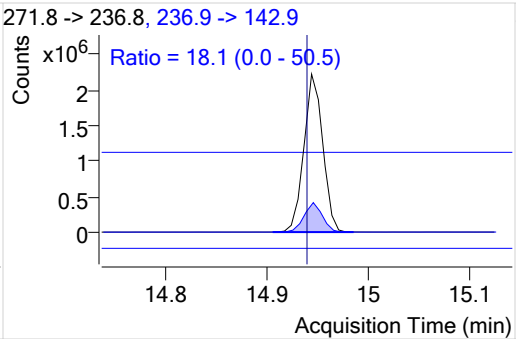
Mirex-13C10

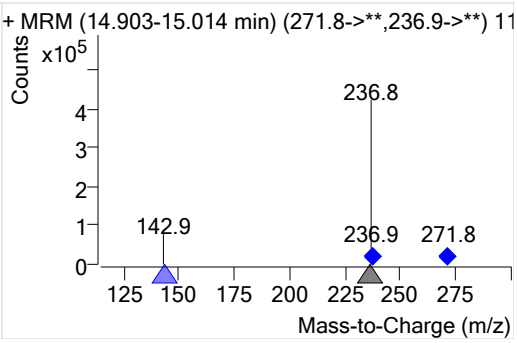


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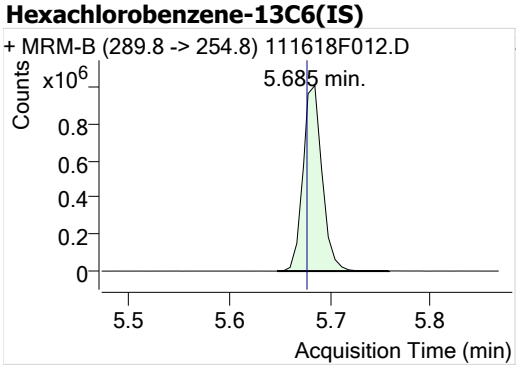
Mirex

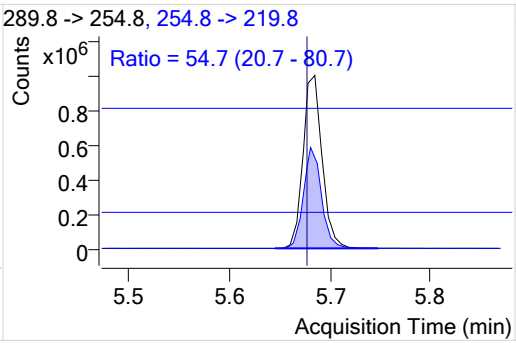


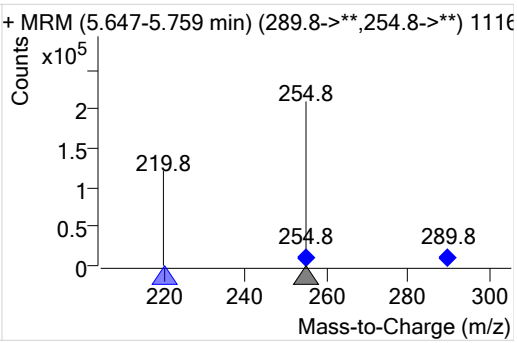




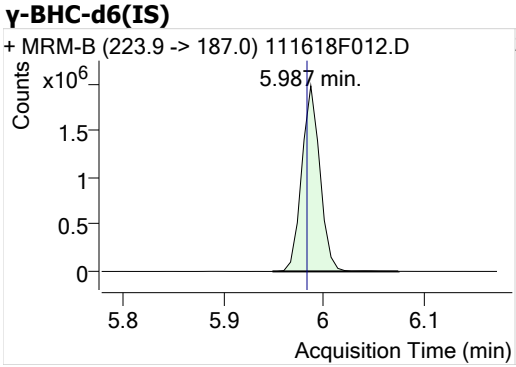
Hexachlorobenzene-13C6(IS)

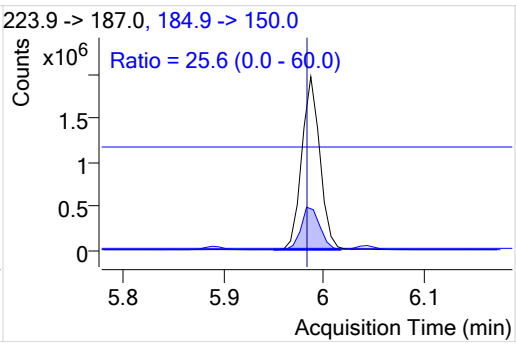


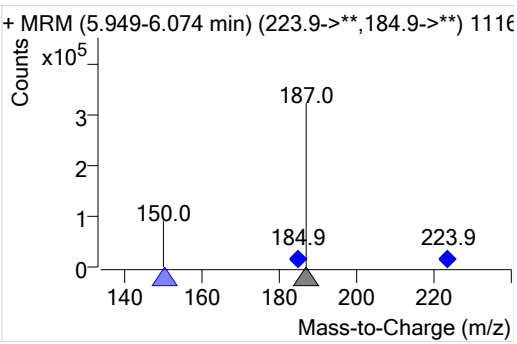




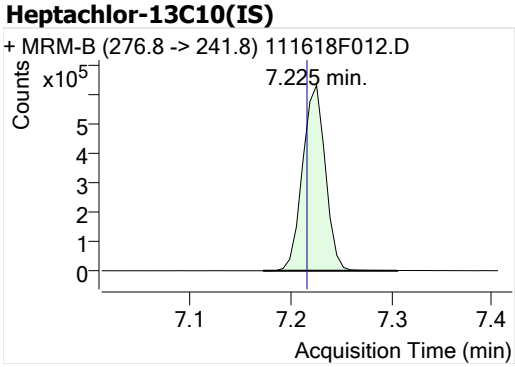
γ-BHC-d6(IS)

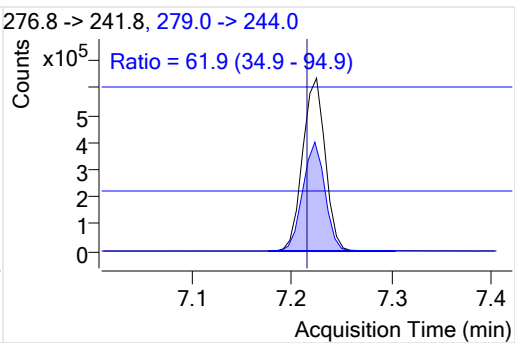


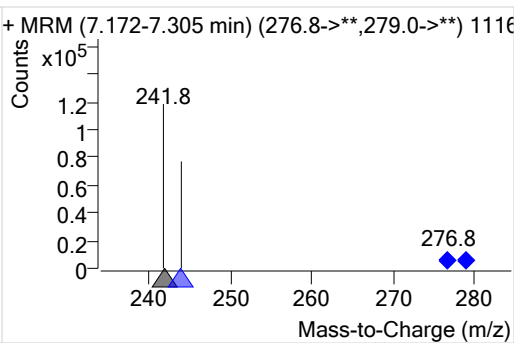




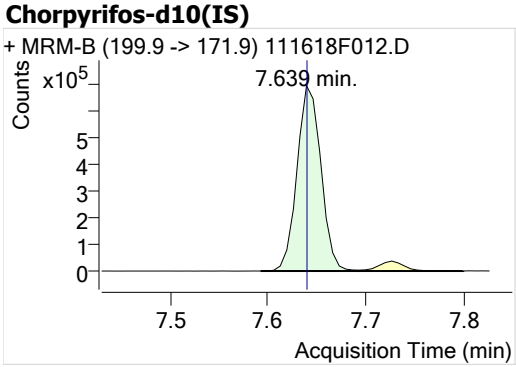
Heptachlor-13C10(IS)

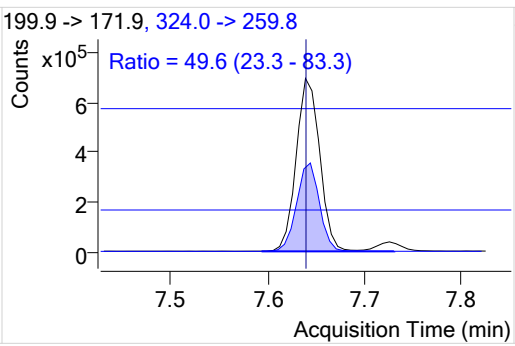


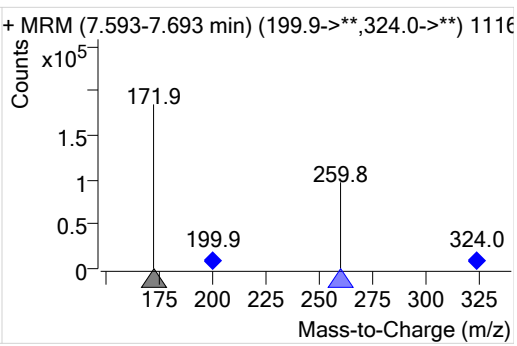




Chorpyrifos-d10(IS)

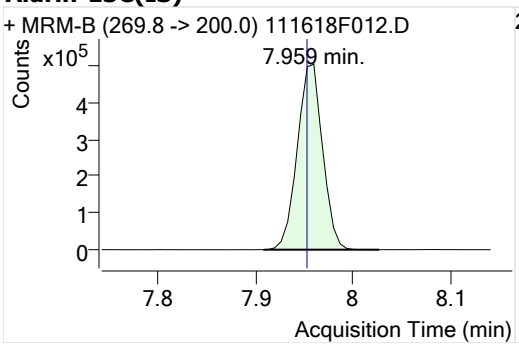


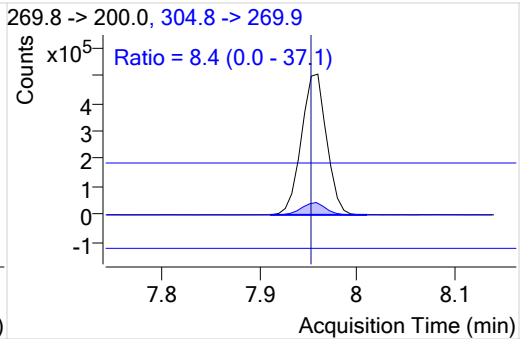


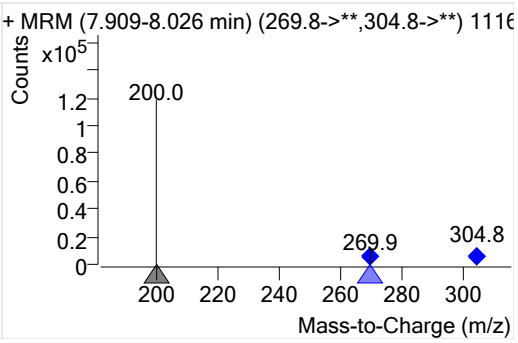


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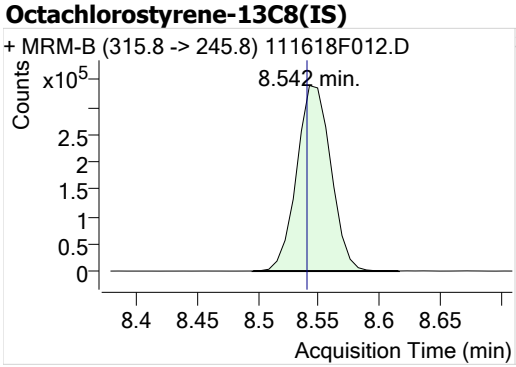
Aldrin-13C(IS)

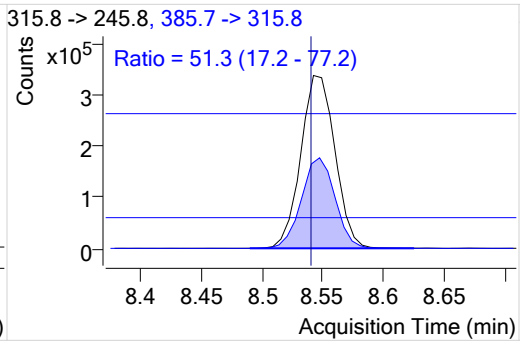


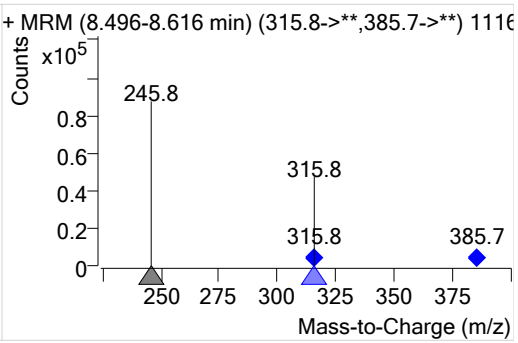




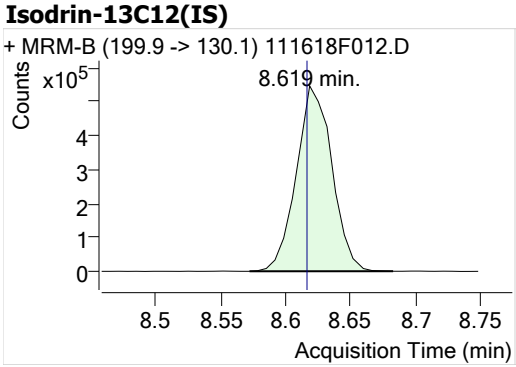
Octachlorostyrene-13C8(IS)

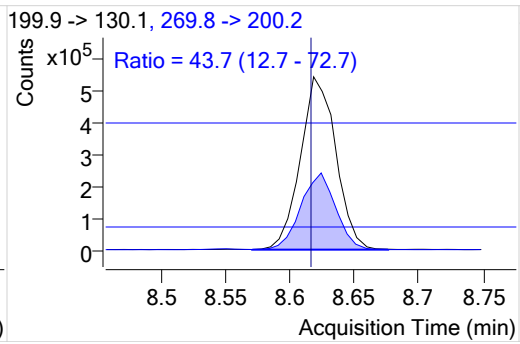


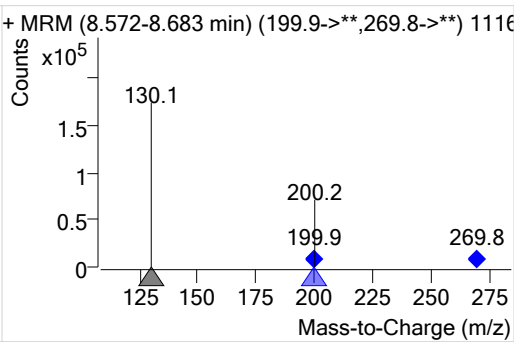




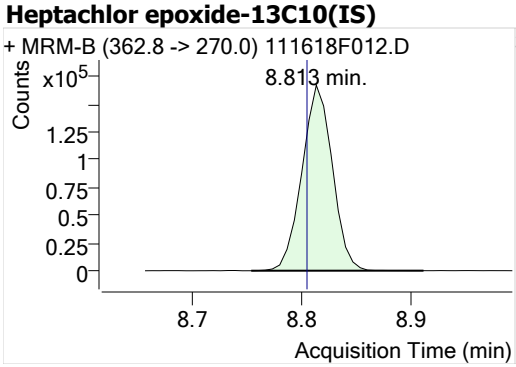
Isodrin-13C12(IS)

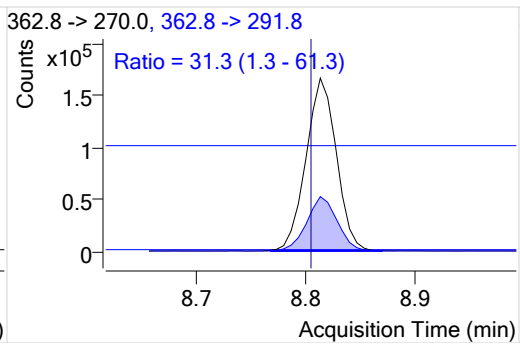


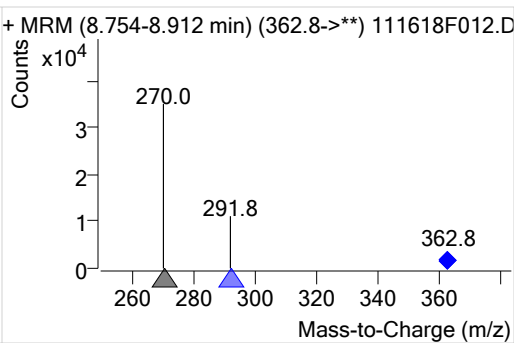




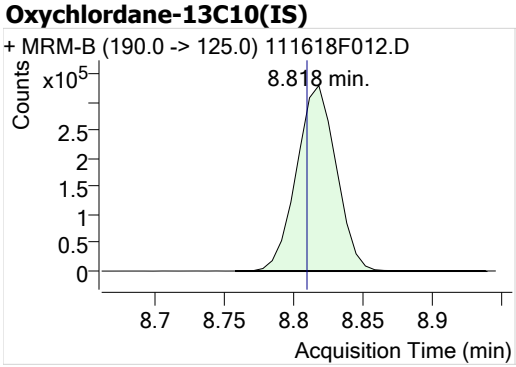
Heptachlor epoxide-13C10(IS)

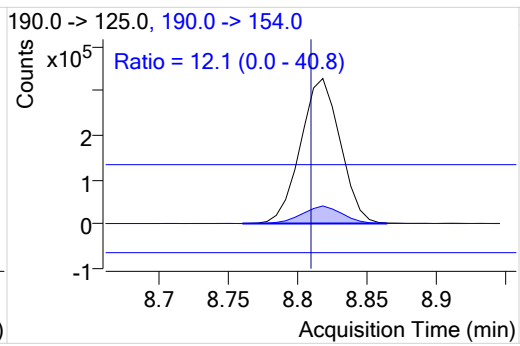


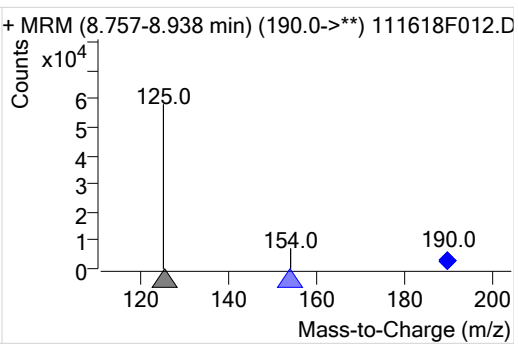




Oxychlordane-13C10(IS)

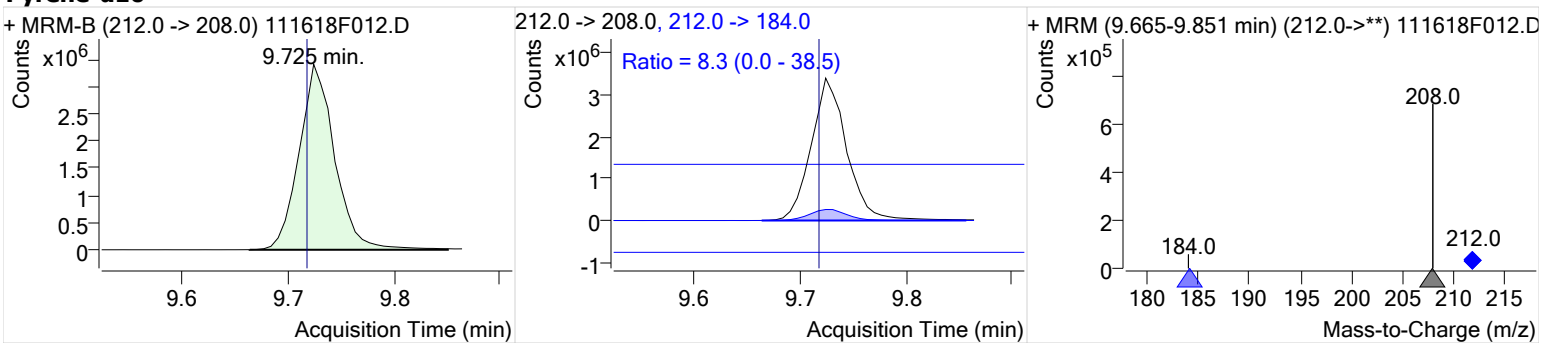




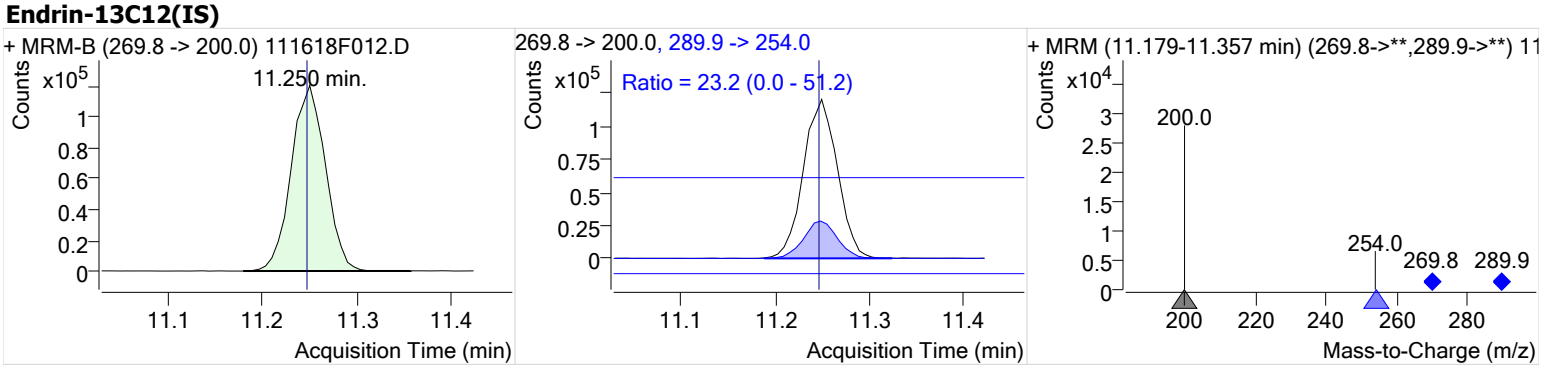


Quantitative Analysis Sample Report

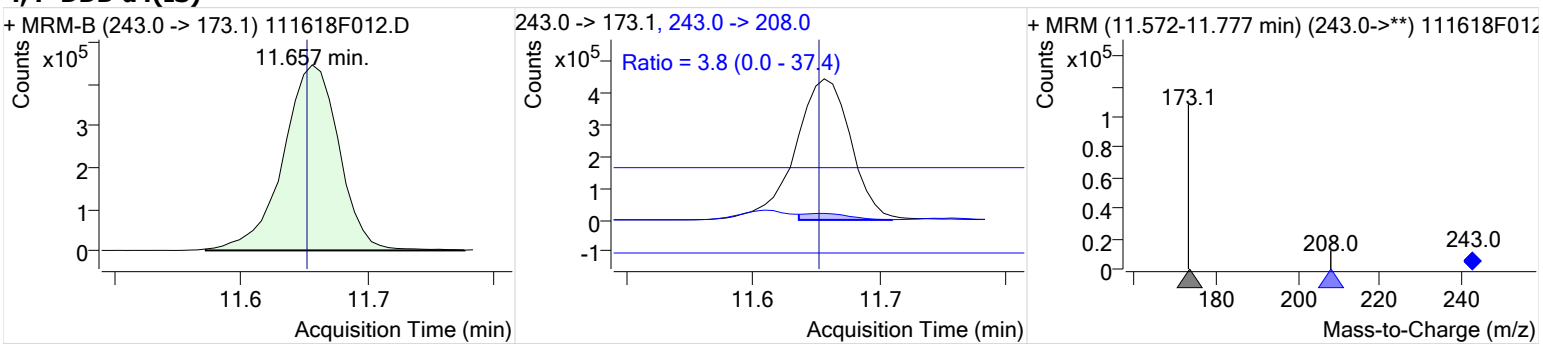
Pyrene-d10



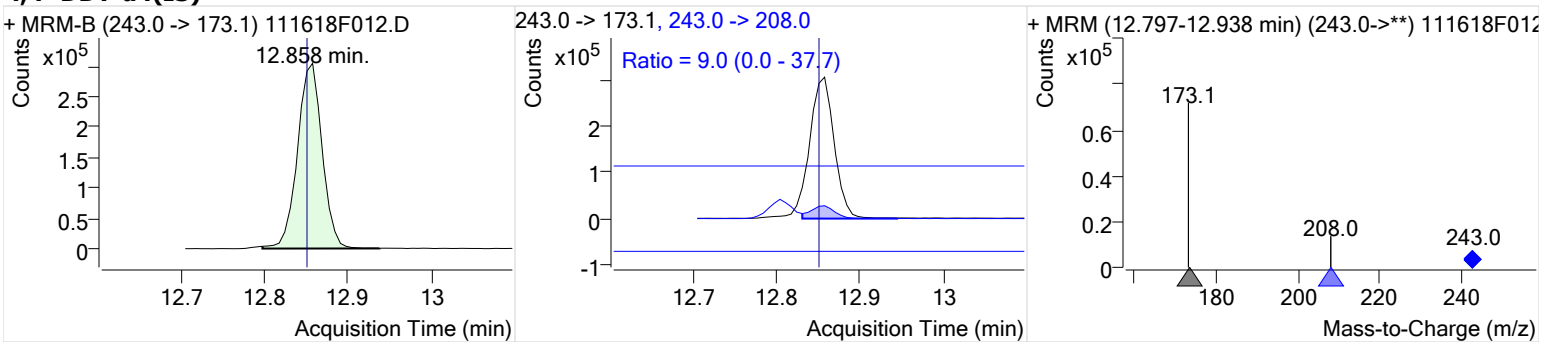
Endrin-13C12(IS)



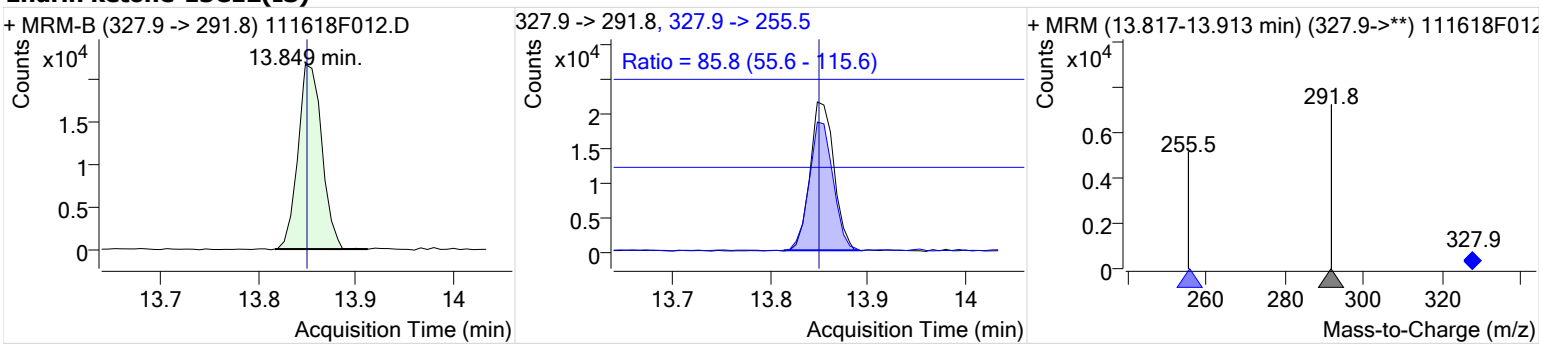
4,4'-DDD d4(IS)



4,4'-DDT-d4(IS)

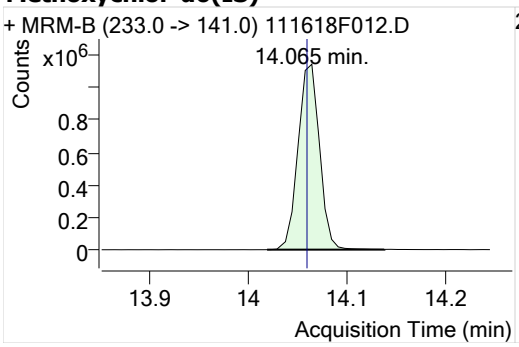


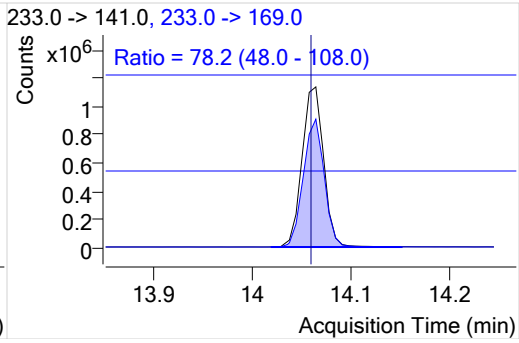
Endrin ketone-13C12(IS)

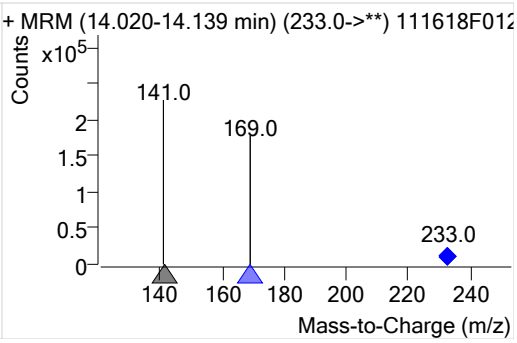


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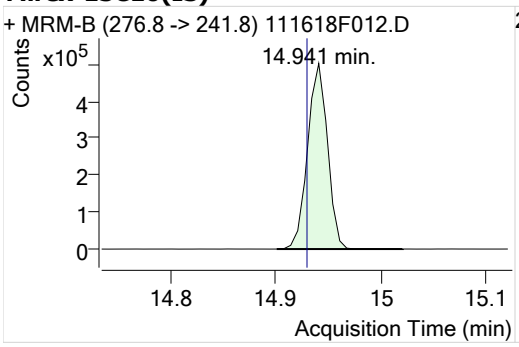
Methoxychlor-d6(IS)

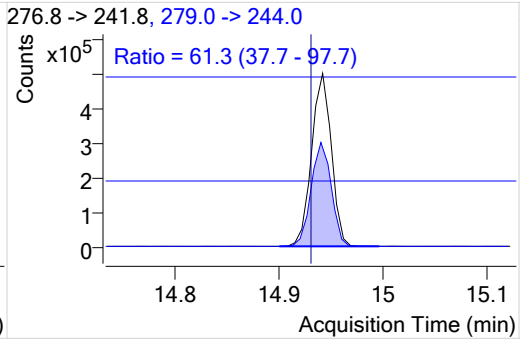


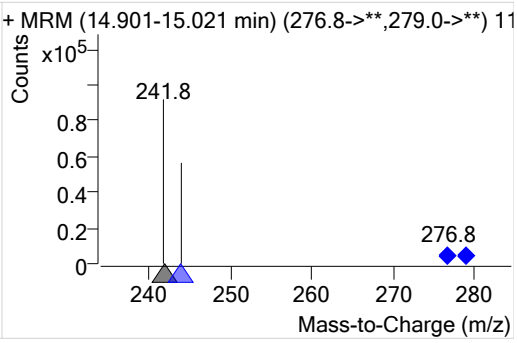




Mirex-13C10(IS)







Quantitative Analysis Sample Report

Data File	Y:\MS42\data\111618\111618F013.D	**Vial**	9
Acq. Date-Time	11/16/2018 2:50:39 PM	**Acq Operator**	EBruno
Name	OC PEST ICAL 40ng/mL SVM59-48G	**Instrument Name**	MS42
Info.		**Instrument Type**	QQQ
Quant Time	3/14/2019 10:04:01 AM	**Inj Vol**	1
Quant Method	110618 OC PEST ICAL.batch.bin		
Last Update	3/14/2019 10:04:01 AM		
Acq. Method File	OC Pest_dMRM	**Tune File Name**	atunes.eihs.tune.xml
Batch File Name	Y:\MS42\data\111618\QuantResults\111618 oc pest ical.batch.bin		

Internal Standards	RT	Transition	Response	Conc. Units	Dev(Min)
Hexachlorobenzene-13C6(IS)	5.679	289.8 -> 254.8	1296270	20.000 ng/ml	0.003
γ-BHC-d6(IS)	5.987	223.9 -> 187.0	2484079	20.000 ng/ml	0.005
Heptachlor-13C10(IS)	7.220	276.8 -> 241.8	1067437	20.000 ng/ml	0.004
Chorpyrifos-d10(IS)	7.641	199.9 -> 171.9	1449412	20.000 ng/ml	0.004
Aldrin-13C(IS)	7.959	269.8 -> 200.0	963207	20.000 ng/ml	0.005
Octachlorostyrene-13C8(IS)	8.550	315.8 -> 245.8	669396	20.000 ng/ml	0.009
Isodrin-13C12(IS)	8.626	199.9 -> 130.1	1049237	20.000 ng/ml	0.006
Heptachlor epoxide-13C10(IS)	8.814	362.8 -> 270.0	326569	20.000 ng/ml	0.009
Oxychlordane-13C10(IS)	8.818	190.0 -> 125.0	664805	20.000 ng/ml	0.009
Pyrene-d10	9.732	212.0 -> 208.0	9159869	100.000 ng/ml	0.010
Endrin-13C12(IS)	11.250	269.8 -> 200.0	341729	20.000 ng/ml	0.003
4,4'-DDD d4(IS)	11.657	243.0 -> 173.1	1695870	5.000 ng/ml	0.021
4,4'-DDT-d4(IS)	12.858	243.0 -> 173.1	759221	5.000 ng/ml	0.007
Endrin ketone-13C12(IS)	13.855	327.9 -> 291.8	44033	20.000 ng/ml	0.002
Methoxychlor-d6(IS)	14.058	233.0 -> 141.0	2019650	20.000 ng/ml	0.002
Mirex-13C10(IS)	14.941	276.8 -> 241.8	755843	5.000 ng/ml	0.010

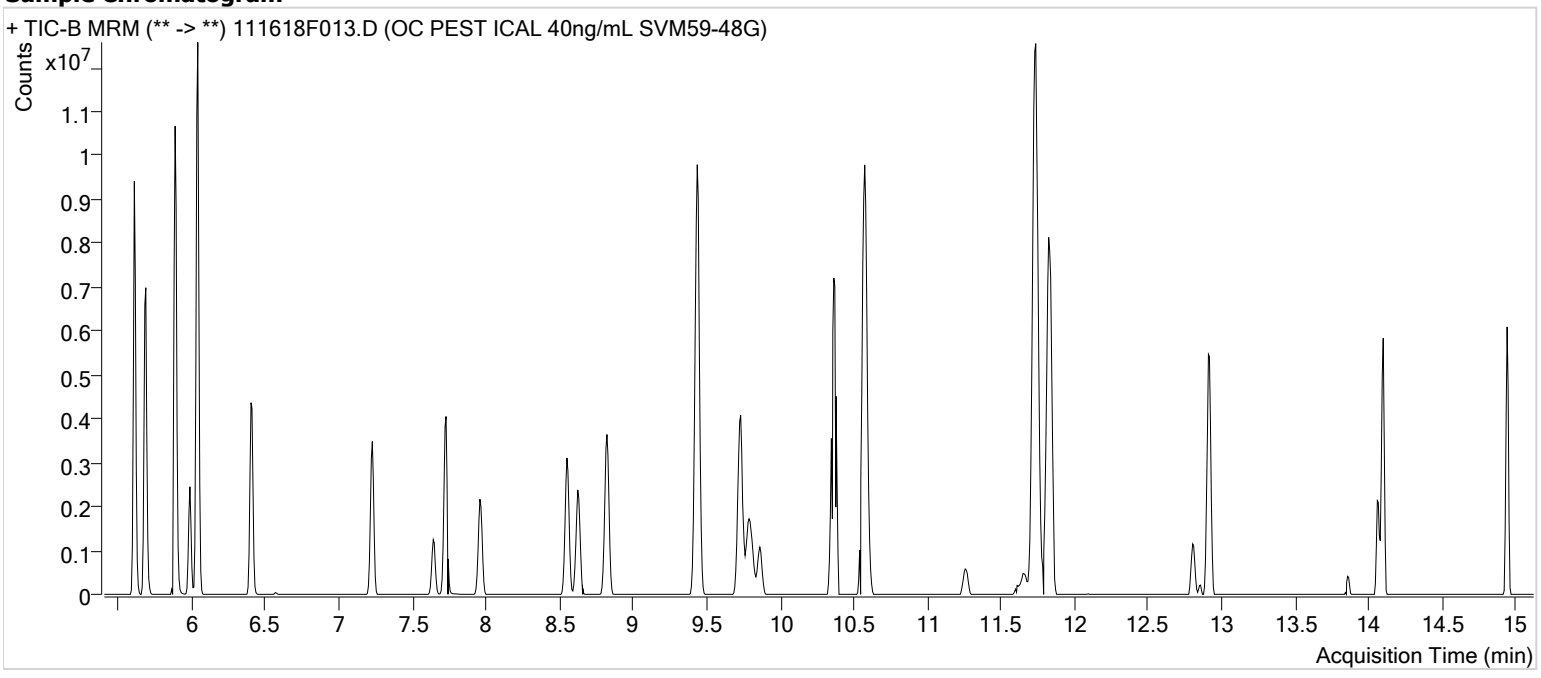
System Monitoring Compounds	RT	Transition	Response	Conc. Units	
Hexachlorobenzene-13C6	5.677	289.8 -> 254.8	1296270	19.225 ng/ml	
		Spiked Amount =	20.0	Recovery =	*96.1 %*
γ-BHC-d6	5.983	223.9 -> 187.0	2484079	19.442 ng/ml	
		Spiked Amount =	20.0	Recovery =	*97.2 %*
Heptachlor-13C10	7.216	276.8 -> 241.8	1067437	20.204 ng/ml	
		Spiked Amount =	20.0	Recovery =	*101.0 %*
Chorpyrifos-d10	7.640	199.9 -> 171.9	1449412	21.867 ng/ml	
		Spiked Amount =	20.0	Recovery =	*109.3 %*
Aldrin-13C	7.952	269.8 -> 200.0	963028	19.957 ng/ml	
		Spiked Amount =	20.0	Recovery =	*99.8 %*
Octachlorostyrene-13C8	8.540	315.8 -> 245.8	669396	19.374 ng/ml	
		Spiked Amount =	20.0	Recovery =	*96.9 %*
Isodrin-13C12	8.616	199.9 -> 130.1	1049237	19.928 ng/ml	
		Spiked Amount =	20.0	Recovery =	*99.6 %*
Heptachlor epoxide-13C10	8.805	362.8 -> 270.0	326569	19.399 ng/ml	
		Spiked Amount =	20.0	Recovery =	*97.0 %*
Oxychlordane-13C10	8.809	190.0 -> 125.0	664805	19.432 ng/ml	
		Spiked Amount =	20.0	Recovery =	*97.2 %*
Endrin-13C12	11.247	269.8 -> 200.0	341729	20.413 ng/ml	
		Spiked Amount =	20.0	Recovery =	*102.1 %*
4,4'-DDD d4	11.652	243.0 -> 173.1	1695870	5.213 ng/ml	
		Spiked Amount =	5.0	Recovery =	*104.3 %*
4,4'-DDT-d4	12.851	243.0 -> 173.1	759221	5.223 ng/ml	
		Spiked Amount =	5.0	Recovery =	*104.5 %*
Endrin ketone-13C12	13.850	327.9 -> 291.8	44033	21.242 ng/ml	
		Spiked Amount =	20.0	Recovery =	*106.2 %*
Methoxychlor-d6	14.060	233.0 -> 141.0	2019650	21.028 ng/ml	
		Spiked Amount =	20.0	Recovery =	*105.1 %*
Mirex-13C10	14.930	276.8 -> 241.8	755843	5.386 ng/ml	
		Spiked Amount =	5.0	Recovery =	*107.7 %*

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Target Compounds	ISTD	RT	Transition	Resp.	Conc.	Units	Qvalue
α-BHC	γ-BHC-d6(IS)	5.613	181.1 -> 145.1	6669112	37.545	ng/ml	98
Hexachlorobenzene	Hexachlorobenzene-13C6(IS)	5.686	283.8 -> 213.9	4339323	36.981	ng/ml	99
β-BHC	γ-BHC-d6(IS)	5.890	181.1 -> 145.1	8475281	37.713	ng/ml	98
γ-BHC(Lindane)	γ-BHC-d6(IS)	6.044	181.1 -> 145.1	9692094	37.301	ng/ml	96
δ-BHC	γ-BHC-d6(IS)	6.404	181.1 -> 145.1	4014836	38.768	ng/ml	99
Heptachlor	Heptachlor-13C10(IS)	7.230	271.7 -> 236.9	2331961	37.691	ng/ml	98
Chorpyrifos	Chorpyrifos-d10(IS)	7.731	196.9 -> 169.0	3310703	32.358	ng/ml	97
Aldrin	Aldrin-13C(IS)	7.962	254.9 -> 220.0	1217467	37.995	ng/ml	88
Octachlorostyrene	Octachlorostyrene-13C8(IS)	8.549	342.8 -> 307.8	3305184	38.367	ng/ml	96
Isodrin	Isodrin-13C12(IS)	8.634	193.0 -> 123.0	1949428	36.212	ng/ml	91
Heptachlor epoxide	Heptachlor epoxide-13C10(IS)	8.822	352.8 -> 262.9	716870	38.574	ng/ml	96
Oxychlordane	Oxychlordane-13C10(IS)	8.826	114.9 -> 51.1	3354571	37.321	ng/ml	100
γ-Chlordane(trans)	Oxychlordane-13C10(IS)	9.429	271.8 -> 236.9	1213672	37.888	ng/ml	96
2,4'-DDE	4,4'-DDD d4(IS)	9.439	246.0 -> 176.2	11281394	34.990	ng/ml	98
α-Chlordane(cis)	Oxychlordane-13C10(IS)	9.788	271.8 -> 236.9	3006107	37.563	ng/ml	96
Endosulfan I	Endrin-13C12(IS)	9.811	206.9 -> 172.0	745260	34.790	ng/ml	99
trans-Nanochlor	Oxychlordane-13C10(IS)	9.862	271.8 -> 236.9	2060627	40.009	ng/ml	96
4,4' -DDE	4,4'-DDD d4(IS)	10.364	246.0 -> 176.2	11249650	38.064	ng/ml	100
2,4'-DDD	4,4'-DDD d4(IS)	10.578	235.0 -> 165.1	14206324	38.930	ng/ml	97
Dieldrin	Endrin-13C12(IS)	10.594	262.9 -> 193.0	979853	37.592	ng/ml	92
Endosulfan II	Endrin-13C12(IS)	11.260	206.9 -> 172.0	149296	39.425	ng/ml	93
Endrin	Endrin-13C12(IS)	11.265	262.8 -> 193.0	867099	36.974	ng/ml	98
4,4'-DDD	4,4'-DDD d4(IS)	11.736	235.0 -> 165.1	20224672	36.928	ng/ml	100
cis-Nonachlor	Oxychlordane-13C10(IS)	11.756	271.8 -> 236.9	778575	39.906	ng/ml	85
2,4'-DDT	4,4'-DDT-d4(IS)	11.828	235.0 -> 165.1	13076908	38.413	ng/ml	98
Endrin aldehyde	Endrin-13C12(IS)	12.098	249.9 -> 214.9	245712	37.140	ng/ml	98
Endosulfan sulfate	Endrin-13C12(IS)	12.803	271.9 -> 237.0	1532788	38.181	ng/ml	96
4,4'-DDT	4,4'-DDT-d4(IS)	12.915	235.0 -> 165.1	6593071	37.529	ng/ml	100
Endrin ketone	Endrin ketone-13C12(IS)	13.861	147.0 -> 111.0	541800	34.956	ng/ml	93
Methoxychlor	Methoxychlor-d6(IS)	14.101	227.0 -> 141.1	4754362	36.891	ng/ml	98
Mirex	Mirex-13C10(IS)	14.943	271.8 -> 236.8	5951226	38.736	ng/ml	95

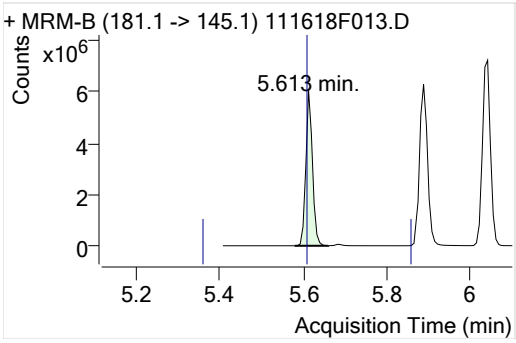
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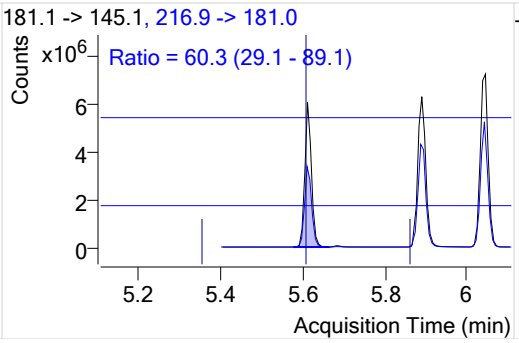
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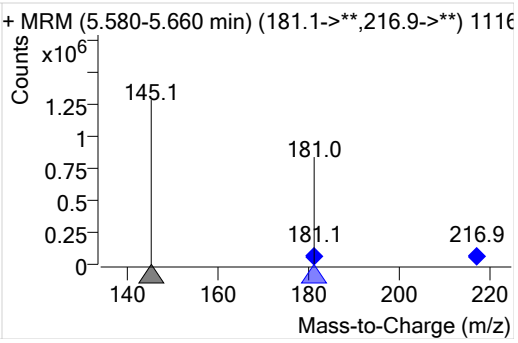


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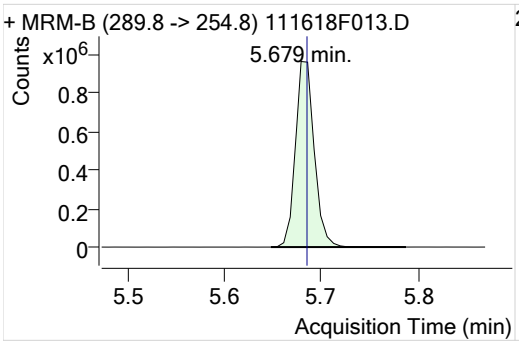
α-BHC

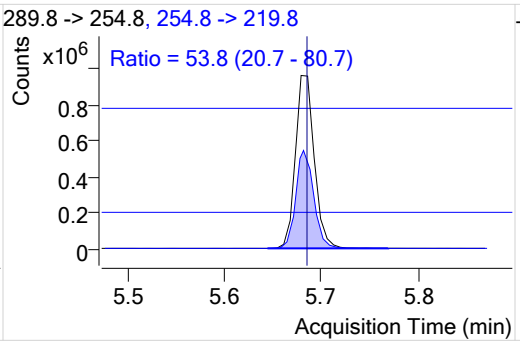


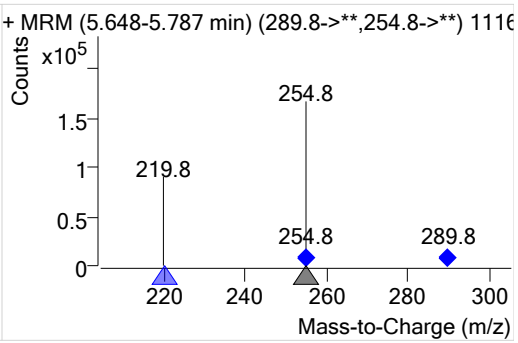




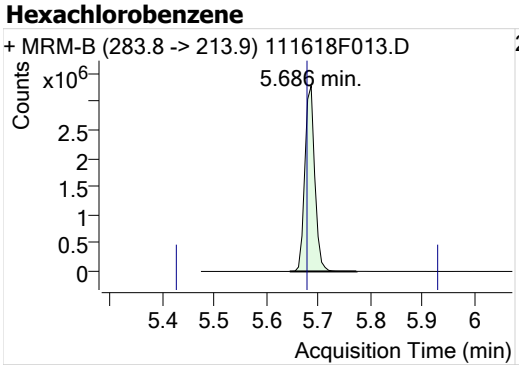
Hexachlorobenzene-13C6

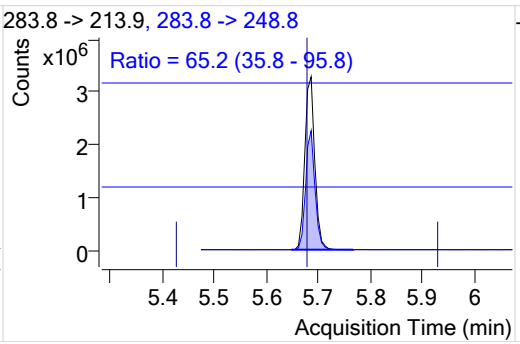


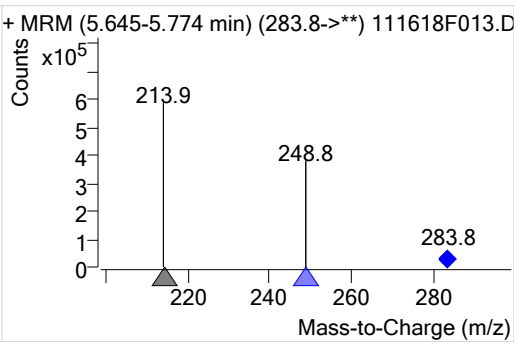




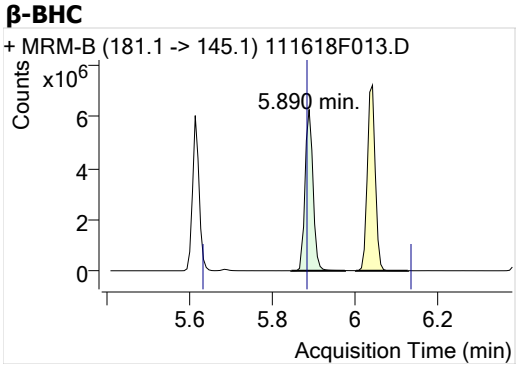
Hexachlorobenzene

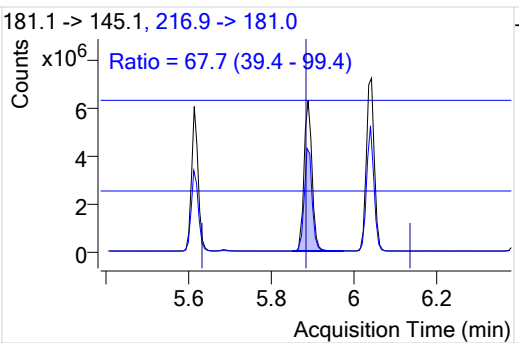


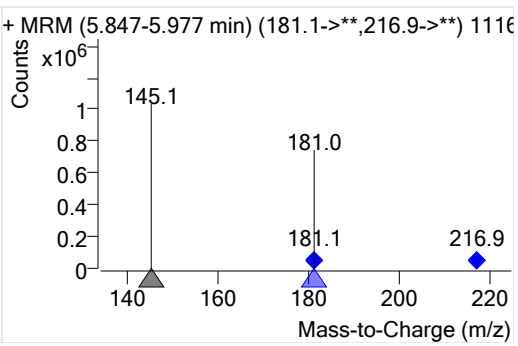




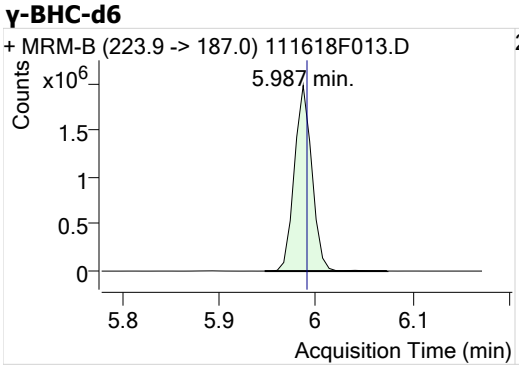
β-BHC

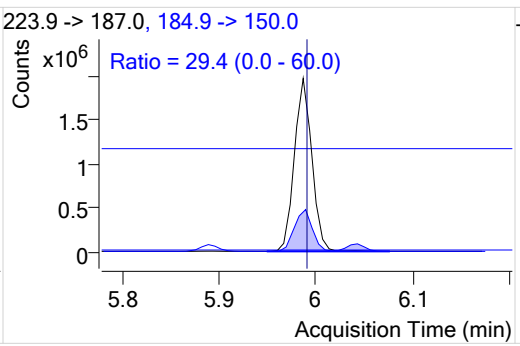


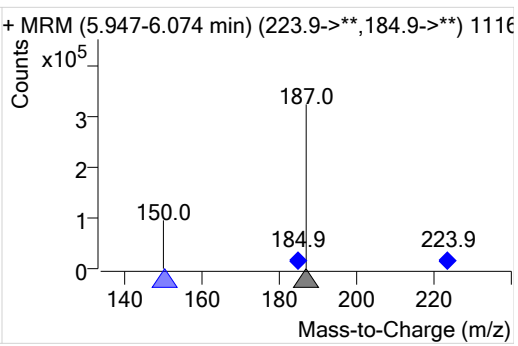




γ-BHC-d6

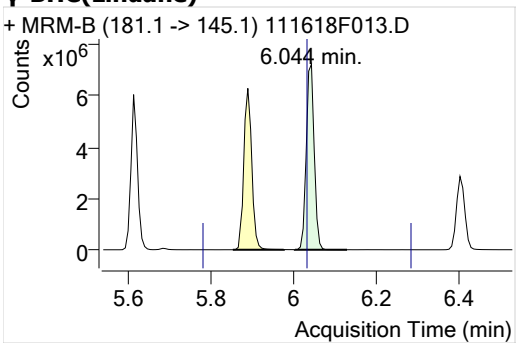


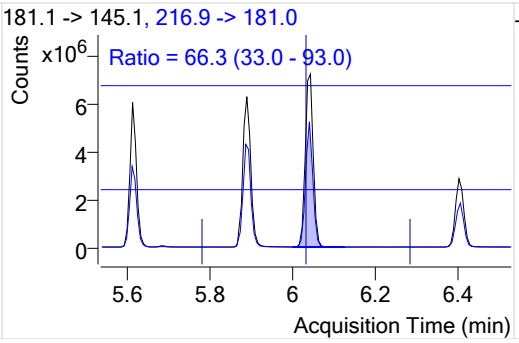


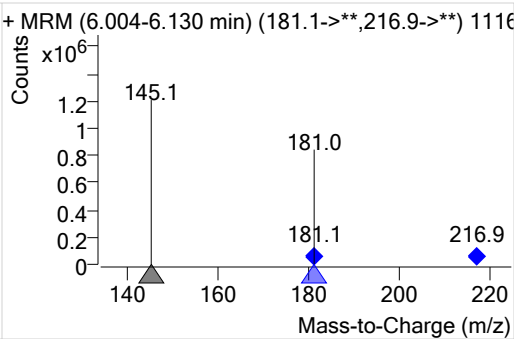


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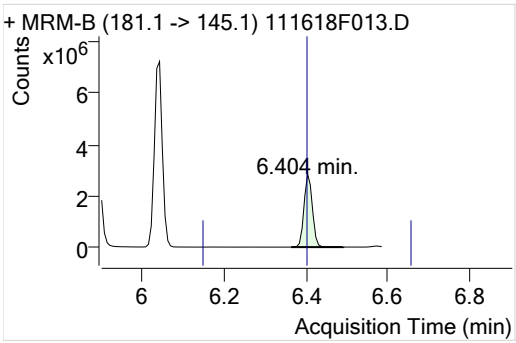
γ-BHC(Lindane)

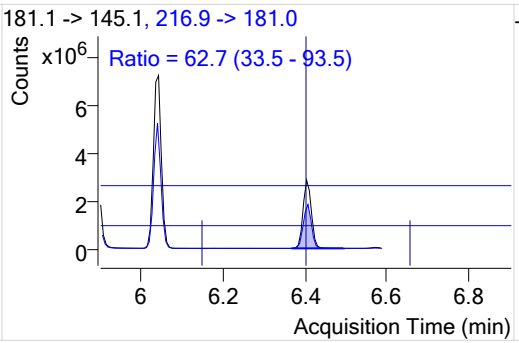


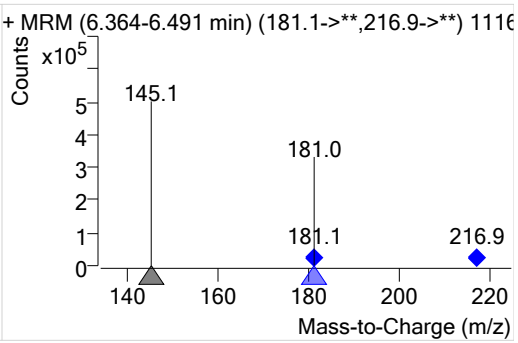




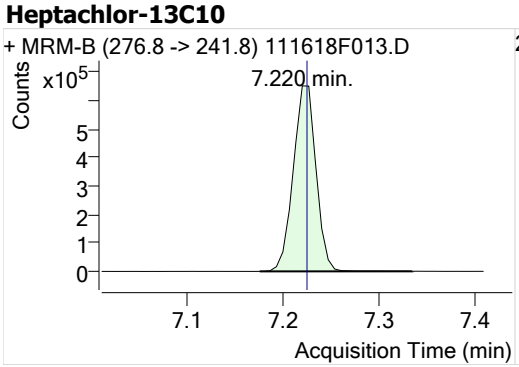
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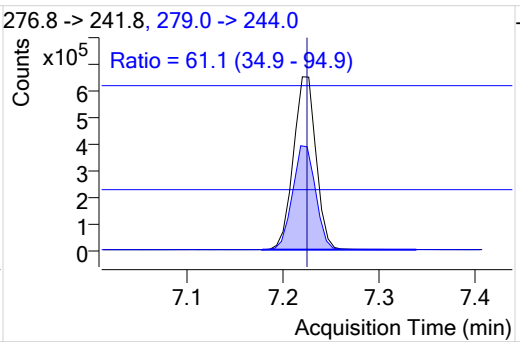


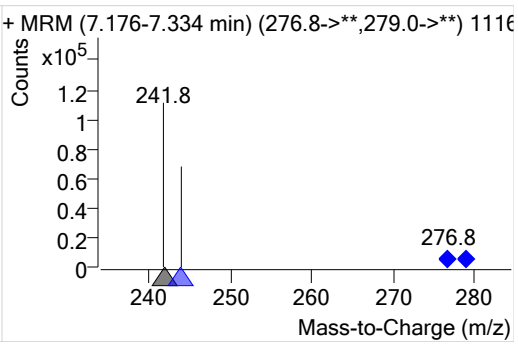




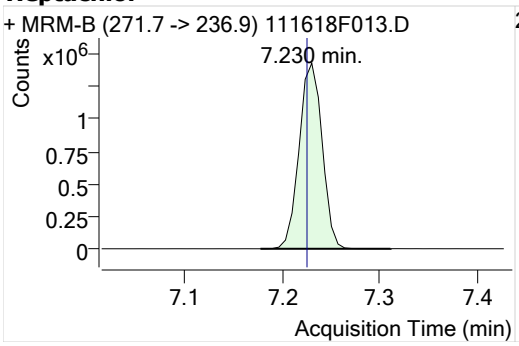
Heptachlor-13C10

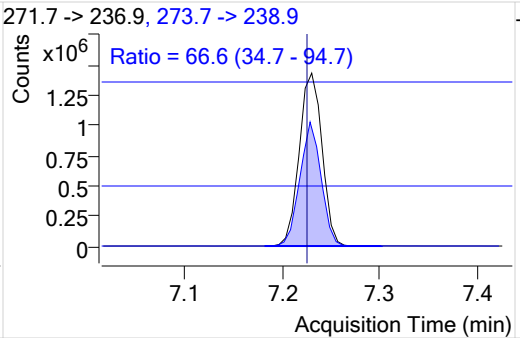


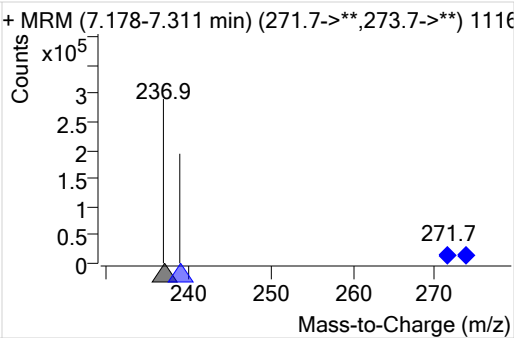




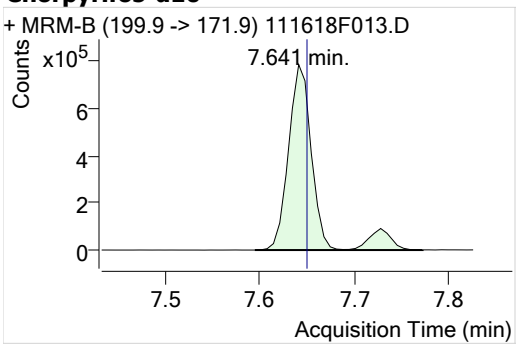
Heptachlor

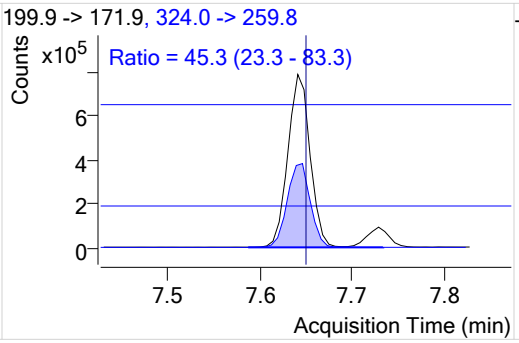


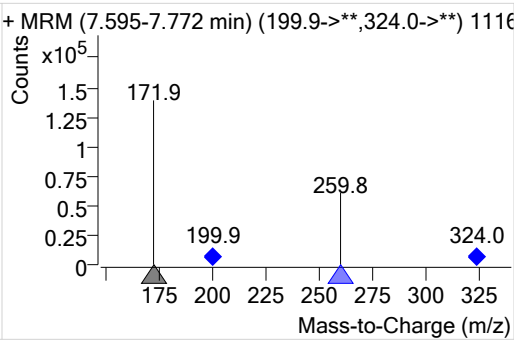




Chorpyrifos-d10

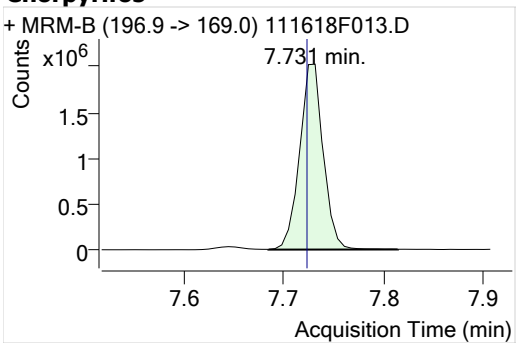


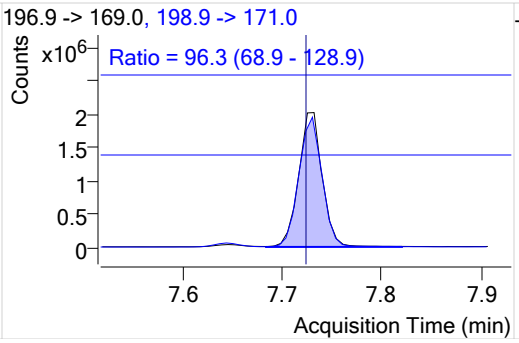


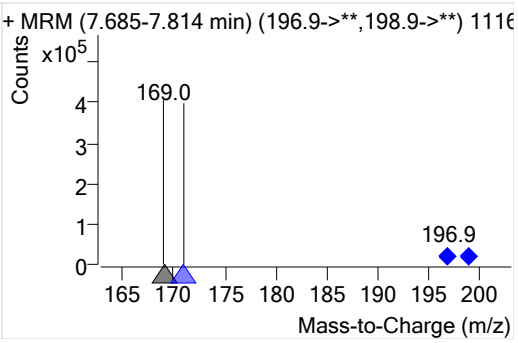


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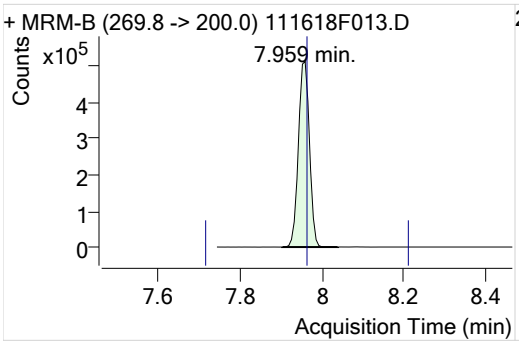
Chorpyrifos

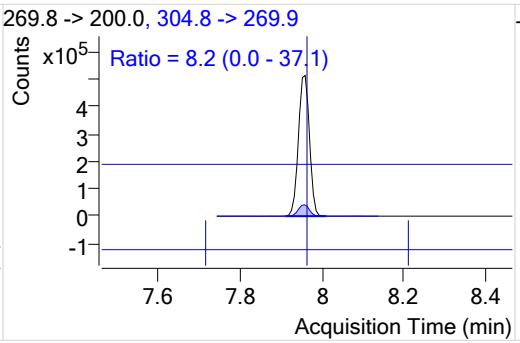


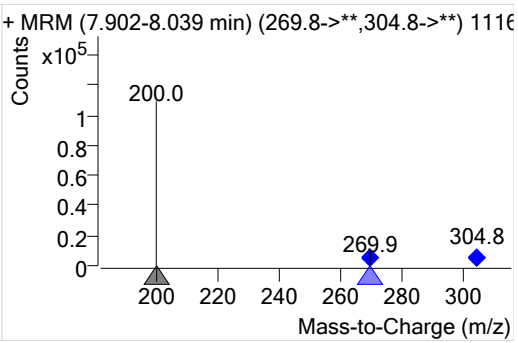




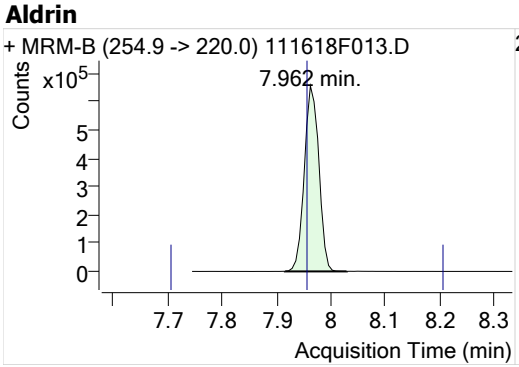
Aldrin-13C

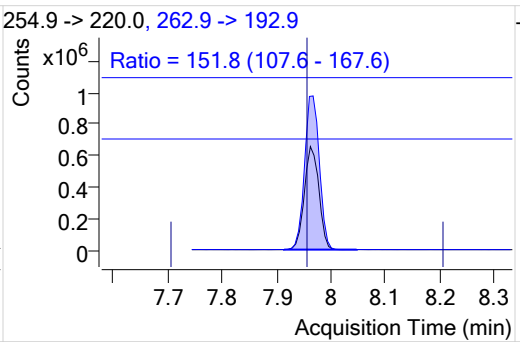


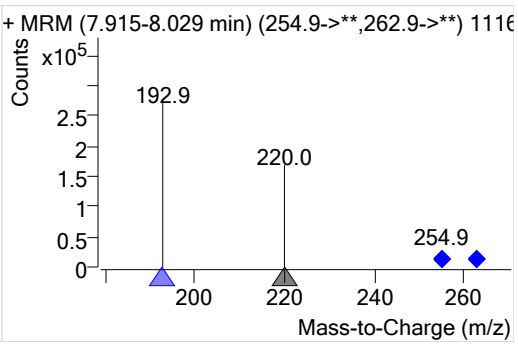




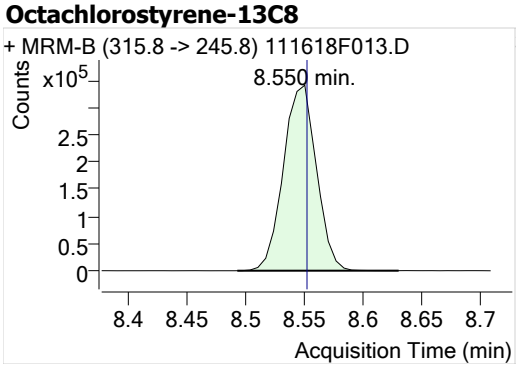
Aldrin

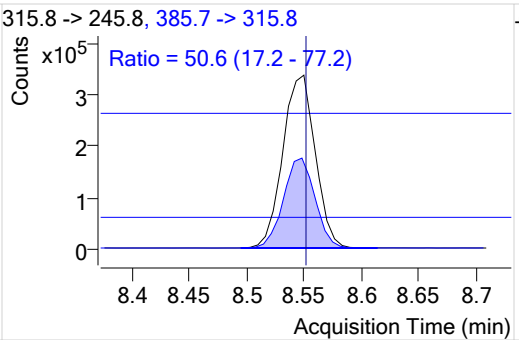


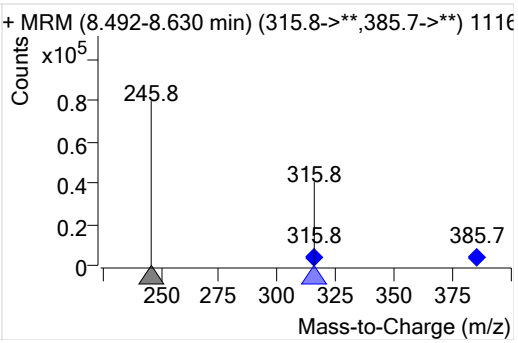




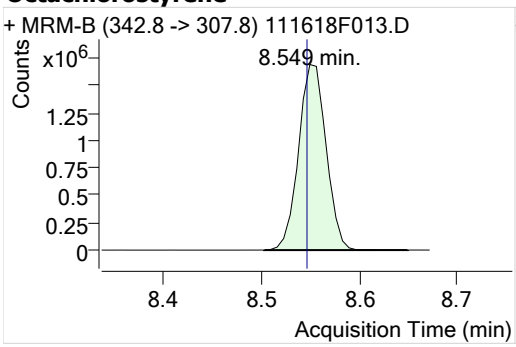
Octachlorostyrene-13C8

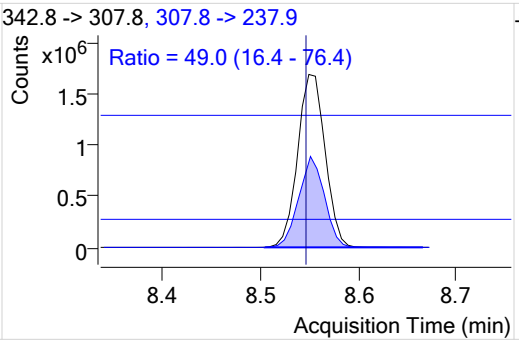


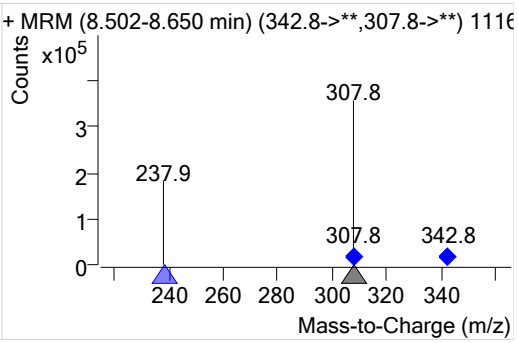




Octachlorostyrene

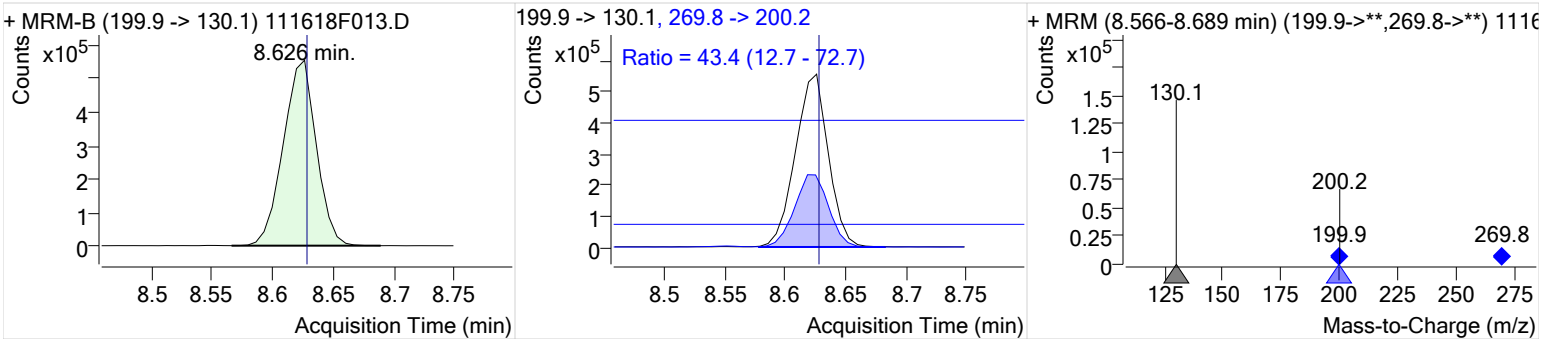




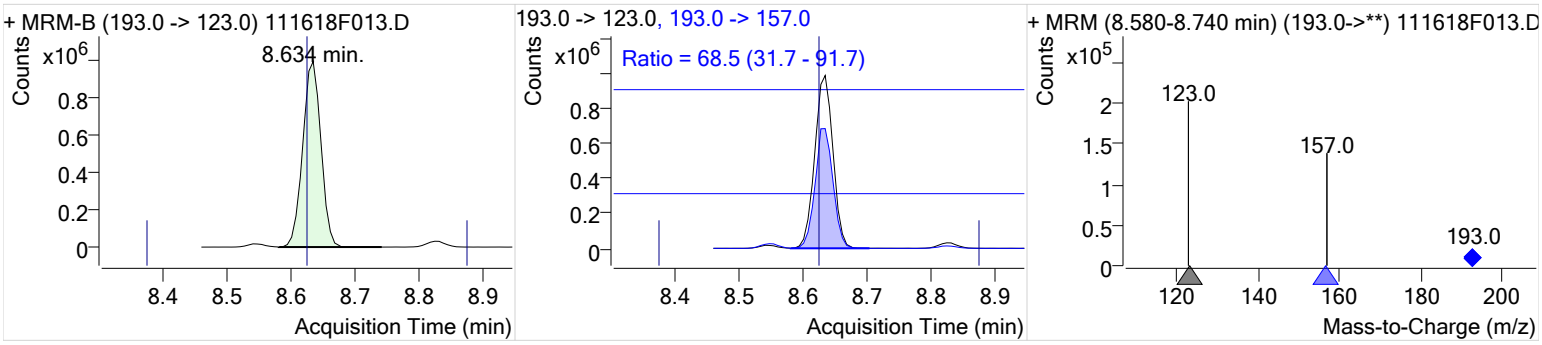


Quantitative Analysis Sample Report

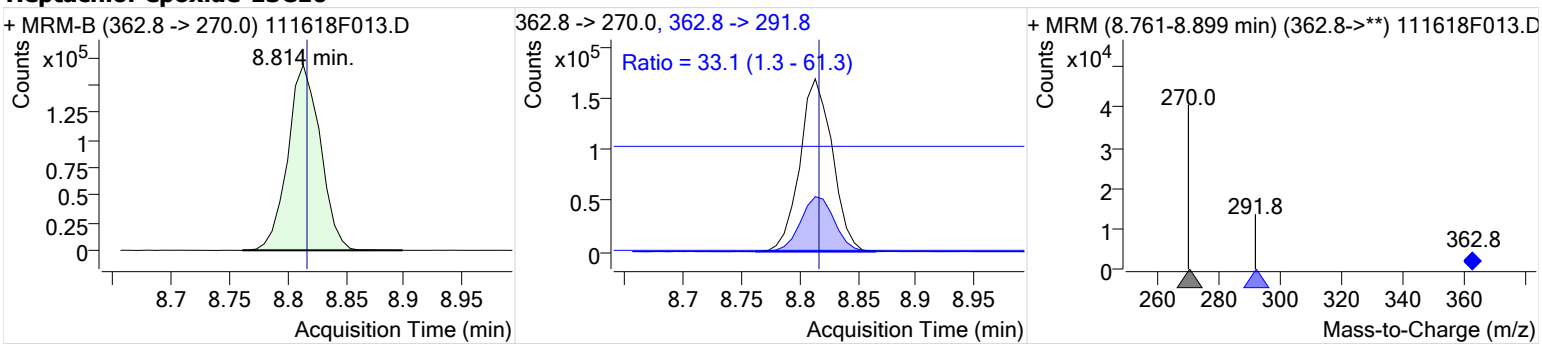
Isodrin-13C12



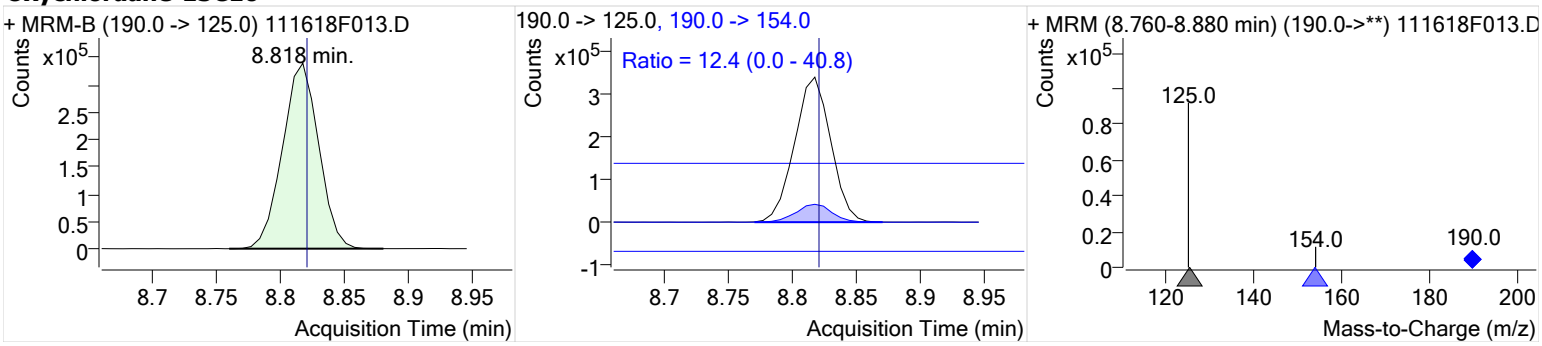
Isodrin



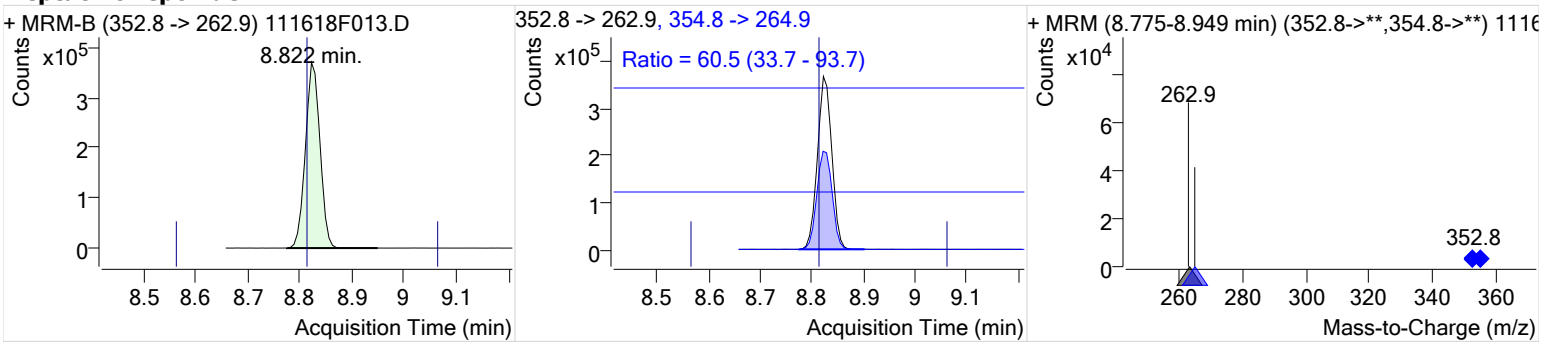
Heptachlor epoxide-13C10



Oxychlordane-13C10

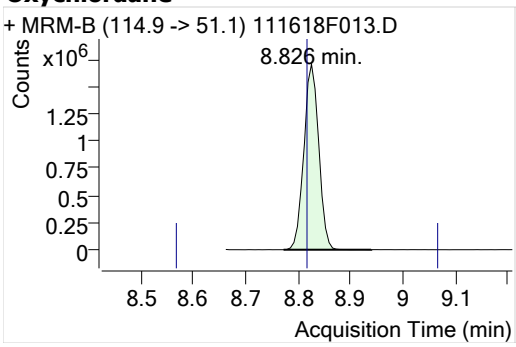


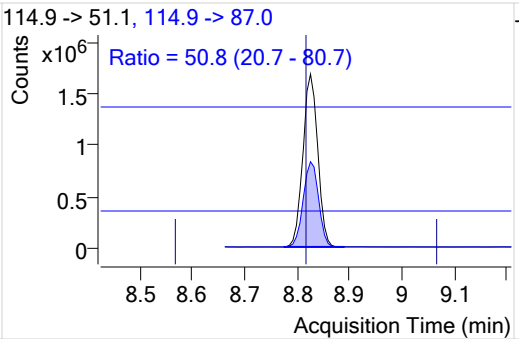
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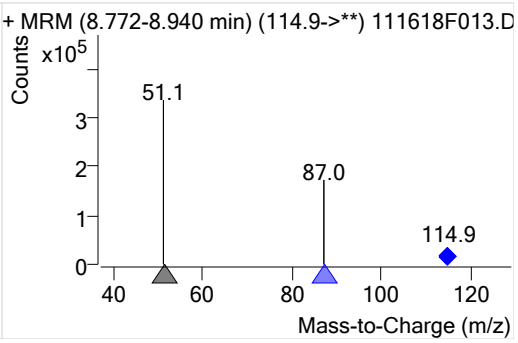


Quantitative Analysis Sample Report

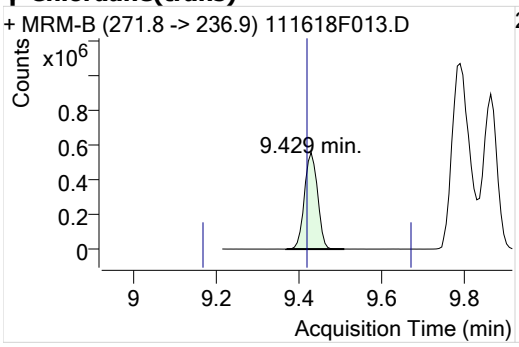
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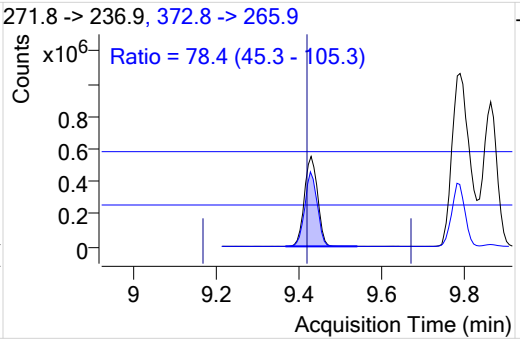


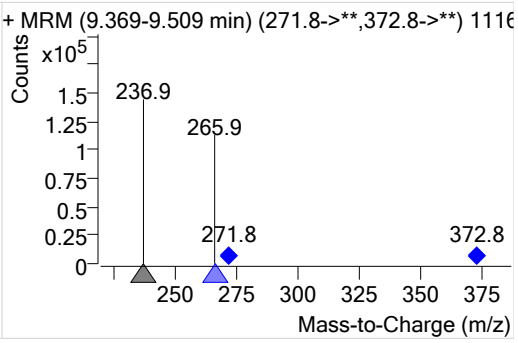




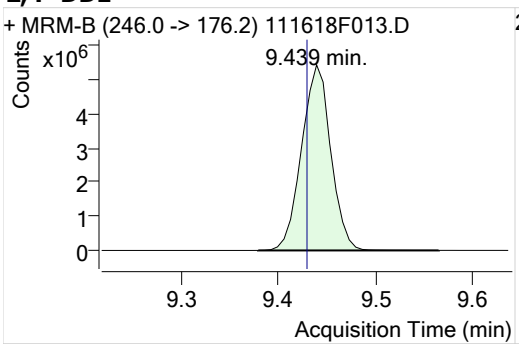
γ-Chlordane(trans)

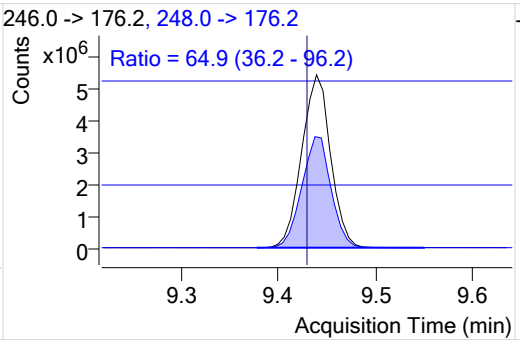


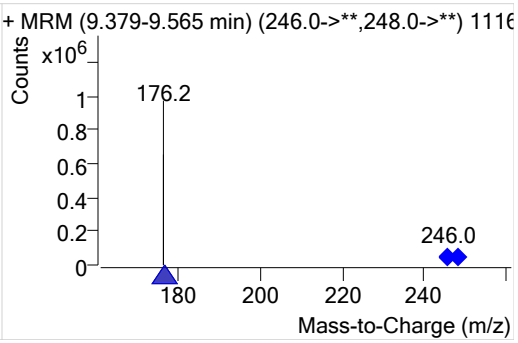




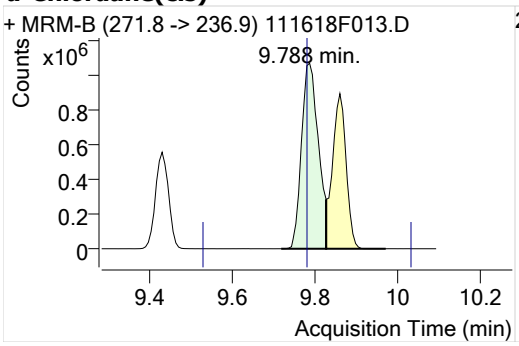
2,4'-DDE

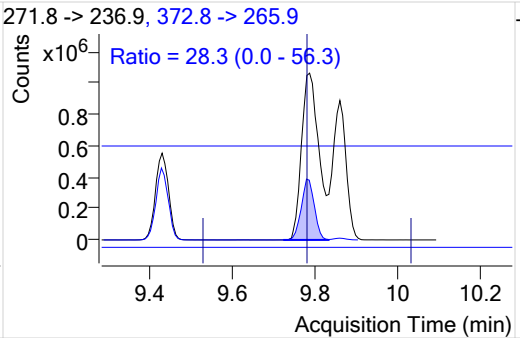


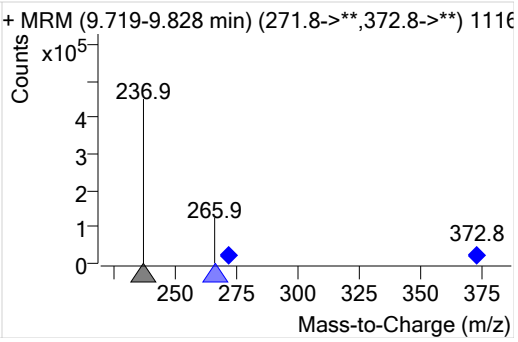




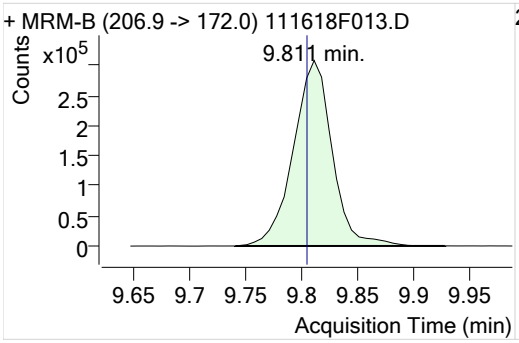
α-Chlordane(cis)

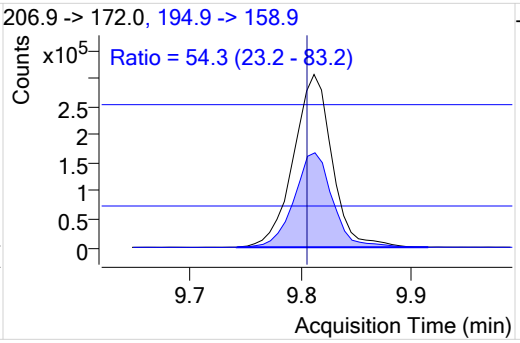


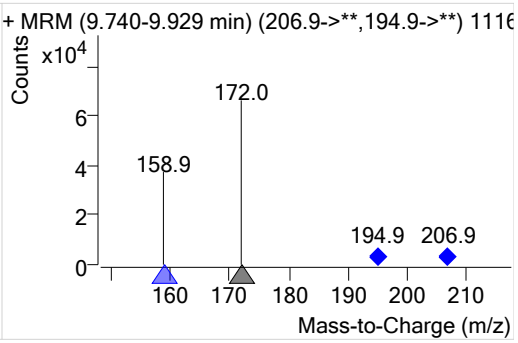




Endosulfan I

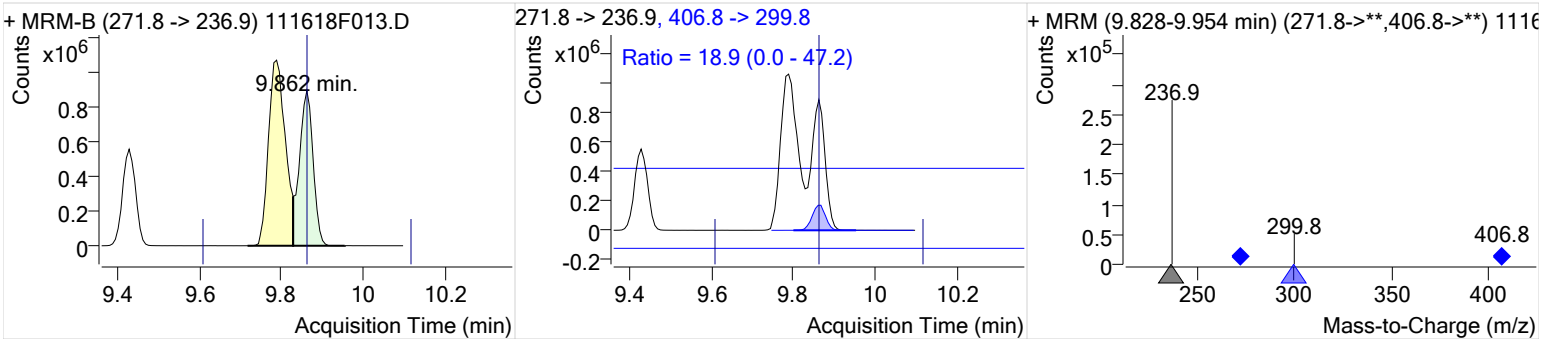




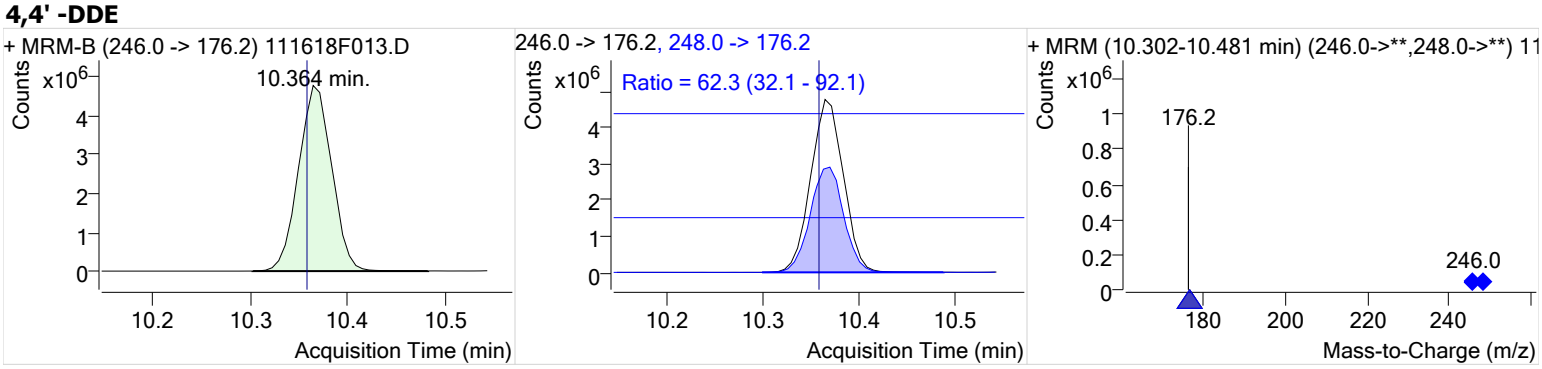


Quantitative Analysis Sample Report

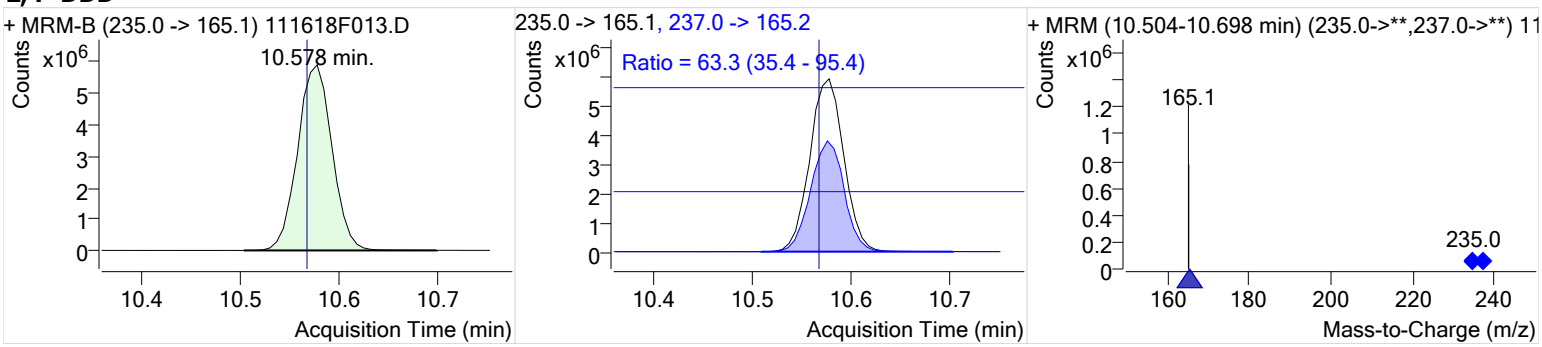
trans-Nanochlor



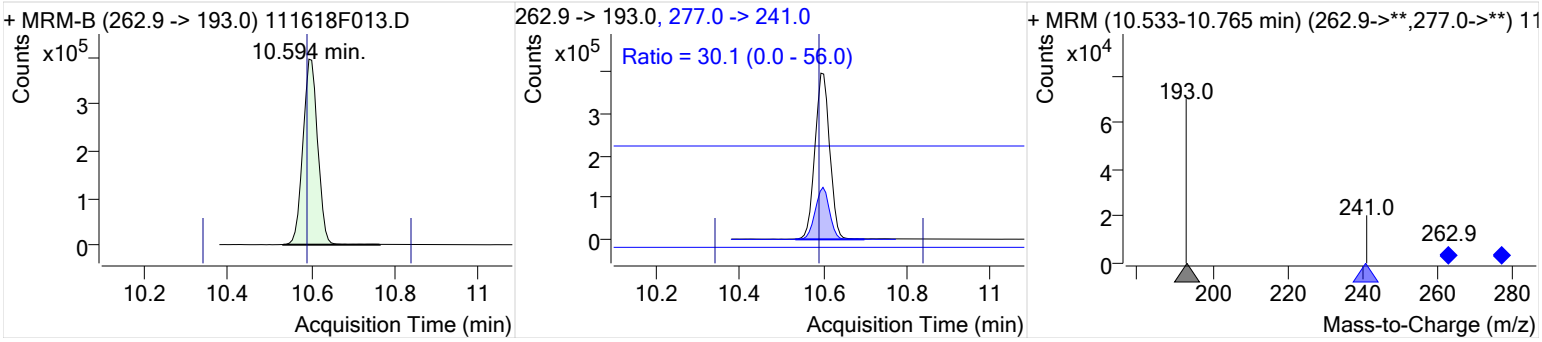
4,4' -DDE



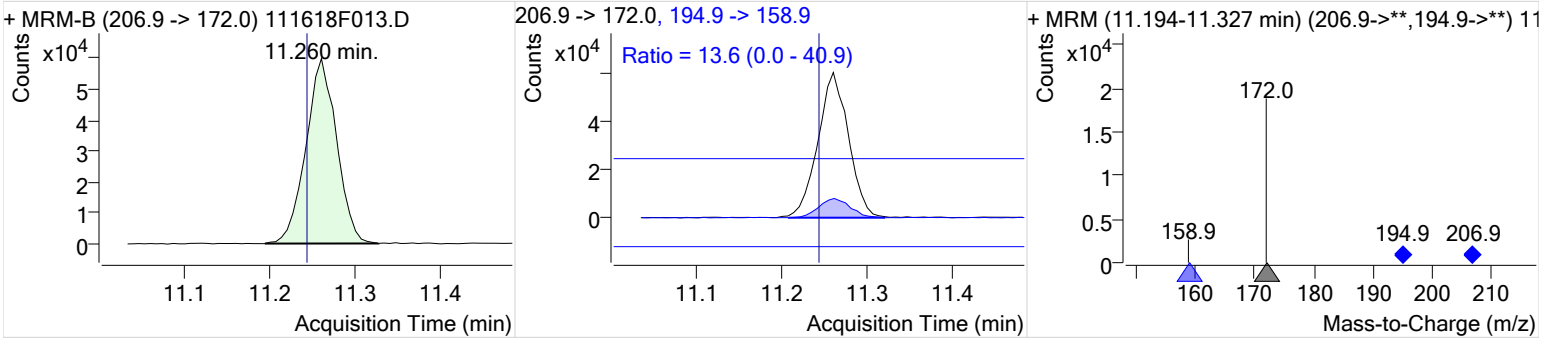
2,4'-DDD



Dieldrin

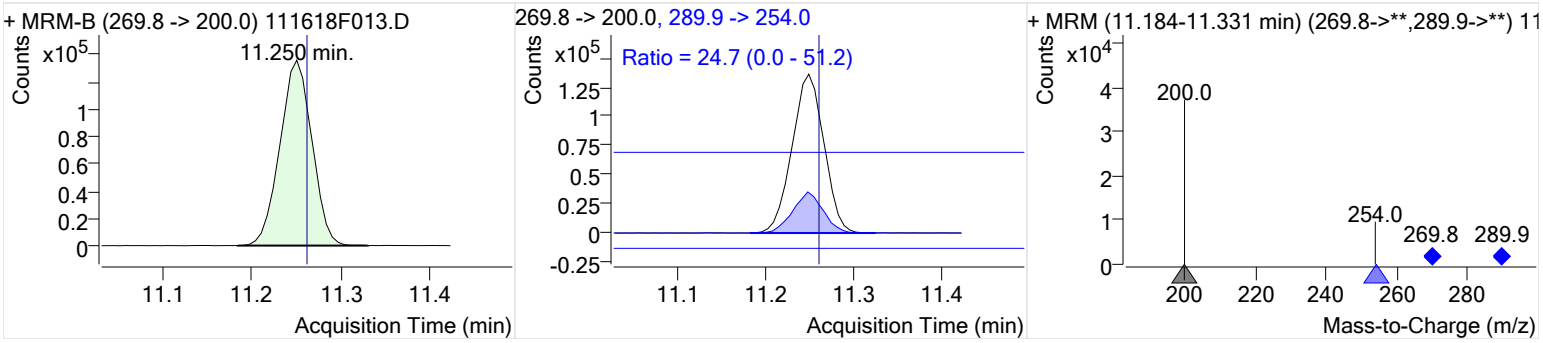


Endosulfan II

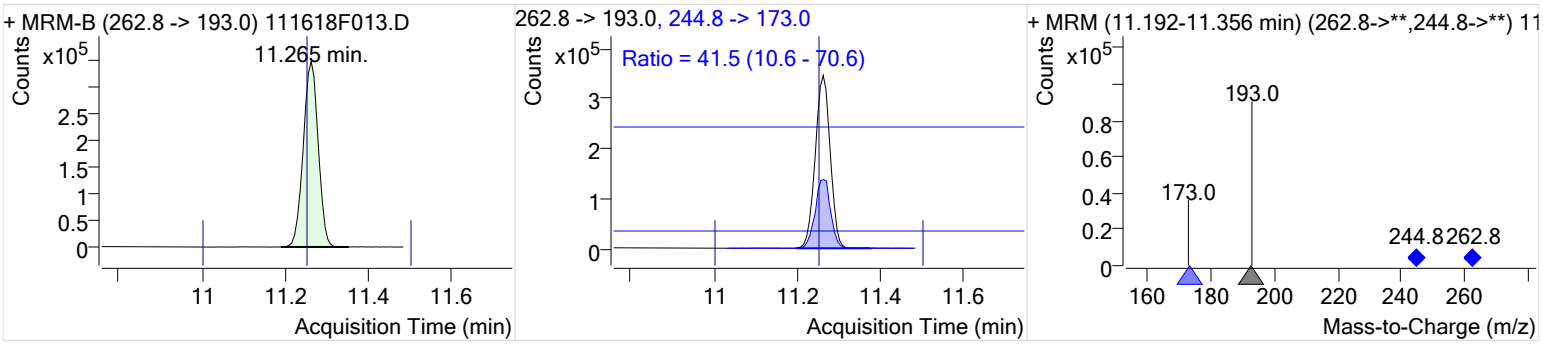


Quantitative Analysis Sample Report

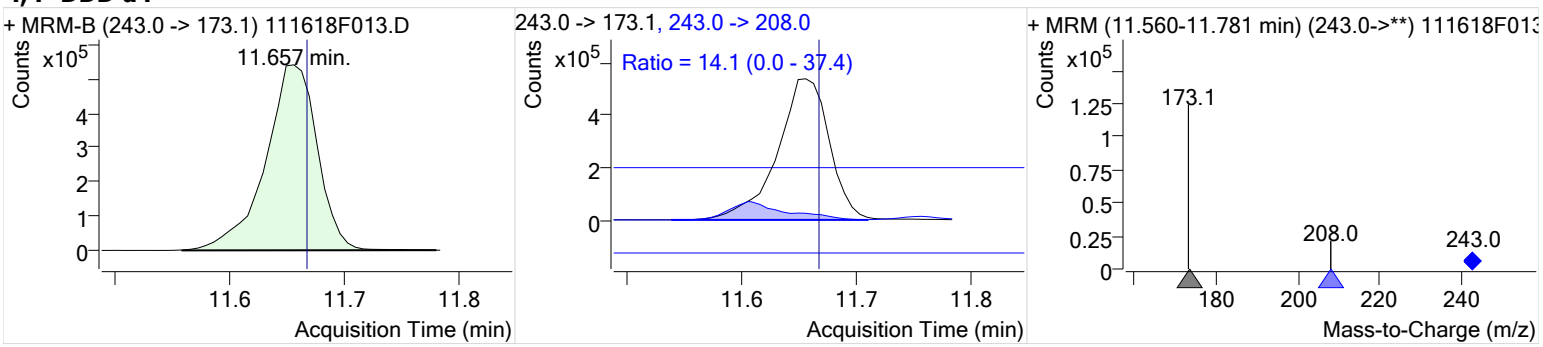
Endrin-13C12



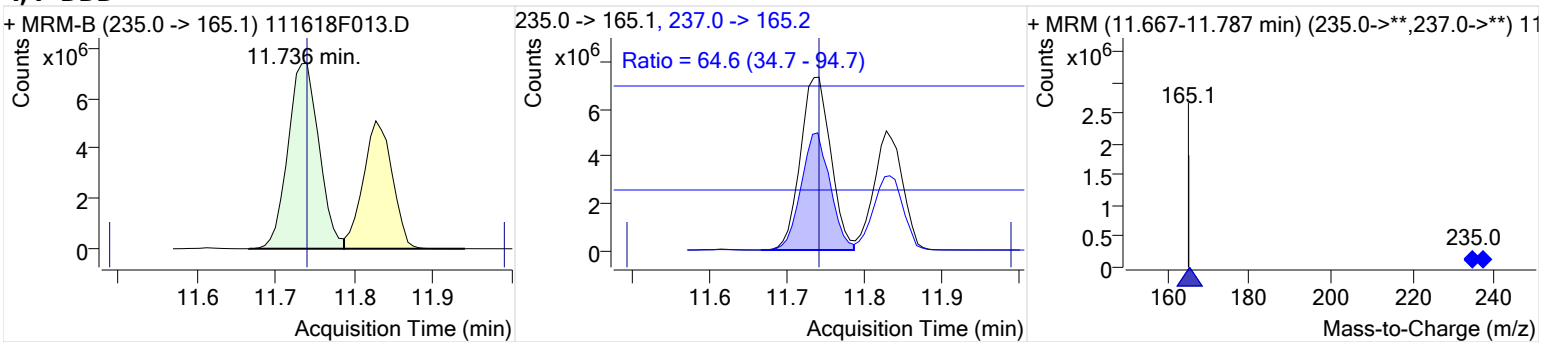
Endrin



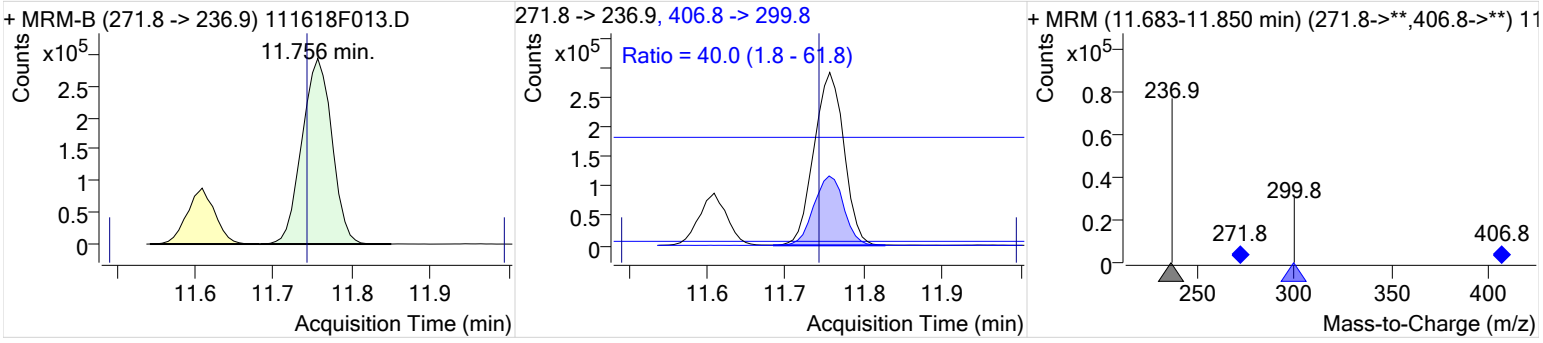
4,4'-DDD d4



4,4'-DDD

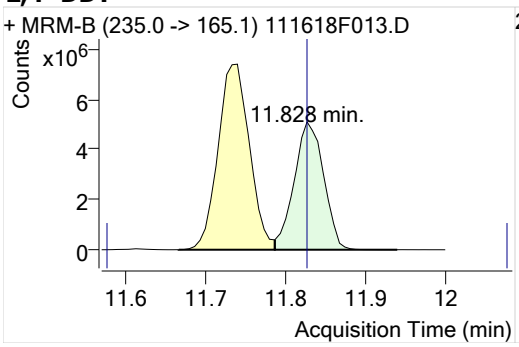


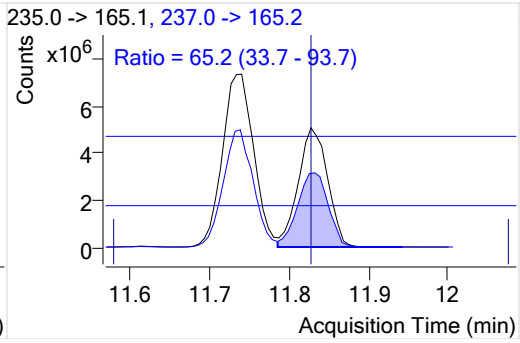
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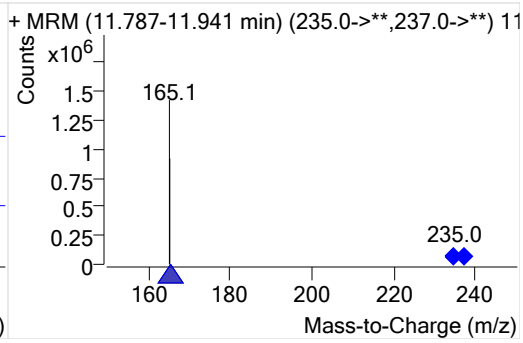


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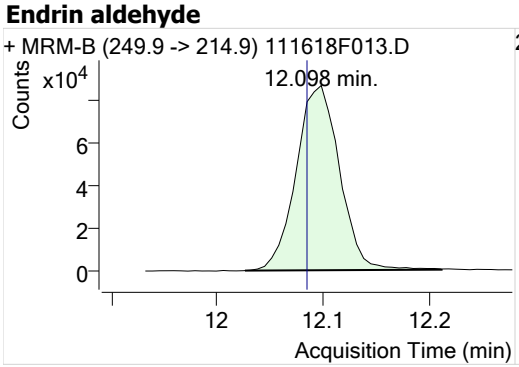
2,4'-DDT

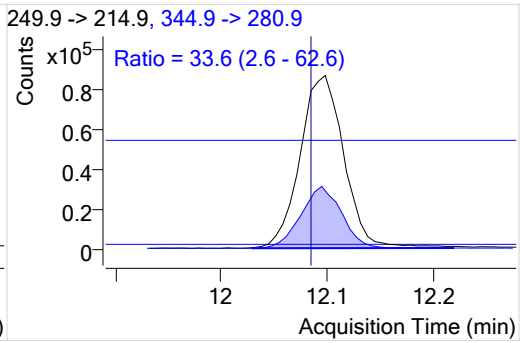


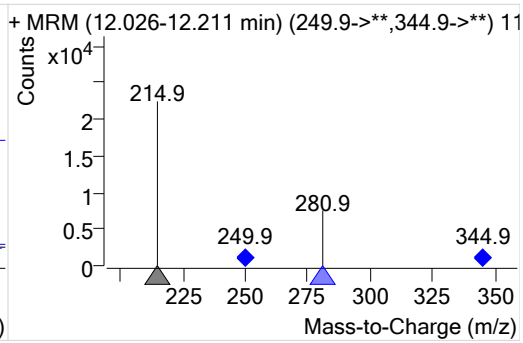




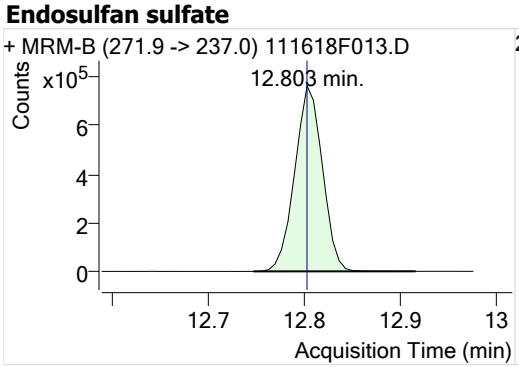
Endrin aldehyde

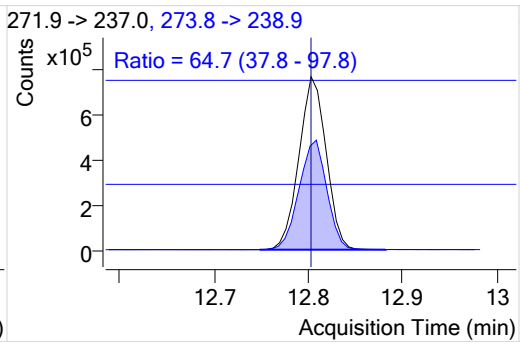


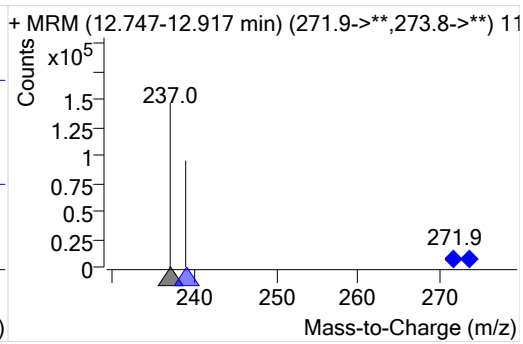




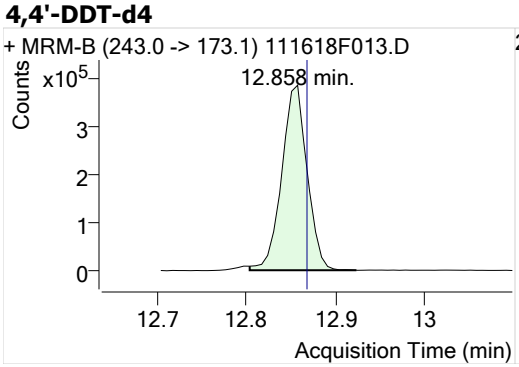
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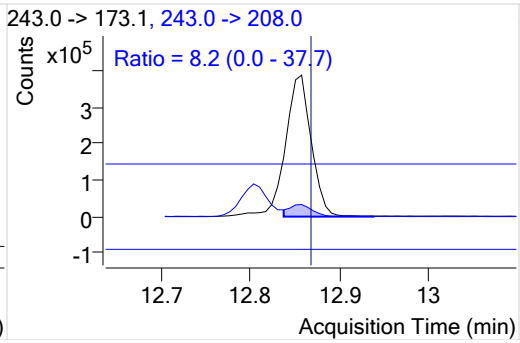


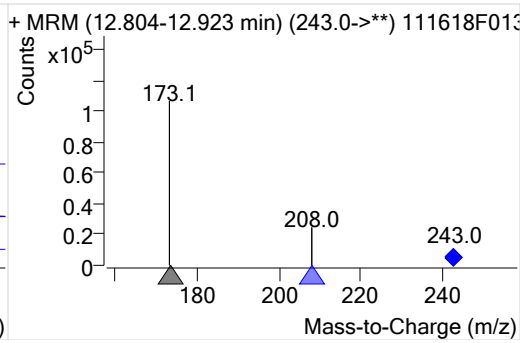




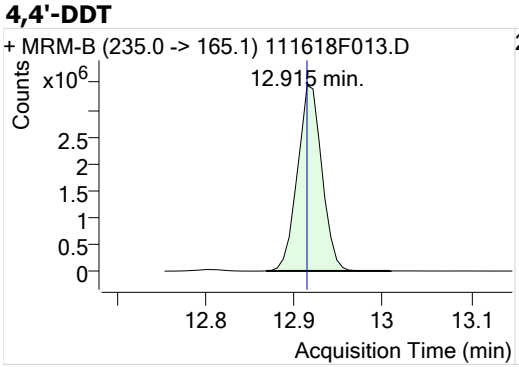
4,4'-DDT-d4

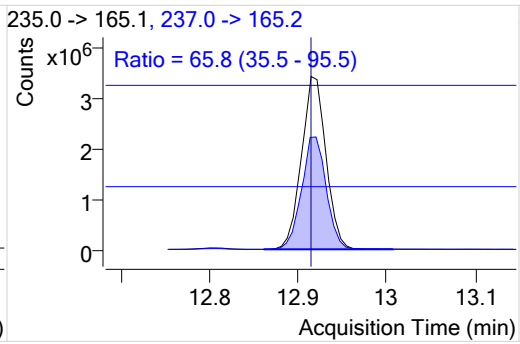


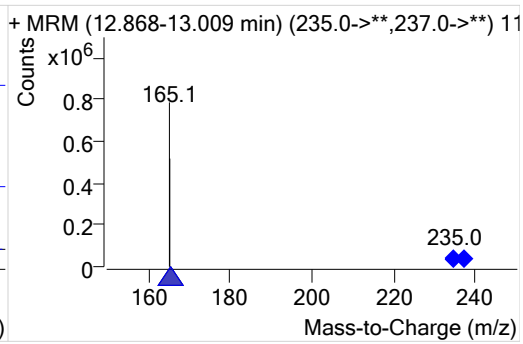




4,4'-DDT

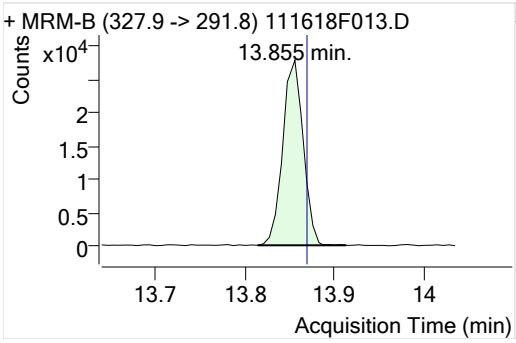


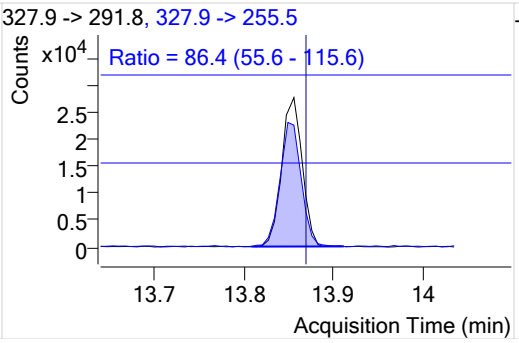


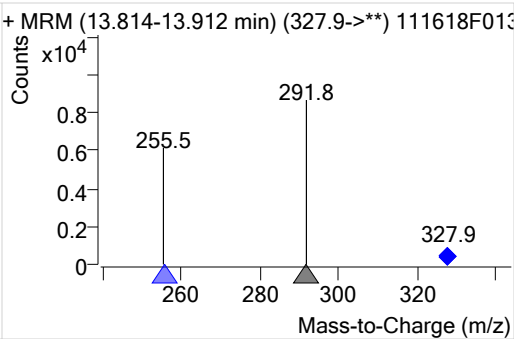


Quantitative Analysis Sample Report

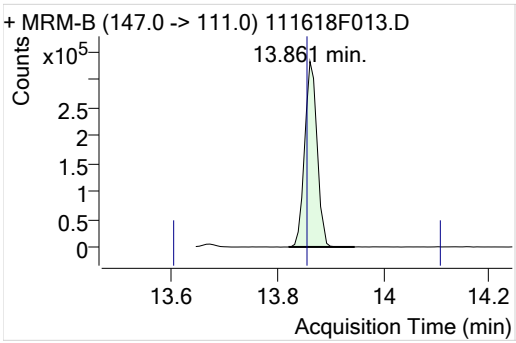
Endrin ketone-13C12

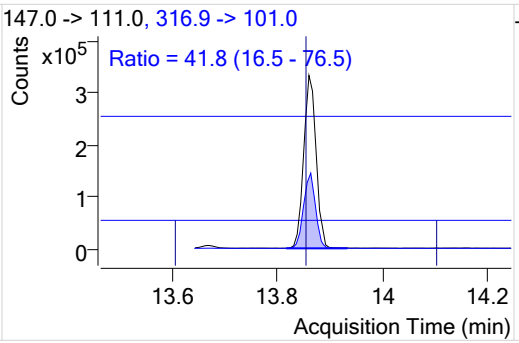


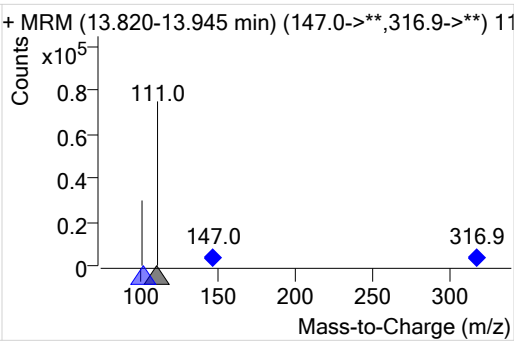




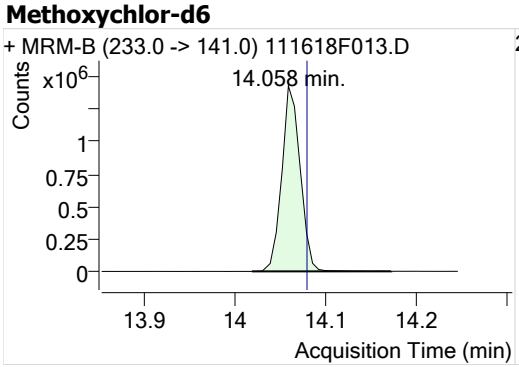
Endrin ketone

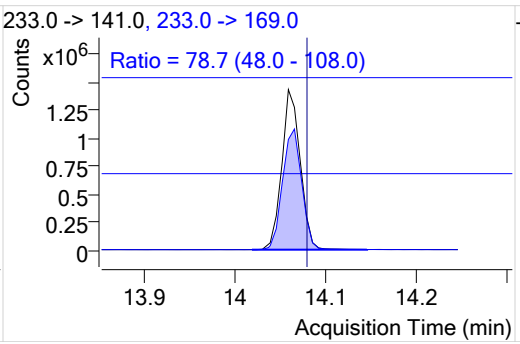


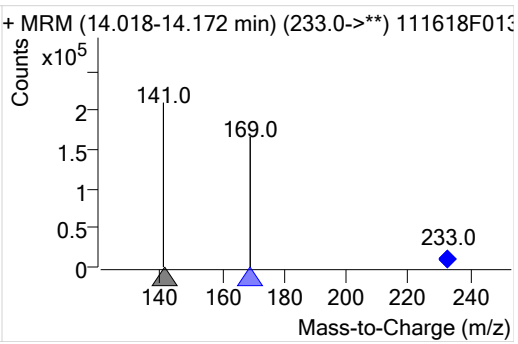




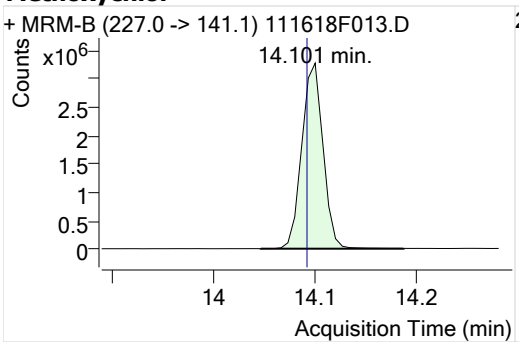
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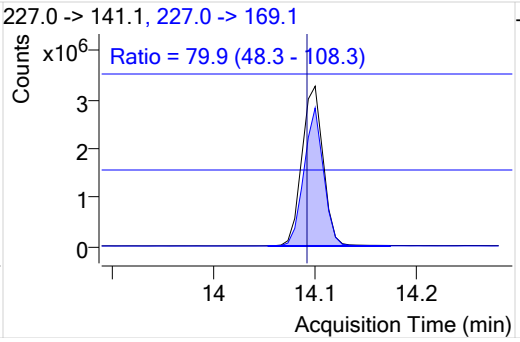


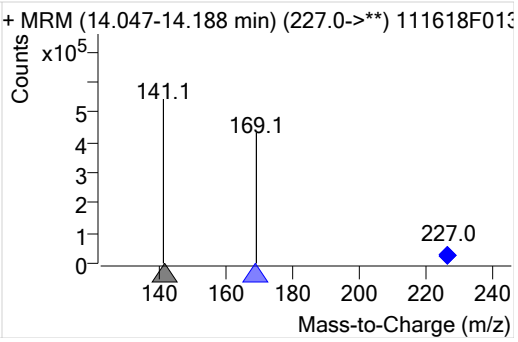




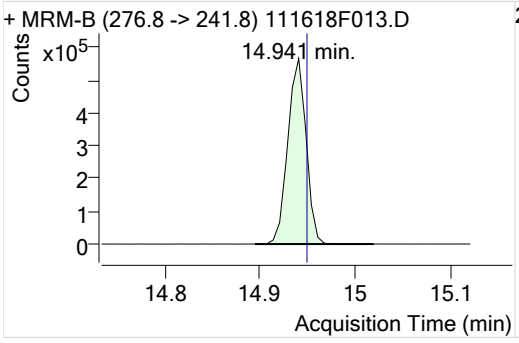
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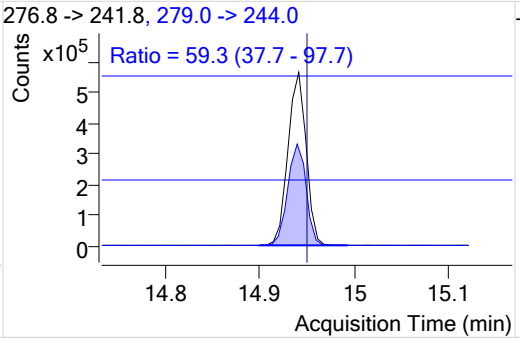


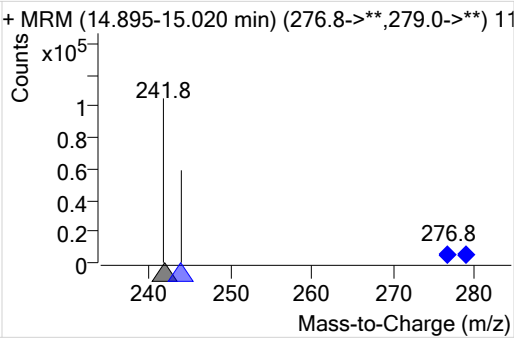




Mirex-13C10

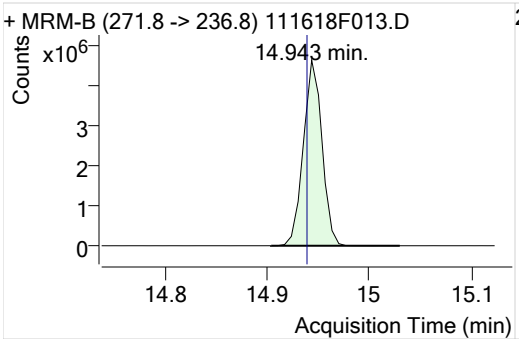


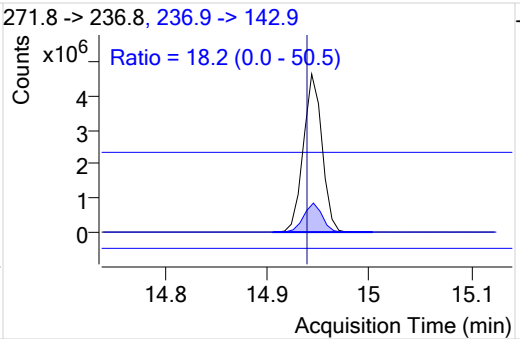


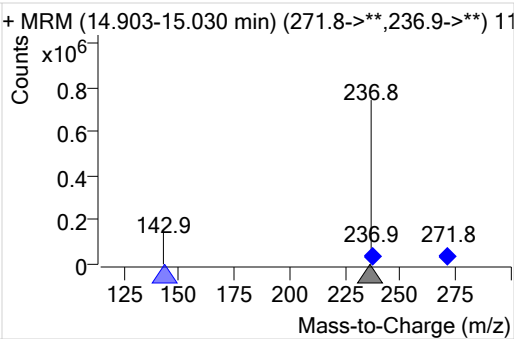


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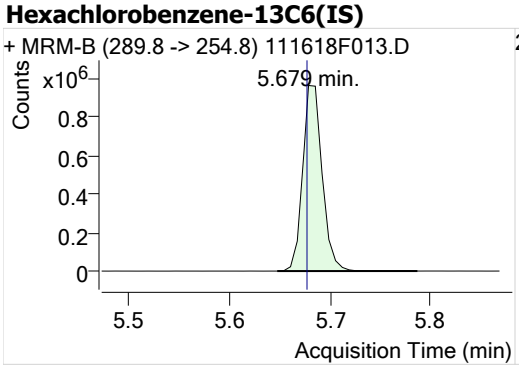
Mirex

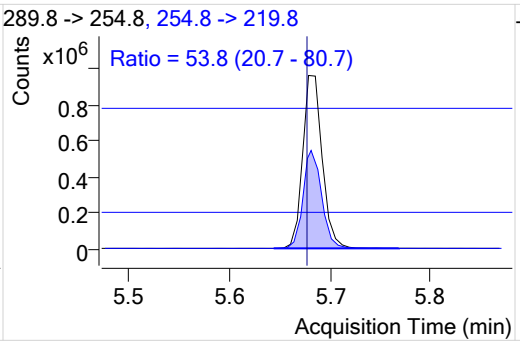


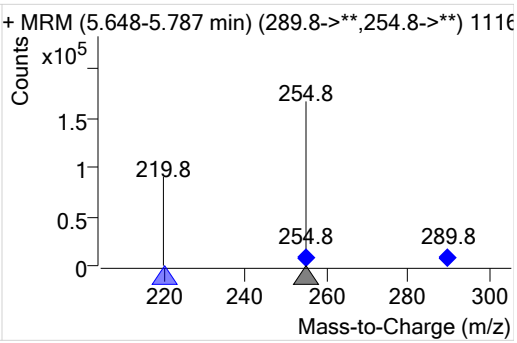




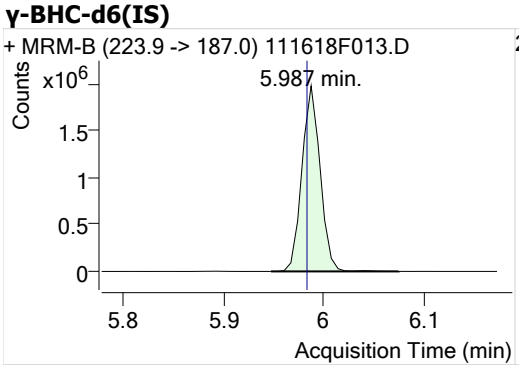
Hexachlorobenzene-13C6(IS)

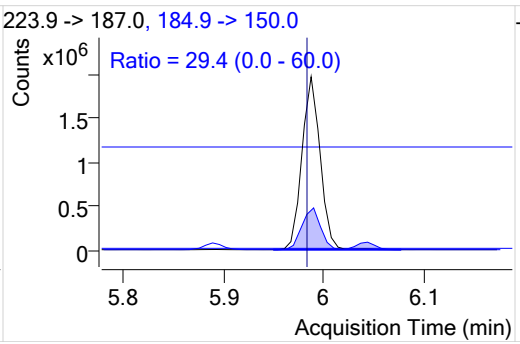


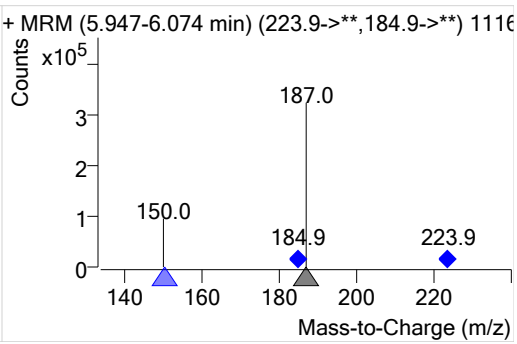




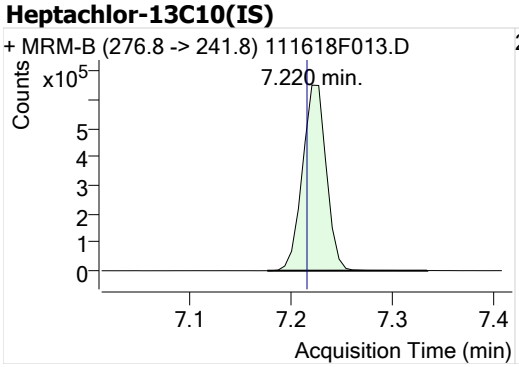
γ-BHC-d6(IS)

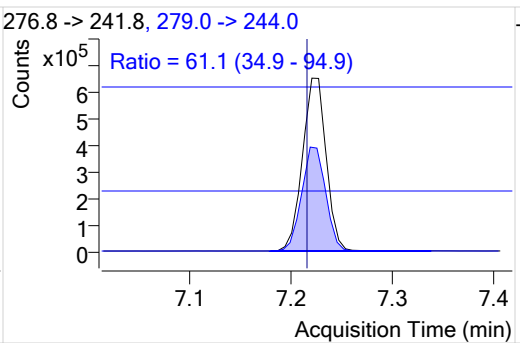


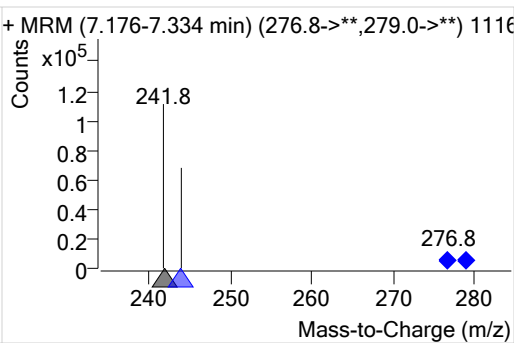




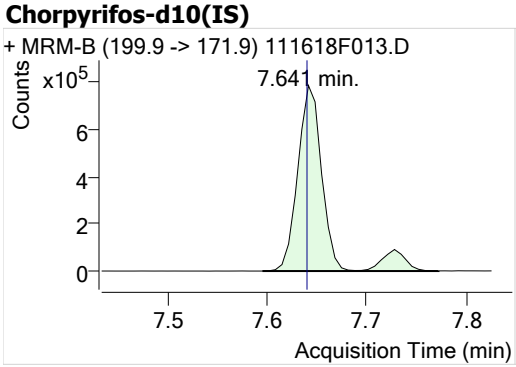
Heptachlor-13C10(IS)

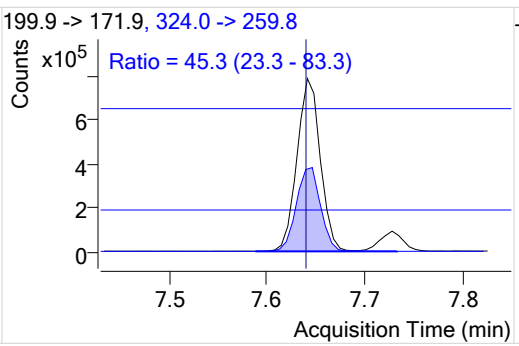


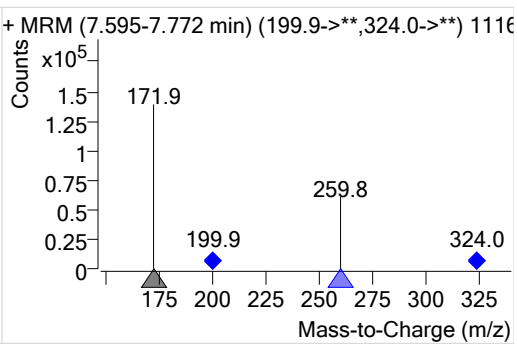




Chorpyrifos-d10(IS)

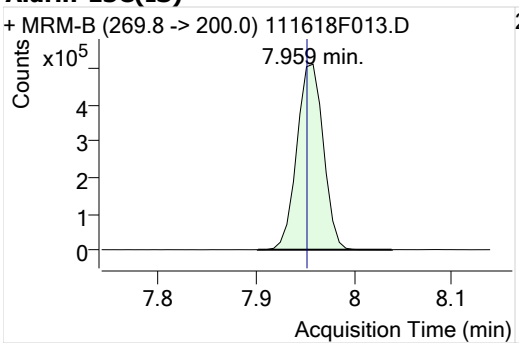


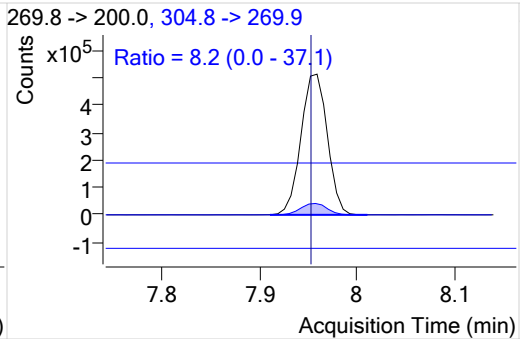


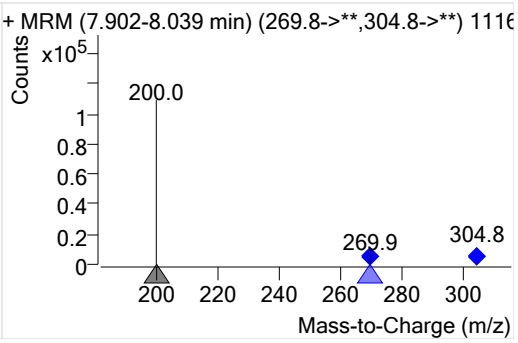


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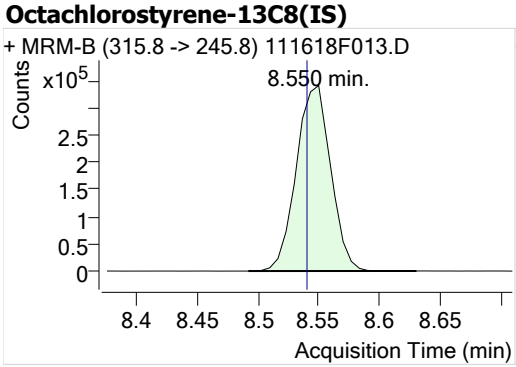
Aldrin-13C(IS)

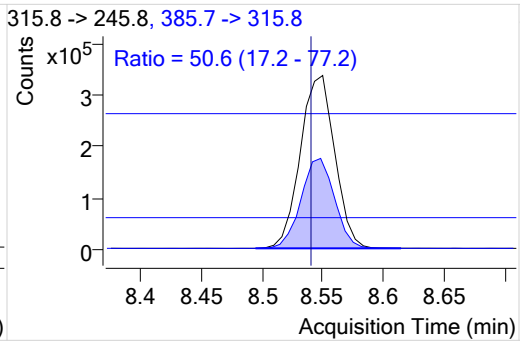


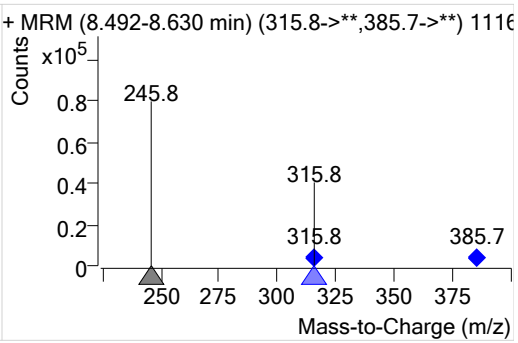




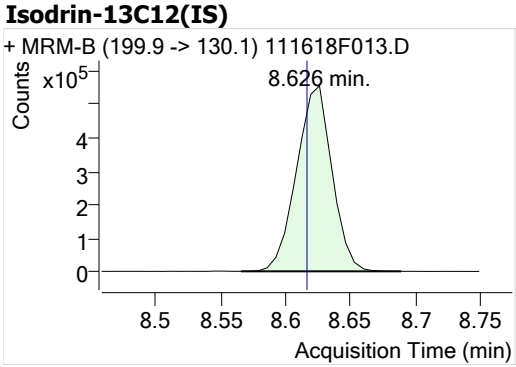
Octachlorostyrene-13C8(IS)

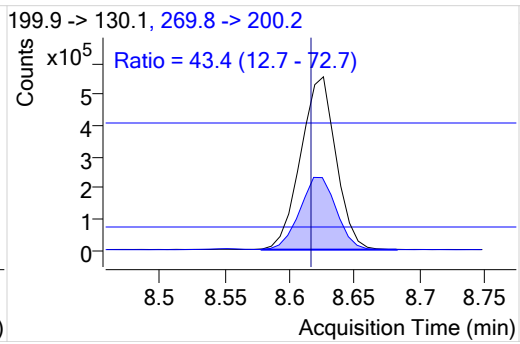


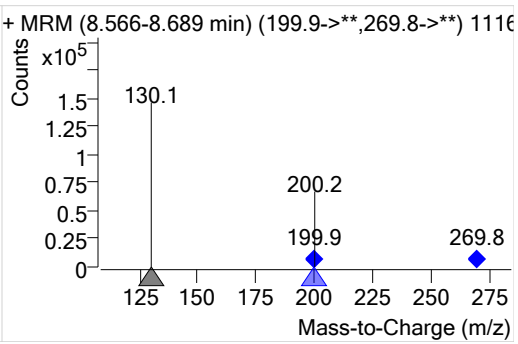




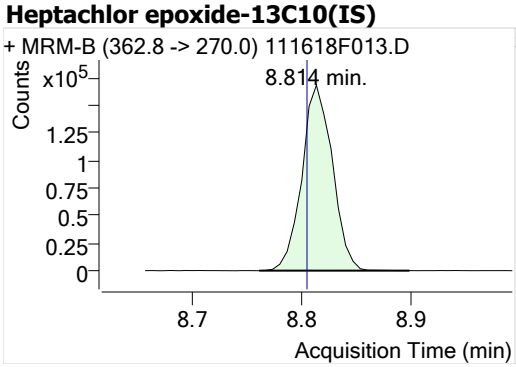
Isodrin-13C12(IS)

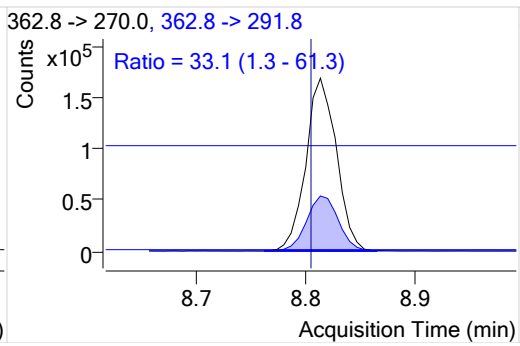


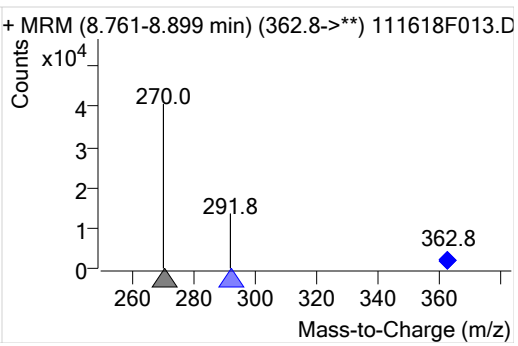




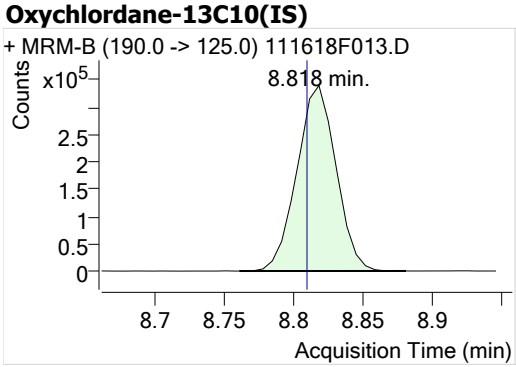
Heptachlor epoxide-13C10(IS)

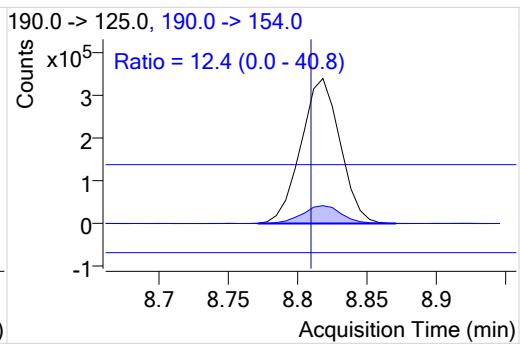


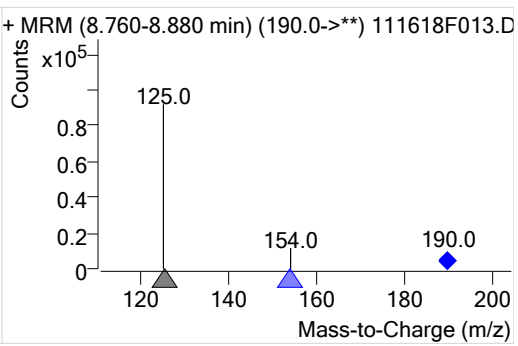




Oxychlordane-13C10(IS)

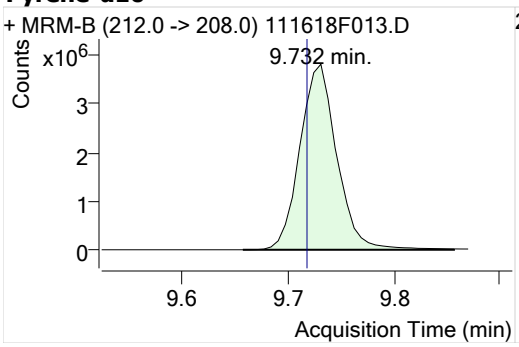


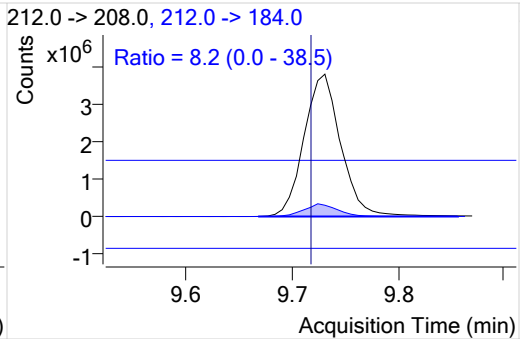


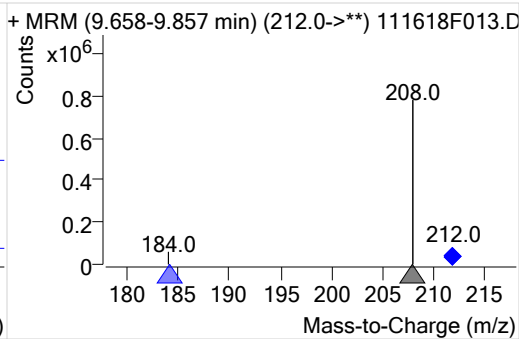


Quantitative Analysis Sample Report

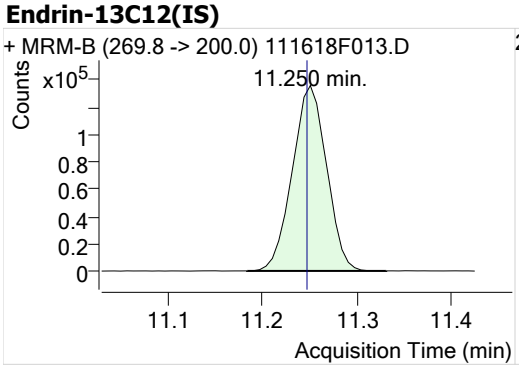
Pyrene-d10

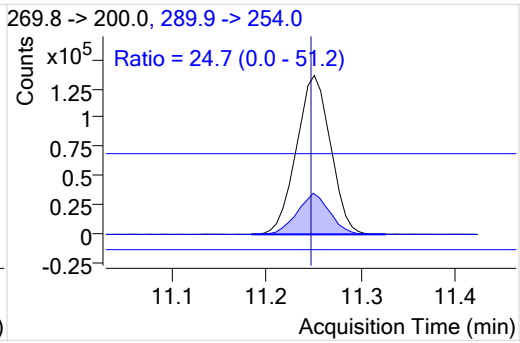


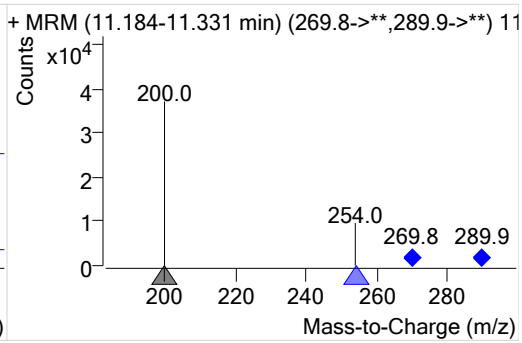




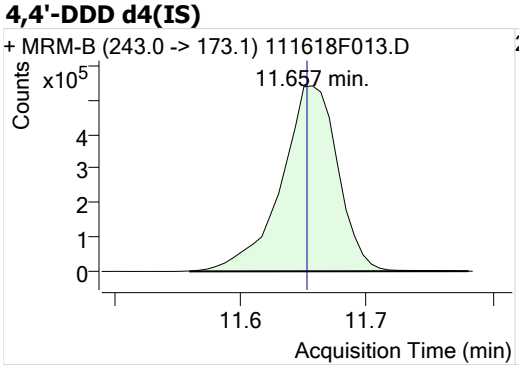
Endrin-13C12(IS)

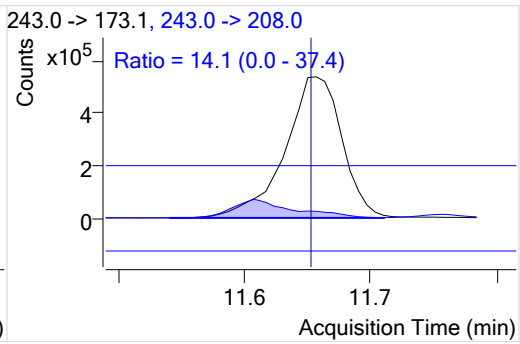


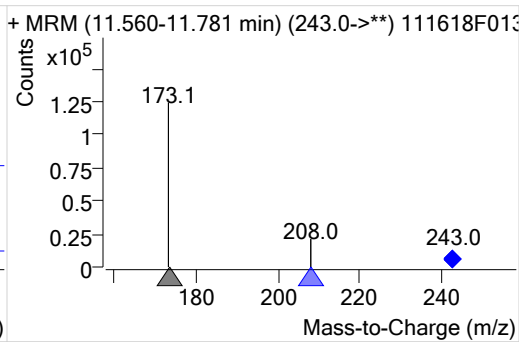




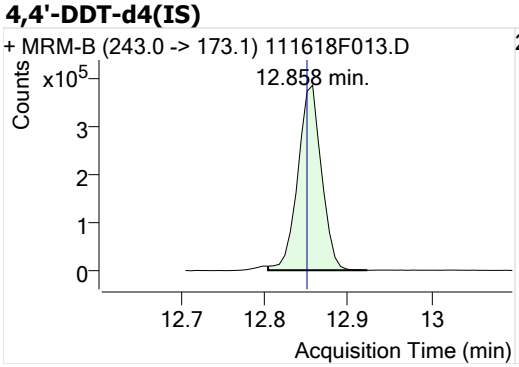
4,4'-DDD d4(IS)

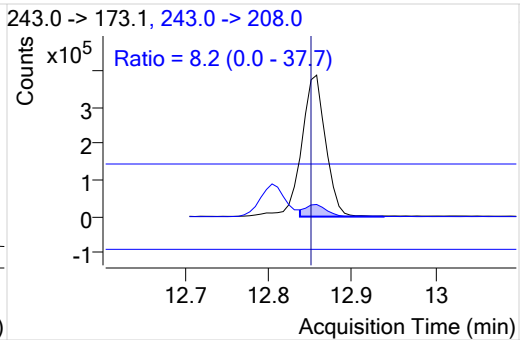


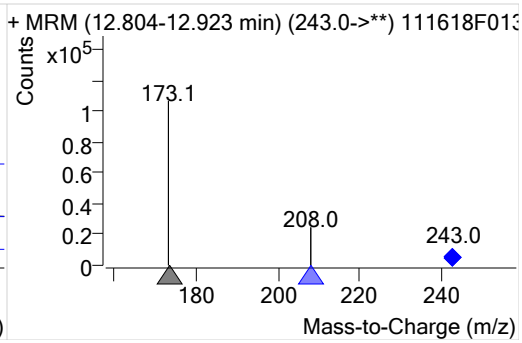




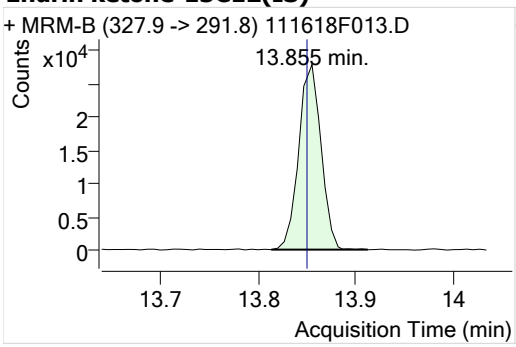
4,4'-DDT-d4(IS)

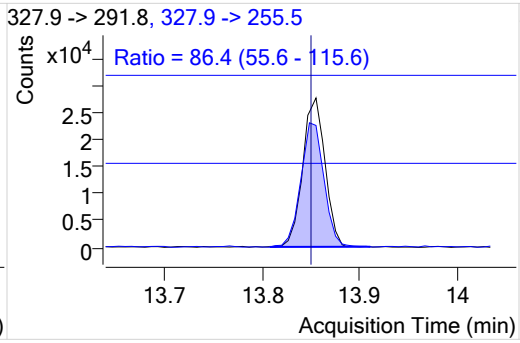


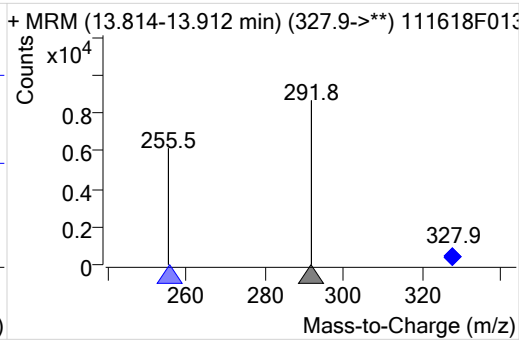




Endrin ketone-13C12(IS)

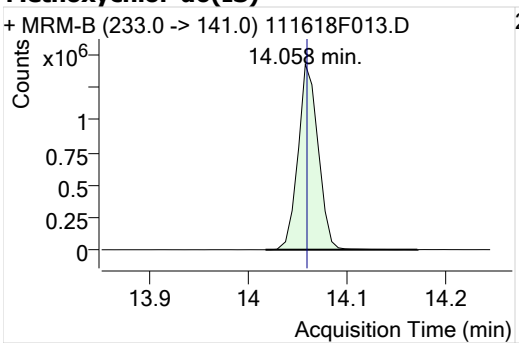


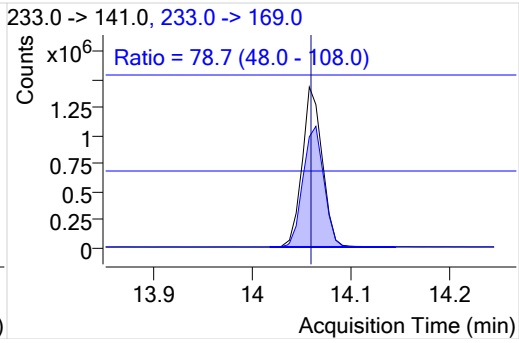


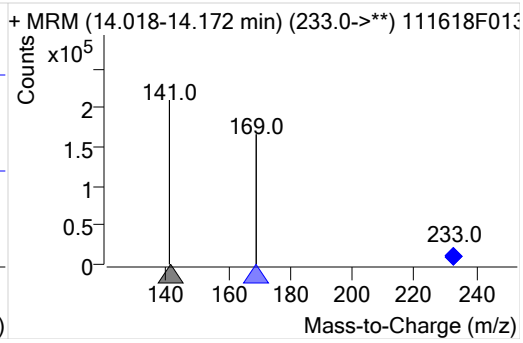


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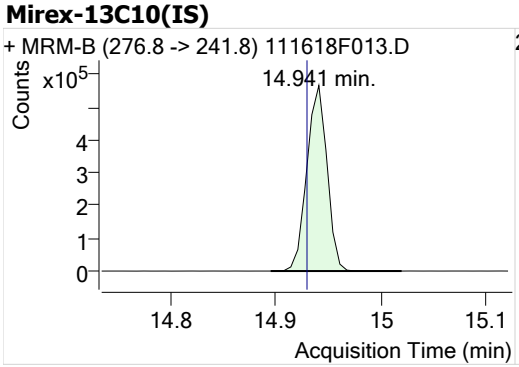
Methoxychlor-d6(IS)

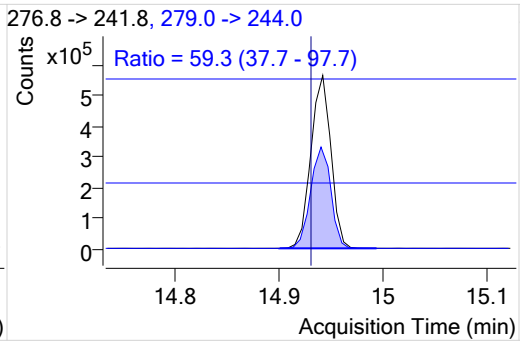


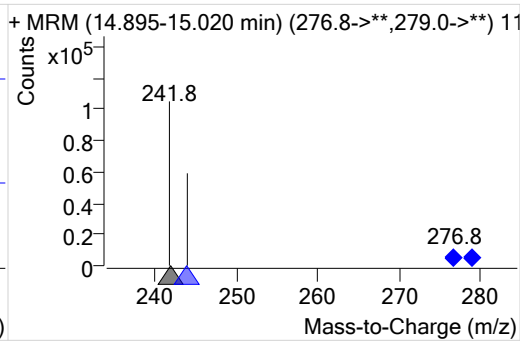




Mirex-13C10(IS)







Quantitative Analysis Sample Report

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Acq. Date-Time	11/16/2018 3:08:17 PM	**Acq Operator**	EBruno
Name	OC PEST ICAL 60ng/mL SVM59-48H	**Instrument Name**	MS42
Info.		**Instrument Type**	QQQ
Quant Time	3/14/2019 10:04:01 AM	**Inj Vol**	1
Quant Method	110618 OC PEST ICAL.batch.bin		
Last Update	3/14/2019 10:04:01 AM		
Acq. Method File	OC Pest_dMRM	**Tune File Name**	atunes.eihs.tune.xml
Batch File Name	Y:\MS42\data\111618\QuantResults\111618 oc pest ical.batch.bin		

Internal Standards	**RT**	**Transition**	**Response**	**Conc. Units**	**Dev(Min)**
Hexachlorobenzene-13C6(IS)	5.685	289.8 -> 254.8	1451437	20.000 ng/ml	0.006
γ-BHC-d6(IS)	5.987	223.9 -> 187.0	2690535	20.000 ng/ml	0.002
Heptachlor-13C10(IS)	7.225	276.8 -> 241.8	1135689	20.000 ng/ml	0.009
Chorpyrifos-d10(IS)	7.646	199.9 -> 171.9	1363733	20.000 ng/ml	0.005
Aldrin-13C(IS)	7.953	269.8 -> 200.0	1013719	20.000 ng/ml	0.003
Octachlorostyrene-13C8(IS)	8.549	315.8 -> 245.8	712079	20.000 ng/ml	0.008
Isodrin-13C12(IS)	8.619	199.9 -> 130.1	1121537	20.000 ng/ml	0.005
Heptachlor epoxide-13C10(IS)	8.813	362.8 -> 270.0	357188	20.000 ng/ml	0.009
Oxychlordane-13C10(IS)	8.818	190.0 -> 125.0	722129	20.000 ng/ml	0.009
Pyrene-d10	9.725	212.0 -> 208.0	9546758	100.000 ng/ml	0.006
Endrin-13C12(IS)	11.250	269.8 -> 200.0	354760	20.000 ng/ml	0.002
4,4'-DDD d4(IS)	11.657	243.0 -> 173.1	1822137	5.000 ng/ml	0.021
4,4'-DDT-d4(IS)	12.851	243.0 -> 173.1	821516	5.000 ng/ml	0.003
Endrin ketone-13C12(IS)	13.855	327.9 -> 291.8	45579	20.000 ng/ml	0.005
Methoxychlor-d6(IS)	14.065	233.0 -> 141.0	2061509	20.000 ng/ml	0.005
Mirex-13C10(IS)	14.941	276.8 -> 241.8	778479	5.000 ng/ml	0.010

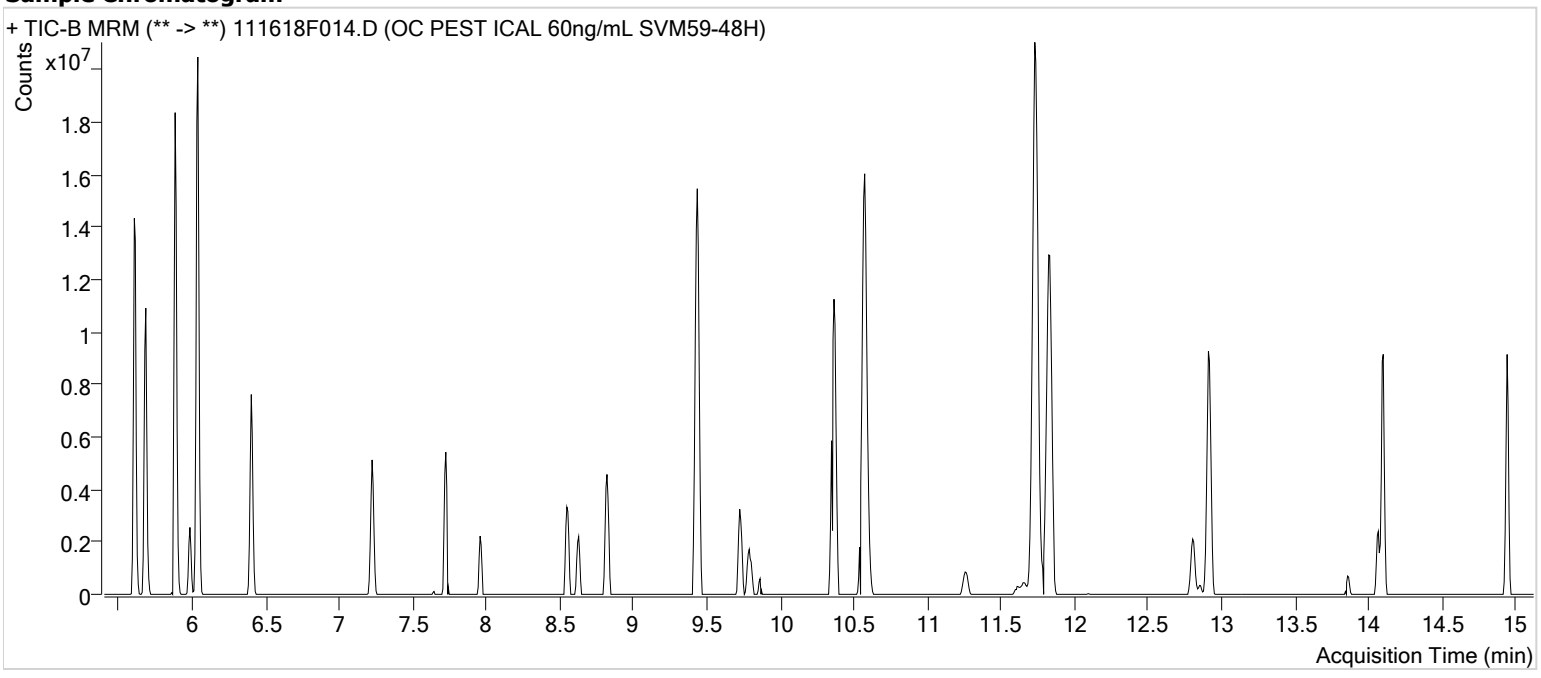
System Monitoring Compounds	**RT**	**Transition**	**Response**	**Conc. Units**	
Hexachlorobenzene-13C6	5.677	289.8 -> 254.8	1451437	20.654 ng/ml	
		Spiked Amount =	20.0	Recovery =	*103.3 %*
γ-BHC-d6	5.983	223.9 -> 187.0	2690535	20.204 ng/ml	
		Spiked Amount =	20.0	Recovery =	*101.0 %*
Heptachlor-13C10	7.216	276.8 -> 241.8	1135689	20.624 ng/ml	
		Spiked Amount =	20.0	Recovery =	*103.1 %*
Chorpyrifos-d10	7.640	199.9 -> 171.9	1363733	19.741 ng/ml	
		Spiked Amount =	20.0	Recovery =	*98.7 %*
Aldrin-13C	7.952	269.8 -> 200.0	1014323	20.168 ng/ml	
		Spiked Amount =	20.0	Recovery =	*100.8 %*
Octachlorostyrene-13C8	8.540	315.8 -> 245.8	712079	19.774 ng/ml	
		Spiked Amount =	20.0	Recovery =	*98.9 %*
Isodrin-13C12	8.616	199.9 -> 130.1	1121537	20.438 ng/ml	
		Spiked Amount =	20.0	Recovery =	*102.2 %*
Heptachlor epoxide-13C10	8.805	362.8 -> 270.0	357188	20.358 ng/ml	
		Spiked Amount =	20.0	Recovery =	*101.8 %*
Oxychlordane-13C10	8.809	190.0 -> 125.0	722129	20.252 ng/ml	
		Spiked Amount =	20.0	Recovery =	*101.3 %*
Endrin-13C12	11.247	269.8 -> 200.0	354760	20.333 ng/ml	
		Spiked Amount =	20.0	Recovery =	*101.7 %*
4,4'-DDD d4	11.652	243.0 -> 173.1	1822137	5.374 ng/ml	
		Spiked Amount =	5.0	Recovery =	*107.5 %*
4,4'-DDT-d4	12.851	243.0 -> 173.1	821516	5.423 ng/ml	
		Spiked Amount =	5.0	Recovery =	*108.5 %*
Endrin ketone-13C12	13.850	327.9 -> 291.8	45579	21.096 ng/ml	
		Spiked Amount =	20.0	Recovery =	*105.5 %*
Methoxychlor-d6	14.060	233.0 -> 141.0	2061509	20.594 ng/ml	
		Spiked Amount =	20.0	Recovery =	*103.0 %*
Mirex-13C10	14.930	276.8 -> 241.8	778479	5.323 ng/ml	
		Spiked Amount =	5.0	Recovery =	*106.5 %*

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Target Compounds	ISTD	RT	Transition	Resp.	Conc.	Units	Qvalue
α-BHC	γ-BHC-d6(IS)	5.613	181.1 -> 145.1	11319561	58.836	ng/ml	99
Hexachlorobenzene	Hexachlorobenzene-13C6(IS)	5.686	283.8 -> 213.9	7096577	54.013	ng/ml	100
β-BHC	γ-BHC-d6(IS)	5.890	181.1 -> 145.1	13957224	57.341	ng/ml	97
γ-BHC(Lindane)	γ-BHC-d6(IS)	6.044	181.1 -> 145.1	16315814	57.975	ng/ml	98
δ-BHC	γ-BHC-d6(IS)	6.405	181.1 -> 145.1	6450745	57.510	ng/ml	98
Heptachlor	Heptachlor-13C10(IS)	7.229	271.7 -> 236.9	3738676	56.795	ng/ml	100
Chorpyrifos	Chorpyrifos-d10(IS)	7.730	196.9 -> 169.0	5602991	58.203	ng/ml	96
Aldrin	Aldrin-13C(IS)	7.963	254.9 -> 220.0	1987037	60.883	ng/ml	85
Octachlorostyrene	Octachlorostyrene-13C8(IS)	8.552	342.8 -> 307.8	5277356	57.588	ng/ml	95
Isodrin	Isodrin-13C12(IS)	8.633	193.0 -> 123.0	3273111	56.880	ng/ml	95
Heptachlor epoxide	Heptachlor epoxide-13C10(IS)	8.829	352.8 -> 262.9	1173703	57.741	ng/ml	100
Oxychlordane	Oxychlordane-13C10(IS)	8.826	114.9 -> 51.1	5508786	56.423	ng/ml	99
γ-Chlordane(trans)	Oxychlordane-13C10(IS)	9.429	271.8 -> 236.9	1997205	57.399	ng/ml	96
2,4'-DDE	4,4'-DDD d4(IS)	9.439	246.0 -> 176.2	18979371	54.787	ng/ml	98
α-Chlordane(cis)	Oxychlordane-13C10(IS)	9.789	271.8 -> 236.9	5064719	58.262	ng/ml	98
Endosulfan I	Endrin-13C12(IS)	9.812	206.9 -> 172.0	1227605	55.201	ng/ml	98
trans-Nanochlor	Oxychlordane-13C10(IS)	9.863	271.8 -> 236.9	3165317	56.580	ng/ml	92
4,4' -DDE	4,4'-DDD d4(IS)	10.365	246.0 -> 176.2	17565151	55.315	ng/ml	97
2,4'-DDD	4,4'-DDD d4(IS)	10.570	235.0 -> 165.1	22515001	57.423	ng/ml	98
Dieldrin	Endrin-13C12(IS)	10.600	262.9 -> 193.0	1631559	60.295	ng/ml	94
Endosulfan II	Endrin-13C12(IS)	11.260	206.9 -> 172.0	220937	61.222	ng/ml	90
Endrin	Endrin-13C12(IS)	11.264	262.8 -> 193.0	1374666	56.464	ng/ml	99
4,4'-DDD	4,4'-DDD d4(IS)	11.734	235.0 -> 165.1	32786974	55.718	ng/ml	99
cis-Nonachlor	Oxychlordane-13C10(IS)	11.756	271.8 -> 236.9	1263975	59.643	ng/ml	86
2,4'-DDT	4,4'-DDT-d4(IS)	11.828	235.0 -> 165.1	20794530	56.451	ng/ml	99
Endrin aldehyde	Endrin-13C12(IS)	12.098	249.9 -> 214.9	390587	56.870	ng/ml	97
Endosulfan sulfate	Endrin-13C12(IS)	12.803	271.9 -> 237.0	2509988	60.226	ng/ml	96
4,4'-DDT	4,4'-DDT-d4(IS)	12.915	235.0 -> 165.1	11020191	57.972	ng/ml	98
Endrin ketone	Endrin ketone-13C12(IS)	13.861	147.0 -> 111.0	854116	53.237	ng/ml	96
Methoxychlor	Methoxychlor-d6(IS)	14.094	227.0 -> 141.1	7621860	57.940	ng/ml	96
Mirex	Mirex-13C10(IS)	14.943	271.8 -> 236.8	9011815	60.168	ng/ml	97

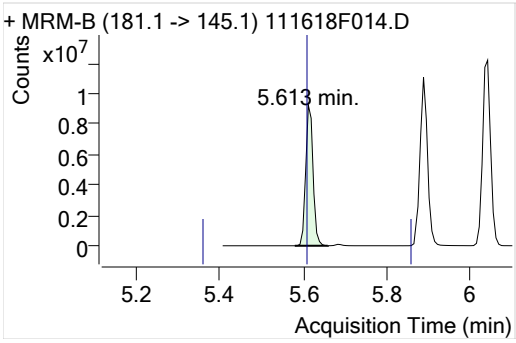
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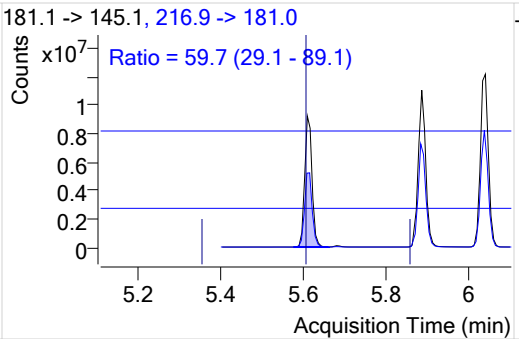
Sample Chromatogram

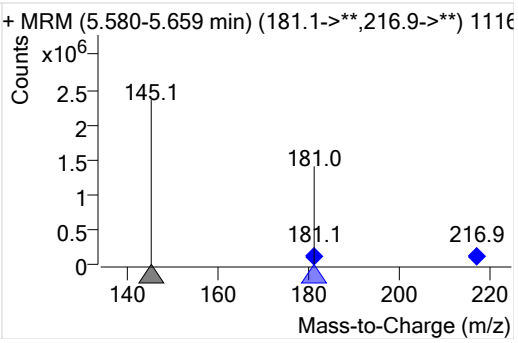


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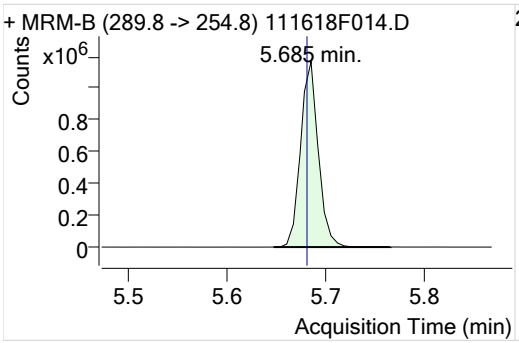
α-BHC

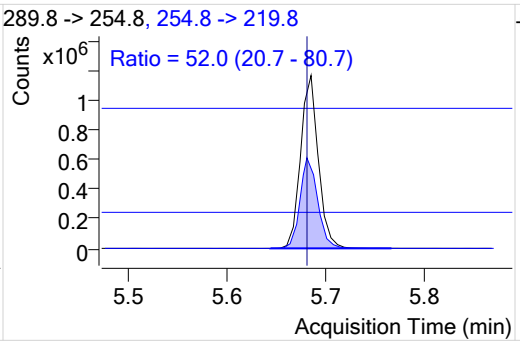


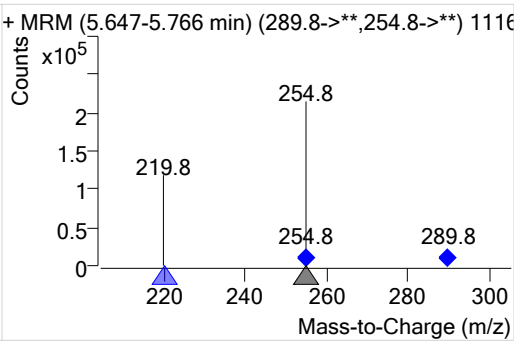




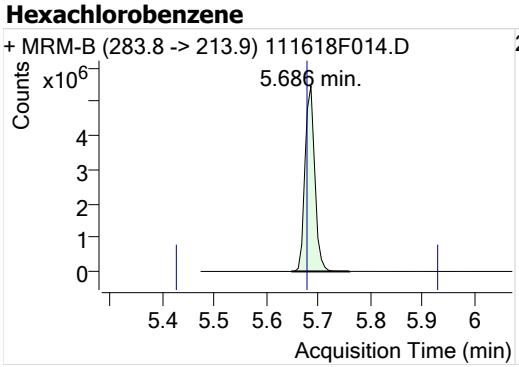
Hexachlorobenzene-13C6

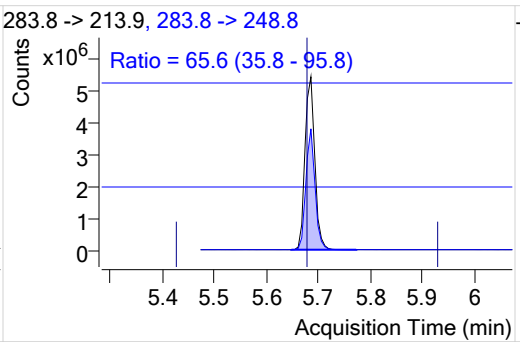


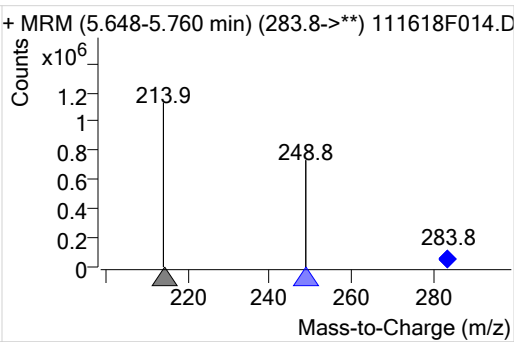




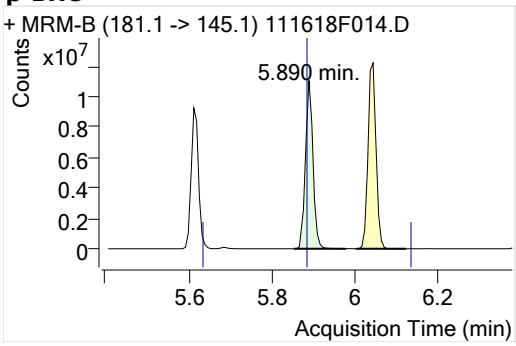
Hexachlorobenzene

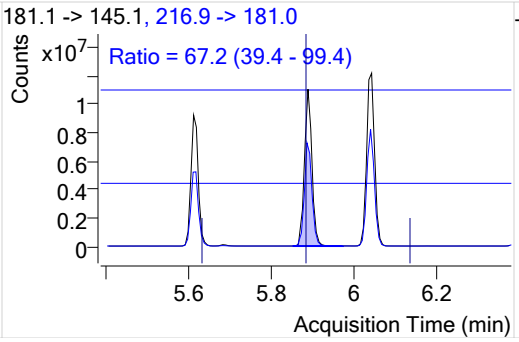


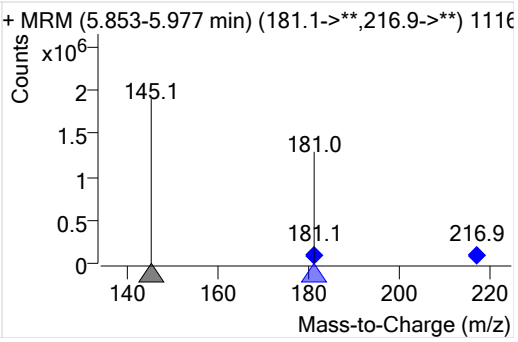




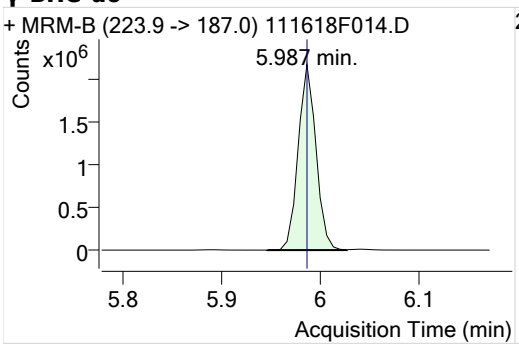
β-BHC

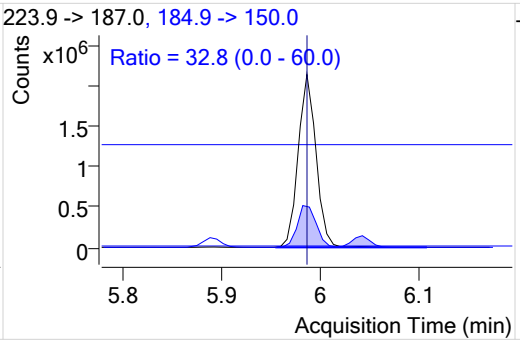


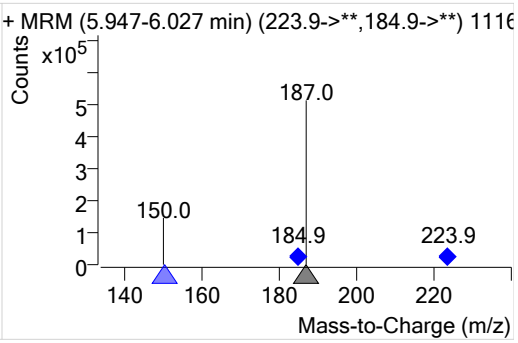




γ-BHC-d6

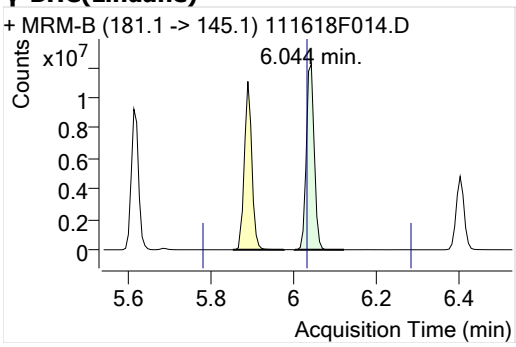


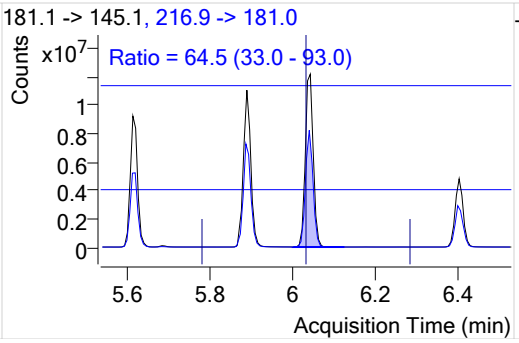


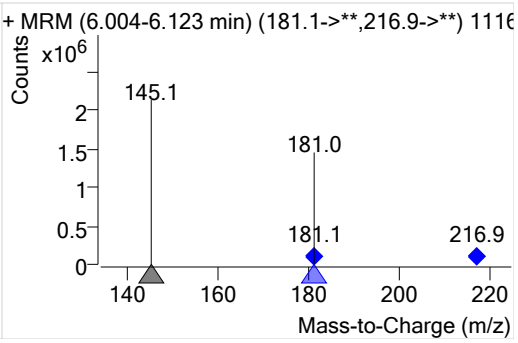


Quantitative Analysis Sample Report

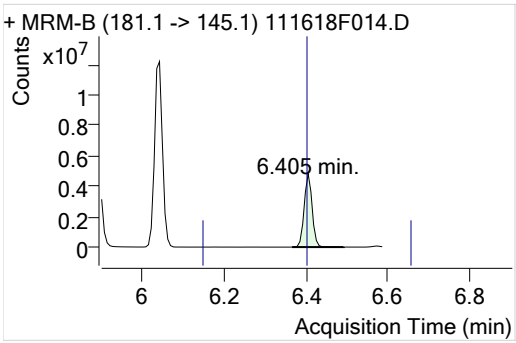
γ-BHC(Lindane)

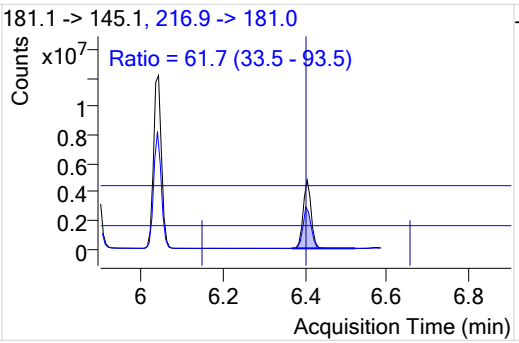


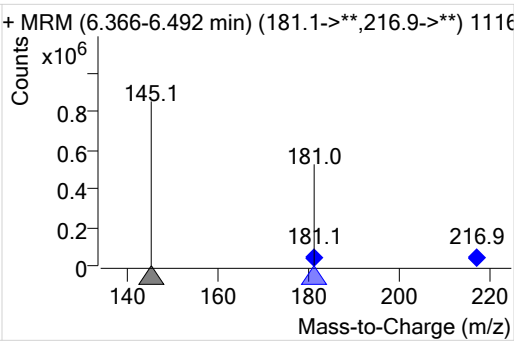




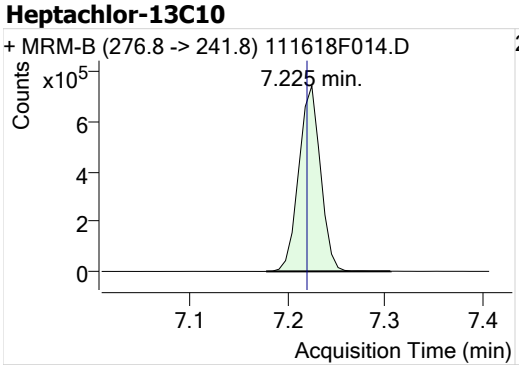
δ-BHC

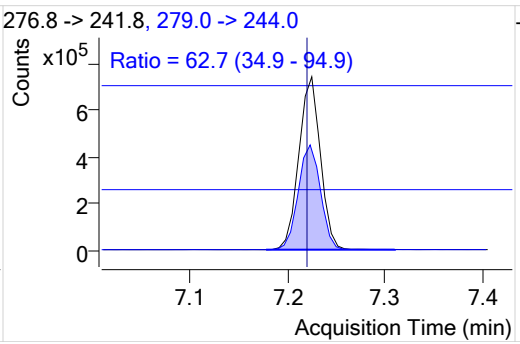


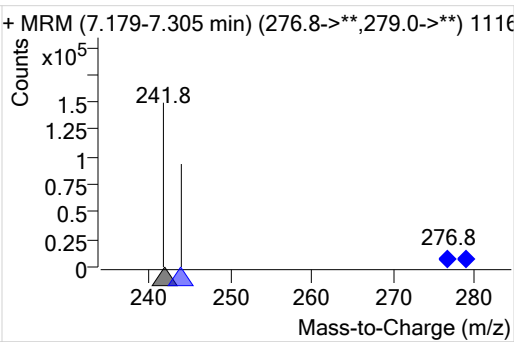




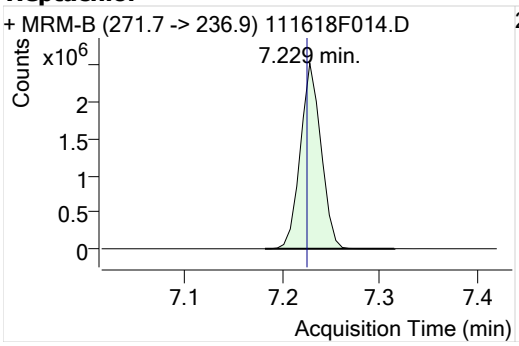
Heptachlor-13C10

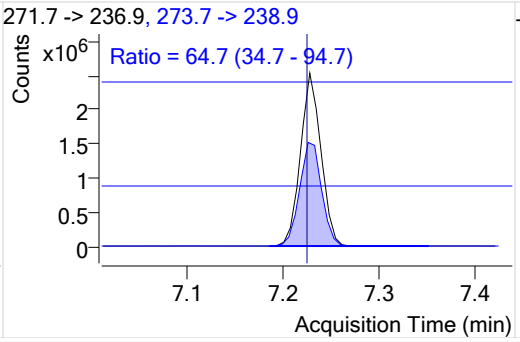


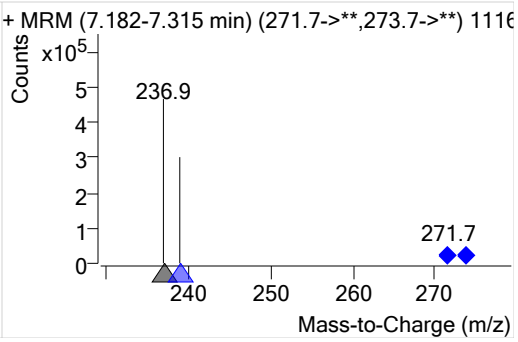




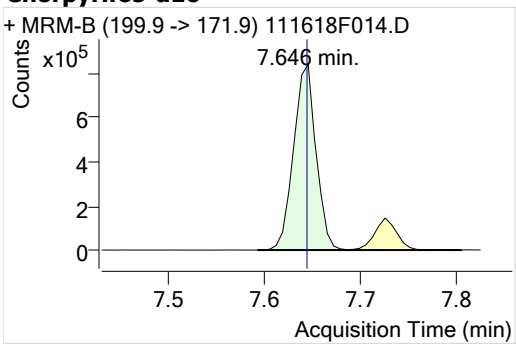
Heptachlor

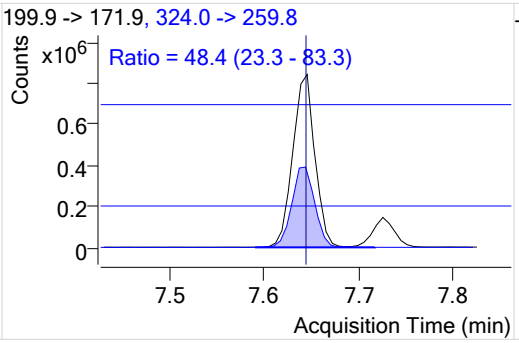


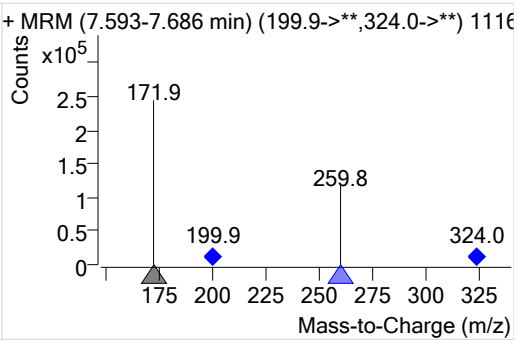




Chorpyrifos-d10

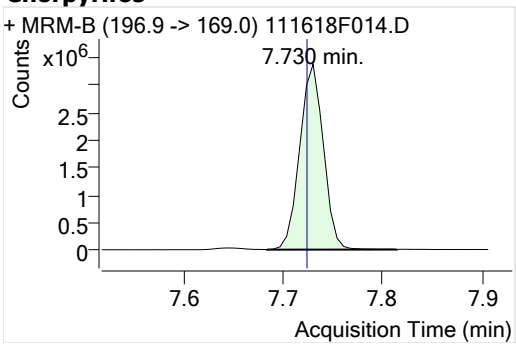


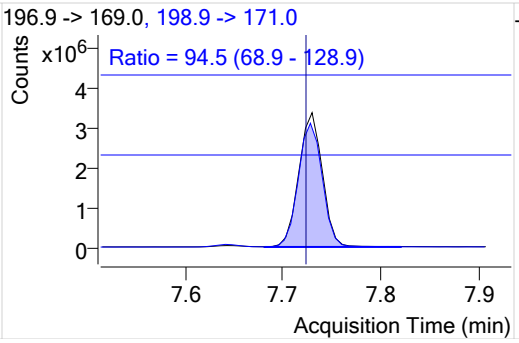


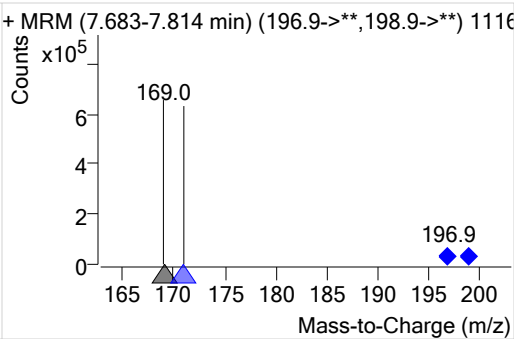


Quantitative Analysis Sample Report

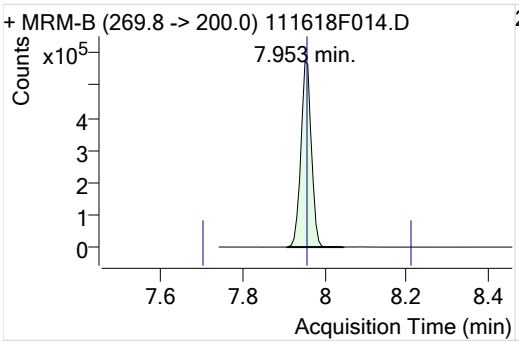
Chorpyrifos

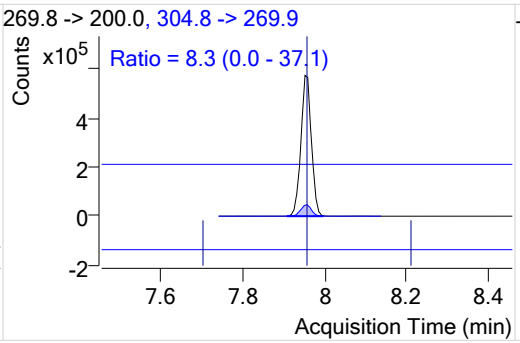


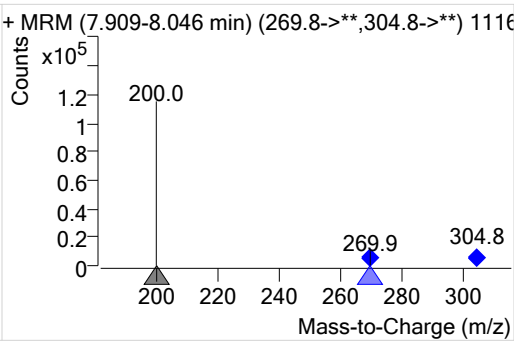




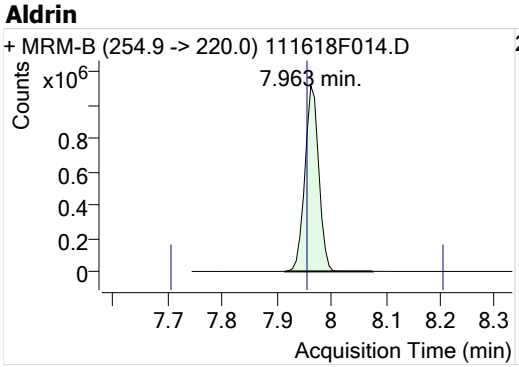
Aldrin-13C

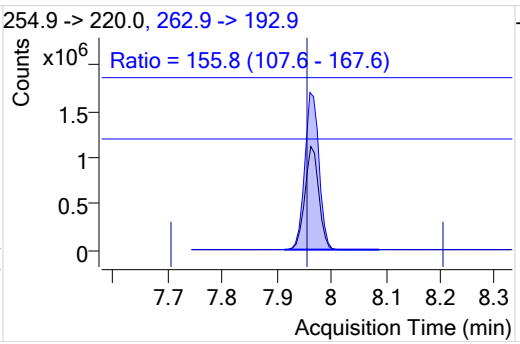


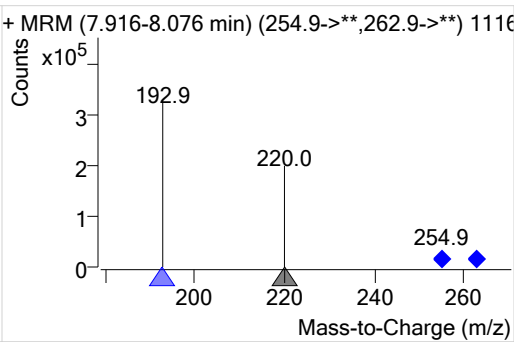




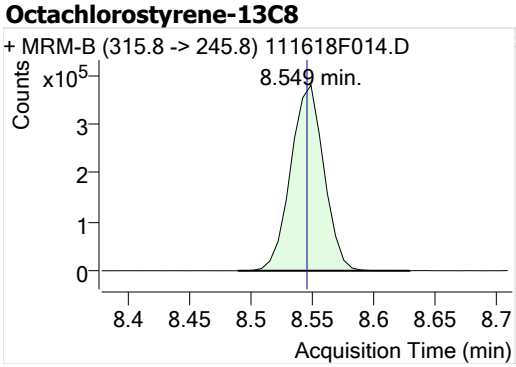
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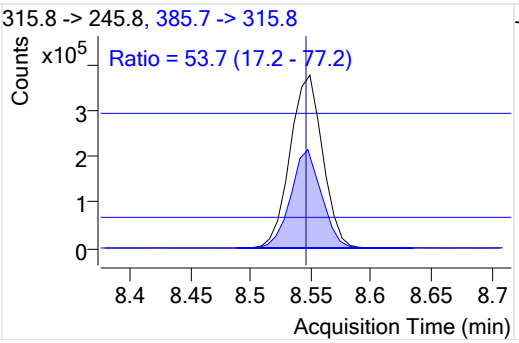


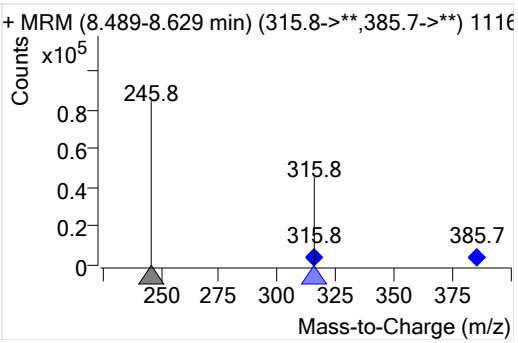




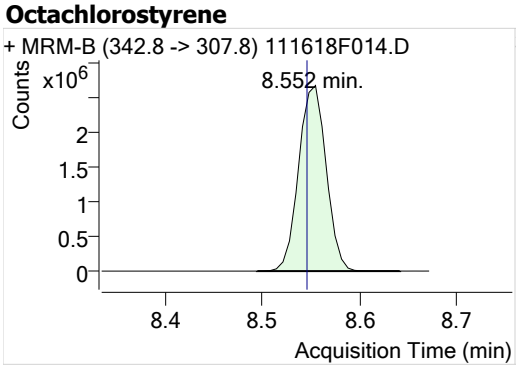
Octachlorostyrene-13C8

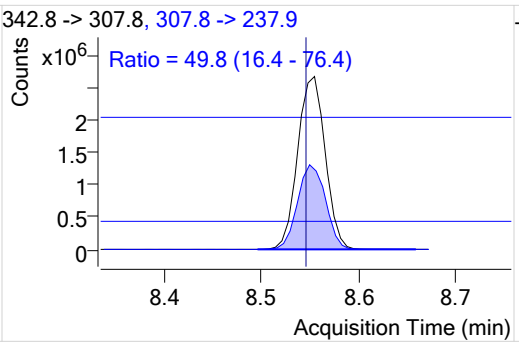


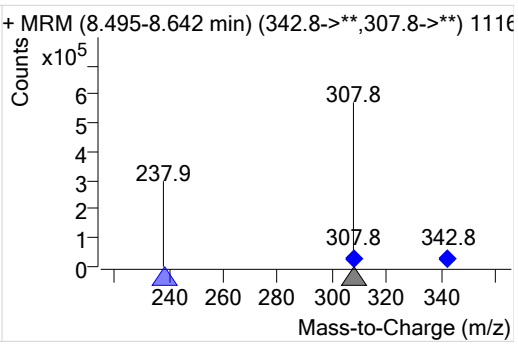




Octachlorostyrene

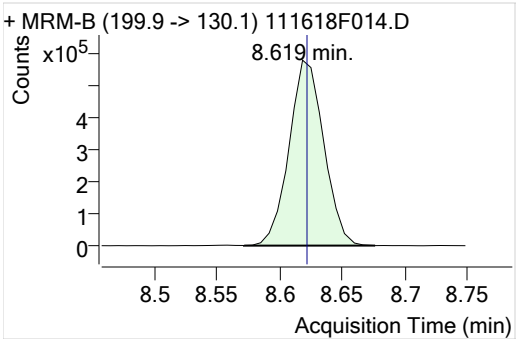


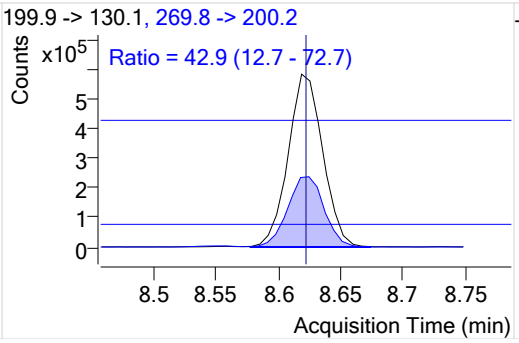


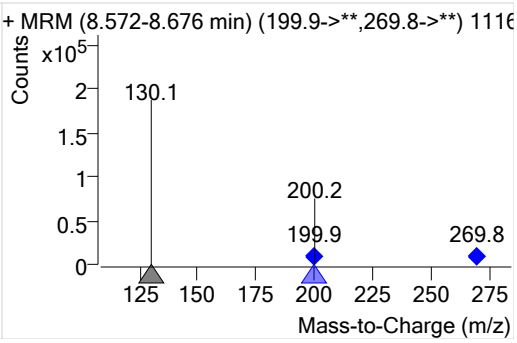


Quantitative Analysis Sample Report

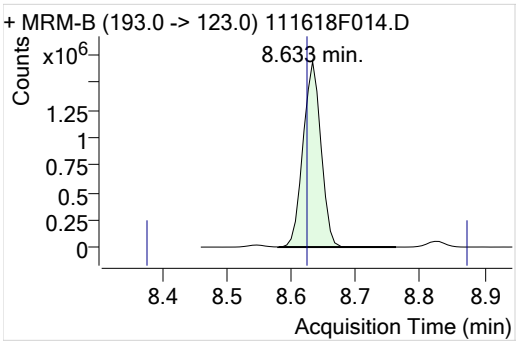
Isodrin-13C12

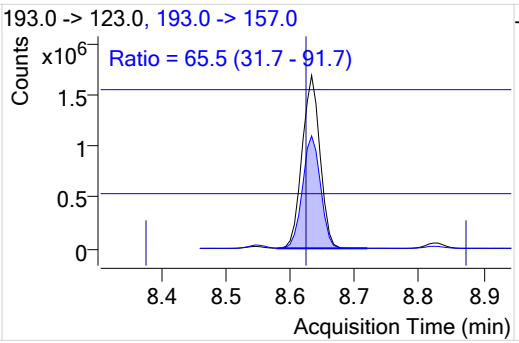


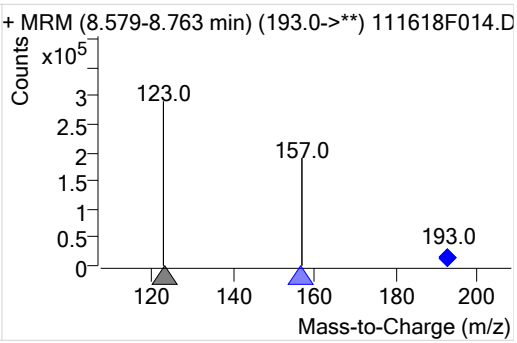




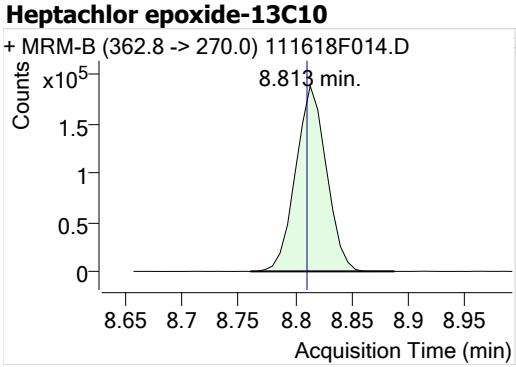
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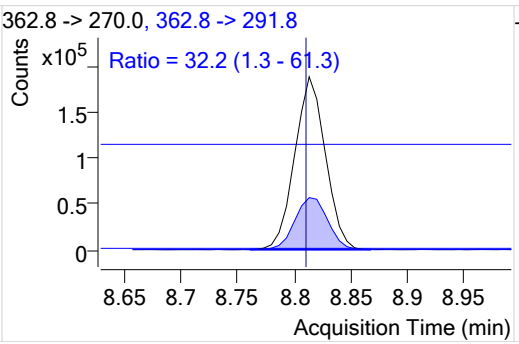


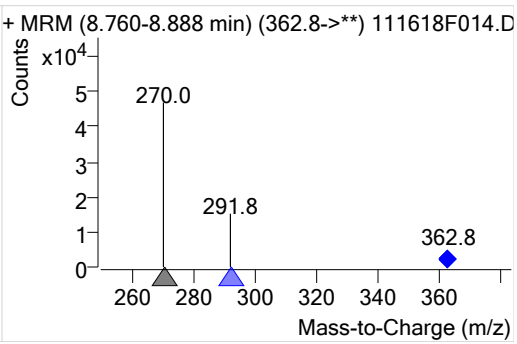




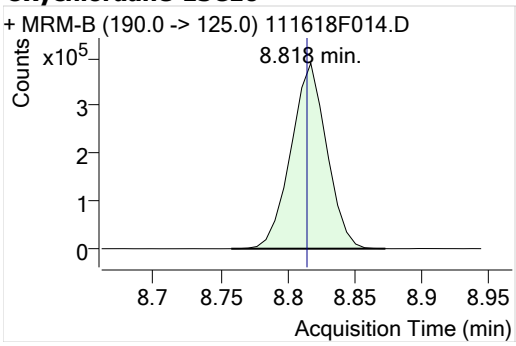
Heptachlor epoxide-13C10

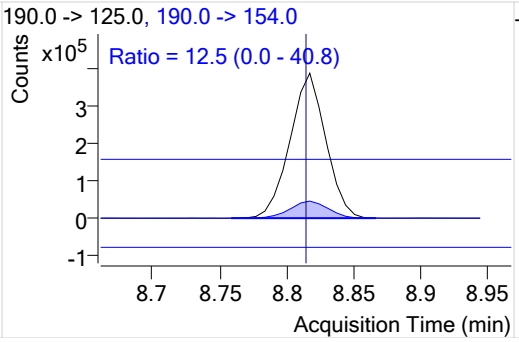


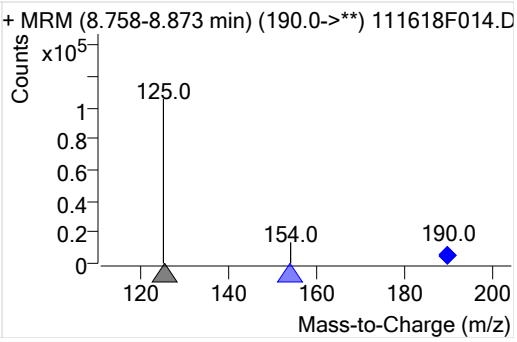




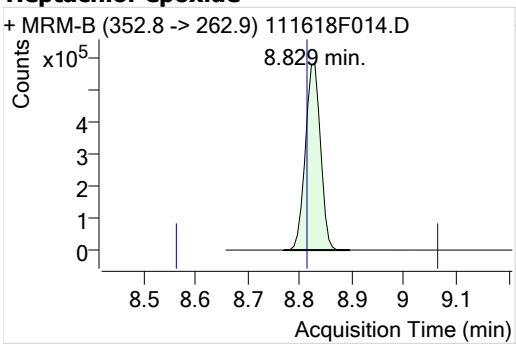
Oxychlordane-13C10

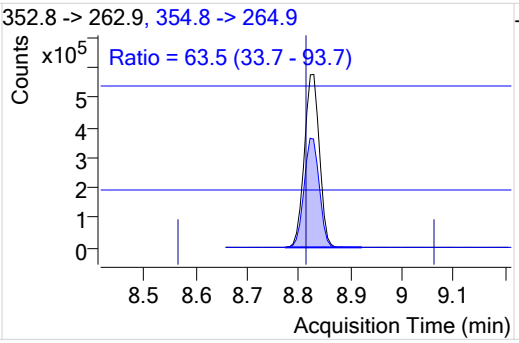


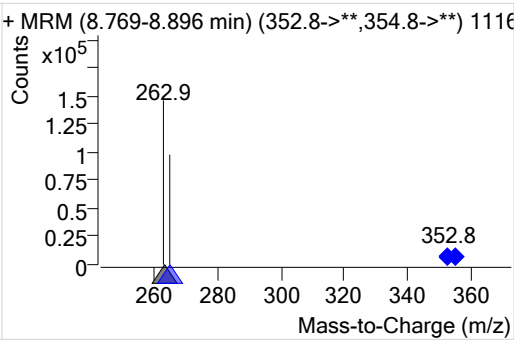




Heptachlor epoxide

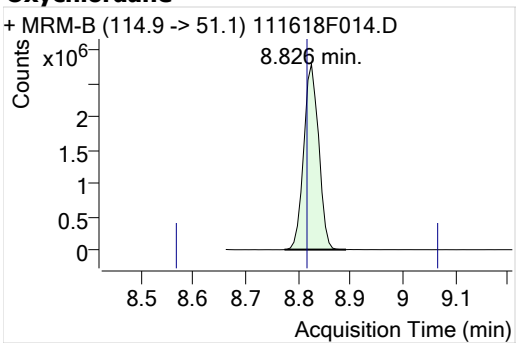


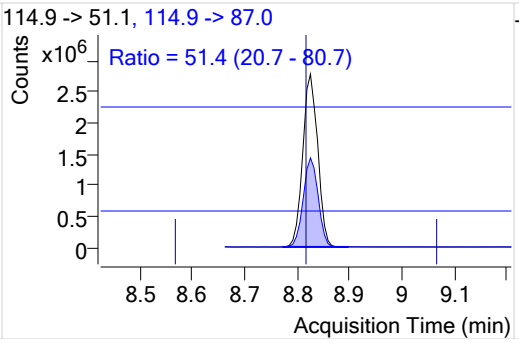


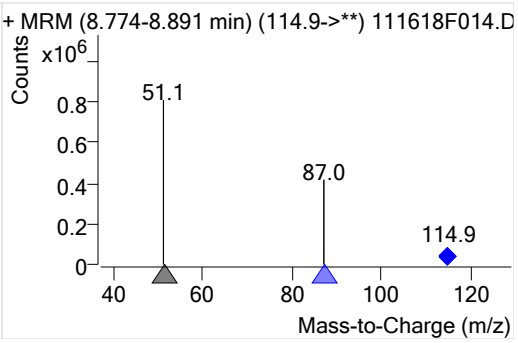


Quantitative Analysis Sample Report

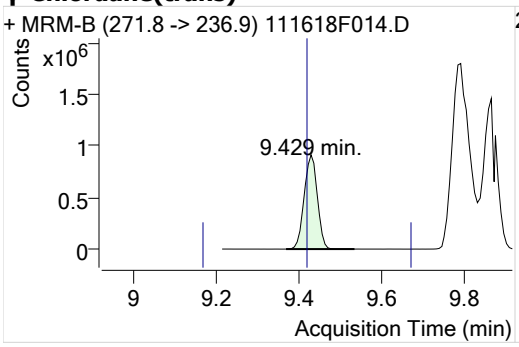
Oxychlordane

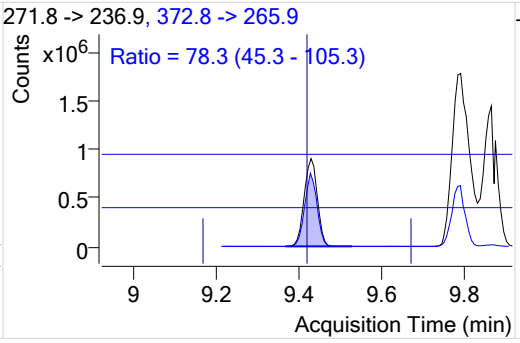


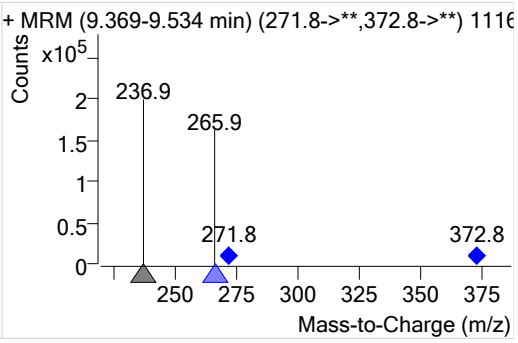




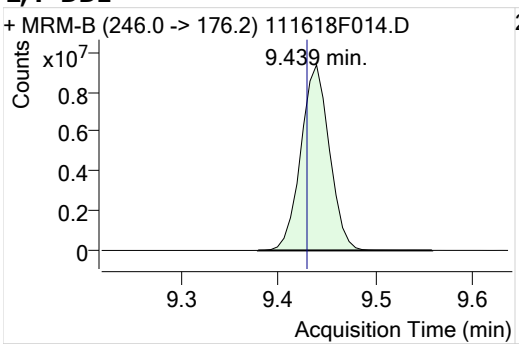
γ-Chlordane(trans)

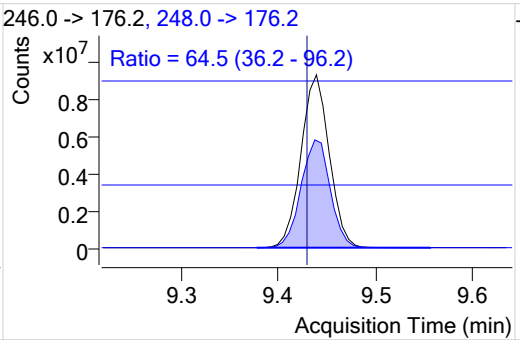


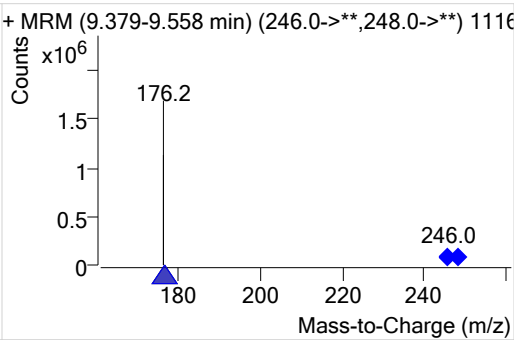




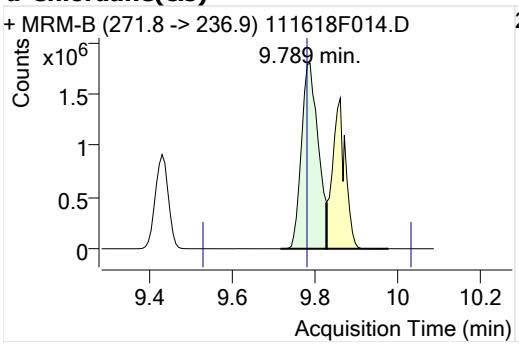
2,4'-DDE

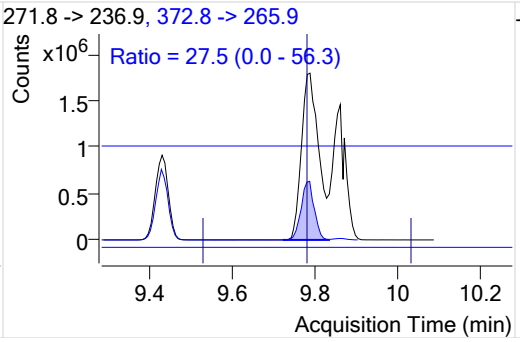


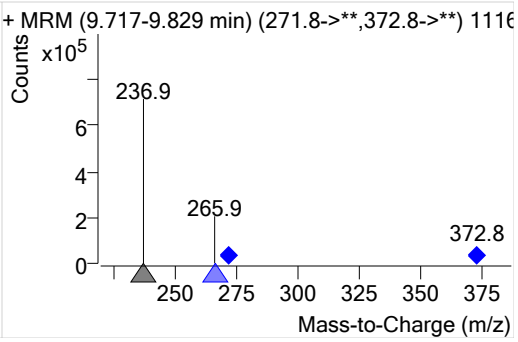




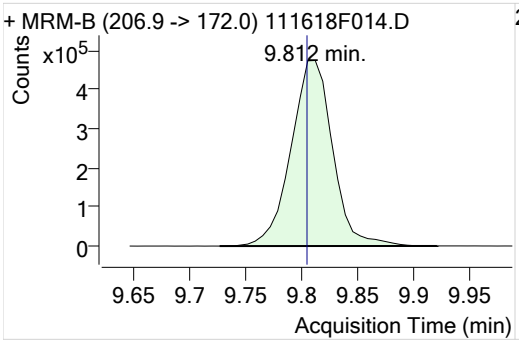
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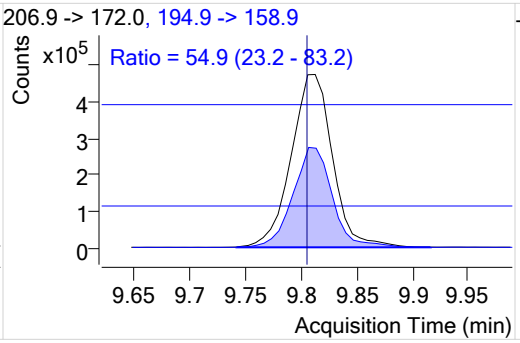


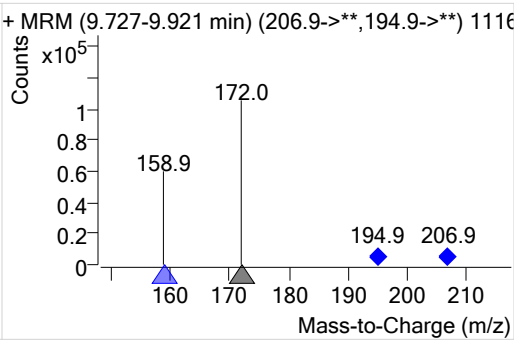




Endosulfan I

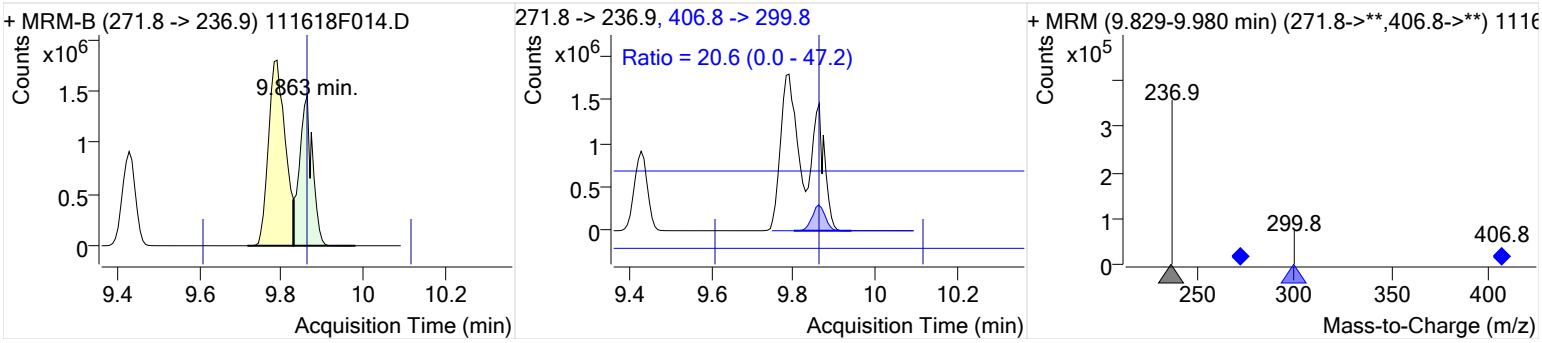




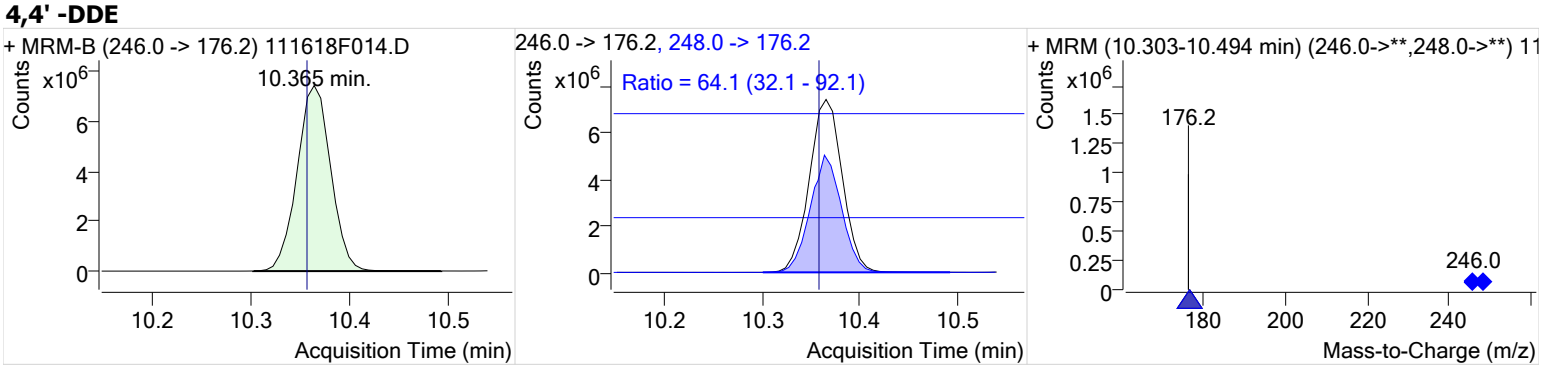


Quantitative Analysis Sample Report

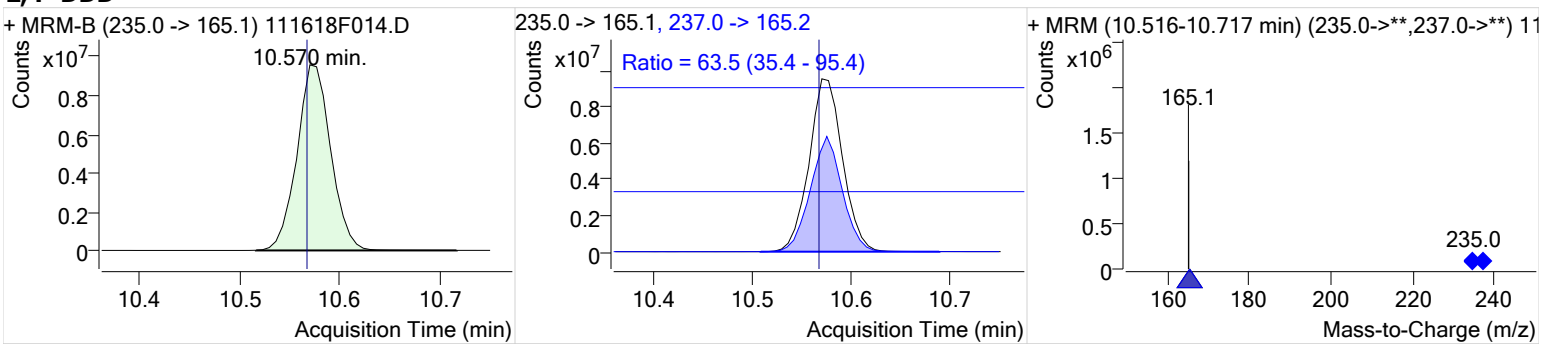
trans-Nanochlor



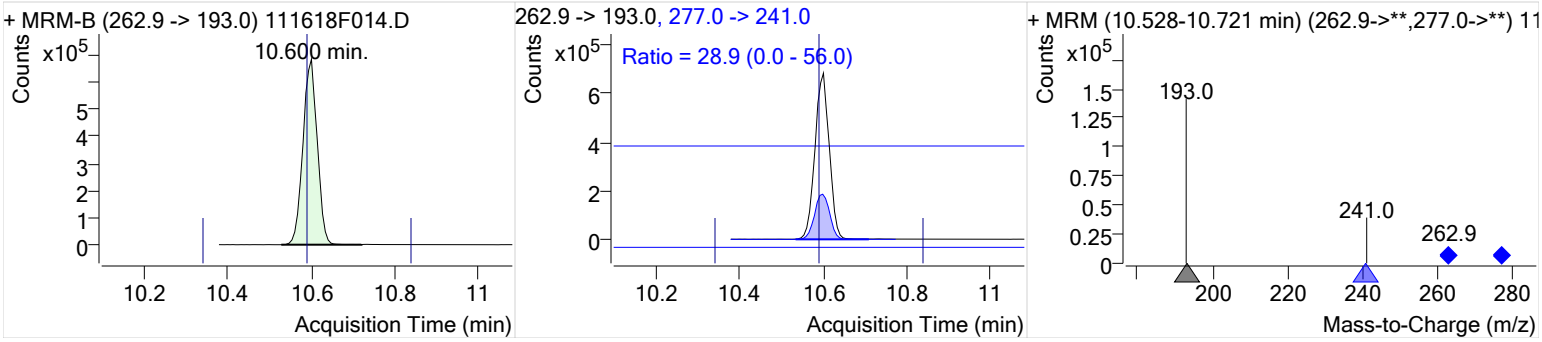
4,4' -DDE



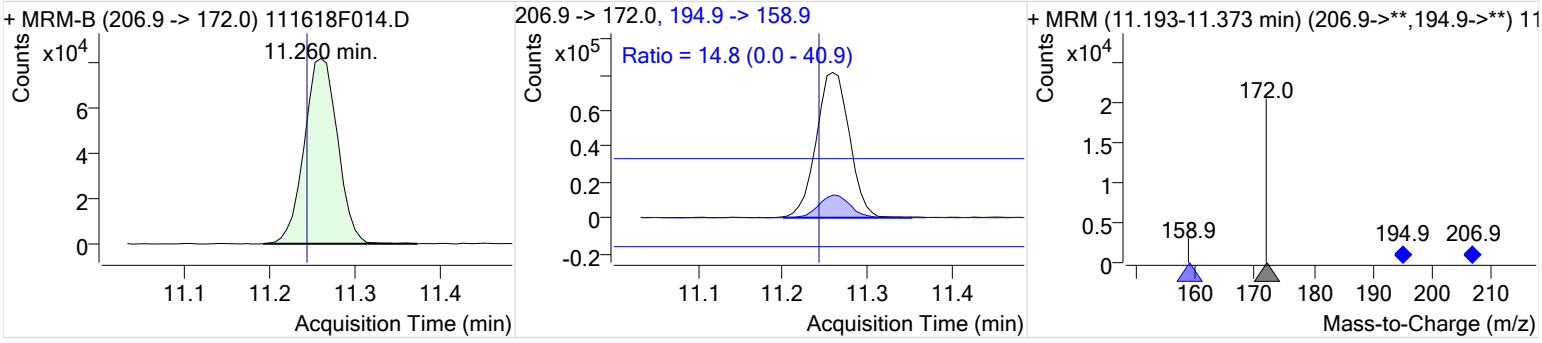
2,4'-DDD



Dieldrin

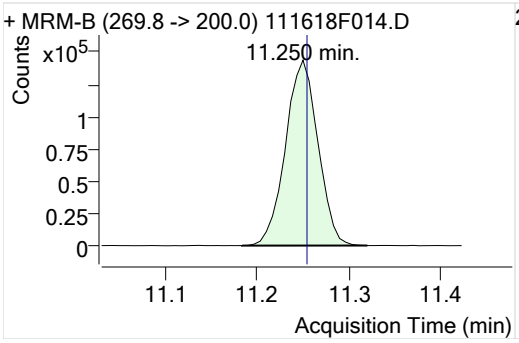


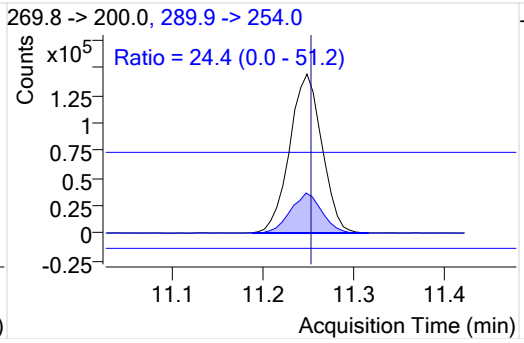
Endosulfan II

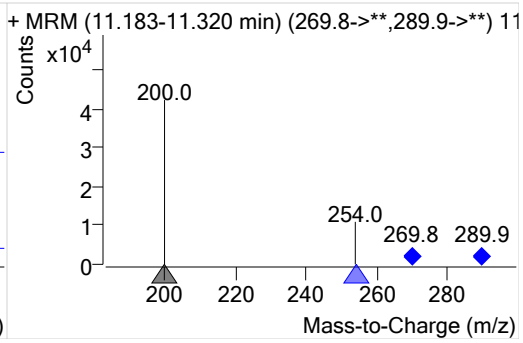


Quantitative Analysis Sample Report

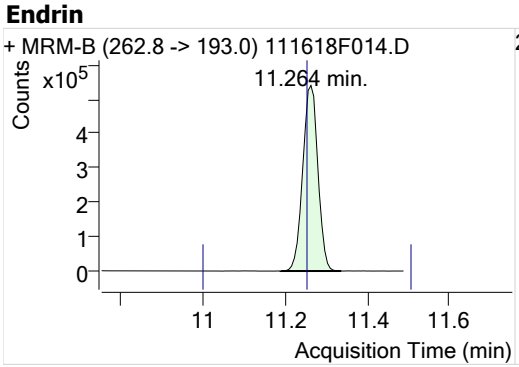
Endrin-13C12

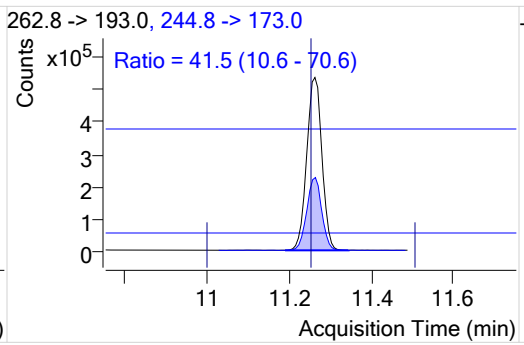


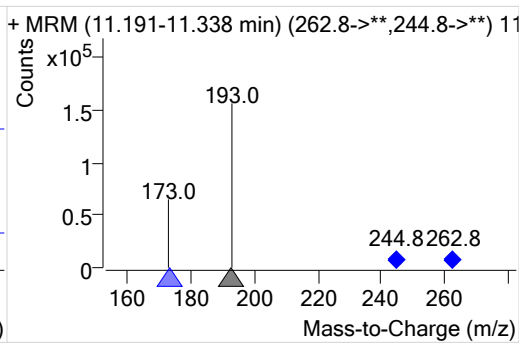




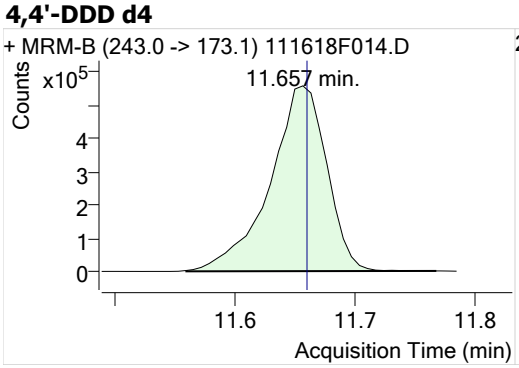
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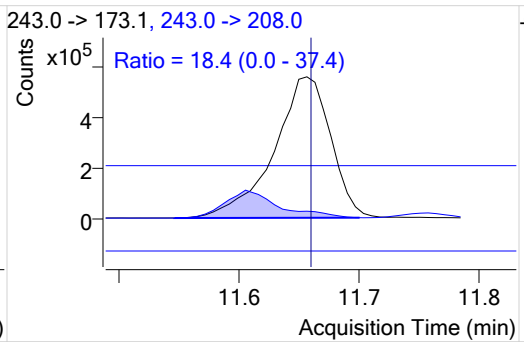


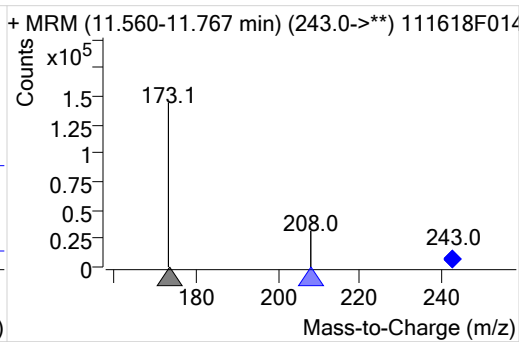




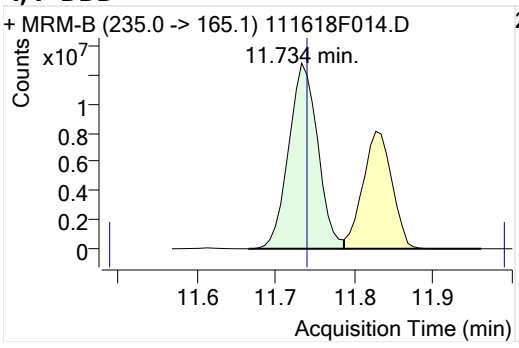
4,4'-DDD d4

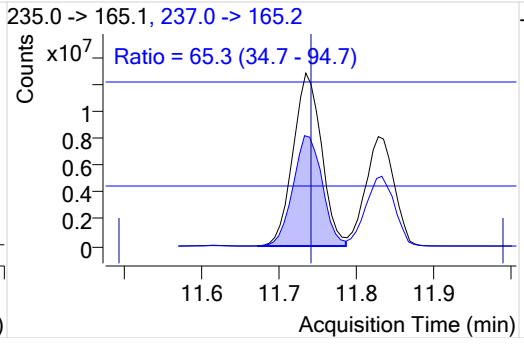


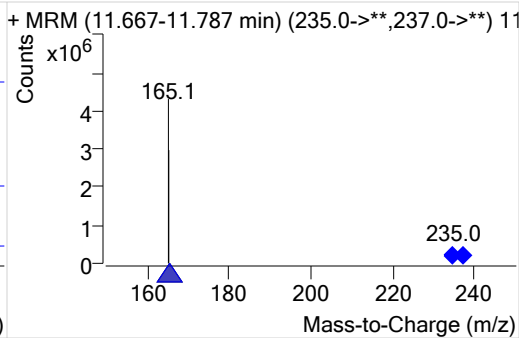




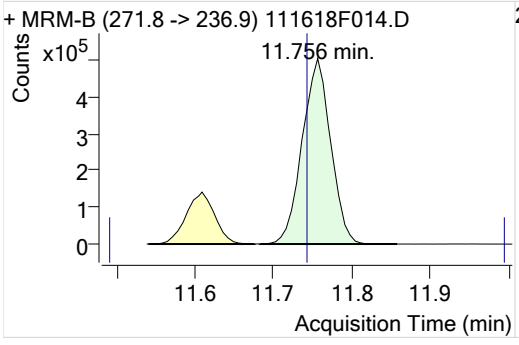
4,4'-DDD

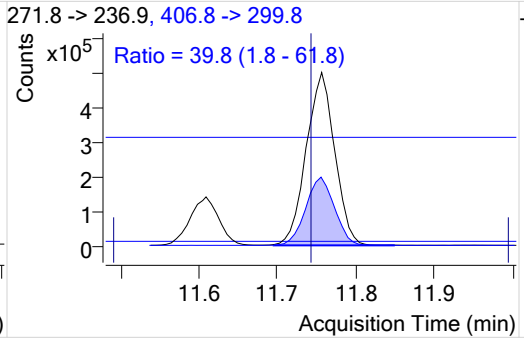


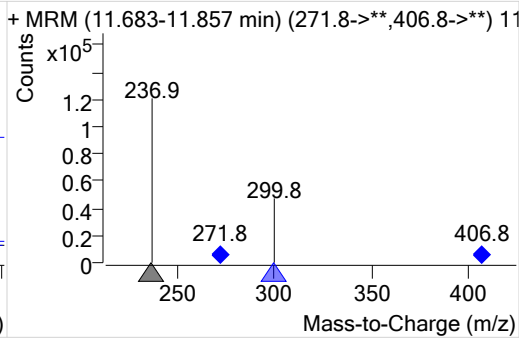




cis-Nonachlor

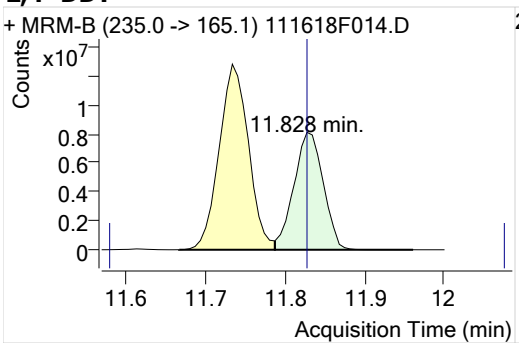


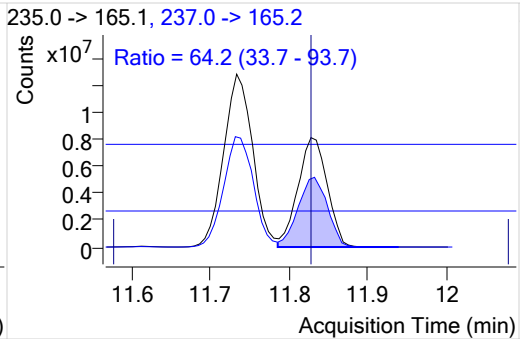


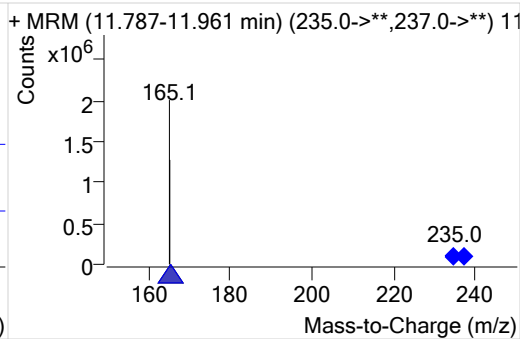


Quantitative Analysis Sample Report

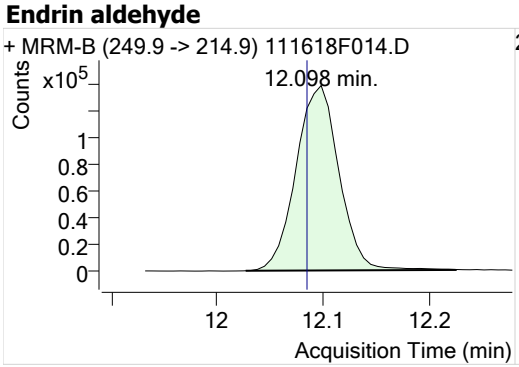
2,4'-DDT

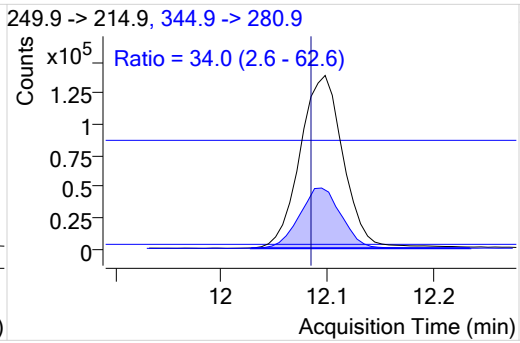


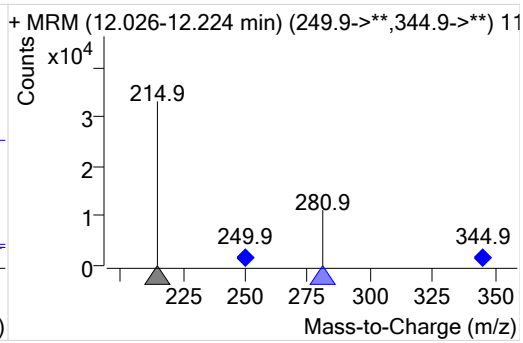




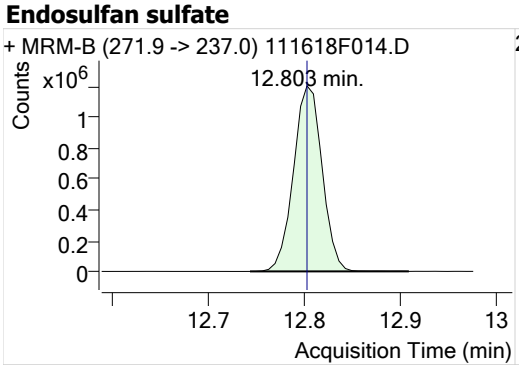
Endrin aldehyde

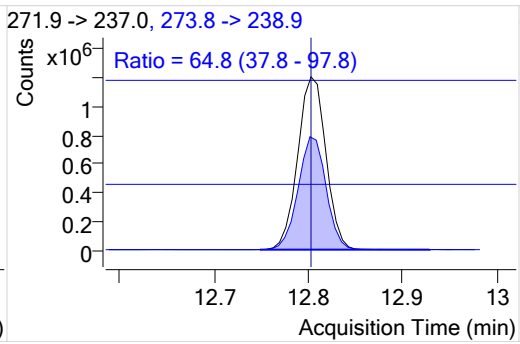


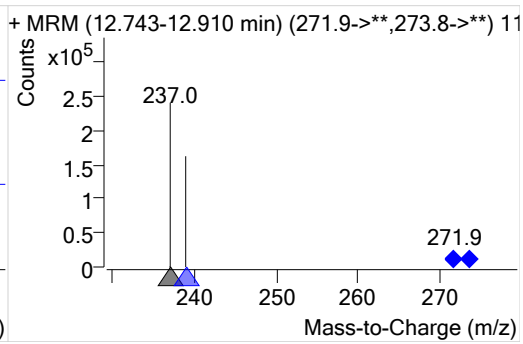




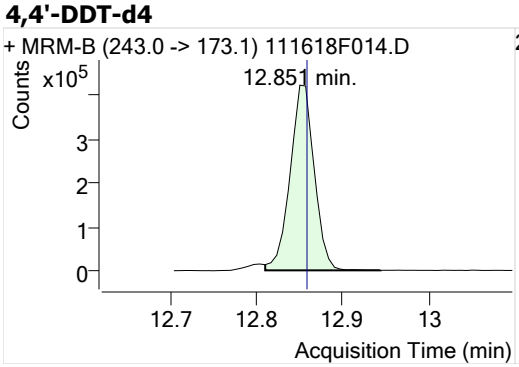
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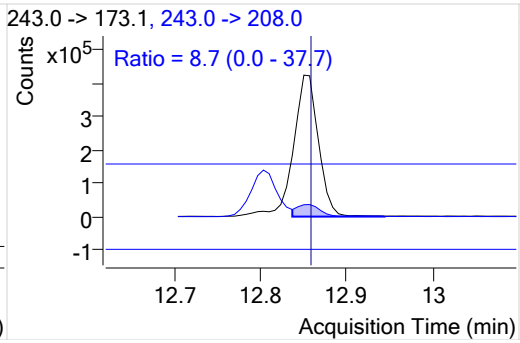


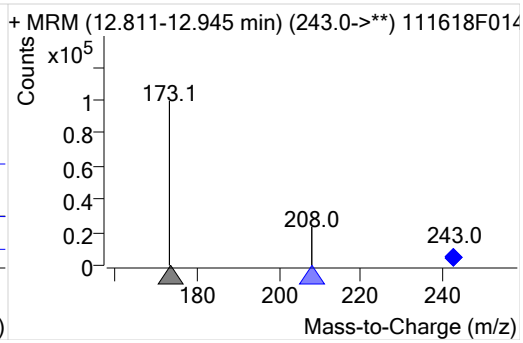




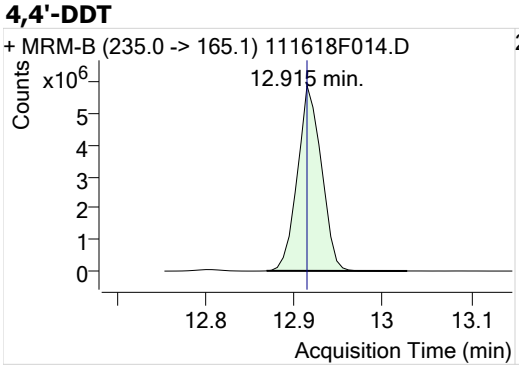
4,4'-DDT-d4

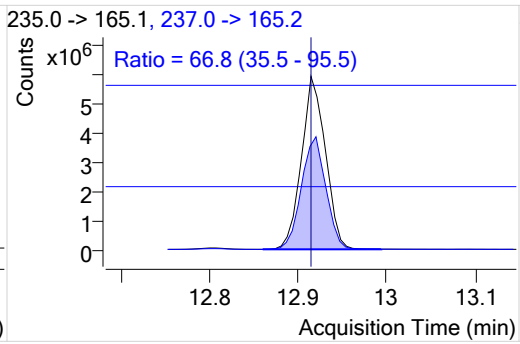


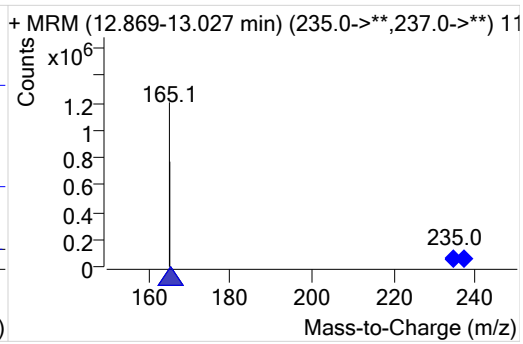




4,4'-DDT

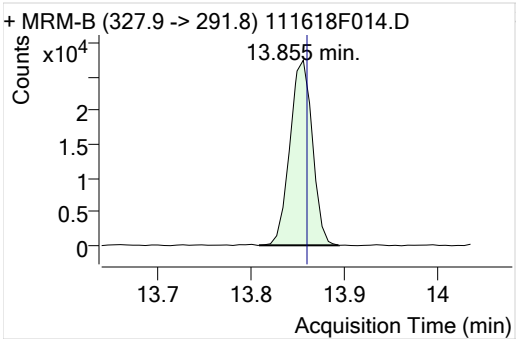


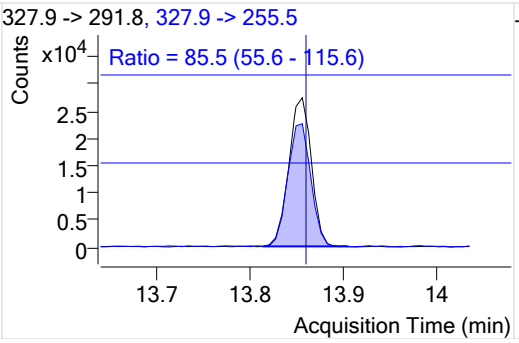


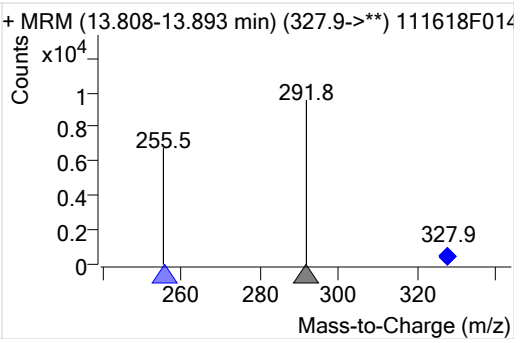


Quantitative Analysis Sample Report

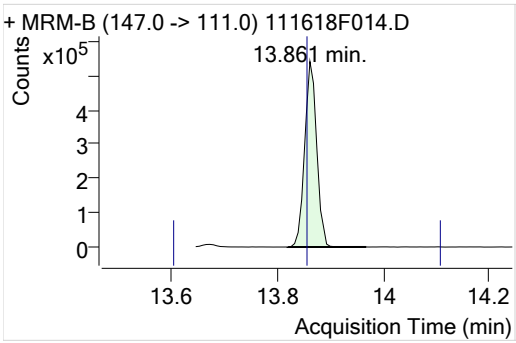
Endrin ketone-13C12

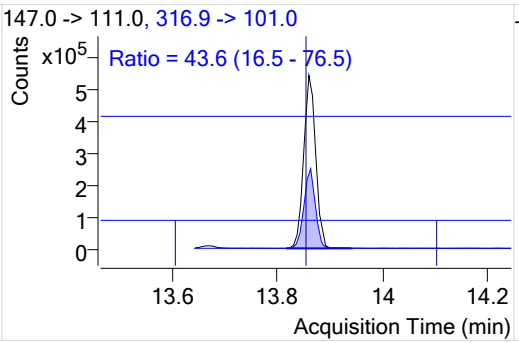


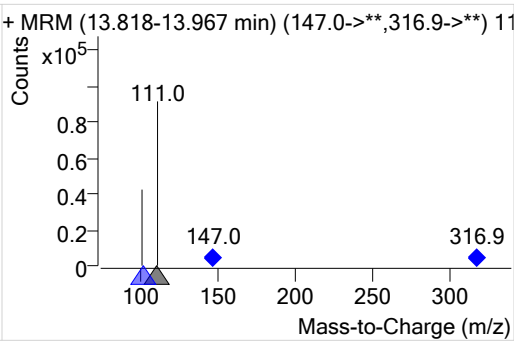




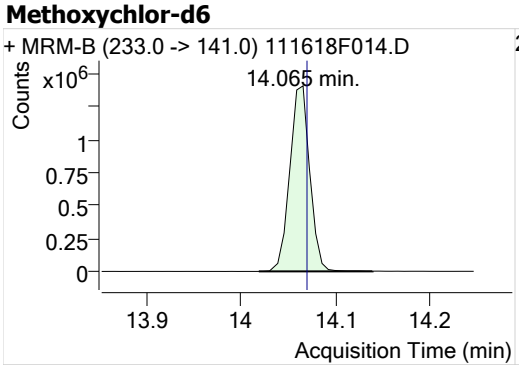
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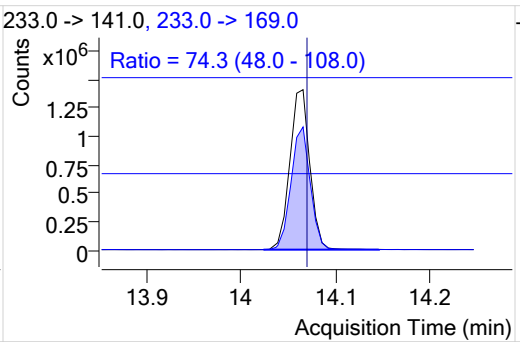


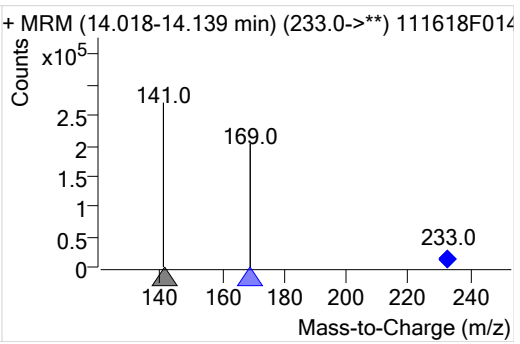




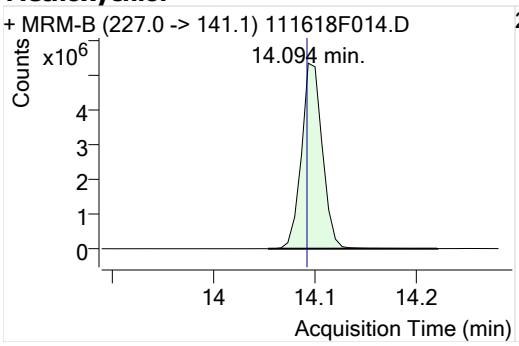
Methoxychlor-d6

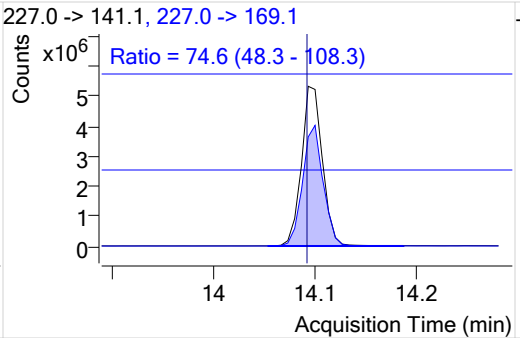


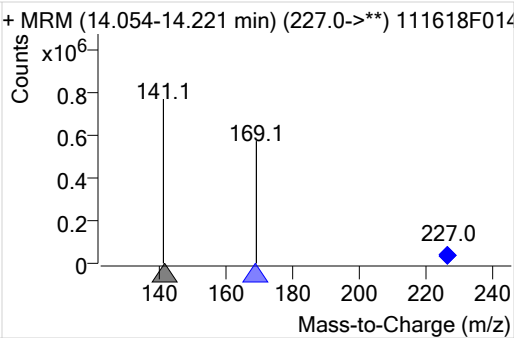




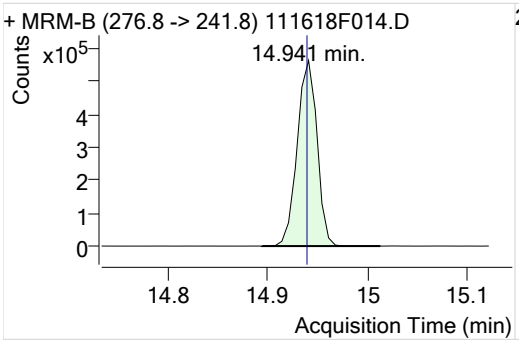
Methoxychlor

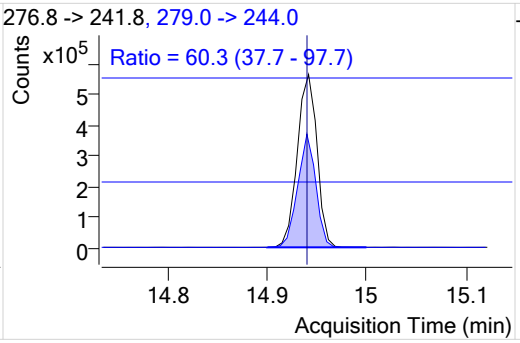


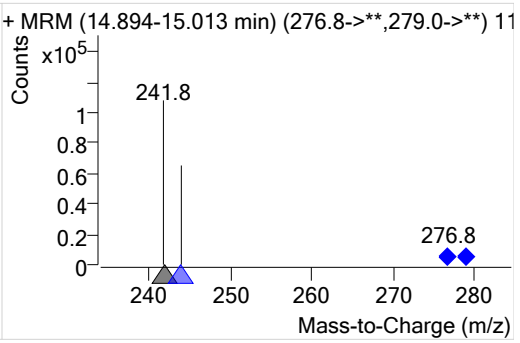




Mirex-13C10

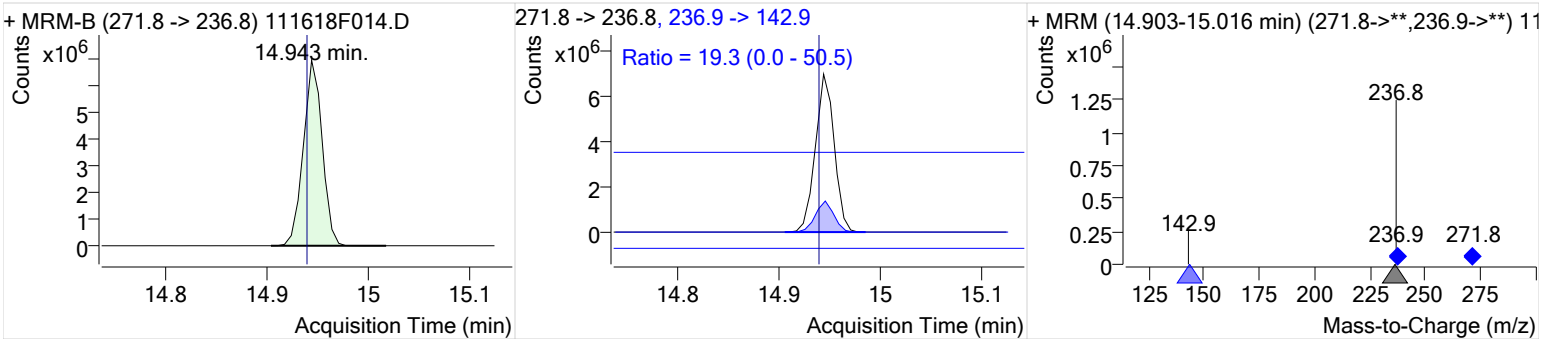




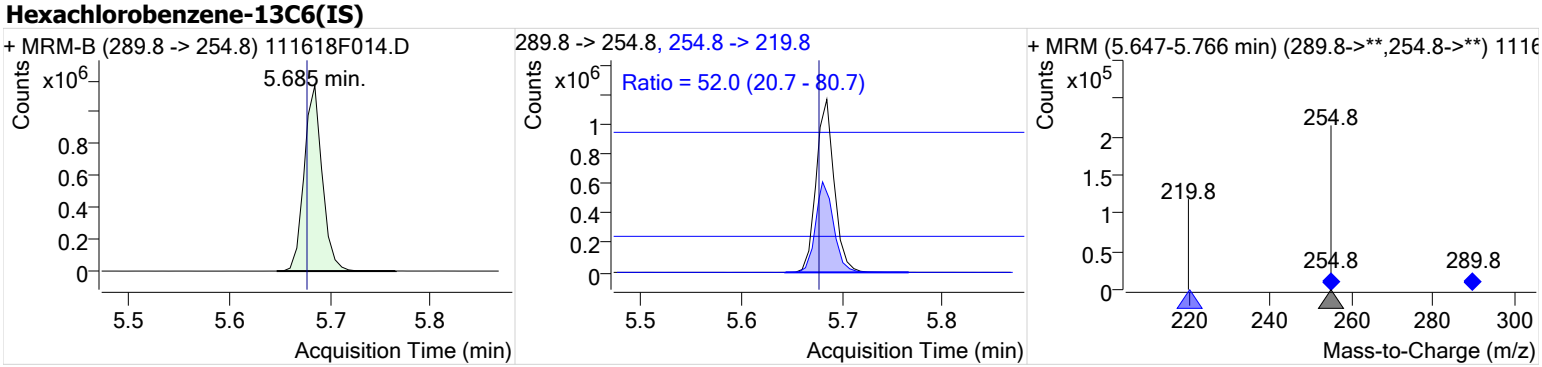


Quantitative Analysis Sample Report

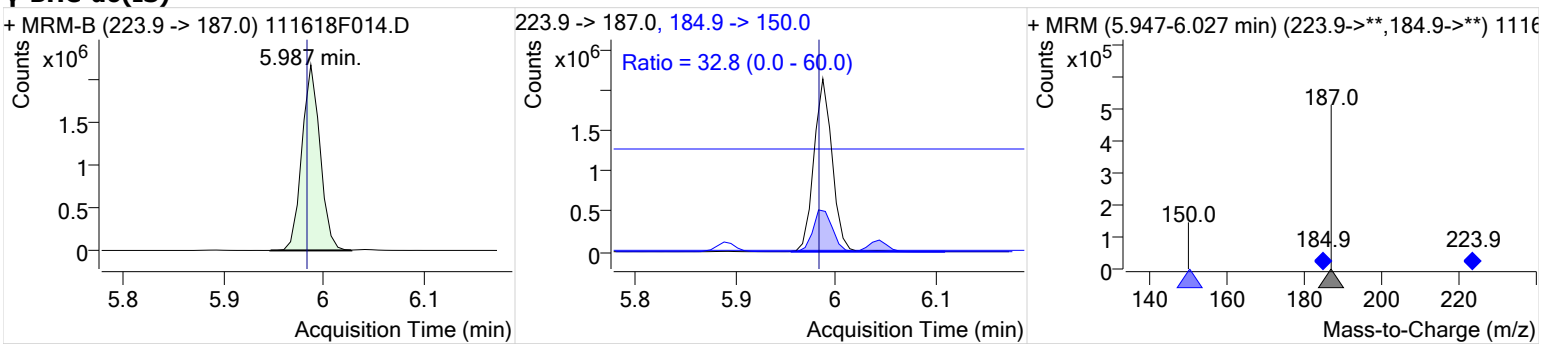
Mirex



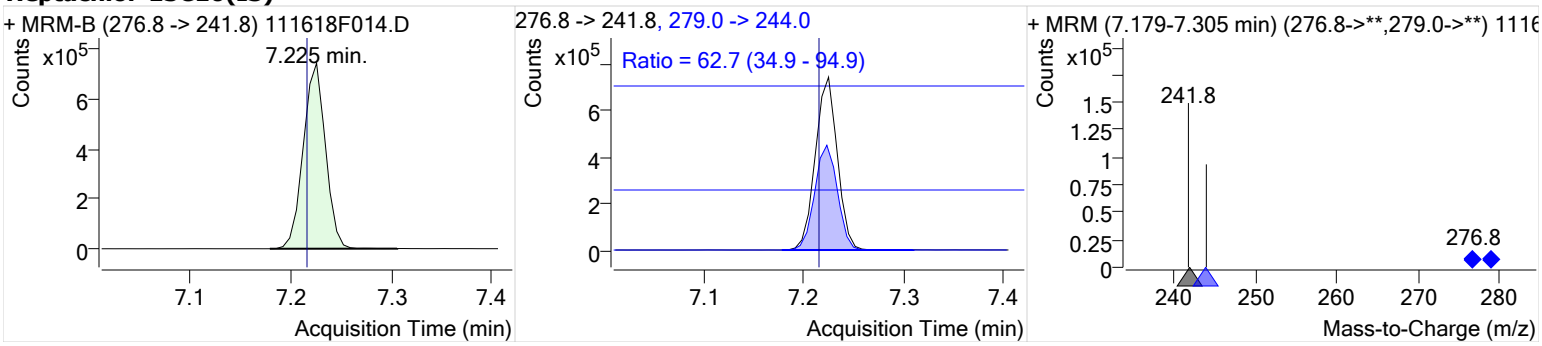
Hexachlorobenzene-13C6(IS)



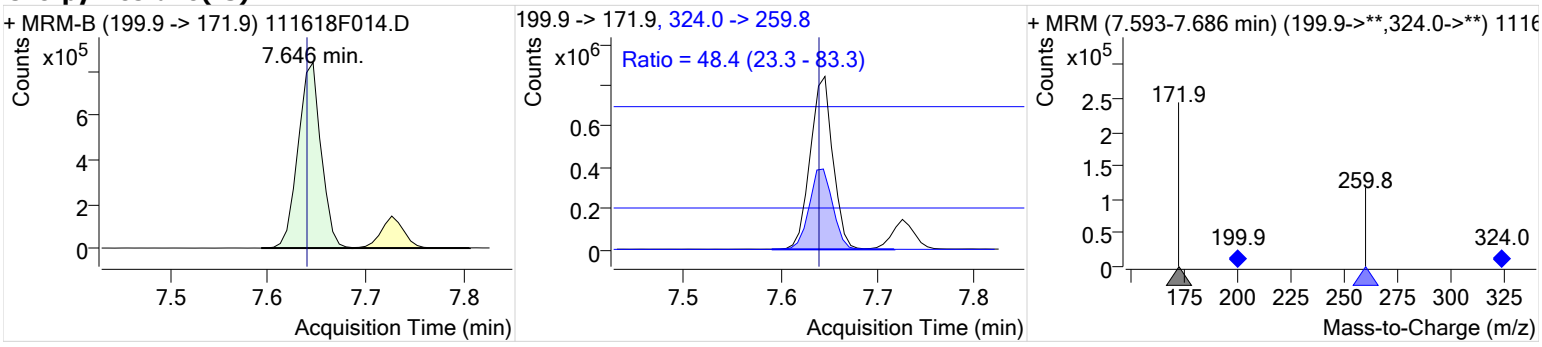
γ-BHC-d6(IS)



Heptachlor-13C10(IS)

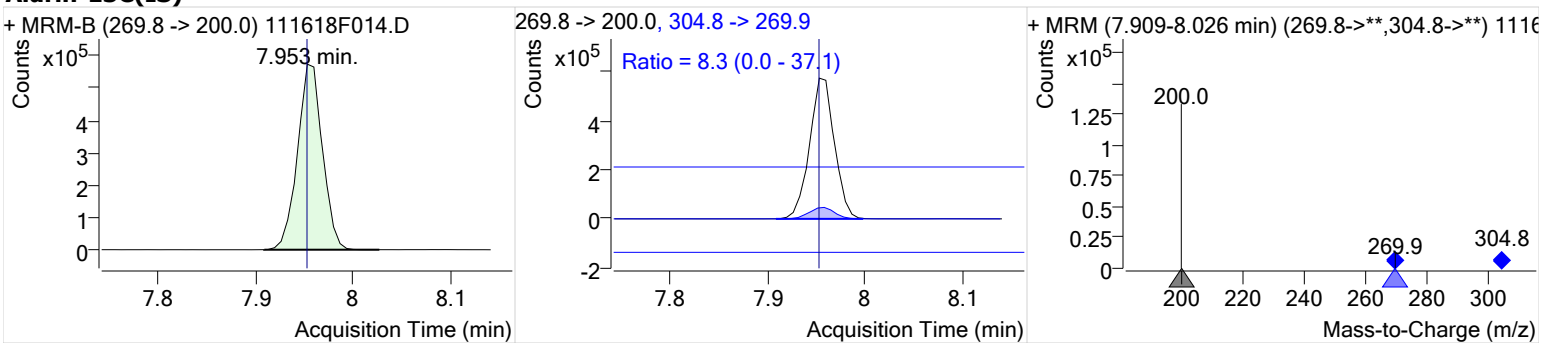


Chorpyrifos-d10(IS)

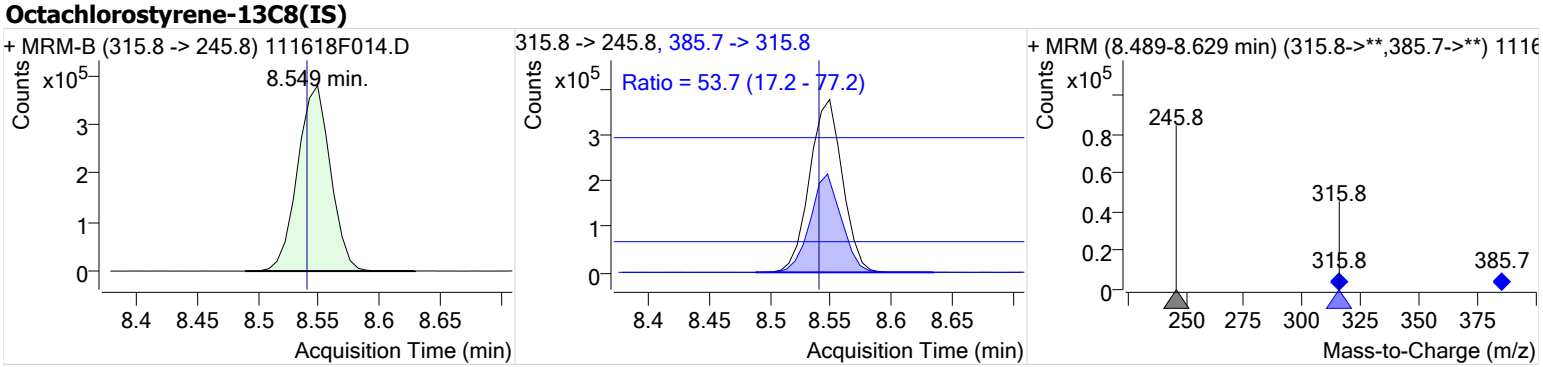


Quantitative Analysis Sample Report

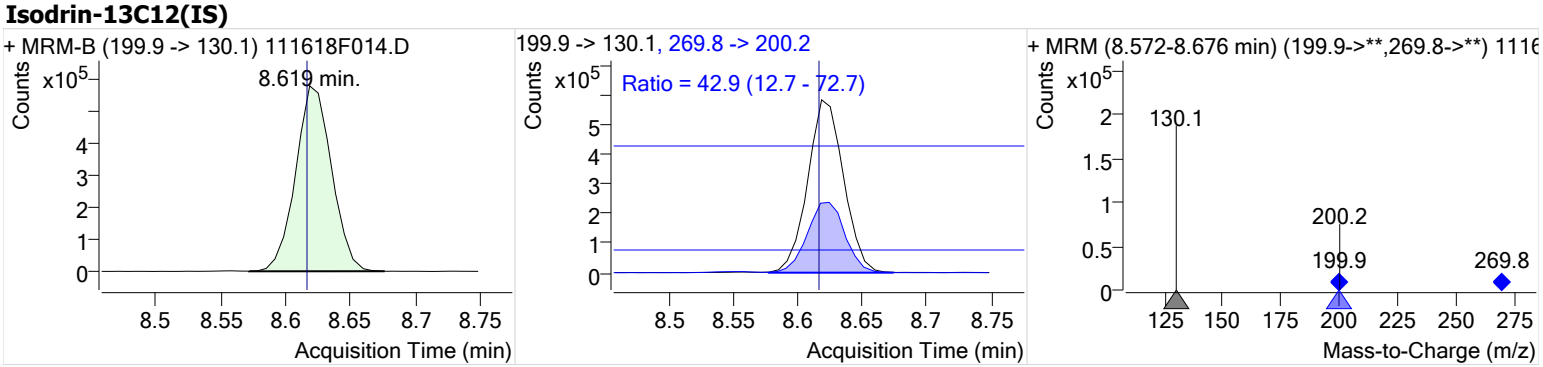
Aldrin-13C(IS)



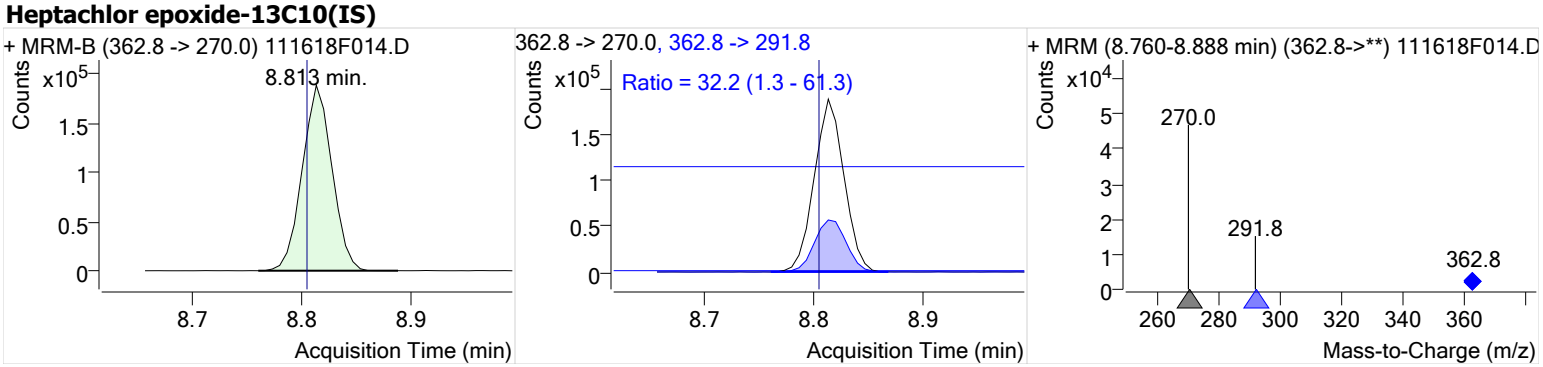
Octachlorostyrene-13C8(IS)



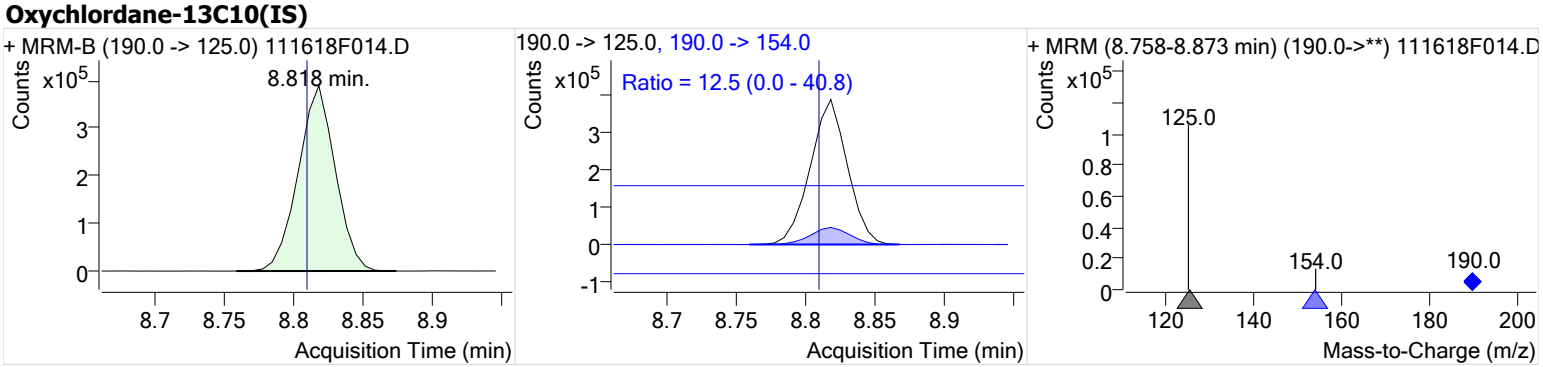
Isodrin-13C12(IS)



Heptachlor epoxide-13C10(IS)

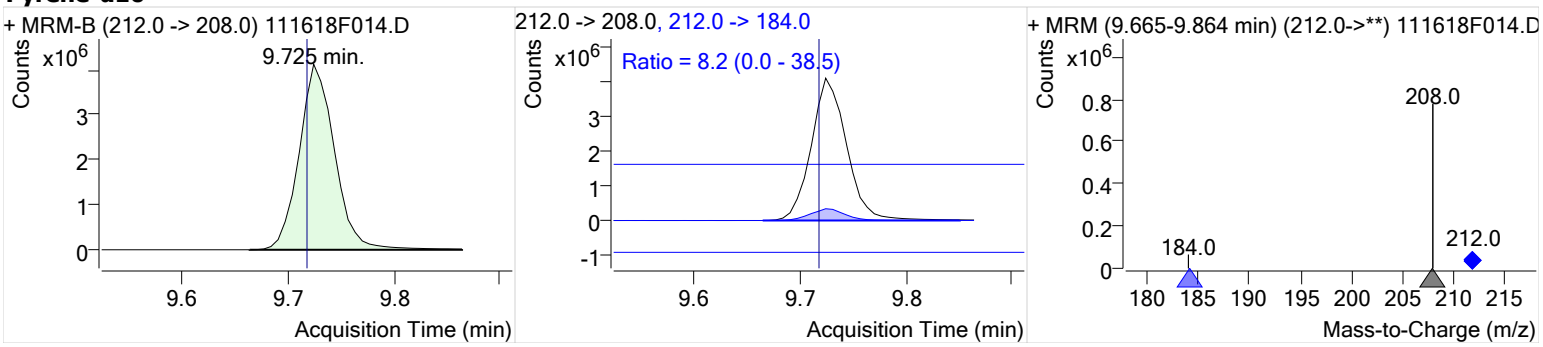


Oxychlordane-13C10(IS)

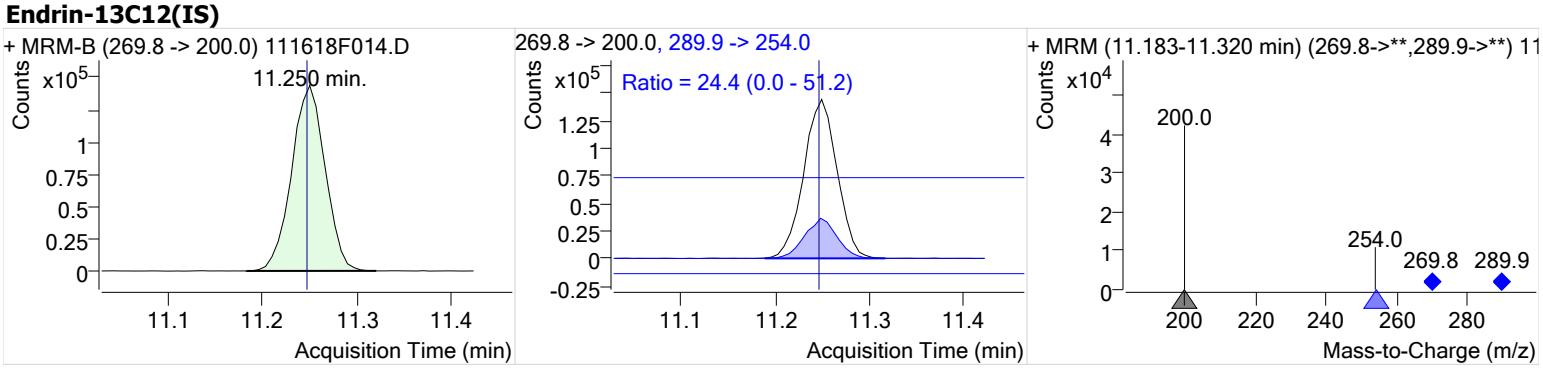


Quantitative Analysis Sample Report

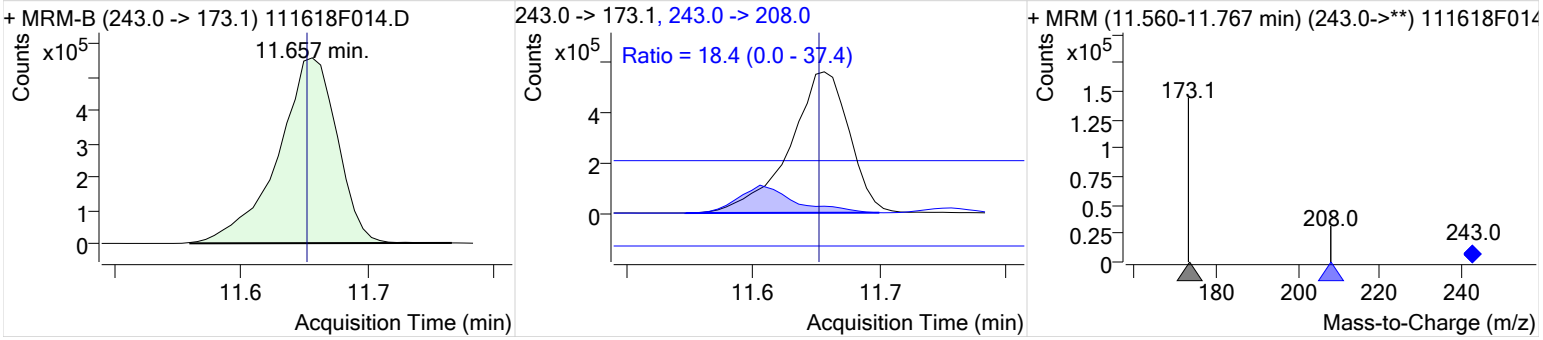
Pyrene-d10



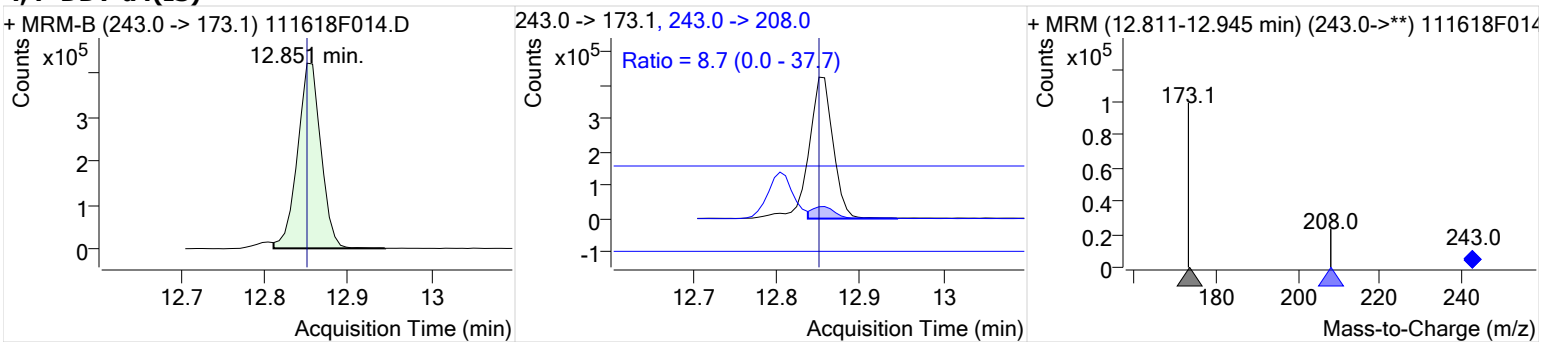
Endrin-13C12(IS)



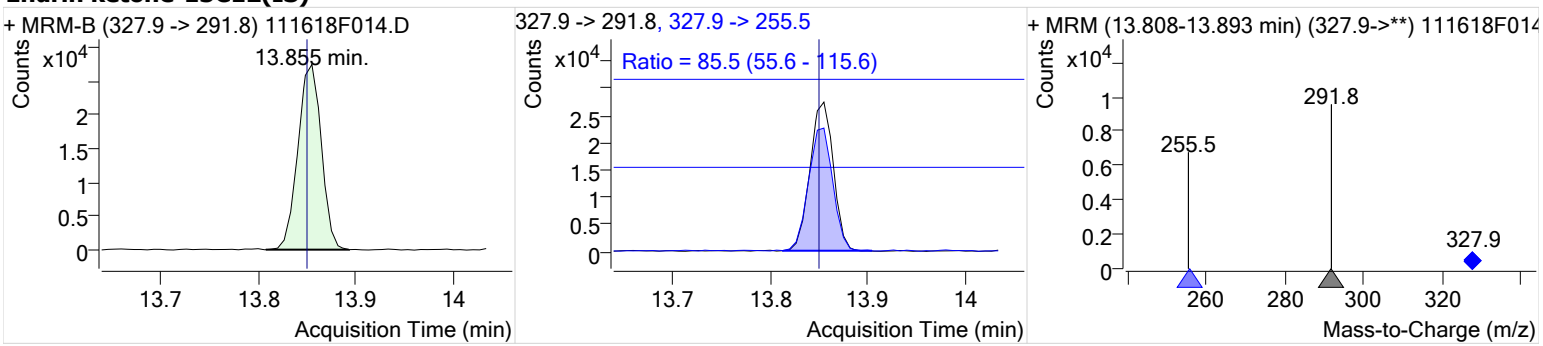
4,4'-DDD d4(IS)



4,4'-DDT-d4(IS)

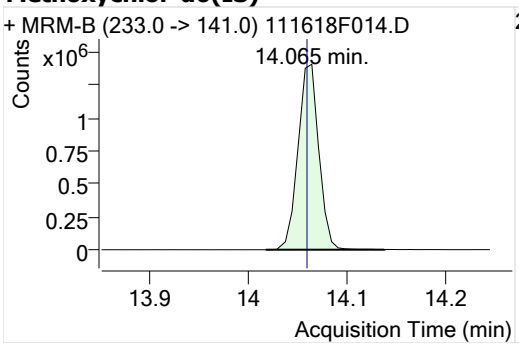


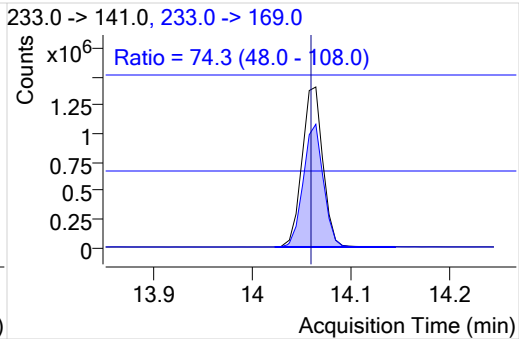
Endrin ketone-13C12(IS)

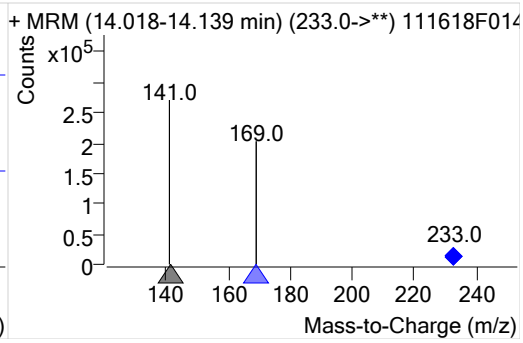


Quantitative Analysis Sample Report

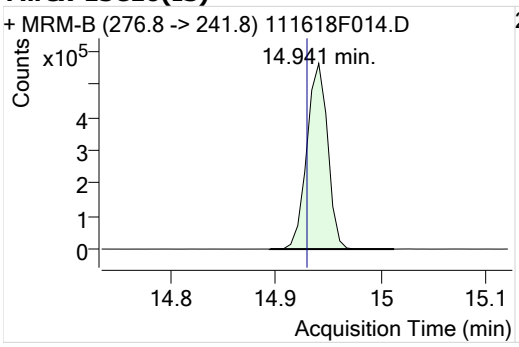
Methoxychlor-d6(IS)

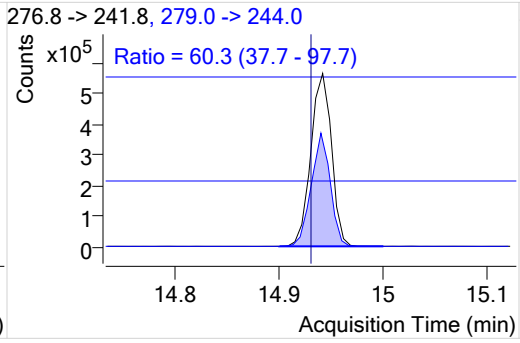


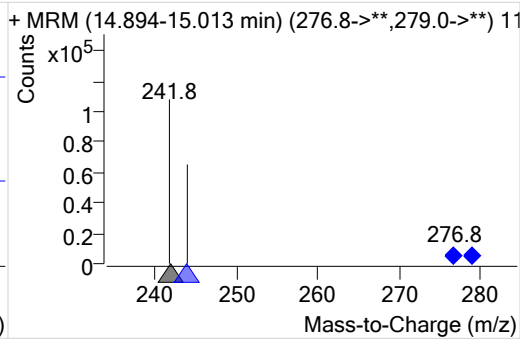




Mirex-13C10(IS)







Quantitative Analysis Sample Report

Data File	Y:\MS42\data\111618\111618F015.D	**Vial**	11
Acq. Date-Time	11/16/2018 3:25:54 PM	**Acq Operator**	EBruno
Name	OC PEST ICAL 80ng/mL SVM59-48I	**Instrument Name**	MS42
Info.		**Instrument Type**	QQQ
Quant Time	3/14/2019 10:04:01 AM	**Inj Vol**	1
Quant Method	110618 OC PEST ICAL.batch.bin		
Last Update	3/14/2019 10:04:01 AM		
Acq. Method File	OC Pest_dMRM	**Tune File Name**	atunes.eihs.tune.xml
Batch File Name	Y:\MS42\data\111618\QuantResults\111618 oc pest ical.batch.bin		

Internal Standards	**RT**	**Transition**	**Response**	**Conc. Units**	**Dev(Min)**
Hexachlorobenzene-13C6(IS)	5.686	289.8 -> 254.8	1475010	20.000 ng/ml	0.006
γ-BHC-d6(IS)	5.987	223.9 -> 187.0	2657799	20.000 ng/ml	0.005
Heptachlor-13C10(IS)	7.220	276.8 -> 241.8	1014568	20.000 ng/ml	0.007
Chorpyrifos-d10(IS)	7.641	199.9 -> 171.9	1234693	20.000 ng/ml	0.004
Aldrin-13C(IS)	7.958	269.8 -> 200.0	991938	20.000 ng/ml	0.005
Octachlorostyrene-13C8(IS)	8.550	315.8 -> 245.8	684107	20.000 ng/ml	0.009
Isodrin-13C12(IS)	8.619	199.9 -> 130.1	1037158	20.000 ng/ml	0.006
Heptachlor epoxide-13C10(IS)	8.814	362.8 -> 270.0	349722	20.000 ng/ml	0.009
Oxychlordane-13C10(IS)	8.818	190.0 -> 125.0	699088	20.000 ng/ml	0.009
Pyrene-d10	9.725	212.0 -> 208.0	8324503	100.000 ng/ml	0.007
Endrin-13C12(IS)	11.250	269.8 -> 200.0	327789	20.000 ng/ml	0.002
4,4'-DDD d4(IS)	11.656	243.0 -> 173.1	1721594	5.000 ng/ml	0.021
4,4'-DDT-d4(IS)	12.852	243.0 -> 173.1	702784	5.000 ng/ml	0.026
Endrin ketone-13C12(IS)	13.855	327.9 -> 291.8	39860	20.000 ng/ml	0.005
Methoxychlor-d6(IS)	14.065	233.0 -> 141.0	1717022	20.000 ng/ml	0.005
Mirex-13C10(IS)	14.941	276.8 -> 241.8	773403	5.000 ng/ml	0.011

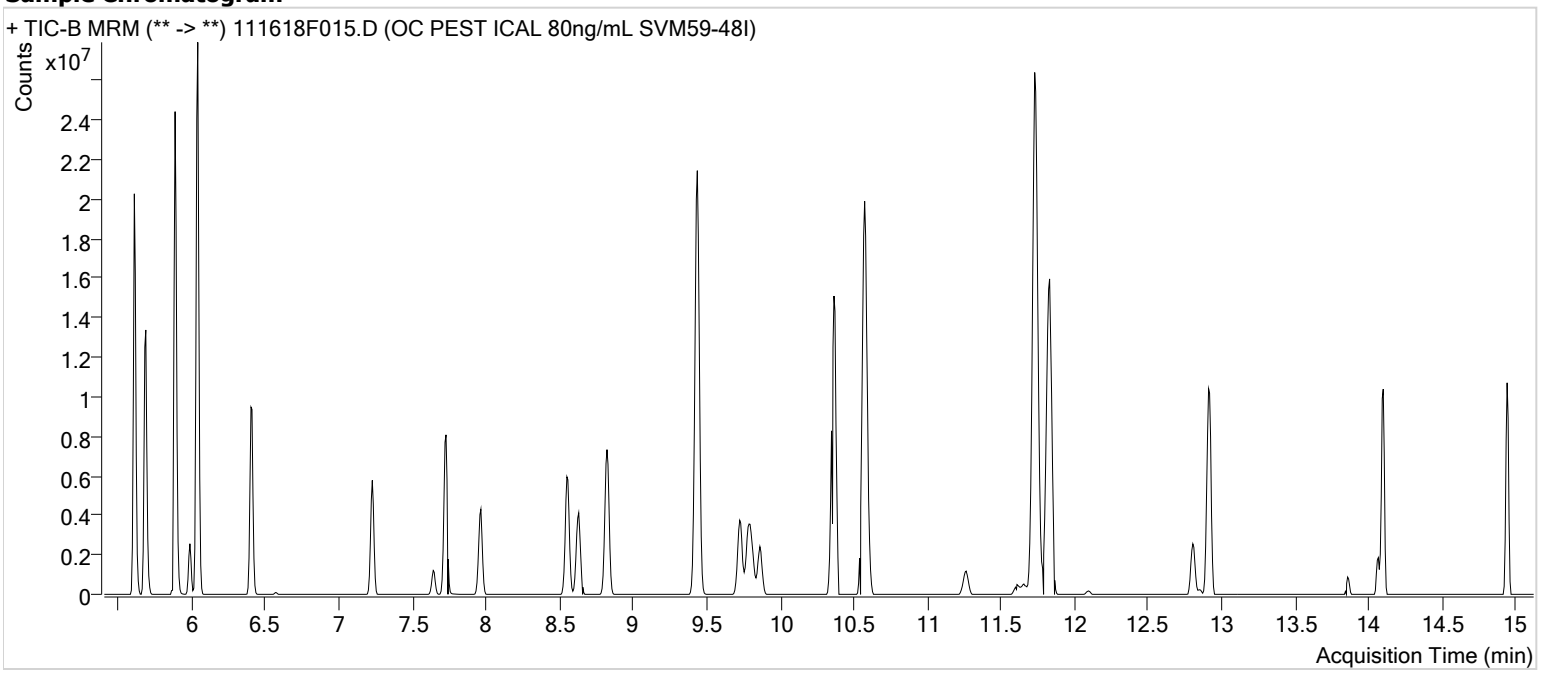
System Monitoring Compounds	**RT**	**Transition**	**Response**	**Conc. Units**
Hexachlorobenzene-13C6	5.677	289.8 -> 254.8	1475010	24.071 ng/ml
		Spiked Amount =	20.0	Recovery = *120.4 %*
γ-BHC-d6	5.983	223.9 -> 187.0	2657799	22.889 ng/ml
		Spiked Amount =	20.0	Recovery = *114.4 %*
Heptachlor-13C10	7.216	276.8 -> 241.8	1014568	21.130 ng/ml
		Spiked Amount =	20.0	Recovery = *105.6 %*
Chorpyrifos-d10	7.640	199.9 -> 171.9	1234693	20.497 ng/ml
		Spiked Amount =	20.0	Recovery = *102.5 %*
Aldrin-13C	7.952	269.8 -> 200.0	991938	22.619 ng/ml
		Spiked Amount =	20.0	Recovery = *113.1 %*
Octachlorostyrene-13C8	8.540	315.8 -> 245.8	684107	21.787 ng/ml
		Spiked Amount =	20.0	Recovery = *108.9 %*
Isodrin-13C12	8.616	199.9 -> 130.1	1037158	21.675 ng/ml
		Spiked Amount =	20.0	Recovery = *108.4 %*
Heptachlor epoxide-13C10	8.805	362.8 -> 270.0	349722	22.859 ng/ml
		Spiked Amount =	20.0	Recovery = *114.3 %*
Oxychlordane-13C10	8.809	190.0 -> 125.0	699088	22.485 ng/ml
		Spiked Amount =	20.0	Recovery = *112.4 %*
Endrin-13C12	11.247	269.8 -> 200.0	327789	21.545 ng/ml
		Spiked Amount =	20.0	Recovery = *107.7 %*
4,4'-DDD d4	11.652	243.0 -> 173.1	1721594	5.823 ng/ml
		Spiked Amount =	5.0	Recovery = *116.5 %*
4,4'-DDT-d4	12.851	243.0 -> 173.1	702784	5.320 ng/ml
		Spiked Amount =	5.0	Recovery = *106.4 %*
Endrin ketone-13C12	13.850	327.9 -> 291.8	39860	21.158 ng/ml
		Spiked Amount =	20.0	Recovery = *105.8 %*
Methoxychlor-d6	14.060	233.0 -> 141.0	1717022	19.671 ng/ml
		Spiked Amount =	20.0	Recovery = *98.4 %*
Mirex-13C10	14.930	276.8 -> 241.8	773403	6.064 ng/ml
		Spiked Amount =	5.0	Recovery = *121.3 %*

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Target Compounds	ISTD	RT	Transition	Resp.	Conc.	Units	Qvalue
α-BHC	γ-BHC-d6(IS)	5.613	181.1 -> 145.1	14893981	78.368	ng/ml	99
Hexachlorobenzene	Hexachlorobenzene-13C6(IS)	5.686	283.8 -> 213.9	9569724	71.673	ng/ml	96
β-BHC	γ-BHC-d6(IS)	5.890	181.1 -> 145.1	18582531	77.284	ng/ml	94
γ-BHC(Lindane)	γ-BHC-d6(IS)	6.044	181.1 -> 145.1	21601149	77.701	ng/ml	96
δ-BHC	γ-BHC-d6(IS)	6.404	181.1 -> 145.1	8458498	76.338	ng/ml	100
Heptachlor	Heptachlor-13C10(IS)	7.230	271.7 -> 236.9	4476940	76.130	ng/ml	99
Chorpyrifos	Chorpyrifos-d10(IS)	7.725	196.9 -> 169.0	6809479	78.128	ng/ml	98
Aldrin	Aldrin-13C(IS)	7.969	254.9 -> 220.0	2552387	81.208	ng/ml	82
Octachlorostyrene	Octachlorostyrene-13C8(IS)	8.553	342.8 -> 307.8	7000713	79.517	ng/ml	95
Isodrin	Isodrin-13C12(IS)	8.633	193.0 -> 123.0	4202512	78.973	ng/ml	97
Heptachlor epoxide	Heptachlor epoxide-13C10(IS)	8.823	352.8 -> 262.9	1563033	78.536	ng/ml	100
Oxychlordane	Oxychlordane-13C10(IS)	8.826	114.9 -> 51.1	7283434	77.058	ng/ml	100
γ-Chlordane(trans)	Oxychlordane-13C10(IS)	9.430	271.8 -> 236.9	2679110	79.535	ng/ml	97
2,4'-DDE	4,4'-DDD d4(IS)	9.440	246.0 -> 176.2	24634917	75.265	ng/ml	98
α-Chlordane(cis)	Oxychlordane-13C10(IS)	9.782	271.8 -> 236.9	6471554	76.899	ng/ml	95
Endosulfan I	Endrin-13C12(IS)	9.812	206.9 -> 172.0	1592164	77.485	ng/ml	99
trans-Nanochlor	Oxychlordane-13C10(IS)	9.862	271.8 -> 236.9	4429083	81.779	ng/ml	95
4,4' -DDE	4,4'-DDD d4(IS)	10.365	246.0 -> 176.2	22143887	73.806	ng/ml	97
2,4'-DDD	4,4'-DDD d4(IS)	10.577	235.0 -> 165.1	28127778	75.927	ng/ml	96
Dieldrin	Endrin-13C12(IS)	10.601	262.9 -> 193.0	2074704	82.980	ng/ml	92
Endosulfan II	Endrin-13C12(IS)	11.260	206.9 -> 172.0	257132	79.819	ng/ml	88
Endrin	Endrin-13C12(IS)	11.264	262.8 -> 193.0	1719960	76.460	ng/ml	98
4,4'-DDD	4,4'-DDD d4(IS)	11.733	235.0 -> 165.1	39733640	71.466	ng/ml	100
cis-Nonachlor	Oxychlordane-13C10(IS)	11.756	271.8 -> 236.9	1592460	77.619	ng/ml	84
2,4'-DDT	4,4'-DDT-d4(IS)	11.834	235.0 -> 165.1	24924838	79.095	ng/ml	96
Endrin aldehyde	Endrin-13C12(IS)	12.097	249.9 -> 214.9	499924	78.779	ng/ml	99
Endosulfan sulfate	Endrin-13C12(IS)	12.804	271.9 -> 237.0	3069722	79.717	ng/ml	94
4,4'-DDT	4,4'-DDT-d4(IS)	12.916	235.0 -> 165.1	13057387	80.293	ng/ml	97
Endrin ketone	Endrin ketone-13C12(IS)	13.861	147.0 -> 111.0	1044159	74.421	ng/ml	94
Methoxychlor	Methoxychlor-d6(IS)	14.101	227.0 -> 141.1	8942965	81.622	ng/ml	97
Mirex	Mirex-13C10(IS)	14.943	271.8 -> 236.8	11436744	81.285	ng/ml	97

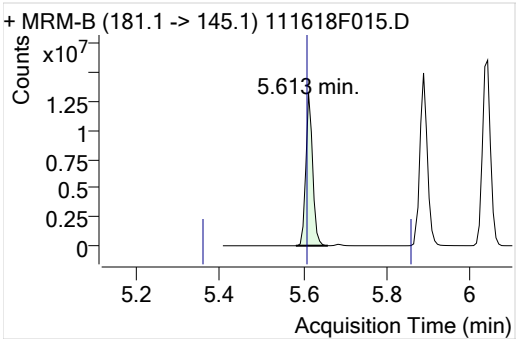
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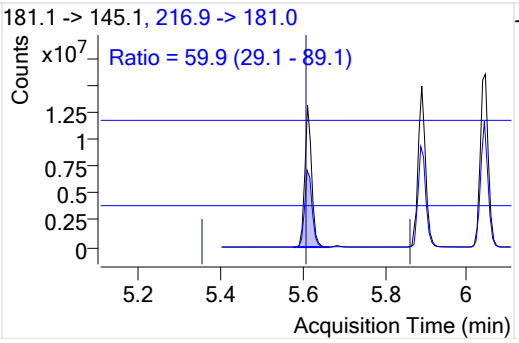
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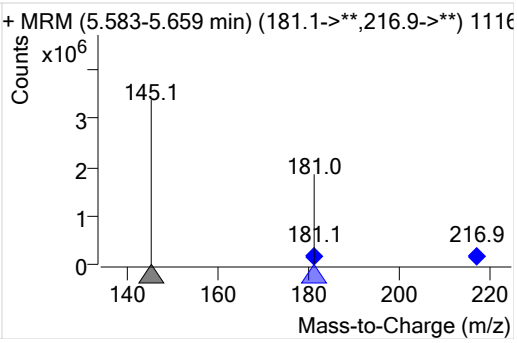


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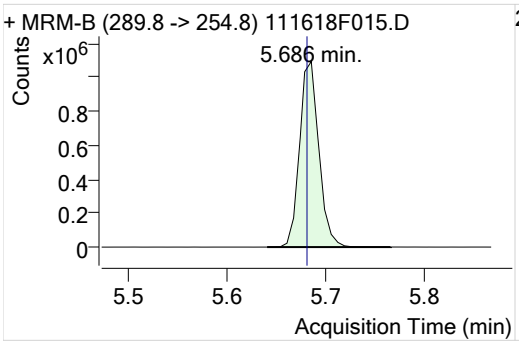
α-BHC

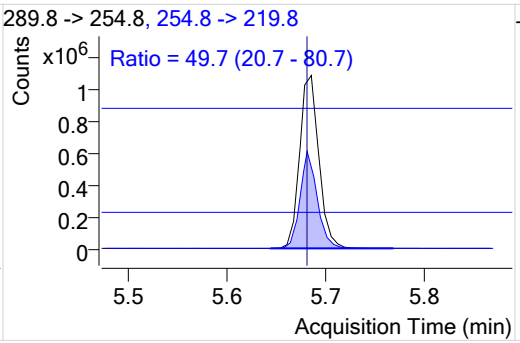


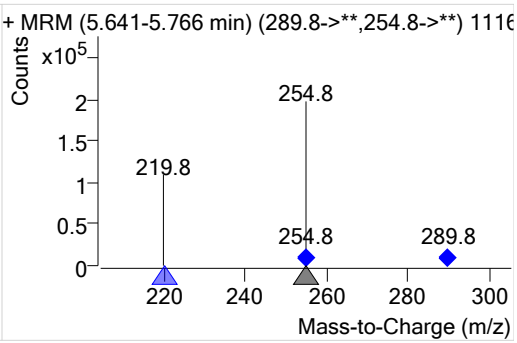




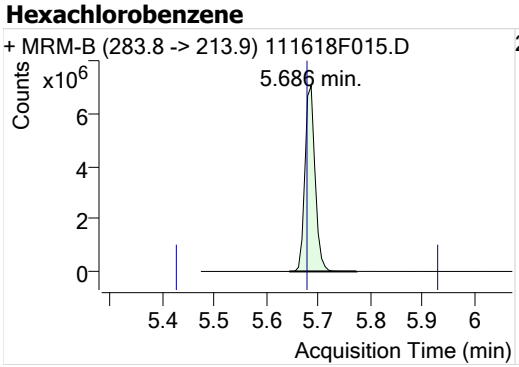
Hexachlorobenzene-13C6

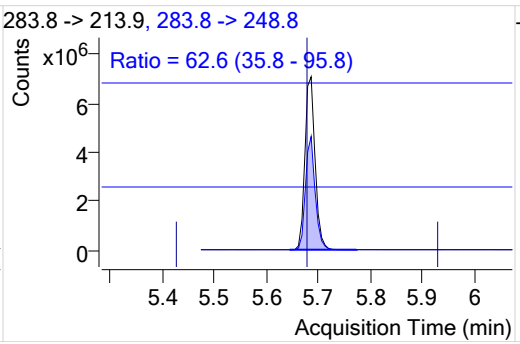


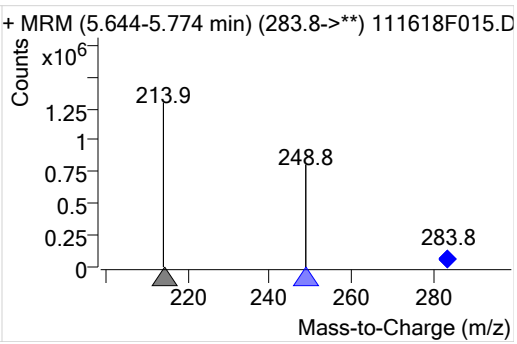




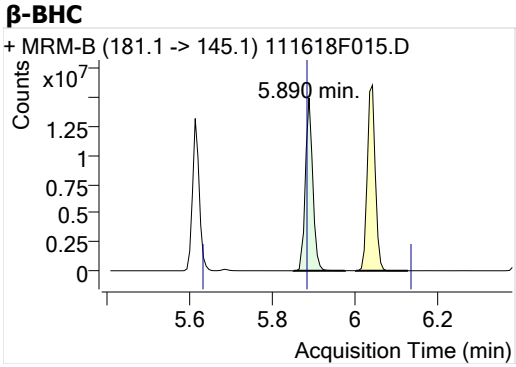
Hexachlorobenzene

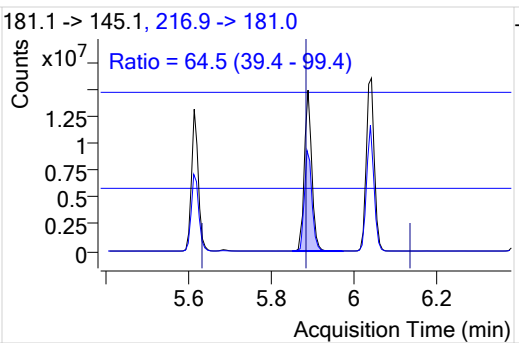


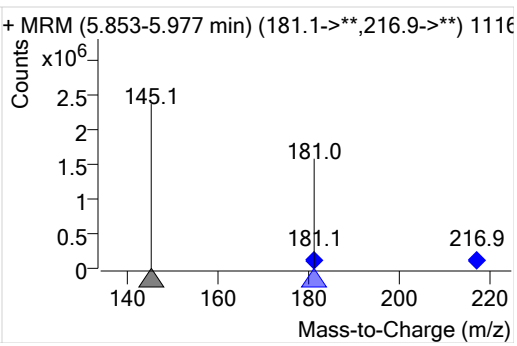




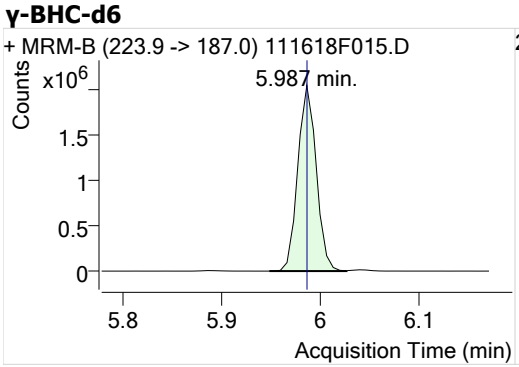
β-BHC

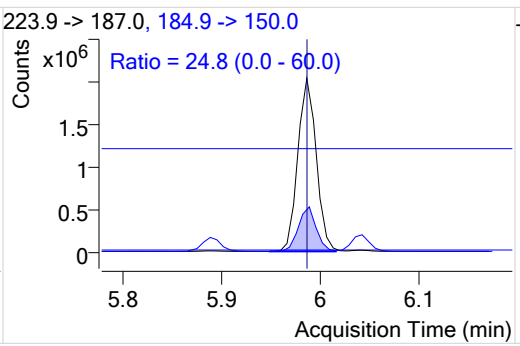


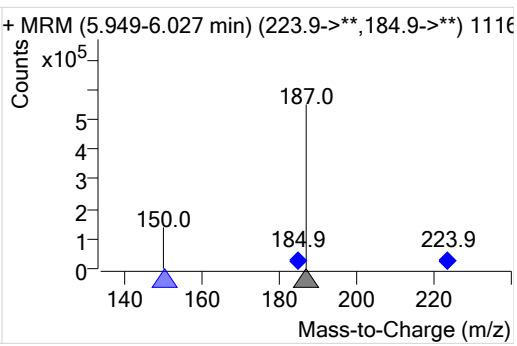




γ-BHC-d6

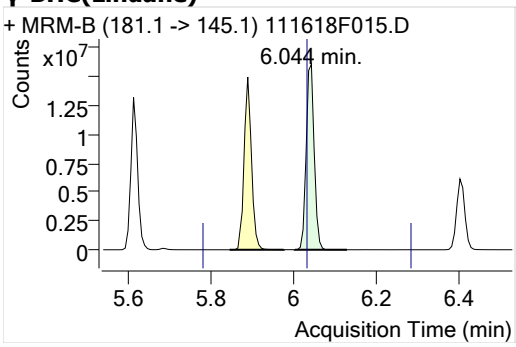


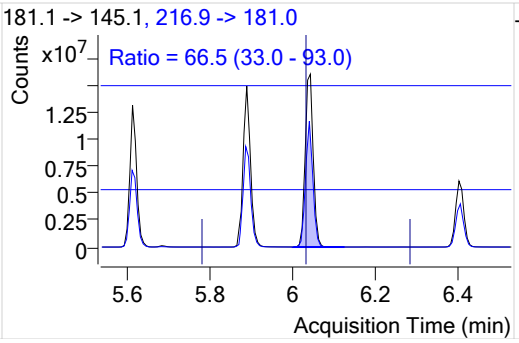


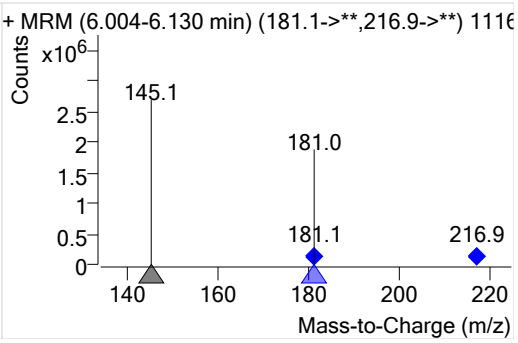


Quantitative Analysis Sample Report

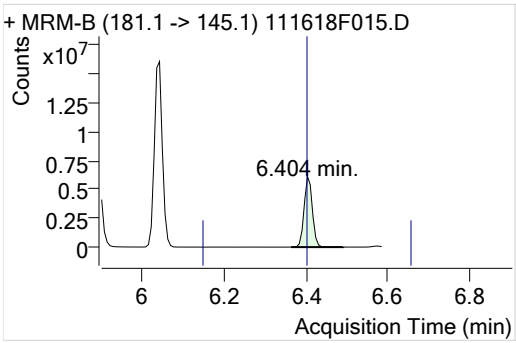
γ-BHC(Lindane)

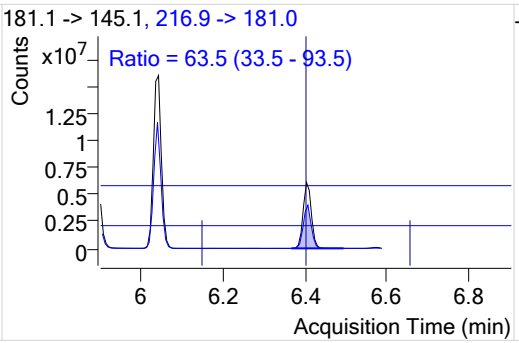


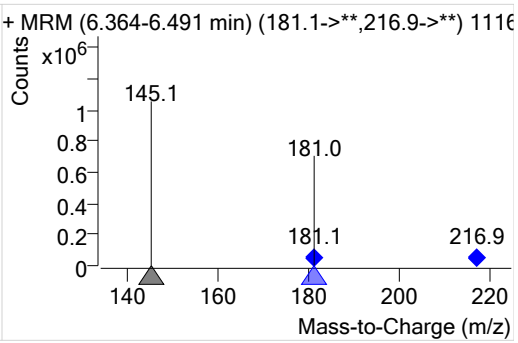




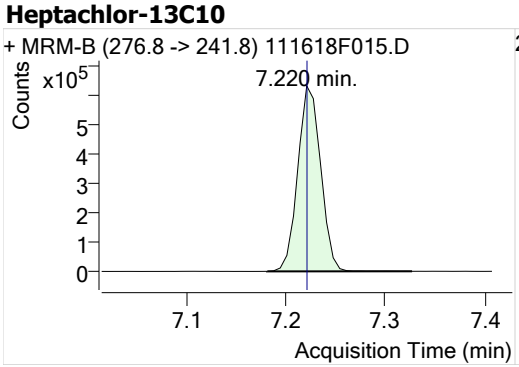
δ-BHC

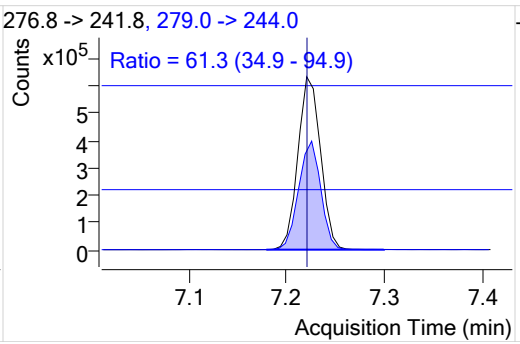


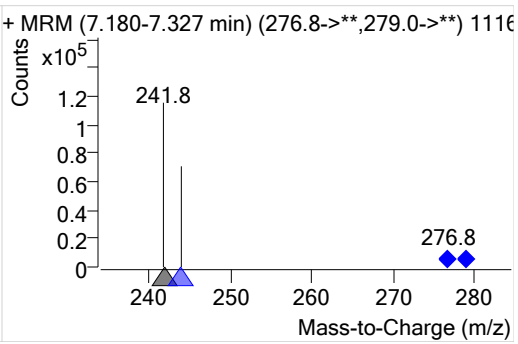




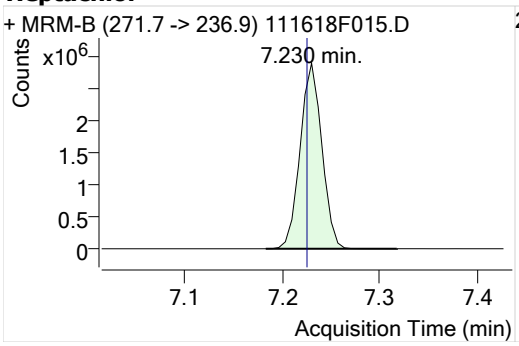
Heptachlor-13C10

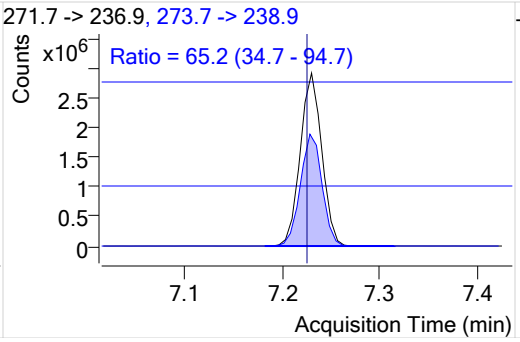


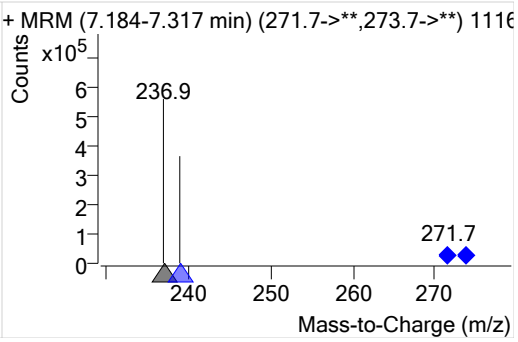




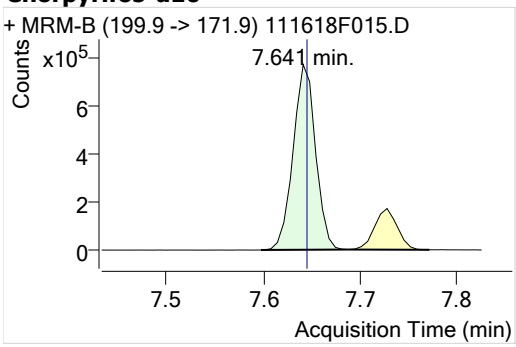
Heptachlor

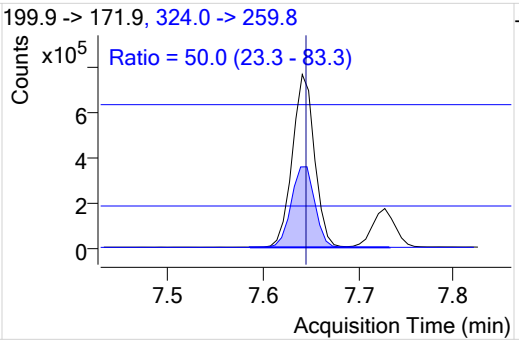


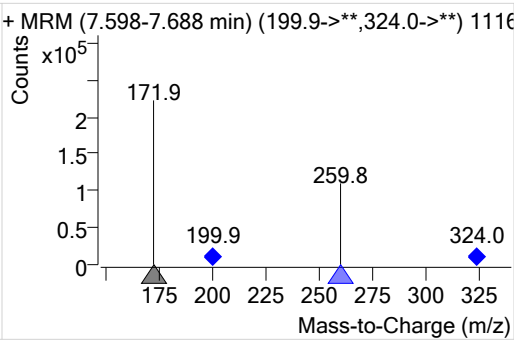




Chorpyrifos-d10

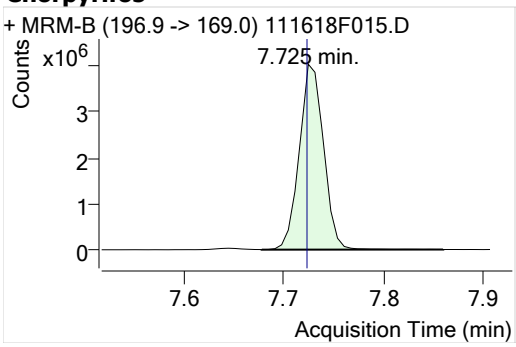


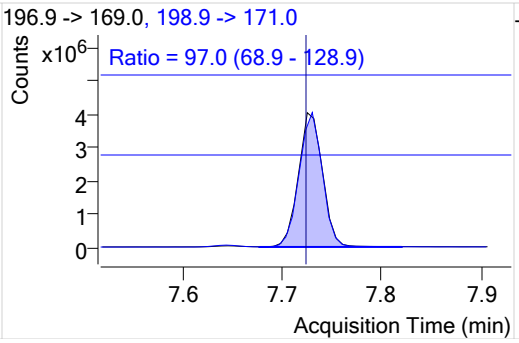


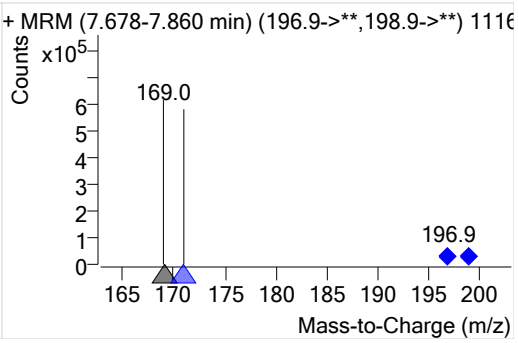


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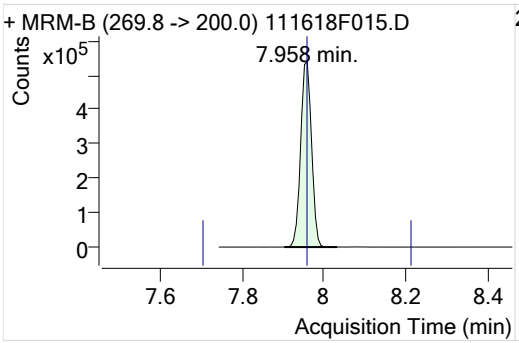
Chorpyrifos

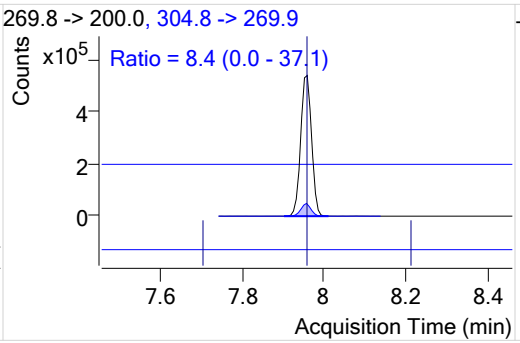


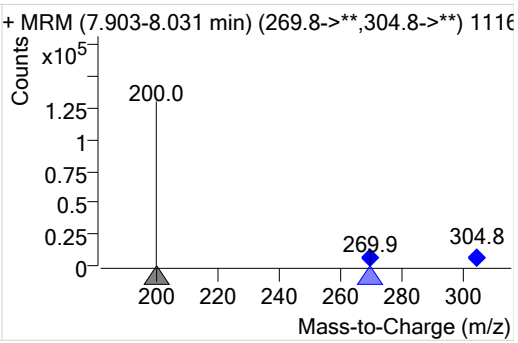




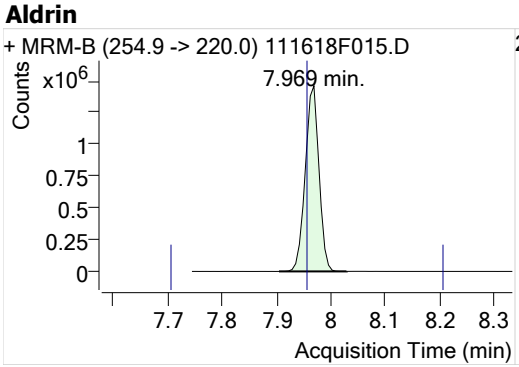
Aldrin-13C

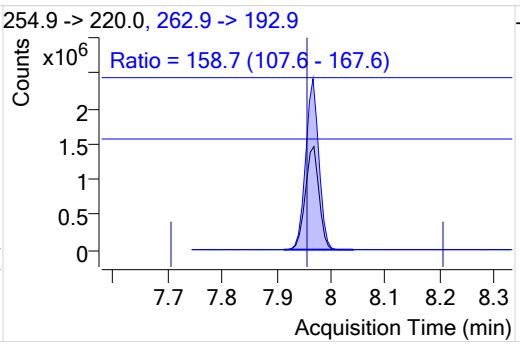


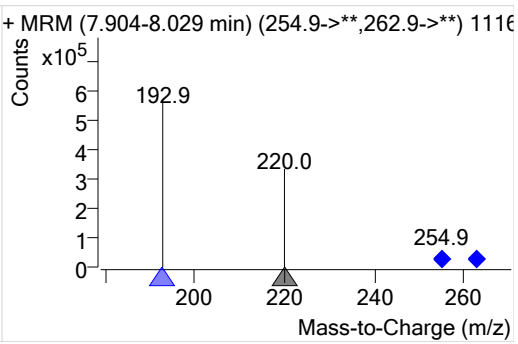




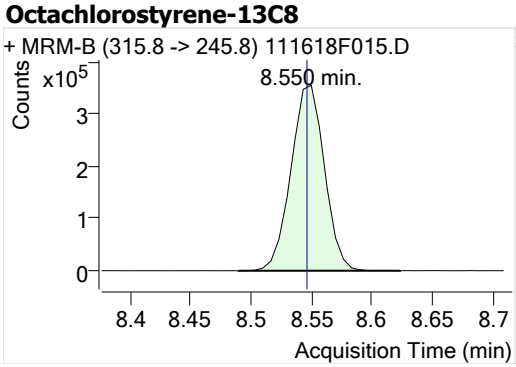
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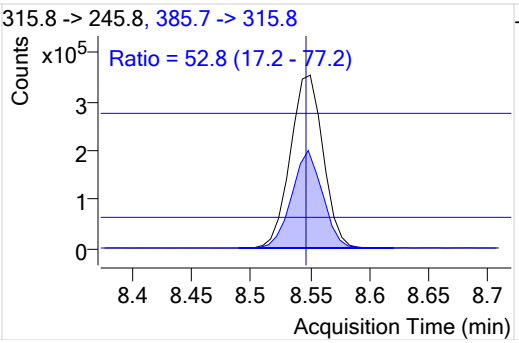


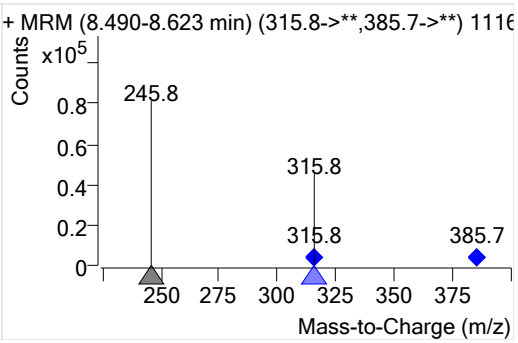




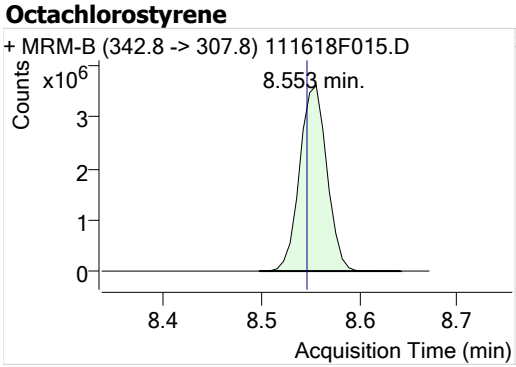
Octachlorostyrene-13C8

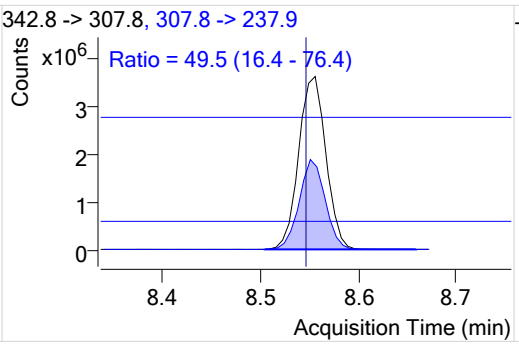


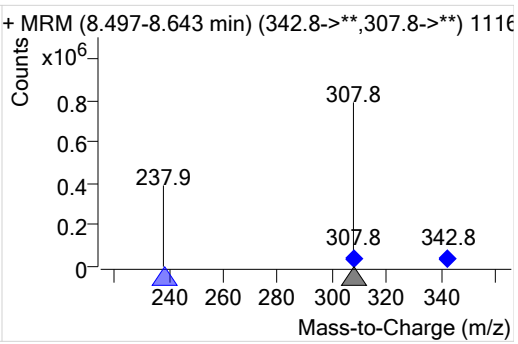




Octachlorostyrene

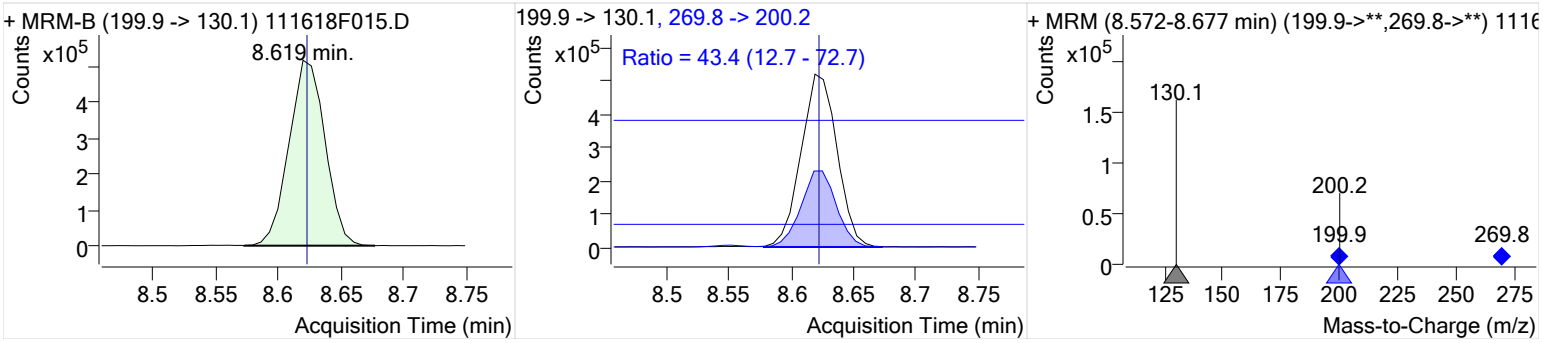




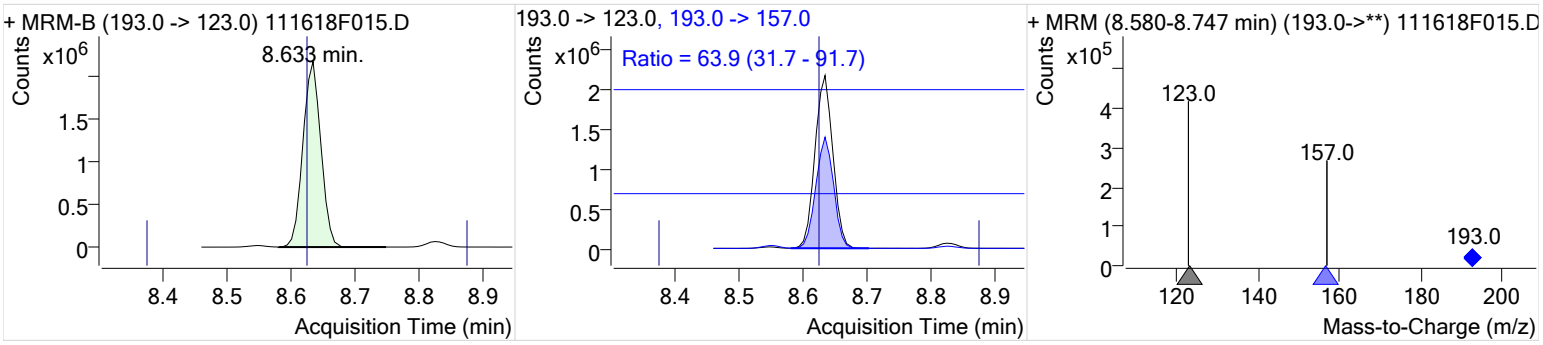


Quantitative Analysis Sample Report

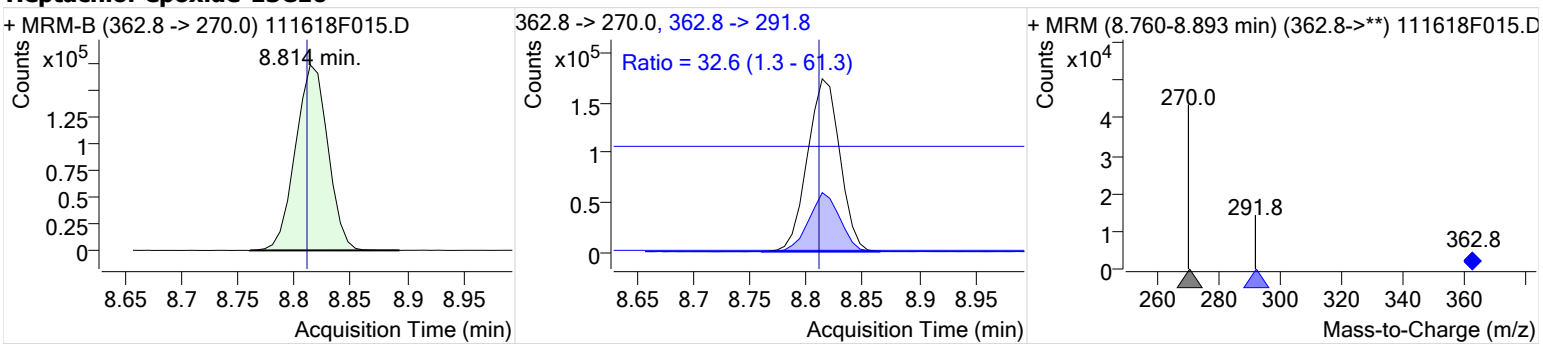
Isodrin-13C12



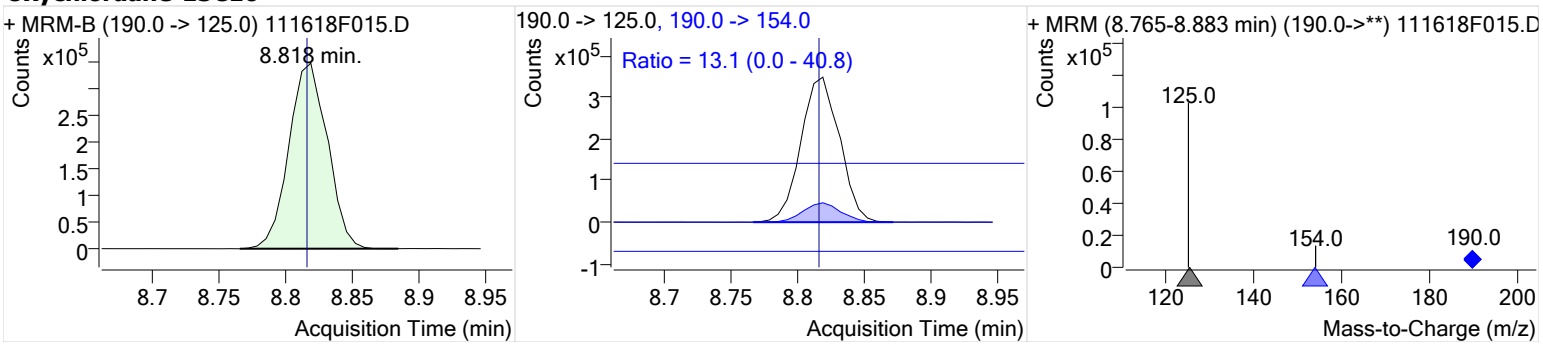
Isodrin



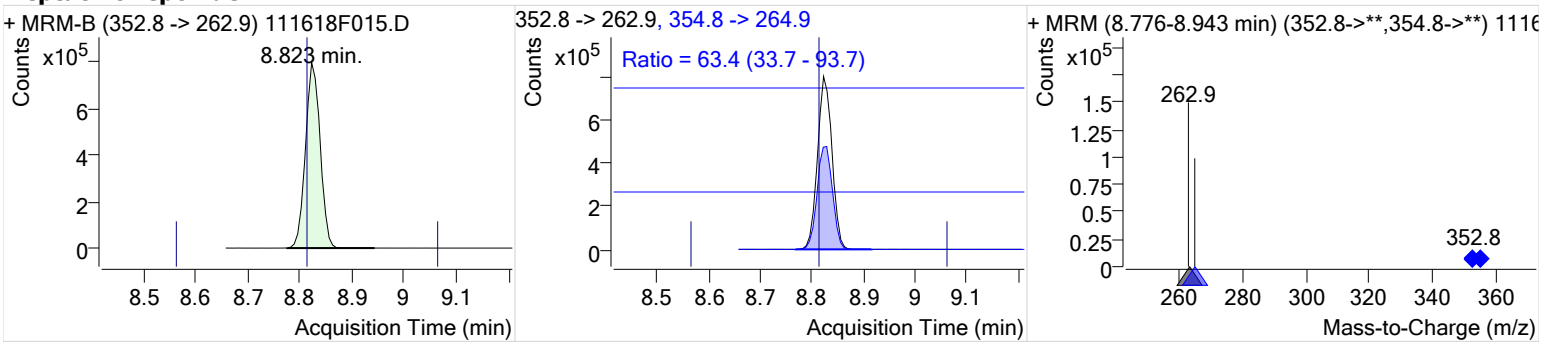
Heptachlor epoxide-13C10



Oxychlordane-13C10

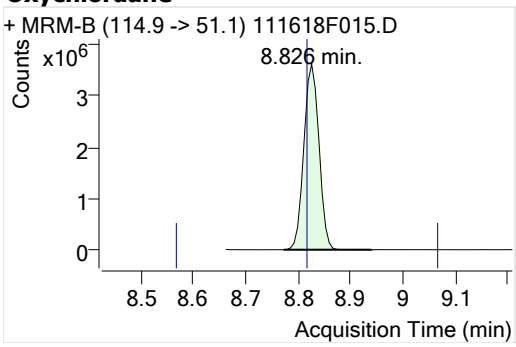


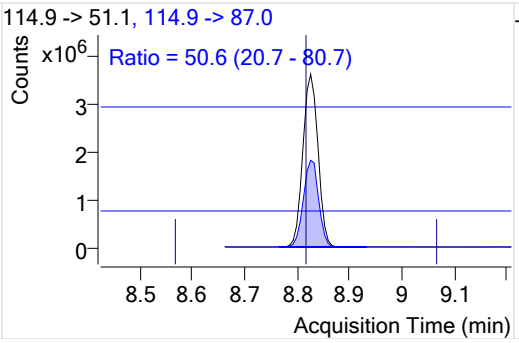
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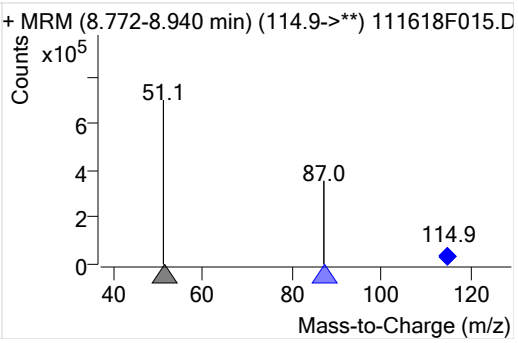


Quantitative Analysis Sample Report

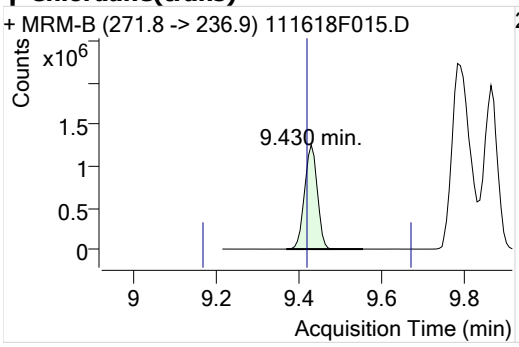
Oxychlordane

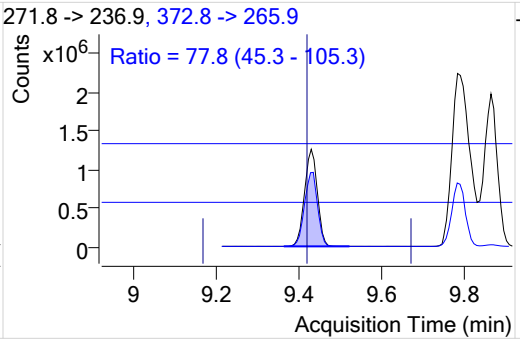


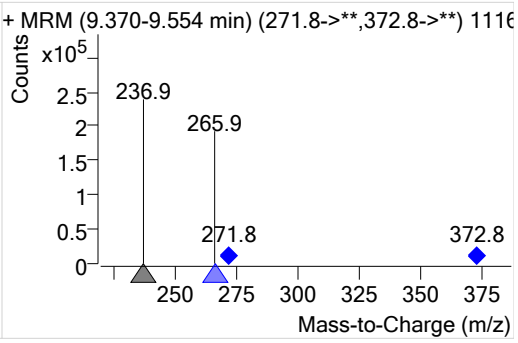




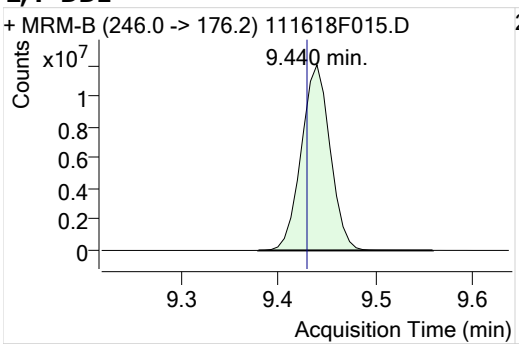
γ-Chlordane(trans)

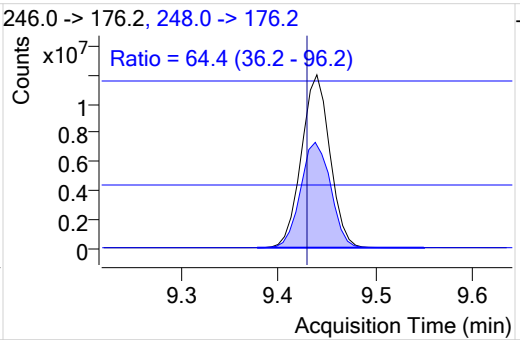


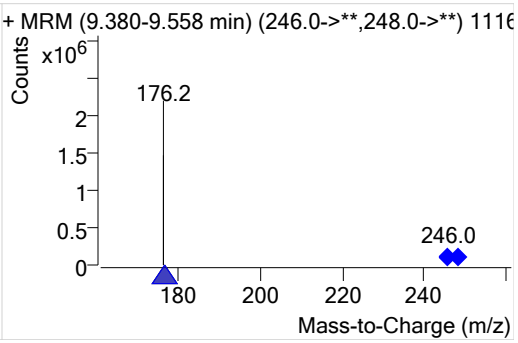




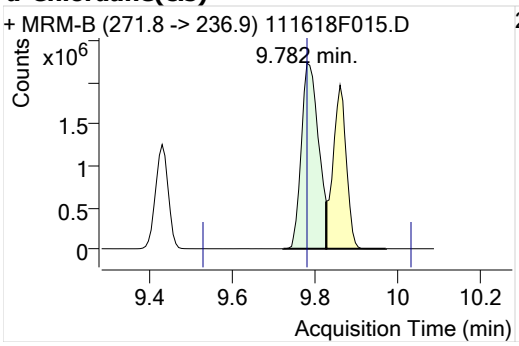
2,4'-DDE

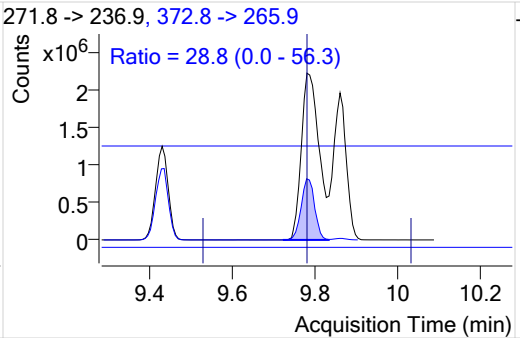


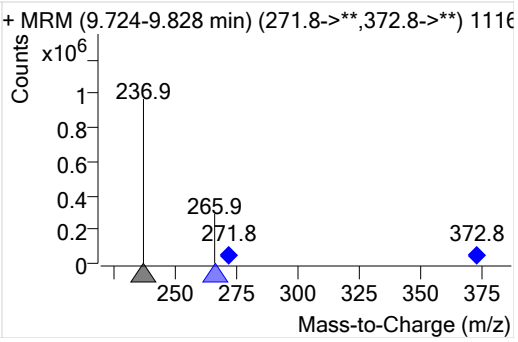




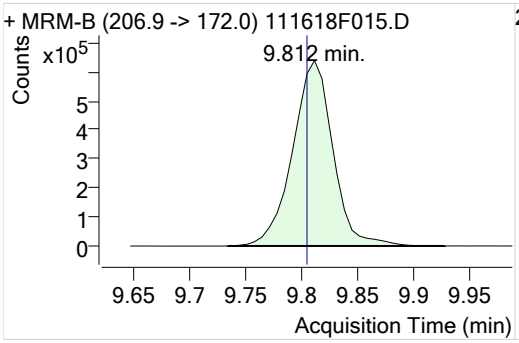
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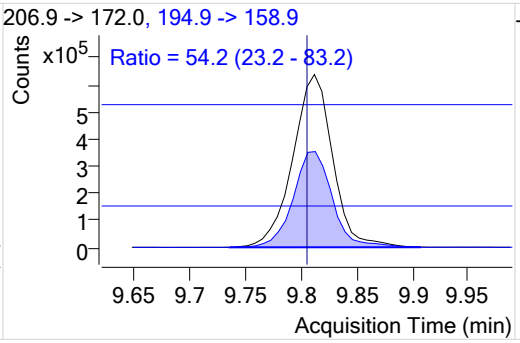


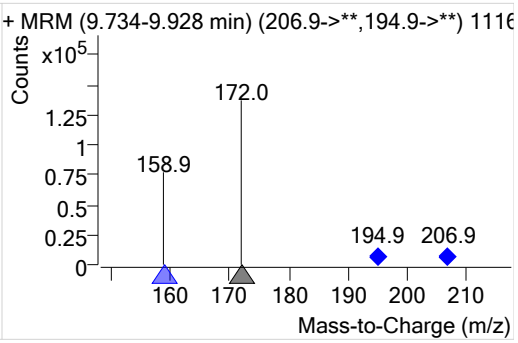




Endosulfan I

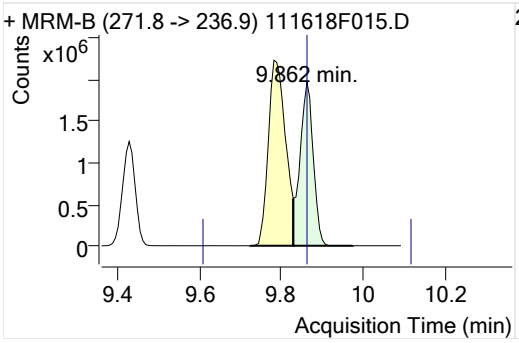


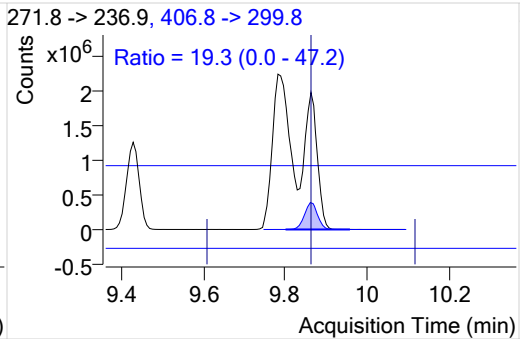


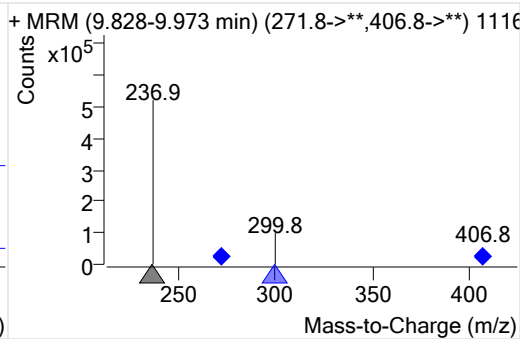


Quantitative Analysis Sample Report

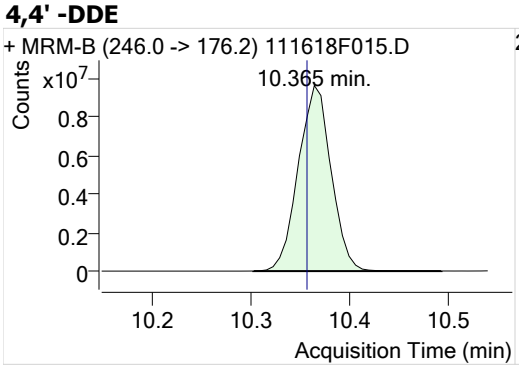
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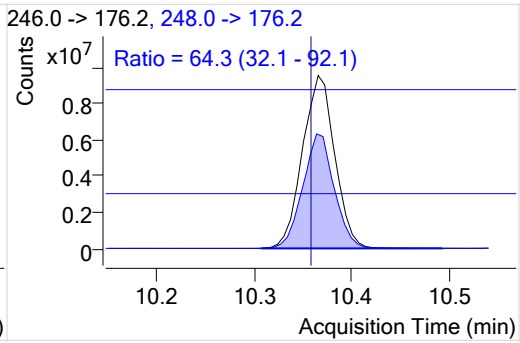


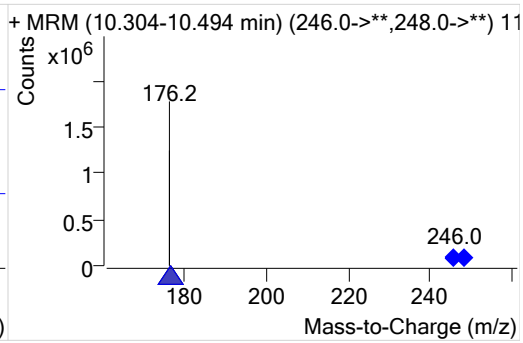




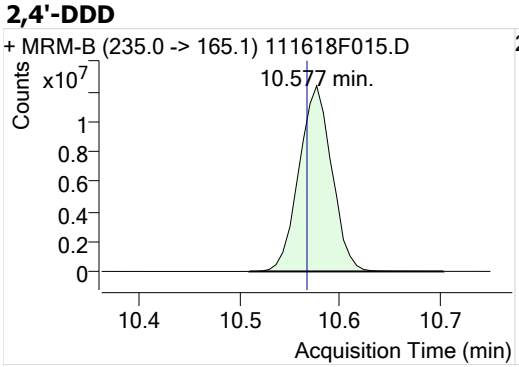
4,4' -DDE

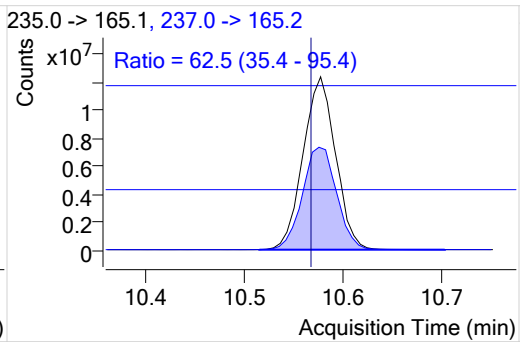


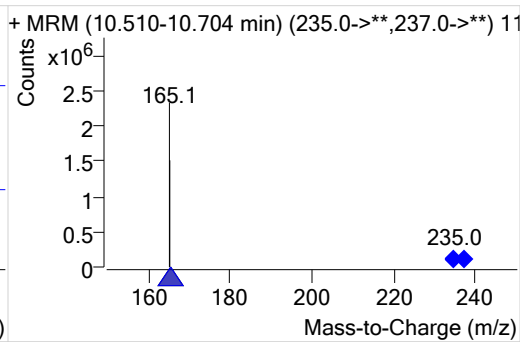




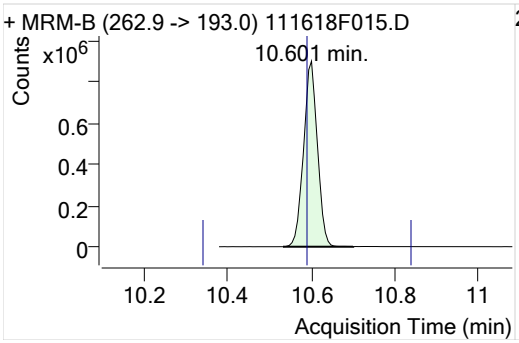
2,4'-DDD

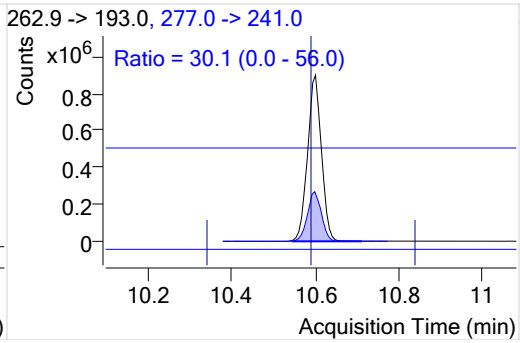


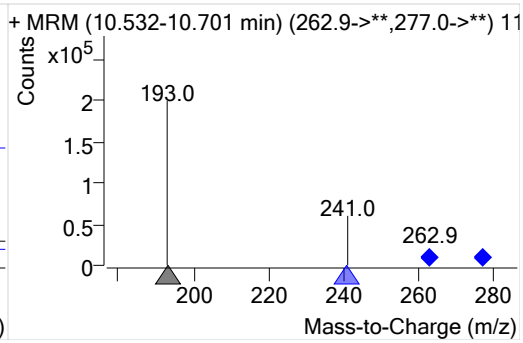




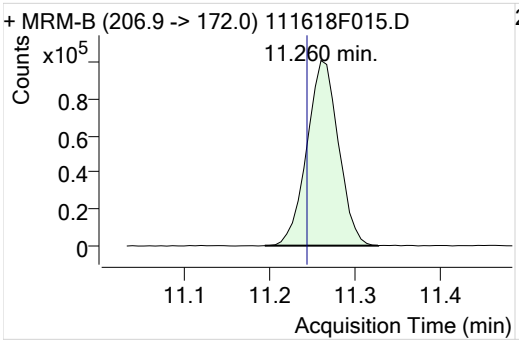
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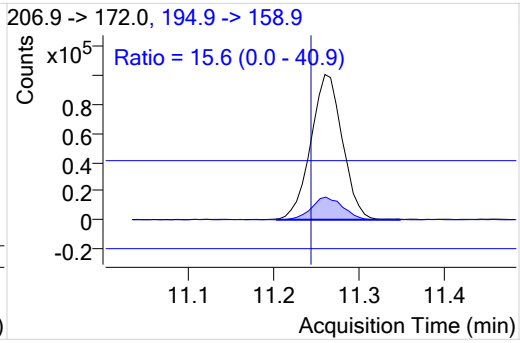


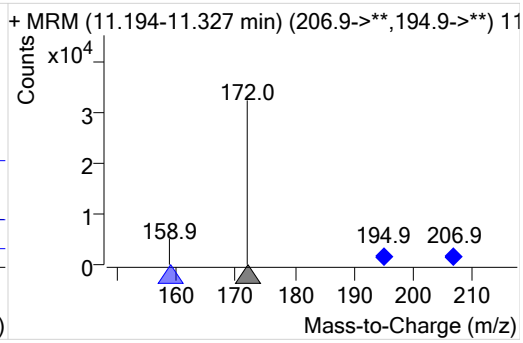




Endosulfan II

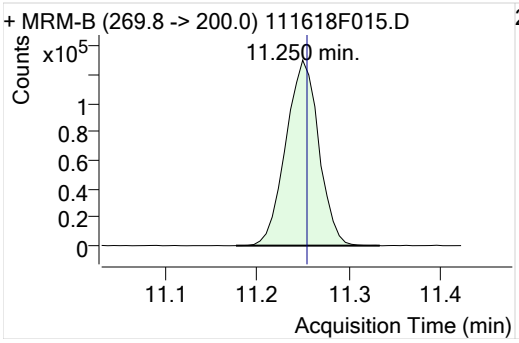


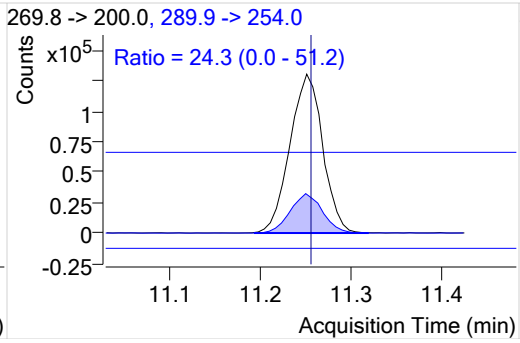


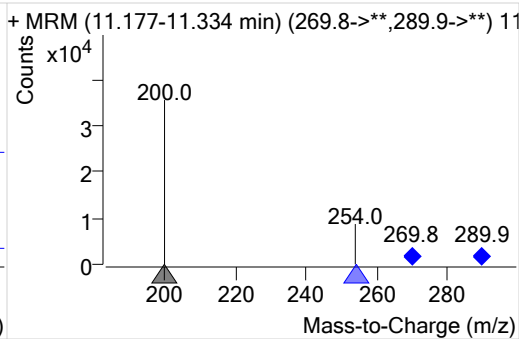


Quantitative Analysis Sample Report

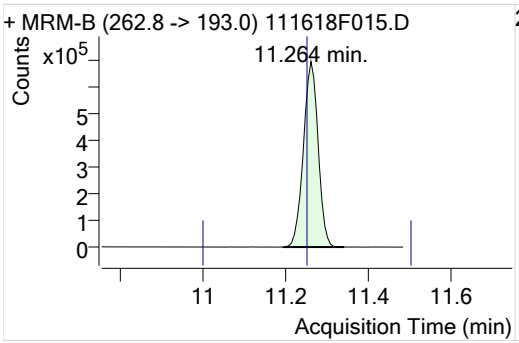
Endrin-13C12

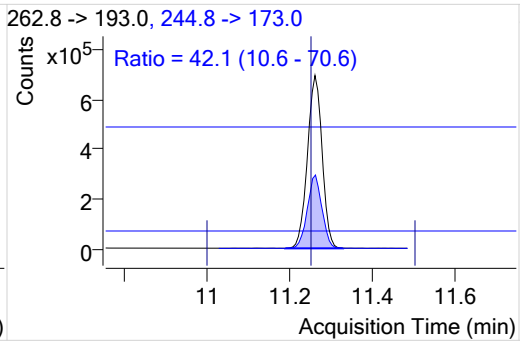


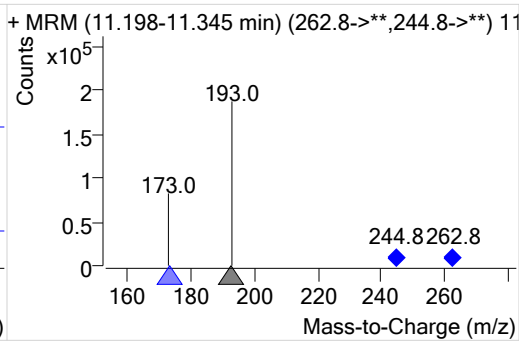




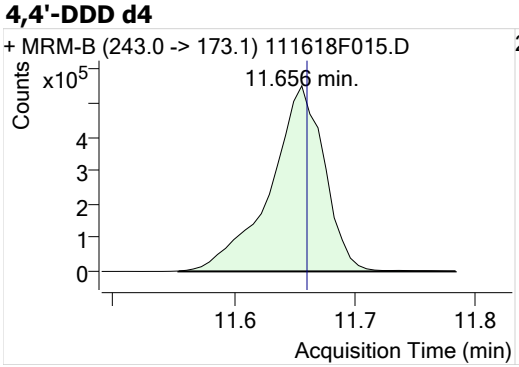
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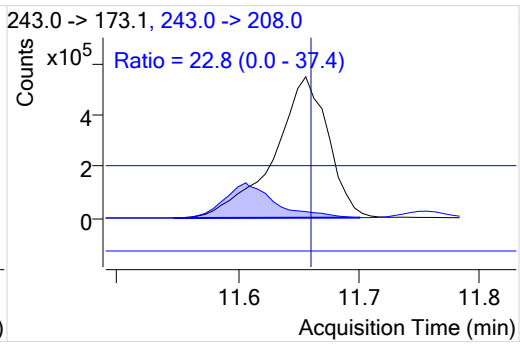


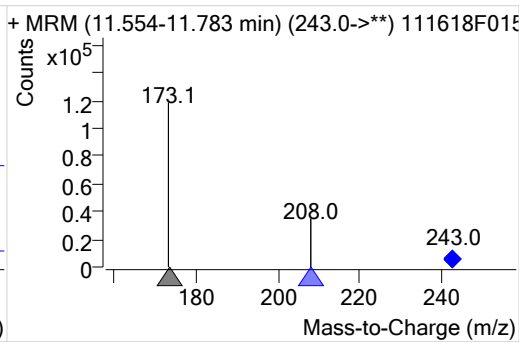




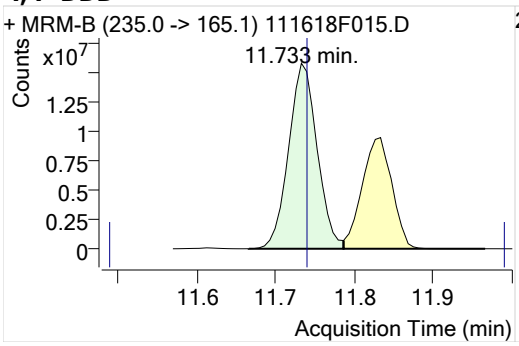
4,4'-DDD d4

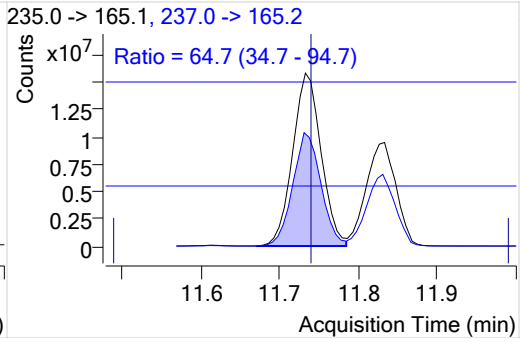


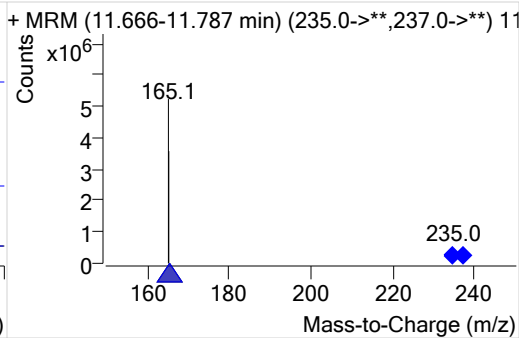




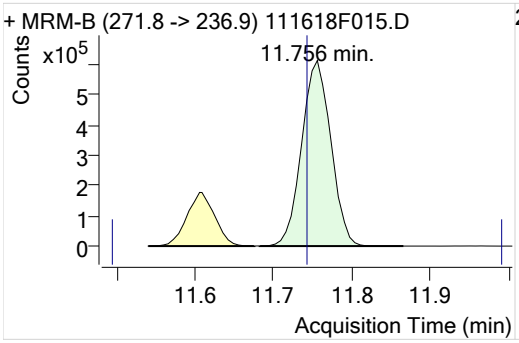
4,4'-DDD

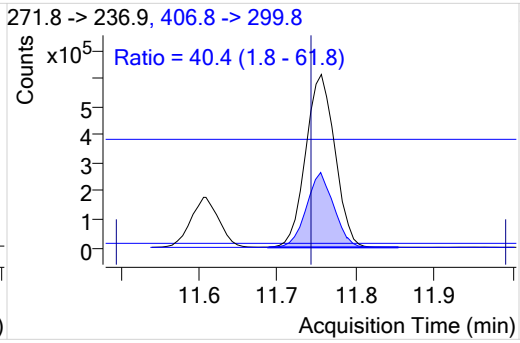


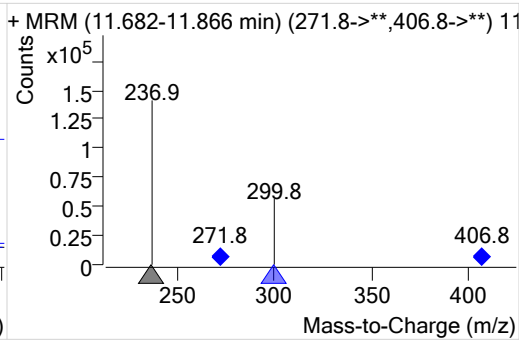




cis-Nonachlor

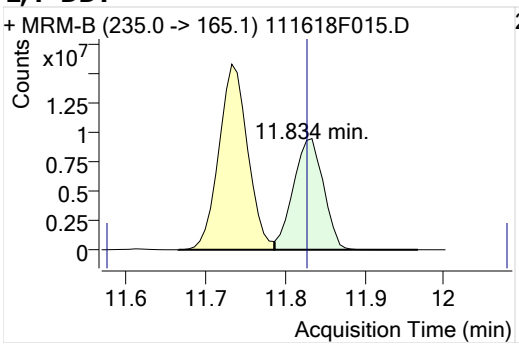


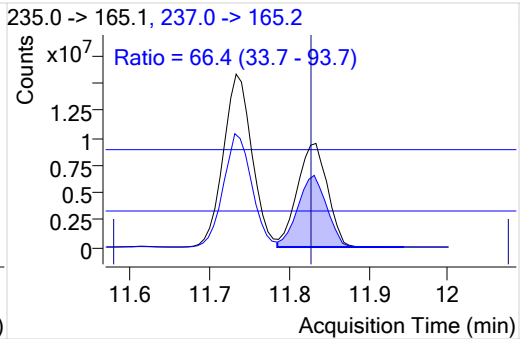


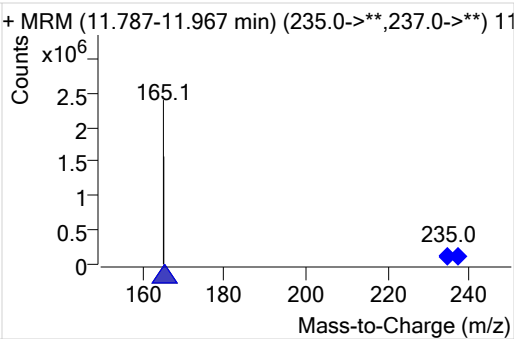


Quantitative Analysis Sample Report

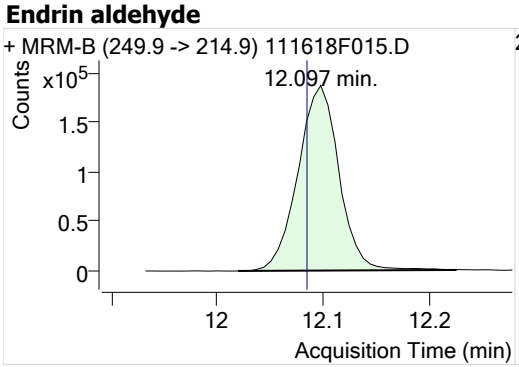
2,4'-DDT

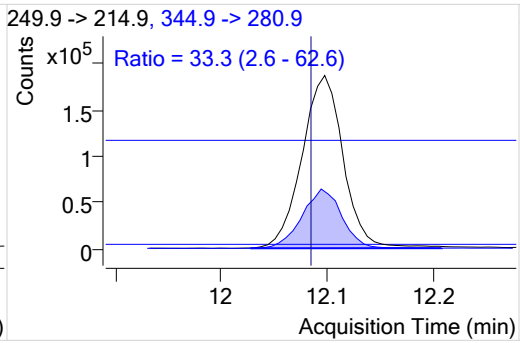


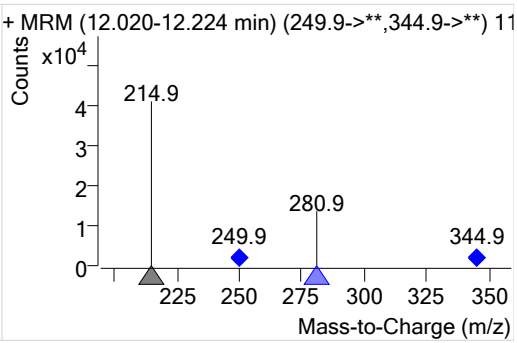




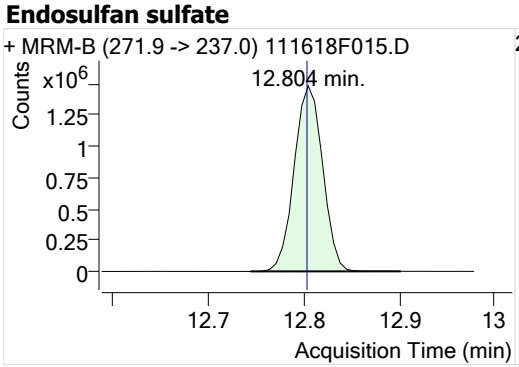
Endrin aldehyde

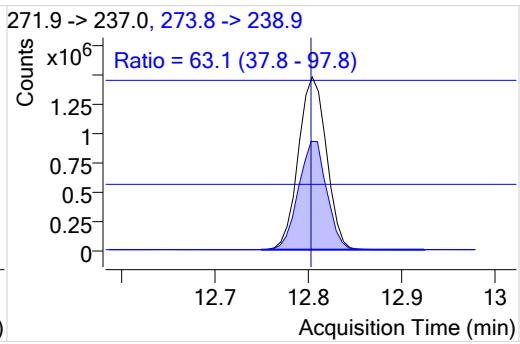


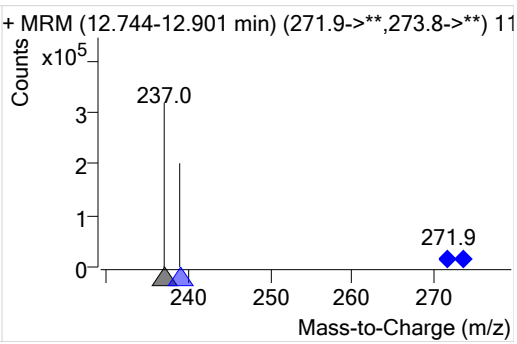




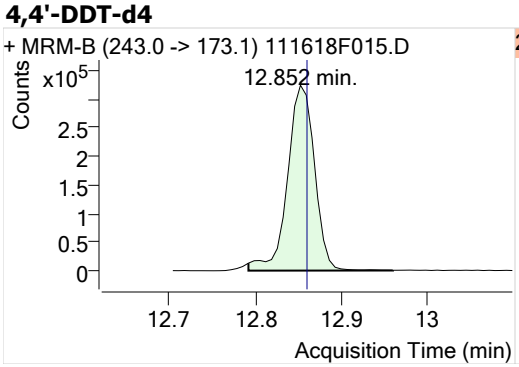
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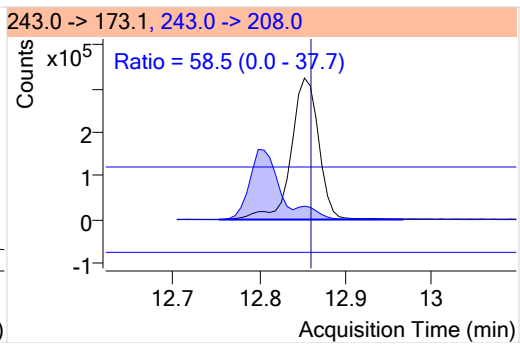


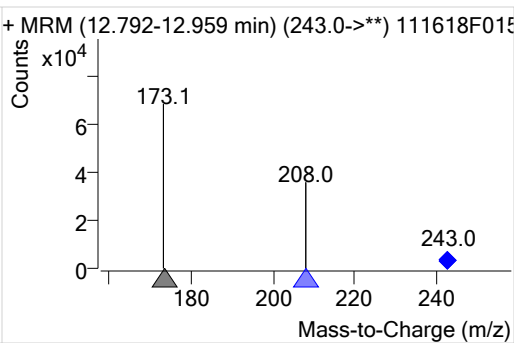




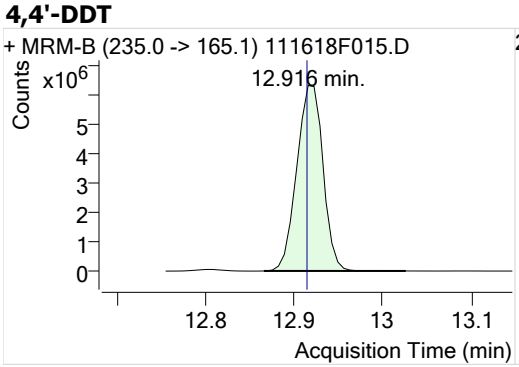
4,4'-DDT-d4

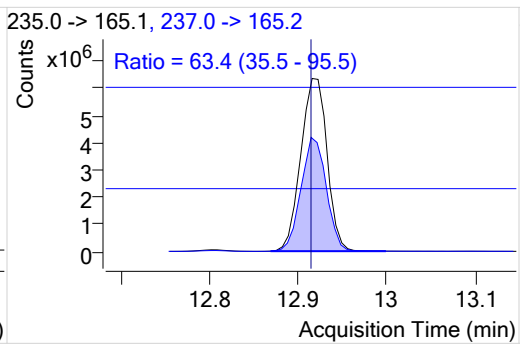


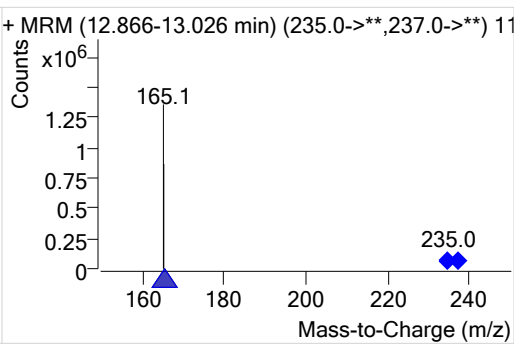




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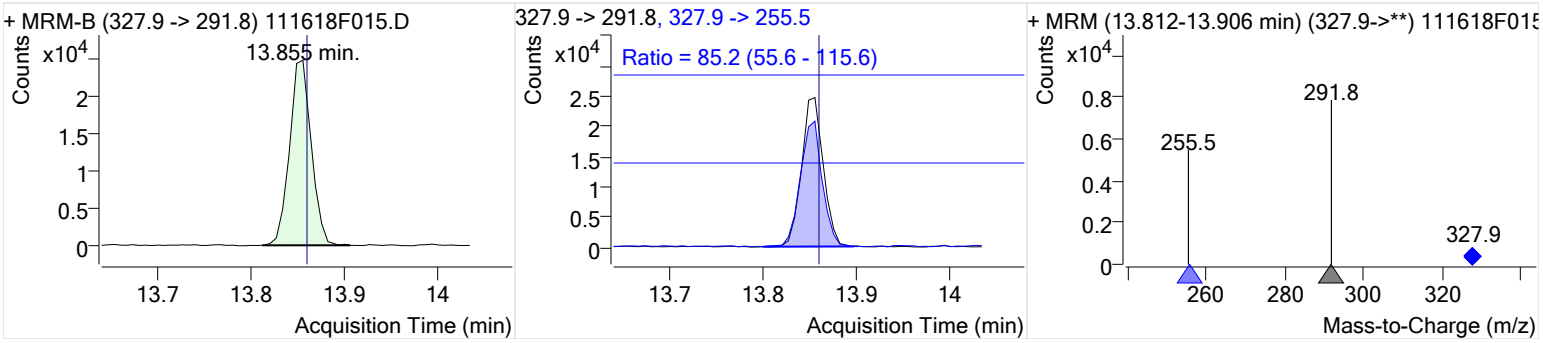




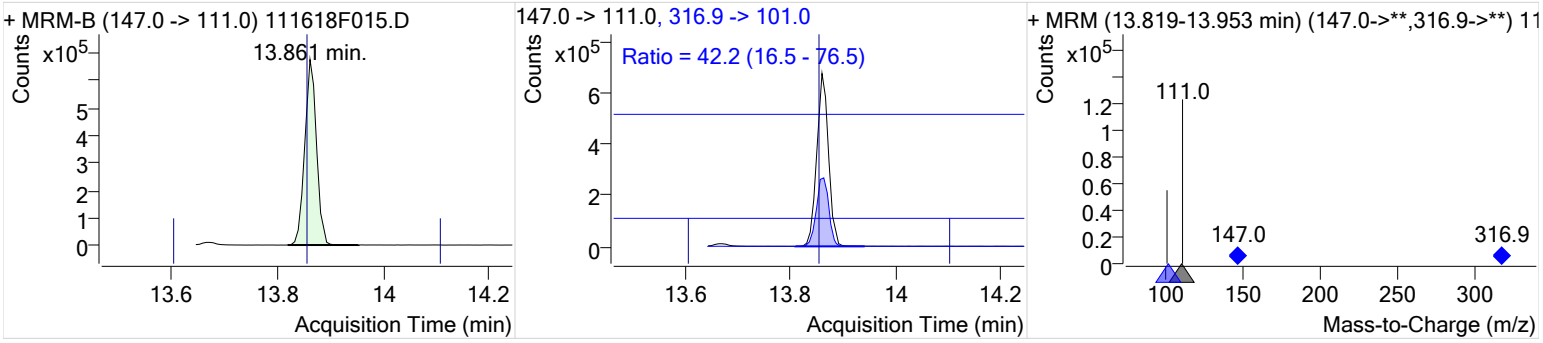


Quantitative Analysis Sample Report

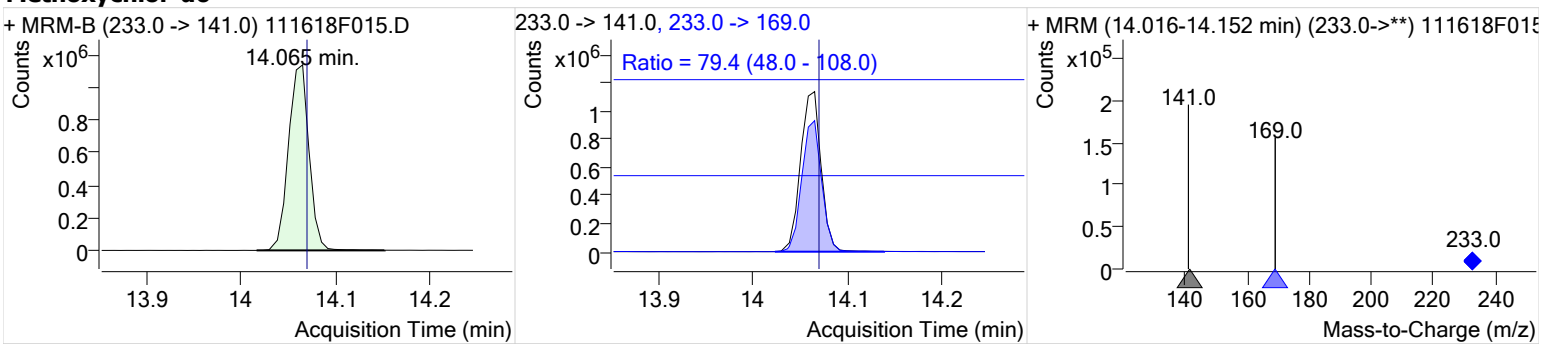
Endrin ketone-13C12



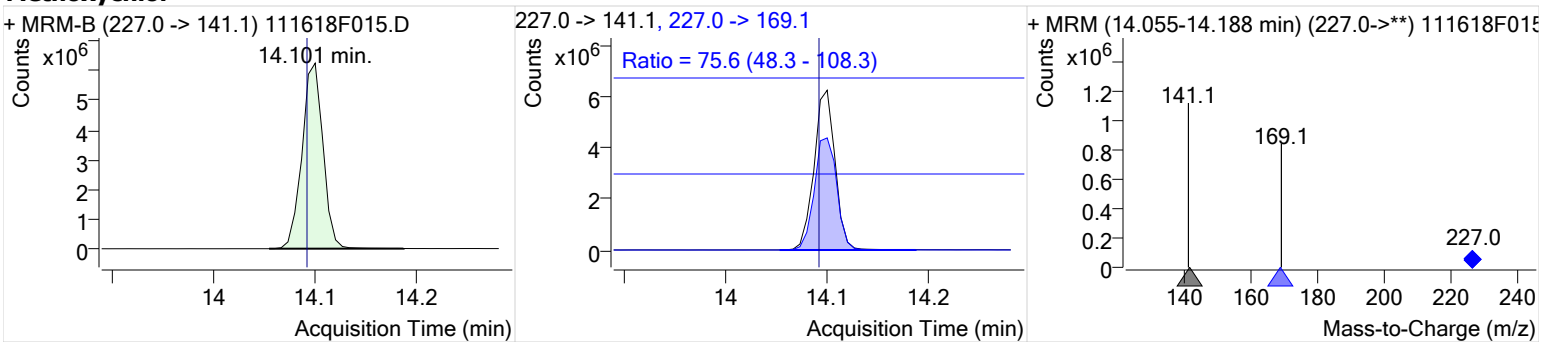
Endrin ketone



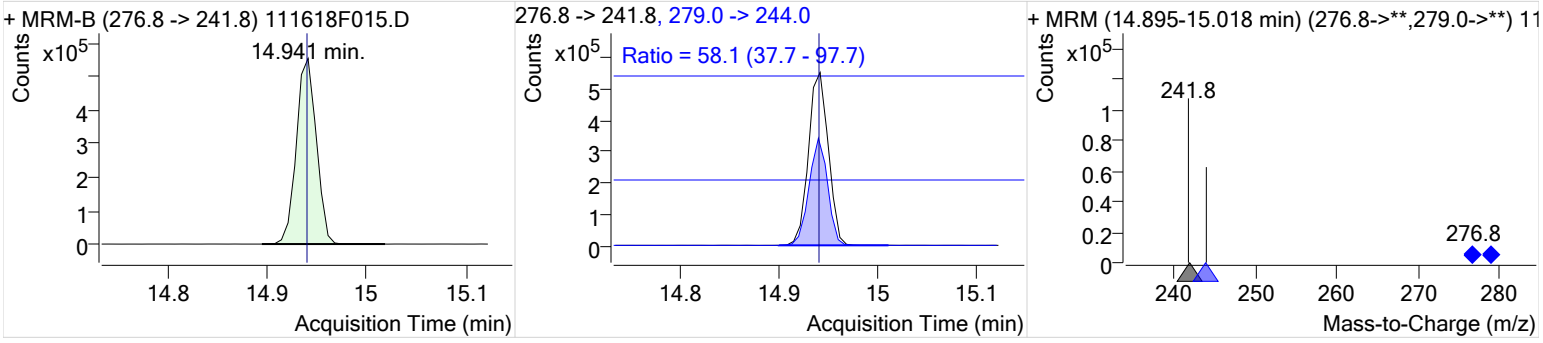
Methoxychlor-d6



Methoxychlor

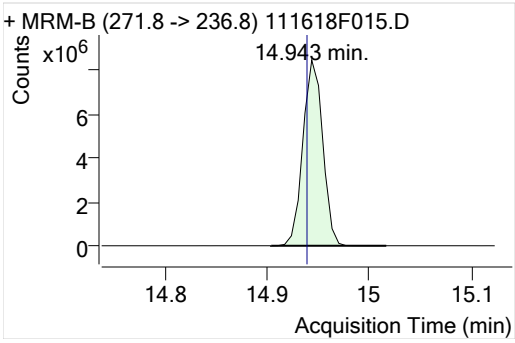


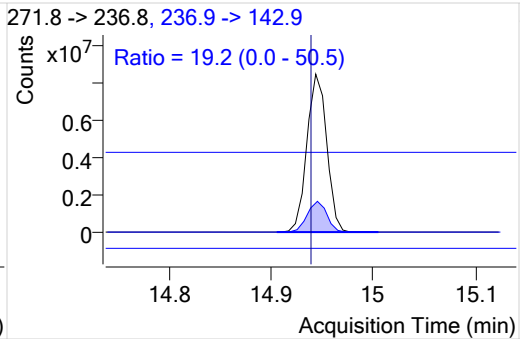
Mirex-13C10

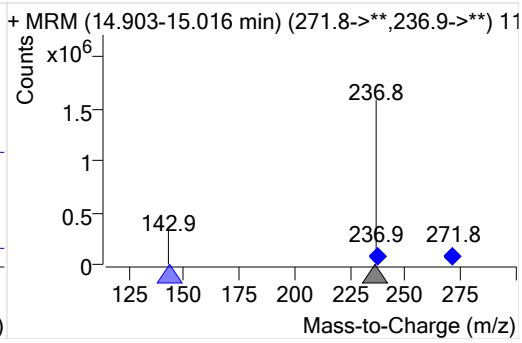


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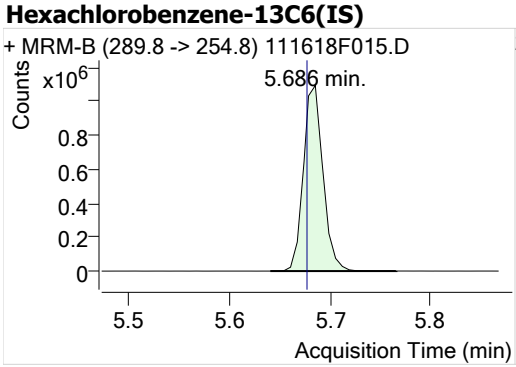
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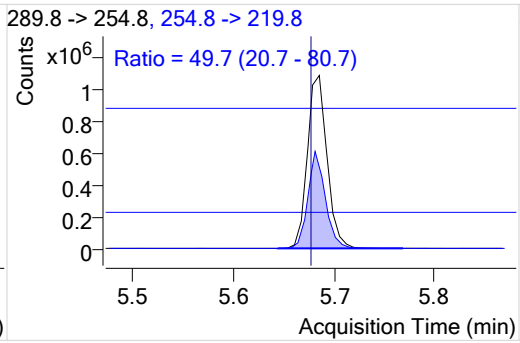


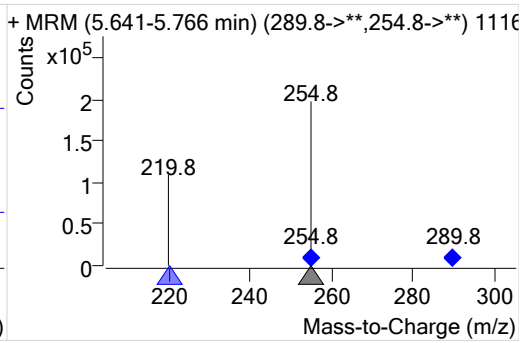




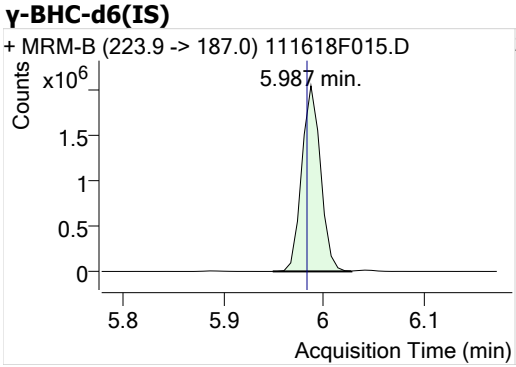
Hexachlorobenzene-13C6(IS)

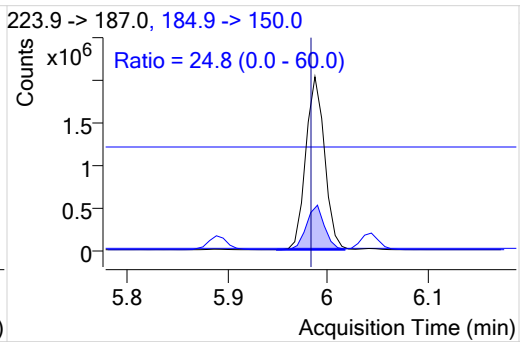


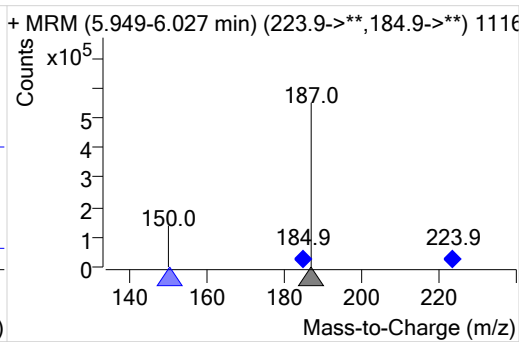




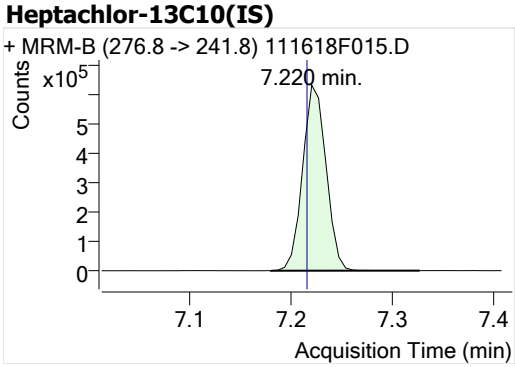
γ-BHC-d6(IS)

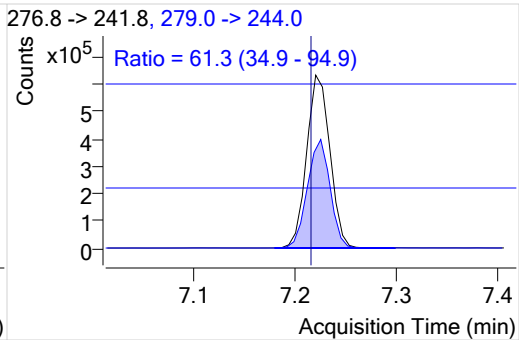


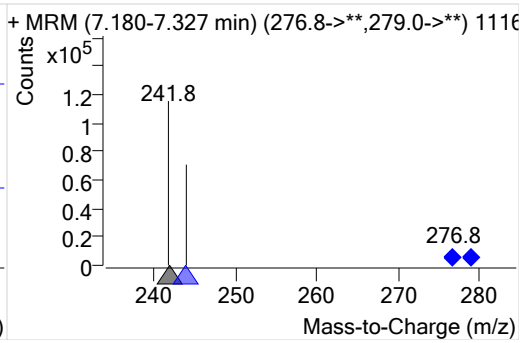




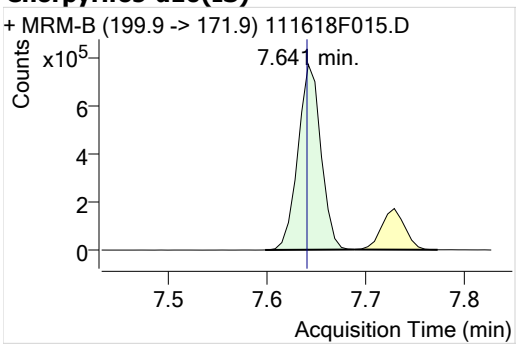
Heptachlor-13C10(IS)

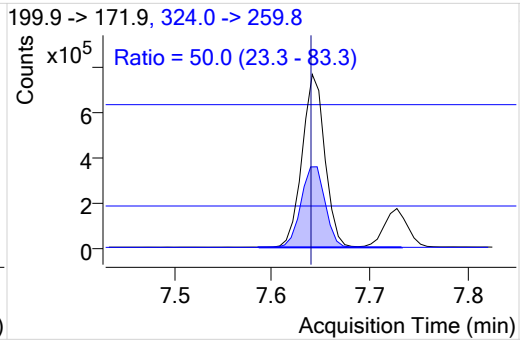


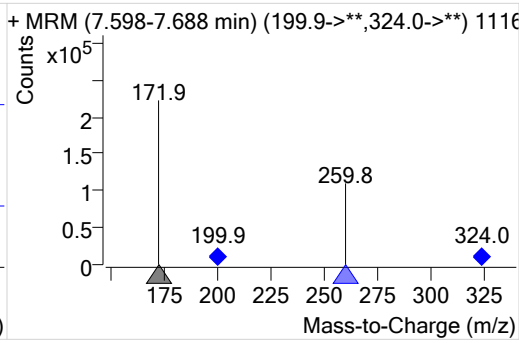




Chorpyrifos-d10(IS)

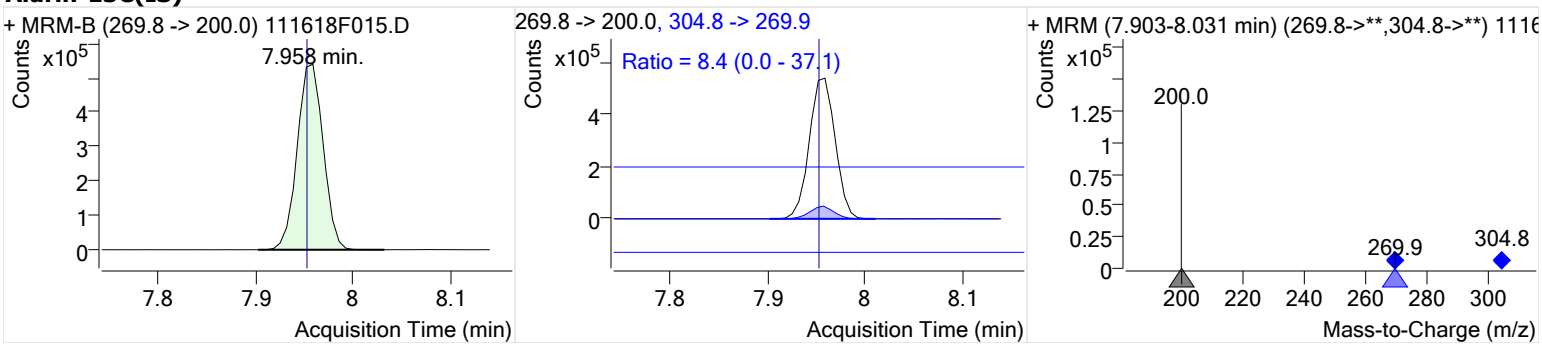




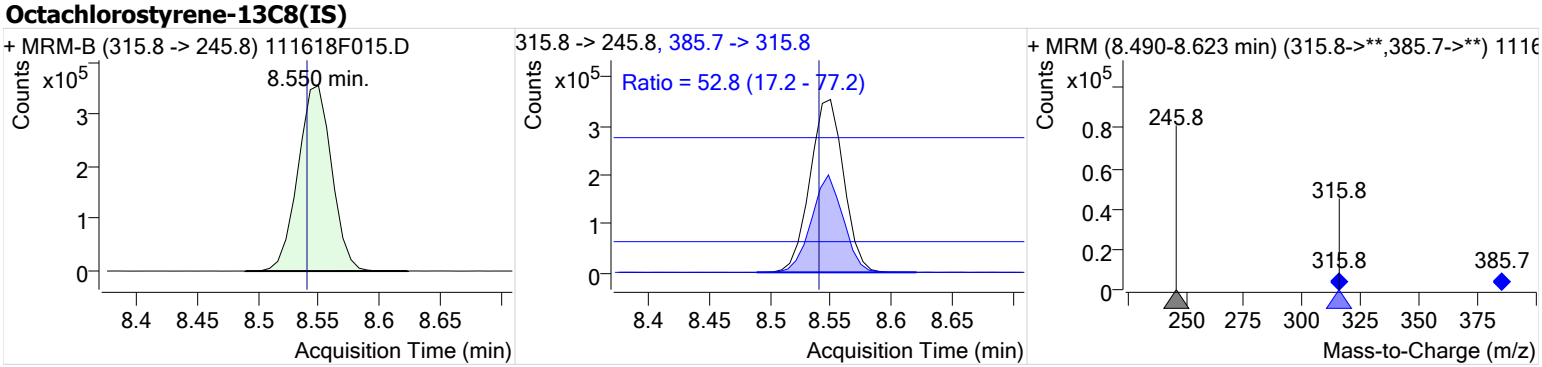


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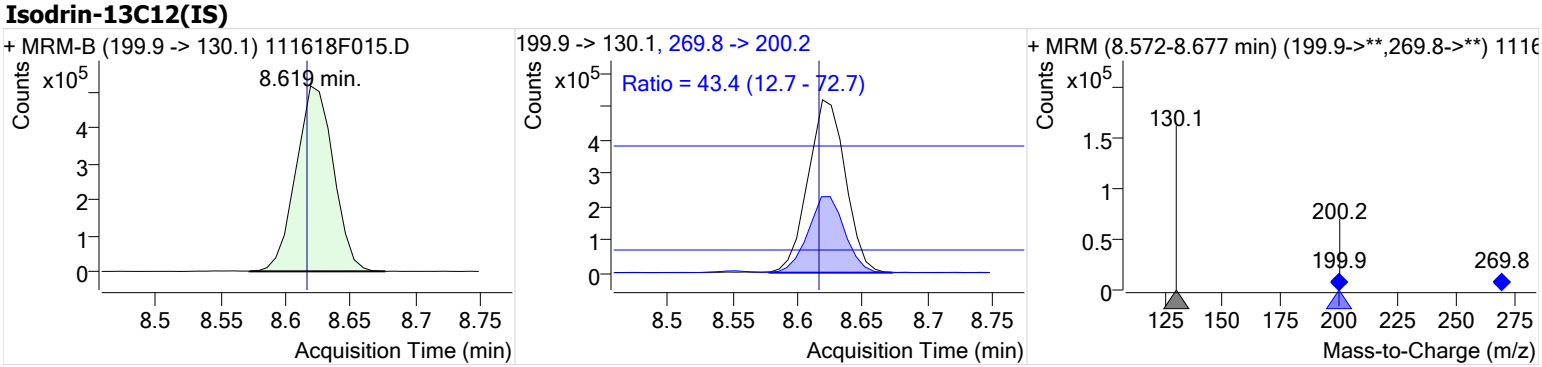
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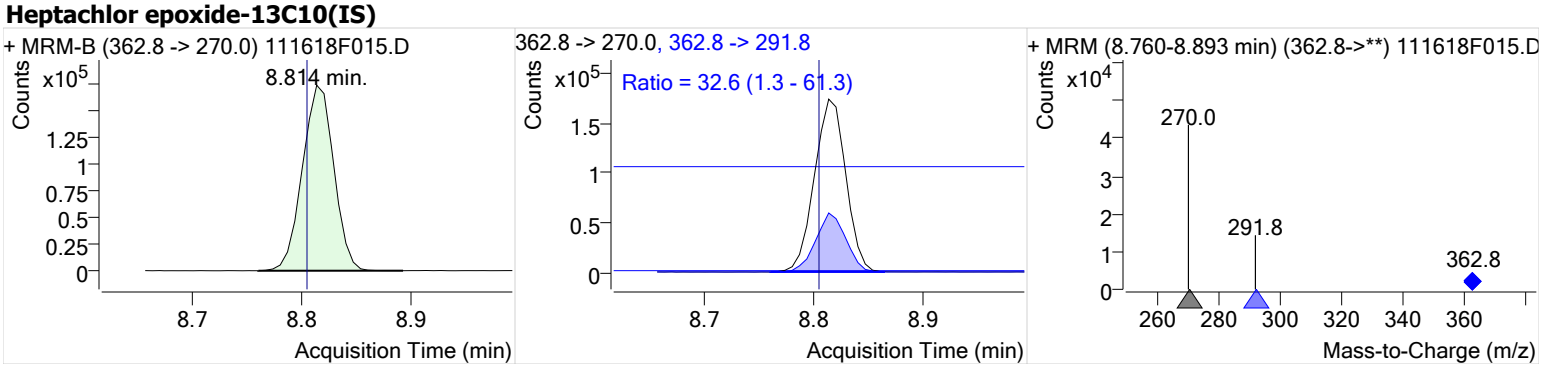
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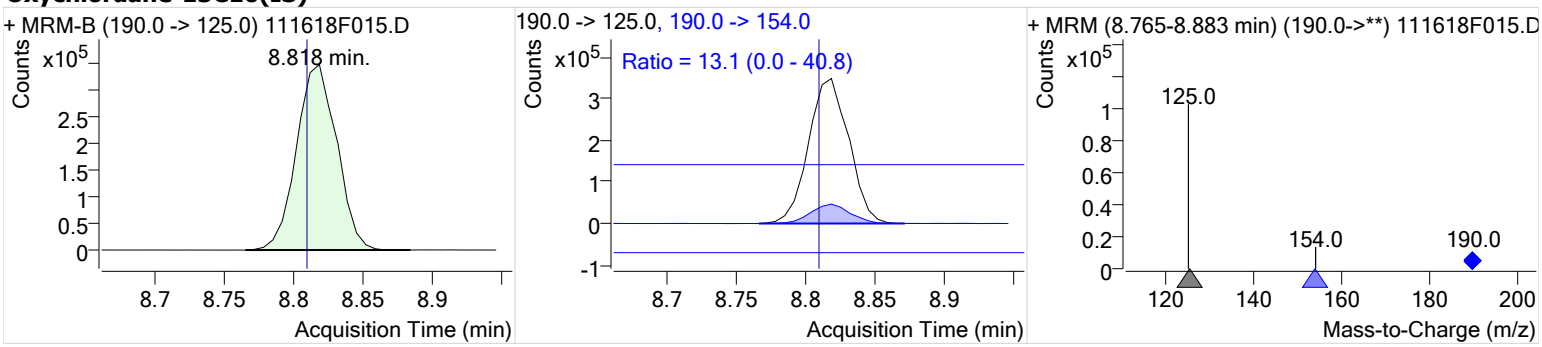
Isodrin-13C12(IS)



Heptachlor epoxide-13C10(IS)

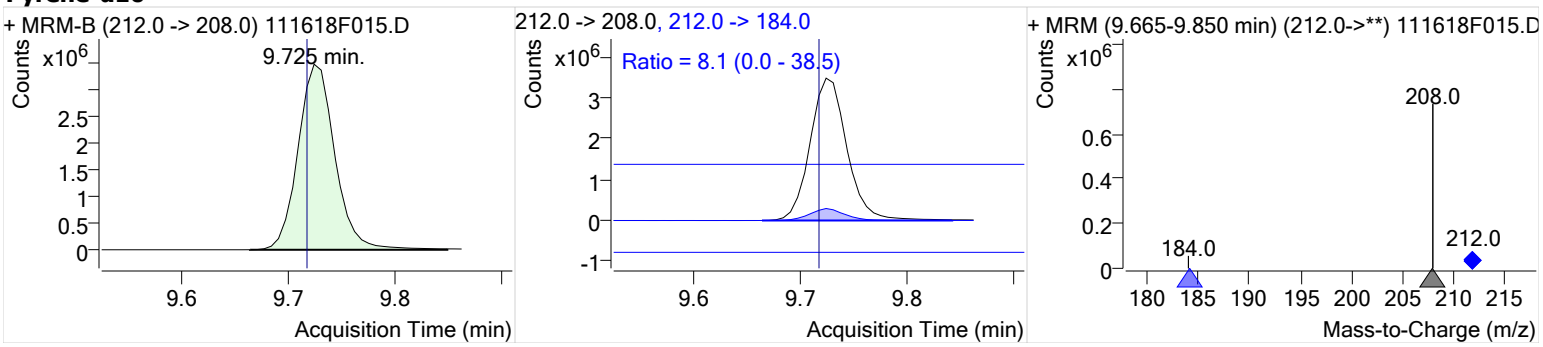


Oxychlordane-13C10(IS)

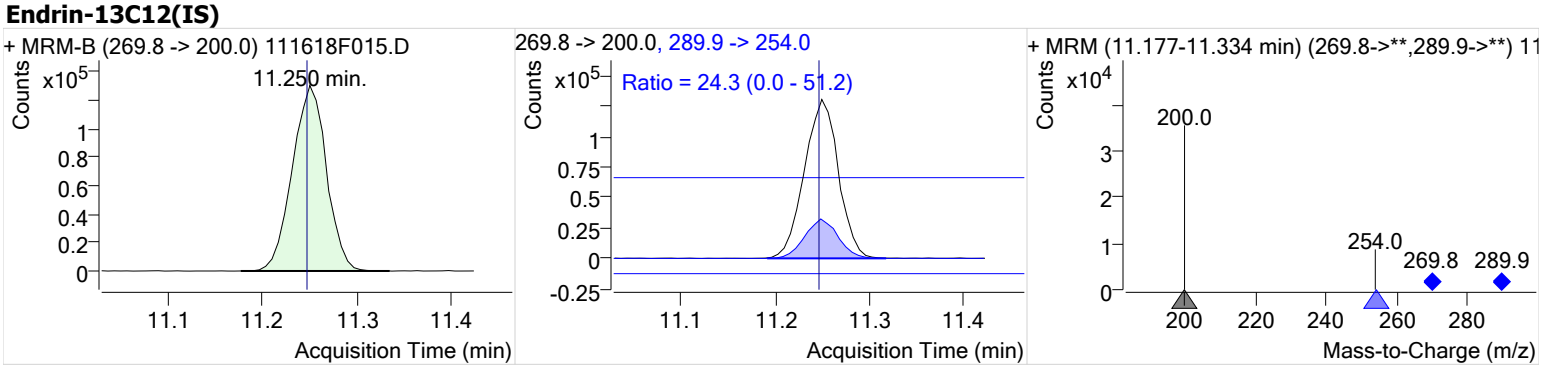


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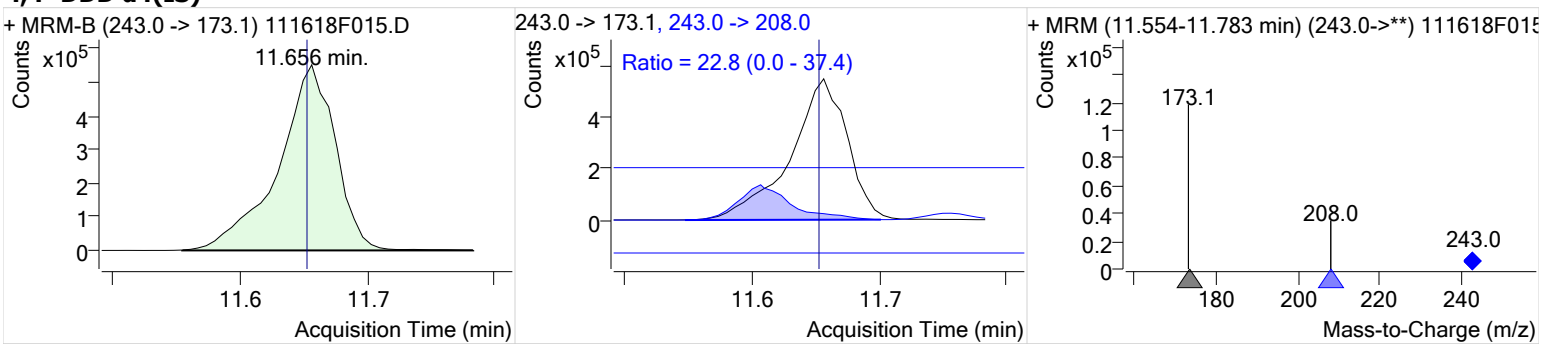
Pyrene-d10



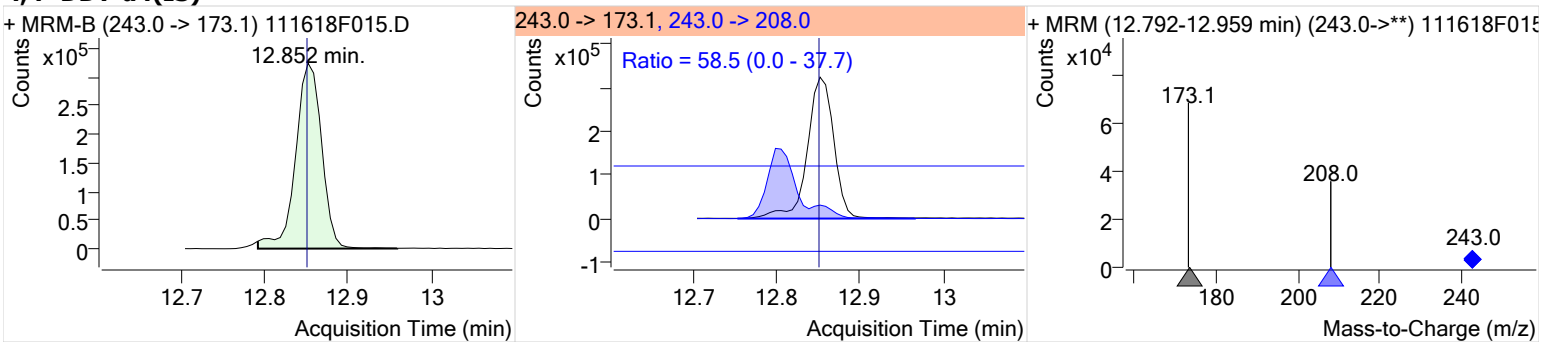
Endrin-13C12(IS)



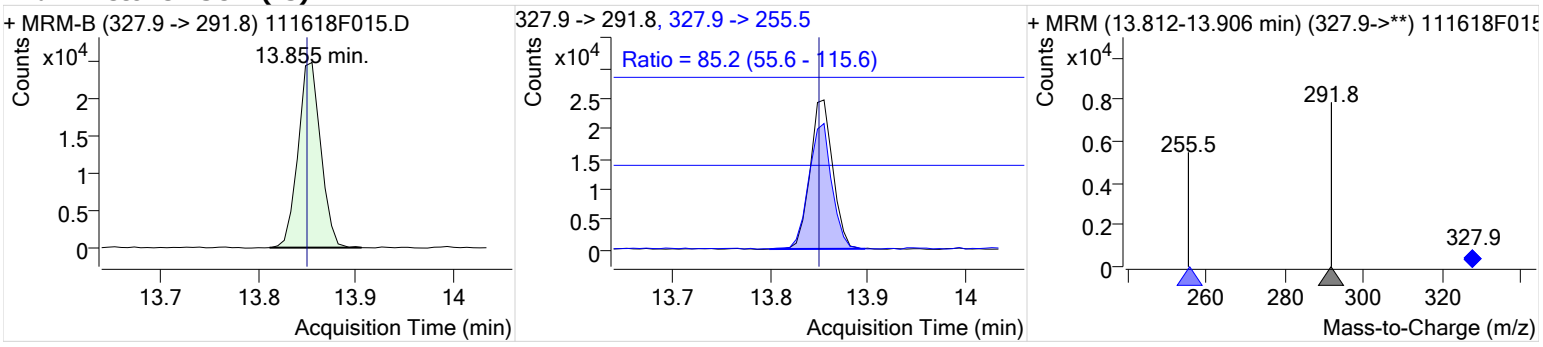
4,4'-DDD d4(IS)



4,4'-DDT-d4(IS)

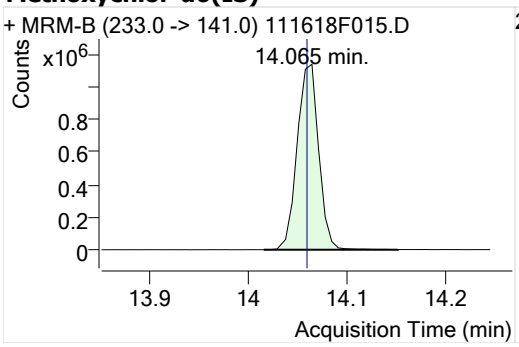


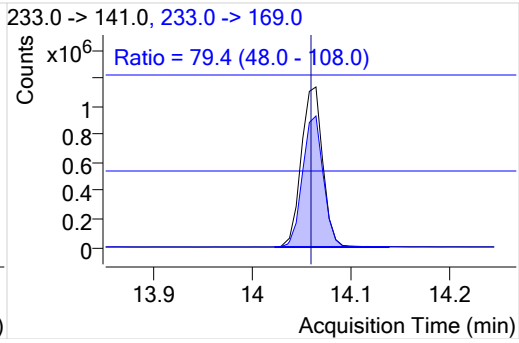
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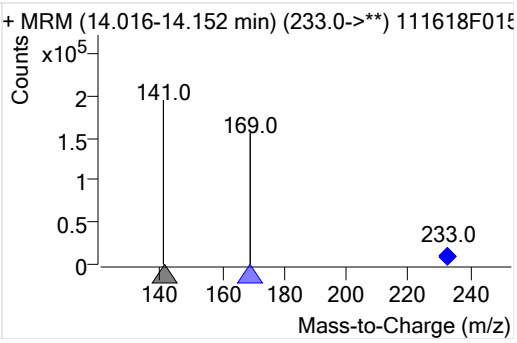


Quantitative Analysis Sample Report

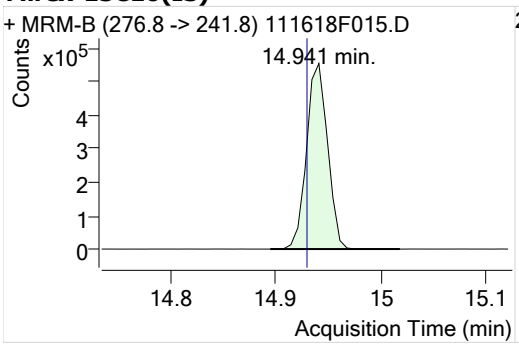
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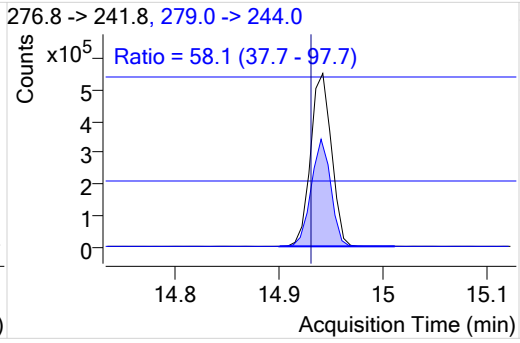


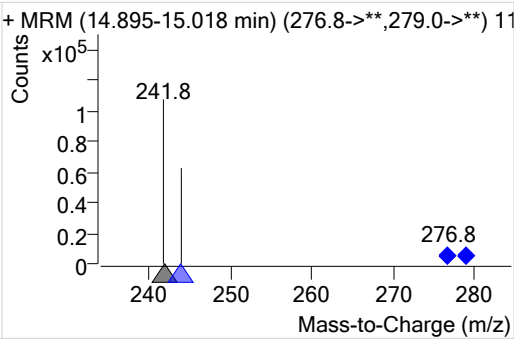




Mirex-13C10(IS)







Quantitative Analysis Sample Report

Data File	Y:\MS42\data\111618\111618F016.D	**Vial**	12
Acq. Date-Time	11/16/2018 3:43:29 PM	**Acq Operator**	EBruno
Name	OC PEST ICAL 100ng/mL SVM59-48J	**Instrument Name**	MS42
Info.		**Instrument Type**	QQQ
Quant Time	3/14/2019 10:04:01 AM	**Inj Vol**	1
Quant Method	110618 OC PEST ICAL.batch.bin		
Last Update	3/14/2019 10:04:01 AM		
Acq. Method File	OC Pest_dMRM	**Tune File Name**	atunes.eihs.tune.xml
Batch File Name	Y:\MS42\data\111618\QuantResults\111618 oc pest ical.batch.bin		

Internal Standards	**RT**	**Transition**	**Response**	**Conc. Units**	**Dev(Min)**
Hexachlorobenzene-13C6(IS)	5.685	289.8 -> 254.8	1899445	20.000 ng/ml	0.006
γ-BHC-d6(IS)	5.987	223.9 -> 187.0	3340507	20.000 ng/ml	0.005
Heptachlor-13C10(IS)	7.225	276.8 -> 241.8	1466700	20.000 ng/ml	0.009
Chorpyrifos-d10(IS)	7.641	199.9 -> 171.9	1818436	20.000 ng/ml	0.004
Aldrin-13C(IS)	7.953	269.8 -> 200.0	1275460	20.000 ng/ml	0.003
Octachlorostyrene-13C8(IS)	8.549	315.8 -> 245.8	911237	20.000 ng/ml	0.008
Isodrin-13C12(IS)	8.625	199.9 -> 130.1	1329176	20.000 ng/ml	0.008
Heptachlor epoxide-13C10(IS)	8.814	362.8 -> 270.0	461956	20.000 ng/ml	0.012
Oxychlordane-13C10(IS)	8.818	190.0 -> 125.0	953719	20.000 ng/ml	0.009
Pyrene-d10	9.727	212.0 -> 208.0	12441180	100.000 ng/ml	0.008
Endrin-13C12(IS)	11.244	269.8 -> 200.0	462438	20.000 ng/ml	0.000
4,4'-DDD d4(IS)	11.657	243.0 -> 173.1	2594027	5.000 ng/ml	0.019
4,4'-DDT-d4(IS)	12.858	243.0 -> 173.1	1014755	5.000 ng/ml	0.007
Endrin ketone-13C12(IS)	13.855	327.9 -> 291.8	58277	20.000 ng/ml	0.005
Methoxychlor-d6(IS)	14.065	233.0 -> 141.0	2580911	20.000 ng/ml	0.005
Mirex-13C10(IS)	14.941	276.8 -> 241.8	1078699	5.000 ng/ml	0.010

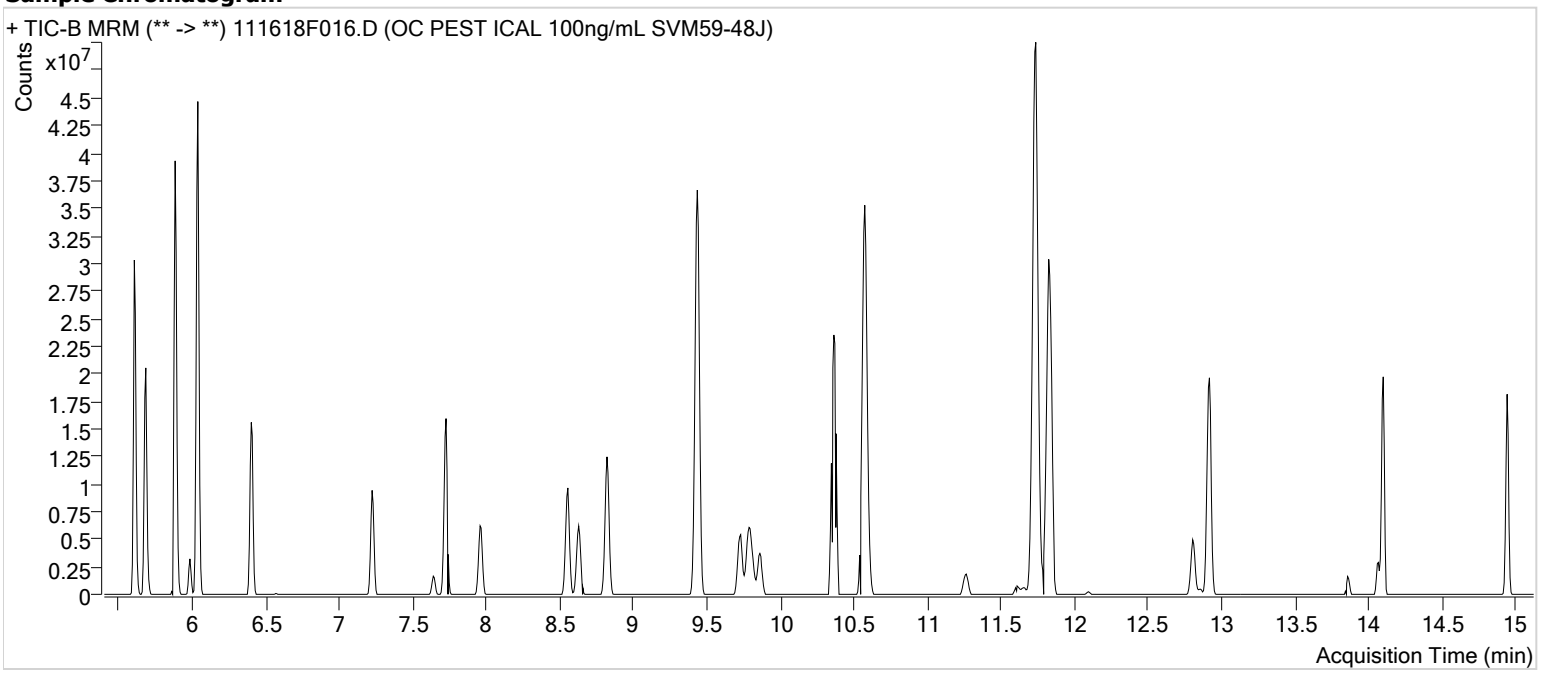
System Monitoring Compounds	**RT**	**Transition**	**Response**	**Conc. Units**
Hexachlorobenzene-13C6	5.677	289.8 -> 254.8	1899445	20.741 ng/ml
		Spiked Amount =	20.0	Recovery = *103.7 %*
γ-BHC-d6	5.983	223.9 -> 187.0	3340507	19.249 ng/ml
		Spiked Amount =	20.0	Recovery = *96.2 %*
Heptachlor-13C10	7.216	276.8 -> 241.8	1466700	20.439 ng/ml
		Spiked Amount =	20.0	Recovery = *102.2 %*
Chorpyrifos-d10	7.640	199.9 -> 171.9	1818436	20.199 ng/ml
		Spiked Amount =	20.0	Recovery = *101.0 %*
Aldrin-13C	7.952	269.8 -> 200.0	1275460	19.460 ng/ml
		Spiked Amount =	20.0	Recovery = *97.3 %*
Octachlorostyrene-13C8	8.540	315.8 -> 245.8	911237	19.418 ng/ml
		Spiked Amount =	20.0	Recovery = *97.1 %*
Isodrin-13C12	8.616	199.9 -> 130.1	1329176	18.587 ng/ml
		Spiked Amount =	20.0	Recovery = *92.9 %*
Heptachlor epoxide-13C10	8.805	362.8 -> 270.0	461956	20.204 ng/ml
		Spiked Amount =	20.0	Recovery = *101.0 %*
Oxychlordane-13C10	8.809	190.0 -> 125.0	953719	20.524 ng/ml
		Spiked Amount =	20.0	Recovery = *102.6 %*
Endrin-13C12	11.247	269.8 -> 200.0	462438	20.338 ng/ml
		Spiked Amount =	20.0	Recovery = *101.7 %*
4,4'-DDD d4	11.652	243.0 -> 173.1	2594027	5.871 ng/ml
		Spiked Amount =	5.0	Recovery = *117.4 %*
4,4'-DDT-d4	12.851	243.0 -> 173.1	1014755	5.140 ng/ml
		Spiked Amount =	5.0	Recovery = *102.8 %*
Endrin ketone-13C12	13.850	327.9 -> 291.8	58277	20.698 ng/ml
		Spiked Amount =	20.0	Recovery = *103.5 %*
Methoxychlor-d6	14.060	233.0 -> 141.0	2580911	19.785 ng/ml
		Spiked Amount =	20.0	Recovery = *98.9 %*
Mirex-13C10	14.930	276.8 -> 241.8	1078699	5.659 ng/ml
		Spiked Amount =	5.0	Recovery = *113.2 %*

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Target Compounds	ISTD	RT	Transition	Resp.	Conc.	Units	Qvalue
α-BHC	γ-BHC-d6(IS)	5.613	181.1 -> 145.1	22860719	95.704	ng/ml	98
Hexachlorobenzene	Hexachlorobenzene-13C6(IS)	5.686	283.8 -> 213.9	14240939	82.825	ng/ml	99
β-BHC	γ-BHC-d6(IS)	5.890	181.1 -> 145.1	30212632	99.973	ng/ml	94
γ-BHC(Lindane)	γ-BHC-d6(IS)	6.044	181.1 -> 145.1	34856250	99.756	ng/ml	100
δ-BHC	γ-BHC-d6(IS)	6.405	181.1 -> 145.1	14192055	101.907	ng/ml	98
Heptachlor	Heptachlor-13C10(IS)	7.229	271.7 -> 236.9	7748508	91.145	ng/ml	100
Chorpyrifos	Chorpyrifos-d10(IS)	7.731	196.9 -> 169.0	13081188	101.907	ng/ml	96
Aldrin	Aldrin-13C(IS)	7.963	254.9 -> 220.0	3968716	99.199	ng/ml	80
Octachlorostyrene	Octachlorostyrene-13C8(IS)	8.555	342.8 -> 307.8	11355912	96.835	ng/ml	98
Isodrin	Isodrin-13C12(IS)	8.633	193.0 -> 123.0	6556516	96.141	ng/ml	95
Heptachlor epoxide	Heptachlor epoxide-13C10(IS)	8.829	352.8 -> 262.9	2611579	99.341	ng/ml	100
Oxychlordane	Oxychlordane-13C10(IS)	8.826	114.9 -> 51.1	12220531	94.772	ng/ml	98
γ-Chlordane(trans)	Oxychlordane-13C10(IS)	9.429	271.8 -> 236.9	4476975	97.423	ng/ml	94
2,4'-DDE	4,4'-DDD d4(IS)	9.439	246.0 -> 176.2	42325424	85.823	ng/ml	100
α-Chlordane(cis)	Oxychlordane-13C10(IS)	9.788	271.8 -> 236.9	10901001	94.950	ng/ml	95
Endosulfan I	Endrin-13C12(IS)	9.805	206.9 -> 172.0	2608417	89.981	ng/ml	96
trans-Nanochlor	Oxychlordane-13C10(IS)	9.862	271.8 -> 236.9	7289126	98.654	ng/ml	95
4,4' -DDE	4,4'-DDD d4(IS)	10.364	246.0 -> 176.2	37099575	82.066	ng/ml	96
2,4'-DDD	4,4'-DDD d4(IS)	10.578	235.0 -> 165.1	49812586	89.240	ng/ml	98
Dieldrin	Endrin-13C12(IS)	10.599	262.9 -> 193.0	3475708	98.538	ng/ml	92
Endosulfan II	Endrin-13C12(IS)	11.260	206.9 -> 172.0	443928	99.652	ng/ml	87
Endrin	Endrin-13C12(IS)	11.265	262.8 -> 193.0	2997885	94.465	ng/ml	97
4,4'-DDD	4,4'-DDD d4(IS)	11.734	235.0 -> 165.1	77032013	91.954	ng/ml	100
cis-Nonachlor	Oxychlordane-13C10(IS)	11.756	271.8 -> 236.9	2680403	95.766	ng/ml	80
2,4'-DDT	4,4'-DDT-d4(IS)	11.828	235.0 -> 165.1	47224630	103.788	ng/ml	97
Endrin aldehyde	Endrin-13C12(IS)	12.098	249.9 -> 214.9	944282	105.475	ng/ml	100
Endosulfan sulfate	Endrin-13C12(IS)	12.803	271.9 -> 237.0	5621132	103.471	ng/ml	95
4,4'-DDT	4,4'-DDT-d4(IS)	12.921	235.0 -> 165.1	23643097	100.690	ng/ml	99
Endrin ketone	Endrin ketone-13C12(IS)	13.861	147.0 -> 111.0	1830237	89.221	ng/ml	98
Methoxychlor	Methoxychlor-d6(IS)	14.101	227.0 -> 141.1	16766315	101.805	ng/ml	95
Mirex	Mirex-13C10(IS)	14.943	271.8 -> 236.8	18535923	99.291	ng/ml	98

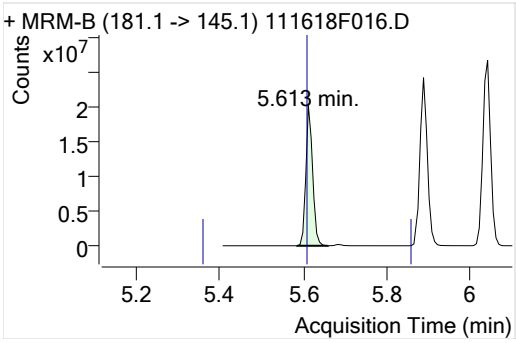
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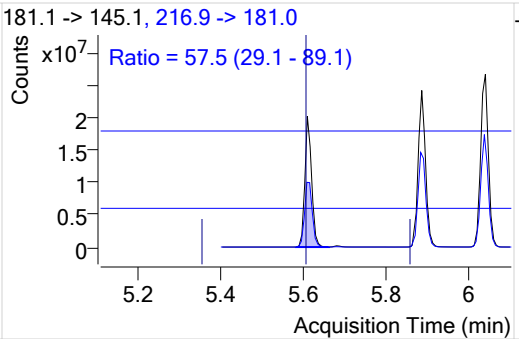
Sample Chromatogram

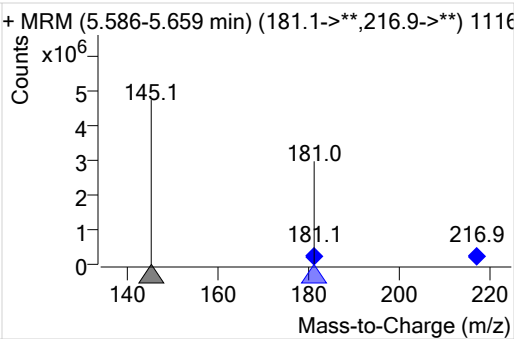


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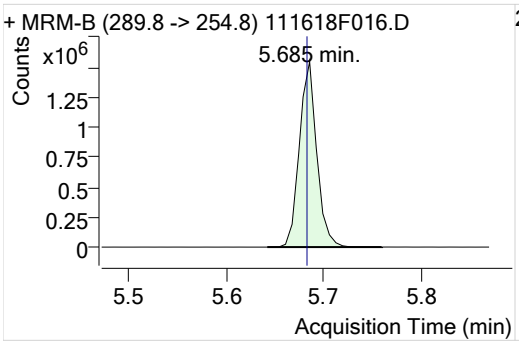
α-BHC

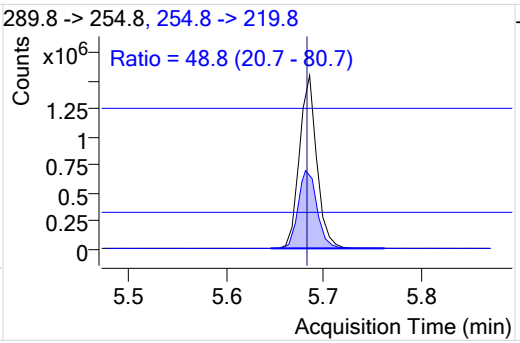


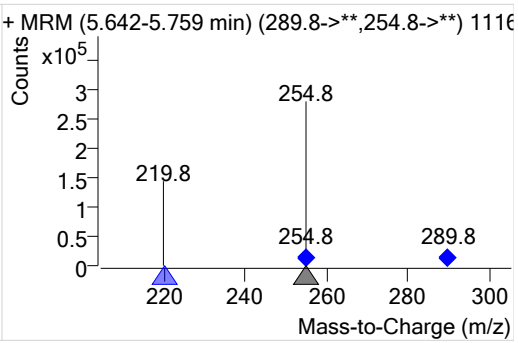




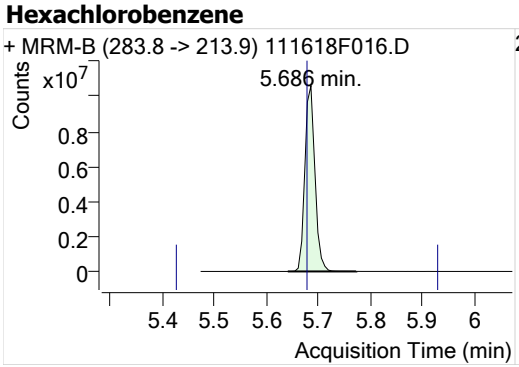
Hexachlorobenzene-13C6

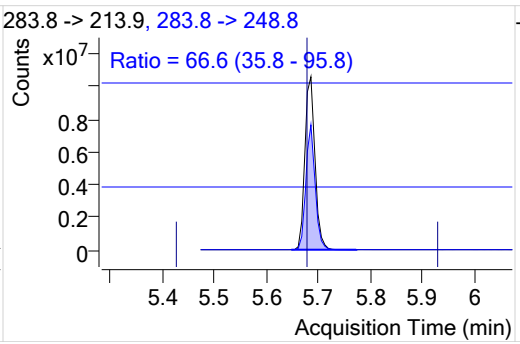


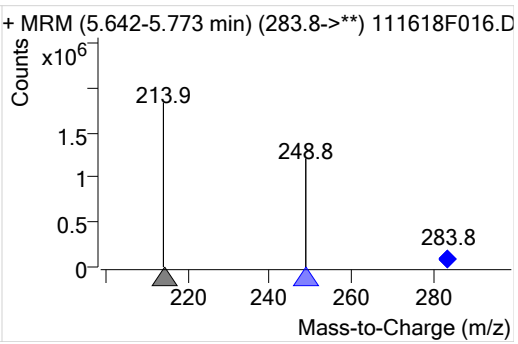




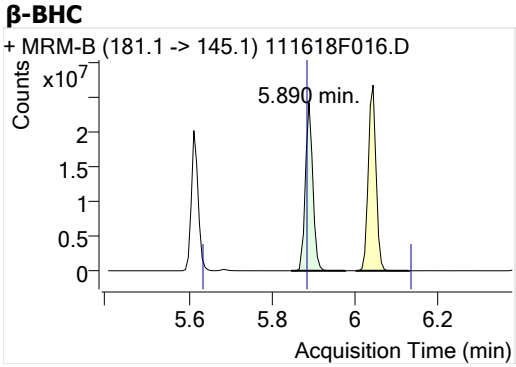
Hexachlorobenzene

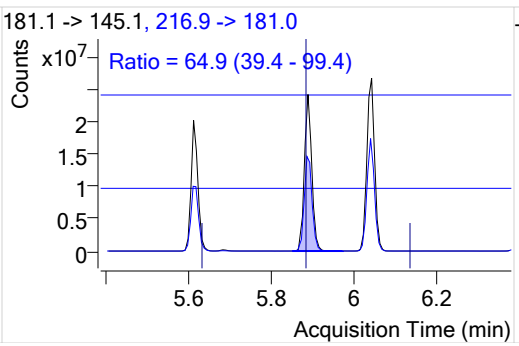


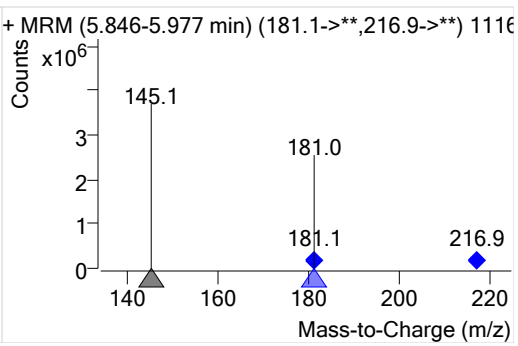




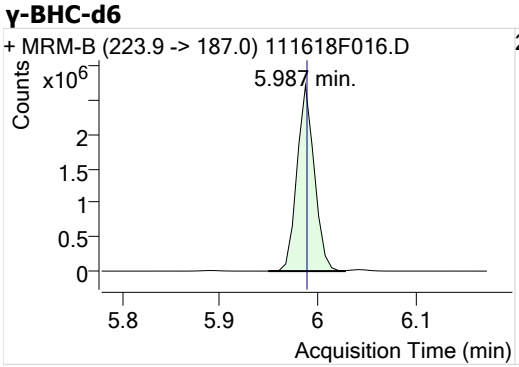
β-BHC

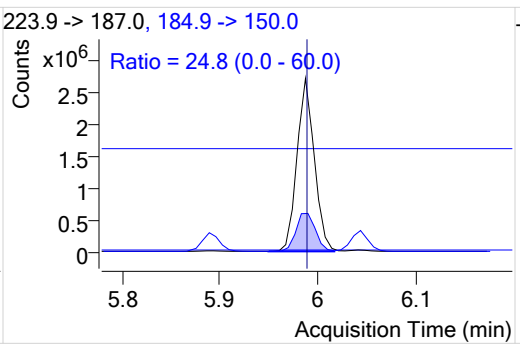


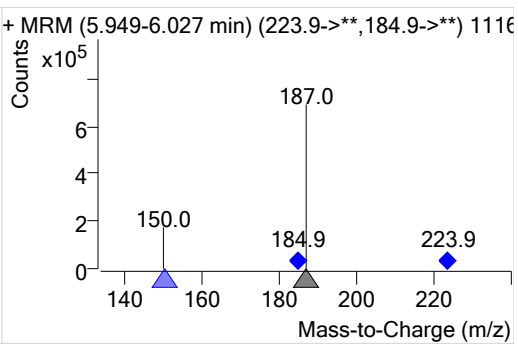




γ-BHC-d6

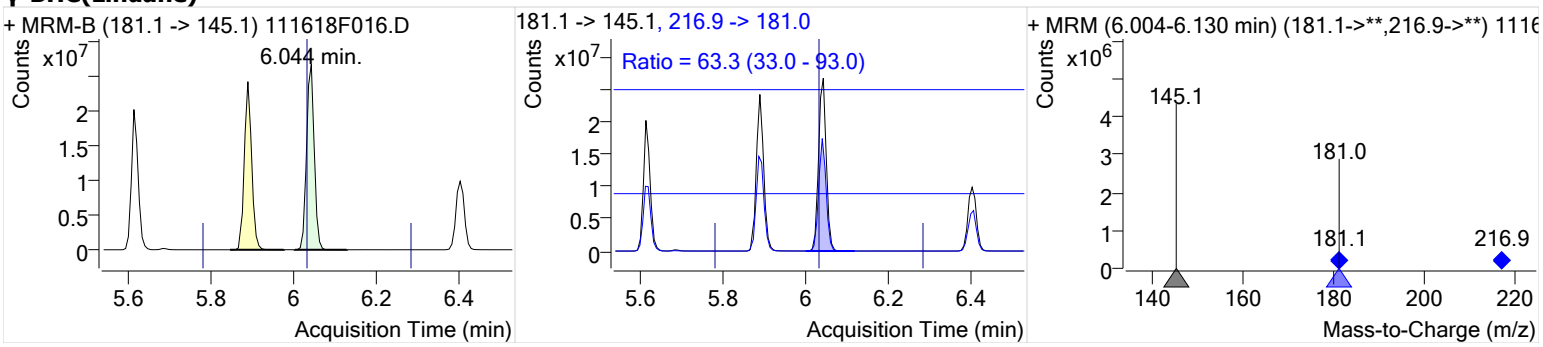




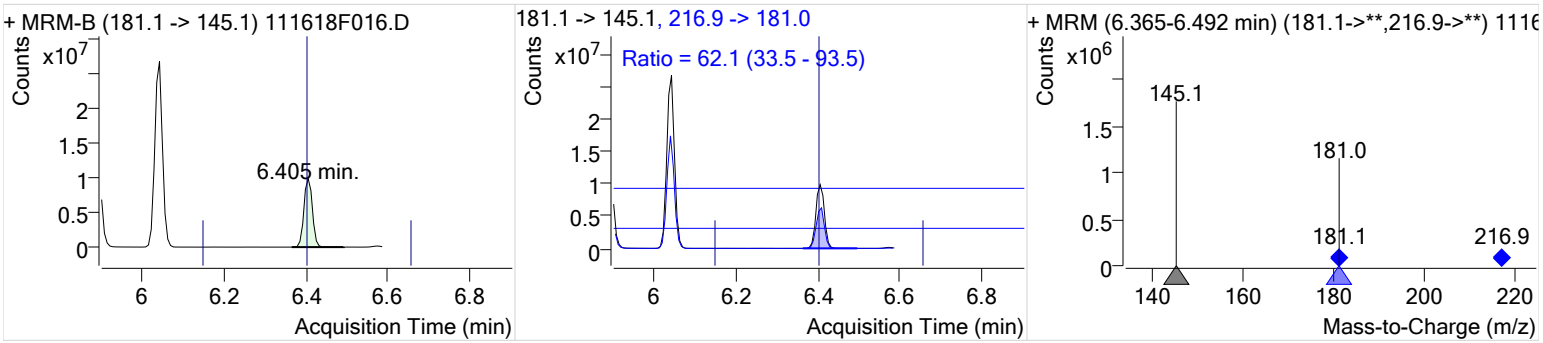


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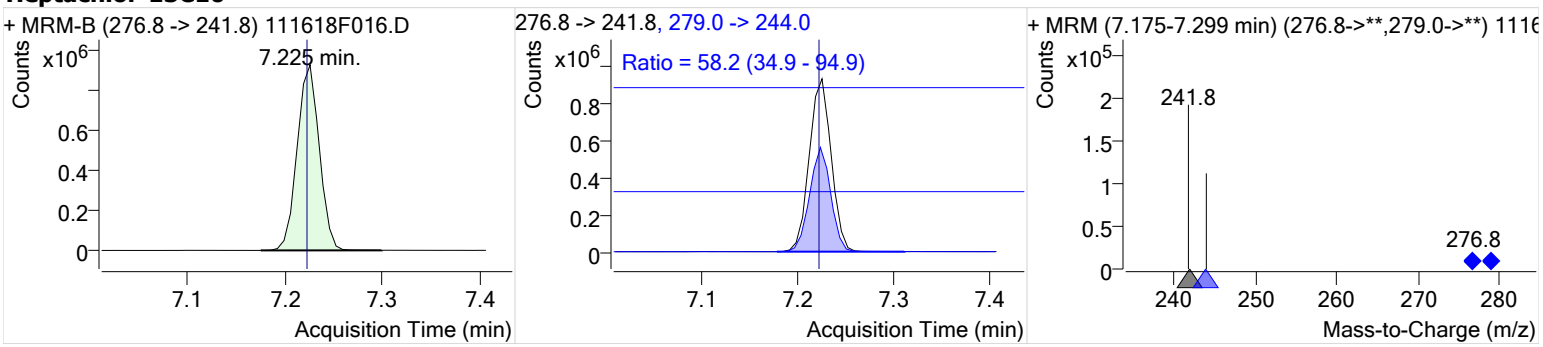
γ-BHC(Lindane)



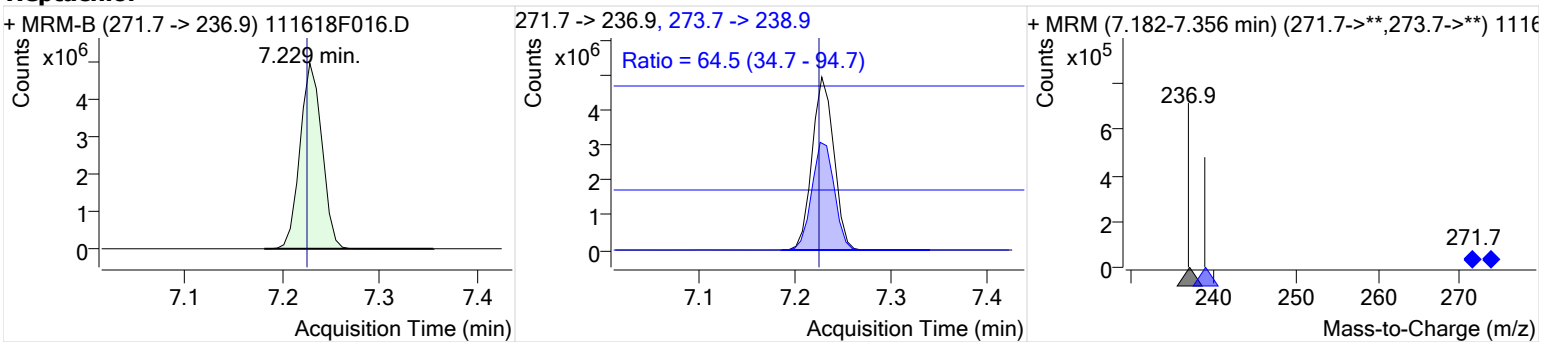
δ-BHC



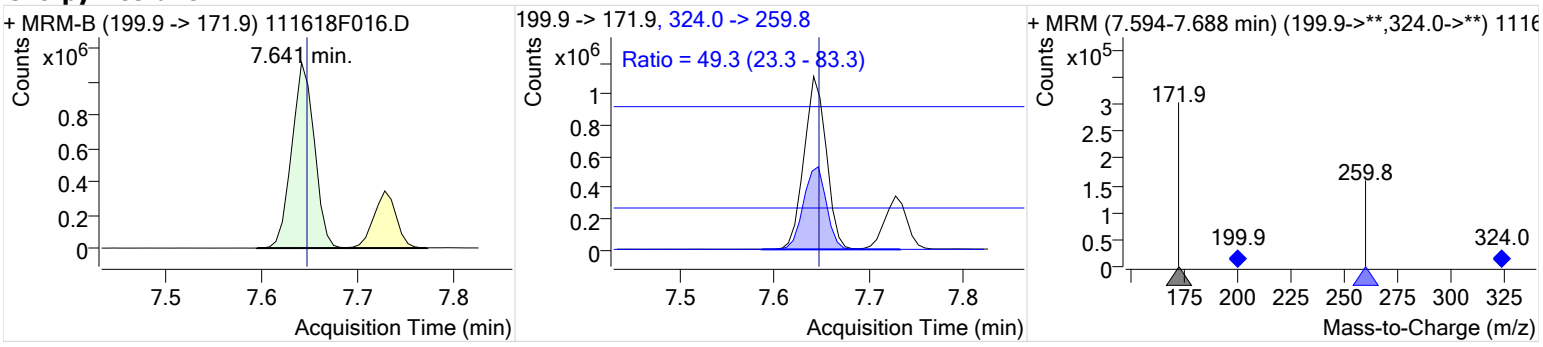
Heptachlor-13C10



Heptachlor

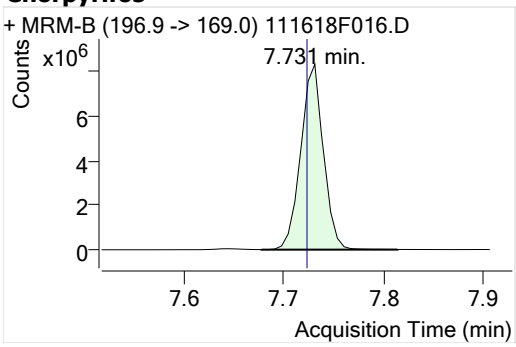


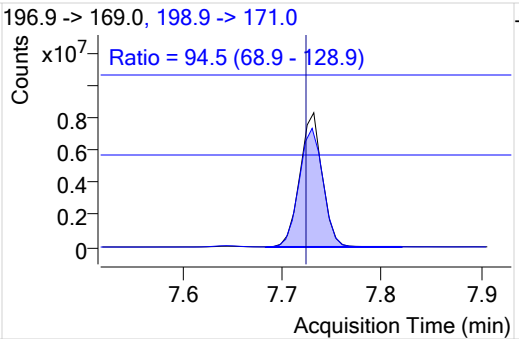
Chorpyrifos-d10

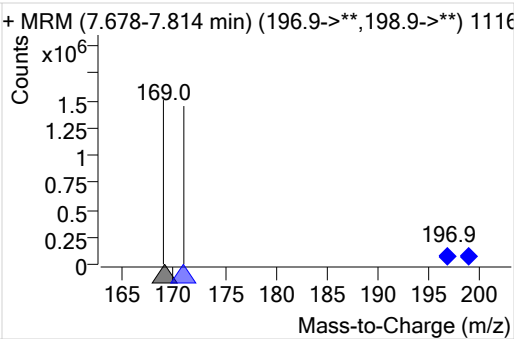


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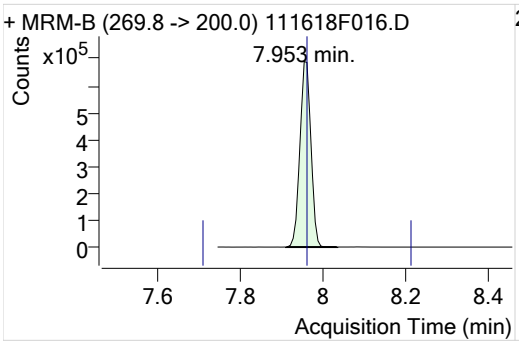
Chorpyrifos

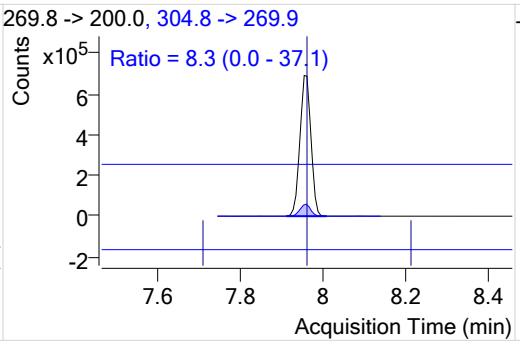


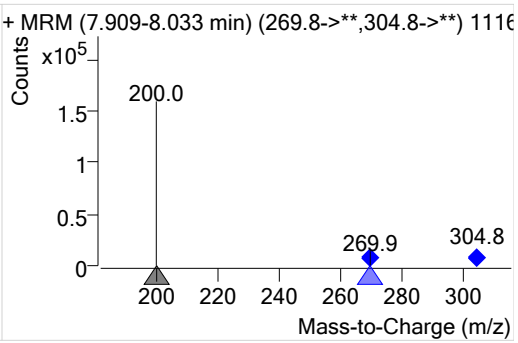




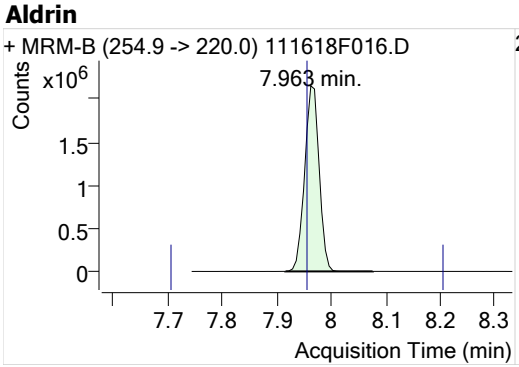
Aldrin-13C

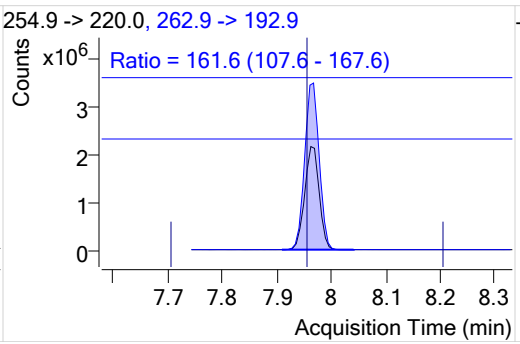


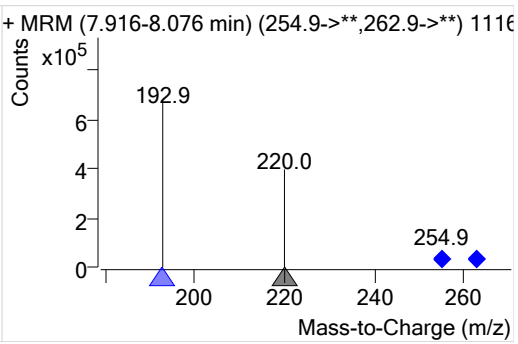




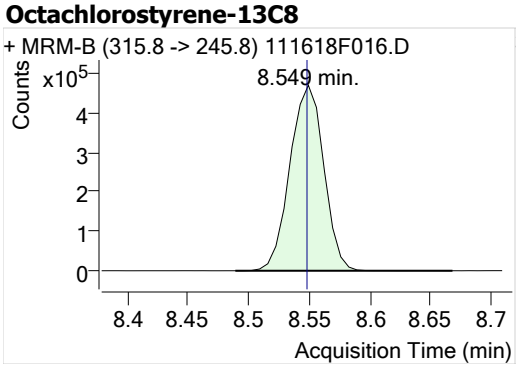
Aldrin

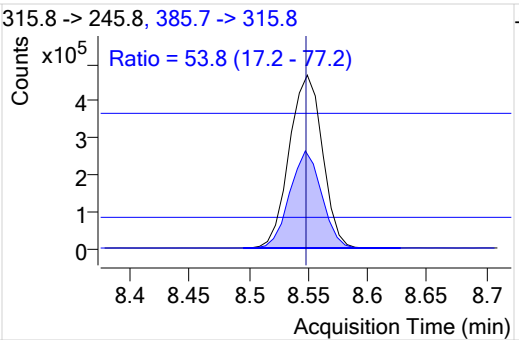


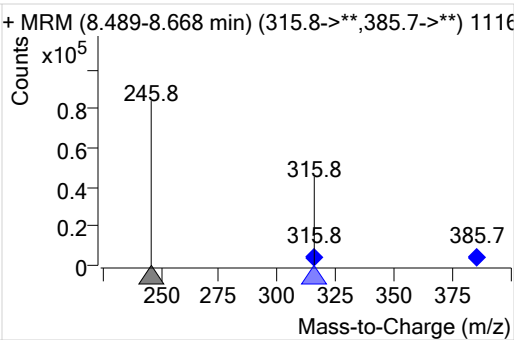




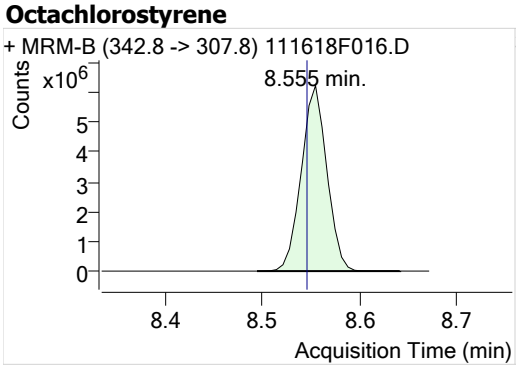
Octachlorostyrene-13C8

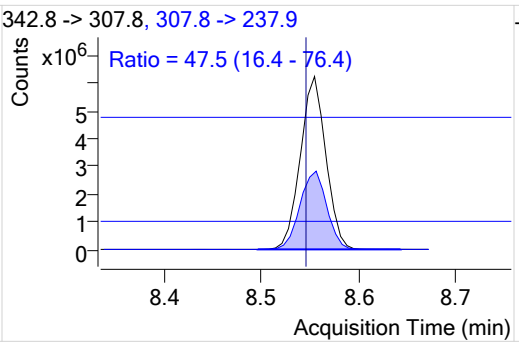


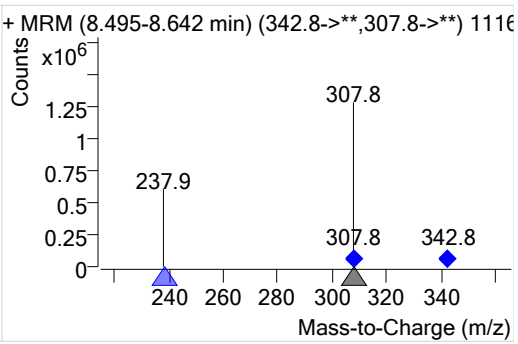




Octachlorostyrene

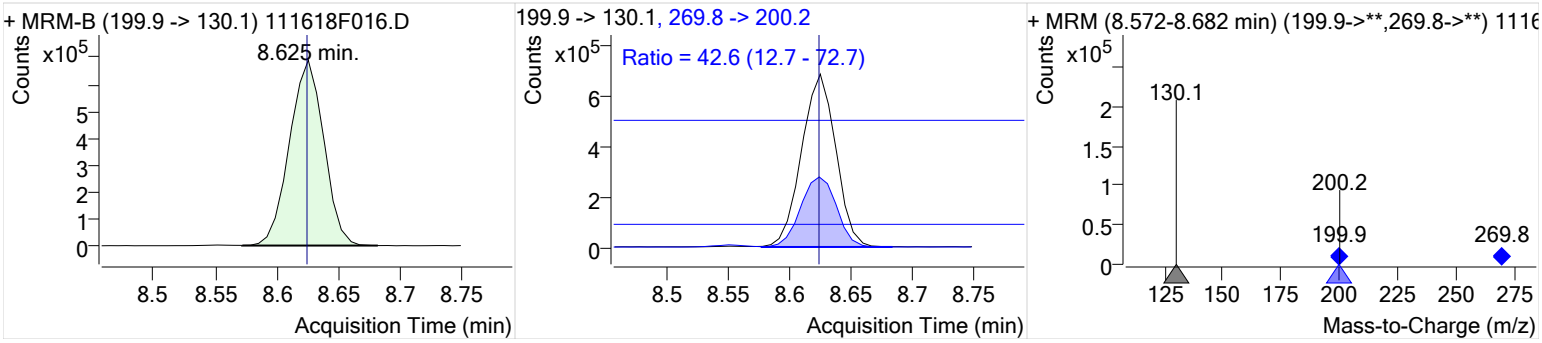




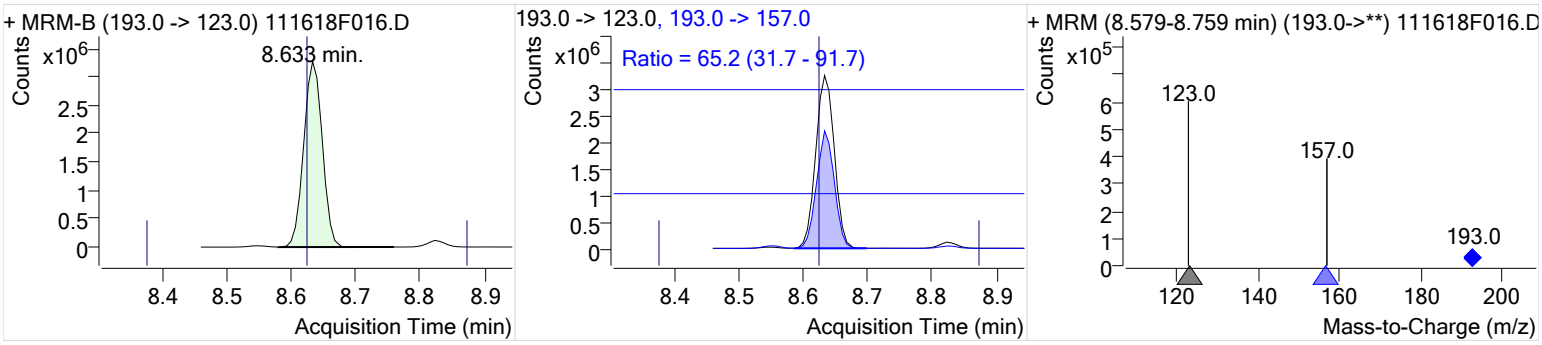


Quantitative Analysis Sample Report

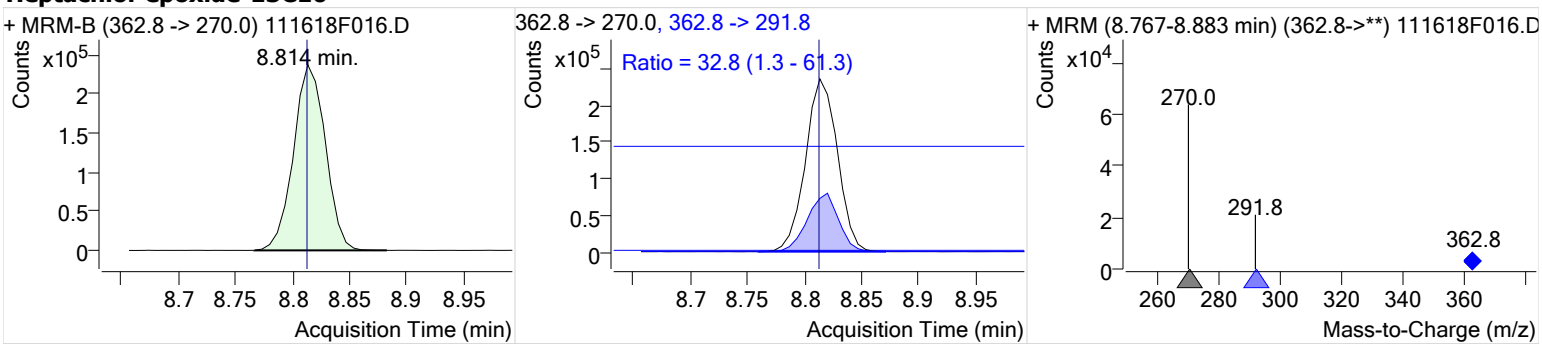
Isodrin-13C12



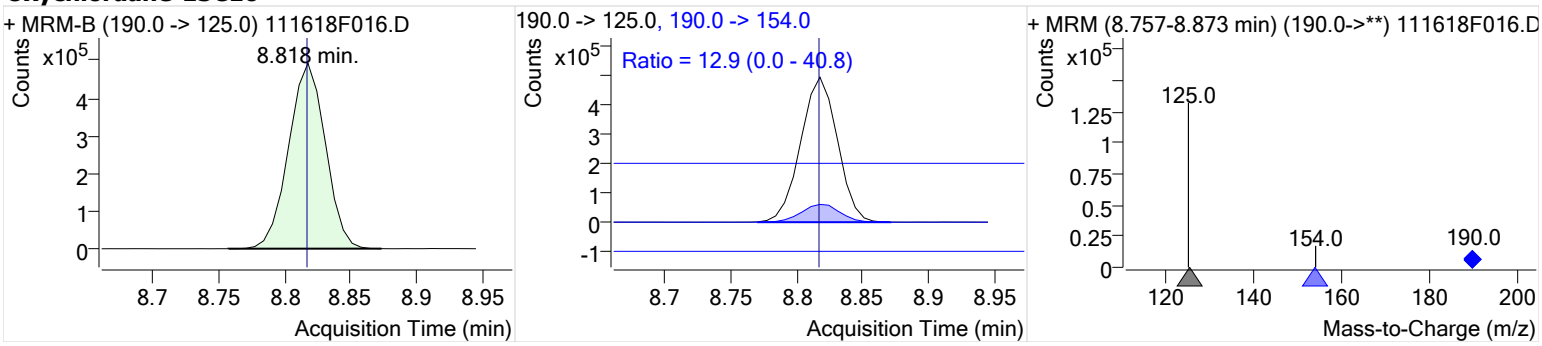
Isodrin



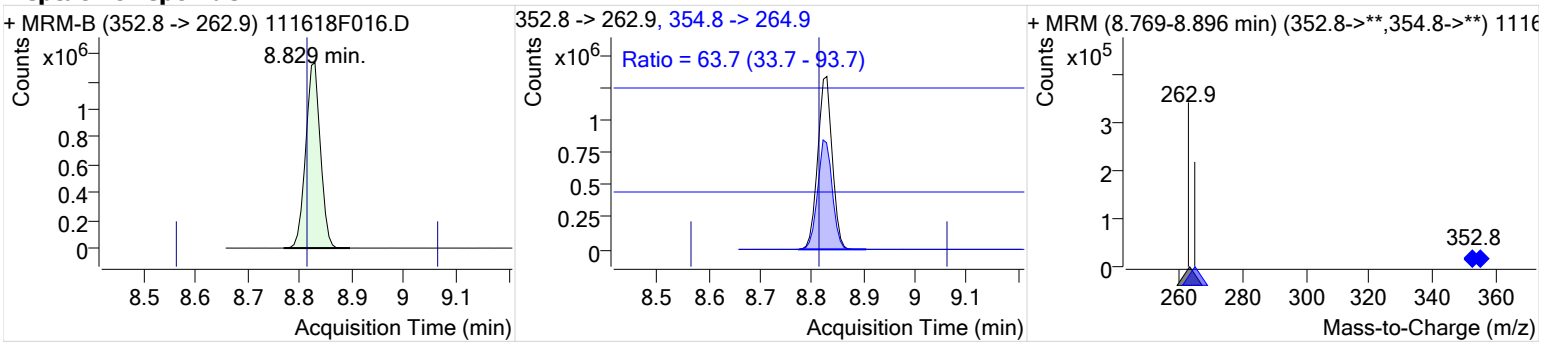
Heptachlor epoxide-13C10



Oxychlordane-13C10

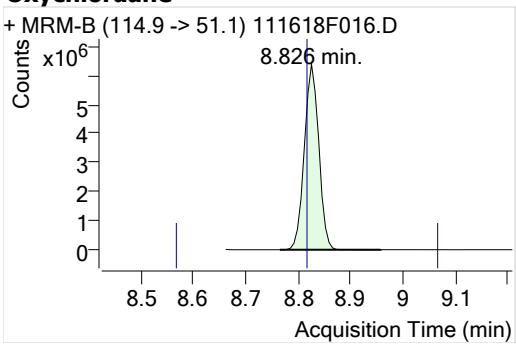


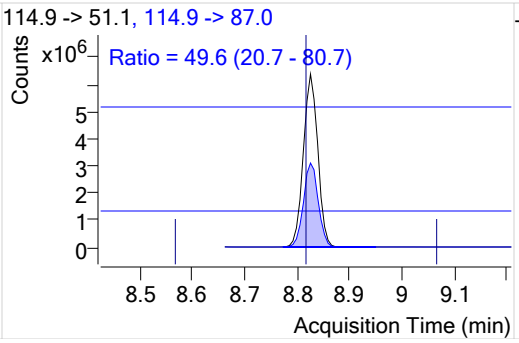
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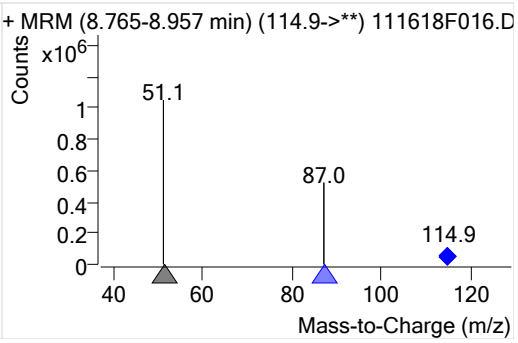


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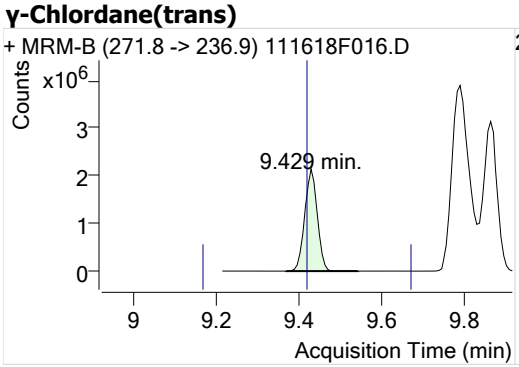
Oxychlordane

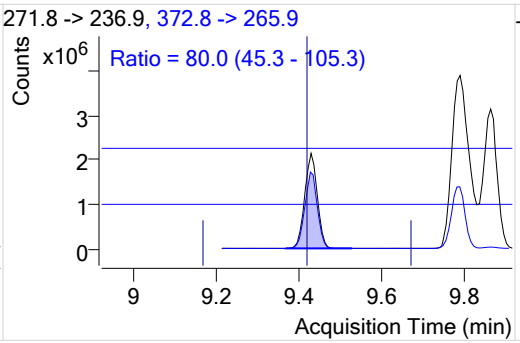


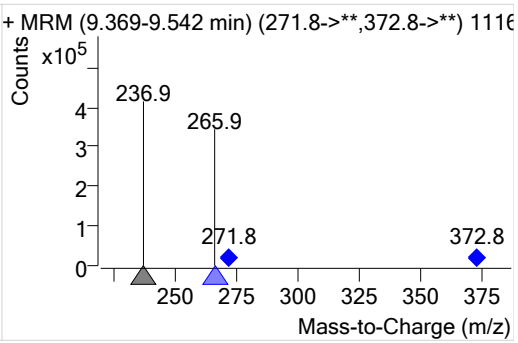




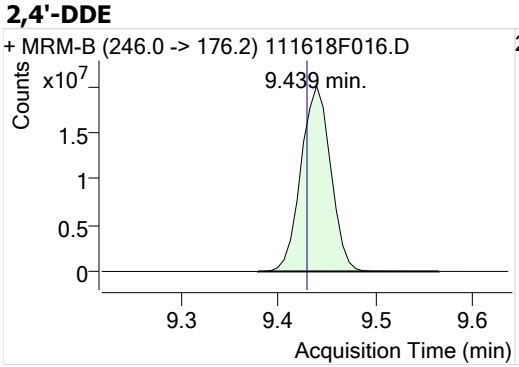
γ-Chlordane(trans)

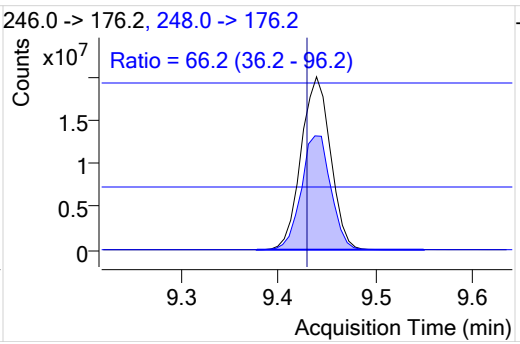


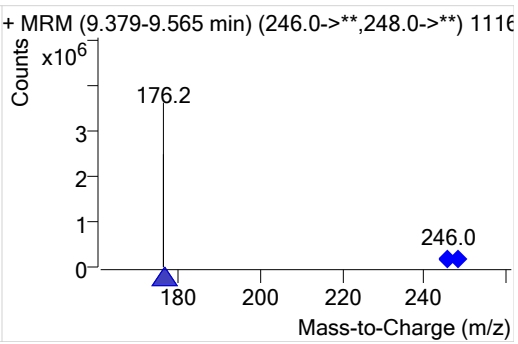




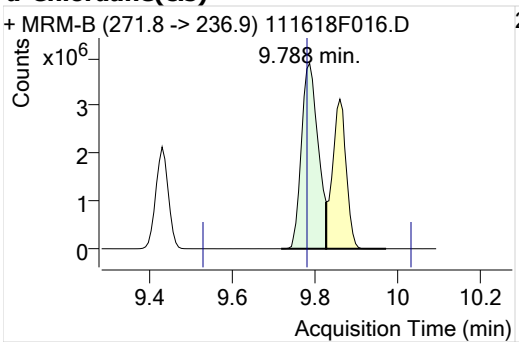
2,4'-DDE

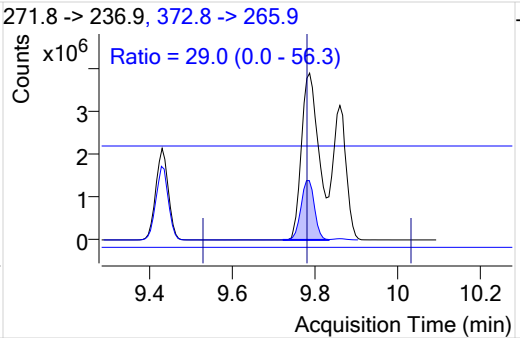


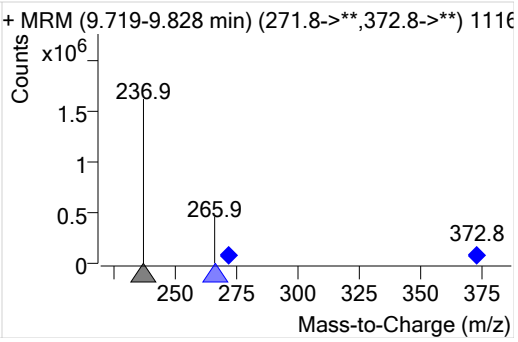




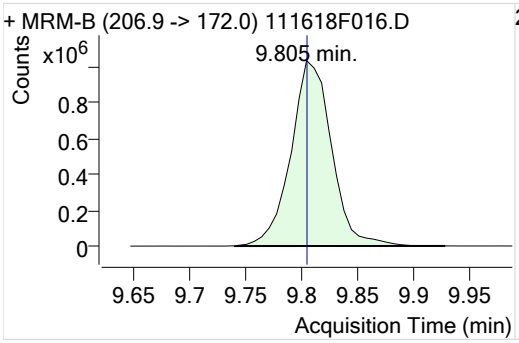
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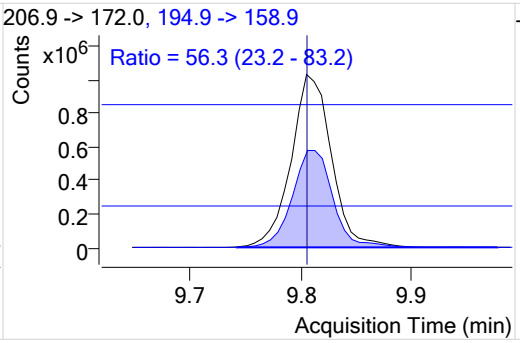


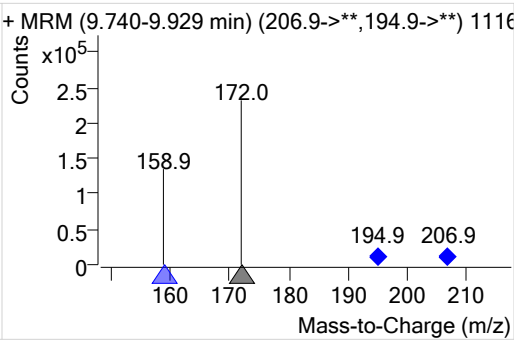




Endosulfan I

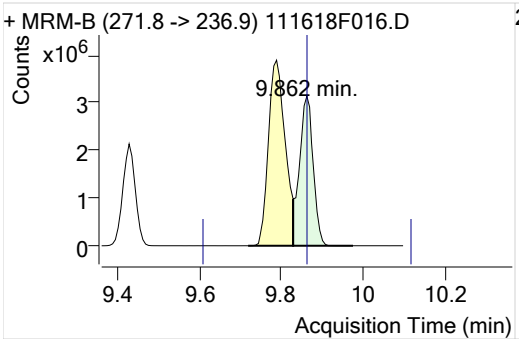


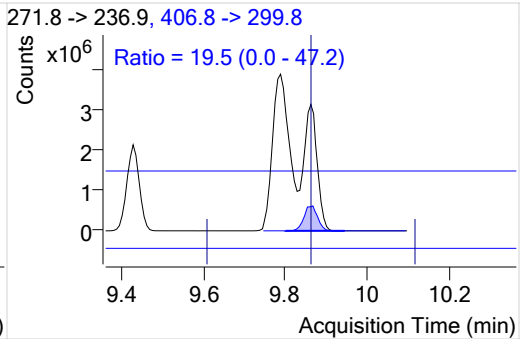


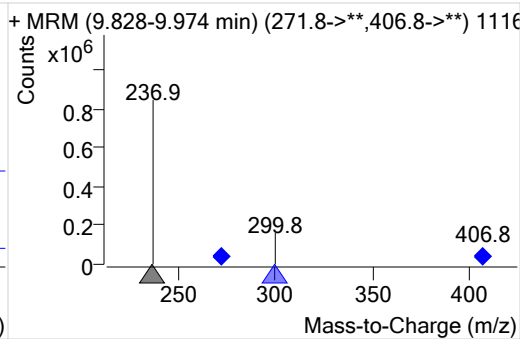


Quantitative Analysis Sample Report

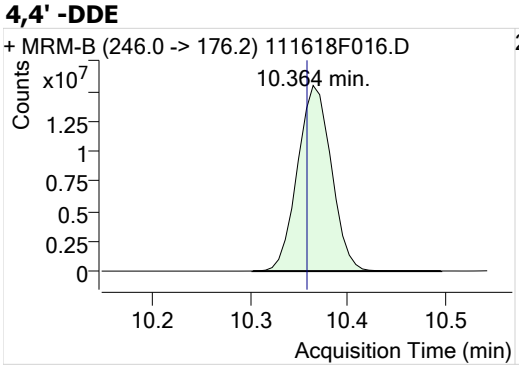
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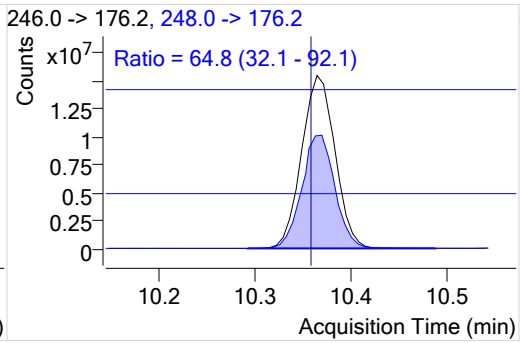


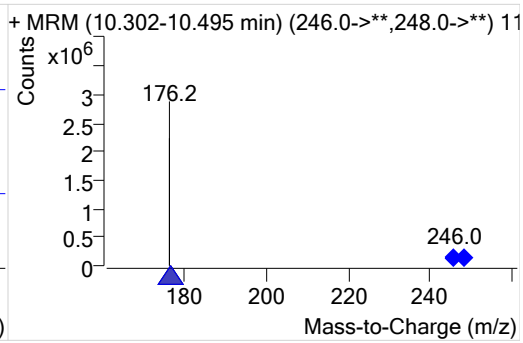




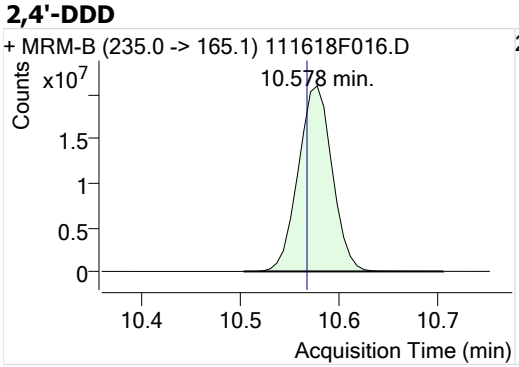
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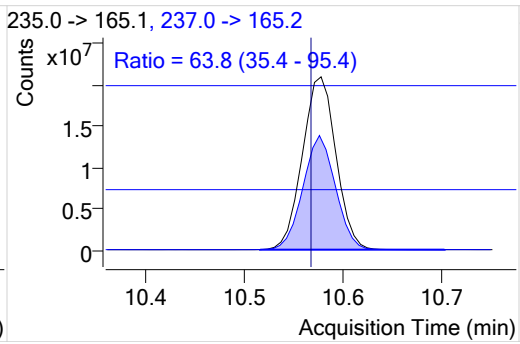


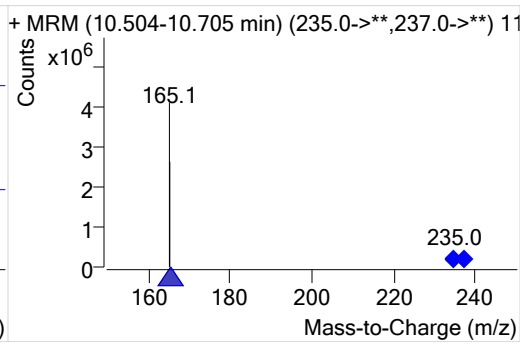




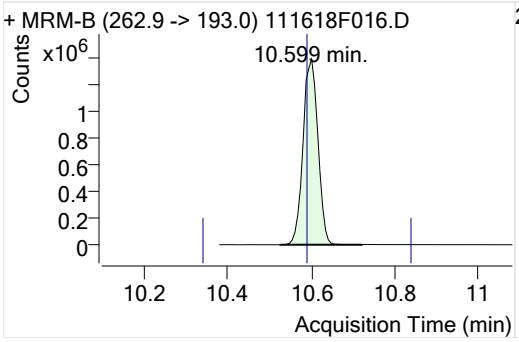
2,4'-DDD

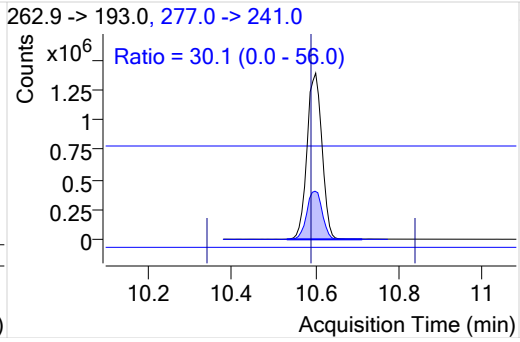


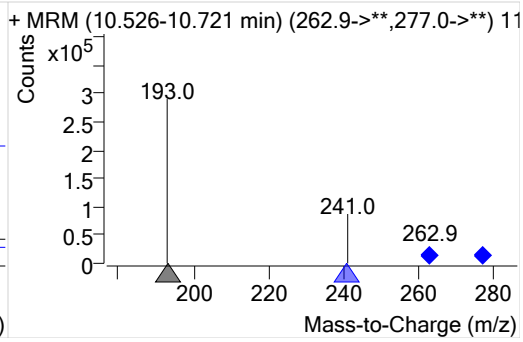




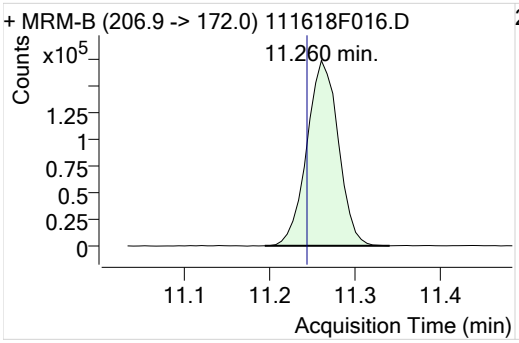
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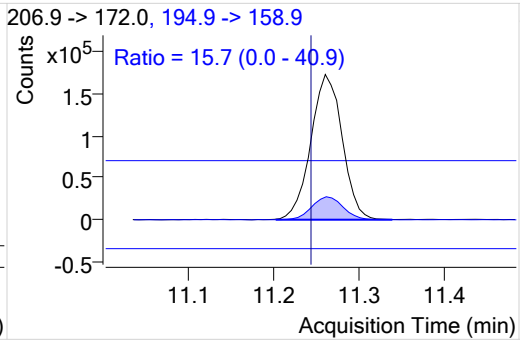


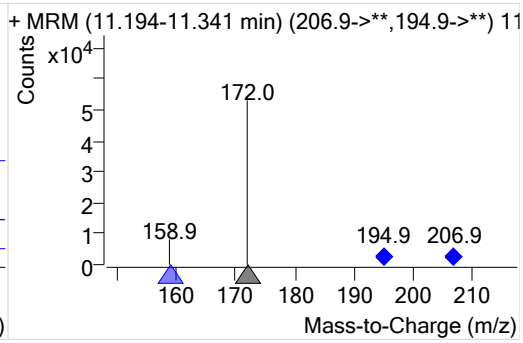




Endosulfan II

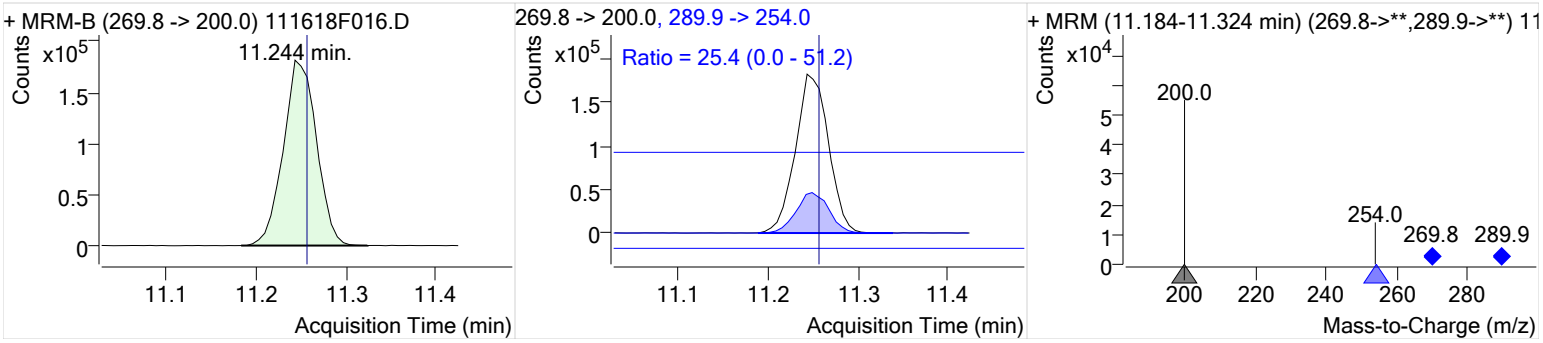




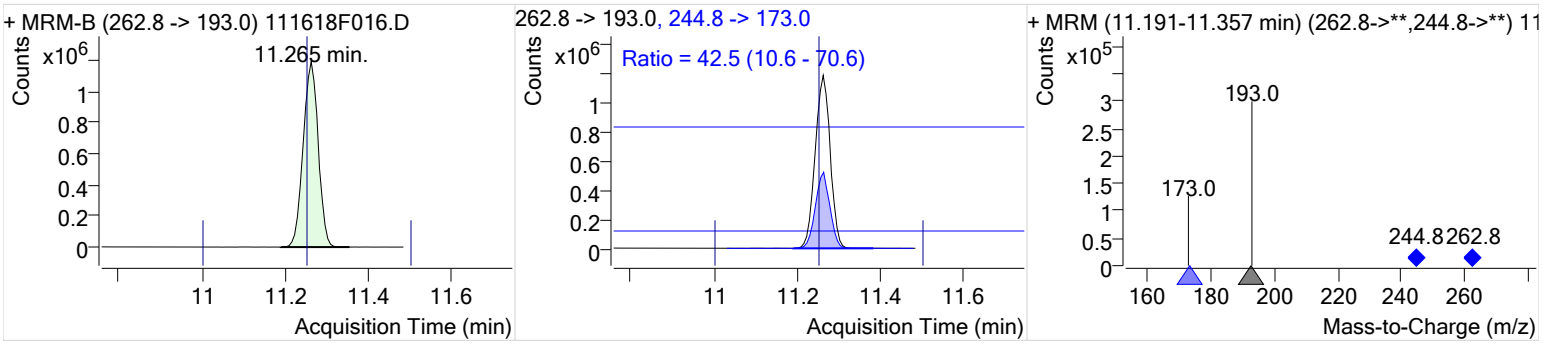


Quantitative Analysis Sample Report

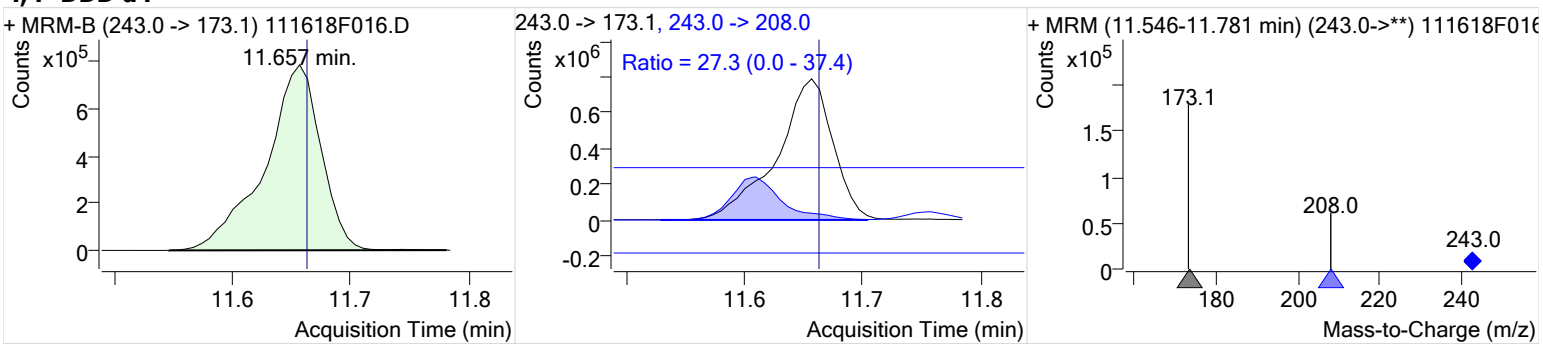
Endrin-13C12



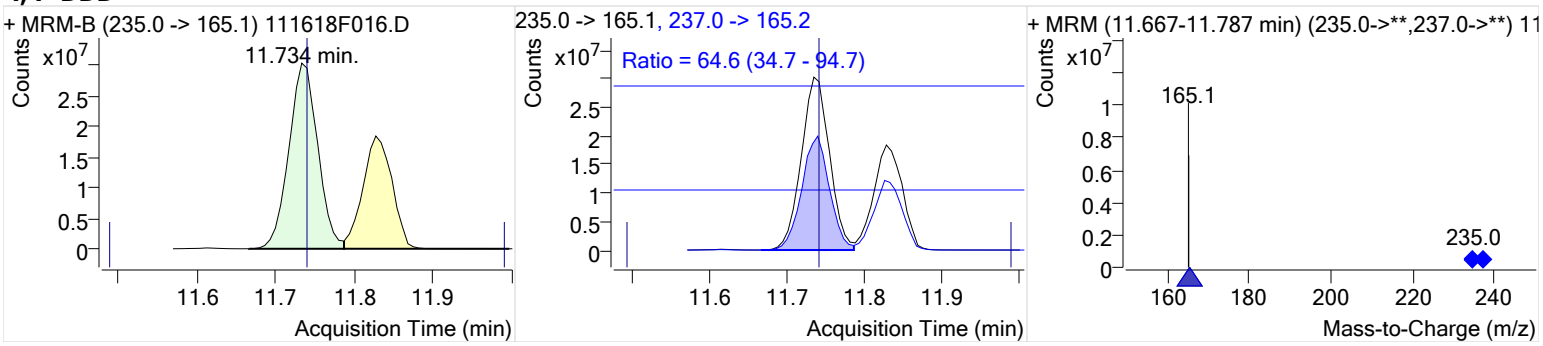
Endrin



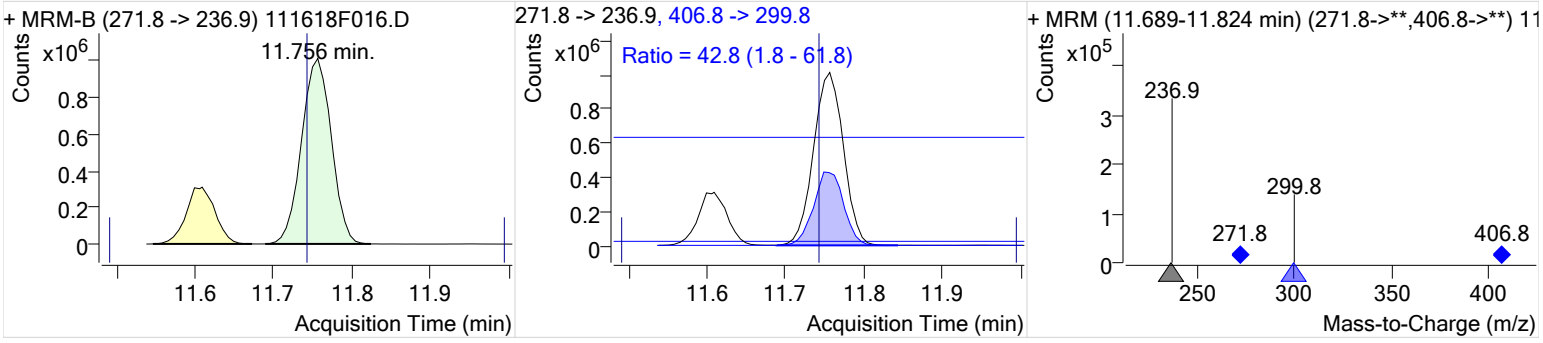
4,4'-DDD d4



4,4'-DDD

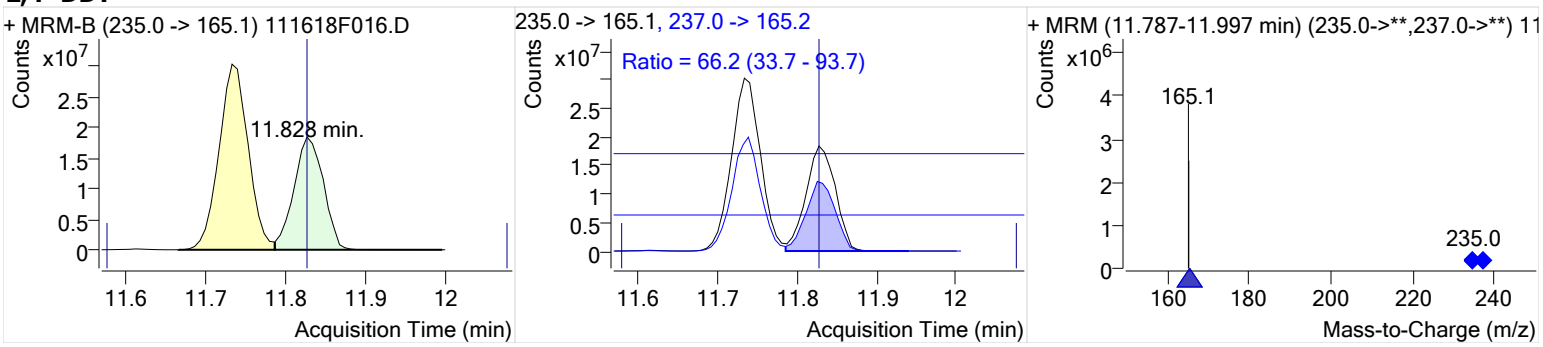


cis-Nonachlor

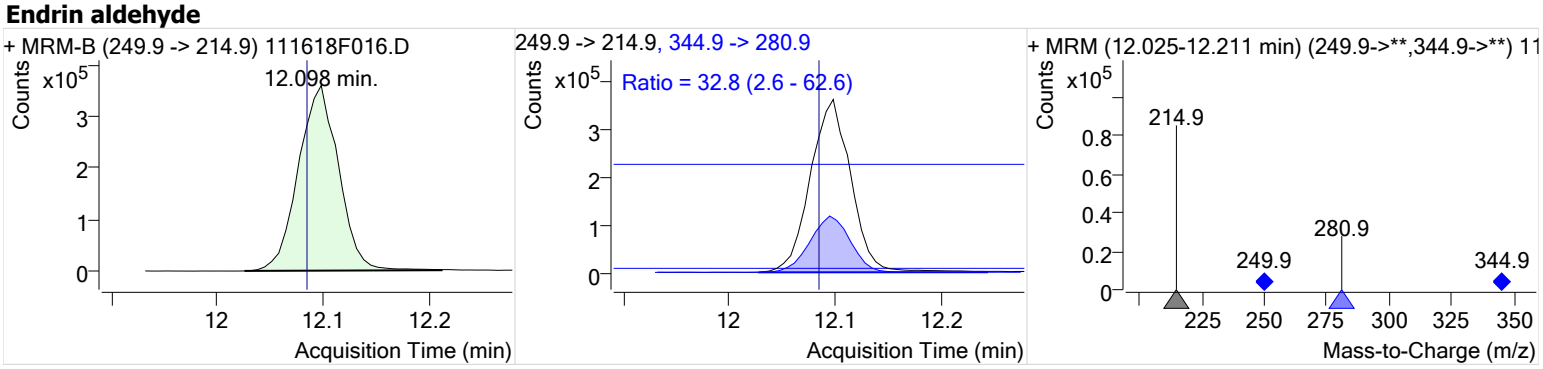


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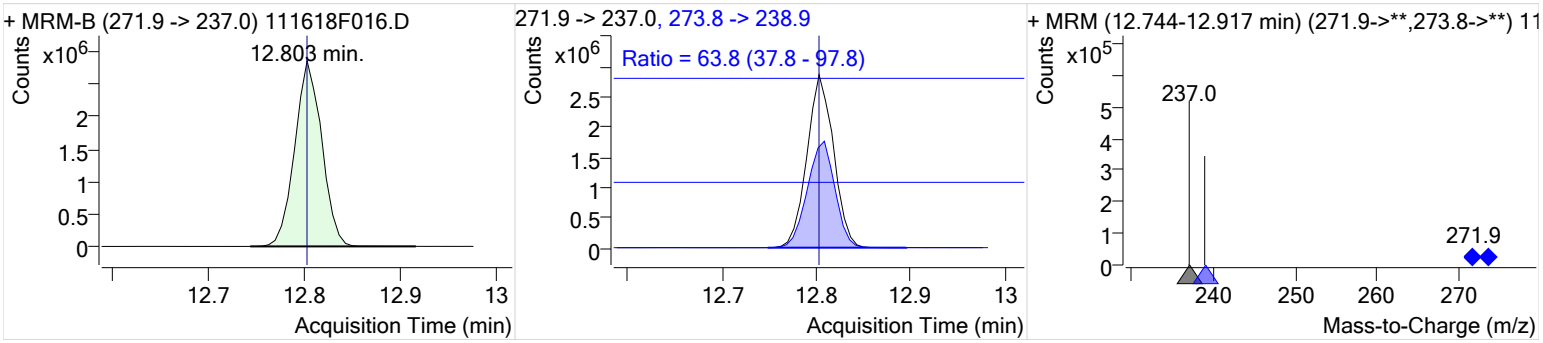
2,4'-DDT



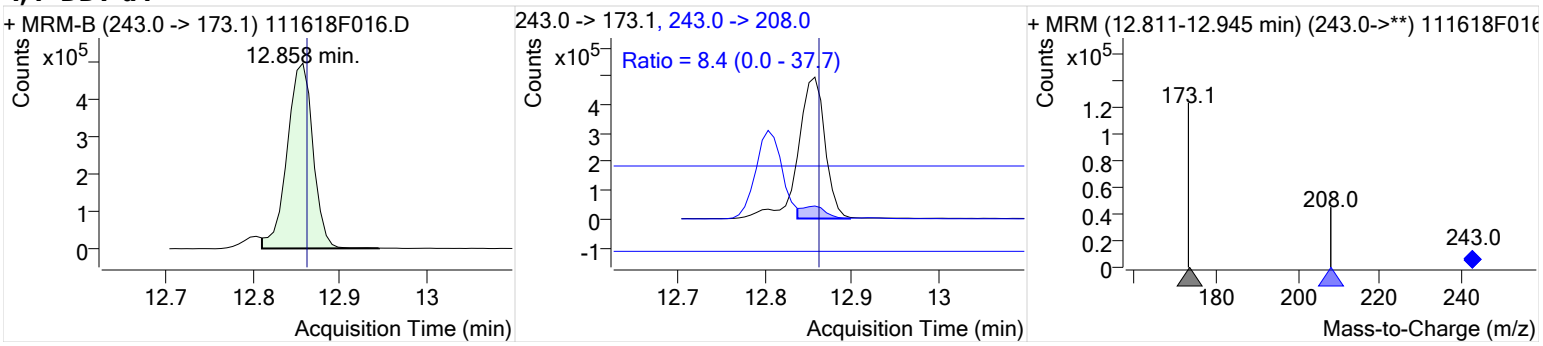
Endrin aldehyde



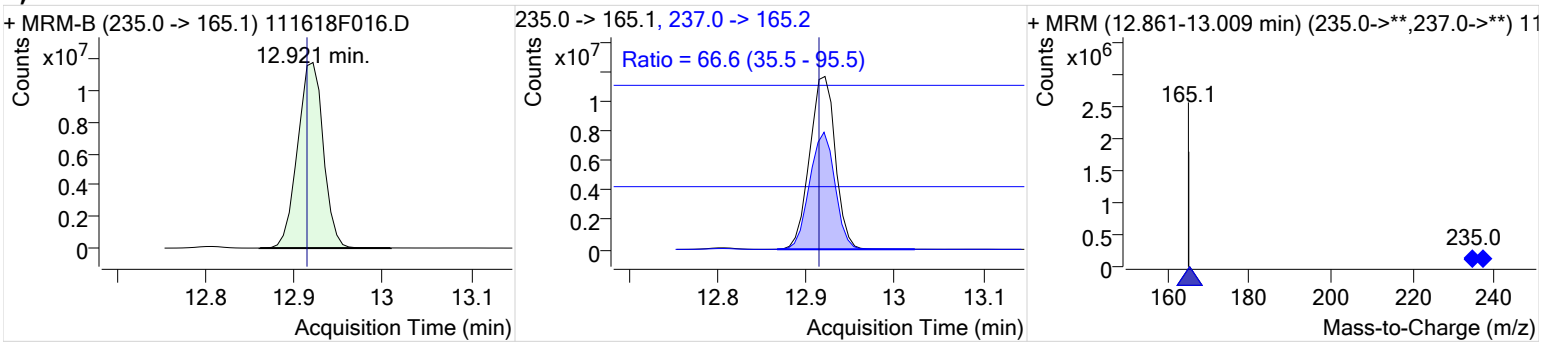
Endosulfan sulfate



4,4'-DDT-d4

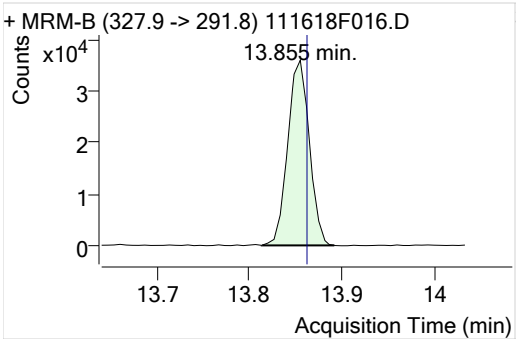


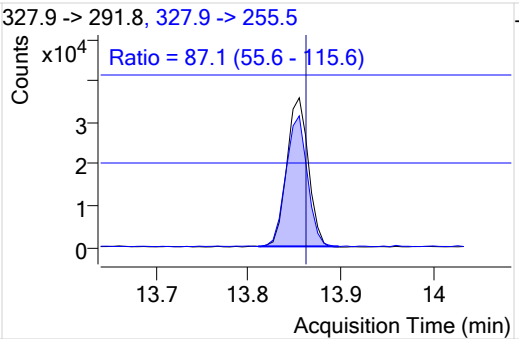
4,4'-DDT

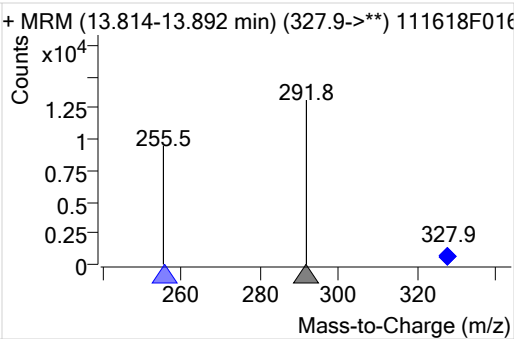


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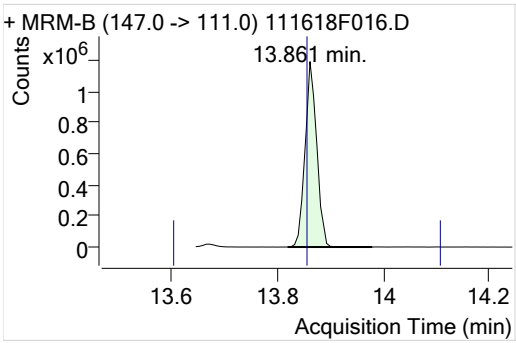
Endrin ketone-13C12

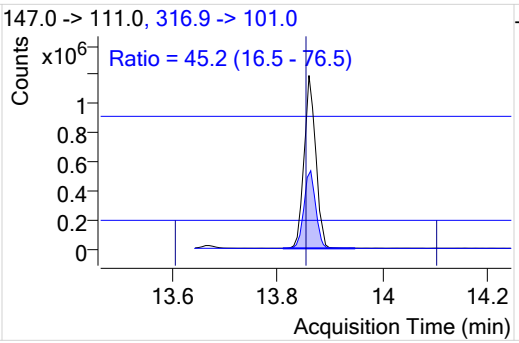


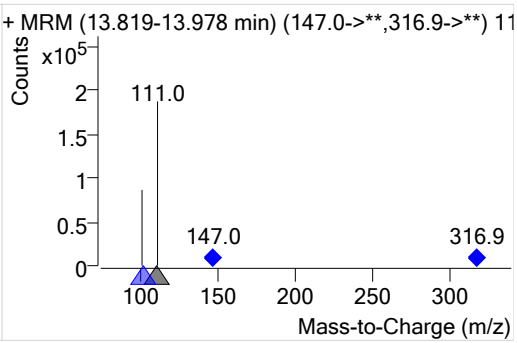




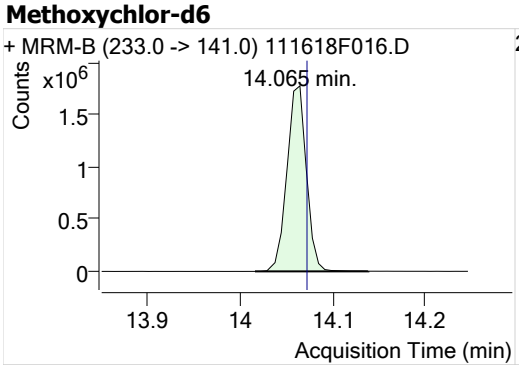
Endrin ketone

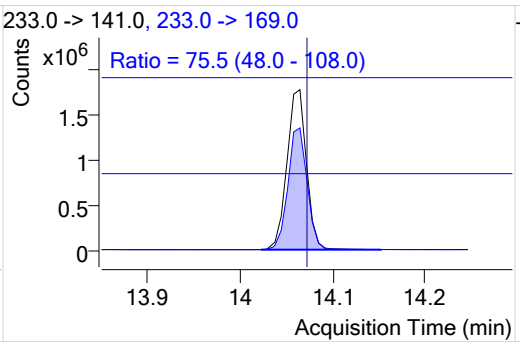


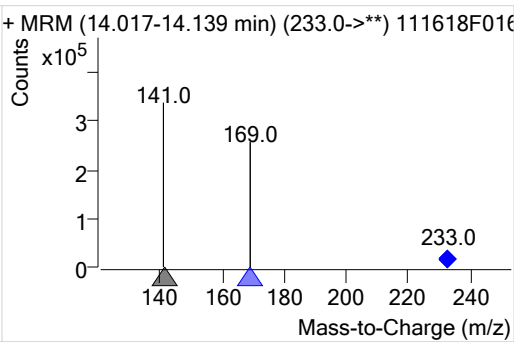




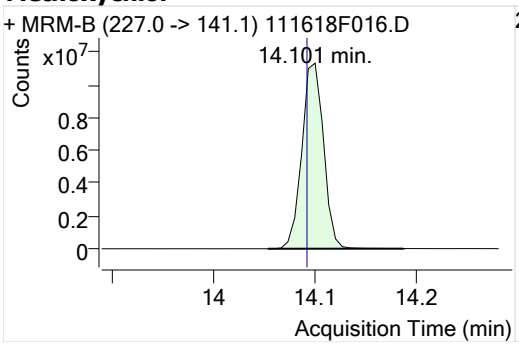
Methoxychlor-d6

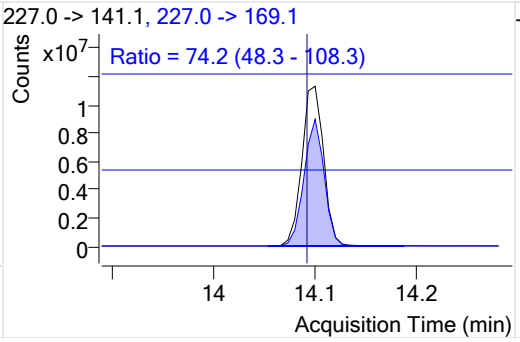


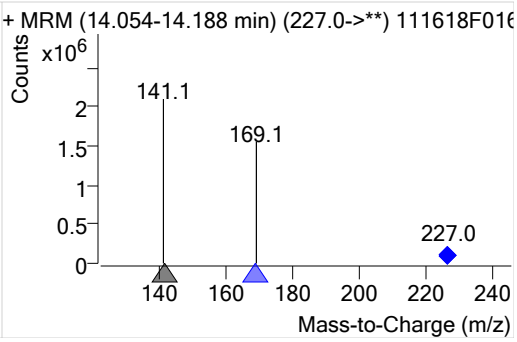




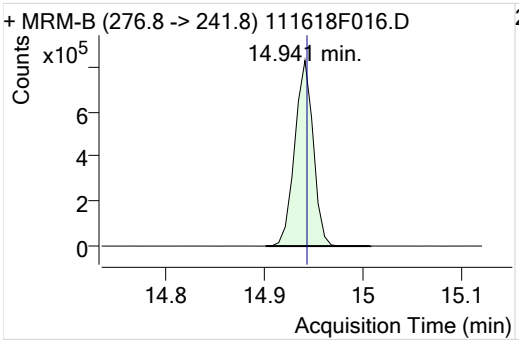
Methoxychlor

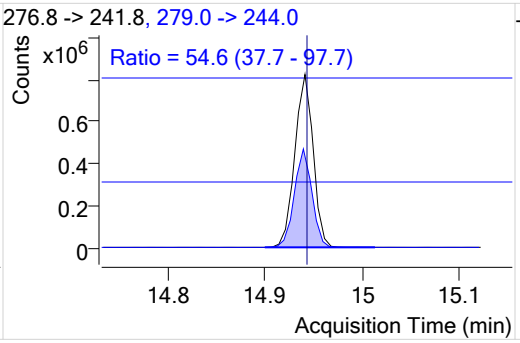


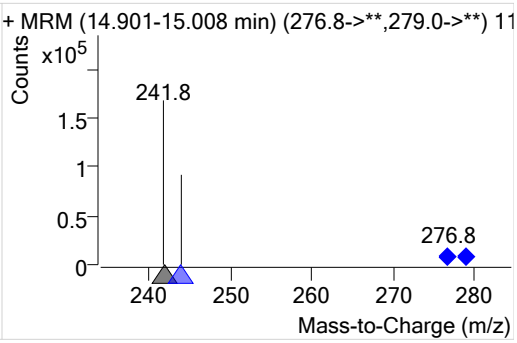




Mirex-13C10

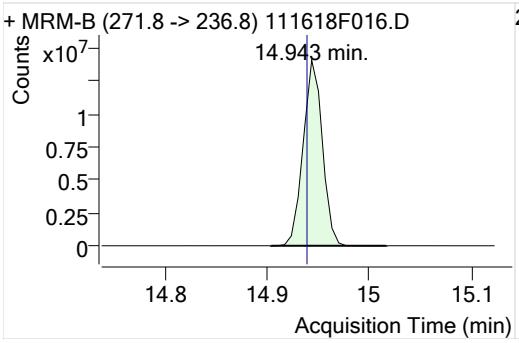


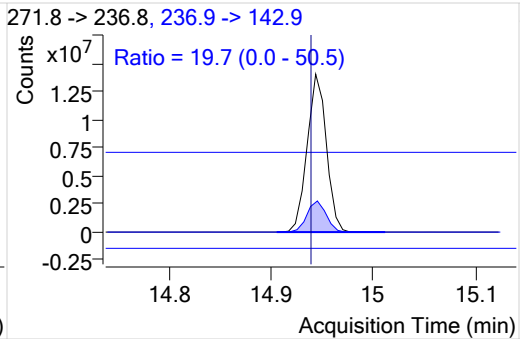


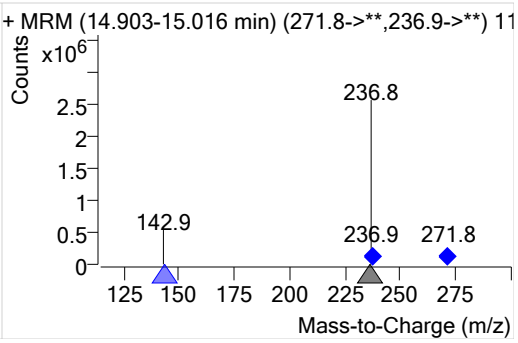


Quantitative Analysis Sample Report

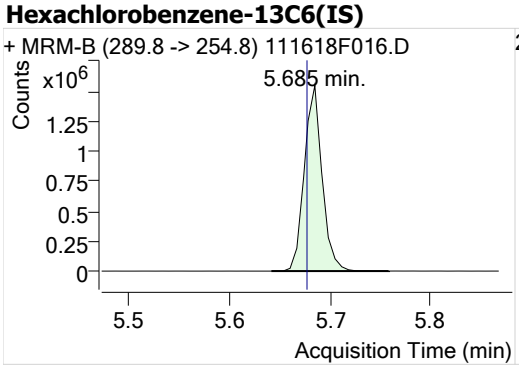
Mirex

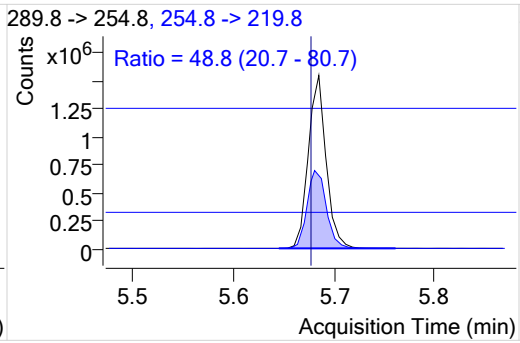


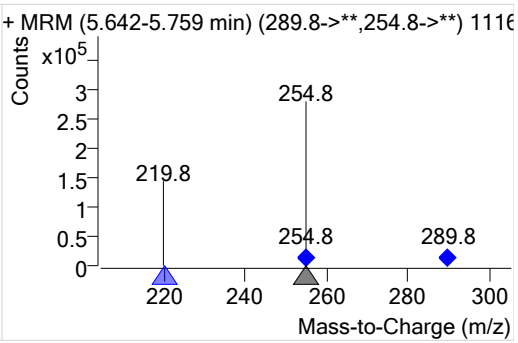




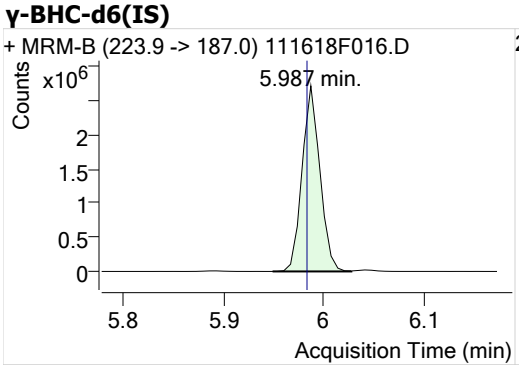
Hexachlorobenzene-13C6(IS)

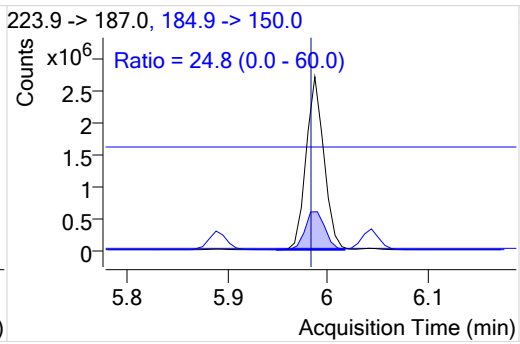


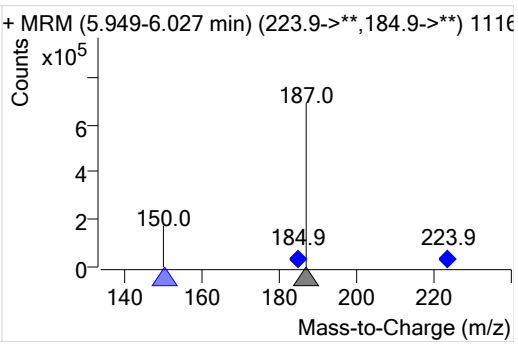




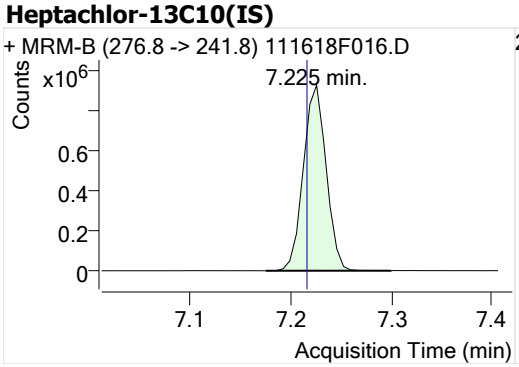
γ-BHC-d6(IS)

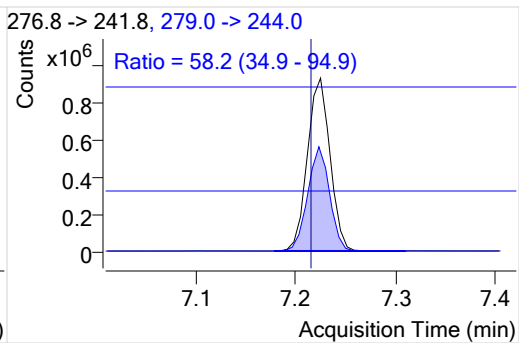


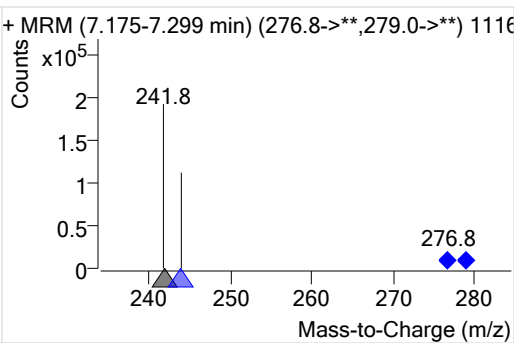




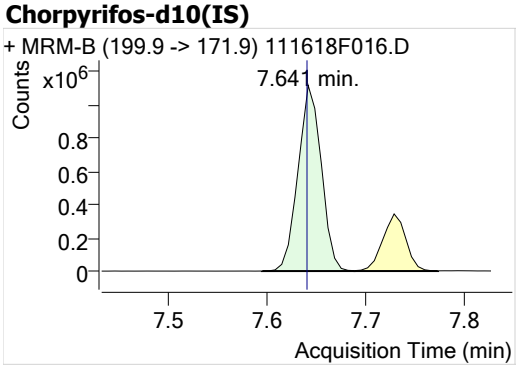
Heptachlor-13C10(IS)

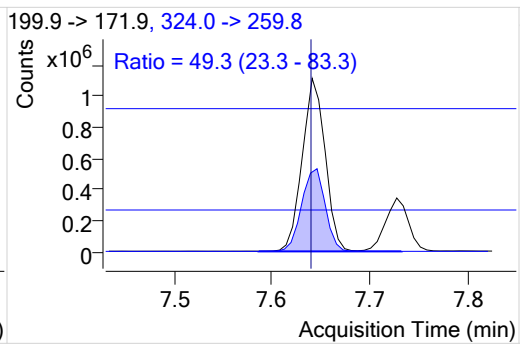


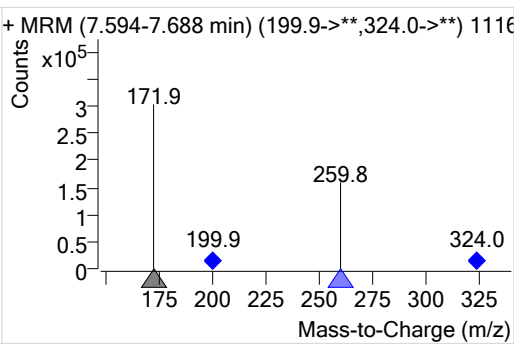




Chorpyrifos-d10(IS)

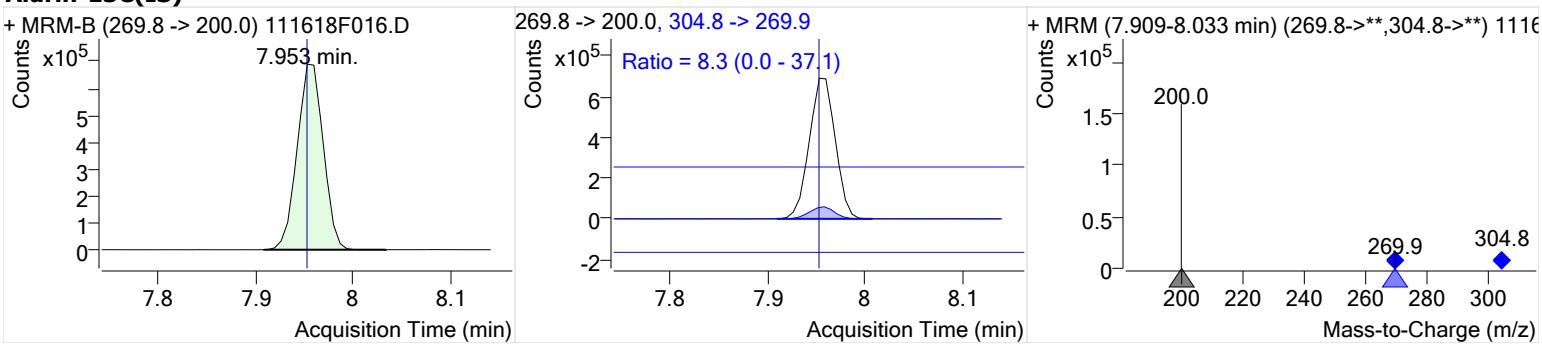




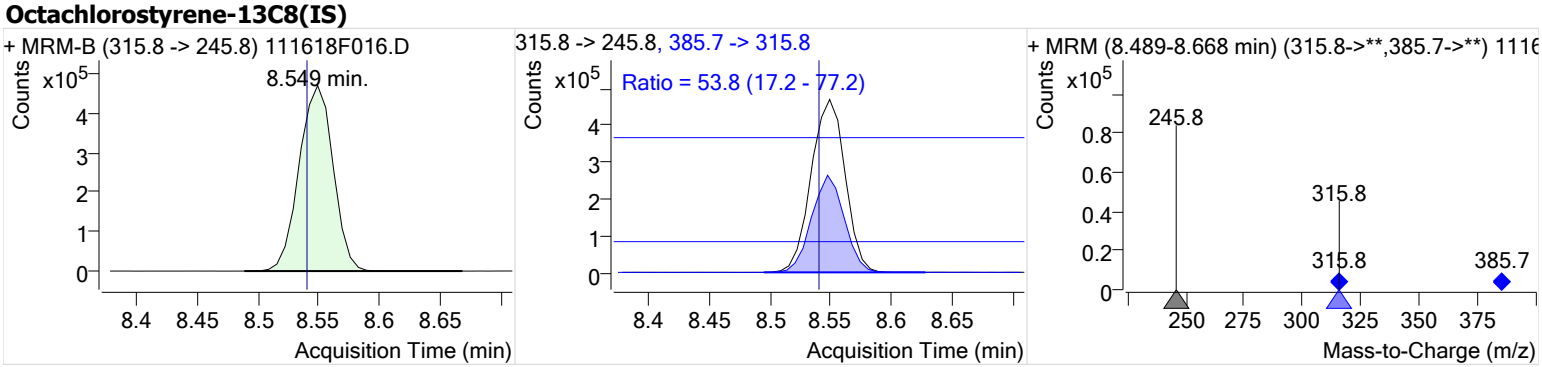


Quantitative Analysis Sample Report

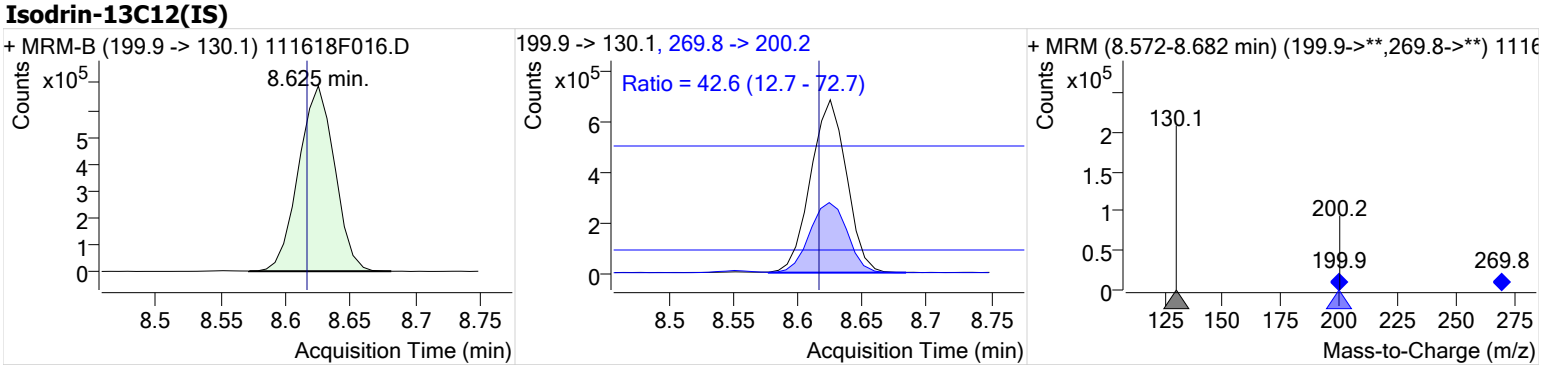
Aldrin-13C(IS)



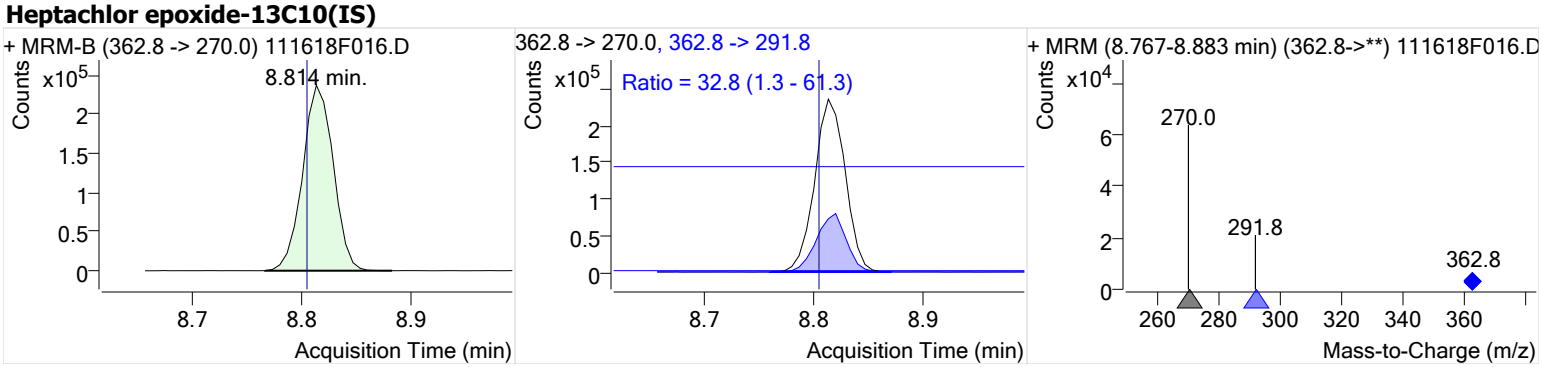
Octachlorostyrene-13C8(IS)



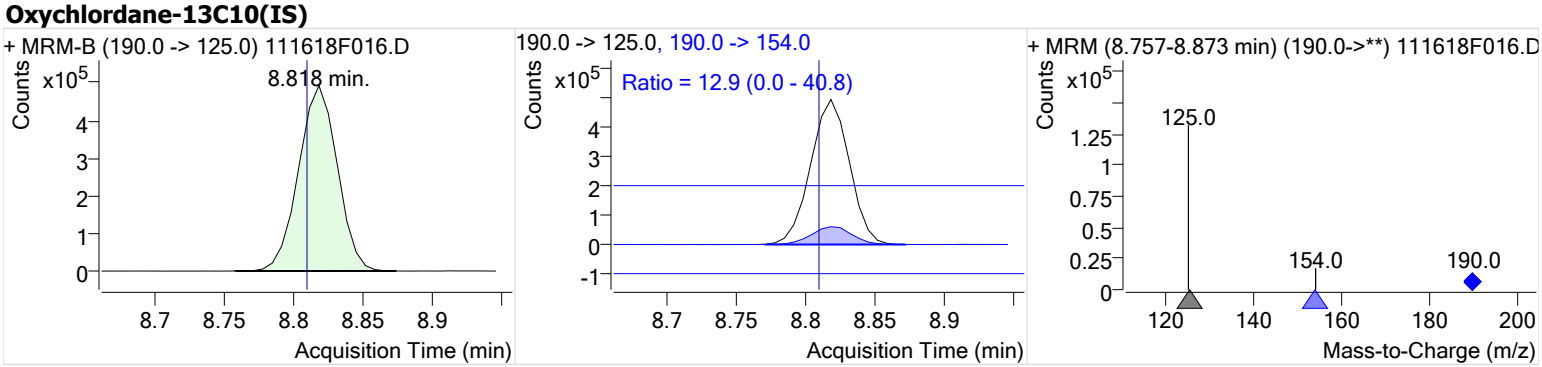
Isodrin-13C12(IS)



Heptachlor epoxide-13C10(IS)

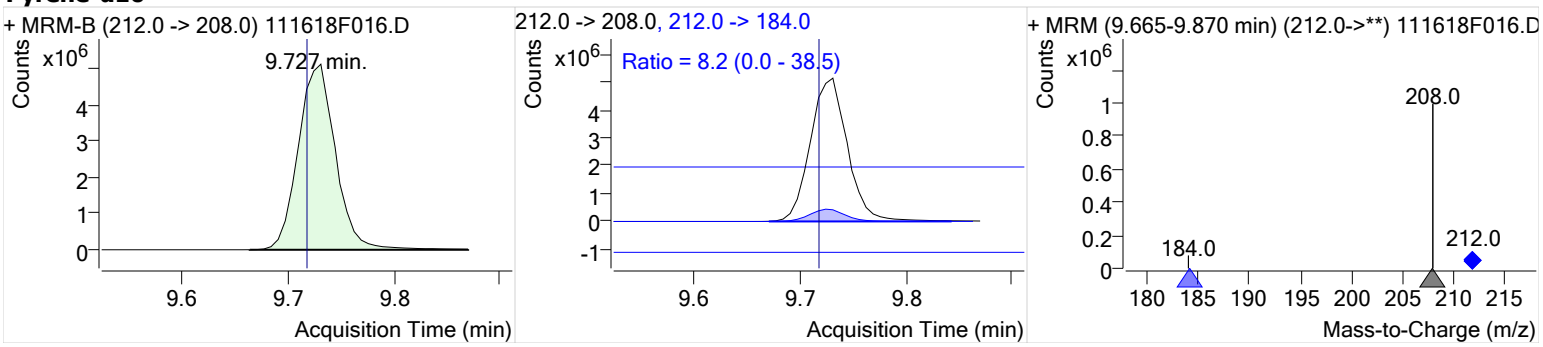


Oxychlordane-13C10(IS)

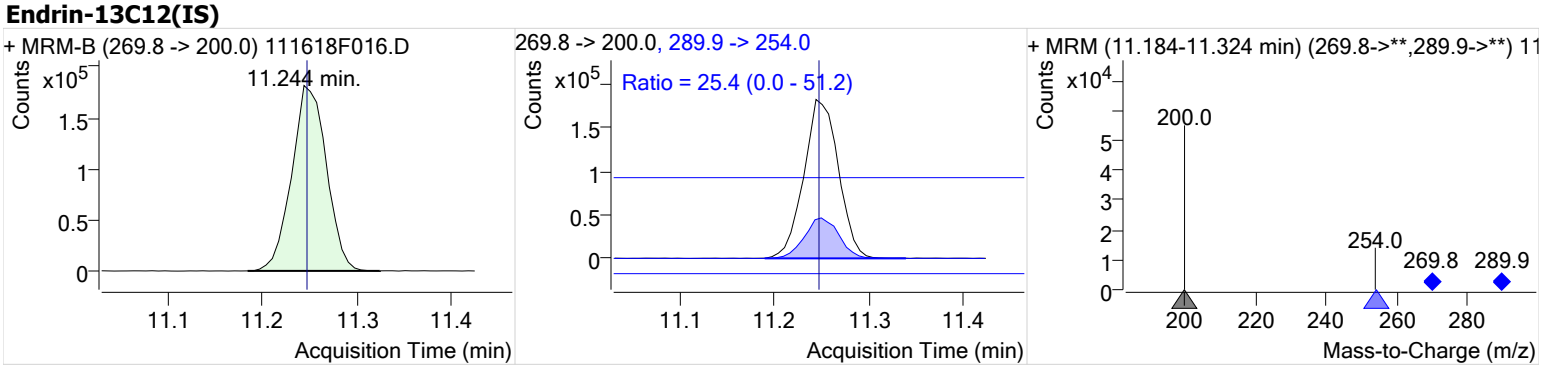


Quantitative Analysis Sample Report

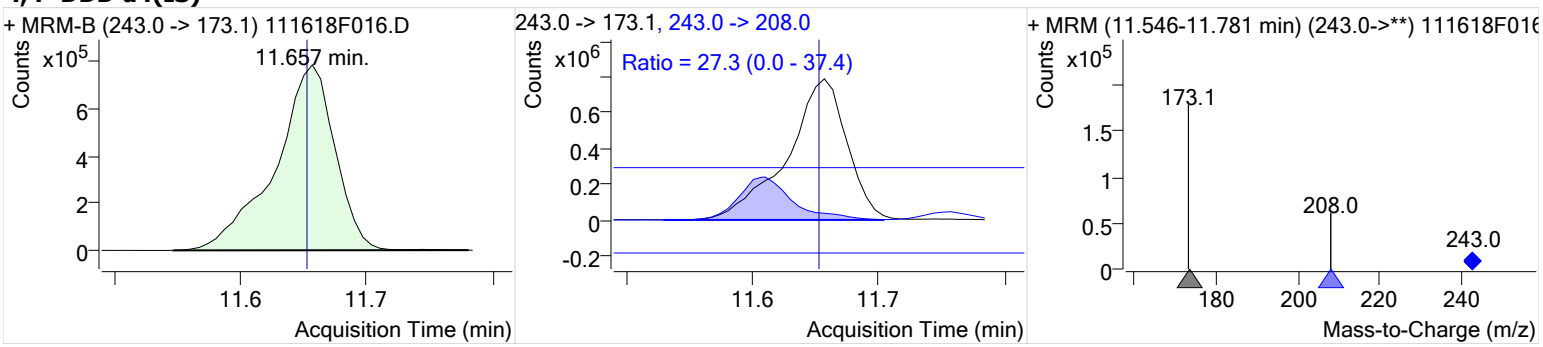
Pyrene-d10



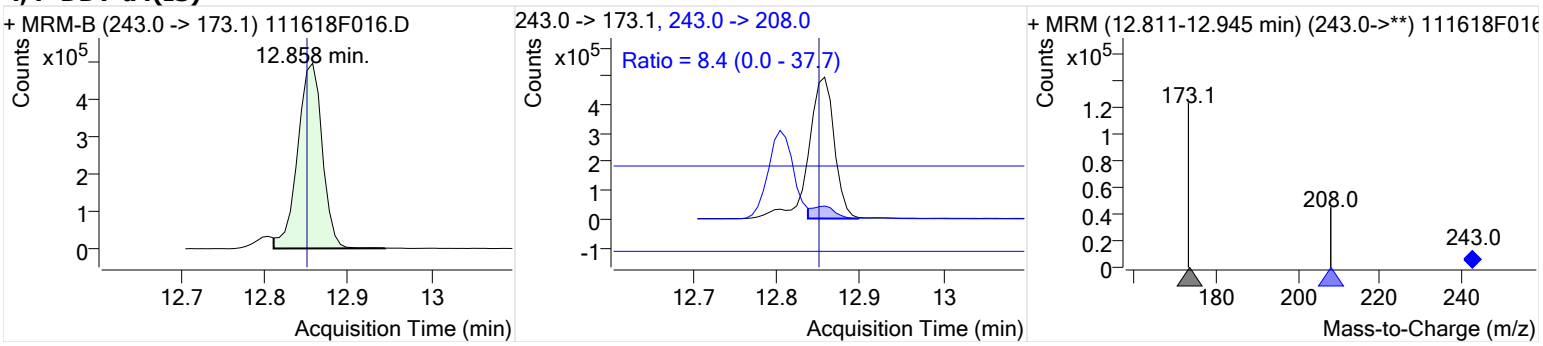
Endrin-13C12(IS)



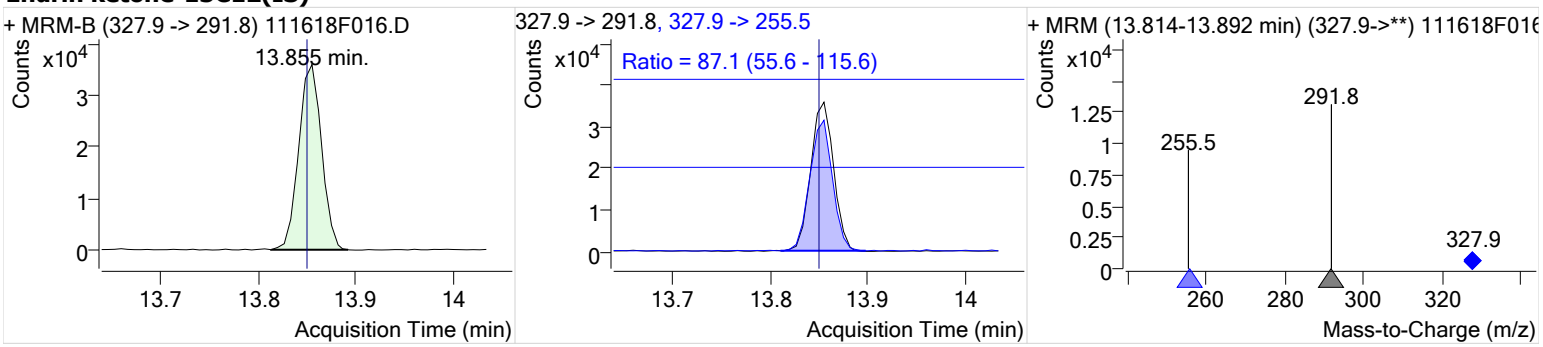
4,4'-DDD d4(IS)



4,4'-DDT-d4(IS)

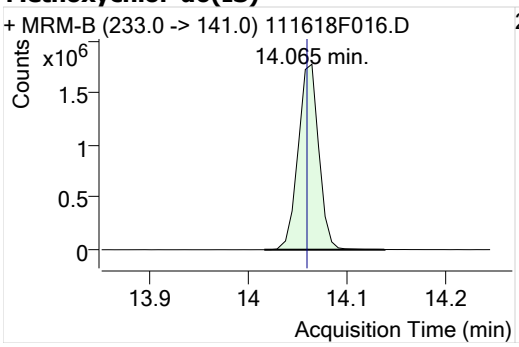


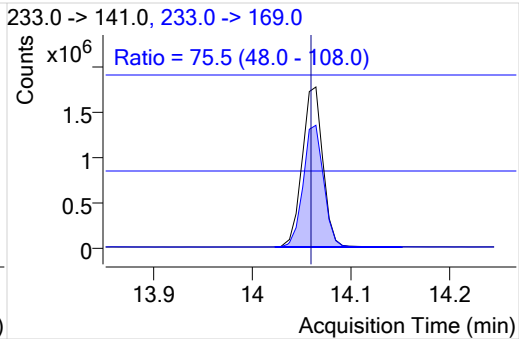
Endrin ketone-13C12(IS)

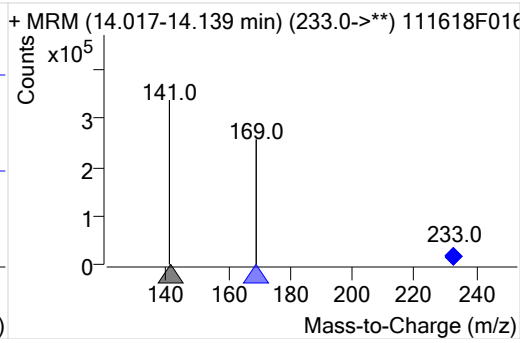


Quantitative Analysis Sample Report

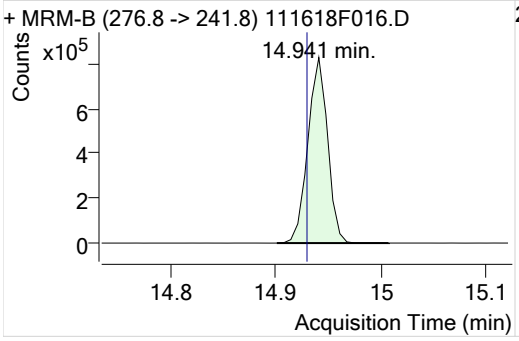
Methoxychlor-d6(IS)

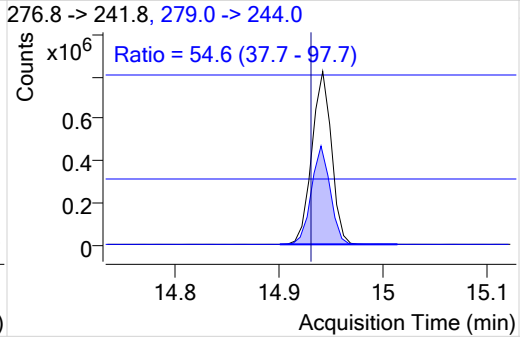


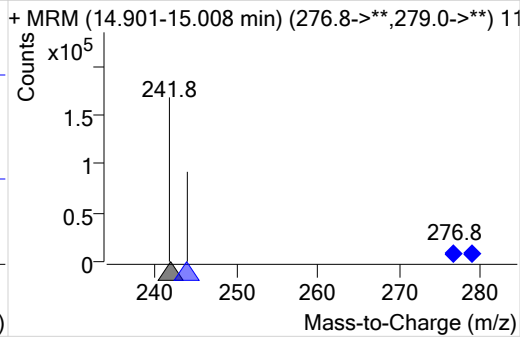




Mirex-13C10(IS)







1st 03/15/19
2nd 03/21/19

Validation Report

Data File: Y:\MS42\data\111618\111618F018.D
Lab ID: KQ1816988-01
RunType: CCV
Matrix: Sediment

Date Acquired: 11/16/18 16:18
Batch ID: 615706
Analysis Method: ALS SOP/OC_Pest

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Internal Standards	X	
Above Highest ICAL Level	X	

Primary Review: _____

Secondary Review: _____

1st 03/15/19
2nd 03/21/19

Quantitation Report

Data File:	Y:\MS42\data\111618\111618F018.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 16:18	**Vial:**	1
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1816988-01	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	OC_Pest	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615706	**Prep Lot:**		**Report Group:**	KQ1816988
Analysis	ALS SOP	**Prep Method:**			
		Prep Date:			

Title:	Organochlorine Pesticides by GC/MS/MS	**Calibration ID:**	KC1900105
		Report List ID:	18862

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Pyrene-d10	9.725		10374819.79	100	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
S_4,4'DDD-d4	11.657		1744273.87	4.733705004	Y
S_4,4'-DDT-d4	12.858		775203.8106	4.708583371	Y
S_Aldrin-13C12	7.953		1074657.952	19.66225716	Y
S_Endrin-13C12	11.250		367656.7133	19.3900651	Y
S_GBHCD6	5.987		2887197.027	19.9503853	Y
S_Heptachlor-13C10	7.225		1148215.326	19.18750779	Y
S_Heptachlrepox13C10	8.813		393081.4526	20.61555973	Y
S_Oxychlordane-13C10	8.818		807632.0681	20.84230451	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2,4'-DDD	10.577		7743775.532	20.63157611	Y
2,4'-DDE	9.439		6796933.074	20.49620391	Y
2,4'-DDT	11.828		6202330.239	17.84346469	Y
4,4'-DDD	11.734		11302129.82	20.06398573	Y
4,4'-DDE	10.365		6303174.533	20.73543394	Y
4,4'-DDT	12.921		3424337.016	19.08984354	Y
Aldrin	7.963		745969.3789	19.41103421	Y
alpha-Chlordane	9.782		1811606.978	18.63361471	Y
cis-Nonachlor	11.756		399742.7043	16.86553406	Y
Dieldrin	10.600		537488.9831	19.16633127	Y
gamma-BHC (Lindane)	6.044		5829133.012	19.30187431	Y
gamma-Chlordane	9.429		738947.31	18.98885343	Y

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

Printed: 3/15/19 15:51
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

1st 03/15/19
2nd 03/21/19

Data File:	Y:\MS42\data\111618\111618F018.D	**Instrument:**	K-MS-42
Acqu Date:	11/16/18 16:18	**Vial:**	1
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1816988-01	**Raw Units:**	ng/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Heptachlor	7.229		1269699.468	19.07798231	Y
Oxychlordane	8.826		2140265.07	19.60044387	Y
trans-Nonachlor	9.863		1104435.317	17.65161346	Y

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

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*: Result fails acceptance criteria
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c: check for co-elution

Printed: 3/15/19 15:51
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Quantitative Analysis Sample Report

Data File	Y:\MS42\data\111618\111618F018.D	**Vial**	13
Acq. Date-Time	11/16/2018 4:18:45 PM	**Acq Operator**	EBruno
Name	OC PEST ICV 20ng/mL SVM59-48K	**Instrument Name**	MS42
Info.		**Instrument Type**	QQQ
Quant Time	3/15/2019 3:40:43 PM	**Inj Vol**	1
Quant Method	111618 oc pest ical.batch.bin		
Last Update	3/14/2019 10:04:01 AM		
Acq. Method File	OC Pest_dMRM	**Tune File Name**	atunes.eihs.tune.xml
Batch File Name	Y:\MS42\data\111618\QuantResults\111618 OC PEST.batch.bin		

Internal Standards	**RT**	**Transition**	**Response**	**Conc. Units**	**Dev(Min)**
Hexachlorobenzene-13C6(IS)	5.685	289.8 -> 254.8	1408583	20.000 ng/ml	0.006
γ-BHC-d6(IS)	5.987	223.9 -> 187.0	2887197	20.000 ng/ml	0.005
Heptachlor-13C10(IS)	7.225	276.8 -> 241.8	1148215	20.000 ng/ml	0.009
Chorpyrifos-d10(IS)	7.641	199.9 -> 171.9	1449007	20.000 ng/ml	0.004
Aldrin-13C(IS)	7.953	269.8 -> 200.0	1074658	20.000 ng/ml	0.003
Octachlorostyrene-13C8(IS)	8.549	315.8 -> 245.8	793545	20.000 ng/ml	0.008
Isodrin-13C12(IS)	8.625	199.9 -> 130.1	1114050	20.000 ng/ml	0.008
Heptachlor epoxide-13C10(IS)	8.813	362.8 -> 270.0	393081	20.000 ng/ml	0.009
Oxychlordane-13C10(IS)	8.818	190.0 -> 125.0	807632	20.000 ng/ml	0.009
Pyrene-d10	9.725	212.0 -> 208.0	10374820	100.000 ng/ml	0.006
Endrin-13C12(IS)	11.250	269.8 -> 200.0	367657	20.000 ng/ml	0.002
4,4'-DDD d4(IS)	11.657	243.0 -> 173.1	1744274	5.000 ng/ml	0.021
4,4'-DDT-d4(IS)	12.858	243.0 -> 173.1	775204	5.000 ng/ml	0.007
Endrin ketone-13C12(IS)	13.855	327.9 -> 291.8	45997	20.000 ng/ml	0.005
Methoxychlor-d6(IS)	14.058	233.0 -> 141.0	2012989	20.000 ng/ml	0.002
Mirex-13C10(IS)	14.941	276.8 -> 241.8	755932	5.000 ng/ml	0.010

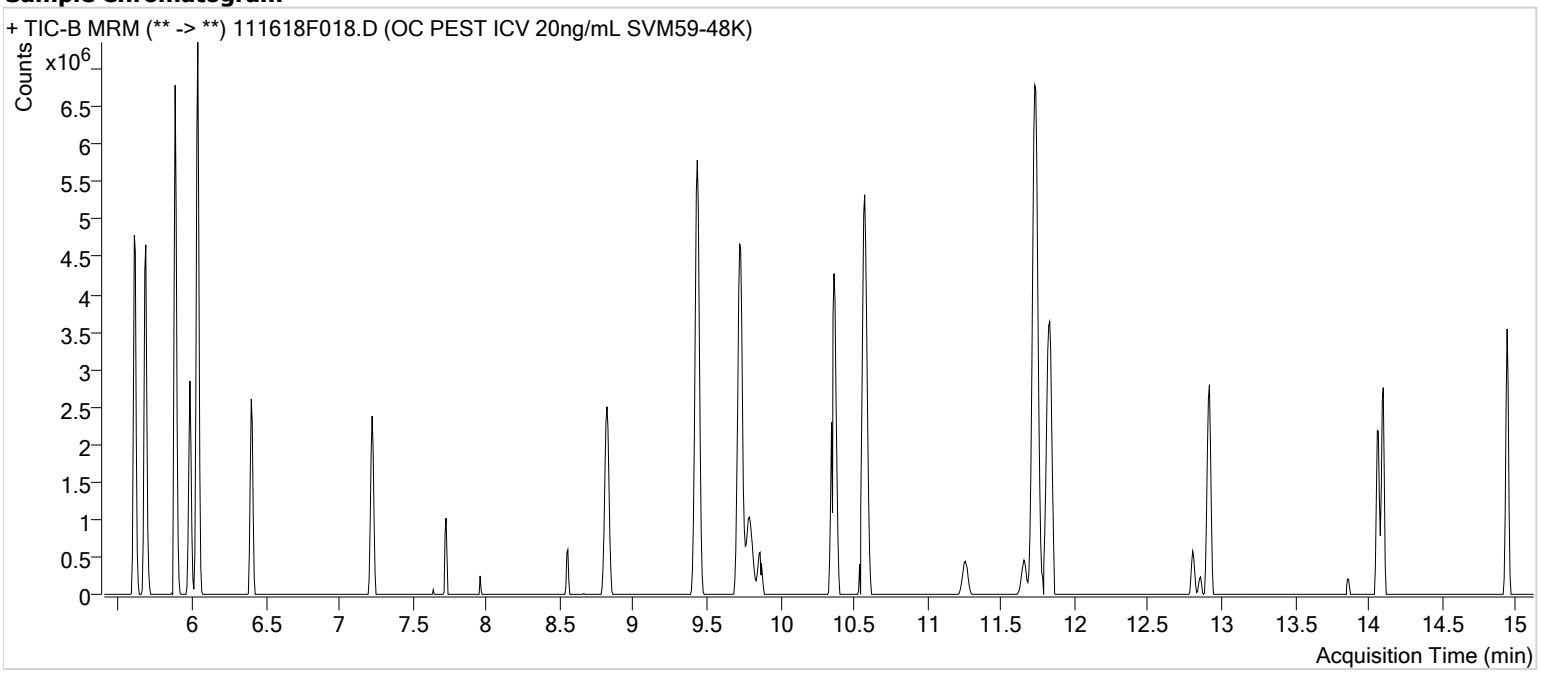
System Monitoring Compounds	**RT**	**Transition**	**Response**	**Conc. Units**	
Hexachlorobenzene-13C6	5.677	289.8 -> 254.8	1408583	18.444 ng/ml	
		Spiked Amount =	20.0	Recovery =	*92.2 %*
γ-BHC-d6	5.983	223.9 -> 187.0	2887197	19.950 ng/ml	
		Spiked Amount =	20.0	Recovery =	*99.8 %*
Heptachlor-13C10	7.216	276.8 -> 241.8	1148215	19.188 ng/ml	
		Spiked Amount =	20.0	Recovery =	*95.9 %*
Chorpyrifos-d10	7.640	199.9 -> 171.9	1449007	19.301 ng/ml	
		Spiked Amount =	20.0	Recovery =	*96.5 %*
Aldrin-13C	7.952	269.8 -> 200.0	1074658	19.662 ng/ml	
		Spiked Amount =	20.0	Recovery =	*98.3 %*
Octachlorostyrene-13C8	8.540	315.8 -> 245.8	793545	20.278 ng/ml	
		Spiked Amount =	20.0	Recovery =	*101.4 %*
Isodrin-13C12	8.616	199.9 -> 130.1	1114050	18.681 ng/ml	
		Spiked Amount =	20.0	Recovery =	*93.4 %*
Heptachlor epoxide-13C10	8.805	362.8 -> 270.0	393081	20.616 ng/ml	
		Spiked Amount =	20.0	Recovery =	*103.1 %*
Oxychlordane-13C10	8.809	190.0 -> 125.0	807632	20.842 ng/ml	
		Spiked Amount =	20.0	Recovery =	*104.2 %*
Endrin-13C12	11.247	269.8 -> 200.0	367657	19.390 ng/ml	
		Spiked Amount =	20.0	Recovery =	*97.0 %*
4,4'-DDD d4	11.652	243.0 -> 173.1	1744274	4.734 ng/ml	
		Spiked Amount =	5.0	Recovery =	*94.7 %*
4,4'-DDT-d4	12.851	243.0 -> 173.1	775204	4.709 ng/ml	
		Spiked Amount =	5.0	Recovery =	*94.2 %*
Endrin ketone-13C12	13.850	327.9 -> 291.8	45997	19.590 ng/ml	
		Spiked Amount =	20.0	Recovery =	*98.0 %*
Methoxychlor-d6	14.060	233.0 -> 141.0	2012989	18.505 ng/ml	
		Spiked Amount =	20.0	Recovery =	*92.5 %*
Mirex-13C10	14.930	276.8 -> 241.8	755932	4.756 ng/ml	
		Spiked Amount =	5.0	Recovery =	*95.1 %*

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Target Compounds	ISTD	RT	Transition	Resp.	Conc.	Units	Qvalue
α-BHC	γ-BHC-d6(IS)	5.613	181.1 -> 145.1	3841967	18.609	ng/ml	95
Hexachlorobenzene	Hexachlorobenzene-13C6(IS)	5.686	283.8 -> 213.9	2481419	19.461	ng/ml	98
β-BHC	γ-BHC-d6(IS)	5.890	181.1 -> 145.1	5102687	19.536	ng/ml	96
γ-BHC(Lindane)	γ-BHC-d6(IS)	6.044	181.1 -> 145.1	5829133	19.302	ng/ml	99
δ-BHC	γ-BHC-d6(IS)	6.405	181.1 -> 145.1	2320182	19.276	ng/ml	99
Heptachlor	Heptachlor-13C10(IS)	7.229	271.7 -> 236.9	1269699	19.078	ng/ml	95
Chorpyrifos	Chorpyrifos-d10(IS)	7.731	196.9 -> 169.0	2030051	19.847	ng/ml	95
Aldrin	Aldrin-13C(IS)	7.963	254.9 -> 220.0	745969	19.411	ng/ml	97
Octachlorostyrene	Octachlorostyrene-13C8(IS)	8.555	342.8 -> 307.8	1775792	17.388	ng/ml	96
Isodrin	Isodrin-13C12(IS)	8.633	193.0 -> 123.0	1175096	20.558	ng/ml	95
Heptachlor epoxide	Heptachlor epoxide-13C10(IS)	8.829	352.8 -> 262.9	412337	18.433	ng/ml	99
Oxychlordane	Oxychlordane-13C10(IS)	8.826	114.9 -> 51.1	2140265	19.600	ng/ml	99
γ-Chlordane(trans)	Oxychlordane-13C10(IS)	9.429	271.8 -> 236.9	738947	18.989	ng/ml	97
2,4'-DDE	4,4'-DDD d4(IS)	9.439	246.0 -> 176.2	6796933	20.496	ng/ml	98
α-Chlordane(cis)	Oxychlordane-13C10(IS)	9.782	271.8 -> 236.9	1811607	18.634	ng/ml	96
Endosulfan I	Endrin-13C12(IS)	9.812	206.9 -> 172.0	445586	19.334	ng/ml	99
trans-Nanochlor	Oxychlordane-13C10(IS)	9.863	271.8 -> 236.9	1104435	17.652	ng/ml	92
4,4' -DDE	4,4'-DDD d4(IS)	10.365	246.0 -> 176.2	6303175	20.735	ng/ml	98
2,4'-DDD	4,4'-DDD d4(IS)	10.577	235.0 -> 165.1	7743776	20.632	ng/ml	99
Dieldrin	Endrin-13C12(IS)	10.600	262.9 -> 193.0	537489	19.166	ng/ml	93
Endosulfan II	Endrin-13C12(IS)	11.260	206.9 -> 172.0	99612	19.572	ng/ml	97
Endrin	Endrin-13C12(IS)	11.271	262.8 -> 193.0	480602	19.048	ng/ml	100
4,4'-DDD	4,4'-DDD d4(IS)	11.734	235.0 -> 165.1	11302130	20.064	ng/ml	100
cis-Nonachlor	Oxychlordane-13C10(IS)	11.756	271.8 -> 236.9	399743	16.866	ng/ml	88
2,4'-DDT	4,4'-DDT-d4(IS)	11.828	235.0 -> 165.1	6202330	17.843	ng/ml	96
Endrin aldehyde	Endrin-13C12(IS)	12.098	249.9 -> 214.9	138856	19.508	ng/ml	97
Endosulfan sulfate	Endrin-13C12(IS)	12.803	271.9 -> 237.0	811811	18.796	ng/ml	98
4,4'-DDT	4,4'-DDT-d4(IS)	12.921	235.0 -> 165.1	3424337	19.090	ng/ml	100
Endrin ketone	Endrin ketone-13C12(IS)	13.861	147.0 -> 111.0	284829	17.592	ng/ml	94
Methoxychlor	Methoxychlor-d6(IS)	14.101	227.0 -> 141.1	2460445	19.155	ng/ml	100
Mirex	Mirex-13C10(IS)	14.943	271.8 -> 236.8	3003896	18.528	ng/ml	96

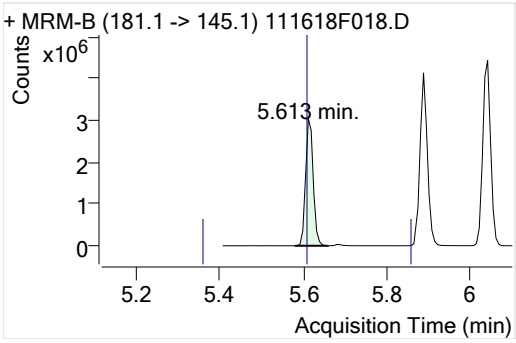
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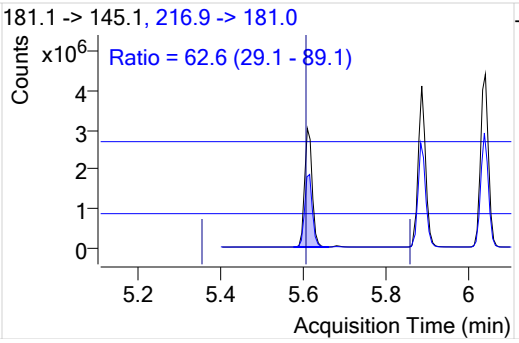
Sample Chromatogram

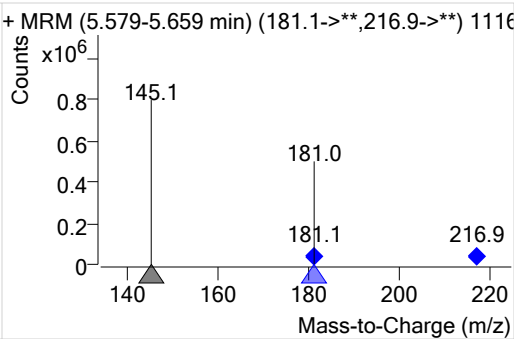


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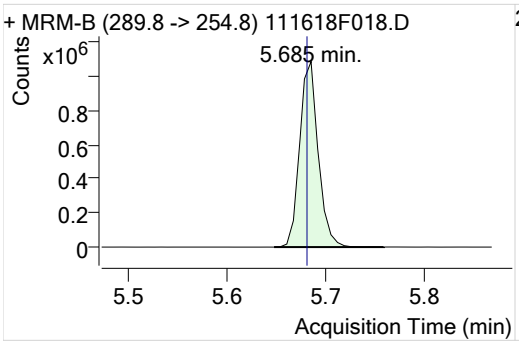
α-BHC

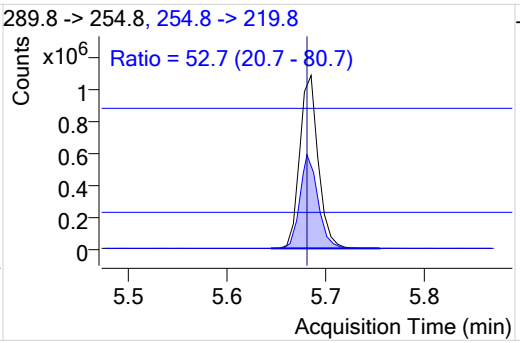


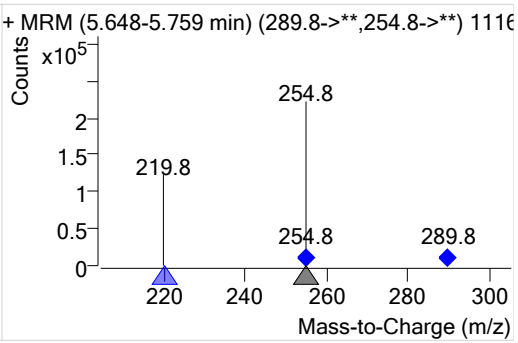




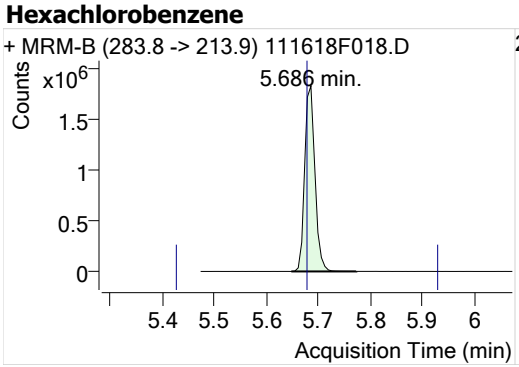
Hexachlorobenzene-13C6

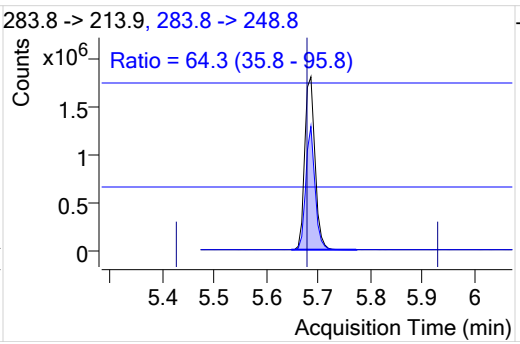


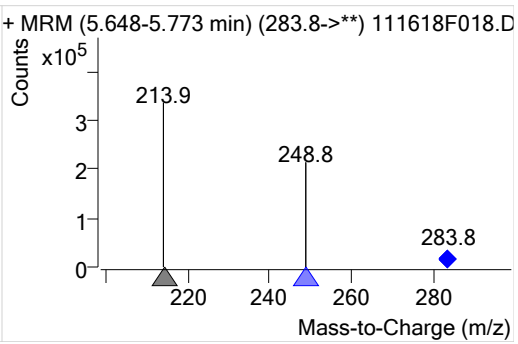




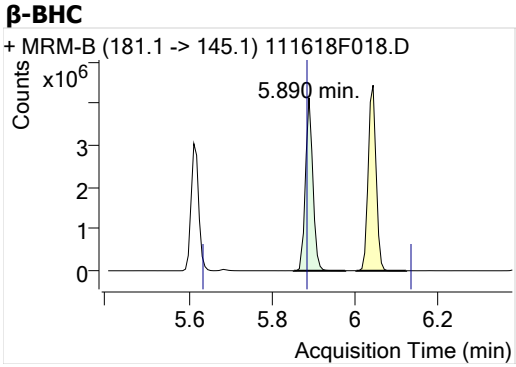
Hexachlorobenzene

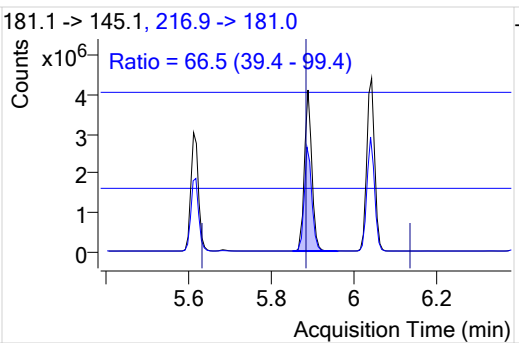


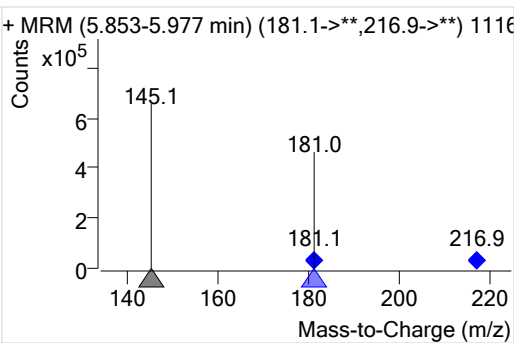




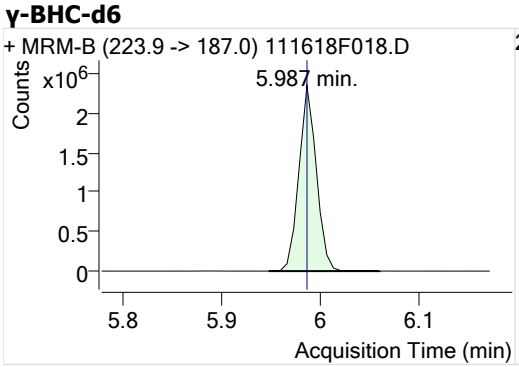
β-BHC

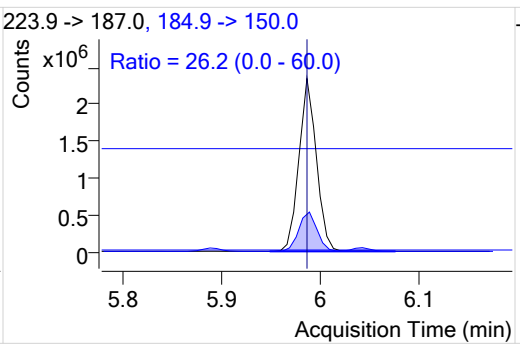


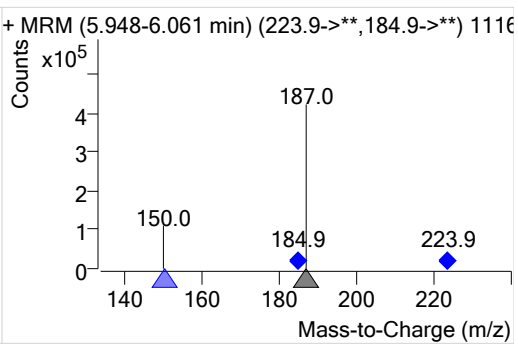




γ-BHC-d6

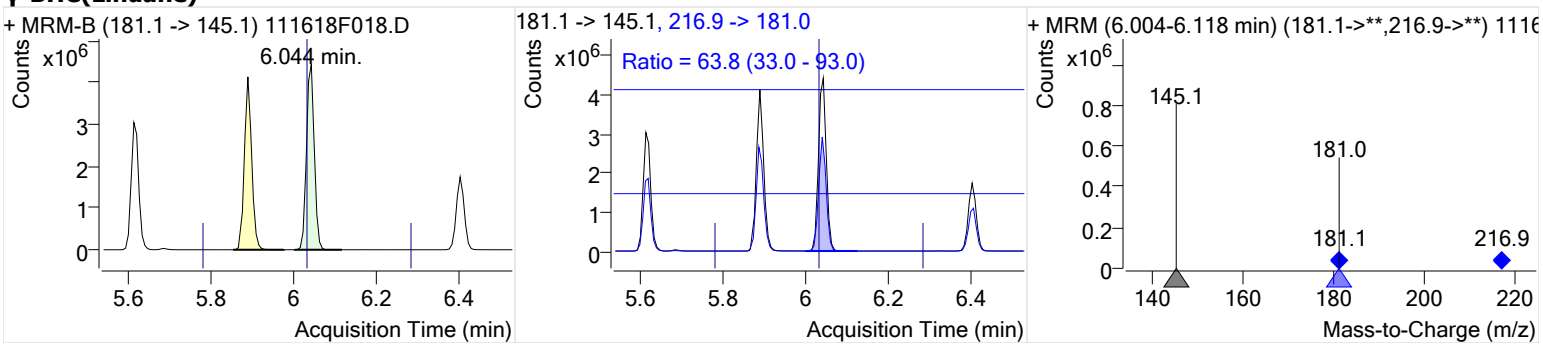




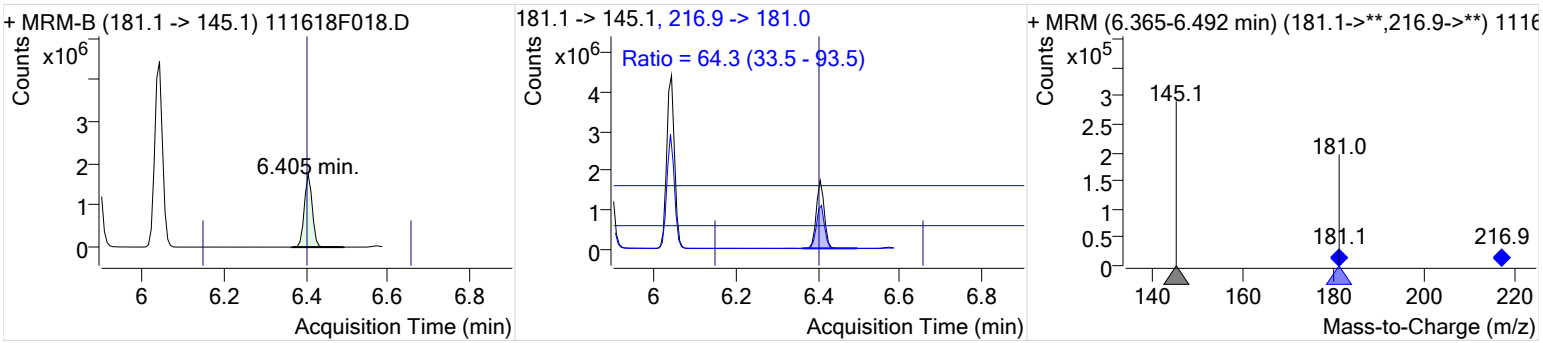


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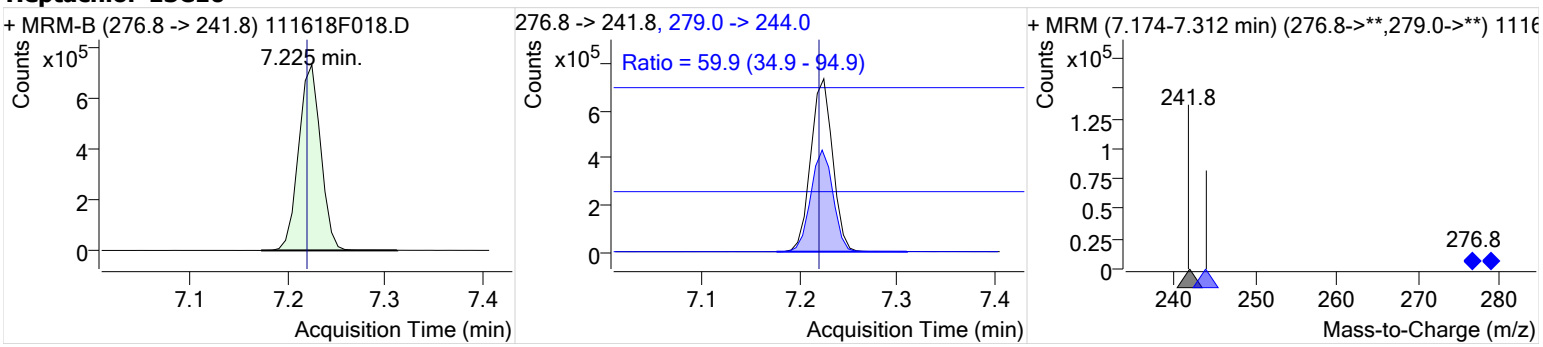
γ-BHC(Lindane)



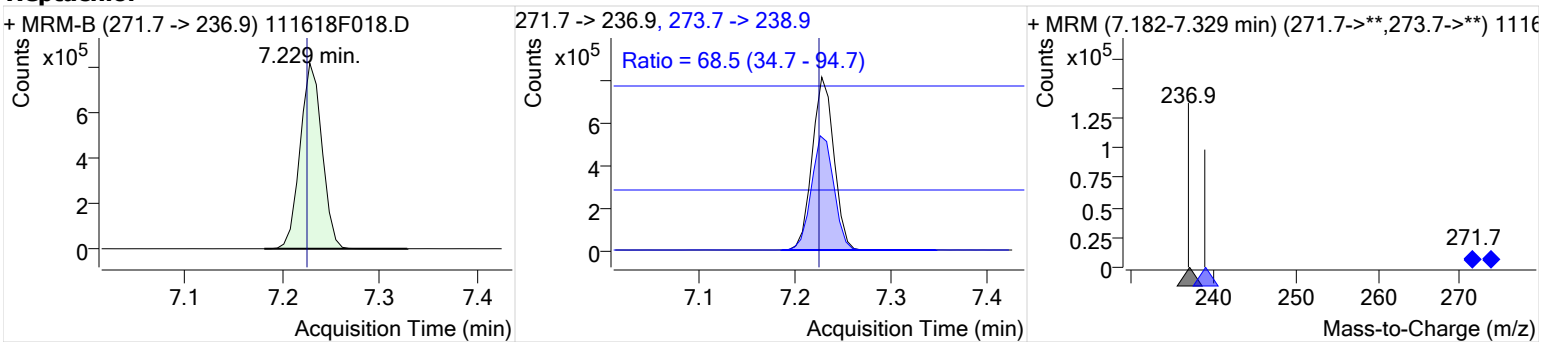
δ-BHC



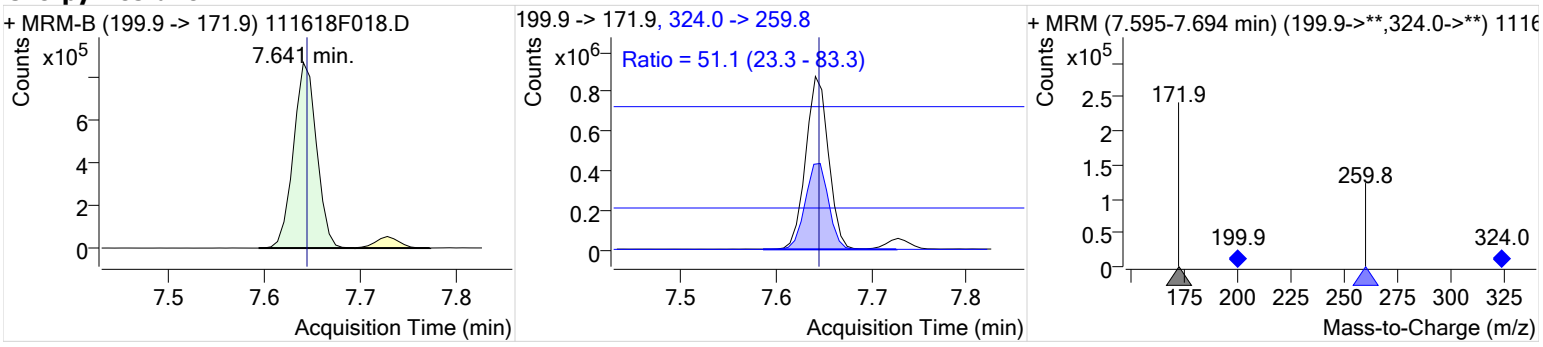
Heptachlor-13C10



Heptachlor

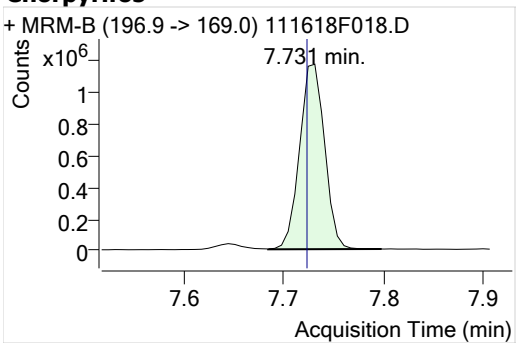


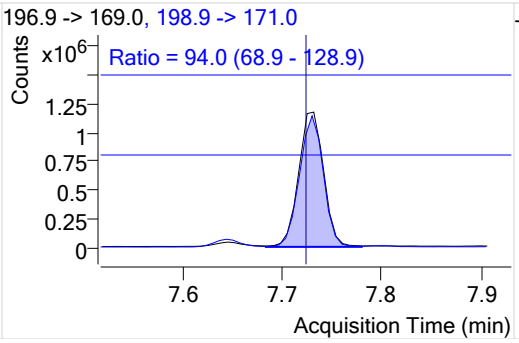
Chorpyrifos-d10

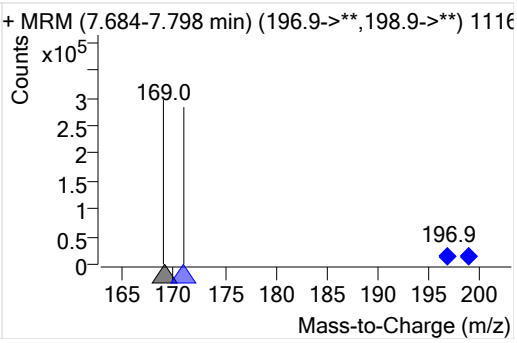


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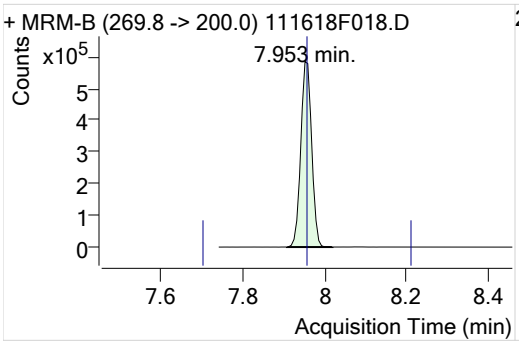
Chorpyrifos

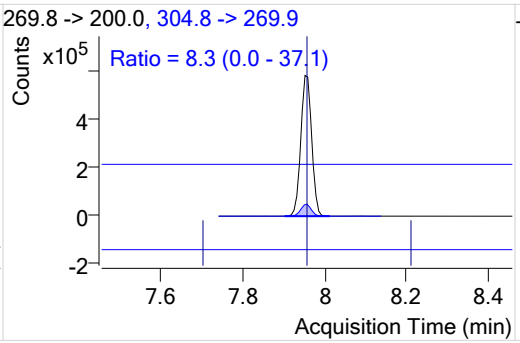


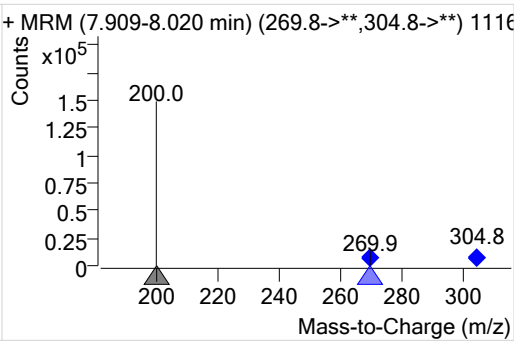




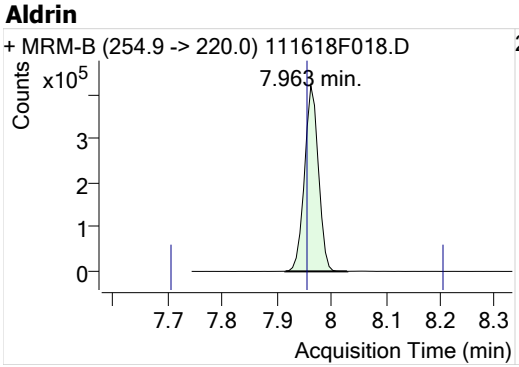
Aldrin-13C

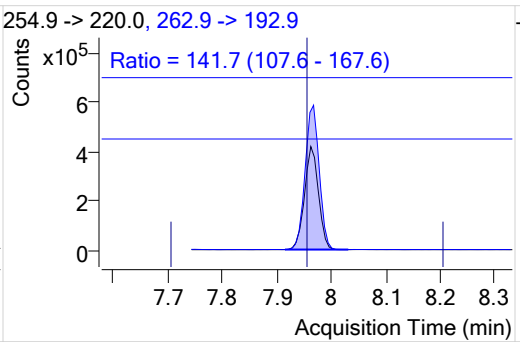


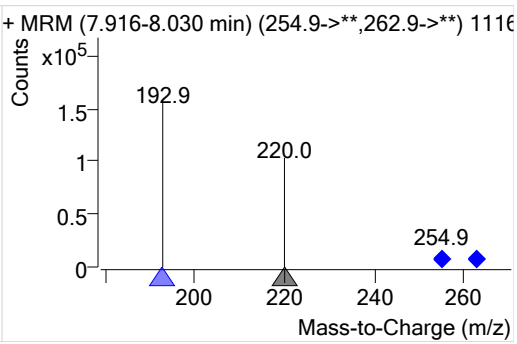




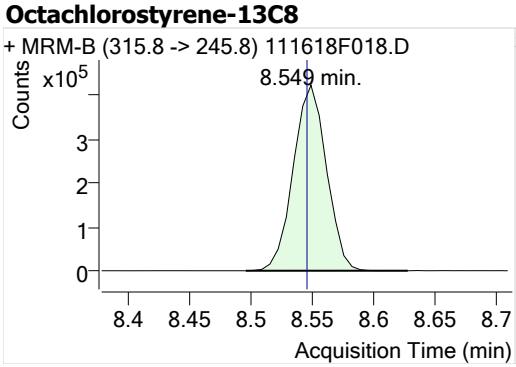
Aldrin

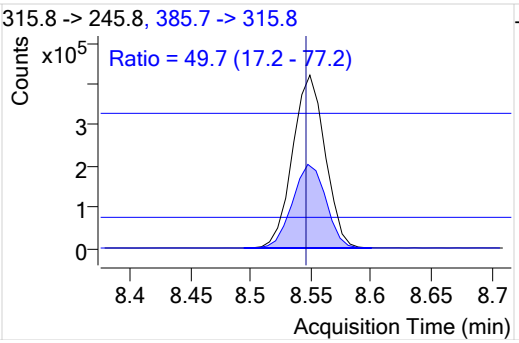


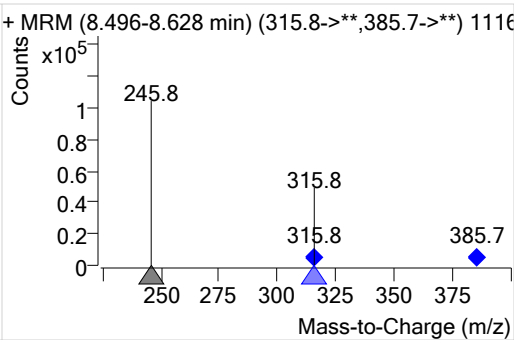




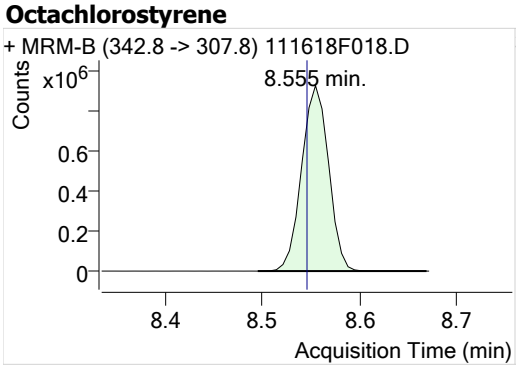
Octachlorostyrene-13C8

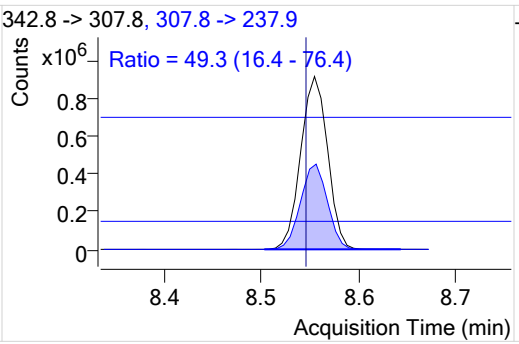


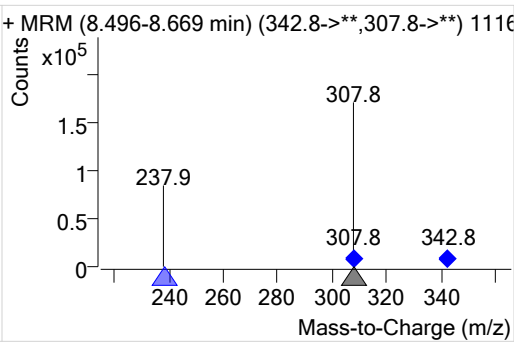




Octachlorostyrene

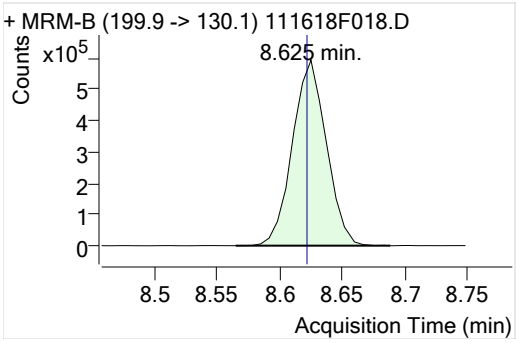


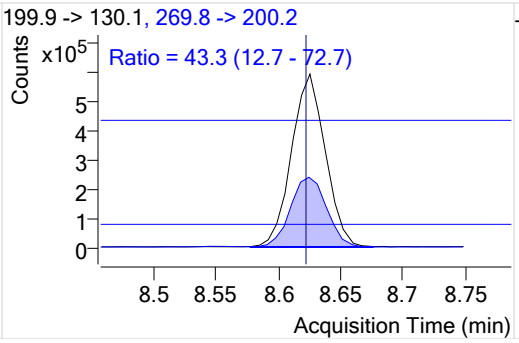


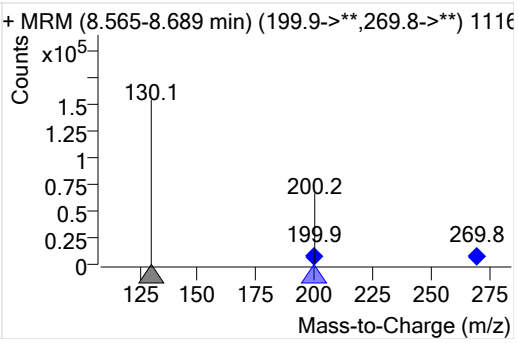


Quantitative Analysis Sample Report

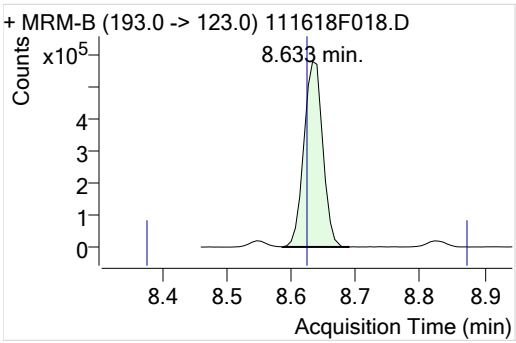
Isodrin-13C12

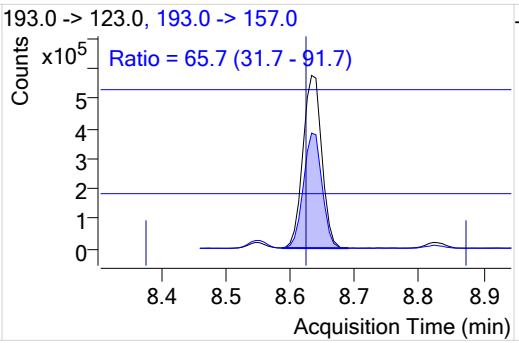


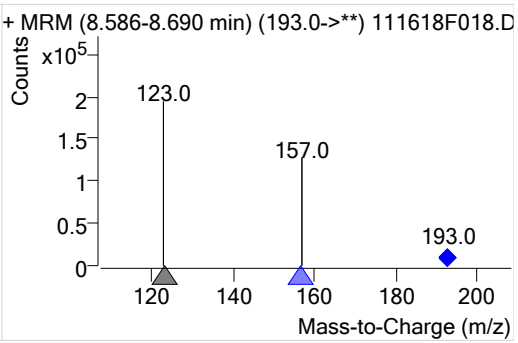




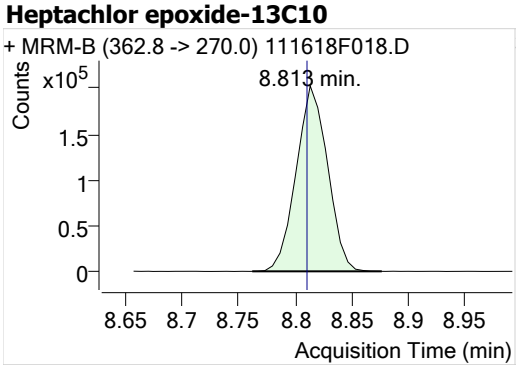
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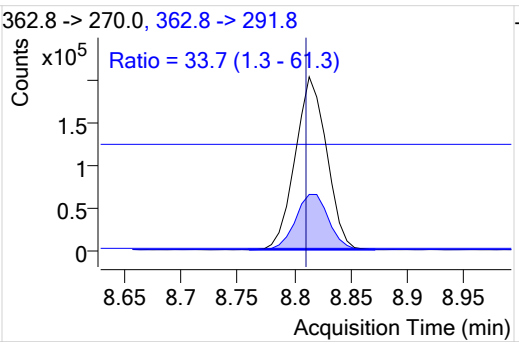


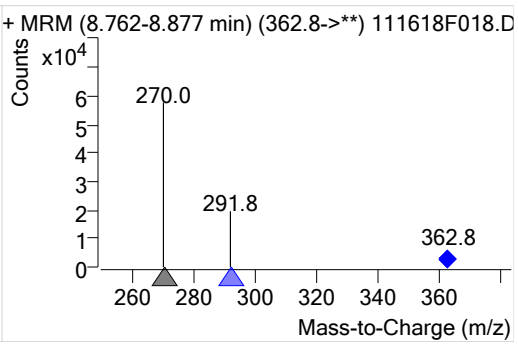




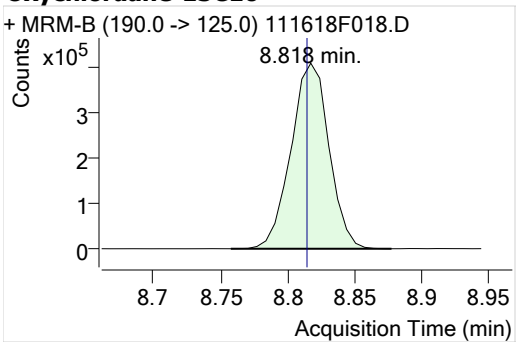
Heptachlor epoxide-13C10

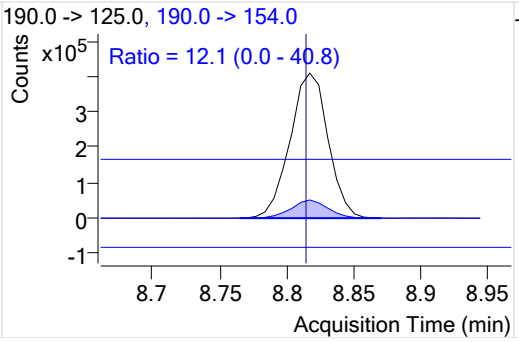


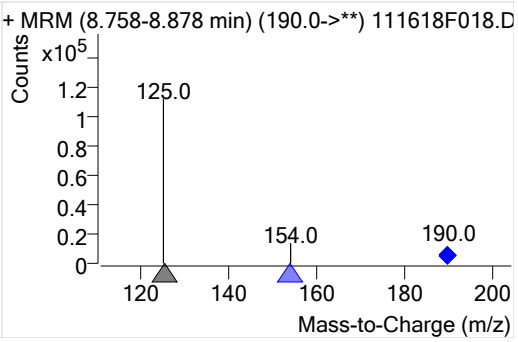




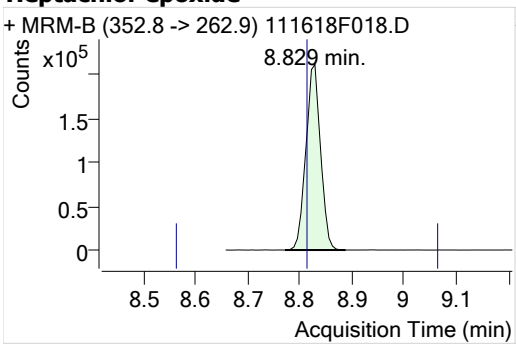
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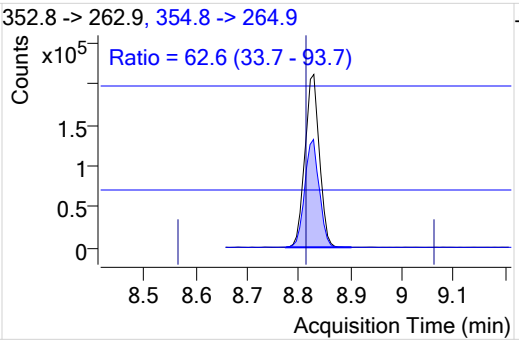


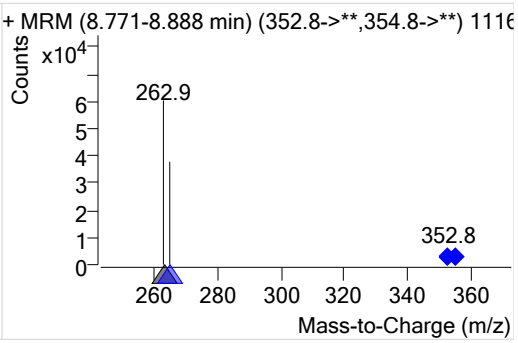




Heptachlor epoxide

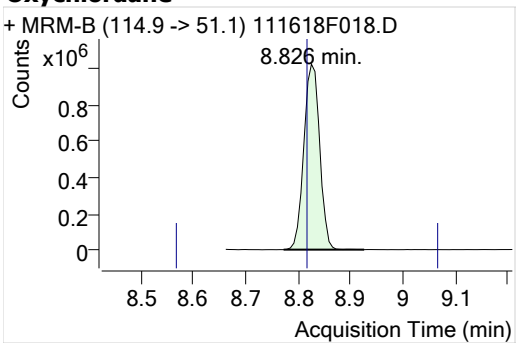


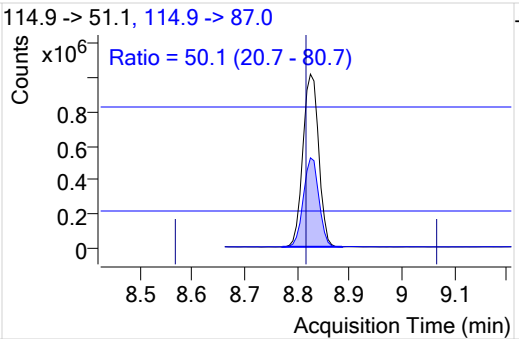


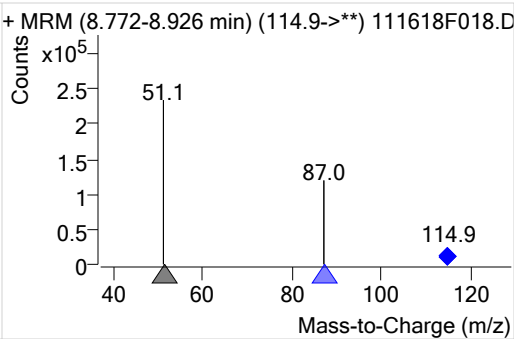


Quantitative Analysis Sample Report

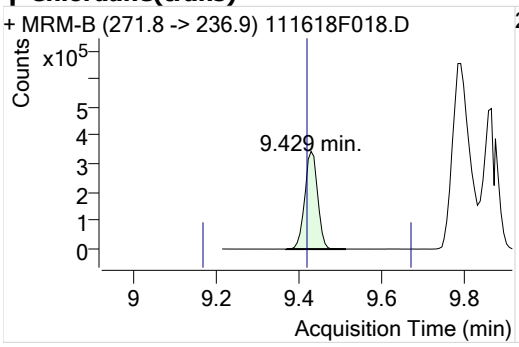
Oxychlordane

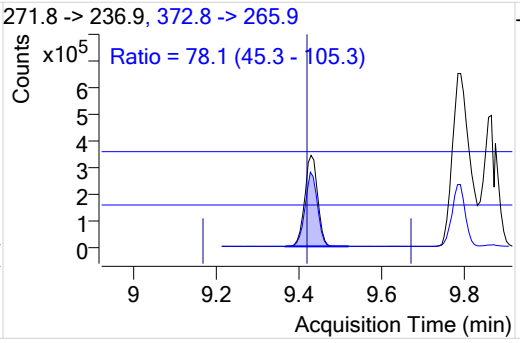


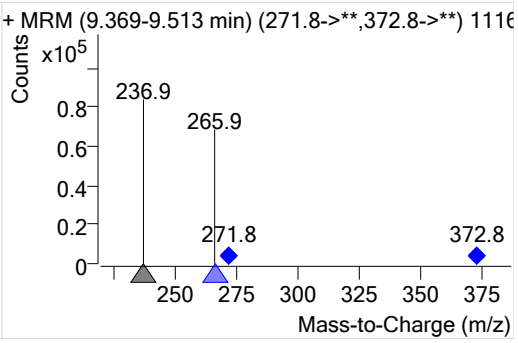




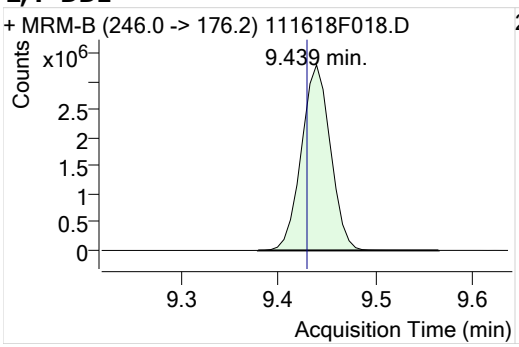
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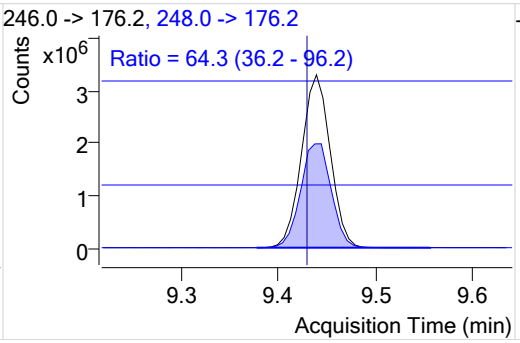


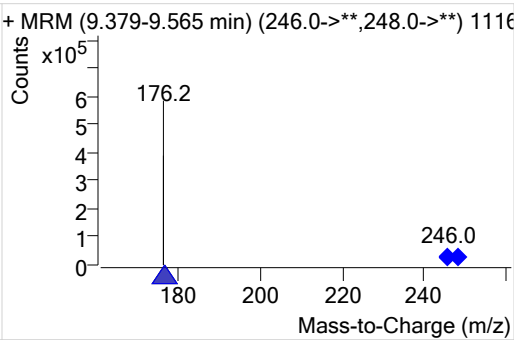




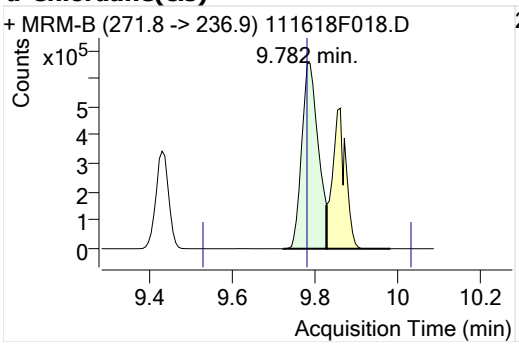
2,4'-DDE

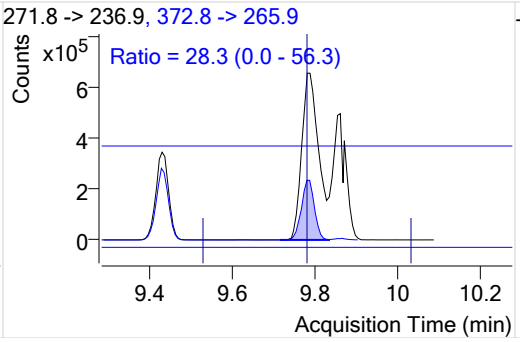


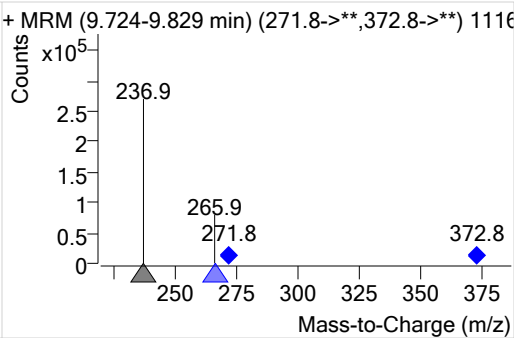




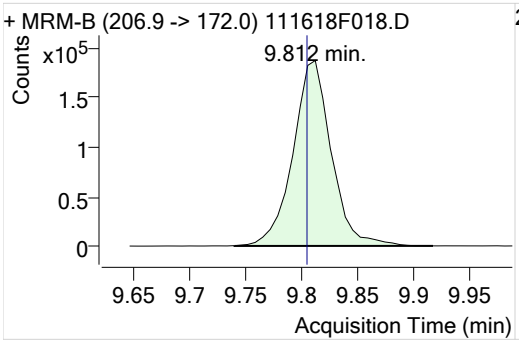
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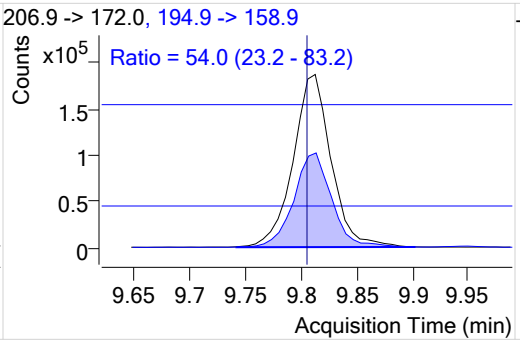


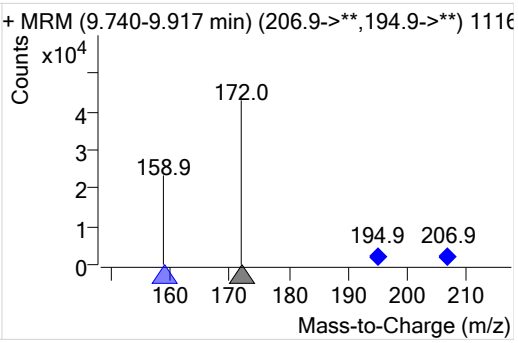




Endosulfan I

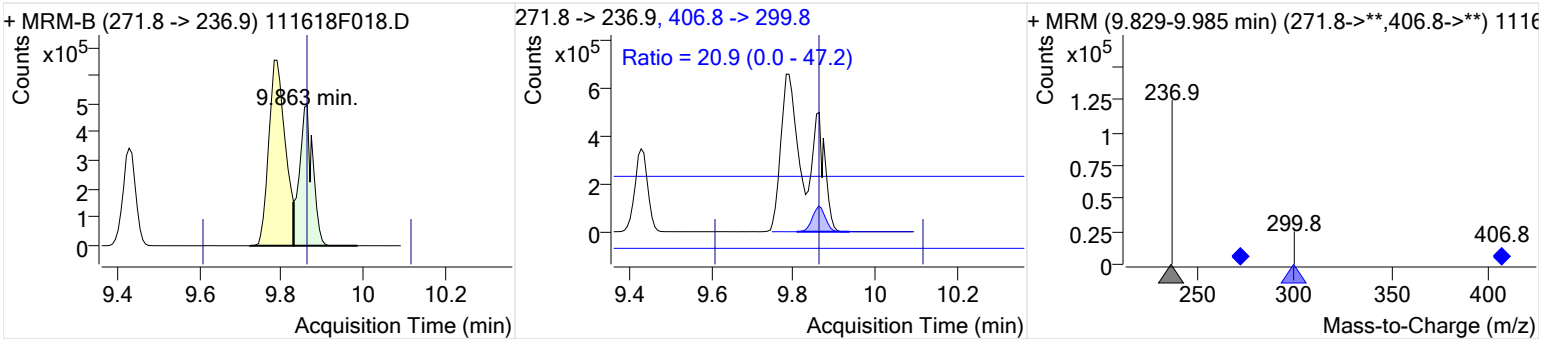




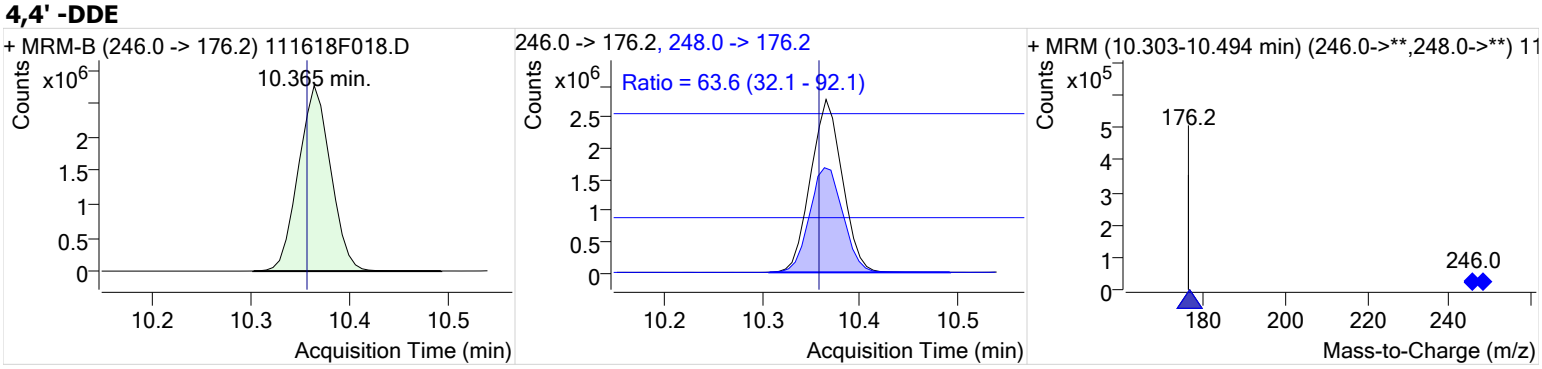


Quantitative Analysis Sample Report

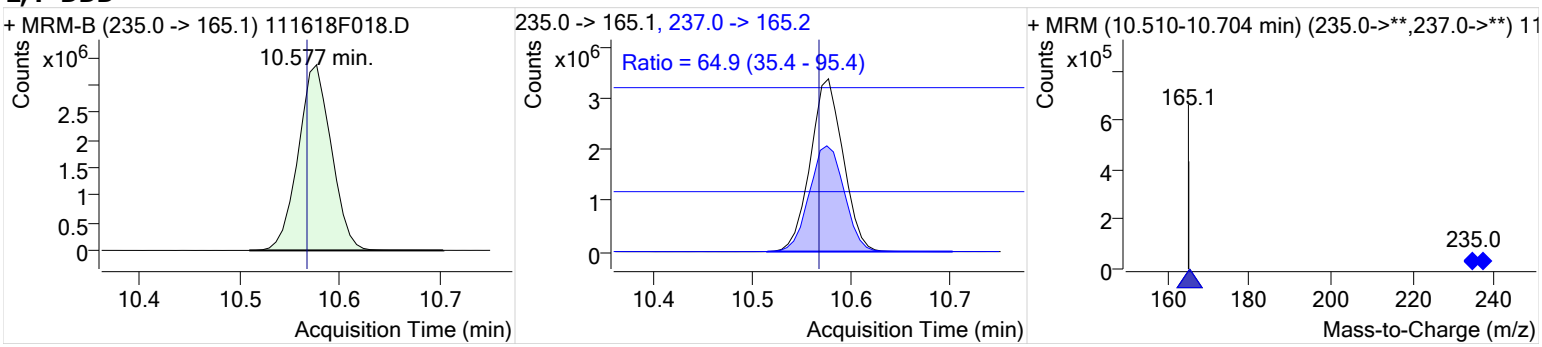
trans-Nanochlor



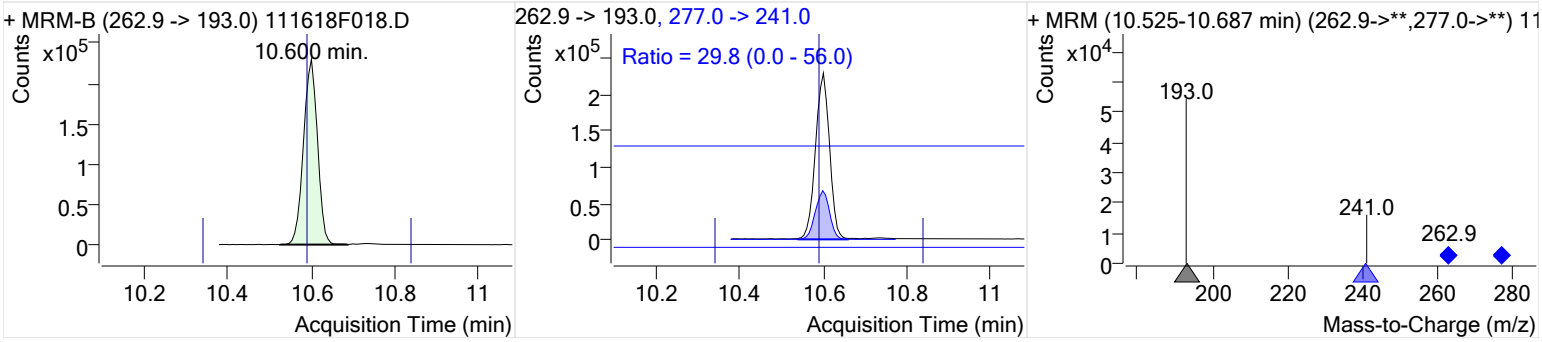
4,4' -DDE



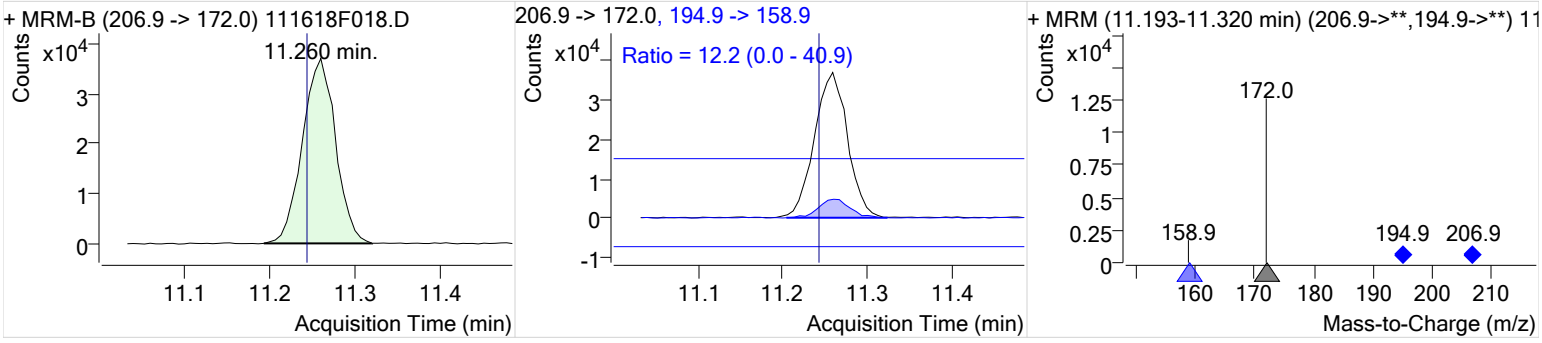
2,4'-DDD



Dieldrin

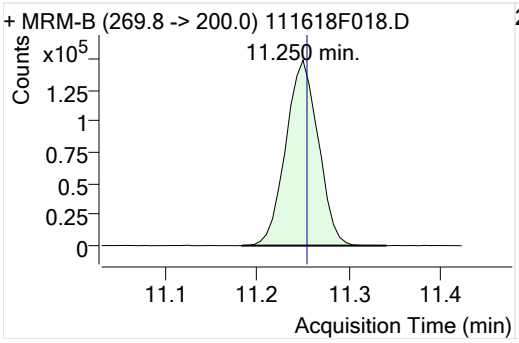


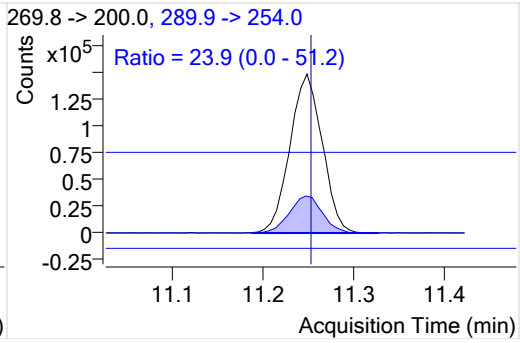
Endosulfan II

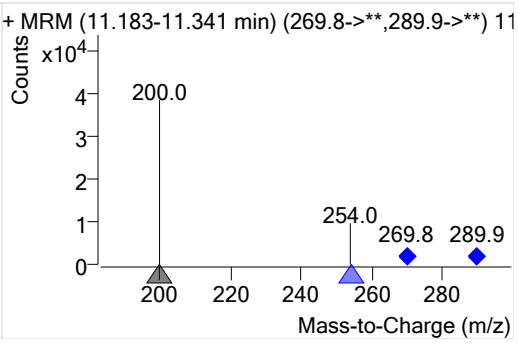


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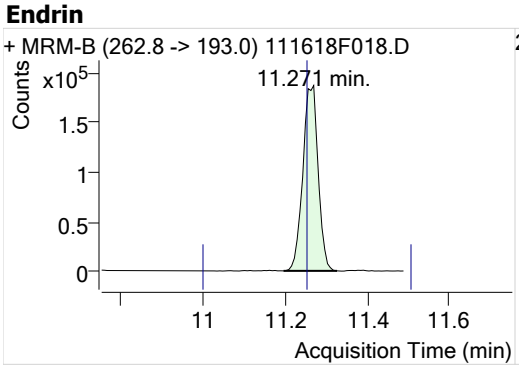
Endrin-13C12

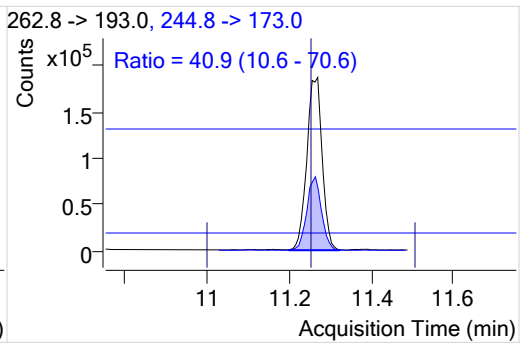


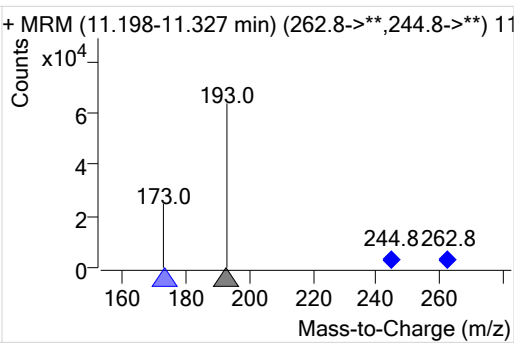




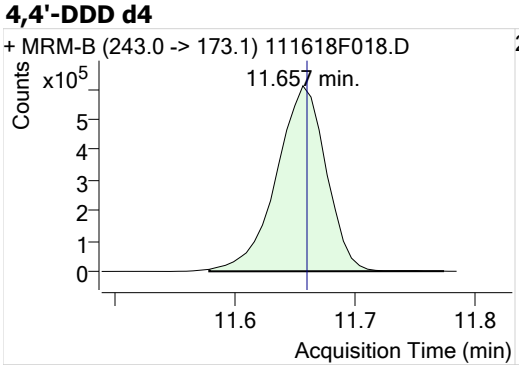
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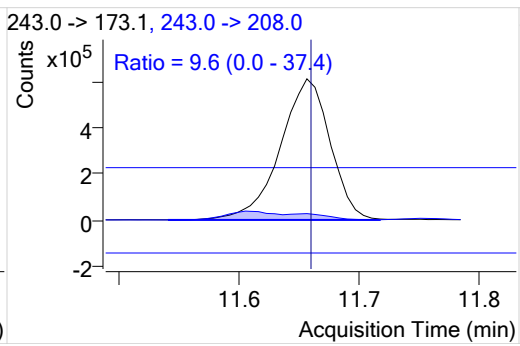


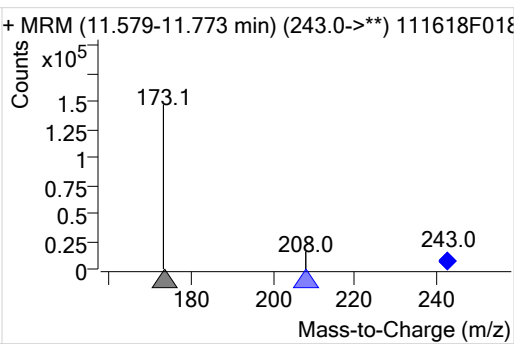




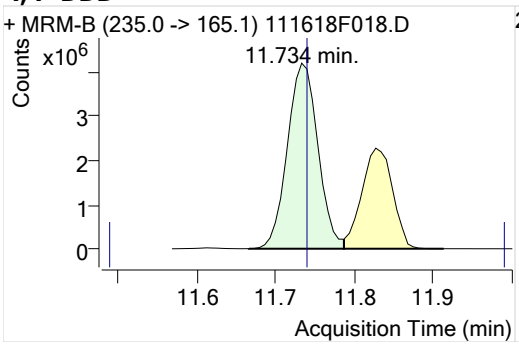
4,4'-DDD d4

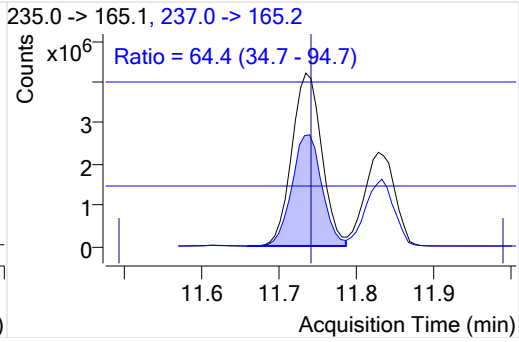


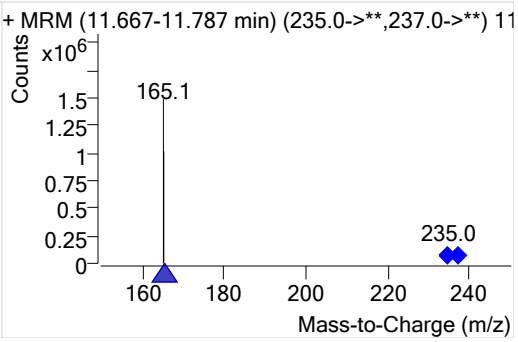




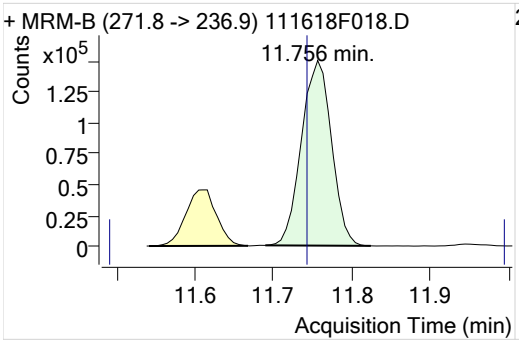
4,4'-DDD

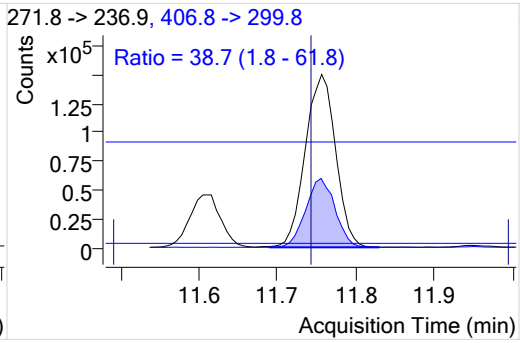


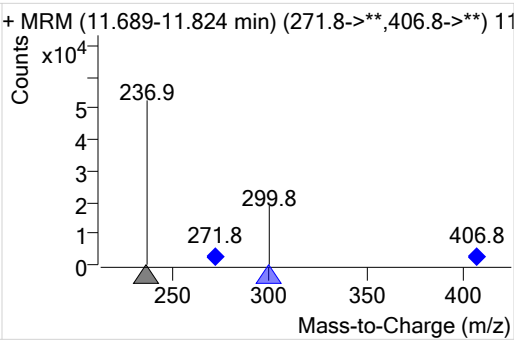




cis-Nonachlor

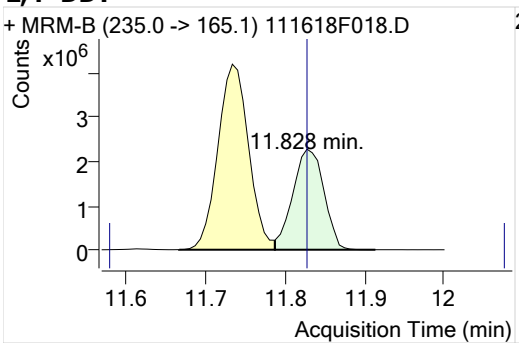


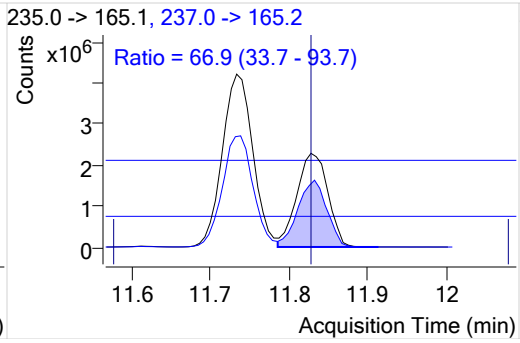


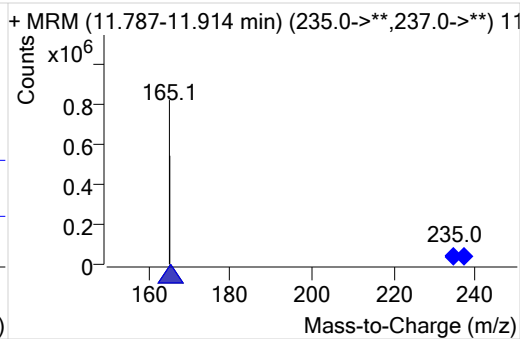


Quantitative Analysis Sample Report

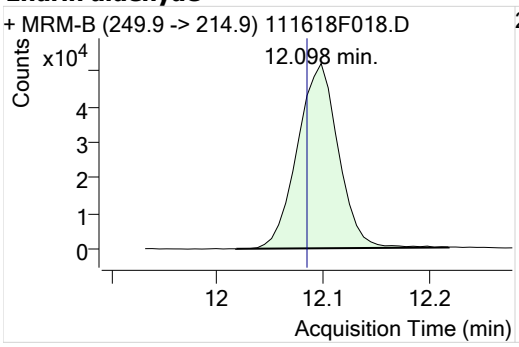
2,4'-DDT

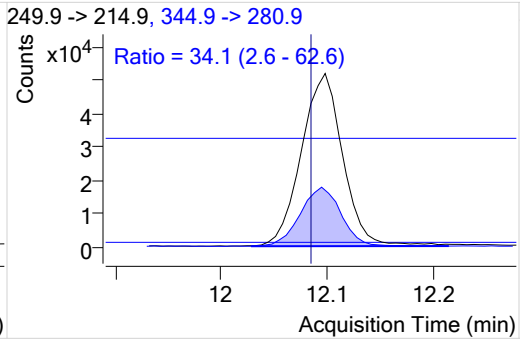


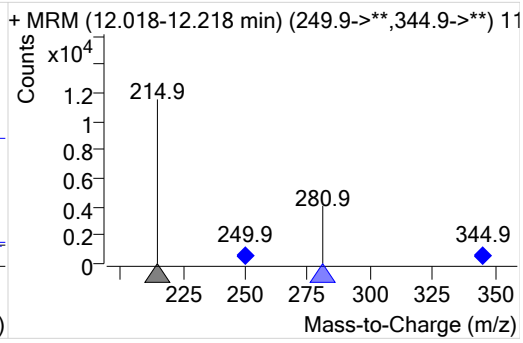




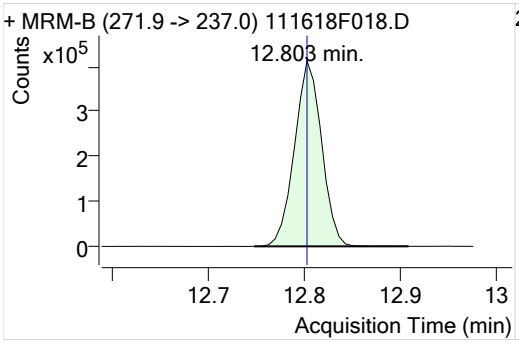
Endrin aldehyde

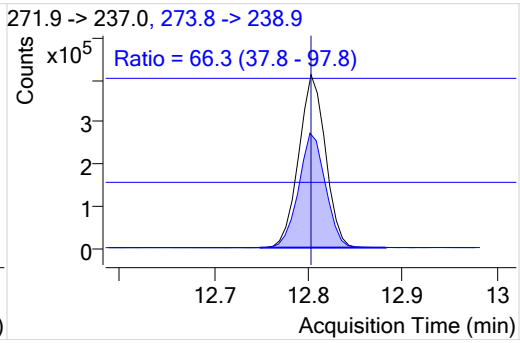


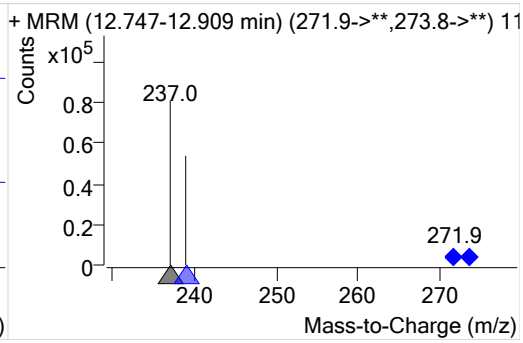




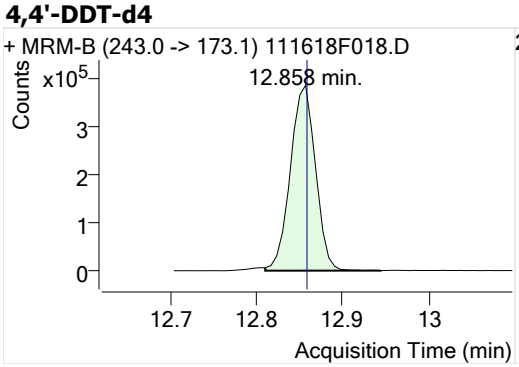
Endosulfan sulfate

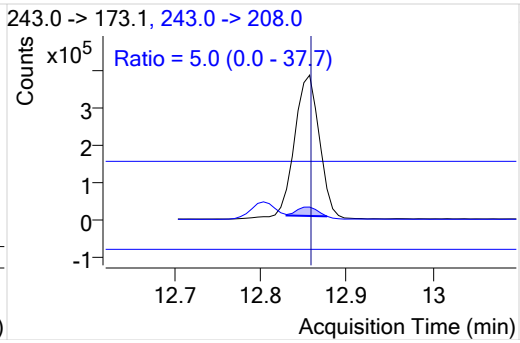


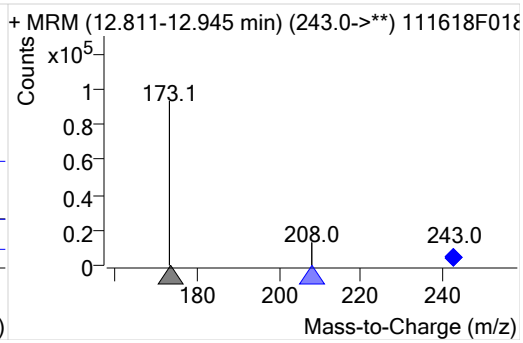




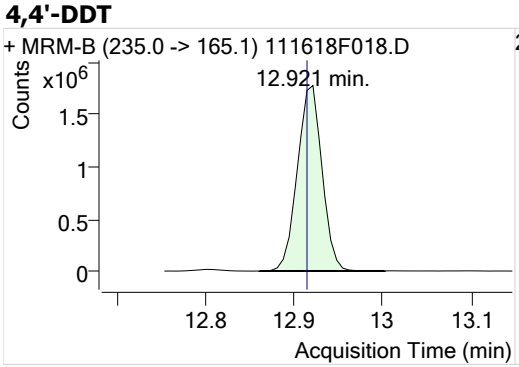
4,4'-DDT-d4

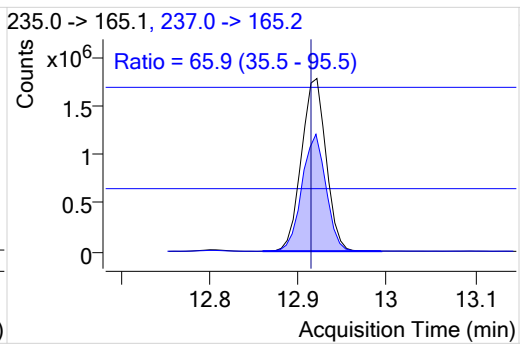


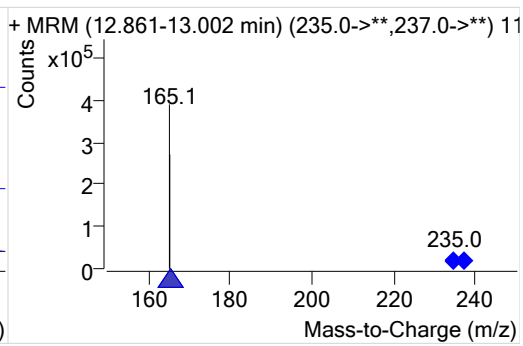




4,4'-DDT

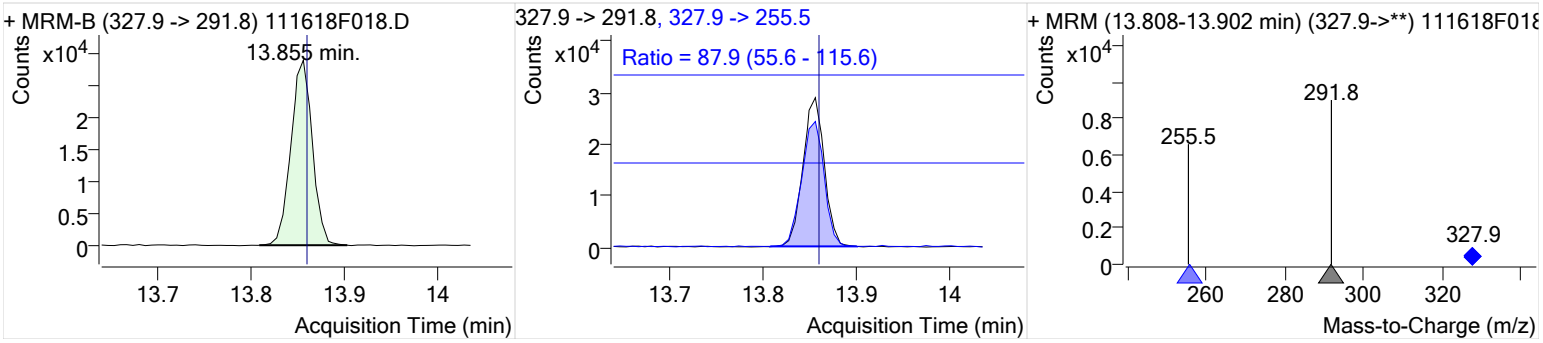




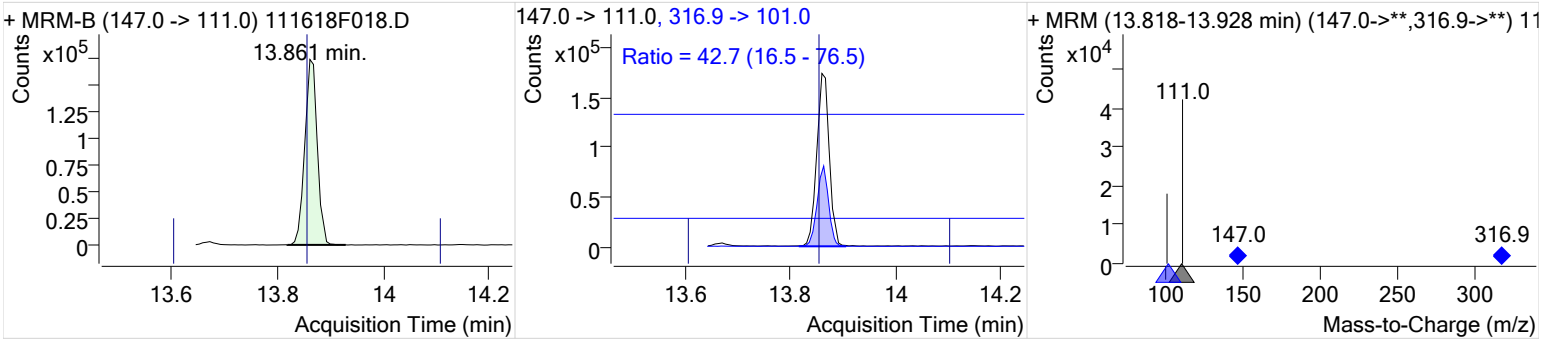


Quantitative Analysis Sample Report

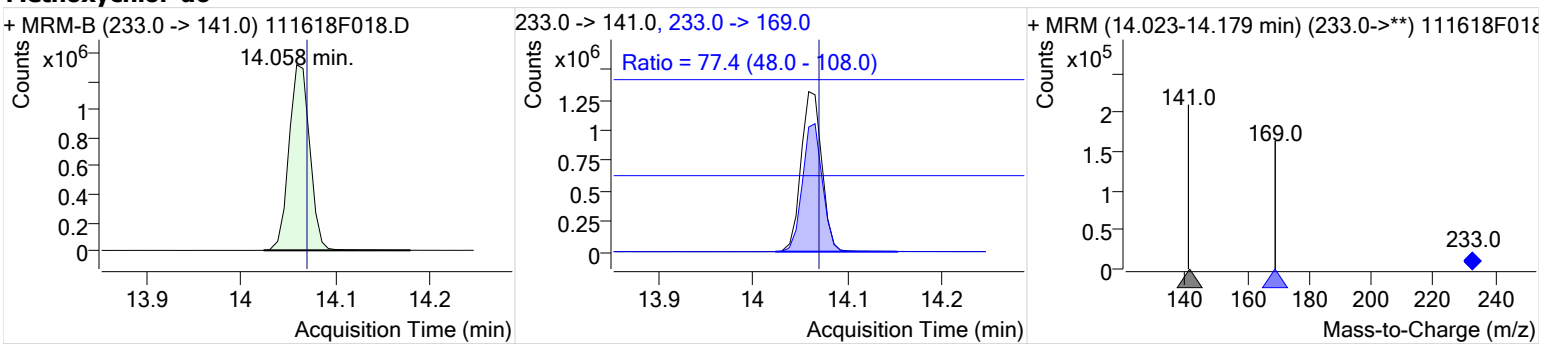
Endrin ketone-13C12



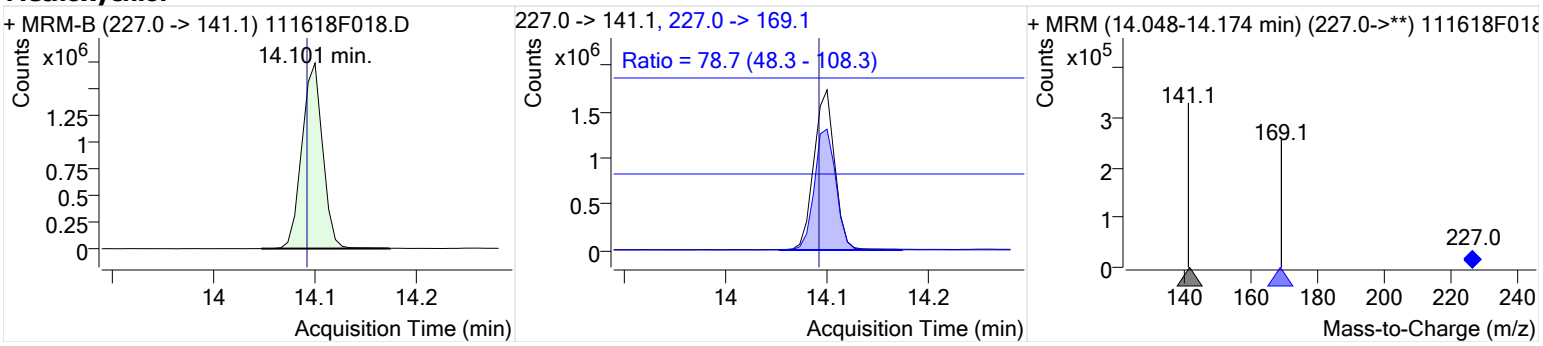
Endrin ketone



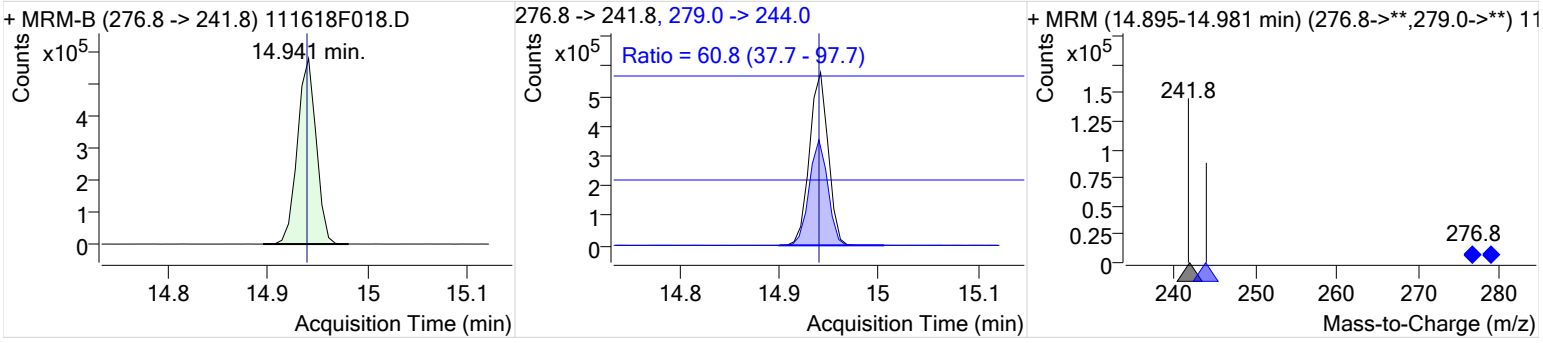
Methoxychlor-d6



Methoxychlor

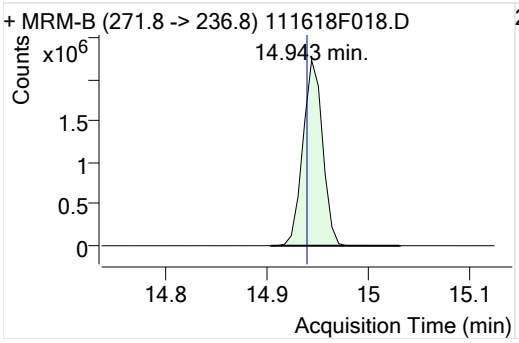


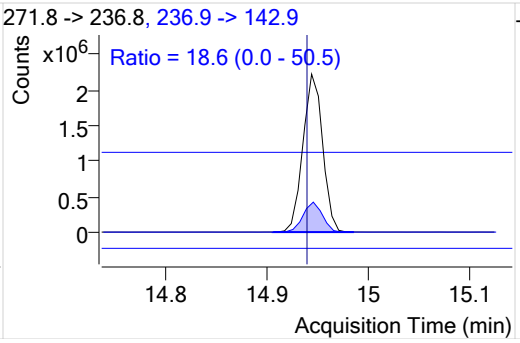
Mirex-13C10

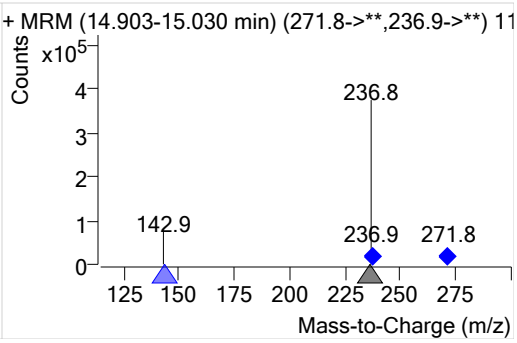


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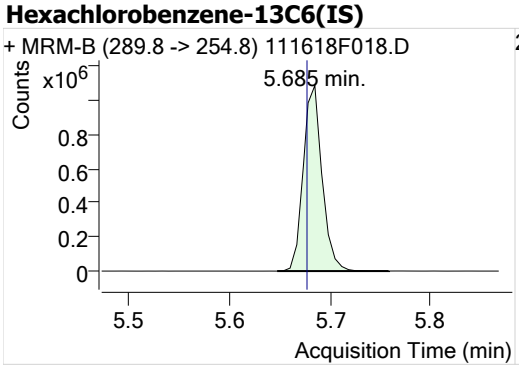
Mirex

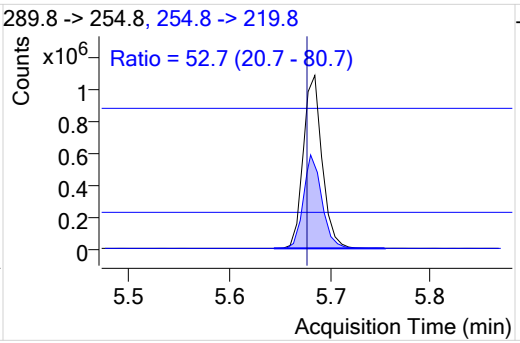


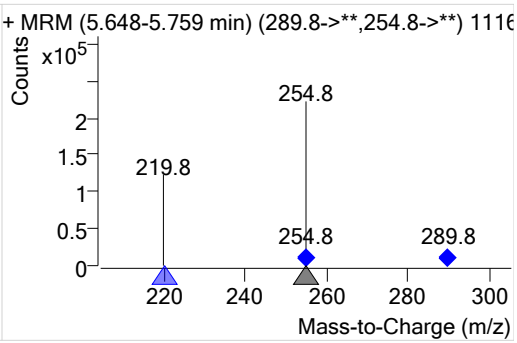




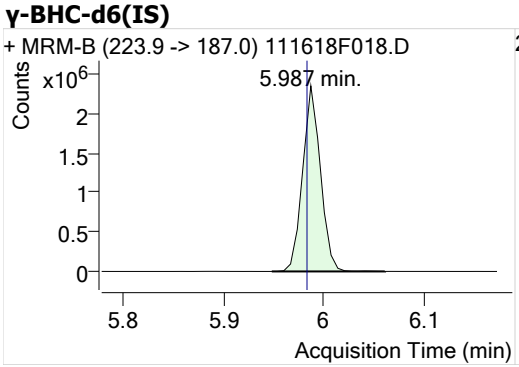
Hexachlorobenzene-13C6(IS)

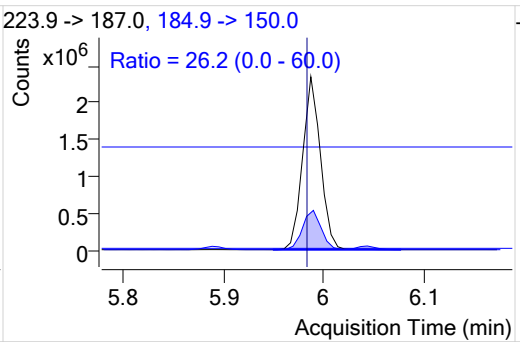


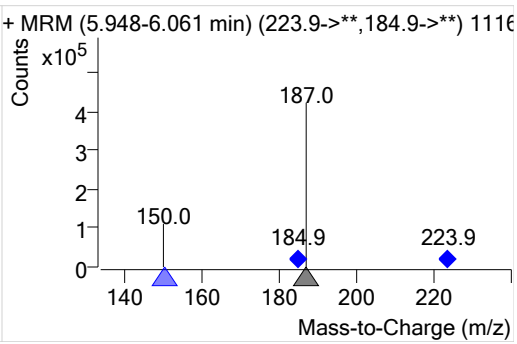




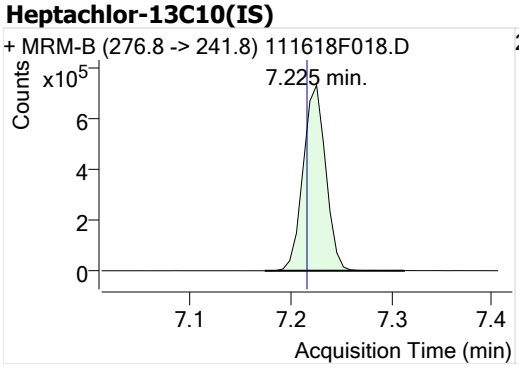
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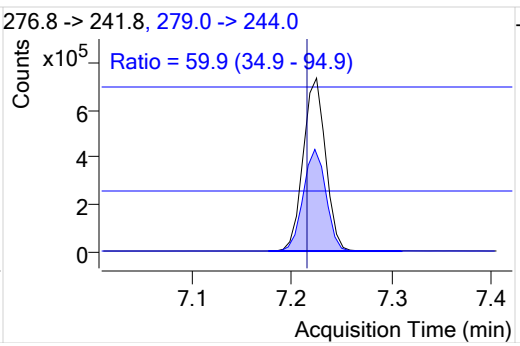


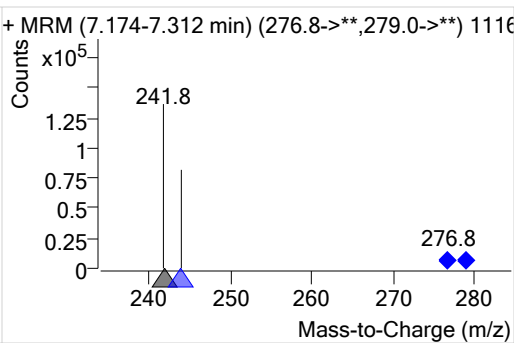




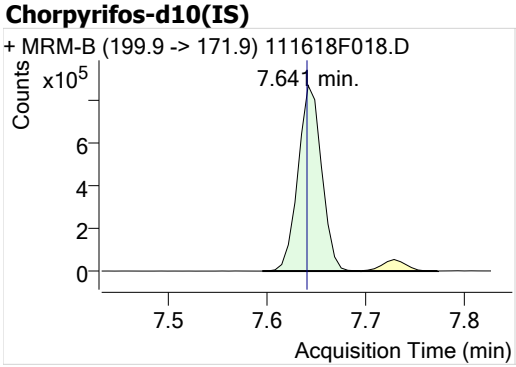
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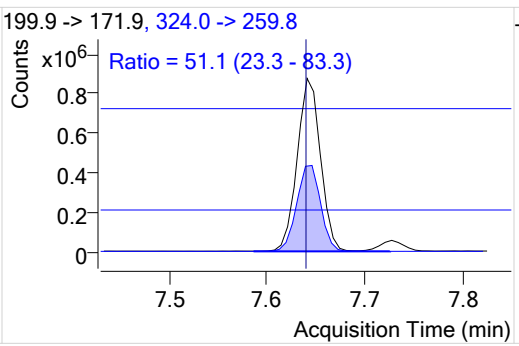


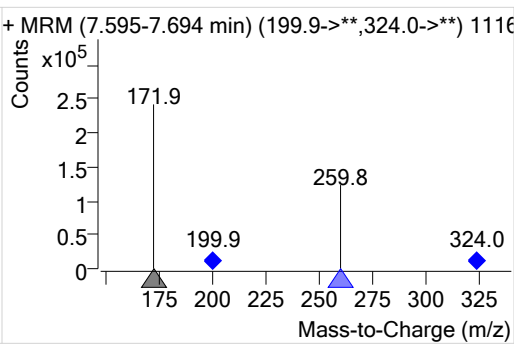




Chorpyrifos-d10(IS)

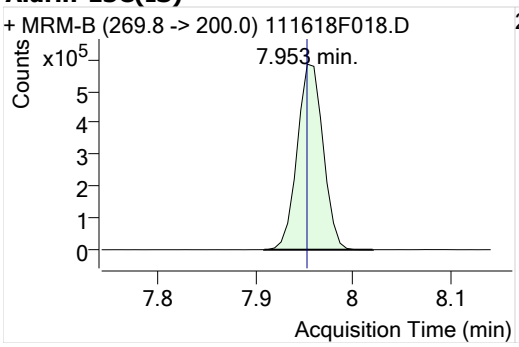


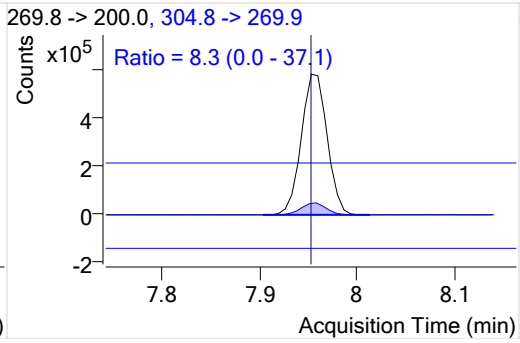


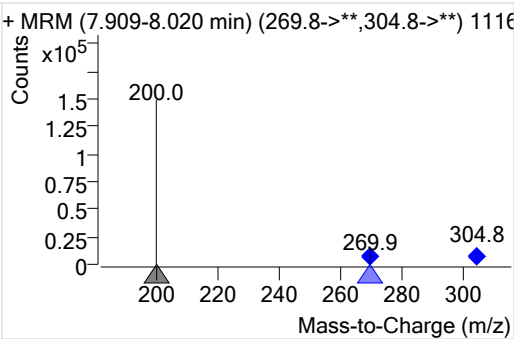


Quantitative Analysis Sample Report

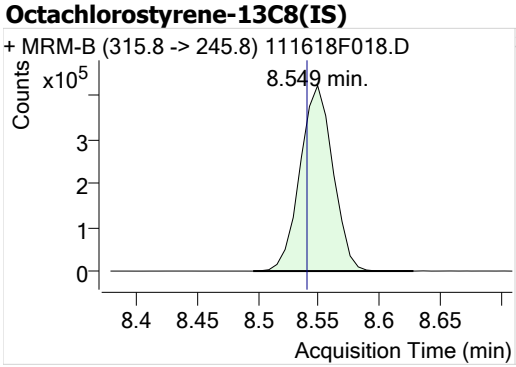
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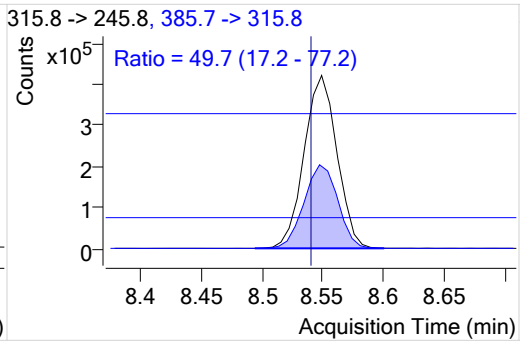


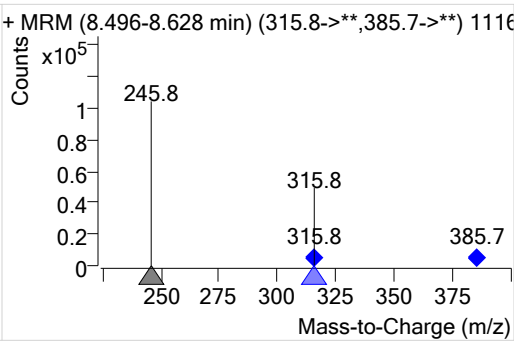




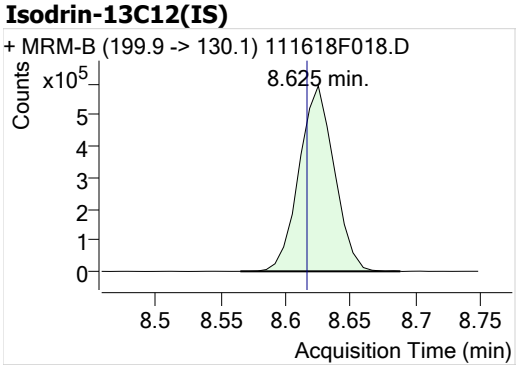
Octachlorostyrene-13C8(IS)

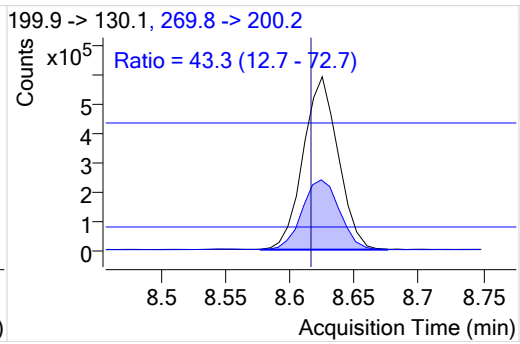


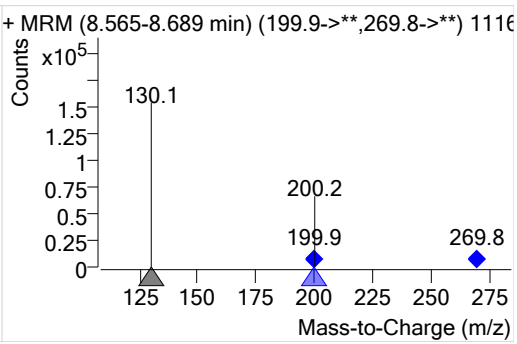




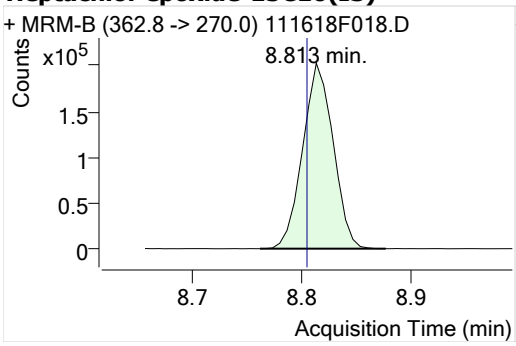
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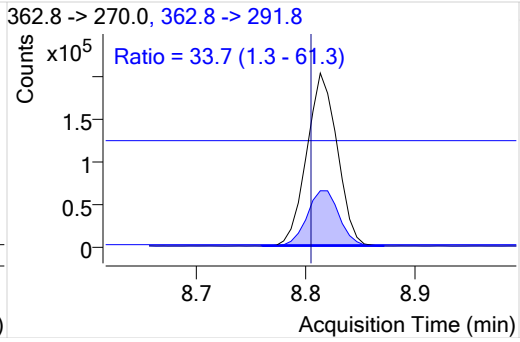


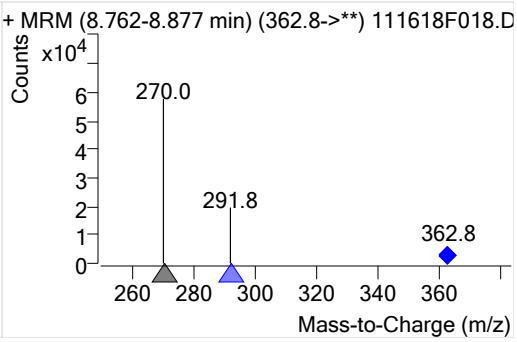




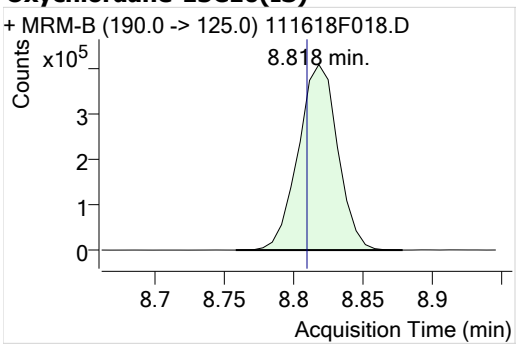
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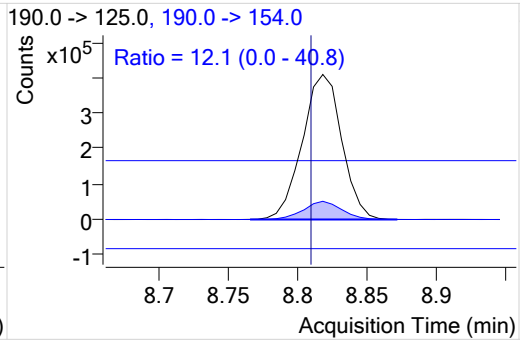


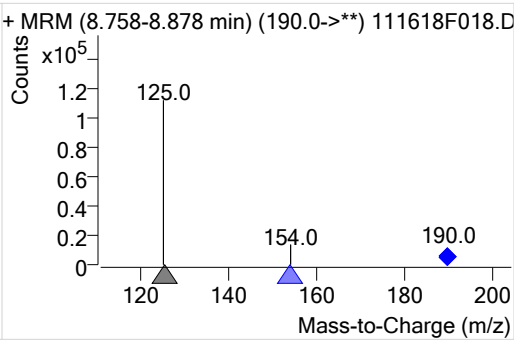




Oxychlordane-13C10(IS)

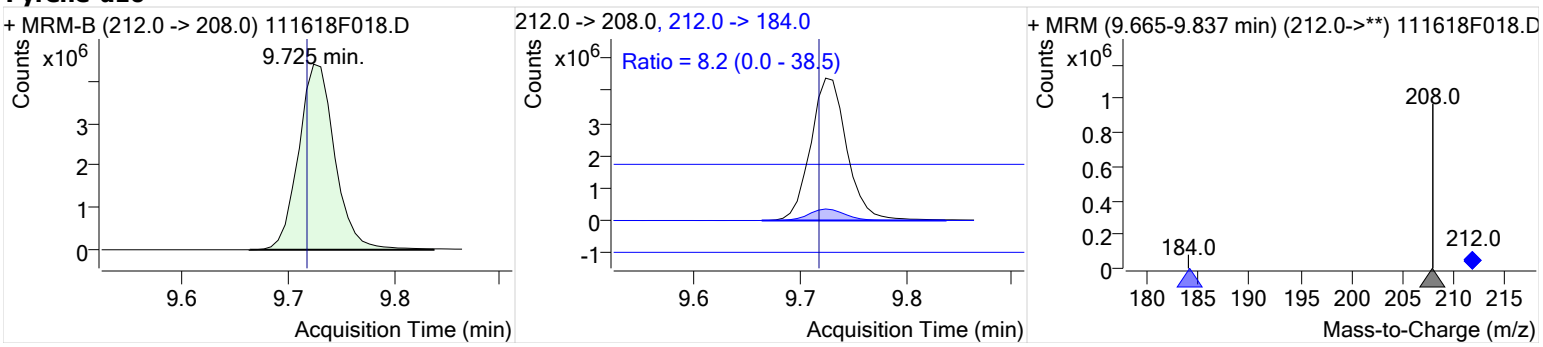




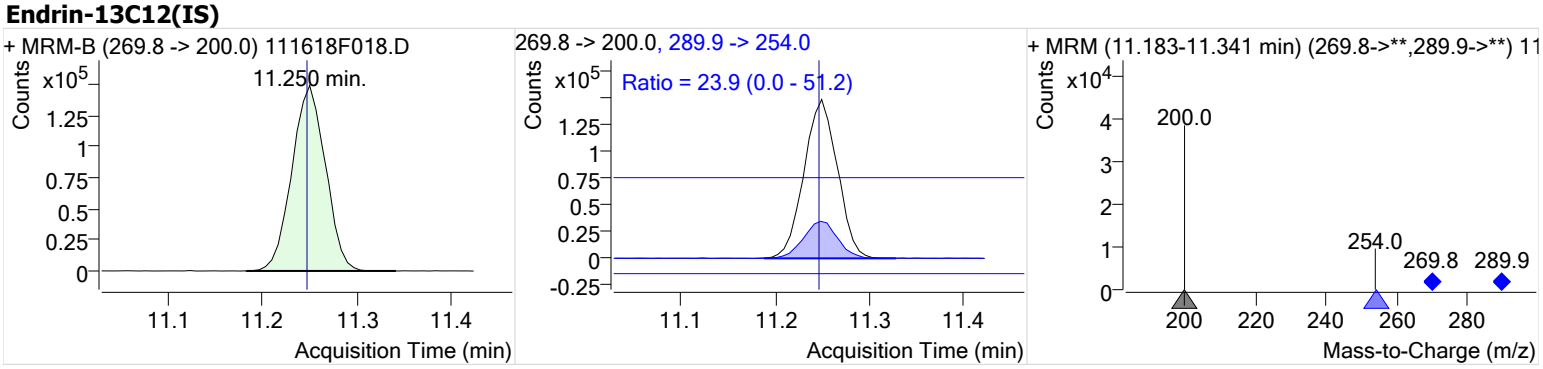


Quantitative Analysis Sample Report

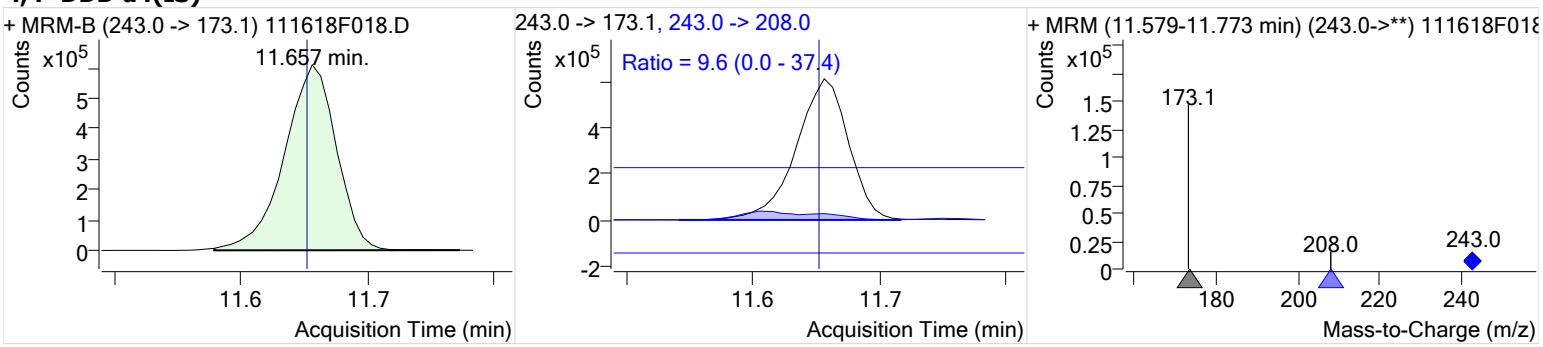
Pyrene-d10



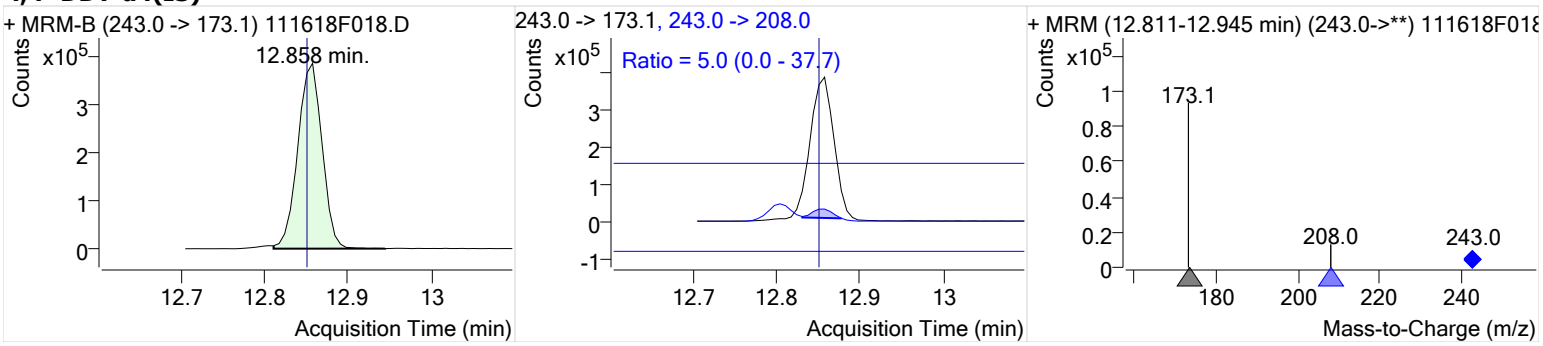
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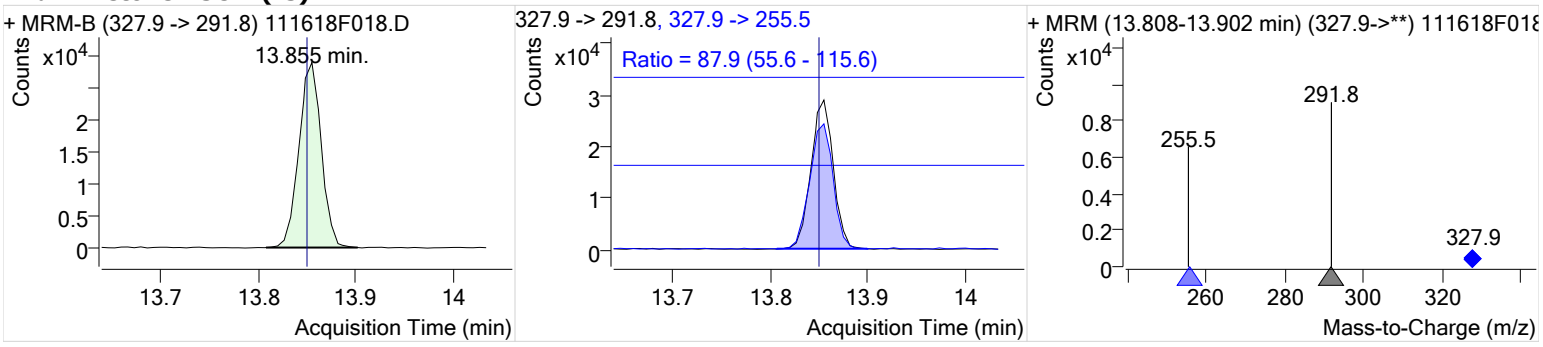
4,4'-DDD d4(IS)



4,4'-DDT-d4(IS)

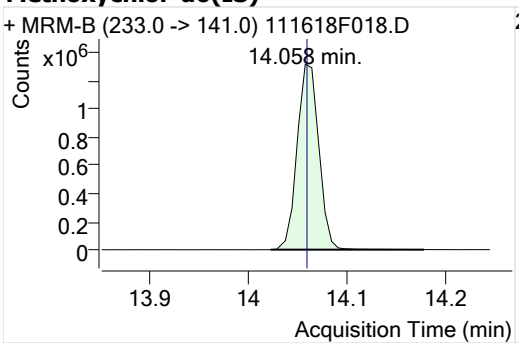


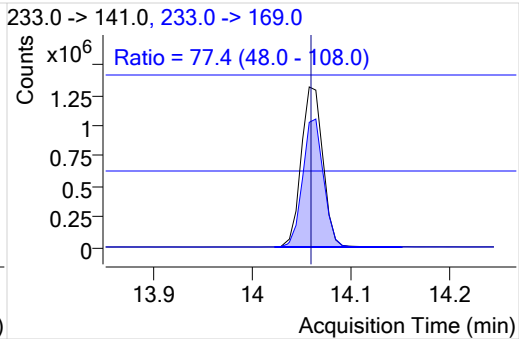
Endrin ketone-13C12(IS)

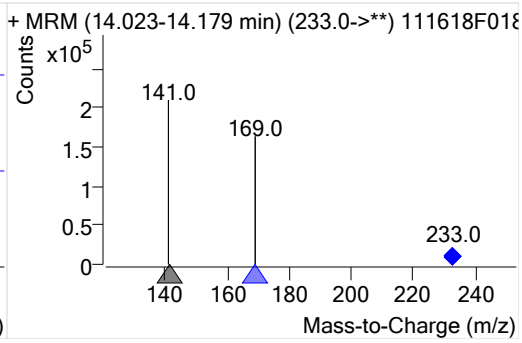


Quantitative Analysis Sample Report

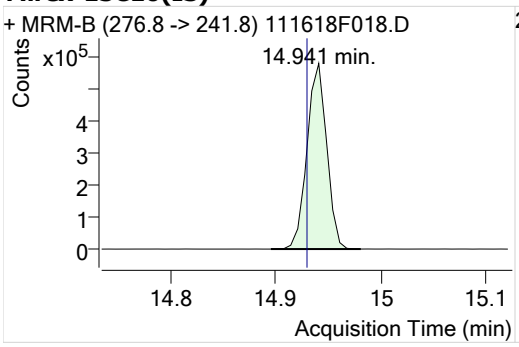
Methoxychlor-d6(IS)

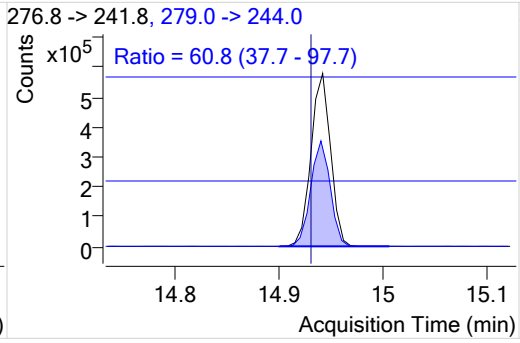


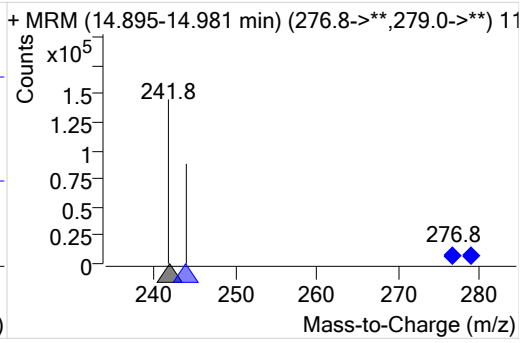




Mirex-13C10(IS)







Injection Log

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Calibration Last Update	3/14/2019 10:04:01 AM	**Analyze Quant Version**	B.09.00	**Report Quant Version**	B.09.00

Sequence Table

Data File	Name	Type	Vial	Vol.	Level	Acq. Method File	Acq. Date-Time
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111618F020.D	KQ181510-03 LCS	QC	15	1	20	OC Pest_dMRM	11/16/2018 4:53:56 PM
111618F021.D	KQ1815510_K1810305-003MS	QC	16	1	20	OC Pest_dMRM	11/16/2018 5:11:35 PM
111618F022.D	KQ1815510_K1810305-003DMS	QC	17	1	20	OC Pest_dMRM	11/16/2018 5:29:11 PM
111618F023.D	K1810302-025	Sample	18	1		OC Pest_dMRM	11/16/2018 5:46:46 PM
111618F024.D	K1810305-001	Sample	19	1		OC Pest_dMRM	11/16/2018 6:04:22 PM
111618F025.D	K1810305-002	Sample	20	1		OC Pest_dMRM	11/16/2018 6:22:02 PM
111618F026.D	K1810305-003	Sample	21	1		OC Pest_dMRM	11/16/2018 6:39:38 PM
111618F027.D	K1810305-004	Sample	22	1		OC Pest_dMRM	11/16/2018 6:57:15 PM
111618F028.D	K1810305-005	Sample	23	1		OC Pest_dMRM	11/16/2018 7:14:51 PM
111618F029.D	K1810305-006	Sample	24	1		OC Pest_dMRM	11/16/2018 7:32:30 PM
111618F030.D	K1810305-007	Sample	25	1		OC Pest_dMRM	11/16/2018 7:50:07 PM
111618F031.D	K1810305-008	Sample	26	1		OC Pest_dMRM	11/16/2018 8:07:42 PM
111618F032.D	K1810305-009	Sample	27	1		OC Pest_dMRM	11/16/2018 8:25:19 PM
111618F033.D	K1810305-010	Sample	28	1		OC Pest_dMRM	11/16/2018 8:42:59 PM
111618F034.D	K1810305-011	Sample	29	1		OC Pest_dMRM	11/16/2018 9:00:34 PM
111618F035.D	K1810305-012	Sample	30	1		OC Pest_dMRM	11/16/2018 9:18:10 PM
111618F036.D	K1810305-013	Sample	31	1		OC Pest_dMRM	11/16/2018 9:35:56 PM
111618F037.D	K1810305-014	Sample	32	1		OC Pest_dMRM	11/16/2018 9:53:35 PM
111618F038.D	K1810305-015	Sample	33	1		OC Pest_dMRM	11/16/2018 10:11:13 PM
111618F039.D	K1810305-016	Sample	34	1		OC Pest_dMRM	11/16/2018 10:28:49 PM
111618F040.D	KQ1815430-04 MB	Sample	35	1		OC Pest_dMRM	11/16/2018 10:46:23 PM
111618F041.D	KQ1815430-03 LCS	QC	36	1	20	OC Pest_dMRM	11/16/2018 11:04:03 PM
111618F042.D	KQ1815430_K1810302-023MS	QC	37	1	20	OC Pest_dMRM	11/16/2018 11:21:41 PM
111618F043.D	KQ1815430_K1810302-023DMS	QC	38	1	20	OC Pest_dMRM	11/16/2018 11:39:17 PM
111618F044.D	K1810302-022	Sample	39	1		OC Pest_dMRM	11/16/2018 11:56:52 PM
111618F045.D	K1810302-023	Sample	40	1		OC Pest_dMRM	11/17/2018 12:14:33 AM
111618F046.D	K1810302-024	Sample	41	1		OC Pest_dMRM	11/17/2018 12:32:10 AM
111618F047.D	K1810302-026	Sample	42	1		OC Pest_dMRM	11/17/2018 12:49:46 AM
111618F048.D	K1810302-027	Sample	43	1		OC Pest_dMRM	11/17/2018 1:07:22 AM
111618F049.D	K1810302-028	Sample	44	1		OC Pest_dMRM	11/17/2018 1:25:01 AM
111618F050.D	K1810302-029	Sample	45	1		OC Pest_dMRM	11/17/2018 1:42:38 AM

Revision

Run # 6157060

CAL: KCA00105

MAR 15 2019

Injection Log

Batch Data Path	J:\MS42\Data\112618\QuantResults\OC Pest 112618.batch.bin				
Analysis Time	12/4/2018 9:11:07 AM	**Analyst Name**	CORP\alkls.nouser	**Report Generator Name**	CORP\alkls.nouser
Calibration Last Update	11/20/2018 10:57:00 AM	**Analyze Quant Version**	B.09.00	**Report Quant Version**	B.09.00

Sequence Table

Data File	Name	Type	Vial	Vol.	Level	Acq. Method File	Acq. Date-Time
112618F003.D	OC PEST CCV 20ng/mL SVM59-96C	CC	1	1	20	OC Pest_dMRM	11/26/2018 11:48:03 AM
112618F004.D	KQ1815728-04MB	Sample	2	1		OC Pest_dMRM	11/26/2018 12:33:39 PM
112618F005.D	KQ1815728-03LCS	QC	3	1	20	OC Pest_dMRM	11/26/2018 12:51:14 PM
112618F006.D	KQ1815728_K1810417-023MS	QC	4	1	20	OC Pest_dMRM	11/26/2018 1:08:50 PM
112618F007.D	KQ1815728_K1810417-023DMS	QC	5	1	20	OC Pest_dMRM	11/26/2018 1:26:26 PM
112618F008.D	K1810417-022	Sample	6	1		OC Pest_dMRM	11/26/2018 1:44:06 PM
112618F009.D	K1810417-023	Sample	7	1		OC Pest_dMRM	11/26/2018 2:01:42 PM
112618F010.D	K1810417-024	Sample	8	1		OC Pest_dMRM	11/26/2018 2:19:18 PM
112618F011.D	K1810417-025	Sample	9	1		OC Pest_dMRM	11/26/2018 2:36:54 PM
112618F012.D	K1810417-026	Sample	10	1		OC Pest_dMRM	11/26/2018 2:54:34 PM
112618F013.D	KQ1816030-04MB	Sample	11	1		OC Pest_dMRM	11/26/2018 3:12:11 PM
112618F014.D	KQ1816030-03LCS	QC	12	1	20	OC Pest_dMRM	11/26/2018 3:29:47 PM
112618F015.D	KQ1816030_K1810683-002MS	QC	13	1	20	OC Pest_dMRM	11/26/2018 3:47:23 PM
112618F016.D	KQ1816030_K1810683-002DMS	QC	14	1	20	OC Pest_dMRM	11/26/2018 4:05:04 PM
112618F017.D	K1810683-001	Sample	15	1		OC Pest_dMRM	11/26/2018 4:22:40 PM
112618F018.D	K1810683-002	Sample	16	1		OC Pest_dMRM	11/26/2018 4:40:15 PM
112618F019.D	K1810683-003	Sample	17	1		OC Pest_dMRM	11/26/2018 4:57:53 PM
112618F020.D	K1810683-004	Sample	18	1		OC Pest_dMRM	11/26/2018 5:15:32 PM
112618F021.D	KQ1816831-4MB	Sample	19	1		OC Pest_dMRM	11/26/2018 5:33:08 PM
112618F022.D	KQ1816831-3LCS	QC	20	1	20	OC Pest_dMRM	11/26/2018 5:50:44 PM
112618F023.D	KQ1816831_K1810249-001MS	QC	21	1	20	OC Pest_dMRM	11/26/2018 6:08:19 PM
112618F024.D	KQ1816831_K1810249-001DMS	QC	22	1	20	OC Pest_dMRM	11/26/2018 6:25:59 PM
112618F025.D	K1810249-001	Sample	23	1		OC Pest_dMRM	11/26/2018 6:43:34 PM
112618F026.D	K1810249-002	Sample	24	1		OC Pest_dMRM	11/26/2018 7:01:10 PM
112618F027.D	K1810249-003	Sample	25	1		OC Pest_dMRM	11/26/2018 7:18:45 PM
112618F028.D	K1810249-004	Sample	26	1		OC Pest_dMRM	11/26/2018 7:36:27 PM
112618F029.D	K1810249-005	Sample	27	1		OC Pest_dMRM	11/26/2018 7:54:02 PM
112618F030.D	K1810249-006	Sample	28	1		OC Pest_dMRM	11/26/2018 8:11:38 PM
112618F031.D	KQ1816244-04 MB	Method Blank	29	1		OC Pest_dMRM	11/26/2018 8:29:15 PM
112618F032.D	KQ1816244-03 LCS	QC	30	1	20	OC Pest_dMRM	11/26/2018 8:46:58 PM
112618F033.D	KQ1816244_K1810302-016MS	QC	31	1	20	OC Pest_dMRM	11/26/2018 9:04:33 PM
112618F034.D	KQ1816244_K1810302-016MS	QC	32	1	20	OC Pest_dMRM	11/26/2018 9:22:10 PM
112618F035.D	K1810270-001	Sample	33	1		OC Pest_dMRM	11/26/2018 9:39:47 PM
112618F036.D	K1810302-016	Sample	34	1		OC Pest_dMRM	11/26/2018 9:57:27 PM
112618F037.D	K1810644-019 0.5g	Sample	35	1		OC Pest_dMRM	11/26/2018 10:15:12 PM
112618F039.D	K1810644-019 1.0g 10X	Sample	37	1		OC Pest_dMRM	11/26/2018 10:50:23 PM

Run#: 617361
CAL KC1800544

DEC 04 2018

DILUTION LOG MS 42

Date: 11-26-18 Prepared by: EBruno Solvent Lot #: 91323

LAB ID.	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	COMMENTS
K1810644-19 @ 11-26-1806	~~100~~ 50uL	500uL	10X	

R:\SVM\DILUTION LOG.DOC

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

1st 11/30/18
2nd 12/06/18

Exception Report

Data File: J:\MS14\DATA\111318\1113F026.D
Lab ID: K1810302-016
RunType: SMPL
Matrix: SEDIMENT

Date Acquired: 11/13/2018 15:32
Date Quantitated: 11/29/2018 13:26
Batch ID: KWG1806206
Analysis Method: 8270D SIM
ListJoinID: LJ12908

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	18	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	
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: _____

Secondary Review: _____

1st 11/30/18
2nd 12/06/18

Quantitation Report

Data File:	J:\MS14\DATA\111318\1113F026.D			**Instrument:**	MS14
Acqu Date:	11/13/2018 15:32	**Quant Date:**	11/29/2018 13:26	**Vial:**	26
Run Type:	SMPL	**ListJoinID:**	LJ12908	**Dilution:**	1.0
Lab ID:	K1810302-016			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	IV	**Matrix:**	SEDIMENT
Prod Code:	8270D PAH SIM U	**Collect Date:**	10/20/2018	**Receive Date:**	10/22/2018

Analysis Lot:	KWG1806206	**Prep Lot:**	KWG1805796	**Report Group:**	K1810302
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1702212	**Prep Date:**	11/07/2018		

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ12908
Tune Ref:	J:\MS14\DATA\111318\1113F001.D	**Method ID:**	MJ1233
MB Ref:		**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	4.75	0.00	136	60499	200.00	OK
2	Acenaphthene-d10	6.31	0.00	164	34026	200.00	OK
3	Phenanthrene-d10	7.55	0.01	188	73523	200.00	OK
4	Chrysene-d12	10.10	0.01	240	74466	200.00	OK
5	Perylene-d12	13.29	0.04	264	81808	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	6.75	0.01	0.00	176	149144	685.52	69	26-102	OK	
3	Fluoranthene-d10	8.54	0.01	0.00	212	300233	647.93	65	23-110	OK	
4	Terphenyl-d14	8.88	0.00	0.00	244	245415	759.82	76	27-115	OK	

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.77		0.00	128	959	2.75	0.25	J	
1	2-Methylnaphthalene	5.41		0.00	142	367	1.74	0.16	J	
2	Acenaphthylene	6.19		0.00	152	696	1.71	0.16	JX	
2	Acenaphthene	6.34	0.01	0.00	154	140	0.6000	0.055	J	
2	Dibenzofuran	6.49	0.01	0.00	168	397	1.06	0.097	J	
2	Fluorene	6.77		0.00	166	258	0.9100	0.083	J	
3	Phenanthrene	7.57	0.01	0.00	178	2055	4.48	0.41	J	
3	Anthracene	7.61		0.00	178	215	0.4900	0.045	J	
3	Fluoranthene	8.55		0.00	202	1476	2.61	0.24	J	
4	Pyrene	8.75	0.01	0.00	202	1230	2.41	0.22	J	
4	Benz(a)anthracene	10.09	0.02	0.00	228	466	0.9700	0.089	J	
4	Chrysene	10.14	0.01	0.00	228	356	0.7700	0.070	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:\MS14\DATA\111318\1113F026.D			**Instrument:**	MS14
Acqu Date:	11/13/2018 15:32	**Quant Date:**	11/29/2018 13:26	**Vial:**	26
Run Type:	SMPL	**ListJoinID:**	LJ12908	**Dilution:**	1.0
Lab ID:	K1810302-016			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
5	Benzo(b)fluoranthene	12.22	0.03	0.00	252	680	1.35	0.12	J	
5	Benzo(k)fluoranthene				252	0**d**		0.045	U	
5	Benzo(a)pyrene				252	0**d**		0.036	U	
5	Indeno(1,2,3-cd)pyrene				276	0**d**		0.064	U	
5	Dibenz(a,h)anthracene				278	0**d**		0.058	U	
5	Benzo(g,h,i)perylene	15.89	0.04	0.00	276	922	1.81	0.17	J	

Prep Amount:	40.044 g	**Dilution:**	1.0
Prep Final Vol:	2 mL	**Unit Factor:**	1
Solids:	54.7 %		

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

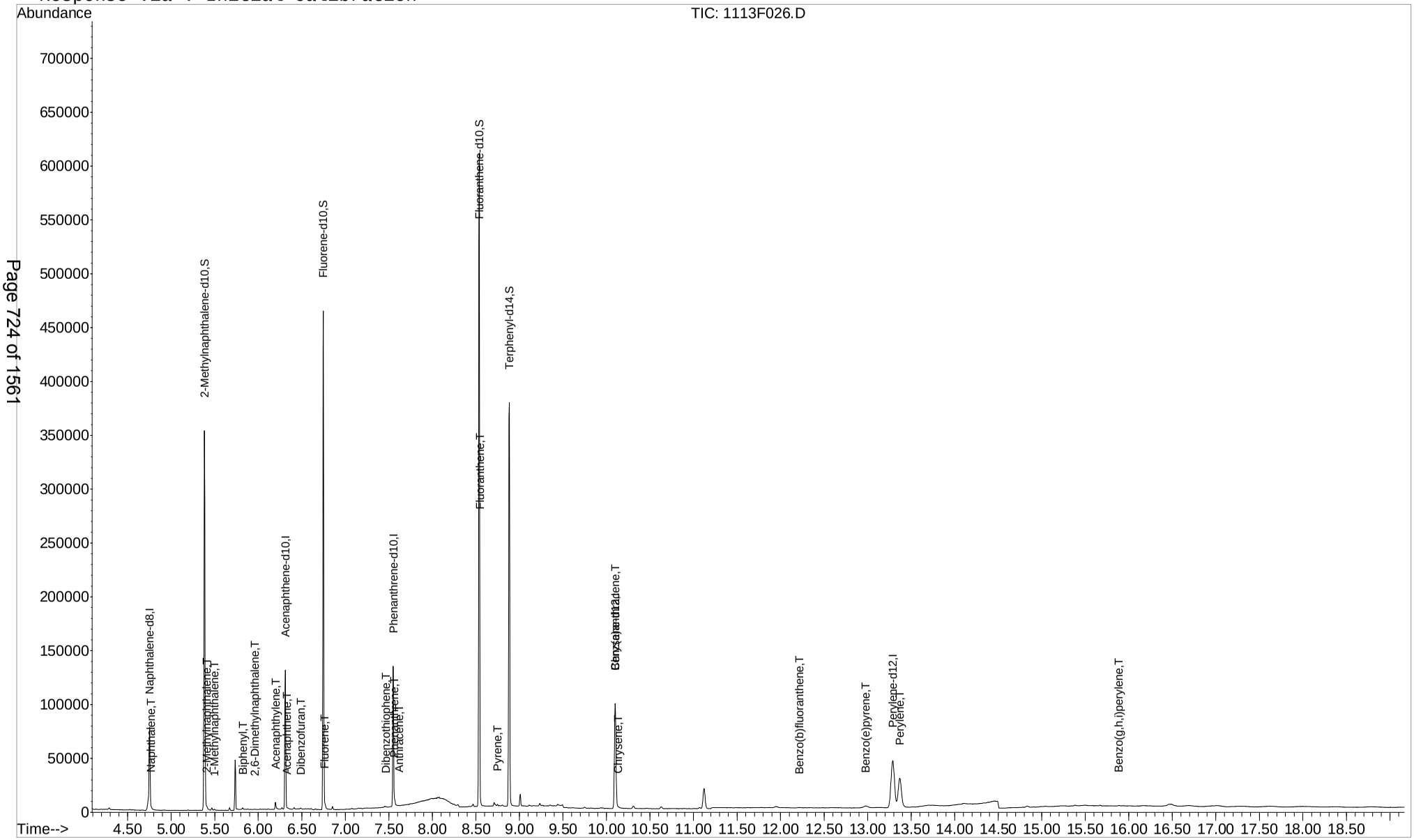
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

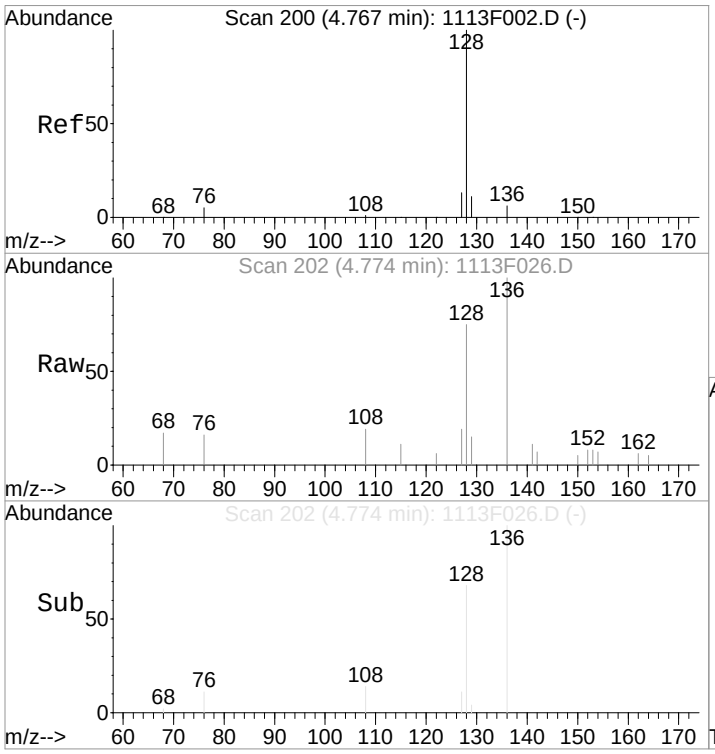
1st 11/30/18
2nd 12/06/18

Data File : J:\MS14\DATA\111318\1113F026.D Vial: 26
Acq On : 13 Nov 2018 3:32 pm Operator: LWeiskopf
Sample : K1810302-016 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 29 13:26 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Nov 29 12:52:23 2018
Response via : Initial Calibration



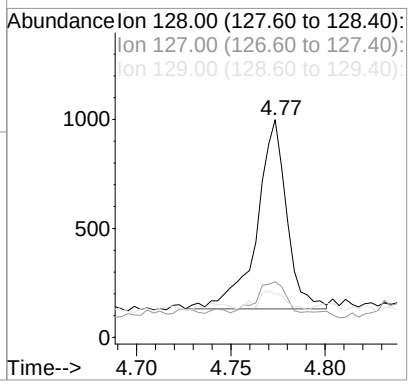
1st 11/30/18
2nd 12/06/18

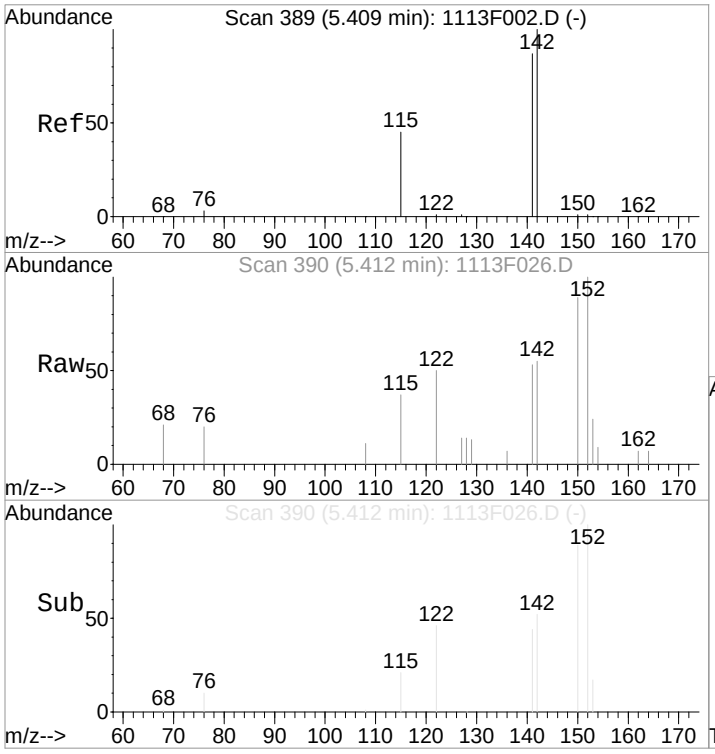


#2
Naphthalene
Concen: 2.75 ng/ml
RT: 4.77 min Scan# 202
Delta R.T. -0.01 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:128 Resp: 959

Ion	Ratio	Lower	Upper
128	100		
127	15.6	0.0	43.7
129	8.1	0.0	30.8

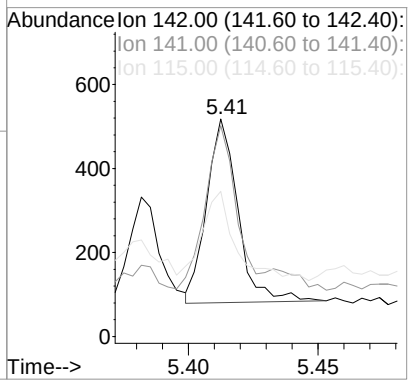




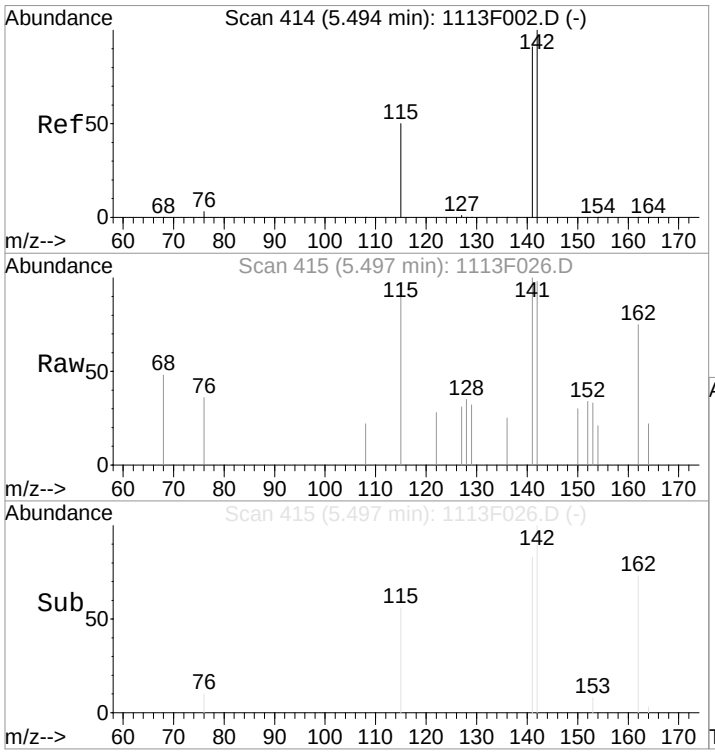
#4
2-Methylnaphthalene
Concen: 1.74 ng/ml
RT: 5.41 min Scan# 390
Delta R.T. -0.01 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:142 Resp: 367

Ion	Ratio	Lower	Upper
142	100		
141	90.5	56.8	116.8
115	43.4	13.3	53.3



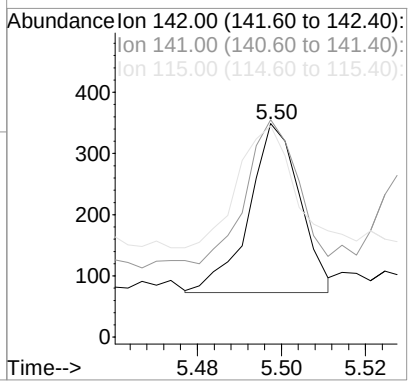
1st 11/30/18
2nd 12/06/18

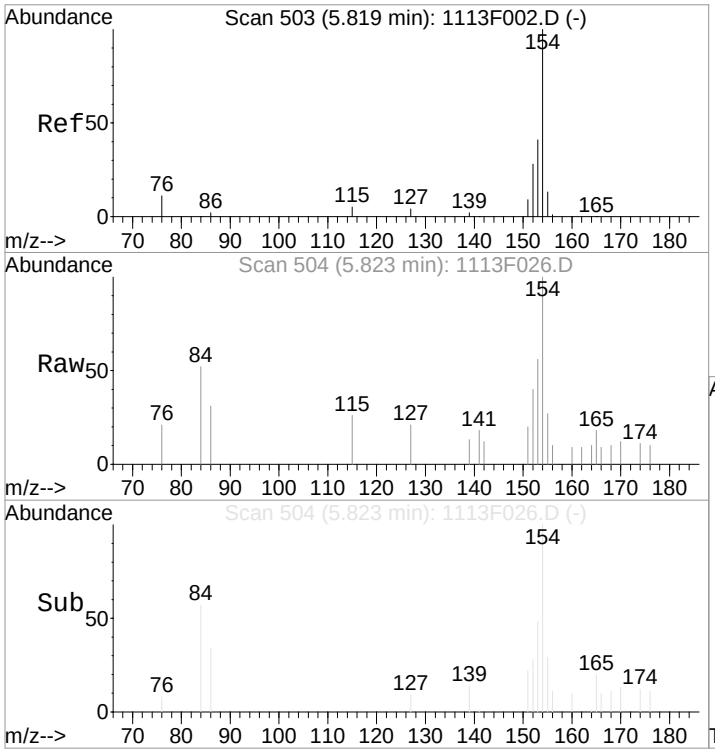


#5
1-Methylnaphthalene
Concen: 1.14 ng/ml m
RT: 5.50 min Scan# 415
Delta R.T. -0.01 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:142 Resp: 232

Ion	Ratio	Lower	Upper
142	100		
141	101.7	59.7	119.7
115	98.9	13.7	53.7#

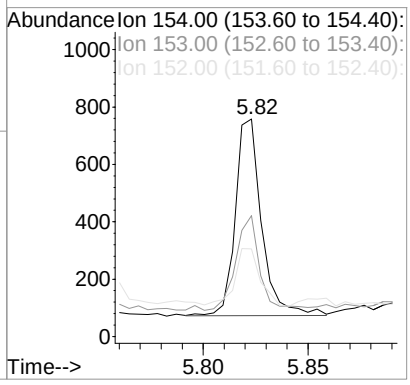




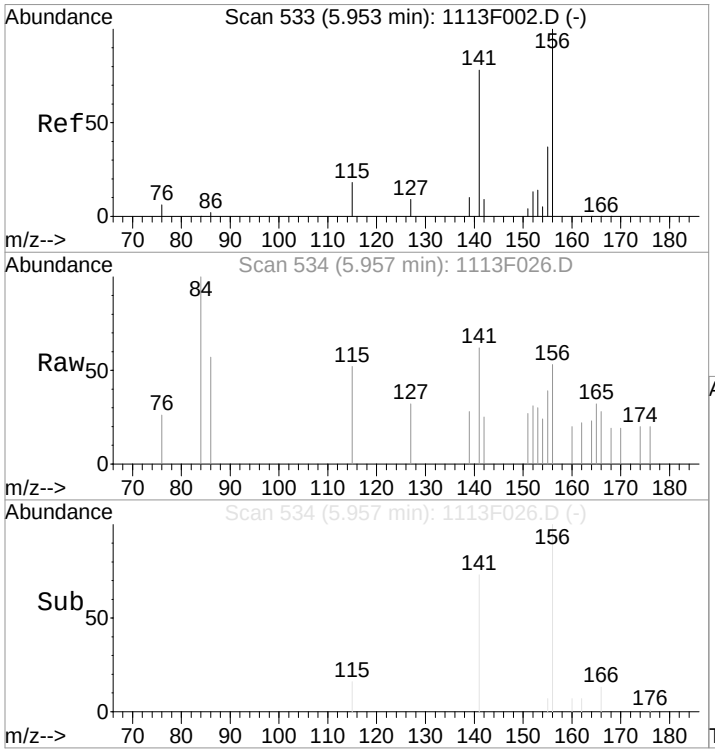
#6
Biphenyl
Concen: 2.28 ng/ml
RT: 5.82 min Scan# 504
Delta R.T. -0.00 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:154 Resp: 599

Ion	Ratio	Lower	Upper
154	100		
153	47.9	11.4	71.4
152	27.0	7.1	47.1



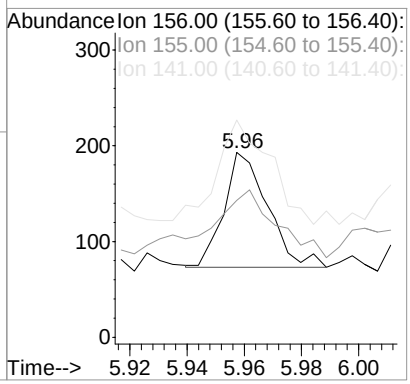
1st 11/30/18
2nd 12/06/18

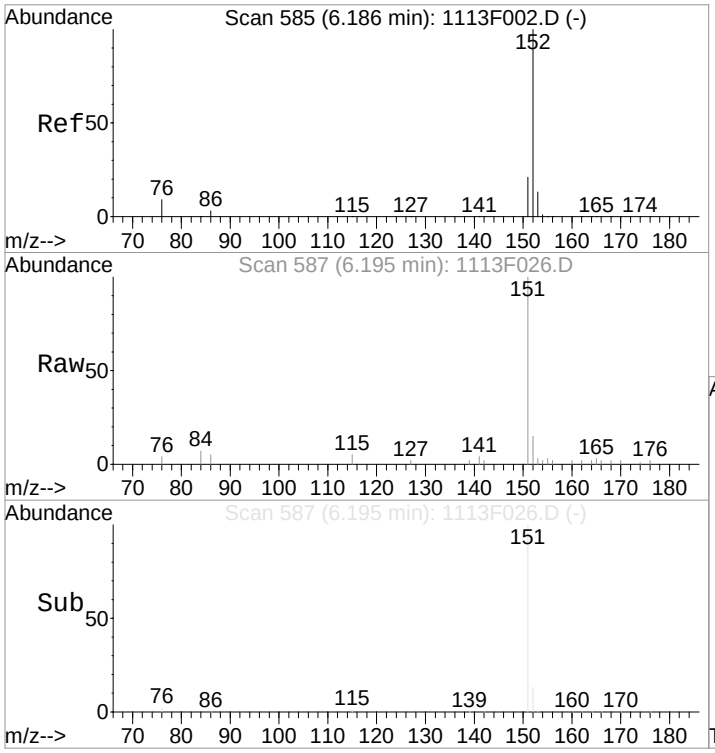


#7
2,6-Dimethylnaphthalene
Concen: 0.70 ng/ml
RT: 5.96 min Scan# 534
Delta R.T. -0.00 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:156 Resp: 127

Ion	Ratio	Lower	Upper
156	100		
155	50.0	7.0	67.0
141	79.2	47.9	87.9

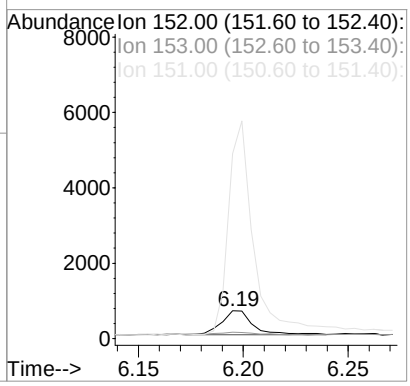




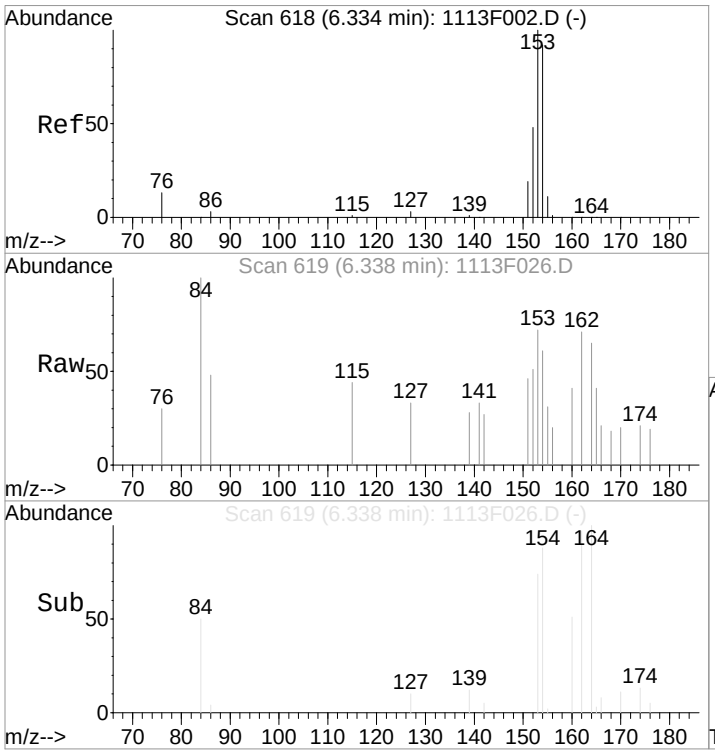
#9
Acenaphthylene
Concen: 1.71 ng/ml
RT: 6.19 min Scan# 587
Delta R.T. -0.00 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:152 Resp: 696

Ion	Ratio	Lower	Upper
152	100		
153	10.4	0.0	42.9
151	746.2	0.2	40.2#



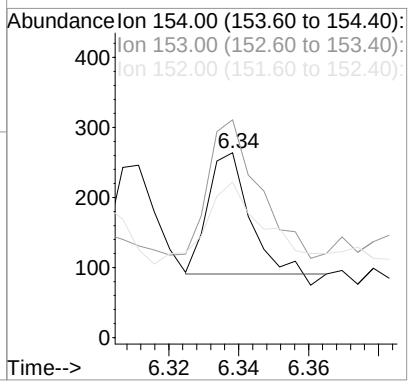
X

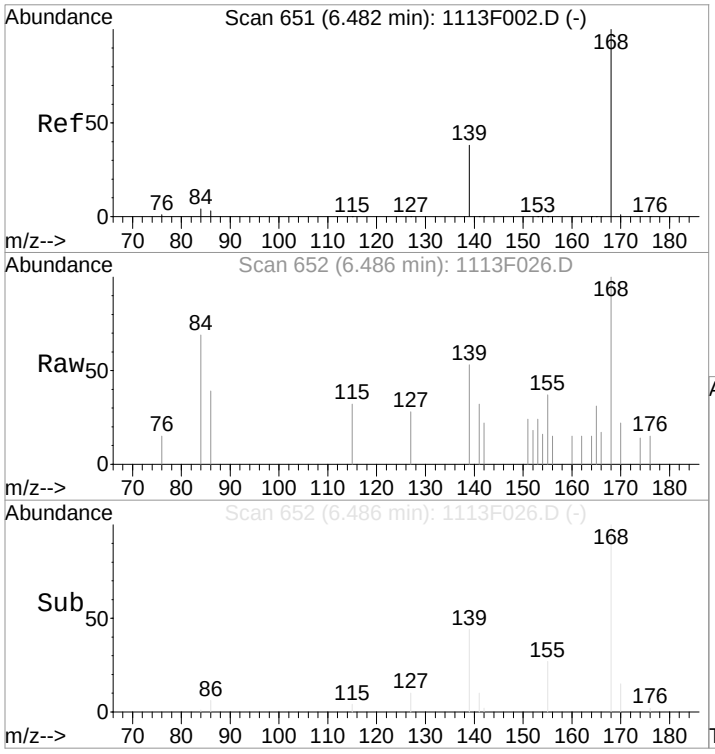


#10
Acenaphthene
Concen: 0.60 ng/ml
RT: 6.34 min Scan# 619
Delta R.T. -0.01 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:154 Resp: 140

Ion	Ratio	Lower	Upper
154	100		
153	111.0	77.1	137.1
152	59.0	19.7	79.7

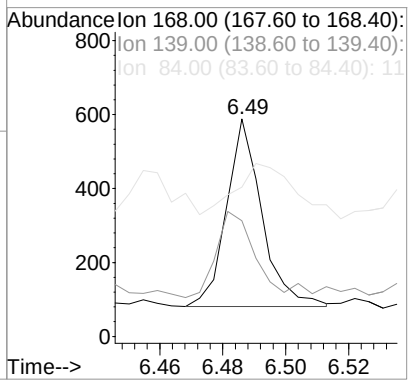




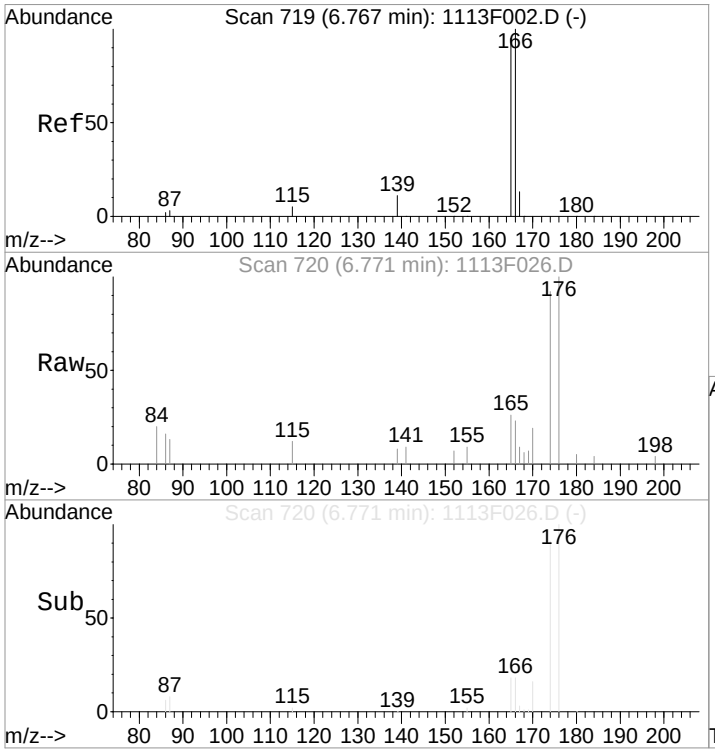
#11
Dibenzofuran
Concen: 1.06 ng/ml
RT: 6.49 min Scan# 652
Delta R.T. -0.01 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:168 Resp: 397

Ion	Ratio	Lower	Upper
168	100		
139	41.0	0.0	55.8
84	9.5	0.0	23.5



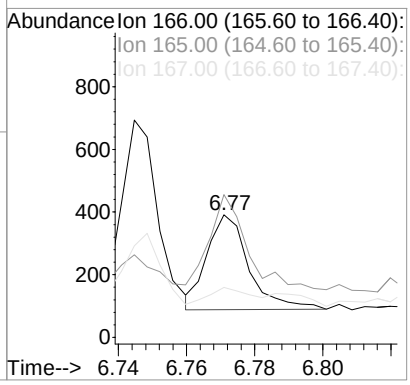
1st 11/30/18
2nd 12/06/18

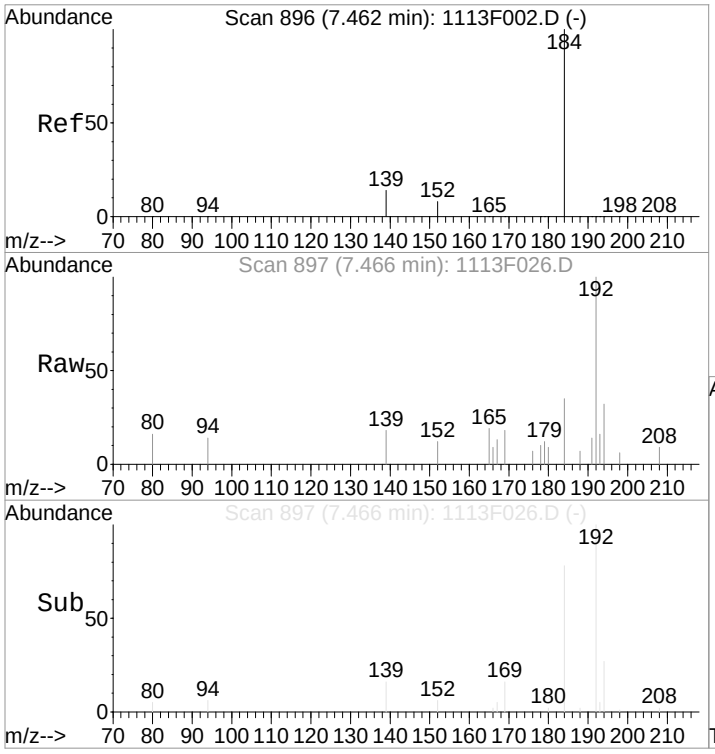


#14
Fluorene
Concen: 0.91 ng/ml
RT: 6.77 min Scan# 720
Delta R.T. -0.01 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:166 Resp: 258

Ion	Ratio	Lower	Upper
166	100		
165	101.0	63.4	123.4
167	19.9	0.0	33.1

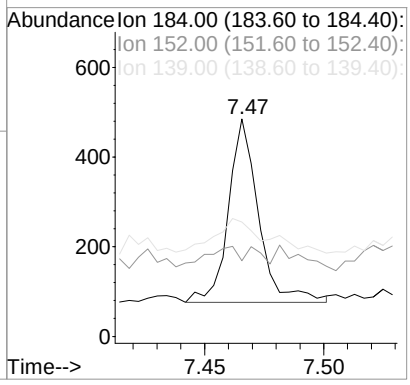




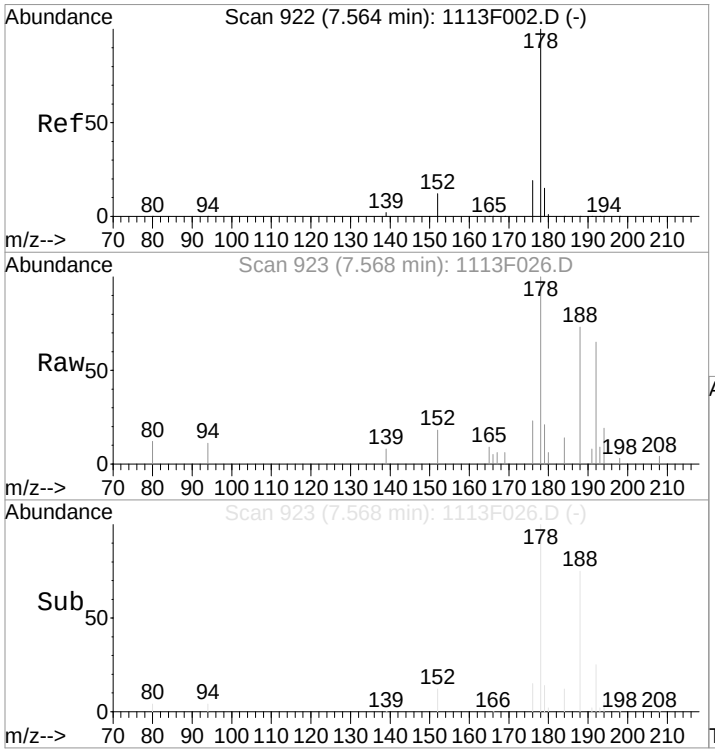
#16
Dibenzothiophene
Concen: 0.79 ng/ml
RT: 7.47 min Scan# 897
Delta R.T. -0.01 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:184 Resp: 362

Ion	Ratio	Lower	Upper
184	100		
152	2.9	0.0	37.8
139	16.9	0.0	32.6



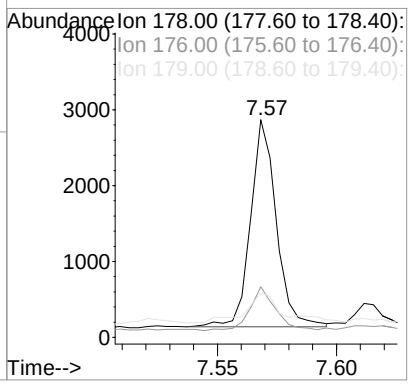
1st 11/30/18
2nd 12/06/18

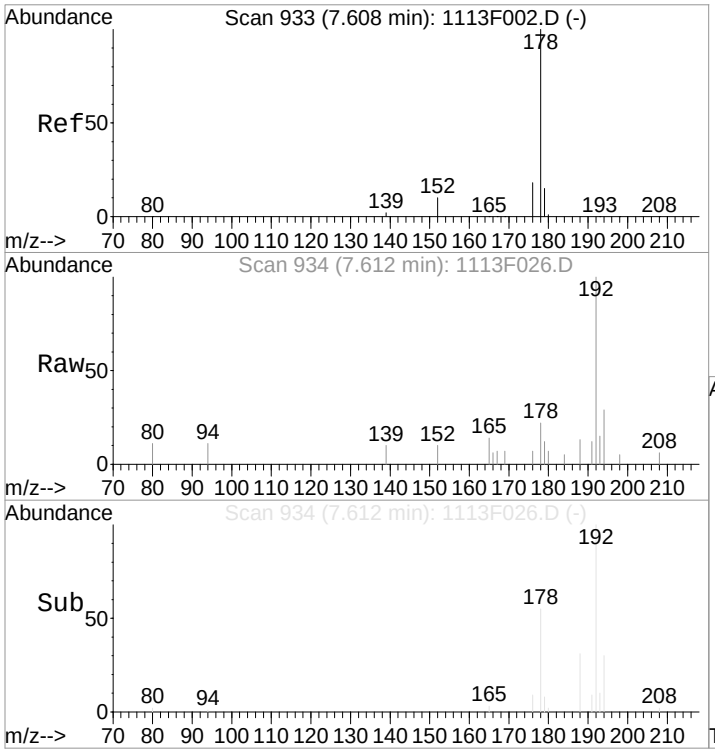


#17
Phenanthrene
Concen: 4.48 ng/ml
RT: 7.57 min Scan# 923
Delta R.T. -0.01 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:178 Resp: 2055

Ion	Ratio	Lower	Upper
178	100		
176	20.6	0.0	48.7
179	14.6	0.0	35.1

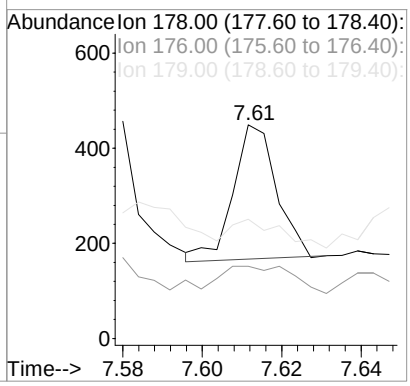




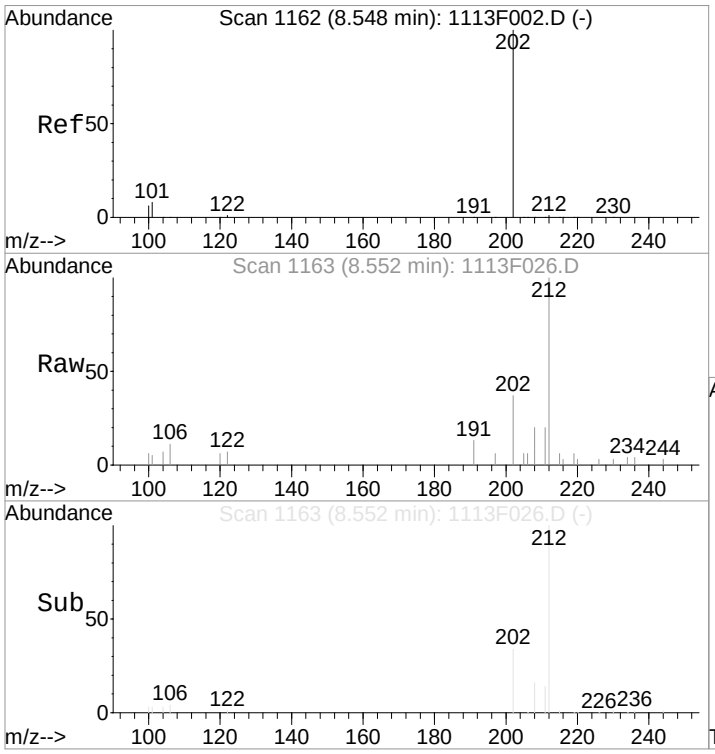
#18
Anthracene
Concen: 0.49 ng/ml
RT: 7.61 min Scan# 934
Delta R.T. -0.01 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:178 Resp: 215

Ion	Ratio	Lower	Upper
178	100		
176	20.7	0.0	48.0
179	22.2	0.0	35.1



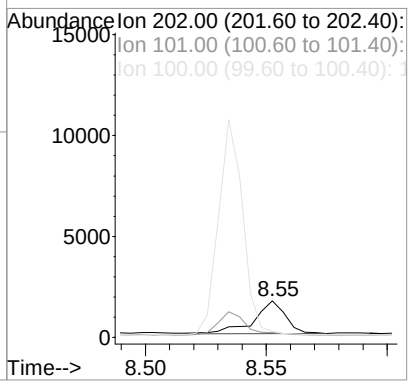
1st 11/30/18
2nd 12/06/18

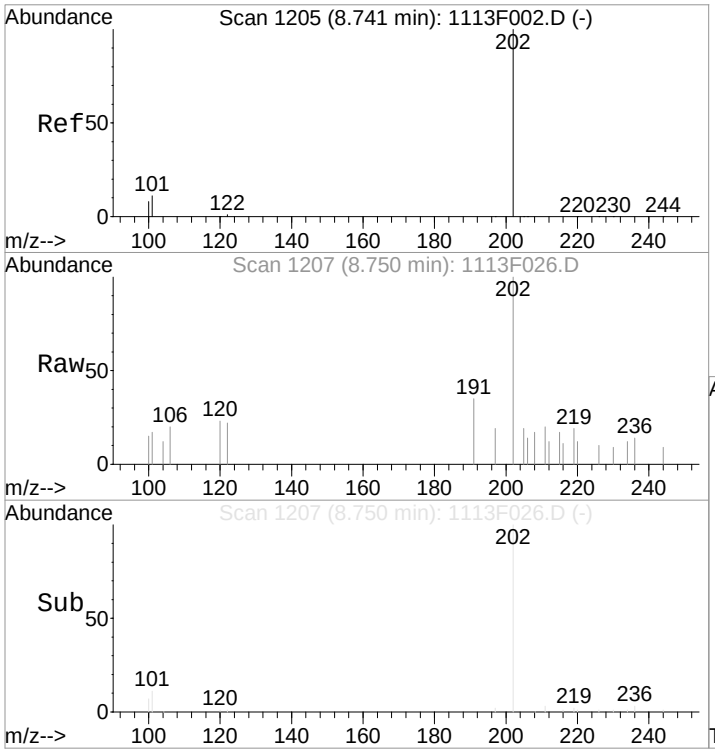


#21
Fluoranthene
Concen: 2.61 ng/ml
RT: 8.55 min Scan# 1163
Delta R.T. -0.01 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:202 Resp: 1476

Ion	Ratio	Lower	Upper
202	100		
101	8.3	0.0	41.3
100	10.8	0.0	28.6

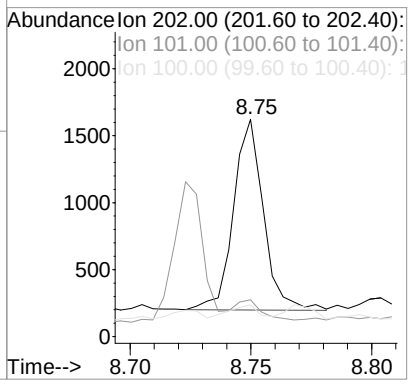


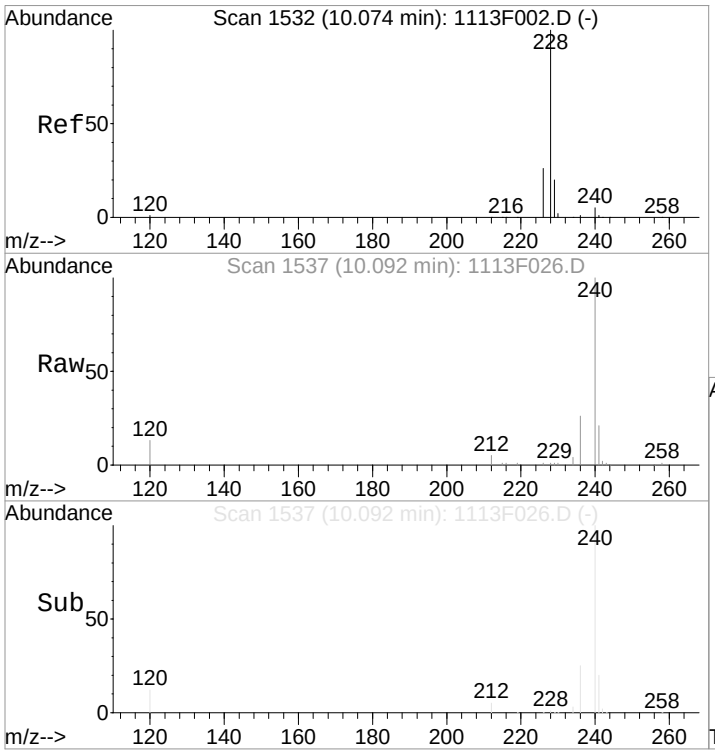


#24
Pyrene
Concen: 2.41 ng/ml
RT: 8.75 min Scan# 1207
Delta R.T. -0.01 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:202 Resp: 1230

Ion	Ratio	Lower	Upper
202	100		
101	10.5	0.0	40.8
100	7.4	0.0	28.5

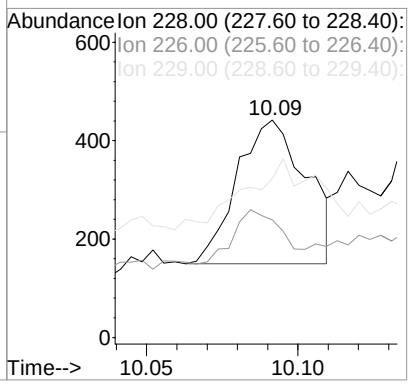


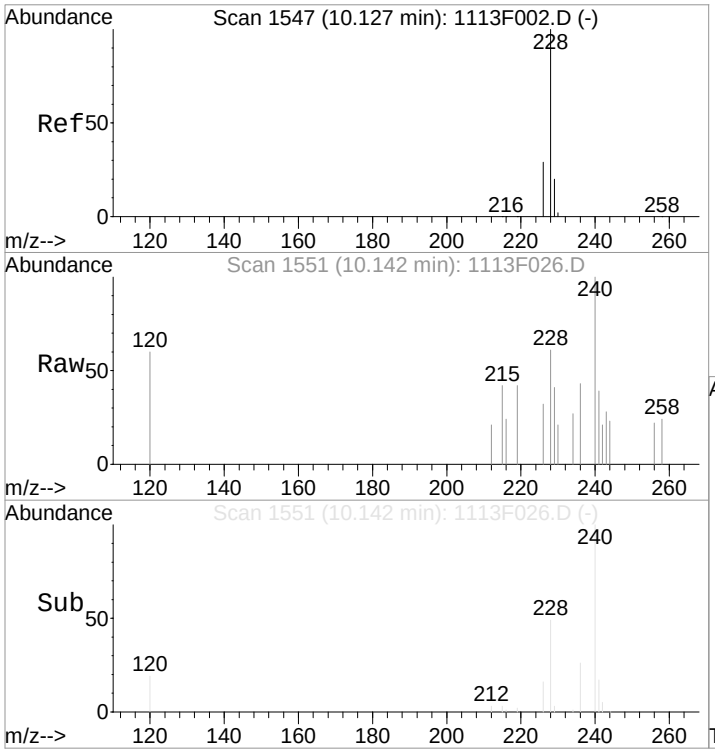


#26
Benz(a)anthracene
Concen: 0.97 ng/ml
RT: 10.09 min Scan# 1537
Delta R.T. -0.01 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:228 Resp: 466

Ion	Ratio	Lower	Upper
228	100		
226	29.5	0.0	56.3
229	28.4	0.0	39.1

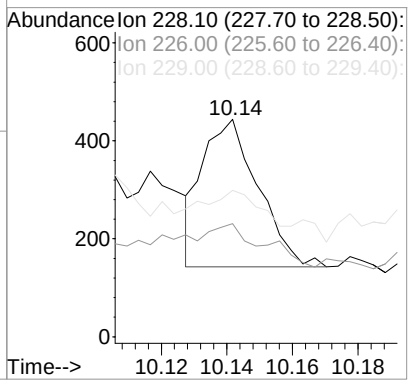




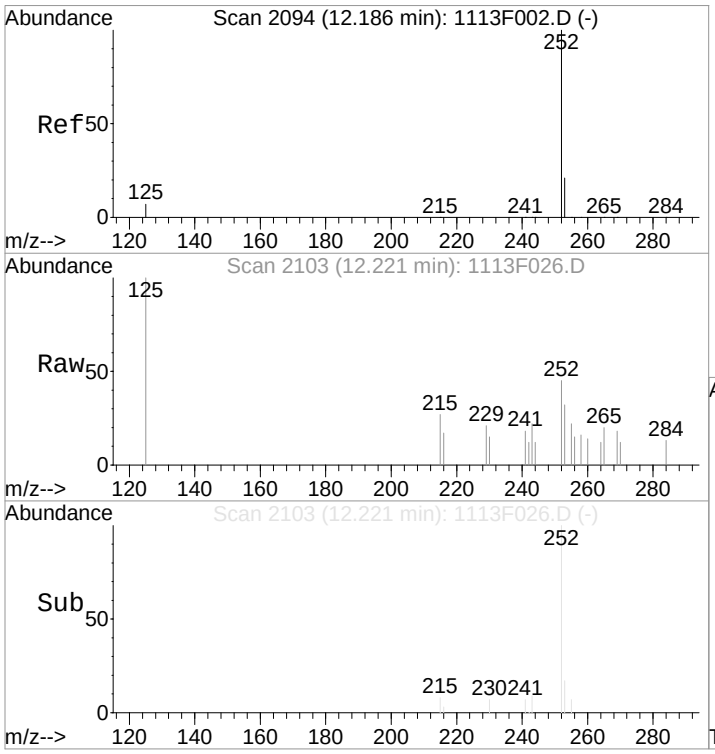
#27
Chrysene
Concen: 0.77 ng/ml
RT: 10.14 min Scan# 1551
Delta R.T. -0.01 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:228 Resp: 356

Ion	Ratio	Lower	Upper
228	100		
226	23.9	0.0	58.7
229	35.2	0.0	39.2



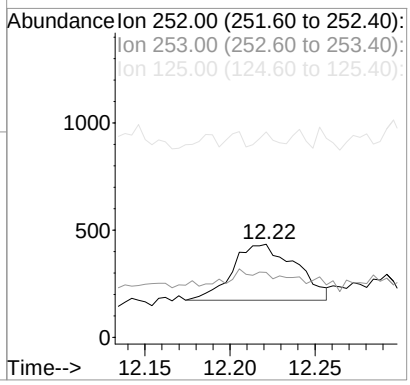
1st 11/30/18
2nd 12/06/18

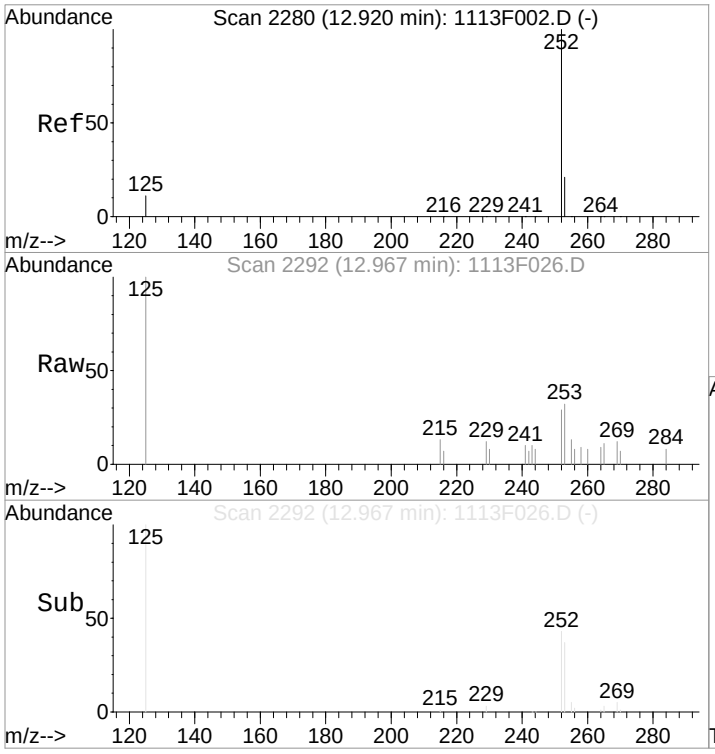


#29
Benzo(b)fluoranthene
Concen: 1.35 ng/ml
RT: 12.22 min Scan# 2103
Delta R.T. -0.00 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:252 Resp: 680

Ion	Ratio	Lower	Upper
252	100		
253	23.0	0.0	51.2
125	22.6	0.0	29.5

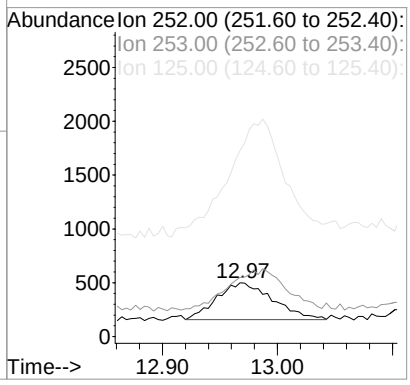




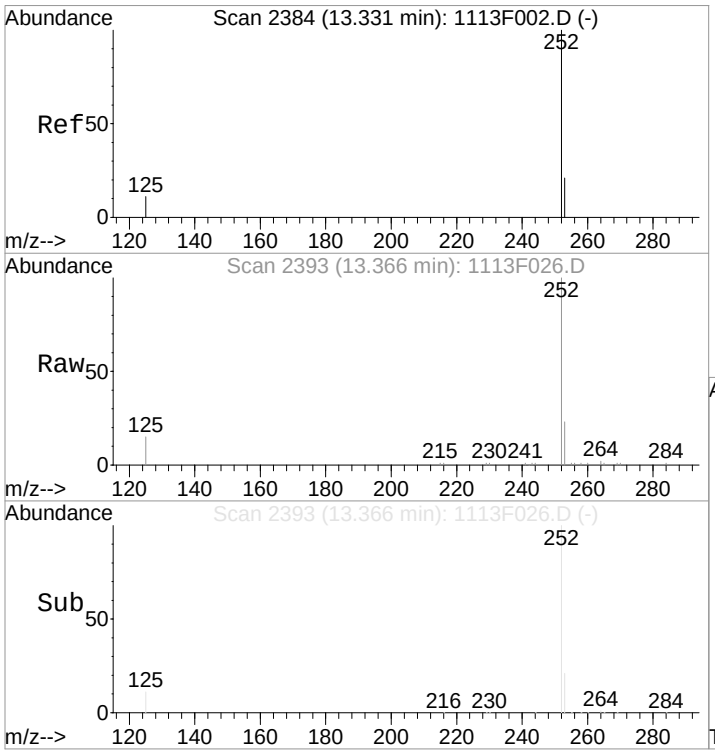
#31
Benzo(e)pyrene
Concen: 2.40 ng/ml
RT: 12.97 min Scan# 2292
Delta R.T. -0.00 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:252 Resp: 1157

Ion	Ratio	Lower	Upper
252	100		
253	85.6	0.0	51.3#
125	210.3	0.0	33.5#



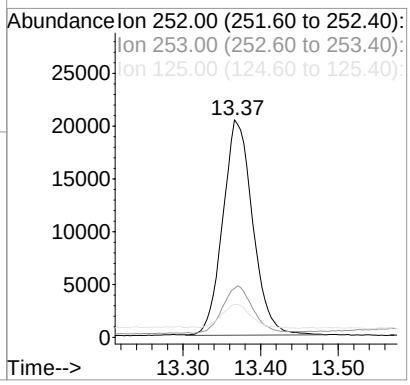
1st 11/30/18
2nd 12/06/18

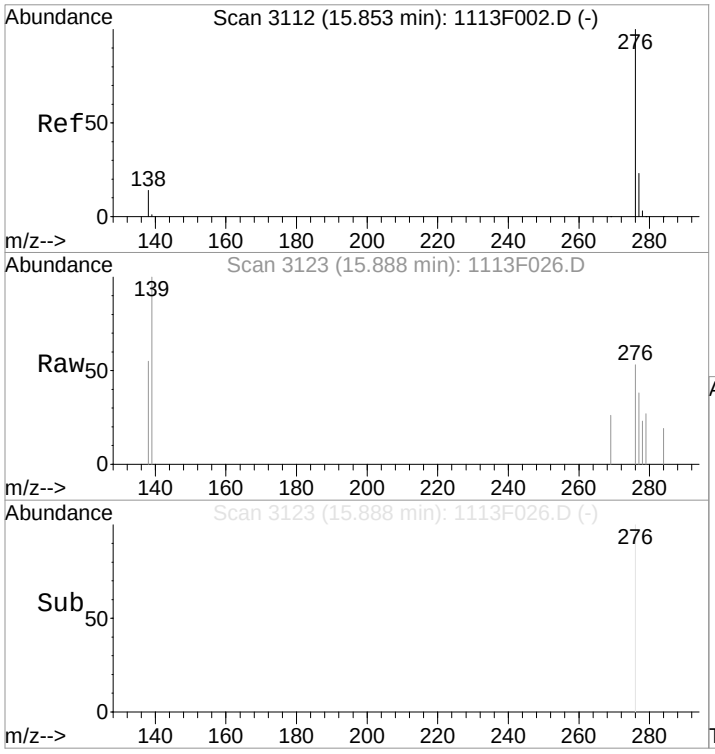


#33
Perylene
Concen: 117.38 ng/ml
RT: 13.37 min Scan# 2393
Delta R.T. -0.01 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:252 Resp: 54576

Ion	Ratio	Lower	Upper
252	100		
253	20.7	0.0	51.2
125	10.9	0.0	33.8

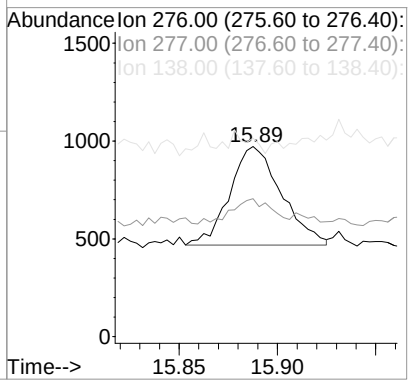




#36
Benzo(g,h,i)perylene
Concen: 1.81 ng/ml
RT: 15.89 min Scan# 3123
Delta R.T. 0.01 min
Lab File: 1113F026.D
Acq: 13 Nov 2018 3:32 pm

Tgt Ion:276 Resp: 922

Ion	Ratio	Lower	Upper
276	100		
277	23.2	0.0	53.1
138	10.9	0.0	39.2



Quantitation Report (QT Reviewed)

1st 11/30/18
2nd 12/06/18

Data File : J:\MS14\DATA\111318\1113F026.D Vial: 26
Acq On : 13 Nov 2018 3:32 pm Operator: LWeiskopf
Sample : K1810302-016 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 05:41:37 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Nov 13 06:57:35 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	60499	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.31	164	34026	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.55	188	73523	200.00	ng/ml	-0.01
23) Chrysene-d12	10.10	240	74466	200.00	ng/ml	-0.01
28) Perylene-d12	13.29	264	81808	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.38	152	106645	631.53	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	63.15%		
13) Fluorene-d10	6.75	176	149144	685.52	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	68.55%		
22) Fluoranthene-d10	8.54	212	300233	647.93	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	64.79%		
25) Terphenyl-d14	8.88	244	245415	759.82	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	75.98%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	959	2.75	ng/ml	94
4) 2-Methylnaphthalene	5.41	142	367	1.74	ng/ml	92
5) 1-Methylnaphthalene	5.50	142	232m	1.14	ng/ml	
6) Biphenyl	5.82	154	599	2.28	ng/ml	94
7) 2,6-Dimethylnaphthalene	5.96	156	127	0.70	ng/ml	83
9) Acenaphthylene	6.19	152	696	1.71	ng/ml#	1
10) Acenaphthene	6.34	154	140	0.60	ng/ml	93
11) Dibenzofuran	6.49	168	397	1.06	ng/ml	71
14) Fluorene	6.77	166	258	0.91	ng/ml	91
16) Dibenzothiophene	7.47	184	362	0.79	ng/ml	88
17) Phenanthrene	7.57	178	2055	4.48	ng/ml	97
18) Anthracene	7.61	178	215	0.49	ng/ml	89
21) Fluoranthene	8.55	202	1476	2.61	ng/ml	93
24) Pyrene	8.75	202	1230	2.41	ng/ml	98
26) Benz(a)anthracene	10.09	228	466	0.97	ng/ml	88
27) Chrysene	10.14	228	356	0.77	ng/ml	80
29) Benzo(b)fluoranthene	12.22	252	680	1.35	ng/ml	86
31) Benzo(e)pyrene	12.97	252	1157	2.40	ng/ml#	1
33) Perylene	13.37	252	54576	117.38	ng/ml	97
36) Benzo(g,h,i)perylene	15.89	276	922	1.81	ng/ml	92

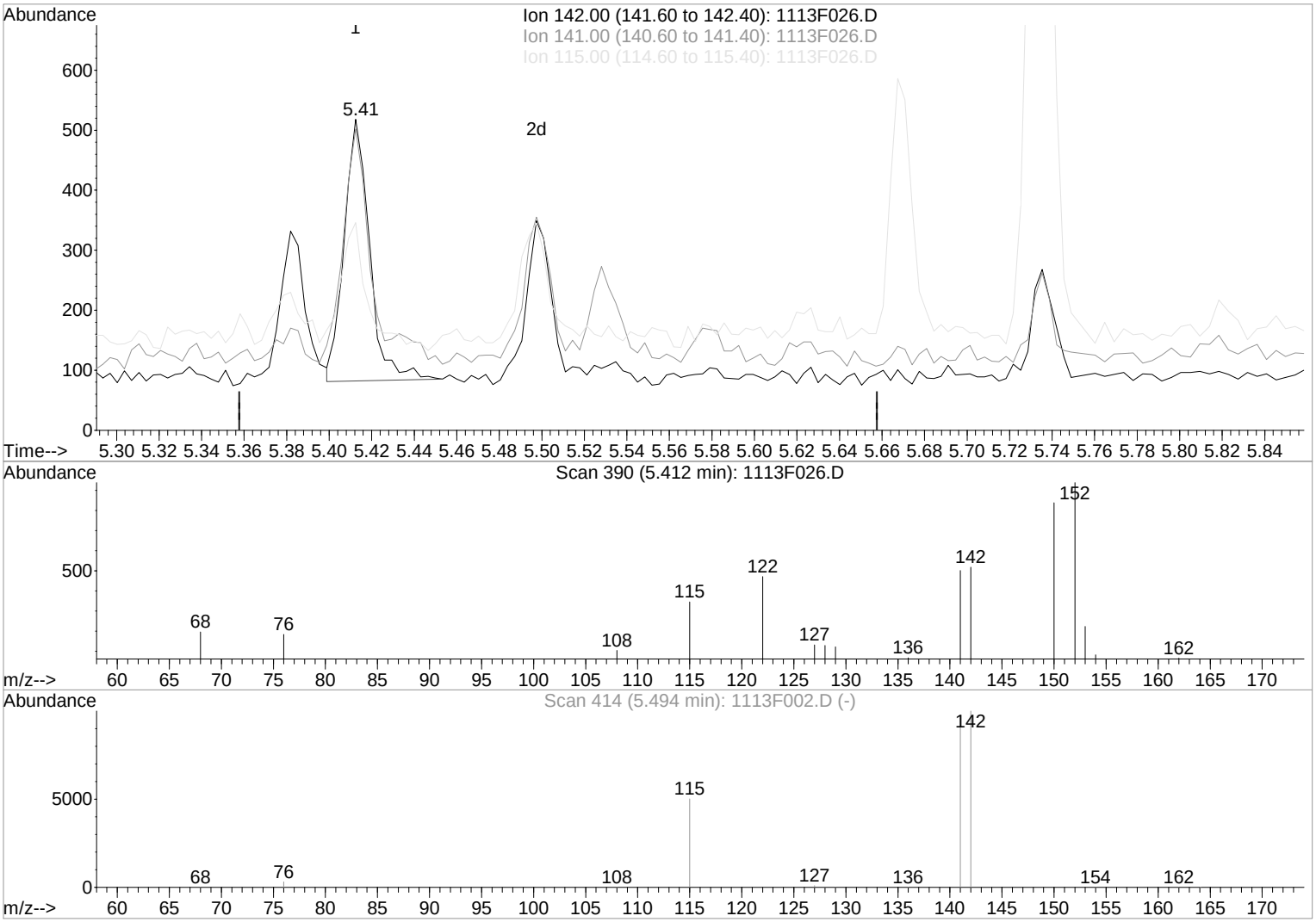
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 11/30/18
2nd 12/06/18

Data File : J:\MS14\DATA\111318\1113F026.D Vial: 26
Acq On : 13 Nov 2018 3:32 pm Operator: LWeiskopf
Sample : K1810302-016 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 5:41 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Nov 29 12:52:23 2018
Response via : Multiple Level Calibration



TIC: 1113F026.D

(5) 1-Methylnaphthalene (T)

5.41min 1.79ng/ml

response 363

Ion	Exp%	Act%
142.00	100	100
141.00	89.70	90.53
115.00	33.70	43.42
0.00	0.00	0.00

Manual Integration:

Before

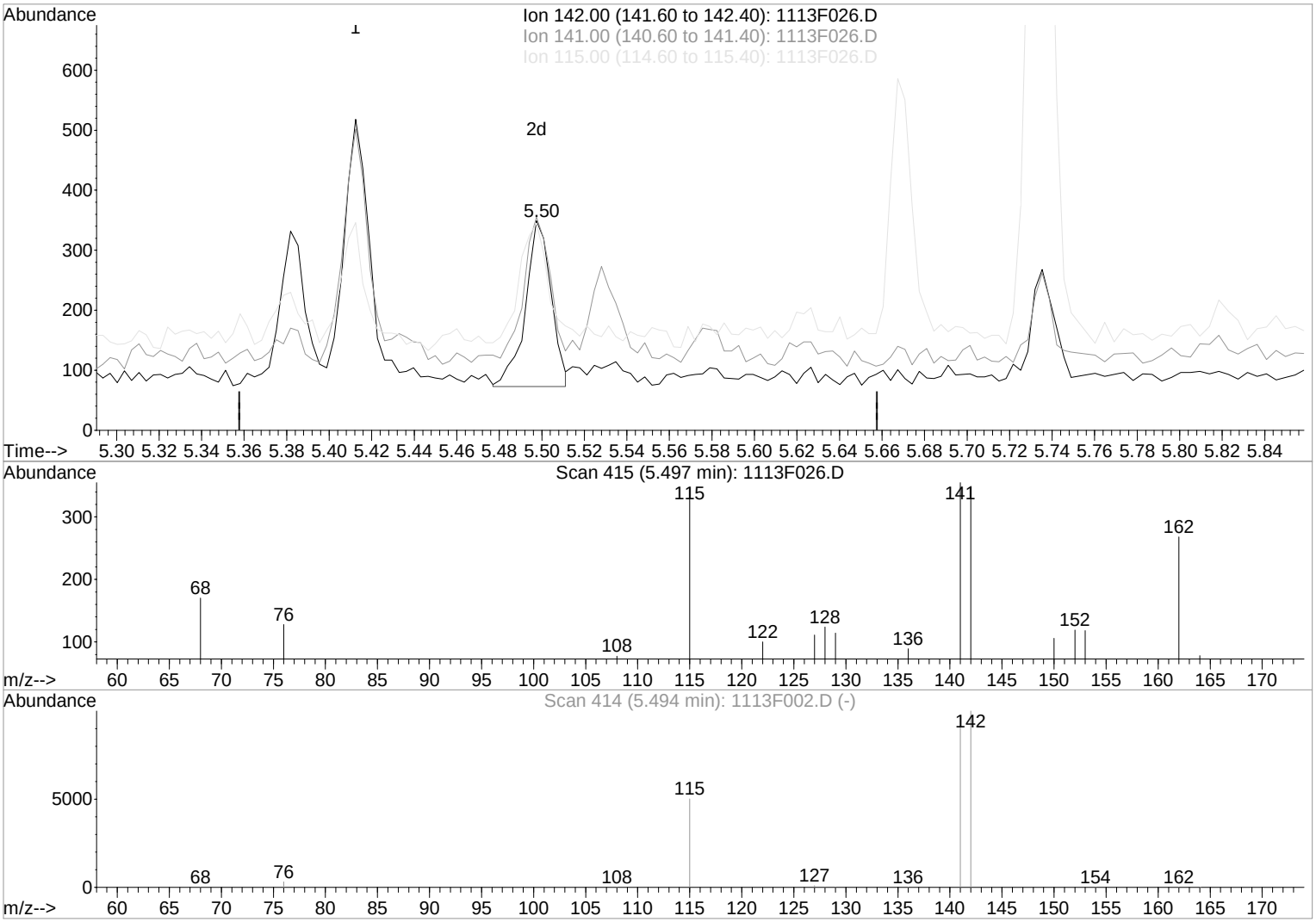
11/29/18

Quantitation Report (Qedit)

1st 11/30/18
2nd 12/06/18

Data File : J:\MS14\DATA\111318\1113F026.D Vial: 26
Acq On : 13 Nov 2018 3:32 pm Operator: LWeiskopf
Sample : K1810302-016 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 29 13:25 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Nov 29 12:52:23 2018
Response via : Multiple Level Calibration



TIC: 1113F026.D

(5) 1-Methylnaphthalene (T)

5.50min 1.14ng/ml m

response 232

Ion	Exp%	Act%
142.00	100	100
141.00	89.70	101.72
115.00	33.70	98.85#
0.00	0.00	0.00

Manual Integration:

After

WP

11/29/18

1st 11/16/18
2nd 11/27/18

Exception Report

Data File: J:\MS14\DATA\110618\1106F010.D
Lab ID: K1810302-022
RunType: SMPL
Matrix: SEDIMENT

Date Acquired: 11/06/2018 09:25
Date Quantitated: 11/16/2018 10:07
Batch ID: KWG1806026
Analysis Method: 8270D SIM
ListJoinID: LJ12908

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	NA	NA	NA	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	
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: _____

Secondary Review: _____

1st 11/16/18
2nd 11/27/18

Quantitation Report

Data File:	J:\MS14\DATA\110618\1106F010.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 09:25	**Quant Date:**	11/16/2018 10:07	**Vial:**	10
Run Type:	SMPL	**ListJoinID:**	LJ12908	**Dilution:**	1.0
Lab ID:	K1810302-022			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	IV	**Matrix:**	SEDIMENT
Prod Code:	8270D PAH SIM U	**Collect Date:**	10/21/2018	**Receive Date:**	10/22/2018

Analysis Lot:	KWG1806026	**Prep Lot:**	KWG1805647	**Report Group:**	K1810302
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1701153	**Prep Date:**	11/01/2018		

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ12908
Tune Ref:	J:\MS14\DATA\110618\1106F001.D	**Method ID:**	MJ1233
MB Ref:	J:\MS14\DATA\110618\1106F006.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	4.76	0.00	136	64779	200.00	OK
2	Acenaphthene-d10	6.32	0.00	164	31116	200.00	OK
3	Phenanthrene-d10	7.56	0.00	188	62562	200.00	OK
4	Chrysene-d12	10.12	0.01	240	84977	200.00	OK
5	Perylene-d12	13.36	0.09	264	94970	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	6.76	0.00	0.00	176	126437	635.50	64	26-102	OK	
3	Fluoranthene-d10	8.55	0.01	0.00	212	292880	742.79	74	23-110	OK	
4	Terphenyl-d14	8.90	0.01	0.00	244	267356	725.37	73	27-115	OK	

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.78		0.00	128	13245	35.42	2.7		
1	2-Methylnaphthalene	5.42		0.00	142	5638	25.00	1.9		
2	Acenaphthylene	6.20		0.00	152	6909	18.61	1.4		
2	Acenaphthene	6.34	-0.01	0.00	154	5877	27.56	2.1		
2	Dibenzofuran	6.50		0.00	168	4243**m**	12.40	0.93		
2	Fluorene	6.78		0.00	166	5825	22.58	1.7		
3	Phenanthrene	7.58		0.00	178	110630	283.47	21		
3	Anthracene	7.62		0.00	178	16297	43.74	3.3		
3	Fluoranthene	8.57	0.01	0.00	202	167151	346.85	26		
4	Pyrene	8.76	0.01	0.00	202	213619	366.40	28		
4	Benz(a)anthracene	10.11	0.02	0.00	228	84817	154.38	12		
4	Chrysene	10.16	0.01	0.00	228	103507	196.69	15		

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:\MS14\DATA\110618\1106F010.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 09:25	**Quant Date:**	11/16/2018 10:07	**Vial:**	10
Run Type:	SMPL	**ListJoinID:**	LJ12908	**Dilution:**	1.0
Lab ID:	K1810302-022			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
5	Benzo(b)fluoranthene	12.26	0.05	0.00	252	120602	205.54	15		
5	Benzo(k)fluoranthene	12.32	0.04	0.00	252	43785**m**	75.22	5.7		
5	Benzo(a)pyrene	13.17	0.07	0.00	252	101400	197.06	15		
5	Indeno(1,2,3-cd)pyrene	15.52	0.05	0.00	276	65148	129.12	9.7		
5	Dibenz(a,h)anthracene	15.56	0.05	0.00	278	15237	29.79	2.2		
5	Benzo(g,h,i)perylene	15.92	0.06	0.00	276	81005	137.09	10		

Prep Amount:	40.237 g	**Dilution:**	1.0
Prep Final Vol:	2 mL	**Unit Factor:**	1
Solids:	66 %		

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

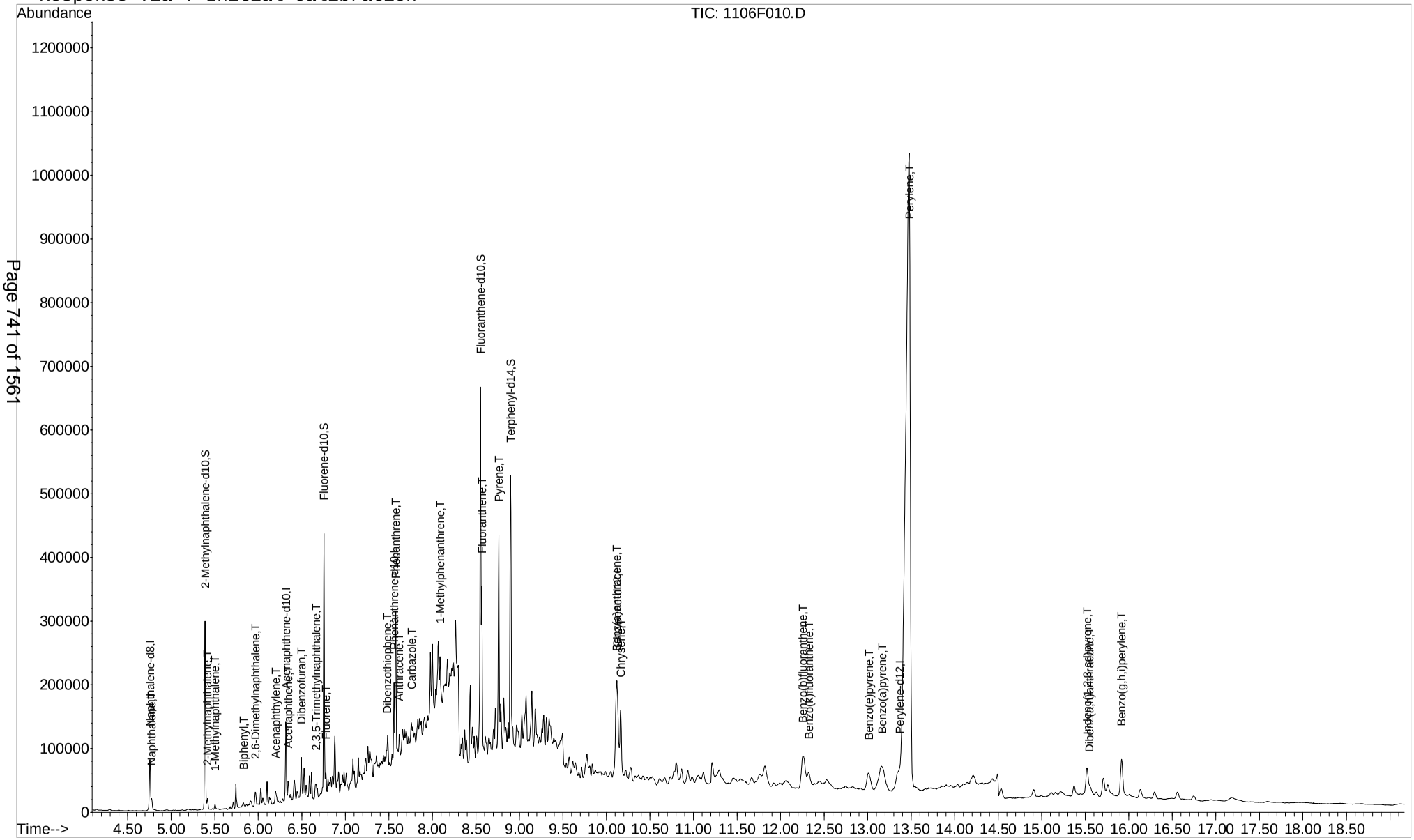
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 11/16/18
2nd 11/27/18

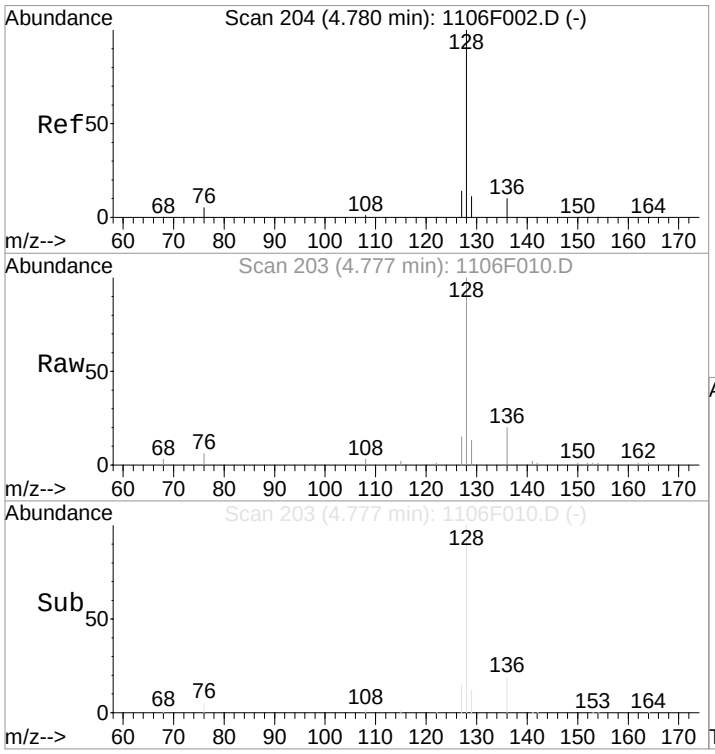
Data File : J:\MS14\DATA\110618\1106F010.D Vial: 10
Acq On : 6 Nov 2018 9:25 am Operator: LWeiskopf
Sample : K1810302-022 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:07 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration



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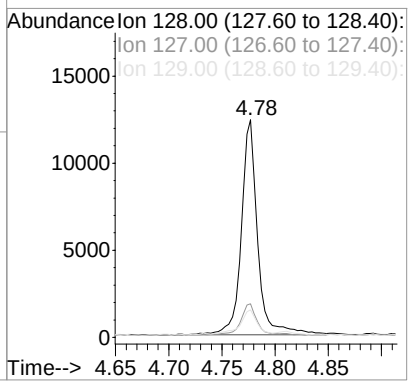
1st 11/16/18
2nd 11/27/18

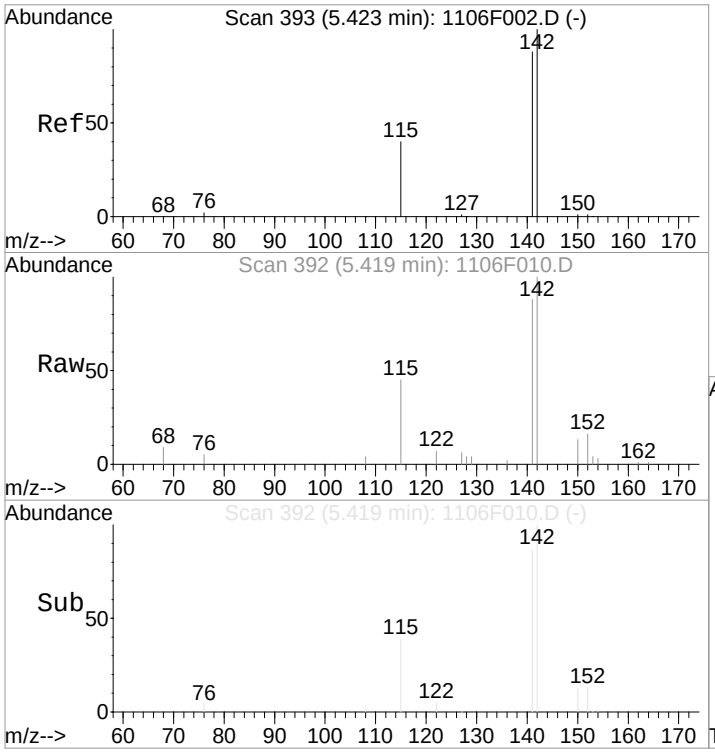


#2
Naphthalene
Concen: 35.42 ng/ml
RT: 4.78 min Scan# 203
Delta R.T. -0.00 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:128 Resp: 13245

Ion	Ratio	Lower	Upper
128	100		
127	14.4	0.0	43.7
129	11.7	0.0	30.8

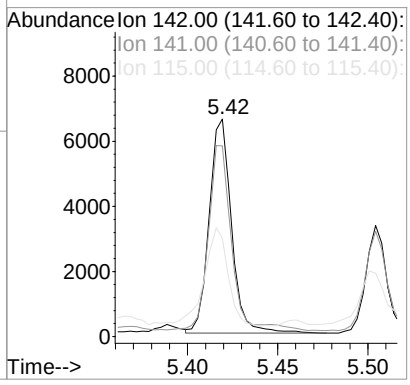




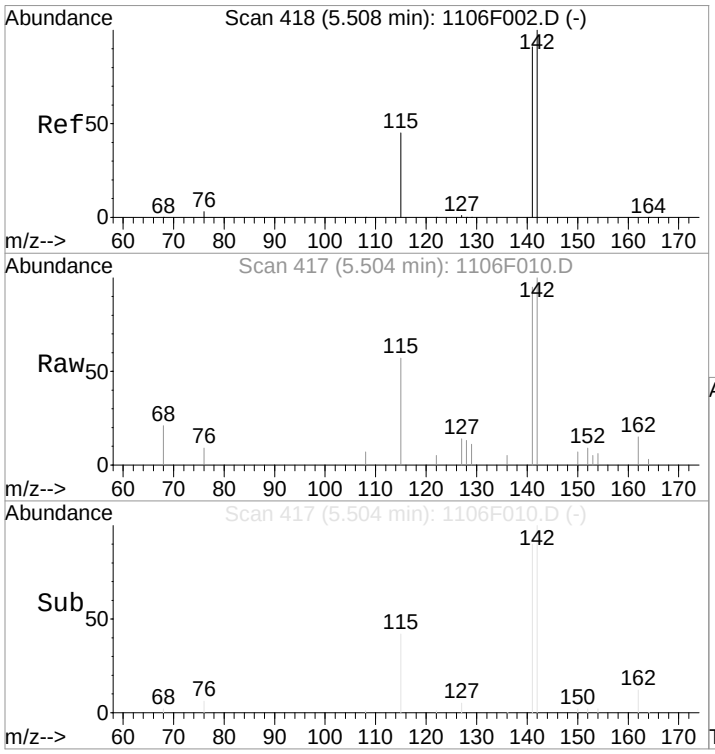
#4
2-Methylnaphthalene
Concen: 25.00 ng/ml
RT: 5.42 min Scan# 392
Delta R.T. -0.00 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:142 Resp: 5638

Ion	Ratio	Lower	Upper
142	100		
141	86.3	56.8	116.8
115	39.9	13.3	53.3



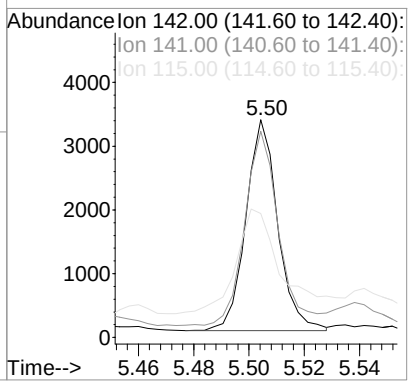
1st 11/16/18
2nd 11/27/18

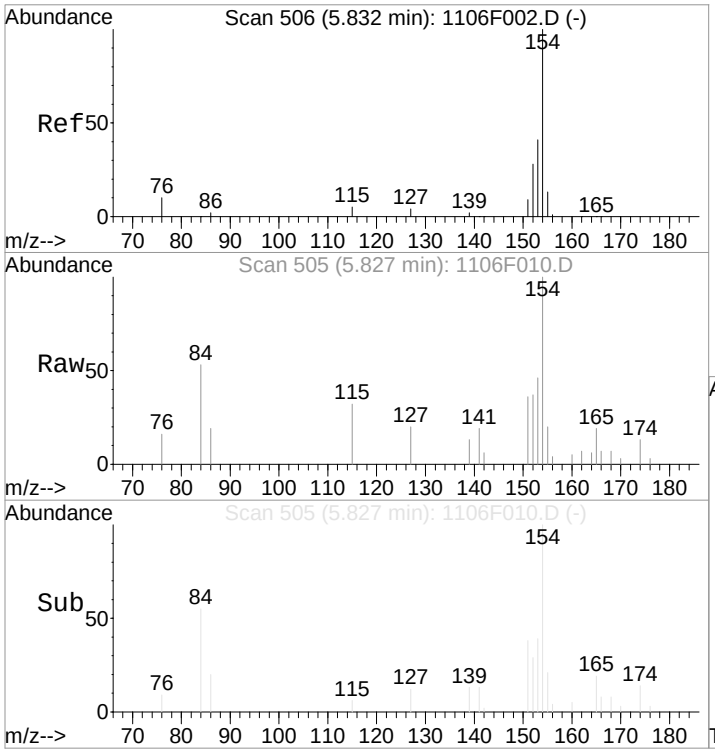


#5
1-Methylnaphthalene
Concen: 12.20 ng/ml
RT: 5.50 min Scan# 417
Delta R.T. -0.00 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:142 Resp: 2649

Ion	Ratio	Lower	Upper
142	100		
141	92.1	59.7	119.7
115	46.8	13.7	53.7

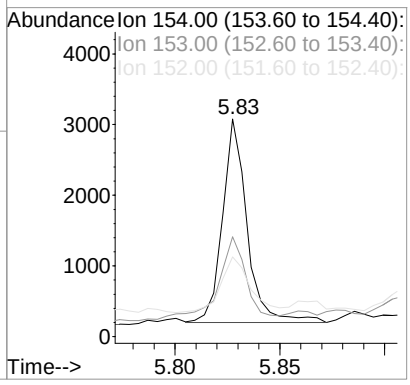




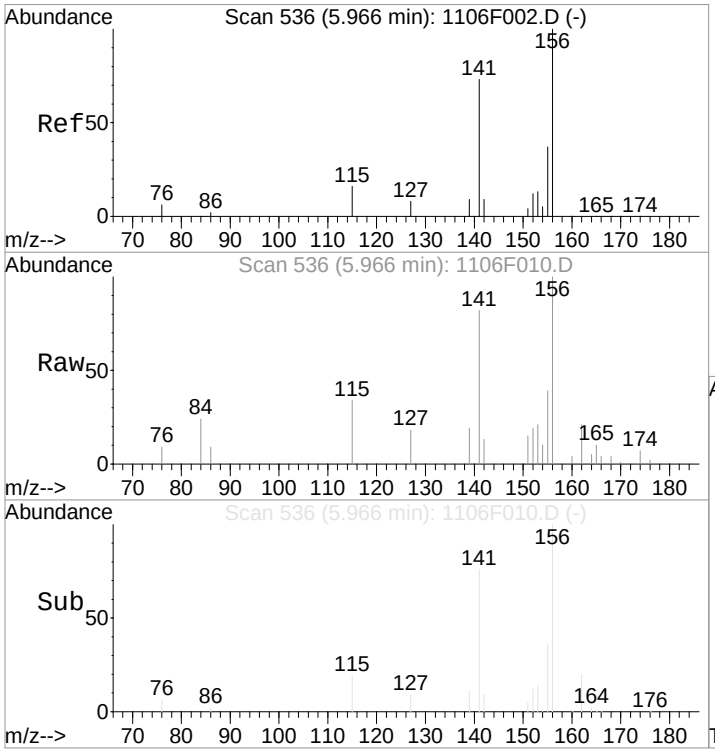
#6
Biphenyl
Concen: 8.37 ng/ml
RT: 5.83 min Scan# 505
Delta R.T. -0.00 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:154 Resp: 2355

Ion	Ratio	Lower	Upper
154	100		
153	37.8	11.4	71.4
152	26.8	7.1	47.1



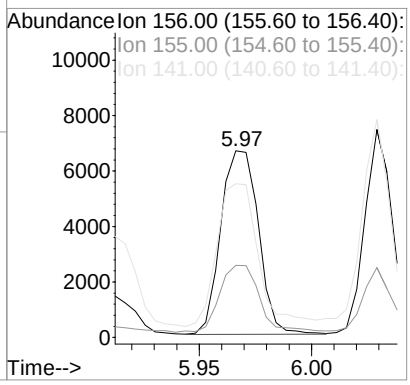
1st 11/16/18
2nd 11/27/18

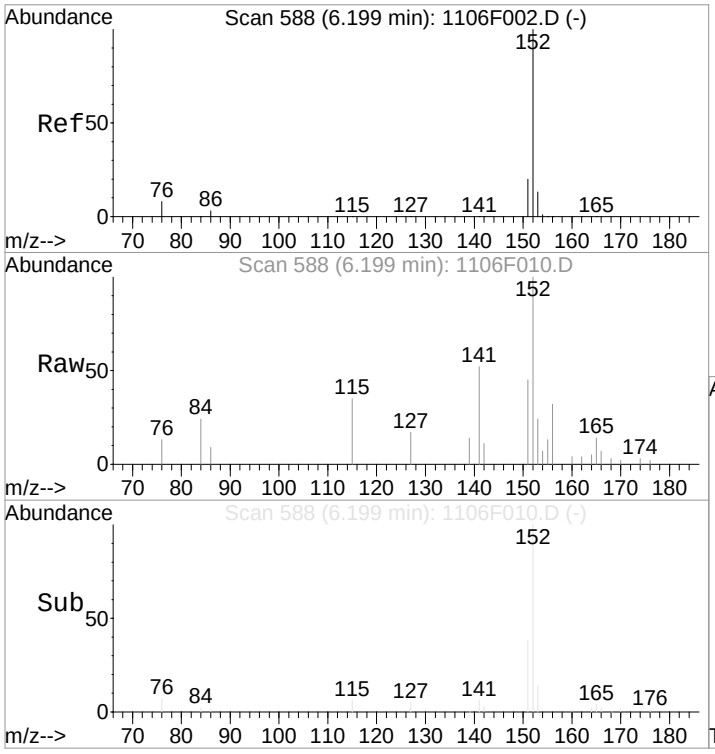


#7
2,6-Dimethylnaphthalene
Concen: 39.76 ng/ml
RT: 5.97 min Scan# 536
Delta R.T. -0.00 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:156 Resp: 7697

Ion	Ratio	Lower	Upper
156	100		
155	35.7	7.0	67.0
141	77.9	47.9	87.9

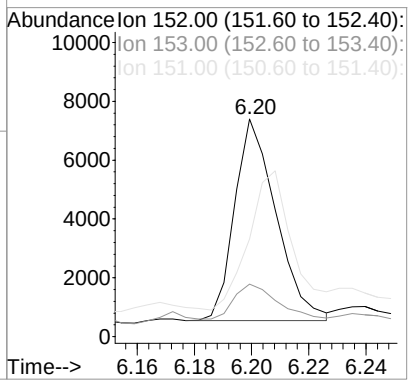




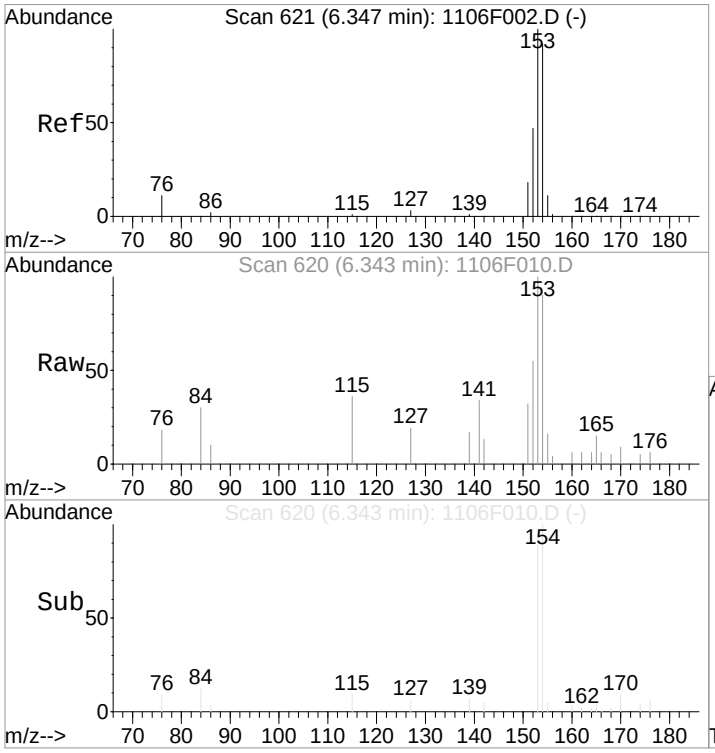
#9
Acenaphthylene
Concen: 18.61 ng/ml
RT: 6.20 min Scan# 588
Delta R.T. -0.00 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:152 Resp: 6909

Ion	Ratio	Lower	Upper
152	100		
153	16.8	0.0	42.9
151	34.1	0.2	40.2



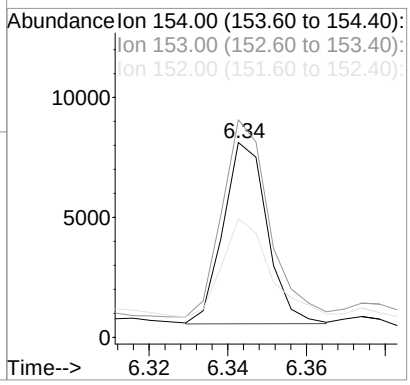
1st 11/16/18
2nd 11/27/18

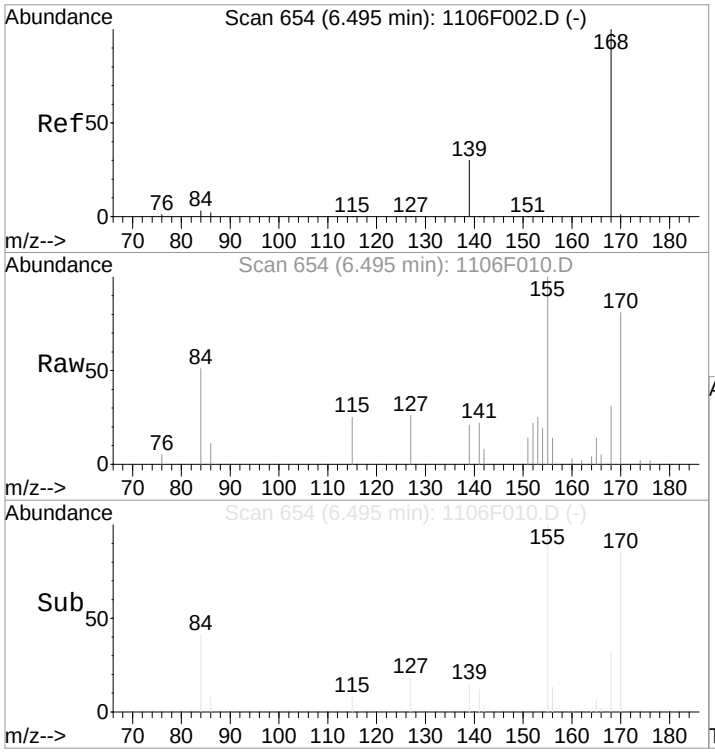


#10
Acenaphthene
Concen: 27.56 ng/ml
RT: 6.34 min Scan# 620
Delta R.T. -0.00 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:154 Resp: 5877

Ion	Ratio	Lower	Upper
154	100		
153	109.1	77.1	137.1
152	54.4	19.7	79.7

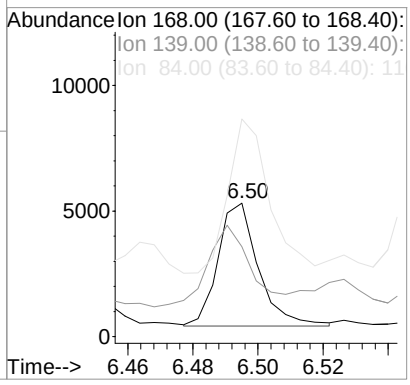


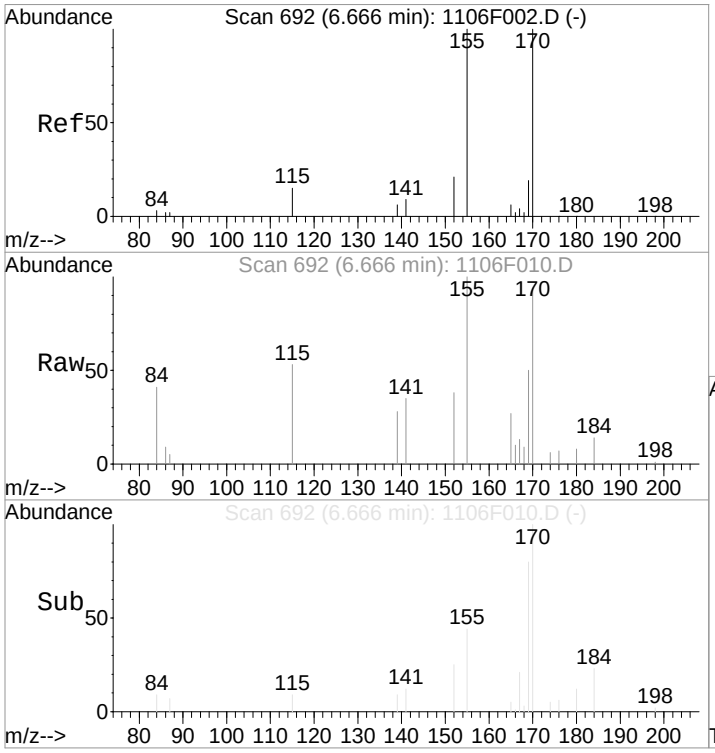


#11
Dibenzofuran
Concen: 12.40 ng/ml m
RT: 6.50 min Scan# 654
Delta R.T. -0.00 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:168 Resp: 4243

Ion	Ratio	Lower	Upper
168	100		
139	67.5	0.0	55.8#
84	163.0	0.0	23.5#

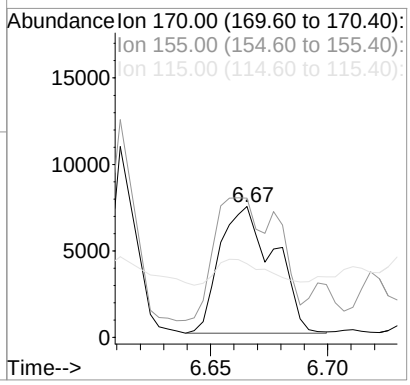


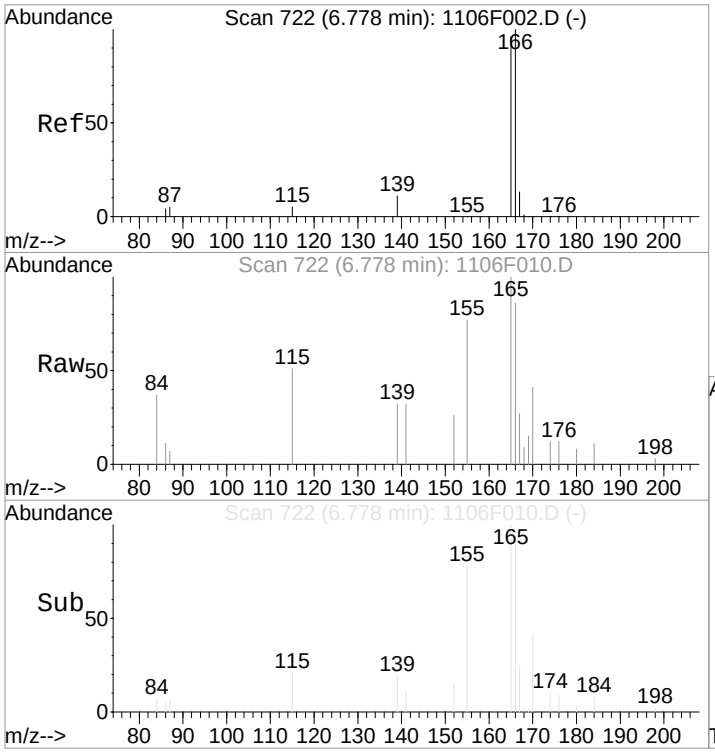


#12
2,3,5-Trimethylnaphthalene
Concen: 60.43 ng/ml
RT: 6.67 min Scan# 692
Delta R.T. -0.00 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:170 Resp: 11921

Ion	Ratio	Lower	Upper
170	100		
155	96.5	59.2	119.2
115	14.9	0.0	30.1

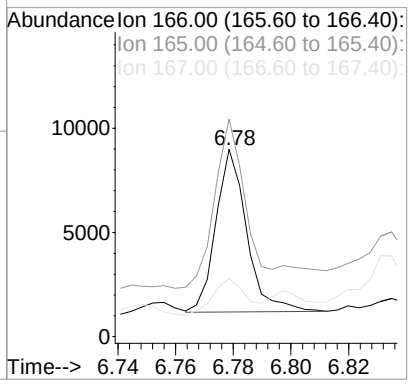




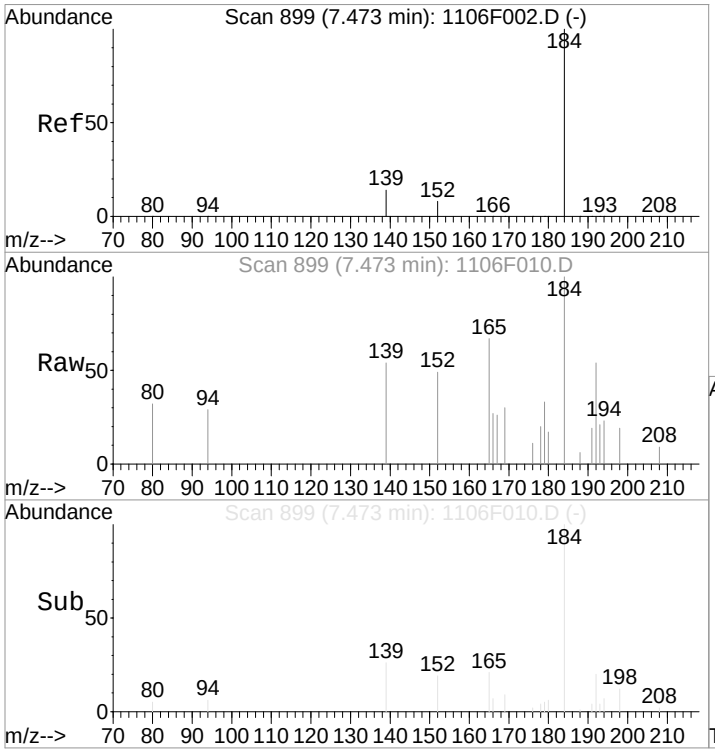
#14
Fluorene
Concen: 22.58 ng/ml
RT: 6.78 min Scan# 722
Delta R.T. -0.00 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:166 Resp: 5825

Ion	Ratio	Lower	Upper
166	100		
165	103.9	63.4	123.4
167	22.8	0.0	33.1



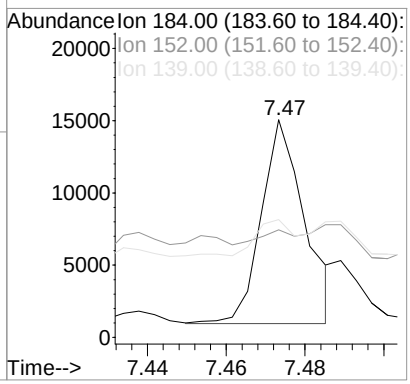
1st 11/16/18
2nd 11/27/18

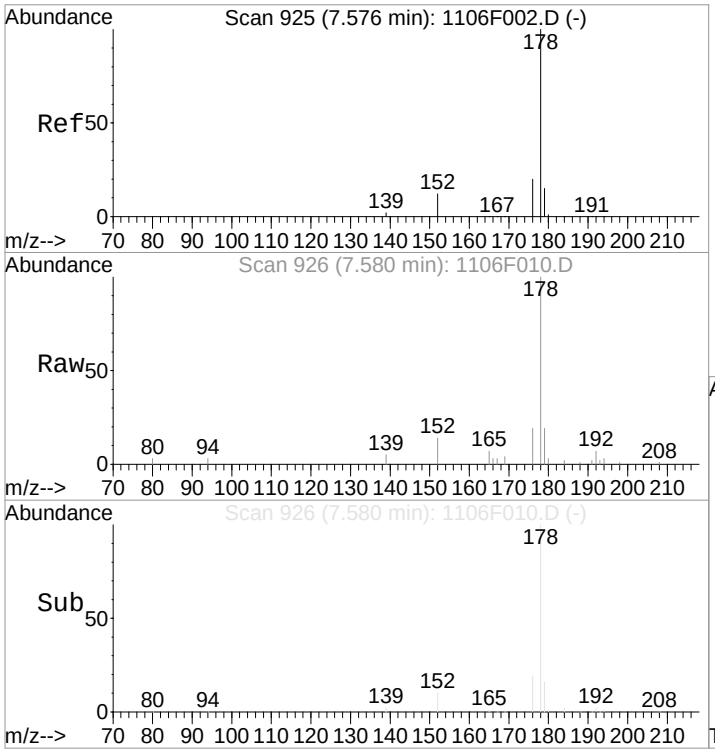


#16
Dibenzothiophene
Concen: 27.60 ng/ml m
RT: 7.47 min Scan# 899
Delta R.T. -0.00 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:184 Resp: 10770

Ion	Ratio	Lower	Upper
184	100		
152	49.5	0.0	37.8#
139	54.2	0.0	32.6#

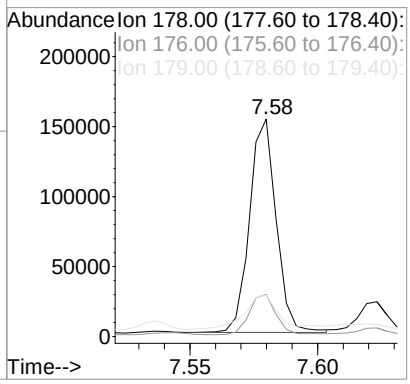




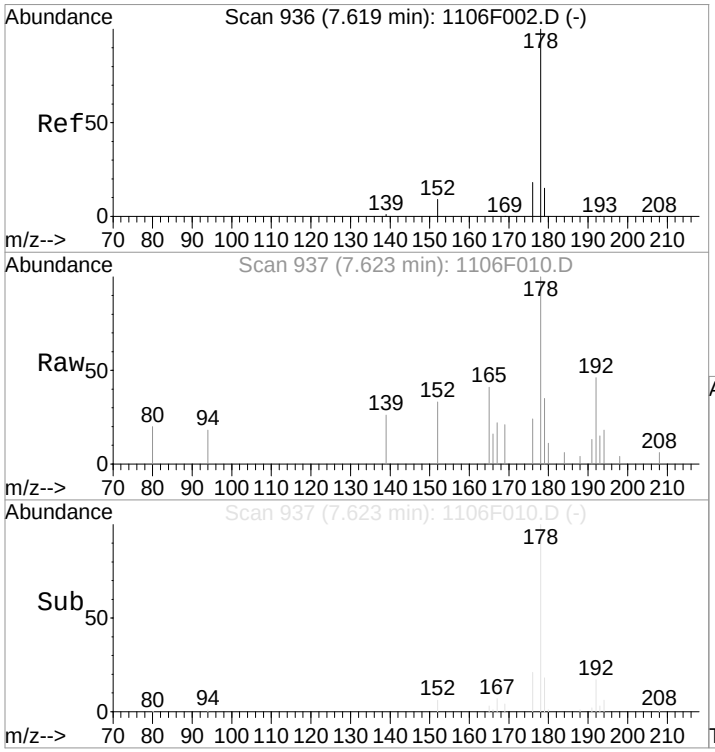
#17
Phenanthrene
Concen: 283.47 ng/ml
RT: 7.58 min Scan# 926
Delta R.T. 0.00 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:178 Resp: 110630

Ion	Ratio	Lower	Upper
178	100		
176	18.4	0.0	48.7
179	16.2	0.0	35.1



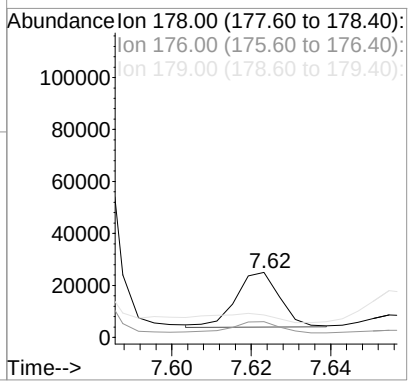
1st 11/16/18
2nd 11/27/18

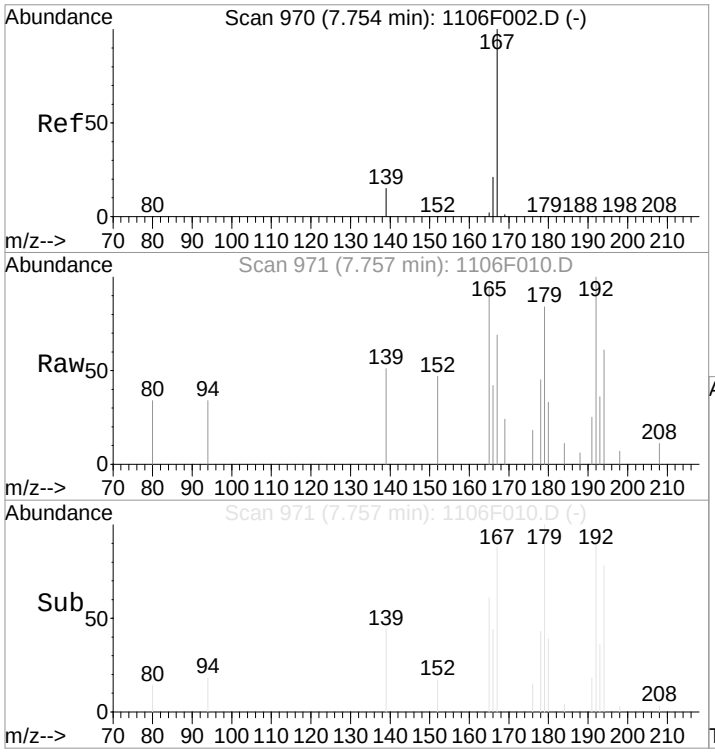


#18
Anthracene
Concen: 43.74 ng/ml
RT: 7.62 min Scan# 937
Delta R.T. 0.00 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:178 Resp: 16297

Ion	Ratio	Lower	Upper
178	100		
176	20.9	0.0	48.0
179	12.9	0.0	35.1

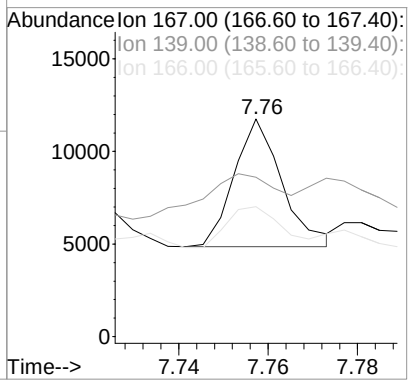


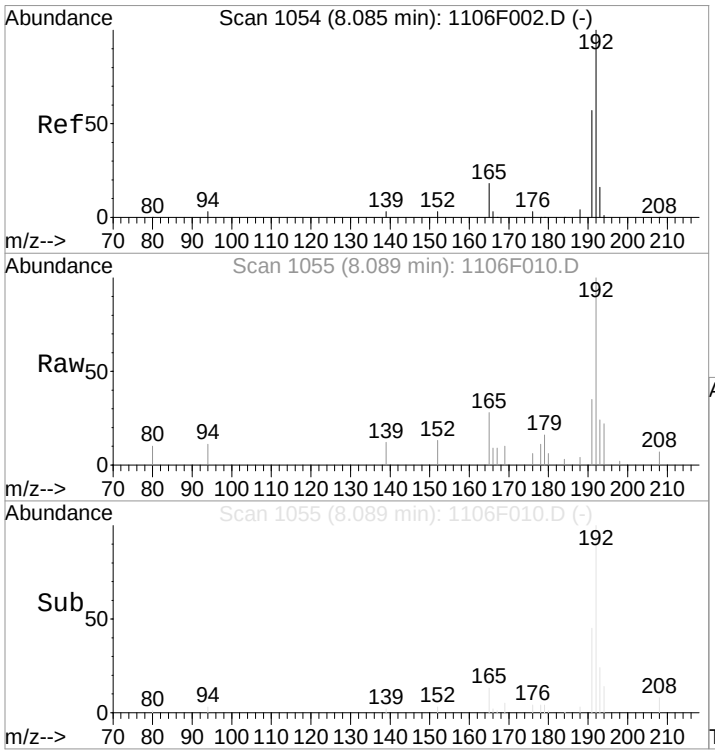


#19
Carbazole
Concen: 14.10 ng/ml
RT: 7.76 min Scan# 971
Delta R.T. 0.00 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:167 Resp: 5125

Ion	Ratio	Lower	Upper
167	100		
139	21.8	0.0	41.5
166	32.2	0.7	40.7

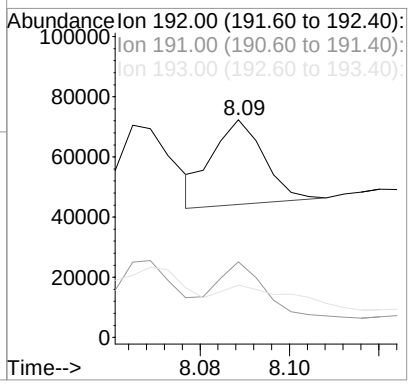


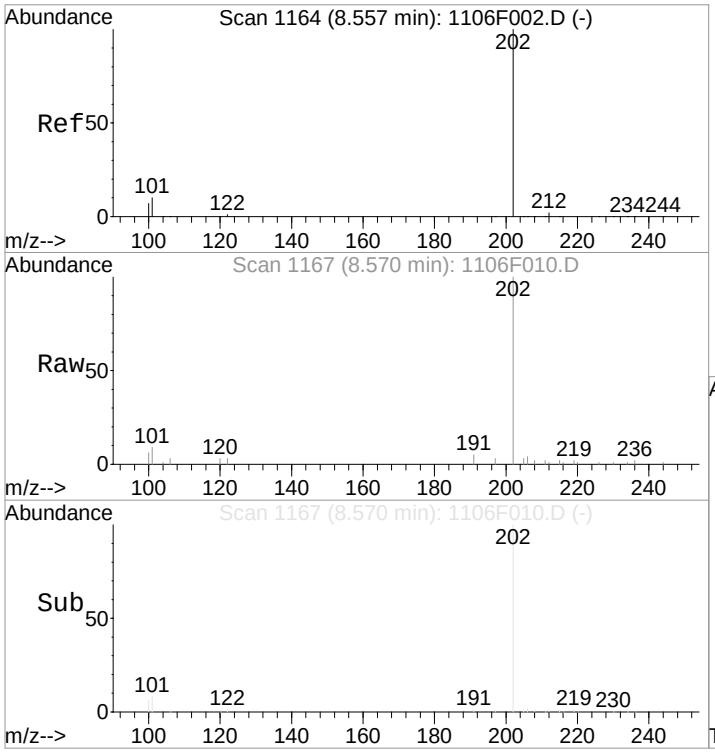


#20
1-Methylphenanthrene
Concen: 77.53 ng/ml
RT: 8.09 min Scan# 1055
Delta R.T. 0.00 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:192 Resp: 22920

Ion	Ratio	Lower	Upper
192	100		
191	69.2	27.7	87.7
193	23.2	0.0	45.4

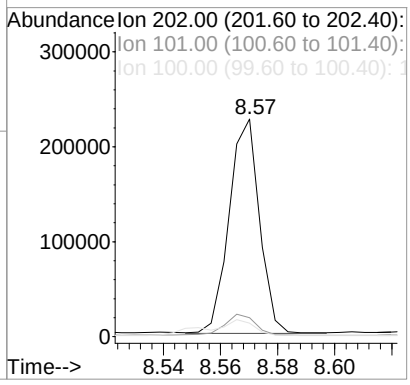




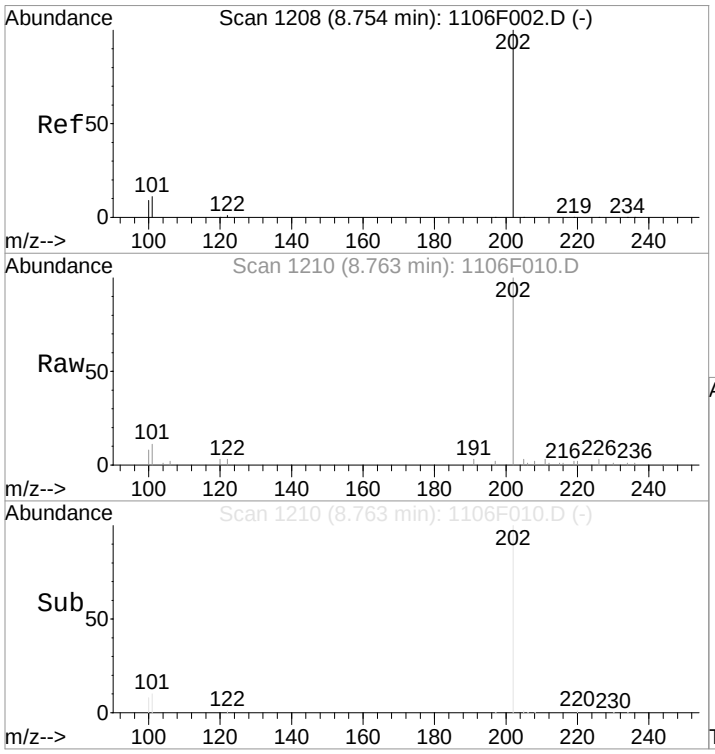
#21
Fluoranthene
Concen: 346.85 ng/ml
RT: 8.57 min Scan# 1167
Delta R.T. 0.01 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:202 Resp: 167151

Ion	Ratio	Lower	Upper
202	100		
101	8.2	0.0	41.3
100	5.8	0.0	28.6



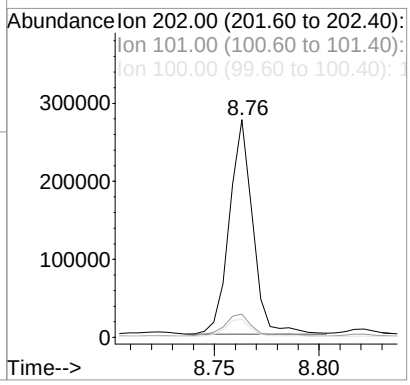
1st 11/16/18
2nd 11/27/18

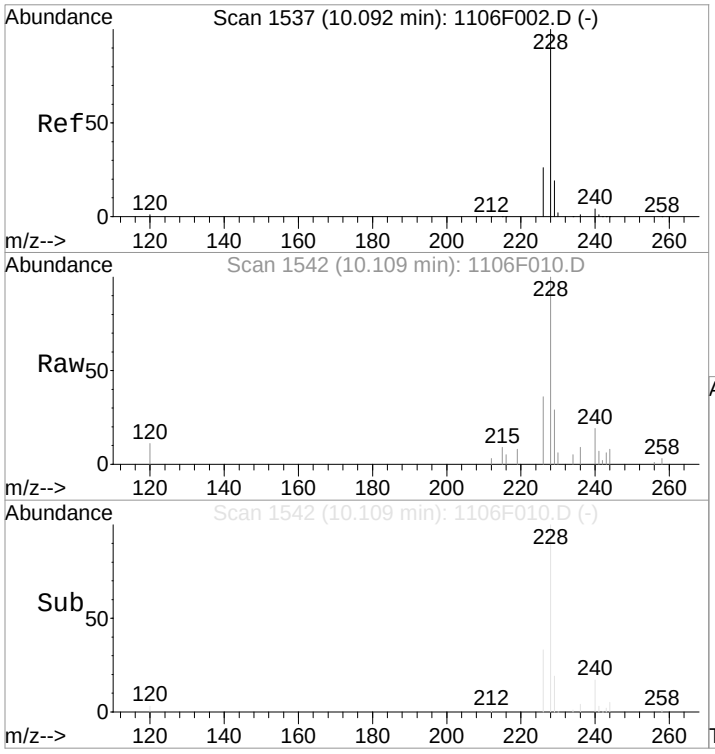


#24
Pyrene
Concen: 366.40 ng/ml
RT: 8.76 min Scan# 1210
Delta R.T. 0.01 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:202 Resp: 213619

Ion	Ratio	Lower	Upper
202	100		
101	10.3	0.0	40.8
100	8.0	0.0	28.5

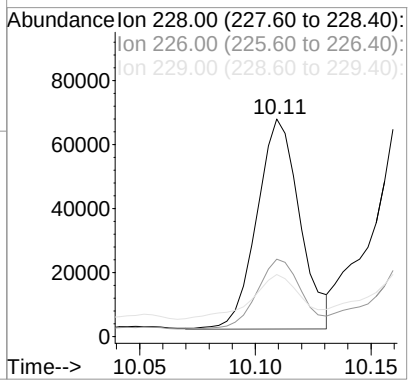




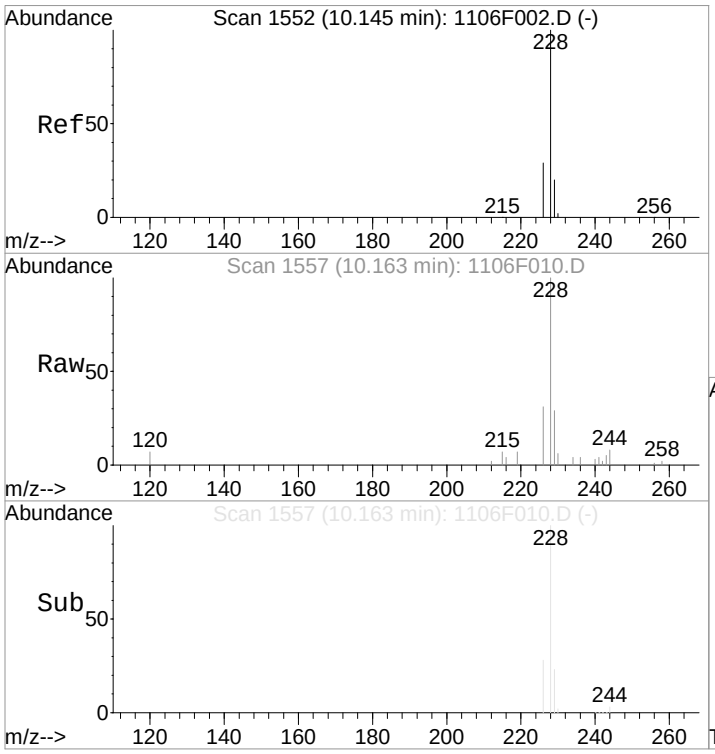
#26
Benz(a)anthracene
Concen: 154.38 ng/ml
RT: 10.11 min Scan# 1542
Delta R.T. 0.02 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:228 Resp: 84817

Ion	Ratio	Lower	Upper
228	100		
226	33.3	0.0	56.3
229	21.1	0.0	39.1



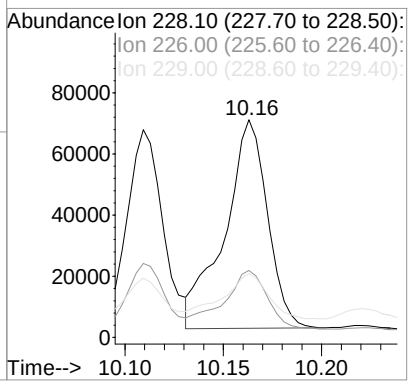
1st 11/16/18
2nd 11/27/18

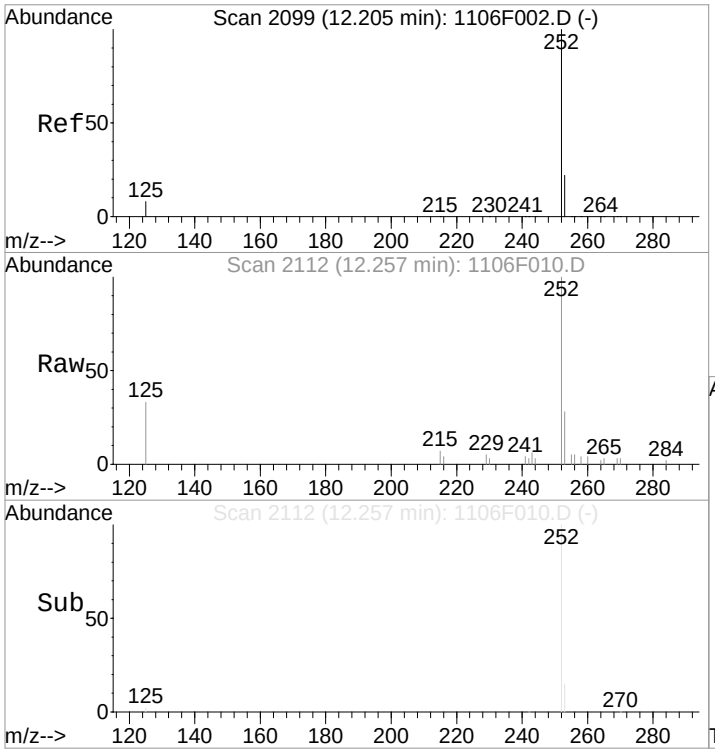


#27
Chrysene
Concen: 196.69 ng/ml
RT: 10.16 min Scan# 1557
Delta R.T. 0.02 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:228 Resp: 103507

Ion	Ratio	Lower	Upper
228	100		
226	28.1	0.0	58.7
229	21.7	0.0	39.2

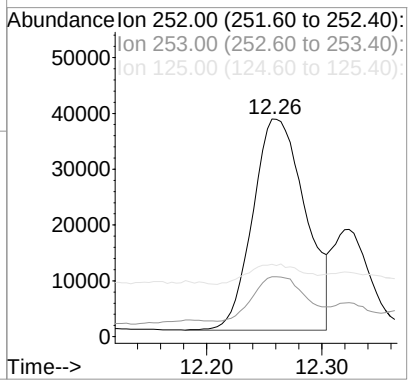




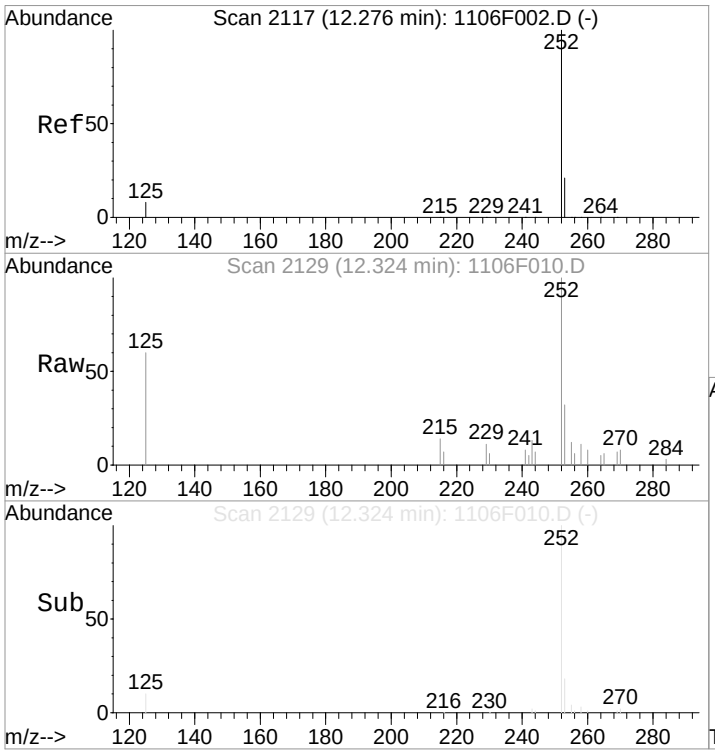
#29
Benzo(b)fluoranthene
Concen: 205.54 ng/ml
RT: 12.26 min Scan# 2112
Delta R.T. 0.05 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:252 Resp: 120602

Ion	Ratio	Lower	Upper
252	100		
253	20.5	0.0	51.2
125	7.8	0.0	29.5



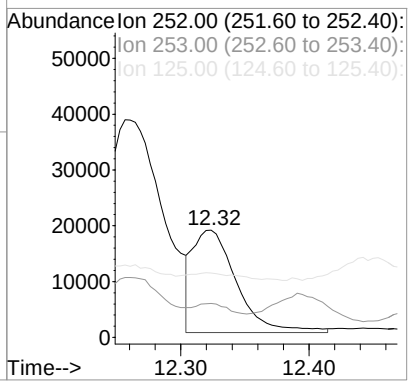
1st 11/16/18
2nd 11/27/18

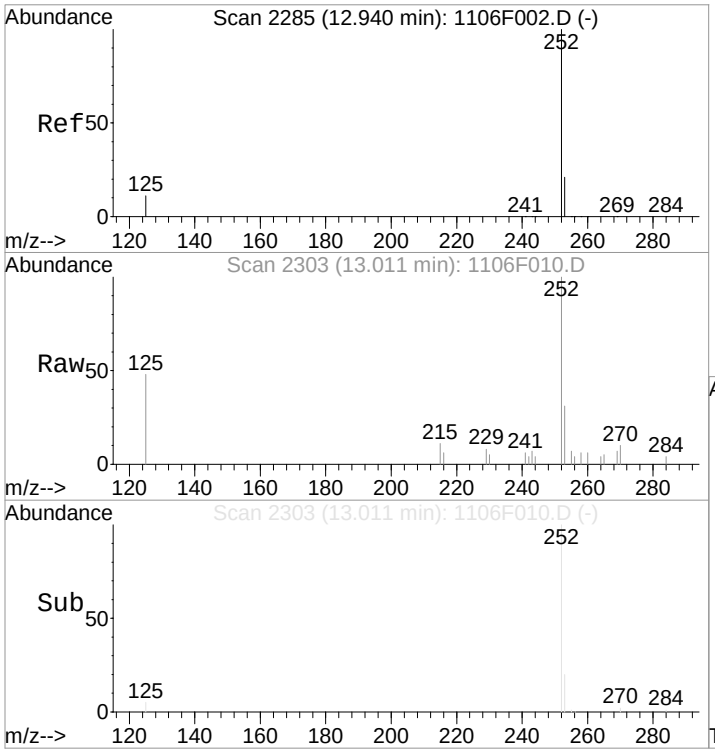


#30
Benzo(k)fluoranthene
Concen: 75.22 ng/ml m
RT: 12.32 min Scan# 2129
Delta R.T. 0.05 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:252 Resp: 43785

Ion	Ratio	Lower	Upper
252	100		
253	31.6	0.0	51.2
125	59.9	0.0	29.7#

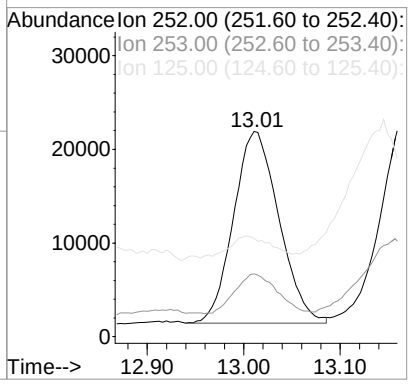




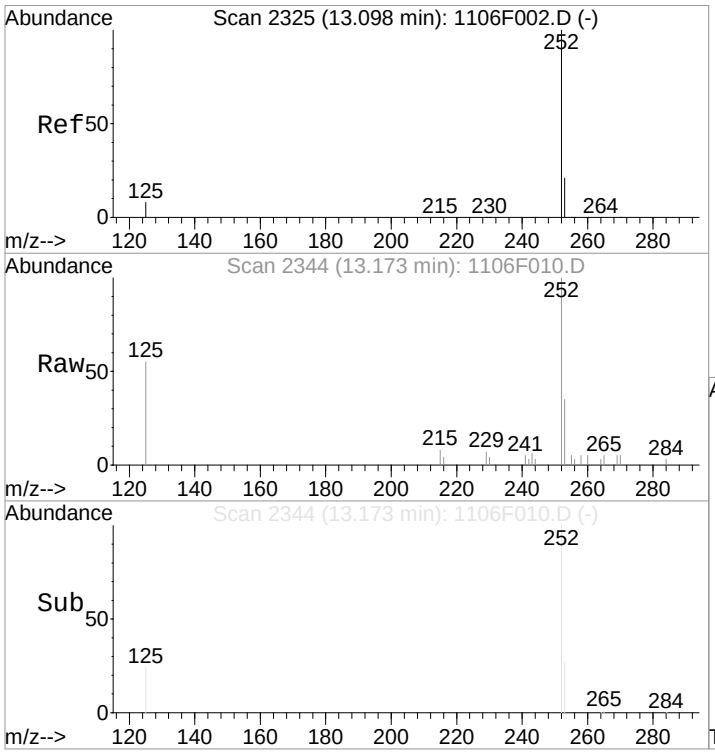
#31
Benzo(e)pyrene
Concen: 119.93 ng/ml
RT: 13.01 min Scan# 2303
Delta R.T. 0.07 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:252 Resp: 67073

Ion	Ratio	Lower	Upper
252	100		
253	20.6	0.0	51.3
125	10.6	0.0	33.5



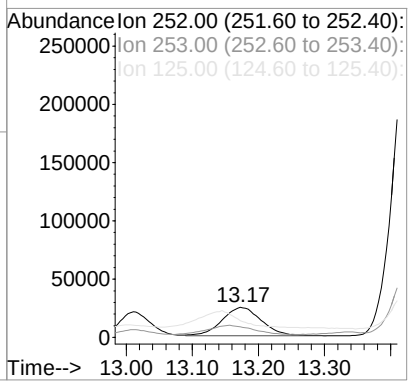
1st 11/16/18
2nd 11/27/18

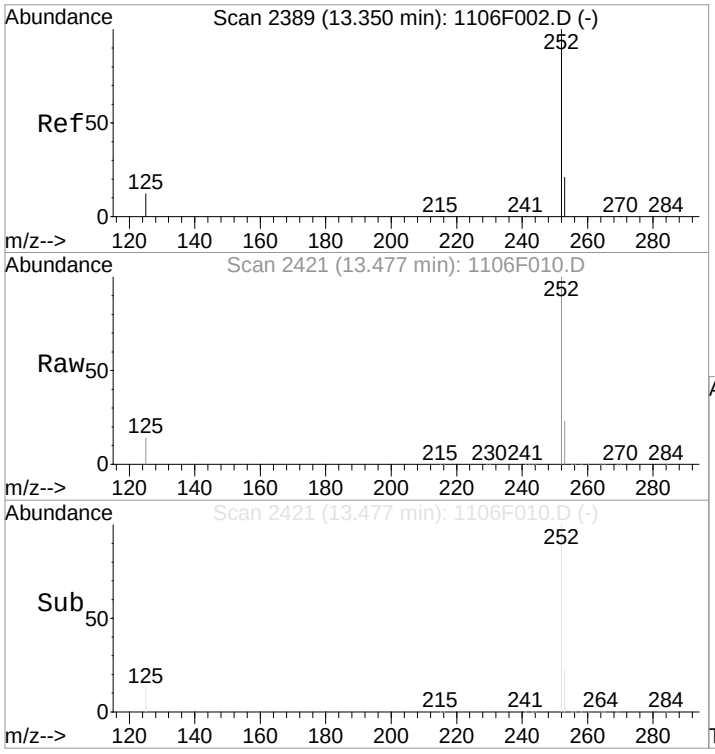


#32
Benzo(a)pyrene
Concen: 197.06 ng/ml
RT: 13.17 min Scan# 2344
Delta R.T. 0.07 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:252 Resp: 101400

Ion	Ratio	Lower	Upper
252	100		
253	23.8	0.0	50.9
125	25.9	0.0	30.3

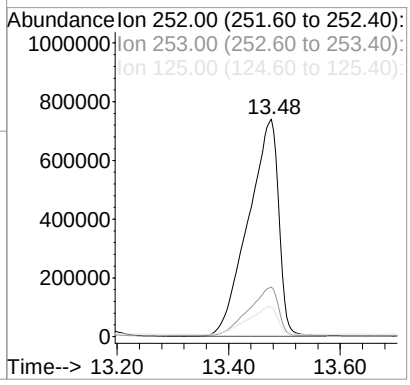




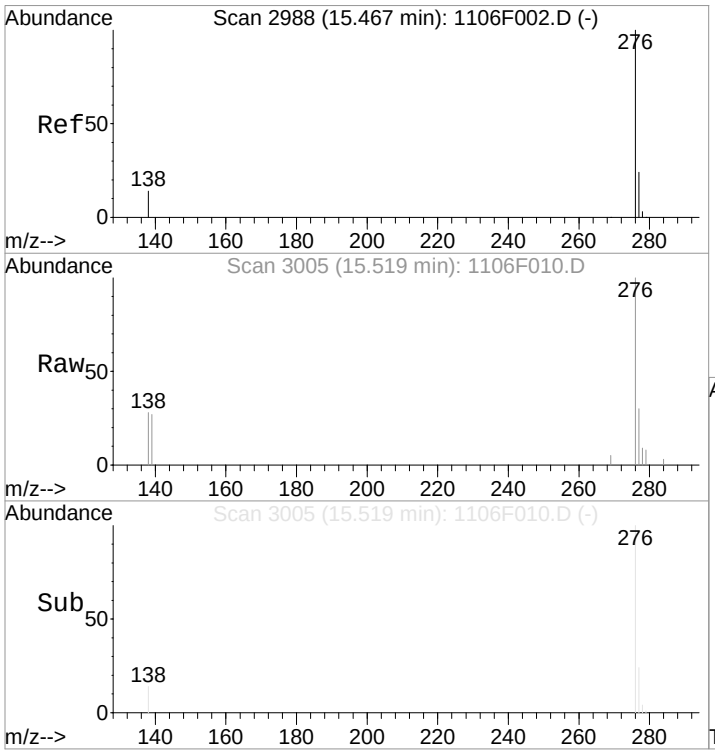
#33
Perylene
Concen: 5179.24 ng/ml
RT: 13.48 min Scan# 2421
Delta R.T. 0.13 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:252 Resp: 2795646

Ion	Ratio	Lower	Upper
252	100		
253	22.5	0.0	51.2
125	12.6	0.0	33.8



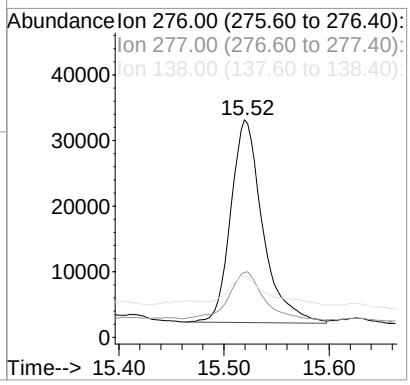
1st 11/16/18
2nd 11/27/18

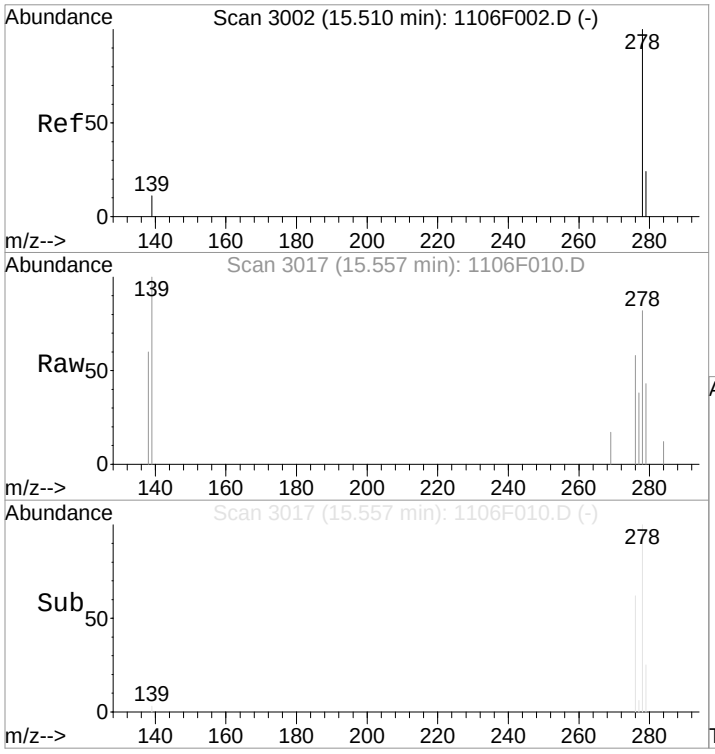


#34
Indeno(1,2,3-cd)pyrene
Concen: 129.12 ng/ml
RT: 15.52 min Scan# 3005
Delta R.T. 0.05 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:276 Resp: 65148

Ion	Ratio	Lower	Upper
276	100		
277	23.4	0.0	53.4
138	14.2	0.0	37.7

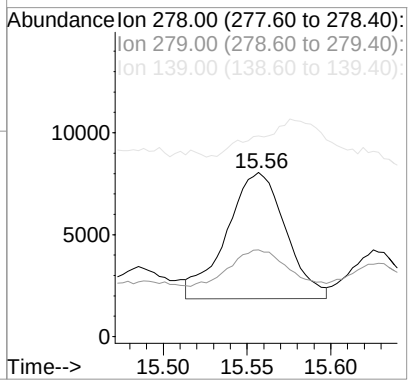




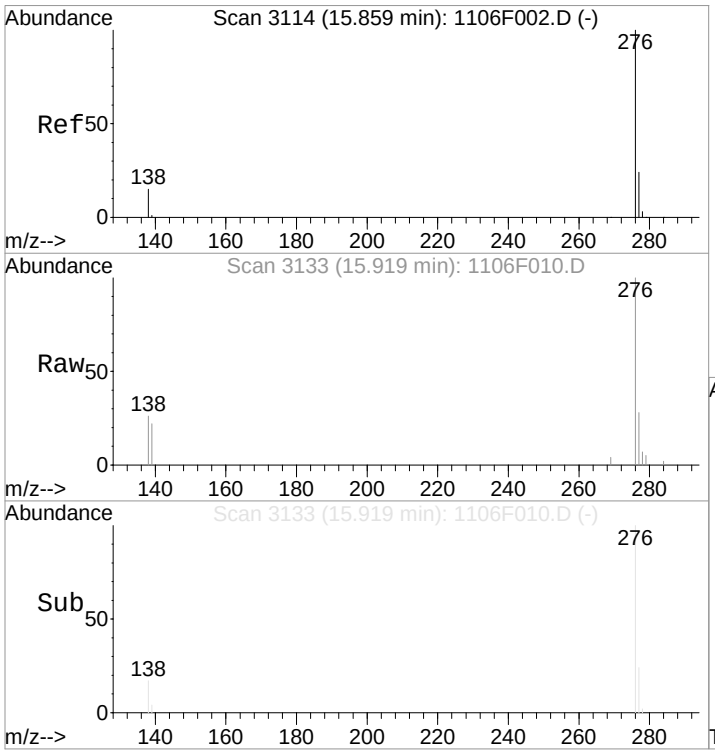
#35
Dibenz(a,h)anthracene
Concen: 29.79 ng/ml
RT: 15.56 min Scan# 3017
Delta R.T. 0.05 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:278 Resp: 15237

Ion	Ratio	Lower	Upper
278	100		
279	31.1	0.0	53.5
139	16.4	0.0	35.0



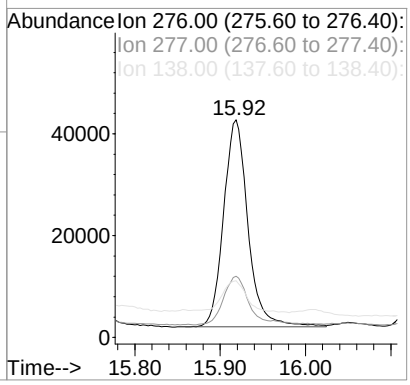
1st 11/16/18
2nd 11/27/18



#36
Benzo(g,h,i)perylene
Concen: 137.09 ng/ml
RT: 15.92 min Scan# 3133
Delta R.T. 0.06 min
Lab File: 1106F010.D
Acq: 6 Nov 2018 9:25 am

Tgt Ion:276 Resp: 81005

Ion	Ratio	Lower	Upper
276	100		
277	23.5	0.0	53.1
138	15.3	0.0	39.2



Quantitation Report (QT Reviewed)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F010.D Vial: 10
Acq On : 6 Nov 2018 9:25 am Operator: LWeiskopf
Sample : K1810302-022 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 09:56:47 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.76	136	64779	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.32	164	31116	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.56	188	62562	200.00	ng/ml	0.00
23) Chrysene-d12	10.12	240	84977	200.00	ng/ml	0.02
28) Perylene-d12	13.36	264	94970	200.00	ng/ml	0.09
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.39	152	91841	507.93	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	50.79%		
13) Fluorene-d10	6.76	176	126437	635.50	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	63.55%		
22) Fluoranthene-d10	8.55	212	292880	742.79	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	74.28%		
25) Terphenyl-d14	8.90	244	267356	725.37	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	72.54%		
Target Compounds						Qvalue
2) Naphthalene	4.78	128	13245	35.42	ng/ml	98
4) 2-Methylnaphthalene	5.42	142	5638	25.00	ng/ml	96
5) 1-Methylnaphthalene	5.50	142	2649	12.20	ng/ml	92
6) Biphenyl	5.83	154	2355	8.37	ng/ml	96
7) 2,6-Dimethylnaphthalene	5.97	156	7697	39.76	ng/ml	91
9) Acenaphthylene	6.20	152	6909	18.61	ng/ml	78
10) Acenaphthene	6.34	154	5877	27.56	ng/ml	97
11) Dibenzofuran	6.50	168	4243m	12.40	ng/ml	
12) 2,3,5-Trimethylnaphthalene	6.67	170	11921	60.43	ng/ml	92
14) Fluorene	6.78	166	5825	22.58	ng/ml	87
16) Dibenzothiophene	7.47	184	10770m	27.60	ng/ml	
17) Phenanthrene	7.58	178	110630	283.47	ng/ml	98
18) Anthracene	7.62	178	16297	43.74	ng/ml	94
19) Carbazole	7.76	167	5125	14.10	ng/ml	75
20) 1-Methylphenanthrene	8.09	192	22920	77.53	ng/ml	84
21) Fluoranthene	8.57	202	167151	346.85	ng/ml	92
24) Pyrene	8.76	202	213619	366.40	ng/ml	99
26) Benz(a)anthracene	10.11	228	84817	154.38	ng/ml	90
27) Chrysene	10.16	228	103507	196.69	ng/ml	97
29) Benzo(b)fluoranthene	12.26	252	120602	205.54	ng/ml	98
30) Benzo(k)fluoranthene	12.32	252	43785m	75.22	ng/ml	
31) Benzo(e)pyrene	13.01	252	67073	119.93	ng/ml	96
32) Benzo(a)pyrene	13.17	252	101400	197.06	ng/ml	82
33) Perylene	13.48	252	2795646	5179.24	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.52	276	65148	129.12	ng/ml	96
35) Dibenz(a,h)anthracene	15.56	278	15237	29.79	ng/ml	89
36) Benzo(g,h,i)perylene	15.92	276	81005	137.09	ng/ml	96

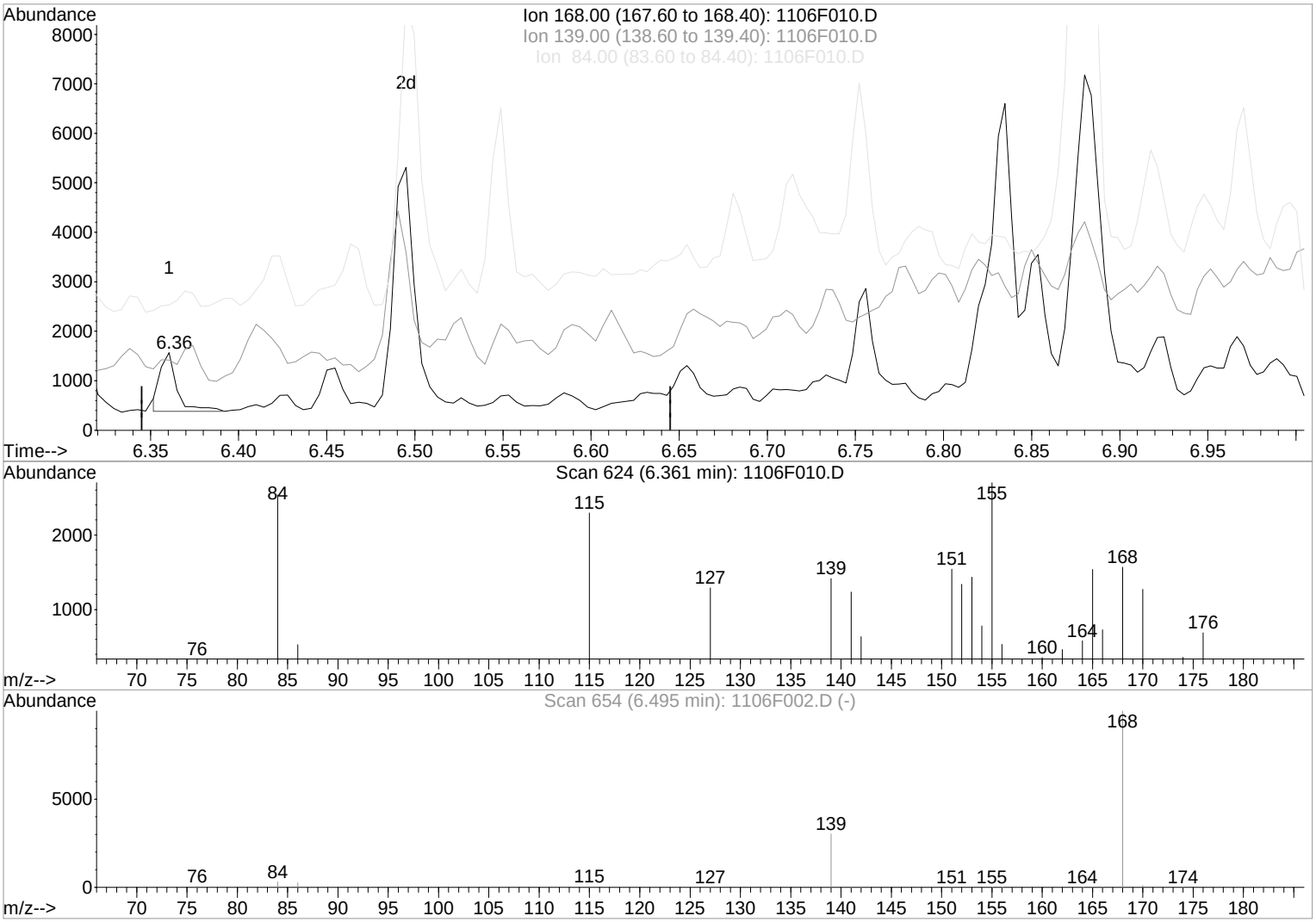
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F010.D Vial: 10
Acq On : 6 Nov 2018 9:25 am Operator: LWeiskopf
Sample : K1810302-022 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 9:56 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F010.D

(11) Dibenzofuran (T)

6.36min 2.27ng/ml

response 778

Ion	Exp%	Act%
168.00	100	100
139.00	25.80	27.49
84.00	3.50	9.70
0.00	0.00	0.00

Manual Integration:

Before

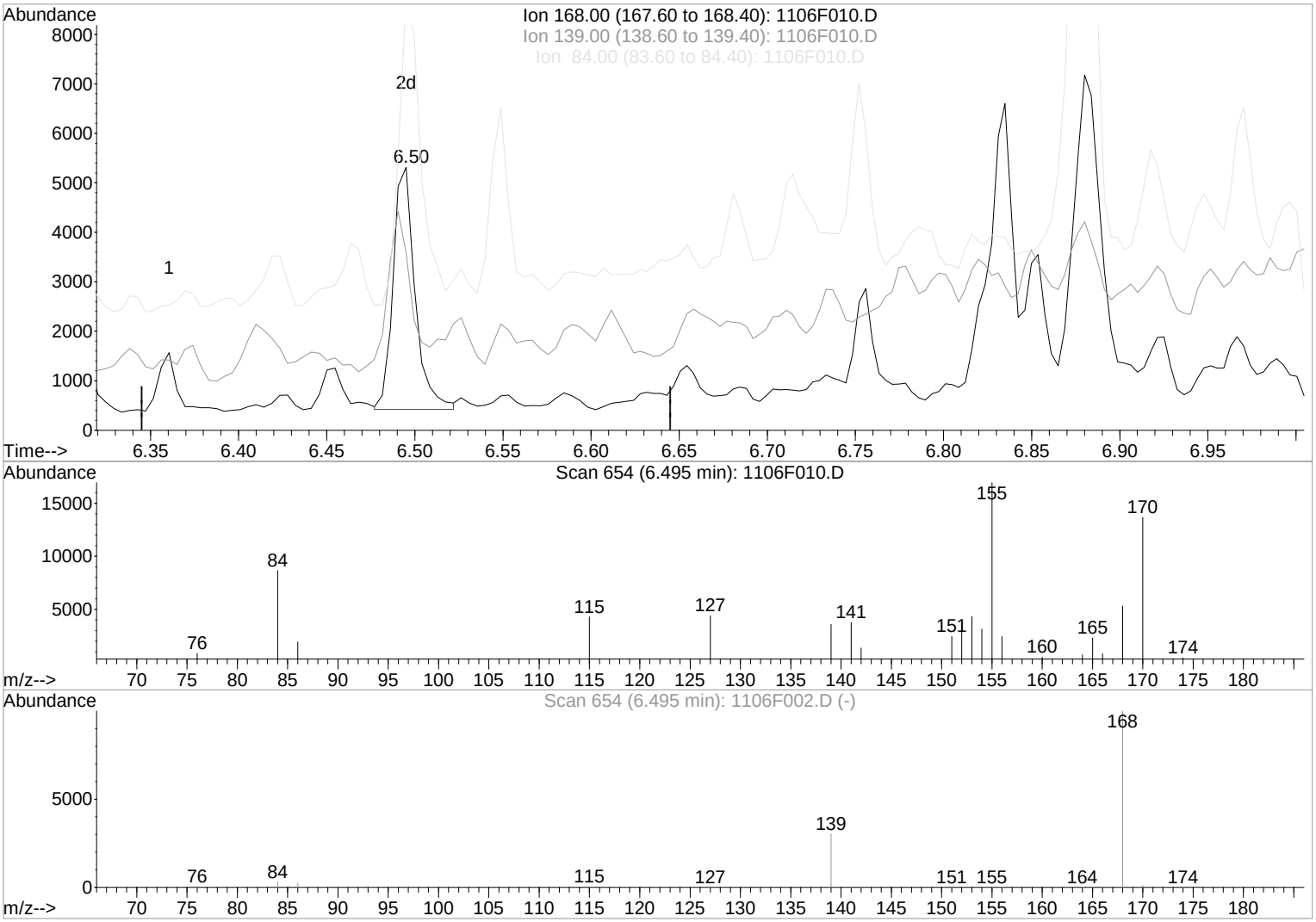
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F010.D Vial: 10
Acq On : 6 Nov 2018 9:25 am Operator: LWeiskopf
Sample : K1810302-022 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:06 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F010.D

(11) Dibenzofuran (T)

6.50min 12.40ng/ml m

response 4243

Ion	Exp%	Act%
168.00	100	100
139.00	25.80	67.53#
84.00	3.50	163.01#
0.00	0.00	0.00

Manual Integration:

After

WP

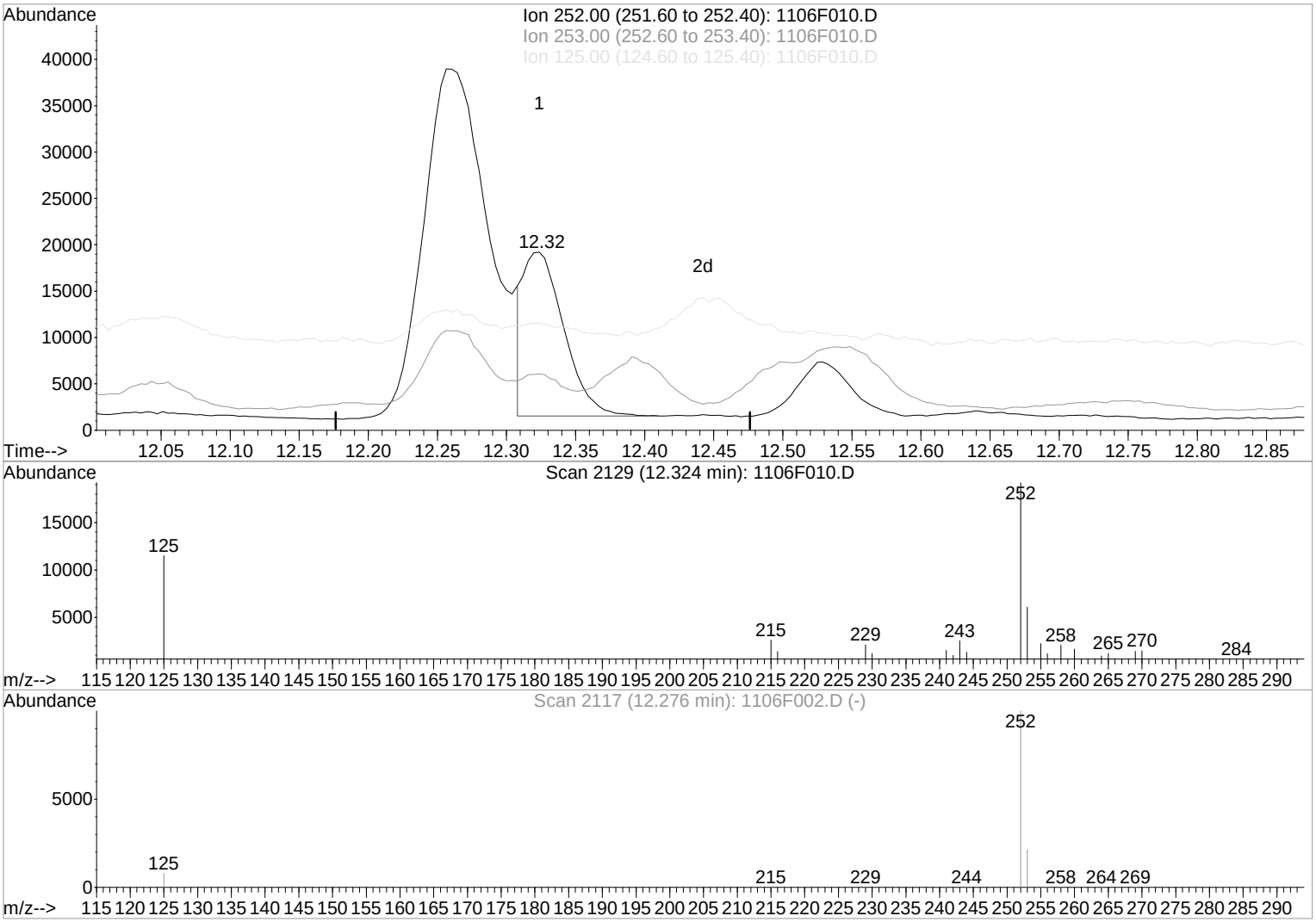
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F010.D Vial: 10
Acq On : 6 Nov 2018 9:25 am Operator: LWeiskopf
Sample : K1810302-022 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:07 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F010.D

(30) Benzo(k)fluoranthene (T)

12.32min 62.06ng/ml

response 36121

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	4.28
125.00	9.70	2.83
0.00	0.00	0.00

Manual Integration:

Before

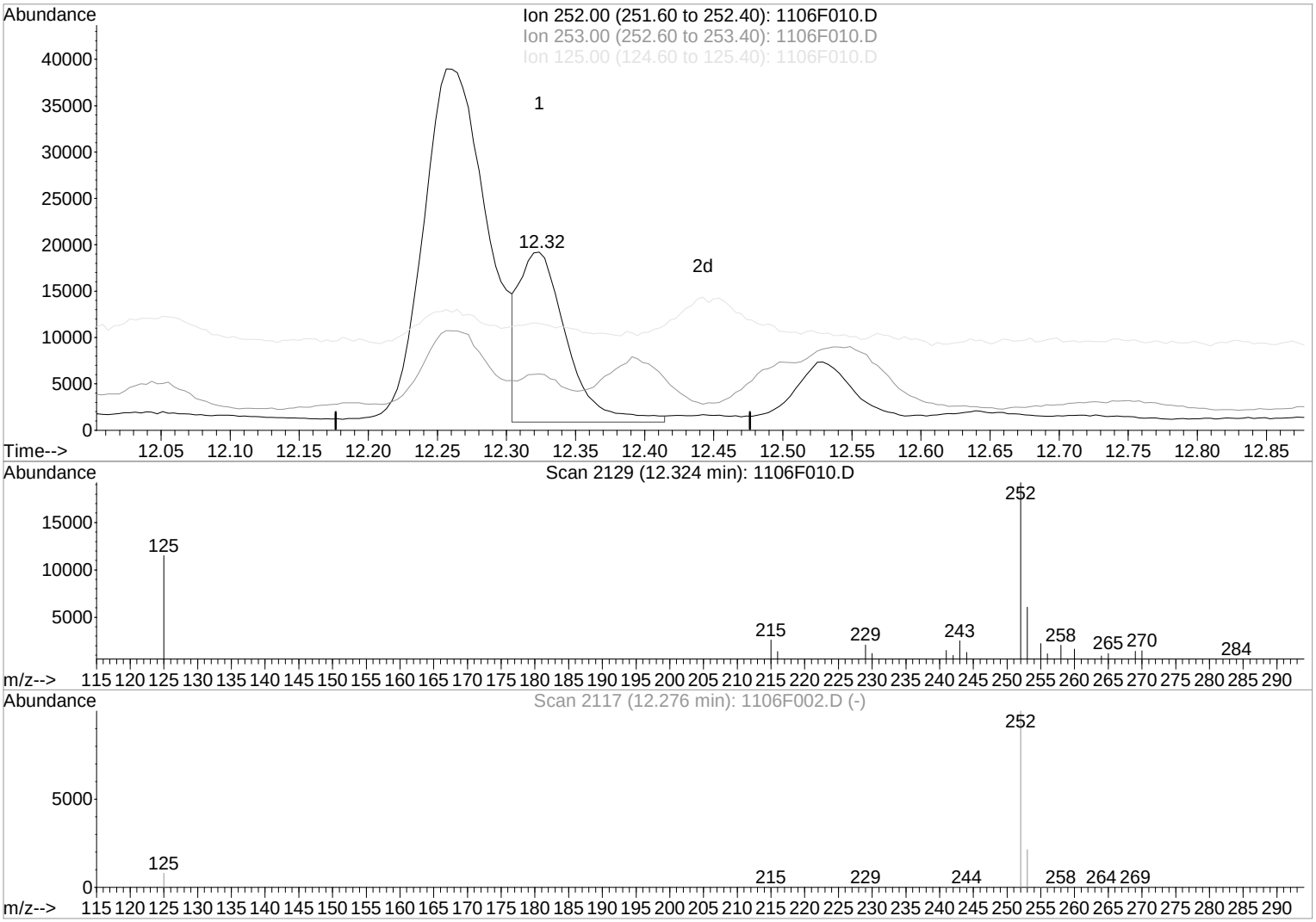
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F010.D Vial: 10
Acq On : 6 Nov 2018 9:25 am Operator: LWeiskopf
Sample : K1810302-022 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:07 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F010.D

(30) Benzo(k)fluoranthene (T)

12.32min 75.22ng/ml m

response 43785

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	31.60
125.00	9.70	59.90#
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

11/16/18

1st 11/16/18
2nd 11/27/18

Exception Report

Data File: J:\MS14\DATA\110618\1106F022.D
Lab ID: K1810302-023
RunType: DL
Matrix: SEDIMENT

Date Acquired: 11/06/2018 15:10
Date Quantitated: 11/16/2018 10:38
Batch ID: KWG1806026
Analysis Method: 8270D SIM
ListJoinID: LJ12908

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	NA	NA	NA	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	
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: _____

Secondary Review: _____

1st 11/16/18
2nd 11/27/18

Quantitation Report

Data File:	J:\MS14\DATA\110618\1106F022.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 15:10	**Quant Date:**	11/16/2018 10:38	**Vial:**	22
Run Type:	DL	**ListJoinID:**	LJ12908	**Dilution:**	5.0
Lab ID:	K1810302-023			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	IV	**Matrix:**	SEDIMENT
Prod Code:	8270D PAH SIM U	**Collect Date:**	10/21/2018	**Receive Date:**	10/22/2018

Analysis Lot:	KWG1806026	**Prep Lot:**	KWG1805647	**Report Group:**	K1810302
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1701154	**Prep Date:**	11/01/2018		

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ12908
Tune Ref:	J:\MS14\DATA\110618\1106F001.D	**Method ID:**	MJ1233
MB Ref:	J:\MS14\DATA\110618\1106F006.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	4.76	0.00	136	67296	200.00	OK
2	Acenaphthene-d10	6.32	0.00	164	32506	200.00	OK
3	Phenanthrene-d10	7.57	0.01	188	69642	200.00	OK
4	Chrysene-d12	10.16	0.05	240	94309	200.00	OK
5	Perylene-d12	13.45	0.18	264	99845**m**	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	6.76	0.00	0.00	176	32394	155.86	78	26-102	OK	
3	Fluoranthene-d10	8.57	0.03	0.00	212	77205	175.90	88	23-110	OK	
4	Terphenyl-d14	8.92	0.03	0.00	244	67627	165.32	83	27-115	OK	

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.78		0.00	128	24309	62.58	29	D	
1	2-Methylnaphthalene	5.42		0.00	142	10323	44.07	20	D	
2	Acenaphthylene	6.21	0.01	0.00	152	15801	40.74	19	D	
2	Acenaphthene	6.35		0.00	154	9716	43.61	20	D	
2	Dibenzofuran	6.50		0.00	168	9256	25.89	12	D	
2	Fluorene	6.79	0.01	0.00	166	10863	40.31	18	D	
3	Phenanthrene	7.59	0.01	0.00	178	211177	486.09	220	D	
3	Anthracene	7.63	0.01	0.00	178	34981	84.35	38	D	
3	Fluoranthene	8.58	0.02	0.00	202	331981	618.85	280	D	
4	Pyrene	8.78	0.03	0.00	202	451266	697.42	320	D	
4	Benz(a)anthracene	10.15	0.06	0.00	228	161575	264.99	120	D	
4	Chrysene	10.20	0.05	0.00	228	201437	344.90	160	D	

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:\MS14\DATA\110618\1106F022.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 15:10	**Quant Date:**	11/16/2018 10:38	**Vial:**	22
Run Type:	DL	**ListJoinID:**	LJ12908	**Dilution:**	5.0
Lab ID:	K1810302-023			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
5	Benzo(b)fluoranthene	12.34	0.13	0.00	252	231858**m**	375.86	170	D	
5	Benzo(k)fluoranthene	12.39	0.11	0.00	252	72158**m**	117.92	54	D	
5	Benzo(a)pyrene	13.27	0.17	0.00	252	168730**m**	311.90	140	D	
5	Indeno(1,2,3-cd)pyrene	15.59	0.12	-0.01	276	135678**m**	255.77	120	D	
5	Dibenz(a,h)anthracene	15.62	0.11	-0.01	278	27495**m**	51.13	23	D	
5	Benzo(g,h,i)perylene	15.99	0.13	-0.01	276	170797**m**	274.94	130	D	

Prep Amount:	40.117 g	**Dilution:**	5.0
Prep Final Vol:	2 mL	**Unit Factor:**	1
Solids:	54.7 %		

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

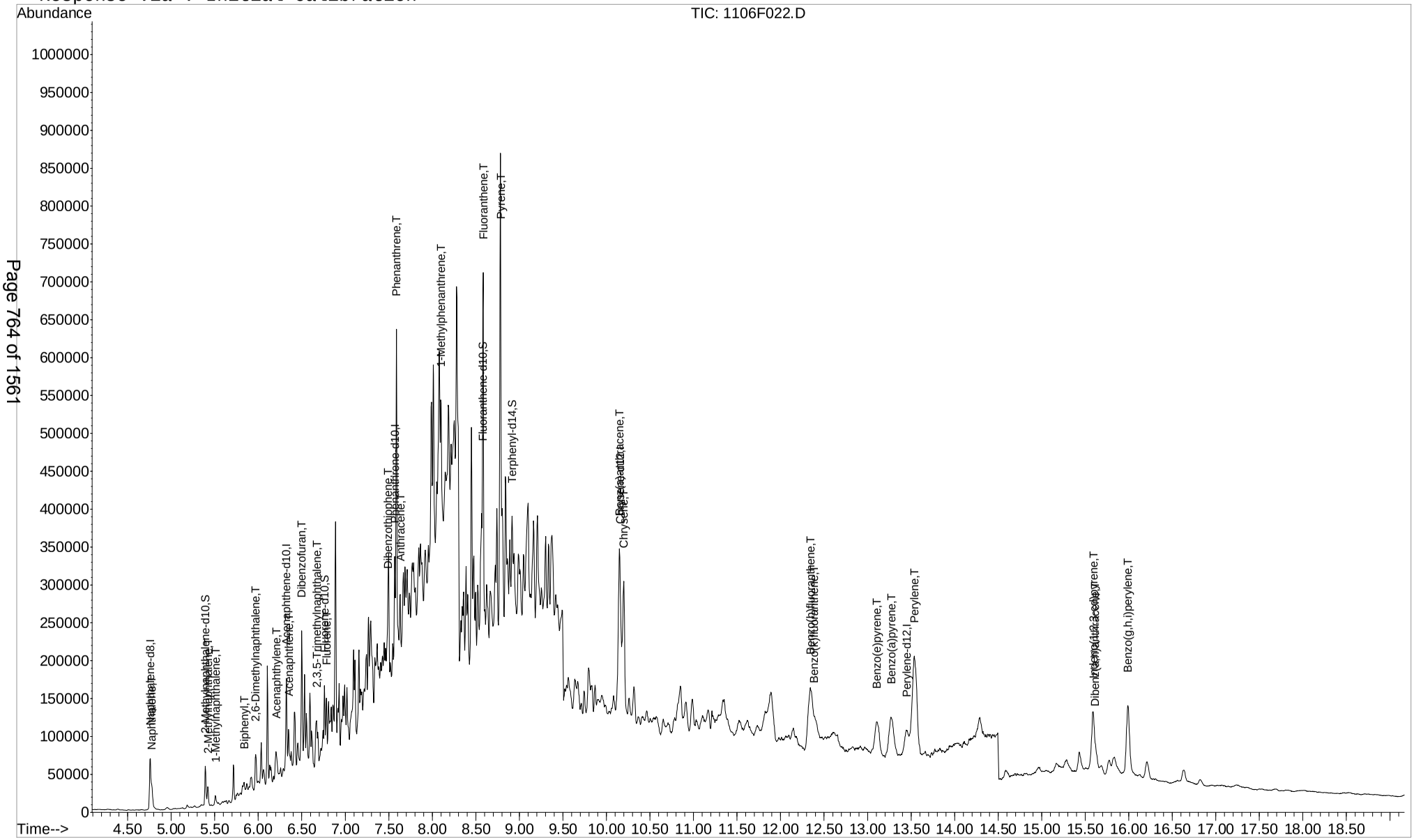
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

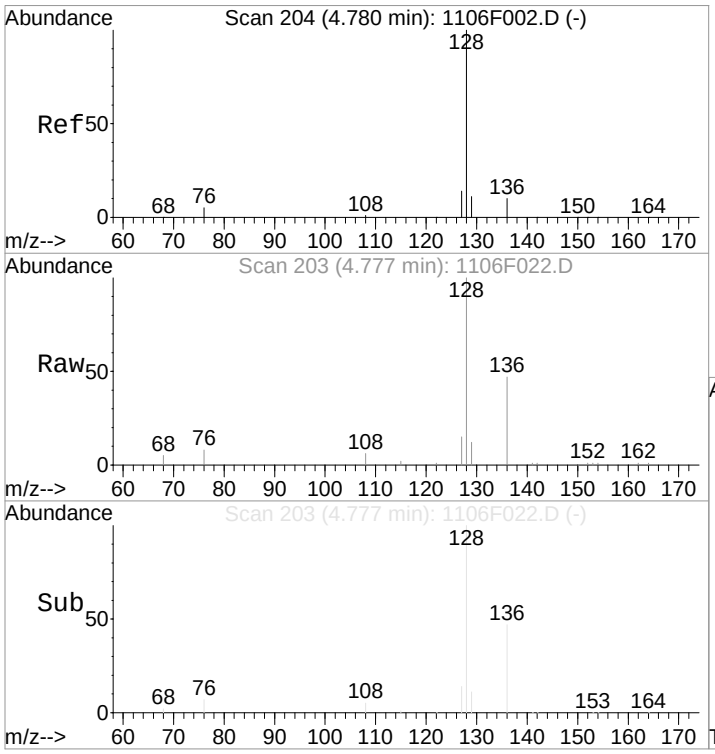
1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F022.D Vial: 22
Acq On : 6 Nov 2018 3:10 pm Operator: LWeiskopf
Sample : K1810302-023DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:38 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration



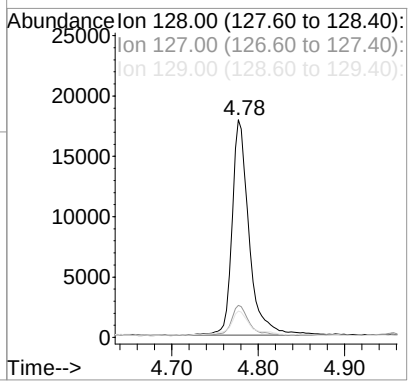
1st 11/16/18
2nd 11/27/18

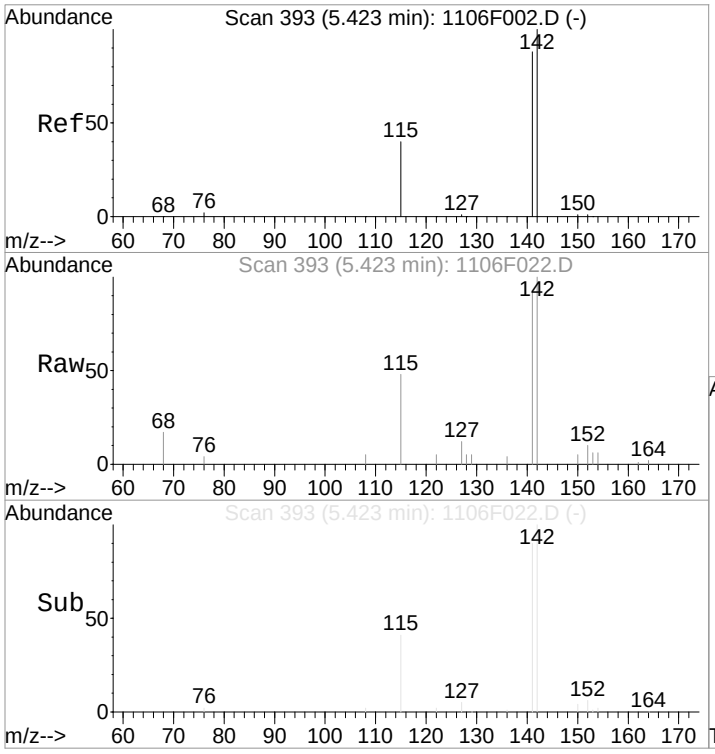


#2
Naphthalene
Concen: 62.58 ng/ml
RT: 4.78 min Scan# 203
Delta R.T. -0.00 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:128 Resp: 24309

Ion	Ratio	Lower	Upper
128	100		
127	13.9	0.0	43.7
129	11.2	0.0	30.8

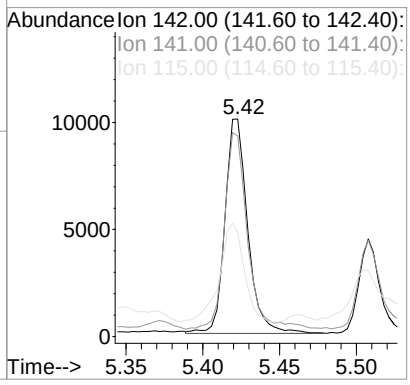




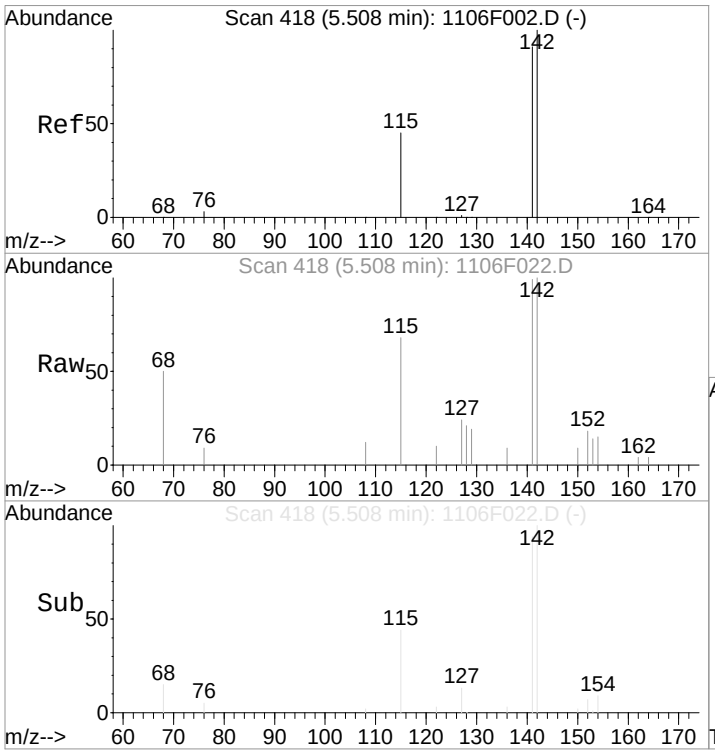
#4
2-Methylnaphthalene
Concen: 44.07 ng/ml
RT: 5.42 min Scan# 393
Delta R.T. 0.00 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:142 Resp: 10323

Ion	Ratio	Lower	Upper
142	100		
141	90.2	56.8	116.8
115	40.9	13.3	53.3



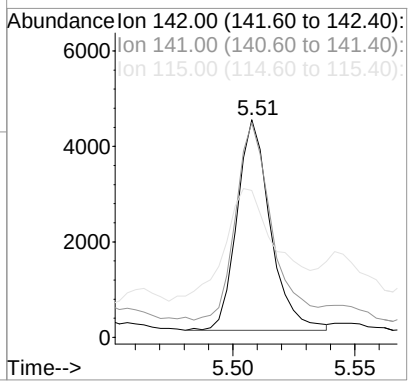
1st 11/16/18
2nd 11/27/18

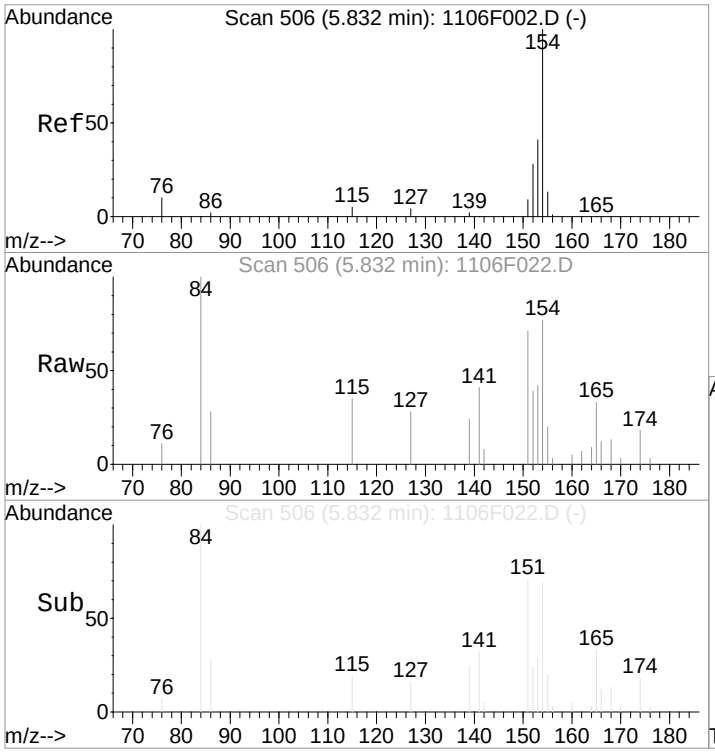


#5
1-Methylnaphthalene
Concen: 18.62 ng/ml
RT: 5.51 min Scan# 418
Delta R.T. 0.00 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:142 Resp: 4198

Ion	Ratio	Lower	Upper
142	100		
141	92.4	59.7	119.7
115	50.1	13.7	53.7

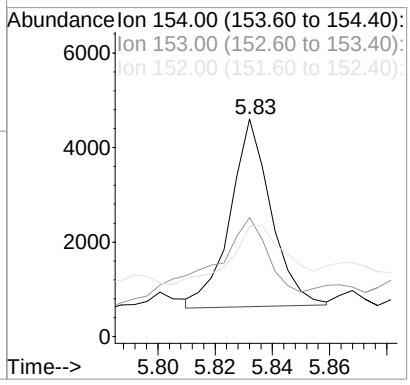




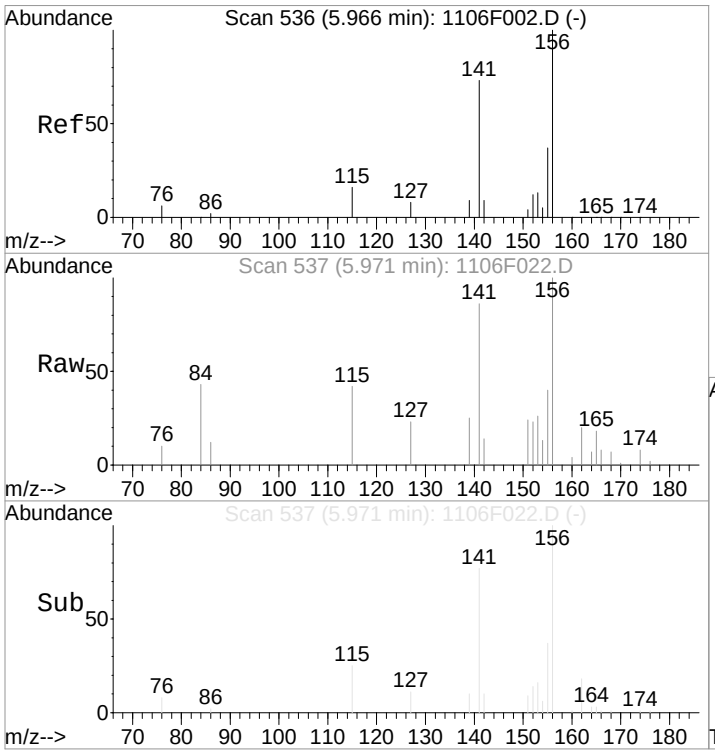
#6
Biphenyl
Concen: 13.51 ng/ml
RT: 5.83 min Scan# 506
Delta R.T. 0.00 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:154 Resp: 3950

Ion	Ratio	Lower	Upper
154	100		
153	37.0	11.4	71.4
152	28.5	7.1	47.1



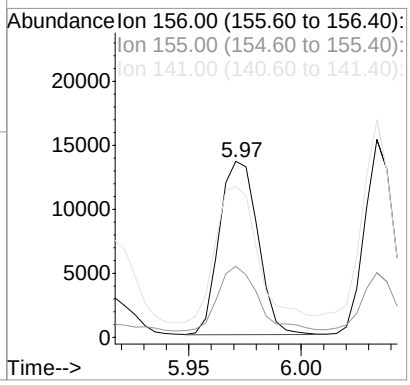
1st 11/16/18
2nd 11/27/18

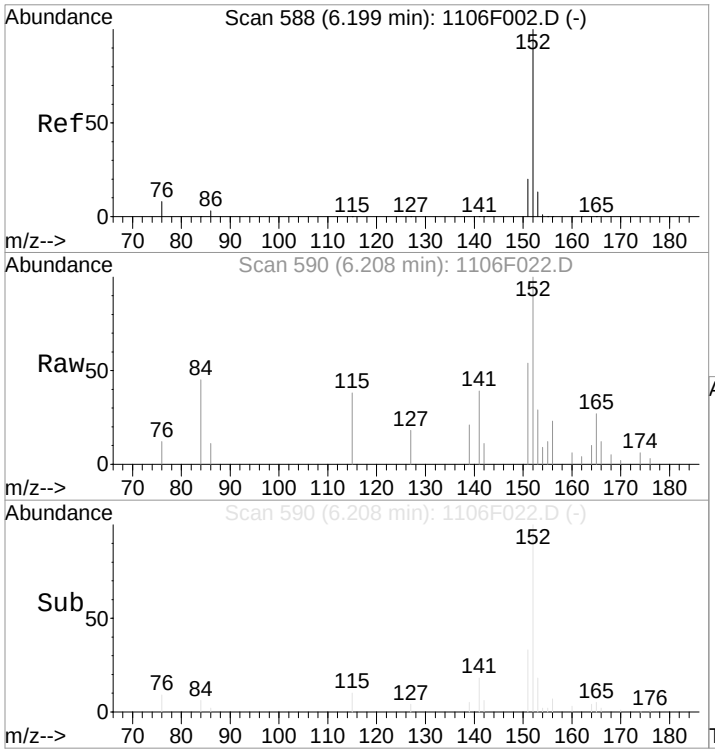


#7
2,6-Dimethylnaphthalene
Concen: 80.50 ng/ml
RT: 5.97 min Scan# 537
Delta R.T. 0.00 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:156 Resp: 16189

Ion	Ratio	Lower	Upper
156	100		
155	37.2	7.0	67.0
141	78.2	47.9	87.9

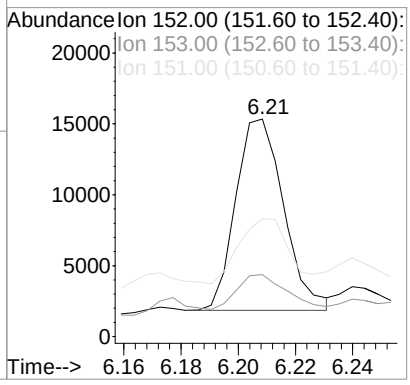




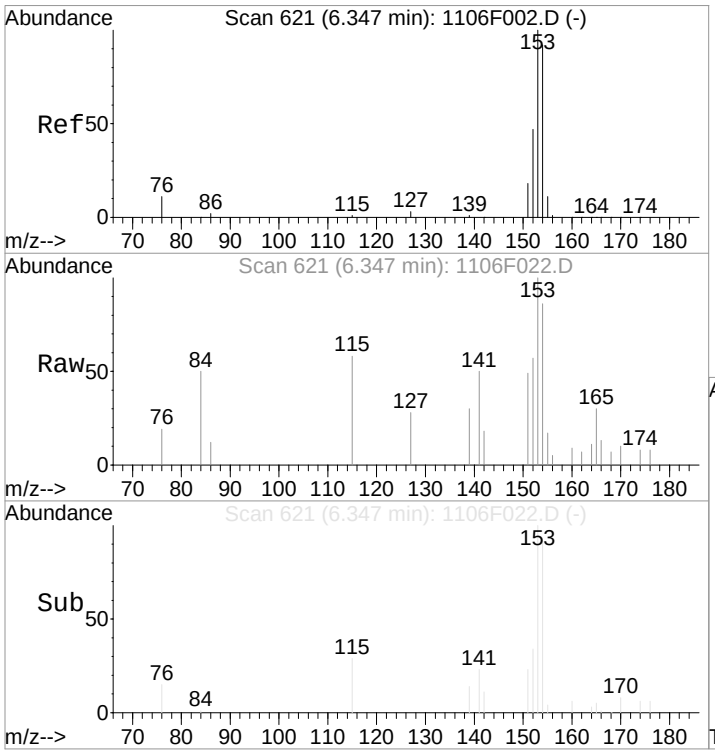
#9
Acenaphthylene
Concen: 40.74 ng/ml
RT: 6.21 min Scan# 590
Delta R.T. 0.01 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:152 Resp: 15801

Ion	Ratio	Lower	Upper
152	100		
153	16.6	0.0	42.9
151	32.6	0.2	40.2



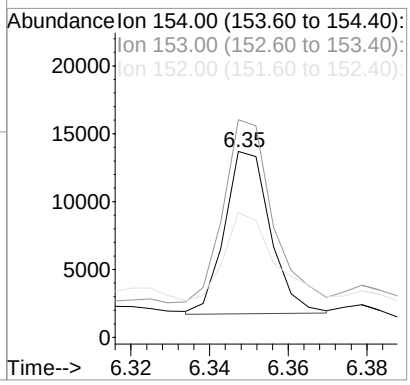
1st 11/16/18
2nd 11/27/18

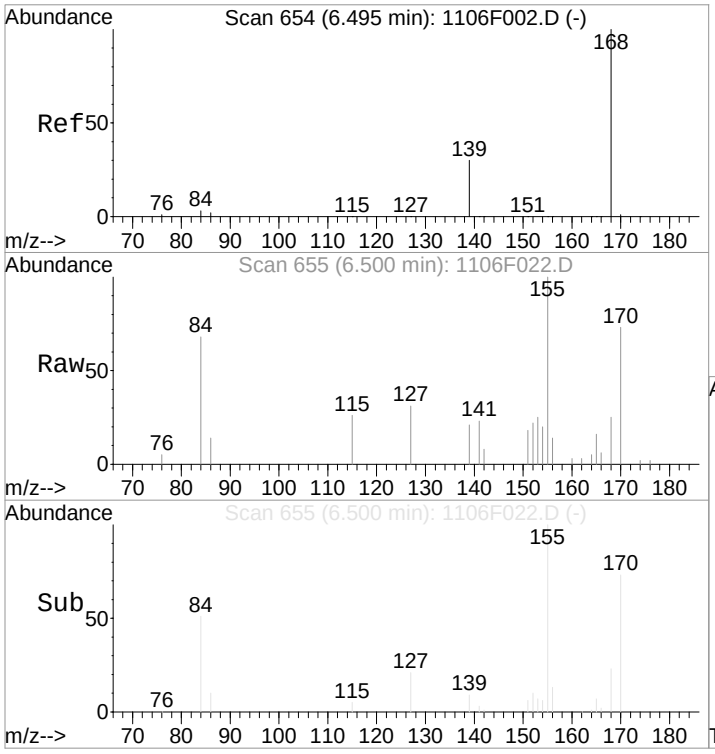


#10
Acenaphthene
Concen: 43.61 ng/ml
RT: 6.35 min Scan# 621
Delta R.T. 0.00 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:154 Resp: 9716

Ion	Ratio	Lower	Upper
154	100		
153	113.6	77.1	137.1
152	54.8	19.7	79.7

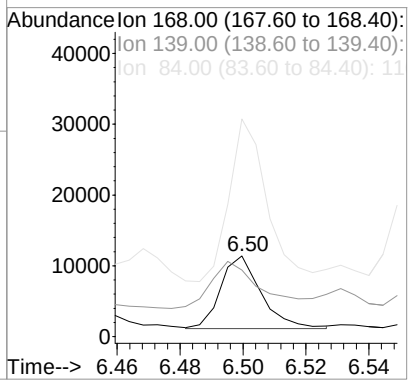




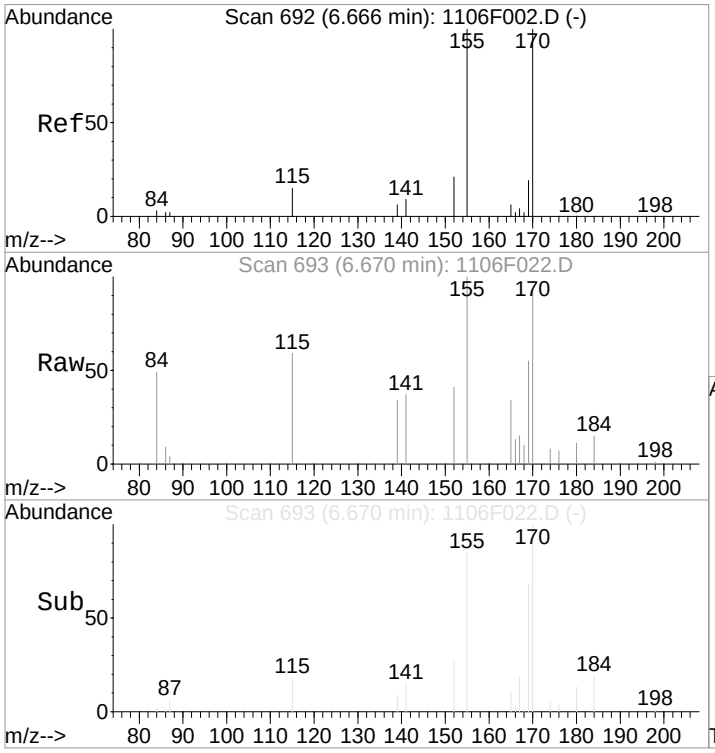
#11
Dibenzofuran
Concen: 25.89 ng/ml
RT: 6.50 min Scan# 655
Delta R.T. 0.00 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:168 Resp: 9256

Ion	Ratio	Lower	Upper
168	100		
139	51.0	0.0	55.8
84	226.0	0.0	23.5#



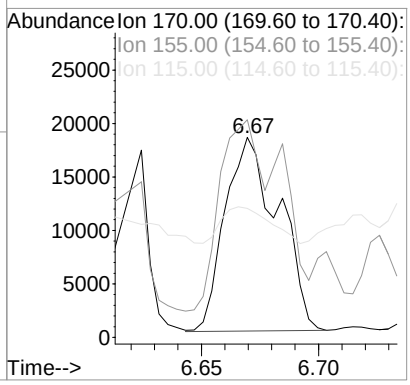
1st 11/16/18
2nd 11/27/18

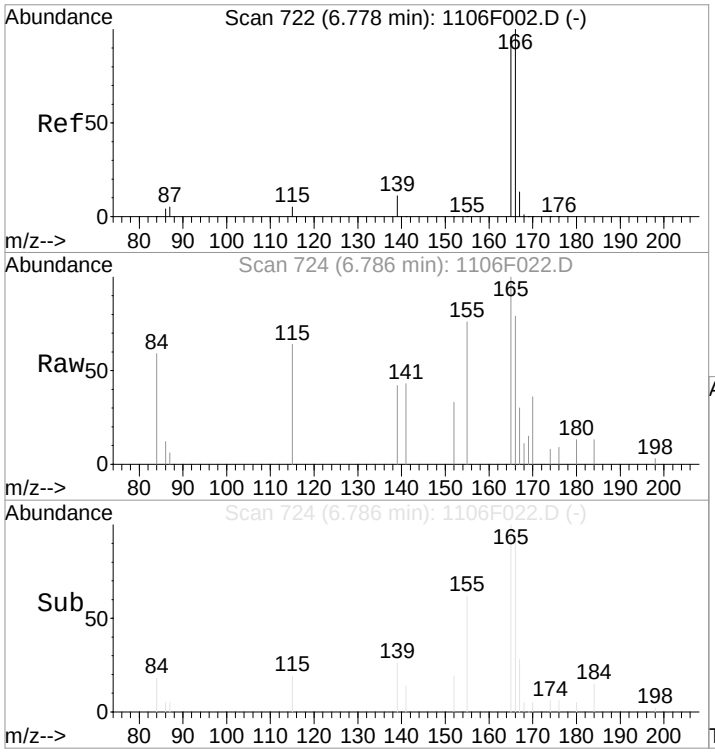


#12
2,3,5-Trimethylnaphthalene
Concen: 140.13 ng/ml
RT: 6.67 min Scan# 693
Delta R.T. 0.00 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:170 Resp: 28879

Ion	Ratio	Lower	Upper
170	100		
155	99.2	59.2	119.2
115	14.4	0.0	30.1

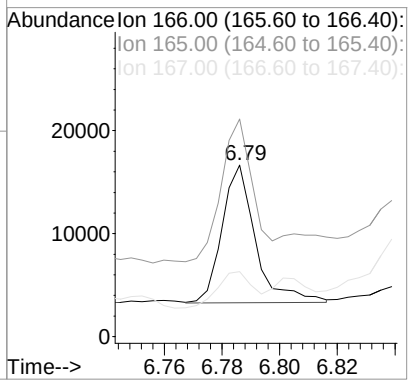


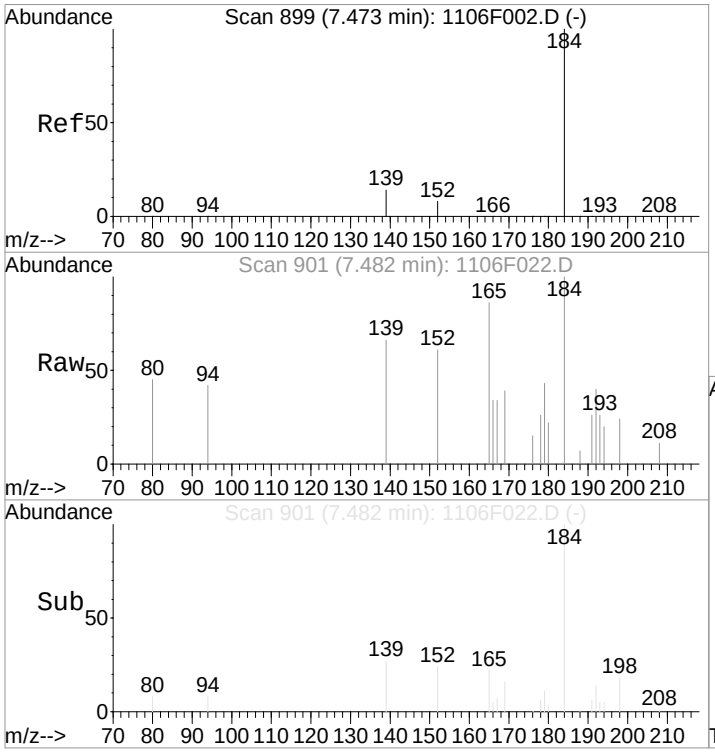


#14
Fluorene
Concen: 40.31 ng/ml
RT: 6.79 min Scan# 724
Delta R.T. 0.01 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:166 Resp: 10863

Ion	Ratio	Lower	Upper
166	100		
165	103.6	63.4	123.4
167	26.3	0.0	33.1

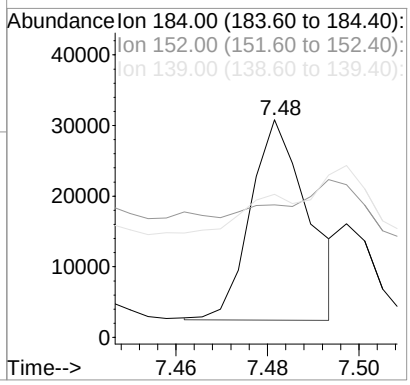


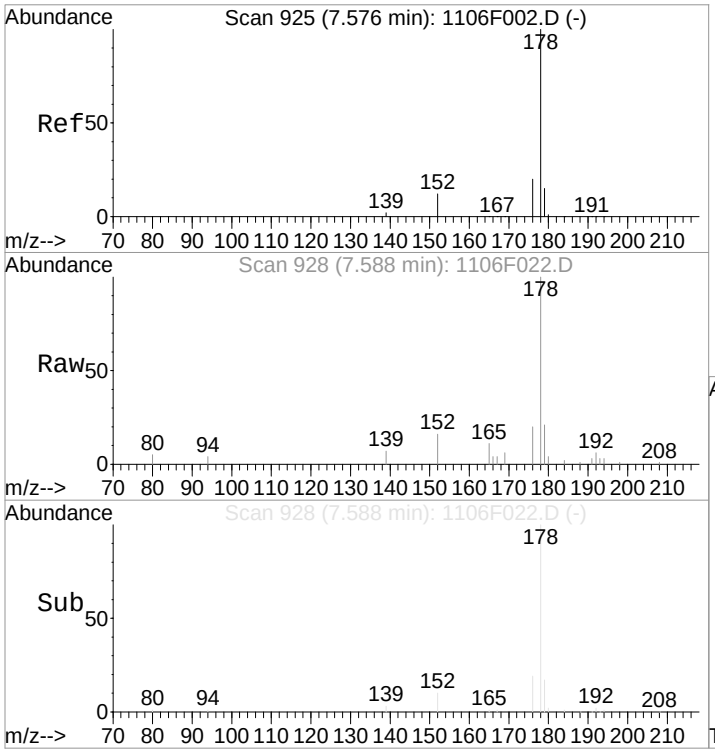


#16
Dibenzothiophene
Concen: 57.27 ng/ml m
RT: 7.48 min Scan# 901
Delta R.T. 0.01 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:184 Resp: 24878

Ion	Ratio	Lower	Upper
184	100		
152	61.0	0.0	37.8#
139	65.8	0.0	32.6#

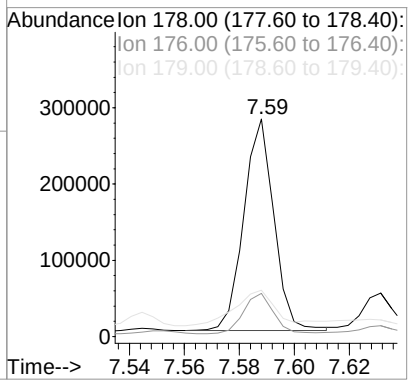


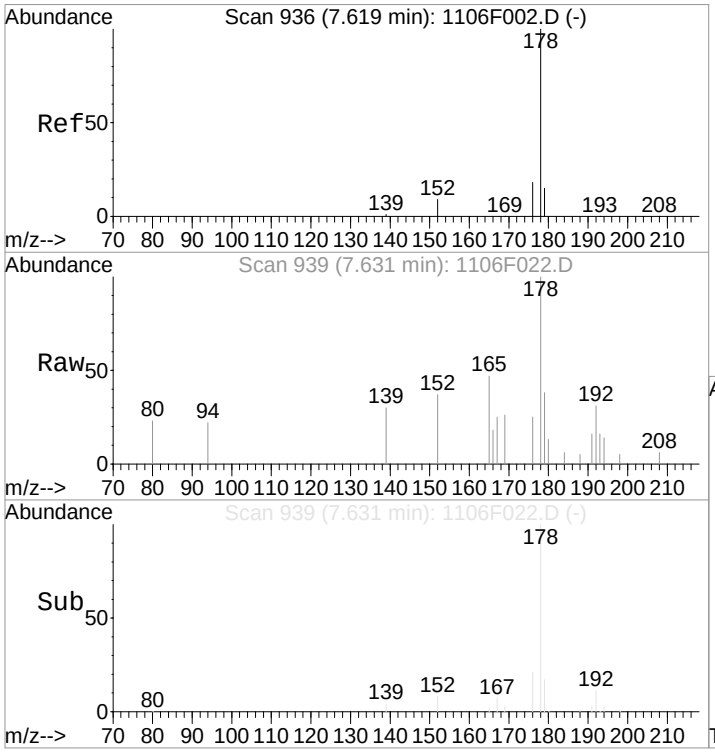


#17
Phenanthrene
Concen: 486.09 ng/ml
RT: 7.59 min Scan# 928
Delta R.T. 0.01 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:178 Resp: 211177

Ion	Ratio	Lower	Upper
178	100		
176	18.7	0.0	48.7
179	16.8	0.0	35.1

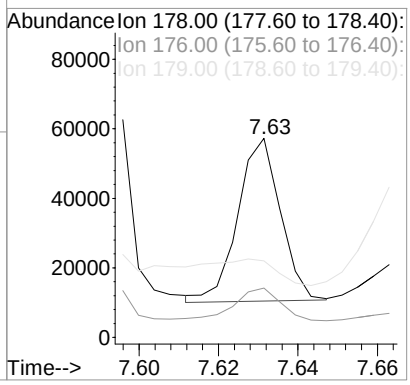


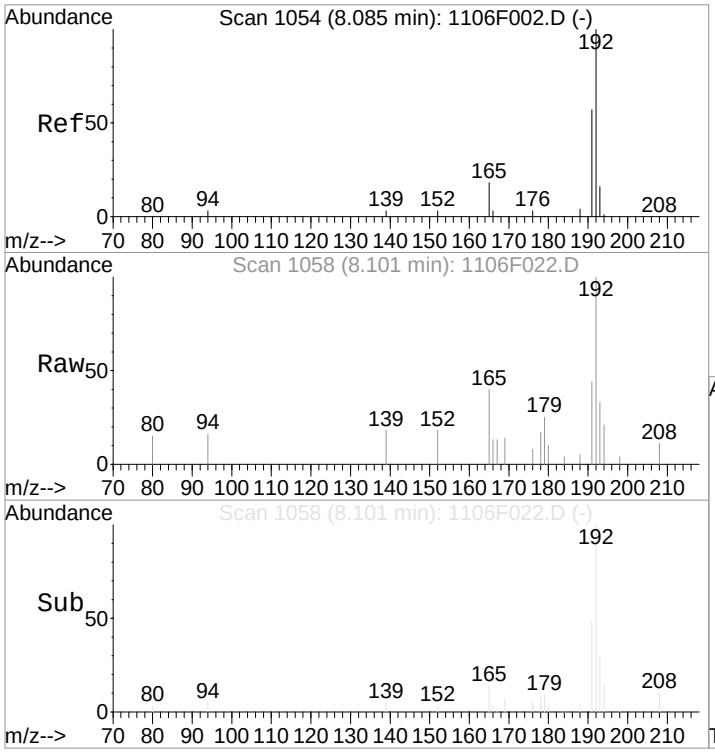


#18
Anthracene
Concen: 84.35 ng/ml
RT: 7.63 min Scan# 939
Delta R.T. 0.01 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:178 Resp: 34981

Ion	Ratio	Lower	Upper
178	100		
176	20.2	0.0	48.0
179	13.0	0.0	35.1

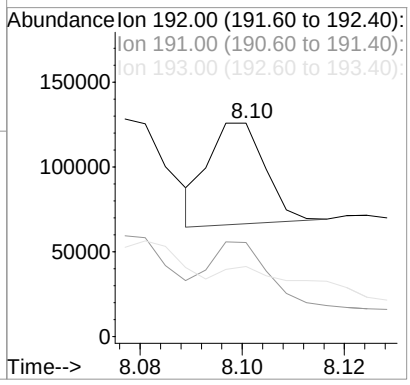




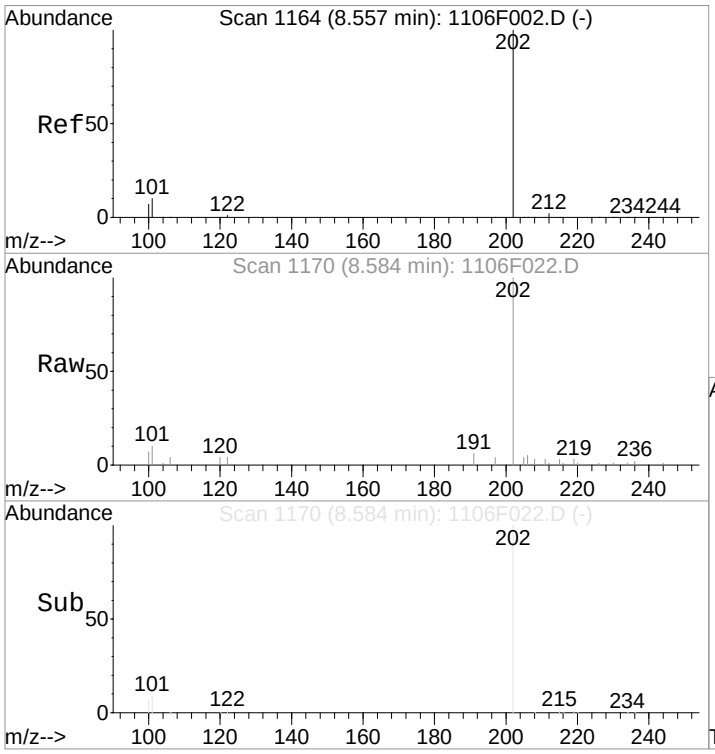
#20
1-Methylphenanthrene
Concen: 140.31 ng/ml
RT: 8.10 min Scan# 1058
Delta R.T. 0.02 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:192 Resp: 46170

Ion	Ratio	Lower	Upper
192	100		
191	65.6	27.7	87.7
193	15.2	0.0	45.4



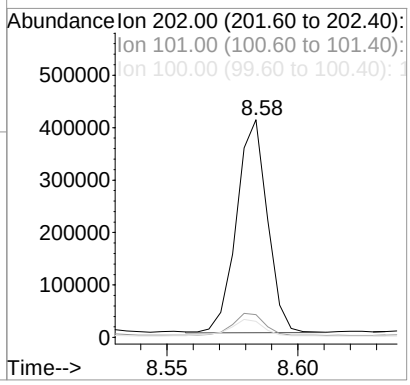
1st 11/16/18
2nd 11/27/18

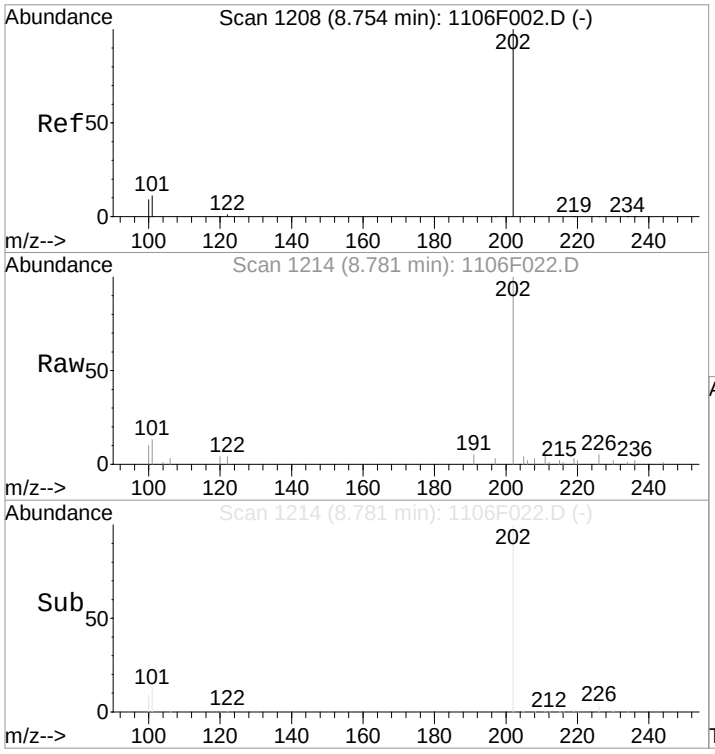


#21
Fluoranthene
Concen: 618.85 ng/ml
RT: 8.58 min Scan# 1170
Delta R.T. 0.03 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:202 Resp: 331981

Ion	Ratio	Lower	Upper
202	100		
101	9.8	0.0	41.3
100	6.9	0.0	28.6

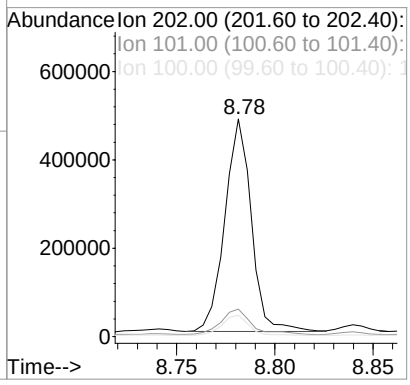




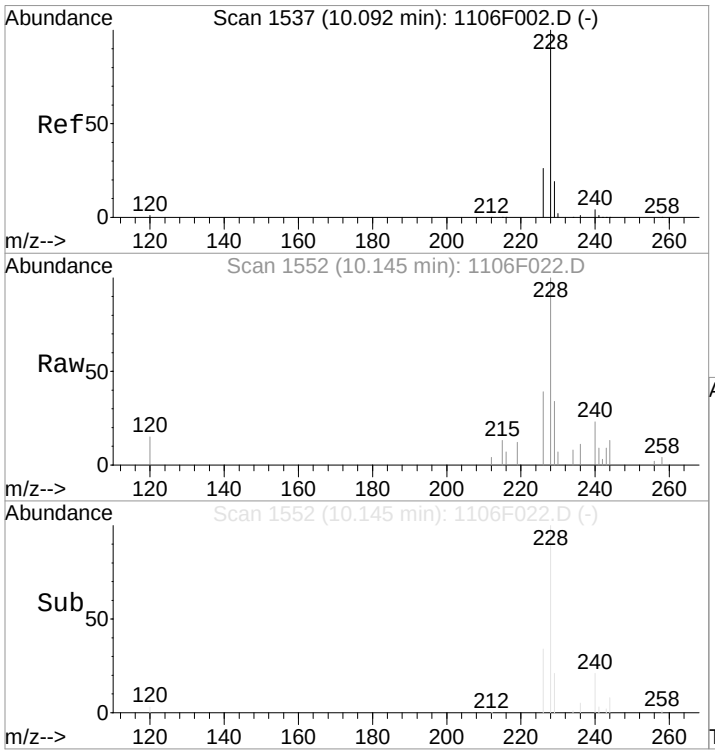
#24
Pyrene
Concen: 697.42 ng/ml
RT: 8.78 min Scan# 1214
Delta R.T. 0.03 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:202 Resp: 451266

Ion	Ratio	Lower	Upper
202	100		
101	12.0	0.0	40.8
100	9.5	0.0	28.5



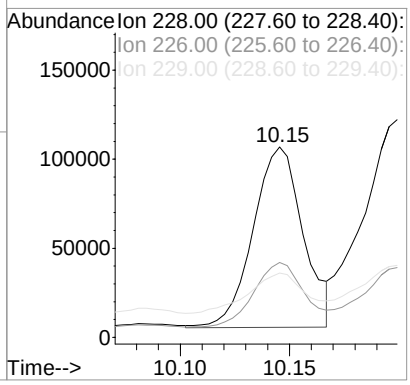
1st 11/16/18
2nd 11/27/18

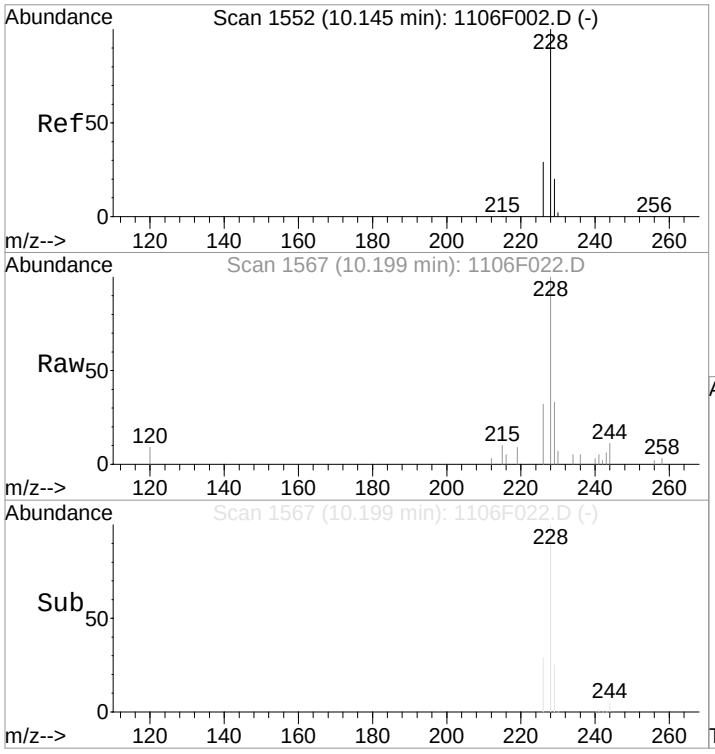


#26
Benz(a)anthracene
Concen: 264.99 ng/ml
RT: 10.15 min Scan# 1552
Delta R.T. 0.05 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:228 Resp: 161575

Ion	Ratio	Lower	Upper
228	100		
226	36.1	0.0	56.3
229	22.5	0.0	39.1

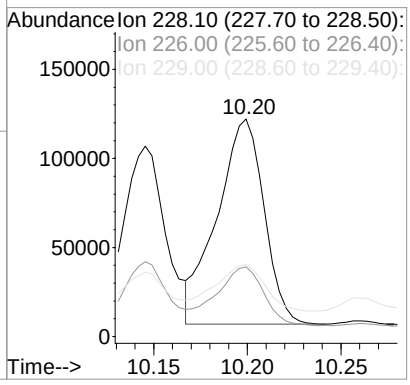




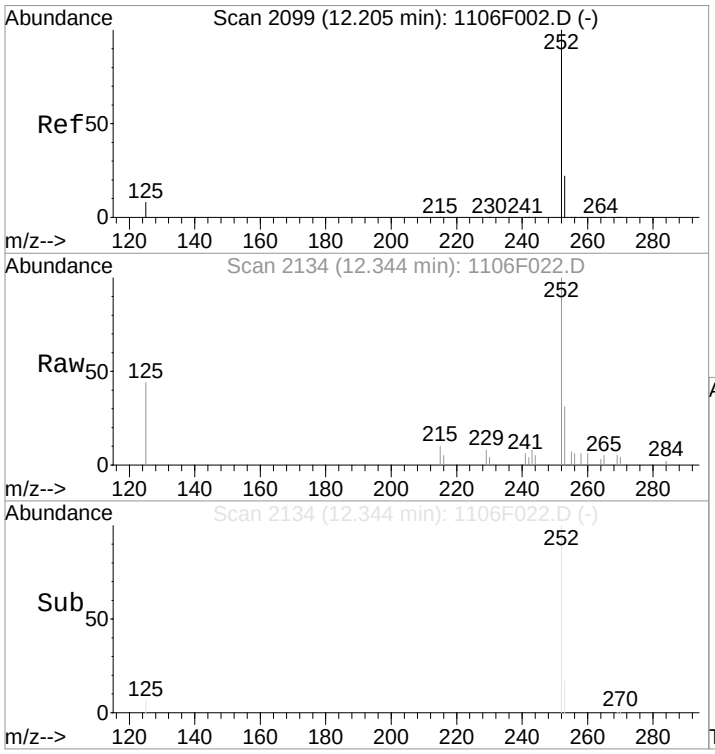
#27
Chrysene
Concen: 344.90 ng/ml
RT: 10.20 min Scan# 1567
Delta R.T. 0.05 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:228 Resp: 201437

Ion	Ratio	Lower	Upper
228	100		
226	28.6	0.0	58.7
229	22.4	0.0	39.2



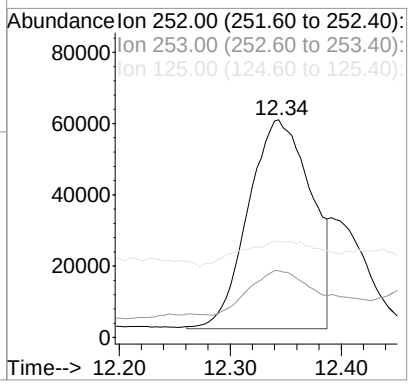
1st 11/16/18
2nd 11/27/18

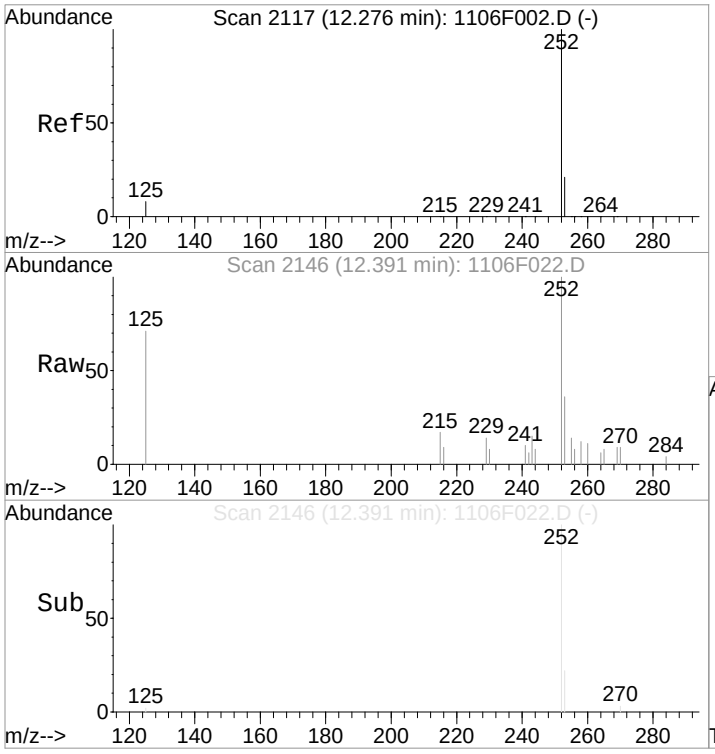


#29
Benzo(b)fluoranthene
Concen: 375.86 ng/ml m
RT: 12.34 min Scan# 2134
Delta R.T. 0.14 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:252 Resp: 231858

Ion	Ratio	Lower	Upper
252	100		
253	30.7	0.0	51.2
125	44.3	0.0	29.5#

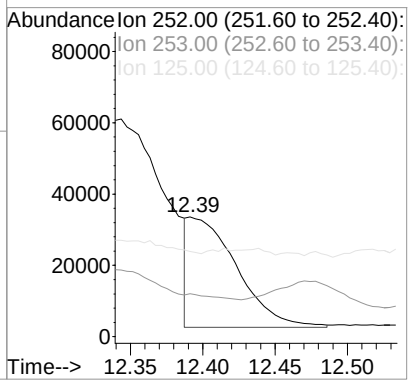


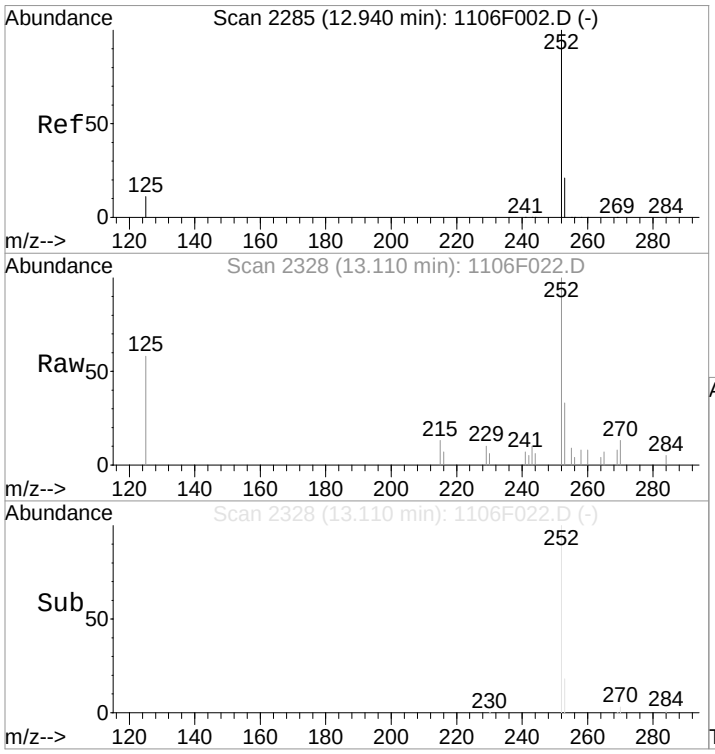


#30
Benzo(k)fluoranthene
Concen: 117.92 ng/ml m
RT: 12.39 min Scan# 2146
Delta R.T. 0.11 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:252 Resp: 72158

Ion	Ratio	Lower	Upper
252	100		
253	35.7	0.0	51.2
125	71.1	0.0	29.7#

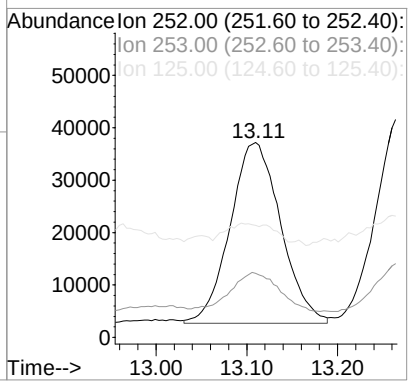


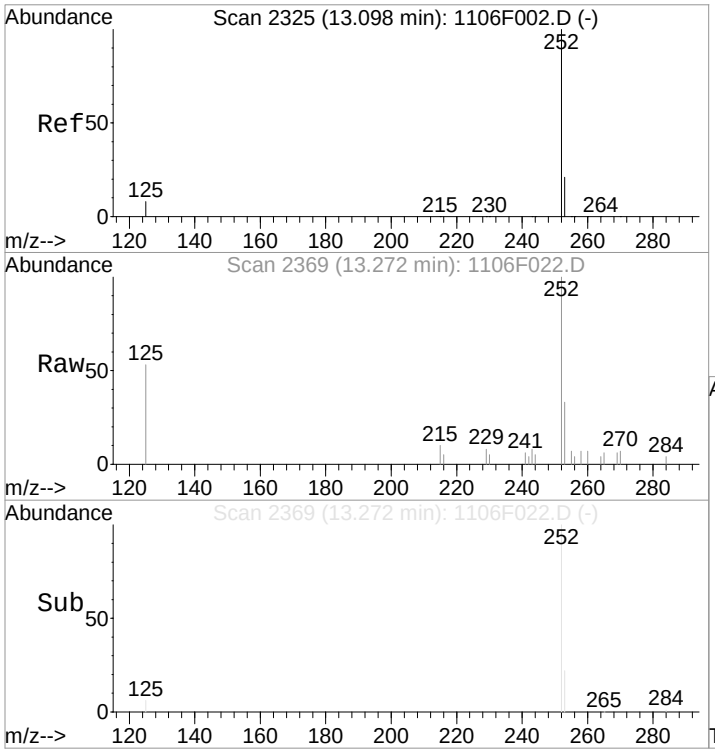


#31
Benzo(e)pyrene
Concen: 227.73 ng/ml m
RT: 13.11 min Scan# 2328
Delta R.T. 0.17 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:252 Resp: 133905

Ion	Ratio	Lower	Upper
252	100		
253	32.8	0.0	51.3
125	57.5	0.0	33.5#

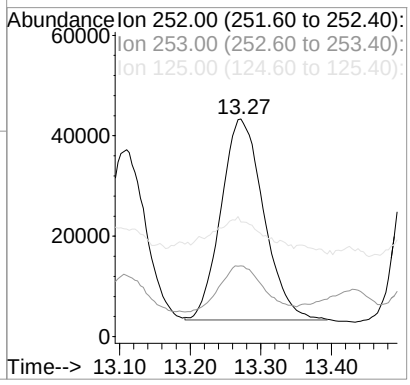




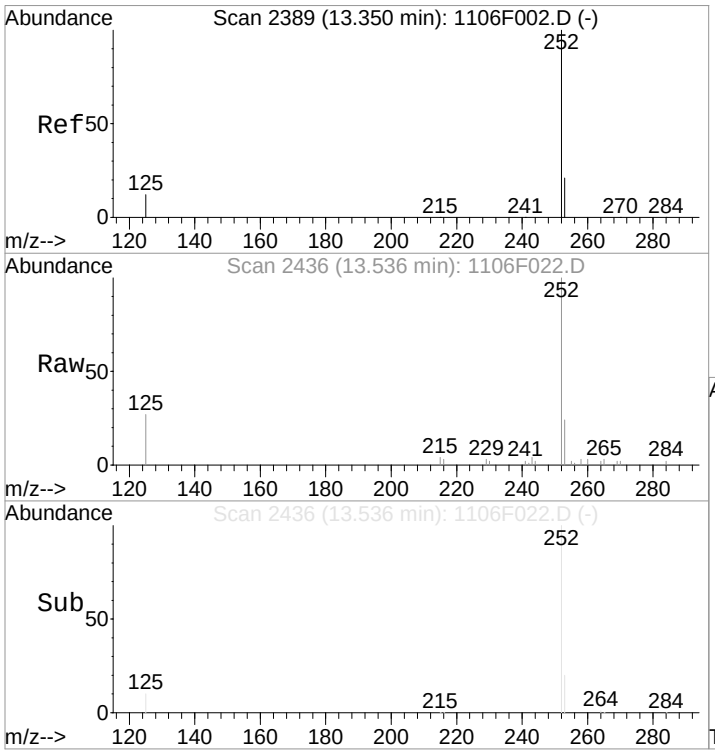
#32
Benzo(a)pyrene
Concen: 311.90 ng/ml m
RT: 13.27 min Scan# 2369
Delta R.T. 0.17 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:252 Resp: 168730

Ion	Ratio	Lower	Upper
252	100		
253	32.6	0.0	50.9
125	52.6	0.0	30.3#



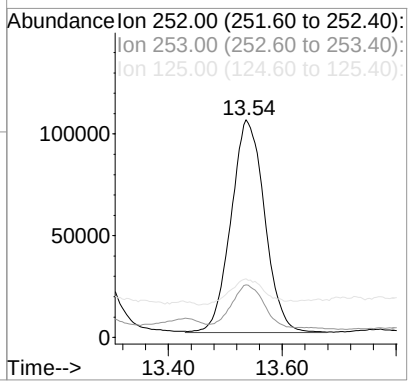
1st 11/16/18
2nd 11/27/18

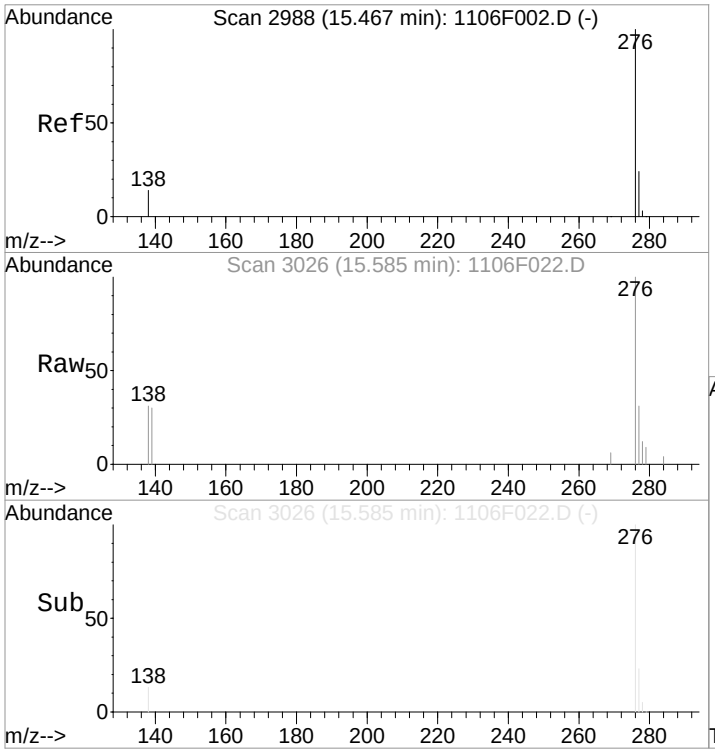


#33
Perylene
Concen: 758.59 ng/ml m
RT: 13.54 min Scan# 2436
Delta R.T. 0.19 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:252 Resp: 430490

Ion	Ratio	Lower	Upper
252	100		
253	24.2	0.0	51.2
125	27.0	0.0	33.8

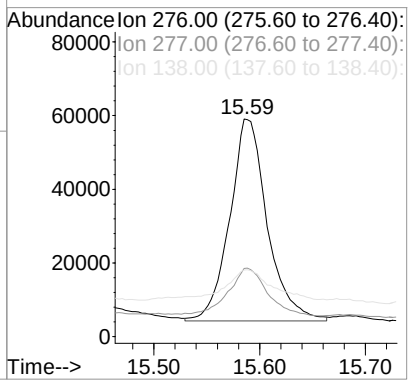




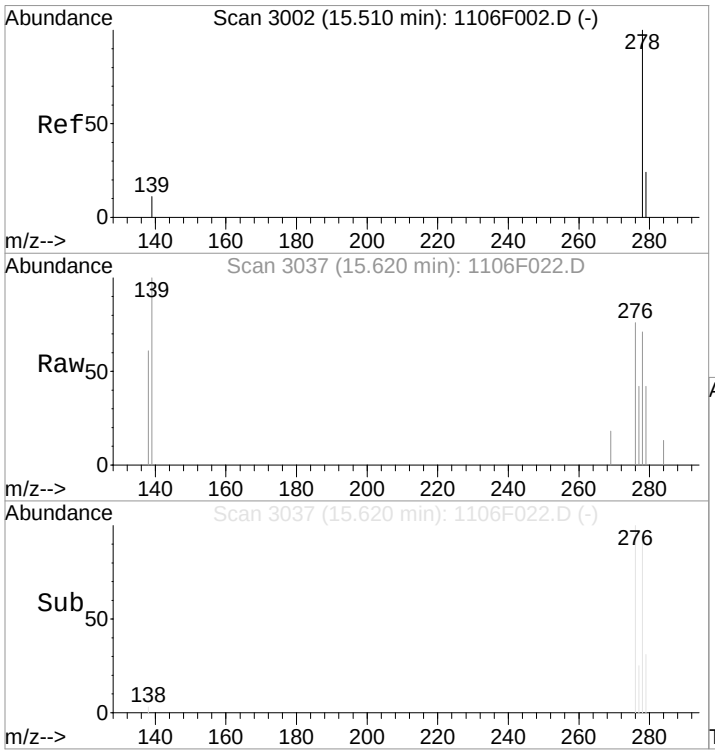
#34
Indeno(1,2,3-cd)pyrene
Concen: 255.77 ng/ml m
RT: 15.59 min Scan# 3026
Delta R.T. 0.12 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:276 Resp: 135678

Ion	Ratio	Lower	Upper
276	100		
277	31.4	0.0	53.4
138	30.7	0.0	37.7



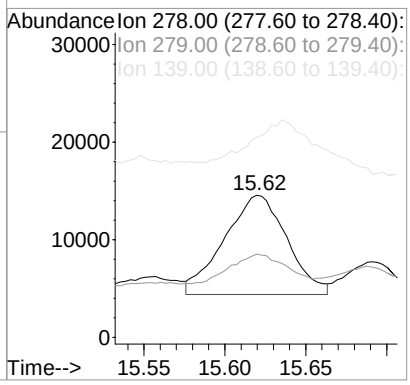
1st 11/16/18
2nd 11/27/18

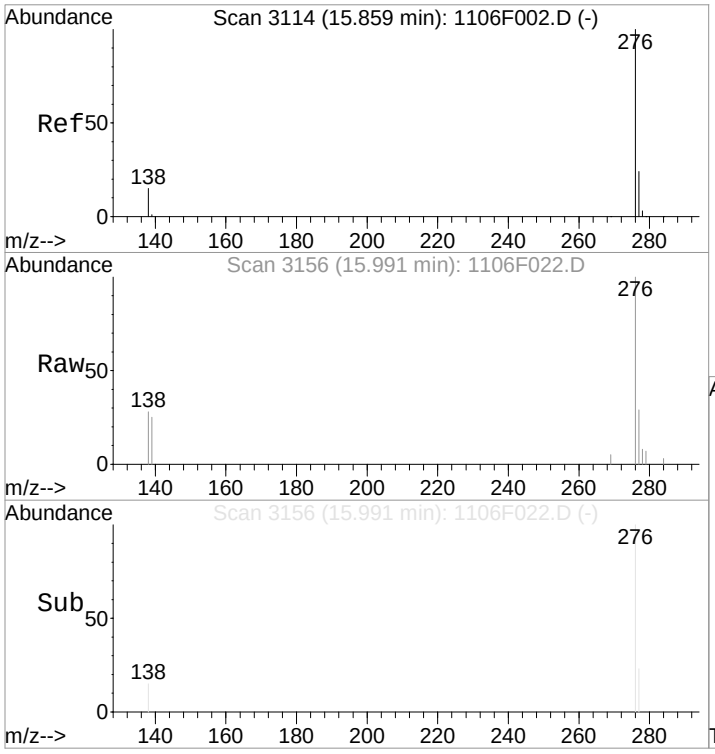


#35
Dibenz(a,h)anthracene
Concen: 51.13 ng/ml m
RT: 15.62 min Scan# 3037
Delta R.T. 0.11 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:278 Resp: 27495

Ion	Ratio	Lower	Upper
278	100		
279	58.5	0.0	53.5#
139	140.7	0.0	35.0#

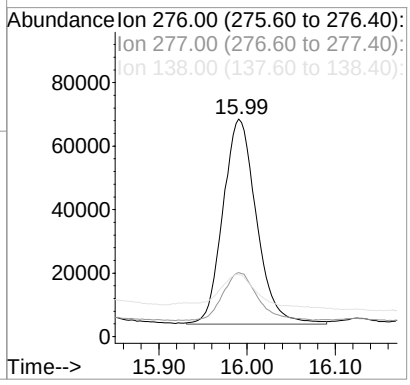




#36
Benzo(g,h,i)perylene
Concen: 274.94 ng/ml m
RT: 15.99 min Scan# 3156
Delta R.T. 0.13 min
Lab File: 1106F022.D
Acq: 6 Nov 2018 3:10 pm

Tgt Ion:276 Resp: 170797

Ion	Ratio	Lower	Upper
276	100		
277	29.4	0.0	53.1
138	28.4	0.0	39.2



Quantitation Report (QT Reviewed)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F022.D Vial: 22
Acq On : 6 Nov 2018 3:10 pm Operator: LWeiskopf
Sample : K1810302-023DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 09:56:54 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.76	136	67296	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.32	164	32506	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	69642	200.00	ng/ml	0.01
23) Chrysene-d12	10.16	240	94309	200.00	ng/ml	0.05
28) Perylene-d12	13.45	264	99845m	200.00	ng/ml	0.18
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.39	152	19656	104.64	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	10.46%		
13) Fluorene-d10	6.76	176	32394	155.86	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	15.59%		
22) Fluoranthene-d10	8.57	212	77205	175.90	ng/ml	0.02
Spiked Amount 1000.000			Recovery =	17.59%		
25) Terphenyl-d14	8.92	244	67627	165.32	ng/ml	0.02
Spiked Amount 1000.000			Recovery =	16.53%		
Target Compounds						Qvalue
2) Naphthalene	4.78	128	24309	62.58	ng/ml	99
4) 2-Methylnaphthalene	5.42	142	10323	44.07	ng/ml	94
5) 1-Methylnaphthalene	5.51	142	4198	18.62	ng/ml	90
6) Biphenyl	5.83	154	3950	13.51	ng/ml	95
7) 2,6-Dimethylnaphthalene	5.97	156	16189	80.50	ng/ml	92
9) Acenaphthylene	6.21	152	15801	40.74	ng/ml	80
10) Acenaphthene	6.35	154	9716	43.61	ng/ml	93
11) Dibenzofuran	6.50	168	9256	25.89	ng/ml#	1
12) 2,3,5-Trimethylnaphthalene	6.67	170	28879	140.13	ng/ml	89
14) Fluorene	6.79	166	10863	40.31	ng/ml	87
16) Dibenzothiophene	7.48	184	24878m	57.27	ng/ml	
17) Phenanthrene	7.59	178	211177	486.09	ng/ml	98
18) Anthracene	7.63	178	34981	84.35	ng/ml	95
20) 1-Methylphenanthrene	8.10	192	46170	140.31	ng/ml	91
21) Fluoranthene	8.58	202	331981	618.85	ng/ml	96
24) Pyrene	8.78	202	451266	697.42	ng/ml	97
26) Benz(a)anthracene	10.15	228	161575	264.99	ng/ml	86
27) Chrysene	10.20	228	201437	344.90	ng/ml	97
29) Benzo(b)fluoranthene	12.34	252	231858m	375.86	ng/ml	
30) Benzo(k)fluoranthene	12.39	252	72158m	117.92	ng/ml	
31) Benzo(e)pyrene	13.11	252	133905m	227.73	ng/ml	
32) Benzo(a)pyrene	13.27	252	168730m	311.90	ng/ml	
33) Perylene	13.54	252	430490m	758.59	ng/ml	
34) Indeno(1,2,3-cd)pyrene	15.59	276	135678m	255.77	ng/ml	
35) Dibenz(a,h)anthracene	15.62	278	27495m	51.13	ng/ml	
36) Benzo(g,h,i)perylene	15.99	276	170797m	274.94	ng/ml	

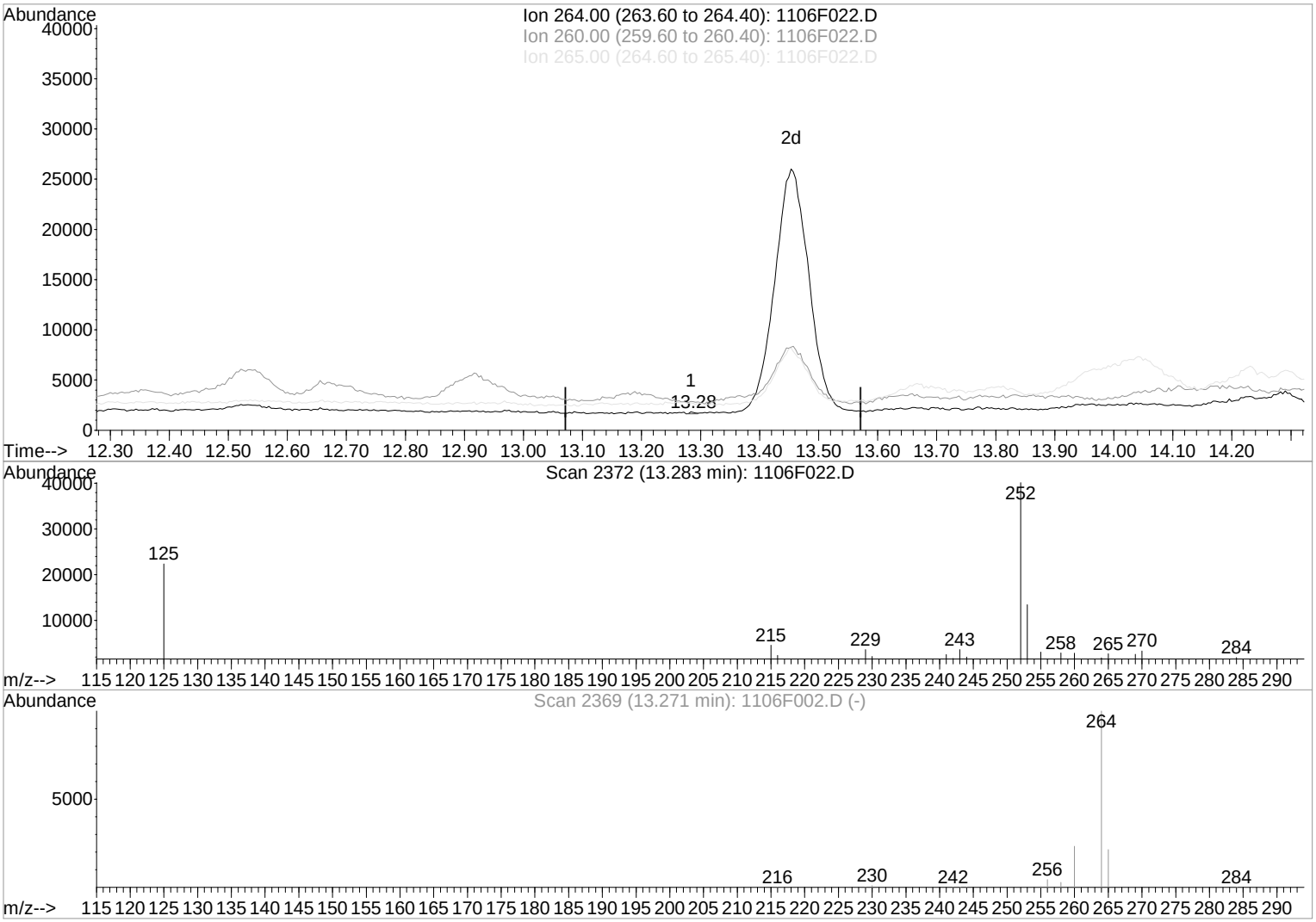
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F022.D Vial: 22
Acq On : 6 Nov 2018 3:10 pm Operator: LWeiskopf
Sample : K1810302-023DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:34 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F022.D

(28) Perylene-d12 (I)

13.28min 200.00ng/ml

response 109

Ion	Exp%	Act%
264.00	100	100
260.00	23.00	50.54
265.00	21.50	10.87
0.00	0.00	0.00

Manual Integration:

Before

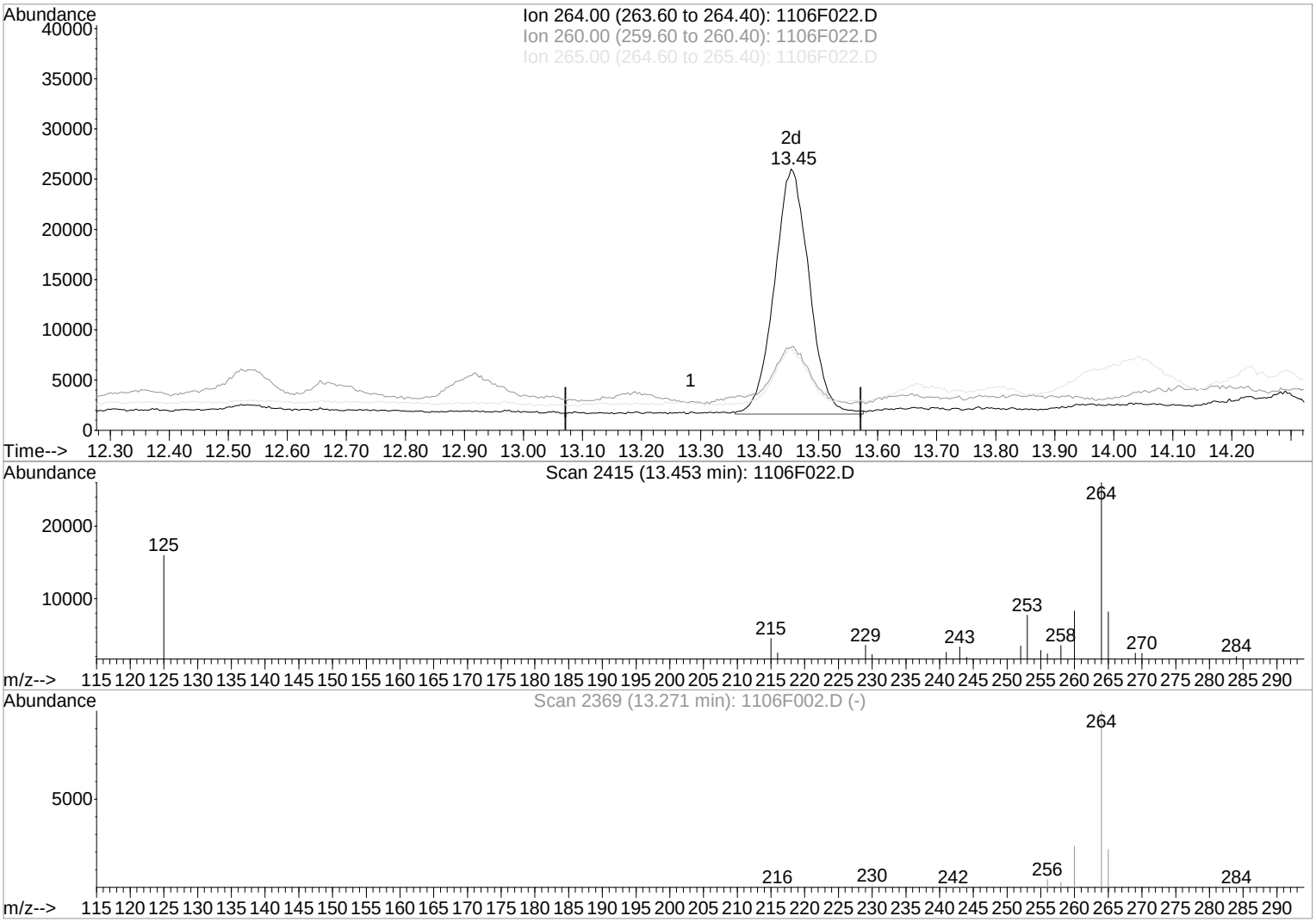
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F022.D Vial: 22
Acq On : 6 Nov 2018 3:10 pm Operator: LWeiskopf
Sample : K1810302-023DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:34 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F022.D

(28) Perylene-d12 (I)

13.45min 200.00ng/ml m

response 99845

Ion	Exp%	Act%
264.00	100	100
260.00	23.00	31.80
265.00	21.50	31.46
0.00	0.00	0.00

Manual Integration:

After

WP

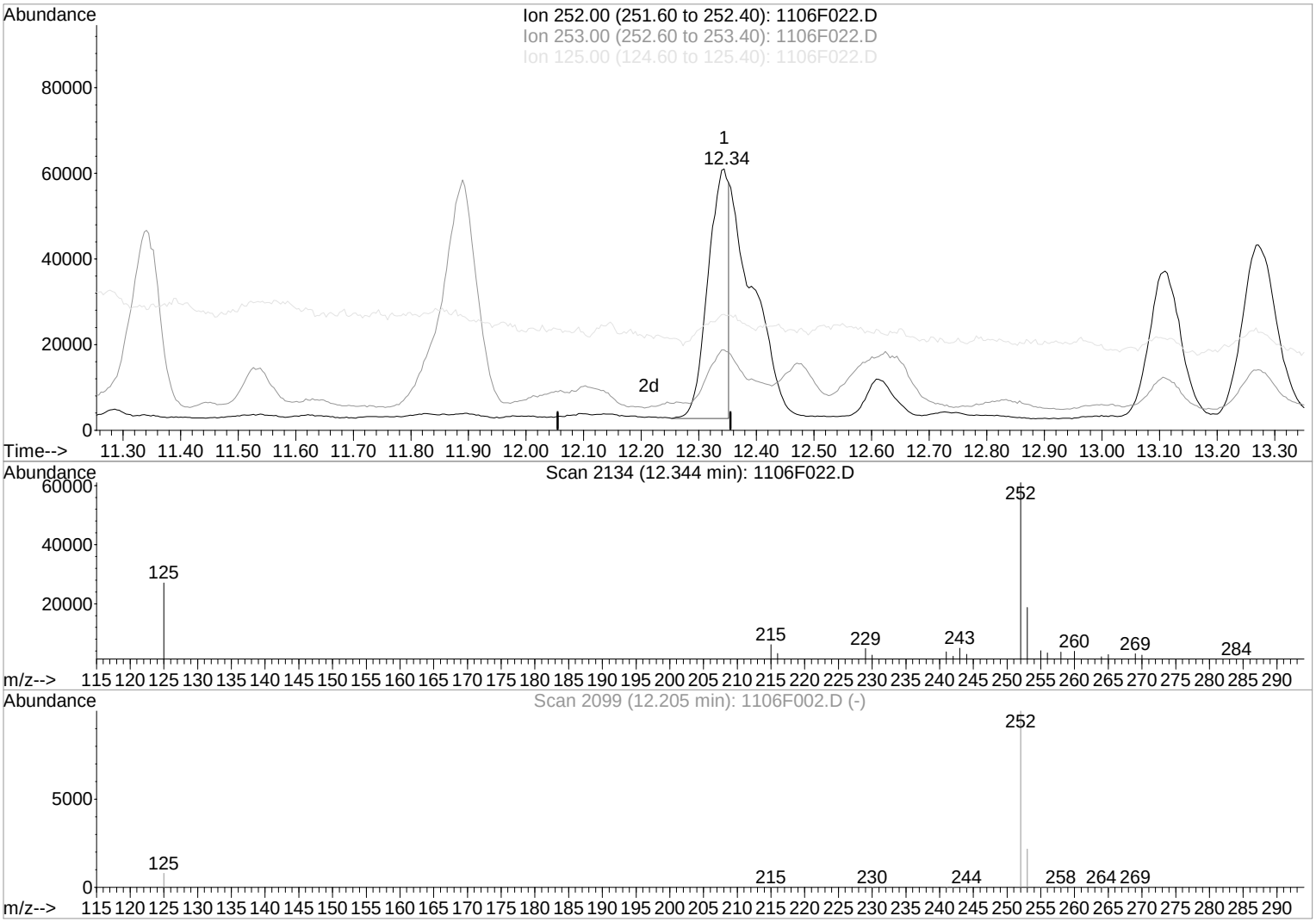
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F022.D Vial: 22
Acq On : 6 Nov 2018 3:10 pm Operator: LWeiskopf
Sample : K1810302-023DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:34 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F022.D

(29) Benzo(b)fluoranthene (T)

12.34min 231.75ng/ml

response 142959

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.40
125.00	9.50	9.72
0.00	0.00	0.00

Manual Integration:

Before

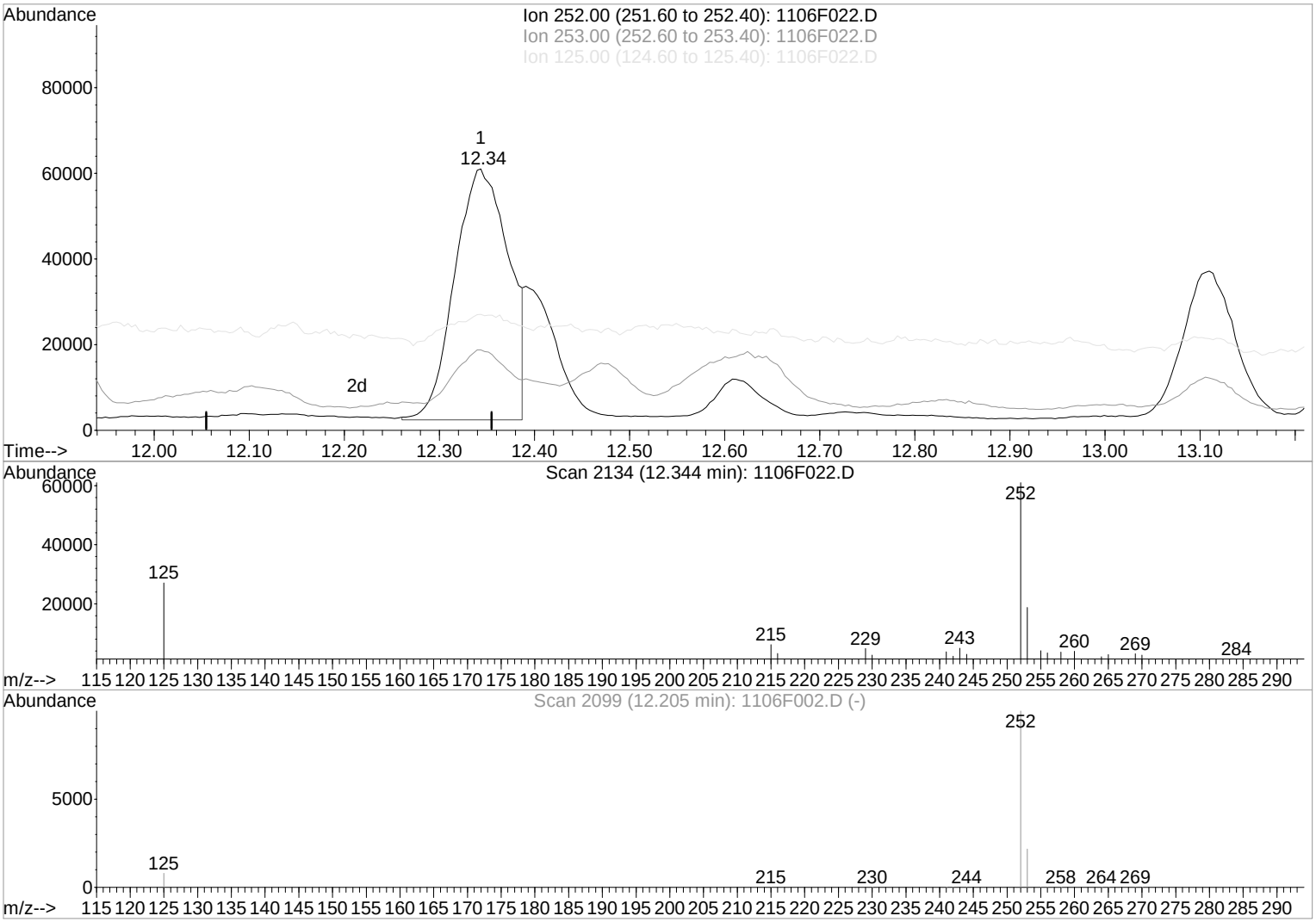
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F022.D Vial: 22
Acq On : 6 Nov 2018 3:10 pm Operator: LWeiskopf
Sample : K1810302-023DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:37 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F022.D

(29) Benzo(b)fluoranthene (T)

12.34min 375.86ng/ml m

response 231858

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	30.70
125.00	9.50	44.34#
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

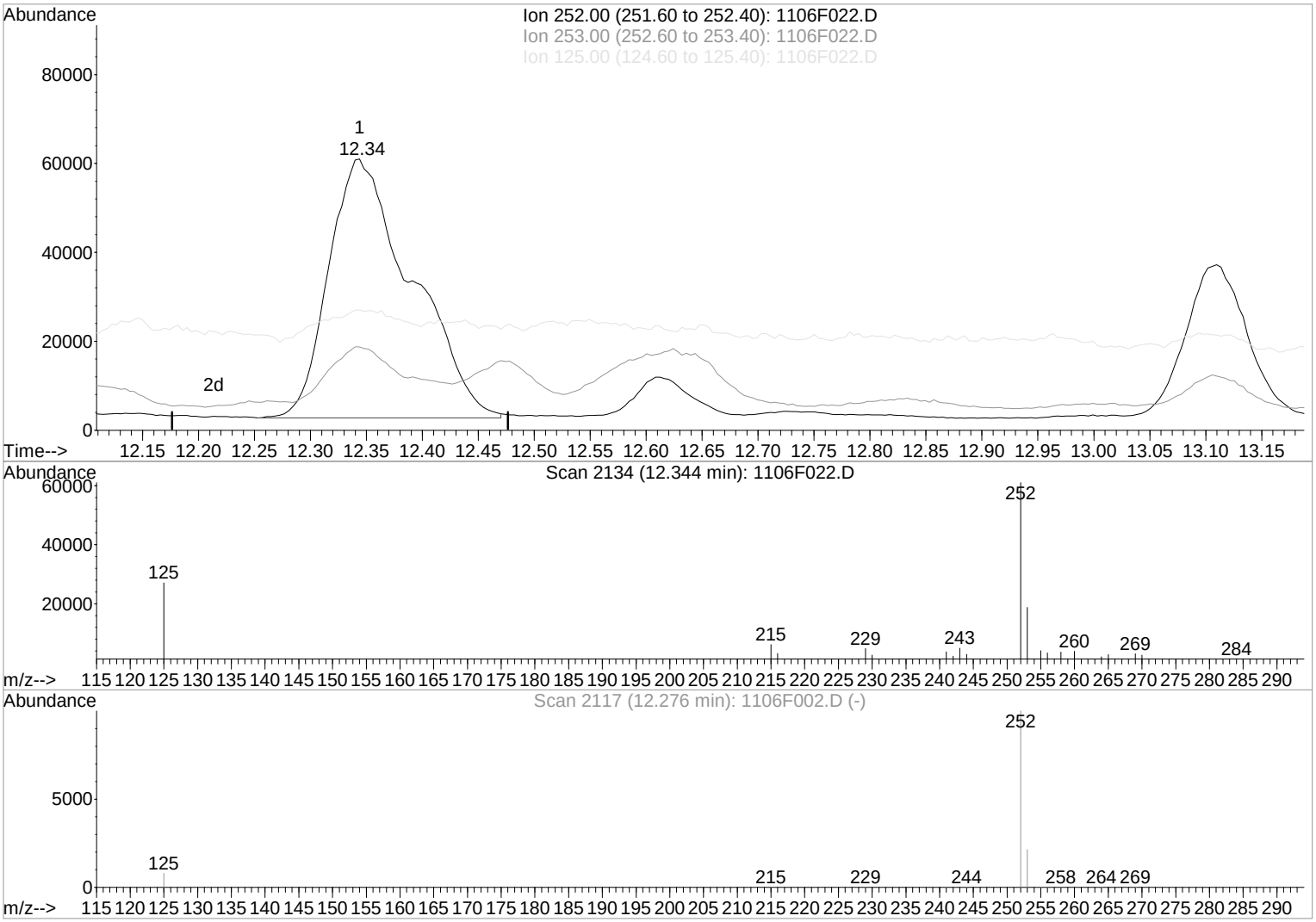
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F022.D Vial: 22
Acq On : 6 Nov 2018 3:10 pm Operator: LWeiskopf
Sample : K1810302-023DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:37 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F022.D

(30) Benzo(k)fluoranthene (T)

12.34min 490.05ng/ml

response 299883

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.40
125.00	9.70	9.72
0.00	0.00	0.00

Manual Integration:

Before

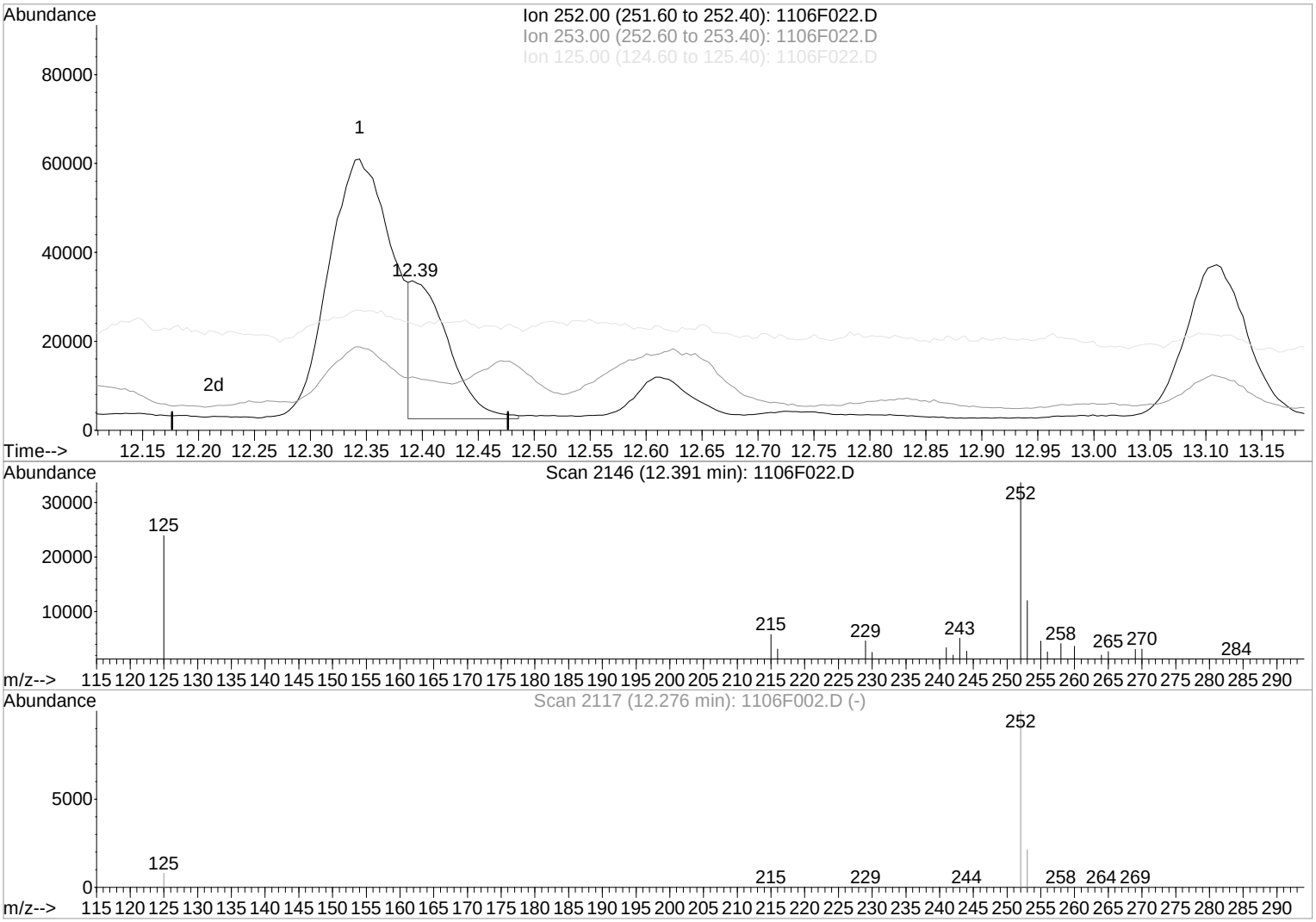
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F022.D Vial: 22
Acq On : 6 Nov 2018 3:10 pm Operator: LWeiskopf
Sample : K1810302-023DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:38 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F022.D

(30) Benzo(k)fluoranthene (T)

12.39min 117.92ng/ml m

response 72158

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	35.70
125.00	9.70	71.13#
0.00	0.00	0.00

Manual Integration:

After

WP

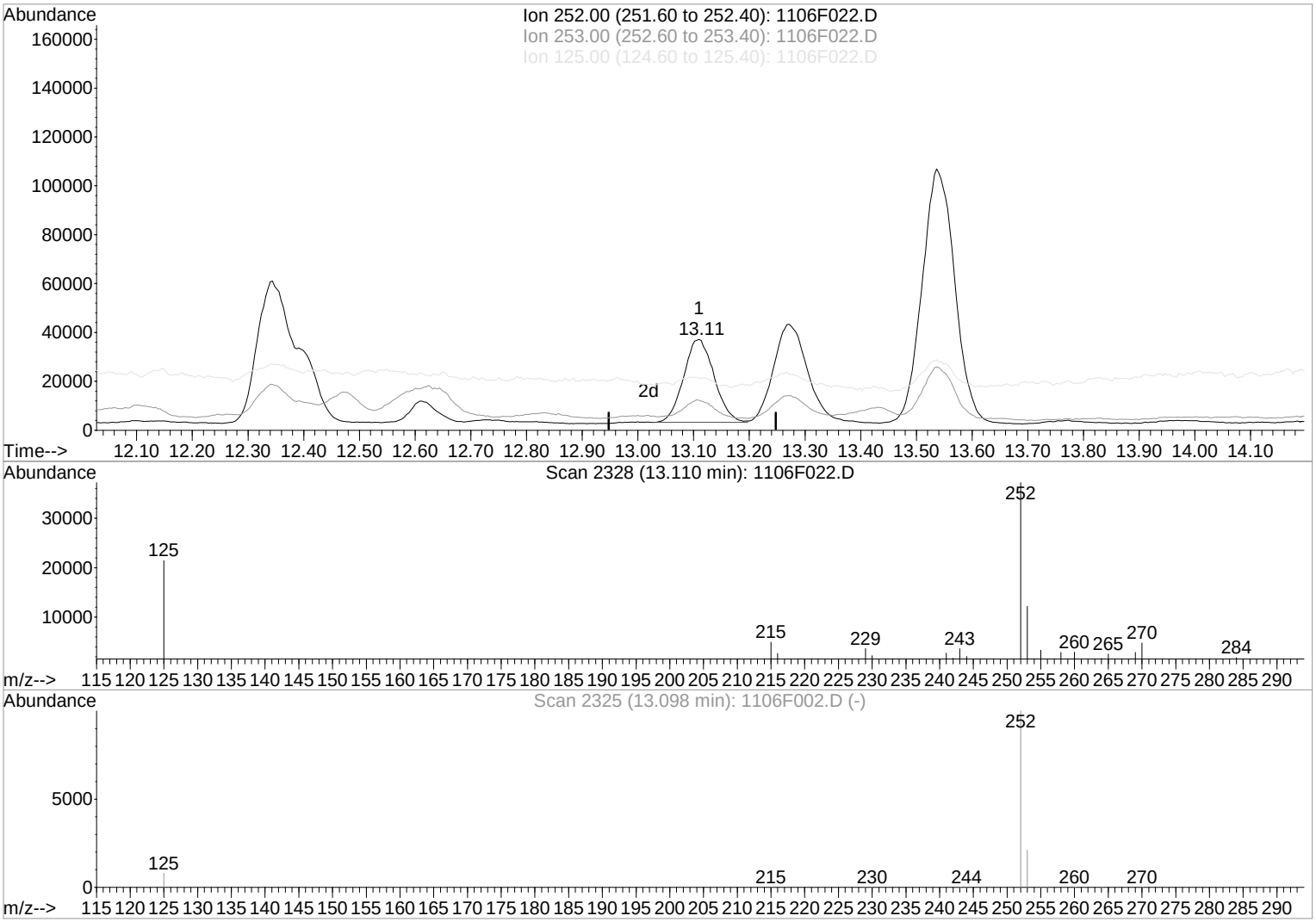
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F022.D Vial: 22
Acq On : 6 Nov 2018 3:10 pm Operator: LWeiskopf
Sample : K1810302-023DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:38 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F022.D

(32) Benzo(a)pyrene (T)

13.11min 239.24ng/ml

response 129420

Ion	Exp%	Act%
252.00	100	100
253.00	20.90	21.29
125.00	10.30	7.98
0.00	0.00	0.00

Manual Integration:

Before

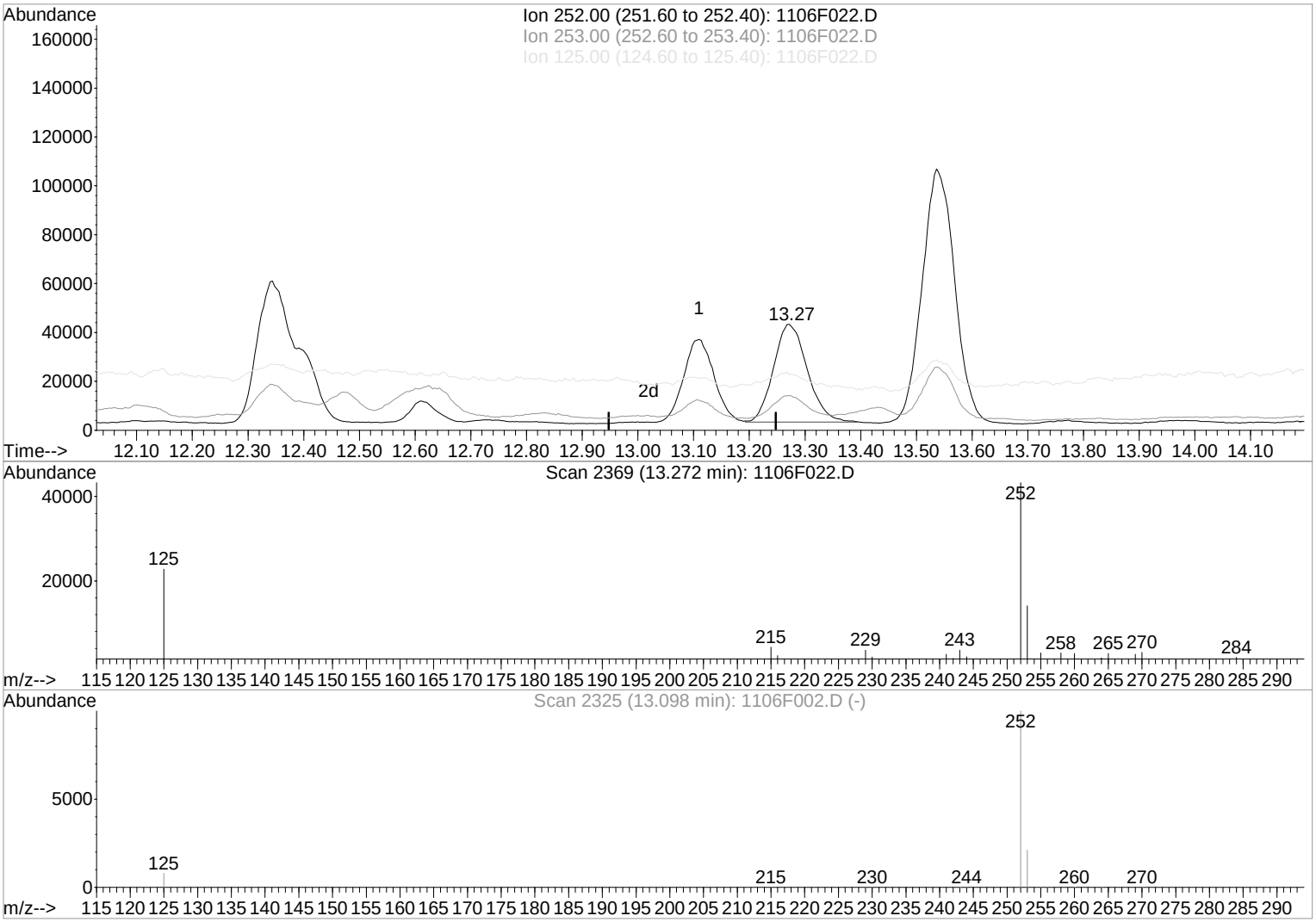
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F022.D Vial: 22
Acq On : 6 Nov 2018 3:10 pm Operator: LWeiskopf
Sample : K1810302-023DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:38 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F022.D

(32) Benzo(a)pyrene (T)

13.27min 311.90ng/ml m

response 168730

Ion	Exp%	Act%
252.00	100	100
253.00	20.90	32.56
125.00	10.30	52.64#
0.00	0.00	0.00

Manual Integration:

After

WP

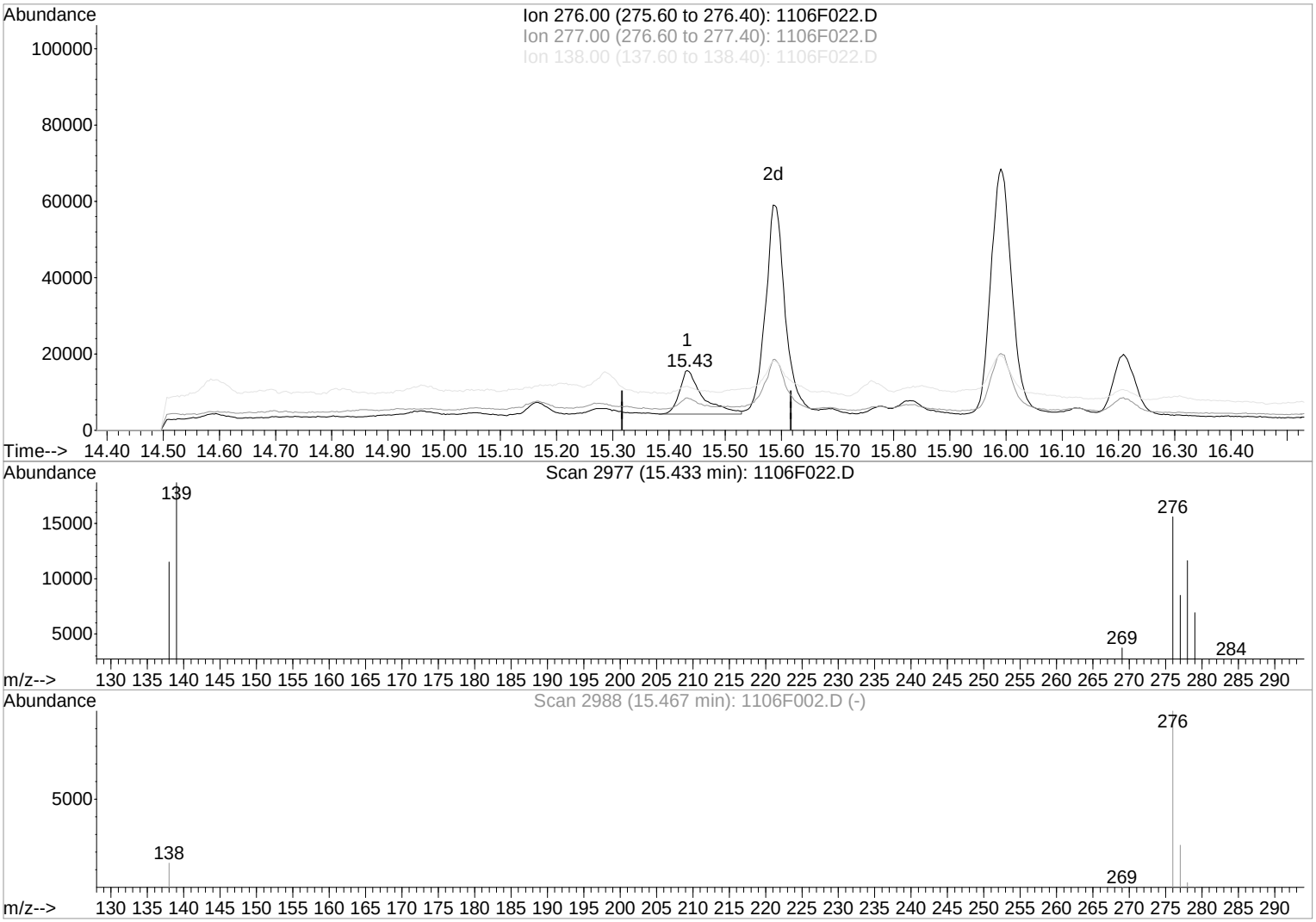
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F022.D Vial: 22
Acq On : 6 Nov 2018 3:10 pm Operator: LWeiskopf
Sample : K1810302-023DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:38 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F022.D

(34) Indeno(1,2,3-cd)pyrene (T)

15.43min 61.62ng/ml

response 32689

Ion	Exp%	Act%
276.00	100	100
277.00	23.40	26.03
138.00	17.70	15.30
0.00	0.00	0.00

Manual Integration:

Before

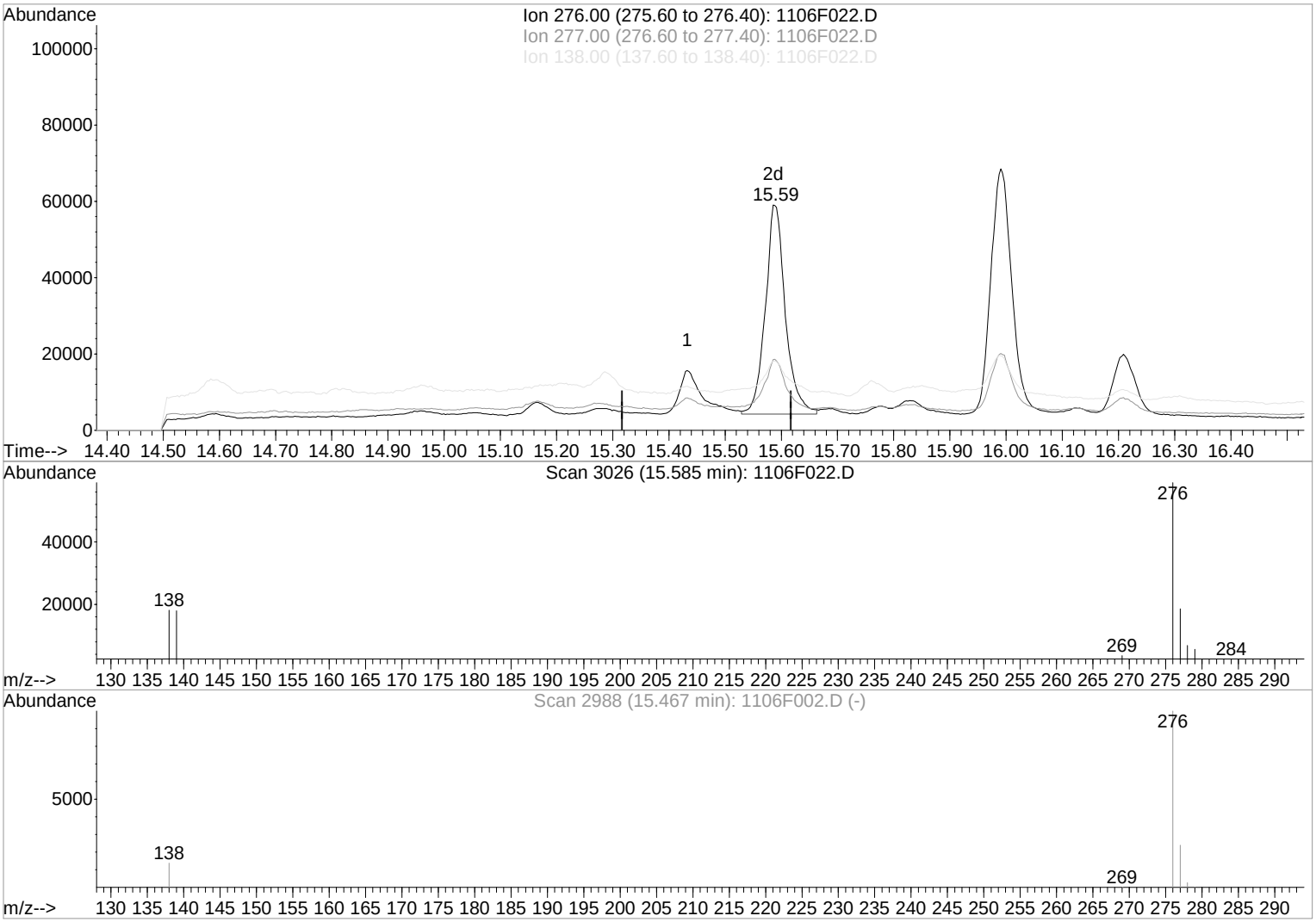
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F022.D Vial: 22
Acq On : 6 Nov 2018 3:10 pm Operator: LWeiskopf
Sample : K1810302-023DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:38 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F022.D

(34) Indeno(1,2,3-cd)pyrene (T)

15.59min 255.77ng/ml m

response 135678

Ion	Exp%	Act%
276.00	100	100
277.00	23.40	31.43
138.00	17.70	30.67
0.00	0.00	0.00

Manual Integration:

After

WP

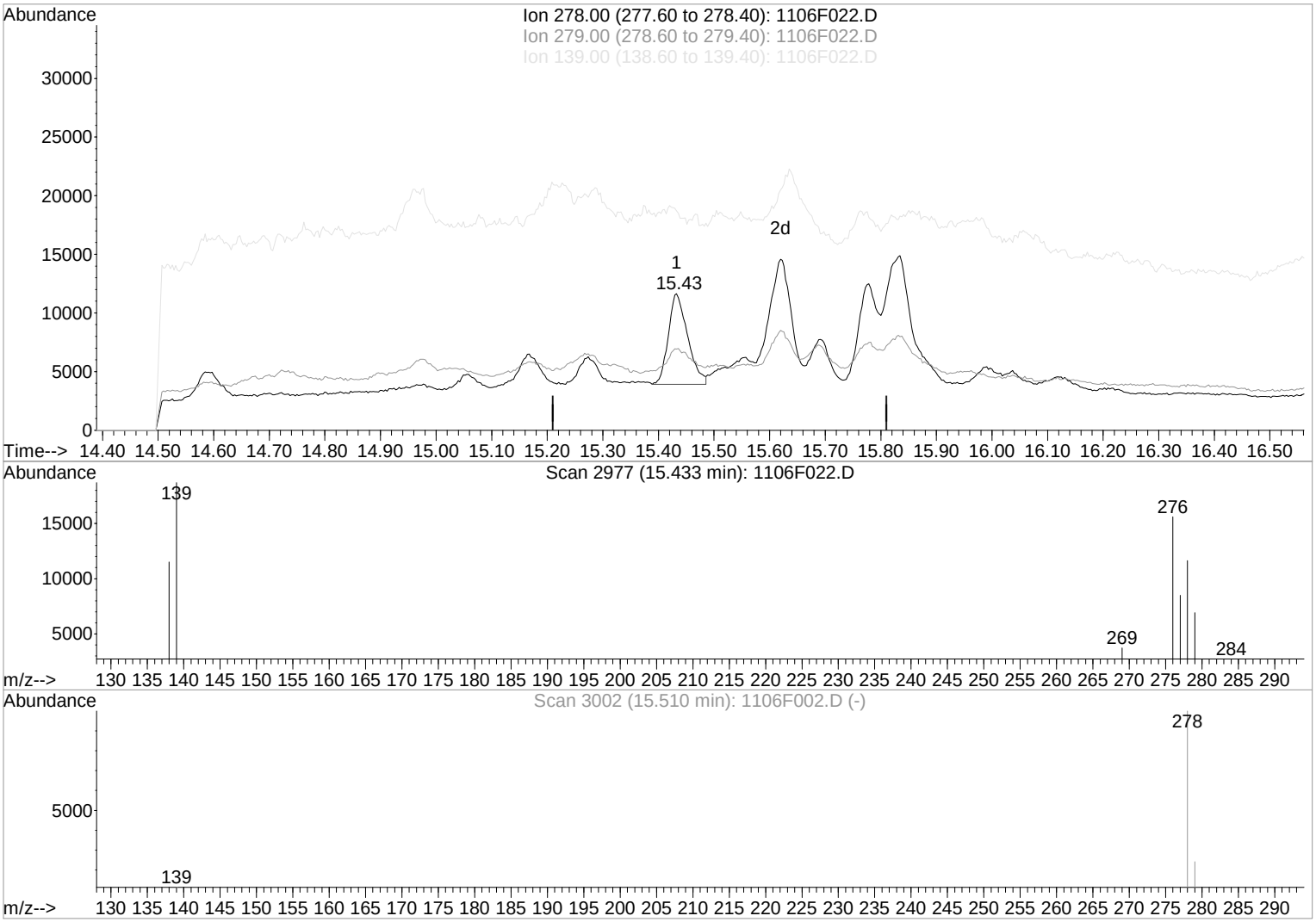
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F022.D Vial: 22
Acq On : 6 Nov 2018 3:10 pm Operator: LWeiskopf
Sample : K1810302-023DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:38 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F022.D

(35) Dibenz(a,h)anthracene (T)

15.43min 34.78ng/ml

response 18701

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	23.94
139.00	15.00	13.57
0.00	0.00	0.00

Manual Integration:

Before

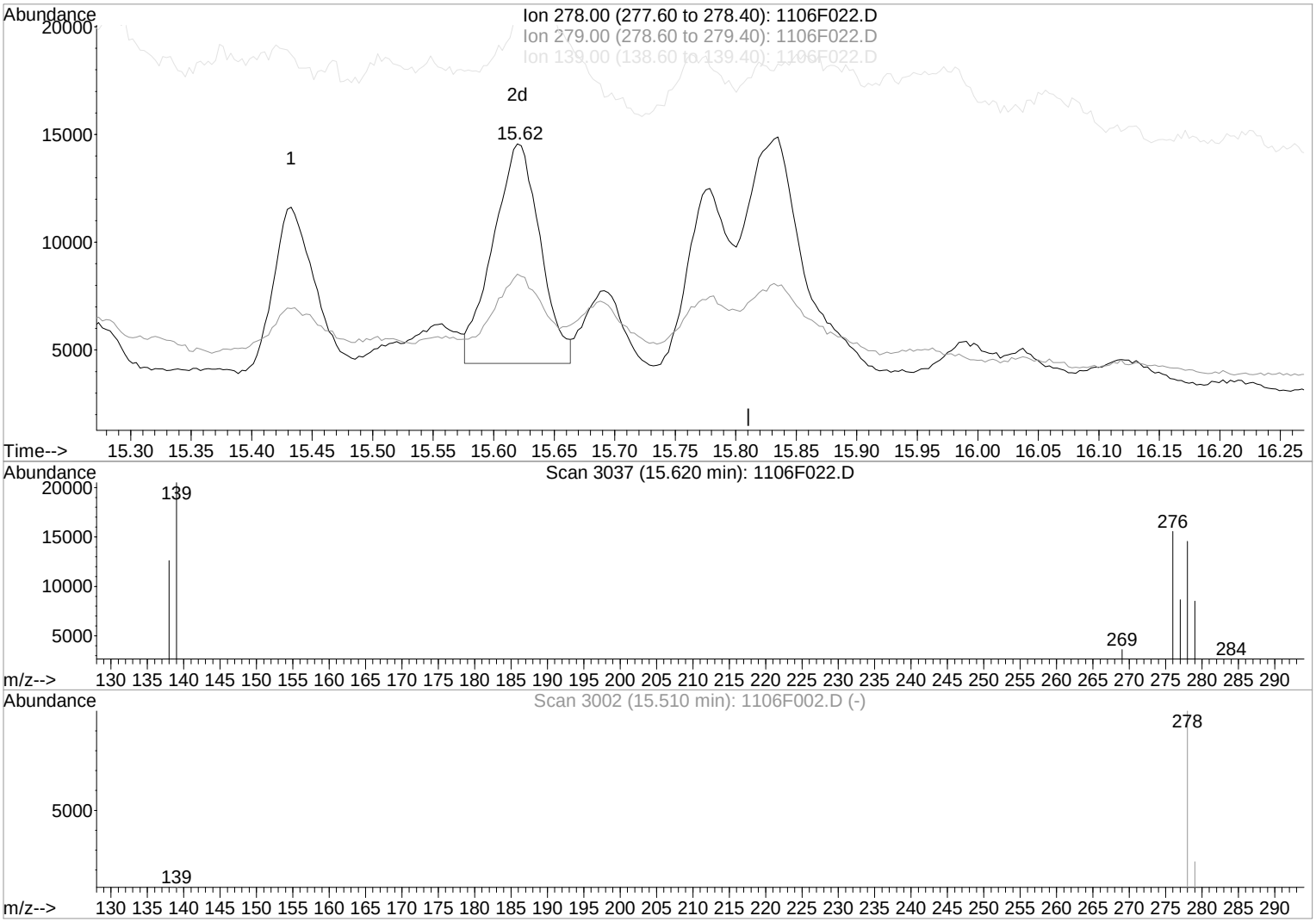
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F022.D Vial: 22
Acq On : 6 Nov 2018 3:10 pm Operator: LWeiskopf
Sample : K1810302-023DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:38 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F022.D

(35) Dibenz(a,h)anthracene (T)

15.62min 51.13ng/ml m

response 27495

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	58.47#
139.00	15.00	140.73#
0.00	0.00	0.00

Manual Integration:

After

WP

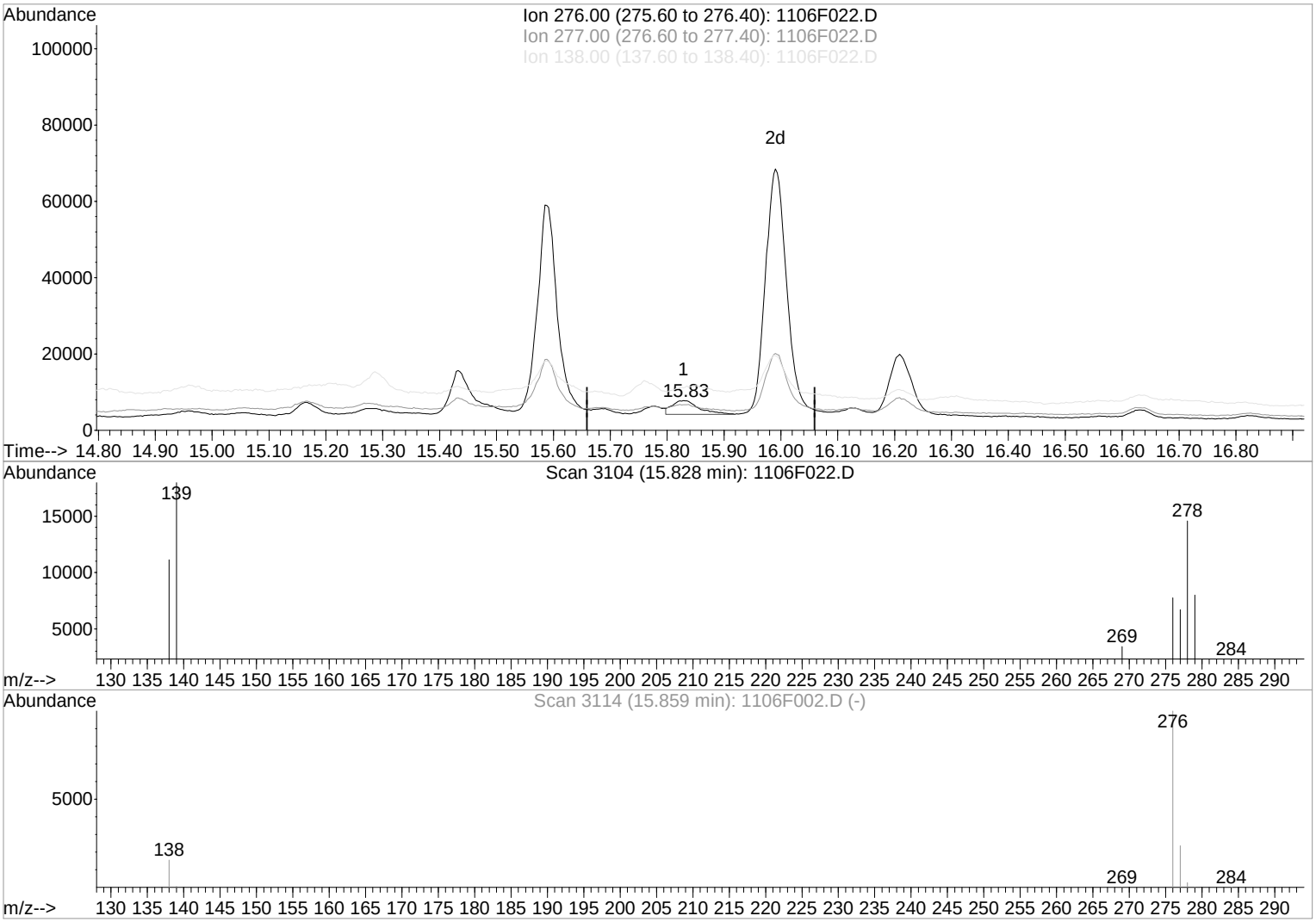
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F022.D Vial: 22
Acq On : 6 Nov 2018 3:10 pm Operator: LWeiskopf
Sample : K1810302-023DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:38 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F022.D

(36) Benzo(g,h,i)perylene (T)

15.83min 18.91ng/ml

response 11746

Ion	Exp%	Act%
276.00	100	100
277.00	23.10	46.28
138.00	19.20	26.89
0.00	0.00	0.00

Manual Integration:

Before

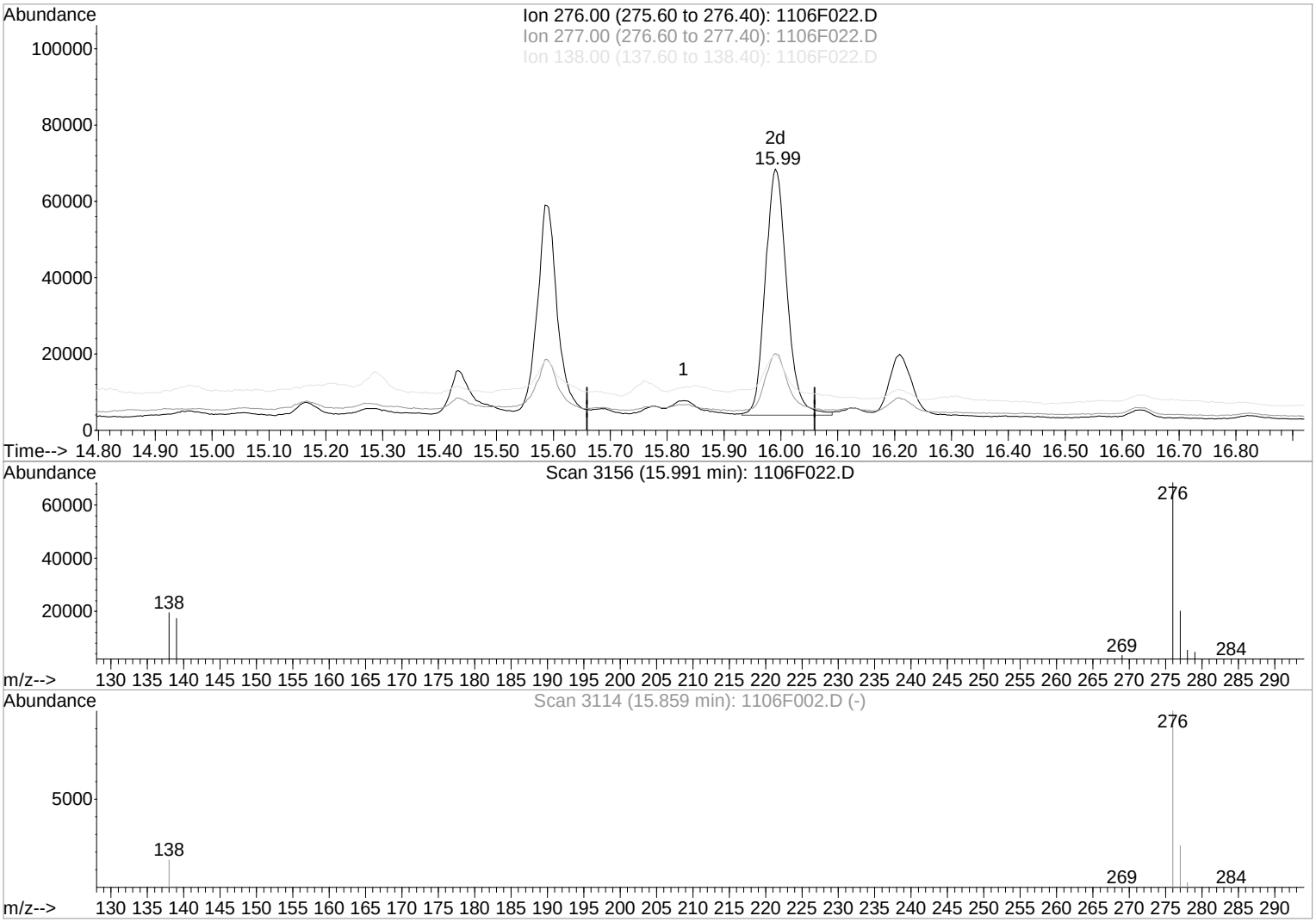
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F022.D Vial: 22
Acq On : 6 Nov 2018 3:10 pm Operator: LWeiskopf
Sample : K1810302-023DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:38 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F022.D

(36) Benzo(g,h,i)perylene (T)

15.99min 274.94ng/ml m

response 170797

Ion	Exp%	Act%
276.00	100	100
277.00	23.10	29.41
138.00	19.20	28.44
0.00	0.00	0.00

Manual Integration:

After

WP

11/16/18

1st 11/16/18
2nd 11/27/18

Exception Report

Data File: J:\MS14\DATA\110618\1106F011.D
Lab ID: K1810302-024
RunType: SMPL
Matrix: SEDIMENT

Date Acquired: 11/06/2018 09:53
Date Quantitated: 11/16/2018 10:08
Batch ID: KWG1806026
Analysis Method: 8270D SIM
ListJoinID: LJ12908

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	NA	NA	NA	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	
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: _____

Secondary Review: _____

1st 11/16/18
2nd 11/27/18

Quantitation Report

Data File:	J:\MS14\DATA\110618\1106F011.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 09:53	**Quant Date:**	11/16/2018 10:08	**Vial:**	11
Run Type:	SMPL	**ListJoinID:**	LJ12908	**Dilution:**	1.0
Lab ID:	K1810302-024			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	IV	**Matrix:**	SEDIMENT
Prod Code:	8270D PAH SIM U	**Collect Date:**	10/21/2018	**Receive Date:**	10/22/2018

Analysis Lot:	KWG1806026	**Prep Lot:**	KWG1805647	**Report Group:**	K1810302
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1701155	**Prep Date:**	11/01/2018		

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ12908
Tune Ref:	J:\MS14\DATA\110618\1106F001.D	**Method ID:**	MJ1233
MB Ref:	J:\MS14\DATA\110618\1106F006.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	4.77	0.01	136	76113	200.00	OK
2	Acenaphthene-d10	6.32	0.00	164	35381	200.00	OK
3	Phenanthrene-d10	7.56	0.00	188	69817	200.00	OK
4	Chrysene-d12	10.11	0.00	240	90602	200.00	OK
5	Perylene-d12	13.31	0.04	264	101246	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	6.76	0.00	0.00	176	151675	670.46	67	26-102	OK	
3	Fluoranthene-d10	8.55	0.01	0.00	212	317375	721.28	72	23-110	OK	
4	Terphenyl-d14	8.89	0.00	0.00	244	294228	748.71	75	27-115	OK	

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.79	0.01	0.00	128	12163	27.68	2.0		
1	2-Methylnaphthalene	5.42		0.00	142	2711	10.23	0.73		
2	Acenaphthylene	6.20		0.00	152	4146	9.82	0.70		
2	Acenaphthene	6.34	-0.01	0.00	154	984	4.06	0.29	J	
2	Dibenzofuran	6.50		0.00	168	2161**m**	5.55	0.40		
2	Fluorene	6.78		0.00	166	1558	5.31	0.38		
3	Phenanthrene	7.58		0.00	178	14756	33.88	2.4		
3	Anthracene	7.62		0.00	178	2728	6.56	0.47		
3	Fluoranthene	8.57	0.01	0.00	202	20160	37.49	2.7		
4	Pyrene	8.76	0.01	0.00	202	29476	47.42	3.4		
4	Benz(a)anthracene	10.10	0.01	0.00	228	7927**m**	13.53	0.97	X	
4	Chrysene	10.15		0.00	228	9165**m**	16.33	1.2		

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:\MS14\DATA\110618\1106F011.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 09:53	**Quant Date:**	11/16/2018 10:08	**Vial:**	11
Run Type:	SMPL	**ListJoinID:**	LJ12908	**Dilution:**	1.0
Lab ID:	K1810302-024			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
5	Benzo(b)fluoranthene	12.22	0.01	0.00	252	17218	27.53	2.0		
5	Benzo(k)fluoranthene	12.29	0.01	0.00	252	4644	7.48	0.53		
5	Benzo(a)pyrene	13.13	0.03	0.00	252	12500	22.79	1.6		
5	Indeno(1,2,3-cd)pyrene	15.48	0.01	0.00	276	11009	20.47	1.5		
5	Dibenz(a,h)anthracene	15.52	0.01	0.00	278	1082**m**	1.98	0.14	J	
5	Benzo(g,h,i)perylene	15.87	0.01	0.00	276	16022	25.43	1.8		

Prep Amount:	40.111 g	**Dilution:**	1.0
Prep Final Vol:	2 mL	**Unit Factor:**	1
Solids:	69.9 %		

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

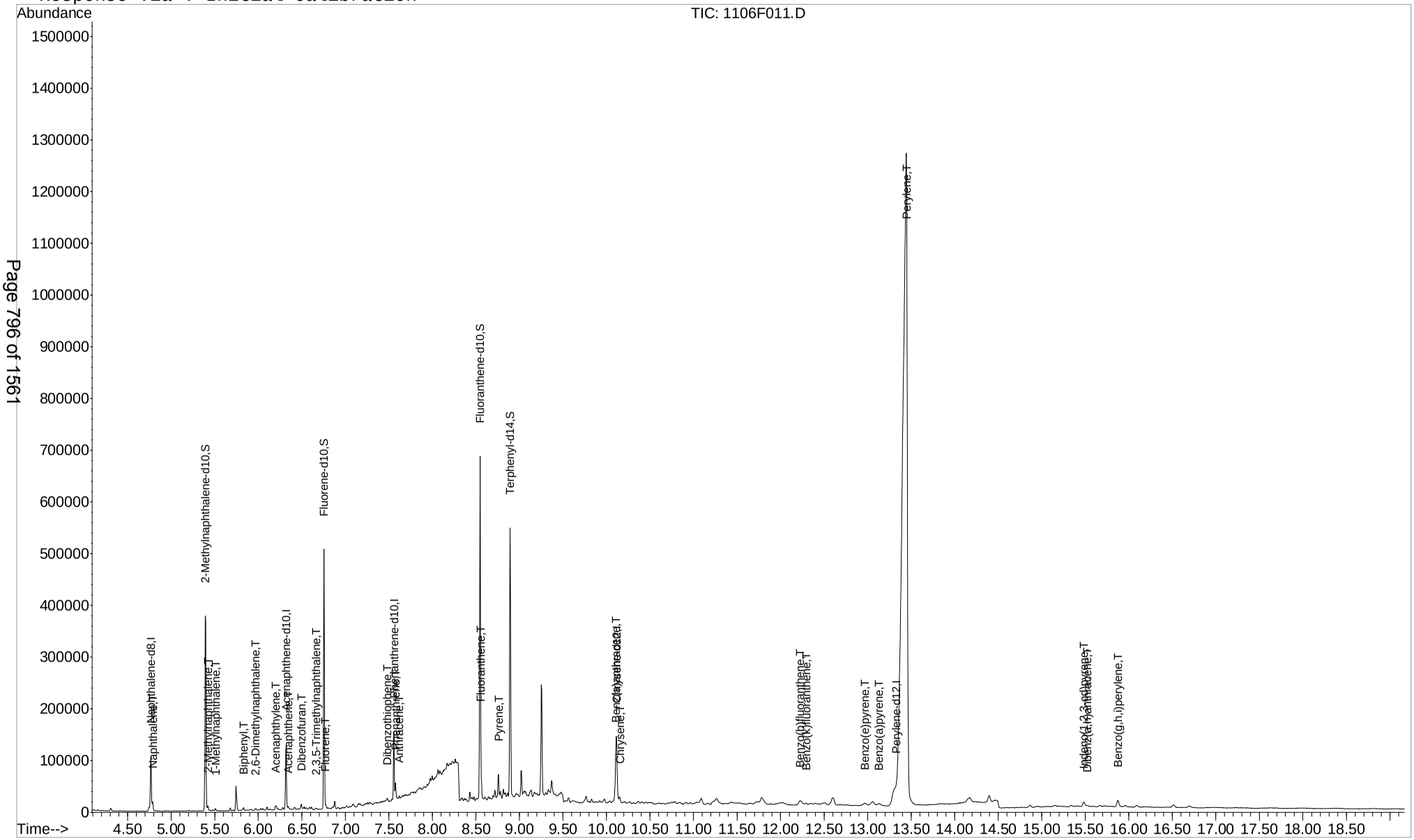
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

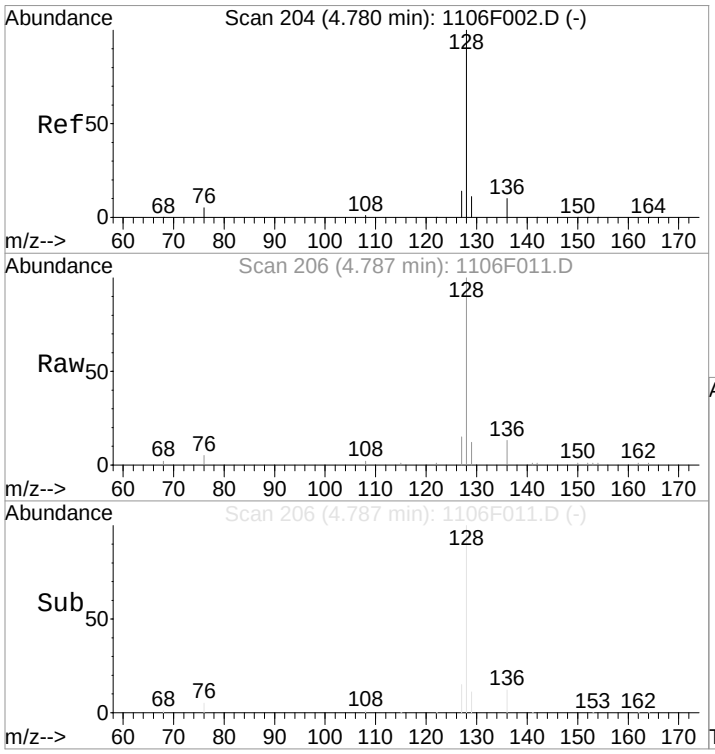
1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F011.D Vial: 11
Acq On : 6 Nov 2018 9:53 am Operator: LWeiskopf
Sample : K1810302-024 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:08 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration



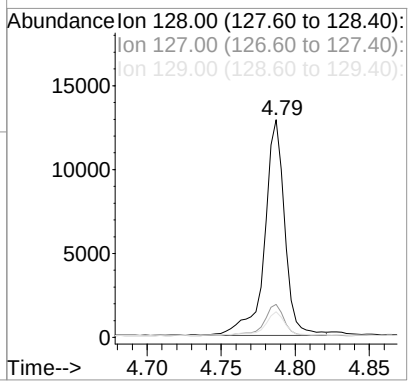
1st 11/16/18
2nd 11/27/18

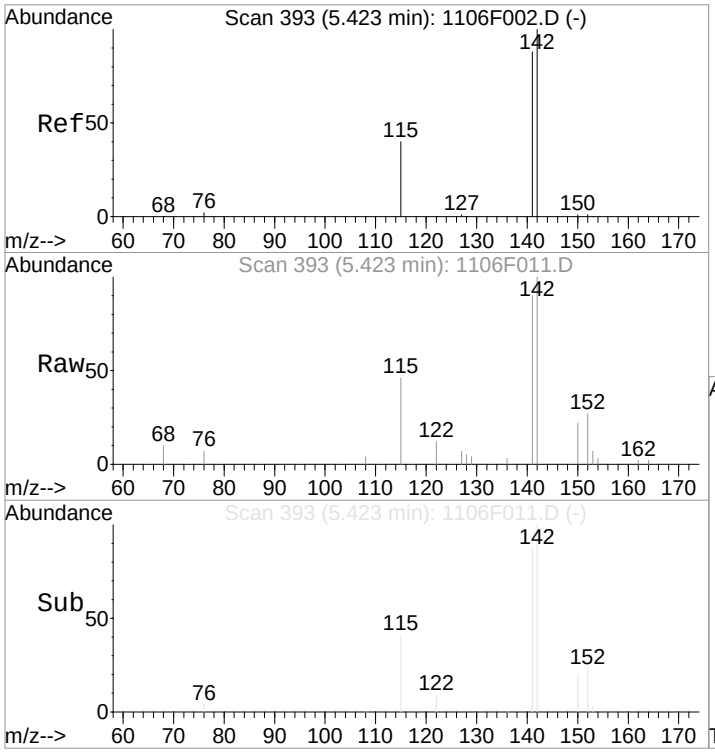


#2
Naphthalene
Concen: 27.68 ng/ml
RT: 4.79 min Scan# 206
Delta R.T. 0.01 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:128 Resp: 12163

Ion	Ratio	Lower	Upper
128	100		
127	14.4	0.0	43.7
129	10.8	0.0	30.8

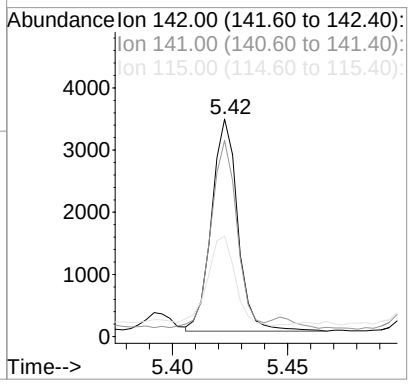




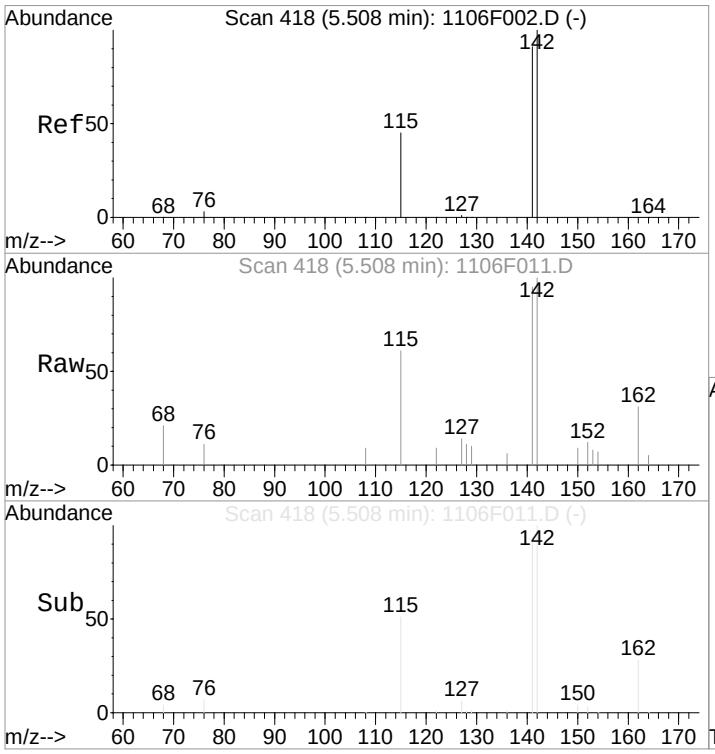
#4
2-Methylnaphthalene
Concen: 10.23 ng/ml
RT: 5.42 min Scan# 393
Delta R.T. -0.00 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:142 Resp: 2711

Ion	Ratio	Lower	Upper
142	100		
141	88.0	56.8	116.8
115	40.1	13.3	53.3



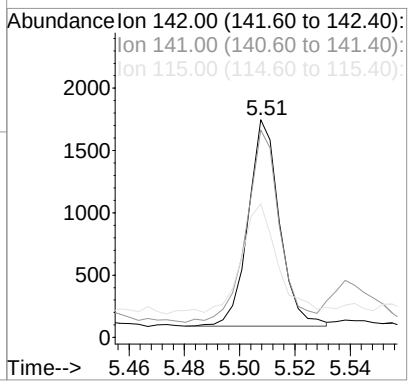
1st 11/16/18
2nd 11/27/18

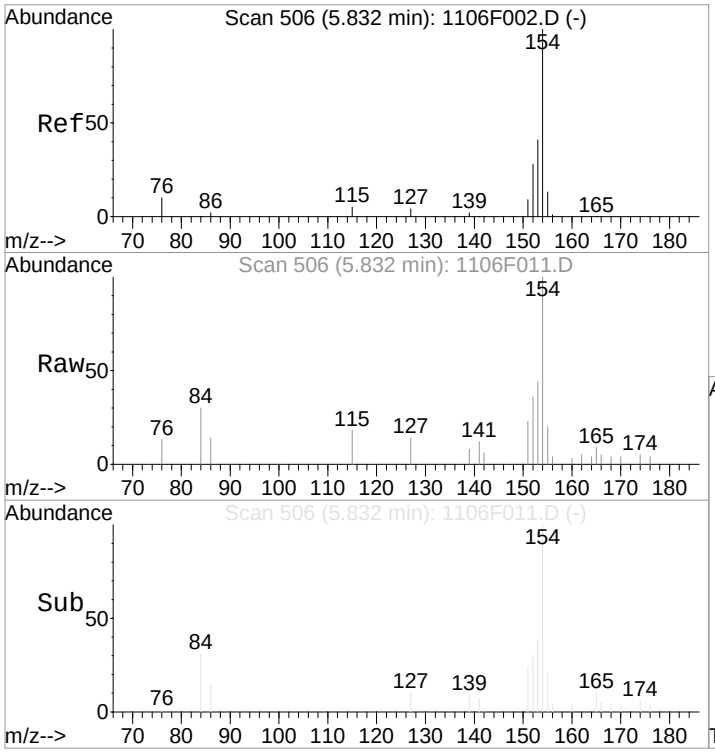


#5
1-Methylnaphthalene
Concen: 5.12 ng/ml
RT: 5.51 min Scan# 418
Delta R.T. -0.00 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:142 Resp: 1305

Ion	Ratio	Lower	Upper
142	100		
141	93.4	59.7	119.7
115	51.7	13.7	53.7

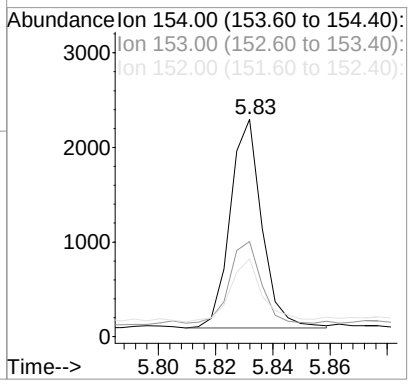


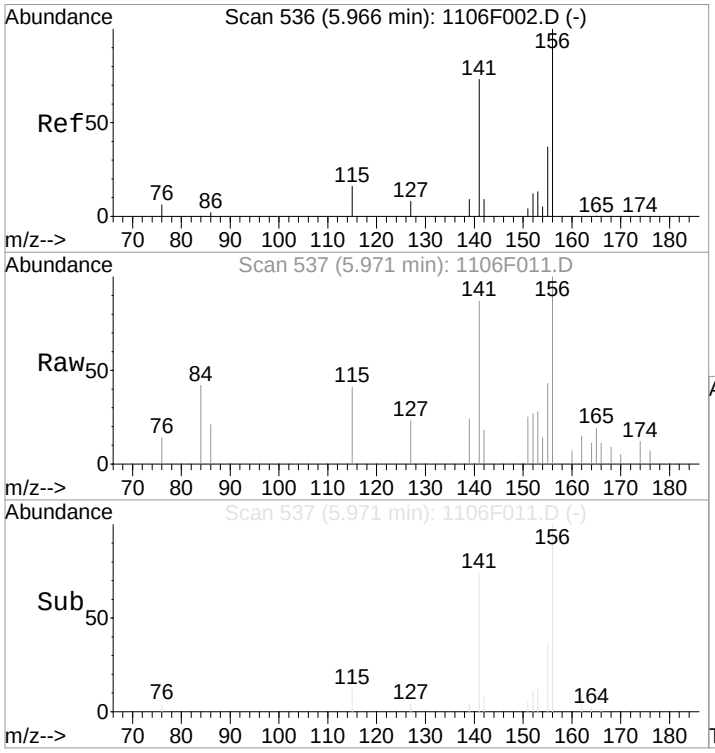


#6
Biphenyl
Concen: 5.16 ng/ml
RT: 5.83 min Scan# 506
Delta R.T. -0.00 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:154 Resp: 1707

Ion	Ratio	Lower	Upper
154	100		
153	39.1	11.4	71.4
152	30.2	7.1	47.1

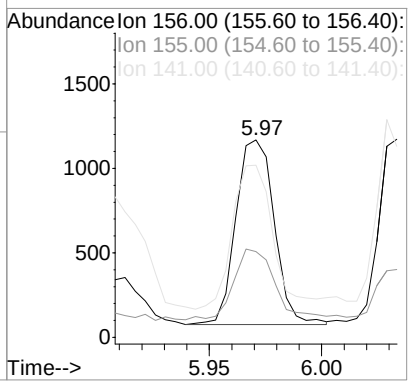


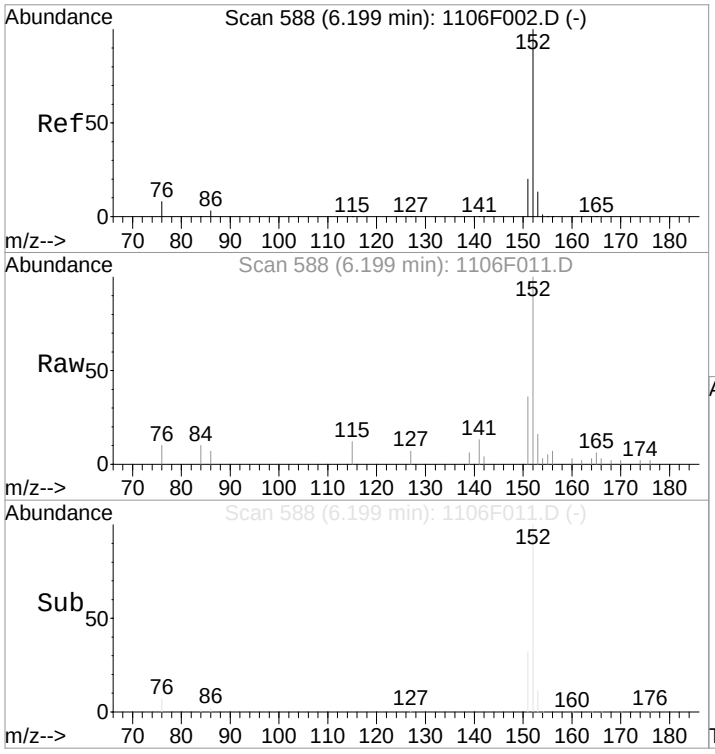


#7
2,6-Dimethylnaphthalene
Concen: 5.69 ng/ml
RT: 5.97 min Scan# 537
Delta R.T. 0.00 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:156 Resp: 1295

Ion	Ratio	Lower	Upper
156	100		
155	36.8	7.0	67.0
141	76.9	47.9	87.9

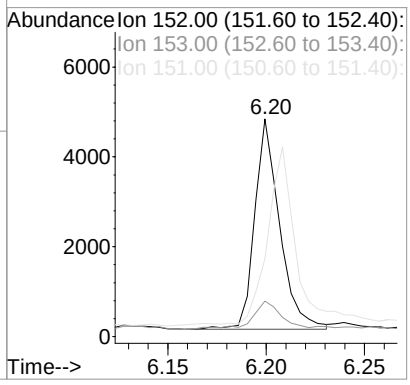




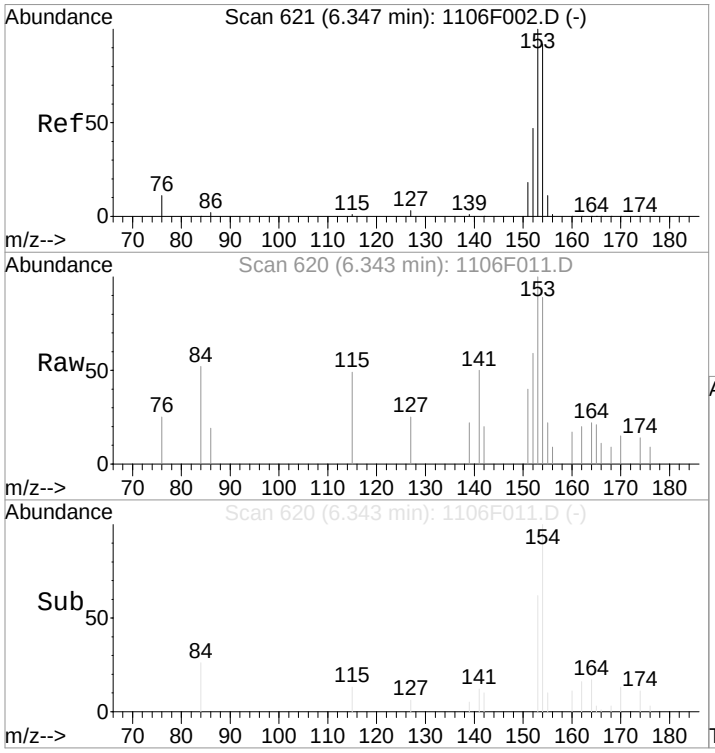
#9
Acenaphthylene
Concen: 9.82 ng/ml
RT: 6.20 min Scan# 588
Delta R.T. -0.00 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:152 Resp: 4146

Ion	Ratio	Lower	Upper
152	100		
153	13.7	0.0	42.9
151	31.3	0.2	40.2



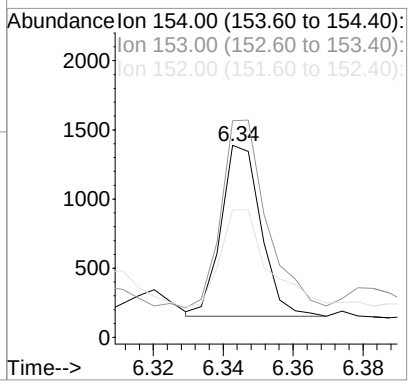
1st 11/16/18
2nd 11/27/18

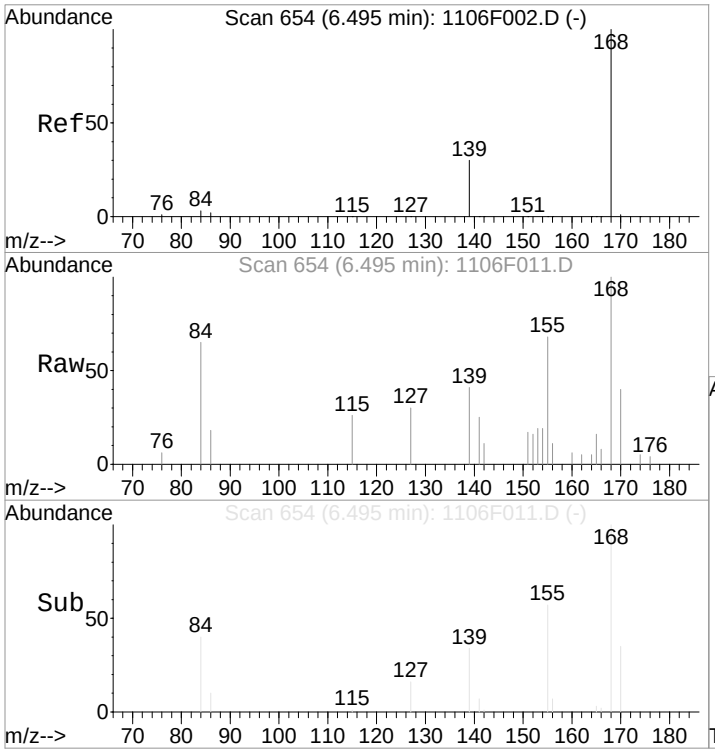


#10
Acenaphthene
Concen: 4.06 ng/ml
RT: 6.34 min Scan# 620
Delta R.T. -0.00 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:154 Resp: 984

Ion	Ratio	Lower	Upper
154	100		
153	109.5	77.1	137.1
152	56.6	19.7	79.7

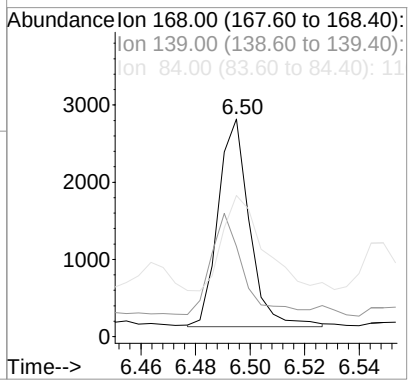


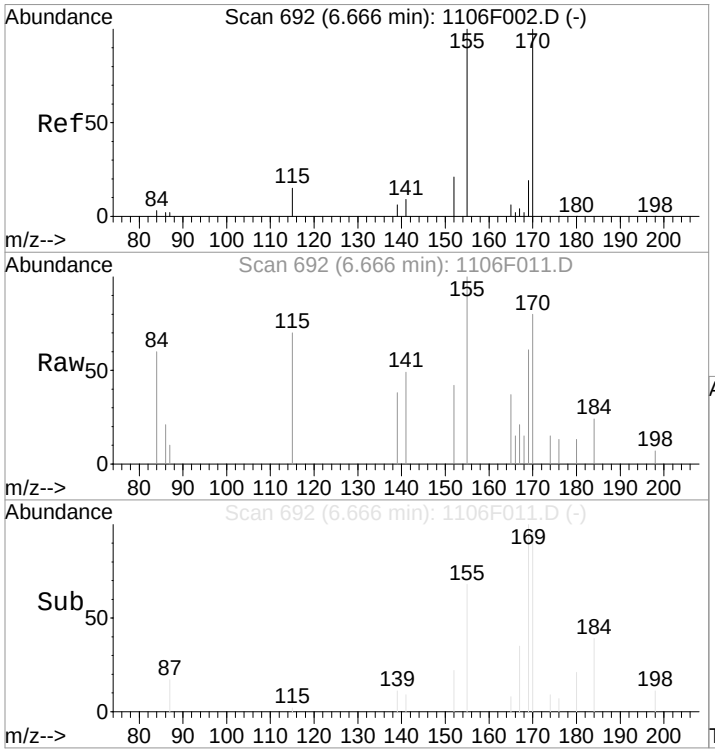


#11
Dibenzofuran
Concen: 5.55 ng/ml m
RT: 6.50 min Scan# 654
Delta R.T. -0.00 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:168 Resp: 2161

Ion	Ratio	Lower	Upper
168	100		
139	41.5	0.0	55.8
84	64.9	0.0	23.5#

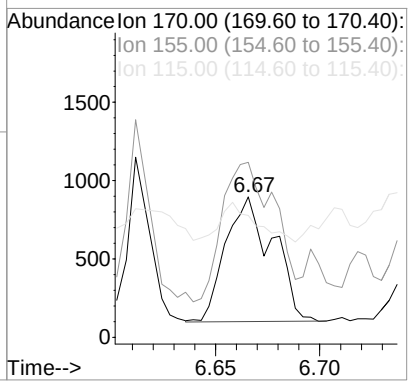


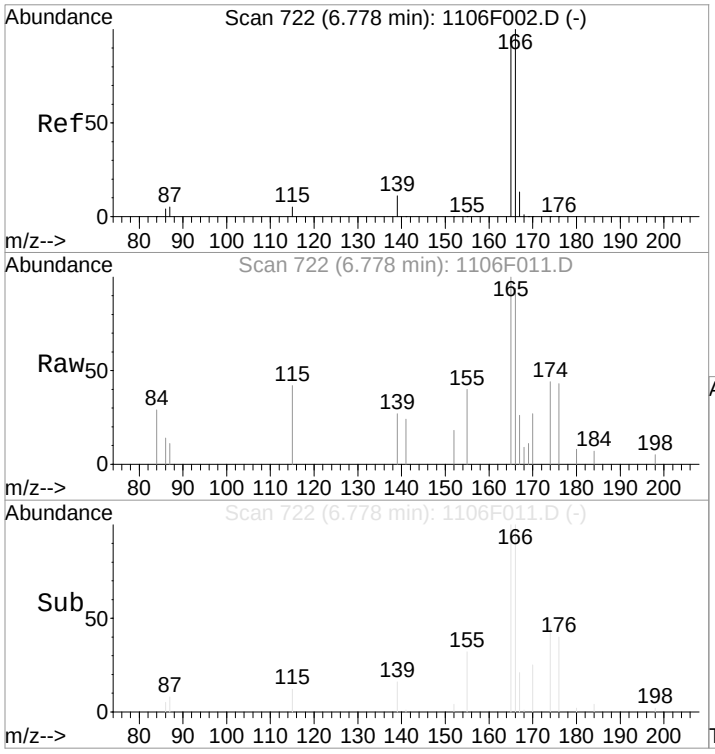


#12
2,3,5-Trimethylnaphthalene
Concen: 5.62 ng/ml
RT: 6.67 min Scan# 692
Delta R.T. -0.00 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:170 Resp: 1261

Ion	Ratio	Lower	Upper
170	100		
155	104.8	59.2	119.2
115	10.5	0.0	30.1

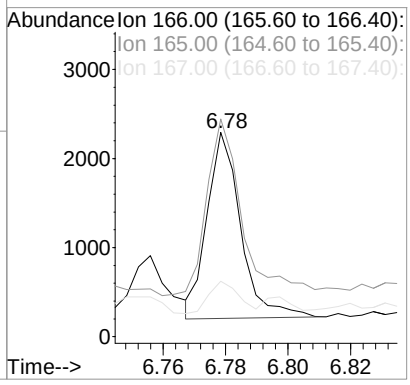




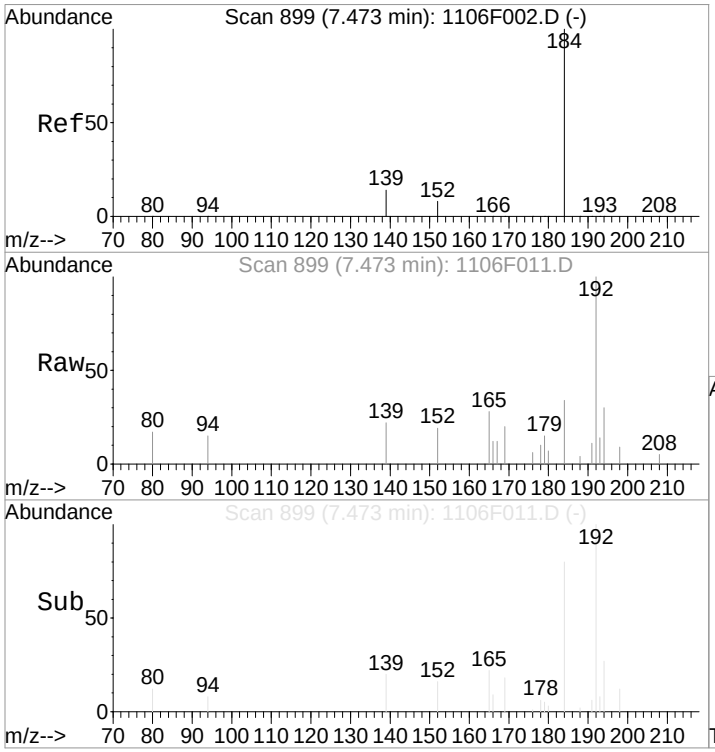
#14
Fluorene
Concen: 5.31 ng/ml
RT: 6.78 min Scan# 722
Delta R.T. -0.00 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:166 Resp: 1558

Ion	Ratio	Lower	Upper
166	100		
165	93.4	63.4	123.4
167	17.6	0.0	33.1



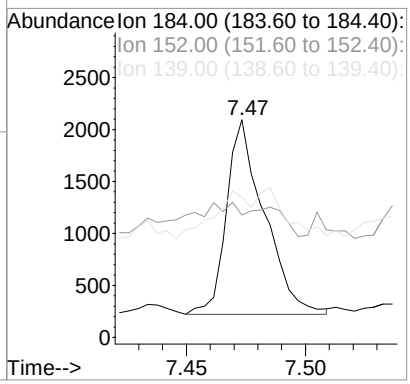
1st 11/16/18
2nd 11/27/18

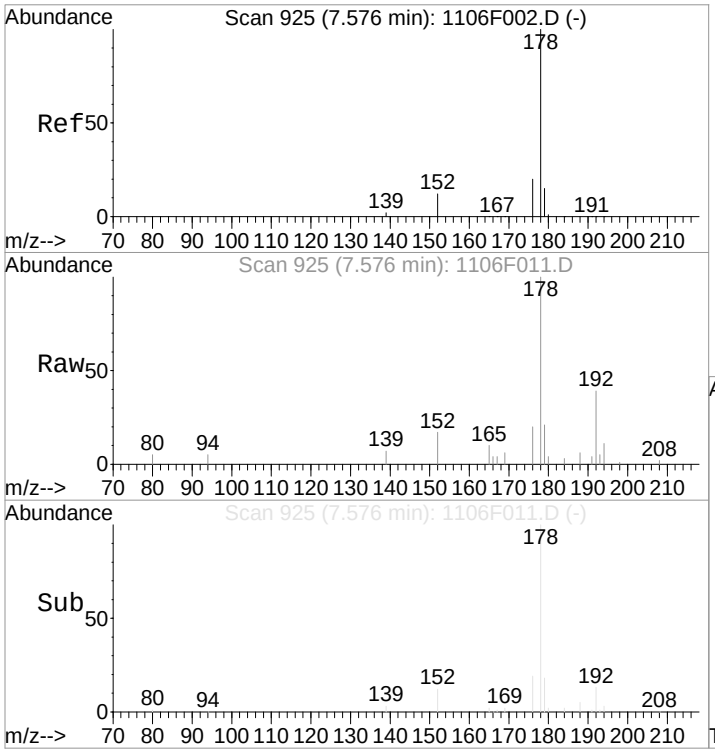


#16
Dibenzothiophene
Concen: 4.76 ng/ml
RT: 7.47 min Scan# 899
Delta R.T. -0.00 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:184 Resp: 2074

Ion	Ratio	Lower	Upper
184	100		
152	7.6	0.0	37.8
139	19.1	0.0	32.6

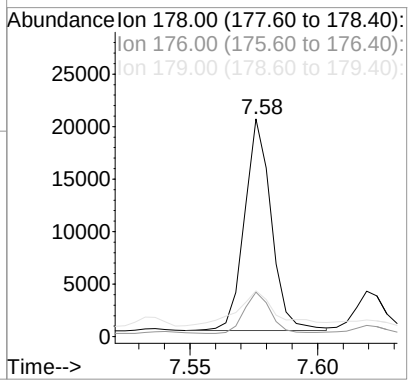


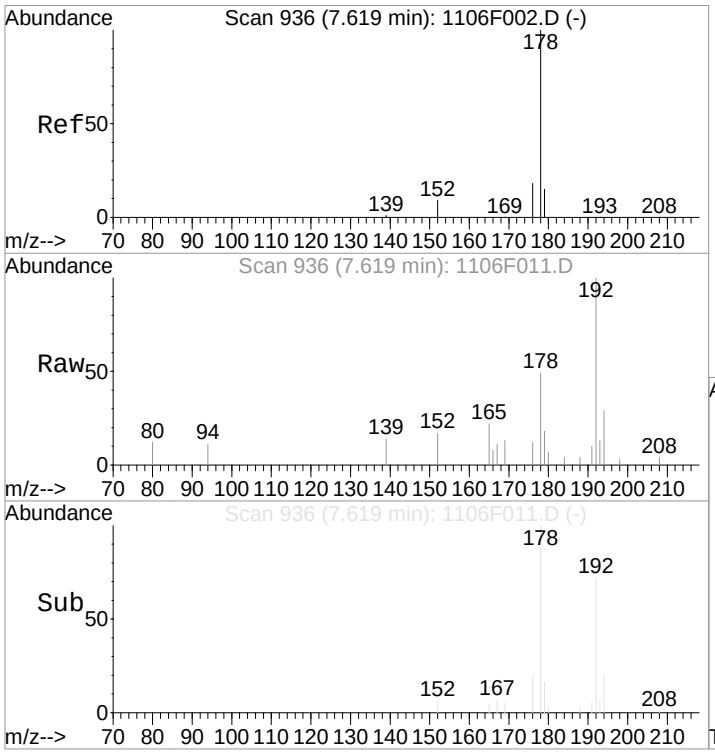


#17
Phenanthrene
Concen: 33.88 ng/ml
RT: 7.58 min Scan# 925
Delta R.T. -0.00 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:178 Resp: 14756

Ion	Ratio	Lower	Upper
178	100		
176	19.2	0.0	48.7
179	16.4	0.0	35.1

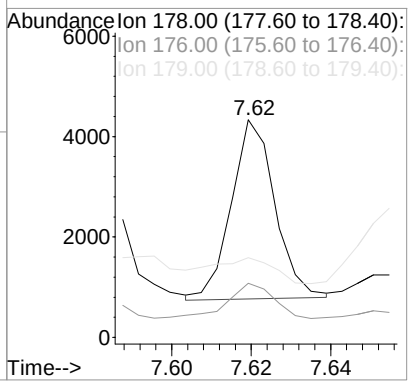


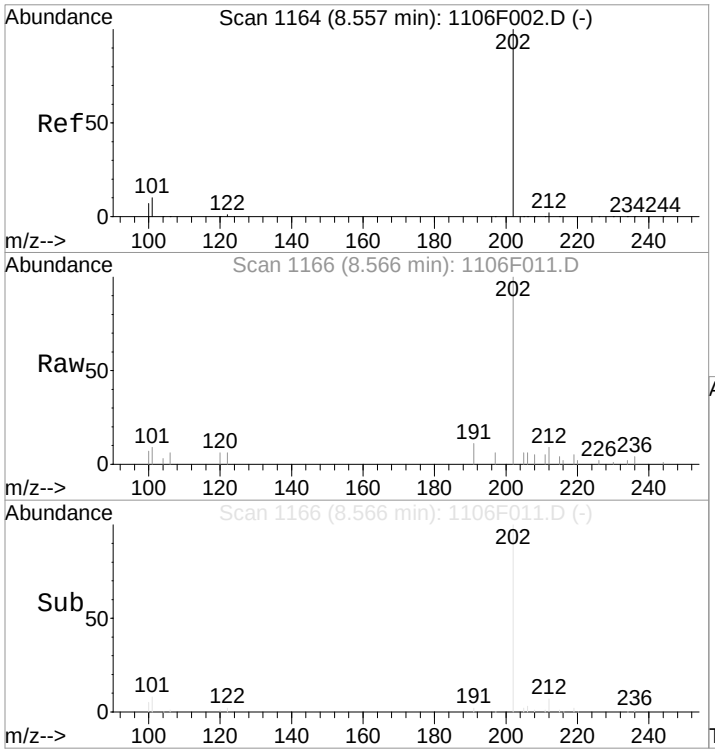


#18
Anthracene
Concen: 6.56 ng/ml
RT: 7.62 min Scan# 936
Delta R.T. -0.00 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:178 Resp: 2728

Ion	Ratio	Lower	Upper
178	100		
176	19.6	0.0	48.0
179	13.6	0.0	35.1

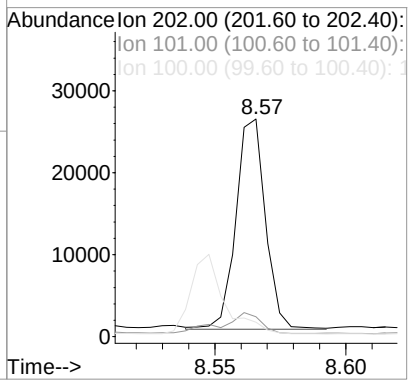




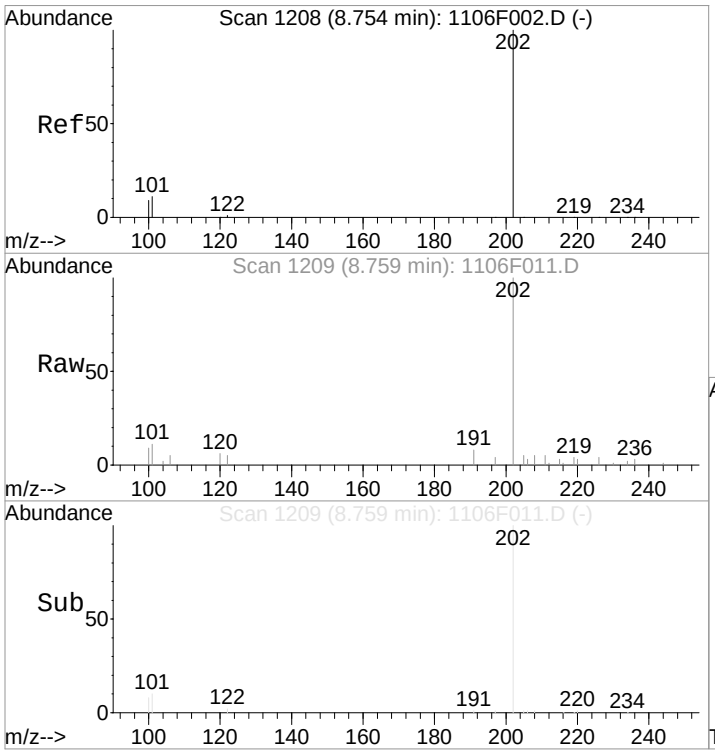
#21
Fluoranthene
Concen: 37.49 ng/ml
RT: 8.57 min Scan# 1166
Delta R.T. 0.01 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:202 Resp: 20160

Ion	Ratio	Lower	Upper
202	100		
101	7.9	0.0	41.3
100	5.6	0.0	28.6



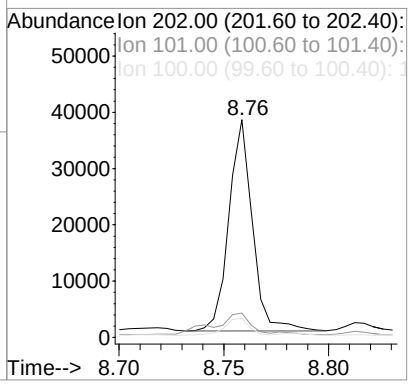
1st 11/16/18
2nd 11/27/18

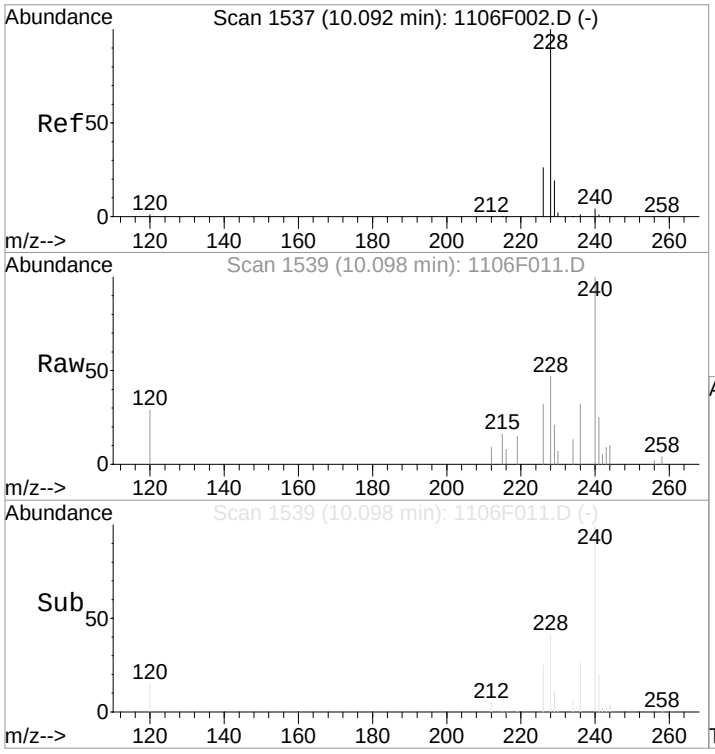


#24
Pyrene
Concen: 47.42 ng/ml
RT: 8.76 min Scan# 1209
Delta R.T. 0.00 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:202 Resp: 29476

Ion	Ratio	Lower	Upper
202	100		
101	10.3	0.0	40.8
100	8.0	0.0	28.5

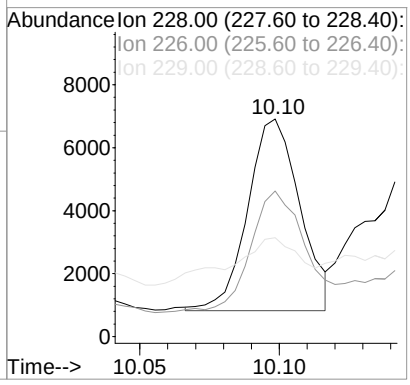




#26
Benz(a)anthracene
Concen: 13.53 ng/ml m
RT: 10.10 min Scan# 1539
Delta R.T. 0.01 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

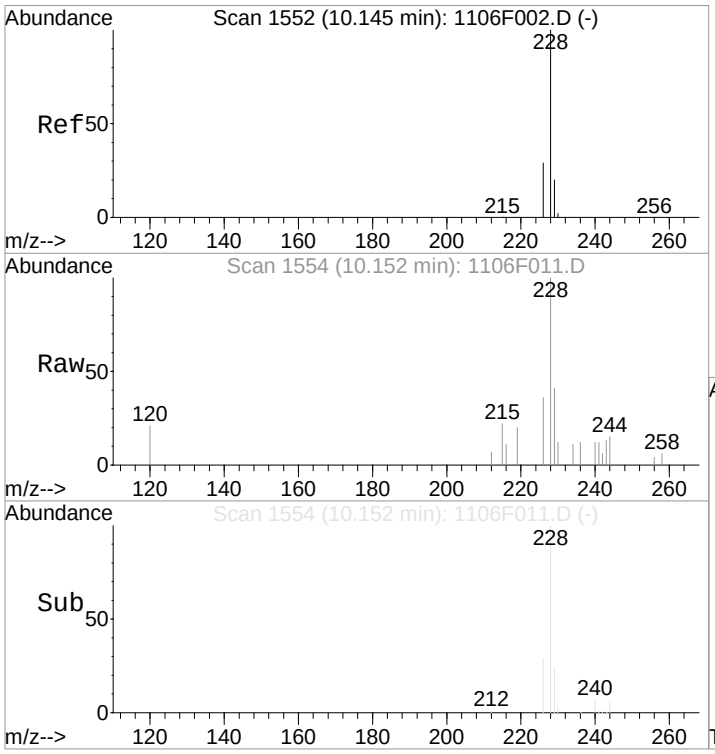
Tgt Ion:228 Resp: 7927

Ion	Ratio	Lower	Upper
228	100		
226	67.0	0.0	56.3#
229	45.4	0.0	39.1#



X

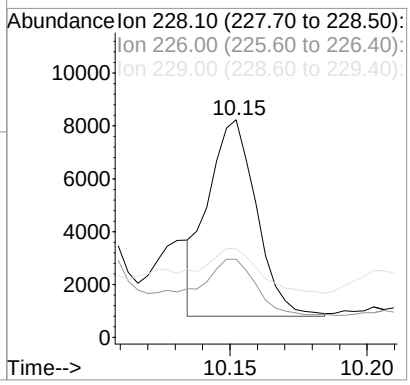
1st 11/16/18
2nd 11/27/18

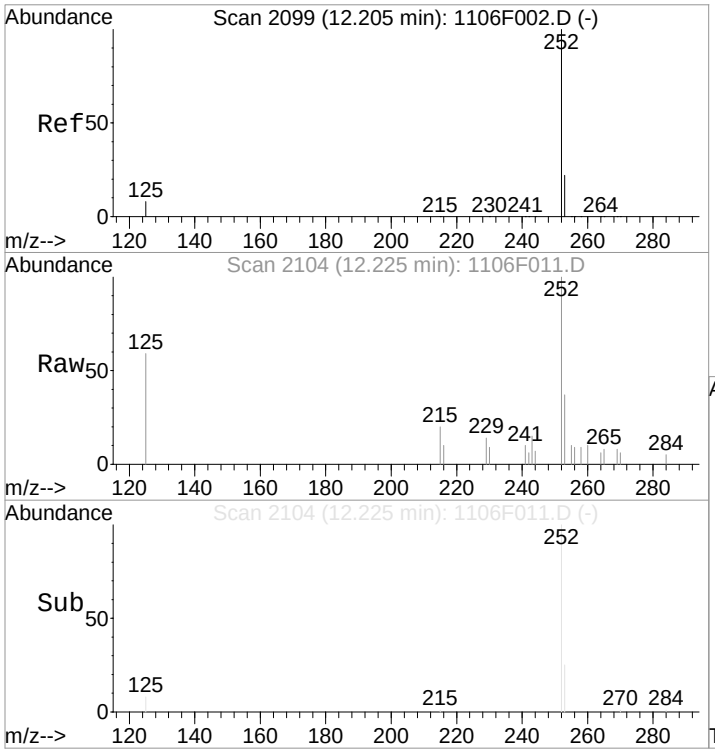


#27
Chrysene
Concen: 16.33 ng/ml m
RT: 10.15 min Scan# 1554
Delta R.T. 0.01 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:228 Resp: 9165

Ion	Ratio	Lower	Upper
228	100		
226	35.9	0.0	58.7
229	40.8	0.0	39.2#

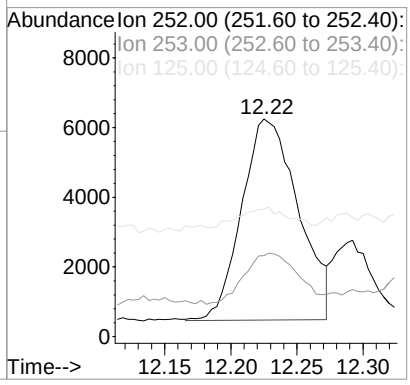




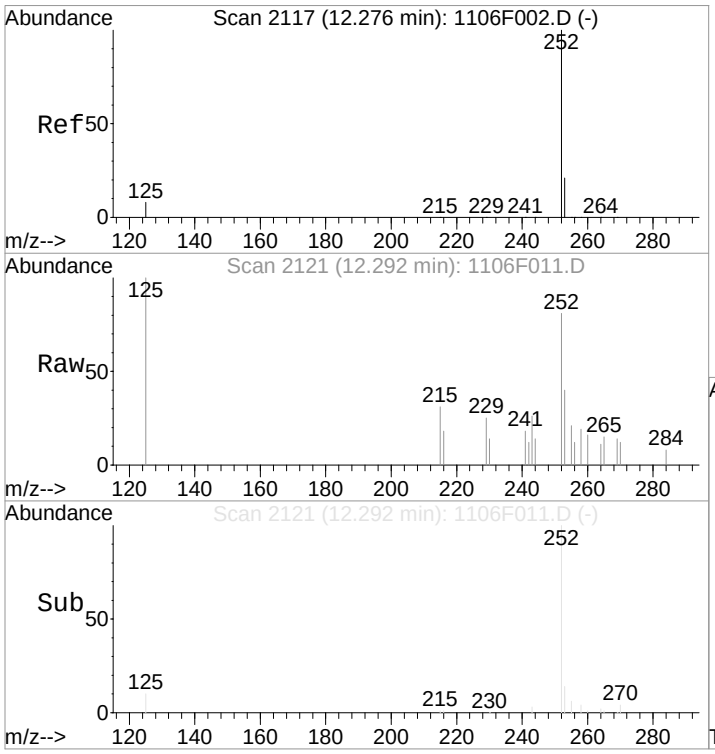
#29
Benzo(b)fluoranthene
Concen: 27.53 ng/ml
RT: 12.22 min Scan# 2104
Delta R.T. 0.02 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:252 Resp: 17218

Ion	Ratio	Lower	Upper
252	100		
253	22.6	0.0	51.2
125	8.2	0.0	29.5



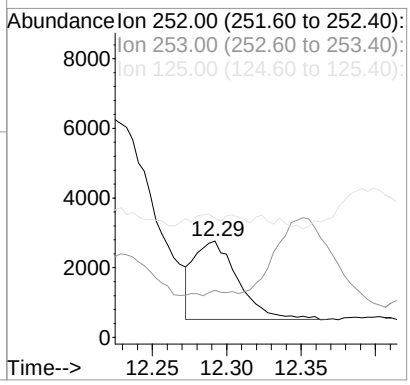
1st 11/16/18
2nd 11/27/18

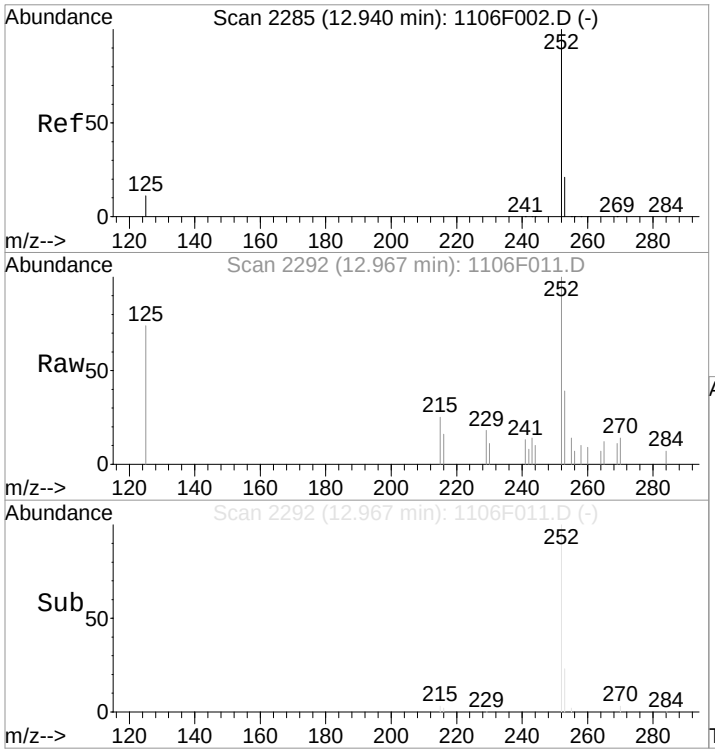


#30
Benzo(k)fluoranthene
Concen: 7.48 ng/ml
RT: 12.29 min Scan# 2121
Delta R.T. 0.02 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:252 Resp: 4644

Ion	Ratio	Lower	Upper
252	100		
253	6.4	0.0	51.2
125	1.1	0.0	29.7

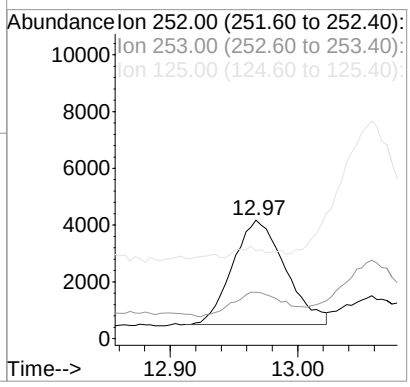


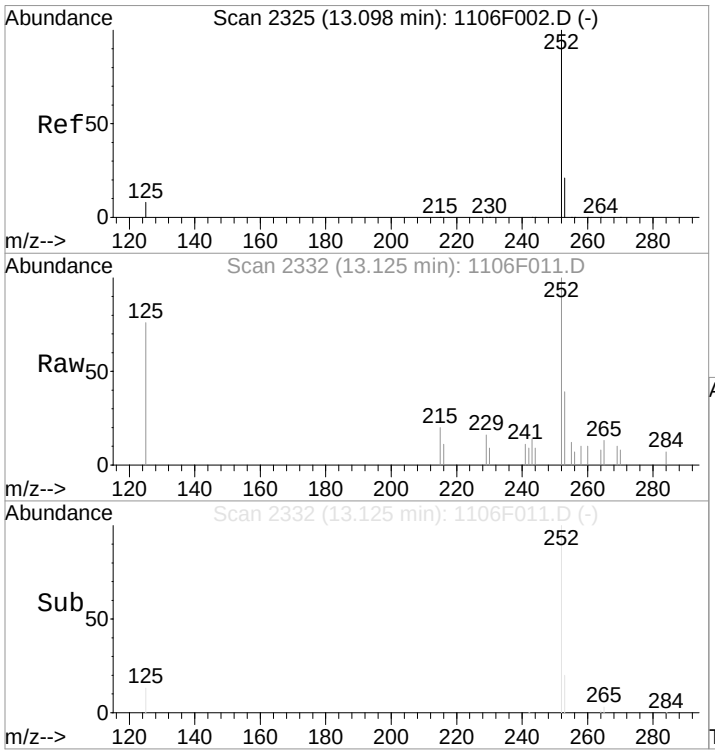


#31
Benzo(e)pyrene
Concen: 17.74 ng/ml
RT: 12.97 min Scan# 2292
Delta R.T. 0.03 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:252 Resp: 10576

Ion	Ratio	Lower	Upper
252	100		
253	21.1	0.0	51.3
125	7.3	0.0	33.5

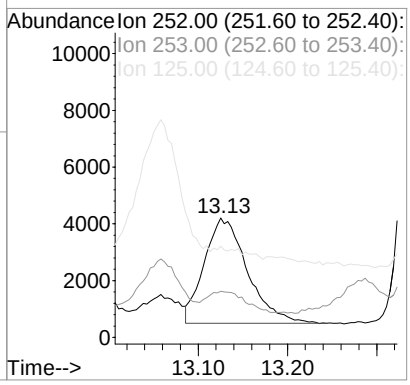


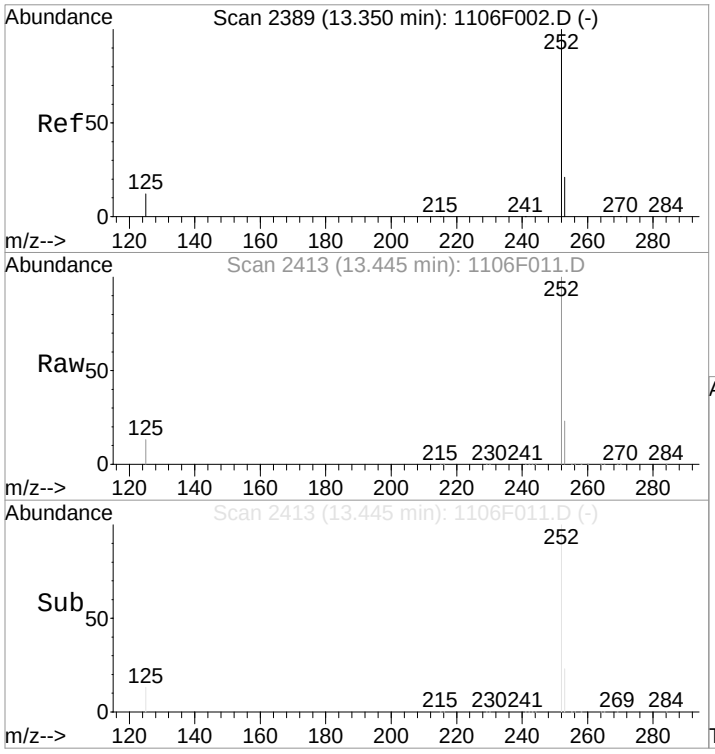


#32
Benzo(a)pyrene
Concen: 22.79 ng/ml
RT: 13.13 min Scan# 2332
Delta R.T. 0.03 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:252 Resp: 12500

Ion	Ratio	Lower	Upper
252	100		
253	14.1	0.0	50.9
125	15.9	0.0	30.3

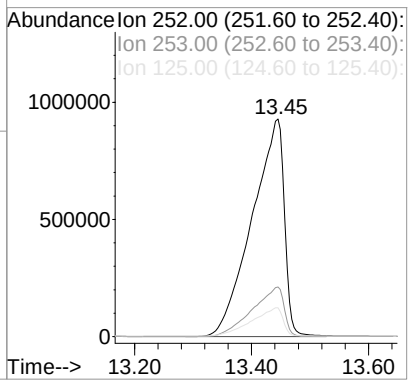




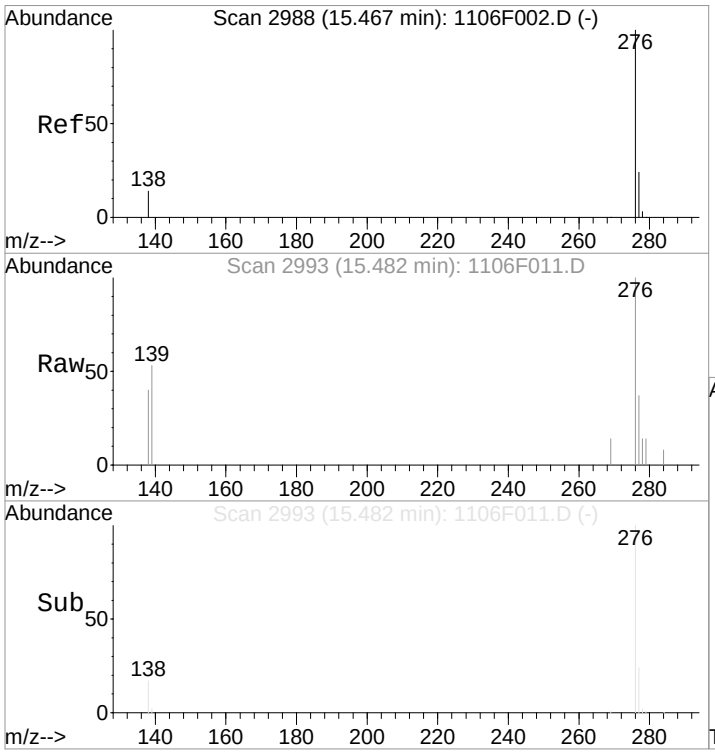
#33
Perylene
Concen: 6161.93 ng/ml
RT: 13.45 min Scan# 2413
Delta R.T. 0.09 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:252 Resp: 3545880

Ion	Ratio	Lower	Upper
252	100		
253	22.7	0.0	51.2
125	13.0	0.0	33.8



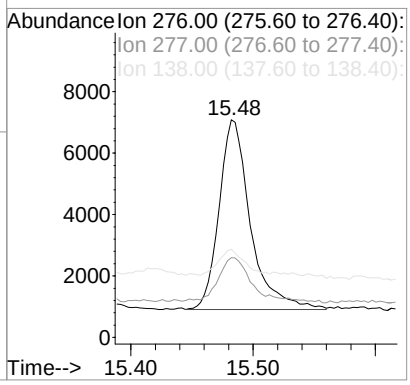
1st 11/16/18
2nd 11/27/18

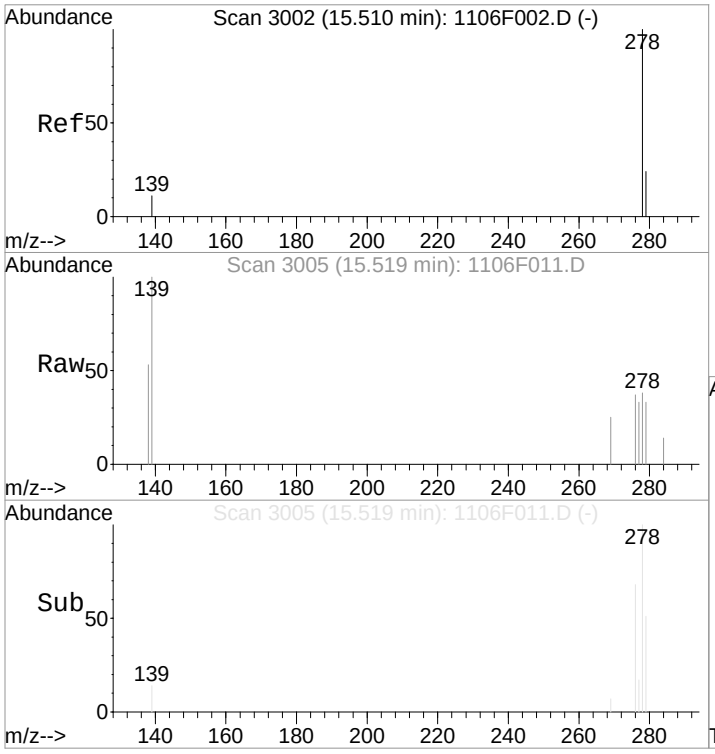


#34
Indeno(1,2,3-cd)pyrene
Concen: 20.47 ng/ml
RT: 15.48 min Scan# 2993
Delta R.T. 0.02 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:276 Resp: 11009

Ion	Ratio	Lower	Upper
276	100		
277	23.8	0.0	53.4
138	15.4	0.0	37.7

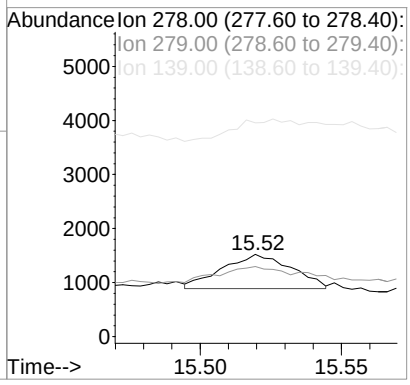




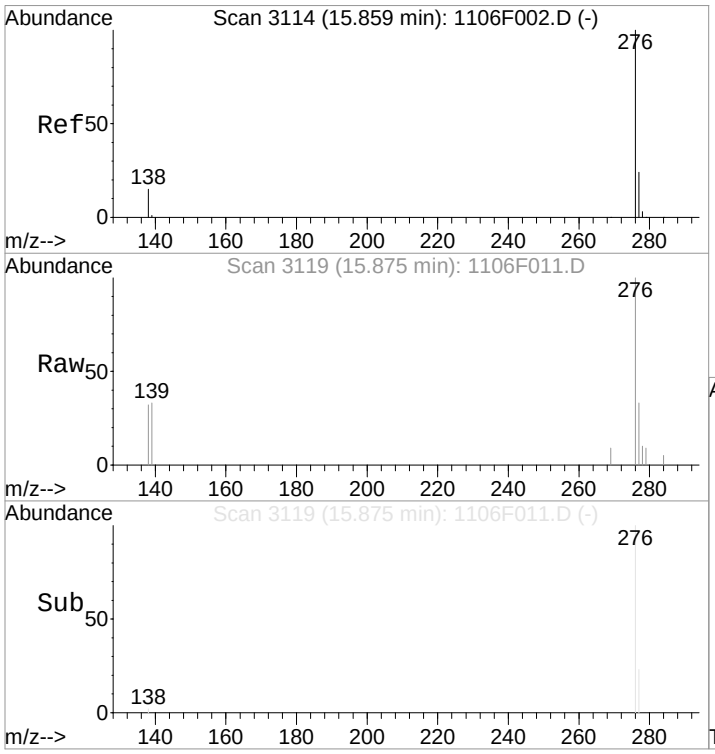
#35
Dibenz(a,h)anthracene
Concen: 1.98 ng/ml m
RT: 15.52 min Scan# 3005
Delta R.T. 0.01 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:278 Resp: 1082

Ion	Ratio	Lower	Upper
278	100		
279	85.3	0.0	53.5#
139	260.0	0.0	35.0#



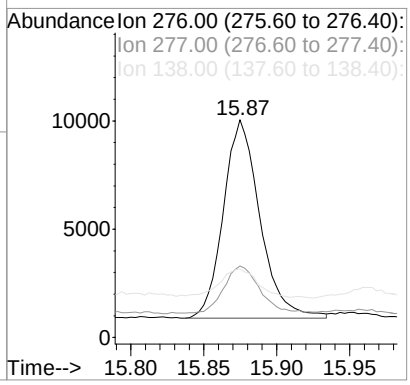
1st 11/16/18
2nd 11/27/18



#36
Benzo(g,h,i)perylene
Concen: 25.43 ng/ml
RT: 15.87 min Scan# 3119
Delta R.T. 0.02 min
Lab File: 1106F011.D
Acq: 6 Nov 2018 9:53 am

Tgt Ion:276 Resp: 16022

Ion	Ratio	Lower	Upper
276	100		
277	23.7	0.0	53.1
138	13.6	0.0	39.2



Quantitation Report (QT Reviewed)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F011.D Vial: 11
Acq On : 6 Nov 2018 9:53 am Operator: LWeiskopf
Sample : K1810302-024 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 09:56:47 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.77	136	76113	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.32	164	35381	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.56	188	69817	200.00	ng/ml	0.00
23) Chrysene-d12	10.11	240	90602	200.00	ng/ml	0.00
28) Perylene-d12	13.31	264	101246	200.00	ng/ml	0.04
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.40	152	117382	552.52	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	55.25%		
13) Fluorene-d10	6.76	176	151675	670.46	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	67.05%		
22) Fluoranthene-d10	8.55	212	317375	721.28	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	72.13%		
25) Terphenyl-d14	8.89	244	294228	748.71	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	74.87%		
Target Compounds						Qvalue
2) Naphthalene	4.79	128	12163	27.68	ng/ml	99
4) 2-Methylnaphthalene	5.42	142	2711	10.23	ng/ml	96
5) 1-Methylnaphthalene	5.51	142	1305	5.12	ng/ml	89
6) Biphenyl	5.83	154	1707	5.16	ng/ml	95
7) 2,6-Dimethylnaphthalene	5.97	156	1295	5.69	ng/ml	93
9) Acenaphthylene	6.20	152	4146	9.82	ng/ml	85
10) Acenaphthene	6.34	154	984	4.06	ng/ml	95
11) Dibenzofuran	6.50	168	2161m	5.55	ng/ml	
12) 2,3,5-Trimethylnaphthalene	6.67	170	1261	5.62	ng/ml	85
14) Fluorene	6.78	166	1558	5.31	ng/ml	99
16) Dibenzothiophene	7.47	184	2074	4.76	ng/ml	90
17) Phenanthrene	7.58	178	14756	33.88	ng/ml	98
18) Anthracene	7.62	178	2728	6.56	ng/ml	96
21) Fluoranthene	8.57	202	20160	37.49	ng/ml	91
24) Pyrene	8.76	202	29476	47.42	ng/ml	99
26) Benz(a)anthracene	10.10	228	7927m	13.53	ng/ml	
27) Chrysene	10.15	228	9165m	16.33	ng/ml	
29) Benzo(b)fluoranthene	12.22	252	17218	27.53	ng/ml	97
30) Benzo(k)fluoranthene	12.29	252	4644	7.48	ng/ml	71
31) Benzo(e)pyrene	12.97	252	10576	17.74	ng/ml	94
32) Benzo(a)pyrene	13.13	252	12500	22.79	ng/ml	85
33) Perylene	13.45	252	3545880	6161.93	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.48	276	11009	20.47	ng/ml	97
35) Dibenz(a,h)anthracene	15.52	278	1082m	1.98	ng/ml	
36) Benzo(g,h,i)perylene	15.87	276	16022	25.43	ng/ml	94

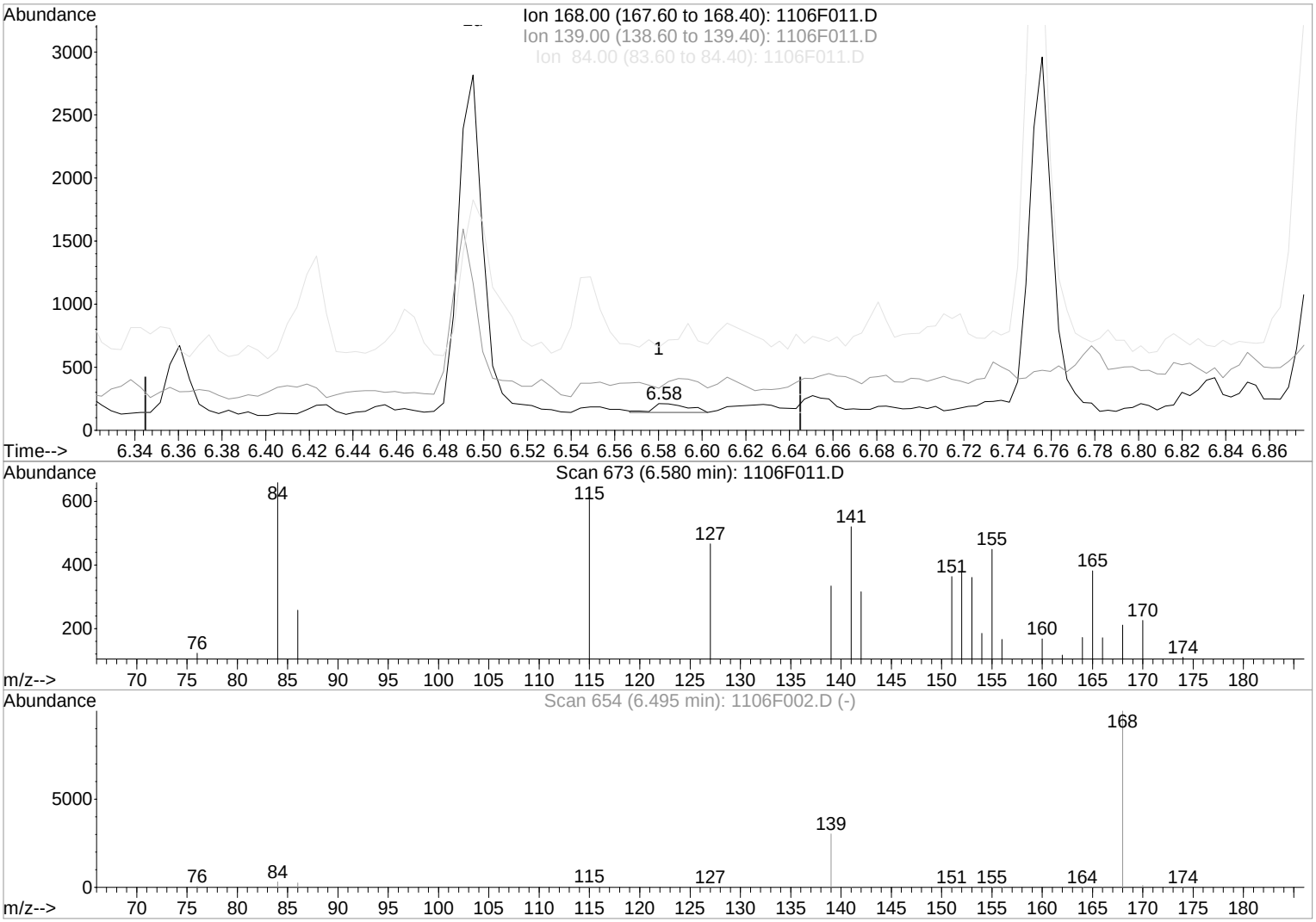
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F011.D Vial: 11
Acq On : 6 Nov 2018 9:53 am Operator: LWeiskopf
Sample : K1810302-024 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 9:56 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F011.D

(11) Dibenzofuran (T)

6.58min 0.20ng/ml

response 76

Ion	Exp%	Act%
168.00	100	100
139.00	25.80	0.00
84.00	3.50	0.00
0.00	0.00	0.00

Manual Integration:

Before

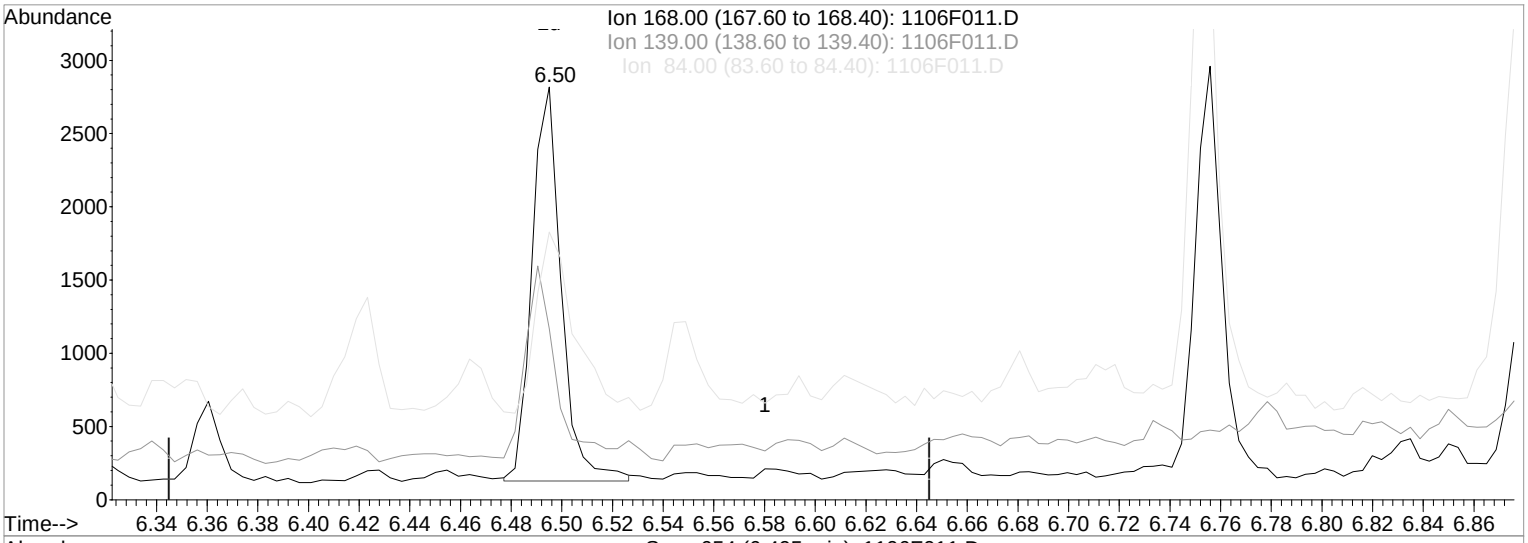
11/16/18

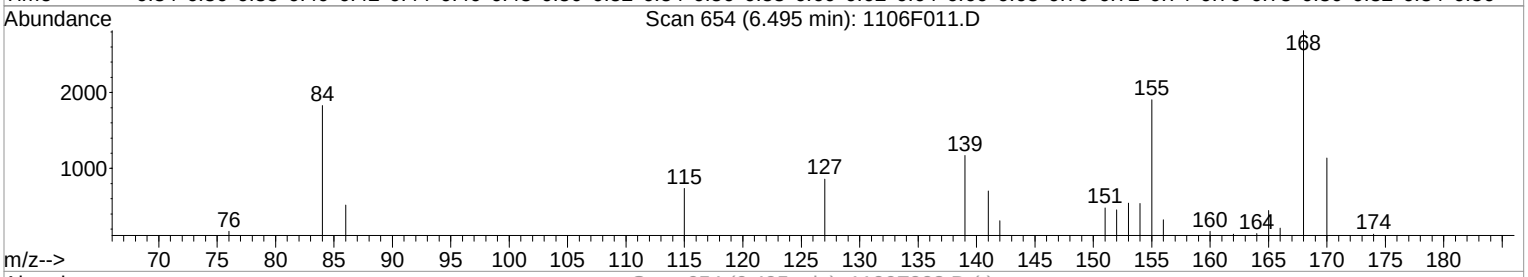
Quantitation Report (Qedit)

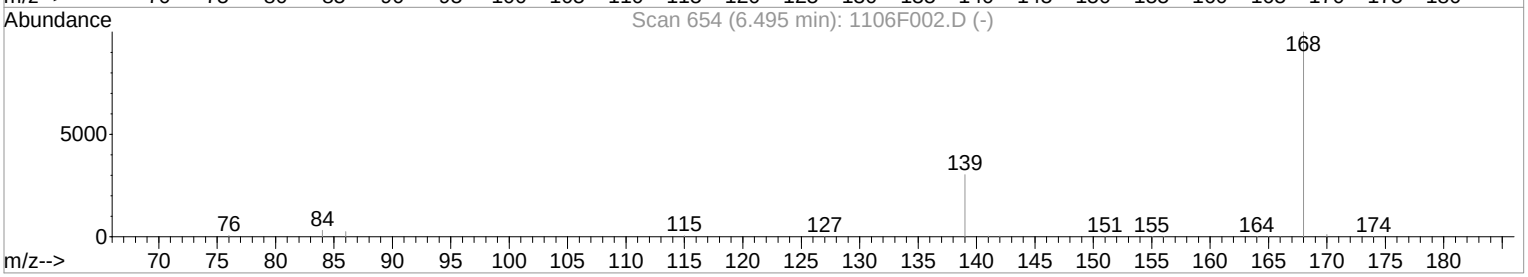
1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F011.D Vial: 11
Acq On : 6 Nov 2018 9:53 am Operator: LWeiskopf
Sample : K1810302-024 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:07 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration







TIC: 1106F011.D

(11) Dibenzofuran (T)

6.50min 5.55ng/ml m

response 2161

Ion	Exp%	Act%
168.00	100	100
139.00	25.80	41.50
84.00	3.50	64.89#
0.00	0.00	0.00

Manual Integration:

After

WP

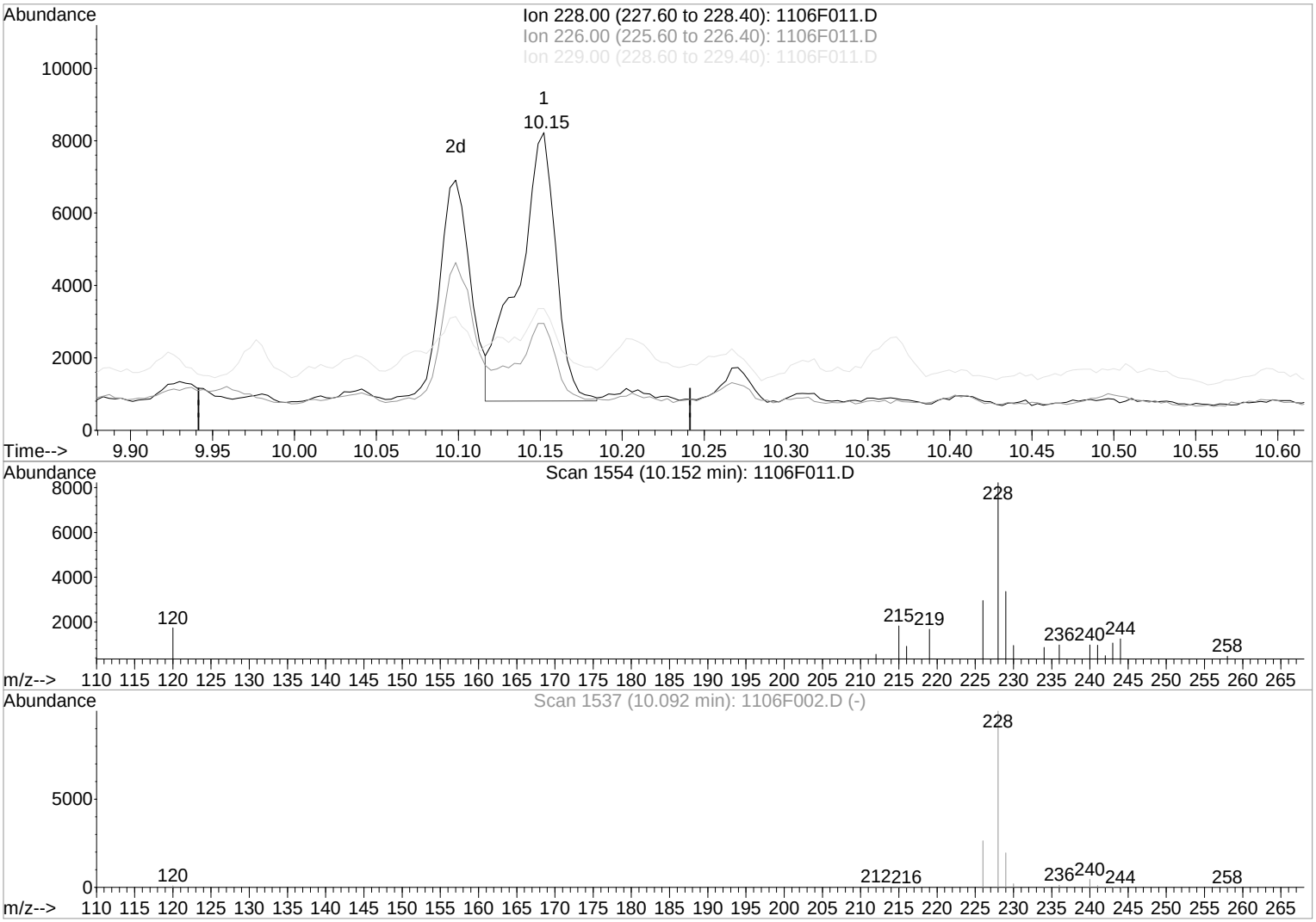
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F011.D Vial: 11
Acq On : 6 Nov 2018 9:53 am Operator: LWeiskopf
Sample : K1810302-024 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:08 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F011.D

(26) Benz(a)anthracene (T)

10.15min 20.04ng/ml

response 11741

Ion	Exp%	Act%
228.00	100	100
226.00	26.30	28.41
229.00	19.10	23.22
0.00	0.00	0.00

Manual Integration:

Before

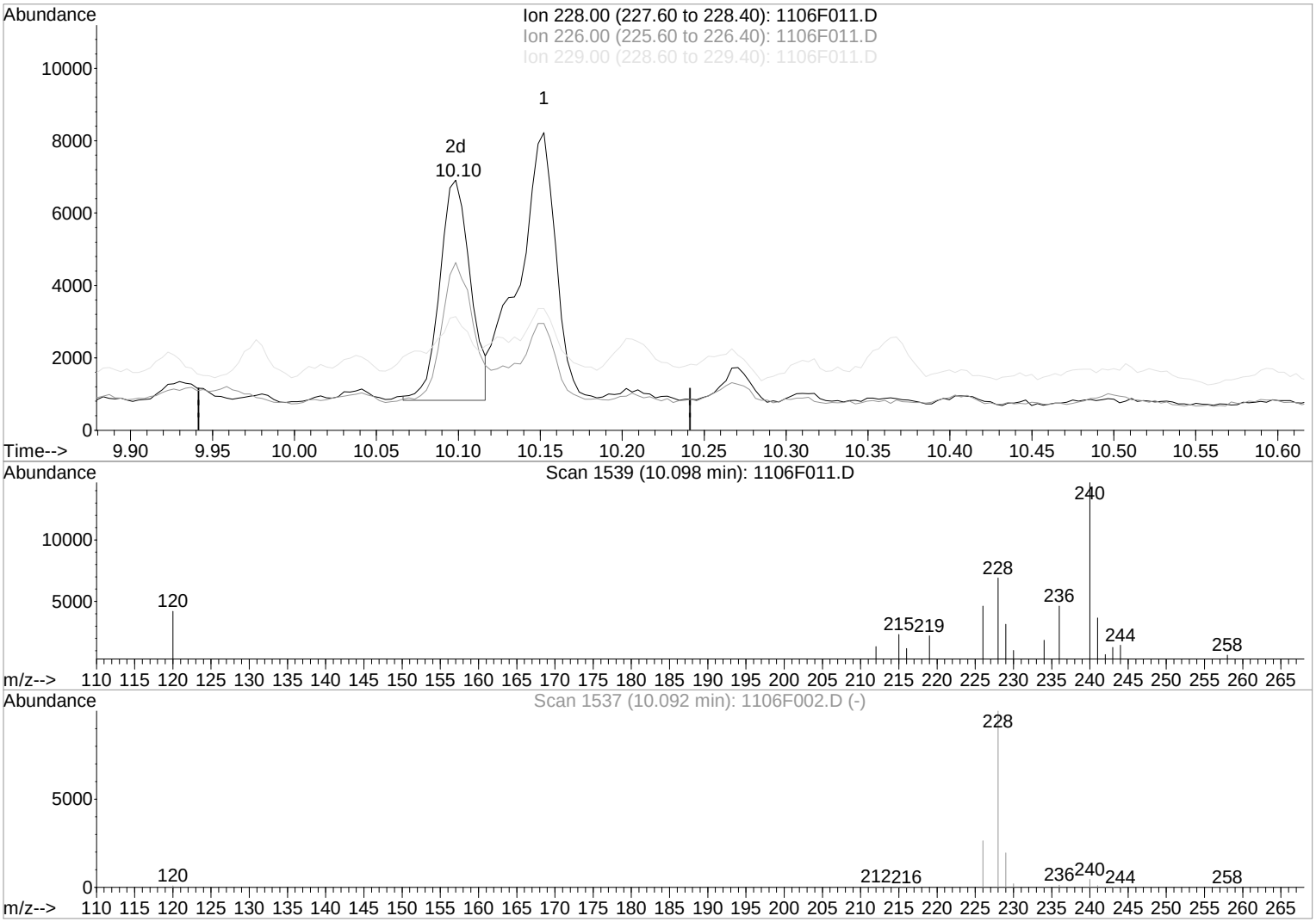
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F011.D Vial: 11
Acq On : 6 Nov 2018 9:53 am Operator: LWeiskopf
Sample : K1810302-024 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:08 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F011.D

(26) Benz(a)anthracene (T)

10.10min 13.53ng/ml m

response 7927

Ion	Exp%	Act%
228.00	100	100
226.00	26.30	67.01#
229.00	19.10	45.45#
0.00	0.00	0.00

Manual Integration:

After

WP

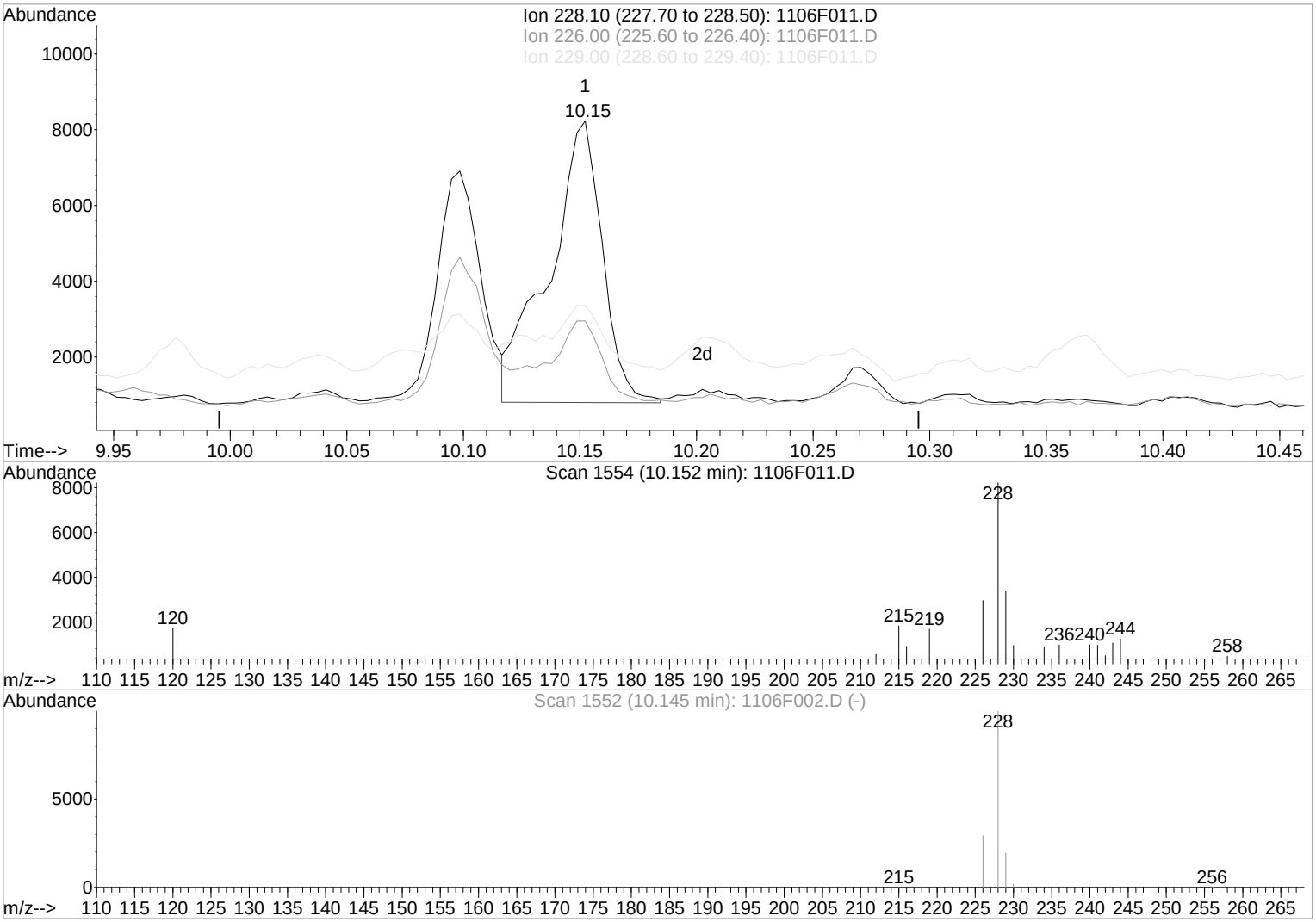
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F011.D Vial: 11
Acq On : 6 Nov 2018 9:53 am Operator: LWeiskopf
Sample : K1810302-024 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:08 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F011.D

(27) Chrysene (T)

10.15min 20.93ng/ml

response 11745

Ion	Exp%	Act%
228.10	100	100
226.00	28.70	28.41
229.00	19.20	23.22
0.00	0.00	0.00

Manual Integration:

Before

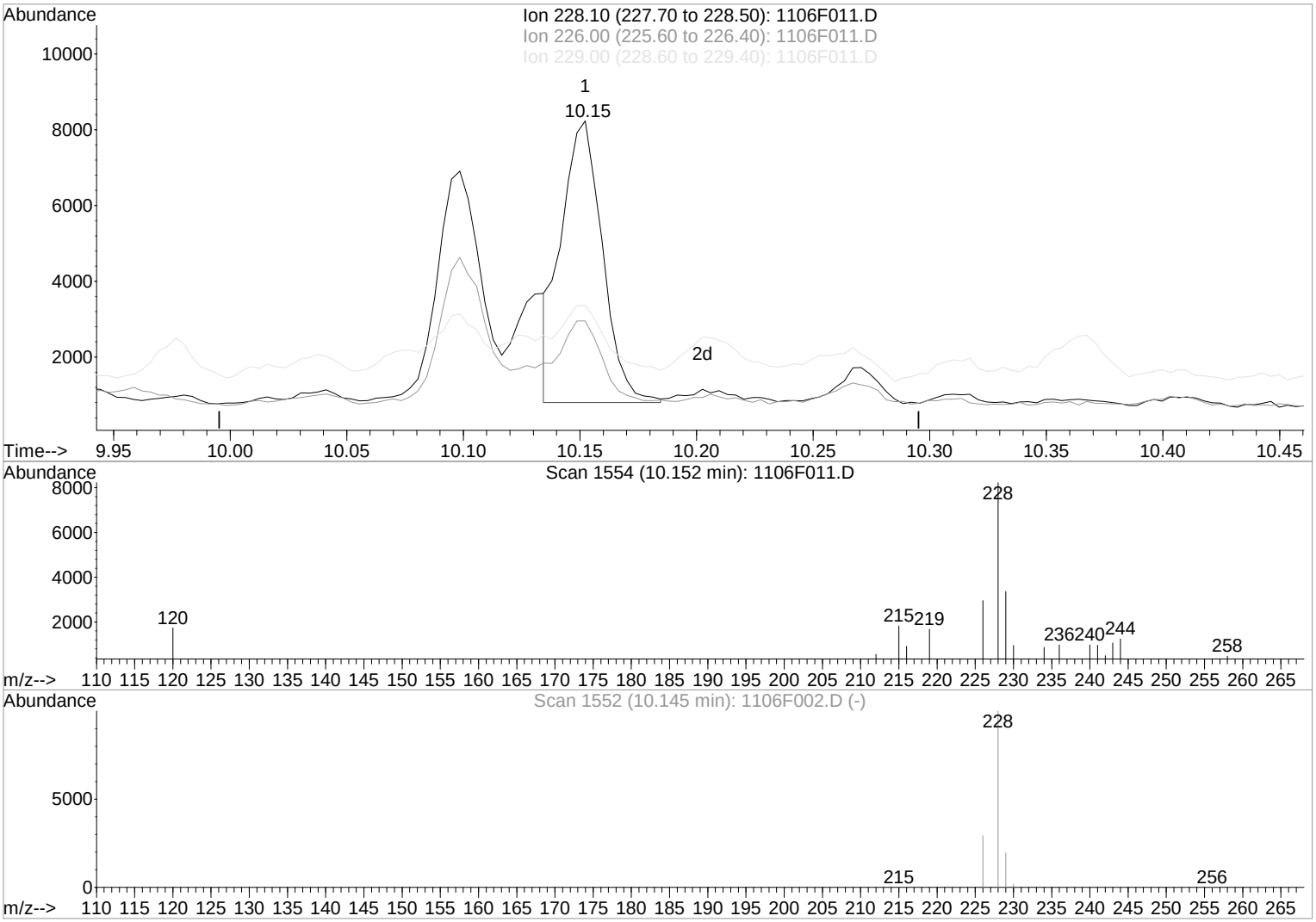
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F011.D Vial: 11
Acq On : 6 Nov 2018 9:53 am Operator: LWeiskopf
Sample : K1810302-024 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:08 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F011.D

(27) Chrysene (T)

10.15min 16.33ng/ml m

response 9165

Ion	Exp%	Act%
228.10	100	100
226.00	28.70	35.89
229.00	19.20	40.82#
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

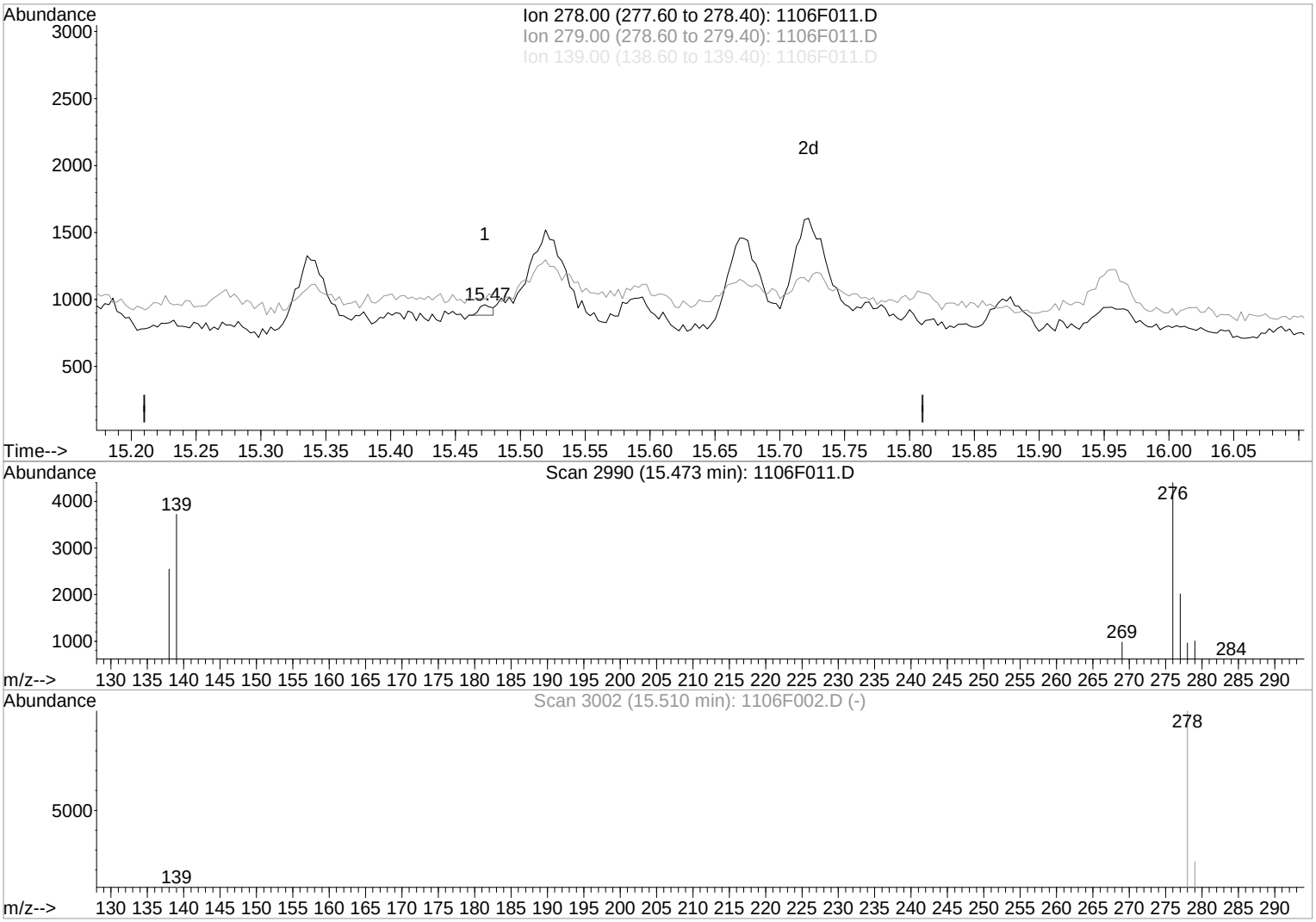
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F011.D Vial: 11
Acq On : 6 Nov 2018 9:53 am Operator: LWeiskopf
Sample : K1810302-024 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:08 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F011.D

(35) Dibenz(a,h)anthracene (T)

15.47min 0.10ng/ml

response 53

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	0.00
139.00	15.00	30.38
0.00	0.00	0.00

Manual Integration:

Before

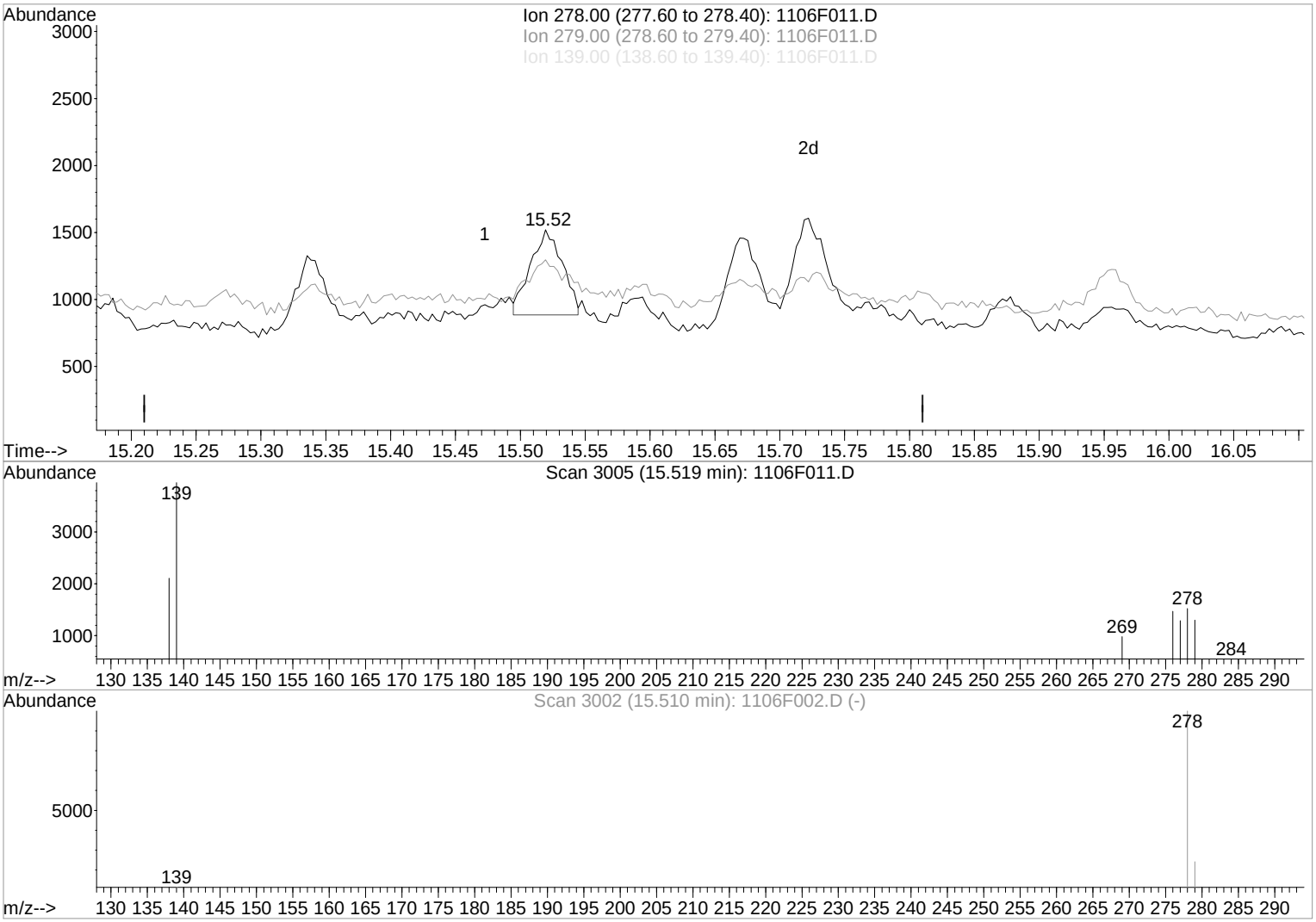
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F011.D Vial: 11
Acq On : 6 Nov 2018 9:53 am Operator: LWeiskopf
Sample : K1810302-024 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:08 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F011.D

(35) Dibenz(a,h)anthracene (T)

15.52min 1.98ng/ml m

response 1082

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	85.27#
139.00	15.00	259.96#
0.00	0.00	0.00

Manual Integration:

After

WP

11/16/18

1st 11/19/18
2nd 12/05/18

Exception Report

Data File: J:\MS14\DATA\110718\1107F006.D
Lab ID: K1810302-025
RunType: SMPL
Matrix: SEDIMENT

Date Acquired: 11/07/2018 07:26
Date Quantitated: 11/16/2018 13:01
Batch ID: KWG1806028
Analysis Method: 8270D SIM
ListJoinID: LJ12908

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	NA	NA	NA	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	
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: _____

Secondary Review: _____

1st 11/19/18
2nd 12/05/18

Quantitation Report

Data File:	J:\MS14\DATA\110718\1107F006.D			**Instrument:**	MS14
Acqu Date:	11/07/2018 07:26	**Quant Date:**	11/16/2018 13:01	**Vial:**	6
Run Type:	SMPL	**ListJoinID:**	LJ12908	**Dilution:**	1.0
Lab ID:	K1810302-025			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	IV	**Matrix:**	SEDIMENT
Prod Code:	8270D PAH SIM U	**Collect Date:**	10/21/2018	**Receive Date:**	10/22/2018

Analysis Lot:	KWG1806028	**Prep Lot:**	KWG1805648	**Report Group:**	K1810302
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1701212	**Prep Date:**	11/01/2018		

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ12908
Tune Ref:	J:\MS14\DATA\110718\1107F001.D	**Method ID:**	MJ1233
MB Ref:	J:\MS14\DATA\110718\1107F003.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	4.76	0.00	136	65217	200.00	OK
2	Acenaphthene-d10	6.32	0.00	164	31966	200.00	OK
3	Phenanthrene-d10	7.56	0.00	188	65358	200.00	OK
4	Chrysene-d12	10.11	0.00	240	81980	200.00	OK
5	Perylene-d12	13.31	0.03	264	92591	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	6.76	0.00	0.00	176	125274	612.91	61	26-102	OK	
3	Fluoranthene-d10	8.55	0.01	0.00	212	286010	694.34	69	23-110	OK	
4	Terphenyl-d14	8.89	0.00	0.00	244	256194	720.49	72	27-115	OK	

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.78		0.00	128	3806	10.11	0.71		
1	2-Methylnaphthalene	5.42		0.00	142	1469	6.47	0.45	J	
2	Acenaphthylene	6.20		0.00	152	2236**m**	5.86	0.41		
2	Acenaphthene	6.34	-0.01	0.00	154	1219	5.56	0.39		
2	Dibenzofuran	6.49	-0.01	0.00	168	1483**m**	4.22	0.29	J	
2	Fluorene	6.78		0.00	166	1288	4.86	0.34	J	
3	Phenanthrene	7.58		0.00	178	17944	44.01	3.1		
3	Anthracene	7.62		0.00	178	2887	7.42	0.52		
3	Fluoranthene	8.57	0.01	0.00	202	24869	49.40	3.5		
4	Pyrene	8.76	0.01	0.00	202	33922	60.31	4.2		
4	Benz(a)anthracene	10.10		0.00	228	11204	21.14	1.5		
4	Chrysene	10.15		0.00	228	14725	29.00	2.0		

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:\MS14\DATA\110718\1107F006.D			**Instrument:**	MS14
Acqu Date:	11/07/2018 07:26	**Quant Date:**	11/16/2018 13:01	**Vial:**	6
Run Type:	SMPL	**ListJoinID:**	LJ12908	**Dilution:**	1.0
Lab ID:	K1810302-025			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
5	Benzo(b)fluoranthene	12.23	0.02	0.00	252	20347	35.57	2.5		
5	Benzo(k)fluoranthene	12.29	0.01	0.00	252	6461**m**	11.39	0.80		
5	Benzo(a)pyrene	13.13	0.02	0.00	252	14095	28.10	2.0		
5	Indeno(1,2,3-cd)pyrene	15.49	0.01	0.00	276	10756	21.87	1.5		
5	Dibenz(a,h)anthracene	15.53	0.01	0.00	278	1995**m**	4.00	0.28	J	
5	Benzo(g,h,i)perylene	15.88	0.01	0.00	276	14422	25.03	1.7		

Prep Amount:	40.018 g	**Dilution:**	1.0
Prep Final Vol:	2 mL	**Unit Factor:**	1
Solids:	71.5 %		

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

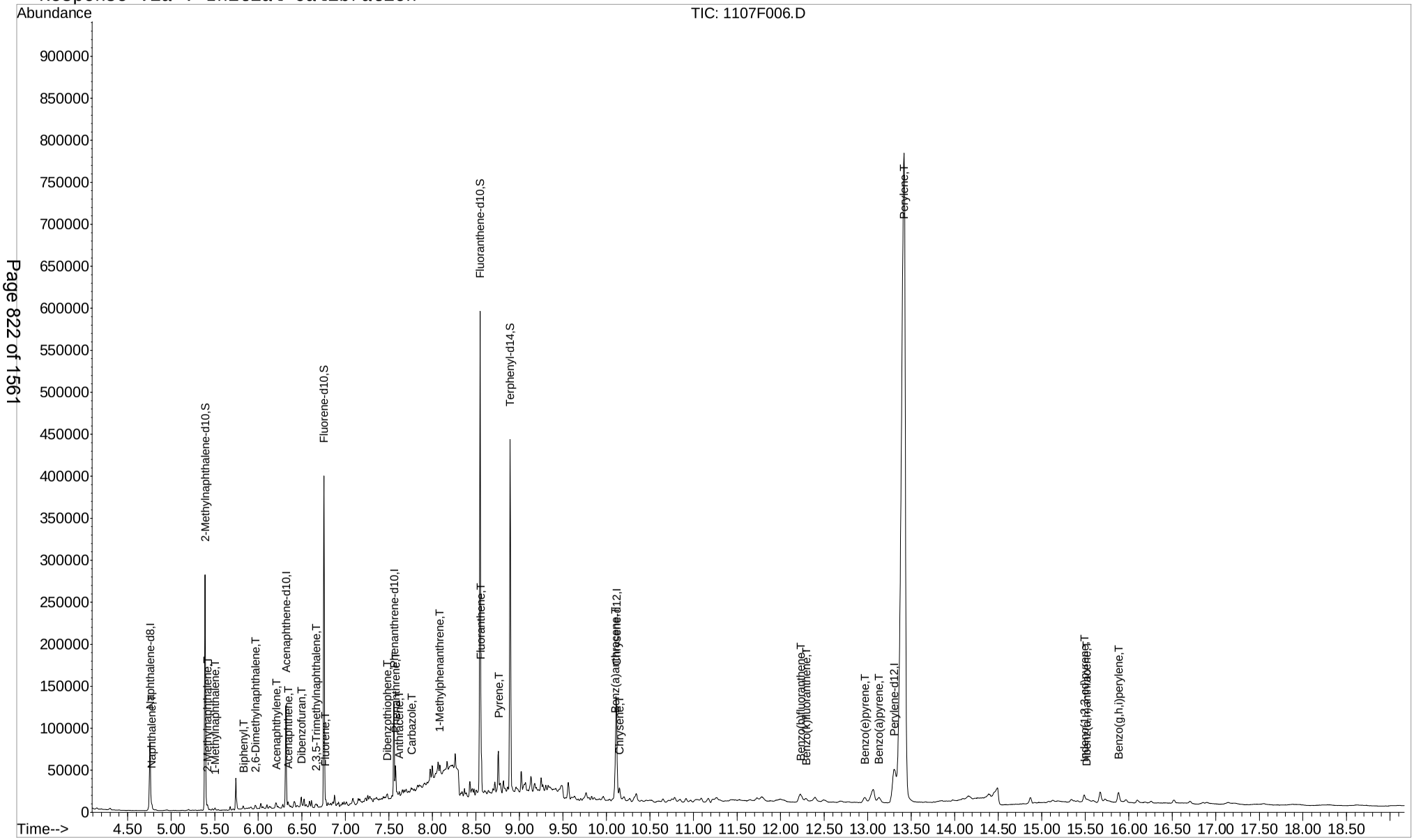
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

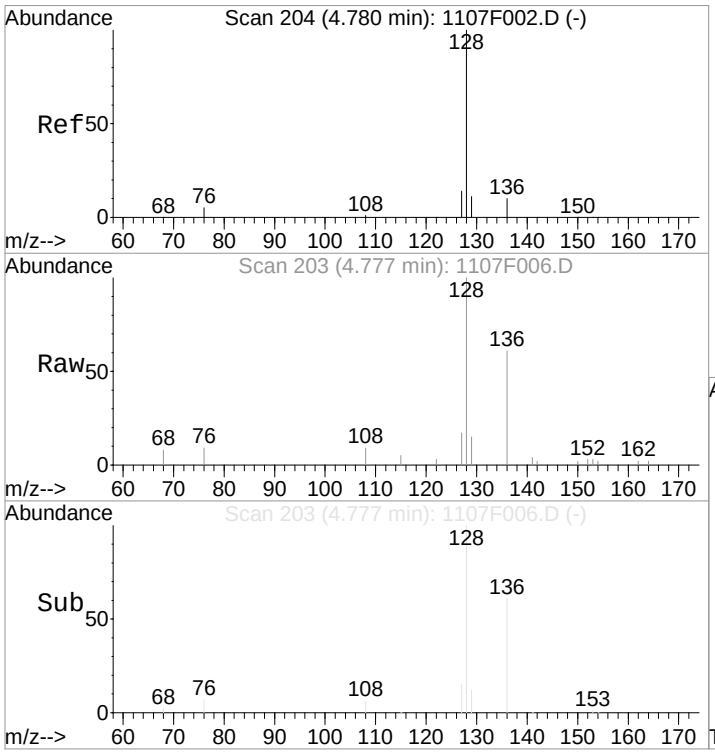
1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F006.D Vial: 6
Acq On : 7 Nov 2018 7:26 am Operator: LWeiskopf
Sample : K1810305-025 Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 13:01 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Initial Calibration



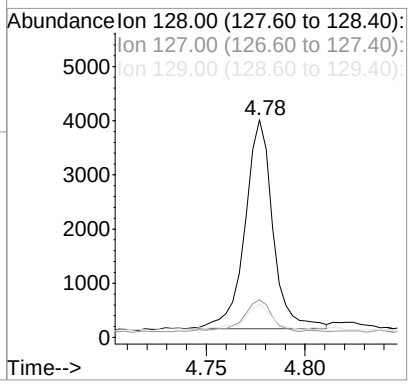
1st 11/19/18
2nd 12/05/18

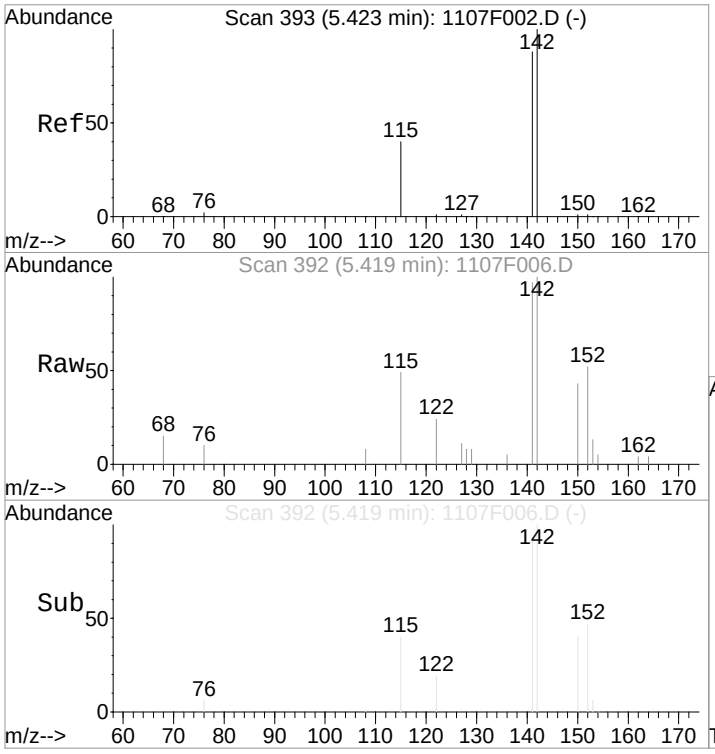


#2
Naphthalene
Concen: 10.11 ng/ml
RT: 4.78 min Scan# 203
Delta R.T. -0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:128 Resp: 3806

Ion	Ratio	Lower	Upper
128	100		
127	15.1	0.0	43.7
129	12.3	0.0	30.8

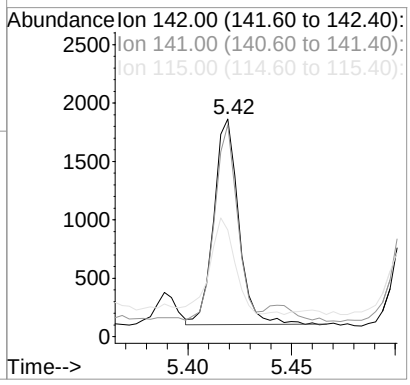


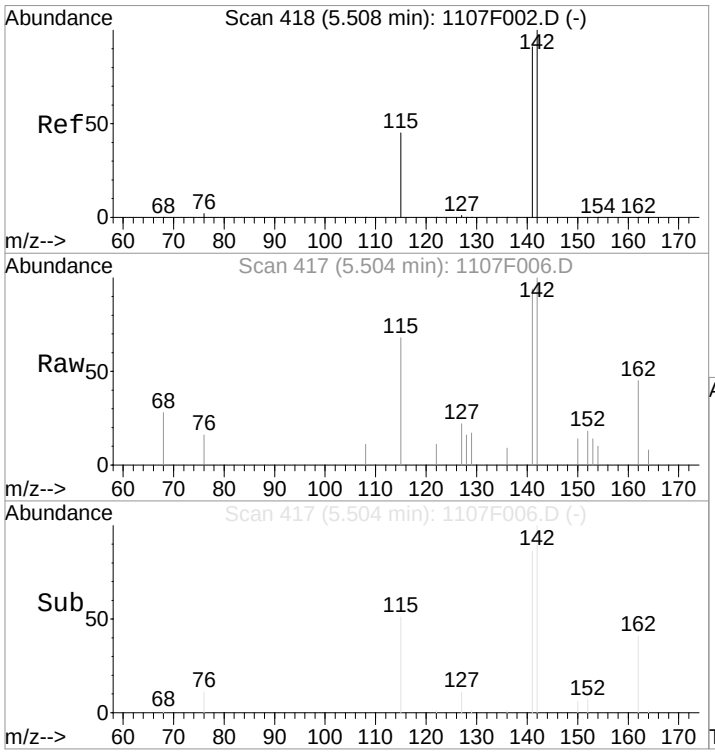


#4
2-Methylnaphthalene
Concen: 6.47 ng/ml
RT: 5.42 min Scan# 392
Delta R.T. -0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:142 Resp: 1469

Ion	Ratio	Lower	Upper
142	100		
141	96.0	56.8	116.8
115	41.2	13.3	53.3

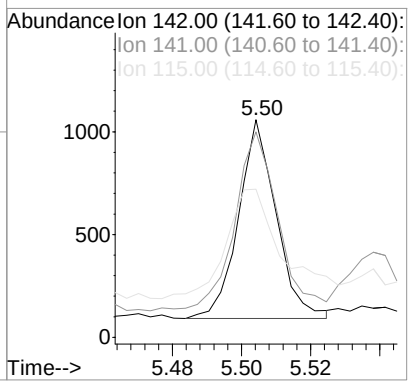


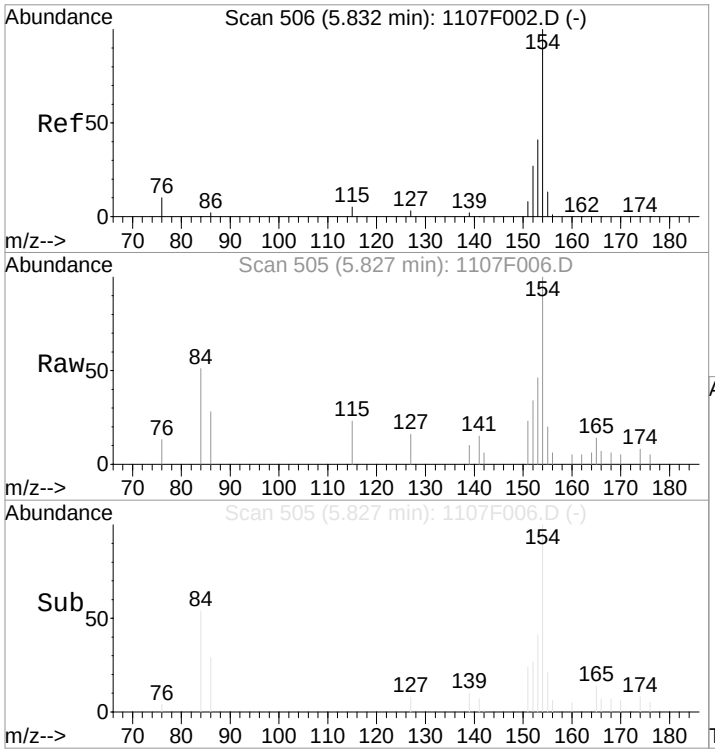


#5
1-Methylnaphthalene
Concen: 3.35 ng/ml
RT: 5.50 min Scan# 417
Delta R.T. -0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:142 Resp: 731

Ion	Ratio	Lower	Upper
142	100		
141	88.8	59.7	119.7
115	52.7	13.7	53.7

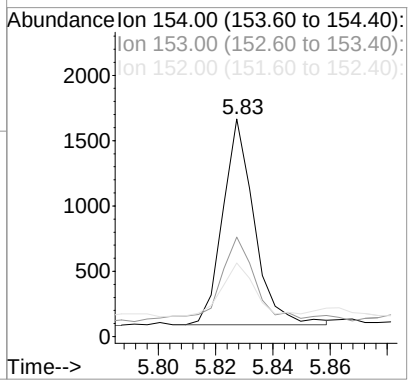




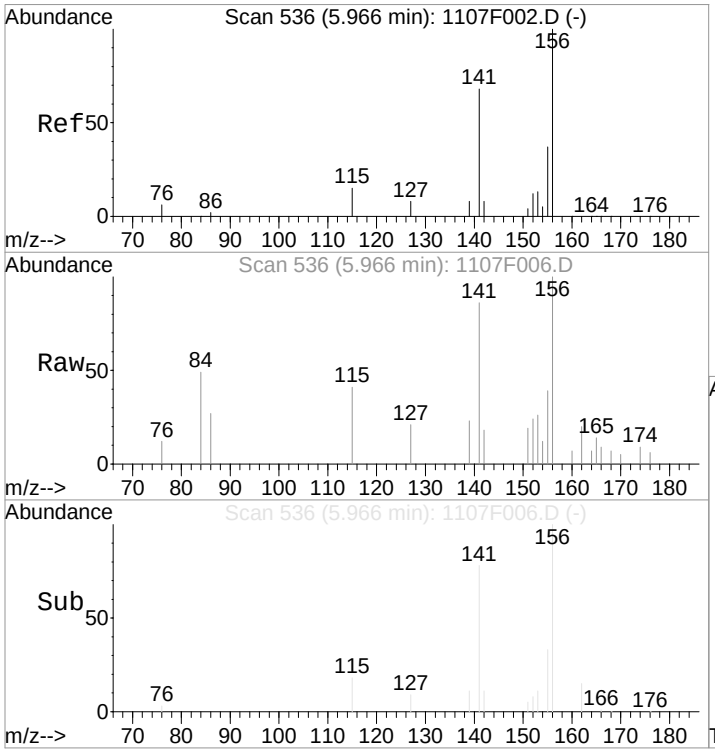
#6
Biphenyl
Concen: 4.27 ng/ml
RT: 5.83 min Scan# 505
Delta R.T. -0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:154 Resp: 1209

Ion	Ratio	Lower	Upper
154	100		
153	38.5	11.4	71.4
152	25.7	7.1	47.1



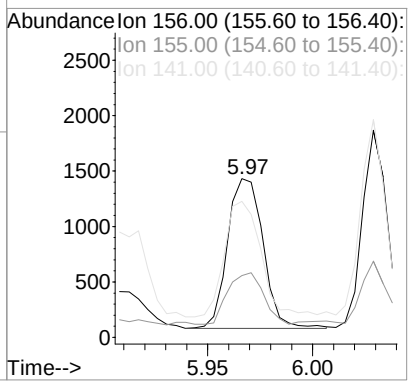
1st 11/19/18
2nd 12/05/18

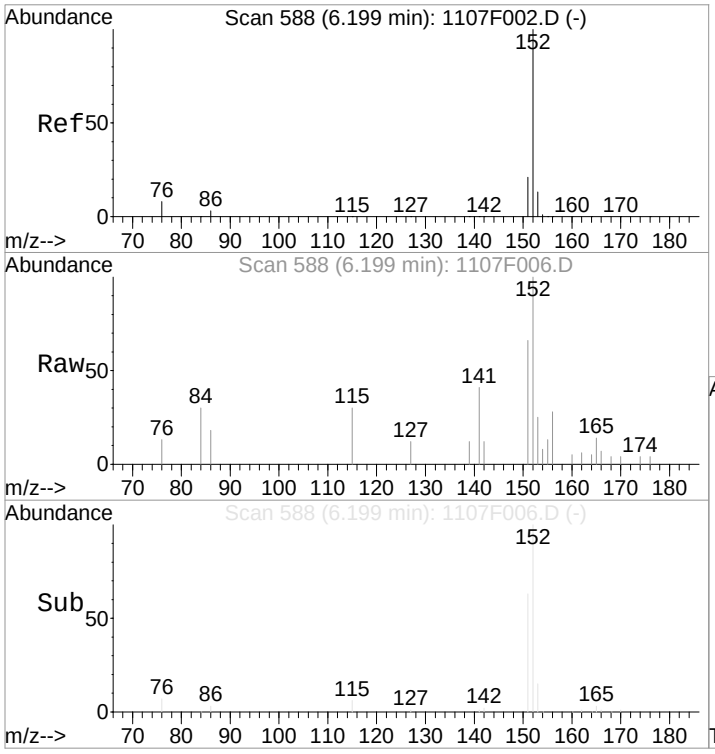


#7
2,6-Dimethylnaphthalene
Concen: 8.17 ng/ml
RT: 5.97 min Scan# 536
Delta R.T. -0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:156 Resp: 1593

Ion	Ratio	Lower	Upper
156	100		
155	31.2	7.0	67.0
141	77.3	47.9	87.9

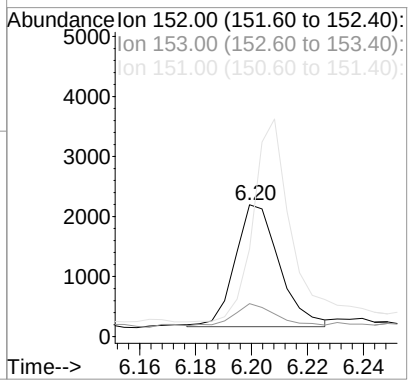


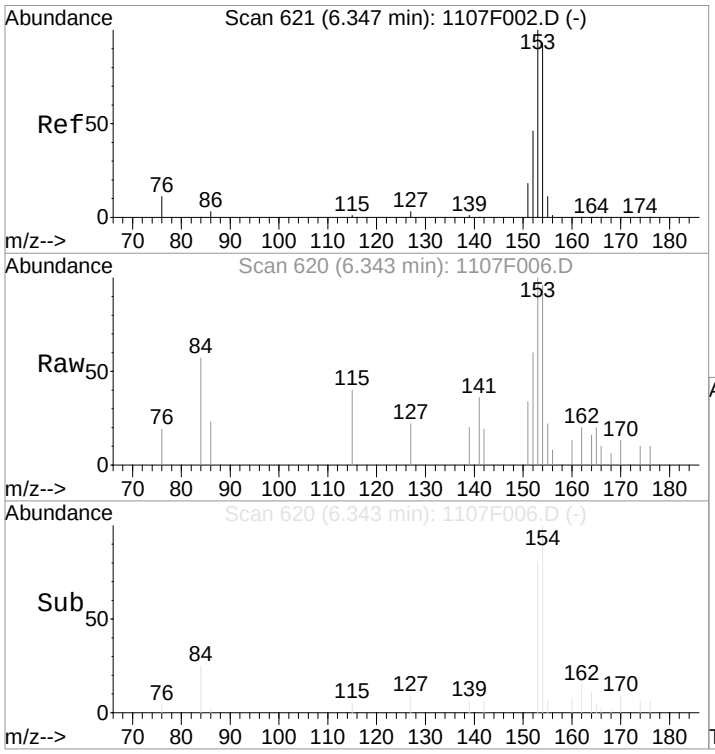


#9
Acenaphthylene
Concen: 5.86 ng/ml m
RT: 6.20 min Scan# 588
Delta R.T. -0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:152 Resp: 2236

Ion	Ratio	Lower	Upper
152	100		
153	25.1	0.0	42.9
151	66.4	0.2	40.2#

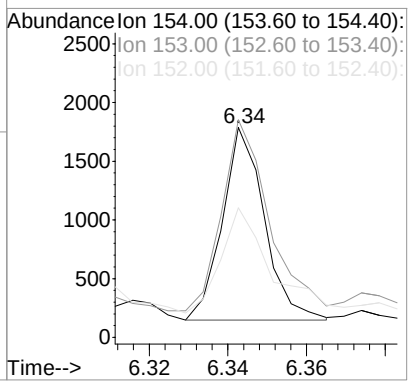


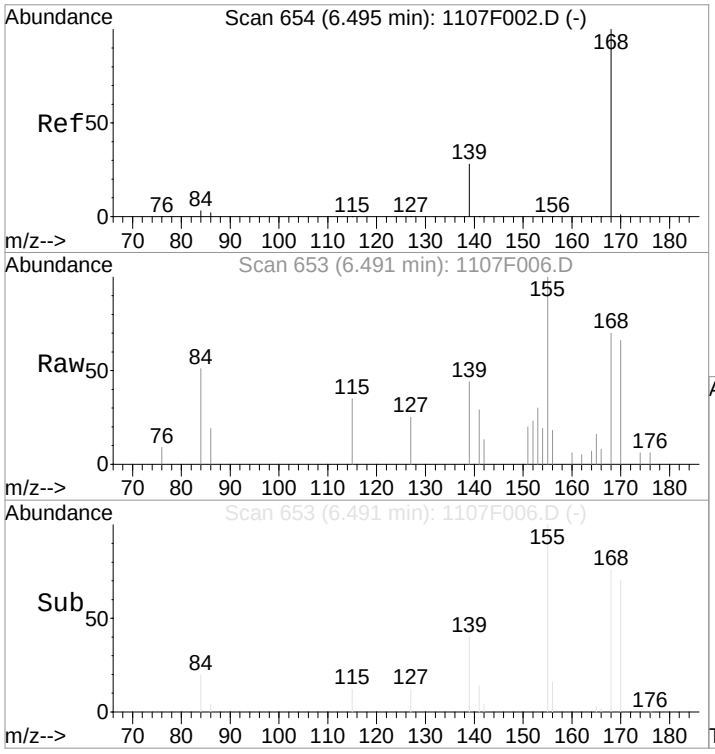


#10
Acenaphthene
Concen: 5.56 ng/ml
RT: 6.34 min Scan# 620
Delta R.T. -0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:154 Resp: 1219

Ion	Ratio	Lower	Upper
154	100		
153	99.2	77.1	137.1
152	54.7	19.7	79.7

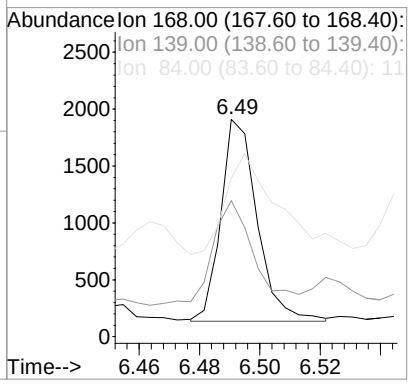


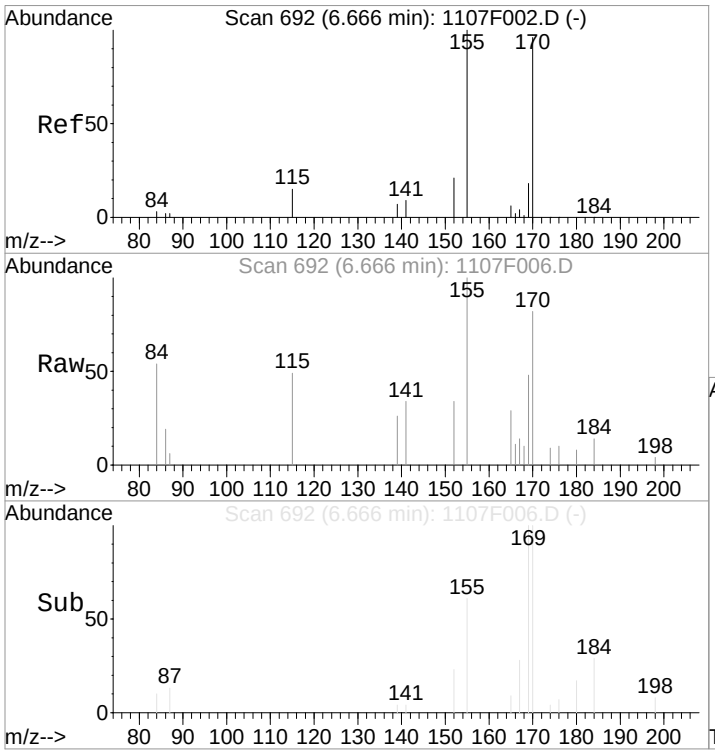


#11
Dibenzofuran
Concen: 4.22 ng/ml m
RT: 6.49 min Scan# 653
Delta R.T. -0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:168 Resp: 1483

Ion	Ratio	Lower	Upper
168	100		
139	62.5	0.0	55.8#
84	72.9	0.0	23.5#

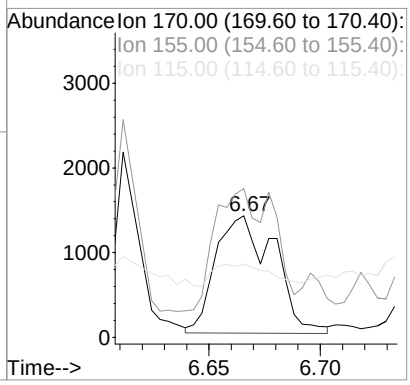


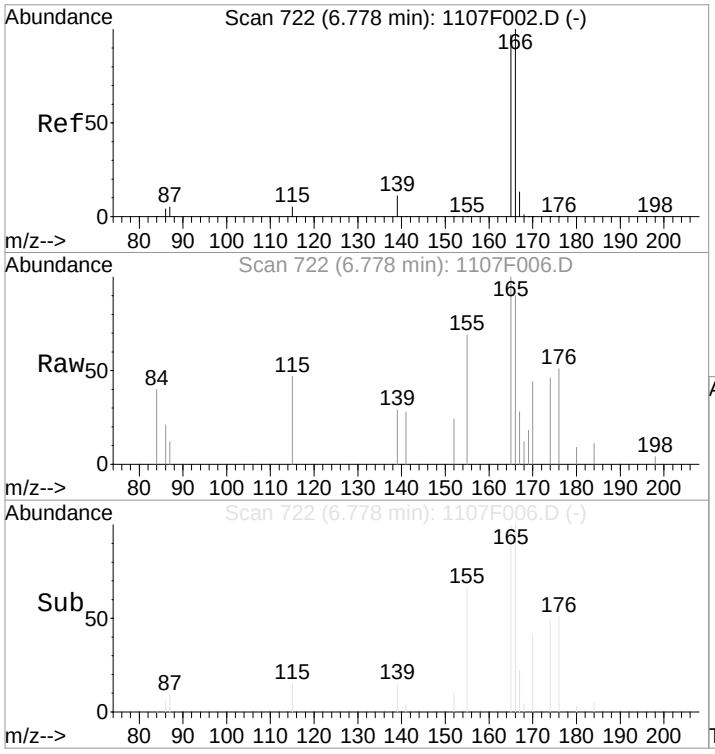


#12
2,3,5-Trimethylnaphthalene
Concen: 12.60 ng/ml m
RT: 6.67 min Scan# 692
Delta R.T. -0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:170 Resp: 2554

Ion	Ratio	Lower	Upper
170	100		
155	122.3	59.2	119.2#
115	60.2	0.0	30.1#

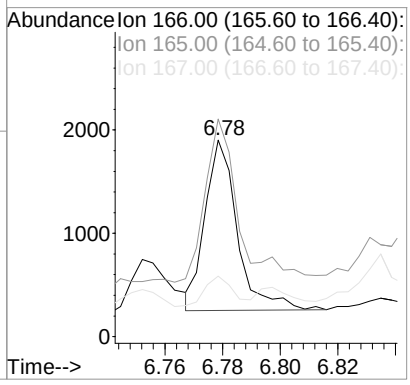


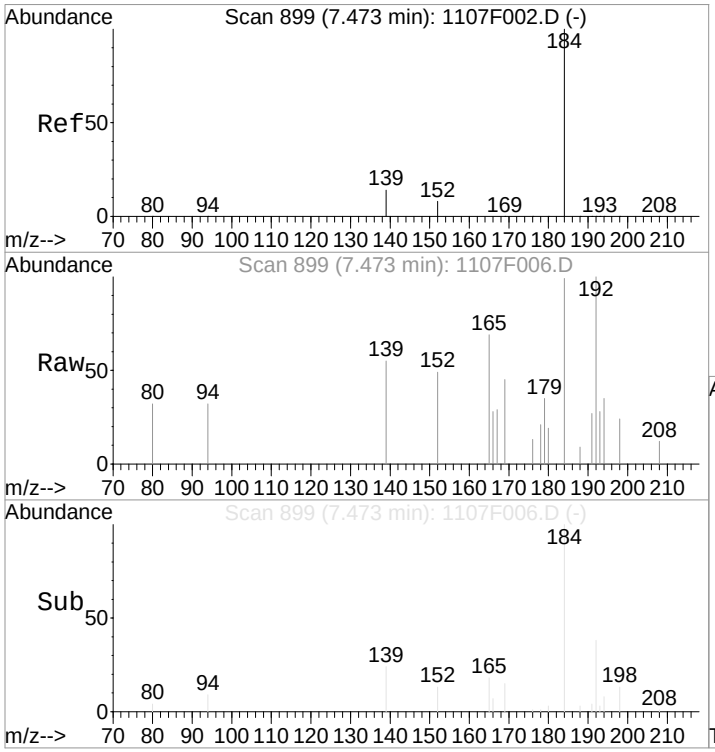


#14
Fluorene
Concen: 4.86 ng/ml
RT: 6.78 min Scan# 722
Delta R.T. -0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:166 Resp: 1288

Ion	Ratio	Lower	Upper
166	100		
165	94.0	63.4	123.4
167	17.3	0.0	33.1

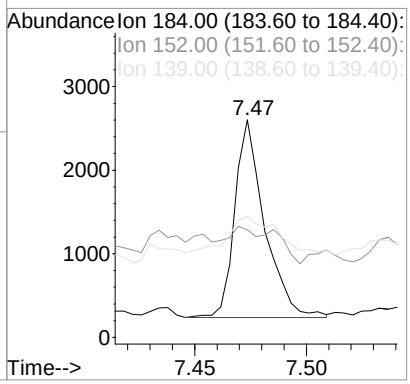


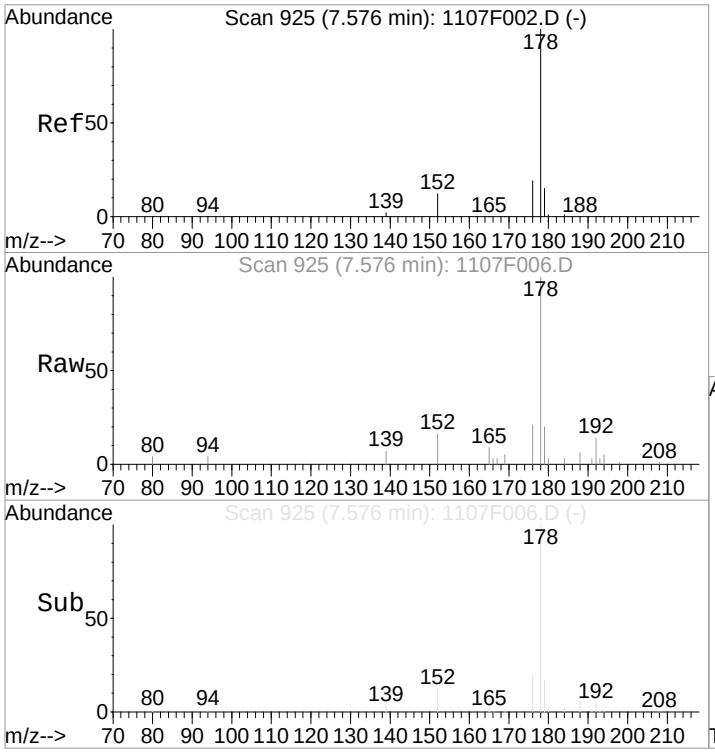


#16
Dibenzothiophene
Concen: 5.37 ng/ml
RT: 7.47 min Scan# 899
Delta R.T. -0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:184 Resp: 2190

Ion	Ratio	Lower	Upper
184	100		
152	10.2	0.0	37.8
139	18.3	0.0	32.6

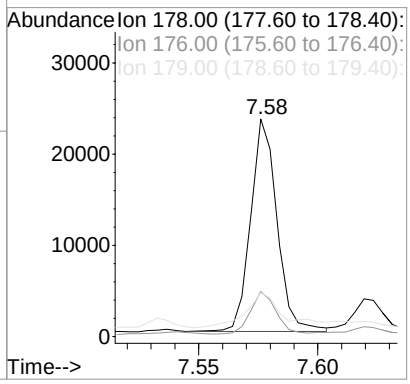


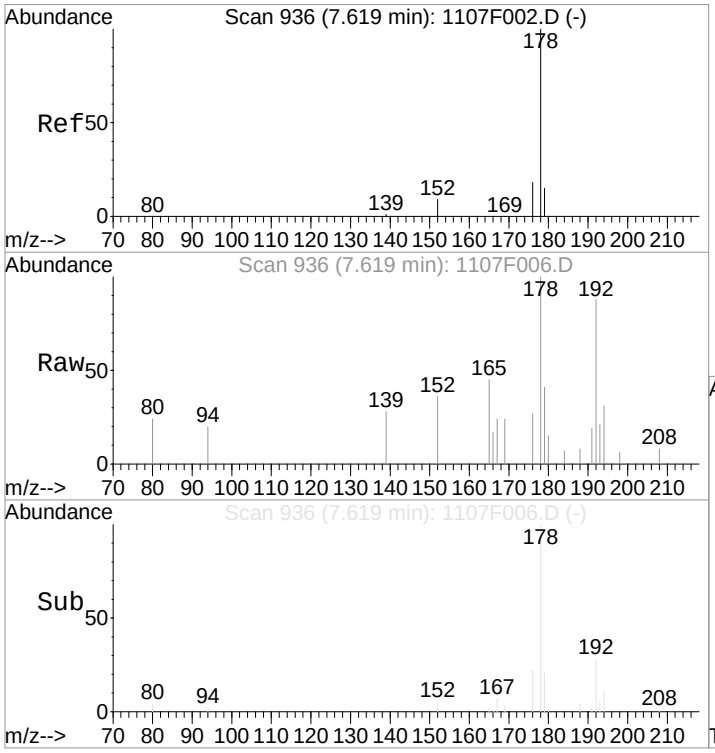


#17
Phenanthrene
Concen: 44.01 ng/ml
RT: 7.58 min Scan# 925
Delta R.T. -0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:178 Resp: 17944

Ion	Ratio	Lower	Upper
178	100		
176	19.4	0.0	48.7
179	16.0	0.0	35.1

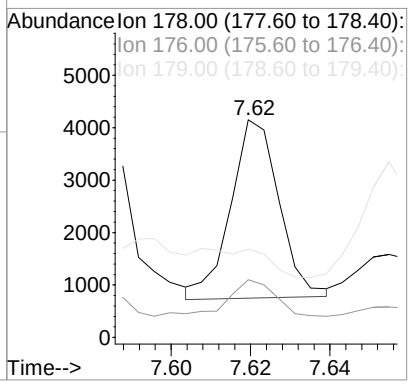


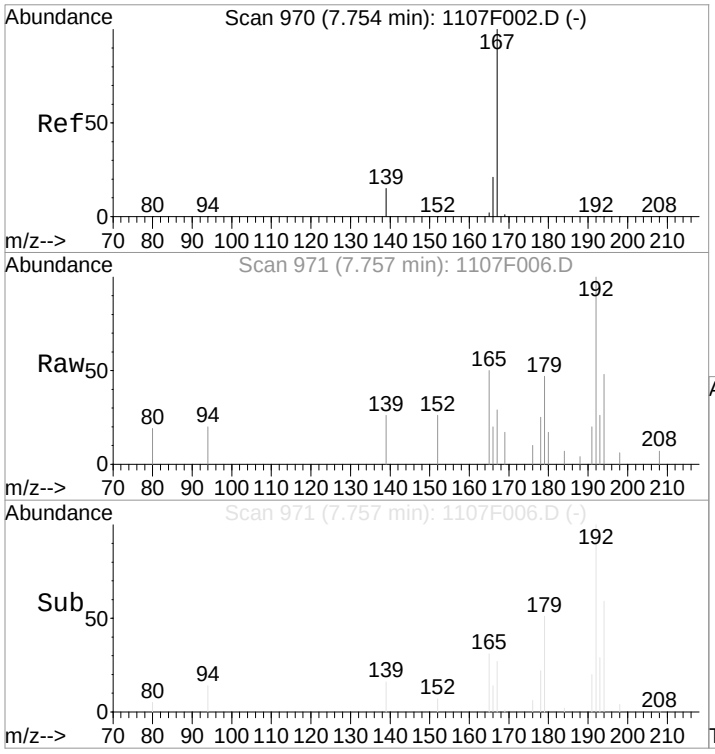


#18
Anthracene
Concen: 7.42 ng/ml
RT: 7.62 min Scan# 936
Delta R.T. -0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:178 Resp: 2887

Ion	Ratio	Lower	Upper
178	100		
176	21.6	0.0	48.0
179	14.7	0.0	35.1

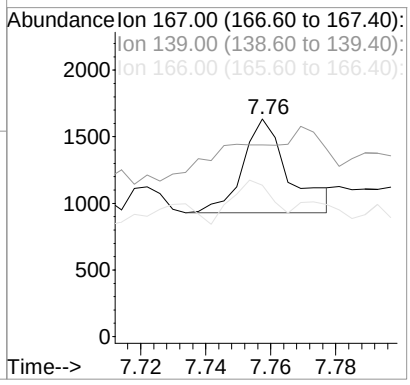




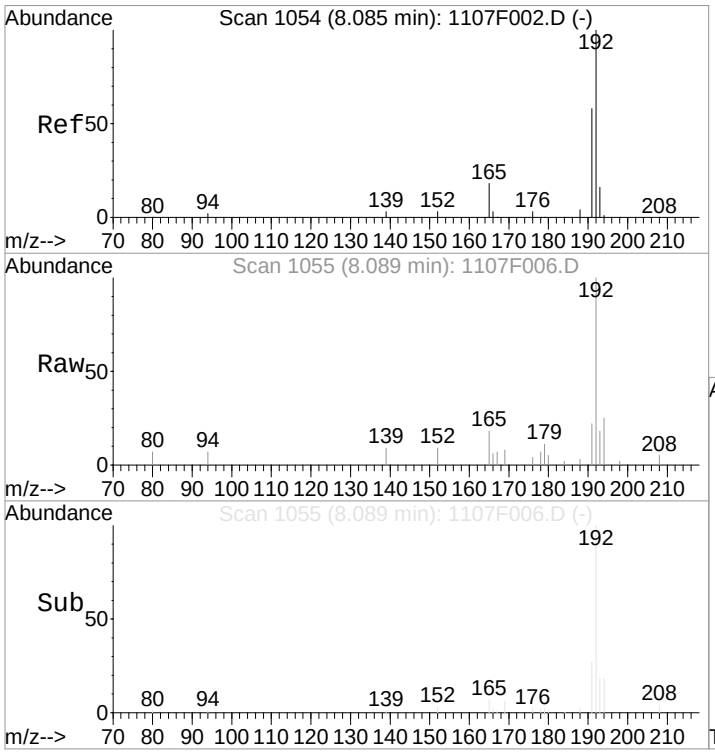
#19
Carbazole
Concen: 1.83 ng/ml
RT: 7.76 min Scan# 971
Delta R.T. 0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:167 Resp: 695

Ion	Ratio	Lower	Upper
167	100		
139	29.3	0.0	41.5
166	20.7	0.7	40.7



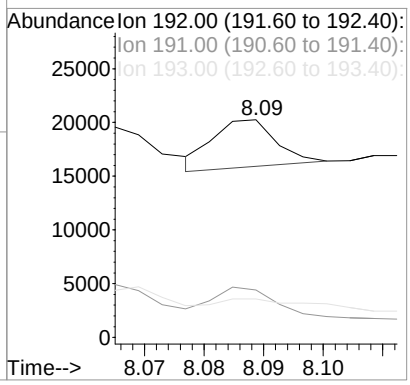
1st 11/19/18
2nd 12/05/18

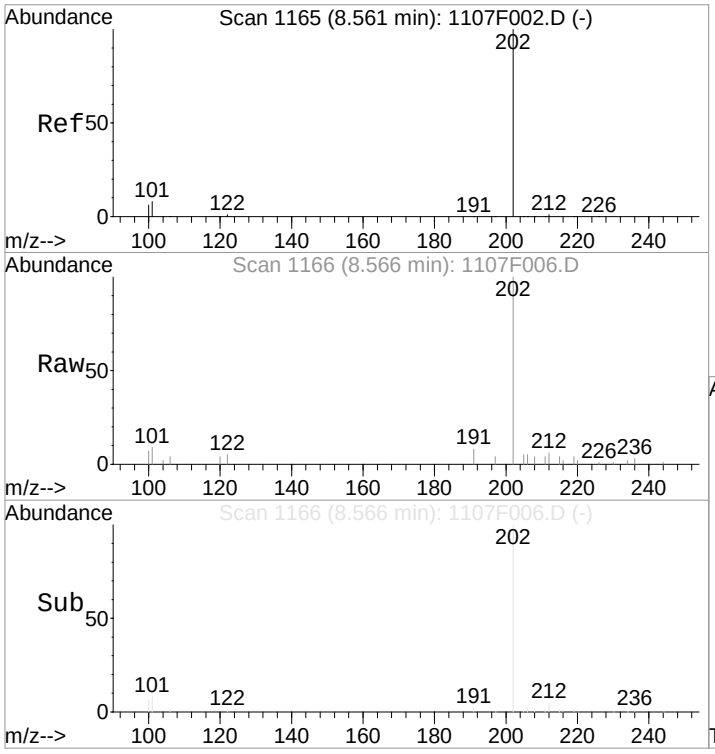


#20
1-Methylphenanthrene
Concen: 10.80 ng/ml
RT: 8.09 min Scan# 1055
Delta R.T. 0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:192 Resp: 3335

Ion	Ratio	Lower	Upper
192	100		
191	64.2	27.7	87.7
193	16.0	0.0	45.4

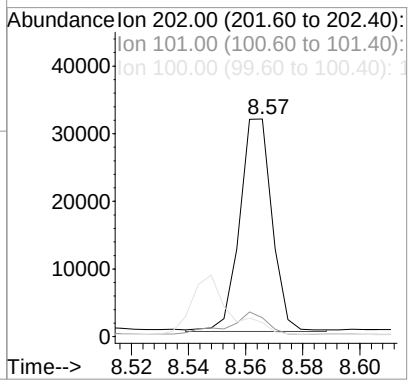


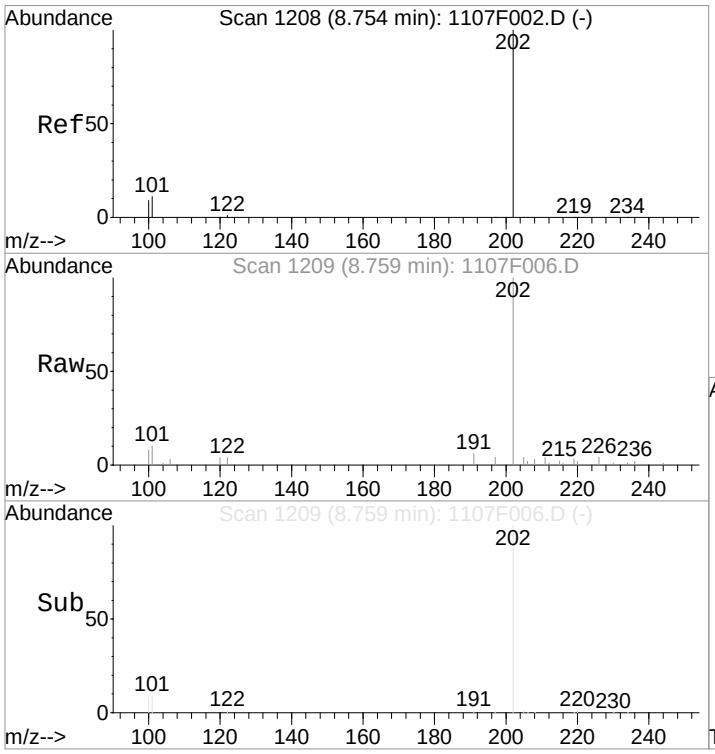


#21
Fluoranthene
Concen: 49.40 ng/ml
RT: 8.57 min Scan# 1166
Delta R.T. 0.01 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:202 Resp: 24869

Ion	Ratio	Lower	Upper
202	100		
101	7.8	0.0	41.3
100	5.6	0.0	28.6

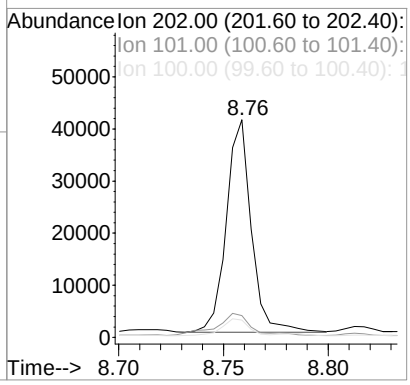


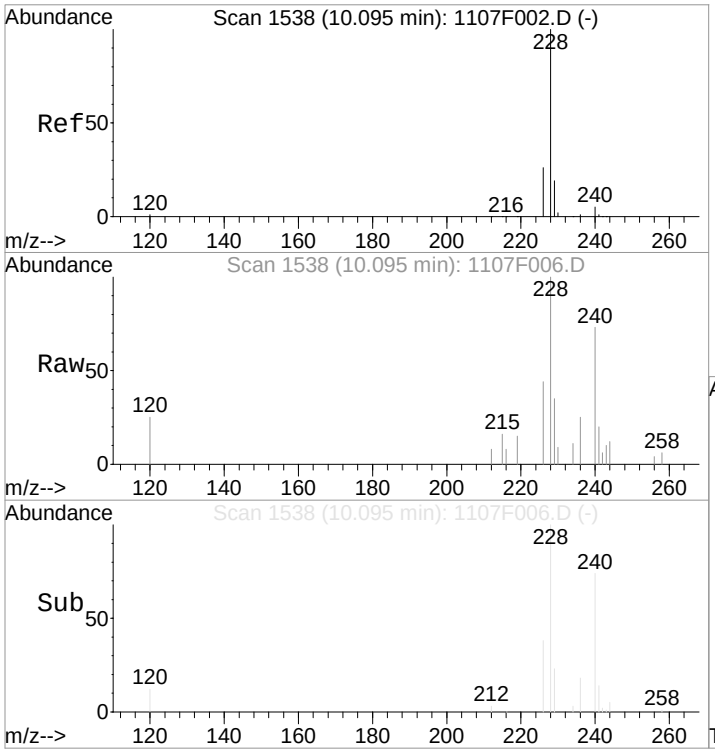


#24
Pyrene
Concen: 60.31 ng/ml
RT: 8.76 min Scan# 1209
Delta R.T. 0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:202 Resp: 33922

Ion	Ratio	Lower	Upper
202	100		
101	9.4	0.0	40.8
100	7.4	0.0	28.5

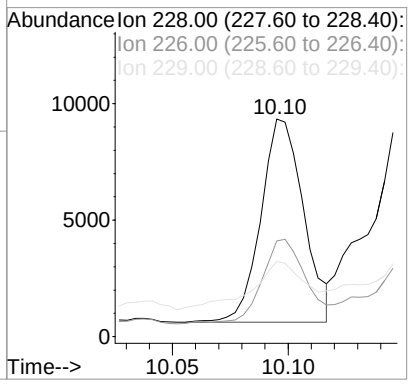


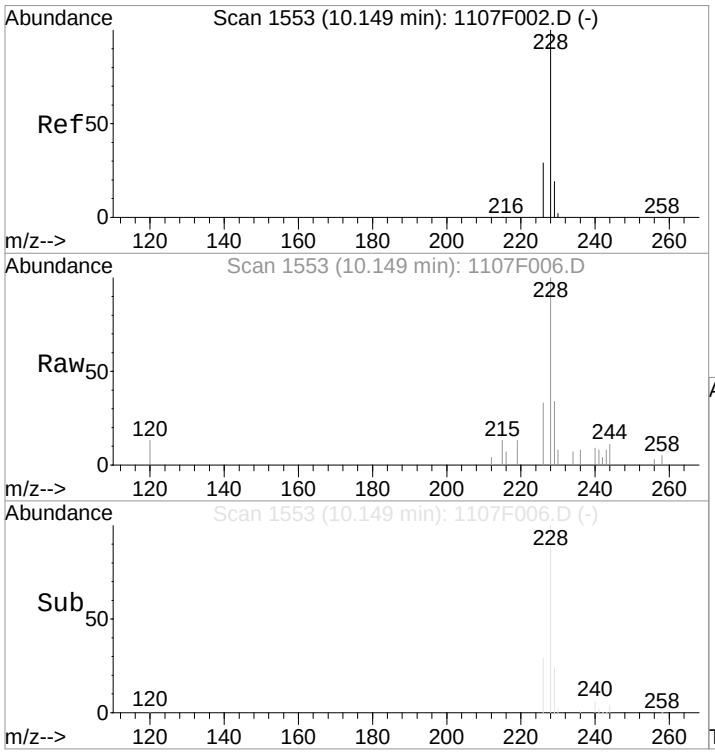


#26
Benz(a)anthracene
Concen: 21.14 ng/ml
RT: 10.10 min Scan# 1538
Delta R.T. 0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:228 Resp: 11204

Ion	Ratio	Lower	Upper
228	100		
226	40.7	0.0	56.3
229	22.6	0.0	39.1

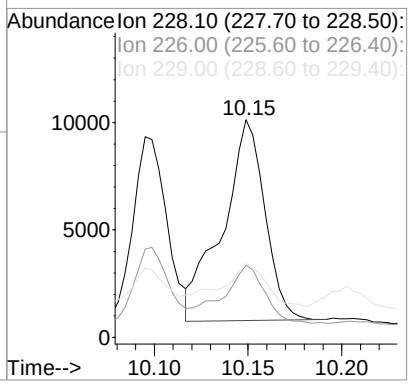


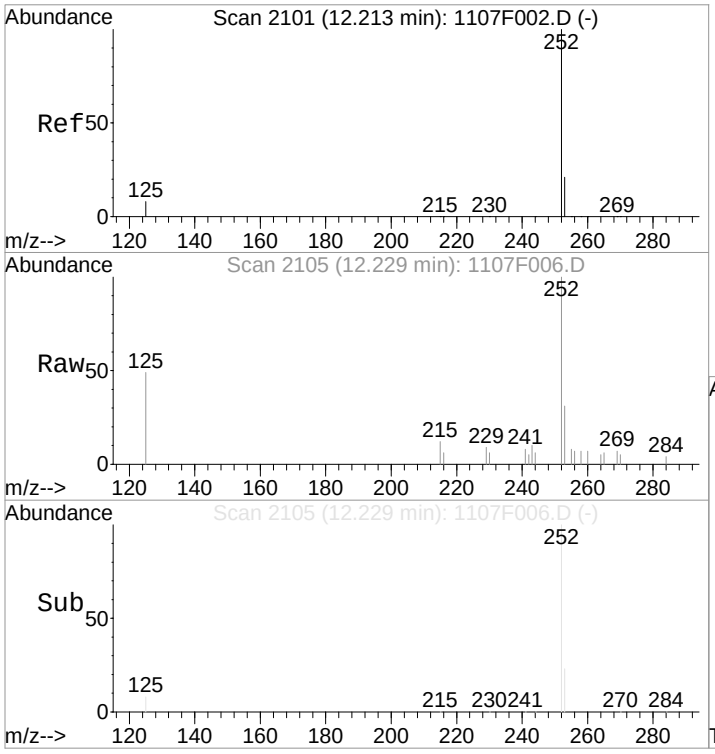


#27
Chrysene
Concen: 29.00 ng/ml
RT: 10.15 min Scan# 1553
Delta R.T. 0.00 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:228 Resp: 14725

Ion	Ratio	Lower	Upper
228	100		
226	29.0	0.0	58.7
229	16.2	0.0	39.2

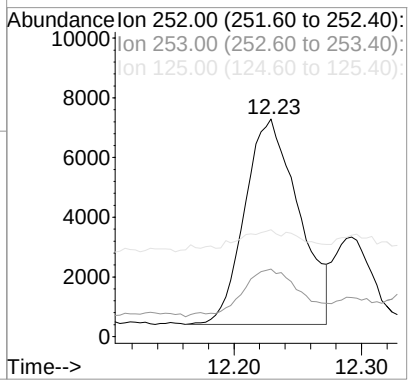


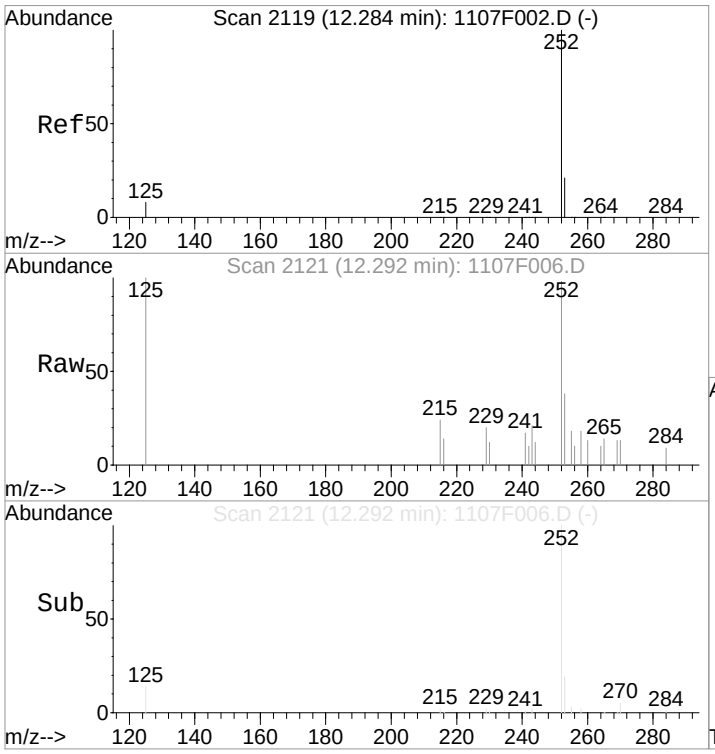


#29
Benzo(b)fluoranthene
Concen: 35.57 ng/ml
RT: 12.23 min Scan# 2105
Delta R.T. 0.02 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:252 Resp: 20347

Ion	Ratio	Lower	Upper
252	100		
253	23.2	0.0	51.2
125	9.9	0.0	29.5

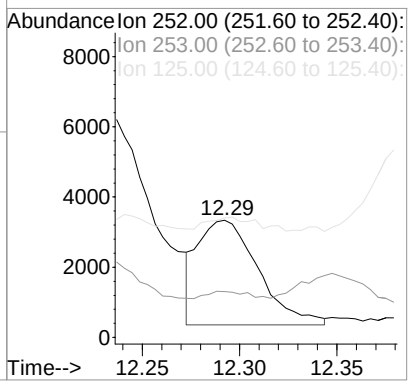


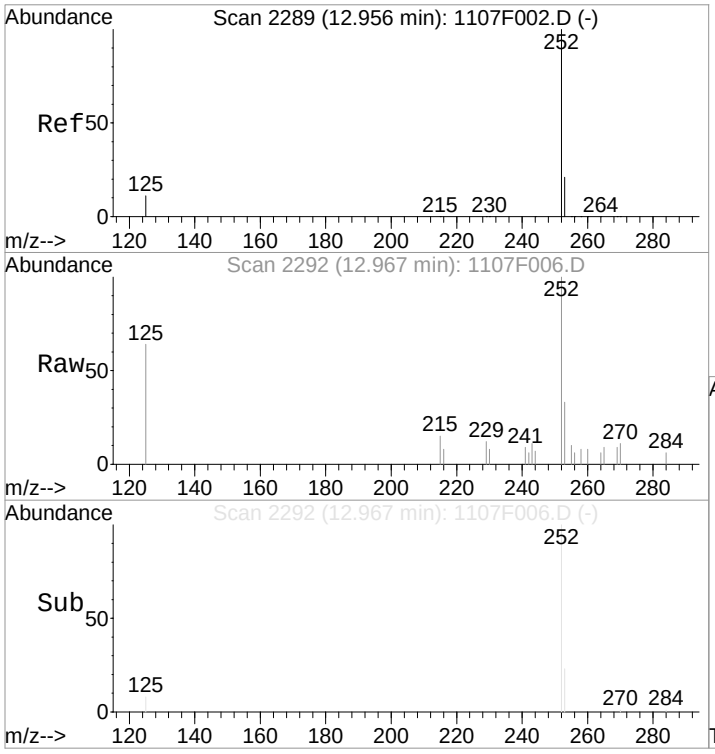


#30
Benzo(k)fluoranthene
Concen: 11.39 ng/ml m
RT: 12.29 min Scan# 2121
Delta R.T. 0.02 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:252 Resp: 6461

Ion	Ratio	Lower	Upper
252	100		
253	39.1	0.0	51.2
125	102.1	0.0	29.7#

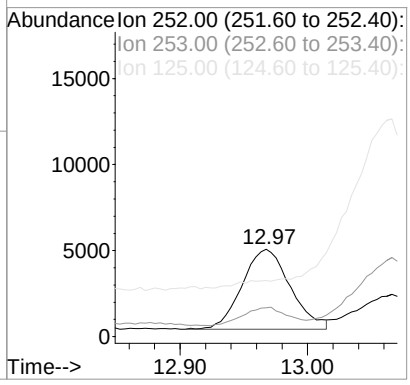


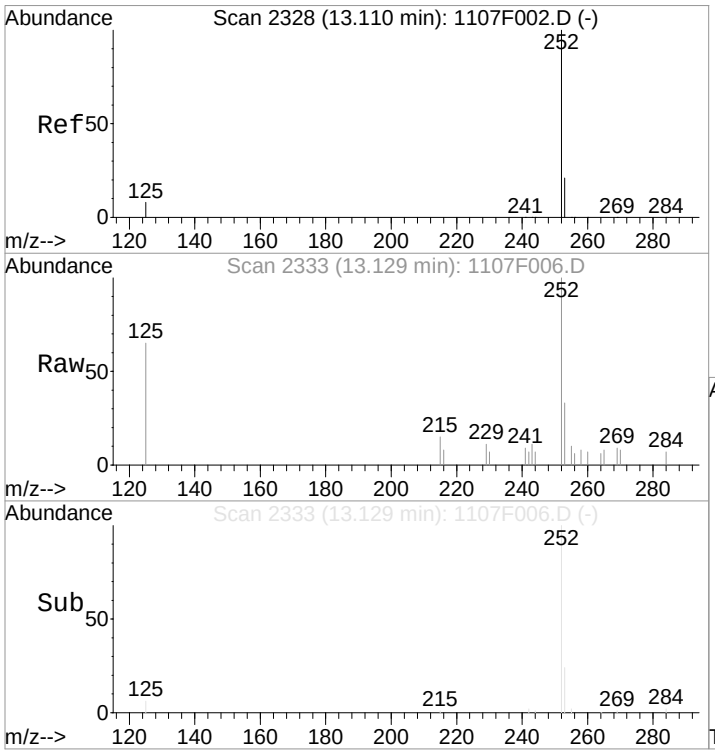


#31
Benzo(e)pyrene
Concen: 22.44 ng/ml
RT: 12.97 min Scan# 2292
Delta R.T. 0.03 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:252 Resp: 12237

Ion	Ratio	Lower	Upper
252	100		
253	21.6	0.0	51.3
125	9.9	0.0	33.5

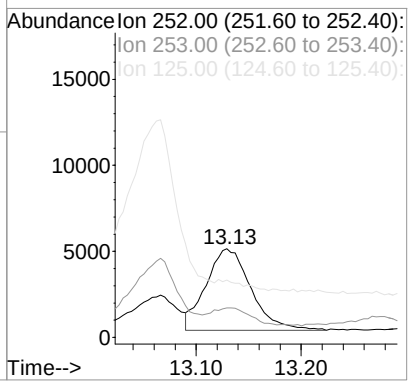


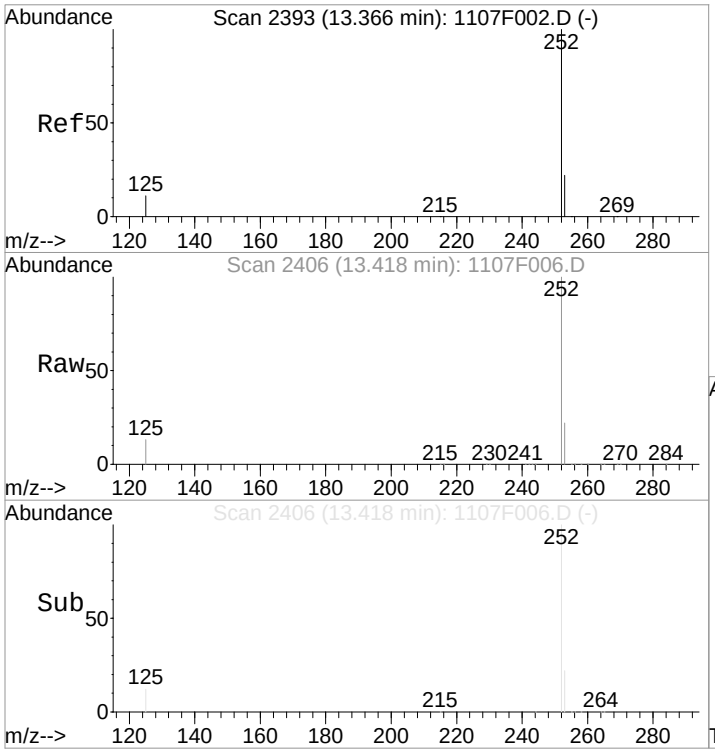


#32
Benzo(a)pyrene
Concen: 28.10 ng/ml
RT: 13.13 min Scan# 2333
Delta R.T. 0.03 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:252 Resp: 14095

Ion	Ratio	Lower	Upper
252	100		
253	20.6	0.0	50.9
125	14.9	0.0	30.3

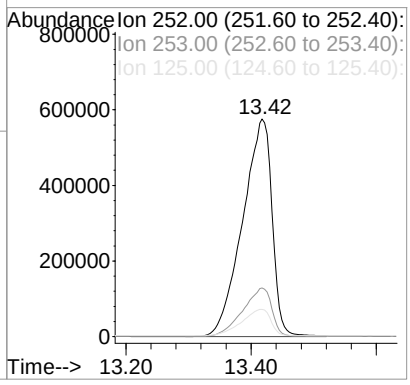




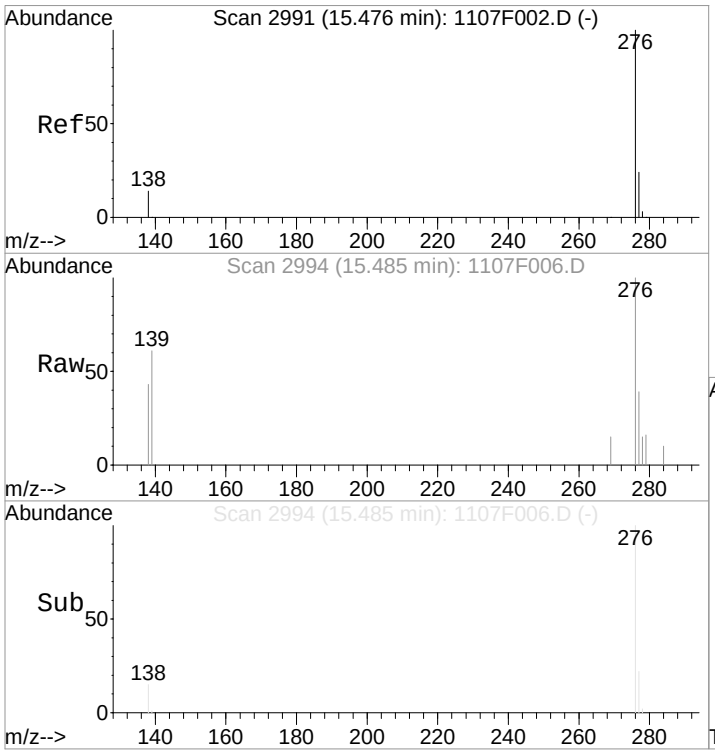
#33
Perylene
Concen: 3569.02 ng/ml
RT: 13.42 min Scan# 2406
Delta R.T. 0.07 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:252 Resp: 1878222

Ion	Ratio	Lower	Upper
252	100		
253	22.2	0.0	51.2
125	12.2	0.0	33.8



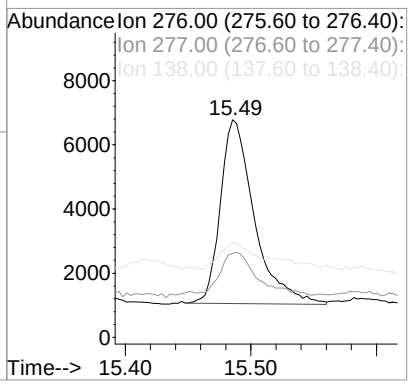
1st 11/19/18
2nd 11/05/18

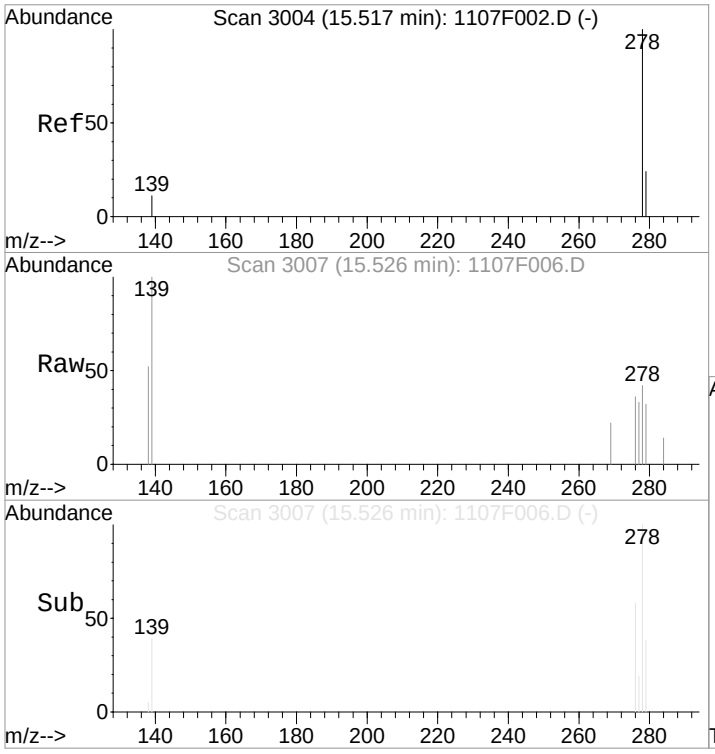


#34
Indeno(1,2,3-cd)pyrene
Concen: 21.87 ng/ml
RT: 15.49 min Scan# 2994
Delta R.T. 0.02 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:276 Resp: 10756

Ion	Ratio	Lower	Upper
276	100		
277	22.6	0.0	53.4
138	13.3	0.0	37.7

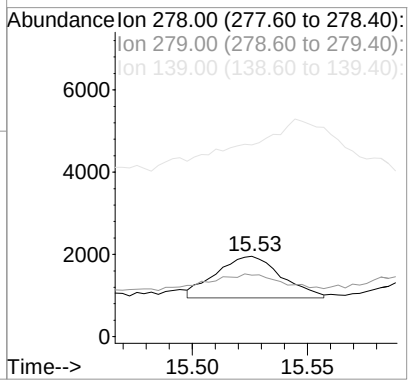




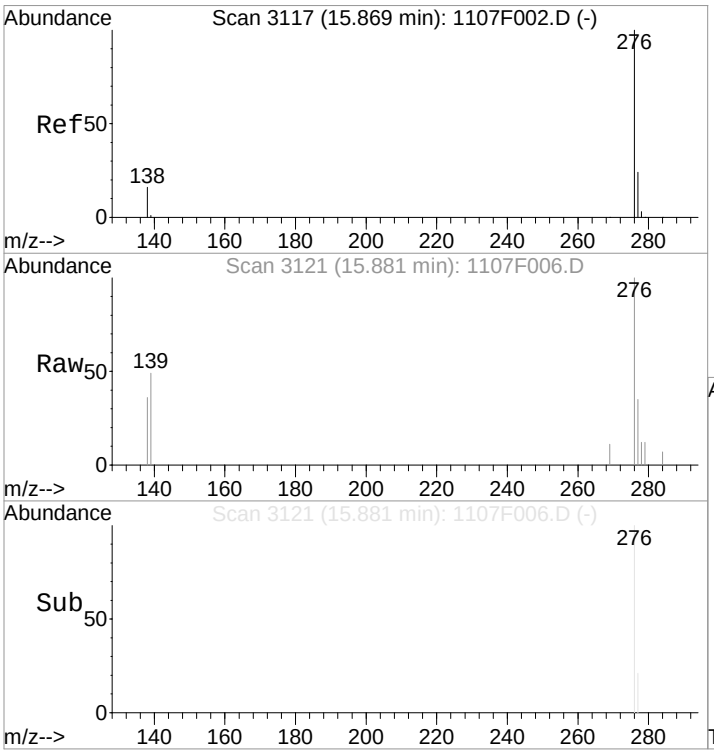
#35
Dibenz(a,h)anthracene
Concen: 4.00 ng/ml m
RT: 15.53 min Scan# 3007
Delta R.T. 0.02 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:278 Resp: 1995

Ion	Ratio	Lower	Upper
278	100		
279	76.7	0.0	53.5#
139	238.7	0.0	35.0#



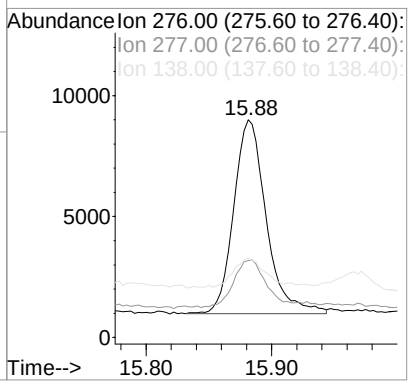
1st 11/19/18
2nd 12/05/18



#36
Benzo(g,h,i)perylene
Concen: 25.03 ng/ml
RT: 15.88 min Scan# 3121
Delta R.T. 0.02 min
Lab File: 1107F006.D
Acq: 7 Nov 2018 7:26 am

Tgt Ion:276 Resp: 14422

Ion	Ratio	Lower	Upper
276	100		
277	23.4	0.0	53.1
138	14.8	0.0	39.2



Quantitation Report (QT Reviewed)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F006.D Vial: 6
Acq On : 7 Nov 2018 7:26 am Operator: LWeiskopf
Sample : K1810305-025 Inst : MS14
Misc : 2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 12:56:04 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.76	136	65217	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.32	164	31966	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.56	188	65358	200.00	ng/ml	0.00
23) Chrysene-d12	10.11	240	81980	200.00	ng/ml	0.00
28) Perylene-d12	13.31	264	92591	200.00	ng/ml	0.04
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.39	152	84857	466.15	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	46.61%		
13) Fluorene-d10	6.76	176	125274	612.91	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	61.29%		
22) Fluoranthene-d10	8.55	212	286010	694.34	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	69.43%		
25) Terphenyl-d14	8.89	244	256194	720.49	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	72.05%		
Target Compounds						Qvalue
2) Naphthalene	4.78	128	3806	10.11	ng/ml	96
4) 2-Methylnaphthalene	5.42	142	1469	6.47	ng/ml	89
5) 1-Methylnaphthalene	5.50	142	731	3.35	ng/ml	90
6) Biphenyl	5.83	154	1209	4.27	ng/ml	96
7) 2,6-Dimethylnaphthalene	5.97	156	1593	8.17	ng/ml	89
9) Acenaphthylene	6.20	152	2236m	5.86	ng/ml	
10) Acenaphthene	6.34	154	1219	5.56	ng/ml	93
11) Dibenzofuran	6.49	168	1483m	4.22	ng/ml	
12) 2,3,5-Trimethylnaphthalene	6.67	170	2554m	12.60	ng/ml	
14) Fluorene	6.78	166	1288	4.86	ng/ml	98
16) Dibenzothiophene	7.47	184	2190	5.37	ng/ml	88
17) Phenanthrene	7.58	178	17944	44.01	ng/ml	98
18) Anthracene	7.62	178	2887	7.42	ng/ml	95
19) Carbazole	7.76	167	695	1.83	ng/ml	83
20) 1-Methylphenanthrene	8.09	192	3335	10.80	ng/ml	93
21) Fluoranthene	8.57	202	24869	49.40	ng/ml	91
24) Pyrene	8.76	202	33922	60.31	ng/ml	97
26) Benz(a)anthracene	10.10	228	11204	21.14	ng/ml	80
27) Chrysene	10.15	228	14725	29.00	ng/ml	97
29) Benzo(b)fluoranthene	12.23	252	20347	35.57	ng/ml	97
30) Benzo(k)fluoranthene	12.29	252	6461m	11.39	ng/ml	
31) Benzo(e)pyrene	12.97	252	12237	22.44	ng/ml	96
32) Benzo(a)pyrene	13.13	252	14095	28.10	ng/ml	95
33) Perylene	13.42	252	1878222	3569.02	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.49	276	10756	21.87	ng/ml	95
35) Dibenz(a,h)anthracene	15.53	278	1995m	4.00	ng/ml	
36) Benzo(g,h,i)perylene	15.88	276	14422	25.03	ng/ml	95

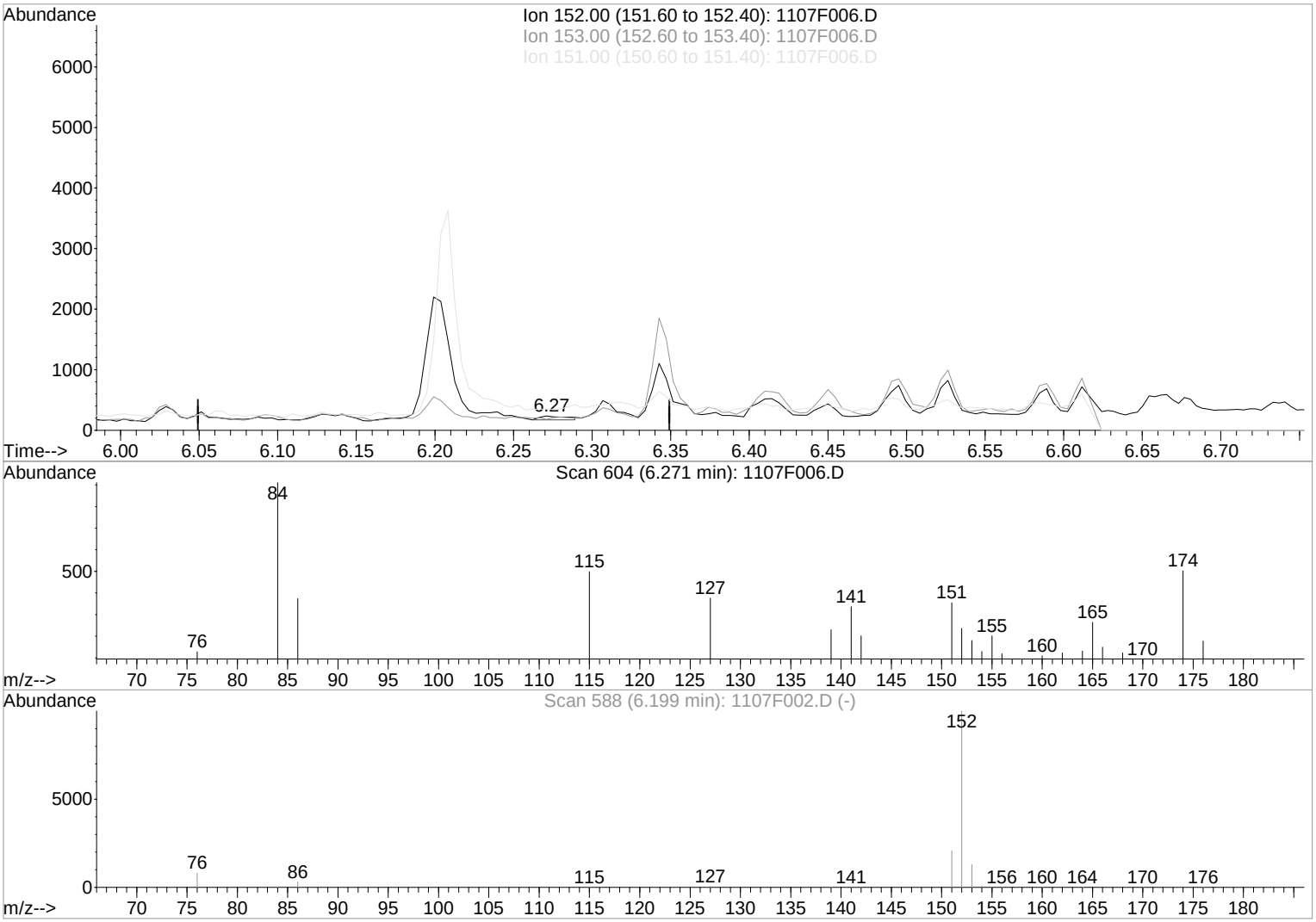
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F006.D Vial: 6
Acq On : 7 Nov 2018 7:26 am Operator: LWeiskopf
Sample : K1810305-025 Inst : MS14
Misc : 2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 12:56 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Multiple Level Calibration



TIC: 1107F006.D

(9) Acenaphthylene (T)

6.27min 0.20ng/ml

response 76

Ion	Exp%	Act%
152.00	100	100
153.00	12.90	0.00
151.00	20.20	14.06
0.00	0.00	0.00

Manual Integration:

Before

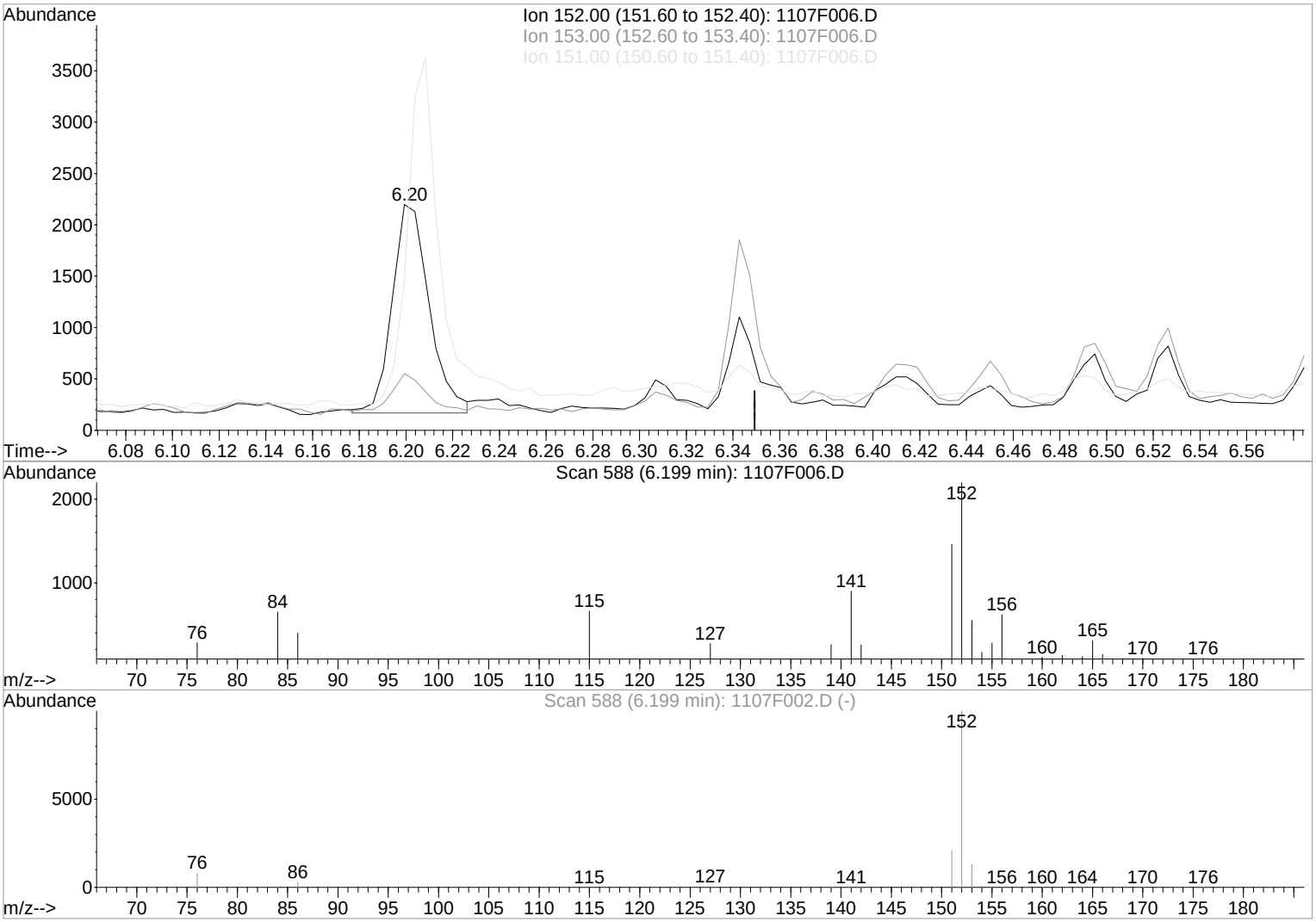
11/16/18

Quantitation Report (Qedit)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F006.D Vial: 6
Acq On : 7 Nov 2018 7:26 am Operator: LWeiskopf
Sample : K1810305-025 Inst : MS14
Misc : 2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 13:00 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Multiple Level Calibration



TIC: 1107F006.D

(9) Acenaphthylene (T)

6.20min 5.86ng/ml m

response 2236

Ion	Exp%	Act%
152.00	100	100
153.00	12.90	25.10
151.00	20.20	66.44#
0.00	0.00	0.00

Manual Integration:

After

WP

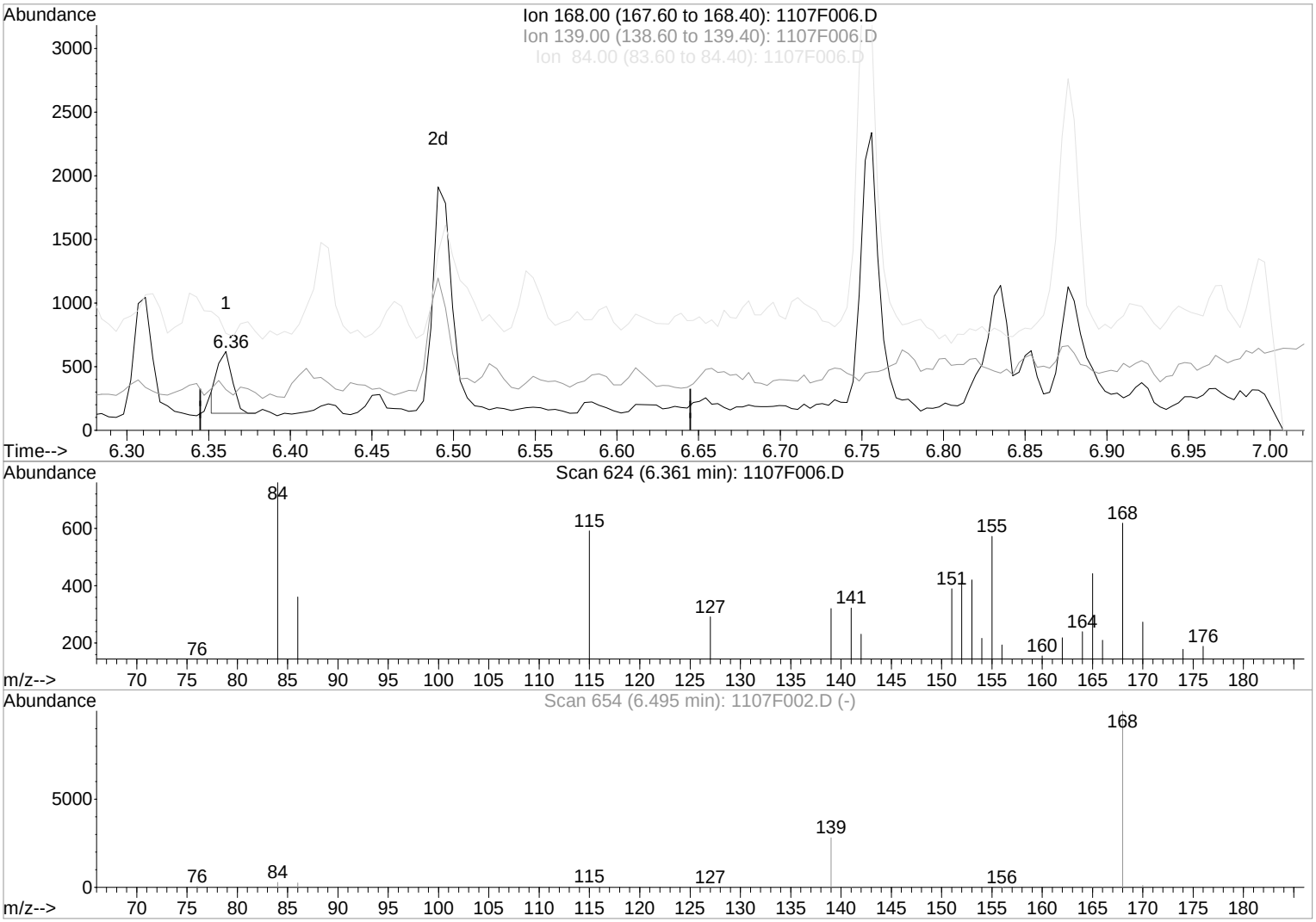
11/16/18

Quantitation Report (Qedit)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F006.D Vial: 6
Acq On : 7 Nov 2018 7:26 am Operator: LWeiskopf
Sample : K1810305-025 Inst : MS14
Misc : 2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 13:00 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Multiple Level Calibration



TIC: 1107F006.D

(11) Dibenzofuran (T)

6.36min 0.87ng/ml

response 307

Ion	Exp%	Act%
168.00	100	100
139.00	25.80	5.17
84.00	3.50	0.00
0.00	0.00	0.00

Manual Integration:

Before

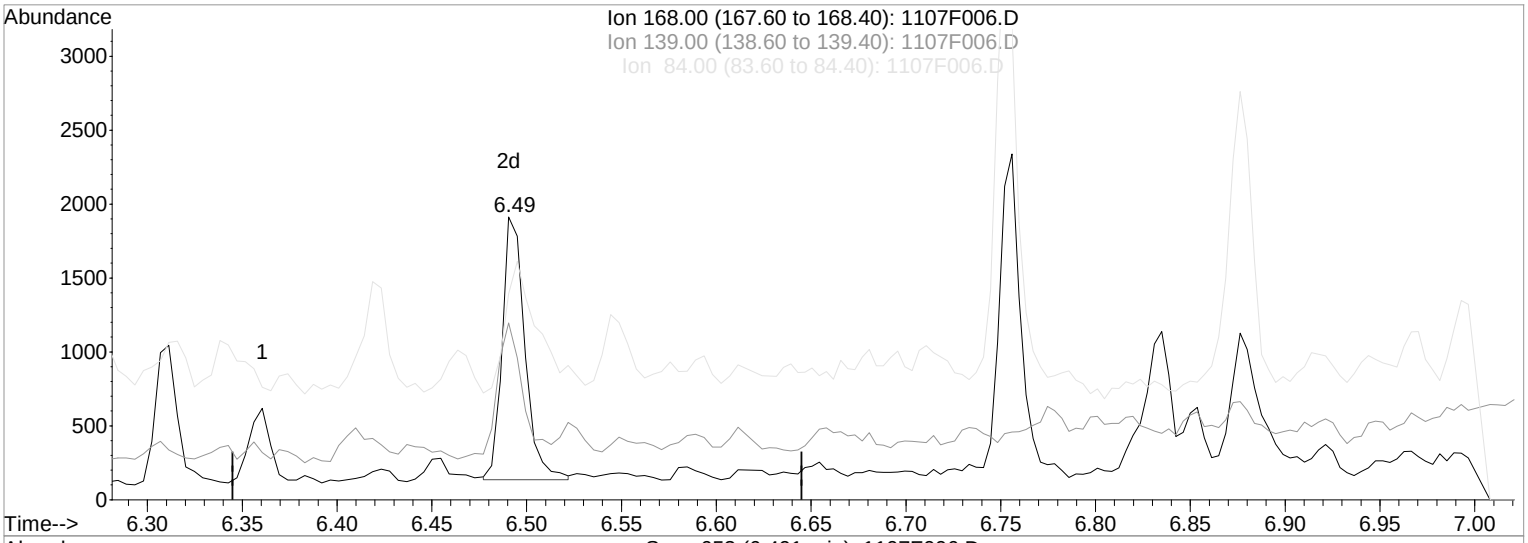
11/16/18

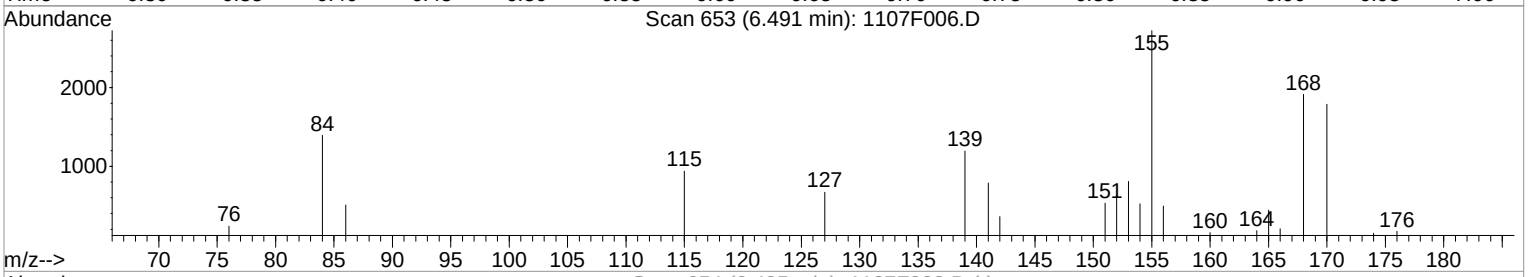
Quantitation Report (Qedit)

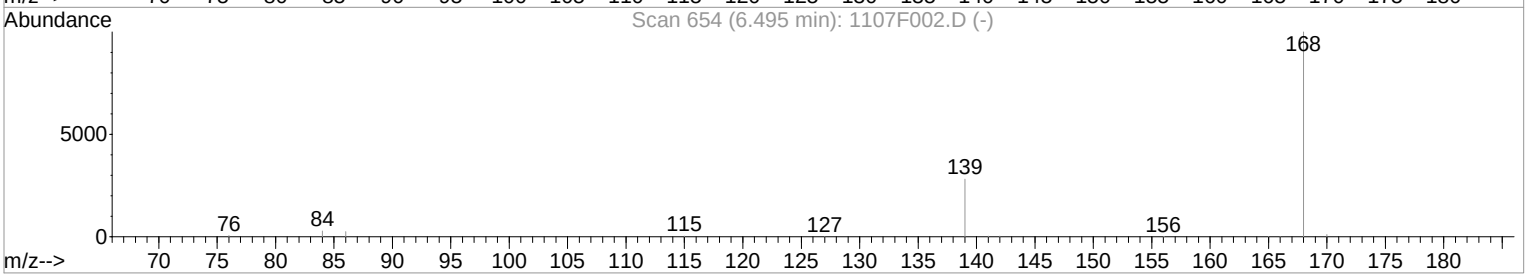
1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F006.D Vial: 6
Acq On : 7 Nov 2018 7:26 am Operator: LWeiskopf
Sample : K1810305-025 Inst : MS14
Misc : 2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 13:00 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Multiple Level Calibration







TIC: 1107F006.D

(11) Dibenzofuran (T)

6.49min 4.22ng/ml m

response 1483

Ion	Exp%	Act%
168.00	100	100
139.00	25.80	62.50#
84.00	3.50	72.86#
0.00	0.00	0.00

Manual Integration:

After

WP

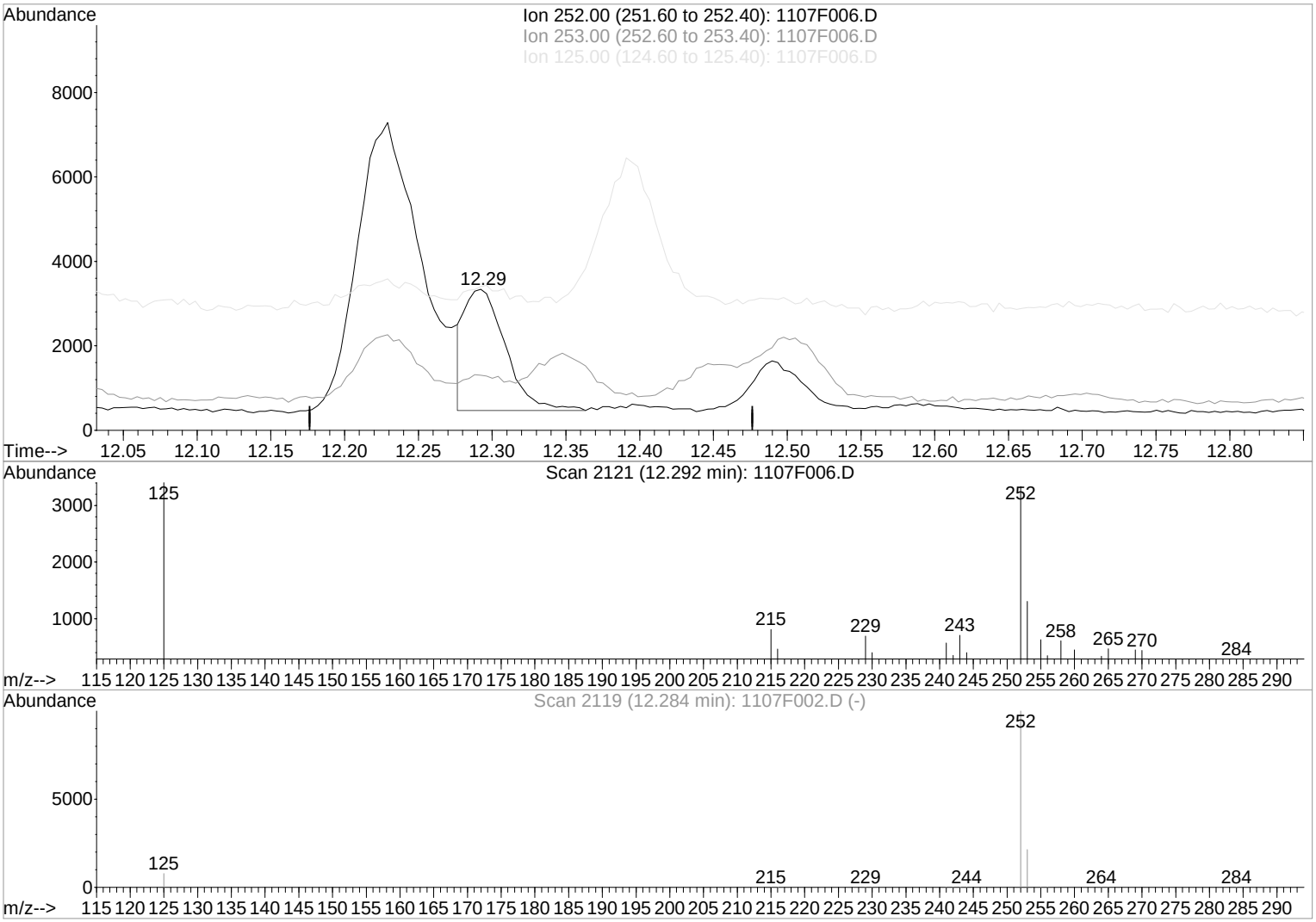
11/16/18

Quantitation Report (Qedit)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F006.D Vial: 6
Acq On : 7 Nov 2018 7:26 am Operator: LWeiskopf
Sample : K1810305-025 Inst : MS14
Misc : 2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 13:00 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Multiple Level Calibration



TIC: 1107F006.D

(30) Benzo(k)fluoranthene (T)

12.29min 9.84ng/ml

response 5583

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	6.83
125.00	9.70	11.08
0.00	0.00	0.00

Manual Integration:

Before

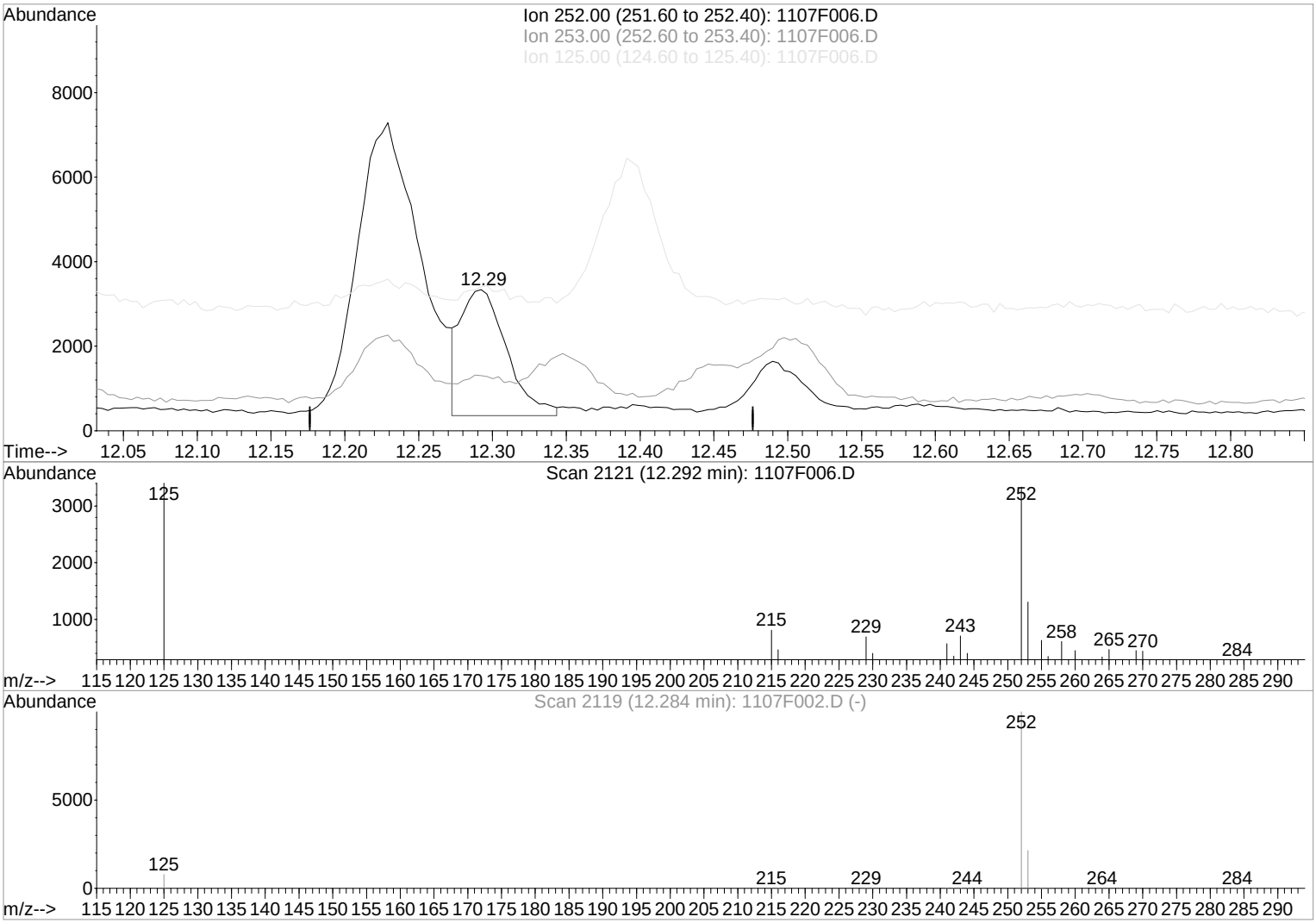
11/16/18

Quantitation Report (Qedit)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F006.D Vial: 6
Acq On : 7 Nov 2018 7:26 am Operator: LWeiskopf
Sample : K1810305-025 Inst : MS14
Misc : 2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 13:00 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Multiple Level Calibration



TIC: 1107F006.D

(30) Benzo(k)fluoranthene (T)

12.29min 11.39ng/ml m

response 6461

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	39.09
125.00	9.70	102.07#
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

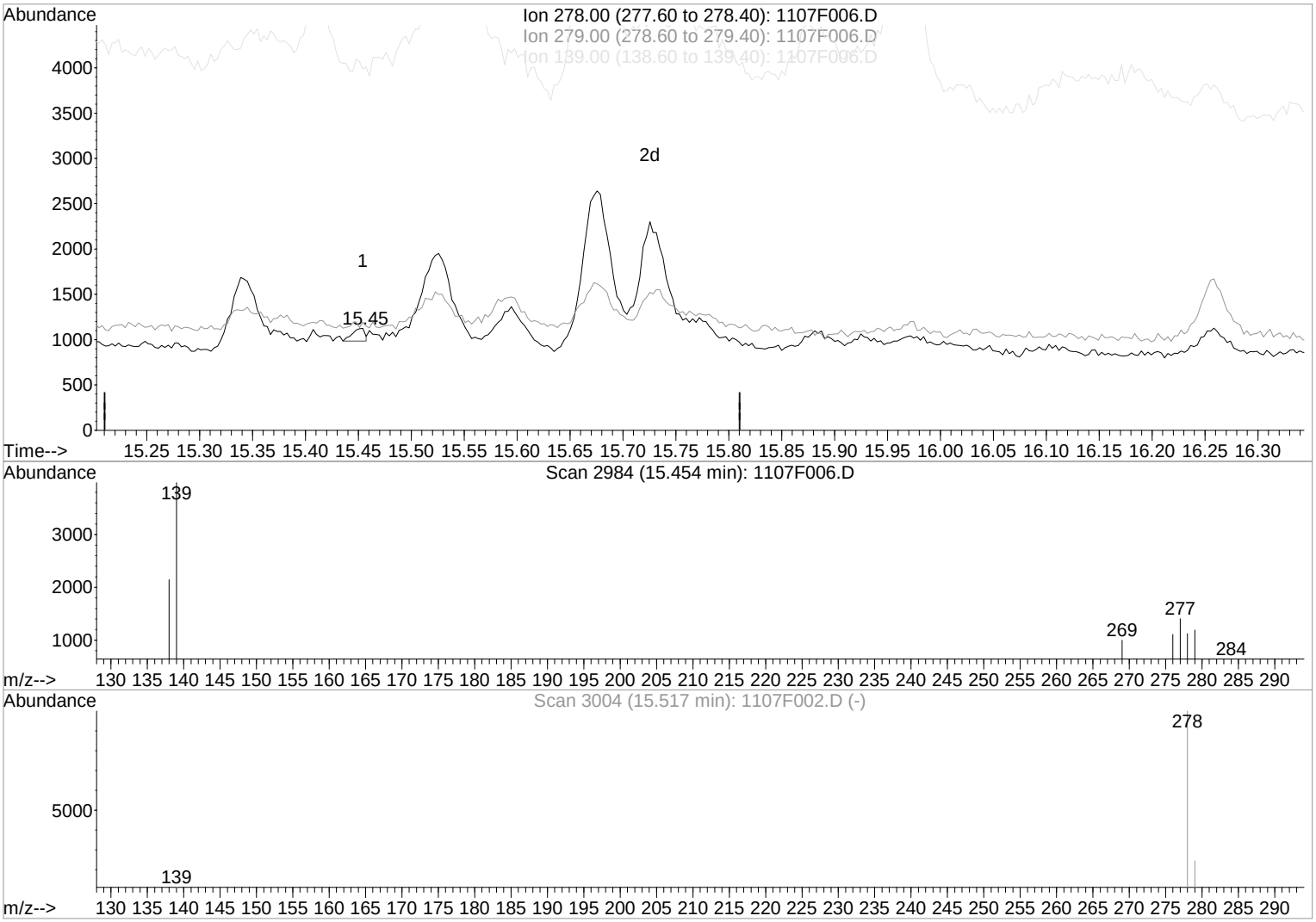
11/16/18

Quantitation Report (Qedit)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F006.D Vial: 6
Acq On : 7 Nov 2018 7:26 am Operator: LWeiskopf
Sample : K1810305-025 Inst : MS14
Misc : 2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 13:00 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Multiple Level Calibration



TIC: 1107F006.D

(35) Dibenz(a,h)anthracene (T)

15.45min 0.24ng/ml

response 118

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	46.10
139.00	15.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

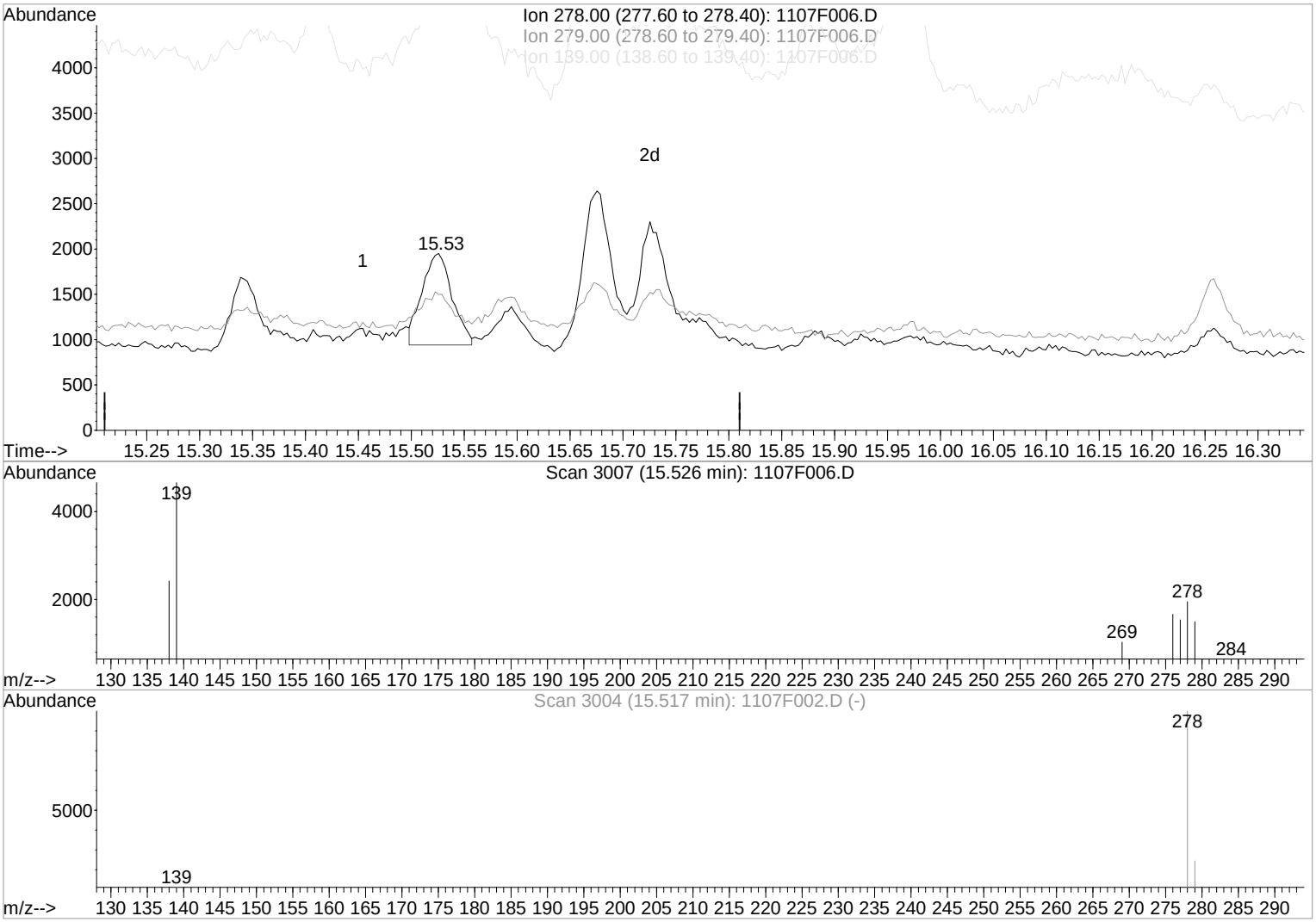
11/16/18

Quantitation Report (Qedit)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F006.D Vial: 6
Acq On : 7 Nov 2018 7:26 am Operator: LWeiskopf
Sample : K1810305-025 Inst : MS14
Misc : 2 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 13:01 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Multiple Level Calibration



TIC: 1107F006.D

(35) Dibenz(a,h)anthracene (T)

15.53min 4.00ng/ml m

response 1995

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	76.69#
139.00	15.00	238.73#
0.00	0.00	0.00

Manual Integration:

After

WP

11/16/18

1st 11/19/18
2nd 12/05/18

Exception Report

Data File: J:\MS14\DATA\110718\1107F008.D
Lab ID: K1810302-026
RunType: DL
Matrix: SEDIMENT

Date Acquired: 11/07/2018 08:27
Date Quantitated: 11/16/2018 13:18
Batch ID: KWG1806028
Analysis Method: 8270D SIM
ListJoinID: LJ12908

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	NA	NA	NA	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		
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	matrix

Primary Review: _____

Secondary Review: _____

1st 11/19/18
2nd 12/05/18

Quantitation Report

Data File:	J:\MS14\DATA\110718\1107F008.D			**Instrument:**	MS14
Acqu Date:	11/07/2018 08:27	**Quant Date:**	11/16/2018 13:18	**Vial:**	8
Run Type:	DL	**ListJoinID:**	LJ12908	**Dilution:**	10.0
Lab ID:	K1810302-026			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	IV	**Matrix:**	SEDIMENT
Prod Code:	8270D PAH SIM U	**Collect Date:**	10/21/2018	**Receive Date:**	10/22/2018

Analysis Lot:	KWG1806028	**Prep Lot:**	KWG1805647	**Report Group:**	K1810302
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1701156	**Prep Date:**	11/01/2018		

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ12908
Tune Ref:	J:\MS14\DATA\110718\1107F001.D	**Method ID:**	MJ1233
MB Ref:	J:\MS14\DATA\110618\1106F006.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	4.76	0.00	136	66314	200.00	OK
2	Acenaphthene-d10	6.32	0.00	164	32688	200.00	OK
3	Phenanthrene-d10	7.56	0.00	188	64217	200.00	OK
4	Chrysene-d12	10.12	0.01	240	84552	200.00	OK
5	Perylene-d12	13.32	0.04	264	93683	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	6.76	0.00	0.00	176	14977	71.66	72	26-102	OK	NR
3	Fluoranthene-d10	8.55	0.01	0.00	212	31941	78.92	79	23-110	OK	
4	Terphenyl-d14	8.89	0.00	0.00	244	29315	79.93	80	27-115	OK	

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.78		0.00	128	10247	26.77	20	D	NR
1	2-Methylnaphthalene	5.42		0.00	142	3029	13.12	9.6	D	NR
2	Acenaphthylene	6.20		0.00	152	7021	18.00	13	D	NR
2	Acenaphthene	6.34	-0.01	0.00	154	1693	7.56	5.5	D	NR
2	Dibenzofuran	6.50		0.00	168	1811**m**	5.04	3.7	JD	NR
2	Fluorene	6.78		0.00	166	2966	10.95	8.0	D	NR
3	Phenanthrene	7.58		0.00	178	46747	116.69	86	D	NR
3	Anthracene	7.62		0.00	178	11383	29.77	22	D	NR
3	Fluoranthene	8.56		0.00	202	116904	236.33	170	D	
4	Pyrene	8.76	0.01	0.00	202	157228	271.03	200	D	
4	Benz(a)anthracene	10.10		0.00	228	58609	107.21	79	D	
4	Chrysene	10.16	0.01	0.00	228	63789	121.82	89	D	

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:\MS14\DATA\110718\1107F008.D			**Instrument:**	MS14
Acqu Date:	11/07/2018 08:27	**Quant Date:**	11/16/2018 13:18	**Vial:**	8
Run Type:	DL	**ListJoinID:**	LJ12908	**Dilution:**	10.0
Lab ID:	K1810302-026			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
5	Benzo(b)fluoranthene	12.24	0.03	0.00	252	78434	135.51	99	D	
5	Benzo(k)fluoranthene	12.31	0.03	0.00	252	29453**m**	51.30	38	D	
5	Benzo(a)pyrene	13.14	0.03	0.00	252	72589	143.01	100	D	
5	Indeno(1,2,3-cd)pyrene	15.49	0.01	0.00	276	52629	105.74	78	D	
5	Dibenz(a,h)anthracene	15.53	0.01	0.00	278	7646	15.15	11	D	
5	Benzo(g,h,i)perylene	15.89	0.02	0.00	276	69897	119.92	88	D	

Prep Amount:	40.236 g	**Dilution:**	10.0
Prep Final Vol:	2 mL	**Unit Factor:**	1
Solids:	67.8 %		

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

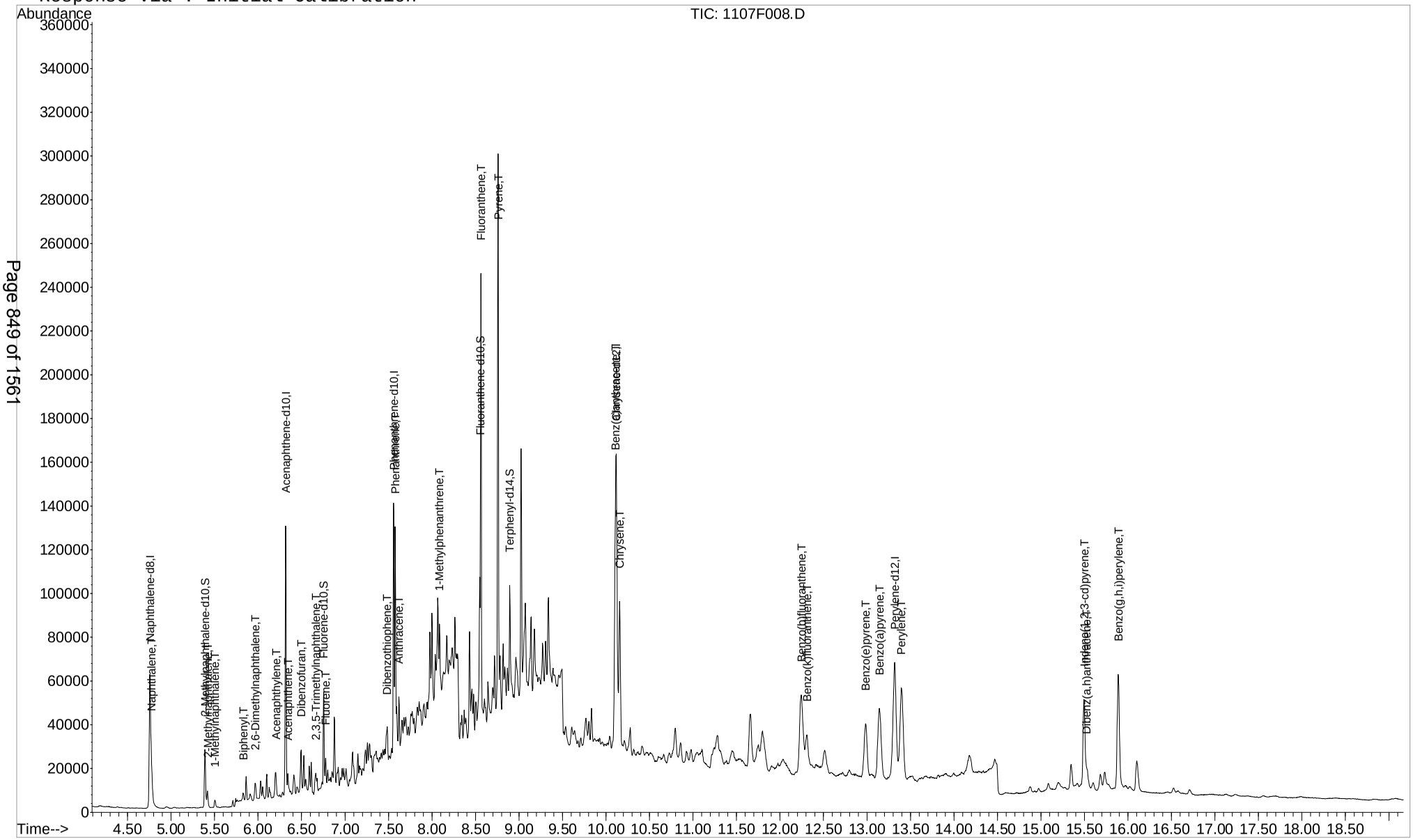
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 11/19/18
2nd 12/05/18

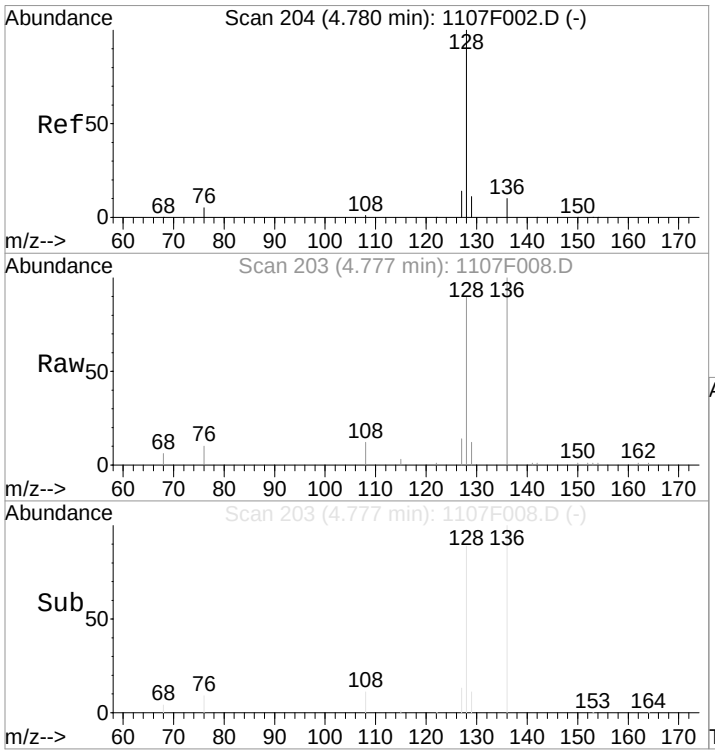
Data File : J:\MS14\DATA\110718\1107F008.D Vial: 8
Acq On : 7 Nov 2018 8:27 am Operator: LWeiskopf
Sample : K1810302-026DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 13:18 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Initial Calibration



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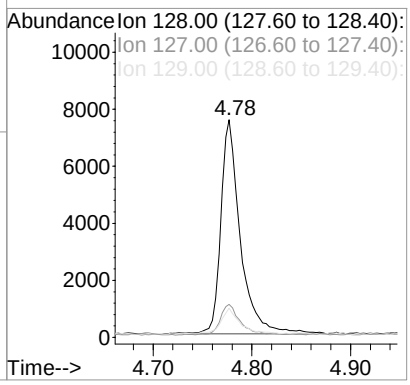
1st 11/19/18
2nd 12/05/18

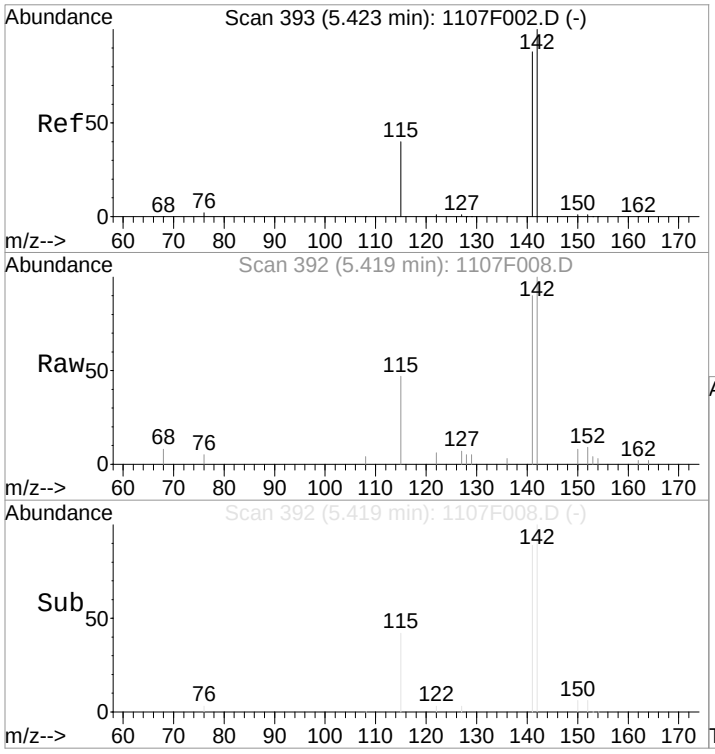


#2
Naphthalene
Concen: 26.77 ng/ml
RT: 4.78 min Scan# 203
Delta R.T. -0.00 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:128 Resp: 10247

Ion	Ratio	Lower	Upper
128	100		
127	13.9	0.0	43.7
129	12.1	0.0	30.8

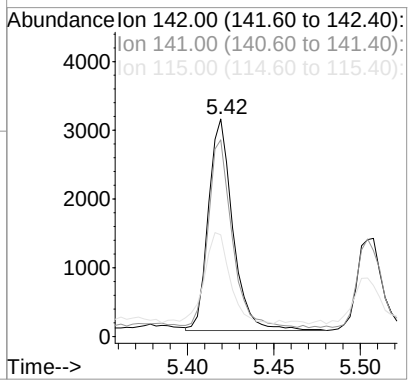


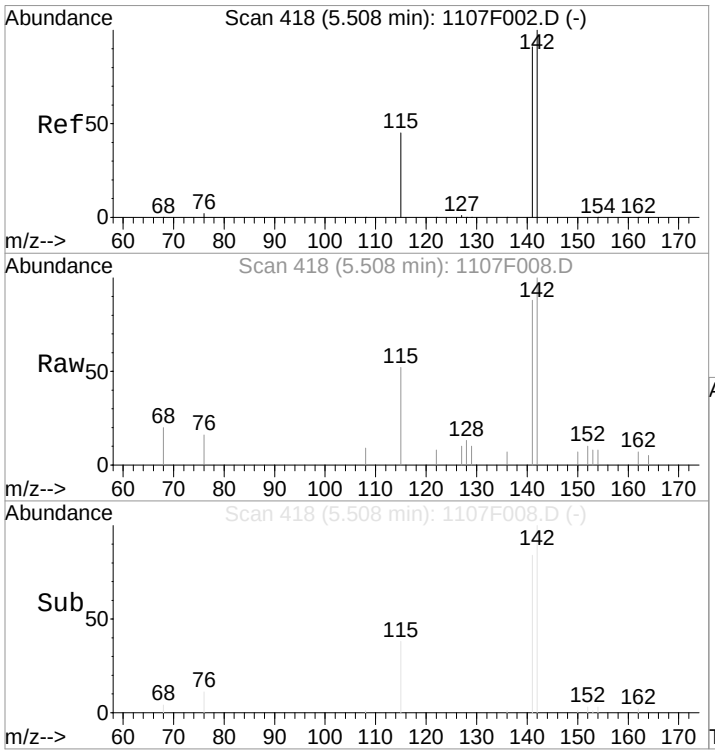


#4
2-Methylnaphthalene
Concen: 13.12 ng/ml
RT: 5.42 min Scan# 392
Delta R.T. -0.00 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:142 Resp: 3029

Ion	Ratio	Lower	Upper
142	100		
141	88.0	56.8	116.8
115	42.1	13.3	53.3

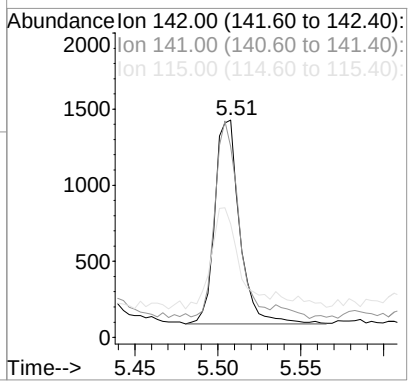


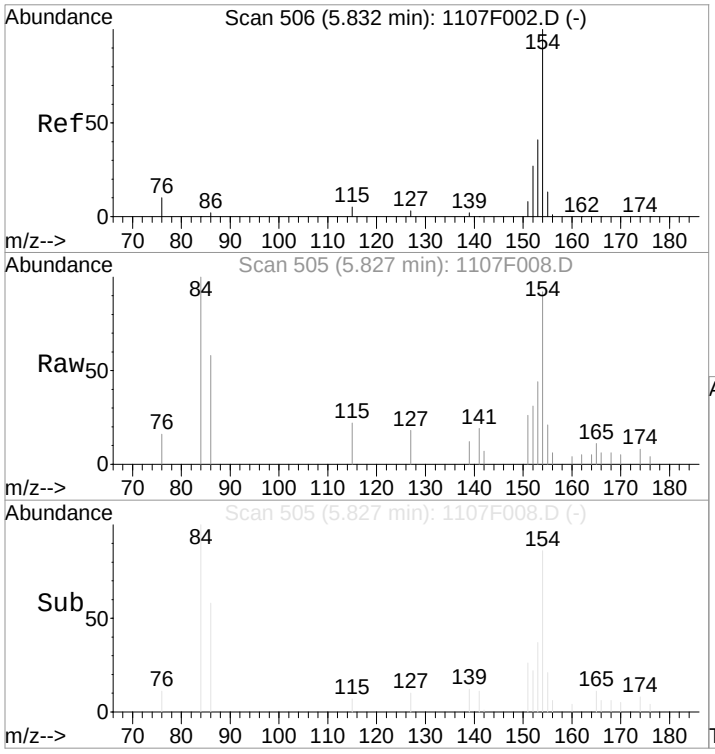


#5
1-Methylnaphthalene
Concen: 6.34 ng/ml
RT: 5.51 min Scan# 418
Delta R.T. 0.00 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:142 Resp: 1408

Ion	Ratio	Lower	Upper
142	100		
141	83.7	59.7	119.7
115	41.6	13.7	53.7

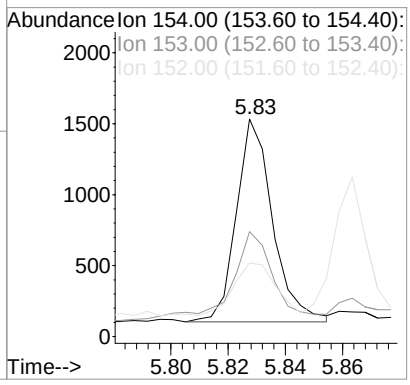


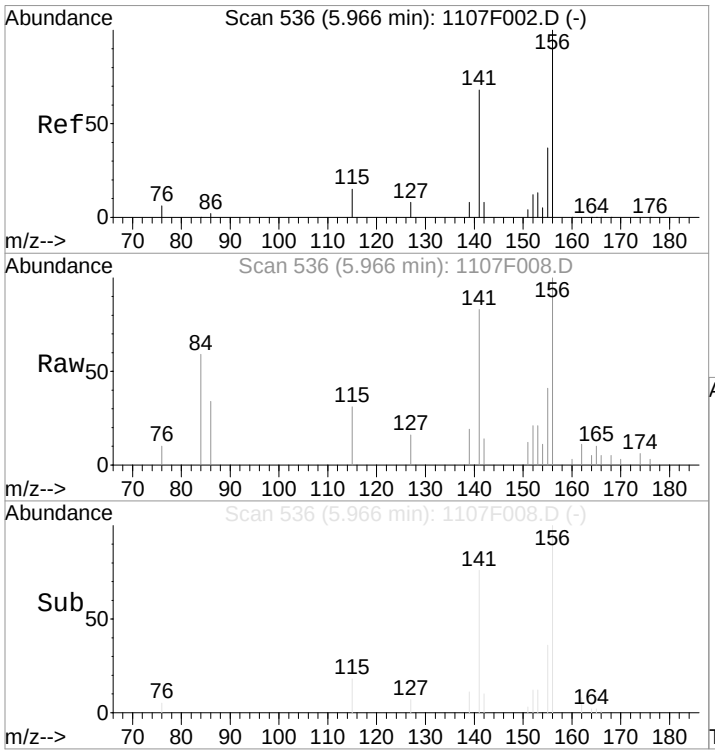


#6
Biphenyl
Concen: 4.37 ng/ml
RT: 5.83 min Scan# 505
Delta R.T. -0.00 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:154 Resp: 1258

Ion	Ratio	Lower	Upper
154	100		
153	40.6	11.4	71.4
152	25.2	7.1	47.1

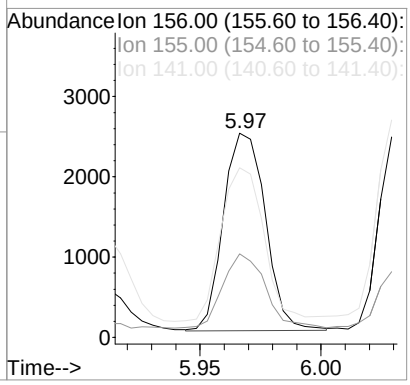


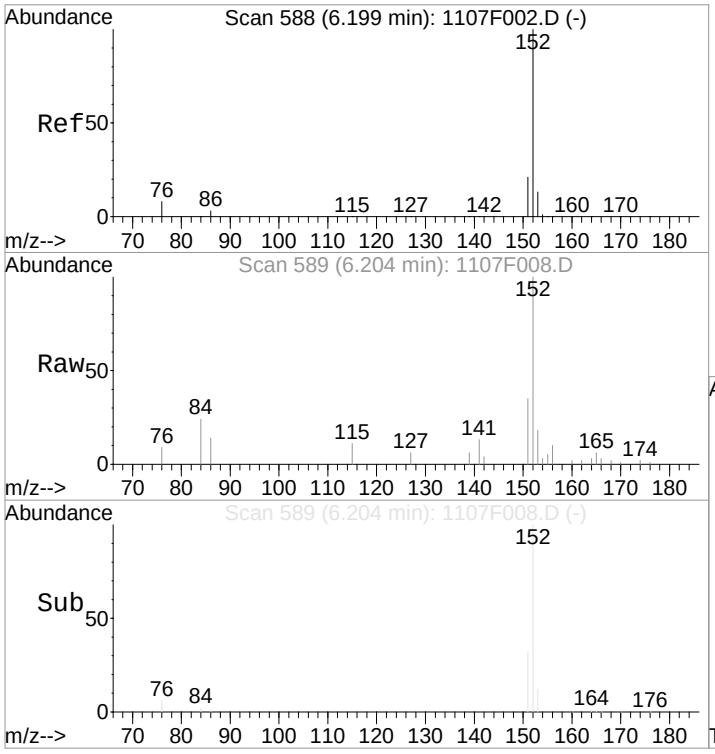


#7
2,6-Dimethylnaphthalene
Concen: 14.98 ng/ml
RT: 5.97 min Scan# 536
Delta R.T. 0.00 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:156 Resp: 2968

Ion	Ratio	Lower	Upper
156	100		
155	37.6	7.0	67.0
141	77.8	47.9	87.9

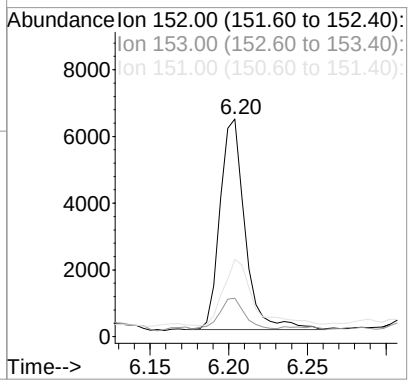


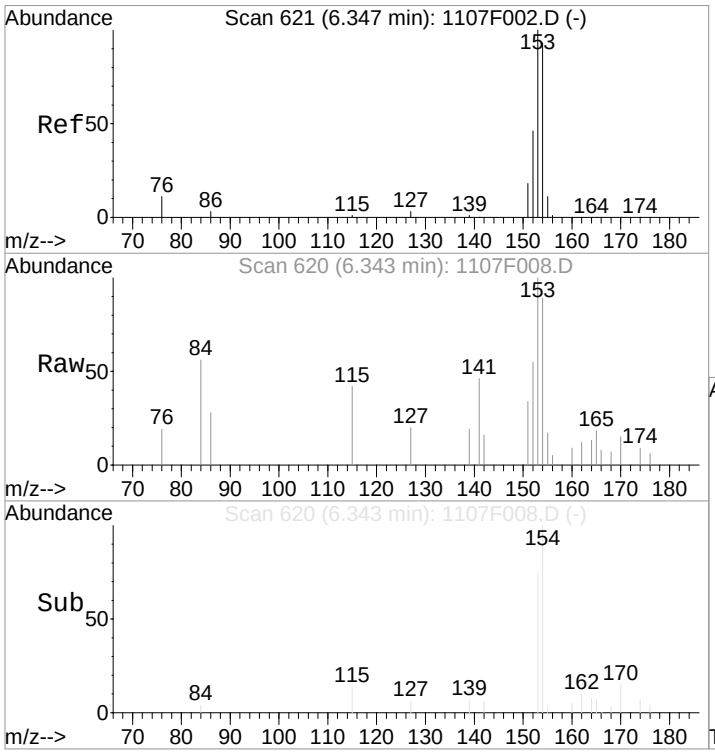


#9
Acenaphthylene
Concen: 18.00 ng/ml
RT: 6.20 min Scan# 589
Delta R.T. 0.00 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:152 Resp: 7021

Ion	Ratio	Lower	Upper
152	100		
153	14.7	0.0	42.9
151	31.1	0.2	40.2

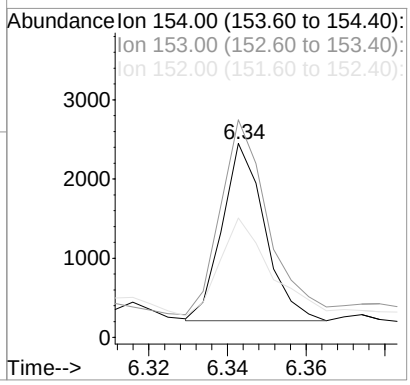


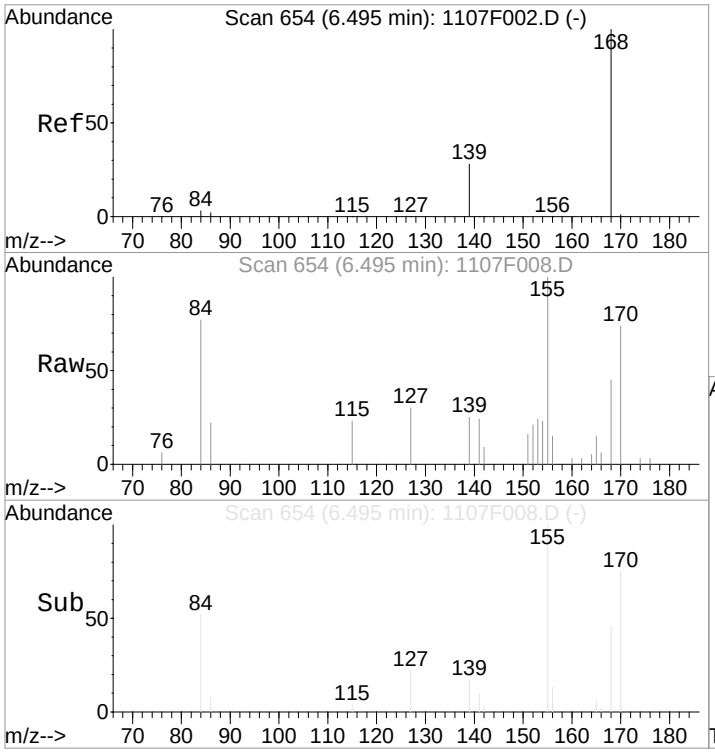


#10
Acenaphthene
Concen: 7.56 ng/ml
RT: 6.34 min Scan# 620
Delta R.T. -0.00 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:154 Resp: 1693

Ion	Ratio	Lower	Upper
154	100		
153	109.9	77.1	137.1
152	55.3	19.7	79.7

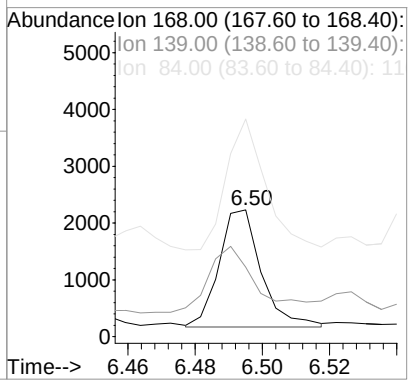


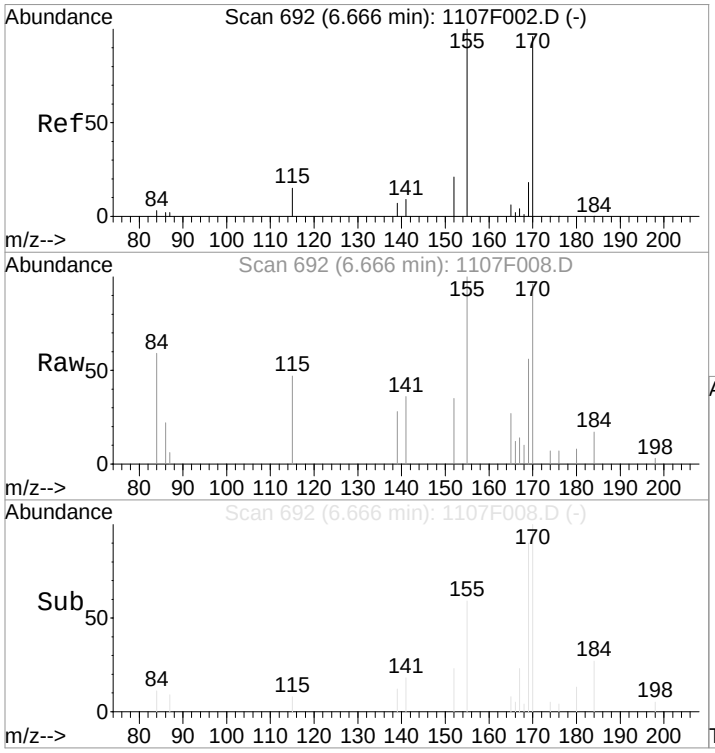


#11
Dibenzofuran
Concen: 5.04 ng/ml m
RT: 6.50 min Scan# 654
Delta R.T. 0.00 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:168 Resp: 1811

Ion	Ratio	Lower	Upper
168	100		
139	54.7	0.0	55.8
84	171.4	0.0	23.5#

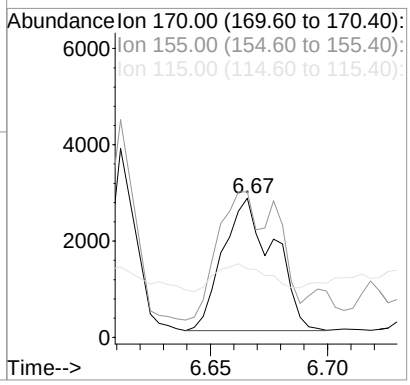


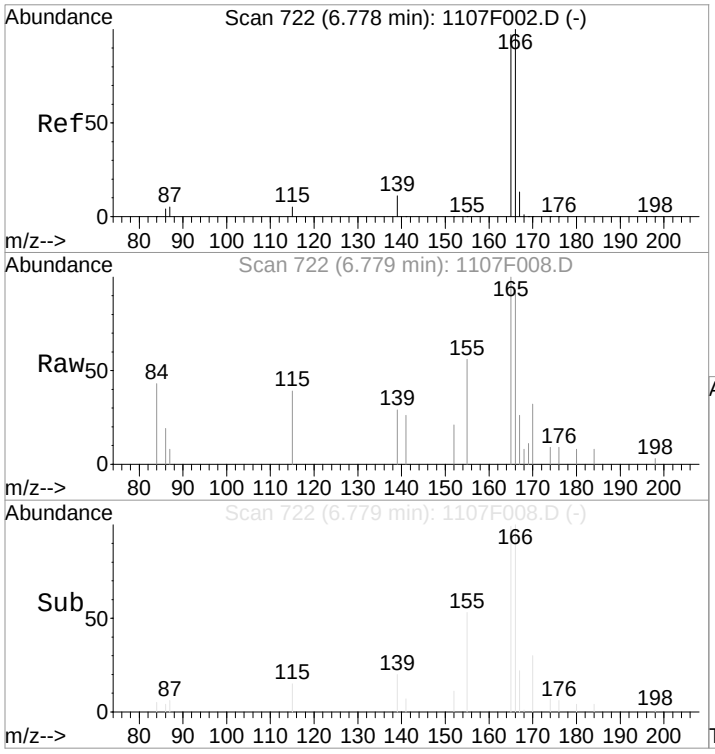


#12
2,3,5-Trimethylnaphthalene
Concen: 20.16 ng/ml
RT: 6.67 min Scan# 692
Delta R.T. 0.00 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:170 Resp: 4178

Ion	Ratio	Lower	Upper
170	100		
155	97.0	59.2	119.2
115	15.9	0.0	30.1

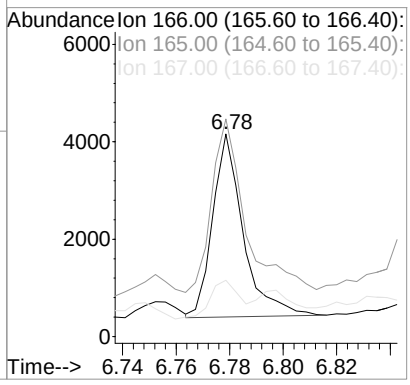




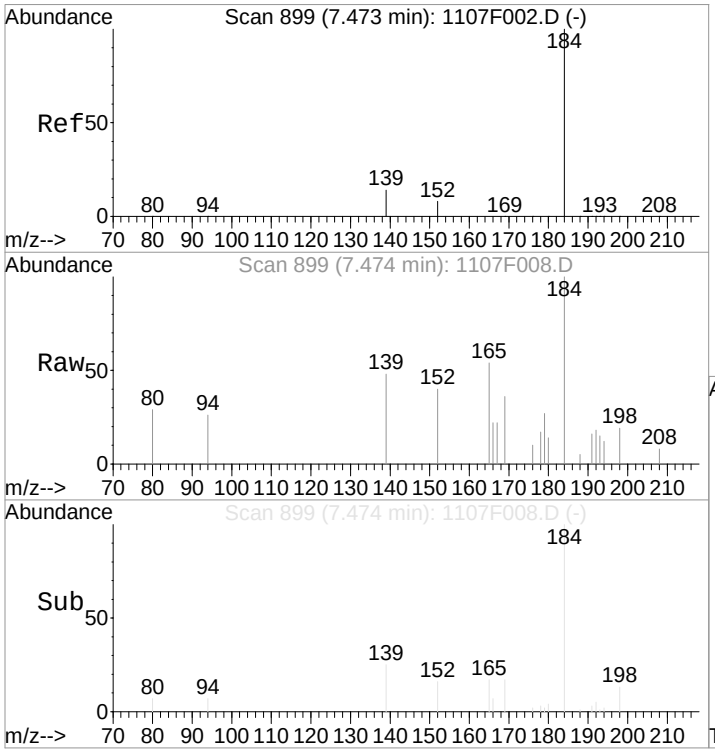
#14
Fluorene
Concen: 10.95 ng/ml
RT: 6.78 min Scan# 722
Delta R.T. 0.00 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:166 Resp: 2966

Ion	Ratio	Lower	Upper
166	100		
165	95.7	63.4	123.4
167	20.3	0.0	33.1



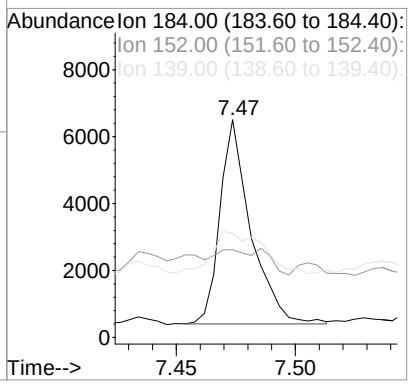
1st 11/19/18
2nd 12/05/18

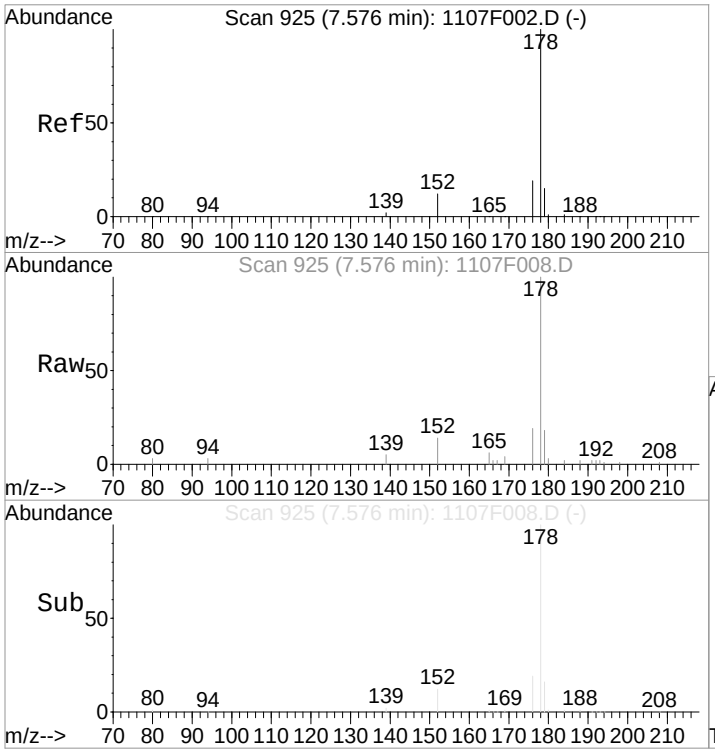


#16
Dibenzothiophene
Concen: 13.77 ng/ml
RT: 7.47 min Scan# 899
Delta R.T. 0.00 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:184 Resp: 5516

Ion	Ratio	Lower	Upper
184	100		
152	11.5	0.0	37.8
139	17.9	0.0	32.6

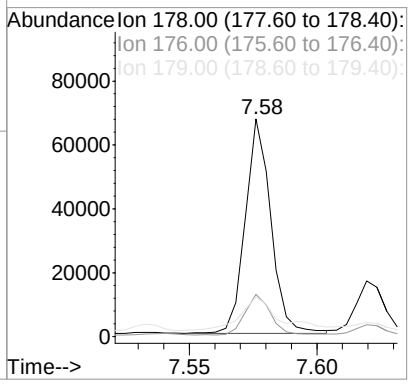




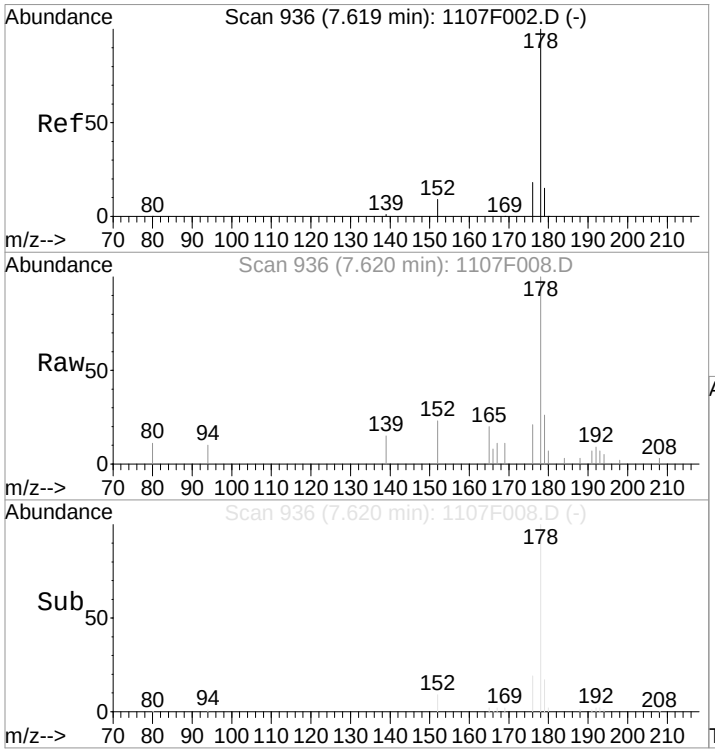
#17
Phenanthrene
Concen: 116.69 ng/ml
RT: 7.58 min Scan# 925
Delta R.T. 0.00 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:178 Resp: 46747

Ion	Ratio	Lower	Upper
178	100		
176	18.8	0.0	48.7
179	15.6	0.0	35.1



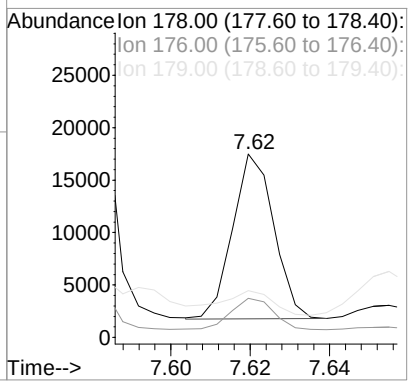
1st 11/19/18
2nd 12/05/18

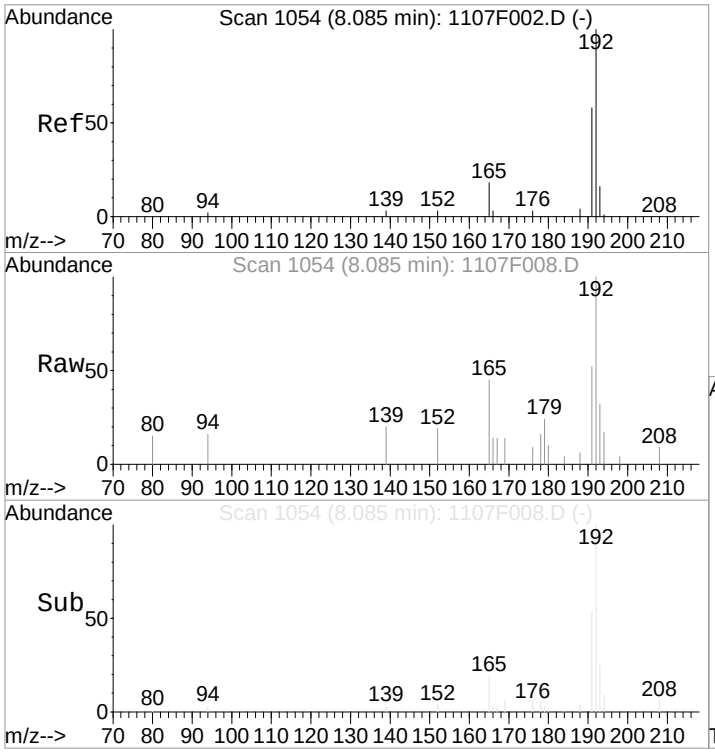


#18
Anthracene
Concen: 29.77 ng/ml
RT: 7.62 min Scan# 936
Delta R.T. 0.00 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:178 Resp: 11383

Ion	Ratio	Lower	Upper
178	100		
176	19.1	0.0	48.0
179	13.4	0.0	35.1

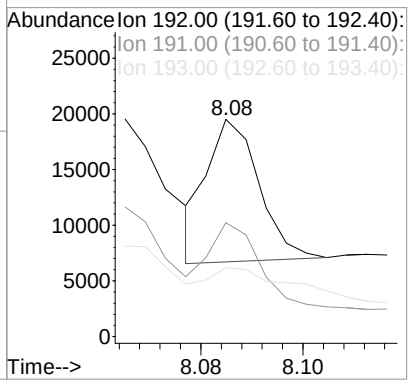




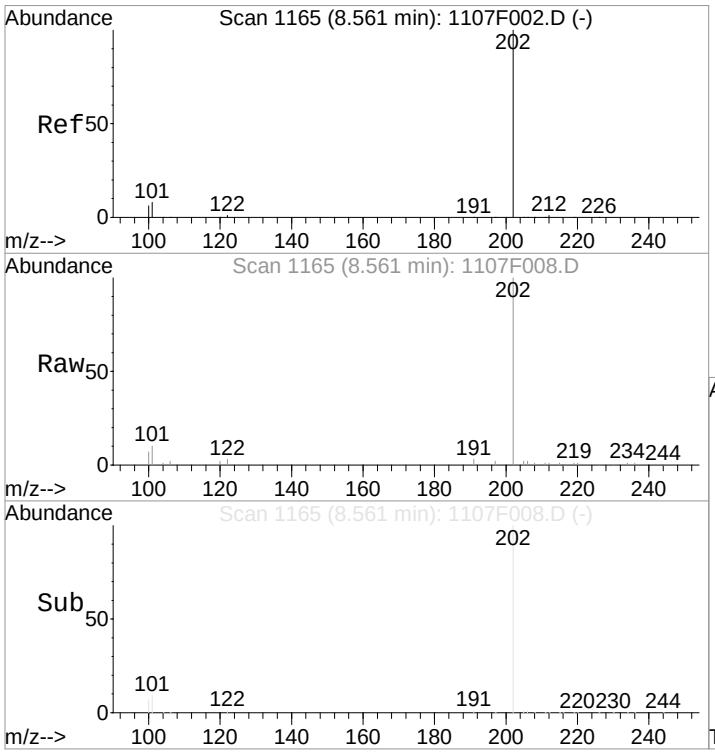
#20
1-Methylphenanthrene
Concen: 29.87 ng/ml
RT: 8.08 min Scan# 1054
Delta R.T. 0.00 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:192 Resp: 9064

Ion	Ratio	Lower	Upper
192	100		
191	60.8	27.7	87.7
193	16.7	0.0	45.4



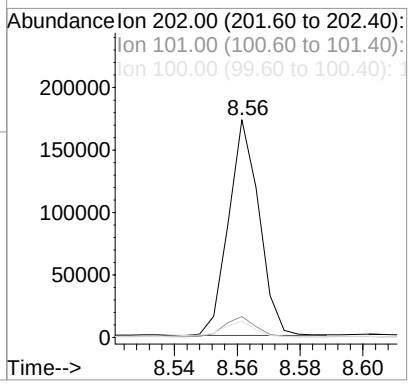
1st 11/19/18
2nd 12/05/18

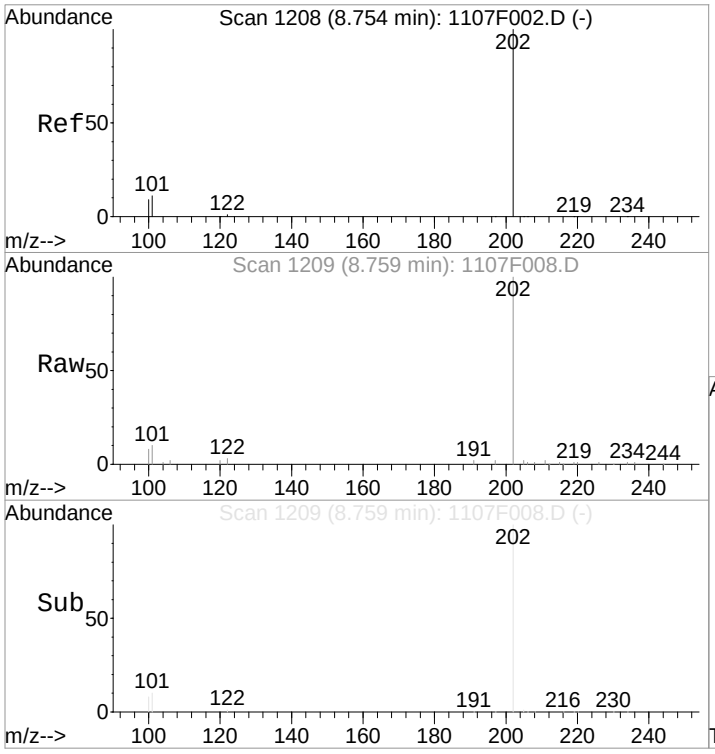


#21
Fluoranthene
Concen: 236.33 ng/ml
RT: 8.56 min Scan# 1165
Delta R.T. 0.00 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:202 Resp: 116904

Ion	Ratio	Lower	Upper
202	100		
101	9.4	0.0	41.3
100	7.0	0.0	28.6

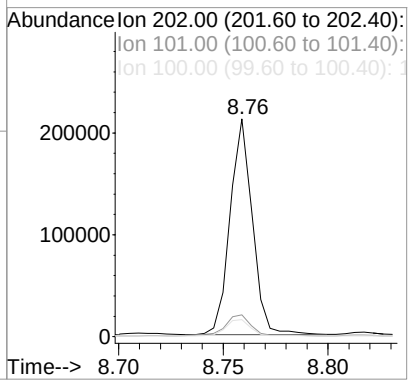


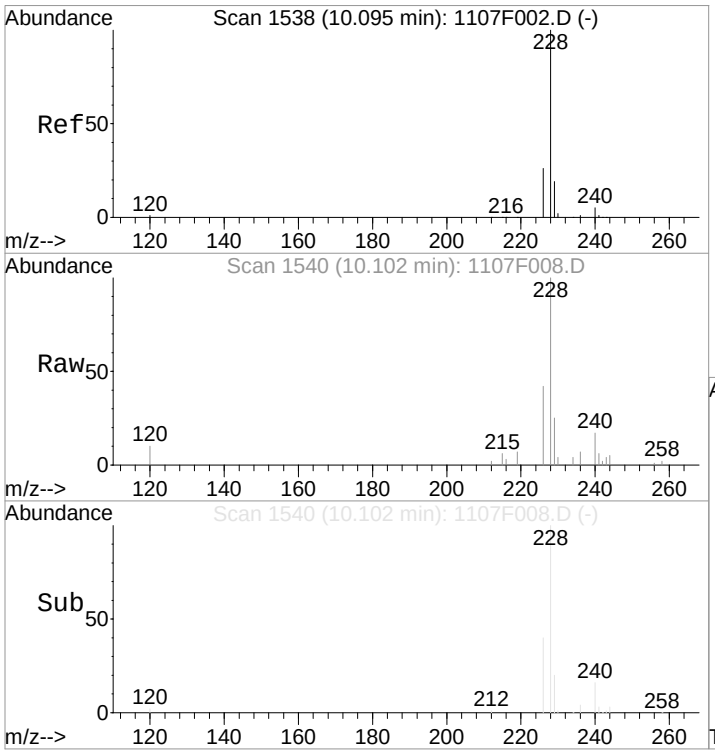


#24
Pyrene
Concen: 271.03 ng/ml
RT: 8.76 min Scan# 1209
Delta R.T. 0.00 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:202 Resp: 157228

Ion	Ratio	Lower	Upper
202	100		
101	9.7	0.0	40.8
100	7.6	0.0	28.5

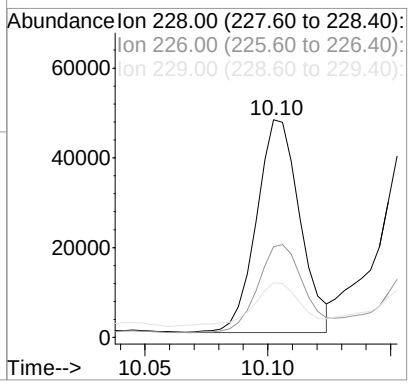


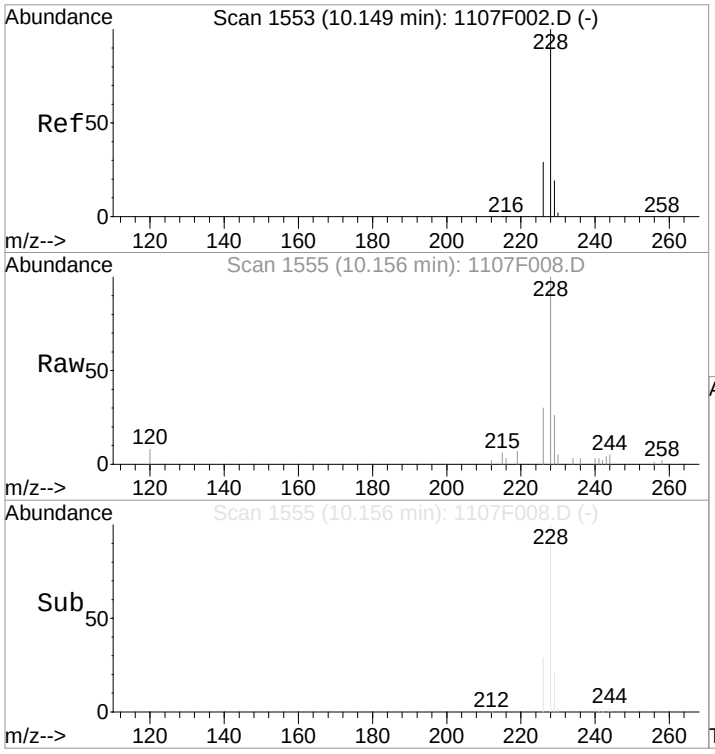


#26
Benz(a)anthracene
Concen: 107.21 ng/ml
RT: 10.10 min Scan# 1540
Delta R.T. 0.01 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:228 Resp: 58609

Ion	Ratio	Lower	Upper
228	100		
226	40.4	0.0	56.3
229	20.0	0.0	39.1

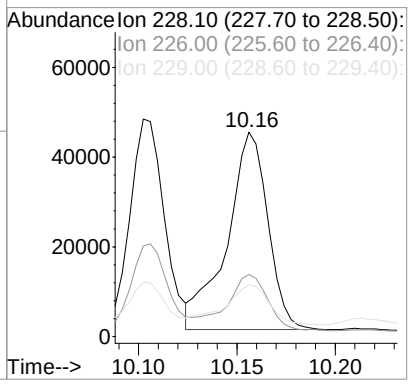


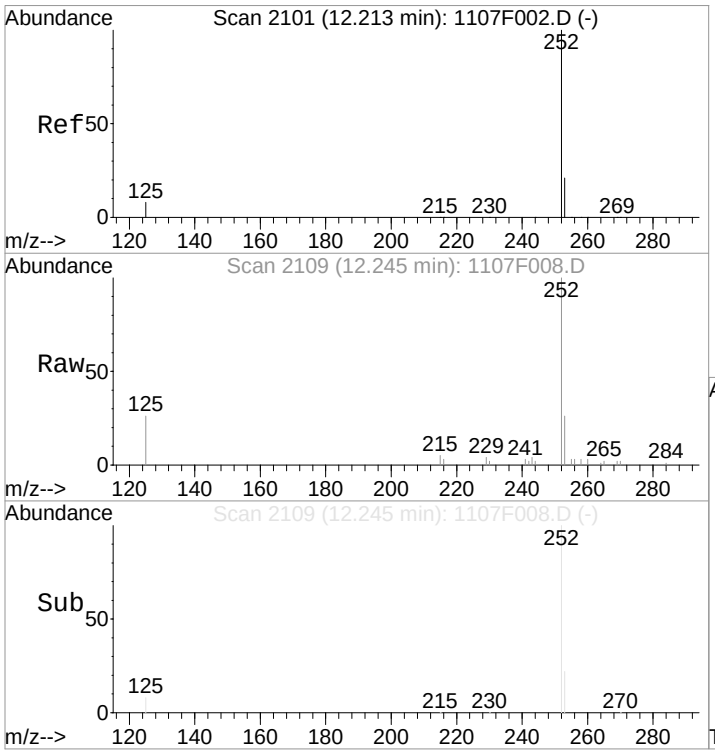


#27
Chrysene
Concen: 121.82 ng/ml
RT: 10.16 min Scan# 1555
Delta R.T. 0.01 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:228 Resp: 63789

Ion	Ratio	Lower	Upper
228	100		
226	28.2	0.0	58.7
229	20.4	0.0	39.2

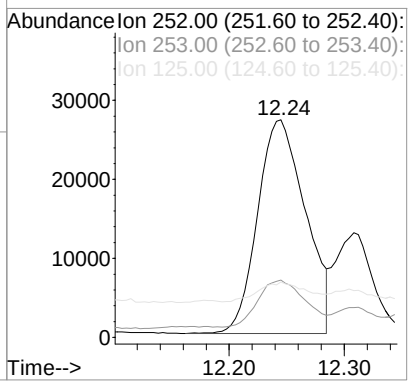


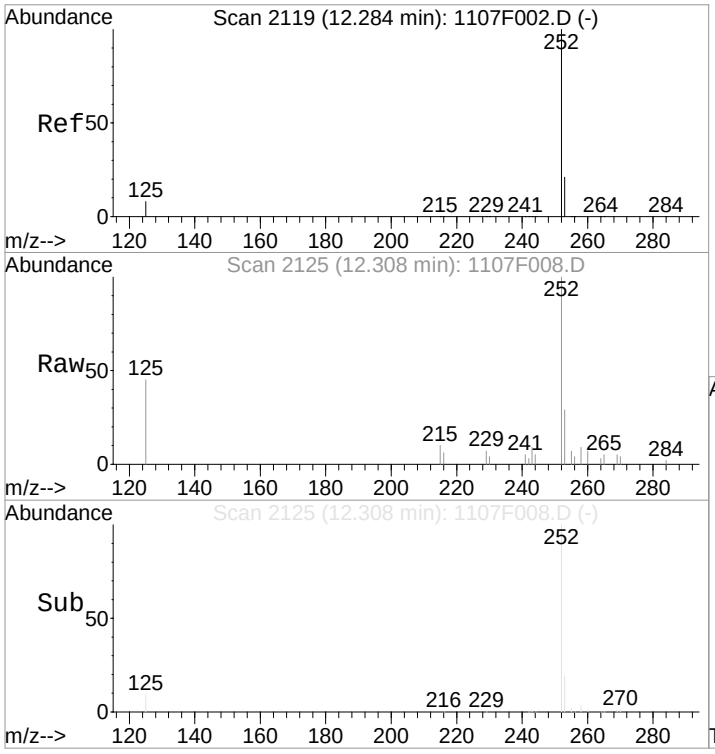


#29
Benzo(b)fluoranthene
Concen: 135.51 ng/ml
RT: 12.24 min Scan# 2109
Delta R.T. 0.04 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:252 Resp: 78434

Ion	Ratio	Lower	Upper
252	100		
253	21.8	0.0	51.2
125	9.5	0.0	29.5

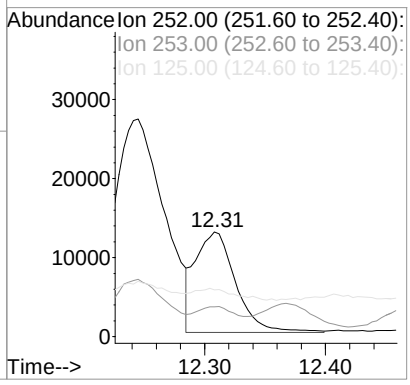


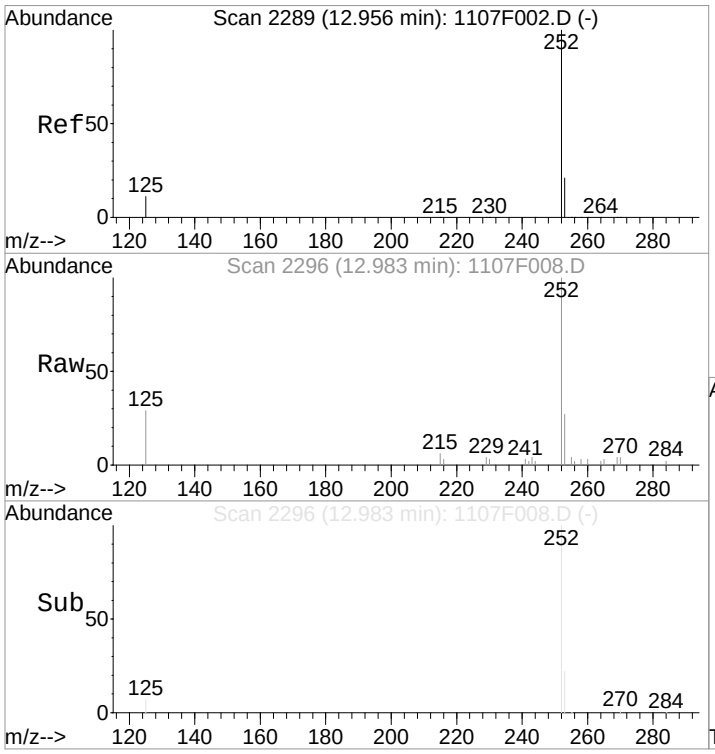


#30
Benzo(k)fluoranthene
Concen: 51.30 ng/ml m
RT: 12.31 min Scan# 2125
Delta R.T. 0.03 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:252 Resp: 29453

Ion	Ratio	Lower	Upper
252	100		
253	28.6	0.0	51.2
125	44.6	0.0	29.7#

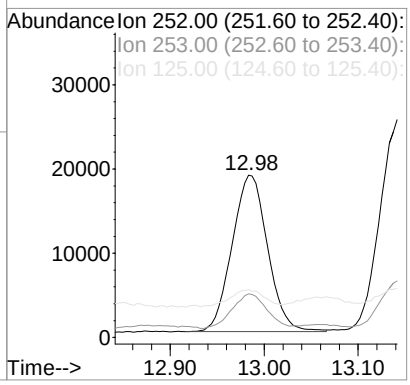


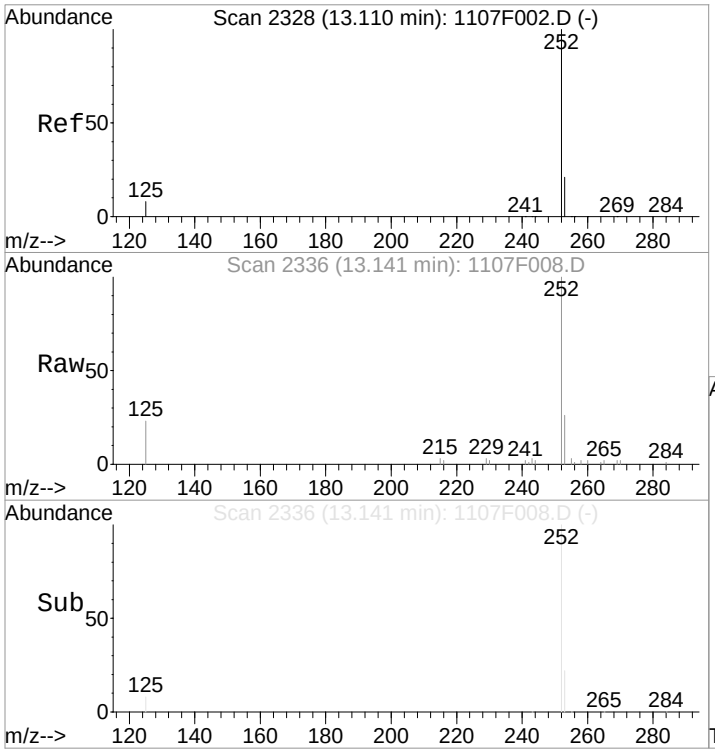


#31
Benzo(e)pyrene
Concen: 88.81 ng/ml
RT: 12.98 min Scan# 2296
Delta R.T. 0.04 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:252 Resp: 48996

Ion	Ratio	Lower	Upper
252	100		
253	20.9	0.0	51.3
125	11.1	0.0	33.5

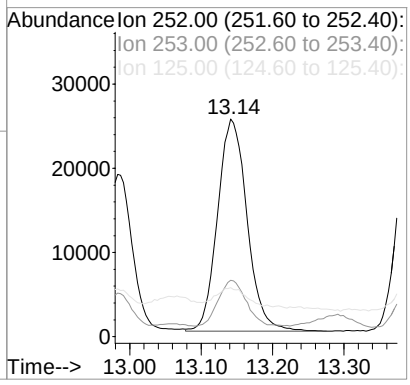




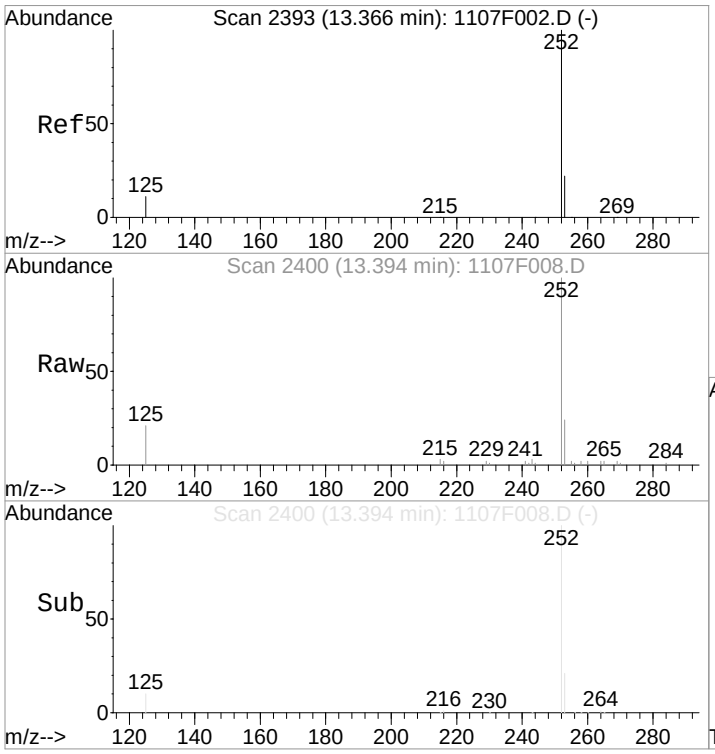
#32
Benzo(a)pyrene
Concen: 143.01 ng/ml
RT: 13.14 min Scan# 2336
Delta R.T. 0.04 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:252 Resp: 72589

Ion	Ratio	Lower	Upper
252	100		
253	21.0	0.0	50.9
125	10.1	0.0	30.3



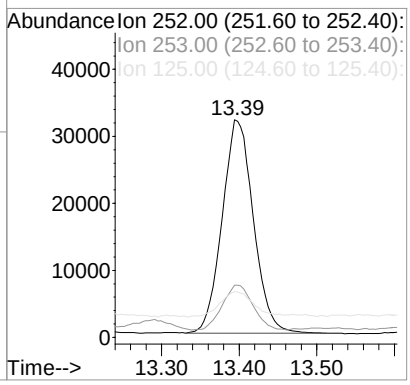
1st 11/19/18
2nd 12/05/18

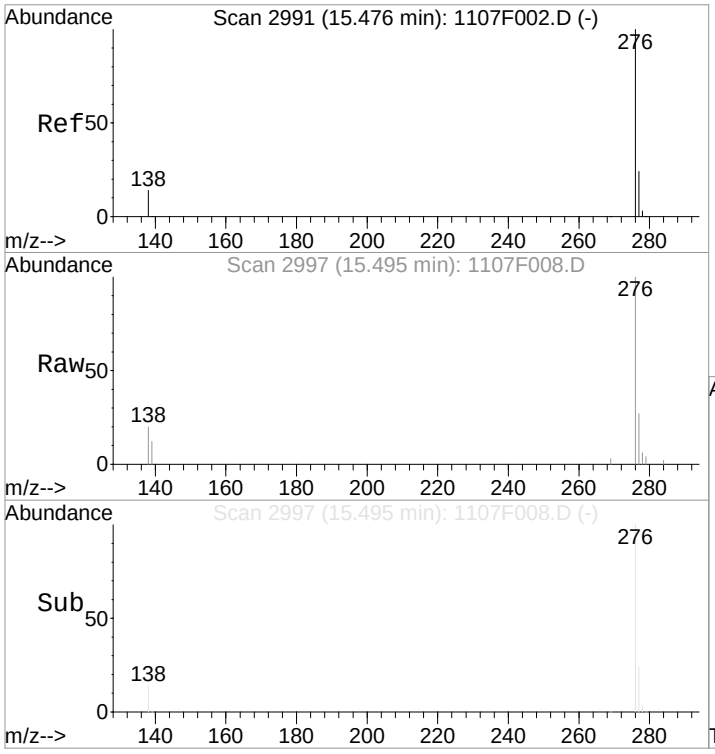


#33
Perylene
Concen: 167.15 ng/ml
RT: 13.39 min Scan# 2400
Delta R.T. 0.04 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:252 Resp: 89003

Ion	Ratio	Lower	Upper
252	100		
253	20.4	0.0	51.2
125	11.5	0.0	33.8

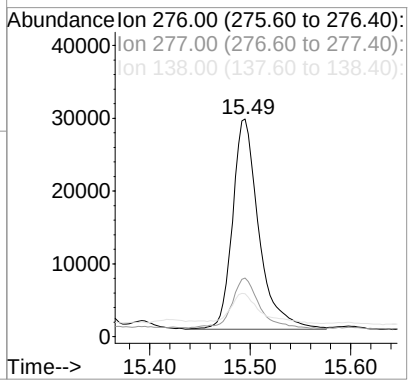


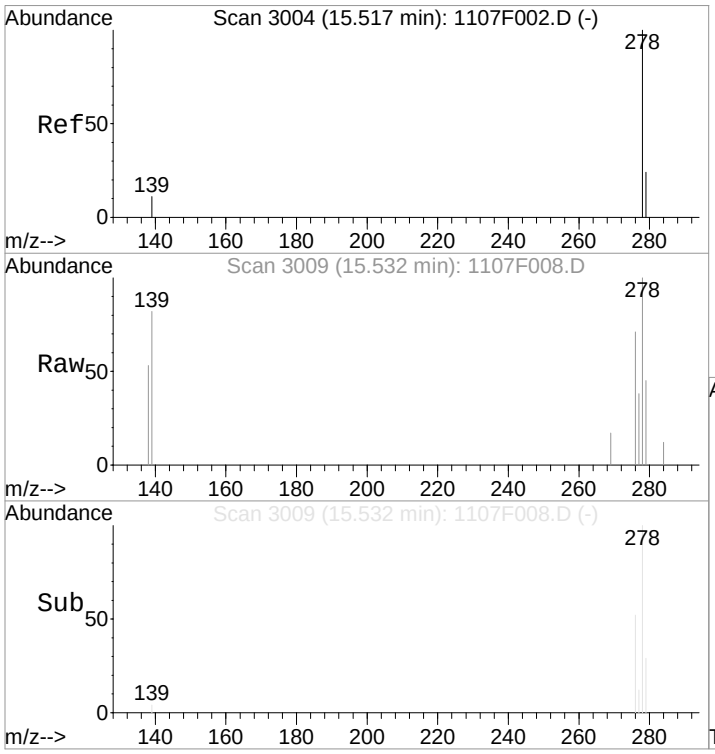


#34
Indeno(1,2,3-cd)pyrene
Concen: 105.74 ng/ml
RT: 15.49 min Scan# 2997
Delta R.T. 0.03 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:276 Resp: 52629

Ion	Ratio	Lower	Upper
276	100		
277	24.0	0.0	53.4
138	14.0	0.0	37.7

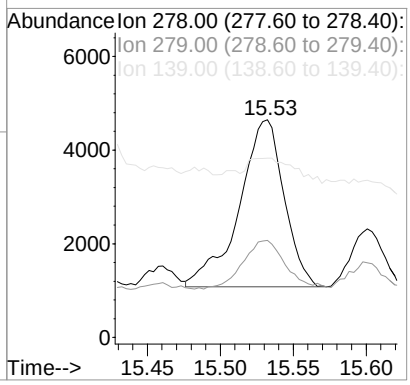


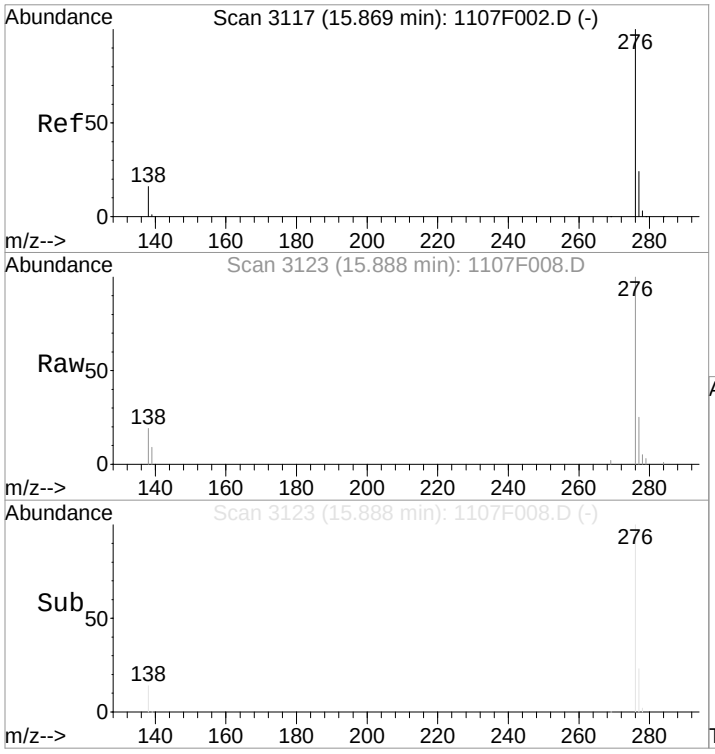


#35
Dibenz(a,h)anthracene
Concen: 15.15 ng/ml
RT: 15.53 min Scan# 3009
Delta R.T. 0.02 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:278 Resp: 7646

Ion	Ratio	Lower	Upper
278	100		
279	28.2	0.0	53.5
139	12.9	0.0	35.0

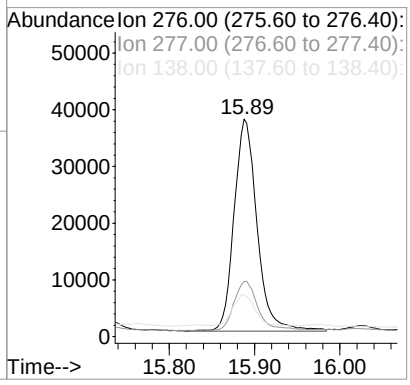




#36
Benzo(g,h,i)perylene
Concen: 119.92 ng/ml
RT: 15.89 min Scan# 3123
Delta R.T. 0.03 min
Lab File: 1107F008.D
Acq: 7 Nov 2018 8:27 am

Tgt Ion:276 Resp: 69897

Ion	Ratio	Lower	Upper
276	100		
277	23.1	0.0	53.1
138	14.4	0.0	39.2



Quantitation Report (QT Reviewed)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F008.D Vial: 8
Acq On : 7 Nov 2018 8:27 am Operator: LWeiskopf
Sample : K1810302-026DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 12:56:05 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.76	136	66314	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.32	164	32688	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.56	188	64217	200.00	ng/ml	0.00
23) Chrysene-d12	10.12	240	84552	200.00	ng/ml	0.01
28) Perylene-d12	13.32	264	93683	200.00	ng/ml	0.05
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.39	152	10233	55.28	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	5.53%		
13) Fluorene-d10	6.76	176	14977	71.66	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	7.17%		
22) Fluoranthene-d10	8.55	212	31941	78.92	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	7.89%		
25) Terphenyl-d14	8.89	244	29315	79.93	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	7.99%		
Target Compounds						Qvalue
2) Naphthalene	4.78	128	10247	26.77	ng/ml	98
4) 2-Methylnaphthalene	5.42	142	3029	13.12	ng/ml	95
5) 1-Methylnaphthalene	5.51	142	1408	6.34	ng/ml	92
6) Biphenyl	5.83	154	1258	4.37	ng/ml	98
7) 2,6-Dimethylnaphthalene	5.97	156	2968	14.98	ng/ml	92
9) Acenaphthylene	6.20	152	7021	18.00	ng/ml	84
10) Acenaphthene	6.34	154	1693	7.56	ng/ml	96
11) Dibenzofuran	6.50	168	1811m	5.04	ng/ml	
12) 2,3,5-Trimethylnaphthalene	6.67	170	4178	20.16	ng/ml	91
14) Fluorene	6.78	166	2966	10.95	ng/ml	96
16) Dibenzothiophene	7.47	184	5516	13.77	ng/ml	88
17) Phenanthrene	7.58	178	46747	116.69	ng/ml	99
18) Anthracene	7.62	178	11383	29.77	ng/ml	97
20) 1-Methylphenanthrene	8.08	192	9064	29.87	ng/ml	96
21) Fluoranthene	8.56	202	116904	236.33	ng/ml	95
24) Pyrene	8.76	202	157228	271.03	ng/ml	97
26) Benz(a)anthracene	10.10	228	58609	107.21	ng/ml	83
27) Chrysene	10.16	228	63789	121.82	ng/ml	98
29) Benzo(b)fluoranthene	12.24	252	78434	135.51	ng/ml	99
30) Benzo(k)fluoranthene	12.31	252	29453m	51.30	ng/ml	
31) Benzo(e)pyrene	12.98	252	48996	88.81	ng/ml	97
32) Benzo(a)pyrene	13.14	252	72589	143.01	ng/ml	100
33) Perylene	13.39	252	89003	167.15	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.49	276	52629	105.74	ng/ml	96
35) Dibenz(a,h)anthracene	15.53	278	7646	15.15	ng/ml	92
36) Benzo(g,h,i)perylene	15.89	276	69897	119.92	ng/ml	95

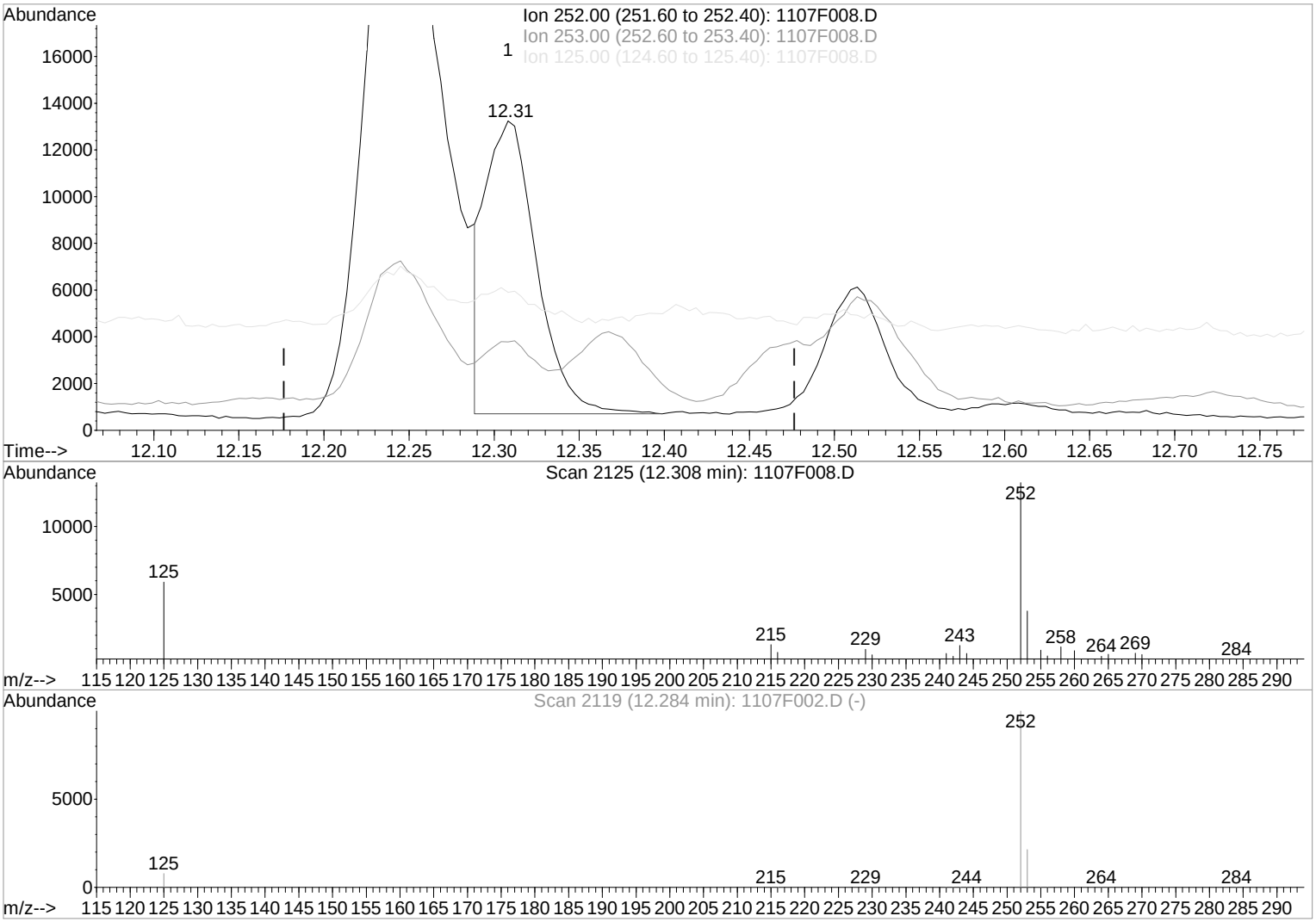
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F008.D Vial: 8
Acq On : 7 Nov 2018 8:27 am Operator: LWeiskopf
Sample : K1810302-026DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 13:18 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Multiple Level Calibration



TIC: 1107F008.D

(30) Benzo(k)fluoranthene (T)

12.31min 46.01ng/ml

response 26416

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	14.53
125.00	9.70	7.31
0.00	0.00	0.00

Manual Integration:

Before

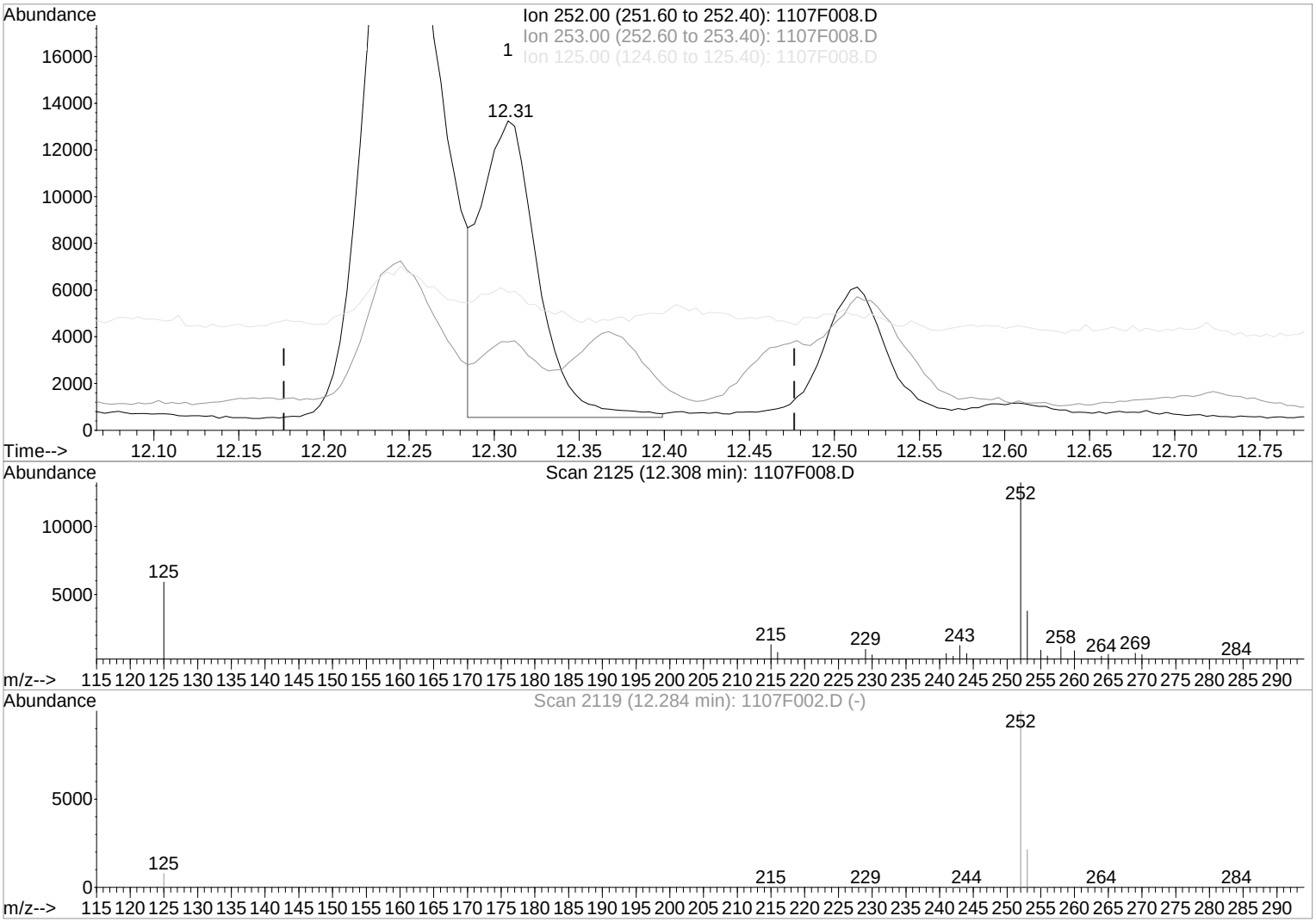
11/16/18

Quantitation Report (Qedit)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F008.D Vial: 8
Acq On : 7 Nov 2018 8:27 am Operator: LWeiskopf
Sample : K1810302-026DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 13:18 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Multiple Level Calibration



TIC: 1107F008.D

(30) Benzo(k)fluoranthene (T)

12.31min 51.30ng/ml m

response 29453

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	28.60
125.00	9.70	44.57#
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

11/16/18

1st 11/16/18
2nd 11/27/18

Exception Report

Data File: J:\MS14\DATA\110618\1106F023.D
Lab ID: K1810302-027
RunType: DL
Matrix: SEDIMENT

Date Acquired: 11/06/2018 15:39
Date Quantitated: 11/16/2018 10:43
Batch ID: KWG1806026
Analysis Method: 8270D SIM
ListJoinID: LJ12908

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	NA	NA	NA	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	
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: _____

Secondary Review: _____

1st 11/16/18
2nd 11/27/18

Quantitation Report

Data File:	J:\MS14\DATA\110618\1106F023.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 15:39	**Quant Date:**	11/16/2018 10:43	**Vial:**	23
Run Type:	DL	**ListJoinID:**	LJ12908	**Dilution:**	5.0
Lab ID:	K1810302-027			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	IV	**Matrix:**	SEDIMENT
Prod Code:	8270D PAH SIM U	**Collect Date:**	10/21/2018	**Receive Date:**	10/22/2018

Analysis Lot:	KWG1806026	**Prep Lot:**	KWG1805647	**Report Group:**	K1810302
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1701157	**Prep Date:**	11/01/2018		

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ12908
Tune Ref:	J:\MS14\DATA\110618\1106F001.D	**Method ID:**	MJ1233
MB Ref:	J:\MS14\DATA\110618\1106F006.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	4.76	0.00	136	69062	200.00	OK
2	Acenaphthene-d10	6.32	0.00	164	32521	200.00	OK
3	Phenanthrene-d10	7.56	0.00	188	67622	200.00	OK
4	Chrysene-d12	10.13	0.02	240	87908	200.00	OK
5	Perylene-d12	13.36	0.09	264	99389	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	6.76	0.00	0.00	176	29425	141.51	71	26-102	OK	
3	Fluoranthene-d10	8.56	0.02	0.00	212	65569	153.85	77	23-110	OK	
4	Terphenyl-d14	8.90	0.01	0.00	244	60269	158.06	79	27-115	OK	

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.78		0.00	128	11804	29.61	17	D	
1	2-Methylnaphthalene	5.42		0.00	142	3274	13.62	7.9	D	
2	Acenaphthylene	6.21	0.01	0.00	152	8487**m**	21.87	13	D	
2	Acenaphthene	6.35		0.00	154	4825	21.65	13	D	
2	Dibenzofuran	6.50		0.00	168	4670	13.06	7.6	D	
2	Fluorene	6.78		0.00	166	6388	23.70	14	D	
3	Phenanthrene	7.58		0.00	178	74616	176.88	100	D	
3	Anthracene	7.62		0.00	178	21086	52.36	30	D	
3	Fluoranthene	8.57	0.01	0.00	202	244872	470.11	270	D	
4	Pyrene	8.77	0.02	0.00	202	261667	433.85	250	D	
4	Benz(a)anthracene	10.12	0.03	0.00	228	103785	182.61	110	D	
4	Chrysene	10.17	0.02	0.00	228	216146	397.03	230	D	

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

1st 11/16/18
2nd 11/27/18

Data File:	J:\MS14\DATA\110618\1106F023.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 15:39	**Quant Date:**	11/16/2018 10:43	**Vial:**	23
Run Type:	DL	**ListJoinID:**	LJ12908	**Dilution:**	5.0
Lab ID:	K1810302-027			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
5	Benzo(b)fluoranthene	12.27	0.06	0.00	252	219225	357.02	210	D	
5	Benzo(k)fluoranthene	12.34	0.06	0.00	252	68817	112.97	66	D	
5	Benzo(a)pyrene	13.18	0.08	0.00	252	115196	213.92	120	D	
5	Indeno(1,2,3-cd)pyrene	15.53	0.06	0.00	276	97063	183.82	110	D	
5	Dibenz(a,h)anthracene	15.57	0.06	0.00	278	23418**m**	43.75	25	D	
5	Benzo(g,h,i)perylene	15.93	0.07	0.00	276	111976	181.08	110	D	

Prep Amount:	40.092 g	**Dilution:**	5.0
Prep Final Vol:	2 mL	**Unit Factor:**	1
Solids:	42.9 %		

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

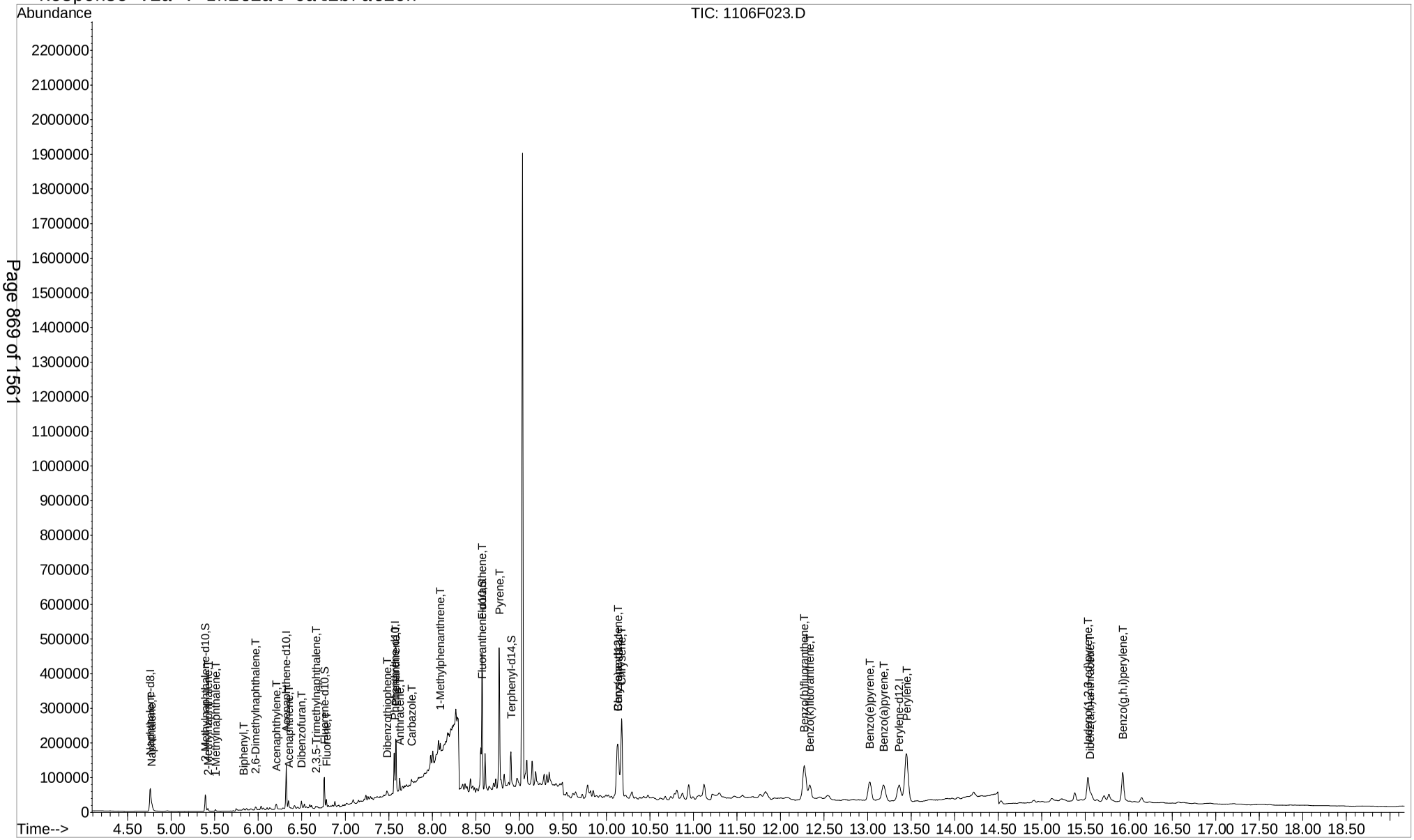
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

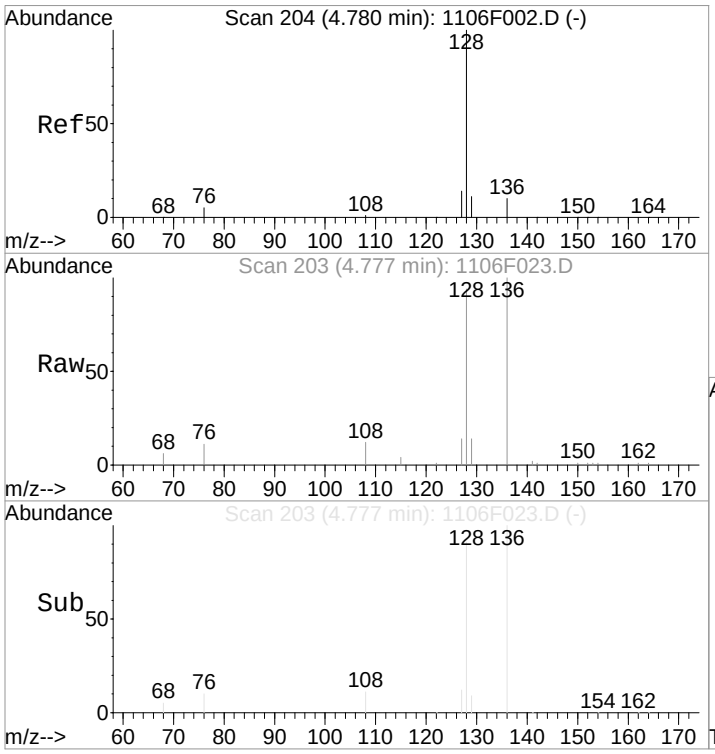
1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F023.D Vial: 23
Acq On : 6 Nov 2018 3:39 pm Operator: LWeiskopf
Sample : K1810302-027DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:43 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration



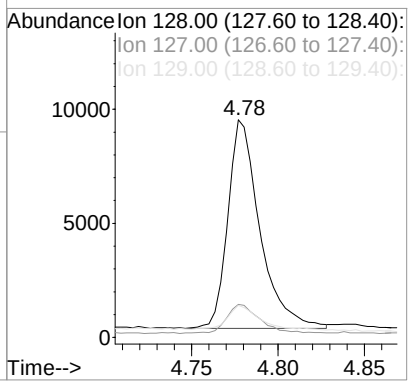
1st 11/16/18
2nd 11/27/18

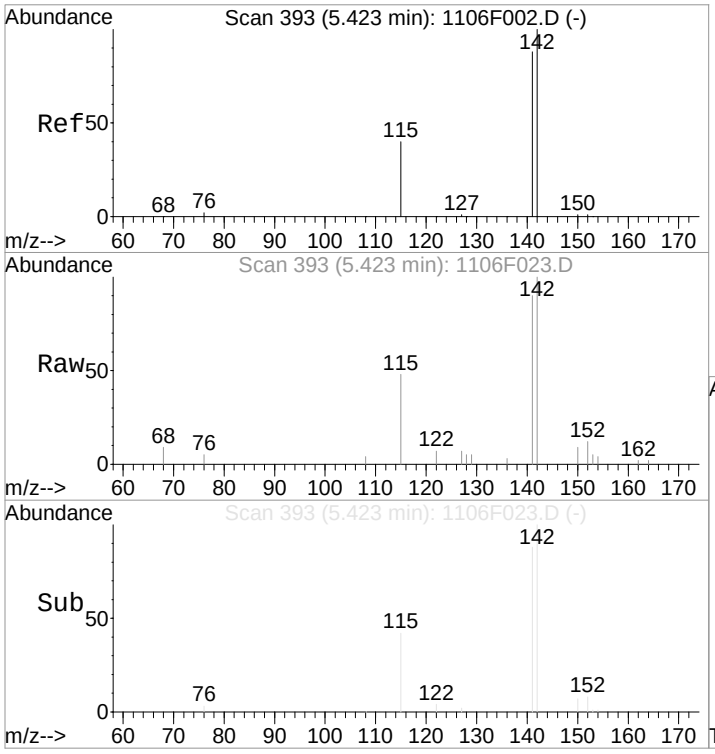


#2
Naphthalene
Concen: 29.61 ng/ml
RT: 4.78 min Scan# 203
Delta R.T. -0.00 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:128 Resp: 11804

Ion	Ratio	Lower	Upper
128	100		
127	13.7	0.0	43.7
129	11.7	0.0	30.8

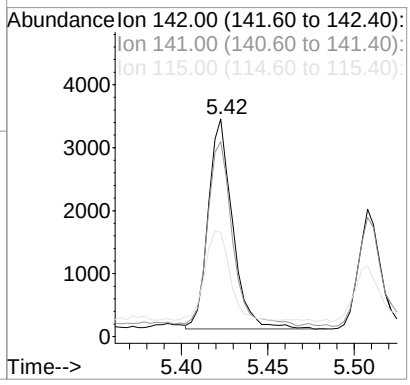




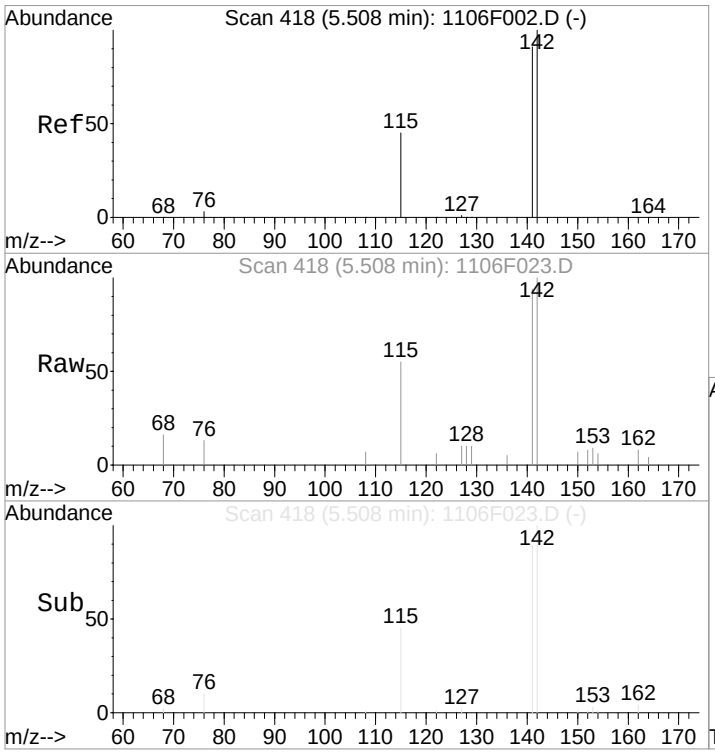
#4
2-Methylnaphthalene
Concen: 13.62 ng/ml
RT: 5.42 min Scan# 393
Delta R.T. 0.00 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:142 Resp: 3274

Ion	Ratio	Lower	Upper
142	100		
141	87.3	56.8	116.8
115	41.6	13.3	53.3



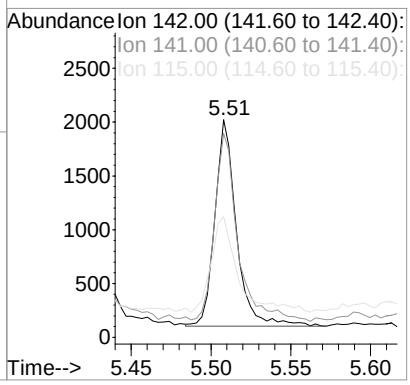
1st 11/16/18
2nd 11/27/18

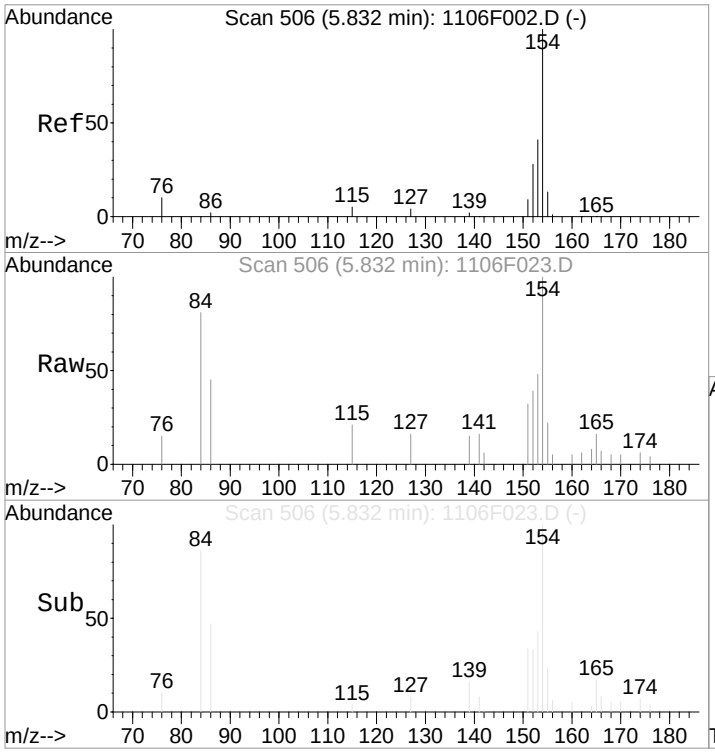


#5
1-Methylnaphthalene
Concen: 7.85 ng/ml
RT: 5.51 min Scan# 418
Delta R.T. 0.00 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:142 Resp: 1816

Ion	Ratio	Lower	Upper
142	100		
141	90.3	59.7	119.7
115	45.5	13.7	53.7

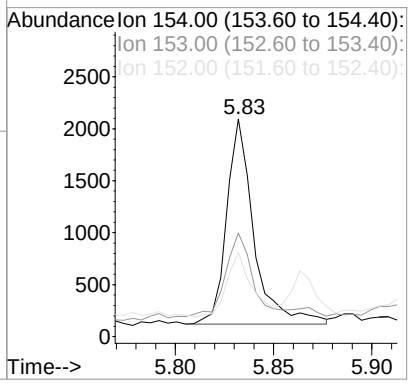




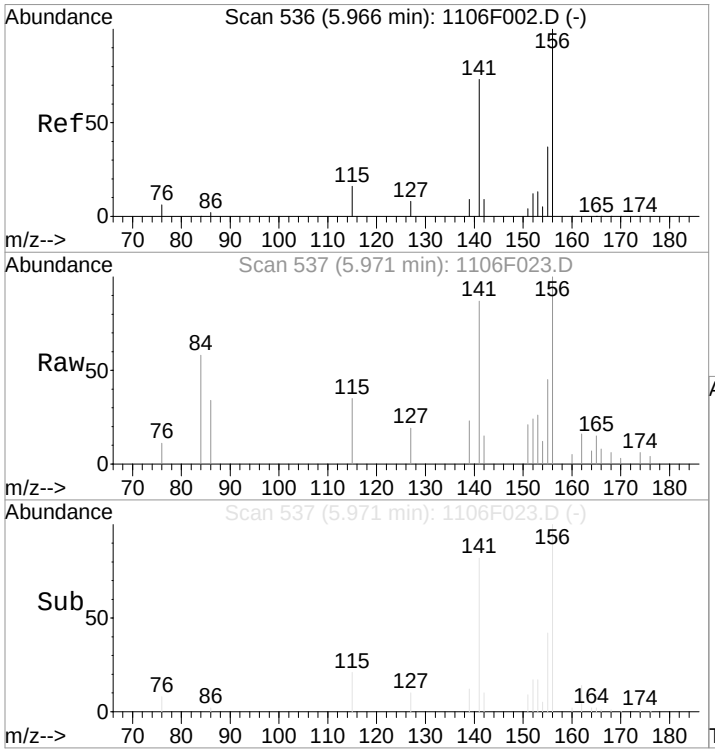
#6
Biphenyl
Concen: 6.35 ng/ml
RT: 5.83 min Scan# 506
Delta R.T. 0.00 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:154 Resp: 1904

Ion	Ratio	Lower	Upper
154	100		
153	40.7	11.4	71.4
152	30.4	7.1	47.1



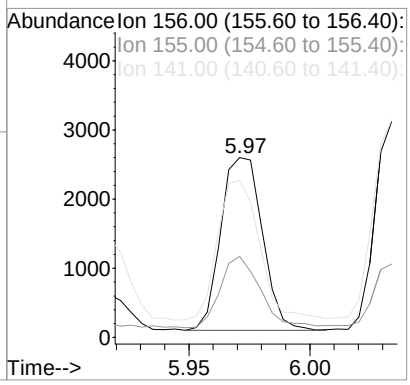
1st 11/16/18
2nd 11/27/18

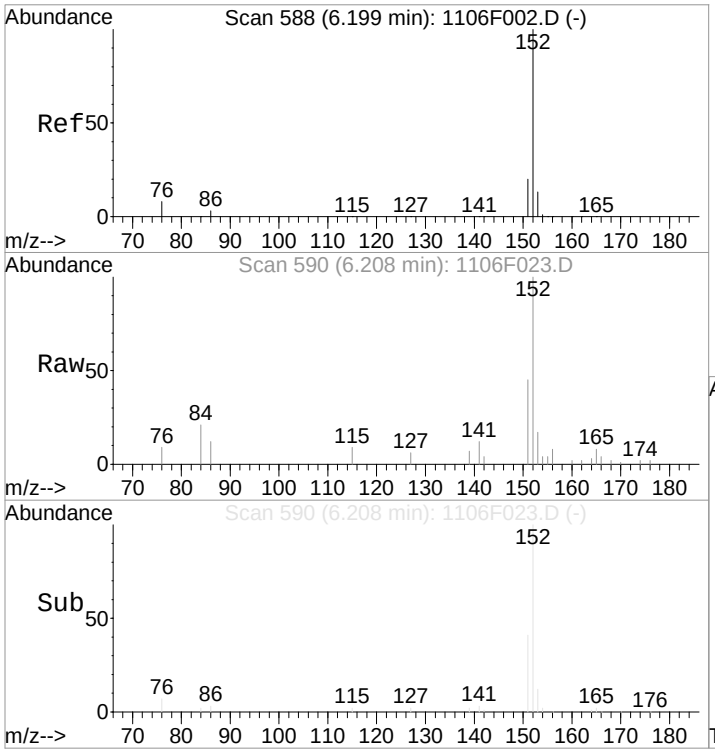


#7
2,6-Dimethylnaphthalene
Concen: 14.47 ng/ml
RT: 5.97 min Scan# 537
Delta R.T. 0.00 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:156 Resp: 2987

Ion	Ratio	Lower	Upper
156	100		
155	41.2	7.0	67.0
141	80.6	47.9	87.9

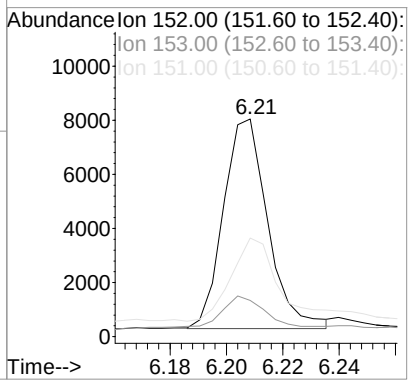




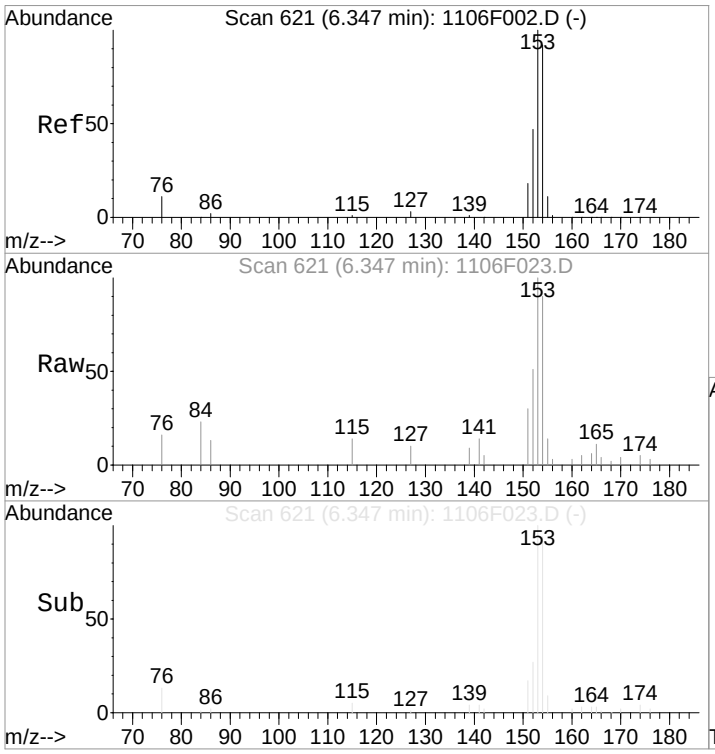
#9
Acenaphthylene
Concen: 21.87 ng/ml m
RT: 6.21 min Scan# 590
Delta R.T. 0.01 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:152 Resp: 8487

Ion	Ratio	Lower	Upper
152	100		
153	16.6	0.0	42.9
151	45.3	0.2	40.2#



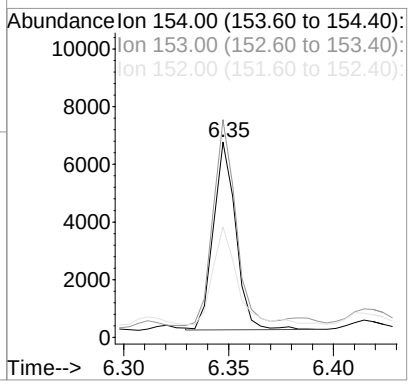
1st 11/16/18
2nd 11/27/18

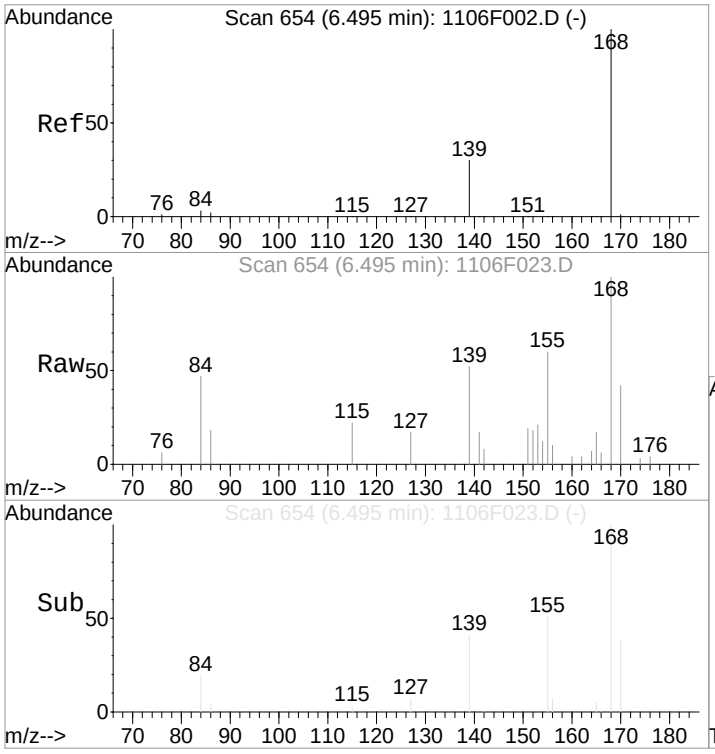


#10
Acenaphthene
Concen: 21.65 ng/ml
RT: 6.35 min Scan# 621
Delta R.T. 0.00 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:154 Resp: 4825

Ion	Ratio	Lower	Upper
154	100		
153	109.8	77.1	137.1
152	52.2	19.7	79.7

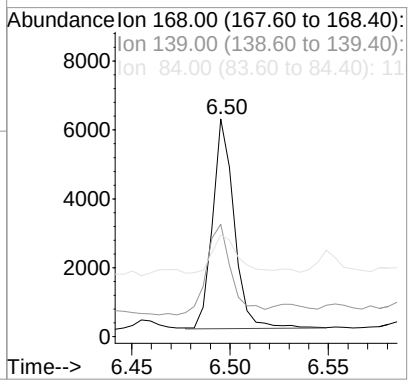




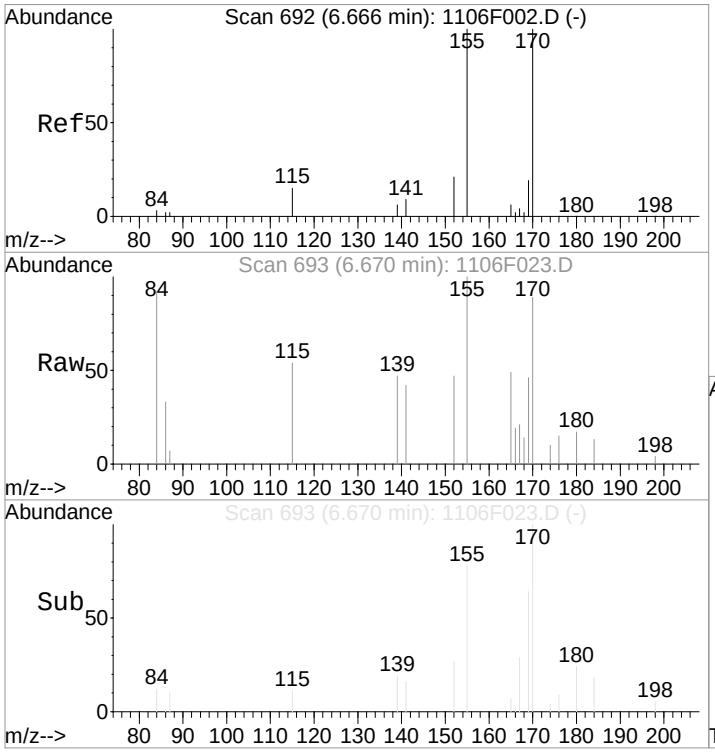
#11
Dibenzofuran
Concen: 13.06 ng/ml
RT: 6.50 min Scan# 654
Delta R.T. 0.00 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:168 Resp: 4670

Ion	Ratio	Lower	Upper
168	100		
139	42.3	0.0	55.8
84	18.2	0.0	23.5



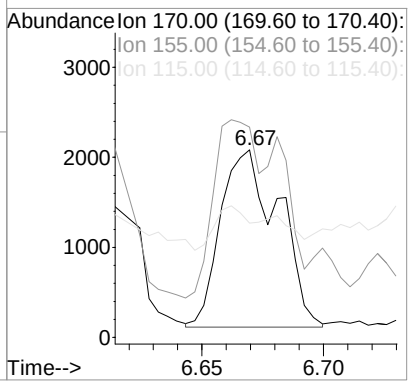
1st 11/16/18
2nd 11/27/18

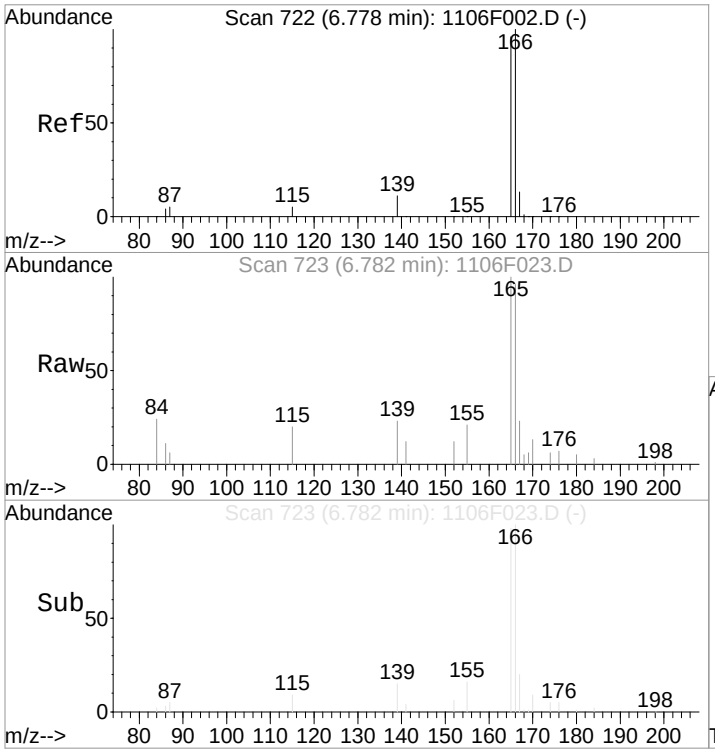


#12
2,3,5-Trimethylnaphthalene
Concen: 15.96 ng/ml m
RT: 6.67 min Scan# 693
Delta R.T. 0.00 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:170 Resp: 3290

Ion	Ratio	Lower	Upper
170	100		
155	112.2	59.2	119.2
115	61.0	0.0	30.1#

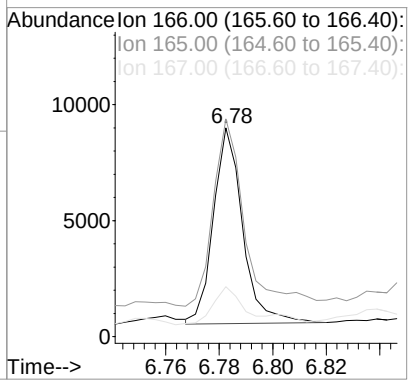




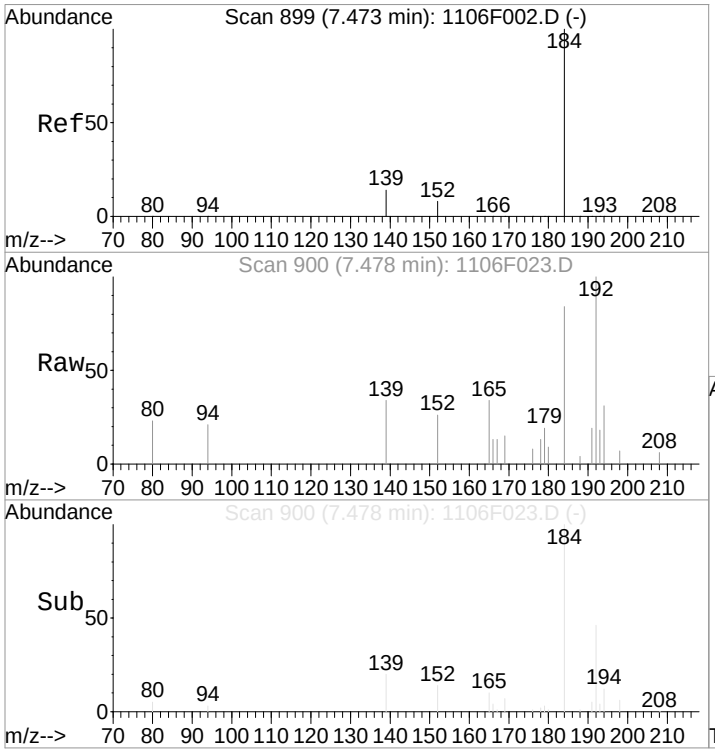
#14
Fluorene
Concen: 23.70 ng/ml
RT: 6.78 min Scan# 723
Delta R.T. 0.00 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:166 Resp: 6388

Ion	Ratio	Lower	Upper
166	100		
165	96.1	63.4	123.4
167	18.9	0.0	33.1



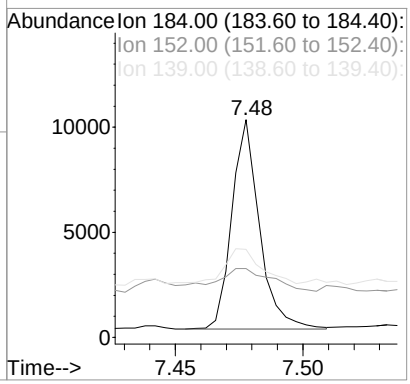
1st 11/16/18
2nd 11/27/18

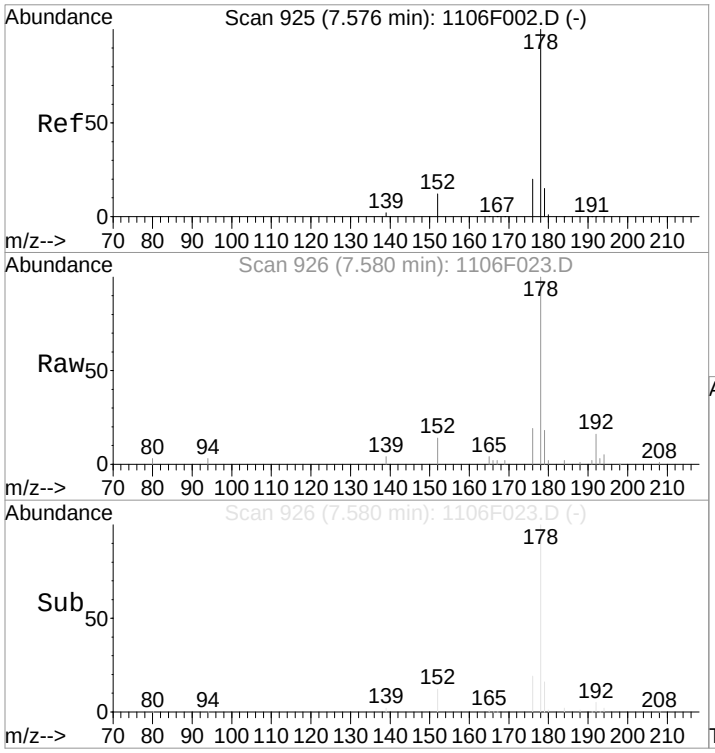


#16
Dibenzothiophene
Concen: 17.86 ng/ml
RT: 7.48 min Scan# 900
Delta R.T. 0.00 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:184 Resp: 7532

Ion	Ratio	Lower	Upper
184	100		
152	8.2	0.0	37.8
139	16.0	0.0	32.6

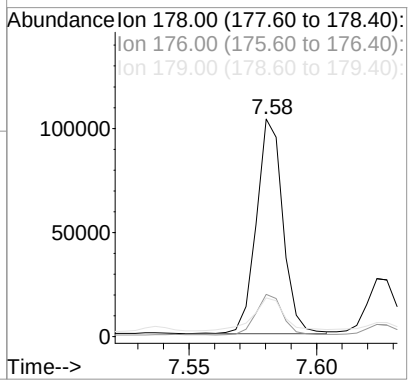




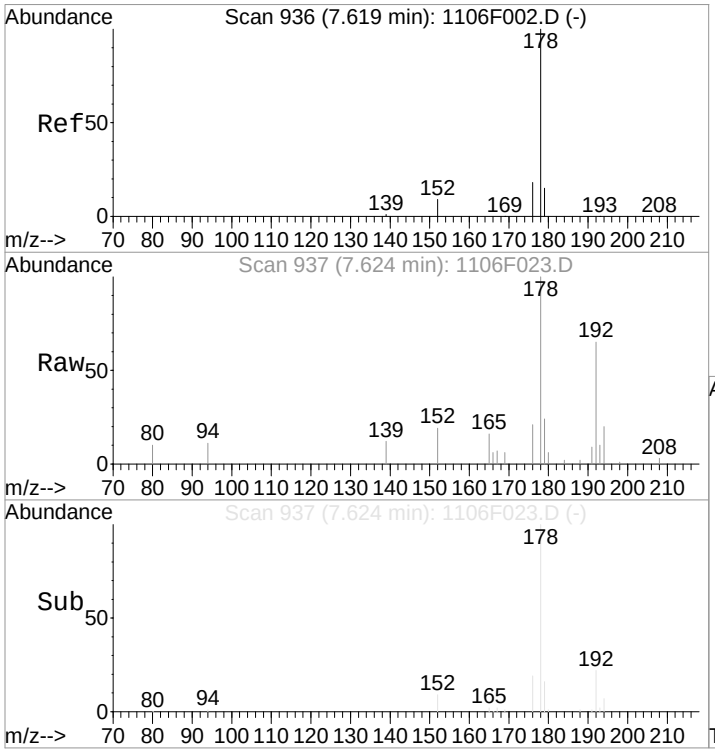
#17
Phenanthrene
Concen: 176.88 ng/ml
RT: 7.58 min Scan# 926
Delta R.T. 0.00 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:178 Resp: 74616

Ion	Ratio	Lower	Upper
178	100		
176	18.7	0.0	48.7
179	15.4	0.0	35.1



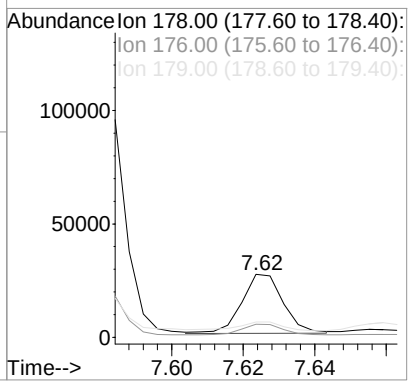
1st 11/16/18
2nd 11/27/18

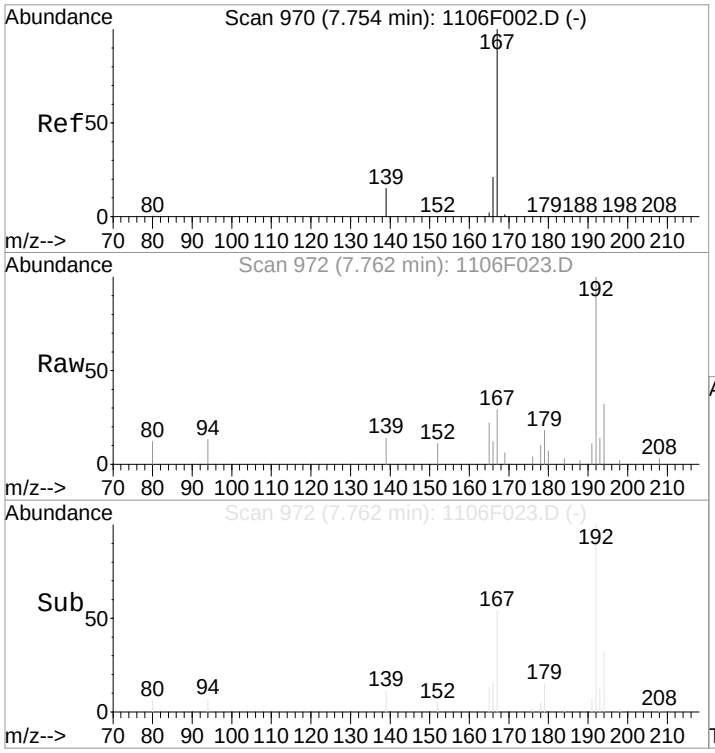


#18
Anthracene
Concen: 52.36 ng/ml
RT: 7.62 min Scan# 937
Delta R.T. 0.00 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:178 Resp: 21086

Ion	Ratio	Lower	Upper
178	100		
176	18.4	0.0	48.0
179	14.9	0.0	35.1

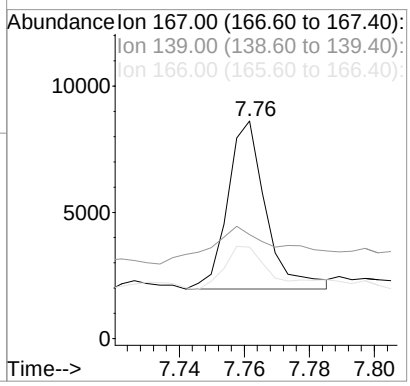




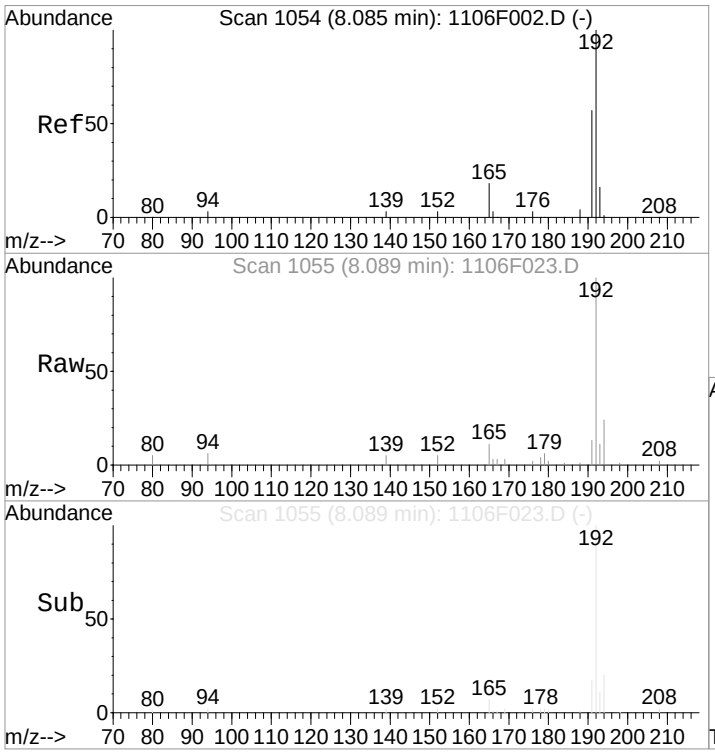
#19
Carbazole
Concen: 13.93 ng/ml
RT: 7.76 min Scan# 972
Delta R.T. 0.01 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:167 Resp: 5475

Ion	Ratio	Lower	Upper
167	100		
139	11.8	0.0	41.5
166	24.1	0.7	40.7



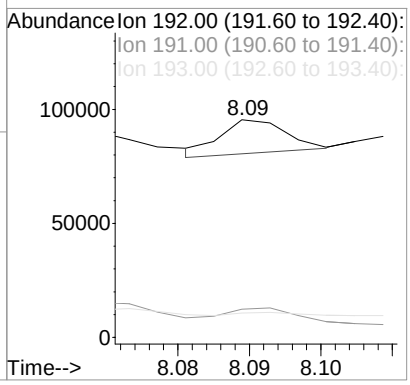
1st 11/16/18
2nd 11/27/18

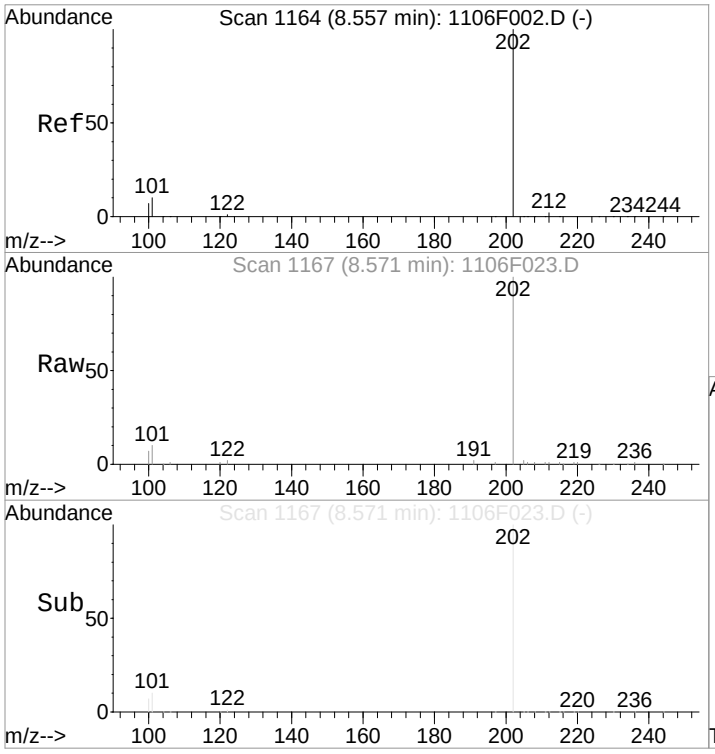


#20
1-Methylphenanthrene
Concen: 30.05 ng/ml
RT: 8.09 min Scan# 1055
Delta R.T. 0.00 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:192 Resp: 9603

Ion	Ratio	Lower	Upper
192	100		
191	44.9	27.7	87.7
193	8.1	0.0	45.4

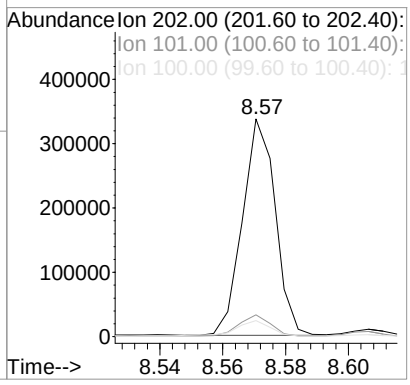




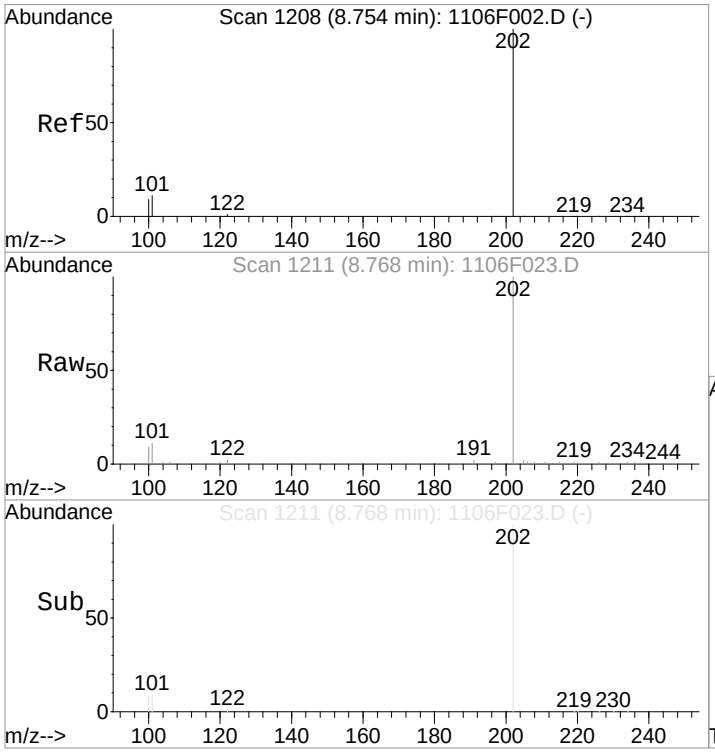
#21
Fluoranthene
Concen: 470.11 ng/ml
RT: 8.57 min Scan# 1167
Delta R.T. 0.01 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:202 Resp: 244872

Ion	Ratio	Lower	Upper
202	100		
101	9.8	0.0	41.3
100	7.2	0.0	28.6



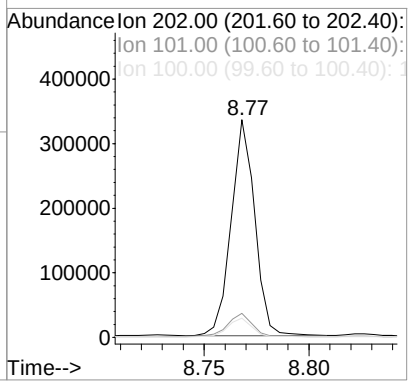
1st 11/16/18
2nd 11/27/18

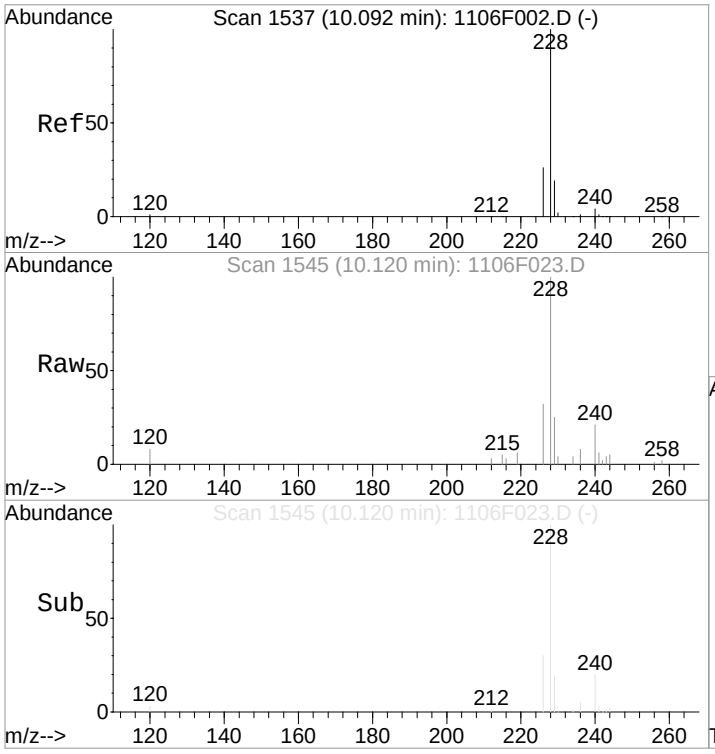


#24
Pyrene
Concen: 433.85 ng/ml
RT: 8.77 min Scan# 1211
Delta R.T. 0.01 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:202 Resp: 261667

Ion	Ratio	Lower	Upper
202	100		
101	10.9	0.0	40.8
100	8.7	0.0	28.5

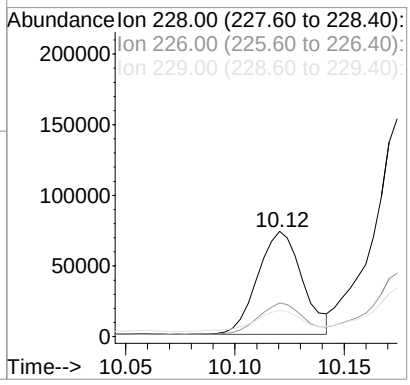


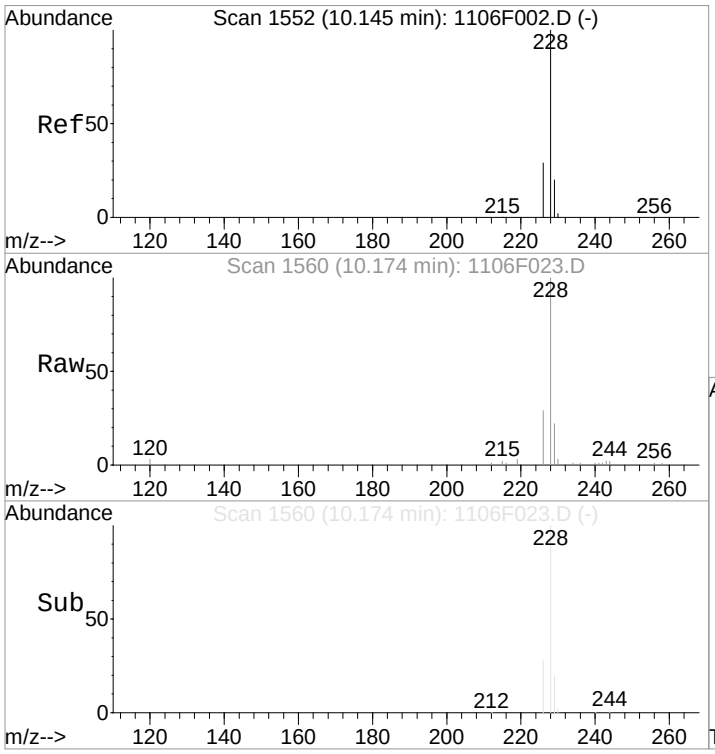


#26
Benz(a)anthracene
Concen: 182.61 ng/ml
RT: 10.12 min Scan# 1545
Delta R.T. 0.03 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:228 Resp: 103785

Ion	Ratio	Lower	Upper
228	100		
226	30.4	0.0	56.3
229	20.5	0.0	39.1

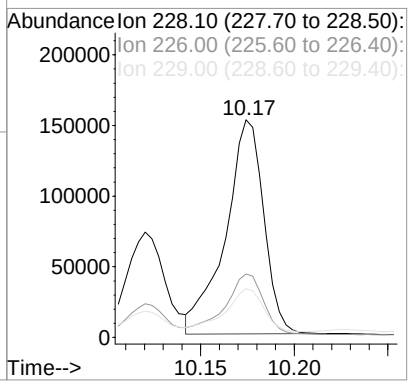


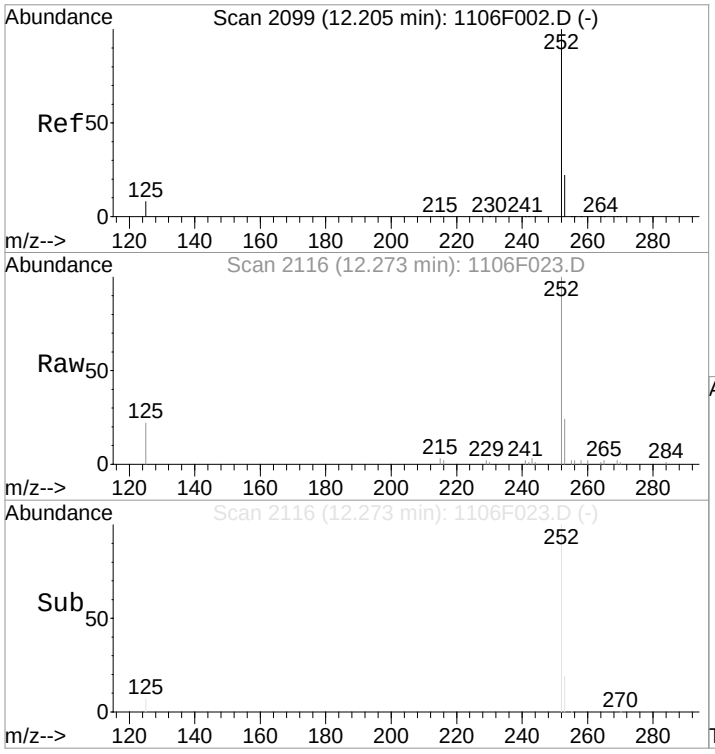


#27
Chrysene
Concen: 397.03 ng/ml
RT: 10.17 min Scan# 1560
Delta R.T. 0.03 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:228 Resp: 216146

Ion	Ratio	Lower	Upper
228	100		
226	28.3	0.0	58.7
229	19.6	0.0	39.2

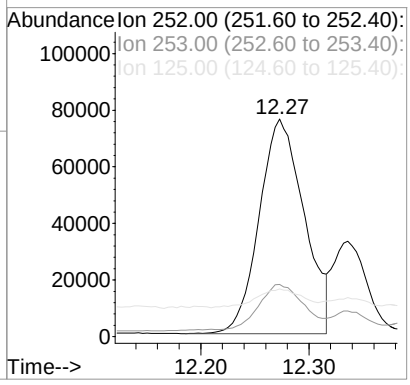


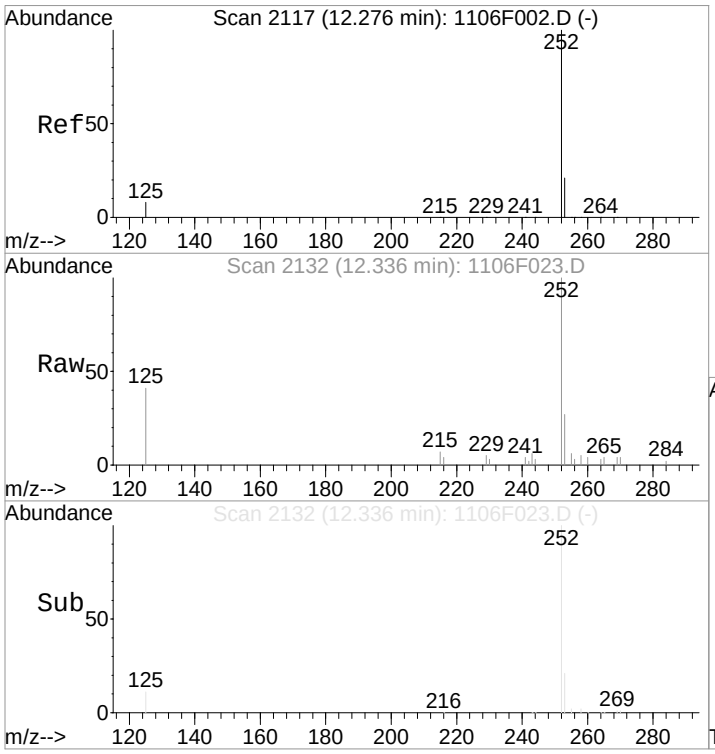


#29
Benzo(b)fluoranthene
Concen: 357.02 ng/ml
RT: 12.27 min Scan# 2116
Delta R.T. 0.07 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:252 Resp: 219225

Ion	Ratio	Lower	Upper
252	100		
253	21.3	0.0	51.2
125	8.5	0.0	29.5

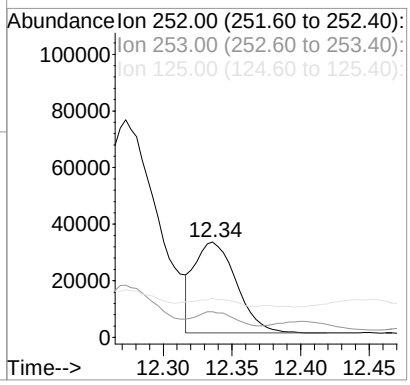


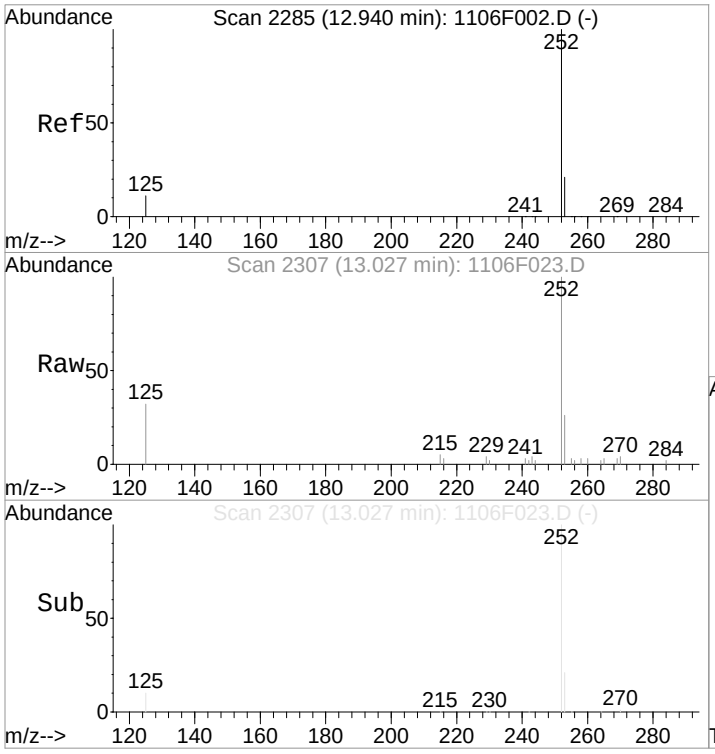


#30
Benzo(k)fluoranthene
Concen: 112.97 ng/ml
RT: 12.34 min Scan# 2132
Delta R.T. 0.06 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:252 Resp: 68817

Ion	Ratio	Lower	Upper
252	100		
253	13.7	0.0	51.2
125	6.3	0.0	29.7

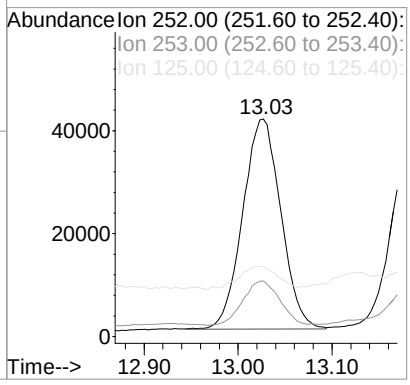




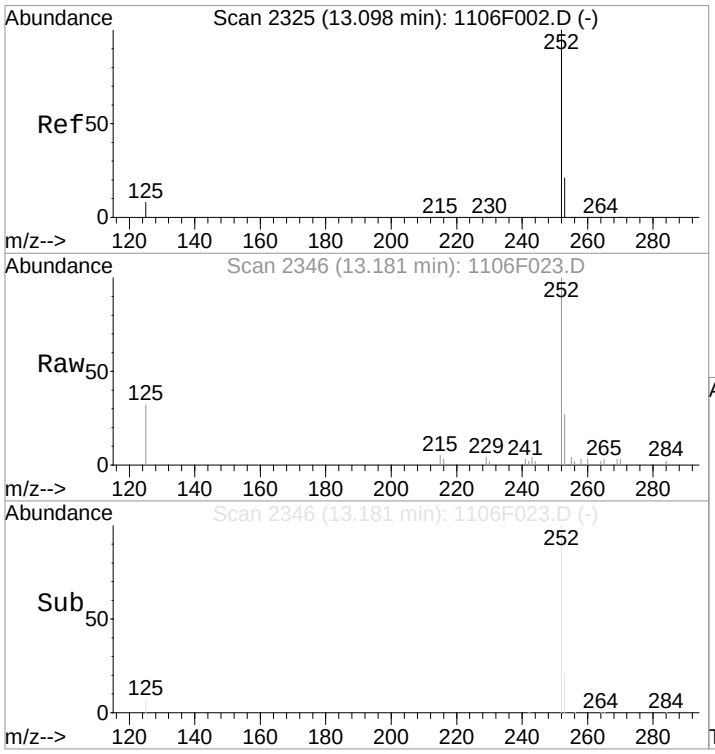
#31
Benzo(e)pyrene
Concen: 197.00 ng/ml
RT: 13.03 min Scan# 2307
Delta R.T. 0.09 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:252 Resp: 115302

Ion	Ratio	Lower	Upper
252	100		
253	20.6	0.0	51.3
125	10.5	0.0	33.5



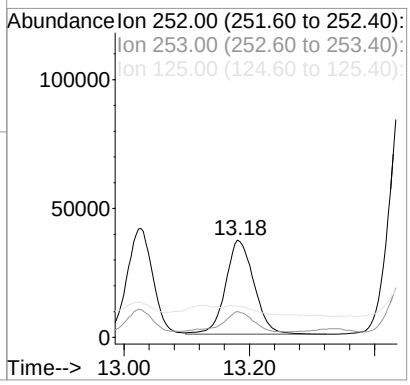
1st 11/16/18
2nd 11/27/18

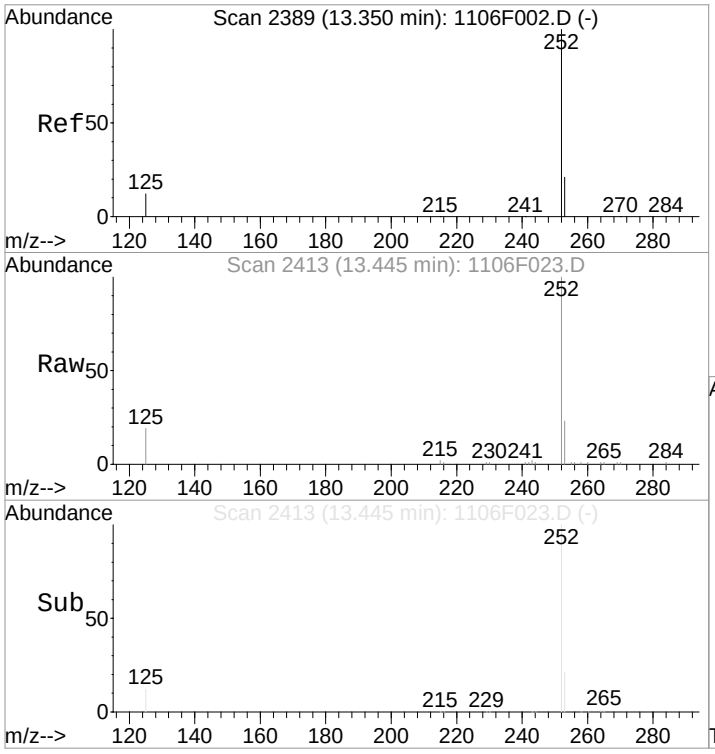


#32
Benzo(a)pyrene
Concen: 213.92 ng/ml
RT: 13.18 min Scan# 2346
Delta R.T. 0.08 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:252 Resp: 115196

Ion	Ratio	Lower	Upper
252	100		
253	20.4	0.0	50.9
125	10.5	0.0	30.3

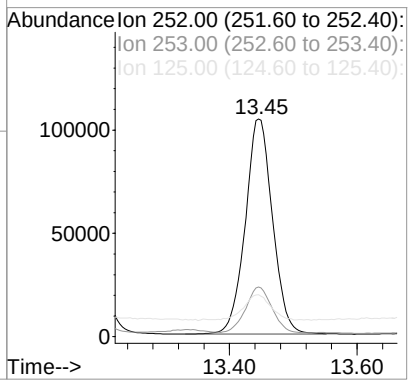




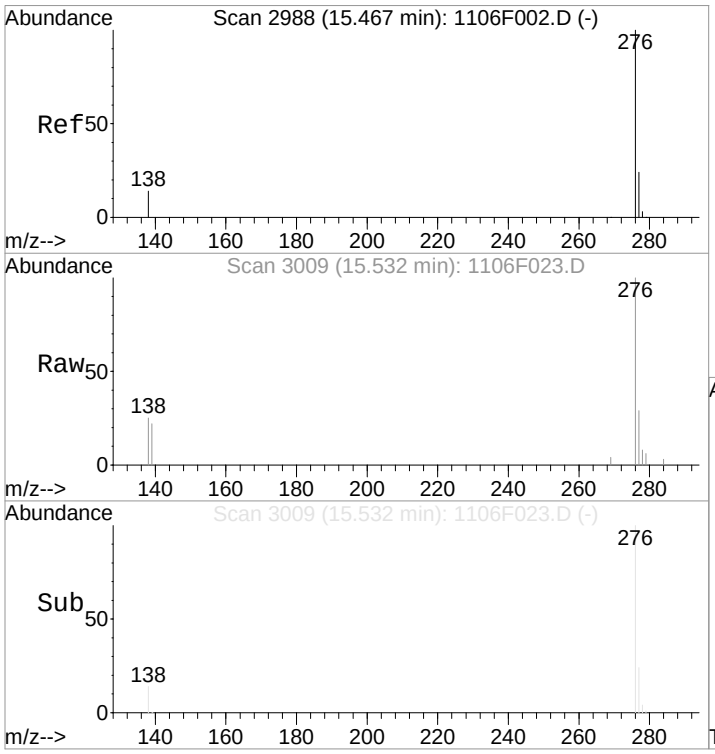
#33
Perylene
Concen: 547.52 ng/ml
RT: 13.45 min Scan# 2413
Delta R.T. 0.09 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:252 Resp: 309293

Ion	Ratio	Lower	Upper
252	100		
253	21.3	0.0	51.2
125	11.5	0.0	33.8



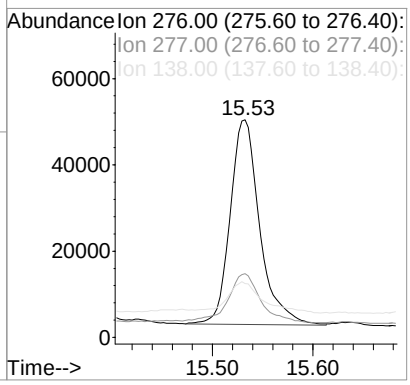
1st 11/16/18
2nd 11/27/18

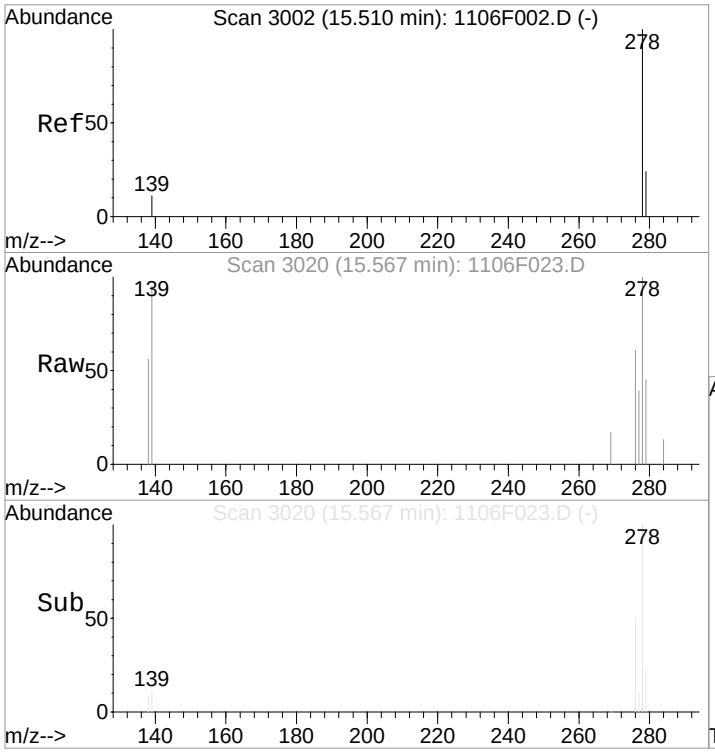


#34
Indeno(1,2,3-cd)pyrene
Concen: 183.82 ng/ml
RT: 15.53 min Scan# 3009
Delta R.T. 0.07 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:276 Resp: 97063

Ion	Ratio	Lower	Upper
276	100		
277	24.0	0.0	53.4
138	14.1	0.0	37.7

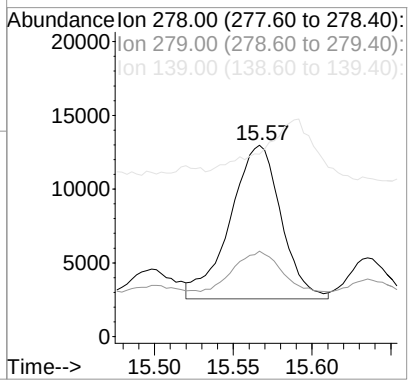




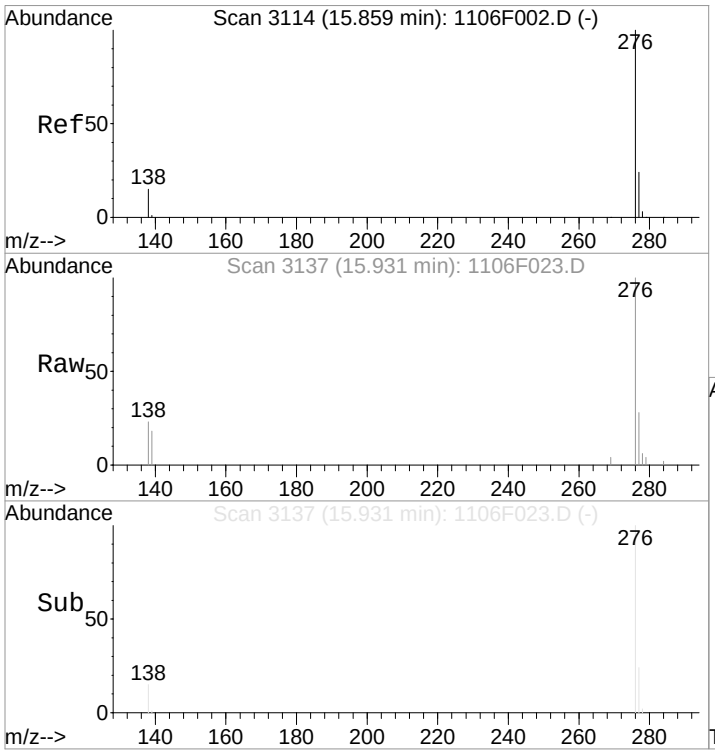
#35
Dibenz(a,h)anthracene
Concen: 43.75 ng/ml m
RT: 15.57 min Scan# 3020
Delta R.T. 0.06 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:278 Resp: 23418

Ion	Ratio	Lower	Upper
278	100		
279	44.6	0.0	53.5
139	95.3	0.0	35.0#



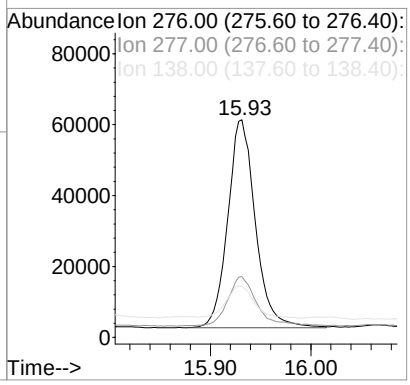
1st 11/16/18
2nd 11/27/18



#36
Benzo(g,h,i)perylene
Concen: 181.08 ng/ml
RT: 15.93 min Scan# 3137
Delta R.T. 0.07 min
Lab File: 1106F023.D
Acq: 6 Nov 2018 3:39 pm

Tgt Ion:276 Resp: 111976

Ion	Ratio	Lower	Upper
276	100		
277	23.5	0.0	53.1
138	14.6	0.0	39.2



Quantitation Report (QT Reviewed)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F023.D Vial: 23
Acq On : 6 Nov 2018 3:39 pm Operator: LWeiskopf
Sample : K1810302-027DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 09:56:54 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.76	136	69062	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.32	164	32521	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.56	188	67622	200.00	ng/ml	0.00
23) Chrysene-d12	10.13	240	87908	200.00	ng/ml	0.03
28) Perylene-d12	13.36	264	99389	200.00	ng/ml	0.09
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.39	152	17853	92.61	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	9.26%		
13) Fluorene-d10	6.76	176	29425	141.51	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	14.15%		
22) Fluoranthene-d10	8.56	212	65569	153.85	ng/ml	0.01
Spiked Amount 1000.000			Recovery =	15.38%		
25) Terphenyl-d14	8.90	244	60269	158.06	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	15.81%		
Target Compounds						Qvalue
2) Naphthalene	4.78	128	11804	29.61	ng/ml	99
4) 2-Methylnaphthalene	5.42	142	3274	13.62	ng/ml	96
5) 1-Methylnaphthalene	5.51	142	1816	7.85	ng/ml	94
6) Biphenyl	5.83	154	1904	6.35	ng/ml	97
7) 2,6-Dimethylnaphthalene	5.97	156	2987	14.47	ng/ml	87
9) Acenaphthylene	6.21	152	8487m	21.87	ng/ml	
10) Acenaphthene	6.35	154	4825	21.65	ng/ml	97
11) Dibenzofuran	6.50	168	4670	13.06	ng/ml	66
12) 2,3,5-Trimethylnaphthalene	6.67	170	3290m	15.96	ng/ml	
14) Fluorene	6.78	166	6388	23.70	ng/ml	96
16) Dibenzothiophene	7.48	184	7532	17.86	ng/ml	94
17) Phenanthrene	7.58	178	74616	176.88	ng/ml	100
18) Anthracene	7.62	178	21086	52.36	ng/ml	99
19) Carbazole	7.76	167	5475	13.93	ng/ml	95
20) 1-Methylphenanthrene	8.09	192	9603	30.05	ng/ml	83
21) Fluoranthene	8.57	202	244872	470.11	ng/ml	96
24) Pyrene	8.77	202	261667	433.85	ng/ml	99
26) Benz(a)anthracene	10.12	228	103785	182.61	ng/ml	94
27) Chrysene	10.17	228	216146	397.03	ng/ml	99
29) Benzo(b)fluoranthene	12.27	252	219225	357.02	ng/ml	99
30) Benzo(k)fluoranthene	12.34	252	68817	112.97	ng/ml	86
31) Benzo(e)pyrene	13.03	252	115302	197.00	ng/ml	96
32) Benzo(a)pyrene	13.18	252	115196	213.92	ng/ml	99
33) Perylene	13.45	252	309293	547.52	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.53	276	97063	183.82	ng/ml	96
35) Dibenz(a,h)anthracene	15.57	278	23418m	43.75	ng/ml	
36) Benzo(g,h,i)perylene	15.93	276	111976	181.08	ng/ml	95

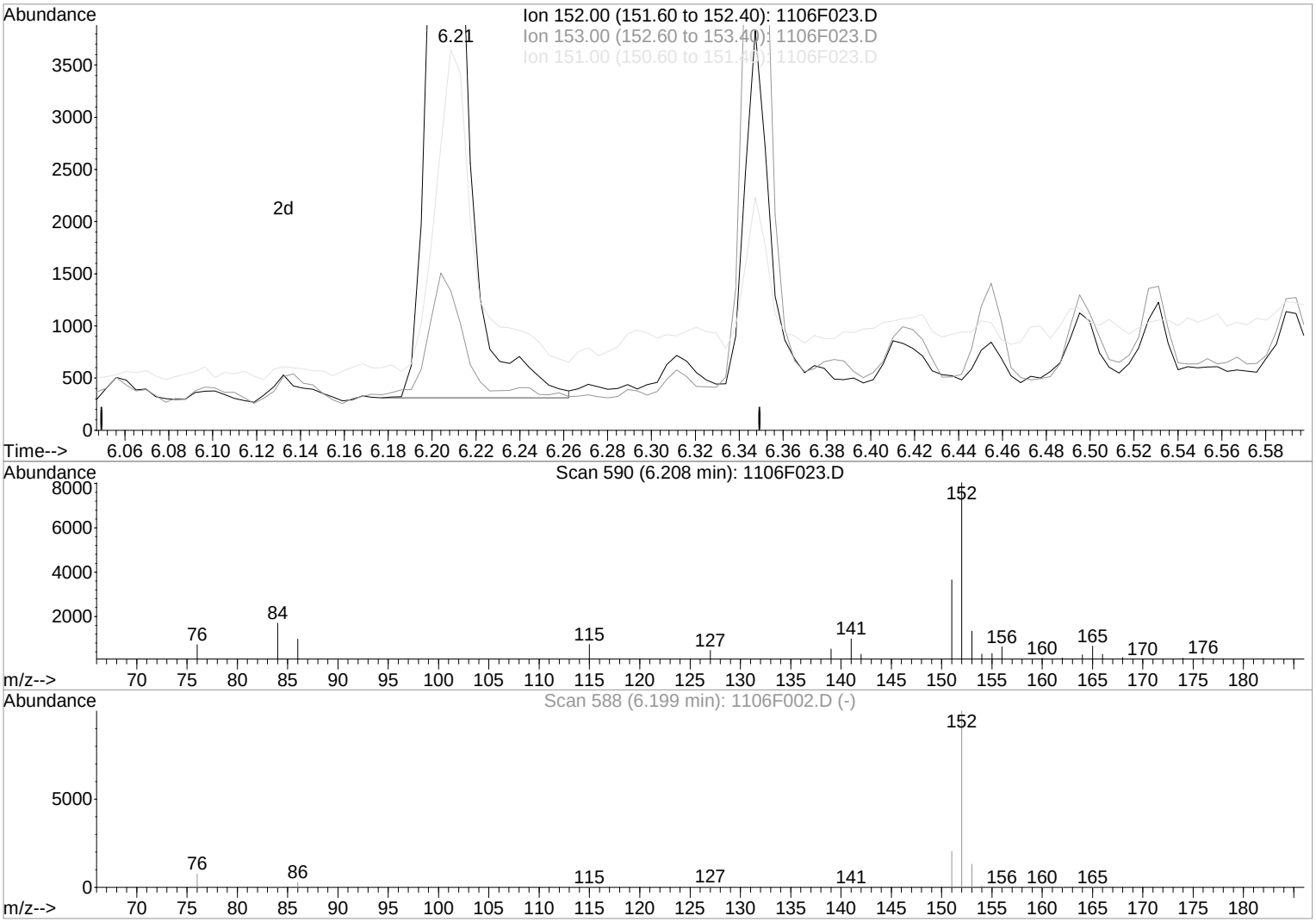
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F023.D Vial: 23
Acq On : 6 Nov 2018 3:39 pm Operator: LWeiskopf
Sample : K1810302-027DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 9:56 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F023.D

(9) Acenaphthylene (T)

6.21min 22.60ng/ml

response 8771

Ion	Exp%	Act%
152.00	100	100
153.00	12.90	13.07
151.00	20.20	39.42
0.00	0.00	0.00

Manual Integration:

Before

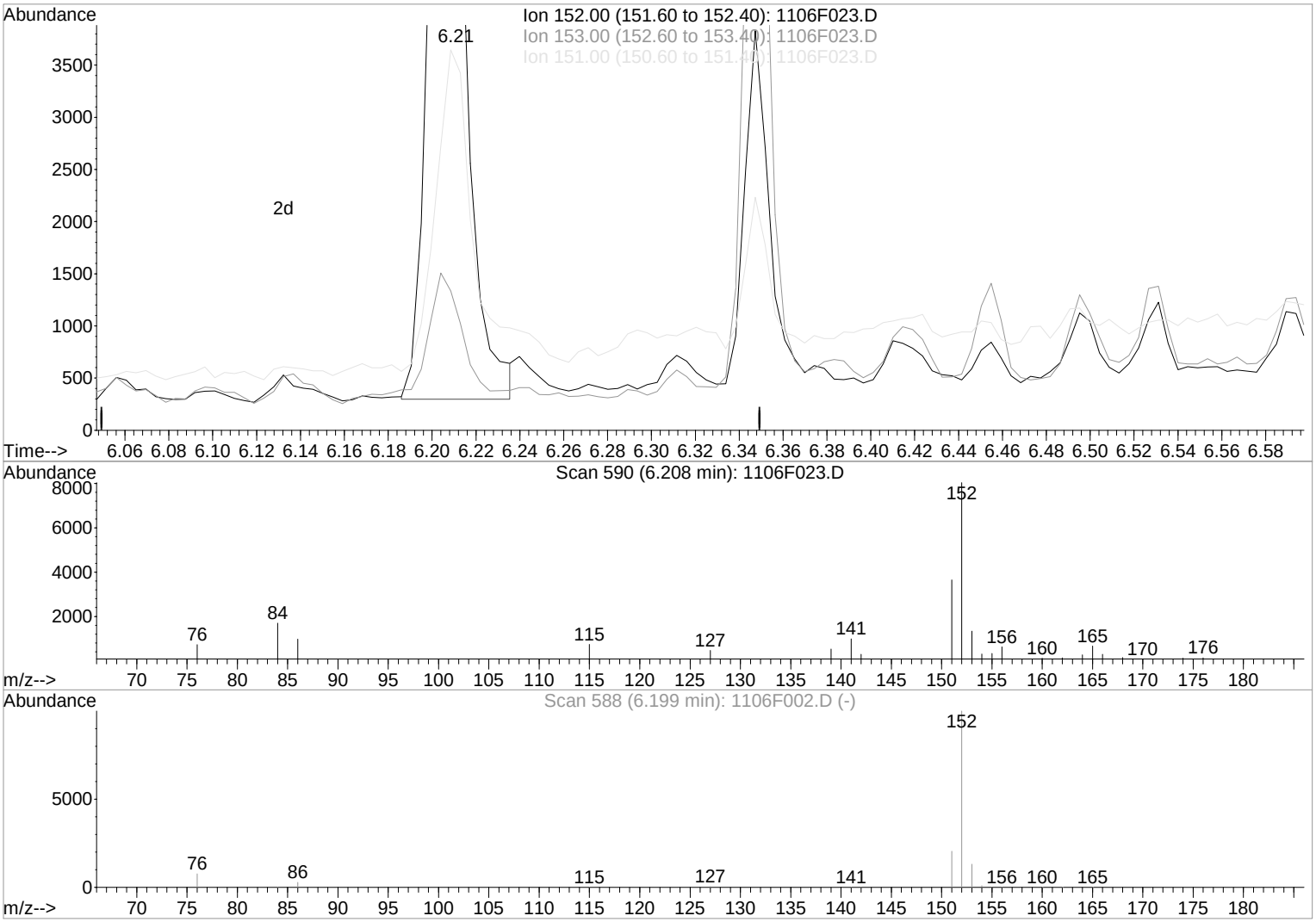
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F023.D Vial: 23
Acq On : 6 Nov 2018 3:39 pm Operator: LWeiskopf
Sample : K1810302-027DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:39 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F023.D

(9) Acenaphthylene (T)

6.21min 21.87ng/ml m

response 8487

Ion	Exp%	Act%
152.00	100	100
153.00	12.90	16.59
151.00	20.20	45.32#
0.00	0.00	0.00

Manual Integration:

After

BLC

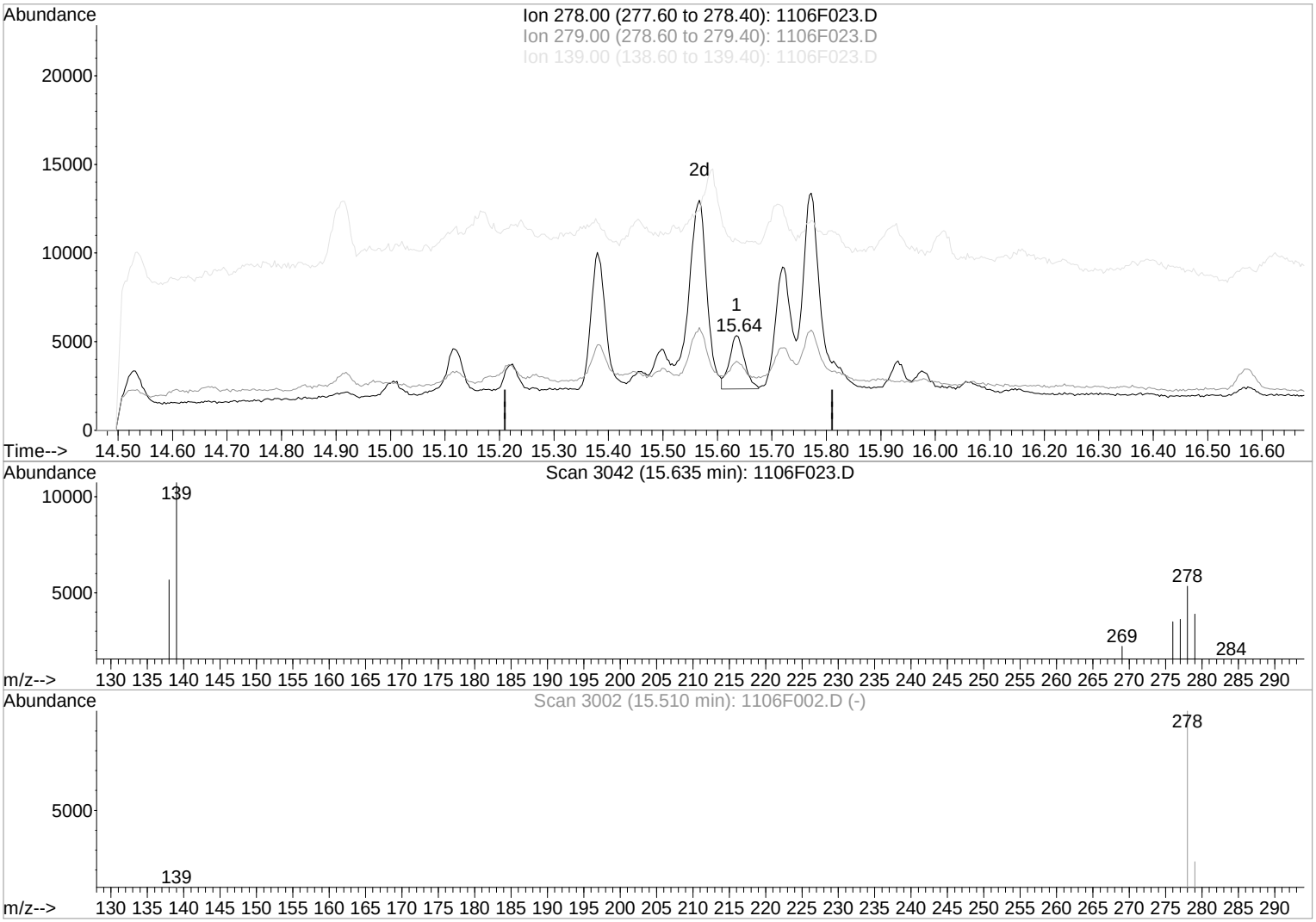
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F023.D Vial: 23
Acq On : 6 Nov 2018 3:39 pm Operator: LWeiskopf
Sample : K1810302-027DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:39 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F023.D

(35) Dibenz(a,h)anthracene (T)

15.64min 10.89ng/ml

response 5830

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	29.63
139.00	15.00	7.94
0.00	0.00	0.00

Manual Integration:

Before

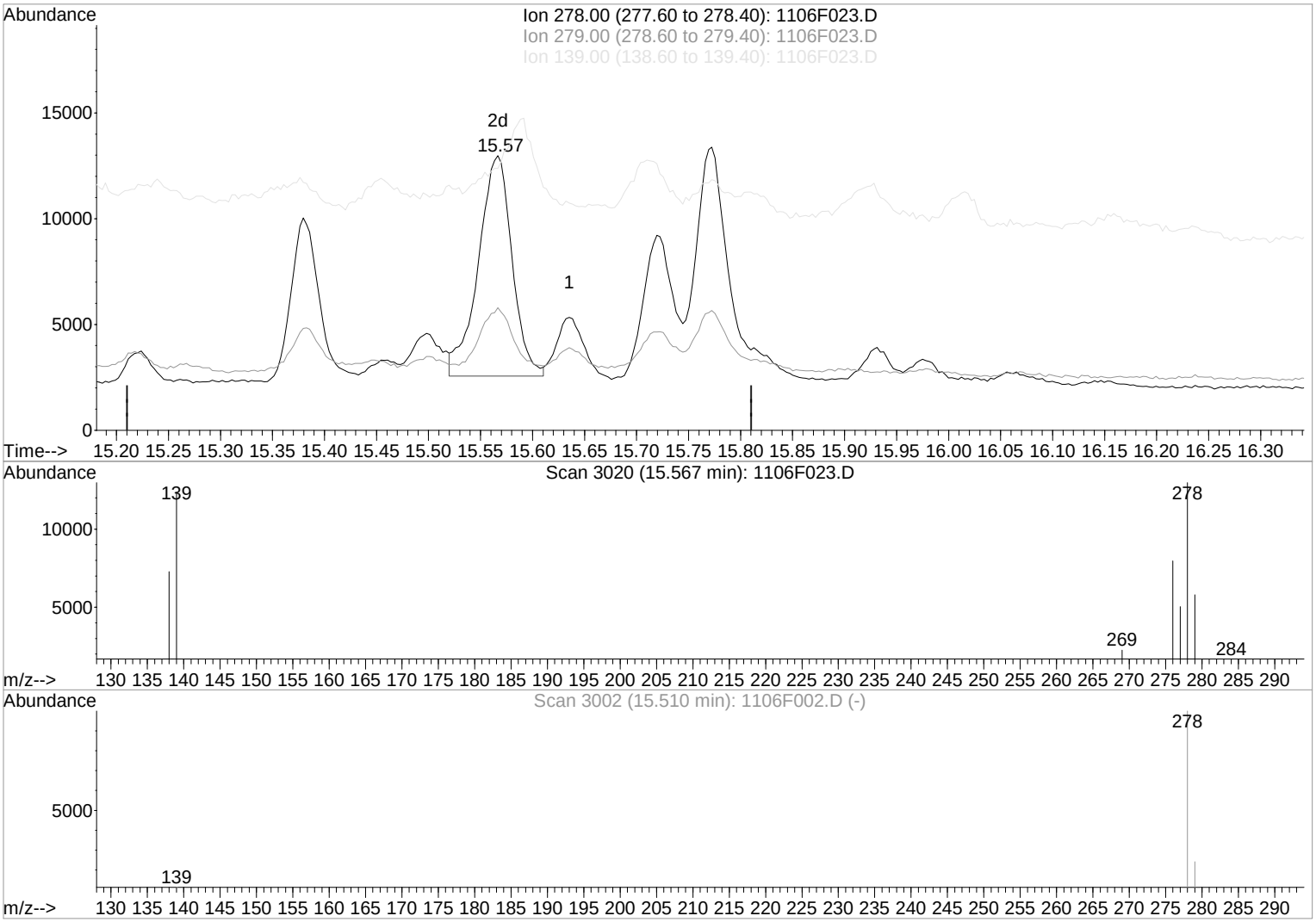
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F023.D Vial: 23
Acq On : 6 Nov 2018 3:39 pm Operator: LWeiskopf
Sample : K1810302-027DIL 5X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:43 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F023.D

(35) Dibenz(a,h)anthracene (T)

15.57min 43.75ng/ml m

response 23418

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	44.62
139.00	15.00	95.34#
0.00	0.00	0.00

Manual Integration:

After

WP

11/16/18

1st 11/16/18
2nd 11/27/18

Exception Report

Data File: J:\MS14\DATA\110618\1106F024.D
Lab ID: K1810302-028
RunType: DL
Matrix: SEDIMENT

Date Acquired: 11/06/2018 16:08
Date Quantitated: 11/16/2018 10:53
Batch ID: KWG1806026
Analysis Method: 8270D SIM
ListJoinID: LJ12908

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	NA	NA	NA	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	
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: _____

Secondary Review: _____

1st 11/16/18
2nd 11/27/18

Quantitation Report

Data File:	J:\MS14\DATA\110618\1106F024.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 16:08	**Quant Date:**	11/16/2018 10:53	**Vial:**	24
Run Type:	DL	**ListJoinID:**	LJ12908	**Dilution:**	10.0
Lab ID:	K1810302-028			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	IV	**Matrix:**	SEDIMENT
Prod Code:	8270D PAH SIM U	**Collect Date:**	10/21/2018	**Receive Date:**	10/22/2018

Analysis Lot:	KWG1806026	**Prep Lot:**	KWG1805647	**Report Group:**	K1810302
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1701158	**Prep Date:**	11/01/2018		

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ12908
Tune Ref:	J:\MS14\DATA\110618\1106F001.D	**Method ID:**	MJ1233
MB Ref:	J:\MS14\DATA\110618\1106F006.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	4.76	0.00	136	69825	200.00	OK
2	Acenaphthene-d10	6.32	0.00	164	32597	200.00	OK
3	Phenanthrene-d10	7.57	0.01	188	70272	200.00	OK
4	Chrysene-d12	10.15	0.04	240	91298	200.00	OK
5	Perylene-d12	13.41	0.14	264	99613**m**	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	6.76	0.00	0.00	176	16856	80.87	81	26-102	OK	
3	Fluoranthene-d10	8.56	0.02	0.00	212	40358	91.12	91	23-110	OK	
4	Terphenyl-d14	8.91	0.02	0.00	244	34176	86.30	86	27-115	OK	

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.78		0.00	128	34186	84.82	81	D	
1	2-Methylnaphthalene	5.42		0.00	142	9790	40.28	39	D	
2	Acenaphthylene	6.21	0.01	0.00	152	11744	30.19	29	D	
2	Acenaphthene	6.35		0.00	154	18270	81.77	78	D	
2	Dibenzofuran	6.50		0.00	168	11754	32.78	31	D	
2	Fluorene	6.79	0.01	0.00	166	14548	53.84	52	D	
3	Phenanthrene	7.59	0.01	0.00	178	207166	472.58	450	D	
3	Anthracene	7.63	0.01	0.00	178	32418	77.46	74	D	
3	Fluoranthene	8.58	0.02	0.00	202	344267	636.00	610	D	
4	Pyrene	8.78	0.03	0.00	202	436176	696.33	670	D	
4	Benz(a)anthracene	10.13	0.04	0.00	228	155291	263.08	250	D	
4	Chrysene	10.18	0.03	0.00	228	213322	377.29	360	D	

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:\MS14\DATA\110618\1106F024.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 16:08	**Quant Date:**	11/16/2018 10:53	**Vial:**	24
Run Type:	DL	**ListJoinID:**	LJ12908	**Dilution:**	10.0
Lab ID:	K1810302-028			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
5	Benzo(b)fluoranthene	12.30	0.09	0.00	252	237104**m**	385.26	370	D	
5	Benzo(k)fluoranthene	12.37	0.09	0.00	252	80544**m**	131.93	130	D	
5	Benzo(a)pyrene	13.23	0.13	0.00	252	166690**m**	308.85	300	D	
5	Indeno(1,2,3-cd)pyrene	15.56	0.09	-0.01	276	135615**m**	256.25	250	D	
5	Dibenz(a,h)anthracene	15.59	0.08	-0.01	278	27899**m**	52.00	50	D	
5	Benzo(g,h,i)perylene	15.97	0.11	0.00	276	163055**m**	263.09	250	D	

Prep Amount:	40.131 g	**Dilution:**	10.0
Prep Final Vol:	2 mL	**Unit Factor:**	1
Solids:	52 %		

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

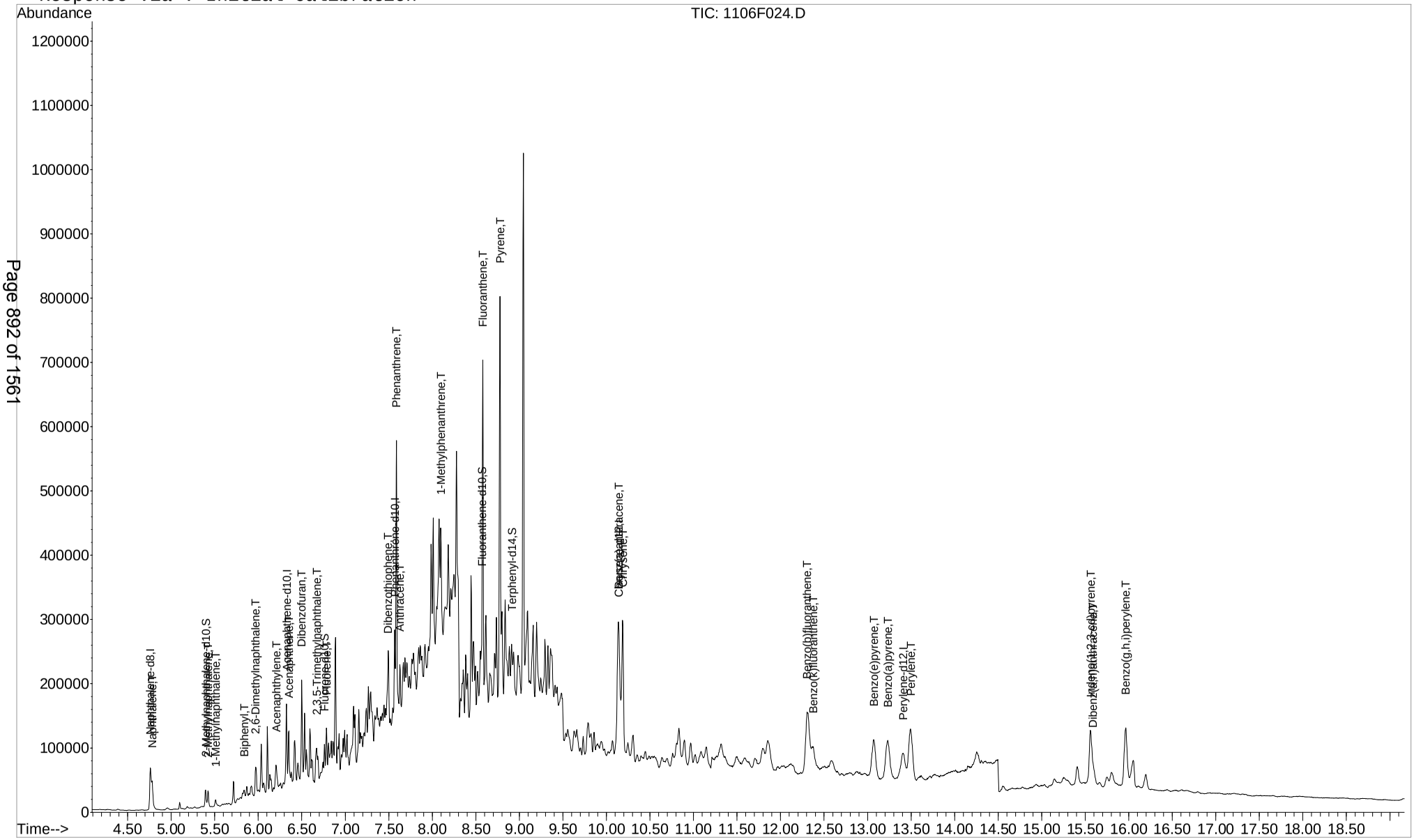
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

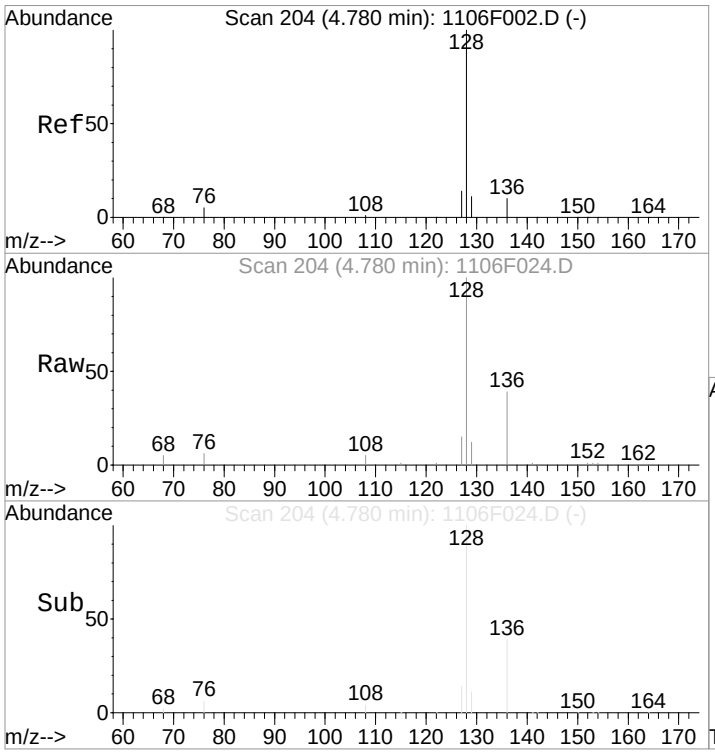
1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F024.D Vial: 24
Acq On : 6 Nov 2018 4:08 pm Operator: LWeiskopf
Sample : K1810302-028DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:53 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration



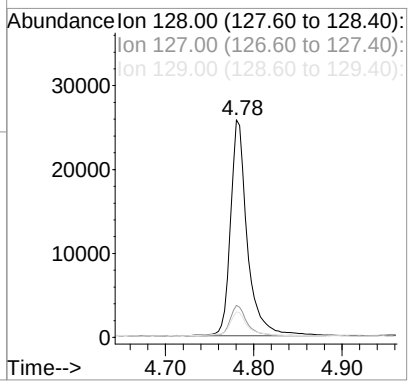
1st 11/16/18
2nd 11/27/18

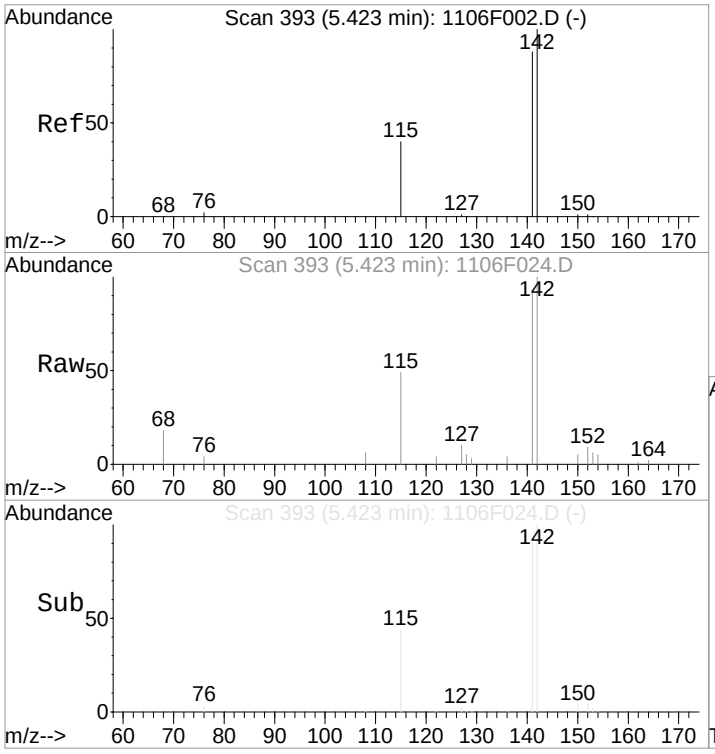


#2
Naphthalene
Concen: 84.82 ng/ml
RT: 4.78 min Scan# 204
Delta R.T. 0.00 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:128 Resp: 34186

Ion	Ratio	Lower	Upper
128	100		
127	14.0	0.0	43.7
129	11.1	0.0	30.8

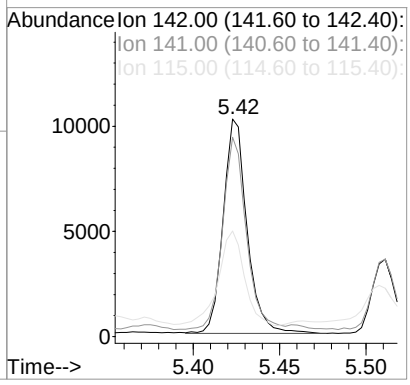




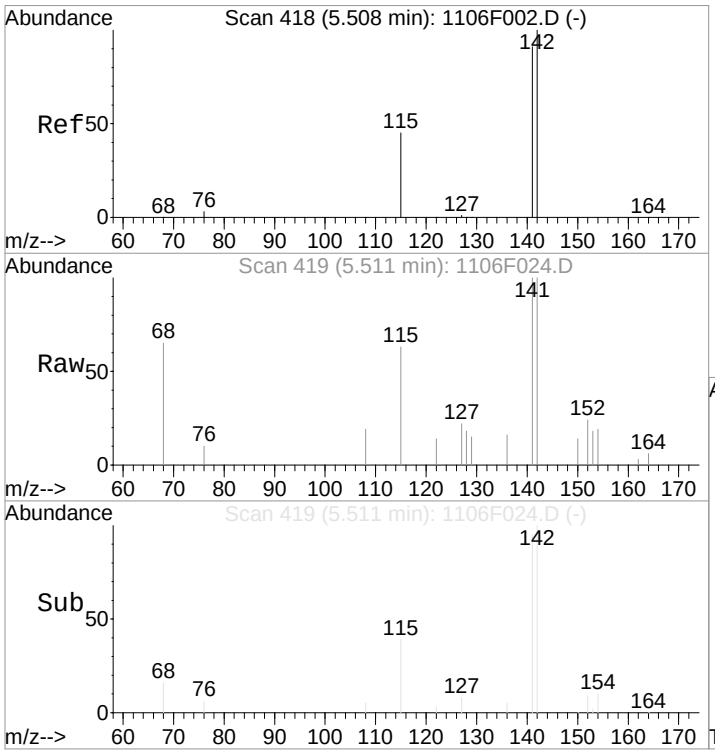
#4
2-Methylnaphthalene
Concen: 40.28 ng/ml
RT: 5.42 min Scan# 393
Delta R.T. 0.00 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:142 Resp: 9790

Ion	Ratio	Lower	Upper
142	100		
141	89.7	56.8	116.8
115	42.9	13.3	53.3



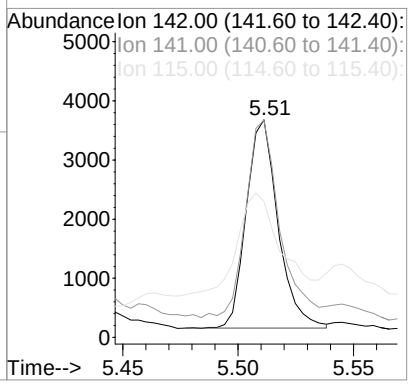
1st 11/16/18
2nd 11/27/18

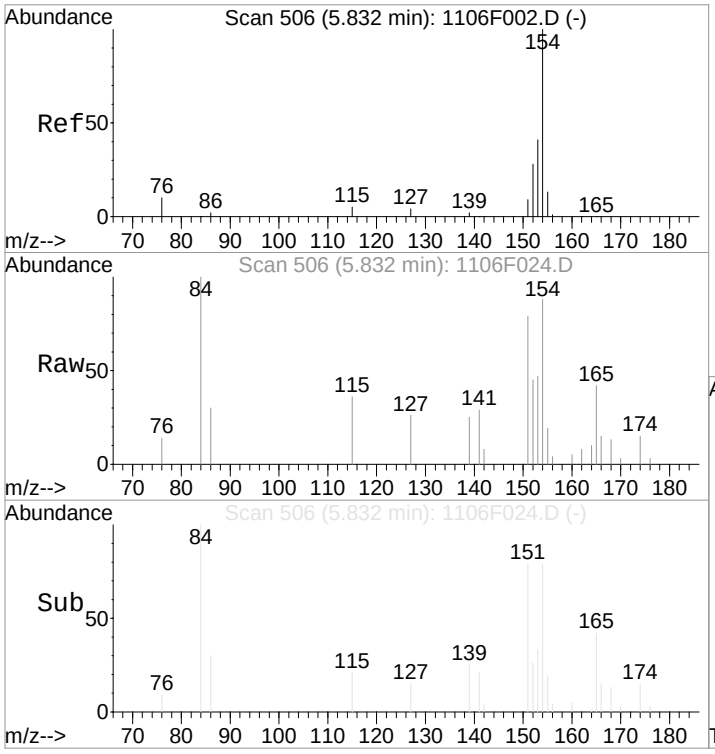


#5
1-Methylnaphthalene
Concen: 14.41 ng/ml
RT: 5.51 min Scan# 419
Delta R.T. 0.00 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:142 Resp: 3371

Ion	Ratio	Lower	Upper
142	100		
141	94.2	59.7	119.7
115	44.9	13.7	53.7

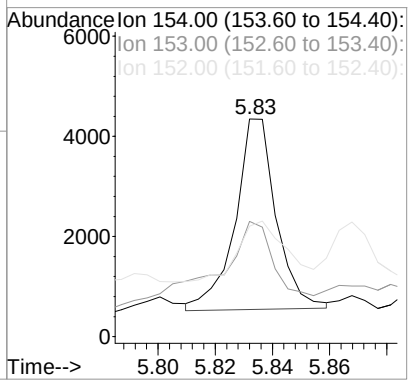




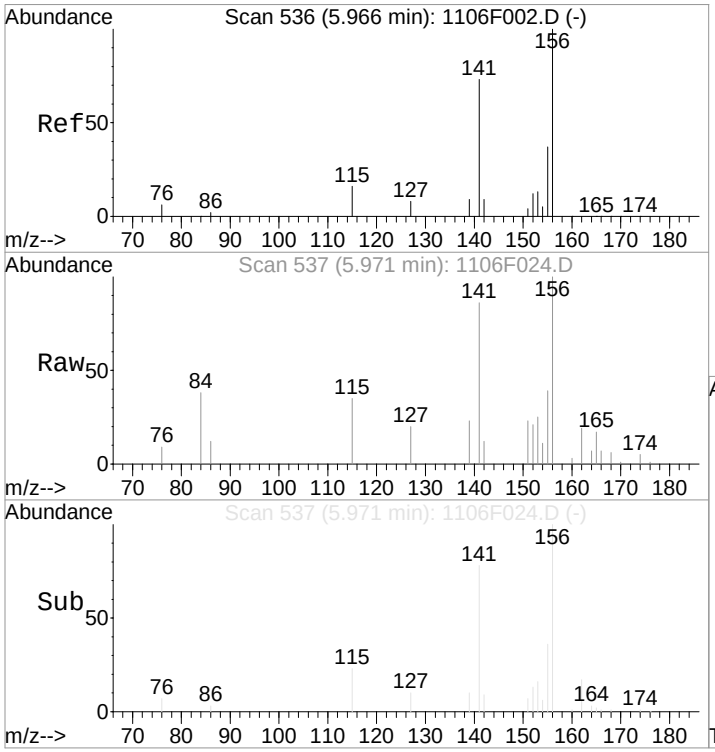
#6
Biphenyl
Concen: 12.58 ng/ml
RT: 5.83 min Scan# 506
Delta R.T. 0.00 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:154 Resp: 3815

Ion	Ratio	Lower	Upper
154	100		
153	37.4	11.4	71.4
152	30.0	7.1	47.1



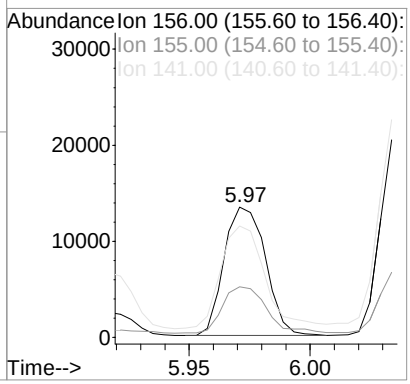
1st 11/16/18
2nd 11/27/18

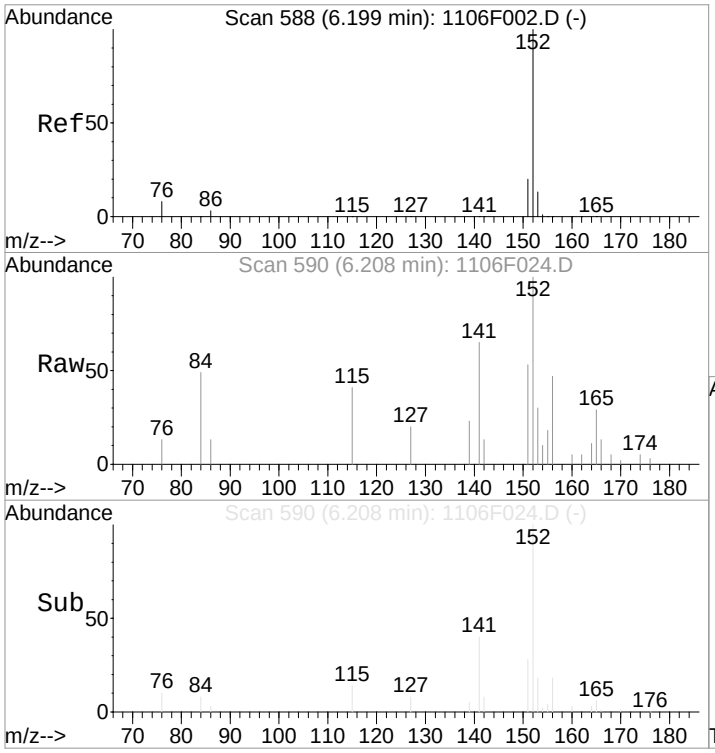


#7
2,6-Dimethylnaphthalene
Concen: 76.39 ng/ml
RT: 5.97 min Scan# 537
Delta R.T. 0.00 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:156 Resp: 15939

Ion	Ratio	Lower	Upper
156	100		
155	36.0	7.0	67.0
141	79.7	47.9	87.9

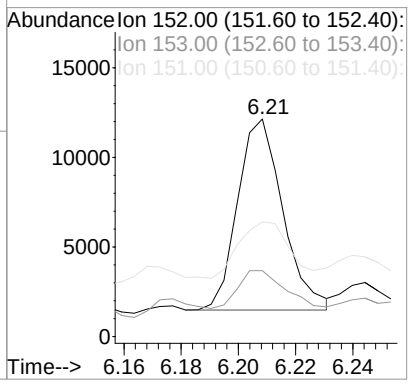




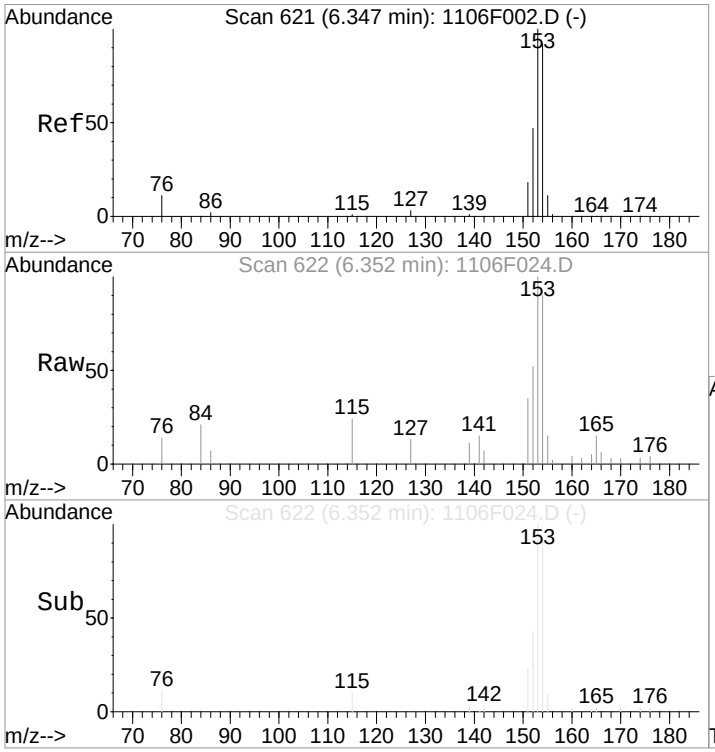
#9
Acenaphthylene
Concen: 30.19 ng/ml
RT: 6.21 min Scan# 590
Delta R.T. 0.01 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:152 Resp: 11744

Ion	Ratio	Lower	Upper
152	100		
153	18.8	0.0	42.9
151	29.1	0.2	40.2



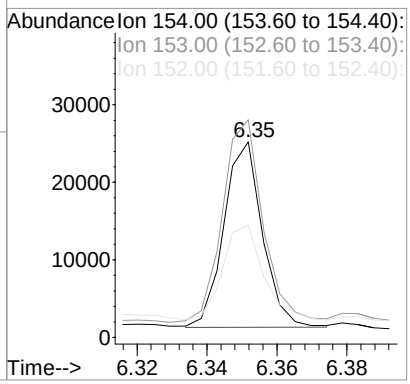
1st 11/16/18
2nd 11/27/18

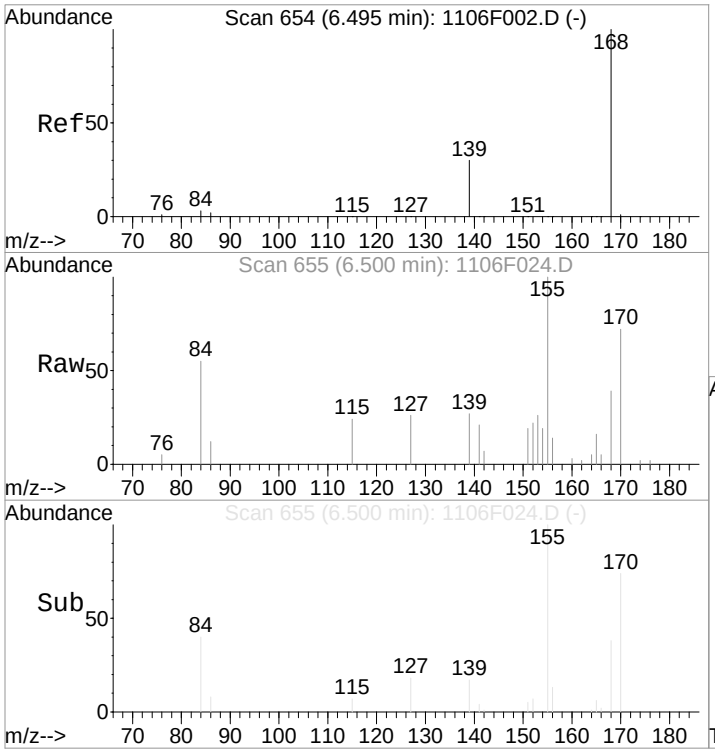


#10
Acenaphthene
Concen: 81.77 ng/ml
RT: 6.35 min Scan# 622
Delta R.T. 0.00 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:154 Resp: 18270

Ion	Ratio	Lower	Upper
154	100		
153	109.1	77.1	137.1
152	51.5	19.7	79.7

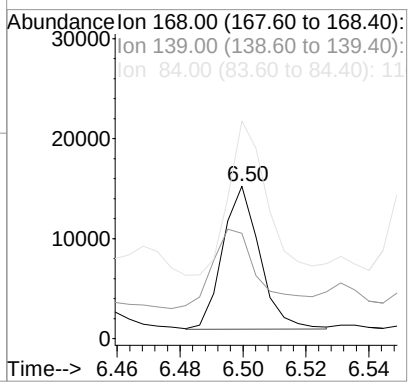




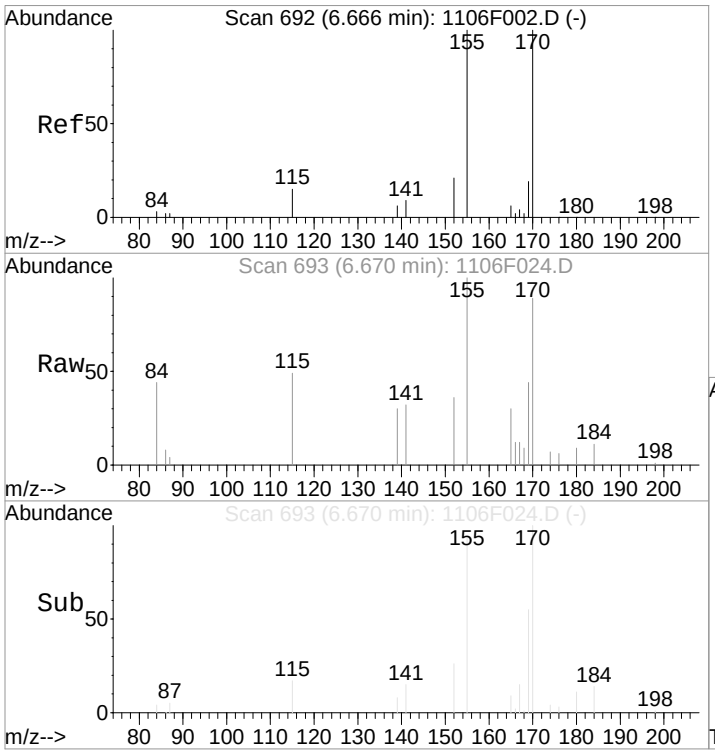
#11
Dibenzofuran
Concen: 32.78 ng/ml
RT: 6.50 min Scan# 655
Delta R.T. 0.00 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:168 Resp: 11754

Ion	Ratio	Lower	Upper
168	100		
139	50.7	0.0	55.8
84	108.1	0.0	23.5#



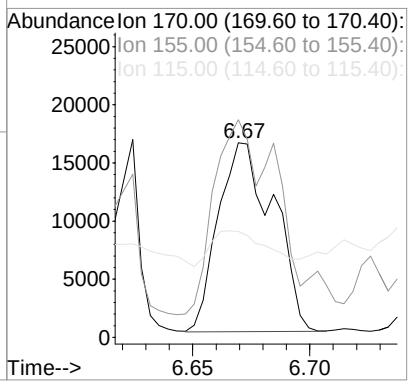
1st 11/16/18
2nd 11/27/18

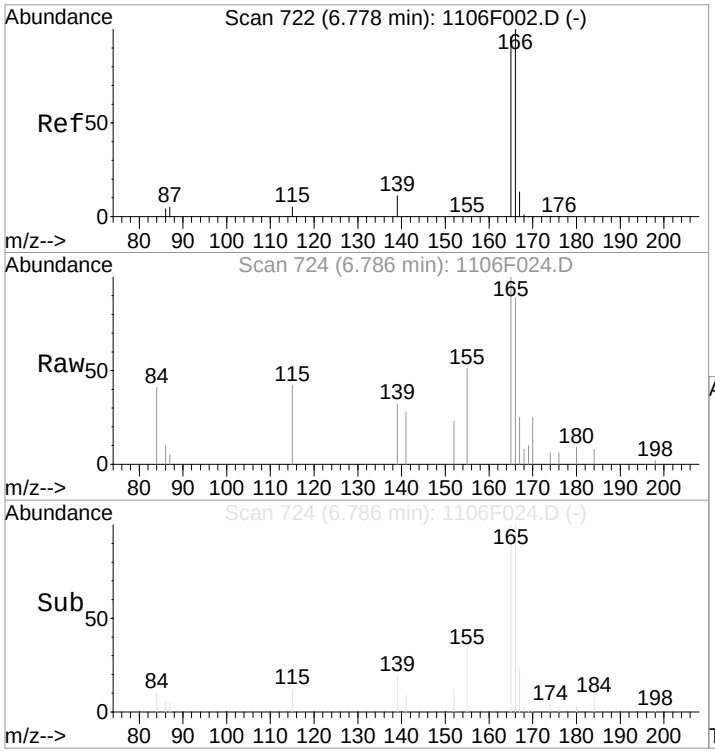


#12
2,3,5-Trimethylnaphthalene
Concen: 129.74 ng/ml
RT: 6.67 min Scan# 693
Delta R.T. 0.00 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:170 Resp: 26813

Ion	Ratio	Lower	Upper
170	100		
155	103.1	59.2	119.2
115	15.7	0.0	30.1

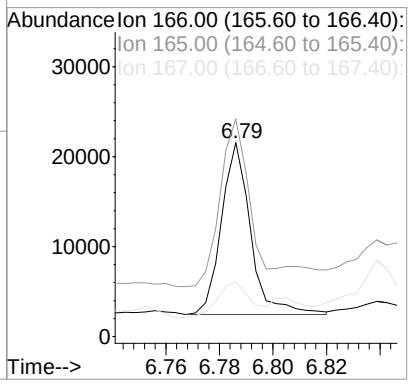




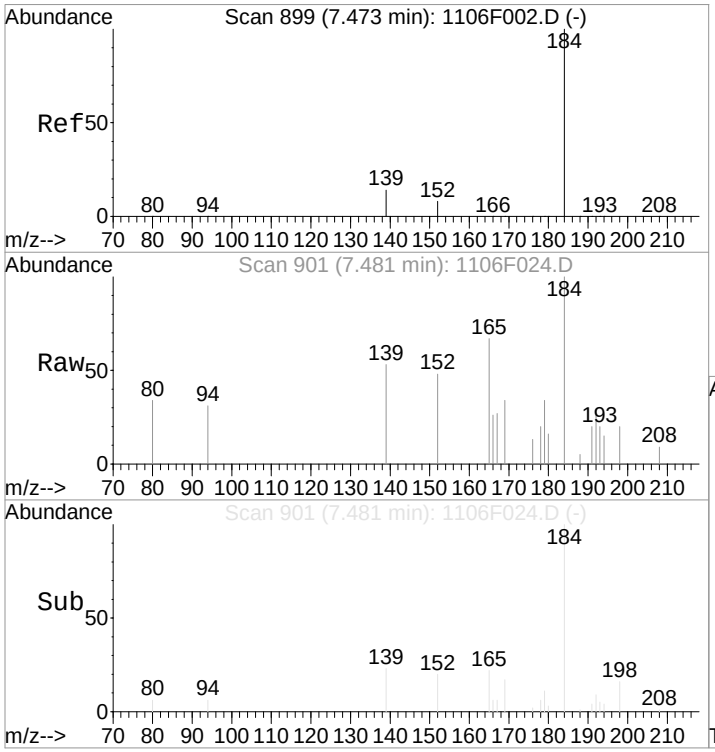
#14
Fluorene
Concen: 53.84 ng/ml
RT: 6.79 min Scan# 724
Delta R.T. 0.01 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:166 Resp: 14548

Ion	Ratio	Lower	Upper
166	100		
165	97.5	63.4	123.4
167	20.7	0.0	33.1



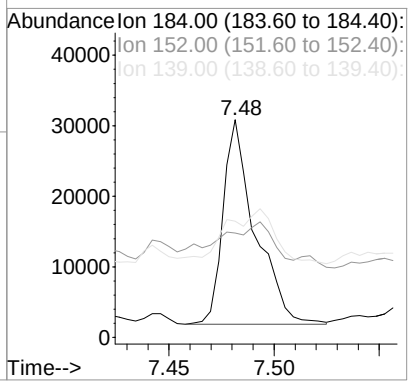
1st 11/16/18
2nd 11/27/18

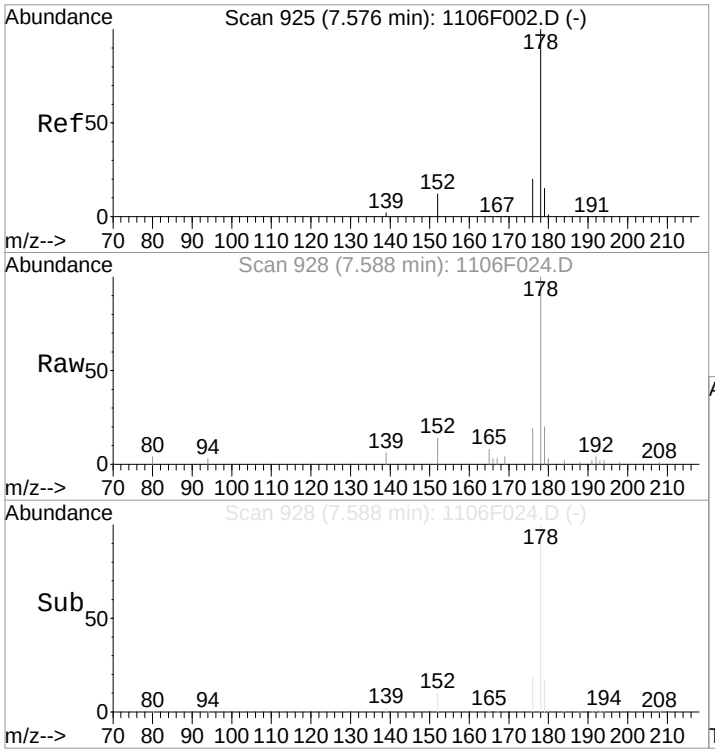


#16
Dibenzothiophene
Concen: 70.09 ng/ml
RT: 7.48 min Scan# 901
Delta R.T. 0.01 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:184 Resp: 30721

Ion	Ratio	Lower	Upper
184	100		
152	16.9	0.0	37.8
139	20.9	0.0	32.6

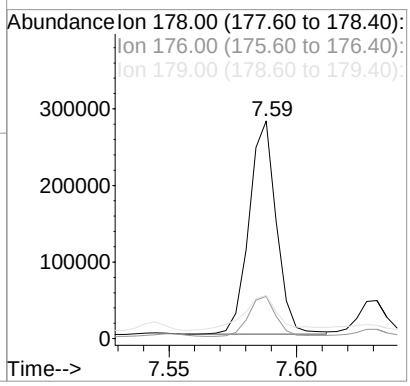




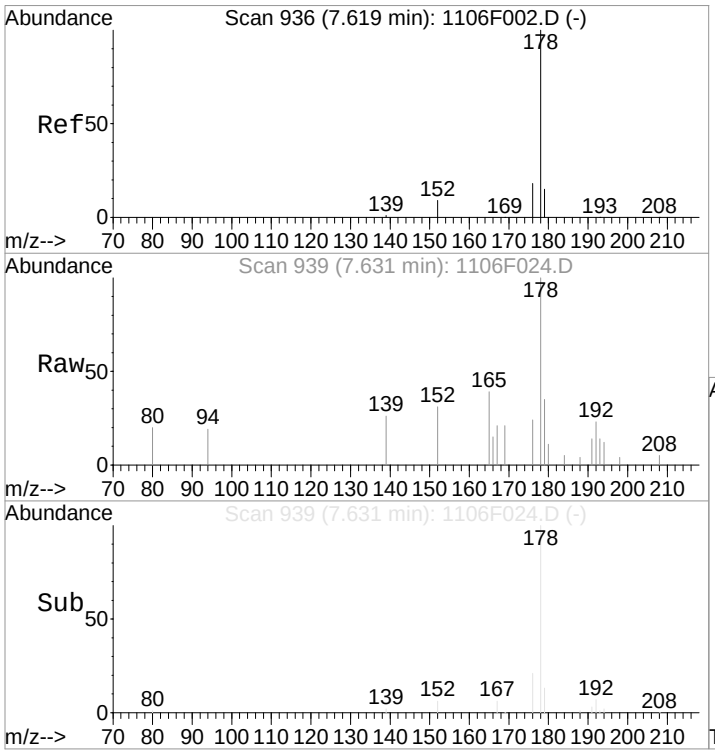
#17
Phenanthrene
Concen: 472.58 ng/ml
RT: 7.59 min Scan# 928
Delta R.T. 0.01 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:178 Resp: 207166

Ion	Ratio	Lower	Upper
178	100		
176	18.3	0.0	48.7
179	16.5	0.0	35.1



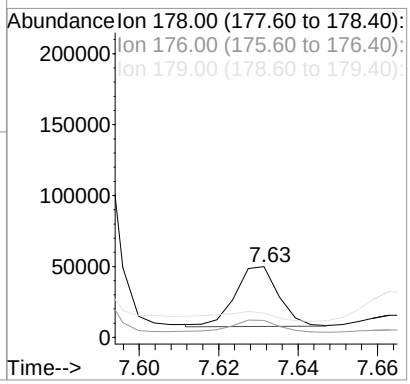
1st 11/16/18
2nd 11/27/18

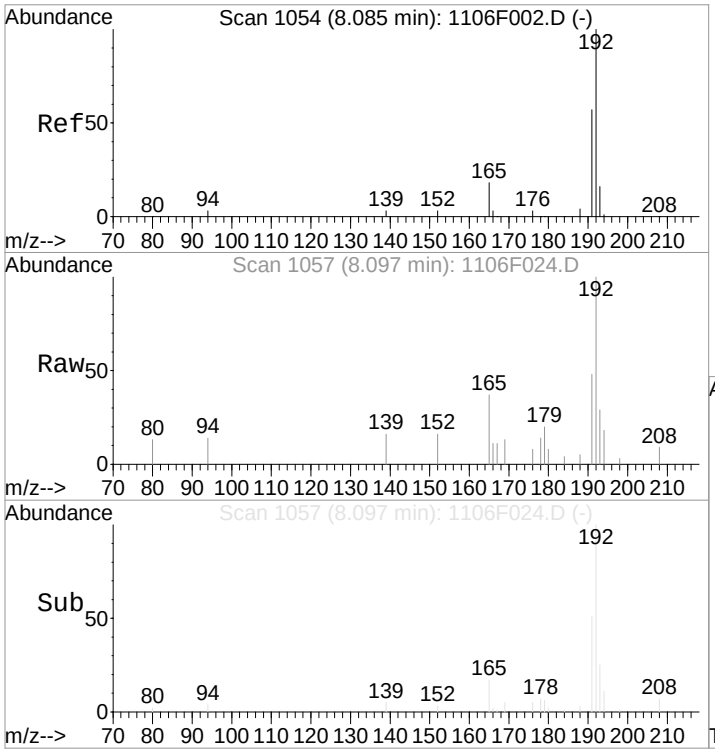


#18
Anthracene
Concen: 77.46 ng/ml
RT: 7.63 min Scan# 939
Delta R.T. 0.01 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:178 Resp: 32418

Ion	Ratio	Lower	Upper
178	100		
176	20.0	0.0	48.0
179	13.1	0.0	35.1

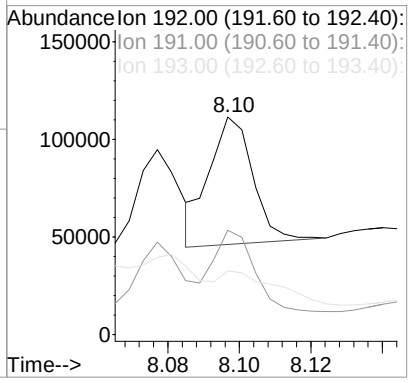




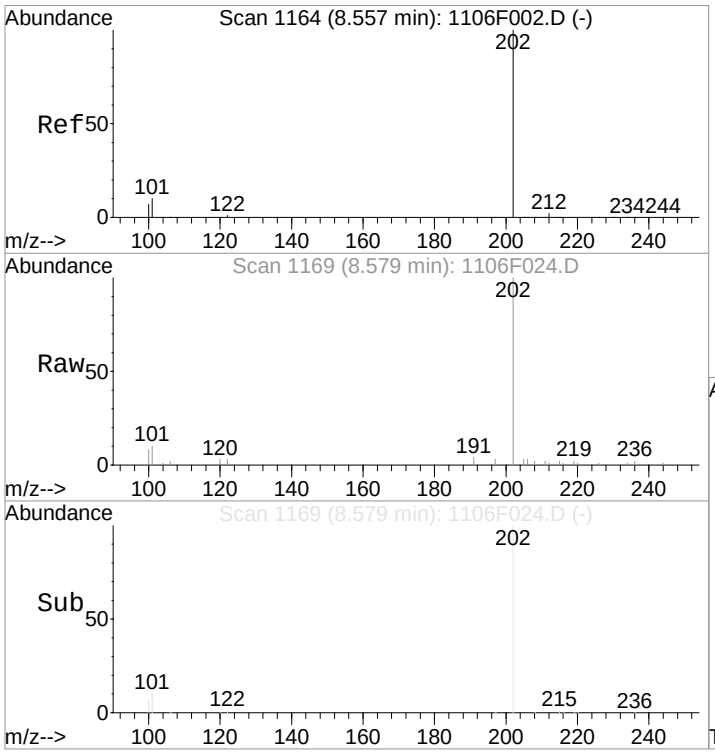
#20
1-Methylphenanthrene
Concen: 168.31 ng/ml
RT: 8.10 min Scan# 1057
Delta R.T. 0.01 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:192 Resp: 55887

Ion	Ratio	Lower	Upper
192	100		
191	67.2	27.7	87.7
193	27.2	0.0	45.4



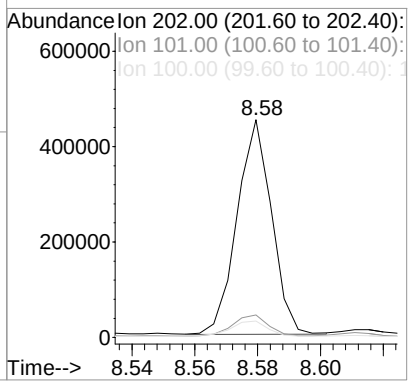
1st 11/16/18
2nd 11/27/18

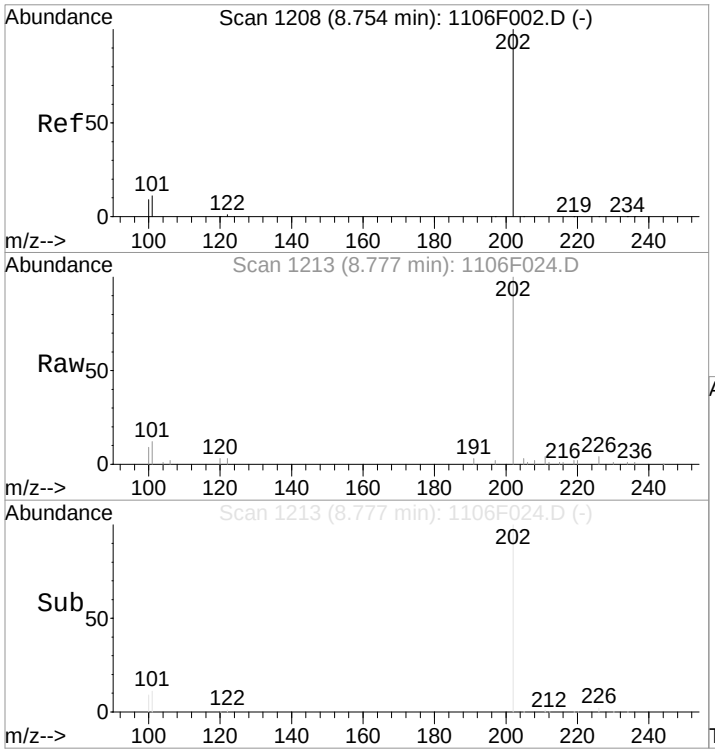


#21
Fluoranthene
Concen: 636.00 ng/ml
RT: 8.58 min Scan# 1169
Delta R.T. 0.02 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:202 Resp: 344267

Ion	Ratio	Lower	Upper
202	100		
101	9.9	0.0	41.3
100	7.0	0.0	28.6

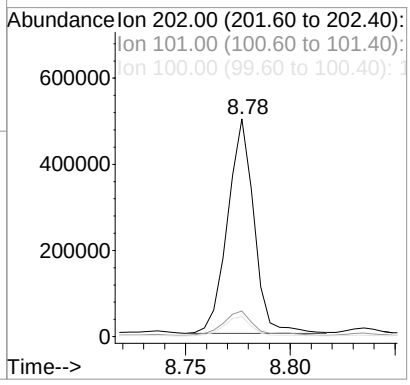


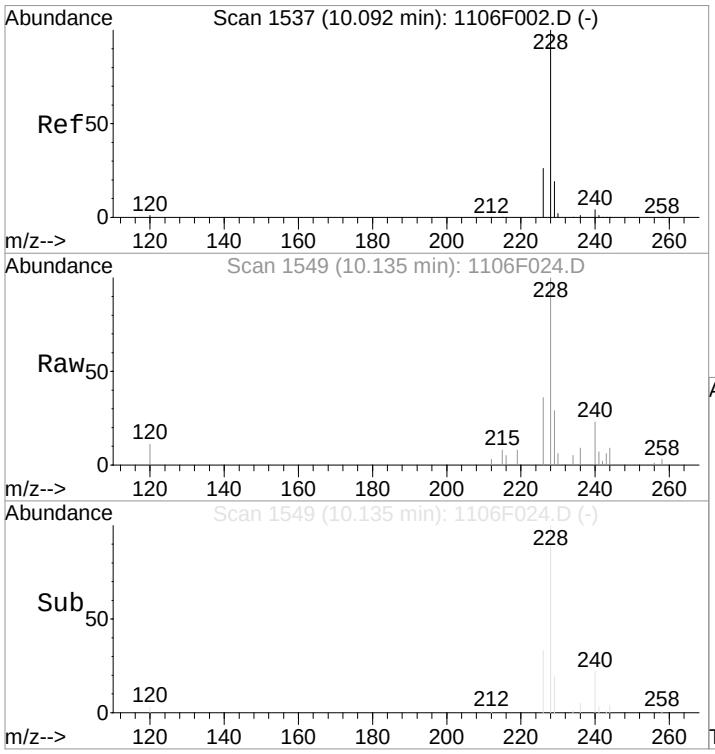


#24
Pyrene
Concen: 696.33 ng/ml
RT: 8.78 min Scan# 1213
Delta R.T. 0.02 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:202 Resp: 436176

Ion	Ratio	Lower	Upper
202	100		
101	11.3	0.0	40.8
100	9.0	0.0	28.5

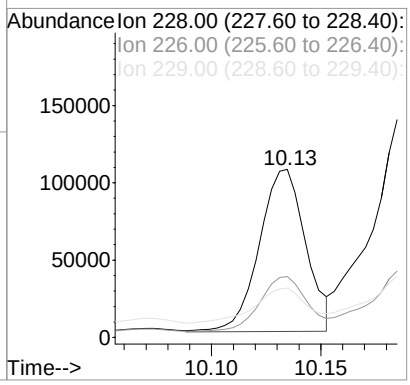


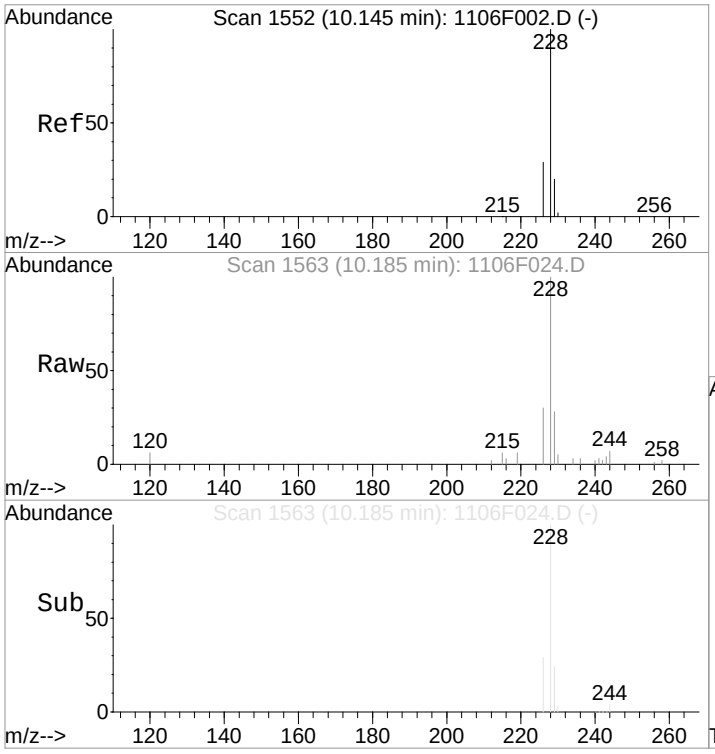


#26
Benz(a)anthracene
Concen: 263.08 ng/ml
RT: 10.13 min Scan# 1549
Delta R.T. 0.04 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:228 Resp: 155291

Ion	Ratio	Lower	Upper
228	100		
226	34.0	0.0	56.3
229	21.6	0.0	39.1

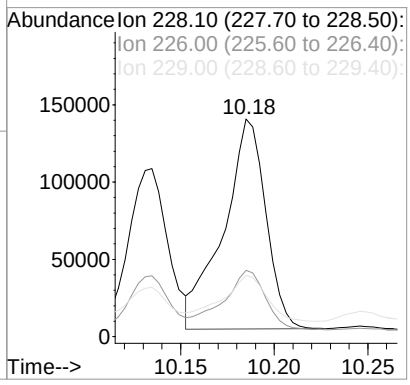


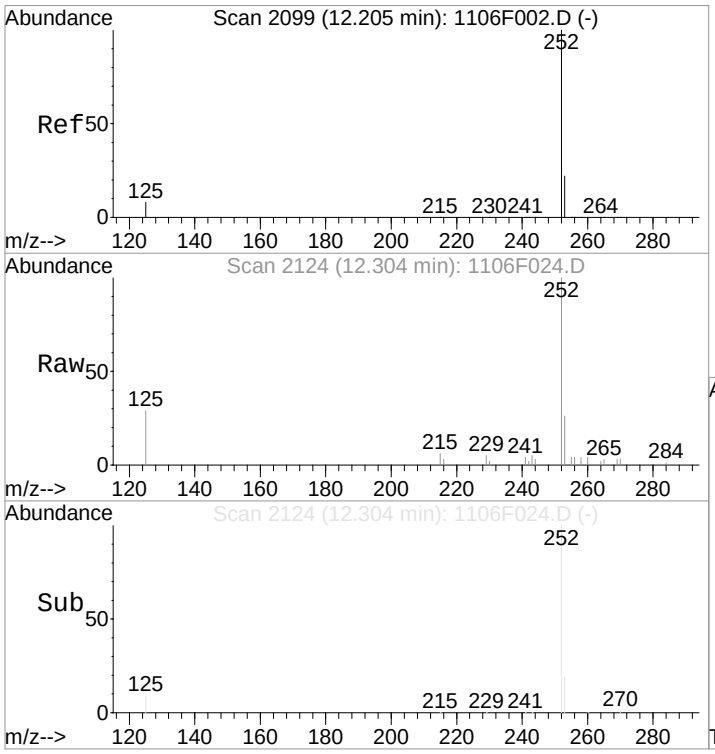


#27
Chrysene
Concen: 377.29 ng/ml
RT: 10.18 min Scan# 1563
Delta R.T. 0.04 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:228 Resp: 213322

Ion	Ratio	Lower	Upper
228	100		
226	28.5	0.0	58.7
229	21.8	0.0	39.2

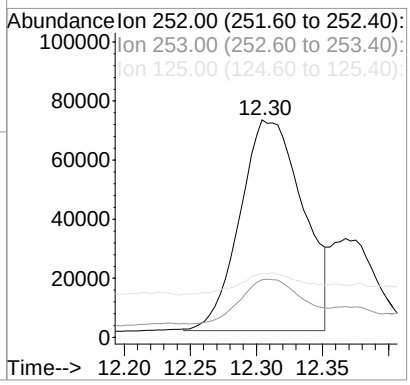


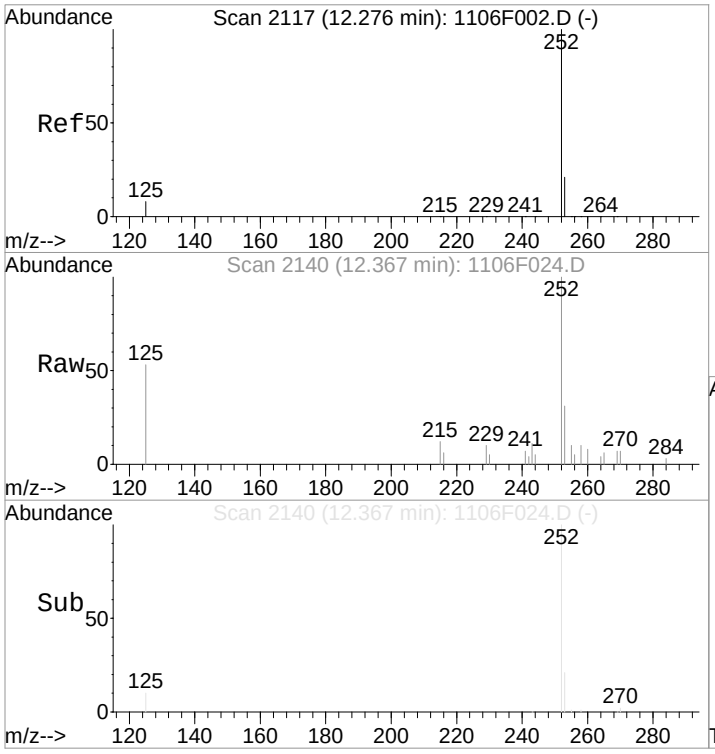


#29
Benzo(b)fluoranthene
Concen: 385.26 ng/ml m
RT: 12.30 min Scan# 2124
Delta R.T. 0.10 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:252 Resp: 237104

Ion	Ratio	Lower	Upper
252	100		
253	26.5	0.0	51.2
125	29.3	0.0	29.5

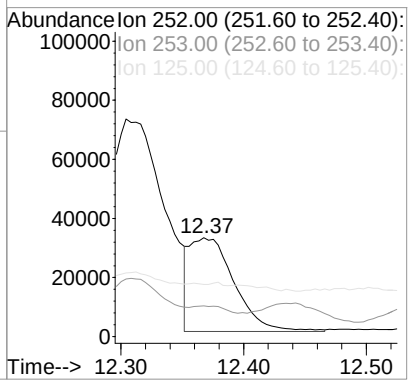




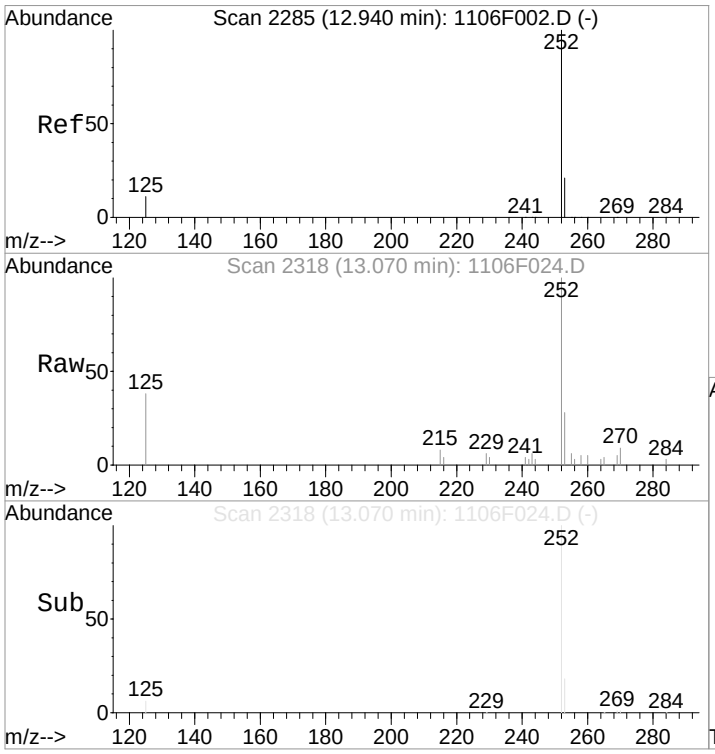
#30
Benzo(k)fluoranthene
Concen: 131.93 ng/ml m
RT: 12.37 min Scan# 2140
Delta R.T. 0.09 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:252 Resp: 80544

Ion	Ratio	Lower	Upper
252	100		
253	31.1	0.0	51.2
125	52.6	0.0	29.7#



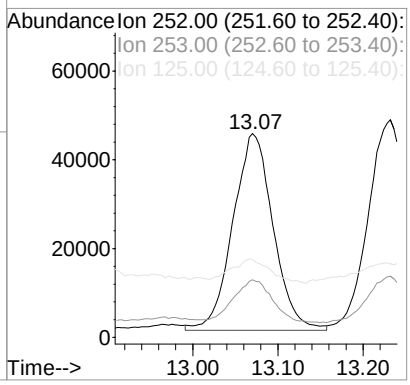
1st 11/16/18
2nd 11/27/18

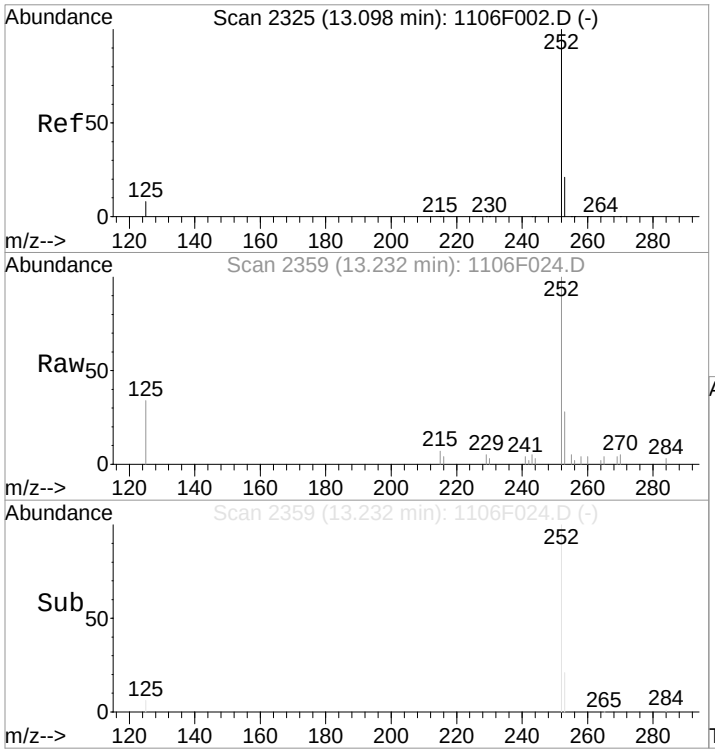


#31
Benzo(e)pyrene
Concen: 247.73 ng/ml m
RT: 13.07 min Scan# 2318
Delta R.T. 0.13 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:252 Resp: 145323

Ion	Ratio	Lower	Upper
252	100		
253	28.3	0.0	51.3
125	38.1	0.0	33.5#

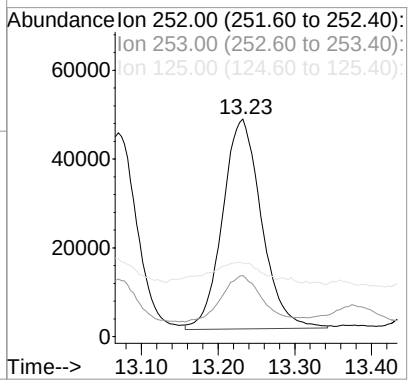




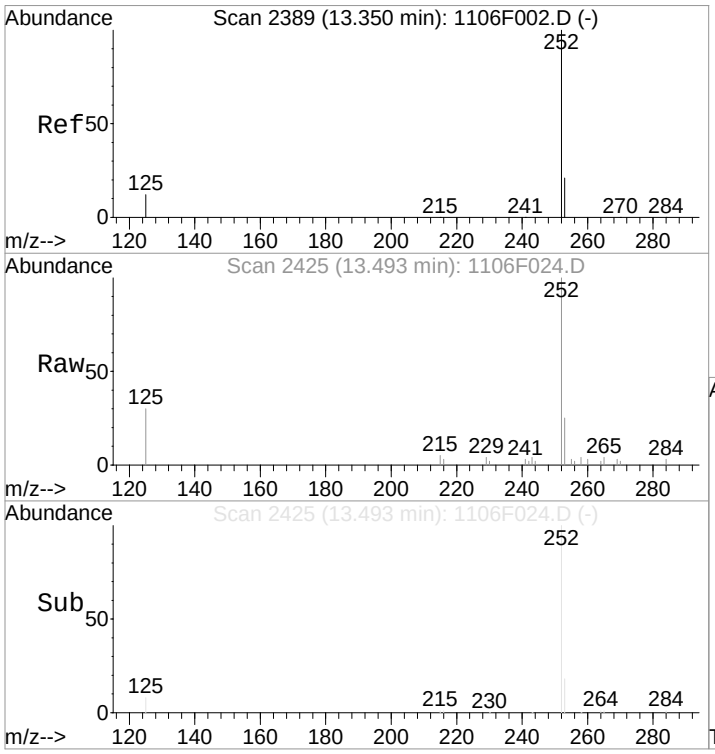
#32
Benzo(a)pyrene
Concen: 308.85 ng/ml m
RT: 13.23 min Scan# 2359
Delta R.T. 0.13 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:252 Resp: 166690

Ion	Ratio	Lower	Upper
252	100		
253	28.1	0.0	50.9
125	33.8	0.0	30.3#



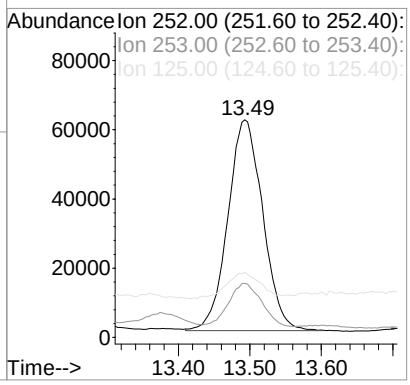
1st 11/16/18
2nd 11/27/18

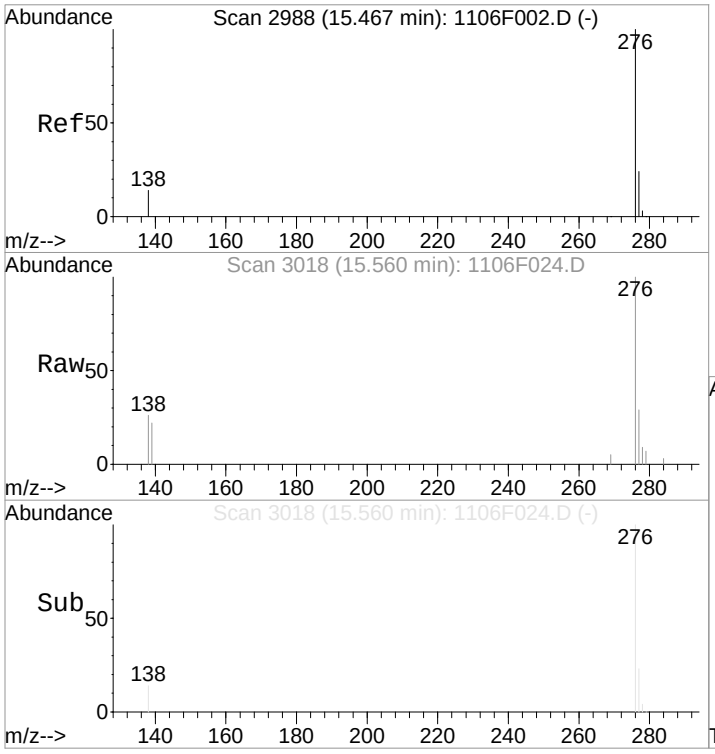


#33
Perylene
Concen: 366.39 ng/ml m
RT: 13.49 min Scan# 2425
Delta R.T. 0.14 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:252 Resp: 207437

Ion	Ratio	Lower	Upper
252	100		
253	24.8	0.0	51.2
125	29.9	0.0	33.8

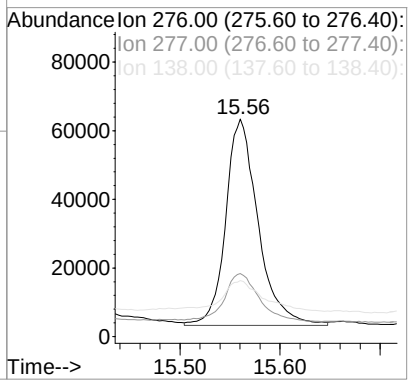




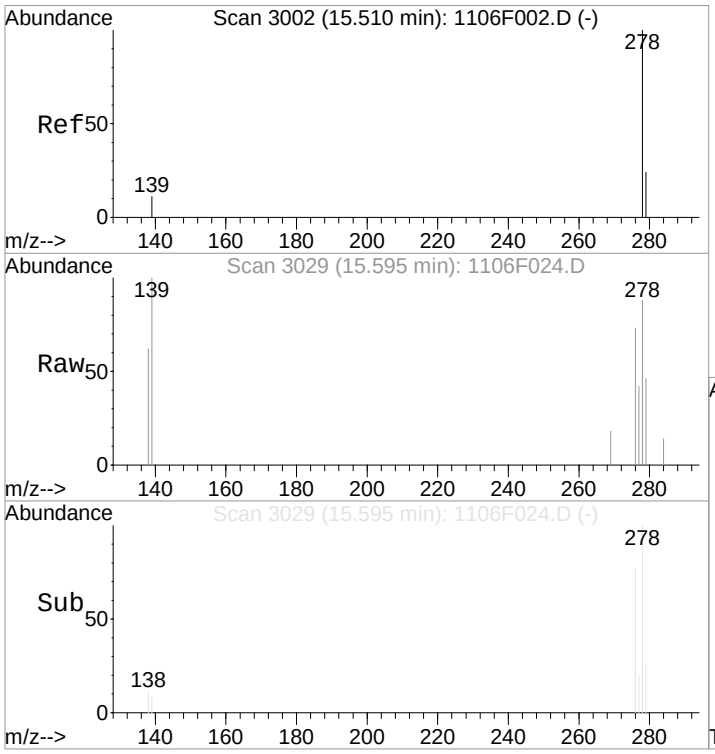
#34
Indeno(1,2,3-cd)pyrene
Concen: 256.25 ng/ml m
RT: 15.56 min Scan# 3018
Delta R.T. 0.09 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:276 Resp: 135615

Ion	Ratio	Lower	Upper
276	100		
277	29.0	0.0	53.4
138	25.7	0.0	37.7



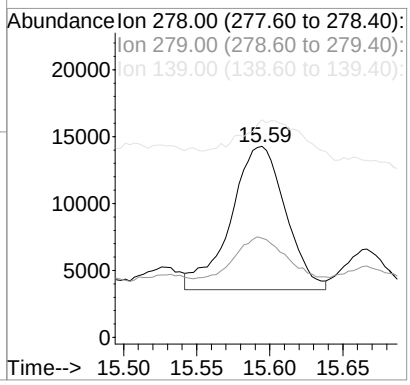
1st 11/16/18
2nd 11/27/18

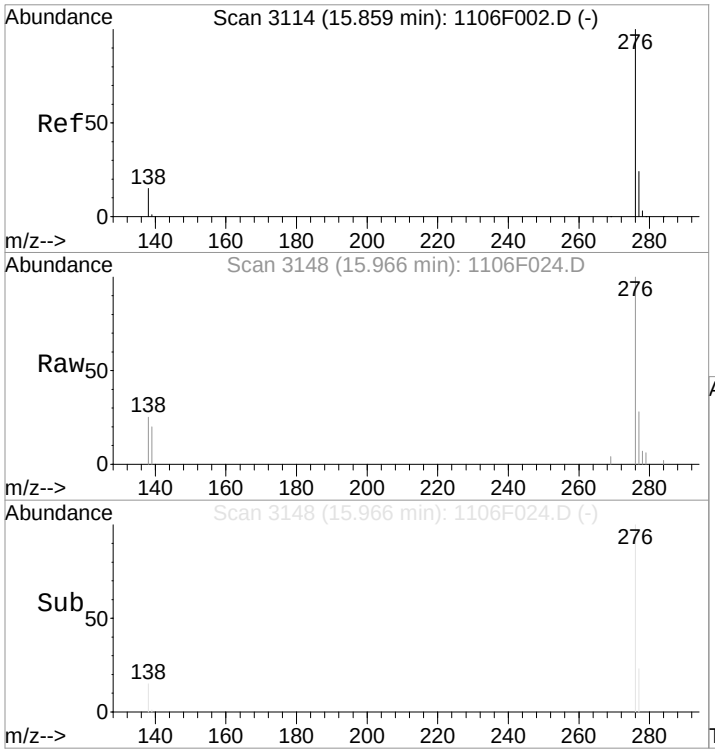


#35
Dibenz(a,h)anthracene
Concen: 52.00 ng/ml m
RT: 15.59 min Scan# 3029
Delta R.T. 0.08 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:278 Resp: 27899

Ion	Ratio	Lower	Upper
278	100		
279	51.9	0.0	53.5
139	113.8	0.0	35.0#

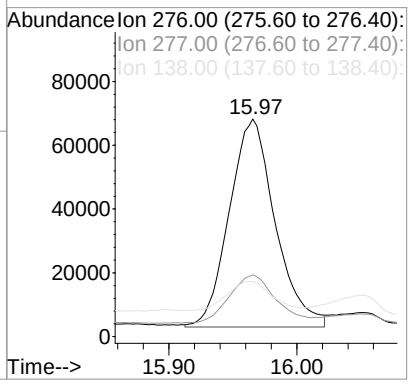




#36
Benzo(g,h,i)perylene
Concen: 263.09 ng/ml m
RT: 15.97 min Scan# 3148
Delta R.T. 0.11 min
Lab File: 1106F024.D
Acq: 6 Nov 2018 4:08 pm

Tgt Ion:276 Resp: 163055

Ion	Ratio	Lower	Upper
276	100		
277	28.4	0.0	53.1
138	25.3	0.0	39.2



Quantitation Report (QT Reviewed)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F024.D Vial: 24
Acq On : 6 Nov 2018 4:08 pm Operator: LWeiskopf
Sample : K1810302-028DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 09:56:55 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.76	136	69825	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.32	164	32597	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.57	188	70272	200.00	ng/ml	0.01
23) Chrysene-d12	10.15	240	91298	200.00	ng/ml	0.04
28) Perylene-d12	13.41	264	99613m	200.00	ng/ml	0.14
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.40	152	10920	56.03	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	5.60%		
13) Fluorene-d10	6.76	176	16856	80.87	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	8.09%		
22) Fluoranthene-d10	8.56	212	40358	91.12	ng/ml	0.02
Spiked Amount 1000.000			Recovery =	9.11%		
25) Terphenyl-d14	8.91	244	34176	86.30	ng/ml	0.02
Spiked Amount 1000.000			Recovery =	8.63%		
Target Compounds						Qvalue
2) Naphthalene	4.78	128	34186	84.82	ng/ml	99
4) 2-Methylnaphthalene	5.42	142	9790	40.28	ng/ml	93
5) 1-Methylnaphthalene	5.51	142	3371	14.41	ng/ml	91
6) Biphenyl	5.83	154	3815	12.58	ng/ml	94
7) 2,6-Dimethylnaphthalene	5.97	156	15939	76.39	ng/ml	90
9) Acenaphthylene	6.21	152	11744	30.19	ng/ml	82
10) Acenaphthene	6.35	154	18270	81.77	ng/ml	98
11) Dibenzofuran	6.50	168	11754	32.78	ng/ml#	19
12) 2,3,5-Trimethylnaphthalene	6.67	170	26813	129.74	ng/ml	85
14) Fluorene	6.79	166	14548	53.84	ng/ml	94
16) Dibenzothiophene	7.48	184	30721	70.09	ng/ml	77
17) Phenanthrene	7.59	178	207166	472.58	ng/ml	98
18) Anthracene	7.63	178	32418	77.46	ng/ml	95
20) 1-Methylphenanthrene	8.10	192	55887	168.31	ng/ml	84
21) Fluoranthene	8.58	202	344267	636.00	ng/ml	96
24) Pyrene	8.78	202	436176	696.33	ng/ml	99
26) Benz(a)anthracene	10.13	228	155291	263.08	ng/ml	89
27) Chrysene	10.18	228	213322	377.29	ng/ml	97
29) Benzo(b)fluoranthene	12.30	252	237104m	385.26	ng/ml	
30) Benzo(k)fluoranthene	12.37	252	80544m	131.93	ng/ml	
31) Benzo(e)pyrene	13.07	252	145323m	247.73	ng/ml	
32) Benzo(a)pyrene	13.23	252	166690m	308.85	ng/ml	
33) Perylene	13.49	252	207437m	366.39	ng/ml	
34) Indeno(1,2,3-cd)pyrene	15.56	276	135615m	256.25	ng/ml	
35) Dibenz(a,h)anthracene	15.59	278	27899m	52.00	ng/ml	
36) Benzo(g,h,i)perylene	15.97	276	163055m	263.09	ng/ml	

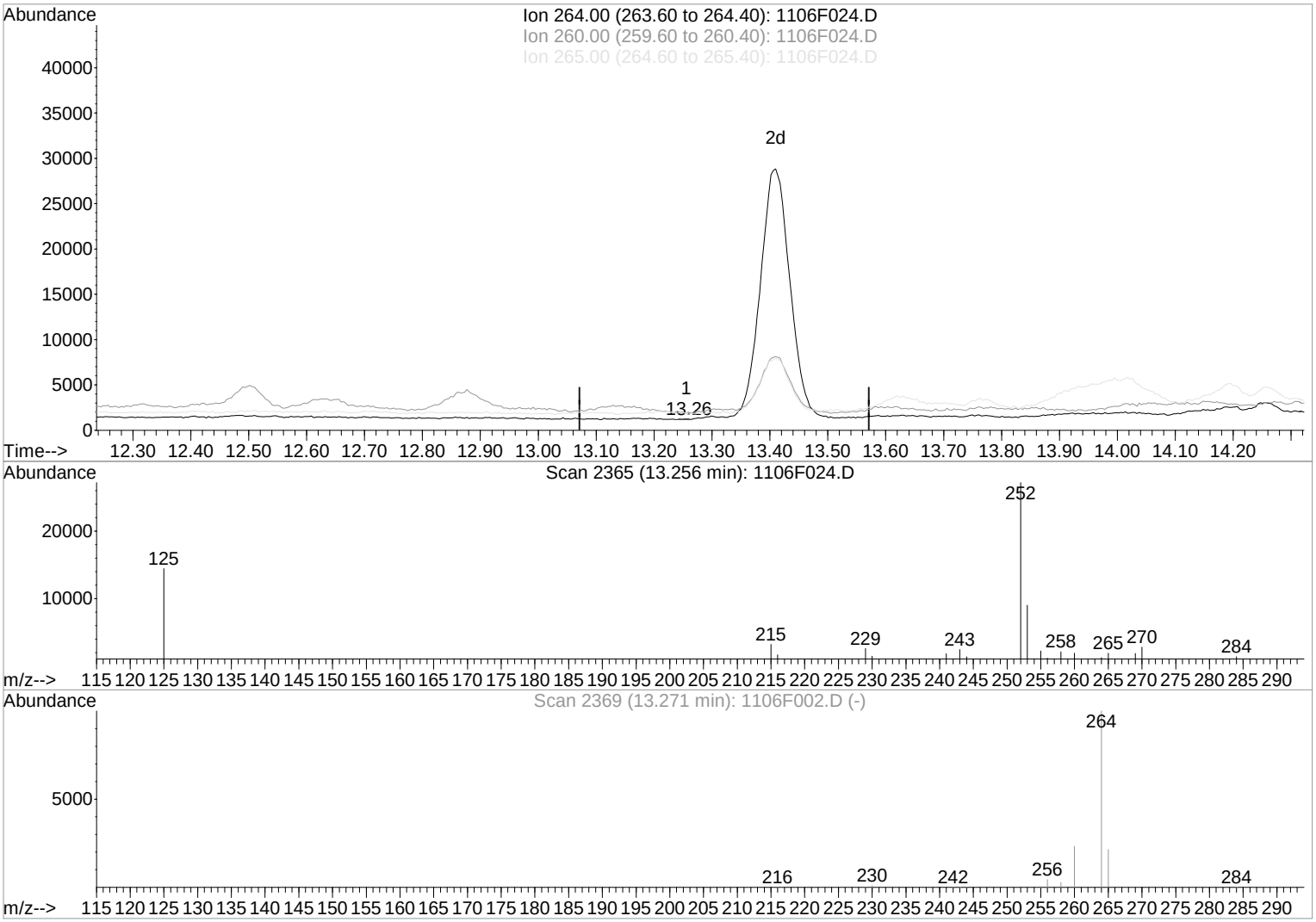
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F024.D Vial: 24
Acq On : 6 Nov 2018 4:08 pm Operator: LWeiskopf
Sample : K1810302-028DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:52 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F024.D

(28) Perylene-d12 (I)

13.26min 200.00ng/ml

response 67

Ion	Exp%	Act%
264.00	100	100
260.00	23.00	31.51
265.00	21.50	20.55
0.00	0.00	0.00

Manual Integration:

Before

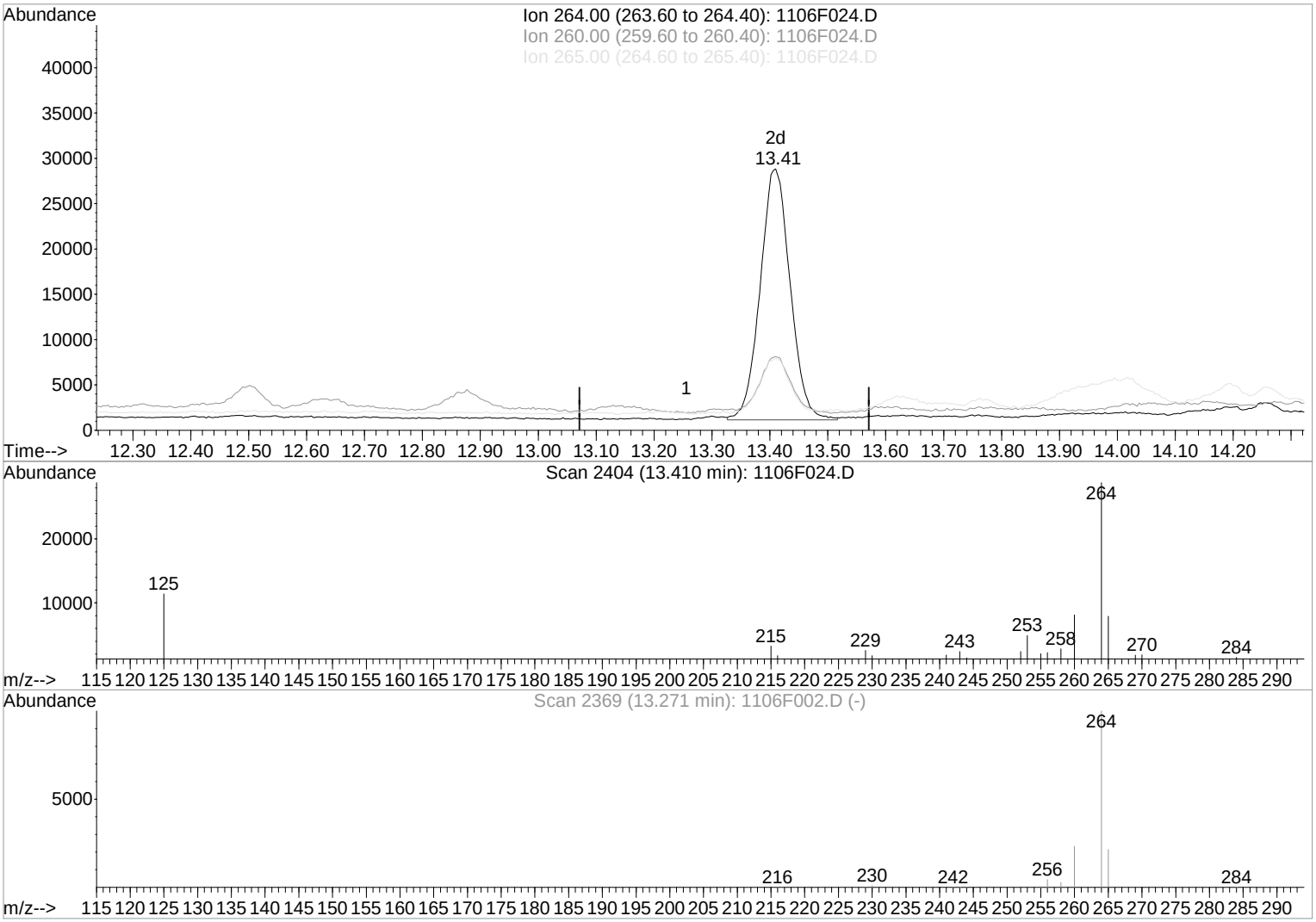
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F024.D Vial: 24
Acq On : 6 Nov 2018 4:08 pm Operator: LWeiskopf
Sample : K1810302-028DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:52 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F024.D

(28) Perylene-d12 (I)

13.41min 200.00ng/ml m

response 99613

Ion	Exp%	Act%
264.00	100	100
260.00	23.00	28.20
265.00	21.50	27.40
0.00	0.00	0.00

Manual Integration:

After

WP

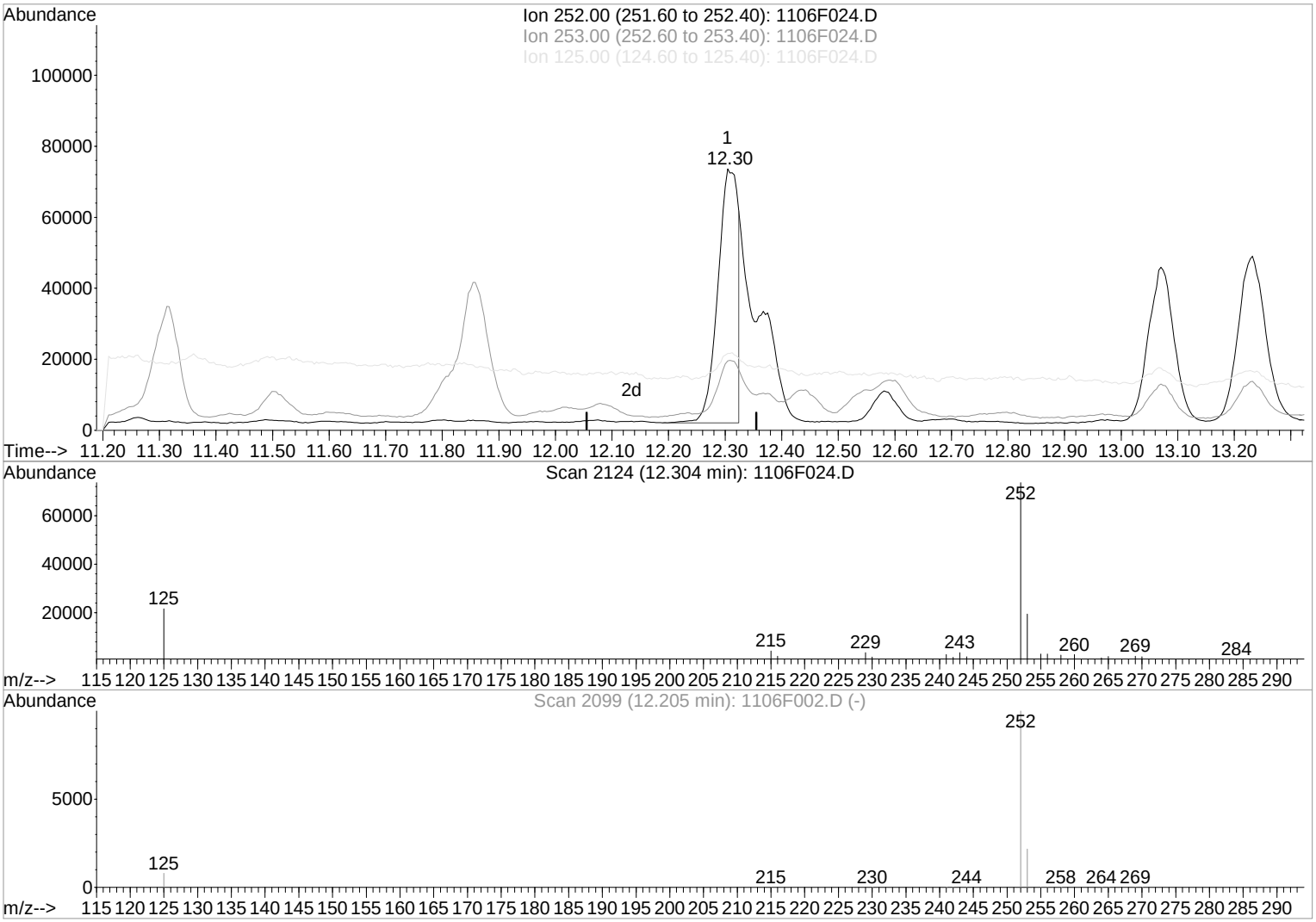
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F024.D Vial: 24
Acq On : 6 Nov 2018 4:08 pm Operator: LWeiskopf
Sample : K1810302-028DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:52 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F024.D

(29) Benzo(b)fluoranthene (T)

12.30min 284.78ng/ml

response 175263

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.92
125.00	9.50	9.84
0.00	0.00	0.00

Manual Integration:

Before

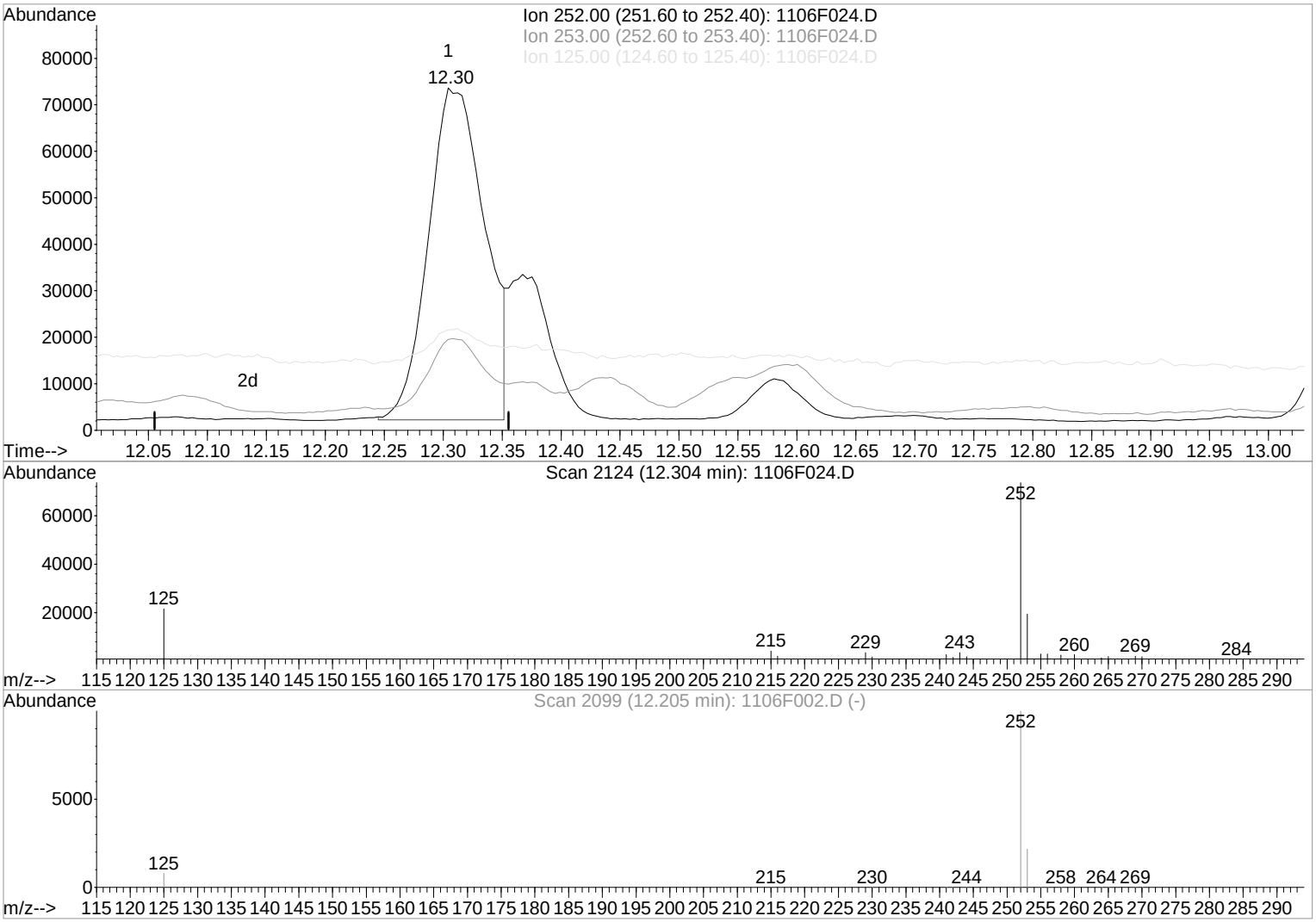
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F024.D Vial: 24
Acq On : 6 Nov 2018 4:08 pm Operator: LWeiskopf
Sample : K1810302-028DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:52 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F024.D

(29) Benzo(b)fluoranthene (T)

12.30min 385.26ng/ml m

response 237104

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	26.49
125.00	9.50	29.34
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

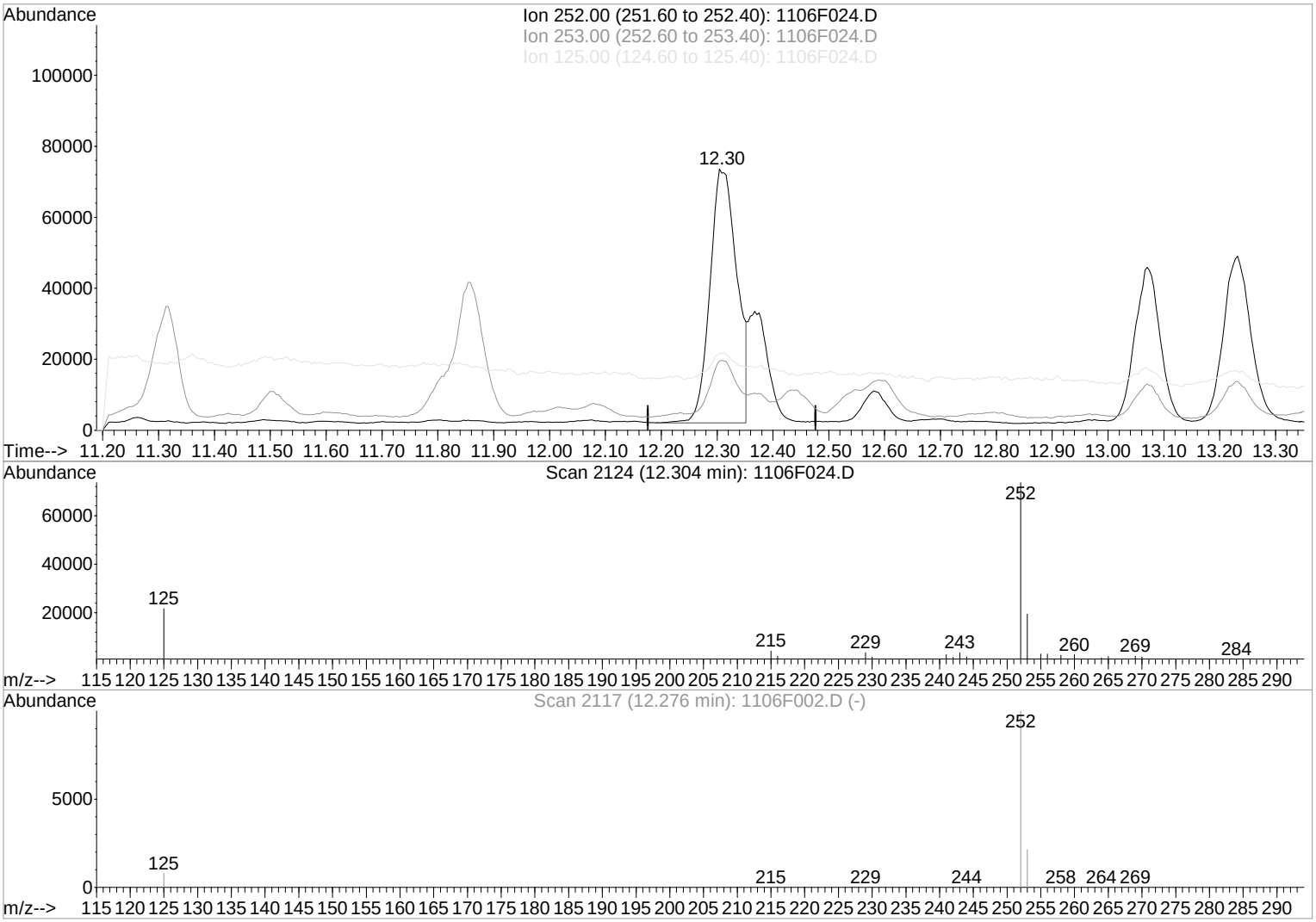
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F024.D Vial: 24
Acq On : 6 Nov 2018 4:08 pm Operator: LWeiskopf
Sample : K1810302-028DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:52 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F024.D

(30) Benzo(k)fluoranthene (T)

12.30min 391.57ng/ml

response 239065

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	21.92
125.00	9.70	9.84
0.00	0.00	0.00

Manual Integration:

Before

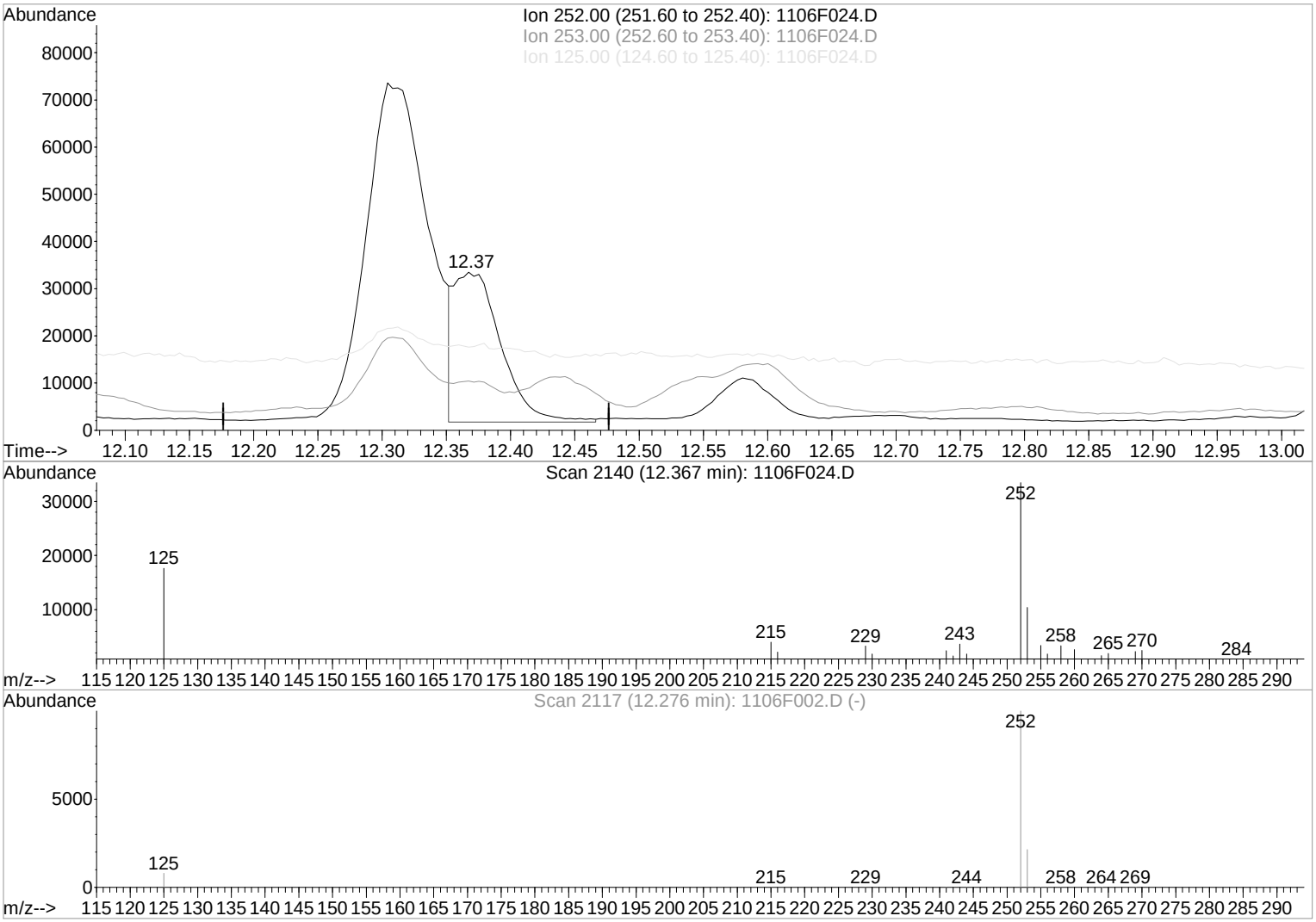
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F024.D Vial: 24
Acq On : 6 Nov 2018 4:08 pm Operator: LWeiskopf
Sample : K1810302-028DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:52 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F024.D

(30) Benzo(k)fluoranthene (T)

12.37min 131.93ng/ml m

response 80544

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	31.09
125.00	9.70	52.63#
0.00	0.00	0.00

Manual Integration:

After

WP

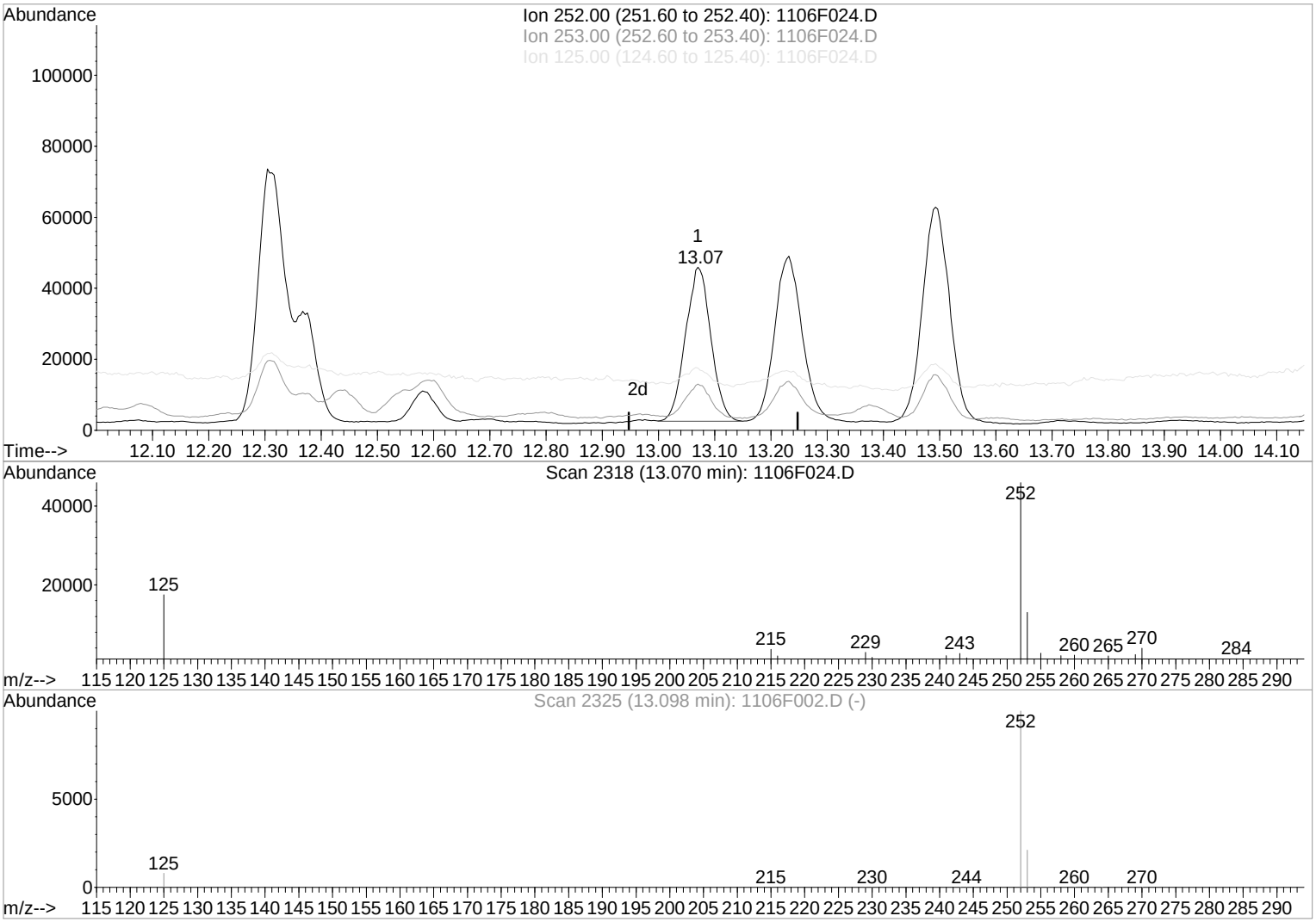
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F024.D Vial: 24
Acq On : 6 Nov 2018 4:08 pm Operator: LWeiskopf
Sample : K1810302-028DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:52 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F024.D

(32) Benzo(a)pyrene (T)

13.07min 252.11ng/ml

response 136067

Ion	Exp%	Act%
252.00	100	100
253.00	20.90	22.33
125.00	10.30	10.35
0.00	0.00	0.00

Manual Integration:

Before

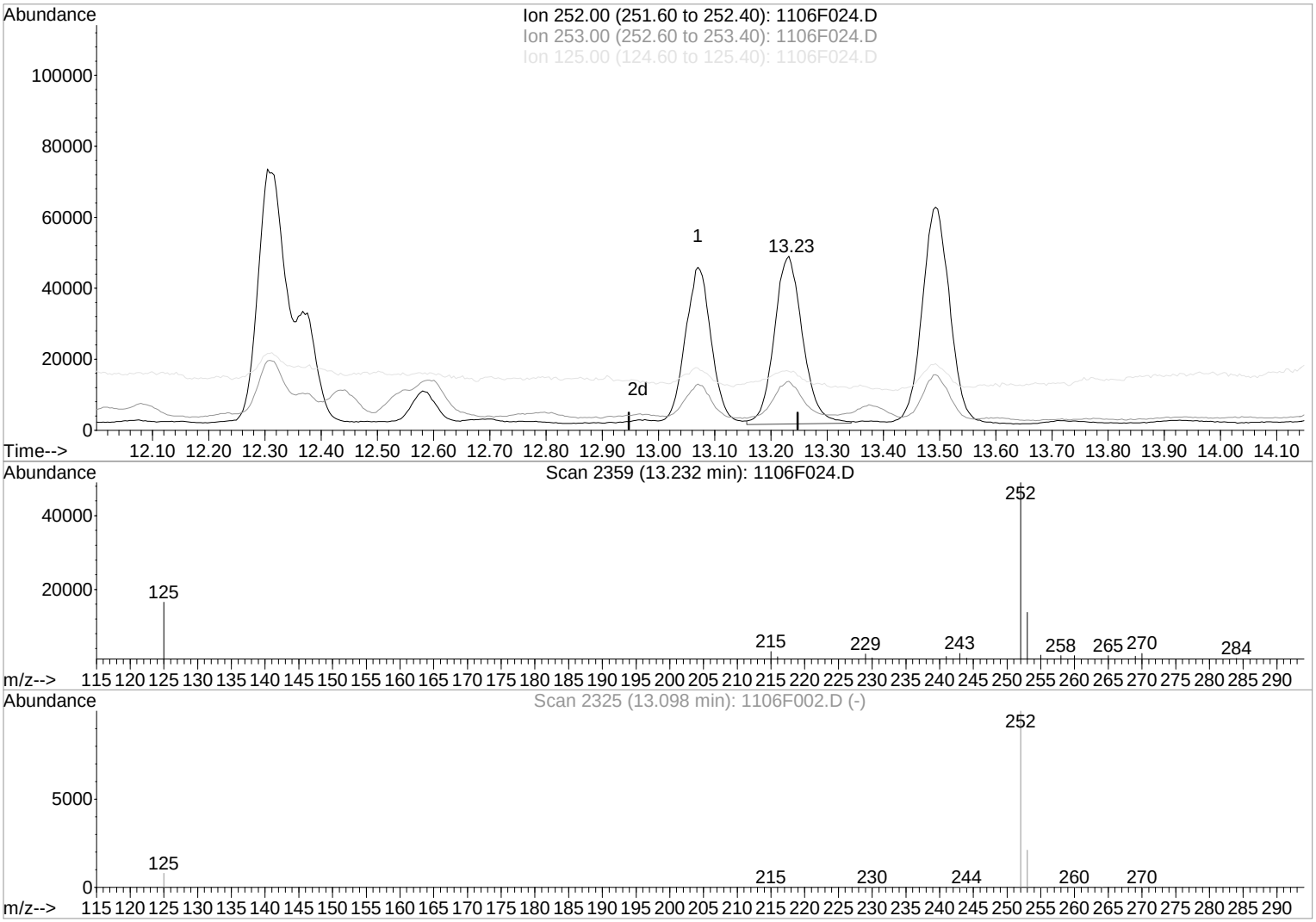
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F024.D Vial: 24
Acq On : 6 Nov 2018 4:08 pm Operator: LWeiskopf
Sample : K1810302-028DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:52 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F024.D

(32) Benzo(a)pyrene (T)

13.23min 308.85ng/ml m

response 166690

Ion	Exp%	Act%
252.00	100	100
253.00	20.90	28.08
125.00	10.30	33.80#
0.00	0.00	0.00

Manual Integration:

After

WP

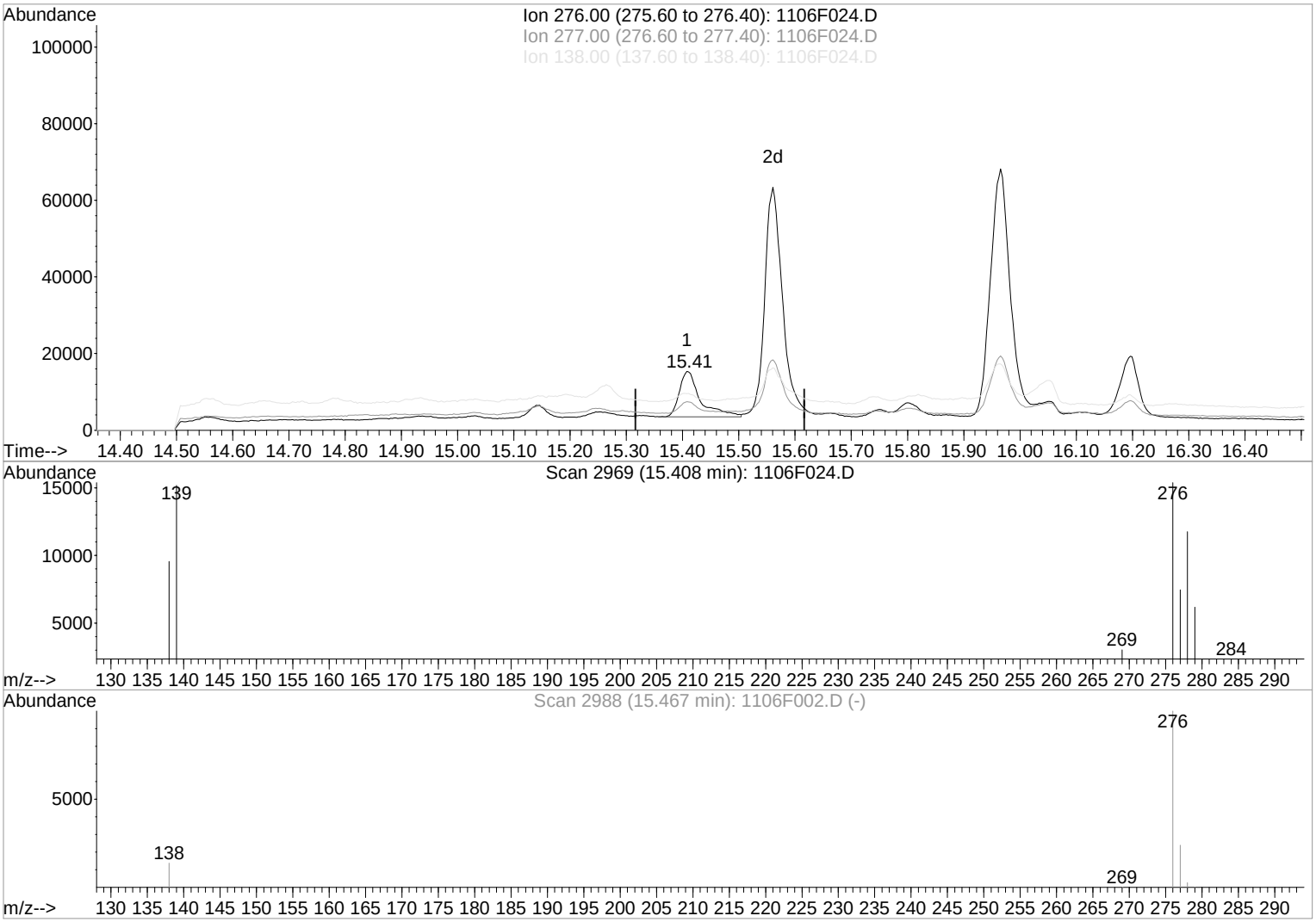
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F024.D Vial: 24
Acq On : 6 Nov 2018 4:08 pm Operator: LWeiskopf
Sample : K1810302-028DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:53 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F024.D

(34) Indeno(1,2,3-cd)pyrene (T)

15.41min 58.91ng/ml

response 31179

Ion	Exp%	Act%
276.00	100	100
277.00	23.40	25.66
138.00	17.70	17.75
0.00	0.00	0.00

Manual Integration:

Before

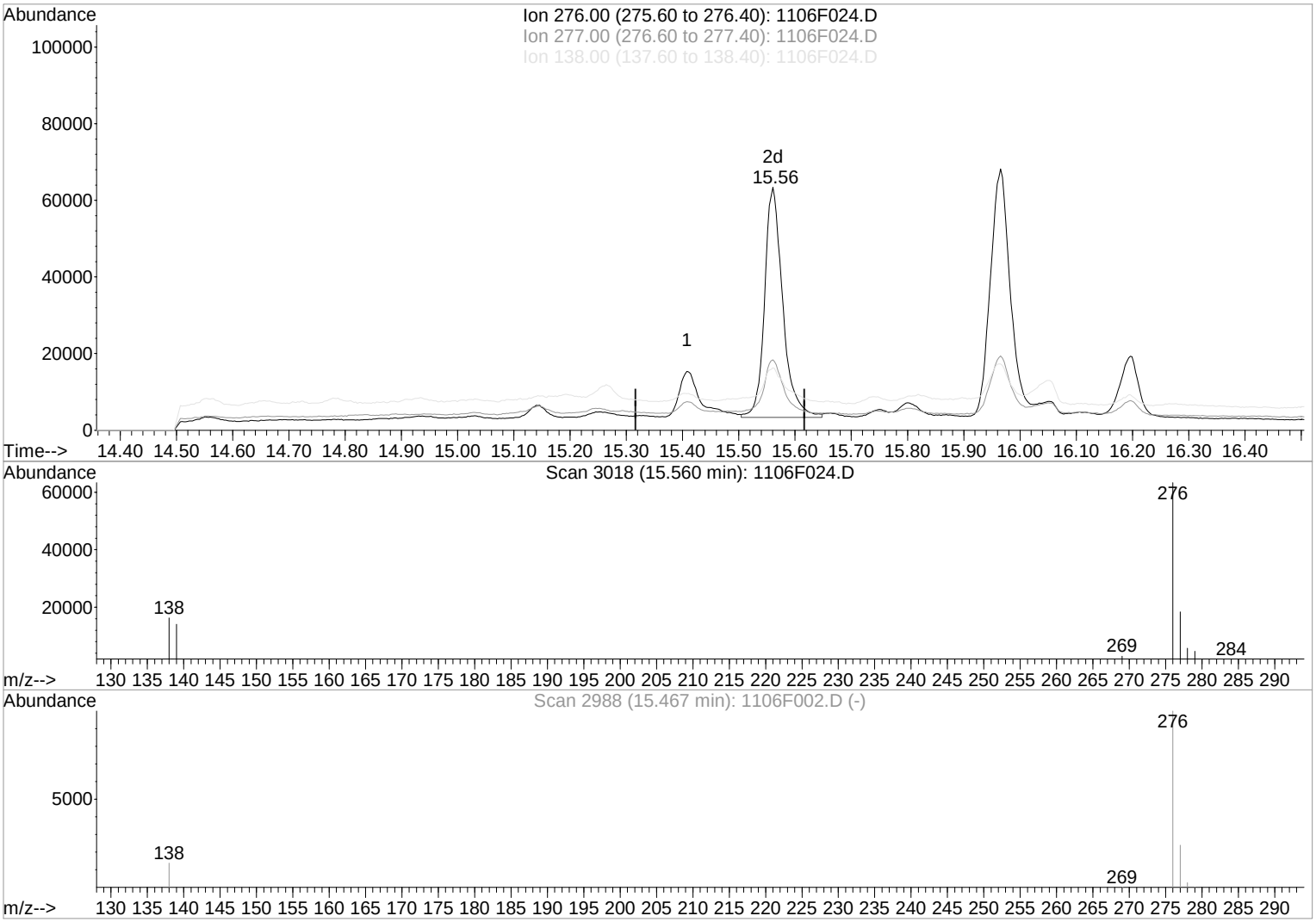
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F024.D Vial: 24
Acq On : 6 Nov 2018 4:08 pm Operator: LWeiskopf
Sample : K1810302-028DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:53 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F024.D

(34) Indeno(1,2,3-cd)pyrene (T)

15.56min 256.25ng/ml m

response 135615

Ion	Exp%	Act%
276.00	100	100
277.00	23.40	28.98
138.00	17.70	25.71
0.00	0.00	0.00

Manual Integration:

After

WP

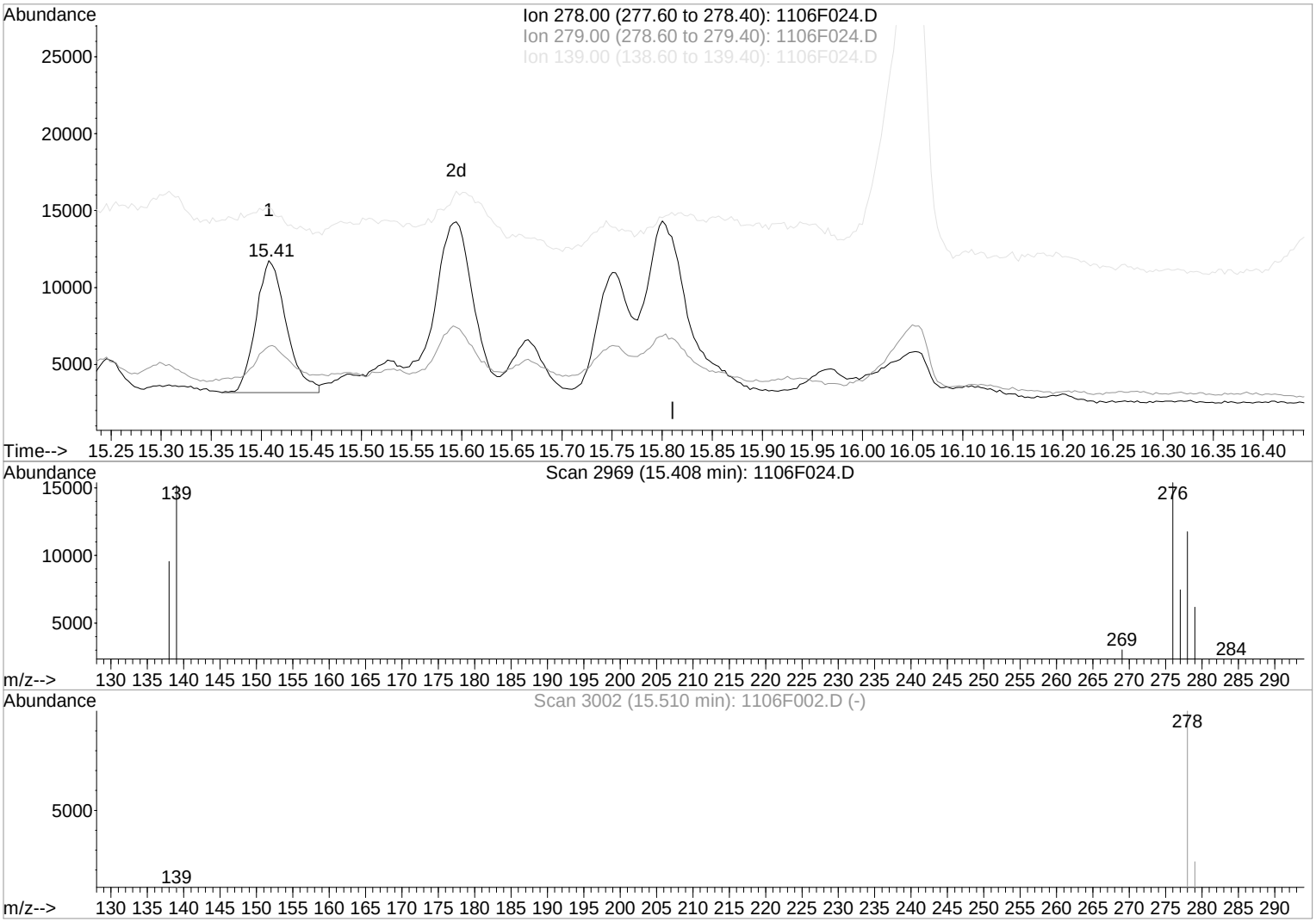
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F024.D Vial: 24
Acq On : 6 Nov 2018 4:08 pm Operator: LWeiskopf
Sample : K1810302-028DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:53 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F024.D

(35) Dibenz(a,h)anthracene (T)

15.41min 33.87ng/ml

response 18171

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	24.49
139.00	15.00	18.52
0.00	0.00	0.00

Manual Integration:

Before

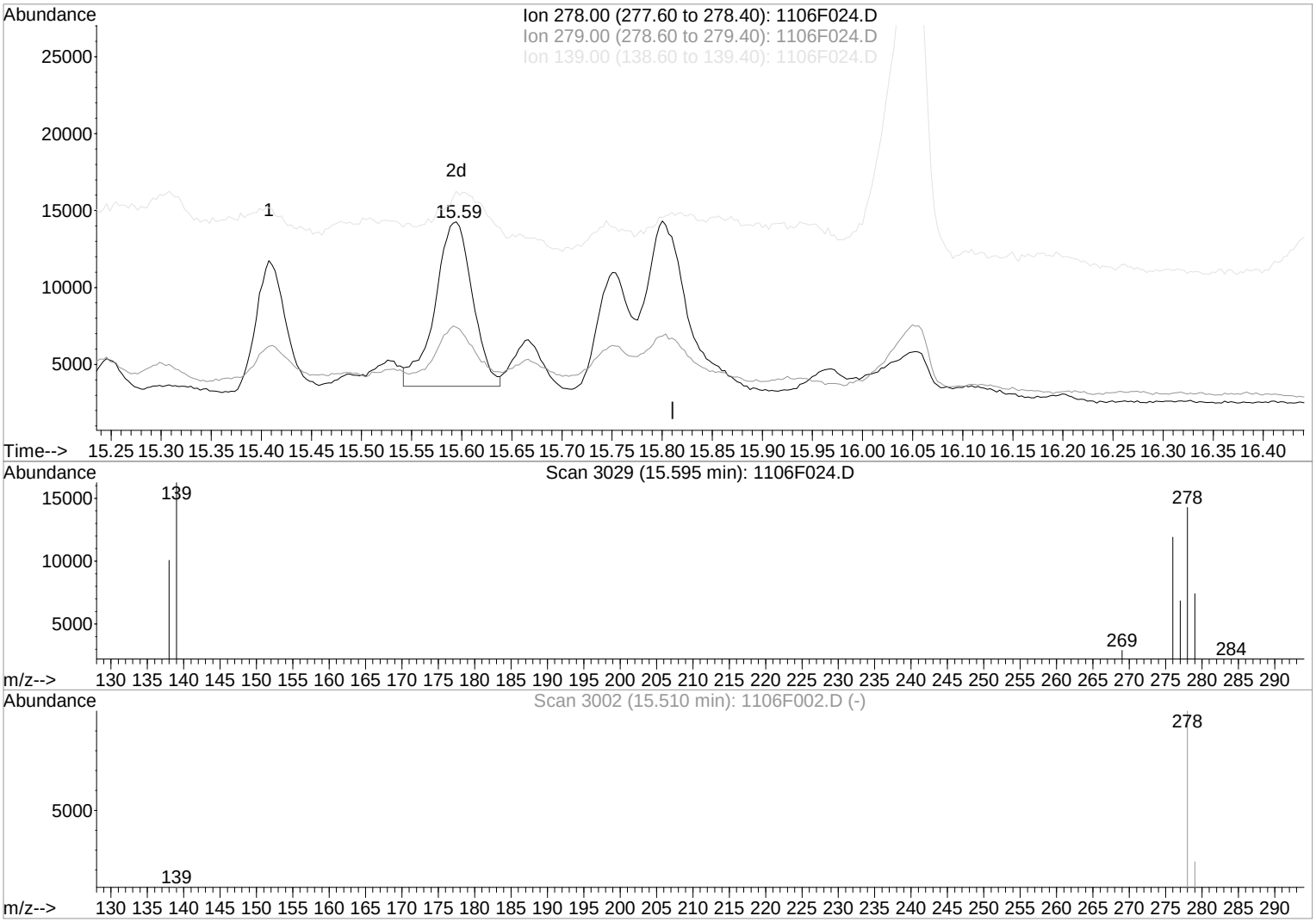
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F024.D Vial: 24
Acq On : 6 Nov 2018 4:08 pm Operator: LWeiskopf
Sample : K1810302-028DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:53 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F024.D

(35) Dibenz(a,h)anthracene (T)

15.59min 52.00ng/ml m

response 27899

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	51.89
139.00	15.00	113.83#
0.00	0.00	0.00

Manual Integration:

After

WP

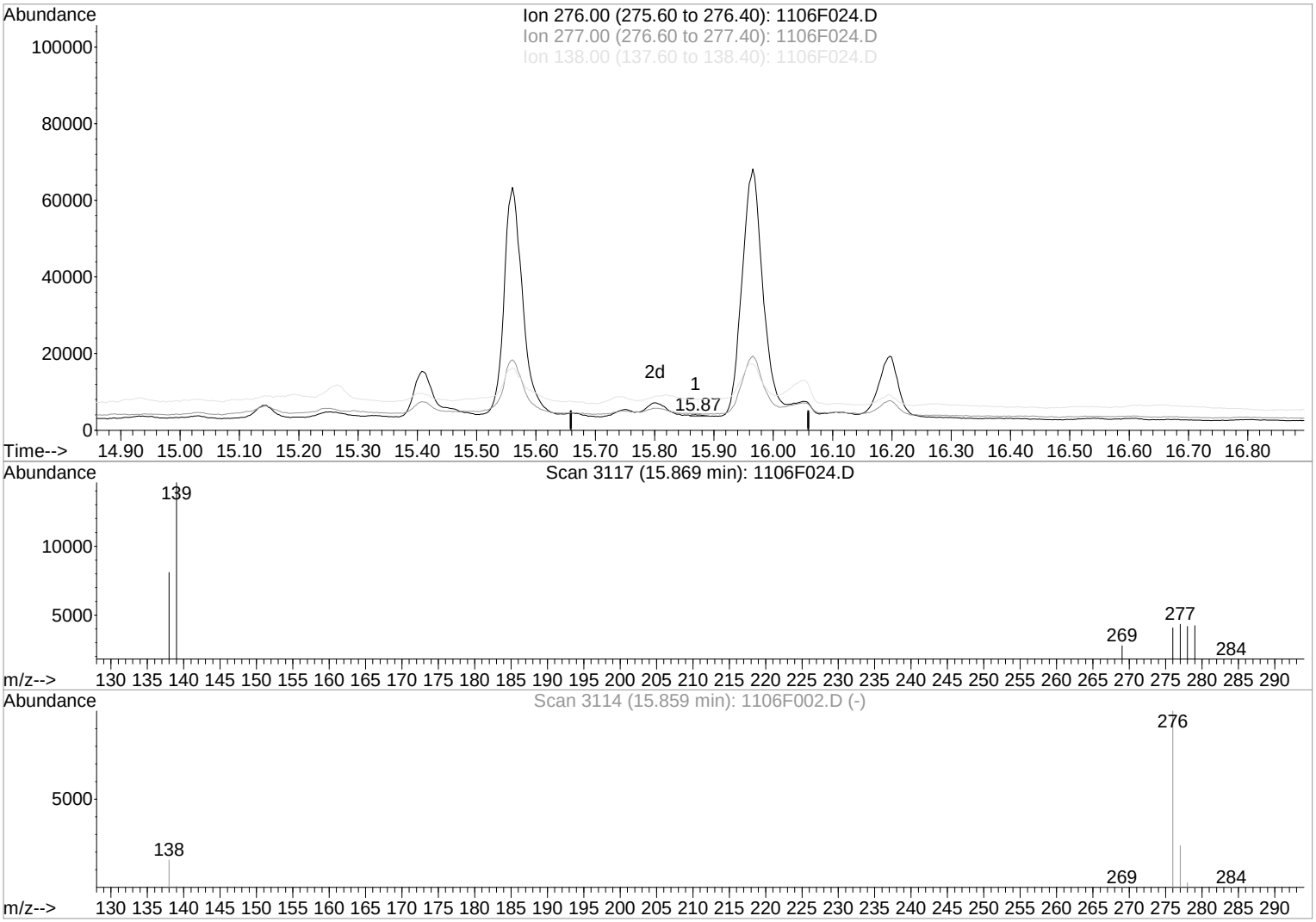
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F024.D Vial: 24
Acq On : 6 Nov 2018 4:08 pm Operator: LWeiskopf
Sample : K1810302-028DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:53 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F024.D

(36) Benzo(g,h,i)perylene (T)

15.87min 0.73ng/ml

response 451

Ion	Exp%	Act%
276.00	100	100
277.00	23.10	17.58
138.00	19.20	21.62
0.00	0.00	0.00

Manual Integration:

Before

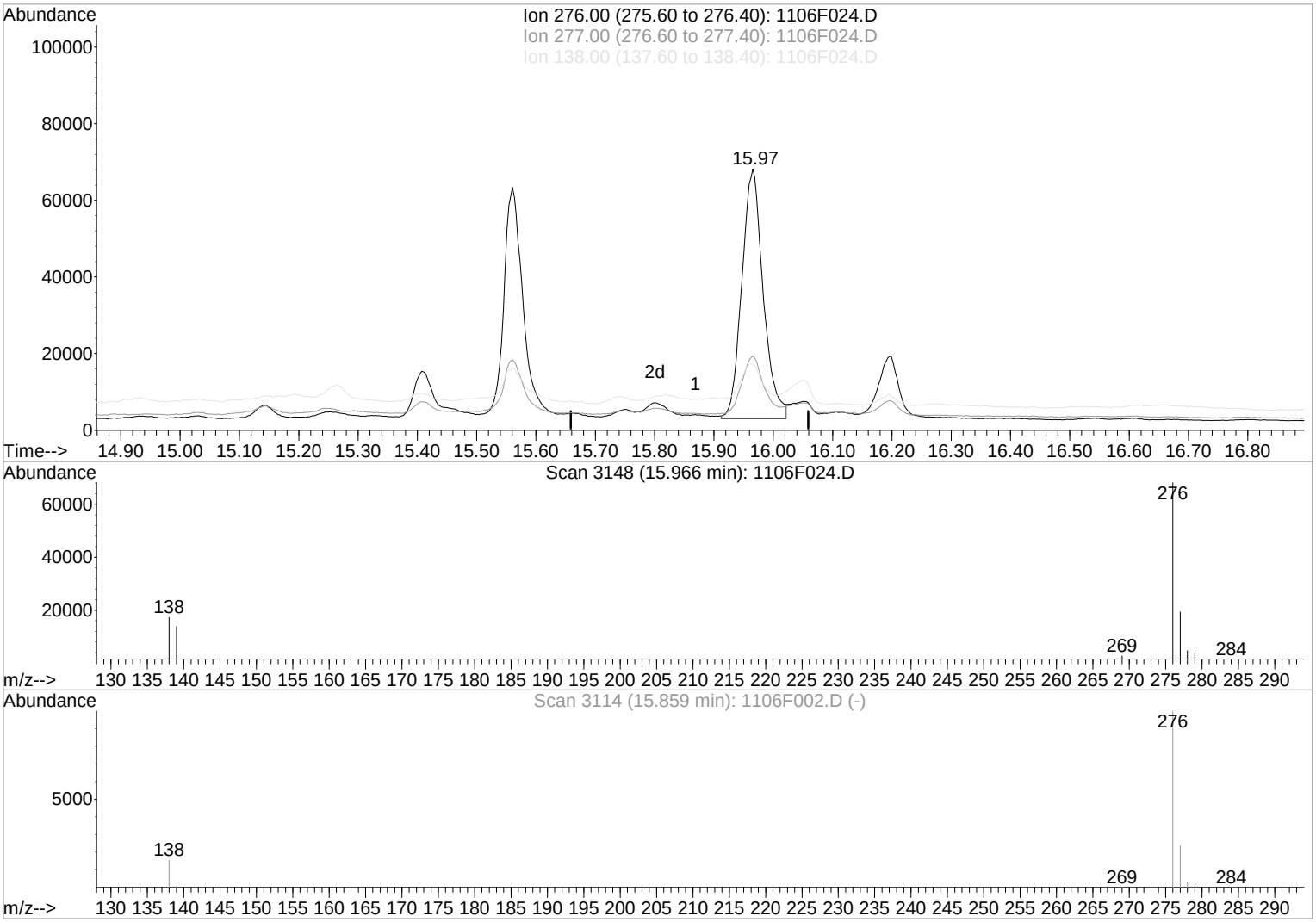
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F024.D Vial: 24
Acq On : 6 Nov 2018 4:08 pm Operator: LWeiskopf
Sample : K1810302-028DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:53 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F024.D

(36) Benzo(g,h,i)perylene (T)

15.97min 263.09ng/ml m

response 163055

Ion	Exp%	Act%
276.00	100	100
277.00	23.10	28.43
138.00	19.20	25.35
0.00	0.00	0.00

Manual Integration:

After

WP

11/16/18

1st 11/16/18
2nd 11/27/18

Exception Report

Data File: J:\MS14\DATA\110618\1106F025.D
Lab ID: K1810302-029
RunType: DL
Matrix: SEDIMENT

Date Acquired: 11/06/2018 16:37
Date Quantitated: 11/16/2018 10:55
Batch ID: KWG1806026
Analysis Method: 8270D SIM
ListJoinID: LJ12908

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	NA	NA	NA	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	
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: _____

Secondary Review: _____

1st 11/16/18
2nd 11/27/18

Quantitation Report

Data File:	J:\MS14\DATA\110618\1106F025.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 16:37	**Quant Date:**	11/16/2018 10:55	**Vial:**	25
Run Type:	DL	**ListJoinID:**	LJ12908	**Dilution:**	10.0
Lab ID:	K1810302-029			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**	IV	**Matrix:**	SEDIMENT
Prod Code:	8270D PAH SIM U	**Collect Date:**	10/21/2018	**Receive Date:**	10/22/2018

Analysis Lot:	KWG1806026	**Prep Lot:**	KWG1805647	**Report Group:**	K1810302
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1701159	**Prep Date:**	11/01/2018		

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:	Polynuclear Aromatic Hydrocarbons	**Report List ID:**	LJ12908
Tune Ref:	J:\MS14\DATA\110618\1106F001.D	**Method ID:**	MJ1233
MB Ref:	J:\MS14\DATA\110618\1106F006.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	4.76	0.00	136	70610	200.00	OK
2	Acenaphthene-d10	6.32	0.00	164	31230	200.00	OK
3	Phenanthrene-d10	7.56	0.00	188	68450	200.00	OK
4	Chrysene-d12	10.14	0.03	240	88853	200.00	OK
5	Perylene-d12	13.39	0.12	264	96486	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	6.76	0.00	0.00	176	16606	83.16	83	26-102	OK	
3	Fluoranthene-d10	8.56	0.02	0.00	212	39945	92.59	93	23-110	OK	
4	Terphenyl-d14	8.91	0.02	0.00	244	35243	91.45	91	27-115	OK	

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.78		0.00	128	17508	42.96	46	D	
1	2-Methylnaphthalene	5.42		0.00	142	9047	36.81	40	D	
2	Acenaphthylene	6.20		0.00	152	10597	28.44	31	D	
2	Acenaphthene	6.35		0.00	154	10645	49.73	54	D	
2	Dibenzofuran	6.50		0.00	168	6767**m**	19.70	21	D	
2	Fluorene	6.79	0.01	0.00	166	8687	33.56	36	D	
3	Phenanthrene	7.58		0.00	178	170709	399.78	430	D	
3	Anthracene	7.63	0.01	0.00	178	27943	68.55	74	D	
3	Fluoranthene	8.58	0.02	0.00	202	271337	514.61	560	D	
4	Pyrene	8.77	0.02	0.00	202	331799**m**	544.28	590	D	
4	Benz(a)anthracene	10.13	0.04	0.00	228	121887	212.17	230	D	
4	Chrysene	10.18	0.03	0.00	228	166801	303.13	330	D	

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:\MS14\DATA\110618\1106F025.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 16:37	**Quant Date:**	11/16/2018 10:55	**Vial:**	25
Run Type:	DL	**ListJoinID:**	LJ12908	**Dilution:**	10.0
Lab ID:	K1810302-029			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
5	Benzo(b)fluoranthene	12.30	0.09	0.00	252	196947	330.39	360	D	
5	Benzo(k)fluoranthene	12.36	0.08	0.00	252	63090**m**	106.69	120	D	
5	Benzo(a)pyrene	13.22	0.12	0.00	252	135836	259.84	280	D	
5	Indeno(1,2,3-cd)pyrene	15.54	0.07	-0.01	276	101916	198.81	210	D	
5	Dibenz(a,h)anthracene	15.58	0.07	-0.01	278	24754**m**	47.64	51	D	
5	Benzo(g,h,i)perylene	15.95	0.09	0.00	276	121652	202.65	220	D	

Prep Amount:	40.362 g	**Dilution:**	10.0
Prep Final Vol:	2 mL	**Unit Factor:**	1
Solids:	45.9 %		

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

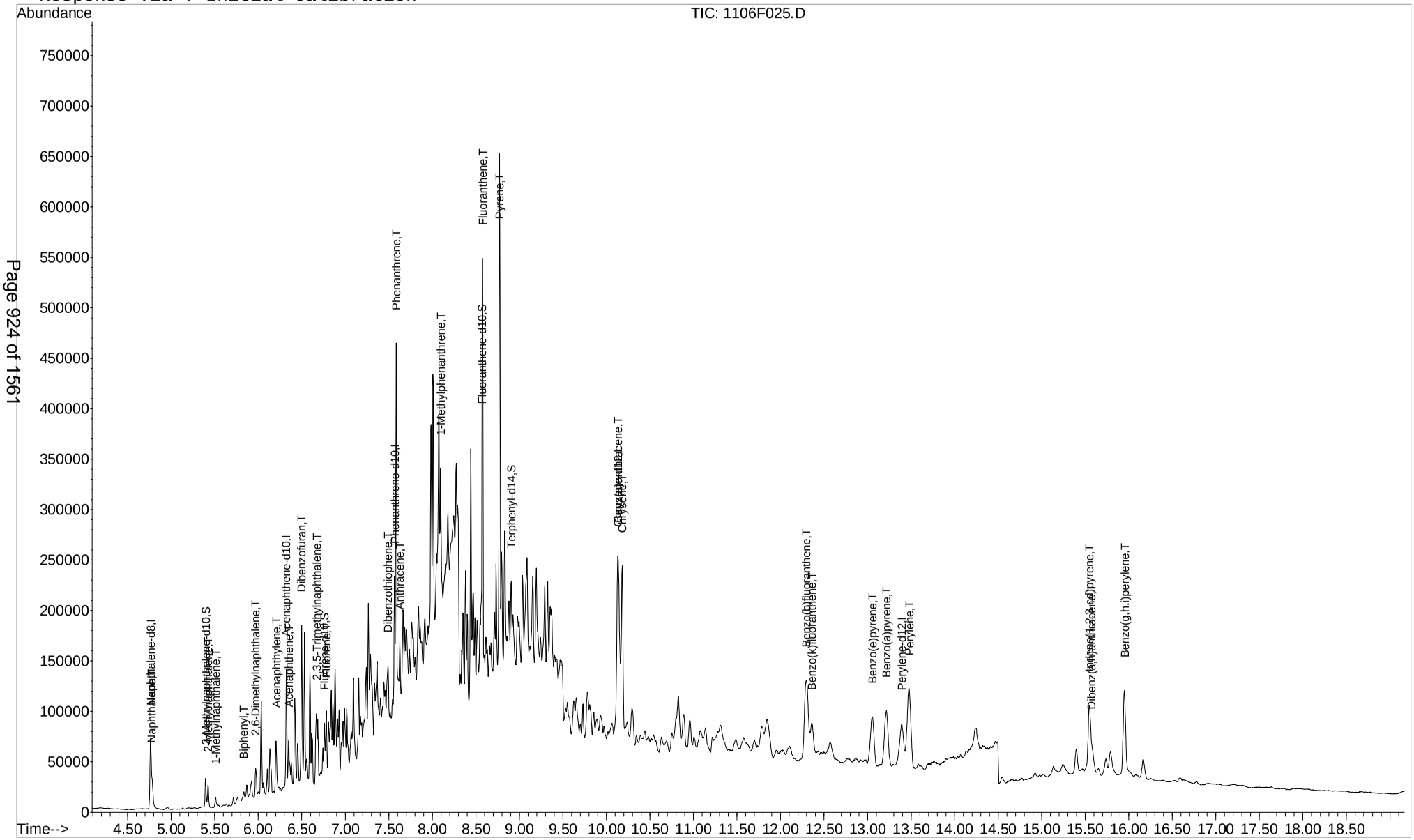
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

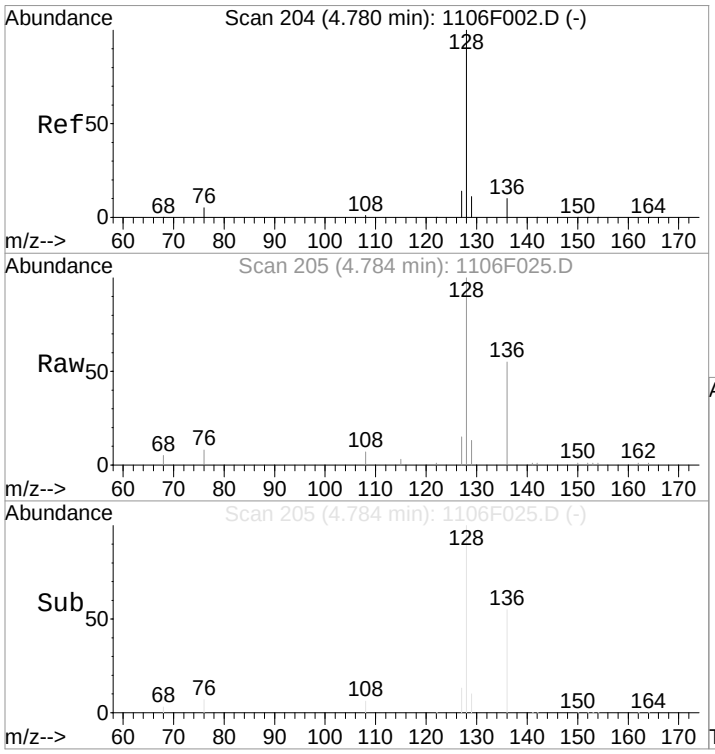
1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F025.D Vial: 25
Acq On : 6 Nov 2018 4:37 pm Operator: LWeiskopf
Sample : K1810302-029DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:55 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration



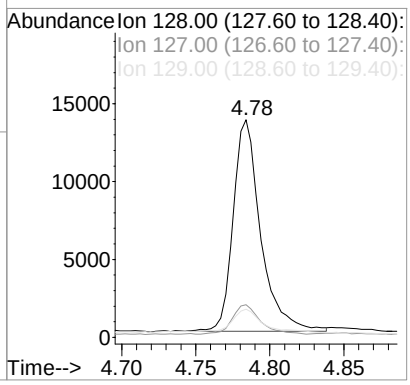
1st 11/16/18
2nd 11/27/18

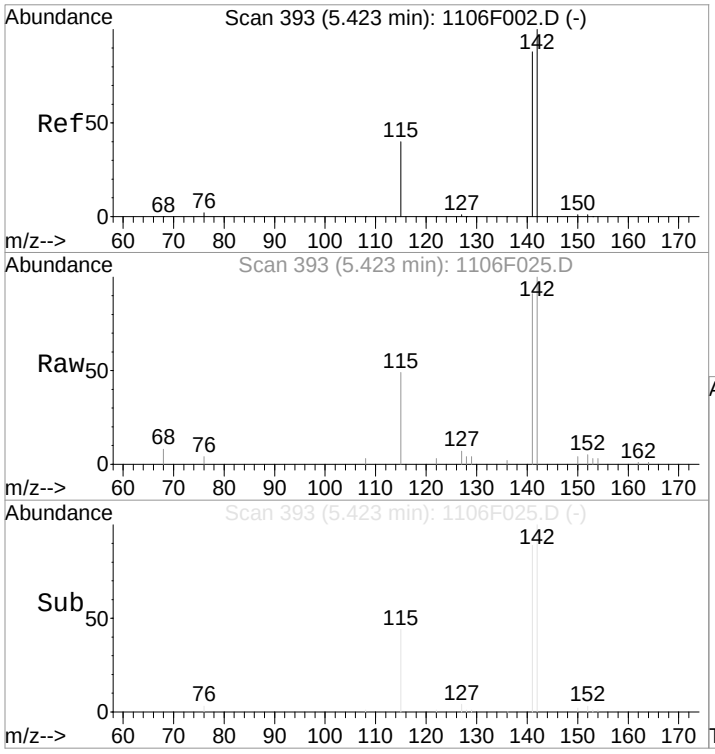


#2
Naphthalene
Concen: 42.96 ng/ml
RT: 4.78 min Scan# 205
Delta R.T. 0.00 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:128 Resp: 17508

Ion	Ratio	Lower	Upper
128	100		
127	13.9	0.0	43.7
129	11.0	0.0	30.8

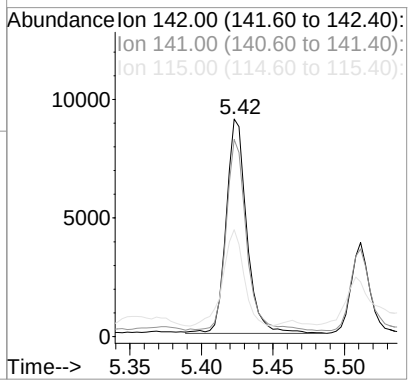




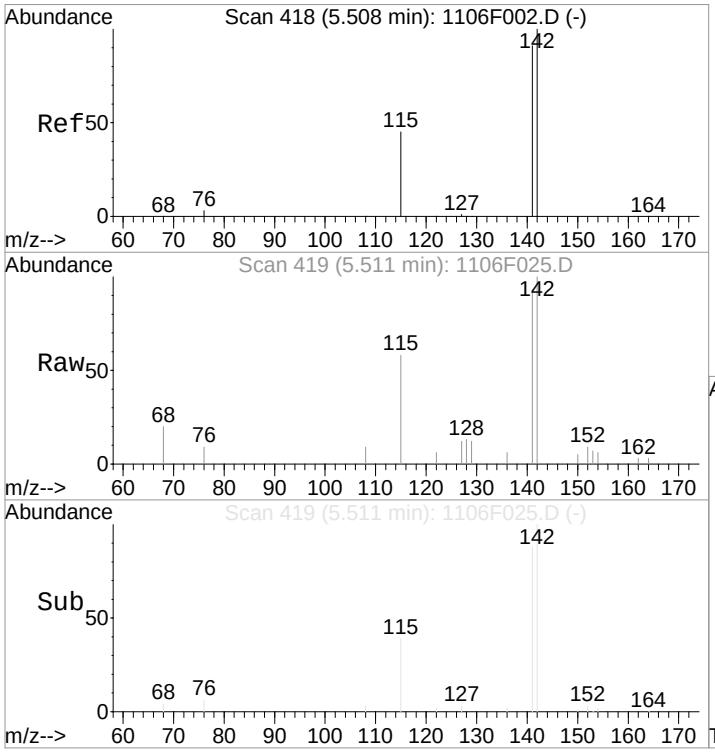
#4
2-Methylnaphthalene
Concen: 36.81 ng/ml
RT: 5.42 min Scan# 393
Delta R.T. 0.00 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:142 Resp: 9047

Ion	Ratio	Lower	Upper
142	100		
141	89.3	56.8	116.8
115	44.8	13.3	53.3



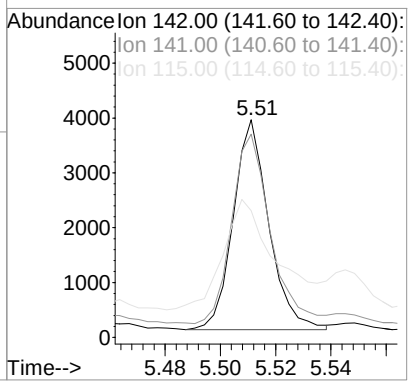
1st 11/16/18
2nd 11/27/18

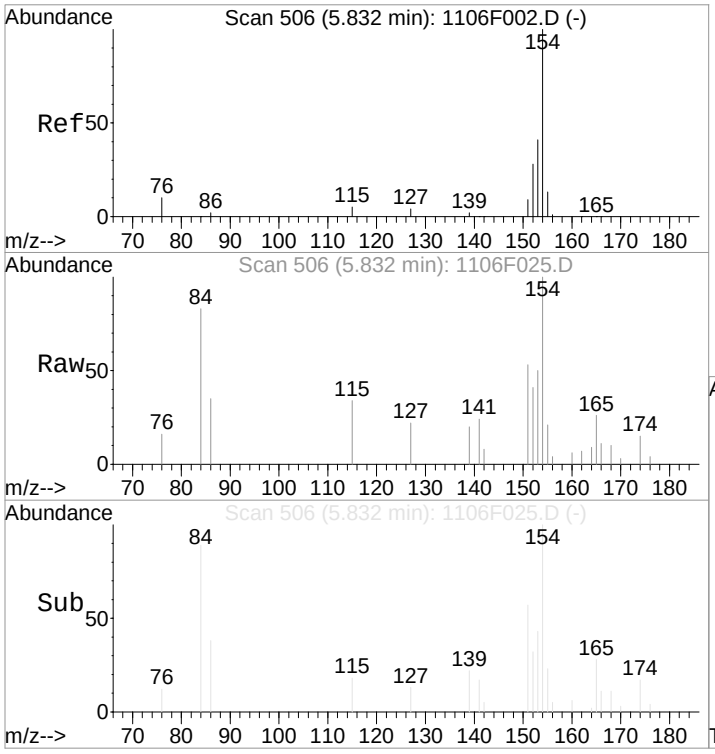


#5
1-Methylnaphthalene
Concen: 14.46 ng/ml
RT: 5.51 min Scan# 419
Delta R.T. 0.00 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:142 Resp: 3421

Ion	Ratio	Lower	Upper
142	100		
141	90.1	59.7	119.7
115	45.0	13.7	53.7

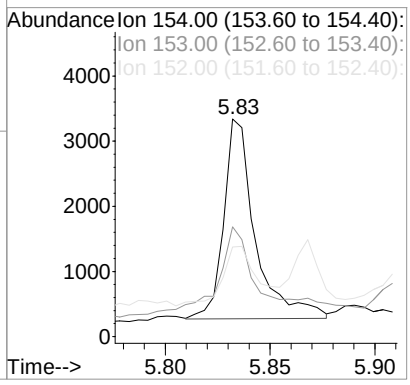


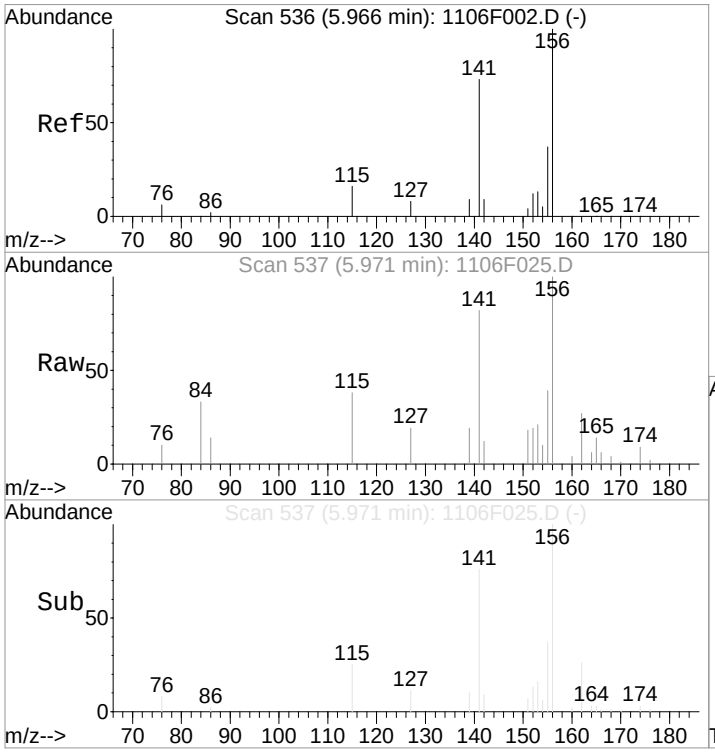


#6
Biphenyl
Concen: 10.49 ng/ml
RT: 5.83 min Scan# 506
Delta R.T. 0.00 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:154 Resp: 3218

Ion	Ratio	Lower	Upper
154	100		
153	38.9	11.4	71.4
152	27.6	7.1	47.1

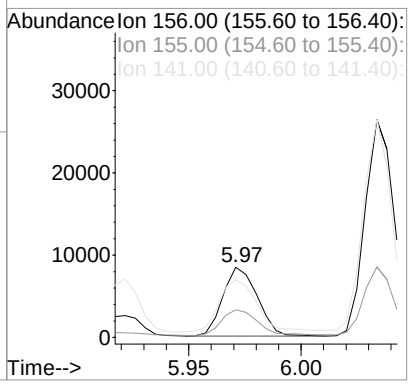


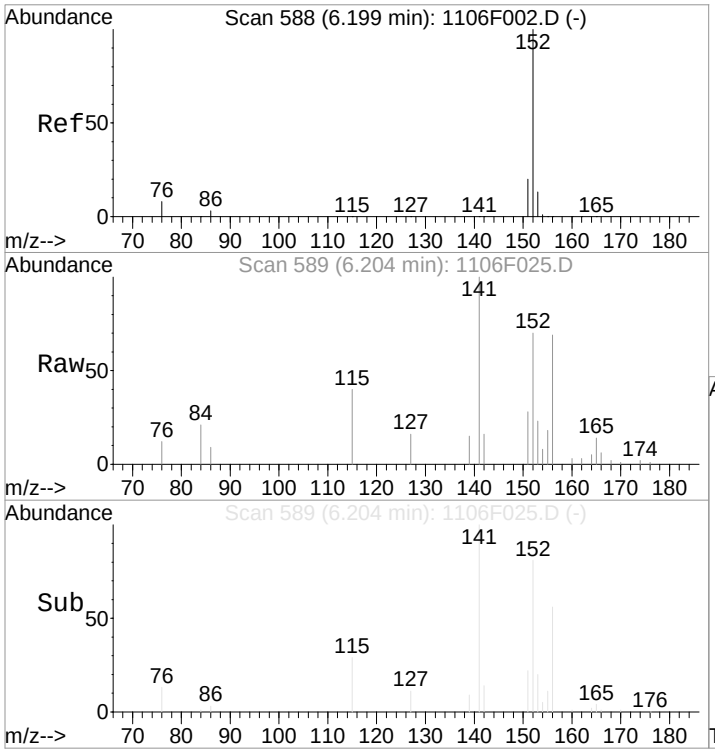


#7
2,6-Dimethylnaphthalene
Concen: 42.39 ng/ml
RT: 5.97 min Scan# 537
Delta R.T. 0.00 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:156 Resp: 8944

Ion	Ratio	Lower	Upper
156	100		
155	36.8	7.0	67.0
141	75.7	47.9	87.9

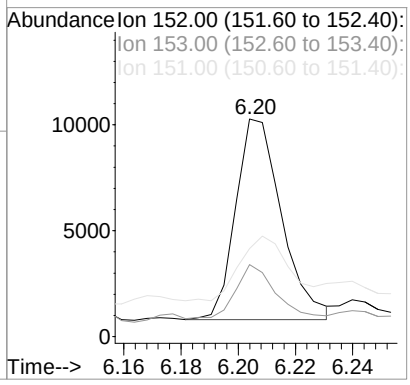




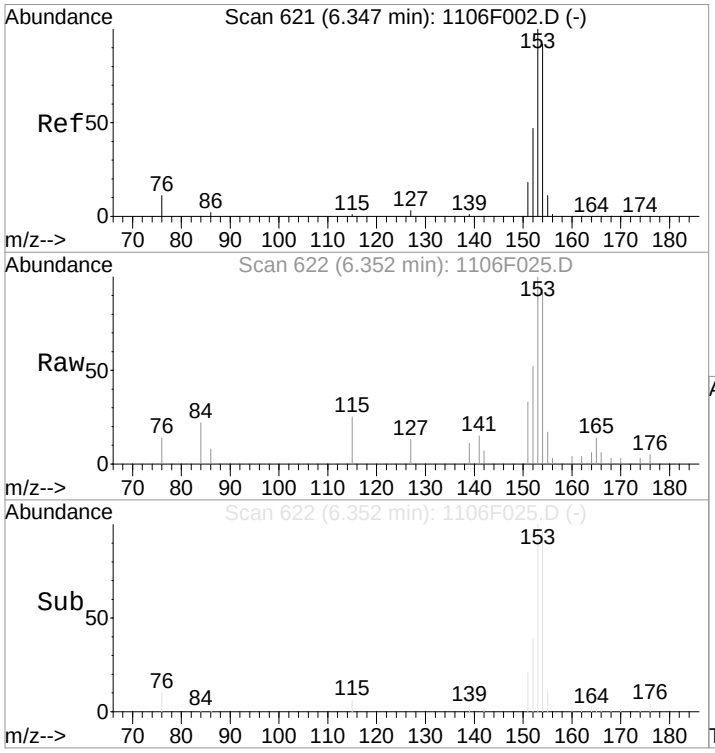
#9
Acenaphthylene
Concen: 28.44 ng/ml
RT: 6.20 min Scan# 589
Delta R.T. 0.00 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:152 Resp: 10597

Ion	Ratio	Lower	Upper
152	100		
153	27.0	0.0	42.9
151	26.0	0.2	40.2



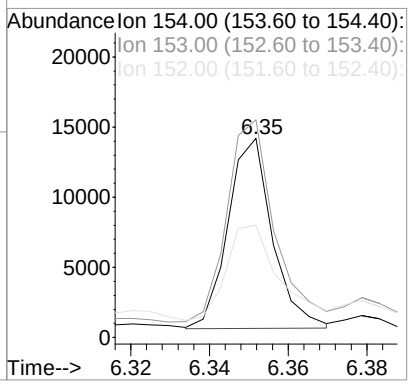
1st 11/16/18
2nd 11/27/18

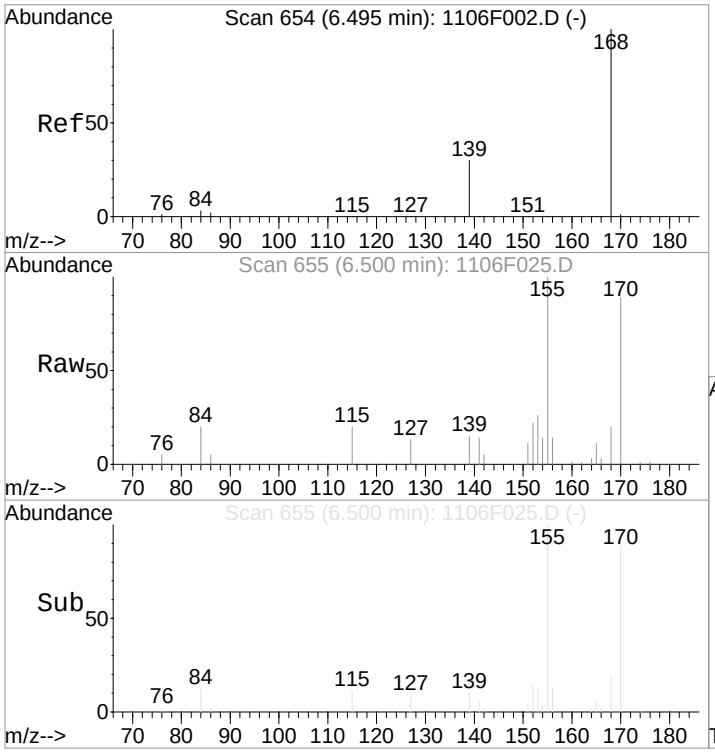


#10
Acenaphthene
Concen: 49.73 ng/ml
RT: 6.35 min Scan# 622
Delta R.T. 0.00 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:154 Resp: 10645

Ion	Ratio	Lower	Upper
154	100		
153	106.9	77.1	137.1
152	50.3	19.7	79.7

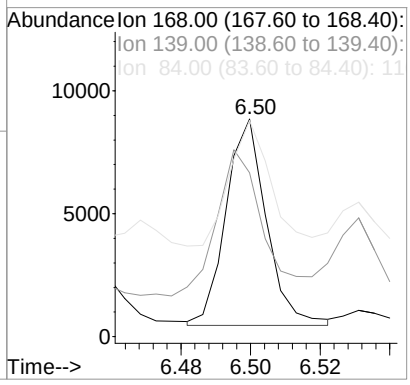


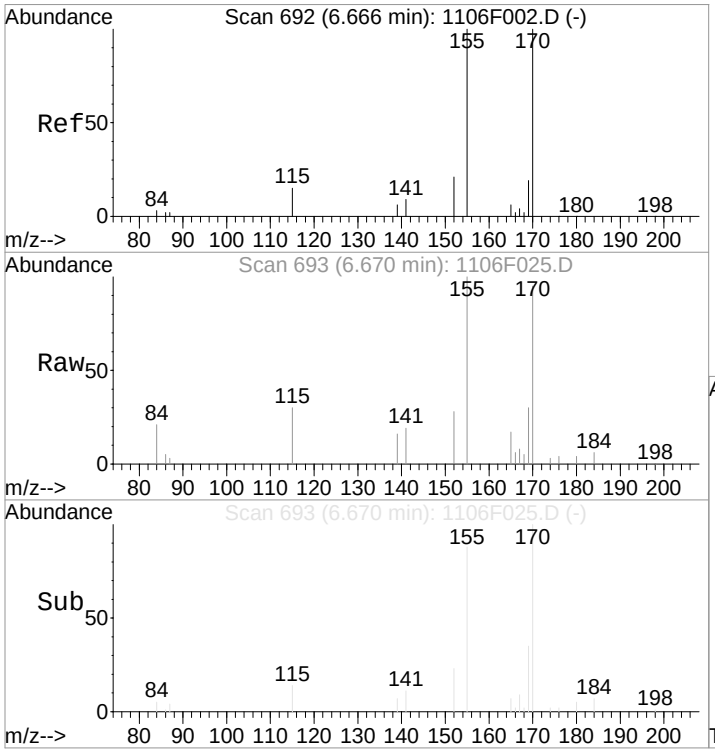


#11
Dibenzofuran
Concen: 19.70 ng/ml m
RT: 6.50 min Scan# 655
Delta R.T. 0.00 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:168 Resp: 6767

Ion	Ratio	Lower	Upper
168	100		
139	75.3	0.0	55.8#
84	99.3	0.0	23.5#

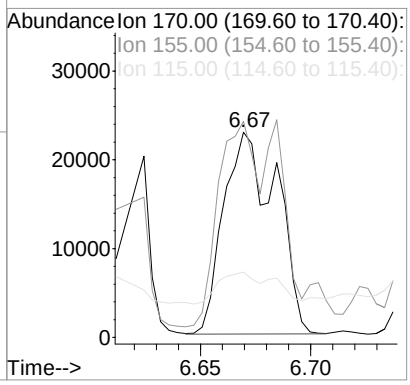


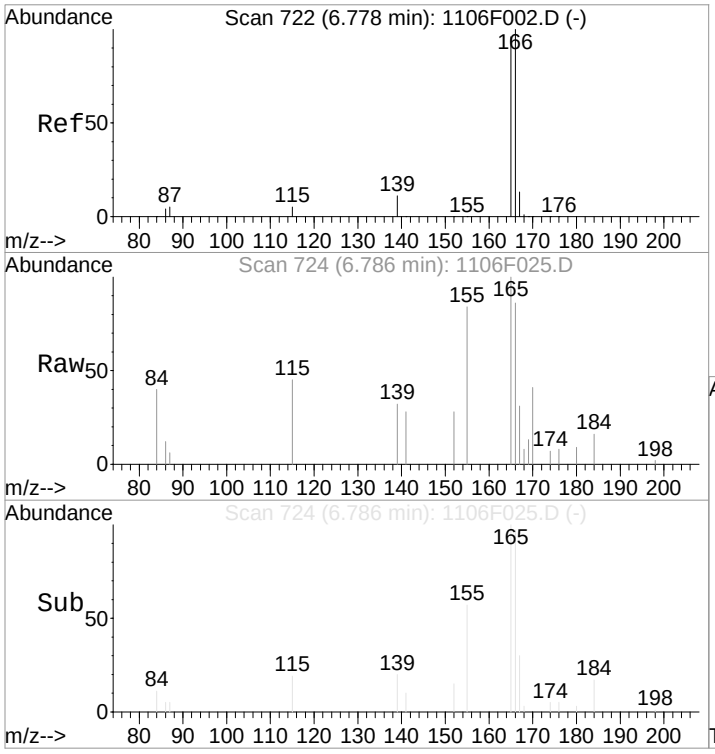


#12
2,3,5-Trimethylnaphthalene
Concen: 190.67 ng/ml
RT: 6.67 min Scan# 693
Delta R.T. 0.00 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:170 Resp: 37752

Ion	Ratio	Lower	Upper
170	100		
155	102.1	59.2	119.2
115	15.2	0.0	30.1

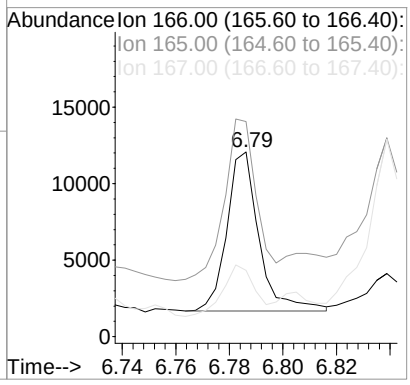


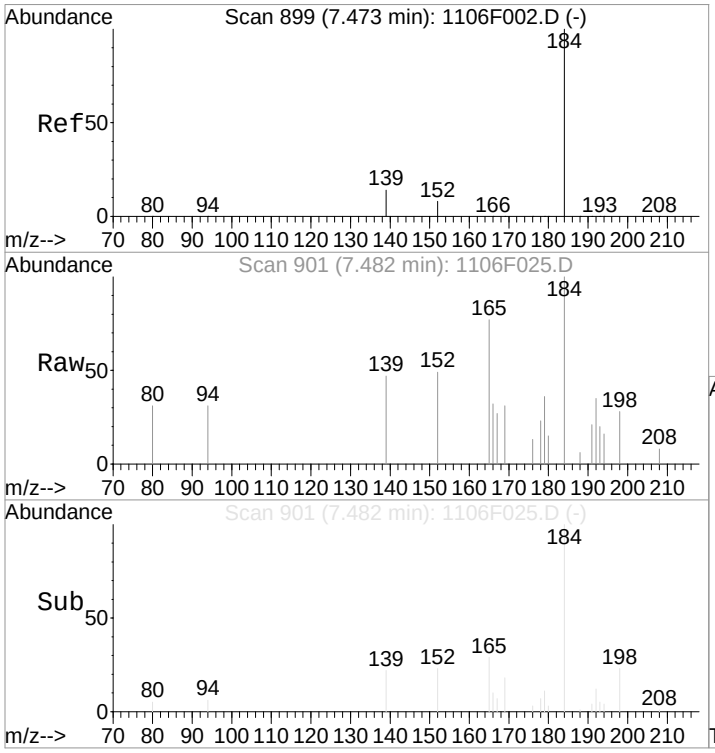


#14
Fluorene
Concen: 33.56 ng/ml
RT: 6.79 min Scan# 724
Delta R.T. 0.01 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:166 Resp: 8687

Ion	Ratio	Lower	Upper
166	100		
165	99.2	63.4	123.4
167	29.1	0.0	33.1

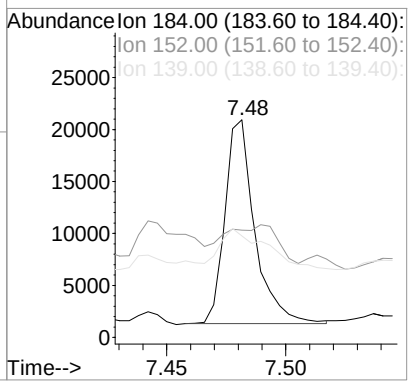


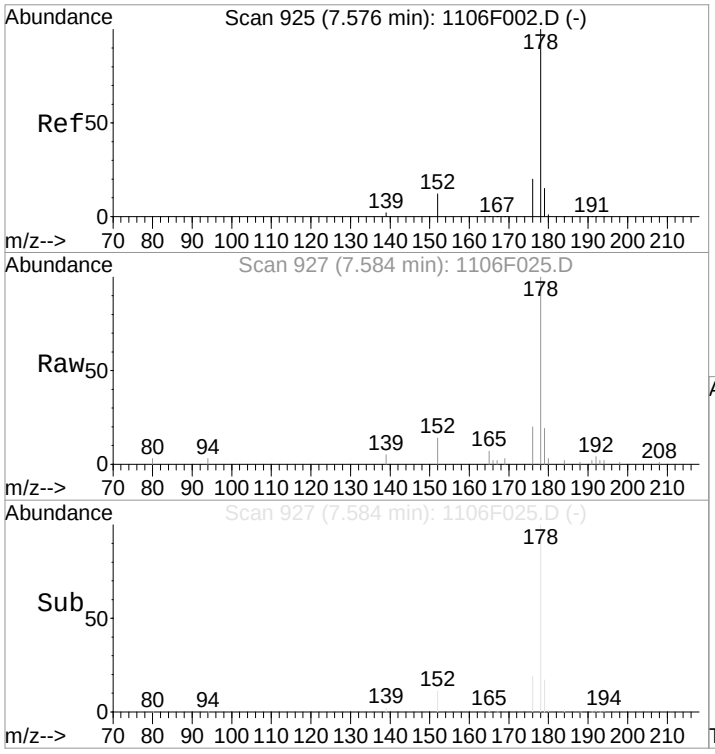


#16
Dibenzothiophene
Concen: 39.83 ng/ml
RT: 7.48 min Scan# 901
Delta R.T. 0.01 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:184 Resp: 17005

Ion	Ratio	Lower	Upper
184	100		
152	14.1	0.0	37.8
139	16.0	0.0	32.6

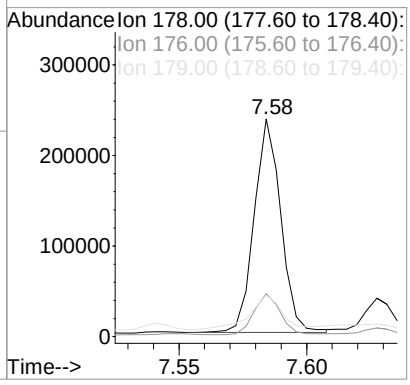


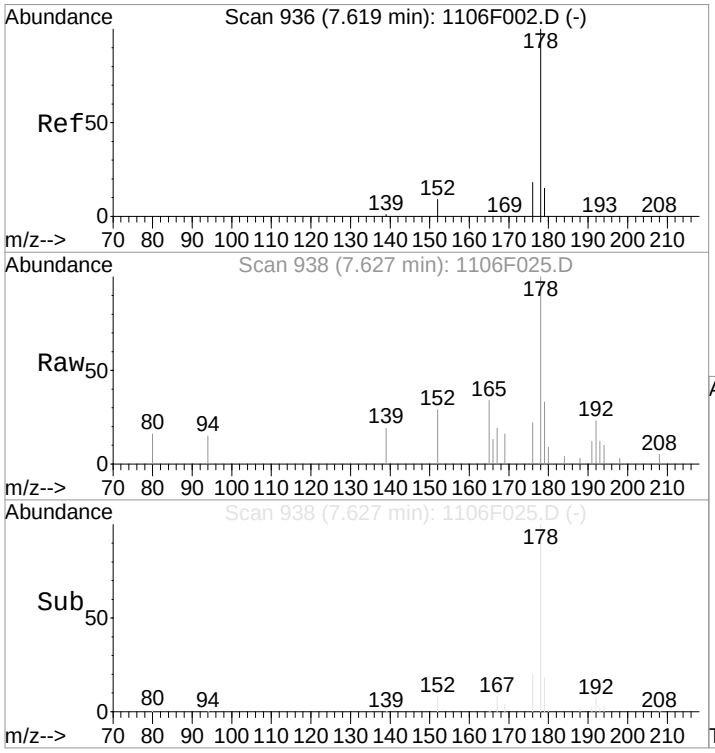


#17
Phenanthrene
Concen: 399.78 ng/ml
RT: 7.58 min Scan# 927
Delta R.T. 0.01 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:178 Resp: 170709

Ion	Ratio	Lower	Upper
178	100		
176	18.8	0.0	48.7
179	16.1	0.0	35.1

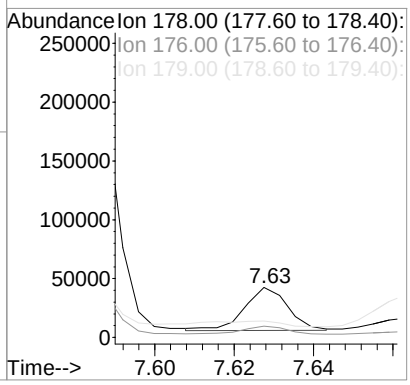


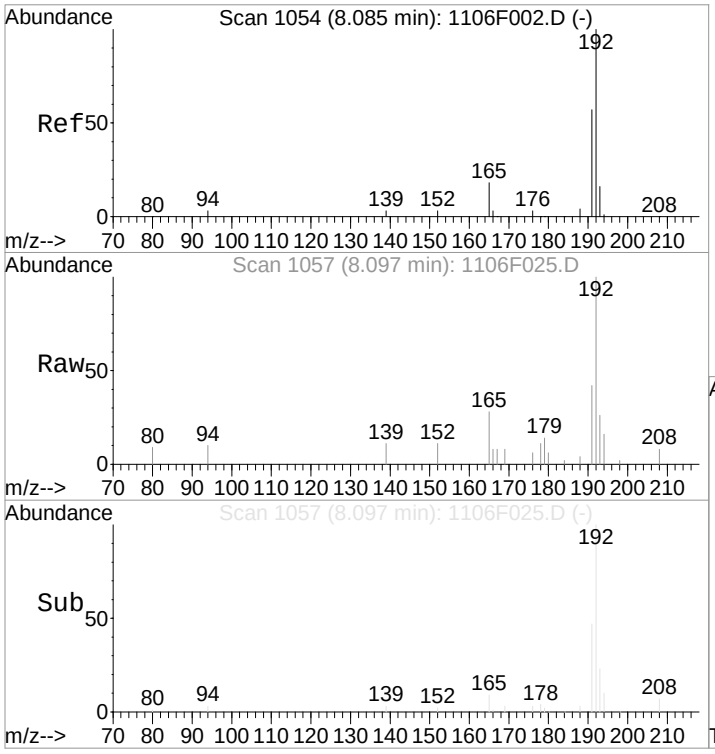


#18
Anthracene
Concen: 68.55 ng/ml
RT: 7.63 min Scan# 938
Delta R.T. 0.01 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:178 Resp: 27943

Ion	Ratio	Lower	Upper
178	100		
176	19.2	0.0	48.0
179	13.7	0.0	35.1

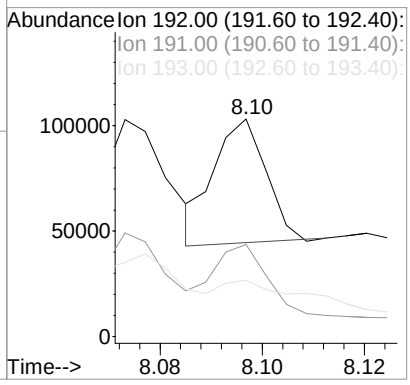




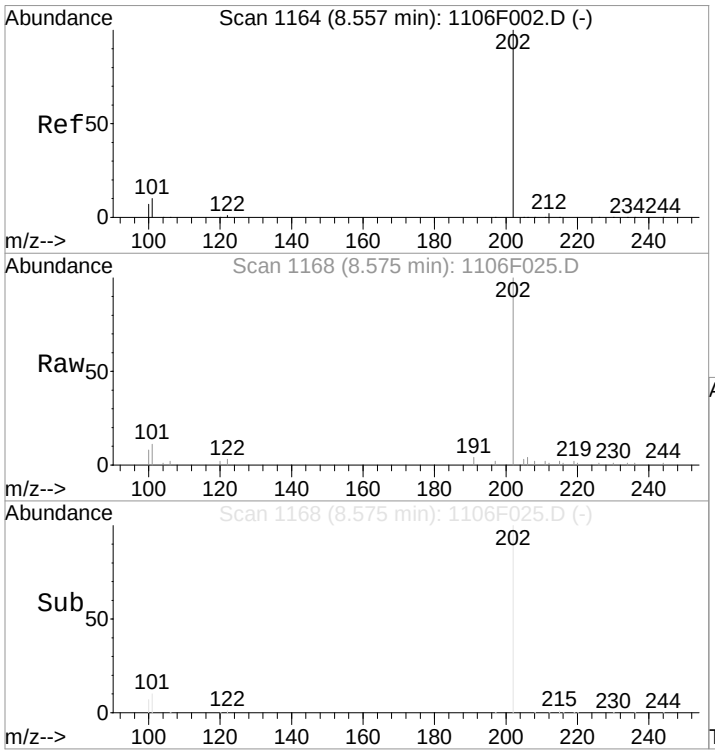
#20
1-Methylphenanthrene
Concen: 128.26 ng/ml
RT: 8.10 min Scan# 1057
Delta R.T. 0.01 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:192 Resp: 41483

Ion	Ratio	Lower	Upper
192	100		
191	59.6	27.7	87.7
193	13.0	0.0	45.4



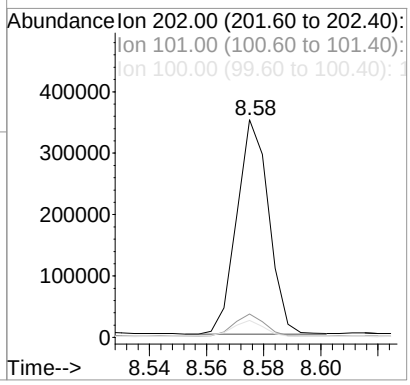
1st 11/16/18
2nd 11/27/18

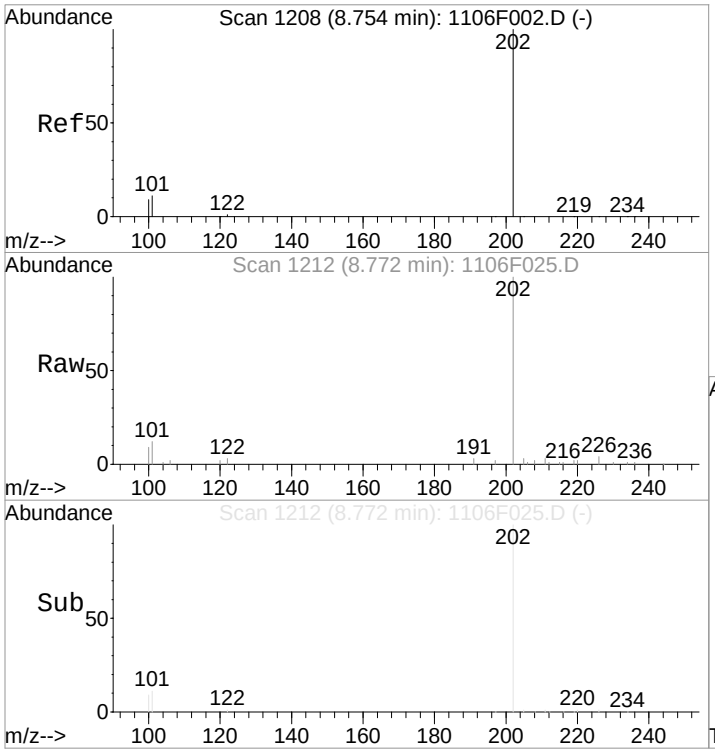


#21
Fluoranthene
Concen: 514.61 ng/ml
RT: 8.58 min Scan# 1168
Delta R.T. 0.02 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:202 Resp: 271337

Ion	Ratio	Lower	Upper
202	100		
101	10.3	0.0	41.3
100	7.5	0.0	28.6

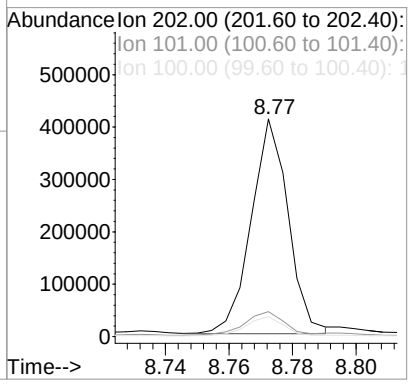




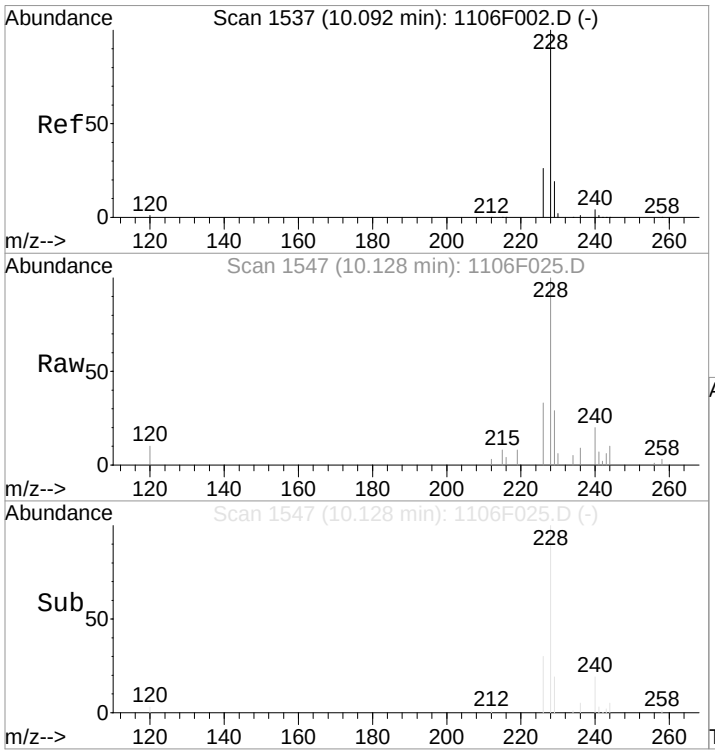
#24
Pyrene
Concen: 544.28 ng/ml m
RT: 8.77 min Scan# 1212
Delta R.T. 0.02 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:202 Resp: 331799

Ion	Ratio	Lower	Upper
202	100		
101	11.5	0.0	40.8
100	9.1	0.0	28.5



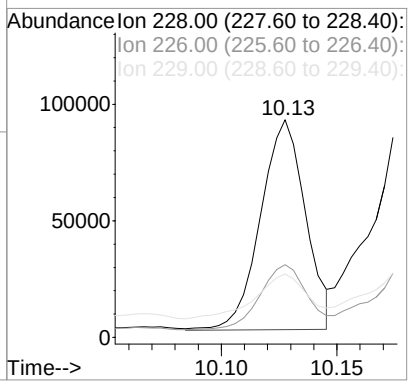
1st 11/16/18
2nd 11/27/18

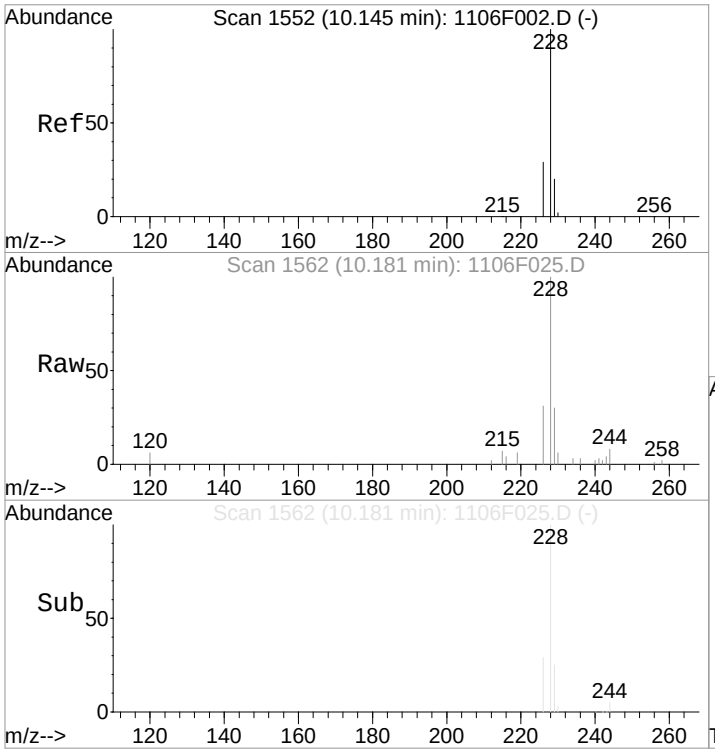


#26
Benz(a)anthracene
Concen: 212.17 ng/ml
RT: 10.13 min Scan# 1547
Delta R.T. 0.04 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:228 Resp: 121887

Ion	Ratio	Lower	Upper
228	100		
226	31.0	0.0	56.3
229	21.4	0.0	39.1

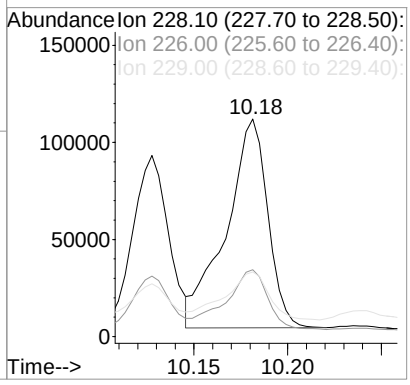


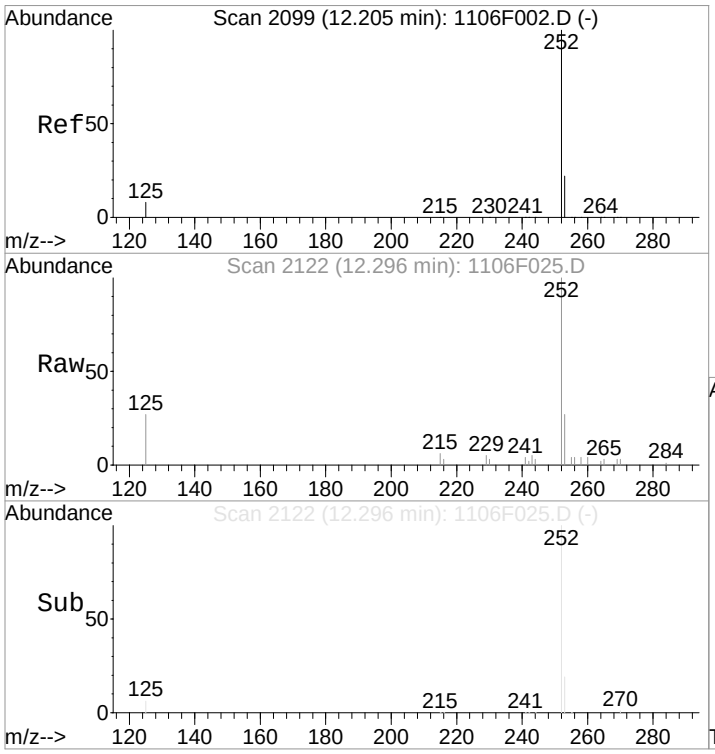


#27
Chrysene
Concen: 303.13 ng/ml
RT: 10.18 min Scan# 1562
Delta R.T. 0.04 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:228 Resp: 166801

Ion	Ratio	Lower	Upper
228	100		
226	28.6	0.0	58.7
229	22.5	0.0	39.2

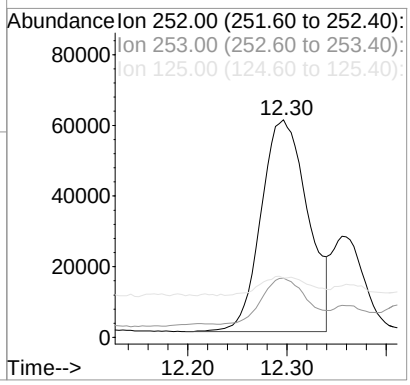


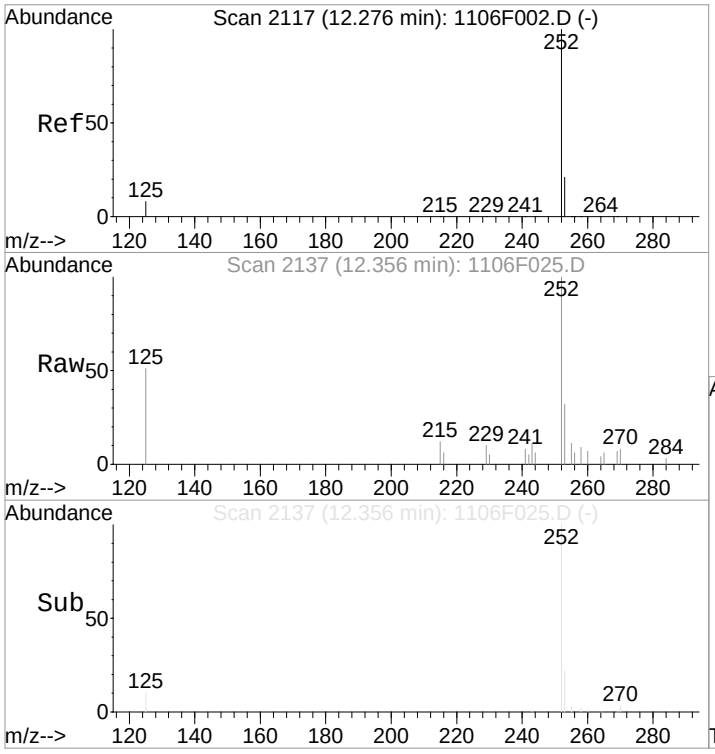


#29
Benzo(b)fluoranthene
Concen: 330.39 ng/ml
RT: 12.30 min Scan# 2122
Delta R.T. 0.09 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:252 Resp: 196947

Ion	Ratio	Lower	Upper
252	100		
253	21.9	0.0	51.2
125	8.3	0.0	29.5

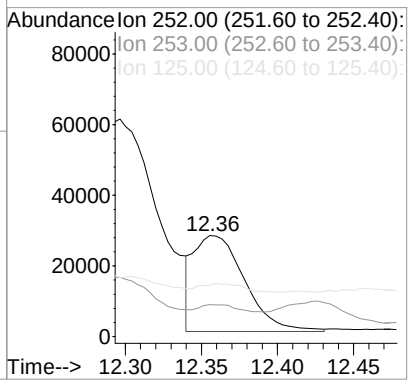


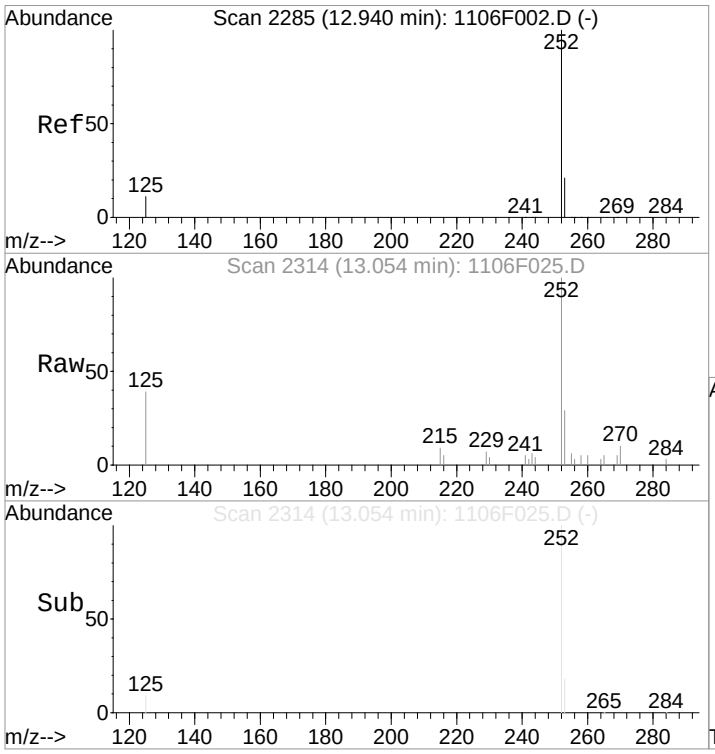


#30
Benzo(k)fluoranthene
Concen: 106.69 ng/ml m
RT: 12.36 min Scan# 2137
Delta R.T. 0.08 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:252 Resp: 63090

Ion	Ratio	Lower	Upper
252	100		
253	31.8	0.0	51.2
125	50.8	0.0	29.7#

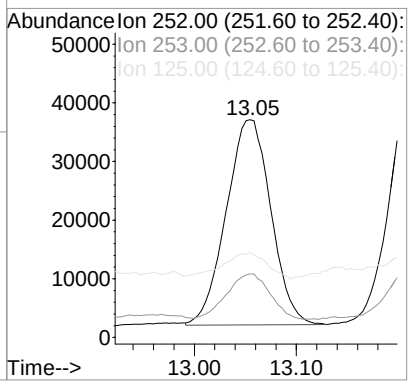


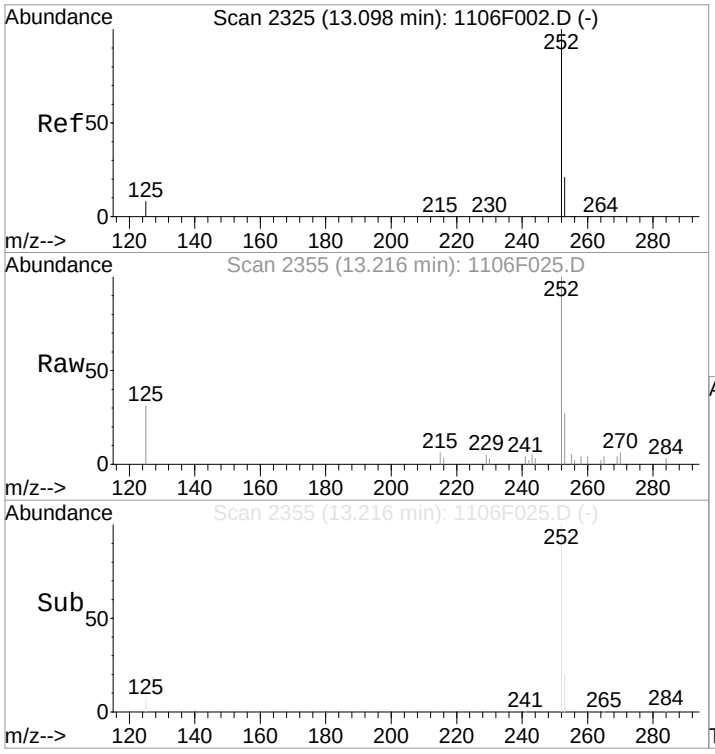


#31
Benzo(e)pyrene
Concen: 187.60 ng/ml
RT: 13.05 min Scan# 2314
Delta R.T. 0.11 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:252 Resp: 106597

Ion	Ratio	Lower	Upper
252	100		
253	21.8	0.0	51.3
125	11.6	0.0	33.5

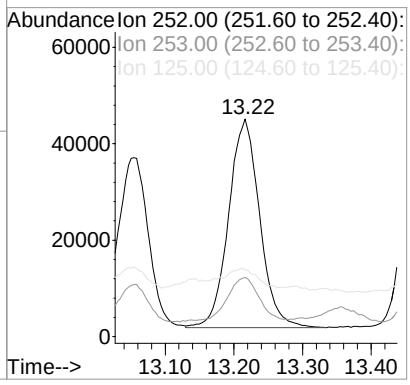




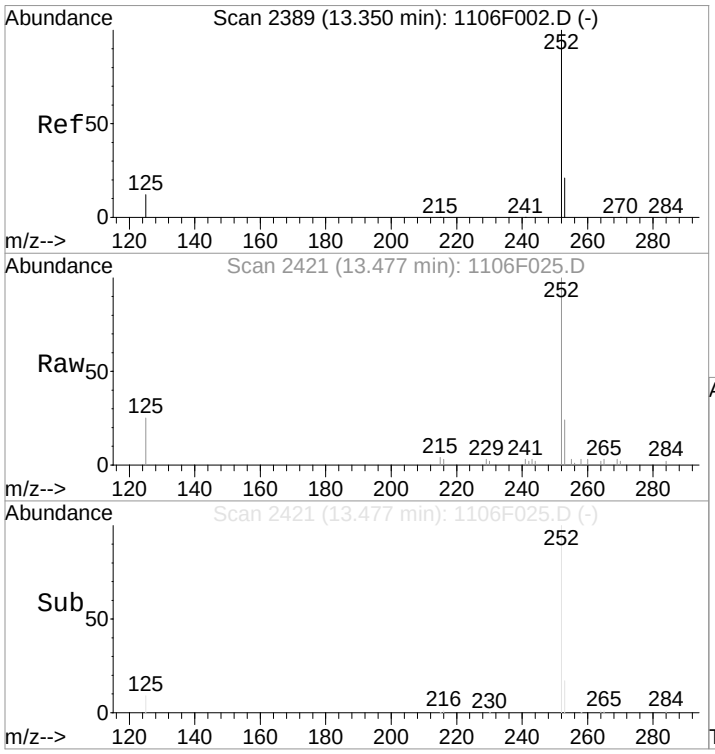
#32
Benzo(a)pyrene
Concen: 259.84 ng/ml
RT: 13.22 min Scan# 2355
Delta R.T. 0.12 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:252 Resp: 135836

Ion	Ratio	Lower	Upper
252	100		
253	20.9	0.0	50.9
125	8.9	0.0	30.3



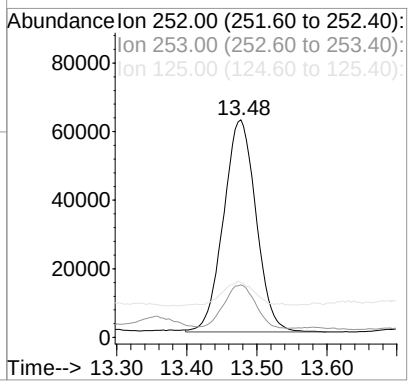
1st 11/16/18
2nd 11/27/18

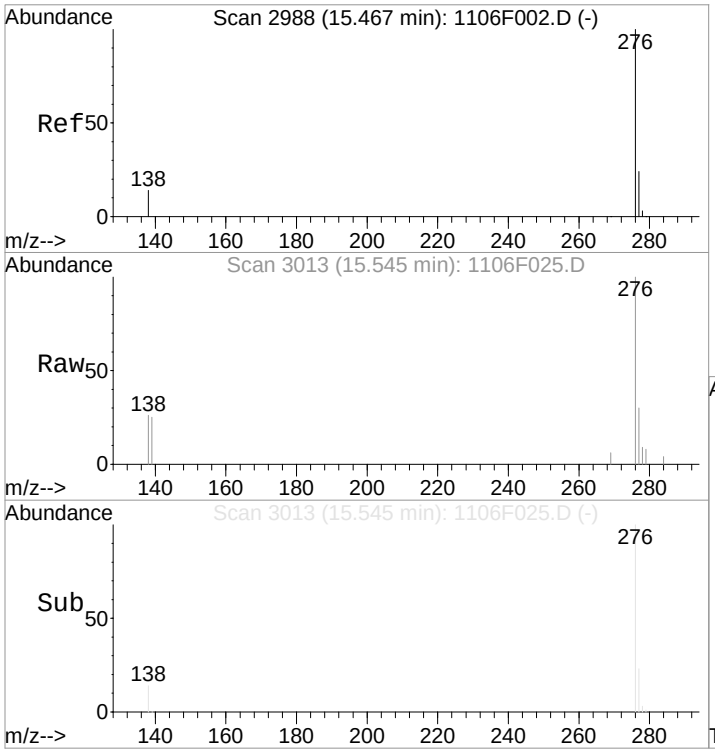


#33
Perylene
Concen: 365.31 ng/ml
RT: 13.48 min Scan# 2421
Delta R.T. 0.13 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:252 Resp: 200334

Ion	Ratio	Lower	Upper
252	100		
253	20.5	0.0	51.2
125	10.5	0.0	33.8

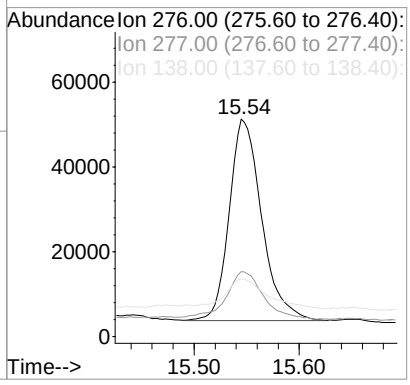




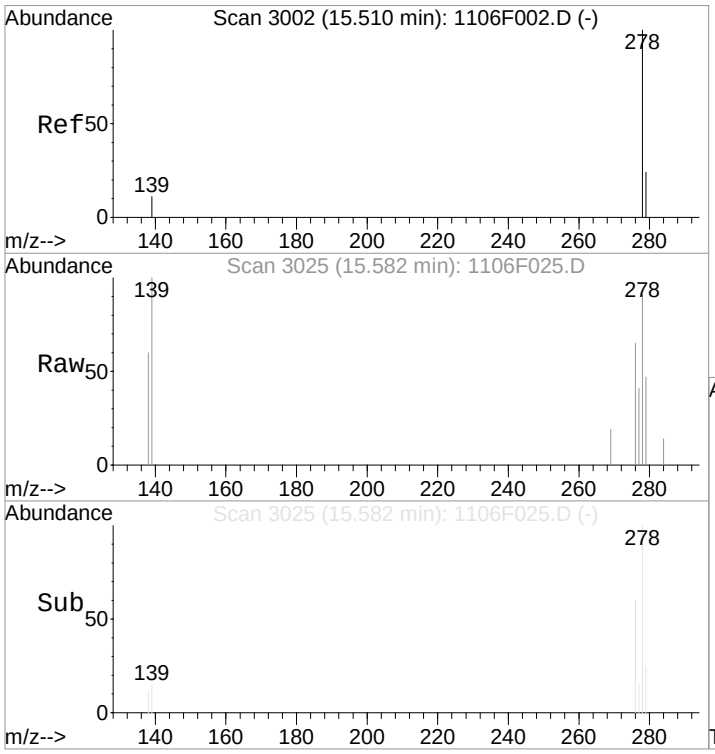
#34
Indeno(1,2,3-cd)pyrene
Concen: 198.81 ng/ml
RT: 15.54 min Scan# 3013
Delta R.T. 0.08 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:276 Resp: 101916

Ion	Ratio	Lower	Upper
276	100		
277	23.6	0.0	53.4
138	14.7	0.0	37.7



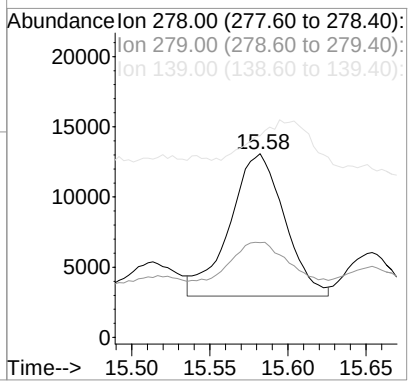
1st 11/16/18
2nd 11/27/18

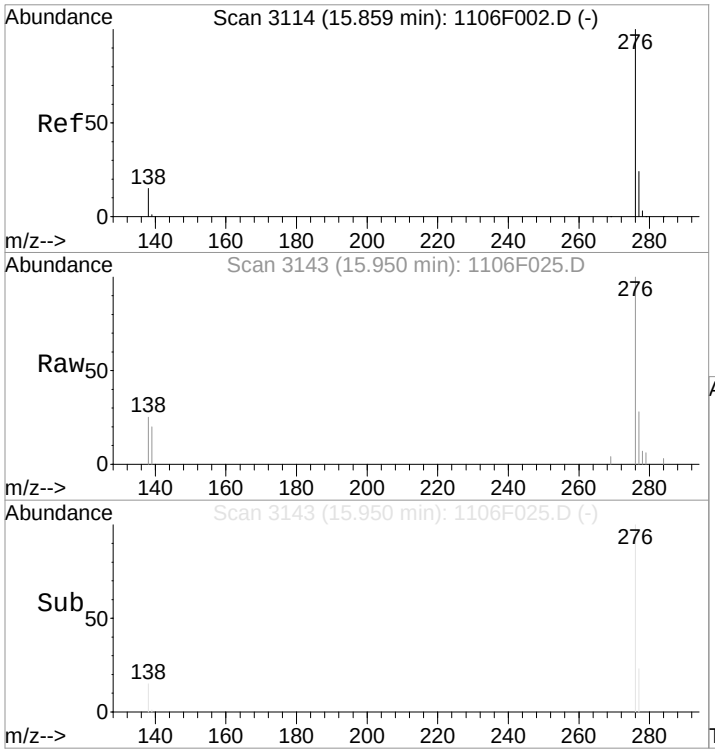


#35
Dibenz(a,h)anthracene
Concen: 47.64 ng/ml m
RT: 15.58 min Scan# 3025
Delta R.T. 0.07 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:278 Resp: 24754

Ion	Ratio	Lower	Upper
278	100		
279	51.7	0.0	53.5
139	109.9	0.0	35.0#

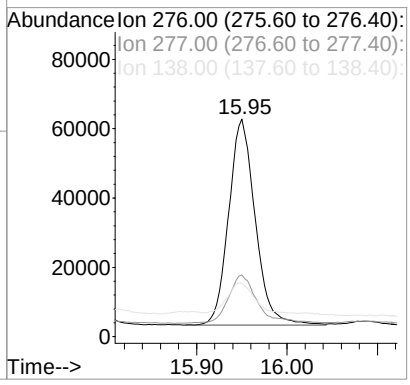




#36
Benzo(g,h,i)perylene
Concen: 202.65 ng/ml
RT: 15.95 min Scan# 3143
Delta R.T. 0.09 min
Lab File: 1106F025.D
Acq: 6 Nov 2018 4:37 pm

Tgt Ion:276 Resp: 121652

Ion	Ratio	Lower	Upper
276	100		
277	23.4	0.0	53.1
138	15.1	0.0	39.2



Quantitation Report (QT Reviewed)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F025.D Vial: 25
Acq On : 6 Nov 2018 4:37 pm Operator: LWeiskopf
Sample : K1810302-029DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 09:56:55 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.76	136	70610	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.32	164	31230	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.56	188	68450	200.00	ng/ml	0.00
23) Chrysene-d12	10.14	240	88853	200.00	ng/ml	0.04
28) Perylene-d12	13.39	264	96486	200.00	ng/ml	0.12
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.40	152	10830	54.95	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	5.50%		
13) Fluorene-d10	6.76	176	16606	83.16	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	8.32%		
22) Fluoranthene-d10	8.56	212	39945	92.59	ng/ml	0.02
Spiked Amount 1000.000			Recovery =	9.26%		
25) Terphenyl-d14	8.91	244	35243	91.45	ng/ml	0.01
Spiked Amount 1000.000			Recovery =	9.14%		
Target Compounds						Qvalue
2) Naphthalene	4.78	128	17508	42.96	ng/ml	99
4) 2-Methylnaphthalene	5.42	142	9047	36.81	ng/ml	92
5) 1-Methylnaphthalene	5.51	142	3421	14.46	ng/ml	94
6) Biphenyl	5.83	154	3218	10.49	ng/ml	97
7) 2,6-Dimethylnaphthalene	5.97	156	8944	42.39	ng/ml	94
9) Acenaphthylene	6.20	152	10597	28.44	ng/ml	78
10) Acenaphthene	6.35	154	10645	49.73	ng/ml	100
11) Dibenzofuran	6.50	168	6767m	19.70	ng/ml	
12) 2,3,5-Trimethylnaphthalene	6.67	170	37752	190.67	ng/ml	86
14) Fluorene	6.79	166	8687	33.56	ng/ml	90
16) Dibenzothiophene	7.48	184	17005	39.83	ng/ml	88
17) Phenanthrene	7.58	178	170709	399.78	ng/ml	99
18) Anthracene	7.63	178	27943	68.55	ng/ml	97
20) 1-Methylphenanthrene	8.10	192	41483	128.26	ng/ml	97
21) Fluoranthene	8.58	202	271337	514.61	ng/ml	97
24) Pyrene	8.77	202	331799m	544.28	ng/ml	
26) Benz(a)anthracene	10.13	228	121887	212.17	ng/ml	92
27) Chrysene	10.18	228	166801	303.13	ng/ml	97
29) Benzo(b)fluoranthene	12.30	252	196947	330.39	ng/ml	98
30) Benzo(k)fluoranthene	12.36	252	63090m	106.69	ng/ml	
31) Benzo(e)pyrene	13.05	252	106597	187.60	ng/ml	98
32) Benzo(a)pyrene	13.22	252	135836	259.84	ng/ml	99
33) Perylene	13.48	252	200334	365.31	ng/ml	96
34) Indeno(1,2,3-cd)pyrene	15.54	276	101916	198.81	ng/ml	97
35) Dibenz(a,h)anthracene	15.58	278	24754m	47.64	ng/ml	
36) Benzo(g,h,i)perylene	15.95	276	121652	202.65	ng/ml	96

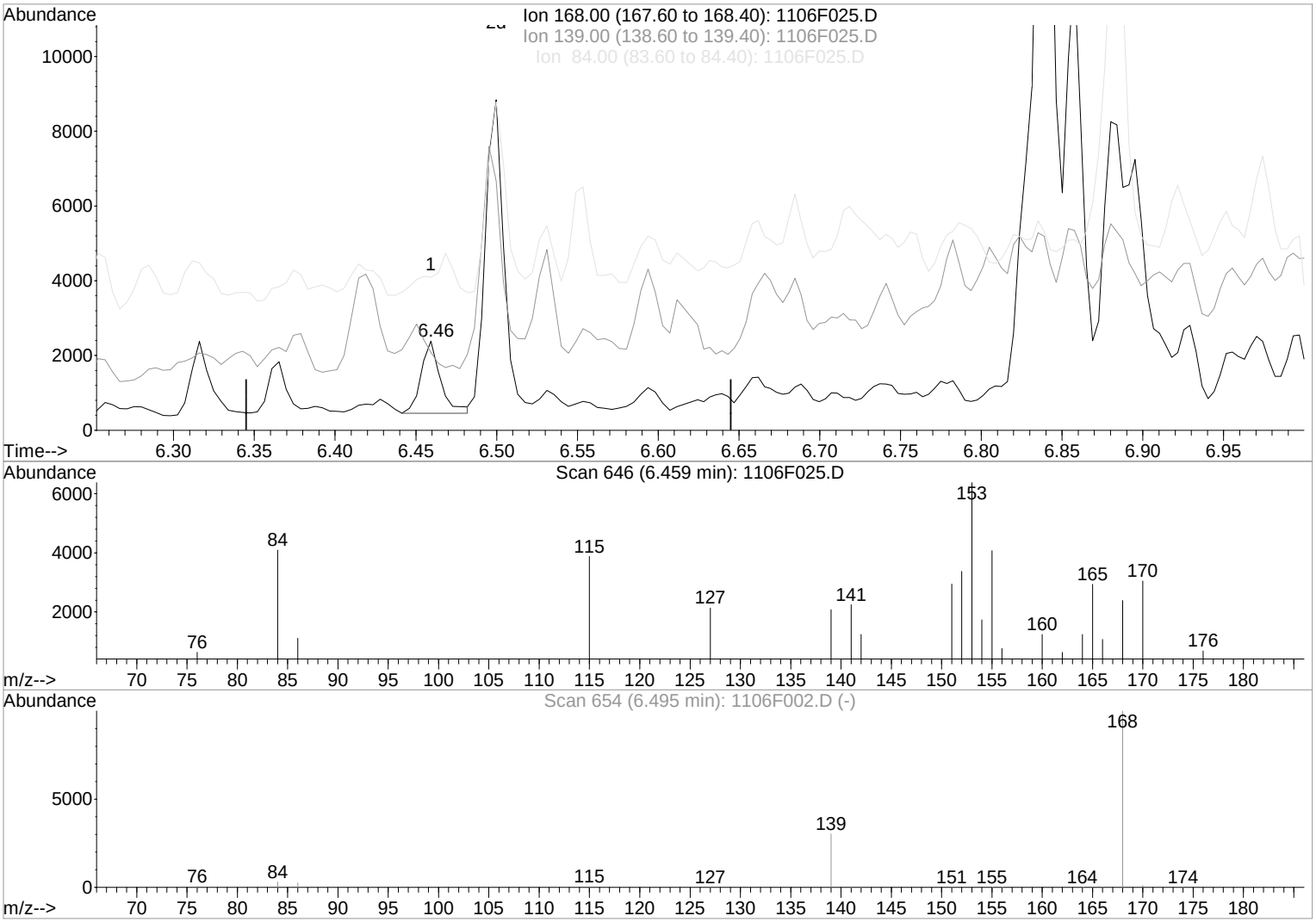
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F025.D Vial: 25
Acq On : 6 Nov 2018 4:37 pm Operator: LWeiskopf
Sample : K1810302-029DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 9:56 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F025.D

(11) Dibenzofuran (T)

6.46min 4.71ng/ml

response 1618

Ion	Exp%	Act%
168.00	100	100
139.00	25.80	2.80
84.00	3.50	21.30
0.00	0.00	0.00

Manual Integration:

Before

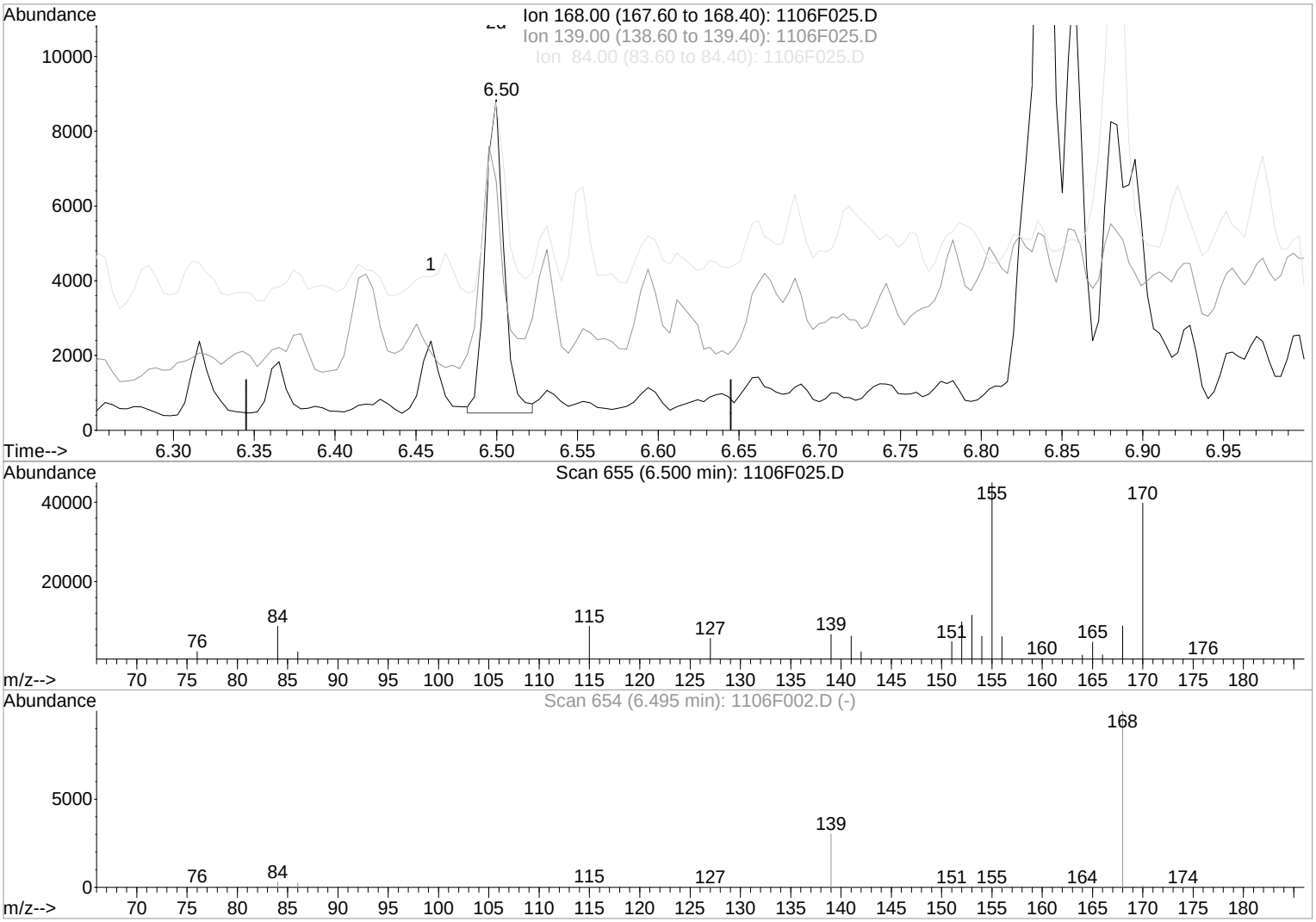
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F025.D Vial: 25
Acq On : 6 Nov 2018 4:37 pm Operator: LWeiskopf
Sample : K1810302-029DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:54 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F025.D

(11) Dibenzofuran (T)

6.50min 19.70ng/ml m

response 6767

Ion	Exp%	Act%
168.00	100	100
139.00	25.80	75.29#
84.00	3.50	99.31#
0.00	0.00	0.00

Manual Integration:

After

WP

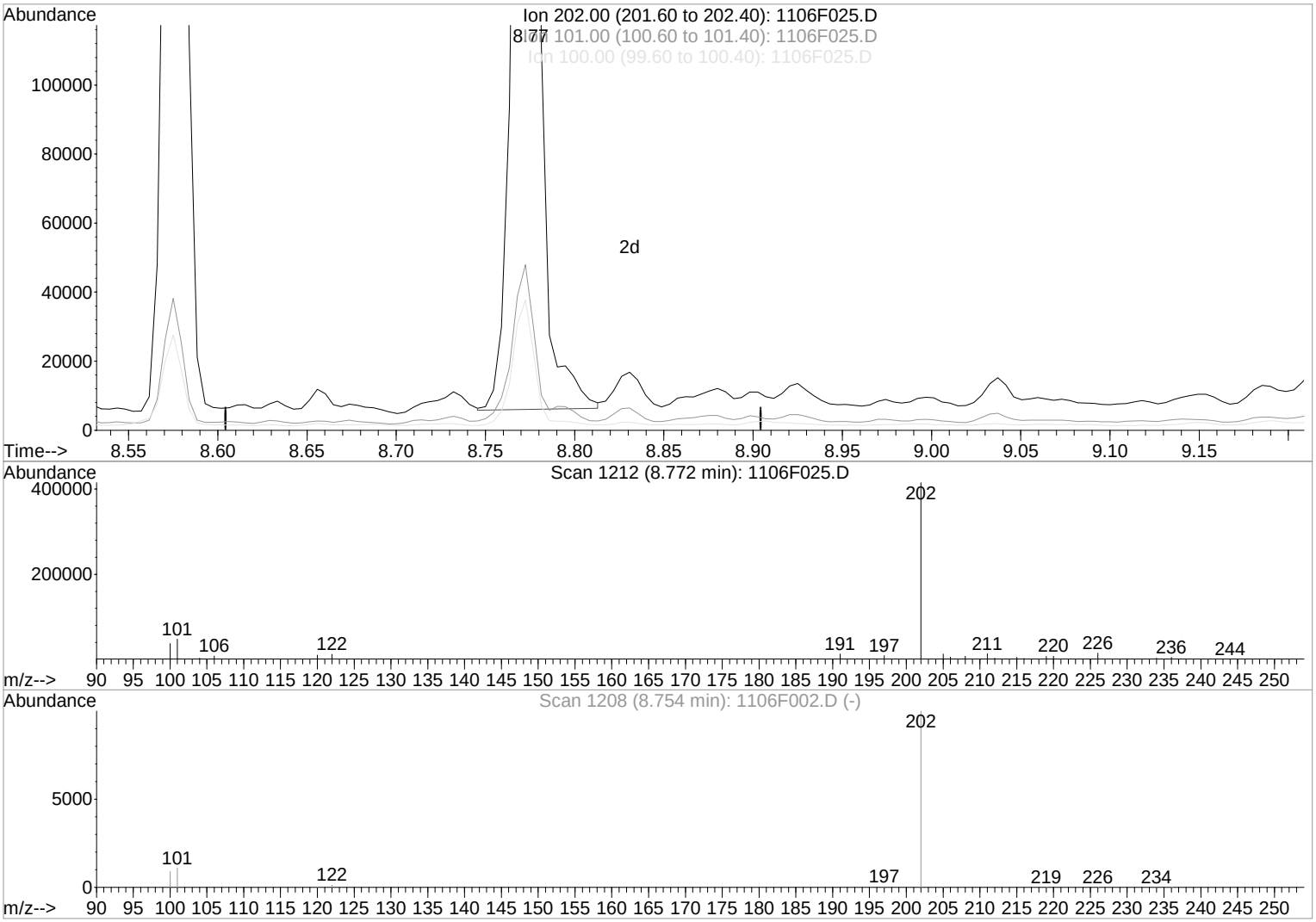
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F025.D Vial: 25
Acq On : 6 Nov 2018 4:37 pm Operator: LWeiskopf
Sample : K1810302-029DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:54 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F025.D

(24) Pyrene (T)

8.77min 556.81ng/ml

response 339442

Ion	Exp%	Act%
202.00	100	100
101.00	10.80	11.07
100.00	8.50	8.87
0.00	0.00	0.00

Manual Integration:

Before

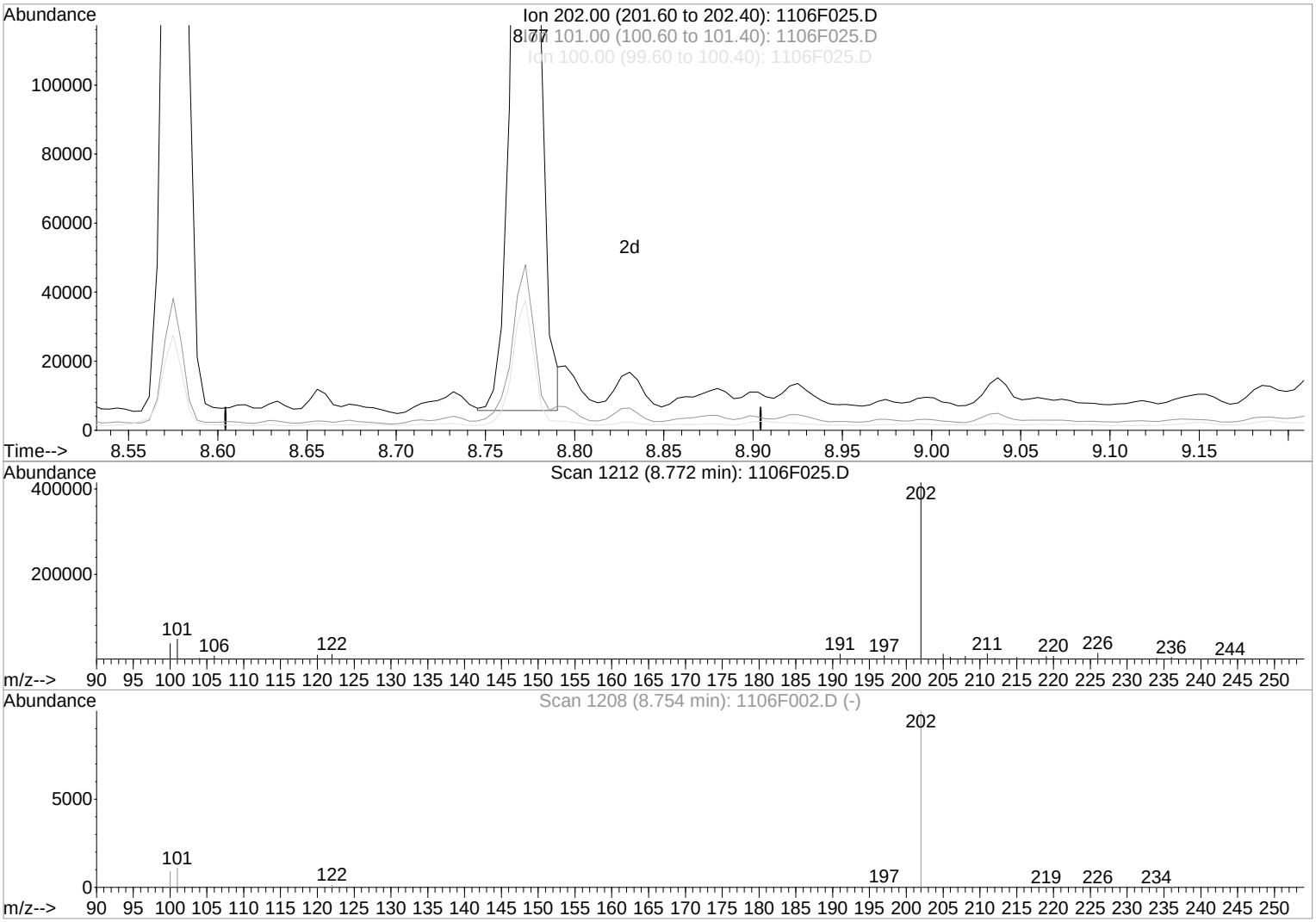
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F025.D Vial: 25
Acq On : 6 Nov 2018 4:37 pm Operator: LWeiskopf
Sample : K1810302-029DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:54 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F025.D

(24) Pyrene (T)

8.77min 544.28ng/ml m

response 331799

Ion	Exp%	Act%
202.00	100	100
101.00	10.80	11.54
100.00	8.50	9.08
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

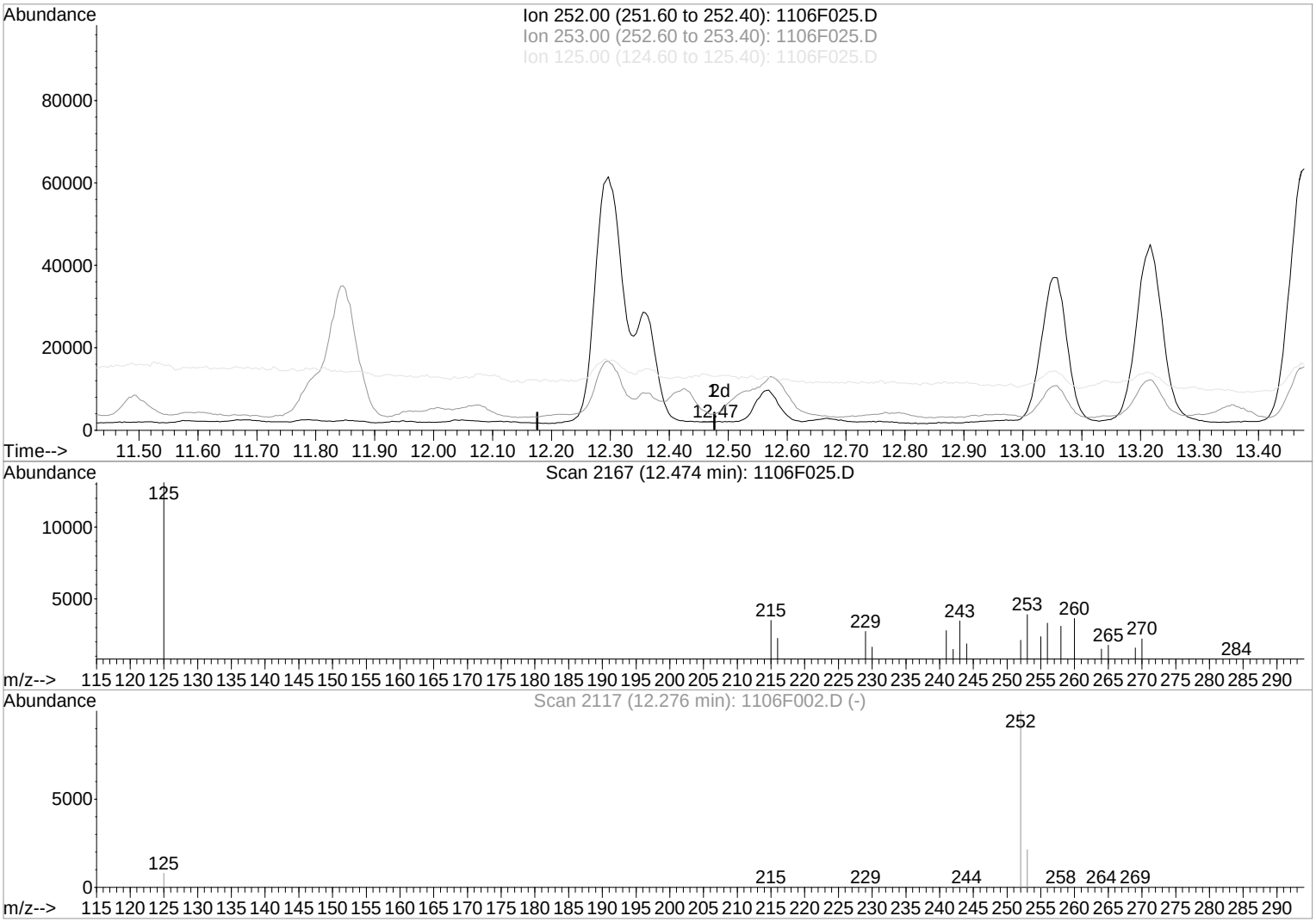
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F025.D Vial: 25
Acq On : 6 Nov 2018 4:37 pm Operator: LWeiskopf
Sample : K1810302-029DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:54 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F025.D

(30) Benzo(k)fluoranthene (T)

12.47min 0.23ng/ml

response 137

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	0.00
125.00	9.70	25.00
0.00	0.00	0.00

Manual Integration:

Before

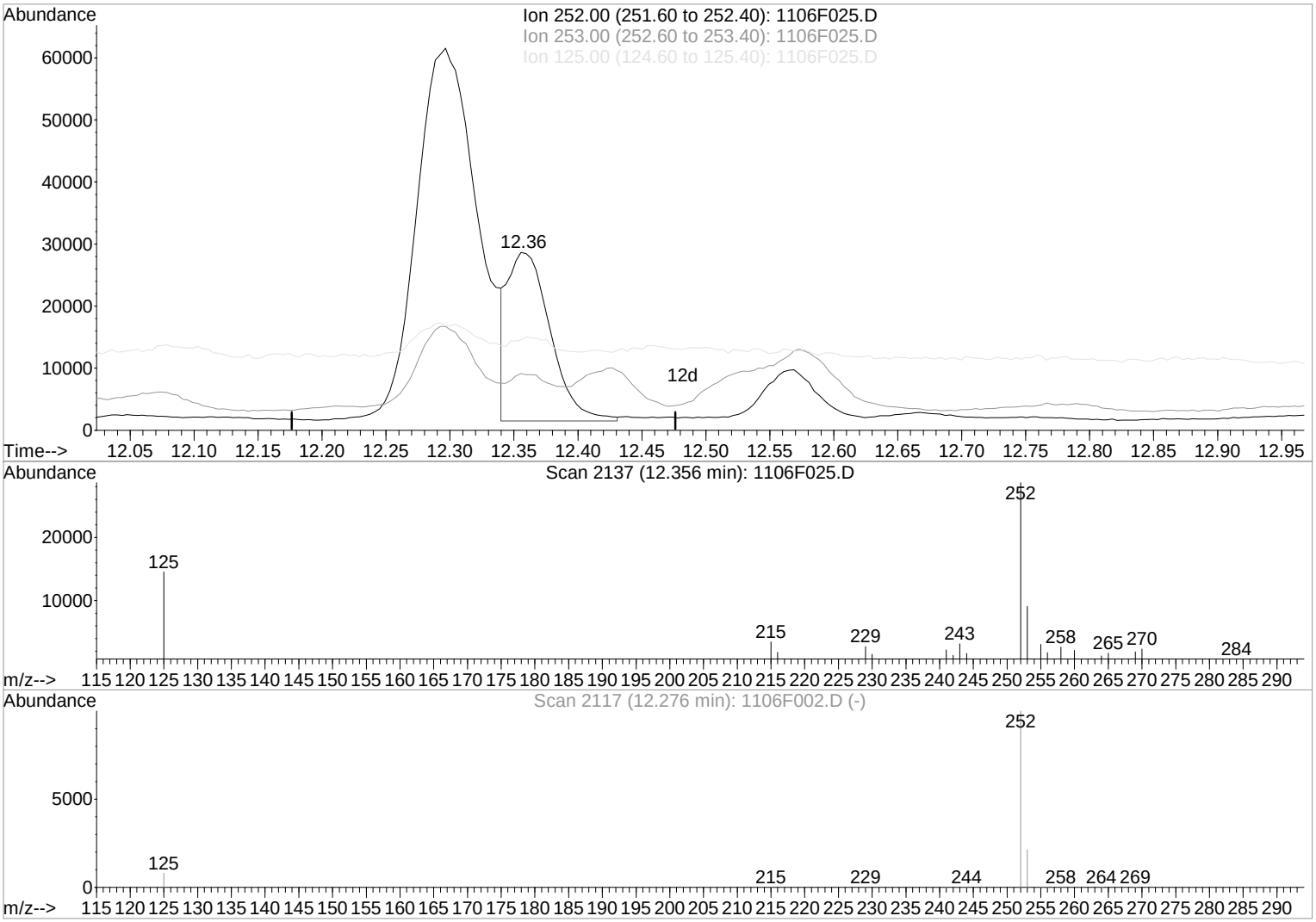
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F025.D Vial: 25
Acq On : 6 Nov 2018 4:37 pm Operator: LWeiskopf
Sample : K1810302-029DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:55 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F025.D

(30) Benzo(k)fluoranthene (T)

12.36min 106.69ng/ml m

response 63090

Ion	Exp%	Act%
252.00	100	100
253.00	21.20	31.78
125.00	9.70	50.80#
0.00	0.00	0.00

Manual Integration:

After

WP

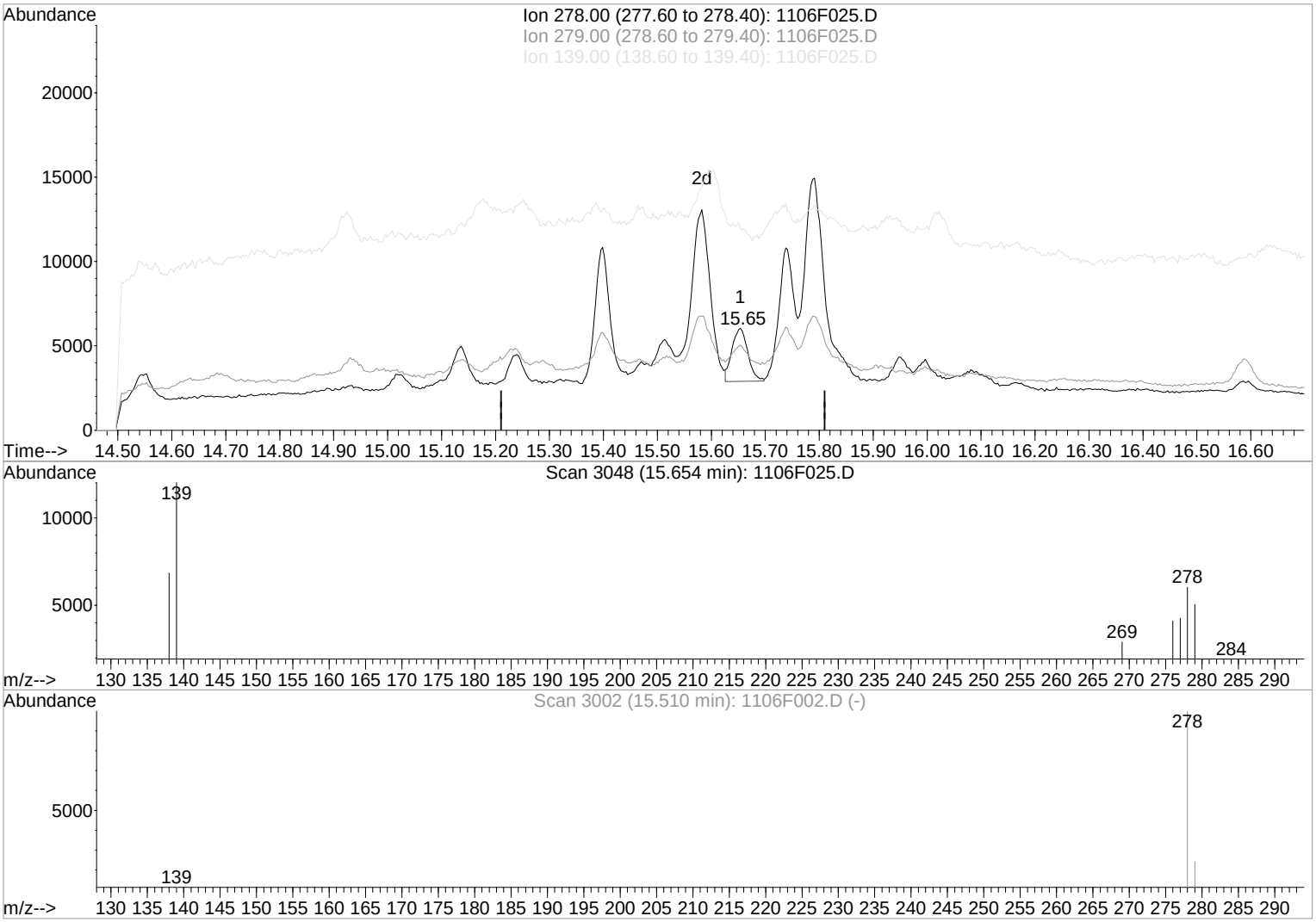
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F025.D Vial: 25
Acq On : 6 Nov 2018 4:37 pm Operator: LWeiskopf
Sample : K1810302-029DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:55 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F025.D

(35) Dibenz(a,h)anthracene (T)

15.65min 12.35ng/ml

response 6419

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	37.59
139.00	15.00	6.64
0.00	0.00	0.00

Manual Integration:

Before

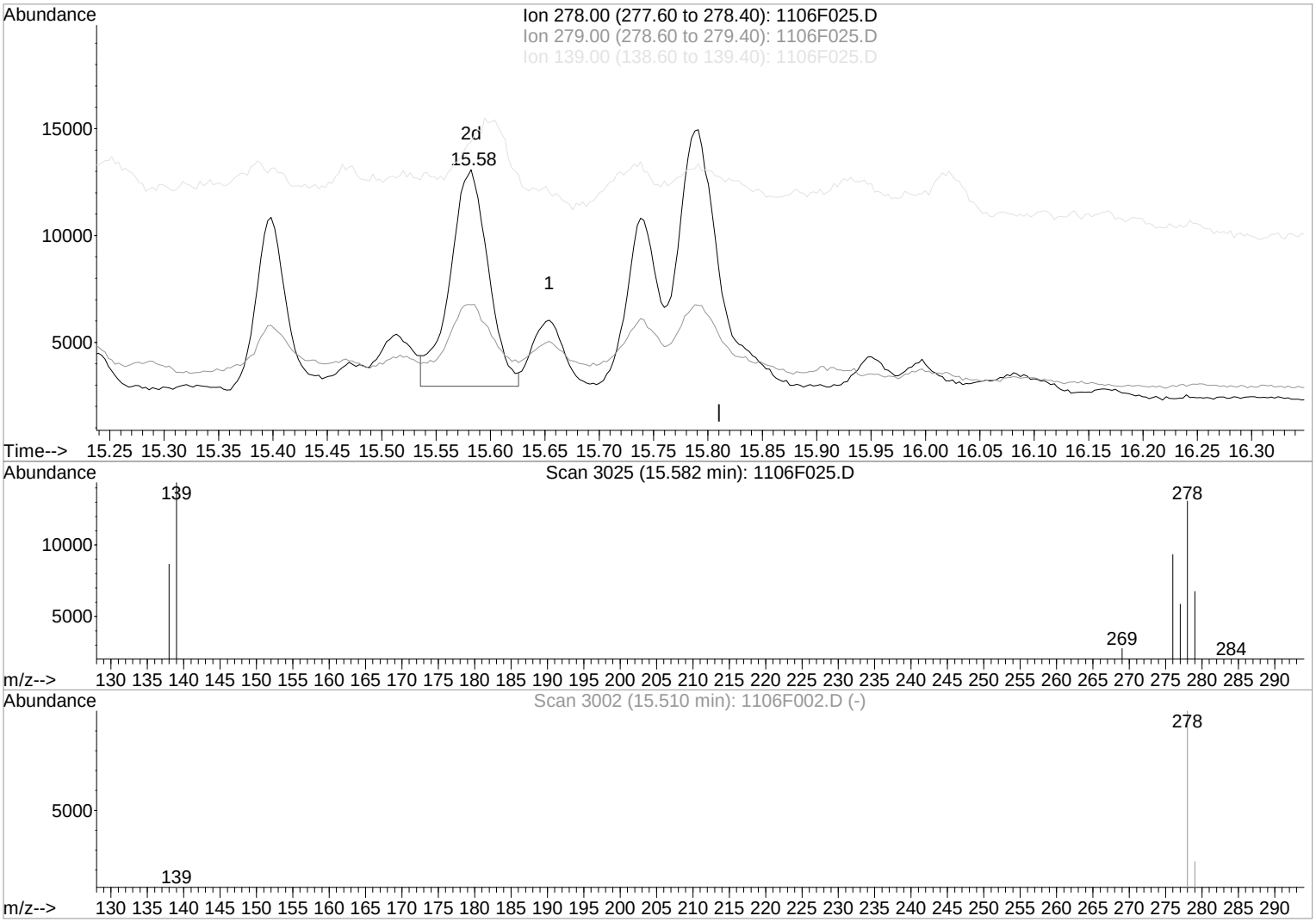
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F025.D Vial: 25
Acq On : 6 Nov 2018 4:37 pm Operator: LWeiskopf
Sample : K1810302-029DIL 10X Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:55 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F025.D

(35) Dibenz(a,h)anthracene (T)

15.58min 47.64ng/ml m

response 24754

Ion	Exp%	Act%
278.00	100	100
279.00	23.50	51.67
139.00	15.00	109.92#
0.00	0.00	0.00

Manual Integration:

After

WP

11/16/18

1st 11/16/18
2nd 11/27/18

Exception Report

Data File: J:\MS14\DATA\110618\1106F006.D
Lab ID: KWG1805647-4
RunType: MB
Matrix: SEDIMENT

Date Acquired: 11/06/2018 07:30
Date Quantitated: 11/16/2018 10:00
Batch ID: KWG1806026
Analysis Method: 8270D SIM
MethodJoinID: MJ1233

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
Surrogates	2-Methylnaphthalene-d10	64	70	130	NT

Primary Review: _____

Secondary Review: _____

1st 11/16/18
2nd 11/27/18

Quantitation Report

Data File:	J:\MS14\DATA\110618\1106F006.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 07:30	**Quant Date:**	11/16/2018 10:00	**Vial:**	6
Run Type:	MB	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1805647-4			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	SEDIMENT
Prod Code:	8270D PAH SIM U	**Collect Date:**		**Receive Date:**	11/05/2018

Analysis Lot:	KWG1806026	**Prep Lot:**	KWG1805647	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1701163	**Prep Date:**	11/01/2018		

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:			
Tune Ref:	J:\MS14\DATA\110618\1106F001.D	**Method ID:**	MJ1233
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	4.75	-0.01	136	65972	200.00	OK
2	Acenaphthene-d10	6.32	0.00	164	30783	200.00	OK
3	Phenanthrene-d10	7.56	0.00	188	64291	200.00	OK
4	Chrysene-d12	10.10	-0.01	240	71910	200.00	OK
5	Perylene-d12	13.26	-0.01	264	77915	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	2-Methylnaphthalene-d10	5.39	0.00	0.00	152	118292	642.39	64	70-130	*	
2	Fluorene-d10	6.75	-0.01	0.00	176	151655	770.50	77	26-102	OK	
3	Fluoranthene-d10	8.54	0.00	0.00	212	301192	743.33	74	23-110	OK	
4	Terphenyl-d14	8.89	0.00	0.00	244	256662	822.89	82	27-115	OK	

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.77	-0.01	0.00	128	403	1.06	0.089	U	
1	2-Methylnaphthalene	5.42		0.00	142	113	0.4900	0.047	U	
1	1-Methylnaphthalene	5.50	-0.01	0.00	142	79	0.3600	0.055	U	
1	Biphenyl	5.83		0.00	154	526**m**	1.84	0.15	U	
1	2,6-Dimethylnaphthalene				156	0**d**		0.055	U	
2	Acenaphthylene				152	0**d**		0.029	U	
2	Acenaphthene				154	0**d**		0.032	U	
2	Dibenzofuran				168	0**d**		0.022	U	
2	2,3,5-Trimethylnaphthalene				170	0**d**		0.034	U	
2	Fluorene				166	0**d**		0.039	U	
3	Dibenzothiophene				184	0**d**		0.049	U	
3	Phenanthrene	7.58		0.00	178	234**m**	0.5800	0.033	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

1st 11/16/18
2nd 11/27/18

Data File:	J:\MS14\DATA\110618\1106F006.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 07:30	**Quant Date:**	11/16/2018 10:00	**Vial:**	6
Run Type:	MB	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1805647-4			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Anthracene				178	0**d**		0.026	U	
3	Carbazole				167	0**d**		0.080	U	
3	1-Methylphenanthrene				192	0		0.041	U	
3	Fluoranthene	8.56		0.00	202	151**m**	0.3000	0.032	U	
4	Pyrene	8.75		0.00	202	152**m**	0.3100	0.032	U	
4	Benz(a)anthracene	10.10	0.01	0.00	228	277	0.6000	0.033	U	
4	Chrysene				228	0**d**		0.027	U	
5	Benzo(b)fluoranthene				252	0		0.057	U	
5	Benzo(k)fluoranthene				252	0		0.045	U	
5	Benzo(e)pyrene				252	0		0.051	U	
5	Benzo(a)pyrene				252	0		0.036	U	
5	Perylene				252	0**d**		0.19	U	
5	Indeno(1,2,3-cd)pyrene				276	0		0.064	U	
5	Dibenz(a,h)anthracene				278	0		0.058	U	
5	Benzo(g,h,i)perylene				276	0		0.059	U	

Prep Amount:	40.436 g	**Dilution:**	1.0
Prep Final Vol:	2 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

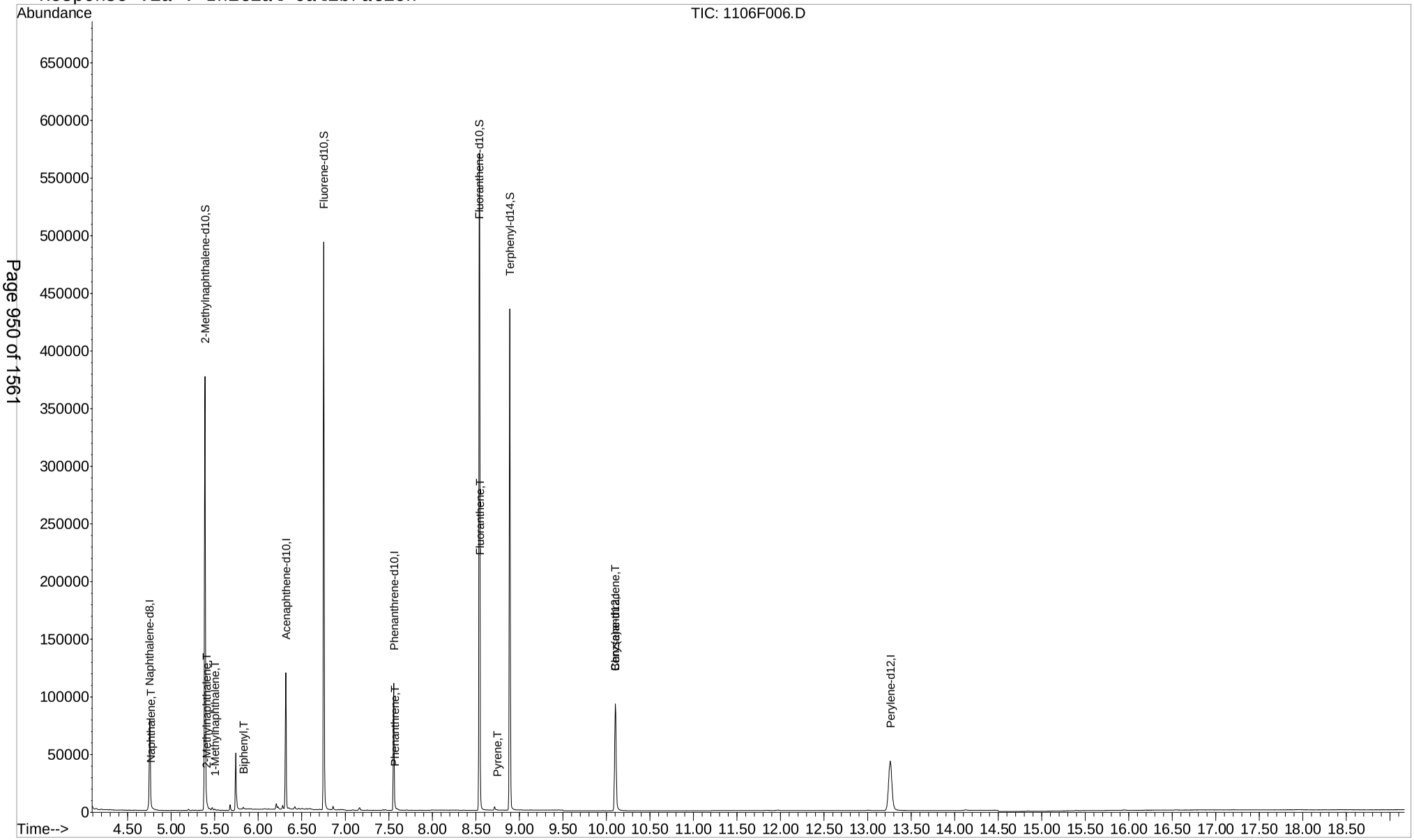
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

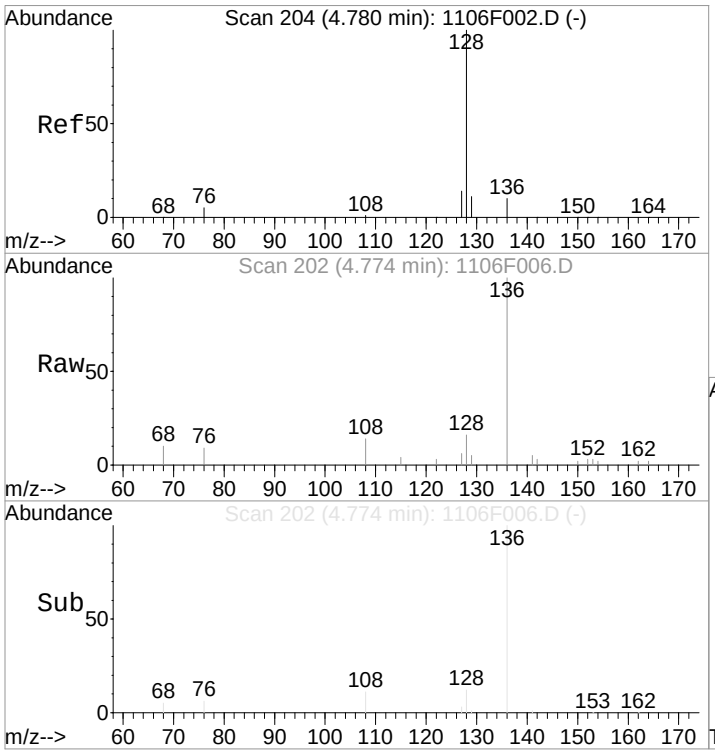
1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F006.D Vial: 6
Acq On : 6 Nov 2018 7:30 am Operator: LWeiskopf
Sample : KWG1805647-4 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:00 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration



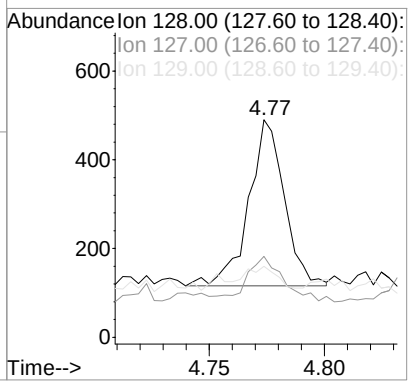
1st 11/16/18
2nd 11/27/18

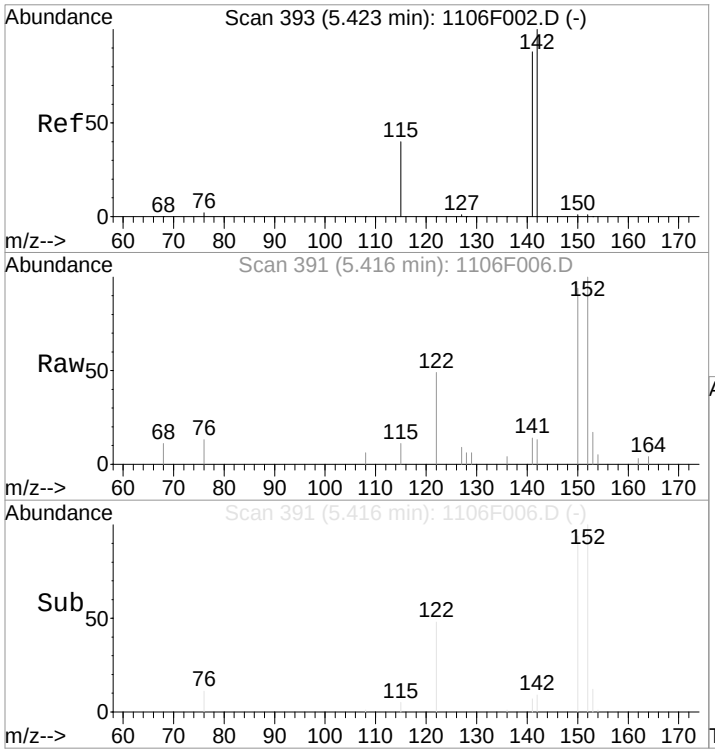


#2
Naphthalene
Concen: 1.06 ng/ml
RT: 4.77 min Scan# 202
Delta R.T. -0.01 min
Lab File: 1106F006.D
Acq: 6 Nov 2018 7:30 am

Tgt Ion:128 Resp: 403

Ion	Ratio	Lower	Upper
128	100		
127	24.1	0.0	43.7
129	13.1	0.0	30.8

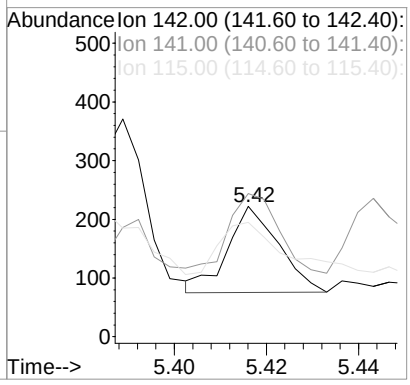




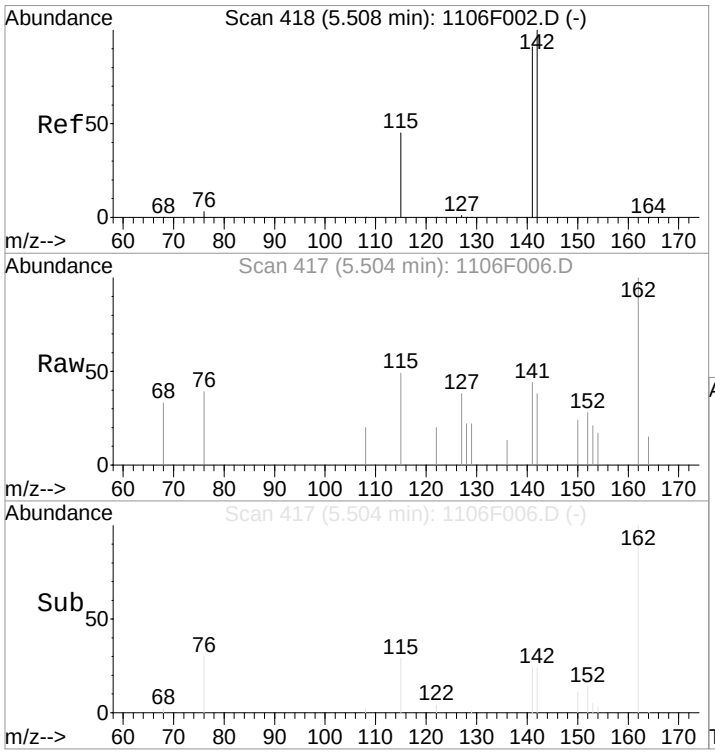
#4
2-Methylnaphthalene
Concen: 0.49 ng/ml
RT: 5.42 min Scan# 391
Delta R.T. -0.01 min
Lab File: 1106F006.D
Acq: 6 Nov 2018 7:30 am

Tgt Ion:142 Resp: 113

Ion	Ratio	Lower	Upper
142	100		
141	93.2	56.8	116.8
115	61.0	13.3	53.3#



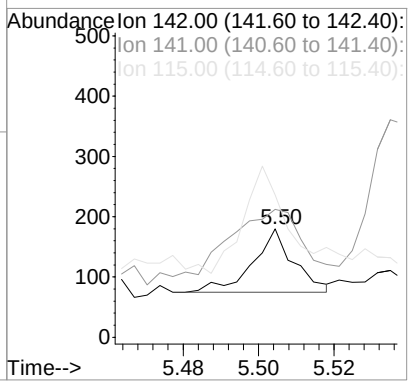
1st 11/16/18
2nd 11/27/18

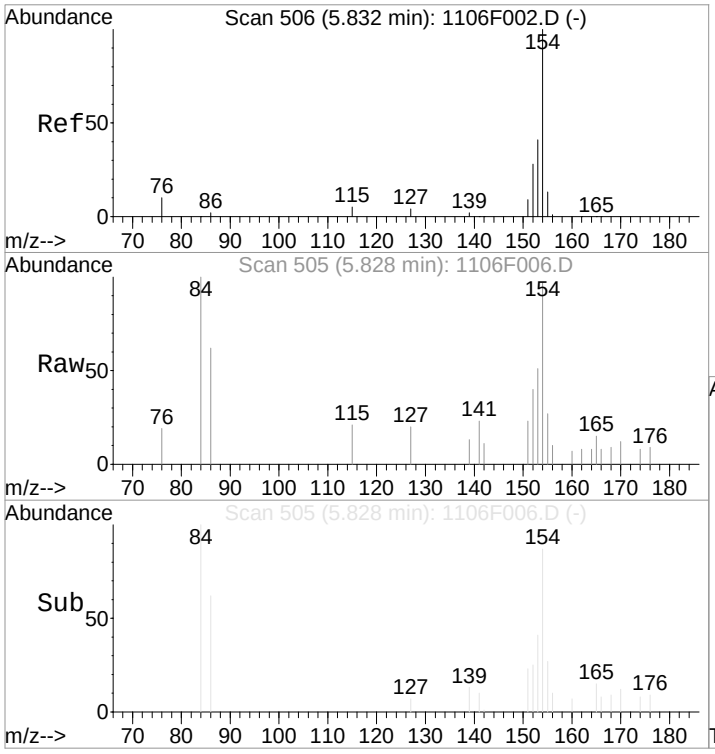


#5
1-Methylnaphthalene
Concen: 0.36 ng/ml
RT: 5.50 min Scan# 417
Delta R.T. -0.00 min
Lab File: 1106F006.D
Acq: 6 Nov 2018 7:30 am

Tgt Ion:142 Resp: 79

Ion	Ratio	Lower	Upper
142	100		
141	99.0	59.7	119.7
115	117.1	13.7	53.7#

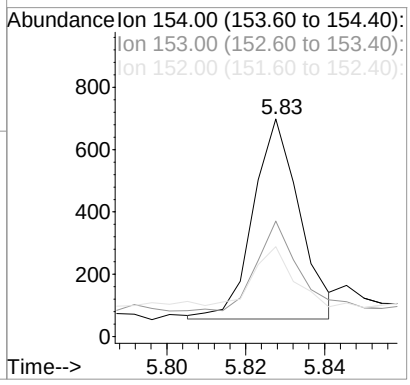




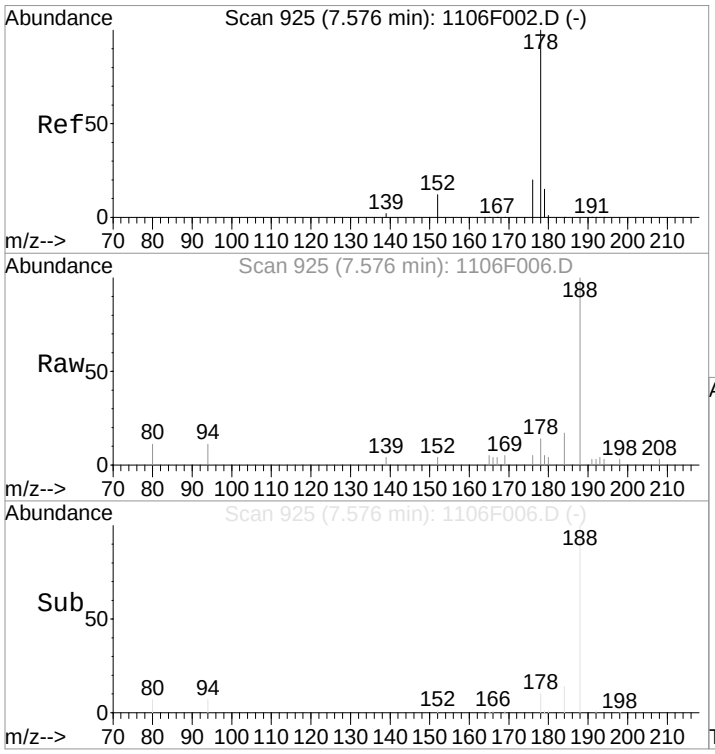
#6
Biphenyl
Concen: 1.84 ng/ml m
RT: 5.83 min Scan# 505
Delta R.T. -0.00 min
Lab File: 1106F006.D
Acq: 6 Nov 2018 7:30 am

Tgt Ion:154 Resp: 526

Ion	Ratio	Lower	Upper
154	100		
153	53.2	11.4	71.4
152	41.4	7.1	47.1



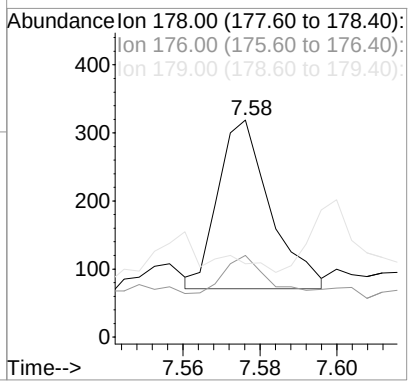
1st 11/16/18
2nd 11/27/18

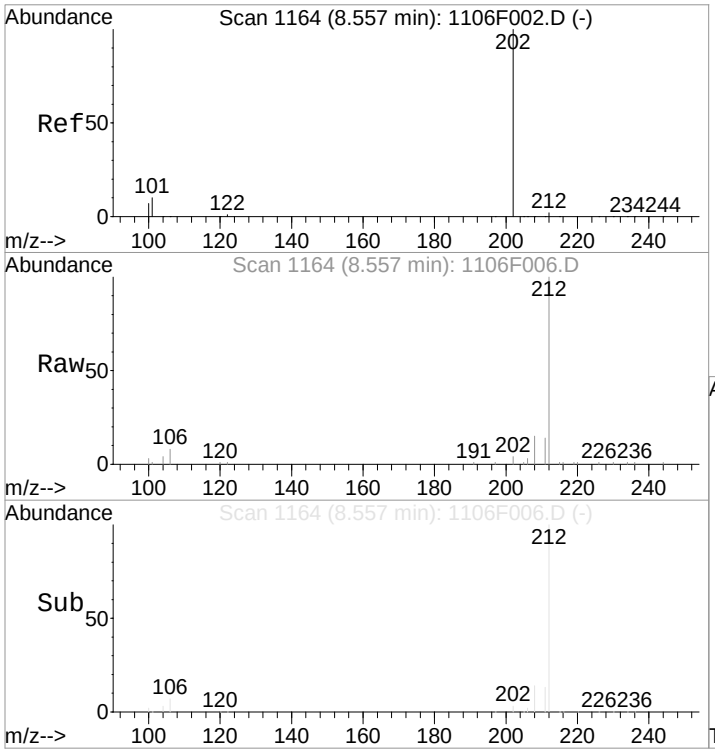


#17
Phenanthrene
Concen: 0.58 ng/ml m
RT: 7.58 min Scan# 925
Delta R.T. 0.00 min
Lab File: 1106F006.D
Acq: 6 Nov 2018 7:30 am

Tgt Ion:178 Resp: 234

Ion	Ratio	Lower	Upper
178	100		
176	37.6	0.0	48.7
179	33.9	0.0	35.1

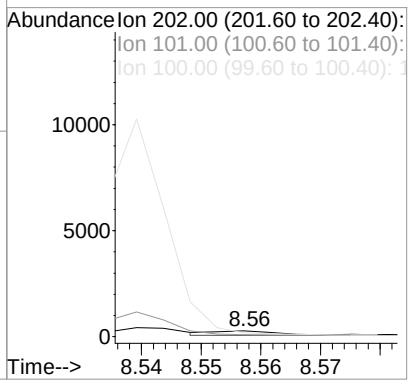


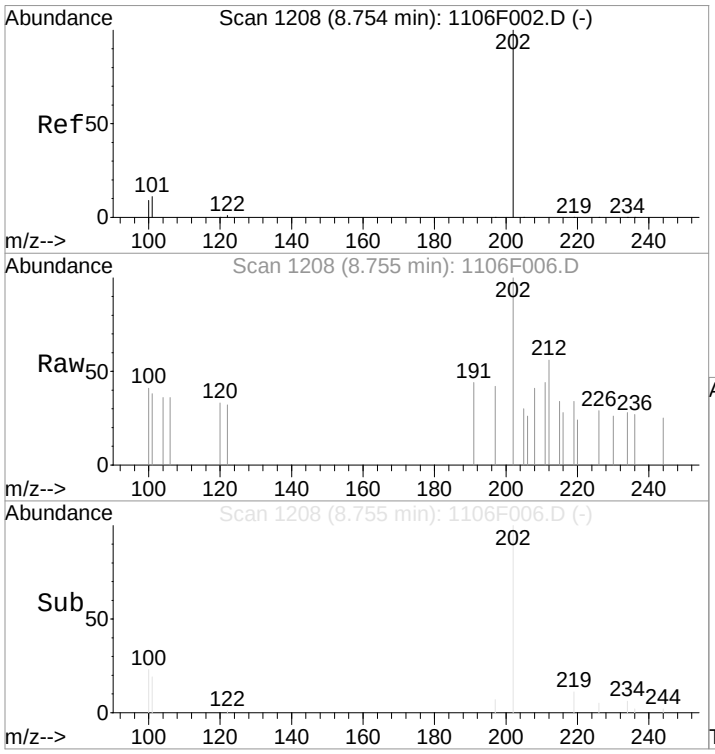


#21
Fluoranthene
Concen: 0.30 ng/ml m
RT: 8.56 min Scan# 1164
Delta R.T. 0.00 min
Lab File: 1106F006.D
Acq: 6 Nov 2018 7:30 am

Tgt Ion:202 Resp: 151

Ion	Ratio	Lower	Upper
202	100		
101	31.9	0.0	41.3
100	65.2	0.0	28.6#

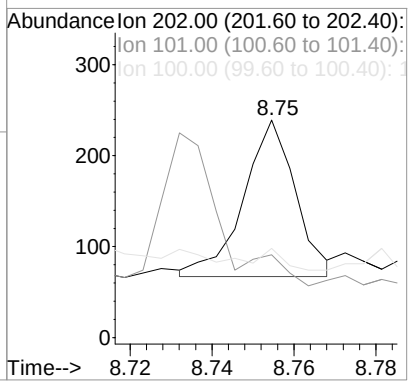


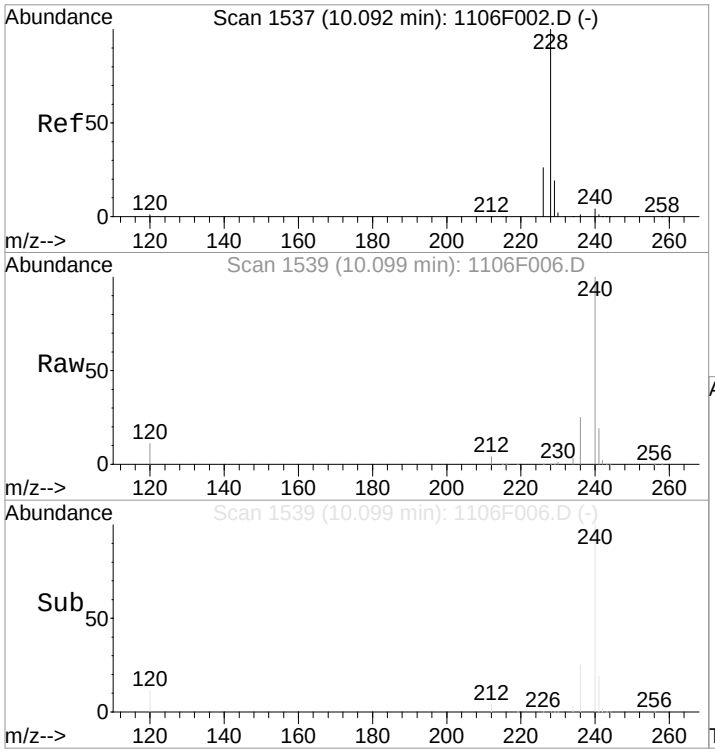


#24
Pyrene
Concen: 0.31 ng/ml m
RT: 8.75 min Scan# 1208
Delta R.T. 0.00 min
Lab File: 1106F006.D
Acq: 6 Nov 2018 7:30 am

Tgt Ion:202 Resp: 152

Ion	Ratio	Lower	Upper
202	100		
101	38.1	0.0	40.8
100	41.0	0.0	28.5#

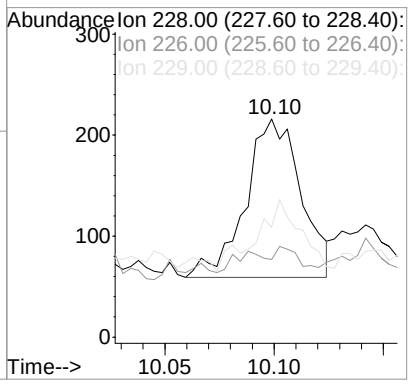




#26
Benz(a)anthracene
Concen: 0.60 ng/ml
RT: 10.10 min Scan# 1539
Delta R.T. 0.01 min
Lab File: 1106F006.D
Acq: 6 Nov 2018 7:30 am

Tgt Ion:228 Resp: 277

Ion	Ratio	Lower	Upper
228	100		
226	8.3	0.0	56.3
229	24.8	0.0	39.1



1st 11/16/18
2nd 11/27/18

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\110618\1106F006.D Vial: 6
Acq On : 6 Nov 2018 7:30 am Operator: LWeiskopf
Sample : KWG1805647-4 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 09:56:45 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	65972	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.32	164	30783	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.56	188	64291	200.00	ng/ml	0.00
23) Chrysene-d12	10.10	240	71910	200.00	ng/ml	0.00
28) Perylene-d12	13.26	264	77915	200.00	ng/ml	-0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.39	152	118292	642.39	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	64.24%		
13) Fluorene-d10	6.75	176	151655	770.50	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	77.05%		
22) Fluoranthene-d10	8.54	212	301192	743.33	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	74.33%		
25) Terphenyl-d14	8.89	244	256662	822.89	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	82.29%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	403	1.06	ng/ml	83
4) 2-Methylnaphthalene	5.42	142	113	0.49	ng/ml#	82
5) 1-Methylnaphthalene	5.50	142	79	0.36	ng/ml#	53
6) Biphenyl	5.83	154	526m	1.84	ng/ml	
17) Phenanthrene	7.58	178	234m	0.58	ng/ml	
21) Fluoranthene	8.56	202	151m	0.30	ng/ml	
24) Pyrene	8.75	202	152m	0.31	ng/ml	
26) Benz(a)anthracene	10.10	228	277	0.60	ng/ml	74

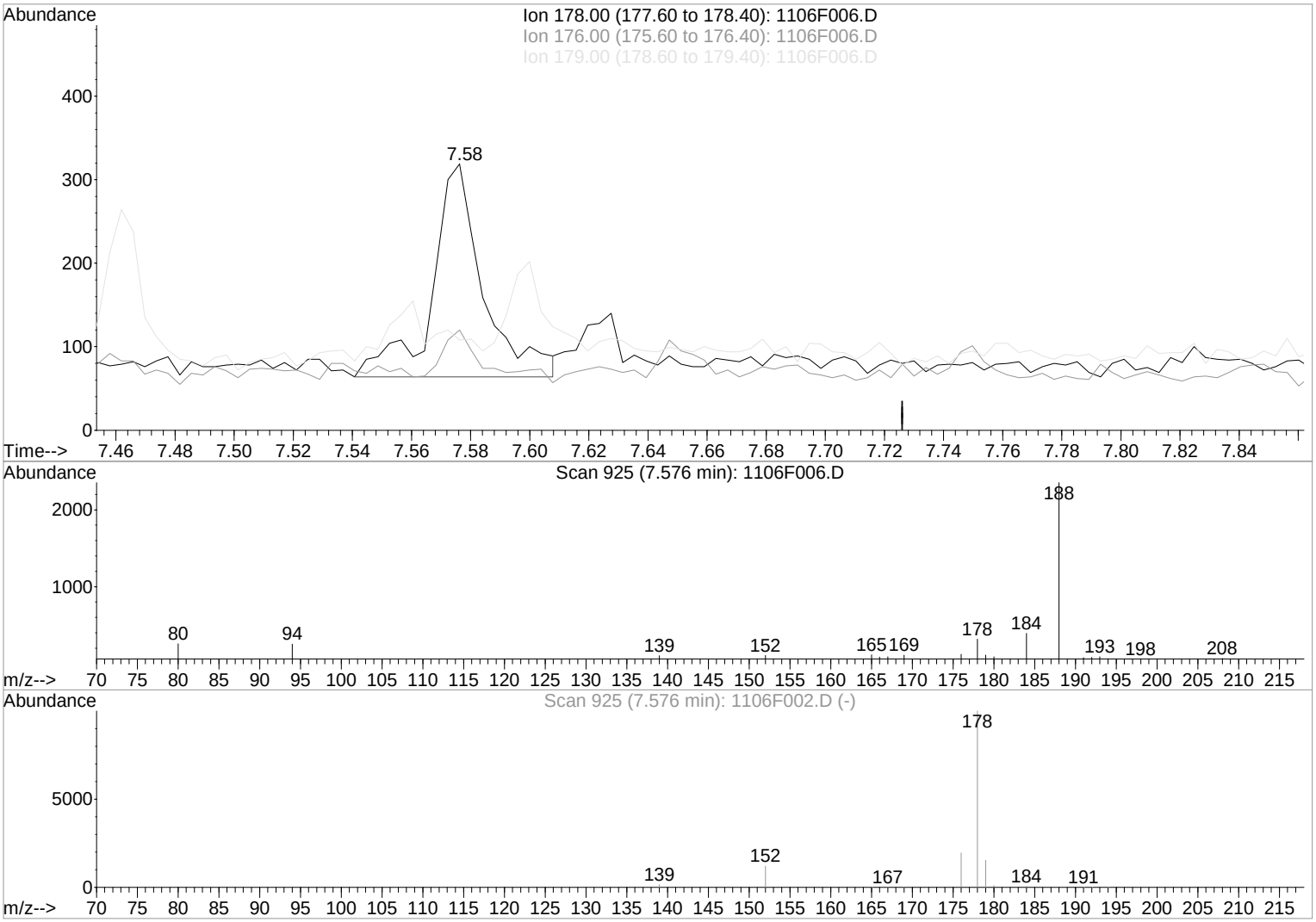
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F006.D Vial: 6
Acq On : 6 Nov 2018 7:30 am Operator: LWeiskopf
Sample : KWG1805647-4 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 9:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F006.D

(17) Phenanthrene (T)

7.58min 0.76ng/ml

response 306

Ion	Exp%	Act%
178.00	100	100
176.00	18.70	24.71
179.00	15.10	9.80
0.00	0.00	0.00

Manual Integration:

Before

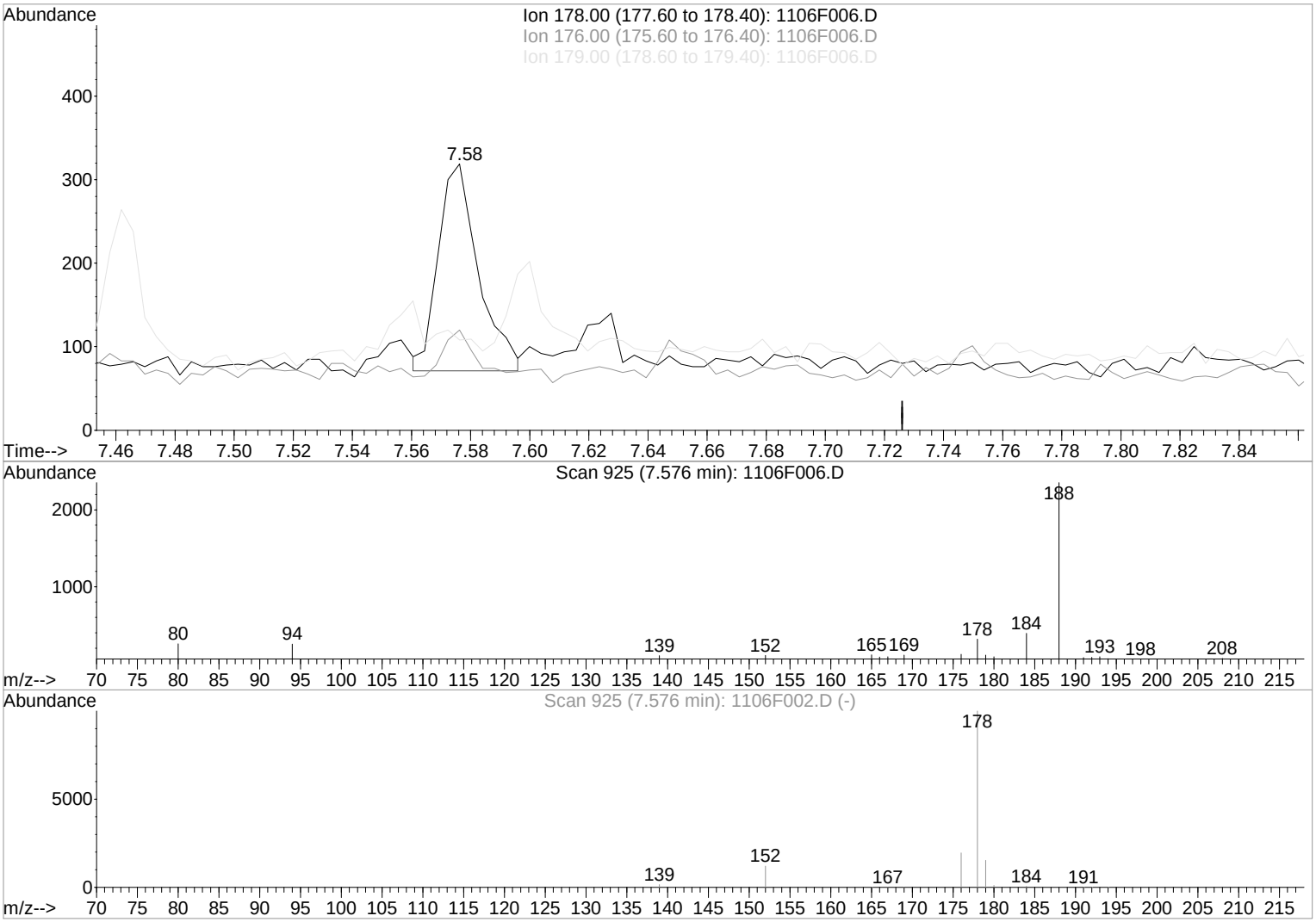
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F006.D Vial: 6
Acq On : 6 Nov 2018 7:30 am Operator: LWeiskopf
Sample : KWG1805647-4 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 9:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F006.D

(17) Phenanthrene (T)

7.58min 0.58ng/ml m

response 234

Ion	Exp%	Act%
178.00	100	100
176.00	18.70	37.62
179.00	15.10	33.86
0.00	0.00	0.00

Manual Integration:

After

BLC

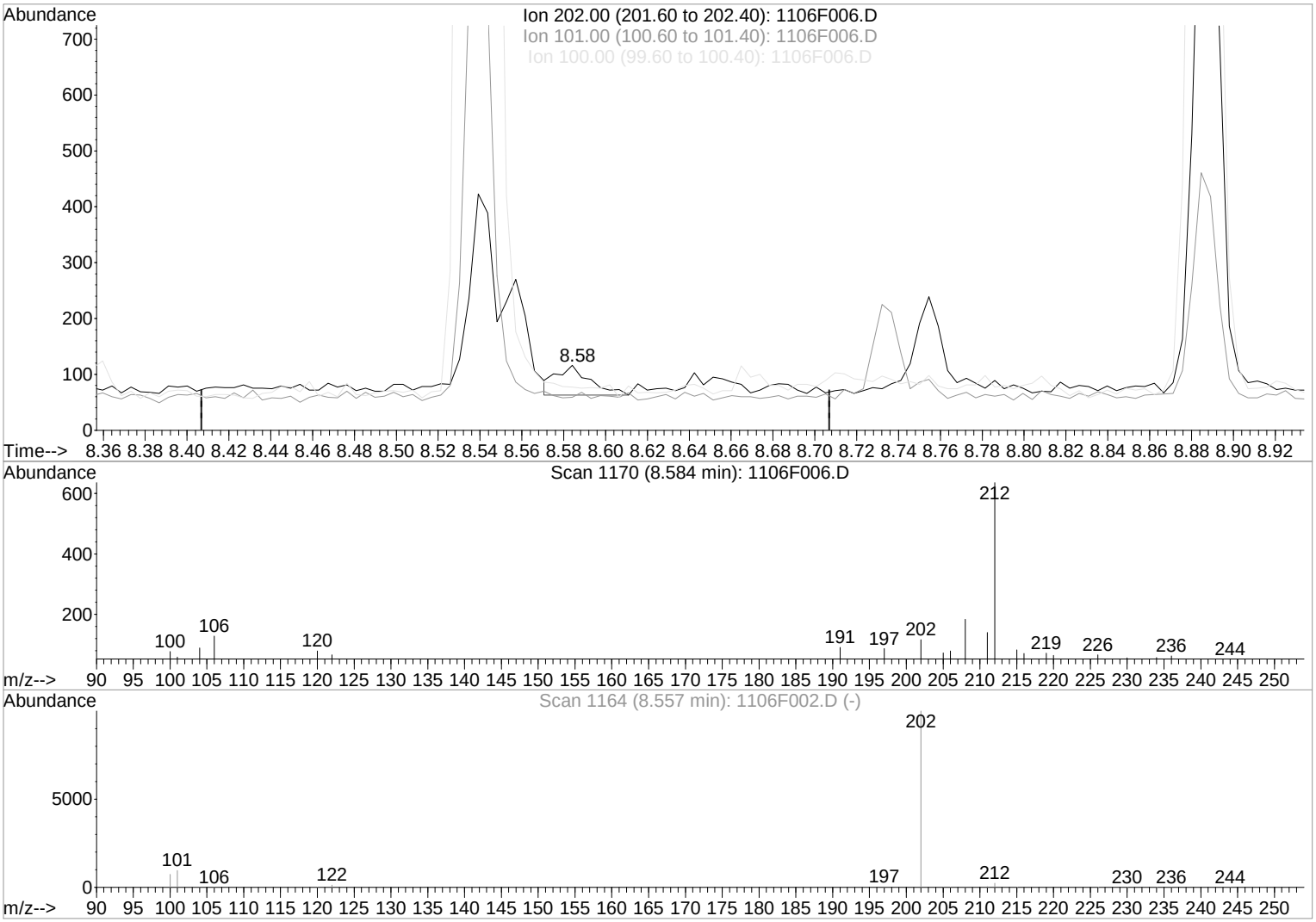
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F006.D Vial: 6
Acq On : 6 Nov 2018 7:30 am Operator: LWeiskopf
Sample : KWG1805647-4 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 9:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F006.D

(21) Fluoranthene (T)

8.58min 0.12ng/ml

response 59

Ion	Exp%	Act%
202.00	100	100
101.00	11.30	0.00
100.00	8.60	0.00
0.00	0.00	0.00

Manual Integration:

Before

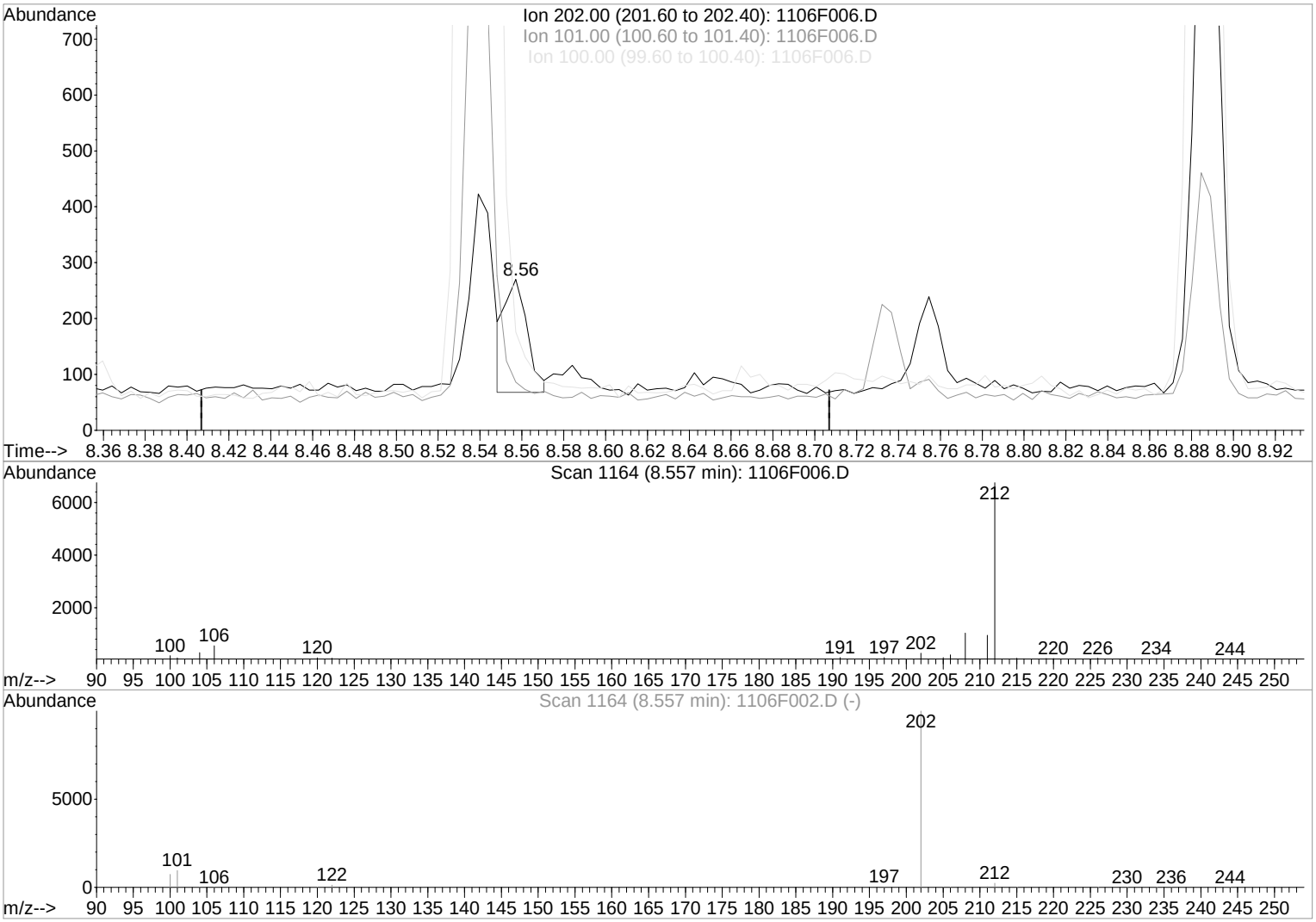
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F006.D Vial: 6
Acq On : 6 Nov 2018 7:30 am Operator: LWeiskopf
Sample : KWG1805647-4 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 9:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F006.D

(21) Fluoranthene (T)

8.56min 0.30ng/ml m

response 151

Ion	Exp%	Act%
202.00	100	100
101.00	11.30	31.85
100.00	8.60	65.19#
0.00	0.00	0.00

Manual Integration:

After

WP

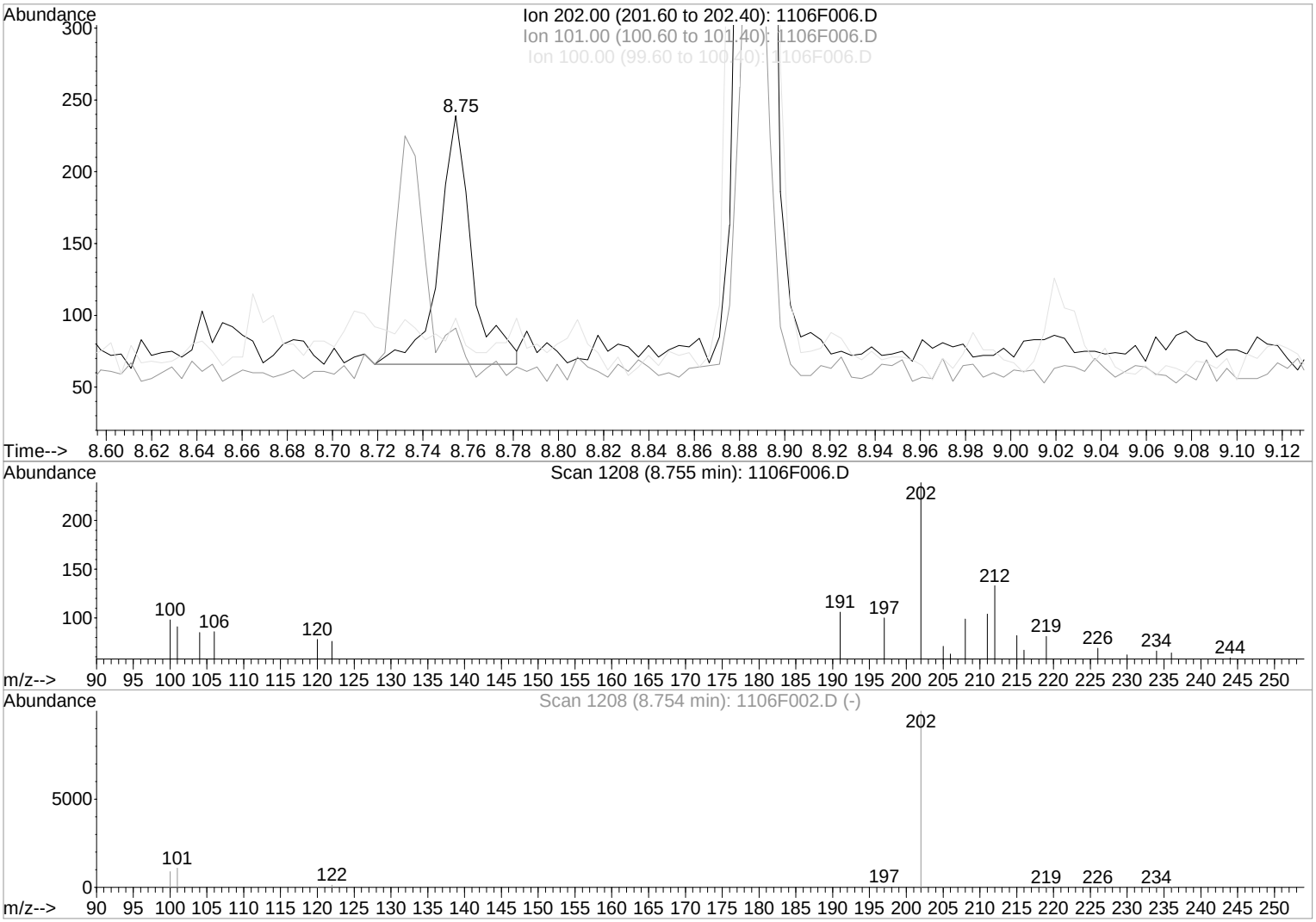
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F006.D Vial: 6
Acq On : 6 Nov 2018 7:30 am Operator: LWeiskopf
Sample : KWG1805647-4 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 9:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F006.D

(24) Pyrene (T)

8.75min 0.35ng/ml

response 174

Ion	Exp%	Act%
202.00	100	100
101.00	10.80	15.61
100.00	8.50	3.47
0.00	0.00	0.00

Manual Integration:

Before

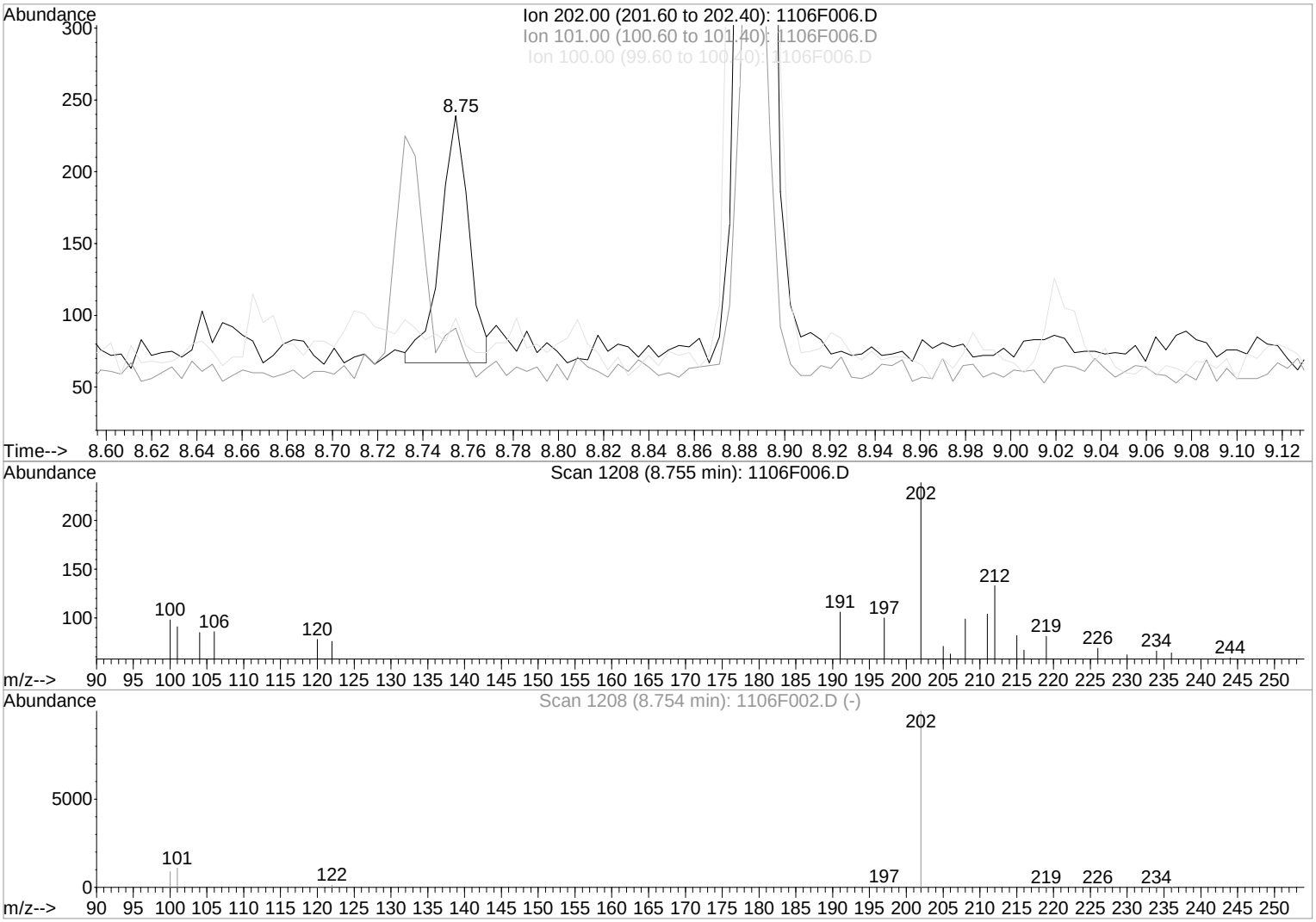
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F006.D Vial: 6
Acq On : 6 Nov 2018 7:30 am Operator: LWeiskopf
Sample : KWG1805647-4 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 9:59 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F006.D

(24) Pyrene (T)

8.75min 0.31ng/ml m

response 152

Ion	Exp%	Act%
202.00	100	100
101.00	10.80	38.08
100.00	8.50	41.00#
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

11/16/18

1st 11/19/18
2nd 12/05/18

Exception Report

Data File: J:\MS14\DATA\110718\1107F003.D
Lab ID: KWG1805648-4
RunType: MB
Matrix: SEDIMENT

Date Acquired: 11/07/2018 05:56
Date Quantitated: 11/16/2018 12:57
Batch ID: KWG1806028
Analysis Method: 8270D SIM
MethodJoinID: MJ1233

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
Surrogates	2-Methylnaphthalene-d10	65	70	130	NT

Primary Review: _____

Secondary Review: _____

1st 11/19/18
2nd 12/05/18

Quantitation Report

Data File:	J:\MS14\DATA\110718\1107F003.D			**Instrument:**	MS14
Acqu Date:	11/07/2018 05:56	**Quant Date:**	11/16/2018 12:57	**Vial:**	3
Run Type:	MB	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1805648-4			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	SEDIMENT
Prod Code:	8270D PAH SIM U	**Collect Date:**		**Receive Date:**	11/05/2018

Analysis Lot:	KWG1806028	**Prep Lot:**	KWG1805648	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1701183	**Prep Date:**	11/01/2018		

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:			
Tune Ref:	J:\MS14\DATA\110718\1107F001.D	**Method ID:**	MJ1233
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	4.77	0.01	136	66217**m**	200.00	OK
2	Acenaphthene-d10	6.32	0.00	164	30623	200.00	OK
3	Phenanthrene-d10	7.56	0.00	188	62346	200.00	OK
4	Chrysene-d12	10.11	0.00	240	65001	200.00	OK
5	Perylene-d12	13.28	0.00	264	70697	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	2-Methylnaphthalene-d10	5.40	0.01	0.00	152	119538	646.75	65	70-130	*
2	Fluorene-d10	6.76	0.00	0.00	176	149323	762.62	76	26-102	OK
3	Fluoranthene-d10	8.54	0.00	0.00	212	280918	714.93	71	23-110	OK
4	Terphenyl-d14	8.89	0.00	0.00	244	240893	854.42	85	27-115	OK

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.79	0.01	0.00	128	473	1.24	0.089	U	
1	2-Methylnaphthalene	5.42		0.00	142	109	0.4700	0.047	U	
1	1-Methylnaphthalene				142	0**d**		0.055	U	
1	Biphenyl	5.83		0.00	154	508	1.77	0.15	U	
1	2,6-Dimethylnaphthalene				156	0**d**		0.055	U	
2	Acenaphthylene				152	0**d**		0.029	U	
2	Acenaphthene				154	0**d**		0.032	U	
2	Dibenzofuran	6.50		0.00	168	120	0.3600	0.022	U	
2	2,3,5-Trimethylnaphthalene				170	0**d**		0.034	U	
2	Fluorene	6.78		0.00	166	63	0.2500	0.039	U	
3	Dibenzothiophene				184	0**d**		0.049	U	
3	Phenanthrene	7.58		0.00	178	219	0.5600	0.033	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:\MS14\DATA\110718\1107F003.D			**Instrument:**	MS14
Acqu Date:	11/07/2018 05:56	**Quant Date:**	11/16/2018 12:57	**Vial:**	3
Run Type:	MB	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1805648-4			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Anthracene				178	0**d**		0.026	U	
3	Carbazole				167	0**d**		0.080	U	
3	1-Methylphenanthrene				192	0**d**		0.041	U	
3	Fluoranthene				202	0**d**		0.032	U	
4	Pyrene				202	0**d**		0.032	U	
4	Benz(a)anthracene	10.11	0.01	0.00	228	226	0.5400	0.033	U	
4	Chrysene				228	0**d**		0.027	U	
5	Benzo(b)fluoranthene				252	0**d**		0.057	U	
5	Benzo(k)fluoranthene				252	0**d**		0.045	U	
5	Benzo(e)pyrene				252	0		0.051	U	
5	Benzo(a)pyrene				252	0		0.036	U	
5	Perylene				252	0**d**		0.19	U	
5	Indeno(1,2,3-cd)pyrene				276	0**d**		0.064	U	
5	Dibenz(a,h)anthracene				278	0		0.058	U	
5	Benzo(g,h,i)perylene				276	0**d**		0.059	U	

Prep Amount:	40.334 g	**Dilution:**	1.0
Prep Final Vol:	2 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

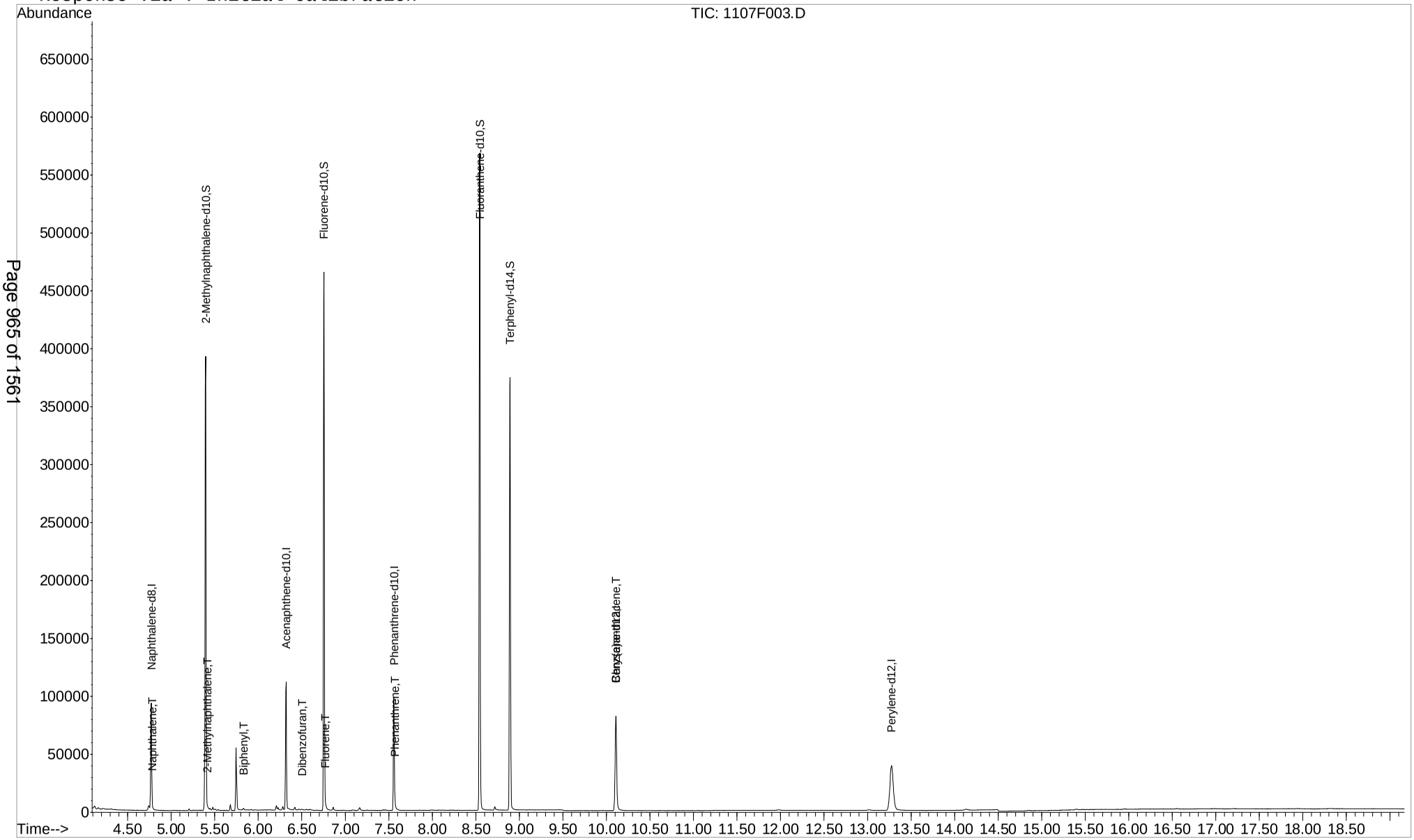
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

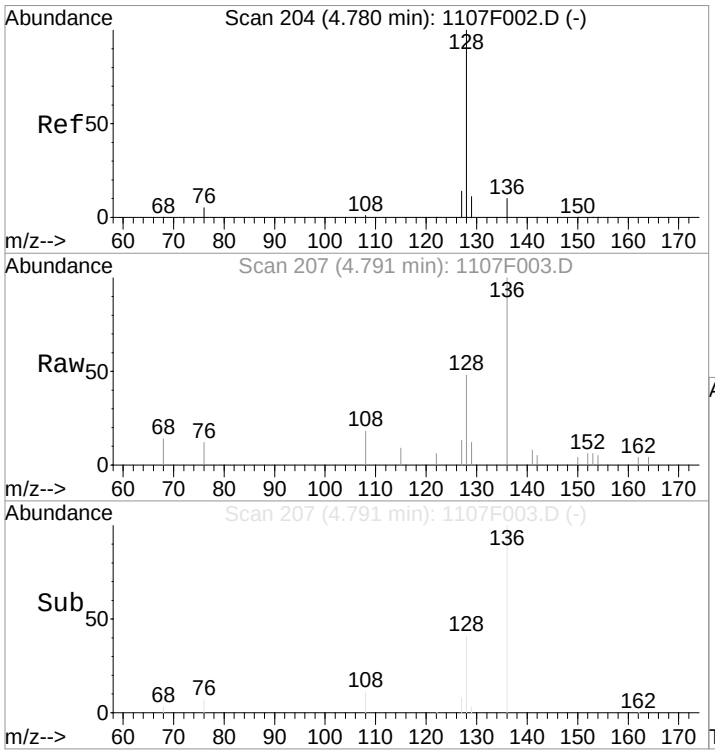
1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F003.D Vial: 3
Acq On : 7 Nov 2018 5:56 am Operator: LWeiskopf
Sample : KWG1805648-4 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 12:57 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Initial Calibration



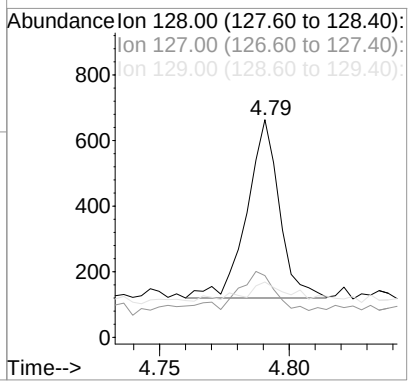
1st 11/19/18
2nd 12/05/18

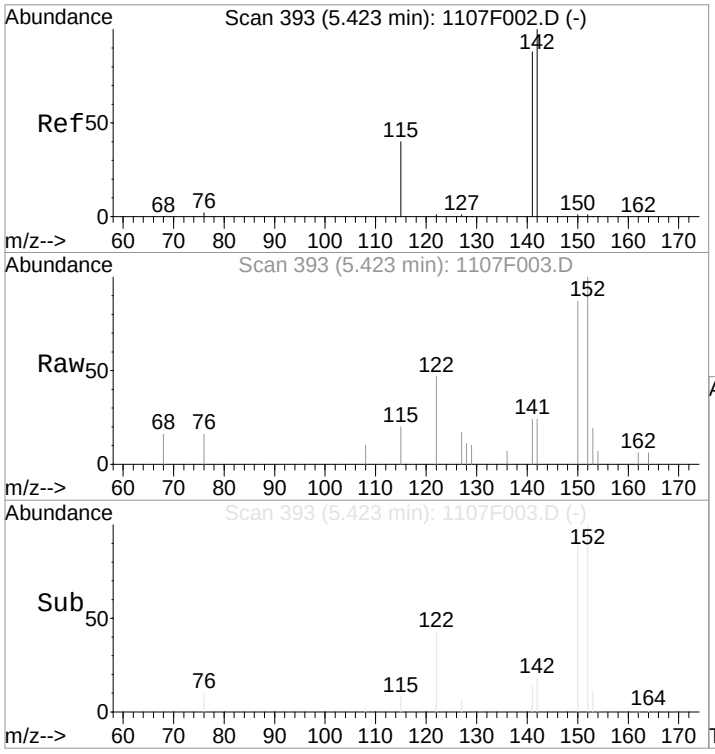


#2
Naphthalene
Concen: 1.24 ng/ml
RT: 4.79 min Scan# 207
Delta R.T. 0.01 min
Lab File: 1107F003.D
Acq: 7 Nov 2018 5:56 am

Tgt Ion:128 Resp: 473

Ion	Ratio	Lower	Upper
128	100		
127	19.0	0.0	43.7
129	10.5	0.0	30.8

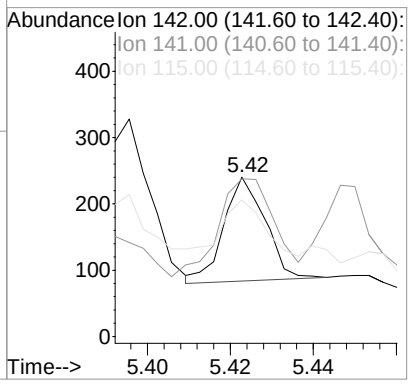




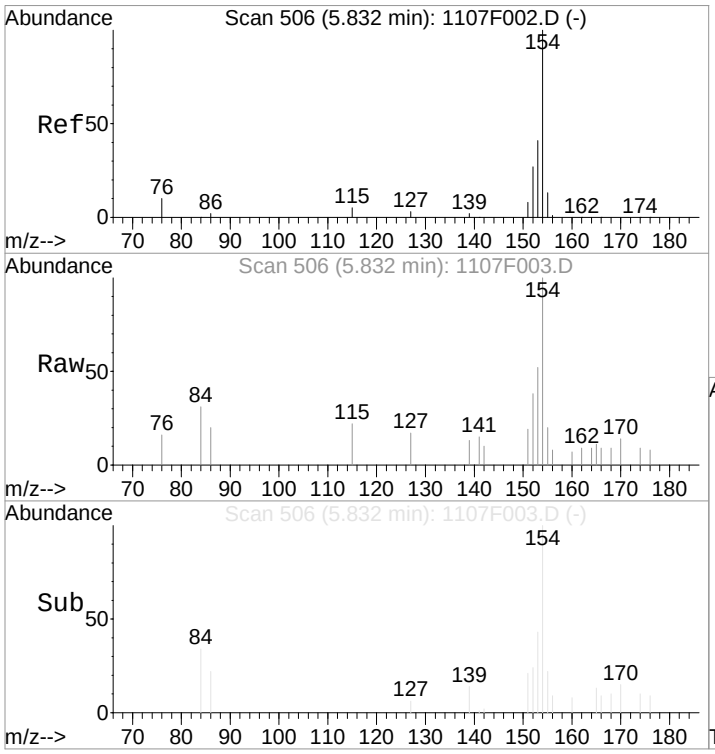
#4
2-Methylnaphthalene
Concen: 0.47 ng/ml
RT: 5.42 min Scan# 393
Delta R.T. 0.00 min
Lab File: 1107F003.D
Acq: 7 Nov 2018 5:56 am

Tgt Ion:142 Resp: 109

Ion	Ratio	Lower	Upper
142	100		
141	86.1	56.8	116.8
115	49.7	13.3	53.3



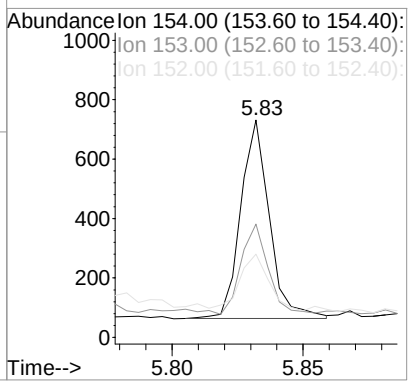
1st 11/19/18
2nd 12/05/18

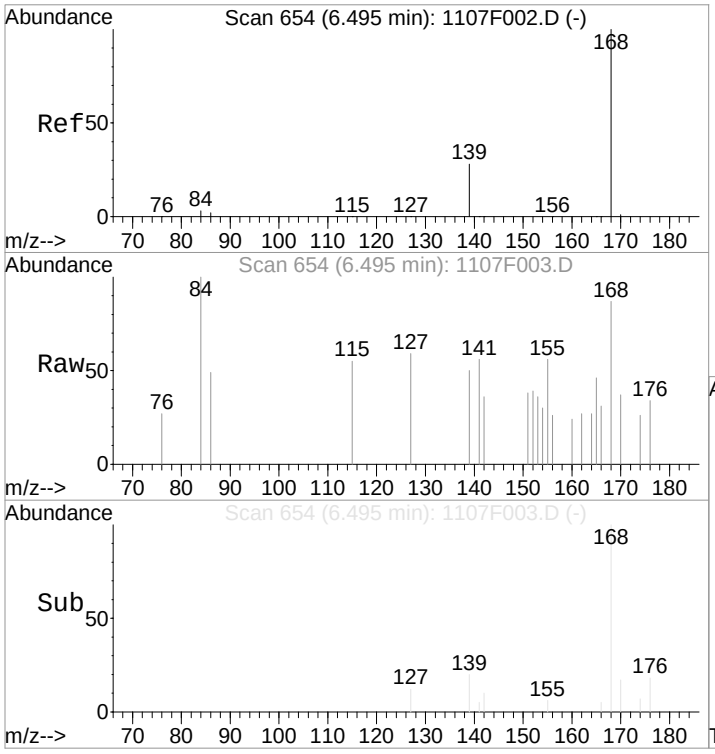


#6
Biphenyl
Concen: 1.77 ng/ml
RT: 5.83 min Scan# 506
Delta R.T. 0.00 min
Lab File: 1107F003.D
Acq: 7 Nov 2018 5:56 am

Tgt Ion:154 Resp: 508

Ion	Ratio	Lower	Upper
154	100		
153	43.9	11.4	71.4
152	27.7	7.1	47.1

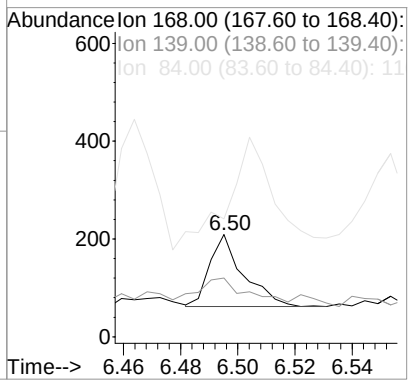




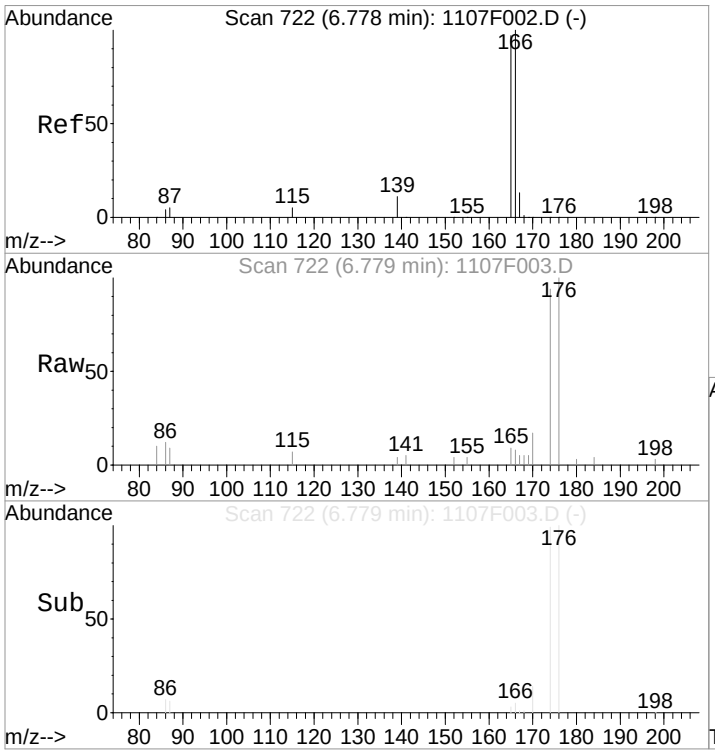
#11
Dibenzofuran
Concen: 0.36 ng/ml
RT: 6.50 min Scan# 654
Delta R.T. 0.00 min
Lab File: 1107F003.D
Acq: 7 Nov 2018 5:56 am

Tgt Ion:168 Resp: 120

Ion	Ratio	Lower	Upper
168	100		
139	34.7	0.0	55.8
84	26.5	0.0	23.5#



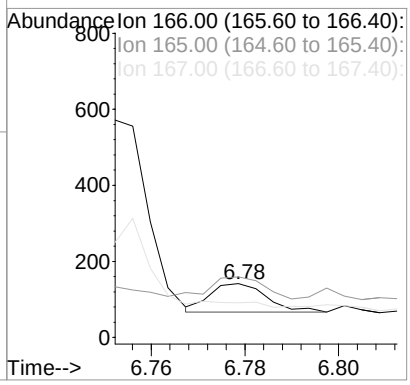
1st 11/19/18
2nd 12/05/18

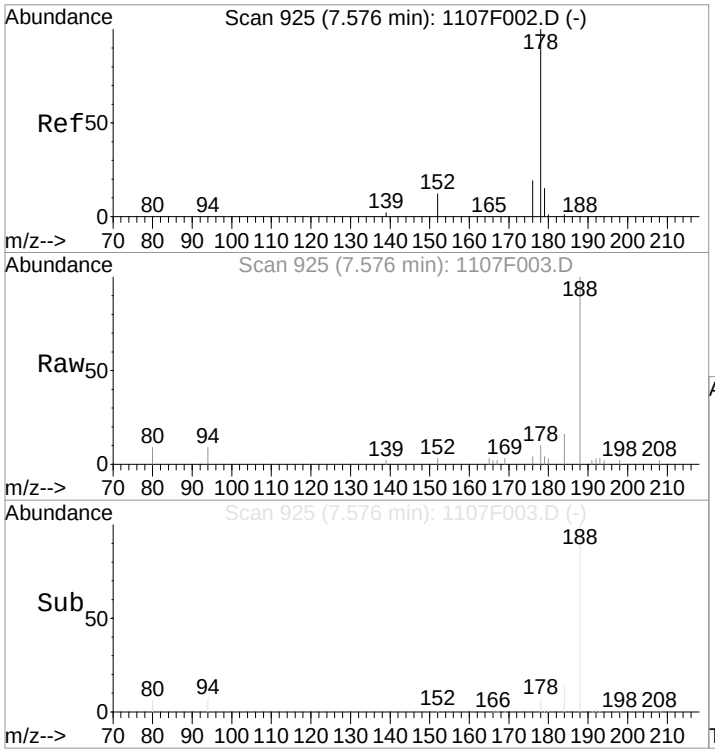


#14
Fluorene
Concen: 0.25 ng/ml
RT: 6.78 min Scan# 722
Delta R.T. 0.00 min
Lab File: 1107F003.D
Acq: 7 Nov 2018 5:56 am

Tgt Ion:166 Resp: 63

Ion	Ratio	Lower	Upper
166	100		
165	54.7	63.4	123.4#
167	6.7	0.0	33.1

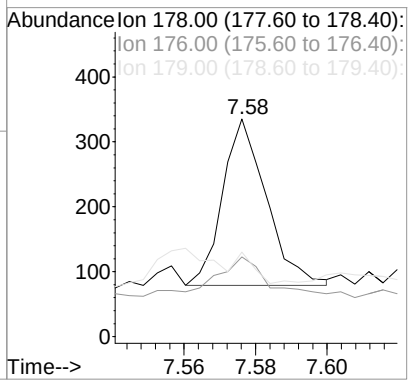




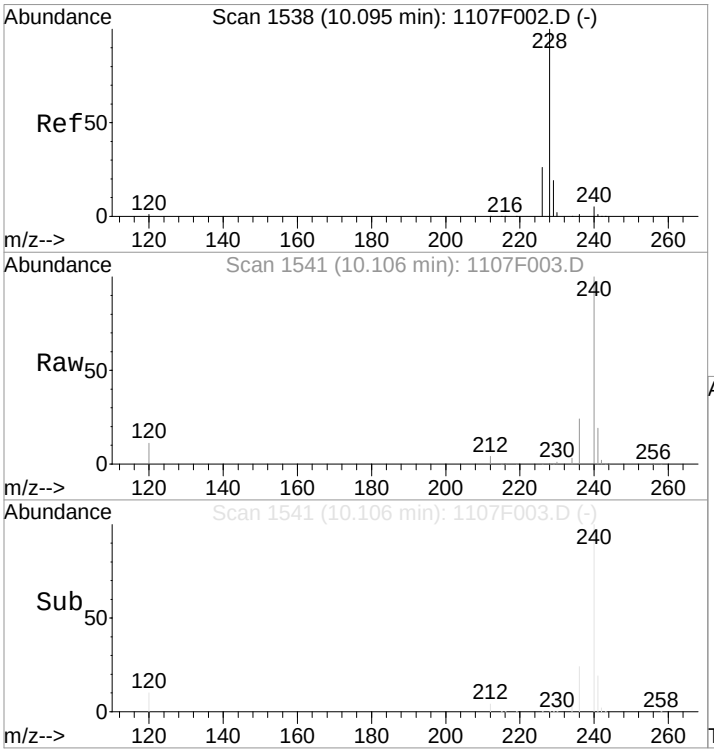
#17
Phenanthrene
Concen: 0.56 ng/ml
RT: 7.58 min Scan# 925
Delta R.T. 0.00 min
Lab File: 1107F003.D
Acq: 7 Nov 2018 5:56 am

Tgt Ion:178 Resp: 219

Ion	Ratio	Lower	Upper
178	100		
176	22.3	0.0	48.7
179	13.7	0.0	35.1



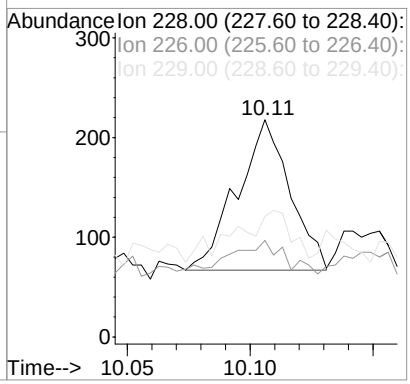
1st 11/19/18
2nd 12/05/18



#26
Benz(a)anthracene
Concen: 0.54 ng/ml
RT: 10.11 min Scan# 1541
Delta R.T. 0.01 min
Lab File: 1107F003.D
Acq: 7 Nov 2018 5:56 am

Tgt Ion:228 Resp: 226

Ion	Ratio	Lower	Upper
228	100		
226	19.2	0.0	56.3
229	30.5	0.0	39.1



Quantitation Report (QT Reviewed)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F003.D Vial: 3
Acq On : 7 Nov 2018 5:56 am Operator: LWeiskopf
Sample : KWG1805648-4 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 12:56:02 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.77	136	66217m	200.00	ng/ml	0.01
8) Acenaphthene-d10	6.32	164	30623	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.56	188	62346	200.00	ng/ml	0.00
23) Chrysene-d12	10.11	240	65001	200.00	ng/ml	0.00
28) Perylene-d12	13.28	264	70697	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.40	152	119538	646.75	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	64.68%		
13) Fluorene-d10	6.76	176	149323	762.62	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	76.26%		
22) Fluoranthene-d10	8.54	212	280918	714.93	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	71.49%		
25) Terphenyl-d14	8.89	244	240893	854.42	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	85.44%		
Target Compounds						Qvalue
2) Naphthalene	4.79	128	473	1.24	ng/ml	92
4) 2-Methylnaphthalene	5.42	142	109	0.47	ng/ml	91
6) Biphenyl	5.83	154	508	1.77	ng/ml	97
11) Dibenzofuran	6.50	168	120	0.36	ng/ml#	76
14) Fluorene	6.78	166	63	0.25	ng/ml#	63
17) Phenanthrene	7.58	178	219	0.56	ng/ml	94
26) Benz(a)anthracene	10.11	228	226	0.54	ng/ml	81

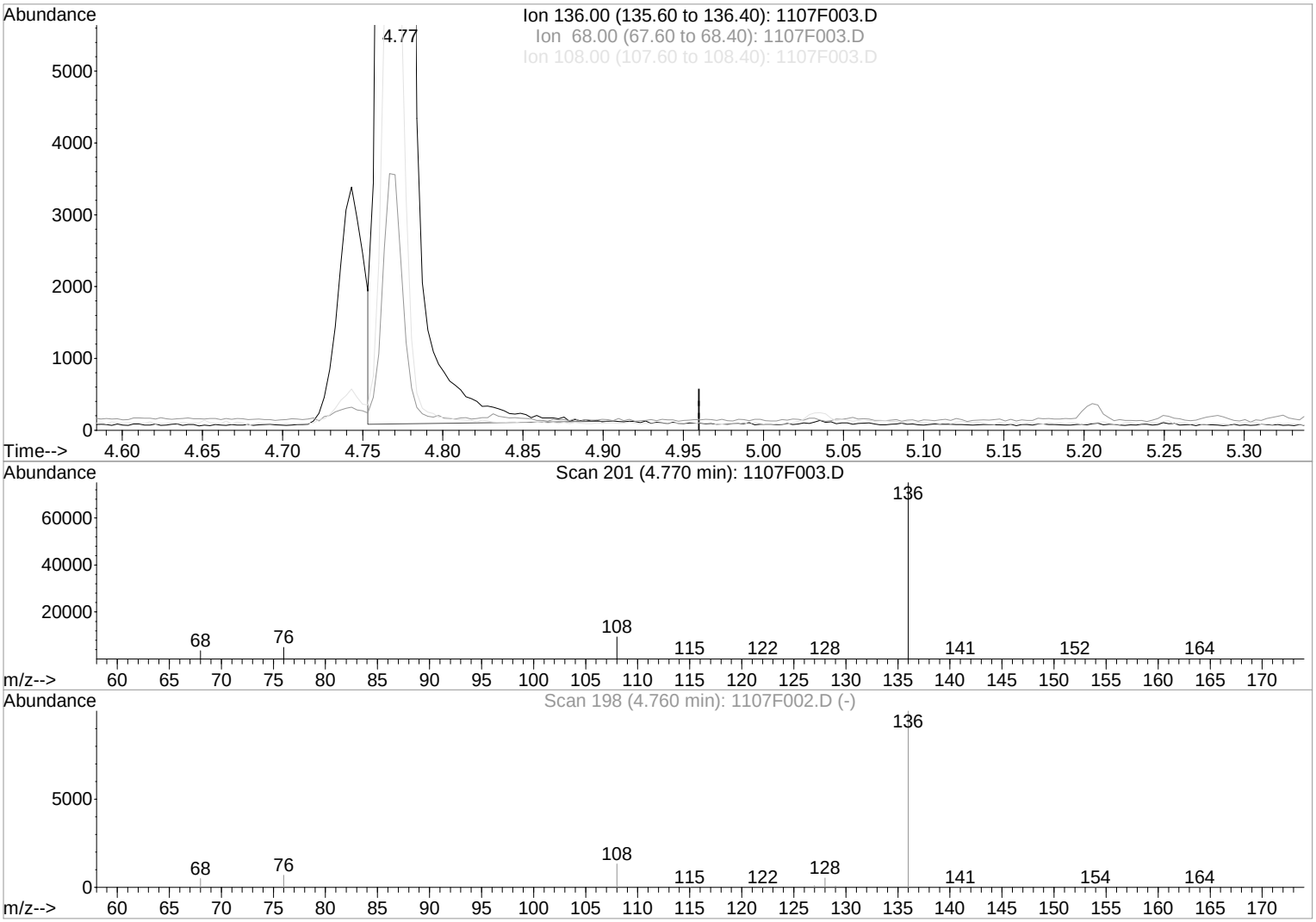
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F003.D Vial: 3
Acq On : 7 Nov 2018 5:56 am Operator: LWeiskopf
Sample : KWG1805648-4 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 12:56 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Multiple Level Calibration



TIC: 1107F003.D

(1) Naphthalene-d8 (I)

4.77min 200.00ng/ml

response 62394

Ion	Exp%	Act%
136.00	100	100
68.00	5.10	4.55
108.00	10.60	12.45
0.00	0.00	0.00

Manual Integration:

Before

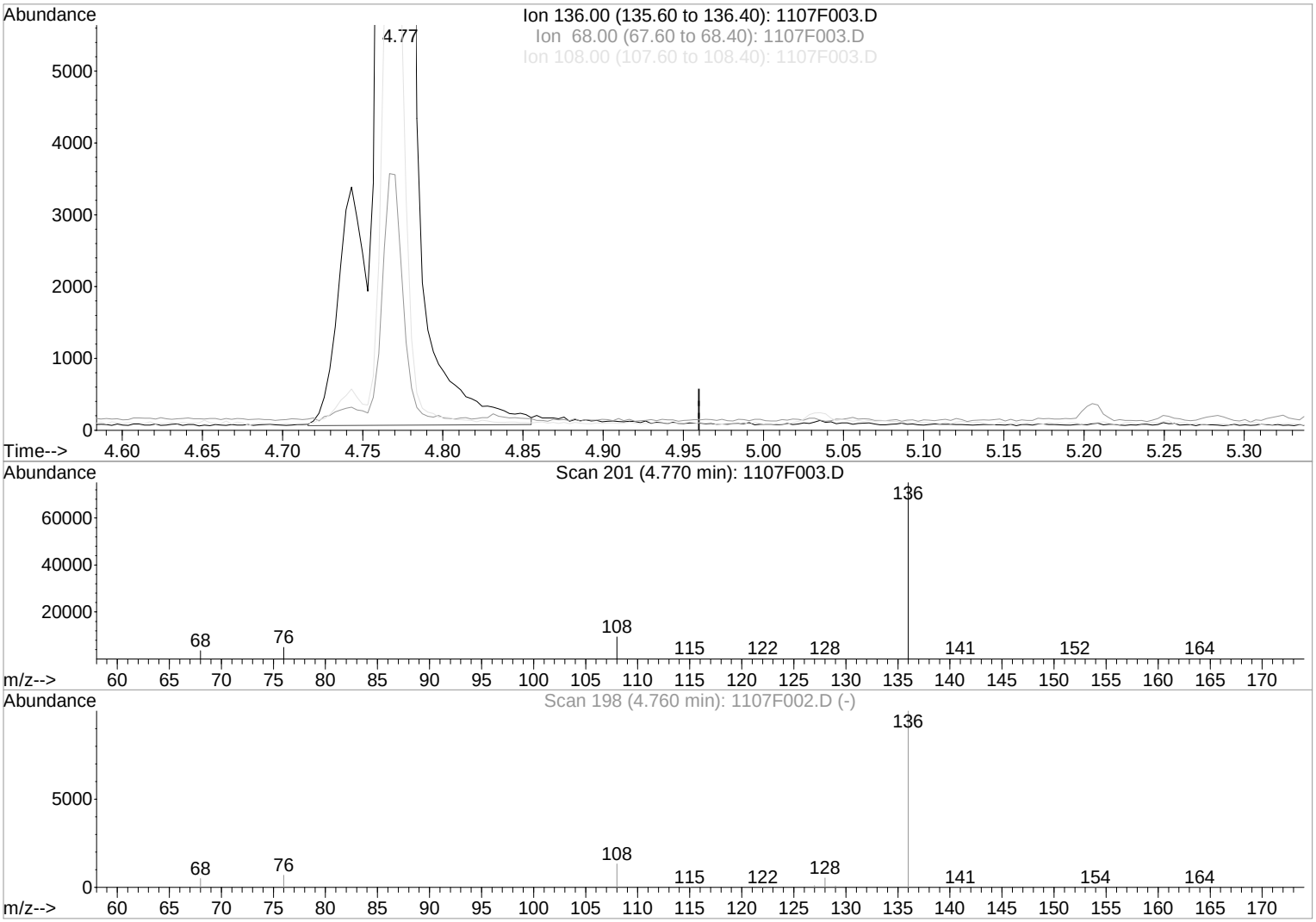
11/16/18

Quantitation Report (Qedit)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F003.D Vial: 3
Acq On : 7 Nov 2018 5:56 am Operator: LWeiskopf
Sample : KWG1805648-4 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 12:56 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Multiple Level Calibration



TIC: 1107F003.D

(1) Naphthalene-d8 (I)

4.77min 200.00ng/ml m

response 66217

Ion	Exp%	Act%
136.00	100	100
68.00	5.10	4.74
108.00	10.60	12.56
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

11/16/18

1st 12/03/18
2nd 12/06/18

Exception Report

Data File: J:\MS14\DATA\111418\1114F003.D
Lab ID: KWG1805796-6
RunType: MB
Matrix: SEDIMENT

Date Acquired: 11/14/2018 06:42
Date Quantitated: 11/30/2018 10:48
Batch ID: KWG1806235
Analysis Method: 8270D SIM
MethodJoinID: MJ1233

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
Surrogates	2-Methylnaphthalene-d10	61	70	130	NT

Primary Review: _____

Secondary Review: _____

1st 12/03/18
2nd 12/06/18

Quantitation Report

Data File:	J:\MS14\DATA\111418\1114F003.D			**Instrument:**	MS14
Acqu Date:	11/14/2018 06:42	**Quant Date:**	11/30/2018 10:48	**Vial:**	3
Run Type:	MB	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1805796-6			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	SEDIMENT
Prod Code:	8270D PAH SIM U	**Collect Date:**		**Receive Date:**	11/12/2018

Analysis Lot:	KWG1806235	**Prep Lot:**	KWG1805796	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1702233	**Prep Date:**	11/07/2018		

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:			
Tune Ref:	J:\MS14\DATA\111418\1114F001.D	**Method ID:**	MJ1233
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	4.74	-0.01	136	59123	200.00	OK
2	Acenaphthene-d10	6.31	0.00	164	31330	200.00	OK
3	Phenanthrene-d10	7.55	0.00	188	73826	200.00	OK
4	Chrysene-d12	10.10	0.00	240	83472	200.00	OK
5	Perylene-d12	13.28	-0.01	264	90973	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	2-Methylnaphthalene-d10	5.38	0.00	0.00	152	101190	613.17	61	70-130	*
2	Fluorene-d10	6.75	0.00	0.00	176	143673	717.20	72	26-102	OK
3	Fluoranthene-d10	8.53	0.00	0.00	212	309898	666.04	67	23-110	OK
4	Terphenyl-d14	8.88	0.00	0.00	244	272250	751.96	75	27-115	OK

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.76	-0.01	0.00	128	521	1.53	0.089	U	
1	2-Methylnaphthalene	5.41		0.00	142	123	0.6000	0.047	U	
1	1-Methylnaphthalene	5.49	-0.01	0.00	142	104**m**	0.5200	0.055	U	
1	Biphenyl	5.82		0.00	154	427**m**	1.66	0.15	U	
1	2,6-Dimethylnaphthalene				156	0**d**		0.055	U	
2	Acenaphthylene				152	0**d**		0.029	U	
2	Acenaphthene				154	0**d**		0.032	U	
2	Dibenzofuran	6.49		0.00	168	118	0.3400	0.022	U	
2	2,3,5-Trimethylnaphthalene				170	0**d**		0.034	U	
2	Fluorene				166	0**d**		0.039	U	
3	Dibenzothiophene				184	0**d**		0.049	U	
3	Phenanthrene	7.57		0.00	178	185	0.4000	0.033	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:\MS14\DATA\111418\1114F003.D			**Instrument:**	MS14
Acqu Date:	11/14/2018 06:42	**Quant Date:**	11/30/2018 10:48	**Vial:**	3
Run Type:	MB	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1805796-6			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Anthracene				178	0**d**		0.026	U	
3	Carbazole				167	0**d**		0.080	U	
3	1-Methylphenanthrene				192	0**d**		0.041	U	
3	Fluoranthene	8.55		0.00	202	210**m**	0.3700	0.032	U	
4	Pyrene	8.75		0.00	202	218	0.3800	0.032	U	
4	Benz(a)anthracene	10.10	0.01	0.00	228	377	0.7000	0.0347	J	
4	Chrysene	10.14		0.00	228	180**m**	0.3500	0.027	U	
5	Benzo(b)fluoranthene	12.22	0.01	0.00	252	222	0.3900	0.057	U	
5	Benzo(k)fluoranthene				252	0**d**		0.045	U	
5	Benzo(e)pyrene	12.96		0.00	252	405	0.7600	0.051	U	
5	Benzo(a)pyrene	13.11	-0.01	0.00	252	242**m**	0.4900	0.036	U	
5	Perylene	13.36	-0.01	0.00	252	340	0.6600	0.19	U	
5	Indeno(1,2,3-cd)pyrene				276	0**d**		0.064	U	
5	Dibenz(a,h)anthracene				278	0**d**		0.058	U	
5	Benzo(g,h,i)perylene	15.89	0.01	0.00	276	249	0.4400	0.059	U	

Prep Amount:	40.332 g	**Dilution:**	1.0
Prep Final Vol:	2 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

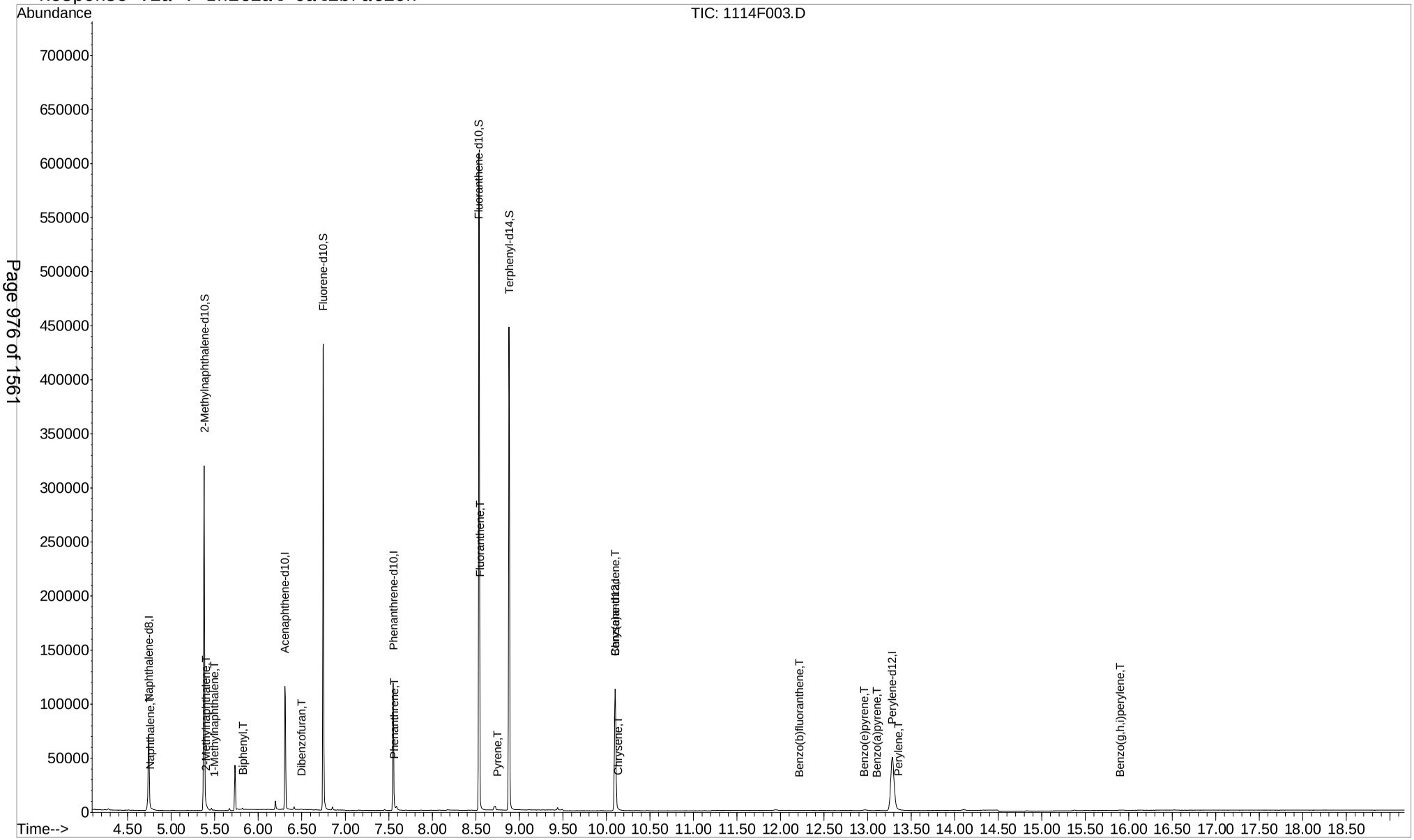
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: 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

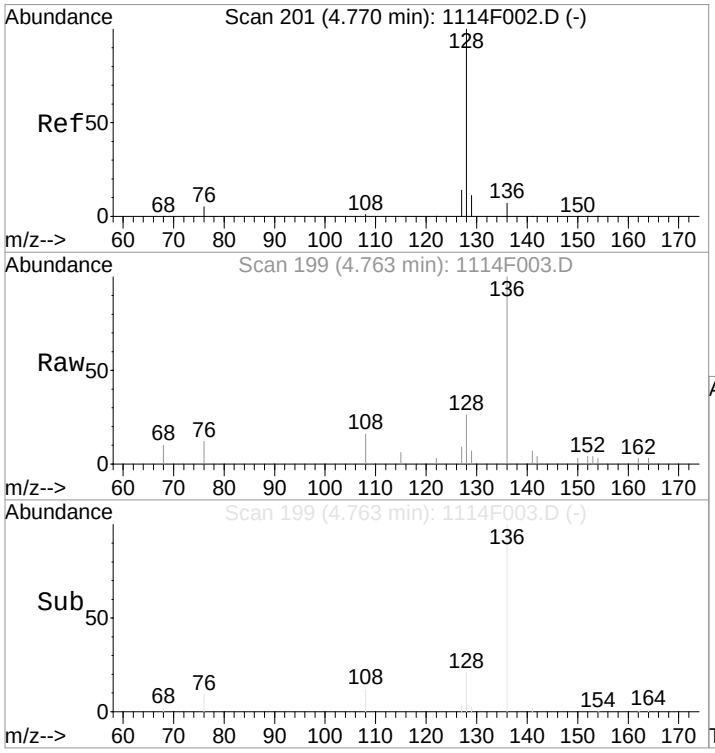
1st 12/03/18
2nd 12/06/18

Data File : J:\MS14\DATA\111418\1114F003.D Vial: 3
Acq On : 14 Nov 2018 6:42 am Operator: LWeiskopf
Sample : KWG1805796-6 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 30 10:48 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Nov 29 12:52:23 2018
Response via : Initial Calibration



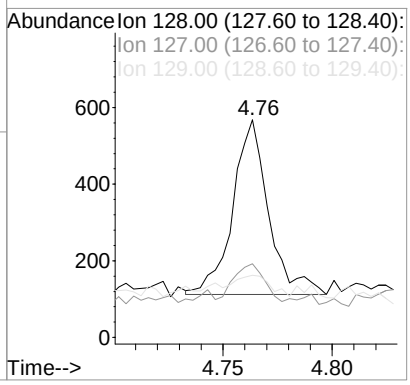
1st 12/03/18
2nd 12/06/18

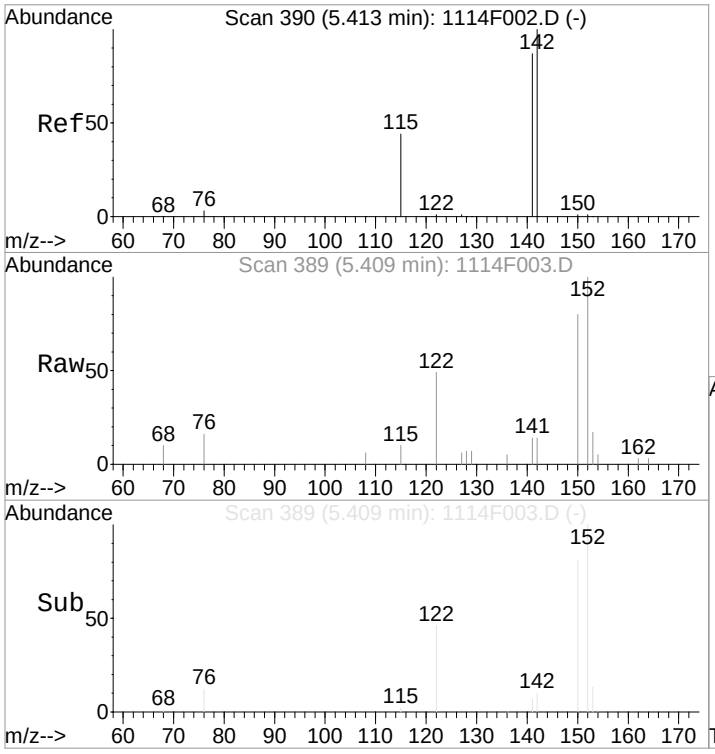


#2
Naphthalene
Concen: 1.53 ng/ml
RT: 4.76 min Scan# 199
Delta R.T. -0.02 min
Lab File: 1114F003.D
Acq: 14 Nov 2018 6:42 am

Tgt Ion:128 Resp: 521

Ion	Ratio	Lower	Upper
128	100		
127	22.1	0.0	43.7
129	12.7	0.0	30.8

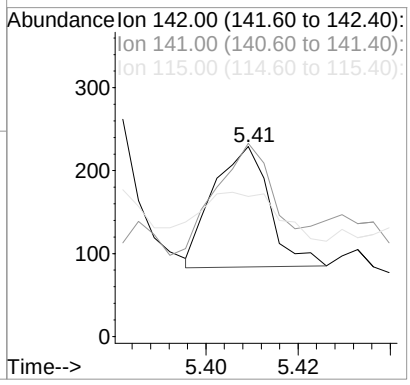




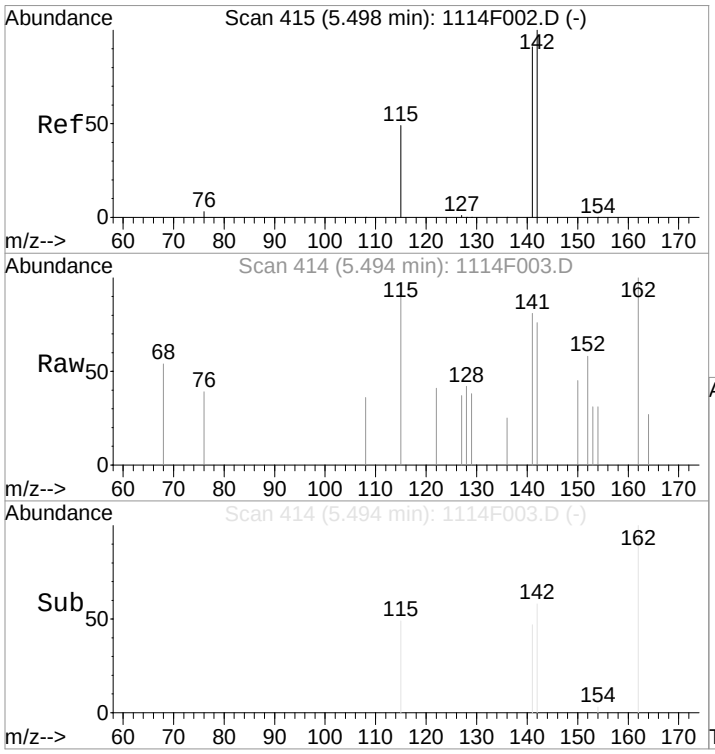
#4
2-Methylnaphthalene
Concen: 0.60 ng/ml
RT: 5.41 min Scan# 389
Delta R.T. -0.01 min
Lab File: 1114F003.D
Acq: 14 Nov 2018 6:42 am

Tgt Ion:142 Resp: 123

Ion	Ratio	Lower	Upper
142	100		
141	88.2	56.8	116.8
115	37.5	13.3	53.3



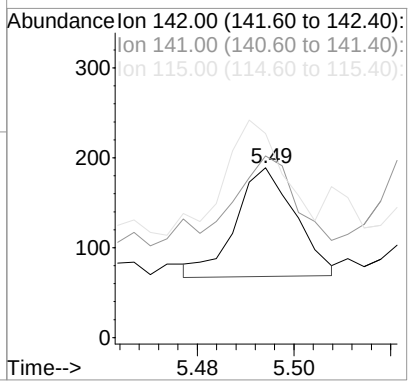
1st 12/03/18
2nd 12/06/18

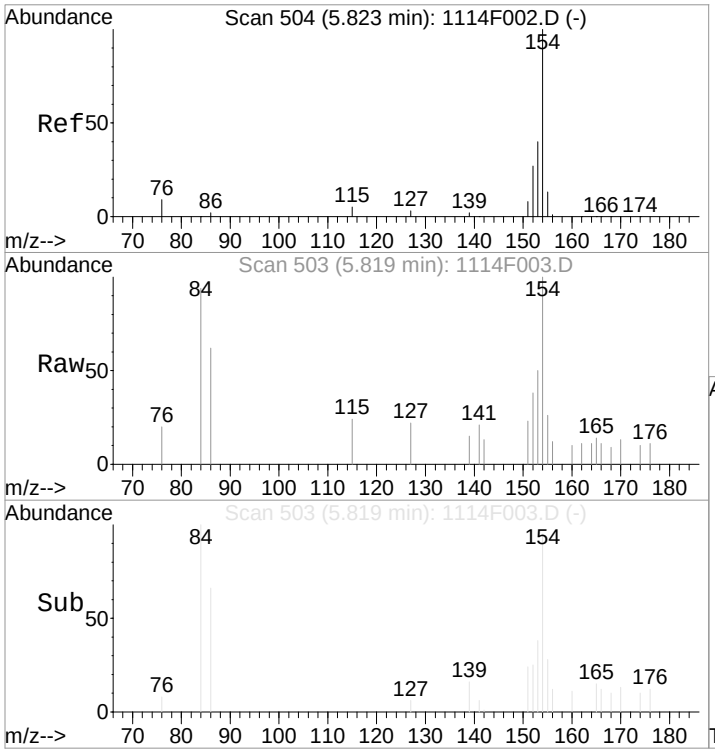


#5
1-Methylnaphthalene
Concen: 0.52 ng/ml m
RT: 5.49 min Scan# 414
Delta R.T. -0.01 min
Lab File: 1114F003.D
Acq: 14 Nov 2018 6:42 am

Tgt Ion:142 Resp: 104

Ion	Ratio	Lower	Upper
142	100		
141	106.9	59.7	119.7
115	120.1	13.7	53.7#

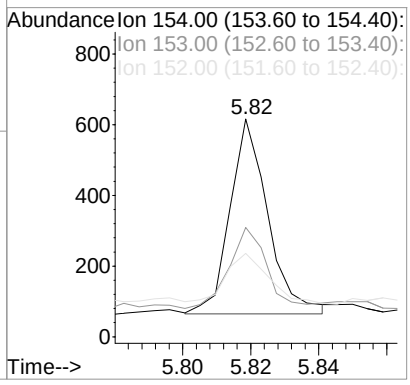




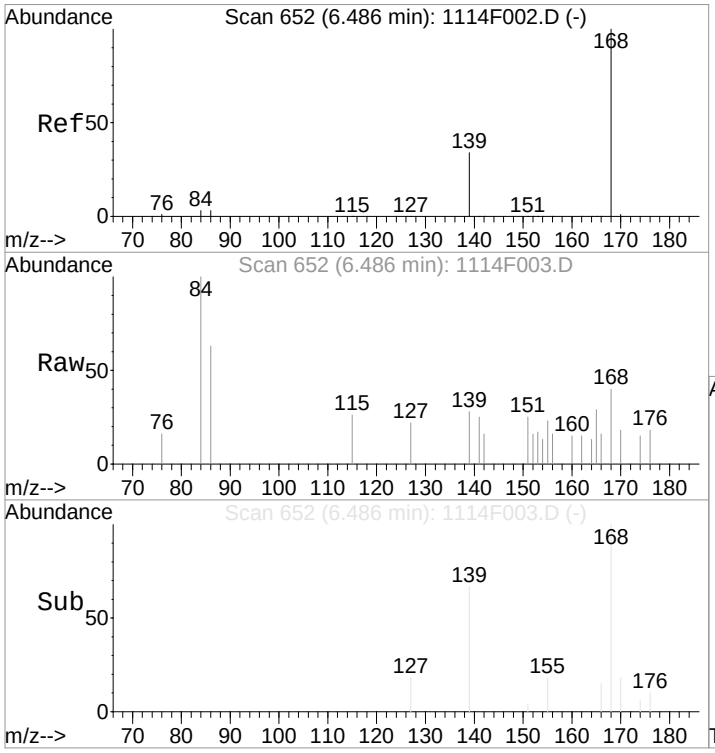
#6
Biphenyl
Concen: 1.66 ng/ml m
RT: 5.82 min Scan# 503
Delta R.T. -0.01 min
Lab File: 1114F003.D
Acq: 14 Nov 2018 6:42 am

Tgt Ion:154 Resp: 427

Ion	Ratio	Lower	Upper
154	100		
153	50.2	11.4	71.4
152	38.3	7.1	47.1



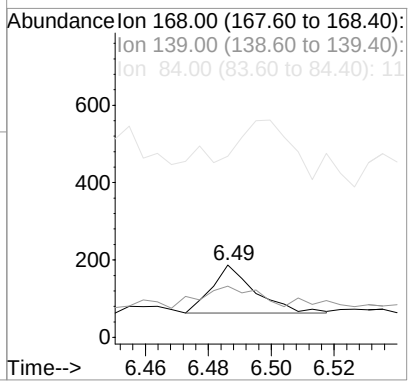
1st 12/03/18
2nd 12/06/18

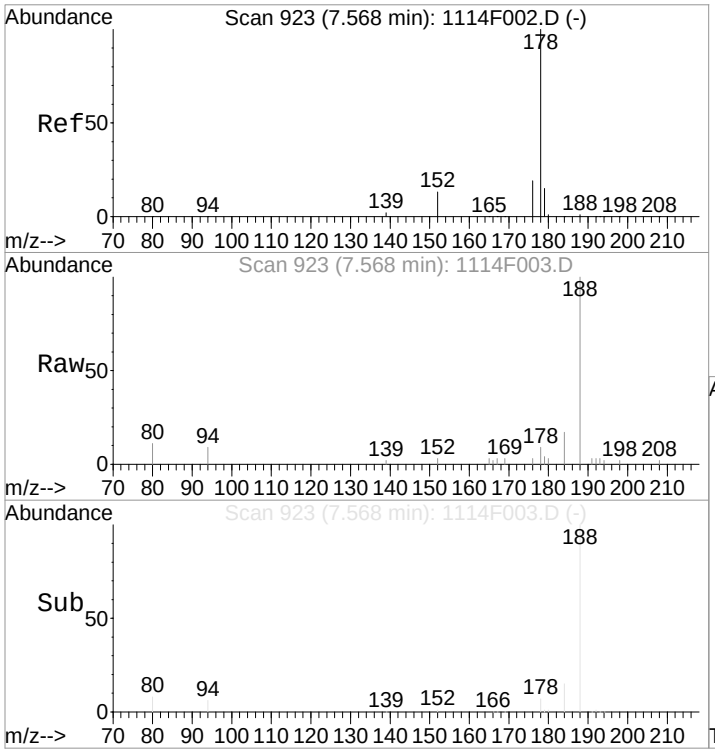


#11
Dibenzofuran
Concen: 0.34 ng/ml
RT: 6.49 min Scan# 652
Delta R.T. -0.01 min
Lab File: 1114F003.D
Acq: 14 Nov 2018 6:42 am

Tgt Ion:168 Resp: 118

Ion	Ratio	Lower	Upper
168	100		
139	29.8	0.0	55.8
84	10.5	0.0	23.5

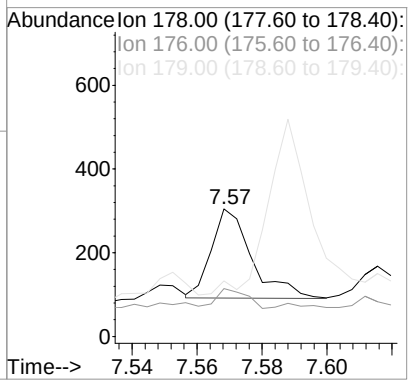




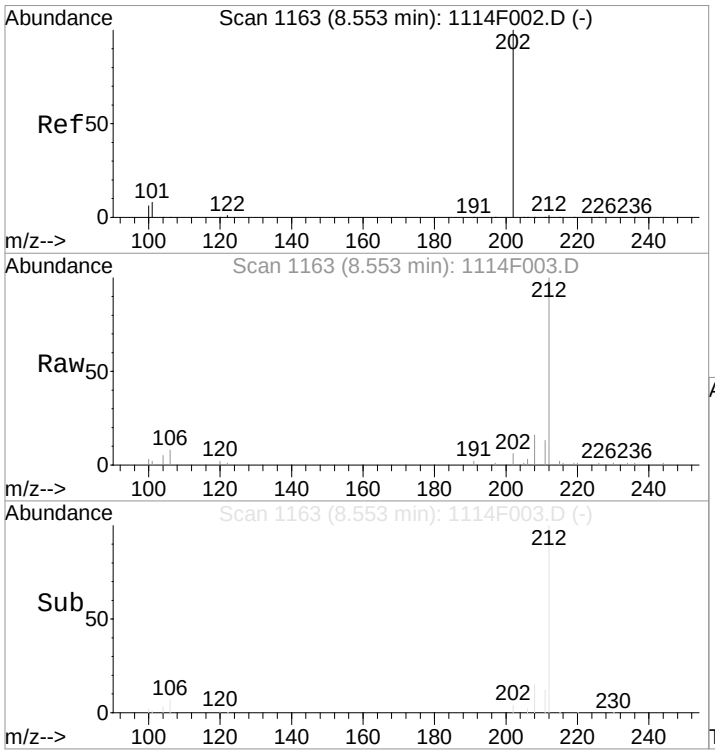
#17
Phenanthrene
Concen: 0.40 ng/ml
RT: 7.57 min Scan# 923
Delta R.T. -0.01 min
Lab File: 1114F003.D
Acq: 14 Nov 2018 6:42 am

Tgt Ion:178 Resp: 185

Ion	Ratio	Lower	Upper
178	100		
176	21.1	0.0	48.7
179	2.8	0.0	35.1



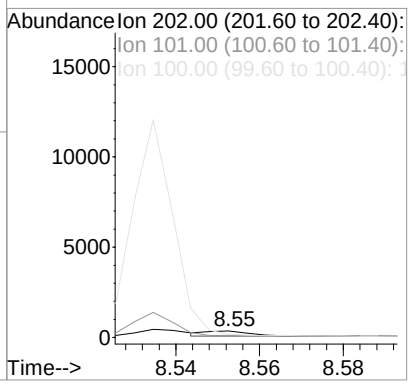
1st 12/03/18
2nd 12/06/18

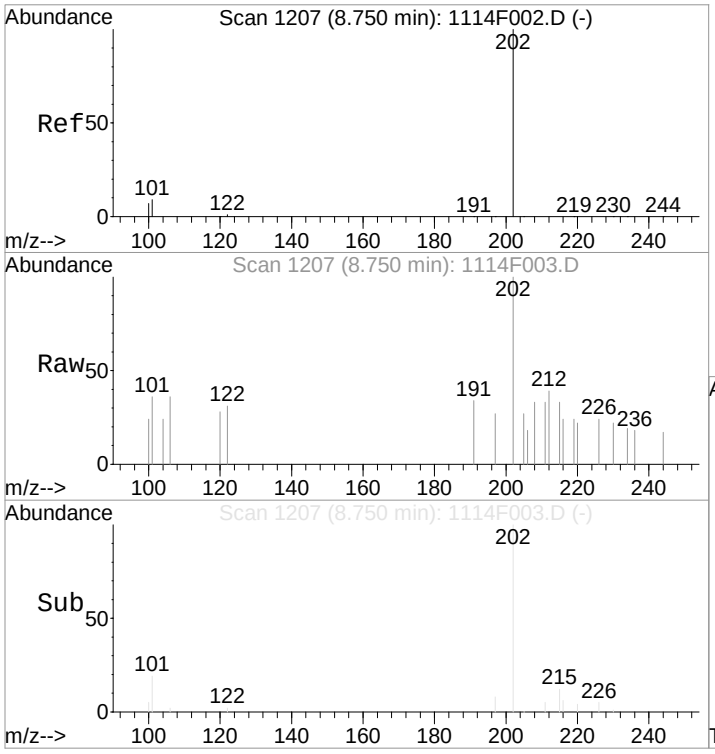


#21
Fluoranthene
Concen: 0.37 ng/ml m
RT: 8.55 min Scan# 1163
Delta R.T. -0.01 min
Lab File: 1114F003.D
Acq: 14 Nov 2018 6:42 am

Tgt Ion:202 Resp: 210

Ion	Ratio	Lower	Upper
202	100		
101	27.7	0.0	41.3
100	50.7	0.0	28.6#

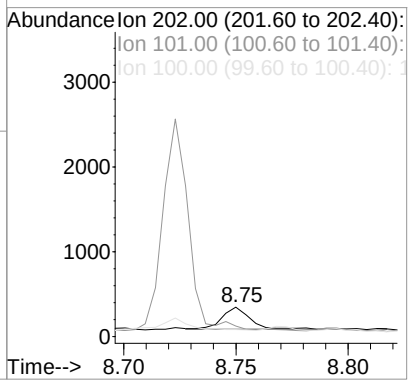




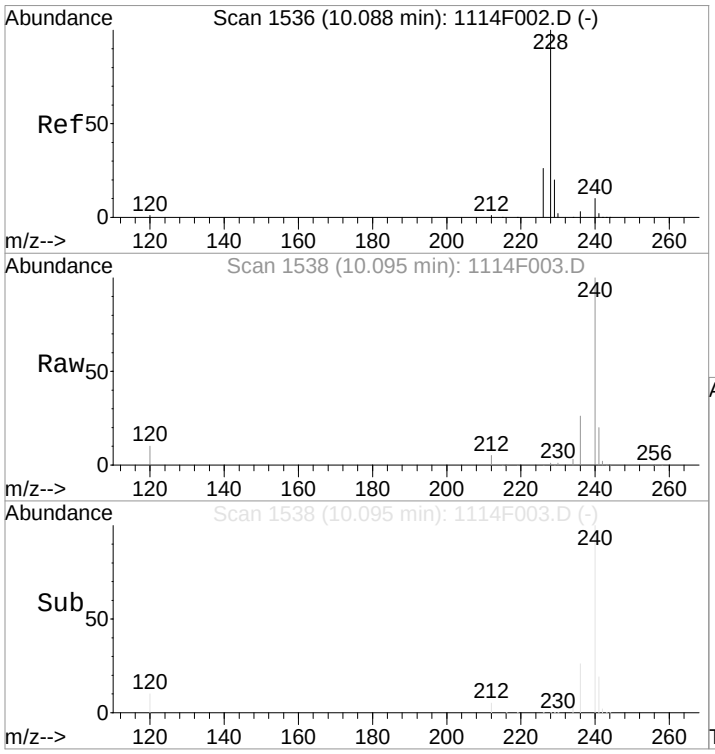
#24
Pyrene
Concen: 0.38 ng/ml
RT: 8.75 min Scan# 1207
Delta R.T. -0.01 min
Lab File: 1114F003.D
Acq: 14 Nov 2018 6:42 am

Tgt Ion:202 Resp: 218

Ion	Ratio	Lower	Upper
202	100		
101	8.6	0.0	40.8
100	0.0	0.0	28.5



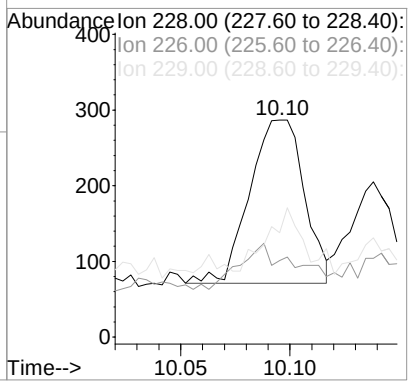
1st 12/03/18
2nd 12/06/18

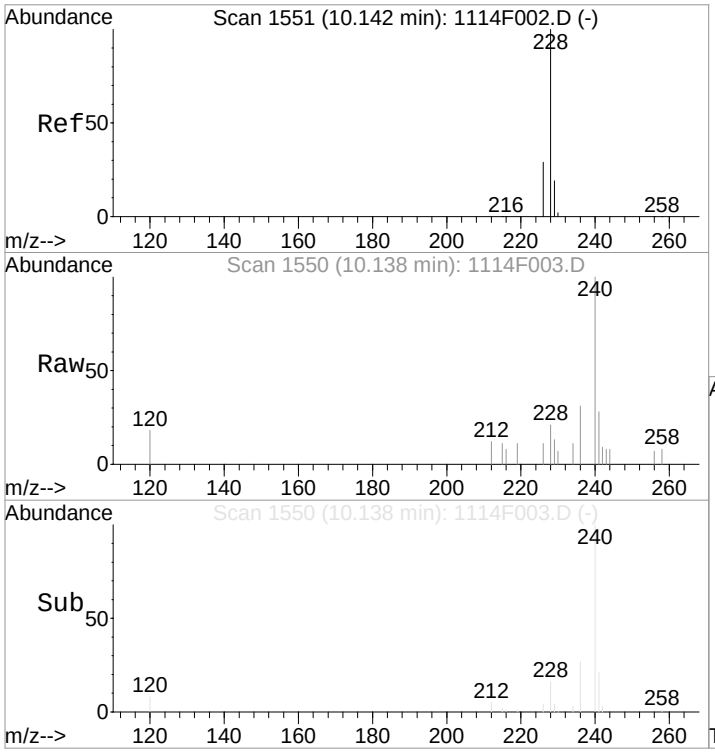


#26
Benz(a)anthracene
Concen: 0.70 ng/ml
RT: 10.10 min Scan# 1538
Delta R.T. -0.00 min
Lab File: 1114F003.D
Acq: 14 Nov 2018 6:42 am

Tgt Ion:228 Resp: 377

Ion	Ratio	Lower	Upper
228	100		
226	14.8	0.0	56.3
229	23.1	0.0	39.1

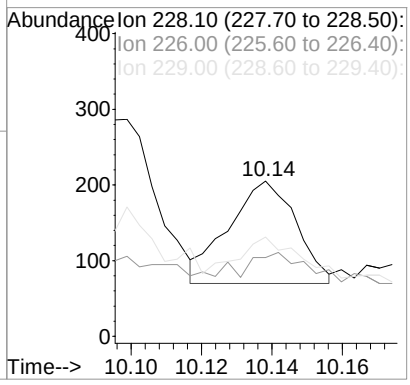


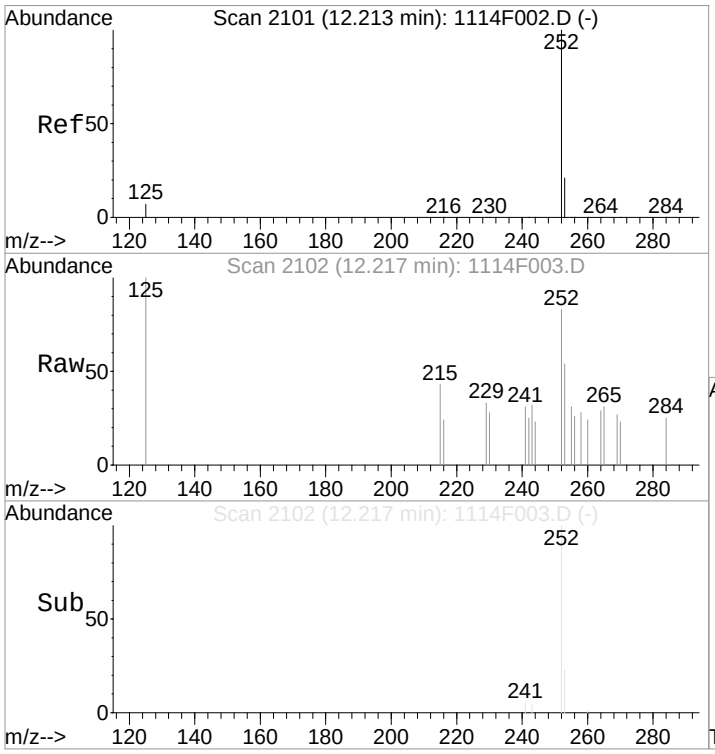


#27
Chrysene
Concen: 0.35 ng/ml m
RT: 10.14 min Scan# 1550
Delta R.T. -0.01 min
Lab File: 1114F003.D
Acq: 14 Nov 2018 6:42 am

Tgt Ion:228 Resp: 180

Ion	Ratio	Lower	Upper
228	100		
226	50.7	0.0	58.7
229	63.9	0.0	39.2#

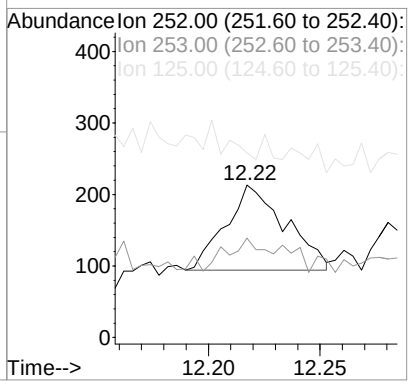


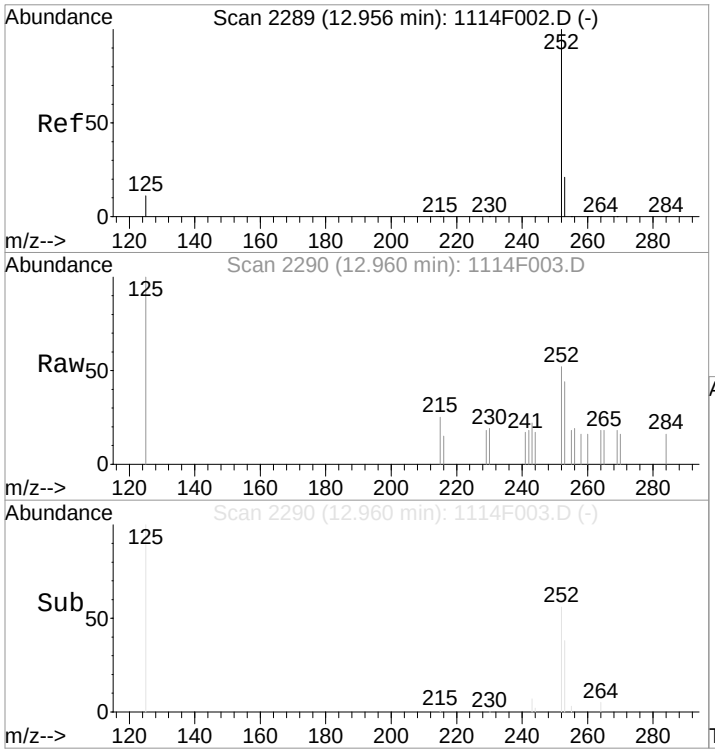


#29
Benzo(b)fluoranthene
Concen: 0.39 ng/ml
RT: 12.22 min Scan# 2102
Delta R.T. -0.01 min
Lab File: 1114F003.D
Acq: 14 Nov 2018 6:42 am

Tgt Ion:252 Resp: 222

Ion	Ratio	Lower	Upper
252	100		
253	36.1	0.0	51.2
125	23.5	0.0	29.5

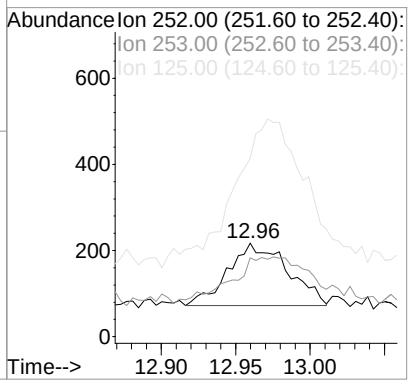




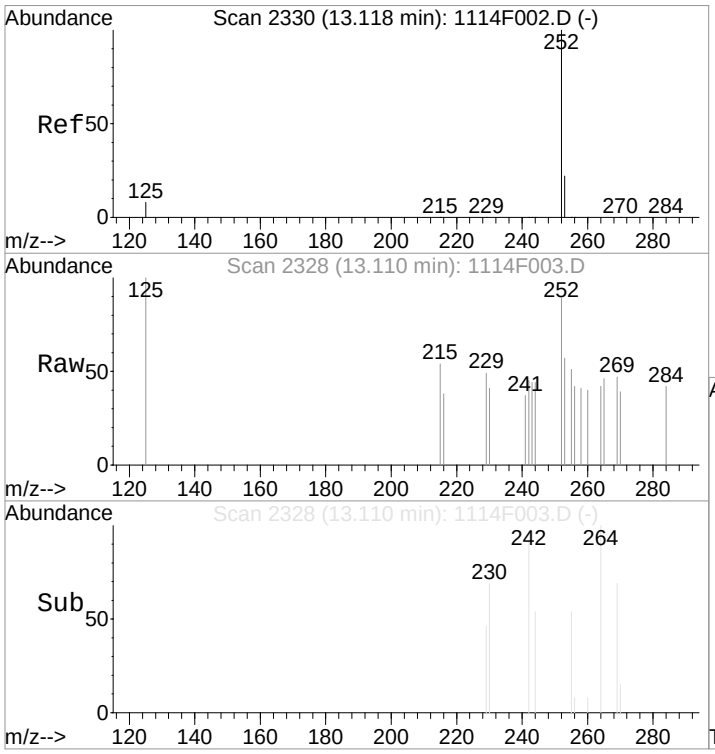
#31
Benzo(e)pyrene
Concen: 0.76 ng/ml
RT: 12.96 min Scan# 2290
Delta R.T. -0.01 min
Lab File: 1114F003.D
Acq: 14 Nov 2018 6:42 am

Tgt Ion:252 Resp: 405

Ion	Ratio	Lower	Upper
252	100		
253	66.9	0.0	51.3#
125	145.5	0.0	33.5#



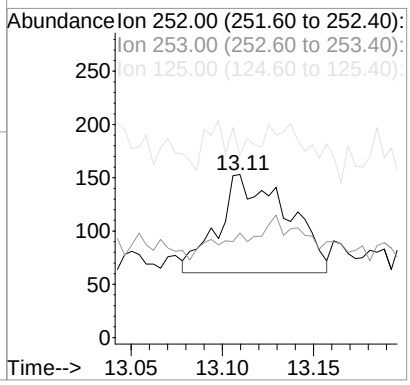
1st 12/03/18
2nd 12/06/18

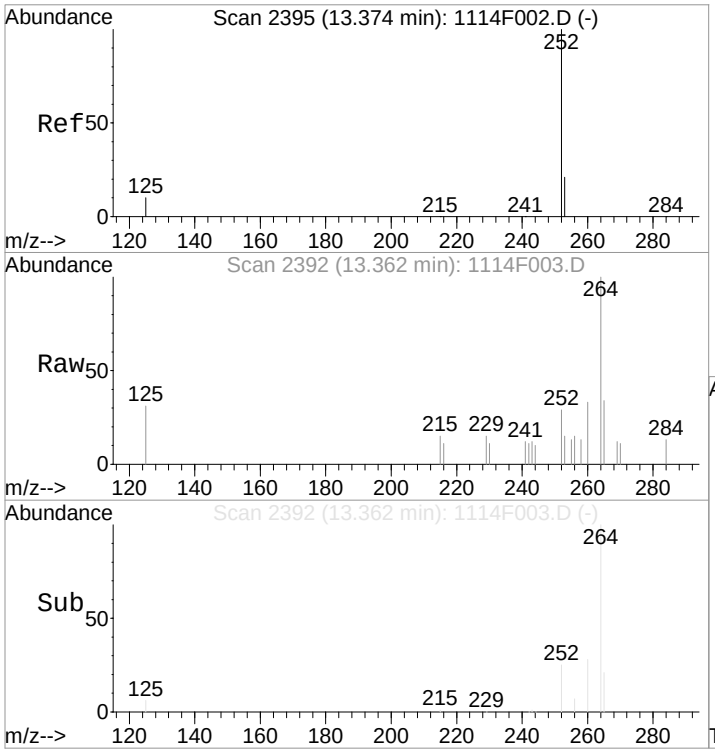


#32
Benzo(a)pyrene
Concen: 0.49 ng/ml m
RT: 13.11 min Scan# 2328
Delta R.T. -0.02 min
Lab File: 1114F003.D
Acq: 14 Nov 2018 6:42 am

Tgt Ion:252 Resp: 242

Ion	Ratio	Lower	Upper
252	100		
253	64.1	0.0	50.9#
125	111.8	0.0	30.3#

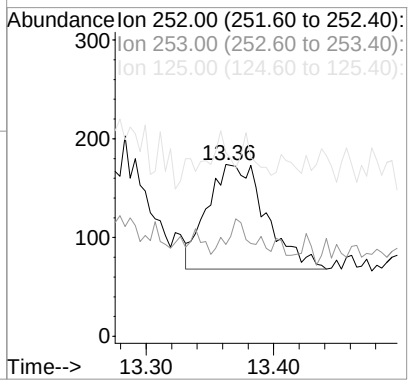




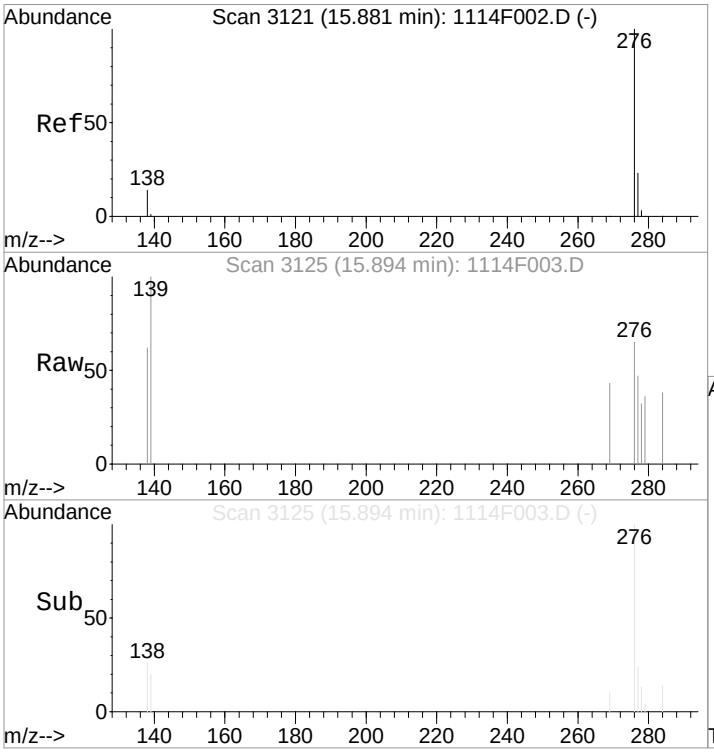
#33
Perylene
Concen: 0.66 ng/ml
RT: 13.36 min Scan# 2392
Delta R.T. -0.02 min
Lab File: 1114F003.D
Acq: 14 Nov 2018 6:42 am

Tgt Ion:252 Resp: 340

Ion	Ratio	Lower	Upper
252	100		
253	2.8	0.0	51.2
125	5.7	0.0	33.8



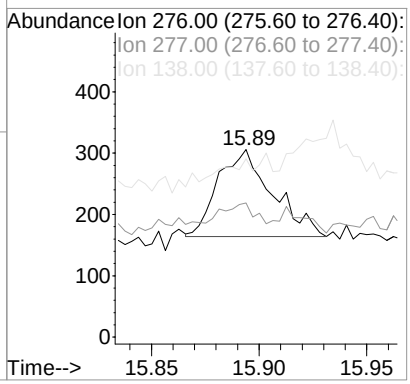
1st 12/03/18
2nd 12/06/18



#36
Benzo(g,h,i)perylene
Concen: 0.44 ng/ml
RT: 15.89 min Scan# 3125
Delta R.T. 0.01 min
Lab File: 1114F003.D
Acq: 14 Nov 2018 6:42 am

Tgt Ion:276 Resp: 249

Ion	Ratio	Lower	Upper
276	100		
277	34.5	0.0	53.1
138	32.4	0.0	39.2



1st 12/03/18
2nd 12/06/18

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\111418\1114F003.D Vial: 3
Acq On : 14 Nov 2018 6:42 am Operator: LWeiskopf
Sample : KWG1805796-6 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 05:05:28 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Nov 13 06:57:35 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.74	136	59123	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.31	164	31330	200.00	ng/ml	-0.01
15) Phenanthrene-d10	7.55	188	73826	200.00	ng/ml	-0.01
23) Chrysene-d12	10.10	240	83472	200.00	ng/ml	-0.01
28) Perylene-d12	13.28	264	90973	200.00	ng/ml	-0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.38	152	101190	613.17	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	61.32%		
13) Fluorene-d10	6.75	176	143673	717.20	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	71.72%		
22) Fluoranthene-d10	8.53	212	309898	666.04	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	66.60%		
25) Terphenyl-d14	8.88	244	272250	751.96	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	75.20%		
Target Compounds						Qvalue
2) Naphthalene	4.76	128	521	1.53	ng/ml	86
4) 2-Methylnaphthalene	5.41	142	123	0.60	ng/ml	97
5) 1-Methylnaphthalene	5.49	142	104m	0.52	ng/ml	
6) Biphenyl	5.82	154	427m	1.66	ng/ml	
11) Dibenzofuran	6.49	168	118	0.34	ng/ml	90
17) Phenanthrene	7.57	178	185	0.40	ng/ml	84
21) Fluoranthene	8.55	202	210m	0.37	ng/ml	
24) Pyrene	8.75	202	218	0.38	ng/ml	86
26) Benz(a)anthracene	10.10	228	377	0.70	ng/ml	83
27) Chrysene	10.14	228	180m	0.35	ng/ml	
29) Benzo(b)fluoranthene	12.22	252	222	0.39	ng/ml	66
31) Benzo(e)pyrene	12.96	252	405	0.76	ng/ml#	1
32) Benzo(a)pyrene	13.11	252	242m	0.49	ng/ml	
33) Perylene	13.36	252	340	0.66	ng/ml	68
36) Benzo(g,h,i)perylene	15.89	276	249	0.44	ng/ml	74

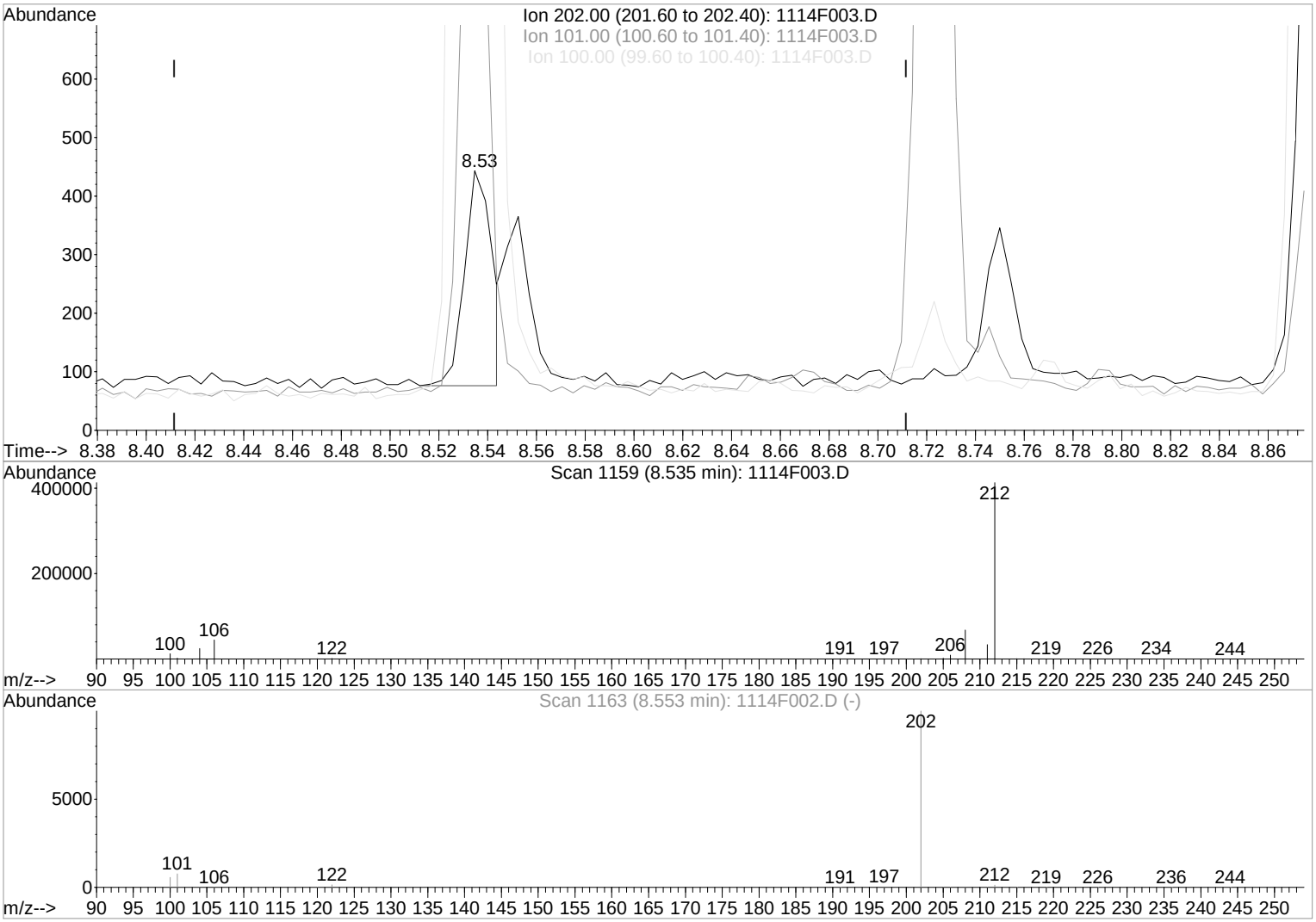
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 12/03/18
2nd 12/06/18

Data File : J:\MS14\DATA\111418\1114F003.D Vial: 3
Acq On : 14 Nov 2018 6:42 am Operator: LWeiskopf
Sample : KWG1805796-6 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 30 10:47 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 30 10:35:26 2018
Response via : Multiple Level Calibration



TIC: 1114F003.D

(21) Fluoranthene (T)

8.53min 0.51ng/ml

response 291

Ion	Exp%	Act%
202.00	100	100
101.00	11.30	358.31#
100.00	8.60	3265.12#
0.00	0.00	0.00

Manual Integration:

Before

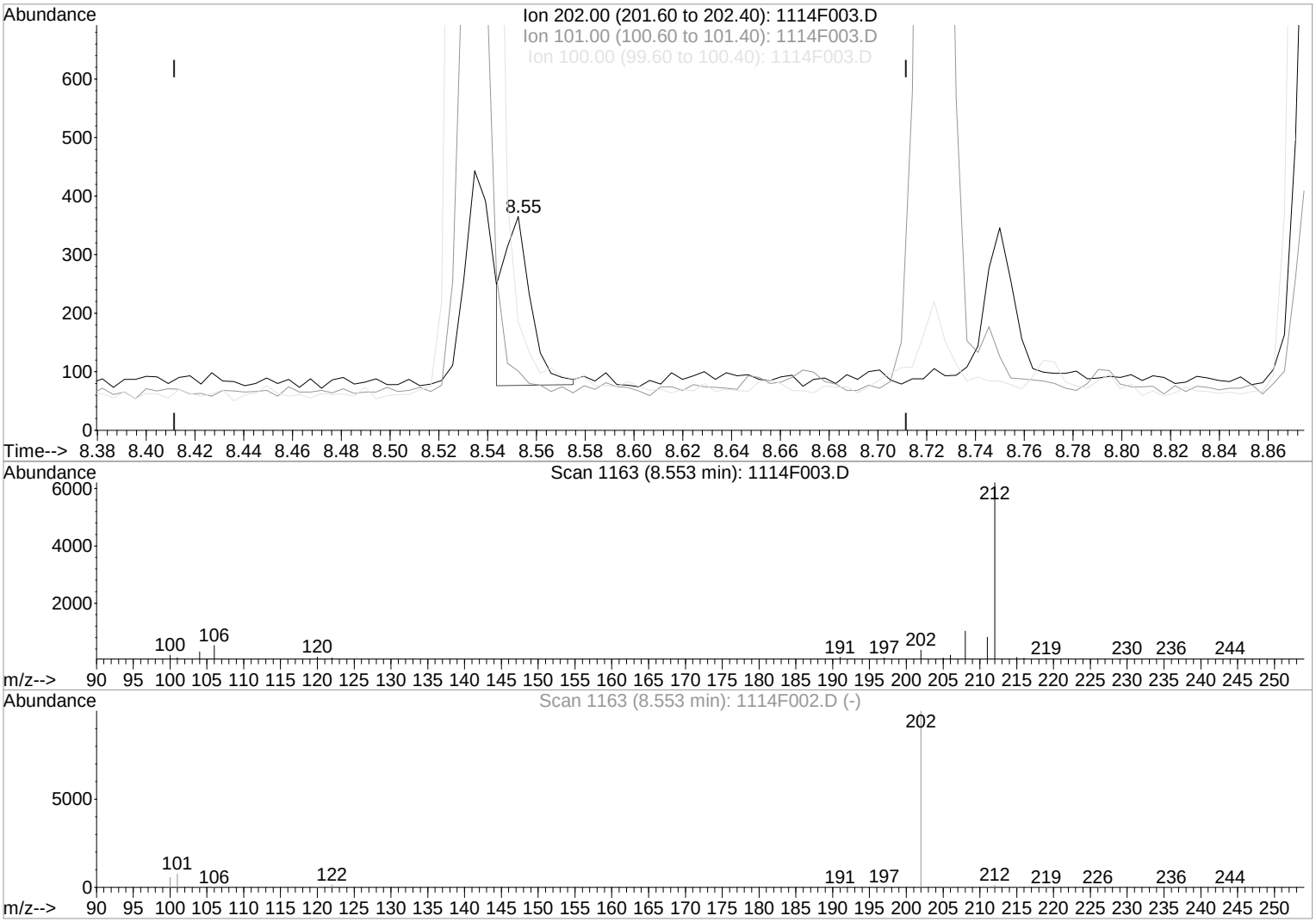
11/30/18

Quantitation Report (Qedit)

1st 12/03/18
2nd 12/06/18

Data File : J:\MS14\DATA\111418\1114F003.D Vial: 3
Acq On : 14 Nov 2018 6:42 am Operator: LWeiskopf
Sample : KWG1805796-6 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 30 10:47 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 30 10:35:26 2018
Response via : Multiple Level Calibration



TIC: 1114F003.D

(21) Fluoranthene (T)

8.55min 0.37ng/ml m

response 210

Ion	Exp%	Act%
202.00	100	100
101.00	11.30	27.67
100.00	8.60	50.68#
0.00	0.00	0.00

Manual Integration:

After

WP

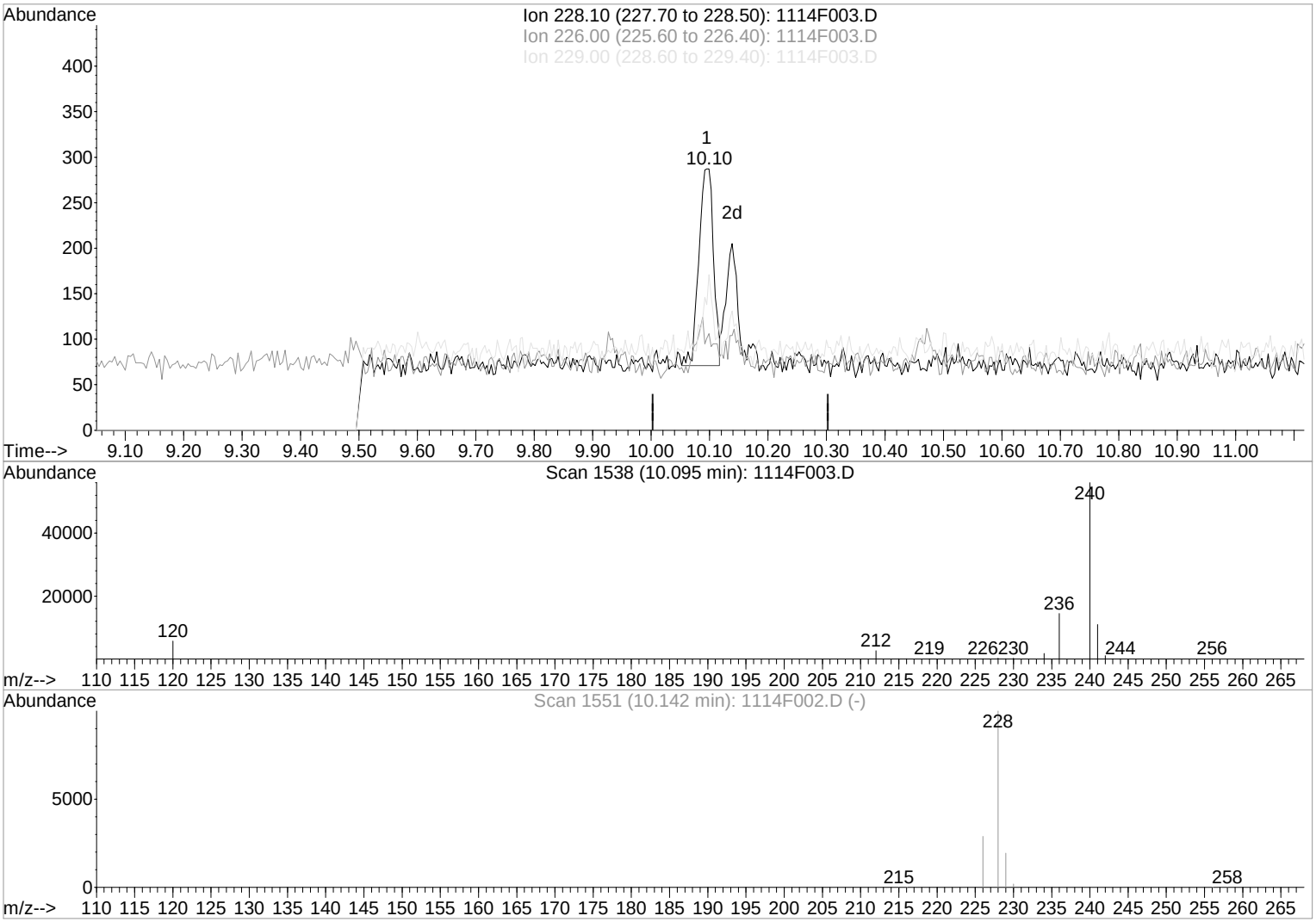
11/30/18

Quantitation Report (Qedit)

1st 12/03/18
2nd 12/06/18

Data File : J:\MS14\DATA\111418\1114F003.D Vial: 3
Acq On : 14 Nov 2018 6:42 am Operator: LWeiskopf
Sample : KWG1805796-6 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 30 10:47 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 30 10:35:26 2018
Response via : Multiple Level Calibration



TIC: 1114F003.D

(27) Chrysene (T)

10.10min 0.73ng/ml

response 377

Ion	Exp%	Act%
228.10	100	100
226.00	28.70	14.81
229.00	19.20	23.15
0.00	0.00	0.00

Manual Integration:

Before

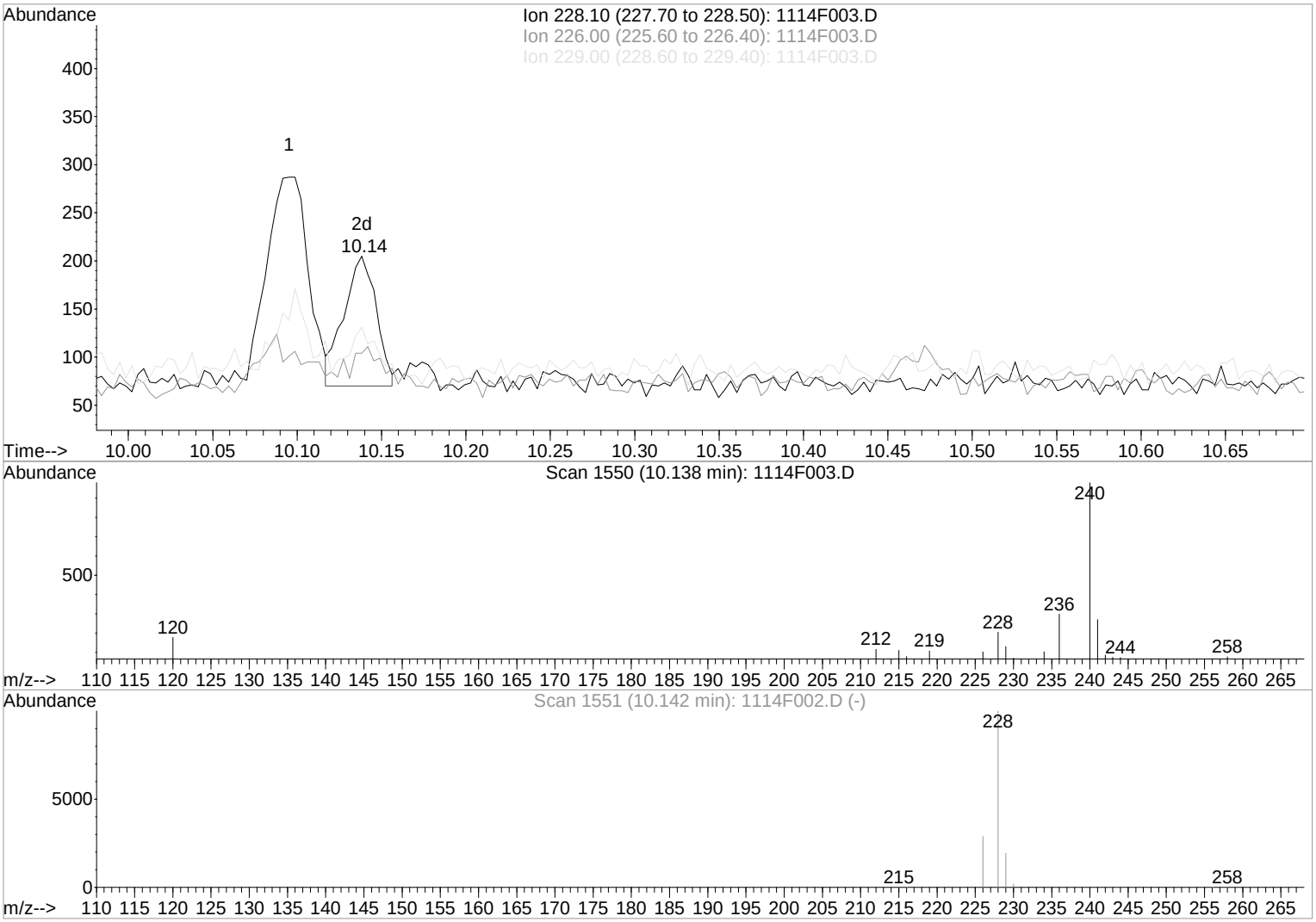
11/30/18

Quantitation Report (Qedit)

1st 12/03/18
2nd 12/06/18

Data File : J:\MS14\DATA\111418\1114F003.D Vial: 3
Acq On : 14 Nov 2018 6:42 am Operator: LWeiskopf
Sample : KWG1805796-6 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 30 10:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 30 10:35:26 2018
Response via : Multiple Level Calibration



TIC: 1114F003.D

(27) Chrysene (T)

10.14min 0.35ng/ml m

response 180

Ion	Exp%	Act%
228.10	100	100
226.00	28.70	50.73
229.00	19.20	63.90#
0.00	0.00	0.00

Manual Integration:

After

WP

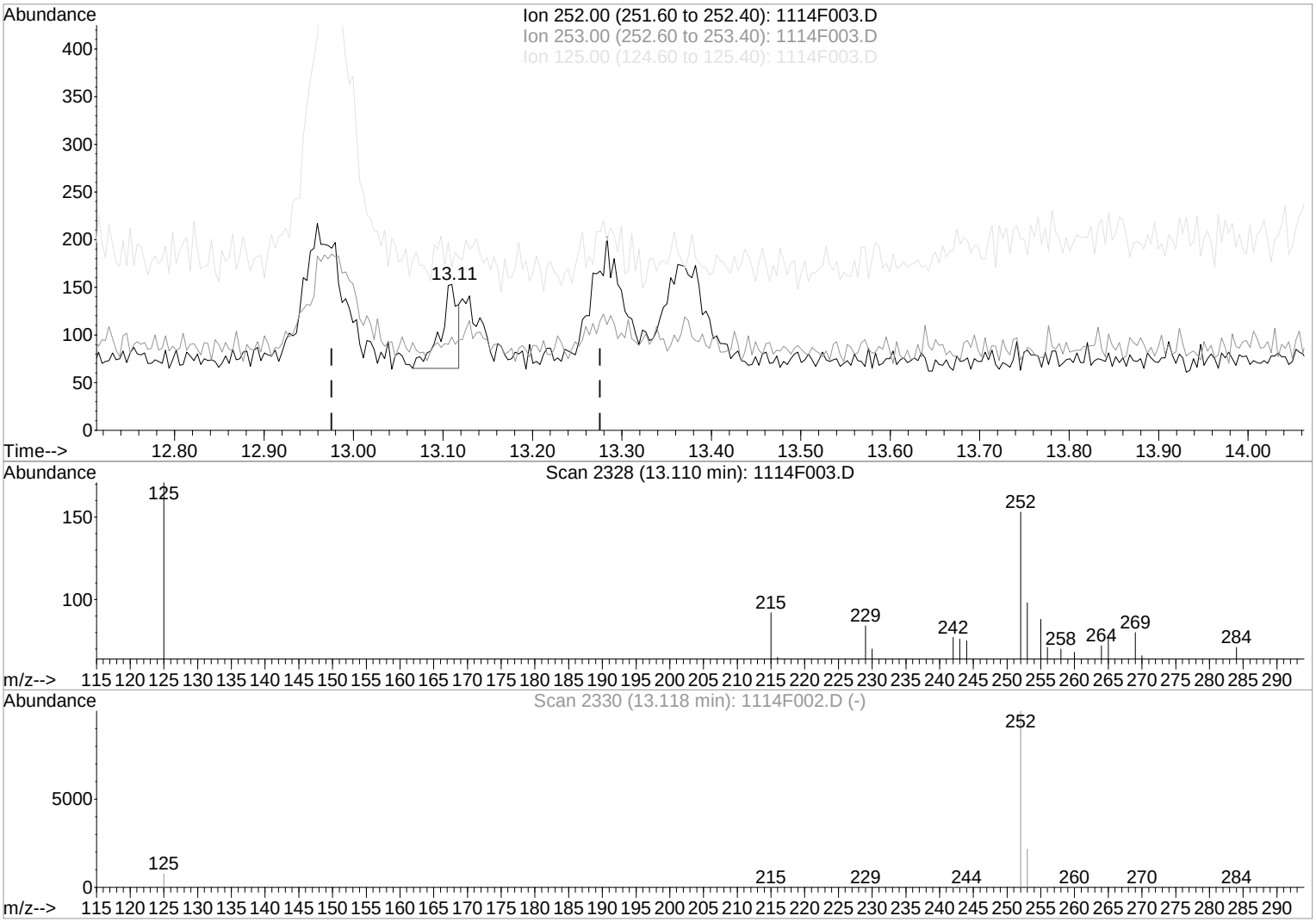
11/30/18

Quantitation Report (Qedit)

1st 12/03/18
2nd 12/06/18

Data File : J:\MS14\DATA\111418\1114F003.D Vial: 3
Acq On : 14 Nov 2018 6:42 am Operator: LWeiskopf
Sample : KWG1805796-6 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 30 10:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 30 10:35:26 2018
Response via : Multiple Level Calibration



TIC: 1114F003.D

(32) Benzo(a)pyrene (T)

13.11min 0.24ng/ml

response 120

Ion	Exp%	Act%
252.00	100	100
253.00	20.90	6.82
125.00	10.30	0.00
0.00	0.00	0.00

Manual Integration:

Before

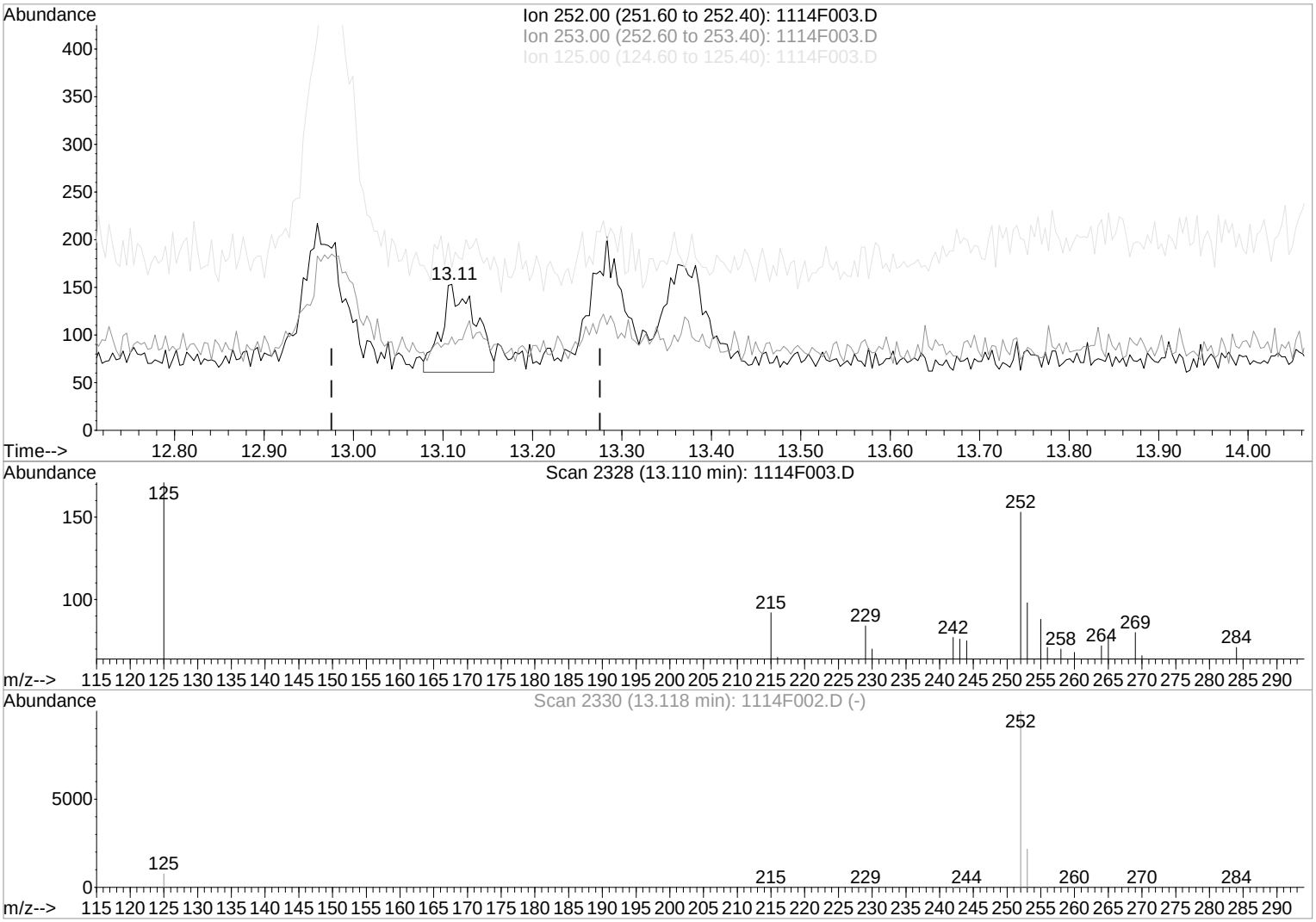
11/30/18

Quantitation Report (Qedit)

1st 12/03/18
2nd 12/06/18

Data File : J:\MS14\DATA\111418\1114F003.D Vial: 3
Acq On : 14 Nov 2018 6:42 am Operator: LWeiskopf
Sample : KWG1805796-6 MB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 30 10:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 30 10:35:26 2018
Response via : Multiple Level Calibration



TIC: 1114F003.D

(32) Benzo(a)pyrene (T)

13.11min 0.49ng/ml m

response 242

Ion	Exp%	Act%
252.00	100	100
253.00	20.90	64.05#
125.00	10.30	111.76#
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

11/30/18

1st 11/16/18
2nd 11/27/18

Exception Report

Data File: J:\MS14\DATA\110618\1106F008.D
Lab ID: KWG1805647-1 -- K1810302-022MS
RunType: MS
Matrix: SEDIMENT

Date Acquired: 11/06/2018 08:27
Date Quantitated: 11/16/2018 10:03
Batch ID: KWG1806026
Analysis Method: 8270D SIM
MethodJoinID: MJ1233

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
Surrogates	2-Methylnaphthalene-d10	44	70	130	NT
Above Highest ICAL Level	Perylene	5249.62	NA	2000	E Flag MSNA

Primary Review: _____

Secondary Review: _____

1st 11/16/18
2nd 11/27/18

Quantitation Report

Data File:	J:\MS14\DATA\110618\1106F008.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 08:27	**Quant Date:**	11/16/2018 10:03	**Vial:**	8
Run Type:	MS	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1805647-1 -- K1810302-022MS			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	SEDIMENT
Prod Code:	8270D PAH SIM U	**Collect Date:**		**Receive Date:**	11/05/2018

Analysis Lot:	KWG1806026	**Prep Lot:**	KWG1805647	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1701160	**Prep Date:**	11/01/2018		

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:			
Tune Ref:	J:\MS14\DATA\110618\1106F001.D	**Method ID:**	MJ1233
MB Ref:	J:\MS14\DATA\110618\1106F006.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	4.75	-0.01	136	62327	200.00	OK
2	Acenaphthene-d10	6.32	0.00	164	28259	200.00	OK
3	Phenanthrene-d10	7.56	0.00	188	58242	200.00	OK
4	Chrysene-d12	10.12	0.01	240	76306	200.00	OK
5	Perylene-d12	13.35	0.08	264	90998	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	2-Methylnaphthalene-d10	5.39	0.00	0.00	152	77113	443.26	44	70-130	*	
2	Fluorene-d10	6.75	-0.01	0.00	176	105782	585.44	59	26-102	OK	
3	Fluoranthene-d10	8.55	0.01	0.00	212	231641	631.06	63	23-110	OK	
4	Terphenyl-d14	8.90	0.01	0.00	244	204487	617.84	62	27-115	OK	

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.77	-0.01	0.00	128	186660	518.84	39.1		
1	2-Methylnaphthalene	5.42		0.00	142	110054	507.26	38.3		
1	1-Methylnaphthalene	5.50	-0.01	0.00	142	102974	493.09	37.2		
1	Biphenyl	5.83		0.00	154	139719	515.98	38.9		
1	2,6-Dimethylnaphthalene	5.96	-0.01	0.00	156	105180	564.70	42.6		
2	Acenaphthylene	6.19	-0.01	0.00	152	192033	569.52	42.9		
2	Acenaphthene	6.34	-0.01	0.00	154	109570	565.70	42.7		
2	Dibenzofuran	6.49	-0.01	0.00	168	171394	551.45	41.6		
2	2,3,5-Trimethylnaphthalene	6.67		0.00	170	115044	642.14	48.4		
2	Fluorene	6.78		0.00	166	140960	601.73	45.4		
3	Dibenzothiophene	7.47		0.00	184	221886	610.80	46.1		
3	Phenanthrene	7.58		0.00	178	285506	785.81	59.3		

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

1st 11/16/18
2nd 11/27/18

Data File:	J:\MS14\DATA\110618\1106F008.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 08:27	**Quant Date:**	11/16/2018 10:03	**Vial:**	8
Run Type:	MS	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1805647-1 -- K1810302-022MS			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Anthracene	7.62		0.00	178	233267	672.54	50.7		
3	Carbazole	7.75		0.00	167	207497	613.02	46.2		
3	1-Methylphenanthrene	8.09	0.01	0.00	192	187076	679.79	51.3		
3	Fluoranthene	8.57	0.01	0.00	202	353895	788.83	59.5		
4	Pyrene	8.76	0.01	0.00	202	417033	796.58	60.1		
4	Benz(a)anthracene	10.11	0.02	0.00	228	359880	729.47	55.0		
4	Chrysene	10.16	0.01	0.00	228	353136	747.29	56.4		
5	Benzo(b)fluoranthene	12.25	0.04	0.00	252	419018	745.31	56.2		
5	Benzo(k)fluoranthene	12.32	0.04	0.00	252	367375	658.70	49.7		
5	Benzo(e)pyrene	13.00	0.06	0.00	252	373490	696.96	52.6		
5	Benzo(a)pyrene	13.16	0.06	0.00	252	401136	813.60	61.4		
5	Perylene	13.46	0.11	0.00	252	2715120	5,250	396	E	
5	Indeno(1,2,3-cd)pyrene	15.51	0.04	0.00	276	382685**m**	791.55	59.7		
5	Dibenz(a,h)anthracene	15.55	0.04	0.00	278	342637	699.13	52.7		
5	Benzo(g,h,i)perylene	15.91	0.05	0.00	276	404463	714.39	53.9		

Prep Amount:	40.185 g	**Dilution:**	1.0
Prep Final Vol:	2 mL	**Unit Factor:**	1
Solids:	66 %		

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

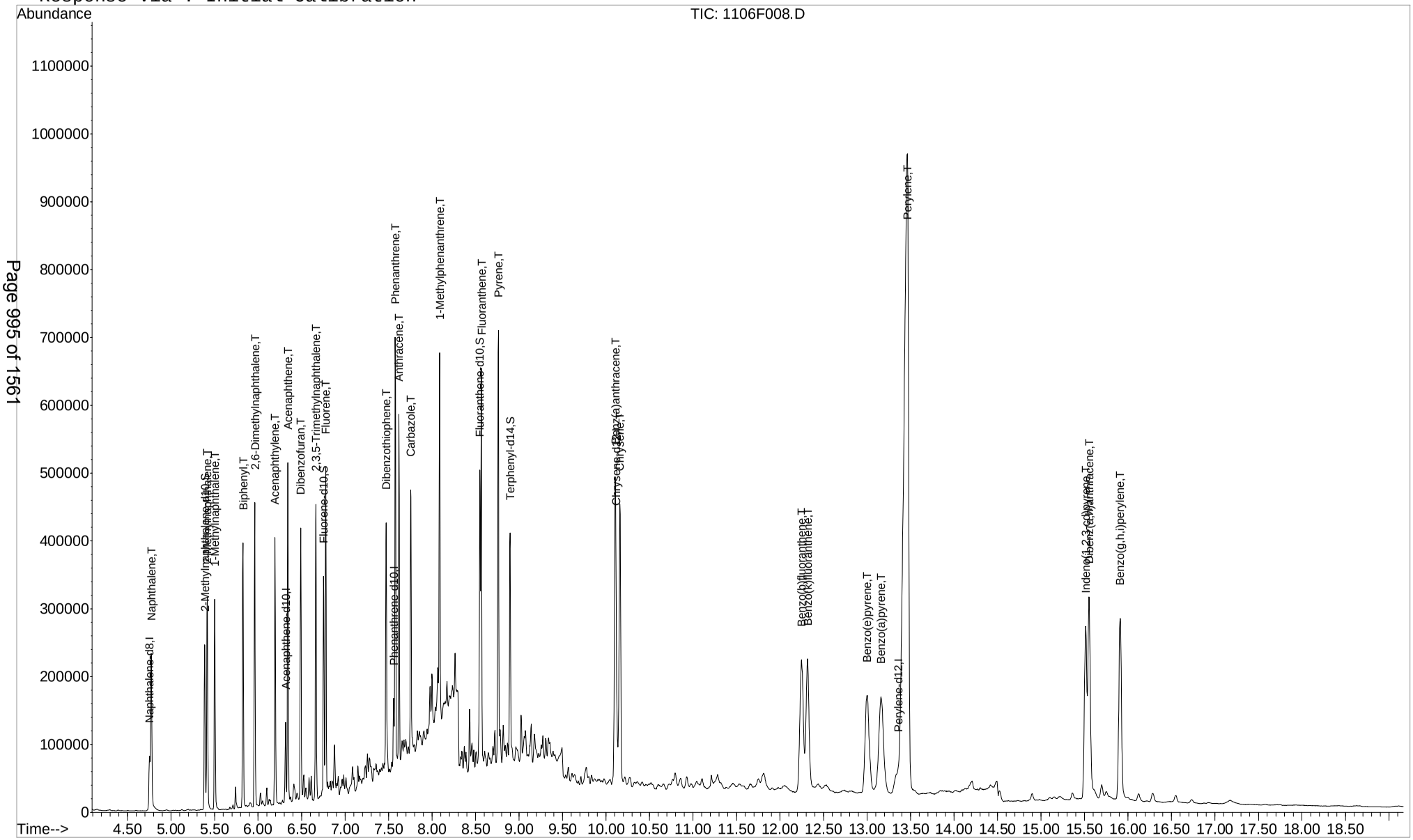
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F008.D Vial: 8
Acq On : 6 Nov 2018 8:27 am Operator: LWeiskopf
Sample : K1810302-022MS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:03 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F008.D Vial: 8
Acq On : 6 Nov 2018 8:27 am Operator: LWeiskopf
Sample : K1810302-022MS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 09:56:46 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	62327	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.32	164	28259	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.56	188	58242	200.00	ng/ml	0.00
23) Chrysene-d12	10.12	240	76306	200.00	ng/ml	0.01
28) Perylene-d12	13.35	264	90998	200.00	ng/ml	0.08
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.39	152	77113	443.26	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	44.33%		
13) Fluorene-d10	6.75	176	105782	585.44	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	58.54%		
22) Fluoranthene-d10	8.55	212	231641	631.06	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	63.11%		
25) Terphenyl-d14	8.90	244	204487	617.84	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	61.78%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	186660	518.84	ng/ml	99
4) 2-Methylnaphthalene	5.42	142	110054	507.26	ng/ml	95
5) 1-Methylnaphthalene	5.50	142	102974	493.09	ng/ml	92
6) Biphenyl	5.83	154	139719	515.98	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.96	156	105180	564.70	ng/ml	95
9) Acenaphthylene	6.19	152	192033	569.52	ng/ml	99
10) Acenaphthene	6.34	154	109570	565.70	ng/ml	98
11) Dibenzofuran	6.49	168	171394	551.45	ng/ml	77
12) 2,3,5-Trimethylnaphthalene	6.67	170	115044	642.14	ng/ml	95
14) Fluorene	6.78	166	140960	601.73	ng/ml	98
16) Dibenzothiophene	7.47	184	221886	610.80	ng/ml	95
17) Phenanthrene	7.58	178	285506	785.81	ng/ml	98
18) Anthracene	7.62	178	233267	672.54	ng/ml	99
19) Carbazole	7.75	167	207497	613.02	ng/ml	95
20) 1-Methylphenanthrene	8.09	192	187076	679.79	ng/ml	99
21) Fluoranthene	8.57	202	353895	788.83	ng/ml	96
24) Pyrene	8.76	202	417033	796.58	ng/ml	97
26) Benz(a)anthracene	10.11	228	359880	729.47	ng/ml	97
27) Chrysene	10.16	228	353136	747.29	ng/ml	99
29) Benzo(b)fluoranthene	12.25	252	419018	745.31	ng/ml	98
30) Benzo(k)fluoranthene	12.32	252	367375	658.70	ng/ml	96
31) Benzo(e)pyrene	13.00	252	373490	696.96	ng/ml	97
32) Benzo(a)pyrene	13.16	252	401136	813.60	ng/ml	99
33) Perylene	13.46	252	2715120	5249.62	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.51	276	382685m	791.55	ng/ml	
35) Dibenz(a,h)anthracene	15.55	278	342637	699.13	ng/ml	97
36) Benzo(g,h,i)perylene	15.91	276	404463	714.39	ng/ml	96

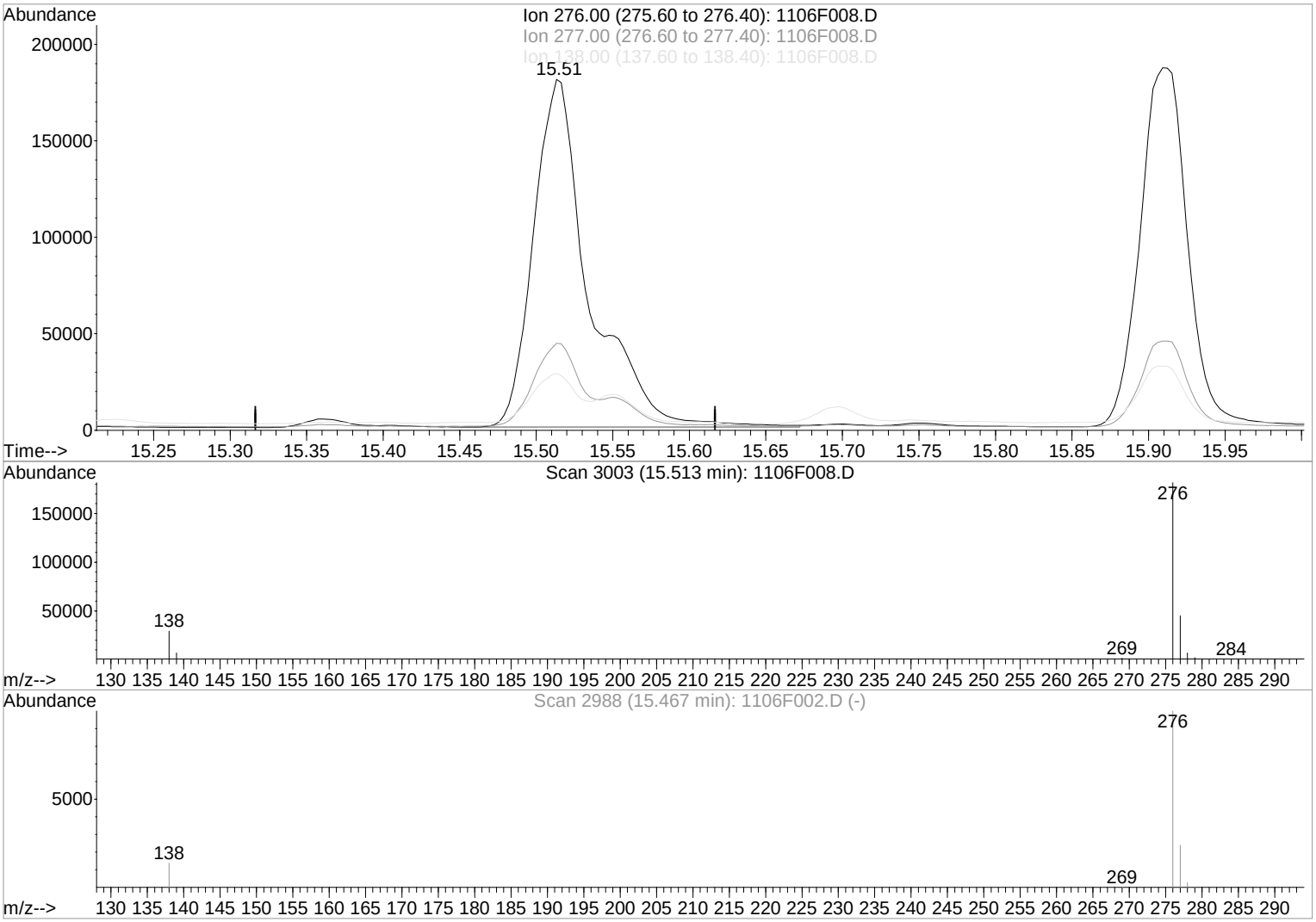
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F008.D Vial: 8
Acq On : 6 Nov 2018 8:27 am Operator: LWeiskopf
Sample : K1810302-022MS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 9:56 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F008.D

(34) Indeno(1,2,3-cd)pyrene (T)

15.51min 942.82ng/ml

response 455820

Ion	Exp%	Act%
276.00	100	100
277.00	23.40	23.87
138.00	17.70	14.04
0.00	0.00	0.00

Manual Integration:

Before

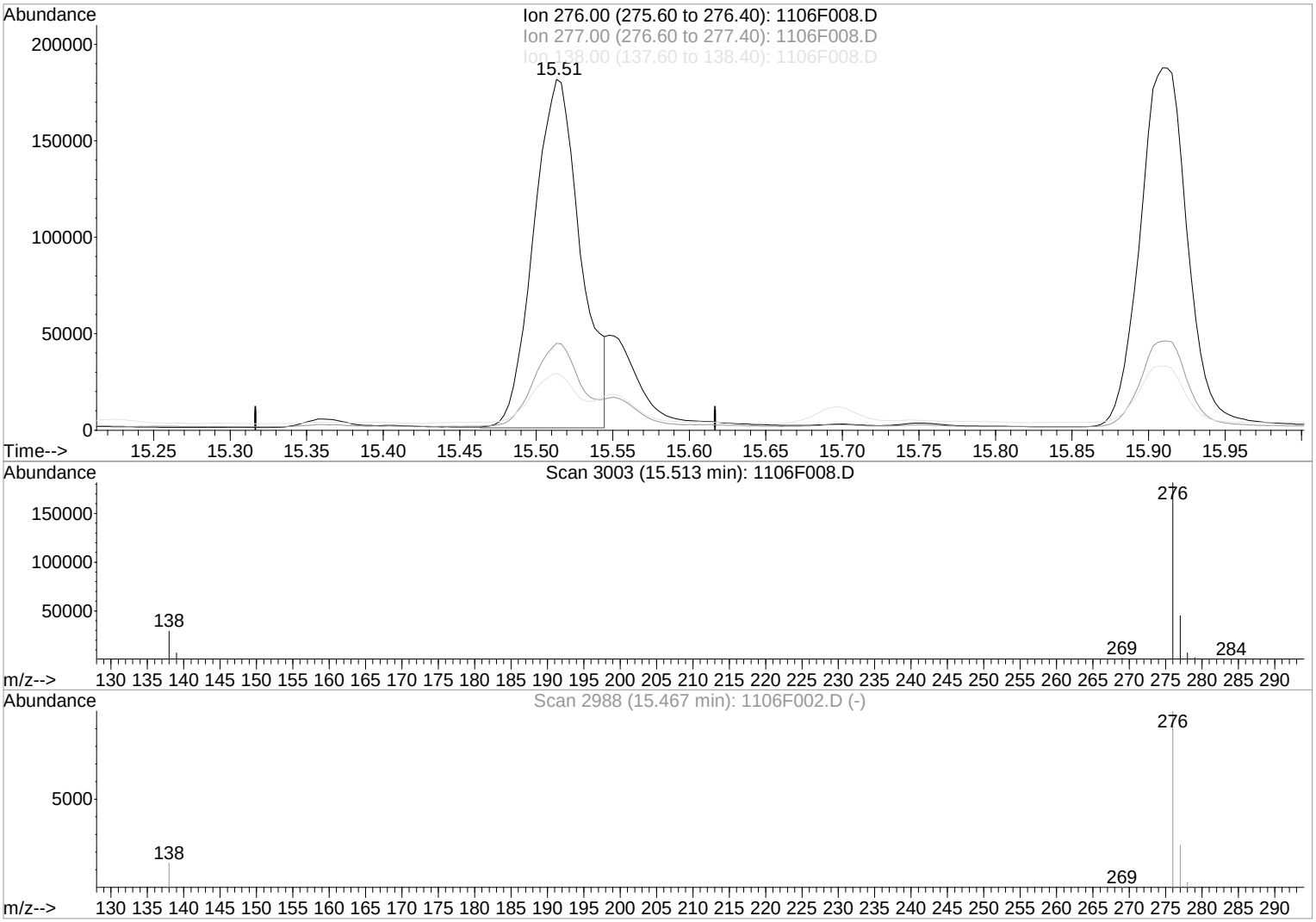
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F008.D Vial: 8
Acq On : 6 Nov 2018 8:27 am Operator: LWeiskopf
Sample : K1810302-022MS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:03 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F008.D

(34) Indeno(1,2,3-cd)pyrene (T)

15.51min 791.55ng/ml m

response 382685

Ion	Exp%	Act%
276.00	100	100
277.00	23.40	24.75
138.00	17.70	16.16
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

11/16/18

1st 11/16/18
2nd 11/27/18

Exception Report

Data File: J:\MS14\DATA\110618\1106F009.D
Lab ID: KWG1805647-2 -- K1810302-022DMS
RunType: DMS
Matrix: SEDIMENT

Date Acquired: 11/06/2018 08:56
Date Quantitated: 11/16/2018 10:05
Batch ID: KWG1806026
Analysis Method: 8270D SIM
MethodJoinID: MJ1233

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
Surrogates	2-Methylnaphthalene-d10	51	70	130	NT
Above Highest ICAL Level	Perylene	6103.32	NA	2000	E Flag MSNA

Primary Review: _____

Secondary Review: _____

1st 11/16/18
2nd 11/27/18

Quantitation Report

Data File:	J:\MS14\DATA\110618\1106F009.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 08:56	**Quant Date:**	11/16/2018 10:05	**Vial:**	9
Run Type:	DMS	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1805647-2 -- K1810302-022DMS			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	SEDIMENT
Prod Code:	8270D PAH SIM U	**Collect Date:**		**Receive Date:**	11/05/2018

Analysis Lot:	KWG1806026	**Prep Lot:**	KWG1805647	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1701161	**Prep Date:**	11/01/2018		

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:			
Tune Ref:	J:\MS14\DATA\110618\1106F001.D	**Method ID:**	MJ1233
MB Ref:	J:\MS14\DATA\110618\1106F006.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	4.77	0.01	136	77390	200.00	OK
2	Acenaphthene-d10	6.32	0.00	164	34034	200.00	OK
3	Phenanthrene-d10	7.56	0.00	188	69590	200.00	OK
4	Chrysene-d12	10.13	0.02	240	93895	200.00	OK
5	Perylene-d12	13.37	0.10	264	104092	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	2-Methylnaphthalene-d10	5.39	0.00	0.00	152	109602	507.38	51	70-130	*	
2	Fluorene-d10	6.76	0.00	0.00	176	143749	660.57	66	26-102	OK	
3	Fluoranthene-d10	8.55	0.01	0.00	212	331694	756.28	76	23-110	OK	
4	Terphenyl-d14	8.90	0.01	0.00	244	304553	747.81	75	27-115	OK	

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.79	0.01	0.00	128	259688	581.33	43.9		
1	2-Methylnaphthalene	5.42		0.00	142	152928	567.68	42.9		
1	1-Methylnaphthalene	5.51		0.00	142	142951	551.29	41.7		
1	Biphenyl	5.83		0.00	154	193224	574.68	43.4		
1	2,6-Dimethylnaphthalene	5.97		0.00	156	144885	626.46	47.3		
2	Acenaphthylene	6.20		0.00	152	262047	645.29	48.8		
2	Acenaphthene	6.34	-0.01	0.00	154	148478	636.50	48.1		
2	Dibenzofuran	6.49	-0.01	0.00	168	233769	624.51	47.2		
2	2,3,5-Trimethylnaphthalene	6.67		0.00	170	153890	713.21	53.9		
2	Fluorene	6.78		0.00	166	188846	669.36	50.6		
3	Dibenzothiophene	7.47		0.00	184	311445	717.53	54.2		
3	Phenanthrene	7.58		0.00	178	390402	899.30	67.9		

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:\MS14\DATA\110618\1106F009.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 08:56	**Quant Date:**	11/16/2018 10:05	**Vial:**	9
Run Type:	DMS	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1805647-2 -- K1810302-022DMS			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/Kg Dry Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Anthracene	7.62		0.00	178	318765	769.17	58.1		
3	Carbazole	7.76	0.01	0.00	167	285733	706.50	53.4		
3	1-Methylphenanthrene	8.09	0.01	0.00	192	266415**m**	810.22	61.2		
3	Fluoranthene	8.57	0.01	0.00	202	517655	965.69	73.0		
4	Pyrene	8.76	0.01	0.00	202	610365	947.46	71.6		
4	Benz(a)anthracene	10.11	0.02	0.00	228	508574	837.76	63.3		
4	Chrysene	10.17	0.02	0.00	228	502806	864.69	65.3		
5	Benzo(b)fluoranthene	12.27	0.06	0.00	252	563029	875.49	66.1		
5	Benzo(k)fluoranthene	12.34	0.06	0.00	252	494793	775.57	58.6		
5	Benzo(e)pyrene	13.02	0.08	0.00	252	493606	805.23	60.8		
5	Benzo(a)pyrene	13.18	0.08	0.00	252	531328	942.10	71.2		
5	Perylene	13.50	0.15	0.00	252	3610878	6,103	461	E	
5	Indeno(1,2,3-cd)pyrene	15.53	0.06	0.00	276	494276**m**	893.76	67.5		
5	Dibenz(a,h)anthracene	15.57	0.06	0.00	278	444703	793.25	59.9		
5	Benzo(g,h,i)perylene	15.93	0.07	0.00	276	522378	806.59	60.9		

Prep Amount:	40.109 g	**Dilution:**	1.0
Prep Final Vol:	2 mL	**Unit Factor:**	1
Solids:	66 %		

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

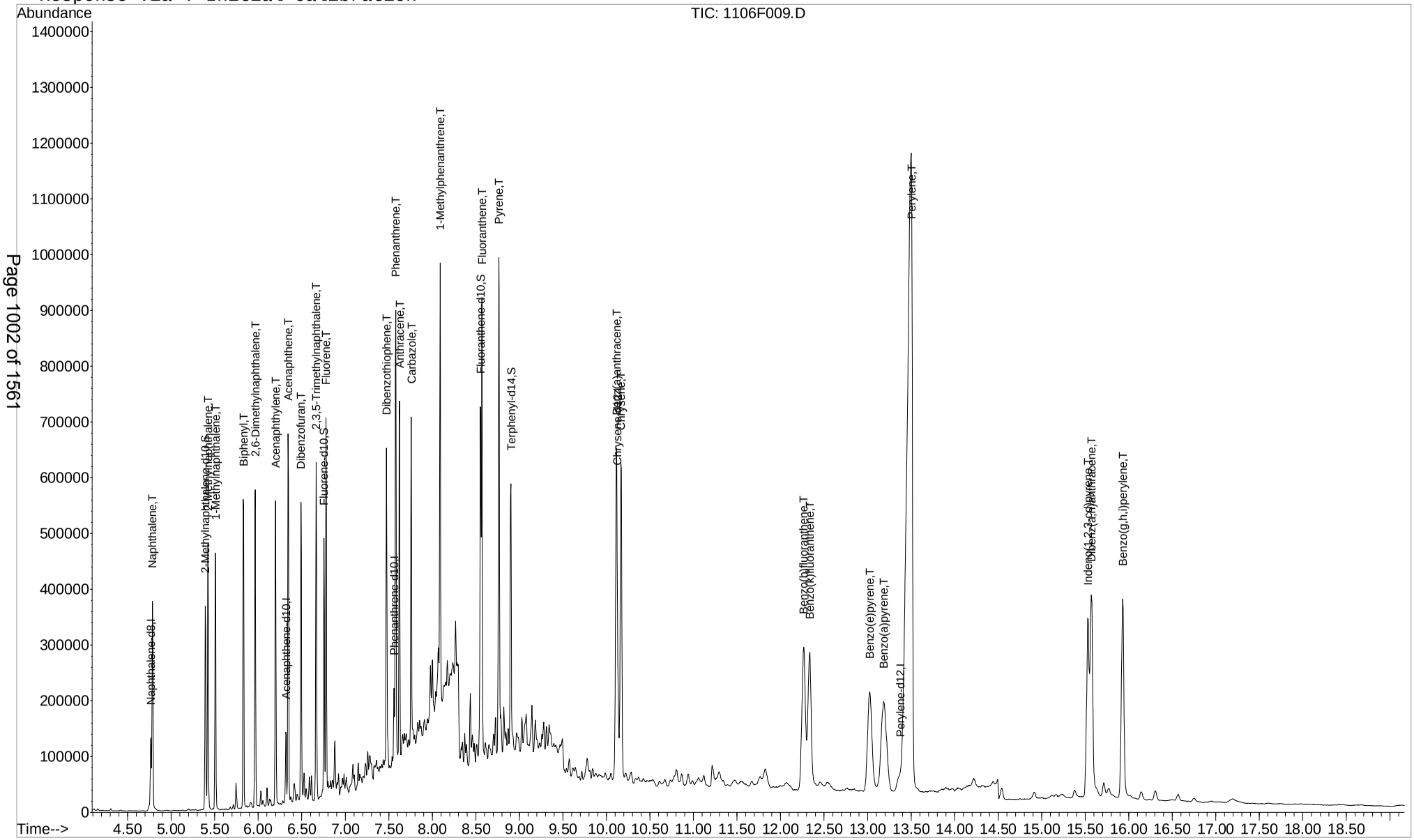
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F009.D Vial: 9
Acq On : 6 Nov 2018 8:56 am Operator: LWeiskopf
Sample : K1810302-022DMS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:05 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration



1st 11/16/18
2nd 11/27/18

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\110618\1106F009.D Vial: 9
Acq On : 6 Nov 2018 8:56 am Operator: LWeiskopf
Sample : K1810302-022DMS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 09:56:46 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.77	136	77390	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.32	164	34034	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.56	188	69590	200.00	ng/ml	0.00
23) Chrysene-d12	10.13	240	93895	200.00	ng/ml	0.02
28) Perylene-d12	13.37	264	104092	200.00	ng/ml	0.10
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.39	152	109602	507.38	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	50.74%		
13) Fluorene-d10	6.76	176	143749	660.57	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	66.06%		
22) Fluoranthene-d10	8.55	212	331694	756.28	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	75.63%		
25) Terphenyl-d14	8.90	244	304553	747.81	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	74.78%		
Target Compounds						Qvalue
2) Naphthalene	4.79	128	259688	581.33	ng/ml	100
4) 2-Methylnaphthalene	5.42	142	152928	567.68	ng/ml	96
5) 1-Methylnaphthalene	5.51	142	142951	551.29	ng/ml	93
6) Biphenyl	5.83	154	193224	574.68	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.97	156	144885	626.46	ng/ml	99
9) Acenaphthylene	6.20	152	262047	645.29	ng/ml	99
10) Acenaphthene	6.34	154	148478	636.50	ng/ml	96
11) Dibenzofuran	6.49	168	233769	624.51	ng/ml	64
12) 2,3,5-Trimethylnaphthalene	6.67	170	153890	713.21	ng/ml	89
14) Fluorene	6.78	166	188846	669.36	ng/ml	98
16) Dibenzothiophene	7.47	184	311445	717.53	ng/ml	95
17) Phenanthrene	7.58	178	390402	899.30	ng/ml	99
18) Anthracene	7.62	178	318765	769.17	ng/ml	99
19) Carbazole	7.76	167	285733	706.50	ng/ml	97
20) 1-Methylphenanthrene	8.09	192	266415m	810.22	ng/ml	
21) Fluoranthene	8.57	202	517655	965.69	ng/ml	95
24) Pyrene	8.76	202	610365	947.46	ng/ml	95
26) Benz(a)anthracene	10.11	228	508574	837.76	ng/ml	97
27) Chrysene	10.17	228	502806	864.69	ng/ml	99
29) Benzo(b)fluoranthene	12.27	252	563029	875.49	ng/ml	98
30) Benzo(k)fluoranthene	12.34	252	494793	775.57	ng/ml	96
31) Benzo(e)pyrene	13.02	252	493606	805.23	ng/ml	98
32) Benzo(a)pyrene	13.18	252	531328	942.10	ng/ml	97
33) Perylene	13.50	252	3610878	6103.32	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.53	276	494276m	893.76	ng/ml	
35) Dibenz(a,h)anthracene	15.57	278	444703	793.25	ng/ml	97
36) Benzo(g,h,i)perylene	15.93	276	522378	806.59	ng/ml	96

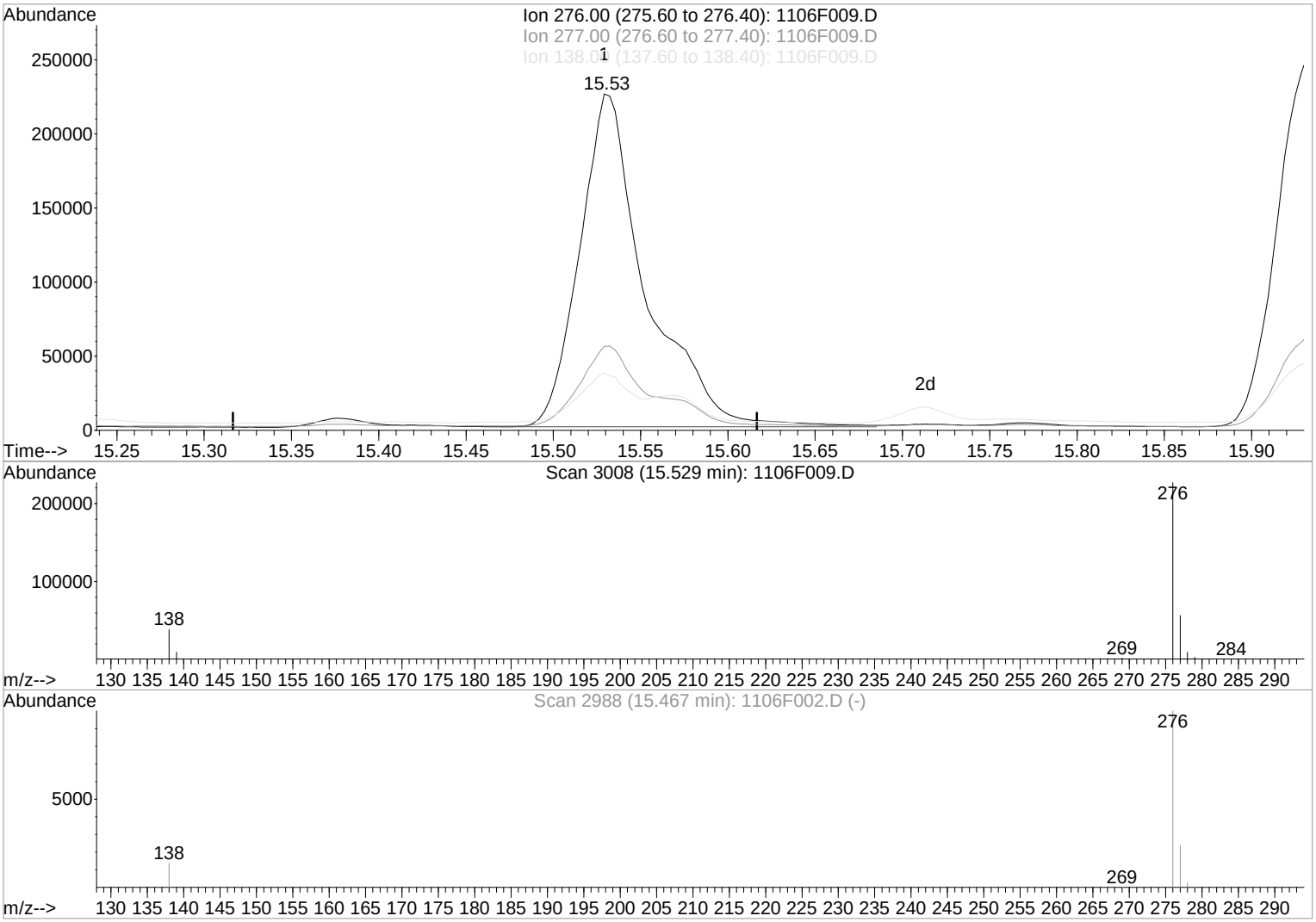
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F009.D Vial: 9
Acq On : 6 Nov 2018 8:56 am Operator: LWeiskopf
Sample : K1810302-022DMS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:05 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F009.D

(34) Indeno(1,2,3-cd)pyrene (T)

15.53min 1070.77ng/ml

response 592171

Ion	Exp%	Act%
276.00	100	100
277.00	23.40	23.93
138.00	17.70	14.66
0.00	0.00	0.00

Manual Integration:

Before

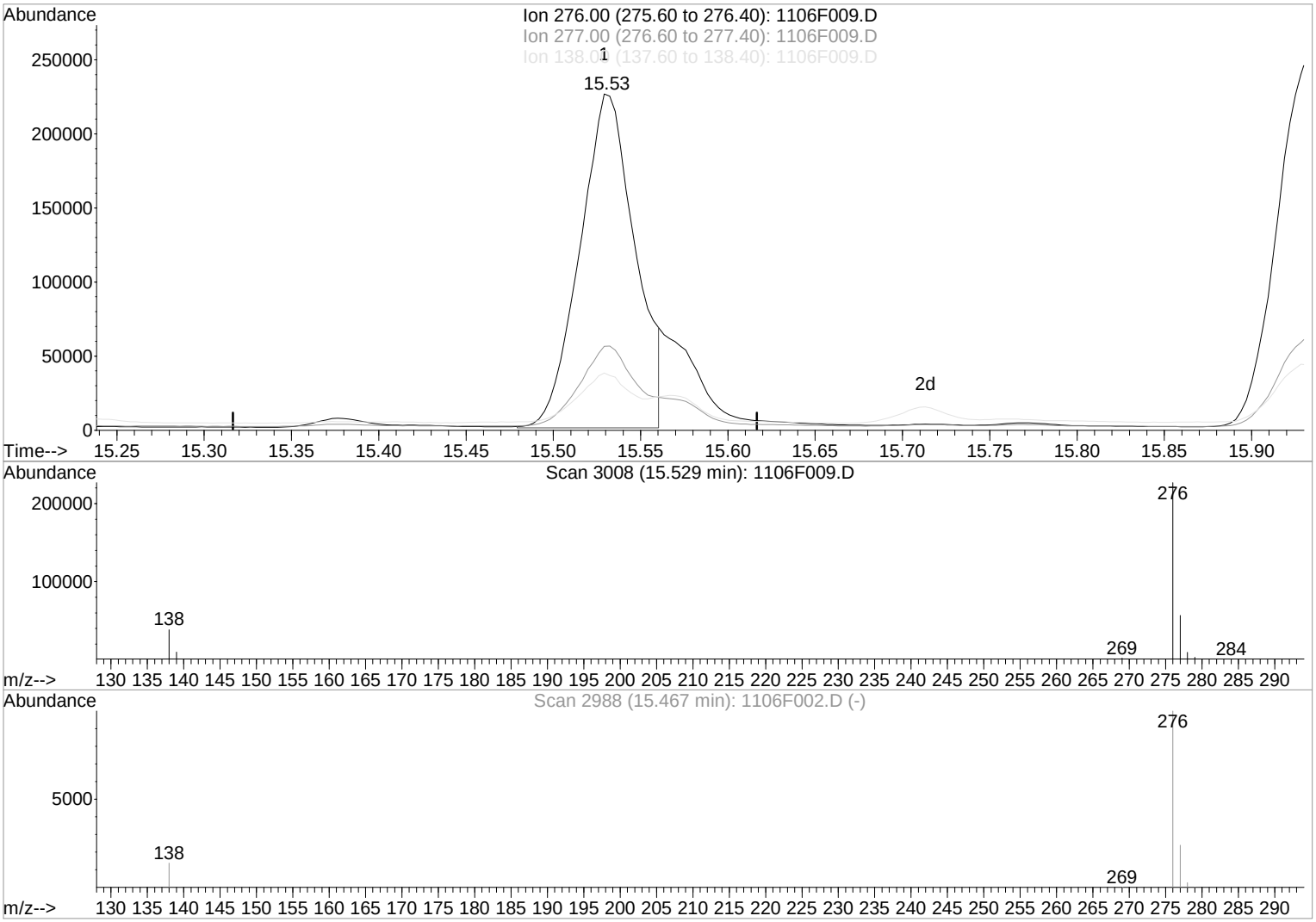
11/16/18

Quantitation Report (Qedit)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F009.D Vial: 9
Acq On : 6 Nov 2018 8:56 am Operator: LWeiskopf
Sample : K1810302-022DMS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 10:05 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration



TIC: 1106F009.D

(34) Indeno(1,2,3-cd)pyrene (T)

15.53min 893.76ng/ml m

response 494276

Ion	Exp%	Act%
276.00	100	100
277.00	23.40	24.94
138.00	17.70	16.99
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

11/16/18

1st 11/16/18
2nd 11/27/18

Exception Report

Data File: J:\MS14\DATA\110618\1106F007.D
Lab ID: KWG1805647-3
RunType: LCS
Matrix: SEDIMENT

Date Acquired: 11/06/2018 07:59
Date Quantitated: 11/16/2018 09:56
Batch ID: KWG1806026
Analysis Method: 8270D SIM
MethodJoinID: MJ1233

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
Surrogates	2-Methylnaphthalene-d10	56	70	130	NT

Primary Review: _____

Secondary Review: _____

1st 11/16/18
2nd 11/27/18

Quantitation Report

Data File:	J:\MS14\DATA\110618\1106F007.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 07:59	**Quant Date:**	11/16/2018 09:56	**Vial:**	7
Run Type:	LCS	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1805647-3			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	SEDIMENT
Prod Code:	8270D PAH SIM U	**Collect Date:**		**Receive Date:**	11/05/2018

Analysis Lot:	KWG1806026	**Prep Lot:**	KWG1805647	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1701162	**Prep Date:**	11/01/2018		

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:			
Tune Ref:	J:\MS14\DATA\110618\1106F001.D	**Method ID:**	MJ1233
MB Ref:	J:\MS14\DATA\110618\1106F006.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	4.75	-0.01	136	65546	200.00	OK
2	Acenaphthene-d10	6.32	0.00	164	28835	200.00	OK
3	Phenanthrene-d10	7.56	0.00	188	60321	200.00	OK
4	Chrysene-d12	10.11	0.00	240	67170	200.00	OK
5	Perylene-d12	13.27	0.00	264	75180	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	2-Methylnaphthalene-d10	5.39	0.00	0.00	152	102731	561.51	56	70-130	*	
2	Fluorene-d10	6.75	-0.01	0.00	176	127696	692.60	69	26-102	OK	
3	Fluoranthene-d10	8.54	0.00	0.00	212	273042	718.21	72	23-110	OK	
4	Terphenyl-d14	8.89	0.00	0.00	244	233737	802.27	80	27-115	OK	

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.77	-0.01	0.00	128	232182	613.67	61.4		
1	2-Methylnaphthalene	5.42		0.00	142	139809	612.76	61.3		
1	1-Methylnaphthalene	5.50	-0.01	0.00	142	132871	605.01	60.5		
1	Biphenyl	5.83		0.00	154	180234	632.91	63.3		
1	2,6-Dimethylnaphthalene	5.96	-0.01	0.00	156	127895	652.93	65.3		
2	Acenaphthylene	6.19	-0.01	0.00	152	237110	689.16	68.9		
2	Acenaphthene	6.34	-0.01	0.00	154	132622	671.03	67.1		
2	Dibenzofuran	6.49	-0.01	0.00	168	211080	665.57	66.6		
2	2,3,5-Trimethylnaphthalene	6.67		0.00	170	128681	703.91	70.4		
2	Fluorene	6.78		0.00	166	162601	680.25	68.0		
3	Dibenzothiophene	7.47		0.00	184	252188	670.29	67.0		
3	Phenanthrene	7.58		0.00	178	253308	673.16	67.3		

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:\MS14\DATA\110618\1106F007.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 07:59	**Quant Date:**	11/16/2018 09:56	**Vial:**	7
Run Type:	LCS	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1805647-3			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Anthracene	7.62		0.00	178	260428	724.97	72.5		
3	Carbazole	7.75		0.00	167	247340	705.54	70.6		
3	1-Methylphenanthrene	8.08		0.00	192	204937	719.02	71.9		
3	Fluoranthene	8.56		0.00	202	310659	668.59	66.9		
4	Pyrene	8.75		0.00	202	335116	727.17	72.7		
4	Benz(a)anthracene	10.09		0.00	228	351312	808.96	80.9		
4	Chrysene	10.14	-0.01	0.00	228	321304	772.40	77.2		
5	Benzo(b)fluoranthene	12.20	-0.01	0.00	252	392641	845.34	84.5		
5	Benzo(k)fluoranthene	12.27	-0.01	0.00	252	364742	791.58	79.2		
5	Benzo(e)pyrene	12.94		0.00	252	352231	795.58	79.6		
5	Benzo(a)pyrene	13.10		0.00	252	336855	826.98	82.7		
5	Perylene	13.35		0.00	252	331721	776.32	77.6		
5	Indeno(1,2,3-cd)pyrene	15.46	-0.01	0.00	276	343773	860.67	86.1		
5	Dibenz(a,h)anthracene	15.51		0.00	278	324853	802.31	80.2		
5	Benzo(g,h,i)perylene	15.86		0.00	276	370131	791.30	79.1		

Prep Amount:	20.000 g	**Dilution:**	1.0
Prep Final Vol:	2 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

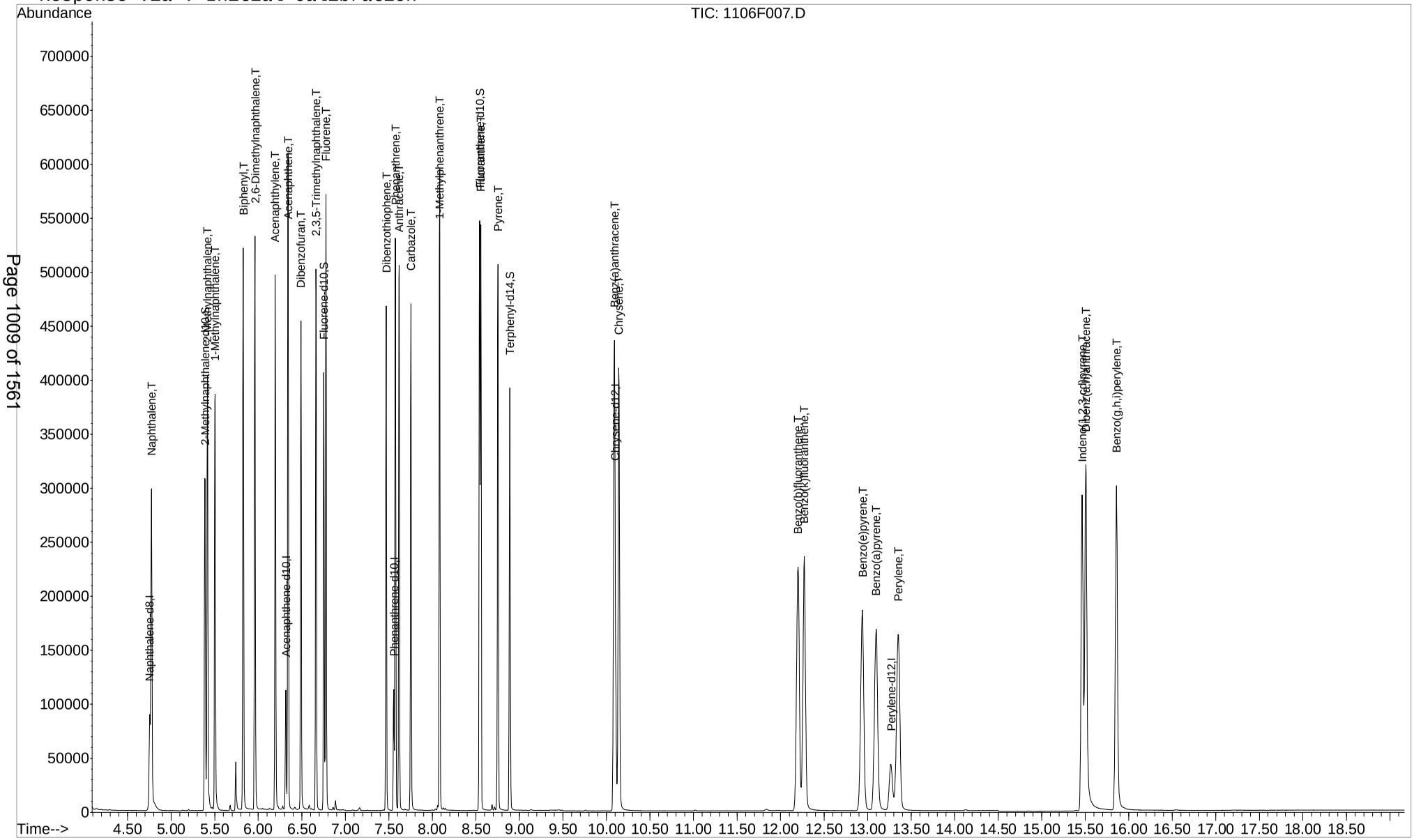
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F007.D Vial: 7
Acq On : 6 Nov 2018 7:59 am Operator: LWeiskopf
Sample : KWG1805647-3 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 9:56 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F007.D Vial: 7
Acq On : 6 Nov 2018 7:59 am Operator: LWeiskopf
Sample : KWG1805647-3 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 09:56:45 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	65546	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.32	164	28835	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.56	188	60321	200.00	ng/ml	0.00
23) Chrysene-d12	10.11	240	67170	200.00	ng/ml	0.00
28) Perylene-d12	13.27	264	75180	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.39	152	102731	561.51	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	56.15%		
13) Fluorene-d10	6.75	176	127696	692.60	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	69.26%		
22) Fluoranthene-d10	8.54	212	273042	718.21	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	71.82%		
25) Terphenyl-d14	8.89	244	233737	802.27	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	80.23%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	232182	613.67	ng/ml	100
4) 2-Methylnaphthalene	5.42	142	139809	612.76	ng/ml	92
5) 1-Methylnaphthalene	5.50	142	132871	605.01	ng/ml	94
6) Biphenyl	5.83	154	180234	632.91	ng/ml	100
7) 2,6-Dimethylnaphthalene	5.96	156	127895	652.93	ng/ml	94
9) Acenaphthylene	6.19	152	237110	689.16	ng/ml	99
10) Acenaphthene	6.34	154	132622	671.03	ng/ml	98
11) Dibenzofuran	6.49	168	211080	665.57	ng/ml	74
12) 2,3,5-Trimethylnaphthalene	6.67	170	128681	703.91	ng/ml	98
14) Fluorene	6.78	166	162601	680.25	ng/ml	99
16) Dibenzothiophene	7.47	184	252188	670.29	ng/ml	93
17) Phenanthrene	7.58	178	253308	673.16	ng/ml	99
18) Anthracene	7.62	178	260428	724.97	ng/ml	99
19) Carbazole	7.75	167	247340	705.54	ng/ml	96
20) 1-Methylphenanthrene	8.08	192	204937	719.02	ng/ml	99
21) Fluoranthene	8.56	202	310659	668.59	ng/ml	95
24) Pyrene	8.75	202	335116	727.17	ng/ml	97
26) Benz(a)anthracene	10.09	228	351312	808.96	ng/ml	99
27) Chrysene	10.14	228	321304	772.40	ng/ml	99
29) Benzo(b)fluoranthene	12.20	252	392641	845.34	ng/ml	98
30) Benzo(k)fluoranthene	12.27	252	364742	791.58	ng/ml	98
31) Benzo(e)pyrene	12.94	252	352231	795.58	ng/ml	98
32) Benzo(a)pyrene	13.10	252	336855	826.98	ng/ml	98
33) Perylene	13.35	252	331721	776.32	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.46	276	343773	860.67	ng/ml	96
35) Dibenz(a,h)anthracene	15.51	278	324853	802.31	ng/ml	97
36) Benzo(g,h,i)perylene	15.86	276	370131	791.30	ng/ml	96

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

1st 11/19/18
2nd 12/05/18

Exception Report

Data File: J:\MS14\DATA\110718\1107F004.D
Lab ID: KWG1805648-3
RunType: LCS
Matrix: SEDIMENT

Date Acquired: 11/07/2018 06:26
Date Quantitated: 11/16/2018 12:56
Batch ID: KWG1806028
Analysis Method: 8270D SIM
MethodJoinID: MJ1233

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
Surrogates	2-Methylnaphthalene-d10	55	70	130	NT

Primary Review: _____

Secondary Review: _____

1st 11/19/18
2nd 12/05/18

Quantitation Report

Data File:	J:\MS14\DATA\110718\1107F004.D			**Instrument:**	MS14
Acqu Date:	11/07/2018 06:26	**Quant Date:**	11/16/2018 12:56	**Vial:**	4
Run Type:	LCS	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1805648-3			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	SEDIMENT
Prod Code:	8270D PAH SIM U	**Collect Date:**		**Receive Date:**	11/05/2018

Analysis Lot:	KWG1806028	**Prep Lot:**	KWG1805648	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1701182	**Prep Date:**	11/01/2018		

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:			
Tune Ref:	J:\MS14\DATA\110718\1107F001.D	**Method ID:**	MJ1233
MB Ref:	J:\MS14\DATA\110718\1107F003.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	4.77	0.01	136	67640	200.00	OK
2	Acenaphthene-d10	6.32	0.00	164	28738	200.00	OK
3	Phenanthrene-d10	7.56	0.00	188	58606	200.00	OK
4	Chrysene-d12	10.11	0.00	240	62189	200.00	OK
5	Perylene-d12	13.28	0.00	264	68354	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	2-Methylnaphthalene-d10	5.39	0.00	0.00	152	104154	551.66	55	70-130	*	
2	Fluorene-d10	6.75	-0.01	0.00	176	122730	667.91	67	26-102	OK	
3	Fluoranthene-d10	8.54	0.00	0.00	212	247463	669.97	67	23-110	OK	
4	Terphenyl-d14	8.89	0.00	0.00	244	213852	792.81	79	27-115	OK	

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.78		0.00	128	240351	615.60	61.6		
1	2-Methylnaphthalene	5.42		0.00	142	143060	607.59	60.8		
1	1-Methylnaphthalene	5.51		0.00	142	135281	596.91	59.7		
1	Biphenyl	5.83		0.00	154	180409	613.91	61.4		
1	2,6-Dimethylnaphthalene	5.96	-0.01	0.00	156	127895	632.71	63.3		
2	Acenaphthylene	6.20		0.00	152	234990	685.30	68.5		
2	Acenaphthene	6.34	-0.01	0.00	154	130914	664.63	66.5		
2	Dibenzofuran	6.49	-0.01	0.00	168	208951	661.08	66.1		
2	2,3,5-Trimethylnaphthalene	6.67		0.00	170	125527	688.97	68.9		
2	Fluorene	6.78		0.00	166	158680	666.08	66.6		
3	Dibenzothiophene	7.47		0.00	184	222057	607.48	60.7		
3	Phenanthrene	7.58		0.00	178	241463	660.46	66.0		

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

1st 11/19/18
2nd 12/05/18

Data File:	J:\MS14\DATA\110718\1107F004.D			**Instrument:**	MS14
Acqu Date:	11/07/2018 06:26	**Quant Date:**	11/16/2018 12:56	**Vial:**	4
Run Type:	LCS	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1805648-3			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Anthracene	7.62		0.00	178	247486	709.10	70.9		
3	Carbazole	7.75		0.00	167	235847	692.44	69.2		
3	1-Methylphenanthrene	8.08		0.00	192	191873	692.89	69.3		
3	Fluoranthene	8.56		0.00	202	288075	638.13	63.8		
4	Pyrene	8.75		0.00	202	309305	724.92	72.5		
4	Benz(a)anthracene	10.09	-0.01	0.00	228	316963	788.32	78.8		
4	Chrysene	10.15		0.00	228	290075	753.18	75.3		
5	Benzo(b)fluoranthene	12.21		0.00	252	344485	815.72	81.6		
5	Benzo(k)fluoranthene	12.28		0.00	252	322883	770.72	77.1		
5	Benzo(e)pyrene	12.95	-0.01	0.00	252	313906	779.82	78.0		
5	Benzo(a)pyrene	13.11		0.00	252	299576	808.90	80.9		
5	Perylene	13.36	-0.01	0.00	252	295993	761.88	76.2		
5	Indeno(1,2,3-cd)pyrene	15.47	-0.01	0.00	276	315727	869.39	86.9		
5	Dibenz(a,h)anthracene	15.52		0.00	278	313544	851.71	85.2		
5	Benzo(g,h,i)perylene	15.87		0.00	276	340063	799.62	80.0		

Prep Amount:	20.000 g	**Dilution:**	1.0
Prep Final Vol:	2 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

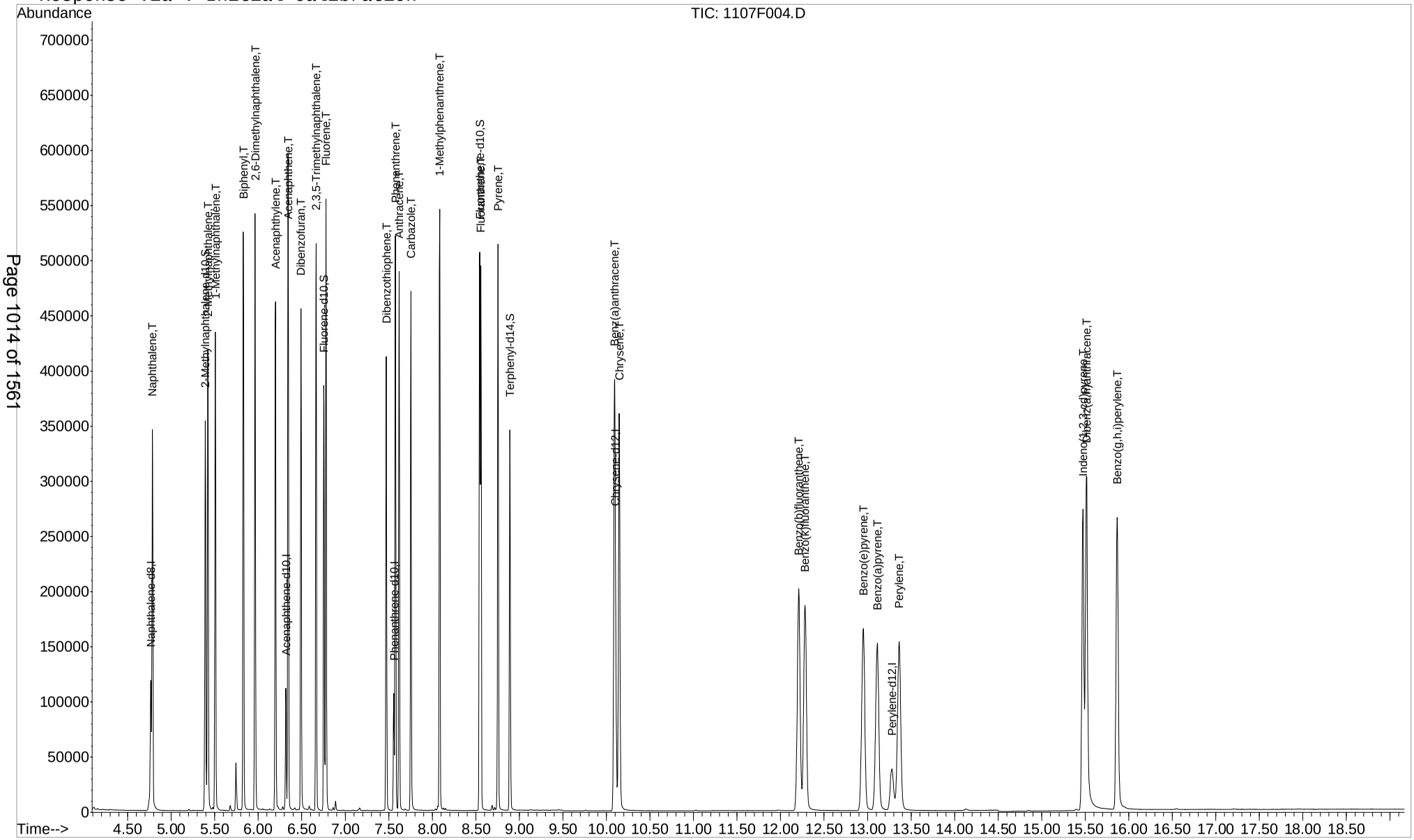
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F004.D Vial: 4
Acq On : 7 Nov 2018 6:26 am Operator: LWeiskopf
Sample : KWG1805648-3 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 12:56 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F004.D Vial: 4
Acq On : 7 Nov 2018 6:26 am Operator: LWeiskopf
Sample : KWG1805648-3 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 12:56:03 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.77	136	67640	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.32	164	28738	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.56	188	58606	200.00	ng/ml	0.00
23) Chrysene-d12	10.11	240	62189	200.00	ng/ml	0.00
28) Perylene-d12	13.28	264	68354	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.39	152	104154	551.66	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	55.17%		
13) Fluorene-d10	6.75	176	122730	667.91	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	66.79%		
22) Fluoranthene-d10	8.54	212	247463	669.97	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	67.00%		
25) Terphenyl-d14	8.89	244	213852	792.81	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	79.28%		
Target Compounds						Qvalue
2) Naphthalene	4.78	128	240351	615.60	ng/ml	100
4) 2-Methylnaphthalene	5.42	142	143060	607.59	ng/ml	96
5) 1-Methylnaphthalene	5.51	142	135281	596.91	ng/ml	95
6) Biphenyl	5.83	154	180409	613.91	ng/ml	98
7) 2,6-Dimethylnaphthalene	5.96	156	127895	632.71	ng/ml	87
9) Acenaphthylene	6.20	152	234990	685.30	ng/ml	99
10) Acenaphthene	6.34	154	130914	664.63	ng/ml	97
11) Dibenzofuran	6.49	168	208951	661.08	ng/ml	69
12) 2,3,5-Trimethylnaphthalene	6.67	170	125527	688.97	ng/ml	96
14) Fluorene	6.78	166	158680	666.08	ng/ml	98
16) Dibenzothiophene	7.47	184	222057	607.48	ng/ml	91
17) Phenanthrene	7.58	178	241463	660.46	ng/ml	99
18) Anthracene	7.62	178	247486	709.10	ng/ml	99
19) Carbazole	7.75	167	235847	692.44	ng/ml	97
20) 1-Methylphenanthrene	8.08	192	191873	692.89	ng/ml	98
21) Fluoranthene	8.56	202	288075	638.13	ng/ml	96
24) Pyrene	8.75	202	309305	724.92	ng/ml	99
26) Benz(a)anthracene	10.09	228	316963	788.32	ng/ml	99
27) Chrysene	10.15	228	290075	753.18	ng/ml	99
29) Benzo(b)fluoranthene	12.21	252	344485	815.72	ng/ml	98
30) Benzo(k)fluoranthene	12.28	252	322883	770.72	ng/ml	98
31) Benzo(e)pyrene	12.95	252	313906	779.82	ng/ml	97
32) Benzo(a)pyrene	13.11	252	299576	808.90	ng/ml	98
33) Perylene	13.36	252	295993	761.88	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.47	276	315727	869.39	ng/ml	96
35) Dibenz(a,h)anthracene	15.52	278	313544	851.71	ng/ml	96
36) Benzo(g,h,i)perylene	15.87	276	340063	799.62	ng/ml	95

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

1st 12/03/18
2nd 12/06/18

Exception Report

Data File: J:\MS14\DATA\111418\1114F004.D
Lab ID: KWG1805796-5
RunType: LCS
Matrix: SEDIMENT

Date Acquired: 11/14/2018 07:08
Date Quantitated: 11/30/2018 10:48
Batch ID: KWG1806235
Analysis Method: 8270D SIM
MethodJoinID: MJ1233

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
Surrogates	2-Methylnaphthalene-d10	66	70	130	NT

Primary Review: _____

Secondary Review: _____

1st 12/03/18
2nd 12/06/18

Quantitation Report

Data File:	J:\MS14\DATA\111418\1114F004.D			**Instrument:**	MS14
Acqu Date:	11/14/2018 07:08	**Quant Date:**	11/30/2018 10:48	**Vial:**	4
Run Type:	LCS	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1805796-5			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	SEDIMENT
Prod Code:	8270D PAH SIM U	**Collect Date:**		**Receive Date:**	11/12/2018

Analysis Lot:	KWG1806235	**Prep Lot:**	KWG1805796	**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**	EPA 3541		
Prep Ref:	1702232	**Prep Date:**	11/07/2018		

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:			
Tune Ref:	J:\MS14\DATA\111418\1114F001.D	**Method ID:**	MJ1233
MB Ref:	J:\MS14\DATA\111418\1114F003.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	4.75	0.00	136	60453	200.00	OK
2	Acenaphthene-d10	6.31	0.00	164	29887	200.00	OK
3	Phenanthrene-d10	7.55	0.00	188	65739	200.00	OK
4	Chrysene-d12	10.10	0.00	240	75453	200.00	OK
5	Perylene-d12	13.29	0.00	264	83033	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	2-Methylnaphthalene-d10	5.38	0.00	0.00	152	110830	656.81	66	70-130	*	
2	Fluorene-d10	6.75	0.00	0.00	176	149121	780.34	78	26-102	OK	
3	Fluoranthene-d10	8.53	0.00	0.00	212	329050	794.20	79	23-110	OK	
4	Terphenyl-d14	8.88	0.00	0.00	244	286181	874.45	87	27-115	OK	

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.77		0.00	128	222429	637.42	63.7		
1	2-Methylnaphthalene	5.41		0.00	142	141523	672.52	67.3		
1	1-Methylnaphthalene	5.49	-0.01	0.00	142	135420	668.56	66.9		
1	Biphenyl	5.82		0.00	154	184459	702.32	70.2		
1	2,6-Dimethylnaphthalene	5.95	-0.01	0.00	156	134472	744.34	74.4		
2	Acenaphthylene	6.19		0.00	152	244630	685.99	68.6		
2	Acenaphthene	6.33	-0.01	0.00	154	140110	683.97	68.4		
2	Dibenzofuran	6.48	-0.01	0.00	168	222985	678.36	67.8		
2	2,3,5-Trimethylnaphthalene	6.66		0.00	170	144184	760.95	76.1		
2	Fluorene	6.77		0.00	166	178420	720.15	72.0		
3	Dibenzothiophene	7.46	-0.01	0.00	184	284989	695.04	69.5		
3	Phenanthrene	7.57		0.00	178	282616	689.15	68.9		

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:\MS14\DATA\111418\1114F004.D			**Instrument:**	MS14
Acqu Date:	11/14/2018 07:08	**Quant Date:**	11/30/2018 10:48	**Vial:**	4
Run Type:	LCS	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1805796-5			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units: ug/Kg Wet Weight

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Anthracene	7.61		0.00	178	290483	741.99	74.2		
3	Carbazole	7.75		0.00	167	274075	717.37	71.7		
3	1-Methylphenanthrene	8.08		0.00	192	233036	750.22	75.0		
3	Fluoranthene	8.55		0.00	202	348909	689.02	68.9		
4	Pyrene	8.75		0.00	202	379726	733.52	73.4		
4	Benz(a)anthracene	10.09		0.00	228	400794	821.58	82.2		
4	Chrysene	10.14		0.00	228	369157	790.02	79.0		
5	Benzo(b)fluoranthene	12.21		0.00	252	432975	844.01	84.4		
5	Benzo(k)fluoranthene	12.28		0.00	252	412789	811.13	81.1		
5	Benzo(e)pyrene	12.96		0.00	252	404722	827.68	82.8		
5	Benzo(a)pyrene	13.12		0.00	252	383906	853.35	85.3		
5	Perylene	13.37		0.00	252	373075	790.53	79.1		
5	Indeno(1,2,3-cd)pyrene	15.49		0.00	276	378929**m**	858.96	85.9		
5	Dibenz(a,h)anthracene	15.52		0.00	278	367439	821.66	82.2		
5	Benzo(g,h,i)perylene	15.88		0.00	276	379088	733.80	73.4		

Prep Amount:	20.000 g	**Dilution:**	1.0
Prep Final Vol:	2 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

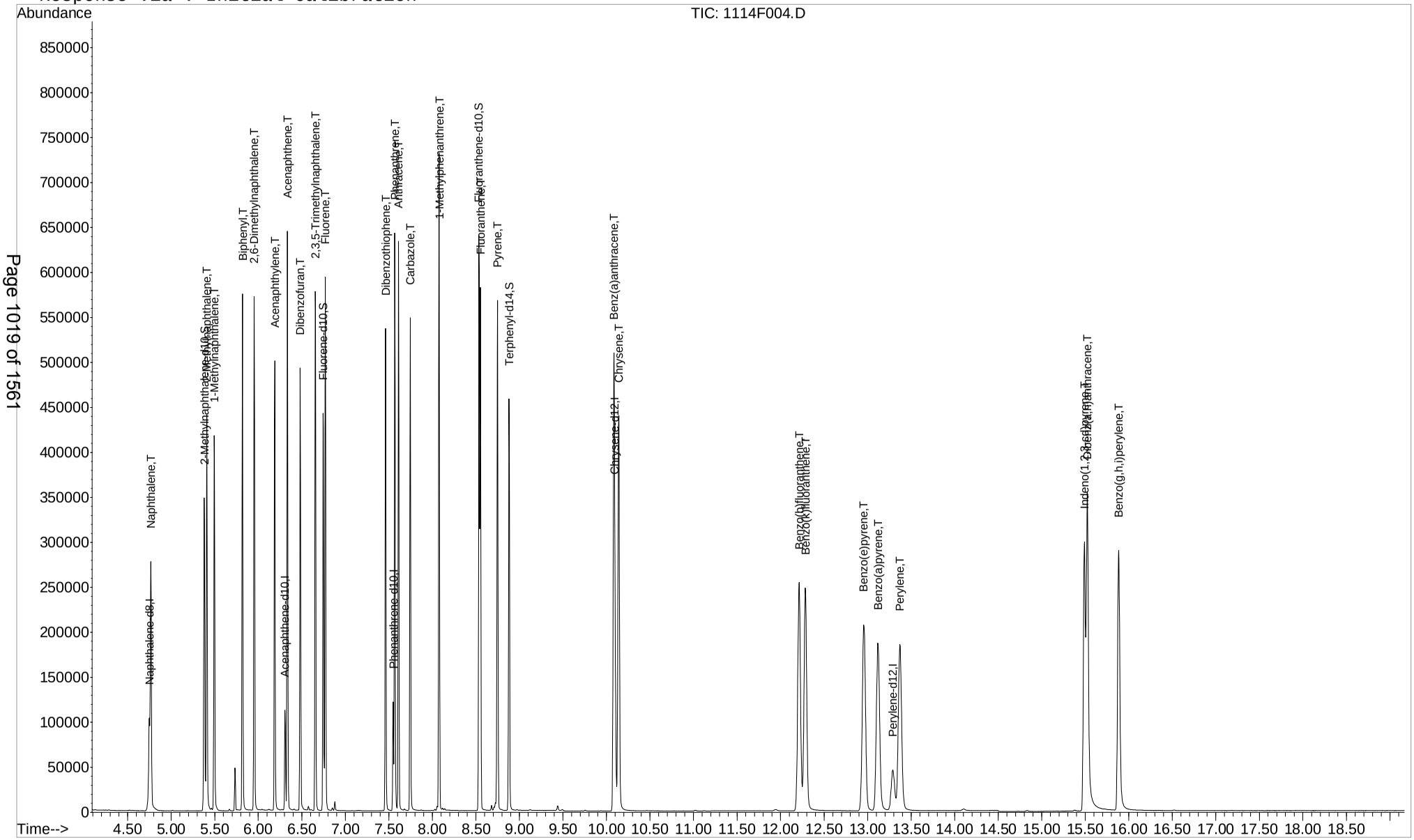
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 12/03/18
2nd 12/06/18

Data File : J:\MS14\DATA\111418\1114F004.D Vial: 4
Acq On : 14 Nov 2018 7:08 am Operator: LWeiskopf
Sample : KWG1805796-5 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 30 10:48 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Nov 29 12:52:23 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 12/03/18
2nd 12/06/18

Data File : J:\MS14\DATA\111418\1114F004.D Vial: 4
Acq On : 14 Nov 2018 7:08 am Operator: LWeiskopf
Sample : KWG1805796-5 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 05:05:31 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Nov 13 06:57:35 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	60453	200.00	ng/ml	-0.01
8) Acenaphthene-d10	6.31	164	29887	200.00	ng/ml	-0.01
15) Phenanthrene-d10	7.55	188	65739	200.00	ng/ml	-0.01
23) Chrysene-d12	10.10	240	75453	200.00	ng/ml	-0.01
28) Perylene-d12	13.29	264	83033	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.38	152	110830	656.81	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	65.68%		
13) Fluorene-d10	6.75	176	149121	780.34	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	78.03%		
22) Fluoranthene-d10	8.53	212	329050	794.20	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	79.42%		
25) Terphenyl-d14	8.88	244	286181	874.45	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	87.45%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	222429	637.42	ng/ml	100
4) 2-Methylnaphthalene	5.41	142	141523	672.52	ng/ml	93
5) 1-Methylnaphthalene	5.49	142	135420	668.56	ng/ml	89
6) Biphenyl	5.82	154	184459	702.32	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.95	156	134472	744.34	ng/ml	87
9) Acenaphthylene	6.19	152	244630	685.99	ng/ml	99
10) Acenaphthene	6.33	154	140110	683.97	ng/ml	97
11) Dibenzofuran	6.48	168	222985	678.36	ng/ml	61
12) 2,3,5-Trimethylnaphthalene	6.66	170	144184	760.95	ng/ml	97
14) Fluorene	6.77	166	178420	720.15	ng/ml	100
16) Dibenzothiophene	7.46	184	284989	695.04	ng/ml	87
17) Phenanthrene	7.57	178	282616	689.15	ng/ml	98
18) Anthracene	7.61	178	290483	741.99	ng/ml	99
19) Carbazole	7.75	167	274075	717.37	ng/ml	96
20) 1-Methylphenanthrene	8.08	192	233036	750.22	ng/ml	100
21) Fluoranthene	8.55	202	348909	689.02	ng/ml	92
24) Pyrene	8.75	202	379726	733.52	ng/ml	96
26) Benz(a)anthracene	10.09	228	400794	821.58	ng/ml	99
27) Chrysene	10.14	228	369157	790.02	ng/ml	99
29) Benzo(b)fluoranthene	12.21	252	432975	844.01	ng/ml	97
30) Benzo(k)fluoranthene	12.28	252	412789	811.13	ng/ml	97
31) Benzo(e)pyrene	12.96	252	404722	827.68	ng/ml	96
32) Benzo(a)pyrene	13.12	252	383906	853.35	ng/ml	97
33) Perylene	13.37	252	373075	790.53	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.49	276	378929m	858.96	ng/ml	
35) Dibenz(a,h)anthracene	15.52	278	367439	821.66	ng/ml	96
36) Benzo(g,h,i)perylene	15.88	276	379088	733.80	ng/ml	94

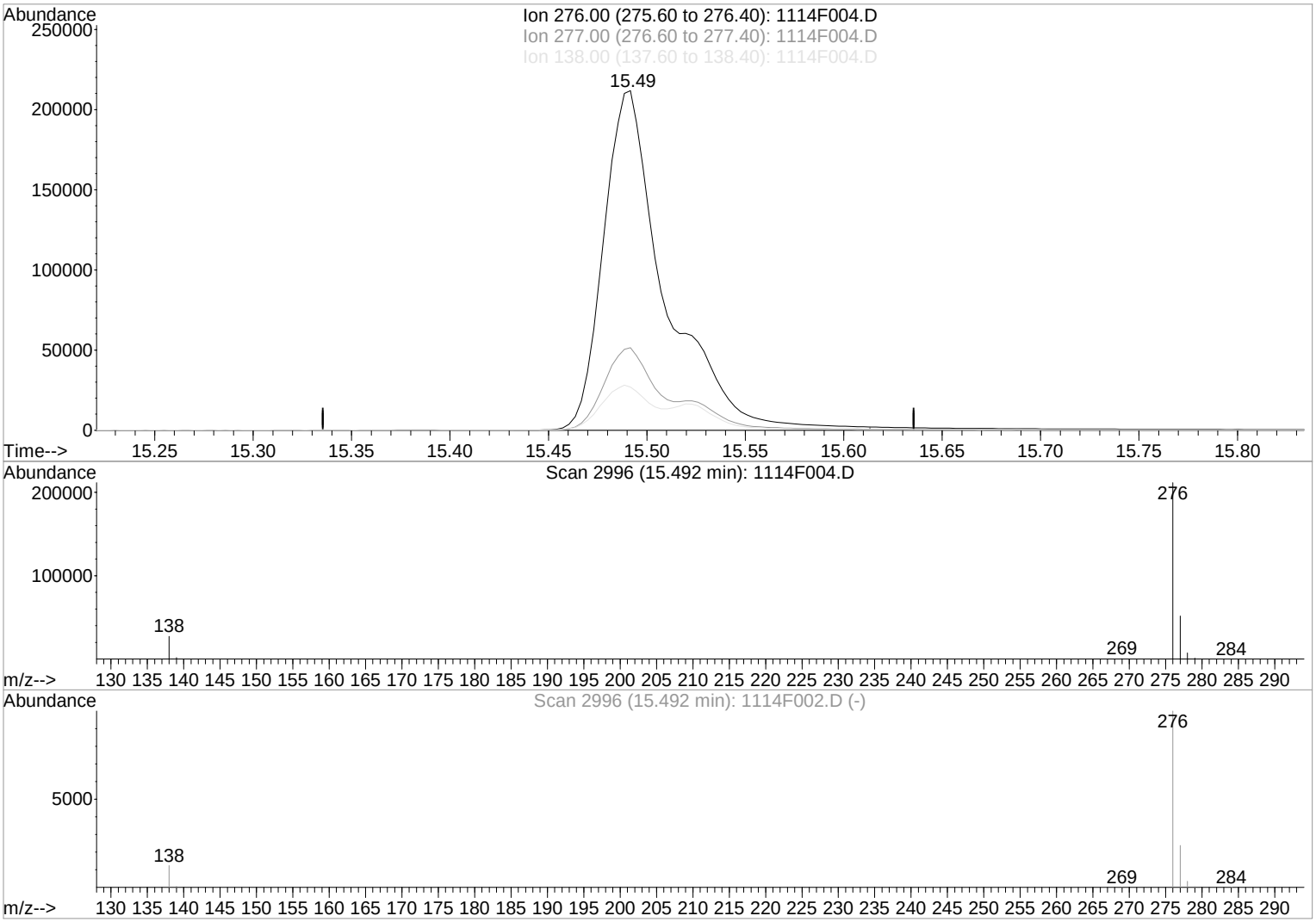
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 12/03/18
2nd 12/06/18

Data File : J:\MS14\DATA\111418\1114F004.D Vial: 4
Acq On : 14 Nov 2018 7:08 am Operator: LWeiskopf
Sample : KWG1805796-5 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 15 5:05 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 30 10:35:26 2018
Response via : Multiple Level Calibration



TIC: 1114F004.D

(34) Indeno(1,2,3-cd)pyrene (T)

15.49min 1047.47ng/ml

response 462088

Ion	Exp%	Act%
276.00	100	100
277.00	23.40	24.24
138.00	17.70	12.63
0.00	0.00	0.00

Manual Integration:

Before

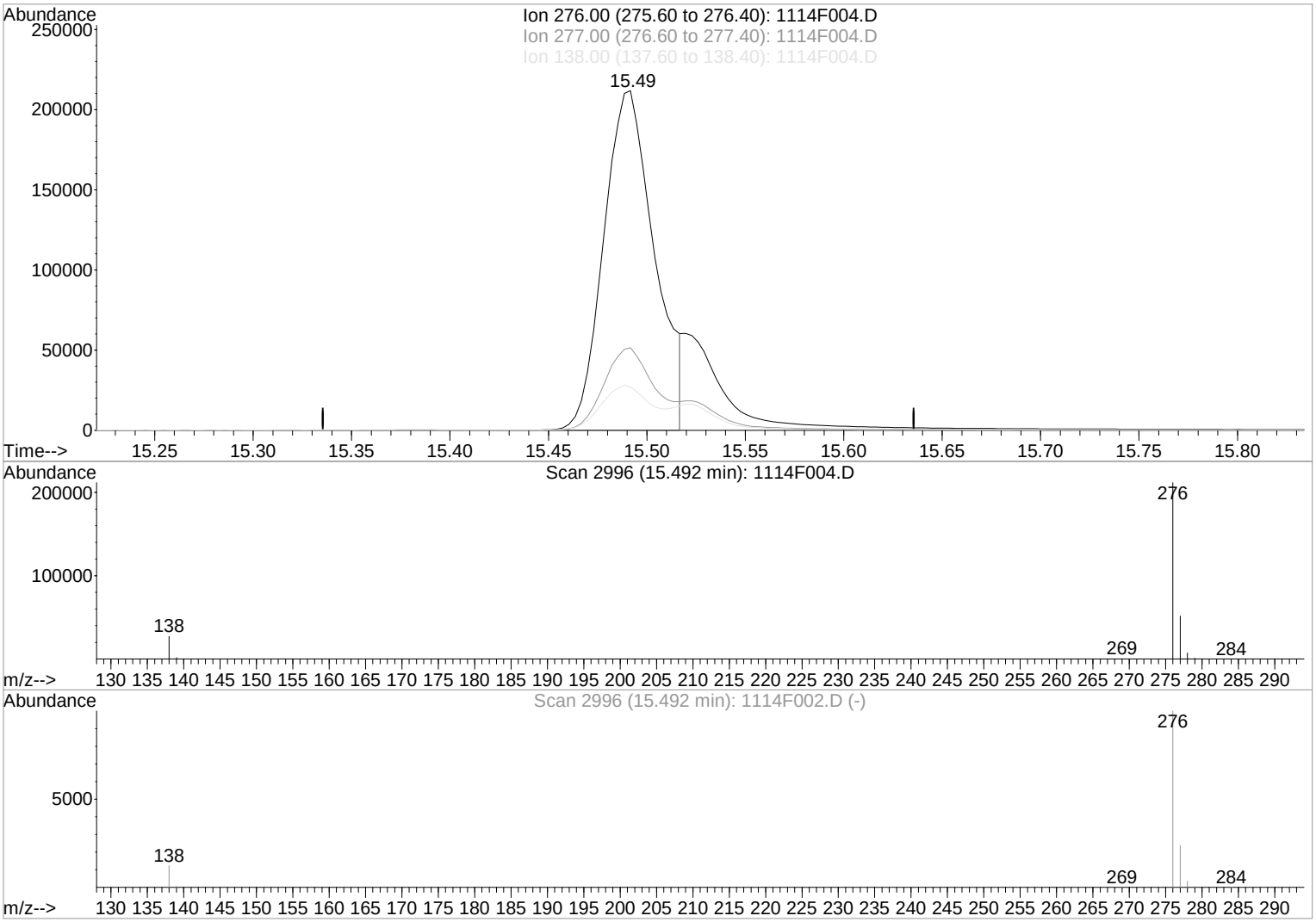
11/30/18

Quantitation Report (Qedit)

1st 12/03/18
2nd 12/06/18

Data File : J:\MS14\DATA\111418\1114F004.D Vial: 4
Acq On : 14 Nov 2018 7:08 am Operator: LWeiskopf
Sample : KWG1805796-5 LCS Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 30 10:48 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 30 10:35:26 2018
Response via : Multiple Level Calibration



TIC: 1114F004.D

(34) Indeno(1,2,3-cd)pyrene (T)

15.49min 858.96ng/ml m

response 378929

Ion	Exp%	Act%
276.00	100	100
277.00	23.40	24.29
138.00	17.70	12.73
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

11/30/18

1st 11/16/18
2nd 11/27/18

Exception Report

Data File: J:\MS14\DATA\110618\1106F001.D
Lab ID: KWG1806026-1
RunType: DFTPP
Matrix: WATER

Date Acquired: 11/06/2018 05:06
Date Quantitated:
Batch ID: KWG1806026
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: _____

Secondary Review: _____

1st 11/16/18
2nd 11/27/18

Quantitation Report

Data File:	J:\MS14\DATA\110618\1106F001.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 05:06	**Quant Date:**		**Vial:**	1
Run Type:	DFTPP	**ListJoinID:**	LJ1965	**Dilution:**	1.0
Lab ID:	KWG1806026-1			**Soln Conc. Units:**	

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	11/16/2018

Analysis Lot:	KWG1806026	**Prep Lot:**		**Report Group:**	
Analysis Method:	DFTPP	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS14\METHODS\SIM\A_DFTPP.M			**Calibration ID:**	CAL15779
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	41.1	96829	Pass
68	69	0	2	0.0	0	Pass
69	198	0	100	42.3	99561	Pass
70	69	0	2	0.8	792	Pass
127	198	10	80	48.1	113298	Pass
197	198	0	2	0.0	0	Pass
198	442	30	100	43.7	235477	Pass
199	198	5	9	6.7	15817	Pass
275	198	10	60	36.8	86610	Pass
365	442	1	50	2.7	14505	Pass
441	443	0.01	100	73.5	78210	Pass
442	442	100	100	100.0	539029	Pass
443	442	15	24	19.7	106368	Pass

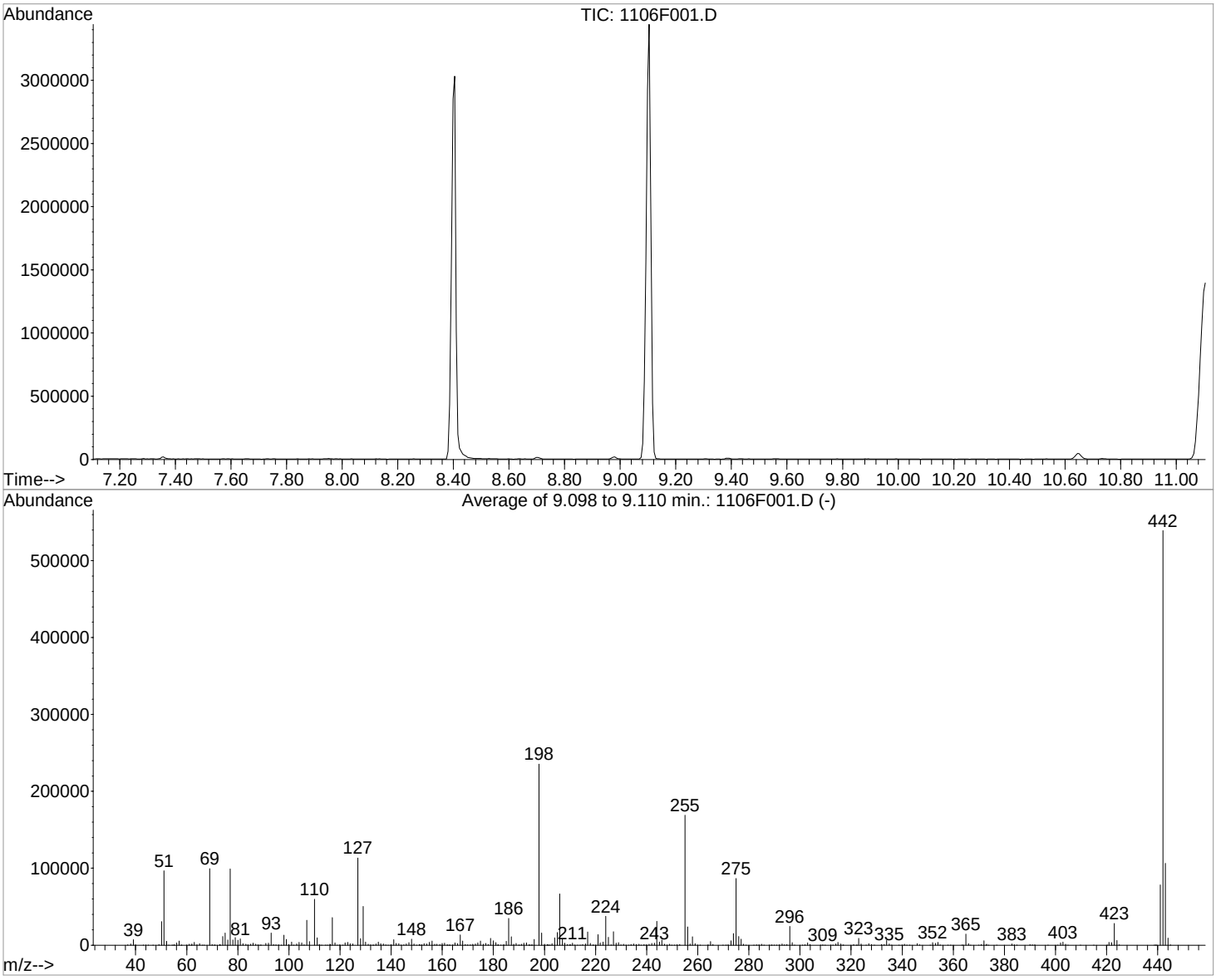
U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

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

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F001.D Vial: 1
Acq On : 6 Nov 2018 5:06 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM59-57A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix



AutoFind: Scans 512, 513, 514; Background Corrected with Scan 505

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	41.1	96829	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	42.3	99561	PASS
70	69	0.00	2	0.8	792	PASS
127	198	10	80	48.1	113298	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	43.7	235477	PASS
199	198	5	9	6.7	15817	PASS
275	198	10	60	36.8	86610	PASS
365	442	1	50	2.7	14505	PASS
441	443	0.01	100	73.5	78210	PASS
442	442	30	100	100.0	539029	PASS
443	442	15	24	19.7	106368	PASS

1st 11/16/18
2nd 11/27/18

Average of 9.098 to 9.110 min.: 1106F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.95	698	52.10	5208	61.80	173	72.95	982
38.10	1745	52.95	297	62.05	1483	73.20	275
39.10	7119	54.30	70	63.00	3685	74.10	11214
40.00	639	54.90	152	63.95	559	75.00	15698
43.05	202	55.15	426	65.05	1845	76.10	6789
44.00	148	56.05	2861	66.05	195	77.05	99283
44.90	163	57.00	5255	66.85	229	78.05	6934
46.80	62	57.90	161	69.00	99561	79.00	9998
49.10	711	58.10	115	69.95	792	80.00	6506
50.10	30777	60.05	176	70.90	63	81.00	8247
51.10	96829	61.00	1199	71.10	84	82.00	2100

Average of 9.098 to 9.110 min.: 1106F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
83.10	1395	92.00	2583	103.00	1700	114.40	86
83.90	144	93.00	15805	104.00	3663	115.05	251
84.05	228	93.95	941	105.00	3078	116.00	1125
85.00	1214	94.95	418	105.90	416	116.20	748
86.00	2712	96.00	672	107.00	32405	117.00	35656
87.00	1298	97.05	39	108.00	4832	118.00	2817
87.80	136	98.00	12902	110.00	59845	119.00	254
88.05	295	99.00	7339	111.00	9539	119.85	388
88.80	55	99.90	837	111.90	1051	121.05	156
89.05	343	101.00	3915	112.10	235	121.95	3058
91.00	2233	101.85	209	112.85	325	123.00	3622

Average of 9.098 to 9.110 min.: 1106F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
124.00	1868	135.00	3879	144.95	405	154.95	3524
124.95	1517	135.95	1781	145.95	1428	156.00	5297
127.00	113298	137.00	1606	147.00	3240	157.10	1114
128.00	8656	137.90	430	147.95	7690	157.90	1266
129.00	50520	138.85	285	148.95	1459	159.05	908
130.00	3994	139.80	111	150.00	361	160.00	2199
131.00	1069	140.05	666	151.05	801	160.95	2652
131.95	522	141.00	6946	151.40	146	161.90	610
132.95	208	141.95	2126	152.00	503	162.10	177
133.20	100	142.95	1769	152.90	2051	162.80	119
134.00	1757	143.85	357	153.95	1543	163.00	77

Average of 9.098 to 9.110 min.: 1106F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
164.10	386	175.00	5220	184.20	269	194.00	545
164.95	3114	176.05	1330	185.00	4899	194.20	141
166.00	2067	177.00	2303	186.00	34952	194.80	114
167.00	13441	178.00	944	187.00	10883	195.15	511
168.00	5296	178.95	8908	188.00	1274	195.95	7508
169.05	1040	180.00	5874	188.95	2401	197.90	235477
170.00	570	181.00	3148	189.90	185	198.90	15817
170.95	615	181.70	88	190.20	270	200.00	1238
171.90	1312	181.95	419	190.95	1085	201.10	799
173.00	1488	182.95	370	191.95	2542	201.40	341
173.95	2863	184.00	406	193.00	2821	201.80	229

Average of 9.098 to 9.110 min.: 1106F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
202.20	205	211.80	219	221.75	3072	232.95	249
202.95	2092	212.95	169	222.95	4090	233.90	937
204.00	9522	213.95	213	224.00	37458	234.95	1492
205.00	16535	214.95	979	225.00	10299	235.90	970
206.00	66600	216.05	1689	226.10	631	236.95	1270
207.00	7738	216.95	17071	227.00	17370	237.85	241
207.95	2766	217.95	2240	228.00	2489	239.00	776
208.95	867	218.95	178	228.95	3429	239.90	558
209.90	590	219.20	86	229.90	516	240.90	1086
210.10	599	220.10	293	231.00	1374	242.00	2204
211.00	2714	221.00	13680	231.90	300	243.05	2545

Average of 9.098 to 9.110 min.: 1106F001.D

1st 11/16/18
2nd 11/27/18

DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
244.00	30906	256.00	23594	271.00	289	283.95	618
245.00	4166	256.95	1451	271.90	490	285.00	1117
245.95	6928	257.95	11098	273.00	5664	285.95	285
246.95	1105	259.00	1920	273.95	15001	287.95	127
248.00	223	259.85	315	275.00	86610	288.80	120
249.00	1170	260.90	363	276.00	11345	289.05	141
249.80	218	263.85	288	276.95	7909	289.95	224
250.90	197	264.20	101	277.90	1144	290.90	106
251.90	441	264.95	4573	278.95	333	292.00	430
252.95	832	265.90	787	282.00	122	292.95	1625
255.00	169024	269.90	52	282.95	679	293.95	485

Average of 9.098 to 9.110 min.: 1106F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
294.90	726	312.00	52	323.95	1546	339.90	88
296.00	24416	312.90	214	325.90	51	340.90	1206
296.90	3411	314.00	1439	326.90	1900	341.85	348
297.90	165	314.90	3596	327.95	1007	343.00	63
301.05	296	316.00	1684	329.10	64	345.85	2012
301.95	612	316.80	52	331.90	722	346.85	471
303.00	2896	317.05	347	332.95	953	350.95	220
303.95	894	320.95	1021	333.95	6197	351.95	3289
308.05	154	322.00	267	334.95	1480	353.00	2267
308.95	404	322.30	173	335.85	197	354.00	3493
309.85	363	323.00	8985	338.75	155	354.85	577

Average of 9.098 to 9.110 min.: 1106F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
357.90	53	373.00	1178	402.00	2787	424.95	598
359.00	58	373.80	95	402.90	3870	438.70	54
363.40	51	376.95	209	404.00	1329	439.10	78
363.90	85	382.90	1747	404.85	207	439.40	108
364.95	14505	383.90	388	409.80	54	441.00	78210
365.95	2026	384.90	85	414.95	212	442.00	539029
366.80	168	390.00	895	420.30	88	443.00	106368
370.05	355	390.90	609	420.95	3504	444.00	9305
370.95	1020	391.90	439	421.95	3365	444.95	616
372.00	5875	397.10	105	423.00	28202		
372.80	297	400.95	264	424.00	6024		

1st 11/19/18
2nd 12/05/18

Exception Report

Data File: J:\MS14\DATA\110718\1107F001.D
Lab ID: KWG1806028-1
RunType: DFTPP
Matrix: WATER

Date Acquired: 11/07/2018 04:55
Date Quantitated:
Batch ID: KWG1806028
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: _____

Secondary Review: _____

1st 11/19/18
2nd 12/05/18

Quantitation Report

Data File:	J:\MS14\DATA\110718\1107F001.D			**Instrument:**	MS14
Acqu Date:	11/07/2018 04:55	**Quant Date:**		**Vial:**	1
Run Type:	DFTPP	**ListJoinID:**	LJ1965	**Dilution:**	1.0
Lab ID:	KWG1806028-1			**Soln Conc. Units:**	

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	11/16/2018

Analysis Lot:	KWG1806028	**Prep Lot:**		**Report Group:**	
Analysis Method:	DFTPP	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS14\METHODS\SIM\A_DFTPP.M	**Calibration ID:**	CAL15779
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	40.7	98834	Pass
68	69	0	2	0.0	0	Pass
69	198	0	100	42.4	103141	Pass
70	69	0	2	0.8	832	Pass
127	198	10	80	47.9	116466	Pass
197	198	0	2	0.0	0	Pass
198	442	30	100	44.4	243029	Pass
199	198	5	9	7.1	17181	Pass
275	198	10	60	37.9	92040	Pass
365	442	1	50	2.8	15565	Pass
441	443	0.01	100	75.3	79482	Pass
442	442	100	100	100.0	547541	Pass
443	442	15	24	19.3	105498	Pass

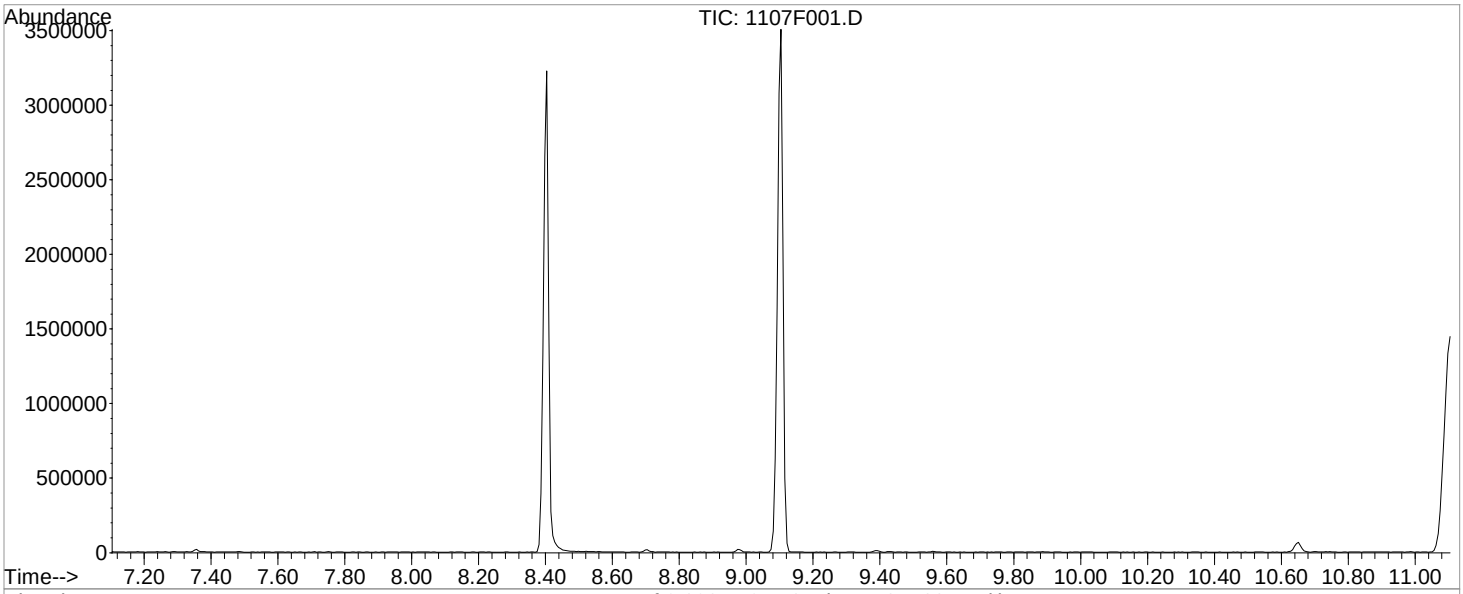
U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

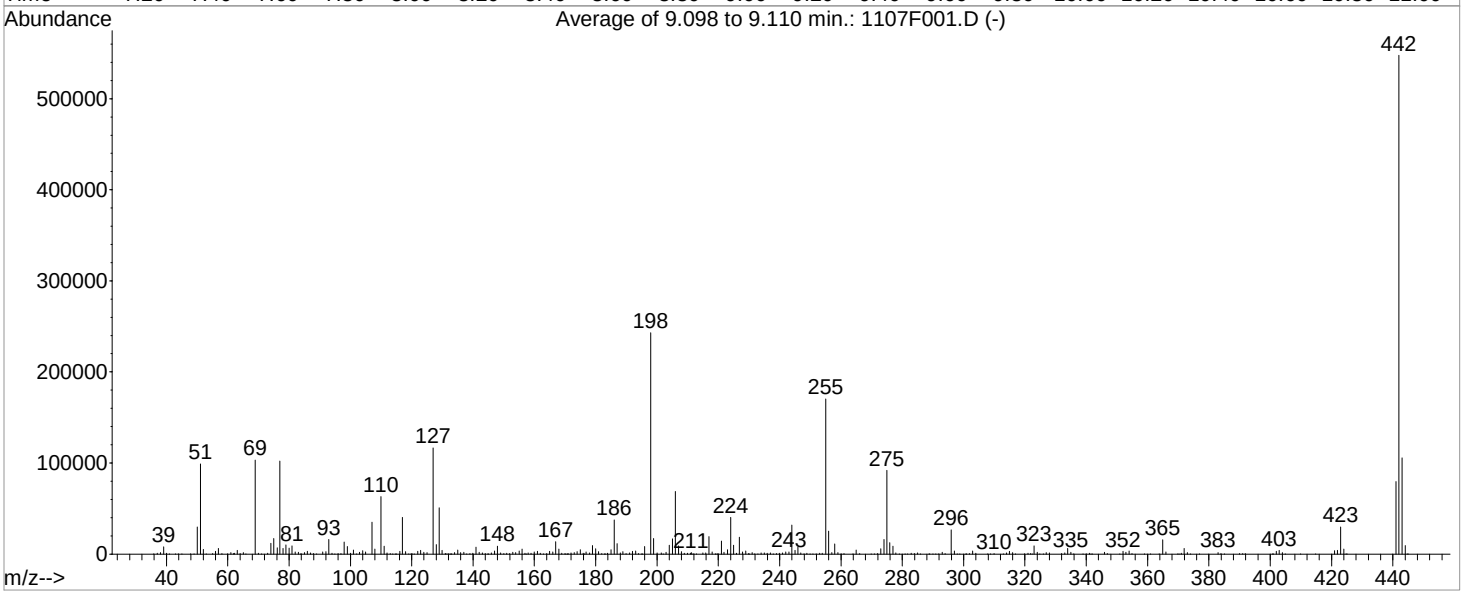
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: 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

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F001.D Vial: 1
Acq On : 7 Nov 2018 4:55 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM59-57A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix





AutoFind: Scans 512, 513, 514; Background Corrected with Scan 505

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	40.7	98834	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	42.4	103141	PASS
70	69	0.00	2	0.8	832	PASS
127	198	10	80	47.9	116466	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	44.4	243029	PASS
199	198	5	9	7.1	17181	PASS
275	198	10	60	37.9	92040	PASS
365	442	1	50	2.8	15565	PASS
441	443	0.01	100	75.3	79482	PASS
442	442	30	100	100.0	547541	PASS
443	442	15	24	19.3	105498	PASS

1st 11/19/18
2nd 12/05/18

Average of 9.098 to 9.110 min.: 1107F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	61	50.05	29609	62.15	902	76.15	6939
37.00	791	51.10	98834	63.10	4121	77.00	102022
38.10	1670	52.05	5205	64.00	463	78.05	6042
39.10	8016	52.95	228	65.10	1666	79.00	10150
40.00	772	55.05	567	65.90	221	80.00	6610
41.00	278	56.05	3109	69.00	103141	81.00	8812
43.00	189	57.00	6106	70.00	832	81.95	2161
43.90	111	58.05	405	71.05	205	83.05	2018
45.00	304	60.00	50	73.00	1044	83.80	90
47.90	124	61.00	1493	74.05	11715	84.05	221
49.00	375	61.90	582	75.00	17026	85.00	1508

Average of 9.098 to 9.110 min.: 1107F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.95	2904	98.00	13099	111.00	8778	120.05	423
87.00	1179	99.00	8311	111.95	1115	120.80	87
87.90	441	100.00	742	112.95	524	121.95	2979
89.00	210	101.00	4367	113.80	51	122.95	4041
90.95	2250	102.00	360	114.70	99	123.95	1863
92.00	2751	103.00	1964	115.10	113	125.00	1733
93.00	16034	104.00	3561	116.15	2986	127.00	116466
94.00	1024	105.00	2451	117.00	40378	128.00	10311
94.90	370	107.00	34962	118.00	2565	129.00	50858
95.95	503	108.00	5397	119.00	361	129.90	4201
96.90	482	110.00	63114	119.80	100	130.90	500

Average of 9.098 to 9.110 min.: 1107F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
131.10	445	139.95	794	150.00	596	159.95	2202
131.90	386	141.00	7616	151.00	978	160.95	3021
132.50	73	142.00	2107	151.95	610	161.95	970
132.80	165	143.00	1358	153.00	2101	163.00	339
133.00	96	144.00	435	153.95	1629	164.00	564
134.00	1553	144.80	169	155.00	3275	165.00	2855
135.00	4274	145.00	247	156.00	5579	166.00	2311
136.00	1637	146.00	1396	156.95	853	167.00	13500
137.00	1976	147.00	3510	157.30	276	168.00	5588
137.95	364	148.00	8706	157.95	1405	168.95	1007
139.00	583	149.00	1393	158.95	950	170.00	491

Average of 9.098 to 9.110 min.: 1107F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
170.30	173	178.95	9220	188.90	2551	200.00	1370
170.80	208	180.00	5832	189.90	563	201.35	1192
171.05	443	180.95	2618	191.10	1236	202.00	176
171.95	1282	182.00	492	191.95	2878	202.95	1828
172.95	1650	182.90	89	193.00	3440	204.00	9809
173.95	2680	183.15	210	193.95	706	205.00	16803
175.00	4865	183.90	748	195.00	261	206.00	68626
175.95	962	185.00	4923	195.20	92	207.00	9009
176.30	369	186.00	37573	196.00	8365	207.95	2739
176.90	2366	187.00	11375	197.90	243029	208.90	912
178.00	1176	188.05	1205	198.90	17181	209.95	894

Average of 9.098 to 9.110 min.: 1107F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
210.90	904	219.80	122	229.90	386	239.95	769
211.15	1634	220.00	201	230.10	140	240.90	1150
211.70	164	221.00	14284	231.00	1514	241.95	2377
212.00	123	221.85	1869	231.90	254	243.05	2389
212.90	145	223.00	4640	232.95	300	244.00	31882
214.95	1173	224.00	40168	233.95	1273	245.00	4232
215.90	1210	225.00	9584	234.95	1170	245.95	7554
216.90	19137	225.95	866	235.90	1018	246.85	1255
217.95	2281	226.90	18371	237.00	1276	247.95	251
219.00	120	227.95	2458	237.95	193	248.90	1035
219.20	97	228.95	3434	238.95	646	249.90	229

Average of 9.098 to 9.110 min.: 1107F001.D

1st 11/19/18
2nd 12/05/18

DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
250.90	286	263.90	154	277.90	1250	290.90	154
251.90	347	264.95	4533	279.05	132	291.90	272
253.05	889	266.05	681	280.90	62	293.00	1850
253.90	958	269.85	163	281.80	120	293.95	472
255.00	170136	270.85	322	282.95	911	295.95	26674
256.00	24992	271.95	655	283.90	549	296.95	3535
257.00	1604	273.00	5675	284.95	1290	297.90	169
258.00	10921	274.00	15871	285.90	77	298.80	57
258.95	1500	275.00	92040	288.70	54	300.70	59
260.00	319	275.95	12496	289.00	123	301.00	151
260.95	452	276.95	8617	289.95	319	301.85	542

Average of 9.098 to 9.110 min.: 1107F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
302.95	3214	321.00	928	333.95	6075	351.95	3093
304.00	1017	321.85	666	335.00	1900	352.95	2132
307.85	313	322.30	136	335.90	128	354.00	3428
308.80	266	323.00	9109	338.90	60	354.95	648
309.95	486	324.00	1908	339.95	191	358.95	211
313.00	304	324.85	292	341.00	899	361.00	59
313.95	1357	326.05	231	341.60	79	363.80	138
314.90	3169	326.90	1717	342.00	233	364.90	15565
315.95	1634	327.95	1111	345.95	2093	366.00	2260
316.90	259	331.90	652	346.90	406	369.85	261
319.85	144	333.00	1157	350.90	266	370.20	82

Average of 9.098 to 9.110 min.: 1107F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
370.95	931	400.75	209	424.00	5386		
371.95	6272	401.00	232	424.75	309		
372.95	1623	401.95	2941	425.00	222		
374.05	235	402.95	4165	441.00	79482		
376.90	145	403.95	1537	442.00	547541		
382.95	1771	404.85	207	443.00	105498		
383.90	649	409.90	110	444.00	9272		
385.05	153	414.80	203	444.70	69		
389.95	714	421.00	3559	445.00	355		
391.00	621	421.95	3955				
391.85	485	423.00	29885				

1st 11/30/18
2nd 12/06/18

Exception Report

Data File: J:\MS14\DATA\111318\1113F001.D
Lab ID: KWG1806206-1
RunType: DFTPP
Matrix: WATER

Date Acquired: 11/13/2018 04:58
Date Quantitated:
Batch ID: KWG1806206
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: _____

Secondary Review: _____

1st 11/30/18
2nd 12/06/18

Quantitation Report

Data File:	J:\MS14\DATA\111318\1113F001.D			**Instrument:**	MS14
Acqu Date:	11/13/2018 04:58	**Quant Date:**		**Vial:**	1
Run Type:	DFTPP	**ListJoinID:**	LJ1965	**Dilution:**	1.0
Lab ID:	KWG1806206-1			**Soln Conc. Units:**	

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	11/29/2018

Analysis Lot:	KWG1806206	**Prep Lot:**		**Report Group:**	
Analysis Method:	DFTPP	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS14\METHODS\SIM\A_DFTPP.M			**Calibration ID:**	CAL15779
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	42.8	164981	Pass
68	69	0	2	0.0	0	Pass
69	198	0	100	42.5	163966	Pass
70	69	0	2	0.7	1087	Pass
127	198	10	80	50.1	193189	Pass
197	198	0	2	0.0	0	Pass
198	442	30	100	47.0	385685	Pass
199	198	5	9	6.6	25589	Pass
275	198	10	60	36.8	142002	Pass
365	442	1	50	3.1	25504	Pass
441	443	0.01	100	77.0	119946	Pass
442	442	100	100	100.0	821312	Pass
443	442	15	24	19.0	155837	Pass

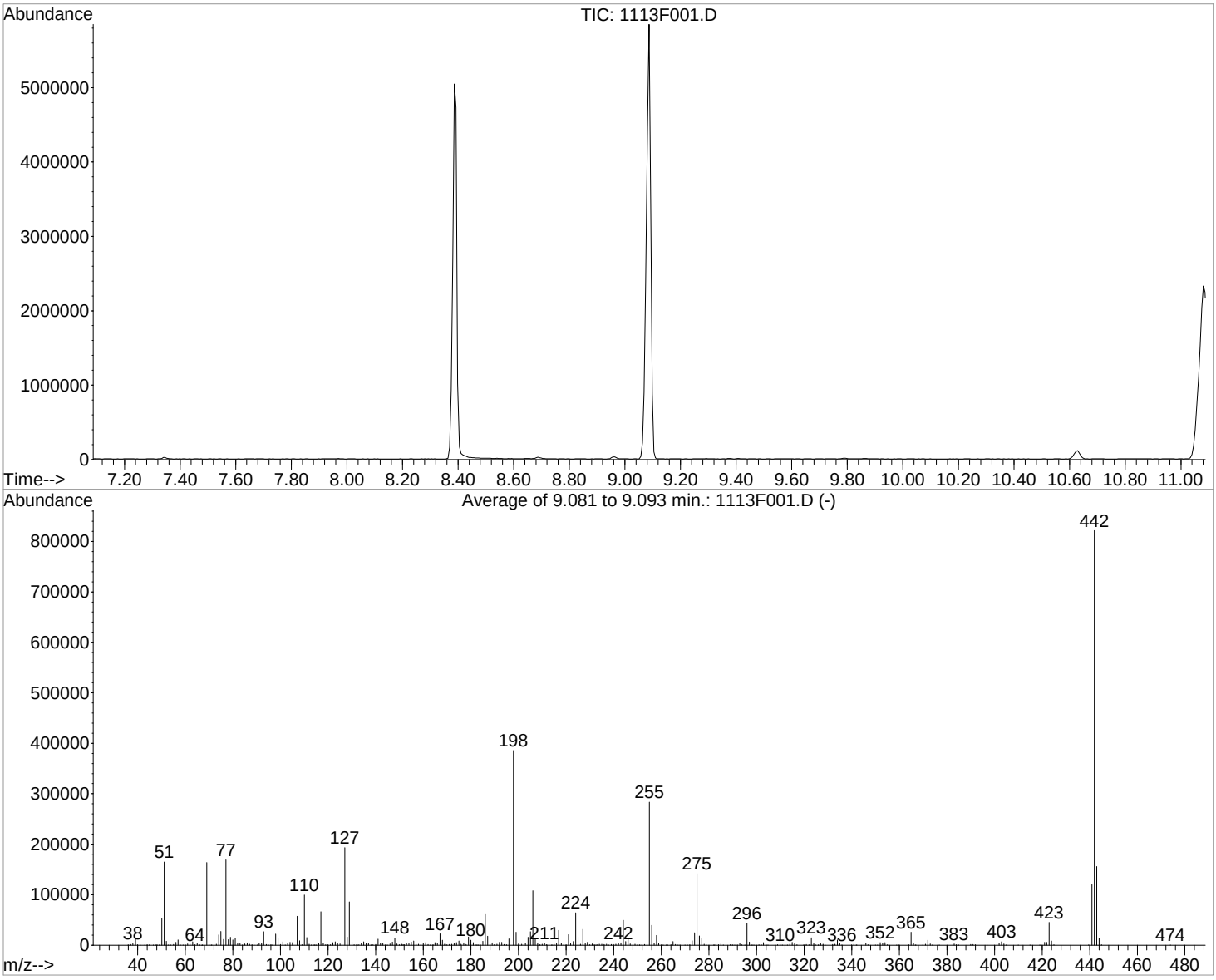
U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

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

1st 11/30/18
2nd 12/06/18

Data File : J:\MS14\DATA\111318\1113F001.D Vial: 1
Acq On : 13 Nov 2018 4:58 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM59-57A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix



AutoFind: Scans 509, 510, 511; Background Corrected with Scan 502

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	42.8	164981	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	42.5	163966	PASS
70	69	0.00	2	0.7	1087	PASS
127	198	10	80	50.1	193189	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	47.0	385685	PASS
199	198	5	9	6.6	25589	PASS
275	198	10	60	36.8	142002	PASS
365	442	1	50	3.1	25504	PASS
441	443	0.01	100	77.0	119946	PASS
442	442	30	100	100.0	821312	PASS
443	442	15	24	19.0	155837	PASS

1st 11/30/18
2nd 12/06/18

Average of 9.081 to 9.093 min.: 1113F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	124	45.05	231	55.10	1340	65.85	188
36.20	76	46.60	52	56.05	5405	66.10	187
37.05	1114	47.60	72	57.00	10277	66.90	15
38.00	3042	47.90	174	58.00	507	67.20	347
39.10	12243	48.20	155	59.05	134	69.00	163966
40.00	707	49.00	405	60.05	165	70.00	1087
41.05	217	50.10	52320	61.00	2311	70.95	186
43.00	170	51.10	164981	62.00	2236	71.20	111
43.90	69	52.05	7881	63.05	6834	73.10	1963
44.15	175	52.95	338	64.00	989	74.05	20370
44.90	139	53.90	81	65.05	3150	75.00	27240

Average of 9.081 to 9.093 min.: 1113F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
76.10	11113	87.00	1712	98.00	21776	110.00	99517
77.05	168927	88.00	644	99.00	13378	111.00	15292
78.10	10570	88.95	225	100.00	1495	112.05	1816
79.00	15728	90.20	164	101.00	6705	112.90	509
80.00	10505	91.00	3221	101.95	377	113.80	83
81.00	13400	92.05	3921	103.00	3104	114.30	181
82.00	3189	92.95	26852	104.00	5329	114.50	68
83.00	3024	94.00	1524	105.00	4969	115.05	376
83.95	99	95.00	353	107.00	57026	116.05	2671
85.00	2429	96.00	878	108.00	8880	117.00	65984
86.00	4721	96.40	139	109.00	573	117.95	3906

Average of 9.081 to 9.093 min.: 1113F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
118.95	588	130.95	1033	139.95	1220	151.00	1617
120.00	926	131.95	895	141.00	11933	151.20	237
121.00	567	132.40	76	141.95	3990	151.65	887
122.00	5031	133.00	609	143.00	2698	152.10	763
123.00	6390	133.95	2964	144.00	527	152.95	3916
124.00	2858	135.00	6494	144.90	409	154.00	2669
125.00	2628	135.95	2811	146.00	2487	155.00	6003
127.00	193189	136.95	2780	147.00	5975	156.00	8468
128.00	16122	137.95	440	148.00	14242	157.00	1636
128.95	85528	138.20	387	148.95	2533	157.95	2032
130.00	6865	138.90	657	149.95	591	159.00	1493

Average of 9.081 to 9.093 min.: 1113F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
160.00	4140	169.90	984	181.00	4859	189.85	891
161.00	4981	170.90	1226	181.95	891	190.95	1691
162.00	1512	171.95	2050	182.50	57	192.00	5329
162.95	429	173.00	3005	182.85	236	193.00	5644
163.95	311	174.00	4803	183.20	161	193.95	1122
164.20	223	175.00	8053	183.95	1499	194.95	597
164.95	4940	175.90	2128	185.00	7573	196.00	12438
165.95	3460	177.00	4709	186.00	62272	197.90	385685
167.00	22586	177.95	1487	187.00	17860	198.95	25589
168.00	9844	178.95	15934	188.00	1853	200.00	2421
168.95	1930	180.00	9904	188.95	4319	201.35	1977

Average of 9.081 to 9.093 min.: 1113F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
202.95	3471	212.00	383	221.00	20744	231.90	575
204.00	15653	212.85	364	221.90	2703	232.50	82
205.00	26565	213.90	95	223.00	7414	232.95	632
206.00	108082	214.30	87	224.00	64090	234.00	2047
207.00	14042	214.95	1613	225.00	16299	234.95	1970
208.00	4190	216.00	2773	226.00	1893	236.00	1432
208.90	442	216.90	29520	227.00	31309	236.95	2045
209.05	862	217.95	3709	228.00	4239	237.90	444
210.00	1685	218.95	405	228.95	5449	238.95	1511
211.00	4138	219.90	411	230.00	725	239.95	1140
211.70	561	220.20	285	231.00	2508	240.95	1624

Average of 9.081 to 9.093 min.: 1113F001.D

1st 11/30/18
2nd 12/06/18

DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
242.00	3668	250.95	423	262.70	74	274.00	24698
243.00	4600	251.90	547	264.05	586	275.00	142002
244.00	49117	252.95	1191	264.95	7161	276.00	18195
245.00	7256	255.00	283349	265.90	1263	277.00	12948
246.00	11533	256.00	39298	267.10	157	277.95	2089
246.95	2612	256.95	3219	267.85	195	278.90	723
248.00	614	258.00	19280	269.95	308	280.95	136
248.90	1848	258.95	2872	270.80	158	282.00	372
249.95	243	260.00	512	271.00	506	282.20	91
250.20	51	260.85	496	272.00	868	282.95	1439
250.80	203	262.00	58	273.00	8668	284.00	889

Average of 9.081 to 9.093 min.: 1113F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
285.00	2237	296.95	6165	308.90	598	322.00	734
286.05	389	297.85	355	310.00	636	323.00	14376
288.95	576	298.20	59	310.90	85	324.00	2904
289.90	193	298.90	50	313.00	448	324.95	336
290.10	156	301.00	563	314.00	1930	325.90	203
290.85	339	302.05	886	314.95	5490	326.10	144
291.95	435	302.95	5042	315.95	2909	326.95	3074
293.00	2945	303.90	862	317.05	573	327.95	1686
293.85	771	304.10	374	319.80	78	328.85	377
295.10	297	304.85	222	320.20	108	331.95	1202
295.95	43642	307.85	593	320.95	1346	332.95	1752

Average of 9.081 to 9.093 min.: 1113F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
334.00	10208	350.85	333	366.75	268	389.95	1440
334.95	3199	352.00	5215	367.00	100	390.95	1090
335.95	446	352.95	3633	369.90	541	391.95	784
338.90	205	354.00	5239	370.95	1795	396.90	61
339.95	233	355.00	1011	372.00	9874	401.00	532
340.95	1794	358.95	493	373.00	2372	401.95	4214
341.90	266	359.90	149	373.85	250	403.00	6557
342.10	90	363.90	254	376.80	159	403.95	2375
345.90	4049	364.10	205	383.00	2421	404.90	356
346.90	577	364.95	25504	383.95	956	409.95	225
350.00	245	365.95	3550	384.90	101	414.95	192

Average of 9.081 to 9.093 min.: 1113F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
419.00	56	444.00	13500				
421.00	5618	445.00	1010				
422.00	5669	473.90	67				
423.00	45133						
424.00	8135						
424.95	693						
439.50	72						
440.10	740						
441.00	119946						
442.00	821312						
443.00	155837						

1st 12/03/18
2nd 12/06/18

Exception Report

Data File: J:\MS14\DATA\111418\1114F001.D
Lab ID: KWG1806235-1
RunType: DFTPP
Matrix: WATER

Date Acquired: 11/14/2018 05:51
Date Quantitated:
Batch ID: KWG1806235
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: _____

Secondary Review: _____

1st 12/03/18
2nd 12/06/18

Quantitation Report

Data File:	J:\MS14\DATA\111418\1114F001.D			**Instrument:**	MS14
Acqu Date:	11/14/2018 05:51	**Quant Date:**		**Vial:**	1
Run Type:	DFTPP	**ListJoinID:**	LJ1965	**Dilution:**	1.0
Lab ID:	KWG1806235-1			**Soln Conc. Units:**	

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH ALK S	**Collect Date:**		**Receive Date:**	11/30/2018

Analysis Lot:	KWG1806235	**Prep Lot:**		**Report Group:**	
Analysis Method:	DFTPP	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS14\METHODS\SIM\A_DFTPP.M			**Calibration ID:**	CAL15779
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	46.5	157589	Pass
68	69	0	2	0.0	0	Pass
69	198	0	100	46.9	158868	Pass
70	69	0	2	0.7	1054	Pass
127	198	10	80	51.6	174890	Pass
197	198	0	2	0.0	0	Pass
198	442	30	100	48.5	339050	Pass
199	198	5	9	6.8	22890	Pass
275	198	10	60	35.0	118562	Pass
365	442	1	50	3.4	24040	Pass
441	443	0.01	100	75.3	101050	Pass
442	442	100	100	100.0	698368	Pass
443	442	15	24	19.2	134280	Pass

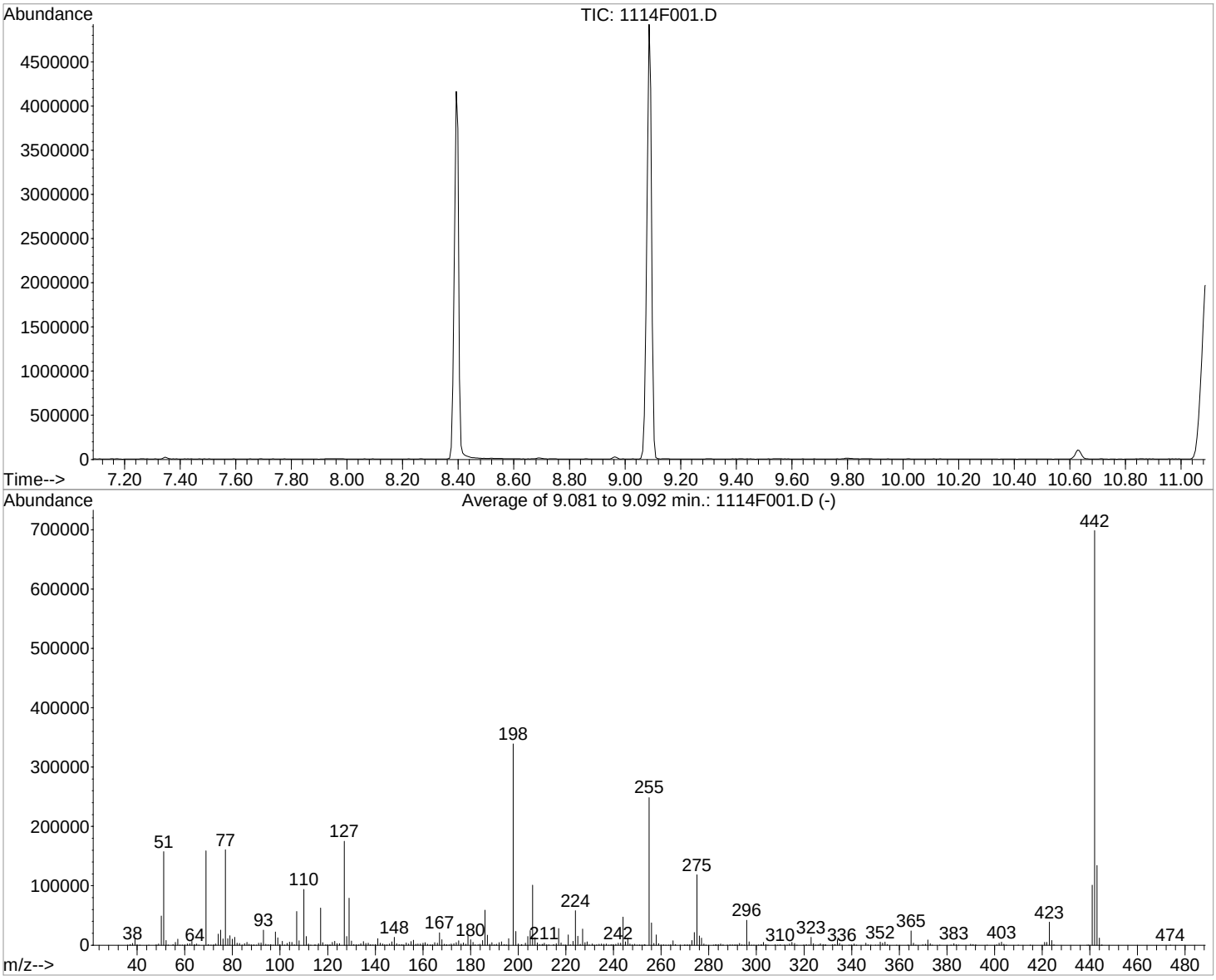
U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

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

1st 12/03/18
2nd 12/06/18

Data File : J:\MS14\DATA\111418\1114F001.D Vial: 1
Acq On : 14 Nov 2018 5:51 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM59-57A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix



AutoFind: Scans 509, 510, 511; Background Corrected with Scan 501

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	46.5	157589	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	46.9	158868	PASS
70	69	0.00	2	0.7	1054	PASS
127	198	10	80	51.6	174890	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	48.5	339050	PASS
199	198	5	9	6.8	22890	PASS
275	198	10	60	35.0	118562	PASS
365	442	1	50	3.4	24040	PASS
441	443	0.01	100	75.3	101050	PASS
442	442	30	100	100.0	698368	PASS
443	442	15	24	19.2	134280	PASS

1st 12/03/18
2nd 12/06/18

Average of 9.081 to 9.092 min.: 1114F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	54	51.10	157589	63.00	6729	74.05	18702
37.05	1127	52.10	7821	64.00	244	75.00	25458
38.10	2961	53.05	424	64.25	513	76.10	10756
39.10	11503	55.05	1362	65.00	2207	77.10	160853
40.00	644	56.05	4752	65.90	330	78.10	11158
41.05	91	57.05	9931	68.95	158868	79.00	16037
44.90	304	57.95	338	69.95	1054	80.00	10218
47.80	187	59.00	71	71.00	347	81.00	13400
48.30	169	60.10	172	72.10	118	82.00	3294
49.05	1918	61.05	2128	72.30	70	83.00	2896
50.10	49018	62.05	2412	73.05	2032	84.10	283

Average of 9.081 to 9.092 min.: 1114F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.05	2564	95.00	494	105.00	4957	117.00	62536
86.05	4657	95.95	671	106.00	836	117.95	4094
87.00	1795	96.15	625	107.00	56888	119.10	579
87.90	550	97.15	264	108.00	7629	119.95	799
88.85	245	98.00	22288	110.00	93861	120.85	261
89.15	131	99.00	12569	110.95	14505	121.20	78
90.10	81	100.00	1149	111.95	2086	121.95	4734
91.00	3371	101.00	6696	112.90	470	123.00	6482
92.05	3666	101.95	382	114.50	91	124.00	2659
93.00	25130	103.00	3040	114.90	163	124.95	2440
94.00	1565	104.00	5160	116.15	2621	127.00	174890

Average of 9.081 to 9.092 min.: 1114F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
128.00	14618	137.80	172	147.00	5815	157.00	1683
129.00	79189	138.00	579	147.95	13293	157.95	2238
130.00	7078	139.05	663	148.95	2281	158.95	1861
130.95	1234	140.00	1255	150.00	957	160.00	3424
132.00	669	141.00	10813	150.95	1104	160.95	4290
132.90	172	142.00	3452	151.70	420	161.95	1584
133.10	310	143.00	2082	152.00	61	162.95	337
133.95	2378	144.00	480	152.95	3742	163.30	120
135.00	6291	144.80	141	153.95	2097	164.00	754
136.00	2730	145.00	335	155.00	6195	164.95	4344
137.00	3312	146.00	2206	156.05	8400	166.00	3492

Average of 9.081 to 9.092 min.: 1114F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
167.00	20890	177.00	3879	188.00	1503	200.00	1875
168.00	9298	177.95	1463	189.00	4510	201.30	374
168.95	1811	178.95	15646	189.95	730	201.50	1246
169.80	149	180.00	9295	190.90	1612	203.00	3403
170.00	563	181.00	4781	191.95	4470	204.00	14520
170.95	747	181.95	747	193.00	5427	205.00	24413
171.90	1960	183.10	545	194.05	1158	206.00	101250
172.95	2360	183.95	1565	194.95	562	207.00	12791
174.00	4263	185.05	7816	196.00	11029	208.00	3841
175.00	7346	186.00	58829	197.90	339050	208.95	1254
176.00	2018	187.00	16665	198.95	22890	210.00	1559

Average of 9.081 to 9.092 min.: 1114F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
210.30	501	221.90	859	233.00	573	244.00	47106
210.95	3492	223.00	6561	233.95	1554	245.00	5624
211.95	746	224.00	58229	234.95	1867	246.00	11411
212.90	497	225.00	15068	235.95	1702	246.90	2025
214.90	1313	226.05	1687	236.95	1897	247.90	523
216.00	2489	227.00	27306	238.00	312	248.95	1666
216.95	28066	228.00	4098	238.95	1261	249.95	269
217.95	3794	228.90	5597	239.85	937	250.80	165
218.95	409	229.85	735	240.95	1633	251.00	430
219.80	200	231.00	2060	242.00	3525	251.95	430
221.00	17179	231.85	183	243.05	3609	252.95	957

Average of 9.081 to 9.092 min.: 1114F001.D

1st 12/03/18
2nd 12/06/18

DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
253.30	272	264.95	7543	276.00	15515	288.95	574
255.00	248768	265.95	1076	276.95	11685	289.95	482
256.00	37472	268.00	84	278.00	1913	290.90	175
257.00	2759	269.80	204	278.85	333	291.10	97
258.00	17138	270.05	158	281.95	428	291.95	695
258.95	2534	270.90	265	282.90	840	292.95	2804
260.00	383	271.10	198	283.10	496	293.90	607
260.95	553	272.05	906	283.95	1302	294.90	380
262.00	92	272.95	7955	285.00	1972	295.95	42088
263.10	55	273.95	21347	286.00	486	296.95	5681
263.95	839	275.00	118562	287.80	81	297.90	469

Average of 9.081 to 9.092 min.: 1114F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
298.95	131	312.90	446	325.90	149	335.90	388
300.90	549	313.95	1953	326.20	87	338.90	205
302.00	598	314.95	4860	326.90	2631	339.85	228
302.20	200	316.00	3070	327.95	1325	341.00	1912
302.95	4801	317.00	441	328.70	96	342.00	403
303.95	1097	319.85	164	329.00	95	345.95	3474
304.90	196	321.00	1048	329.15	226	346.90	663
307.90	634	322.05	861	332.00	1079	348.10	77
309.00	454	323.00	13435	332.95	1270	349.95	137
310.00	569	323.95	2670	334.00	9310	351.05	324
311.80	61	324.95	261	334.95	2725	352.00	5015

Average of 9.081 to 9.092 min.: 1114F001.D
DFTPP @ 10ug/mL | SVM59-57A
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
352.95	3183	372.95	2340	400.95	724	424.95	757
354.00	5035	373.90	248	401.95	3376	438.85	149
355.05	1006	376.95	210	402.95	5239	439.40	131
358.95	243	381.70	51	403.95	1787	441.00	101050
363.60	119	382.90	2478	404.95	167	442.00	698368
364.95	24040	383.95	770	410.00	126	443.00	134280
365.95	3212	384.90	304	415.00	298	444.00	11847
366.95	170	390.00	1501	421.00	4522	444.90	361
369.90	543	390.95	1067	421.95	4628	445.10	327
371.00	1464	392.05	756	423.00	38762	473.85	110
372.00	8654	396.90	54	424.00	7704		

1st 11/16/18
2nd 11/27/18

Exception Report

Data File: J:\MS14\DATA\110618\1106F002.D
Lab ID: KWG1806026-2
RunType: CCV
Matrix: WATER

Date Acquired: 11/06/2018 05:35
Date Quantitated: 11/16/2018 09:55
Batch ID: KWG1806026
Analysis Method: 8270D SIM
MethodJoinID: MJ1233

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: _____

Secondary Review: _____

1st 11/16/18
2nd 11/27/18

Quantitation Report

Data File:	J:\MS14\DATA\110618\1106F002.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 05:35	**Quant Date:**	11/16/2018 09:55	**Vial:**	2
Run Type:	CCV	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1806026-2			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	11/16/2018

Analysis Lot:	KWG1806026	**Prep Lot:**		**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:			
Tune Ref:	J:\MS14\DATA\110618\1106F001.D	**Method ID:**	MJ1233
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	4.76	-0.04	136	65709	200.00	OK
2	Acenaphthene-d10	6.32	-0.03	164	29101	200.00	OK
3	Phenanthrene-d10	7.56	-0.03	188	61986	200.00	OK
4	Chrysene-d12	10.11	-0.04	240	76116	200.00	OK
5	Perylene-d12	13.27	-0.03	264	89350	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	2-Methylnaphthalene-d10	5.39			152	58526	319.10		70-130	NA	
2	Fluorene-d10	6.76			176	71302	383.20		26-102	NA	
3	Fluoranthene-d10	8.54			212	147363	377.21		23-110	NA	
4	Terphenyl-d14	8.89			244	125738	380.85		27-115	NA	

Target Compounds

Final Conc. Units:

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.78			128	145952	384.80			
1	2-Methylnaphthalene	5.42			142	88322	386.14			
1	1-Methylnaphthalene	5.51			142	83257	378.16			
1	Biphenyl	5.83			154	110641	387.56			
1	2,6-Dimethylnaphthalene	5.97			156	78212	398.30			
2	Acenaphthylene	6.20			152	145461	418.92			
2	Acenaphthene	6.35			154	81657	409.39			
2	Dibenzofuran	6.50			168	135179	422.34			
2	2,3,5-Trimethylnaphthalene	6.67			170	78844	427.35			
2	Fluorene	6.78			166	100909	418.30			
3	Dibenzothiophene	7.47			184	165376	427.75			
3	Phenanthrene	7.58			178	152887	395.38			

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:\MS14\DATA\110618\1106F002.D			**Instrument:**	MS14
Acqu Date:	11/06/2018 05:35	**Quant Date:**	11/16/2018 09:55	**Vial:**	2
Run Type:	CCV	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1806026-2			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units:

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Anthracene	7.62			178	134576	364.56			
3	Carbazole	7.75			167	140098	388.90			
3	1-Methylphenanthrene	8.08			192	121533	414.95			
3	Fluoranthene	8.56			202	187747	393.21			
4	Pyrene	8.75			202	199059	381.17			
4	Benz(a)anthracene	10.09			228	203889	414.31			
4	Chrysene	10.15			228	188955	400.85			
5	Benzo(b)fluoranthene	12.21			252	228905	414.66			
5	Benzo(k)fluoranthene	12.28			252	217675	397.49			
5	Benzo(e)pyrene	12.94			252	222863	423.55			
5	Benzo(a)pyrene	13.10			252	213029	440.04			
5	Perylene	13.35			252	203121	399.97			
5	Indeno(1,2,3-cd)pyrene	15.47			276	219681	462.77			
5	Dibenz(a,h)anthracene	15.51			278	211683	439.89			
5	Benzo(g,h,i)perylene	15.86			276	236042	424.60			

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

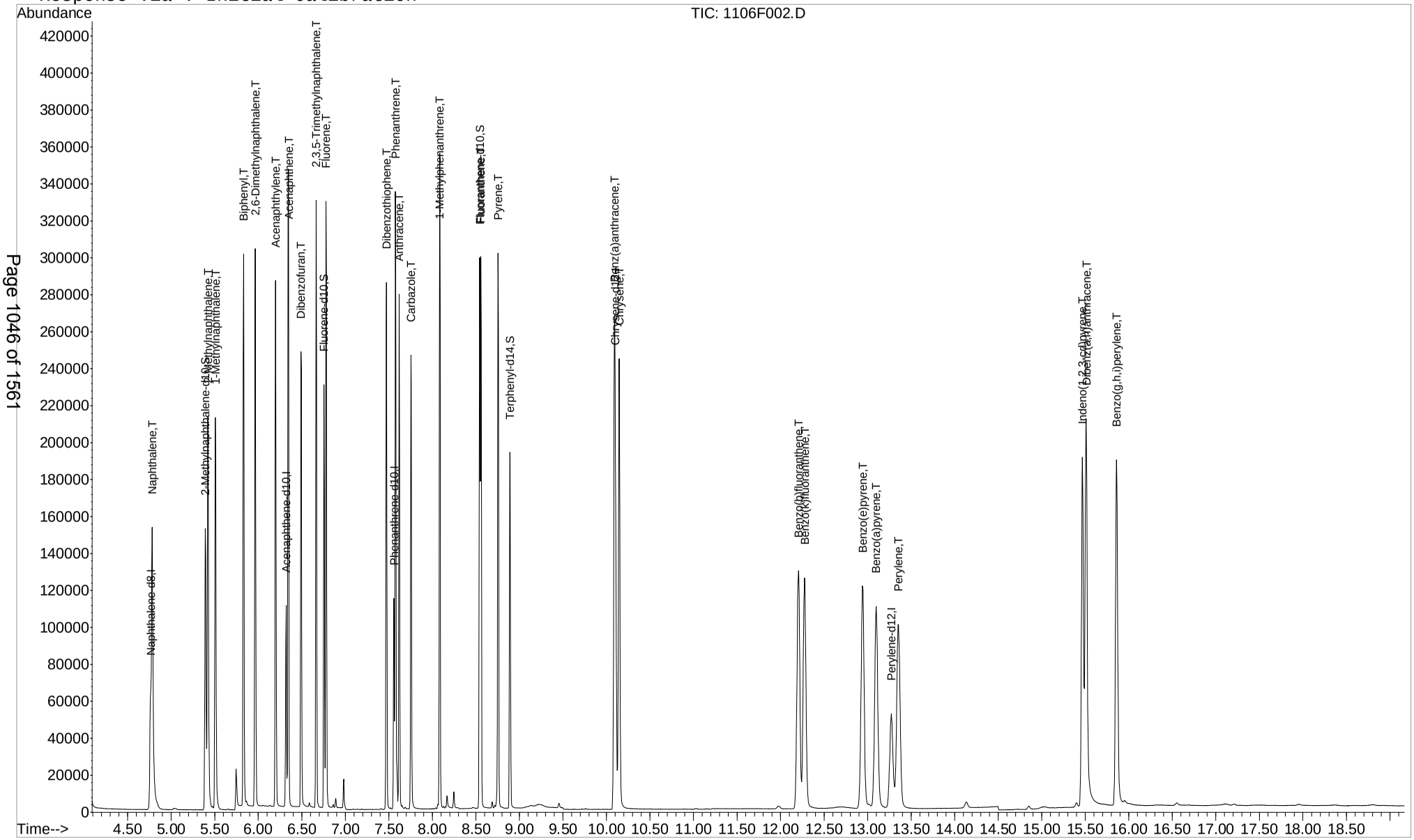
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F002.D Vial: 2
Acq On : 6 Nov 2018 5:35 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM59-81A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 9:55 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration



Page 1046 of 1561

Quantitation Report (QT Reviewed)

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F002.D Vial: 2
Acq On : 6 Nov 2018 5:35 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM59-81A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 09:55:51 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:55:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.76	136	65709	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.32	164	29101	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.56	188	61986	200.00	ng/ml	0.00
23) Chrysene-d12	10.11	240	76116	200.00	ng/ml	0.00
28) Perylene-d12	13.27	264	89350	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.39	152	58526	319.10	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	31.91%		
13) Fluorene-d10	6.76	176	71302	383.20	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	38.32%		
22) Fluoranthene-d10	8.54	212	147363	377.21	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.72%		
25) Terphenyl-d14	8.89	244	125738	380.85	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	38.09%		
Target Compounds						Qvalue
2) Naphthalene	4.78	128	145952	384.80	ng/ml	100
4) 2-Methylnaphthalene	5.42	142	88322	386.14	ng/ml	96
5) 1-Methylnaphthalene	5.51	142	83257	378.16	ng/ml	94
6) Biphenyl	5.83	154	110641	387.56	ng/ml	100
7) 2,6-Dimethylnaphthalene	5.97	156	78212	398.30	ng/ml	96
9) Acenaphthylene	6.20	152	145461	418.92	ng/ml	100
10) Acenaphthene	6.35	154	81657	409.39	ng/ml	99
11) Dibenzofuran	6.50	168	135179	422.34	ng/ml	92
12) 2,3,5-Trimethylnaphthalene	6.67	170	78844	427.35	ng/ml	89
14) Fluorene	6.78	166	100909	418.30	ng/ml	97
16) Dibenzothiophene	7.47	184	165376	427.75	ng/ml	98
17) Phenanthrene	7.58	178	152887	395.38	ng/ml	99
18) Anthracene	7.62	178	134576	364.56	ng/ml	100
19) Carbazole	7.75	167	140098	388.90	ng/ml	96
20) 1-Methylphenanthrene	8.08	192	121533	414.95	ng/ml	99
21) Fluoranthene	8.56	202	187747	393.21	ng/ml	96
24) Pyrene	8.75	202	199059	381.17	ng/ml	99
26) Benz(a)anthracene	10.09	228	203889	414.31	ng/ml	100
27) Chrysene	10.15	228	188955	400.85	ng/ml	99
29) Benzo(b)fluoranthene	12.21	252	228905	414.66	ng/ml	98
30) Benzo(k)fluoranthene	12.28	252	217675	397.49	ng/ml	98
31) Benzo(e)pyrene	12.94	252	222863	423.55	ng/ml	98
32) Benzo(a)pyrene	13.10	252	213029	440.04	ng/ml	98
33) Perylene	13.35	252	203121	399.97	ng/ml	98
34) Indeno(1,2,3-cd)pyrene	15.47	276	219681	462.77	ng/ml	96
35) Dibenz(a,h)anthracene	15.51	278	211683	439.89	ng/ml	96
36) Benzo(g,h,i)perylene	15.86	276	236042	424.60	ng/ml	96

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

Evaluate Continuing Calibration Report

1st 11/16/18
2nd 11/27/18

Data File : J:\MS14\DATA\110618\1106F002.D Vial: 2
Acq On : 6 Nov 2018 5:35 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM59-81A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:03 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	1.000	1.000	0.0	108	0.00
2	T	Naphthalene	1.154	1.111	3.7	110	0.00
3	S	2-Methylnaphthalene-d10	0.558	0.445	20.3#	90	0.00
4	T	2-Methylnaphthalene	0.696	0.672	3.4	110	0.00
5	T	1-Methylnaphthalene	0.670	0.634	5.4	110	0.00
6	T	Biphenyl	0.869	0.842	3.1	113	0.00
7	T	2,6-Dimethylnaphthalene	0.598	0.595	0.5	114	0.00
8	I	Acenaphthene-d10	1.000	1.000	0.0	112	0.00
9	T	Acenaphthylene	2.386	2.499	-4.7	116	0.00
10	T	Acenaphthene	1.371	1.403	-2.3	114	0.00
11	T	Dibenzofuran	2.200	2.323	-5.6	116	0.00
12	T	2,3,5-Trimethylnaphthalene	1.268	1.355	-6.9	118	0.00
13	S	Fluorene-d10	1.279	1.225	4.2	110	0.00
14	T	Fluorene	1.658	1.734	-4.6	116	0.00
15	I	Phenanthrene-d10	1.000	1.000	0.0	115	0.00
16	T	Dibenzothiophene	1.247	1.334	-7.0	121	0.00
17	T	Phenanthrene	1.248	1.233	1.2	116	0.00
18	T	Anthracene	1.191	1.086	8.8	102	0.00
19	T	Carbazole	1.162	1.130	2.8	108	0.00
20	T	1-Methylphenanthrene	0.945	0.980	-3.7	117	0.00
21	T	Fluoranthene	1.541	1.514	1.8	110	0.00
22	S	Fluoranthene-d10	1.260	1.189	5.6	105	0.00
23	I	Chrysene-d12	1.000	1.000	0.0	110	0.00
24	T	Pyrene	1.372	1.308	4.7	110	0.00
25	S	Terphenyl-d14	0.867	0.826	4.7	109	0.00
26	T	Benz(a)anthracene	1.293	1.339	-3.6	116	0.00
27	T	Chrysene	1.239	1.241	-0.2	109	0.00
28	I	Perylene-d12	1.000	1.000	0.0	121	0.00
29	T	Benzo(b)fluoranthene	1.236	1.281	-3.6	119	0.00
30	T	Benzo(k)fluoranthene	1.226	1.218	0.7	115	0.00
31	T	Benzo(e)pyrene	1.178	1.247	-5.9	125	0.00
32	T	Benzo(a)pyrene	1.084	1.192	-10.0	130	0.00
33	T	Perylene	1.137	1.137	0.0	119	0.00
34	T	Indeno(1,2,3-cd)pyrene	1.063	1.229	-15.6	141	0.00
35	T	Dibenz(a,h)anthracene	1.077	1.185	-10.0	135	0.00
36	T	Benzo(g,h,i)perylene	1.244	1.321	-6.2	132	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

1st 11/19/18
2nd 12/05/18

Exception Report

Data File: J:\MS14\DATA\110718\1107F002.D
Lab ID: KWG1806028-2
RunType: CCV
Matrix: WATER

Date Acquired: 11/07/2018 05:26
Date Quantitated: 11/16/2018 12:55
Batch ID: KWG1806028
Analysis Method: 8270D SIM
MethodJoinID: MJ1233

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: _____

Secondary Review: _____

1st 11/19/18
2nd 12/05/18

Quantitation Report

Data File:	J:\MS14\DATA\110718\1107F002.D			**Instrument:**	MS14
Acqu Date:	11/07/2018 05:26	**Quant Date:**	11/16/2018 12:55	**Vial:**	2
Run Type:	CCV	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1806028-2			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	11/16/2018

Analysis Lot:	KWG1806028	**Prep Lot:**		**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:			
Tune Ref:	J:\MS14\DATA\110718\1107F001.D	**Method ID:**	MJ1233
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	4.76	-0.04	136	68316	200.00	OK
2	Acenaphthene-d10	6.32	-0.03	164	31023	200.00	OK
3	Phenanthrene-d10	7.56	-0.03	188	63263	200.00	OK
4	Chrysene-d12	10.11	-0.04	240	75807	200.00	OK
5	Perylene-d12	13.28	-0.02	264	86791	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	2-Methylnaphthalene-d10	5.39			152	62299	326.71		70-130	NA
2	Fluorene-d10	6.76			176	73911	372.61		26-102	NA
3	Fluoranthene-d10	8.54			212	145918	365.97		23-110	NA
4	Terphenyl-d14	8.89			244	123575	375.83		27-115	NA

Target Compounds

Final Conc. Units:

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.78			128	149841	379.98			
1	2-Methylnaphthalene	5.42			142	93220	392.00			
1	1-Methylnaphthalene	5.51			142	88191	385.28			
1	Biphenyl	5.83			154	118200	398.24			
1	2,6-Dimethylnaphthalene	5.97			156	83780	410.37			
2	Acenaphthylene	6.20			152	152688	412.49			
2	Acenaphthene	6.35			154	85533	402.25			
2	Dibenzofuran	6.50			168	139349	408.40			
2	2,3,5-Trimethylnaphthalene	6.67			170	80585	409.73			
2	Fluorene	6.78			166	103003	400.53			
3	Dibenzothiophene	7.47			184	166368	421.63			
3	Phenanthrene	7.58			178	155064	392.92			

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:\MS14\DATA\110718\1107F002.D			**Instrument:**	MS14
Acqu Date:	11/07/2018 05:26	**Quant Date:**	11/16/2018 12:55	**Vial:**	2
Run Type:	CCV	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1806028-2			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units:

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Anthracene	7.62			178	134206	356.22			
3	Carbazole	7.75			167	140041	380.89			
3	1-Methylphenanthrene	8.08			192	120245	402.26			
3	Fluoranthene	8.56			202	184216	378.03			
4	Pyrene	8.75			202	195079	375.07			
4	Benz(a)anthracene	10.10			228	200914	409.93			
4	Chrysene	10.15			228	187783	399.99			
5	Benzo(b)fluoranthene	12.21			252	223123	416.11			
5	Benzo(k)fluoranthene	12.28			252	210863	396.40			
5	Benzo(e)pyrene	12.96			252	218732	427.95			
5	Benzo(a)pyrene	13.11			252	208139	442.62			
5	Perylene	13.37			252	197097	399.55			
5	Indeno(1,2,3-cd)pyrene	15.48			276	211767	459.25			
5	Dibenz(a,h)anthracene	15.52			278	205558	439.76			
5	Benzo(g,h,i)perylene	15.87			276	229531	425.06			

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

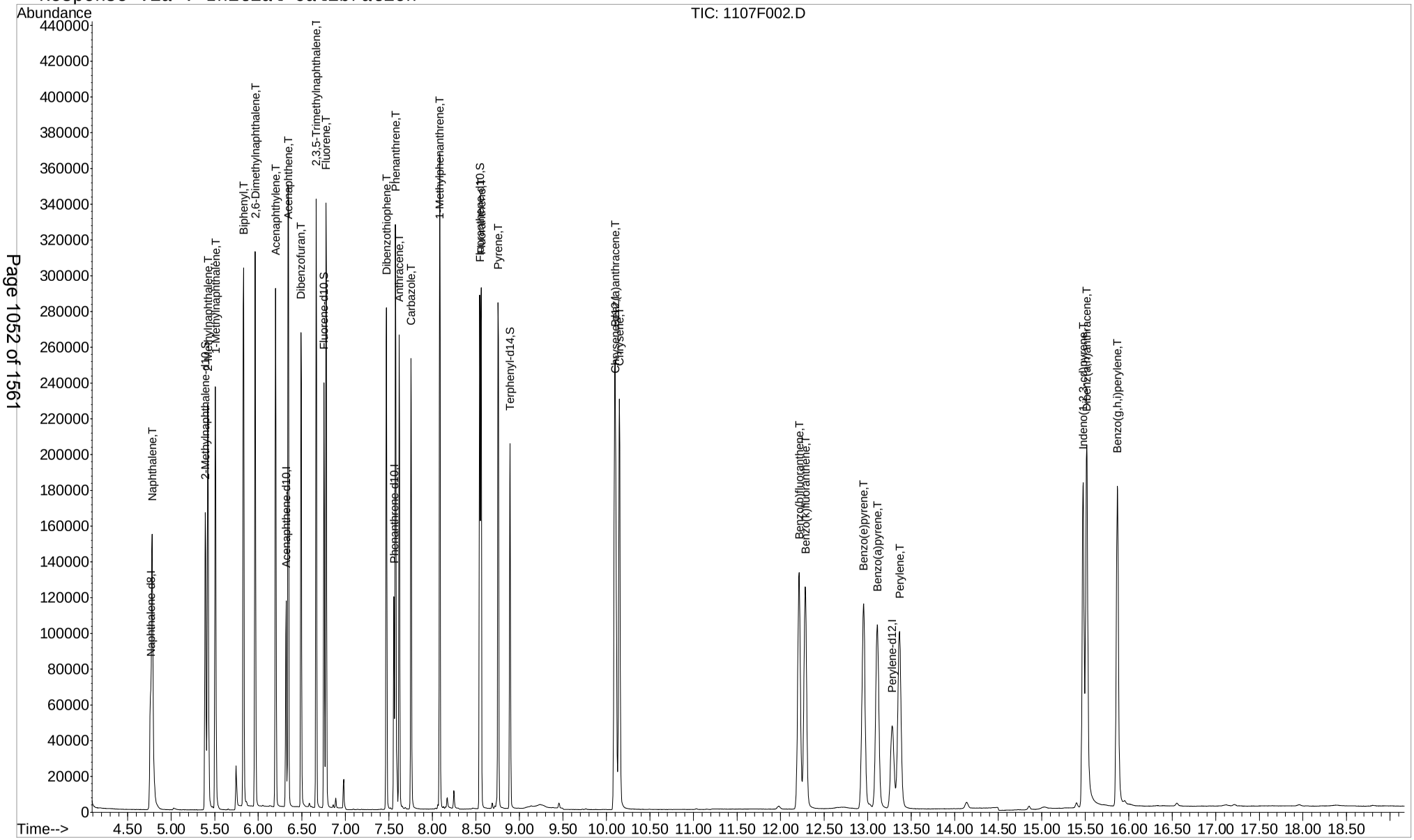
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F002.D Vial: 2
Acq On : 7 Nov 2018 5:26 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM59-81A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 12:55 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 12:55:36 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F002.D Vial: 2
Acq On : 7 Nov 2018 5:26 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM59-81A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 16 12:55:22 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.76	136	68316	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.32	164	31023	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.56	188	63263	200.00	ng/ml	0.00
23) Chrysene-d12	10.11	240	75807	200.00	ng/ml	0.00
28) Perylene-d12	13.28	264	86791	200.00	ng/ml	0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.39	152	62299	326.71	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	32.67%		
13) Fluorene-d10	6.76	176	73911	372.61	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.26%		
22) Fluoranthene-d10	8.54	212	145918	365.97	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	36.60%		
25) Terphenyl-d14	8.89	244	123575	375.83	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	37.58%		
Target Compounds						Qvalue
2) Naphthalene	4.78	128	149841	379.98	ng/ml	100
4) 2-Methylnaphthalene	5.42	142	93220	392.00	ng/ml	96
5) 1-Methylnaphthalene	5.51	142	88191	385.28	ng/ml	93
6) Biphenyl	5.83	154	118200	398.24	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.97	156	83780	410.37	ng/ml	99
9) Acenaphthylene	6.20	152	152688	412.49	ng/ml	99
10) Acenaphthene	6.35	154	85533	402.25	ng/ml	99
11) Dibenzofuran	6.50	168	139349	408.40	ng/ml	96
12) 2,3,5-Trimethylnaphthalene	6.67	170	80585	409.73	ng/ml	85
14) Fluorene	6.78	166	103003	400.53	ng/ml	97
16) Dibenzothiophene	7.47	184	166368	421.63	ng/ml	98
17) Phenanthrene	7.58	178	155064	392.92	ng/ml	99
18) Anthracene	7.62	178	134206	356.22	ng/ml	99
19) Carbazole	7.75	167	140041	380.89	ng/ml	96
20) 1-Methylphenanthrene	8.08	192	120245	402.26	ng/ml	100
21) Fluoranthene	8.56	202	184216	378.03	ng/ml	91
24) Pyrene	8.75	202	195079	375.07	ng/ml	99
26) Benz(a)anthracene	10.10	228	200914	409.93	ng/ml	100
27) Chrysene	10.15	228	187783	399.99	ng/ml	100
29) Benzo(b)fluoranthene	12.21	252	223123	416.11	ng/ml	98
30) Benzo(k)fluoranthene	12.28	252	210863	396.40	ng/ml	98
31) Benzo(e)pyrene	12.96	252	218732	427.95	ng/ml	97
32) Benzo(a)pyrene	13.11	252	208139	442.62	ng/ml	97
33) Perylene	13.37	252	197097	399.55	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.48	276	211767	459.25	ng/ml	95
35) Dibenz(a,h)anthracene	15.52	278	205558	439.76	ng/ml	96
36) Benzo(g,h,i)perylene	15.87	276	229531	425.06	ng/ml	96

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

Evaluate Continuing Calibration Report

1st 11/19/18
2nd 12/05/18

Data File : J:\MS14\DATA\110718\1107F002.D Vial: 2
Acq On : 7 Nov 2018 5:26 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM59-81A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 16 09:56:19 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	1.000	1.000	0.0	112	0.00
2	T	Naphthalene	1.154	1.097	4.9	113	0.00
3	S	2-Methylnaphthalene-d10	0.558	0.456	18.3	96	0.00
4	T	2-Methylnaphthalene	0.696	0.682	2.0	116	0.00
5	T	1-Methylnaphthalene	0.670	0.645	3.7	116	0.00
6	T	Biphenyl	0.869	0.865	0.5	121	0.00
7	T	2,6-Dimethylnaphthalene	0.598	0.613	-2.5	122	0.00
8	I	Acenaphthene-d10	1.000	1.000	0.0	120	0.00
9	T	Acenaphthylene	2.386	2.461	-3.1	121	0.00
10	T	Acenaphthene	1.371	1.379	-0.6	120	0.00
11	T	Dibenzofuran	2.200	2.246	-2.1	120	0.00
12	T	2,3,5-Trimethylnaphthalene	1.268	1.299	-2.4	121	0.00
13	S	Fluorene-d10	1.279	1.191	6.9	114	0.00
14	T	Fluorene	1.658	1.660	-0.1	119	0.00
15	I	Phenanthrene-d10	1.000	1.000	0.0	117	0.00
16	T	Dibenzothiophene	1.247	1.315	-5.5	122	0.00
17	T	Phenanthrene	1.248	1.226	1.8	118	0.00
18	T	Anthracene	1.191	1.061	10.9	102	0.00
19	T	Carbazole	1.162	1.107	4.7	108	0.00
20	T	1-Methylphenanthrene	0.945	0.950	-0.5	116	0.00
21	T	Fluoranthene	1.541	1.456	5.5	108	0.00
22	S	Fluoranthene-d10	1.260	1.153	8.5	104	0.00
23	I	Chrysene-d12	1.000	1.000	0.0	110	0.00
24	T	Pyrene	1.372	1.287	6.2	107	0.00
25	S	Terphenyl-d14	0.867	0.815	6.0	107	0.00
26	T	Benz(a)anthracene	1.293	1.325	-2.5	115	0.00
27	T	Chrysene	1.239	1.239	0.0	109	0.00
28	I	Perylene-d12	1.000	1.000	0.0	118	0.01
29	T	Benzo(b)fluoranthene	1.236	1.285	-4.0	116	0.00
30	T	Benzo(k)fluoranthene	1.226	1.215	0.9	111	0.00
31	T	Benzo(e)pyrene	1.178	1.260	-7.0	123	0.02
32	T	Benzo(a)pyrene	1.084	1.199	-10.6	127	0.01
33	T	Perylene	1.137	1.135	0.2	115	0.02
34	T	Indeno(1,2,3-cd)pyrene	1.063	1.220	-14.8	136	0.00
35	T	Dibenz(a,h)anthracene	1.077	1.184	-9.9	131	0.00
36	T	Benzo(g,h,i)perylene	1.244	1.322	-6.3	128	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

1st 11/30/18
2nd 12/06/18

Exception Report

Data File: J:\MS14\DATA\111318\1113F002.D
Lab ID: KWG1806206-2
RunType: CCV
Matrix: WATER

Date Acquired: 11/13/2018 05:23
Date Quantitated: 11/13/2018 05:43
Batch ID: KWG1806206
Analysis Method: 8270D SIM
MethodJoinID: MJ1233

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: _____

Secondary Review: _____

1st 11/30/18
2nd 12/06/18

Quantitation Report

Data File:	J:\MS14\DATA\111318\1113F002.D			**Instrument:**	MS14
Acqu Date:	11/13/2018 05:23	**Quant Date:**	11/13/2018 05:43	**Vial:**	2
Run Type:	CCV	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1806206-2			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	11/29/2018

Analysis Lot:	KWG1806206	**Prep Lot:**		**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:			
Tune Ref:	J:\MS14\DATA\111318\1113F001.D	**Method ID:**	MJ1233
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	4.75	-0.05	136	68170	200.00	OK
2	Acenaphthene-d10	6.31	-0.04	164	31155	200.00	OK
3	Phenanthrene-d10	7.54	-0.05	188	63370	200.00	OK
4	Chrysene-d12	10.09	-0.06	240	87204	200.00	OK
5	Perylene-d12	13.25	-0.05	264	94936	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	2-Methylnaphthalene-d10	5.38			152	78150	410.71		70-130	NA	
2	Fluorene-d10	6.74			176	78474	393.94		26-102	NA	
3	Fluoranthene-d10	8.53			212	183330	459.03		23-110	NA	
4	Terphenyl-d14	8.88			244	149586	395.48		27-115	NA	

Target Compounds

Final Conc. Units:

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.77			128	136502	346.90			
1	2-Methylnaphthalene	5.41			142	84993	358.17			
1	1-Methylnaphthalene	5.49			142	80451	352.22			
1	Biphenyl	5.82			154	105782	357.17			
1	2,6-Dimethylnaphthalene	5.95			156	75822	372.19			
2	Acenaphthylene	6.19			152	135204	363.70			
2	Acenaphthene	6.33			154	76558	358.52			
2	Dibenzofuran	6.48			168	119003	347.29			
2	2,3,5-Trimethylnaphthalene	6.65			170	74229	375.81			
2	Fluorene	6.77			166	91048	352.54			
3	Dibenzothiophene	7.46			184	143832	363.90			
3	Phenanthrene	7.56			178	138739	350.96			

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:\MS14\DATA\111318\1113F002.D			**Instrument:**	MS14
Acqu Date:	11/13/2018 05:23	**Quant Date:**	11/13/2018 05:43	**Vial:**	2
Run Type:	CCV	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1806206-2			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units:

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Anthracene	7.61			178	139626	369.98			
3	Carbazole	7.74			167	132008	358.44			
3	1-Methylphenanthrene	8.07			192	119069	397.66			
3	Fluoranthene	8.55			202	190541	390.35			
4	Pyrene	8.74			202	206623	345.35			
4	Benz(a)anthracene	10.07			228	207260	367.61			
4	Chrysene	10.13			228	192177	355.85			
5	Benzo(b)fluoranthene	12.19			252	223123	380.41			
5	Benzo(k)fluoranthene	12.25			252	214679	368.95			
5	Benzo(e)pyrene	12.92			252	211021	377.44			
5	Benzo(a)pyrene	13.08			252	200014	388.85			
5	Perylene	13.33			252	196519	364.20			
5	Indeno(1,2,3-cd)pyrene	15.46			276	187008	370.76			
5	Dibenz(a,h)anthracene	15.50			278	187942	367.58			
5	Benzo(g,h,i)perylene	15.85			276	194491	329.27			

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

1st 11/30/18
2nd 12/06/18

Quantitation Report

Data File:	J:\MS14\DATA\111318\1113F002.D			**Instrument:**	MS14
Acqu Date:	11/13/2018 05:23	**Quant Date:**	11/13/2018 05:43	**Vial:**	2
Run Type:	CCV	**MethodJoinID:**	MJ1651	**Dilution:**	1.0
Lab ID:	KWG1806206-2			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH SIM	**Collect Date:**		**Receive Date:**	11/29/2018

Analysis Lot:	KWG1806206	**Prep Lot:**		**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:			
Tune Ref:	J:\MS14\DATA\111318\1113F001.D	**Method ID:**	MJ1651
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	4.75	-0.05	136	68170	200.00	OK
2	Acenaphthene-d10	6.31	-0.04	164	31155	200.00	OK
3	Phenanthrene-d10	7.54	-0.05	188	63370	200.00	OK
4	Chrysene-d12	10.09	-0.06	240	87204	200.00	OK
5	Perylene-d12	13.25	-0.05	264	94936	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	2-Methylnaphthalene-d10	5.38			152	78150	410.71		70-130 NA	
2	Fluorene-d10	6.74			176	78474	393.94		38-104 NA	
3	Fluoranthene-d10	8.53			212	183330	459.03		39-109 NA	
4	Terphenyl-d14	8.88			244	149586	395.48		38-113 NA	

Target Compounds

Final Conc. Units:

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.77			128	136502	346.90			
1	2-Methylnaphthalene	5.41			142	84993	358.17			
1	1-Methylnaphthalene	5.49			142	80451	352.22			
1	Biphenyl	5.82			154	105782	357.17			
1	2,6-Dimethylnaphthalene	5.95			156	75822	372.19			
2	Acenaphthylene	6.19			152	135204	363.70			
2	Acenaphthene	6.33			154	76558	358.52			
2	Dibenzofuran	6.48			168	119003	347.29			
2	2,3,5-Trimethylnaphthalene	6.65			170	74229	375.81			
2	Fluorene	6.77			166	91048	352.54			
3	Dibenzothiophene	7.46			184	143832	363.90			
3	Phenanthrene	7.56			178	138739	350.96			

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:\MS14\DATA\111318\1113F002.D			**Instrument:**	MS14
Acqu Date:	11/13/2018 05:23	**Quant Date:**	11/13/2018 05:43	**Vial:**	2
Run Type:	CCV	**MethodJoinID:**	MJ1651	**Dilution:**	1.0
Lab ID:	KWG1806206-2			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units:

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Anthracene	7.61			178	139626	369.98			
3	Carbazole	7.74			167	132008	358.44			
3	1-Methylphenanthrene	8.07			192	119069	397.66			
3	Fluoranthene	8.55			202	190541	390.35			
4	Pyrene	8.74			202	206623	345.35			
4	Benz(a)anthracene	10.07			228	207260	367.61			
4	Chrysene	10.13			228	192177	355.85			
5	Benzo(b)fluoranthene	12.19			252	223123	380.41			
5	Benzo(k)fluoranthene	12.25			252	214679	368.95			
5	Benzo(e)pyrene	12.92			252	211021	377.44			
5	Benzo(a)pyrene	13.08			252	200014	388.85			
5	Perylene	13.33			252	196519	364.20			
5	Indeno(1,2,3-cd)pyrene	15.46			276	187008	370.76			
5	Dibenz(a,h)anthracene	15.50			278	187942	367.58			
5	Benzo(g,h,i)perylene	15.85			276	194491	329.27			

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

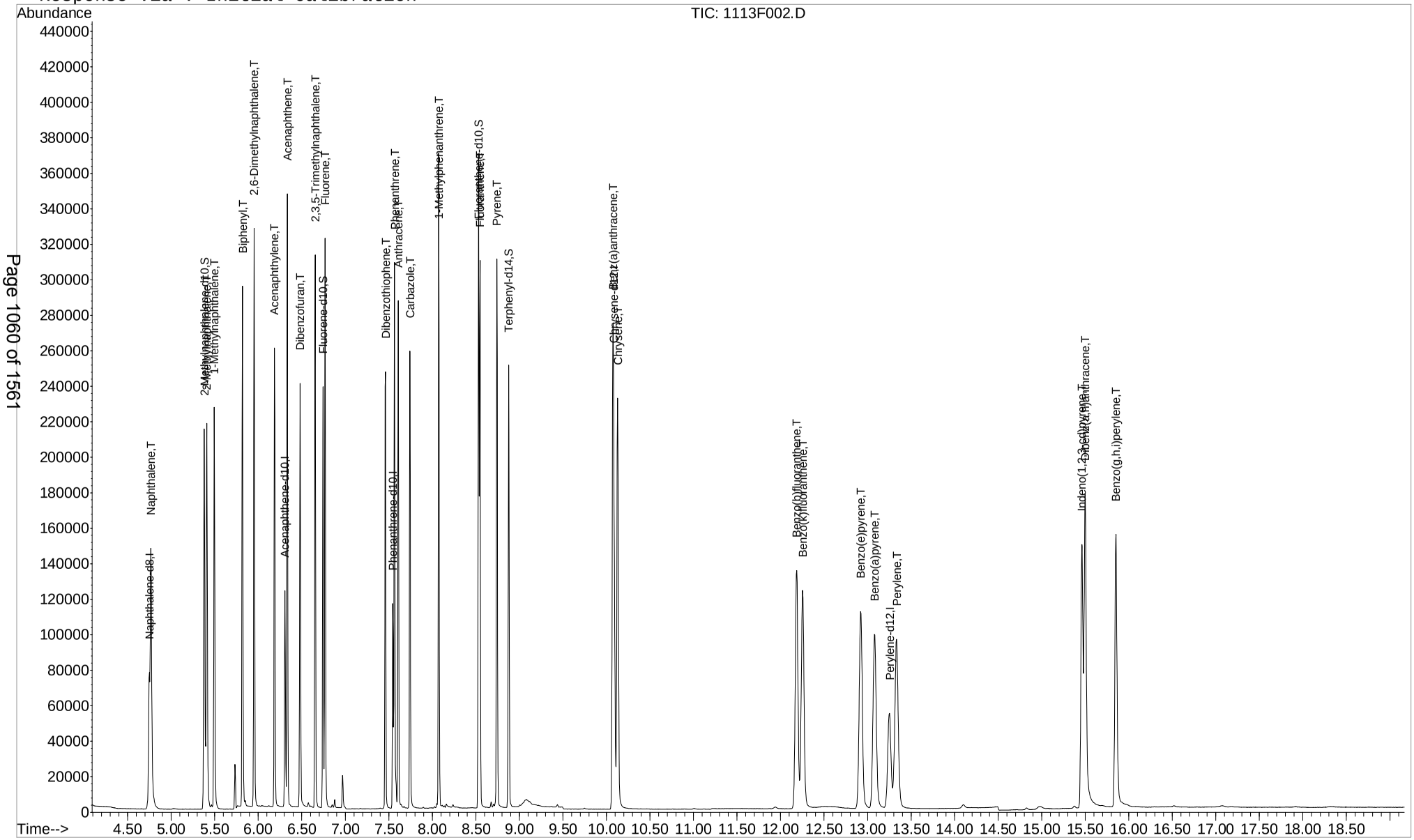
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 11/30/18
2nd 12/06/18

Data File : J:\MS14\DATA\111318\1113F002.D Vial: 2
Acq On : 13 Nov 2018 5:23 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM59-89N Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 13 5:43 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Nov 29 12:52:23 2018
Response via : Initial Calibration



1st 11/30/18
2nd 12/06/18

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\111318\1113F002.D Vial: 2
Acq On : 13 Nov 2018 5:23 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM59-89N Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 13 05:43:10 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Mon Nov 12 13:38:37 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	68170	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.31	164	31155	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.54	188	63370	200.00	ng/ml	0.00
23) Chrysene-d12	10.09	240	87204	200.00	ng/ml	0.00
28) Perylene-d12	13.25	264	94936	200.00	ng/ml	0.02
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.38	152	78150	410.71	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	41.07%		
13) Fluorene-d10	6.74	176	78474	393.94	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	39.39%		
22) Fluoranthene-d10	8.53	212	183330	459.03	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	45.90%		
25) Terphenyl-d14	8.88	244	149586	395.48	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	39.55%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	136502	346.90	ng/ml	99
4) 2-Methylnaphthalene	5.41	142	84993	358.17	ng/ml	94
5) 1-Methylnaphthalene	5.49	142	80451	352.22	ng/ml	91
6) Biphenyl	5.82	154	105782	357.17	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.95	156	75822	372.19	ng/ml	92
9) Acenaphthylene	6.19	152	135204	363.70	ng/ml	99
10) Acenaphthene	6.33	154	76558	358.52	ng/ml	98
11) Dibenzofuran	6.48	168	119003	347.29	ng/ml	79
12) 2,3,5-Trimethylnaphthalene	6.65	170	74229	375.81	ng/ml	93
14) Fluorene	6.77	166	91048	352.54	ng/ml	99
16) Dibenzothiophene	7.46	184	143832	363.90	ng/ml	97
17) Phenanthrene	7.56	178	138739	350.96	ng/ml	99
18) Anthracene	7.61	178	139626	369.98	ng/ml	99
19) Carbazole	7.74	167	132008	358.44	ng/ml	96
20) 1-Methylphenanthrene	8.07	192	119069	397.66	ng/ml	99
21) Fluoranthene	8.55	202	190541	390.35	ng/ml	91
24) Pyrene	8.74	202	206623	345.35	ng/ml	99
26) Benz(a)anthracene	10.07	228	207260	367.61	ng/ml	99
27) Chrysene	10.13	228	192177	355.85	ng/ml	99
29) Benzo(b)fluoranthene	12.19	252	223123	380.41	ng/ml	98
30) Benzo(k)fluoranthene	12.25	252	214679	368.95	ng/ml	98
31) Benzo(e)pyrene	12.92	252	211021	377.44	ng/ml	97
32) Benzo(a)pyrene	13.08	252	200014	388.85	ng/ml	97
33) Perylene	13.33	252	196519	364.20	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.46	276	187008	370.76	ng/ml	95
35) Dibenz(a,h)anthracene	15.50	278	187942	367.58	ng/ml	95
36) Benzo(g,h,i)perylene	15.85	276	194491	329.27	ng/ml	94

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

Evaluate Continuing Calibration Report

1st 11/30/18
2nd 12/06/18

Data File : J:\MS14\DATA\111318\1113F002.D Vial: 2
Acq On : 13 Nov 2018 5:23 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM59-89N Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Nov 29 09:43:18 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	1.000	1.000	0.0	112	-0.01
2	T	Naphthalene	1.154	1.001	13.3	103	-0.01
3	S	2-Methylnaphthalene-d10	0.558	0.573	-2.7	121	-0.01
4	T	2-Methylnaphthalene	0.696	0.623	10.5	106	-0.01
5	T	1-Methylnaphthalene	0.670	0.590	11.9	106	-0.01
6	T	Biphenyl	0.869	0.776	10.7	108	-0.01
7	T	2,6-Dimethylnaphthalene	0.598	0.556	7.0	110	-0.01
8	I	Acenaphthene-d10	1.000	1.000	0.0	120	-0.01
9	T	Acenaphthylene	2.386	2.170	9.1	108	-0.01
10	T	Acenaphthene	1.371	1.229	10.4	107	-0.01
11	T	Dibenzofuran	2.200	1.910	13.2	102	-0.01
12	T	2,3,5-Trimethylnaphthalene	1.268	1.191	6.1	111	-0.01
13	S	Fluorene-d10	1.279	1.259	1.6	121	-0.01
14	T	Fluorene	1.658	1.461	11.9	105	-0.01
15	I	Phenanthrene-d10	1.000	1.000	0.0	118	-0.01
16	T	Dibenzothiophene	1.247	1.135	9.0	105	-0.01
17	T	Phenanthrene	1.248	1.095	12.3	105	-0.01
18	T	Anthracene	1.191	1.102	7.5	106	-0.01
19	T	Carbazole	1.162	1.042	10.3	102	-0.01
20	T	1-Methylphenanthrene	0.945	0.939	0.6	115	-0.01
21	T	Fluoranthene	1.541	1.503	2.5	112	0.00
22	S	Fluoranthene-d10	1.260	1.447	-14.8	130	-0.01
23	I	Chrysene-d12	1.000	1.000	0.0	126	-0.02
24	T	Pyrene	1.372	1.185	13.6	114	-0.01
25	S	Terphenyl-d14	0.867	0.858	1.0	130	-0.02
26	T	Benz(a)anthracene	1.293	1.188	8.1	118	-0.02
27	T	Chrysene	1.239	1.102	11.1	111	-0.02
28	I	Perylene-d12	1.000	1.000	0.0	129	-0.02
29	T	Benzo(b)fluoranthene	1.236	1.175	4.9	116	-0.02
30	T	Benzo(k)fluoranthene	1.226	1.131	7.7	113	-0.02
31	T	Benzo(e)pyrene	1.178	1.111	5.7	119	-0.02
32	T	Benzo(a)pyrene	1.084	1.053	2.9	122	-0.02
33	T	Perylene	1.137	1.035	9.0	115	-0.02
34	T	Indeno(1,2,3-cd)pyrene	1.063	0.985	7.3	120	0.00
35	T	Dibenz(a,h)anthracene	1.077	0.990	8.1	120	0.00
36	T	Benzo(g,h,i)perylene	1.244	1.024	17.7	109	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

1st 12/03/18
2nd 12/06/18

Exception Report

Data File: J:\MS14\DATA\111418\1114F002.D
Lab ID: KWG1806235-2
RunType: CCV
Matrix: WATER

Date Acquired: 11/14/2018 06:17
Date Quantitated: 11/30/2018 10:35
Batch ID: KWG1806235
Analysis Method: 8270D SIM
MethodJoinID: MJ1233

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: _____

Secondary Review: _____

1st 12/03/18
2nd 12/06/18

Quantitation Report

Data File:	J:\MS14\DATA\111418\1114F002.D			**Instrument:**	MS14
Acqu Date:	11/14/2018 06:17	**Quant Date:**	11/30/2018 10:35	**Vial:**	2
Run Type:	CCV	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1806235-2			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH ALK S	**Collect Date:**		**Receive Date:**	11/30/2018

Analysis Lot:	KWG1806235	**Prep Lot:**		**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:			
Tune Ref:	J:\MS14\DATA\111418\1114F001.D	**Method ID:**	MJ1233
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	4.75	-0.05	136	58386	200.00	OK
2	Acenaphthene-d10	6.31	-0.04	164	27245	200.00	OK
3	Phenanthrene-d10	7.55	-0.04	188	66920	200.00	OK
4	Chrysene-d12	10.10	-0.05	240	75302	200.00	OK
5	Perylene-d12	13.29	-0.01	264	83299	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	2-Methylnaphthalene-d10	5.38			152	66335	407.04		70-130 NA	
2	Fluorene-d10	6.75			176	76649	439.99		26-102 NA	
3	Fluoranthene-d10	8.53			212	162469	385.22		23-110 NA	
4	Terphenyl-d14	8.88			244	130789	400.44		27-115 NA	

Target Compounds

Final Conc. Units:

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.77			128	116359	345.26			
1	2-Methylnaphthalene	5.41			142	71082	349.74			
1	1-Methylnaphthalene	5.50			142	67138	343.19			
1	Biphenyl	5.82			154	89673	353.51			
1	2,6-Dimethylnaphthalene	5.96			156	64326	368.67			
2	Acenaphthylene	6.19			152	115986	356.78			
2	Acenaphthene	6.34			154	66455	355.87			
2	Dibenzofuran	6.49			168	106893	356.72			
2	2,3,5-Trimethylnaphthalene	6.66			170	69748	403.80			
2	Fluorene	6.77			166	88590	392.25			
3	Dibenzothiophene	7.47			184	148749	356.37			
3	Phenanthrene	7.57			178	143132	342.86			

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:\MS14\DATA\111418\1114F002.D			**Instrument:**	MS14
Acqu Date:	11/14/2018 06:17	**Quant Date:**	11/30/2018 10:35	**Vial:**	2
Run Type:	CCV	**MethodJoinID:**	MJ1233	**Dilution:**	1.0
Lab ID:	KWG1806235-2			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units:

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Anthracene	7.61			178	142658	357.96			
3	Carbazole	7.75			167	126017	324.02			
3	1-Methylphenanthrene	8.08			192	113785	359.85			
3	Fluoranthene	8.55			202	170329	330.43			
4	Pyrene	8.75			202	179644	347.71			
4	Benz(a)anthracene	10.09			228	176058	361.62			
4	Chrysene	10.14			228	165336	354.54			
5	Benzo(b)fluoranthene	12.21			252	195878	380.61			
5	Benzo(k)fluoranthene	12.28			252	186893	366.07			
5	Benzo(e)pyrene	12.96			252	184653	376.42			
5	Benzo(a)pyrene	13.12			252	173681	384.83			
5	Perylene	13.37			252	171111	361.42			
5	Indeno(1,2,3-cd)pyrene	15.49			276	161015**m**	363.83			
5	Dibenz(a,h)anthracene	15.52			278	161474	359.93			
5	Benzo(g,h,i)perylene	15.88			276	167493	323.18			

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

1st 12/03/18
2nd 12/06/18

Quantitation Report

Data File:	J:\MS14\DATA\111418\1114F002.D			**Instrument:**	MS14
Acqu Date:	11/14/2018 06:17	**Quant Date:**	11/30/2018 10:35	**Vial:**	2
Run Type:	CCV	**MethodJoinID:**	MJ1651	**Dilution:**	1.0
Lab ID:	KWG1806235-2			**Soln Conc. Units:**	ng/ml

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8270D PAH ALK S	**Collect Date:**		**Receive Date:**	11/30/2018

Analysis Lot:	KWG1806235	**Prep Lot:**		**Report Group:**	
Analysis Method:	8270D SIM	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS14\METHODS\SIM\071118PAH.M	**Calibration ID:**	CAL15779
Title:			
Tune Ref:	J:\MS14\DATA\111418\1114F001.D	**Method ID:**	MJ1651
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	4.75	-0.05	136	58386	200.00	OK
2	Acenaphthene-d10	6.31	-0.04	164	27245	200.00	OK
3	Phenanthrene-d10	7.55	-0.04	188	66920	200.00	OK
4	Chrysene-d12	10.10	-0.05	240	75302	200.00	OK
5	Perylene-d12	13.29	-0.01	264	83299	200.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	2-Methylnaphthalene-d10	5.38			152	66335	407.04		70-130 NA	
2	Fluorene-d10	6.75			176	76649	439.99		38-104 NA	
3	Fluoranthene-d10	8.53			212	162469	385.22		39-109 NA	
4	Terphenyl-d14	8.88			244	130789	400.44		38-113 NA	

Target Compounds

Final Conc. Units:

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Naphthalene	4.77			128	116359	345.26			
1	2-Methylnaphthalene	5.41			142	71082	349.74			
1	1-Methylnaphthalene	5.50			142	67138	343.19			
1	Biphenyl	5.82			154	89673	353.51			
1	2,6-Dimethylnaphthalene	5.96			156	64326	368.67			
2	Acenaphthylene	6.19			152	115986	356.78			
2	Acenaphthene	6.34			154	66455	355.87			
2	Dibenzofuran	6.49			168	106893	356.72			
2	2,3,5-Trimethylnaphthalene	6.66			170	69748	403.80			
2	Fluorene	6.77			166	88590	392.25			
3	Dibenzothiophene	7.47			184	148749	356.37			
3	Phenanthrene	7.57			178	143132	342.86			

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:\MS14\DATA\111418\1114F002.D			**Instrument:**	MS14
Acqu Date:	11/14/2018 06:17	**Quant Date:**	11/30/2018 10:35	**Vial:**	2
Run Type:	CCV	**MethodJoinID:**	MJ1651	**Dilution:**	1.0
Lab ID:	KWG1806235-2			**Soln Conc. Units:**	ng/ml

Target Compounds

Final Conc. Units:

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Anthracene	7.61			178	142658	357.96			
3	Carbazole	7.75			167	126017	324.02			
3	1-Methylphenanthrene	8.08			192	113785	359.85			
3	Fluoranthene	8.55			202	170329	330.43			
4	Pyrene	8.75			202	179644	347.71			
4	Benz(a)anthracene	10.09			228	176058	361.62			
4	Chrysene	10.14			228	165336	354.54			
5	Benzo(b)fluoranthene	12.21			252	195878	380.61			
5	Benzo(k)fluoranthene	12.28			252	186893	366.07			
5	Benzo(e)pyrene	12.96			252	184653	376.42			
5	Benzo(a)pyrene	13.12			252	173681	384.83			
5	Perylene	13.37			252	171111	361.42			
5	Indeno(1,2,3-cd)pyrene	15.49			276	161015**m**	363.83			
5	Dibenz(a,h)anthracene	15.52			278	161474	359.93			
5	Benzo(g,h,i)perylene	15.88			276	167493	323.18			

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

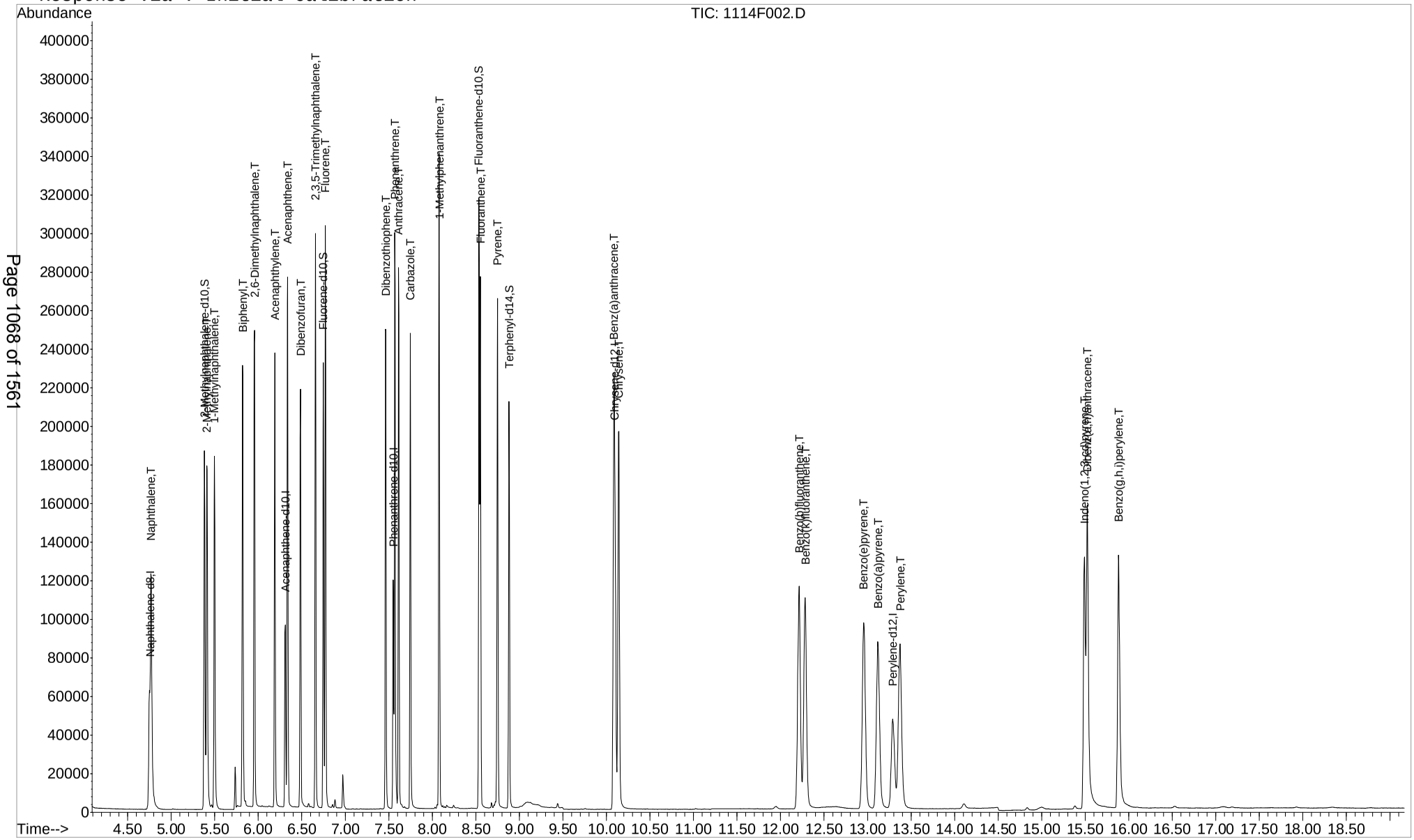
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

1st 12/03/18
2nd 12/06/18

Data File : J:\MS14\DATA\111418\1114F002.D Vial: 2
Acq On : 14 Nov 2018 6:17 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM59-89N Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 30 10:35 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Fri Nov 30 10:35:26 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 12/03/18
2nd 12/06/18

Data File : J:\MS14\DATA\111418\1114F002.D Vial: 2
Acq On : 14 Nov 2018 6:17 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM59-89N Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 06:55:51 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Tue Nov 13 06:57:35 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.75	136	58386	200.00	ng/ml	-0.01
8) Acenaphthene-d10	6.31	164	27245	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.55	188	66920	200.00	ng/ml	-0.01
23) Chrysene-d12	10.10	240	75302	200.00	ng/ml	-0.01
28) Perylene-d12	13.29	264	83299	200.00	ng/ml	-0.01
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.38	152	66335	407.04	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	40.70%		
13) Fluorene-d10	6.75	176	76649	439.99	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	44.00%		
22) Fluoranthene-d10	8.53	212	162469	385.22	ng/ml	0.00
Spiked Amount 1000.000			Recovery =	38.52%		
25) Terphenyl-d14	8.88	244	130789	400.44	ng/ml	-0.01
Spiked Amount 1000.000			Recovery =	40.04%		
Target Compounds						Qvalue
2) Naphthalene	4.77	128	116359	345.26	ng/ml	100
4) 2-Methylnaphthalene	5.41	142	71082	349.74	ng/ml	95
5) 1-Methylnaphthalene	5.50	142	67138	343.19	ng/ml	91
6) Biphenyl	5.82	154	89673	353.51	ng/ml	99
7) 2,6-Dimethylnaphthalene	5.96	156	64326	368.67	ng/ml	97
9) Acenaphthylene	6.19	152	115986	356.78	ng/ml	100
10) Acenaphthene	6.34	154	66455	355.87	ng/ml	98
11) Dibenzofuran	6.49	168	106893	356.72	ng/ml	86
12) 2,3,5-Trimethylnaphthalene	6.66	170	69748	403.80	ng/ml	90
14) Fluorene	6.77	166	88590	392.25	ng/ml	98
16) Dibenzothiophene	7.47	184	148749	356.37	ng/ml	98
17) Phenanthrene	7.57	178	143132	342.86	ng/ml	99
18) Anthracene	7.61	178	142658	357.96	ng/ml	99
19) Carbazole	7.75	167	126017	324.02	ng/ml	96
20) 1-Methylphenanthrene	8.08	192	113785	359.85	ng/ml	100
21) Fluoranthene	8.55	202	170329	330.43	ng/ml	91
24) Pyrene	8.75	202	179644	347.71	ng/ml	95
26) Benz(a)anthracene	10.09	228	176058	361.62	ng/ml	99
27) Chrysene	10.14	228	165336	354.54	ng/ml	100
29) Benzo(b)fluoranthene	12.21	252	195878	380.61	ng/ml	98
30) Benzo(k)fluoranthene	12.28	252	186893	366.07	ng/ml	97
31) Benzo(e)pyrene	12.96	252	184653	376.42	ng/ml	97
32) Benzo(a)pyrene	13.12	252	173681	384.83	ng/ml	97
33) Perylene	13.37	252	171111	361.42	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.49	276	161015m	363.83	ng/ml	
35) Dibenz(a,h)anthracene	15.52	278	161474	359.93	ng/ml	95
36) Benzo(g,h,i)perylene	15.88	276	167493	323.18	ng/ml	94

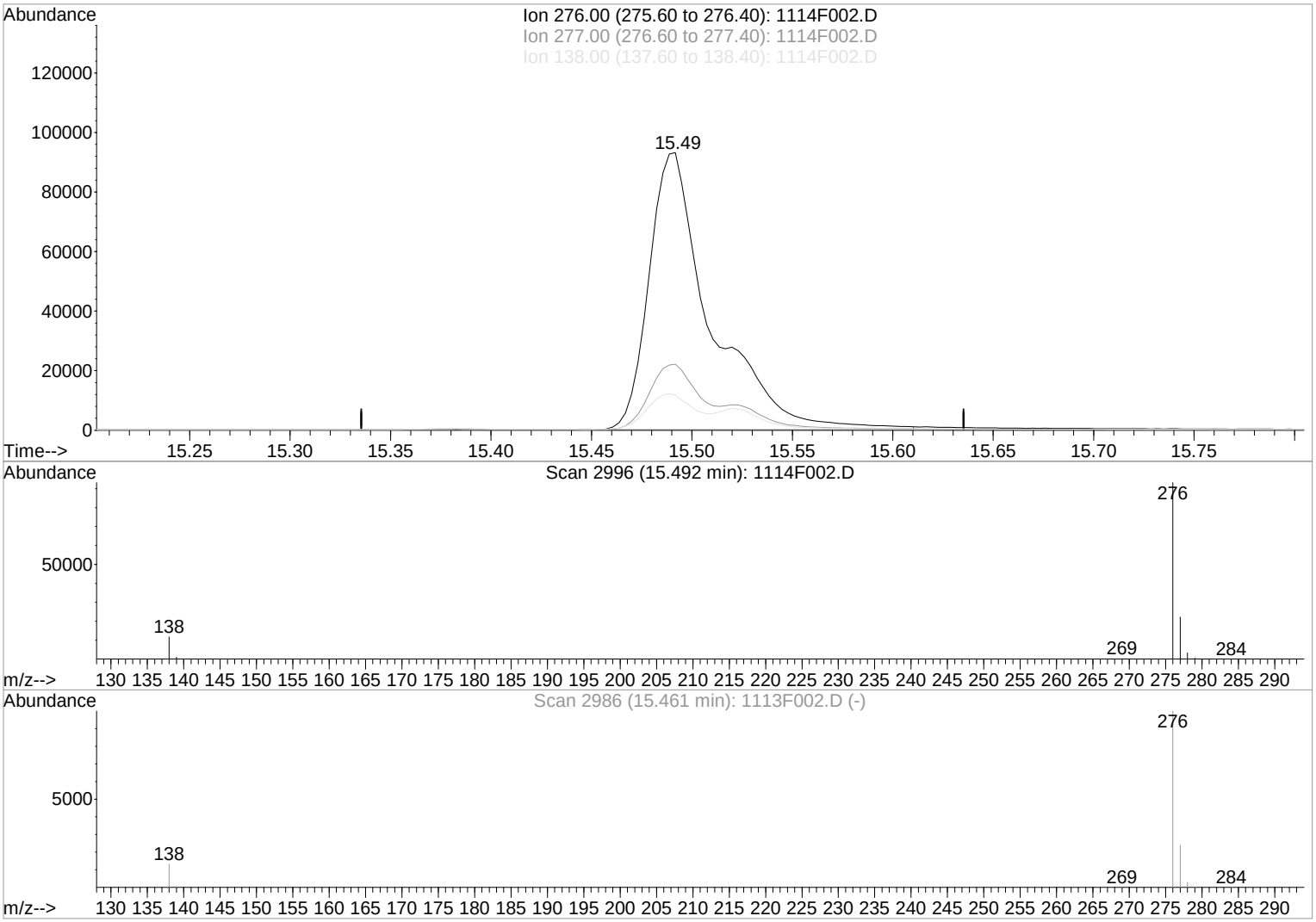
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 12/03/18
2nd 12/06/18

Data File : J:\MS14\DATA\111418\1114F002.D Vial: 2
Acq On : 14 Nov 2018 6:17 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM59-89N Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 14 6:55 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Nov 29 12:52:23 2018
Response via : Multiple Level Calibration



TIC: 1114F002.D

(34) Indeno(1,2,3-cd)pyrene (T)

15.49min 449.59ng/ml

response 198972

Ion	Exp%	Act%
276.00	100	100
277.00	23.40	23.62
138.00	17.70	12.27
0.00	0.00	0.00

Manual Integration:

Before

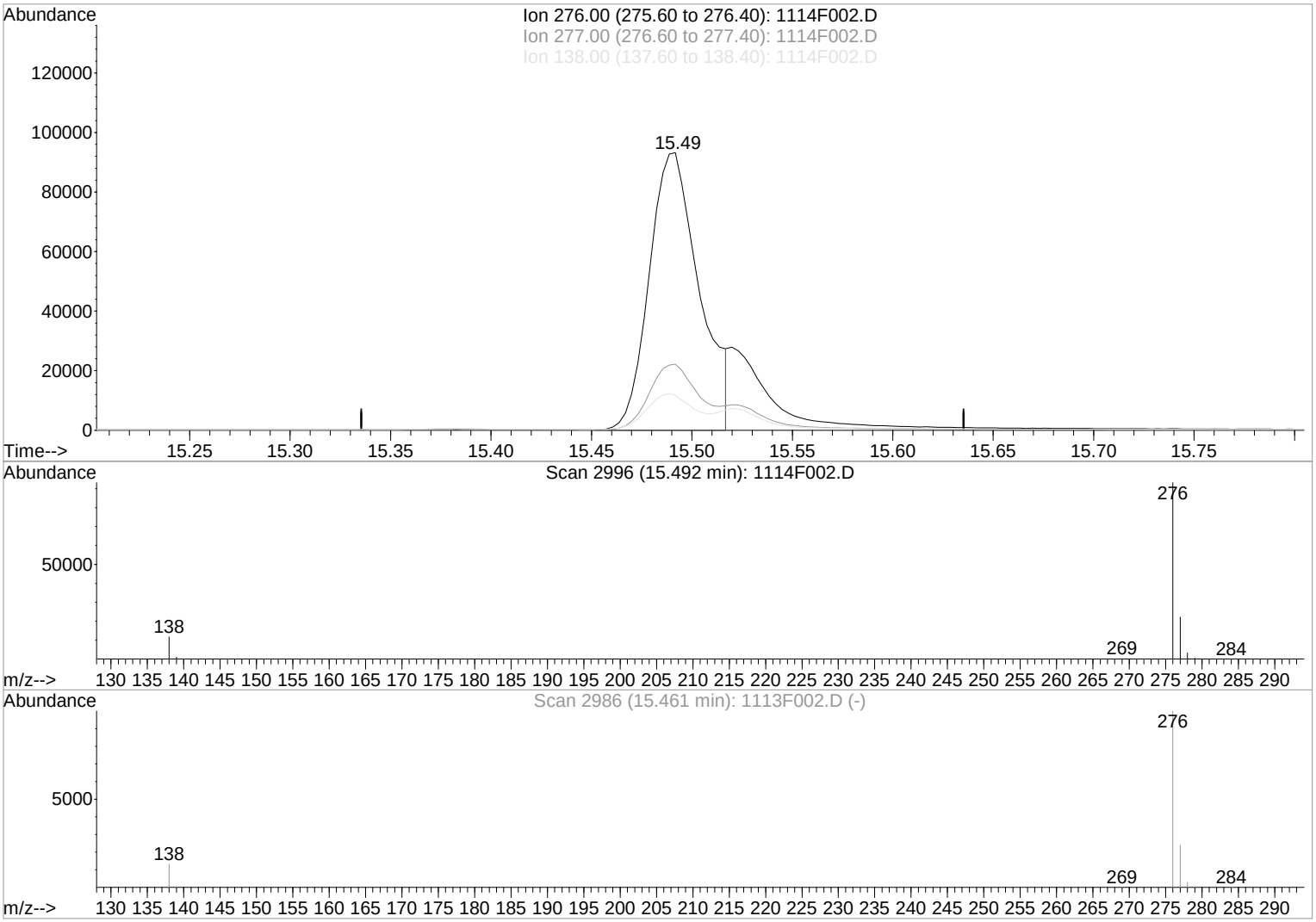
11/30/18

Quantitation Report (Qedit)

1st 12/03/18
2nd 12/06/18

Data File : J:\MS14\DATA\111418\1114F002.D Vial: 2
Acq On : 14 Nov 2018 6:17 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM59-89N Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 30 10:35 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Nov 29 12:52:23 2018
Response via : Multiple Level Calibration



TIC: 1114F002.D

(34) Indeno(1,2,3-cd)pyrene (T)

15.49min 363.83ng/ml m

response 161015

Ion	Exp%	Act%
276.00	100	100
277.00	23.40	23.77
138.00	17.70	12.59
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

11/30/18

Evaluate Continuing Calibration Report

1st 12/03/18
2nd 12/06/18

Data File : J:\MS14\DATA\111418\1114F002.D Vial: 2
Acq On : 14 Nov 2018 6:17 am Operator: LWeiskopf
Sample : SIM-PAH CCV @0.4ug/mL | SVM59-89N Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Nov 29 12:52:23 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Naphthalene-d8	1.000	1.000	0.0	96	0.00
2	T	Naphthalene	1.154	0.996	13.7	88	-0.01
3	S	2-Methylnaphthalene-d10	0.558	0.568	-1.8	102	-0.01
4	T	2-Methylnaphthalene	0.696	0.609	12.5	88	0.00
5	T	1-Methylnaphthalene	0.670	0.575	14.2	88	0.00
6	T	Biphenyl	0.869	0.768	11.6	91	0.00
7	T	2,6-Dimethylnaphthalene	0.598	0.551	7.9	94	0.00
8	I	Acenaphthene-d10	1.000	1.000	0.0	105	0.00
9	T	Acenaphthylene	2.386	2.129	10.8	92	0.00
10	T	Acenaphthene	1.371	1.220	11.0	93	0.00
11	T	Dibenzofuran	2.200	1.962	10.8	92	0.00
12	T	2,3,5-Trimethylnaphthalene	1.268	1.280	-0.9	105	0.00
13	S	Fluorene-d10	1.279	1.407	-10.0	118	0.00
14	T	Fluorene	1.658	1.626	1.9	102	0.00
15	I	Phenanthrene-d10	1.000	1.000	0.0	124	0.00
16	T	Dibenzothiophene	1.247	1.111	10.9	109	0.00
17	T	Phenanthrene	1.248	1.069	14.3	108	0.00
18	T	Anthracene	1.191	1.066	10.5	108	0.00
19	T	Carbazole	1.162	0.942	18.9	98	0.00
20	T	1-Methylphenanthrene	0.945	0.850	10.1	110	0.00
21	T	Fluoranthene	1.541	1.273	17.4	100	0.00
22	S	Fluoranthene-d10	1.260	1.214	3.7	115	0.00
23	I	Chrysene-d12	1.000	1.000	0.0	109	0.00
24	T	Pyrene	1.372	1.193	13.0	99	0.00
25	S	Terphenyl-d14	0.867	0.868	-0.1	114	-0.01
26	T	Benz(a)anthracene	1.293	1.169	9.6	100	0.00
27	T	Chrysene	1.239	1.098	11.4	96	0.00
28	I	Perylene-d12	1.000	1.000	0.0	113	0.02
29	T	Benzo(b)fluoranthene	1.236	1.176	4.9	102	0.00
30	T	Benzo(k)fluoranthene	1.226	1.122	8.5	99	0.00
31	T	Benzo(e)pyrene	1.178	1.108	5.9	104	0.02
32	T	Benzo(a)pyrene	1.084	1.043	3.8	106	0.02
33	T	Perylene	1.137	1.027	9.7	100	0.02
34	T	Indeno(1,2,3-cd)pyrene	1.063	0.966	9.1	104	0.03
35	T	Dibenz(a,h)anthracene	1.077	0.969	10.0	103	0.01
36	T	Benzo(g,h,i)perylene	1.244	1.005	19.2	94	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Injection Log

Directory: J:\MS14\DATA\071118

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0711F001.D	1.	DFTPP @ 10ug/mL | SVM59-5B		11 Jul 2018 07:24
2	2	0711F002.D	1.	IB		11 Jul 2018 07:50
3	3	0711F003.D	1.	SIM-PAH ICAL @.002ug/mL | SVM59-4A		11 Jul 2018 08:16
4	4	0711F004.D	1.	SIM-PAH ICAL @.004ug/mL | SVM59-4B		11 Jul 2018 08:42
5	5	0711F005.D	1.	SIM-PAH ICAL @.008ug/mL | SVM59-4C		11 Jul 2018 09:08
6	6	0711F006.D	1.	SIM-PAH ICAL @ 0.02ug/mL | SVM59-4D		11 Jul 2018 09:34
7	7	0711F007.D	1.	SIM-PAH ICAL @ 0.1ug/mL | SVM59-4E		11 Jul 2018 10:00
8	8	0711F008.D	1.	SIM-PAH ICAL @ 0.2ug/mL | SVM59-4F		11 Jul 2018 10:26
9	9	0711F009.D	1.	SIM-PAH ICAL @ 0.4ug/mL | SVM59-4G		11 Jul 2018 10:52
10	10	0711F010.D	1.	SIM-PAH ICAL @ 1.0ug/mL | SVM59-4H		11 Jul 2018 11:18
11	11	0711F011.D	1.	SIM-PAH ICAL @ 1.6ug/mL | SVM59-4I		11 Jul 2018 11:44
12	12	0711F012.D	1.	SIM-PAH ICAL @ 2.0ug/mL | SVM59-4J		11 Jul 2018 12:10
13	13	0711F013.D	1.	SIM-PAH ICV @ 0.4ug/mL | SVM59-4K		11 Jul 2018 12:36
~~14~~	~~14~~	~~0711F014.D~~	~~1.~~	~~SIM-PAH CCV @ 0.4ug/mL | SVM59-24A~~		~~11 Jul 2018 13:02~~
~~15~~	~~15~~	~~0711F015.D~~	~~1.~~	~~KQ1808822-3 MB~~		~~11 Jul 2018 13:28~~
~~16~~	~~16~~	~~0711F016.D~~	~~1.~~	~~KQ1808822-1 LCS~~		~~11 Jul 2018 13:55~~
~~17~~	~~17~~	~~0711F017.D~~	~~1.~~	~~KQ1808822-2 DLCS~~		~~11 Jul 2018 14:21~~
~~18~~	~~18~~	~~0711F018.D~~	~~1.~~	~~K1806167-007~~		~~11 Jul 2018 14:47~~
~~19~~	~~19~~	~~0711F019.D~~	~~1.~~	~~K1806167-008~~		~~11 Jul 2018 15:14~~
~~20~~	~~20~~	~~0711F020.D~~	~~1.~~	~~K1805517-004~~		~~11 Jul 2018 15:40~~
~~21~~	~~21~~	~~0711F021.D~~	~~1.~~	~~K1805519-006~~		~~11 Jul 2018 16:07~~
~~22~~	~~14~~	~~0711F022.D~~	~~1.~~	~~SIM-PAH CCV @ 0.4ug/mL | SVM59-24A~~		~~11 Jul 2018 16:34~~

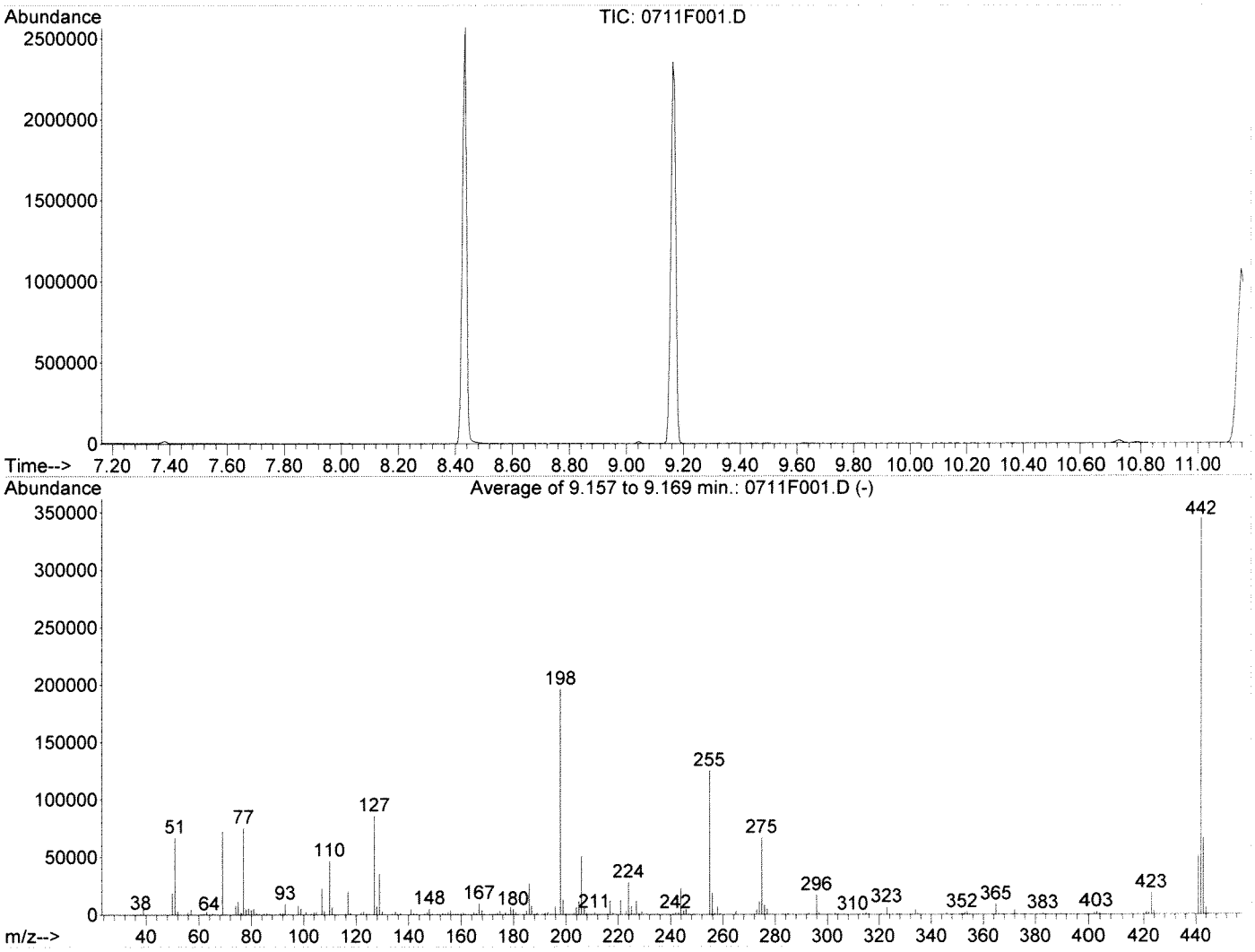
SIM-PAH ICAL
CAL15779

JUL 16 2018

JUL 27 2018

DFTPP

Data File : J:\MS14\DATA\071118\0711F001.D Vial: 1
Acq On : 11 Jul 2018 7:24 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM59-5B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix



AutoFind: Scans 522, 523, 524; Background Corrected with Scan 516

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	34.2	67178	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	37.1	72816	PASS
70	69	0.00	2	0.8	565	PASS
127	198	10	80	43.8	86077	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	56.9	196352	PASS
199	198	5	9	6.5	12793	PASS
275	198	10	60	34.1	67032	PASS
365	442	1	50	2.6	8831	PASS
441	443	0.01	100	76.0	51069	PASS
442	442	30	100	100.0	344981	PASS
443	442	15	24	19.5	67152	PASS

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J:\MS14\DATA\071118\0711F001.D A_DFTPP.M Mon Jul 16 09:16:46 2018

Average of 9.157 to 9.169 min.: 0711F001.D
DFTPP @ 10ug/mL | SVM59-5B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.95	422	52.00	3270	66.10	60	77.00	75757
38.00	1061	52.95	252	66.90	133	78.00	5265
39.00	5050	54.95	367	67.20	111	78.95	6051
39.90	450	55.95	2219	68.95	72816	79.95	4460
41.00	145	57.00	4515	69.85	565	81.00	5387
42.95	189	57.90	205	70.90	56	81.95	1583
44.00	59	60.95	997	73.05	769	82.95	1369
44.90	126	61.95	1079	74.00	8076	83.90	282
48.10	73	63.00	2719	75.00	11602	84.95	1177
50.00	19013	63.95	413	76.00	1399	85.95	1822
51.00	67178	65.00	1325	76.20	1668	86.95	803

Average of 9.157 to 9.169 min.: 0711F001.D
DFTPP @ 10ug/mL | SVM59-5B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.95	285	99.95	506	112.85	198	124.90	1126
88.90	130	100.90	2768	114.80	159	126.95	86077
90.95	1445	101.90	87	116.05	1356	127.95	7121
92.00	1657	102.90	1279	116.90	20493	128.90	35413
92.95	9598	103.95	2203	117.85	1421	129.95	2909
93.90	764	104.90	2137	118.85	202	130.90	596
94.90	260	106.95	23325	120.00	347	131.85	286
95.95	399	107.95	3588	121.05	223	132.90	113
97.00	184	109.90	46866	121.90	1845	133.85	1020
97.95	7812	110.95	6574	122.90	2792	134.90	2878
98.90	5707	111.90	845	123.95	974	135.85	1123

Average of 9.157 to 9.169 min.: 0711F001.D
DFTPP @ 10ug/mL | SVM59-5B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
136.95	1387	146.95	2258	157.90	1033	168.90	418
137.90	180	147.90	5200	158.85	675	169.10	172
138.10	80	148.95	1069	159.90	1384	169.85	345
138.95	357	149.90	242	160.90	2084	170.40	79
139.95	518	150.95	648	161.85	666	170.90	499
140.90	4757	151.75	466	162.95	226	171.80	868
141.90	1547	152.90	1588	163.95	352	172.95	967
142.90	919	153.90	1093	164.85	2040	173.90	1870
143.90	287	154.95	2265	165.85	1502	174.90	3597
144.85	308	155.95	3794	166.90	9686	176.00	1075
145.95	1008	156.95	752	167.90	4018	176.90	1875

Average of 9.157 to 9.169 min.: 0711F001.D
DFTPP @ 10ug/mL | SVM59-5B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
177.95	723	186.90	8039	198.90	12793	210.30	330
178.90	6732	187.95	833	199.90	953	210.90	2074
179.90	4619	188.90	1815	201.35	1105	211.80	146
180.90	2110	189.85	379	202.90	1391	212.90	61
181.95	406	190.95	863	203.95	6760	214.10	53
182.70	66	191.90	2255	204.95	11699	214.95	698
182.95	174	192.95	2443	205.95	51016	215.85	1357
183.80	140	193.90	500	206.95	6909	216.90	12207
183.95	404	194.90	286	207.90	1813	217.85	1663
184.95	3360	195.90	6967	208.90	543	218.90	142
185.90	27480	197.90	196352	209.90	294	220.90	12633

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Average of 9.157 to 9.169 min.: 0711F001.D
DFTPP @ 10ug/mL | SVM59-5B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
222.90	3179	233.85	760	244.95	3370	255.90	18613
223.90	28144	234.90	857	245.90	4758	256.95	1466
224.95	7360	235.90	530	246.90	1019	257.90	7031
225.95	994	236.90	879	247.80	162	258.95	1297
226.90	12054	237.80	67	248.10	77	259.80	131
227.85	1634	238.85	481	248.85	832	260.95	199

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229.95	377	240.85	634	250.90	178	264.90	3018
230.90	992	241.90	1624	251.85	276	265.85	450
231.90	200	243.00	1778	252.95	599	269.95	129
232.90	244	243.90	23113	254.90	125421	270.90	256

Average of 9.157 to 9.169 min.: 0711F001.D
DFTPP @ 10ug/mL | SVM59-5B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
271.95	496	284.85	977	301.85	234	316.95	160
272.90	4336	285.95	143	302.95	2145	320.95	658
273.90	11367	288.75	165	303.95	691	321.95	381
274.90	67032	289.80	209	307.85	308	322.95	6548
275.90	8655	291.85	178	308.80	217	323.95	1035
276.90	5306	292.90	1246	309.85	251	324.80	52
277.90	771	293.95	326	310.90	52	325.85	184
278.85	205	295.90	17068	312.95	171	326.90	968
281.95	112	296.90	2301	313.90	944	327.80	661
282.90	631	297.80	68	314.90	2064	331.85	496
283.90	432	300.90	235	315.90	1065	332.85	680

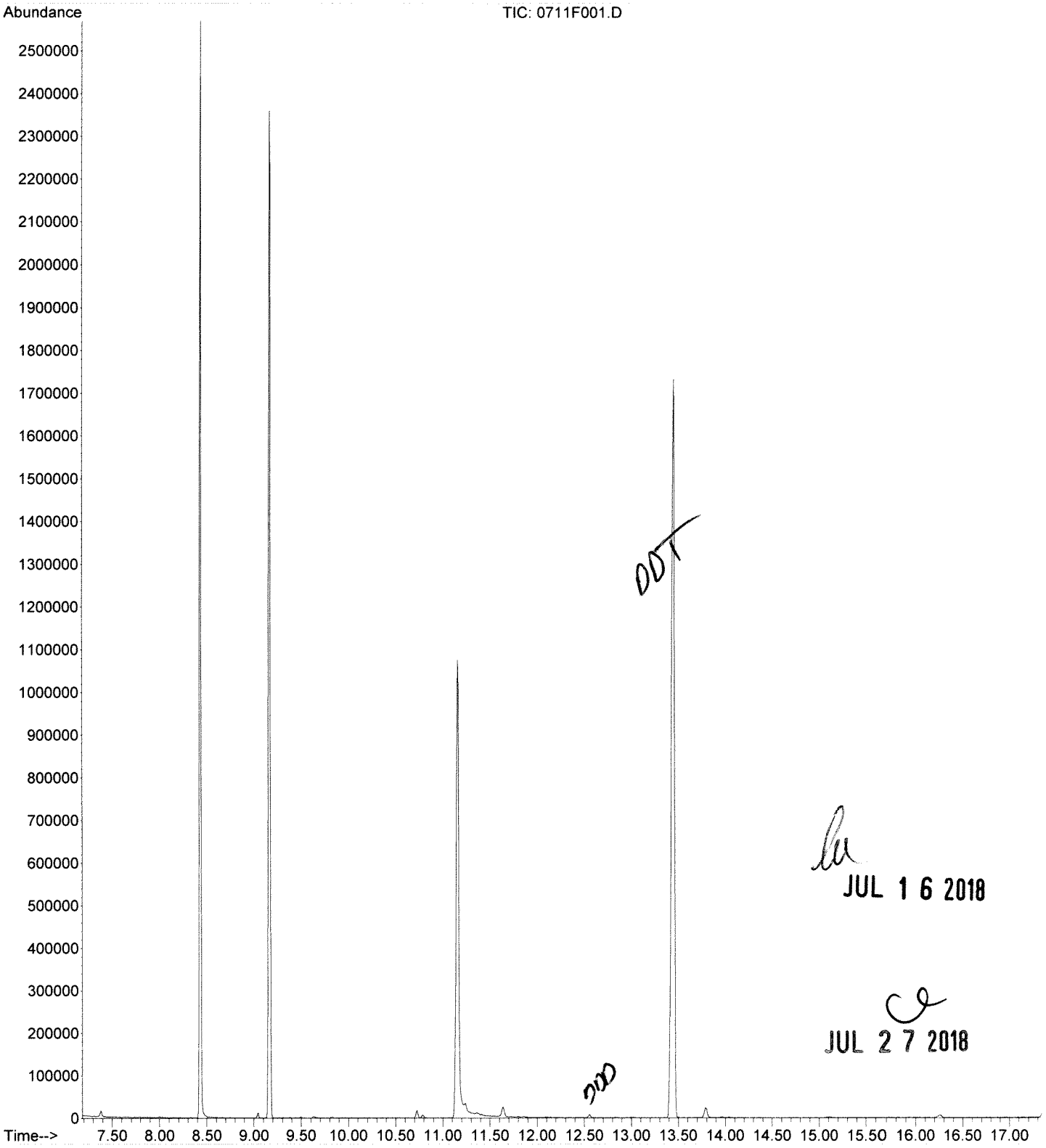
Average of 9.157 to 9.169 min.: 0711F001.D
DFTPP @ 10ug/mL | SVM59-5B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
333.90	4464	353.90	2529	382.95	1153	420.95	2473
334.90	1166	354.90	486	383.85	376	421.95	2435
339.80	51	358.85	126	389.95	690	422.95	18744
340.85	729	364.90	8831	390.95	465	423.90	3777
341.80	50	365.90	1261	391.90	350	424.95	479
342.00	143	369.95	218	400.90	274	439.40	77
345.90	1535	370.85	633	401.90	1735	441.00	51069
346.75	180	371.95	3936	402.90	2497	442.00	344981
350.75	114	372.90	1005	403.90	1060	443.00	67152
351.90	2058	373.85	127	404.80	57	443.95	6376
352.90	1618	376.90	51	415.00	64	444.90	445

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File : J:\MS14\DATA\071118\0711F001.D
Operator : LWeiskopf
Acquired : 11 Jul 2018 7:24 am using AcqMethod SIMLOC
Instrument : MS14
Sample Name: DFTPP @ 10ug/mL | SVM59-5B
Misc Info :
Vial Number: 1



1	6.551	rBV	0.059		4433	6.534	6.593
2	6.628	rVB	0.059		4930	6.610	6.669
3	7.069	rBV	0.153		93262	7.022	7.175
4	7.381	rVB	0.094		22489	7.357	7.451
5	7.781	rVB	0.053		2074	7.769	7.822
6	7.904	rVB	0.047		3184	7.887	7.934
7	7.998	rVV	0.035		2540	7.981	8.016
8	8.434	rBV	0.124		2626380	8.398	8.522
9	8.751	rBV	0.041		2434	8.728	8.769
10	9.045	rVB	0.094		15370	8.992	9.086
11	9.163	rBV	0.118		2833533	9.104	9.222
12	9.310	rBV	0.053		2540	9.286	9.339
13	9.381	rVB	0.047		2669	9.363	9.410
14	9.498	rVB	0.047		3470	9.475	9.522
15	9.628	rBV	0.082		7018	9.598	9.681
16	9.822	rBV	0.076		4234	9.781	9.857
17	10.728	rBV	0.071		25758	10.686	10.757
18	10.786	rBV	0.059		9354	10.757	10.816
19	11.157	rBV	0.141		2070977	11.080	11.222
20	11.639	rVB	0.094		47781	11.592	11.686
21	11.851	rVB	0.071		6566	11.833	11.904
22	12.092	rBV	0.076		4460	12.051	12.127
23	12.551	rVB	0.082	ODD	12363	12.510	12.592
24	12.827	rVB	0.082		3949	12.804	12.886
25	12.998	rBV	0.047		2358	12.969	13.016
26	13.445	rBV	0.118	OOT	3799669	13.374	13.492
27	13.786	rBV	0.129		55536	13.727	13.857
28	13.963	rBV	0.071		3973	13.916	13.986
29	14.033	rBV	0.041		2081	14.021	14.063
30	15.086	rBV	0.065		3243	15.033	15.098
31	15.110	rVB	0.047		3085	15.098	15.145
32	16.257	rBV	0.106		18961	16.192	16.298
33	17.351	rBV	0.124		41324	17.298	17.421
34	17.821	rBV	0.035		2171	17.798	17.833
35	17.868	rBV	0.047		3073	17.833	17.880
36	18.098	rBV	0.159		129861	18.039	18.198
37	18.645	rVB	0.141		212579	18.615	18.756
38	19.092	rBV	0.165		383897	19.056	19.221
39	19.545	rBV	0.153		391093	19.509	19.662
40	20.103	rBV	0.153		441132	20.062	20.215
41	20.692	rBV	0.118		334151	20.650	20.768

OOT Breakdown

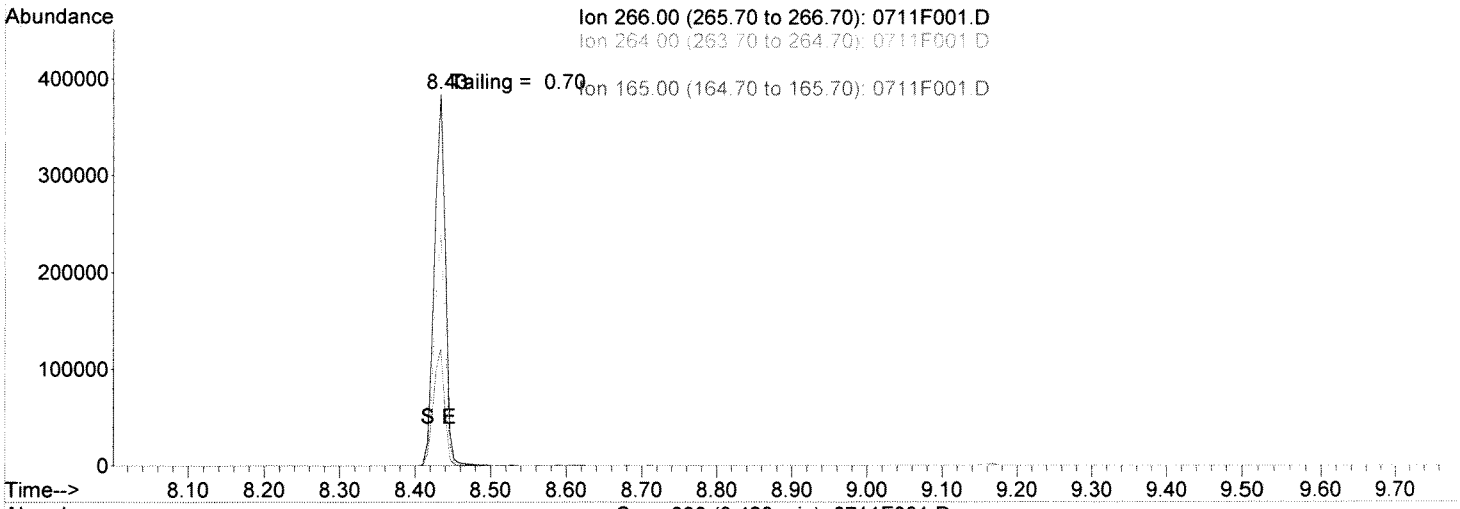
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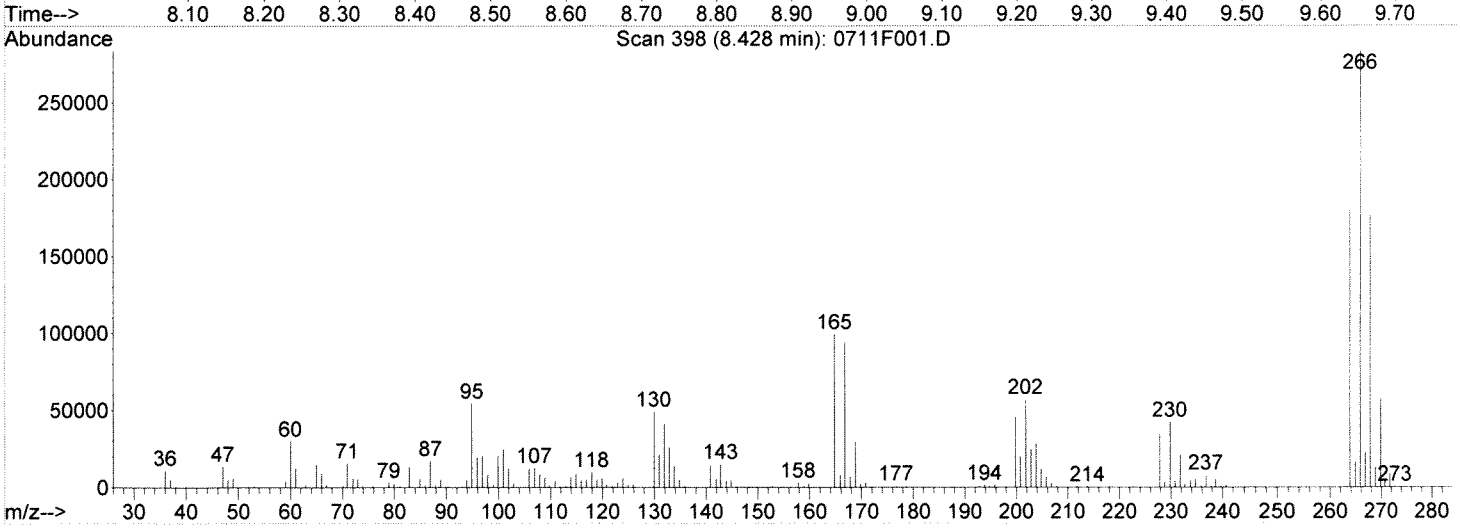
JUL 16 2018

JUL 27 2018

Data File : J:\MS14\DATA\071118\0711F001.D Vial: 1
Acq On : 11 Jul 2018 7:24 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM59-5B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 11 7:49 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Tue Oct 17 14:59:38 2017
Response via : Single Level Calibration





TIC: 0711F001.D

(1) Pentachlorophenol

7.37min 0.00ng/ml

response 0

Ion	Exp%	Act%
266.00	100	0.00
264.00	62.30	0.00#
268.00	72.30	0.00#
165.00	42.00	0.00#

OK -2%

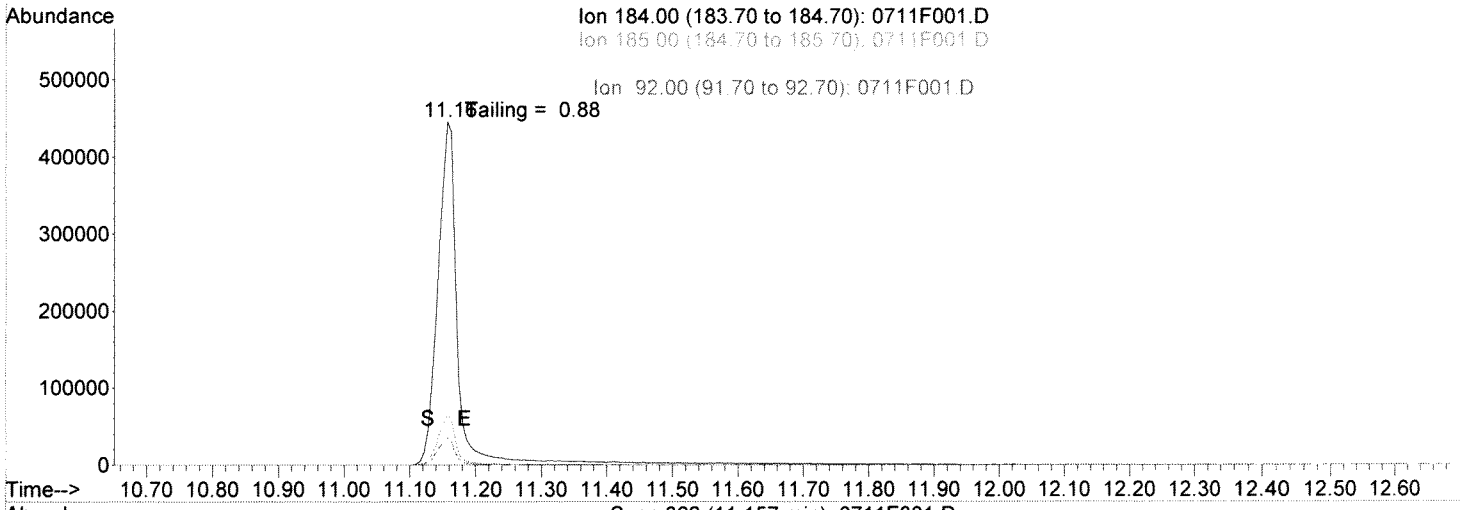
JUL 16 2018

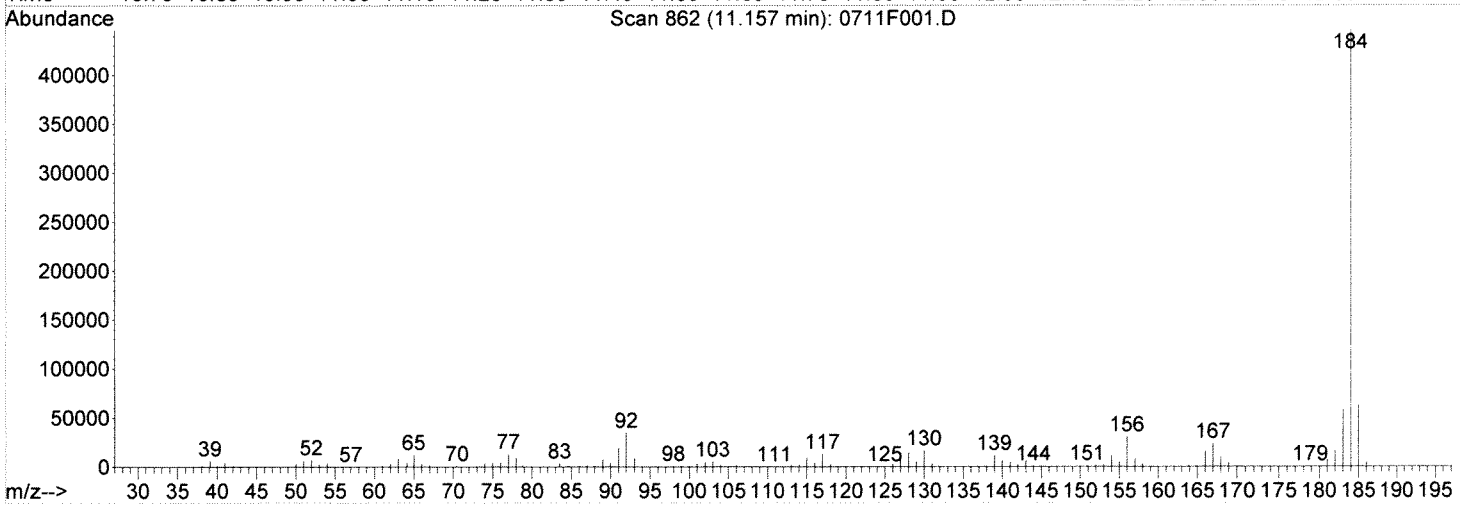
JUL 27 2018

0711F001.D A_DFTPP.M Mon Jul 16 09:17:15 2018

Data File : J:\MS14\DATA\071118\0711F001.D Vial: 1
Acq On : 11 Jul 2018 7:24 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM59-5B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 11 7:49 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Tue Oct 17 14:59:38 2017
Response via : Single Level Calibration





TIC: 0711F001.D

(3) Benzidine (T)

8.69min 0.00ug/ml

response 0

Ion	Exp%	Act%
184.00	100	0.00
185.00	14.70	0.00
156.00	9.50	0.00
92.00	7.60	0.00

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JUL 27 2018

0711F001.D A_DFTPP.M Mon Jul 16 09:17:28 2018

Data File : J:\MS14\DATA\071118\0711F002.D Vial: 2
Acq On : 11 Jul 2018 7:50 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:39 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	71486	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	36864	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	76395	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	90682	200.00	ng/ml	-0.03
28) Perylene-d12	13.30	264	102113	200.00	ng/ml	-0.06
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	0.00	152	0	0.00	ng/ml	
Spiked Amount 1000.000			Recovery =	0.00%		
13) Fluorene-d10	6.79	176	201	0.83	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	0.08%		
22) Fluoranthene-d10	0.00	212	0	0.00	ng/ml	
Spiked Amount 1000.000			Recovery =	0.00%		
25) Terphenyl-d14	0.00	244	0	0.00	ng/ml	
Spiked Amount 1000.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	323	0.82	ng/ml	94
21) Fluoranthene	8.59	202	116	0.20	ng/ml	70
26) Benz(a)anthracene	10.15	228	342	0.60	ng/ml	73
27) Chrysene	10.19	228	118	0.21	ng/ml	96
29) Benzo(b)fluoranthene	12.24	252	156	0.24	ng/ml	81
31) Benzo(e)pyrene	12.97	252	134	0.22	ng/ml	85
32) Benzo(a)pyrene	13.11	252	126	0.24	ng/ml	75
33) Perylene	13.30	252	287	0.51	ng/ml	85
34) Indeno(1,2,3-cd)pyrene	15.46	276	117	0.25	ng/ml	89
35) Dibenz(a,h)anthracene	15.51	278	95	0.19	ng/ml#	1
36) Benzo(g,h,i)perylene	15.84	276	178	0.30	ng/ml	89

< 1/2 MRL

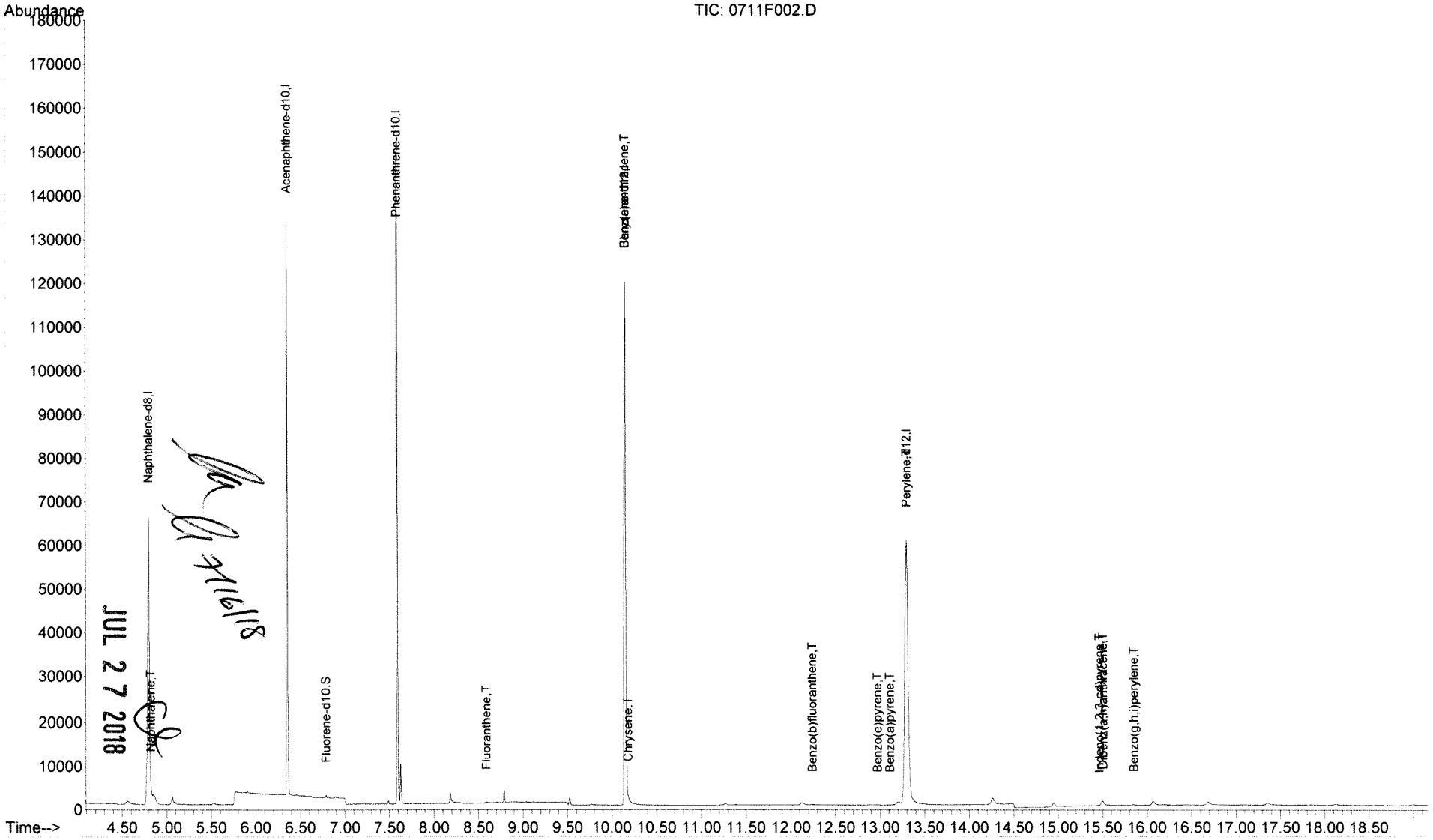
7/16/18

JUL 27 2018

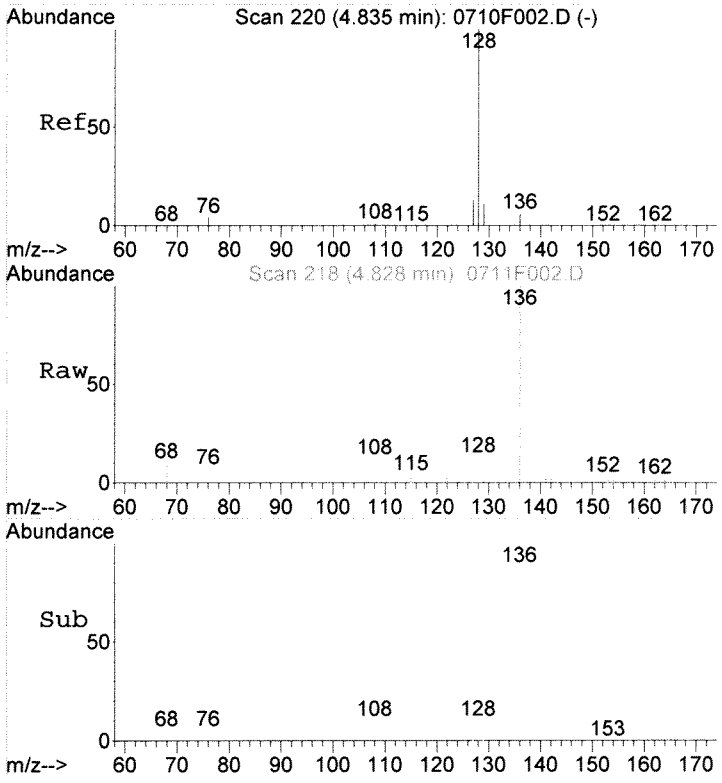
(#) = qualifier out of range (m) = manual integration
0711F002.D 071118PAH.M Mon Jul 16 09:16:23 2018 Page 1

Data File : J:\MS14\DATA\071118\0711F002.D Vial: 2
Acq On : 11 Jul 2018 7:50 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 16 9:16 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Jul 11 12:42:44 2018
Response via : Initial Calibration



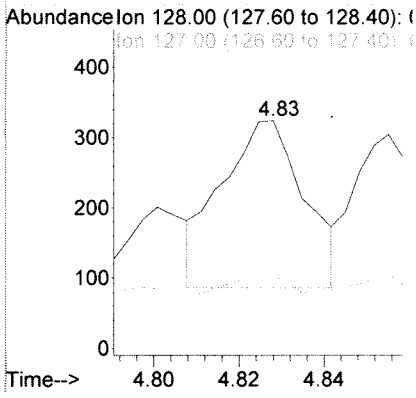
JUL 27 2018

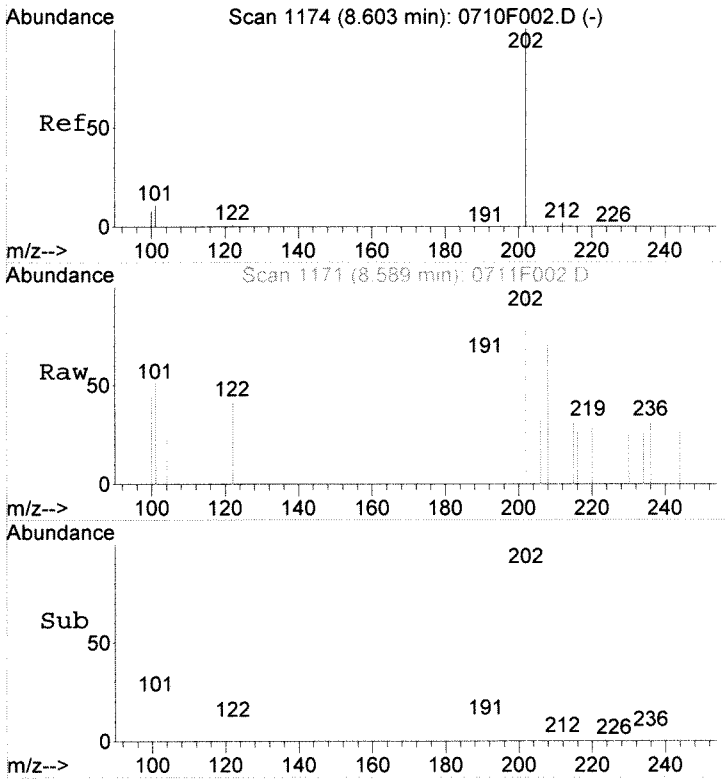


#2
Naphthalene
Concen: 0.82 ng/ml
RT: 4.83 min Scan# 218
Delta R.T. -0.01 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

Tgt Ion:128 Resp: 323

Ion	Ratio	Lower	Upper
128	100		
127	11.9	0.0	42.4
129	15.2	0.0	30.8

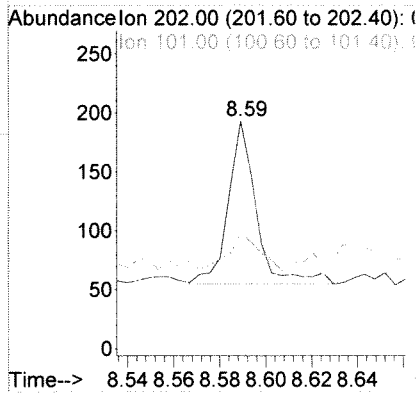




#21
Fluoranthene
Concen: 0.20 ng/ml
RT: 8.59 min Scan# 1171
Delta R.T. -0.02 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

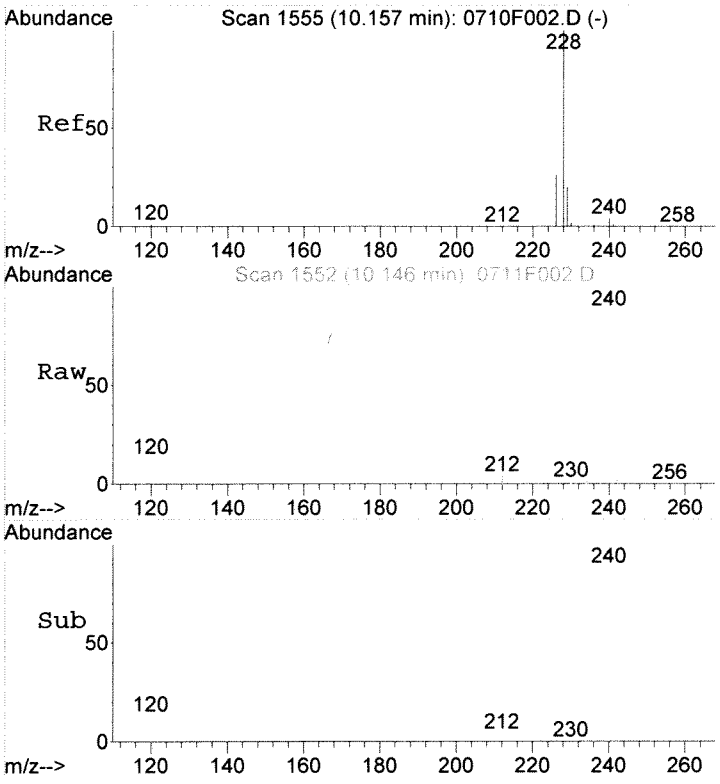
Tgt Ion:202 Resp: 116

Ion	Ratio	Lower	Upper
202	100		
101	17.4	0.0	40.7
100	23.9	0.0	27.5



7/16/18

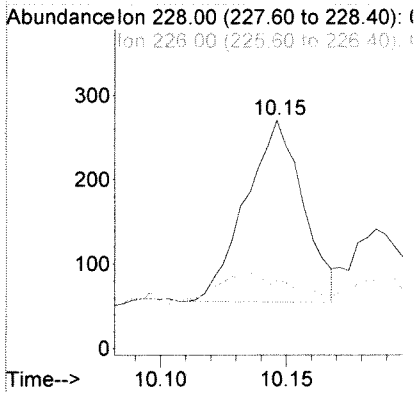
JUL 27 2018

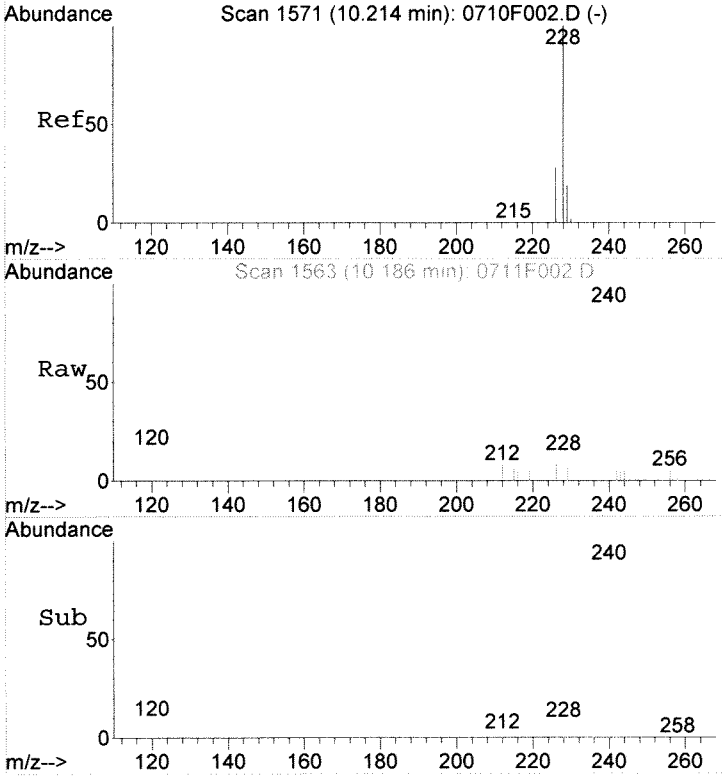


#26
Benz(a)anthracene
Concen: 0.60 ng/ml
RT: 10.15 min Scan# 1552
Delta R.T. -0.02 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

Tgt Ion:228 Resp: 342

Ion	Ratio	Lower	Upper
228	100		
226	9.8	0.0	56.0
229	28.8	0.0	39.5

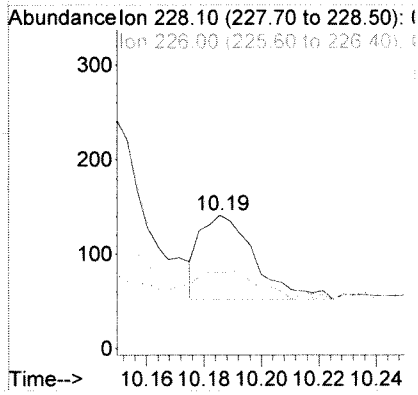




#27
Chrysene
Concen: 0.21 ng/ml
RT: 10.19 min Scan# 1563
Delta R.T. -0.03 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

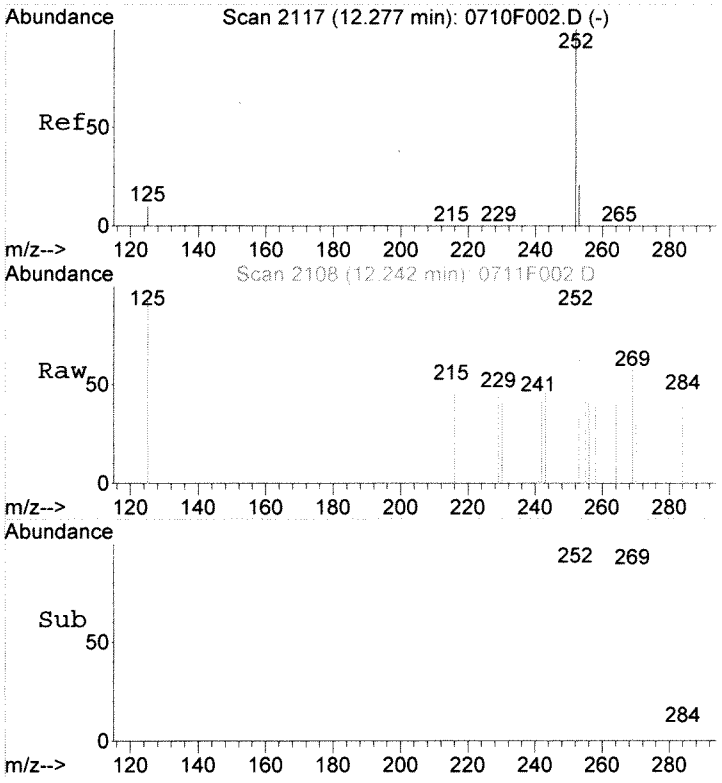
Tgt Ion:228 Resp: 118

Ion	Ratio	Lower	Upper
228	100		
226	31.5	0.0	58.6
229	18.0	0.0	39.4



7/16/18

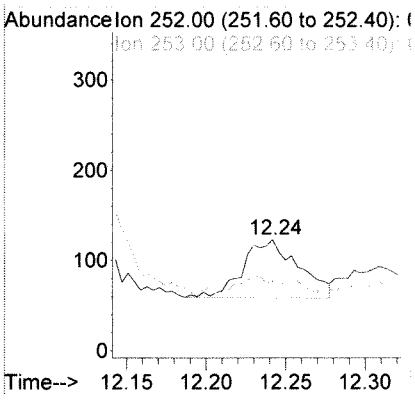
JUL 27 2018

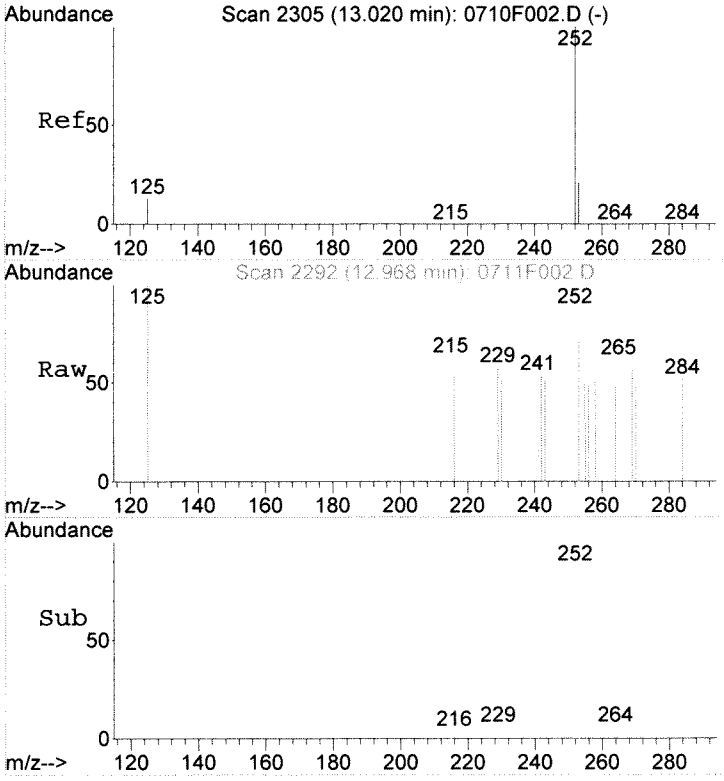


#29
Benzo(b)fluoranthene
Concen: 0.24 ng/ml
RT: 12.24 min Scan# 2108
Delta R.T. -0.04 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

Tgt Ion:252 Resp: 156

Ion	Ratio	Lower	Upper
252	100		
253	10.9	0.0	51.4
125	10.9	0.0	27.3

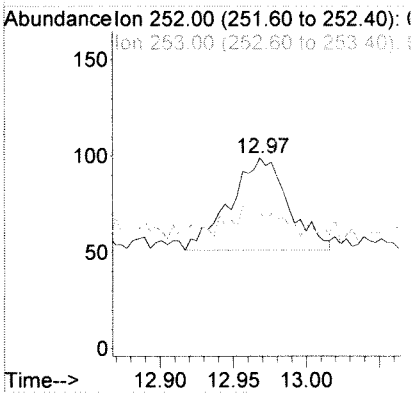




#31
Benzo(e)pyrene
Concen: 0.22 ng/ml
RT: 12.97 min Scan# 2292
Delta R.T. -0.06 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

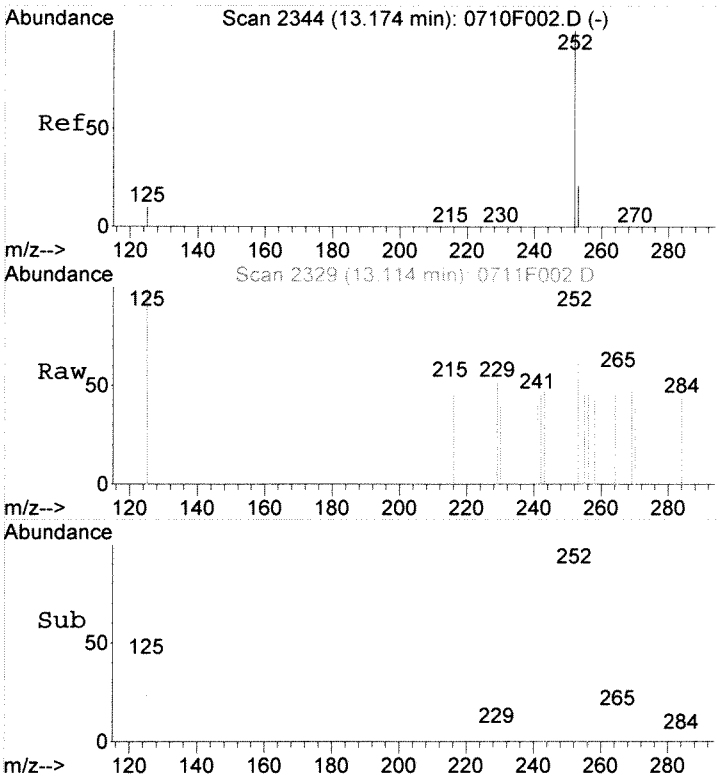
Tgt Ion:252 Resp: 134

Ion	Ratio	Lower	Upper
252	100		
253	25.0	0.0	51.3
125	0.0	0.0	30.8



7/16/18

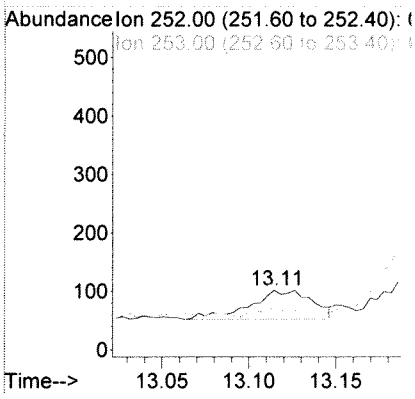
JUL 27 2018

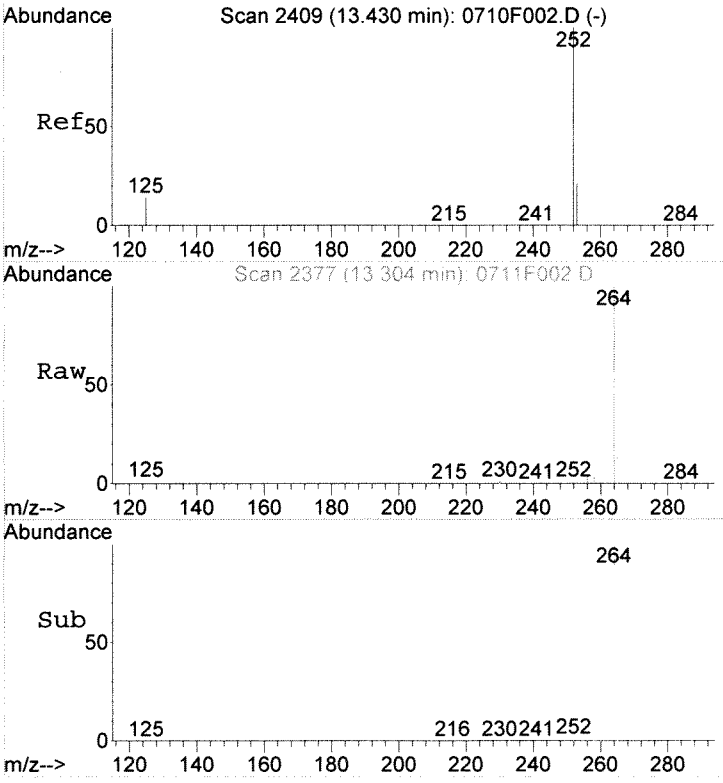


#32
Benzo(a)pyrene
Concen: 0.24 ng/ml
RT: 13.11 min Scan# 2329
Delta R.T. -0.06 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

Tgt Ion:252 Resp: 126

Ion	Ratio	Lower	Upper
252	100		
253	14.0	0.0	51.3
125	26.0	0.0	28.1

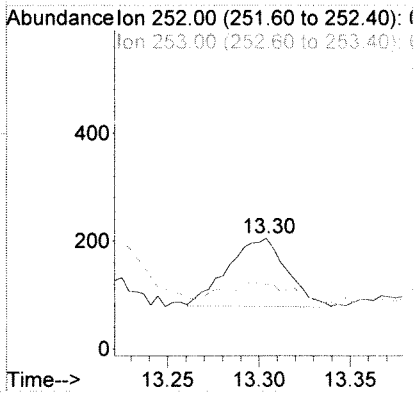




#33
Perylene
Concen: 0.51 ng/ml
RT: 13.30 min Scan# 2377
Delta R.T. -0.13 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

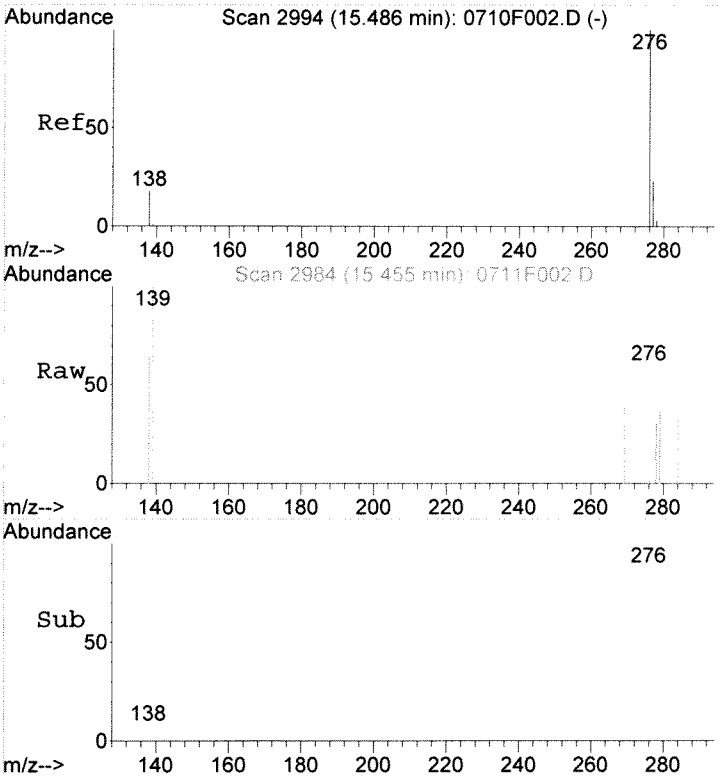
Tgt Ion:252 Resp: 287

Ion	Ratio	Lower	Upper
252	100		
253	25.4	0.0	51.4
125	22.2	0.0	31.3



7/16/18

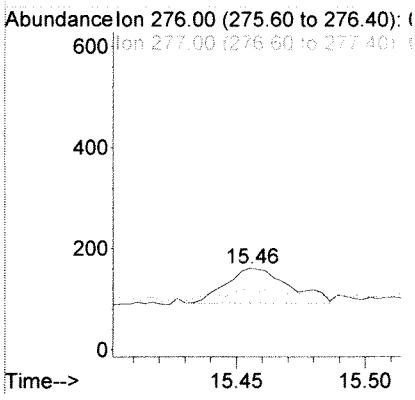
JUL 27 2018

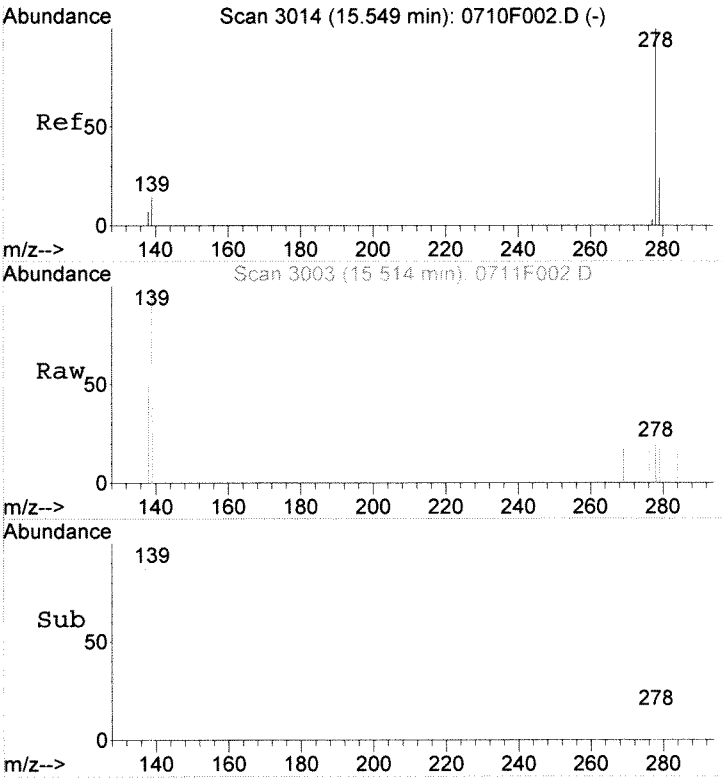


#34
Indeno(1,2,3-cd)pyrene
Concen: 0.25 ng/ml
RT: 15.46 min Scan# 2984
Delta R.T. -0.04 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

Tgt Ion:276 Resp: 117

Ion	Ratio	Lower	Upper
276	100		
277	31.9	0.0	53.6
138	17.4	0.0	36.2

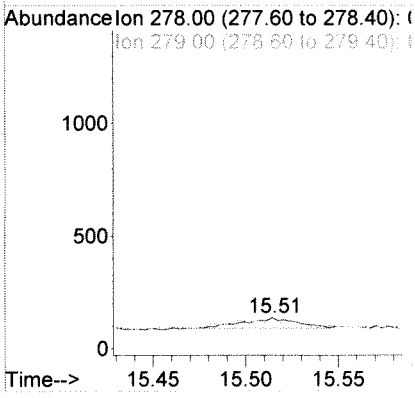




#35
Dibenz(a,h)anthracene
Concen: 0.19 ng/ml
RT: 15.51 min Scan# 3003
Delta R.T. -0.04 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

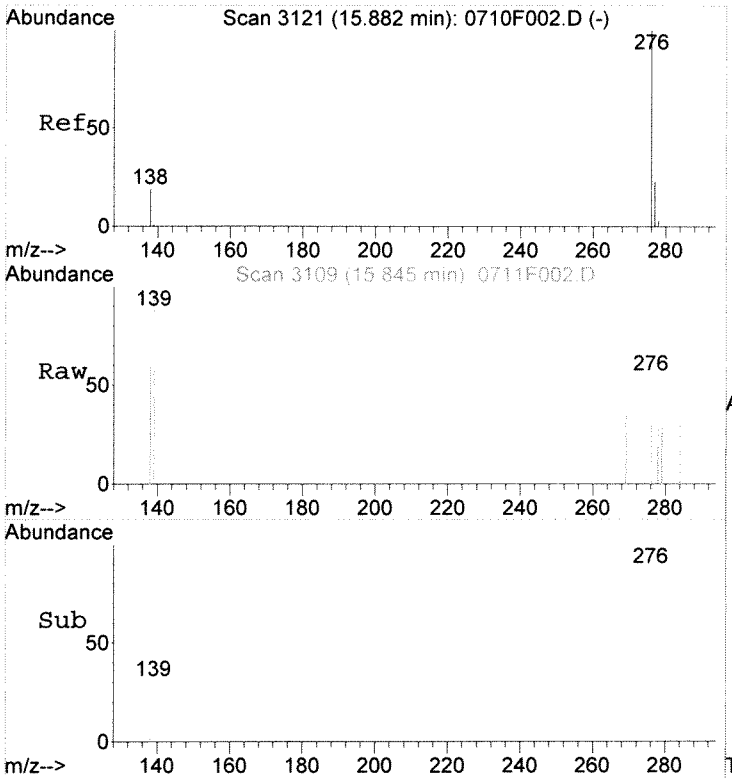
Tgt Ion:278 Resp: 95

Ion	Ratio	Lower	Upper
278	100		
279	31.3	0.0	53.6
139	702.1	0.0	33.4#



7/16/18

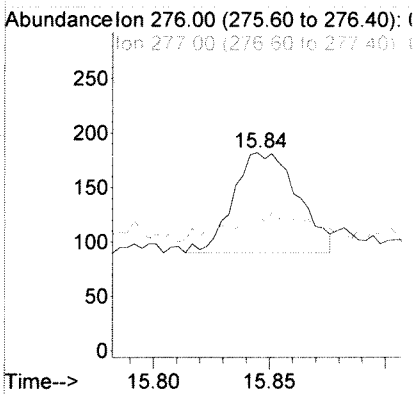
JUL 27 2018



#36
Benzo(g,h,i)perylene
Concen: 0.30 ng/ml
RT: 15.84 min Scan# 3109
Delta R.T. -0.05 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

Tgt Ion:276 Resp: 178

Ion	Ratio	Lower	Upper
276	100		
277	27.2	0.0	53.5
138	23.9	0.0	37.2



7/16/18

JUL 27 2018

Data File : J:\MS14\DATA\071118\0711F003.D Vial: 3
Acq On : 11 Jul 2018 8:16 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:39 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	66665	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	32181	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	67500	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	72337	200.00	ng/ml	-0.03
28) Perylene-d12	13.30	264	80376	200.00	ng/ml	-0.06
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	416	2.19	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	0.22%		
13) Fluorene-d10	6.79	176	593	2.82	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	0.28%		
22) Fluoranthene-d10	8.58	212	796	1.90	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	0.19%		
25) Terphenyl-d14	8.93	244	986	3.00	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	0.30%		
Target Compounds						Qvalue
2) Naphthalene	4.82	128	947	2.59	ng/ml	96
4) 2-Methylnaphthalene	5.45	142	526	2.25	ng/ml	96
5) 1-Methylnaphthalene	5.54	142	527	2.33	ng/ml	96
6) Biphenyl	5.86	154	672	2.33	ng/ml	95
7) 2,6-Dimethylnaphthalene	6.00	156	469	2.33	ng/ml	96
9) Acenaphthylene	6.23	152	810	2.15	ng/ml	97
10) Acenaphthene	6.38	154	463	2.14	ng/ml	99
11) Dibenzofuran	6.53	168	724	2.09	ng/ml	90
12) 2,3,5-Trimethylnaphthalene	6.70	170	450	2.21	ng/ml	94
14) Fluorene	6.81	166	582	2.17	ng/ml	100
16) Dibenzothiophene	7.51	184	890	2.13	ng/ml	93
17) Phenanthrene	7.61	178	900m	2.18	ng/ml	
18) Anthracene	7.65	178	807	2.00	ng/ml	98
19) Carbazole	7.79	167	753	2.07	ng/ml	96
20) 1-Methylphenanthrene	8.12	192	652	2.01	ng/ml	97
21) Fluoranthene	8.59	202	1013	2.02	ng/ml	97
24) Pyrene	8.79	202	1081	2.13	ng/ml#	48
26) Benz(a)anthracene	10.14	228	1082	2.36	ng/ml	98
27) Chrysene	10.19	228	887	1.96	ng/ml	96
29) Benzo(b)fluoranthene	12.24	252	956	1.91	ng/ml	95
30) Benzo(k)fluoranthene	12.31	252	934	1.86	ng/ml	94
31) Benzo(e)pyrene	12.97	252	971	1.99	ng/ml	96
32) Benzo(a)pyrene	13.12	252	876	2.08	ng/ml	90
33) Perylene	13.37	252	950	2.15	ng/ml	92
34) Indeno(1,2,3-cd)pyrene	15.45	276	990	2.67	ng/ml	94
35) Dibenz(a,h)anthracene	15.52	278	897	2.23	ng/ml	87
36) Benzo(g,h,i)perylene	15.85	276	1156	2.44	ng/ml	95

JUL 16 2018

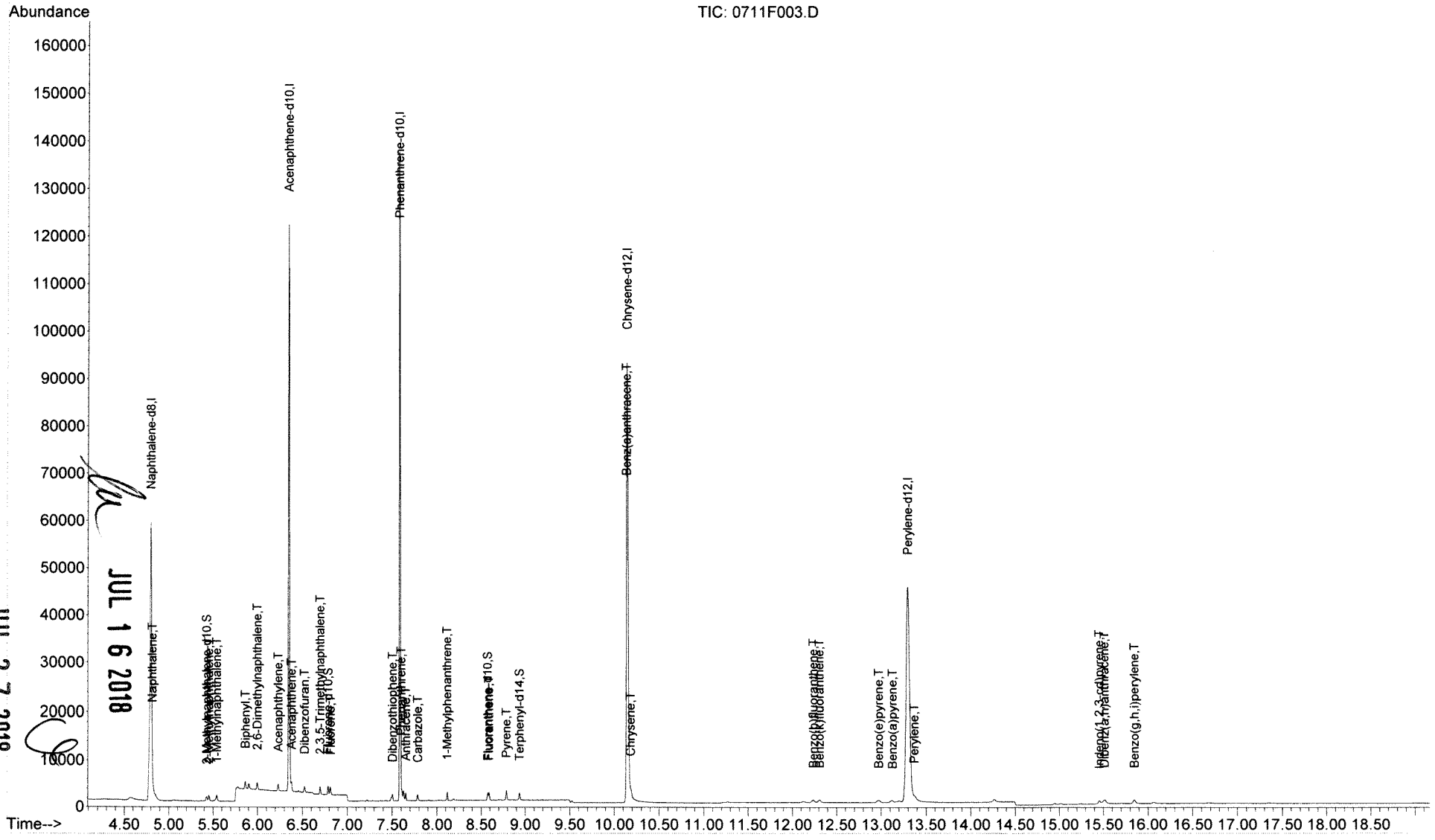
JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F003.D 071118PAH.M Wed Jul 11 12:39:37 2018 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F003.D Vial: 3
Acq On : 11 Jul 2018 8:16 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:35 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration

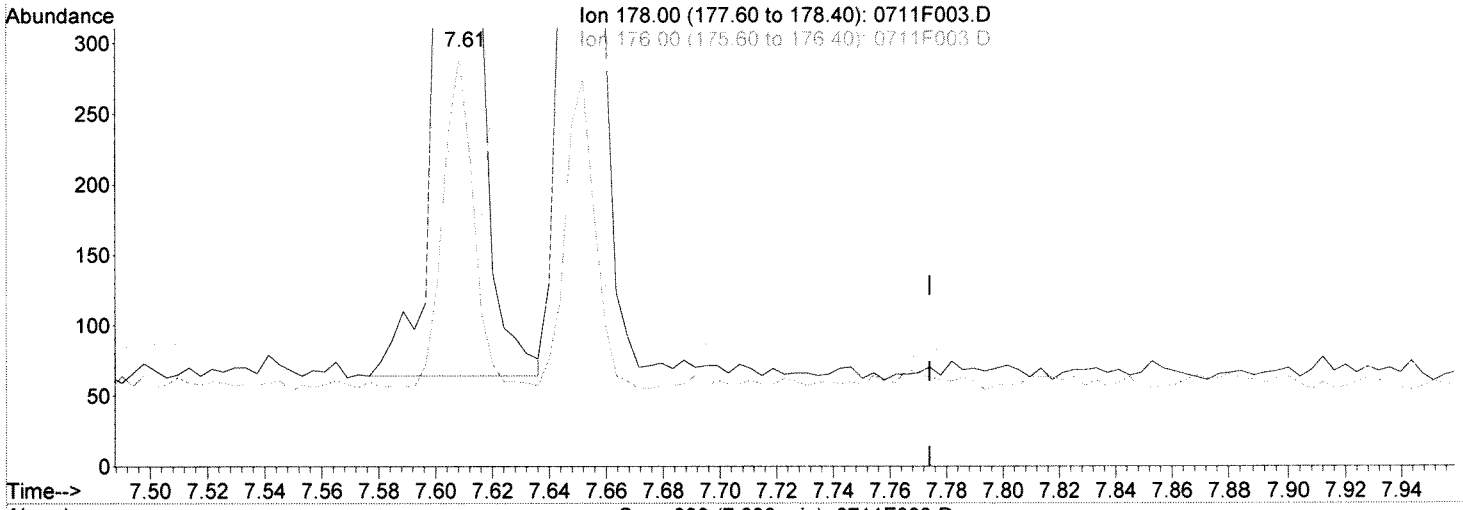


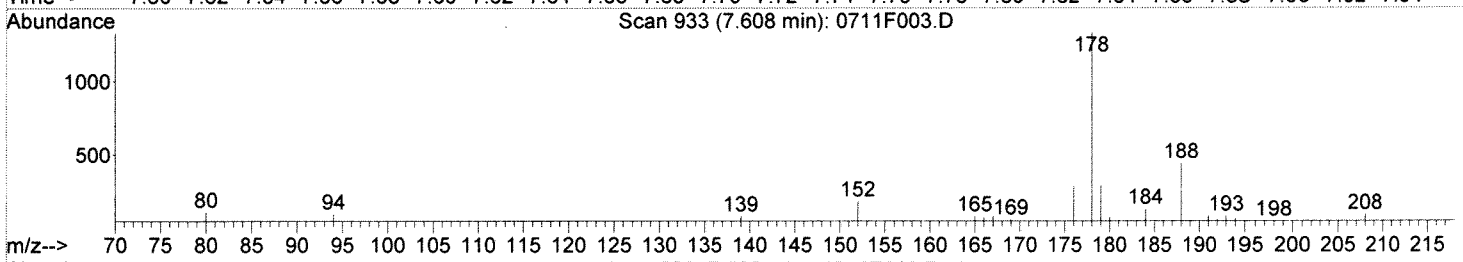
JUL 16 2018
JUL 27 2018

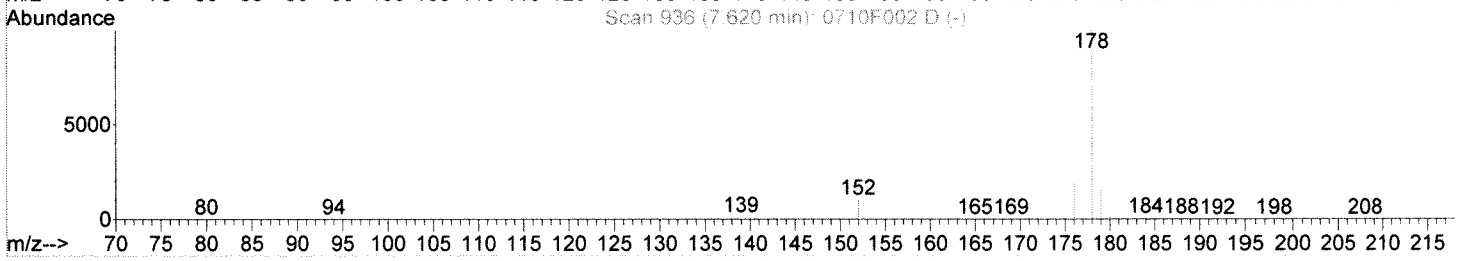
Quantitation Report (Quan)

Data File : J:\MS14\DATA\071118\0711F003.D Vial: 3
Acq On : 11 Jul 2018 8:16 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Multiple Level Calibration







TIC: 0711F003.D

(17) Phenanthrene (T)

7.61min 2.25ng/ml

response 927

Ion	Exp%	Act%
178.00	100	100
176.00	18.50	18.38
179.00	15.20	15.85
0.00	0.00	0.00

Manual Integration:

Before

07/11/18

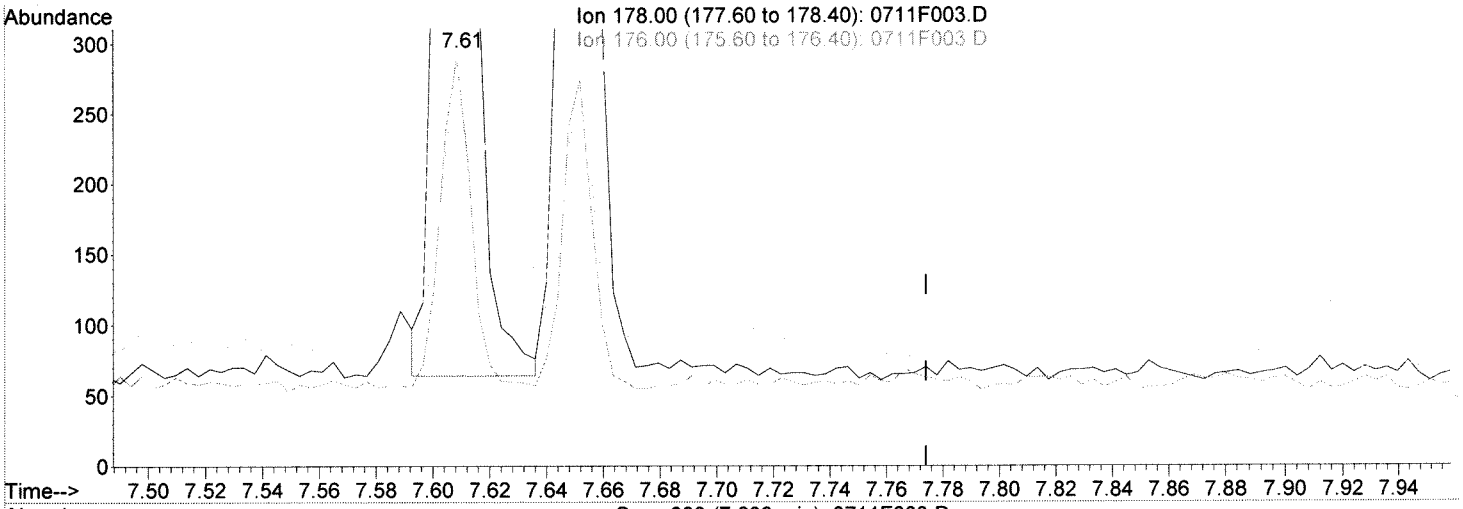
JUL 2 7 2018

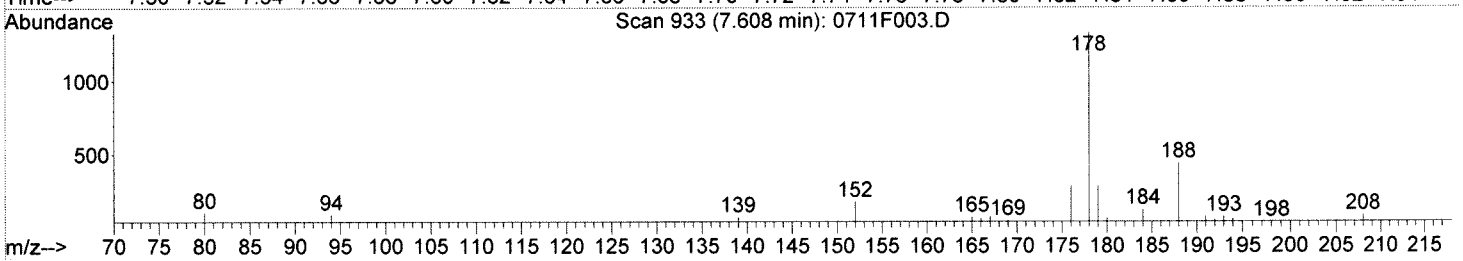
0711F003.D 071118PAH.M Wed Jul 11 12:35:11 2018

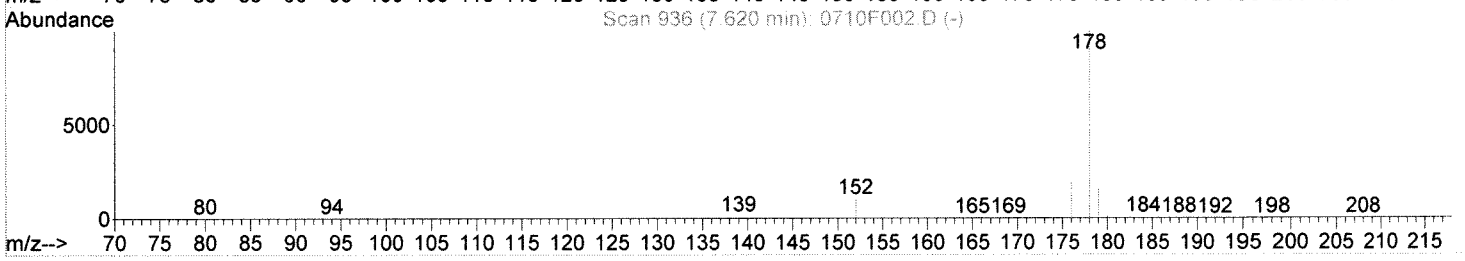
Quantitation Report (Quan)

Data File : J:\MS14\DATA\071118\0711F003.D Vial: 3
Acq On : 11 Jul 2018 8:16 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:35 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Multiple Level Calibration







TIC: 0711F003.D

(17) Phenanthrene (T)

7.61min 2.18ng/ml m

response 900

Ion	Exp%	Act%
178.00	100	100
176.00	18.50	21.77
179.00	15.20	21.70
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

07/11/18

JUL 27 2018

0711F003.D 071118PAH.M Wed Jul 11 12:35:17 2018

Data File : J:\MS14\DATA\071118\0711F004.D Vial: 4
Acq On : 11 Jul 2018 8:42 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:40 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	63956	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	30708	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	63250	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	72026	200.00	ng/ml	-0.03
28) Perylene-d12	13.30	264	79651	200.00	ng/ml	-0.06
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	763	4.19	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 0.42%			
13) Fluorene-d10	6.79	176	917	4.57	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 0.46%			
22) Fluoranthene-d10	8.58	212	1504	3.83	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 0.38%			
25) Terphenyl-d14	8.93	244	1510	4.62	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 0.46%			
Target Compounds						Qvalue
2) Naphthalene	4.82	128	1674	4.78	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	948	4.23	ng/ml	91
5) 1-Methylnaphthalene	5.54	142	937	4.32	ng/ml	90
6) Biphenyl	5.86	154	1229	4.45	ng/ml	94
7) 2,6-Dimethylnaphthalene	6.00	156	808	4.19	ng/ml	95
9) Acenaphthylene	6.23	152	1442	4.02	ng/ml	97
10) Acenaphthene	6.38	154	846	4.11	ng/ml	95
11) Dibenzofuran	6.53	168	1300	3.94	ng/ml	91
12) 2,3,5-Trimethylnaphthalene	6.70	170	782	4.03	ng/ml	98
14) Fluorene	6.81	166	1032	4.03	ng/ml	99
16) Dibenzothiophene	7.51	184	1534	3.93	ng/ml	95
17) Phenanthrene	7.61	178	1684m	4.36	ng/ml	
18) Anthracene	7.65	178	1474	3.90	ng/ml	98
19) Carbazole	7.79	167	1414	4.15	ng/ml	96
20) 1-Methylphenanthrene	8.12	192	1141	3.75	ng/ml	94
21) Fluoranthene	8.59	202	1825	3.88	ng/ml	96
24) Pyrene	8.79	202	2099	4.15	ng/ml#	16
26) Benz(a)anthracene	10.14	228	1900	4.17	ng/ml	100
27) Chrysene	10.19	228	1748	3.89	ng/ml	98
29) Benzo(b)fluoranthene	12.23	252	1853	3.73	ng/ml	96
30) Benzo(k)fluoranthene	12.31	252	1871	3.75	ng/ml	97
31) Benzo(e)pyrene	12.97	252	1822	3.77	ng/ml	96
32) Benzo(a)pyrene	13.12	252	1615	3.86	ng/ml	97
33) Perylene	13.38	252	1693	3.87	ng/ml	96
34) Indeno(1,2,3-cd)pyrene	15.46	276	1753	4.76	ng/ml	96
35) Dibenz(a,h)anthracene	15.52	278	1750	4.40	ng/ml	89
36) Benzo(g,h,i)perylene	15.85	276	2188	4.66	ng/ml	97

JUL 16 2018

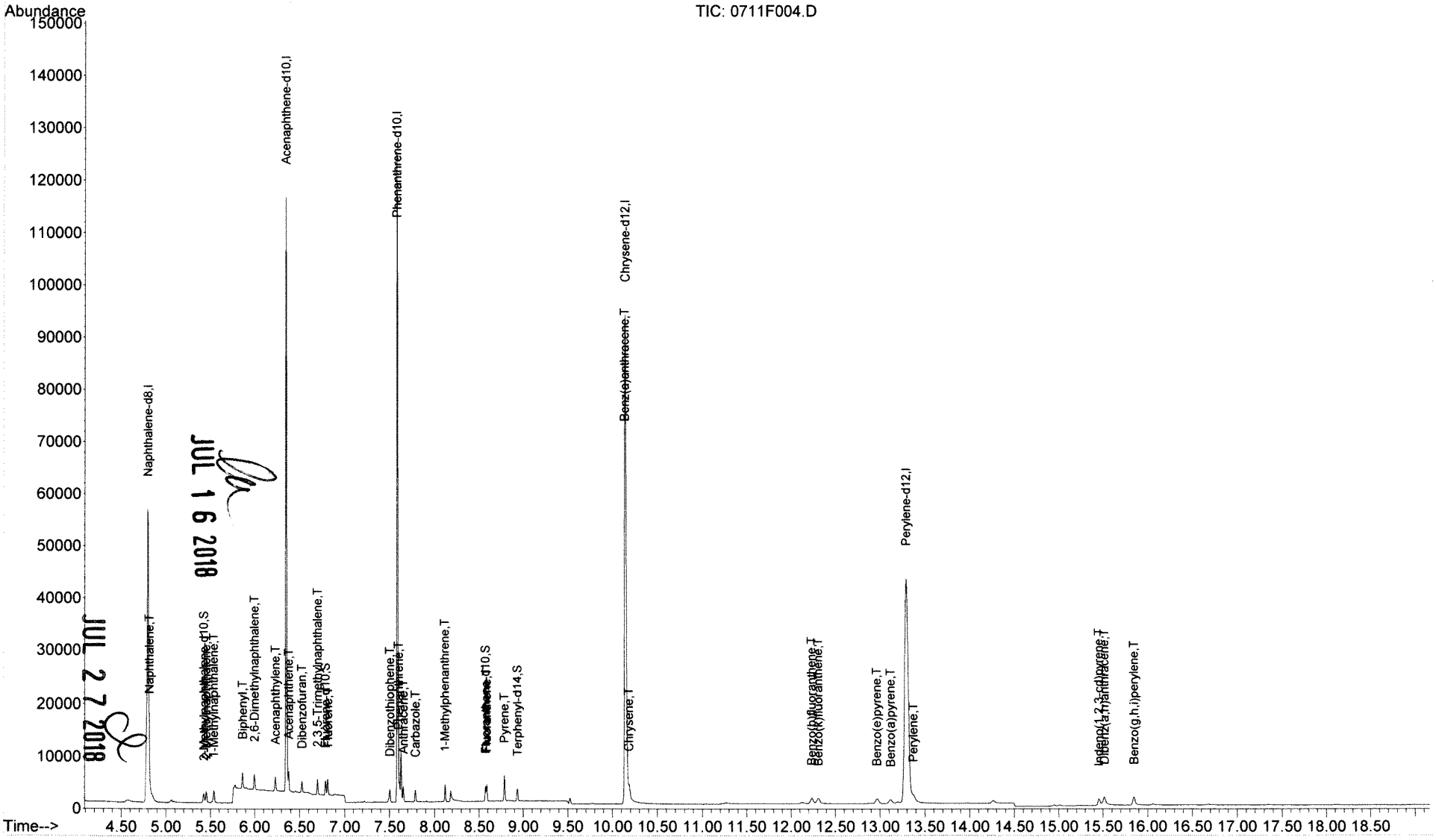
JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F004.D 071118PAH.M Wed Jul 11 12:39:39 2018 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F004.D Vial: 4
Acq On : 11 Jul 2018 8:42 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:35 2018 Quant Results File: 071118PAH.RES

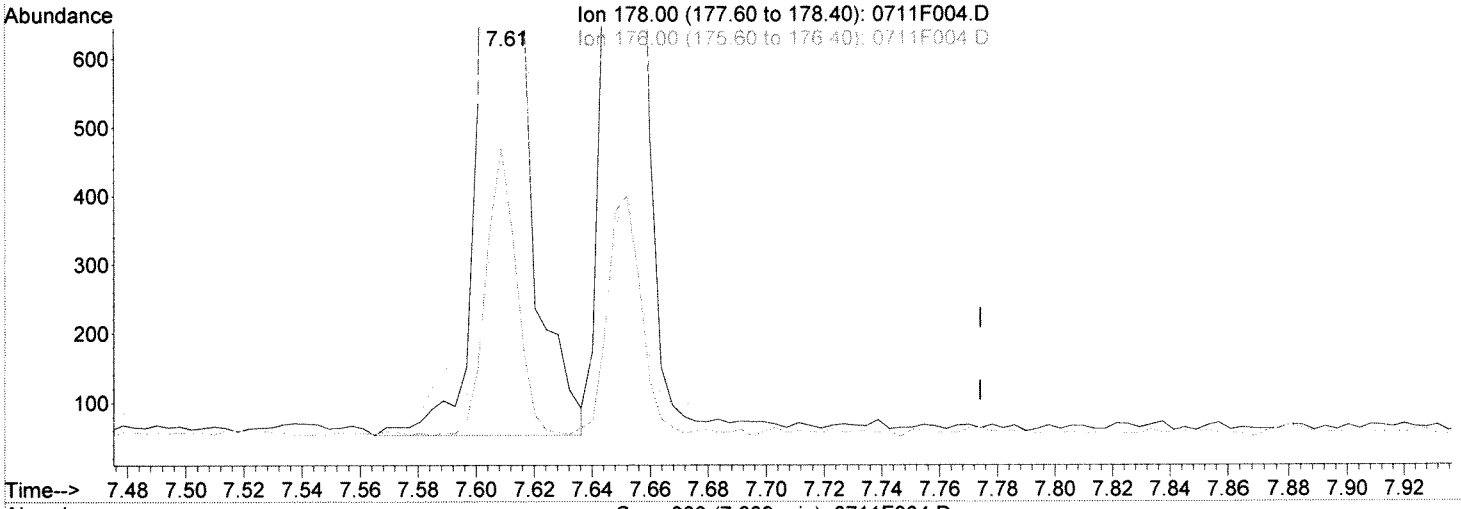
Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration

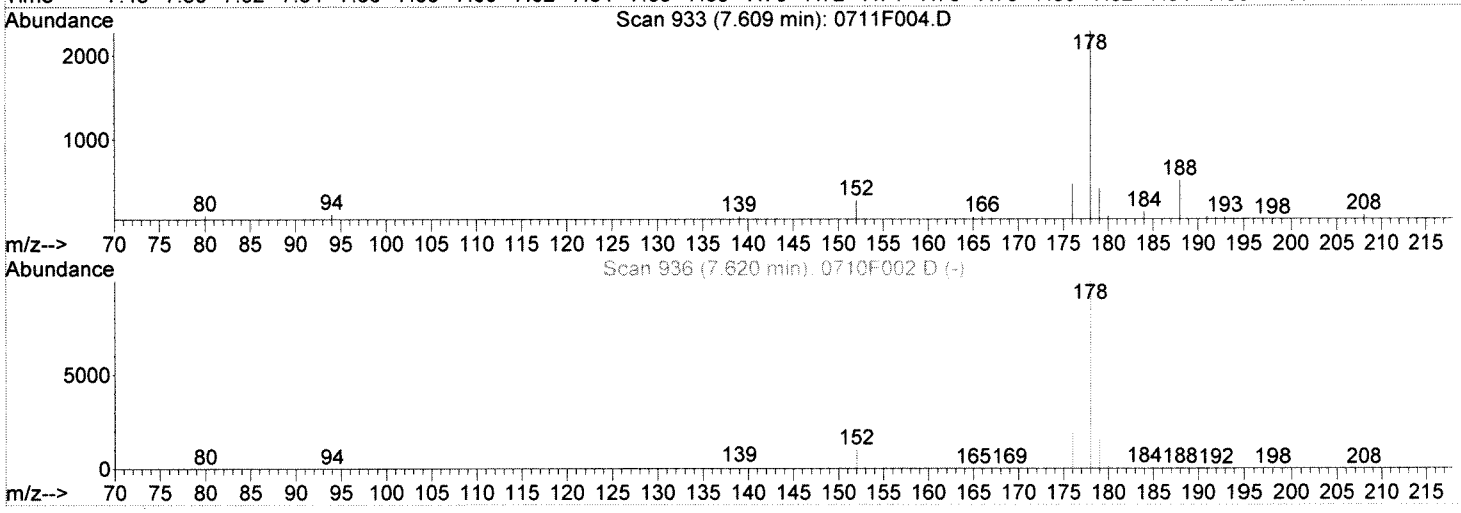


JUL 27 2018
JUL 16 2018

Data File : J:\MS14\DATA\071118\0711F004.D Vial: 4
Acq On : 11 Jul 2018 8:42 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Multiple Level Calibration





TIC: 0711F004.D

(17) Phenanthrene (T)

7.61min 4.47ng/ml

response 1727

Ion	Exp%	Act%
178.00	100	100
176.00	18.50	18.57
179.00	15.20	14.90
0.00	0.00	0.00

Manual Integration:

Before

07/11/18

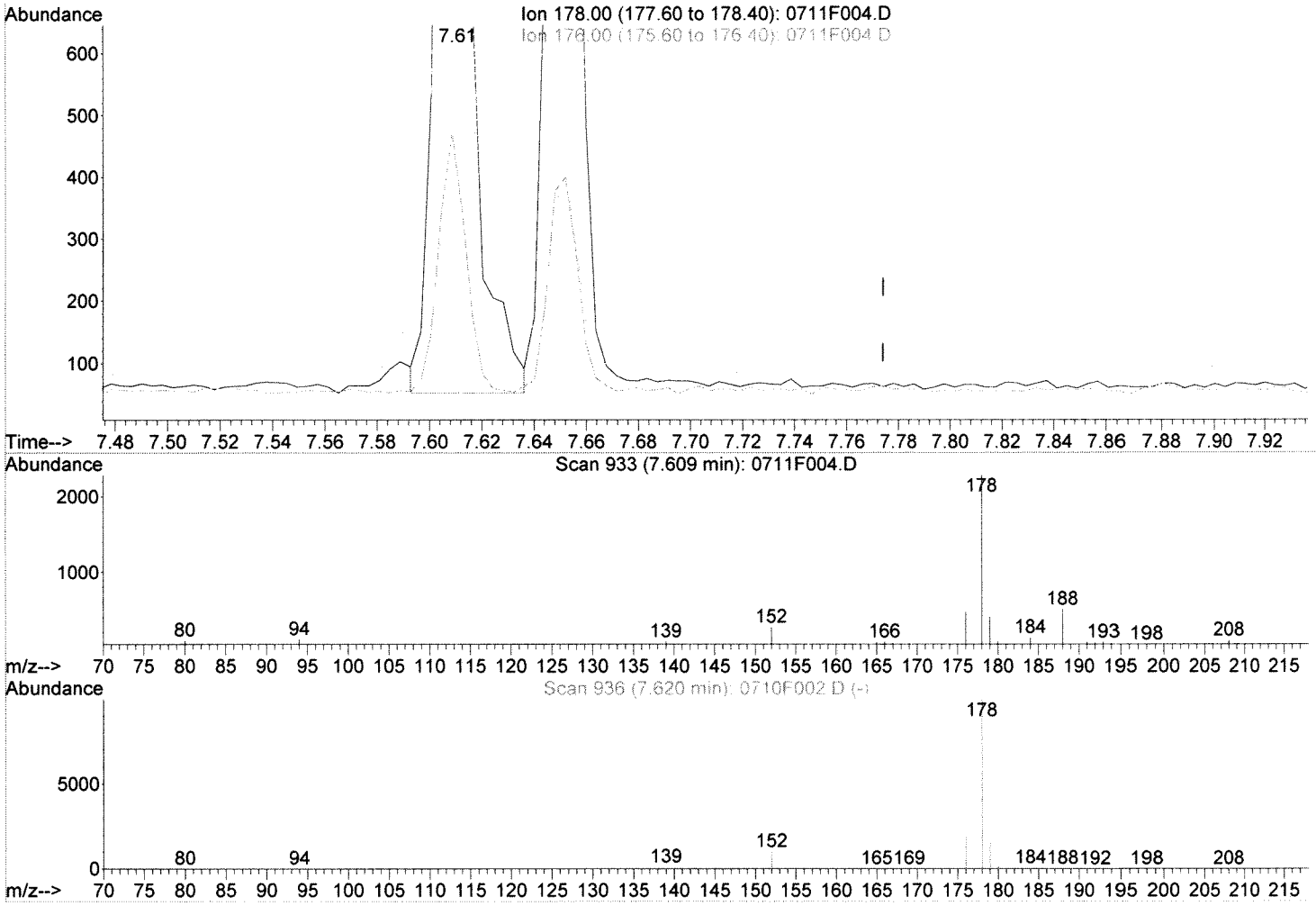
JUL 27 2018

0711F004.D 071118PAH.M Wed Jul 11 12:35:50 2018

Quantitation Report (Qual)

Data File : J:\MS14\DATA\071118\0711F004.D Vial: 4
Acq On : 11 Jul 2018 8:42 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:35 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Multiple Level Calibration



TIC: 0711F004.D

(17) Phenanthrene (T)

7.61min 4.36ng/ml m

response 1684

Ion	Exp%	Act%
178.00	100	100
176.00	18.50	20.54
179.00	15.20	17.83
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

07/11/18

JUL 27 2018

0711F004.D 071118PAH.M Wed Jul 11 12:35:56 2018

Data File : J:\MS14\DATA\071118\0711F005.D Vial: 5
Acq On : 11 Jul 2018 9:08 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008ug/mL | SVM59-4C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:40 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	62880	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	29911	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	62211	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	69517	200.00	ng/ml	-0.03
28) Perylene-d12	13.30	264	76895	200.00	ng/ml	-0.06
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	1448	8.09	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 0.81%			
13) Fluorene-d10	6.79	176	1594	8.15	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 0.82%			
22) Fluoranthene-d10	8.58	212	2857	7.40	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 0.74%			
25) Terphenyl-d14	8.93	244	2597	8.23	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 0.82%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	2996	8.69	ng/ml	98
4) 2-Methylnaphthalene	5.45	142	1845	8.38	ng/ml	95
5) 1-Methylnaphthalene	5.54	142	1728	8.11	ng/ml	94
6) Biphenyl	5.86	154	2298	8.46	ng/ml	95
7) 2,6-Dimethylnaphthalene	6.00	156	1535	8.10	ng/ml	97
9) Acenaphthylene	6.23	152	2743	7.85	ng/ml	99
10) Acenaphthene	6.38	154	1596	7.95	ng/ml	95
11) Dibenzofuran	6.53	168	2645	8.22	ng/ml	92
12) 2,3,5-Trimethylnaphthalene	6.70	170	1455	7.70	ng/ml	94
14) Fluorene	6.81	166	1936	7.77	ng/ml	100
16) Dibenzothiophene	7.51	184	2951	7.68	ng/ml	94
17) Phenanthrene	7.61	178	3111	8.18	ng/ml	99
18) Anthracene	7.65	178	2901	7.81	ng/ml	99
19) Carbazole	7.78	167	2691	8.03	ng/ml	96
20) 1-Methylphenanthrene	8.12	192	2211	7.38	ng/ml	97
21) Fluoranthene	8.59	202	3571	7.72	ng/ml	99
24) Pyrene	8.79	202	3832	7.85	ng/ml	83
26) Benz(a)anthracene	10.13	228	3494	7.94	ng/ml	98
27) Chrysene	10.19	228	3411	7.86	ng/ml	98
29) Benzo(b)fluoranthene	12.24	252	3544	7.39	ng/ml	96
30) Benzo(k)fluoranthene	12.31	252	3488	7.25	ng/ml	97
31) Benzo(e)pyrene	12.97	252	3487	7.47	ng/ml	95
32) Benzo(a)pyrene	13.12	252	3161	7.84	ng/ml	97
33) Perylene	13.37	252	3327	7.88	ng/ml	95
34) Indeno(1,2,3-cd)pyrene	15.46	276	3272	9.21	ng/ml	98
35) Dibenz(a,h)anthracene	15.52	278	3362	8.75	ng/ml	96
36) Benzo(g,h,i)perylene	15.85	276	4042	8.91	ng/ml	98

JUL 16 2018

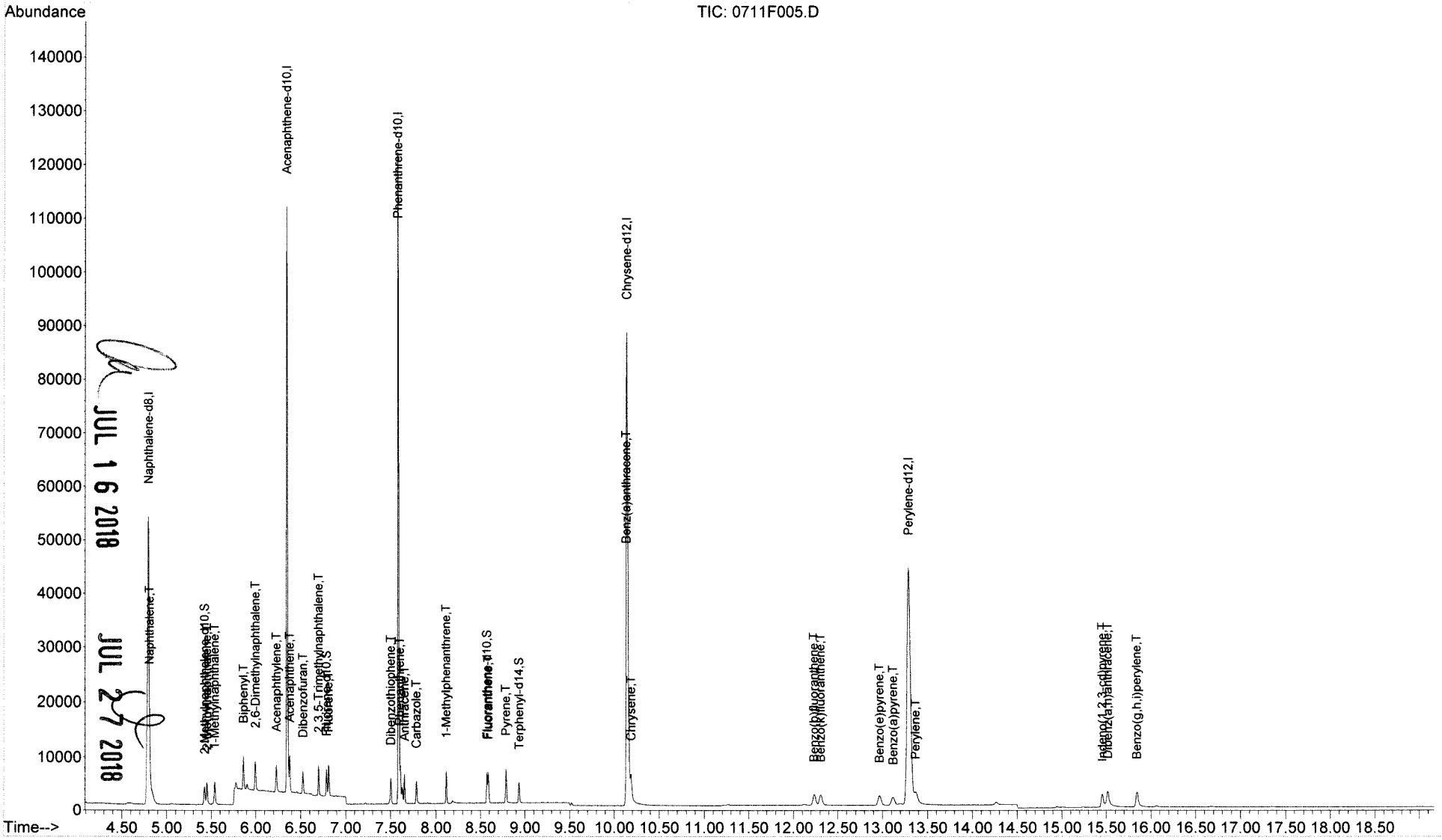
JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F005.D 071118PAH.M Wed Jul 11 12:39:41 2018 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F005.D Vial: 5
Acq On : 11 Jul 2018 9:08 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008ug/mL | SVM59-4C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration



JUL 16 2018
JUL 27 2018

Data File : J:\MS14\DATA\071118\0711F006.D Vial: 6
Acq On : 11 Jul 2018 9:34 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:41 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	65840	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	30682	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	63668	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	68947	200.00	ng/ml	-0.03
28) Perylene-d12	13.30	264	73587	200.00	ng/ml	-0.06
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	3694	19.72	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	1.97%		
13) Fluorene-d10	6.79	176	3914	19.51	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	1.95%		
22) Fluoranthene-d10	8.58	212	7036	17.81	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	1.78%		
25) Terphenyl-d14	8.93	244	5981	19.10	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	1.91%		
Target Compounds						Qvalue
2) Naphthalene	4.82	128	7540	20.90	ng/ml	98
4) 2-Methylnaphthalene	5.46	142	4709	20.41	ng/ml	98
5) 1-Methylnaphthalene	5.54	142	4545	20.37	ng/ml	98
6) Biphenyl	5.86	154	5875	20.65	ng/ml	94
7) 2,6-Dimethylnaphthalene	6.00	156	3939	19.85	ng/ml	98
9) Acenaphthylene	6.23	152	7137	19.90	ng/ml	97
10) Acenaphthene	6.38	154	4220	20.50	ng/ml	98
11) Dibenzofuran	6.53	168	6406	19.41	ng/ml	92
12) 2,3,5-Trimethylnaphthalene	6.70	170	3696	19.07	ng/ml	95
14) Fluorene	6.81	166	5030	19.67	ng/ml	99
16) Dibenzothiophene	7.51	184	7587	19.29	ng/ml	95
17) Phenanthrene	7.61	178	7852	20.19	ng/ml	100
18) Anthracene	7.65	178	7270	19.13	ng/ml	99
19) Carbazole	7.78	167	6767	19.72	ng/ml	97
20) 1-Methylphenanthrene	8.12	192	5509	17.97	ng/ml	96
21) Fluoranthene	8.59	202	8985	18.97	ng/ml	99
24) Pyrene	8.79	202	9434	19.48	ng/ml	92
26) Benz(a)anthracene	10.14	228	8203	18.81	ng/ml	99
27) Chrysene	10.19	228	8248	19.16	ng/ml	99
29) Benzo(b)fluoranthene	12.23	252	8538	18.60	ng/ml	97
30) Benzo(k)fluoranthene	12.31	252	8727	18.95	ng/ml	99
31) Benzo(e)pyrene	12.97	252	8307	18.60	ng/ml	96
32) Benzo(a)pyrene	13.12	252	7683	19.90	ng/ml	98
33) Perylene	13.38	252	8269m	20.48	ng/ml	
34) Indeno(1,2,3-cd)pyrene	15.46	276	7779	22.89	ng/ml	98
35) Dibenz(a,h)anthracene	15.52	278	8645m	23.51	ng/ml	
36) Benzo(g,h,i)perylene	15.85	276	9837	22.66	ng/ml	98

JUL 16 2018

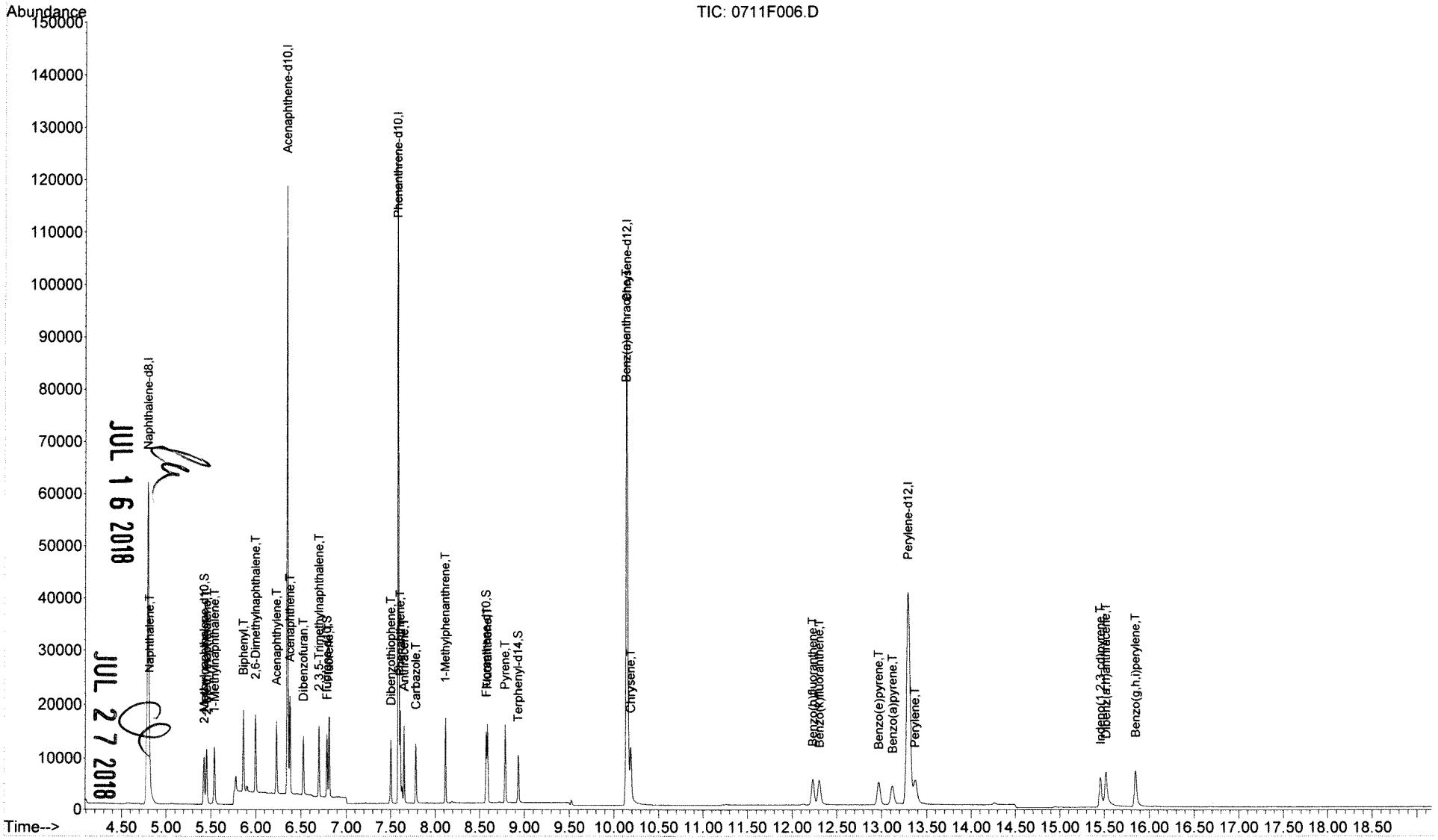
JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F006.D 071118PAH.M Wed Jul 11 12:39:43 2018 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F006.D Vial: 6
Acq On : 11 Jul 2018 9:34 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:37 2018 Quant Results File: 071118PAH.RES

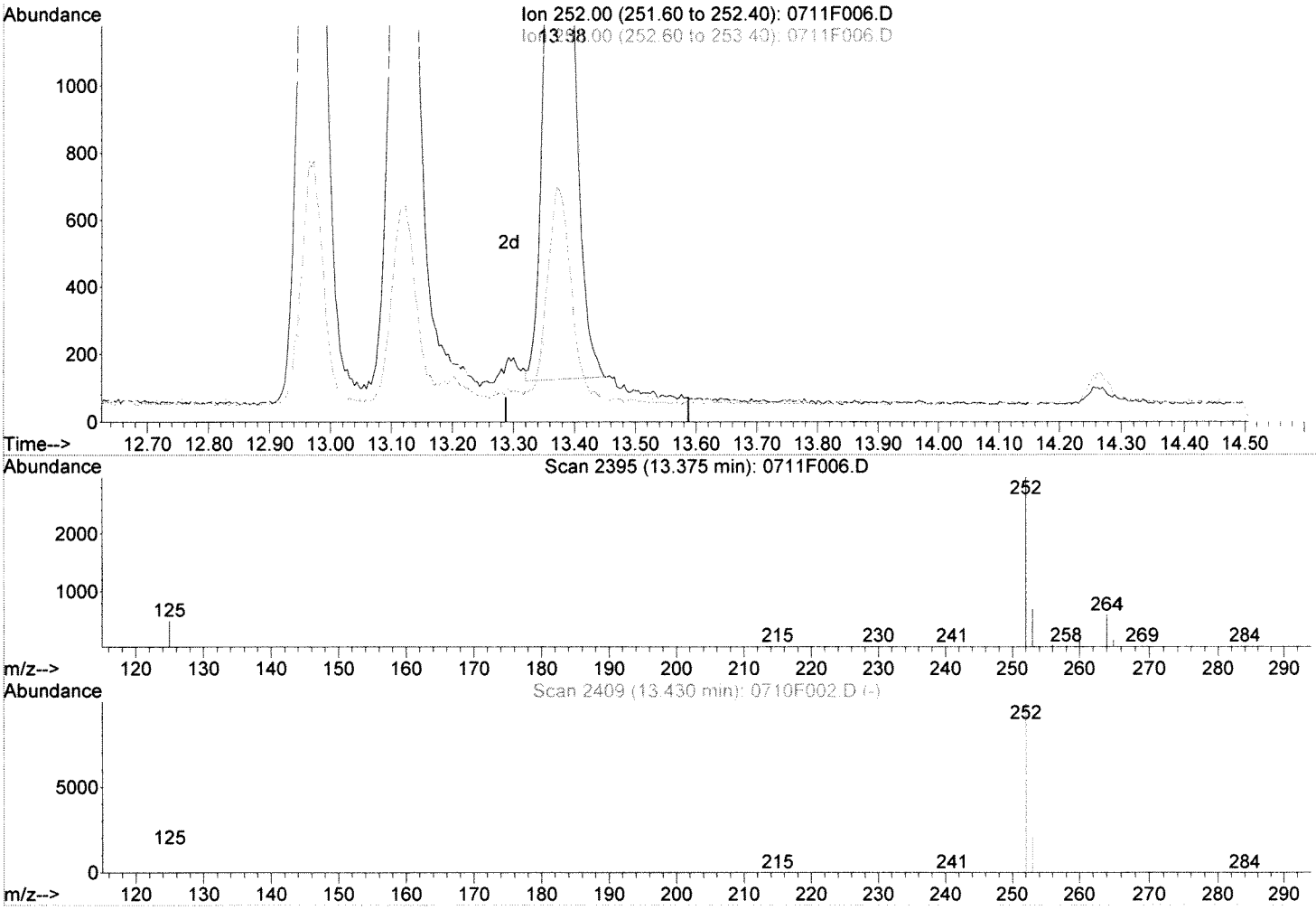
Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File : J:\MS14\DATA\071118\0711F006.D Vial: 6
Acq On : 11 Jul 2018 9:34 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Multiple Level Calibration



TIC: 0711F006.D

(33) Perylene (T)

13.38min 19.01ng/ml

response 7678

Ion	Exp%	Act%
252.00	100	100
253.00	21.40	21.61
125.00	11.30	14.83
0.00	0.00	0.00

Manual Integration:

Before

07/11/18

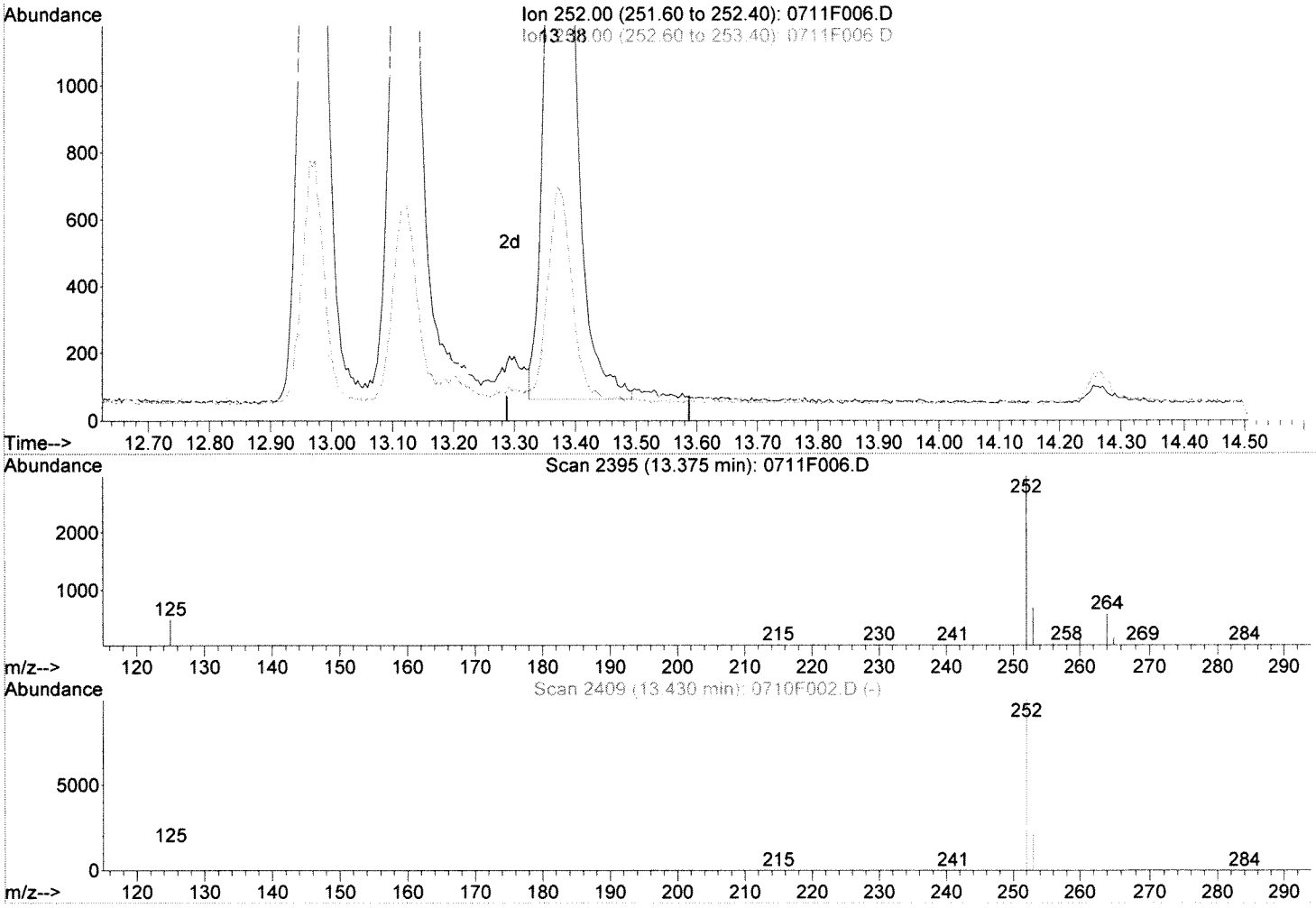
JUL 27 2018

0711F006.D 071118PAH.M Wed Jul 11 12:36:54 2018

Quantitation Report (QedIt)

Data File : J:\MS14\DATA\071118\0711F006.D Vial: 6
Acq On : 11 Jul 2018 9:34 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:36 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Multiple Level Calibration



TIC: 0711F006.D

(33) Perylene (T)

13.38min 20.48ng/ml m

response 8269

Ion	Exp%	Act%
252.00	100	100
253.00	21.40	23.07
125.00	11.30	16.52
0.00	0.00	0.00

Manual Integration:

After

BLC

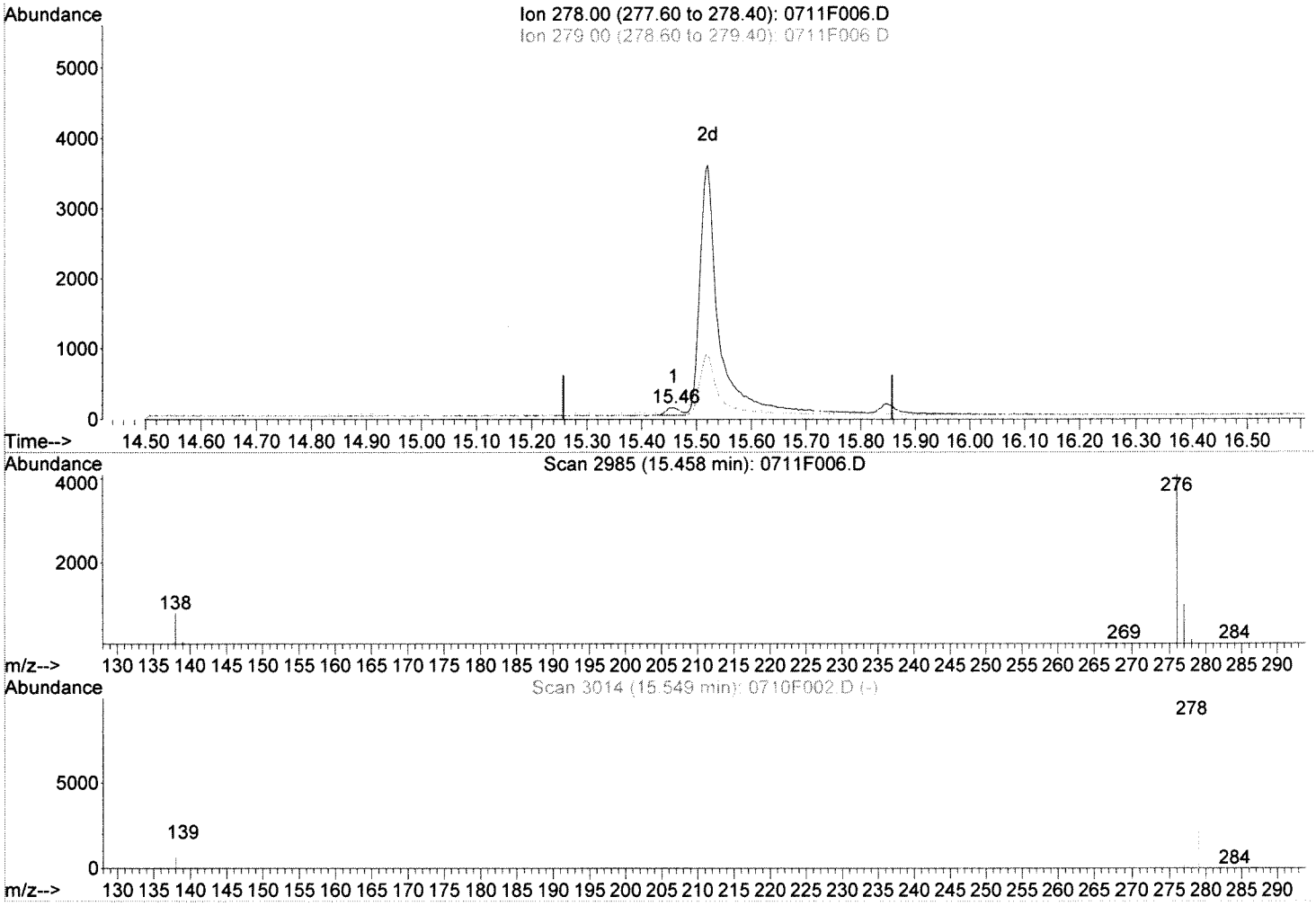
07/11/18

JUL 27 2018

0711F006.D 071118PAH.M Wed Jul 11 12:37:01 2018

Data File : J:\MS14\DATA\071118\0711F006.D Vial: 6
Acq On : 11 Jul 2018 9:34 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:36 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Multiple Level Calibration



TIC: 0711F006.D

(35) Dibenz(a,h)anthracene (T)

15.46min 0.54ng/ml

response 199

Ion	Exp%	Act%
278.00	100	100
279.00	23.60	2.68
139.00	13.40	20.54
0.00	0.00	0.00

Manual Integration:

Before

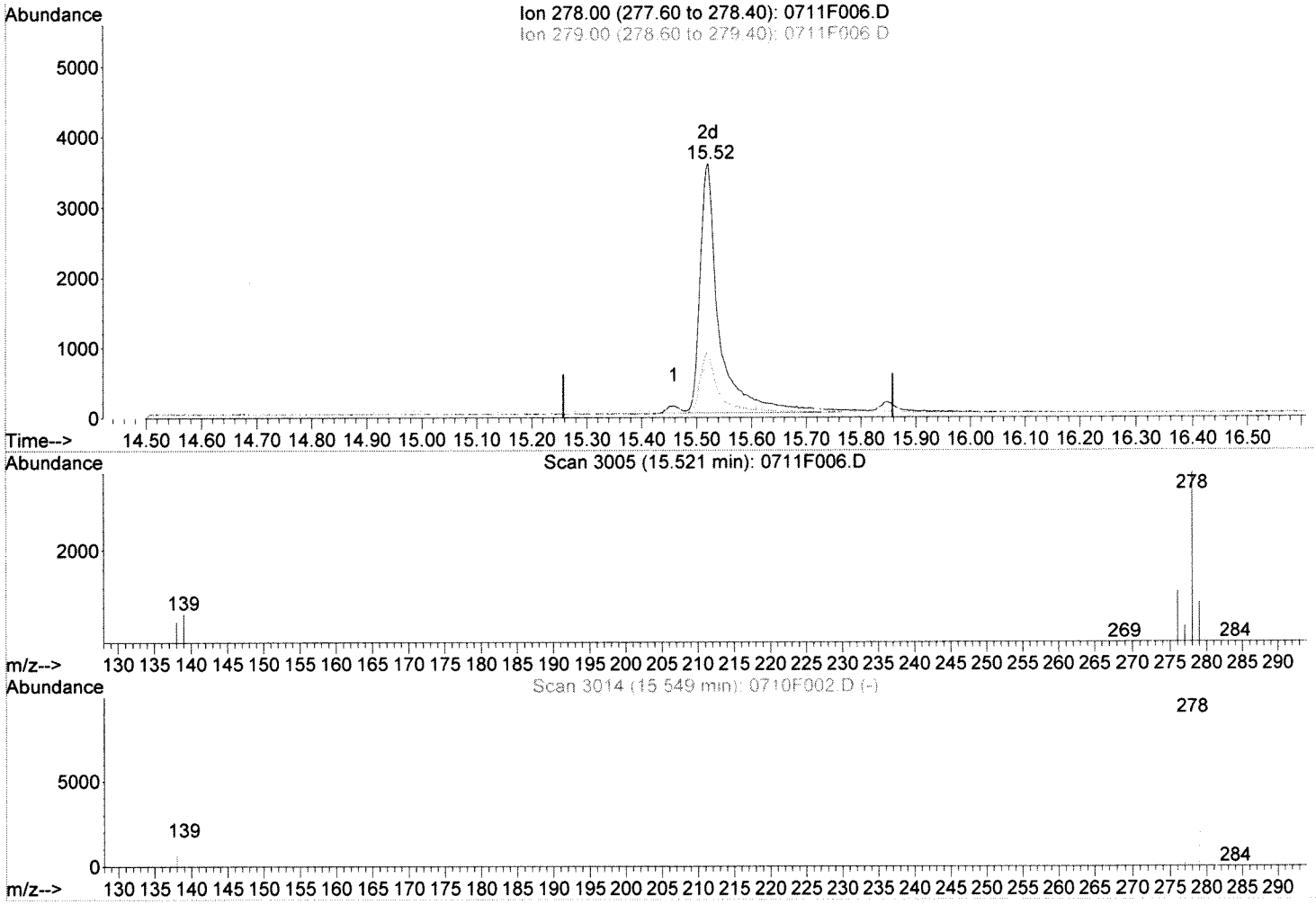
07/11/18

JUL 27 2018

0711F006.D 071118PAH.M Wed Jul 11 12:37:06 2018

Data File : J:\MS14\DATA\071118\0711F006.D Vial: 6
Acq On : 11 Jul 2018 9:34 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:37 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Multiple Level Calibration



TIC: 0711F006.D

(35) Dibenz(a,h)anthracene (T)

15.52min 23.51ng/ml m

response 8645

Ion	Exp%	Act%
278.00	100	100
279.00	23.60	25.00
139.00	13.40	18.72
0.00	0.00	0.00

Manual Integration:

After

WP

07/11/18

JUL 27 2018

0711F006.D 071118PAH.M Wed Jul 11 12:37:15 2018

Data File : J:\MS14\DATA\071118\0711F007.D Vial: 7
Acq On : 11 Jul 2018 10:00 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.1ug/mL | SVM59-4E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:41 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	62407	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	28255	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	58489	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	68483	200.00	ng/ml	-0.03
28) Perylene-d12	13.30	264	75974	200.00	ng/ml	-0.06
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	17559	98.89	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	9.89%		
13) Fluorene-d10	6.79	176	17680	95.70	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	9.57%		
22) Fluoranthene-d10	8.58	212	35144	96.82	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	9.68%		
25) Terphenyl-d14	8.93	244	28477	91.57	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	9.16%		
Target Compounds						Qvalue
2) Naphthalene	4.82	128	35255	103.08	ng/ml	98
4) 2-Methylnaphthalene	5.45	142	22418	102.54	ng/ml	94
5) 1-Methylnaphthalene	5.54	142	21213	100.29	ng/ml	96
6) Biphenyl	5.86	154	27265	101.12	ng/ml	96
7) 2,6-Dimethylnaphthalene	6.00	156	18574	98.74	ng/ml	96
9) Acenaphthylene	6.23	152	33544	101.56	ng/ml	98
10) Acenaphthene	6.38	154	19460	102.65	ng/ml	97
11) Dibenzofuran	6.53	168	31402	103.33	ng/ml	94
12) 2,3,5-Trimethylnaphthalene	6.70	170	17703	99.17	ng/ml	95
14) Fluorene	6.81	166	24009	101.96	ng/ml	99
16) Dibenzothiophene	7.51	184	36360	100.61	ng/ml	95
17) Phenanthrene	7.61	178	36499	102.14	ng/ml	100
18) Anthracene	7.65	178	35340	101.23	ng/ml	100
19) Carbazole	7.78	167	33613	106.65	ng/ml	99
20) 1-Methylphenanthrene	8.12	192	26919	95.59	ng/ml	97
21) Fluoranthene	8.59	202	44895	103.20	ng/ml	99
24) Pyrene	8.79	202	45944	95.52	ng/ml	96
26) Benz(a)anthracene	10.14	228	41105	94.87	ng/ml	99
27) Chrysene	10.19	228	42544	99.49	ng/ml	99
29) Benzo(b)fluoranthene	12.24	252	45690	96.41	ng/ml	98
30) Benzo(k)fluoranthene	12.31	252	46655	98.13	ng/ml	97
31) Benzo(e)pyrene	12.97	252	43163	93.59	ng/ml	96
32) Benzo(a)pyrene	13.12	252	39807	99.87	ng/ml	98
33) Perylene	13.37	252	42088	100.96	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.46	276	40462	115.30	ng/ml	98
35) Dibenz(a,h)anthracene	15.52	278	42729	112.54	ng/ml	98
36) Benzo(g,h,i)perylene	15.85	276	48457	108.12	ng/ml	97

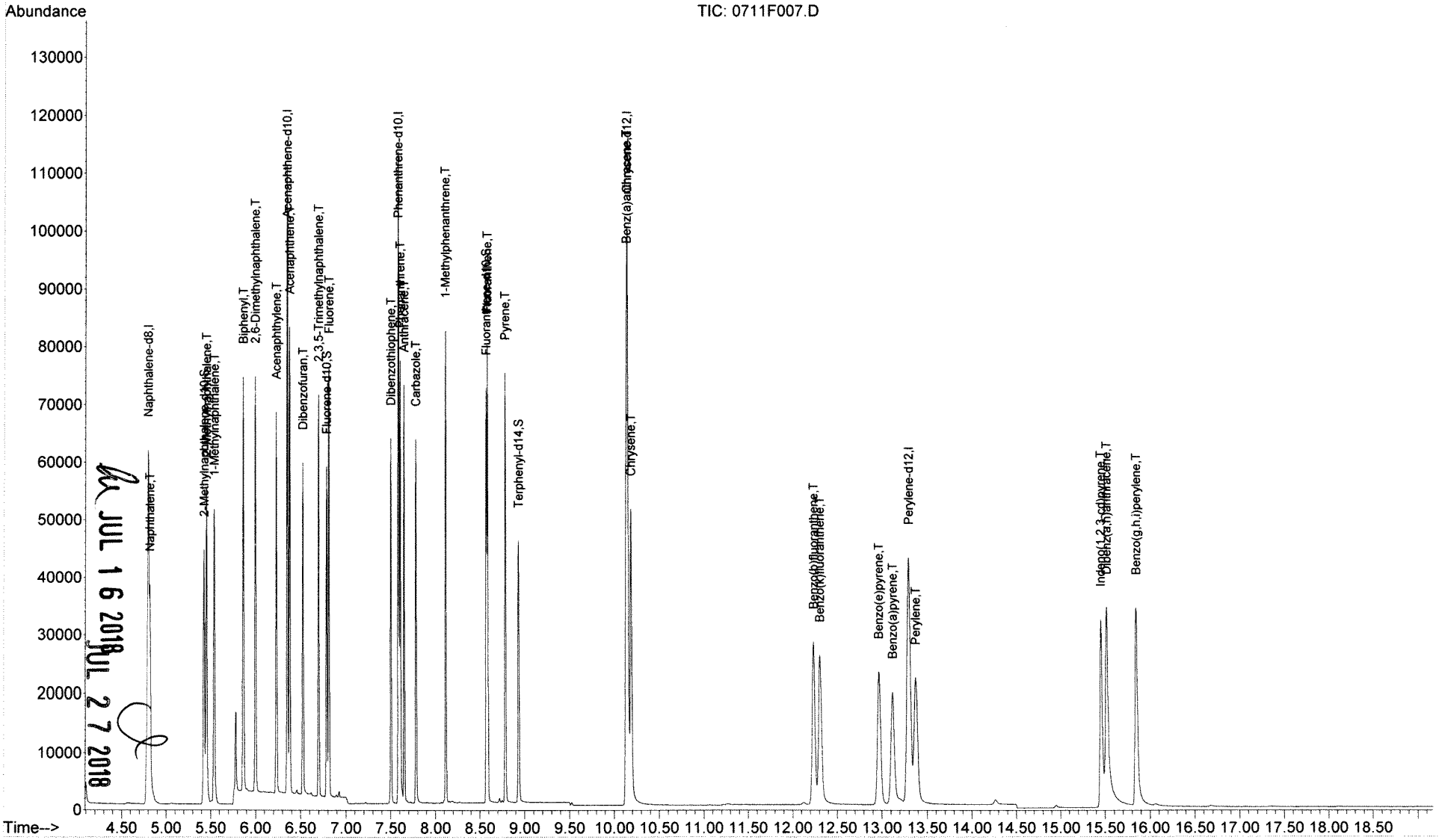
JUL 16 2018
JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F007.D 071118PAH.M Wed Jul 11 12:39:45 2018 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F007.D Vial: 7
Acq On : 11 Jul 2018 10:00 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.1ug/mL | SVM59-4E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration



JUL 16 2018
JUL 27 2018

Data File : J:\MS14\DATA\071118\0711F008.D Vial: 8
Acq On : 11 Jul 2018 10:26 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.2ug/mL | SVM59-4F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:42 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	60069	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	26067	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	52800	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	67787	200.00	ng/ml	-0.03
28) Perylene-d12	13.30	264	73997	200.00	ng/ml	-0.05
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	32722	191.47	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	19.15%		
13) Fluorene-d10	6.79	176	32332	189.70	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	18.97%		
22) Fluoranthene-d10	8.58	212	66735	203.67	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	20.37%		
25) Terphenyl-d14	8.93	244	55795	181.26	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	18.13%		
Target Compounds						Qvalue
2) Naphthalene	4.82	128	66650	202.46	ng/ml	98
4) 2-Methylnaphthalene	5.45	142	41546	197.42	ng/ml	94
5) 1-Methylnaphthalene	5.54	142	39085	191.97	ng/ml	97
6) Biphenyl	5.86	154	50271	193.70	ng/ml	96
7) 2,6-Dimethylnaphthalene	6.00	156	34463	190.34	ng/ml	96
9) Acenaphthylene	6.23	152	62756	205.96	ng/ml	98
10) Acenaphthene	6.38	154	36120	206.52	ng/ml	97
11) Dibenzofuran	6.53	168	59730	213.03	ng/ml	95
12) 2,3,5-Trimethylnaphthalene	6.70	170	32934	199.97	ng/ml	94
14) Fluorene	6.81	166	43762	201.45	ng/ml	98
16) Dibenzothiophene	7.51	184	66748	204.59	ng/ml	95
17) Phenanthrene	7.61	178	65833	204.08	ng/ml	100
18) Anthracene	7.65	178	64253	203.88	ng/ml	100
19) Carbazole	7.78	167	63253	222.32	ng/ml	98
20) 1-Methylphenanthrene	8.12	192	49439	194.49	ng/ml	96
21) Fluoranthene	8.59	202	84302	214.65	ng/ml	99
24) Pyrene	8.79	202	87628	184.06	ng/ml	96
26) Benz(a)anthracene	10.14	228	83249	194.11	ng/ml	99
27) Chrysene	10.19	228	84873	200.51	ng/ml	99
29) Benzo(b)fluoranthene	12.24	252	92957	201.38	ng/ml	98
30) Benzo(k)fluoranthene	12.31	252	93553	202.03	ng/ml	98
31) Benzo(e)pyrene	12.98	252	86431	192.42	ng/ml	97
32) Benzo(a)pyrene	13.12	252	79516	204.81	ng/ml	97
33) Perylene	13.38	252	84071	207.05	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.46	276	80179	234.58	ng/ml	98
35) Dibenz(a,h)anthracene	15.52	278	81499	220.39	ng/ml	98
36) Benzo(g,h,i)perylene	15.85	276	93626	214.49	ng/ml	98

JUL 16 2018

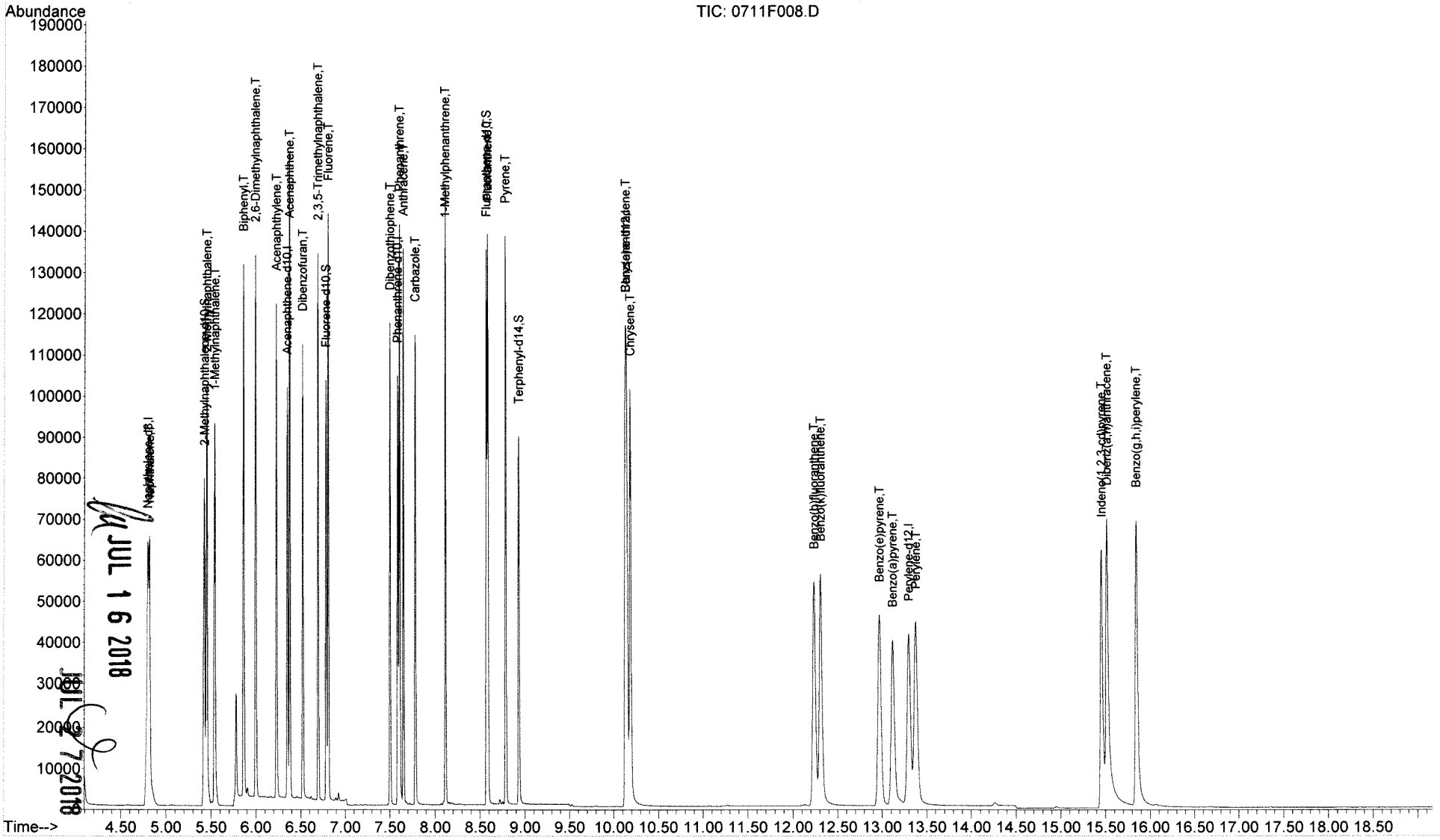
JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F008.D 071118PAH.M Wed Jul 11 12:39:47 2018 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F008.D Vial: 8
Acq On : 11 Jul 2018 10:26 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.2ug/mL | SVM59-4F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration



JUL 16 2018

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F009.D Vial: 9
Acq On : 11 Jul 2018 10:52 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.4ug/mL | SVM59-4G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:42 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	60855	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	25959	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	53916	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	68964	200.00	ng/ml	-0.03
28) Perylene-d12	13.30	264	73742	200.00	ng/ml	-0.05
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	64749	373.97	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	37.40%		
13) Fluorene-d10	6.79	176	65104	383.58	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	38.36%		
22) Fluoranthene-d10	8.57	212	140750	420.66	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	42.07%		
25) Terphenyl-d14	8.93	244	115110	367.58	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	36.76%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	132311	396.73	ng/ml	98
4) 2-Methylnaphthalene	5.45	142	80537	377.75	ng/ml	95
5) 1-Methylnaphthalene	5.54	142	75991	368.41	ng/ml	97
6) Biphenyl	5.86	154	98008	372.75	ng/ml	96
7) 2,6-Dimethylnaphthalene	6.00	156	68675	374.39	ng/ml	97
9) Acenaphthylene	6.23	152	125730	414.35	ng/ml	98
10) Acenaphthene	6.38	154	71389	409.87	ng/ml	98
11) Dibenzofuran	6.53	168	116544	417.39	ng/ml	89
12) 2,3,5-Trimethylnaphthalene	6.70	170	66608	406.13	ng/ml	96
14) Fluorene	6.81	166	86674	400.65	ng/ml	98
16) Dibenzothiophene	7.51	184	136509	409.76	ng/ml	95
17) Phenanthrene	7.61	178	131946	400.56	ng/ml	100
18) Anthracene	7.65	178	131533	408.72	ng/ml	100
19) Carbazole	7.79	167	129213	444.76	ng/ml	98
20) 1-Methylphenanthrene	8.12	192	103724	399.59	ng/ml	96
21) Fluoranthene	8.59	202	170758	425.79	ng/ml	98
24) Pyrene	8.79	202	181666	375.07	ng/ml	98
26) Benz(a)anthracene	10.13	228	175185	401.51	ng/ml	99
27) Chrysene	10.19	228	172838	401.35	ng/ml	100
29) Benzo(b)fluoranthene	12.24	252	191741	416.82	ng/ml	98
30) Benzo(k)fluoranthene	12.31	252	189521	410.69	ng/ml	98
31) Benzo(e)pyrene	12.98	252	177594	396.74	ng/ml	98
32) Benzo(a)pyrene	13.13	252	163551	422.73	ng/ml	98
33) Perylene	13.39	252	170900	422.34	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.46	276	155556	456.69	ng/ml	98
35) Dibenz(a,h)anthracene	15.52	278	157213	426.62	ng/ml	98
36) Benzo(g,h,i)perylene	15.85	276	179053	411.61	ng/ml	98

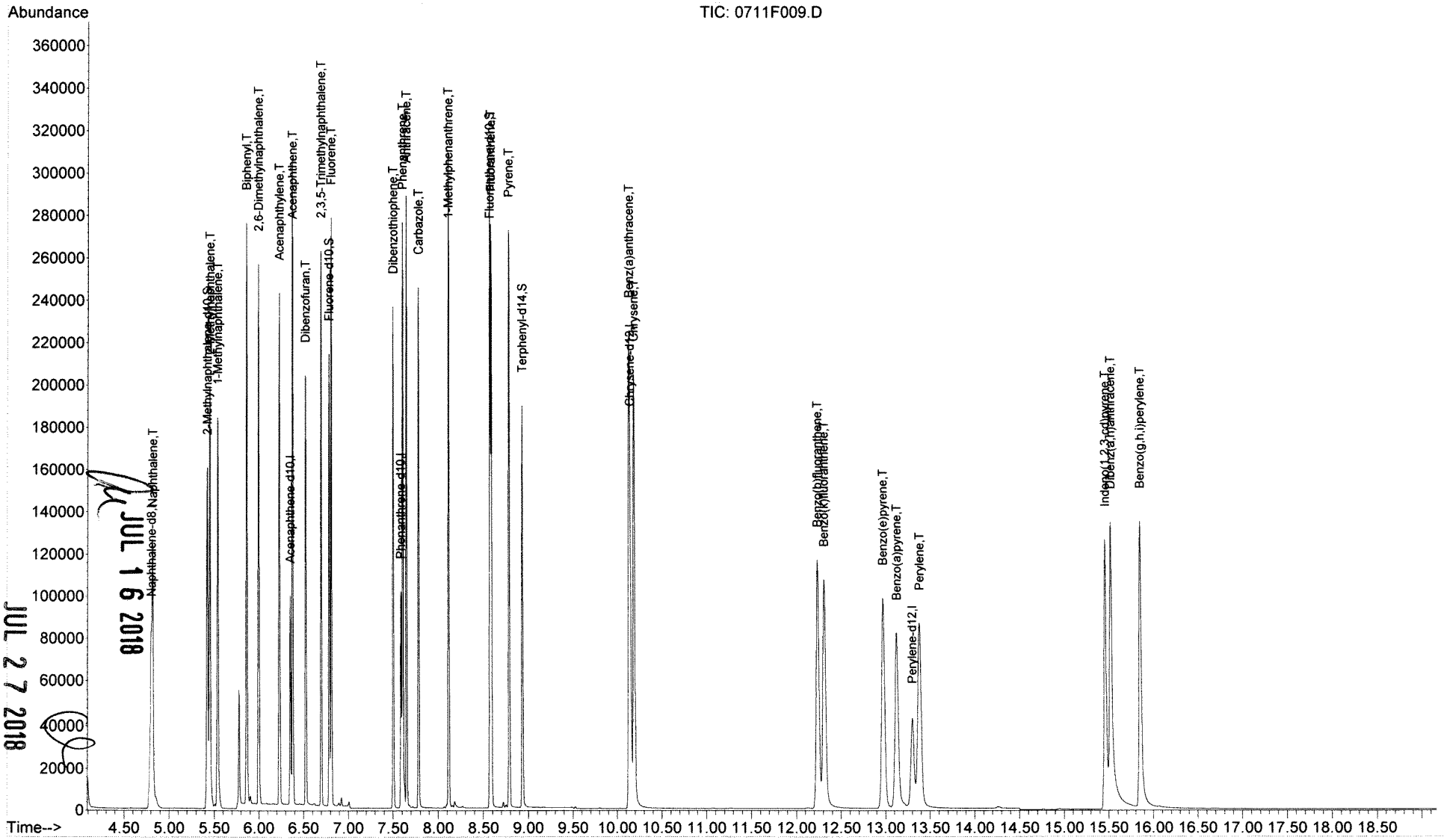
JUL 16 2018
JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F009.D 071118PAH.M Wed Jul 11 12:39:49 2018 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F009.D Vial: 9
Acq On : 11 Jul 2018 10:52 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.4ug/mL | SVM59-4G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration



JUL 16 2018
JUL 27 2018

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F010.D Vial: 10
Acq On : 11 Jul 2018 11:18 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 1.0ug/mL | SVM59-4H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:43 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	56166	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	24545	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	48486	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	66294	200.00	ng/ml	-0.02
28) Perylene-d12	13.31	264	71447	200.00	ng/ml	-0.04
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	151032	945.14	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 94.51%			
13) Fluorene-d10	6.79	176	148985	928.35	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 92.84%			
22) Fluoranthene-d10	8.58	212	340058	1130.15	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 113.02%			
25) Terphenyl-d14	8.93	244	277429	921.60	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 92.16%			
Target Compounds						Qvalue
2) Naphthalene	4.82	128	297897	967.80	ng/ml	98
4) 2-Methylnaphthalene	5.46	142	182505	927.49	ng/ml	96
5) 1-Methylnaphthalene	5.54	142	175312	920.89	ng/ml	96
6) Biphenyl	5.86	154	227465	937.33	ng/ml	95
7) 2,6-Dimethylnaphthalene	6.00	156	159932	944.68	ng/ml	95
9) Acenaphthylene	6.23	152	295411	1029.62	ng/ml	98
10) Acenaphthene	6.38	154	165340	1003.96	ng/ml	97
11) Dibenzofuran	6.53	168	271937	1030.03	ng/ml	94
12) 2,3,5-Trimethylnaphthalene	6.70	170	155038	999.76	ng/ml	95
14) Fluorene	6.81	166	195757	957.01	ng/ml	99
16) Dibenzothiophene	7.51	184	312192	1042.05	ng/ml	95
17) Phenanthrene	7.61	178	297804	1005.31	ng/ml	99
18) Anthracene	7.65	178	294958	1019.19	ng/ml	100
19) Carbazole	7.79	167	299519	1146.42	ng/ml	98
20) 1-Methylphenanthrene	8.12	192	241204	1033.28	ng/ml	96
21) Fluoranthene	8.59	202	395859	1097.64	ng/ml	98
24) Pyrene	8.79	202	440109	945.25	ng/ml	99
26) Benz(a)anthracene	10.14	228	438415	1045.28	ng/ml	100
27) Chrysene	10.19	228	417827	1009.33	ng/ml	99
29) Benzo(b)fluoranthene	12.25	252	477033	1070.32	ng/ml	98
30) Benzo(k)fluoranthene	12.32	252	460183	1029.25	ng/ml	98
31) Benzo(e)pyrene	12.99	252	441018	1016.88	ng/ml	97
32) Benzo(a)pyrene	13.14	252	410977	1096.36	ng/ml	98
33) Perylene	13.39	252	424046	1081.60	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.47	276	362154	1097.39	ng/ml	98
35) Dibenz(a,h)anthracene	15.53	278	365022	1022.35	ng/ml	98
36) Benzo(g,h,i)perylene	15.86	276	398340	945.13	ng/ml	97

JUL 16 2018

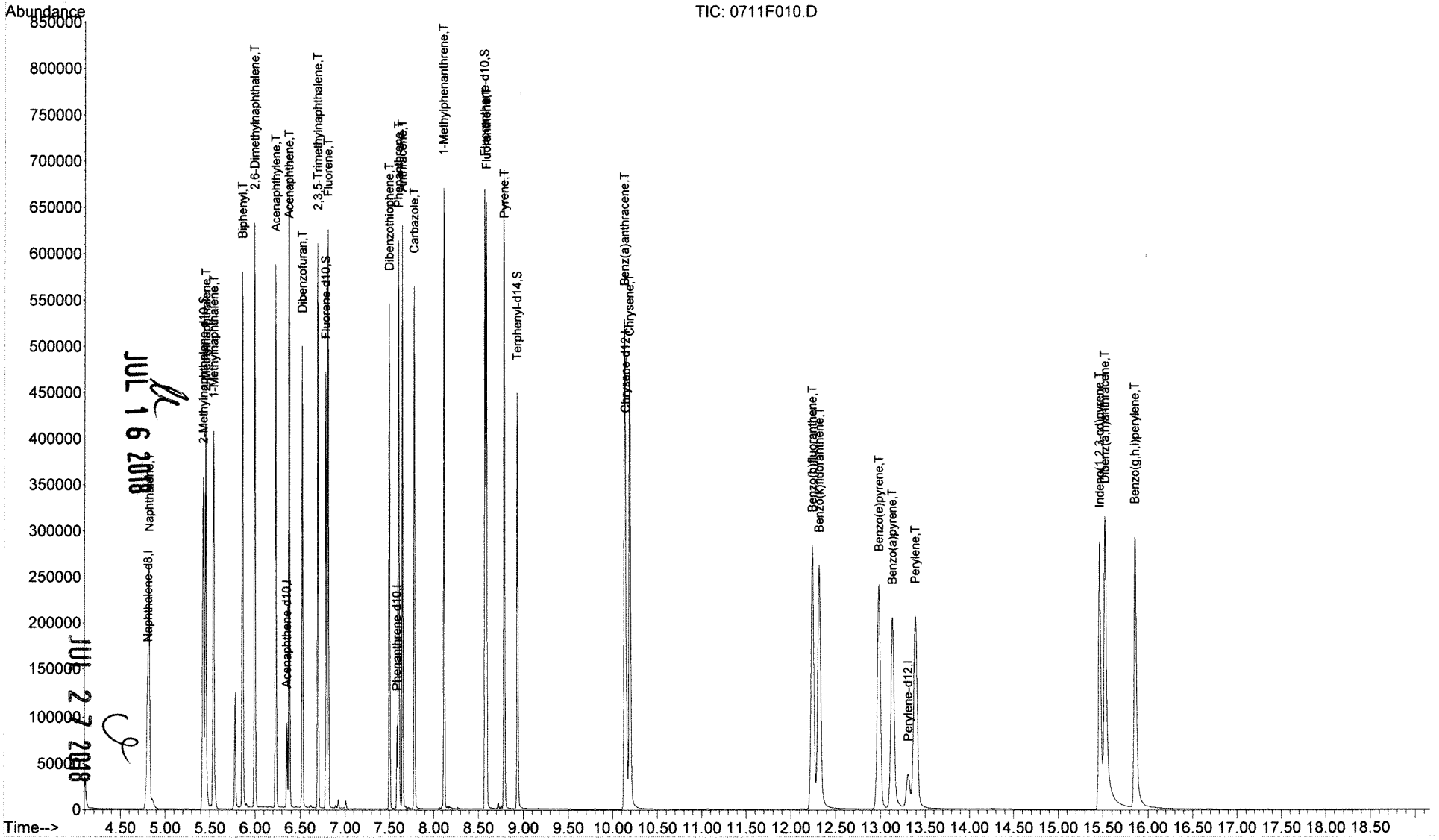
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0711F010.D 071118PAH.M Wed Jul 11 12:39:51 2018

JUL 27 2018

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F010.D Vial: 10
Acq On : 11 Jul 2018 11:18 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 1.0ug/mL | SVM59-4H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration



JUL 16 2018
JUL 23 2018

Data File : J:\MS14\DATA\071118\0711F011.D Vial: 11
Acq On : 11 Jul 2018 11:44 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 1.6ug/mL | SVM59-4I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:44 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	55374	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	23531	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	48251	200.00	ng/ml	-0.02
23) Chrysene-d12	10.16	240	63306	200.00	ng/ml	-0.02
28) Perylene-d12	13.32	264	68587	200.00	ng/ml	-0.04
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	230897	1465.59	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 146.56%			
13) Fluorene-d10	6.79	176	234277	1522.73	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 152.27%			
22) Fluoranthene-d10	8.58	212	547746	1829.25	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 182.93%			
25) Terphenyl-d14	8.93	244	420524	1462.89	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 146.29%			
Target Compounds						Qvalue
2) Naphthalene	4.82	128	454242	1496.83	ng/ml	98
4) 2-Methylnaphthalene	5.46	142	277659	1431.25	ng/ml	96
5) 1-Methylnaphthalene	5.54	142	268229	1429.12	ng/ml	95
6) Biphenyl	5.87	154	351048	1467.28	ng/ml	97
7) 2,6-Dimethylnaphthalene	6.00	156	248732	1490.21	ng/ml	94
9) Acenaphthylene	6.23	152	457982	1665.02	ng/ml	98
10) Acenaphthene	6.38	154	258921	1639.94	ng/ml	98
11) Dibenzofuran	6.53	168	422115	1667.76	ng/ml	98
12) 2,3,5-Trimethylnaphthalene	6.70	170	241367	1623.53	ng/ml	87
14) Fluorene	6.81	166	306456	1562.75	ng/ml	99
16) Dibenzothiophene	7.51	184	493134	1654.02	ng/ml	98
17) Phenanthrene	7.61	178	470025	1594.41	ng/ml	99
18) Anthracene	7.65	178	468569	1626.97	ng/ml	99
19) Carbazole	7.79	167	483938	1861.32	ng/ml	98
20) 1-Methylphenanthrene	8.12	192	392769	1690.76	ng/ml	98
21) Fluoranthene	8.59	202	637771	1777.03	ng/ml	97
24) Pyrene	8.79	202	701707	1578.23	ng/ml	96
26) Benz(a)anthracene	10.14	228	679766	1697.22	ng/ml	100
27) Chrysene	10.20	228	647039	1636.80	ng/ml	100
29) Benzo(b)fluoranthene	12.26	252	726698	1698.48	ng/ml	98
30) Benzo(k)fluoranthene	12.33	252	707952	1649.45	ng/ml	98
31) Benzo(e)pyrene	13.00	252	677816	1628.04	ng/ml	97
32) Benzo(a)pyrene	13.15	252	636746	1769.47	ng/ml	98
33) Perylene	13.41	252	650819	1729.25	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.48	276	546709	1725.70	ng/ml	98
35) Dibenz(a,h)anthracene	15.54	278	550676	1606.64	ng/ml	98
36) Benzo(g,h,i)perylene	15.88	276	588669	1454.97	ng/ml	97

JUL 16 2018

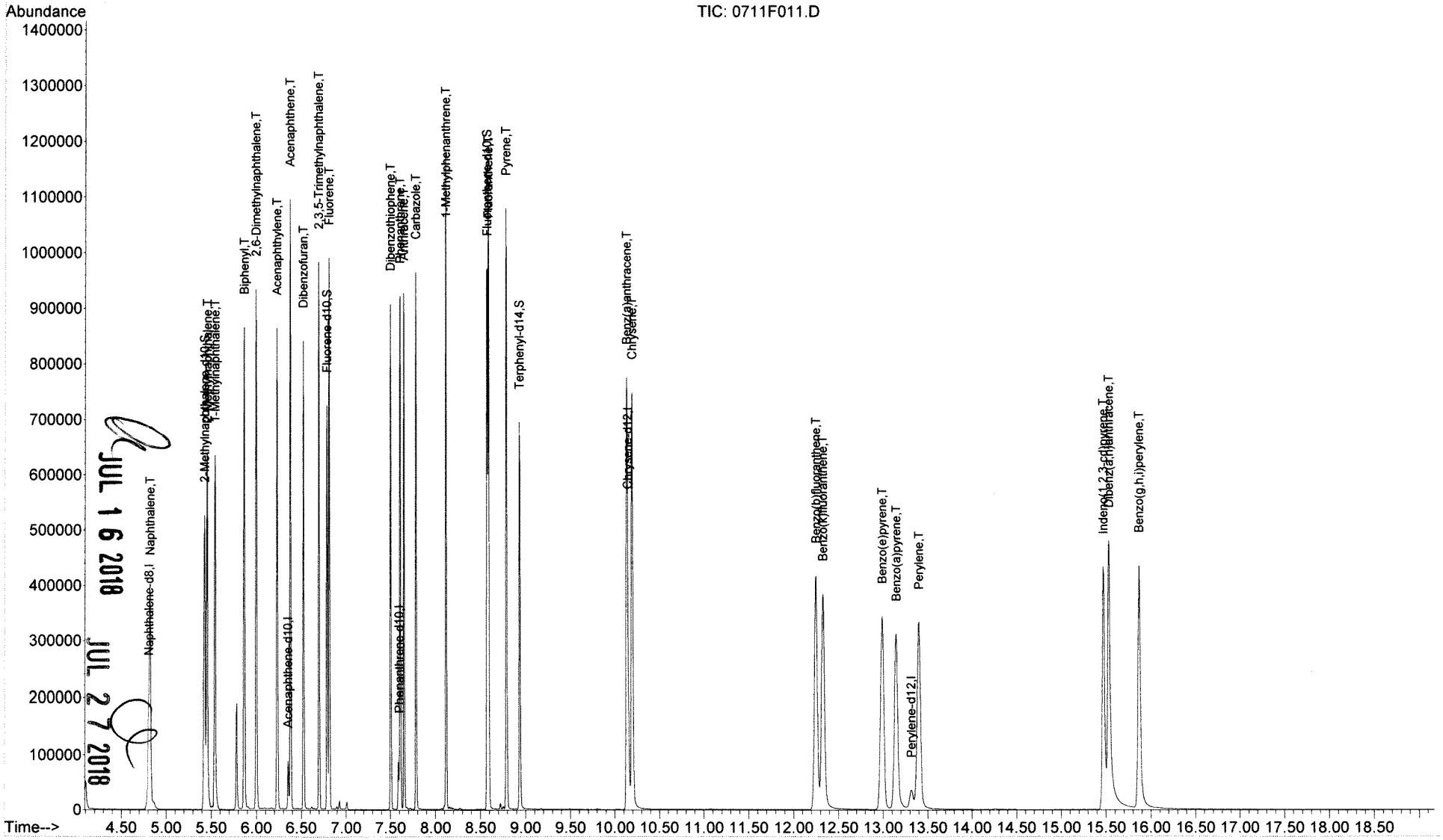
(#) = qualifier out of range (m) = manual integration
0711F011.D 071118PAH.M Wed Jul 11 12:39:53 2018

JUL 27 2018

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F011.D Vial: 11
Acq On : 11 Jul 2018 11:44 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 1.6ug/mL | SVM59-4I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration



JUL 16 2018
JUL 27 2018

Data File : J:\MS14\DATA\071118\0711F012.D Vial: 12
Acq On : 11 Jul 2018 12:10 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 2.0ug/mL | SVM59-4J Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:44 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	54095	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	24200	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	49476	200.00	ng/ml	-0.02
23) Chrysene-d12	10.16	240	65411	200.00	ng/ml	-0.02
28) Perylene-d12	13.32	264	71109	200.00	ng/ml	-0.04
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	284926	1851.30	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 185.13%			
13) Fluorene-d10	6.79	176	291344	1841.30	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 184.13%			
22) Fluoranthene-d10	8.58	212	688154	2241.25	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 224.13%			
25) Terphenyl-d14	8.94	244	524001	1764.19	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 176.42%			
Target Compounds						Qvalue
2) Naphthalene	4.82	128	576774	1945.54	ng/ml	98
4) 2-Methylnaphthalene	5.46	142	343280	1811.34	ng/ml	96
5) 1-Methylnaphthalene	5.54	142	333329	1817.97	ng/ml	96
6) Biphenyl	5.87	154	430613	1842.39	ng/ml	97
7) 2,6-Dimethylnaphthalene	6.00	156	307734	1887.29	ng/ml	92
9) Acenaphthylene	6.23	152	565493	1999.05	ng/ml	97
10) Acenaphthene	6.38	154	319877	1970.02	ng/ml	97
11) Dibenzofuran	6.53	168	511819	1966.28	ng/ml	95
12) 2,3,5-Trimethylnaphthalene	6.70	170	300656	1966.42	ng/ml	85
14) Fluorene	6.81	166	378044	1874.51	ng/ml	98
16) Dibenzothiophene	7.51	184	607108	1985.89	ng/ml	98
17) Phenanthrene	7.61	178	575834	1904.97	ng/ml	99
18) Anthracene	7.66	178	577074	1954.11	ng/ml	99
19) Carbazole	7.79	167	599144	2247.37	ng/ml	97
20) 1-Methylphenanthrene	8.12	192	493413	2071.41	ng/ml	97
21) Fluoranthene	8.60	202	799381	2172.18	ng/ml	96
24) Pyrene	8.79	202	889035	1935.21	ng/ml	94
26) Benz(a)anthracene	10.14	228	854373	2064.52	ng/ml	99
27) Chrysene	10.20	228	809465	1981.79	ng/ml	99
29) Benzo(b)fluoranthene	12.26	252	904886	2039.94	ng/ml	98
30) Benzo(k)fluoranthene	12.34	252	885676	1990.34	ng/ml	98
31) Benzo(e)pyrene	13.00	252	842879	1952.70	ng/ml	97
32) Benzo(a)pyrene	13.16	252	795301	2131.70	ng/ml	98
33) Perylene	13.41	252	811546	2079.83	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.48	276	682068	2076.61	ng/ml	97
35) Dibenz(a,h)anthracene	15.54	278	690770	1943.89	ng/ml	97
36) Benzo(g,h,i)perylene	15.88	276	738118	1759.65	ng/ml	96

JUL 16 2018

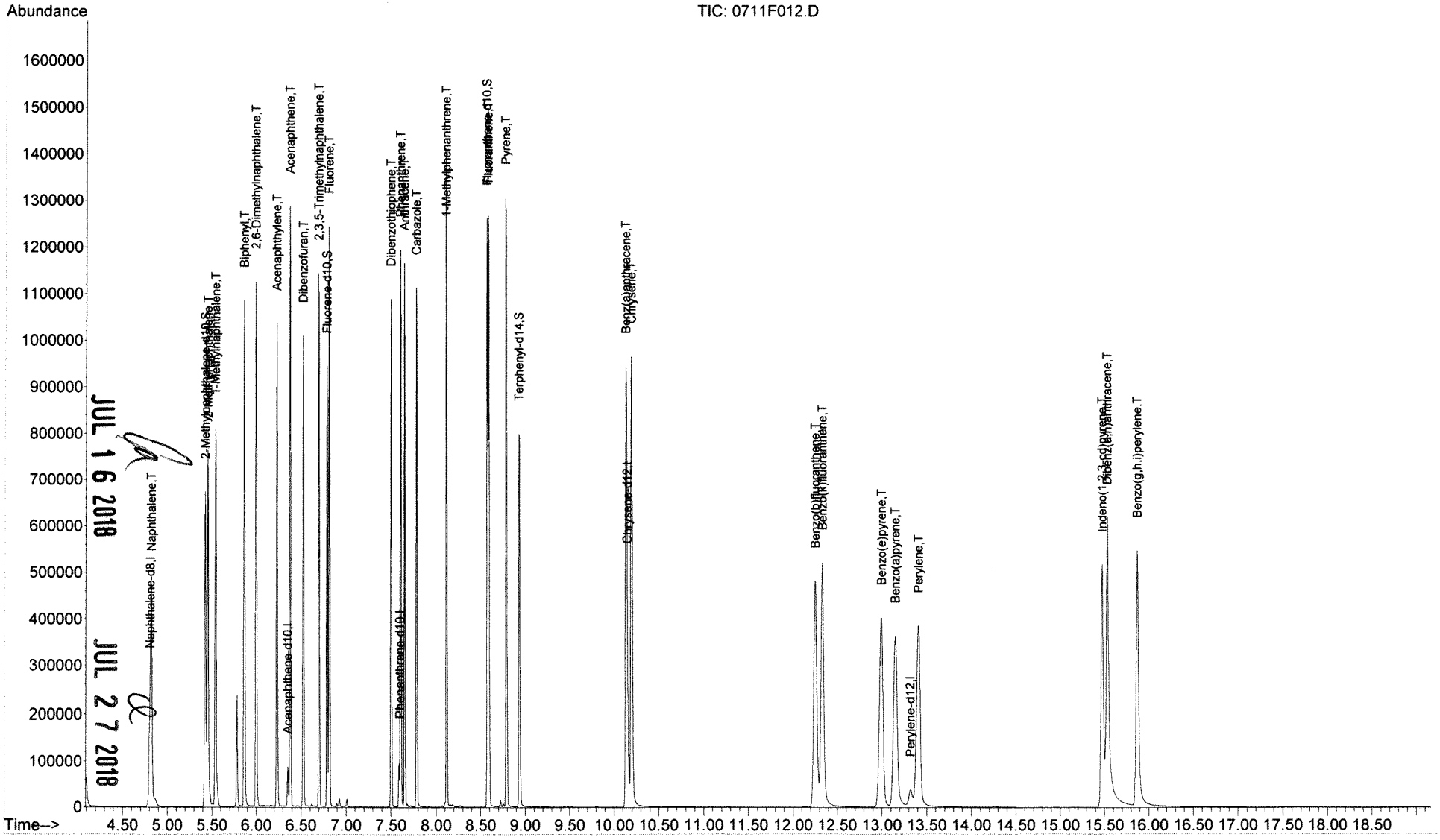
JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F012.D 071118PAH.M Wed Jul 11 12:39:55 2018 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F012.D Vial: 12
Acq On : 11 Jul 2018 12:10 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 2.0ug/mL | SVM59-4J Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration



Data File : J:\MS14\DATA\071118\0711F013.D Vial: 13
Acq On : 11 Jul 2018 12:36 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @ 0.4ug/mL | SVM59-4K Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 16 09:14:15 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Jul 11 12:42:44 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	50172	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.35	164	22986	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.59	188	46192	200.00	ng/ml	0.00
23) Chrysene-d12	10.15	240	62964	200.00	ng/ml	0.00
28) Perylene-d12	13.30	264	67346	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	56170	401.09	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 40.11%			
13) Fluorene-d10	6.79	176	57243	389.48	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 38.95%			
22) Fluoranthene-d10	8.58	212	119281	409.73	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 40.97%			
25) Terphenyl-d14	8.93	244	103386	378.56	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 37.86%			
Target Compounds						Qvalue
2) Naphthalene	4.82	128	106807	368.80	ng/ml	100
4) 2-Methylnaphthalene	5.46	142	68576	392.65	ng/ml	100
5) 1-Methylnaphthalene	5.54	142	61930	368.40	ng/ml	99
6) Biphenyl	5.86	154	91235	418.55	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.00	156	63157	421.23	ng/ml	96
9) Acenaphthylene	6.23	152	107131	390.61	ng/ml	100
10) Acenaphthene	6.38	154	60647	384.94	ng/ml	98
11) Dibenzofuran	6.53	168	94217	372.67	ng/ml	95
12) 2,3,5-Trimethylnaphthalene	6.70	170	59485	408.19	ng/ml	96
14) Fluorene	6.81	166	73545	385.97	ng/ml	100
16) Dibenzothiophene	7.51	184	123550	428.83	ng/ml	99
17) Phenanthrene	7.61	178	110081	382.02	ng/ml	100
18) Anthracene	7.65	178	109389	397.66	ng/ml	100
19) Carbazole	7.79	167	115133	428.87	ng/ml	100
20) 1-Methylphenanthrene	8.12	192	91182	417.77	ng/ml	100
21) Fluoranthene	8.59	202	147363	414.16	ng/ml	100
24) Pyrene	8.79	202	151769	351.32	ng/ml	92
26) Benz(a)anthracene	10.14	228	153003	375.85	ng/ml	99
27) Chrysene	10.19	228	151585	388.75	ng/ml	100
29) Benzo(b)fluoranthene	12.24	252	170488	409.75	ng/ml	100
30) Benzo(k)fluoranthene	12.32	252	172528	417.98	ng/ml	100
31) Benzo(e)pyrene	12.98	252	162645	410.10	ng/ml	100
32) Benzo(a)pyrene	13.13	252	146112	400.43	ng/ml	99
33) Perylene	13.39	252	166849	435.90	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.46	276	133756	373.83	ng/ml	99
35) Dibenz(a,h)anthracene	15.52	278	139306	384.07	ng/ml	100
36) Benzo(g,h,i)perylene	15.85	276	152959	365.05	ng/ml	100

JUL 16 2018

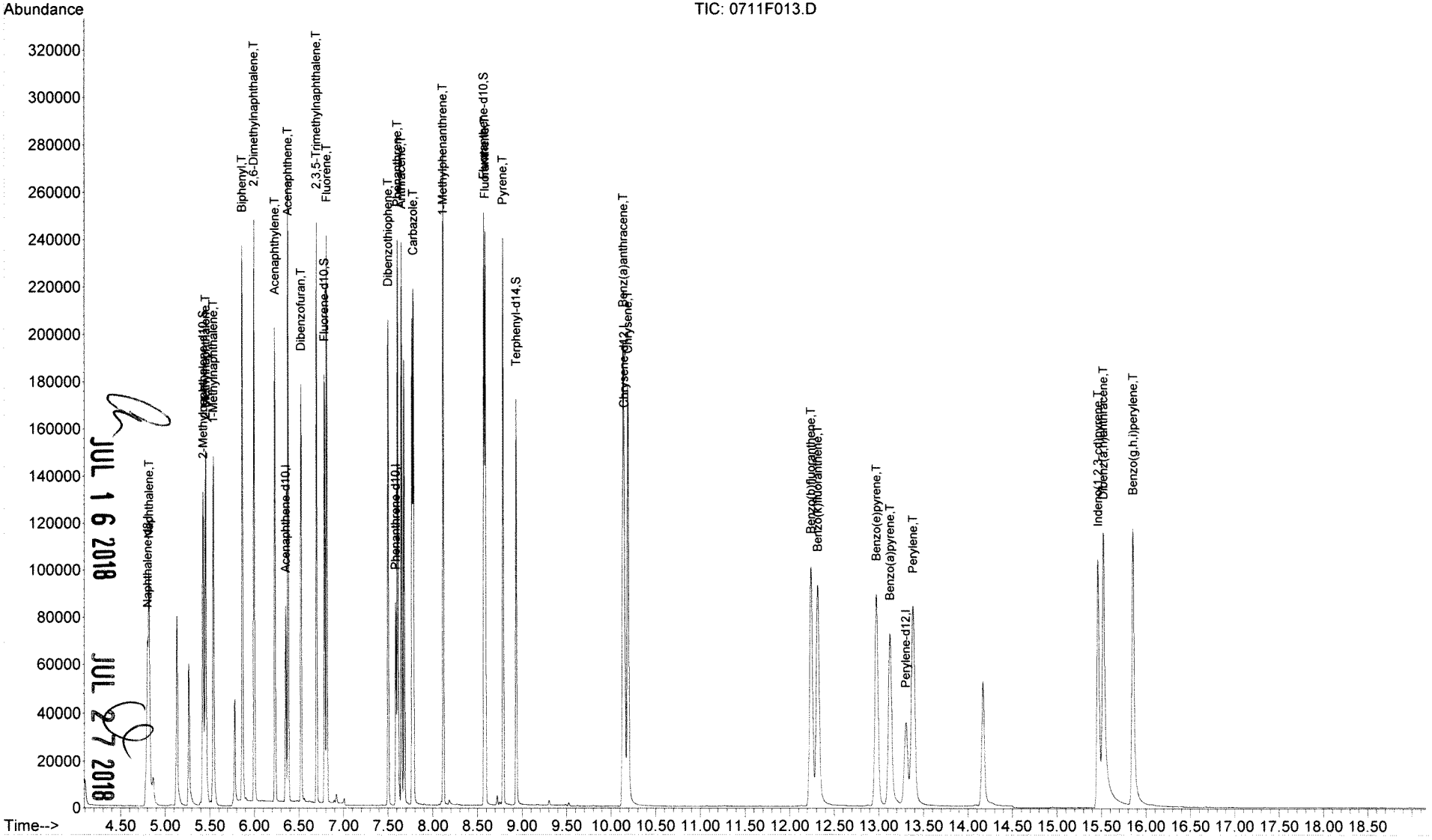
JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F013.D 071118PAH.M Mon Jul 16 09:14:44 2018 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F013.D Vial: 13
Acq On : 11 Jul 2018 12:36 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @ 0.4ug/mL | SVM59-4K Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 16 9:14 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Jul 11 12:42:44 2018
Response via : Initial Calibration



JUL 16 2018

JUL 27 2018

Preparation Information

Group ID:	KWG1805796	**Prep Method:**	EPA 3541	**Prep Date:**	11/07/18 13:45
Department:	Semivoa GCMS				

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.	Solids
K1810270-001	N3-0to26-101518	8270D PAH SIM ULL	SEDIMENT	40.062g	2mL	74.3
K1810302-016	A1-0to30-102018	8270D PAH SIM ULL	SEDIMENT	40.044g	2mL	
K1810430-001	E-8.99-0to28-102418	8270D PAH SIM ULL	SOIL	40.037g	2mL	28.5
K1810430-002	C-8.94-0to27-102418	8270D PAH SIM ULL	SOIL	40.004g	2mL	30.2
K1810430-003	D-8.90-0to27-102418	8270D PAH SIM ULL	SOIL	40.007g	2mL	34.7
K1810430-004	D-8.83-0to25-102418	8270D PAH SIM ULL	SOIL	40.011g	2mL	34.7
K1810430-005	E-9.02-0to26-102418	8270D PAH SIM ULL	SOIL	40.028g	2mL	35.0
K1810430-006	B-9.00-0to29-102418	8270D PAH SIM ULL	SOIL	40.009g	2mL	27.7
K1810430-007	512-0to29-102418	8270D PAH SIM ULL	SOIL	40.052g	2mL	27.3
K1810430-008	D-9.09-0to29-102418	8270D PAH SIM ULL	SOIL	40.011g	2mL	32.2
K1810430-009	A-9.03-0to26-102418	8270D PAH SIM ULL	SOIL	40.044g	2mL	28.8
K1810430-010	B-9.15-0to30-102418	8270D PAH SIM ULL	SOIL	40.077g	2mL	46.5
K1810430-011	G-9.15-0to18-102418	8270D PAH SIM ULL	SOIL	40.080g	2mL	74.1
K1810683-001	PDI-ST-T06B-1810	8270D PAH SIM ULL	SEDIMENT	40.124g	2mL	25.3
K1810683-002	PDI-ST-T06A-1810	8270D PAH SIM ULL	SEDIMENT	40.049g	2mL	25.6
K1810683-003	PDI-ST-T07A-1810	8270D PAH SIM ULL	SEDIMENT	40.332g	2mL	22.3
K1810683-004	PDI-ST-T07B-1810	8270D PAH SIM ULL	SEDIMENT	40.085g	2mL	21.4
KWG1805796-1	Matrix Spike	8270D PAH SIM ULL	SOIL	40.057g	2mL	35.0
KWG1805796-2	Duplicate Matrix Spike	8270D PAH SIM ULL	SOIL	40.011g	2mL	35.0
KWG1805796-3	Matrix Spike	8270D PAH SIM ULL	SEDIMENT	40.064g	2mL	25.6
KWG1805796-4	Duplicate Matrix Spike	8270D PAH SIM ULL	SEDIMENT	40.114g	2mL	25.6
KWG1805796-5	Lab Control Sample	8270D PAH SIM ULL	SEDIMENT	20.000g	2mL	
KWG1805796-6	Method Blank	8270D PAH SIM ULL	SEDIMENT	40.332g	2mL	

Lab Code	Parent Lab Code	Comments
KWG1805796-1	K1810430-005	KQ1815762-01
KWG1805796-2	K1810430-005	KQ1815762-02
KWG1805796-3	K1810683-002	KQ1815762-03
KWG1805796-4	K1810683-002	KQ1815762-04
KWG1805796-5		KQ1815762-05
KWG1805796-6		KQ1815762-06

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1810270-001	1702211					
K1810302-016	1702212					
K1810430-001	1702213					

Comments: IS = SV-557-100D

Started By: KPrescot Assisted By: —

Completed By: TPottsch Assisted By: —

Training: Yes / No (No) — Yes / No (No)

Reviewed By: [signature] Date: 11/13/18 Storage: K-Tundra 11514

Chain of Custody

Relinquished By: [signature] Date: 11/12/18

Received By: [signature] Date: 11/14/18

Extracts Examined: (Yes) / No

Group ID:	KWG1805796	**Prep Method:**	EPA 3541	**Prep Date:**	11/07/18 13:45
Department:	Semivoa GCMS				

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1810430-002	1702214					
K1810430-003	1702215					
K1810430-004	1702216					
K1810430-005	1702217					
K1810430-006	1702218					
K1810430-007	1702219					
K1810430-008	1702220					
K1810430-009	1702221					
K1810430-010	1702222					
K1810430-011	1702223					
K1810683-001	1702224					
K1810683-002	1702225					
K1810683-003	1702226					
K1810683-004	1702227					
KWG1805796-1	1702228					
KWG1805796-2	1702229					
KWG1805796-3	1702230					
KWG1805796-4	1702231					
KWG1805796-5	1702232					
KWG1805796-6	1702233					

Comments:

Started By: KPrescot Assisted By: — Training

Completed By: TPottsch Assisted By: — Yes No

Reviewed By: [signature] Date: 11/13/18 Storage: K-Tundra Yes No

Chain of Custody

Relinquished By: [signature] Date: 11/12/18

Received By: [signature] Date: 11/14/18 Extracts Examined: Yes No

Preparation Information

1114

Group ID:	KWG1805796	**Prep Method:**	EPA 3541	**Prep Date:**	11/07/18 00:00
Department:	Semivoa GCMS				

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. g	pH	Int. Vol. mL	Final Vol. mL	Surr. Added µL	Spike Added µL
1	K1810270-001	N3-0to26-101518	.02	✓	8270D PAH SIM ULL	SEDIMENT	*	N/A	10	2	20	-
2	K1810302-016	A1-0to30-102018	.02	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
3	K1810430-001	E-8.99-0to28-102418	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
4	K1810430-002	C-8.94-0to27-102418	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
5	K1810430-003	D-8.90-0to27-102418 1A	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
6	K1810430-004	D-8.83-0to25-102418 1B	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
7	K1810430-005	E-9.02-0to26-102418 1C	.02	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
8	K1810430-006	B-9.00-0to29-102418 1D	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
9	K1810430-007	512-0to29-102418 1E	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
10	K1810430-008	D-9.09-0to29-102418 1F	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
11	K1810430-009	A-9.03-0to26-102418 2A	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
12	K1810430-010	B-9.15-0to30-102418 2B	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
13	K1810430-011	G-9.15-0to18-102418 2C	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
14	K1810683-001	PDI-ST-T06B-1810 2D	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
15	K1810683-002	PDI-ST-T06A-1810 2E	.02	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
16	K1810683-003	PDI-ST-T07A-1810 2F	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
17	K1810683-004	PDI-ST-T07B-1810 3A	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
18	KWG1805796-1	Matrix Spike K1810430-005 3B	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		80

Comments: *See Pre-Prep Information Benchsheet. KP 11/07/18. PREPRUN: 325303

Surrogate ID: MP: SVM59-50D 100/150ppm XP: 03/04/19 10ul Syringe. S-92.

Spike ID: SIM PAH: SVM59-51F 25ppm XP: 03/07/19 ~~100ul~~ E.E. KP 11/07/18 80ul Syringe. S-9

Witness: Kayla Vo 11/7/18

Started By: KPrescot Assisted By: KV

Completed By: TP Assisted By: —

Group ID:	KWG1805796	**Prep Method:**	EPA 3541						**Prep Date:**	11/07/18 00:00			
Department:	Semivoa GCMS												

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. g	pH	Int. Vol. mL	Final Vol. mL	Surr. Added µL	Spike Added µL
19	KWG1805796-2	Duplicate Matrix Spike K1810430-005 3C	.01	✓	8270D PAH SIM ULL	SOIL	*	N/A	10	2	20	80
20	KWG1805796-3	Matrix Spike K1810683-002 3D	.02	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		
21	KWG1805796-4	Duplicate Matrix Spike K1810683-002 3E	.02	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		
22	KWG1805796-5	Lab Control Sample 3F	-	-	8270D PAH SIM ULL	SEDIMENT	20.000		10	2		-
23	KWG1805796-6	Method Blank	-	-	8270D PAH SIM ULL	SEDIMENT	40.332		10	2		-

Comments: * See Pre-Prep Information Benchsheet. KRP 11/07/18.

Surrogate ID: SEE PAGE 1

Spike ID: SEE PAGE 1

Witness: 11/7/18

Started By: KPrescot Assisted By: KV

Completed By: TP Assisted By: -

Additional Prep Information for EPA 3541
PAH

Service Request K1810270/0302/0430/0683 Workgroup KWG1805796

Sulfate Lot #187085209 DCM (GC²) Lot #DV301 Glass Wool Lot# 213179999
Date/Time/Initials Weighed: — Balance ID: — Calibration Verified ☐

Storage Location (if not extracted same day): —

Soxtherm/s unit I.D# K-SOX-01/02/03

Soxtherm Start (Time/Date/Initial): 1345 11/07/18 KLP

Soxtherm Stop (Time/Date/Initial): 0755 11/08/18 KLP

N-Evap (Time/Date/Initial): 1328 11/8/18 TP N-Evap Therm. ID: X-SVM-010
Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Hexane Exchange for Silica Gel (Time/Date/Initial): 10:14 11/9/18 TP
Hexane Lot # 195734 N-Evap Therm. ID: X-SVM-010
Temp as measured: 0.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Silica Gel Clean-up (3630) (Time/Date/Initial): 14:01 11/9/18 TP

Silica Column Lot # Ext002-350 1:1 Hexane/DCM Reagent Lot # Ext002-32X
Turbovap (Time/Date/Initial): 14:00 11/12/18 TP Turbovap Therm. ID: K-Turbovap-005
Temp as measured: 28.0 °C Correction factor: 0.0 °C Adjusted temp: 28.0 °C

Pipet Lots: Intermediate Volume 14918647 Final Volume 20176045

Extract Storage: Hi Doggy

Completed (Time/Date/Initial): 17:04 11/12/18 TP

Comments/Observations: —

Bench Sheet Review Check List	
☑	Hold Times Met (If no, Reason: Frozen)
☑	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

Pre-Prep Information Benchsheet

Prep Run #: 325303 **Prep Method:** **Team:** **Container Lot No:** 091718-1TW **Prep Due Date:** Nov-09-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810430-001	.01	PAH SIM ULL	40.037g		PrepComments:GBEATLEY k-balance-49
2	K1810430-002	.01	PAH SIM ULL	40.004g		PrepComments:GBEATLEY k-balance-49
3	K1810430-003	.01	PAH SIM ULL	40.007g		PrepComments:GBEATLEY k-balance-49
4	K1810430-004	.01	PAH SIM ULL	40.011g		PrepComments:GBEATLEY k-balance-49
5	K1810430-005	.02	PAH SIM ULL	40.028g		PrepComments:GBEATLEY k-balance-49
6	K1810430-005 MS KQ1815762-01	.01	PAH SIM ULL	40.057g		PrepComments:GBEATLEY k-balance-49
7	K1810430-005 DMS KQ1815762-02	.01	PAH SIM ULL	40.011g		PrepComments:GBEATLEY k-balance-49
8	K1810430-006	.01	PAH SIM ULL	40.009g		PrepComments:GBEATLEY k-balance-49
9	K1810430-007	.01	PAH SIM ULL	40.052g		PrepComments:GBEATLEY k-balance-49
10	K1810430-008	.01	PAH SIM ULL	40.011g		PrepComments:GBEATLEY k-balance-49
11	K1810430-009	.01	PAH SIM ULL	40.044g		PrepComments:GBEATLEY k-balance-49
12	K1810430-010	.01	PAH SIM ULL	40.077g		PrepComments:GBEATLEY k-balance-49
13	K1810430-011	.01	PAH SIM ULL	40.080g		PrepComments:GBEATLEY k-balance-49

Relinquished By:	Date/Time: 10/30/18 1125	Received By:	Date/Time: 11/05/18 1330

325303

Pre-Prep Information Benchsheet

Prep Run #: ~~325583~~ **Prep Method:** **Team:** **Container Lot No:** 091718-1TW **Prep Due Date:** Nov-15-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810683-001	.01	PAH SIM ULL	40.124g	5g Pest OC instead of 20g for AECOM.	PrepComments:DMADDEN K-Balance-50
2	K1810683-002	.02	PAH SIM ULL	40.049g	5g Pest OC instead of 20g for AECOM.	PrepComments:DMADDEN K-Balance-50
3	K1810683-002 MS KQ1816031-01	.02	PAH SIM ULL	40.064g		PrepComments:DMADDEN K-Balance-50
4	K1810683-002 DMS KQ1816031-02	.02	PAH SIM ULL	40.114g		PrepComments:DMADDEN K-Balance-50
5	K1810683-003	.01	PAH SIM ULL	40.332g	5g Pest OC instead of 20g for AECOM.	PrepComments:DMADDEN K-Balance-50
6	K1810683-004	.01	PAH SIM ULL	40.085g	5g Pest OC instead of 20g for AECOM.	PrepComments:DMADDEN K-Balance-50

All samples & QC moved to prep run # 325303. KLP 11/07/18.

Relinquished By:	Date/Time:	Received By:	Date/Time:
	10:47 11.2.18	Kassidy Van	11/05/18 1348

315303

Pre-Prep Information Benchsheet

Prep Run #: ~~325832~~ **Prep Method:** **Team:** **Container Lot No:** 100118-1tw **Prep Due Date:**

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810270-001	.02	PAH SIM ULL	40.062g	Samples Previously Frozen . Pulled 11/05/2018. Jar cracked/broken loss of water. Limited sample v	PrepComments:APOSEY K-BALANCE-48 11062018
2	K1810302-016	.02	PAH SIM ULL	40.044g	Samples Previously Frozen . Pulled 11/05/2018. Jar cracked/broken. Limited sample volume	PrepComments:APOSEY K-BALANCE-48 11062018

Samples added to prep run # 315303. LLP 11/07/18.

Relinquished By:	Date/Time:	Received By:	Date/Time:
	11.6.18 1631	LLP	11/07/18

Preparation Information

Group ID:	KWG1805647	**Prep Method:**	EPA 3541	**Prep Date:**	11/01/18 09:31
Department:	Semivoa GCMS				

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.	Solids
~~K1810302-001~~	~~K6-0to28-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.436g~~	~~2mL~~	~~32.1~~
~~K1810302-002~~	~~O4-0to28-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.100g~~	~~2mL~~	~~30.2~~
~~K1810302-003~~	~~M5-0to25-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.146g~~	~~2mL~~	~~36.7~~
~~K1810302-004~~	~~K4-0to28-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.255g~~	~~2mL~~	~~34.2~~
~~K1810302-005~~	~~O7-0to27-101918~~	8270D PAH SIM ULL	SEDIMENT	40.272g	~~2mL~~	~~33.8~~
~~K1810302-006~~	~~O5-0to27-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.112g~~	~~2mL~~	~~33.6~~
~~K1810302-007~~	~~K7-0to24-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.198g~~	~~2mL~~	~~35.7~~
~~K1810302-008~~	~~M6-0to26-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.316g~~	~~2mL~~	~~33.4~~
~~K1810302-009~~	~~M7-0to29-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.216g~~	~~2mL~~	31.6
~~K1810302-010~~	~~K5-0to27-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.285g~~	~~2mL~~	~~30.6~~
~~K1810302-011~~	~~515-0to26-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.140g~~	~~2mL~~	39.7
~~K1810302-012~~	~~O6-0to27-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.167g~~	~~2mL~~	~~30.8~~
~~K1810302-013~~	~~M4-0to26-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.270g~~	~~2mL~~	~~39.9~~
K1810302-022	D6-SC-64to88-102118	8270D PAH SIM ULL	SEDIMENT	40.237g	2mL	66.0
K1810302-023	D6-SC-40to64-102118	8270D PAH SIM ULL	SEDIMENT	40.117g	2mL	54.7
K1810302-024	H3-SC-99to114-102118	8270D PAH SIM ULL	SEDIMENT	40.111g	2mL	69.9
K1810302-026	H3-SC-46to63-102118	8270D PAH SIM ULL	SEDIMENT	40.236g	2mL	67.8
K1810302-027	D6-SC-0to1-102118	8270D PAH SIM ULL	SEDIMENT	40.092g	2mL	42.9
K1810302-028	H3-SC-1to2-102118	8270D PAH SIM ULL	SEDIMENT	40.131g	2mL	52.0
K1810302-029	D6-SC-1to2-102118	8270D PAH SIM ULL	SEDIMENT	40.362g	2mL	45.9
KWG1805647-1	Matrix Spike	8270D PAH SIM ULL	SEDIMENT	40.185g	2mL	66.0
KWG1805647-2	Duplicate Matrix Spike	8270D PAH SIM ULL	SEDIMENT	40.109g	2mL	66.0
KWG1805647-3	Lab Control Sample	8270D PAH SIM ULL	SEDIMENT	20.000g	2mL	
KWG1805647-4	Method Blank	8270D PAH SIM ULL	SEDIMENT	40.436g	2mL	

Lab Code	Parent Lab Code	Comments
KWG1805647-1	K1810302-022	KQ1815425-01
KWG1805647-2	K1810302-022	KQ1815425-02
KWG1805647-3		KQ1815425-03
KWG1805647-4		KQ1815425-04

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1810302-001	1701140					
K1810302-002	1701141					
K1810302-003	1701142					
K1810302-004	1701143					

Comments: ★canceled by PM TP 11/5/18 TP — 11/8/18

IS = SVM 57-1801

Started By: KPrescot — Assisted By: — Training: Yes / No

Completed By: TPottsch — Assisted By: — Yes / No

Reviewed By: [signature] — Date: 11/7/18 — Storage: K-Tundra MS/14 11/8/18

Chain of Custody

Relinquished By: TP — Date: 11/5/18

Received By: [signature] — Date: 11/8/18 — Extracts Examined: Yes / No

Group ID:	KWG1805647	**Prep Method:**	EPA 3541	**Prep Date:**	11/01/18 09:31
Department:	Semivoa GCMS				

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1810302-005	1701144					
K1810302-006	1701145					
K1810302-007	1701146					
K1810302-008	1701147					
K1810302-009	1701148					
K1810302-010	1701149					
K1810302-011	1701150					
K1810302-012	1701151					
K1810302-013	1701152					
K1810302-022	1701153					
K1810302-023	1701154					
K1810302-024	1701155					
K1810302-026	1701156					
K1810302-027	1701157					
K1810302-028	1701158					
K1810302-029	1701159					
KWG1805647-1	1701160					
KWG1805647-2	1701161					
KWG1805647-3	1701162					
KWG1805647-4	1701163					

Comments:

Started By: KPrescot Assisted By: –

Completed By: TPottsch Assisted By: –

Training: Yes / No (No circled)

Reviewed By: [signature] Date: 11/7/18 Storage: K+Tundra

Training: Yes / No

Chain of Custody

Relinquished By: TP Date: 11/5/18

Received By: [signature] Date: 11/8/18

Extracts Examined: Yes / No

Preparation Information

Group ID:	KWG1805647	**Prep Method:**	EPA 3541	**Prep Date:**	11/01/18 00:00
Department:	Semivoa GCMS		[redacted]		

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. 9	pH	Int. Vol. mL	Final Vol. mL	Surr. Added µL	Spike Added µL
1	K1810302-001	K6-0to28-101918 1A	.01	✓	8270D PAH SIM ULL	SEDIMENT	*	N/A			20	-
2	K1810302-002	O4-0to28-101918 1B	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					
3	K1810302-003	M5-0to25-101918 1C	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					
4	K1810302-004	K4-0to28-101918 1D	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					
5	K1810302-005	O7-0to27-101918 1E	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					-
6	K1810302-006	O5-0to27-101918 1F	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					
7	K1810302-007	K7-0to24-101918 2A	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					
8	K1810302-008	M6-0to26-101918 2B	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					
9	K1810302-009	M7-0to29-101918 2C	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					-
10	K1810302-010	K5-0to27-101918 2D	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					-
11	K1810302-011	S15-0to26-101918 2E	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					-
12	K1810302-012	O6-0to27-101918 2F	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					-
13	K1810302-013	M4-0to26-101918 3A	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					-
14	K1810302-022	D6-SC-64to88-102118 3B	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2	20	-
15	K1810302-023	D6-SC-40to64-102118 3C	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
16	K1810302-024	H3-SC-99to114-102118 3D	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
17	K1810302-026	H3-SC-46to63-102118 3E	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-

Comments: *See Pre-Prep Information Benchsheet. KRP 11/01/18. PREPRUN: 324897
*canced as per pm 11/2/18

Surrogate ID: AP: SVM59-50D 100/150ppm XP:03/04/19 20ul Syringe S-92

Spike ID: SIMPAH: SVM59-51F 25ppm XP:03/07/19 80ul Syringe S-90

Witness: [signature] 11-1-18

Started By: KPrescot Assisted By: —

Completed By: TP Assisted By: —

Group ID:	KWG1805647	**Prep Method:**	EPA 3541	**Prep Date:** 11/01/18 00:00
Department:	Semivoa GCMS			

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. g	pH	Int. Vol. mL	Final Vol. mL	Surr. Added µL	Spike Added µL
18	K1810302-027	D6-SC-0to1-102118 3F	.01	✓	8270D PAH SIM ULL	SEDIMENT	*	N/A	10	2	20	-
19	K1810302-028	H3-SC-1to2-102118 1A	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
20	K1810302-029	D6-SC-1to2-102118 1B	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
21	KWG1805647-1	Matrix Spike K1810302-022 1C	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		80
22	KWG1805647-2	Duplicate Matrix Spike K1810302-022 1D	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		
23	KWG1805647-3	Lab Control Sample 1E	-	-	8270D PAH SIM ULL	SEDIMENT	20.000		10	2		
24	KWG1805647-4	Method Blank 1F	-	-	8270D PAH SIM ULL	SEDIMENT	40.436		10	2		-

Comments: * See Pre-Prep Information Benchsheet - KRP 11/01/18.

Surrogate ID: SEE PAGE 1

Spike ID: SEE PAGE 1

Witness: [signature] 11-1-18

Started By: KPrescot Assisted By: —

Completed By: TP Assisted By: —

[redacted]

Additional Prep Information for EPA 3541
PAH

Service Request K1810302 Workgroup KWG1805647

Sulfate Lot # 178434 DCM (GC^2) Lot # JV142-US Glass Wool Lot# 21317999
Date/Time/Initials Weighed: — Balance ID: — Calibration Verified —

Storage Location (if not extracted same day): —

Soxtherm/s unit I.D# K-SOX-01(02/03

Soxtherm Start (Time/Date/Initial): 0931 11/01/18 HLP

Soxtherm Stop (Time/Date/Initial): 1652 11/01/18 HLP

N-Evap (Time/Date/Initial): 08:41 11/2/18 TP N-Evap Therm. ID: X-SVM-010
Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Hexane Exchange for Silica Gel (Time/Date/Initial): 11:32 11/2/18 TP
Hexane Lot # 192699 N-Evap Therm. ID: X-SVM-010
Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Silica Gel Clean-up (3630) (Time/Date/Initial): 14:13 11/2/18 TP

Silica Column Lot # EXT002-35P 1:1 Hexane/DCM Reagent Lot # EXT002-32X
Turbovap (Time/Date/Initial): 11:02 11/5/18 TP Turbovap Therm. ID: X-turbovap-005
Temp as measured: 27.0 °C Correction factor: 0.0 °C Adjusted temp: 27.0 °C

Pipet Lots: Intermediate Volume 1149/8647 Final Volume 20717645

Extract Storage: Def Leppard

Completed (Time/Date/Initial): 15:51 11/5/18 TP

Comments/Observations: _____

Bench Sheet Review Check List	
☑	Hold Times Met (if no, Reason: _____)
☑	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

ALS Environmental

Appendix from EXT-3541
For Extracting PAHs in Soil or Tissue
by EPA Method 3541

Procedure:

Note: All Na_2SO_4 must be DCM rinsed granular anhydrous Na_2SO_4. Also, all lab equipment that will have contact with the sample or sample extract must be thoroughly rinsed with the extraction solvent prior to use.

1. Run the rinse cycle on Soxtherms prior to sample extraction. See EXT-3541 SOP and Operation Manual for programming instructions. ***Note:** ULL and Tissue glassware must be baked prior to use.*
Prog. =01, Temp. Limit=200°, Ext. temp. =140°, Boil time=10m., Red. A=1x15ml, Ext. time=10m., Red B=1x15ml, sol. cool=30m., Red. int. =5m., Red pulse=5s, time 56m.
2. Thoroughly mix sample. Remove large rocks, sticks, leaves and other organic matter unless this is the primary make-up of the sample. Weigh approximately (see chart) *initial weight* into a 250ml beaker. Record weight using all figures displayed on the scale.
3. Use Na_2SO_4 [a] for the MB, LCS, and DLCS. If requested, weigh out appropriate SRM for analysis.
4. Mix sample with DCM rinsed Na_2SO_4 [a] and dry until sample is sandy and free flowing. More Na_2SO_4 can be added if needed, but be careful that the amount of sulfate used will not over fill the thimble capacity (~100mL mark on beaker). If two thimbles are needed, split extracts are then combined during reduction.
5. Quantitatively transfer dried extract to assembled Soxtherm thimble. Be careful not to contaminate neighboring glassware.
6. Add surrogate and matrix spikes. See chart.
7. Add enough DCM to cover samples completely.
8. Place sample on Soxtherm and run the associated program. See EXT-3541 SOP and Operation Manual for programming instructions.
Prog. =04 Temp. Limit=200°, Ext. temp. =140°, Boil time=1h., Red. A=3x15ml, Ext. time=1h., Red B=6x15ml, sol. cool=30m., Red. int. =5m., Red pulse=5s, time 3h3m.
9. Be careful that the extract does not go dry. The goal is a volume of 10 to 20ml. after reductions. Samples are removed and immediately covered in foil as soon as this level is reached to allow other samples to continue the reduction step. Additional reductions may be required.
10. Quantitatively transfer the extract to culture tubes.
11. Take Sample to an intermediate volume in DCM.
12. Pull off an aliquot of extract and solvent exchange into hexane by adding ~1mL of hexane to extract and concentrating back down to ~1mL on N-Evap. Repeat two more times.
13. Condition silica gel columns 3 times with DCM and 3 times with Hexane.
14. Place a test tube under column and add extract to silica gel column.
15. Elute 4 times with 1:1 DCM/Hexane.
16. Concentrate the extracts to 1mL on turbovap. Place 1 mL of extract into PAH vials.
17. Complete all necessary paperwork.

Test	Initial Weight	Surrogate Added	Spike Added	Intermediate Volume	Vial Color	Calculated Final Volume
SIM-PAH/ SIMALK Soils/Paperboards	10 grams dry	AP / 20µL	PAH / 200µL	20mL	Green	10mL
SIM-PAH UL Solids	20 grams dry	AP / 20µL	PAH / 80µL	2mL	Green	2mL
SIM-PAH UL Tissue	10 grams wet	AP / 20µL	PAH / 100µL	N/A	Pink	1mL
SIM-PAH Tissue	10 grams wet	AP / 20µL	PAH / 200µL	20mL	Pink	10mL
SIM-PAH Wipe/Filter	1 wipe	AP / 10µL	PAH / 20µL	20mL	Green	1mL

Pre-Prep Information Benchsheet

Prep Run #: 324897 **Prep Method:** **Team:** **Container Lot No:** 081318-1TW **Prep Due Date:** Nov-09-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810302-001	.01	PAH SIM ULL	40.436g		PrepComments:APOSEY K-BALANCE-48 10232018
2	K1810302-002	.01	PAH SIM ULL	40.100g		PrepComments:APOSEY K-BALANCE-48 10242018
3	K1810302-003	.01	PAH SIM ULL	40.146g		PrepComments:APOSEY K-BALANCE-48 10242018
4	K1810302-004	.01	PAH SIM ULL	40.255g		PrepComments:APOSEY K-BALANCE-48 10242018
5	K1810302-005		PAH SIM ULL	40.272g		PrepComments:GBEATLEY k-balance-49
6	K1810302-006		PAH SIM ULL	40.112g		PrepComments:GBEATLEY k-balance-49
7	K1810302-007		PAH SIM ULL	40.198g		PrepComments:GBEATLEY k-balance-49
8	K1810302-008		PAH SIM ULL	40.316g		PrepComments:GBEATLEY k-balance-49
9	K1810302-009		PAH SIM ULL	40.216g		PrepComments:GBEATLEY k-balance-49
10	K1810302-010		PAH SIM ULL	40.285g		PrepComments:GBEATLEY k-balance-49
11	K1810302-011		PAH SIM ULL	40.140g		PrepComments:GBEATLEY k-balance-49
12	K1810302-012		PAH SIM ULL	40.167g		PrepComments:GBEATLEY k-balance-49
13	K1810302-013		PAH SIM ULL	40.270g		PrepComments:GBEATLEY k-balance-49
14	K1810302-022	.01	PAH SIM ULL	40.237g		PrepComments:GBEATLEY k-balance-49
15	K1810302-022 MS KQ1815425-01	.01	PAH SIM ULL	40.185g		PrepComments:GBEATLEY k-balance-49
16	K1810302-022 DMS KQ1815425-02	.01	PAH SIM ULL	40.109g		PrepComments:GBEATLEY k-balance-49
17	K1810302-023		PAH SIM ULL	40.117g		PrepComments:GBEATLEY k-balance-49
18	K1810302-024		PAH SIM ULL	40.111g		PrepComments:GBEATLEY k-balance-49
19	K1810302-026	.01	PAH SIM ULL	40.236g		PrepComments:GBEATLEY k-balance-49
20	K1810302-027		PAH SIM ULL	40.092g		PrepComments:GBEATLEY k-balance-49
21	K1810302-028		PAH SIM ULL	40.131g		PrepComments:GBEATLEY k-balance-49
22	K1810302-029	.01	PAH SIM ULL	40.362g		PrepComments:GBEATLEY k-balance-49

Relinquished By:	Date/Time:	Received By:	Date/Time:
	10/24/18 1445		10/30/18

Preparation Information

Group ID:	KWG1805648	**Prep Method:**	EPA 3541	**Prep Date:**	11/01/18 18:15
Department:	Semivoa GCMS				

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.	Solids
K1810302-025	D6-SC-88to108-102118	8270D PAH SIM ULL	SEDIMENT	40.018g	2mL	71.5
K1810305-001	H3-SC-29to46-102118	8270D PAH SIM ULL	SEDIMENT	40.068g	2mL	74.4
K1810305-002	H3-SC-85to99-102118	8270D PAH SIM ULL	SEDIMENT	40.135g	2mL	61.5
~~K1810305-003~~	~~R4-SC-138to142-102118~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	40.083g	2mL	~~77.6~~
K1810305-004	H3-SC-0to1-102118	8270D PAH SIM ULL	SEDIMENT	40.104g	2mL	47.9
K1810305-005	H3-SC-2to29-102118	8270D PAH SIM ULL	SEDIMENT	40.188g	2mL	54.9
K1810305-006	H3-SC-63to85-102118	8270D PAH SIM ULL	SEDIMENT	40.227g	2mL	53.1
K1810305-007	D6-SC-108to123-102118	8270D PAH SIM ULL	SEDIMENT	40.270g	2mL	70.4
K1810305-008	D6-SC-2to4-102118	8270D PAH SIM ULL	SEDIMENT	40.030g	2mL	48.3
K1810305-009	R4-SC-0to1-102118	8270D PAH SIM ULL	SEDIMENT	40.324g	2mL	41.3
K1810305-010	R4-SC-1to2-102118	8270D PAH SIM ULL	SEDIMENT	40.111g	2mL	49.2
K1810305-011	R4-SC-6to8-102118	8270D PAH SIM ULL	SEDIMENT	40.019g	2mL	54.6
K1810305-012	R4-SC-2to4-102118	8270D PAH SIM ULL	SEDIMENT	40.109g	2mL	52.4
K1810305-013	R4-SC-4to6-102118	8270D PAH SIM ULL	SEDIMENT	40.083g	2mL	52.3
K1810305-014	R4-SC-8to10-102118	8270D PAH SIM ULL	SEDIMENT	40.334g	2mL	54.4
K1810305-015	R4-SC-10to12-102118	8270D PAH SIM ULL	SEDIMENT	40.133g	2mL	54.2
K1810305-016	R4-SC-120to138-102118	8270D PAH SIM ULL	SEDIMENT	40.098g	2mL	57.8
KWG1805648-1	Matrix Spike	8270D PAH SIM ULL	SEDIMENT	40.148g	2mL	61.5
KWG1805648-2	Duplicate Matrix Spike	8270D PAH SIM ULL	SEDIMENT	40.344g	2mL	61.5
KWG1805648-3	Lab Control Sample	8270D PAH SIM ULL	SEDIMENT	20.000g	2mL	
KWG1805648-4	Method Blank	8270D PAH SIM ULL	SEDIMENT	40.334g	2mL	

Lab Code	Parent Lab Code	Comments
KWG1805648-1	K1810305-002	KQ1815506-01
KWG1805648-2	K1810305-002	KQ1815506-02
KWG1805648-3		KQ1815506-03
KWG1805648-4		KQ1815506-04

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1810302-025	1701212					
K1810305-001	1701164					
K1810305-002	1701165					
K1810305-003	1701166					
K1810305-004	1701167					
K1810305-005	1701168					
K1810305-006	1701169					

Comments: *canceled by PM TP 11/5/18 IS = SVM 57-106D

Started By: KPrescot Assisted By: –

Completed By: TPottsch Assisted By: –

Training: Yes / No (No circled)

Yes / No

Reviewed By: [signature] Date: 11/7/18 Storage: K-Tunara

Chain of Custody

Relinquished By: TP Date: 11/5/18

Received By: [signature] Date: 11/8/18

Extracts Examined: Yes (circled) / No

Group ID:	KWG1805648	**Prep Method:**	EPA 3541	**Prep Date:**	11/01/18 18:15
Department:	Semivoa GCMS				

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1810305-007	1701170					
K1810305-008	1701171					
K1810305-009	1701172					
K1810305-010	1701173					
K1810305-011	1701174					
K1810305-012	1701175					
K1810305-013	1701176					
K1810305-014	1701177					
K1810305-015	1701178					
K1810305-016	1701179					
KWG1805648-1	1701180					
KWG1805648-2	1701181					
KWG1805648-3	1701182					
KWG1805648-4	1701183					

Comments:

Started By: KPrescot Assisted By: —

Completed By: TPottsch Assisted By: —

Training: Yes / No (No circled)

Yes / No

Reviewed By: [signature] Date: 11/7/18 Storage: K-Tundra

Chain of Custody

Relinquished By: TP Date: 11/5/18

Received By: [signature] Date: 11/8/18

Extracts Examined: Yes (circled) / No

Preparation Information

Group ID:	KWG1805648	**Prep Method:**	EPA 3541	**Prep Date:**	11/01/18 00:00
Department:	Semivoa GCMS				

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. g	pH	Int. Vol. mL	Final Vol. mL	Surr. Added µL	Spike Added µL
1	K1810302-025	D6-SC-88to108-102118 3B	.01	✓	8270D PAH SIM ULL	SEDIMENT	*	N/A	10	2	20	-
2	K1810305-001	H3-SC-29to46-102118 1A	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
3	K1810305-002	H3-SC-85to99-102118 1B	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
4	K1810305-003	R4-SC-138to142-102118 1C	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					-
5	K1810305-004	H3-SC-0to1-102118 1D	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
6	K1810305-005	H3-SC-2to29-102118 1E	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
7	K1810305-006	H3-SC-63to85-102118 1F	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
8	K1810305-007	D6-SC-108to123-102118 2A	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
9	K1810305-008	D6-SC-2to4-102118 2B	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
10	K1810305-009	R4-SC-0to1-102118 2C	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
11	K1810305-010	R4-SC-1to2-102118 2D	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
12	K1810305-011	R4-SC-6to8-102118 2E	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
13	K1810305-012	R4-SC-2to4-102118 2F	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
14	K1810305-013	R4-SC-4to6-102118 3A	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
15	K1810305-014	R4-SC-8to10-102118 3B	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
16	K1810305-015	R4-SC-10to12-102118 3C	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
17	K1810305-016	R4-SC-120to138-102118 3D	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-

Comments: *See Pre-Prep Information Benchsheet. KKP 11/01/18. PREPRUN: 325012

*Canceled per pm TP 11/2/18

Surrogate ID: AP: SVM59-500 100/150ppm XP: 03/04/19 20ul Syringe. S-92

Spike ID: SVM PAH: SVM59-51F 25ppm XP: 03/07/19 80ul Syringe. S-90

Witness: 11/1/18

Started By: KPrescot Assisted By: KV

Completed By: ~~15:45~~ TP EE TP 11/3/18 Assisted By: —

Group ID: KWG1805648 **Prep Method:** EPA 3541 **Prep Date:** 11/01/18 00:00
Department: Semivoa GCMS

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. g	pH	Int. Vol. mL	Final Vol. mL	Surr. Added µL	Spike Added µL
18	KWG1805648-1	Matrix Spike K1810305-002 3A	.01	√	8270D PAH SIM ULL	SEDIMENT	*	N/A	10	2	20	80
19	KWG1805648-2	Duplicate Matrix Spike K1810305-002 3C	.01	√	8270D PAH SIM ULL	SEDIMENT	*	"	10	2	"	"
20	KWG1805648-3	Lab Control Sample 3E	-	-	8270D PAH SIM ULL	SEDIMENT	20.000	"	10	2	"	"
21	KWG1805648-4	Method Blank 3F	-	-	8270D PAH SIM ULL	SEDIMENT	40.344	"	10	2	"	-

Comments: *See Pre-Prep Information Benchsheet - LLL 11/01/18.

Surrogate ID: See PAGE 1
Spike ID: See PAGE 1
Witness: 11/1/18

Started By: KPrescot Assisted By: KV
Completed By: TP Assisted By: -

Printed: 11/01/2018 08:17:53 Preparation Information Page 2 of 2
u:\Stealth\Crystal.rpt\prep2.rpt

Additional Prep Information for EPA 3541
PAH

Service Request K1810302/0305 Workgroup KWG1805648

Sulfate Lot # 178434 DCM (GC^2) Lot # DU142-US Glass Wool Lot# 213/7999
Date/Time/Initials Weighed: — Balance ID: — Calibration Verified ⊟

Storage Location (if not extracted same day): —

Soxtherm/s unit I.D# K-SOX-01/02/03

Soxtherm Start (Time/Date/Initial): 1815 11/01/18 KRP

Soxtherm Stop (Time/Date/Initial): 0704 11/02/18 KRP

N-Evap (Time/Date/Initial): 09:26 11/2/18 TP N-Evap Therm. ID: X-SVM-010
Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Hexane Exchange for Silica Gel (Time/Date/Initial): 11:32 11/2/18 TP
Hexane Lot # 192699 N-Evap Therm. ID: X-SVM-010
Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Silica Gel Clean-up (3630) (Time/Date/Initial): 14:13 11/2/18 TP

Silica Column Lot # EXT002-35P 1:1 Hexane/DCM Reagent Lot # EXT002-32X
Turbovap (Time/Date/Initial): 10:35 11/5/18 TP Turbovap Therm. ID: K-Turbovap-005
Temp as measured: 28.0 °C Correction factor: 00 °C Adjusted temp: 28.0 °C

Pipet Lots: Intermediate Volume 149/847 Final Volume 20717645

Extract Storage: Def leppard

Completed (Time/Date/Initial): 15:42 11/5/18 TP

Comments/Observations: —

Bench Sheet Review Check List	
☑	Hold Times Met (if no, Reason:)
☑	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

R:\Extractions\Active Benchsheets\3541\AddPrep 3541PAH.doc
Reviewed by: Carlus Pollard 6/8/18 SOP: EXT-3541 Rev. 10

ALS Environmental

Appendix from EXT-3541
For Extracting PAHs in Soil or Tissue
by EPA Method 3541

Procedure:

Note: All Na_2SO_4 must be DCM rinsed granular anhydrous Na_2SO_4. Also, all lab equipment that will have contact with the sample or sample extract must be thoroughly rinsed with the extraction solvent prior to use.

1. Run the rinse cycle on Soxtherms prior to sample extraction. See EXT-3541 SOP and Operation Manual for programming instructions. ***Note:** ULL and Tissue glassware must be baked prior to use.*

Prog. =01, Temp. Limit=200°, Ext. temp. =140°, Boil time=10m., Red. A=1x15ml, Ext. time=10m., Red B=1x15ml, sol. cool=30m., Red. int. =5m., Red pulse=5s, time 56m.

2. Thoroughly mix sample. Remove large rocks, sticks, leaves and other organic matter unless this is the primary make-up of the sample. Weigh approximately (see chart) *initial weight* into a 250ml beaker. Record weight using all figures displayed on the scale.
3. Use Na_2SO_4 [a] for the MB, LCS, and DLCS. If requested, weigh out appropriate SRM for analysis.
4. Mix sample with DCM rinsed Na_2SO_4 [a] and dry until sample is sandy and free flowing. More Na_2SO_4 can be added if needed, but be careful that the amount of sulfate used will not over fill the thimble capacity (~100mL mark on beaker). If two thimbles are needed, split extracts are then combined during reduction.
5. Quantitatively transfer dried extract to assembled Soxtherm thimble. Be careful not to contaminate neighboring glassware.
6. Add surrogate and matrix spikes. See chart.
7. Add enough DCM to cover samples completely.
8. Place sample on Soxtherm and run the associated program. See EXT-3541 SOP and Operation Manual for programming instructions.

Prog. =04 Temp. Limit=200°, Ext. temp. =140°, Boil time=1h., Red. A=3x15ml, Ext. time=1h., Red B=6x15ml, sol. cool=30m., Red. int. =5m., Red pulse=5s, time 3h3m.

9. Be careful that the extract does not go dry. The goal is a volume of 10 to 20ml. after reductions. Samples are removed and immediately covered in foil as soon as this level is reached to allow other samples to continue the reduction step. Additional reductions may be required.
10. Quantitatively transfer the extract to culture tubes.
11. Take Sample to an intermediate volume in DCM.
12. Pull off an aliquot of extract and solvent exchange into hexane by adding ~1mL of hexane to extract and concentrating back down to ~1mL on N-Evap. Repeat two more times.
13. Condition silica gel columns 3 times with DCM and 3 times with Hexane.
14. Place a test tube under column and add extract to silica gel column.
15. Elute 4 times with 1:1 DCM/Hexane.
16. Concentrate the extracts to 1mL on turbovap. Place 1 mL of extract into PAH vials.
17. Complete all necessary paperwork.

Test	Initial Weight	Surrogate Added	Spike Added	Intermediate Volume	Vial Color	Calculated Final Volume
SIM-PAH/ SIMALK Soils/Paperboards	10 grams dry	AP / 20µL	PAH / 200µL	20mL	Green	10mL
SIM-PAH UL Solids	20 grams dry	AP / 20µL	PAH / 80µL	2mL	Green	2mL
SIM-PAH UL Tissue	10 grams wet	AP / 20µL	PAH / 100µL	N/A	Pink	1mL
SIM-PAH Tissue	10 grams wet	AP / 20µL	PAH / 200µL	20mL	Pink	10mL
SIM-PAH Wipe/Filter	1 wipe	AP / 10µL	PAH / 20µL	20mL	Green	1mL

Pre-Prep Information Benchsheet

Prep Run #: 325012 **Prep Method:** **Team:** **Container Lot No:** 052118-1BNU **Prep Due Date:** Nov-09-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810305-001	.01	PAH SIM ULL	40.068g		PrepComments:GBEATLEY k-balance-49
2	K1810305-002	.01	PAH SIM ULL	40.135g		PrepComments:GBEATLEY k-balance-49
3	K1810305-002 MS KQ1815506-01	.01	PAH SIM ULL	40.148g		PrepComments:GBEATLEY k-balance-49
4	K1810305-002 DMS KQ1815506-02	.01	PAH SIM ULL	40.344g		PrepComments:GBEATLEY k-balance-49
5	K1810305-003	.01	PAH SIM ULL	40.083g		PrepComments:GBEATLEY k-balance-49
6	K1810305-004	.01	PAH SIM ULL	40.104g		PrepComments:GBEATLEY k-balance-49
7	K1810305-005	.01	PAH SIM ULL	40.188g		PrepComments:GBEATLEY k-balance-49
8	K1810305-006	.01	PAH SIM ULL	40.227g		PrepComments:GBEATLEY k-balance-49
9	K1810305-007	.01	PAH SIM ULL	40.270g		PrepComments:GBEATLEY k-balance-49
10	K1810305-008	.01	PAH SIM ULL	40.030g		PrepComments:GBEATLEY k-balance-49
11	K1810305-009	.01	PAH SIM ULL	40.324g		PrepComments:GBEATLEY k-balance-49
12	K1810305-010	.01	PAH SIM ULL	40.111g		PrepComments:GBEATLEY k-balance-49
13	K1810305-011	.01	PAH SIM ULL	40.019g		PrepComments:GBEATLEY k-balance-49
14	K1810305-012	.01	PAH SIM ULL	40.109g		PrepComments:GBEATLEY k-balance-49
15	K1810305-013	.01	PAH SIM ULL	40.083g		PrepComments:GBEATLEY k-balance-49
16	K1810305-014	.01	PAH SIM ULL	40.334g		PrepComments:GBEATLEY k-balance-49
17	K1810305-015	.01	PAH SIM ULL	40.133g		PrepComments:GBEATLEY k-balance-49
18	K1810305-016	.01	PAH SIM ULL	40.098g		PrepComments:GBEATLEY k-balance-49

Relinquished By: GBeatley	Date/Time: 10/25/18 1400	Received By: KH	Date/Time: 10/30/18 1730

Pre-Prep Information Benchsheet

325012

Prep Run #: ~~324895~~ **Prep Method:** **Team:** **Container Lot No:** 081318-1TW **Prep Due Date:** Nov-09-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810302-025		PAH SIM ULL	40.018g		PrepComments:GBEATLEY k-balance-49
2	~~K1810302-025 MS~~ ~~KQ1815423-01~~		~~PAH SIM ULL~~	~~40.338g~~		PrepComments:GBEATLEY k-balance-49
3	~~K1810302-025 DMS~~ ~~KQ1815423-02~~		~~PAH SIM ULL~~	~~40.089g~~		PrepComments:GBEATLEY k-balance-49

Sample batched w/ prep run # 325012. QC not needed. KKP 11/01/18.

Relinquished By:	Date/Time:	Received By:	Date/Time:
GBeatley	10/24/18 1441	KKP	10/30/18

Directory: J:\MS14\DATA\111318

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1113F001.D	1.	DFTPP @ 10ug/mL | SVM59-57A		13 Nov 2018 04:58
2	2	1113F002.D	1.	SIM-PAH CCV @0.4ug/mL | SVM59-89N		13 Nov 2018 05:23
3	3	1113F003.D	1.	KWG1805701-4 MB		13 Nov 2018 05:48
4	4	1113F004.D	1.	KWG1805701-3 LCS		13 Nov 2018 06:13
5	5	1113F005.D	1.	KWG1805701-5 SRM		13 Nov 2018 06:38
6	6	1113F006.D	1.	K1810638-001DIL 5X		13 Nov 2018 07:03
7	7	1113F007.D	1.	K1810277-003DIL 25X	> NR- rerun w/closing ccv (DOD)	13 Nov 2018 07:28
8	8	1113F008.D	1.	K1810277-005DIL 25X		13 Nov 2018 07:54
9	9	1113F009.D	1.	KWG1805701-5 SRM 5X		13 Nov 2018 08:19
10	10	1113F010.D	1.	K1810638-001MS 5X		13 Nov 2018 08:44
11	11	1113F011.D	1.	K1810638-001DMS 5X		13 Nov 2018 09:09
12	12	1113F012.D	1.	K1810638-002DIL 5X		13 Nov 2018 09:35
13	13	1113F013.D	1.	K1810638-003DIL 5X		13 Nov 2018 10:00
14	14	1113F014.D	1.	K1810638-004DIL 5X		13 Nov 2018 10:25
15	15	1113F015.D	1.	K1810638-005DIL 5X		13 Nov 2018 10:51
16	16	1113F016.D	1.	K1810638-006DIL 5X		13 Nov 2018 11:16
17	17	1113F017.D	1.	K1810638-001	★ Lims # 615924	13 Nov 2018 11:42
18	18	1113F018.D	1.	K1810638-002	CAL 15779	13 Nov 2018 12:07
19	19	1113F019.D	1.	K1810638-003	11/30/18	13 Nov 2018 12:33
20	20	1113F020.D	1.	K1810638-004		13 Nov 2018 12:58
21	21	1113F021.D	1.	K1810638-005		13 Nov 2018 13:24
22	22	1113F022.D	1.	K1810638-006		13 Nov 2018 13:49
23	23	1113F023.D	1.	K1810683-002MS		13 Nov 2018 14:15
24	24	1113F024.D	1.	K1810683-002DMS		13 Nov 2018 14:41
25	25	1113F025.D	1.	K1810683-002		13 Nov 2018 15:06
26	26	1113F026.D	1.	K1810302-016		13 Nov 2018 15:32
27	2	1113F028.D	1.	SIM-PAH CCV @0.4ug/mL | SVM59-89N		13 Nov 2018 16:24
28	27	1113F029.D	1.	KWG1805796-6 MB		13 Nov 2018 16:49
29	28	1113F030.D	1.	KWG1805796-5 LCS		13 Nov 2018 17:15
30	29	1113F031.D	1.	K1810683-003		13 Nov 2018 17:41
31	30	1113F032.D	1.	K1810430-005MS 10X		13 Nov 2018 18:06
32	31	1113F033.D	1.	K1810430-005DMS 10X		13 Nov 2018 18:31
33	32	1113F034.D	1.	K1810430-005DIL 10X		13 Nov 2018 18:57
34	33	1113F035.D	1.	K1810270-001DIL 10X		13 Nov 2018 19:22
35	34	1113F036.D	1.	K1810430-001DIL 10X		13 Nov 2018 19:48
36	35	1113F037.D	1.	K1810430-002DIL 10X		13 Nov 2018 20:13
37	36	1113F038.D	1.	K1810430-003DIL 10X		13 Nov 2018 20:39
38	37	1113F039.D	1.	K1810430-004DIL 10X		13 Nov 2018 21:04
39	38	1113F040.D	1.	K1810430-006DIL 10X		13 Nov 2018 21:29
40	39	1113F041.D	1.	K1810430-007DIL 10X		13 Nov 2018 21:54
41	40	1113F042.D	1.	K1810430-008DIL 10X		13 Nov 2018 22:20
42	41	1113F043.D	1.	K1810430-009DIL 10X		13 Nov 2018 22:46
43	42	1113F044.D	1.	K1810430-010DIL 10X		13 Nov 2018 23:11
44	43	1113F045.D	1.	K1810430-011DIL 25X		13 Nov 2018 23:36
45	44	1113F046.D	1.	K1810683-001DIL 5X		14 Nov 2018 00:02
46	45	1113F047.D	1.	K1810683-004DIL 5X		14 Nov 2018 00:27
47	100	1113F048.D	1.	DCM		14 Nov 2018 00:53
48	100	1113F049.D	1.	DCM		14 Nov 2018 01:18

5

DILUTION LOG MS 14

Date: 11/13/18 Prepared by: L Weisbrod Solvent Lot #: DT383

LAB ID.	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	COMMENTS
K1810638-1	100ul	0.5mL	5X	matrix
K1810277-3	20ul		25X	
1 -5	1		25X	
KWG5701-SRM	100ul		5X	matrix
K1810638-1MS				matrix
-1DMS				
-2				
-3				
-4				
-5				
-6				

11/14/18

R:\SVM\DILUTION LOG.DOC

Injection Log

Directory: J:\MS14\DATA\110618

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1106F001.D	1.	DFTPP @ 10ug/mL | SVM59-57A		6 Nov 2018 05:06
2	2	1106F002.D	1.	SIM-PAH CCV @0.4ug/mL | SVM59-81A		6 Nov 2018 05:35
3	3	1106F003.D	1.	KWG1805529-4 MB		6 Nov 2018 06:04
4	4	1106F004.D	1.	KWG1805529-3 LCS		6 Nov 2018 06:33
5	5	1106F005.D	1.	KWG1805597-3 LCS		6 Nov 2018 07:01
6	6	1106F006.D	1.	KWG1805647-4 MB		6 Nov 2018 07:30
7	7	1106F007.D	1.	KWG1805647-3 LCS		6 Nov 2018 07:59
8	8	1106F008.D	1.	K1810302-022MS		6 Nov 2018 08:27
9	9	1106F009.D	1.	K1810302-022DMS		6 Nov 2018 08:56
10	10	1106F010.D	1.	K1810302-022		6 Nov 2018 09:25
11	11	1106F011.D	1.	K1810302-024		6 Nov 2018 09:53
12	12	1106F012.D	1.	K1810302-026	– Needs 10X Dil.	6 Nov 2018 10:22
13	13	1106F013.D	1.	K1810270-004DIL 10X	rerun @ 4X Dil.	6 Nov 2018 10:51
14	14	1106F014.D	1.	K1810270-011DIL 10X		6 Nov 2018 11:20
15	15	1106F015.D	1.	K1810270-012DIL 10X		6 Nov 2018 11:49
16	16	1106F016.D	1.	K1810270-013DIL 5X		6 Nov 2018 12:18
17	17	1106F017.D	1.	K1810270-015DIL 5X		6 Nov 2018 12:46
18	18	1106F018.D	1.	K1810270-016DIL 5X		6 Nov 2018 13:15
19	19	1106F019.D	1.	K1810270-017DIL 5X		6 Nov 2018 13:44
20	20	1106F020.D	1.	K1810270-018DIL 5X		6 Nov 2018 14:13
21	21	1106F021.D	1.	K1810270-019DIL 5X		6 Nov 2018 14:42
22	22	1106F022.D	1.	K1810302-023DIL 5X		6 Nov 2018 15:10
23	23	1106F023.D	1.	K1810302-027DIL 5X		6 Nov 2018 15:39
24	24	1106F024.D	1.	K1810302-028DIL 10X		6 Nov 2018 16:08
25	25	1106F025.D	1.	K1810302-029DIL 10X		6 Nov 2018 16:37
26	100	1106F026.D	1.	DCM	NR	6 Nov 2018 17:06
27	100	1106F027.D	1.	DCM		6 Nov 2018 17:35
28	100	1106F028.D	1.	DCM		6 Nov 2018 18:03

*LIMS # 614503
CAL 15779
11/16/18

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DILUTION LOG MS 19

Date: 11/6/18 Prepared by: Lkliskopf Solvent Lot #: DT383

LAB ID.	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	COMMENTS
K1810270-4	50ul	0.5mL	10X	yellow extract
-11	↓	↓	↓	↓
-12	↓		↓	
-13	100ul		5X	
-15	↓		↓	
-16				
-17				
-18				
-19				
K1810302-23				
-27	↓		↓	
-28	50ul		10X	
-29	↓	↓	10X	↓

11/8/18

Injection Log

Directory: J:\MS14\DATA\110718

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1107F001.D	1.	DFTPP @ 10ug/mL | SVM59-57A		7 Nov 2018 04:55
2	2	1107F002.D	1.	SIM-PAH CCV @0.4ug/mL | SVM59-81A		7 Nov 2018 05:26
3	3	1107F003.D	1.	KWG1805648-4 MB		7 Nov 2018 05:56
4	4	1107F004.D	1.	KWG1805648-3 LCS		7 Nov 2018 06:26
5	5	1107F005.D	1.	K1810305-002		7 Nov 2018 06:56
6	6	1107F006.D	1.	K1810305-025		7 Nov 2018 07:26
7	7	1107F007.D	1.	K1810305-007		7 Nov 2018 07:56
8	8	1107F008.D	1.	K1810302-026DIL 10X		7 Nov 2018 08:27
9	9	1107F009.D	1.	K1810270-004DIL 4X		7 Nov 2018 08:58
10	10	1107F010.D	1.	K1810270-011DIL 4X		7 Nov 2018 09:28
11	11	1107F011.D	1.	K1810270-012DIL 4X		7 Nov 2018 09:59
12	12	1107F012.D	1.	K1810305-002MS 5X		7 Nov 2018 10:29
13	13	1107F013.D	1.	K1810305-002DMS 5X		7 Nov 2018 10:59
14	14	1107F014.D	1.	K1810305-002DIL 5X		7 Nov 2018 11:30
15	15	1107F015.D	1.	K1810305-001DIL 5X		7 Nov 2018 12:00
16	16	1107F016.D	1.	K1810305-004DIL 5X		7 Nov 2018 12:31
17	17	1107F017.D	1.	K1810305-005DIL 5X		7 Nov 2018 13:01
18	18	1107F018.D	1.	K1810305-006DIL 5X		7 Nov 2018 13:32
19	19	1107F019.D	1.	K1810305-008DIL 5X		7 Nov 2018 14:02
20	20	1107F020.D	1.	K1810305-009DIL 5X		7 Nov 2018 14:32
21	21	1107F021.D	1.	K1810305-010DIL 5X		7 Nov 2018 15:03
22	22	1107F022.D	1.	K1810305-011DIL 5X		7 Nov 2018 15:33
23	23	1107F023.D	1.	K1810305-012DIL 5X		7 Nov 2018 16:03
24	24	1107F024.D	1.	K1810305-013DIL 5X		7 Nov 2018 16:33
25	25	1107F025.D	1.	K1810305-014DIL 5X		7 Nov 2018 17:03
26	100	1107F026.D	1.	DCM		7 Nov 2018 17:34
27	100	1107F027.D	1.	DCM		7 Nov 2018 18:04
28	1	1107F028.D	1.	DFTPP @ 10ug/mL | SVM59-57A		7 Nov 2018 18:34
29	2	1107F029.D	1.	SIM-PAH CCV @0.4ug/mL | SVM59-81A		7 Nov 2018 19:05
30	26	1107F030.D	1.	KWG1805579-3 MB		7 Nov 2018 19:35
31	27	1107F031.D	1.	KWG1805579-1 LCS		7 Nov 2018 20:06
32	28	1107F032.D	1.	KWG1805579-2 DLCS		7 Nov 2018 20:36
33	29	1107F033.D	1.	K1810305-015DIL 5X		7 Nov 2018 21:06
34	30	1107F034.D	1.	K1810305-016DIL 5X		7 Nov 2018 21:36
35	31	1107F035.D	1.	K1809881-007		7 Nov 2018 22:06
36	32	1107F036.D	1.	K1809109-007		7 Nov 2018 22:36
37	33	1107F037.D	1.	K1809302-007		7 Nov 2018 23:06
38	34	1107F038.D	1.	K1809470-007		7 Nov 2018 23:36
39	35	1107F039.D	1.	K1809619-007		8 Nov 2018 00:07
40	36	1107F040.D	1.	K1809698-007		8 Nov 2018 00:37
41	37	1107F041.D	1.	K1809797-006		8 Nov 2018 01:07
42	38	1107F042.D	1.	K1809967-006		8 Nov 2018 01:37
43	39	1107F043.D	1.	K1810049-006		8 Nov 2018 02:07

Q 11/9/18

Q 11/9/18

Q 11/19/18

A GMS # 614504
CAL 15779

NR - outside tune window

DILUTION LOG MS 14

Date: 11/7/18 Prepared by: Labiskopf Solvent Lot #: DT383

LAB ID.	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	COMMENTS
K1810302-26	50ul	0.5mL	10X	matrix
K1810270-4	250ul	1.0mL	4X	
-11				
-12				
K1810305-2MS	100ul	0.5mL	5X	
-2DMS				
-2				
-1				
-4				
-5				
-6				
-8				
-9				
-10				
-11				
-12				
-13				

11/8/18

Injection Log

Directory: J:\ms14\data\111418

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1114F001.D	1.	DFTPP @ 10ug/mL | SVM59-57A		14 Nov 2018 05:51
2	2	1114F002.D	1.	SIM-PAH CCV @0.4ug/mL | SVM59-89N		14 Nov 2018 06:17
3	3	1114F003.D	1.	KWG1805796-6 MB		14 Nov 2018 06:42
4	4	1114F004.D	1.	KWG1805796-5 LCS		14 Nov 2018 07:08
5	5	1114F005.D	1.	KWG1805775-4 MB		14 Nov 2018 07:33
6	6	1114F006.D	1.	KWG1805775-3 LCS		14 Nov 2018 07:58
7	7	1114F007.D	1.	KWG1805775-5 SRM		14 Nov 2018 08:23
8	8	1114F008.D	1.	KWG1805775-5 SRM 5X (NR)		14 Nov 2018 08:48
9	9	1114F009.D	1.	K1810669-002MS 5X		14 Nov 2018 09:14
10	10	1114F010.D	1.	K1810669-002DMS 5X		14 Nov 2018 09:40
11	11	1114F011.D	1.	K1810669-002DIL 5X		14 Nov 2018 10:05
12	12	1114F012.D	1.	K1810669-001DIL 5X		14 Nov 2018 10:30
13	13	1114F013.D	1.	K1810270-001DIL 5X		14 Nov 2018 10:56
14	14	1114F014.D	1.	K1810430-001DIL 5X		14 Nov 2018 11:21
15	15	1114F015.D	1.	K1810430-002DIL 5X		14 Nov 2018 11:46
16	16	1114F016.D	1.	K1810430-003DIL 5X		14 Nov 2018 12:12
17	17	1114F017.D	1.	K1810430-004DIL 5X		14 Nov 2018 12:39
18	18	1114F018.D	1.	K1810430-006DIL 5X		14 Nov 2018 13:05
19	19	1114F019.D	1.	K1810430-007DIL 5X		14 Nov 2018 13:31
20	20	1114F020.D	1.	K1810430-008DIL 5X		14 Nov 2018 13:57
21	21	1114F021.D	1.	K1810430-011DIL 20X		14 Nov 2018 14:25
22	22	1114F022.D	1.	K1810430-005MS 10X		14 Nov 2018 14:51
23	23	1114F023.D	1.	K1810430-005DMS 10X		14 Nov 2018 15:17
24	24	1114F024.D	1.	K1810430-005DIL 10X		14 Nov 2018 15:43
25	25	1114F025.D	1.	K1810430-009DIL 10X		14 Nov 2018 16:09
26	26	1114F026.D	1.	K1810430-010DIL 10X		14 Nov 2018 16:35
27	27	1114F027.D	1.	K1810669-002	* Lims # 615927	14 Nov 2018 17:01
28	28	1114F028.D	1.	K1810669-001		14 Nov 2018 17:27
29	100	1114F029.D	1.	DCM	CAL15779	14 Nov 2018 17:53
30	100	1114F030.D	1.	DCM		14 Nov 2018 18:20
31	100	1114F031.D	1.	DCM	12/3/18	14 Nov 2018 18:46

NR

DILUTION LOG MS 14

Date: 11/14/18 Prepared by: L Weiskopf Solvent Lot #: DI 383

LAB ID.	ALIQUOT	FINAL VOLUME	DILUTION FACTOR	COMMENTS
KWG5795-SRM	100ul	0.5mL	5X	matrix
K1810669-2MS				
-2DMS				
-2				
-1				
K1810270-1				
K1810430-1				
-2				
-3				
-4				
-6				
-7				
-8				
-11	25ul		20X	
-5MS	50ul		10X	
-5DMS				
-5				
-9				
-10				

11/15/18

Injection Log

Directory: J:\MS14\DATA\071118

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0711F001.D	1.	DFTPP @ 10ug/mL | SVM59-5B		11 Jul 2018 07:24
2	2	0711F002.D	1.	IB		11 Jul 2018 07:50
3	3	0711F003.D	1.	SIM-PAH ICAL @.002ug/mL | SVM59-4A		11 Jul 2018 08:16
4	4	0711F004.D	1.	SIM-PAH ICAL @.004ug/mL | SVM59-4B		11 Jul 2018 08:42
5	5	0711F005.D	1.	SIM-PAH ICAL @.008ug/mL | SVM59-4C		11 Jul 2018 09:08
6	6	0711F006.D	1.	SIM-PAH ICAL @ 0.02ug/mL | SVM59-4D		11 Jul 2018 09:34
7	7	0711F007.D	1.	SIM-PAH ICAL @ 0.1ug/mL | SVM59-4E		11 Jul 2018 10:00
8	8	0711F008.D	1.	SIM-PAH ICAL @ 0.2ug/mL | SVM59-4F		11 Jul 2018 10:26
9	9	0711F009.D	1.	SIM-PAH ICAL @ 0.4ug/mL | SVM59-4G		11 Jul 2018 10:52
10	10	0711F010.D	1.	SIM-PAH ICAL @ 1.0ug/mL | SVM59-4H		11 Jul 2018 11:18
11	11	0711F011.D	1.	SIM-PAH ICAL @ 1.6ug/mL | SVM59-4I		11 Jul 2018 11:44
12	12	0711F012.D	1.	SIM-PAH ICAL @ 2.0ug/mL | SVM59-4J		11 Jul 2018 12:10
13	13	0711F013.D	1.	SIM-PAH ICV @ 0.4ug/mL | SVM59-4K		11 Jul 2018 12:36
~~14~~	~~14~~	~~0711F014.D~~	~~1.~~	~~SIM-PAH CCV @ 0.4ug/mL | SVM59-24A~~		~~11 Jul 2018 13:02~~
~~15~~	~~15~~	~~0711F015.D~~	~~1.~~	~~KQ1808822-3 MB~~		~~11 Jul 2018 13:28~~
~~16~~	~~16~~	~~0711F016.D~~	~~1.~~	~~KQ1808822-1 LCS~~		~~11 Jul 2018 13:55~~
~~17~~	~~17~~	~~0711F017.D~~	~~1.~~	~~KQ1808822-2 DLCS~~		~~11 Jul 2018 14:21~~
~~18~~	~~18~~	~~0711F018.D~~	~~1.~~	~~K1806167-007~~		~~11 Jul 2018 14:47~~
~~19~~	~~19~~	~~0711F019.D~~	~~1.~~	~~K1806167-008~~		~~11 Jul 2018 15:14~~
~~20~~	~~20~~	~~0711F020.D~~	~~1.~~	~~K1805517-004~~		~~11 Jul 2018 15:40~~
~~21~~	~~21~~	~~0711F021.D~~	~~1.~~	~~K1805519-006~~		~~11 Jul 2018 16:07~~
~~22~~	~~14~~	~~0711F022.D~~	~~1.~~	~~SIM-PAH CCV @ 0.4ug/mL | SVM59-24A~~		~~11 Jul 2018 16:34~~

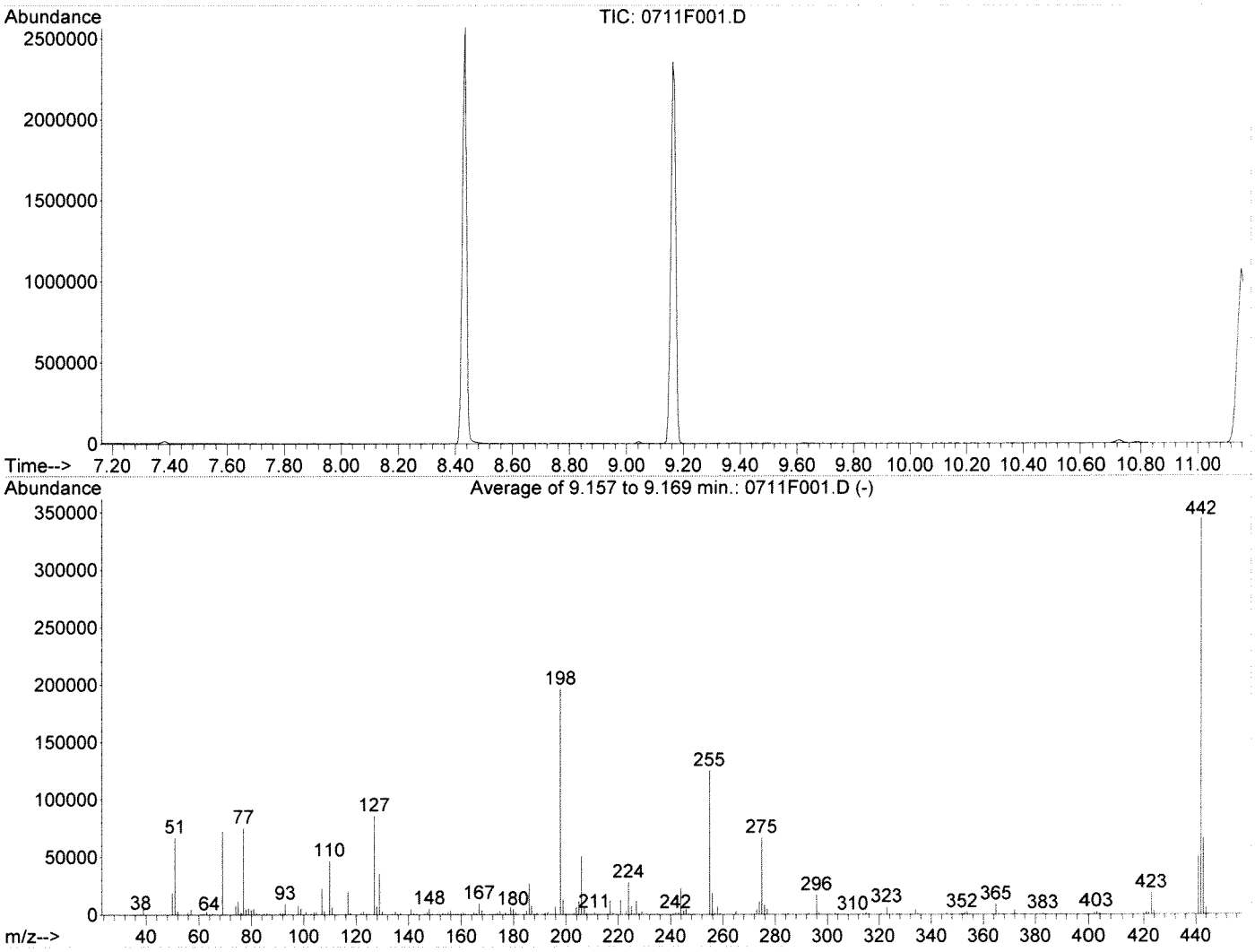
SIM-PAH ICAL
CAL15779

JUL 16 2018

JUL 27 2018

DFTPP

Data File : J:\MS14\DATA\071118\0711F001.D Vial: 1
Acq On : 11 Jul 2018 7:24 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM59-5B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix



AutoFind: Scans 522, 523, 524; Background Corrected with Scan 516

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	34.2	67178	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	37.1	72816	PASS
70	69	0.00	2	0.8	565	PASS
127	198	10	80	43.8	86077	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	56.9	196352	PASS
199	198	5	9	6.5	12793	PASS
275	198	10	60	34.1	67032	PASS
365	442	1	50	2.6	8831	PASS
441	443	0.01	100	76.0	51069	PASS
442	442	30	100	100.0	344981	PASS
443	442	15	24	19.5	67152	PASS

JUL 16 2018

JUL 27 2018

J:\MS14\DATA\071118\0711F001.D A_DFTPP.M Mon Jul 16 09:16:46 2018

Average of 9.157 to 9.169 min.: 0711F001.D
DFTPP @ 10ug/mL | SVM59-5B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.95	422	52.00	3270	66.10	60	77.00	75757
38.00	1061	52.95	252	66.90	133	78.00	5265
39.00	5050	54.95	367	67.20	111	78.95	6051
39.90	450	55.95	2219	68.95	72816	79.95	4460
41.00	145	57.00	4515	69.85	565	81.00	5387
42.95	189	57.90	205	70.90	56	81.95	1583
44.00	59	60.95	997	73.05	769	82.95	1369
44.90	126	61.95	1079	74.00	8076	83.90	282
48.10	73	63.00	2719	75.00	11602	84.95	1177
50.00	19013	63.95	413	76.00	1399	85.95	1822
51.00	67178	65.00	1325	76.20	1668	86.95	803

Average of 9.157 to 9.169 min.: 0711F001.D
DFTPP @ 10ug/mL | SVM59-5B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.95	285	99.95	506	112.85	198	124.90	1126
88.90	130	100.90	2768	114.80	159	126.95	86077
90.95	1445	101.90	87	116.05	1356	127.95	7121
92.00	1657	102.90	1279	116.90	20493	128.90	35413
92.95	9598	103.95	2203	117.85	1421	129.95	2909
93.90	764	104.90	2137	118.85	202	130.90	596
94.90	260	106.95	23325	120.00	347	131.85	286
95.95	399	107.95	3588	121.05	223	132.90	113
97.00	184	109.90	46866	121.90	1845	133.85	1020
97.95	7812	110.95	6574	122.90	2792	134.90	2878
98.90	5707	111.90	845	123.95	974	135.85	1123

Average of 9.157 to 9.169 min.: 0711F001.D
DFTPP @ 10ug/mL | SVM59-5B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
136.95	1387	146.95	2258	157.90	1033	168.90	418
137.90	180	147.90	5200	158.85	675	169.10	172
138.10	80	148.95	1069	159.90	1384	169.85	345
138.95	357	149.90	242	160.90	2084	170.40	79
139.95	518	150.95	648	161.85	666	170.90	499
140.90	4757	151.75	466	162.95	226	171.80	868
141.90	1547	152.90	1588	163.95	352	172.95	967
142.90	919	153.90	1093	164.85	2040	173.90	1870
143.90	287	154.95	2265	165.85	1502	174.90	3597
144.85	308	155.95	3794	166.90	9686	176.00	1075
145.95	1008	156.95	752	167.90	4018	176.90	1875

Average of 9.157 to 9.169 min.: 0711F001.D
DFTPP @ 10ug/mL | SVM59-5B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
177.95	723	186.90	8039	198.90	12793	210.30	330
178.90	6732	187.95	833	199.90	953	210.90	2074
179.90	4619	188.90	1815	201.35	1105	211.80	146
180.90	2110	189.85	379	202.90	1391	212.90	61
181.95	406	190.95	863	203.95	6760	214.10	53
182.70	66	191.90	2255	204.95	11699	214.95	698
182.95	174	192.95	2443	205.95	51016	215.85	1357
183.80	140	193.90	500	206.95	6909	216.90	12207
183.95	404	194.90	286	207.90	1813	217.85	1663
184.95	3360	195.90	6967	208.90	543	218.90	142
185.90	27480	197.90	196352	209.90	294	220.90	12633

JUL 16 2018

Average of 9.157 to 9.169 min.: 0711F001.D
DFTPP @ 10ug/mL | SVM59-5B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
222.90	3179	233.85	760	244.95	3370	255.90	18613
223.90	28144	234.90	857	245.90	4758	256.95	1466
224.95	7360	235.90	530	246.90	1019	257.90	7031
225.95	994	236.90	879	247.80	162	258.95	1297
226.90	12054	237.80	67	248.10	77	259.80	131
227.85	1634	238.85	481	248.85	832	260.95	199

JUL 27 2018

229.95	377	240.85	634	250.90	178	264.90	3018
230.90	992	241.90	1624	251.85	276	265.85	450
231.90	200	243.00	1778	252.95	599	269.95	129
232.90	244	243.90	23113	254.90	125421	270.90	256

Average of 9.157 to 9.169 min.: 0711F001.D
DFTPP @ 10ug/mL | SVM59-5B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
271.95	496	284.85	977	301.85	234	316.95	160
272.90	4336	285.95	143	302.95	2145	320.95	658
273.90	11367	288.75	165	303.95	691	321.95	381
274.90	67032	289.80	209	307.85	308	322.95	6548
275.90	8655	291.85	178	308.80	217	323.95	1035
276.90	5306	292.90	1246	309.85	251	324.80	52
277.90	771	293.95	326	310.90	52	325.85	184
278.85	205	295.90	17068	312.95	171	326.90	968
281.95	112	296.90	2301	313.90	944	327.80	661
282.90	631	297.80	68	314.90	2064	331.85	496
283.90	432	300.90	235	315.90	1065	332.85	680

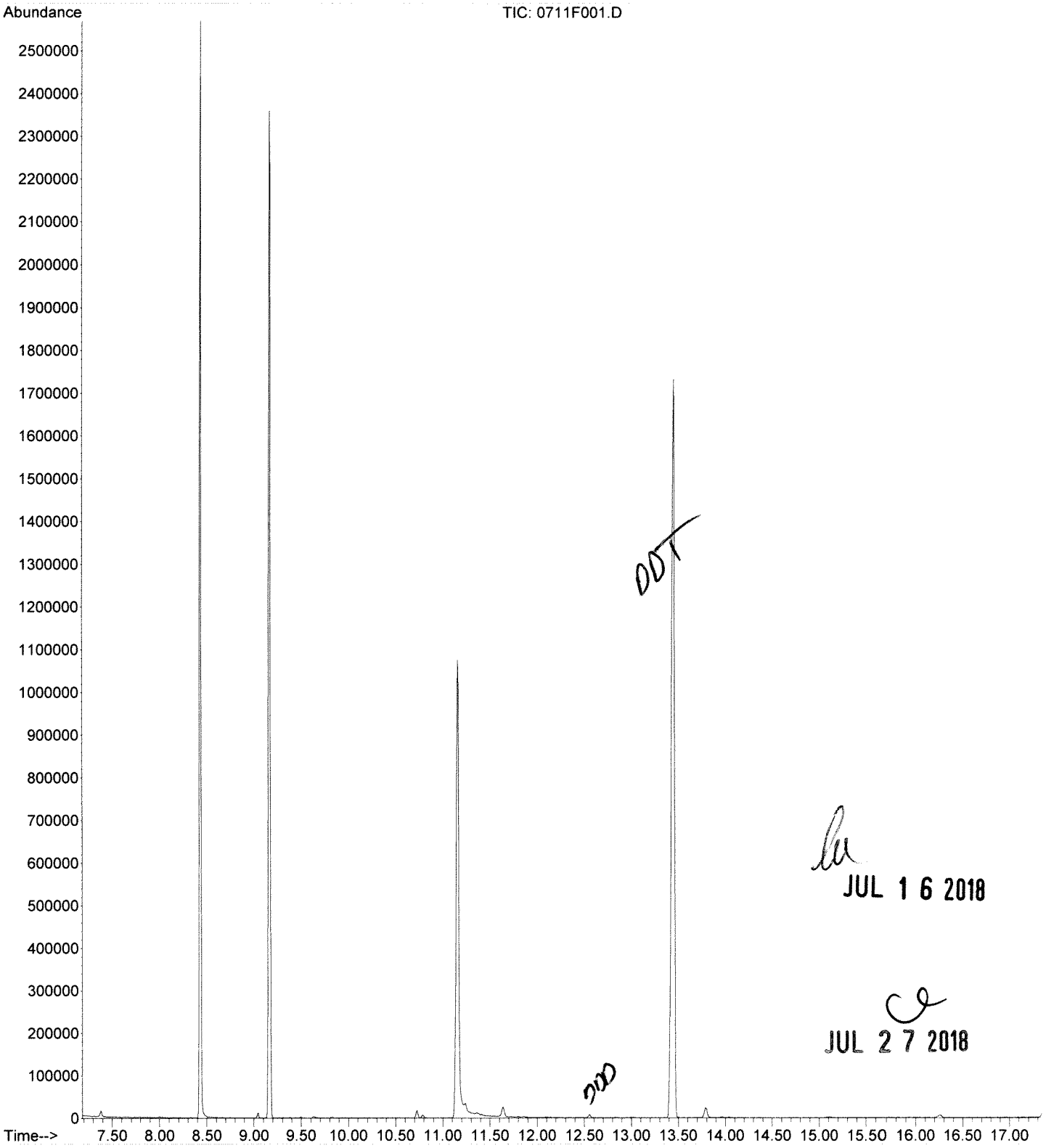
Average of 9.157 to 9.169 min.: 0711F001.D
DFTPP @ 10ug/mL | SVM59-5B
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
333.90	4464	353.90	2529	382.95	1153	420.95	2473
334.90	1166	354.90	486	383.85	376	421.95	2435
339.80	51	358.85	126	389.95	690	422.95	18744
340.85	729	364.90	8831	390.95	465	423.90	3777
341.80	50	365.90	1261	391.90	350	424.95	479
342.00	143	369.95	218	400.90	274	439.40	77
345.90	1535	370.85	633	401.90	1735	441.00	51069
346.75	180	371.95	3936	402.90	2497	442.00	344981
350.75	114	372.90	1005	403.90	1060	443.00	67152
351.90	2058	373.85	127	404.80	57	443.95	6376
352.90	1618	376.90	51	415.00	64	444.90	445

JUL 16 2018

JUL 27 2018

File : J:\MS14\DATA\071118\0711F001.D
Operator : LWeiskopf
Acquired : 11 Jul 2018 7:24 am using AcqMethod SIMLOC
Instrument : MS14
Sample Name: DFTPP @ 10ug/mL | SVM59-5B
Misc Info :
Vial Number: 1



1	6.551	rBV	0.059		4433	6.534	6.593
2	6.628	rVB	0.059		4930	6.610	6.669
3	7.069	rBV	0.153		93262	7.022	7.175
4	7.381	rVB	0.094		22489	7.357	7.451
5	7.781	rVB	0.053		2074	7.769	7.822
6	7.904	rVB	0.047		3184	7.887	7.934
7	7.998	rVV	0.035		2540	7.981	8.016
8	8.434	rBV	0.124		2626380	8.398	8.522
9	8.751	rBV	0.041		2434	8.728	8.769
10	9.045	rVB	0.094		15370	8.992	9.086
11	9.163	rBV	0.118		2833533	9.104	9.222
12	9.310	rBV	0.053		2540	9.286	9.339
13	9.381	rVB	0.047		2669	9.363	9.410
14	9.498	rVB	0.047		3470	9.475	9.522
15	9.628	rBV	0.082		7018	9.598	9.681
16	9.822	rBV	0.076		4234	9.781	9.857
17	10.728	rBV	0.071		25758	10.686	10.757
18	10.786	rBV	0.059		9354	10.757	10.816
19	11.157	rBV	0.141		2070977	11.080	11.222
20	11.639	rVB	0.094		47781	11.592	11.686
21	11.851	rVB	0.071		6566	11.833	11.904
22	12.092	rBV	0.076		4460	12.051	12.127
23	12.551	rVB	0.082	OOO	12363	12.510	12.592
24	12.827	rVB	0.082		3949	12.804	12.886
25	12.998	rBV	0.047		2358	12.969	13.016
26	13.445	rBV	0.118	OOT	3799669	13.374	13.492
27	13.786	rBV	0.129		55536	13.727	13.857
28	13.963	rBV	0.071		3973	13.916	13.986
29	14.033	rBV	0.041		2081	14.021	14.063
30	15.086	rBV	0.065		3243	15.033	15.098
31	15.110	rVB	0.047		3085	15.098	15.145
32	16.257	rBV	0.106		18961	16.192	16.298
33	17.351	rBV	0.124		41324	17.298	17.421
34	17.821	rBV	0.035		2171	17.798	17.833
35	17.868	rBV	0.047		3073	17.833	17.880
36	18.098	rBV	0.159		129861	18.039	18.198
37	18.645	rVB	0.141		212579	18.615	18.756
38	19.092	rBV	0.165		383897	19.056	19.221
39	19.545	rBV	0.153		391093	19.509	19.662
40	20.103	rBV	0.153		441132	20.062	20.215
41	20.692	rBV	0.118		334151	20.650	20.768

OOT Breakdown

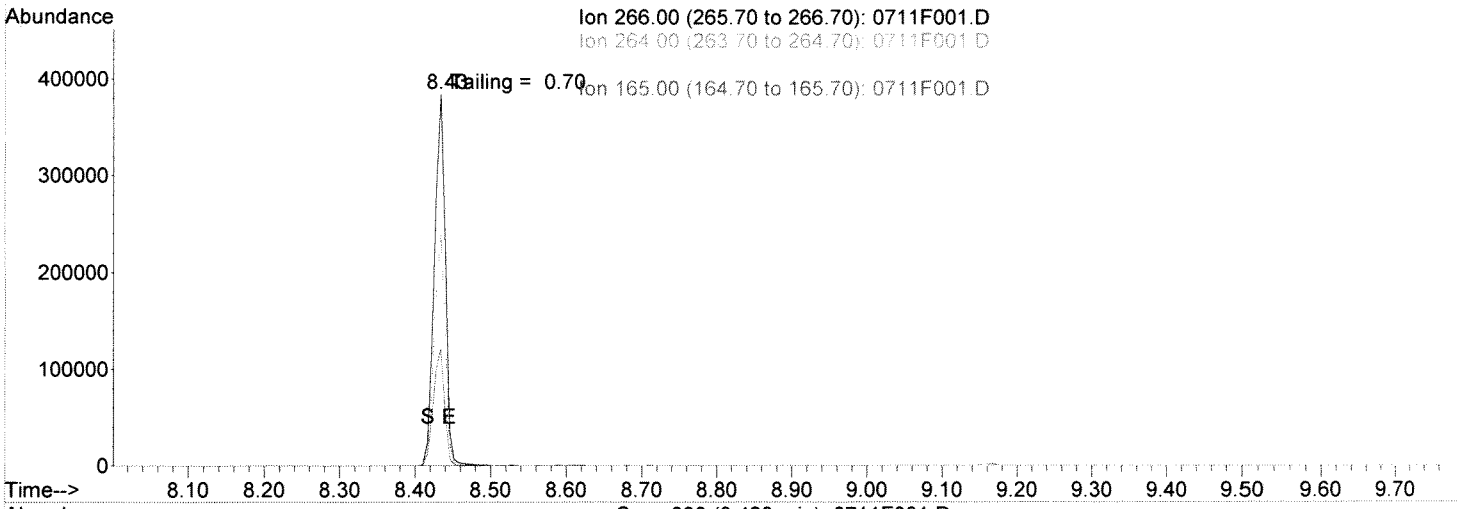
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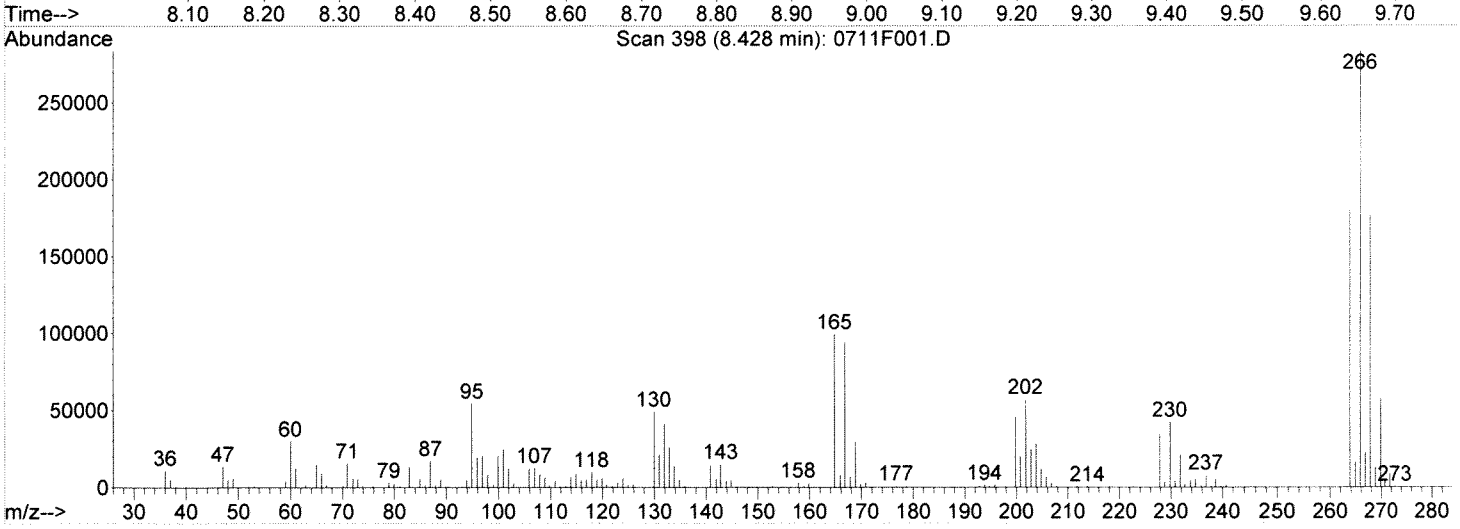
JUL 16 2018

JUL 27 2018

Data File : J:\MS14\DATA\071118\0711F001.D Vial: 1
Acq On : 11 Jul 2018 7:24 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM59-5B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 11 7:49 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Tue Oct 17 14:59:38 2017
Response via : Single Level Calibration





TIC: 0711F001.D

(1) Pentachlorophenol

7.37min 0.00ng/ml

response 0

Ion	Exp%	Act%
266.00	100	0.00
264.00	62.30	0.00#
268.00	72.30	0.00#
165.00	42.00	0.00#

OK -27%

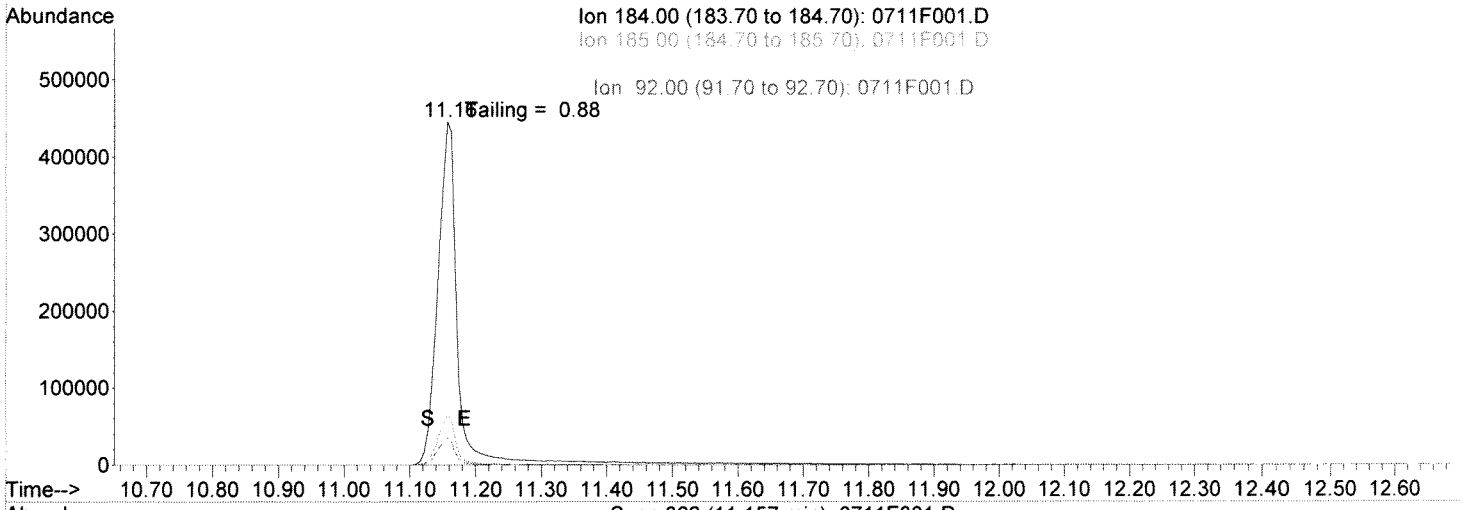
JUL 16 2018

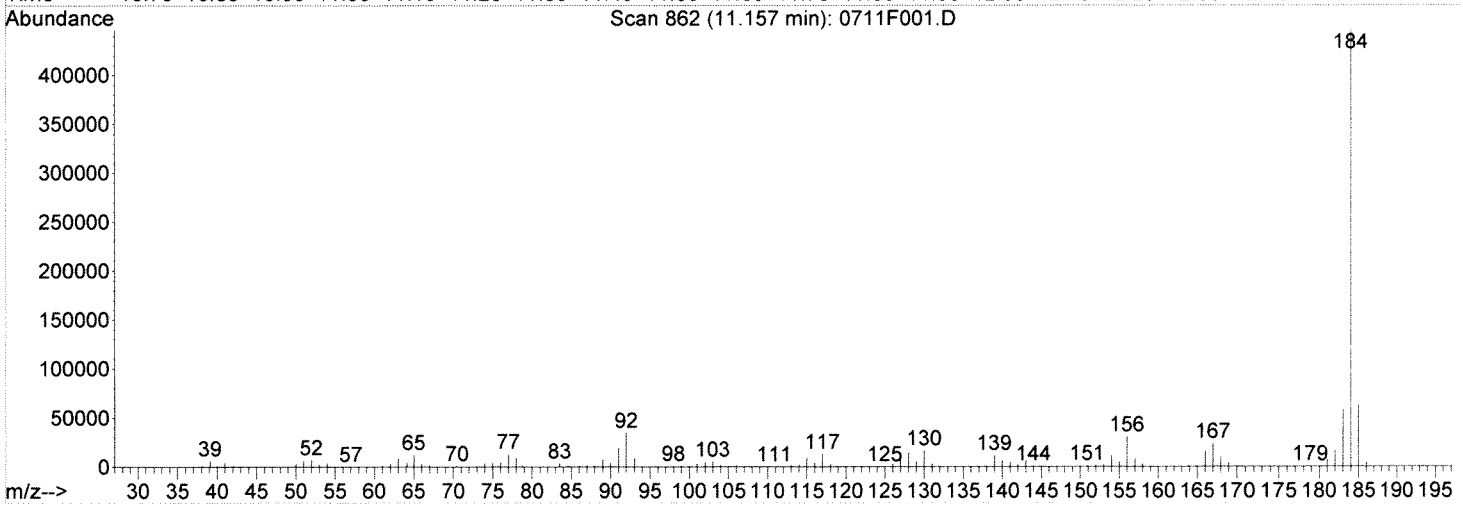
JUL 27 2018

0711F001.D A_DFTPP.M Mon Jul 16 09:17:15 2018

Data File : J:\MS14\DATA\071118\0711F001.D Vial: 1
Acq On : 11 Jul 2018 7:24 am Operator: LWeiskopf
Sample : DFTPP @ 10ug/mL | SVM59-5B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jul 11 7:49 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\A_DFTPP.M (RTE Integrator)
Title : dftpp tune mix
Last Update : Tue Oct 17 14:59:38 2017
Response via : Single Level Calibration





TIC: 0711F001.D

(3) Benzidine (T)

8.69min 0.00ug/ml

response 0

Ion	Exp%	Act%
184.00	100	0.00
185.00	14.70	0.00
156.00	9.50	0.00
92.00	7.60	0.00

JUL 16 2018

JUL 27 2018

0711F001.D A_DFTPP.M Mon Jul 16 09:17:28 2018

Data File : J:\MS14\DATA\071118\0711F002.D Vial: 2
Acq On : 11 Jul 2018 7:50 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:39 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	71486	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	36864	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	76395	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	90682	200.00	ng/ml	-0.03
28) Perylene-d12	13.30	264	102113	200.00	ng/ml	-0.06
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	0.00	152	0	0.00	ng/ml	
Spiked Amount 1000.000			Recovery =	0.00%		
13) Fluorene-d10	6.79	176	201	0.83	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	0.08%		
22) Fluoranthene-d10	0.00	212	0	0.00	ng/ml	
Spiked Amount 1000.000			Recovery =	0.00%		
25) Terphenyl-d14	0.00	244	0	0.00	ng/ml	
Spiked Amount 1000.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) Naphthalene	4.83	128	323	0.82	ng/ml	94
21) Fluoranthene	8.59	202	116	0.20	ng/ml	70
26) Benz(a)anthracene	10.15	228	342	0.60	ng/ml	73
27) Chrysene	10.19	228	118	0.21	ng/ml	96
29) Benzo(b)fluoranthene	12.24	252	156	0.24	ng/ml	81
31) Benzo(e)pyrene	12.97	252	134	0.22	ng/ml	85
32) Benzo(a)pyrene	13.11	252	126	0.24	ng/ml	75
33) Perylene	13.30	252	287	0.51	ng/ml	85
34) Indeno(1,2,3-cd)pyrene	15.46	276	117	0.25	ng/ml	89
35) Dibenz(a,h)anthracene	15.51	278	95	0.19	ng/ml#	1
36) Benzo(g,h,i)perylene	15.84	276	178	0.30	ng/ml	89

< 1/2 MRL

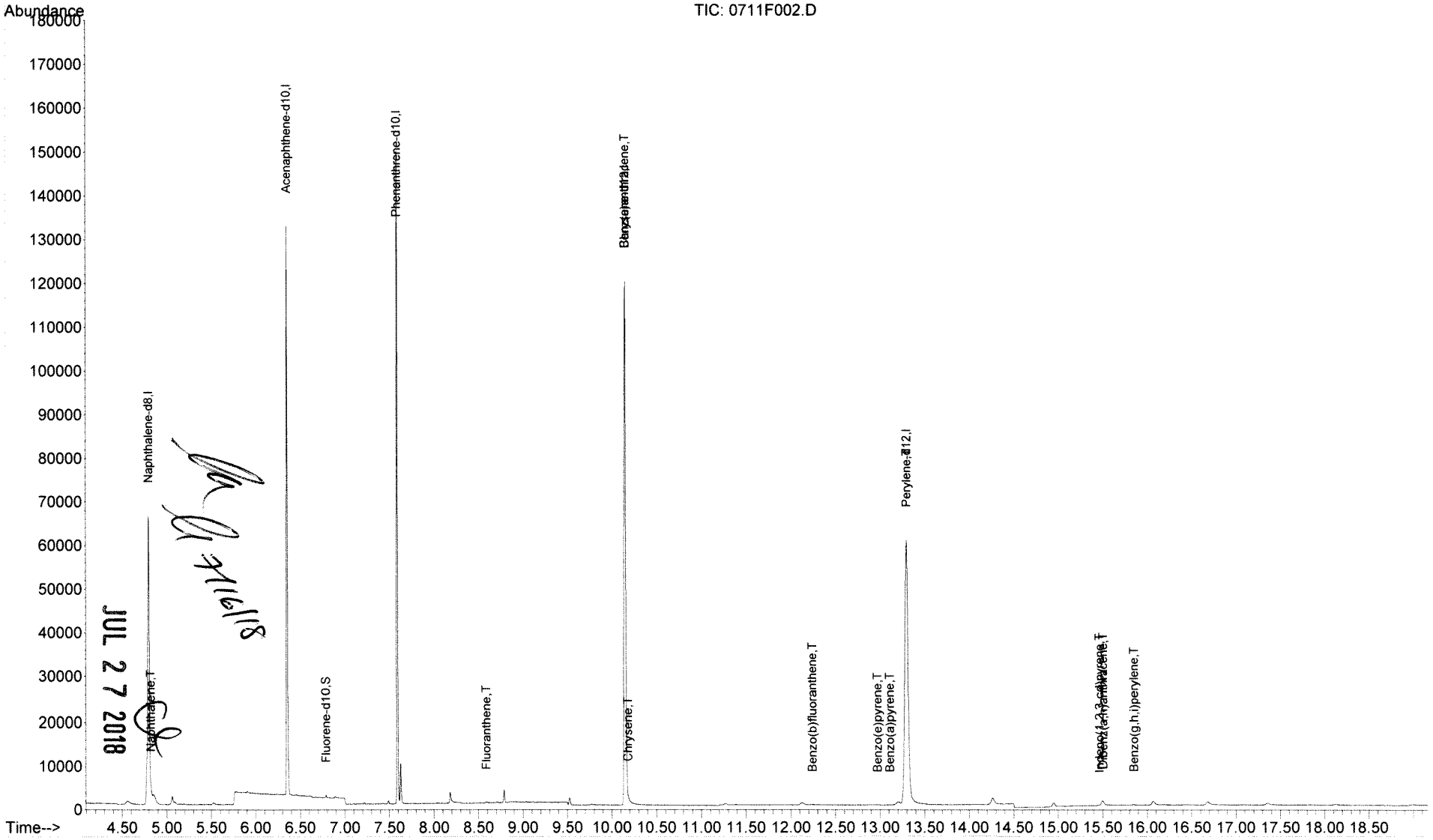
7/16/18

JUL 27 2018

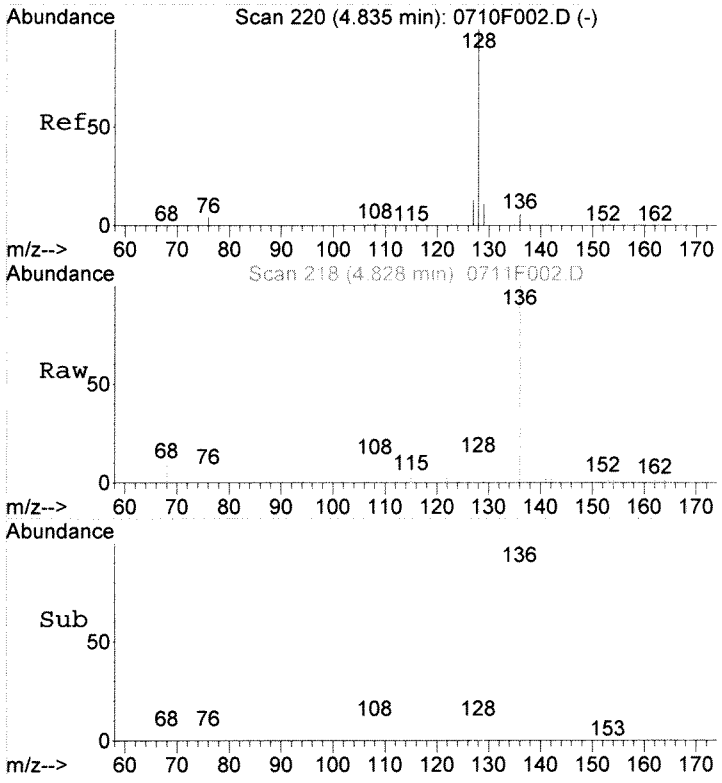
(#) = qualifier out of range (m) = manual integration
0711F002.D 071118PAH.M Mon Jul 16 09:16:23 2018 Page 1

Data File : J:\MS14\DATA\071118\0711F002.D Vial: 2
Acq On : 11 Jul 2018 7:50 am Operator: LWeiskopf
Sample : IB Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 16 9:16 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Jul 11 12:42:44 2018
Response via : Initial Calibration



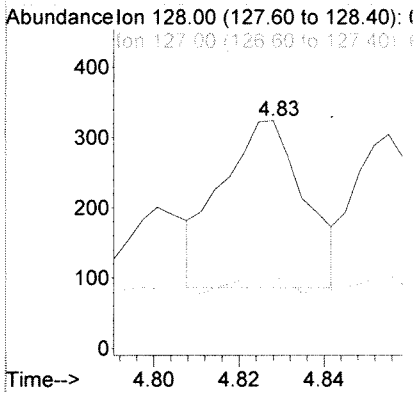
JUL 27 2018

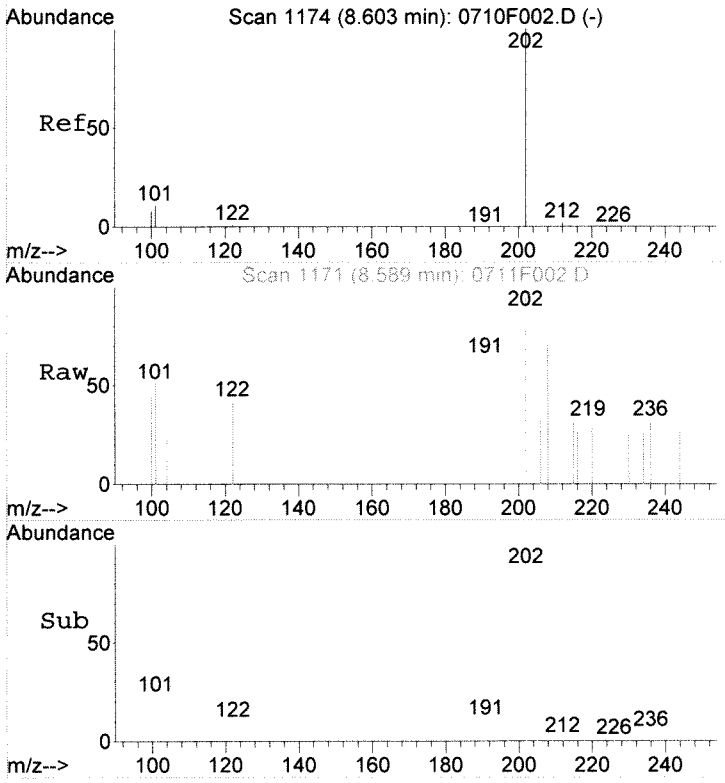


#2
Naphthalene
Concen: 0.82 ng/ml
RT: 4.83 min Scan# 218
Delta R.T. -0.01 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

Tgt Ion:128 Resp: 323

Ion	Ratio	Lower	Upper
128	100		
127	11.9	0.0	42.4
129	15.2	0.0	30.8

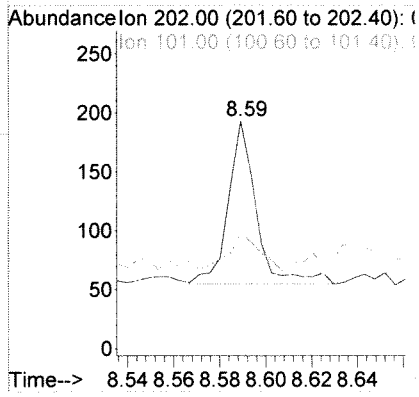




#21
Fluoranthene
Concen: 0.20 ng/ml
RT: 8.59 min Scan# 1171
Delta R.T. -0.02 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

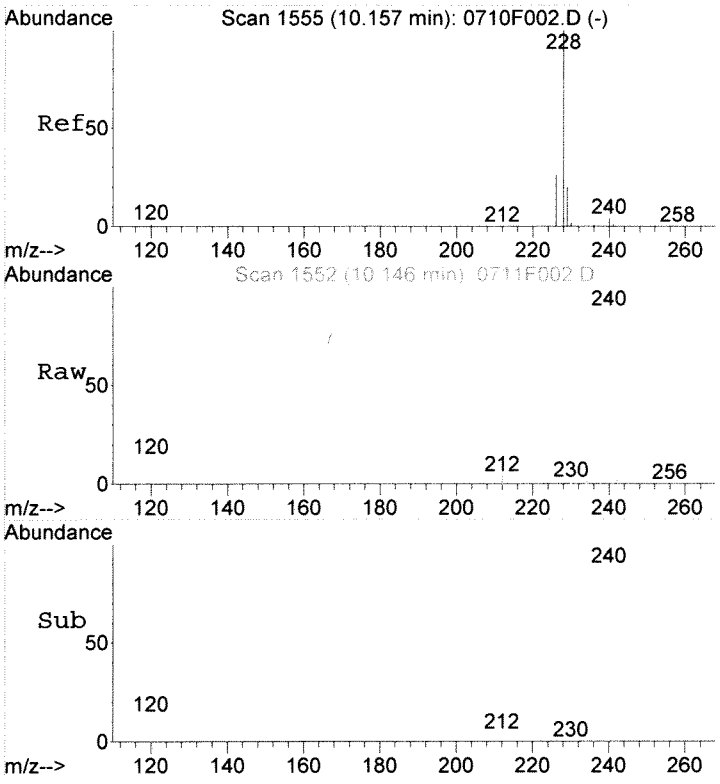
Tgt Ion:202 Resp: 116

Ion	Ratio	Lower	Upper
202	100		
101	17.4	0.0	40.7
100	23.9	0.0	27.5



7/16/18

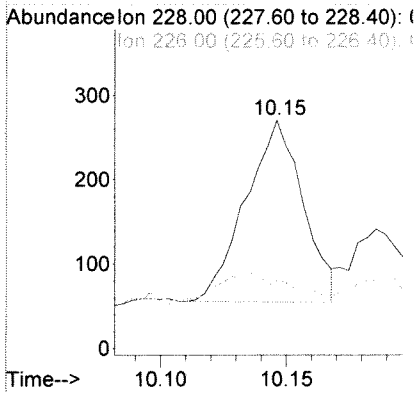
JUL 27 2018

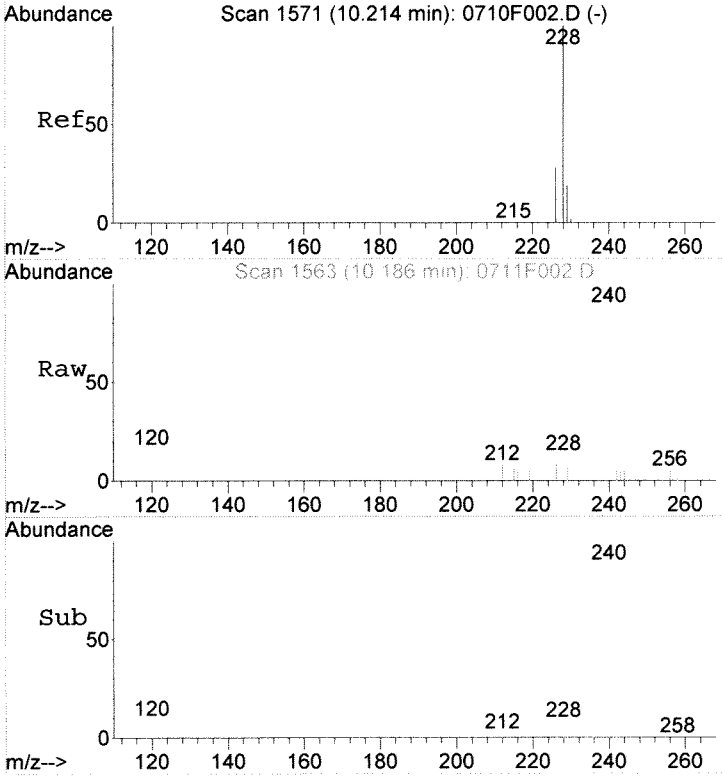


#26
Benz(a)anthracene
Concen: 0.60 ng/ml
RT: 10.15 min Scan# 1552
Delta R.T. -0.02 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

Tgt Ion:228 Resp: 342

Ion	Ratio	Lower	Upper
228	100		
226	9.8	0.0	56.0
229	28.8	0.0	39.5

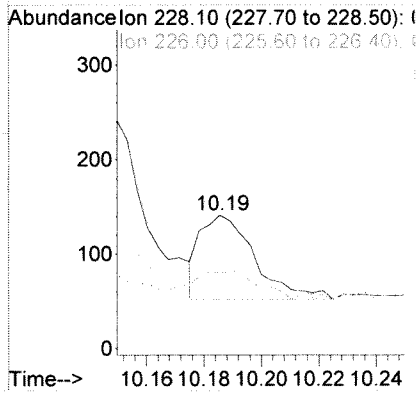




#27
Chrysene
Concen: 0.21 ng/ml
RT: 10.19 min Scan# 1563
Delta R.T. -0.03 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

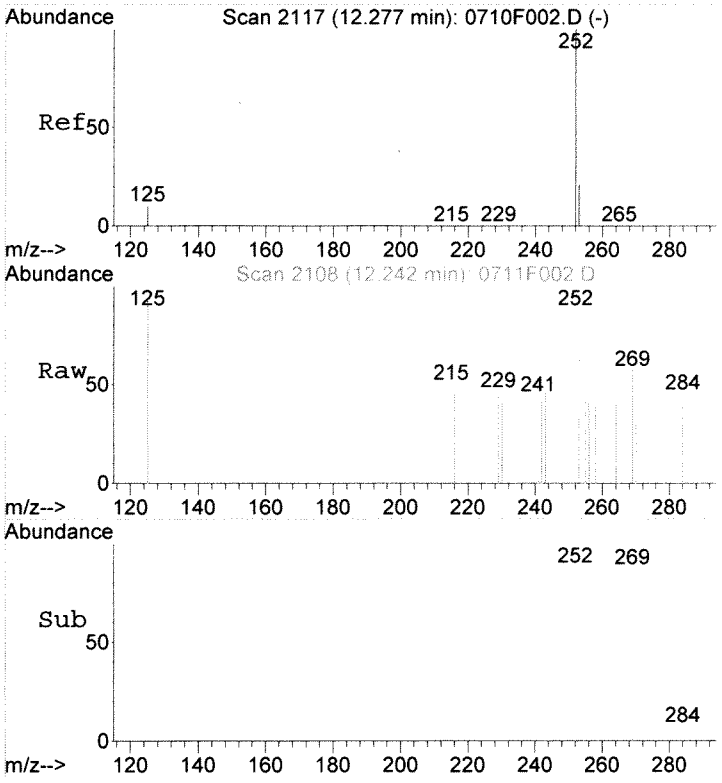
Tgt Ion:228 Resp: 118

Ion	Ratio	Lower	Upper
228	100		
226	31.5	0.0	58.6
229	18.0	0.0	39.4



7/16/18

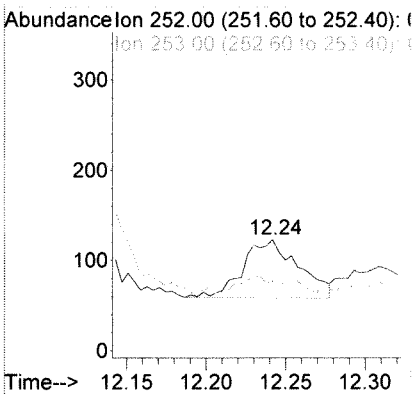
JUL 27 2018

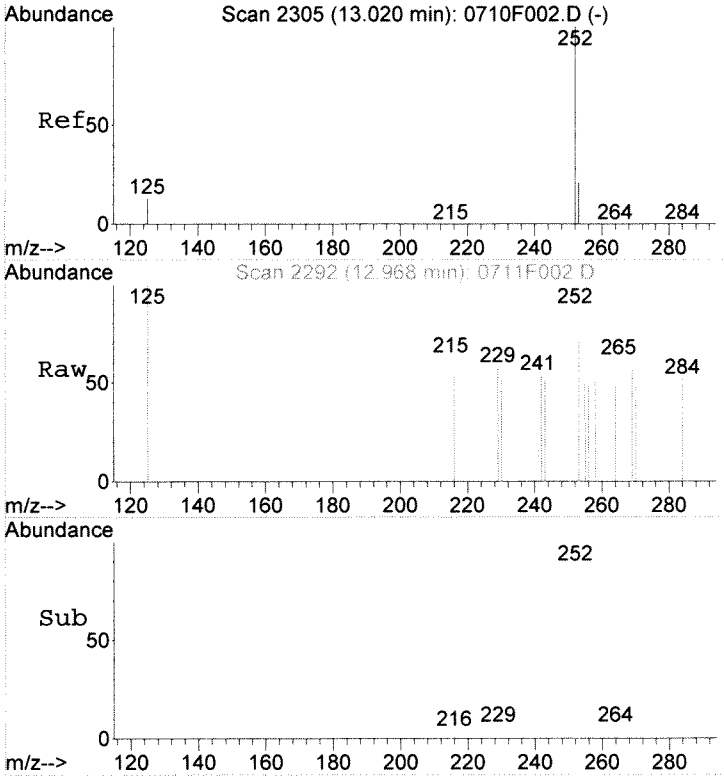


#29
Benzo(b)fluoranthene
Concen: 0.24 ng/ml
RT: 12.24 min Scan# 2108
Delta R.T. -0.04 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

Tgt Ion:252 Resp: 156

Ion	Ratio	Lower	Upper
252	100		
253	10.9	0.0	51.4
125	10.9	0.0	27.3

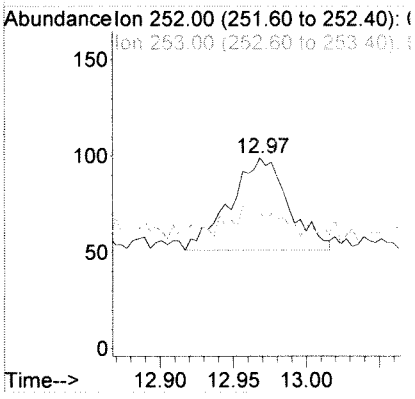




#31
Benzo(e)pyrene
Concen: 0.22 ng/ml
RT: 12.97 min Scan# 2292
Delta R.T. -0.06 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

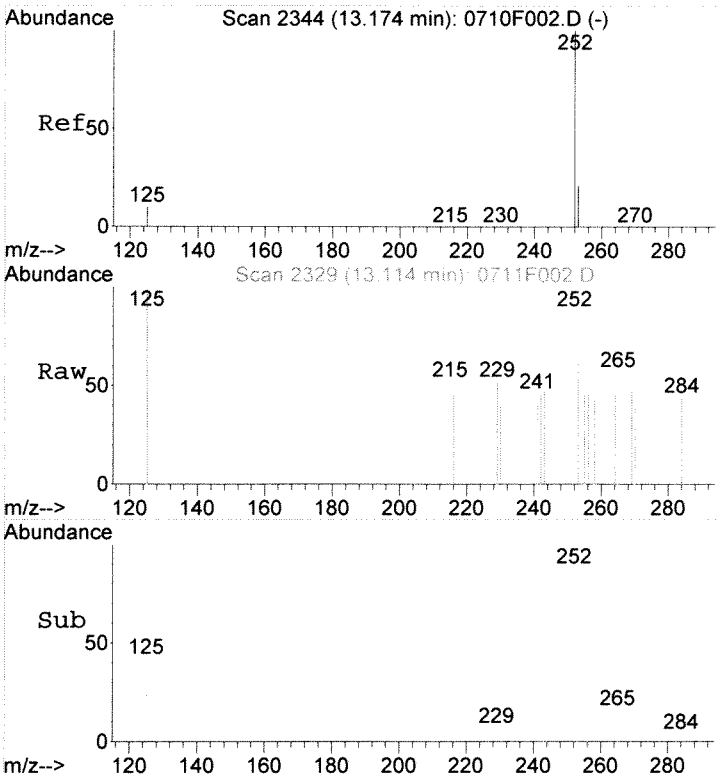
Tgt Ion:252 Resp: 134

Ion	Ratio	Lower	Upper
252	100		
253	25.0	0.0	51.3
125	0.0	0.0	30.8



7/16/18

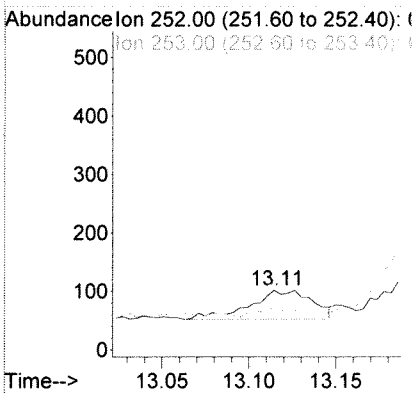
JUL 27 2018

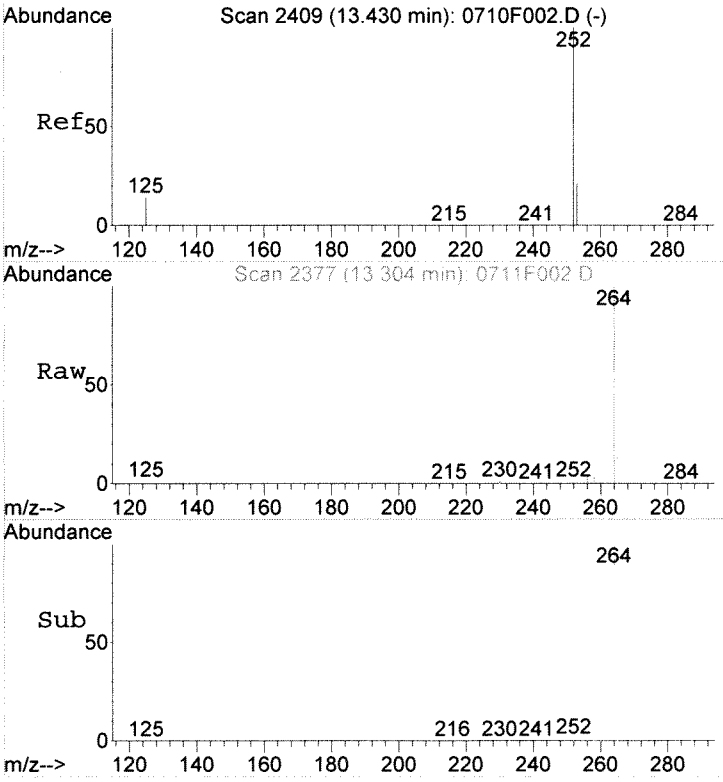


#32
Benzo(a)pyrene
Concen: 0.24 ng/ml
RT: 13.11 min Scan# 2329
Delta R.T. -0.06 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

Tgt Ion:252 Resp: 126

Ion	Ratio	Lower	Upper
252	100		
253	14.0	0.0	51.3
125	26.0	0.0	28.1

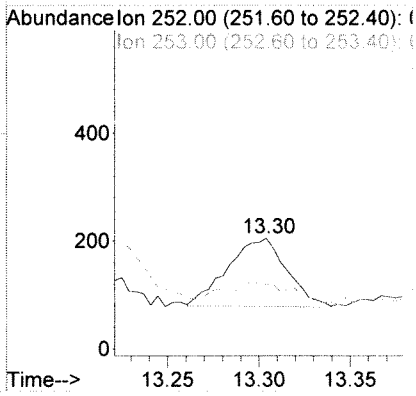




#33
Perylene
Concen: 0.51 ng/ml
RT: 13.30 min Scan# 2377
Delta R.T. -0.13 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

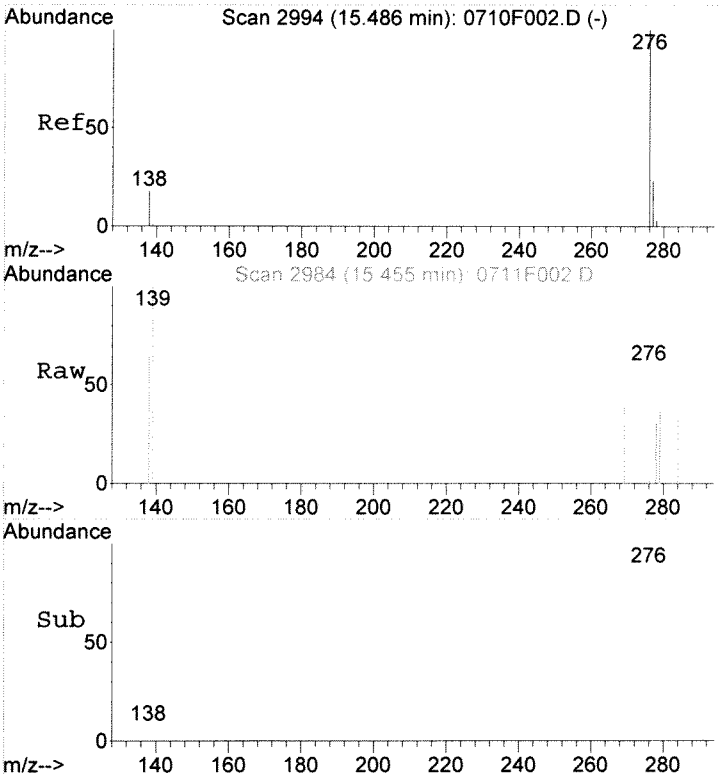
Tgt Ion:252 Resp: 287

Ion	Ratio	Lower	Upper
252	100		
253	25.4	0.0	51.4
125	22.2	0.0	31.3



7/16/18

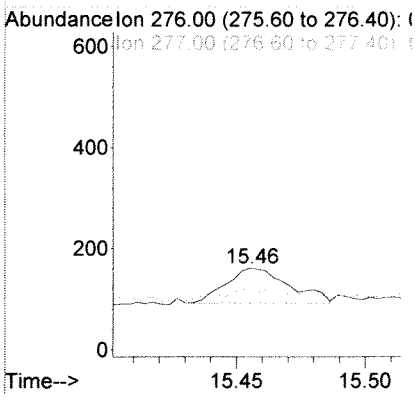
JUL 27 2018

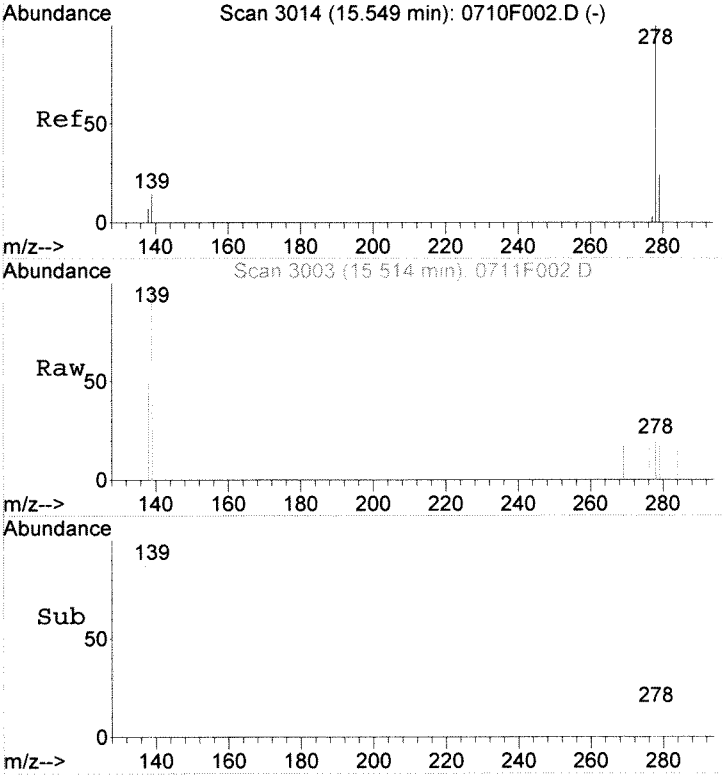


#34
Indeno(1,2,3-cd)pyrene
Concen: 0.25 ng/ml
RT: 15.46 min Scan# 2984
Delta R.T. -0.04 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

Tgt Ion:276 Resp: 117

Ion	Ratio	Lower	Upper
276	100		
277	31.9	0.0	53.6
138	17.4	0.0	36.2

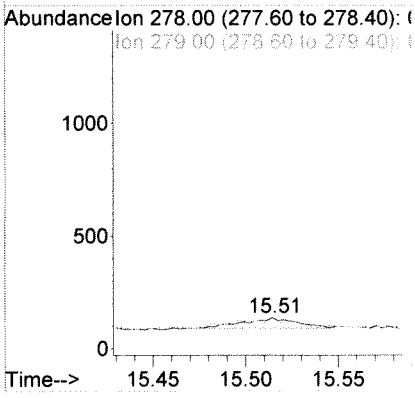




#35
Dibenz(a,h)anthracene
Concen: 0.19 ng/ml
RT: 15.51 min Scan# 3003
Delta R.T. -0.04 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

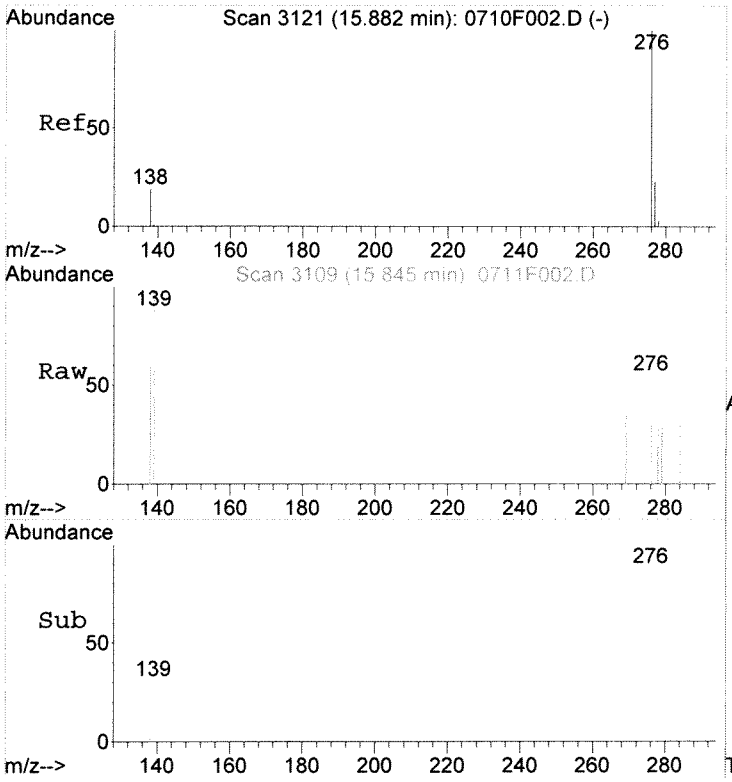
Tgt Ion:278 Resp: 95

Ion	Ratio	Lower	Upper
278	100		
279	31.3	0.0	53.6
139	702.1	0.0	33.4#



7/16/18

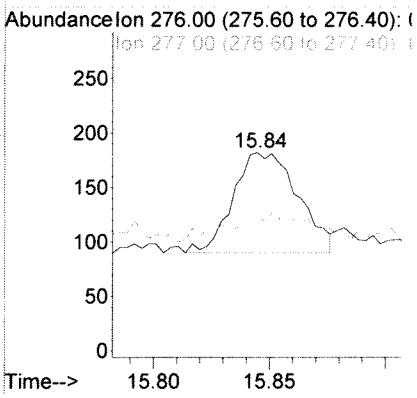
JUL 27 2018



#36
Benzo(g,h,i)perylene
Concen: 0.30 ng/ml
RT: 15.84 min Scan# 3109
Delta R.T. -0.05 min
Lab File: 0711F002.D
Acq: 11 Jul 2018 7:50 am

Tgt Ion:276 Resp: 178

Ion	Ratio	Lower	Upper
276	100		
277	27.2	0.0	53.5
138	23.9	0.0	37.2



7/16/18

JUL 27 2018

Data File : J:\MS14\DATA\071118\0711F003.D Vial: 3
Acq On : 11 Jul 2018 8:16 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:39 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	66665	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	32181	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	67500	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	72337	200.00	ng/ml	-0.03
28) Perylene-d12	13.30	264	80376	200.00	ng/ml	-0.06
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	416	2.19	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	0.22%		
13) Fluorene-d10	6.79	176	593	2.82	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	0.28%		
22) Fluoranthene-d10	8.58	212	796	1.90	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	0.19%		
25) Terphenyl-d14	8.93	244	986	3.00	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	0.30%		
Target Compounds						Qvalue
2) Naphthalene	4.82	128	947	2.59	ng/ml	96
4) 2-Methylnaphthalene	5.45	142	526	2.25	ng/ml	96
5) 1-Methylnaphthalene	5.54	142	527	2.33	ng/ml	96
6) Biphenyl	5.86	154	672	2.33	ng/ml	95
7) 2,6-Dimethylnaphthalene	6.00	156	469	2.33	ng/ml	96
9) Acenaphthylene	6.23	152	810	2.15	ng/ml	97
10) Acenaphthene	6.38	154	463	2.14	ng/ml	99
11) Dibenzofuran	6.53	168	724	2.09	ng/ml	90
12) 2,3,5-Trimethylnaphthalene	6.70	170	450	2.21	ng/ml	94
14) Fluorene	6.81	166	582	2.17	ng/ml	100
16) Dibenzothiophene	7.51	184	890	2.13	ng/ml	93
17) Phenanthrene	7.61	178	900m	2.18	ng/ml	
18) Anthracene	7.65	178	807	2.00	ng/ml	98
19) Carbazole	7.79	167	753	2.07	ng/ml	96
20) 1-Methylphenanthrene	8.12	192	652	2.01	ng/ml	97
21) Fluoranthene	8.59	202	1013	2.02	ng/ml	97
24) Pyrene	8.79	202	1081	2.13	ng/ml#	48
26) Benz(a)anthracene	10.14	228	1082	2.36	ng/ml	98
27) Chrysene	10.19	228	887	1.96	ng/ml	96
29) Benzo(b)fluoranthene	12.24	252	956	1.91	ng/ml	95
30) Benzo(k)fluoranthene	12.31	252	934	1.86	ng/ml	94
31) Benzo(e)pyrene	12.97	252	971	1.99	ng/ml	96
32) Benzo(a)pyrene	13.12	252	876	2.08	ng/ml	90
33) Perylene	13.37	252	950	2.15	ng/ml	92
34) Indeno(1,2,3-cd)pyrene	15.45	276	990	2.67	ng/ml	94
35) Dibenz(a,h)anthracene	15.52	278	897	2.23	ng/ml	87
36) Benzo(g,h,i)perylene	15.85	276	1156	2.44	ng/ml	95

JUL 16 2018

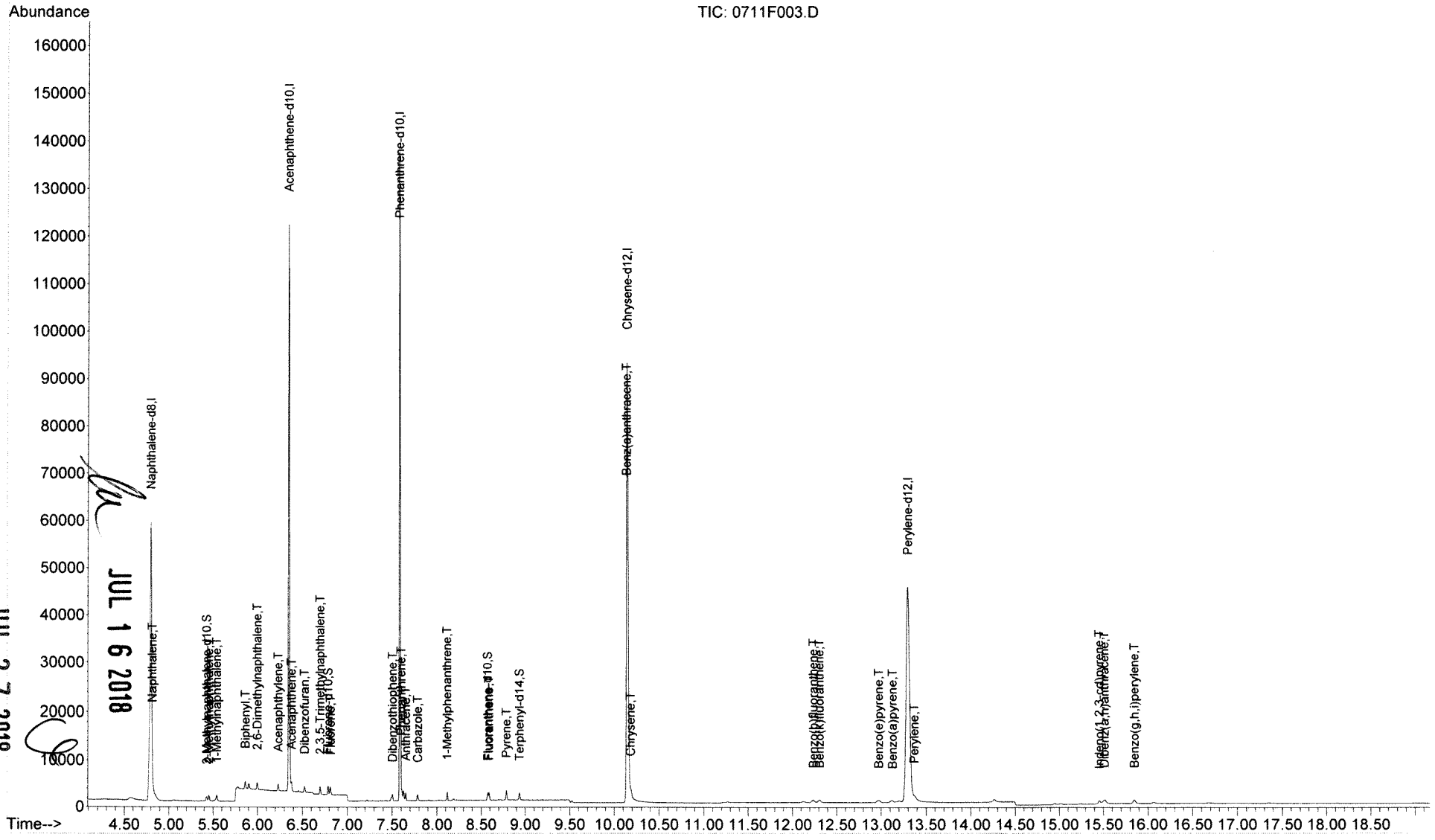
JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F003.D 071118PAH.M Wed Jul 11 12:39:37 2018 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F003.D Vial: 3
Acq On : 11 Jul 2018 8:16 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:35 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration



JUL 16 2018

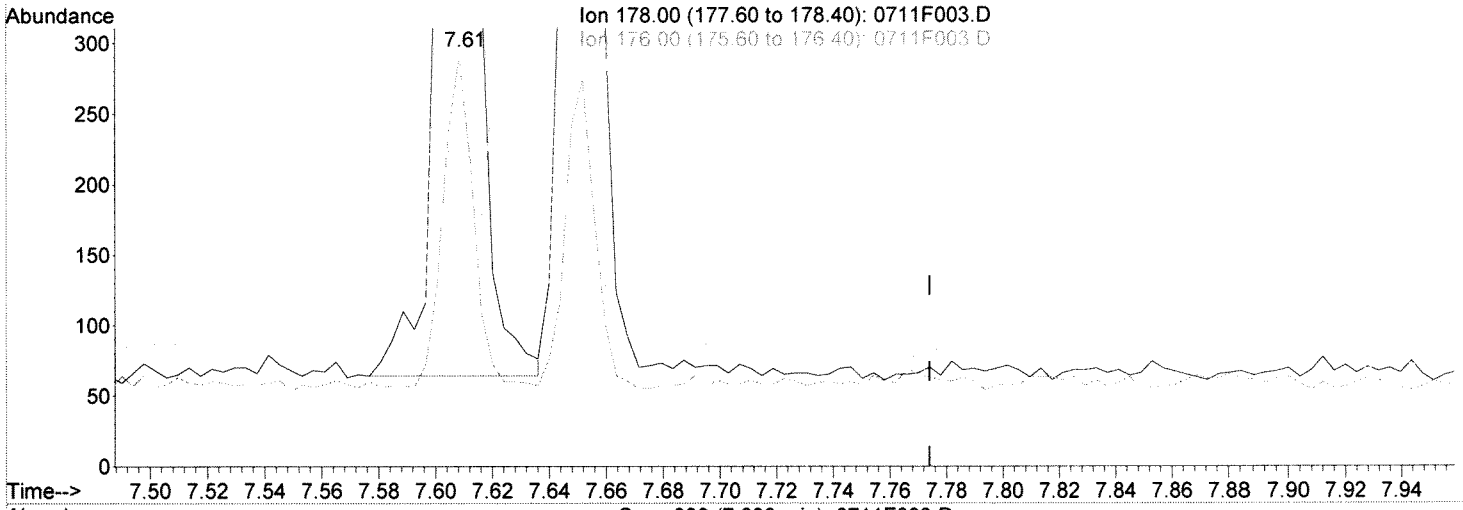
JUL 27 2018

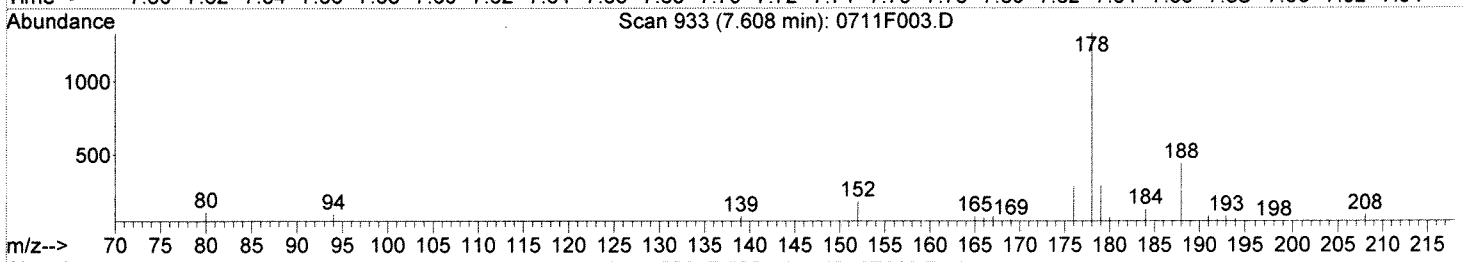
Page 1167 of 1561

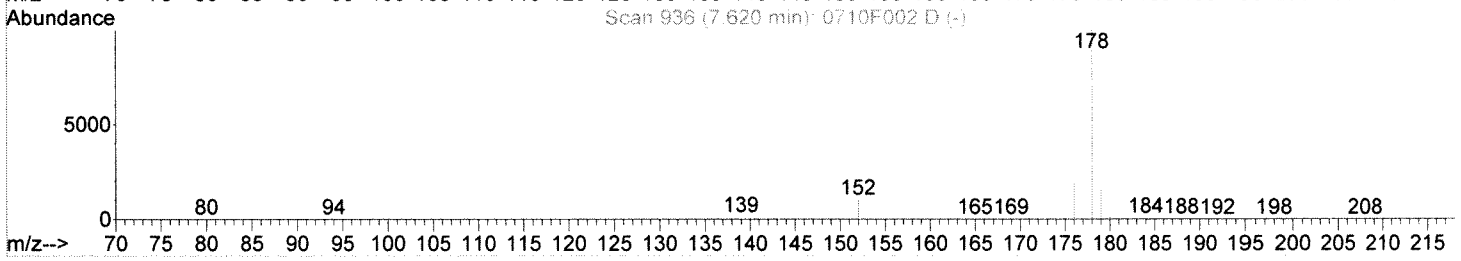
Quantitation Report (Quan)

Data File : J:\MS14\DATA\071118\0711F003.D Vial: 3
Acq On : 11 Jul 2018 8:16 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Multiple Level Calibration







TIC: 0711F003.D

(17) Phenanthrene (T)

7.61min 2.25ng/ml

response 927

Ion	Exp%	Act%
178.00	100	100
176.00	18.50	18.38
179.00	15.20	15.85
0.00	0.00	0.00

Manual Integration:

Before

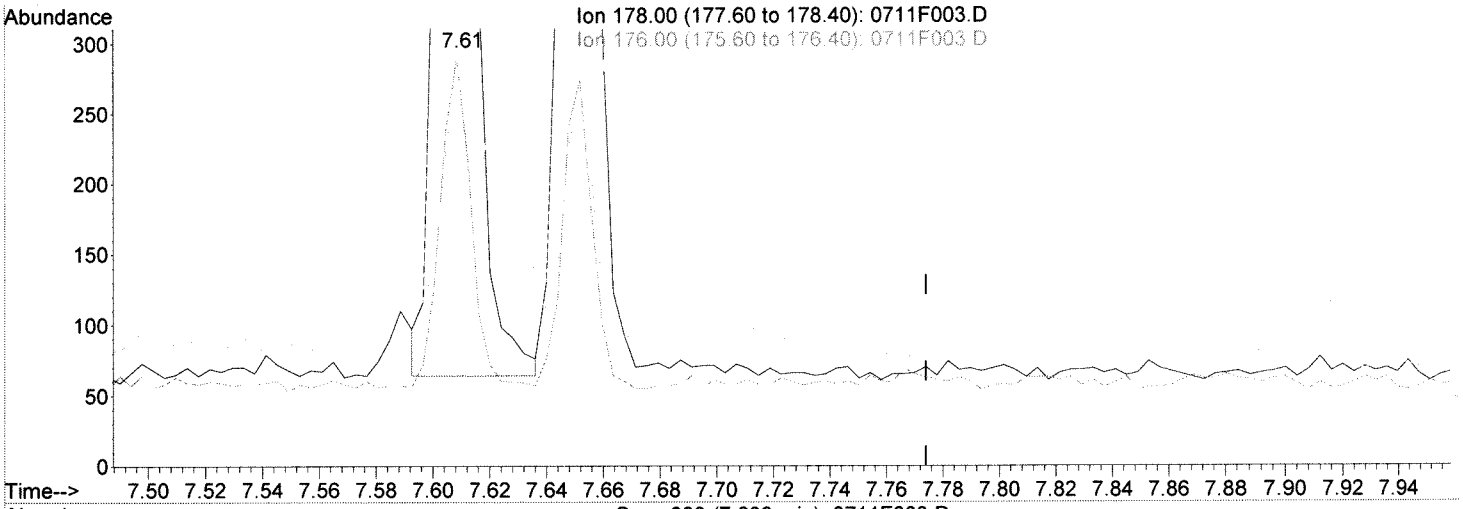
07/11/18

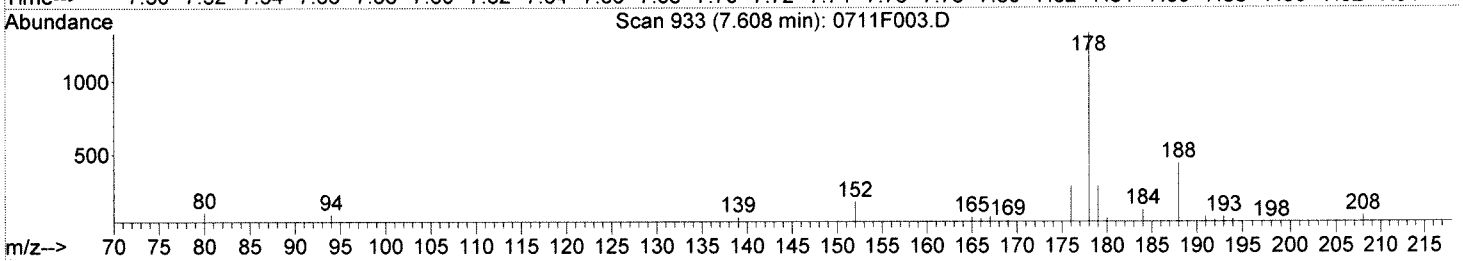
JUL 2 7 2018

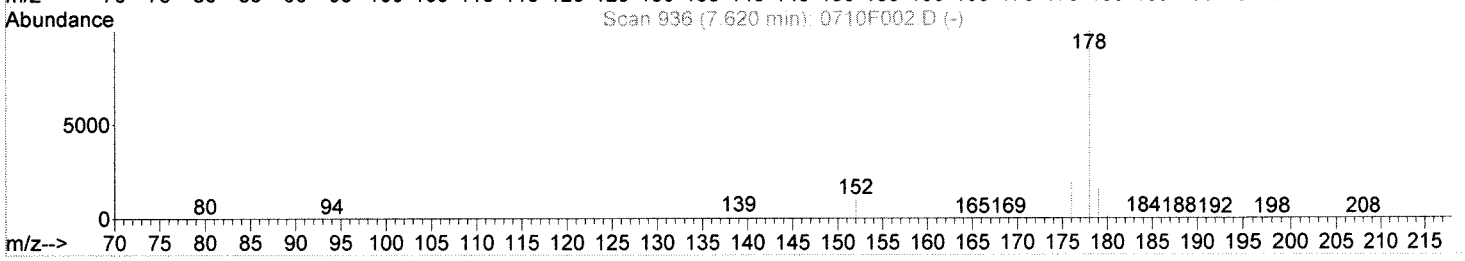
0711F003.D 071118PAH.M Wed Jul 11 12:35:11 2018

Data File : J:\MS14\DATA\071118\0711F003.D Vial: 3
Acq On : 11 Jul 2018 8:16 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.002ug/mL | SVM59-4A Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:35 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Multiple Level Calibration







TIC: 0711F003.D

(17) Phenanthrene (T)

7.61min 2.18ng/ml m

response 900

Ion	Exp%	Act%
178.00	100	100
176.00	18.50	21.77
179.00	15.20	21.70
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

07/11/18

JUL 27 2018

0711F003.D 071118PAH.M Wed Jul 11 12:35:17 2018

Data File : J:\MS14\DATA\071118\0711F004.D Vial: 4
Acq On : 11 Jul 2018 8:42 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:40 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	63956	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	30708	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	63250	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	72026	200.00	ng/ml	-0.03
28) Perylene-d12	13.30	264	79651	200.00	ng/ml	-0.06
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	763	4.19	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 0.42%			
13) Fluorene-d10	6.79	176	917	4.57	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 0.46%			
22) Fluoranthene-d10	8.58	212	1504	3.83	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 0.38%			
25) Terphenyl-d14	8.93	244	1510	4.62	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 0.46%			
Target Compounds						Qvalue
2) Naphthalene	4.82	128	1674	4.78	ng/ml	100
4) 2-Methylnaphthalene	5.45	142	948	4.23	ng/ml	91
5) 1-Methylnaphthalene	5.54	142	937	4.32	ng/ml	90
6) Biphenyl	5.86	154	1229	4.45	ng/ml	94
7) 2,6-Dimethylnaphthalene	6.00	156	808	4.19	ng/ml	95
9) Acenaphthylene	6.23	152	1442	4.02	ng/ml	97
10) Acenaphthene	6.38	154	846	4.11	ng/ml	95
11) Dibenzofuran	6.53	168	1300	3.94	ng/ml	91
12) 2,3,5-Trimethylnaphthalene	6.70	170	782	4.03	ng/ml	98
14) Fluorene	6.81	166	1032	4.03	ng/ml	99
16) Dibenzothiophene	7.51	184	1534	3.93	ng/ml	95
17) Phenanthrene	7.61	178	1684m	4.36	ng/ml	
18) Anthracene	7.65	178	1474	3.90	ng/ml	98
19) Carbazole	7.79	167	1414	4.15	ng/ml	96
20) 1-Methylphenanthrene	8.12	192	1141	3.75	ng/ml	94
21) Fluoranthene	8.59	202	1825	3.88	ng/ml	96
24) Pyrene	8.79	202	2099	4.15	ng/ml#	16
26) Benz(a)anthracene	10.14	228	1900	4.17	ng/ml	100
27) Chrysene	10.19	228	1748	3.89	ng/ml	98
29) Benzo(b)fluoranthene	12.23	252	1853	3.73	ng/ml	96
30) Benzo(k)fluoranthene	12.31	252	1871	3.75	ng/ml	97
31) Benzo(e)pyrene	12.97	252	1822	3.77	ng/ml	96
32) Benzo(a)pyrene	13.12	252	1615	3.86	ng/ml	97
33) Perylene	13.38	252	1693	3.87	ng/ml	96
34) Indeno(1,2,3-cd)pyrene	15.46	276	1753	4.76	ng/ml	96
35) Dibenz(a,h)anthracene	15.52	278	1750	4.40	ng/ml	89
36) Benzo(g,h,i)perylene	15.85	276	2188	4.66	ng/ml	97

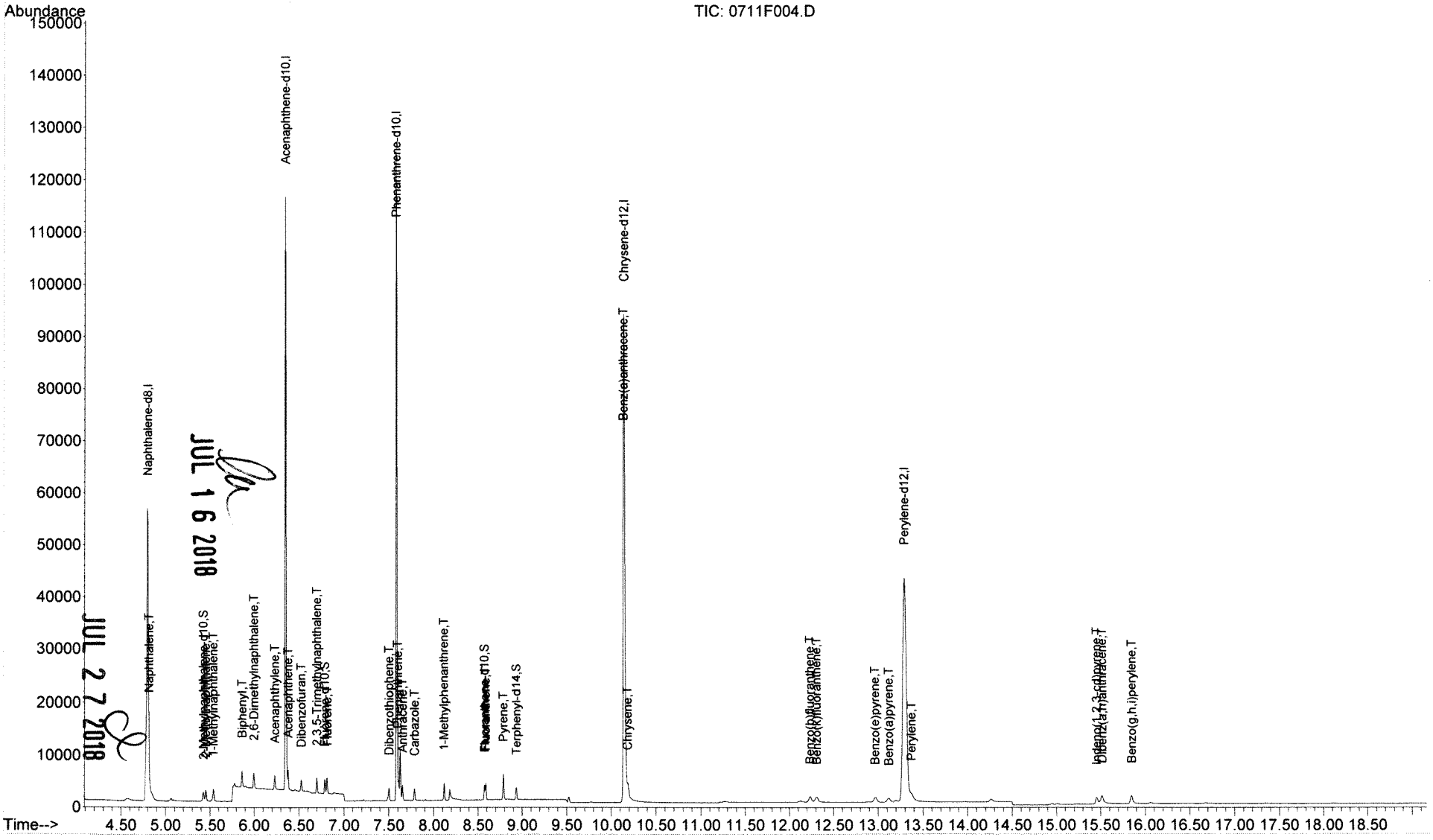
JUL 16 2018

JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F004.D 071118PAH.M Wed Jul 11 12:39:39 2018 Page 1

Data File : J:\MS14\DATA\071118\0711F004.D Vial: 4
Acq On : 11 Jul 2018 8:42 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:35 2018 Quant Results File: 071118PAH.RES

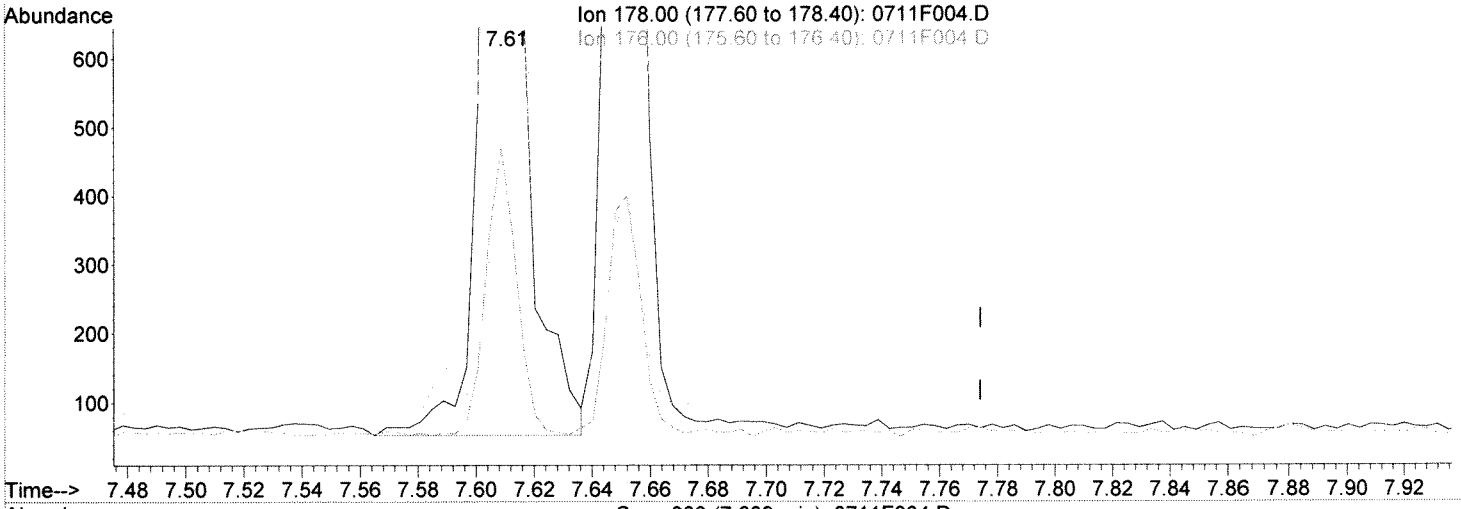
Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration

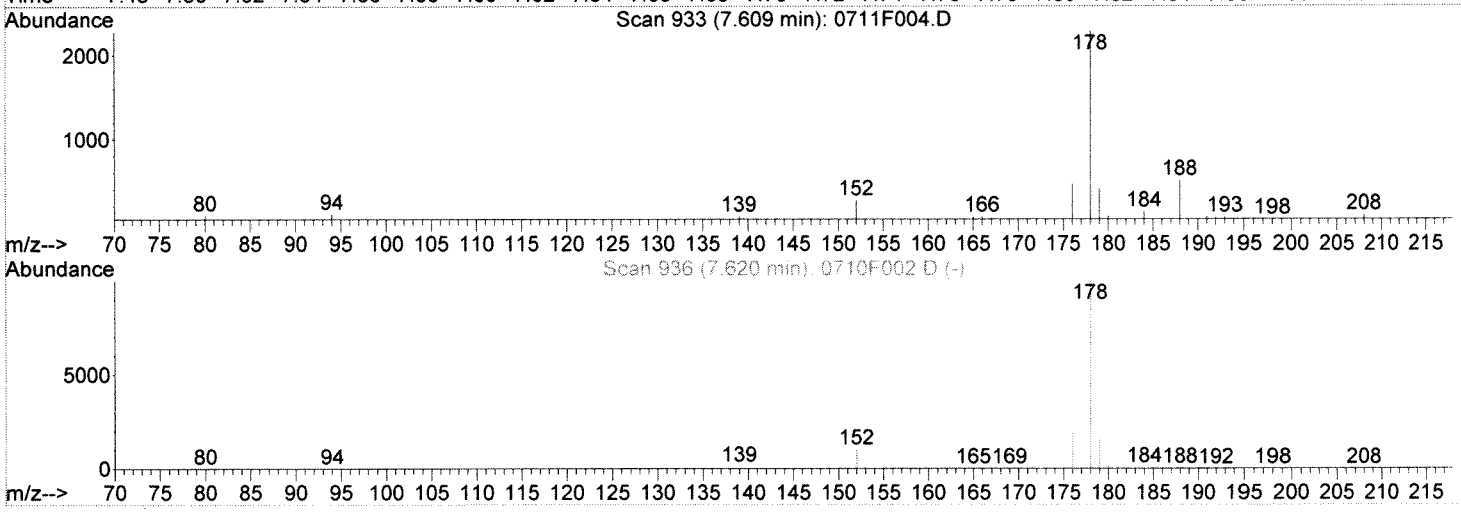


JUL 27 2018
JUL 16 2018

Data File : J:\MS14\DATA\071118\0711F004.D Vial: 4
Acq On : 11 Jul 2018 8:42 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Multiple Level Calibration





TIC: 0711F004.D

(17) Phenanthrene (T)

7.61min 4.47ng/ml

response 1727

Ion	Exp%	Act%
178.00	100	100
176.00	18.50	18.57
179.00	15.20	14.90
0.00	0.00	0.00

Manual Integration:

Before

07/11/18

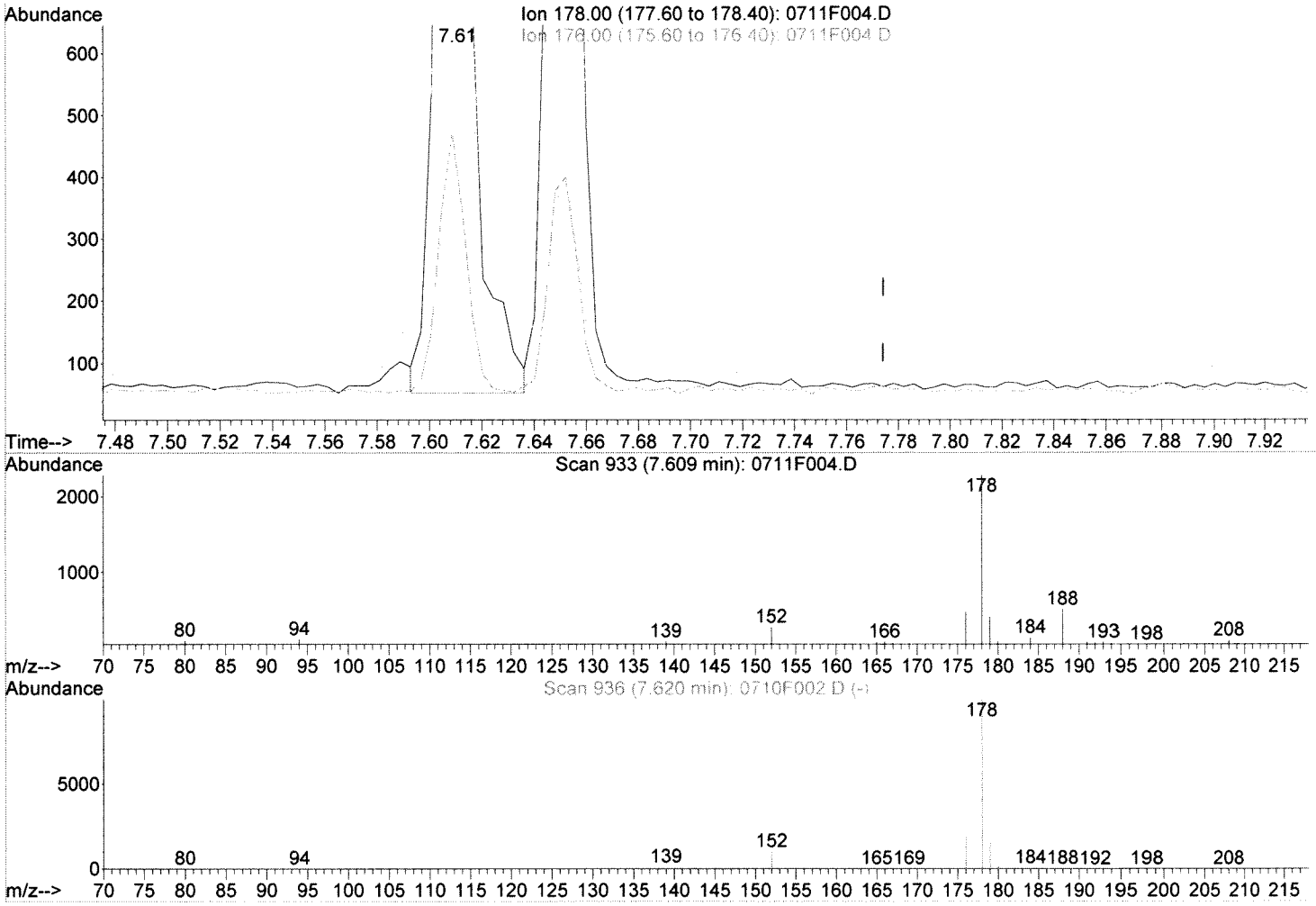
JUL 27 2018

0711F004.D 071118PAH.M Wed Jul 11 12:35:50 2018

Quantitation Report (Qual)

Data File : J:\MS14\DATA\071118\0711F004.D Vial: 4
Acq On : 11 Jul 2018 8:42 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.004ug/mL | SVM59-4B Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:35 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Multiple Level Calibration



TIC: 0711F004.D

(17) Phenanthrene (T)

7.61min 4.36ng/ml m

response 1684

Ion	Exp%	Act%
178.00	100	100
176.00	18.50	20.54
179.00	15.20	17.83
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

07/11/18

JUL 27 2018

0711F004.D 071118PAH.M Wed Jul 11 12:35:56 2018

Data File : J:\MS14\DATA\071118\0711F005.D Vial: 5
Acq On : 11 Jul 2018 9:08 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008ug/mL | SVM59-4C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:40 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	62880	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	29911	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	62211	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	69517	200.00	ng/ml	-0.03
28) Perylene-d12	13.30	264	76895	200.00	ng/ml	-0.06
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	1448	8.09	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 0.81%			
13) Fluorene-d10	6.79	176	1594	8.15	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 0.82%			
22) Fluoranthene-d10	8.58	212	2857	7.40	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 0.74%			
25) Terphenyl-d14	8.93	244	2597	8.23	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 0.82%			
Target Compounds						Qvalue
2) Naphthalene	4.81	128	2996	8.69	ng/ml	98
4) 2-Methylnaphthalene	5.45	142	1845	8.38	ng/ml	95
5) 1-Methylnaphthalene	5.54	142	1728	8.11	ng/ml	94
6) Biphenyl	5.86	154	2298	8.46	ng/ml	95
7) 2,6-Dimethylnaphthalene	6.00	156	1535	8.10	ng/ml	97
9) Acenaphthylene	6.23	152	2743	7.85	ng/ml	99
10) Acenaphthene	6.38	154	1596	7.95	ng/ml	95
11) Dibenzofuran	6.53	168	2645	8.22	ng/ml	92
12) 2,3,5-Trimethylnaphthalene	6.70	170	1455	7.70	ng/ml	94
14) Fluorene	6.81	166	1936	7.77	ng/ml	100
16) Dibenzothiophene	7.51	184	2951	7.68	ng/ml	94
17) Phenanthrene	7.61	178	3111	8.18	ng/ml	99
18) Anthracene	7.65	178	2901	7.81	ng/ml	99
19) Carbazole	7.78	167	2691	8.03	ng/ml	96
20) 1-Methylphenanthrene	8.12	192	2211	7.38	ng/ml	97
21) Fluoranthene	8.59	202	3571	7.72	ng/ml	99
24) Pyrene	8.79	202	3832	7.85	ng/ml	83
26) Benz(a)anthracene	10.13	228	3494	7.94	ng/ml	98
27) Chrysene	10.19	228	3411	7.86	ng/ml	98
29) Benzo(b)fluoranthene	12.24	252	3544	7.39	ng/ml	96
30) Benzo(k)fluoranthene	12.31	252	3488	7.25	ng/ml	97
31) Benzo(e)pyrene	12.97	252	3487	7.47	ng/ml	95
32) Benzo(a)pyrene	13.12	252	3161	7.84	ng/ml	97
33) Perylene	13.37	252	3327	7.88	ng/ml	95
34) Indeno(1,2,3-cd)pyrene	15.46	276	3272	9.21	ng/ml	98
35) Dibenz(a,h)anthracene	15.52	278	3362	8.75	ng/ml	96
36) Benzo(g,h,i)perylene	15.85	276	4042	8.91	ng/ml	98

JUL 16 2018

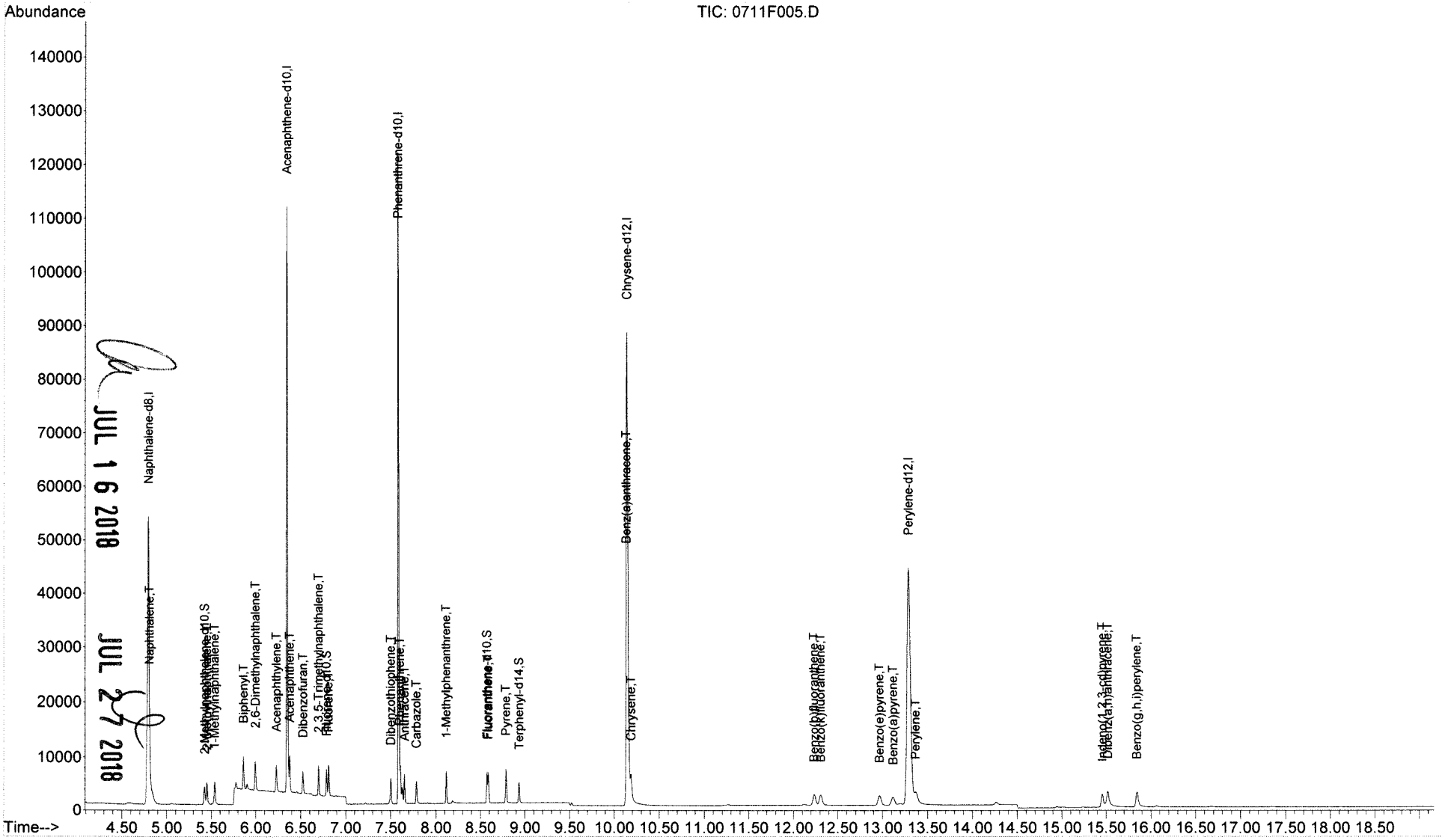
JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F005.D 071118PAH.M Wed Jul 11 12:39:41 2018 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F005.D Vial: 5
Acq On : 11 Jul 2018 9:08 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @.008ug/mL | SVM59-4C Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration



Data File : J:\MS14\DATA\071118\0711F006.D Vial: 6
Acq On : 11 Jul 2018 9:34 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:41 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	65840	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	30682	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	63668	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	68947	200.00	ng/ml	-0.03
28) Perylene-d12	13.30	264	73587	200.00	ng/ml	-0.06
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	3694	19.72	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	1.97%		
13) Fluorene-d10	6.79	176	3914	19.51	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	1.95%		
22) Fluoranthene-d10	8.58	212	7036	17.81	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	1.78%		
25) Terphenyl-d14	8.93	244	5981	19.10	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	1.91%		
Target Compounds						Qvalue
2) Naphthalene	4.82	128	7540	20.90	ng/ml	98
4) 2-Methylnaphthalene	5.46	142	4709	20.41	ng/ml	98
5) 1-Methylnaphthalene	5.54	142	4545	20.37	ng/ml	98
6) Biphenyl	5.86	154	5875	20.65	ng/ml	94
7) 2,6-Dimethylnaphthalene	6.00	156	3939	19.85	ng/ml	98
9) Acenaphthylene	6.23	152	7137	19.90	ng/ml	97
10) Acenaphthene	6.38	154	4220	20.50	ng/ml	98
11) Dibenzofuran	6.53	168	6406	19.41	ng/ml	92
12) 2,3,5-Trimethylnaphthalene	6.70	170	3696	19.07	ng/ml	95
14) Fluorene	6.81	166	5030	19.67	ng/ml	99
16) Dibenzothiophene	7.51	184	7587	19.29	ng/ml	95
17) Phenanthrene	7.61	178	7852	20.19	ng/ml	100
18) Anthracene	7.65	178	7270	19.13	ng/ml	99
19) Carbazole	7.78	167	6767	19.72	ng/ml	97
20) 1-Methylphenanthrene	8.12	192	5509	17.97	ng/ml	96
21) Fluoranthene	8.59	202	8985	18.97	ng/ml	99
24) Pyrene	8.79	202	9434	19.48	ng/ml	92
26) Benz(a)anthracene	10.14	228	8203	18.81	ng/ml	99
27) Chrysene	10.19	228	8248	19.16	ng/ml	99
29) Benzo(b)fluoranthene	12.23	252	8538	18.60	ng/ml	97
30) Benzo(k)fluoranthene	12.31	252	8727	18.95	ng/ml	99
31) Benzo(e)pyrene	12.97	252	8307	18.60	ng/ml	96
32) Benzo(a)pyrene	13.12	252	7683	19.90	ng/ml	98
33) Perylene	13.38	252	8269m	20.48	ng/ml	
34) Indeno(1,2,3-cd)pyrene	15.46	276	7779	22.89	ng/ml	98
35) Dibenz(a,h)anthracene	15.52	278	8645m	23.51	ng/ml	
36) Benzo(g,h,i)perylene	15.85	276	9837	22.66	ng/ml	98

JUL 16 2018

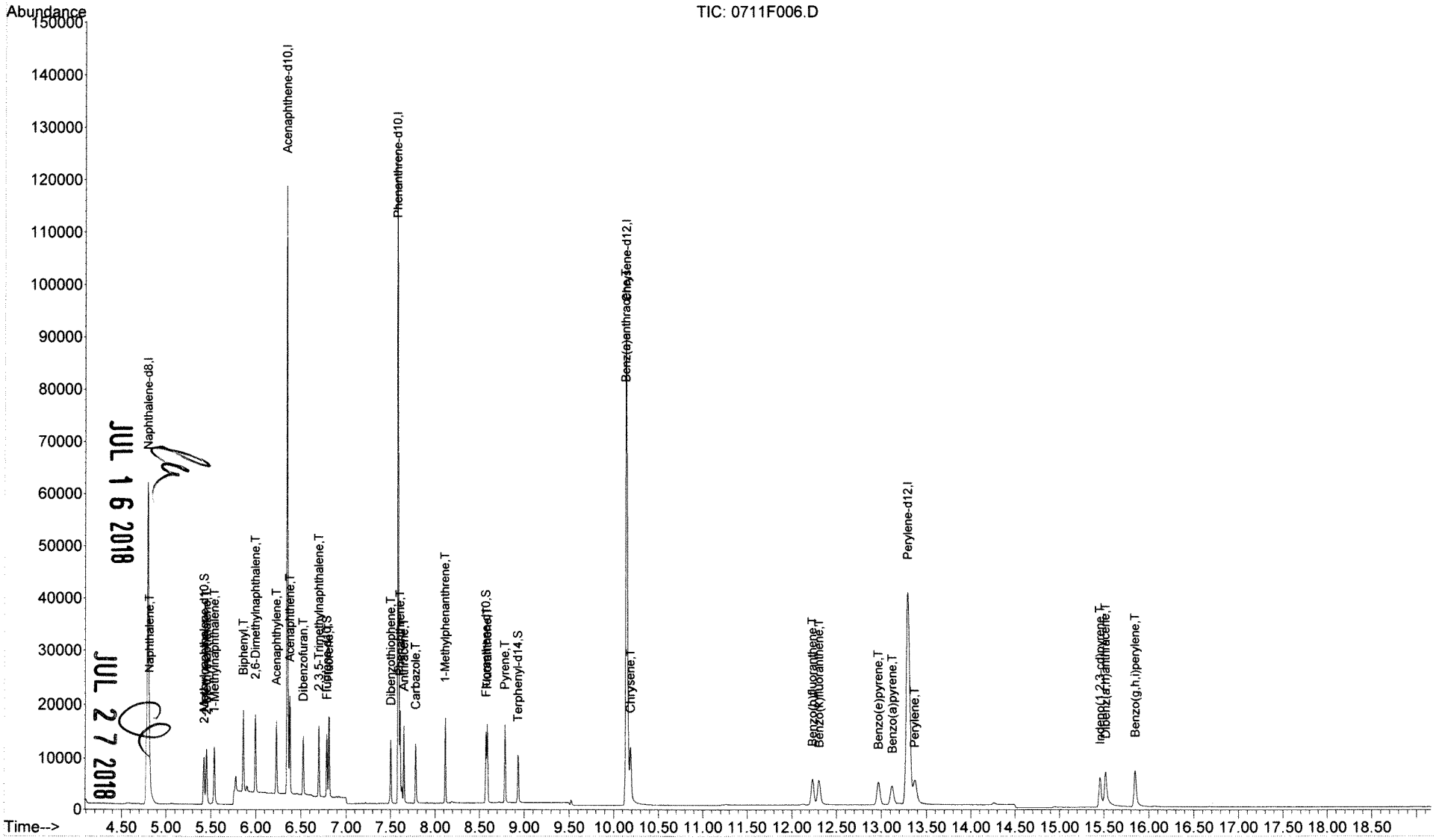
JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F006.D 071118PAH.M Wed Jul 11 12:39:43 2018 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F006.D Vial: 6
Acq On : 11 Jul 2018 9:34 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:37 2018 Quant Results File: 071118PAH.RES

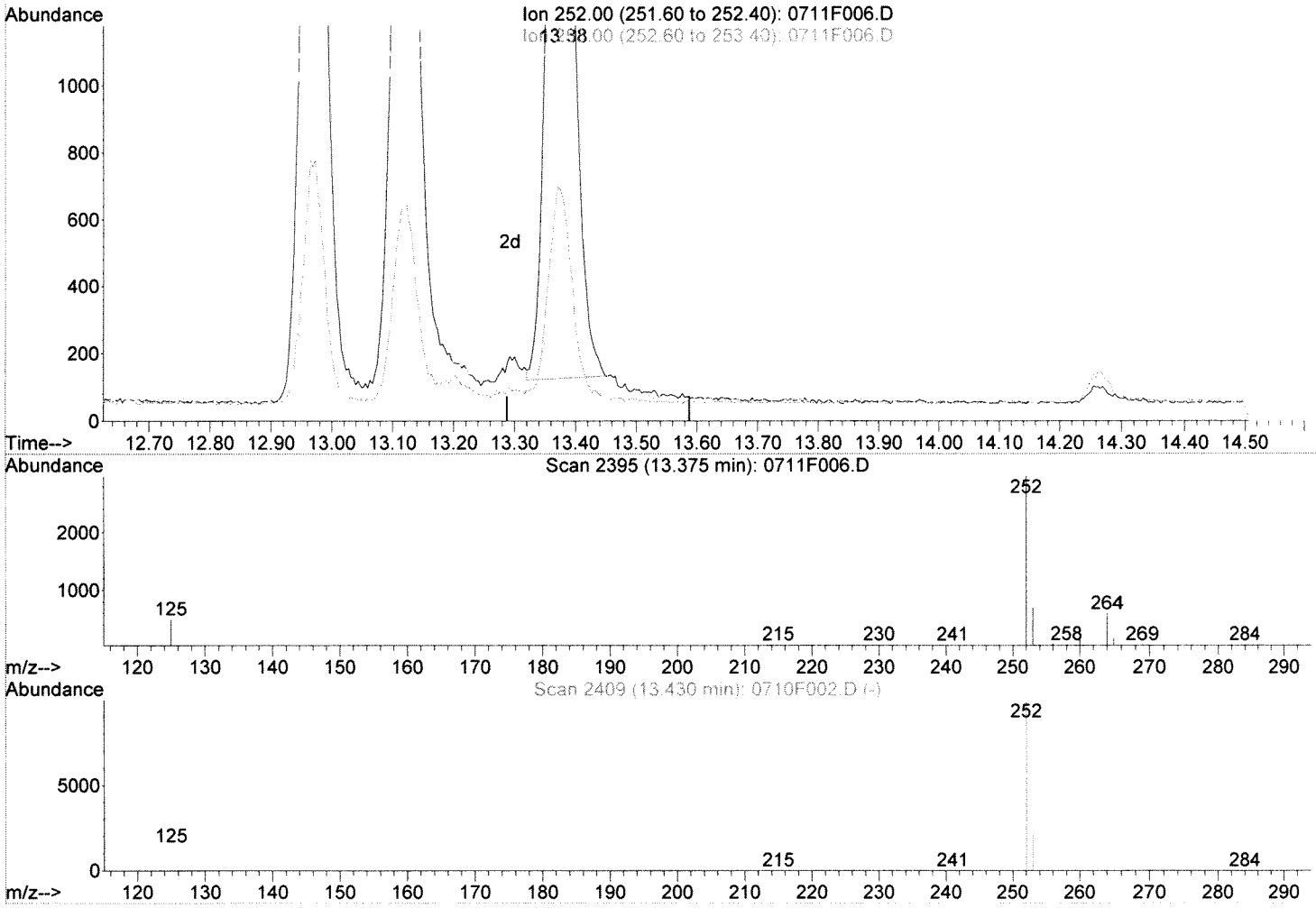
Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration



Quantitation Report (Qual)

Data File : J:\MS14\DATA\071118\0711F006.D Vial: 6
Acq On : 11 Jul 2018 9:34 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Multiple Level Calibration



TIC: 0711F006.D

(33) Perylene (T)

13.38min 19.01ng/ml

response 7678

Ion	Exp%	Act%
252.00	100	100
253.00	21.40	21.61
125.00	11.30	14.83
0.00	0.00	0.00

Manual Integration:

Before

07/11/18

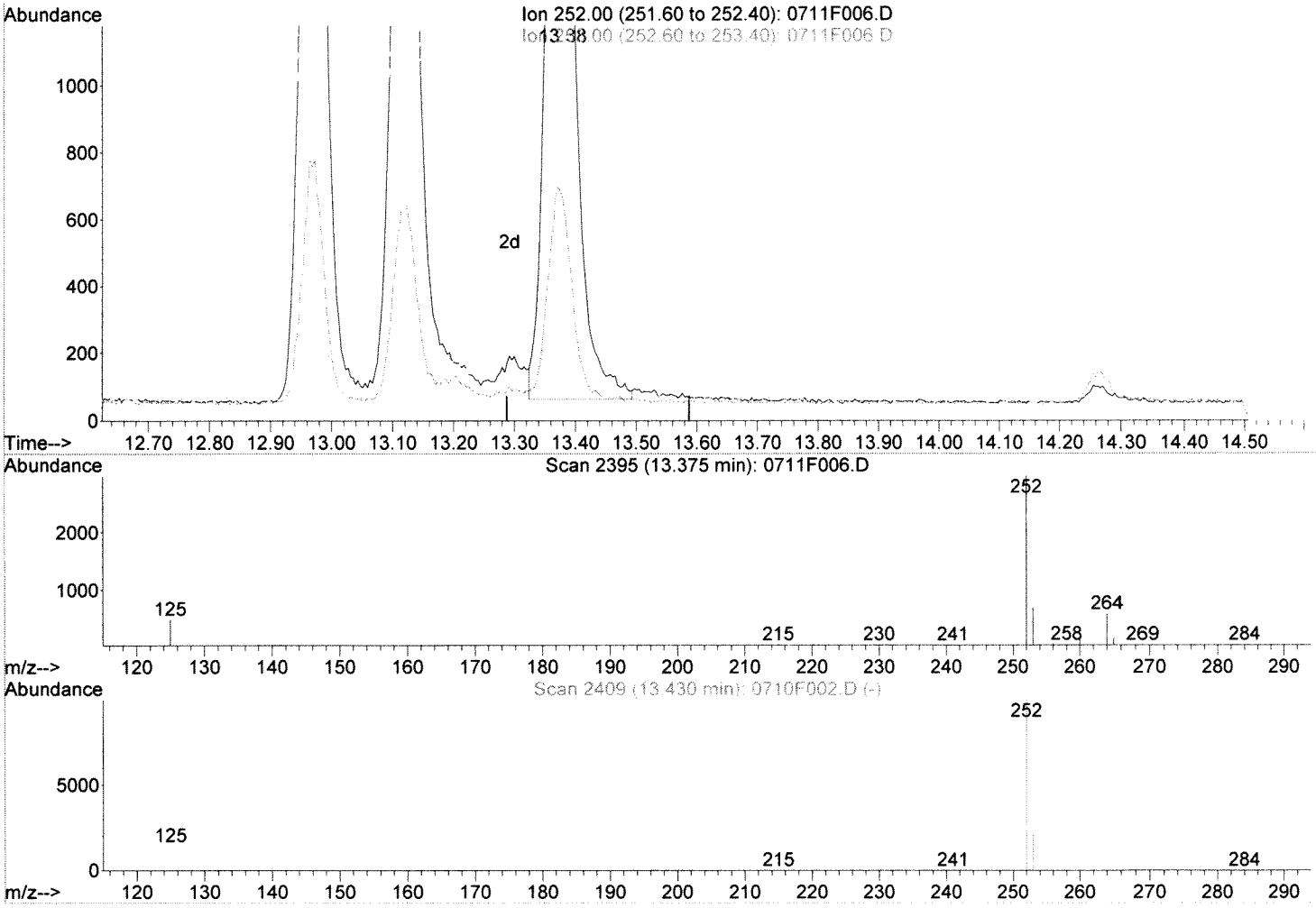
JUL 27 2018

0711F006.D 071118PAH.M Wed Jul 11 12:36:54 2018

Quantitation Report (QedIt)

Data File : J:\MS14\DATA\071118\0711F006.D Vial: 6
Acq On : 11 Jul 2018 9:34 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:36 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Multiple Level Calibration



TIC: 0711F006.D

(33) Perylene (T)

13.38min 20.48ng/ml m

response 8269

Ion	Exp%	Act%
252.00	100	100
253.00	21.40	23.07
125.00	11.30	16.52
0.00	0.00	0.00

Manual Integration:

After

BLC

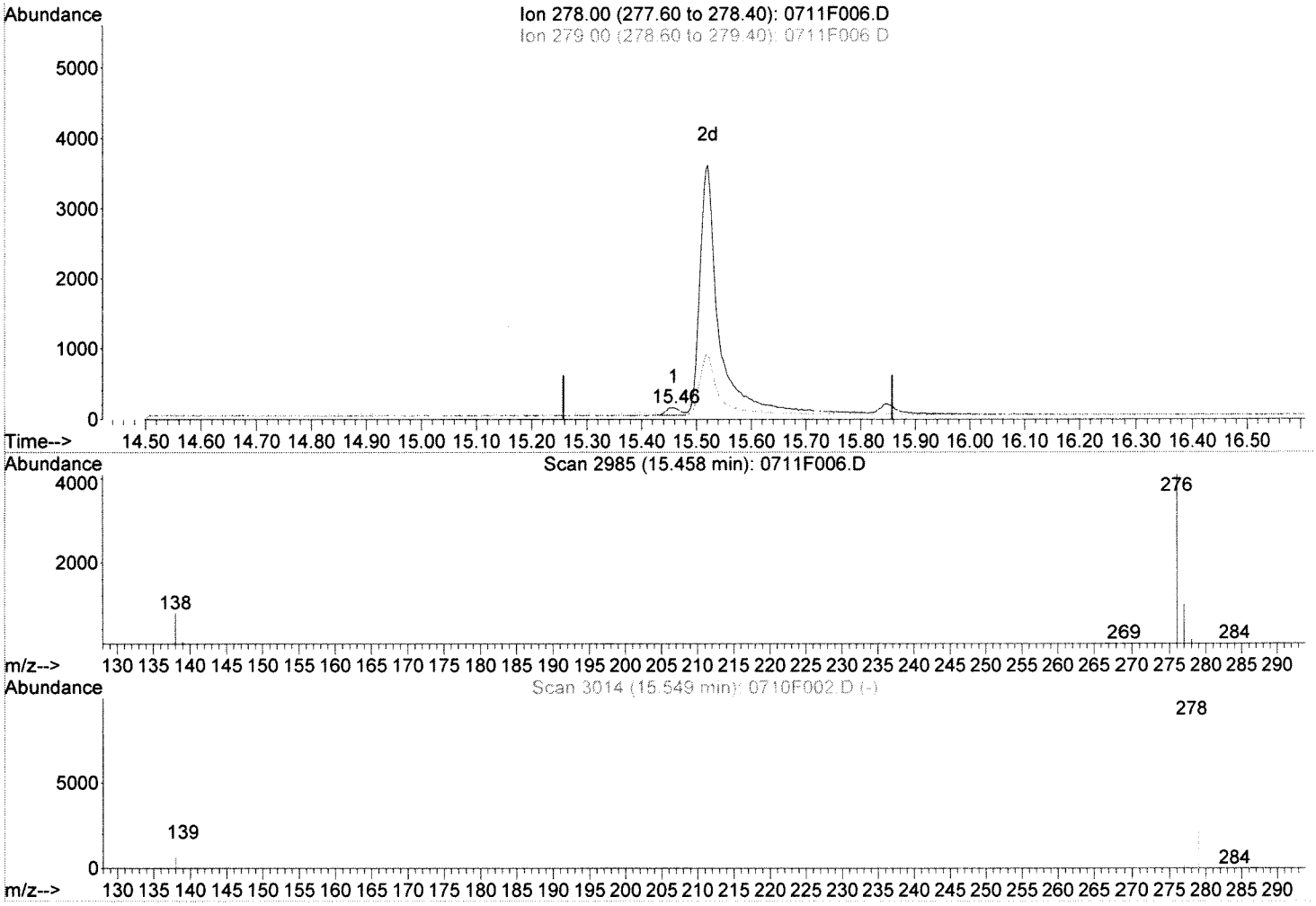
07/11/18

JUL 27 2018

0711F006.D 071118PAH.M Wed Jul 11 12:37:01 2018

Data File : J:\MS14\DATA\071118\0711F006.D Vial: 6
Acq On : 11 Jul 2018 9:34 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:36 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Multiple Level Calibration



TIC: 0711F006.D

(35) Dibenz(a,h)anthracene (T)

15.46min 0.54ng/ml

response 199

Ion	Exp%	Act%
278.00	100	100
279.00	23.60	2.68
139.00	13.40	20.54
0.00	0.00	0.00

Manual Integration:

Before

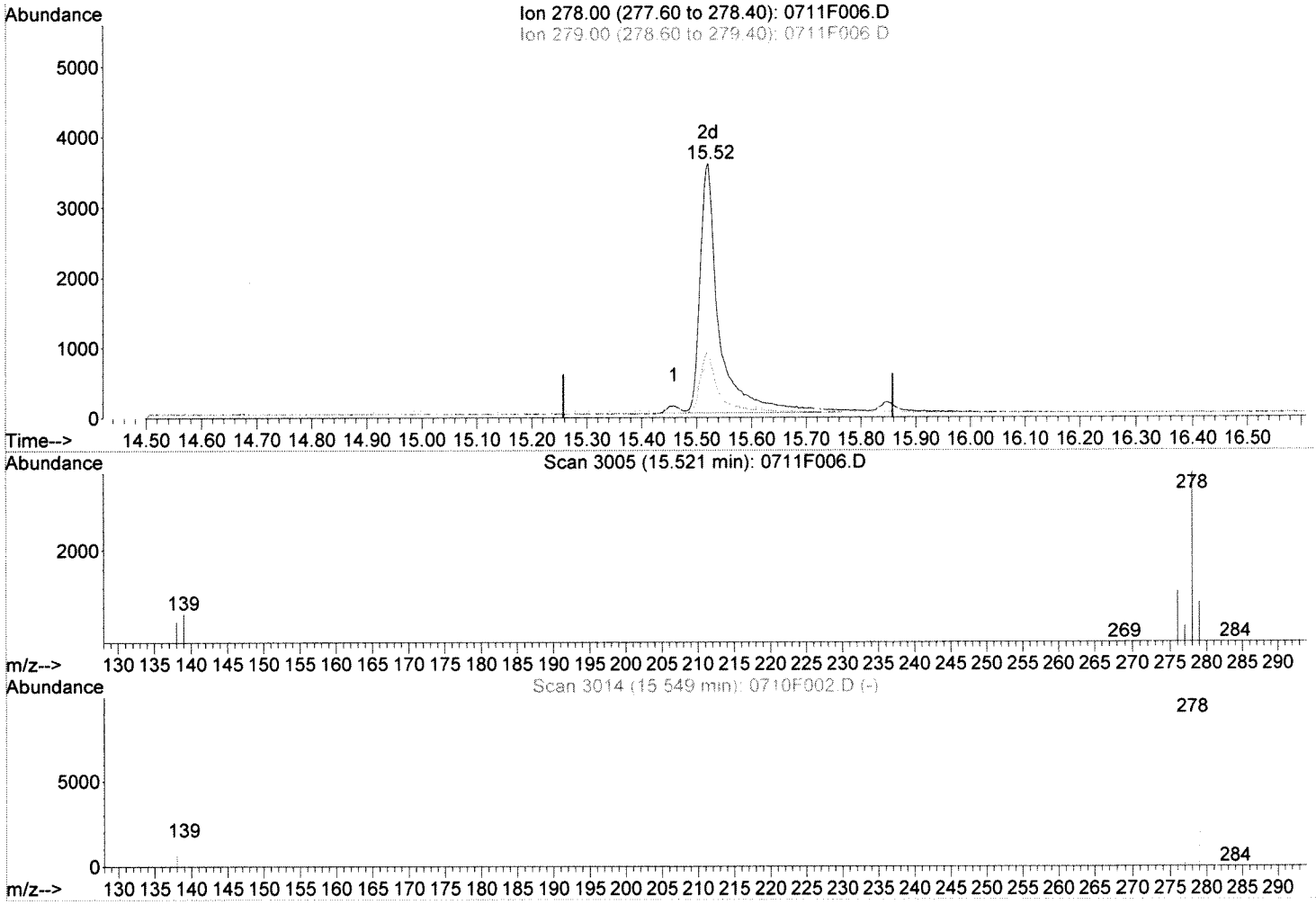
07/11/18

JUL 27 2018

0711F006.D 071118PAH.M Wed Jul 11 12:37:06 2018

Data File : J:\MS14\DATA\071118\0711F006.D Vial: 6
Acq On : 11 Jul 2018 9:34 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.02ug/mL | SVM59-4D Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:37 2018 Quant Results File: temp.res

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Multiple Level Calibration



TIC: 0711F006.D

(35) Dibenz(a,h)anthracene (T)

15.52min 23.51ng/ml m

response 8645

Ion	Exp%	Act%
278.00	100	100
279.00	23.60	25.00
139.00	13.40	18.72
0.00	0.00	0.00

Manual Integration:

After

WP

07/11/18

JUL 27 2018

0711F006.D 071118PAH.M Wed Jul 11 12:37:15 2018

Data File : J:\MS14\DATA\071118\0711F007.D Vial: 7
Acq On : 11 Jul 2018 10:00 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.1ug/mL | SVM59-4E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:41 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	62407	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	28255	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	58489	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	68483	200.00	ng/ml	-0.03
28) Perylene-d12	13.30	264	75974	200.00	ng/ml	-0.06
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	17559	98.89	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	9.89%		
13) Fluorene-d10	6.79	176	17680	95.70	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	9.57%		
22) Fluoranthene-d10	8.58	212	35144	96.82	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	9.68%		
25) Terphenyl-d14	8.93	244	28477	91.57	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	9.16%		
Target Compounds						Qvalue
2) Naphthalene	4.82	128	35255	103.08	ng/ml	98
4) 2-Methylnaphthalene	5.45	142	22418	102.54	ng/ml	94
5) 1-Methylnaphthalene	5.54	142	21213	100.29	ng/ml	96
6) Biphenyl	5.86	154	27265	101.12	ng/ml	96
7) 2,6-Dimethylnaphthalene	6.00	156	18574	98.74	ng/ml	96
9) Acenaphthylene	6.23	152	33544	101.56	ng/ml	98
10) Acenaphthene	6.38	154	19460	102.65	ng/ml	97
11) Dibenzofuran	6.53	168	31402	103.33	ng/ml	94
12) 2,3,5-Trimethylnaphthalene	6.70	170	17703	99.17	ng/ml	95
14) Fluorene	6.81	166	24009	101.96	ng/ml	99
16) Dibenzothiophene	7.51	184	36360	100.61	ng/ml	95
17) Phenanthrene	7.61	178	36499	102.14	ng/ml	100
18) Anthracene	7.65	178	35340	101.23	ng/ml	100
19) Carbazole	7.78	167	33613	106.65	ng/ml	99
20) 1-Methylphenanthrene	8.12	192	26919	95.59	ng/ml	97
21) Fluoranthene	8.59	202	44895	103.20	ng/ml	99
24) Pyrene	8.79	202	45944	95.52	ng/ml	96
26) Benz(a)anthracene	10.14	228	41105	94.87	ng/ml	99
27) Chrysene	10.19	228	42544	99.49	ng/ml	99
29) Benzo(b)fluoranthene	12.24	252	45690	96.41	ng/ml	98
30) Benzo(k)fluoranthene	12.31	252	46655	98.13	ng/ml	97
31) Benzo(e)pyrene	12.97	252	43163	93.59	ng/ml	96
32) Benzo(a)pyrene	13.12	252	39807	99.87	ng/ml	98
33) Perylene	13.37	252	42088	100.96	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.46	276	40462	115.30	ng/ml	98
35) Dibenz(a,h)anthracene	15.52	278	42729	112.54	ng/ml	98
36) Benzo(g,h,i)perylene	15.85	276	48457	108.12	ng/ml	97

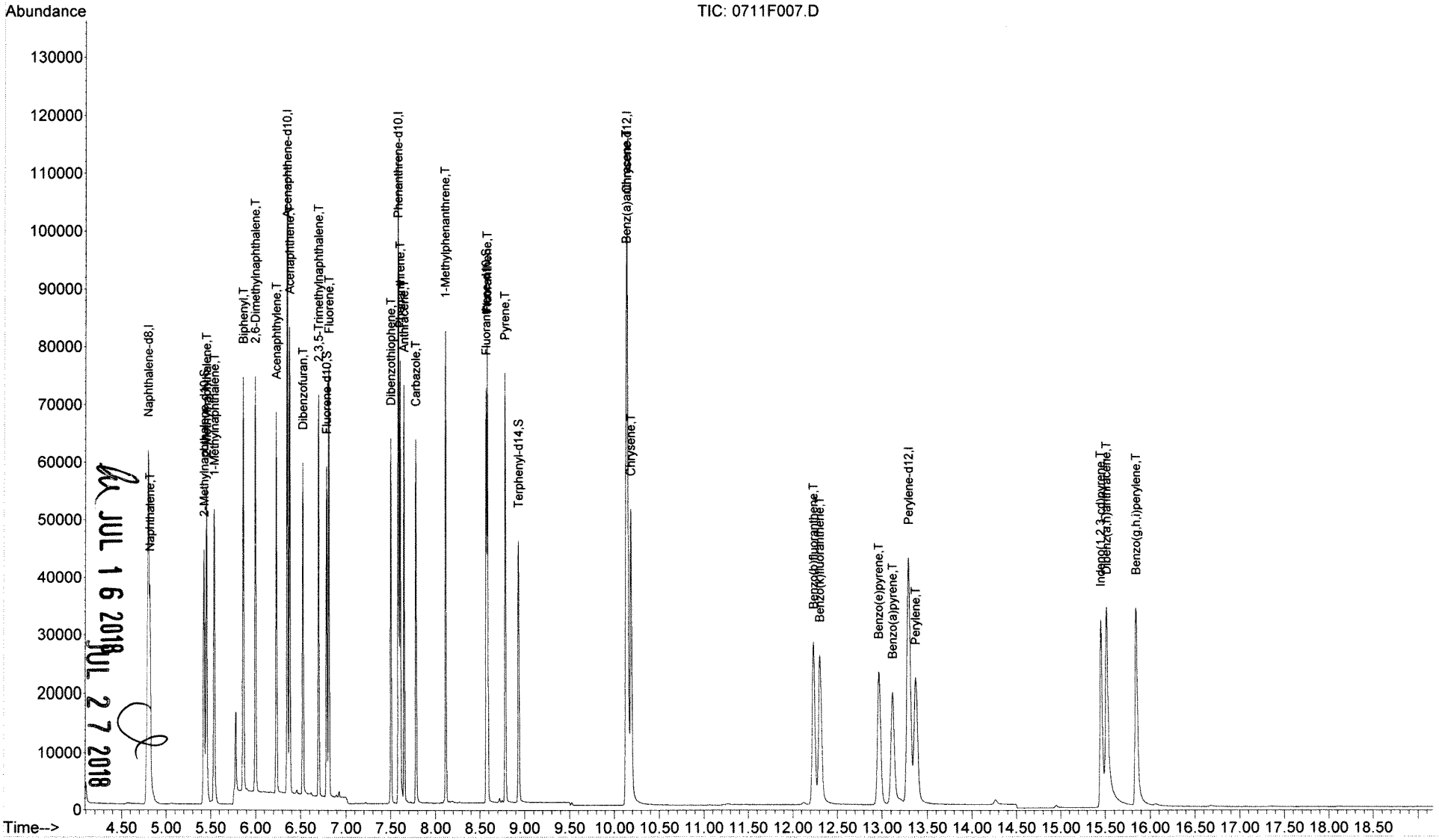
JUL 16 2018
JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F007.D 071118PAH.M Wed Jul 11 12:39:45 2018 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F007.D Vial: 7
Acq On : 11 Jul 2018 10:00 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.1ug/mL | SVM59-4E Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration



JUL 16 2018
JUL 27 2018

Data File : J:\MS14\DATA\071118\0711F008.D Vial: 8
Acq On : 11 Jul 2018 10:26 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.2ug/mL | SVM59-4F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:42 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	60069	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	26067	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	52800	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	67787	200.00	ng/ml	-0.03
28) Perylene-d12	13.30	264	73997	200.00	ng/ml	-0.05
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	32722	191.47	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	19.15%		
13) Fluorene-d10	6.79	176	32332	189.70	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	18.97%		
22) Fluoranthene-d10	8.58	212	66735	203.67	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	20.37%		
25) Terphenyl-d14	8.93	244	55795	181.26	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	18.13%		
Target Compounds						Qvalue
2) Naphthalene	4.82	128	66650	202.46	ng/ml	98
4) 2-Methylnaphthalene	5.45	142	41546	197.42	ng/ml	94
5) 1-Methylnaphthalene	5.54	142	39085	191.97	ng/ml	97
6) Biphenyl	5.86	154	50271	193.70	ng/ml	96
7) 2,6-Dimethylnaphthalene	6.00	156	34463	190.34	ng/ml	96
9) Acenaphthylene	6.23	152	62756	205.96	ng/ml	98
10) Acenaphthene	6.38	154	36120	206.52	ng/ml	97
11) Dibenzofuran	6.53	168	59730	213.03	ng/ml	95
12) 2,3,5-Trimethylnaphthalene	6.70	170	32934	199.97	ng/ml	94
14) Fluorene	6.81	166	43762	201.45	ng/ml	98
16) Dibenzothiophene	7.51	184	66748	204.59	ng/ml	95
17) Phenanthrene	7.61	178	65833	204.08	ng/ml	100
18) Anthracene	7.65	178	64253	203.88	ng/ml	100
19) Carbazole	7.78	167	63253	222.32	ng/ml	98
20) 1-Methylphenanthrene	8.12	192	49439	194.49	ng/ml	96
21) Fluoranthene	8.59	202	84302	214.65	ng/ml	99
24) Pyrene	8.79	202	87628	184.06	ng/ml	96
26) Benz(a)anthracene	10.14	228	83249	194.11	ng/ml	99
27) Chrysene	10.19	228	84873	200.51	ng/ml	99
29) Benzo(b)fluoranthene	12.24	252	92957	201.38	ng/ml	98
30) Benzo(k)fluoranthene	12.31	252	93553	202.03	ng/ml	98
31) Benzo(e)pyrene	12.98	252	86431	192.42	ng/ml	97
32) Benzo(a)pyrene	13.12	252	79516	204.81	ng/ml	97
33) Perylene	13.38	252	84071	207.05	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.46	276	80179	234.58	ng/ml	98
35) Dibenz(a,h)anthracene	15.52	278	81499	220.39	ng/ml	98
36) Benzo(g,h,i)perylene	15.85	276	93626	214.49	ng/ml	98

JUL 16 2018

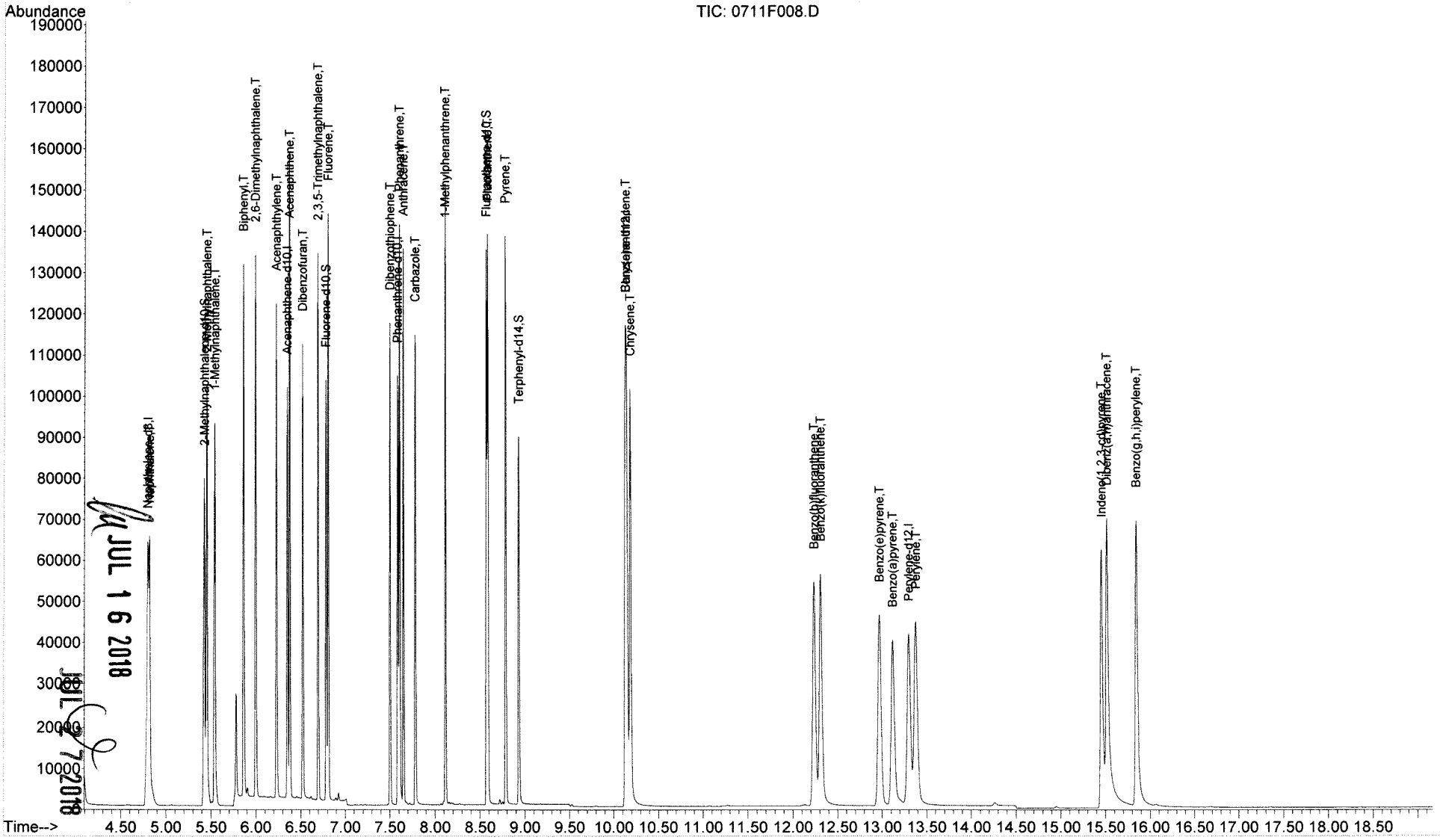
JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F008.D 071118PAH.M Wed Jul 11 12:39:47 2018 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F008.D Vial: 8
Acq On : 11 Jul 2018 10:26 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.2ug/mL | SVM59-4F Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration



Data File : J:\MS14\DATA\071118\0711F009.D Vial: 9
Acq On : 11 Jul 2018 10:52 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.4ug/mL | SVM59-4G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:42 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	60855	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	25959	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	53916	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	68964	200.00	ng/ml	-0.03
28) Perylene-d12	13.30	264	73742	200.00	ng/ml	-0.05
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	64749	373.97	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	37.40%		
13) Fluorene-d10	6.79	176	65104	383.58	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	38.36%		
22) Fluoranthene-d10	8.57	212	140750	420.66	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	42.07%		
25) Terphenyl-d14	8.93	244	115110	367.58	ng/ml	-0.02
Spiked Amount 1000.000			Recovery =	36.76%		
Target Compounds						Qvalue
2) Naphthalene	4.81	128	132311	396.73	ng/ml	98
4) 2-Methylnaphthalene	5.45	142	80537	377.75	ng/ml	95
5) 1-Methylnaphthalene	5.54	142	75991	368.41	ng/ml	97
6) Biphenyl	5.86	154	98008	372.75	ng/ml	96
7) 2,6-Dimethylnaphthalene	6.00	156	68675	374.39	ng/ml	97
9) Acenaphthylene	6.23	152	125730	414.35	ng/ml	98
10) Acenaphthene	6.38	154	71389	409.87	ng/ml	98
11) Dibenzofuran	6.53	168	116544	417.39	ng/ml	89
12) 2,3,5-Trimethylnaphthalene	6.70	170	66608	406.13	ng/ml	96
14) Fluorene	6.81	166	86674	400.65	ng/ml	98
16) Dibenzothiophene	7.51	184	136509	409.76	ng/ml	95
17) Phenanthrene	7.61	178	131946	400.56	ng/ml	100
18) Anthracene	7.65	178	131533	408.72	ng/ml	100
19) Carbazole	7.79	167	129213	444.76	ng/ml	98
20) 1-Methylphenanthrene	8.12	192	103724	399.59	ng/ml	96
21) Fluoranthene	8.59	202	170758	425.79	ng/ml	98
24) Pyrene	8.79	202	181666	375.07	ng/ml	98
26) Benz(a)anthracene	10.13	228	175185	401.51	ng/ml	99
27) Chrysene	10.19	228	172838	401.35	ng/ml	100
29) Benzo(b)fluoranthene	12.24	252	191741	416.82	ng/ml	98
30) Benzo(k)fluoranthene	12.31	252	189521	410.69	ng/ml	98
31) Benzo(e)pyrene	12.98	252	177594	396.74	ng/ml	98
32) Benzo(a)pyrene	13.13	252	163551	422.73	ng/ml	98
33) Perylene	13.39	252	170900	422.34	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.46	276	155556	456.69	ng/ml	98
35) Dibenz(a,h)anthracene	15.52	278	157213	426.62	ng/ml	98
36) Benzo(g,h,i)perylene	15.85	276	179053	411.61	ng/ml	98

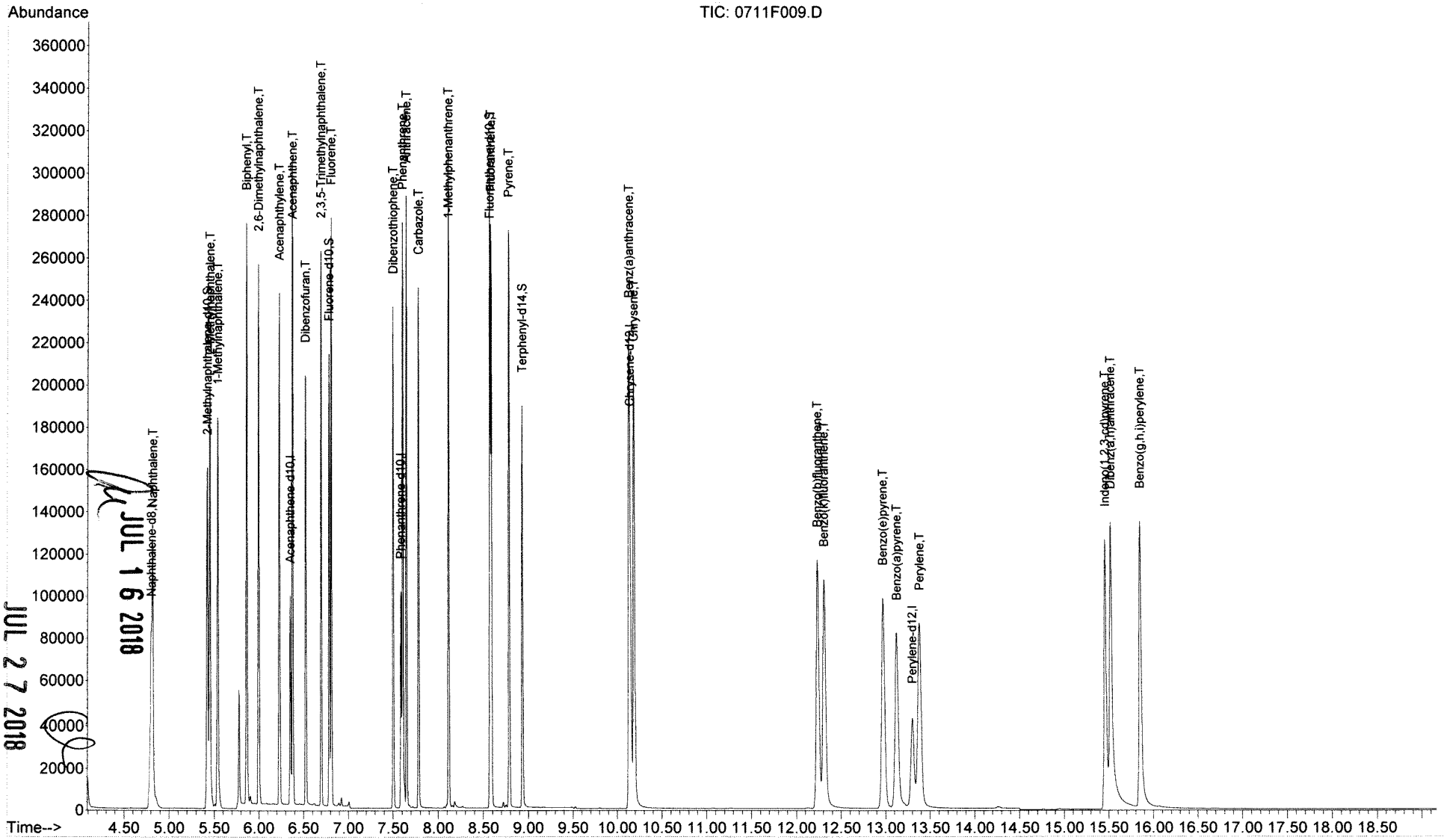
JUL 16 2018
JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F009.D 071118PAH.M Wed Jul 11 12:39:49 2018 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F009.D Vial: 9
Acq On : 11 Jul 2018 10:52 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 0.4ug/mL | SVM59-4G Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration



JUL 16 2018
JUL 27 2018

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F010.D Vial: 10
Acq On : 11 Jul 2018 11:18 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 1.0ug/mL | SVM59-4H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:43 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	56166	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	24545	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	48486	200.00	ng/ml	-0.02
23) Chrysene-d12	10.15	240	66294	200.00	ng/ml	-0.02
28) Perylene-d12	13.31	264	71447	200.00	ng/ml	-0.04
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	151032	945.14	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 94.51%			
13) Fluorene-d10	6.79	176	148985	928.35	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 92.84%			
22) Fluoranthene-d10	8.58	212	340058	1130.15	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 113.02%			
25) Terphenyl-d14	8.93	244	277429	921.60	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 92.16%			
Target Compounds						Qvalue
2) Naphthalene	4.82	128	297897	967.80	ng/ml	98
4) 2-Methylnaphthalene	5.46	142	182505	927.49	ng/ml	96
5) 1-Methylnaphthalene	5.54	142	175312	920.89	ng/ml	96
6) Biphenyl	5.86	154	227465	937.33	ng/ml	95
7) 2,6-Dimethylnaphthalene	6.00	156	159932	944.68	ng/ml	95
9) Acenaphthylene	6.23	152	295411	1029.62	ng/ml	98
10) Acenaphthene	6.38	154	165340	1003.96	ng/ml	97
11) Dibenzofuran	6.53	168	271937	1030.03	ng/ml	94
12) 2,3,5-Trimethylnaphthalene	6.70	170	155038	999.76	ng/ml	95
14) Fluorene	6.81	166	195757	957.01	ng/ml	99
16) Dibenzothiophene	7.51	184	312192	1042.05	ng/ml	95
17) Phenanthrene	7.61	178	297804	1005.31	ng/ml	99
18) Anthracene	7.65	178	294958	1019.19	ng/ml	100
19) Carbazole	7.79	167	299519	1146.42	ng/ml	98
20) 1-Methylphenanthrene	8.12	192	241204	1033.28	ng/ml	96
21) Fluoranthene	8.59	202	395859	1097.64	ng/ml	98
24) Pyrene	8.79	202	440109	945.25	ng/ml	99
26) Benz(a)anthracene	10.14	228	438415	1045.28	ng/ml	100
27) Chrysene	10.19	228	417827	1009.33	ng/ml	99
29) Benzo(b)fluoranthene	12.25	252	477033	1070.32	ng/ml	98
30) Benzo(k)fluoranthene	12.32	252	460183	1029.25	ng/ml	98
31) Benzo(e)pyrene	12.99	252	441018	1016.88	ng/ml	97
32) Benzo(a)pyrene	13.14	252	410977	1096.36	ng/ml	98
33) Perylene	13.39	252	424046	1081.60	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.47	276	362154	1097.39	ng/ml	98
35) Dibenz(a,h)anthracene	15.53	278	365022	1022.35	ng/ml	98
36) Benzo(g,h,i)perylene	15.86	276	398340	945.13	ng/ml	97

JUL 16 2018

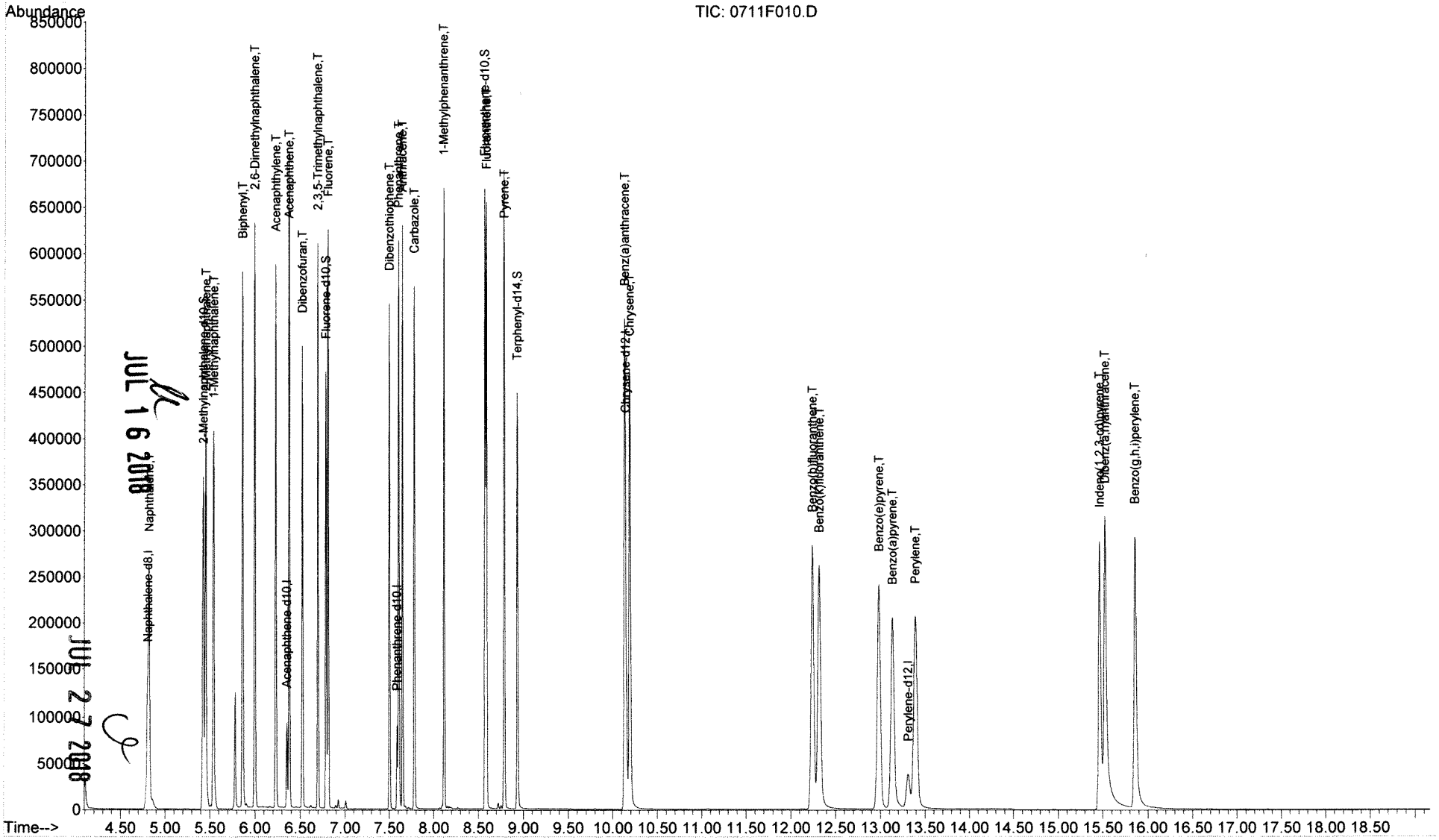
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0711F010.D 071118PAH.M Wed Jul 11 12:39:51 2018

JUL 27 2018

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F010.D Vial: 10
Acq On : 11 Jul 2018 11:18 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 1.0ug/mL | SVM59-4H Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration



JUL 16 2018
JUL 23 2018

Data File : J:\MS14\DATA\071118\0711F011.D Vial: 11
Acq On : 11 Jul 2018 11:44 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 1.6ug/mL | SVM59-4I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:44 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	55374	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	23531	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	48251	200.00	ng/ml	-0.02
23) Chrysene-d12	10.16	240	63306	200.00	ng/ml	-0.02
28) Perylene-d12	13.32	264	68587	200.00	ng/ml	-0.04
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	230897	1465.59	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 146.56%			
13) Fluorene-d10	6.79	176	234277	1522.73	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 152.27%			
22) Fluoranthene-d10	8.58	212	547746	1829.25	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 182.93%			
25) Terphenyl-d14	8.93	244	420524	1462.89	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 146.29%			
Target Compounds						Qvalue
2) Naphthalene	4.82	128	454242	1496.83	ng/ml	98
4) 2-Methylnaphthalene	5.46	142	277659	1431.25	ng/ml	96
5) 1-Methylnaphthalene	5.54	142	268229	1429.12	ng/ml	95
6) Biphenyl	5.87	154	351048	1467.28	ng/ml	97
7) 2,6-Dimethylnaphthalene	6.00	156	248732	1490.21	ng/ml	94
9) Acenaphthylene	6.23	152	457982	1665.02	ng/ml	98
10) Acenaphthene	6.38	154	258921	1639.94	ng/ml	98
11) Dibenzofuran	6.53	168	422115	1667.76	ng/ml	98
12) 2,3,5-Trimethylnaphthalene	6.70	170	241367	1623.53	ng/ml	87
14) Fluorene	6.81	166	306456	1562.75	ng/ml	99
16) Dibenzothiophene	7.51	184	493134	1654.02	ng/ml	98
17) Phenanthrene	7.61	178	470025	1594.41	ng/ml	99
18) Anthracene	7.65	178	468569	1626.97	ng/ml	99
19) Carbazole	7.79	167	483938	1861.32	ng/ml	98
20) 1-Methylphenanthrene	8.12	192	392769	1690.76	ng/ml	98
21) Fluoranthene	8.59	202	637771	1777.03	ng/ml	97
24) Pyrene	8.79	202	701707	1578.23	ng/ml	96
26) Benz(a)anthracene	10.14	228	679766	1697.22	ng/ml	100
27) Chrysene	10.20	228	647039	1636.80	ng/ml	100
29) Benzo(b)fluoranthene	12.26	252	726698	1698.48	ng/ml	98
30) Benzo(k)fluoranthene	12.33	252	707952	1649.45	ng/ml	98
31) Benzo(e)pyrene	13.00	252	677816	1628.04	ng/ml	97
32) Benzo(a)pyrene	13.15	252	636746	1769.47	ng/ml	98
33) Perylene	13.41	252	650819	1729.25	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.48	276	546709	1725.70	ng/ml	98
35) Dibenz(a,h)anthracene	15.54	278	550676	1606.64	ng/ml	98
36) Benzo(g,h,i)perylene	15.88	276	588669	1454.97	ng/ml	97

JUL 16 2018

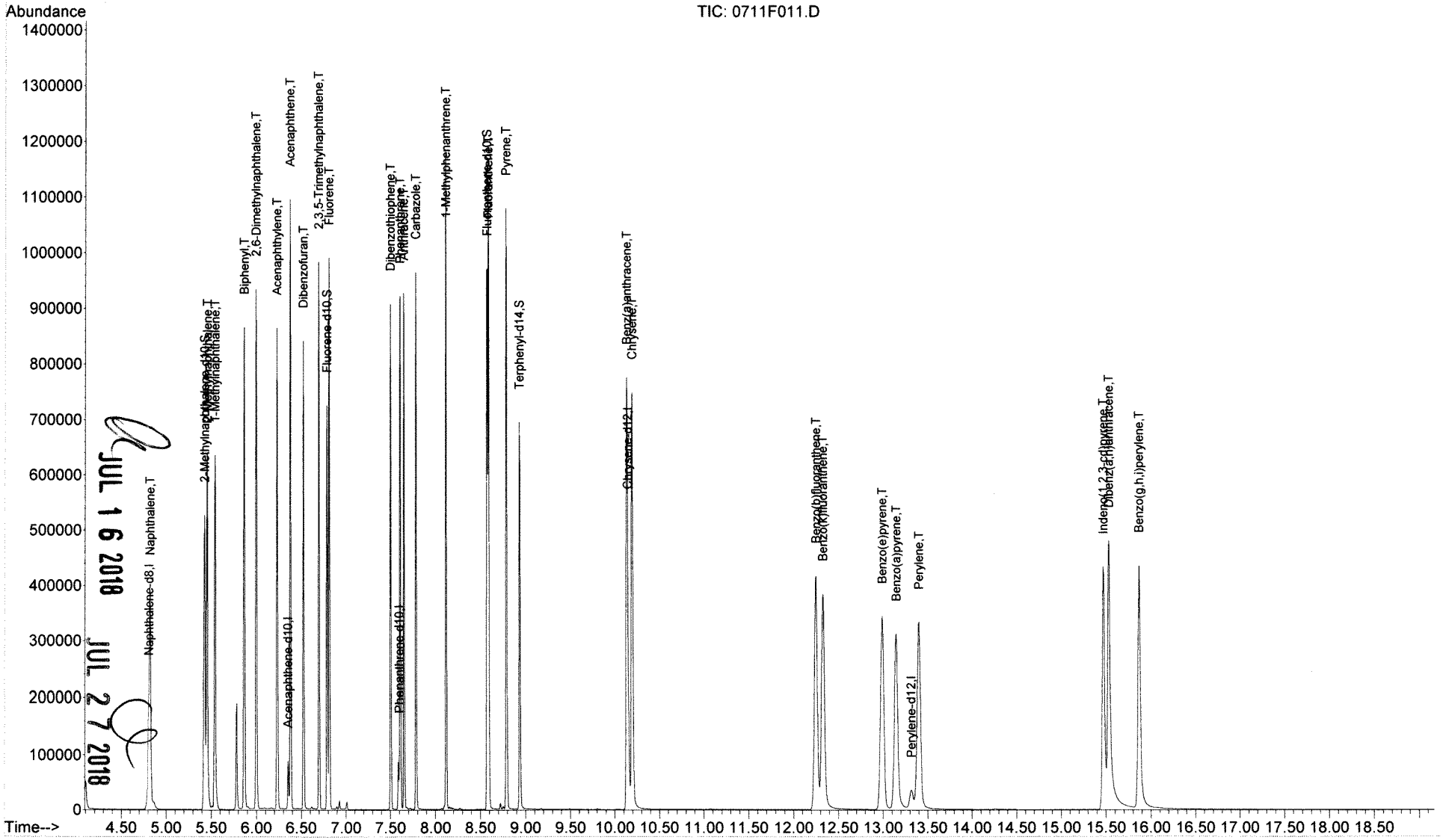
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0711F011.D 071118PAH.M Wed Jul 11 12:39:53 2018

JUL 27 2018

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F011.D Vial: 11
Acq On : 11 Jul 2018 11:44 am Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 1.6ug/mL | SVM59-4I Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration



JUL 16 2018
JUL 27 2018

Data File : J:\MS14\DATA\071118\0711F012.D Vial: 12
Acq On : 11 Jul 2018 12:10 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 2.0ug/mL | SVM59-4J Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34:44 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	54095	200.00	ng/ml	-0.02
8) Acenaphthene-d10	6.35	164	24200	200.00	ng/ml	-0.02
15) Phenanthrene-d10	7.59	188	49476	200.00	ng/ml	-0.02
23) Chrysene-d12	10.16	240	65411	200.00	ng/ml	-0.02
28) Perylene-d12	13.32	264	71109	200.00	ng/ml	-0.04
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	284926	1851.30	ng/ml	-0.02
Spiked Amount 1000.000			Recovery = 185.13%			
13) Fluorene-d10	6.79	176	291344	1841.30	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 184.13%			
22) Fluoranthene-d10	8.58	212	688154	2241.25	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 224.13%			
25) Terphenyl-d14	8.94	244	524001	1764.19	ng/ml	-0.01
Spiked Amount 1000.000			Recovery = 176.42%			
Target Compounds						Qvalue
2) Naphthalene	4.82	128	576774	1945.54	ng/ml	98
4) 2-Methylnaphthalene	5.46	142	343280	1811.34	ng/ml	96
5) 1-Methylnaphthalene	5.54	142	333329	1817.97	ng/ml	96
6) Biphenyl	5.87	154	430613	1842.39	ng/ml	97
7) 2,6-Dimethylnaphthalene	6.00	156	307734	1887.29	ng/ml	92
9) Acenaphthylene	6.23	152	565493	1999.05	ng/ml	97
10) Acenaphthene	6.38	154	319877	1970.02	ng/ml	97
11) Dibenzofuran	6.53	168	511819	1966.28	ng/ml	95
12) 2,3,5-Trimethylnaphthalene	6.70	170	300656	1966.42	ng/ml	85
14) Fluorene	6.81	166	378044	1874.51	ng/ml	98
16) Dibenzothiophene	7.51	184	607108	1985.89	ng/ml	98
17) Phenanthrene	7.61	178	575834	1904.97	ng/ml	99
18) Anthracene	7.66	178	577074	1954.11	ng/ml	99
19) Carbazole	7.79	167	599144	2247.37	ng/ml	97
20) 1-Methylphenanthrene	8.12	192	493413	2071.41	ng/ml	97
21) Fluoranthene	8.60	202	799381	2172.18	ng/ml	96
24) Pyrene	8.79	202	889035	1935.21	ng/ml	94
26) Benz(a)anthracene	10.14	228	854373	2064.52	ng/ml	99
27) Chrysene	10.20	228	809465	1981.79	ng/ml	99
29) Benzo(b)fluoranthene	12.26	252	904886	2039.94	ng/ml	98
30) Benzo(k)fluoranthene	12.34	252	885676	1990.34	ng/ml	98
31) Benzo(e)pyrene	13.00	252	842879	1952.70	ng/ml	97
32) Benzo(a)pyrene	13.16	252	795301	2131.70	ng/ml	98
33) Perylene	13.41	252	811546	2079.83	ng/ml	97
34) Indeno(1,2,3-cd)pyrene	15.48	276	682068	2076.61	ng/ml	97
35) Dibenz(a,h)anthracene	15.54	278	690770	1943.89	ng/ml	97
36) Benzo(g,h,i)perylene	15.88	276	738118	1759.65	ng/ml	96

JUL 16 2018

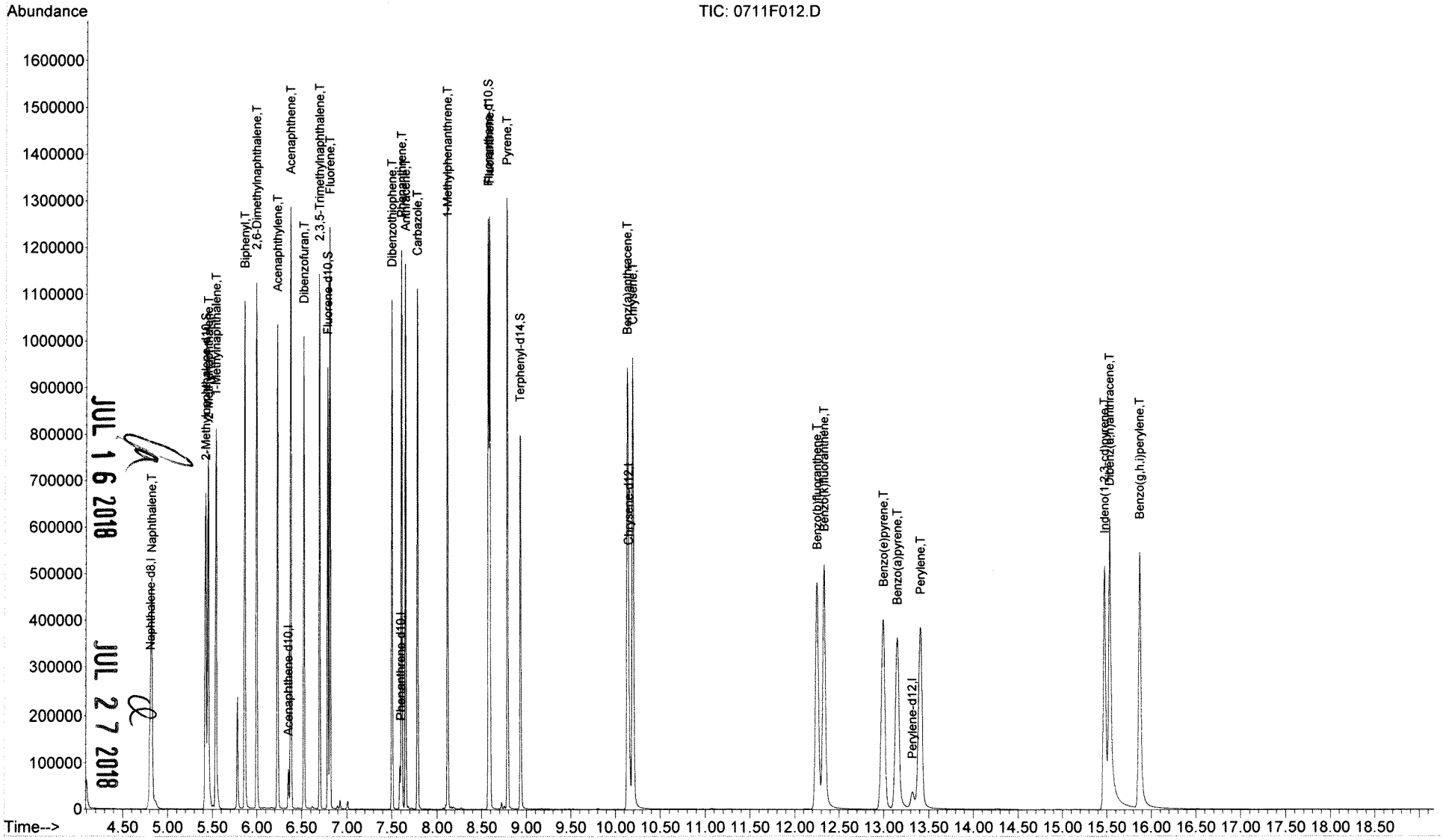
JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F012.D 071118PAH.M Wed Jul 11 12:39:55 2018 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F012.D Vial: 12
Acq On : 11 Jul 2018 12:10 pm Operator: LWeiskopf
Sample : SIM-PAH ICAL @ 2.0ug/mL | SVM59-4J Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 11 12:34 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Thu Jul 05 10:29:47 2018
Response via : Initial Calibration



Data File : J:\MS14\DATA\071118\0711F013.D Vial: 13
Acq On : 11 Jul 2018 12:36 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @ 0.4ug/mL | SVM59-4K Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 16 09:14:15 2018 Quant Results File: 071118PAH.RES

Quant Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Jul 11 12:42:44 2018
Response via : Initial Calibration
DataAcq Meth : A_PAHAT05

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	4.80	136	50172	200.00	ng/ml	0.00
8) Acenaphthene-d10	6.35	164	22986	200.00	ng/ml	0.00
15) Phenanthrene-d10	7.59	188	46192	200.00	ng/ml	0.00
23) Chrysene-d12	10.15	240	62964	200.00	ng/ml	0.00
28) Perylene-d12	13.30	264	67346	200.00	ng/ml	0.00
System Monitoring Compounds						
3) 2-Methylnaphthalene-d10	5.43	152	56170	401.09	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 40.11%			
13) Fluorene-d10	6.79	176	57243	389.48	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 38.95%			
22) Fluoranthene-d10	8.58	212	119281	409.73	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 40.97%			
25) Terphenyl-d14	8.93	244	103386	378.56	ng/ml	0.00
Spiked Amount 1000.000			Recovery = 37.86%			
Target Compounds						Qvalue
2) Naphthalene	4.82	128	106807	368.80	ng/ml	100
4) 2-Methylnaphthalene	5.46	142	68576	392.65	ng/ml	100
5) 1-Methylnaphthalene	5.54	142	61930	368.40	ng/ml	99
6) Biphenyl	5.86	154	91235	418.55	ng/ml	99
7) 2,6-Dimethylnaphthalene	6.00	156	63157	421.23	ng/ml	96
9) Acenaphthylene	6.23	152	107131	390.61	ng/ml	100
10) Acenaphthene	6.38	154	60647	384.94	ng/ml	98
11) Dibenzofuran	6.53	168	94217	372.67	ng/ml	95
12) 2,3,5-Trimethylnaphthalene	6.70	170	59485	408.19	ng/ml	96
14) Fluorene	6.81	166	73545	385.97	ng/ml	100
16) Dibenzothiophene	7.51	184	123550	428.83	ng/ml	99
17) Phenanthrene	7.61	178	110081	382.02	ng/ml	100
18) Anthracene	7.65	178	109389	397.66	ng/ml	100
19) Carbazole	7.79	167	115133	428.87	ng/ml	100
20) 1-Methylphenanthrene	8.12	192	91182	417.77	ng/ml	100
21) Fluoranthene	8.59	202	147363	414.16	ng/ml	100
24) Pyrene	8.79	202	151769	351.32	ng/ml	92
26) Benz(a)anthracene	10.14	228	153003	375.85	ng/ml	99
27) Chrysene	10.19	228	151585	388.75	ng/ml	100
29) Benzo(b)fluoranthene	12.24	252	170488	409.75	ng/ml	100
30) Benzo(k)fluoranthene	12.32	252	172528	417.98	ng/ml	100
31) Benzo(e)pyrene	12.98	252	162645	410.10	ng/ml	100
32) Benzo(a)pyrene	13.13	252	146112	400.43	ng/ml	99
33) Perylene	13.39	252	166849	435.90	ng/ml	100
34) Indeno(1,2,3-cd)pyrene	15.46	276	133756	373.83	ng/ml	99
35) Dibenz(a,h)anthracene	15.52	278	139306	384.07	ng/ml	100
36) Benzo(g,h,i)perylene	15.85	276	152959	365.05	ng/ml	100

JUL 16 2018

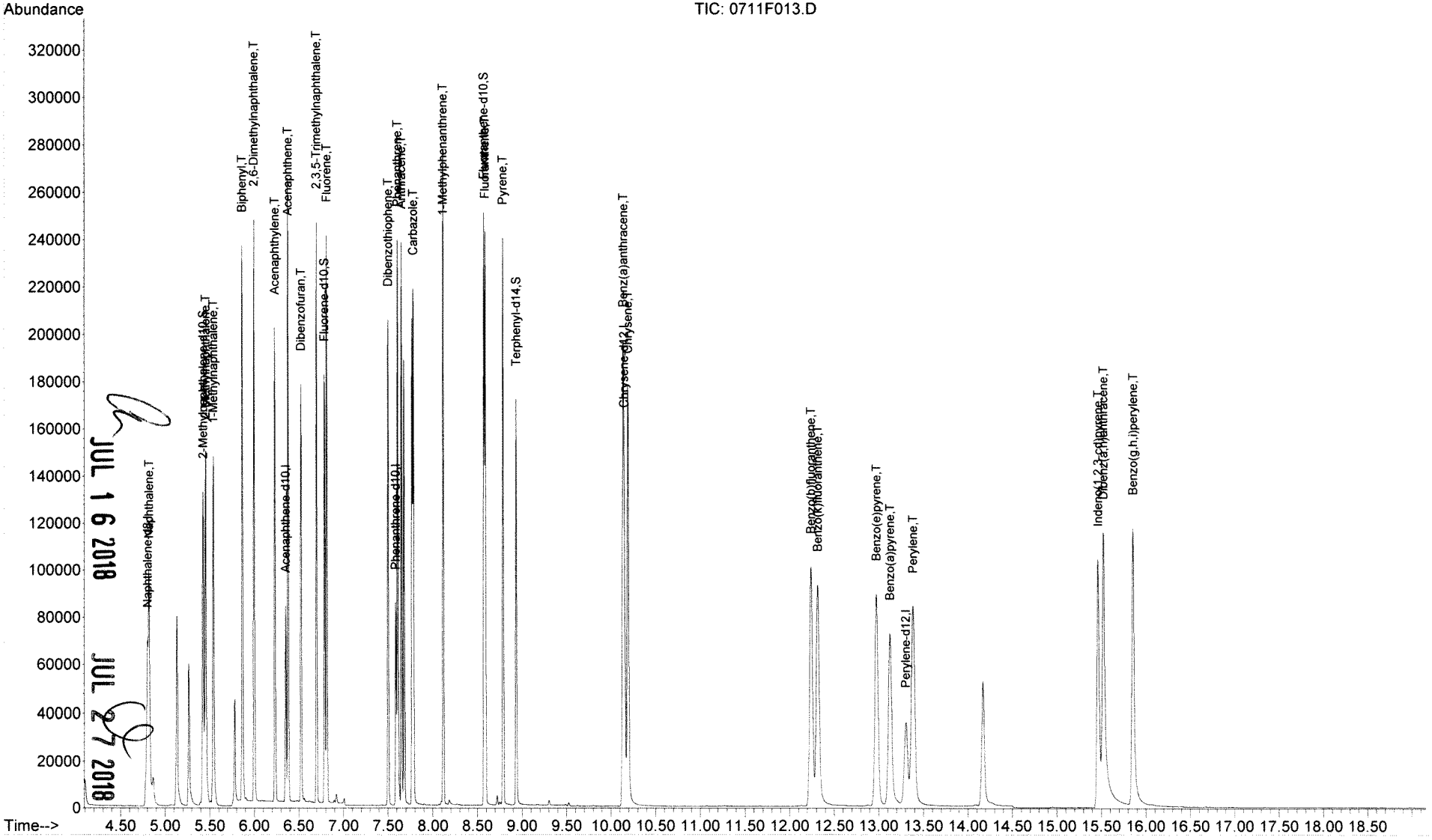
JUL 27 2018

(#) = qualifier out of range (m) = manual integration
0711F013.D 071118PAH.M Mon Jul 16 09:14:44 2018 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS14\DATA\071118\0711F013.D Vial: 13
Acq On : 11 Jul 2018 12:36 pm Operator: LWeiskopf
Sample : SIM-PAH ICV @ 0.4ug/mL | SVM59-4K Inst : MS14
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Jul 16 9:14 2018 Quant Results File: 071118PAH.RES

Method : J:\MS14\METHODS\SIM\071118PAH.M (RTE Integrator)
Title : PAHS and ALKYLATED HOMOLOGS
Last Update : Wed Jul 11 12:42:44 2018
Response via : Initial Calibration



JUL 16 2018

JUL 27 2018

Preparation Information

Group ID:	KWG1805647	**Prep Method:**	EPA 3541	**Prep Date:**	11/01/18 09:31
Department:	Semivoa GCMS				

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.	Solids
~~K1810302-001~~	~~K6-0to28-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.436g~~	~~2mL~~	~~32.1~~
~~K1810302-002~~	~~O4-0to28-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.100g~~	~~2mL~~	~~30.2~~
~~K1810302-003~~	~~M5-0to25-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.146g~~	~~2mL~~	~~36.7~~
~~K1810302-004~~	~~K4-0to28-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.255g~~	~~2mL~~	~~34.2~~
~~K1810302-005~~	~~O7-0to27-101918~~	8270D PAH SIM ULL	SEDIMENT	40.272g	~~2mL~~	~~33.8~~
~~K1810302-006~~	~~O5-0to27-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.112g~~	~~2mL~~	~~33.6~~
~~K1810302-007~~	~~K7-0to24-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.198g~~	~~2mL~~	~~35.7~~
~~K1810302-008~~	~~M6-0to26-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.316g~~	~~2mL~~	~~33.4~~
~~K1810302-009~~	~~M7-0to29-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.216g~~	~~2mL~~	31.6
~~K1810302-010~~	~~K5-0to27-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.285g~~	~~2mL~~	~~30.6~~
~~K1810302-011~~	~~515-0to26-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.140g~~	~~2mL~~	39.7
~~K1810302-012~~	~~O6-0to27-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.167g~~	~~2mL~~	~~30.8~~
~~K1810302-013~~	~~M4-0to26-101918~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	~~40.270g~~	~~2mL~~	~~39.9~~
K1810302-022	D6-SC-64to88-102118	8270D PAH SIM ULL	SEDIMENT	40.237g	2mL	66.0
K1810302-023	D6-SC-40to64-102118	8270D PAH SIM ULL	SEDIMENT	40.117g	2mL	54.7
K1810302-024	H3-SC-99to114-102118	8270D PAH SIM ULL	SEDIMENT	40.111g	2mL	69.9
K1810302-026	H3-SC-46to63-102118	8270D PAH SIM ULL	SEDIMENT	40.236g	2mL	67.8
K1810302-027	D6-SC-0to1-102118	8270D PAH SIM ULL	SEDIMENT	40.092g	2mL	42.9
K1810302-028	H3-SC-1to2-102118	8270D PAH SIM ULL	SEDIMENT	40.131g	2mL	52.0
K1810302-029	D6-SC-1to2-102118	8270D PAH SIM ULL	SEDIMENT	40.362g	2mL	45.9
KWG1805647-1	Matrix Spike	8270D PAH SIM ULL	SEDIMENT	40.185g	2mL	66.0
KWG1805647-2	Duplicate Matrix Spike	8270D PAH SIM ULL	SEDIMENT	40.109g	2mL	66.0
KWG1805647-3	Lab Control Sample	8270D PAH SIM ULL	SEDIMENT	20.000g	2mL	
KWG1805647-4	Method Blank	8270D PAH SIM ULL	SEDIMENT	40.436g	2mL	

Lab Code	Parent Lab Code	Comments
KWG1805647-1	K1810302-022	KQ1815425-01
KWG1805647-2	K1810302-022	KQ1815425-02
KWG1805647-3		KQ1815425-03
KWG1805647-4		KQ1815425-04

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1810302-001	1701140					
K1810302-002	1701141					
K1810302-003	1701142					
K1810302-004	1701143					

Comments: ★Canceled by PM TP 11/5/18 TP — 11/8/18

IS = SVM 57-1801

Started By: KPrescot — Assisted By: — Training: Yes / No

Completed By: TPottsch — Assisted By: — Yes / No

Reviewed By: — Date: 11/7/18 — Storage: K-Tundra MS/14 11/8/18

Chain of Custody

Relinquished By: TP — Date: 11/5/18

Received By: — Date: 11/8/18 — Extracts Examined: Yes / No

Group ID:	KWG1805647	**Prep Method:**	EPA 3541	**Prep Date:**	11/01/18 09:31
Department:	Semivoa GCMS				

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1810302-005	1701144					
K1810302-006	1701145					
K1810302-007	1701146					
K1810302-008	1701147					
K1810302-009	1701148					
K1810302-010	1701149					
K1810302-011	1701150					
K1810302-012	1701151					
K1810302-013	1701152					
K1810302-022	1701153					
K1810302-023	1701154					
K1810302-024	1701155					
K1810302-026	1701156					
K1810302-027	1701157					
K1810302-028	1701158					
K1810302-029	1701159					
KWG1805647-1	1701160					
KWG1805647-2	1701161					
KWG1805647-3	1701162					
KWG1805647-4	1701163					

Comments:

Started By: KPrescot Assisted By: –

Completed By: TPottsch Assisted By: –

Training: Yes / No (No circled)

Reviewed By: [signature] Date: 11/7/18 Storage: K+Tundra

Training: Yes / No

Chain of Custody

Relinquished By: TP Date: 11/5/18

Received By: [signature] Date: 11/8/18

Extracts Examined: Yes / No

Preparation Information

Group ID: KWG1805647 **Prep Method:** EPA 3541 **Prep Date:** 11/01/18 00:00
Department: Semivoa GCMS

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. g	pH	Int. Vol. mL	Final Vol. mL	Surr. Added µL	Spike Added µL
1	K1810302-001	K6-0to28-101918 1A	.01	✓	8270D PAH SIM ULL	SEDIMENT	*	N/A			20	-
2	K1810302-002	O4-0to28-101918 1B	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					
3	K1810302-003	M5-0to25-101918 1C	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					
4	K1810302-004	K4-0to28-101918 1D	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					
5	K1810302-005	O7-0to27-101918 1E	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					-
6	K1810302-006	O5-0to27-101918 1F	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					
7	K1810302-007	K7-0to24-101918 2A	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					
8	K1810302-008	M6-0to26-101918 2B	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					
9	K1810302-009	M7-0to29-101918 2C	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					-
10	K1810302-010	K5-0to27-101918 2D	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					-
11	K1810302-011	S15-0to26-101918 2E	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					-
12	K1810302-012	O6-0to27-101918 2F	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					-
13	K1810302-013	M4-0to26-101918 3A	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					-
14	K1810302-022	D6-SC-64to88-102118 3B	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2	20	-
15	K1810302-023	D6-SC-40to64-102118 3C	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
16	K1810302-024	H3-SC-99to114-102118 3D	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
17	K1810302-026	H3-SC-46to63-102118 3E	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-

Comments: *See Pre-Prep Information Benchsheet. KRP 11/01/18. PREPRUN: 324897
*canced as per pm 11/2/18

Surrogate ID: AP: SVM59-50D 100/150ppm XP:03/04/19 20ul Syringe. S-92
Spike ID: SIMPAH: SVM59-51F 25ppm XP:03/07/19 80ul Syringe. S-90
Witness: [signature] 11-1-18

Started By: KPrescot Assisted By: —
Completed By: TP Assisted By: —

Group ID:	KWG1805647	**Prep Method:**	EPA 3541	**Prep Date:** 11/01/18 00:00
Department:	Semivoa GCMS			

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. g	pH	Int. Vol. mL	Final Vol. mL	Surr. Added µL	Spike Added µL
18	K1810302-027	D6-SC-0to1-102118 3F	.01	✓	8270D PAH SIM ULL	SEDIMENT	*	N/A	10	2	20	-
19	K1810302-028	H3-SC-1to2-102118 1A	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
20	K1810302-029	D6-SC-1to2-102118 1B	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
21	KWG1805647-1	Matrix Spike K1810302-022 1C	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		80
22	KWG1805647-2	Duplicate Matrix Spike K1810302-022 1D	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		
23	KWG1805647-3	Lab Control Sample 1E	-	-	8270D PAH SIM ULL	SEDIMENT	20.000		10	2		
24	KWG1805647-4	Method Blank 1F	-	-	8270D PAH SIM ULL	SEDIMENT	40.436		10	2		-

Comments: * See Pre-Prep Information Benchsheet - KRP 11/01/18.

Surrogate ID: SEE PAGE 1

Spike ID: SEE PAGE 1

Witness: [signature] 11-1-18

Started By: KPrescot Assisted By: —

Completed By: TP Assisted By: —

[redacted]

Additional Prep Information for EPA 3541
PAH

Service Request K1810302 Workgroup KWG1805647

Sulfate Lot # 178434 DCM (GC²) Lot # JV142-US Glass Wool Lot# 21317999
Date/Time/Initials Weighed: — Balance ID: — Calibration Verified —

Storage Location (if not extracted same day): —

Soxtherm/s unit I.D# K-SOX-01(02)/03

Soxtherm Start (Time/Date/Initial): 0931 11/01/18 KLP

Soxtherm Stop (Time/Date/Initial): 1652 11/01/18 KLP

N-Evap (Time/Date/Initial): 08:41 11/2/18 TP N-Evap Therm. ID: X-SVM-010
Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Hexane Exchange for Silica Gel (Time/Date/Initial): 11:32 11/2/18 TP
Hexane Lot # 192699 N-Evap Therm. ID: X-SVM-010
Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Silica Gel Clean-up (3630) (Time/Date/Initial): 14:13 11/2/18 TP

Silica Column Lot # EXT002-35P 1:1 Hexane/DCM Reagent Lot # EXT002-32X
Turbovap (Time/Date/Initial): 11:02 11/5/18 TP Turbovap Therm. ID: X-turbovap-005
Temp as measured: 27.0 °C Correction factor: 0.0 °C Adjusted temp: 27.0 °C

Pipet Lots: Intermediate Volume 1149/8647 Final Volume 20717645

Extract Storage: Def Leppard

Completed (Time/Date/Initial): 15:51 11/5/18 TP

Comments/Observations: _____

Bench Sheet Review Check List	
☑	Hold Times Met (if no, Reason: _____)
☑	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

R:\Extractions\Active Benchsheets\3541\AddPrep 3541PAH.doc
Reviewed by: Carlus Pollard 6/8/18

SOP: EXT-3541 Rev. 10

ALS Environmental

Appendix from EXT-3541
For Extracting PAHs in Soil or Tissue
by EPA Method 3541

Procedure:

Note: All Na_2SO_4 must be DCM rinsed granular anhydrous Na_2SO_4. Also, all lab equipment that will have contact with the sample or sample extract must be thoroughly rinsed with the extraction solvent prior to use.

1. Run the rinse cycle on Soxtherms prior to sample extraction. See EXT-3541 SOP and Operation Manual for programming instructions. ***Note:** ULL and Tissue glassware must be baked prior to use.*
Prog. =01, Temp. Limit=200°, Ext. temp. =140°, Boil time=10m., Red. A=1x15ml, Ext. time=10m., Red B=1x15ml, sol. cool=30m., Red. int. =5m., Red pulse=5s, time 56m.
2. Thoroughly mix sample. Remove large rocks, sticks, leaves and other organic matter unless this is the primary make-up of the sample. Weigh approximately (see chart) *initial weight* into a 250ml beaker. Record weight using all figures displayed on the scale.
3. Use Na_2SO_4 [a] for the MB, LCS, and DLCS. If requested, weigh out appropriate SRM for analysis.
4. Mix sample with DCM rinsed Na_2SO_4 [a] and dry until sample is sandy and free flowing. More Na_2SO_4 can be added if needed, but be careful that the amount of sulfate used will not over fill the thimble capacity (~100mL mark on beaker). If two thimbles are needed, split extracts are then combined during reduction.
5. Quantitatively transfer dried extract to assembled Soxtherm thimble. Be careful not to contaminate neighboring glassware.
6. Add surrogate and matrix spikes. See chart.
7. Add enough DCM to cover samples completely.
8. Place sample on Soxtherm and run the associated program. See EXT-3541 SOP and Operation Manual for programming instructions.
Prog. =04 Temp. Limit=200°, Ext. temp. =140°, Boil time=1h., Red. A=3x15ml, Ext. time=1h., Red B=6x15ml, sol. cool=30m., Red. int. =5m., Red pulse=5s, time 3h3m.
9. Be careful that the extract does not go dry. The goal is a volume of 10 to 20ml. after reductions. Samples are removed and immediately covered in foil as soon as this level is reached to allow other samples to continue the reduction step. Additional reductions may be required.
10. Quantitatively transfer the extract to culture tubes.
11. Take Sample to an intermediate volume in DCM.
12. Pull off an aliquot of extract and solvent exchange into hexane by adding ~1mL of hexane to extract and concentrating back down to ~1mL on N-Evap. Repeat two more times.
13. Condition silica gel columns 3 times with DCM and 3 times with Hexane.
14. Place a test tube under column and add extract to silica gel column.
15. Elute 4 times with 1:1 DCM/Hexane.
16. Concentrate the extracts to 1mL on turbovap. Place 1 mL of extract into PAH vials.
17. Complete all necessary paperwork.

Test	Initial Weight	Surrogate Added	Spike Added	Intermediate Volume	Vial Color	Calculated Final Volume
SIM-PAH/ SIMALK Soils/Paperboards	10 grams dry	AP / 20µL	PAH / 200µL	20mL	Green	10mL
SIM-PAH UL Solids	20 grams dry	AP / 20µL	PAH / 80µL	2mL	Green	2mL
SIM-PAH UL Tissue	10 grams wet	AP / 20µL	PAH / 100µL	N/A	Pink	1mL
SIM-PAH Tissue	10 grams wet	AP / 20µL	PAH / 200µL	20mL	Pink	10mL
SIM-PAH Wipe/Filter	1 wipe	AP / 10µL	PAH / 20µL	20mL	Green	1mL

Pre-Prep Information Benchsheet

Prep Run #: 324897 **Prep Method:** **Team:** **Container Lot No:** 081318-1TW **Prep Due Date:** Nov-09-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810302-001	.01	PAH SIM ULL	40.436g		PrepComments:APOSEY K-BALANCE-48 10232018
2	K1810302-002	.01	PAH SIM ULL	40.100g		PrepComments:APOSEY K-BALANCE-48 10242018
3	K1810302-003	.01	PAH SIM ULL	40.146g		PrepComments:APOSEY K-BALANCE-48 10242018
4	K1810302-004	.01	PAH SIM ULL	40.255g		PrepComments:APOSEY K-BALANCE-48 10242018
5	K1810302-005		PAH SIM ULL	40.272g		PrepComments:GBEATLEY k-balance-49
6	K1810302-006		PAH SIM ULL	40.112g		PrepComments:GBEATLEY k-balance-49
7	K1810302-007		PAH SIM ULL	40.198g		PrepComments:GBEATLEY k-balance-49
8	K1810302-008		PAH SIM ULL	40.316g		PrepComments:GBEATLEY k-balance-49
9	K1810302-009		PAH SIM ULL	40.216g		PrepComments:GBEATLEY k-balance-49
10	K1810302-010		PAH SIM ULL	40.285g		PrepComments:GBEATLEY k-balance-49
11	K1810302-011		PAH SIM ULL	40.140g		PrepComments:GBEATLEY k-balance-49
12	K1810302-012		PAH SIM ULL	40.167g		PrepComments:GBEATLEY k-balance-49
13	K1810302-013		PAH SIM ULL	40.270g		PrepComments:GBEATLEY k-balance-49
14	K1810302-022	.01	PAH SIM ULL	40.237g		PrepComments:GBEATLEY k-balance-49
15	K1810302-022 MS KQ1815425-01	.01	PAH SIM ULL	40.185g		PrepComments:GBEATLEY k-balance-49
16	K1810302-022 DMS KQ1815425-02	.01	PAH SIM ULL	40.109g		PrepComments:GBEATLEY k-balance-49
17	K1810302-023		PAH SIM ULL	40.117g		PrepComments:GBEATLEY k-balance-49
18	K1810302-024		PAH SIM ULL	40.111g		PrepComments:GBEATLEY k-balance-49
19	K1810302-026	.01	PAH SIM ULL	40.236g		PrepComments:GBEATLEY k-balance-49
20	K1810302-027		PAH SIM ULL	40.092g		PrepComments:GBEATLEY k-balance-49
21	K1810302-028		PAH SIM ULL	40.131g		PrepComments:GBEATLEY k-balance-49
22	K1810302-029	.01	PAH SIM ULL	40.362g		PrepComments:GBEATLEY k-balance-49

Relinquished By:	Date/Time:	Received By:	Date/Time:
	10/24/18 1445		10/30/18

Preparation Information

Group ID:	KWG1805648	**Prep Method:**	EPA 3541	**Prep Date:**	11/01/18 18:15
Department:	Semivoa GCMS				

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.	Solids
K1810302-025	D6-SC-88to108-102118	8270D PAH SIM ULL	SEDIMENT	40.018g	2mL	71.5
K1810305-001	H3-SC-29to46-102118	8270D PAH SIM ULL	SEDIMENT	40.068g	2mL	74.4
K1810305-002	H3-SC-85to99-102118	8270D PAH SIM ULL	SEDIMENT	40.135g	2mL	61.5
~~K1810305-003~~	~~R4-SC-138to142-102118~~	~~8270D PAH SIM ULL~~	~~SEDIMENT~~	40.083g	2mL	~~77.6~~
K1810305-004	H3-SC-0to1-102118	8270D PAH SIM ULL	SEDIMENT	40.104g	2mL	47.9
K1810305-005	H3-SC-2to29-102118	8270D PAH SIM ULL	SEDIMENT	40.188g	2mL	54.9
K1810305-006	H3-SC-63to85-102118	8270D PAH SIM ULL	SEDIMENT	40.227g	2mL	53.1
K1810305-007	D6-SC-108to123-102118	8270D PAH SIM ULL	SEDIMENT	40.270g	2mL	70.4
K1810305-008	D6-SC-2to4-102118	8270D PAH SIM ULL	SEDIMENT	40.030g	2mL	48.3
K1810305-009	R4-SC-0to1-102118	8270D PAH SIM ULL	SEDIMENT	40.324g	2mL	41.3
K1810305-010	R4-SC-1to2-102118	8270D PAH SIM ULL	SEDIMENT	40.111g	2mL	49.2
K1810305-011	R4-SC-6to8-102118	8270D PAH SIM ULL	SEDIMENT	40.019g	2mL	54.6
K1810305-012	R4-SC-2to4-102118	8270D PAH SIM ULL	SEDIMENT	40.109g	2mL	52.4
K1810305-013	R4-SC-4to6-102118	8270D PAH SIM ULL	SEDIMENT	40.083g	2mL	52.3
K1810305-014	R4-SC-8to10-102118	8270D PAH SIM ULL	SEDIMENT	40.334g	2mL	54.4
K1810305-015	R4-SC-10to12-102118	8270D PAH SIM ULL	SEDIMENT	40.133g	2mL	54.2
K1810305-016	R4-SC-120to138-102118	8270D PAH SIM ULL	SEDIMENT	40.098g	2mL	57.8
KWG1805648-1	Matrix Spike	8270D PAH SIM ULL	SEDIMENT	40.148g	2mL	61.5
KWG1805648-2	Duplicate Matrix Spike	8270D PAH SIM ULL	SEDIMENT	40.344g	2mL	61.5
KWG1805648-3	Lab Control Sample	8270D PAH SIM ULL	SEDIMENT	20.000g	2mL	
KWG1805648-4	Method Blank	8270D PAH SIM ULL	SEDIMENT	40.334g	2mL	

Lab Code	Parent Lab Code	Comments
KWG1805648-1	K1810305-002	KQ1815506-01
KWG1805648-2	K1810305-002	KQ1815506-02
KWG1805648-3		KQ1815506-03
KWG1805648-4		KQ1815506-04

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1810302-025	1701212					
K1810305-001	1701164					
K1810305-002	1701165					
K1810305-003	1701166					
K1810305-004	1701167					
K1810305-005	1701168					
K1810305-006	1701169					

Comments: *canceled by PM TP 11/5/18 IS = SVM 57-106D

Started By: KPrescot Assisted By: –

Completed By: TPottsch Assisted By: –

Training: Yes / No

Yes / No

Reviewed By: [signature] Date: 11/7/18 Storage: K-Tunara

Chain of Custody

Relinquished By: TP Date: 11/5/18

Received By: [signature] Date: 11/8/18

Extracts Examined: Yes / No

Group ID:	KWG1805648	**Prep Method:**	EPA 3541	**Prep Date:**	11/01/18 18:15
Department:	Semivoa GCMS				

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1810305-007	1701170					
K1810305-008	1701171					
K1810305-009	1701172					
K1810305-010	1701173					
K1810305-011	1701174					
K1810305-012	1701175					
K1810305-013	1701176					
K1810305-014	1701177					
K1810305-015	1701178					
K1810305-016	1701179					
KWG1805648-1	1701180					
KWG1805648-2	1701181					
KWG1805648-3	1701182					
KWG1805648-4	1701183					

Comments:

Started By: KPrescot Assisted By: —

Completed By: TPottsch Assisted By: —

Training: Yes / No (No circled)

Reviewed By: [signature] Date: 11/7/18 Storage: K-Tundra

Training: Yes / No

Chain of Custody

Relinquished By: TP Date: 11/5/18

Received By: [signature] Date: 11/8/18

Extracts Examined: Yes (circled) / No

Preparation Information

Group ID:	KWG1805648	**Prep Method:**	EPA 3541	**Prep Date:**	11/01/18 00:00
Department:	Semivoa GCMS				

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. g	pH	Int. Vol. mL	Final Vol. mL	Surr. Added µL	Spike Added µL
1	K1810302-025	D6-SC-88to108-102118 3B	.01	✓	8270D PAH SIM ULL	SEDIMENT	*	N/A	10	2	20	-
2	K1810305-001	H3-SC-29to46-102118 1A	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
3	K1810305-002	H3-SC-85to99-102118 1B	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
4	K1810305-003	R4-SC-138to142-102118 1C	.01	✓	8270D PAH SIM ULL	SEDIMENT	*					-
5	K1810305-004	H3-SC-0to1-102118 1D	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
6	K1810305-005	H3-SC-2to29-102118 1E	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
7	K1810305-006	H3-SC-63to85-102118 1F	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
8	K1810305-007	D6-SC-108to123-102118 2A	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
9	K1810305-008	D6-SC-2to4-102118 2B	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
10	K1810305-009	R4-SC-0to1-102118 2C	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
11	K1810305-010	R4-SC-1to2-102118 2D	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
12	K1810305-011	R4-SC-6to8-102118 2E	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
13	K1810305-012	R4-SC-2to4-102118 2F	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
14	K1810305-013	R4-SC-4to6-102118 3A	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
15	K1810305-014	R4-SC-8to10-102118 3B	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
16	K1810305-015	R4-SC-10to12-102118 3C	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
17	K1810305-016	R4-SC-120to138-102118 3D	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-

Comments: *See Pre-Prep Information Benchsheet. KKP 11/01/18. PREPRUN:325012

*Canceled per pm TP 11/2/18

Surrogate ID: AP: SVM59-500 100/150ppm XP:03/04/19 20ul Syringe. S-92

Spike ID: SVM PAH: SVM59-51F 25ppm XP:03/07/19 80ul Syringe. S-90

Witness: 11/1/18

Started By: KPrescot Assisted By: KV

Completed By: ~~15:45~~ TP EE TP 11/3/18 Assisted By: —

Group ID: KWG1805648 **Prep Method:** EPA 3541 **Prep Date:** 11/01/18 00:00
Department: Semivoa GCMS

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. g	pH	Int. Vol. mL	Final Vol. mL	Surr. Added µL	Spike Added µL
18	KWG1805648-1	Matrix Spike K1810305-002 3A	.01	√	8270D PAH SIM ULL	SEDIMENT	*	N/A	10	2	20	80
19	KWG1805648-2	Duplicate Matrix Spike K1810305-002 3C	.01	√	8270D PAH SIM ULL	SEDIMENT	*		10	2		
20	KWG1805648-3	Lab Control Sample 3E	-	-	8270D PAH SIM ULL	SEDIMENT	20.000		10	2		
21	KWG1805648-4	Method Blank 3F	-	-	8270D PAH SIM ULL	SEDIMENT	40.344		10	2		-

Comments: *See Pre-Prep Information Benchsheet - LLL 11/01/18.

Surrogate ID: SEE PAGE 1
Spike ID: SEE PAGE 1
Witness: 11/1/18

Started By: KPrescot Assisted By: KV
Completed By: TP Assisted By: -

Printed: 11/01/2018 08:17:53 Preparation Information Page 2 of 2
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Additional Prep Information for EPA 3541
PAH

Service Request K1810302/0305 Workgroup KWG1805648

Sulfate Lot # 178434 DCM (GC^2) Lot # DU142-US Glass Wool Lot# 213/7999
Date/Time/Initials Weighed: — Balance ID: — Calibration Verified ☒

Storage Location (if not extracted same day): —

Soxtherm/s unit I.D# K-SOX-01/02/03

Soxtherm Start (Time/Date/Initial): 1815 11/01/18 KRP

Soxtherm Stop (Time/Date/Initial): 0704 11/02/18 KRP

N-Evap (Time/Date/Initial): 09:26 11/2/18 TP N-Evap Therm. ID: X-SVM-010
Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Hexane Exchange for Silica Gel (Time/Date/Initial): 11:32 11/2/18 TP
Hexane Lot # 192699 N-Evap Therm. ID: X-SVM-010
Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Silica Gel Clean-up (3630) (Time/Date/Initial): 14:13 11/2/18 TP

Silica Column Lot # Ext002-35P 1:1 Hexane/DCM Reagent Lot # Ext002-32X
Turbovap (Time/Date/Initial): 10:35 11/5/18 TP Turbovap Therm. ID: K-Turbovap-005
Temp as measured: 28.0 °C Correction factor: 00 °C Adjusted temp: 28.0 °C

Pipet Lots: Intermediate Volume 149/847 Final Volume 20717645

Extract Storage: Def leppard

Completed (Time/Date/Initial): 15:42 11/5/18 TP

Comments/Observations: —

Bench Sheet Review Check List	
☑	Hold Times Met (if no, Reason:)
☑	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

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Reviewed by: Carlus Pollard 6/8/18 SOP: EXT-3541 Rev. 10

ALS Environmental

Appendix from EXT-3541
For Extracting PAHs in Soil or Tissue
by EPA Method 3541

Procedure:

Note: All Na_2SO_4 must be DCM rinsed granular anhydrous Na_2SO_4. Also, all lab equipment that will have contact with the sample or sample extract must be thoroughly rinsed with the extraction solvent prior to use.

1. Run the rinse cycle on Soxtherms prior to sample extraction. See EXT-3541 SOP and Operation Manual for programming instructions. ***Note:** ULL and Tissue glassware must be baked prior to use.*

Prog. =01, Temp. Limit=200°, Ext. temp. =140°, Boil time=10m., Red. A=1x15ml, Ext. time=10m., Red B=1x15ml, sol. cool=30m., Red. int. =5m., Red pulse=5s, time 56m.

2. Thoroughly mix sample. Remove large rocks, sticks, leaves and other organic matter unless this is the primary make-up of the sample. Weigh approximately (see chart) *initial weight* into a 250ml beaker. Record weight using all figures displayed on the scale.
3. Use Na_2SO_4 [a] for the MB, LCS, and DLCS. If requested, weigh out appropriate SRM for analysis.
4. Mix sample with DCM rinsed Na_2SO_4 [a] and dry until sample is sandy and free flowing. More Na_2SO_4 can be added if needed, but be careful that the amount of sulfate used will not over fill the thimble capacity (~100mL mark on beaker). If two thimbles are needed, split extracts are then combined during reduction.
5. Quantitatively transfer dried extract to assembled Soxtherm thimble. Be careful not to contaminate neighboring glassware.
6. Add surrogate and matrix spikes. See chart.
7. Add enough DCM to cover samples completely.
8. Place sample on Soxtherm and run the associated program. See EXT-3541 SOP and Operation Manual for programming instructions.

Prog. =04 Temp. Limit=200°, Ext. temp. =140°, Boil time=1h., Red. A=3x15ml, Ext. time=1h., Red B=6x15ml, sol. cool=30m., Red. int. =5m., Red pulse=5s, time 3h3m.

9. Be careful that the extract does not go dry. The goal is a volume of 10 to 20ml. after reductions. Samples are removed and immediately covered in foil as soon as this level is reached to allow other samples to continue the reduction step. Additional reductions may be required.
10. Quantitatively transfer the extract to culture tubes.
11. Take Sample to an intermediate volume in DCM.
12. Pull off an aliquot of extract and solvent exchange into hexane by adding ~1mL of hexane to extract and concentrating back down to ~1mL on N-Evap. Repeat two more times.
13. Condition silica gel columns 3 times with DCM and 3 times with Hexane.
14. Place a test tube under column and add extract to silica gel column.
15. Elute 4 times with 1:1 DCM/Hexane.
16. Concentrate the extracts to 1mL on turbovap. Place 1 mL of extract into PAH vials.
17. Complete all necessary paperwork.

Test	Initial Weight	Surrogate Added	Spike Added	Intermediate Volume	Vial Color	Calculated Final Volume
SIM-PAH/ SIMALK Soils/Paperboards	10 grams dry	AP / 20µL	PAH / 200µL	20mL	Green	10mL
SIM-PAH UL Solids	20 grams dry	AP / 20µL	PAH / 80µL	2mL	Green	2mL
SIM-PAH UL Tissue	10 grams wet	AP / 20µL	PAH / 100µL	N/A	Pink	1mL
SIM-PAH Tissue	10 grams wet	AP / 20µL	PAH / 200µL	20mL	Pink	10mL
SIM-PAH Wipe/Filter	1 wipe	AP / 10µL	PAH / 20µL	20mL	Green	1mL

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Reviewed by: Carlus Pollard 6/8/18

SOP: EXT-3541 Rev. 10

Pre-Prep Information Benchsheet

Prep Run #: 325012 **Prep Method:** **Team:** **Container Lot No:** 052118-1BNU **Prep Due Date:** Nov-09-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810305-001	.01	PAH SIM ULL	40.068g		PrepComments:GBEATLEY k-balance-49
2	K1810305-002	.01	PAH SIM ULL	40.135g		PrepComments:GBEATLEY k-balance-49
3	K1810305-002 MS KQ1815506-01	.01	PAH SIM ULL	40.148g		PrepComments:GBEATLEY k-balance-49
4	K1810305-002 DMS KQ1815506-02	.01	PAH SIM ULL	40.344g		PrepComments:GBEATLEY k-balance-49
5	K1810305-003	.01	PAH SIM ULL	40.083g		PrepComments:GBEATLEY k-balance-49
6	K1810305-004	.01	PAH SIM ULL	40.104g		PrepComments:GBEATLEY k-balance-49
7	K1810305-005	.01	PAH SIM ULL	40.188g		PrepComments:GBEATLEY k-balance-49
8	K1810305-006	.01	PAH SIM ULL	40.227g		PrepComments:GBEATLEY k-balance-49
9	K1810305-007	.01	PAH SIM ULL	40.270g		PrepComments:GBEATLEY k-balance-49
10	K1810305-008	.01	PAH SIM ULL	40.030g		PrepComments:GBEATLEY k-balance-49
11	K1810305-009	.01	PAH SIM ULL	40.324g		PrepComments:GBEATLEY k-balance-49
12	K1810305-010	.01	PAH SIM ULL	40.111g		PrepComments:GBEATLEY k-balance-49
13	K1810305-011	.01	PAH SIM ULL	40.019g		PrepComments:GBEATLEY k-balance-49
14	K1810305-012	.01	PAH SIM ULL	40.109g		PrepComments:GBEATLEY k-balance-49
15	K1810305-013	.01	PAH SIM ULL	40.083g		PrepComments:GBEATLEY k-balance-49
16	K1810305-014	.01	PAH SIM ULL	40.334g		PrepComments:GBEATLEY k-balance-49
17	K1810305-015	.01	PAH SIM ULL	40.133g		PrepComments:GBEATLEY k-balance-49
18	K1810305-016	.01	PAH SIM ULL	40.098g		PrepComments:GBEATLEY k-balance-49

Relinquished By: GBeatley	Date/Time: 10/25/18 1400	Received By: KH	Date/Time: 10/30/18 1730

Pre-Prep Information Benchsheet

325012

Prep Run #: ~~324895~~ **Prep Method:** **Team:** **Container Lot No:** 081318-1TW **Prep Due Date:** Nov-09-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810302-025		PAH SIM ULL	40.018g		PrepComments:GBEATLEY k-balance-49
2	~~K1810302-025 MS~~ ~~KQ1815423-01~~		~~PAH SIM ULL~~	~~40.338g~~		PrepComments:GBEATLEY k-balance-49
3	~~K1810302-025 DMS~~ ~~KQ1815423-02~~		~~PAH SIM ULL~~	~~40.089g~~		PrepComments:GBEATLEY k-balance-49

Sample batched w/ prep run # 325012. QC not needed. KKP 11/01/18.

Relinquished By:	Date/Time:	Received By:	Date/Time:
GBeatley	10/24/18 1441	KKP	10/30/18

Preparation Information

Group ID:	KWG1805796	**Prep Method:**	EPA 3541	**Prep Date:**	11/07/18 13:45
Department:	Semivoa GCMS				

Lab Code	Client ID	Product	Matrix	Amt. Ext.	Final Vol.	Solids
K1810270-001	N3-0to26-101518	8270D PAH SIM ULL	SEDIMENT	40.062g	2mL	74.3
K1810302-016	A1-0to30-102018	8270D PAH SIM ULL	SEDIMENT	40.044g	2mL	
K1810430-001	E-8.99-0to28-102418	8270D PAH SIM ULL	SOIL	40.037g	2mL	28.5
K1810430-002	C-8.94-0to27-102418	8270D PAH SIM ULL	SOIL	40.004g	2mL	30.2
K1810430-003	D-8.90-0to27-102418	8270D PAH SIM ULL	SOIL	40.007g	2mL	34.7
K1810430-004	D-8.83-0to25-102418	8270D PAH SIM ULL	SOIL	40.011g	2mL	34.7
K1810430-005	E-9.02-0to26-102418	8270D PAH SIM ULL	SOIL	40.028g	2mL	35.0
K1810430-006	B-9.00-0to29-102418	8270D PAH SIM ULL	SOIL	40.009g	2mL	27.7
K1810430-007	512-0to29-102418	8270D PAH SIM ULL	SOIL	40.052g	2mL	27.3
K1810430-008	D-9.09-0to29-102418	8270D PAH SIM ULL	SOIL	40.011g	2mL	32.2
K1810430-009	A-9.03-0to26-102418	8270D PAH SIM ULL	SOIL	40.044g	2mL	28.8
K1810430-010	B-9.15-0to30-102418	8270D PAH SIM ULL	SOIL	40.077g	2mL	46.5
K1810430-011	G-9.15-0to18-102418	8270D PAH SIM ULL	SOIL	40.080g	2mL	74.1
K1810683-001	PDI-ST-T06B-1810	8270D PAH SIM ULL	SEDIMENT	40.124g	2mL	25.3
K1810683-002	PDI-ST-T06A-1810	8270D PAH SIM ULL	SEDIMENT	40.049g	2mL	25.6
K1810683-003	PDI-ST-T07A-1810	8270D PAH SIM ULL	SEDIMENT	40.332g	2mL	22.3
K1810683-004	PDI-ST-T07B-1810	8270D PAH SIM ULL	SEDIMENT	40.085g	2mL	21.4
KWG1805796-1	Matrix Spike	8270D PAH SIM ULL	SOIL	40.057g	2mL	35.0
KWG1805796-2	Duplicate Matrix Spike	8270D PAH SIM ULL	SOIL	40.011g	2mL	35.0
KWG1805796-3	Matrix Spike	8270D PAH SIM ULL	SEDIMENT	40.064g	2mL	25.6
KWG1805796-4	Duplicate Matrix Spike	8270D PAH SIM ULL	SEDIMENT	40.114g	2mL	25.6
KWG1805796-5	Lab Control Sample	8270D PAH SIM ULL	SEDIMENT	20.000g	2mL	
KWG1805796-6	Method Blank	8270D PAH SIM ULL	SEDIMENT	40.332g	2mL	

Lab Code	Parent Lab Code	Comments
KWG1805796-1	K1810430-005	KQ1815762-01
KWG1805796-2	K1810430-005	KQ1815762-02
KWG1805796-3	K1810683-002	KQ1815762-03
KWG1805796-4	K1810683-002	KQ1815762-04
KWG1805796-5		KQ1815762-05
KWG1805796-6		KQ1815762-06

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1810270-001	1702211					
K1810302-016	1702212					
K1810430-001	1702213					

Comments: IS = SV-557-100D

Started By: KPrescot Assisted By: —

Completed By: TPottsch Assisted By: —

Training: Yes / No (No) — Yes / No (No)

Reviewed By: [signature] Date: 11/13/18 Storage: K-Tundra MS14

Chain of Custody

Relinquished By: [signature] Date: 11/12/18

Received By: [signature] Date: 11/14/18

Extracts Examined: (Yes) / No

Group ID:	KWG1805796	**Prep Method:**	EPA 3541	**Prep Date:**	11/07/18 13:45
Department:	Semivoa GCMS				

Lab Code	Prep Event ID	Surrogate Solution ID	Amount Added	Spike Solution ID	Amount Added	Witness
K1810430-002	1702214					
K1810430-003	1702215					
K1810430-004	1702216					
K1810430-005	1702217					
K1810430-006	1702218					
K1810430-007	1702219					
K1810430-008	1702220					
K1810430-009	1702221					
K1810430-010	1702222					
K1810430-011	1702223					
K1810683-001	1702224					
K1810683-002	1702225					
K1810683-003	1702226					
K1810683-004	1702227					
KWG1805796-1	1702228					
KWG1805796-2	1702229					
KWG1805796-3	1702230					
KWG1805796-4	1702231					
KWG1805796-5	1702232					
KWG1805796-6	1702233					

Comments:

Started By: KPrescot Assisted By: — Training

Completed By: TPottsch Assisted By: — Yes No

Reviewed By: [signature] Date: 11/13/18 Storage: K-Tundra Yes No

Chain of Custody

Relinquished By: [signature] Date: 11/12/18

Received By: [signature] Date: 11/14/18 Extracts Examined: Yes No

Preparation Information

11/14

Group ID:	KWG1805796	**Prep Method:**	EPA 3541	**Prep Date:**	11/07/18 00:00
Department:	Semivoa GCMS				

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. g	pH	Int. Vol. mL	Final Vol. mL	Surr. Added µL	Spike Added µL
1	K1810270-001	N3-0to26-101518	.02	✓	8270D PAH SIM ULL	SEDIMENT	*	N/A	10	2	20	-
2	K1810302-016	A1-0to30-102018	.02	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
3	K1810430-001	E-8.99-0to28-102418	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
4	K1810430-002	C-8.94-0to27-102418	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
5	K1810430-003	D-8.90-0to27-102418 1A	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
6	K1810430-004	D-8.83-0to25-102418 1B	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
7	K1810430-005	E-9.02-0to26-102418 1C	.02	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
8	K1810430-006	B-9.00-0to29-102418 1D	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
9	K1810430-007	512-0to29-102418 1E	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
10	K1810430-008	D-9.09-0to29-102418 1F	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
11	K1810430-009	A-9.03-0to26-102418 2A	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
12	K1810430-010	B-9.15-0to30-102418 2B	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
13	K1810430-011	G-9.15-0to18-102418 2C	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		-
14	K1810683-001	PDI-ST-T06B-1810 2D	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
15	K1810683-002	PDI-ST-T06A-1810 2E	.02	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
16	K1810683-003	PDI-ST-T07A-1810 2F	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
17	K1810683-004	PDI-ST-T07B-1810 3A	.01	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		-
18	KWG1805796-1	Matrix Spike K1810430-005 3B	.01	✓	8270D PAH SIM ULL	SOIL	*		10	2		80

Comments: *See Pre-Prep Information Benchsheet. KRP 11/07/18. PREPRUN: 325303

Surrogate ID: MP: SVM59-50D 100/150ppm XP: 03/04/19 10ul Syringe. S-92.

Spike ID: SIM PAH: SVM59-51F 25ppm XP: 03/07/19 ~~100ul~~ E.E. KRP 11/07/18 80ul Syringe. S-9

Witness: Kayla Vo 11/7/18

Started By: KPrescot Assisted By: KV

Completed By: TP Assisted By: —

Group ID:	KWG1805796	**Prep Method:**	EPA 3541						**Prep Date:**	11/07/18 00:00			
Department:	Semivoa GCMS												

#	Lab Code	Client ID	B#	√	Product	Matrix	Amt. Ext. g	pH	Int. Vol. mL	Final Vol. mL	Surr. Added µL	Spike Added µL
19	KWG1805796-2	Duplicate Matrix Spike K1810430-005 3C	.01	✓	8270D PAH SIM ULL	SOIL	*	N/A	10	2	20	80
20	KWG1805796-3	Matrix Spike K1810683-002 3D	.02	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		
21	KWG1805796-4	Duplicate Matrix Spike K1810683-002 3E	.02	✓	8270D PAH SIM ULL	SEDIMENT	*		10	2		
22	KWG1805796-5	Lab Control Sample 3F	-	-	8270D PAH SIM ULL	SEDIMENT	20.000		10	2		-
23	KWG1805796-6	Method Blank	-	-	8270D PAH SIM ULL	SEDIMENT	40.332		10	2		-

Comments: * See Pre-Prep Information Benchsheet. KRP 11/07/18.

Surrogate ID: SEE PAGE 1

Spike ID: SEE PAGE 1

Witness: 11/7/18

Started By: KPrescot Assisted By: KV

Completed By: TP Assisted By: -

Additional Prep Information for EPA 3541
PAH

Service Request K1810270/0302/0430/0683 Workgroup KWG1805796

Sulfate Lot #187085209 DCM (GC²) Lot #DV301 Glass Wool Lot# 213179999
Date/Time/Initials Weighed: — Balance ID: — Calibration Verified ☐

Storage Location (if not extracted same day): —

Soxtherm/s unit I.D# K-SOX-01/02/03

Soxtherm Start (Time/Date/Initial): 1345 11/07/18 KLP

Soxtherm Stop (Time/Date/Initial): 0755 11/08/18 KLP

N-Evap (Time/Date/Initial): 1328 11/8/18 TP N-Evap Therm. ID: X-SVM-010
Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Hexane Exchange for Silica Gel (Time/Date/Initial): 10:14 11/9/18 TP
Hexane Lot # 195734 N-Evap Therm. ID: X-SVM-010
Temp as measured: 0.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Silica Gel Clean-up (3630) (Time/Date/Initial): 14:01 11/9/18 TP

Silica Column Lot # Ext002-350 1:1 Hexane/DCM Reagent Lot # Ext002-32X
Turbovap (Time/Date/Initial): 14:00 11/12/18 TP Turbovap Therm. ID: K-Turbovap-005
Temp as measured: 28.0 °C Correction factor: 0.0 °C Adjusted temp: 28.0 °C

Pipet Lots: Intermediate Volume 14918647 Final Volume 20176045

Extract Storage: Hi Doggy

Completed (Time/Date/Initial): 17:04 11/12/18 TP

Comments/Observations: —

Bench Sheet Review Check List	
☑	Hold Times Met (If no, Reason: Frozen)
☑	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

Pre-Prep Information Benchsheet

Prep Run #: 325303 **Prep Method:** **Team:** **Container Lot No:** 091718-1TW **Prep Due Date:** Nov-09-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810430-001	.01	PAH SIM ULL	40.037g		PrepComments:GBEATLEY k-balance-49
2	K1810430-002	.01	PAH SIM ULL	40.004g		PrepComments:GBEATLEY k-balance-49
3	K1810430-003	.01	PAH SIM ULL	40.007g		PrepComments:GBEATLEY k-balance-49
4	K1810430-004	.01	PAH SIM ULL	40.011g		PrepComments:GBEATLEY k-balance-49
5	K1810430-005	.02	PAH SIM ULL	40.028g		PrepComments:GBEATLEY k-balance-49
6	K1810430-005 MS KQ1815762-01	.01	PAH SIM ULL	40.057g		PrepComments:GBEATLEY k-balance-49
7	K1810430-005 DMS KQ1815762-02	.01	PAH SIM ULL	40.011g		PrepComments:GBEATLEY k-balance-49
8	K1810430-006	.01	PAH SIM ULL	40.009g		PrepComments:GBEATLEY k-balance-49
9	K1810430-007	.01	PAH SIM ULL	40.052g		PrepComments:GBEATLEY k-balance-49
10	K1810430-008	.01	PAH SIM ULL	40.011g		PrepComments:GBEATLEY k-balance-49
11	K1810430-009	.01	PAH SIM ULL	40.044g		PrepComments:GBEATLEY k-balance-49
12	K1810430-010	.01	PAH SIM ULL	40.077g		PrepComments:GBEATLEY k-balance-49
13	K1810430-011	.01	PAH SIM ULL	40.080g		PrepComments:GBEATLEY k-balance-49

Relinquished By:	Date/Time: 10/30/18 1125	Received By:	Date/Time: 11/05/18 1330

325303

Pre-Prep Information Benchsheet

Prep Run #: ~~325583~~ **Prep Method:** **Team:** **Container Lot No:** 091718-1TW **Prep Due Date:** Nov-15-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810683-001	.01	PAH SIM ULL	40.124g	5g Pest OC instead of 20g for AECOM.	PrepComments:DMADDEN K-Balance-50
2	K1810683-002	.02	PAH SIM ULL	40.049g	5g Pest OC instead of 20g for AECOM.	PrepComments:DMADDEN K-Balance-50
3	K1810683-002 MS KQ1816031-01	.02	PAH SIM ULL	40.064g		PrepComments:DMADDEN K-Balance-50
4	K1810683-002 DMS KQ1816031-02	.02	PAH SIM ULL	40.114g		PrepComments:DMADDEN K-Balance-50
5	K1810683-003	.01	PAH SIM ULL	40.332g	5g Pest OC instead of 20g for AECOM.	PrepComments:DMADDEN K-Balance-50
6	K1810683-004	.01	PAH SIM ULL	40.085g	5g Pest OC instead of 20g for AECOM.	PrepComments:DMADDEN K-Balance-50

All samples & QC moved to prep run # 325303. KLP 11/07/18.

Relinquished By:	Date/Time:	Received By:	Date/Time:
	10:47 11.2.18	Kassidy Van	11/05/18 1348

315303

Pre-Prep Information Benchsheet

Prep Run #: ~~325832~~ **Prep Method:** **Team:** **Container Lot No:** 100118-1tw **Prep Due Date:**

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810270-001	.02	PAH SIM ULL	40.062g	Samples Previously Frozen . Pulled 11/05/2018. Jar cracked/broken loss of water. Limited sample v	PrepComments:APOSEY K-BALANCE-48 11062018
2	K1810302-016	.02	PAH SIM ULL	40.044g	Samples Previously Frozen . Pulled 11/05/2018. Jar cracked/broken. Limited sample volume	PrepComments:APOSEY K-BALANCE-48 11062018

Samples added to prep run # 315303. LLP 11/07/18.

Relinquished By:	Date/Time:	Received By:	Date/Time:
	11.6.18 1631	LLP	11/07/18

Low Level Semivolatile Organic Compounds by GC/MS

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

Preparation Information Benchsheet

Prep Run#: 324899
Team: Semivoa GCMS/KPRESCOTT
Number of Copies to make: 1

Prep WorkFlow: OrgExtS(14)
Prep Method: EPA 3541

Status: Prepped
Prep Date/Time: 10/31/18 05:12 PM

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1810302-001	K6-0to28-101918	.01	8270D/SVO LL		Sediment	40.148g	2.00mL	APOSEY K-BALANCE-48 10232018
2	K1810302-002	O4-0to28-101918	.01	8270D/SVO LL		Sediment	40.138g	2.00mL	APOSEY K-BALANCE-48 10242018
3	K1810302-003	M5-0to25-101918	.01	8270D/SVO LL		Sediment	40.367g	2.00mL	APOSEY K-BALANCE-48 10242018
4	K1810302-004	K4-0to28-101918	.01	8270D/SVO LL		Sediment	40.056g	2.00mL	APOSEY K-BALANCE-48 10242018
5	K1810302-005	O7-0to27-101918	.01	8270D/SVO LL		Sediment	40.136g	2.00mL	GBEATLEY k-balance-49
6	K1810302-006	O5-0to27-101918	.01	8270D/SVO LL		Sediment	40.198g	2.00mL	GBEATLEY k-balance-49
7	K1810302-007	K7-0to24-101918	.01	8270D/SVO LL		Sediment	40.211g	2.00mL	GBEATLEY k-balance-49
8	K1810302-008	M6-0to26-101918	.01	8270D/SVO LL		Sediment	40.162g	2.00mL	GBEATLEY k-balance-49 GW 11/15/18
9	K1810302-009	M7-0to29-101918	.01	8270D/SVO LL		Sediment	40.076g	2.00mL	GBEATLEY k-balance-49
10	K1810302-010	K5-0to27-101918	.01	8270D/SVO LL		Sediment	40.074g	2.00mL	GBEATLEY k-balance-49
11	K1810302-011	515-0to26-101918	.01	8270D/SVO LL		Sediment	40.031g	2.00mL	GBEATLEY k-balance-49
12	K1810302-012	O6-0to27-101918	.01	8270D/SVO LL		Sediment	40.122g	2.00mL	GBEATLEY k-balance-49
13	K1810302-013	M4-0to26-101918	.01	8270D/SVO LL		Sediment	40.241g	2.00mL	GBEATLEY k-balance-49
14	K1810302-022	D6-SC-64to88-102118	.01	8270D/SVO LL		Sediment	40.089g	2.00mL	GBEATLEY k-balance-49
15	K1810302-023	D6-SC-40to64-102118	.01	8270D/SVO LL		Sediment	40.257g	2.00mL	GBEATLEY k-balance-49
16	K1810302-024	H3-SC-99to114-102118	.01	8270D/SVO LL		Sediment	40.066g	2.00mL	GBEATLEY k-balance-49
17	K1810302-025	D6-SC-88to108-102118	.01	8270D/SVO LL		Sediment	40.238g	2.00mL	GBEATLEY k-balance-49
18	K1810302-027	D6-SC-0to1-102118	.01	8270D/SVO LL		Sediment	40.147g	2.00mL	GBEATLEY k-balance-49
19	K1810302-028	H3-SC-1to2-102118	.01	8270D/SVO LL		Sediment	40.137g	2.00mL	GBEATLEY k-balance-49
20	K1810302-029	D6-SC-1to2-102118	.01	8270D/SVO LL		Sediment	40.230g	2.00mL	GBEATLEY k-balance-49
21	KQ1815427-01	K1810302-024 MS	.01	8270D/SVO LL		Solid	40.261g	2.00mL	GBEATLEY k-balance-49
22	KQ1815427-02	K1810302-024 DMS	.01	8270D/SVO LL		Solid	40.043g	2.00mL	GBEATLEY k-balance-49
23	KQ1815427-03	LCS		8270D/SVO LL		Solid	20.00g	2.00mL	
24	KQ1815427-04	MB		8270D/SVO LL		Solid	40.3670g	2.00mL	

Spiking Solutions

Name: Benzoic Acid Matrix Spike @ 200ppm Inventory ID 189077 Logbook Ref: SVM59-51B Expires On: 03/05/2019

KQ1815427-01 50.00µL KQ1815427-02 50.00µL KQ1815427-03 50.00µL

Name: 8270 ALL PURPOSE SURROGATE Inventory ID 189727 Logbook Ref: SVM59-50D Expires On: 03/04/2019

K1810302-001	50.00µL	K1810302-002	50.00µL	K1810302-003	50.00µL	K1810302-004	50.00µL	K1810302-005	50.00µL	K1810302-006	50.00µL
K1810302-007	50.00µL	K1810302-008	50.00µL	K1810302-009	50.00µL	K1810302-010	50.00µL	K1810302-011	50.00µL	K1810302-012	50.00µL
K1810302-013	50.00µL	K1810302-022	50.00µL	K1810302-023	50.00µL	K1810302-024	50.00µL	K1810302-025	50.00µL	K1810302-027	50.00µL

Preparation Information Benchsheet

Prep Run#: 324899 **Prep WorkFlow:** OrgExtS(14) **Status:** Prepped
Team: Semivoa GCMS/KPRESCOTT **Prep Method:** EPA 3541 **Prep Date/Time:** 10/31/18 05:12 PM

K1810302-028 50.00µL K1810302-029 50.00µL KQ1815427-01 50.00µL KQ1815427-02 50.00µL KQ1815427-03 50.00µL KQ1815427-04 50.00µL

Name:	8270 Matrix Spike	Inventory ID	193362	Logbook Ref:	SVM59-82H	Expires On:	05/02/2019

KQ1815427-01 50.00µL KQ1815427-02 50.00µL KQ1815427-03 50.00µL

Name:	CLP Matrix Spike @ 100ug/mL	Inventory ID	194231	Logbook Ref:	SVM59-85E	Expires On:	05/05/2019

KQ1815427-01 50.00µL KQ1815427-02 50.00µL KQ1815427-03 50.00µL

Preparation Steps

Step:	Weigh	Step:	Extraction	Step:	Final Volume
Started:	10/31/18 17:12	Started:	10/31/18 17:12	Started:	11/13/18 16:18
Finished:	11/1/18 16:40	Finished:	11/1/18 16:40	Finished:	11/13/18 16:18
By:	~~KPRESCOTT~~	By:	KPRESCOTT	By:	TPOTTSCHMIDT
Comments	G BEATLEY JW 11/15/18	Comments		Comments	

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Comments: IS: SVM58-99A

Reviewed By: _____ Date: 11/15/18

Chain of Custody

Relinquished By: TP Date: 11/13/18

Received By: Chris R Conn Date: 11-16-18

~~Extracts~~ Examined: (Yes) No

Preparation Information Benchsheet

11/19

Prep Run#: 324899 [redacted] **Prep WorkFlow:** OrgExtS(14) **Status:** Draft
Team: Semivoa GCMS/KPRESCOTT **Prep Method:** EPA 3541 **Prep Date/Time:** 10/31/18 08:45 AM
Number of Copies to make: 1

#	Lab Code	Client ID	B#	√	Method /Test	Matrix	Amt. Ext. g	pH	Int. Vol mL	Final Vol mL	Surr Amt µL	Spike Amt µL
1	~~K1810302-001~~	~~K6-0to28-101918~~ 9A	~~.01~~	~~✓~~	~~8270D / SVO LL~~	~~Sediment~~	*	N/A			50	-
2	~~K1810302-002~~	~~O4-0to28-101918~~ 9B	~~.01~~	~~✓~~	~~8270D / SVO LL~~	~~Sediment~~	*					-
3	~~K1810302-003~~	~~M5-0to25-101918~~ 9C	~~.01~~	~~✓~~	~~8270D / SVO LL~~	~~Sediment~~	*					-
4	~~K1810302-004~~	~~K4-0to28-101918~~ 9D	~~.01~~	~~✓~~	~~8270D / SVO LL~~	~~Sediment~~	*					-
5	~~K1810302-005~~	~~O7-0to27-101918~~ 9E	~~.01~~	~~✓~~	~~8270D / SVO LL~~	~~Sediment~~	*					-
6	~~K1810302-006~~	~~O5-0to27-101918~~ 9F	~~.01~~	~~✓~~	~~8270D / SVO LL~~	~~Sediment~~	*					-
7	~~K1810302-007~~	~~K7-0to24-101918~~ 7B	~~.01~~	~~✓~~	~~8270D / SVO LL~~	~~Sediment~~	*					-
8	~~K1810302-008~~	~~M6-0to26-101918~~ 7C	~~.01~~	~~✓~~	~~8270D / SVO LL~~	~~Sediment~~	*					-
9	~~K1810302-009~~	~~M7-0to29-101918~~ 7D	~~.01~~	~~✓~~	~~8270D / SVO LL~~	~~Sediment~~	*					-
10	~~K1810302-010~~	~~K5-0to27-101918~~ 7E	~~.01~~	~~✓~~	~~8270D / SVO LL~~	~~Sediment~~	*					-
11	~~K1810302-011~~	~~515-0to26-101918~~ 7F	~~.01~~	~~✓~~	~~8270D / SVO LL~~	~~Sediment~~	*					-
12	~~K1810302-012~~	~~O6-0to27-101918~~ 8A	~~.01~~	~~✓~~	~~8270D / SVO LL~~	~~Sediment~~	*					-
13	~~K1810302-013~~	~~M4-0to26-101918~~ 8B	~~.01~~	~~✓~~	~~8270D / SVO LL~~	~~Sediment~~	*					-
14	K1810302-022	D6-SC-64to88-102118 8C	.01	✓	8270D / SVO LL	Sediment	*		10	2	50	-
15	K1810302-023	D6-SC-40to64-102118 8E	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
16	K1810302-024	H3-SC-99to114-102118 8F	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
17	K1810302-025	D6-SC-88to108-102118 3A	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
18	K1810302-027	D6-SC-0to1-102118 3B	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
19	K1810302-028	H3-SC-1to2-102118 3C	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
20	K1810302-029	D6-SC-1to2-102118 3D	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
21	KQ1815427-01	K1810302-024 MS 8C	.01	✓	8270D / SVO LL	Solid	*		10	2		50/50/50
22	KQ1815427-02	K1810302-024 DMS 8E	.01	✓	8270D / SVO LL	Solid	*		10	2		
23	KQ1815427-03	LCS 8F	-	-	8270D / SVO LL	Solid	20.000		10	2		
24	KQ1815427-04	MB 3E	-	-	8270D / SVO LL	Solid	10.367		10	2		-

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Comments: * See Pre-Prep Information Benchsheet. HRP 10/31/18.
★ canceled as per pm TP 11/2/18

Surrogate ID: 8270: SVM159-50D 100/150ppm XP:03/04/19 50ul spp. HI

Spike ID: 8270: SVM159-59A 100ppm XP:03/09/19 50ul spp. HI
CLP: SVM159-66D 100ppm XP:04/08/19 50ul spp. HI
BA: SVM159-51B 200ppm XP:03/05/19 50ul spp. HI

Witnessed By: [redacted] 10/31/18

Analyst: Kai-Rai Prescott

Assisted By: KV

GPC RUNLOG

Run Date: 11/9/2018 **Calibration Date:** 11/7/2018

GPC #: 6 **Program Number:** BNA

Lab I.D.	Position	Test	Dilution	Comments
BLANK	1	8270 LL	NA	N/A
BLANK	2	8270 LL	NA	N/A
KQ1815593-05 MB	3	8270 LL	NA	N/A
KQ1815593-04 LCS	4	8270 LL	NA	N/A
K1810357-01	5	8270 LL	NA	N/A
K1810357-02	6	8270 LL	NA	N/A
K1810357-03	7	8270 LL	NA	N/A
K1810357-04	8	8270 LL	NA	N/A
K1810357-05	9	8270 LL	NA	N/A
K1810357-06	10	8270 LL	NA	N/A
K1810357-07	11	8270 LL	NA	N/A
K1810357-08	12	8270 LL	NA	N/A
K1810357-09	13	8270 LL	NA	N/A
K1810357-10	14	8270 LL	NA	N/A
K1810357-11	15	8270 LL	NA	N/A
K1810357-12	16	8270 LL	NA	N/A
K1810357-13	17	8270 LL	NA	N/A
K1810357-14	18	8270 LL	NA	N/A
K1810357-15	19	8270 LL	NA	N/A
K1810357-16	20	8270 LL	NA	N/A
K1810357-17	21	8270 LL	NA	N/A
K1810357-02 DUP	22	8270 LL	NA	N/A
K1810357-02 MS	23	8270 LL	NA	N/A
K1810357-02 DMS	24	8270 LL	NA	N/A
BLANK	25	8270 LL	NA	N/A
BLANK	26	8270 LL	NA	N/A
KQ1816032-04 MB	27	8270 LL	NA	N/A
KQ1816032-03 LCS	28	8270 LL	NA	N/A
K1810270-01	29	8270 LL	NA	N/A
K1810302-16	30	8270 LL	NA	N/A
K1810683-01	31	8270 LL	NA	N/A
K1810683-02	32	8270 LL	NA	N/A
K1810683-03	33	8270 LL	NA	N/A
K1810683-04	34	8270 LL	NA	N/A
K1810683-02 MS	35	8270 LL	NA	N/A
K1810683-02 DMS	36	8270 LL	NA	N/A
BLANK	37	8270 LL	NA	N/A

BLANK	**38**	8270 LL	NA	N/A
KQ1815427-04 MB	**39**	8270 LL	NA	N/A
KQ1815427-03 LCS	**40**	8270 LL	NA	N/A
K1810302-22	**41**	8270 LL	NA	N/A
K1810302-23	**42**	8270 LL	NA	N/A
K1810302-24	**43**	8270 LL	NA	N/A
K1810302-25	**44**	8270 LL	NA	N/A
K1810302-27	**45**	8270 LL	NA	N/A
K1810302-28	**46**	8270 LL	NA	N/A
K1810302-29	**47**	8270 LL	NA	N/A
K1810302-24 MS	**48**	8270 LL	NA	N/A
K1810302-24 DMS	**49**	8270 LL	NA	N/A

Final Volume Calculation

Intermediate Volume before GPC:	**10**	mL
Aliquot taken from intermediate volume:	**10**	mL
Aliquot diluted up to....	**10**	mL
Volume Injected onto column:	**5**	mL
GPC'd Extract brought to the Final Volume of:	**1**	mL
Calculated True Final Volume:	**2**	mL

Filter Lot # FC8051

Operator Date and Initial: TP 11/9/18

Pre-Prep Information Benchsheet

Prep Run #: 324899 **Prep Method:** **Team:** **Container Lot No:** 071618-1TW **Prep Due Date:** Nov-09-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810302-001	.01	SVO LL	40.148g		PrepComments:APOSEY K-BALANCE-48 10232018
2	K1810302-002	.01	SVO LL	40.138g		PrepComments:APOSEY K-BALANCE-48 10242018
3	K1810302-003	.01	SVO LL	40.367g		PrepComments:APOSEY K-BALANCE-48 10242018
4	K1810302-004	.01	SVO LL	40.056g		PrepComments:APOSEY K-BALANCE-48 10242018
5	K1810302-005		SVO LL	40.136g		PrepComments:GBEATLEY k-balance-49
6	K1810302-006		SVO LL	40.198g		PrepComments:GBEATLEY k-balance-49
7	K1810302-007		SVO LL	40.211g		PrepComments:GBEATLEY k-balance-49
8	K1810302-008		SVO LL	40.162g		PrepComments:GBEATLEY k-balance-49
9	K1810302-009		SVO LL	40.076g		PrepComments:GBEATLEY k-balance-49
10	K1810302-010		SVO LL	40.074g		PrepComments:GBEATLEY k-balance-49
11	K1810302-011		SVO LL	40.031g		PrepComments:GBEATLEY k-balance-49
12	K1810302-012		SVO LL	40.122g		PrepComments:GBEATLEY k-balance-49
13	K1810302-013		SVO LL	40.241g		PrepComments:GBEATLEY k-balance-49
14	K1810302-022	.01	SVO LL	40.089g		PrepComments:GBEATLEY k-balance-49
15	K1810302-023		SVO LL	40.257g		PrepComments:GBEATLEY k-balance-49
16	K1810302-024		SVO LL	40.066g		PrepComments:GBEATLEY k-balance-49
17	K1810302-024 MS KQ1815427-01		SVO LL	40.261g		PrepComments:GBEATLEY k-balance-49
18	K1810302-024 DMS KQ1815427-02		SVO LL	40.043g		PrepComments:GBEATLEY k-balance-49
19	K1810302-025		SVO LL	40.238g		PrepComments:GBEATLEY k-balance-49
20	K1810302-027		SVO LL	40.147g		PrepComments:GBEATLEY k-balance-49
21	K1810302-028		SVO LL	40.137g		PrepComments:GBEATLEY k-balance-49
22	K1810302-029	.01	SVO LL	40.230g		PrepComments:GBEATLEY k-balance-49

Relinquished By:	Date/Time:	Received By:	Date/Time:
	10/24/18 1445		10/30/18

[redacted]

Additional Prep Information for EPA 3541

8270 and 8270-LL

Service Request K1810302 **Workgroup** KQ1815427

Sulfate Lot # 178434 DCM (GC^2) Lot # DQ301 Glass Wool Lot # 213179999

Date/Time/Initials Weighed: — Balance ID: — Calibration Verified —

Storage Location (if not extracted same day): —

Soxtherm/s unit I.D# K-SOX-08/03/07/09

Soxtherm Start (Time/Date/Initial): 1712 10/31/18 KRP

Soxtherm Stop (Time/Date/Initial): 1640 11/01/18 KRP

N-Evap (Time/Date/Initial): 9:52 11/2/18 TP N-Evap Therm. ID: X-SVM-010
Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

GPC Clean-up (3640): Start 17:50 11/9/18 TP (Time/Date/Initial)

S-Evap (Time/Date/Initial): 0936 11/13/18 S-Evap Therm. ID: DWB-46
Temp as measured: 75 °C Correction factor: 0.0 °C Adjusted temp: 75.0 °C

N-Evap (Time/Date/Initial): 13:43 11/13/18 TP N-Evap Therm. ID: X-SVM-010
Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Pipet Lots: Intermediate Volume 14918647 Final Volume 20717645

Extract Storage: L.T.T

Completed (Time/Date/Initial): 15:44 11/13/18 TP

Comments/Observations: —

Bench Sheet Review Check List	
☑	Hold Times Met (if no, Reason:)
☑	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

R:\Extractions\Active Benchsheets\3541\AddPrep EPA 3541 8270 - for merge.doc
Reviewed by: Carlus Pollard 6/8/18 SOP: EXT-3541 Rev. 10

Preparation Information Benchsheet

Prep Run#: 325584 **Prep WorkFlow:** OrgExtS(14) **Status:** Prepped
Team: Semivoa GCMS/KPRESCOTT **Prep Method:** EPA 3541 **Prep Date/Time:** 11/7/18 11:19 AM
Number of Copies to make: 3

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1810270-001	N3-0to26-101518	.02	8270D/SVO LL		Sediment	40.093g	2.00mL	APOSEY K-BALANCE-48 11062018 / Samples
2	K1810302-016	A1-0to30-102018	.02	8270D/SVO LL		Sediment	40.065g	2.00mL	APOSEY K-BALANCE-48 11062018 / Samples
3	K1810683-001	PDI-ST-T06B-1810	.01	8270D/SVO LL		Sediment	40.068g	2.00mL	DMADDEN K-Balance-50 / 5g Pest OC instead of 20g for
4	K1810683-002	PDI-ST-T06A-1810	.02	8270D/SVO LL		Sediment	40.388g	2.00mL	DMADDEN K-Balance-50 / 5g Pest OC instead of 20g for
5	K1810683-003	PDI-ST-T07A-1810	.01	8270D/SVO LL		Sediment	40.248g	2.00mL	DMADDEN K-Balance-50 / 5g Pest OC instead of 20g for
6	K1810683-004	PDI-ST-T07B-1810	.01	8270D/SVO LL		Sediment	40.110g	2.00mL	DMADDEN K-Balance-50 / 5g Pest OC instead of 20g for
7	KQ1816032-01	K1810683-002 MS	.03	8270D/SVO LL		Solid	40.149g	2.00mL	DMADDEN K-Balance-50
8	KQ1816032-02	K1810683-002 DMS	.03	8270D/SVO LL		Solid	40.141g	2.00mL	DMADDEN K-Balance-50
9	KQ1816032-03	LCS		8270D/SVO LL		Solid	20.00g	2.00mL	
10	KQ1816032-04	MB		8270D/SVO LL		Solid	40.3880g	2.00mL	

Spiking Solutions

Name: Benzoic Acid Matrix Spike @ 200ppm Inventory ID 189077 Logbook Ref: SVM59-51B Expires On: 03/05/2019

K1810270-001 50.00µL KQ1816032-01 50.00µL KQ1816032-02 50.00µL KQ1816032-03 50.00µL

Name: 8270 ALL PURPOSE SURROGATE Inventory ID 189727 Logbook Ref: SVM59-50D Expires On: 03/04/2019

K1810270-001 50.00µL K1810302-016 50.00µL K1810683-001 50.00µL K1810683-002 50.00µL K1810683-003 50.00µL K1810683-004 50.00µL
KQ1816032-01 50.00µL KQ1816032-02 50.00µL KQ1816032-03 50.00µL KQ1816032-04 50.00µL

Name: 8270 Matrix Spike Inventory ID 193362 Logbook Ref: SVM59-82H Expires On: 05/02/2019

K1810270-001 50.00µL KQ1816032-01 50.00µL KQ1816032-02 50.00µL KQ1816032-03 50.00µL

Name: CLP Matrix Spike @ 100ug/mL Inventory ID 194231 Logbook Ref: SVM59-85E Expires On: 05/05/2019

K1810270-001 50.00µL KQ1816032-01 50.00µL KQ1816032-02 50.00µL KQ1816032-03 50.00µL

Preparation Steps

Step:	Weigh	Step:	Extraction	Step:	Final Volume
Started:	11/7/18 11:19	Started:	11/7/18 11:19	Started:	11/12/18 18:29
Finished:	11/7/18 19:05	Finished:	11/7/18 19:05	Finished:	11/12/18 18:29
By:	~~KPRESCOTT~~	By:	KPRESCOTT	By:	TPOTTSCHMIDT
Comments	DMADDEN JW 11/13/18	Comments		Comments	

Preparation Information Benchsheet

Prep Run#: 325584
Team: Semivoa GCMS/KPRESCOTT

Prep WorkFlow: OrgExtS(14)
Prep Method: EPA 3541

Status: Prepped
Prep Date/Time: 11/7/18 11:19 AM

Comments: _____

Reviewed By: _____ Date: 11/13/18

Chain of Custody

Relinquished By: _____ Date: 11/12/18

Received By: _____ Date: _____

Extracts Examined
Yes No

11/14

Preparation Information Benchsheet

Prep Run#: 325584
Team: Semivoa GCMS/KPRESCOTT
Number of Copies to make: 3

Prep WorkFlow: OrgExtS(14)
Prep Method: EPA 3541

Status: Draft
Prep Date/Time: 11/7/18 07:45 AM

#	Lab Code	Client ID		B#	√	Method /Test	Matrix	Amt. Ext. g	pH	Int. Vol mL	Final Vol mL	Surr Amt µL	Spike Amt µL
1	**K1810270-001**	N3-0to26-101518	7B	.02	✓	8270D / SVO LL	Sediment	40.093	N/A	10	2	150	-
2	**K1810302-016**	A1-0to30-102018	7C	.02	✓	8270D / SVO LL	Sediment	40.065		10	2		-
3	**K1810683-001**	PDI-ST-T06B-1810	7B	.01	✓	8270D / SVO LL	Sediment	40.068		10	2		-
4	**K1810683-002**	PDI-ST-T06A-1810	7C	.03	✓	8270D / SVO LL	Sediment	40.388		10	2		-
5	**K1810683-003**	PDI-ST-T07A-1810	7D	.01	✓	8270D / SVO LL	Sediment	40.248		10	2		-
6	**K1810683-004**	PDI-ST-T07B-1810	7E	.01	✓	8270D / SVO LL	Sediment	40.110		10	2		-
7	**KQ1816032-01**	K1810683-002 MS	7F	.03	✓	8270D / SVO LL	Solid	40.149		10	2		50/50/50
8	**KQ1816032-02**	K1810683-002 DMS	8A	.03	✓	8270D / SVO LL	Solid	40.141		10	2		
9	**KQ1816032-03**	LCS	8B	-	-	8270D / SVO LL	Solid	20.000		10	2		
10	**KQ1816032-04**	MB	8C	-	-	8270D / SVO LL	Solid	40.388		10	2		-

Comments:

Surrogate ID: AE:SVM59-50D 100/150ppm XP:03/04/19 50uL 4pp.4I

Witnessed By: 11/7/18

Analyst: Kal: Lae Prescott

Spike ID: 8270:SVM59-82H 100ppm XP:05/02/19 50uL 4pp.4I
CLP:SVM59-85C 100ppm XP:05/05/19 50uL 4pp.4I
BA:SVM59-51B 200ppm XP:03/05/19 50uL 4pp.4I

Assisted By: K.V

GPC RUNLOG

Run Date: 11/9/2018 **Calibration Date:** 11/7/2018

GPC #: 6 **Program Number:** BNA

Lab I.D.	Position	Test	Dilution	Comments
BLANK	1	8270 LL	NA	N/A
BLANK	2	8270 LL	NA	N/A
KQ1815593-05 MB	3	8270 LL	NA	N/A
KQ1815593-04 LCS	4	8270 LL	NA	N/A
K1810357-01	5	8270 LL	NA	N/A
K1810357-02	6	8270 LL	NA	N/A
K1810357-03	7	8270 LL	NA	N/A
K1810357-04	8	8270 LL	NA	N/A
K1810357-05	9	8270 LL	NA	N/A
K1810357-06	10	8270 LL	NA	N/A
K1810357-07	11	8270 LL	NA	N/A
K1810357-08	12	8270 LL	NA	N/A
K1810357-09	13	8270 LL	NA	N/A
K1810357-10	14	8270 LL	NA	N/A
K1810357-11	15	8270 LL	NA	N/A
K1810357-12	16	8270 LL	NA	N/A
K1810357-13	17	8270 LL	NA	N/A
K1810357-14	18	8270 LL	NA	N/A
K1810357-15	19	8270 LL	NA	N/A
K1810357-16	20	8270 LL	NA	N/A
K1810357-17	21	8270 LL	NA	N/A
K1810357-02 DUP	22	8270 LL	NA	N/A
K1810357-02 MS	23	8270 LL	NA	N/A
K1810357-02 DMS	24	8270 LL	NA	N/A
BLANK	25	8270 LL	NA	N/A
BLANK	26	8270 LL	NA	N/A
KQ1816032-04 MB	27	8270 LL	NA	N/A
KQ1816032-03 LCS	28	8270 LL	NA	N/A
K1810270-01	29	8270 LL	NA	N/A
K1810302-16	30	8270 LL	NA	N/A
K1810683-01	31	8270 LL	NA	N/A
K1810683-02	32	8270 LL	NA	N/A
K1810683-03	33	8270 LL	NA	N/A
K1810683-04	34	8270 LL	NA	N/A
K1810683-02 MS	35	8270 LL	NA	N/A
K1810683-02 DMS	36	8270 LL	NA	N/A
BLANK	37	8270 LL	NA	N/A

BLANK	**38**	8270 LL	NA	N/A
KQ1815427-04 MB	**39**	8270 LL	NA	N/A
KQ1815427-03 LCS	**40**	8270 LL	NA	N/A
K1810302-22	**41**	8270 LL	NA	N/A
K1810302-23	**42**	8270 LL	NA	N/A
K1810302-24	**43**	8270 LL	NA	N/A
K1810302-25	**44**	8270 LL	NA	N/A
K1810302-27	**45**	8270 LL	NA	N/A
K1810302-28	**46**	8270 LL	NA	N/A
K1810302-29	**47**	8270 LL	NA	N/A
K1810302-24 MS	**48**	8270 LL	NA	N/A
K1810302-24 DMS	**49**	8270 LL	NA	N/A

Final Volume Calculation

Intermediate Volume before GPC:	**10**	mL
Aliquot taken from intermediate volume:	**10**	mL
Aliquot diluted up to....	**10**	mL
Volume Injected onto column:	**5**	mL
GPC'd Extract brought to the Final Volume of:	**1**	mL
Calculated True Final Volume:	**2**	mL

Filter Lot # FC8051

Operator Date and Initial: TP 11/9/18

Pre-Prep Information Benchsheet

Prep Run #: 325584 **Prep Method:** **Team:** **Container Lot No:** 091718-1TW **Prep Due Date:** Nov-15-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810683-001	.01	SVO LL	40.068g	5g Pest OC instead of 20g for AECOM.	PrepComments:DMADDEN K-Balance-50
2	K1810683-002	.03	SVO LL	40.388g	5g Pest OC instead of 20g for AECOM.	PrepComments:DMADDEN K-Balance-50
3	K1810683-002 MS KQ1816032-01	.03	SVO LL	40.149g		PrepComments:DMADDEN K-Balance-50
4	K1810683-002 DMS KQ1816032-02	.03	SVO LL	40.141g		PrepComments:DMADDEN K-Balance-50
5	K1810683-003	.01	SVO LL	40.248g	5g Pest OC instead of 20g for AECOM.	PrepComments:DMADDEN K-Balance-50
6	K1810683-004	.01	SVO LL	40.110g	5g Pest OC instead of 20g for AECOM.	PrepComments:DMADDEN K-Balance-50

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	11.2.18 10:47	[signature]	11/05/18 1348

325584

Pre-Prep Information Benchsheet

Prep Run #: ~~325838~~ **Prep Method:** **Team:** **Container Lot No:** 100118-1tw **Prep Due Date:**

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810270-001	.02	SVO LL	40.093g	Samples Previously Frozen . Pulled 11/05/2018. Jar cracked/broken loss of water. Limited sample v	PrepComments:APOSEY K-BALANCE-48 11062018
2	K1810302-016	.02	SVO LL	40.065g	Samples Previously Frozen . Pulled 11/05/2018. Jar cracked/broken. Limited sample volume	PrepComments:APOSEY K-BALANCE-48 11062018

Samples batched w/ prep run# 325584. KRP 11/07/18.

Relinquished By:	Date/Time: 11.6.18 1626	Received By: KRP	Date/Time: 11/07/18

Additional Prep Information for EPA 3541

8270 and 8270-LL

Service Request K1810270/0302/0683 **Workgroup** KQ1816032

Sulfate Lot # 18E085209 DCM (GC^2) Lot # DU301 Glass Wool Lot # 21317999

Date/Time/Initials Weighed: — Balance ID: — Calibration Verified —

Storage Location (if not extracted same day): —

Soxtherm/s unit I.D# K-SOX-07/08

Soxtherm Start (Time/Date/Initial): 1119 11/07/18 ~~KLP~~

Soxtherm Stop (Time/Date/Initial): 1905 11/7/18 KV

N-Evap (Time/Date/Initial): 07:47 11/8/18 TP N-Evap Therm. ID: X-SVM-010
Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

GPC Clean-up (3640): Start 17:50 11/9/18 TP (Time/Date/Initial)

Filter lot# FC8051

S-Evap (Time/Date/Initial): 1123 11/12/18 BG S-Evap Therm. ID: DWB-46
Temp as measured: 75 °C Correction factor: 0.0 °C Adjusted temp: 75.0 °C

N-Evap (Time/Date/Initial): 14:40 11/12/18 TP N-Evap Therm. ID: X-SVM-010
Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Pipet Lots: Intermediate Volume 14918647 Final Volume 20717645

Extract Storage: JTT

Completed (Time/Date/Initial): 16:41 11/12/18 TP

Comments/Observations: —

Bench Sheet Review Check List	
☑	Hold Times Met (if no, Reason: Frozen)
☑	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

Preparation Information Benchsheet

Prep Run#: 325014 **Prep WorkFlow:** OrgExtS(14) **Status:** Prepped
Team: Semivoa GCMS/KPRESCOTT **Prep Method:** EPA 3541 **Prep Date/Time:** 11/1/18 12:41 AM
Number of Copies to make: 2

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Final Vol	Sample Description
1	K1810302-026	H3-SC-46to63-102118	.01	8270D/SVO LL		Sediment	40.112g	2.00mL	GBEATLEY k-balance-49DMADDEN K-Balance-50
2	K1810305-001	H3-SC-29to46-102118	.01	8270D/SVO LL		Sediment	40.011g	2.00mL	GBEATLEY k-balance-49
3	K1810305-002	H3-SC-85to99-102118	.01	8270D/SVO LL		Sediment	40.230g	2.00mL	GBEATLEY k-balance-49
4	K1810305-003	R4-SC-138to142-102118	.01	8270D/SVO LL		Sediment	40.055g	2.00mL	GBEATLEY k-balance-49
5	K1810305-004	H3-SC-0to1-102118	.01	8270D/SVO LL		Sediment	40.121g	2.00mL	GBEATLEY k-balance-49
6	K1810305-005	H3-SC-2to29-102118	.01	8270D/SVO LL		Sediment	40.116g	2.00mL	GBEATLEY k-balance-49
7	K1810305-006	H3-SC-63to85-102118	.01	8270D/SVO LL		Sediment	40.237g	2.00mL	GBEATLEY k-balance-49
8	K1810305-007	D6-SC-108to123-102118	.01	8270D/SVO LL		Sediment	40.220g	2.00mL	GBEATLEY k-balance-49
9	K1810305-008	D6-SC-2to4-102118	.01	8270D/SVO LL		Sediment	40.298g	2.00mL	GBEATLEY k-balance-49
10	K1810305-009	R4-SC-0to1-102118	.01	8270D/SVO LL		Sediment	40.321g	2.00mL	GBEATLEY k-balance-49
11	K1810305-010	R4-SC-1to2-102118	.01	8270D/SVO LL		Sediment	40.260g	2.00mL	GBEATLEY k-balance-49
12	K1810305-011	R4-SC-6to8-102118	.01	8270D/SVO LL		Sediment	40.197g	2.00mL	GBEATLEY k-balance-49
13	K1810305-012	R4-SC-2to4-102118	.01	8270D/SVO LL		Sediment	40.047g	2.00mL	GBEATLEY k-balance-49
14	K1810305-013	R4-SC-4to6-102118	.01	8270D/SVO LL		Sediment	40.056g	2.00mL	GBEATLEY k-balance-49
15	K1810305-014	R4-SC-8to10-102118	.01	8270D/SVO LL		Sediment	40.256g	2.00mL	GBEATLEY k-balance-49
16	K1810305-015	R4-SC-10to12-102118	.01	8270D/SVO LL		Sediment	40.204g	2.00mL	GBEATLEY k-balance-49
17	K1810305-016	R4-SC-120to138-102118	.01	8270D/SVO LL		Sediment	40.169g	2.00mL	GBEATLEY k-balance-49
18	KQ1815507-01	K1810305-007 MS	.01	8270D/SVO LL		Solid	40.181g	2.00mL	GBEATLEY k-balance-49
19	KQ1815507-02	K1810305-007 DMS	.01	8270D/SVO LL		Solid	40.363g	2.00mL	GBEATLEY k-balance-49
20	KQ1815507-03	LCS		8270D/SVO LL		Solid	20.00g	2.00mL	
21	KQ1815507-04	MB		8270D/SVO LL		Solid	40.3630g	2.00mL	

Spiking Solutions

Name: Benzoic Acid Matrix Spike @ 200ppm Inventory ID 189077 Logbook Ref: SVM59-51B Expires On: 03/05/2019

KQ1815507-01 50.00µL KQ1815507-02 50.00µL KQ1815507-03 50.00µL

Name: 8270 ALL PURPOSE SURROGATE Inventory ID 189727 Logbook Ref: SVM59-50D Expires On: 03/04/2019

K1810302-026 50.00µL K1810305-001 50.00µL K1810305-002 50.00µL K1810305-003 50.00µL K1810305-004 50.00µL K1810305-005 50.00µL
K1810305-006 50.00µL K1810305-007 50.00µL K1810305-008 50.00µL K1810305-009 50.00µL K1810305-010 50.00µL K1810305-011 50.00µL
K1810305-012 50.00µL K1810305-013 50.00µL K1810305-014 50.00µL K1810305-015 50.00µL K1810305-016 50.00µL KQ1815507-01 50.00µL
KQ1815507-02 50.00µL KQ1815507-03 50.00µL KQ1815507-04 50.00µL

Name: 8270 Matrix Spike Inventory ID 193362 Logbook Ref: SVM59-82H Expires On: 05/02/2019

Preparation Information Benchsheet

Prep Run#: 325014 **Prep WorkFlow:** OrgExtS(14) **Status:** Prepped
Team: Semivoa GCMS/KPRESCOTT **Prep Method:** EPA 3541 **Prep Date/Time:** 11/1/18 12:41 AM

KQ1815507-01 50.00µL KQ1815507-02 50.00µL KQ1815507-03 50.00µL

Name:	CLP Matrix Spike @ 100ug/mL	Inventory ID	194231	Logbook Ref:	SVM59-85E	Expires On:	05/05/2019

KQ1815507-01 50.00µL KQ1815507-02 50.00µL KQ1815507-03 50.00µL

Preparation Steps

Step:	Weigh	Step:	Extraction	Step:	Final Volume
Started:	11/1/18 00:41	Started:	11/1/18 12:41	Started:	11/14/18 16:27
Finished:	11/1/18 17:24	Finished:	11/1/18 19:42	Finished:	11/14/18 16:27
By:	~~KPRESCOTT~~	By:	KPRESCOTT	By:	TPOTTSCHMIDT
Comments	GBEATLEY JTW 11/15/18	Comments		Comments	

Comments: IS: SVM58 99A

Reviewed By: [signature] Date: 11/15/18

Chain of Custody

Relinquished By: TP Date: 11/14/18

Received By: Christine R Connor Date: 11·16·18

Extracts Examined (Yes) No

Preparation Information Benchsheet

11/19

Prep Run#: 325014
Team: Semivoa GCMS/KPRESCOTT
Prep WorkFlow: OrgExtS(14)
Prep Method: EPA 3541
Status: Draft
Prep Date/Time: 10/31/18 08:45 AM
Number of Copies to make: 2

#	Lab Code	Client ID		B#	√	Method /Test	Matrix	Amt. Ext. g	pH	Int. Vol mL	Final Vol mL	Surr Amt µL	Spike Amt µL
1	**K1810302-026**	H3-SC-46to63-102118	3F	.01	✓	8270D / SVO LL	Sediment	*	N/A	10	2	150	-
2	**K1810305-001**	H3-SC-29to46-102118	9A	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
3	**K1810305-002**	H3-SC-85to99-102118	9B	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
~~4~~	~~**K1810305-003**~~	~~R4-SC-138to142-102118~~	~~9C~~	~~.01~~	~~✓~~	~~8270D / SVO LL~~	~~Sediment~~	*					
5	**K1810305-004**	H3-SC-0to1-102118	9D	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
6	**K1810305-005**	H3-SC-2to29-102118	9E	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
7	**K1810305-006**	H3-SC-63to85-102118	9F	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
8	**K1810305-007**	D6-SC-108to123-102118	7B	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
9	**K1810305-008**	D6-SC-2to4-102118	7C	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
10	**K1810305-009**	R4-SC-0to1-102118	7D	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
11	**K1810305-010**	R4-SC-1to2-102118	7E	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
12	**K1810305-011**	R4-SC-6to8-102118	7F	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
13	**K1810305-012**	R4-SC-2to4-102118	8A	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
14	**K1810305-013**	R4-SC-4to6-102118	8B	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
15	**K1810305-014**	R4-SC-8to10-102118	8C	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
16	**K1810305-015**	R4-SC-10to12-102118	8E	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
17	**K1810305-016**	R4-SC-120to138-102118	8F	.01	✓	8270D / SVO LL	Sediment	*		10	2		-
18	**KQ1815507-01**	K1810305-007 MS	9A	.01	✓	8270D / SVO LL	Solid	*		10	2		50/50/50
19	**KQ1815507-02**	K1810305-007 DMS	9B	.01	✓	8270D / SVO LL	Solid	*		10	2		
20	**KQ1815507-03**	LCS	9C	-	-	8270D / SVO LL	Solid	20.000		10	2		
21	**KQ1815507-04**	MB	9D	-	-	8270D / SVO LL	Solid	40.363		10	2		-

Comments: *See Pre-Prep Information Benchsheet. ZPP 10/31/18.
*canceled as per pm TP 11/2/18

Surrogate ID: 8270: SVM59-50D 100/150ppm XP: 03/04/19 50ul spp. HI

Spike ID: 8270: SVM59-59A 100ppm XP: 03/19/19 50ul spp. HI
CLP: SVM59-66D 100ppm XP: 04/08/19 50ul spp. HI
BA: SVM59-51B 200ppm XP: 03/05/19 50ul spp. HI

Witnessed By: 11-1-18

Analyst: Lab Rat Prescott

Assisted By: —

GPC RUNLOG

Run Date: 11/12/2018 **Calibration Date:** 11/7/2018

GPC #: 6 **Program Number:** BNA

Lab I.D.	Position	Test	Dilution	Comments
BLANK	1	8270 LL	NA	N/A
BLANK	2	8270 LL	NA	N/A
KQ1815781-04 MB	3	8270 LL	NA	N/A
KQ1815781-03 LCS	4	8270 LL	NA	N/A
K1810249-07	5	8270 LL	NA	N/A
K1810249-08	6	8270 LL	NA	N/A
K1810249-09	7	8270 LL	NA	N/A
K1810249-10	8	8270 LL	NA	N/A
K1810249-11	9	8270 LL	NA	N/A
K1810249-12	10	8270 LL	NA	N/A
K1810249-09 MS	11	8270 LL	NA	N/A
K1810249-09 DMS	12	8270 LL	NA	N/A
BLANK	13	8270 LL	NA	N/A
BLANK	14	8270 LL	NA	N/A
KQ1815507-04 MB	15	8270 LL	NA	N/A
KQ1815507-03 LCS	16	8270 LL	NA	N/A
K1810302-26	17	8270 LL	NA	N/A
K1810305-01	18	8270 LL	NA	N/A
K1810305-02	19	8270 LL	NA	N/A
K1810305-04	20	8270 LL	NA	N/A
K1810305-05	21	8270 LL	NA	N/A
K1810305-06	22	8270 LL	NA	N/A
K1810305-07	23	8270 LL	NA	N/A
K1810305-08	24	8270 LL	NA	N/A
K1810305-09	25	8270 LL	NA	N/A
K1810305-10	26	8270 LL	NA	N/A
K1810305-11	27	8270 LL	NA	N/A
K1810305-12	28	8270 LL	NA	N/A
K1810305-13	29	8270 LL	NA	N/A
K1810305-14	30	8270 LL	NA	N/A
K1810305-15	31	8270 LL	NA	N/A
K1810305-16	32	8270 LL	NA	N/A
K1810305-07 MS	33	8270 LL	NA	N/A
K1810305-07 DMS	34	8270 LL	NA	N/A
BLANK	35	8270 LL	NA	N/A
BLANK	36	8270 LL	NA	N/A
KWG1805838-04 MB	37	8270 LL	NA	N/A

KWG1805838-03 LCS	**38**	8270 LL	NA	N/A
K1810421-01	**39**	8270 LL	NA	N/A
K1810421-02	**40**	8270 LL	NA	N/A
K1810421-03	**41**	8270 LL	NA	N/A
K1810421-04	**42**	8270 LL	NA	N/A
K1810421-05	**43**	8270 LL	NA	N/A
K1810421-06	**44**	8270 LL	NA	N/A
K1810421-07	**45**	8270 LL	NA	N/A
K1810421-08	**46**	8270 LL	NA	N/A
K1810421-09	**47**	8270 LL	NA	N/A
K1810421-10	**48**	8270 LL	NA	N/A
K1810421-11	**49**	8270 LL	NA	N/A
K1810421-12	**50**	8270 LL	NA	N/A
K1810421-13	**51**	8270 LL	NA	N/A
K1810421-14	**52**	8270 LL	NA	N/A
K1810421-15	**53**	8270 LL	NA	N/A
K1810421-16	**54**	8270 LL	NA	N/A
K1810421-17	**55**	8270 LL	NA	N/A
K1810421-18	**56**	8270 LL	NA	N/A
K1810421-19	**57**	8270 LL	NA	N/A
K1810421-20	**58**	8270 LL	NA	N/A
K1810421-02 MS	**59**	8270 LL	NA	N/A
K1810421-02 DMS	**60**	8270 LL	NA	N/A

Final Volume Calculation

Intermediate Volume before GPC:	**10**	mL
Aliquot taken from intermediate volume:	**10**	mL
Aliquot diluted up to....	**10**	mL
Volume Injected onto column:	**5**	mL
GPC'd Extract brought to the Final Volume of:	**1**	mL
Calculated True Final Volume:	**2**	mL

Filter Lot # FC8051

Operator Date and Initial: TP 11/12/18

Pre-Prep Information Benchsheet

Prep Run #: 325014 **Prep Method:** **Team:** **Container Lot No:** 052118-1BNU **Prep Due Date:** Nov-09-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810305-001	.01	SVO LL	40.011g		PrepComments:GBEATLEY k-balance-49
2	K1810305-002	.01	SVO LL	40.230g		PrepComments:GBEATLEY k-balance-49
3	K1810305-003	.01	SVO LL	40.055g		PrepComments:GBEATLEY k-balance-49
4	K1810305-004	.01	SVO LL	40.121g		PrepComments:GBEATLEY k-balance-49
5	K1810305-005	.01	SVO LL	40.116g		PrepComments:GBEATLEY k-balance-49
6	K1810305-006	.01	SVO LL	40.237g		PrepComments:GBEATLEY k-balance-49
7	K1810305-007	.01	SVO LL	40.220g		PrepComments:GBEATLEY k-balance-49
8	K1810305-007 MS KQ1815507-01	.01	SVO LL	40.181g		PrepComments:GBEATLEY k-balance-49
9	K1810305-007 DMS KQ1815507-02	.01	SVO LL	40.363g		PrepComments:GBEATLEY k-balance-49
10	K1810305-008	.01	SVO LL	40.298g		PrepComments:GBEATLEY k-balance-49
11	K1810305-009	.01	SVO LL	40.321g		PrepComments:GBEATLEY k-balance-49
12	K1810305-010	.01	SVO LL	40.260g		PrepComments:GBEATLEY k-balance-49
13	K1810305-011	.01	SVO LL	40.197g		PrepComments:GBEATLEY k-balance-49
14	K1810305-012	.01	SVO LL	40.047g		PrepComments:GBEATLEY k-balance-49
15	K1810305-013	.01	SVO LL	40.056g		PrepComments:GBEATLEY k-balance-49
16	K1810305-014	.01	SVO LL	40.256g		PrepComments:GBEATLEY k-balance-49
17	K1810305-015	.01	SVO LL	40.204g		PrepComments:GBEATLEY k-balance-49
18	K1810305-016	.01	SVO LL	40.169g		PrepComments:GBEATLEY k-balance-49

Relinquished By:	Date/Time:	Received By:	Date/Time:
GBeatley	10/25/18 1200	KRP	10/30/18 1730

325014.

Pre-Prep Information Benchsheet

Prep Run #: ~~324898~~ **Prep Method:** **Team:** **Container Lot No:** 071618-1TW **Prep Due Date:** Nov-09-2018

#	Lab Code	Bottle	Test Name	Weight	Sample Comments	Test Comments
1	K1810302-026	.01	SVO LL	40.112g		PrepComments:GBEATLEY k-balance-49
2	~~K1810302-026 MS KQ1815426-01~~	~~.01~~	~~SVO LL~~	~~40.220g~~		PrepComments:GBEATLEY k-balance-49
3	~~K1810302-026 DMS KQ1815426-02~~	~~.01~~	~~SVO LL~~	~~40.137g~~		PrepComments:GBEATLEY k-balance-49

Sample batched w/ prep run # 325014. QC was not needed. KKP 10/31/18.

Relinquished By:	Date/Time:	Received By:	Date/Time:
G Beatley	10/24/18 1441	KKP	10/30/18

[redacted]

Additional Prep Information for EPA 3541

8270 and 8270-LL

Service Request K1810302/0305 **Workgroup** KQ1815507

Sulfate Lot # 178434 DCM (GC^2) Lot # DU301 Glass Wool Lot # 21317999

Date/Time/Initials Weighed: — Balance ID: — Calibration Verified ☐

Storage Location (if not extracted same day): —

Soxtherm/s unit I.D# K-SOX-03/07/08/09

Soxtherm Start (Time/Date/Initial): 1241 11/01/18 KLP

Soxtherm Stop (Time/Date/Initial): 1942 11/1/18 KV

N-Evap (Time/Date/Initial): 10:15 11/2/18 TP N-Evap Therm. ID: X-SVM-010
Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

GPC Clean-up (3640): Start 14:03 11/12/18 TP (Time/Date/Initial)

S-Evap (Time/Date/Initial): 0950 11/14/18 BG S-Evap Therm. ID: DWB-46
Temp as measured: 75 °C Correction factor: 0.0 °C Adjusted temp: 75.0 °C

N-Evap (Time/Date/Initial): 14:23 11/14/18 TP N-Evap Therm. ID: X-SVM-010
Temp as measured: 20.0 °C Correction factor: 0.0 °C Adjusted temp: 20.0 °C

Pipet Lots: Intermediate Volume 14918647 Final Volume 20717645

Extract Storage: Batman

Completed (Time/Date/Initial): 1620 11/14/18 BG

Comments/Observations: —

Bench Sheet Review Check List	
☑	Hold Times Met (if no, Reason:)
☑	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

1st 11/17/18
2nd 11/30/18

Validation Report

Data File: J:\MS29\DATA\111418\1114F013.D\
Lab ID: K1810302-016
RunType: N/A
Matrix: Sediment

Date Acquired: 11/14/18 16:18:00
Batch ID: 615539
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Preparation Hold Time		X
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Sample Exceptions

Exception Categories	Result	Corrective Action
Preparation Hold Time	Prep Date/Time: 11/07/2018 1119 Hold Date/Time: 11/03/2018 2359	Narrate

Primary Review: _____

Printed: 12/5/18 10:39
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Secondary Review: _____

1st CE 11/17/18
2nd TP 11/30/18

Quantitation Report

Data File:	J:\MS29\DATA\111418\1114F013.D\	**Instrument:**	K-MS-29
Acqu Date:	11/14/18 16:18:00	**Vial:**	14
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-016	**Raw Units:**	ng/mL

Bottle ID:	K1810302-016.02	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/20/18	**Receive Date:**	10/22/18

Analysis Lot:	615539	**Prep Lot:**	325584	**Report Group:**	K1810302
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	11/7/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.64		226239	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	14.01		367298	1612.00	64	30 - 102	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.68		25312	131.55	12	J	Y

Prep Amount:	40.065 g	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	54.70

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

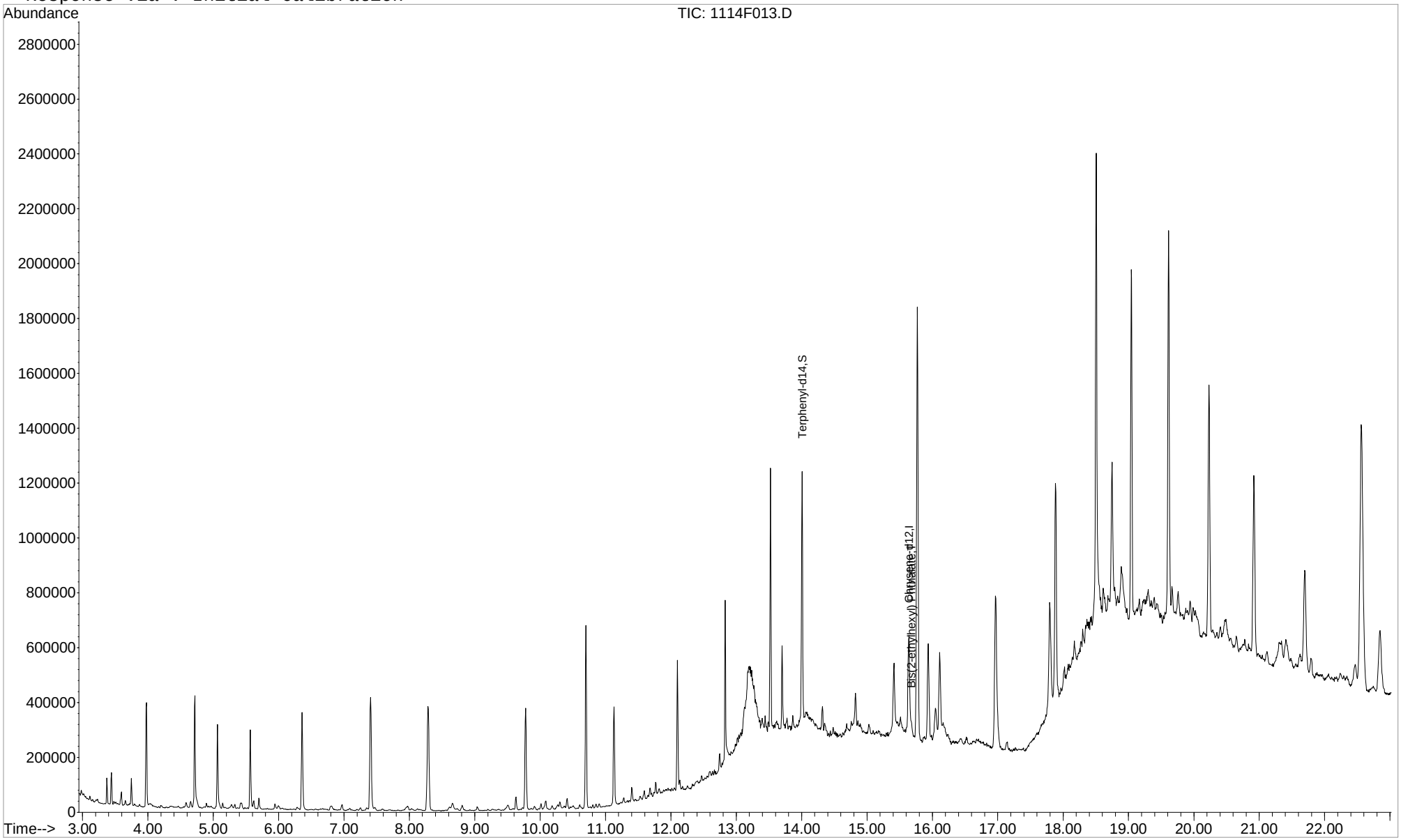
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Quantitation Report (QT Reviewed)

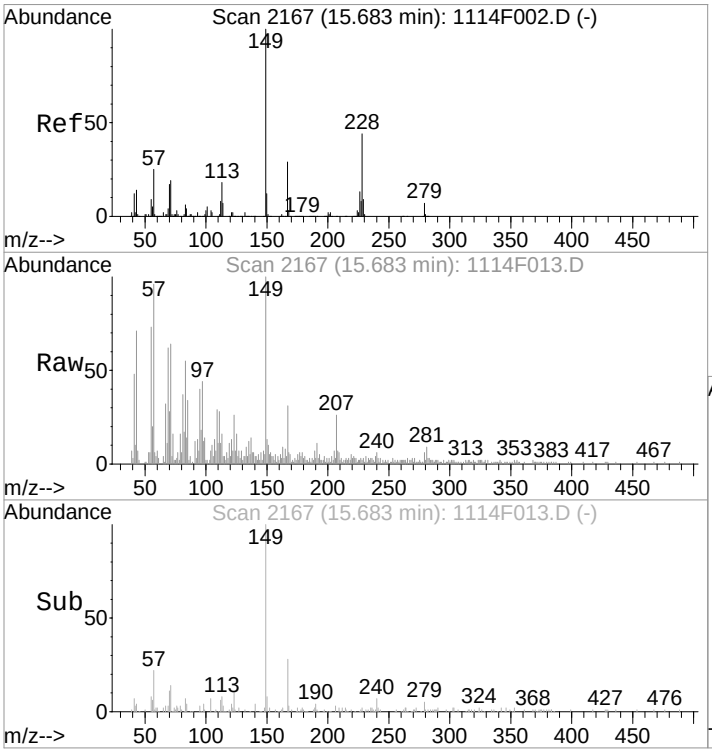
1st CE 11/17/18
2nd TP 11/30/18

Data File : J:\MS29\DATA\111418\1114F013.D Vial: 13
Acq On : 14 Nov 2018 4:18 pm Operator: CConover
Sample : K1810302-016 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 17 0:20 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration



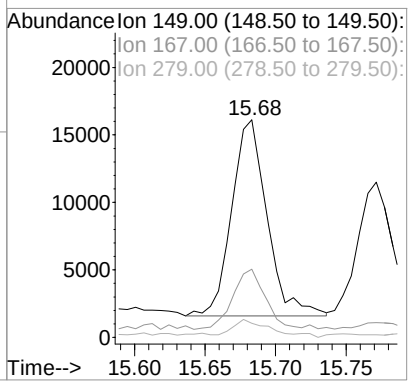
1st 11/17/18
2nd 11/30/18



#3
Bis(2-ethylhexyl) Phthalate
Concen: 131.55 ng/ml
RT: 15.68 min Scan# 2167
Delta R.T. 0.02 min
Lab File: 1114F013.D
Acq: 14 Nov 2018 4:18 pm

Tgt Ion:149 Resp: 25312

Ion	Ratio	Lower	Upper
149	100		
167	29.7	0.0	59.7
279	5.9	0.0	36.4



Quantitation Report (QT Reviewed)

1st 11/17/18
2nd 11/30/18

Data File : J:\MS29\DATA\111418\1114F013.D Vial: 13
Acq On : 14 Nov 2018 4:18 pm Operator: CConover
Sample : K1810302-016 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 17 00:20:44 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.64	240	226239	1000.00	ng/ml	0.03
System Monitoring Compounds						
2) Terphenyl-d14	14.01	244	367298	1612.00	ng/ml	0.02
Spiked Amount 2500.000	Range 54 - 158		Recovery = 64.48%			
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.68	149	25312	131.55	ng/ml	100

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

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F018.D\
Lab ID: K1810302-022
RunType: N/A
Matrix: Sediment

Date Acquired: 11/17/18 23:38:00
Batch ID: 615546
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 12/7/18 15:58
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Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F018.D\	**Instrument:**	K-MS-29
Acqu Date:	11/17/18 23:38:00	**Vial:**	18
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-022	**Raw Units:**	ng/mL

Bottle ID:	K1810302-022.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615546	**Prep Lot:**	324899	**Report Group:**	K1810302
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.65		242635	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	14.01		362938	1485.22	59	30 - 102	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.69	+0.01	28368	137.47	10	J	Y

Prep Amount:	40.089 g	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	66.00

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

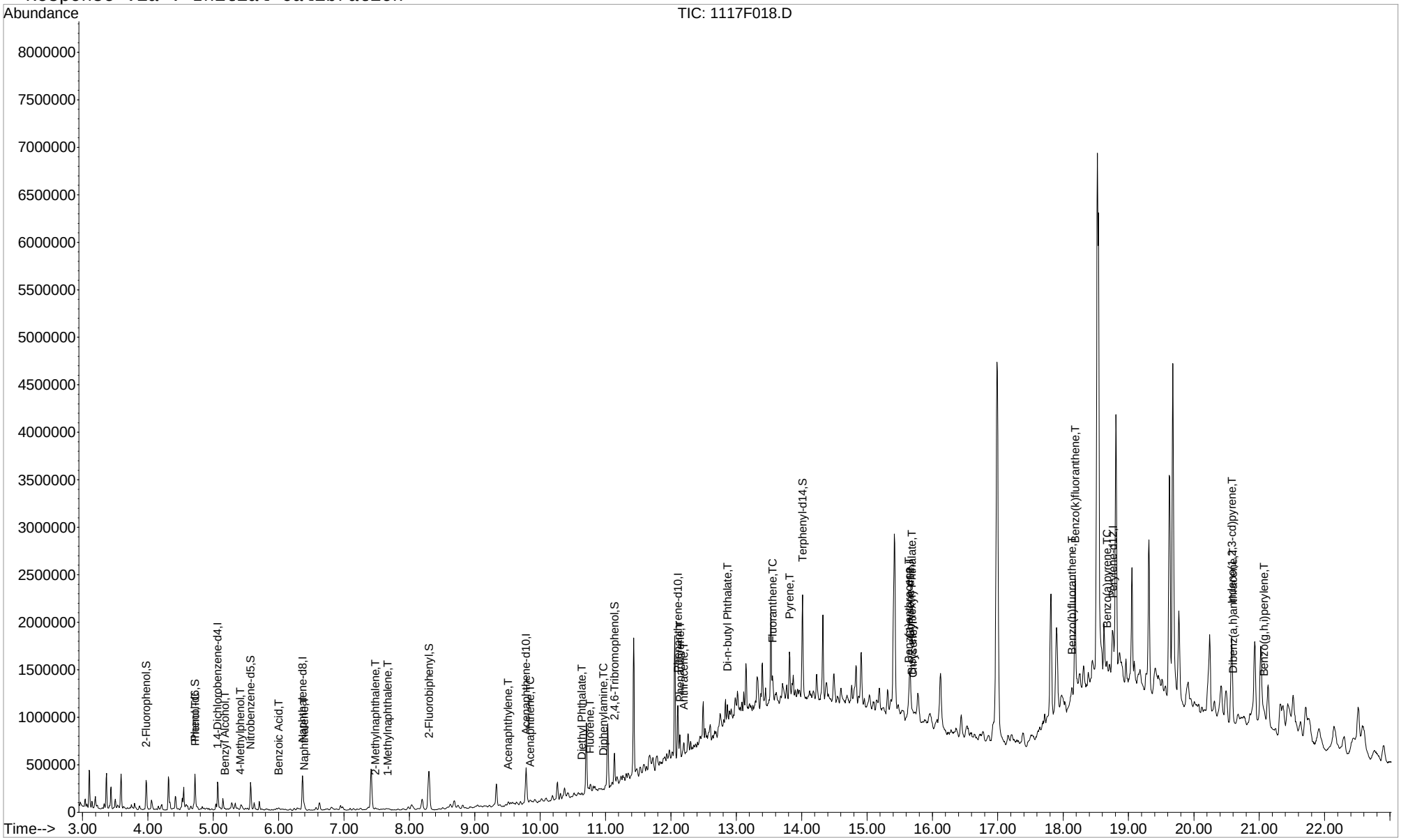
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Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

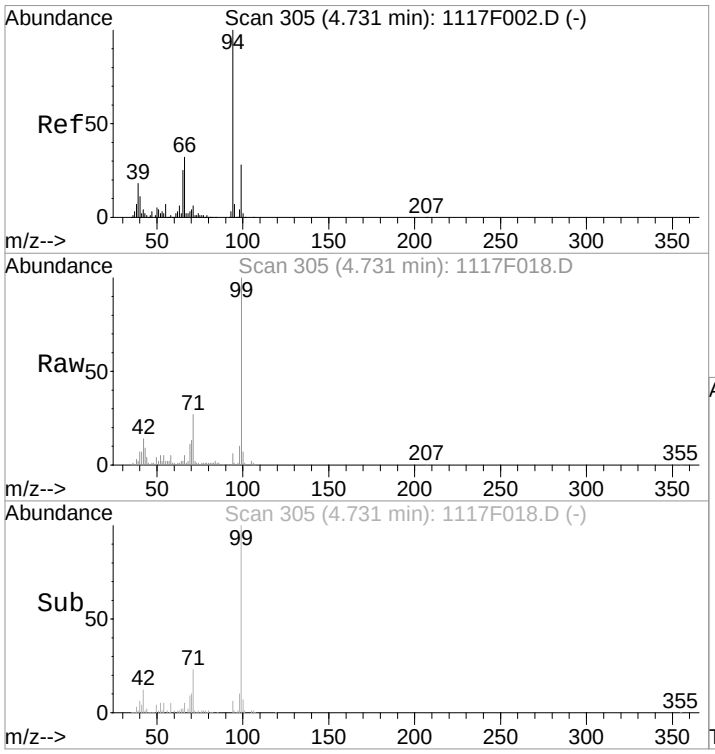
Data File : J:\MS29\DATA\111718\1117F018.D Vial: 65
Acq On : 17 Nov 2018 11:38 pm Operator: CConover
Sample : K1810302-022 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 12:54 2018 Quant Results File: 110618_8270LL.RES

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration



1st 12/07/18

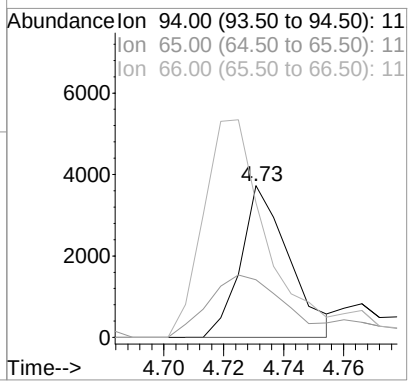
2nd 12/10/18

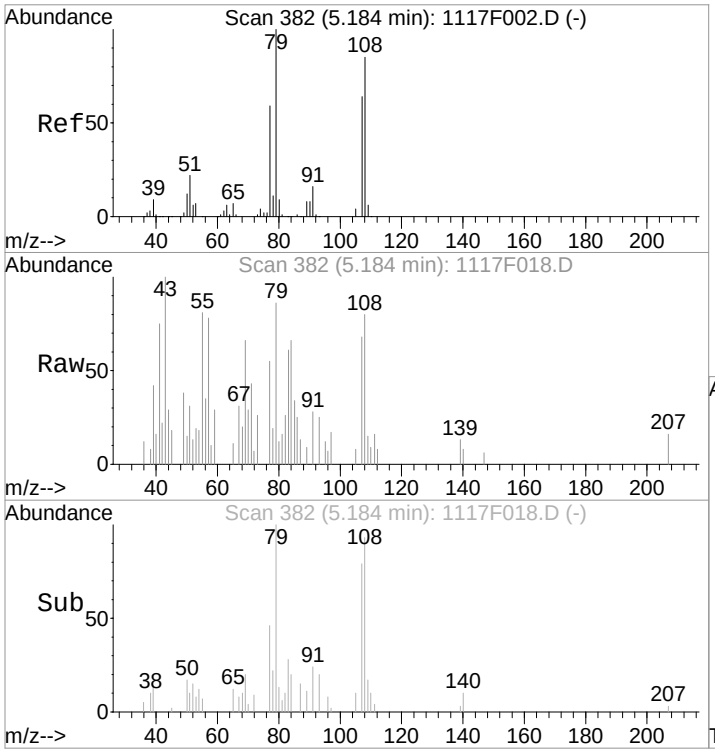


#7
Phenol
Concen: 39.48 ng/ml
RT: 4.73 min Scan# 305
Delta R.T. 0.02 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion: 94 Resp: 4198

Ion	Ratio	Lower	Upper
94	100		
65	29.3	0.0	53.9
66	75.5	0.9	60.9#

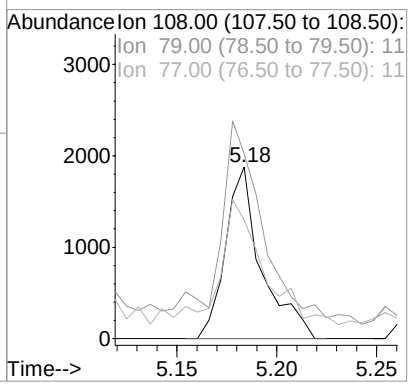




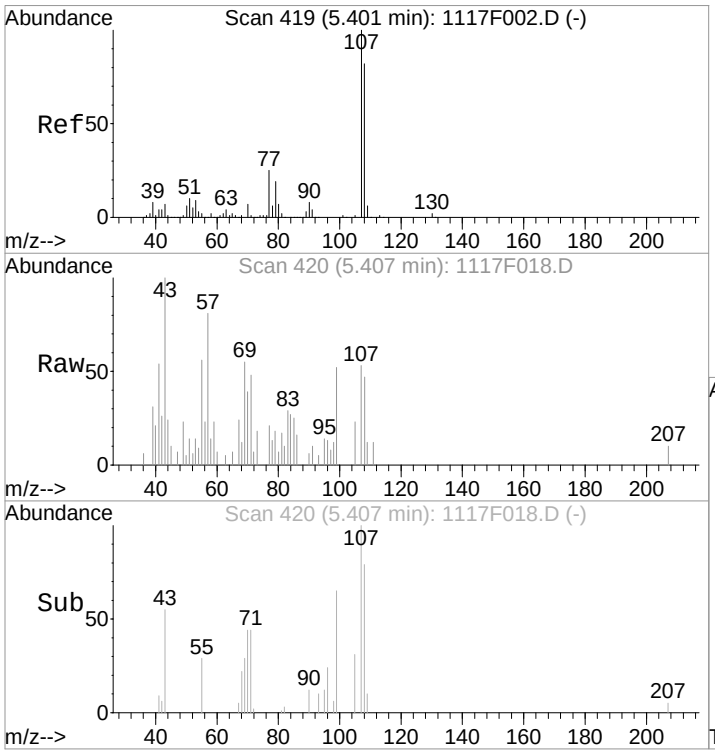
#13
Benzyl Alcohol
Concen: 42.77 ng/ml
RT: 5.18 min Scan# 382
Delta R.T. 0.02 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:108 Resp: 2356

Ion	Ratio	Lower	Upper
108	100		
79	95.6	85.3	145.3
77	56.0	38.7	98.7



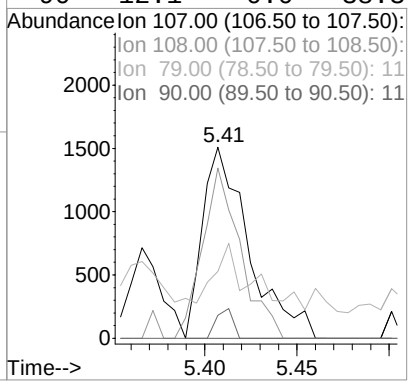
1st 12/07/18
2nd 12/10/18

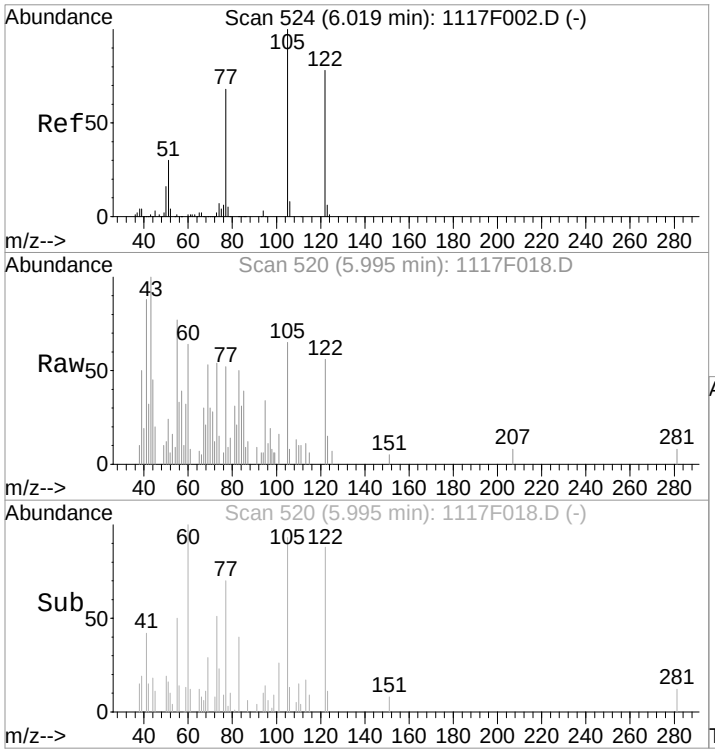


#18
4-Methylphenol
Concen: 25.61 ng/ml
RT: 5.41 min Scan# 420
Delta R.T. 0.02 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:107 Resp: 2648

Ion	Ratio	Lower	Upper
107	100		
108	89.2	51.4	111.4
79	15.9	0.0	47.7
90	12.1	0.0	38.3

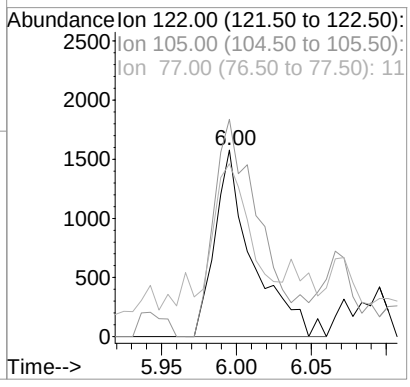




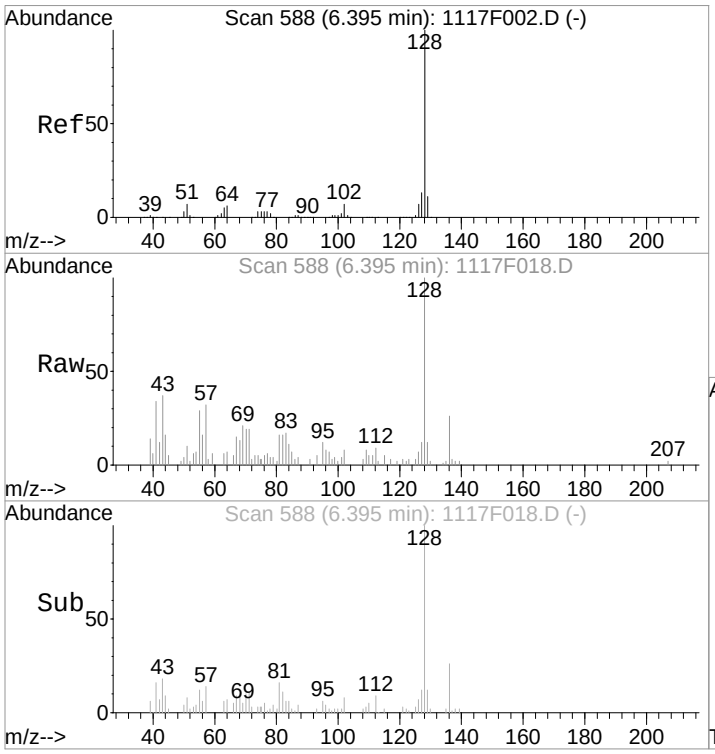
#27
Benzoic Acid
Concen: 522.22 ng/ml
RT: 6.00 min Scan# 520
Delta R.T. 0.01 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:122 Resp: 2763

Ion	Ratio	Lower	Upper
122	100		
105	116.5	86.3	146.3
77	66.4	54.7	114.7



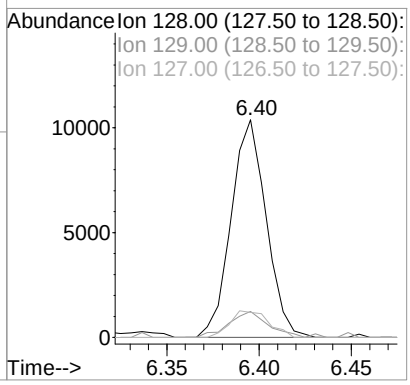
1st 12/07/18
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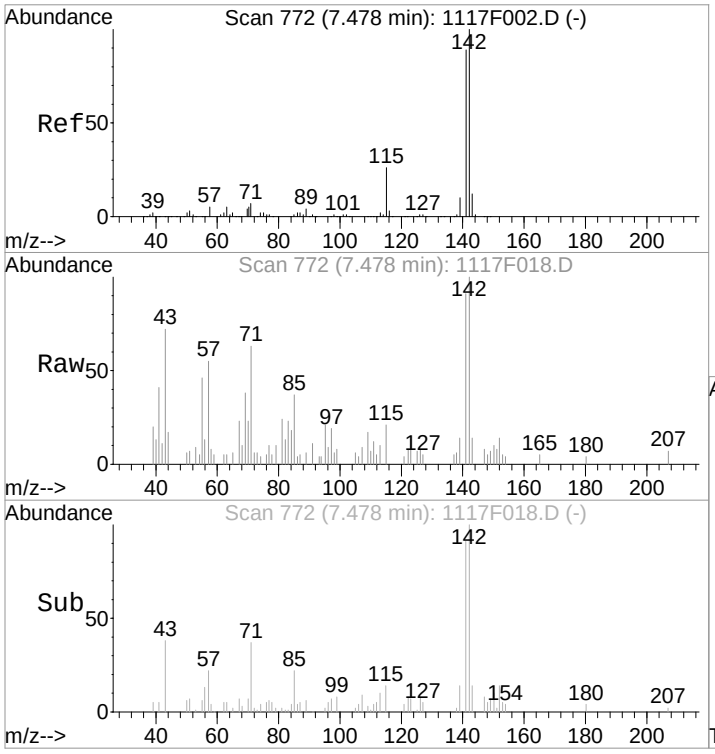


#29
Naphthalene
Concen: 51.74 ng/ml
RT: 6.40 min Scan# 588
Delta R.T. 0.02 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:128 Resp: 13726

Ion	Ratio	Lower	Upper
128	100		
129	11.9	0.0	41.0
127	11.5	0.0	43.2

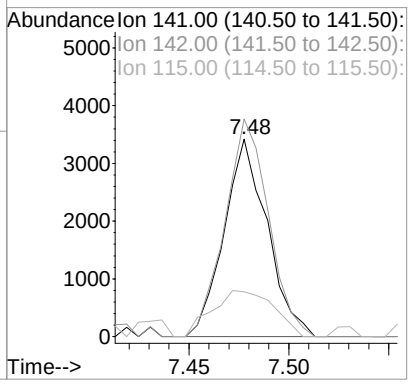




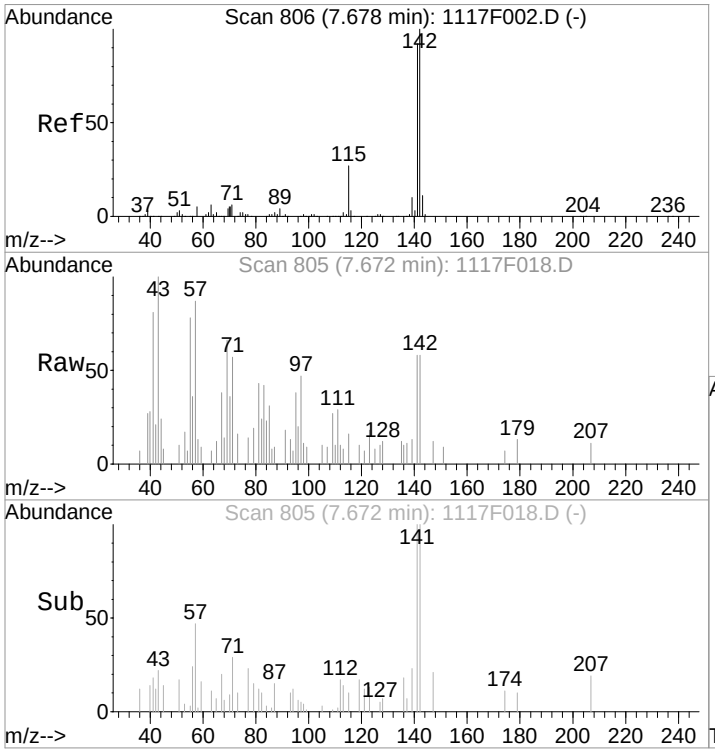
#33
2-Methylnaphthalene
Concen: 33.19 ng/ml
RT: 7.48 min Scan# 772
Delta R.T. 0.03 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:141 Resp: 5142

Ion	Ratio	Lower	Upper
141	100		
142	110.1	84.5	144.5
115	22.7	0.0	59.3



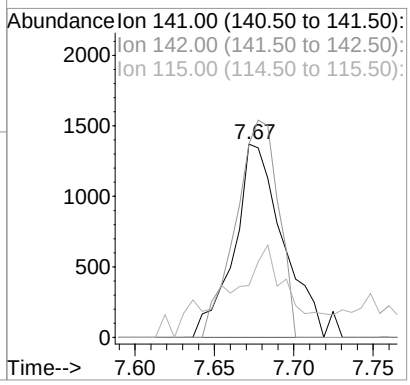
1st 12/07/18
2nd 12/10/18

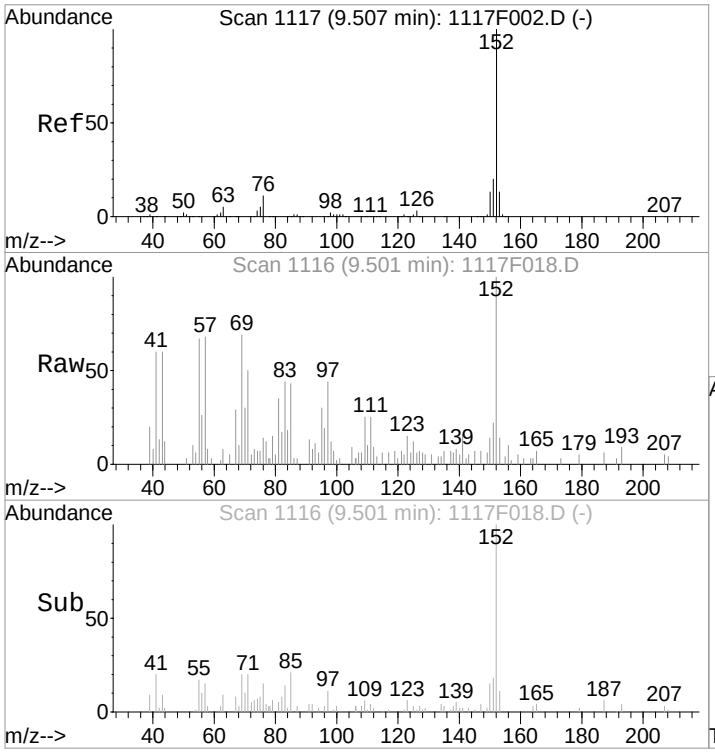


#34
1-Methylnaphthalene
Concen: 20.60 ng/ml m
RT: 7.67 min Scan# 805
Delta R.T. 0.03 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:141 Resp: 2921

Ion	Ratio	Lower	Upper
141	100		
142	100.0	77.2	143.4
115	26.9	20.7	38.5

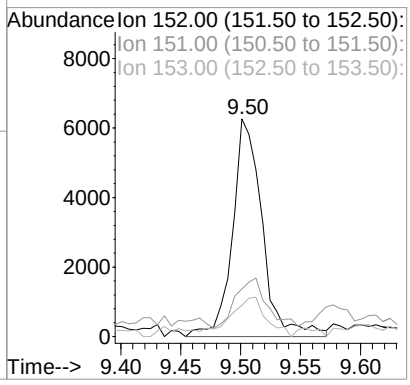




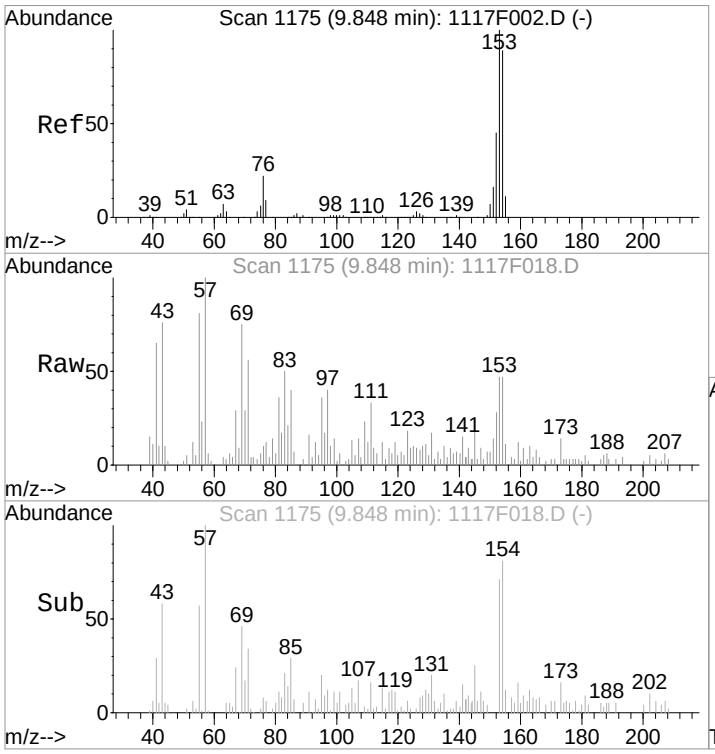
#42
Acenaphthylene
Concen: 41.83 ng/ml
RT: 9.50 min Scan# 1116
Delta R.T. 0.03 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:152 Resp: 10847

Ion	Ratio	Lower	Upper
152	100		
151	14.8	0.0	50.0
153	14.5	0.0	42.7



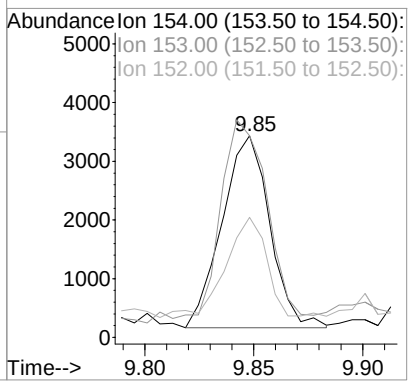
1st 12/07/18
2nd 12/10/18

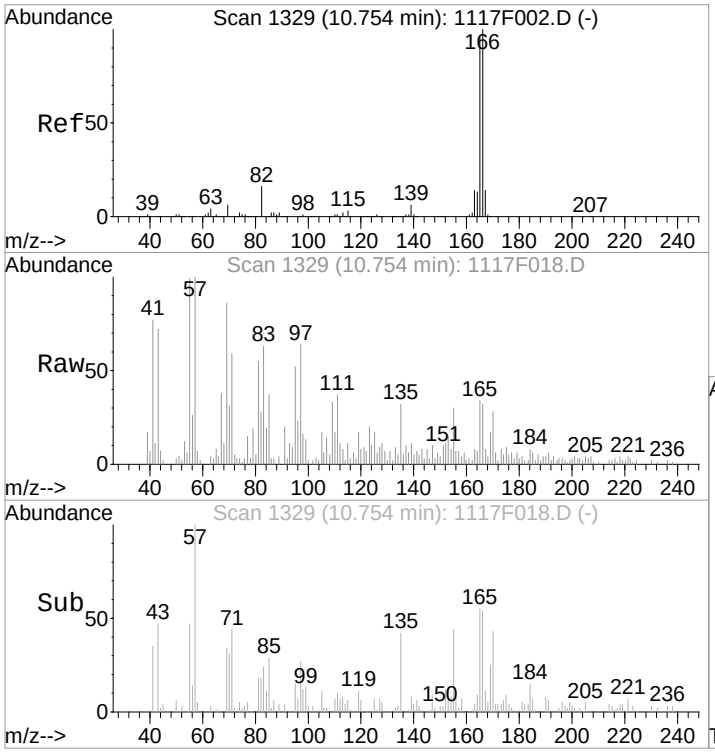


#45
Acenaphthene
Concen: 30.68 ng/ml
RT: 9.85 min Scan# 1175
Delta R.T. 0.03 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:154 Resp: 5000

Ion	Ratio	Lower	Upper
154	100		
153	93.2	81.7	141.7
152	51.4	20.5	80.5

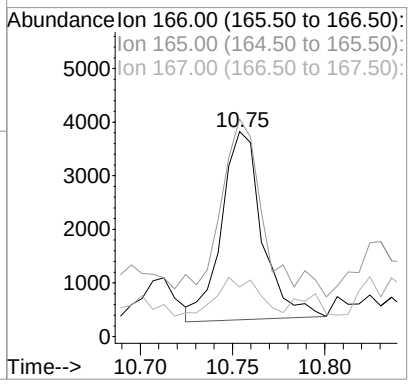




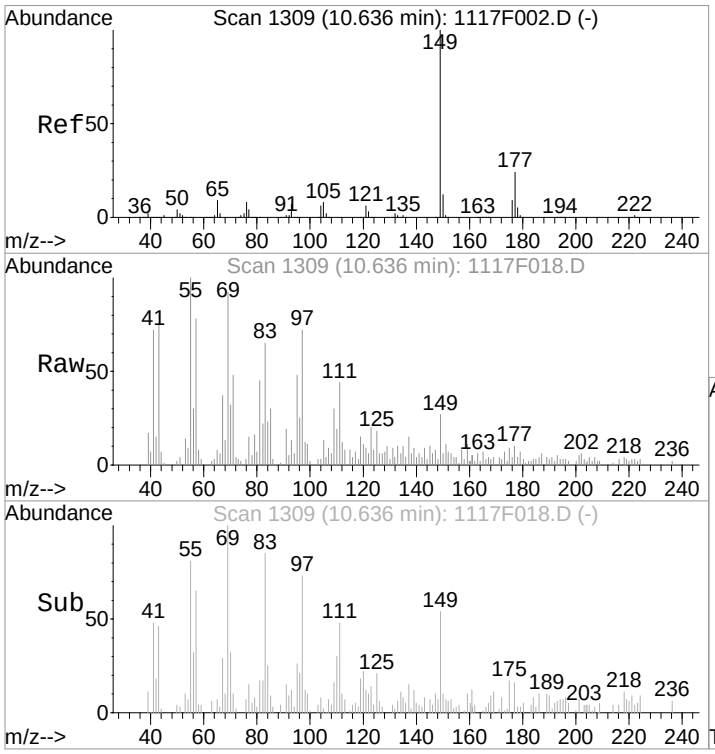
#52
Fluorene
Concen: 28.70 ng/ml
RT: 10.75 min Scan# 1329
Delta R.T. 0.02 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:166 Resp: 5395

Ion	Ratio	Lower	Upper
166	100		
165	96.1	65.9	125.9
167	14.6	0.0	42.7



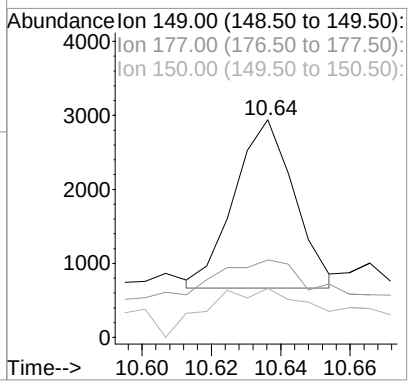
1st 12/07/18
2nd 12/10/18

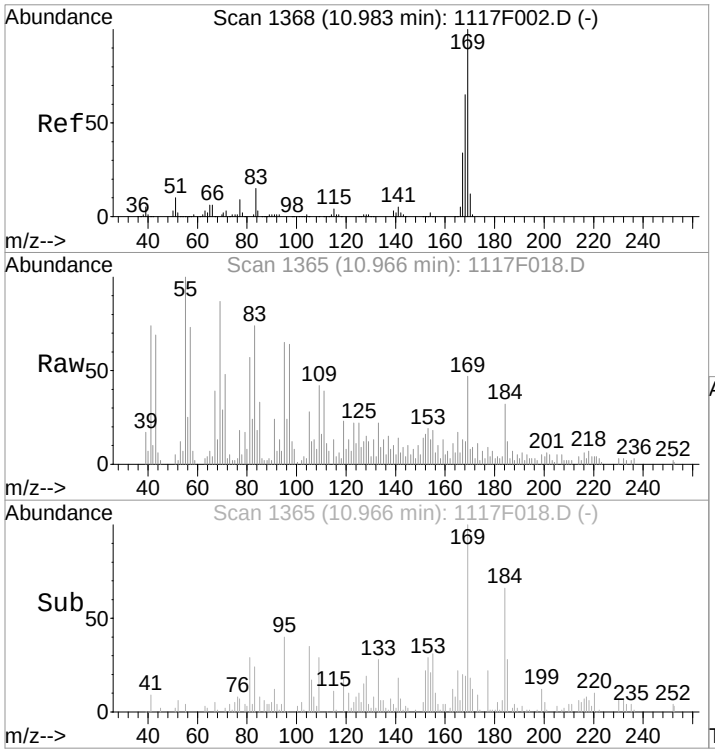


#54
Diethyl Phthalate
Concen: 16.09 ng/ml m
RT: 10.64 min Scan# 1309
Delta R.T. 0.02 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:149 Resp: 2736

Ion	Ratio	Lower	Upper
149	100		
177	35.6	0.0	53.4
150	22.5	0.0	41.9

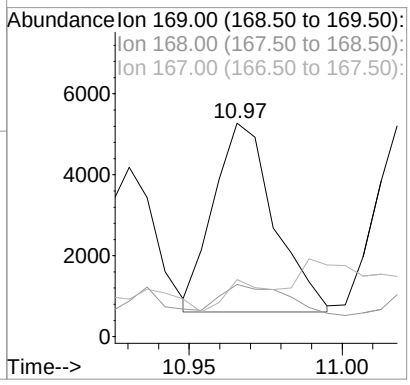




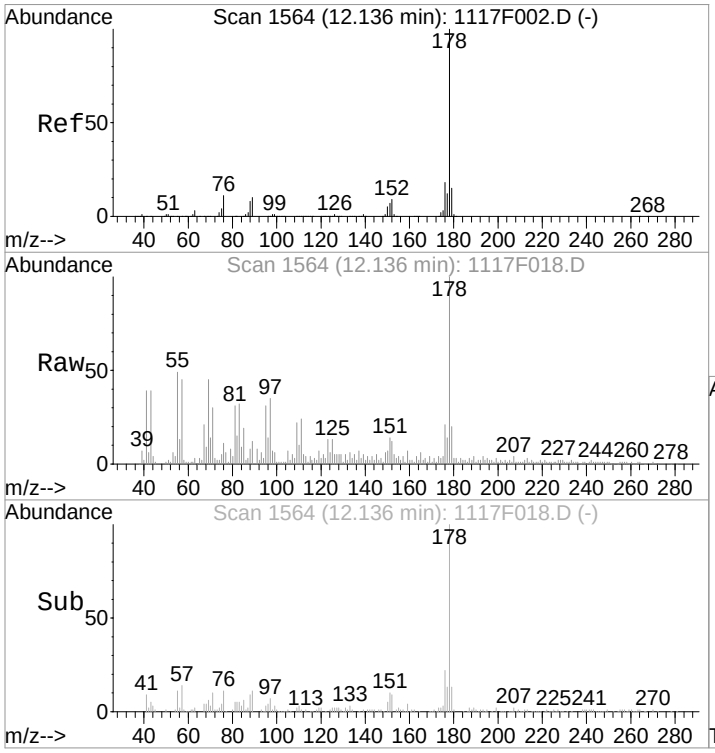
#57
Diphenylamine
Concen: 51.48 ng/ml m
RT: 10.97 min Scan# 1365
Delta R.T. 0.01 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:169 Resp: 6426

Ion	Ratio	Lower	Upper
169	100		
168	24.4	35.6	95.6#
167	26.7	3.3	63.3



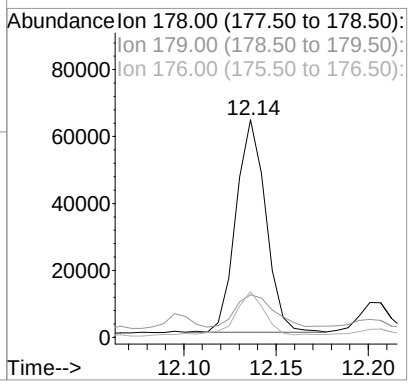
1st 12/07/18
2nd 12/10/18

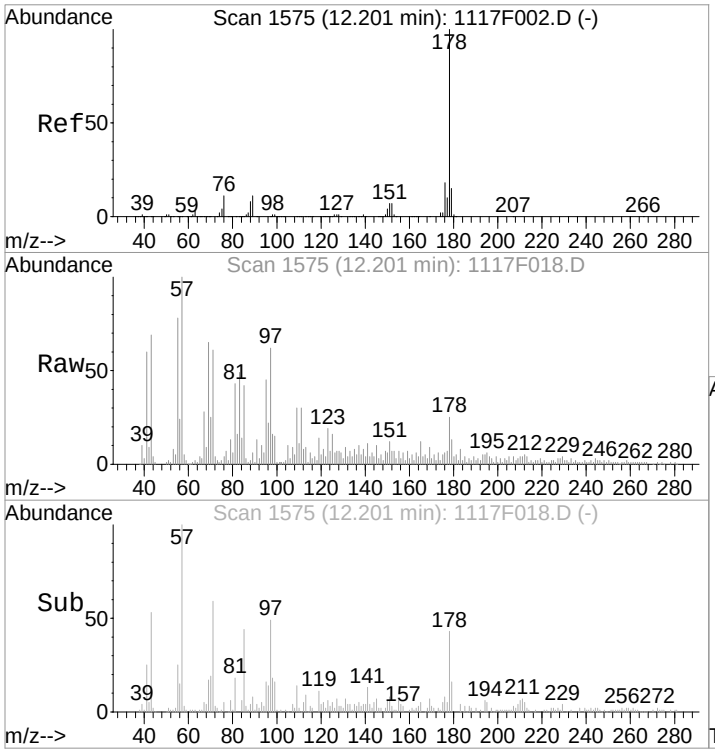


#64
Phenanthrene
Concen: 248.25 ng/ml
RT: 12.14 min Scan# 1564
Delta R.T. 0.02 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:178 Resp: 71188

Ion	Ratio	Lower	Upper
178	100		
179	14.8	0.0	45.6
176	20.2	0.0	47.8

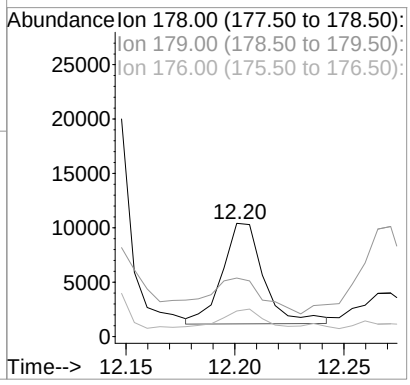




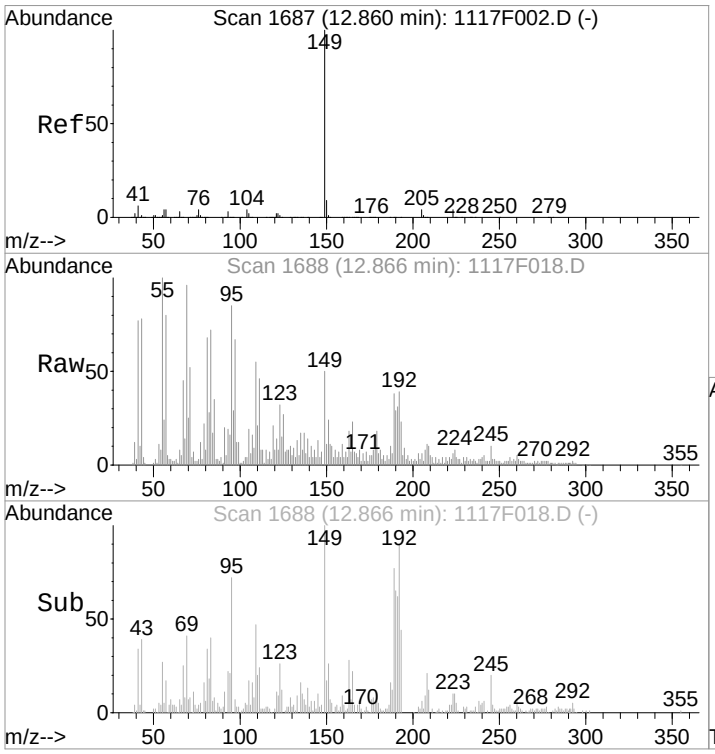
#65
Anthracene
Concen: 44.15 ng/ml
RT: 12.20 min Scan# 1575
Delta R.T. 0.02 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:178 Resp: 12352

Ion	Ratio	Lower	Upper
178	100		
179	27.8	0.0	44.6
176	16.6	0.0	47.4



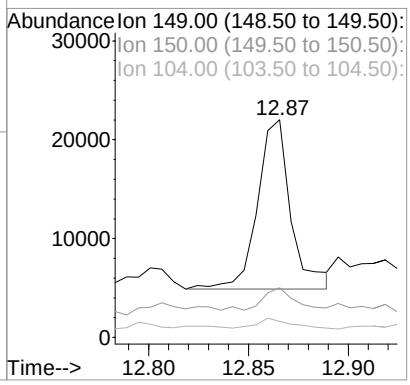
1st 12/07/18
2nd 12/10/18

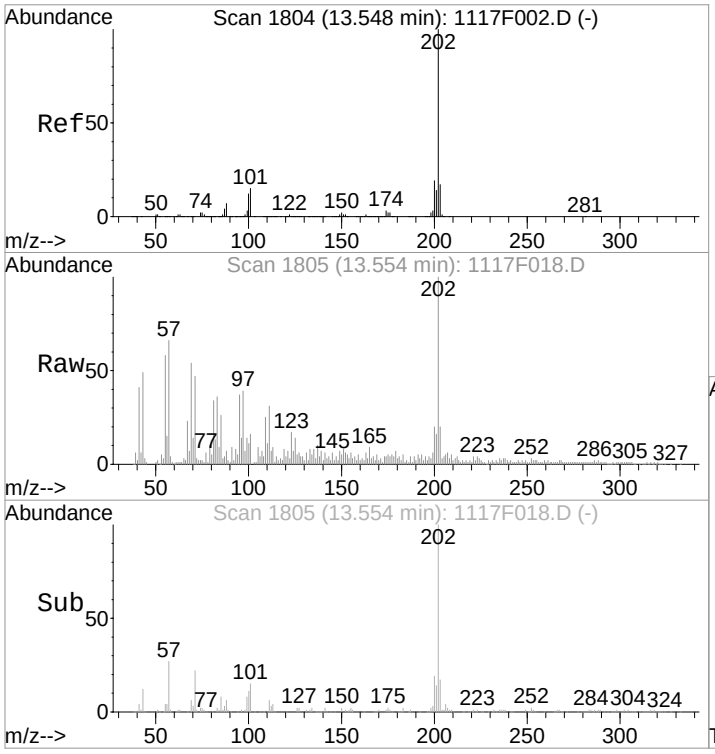


#67
Di-n-butyl Phthalate
Concen: 71.15 ng/ml
RT: 12.87 min Scan# 1688
Delta R.T. 0.02 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:149 Resp: 19952

Ion	Ratio	Lower	Upper
149	100		
150	12.4	0.0	39.1
104	4.0	0.0	33.8

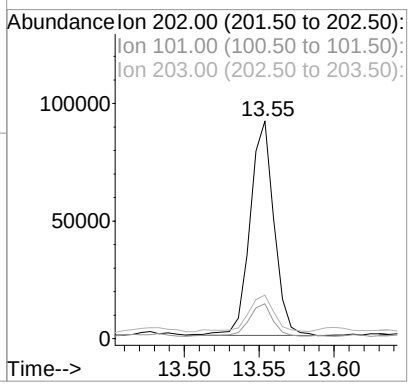




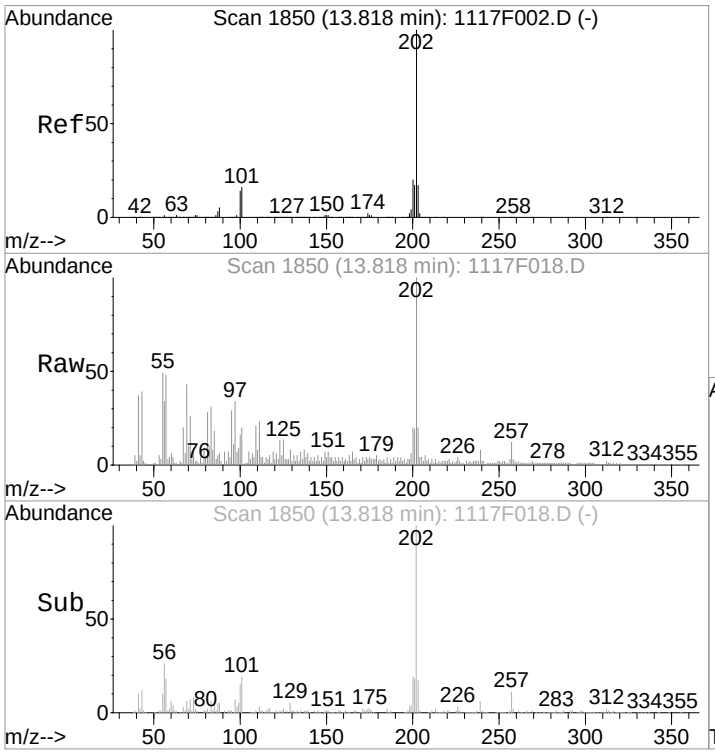
#68
Fluoranthene
Concen: 331.88 ng/ml
RT: 13.55 min Scan# 1805
Delta R.T. 0.02 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:202 Resp: 100797

Ion	Ratio	Lower	Upper
202	100		
101	15.3	0.0	43.9
203	17.1	0.0	46.8



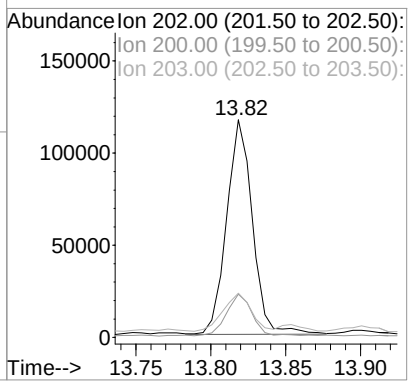
1st 12/07/18
2nd 12/10/18

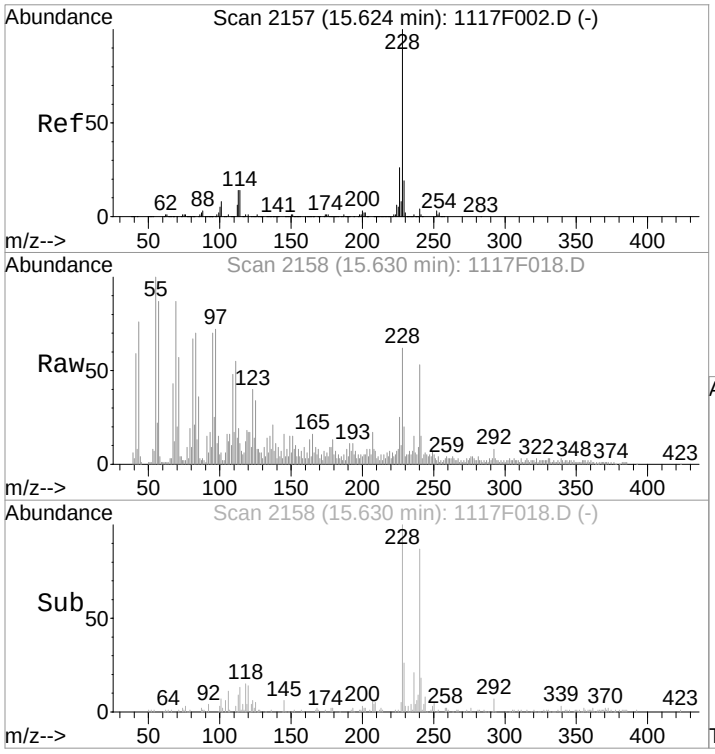


#70
Pyrene
Concen: 368.04 ng/ml
RT: 13.82 min Scan# 1850
Delta R.T. 0.02 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:202 Resp: 139761

Ion	Ratio	Lower	Upper
202	100		
200	19.1	0.0	49.6
203	17.7	0.0	47.0

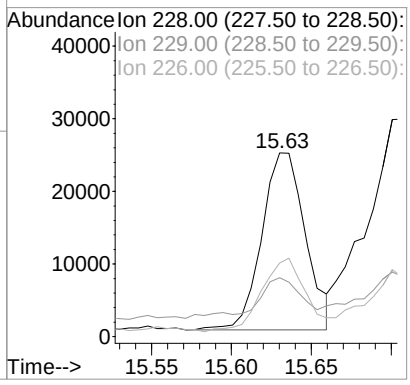




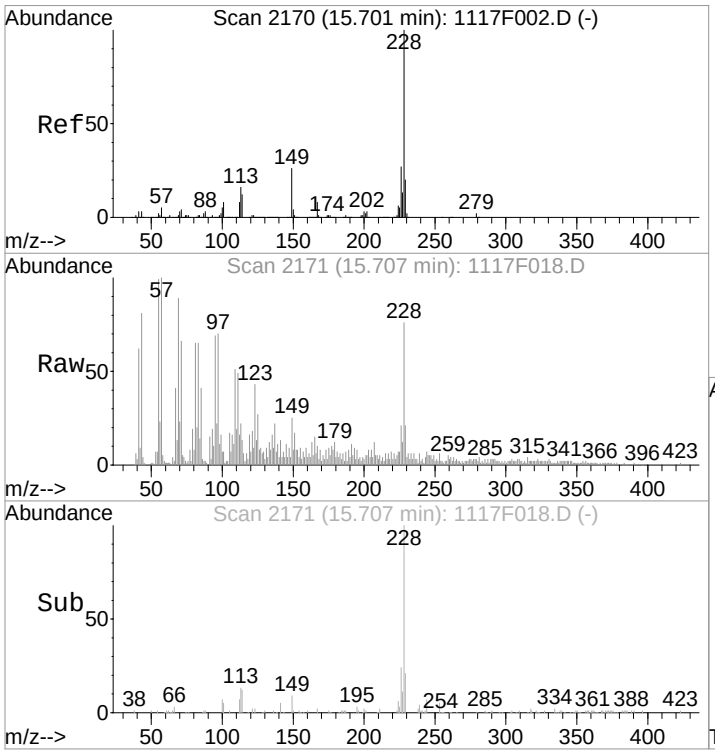
#74
Benz(a)anthracene
Concen: 148.56 ng/ml
RT: 15.63 min Scan# 2158
Delta R.T. 0.04 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:228 Resp: 46428

Ion	Ratio	Lower	Upper
228	100		
229	22.9	0.0	48.9
226	37.6	0.0	55.1



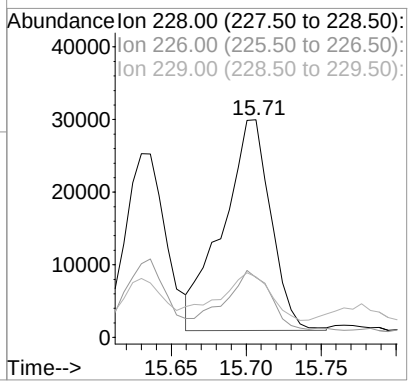
1st 12/07/18
2nd 12/10/18

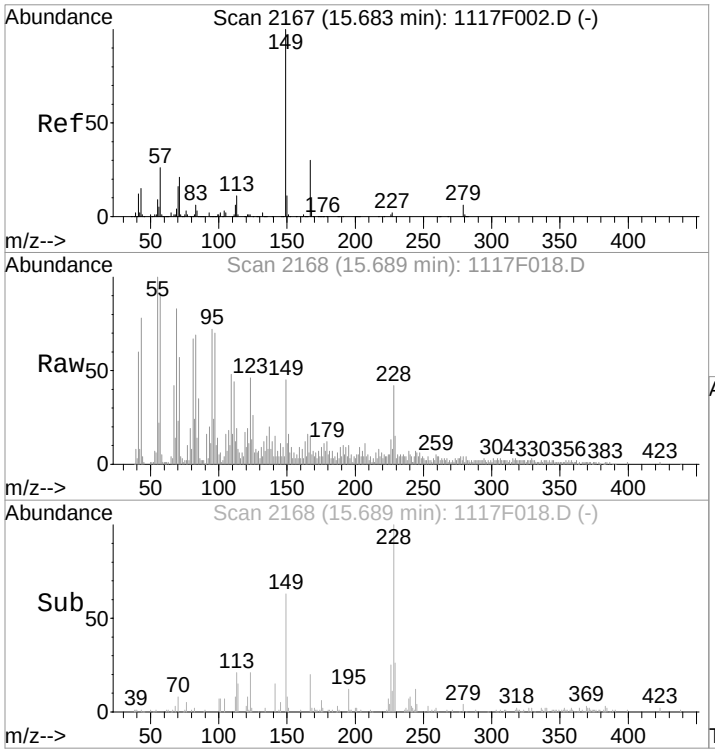


#75
Chrysene
Concen: 218.79 ng/ml
RT: 15.71 min Scan# 2171
Delta R.T. 0.04 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:228 Resp: 64670

Ion	Ratio	Lower	Upper
228	100		
226	24.4	0.0	57.6
229	17.9	0.0	49.3

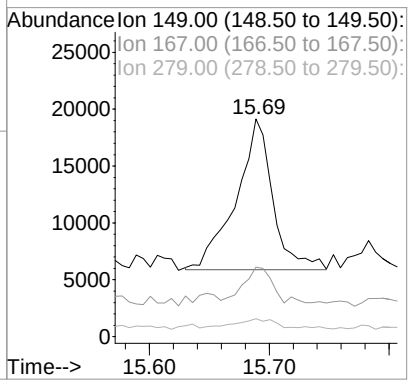




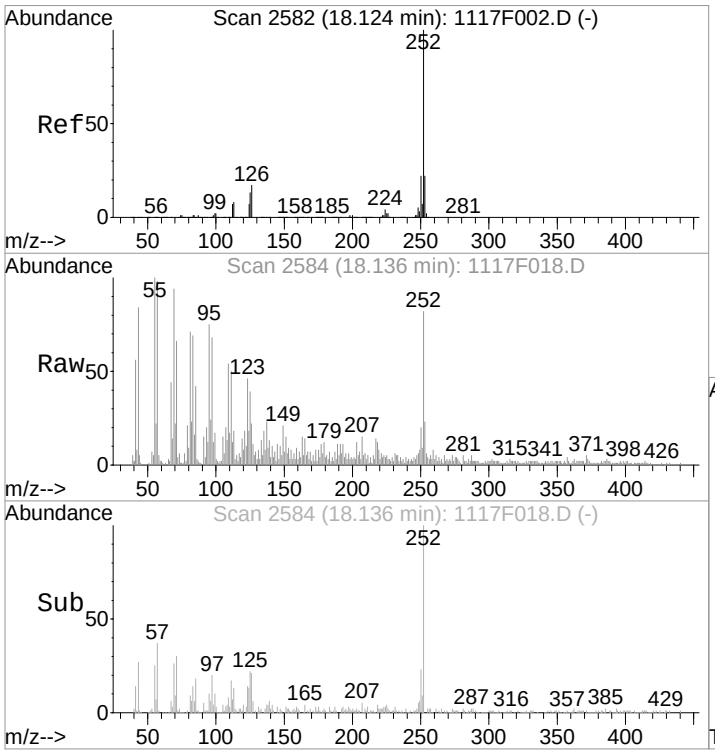
#76
Bis(2-ethylhexyl) Phthalate
Concen: 137.47 ng/ml
RT: 15.69 min Scan# 2168
Delta R.T. 0.03 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:149 Resp: 28368

Ion	Ratio	Lower	Upper
149	100		
167	23.8	0.0	59.7
279	6.4	0.0	36.4



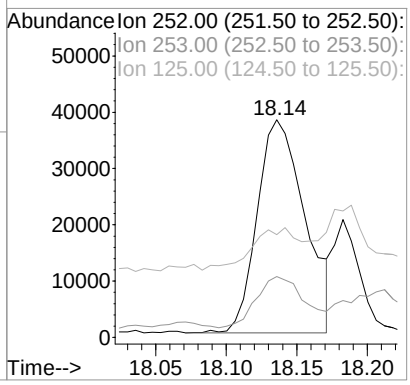
1st 12/07/18
2nd 12/10/18

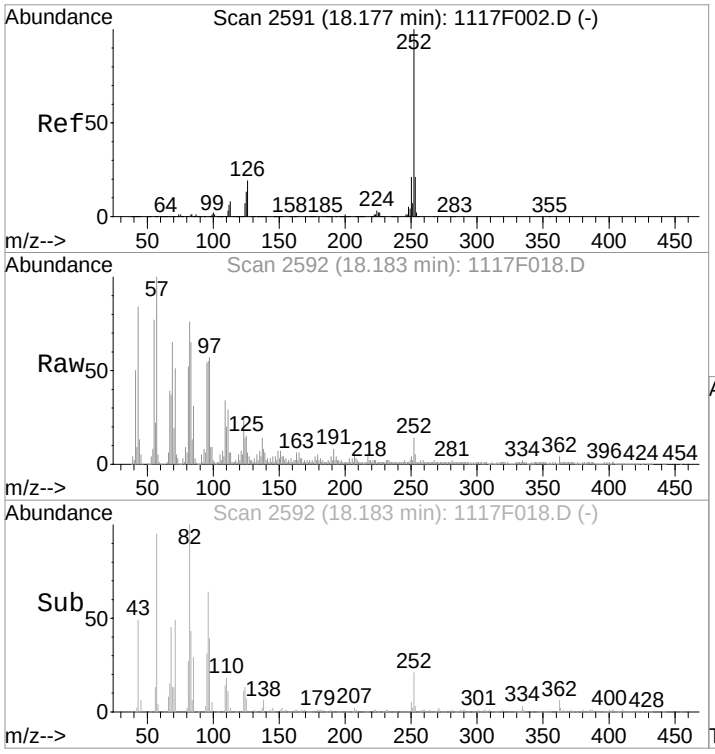


#79
Benzo(b)fluoranthene
Concen: 310.31 ng/ml
RT: 18.14 min Scan# 2584
Delta R.T. 0.05 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:252 Resp: 89427

Ion	Ratio	Lower	Upper
252	100		
253	21.2	0.0	51.6
125	15.3	0.0	43.2

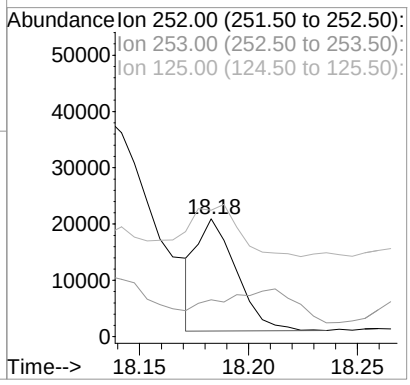




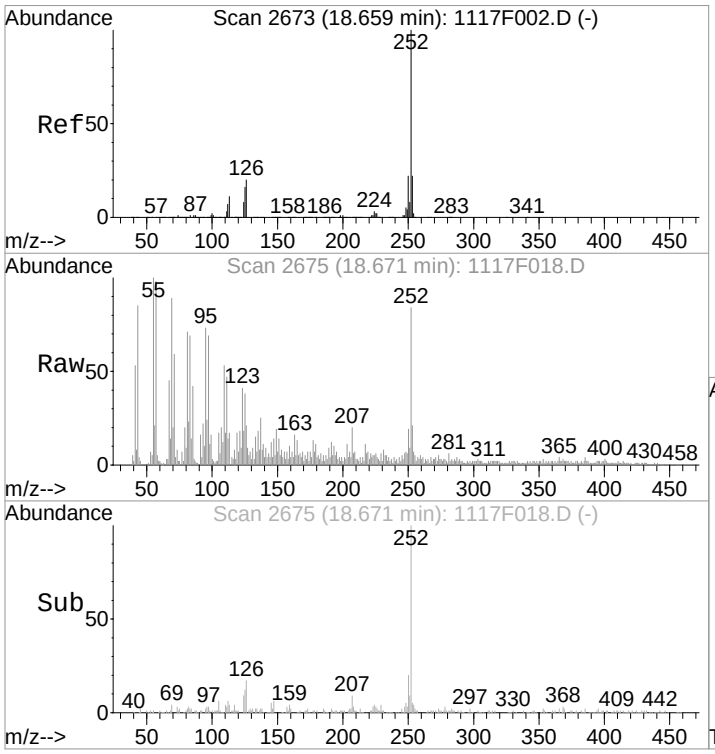
#80
Benzo(k)fluoranthene
Concen: 88.91 ng/ml
RT: 18.18 min Scan# 2592
Delta R.T. 0.04 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:252 Resp: 25207

Ion	Ratio	Lower	Upper
252	100		
253	20.8	0.0	51.5
125	38.1	0.0	43.3



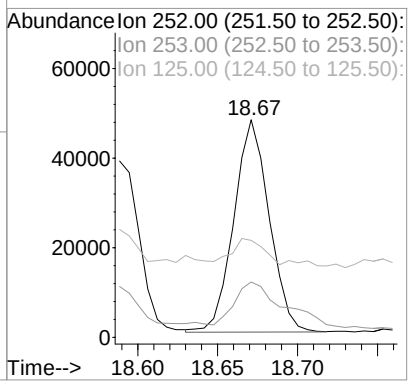
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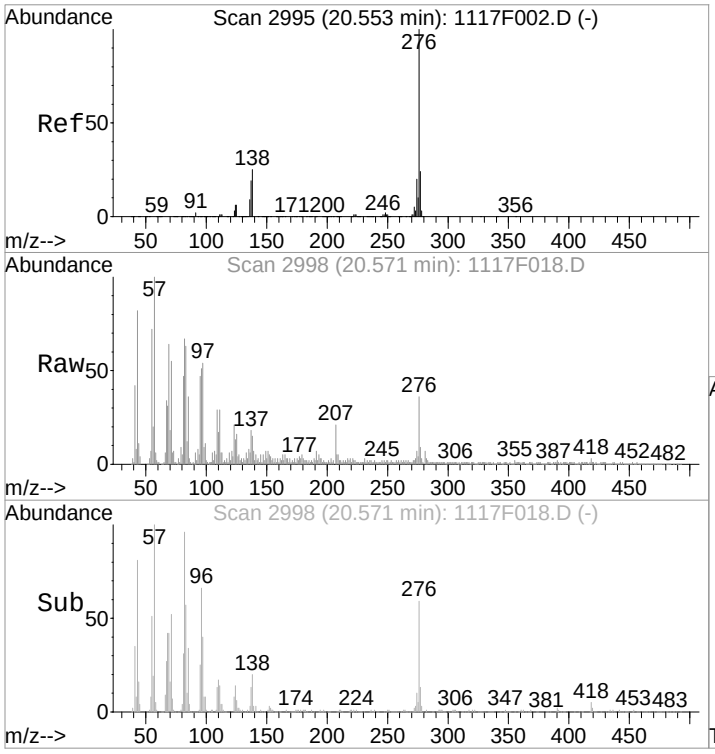


#81
Benzo(a)pyrene
Concen: 276.74 ng/ml
RT: 18.67 min Scan# 2675
Delta R.T. 0.04 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:252 Resp: 72849

Ion	Ratio	Lower	Upper
252	100		
253	20.1	0.0	52.0
125	12.1	0.0	45.4

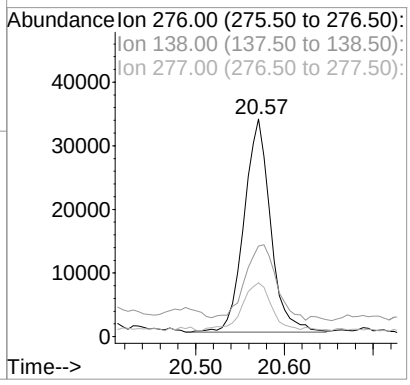




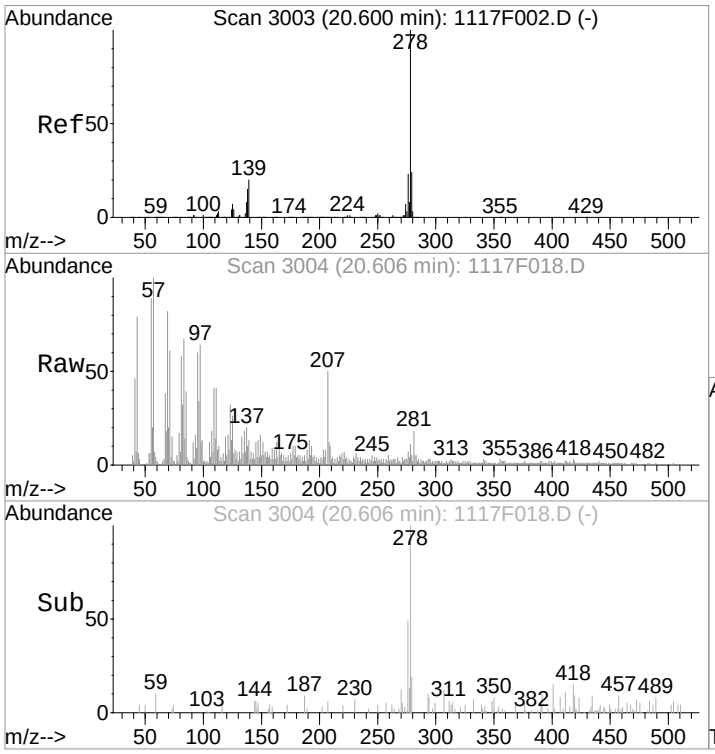
#82
Indeno(1,2,3-cd)pyrene
Concen: 346.22 ng/ml
RT: 20.57 min Scan# 2998
Delta R.T. 0.06 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:276 Resp: 69583

Ion	Ratio	Lower	Upper
276	100		
138	34.5	0.0	53.7
277	21.8	0.0	53.2



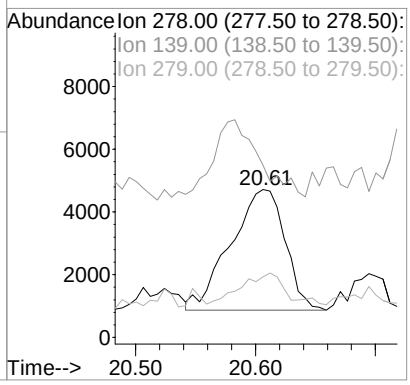
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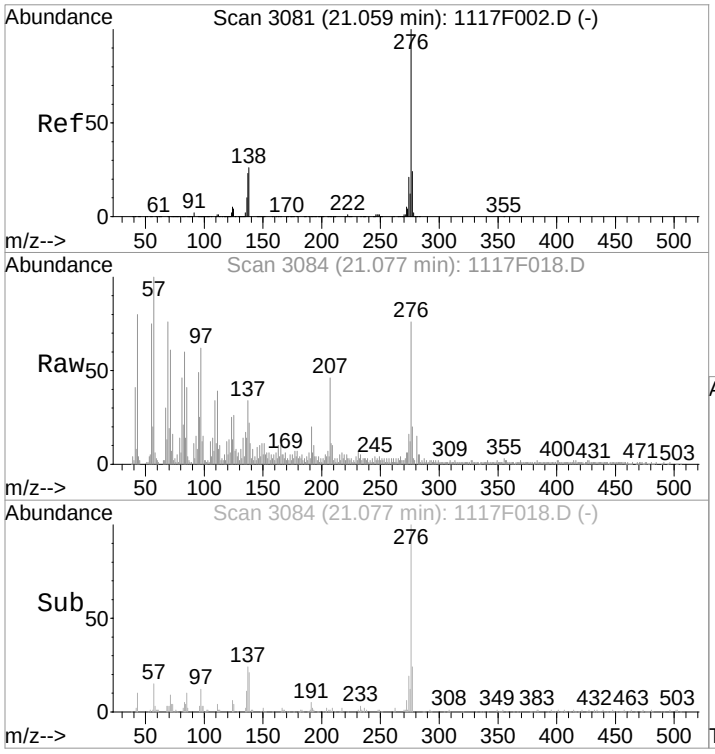


#83
Dibenz(a,h)anthracene
Concen: 119.33 ng/ml
RT: 20.61 min Scan# 3004
Delta R.T. 0.05 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:278 Resp: 12150

Ion	Ratio	Lower	Upper
278	100		
139	24.1	0.0	51.0
279	23.7	0.0	54.3

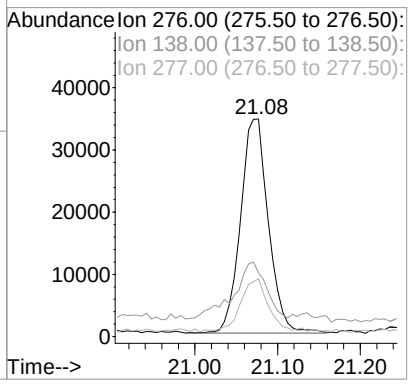




#84
Benzo(g,h,i)perylene
Concen: 378.86 ng/ml
RT: 21.08 min Scan# 3084
Delta R.T. 0.07 min
Lab File: 1117F018.D
Acq: 17 Nov 2018 11:38 pm

Tgt Ion:276 Resp: 80850

Ion	Ratio	Lower	Upper
276	100		
138	21.6	0.0	56.8
277	24.3	0.0	53.6



Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F018.D Vial: 65
Acq On : 17 Nov 2018 11:38 pm Operator: CConover
Sample : K1810302-022 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 11:53:25 2018 Quant Results File: 110618_8270LL.RES

Quant Method : J:\MS29\M...\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.07	152	62932	1000.00	ng/ml	0.02
21) Naphthalene-d8	6.37	136	244118	1000.00	ng/ml	0.02
35) Acenaphthene-d10	9.78	164	123376	1000.00	ng/ml	0.03
59) Phenanthrene-d10	12.11	188	236113	1000.00	ng/ml	0.02
69) Chrysene-d12	15.65	240	242635	1000.00	ng/ml	0.04
77) Perylene-d12	18.77	264	241754	1000.00	ng/ml	0.05
System Monitoring Compounds						
4) 2-Fluorophenol	3.97	112	106941	1502.12	ng/ml	0.00
Spiked Amount 3750.000	Range 38 - 110		Recovery = 40.06%			
6) Phenol-d6	4.72	99	185536	1917.28	ng/ml	0.02
Spiked Amount 3750.000	Range 43 - 128		Recovery = 51.13%			
19) Nitrobenzene-d5	5.57	82	113090	1396.64	ng/ml	0.02
Spiked Amount 2500.000	Range 30 - 139		Recovery = 55.87%			
39) 2-Fluorobiphenyl	8.30	172	279515	1485.55	ng/ml	0.04
Spiked Amount 2500.000	Range 37 - 126		Recovery = 59.42%			
60) 2,4,6-Tribromophenol	11.14	330	63661	1994.75	ng/ml	0.03
Spiked Amount 3750.000	Range 38 - 157		Recovery = 53.19%			
71) Terphenyl-d14	14.01	244	362938	1485.22	ng/ml	0.02
Spiked Amount 2500.000	Range 54 - 158		Recovery = 59.41%			

Target Compounds						Qvalue
7) Phenol	4.73	94	4198	39.48	ng/ml#	49
13) Benzyl Alcohol	5.18	108	2356	42.77	ng/ml	83
18) 4-Methylphenol	5.41	107	2648	25.61	ng/ml	92
27) Benzoic Acid	6.00	122	2763	522.22	ng/ml	91
29) Naphthalene	6.40	128	13726	51.74	ng/ml	97
33) 2-Methylnaphthalene	7.48	141	5142	33.19	ng/ml	94
34) 1-Methylnaphthalene	7.67	141	2921m	20.60	ng/ml	
42) Acenaphthylene	9.50	152	10847	41.83	ng/ml	91
45) Acenaphthene	9.85	154	5000	30.68	ng/ml	88
52) Fluorene	10.75	166	5395	28.70	ng/ml	99
54) Diethyl Phthalate	10.64	149	2736m	16.09	ng/ml	
57) Diphenylamine	10.97	169	6426m	51.48	ng/ml	
64) Phenanthrene	12.14	178	71188	248.25	ng/ml	96
65) Anthracene	12.20	178	12352	44.15	ng/ml	84
67) Di-n-butyl Phthalate	12.87	149	19952	71.15	ng/ml	93
68) Fluoranthene	13.55	202	100797	331.88	ng/ml	98
70) Pyrene	13.82	202	139761	368.04	ng/ml	99
74) Benz(a)anthracene	15.63	228	46428	148.56	ng/ml	82
75) Chrysene	15.71	228	64670	218.79	ng/ml	95
76) Bis(2-ethylhexyl) Phthalat	15.69	149	28368	137.47	ng/ml	91
79) Benzo(b)fluoranthene	18.14	252	89427	310.31	ng/ml	97
80) Benzo(k)fluoranthene	18.18	252	25207	88.91	ng/ml	75
81) Benzo(a)pyrene	18.67	252	72849	276.74	ng/ml	94
82) Indeno(1,2,3-cd)pyrene	20.57	276	69583	346.22	ng/ml	87
83) Dibenz(a,h)anthracene	20.61	278	12150	119.33	ng/ml	96
84) Benzo(g,h,i)perylene	21.08	276	80850	378.86	ng/ml	94

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

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F019.D\
Lab ID: K1810302-023
RunType: N/A
Matrix: Sediment

Date Acquired: 11/18/18 00:07:00
Batch ID: 615546
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 12/7/18 15:58
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Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F019.D\	**Instrument:**	K-MS-29
Acqu Date:	11/18/18 00:07:00	**Vial:**	19
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-023	**Raw Units:**	ng/mL

Bottle ID:	K1810302-023.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615546	**Prep Lot:**	324899	**Report Group:**	K1810302
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.67	+0.02	246594	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	14.02	+0.01	367775	1480.86	59	30 - 102	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.71	+0.03	1758850	8386.58	760		Y

Prep Amount:	40.257 g	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	54.70

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

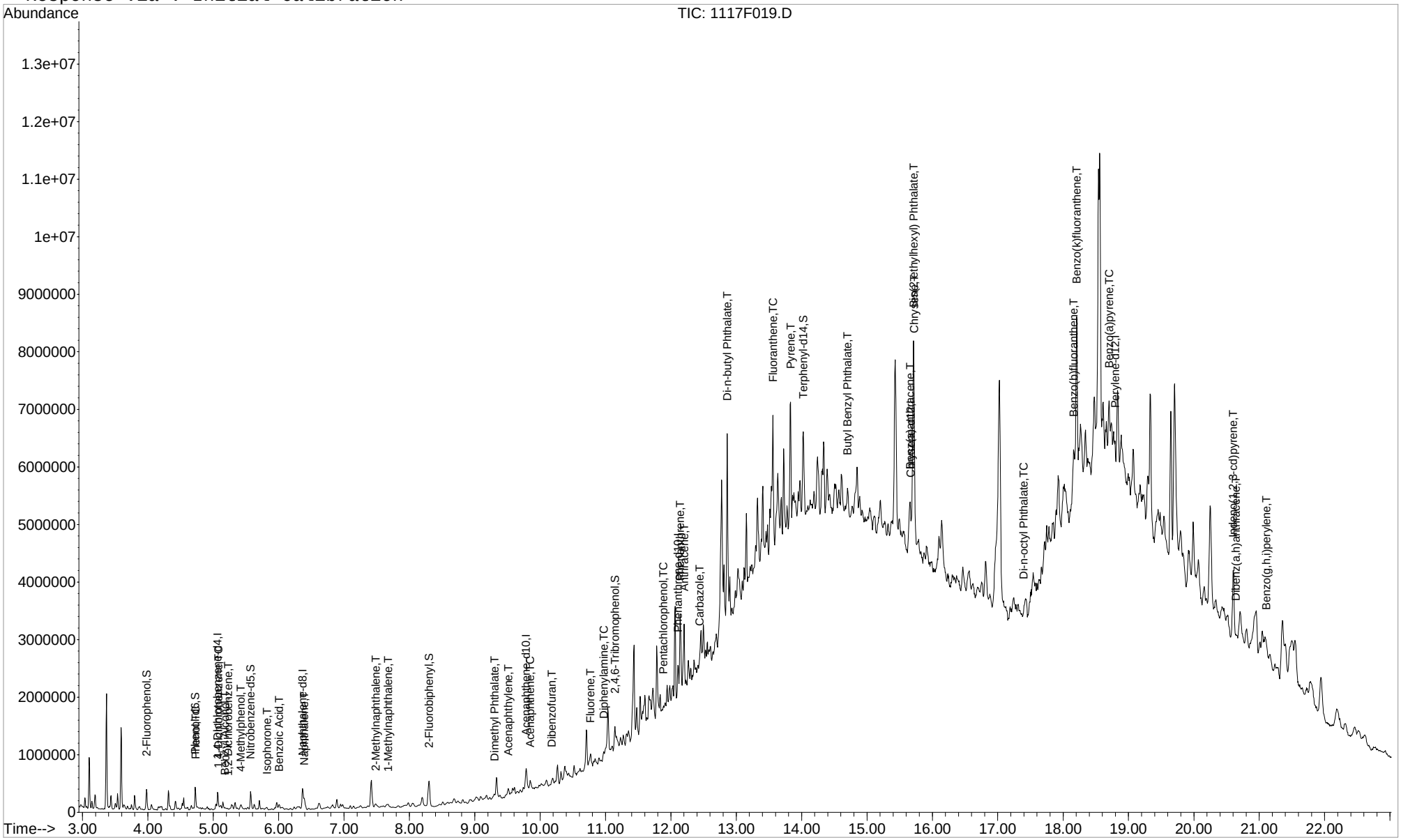
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Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

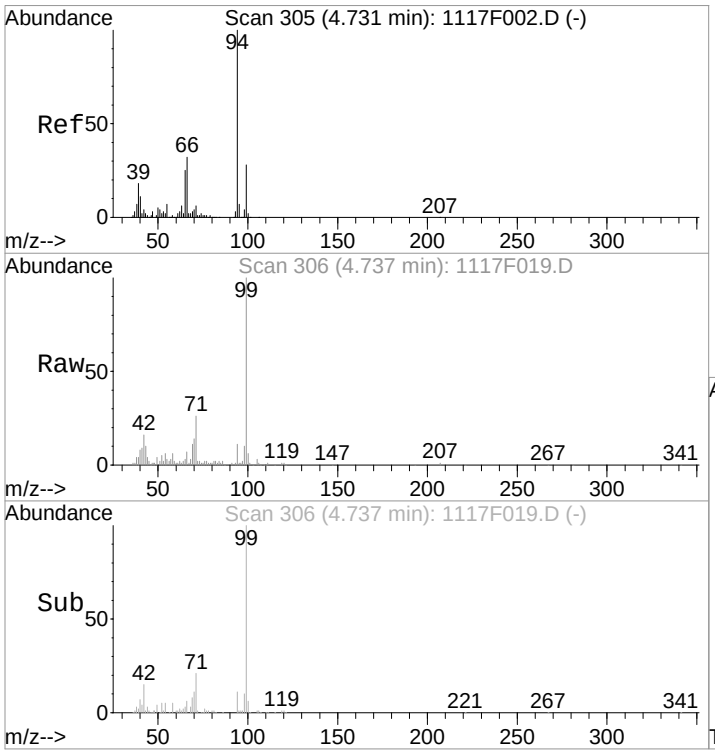
Data File : J:\MS29\DATA\111718\1117F019.D Vial: 66
Acq On : 18 Nov 2018 12:07 am Operator: CConover
Sample : K1810302-023 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 14:55 2018 Quant Results File: 110618_8270LL.RES

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration



1st 12/07/18

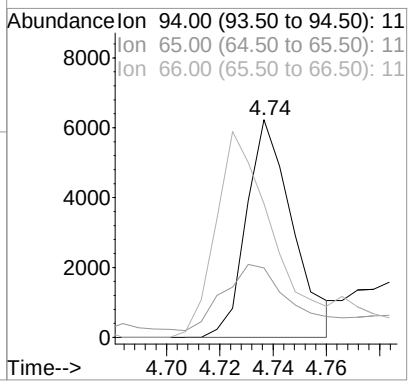
2nd 12/10/18

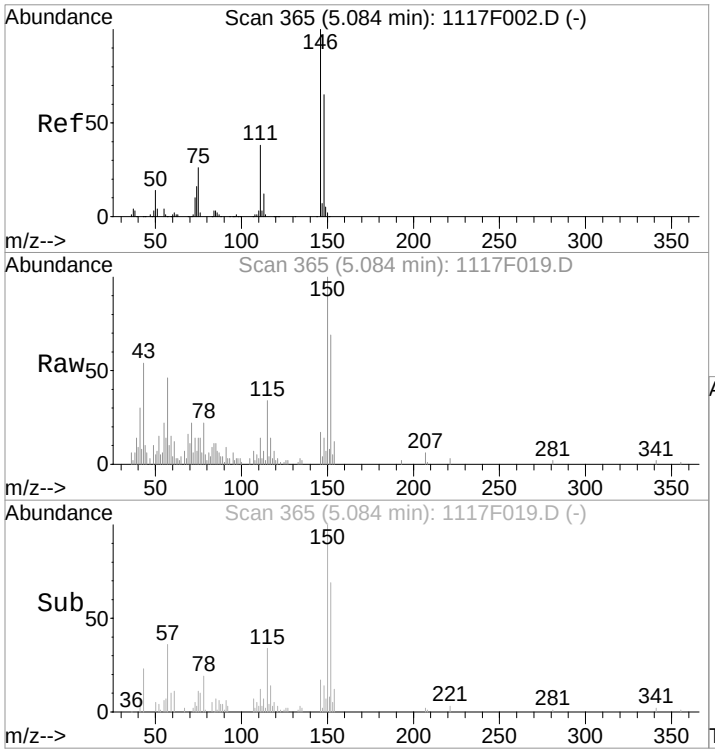


#7
Phenol
Concen: 71.74 ng/ml
RT: 4.74 min Scan# 306
Delta R.T. 0.02 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion: 94 Resp: 7539

Ion	Ratio	Lower	Upper
94	100		
65	28.9	0.0	53.9
66	58.9	0.9	60.9

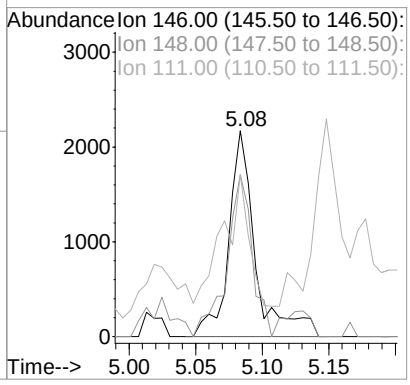




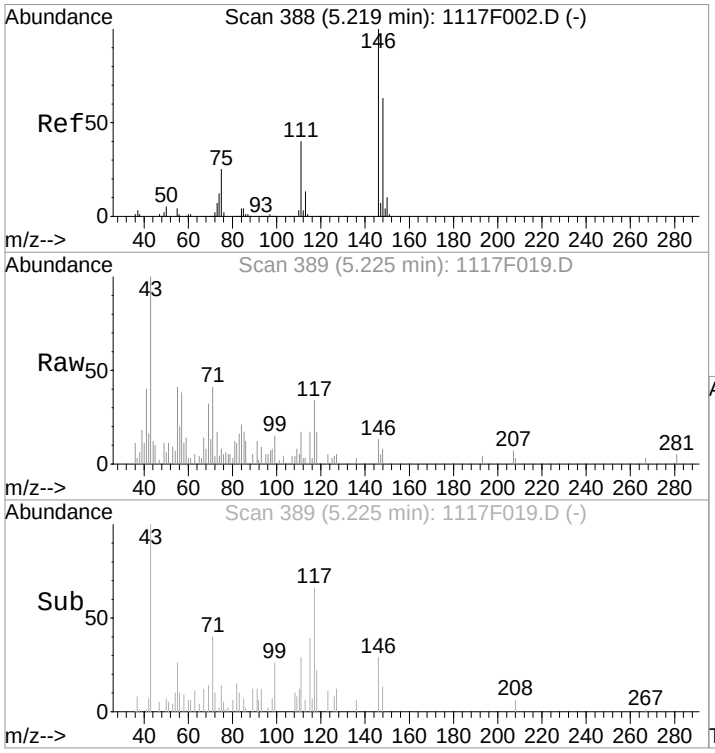
#11
1,4-Dichlorobenzene
Concen: 29.10 ng/ml
RT: 5.08 min Scan# 365
Delta R.T. 0.02 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:146 Resp: 3011

Ion	Ratio	Lower	Upper
146	100		
148	78.8	33.3	93.3
111	53.1	8.5	68.5



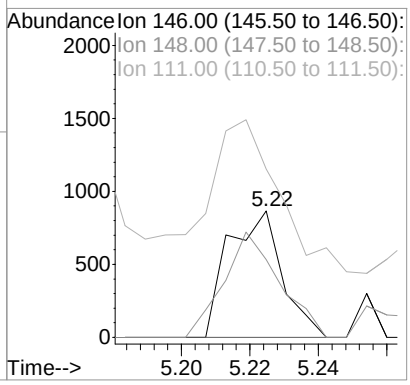
1st 12/07/18
2nd 12/10/18

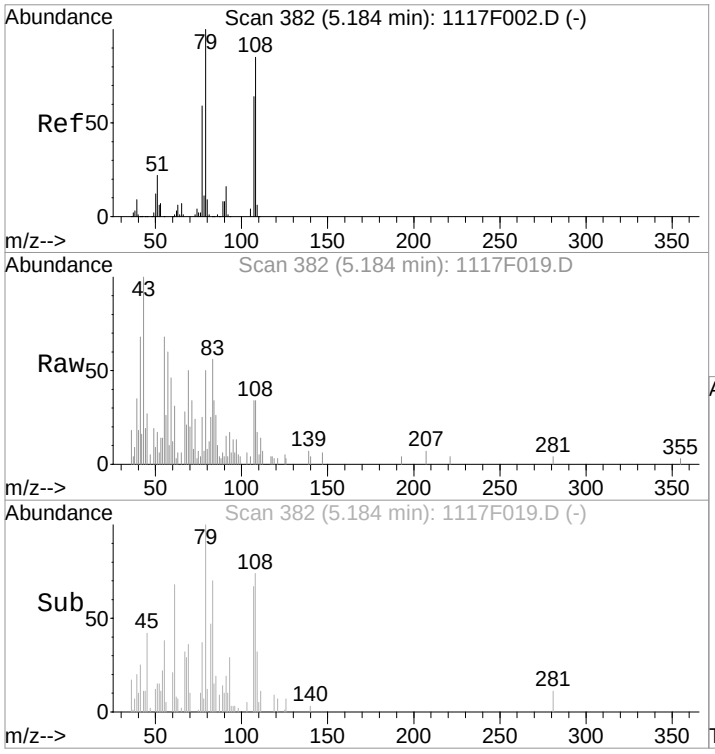


#12
1,2-Dichlorobenzene
Concen: 9.60 ng/ml
RT: 5.22 min Scan# 389
Delta R.T. 0.02 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:146 Resp: 945

Ion	Ratio	Lower	Upper
146	100		
148	61.6	31.9	91.9
111	62.3	9.8	69.8

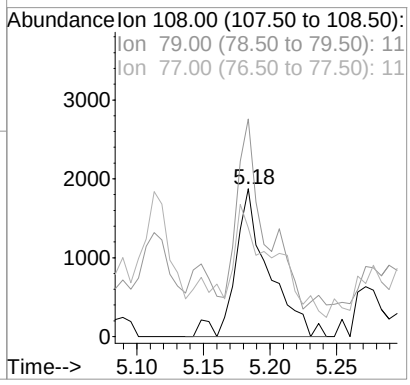




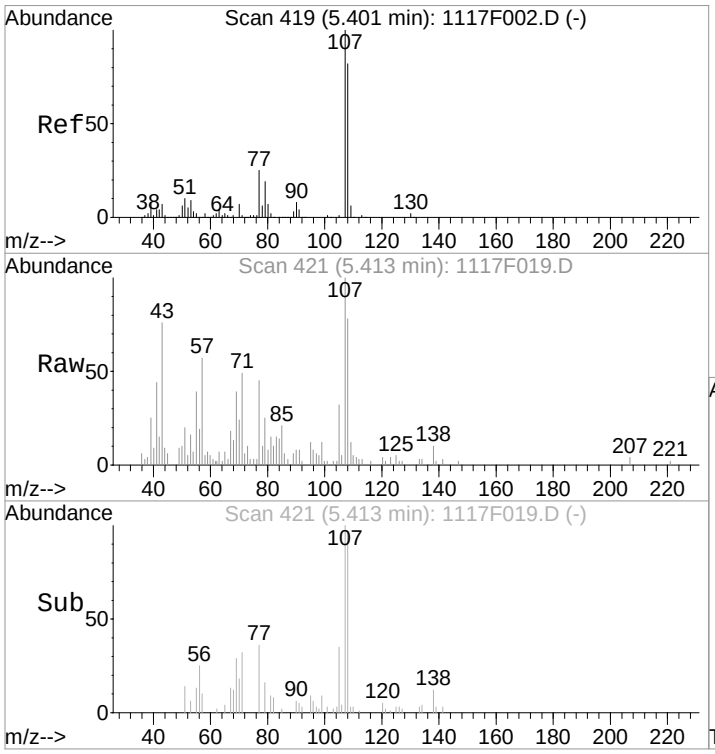
#13
Benzyl Alcohol
Concen: 59.67 ng/ml
RT: 5.18 min Scan# 382
Delta R.T. 0.02 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:108 Resp: 3249

Ion	Ratio	Lower	Upper
108	100		
79	125.8	85.3	145.3
77	60.6	38.7	98.7



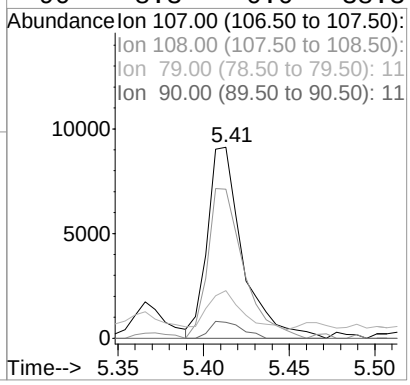
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2nd 12/10/18

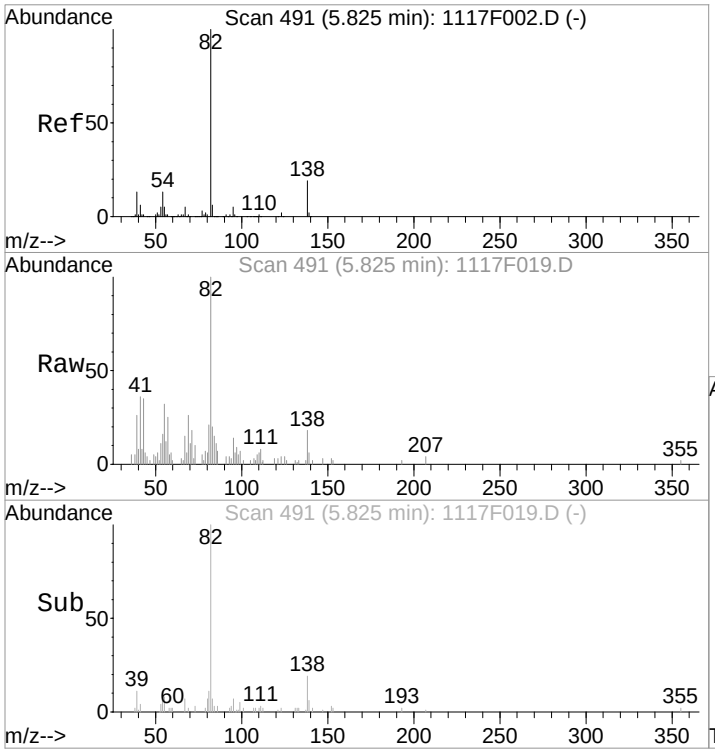


#18
4-Methylphenol
Concen: 127.78 ng/ml
RT: 5.41 min Scan# 421
Delta R.T. 0.03 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:107 Resp: 13059

Ion	Ratio	Lower	Upper
107	100		
108	78.2	51.4	111.4
79	19.0	0.0	47.7
90	8.3	0.0	38.3

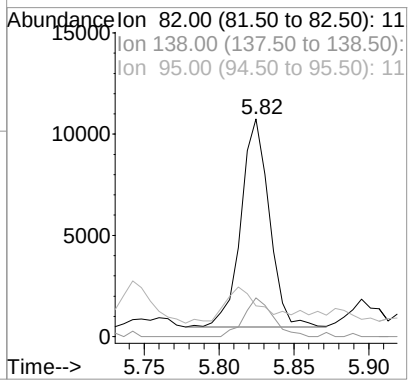




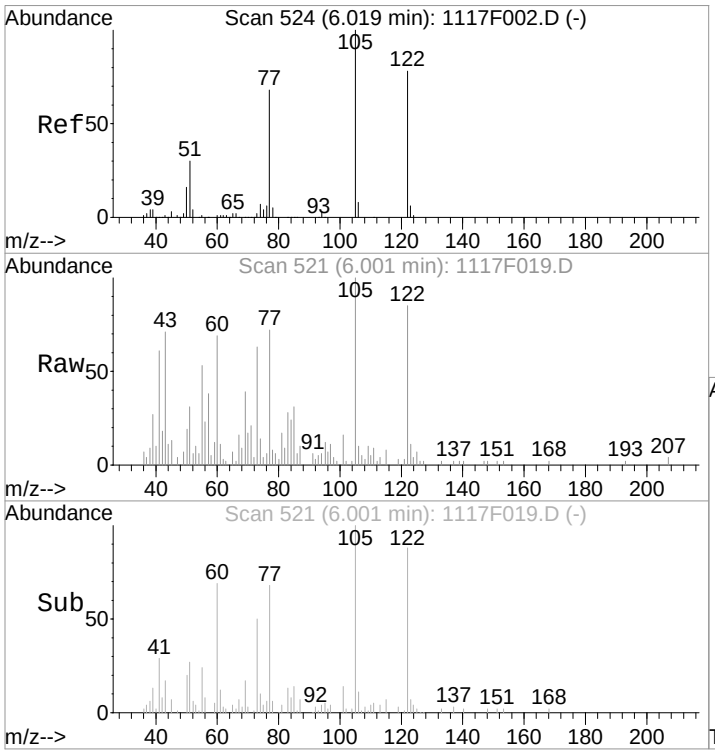
#22
Isophorone
Concen: 82.68 ng/ml
RT: 5.82 min Scan# 491
Delta R.T. 0.02 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion: 82 Resp: 13621

Ion	Ratio	Lower	Upper
82	100		
138	18.7	0.0	49.8
95	8.4	0.0	35.9



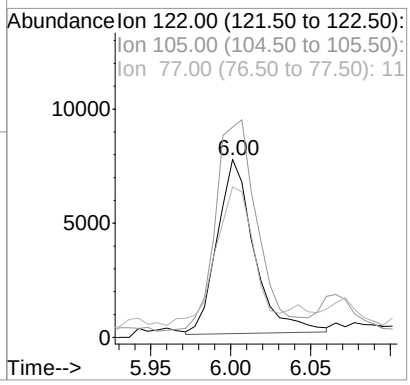
1st 12/07/18
2nd 12/10/18

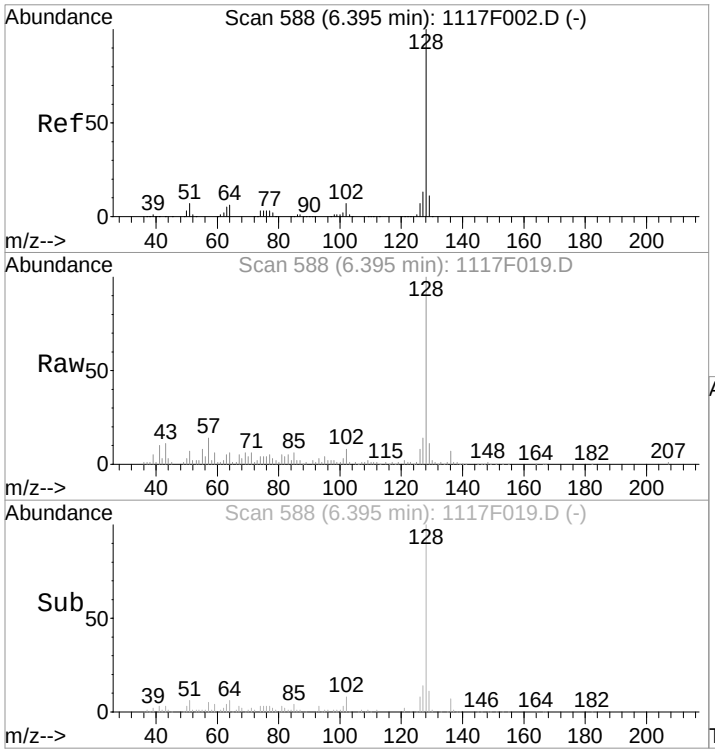


#27
Benzoic Acid
Concen: 771.13 ng/ml
RT: 6.00 min Scan# 521
Delta R.T. 0.02 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:122 Resp: 12323

Ion	Ratio	Lower	Upper
122	100		
105	116.5	86.3	146.3
77	76.2	54.7	114.7

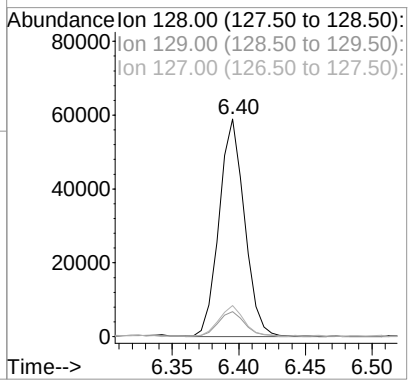




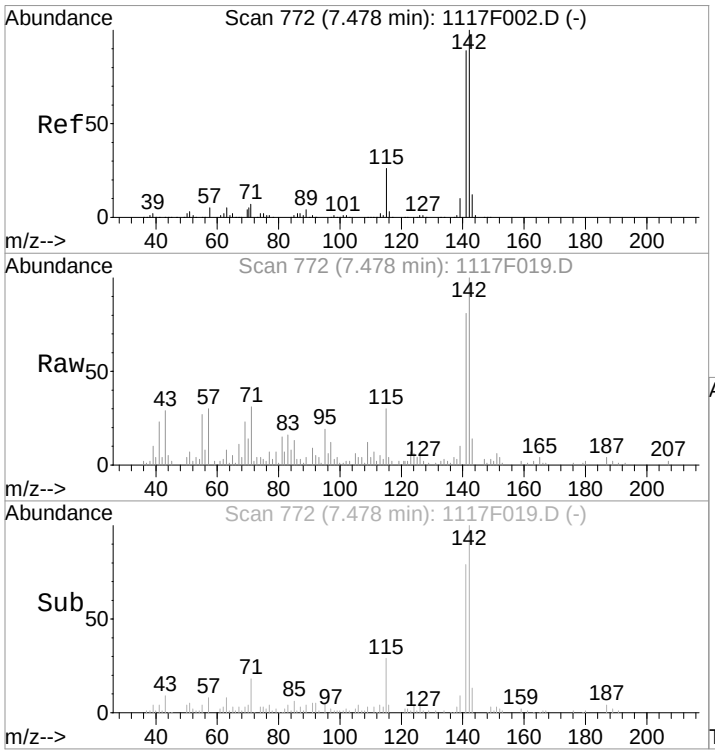
#29
Naphthalene
Concen: 289.78 ng/ml
RT: 6.40 min Scan# 588
Delta R.T. 0.02 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:128 Resp: 78581

Ion	Ratio	Lower	Upper
128	100		
129	11.5	0.0	41.0
127	14.1	0.0	43.2



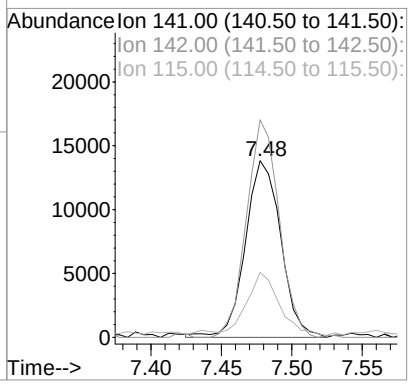
1st 12/07/18
2nd 12/10/18

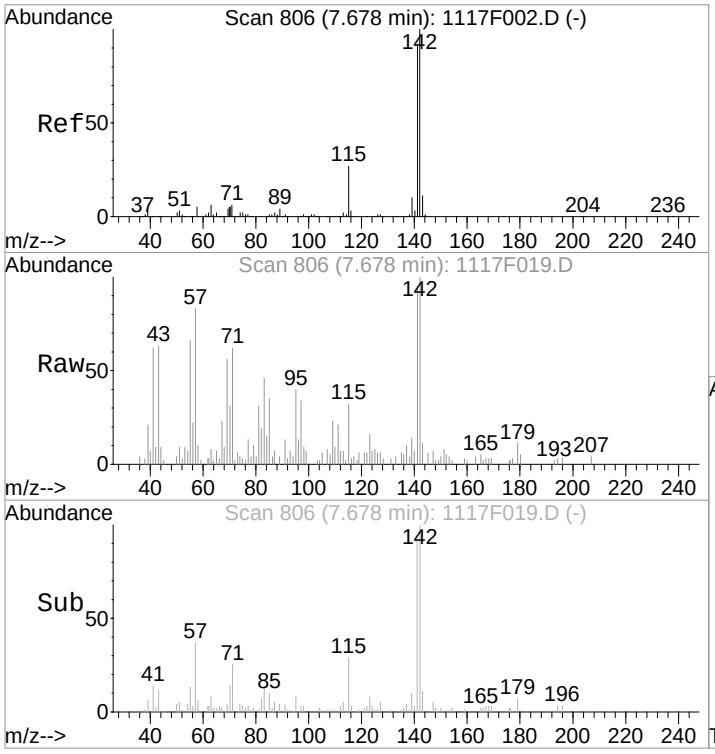


#33
2-Methylnaphthalene
Concen: 152.31 ng/ml
RT: 7.48 min Scan# 772
Delta R.T. 0.03 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:141 Resp: 24120

Ion	Ratio	Lower	Upper
141	100		
142	122.0	84.5	144.5
115	35.8	0.0	59.3

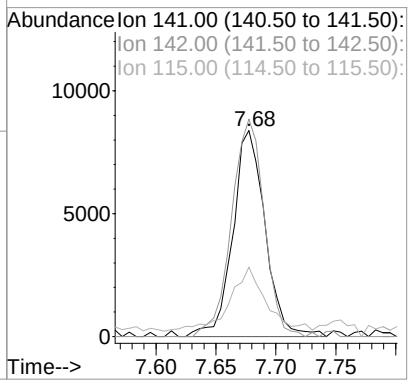




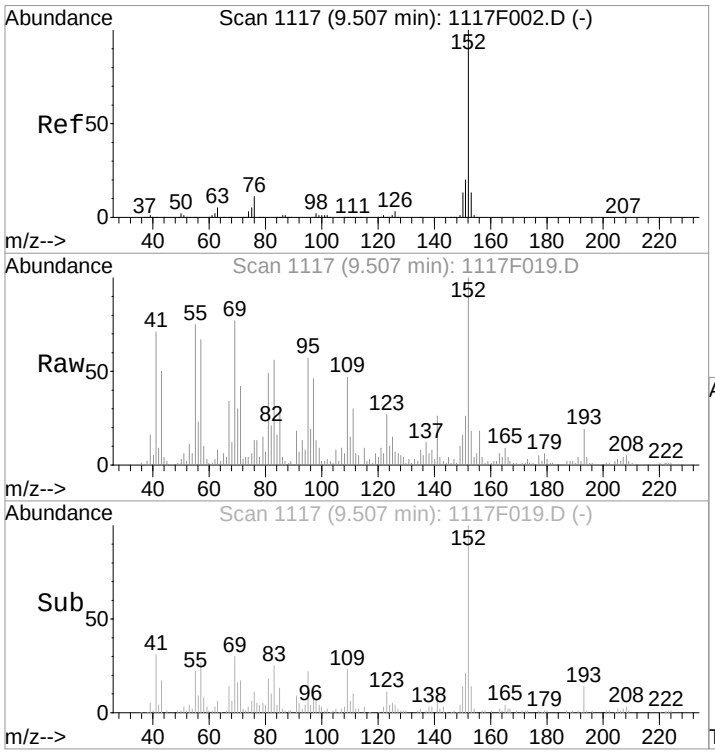
#34
1-Methylnaphthalene
Concen: 109.04 ng/ml
RT: 7.68 min Scan# 806
Delta R.T. 0.04 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:141 Resp: 15802

Ion	Ratio	Lower	Upper
141	100		
142	105.6	77.2	143.4
115	28.6	20.7	38.5



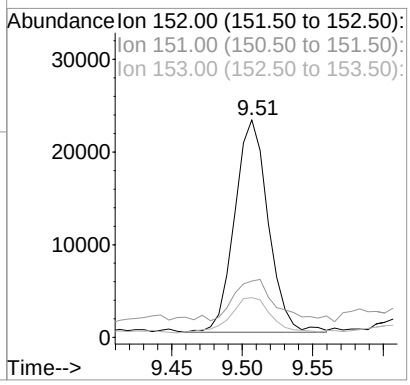
1st 12/07/18
2nd 12/10/18

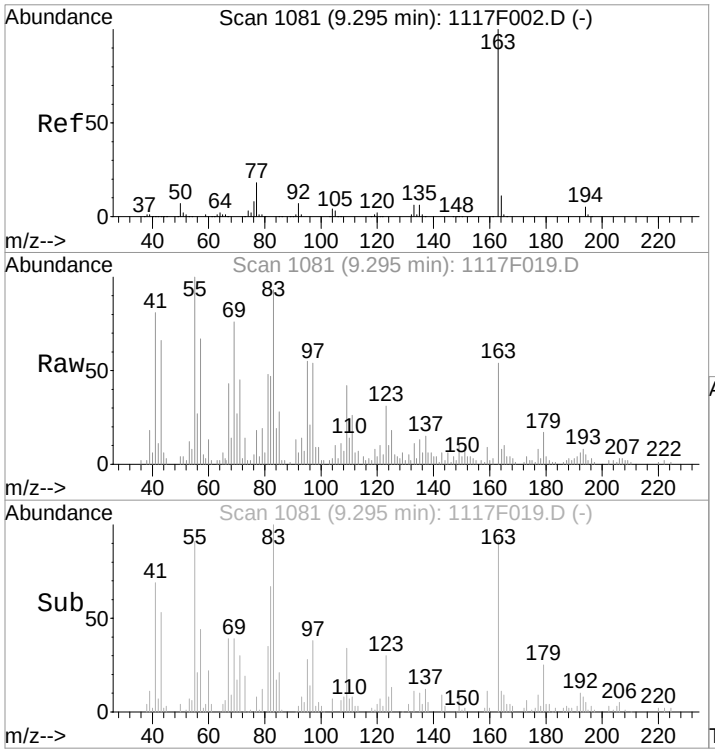


#42
Acenaphthylene
Concen: 143.04 ng/ml
RT: 9.51 min Scan# 1117
Delta R.T. 0.04 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:152 Resp: 37917

Ion	Ratio	Lower	Upper
152	100		
151	17.0	0.0	50.0
153	16.2	0.0	42.7

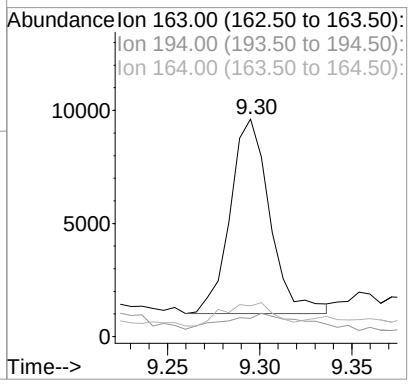




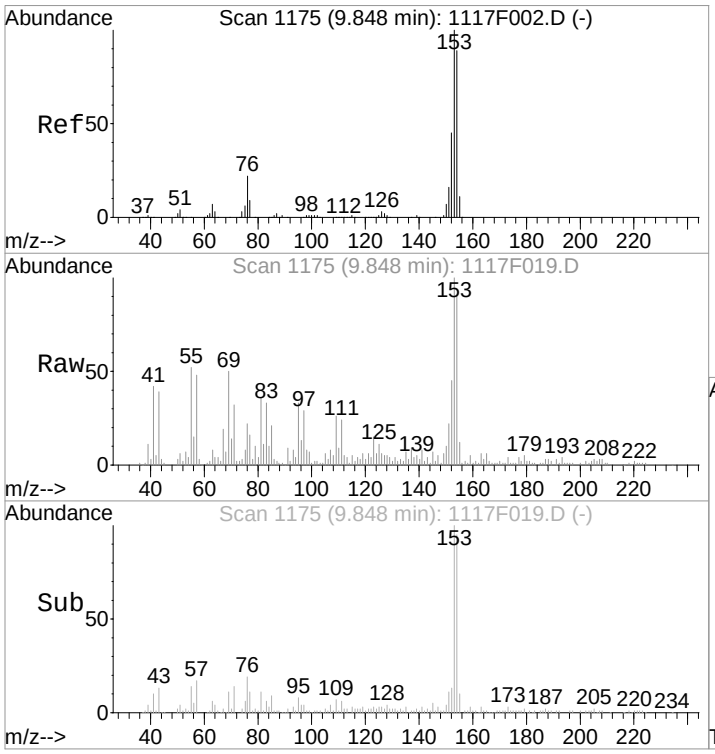
#43
Dimethyl Phthalate
Concen: 70.00 ng/ml
RT: 9.30 min Scan# 1081
Delta R.T. 0.03 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:163 Resp: 12931

Ion	Ratio	Lower	Upper
163	100		
194	5.6	0.0	34.7
164	10.4	0.0	40.0



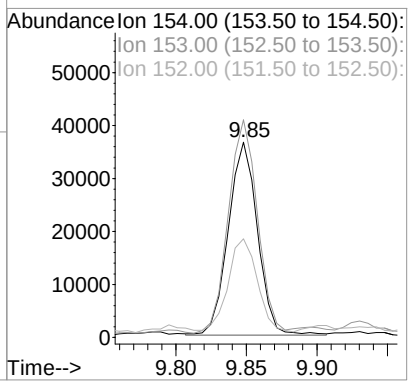
1st 12/07/18
2nd 12/10/18

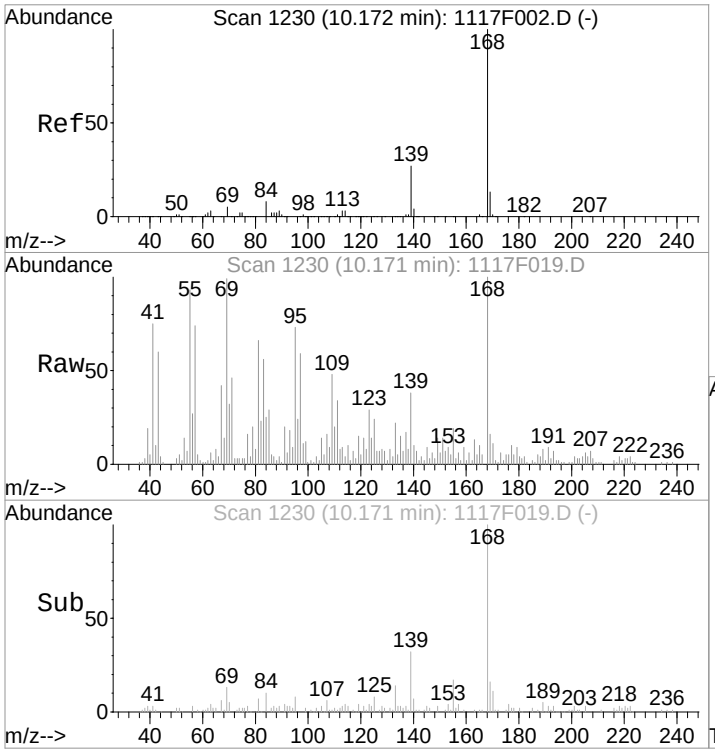


#45
Acenaphthene
Concen: 316.34 ng/ml
RT: 9.85 min Scan# 1175
Delta R.T. 0.03 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:154 Resp: 52709

Ion	Ratio	Lower	Upper
154	100		
153	110.8	81.7	141.7
152	46.6	20.5	80.5

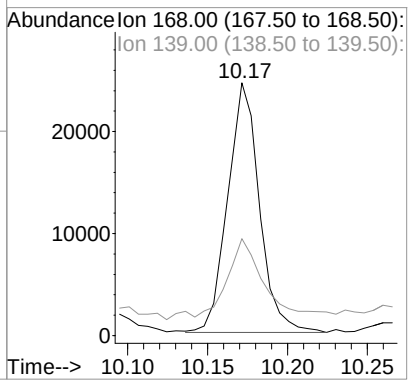




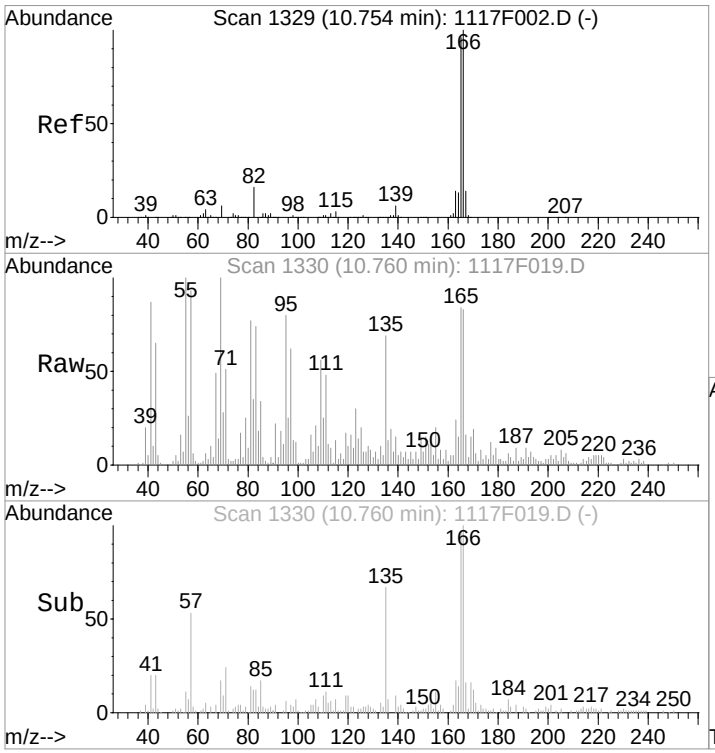
#48
Dibenzofuran
Concen: 164.52 ng/ml
RT: 10.17 min Scan# 1230
Delta R.T. 0.03 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:168 Resp: 33698

Ion	Ratio	Lower	Upper
168	100		
139	29.4	1.7	61.7



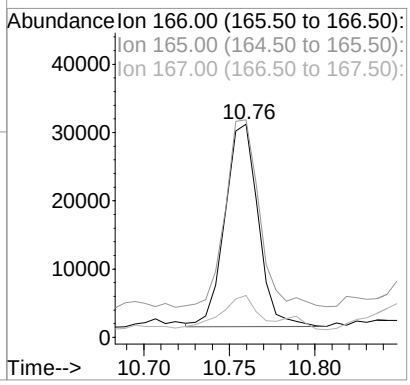
1st 12/07/18
2nd 12/10/18

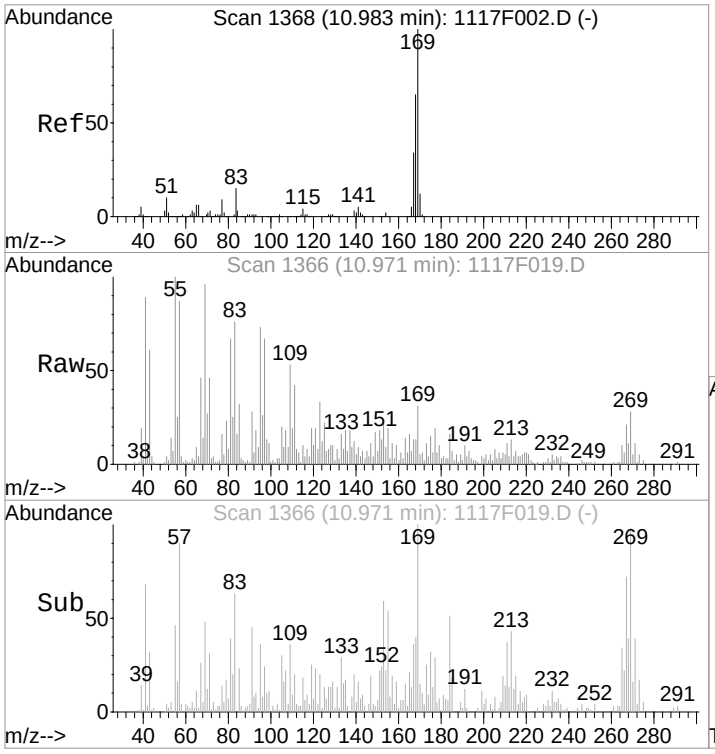


#52
Fluorene
Concen: 208.08 ng/ml
RT: 10.76 min Scan# 1330
Delta R.T. 0.03 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:166 Resp: 39991

Ion	Ratio	Lower	Upper
166	100		
165	92.4	65.9	125.9
167	17.0	0.0	42.7

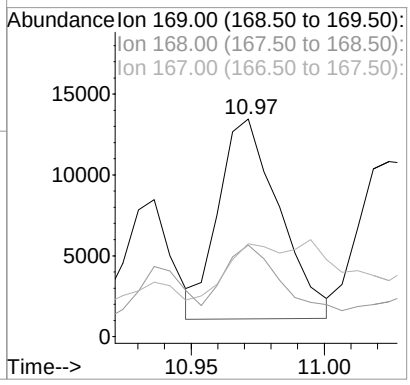




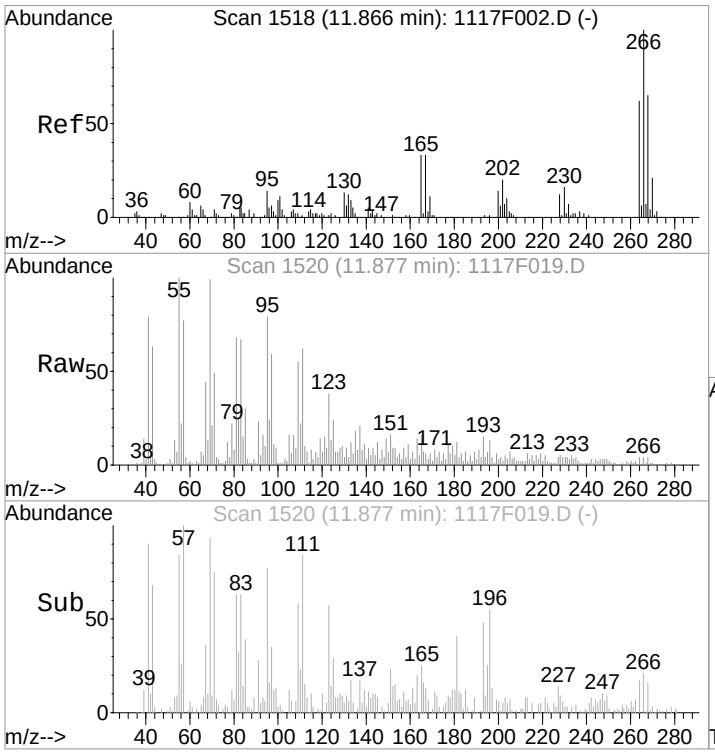
#57
Diphenylamine
Concen: 154.64 ng/ml
RT: 10.97 min Scan# 1366
Delta R.T. 0.01 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:169 Resp: 19732

Ion	Ratio	Lower	Upper
169	100		
168	33.1	35.6	95.6#
167	31.5	3.3	63.3



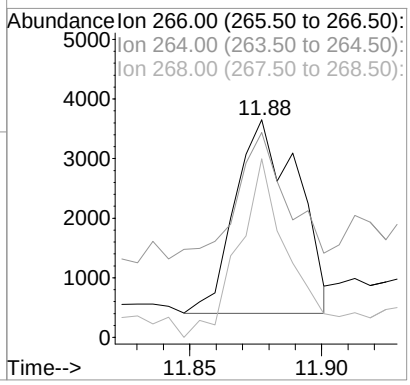
1st 12/07/18
2nd 12/10/18

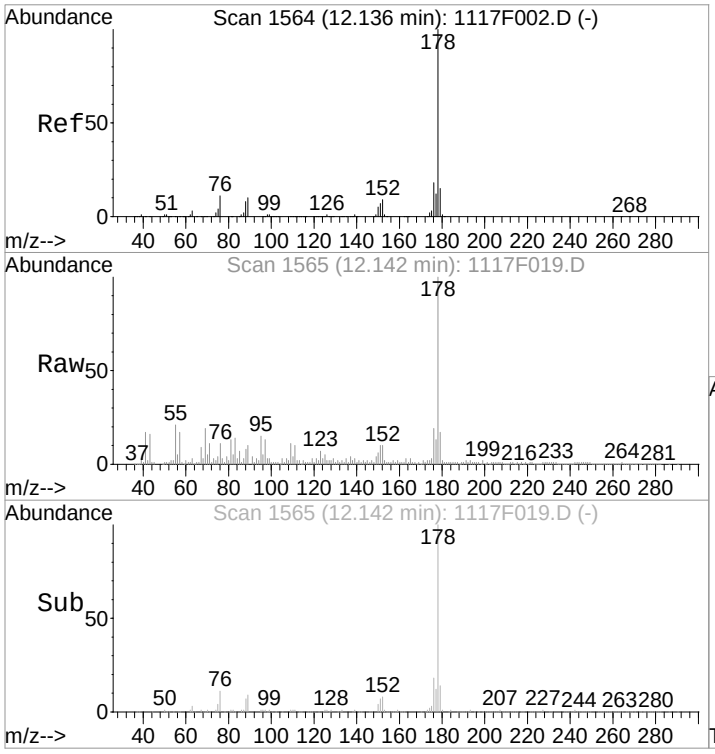


#63
Pentachlorophenol
Concen: 395.29 ng/ml m
RT: 11.88 min Scan# 1520
Delta R.T. 0.04 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:266 Resp: 5387

Ion	Ratio	Lower	Upper
266	100		
264	94.2	34.1	94.1#
268	82.1	33.4	93.4

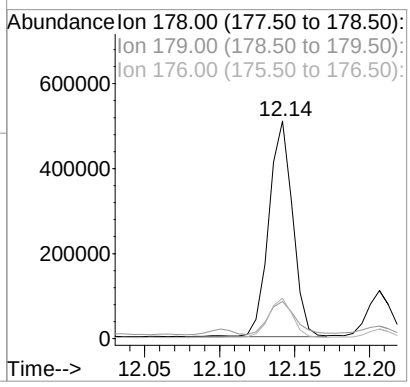




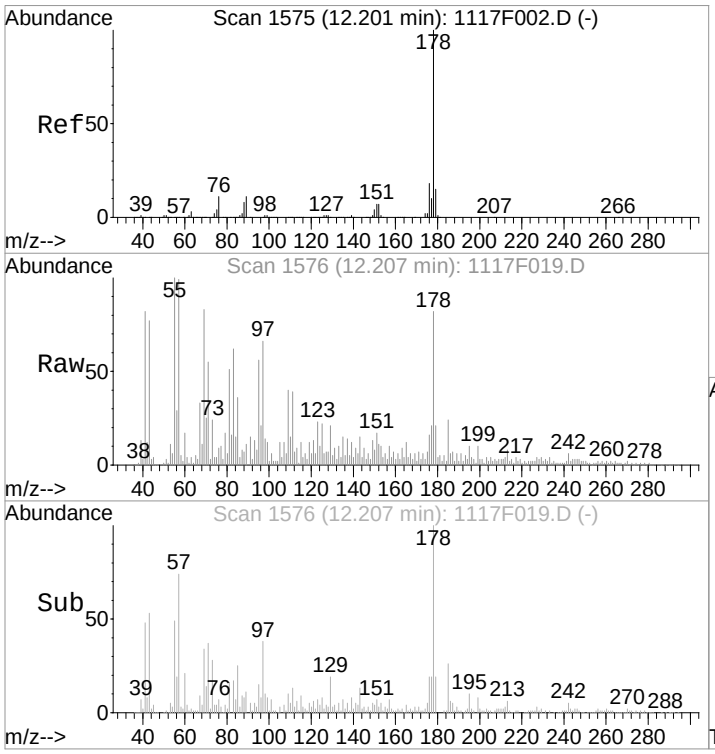
#64
Phenanthrene
Concen: 1865.36 ng/ml
RT: 12.14 min Scan# 1565
Delta R.T. 0.03 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:178 Resp: 563050

Ion	Ratio	Lower	Upper
178	100		
179	15.4	0.0	45.6
176	18.3	0.0	47.8



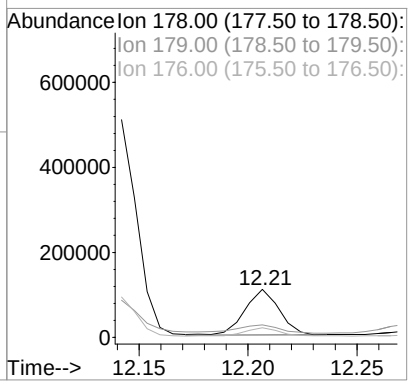
1st 12/07/18
2nd 12/10/18

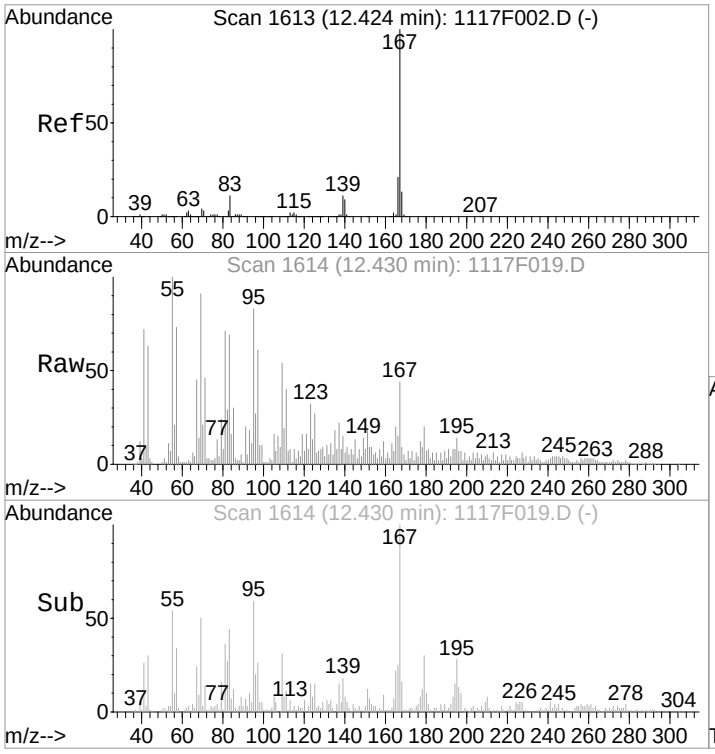


#65
Anthracene
Concen: 401.33 ng/ml
RT: 12.21 min Scan# 1576
Delta R.T. 0.02 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:178 Resp: 118201

Ion	Ratio	Lower	Upper
178	100		
179	18.0	0.0	44.6
176	18.0	0.0	47.4

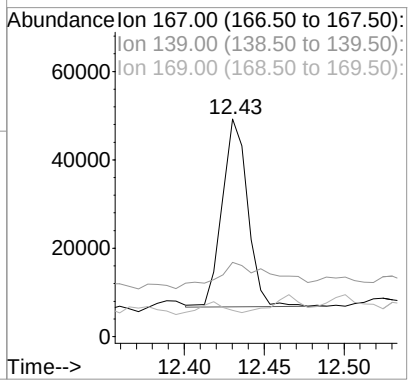




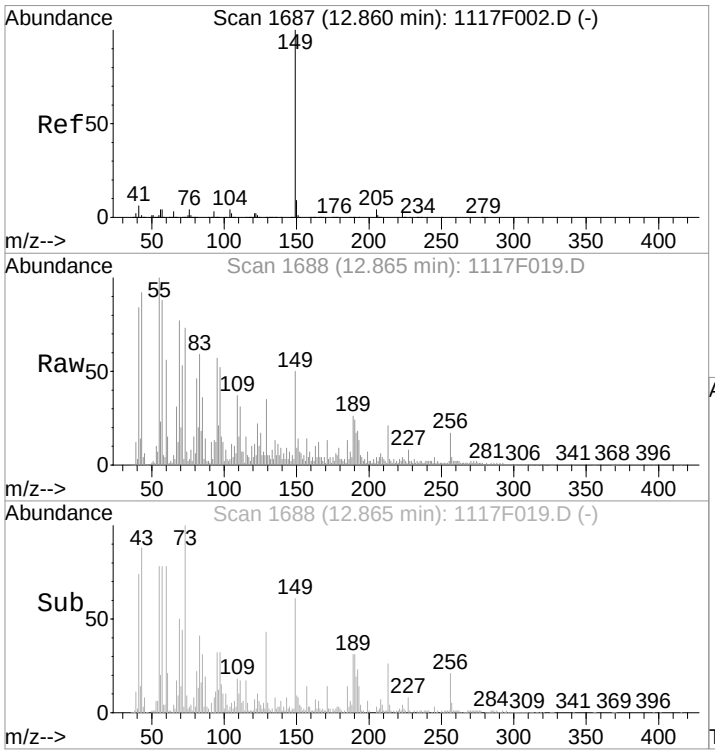
#66
Carbazole
Concen: 202.99 ng/ml
RT: 12.43 min Scan# 1614
Delta R.T. 0.02 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:167 Resp: 47310

Ion	Ratio	Lower	Upper
167	100		
139	11.1	0.0	41.3
169	1.0	0.0	31.0



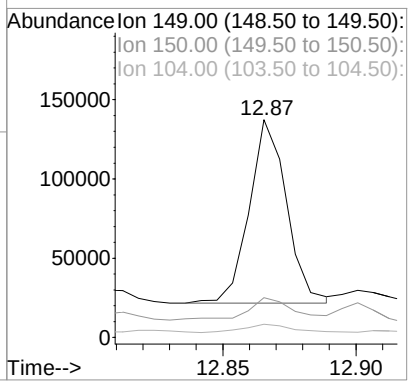
1st 12/07/18
2nd 12/10/18

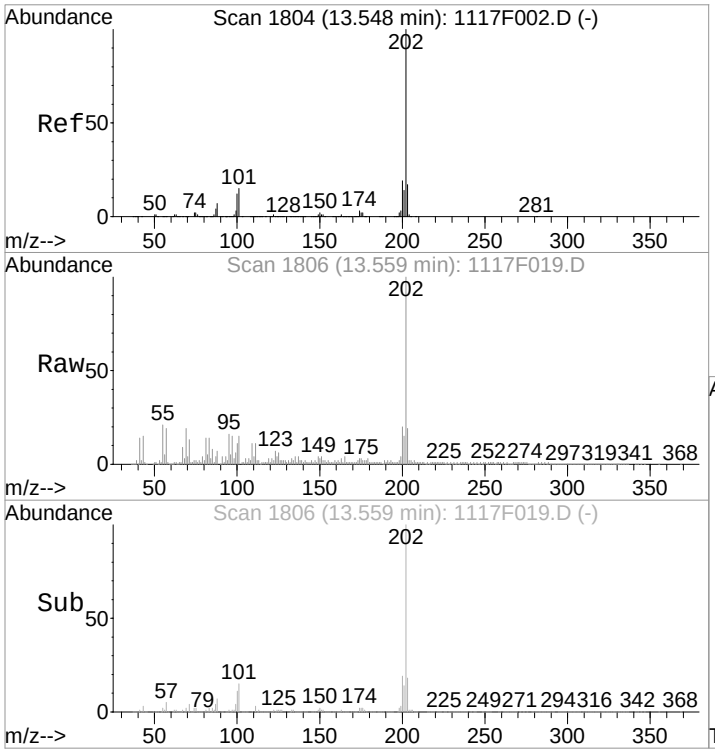


#67
Di-n-butyl Phthalate
Concen: 383.27 ng/ml
RT: 12.87 min Scan# 1688
Delta R.T. 0.02 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:149 Resp: 113133

Ion	Ratio	Lower	Upper
149	100		
150	11.5	0.0	39.1
104	4.1	0.0	33.8

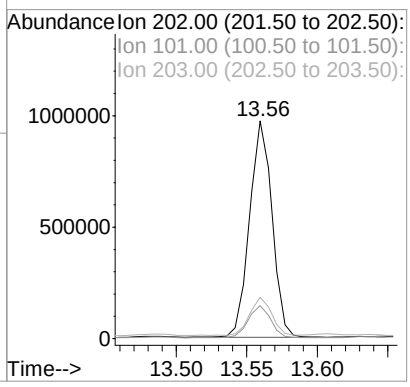




#68
Fluoranthene
Concen: 3352.31 ng/ml
RT: 13.56 min Scan# 1806
Delta R.T. 0.03 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

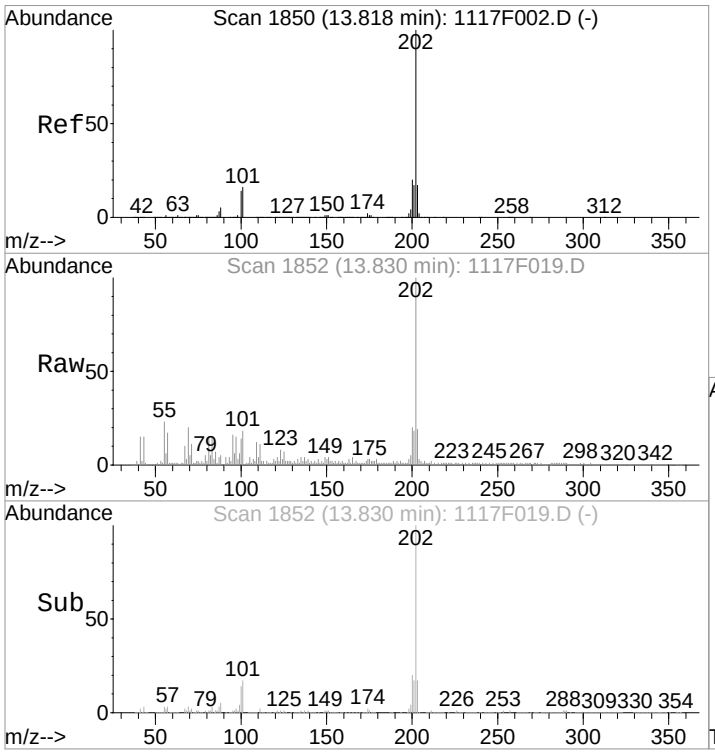
Tgt Ion:202 Resp: 1071716

Ion	Ratio	Lower	Upper
202	100		
101	15.0	0.0	43.9
203	17.5	0.0	46.8



1st 12/07/18

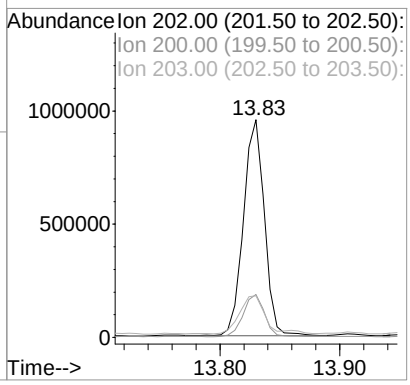
2nd 12/10/18

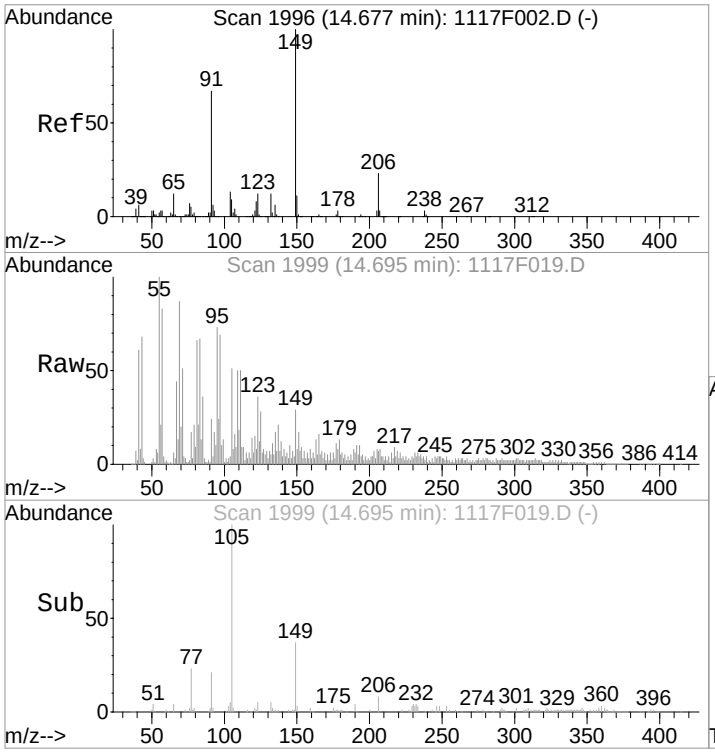


#70
Pyrene
Concen: 3014.79 ng/ml
RT: 13.83 min Scan# 1852
Delta R.T. 0.04 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:202 Resp: 1163522

Ion	Ratio	Lower	Upper
202	100		
200	19.5	0.0	49.6
203	17.6	0.0	47.0

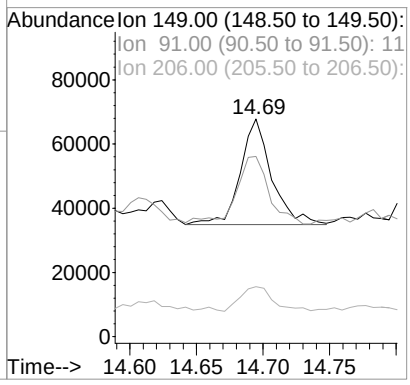




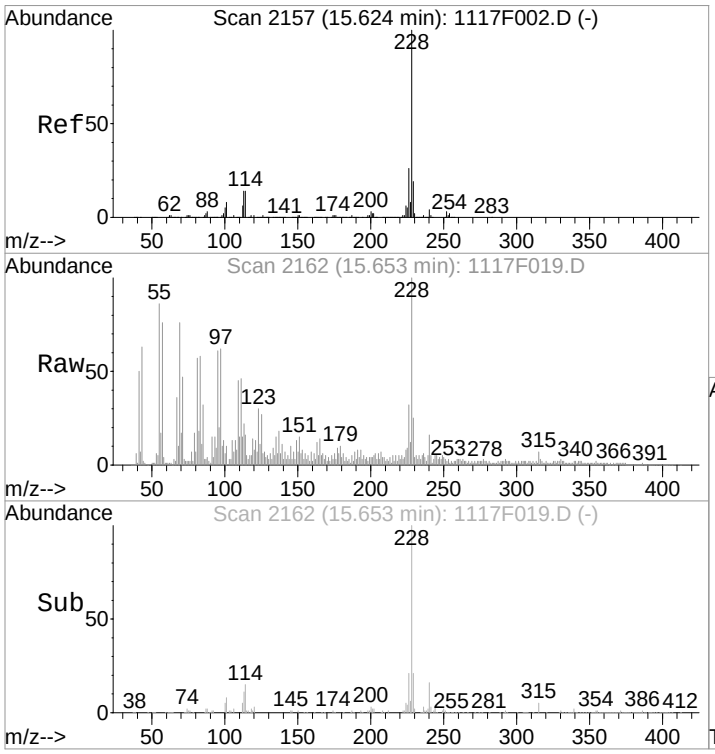
#72
Butyl Benzyl Phthalate
Concen: 395.70 ng/ml
RT: 14.69 min Scan# 1999
Delta R.T. 0.04 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:149 Resp: 53362

Ion	Ratio	Lower	Upper
149	100		
91	62.9	36.3	96.3
206	21.8	0.0	54.6



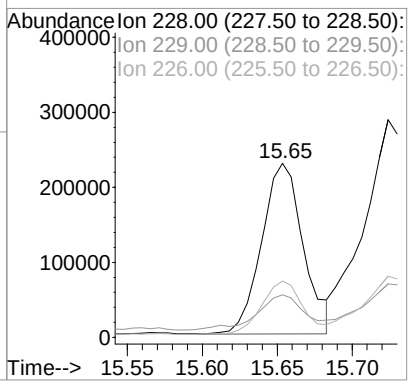
1st 12/07/18
2nd 12/10/18

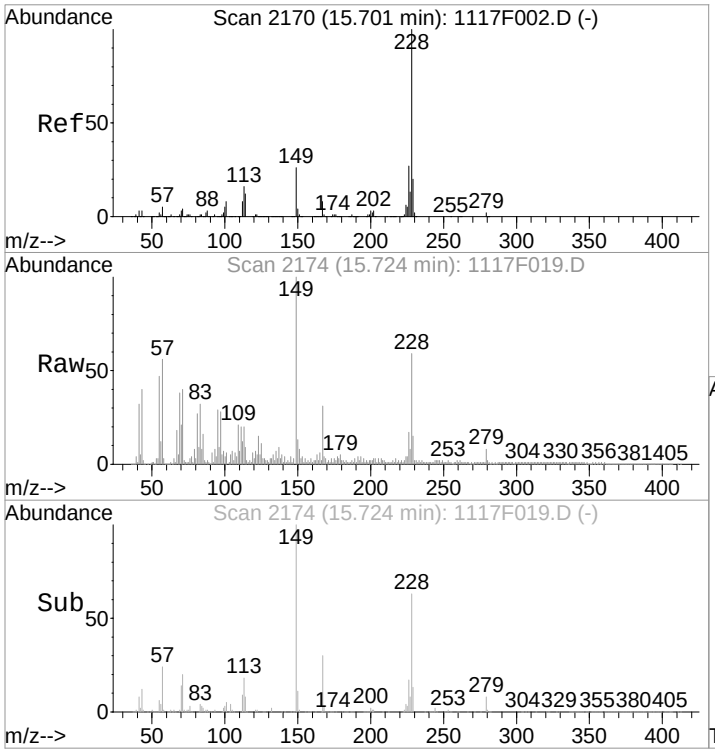


#74
Benz(a)anthracene
Concen: 1388.07 ng/ml
RT: 15.65 min Scan# 2162
Delta R.T. 0.06 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:228 Resp: 440868

Ion	Ratio	Lower	Upper
228	100		
229	20.8	0.0	48.9
226	31.2	0.0	55.1

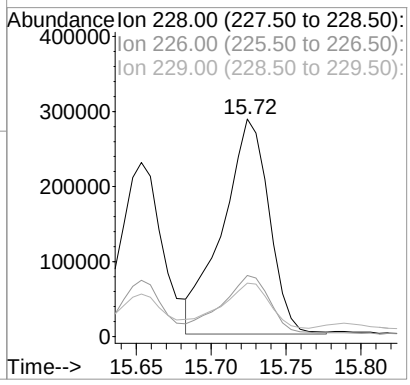




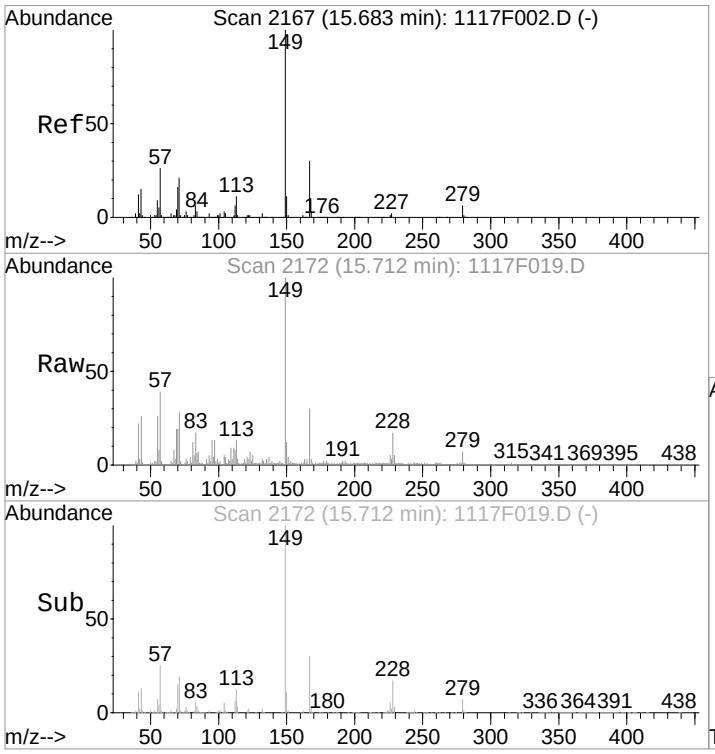
#75
Chrysene
Concen: 2068.44 ng/ml
RT: 15.72 min Scan# 2174
Delta R.T. 0.06 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:228 Resp: 621370

Ion	Ratio	Lower	Upper
228	100		
226	26.9	0.0	57.6
229	19.8	0.0	49.3



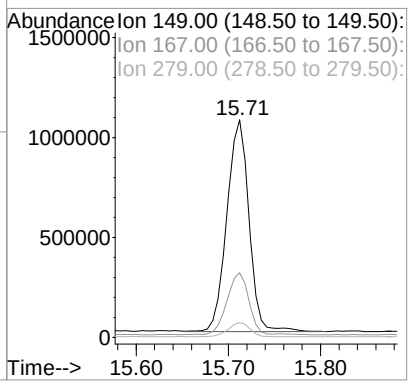
1st 12/07/18
2nd 12/10/18

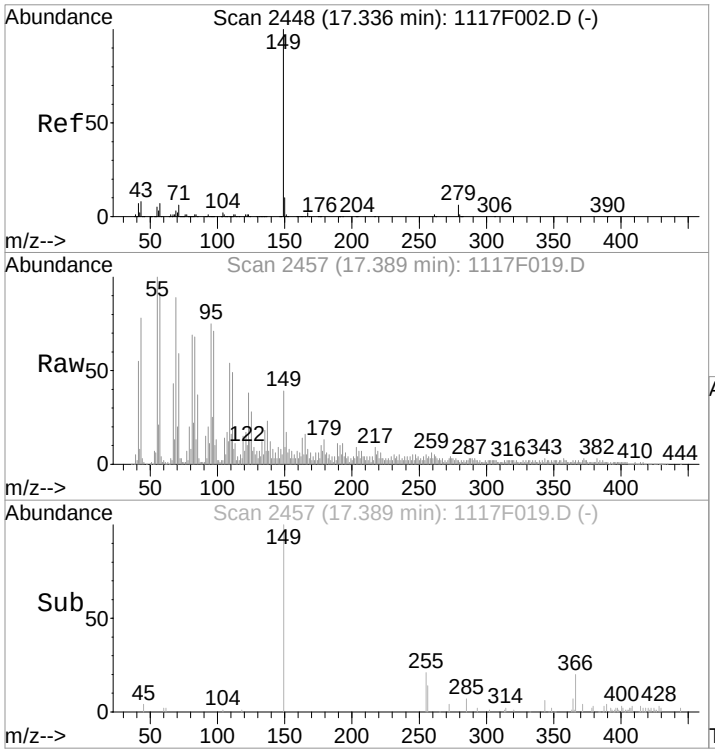


#76
Bis(2-ethylhexyl) Phthalate
Concen: 8386.58 ng/ml
RT: 15.71 min Scan# 2172
Delta R.T. 0.05 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:149 Resp: 1758850

Ion	Ratio	Lower	Upper
149	100		
167	29.3	0.0	59.7
279	6.6	0.0	36.4

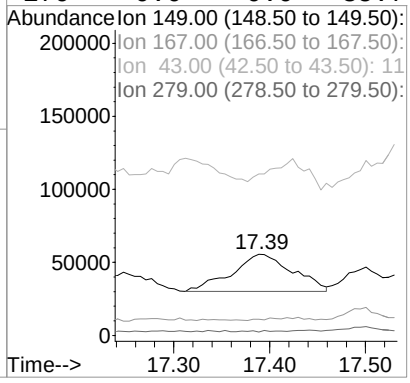


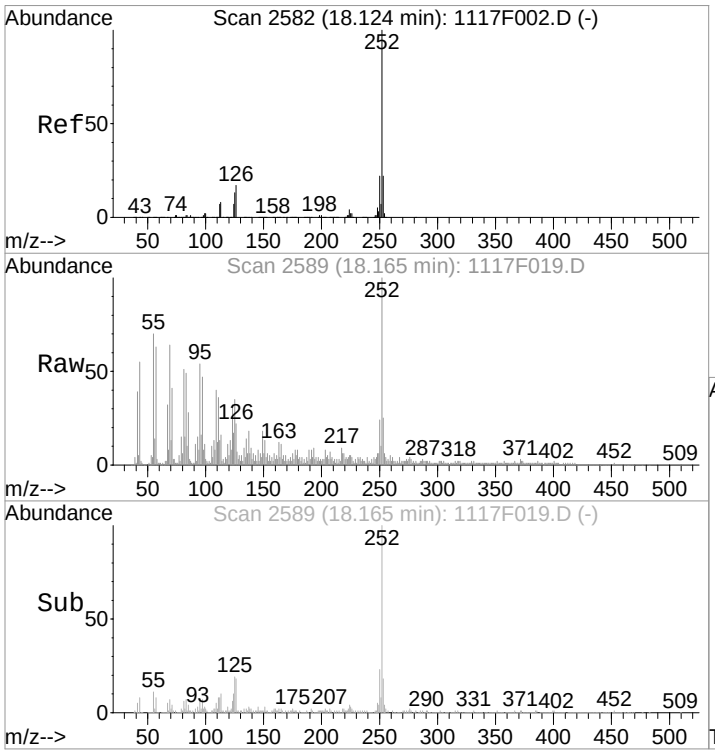


#78
Di-n-octyl Phthalate
Concen: 420.05 ng/ml
RT: 17.39 min Scan# 2457
Delta R.T. 0.09 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:149 Resp: 112587

Ion	Ratio	Lower	Upper
149	100		
167	2.4	0.0	31.5
43	24.4	0.0	38.6
279	0.0	0.0	35.7

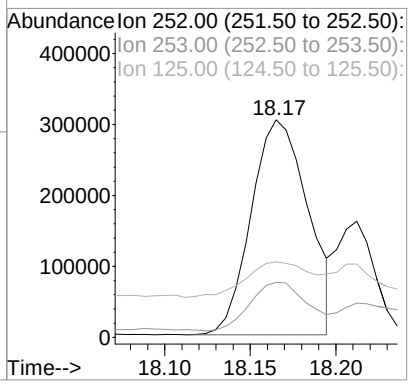


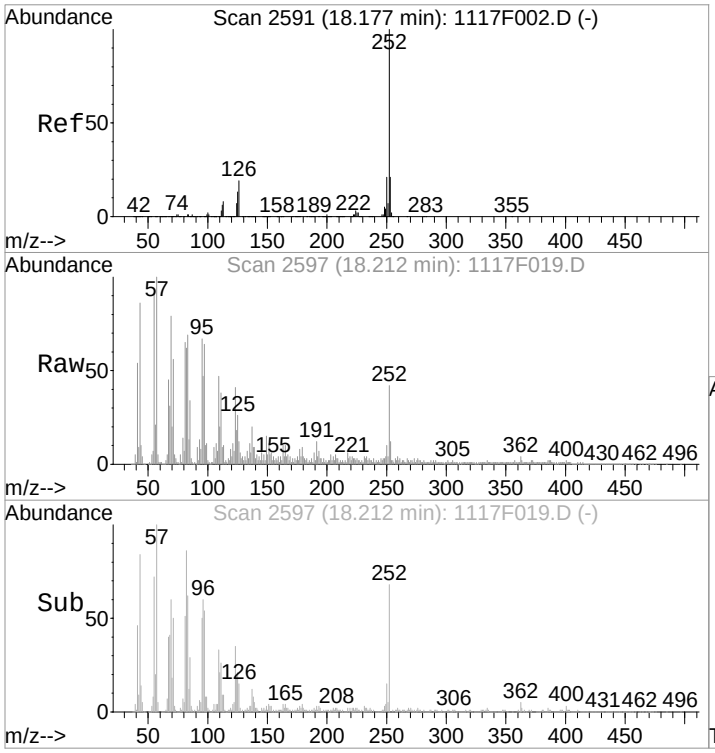


#79
Benzo(b)fluoranthene
Concen: 2638.25 ng/ml
RT: 18.17 min Scan# 2589
Delta R.T. 0.08 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:252 Resp: 701014

Ion	Ratio	Lower	Upper
252	100		
253	22.1	0.0	51.6
125	16.5	0.0	43.2

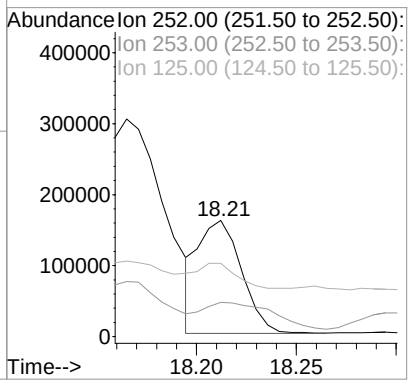


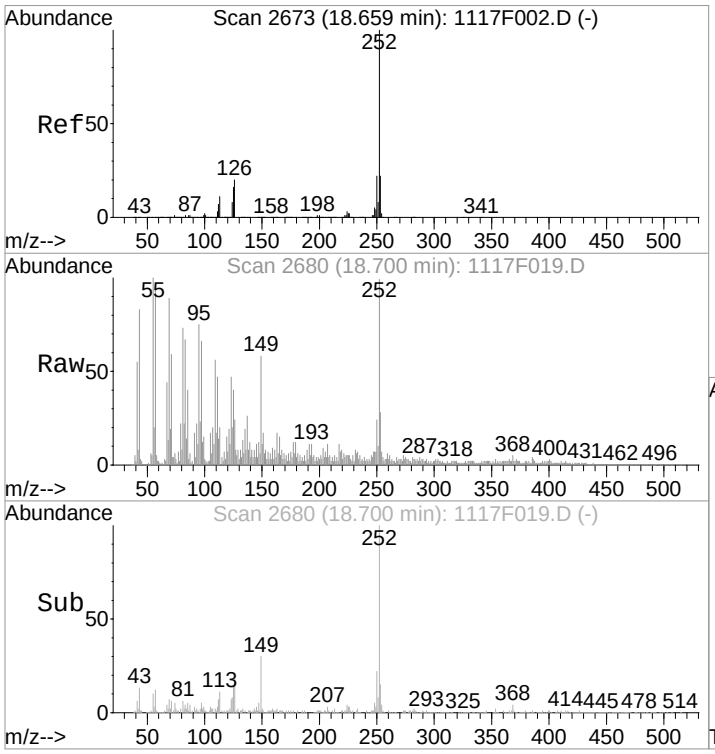


#80
Benzo(k)fluoranthene
Concen: 924.51 ng/ml
RT: 18.21 min Scan# 2597
Delta R.T. 0.07 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:252 Resp: 241667

Ion	Ratio	Lower	Upper
252	100		
253	23.9	0.0	51.5
125	22.0	0.0	43.3

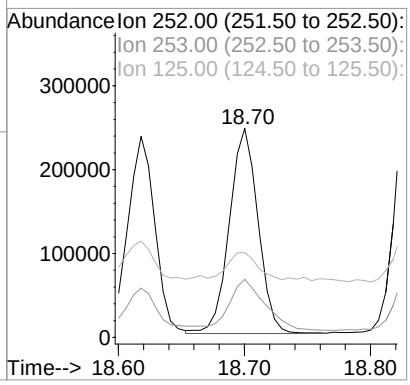


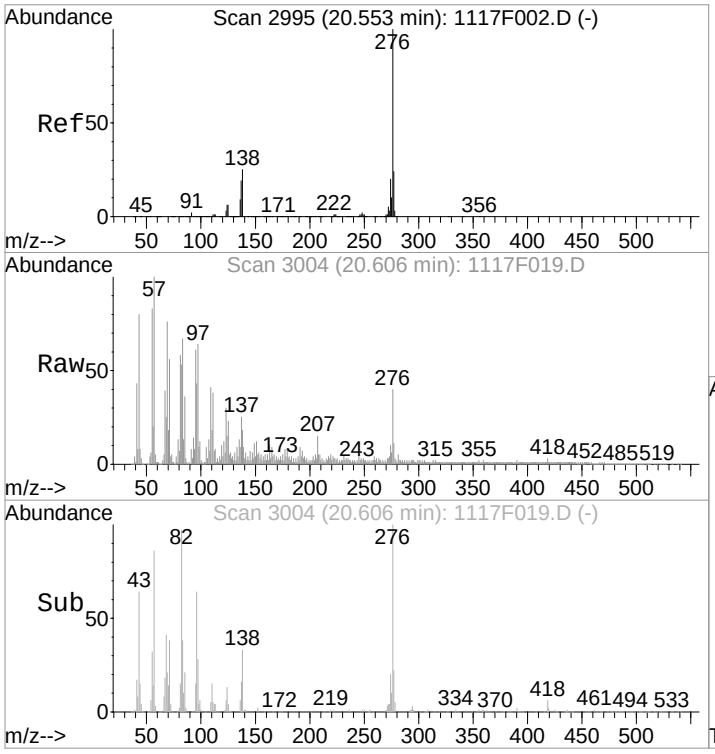


#81
Benzo(a)pyrene
Concen: 1597.24 ng/ml
RT: 18.70 min Scan# 2680
Delta R.T. 0.07 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:252 Resp: 387676

Ion	Ratio	Lower	Upper
252	100		
253	24.7	0.0	52.0
125	13.1	0.0	45.4

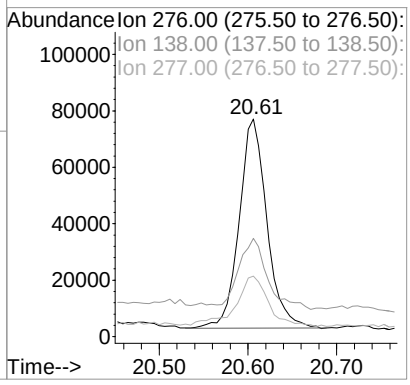




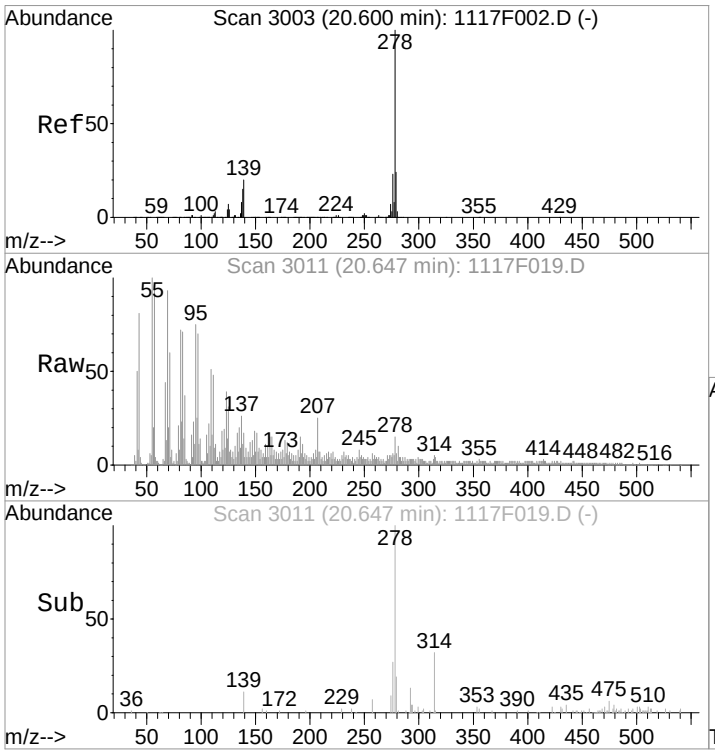
#82
Indeno(1,2,3-cd)pyrene
Concen: 869.81 ng/ml
RT: 20.61 min Scan# 3004
Delta R.T. 0.09 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:276 Resp: 161184

Ion	Ratio	Lower	Upper
276	100		
138	33.7	0.0	53.7
277	24.0	0.0	53.2



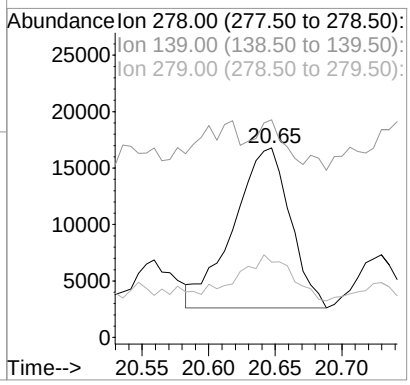
1st 12/07/18
2nd 12/10/18

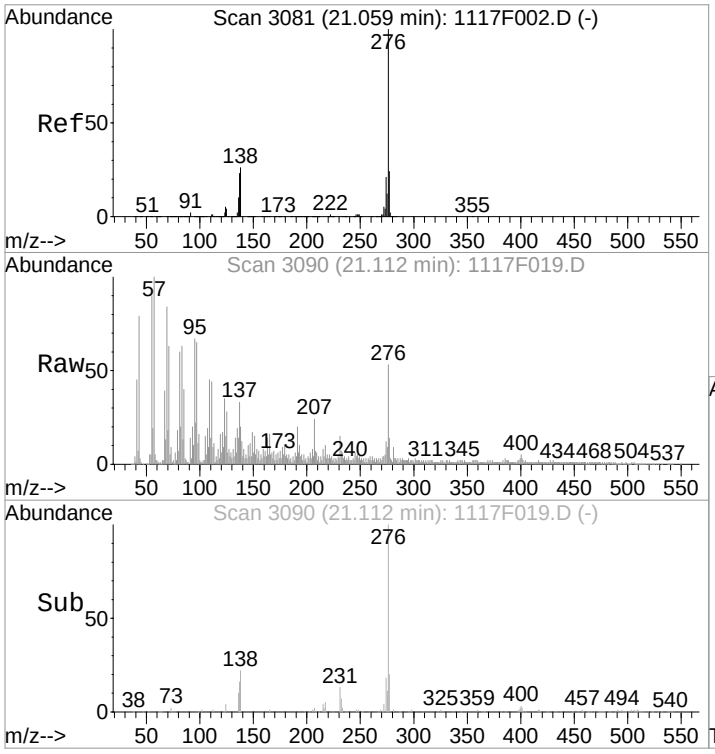


#83
Dibenz(a,h)anthracene
Concen: 295.53 ng/ml
RT: 20.65 min Scan# 3011
Delta R.T. 0.09 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:278 Resp: 42081

Ion	Ratio	Lower	Upper
278	100		
139	31.5	0.0	51.0
279	24.4	0.0	54.3

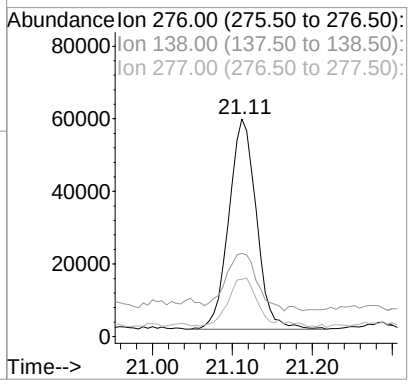




#84
Benzo(g,h,i)perylene
Concen: 705.84 ng/ml
RT: 21.11 min Scan# 3090
Delta R.T. 0.11 min
Lab File: 1117F019.D
Acq: 18 Nov 2018 12:07 am

Tgt Ion:276 Resp: 138884

Ion	Ratio	Lower	Upper
276	100		
138	26.5	0.0	56.8
277	22.9	0.0	53.6



Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F019.D Vial: 66
Acq On : 18 Nov 2018 12:07 am Operator: CConover
Sample : K1810302-023 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 11:53:26 2018 Quant Results File: 110618_8270LL.RES

Quant Method : J:\MS29\M...\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.07	152	62202	1000.00	ng/ml	0.01
21) Naphthalene-d8	6.37	136	249539	1000.00	ng/ml	0.02
35) Acenaphthene-d10	9.78	164	126118	1000.00	ng/ml	0.03
59) Phenanthrene-d10	12.11	188	248532	1000.00	ng/ml	0.03
69) Chrysene-d12	15.67	240	246594	1000.00	ng/ml	0.06
77) Perylene-d12	18.79	264	222903	1000.00	ng/ml	0.07
System Monitoring Compounds						
4) 2-Fluorophenol	3.98	112	120376	1710.68	ng/ml	0.01
Spiked Amount 3750.000	Range 38 - 110		Recovery = 45.62%			
6) Phenol-d6	4.72	99	206390	2157.81	ng/ml	0.02
Spiked Amount 3750.000	Range 43 - 128		Recovery = 57.54%			
19) Nitrobenzene-d5	5.57	82	116009	1449.51	ng/ml	0.02
Spiked Amount 2500.000	Range 30 - 139		Recovery = 57.98%			
39) 2-Fluorobiphenyl	8.30	172	293059	1523.67	ng/ml	0.04
Spiked Amount 2500.000	Range 37 - 126		Recovery = 60.95%			
60) 2,4,6-Tribromophenol	11.15	330	76975	2291.41	ng/ml	0.04
Spiked Amount 3750.000	Range 38 - 157		Recovery = 61.10%			
71) Terphenyl-d14	14.02	244	367775	1480.86	ng/ml	0.04
Spiked Amount 2500.000	Range 54 - 158		Recovery = 59.23%			
Target Compounds						Qvalue
7) Phenol	4.74	94	7539	71.74	ng/ml	67
11) 1,4-Dichlorobenzene	5.08	146	3011	29.10	ng/ml	79
12) 1,2-Dichlorobenzene	5.22	146	945	9.60	ng/ml	85
13) Benzyl Alcohol	5.18	108	3249	59.67	ng/ml	90
18) 4-Methylphenol	5.41	107	13059	127.78	ng/ml	97
22) Isophorone	5.82	82	13621	82.68	ng/ml	96
27) Benzoic Acid	6.00	122	12323	771.13	ng/ml	96
29) Naphthalene	6.40	128	78581	289.78	ng/ml	98
33) 2-Methylnaphthalene	7.48	141	24120	152.31	ng/ml	92
34) 1-Methylnaphthalene	7.68	141	15802	109.04	ng/ml	96
42) Acenaphthylene	9.51	152	37917	143.04	ng/ml	93
43) Dimethyl Phthalate	9.30	163	12931	70.00	ng/ml	98
45) Acenaphthene	9.85	154	52709	316.34	ng/ml	98
48) Dibenzofuran	10.17	168	33698	164.52	ng/ml	96
52) Fluorene	10.76	166	39991	208.08	ng/ml	96
57) Diphenylamine	10.97	169	19732	154.64	ng/ml#	72
63) Pentachlorophenol	11.88	266	5387m	395.29	ng/ml	
64) Phenanthrene	12.14	178	563050	1865.36	ng/ml	99
65) Anthracene	12.21	178	118201	401.33	ng/ml	95
66) Carbazole	12.43	167	47310	202.99	ng/ml	100
67) Di-n-butyl Phthalate	12.87	149	113133	383.27	ng/ml	95
68) Fluoranthene	13.56	202	1071716	3352.31	ng/ml	98
70) Pyrene	13.83	202	1163522	3014.79	ng/ml	99
72) Butyl Benzyl Phthalate	14.69	149	53362	395.70	ng/ml	95
74) Benz(a)anthracene	15.65	228	440868	1388.07	ng/ml	91
75) Chrysene	15.72	228	621370	2068.44	ng/ml	99
76) Bis(2-ethylhexyl) Phthalat	15.71	149	1758850	8386.58	ng/ml	99
78) Di-n-octyl Phthalate	17.39	149	112587	420.05	ng/ml	70
79) Benzo(b)fluoranthene	18.17	252	701014	2638.25	ng/ml	96
80) Benzo(k)fluoranthene	18.21	252	241667	924.51	ng/ml	89
81) Benzo(a)pyrene	18.70	252	387676	1597.24	ng/ml	94
82) Indeno(1,2,3-cd)pyrene	20.61	276	161184	869.81	ng/ml	89
83) Dibenz(a,h)anthracene	20.65	278	42081	295.53	ng/ml	90
84) Benzo(g,h,i)perylene	21.11	276	138884	705.84	ng/ml	99

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

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F017.D\
Lab ID: K1810302-024
RunType: N/A
Matrix: Sediment

Date Acquired: 11/17/18 23:10:00
Batch ID: 615546
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 12/7/18 15:58
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Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F017.D\	**Instrument:**	K-MS-29
Acqu Date:	11/17/18 23:10:00	**Vial:**	17
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-024	**Raw Units:**	ng/mL

Bottle ID:	K1810302-024.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615546	**Prep Lot:**	324899	**Report Group:**	K1810302
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.65		233660	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	14.01		340984	1448.98	58	30 - 102	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.69	+0.01	11016	55.43	4.0	U	Y

Prep Amount:	40.066 g	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	69.90

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

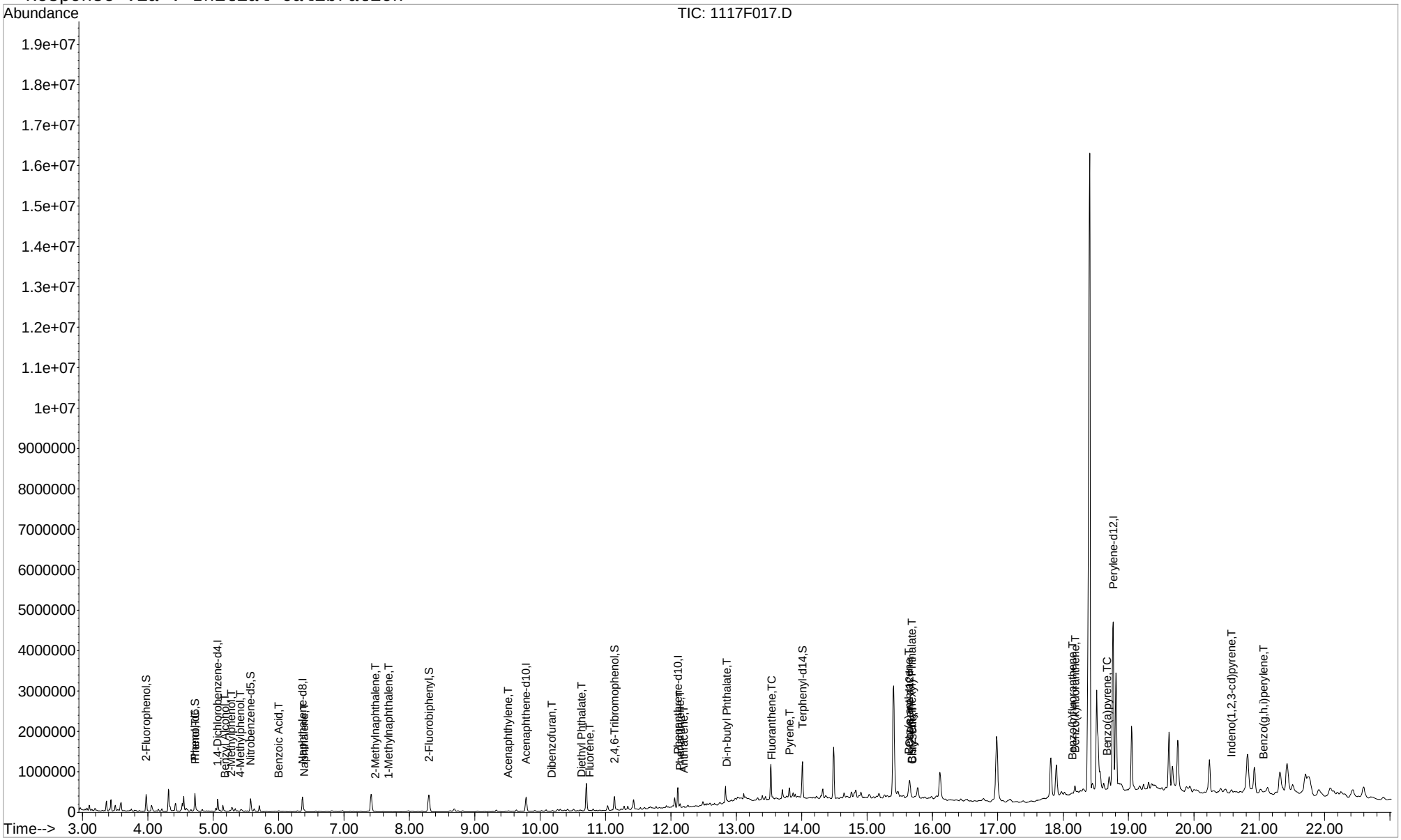
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Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

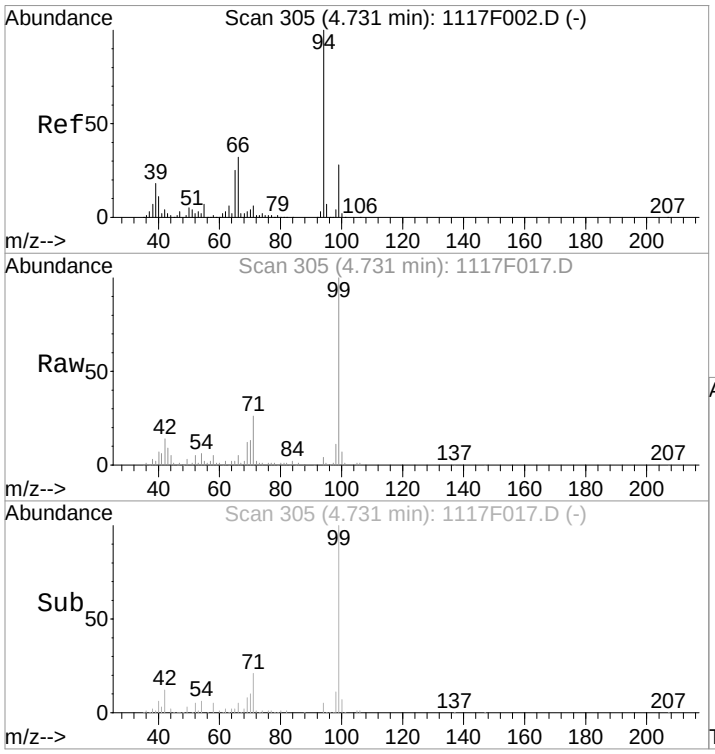
Data File : J:\MS29\DATA\111718\1117F017.D Vial: 64
Acq On : 17 Nov 2018 11:10 pm Operator: CConover
Sample : K1810302-024 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 12:51 2018 Quant Results File: 110618_8270LL.RES

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration



1st 12/07/18

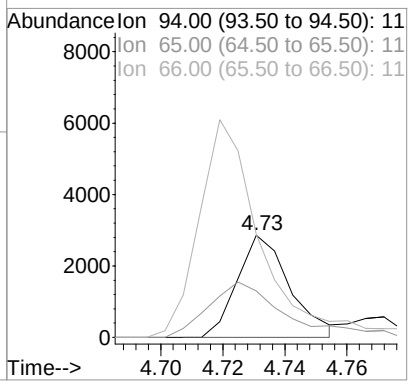
2nd 12/10/18

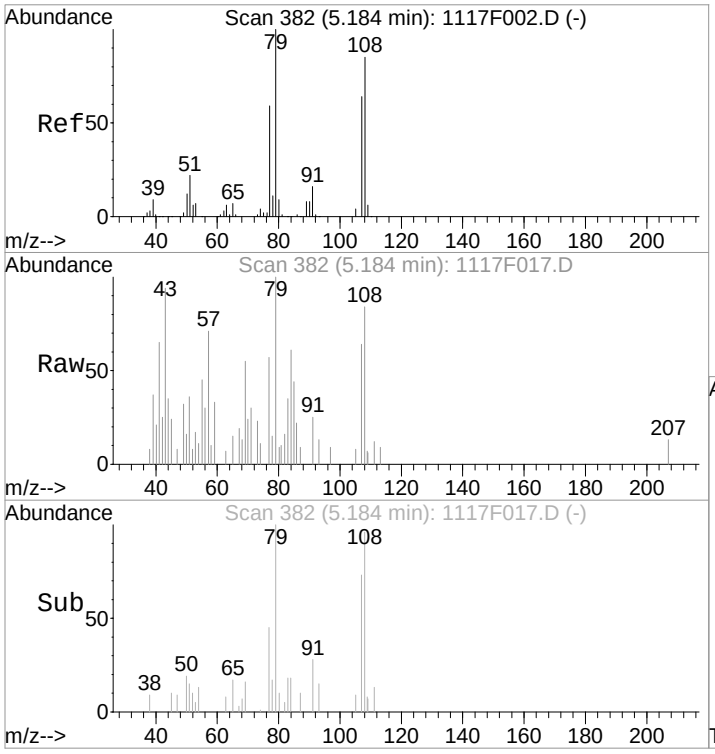


#7
Phenol
Concen: 31.86 ng/ml m
RT: 4.73 min Scan# 305
Delta R.T. 0.02 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion: 94 Resp: 3366

Ion	Ratio	Lower	Upper
94	100		
65	45.3	0.0	53.9
66	100.8	0.9	60.9#

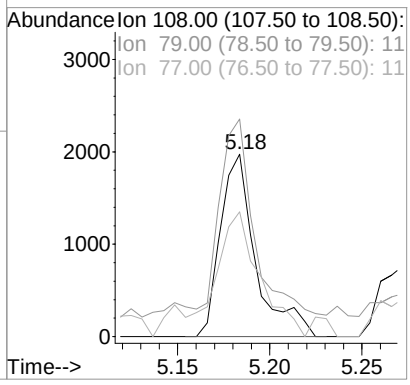




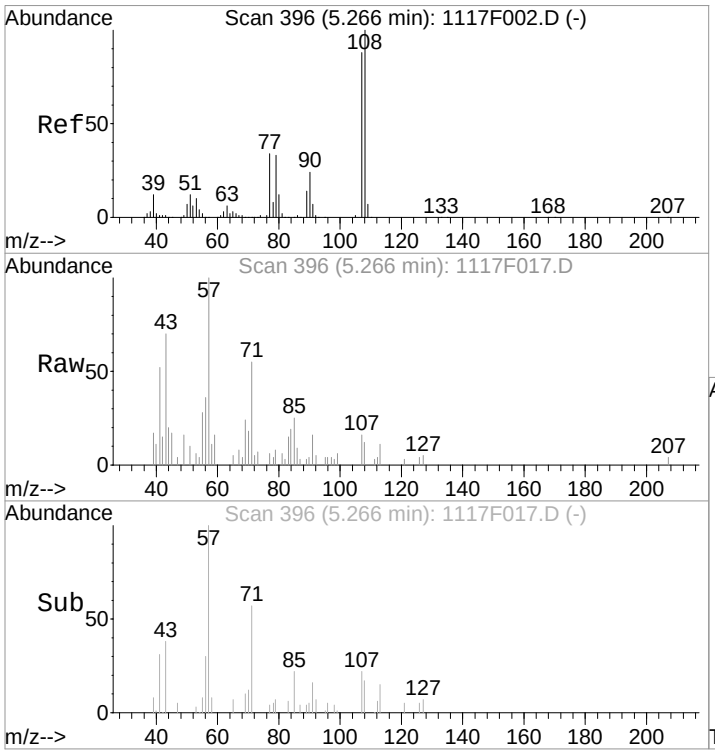
#13
Benzyl Alcohol
Concen: 48.09 ng/ml
RT: 5.18 min Scan# 382
Delta R.T. 0.02 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:108 Resp: 2632

Ion	Ratio	Lower	Upper
108	100		
79	107.5	85.3	145.3
77	58.6	38.7	98.7



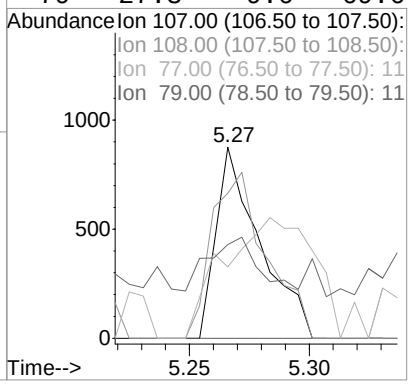
1st 12/07/18
2nd 12/10/18

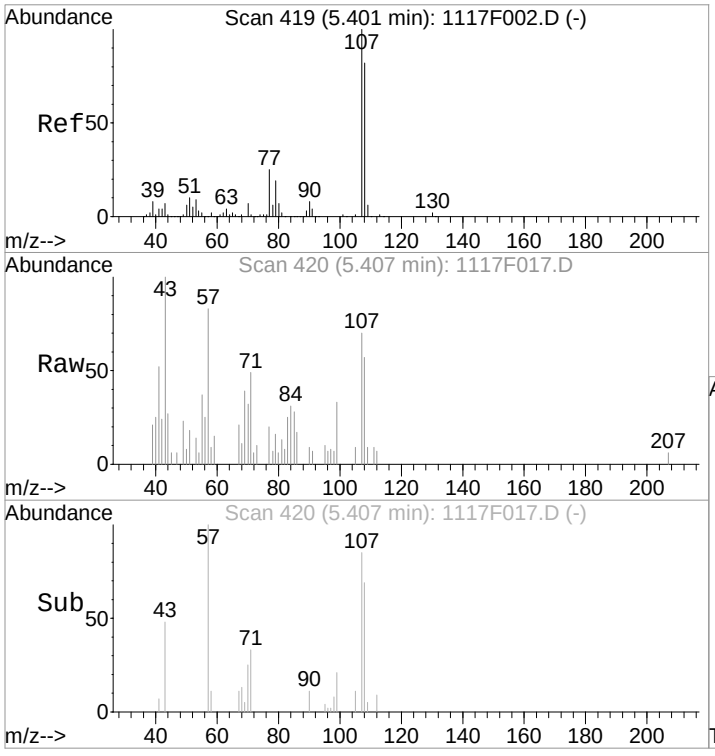


#15
2-Methylphenol
Concen: 15.26 ng/ml
RT: 5.27 min Scan# 396
Delta R.T. 0.02 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:107 Resp: 1114

Ion	Ratio	Lower	Upper
107	100		
108	76.0	83.4	143.4#
77	37.4	8.1	68.1
79	27.3	9.6	69.6

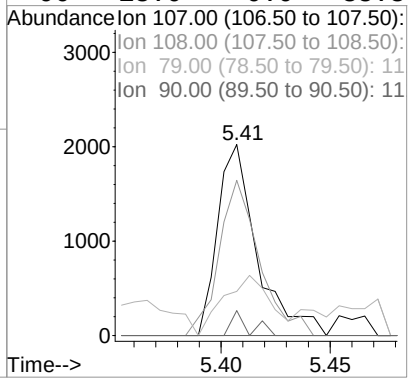




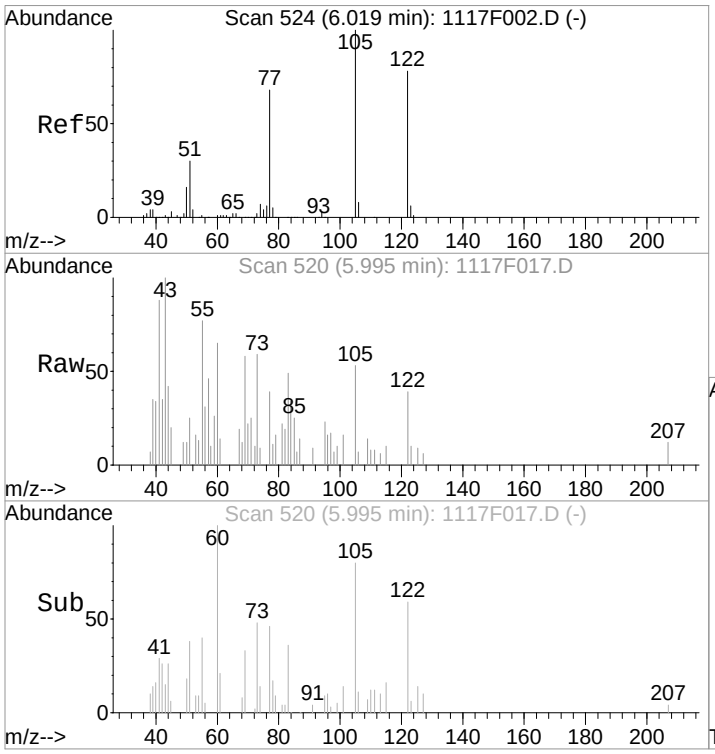
#18
4-Methylphenol
Concen: 24.80 ng/ml
RT: 5.41 min Scan# 420
Delta R.T. 0.02 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:107 Resp: 2548

Ion	Ratio	Lower	Upper
107	100		
108	81.3	51.4	111.4
79	13.4	0.0	47.7
90	13.0	0.0	38.3



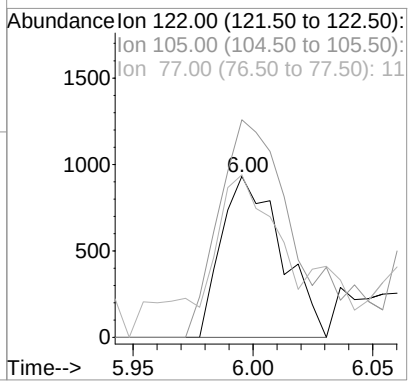
1st 12/07/18
2nd 12/10/18

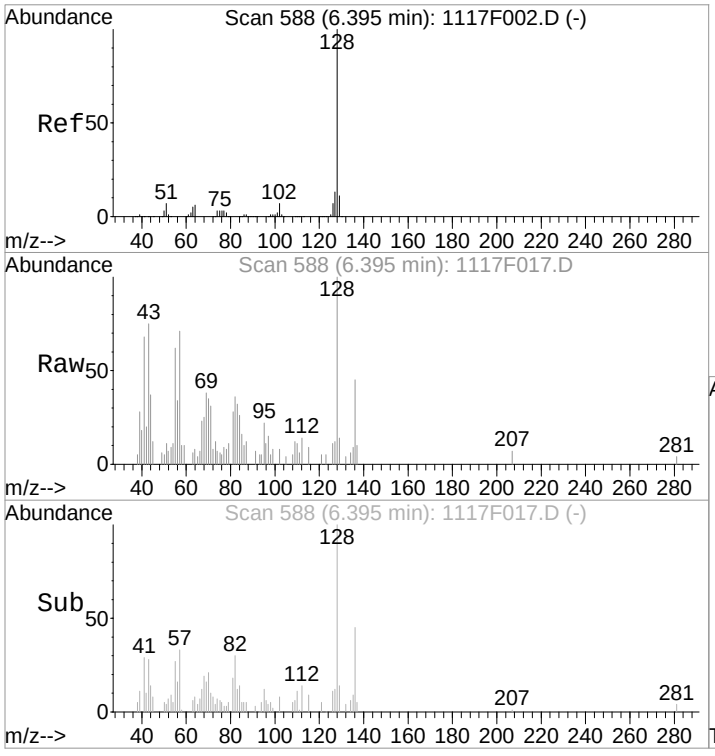


#27
Benzoic Acid
Concen: 491.03 ng/ml
RT: 6.00 min Scan# 520
Delta R.T. 0.01 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:122 Resp: 1624

Ion	Ratio	Lower	Upper
122	100		
105	135.1	86.3	146.3
77	76.9	54.7	114.7

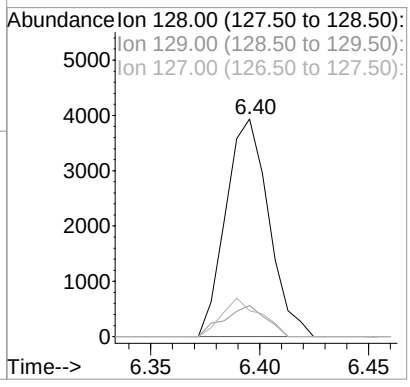




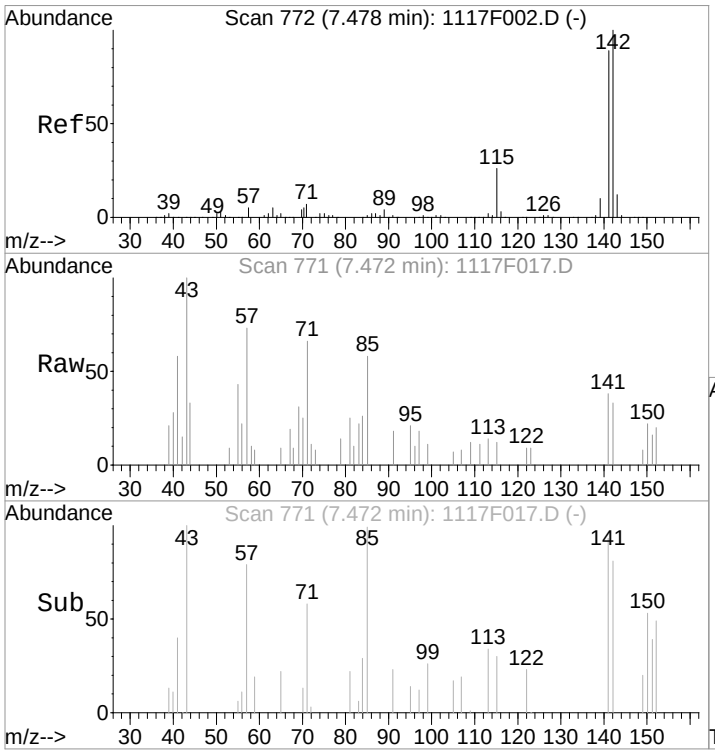
#29
Naphthalene
Concen: 20.10 ng/ml
RT: 6.40 min Scan# 588
Delta R.T. 0.02 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:128 Resp: 5398

Ion	Ratio	Lower	Upper
128	100		
129	14.3	0.0	41.0
127	11.9	0.0	43.2



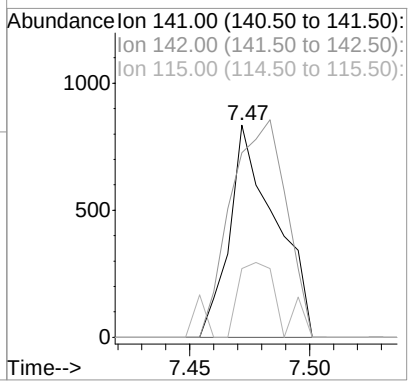
1st 12/07/18
2nd 12/10/18

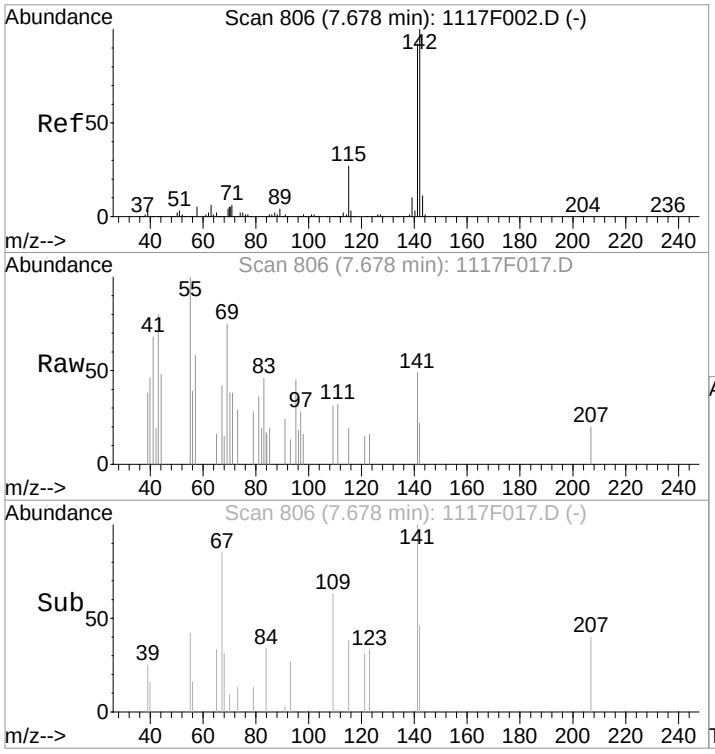


#33
2-Methylnaphthalene
Concen: 7.11 ng/ml
RT: 7.47 min Scan# 771
Delta R.T. 0.02 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:141 Resp: 1115

Ion	Ratio	Lower	Upper
141	100		
142	87.1	84.5	144.5
115	32.3	0.0	59.3

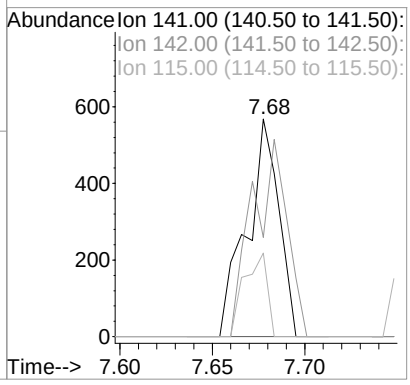




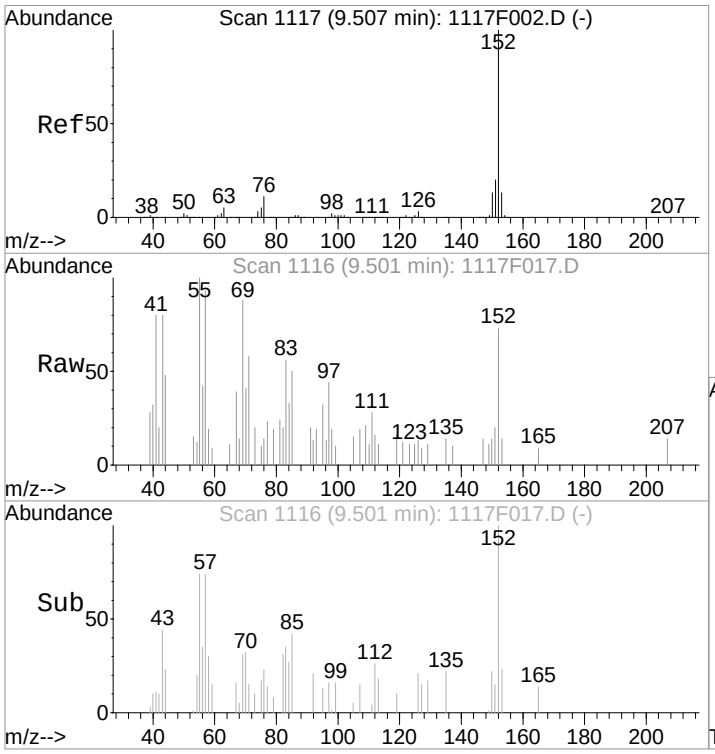
#34
1-Methylnaphthalene
Concen: 4.73 ng/ml m
RT: 7.68 min Scan# 806
Delta R.T. 0.04 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:141 Resp: 679

Ion	Ratio	Lower	Upper
141	100		
142	45.6	77.2	143.4#
115	38.4	20.7	38.5



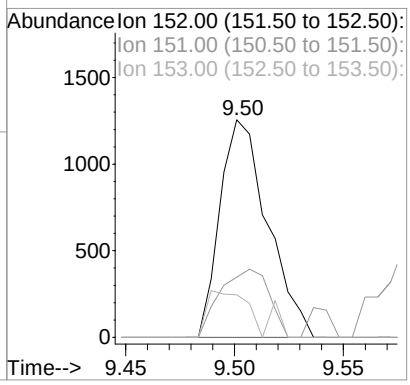
1st 12/07/18
2nd 12/10/18

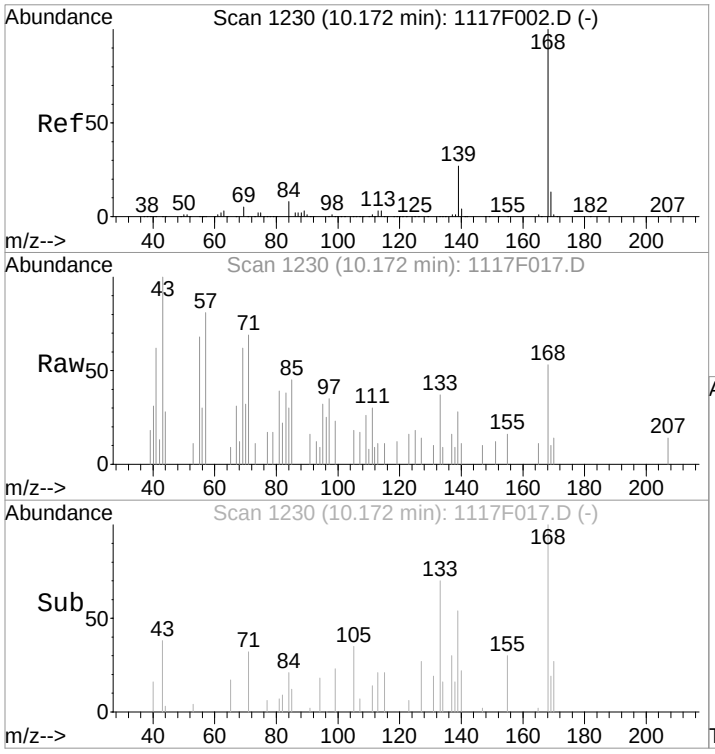


#42
Acenaphthylene
Concen: 7.58 ng/ml
RT: 9.50 min Scan# 1116
Delta R.T. 0.03 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:152 Resp: 1910

Ion	Ratio	Lower	Upper
152	100		
151	27.6	0.0	50.0
153	19.5	0.0	42.7

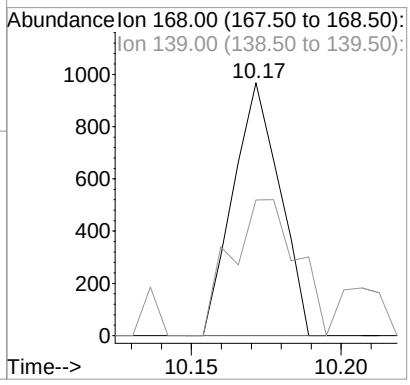




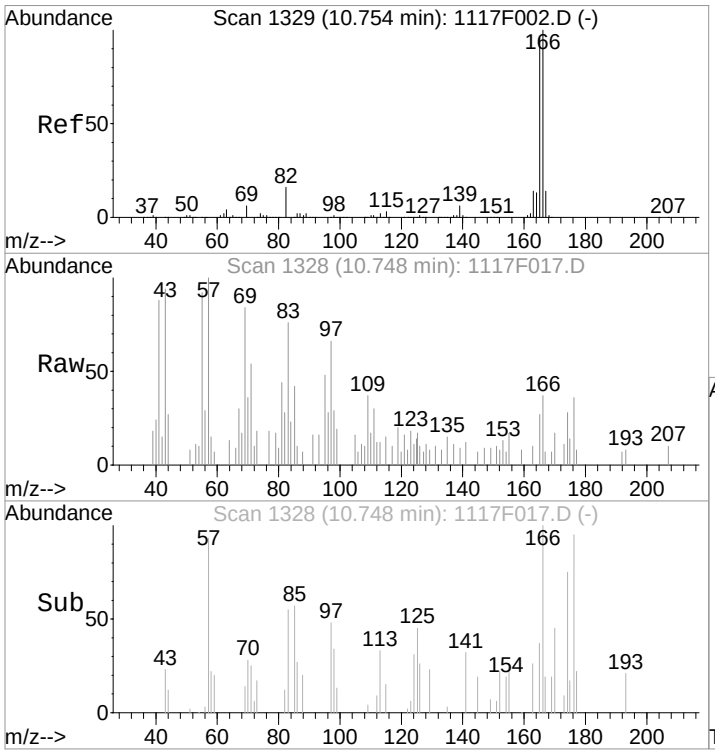
#48
Dibenzofuran
Concen: 5.40 ng/ml
RT: 10.17 min Scan# 1230
Delta R.T. 0.03 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:168 Resp: 1052

Ion	Ratio	Lower	Upper
168	100		
139	53.6	1.7	61.7



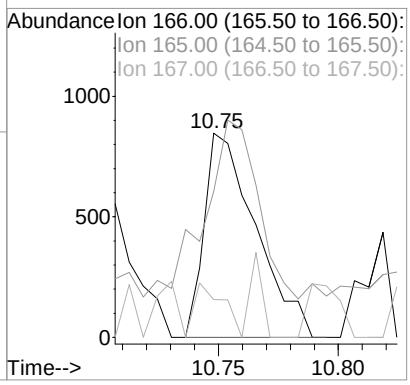
1st 12/07/18
2nd 12/10/18

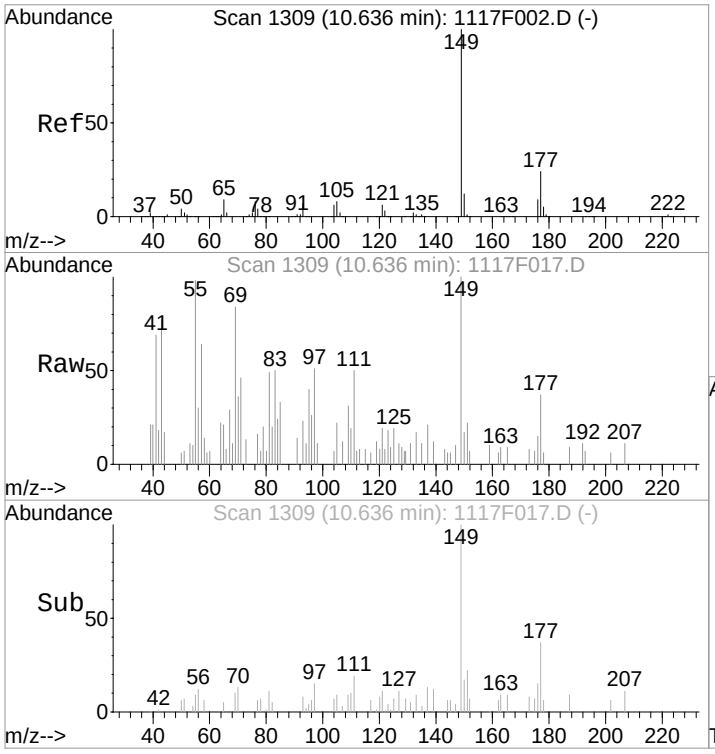


#52
Fluorene
Concen: 6.94 ng/ml
RT: 10.75 min Scan# 1328
Delta R.T. 0.02 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:166 Resp: 1268

Ion	Ratio	Lower	Upper
166	100		
165	51.1	65.9	125.9#
167	18.5	0.0	42.7

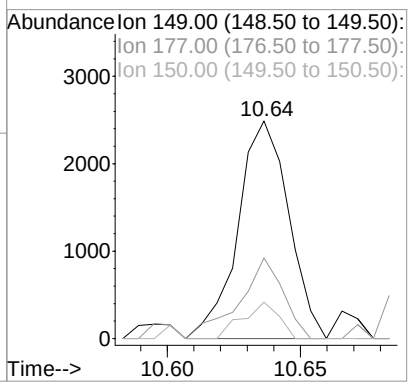




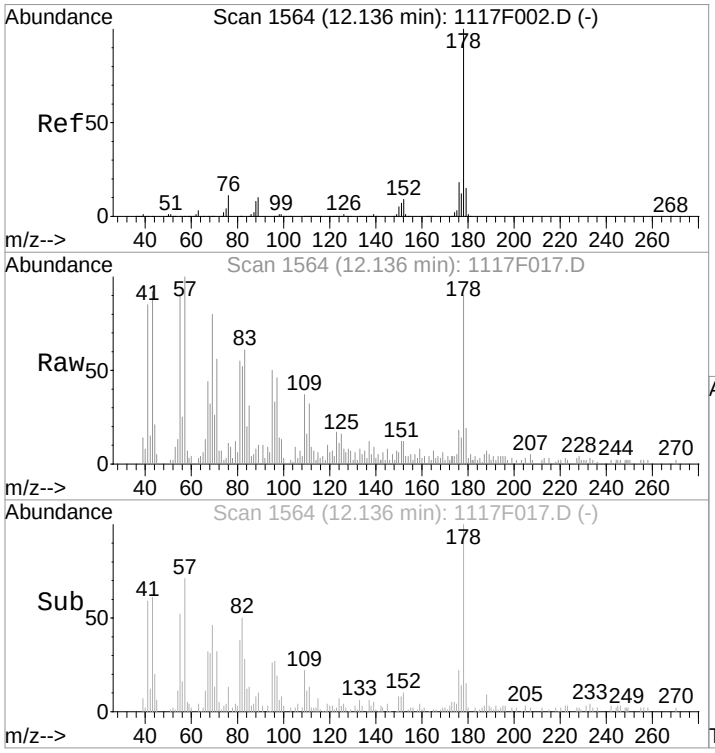
#54
Diethyl Phthalate
Concen: 19.98 ng/ml
RT: 10.64 min Scan# 1309
Delta R.T. 0.02 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:149 Resp: 3301

Ion	Ratio	Lower	Upper
149	100		
177	37.2	0.0	53.4
150	16.8	0.0	41.9



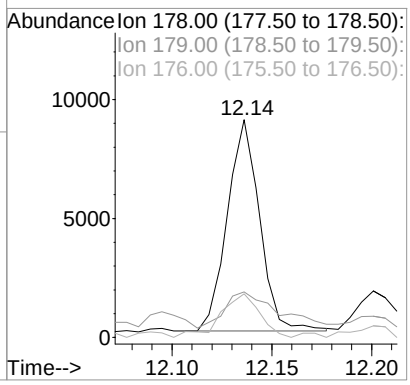
1st 12/07/18
2nd 12/10/18

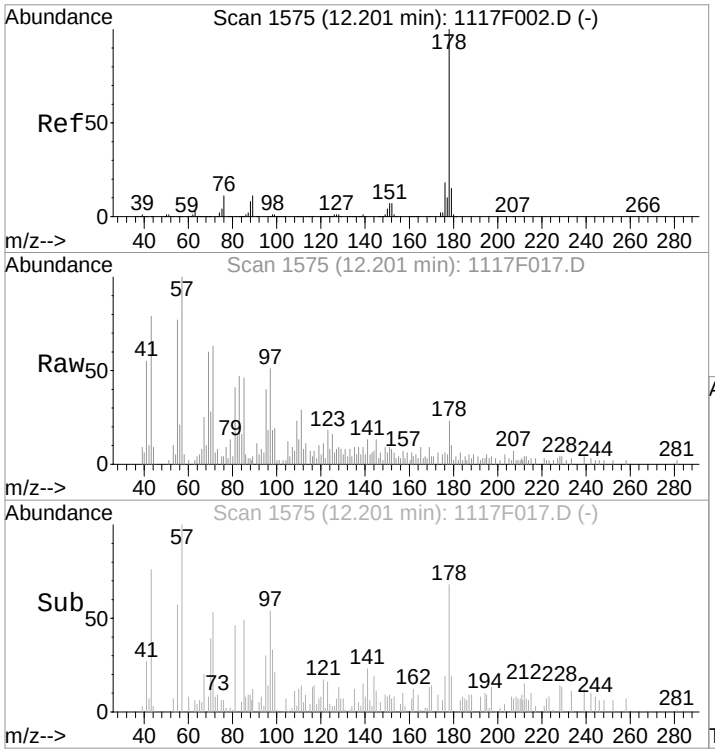


#64
Phenanthrene
Concen: 36.67 ng/ml
RT: 12.14 min Scan# 1564
Delta R.T. 0.02 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:178 Resp: 10033

Ion	Ratio	Lower	Upper
178	100		
179	15.3	0.0	45.6
176	20.6	0.0	47.8

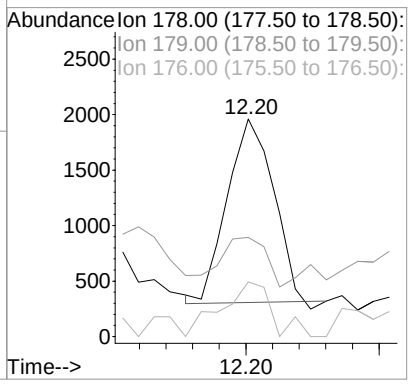




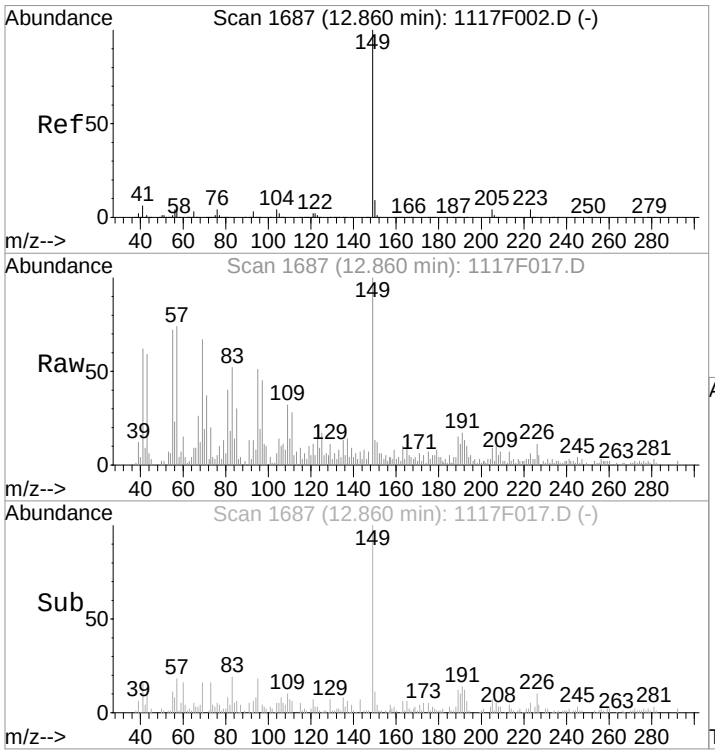
#65
Anthracene
Concen: 7.43 ng/ml
RT: 12.20 min Scan# 1575
Delta R.T. 0.02 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:178 Resp: 1983

Ion	Ratio	Lower	Upper
178	100		
179	23.4	0.0	44.6
176	30.0	0.0	47.4



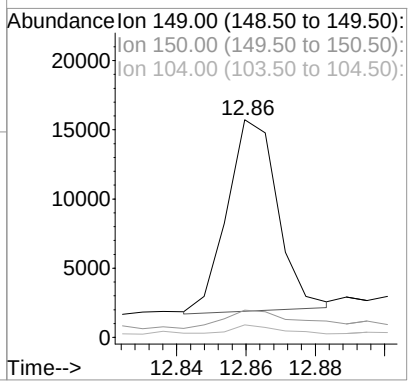
1st 12/07/18
2nd 12/10/18

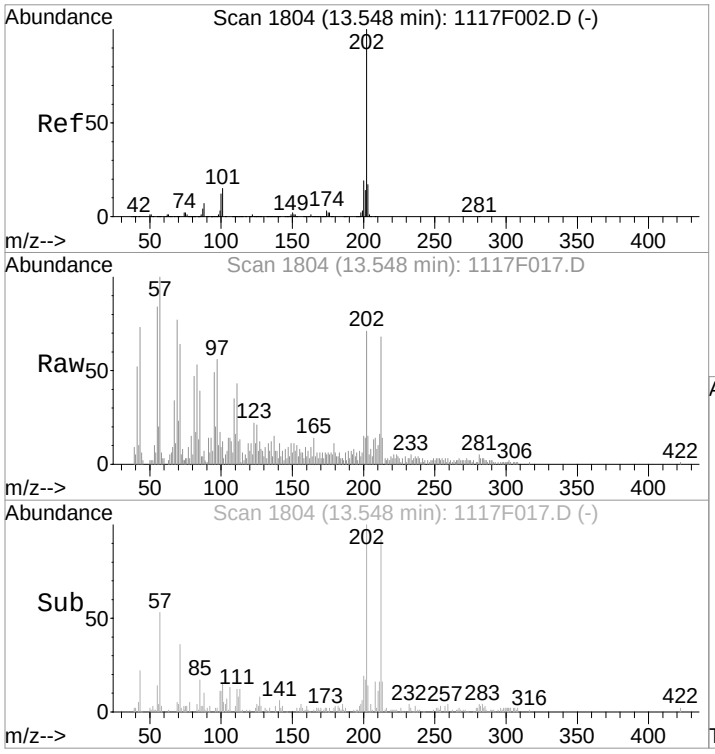


#67
Di-n-butyl Phthalate
Concen: 52.71 ng/ml m
RT: 12.86 min Scan# 1687
Delta R.T. 0.02 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:149 Resp: 14105

Ion	Ratio	Lower	Upper
149	100		
150	207.2	0.0	39.1#
104	100.9	0.0	33.8#

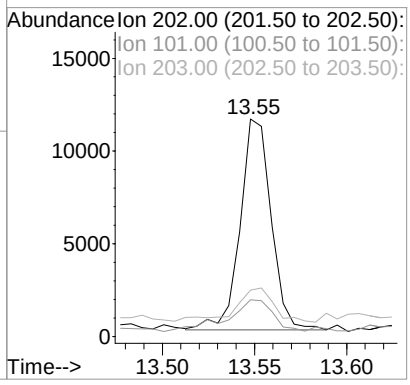




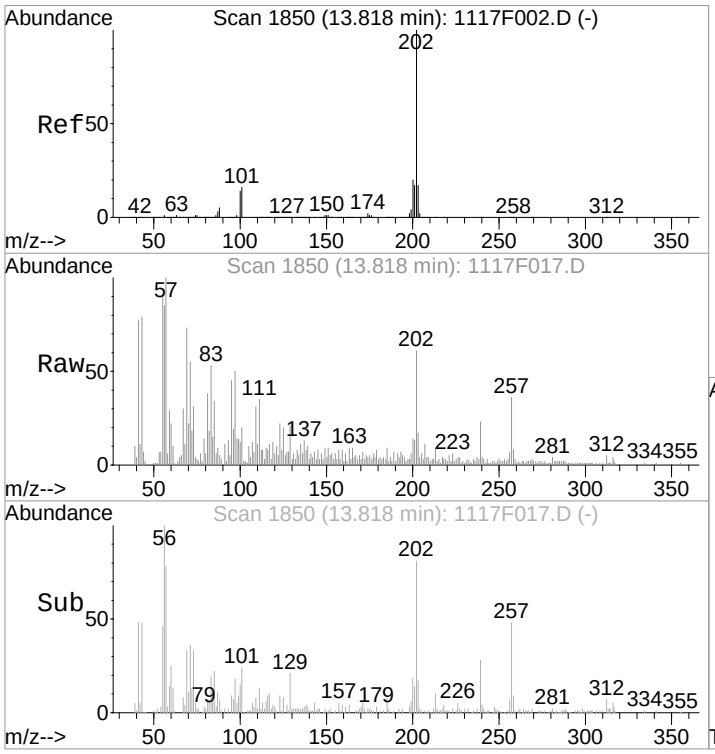
#68
Fluoranthene
Concen: 45.82 ng/ml
RT: 13.55 min Scan# 1804
Delta R.T. 0.02 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:202 Resp: 13279

Ion	Ratio	Lower	Upper
202	100		
101	13.6	0.0	43.9
203	13.0	0.0	46.8



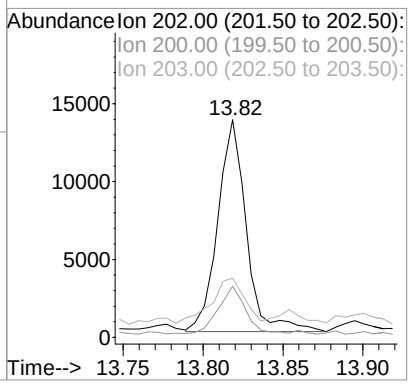
1st 12/07/18
2nd 12/10/18

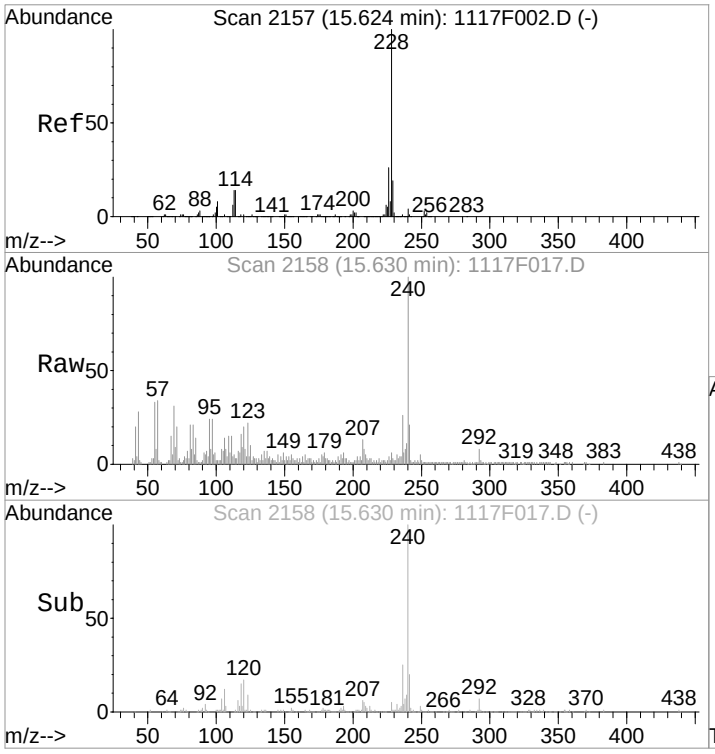


#70
Pyrene
Concen: 46.34 ng/ml
RT: 13.82 min Scan# 1850
Delta R.T. 0.02 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:202 Resp: 16947

Ion	Ratio	Lower	Upper
202	100		
200	22.3	0.0	49.6
203	21.3	0.0	47.0

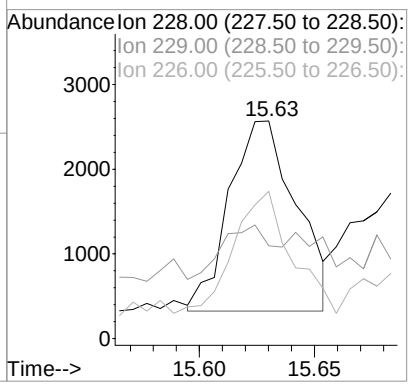




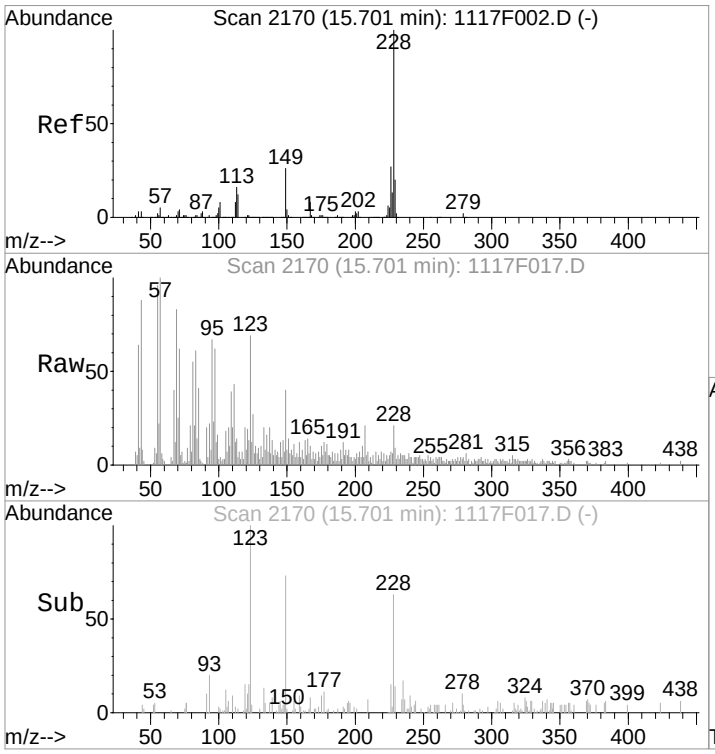
#74
Benz(a)anthracene
Concen: 15.09 ng/ml m
RT: 15.63 min Scan# 2158
Delta R.T. 0.04 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:228 Resp: 4540

Ion	Ratio	Lower	Upper
228	100		
229	42.8	0.0	48.9
226	67.7	0.0	55.1#



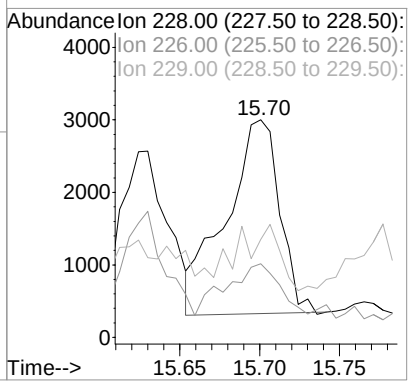
1st 12/07/18
2nd 12/10/18

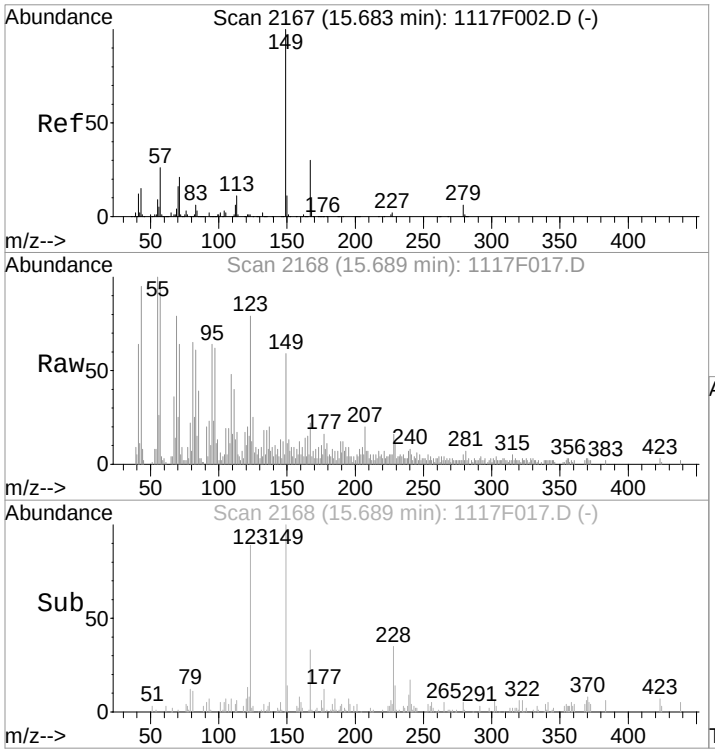


#75
Chrysene
Concen: 21.97 ng/ml
RT: 15.70 min Scan# 2170
Delta R.T. 0.04 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:228 Resp: 6253

Ion	Ratio	Lower	Upper
228	100		
226	21.2	0.0	57.6
229	20.9	0.0	49.3

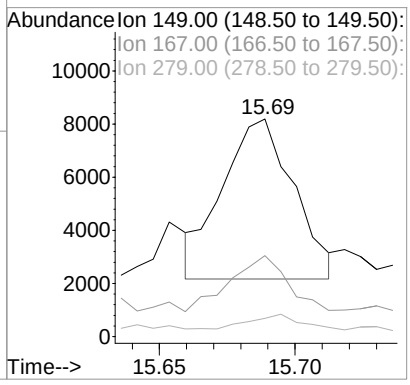




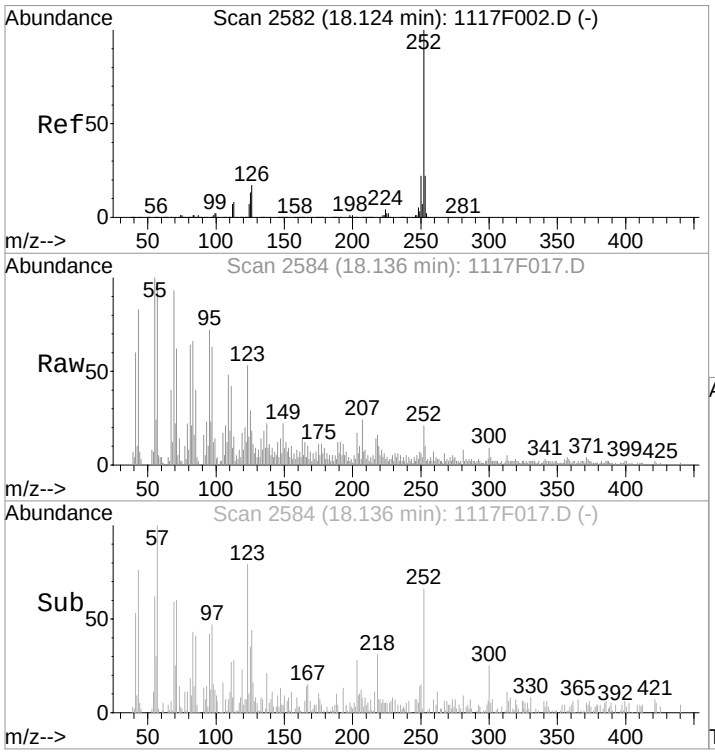
#76
Bis(2-ethylhexyl) Phthalate
Concen: 55.43 ng/ml m
RT: 15.69 min Scan# 2168
Delta R.T. 0.03 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:149 Resp: 11016

Ion	Ratio	Lower	Upper
149	100		
167	37.3	0.0	59.7
279	8.5	0.0	36.4



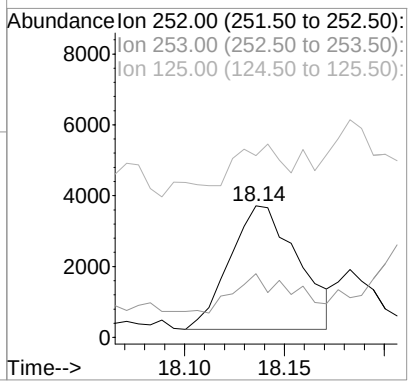
1st 12/07/18
2nd 12/10/18

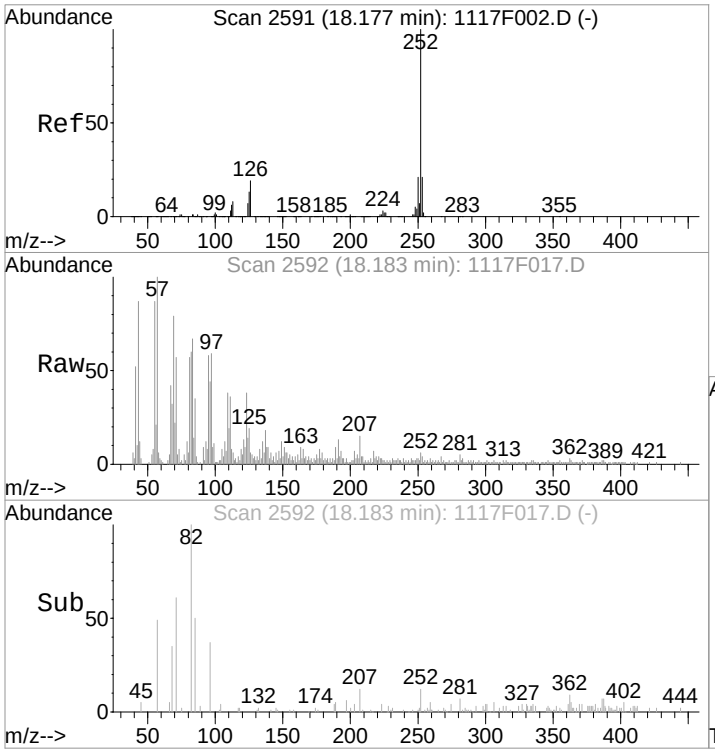


#79
Benzo(b)fluoranthene
Concen: 28.89 ng/ml
RT: 18.14 min Scan# 2584
Delta R.T. 0.05 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:252 Resp: 8285

Ion	Ratio	Lower	Upper
252	100		
253	30.6	0.0	51.6
125	21.8	0.0	43.2

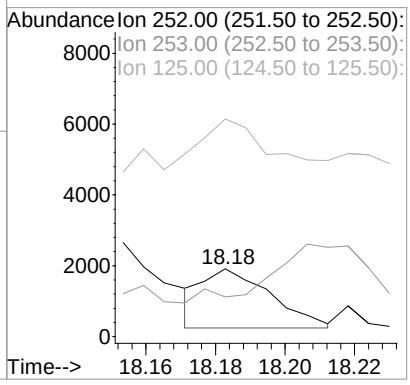




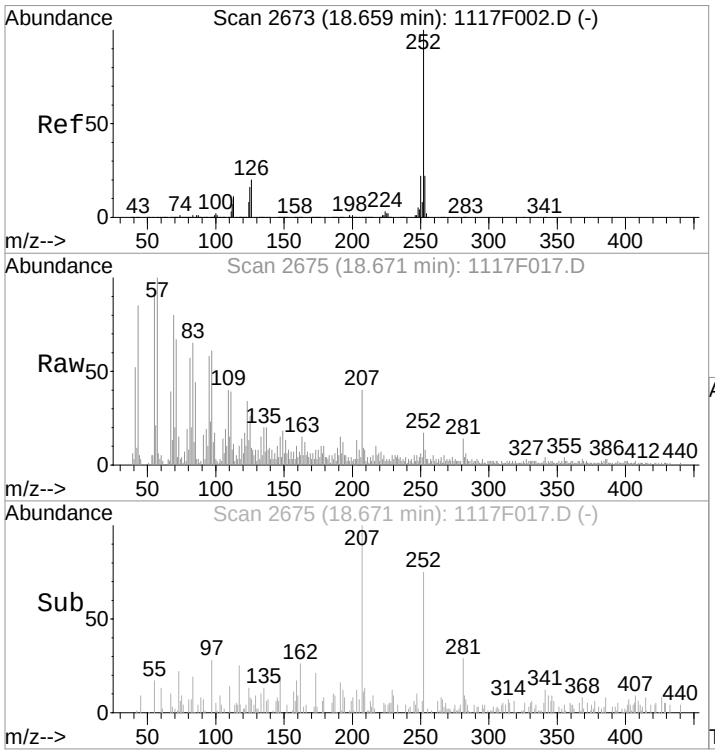
#80
Benzo(k)fluoranthene
Concen: 8.11 ng/ml m
RT: 18.18 min Scan# 2592
Delta R.T. 0.04 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:252 Resp: 2287

Ion	Ratio	Lower	Upper
252	100		
253	58.7	0.0	51.5#
125	321.1	0.0	43.3#



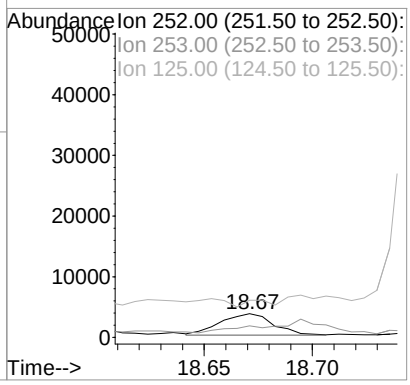
1st 12/07/18
2nd 12/10/18

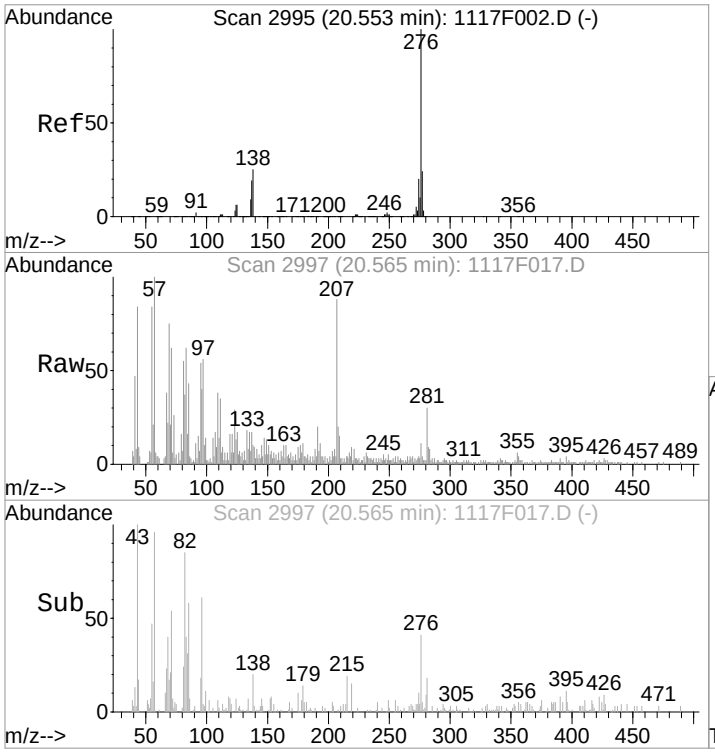


#81
Benzo(a)pyrene
Concen: 22.83 ng/ml m
RT: 18.67 min Scan# 2675
Delta R.T. 0.04 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:252 Resp: 5982

Ion	Ratio	Lower	Upper
252	100		
253	48.2	0.0	52.0
125	156.2	0.0	45.4#

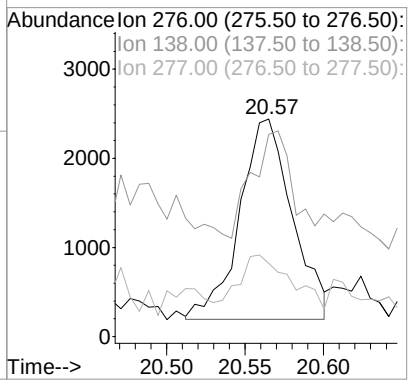




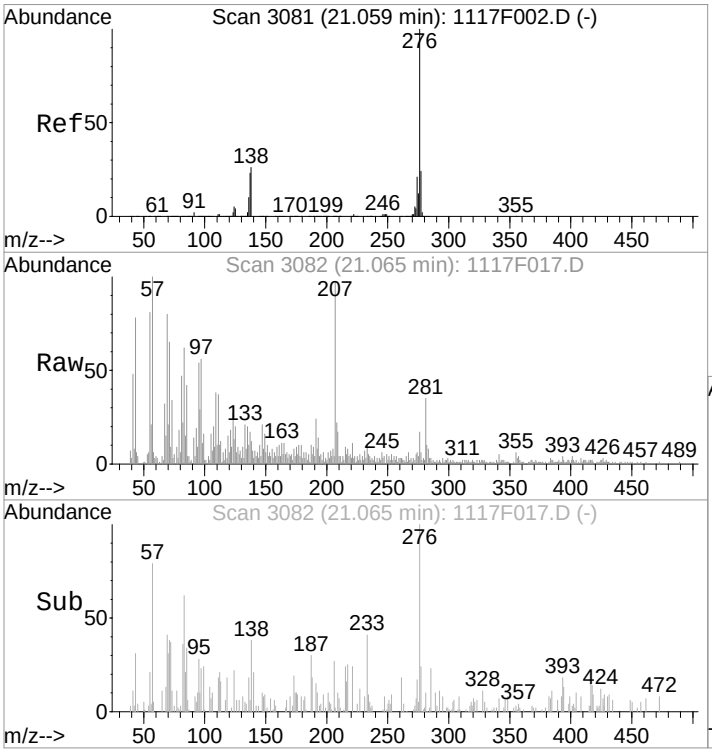
#82
Indeno(1,2,3-cd)pyrene
Concen: 26.30 ng/ml m
RT: 20.57 min Scan# 2997
Delta R.T. 0.05 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:276 Resp: 5260

Ion	Ratio	Lower	Upper
276	100		
138	93.0	0.0	53.7#
277	33.7	0.0	53.2



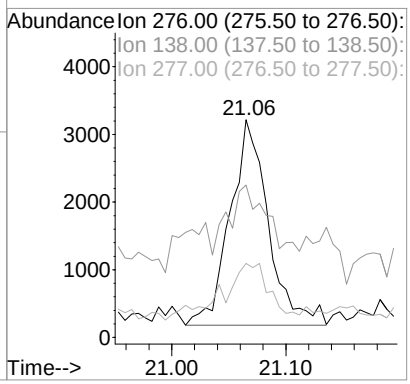
1st 12/07/18
2nd 12/10/18



#84
Benzo(g,h,i)perylene
Concen: 33.42 ng/ml
RT: 21.06 min Scan# 3082
Delta R.T. 0.06 min
Lab File: 1117F017.D
Acq: 17 Nov 2018 11:10 pm

Tgt Ion:276 Resp: 7098

Ion	Ratio	Lower	Upper
276	100		
138	23.2	0.0	56.8
277	24.3	0.0	53.6



Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F017.D Vial: 64
Acq On : 17 Nov 2018 11:10 pm Operator: CConover
Sample : K1810302-024 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 11:53:23 2018 Quant Results File: 110618_8270LL.RES

Quant Method : J:\MS29\M...\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.07	152	62532	1000.00	ng/ml	0.01
21) Naphthalene-d8	6.37	136	247114	1000.00	ng/ml	0.02
35) Acenaphthene-d10	9.78	164	119873	1000.00	ng/ml	0.03
59) Phenanthrene-d10	12.11	188	225296	1000.00	ng/ml	0.02
69) Chrysene-d12	15.65	240	233660	1000.00	ng/ml	0.04
77) Perylene-d12	18.76	264	240588	1000.00	ng/ml	0.04
System Monitoring Compounds						
4) 2-Fluorophenol	3.97	112	137534	1944.20	ng/ml	0.00
Spiked Amount 3750.000	Range 38 - 110		Recovery =	51.85%		
6) Phenol-d6	4.72	99	214236	2228.02	ng/ml	0.02
Spiked Amount 3750.000	Range 43 - 128		Recovery =	59.41%		
19) Nitrobenzene-d5	5.57	82	126935	1577.66	ng/ml	0.02
Spiked Amount 2500.000	Range 30 - 139		Recovery =	63.11%		
39) 2-Fluorobiphenyl	8.30	172	287877	1574.70	ng/ml	0.04
Spiked Amount 2500.000	Range 37 - 126		Recovery =	62.99%		
60) 2,4,6-Tribromophenol	11.14	330	67489	2216.23	ng/ml	0.03
Spiked Amount 3750.000	Range 38 - 157		Recovery =	59.10%		
71) Terphenyl-d14	14.01	244	340984	1448.98	ng/ml	0.02
Spiked Amount 2500.000	Range 54 - 158		Recovery =	57.96%		

Target Compounds						Qvalue
7) Phenol	4.73	94	3366m	31.86	ng/ml	
13) Benzyl Alcohol	5.18	108	2632	48.09	ng/ml	91
15) 2-Methylphenol	5.27	107	1114	15.26	ng/ml#	75
18) 4-Methylphenol	5.41	107	2548	24.80	ng/ml	97
27) Benzoic Acid	6.00	122	1624	491.03	ng/ml	86
29) Naphthalene	6.40	128	5398	20.10	ng/ml	94
33) 2-Methylnaphthalene	7.47	141	1115	7.11	ng/ml	79
34) 1-Methylnaphthalene	7.68	141	679m	4.73	ng/ml	
42) Acenaphthylene	9.50	152	1910	7.58	ng/ml	83
48) Dibenzofuran	10.17	168	1052	5.40	ng/ml	61
52) Fluorene	10.75	166	1268	6.94	ng/ml#	58
54) Diethyl Phthalate	10.64	149	3301	19.98	ng/ml	77
64) Phenanthrene	12.14	178	10033	36.67	ng/ml	96
65) Anthracene	12.20	178	1983	7.43	ng/ml	75
67) Di-n-butyl Phthalate	12.86	149	14105m	52.71	ng/ml	
68) Fluoranthene	13.55	202	13279	45.82	ng/ml	95
70) Pyrene	13.82	202	16947	46.34	ng/ml	92
74) Benz(a)anthracene	15.63	228	4540m	15.09	ng/ml	
75) Chrysene	15.70	228	6253	21.97	ng/ml	91
76) Bis(2-ethylhexyl) Phthalat	15.69	149	11016m	55.43	ng/ml	
79) Benzo(b)fluoranthene	18.14	252	8285	28.89	ng/ml	80
80) Benzo(k)fluoranthene	18.18	252	2287m	8.11	ng/ml	
81) Benzo(a)pyrene	18.67	252	5982m	22.83	ng/ml	
82) Indeno(1,2,3-cd)pyrene	20.57	276	5260m	26.30	ng/ml	
84) Benzo(g,h,i)perylene	21.06	276	7098	33.42	ng/ml	96

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

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F020.D\
Lab ID: K1810302-025
RunType: N/A
Matrix: Sediment

Date Acquired: 11/18/18 00:35:00
Batch ID: 615546
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 12/7/18 15:58
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Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F020.D\	**Instrument:**	K-MS-29
Acqu Date:	11/18/18 00:35:00	**Vial:**	20
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-025	**Raw Units:**	ng/mL

Bottle ID:	K1810302-025.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615546	**Prep Lot:**	324899	**Report Group:**	K1810302
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.65		216793	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	14.01		339106	1553.11	62	30 - 102	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.68		18031	97.79	6.8	U	Y

Prep Amount:	40.238 g	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	71.50

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

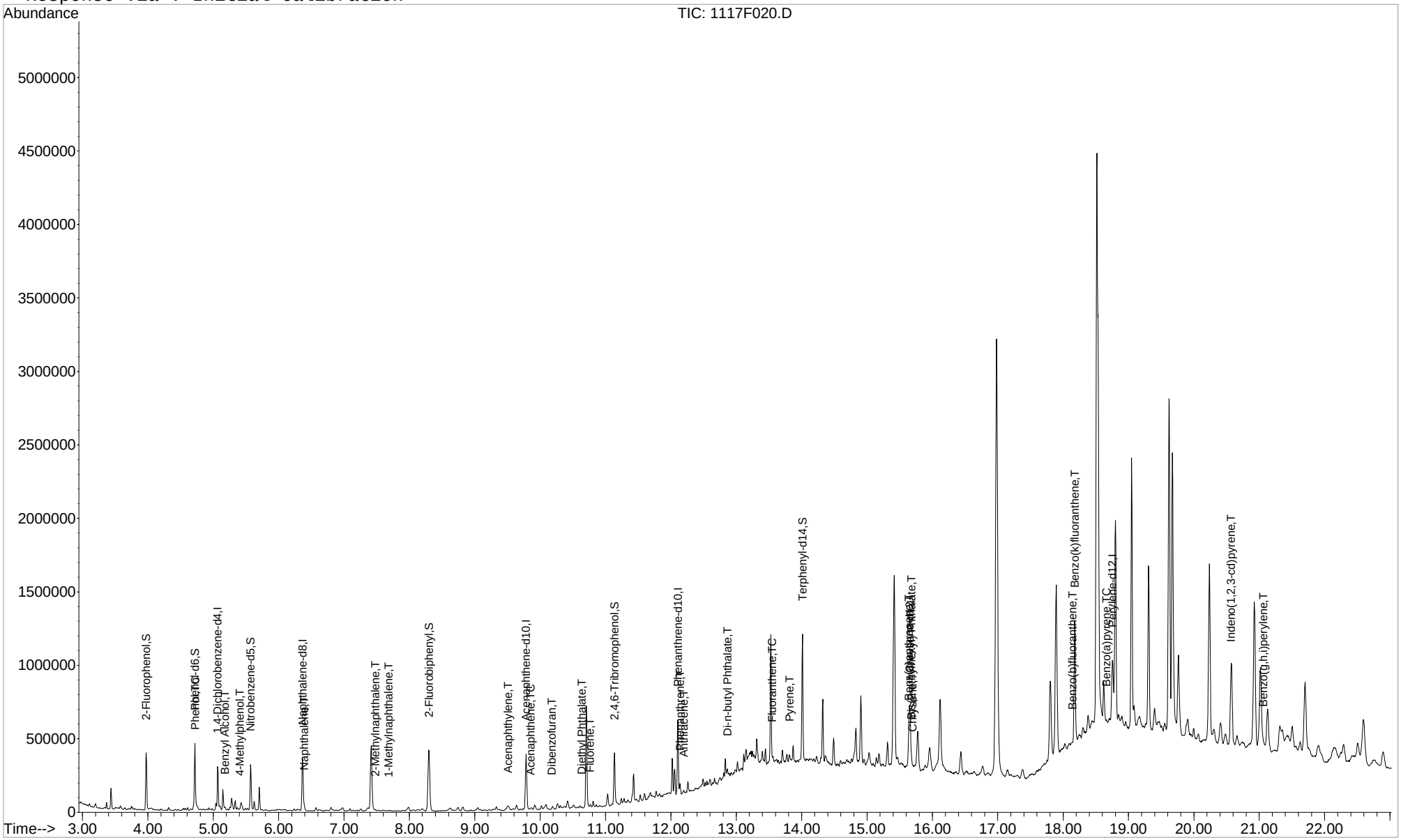
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 12/7/18 15:58
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

1st 12/07/18
2nd 12/10/18

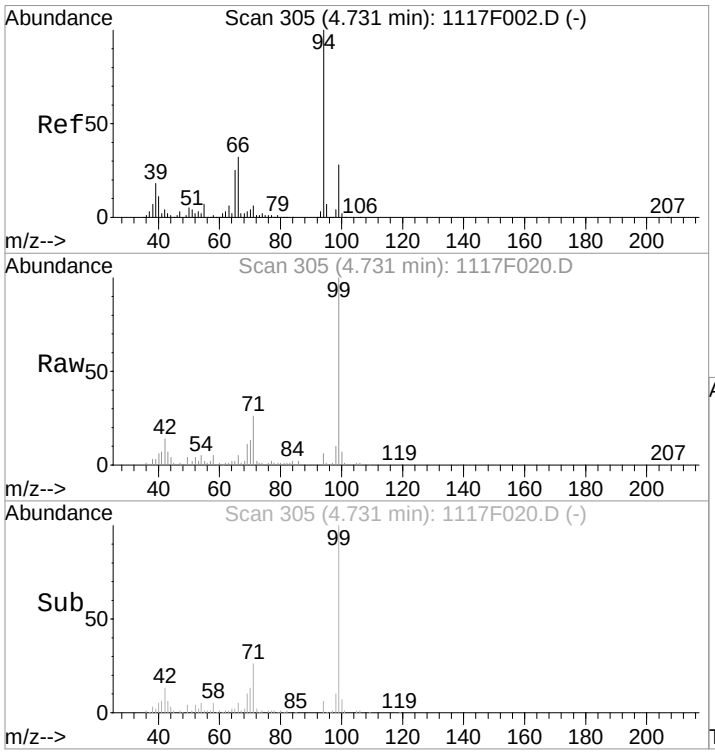
Data File : J:\MS29\DATA\111718\1117F020.D Vial: 67
Acq On : 18 Nov 2018 12:35 am Operator: CConover
Sample : K1810302-025 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 14:58 2018 Quant Results File: 110618_8270LL.RES

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration



1st 12/07/18

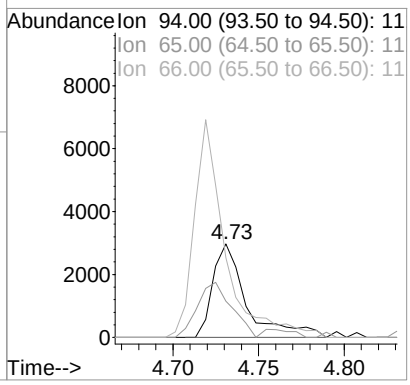
2nd 12/10/18

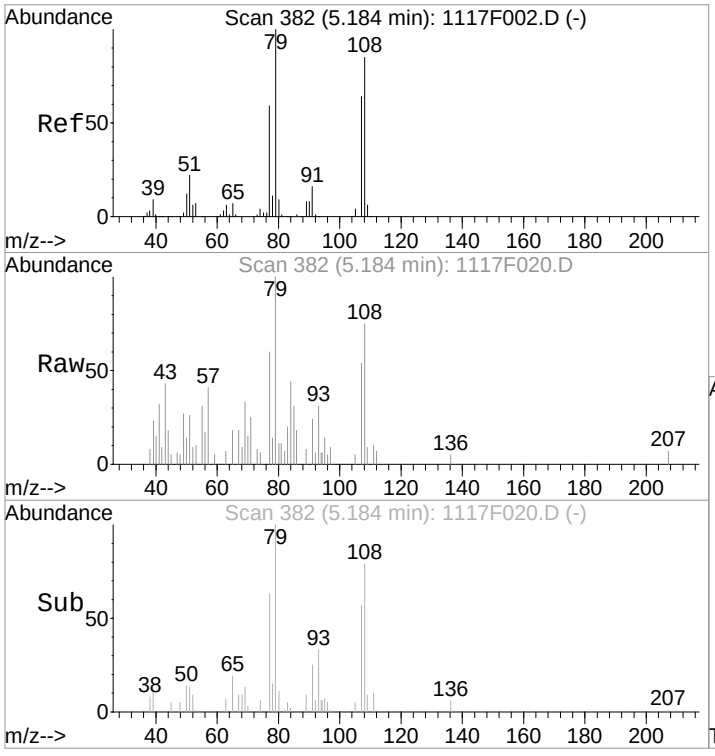


#7
Phenol
Concen: 38.47 ng/ml
RT: 4.73 min Scan# 305
Delta R.T. 0.02 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion: 94 Resp: 4073

Ion	Ratio	Lower	Upper
94	100		
65	33.0	0.0	53.9
66	85.2	0.9	60.9#

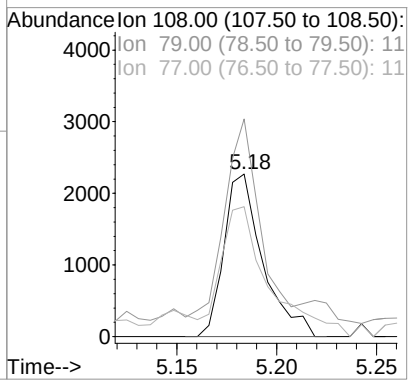




#13
Benzyl Alcohol
Concen: 55.97 ng/ml
RT: 5.18 min Scan# 382
Delta R.T. 0.02 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

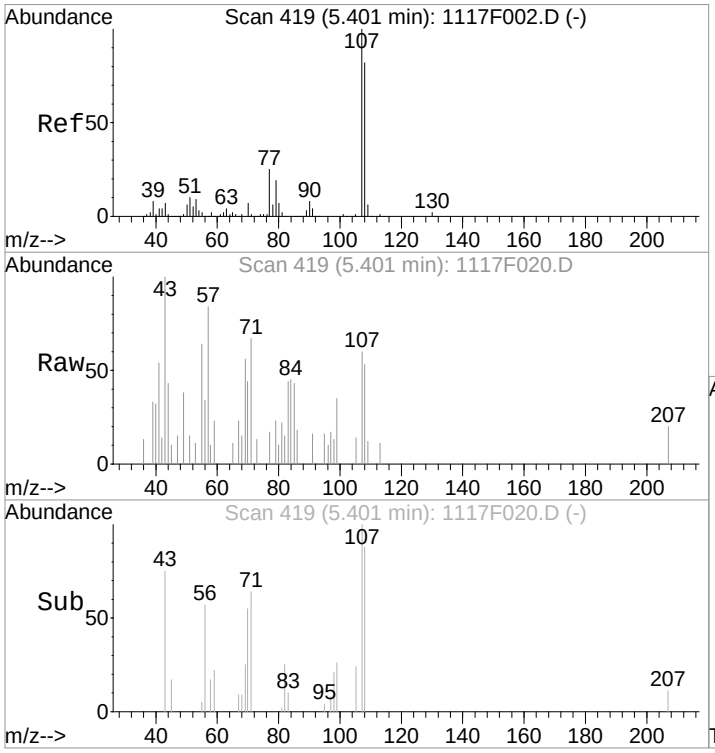
Tgt Ion:108 Resp: 3070

Ion	Ratio	Lower	Upper
108	100		
79	121.8	85.3	145.3
77	71.7	38.7	98.7



1st 12/07/18

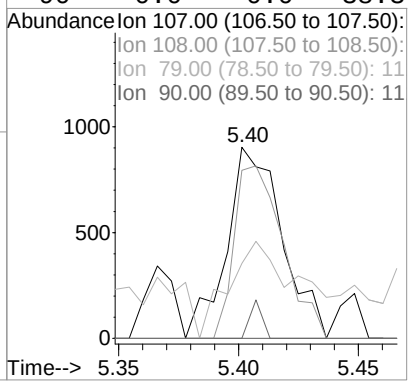
2nd 12/10/18

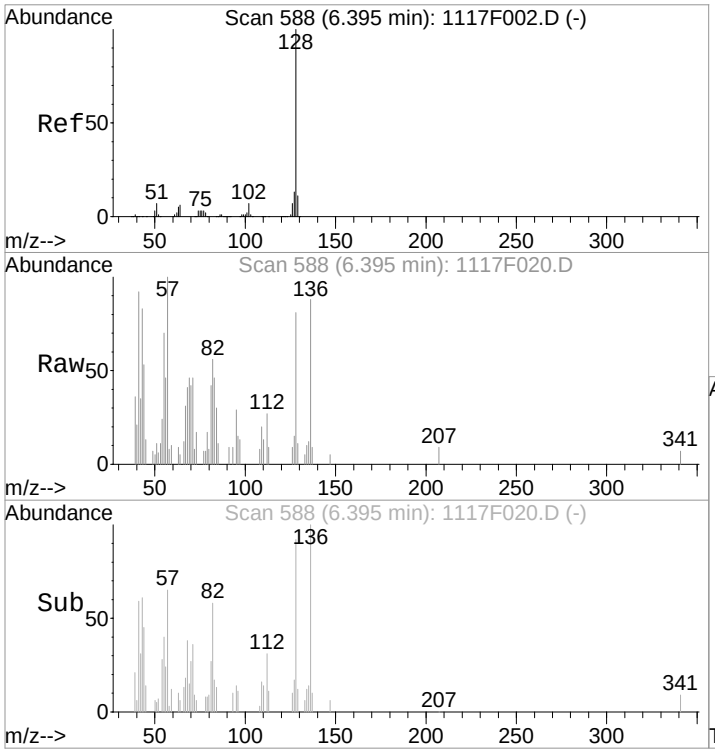


#18
4-Methylphenol
Concen: 14.17 ng/ml
RT: 5.40 min Scan# 419
Delta R.T. 0.02 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:107 Resp: 1459

Ion	Ratio	Lower	Upper
107	100		
108	87.9	51.4	111.4
79	17.7	0.0	47.7
90	0.0	0.0	38.3

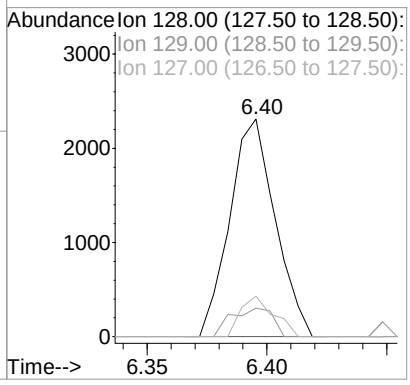




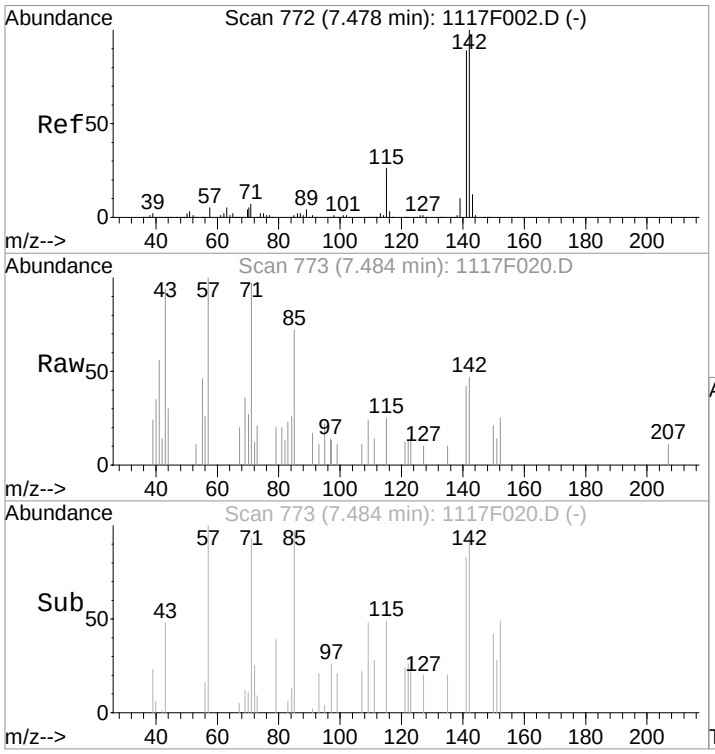
#29
Naphthalene
Concen: 11.22 ng/ml
RT: 6.40 min Scan# 588
Delta R.T. 0.02 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:128 Resp: 3042

Ion	Ratio	Lower	Upper
128	100		
129	13.2	0.0	41.0
127	18.6	0.0	43.2



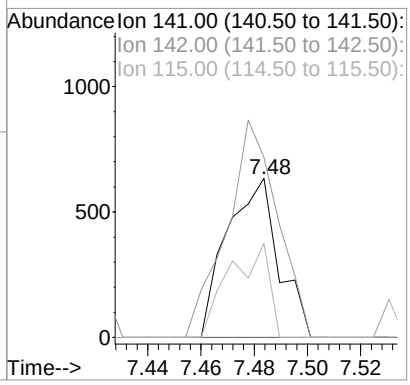
1st 12/07/18
2nd 12/10/18

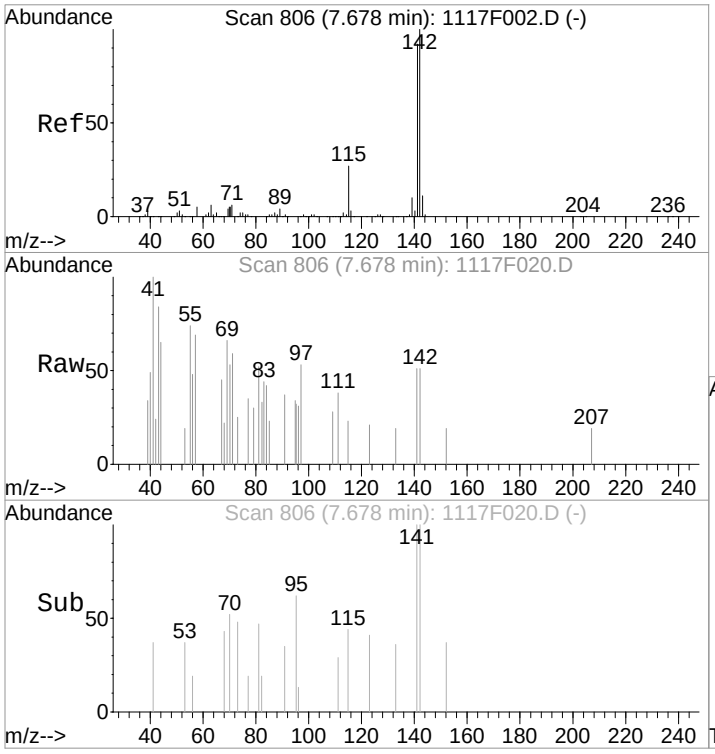


#33
2-Methylnaphthalene
Concen: 5.40 ng/ml
RT: 7.48 min Scan# 773
Delta R.T. 0.04 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:141 Resp: 855

Ion	Ratio	Lower	Upper
141	100		
142	113.1	84.5	144.5
115	59.1	0.0	59.3

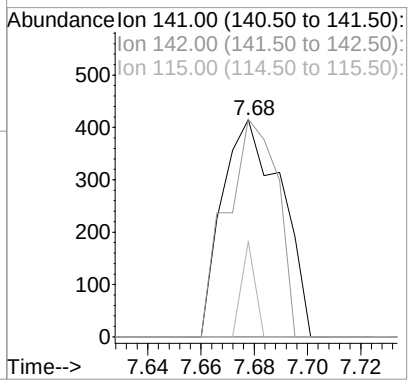




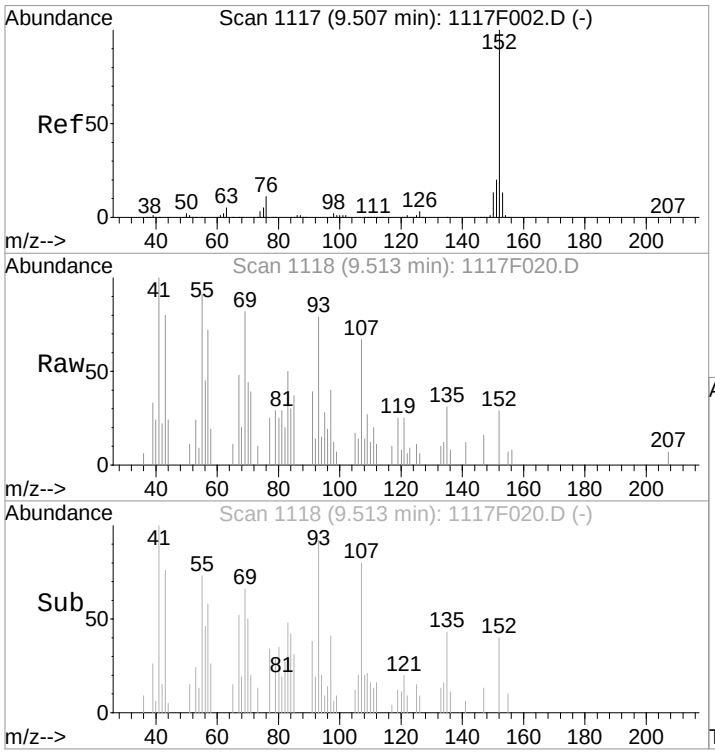
#34
1-Methylnaphthalene
Concen: 4.41 ng/ml
RT: 7.68 min Scan# 806
Delta R.T. 0.04 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:141 Resp: 639

Ion	Ratio	Lower	Upper
141	100		
142	100.2	77.2	143.4
115	43.9	20.7	38.5#



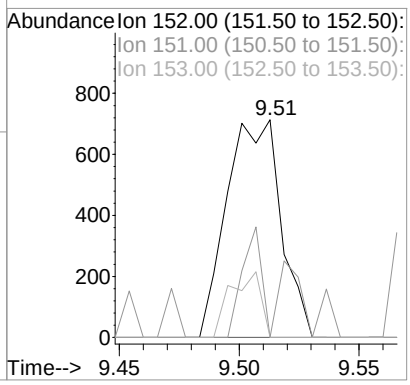
1st 12/07/18
2nd 12/10/18

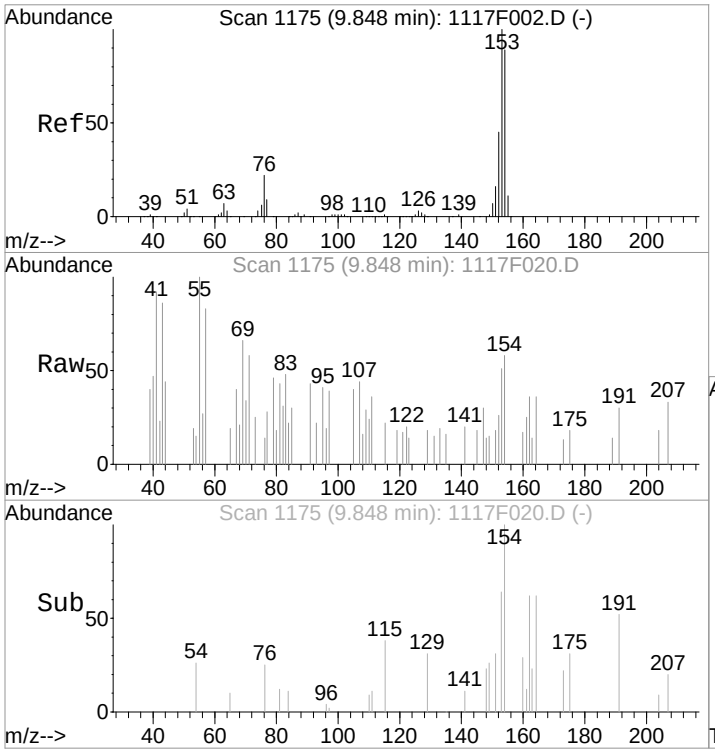


#42
Acenaphthylene
Concen: 4.33 ng/ml
RT: 9.51 min Scan# 1118
Delta R.T. 0.04 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:152 Resp: 1122

Ion	Ratio	Lower	Upper
152	100		
151	0.0	0.0	50.0
153	0.0	0.0	42.7

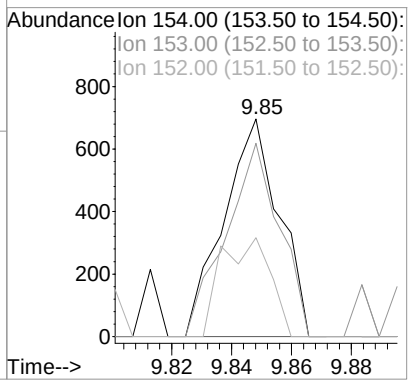




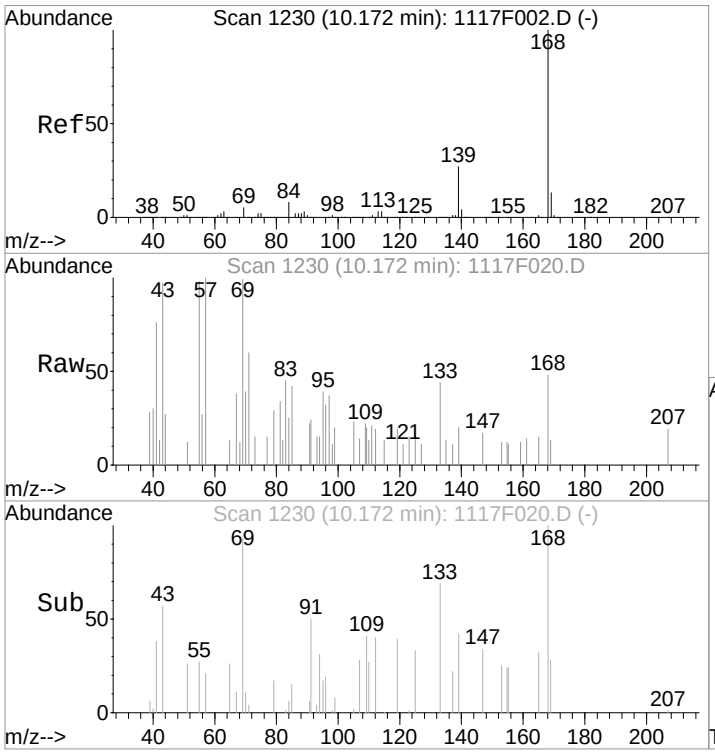
#45
Acenaphthene
Concen: 5.49 ng/ml
RT: 9.85 min Scan# 1175
Delta R.T. 0.03 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:154 Resp: 894

Ion	Ratio	Lower	Upper
154	100		
153	88.8	81.7	141.7
152	45.4	20.5	80.5



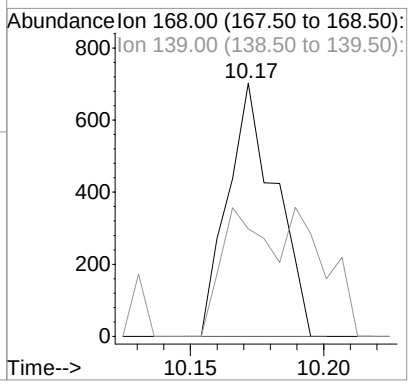
1st 12/07/18
2nd 12/10/18

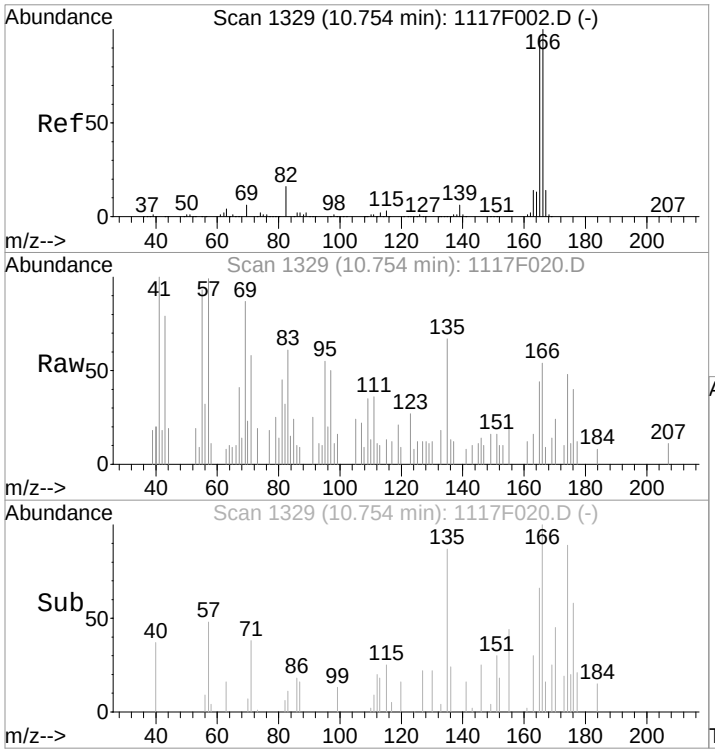


#48
Dibenzofuran
Concen: 4.36 ng/ml
RT: 10.17 min Scan# 1230
Delta R.T. 0.03 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:168 Resp: 873

Ion	Ratio	Lower	Upper
168	100		
139	42.5	1.7	61.7

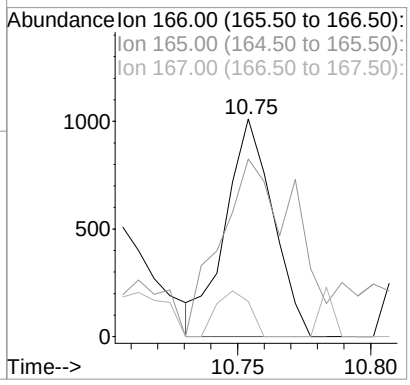




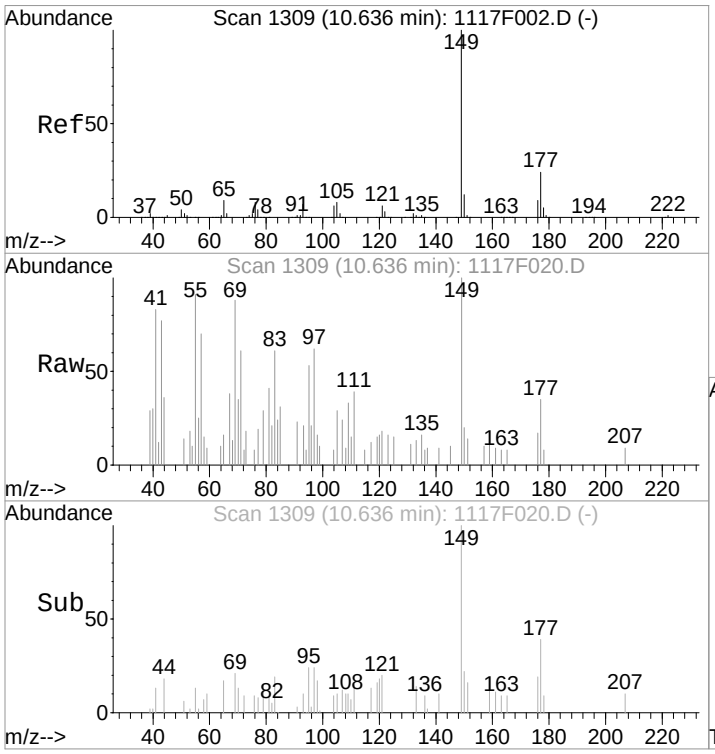
#52
Fluorene
Concen: 6.70 ng/ml
RT: 10.75 min Scan# 1329
Delta R.T. 0.02 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:166 Resp: 1258

Ion	Ratio	Lower	Upper
166	100		
165	81.7	65.9	125.9
167	16.2	0.0	42.7



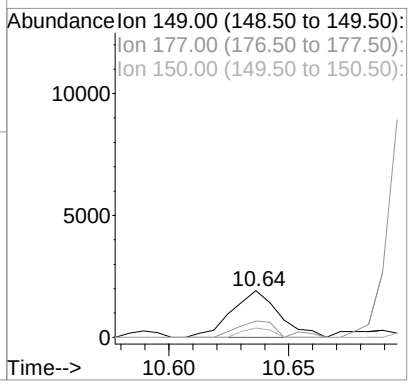
1st 12/07/18
2nd 12/10/18

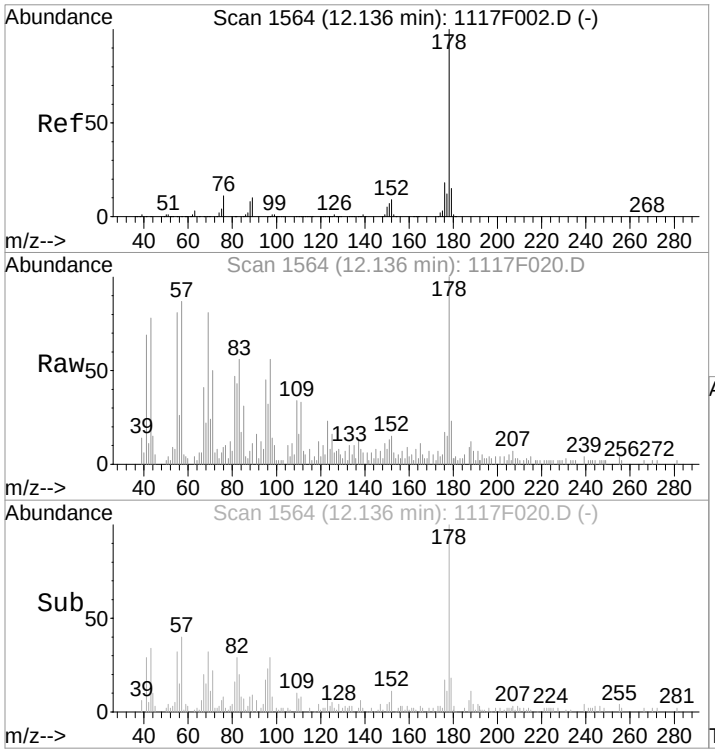


#54
Diethyl Phthalate
Concen: 15.68 ng/ml
RT: 10.64 min Scan# 1309
Delta R.T. 0.02 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:149 Resp: 2663

Ion	Ratio	Lower	Upper
149	100		
177	35.1	0.0	53.4
150	20.0	0.0	41.9

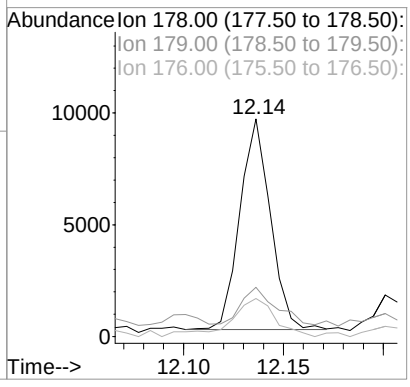


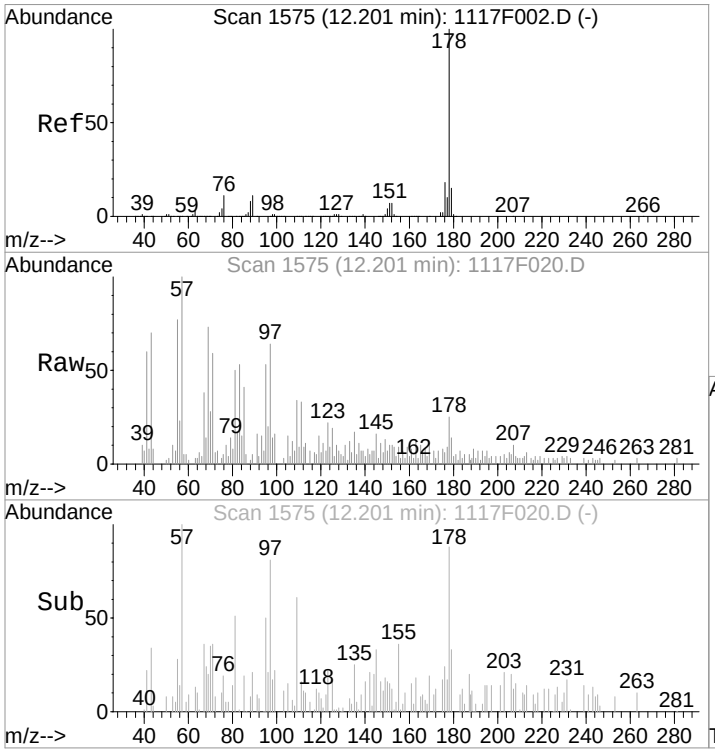


#64
Phenanthrene
Concen: 36.14 ng/ml
RT: 12.14 min Scan# 1564
Delta R.T. 0.02 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:178 Resp: 10050

Ion	Ratio	Lower	Upper
178	100		
179	16.0	0.0	45.6
176	16.4	0.0	47.8

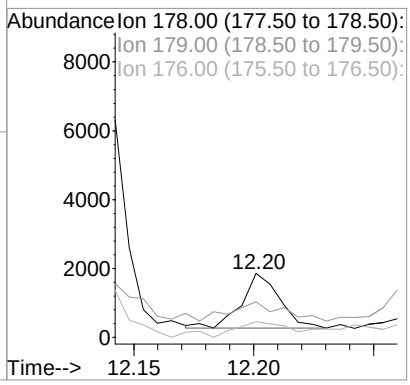


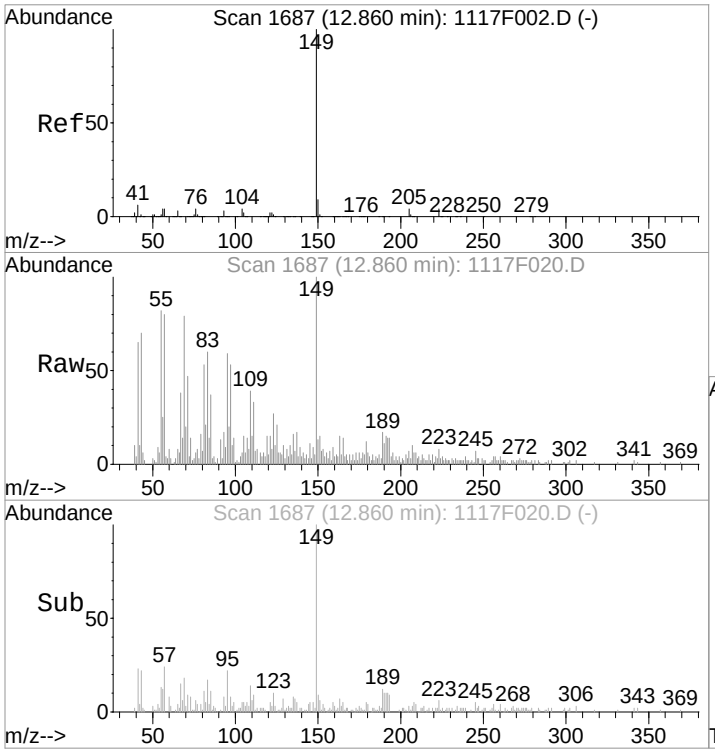


#65
Anthracene
Concen: 6.41 ng/ml
RT: 12.20 min Scan# 1575
Delta R.T. 0.02 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:178 Resp: 1740

Ion	Ratio	Lower	Upper
178	100		
179	35.2	0.0	44.6
176	19.3	0.0	47.4

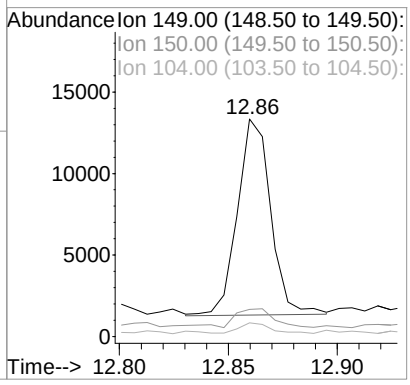




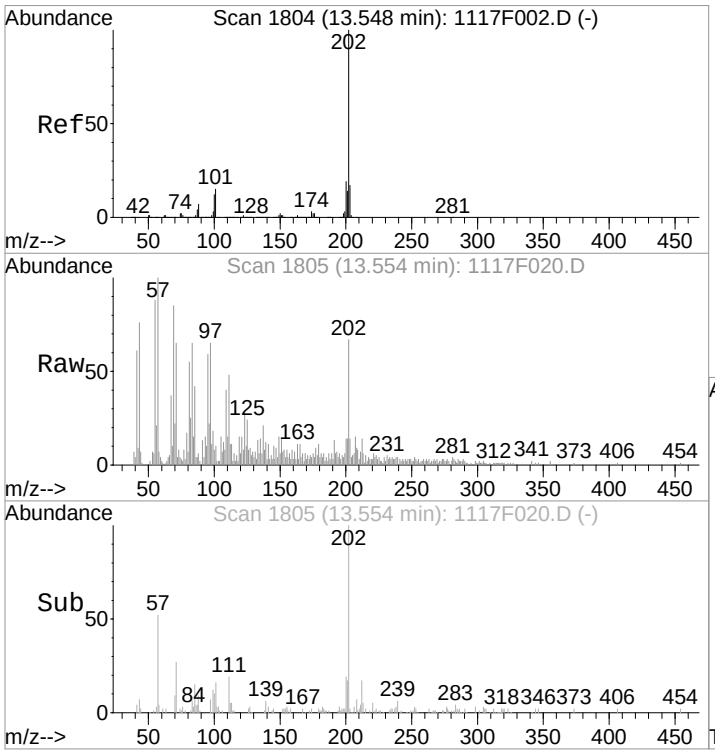
#67
Di-n-butyl Phthalate
Concen: 46.96 ng/ml
RT: 12.86 min Scan# 1687
Delta R.T. 0.02 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:149 Resp: 12773

Ion	Ratio	Lower	Upper
149	100		
150	8.4	0.0	39.1
104	4.3	0.0	33.8



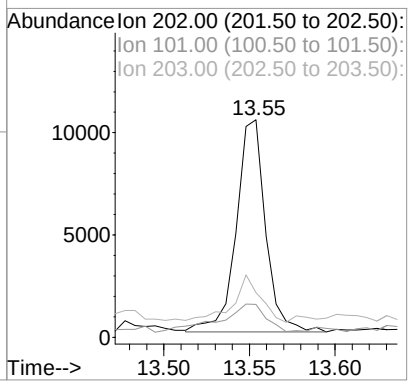
1st 12/07/18
2nd 12/10/18

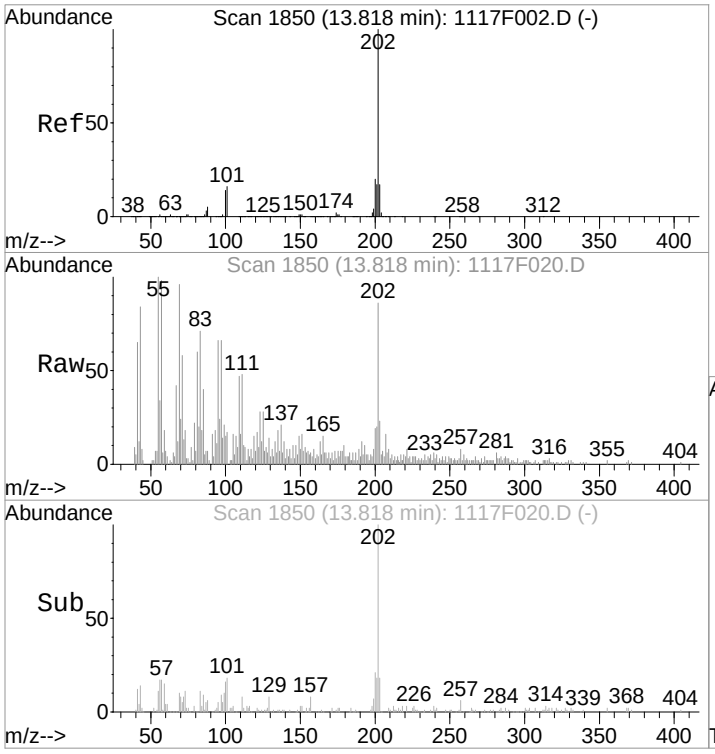


#68
Fluoranthene
Concen: 41.96 ng/ml
RT: 13.55 min Scan# 1805
Delta R.T. 0.02 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:202 Resp: 12359

Ion	Ratio	Lower	Upper
202	100		
101	11.4	0.0	43.9
203	13.2	0.0	46.8

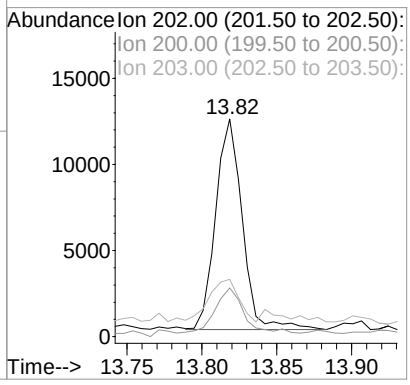




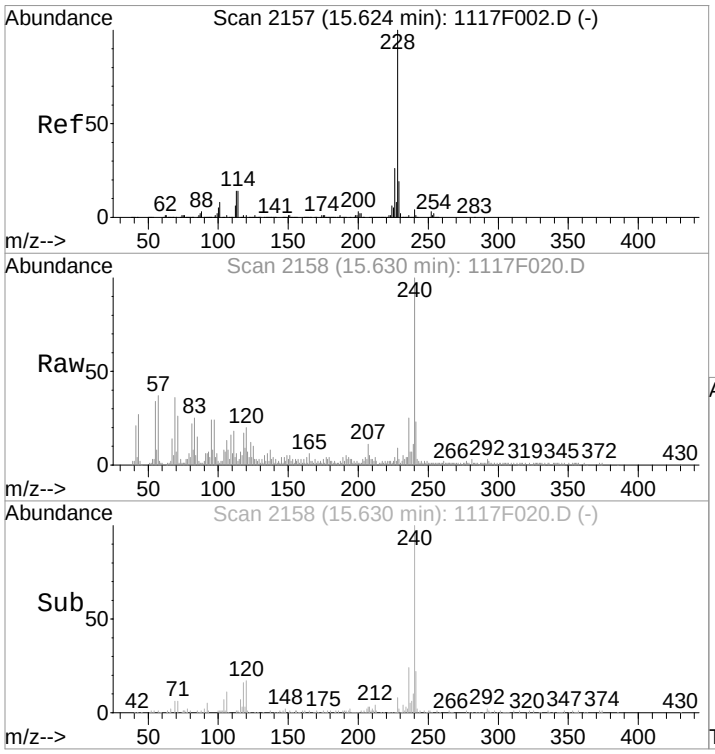
#70
Pyrene
Concen: 44.43 ng/ml
RT: 13.82 min Scan# 1850
Delta R.T. 0.02 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:202 Resp: 15075

Ion	Ratio	Lower	Upper
202	100		
200	21.0	0.0	49.6
203	20.2	0.0	47.0



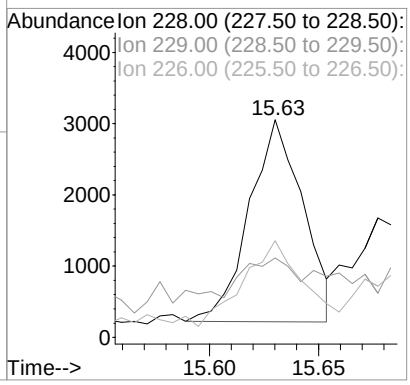
1st 12/07/18
2nd 12/10/18

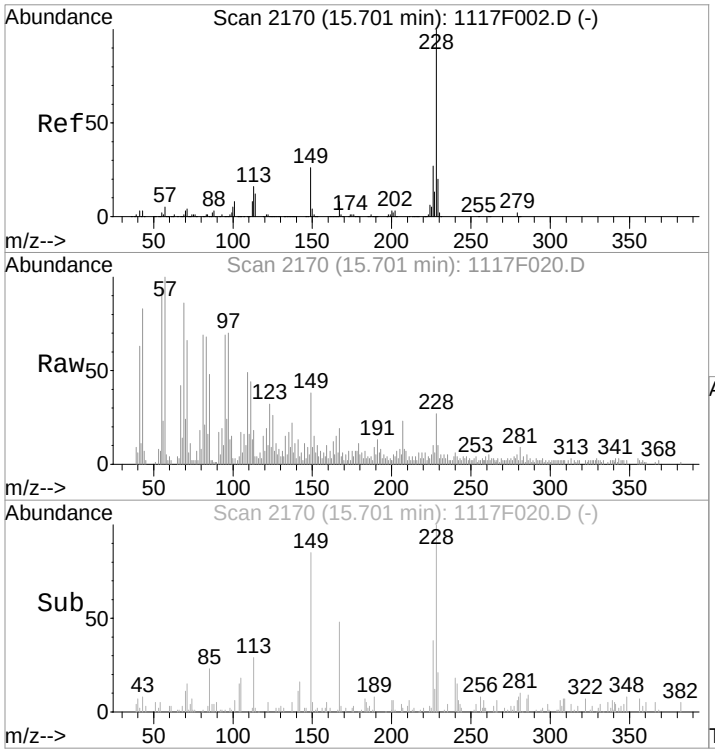


#74
Benz(a)anthracene
Concen: 17.47 ng/ml
RT: 15.63 min Scan# 2158
Delta R.T. 0.04 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:228 Resp: 4877

Ion	Ratio	Lower	Upper
228	100		
229	16.0	0.0	48.9
226	37.4	0.0	55.1

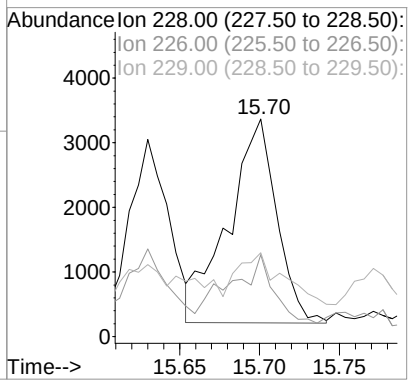




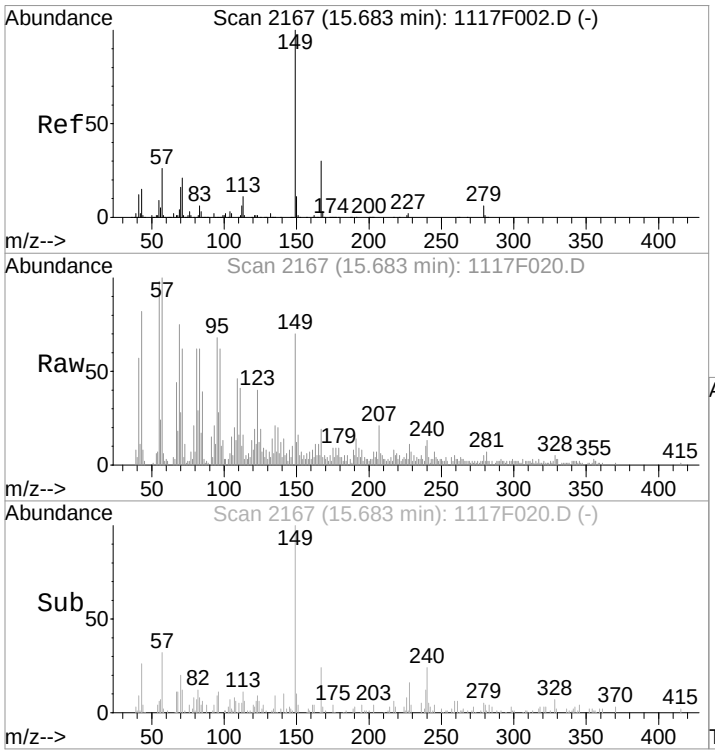
#75
Chrysene
Concen: 25.29 ng/ml
RT: 15.70 min Scan# 2170
Delta R.T. 0.04 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:228 Resp: 6678

Ion	Ratio	Lower	Upper
228	100		
226	31.1	0.0	57.6
229	25.6	0.0	49.3



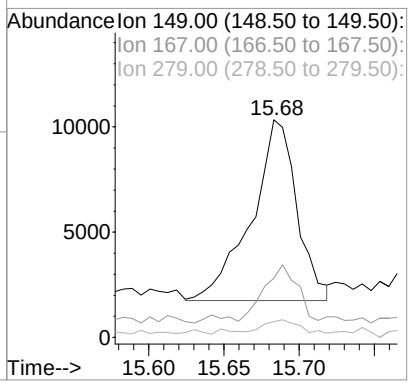
1st 12/07/18
2nd 12/10/18

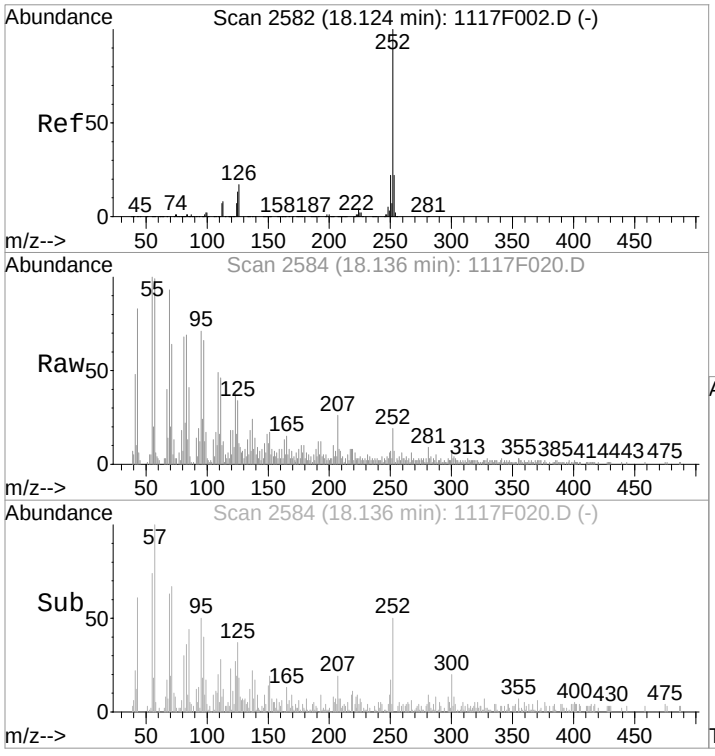


#76
Bis(2-ethylhexyl) Phthalate
Concen: 97.79 ng/ml m
RT: 15.68 min Scan# 2167
Delta R.T. 0.02 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:149 Resp: 18031

Ion	Ratio	Lower	Upper
149	100		
167	27.2	0.0	59.7
279	7.2	0.0	36.4

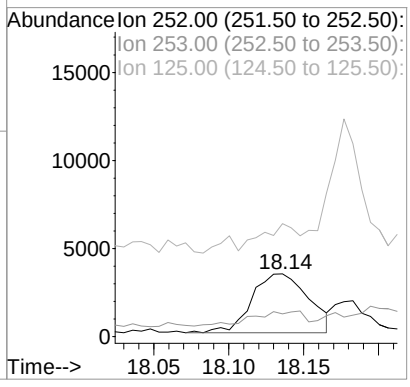




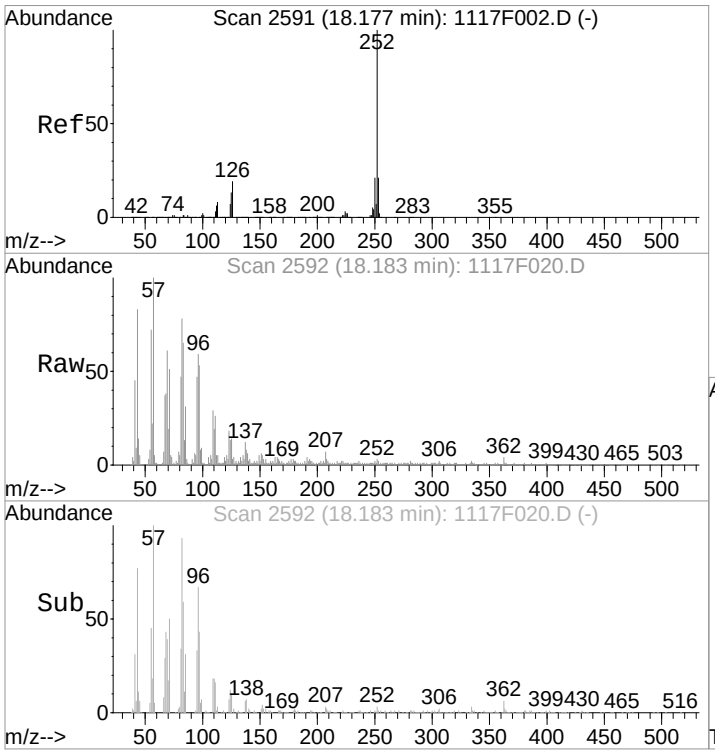
#79
Benzo(b)fluoranthene
Concen: 33.33 ng/ml
RT: 18.14 min Scan# 2584
Delta R.T. 0.05 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:252 Resp: 8768

Ion	Ratio	Lower	Upper
252	100		
253	20.0	0.0	51.6
125	32.6	0.0	43.2



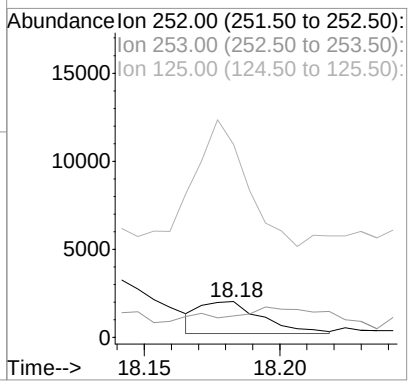
1st 12/07/18
2nd 12/10/18

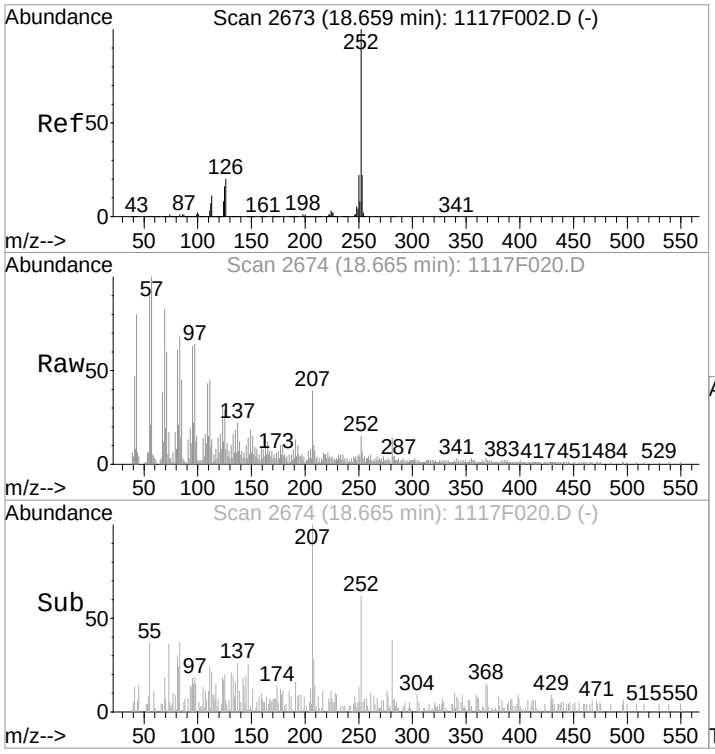


#80
Benzo(k)fluoranthene
Concen: 11.27 ng/ml m
RT: 18.18 min Scan# 2592
Delta R.T. 0.04 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:252 Resp: 2916

Ion	Ratio	Lower	Upper
252	100		
253	60.2	0.0	51.5#
125	539.7	0.0	43.3#

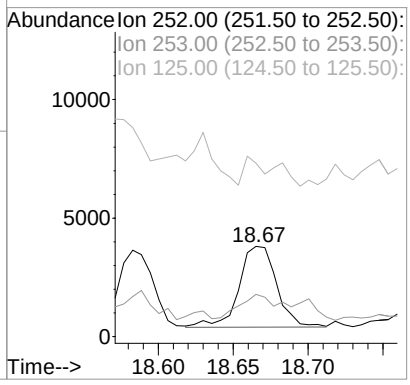




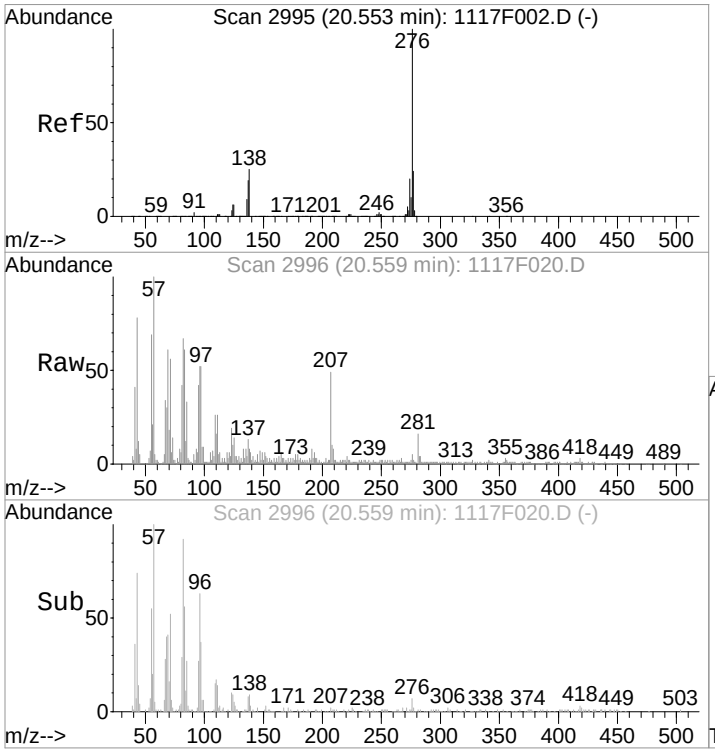
#81
Benzo(a)pyrene
Concen: 24.84 ng/ml
RT: 18.67 min Scan# 2674
Delta R.T. 0.04 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:252 Resp: 5970

Ion	Ratio	Lower	Upper
252	100		
253	28.7	0.0	52.0
125	20.2	0.0	45.4



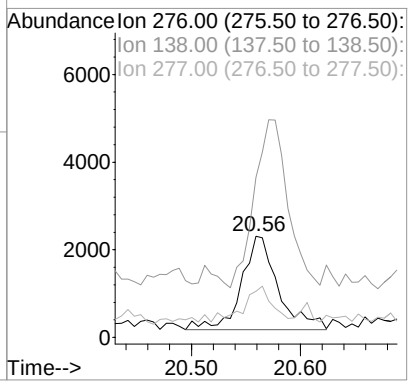
1st 12/07/18
2nd 12/10/18

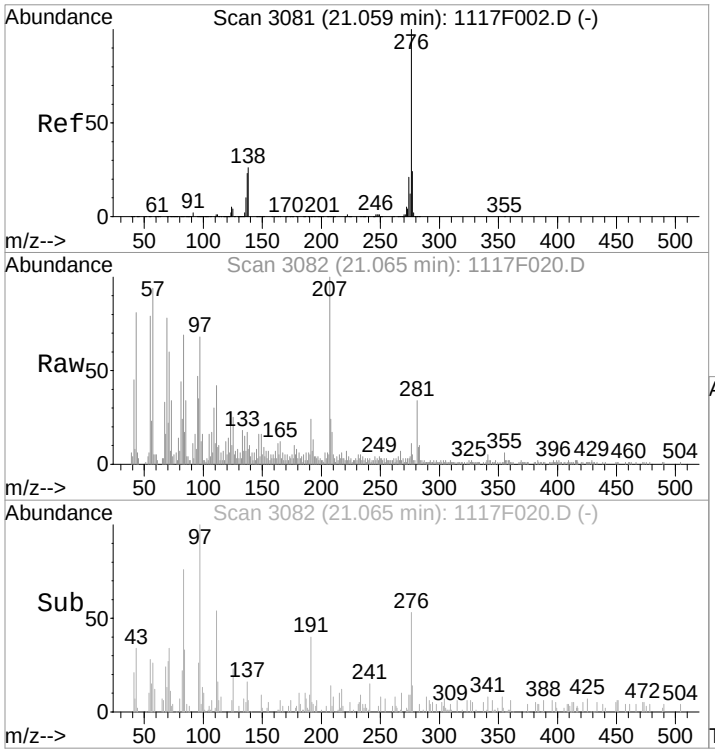


#82
Indeno(1,2,3-cd)pyrene
Concen: 27.47 ng/ml
RT: 20.56 min Scan# 2996
Delta R.T. 0.05 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:276 Resp: 5039

Ion	Ratio	Lower	Upper
276	100		
138	110.8	0.0	53.7#
277	30.5	0.0	53.2

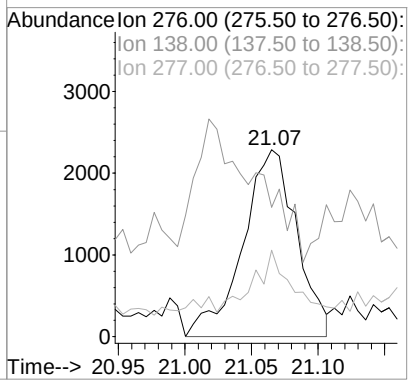




#84
Benzo(g,h,i)perylene
Concen: 33.08 ng/ml
RT: 21.07 min Scan# 3082
Delta R.T. 0.06 min
Lab File: 1117F020.D
Acq: 18 Nov 2018 12:35 am

Tgt Ion:276 Resp: 6445

Ion	Ratio	Lower	Upper
276	100		
138	4.3	0.0	56.8
277	30.9	0.0	53.6



Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F020.D Vial: 67
Acq On : 18 Nov 2018 12:35 am Operator: CConover
Sample : K1810302-025 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 11:53:28 2018 Quant Results File: 110618_8270LL.RES

Quant Method : J:\MS29\M...\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.07	152	62662	1000.00	ng/ml	0.01
21) Naphthalene-d8	6.37	136	249467	1000.00	ng/ml	0.02
35) Acenaphthene-d10	9.78	164	123230	1000.00	ng/ml	0.03
59) Phenanthrene-d10	12.11	188	228996	1000.00	ng/ml	0.02
69) Chrysene-d12	15.65	240	216793	1000.00	ng/ml	0.04
77) Perylene-d12	18.76	264	220687	1000.00	ng/ml	0.04
System Monitoring Compounds						
4) 2-Fluorophenol	3.97	112	131861	1860.14	ng/ml	0.00
Spiked Amount 3750.000	Range 38 - 110		Recovery = 49.60%			
6) Phenol-d6	4.72	99	208633	2165.24	ng/ml	0.02
Spiked Amount 3750.000	Range 43 - 128		Recovery = 57.74%			
19) Nitrobenzene-d5	5.57	82	124401	1542.95	ng/ml	0.02
Spiked Amount 2500.000	Range 30 - 139		Recovery = 61.72%			
39) 2-Fluorobiphenyl	8.30	172	288149	1533.25	ng/ml	0.04
Spiked Amount 2500.000	Range 37 - 126		Recovery = 61.33%			
60) 2,4,6-Tribromophenol	11.14	330	69528	2246.30	ng/ml	0.03
Spiked Amount 3750.000	Range 38 - 157		Recovery = 59.90%			
71) Terphenyl-d14	14.01	244	339106	1553.11	ng/ml	0.02
Spiked Amount 2500.000	Range 54 - 158		Recovery = 62.12%			

Target Compounds						Qvalue
7) Phenol	4.73	94	4073	38.47	ng/ml#	36
13) Benzyl Alcohol	5.18	108	3070	55.97	ng/ml	95
18) 4-Methylphenol	5.40	107	1459	14.17	ng/ml	93
29) Naphthalene	6.40	128	3042	11.22	ng/ml	90
33) 2-Methylnaphthalene	7.48	141	855	5.40	ng/ml	88
34) 1-Methylnaphthalene	7.68	141	639	4.41	ng/ml#	87
42) Acenaphthylene	9.51	152	1122	4.33	ng/ml	61
45) Acenaphthene	9.85	154	894	5.49	ng/ml	83
48) Dibenzofuran	10.17	168	873	4.36	ng/ml	81
52) Fluorene	10.75	166	1258	6.70	ng/ml	86
54) Diethyl Phthalate	10.64	149	2663	15.68	ng/ml	77
64) Phenanthrene	12.14	178	10050	36.14	ng/ml	98
65) Anthracene	12.20	178	1740	6.41	ng/ml	75
67) Di-n-butyl Phthalate	12.86	149	12773	46.96	ng/ml	98
68) Fluoranthene	13.55	202	12359	41.96	ng/ml	93
70) Pyrene	13.82	202	15075	44.43	ng/ml	95
74) Benz(a)anthracene	15.63	228	4877	17.47	ng/ml	83
75) Chrysene	15.70	228	6678	25.29	ng/ml	90
76) Bis(2-ethylhexyl) Phthalat	15.68	149	18031m	97.79	ng/ml	
79) Benzo(b)fluoranthene	18.14	252	8768	33.33	ng/ml	80
80) Benzo(k)fluoranthene	18.18	252	2916m	11.27	ng/ml	
81) Benzo(a)pyrene	18.67	252	5970	24.84	ng/ml	87
82) Indeno(1,2,3-cd)pyrene	20.56	276	5039	27.47	ng/ml#	3
84) Benzo(g,h,i)perylene	21.07	276	6445	33.08	ng/ml	70

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

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F021.D\
Lab ID: K1810302-026
RunType: N/A
Matrix: Sediment

Date Acquired: 11/18/18 01:03:00
Batch ID: 615546
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 12/7/18 15:58
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Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F021.D\	**Instrument:**	K-MS-29
Acqu Date:	11/18/18 01:03:00	**Vial:**	21
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-026	**Raw Units:**	ng/mL

Bottle ID:	K1810302-026.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615546	**Prep Lot:**	325014	**Report Group:**	K1810302
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	11/1/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.67	+0.02	230947	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	14.02	+0.01	357463	1536.85	61	30 - 102	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.71	+0.03	76555	389.76	29	J	Y

Prep Amount:	40.112 g	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	67.80

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

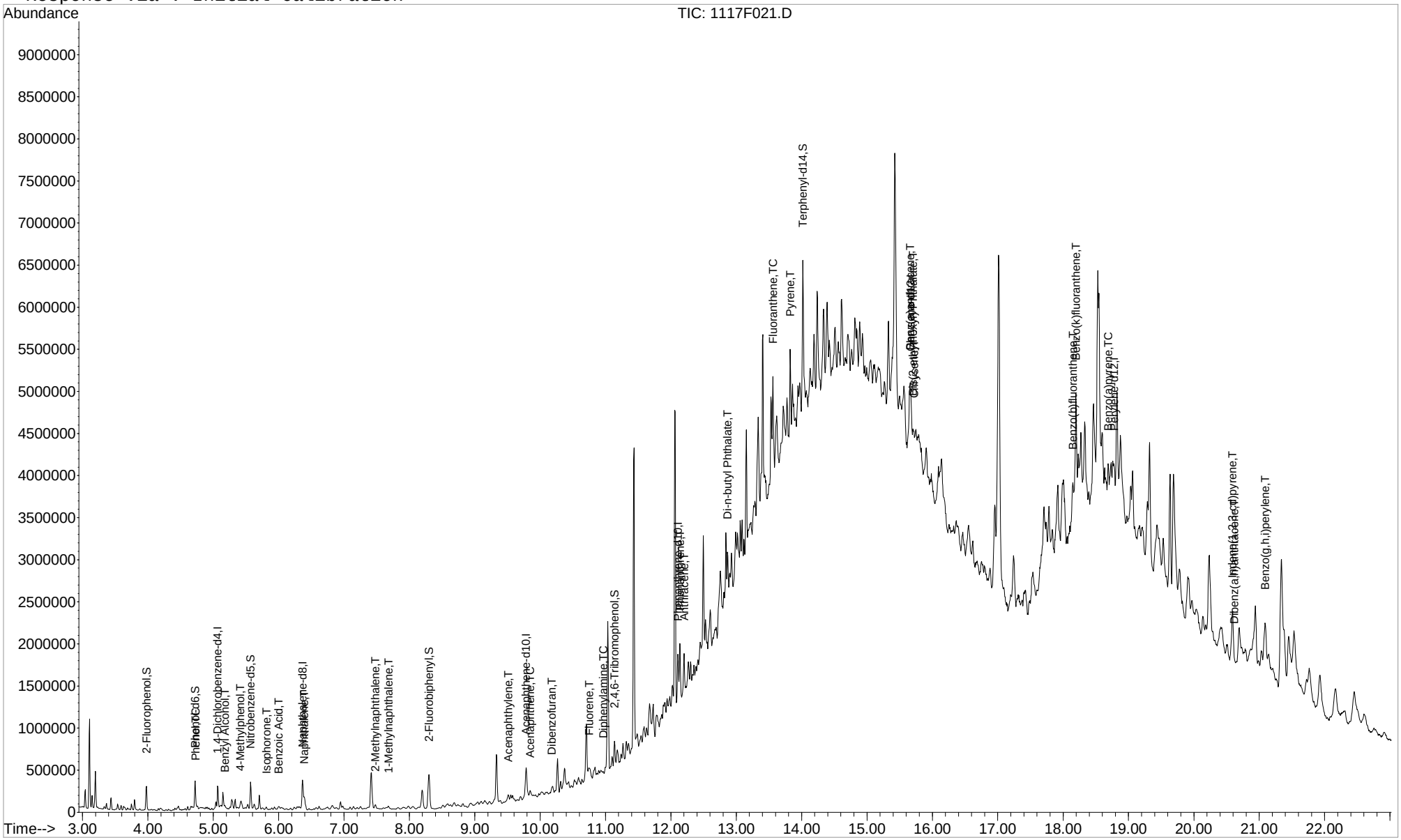
Printed: 12/7/18 15:58
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

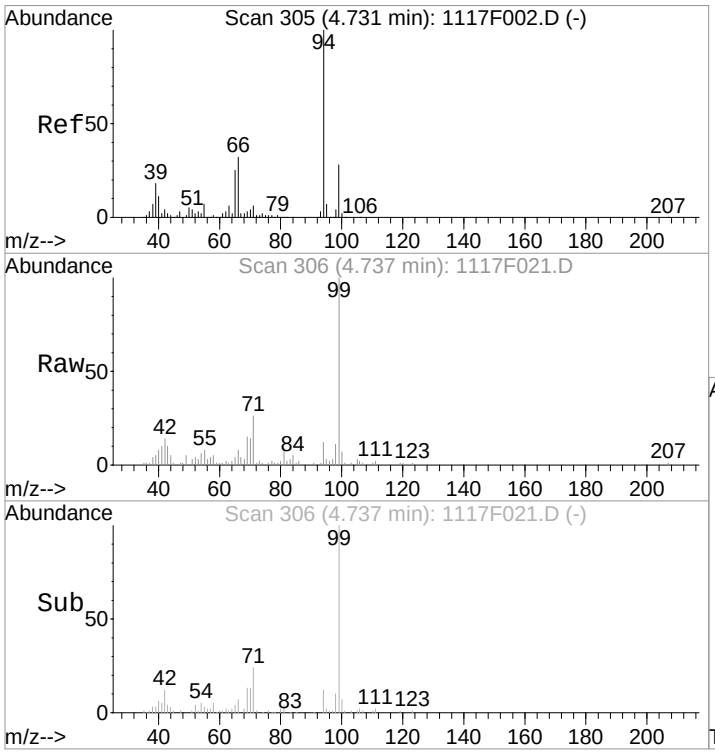
Data File : J:\MS29\DATA\111718\1117F021.D Vial: 68
Acq On : 18 Nov 2018 1:03 am Operator: CConover
Sample : K1810302-026 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 15:01 2018 Quant Results File: 110618_8270LL.RES

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration



1st 12/07/18

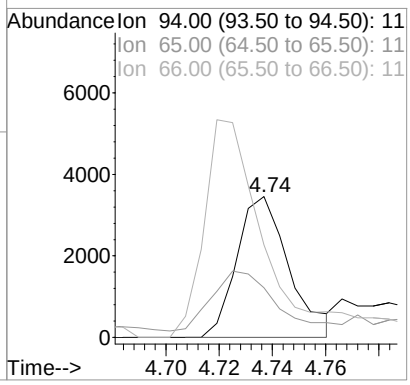
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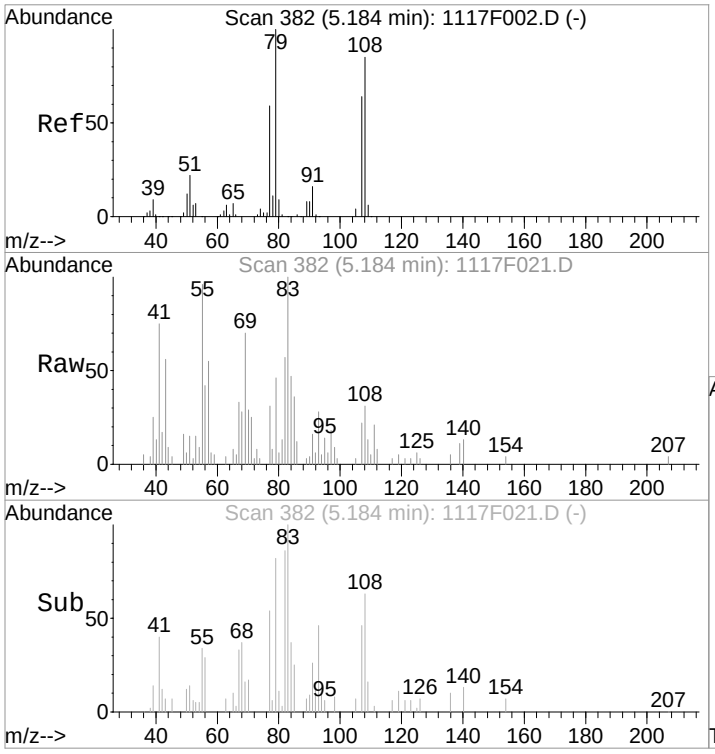


#7
Phenol
Concen: 46.69 ng/ml
RT: 4.74 min Scan# 306
Delta R.T. 0.02 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion: 94 Resp: 4726

Ion	Ratio	Lower	Upper
94	100		
65	29.0	0.0	53.9
66	50.8	0.9	60.9

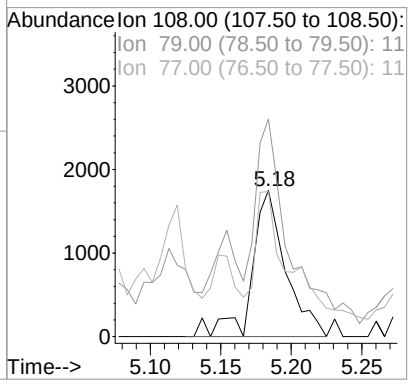




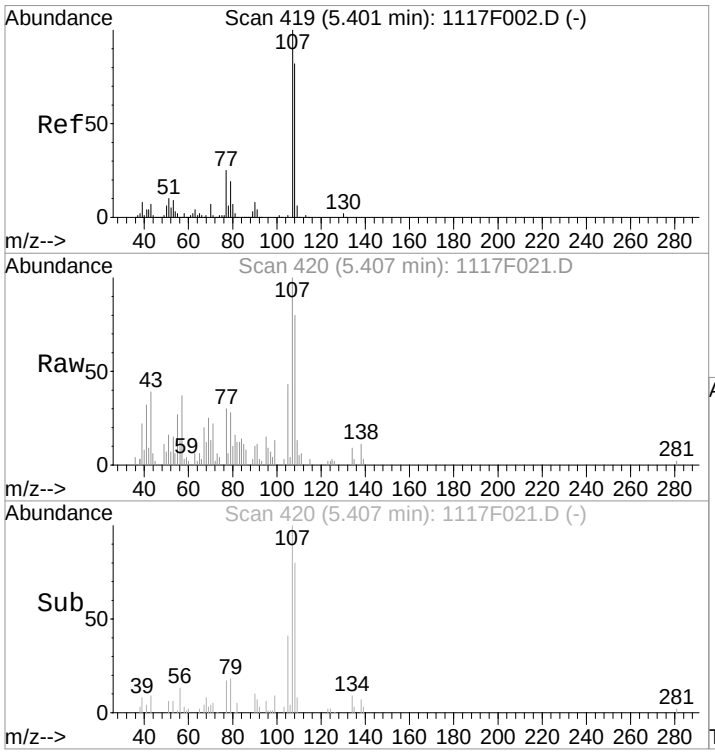
#13
Benzyl Alcohol
Concen: 55.63 ng/ml
RT: 5.18 min Scan# 382
Delta R.T. 0.02 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:108 Resp: 2917

Ion	Ratio	Lower	Upper
108	100		
79	118.7	85.3	145.3
77	79.6	38.7	98.7



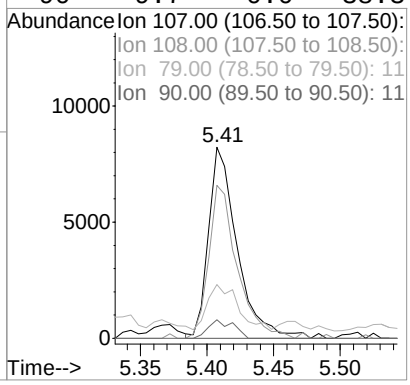
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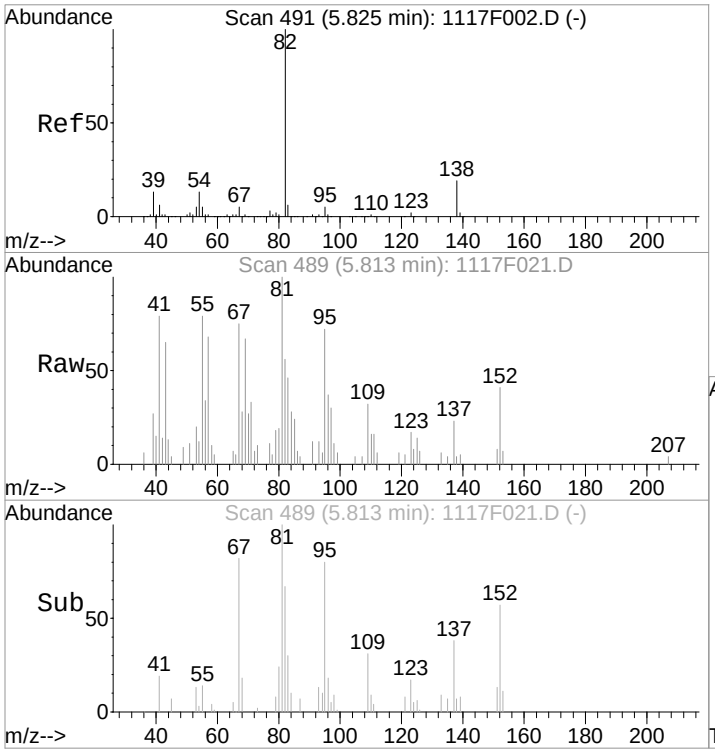


#18
4-Methylphenol
Concen: 125.78 ng/ml
RT: 5.41 min Scan# 420
Delta R.T. 0.02 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:107 Resp: 12380

Ion	Ratio	Lower	Upper
107	100		
108	80.1	51.4	111.4
79	23.3	0.0	47.7
90	9.7	0.0	38.3

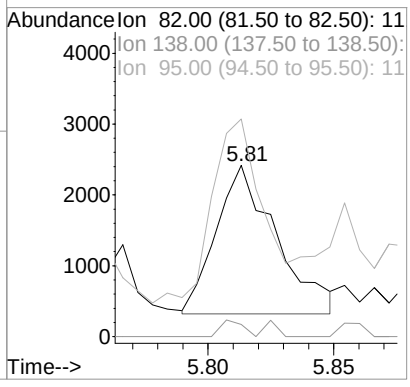




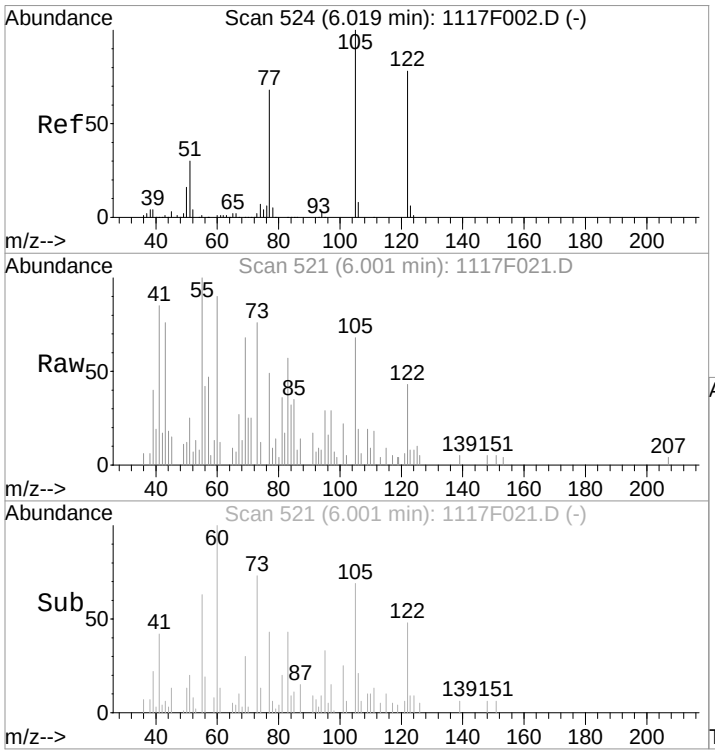
#22
Isophorone
Concen: 22.42 ng/ml m
RT: 5.81 min Scan# 489
Delta R.T. 0.01 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion: 82 Resp: 3498

Ion	Ratio	Lower	Upper
82	100		
138	7.1	0.0	49.8
95	127.0	0.0	35.9#



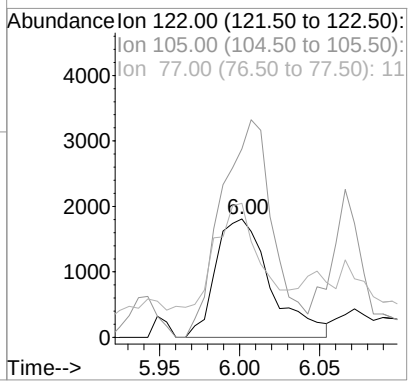
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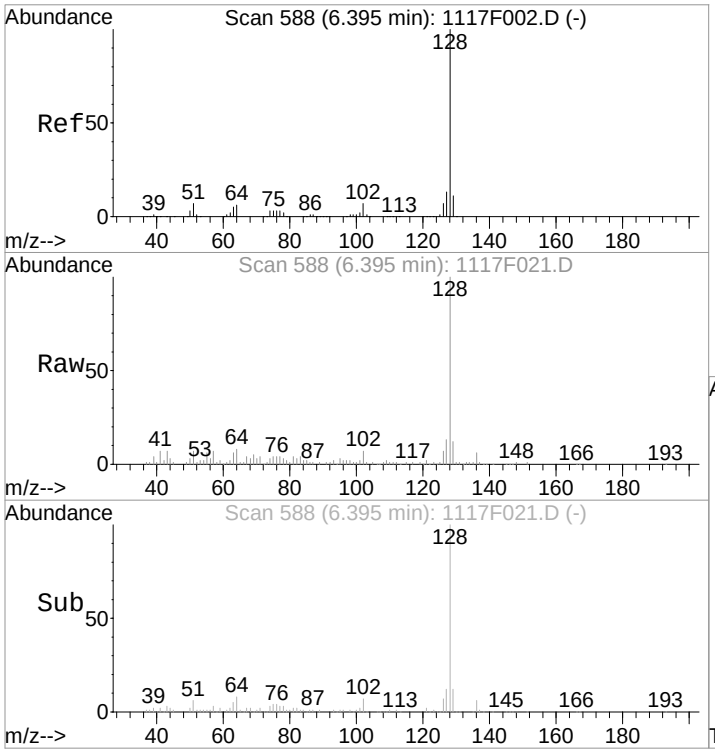


#27
Benzoic Acid
Concen: 568.30 ng/ml
RT: 6.00 min Scan# 521
Delta R.T. 0.02 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:122 Resp: 4335

Ion	Ratio	Lower	Upper
122	100		
105	159.1	86.3	146.3#
77	87.9	54.7	114.7

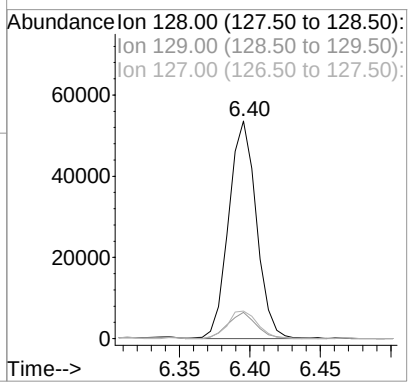




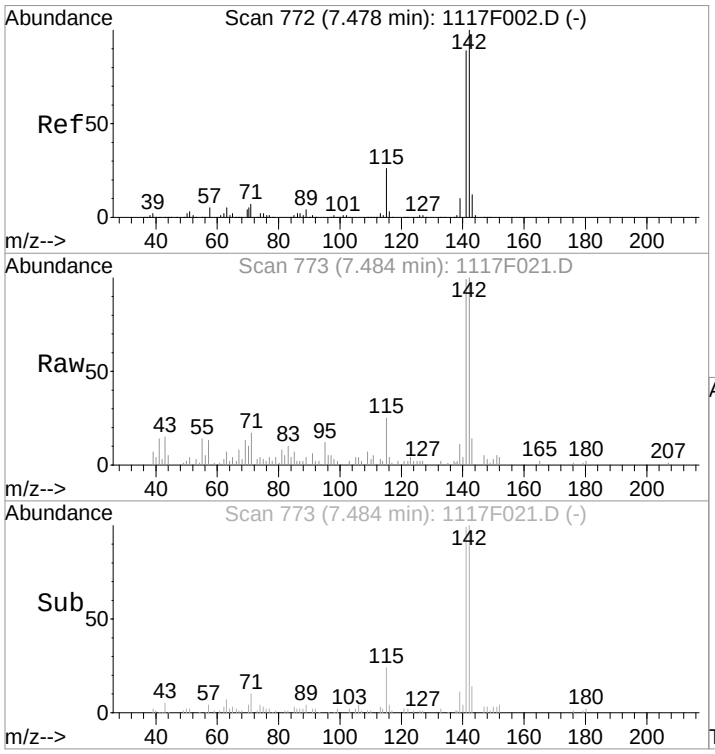
#29
Naphthalene
Concen: 285.09 ng/ml
RT: 6.40 min Scan# 588
Delta R.T. 0.02 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:128 Resp: 73231

Ion	Ratio	Lower	Upper
128	100		
129	12.1	0.0	41.0
127	12.7	0.0	43.2



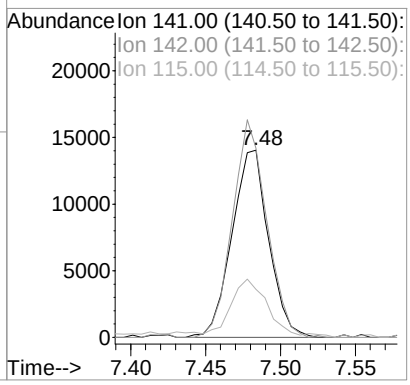
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2nd 12/10/18

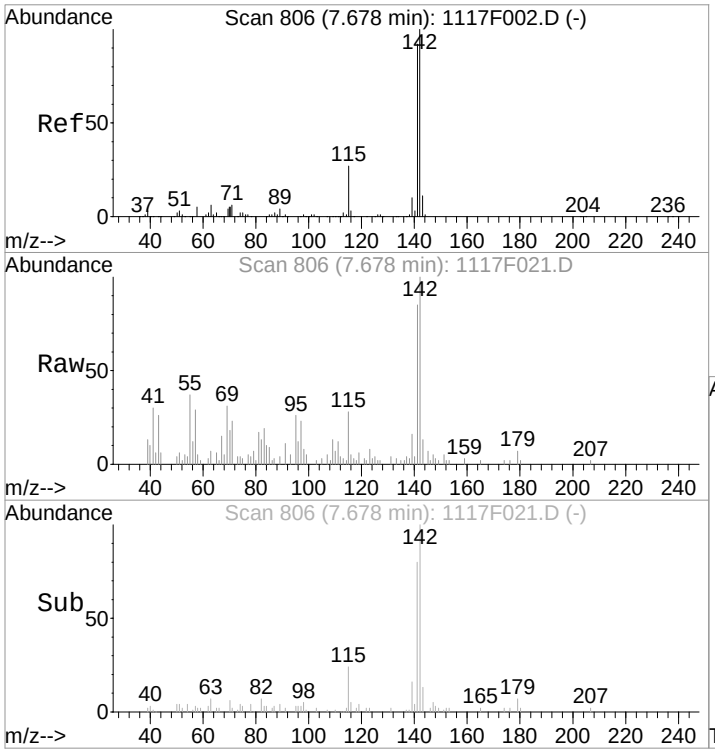


#33
2-Methylnaphthalene
Concen: 159.67 ng/ml
RT: 7.48 min Scan# 773
Delta R.T. 0.04 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:141 Resp: 23951

Ion	Ratio	Lower	Upper
141	100		
142	101.0	84.5	144.5
115	24.4	0.0	59.3

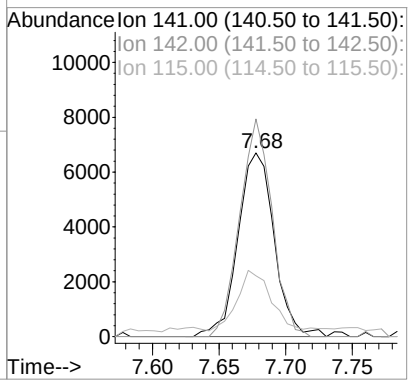




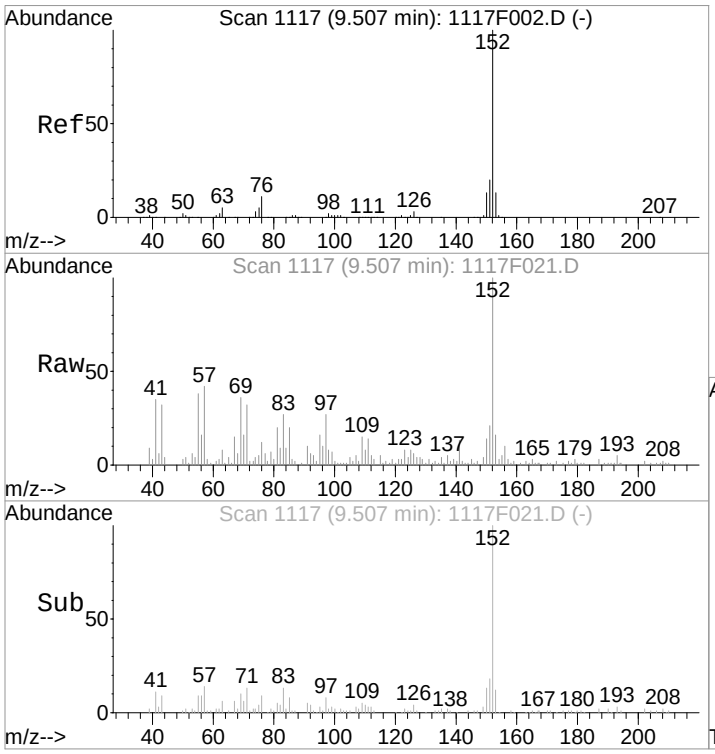
#34
1-Methylnaphthalene
Concen: 92.23 ng/ml
RT: 7.68 min Scan# 806
Delta R.T. 0.04 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:141 Resp: 12661

Ion	Ratio	Lower	Upper
141	100		
142	118.3	77.2	143.4
115	28.7	20.7	38.5



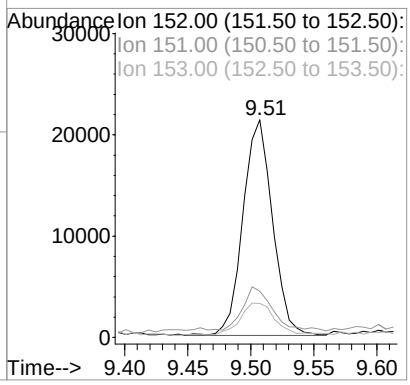
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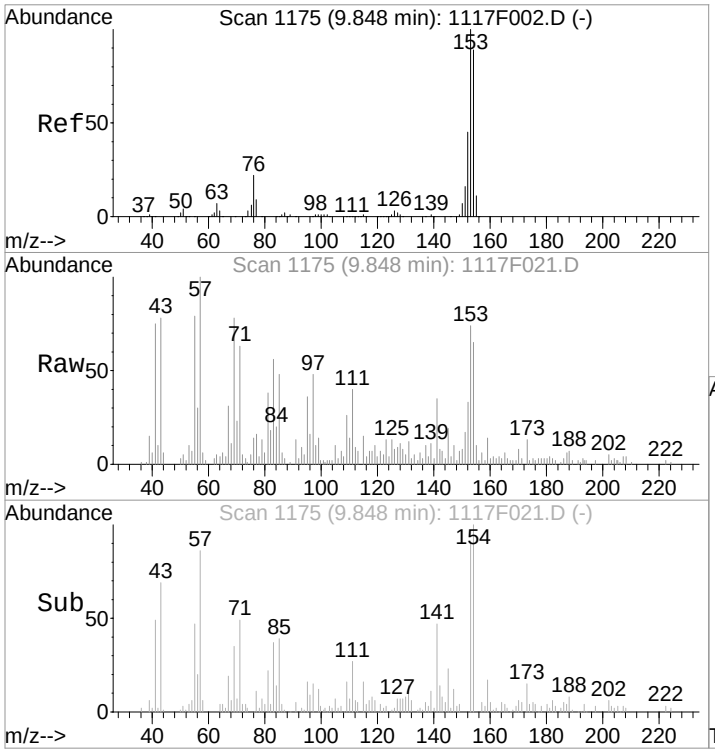


#42
Acenaphthylene
Concen: 137.06 ng/ml
RT: 9.51 min Scan# 1117
Delta R.T. 0.04 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:152 Resp: 34573

Ion	Ratio	Lower	Upper
152	100		
151	18.3	0.0	50.0
153	14.4	0.0	42.7

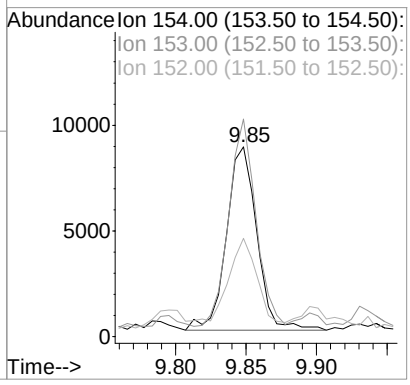




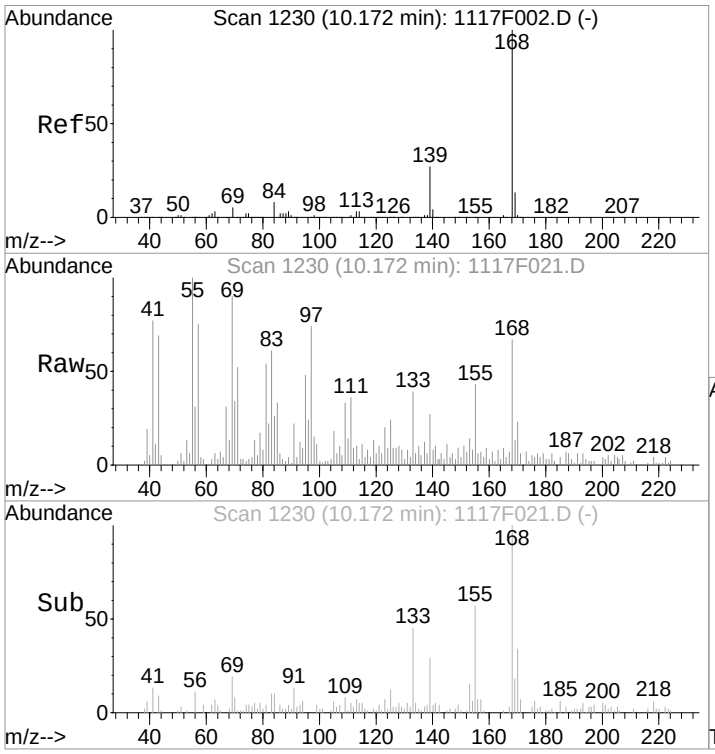
#45
Acenaphthene
Concen: 81.97 ng/ml
RT: 9.85 min Scan# 1175
Delta R.T. 0.03 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:154 Resp: 12996

Ion	Ratio	Lower	Upper
154	100		
153	112.0	81.7	141.7
152	45.1	20.5	80.5



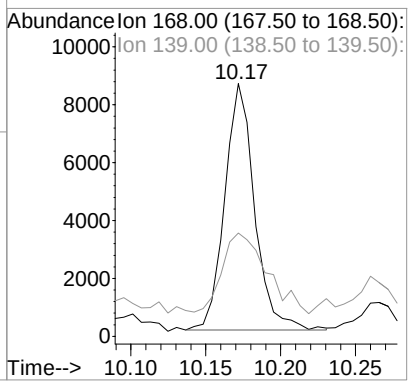
1st 12/07/18
2nd 12/10/18

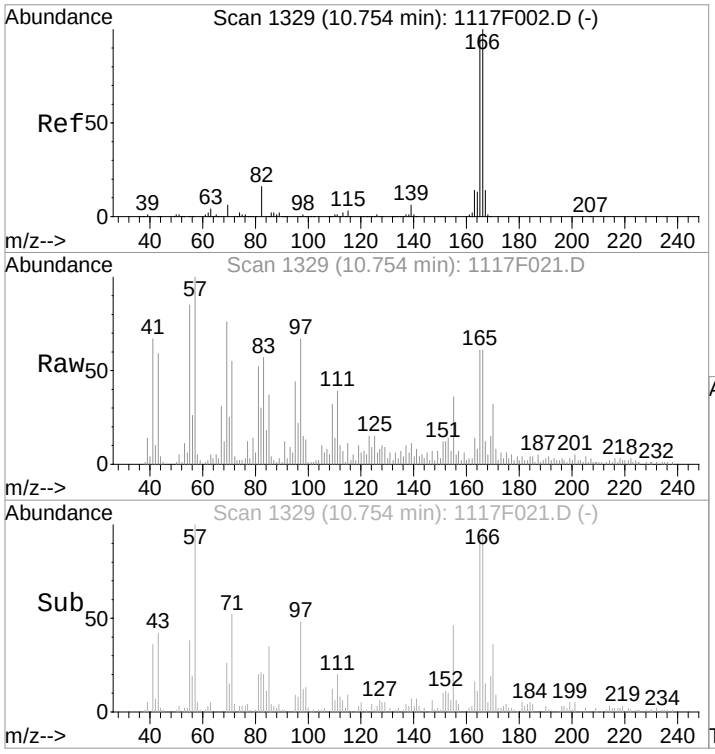


#48
Dibenzofuran
Concen: 60.94 ng/ml
RT: 10.17 min Scan# 1230
Delta R.T. 0.03 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:168 Resp: 11877

Ion	Ratio	Lower	Upper
168	100		
139	31.3	1.7	61.7

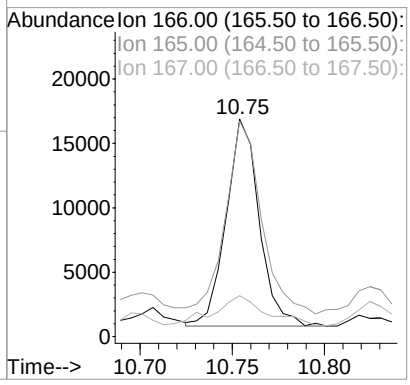


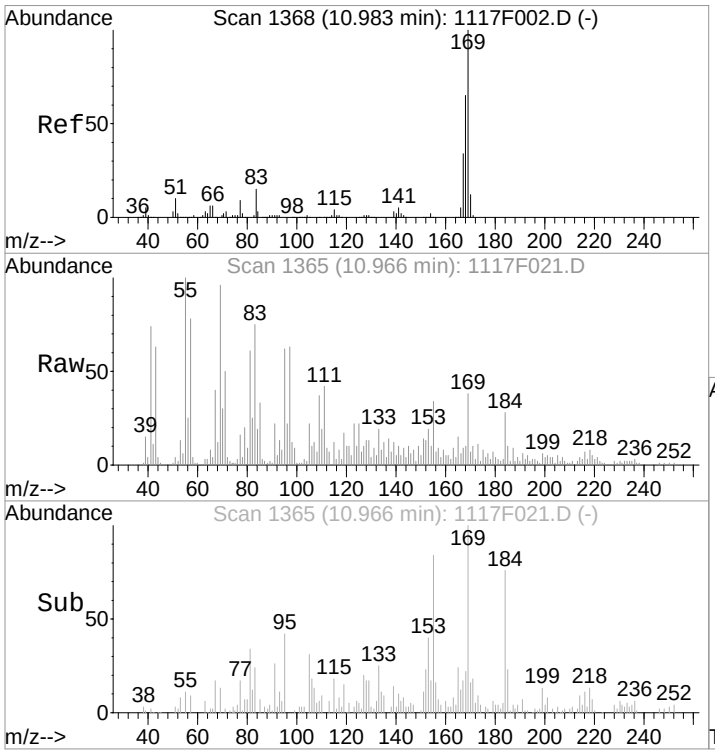


#52
Fluorene
Concen: 109.80 ng/ml
RT: 10.75 min Scan# 1329
Delta R.T. 0.02 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:166 Resp: 20080

Ion	Ratio	Lower	Upper
166	100		
165	91.2	65.9	125.9
167	14.6	0.0	42.7

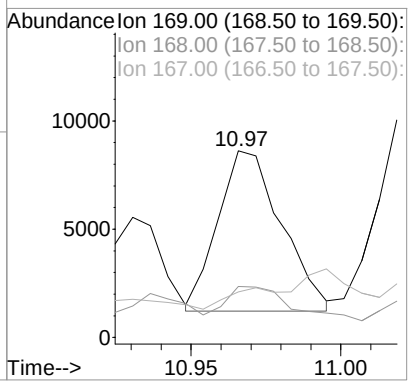


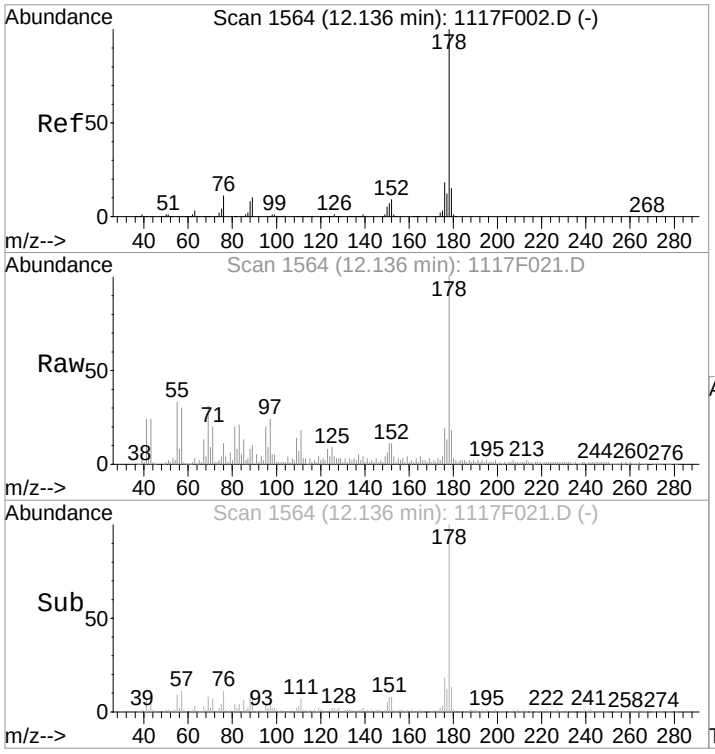


#57
Diphenylamine
Concen: 90.12 ng/ml
RT: 10.97 min Scan# 1365
Delta R.T. 0.01 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:169 Resp: 10942

Ion	Ratio	Lower	Upper
169	100		
168	17.0	35.6	95.6#
167	8.3	3.3	63.3

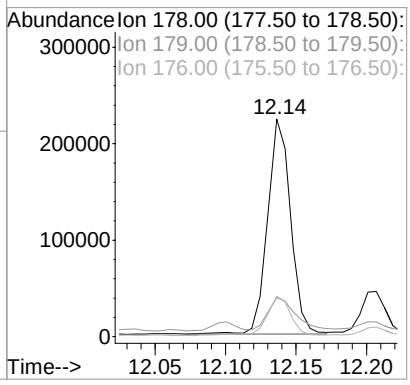




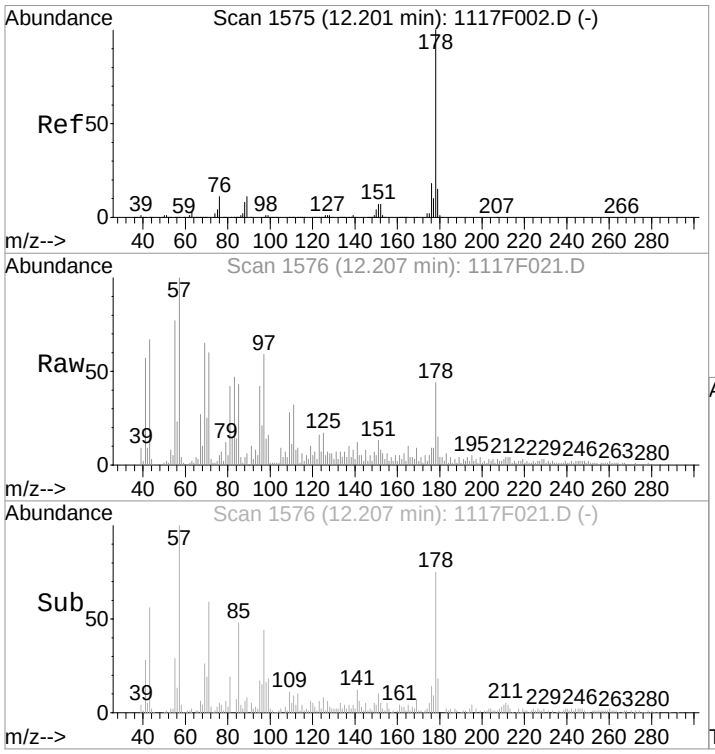
#64
Phenanthrene
Concen: 889.37 ng/ml
RT: 12.14 min Scan# 1564
Delta R.T. 0.02 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:178 Resp: 251936

Ion	Ratio	Lower	Upper
178	100		
179	15.6	0.0	45.6
176	18.1	0.0	47.8



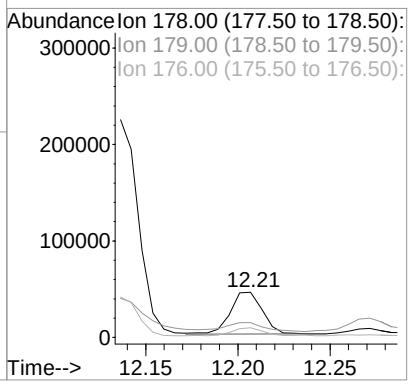
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2nd 12/10/18

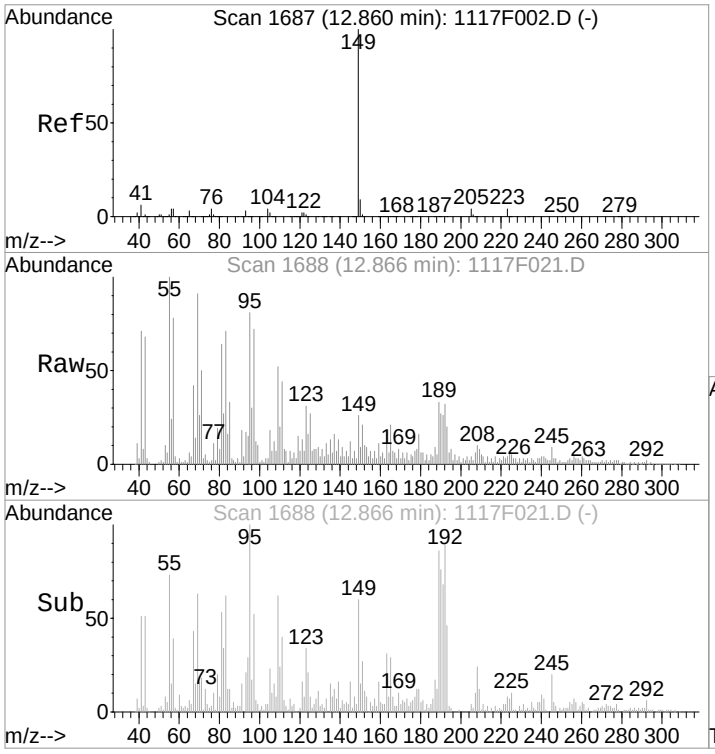


#65
Anthracene
Concen: 189.45 ng/ml
RT: 12.21 min Scan# 1576
Delta R.T. 0.02 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:178 Resp: 52364

Ion	Ratio	Lower	Upper
178	100		
179	18.3	0.0	44.6
176	18.8	0.0	47.4

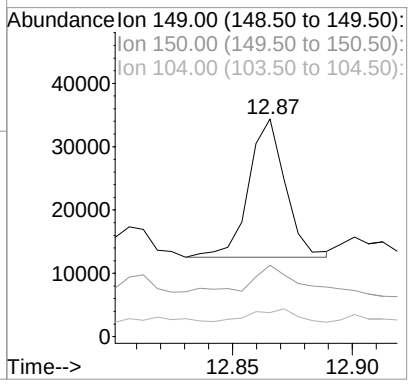




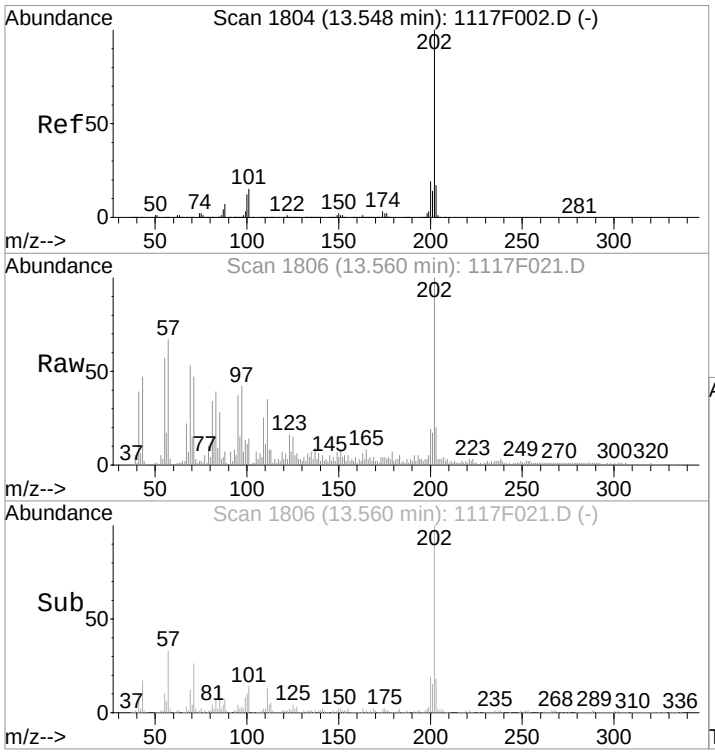
#67
Di-n-butyl Phthalate
Concen: 83.71 ng/ml
RT: 12.87 min Scan# 1688
Delta R.T. 0.02 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:149 Resp: 23190

Ion	Ratio	Lower	Upper
149	100		
150	19.2	0.0	39.1
104	7.0	0.0	33.8



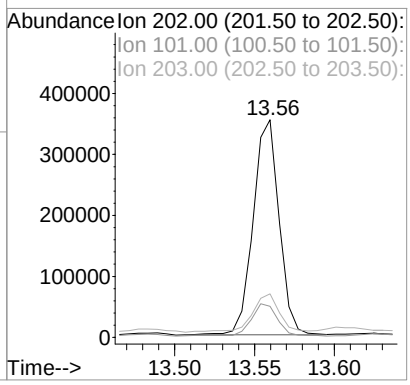
1st 12/07/18
2nd 12/10/18

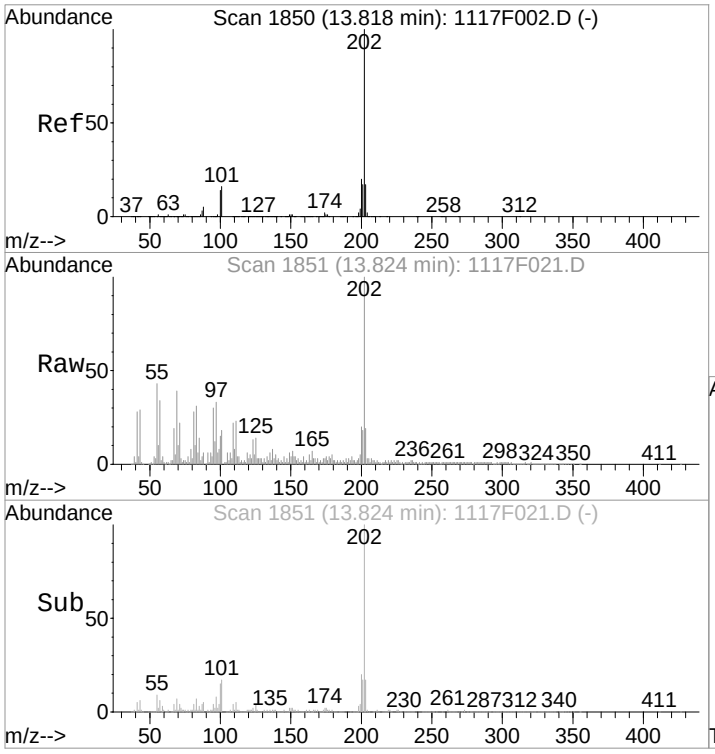


#68
Fluoranthene
Concen: 1325.62 ng/ml
RT: 13.56 min Scan# 1806
Delta R.T. 0.03 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:202 Resp: 397721

Ion	Ratio	Lower	Upper
202	100		
101	13.7	0.0	43.9
203	17.8	0.0	46.8

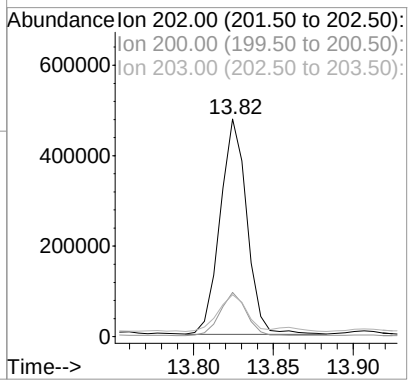


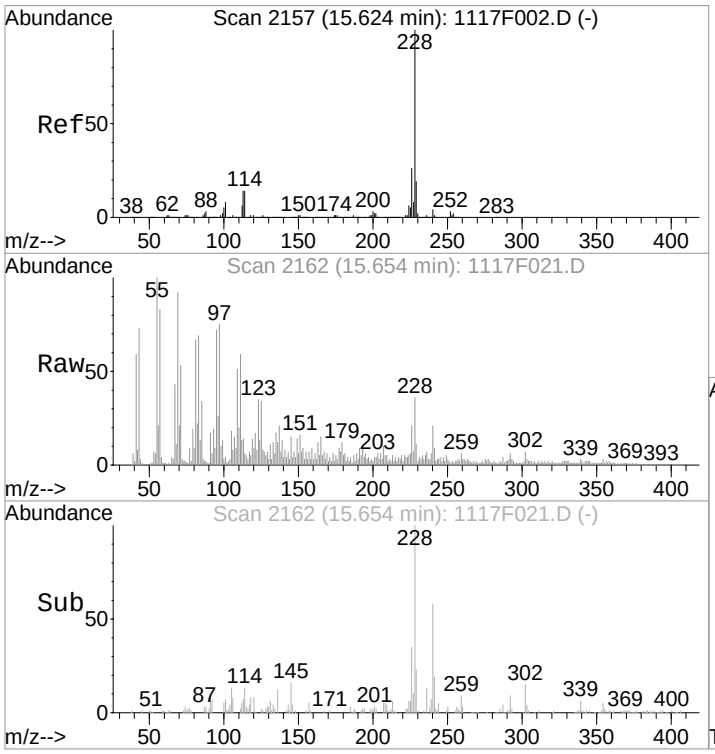


#70
Pyrene
Concen: 1535.78 ng/ml
RT: 13.82 min Scan# 1851
Delta R.T. 0.03 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:202 Resp: 555107

Ion	Ratio	Lower	Upper
202	100		
200	20.0	0.0	49.6
203	17.1	0.0	47.0

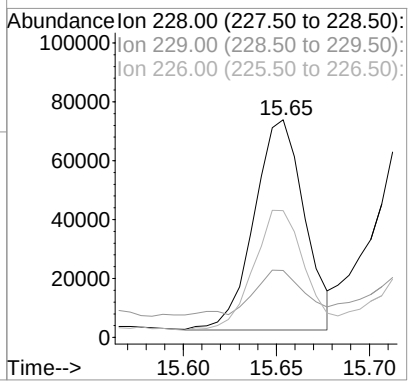


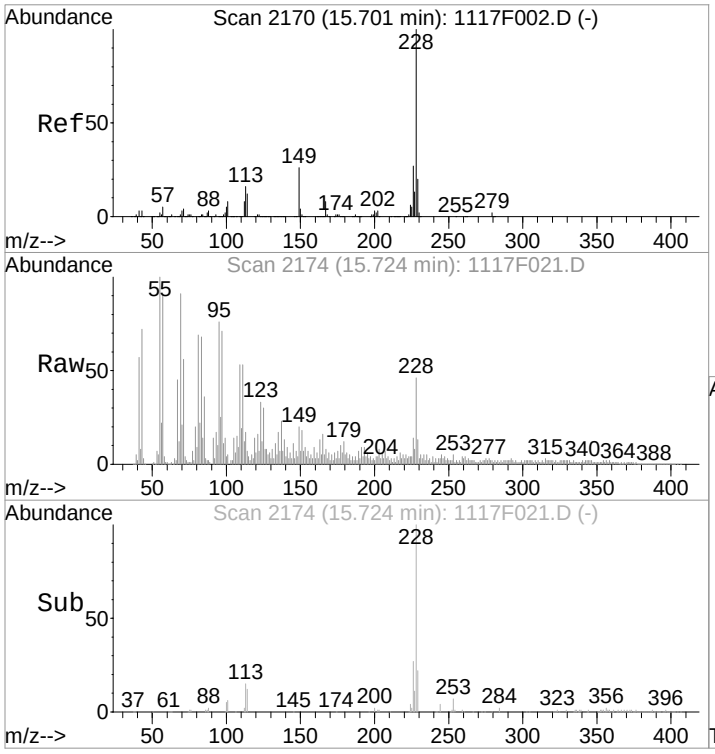


#74
Benz(a)anthracene
Concen: 454.64 ng/ml m
RT: 15.65 min Scan# 2162
Delta R.T. 0.06 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:228 Resp: 135237

Ion	Ratio	Lower	Upper
228	100		
229	30.8	0.0	48.9
226	58.2	0.0	55.1#

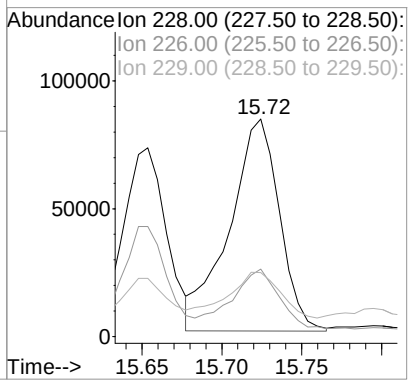




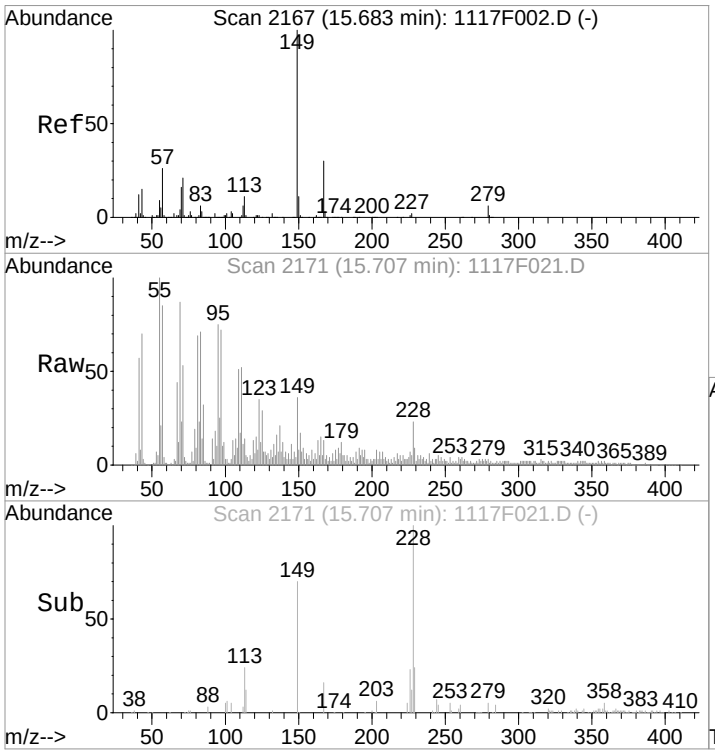
#75
Chrysene
Concen: 643.13 ng/ml
RT: 15.72 min Scan# 2174
Delta R.T. 0.06 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:228 Resp: 180940

Ion	Ratio	Lower	Upper
228	100		
226	28.5	0.0	57.6
229	20.7	0.0	49.3



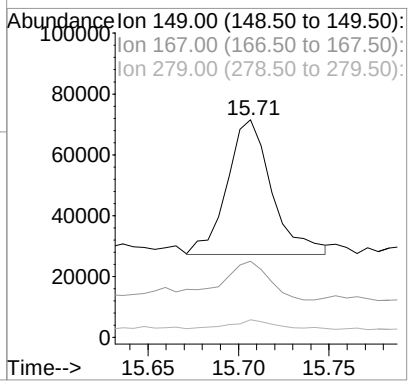
1st 12/07/18
2nd 12/10/18

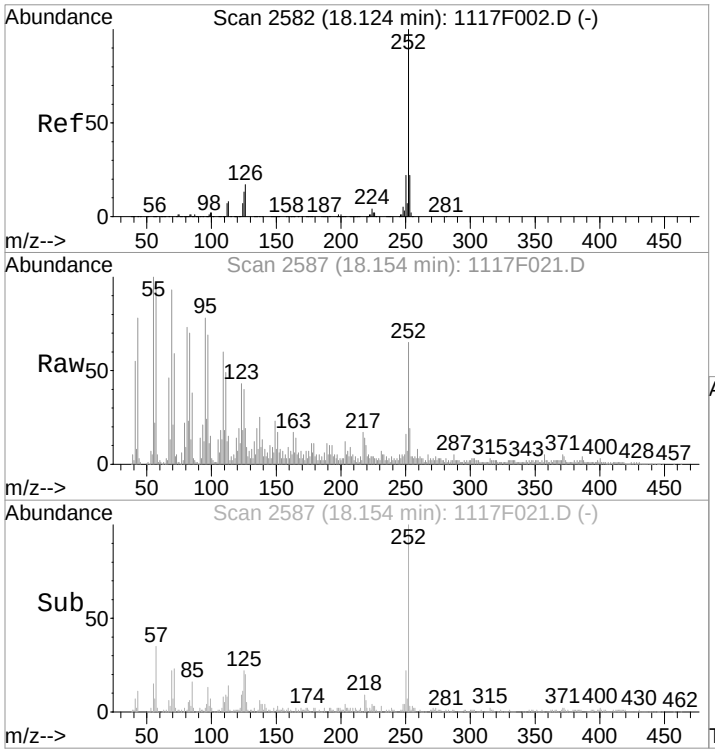


#76
Bis(2-ethylhexyl) Phthalate
Concen: 389.76 ng/ml m
RT: 15.71 min Scan# 2171
Delta R.T. 0.05 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:149 Resp: 76555

Ion	Ratio	Lower	Upper
149	100		
167	35.0	0.0	59.7
279	8.1	0.0	36.4

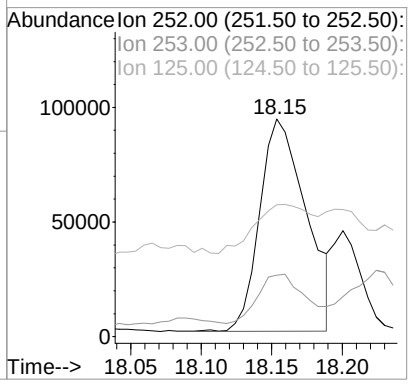




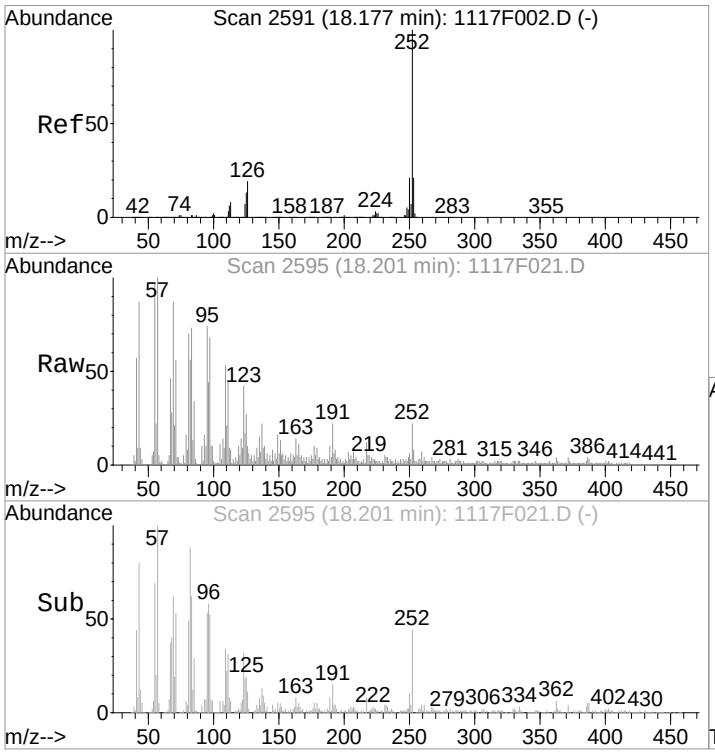
#79
Benzo(b)fluoranthene
Concen: 759.30 ng/ml
RT: 18.15 min Scan# 2587
Delta R.T. 0.06 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:252 Resp: 212905

Ion	Ratio	Lower	Upper
252	100		
253	20.2	0.0	51.6
125	19.2	0.0	43.2



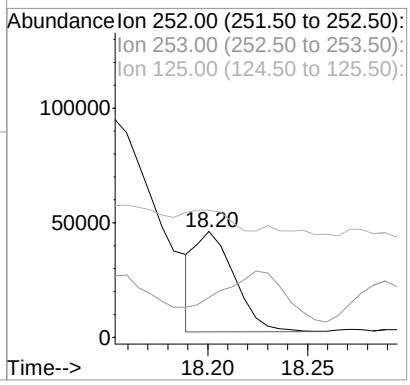
1st 12/07/18
2nd 12/10/18

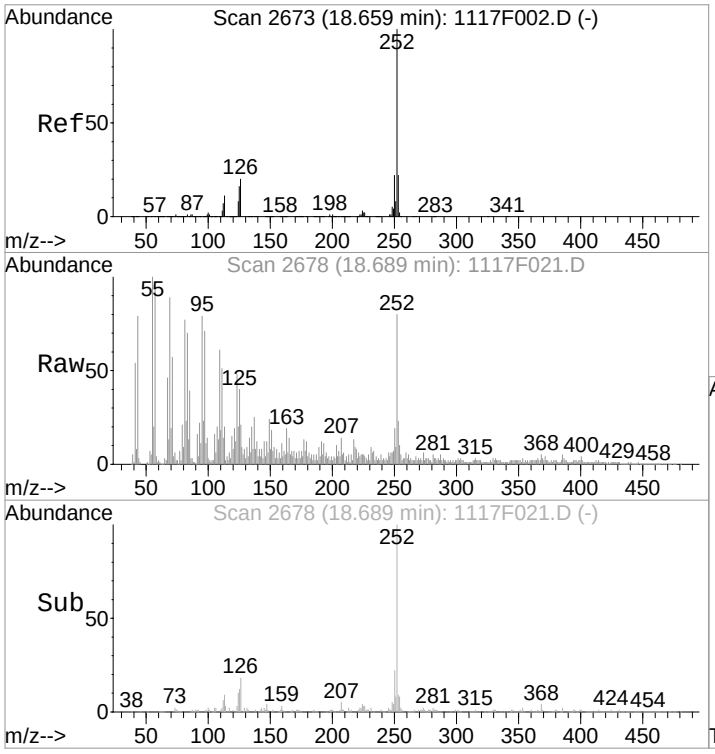


#80
Benzo(k)fluoranthene
Concen: 219.57 ng/ml
RT: 18.20 min Scan# 2595
Delta R.T. 0.06 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:252 Resp: 60569

Ion	Ratio	Lower	Upper
252	100		
253	24.7	0.0	51.5
125	24.0	0.0	43.3

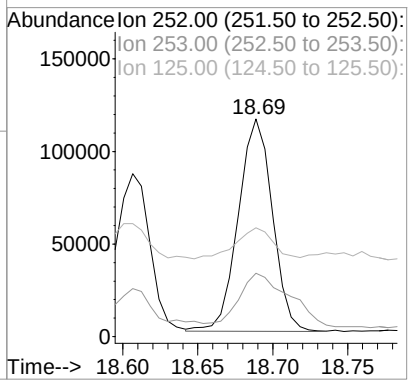




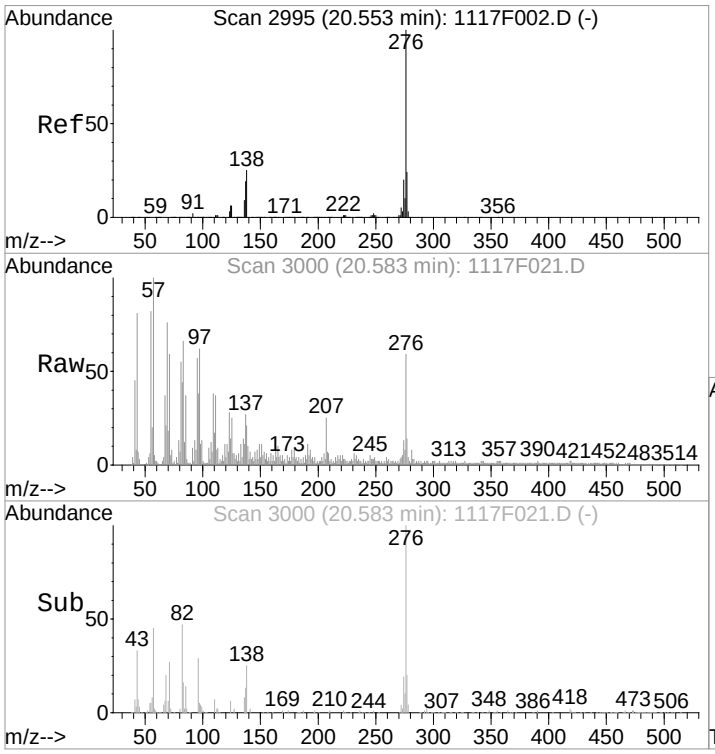
#81
Benzo(a)pyrene
Concen: 710.74 ng/ml
RT: 18.69 min Scan# 2678
Delta R.T. 0.06 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:252 Resp: 182043

Ion	Ratio	Lower	Upper
252	100		
253	24.5	0.0	52.0
125	13.8	0.0	45.4



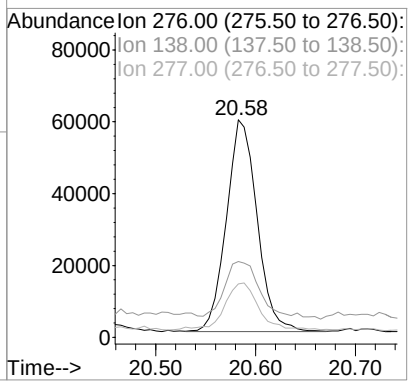
1st 12/07/18
2nd 12/10/18

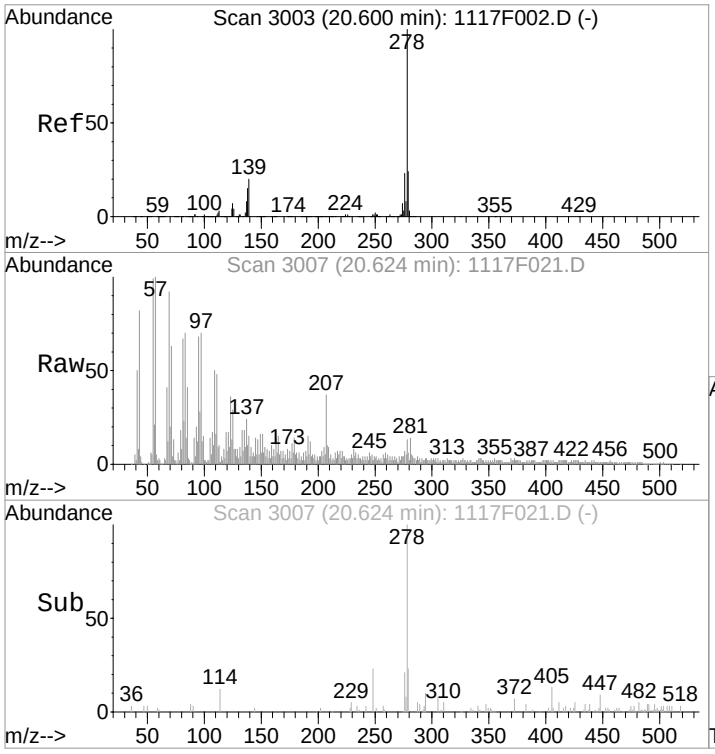


#82
Indeno(1,2,3-cd)pyrene
Concen: 644.73 ng/ml
RT: 20.58 min Scan# 3000
Delta R.T. 0.07 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:276 Resp: 126077

Ion	Ratio	Lower	Upper
276	100		
138	26.0	0.0	53.7
277	21.5	0.0	53.2

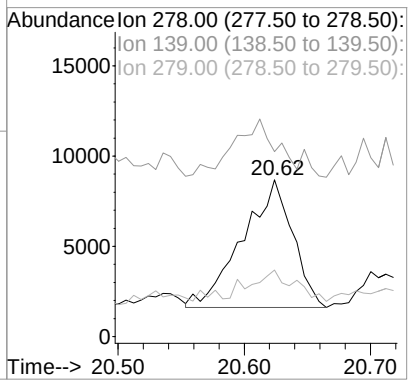




#83
Dibenz(a,h)anthracene
Concen: 161.30 ng/ml
RT: 20.62 min Scan# 3007
Delta R.T. 0.06 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

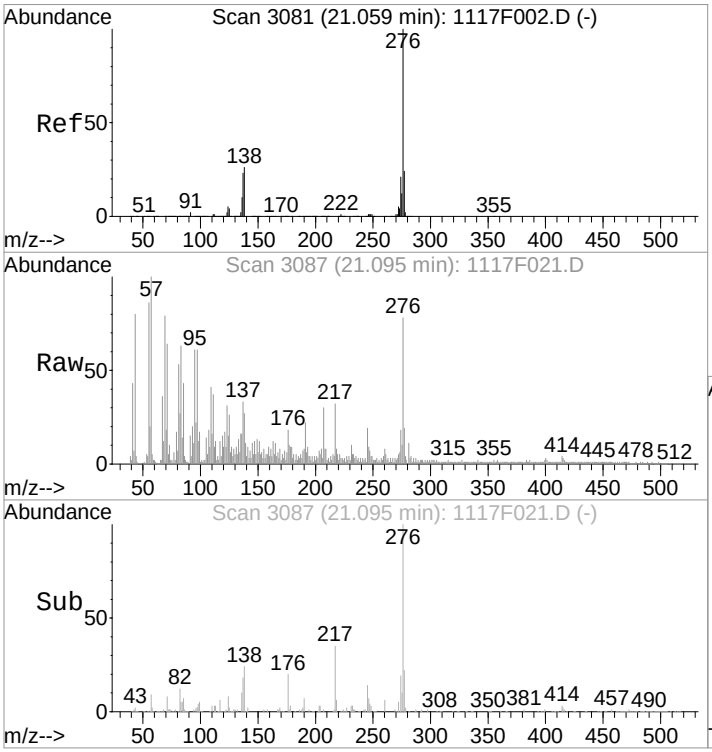
Tgt Ion:278 Resp: 19553

Ion	Ratio	Lower	Upper
278	100		
139	20.0	0.0	51.0
279	24.6	0.0	54.3



1st 12/07/18

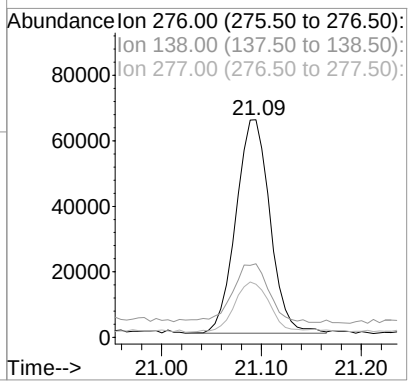
2nd 12/10/18



#84
Benzo(g,h,i)perylene
Concen: 746.60 ng/ml
RT: 21.09 min Scan# 3087
Delta R.T. 0.09 min
Lab File: 1117F021.D
Acq: 18 Nov 2018 1:03 am

Tgt Ion:276 Resp: 155023

Ion	Ratio	Lower	Upper
276	100		
138	26.4	0.0	56.8
277	22.4	0.0	53.6



Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F021.D Vial: 68
Acq On : 18 Nov 2018 1:03 am Operator: CConover
Sample : K1810302-026 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 11:53:29 2018 Quant Results File: 110618_8270LL.RES

Quant Method : J:\MS29\M...\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.07	152	59907	1000.00	ng/ml	0.01
21) Naphthalene-d8	6.37	136	236373	1000.00	ng/ml	0.02
35) Acenaphthene-d10	9.78	164	120009	1000.00	ng/ml	0.03
59) Phenanthrene-d10	12.11	188	233242	1000.00	ng/ml	0.02
69) Chrysene-d12	15.67	240	230947	1000.00	ng/ml	0.06
77) Perylene-d12	18.78	264	235223	1000.00	ng/ml	0.06
System Monitoring Compounds						
4) 2-Fluorophenol	3.98	112	104730	1545.35	ng/ml	0.01
Spiked Amount 3750.000	Range 38 - 110		Recovery = 41.21%			
6) Phenol-d6	4.72	99	179965	1953.61	ng/ml	0.02
Spiked Amount 3750.000	Range 43 - 128		Recovery = 52.10%			
19) Nitrobenzene-d5	5.57	82	112716	1462.32	ng/ml	0.02
Spiked Amount 2500.000	Range 30 - 139		Recovery = 58.49%			
39) 2-Fluorobiphenyl	8.30	172	280127	1530.57	ng/ml	0.04
Spiked Amount 2500.000	Range 37 - 126		Recovery = 61.22%			
60) 2,4,6-Tribromophenol	11.14	330	56298	1785.75	ng/ml	0.03
Spiked Amount 3750.000	Range 38 - 157		Recovery = 47.62%			
71) Terphenyl-d14	14.02	244	357463	1536.85	ng/ml	0.03
Spiked Amount 2500.000	Range 54 - 158		Recovery = 61.47%			
Target Compounds						Qvalue
7) Phenol	4.74	94	4726	46.69	ng/ml	75
13) Benzyl Alcohol	5.18	108	2917	55.63	ng/ml	93
18) 4-Methylphenol	5.41	107	12380	125.78	ng/ml	97
22) Isophorone	5.81	82	3498m	22.42	ng/ml	
27) Benzoic Acid	6.00	122	4335	568.30	ng/ml#	76
29) Naphthalene	6.40	128	73231	285.09	ng/ml	98
33) 2-Methylnaphthalene	7.48	141	23951	159.67	ng/ml	88
34) 1-Methylnaphthalene	7.68	141	12661	92.23	ng/ml	94
42) Acenaphthylene	9.51	152	34573	137.06	ng/ml	96
45) Acenaphthene	9.85	154	12996	81.97	ng/ml	97
48) Dibenzofuran	10.17	168	11877	60.94	ng/ml	99
52) Fluorene	10.75	166	20080	109.80	ng/ml	95
57) Diphenylamine	10.97	169	10942	90.12	ng/ml#	45
64) Phenanthrene	12.14	178	251936	889.37	ng/ml	100
65) Anthracene	12.21	178	52364	189.45	ng/ml	94
67) Di-n-butyl Phthalate	12.87	149	23190	83.71	ng/ml	77
68) Fluoranthene	13.56	202	397721	1325.62	ng/ml	99
70) Pyrene	13.82	202	555107	1535.78	ng/ml	99
74) Benz(a)anthracene	15.65	228	135237m	454.64	ng/ml	
75) Chrysene	15.72	228	180940	643.13	ng/ml	98
76) Bis(2-ethylhexyl) Phthalat	15.71	149	76555m	389.76	ng/ml	
79) Benzo(b)fluoranthene	18.15	252	212905	759.30	ng/ml	92
80) Benzo(k)fluoranthene	18.20	252	60569	219.57	ng/ml	86
81) Benzo(a)pyrene	18.69	252	182043	710.74	ng/ml	95
82) Indeno(1,2,3-cd)pyrene	20.58	276	126077	644.73	ng/ml	96
83) Dibenz(a,h)anthracene	20.62	278	19553	161.30	ng/ml	99
84) Benzo(g,h,i)perylene	21.09	276	155023	746.60	ng/ml	98

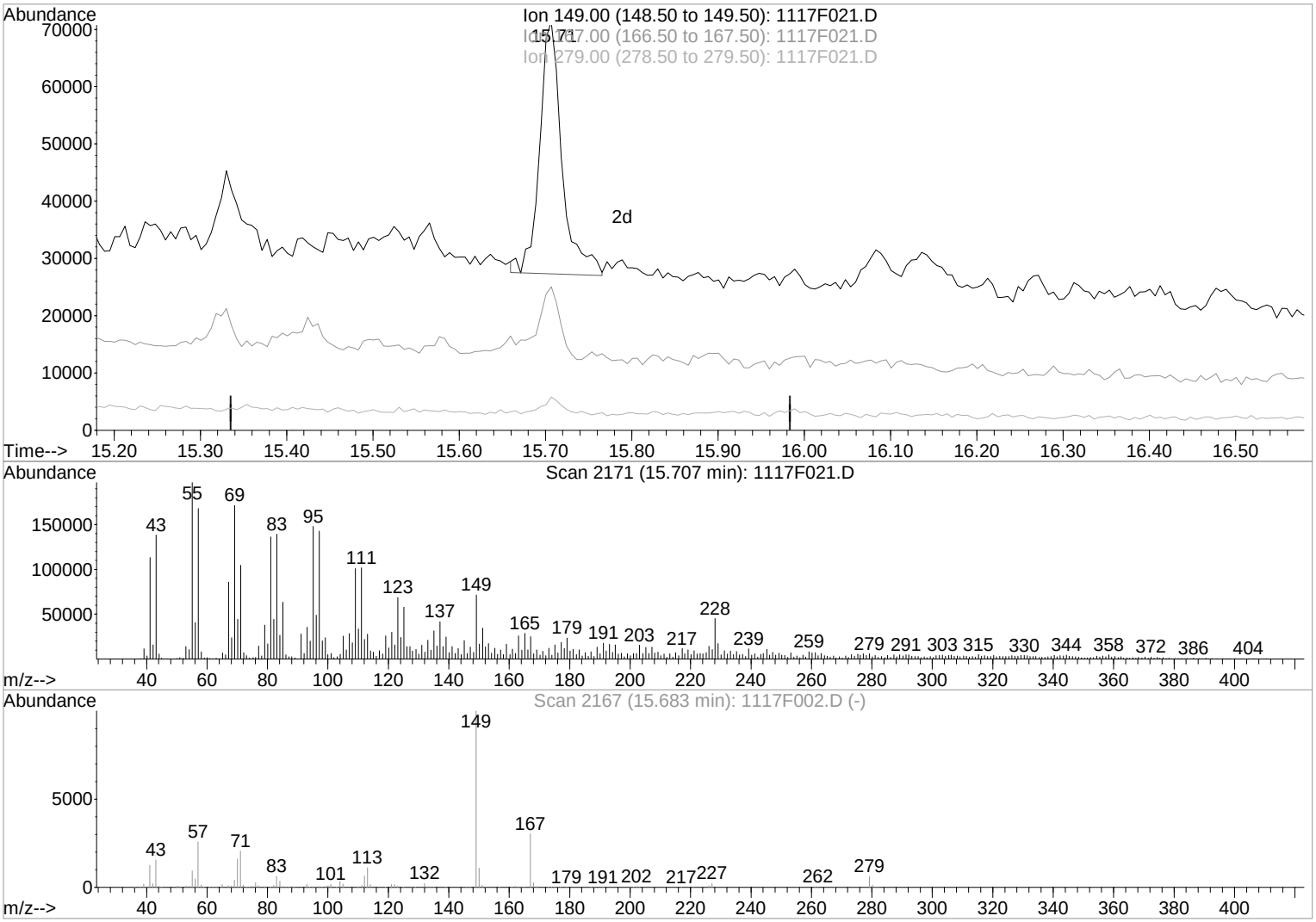
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F021.D Vial: 68
Acq On : 18 Nov 2018 1:03 am Operator: CConover
Sample : K1810302-026 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 15:01 2018 Quant Results File: temp.res

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Multiple Level Calibration



TIC: 1117F021.D

(76) Bis(2-ethylhexyl) Phthalate (T)

15.71min 405.12ng/ml

response 79571

Ion	Exp%	Act%
149.00	100	100
167.00	29.70	26.55
279.00	6.40	6.21
0.00	0.00	0.00

Manual Integration:

Before

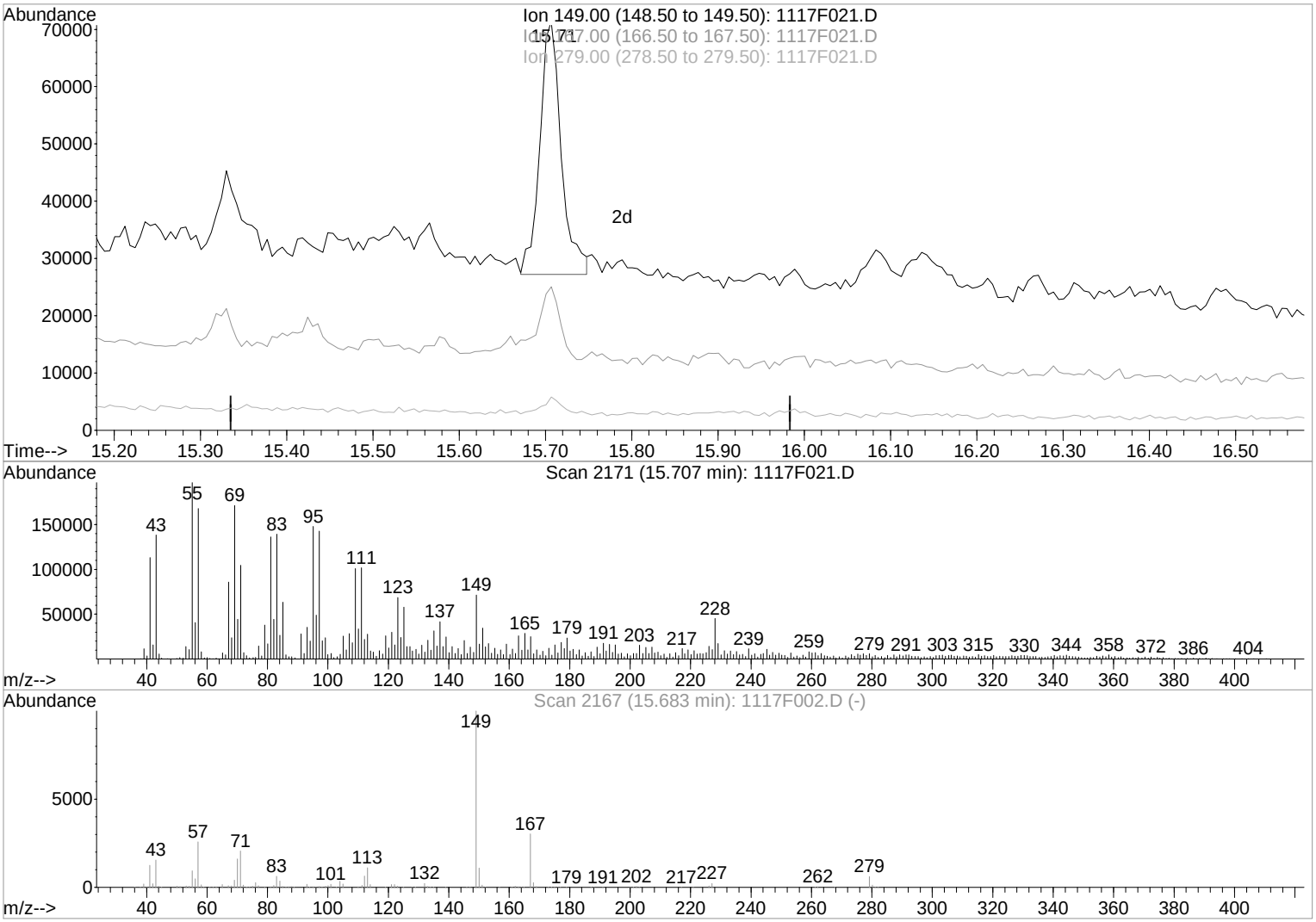
12/07/18

Quantitation Report (Qedit)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F021.D Vial: 68
Acq On : 18 Nov 2018 1:03 am Operator: CConover
Sample : K1810302-026 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 15:01 2018 Quant Results File: temp.res

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Multiple Level Calibration



TIC: 1117F021.D

(76) Bis(2-ethylhexyl) Phthalate (T)

15.71min 389.76ng/ml m

response 76555

Ion	Exp%	Act%
149.00	100	100
167.00	29.70	35.03
279.00	6.40	8.09
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

12/07/18

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F022.D\
Lab ID: K1810302-027
RunType: N/A
Matrix: Sediment

Date Acquired: 11/18/18 01:31:00
Batch ID: 615546
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 12/7/18 15:58
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Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F022.D\	**Instrument:**	K-MS-29
Acqu Date:	11/18/18 01:31:00	**Vial:**	22
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-027	**Raw Units:**	ng/mL

Bottle ID:	K1810302-027.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615546	**Prep Lot:**	324899	**Report Group:**	K1810302
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.67	+0.02	227589	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	14.02	+0.01	350765	1530.30	61	30 - 102	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.71	+0.03	974343	5033.84	580		Y

Prep Amount:	40.147 g	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	42.90

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

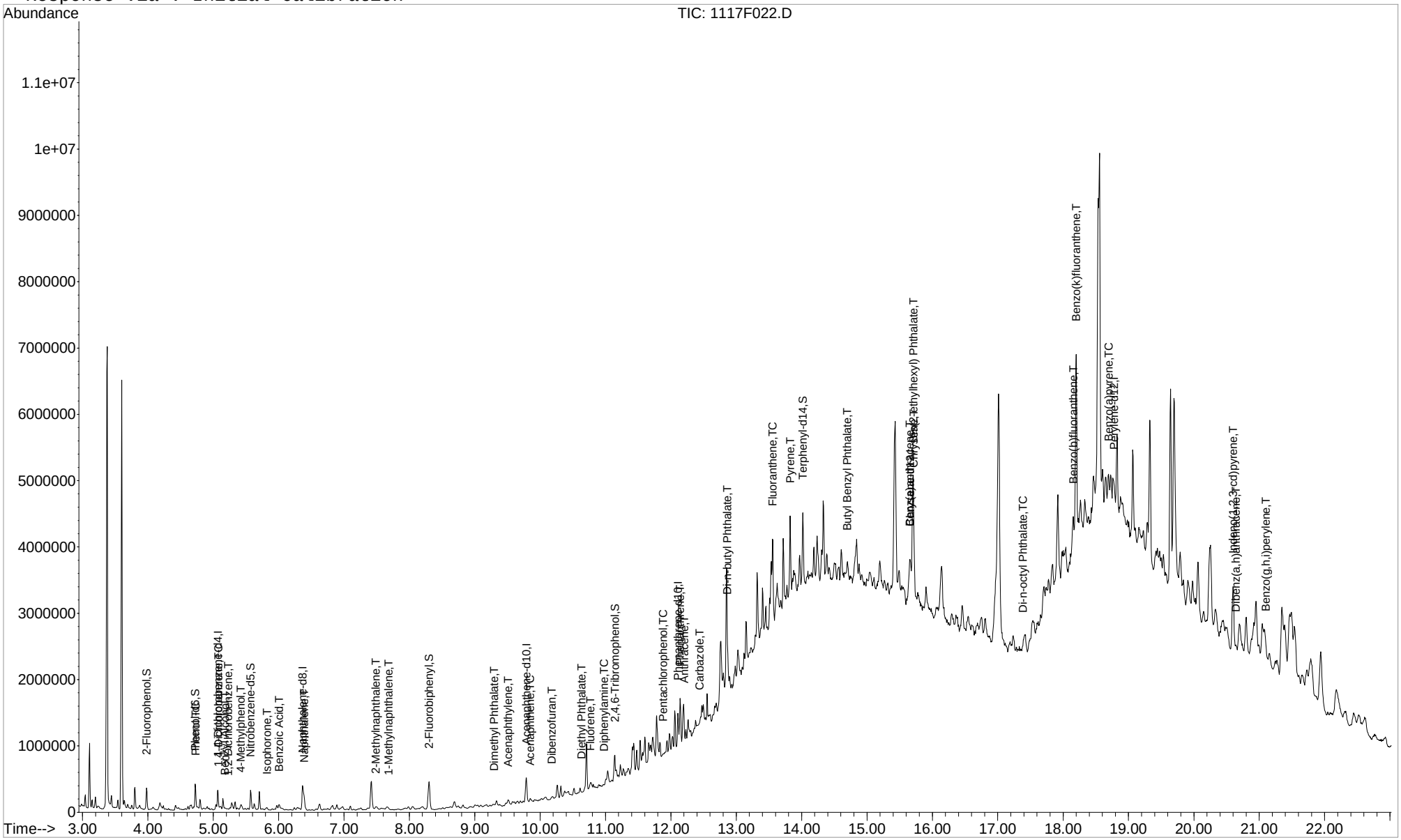
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\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Quantitation Report (QT Reviewed)

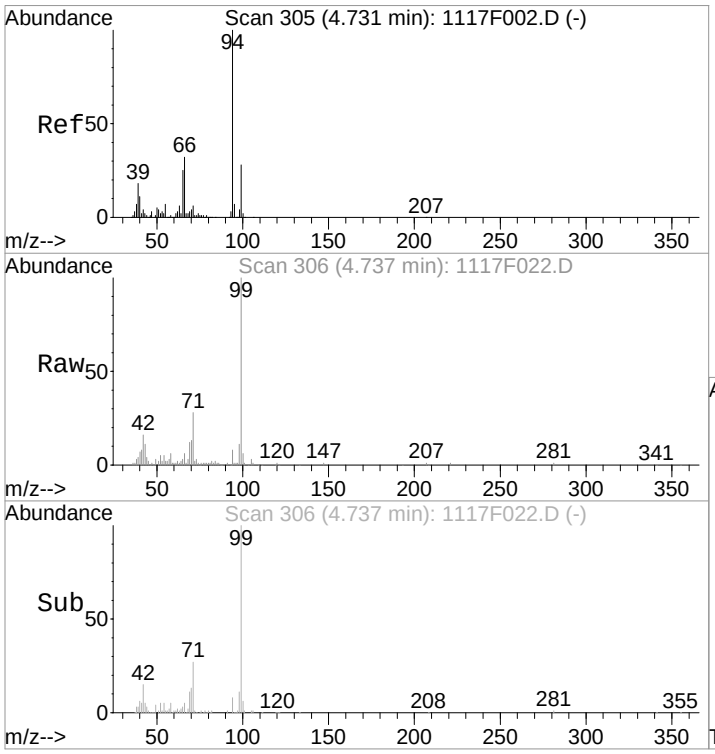
1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F022.D Vial: 69
Acq On : 18 Nov 2018 1:31 am Operator: CConover
Sample : K1810302-027 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 15:03 2018 Quant Results File: 110618_8270LL.RES

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration



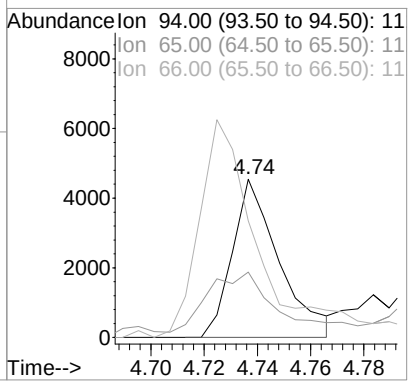
1st 12/07/18
2nd 12/10/18

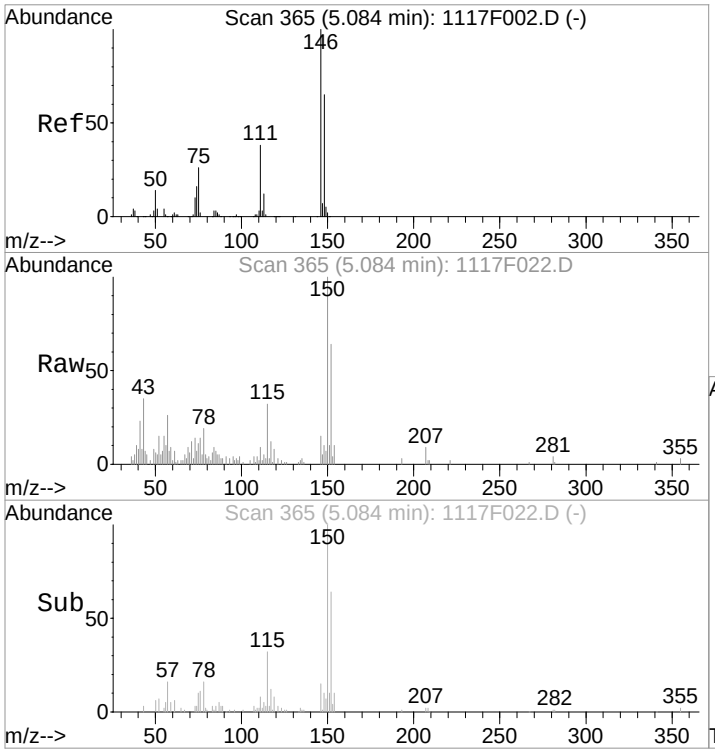


#7
Phenol
Concen: 53.44 ng/ml
RT: 4.74 min Scan# 306
Delta R.T. 0.02 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion: 94 Resp: 5548

Ion	Ratio	Lower	Upper
94	100		
65	33.4	0.0	53.9
66	56.5	0.9	60.9

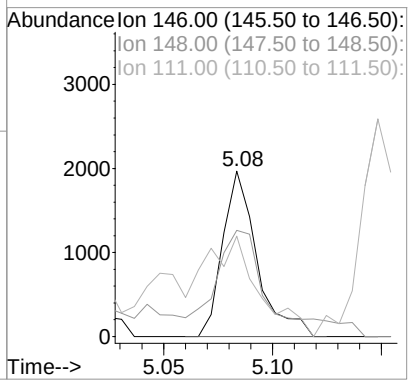




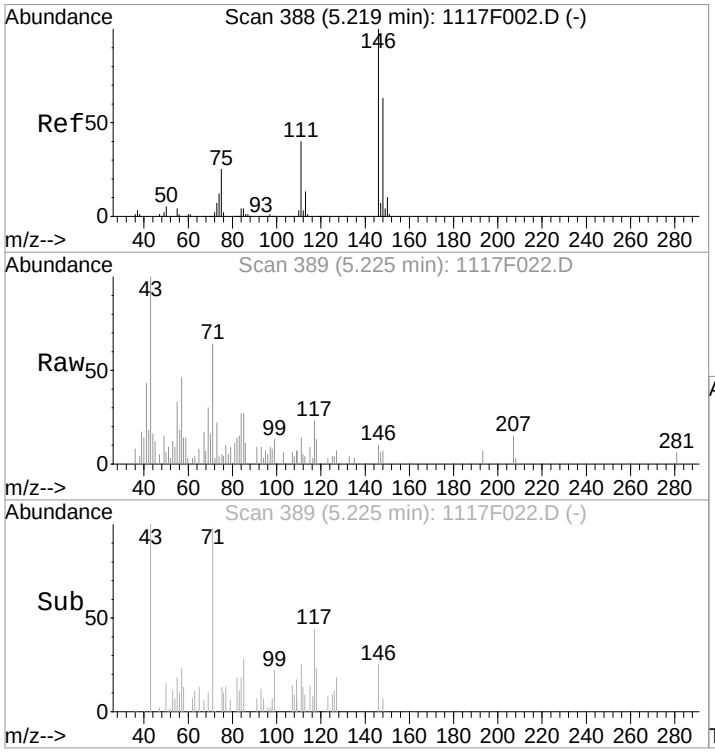
#11
1,4-Dichlorobenzene
Concen: 21.25 ng/ml
RT: 5.08 min Scan# 365
Delta R.T. 0.02 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:146 Resp: 2172

Ion	Ratio	Lower	Upper
146	100		
148	54.9	33.3	93.3
111	48.1	8.5	68.5



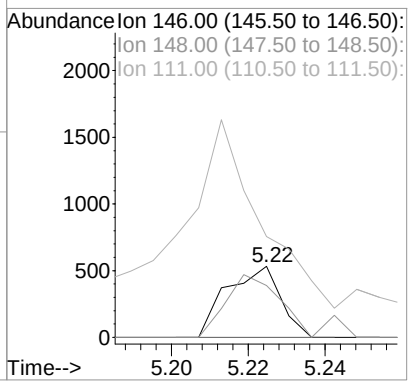
1st 12/07/18
2nd 12/10/18

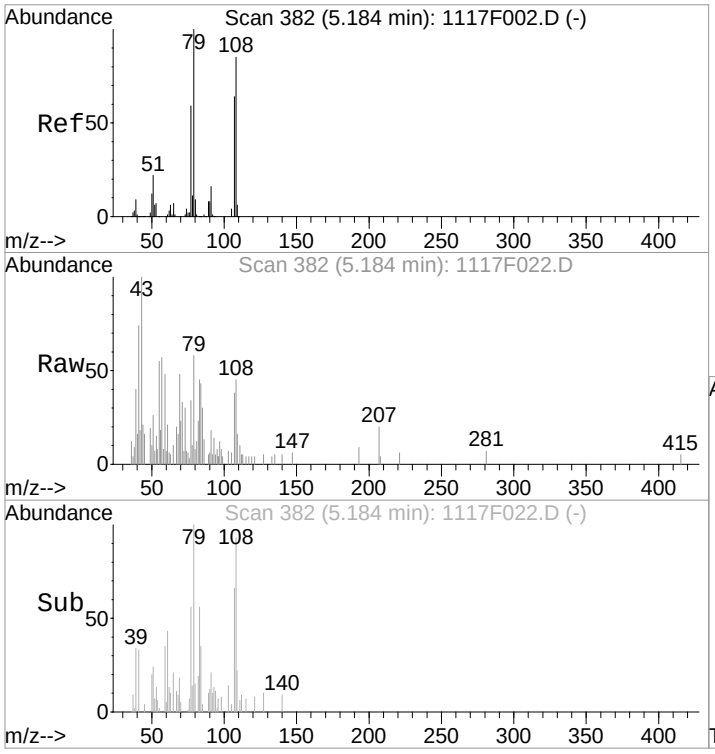


#12
1,2-Dichlorobenzene
Concen: 5.33 ng/ml m
RT: 5.22 min Scan# 389
Delta R.T. 0.02 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:146 Resp: 518

Ion	Ratio	Lower	Upper
146	100		
148	73.3	31.9	91.9
111	141.9	9.8	69.8#

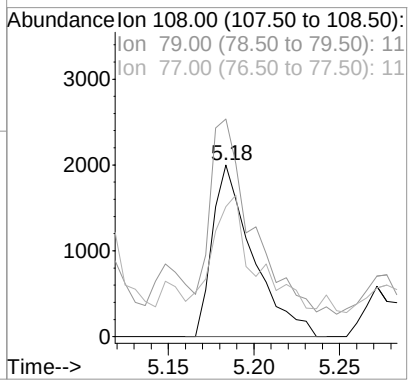




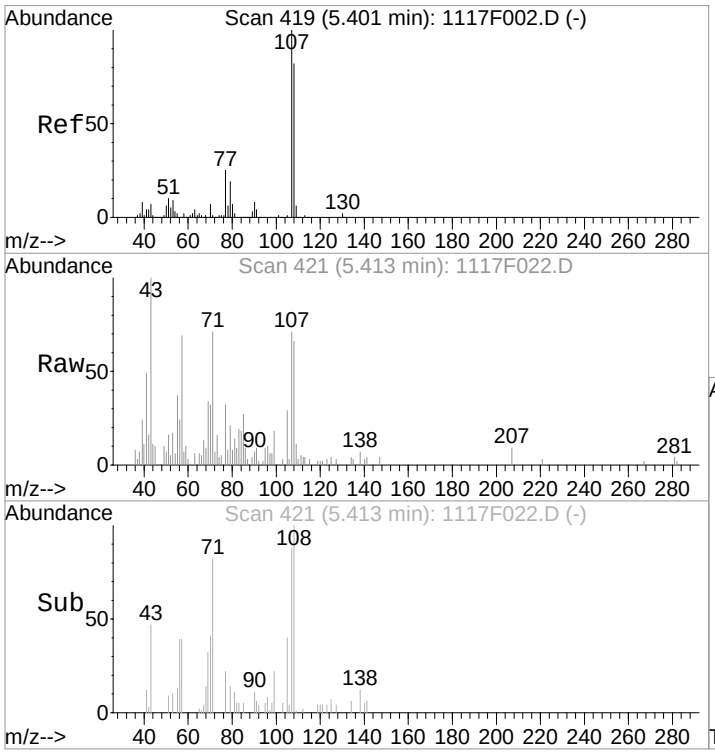
#13
Benzyl Alcohol
Concen: 61.09 ng/ml
RT: 5.18 min Scan# 382
Delta R.T. 0.02 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:108 Resp: 3286

Ion	Ratio	Lower	Upper
108	100		
79	109.3	85.3	145.3
77	55.1	38.7	98.7



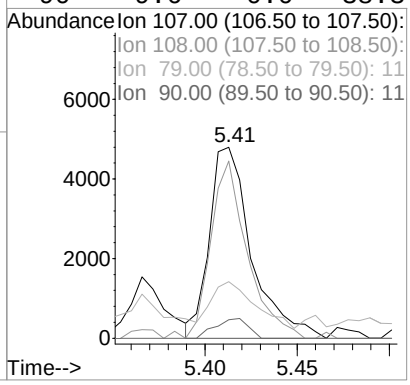
1st 12/07/18
2nd 12/10/18

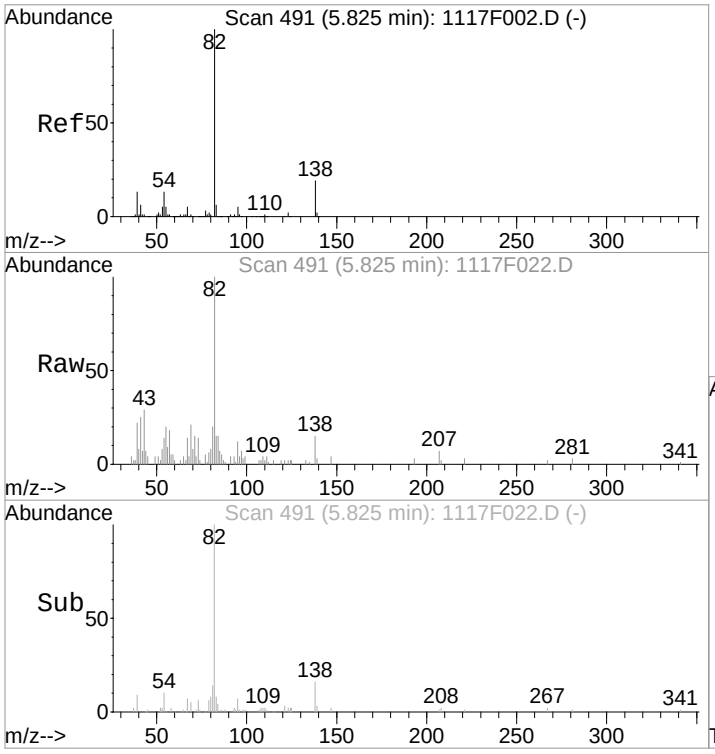


#18
4-Methylphenol
Concen: 75.90 ng/ml
RT: 5.41 min Scan# 421
Delta R.T. 0.03 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:107 Resp: 7663

Ion	Ratio	Lower	Upper
107	100		
108	92.8	51.4	111.4
79	23.6	0.0	47.7
90	9.6	0.0	38.3

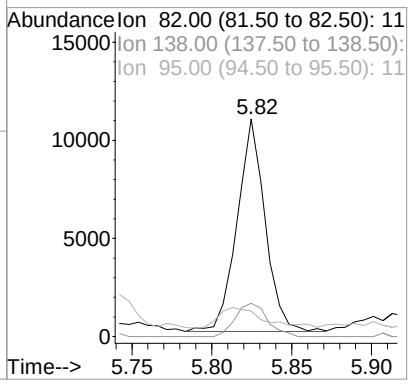




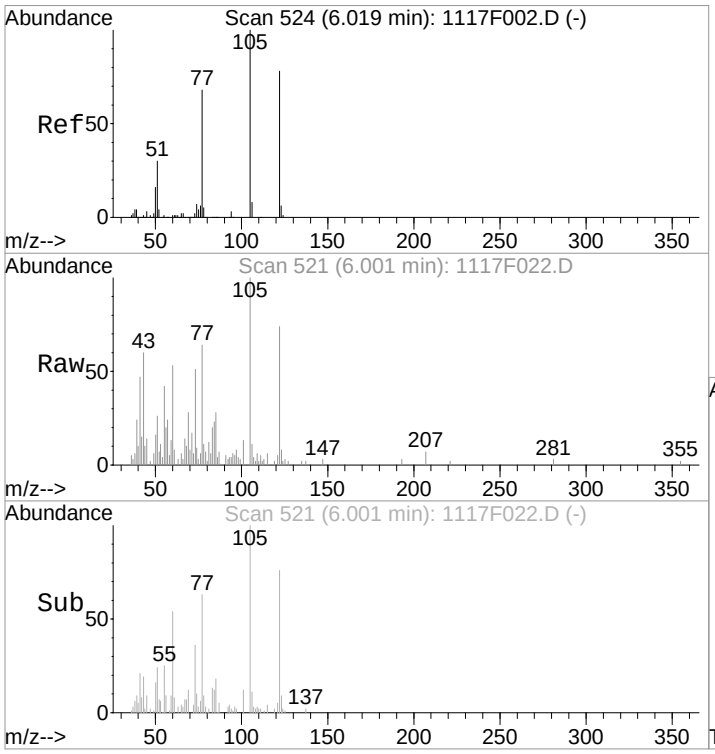
#22
Isophorone
Concen: 77.92 ng/ml
RT: 5.82 min Scan# 491
Delta R.T. 0.02 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion: 82 Resp: 13240

Ion	Ratio	Lower	Upper
82	100		
138	15.7	0.0	49.8
95	7.8	0.0	35.9



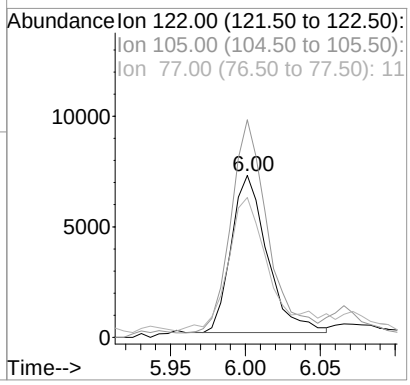
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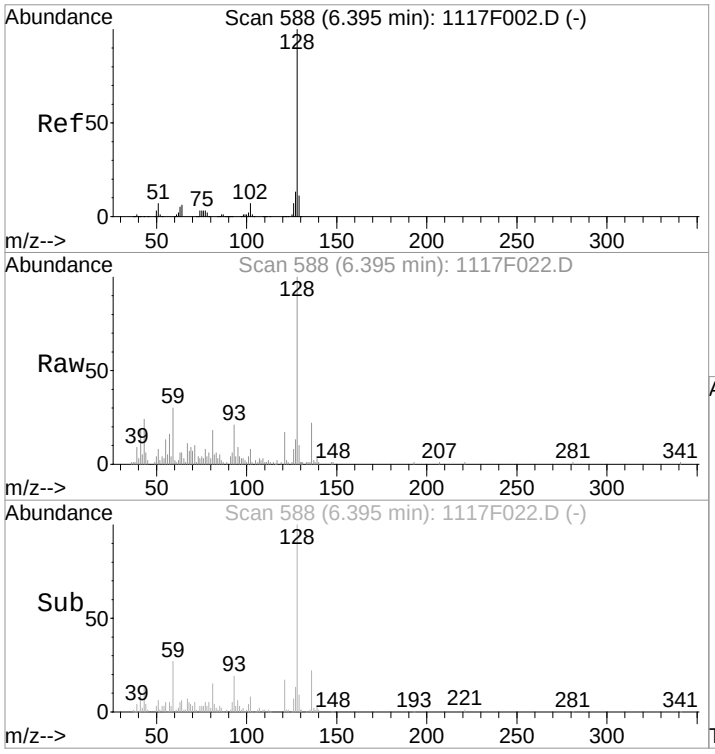


#27
Benzoic Acid
Concen: 751.77 ng/ml
RT: 6.00 min Scan# 521
Delta R.T. 0.02 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:122 Resp: 11946

Ion	Ratio	Lower	Upper
122	100		
105	135.9	86.3	146.3
77	83.0	54.7	114.7

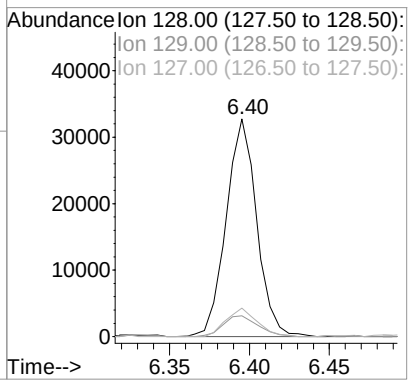




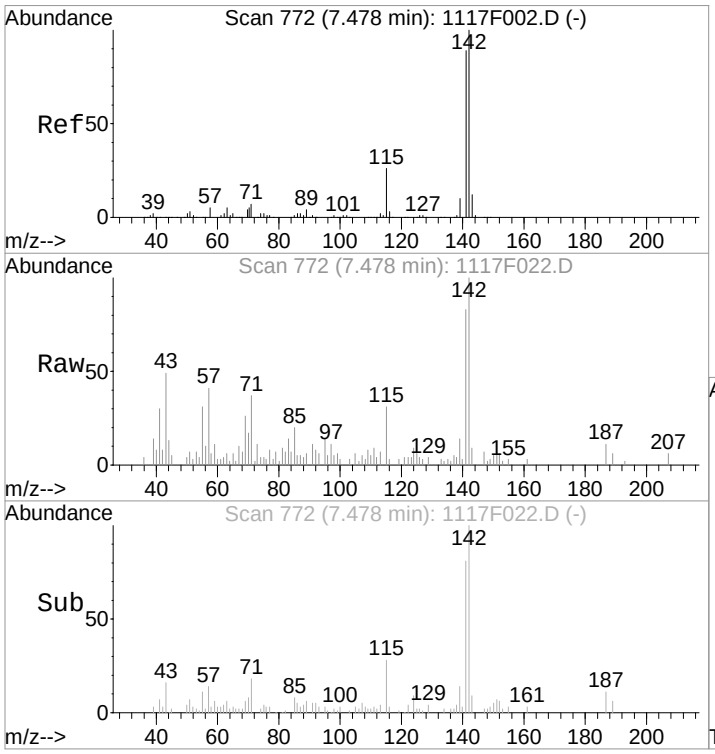
#29
Naphthalene
Concen: 155.84 ng/ml
RT: 6.40 min Scan# 588
Delta R.T. 0.02 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:128 Resp: 43591

Ion	Ratio	Lower	Upper
128	100		
129	9.1	0.0	41.0
127	13.2	0.0	43.2



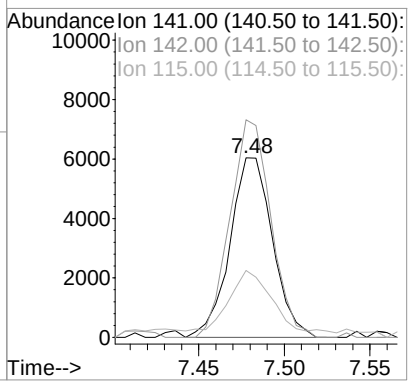
1st 12/07/18
2nd 12/10/18

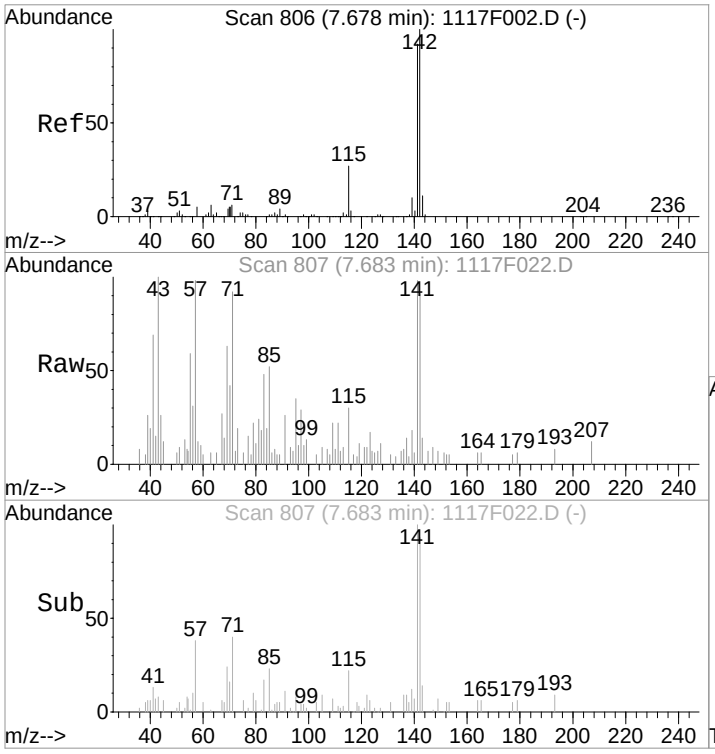


#33
2-Methylnaphthalene
Concen: 64.05 ng/ml
RT: 7.48 min Scan# 772
Delta R.T. 0.03 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:141 Resp: 10462

Ion	Ratio	Lower	Upper
141	100		
142	121.1	84.5	144.5
115	33.8	0.0	59.3

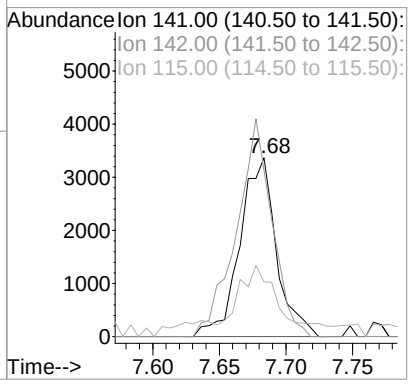




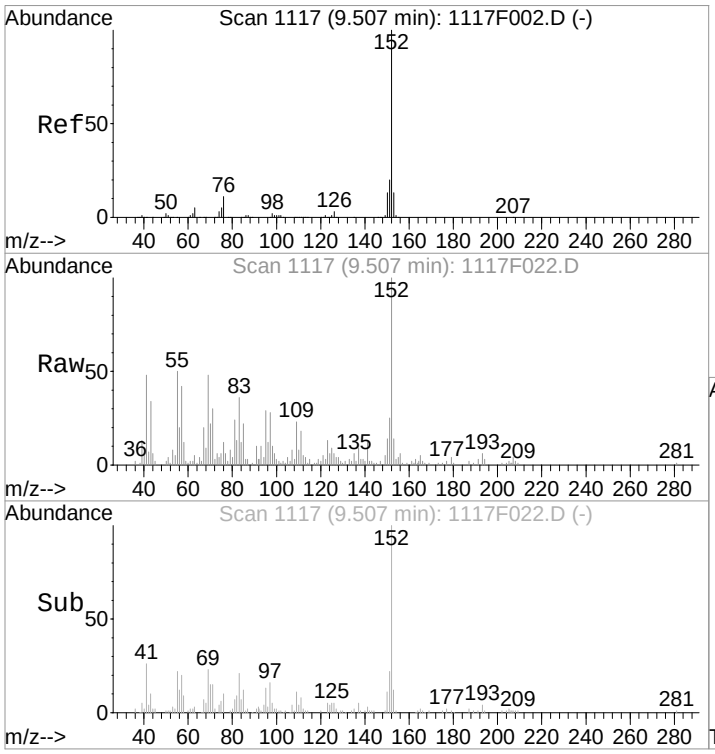
#34
1-Methylnaphthalene
Concen: 42.98 ng/ml
RT: 7.68 min Scan# 807
Delta R.T. 0.04 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:141 Resp: 6424

Ion	Ratio	Lower	Upper
141	100		
142	93.1	77.2	143.4
115	24.8	20.7	38.5



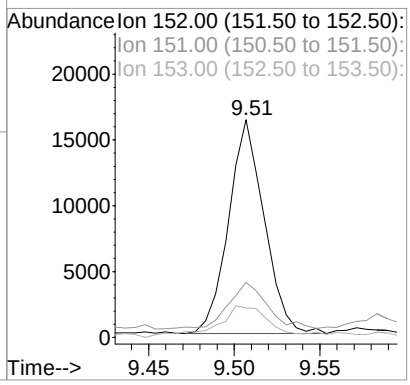
1st 12/07/18
2nd 12/10/18

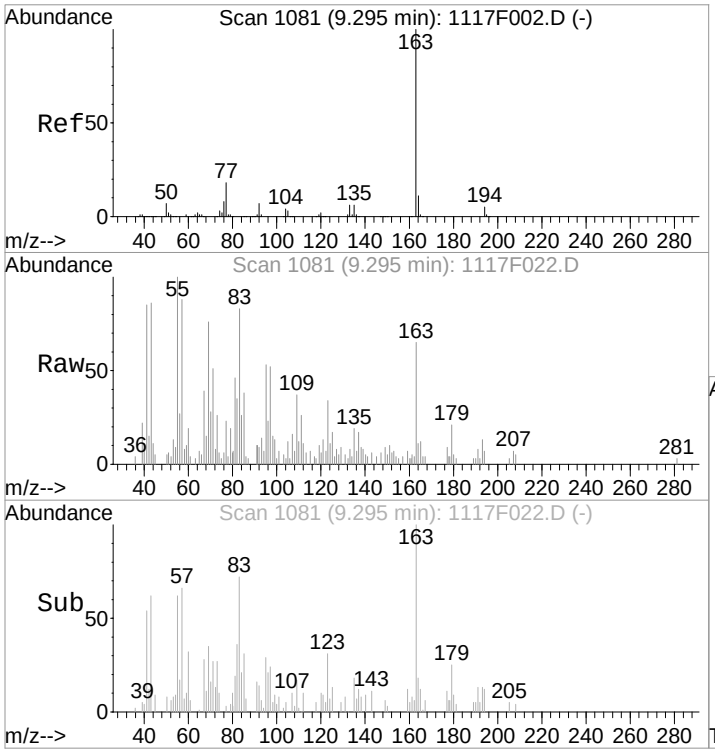


#42
Acenaphthylene
Concen: 89.03 ng/ml
RT: 9.51 min Scan# 1117
Delta R.T. 0.04 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:152 Resp: 23474

Ion	Ratio	Lower	Upper
152	100		
151	21.1	0.0	50.0
153	12.5	0.0	42.7

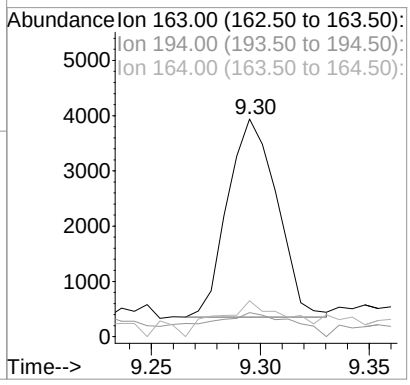




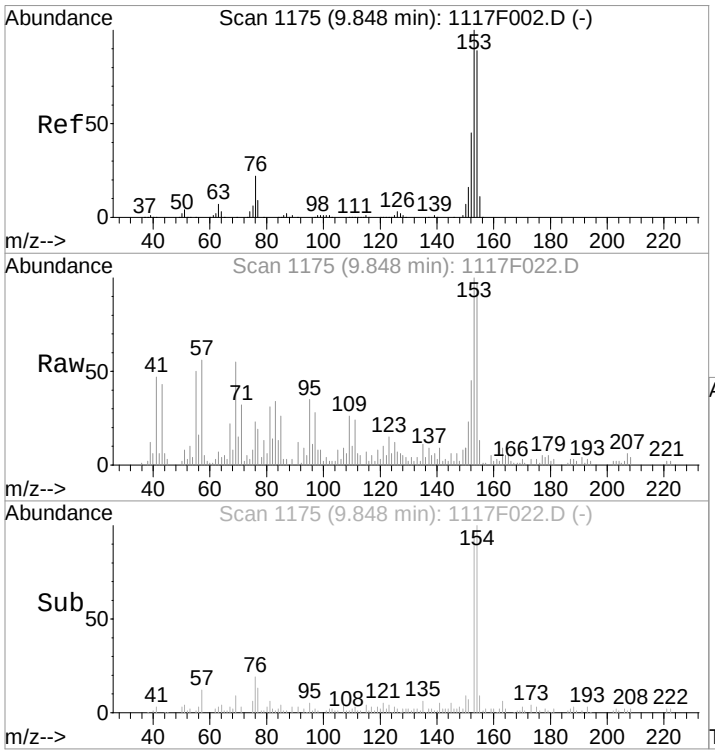
#43
Dimethyl Phthalate
Concen: 30.93 ng/ml
RT: 9.30 min Scan# 1081
Delta R.T. 0.03 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:163 Resp: 5683

Ion	Ratio	Lower	Upper
163	100		
194	12.1	0.0	34.7
164	18.1	0.0	40.0



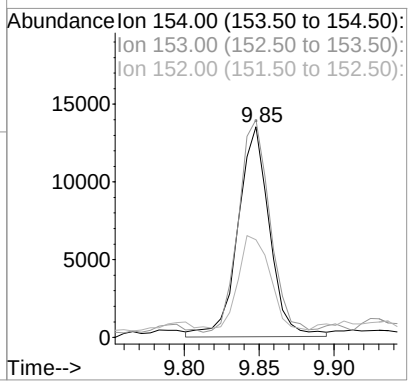
1st 12/07/18
2nd 12/10/18

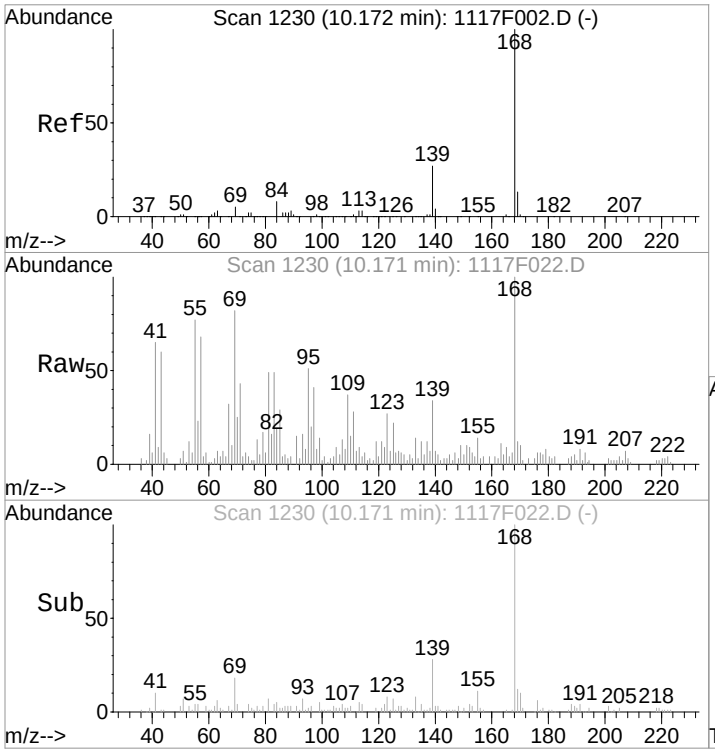


#45
Acenaphthene
Concen: 119.44 ng/ml
RT: 9.85 min Scan# 1175
Delta R.T. 0.03 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:154 Resp: 19795

Ion	Ratio	Lower	Upper
154	100		
153	102.5	81.7	141.7
152	41.0	20.5	80.5

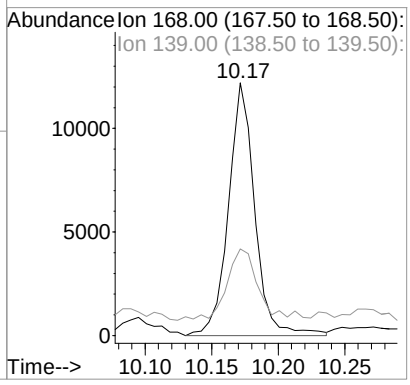




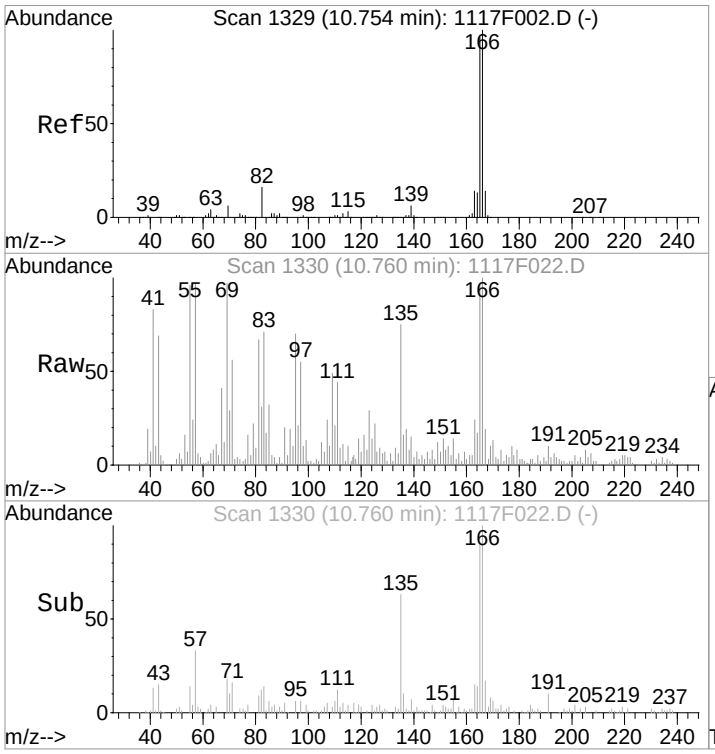
#48
Dibenzofuran
Concen: 82.38 ng/ml
RT: 10.17 min Scan# 1230
Delta R.T. 0.03 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:168 Resp: 16783

Ion	Ratio	Lower	Upper
168	100		
139	26.8	1.7	61.7



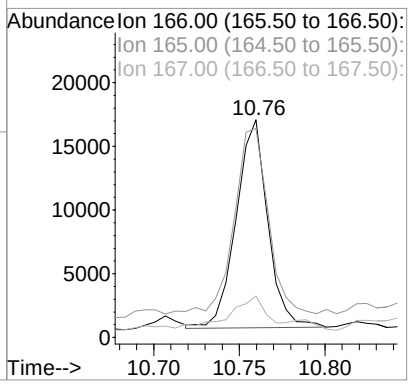
1st 12/07/18
2nd 12/10/18

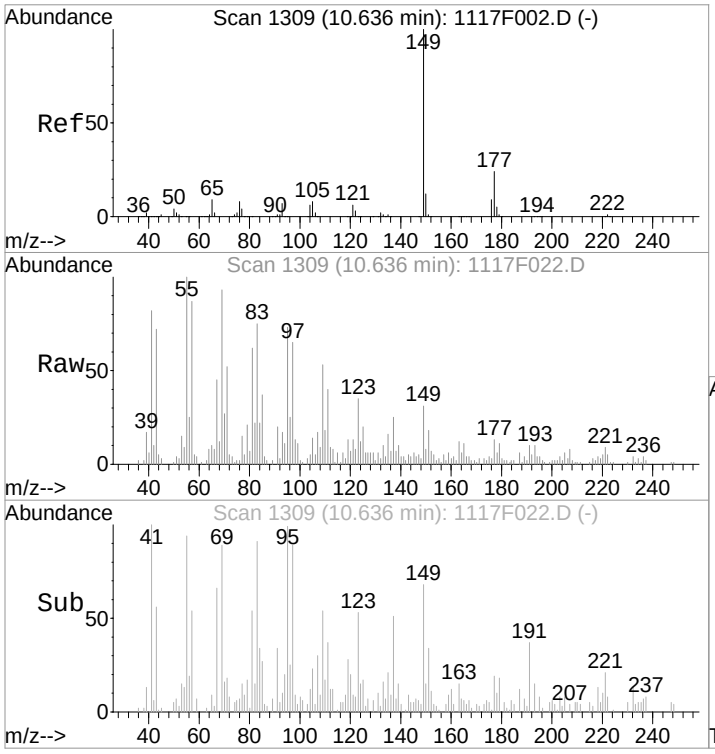


#52
Fluorene
Concen: 110.12 ng/ml
RT: 10.76 min Scan# 1330
Delta R.T. 0.03 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:166 Resp: 21052

Ion	Ratio	Lower	Upper
166	100		
165	88.4	65.9	125.9
167	16.0	0.0	42.7

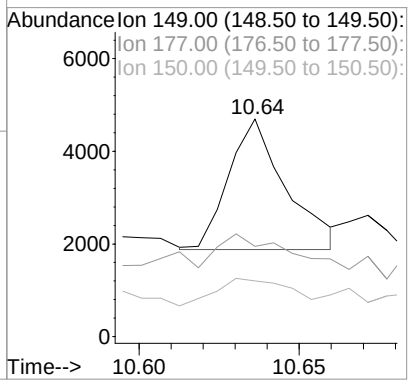




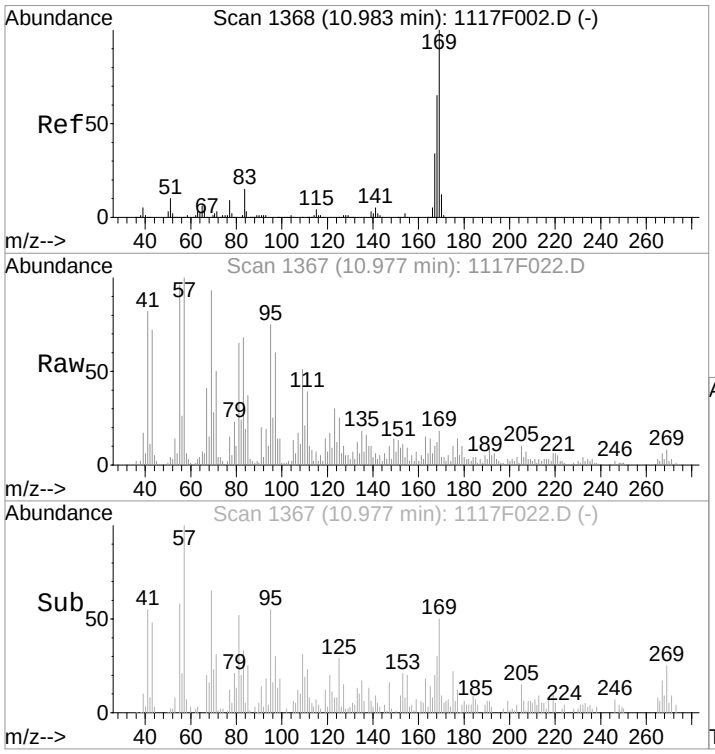
#54
Diethyl Phthalate
Concen: 20.29 ng/ml m
RT: 10.64 min Scan# 1309
Delta R.T. 0.02 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:149 Resp: 3507

Ion	Ratio	Lower	Upper
149	100		
177	41.5	0.0	53.4
150	25.7	0.0	41.9



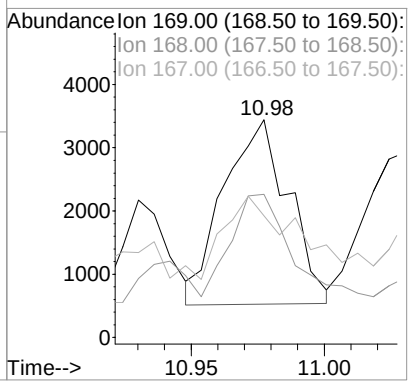
1st 12/07/18
2nd 12/10/18

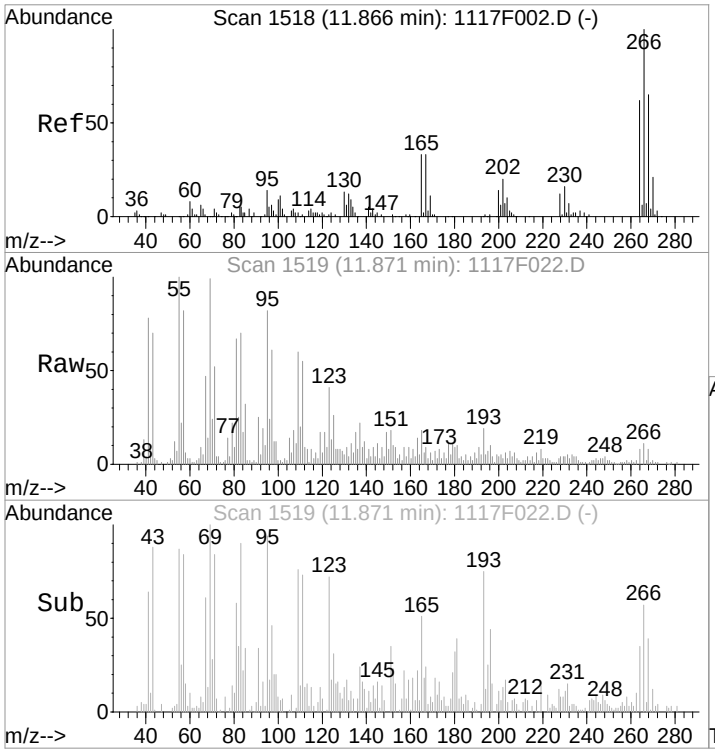


#57
Diphenylamine
Concen: 38.96 ng/ml
RT: 10.98 min Scan# 1367
Delta R.T. 0.02 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:169 Resp: 4945

Ion	Ratio	Lower	Upper
169	100		
168	53.2	35.6	95.6
167	29.4	3.3	63.3

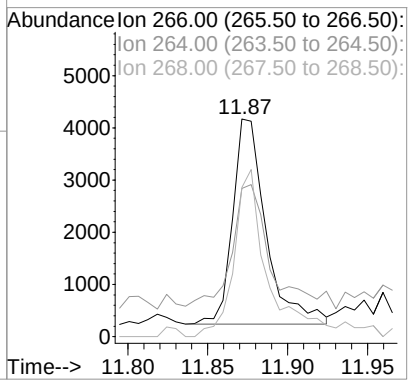




#63
Pentachlorophenol
Concen: 410.28 ng/ml
RT: 11.87 min Scan# 1519
Delta R.T. 0.04 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

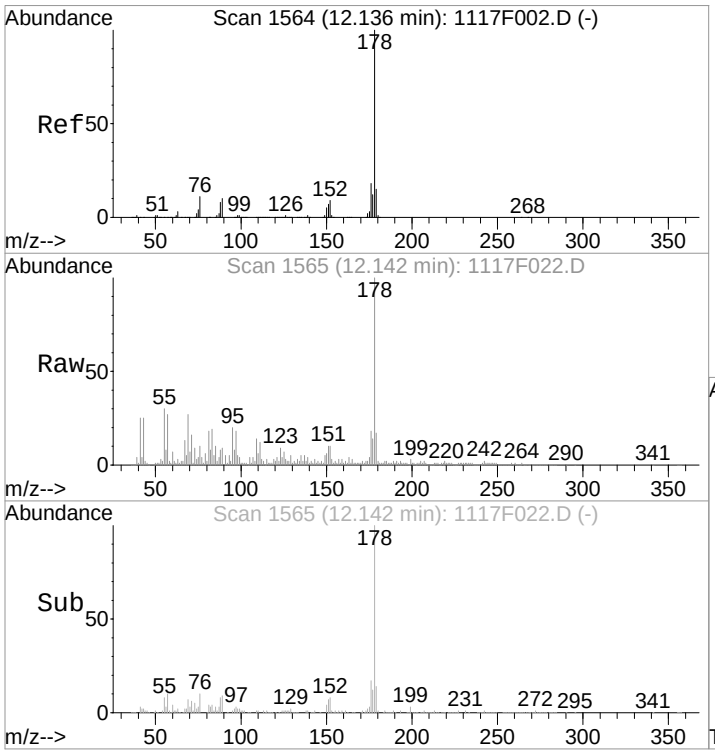
Tgt Ion:266 Resp: 5712

Ion	Ratio	Lower	Upper
266	100		
264	57.6	34.1	94.1
268	72.8	33.4	93.4



1st 12/07/18

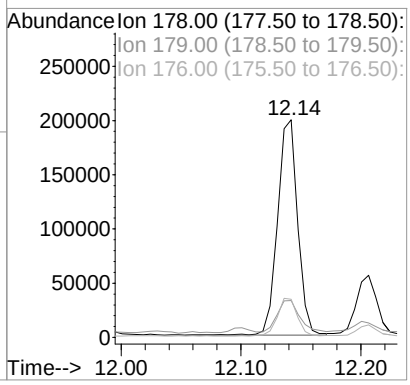
2nd 12/10/18

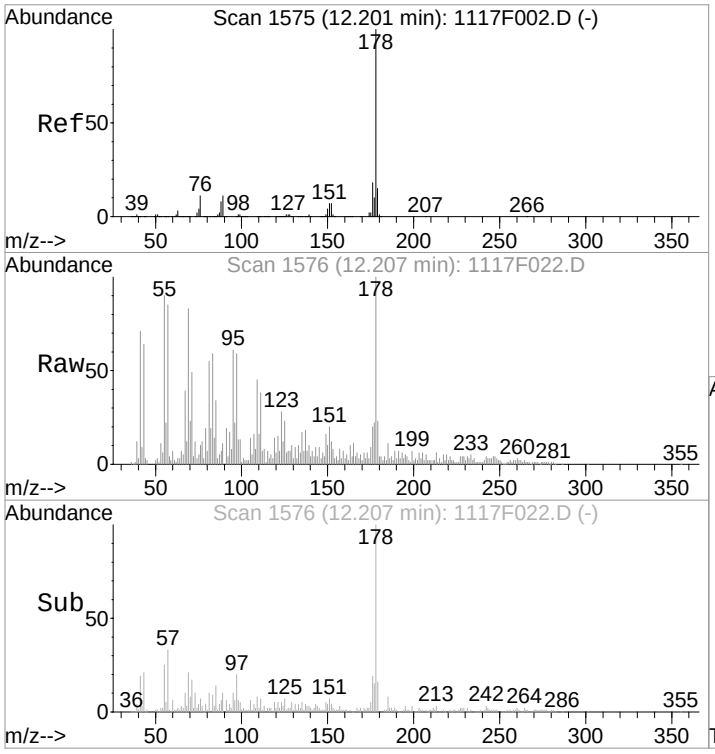


#64
Phenanthrene
Concen: 799.38 ng/ml
RT: 12.14 min Scan# 1565
Delta R.T. 0.03 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:178 Resp: 230557

Ion	Ratio	Lower	Upper
178	100		
179	14.9	0.0	45.6
176	17.1	0.0	47.8

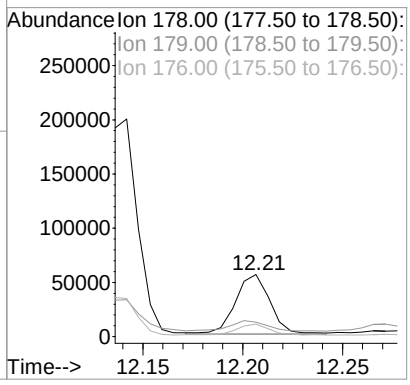




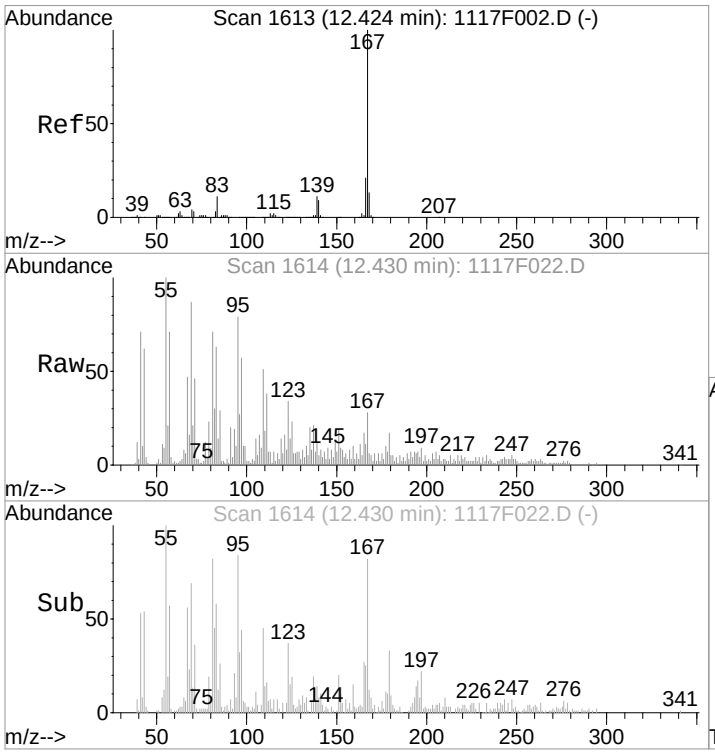
#65
Anthracene
Concen: 235.13 ng/ml
RT: 12.21 min Scan# 1576
Delta R.T. 0.02 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:178 Resp: 66169

Ion	Ratio	Lower	Upper
178	100		
179	15.2	0.0	44.6
176	18.8	0.0	47.4



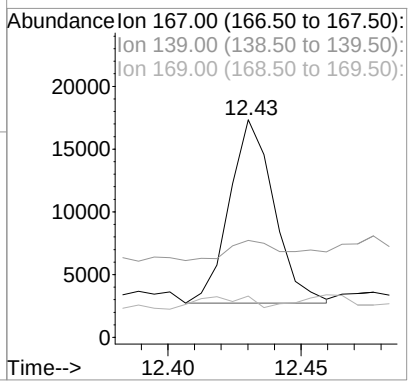
1st 12/07/18
2nd 12/10/18

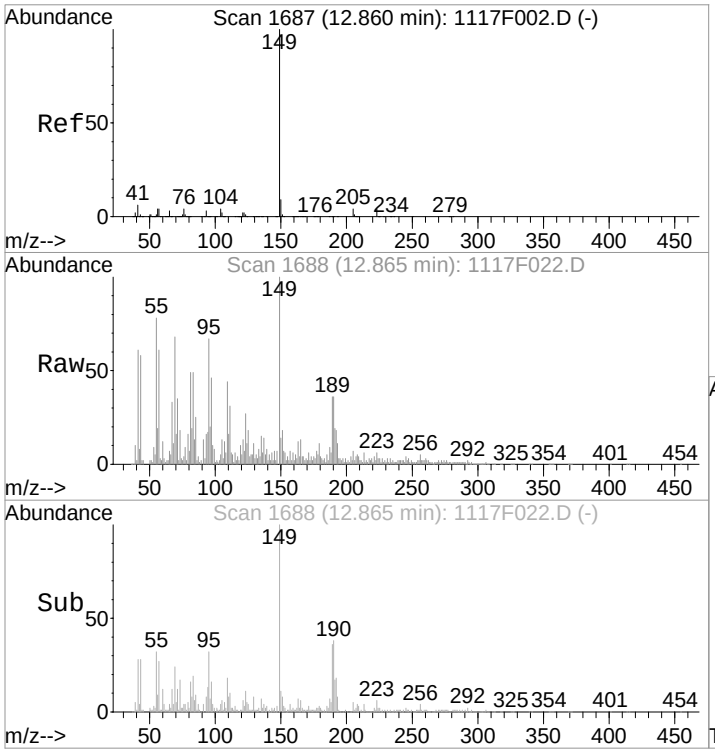


#66
Carbazole
Concen: 76.73 ng/ml
RT: 12.43 min Scan# 1614
Delta R.T. 0.02 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:167 Resp: 17088

Ion	Ratio	Lower	Upper
167	100		
139	10.9	0.0	41.3
169	4.6	0.0	31.0

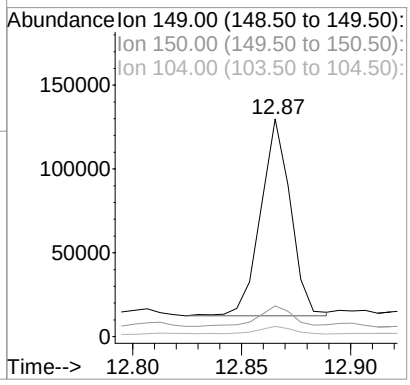




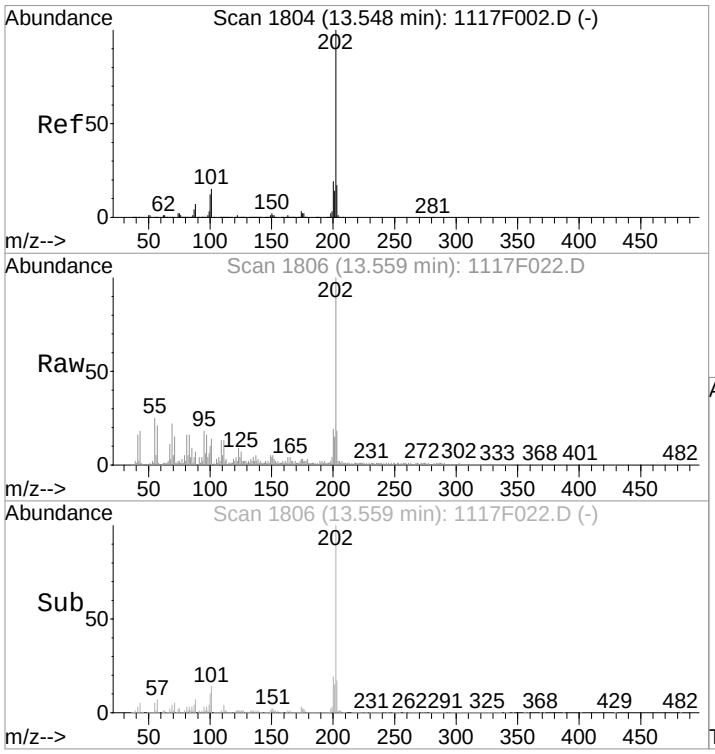
#67
Di-n-butyl Phthalate
Concen: 396.11 ng/ml
RT: 12.87 min Scan# 1688
Delta R.T. 0.02 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:149 Resp: 111725

Ion	Ratio	Lower	Upper
149	100		
150	10.3	0.0	39.1
104	3.9	0.0	33.8



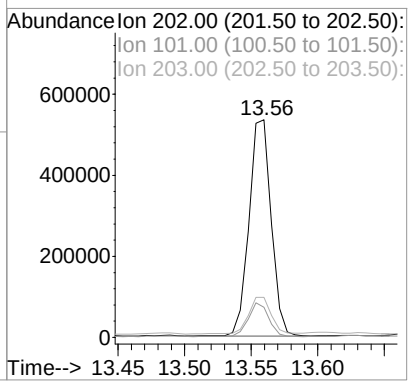
1st 12/07/18
2nd 12/10/18

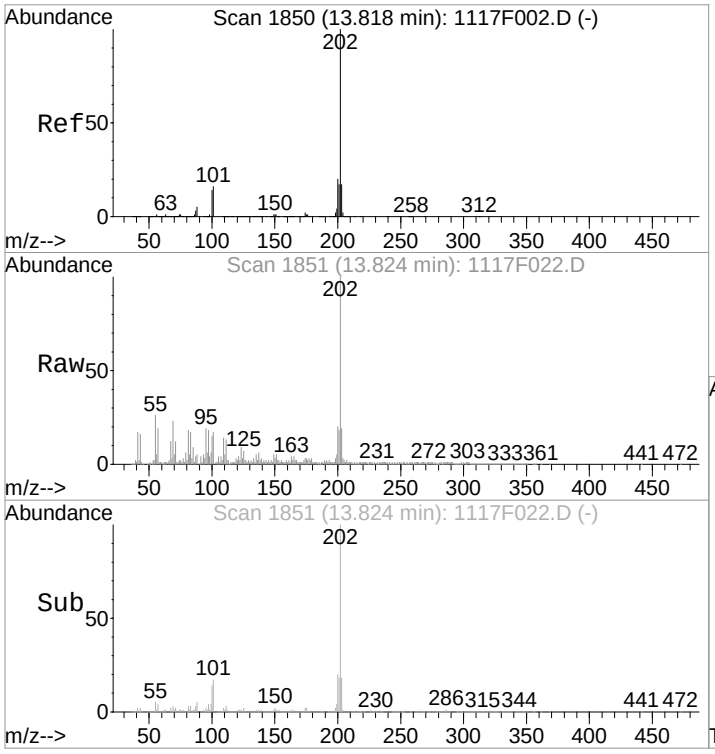


#68
Fluoranthene
Concen: 2028.19 ng/ml
RT: 13.56 min Scan# 1806
Delta R.T. 0.03 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:202 Resp: 619558

Ion	Ratio	Lower	Upper
202	100		
101	13.5	0.0	43.9
203	16.9	0.0	46.8

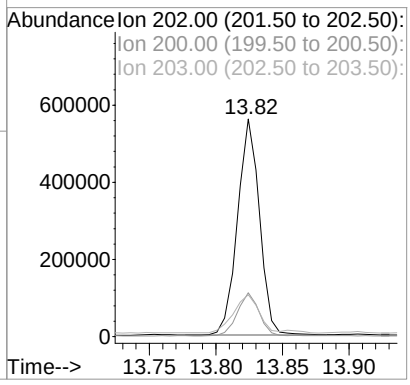




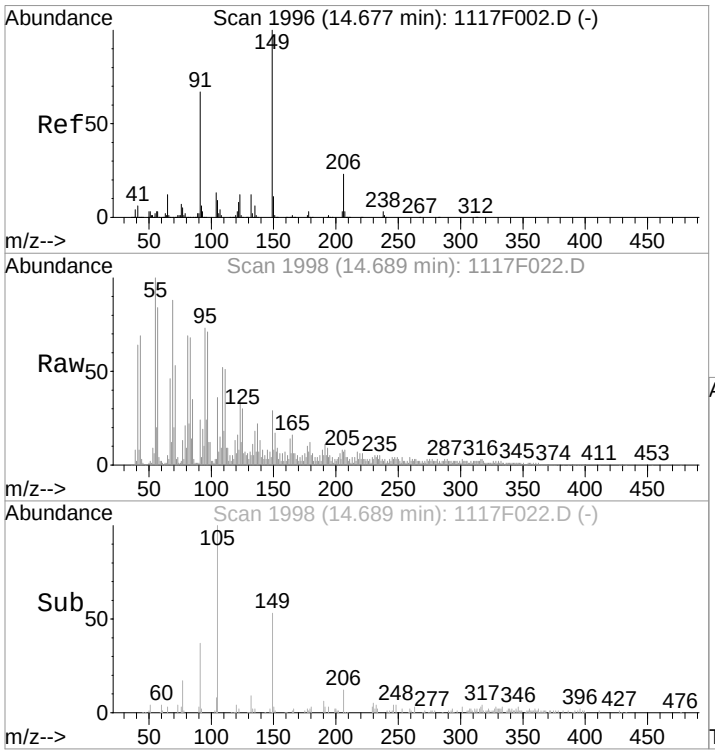
#70
Pyrene
Concen: 1806.10 ng/ml
RT: 13.82 min Scan# 1851
Delta R.T. 0.03 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:202 Resp: 643322

Ion	Ratio	Lower	Upper
202	100		
200	19.8	0.0	49.6
203	17.7	0.0	47.0



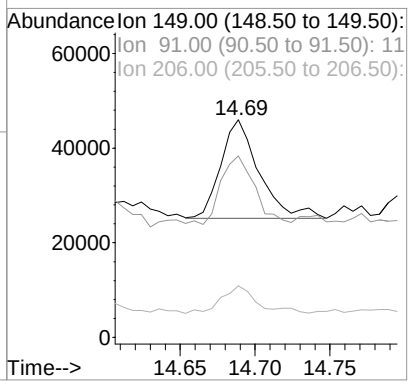
1st 12/07/18
2nd 12/10/18

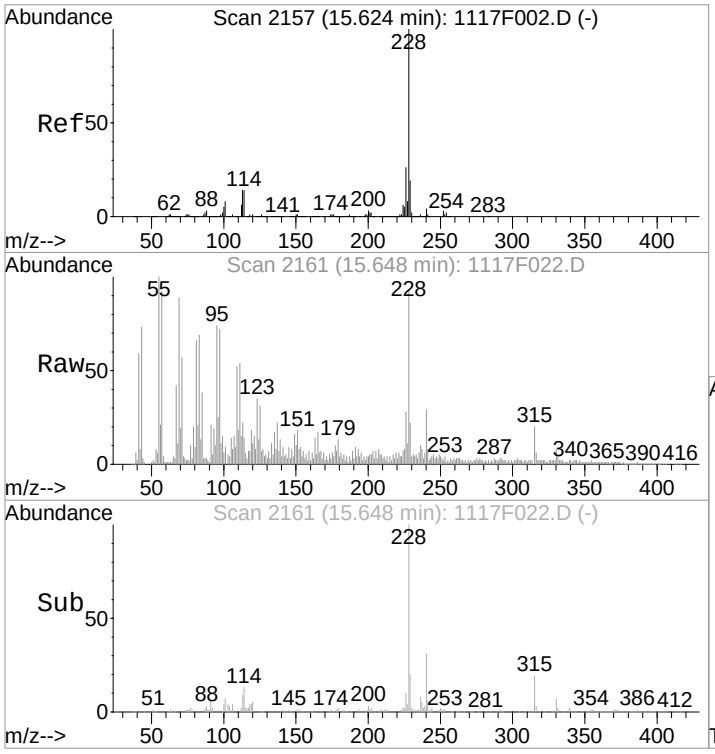


#72
Butyl Benzyl Phthalate
Concen: 298.79 ng/ml
RT: 14.69 min Scan# 1998
Delta R.T. 0.03 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:149 Resp: 37188

Ion	Ratio	Lower	Upper
149	100		
91	68.4	36.3	96.3
206	27.9	0.0	54.6

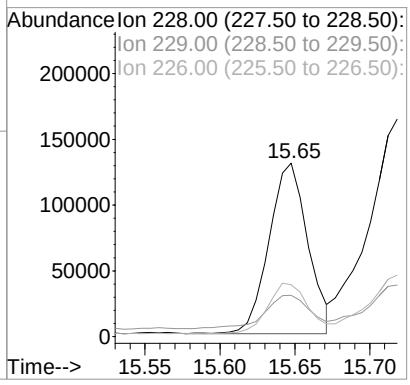




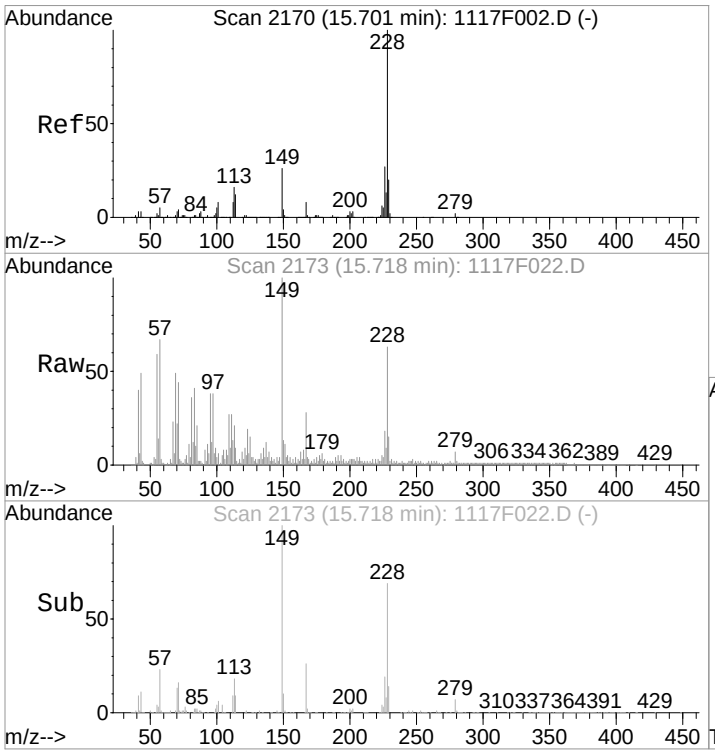
#74
Benz(a)anthracene
Concen: 798.43 ng/ml
RT: 15.65 min Scan# 2161
Delta R.T. 0.05 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:228 Resp: 234047

Ion	Ratio	Lower	Upper
228	100		
229	19.4	0.0	48.9
226	28.6	0.0	55.1



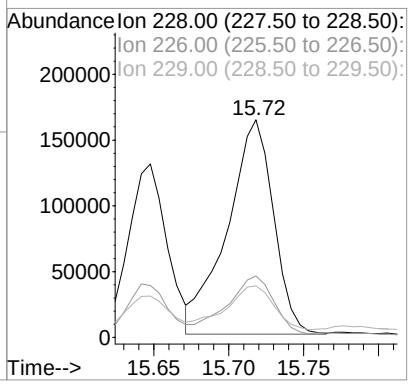
1st 12/07/18
2nd 12/10/18

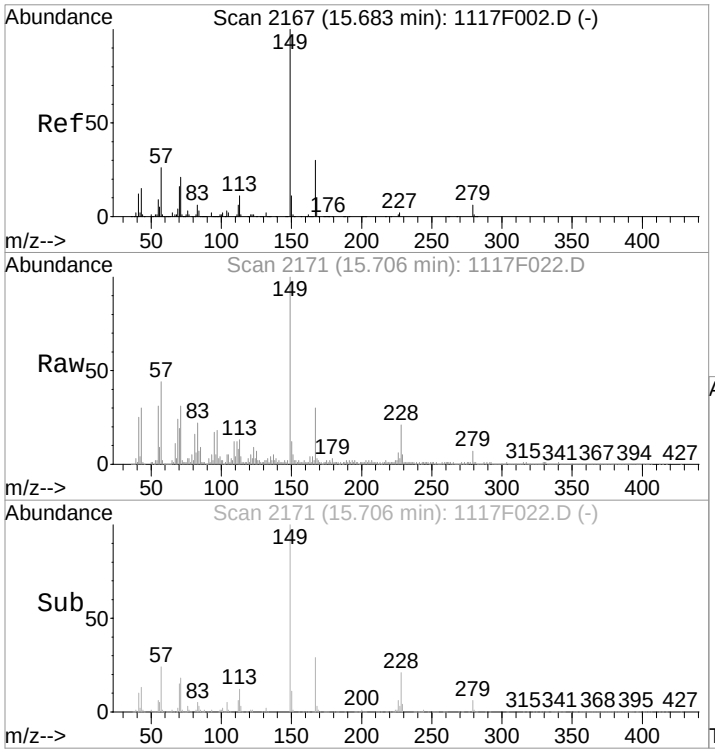


#75
Chrysene
Concen: 1267.36 ng/ml
RT: 15.72 min Scan# 2173
Delta R.T. 0.05 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:228 Resp: 351379

Ion	Ratio	Lower	Upper
228	100		
226	26.5	0.0	57.6
229	20.2	0.0	49.3

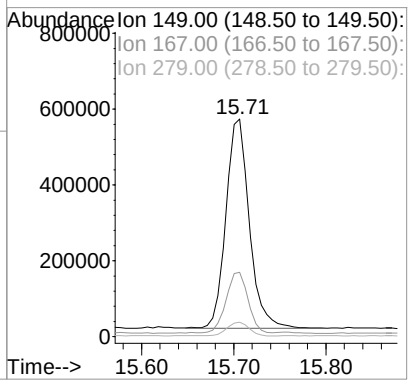


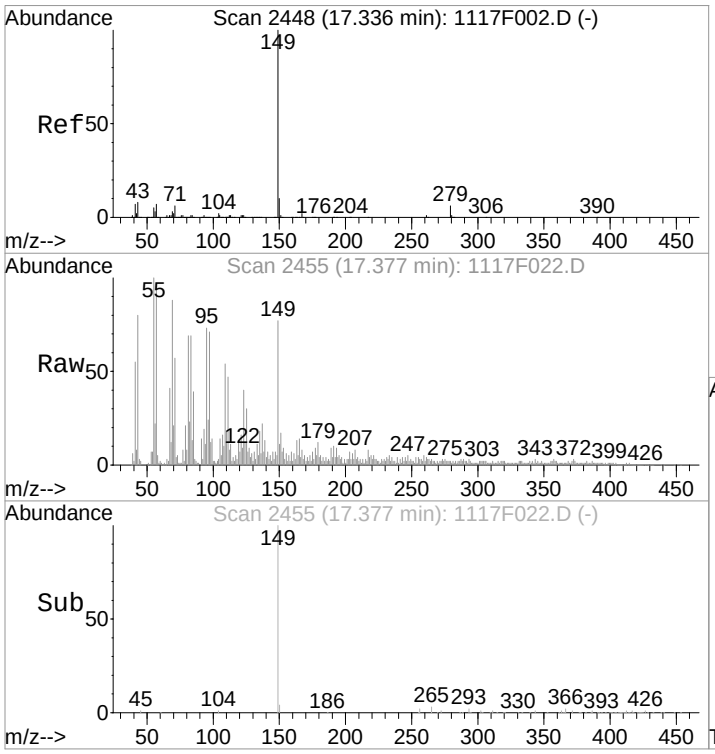


#76
Bis(2-ethylhexyl) Phthalate
Concen: 5033.84 ng/ml
RT: 15.71 min Scan# 2171
Delta R.T. 0.05 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:149 Resp: 974343

Ion	Ratio	Lower	Upper
149	100		
167	29.1	0.0	59.7
279	6.4	0.0	36.4

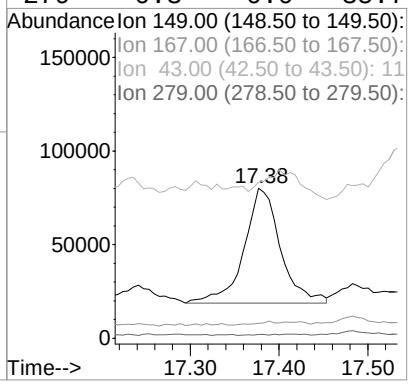


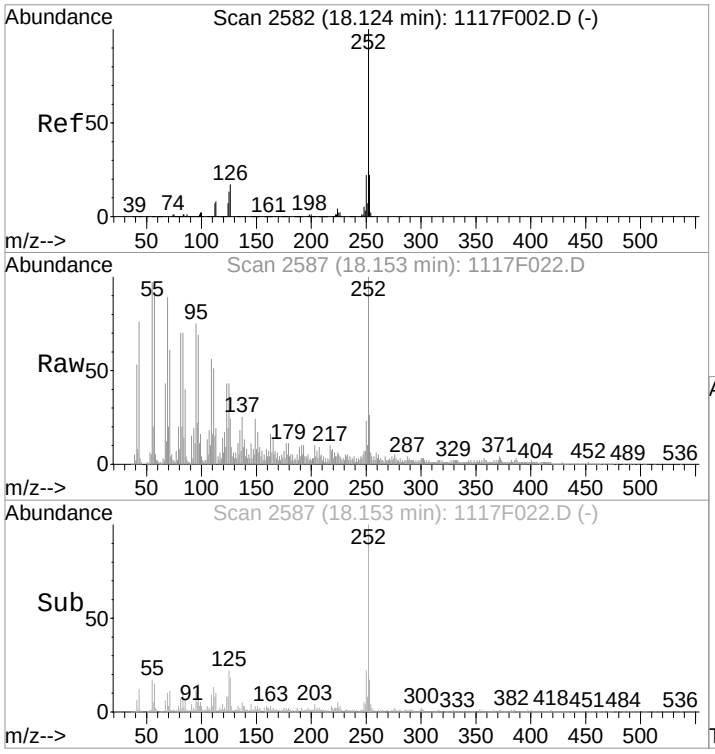


#78
Di-n-octyl Phthalate
Concen: 672.45 ng/ml
RT: 17.38 min Scan# 2455
Delta R.T. 0.08 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:149 Resp: 175610

Ion	Ratio	Lower	Upper
149	100		
167	1.9	0.0	31.5
43	15.0	0.0	38.6
279	0.3	0.0	35.7

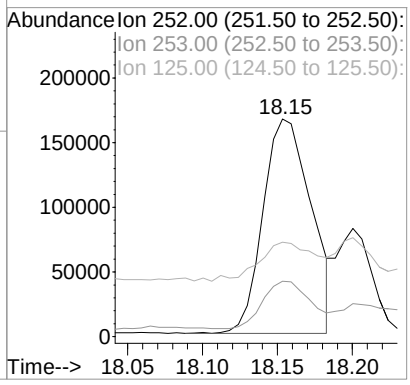




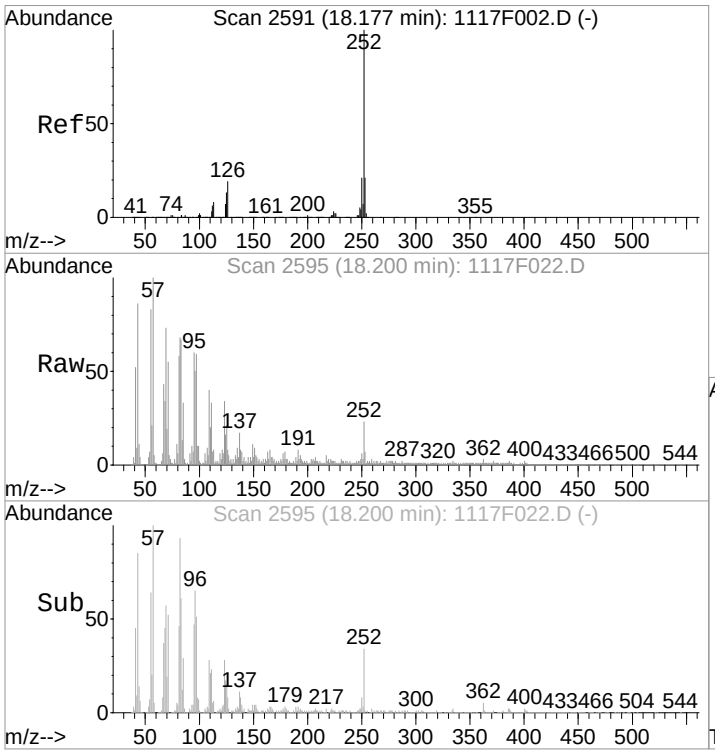
#79
Benzo(b)fluoranthene
Concen: 1511.84 ng/ml
RT: 18.15 min Scan# 2587
Delta R.T. 0.06 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:252 Resp: 370391

Ion	Ratio	Lower	Upper
252	100		
253	21.9	0.0	51.6
125	16.8	0.0	43.2



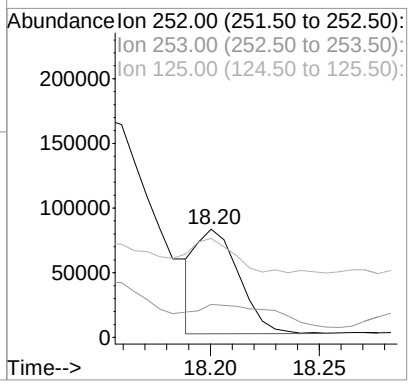
1st 12/07/18
2nd 12/10/18

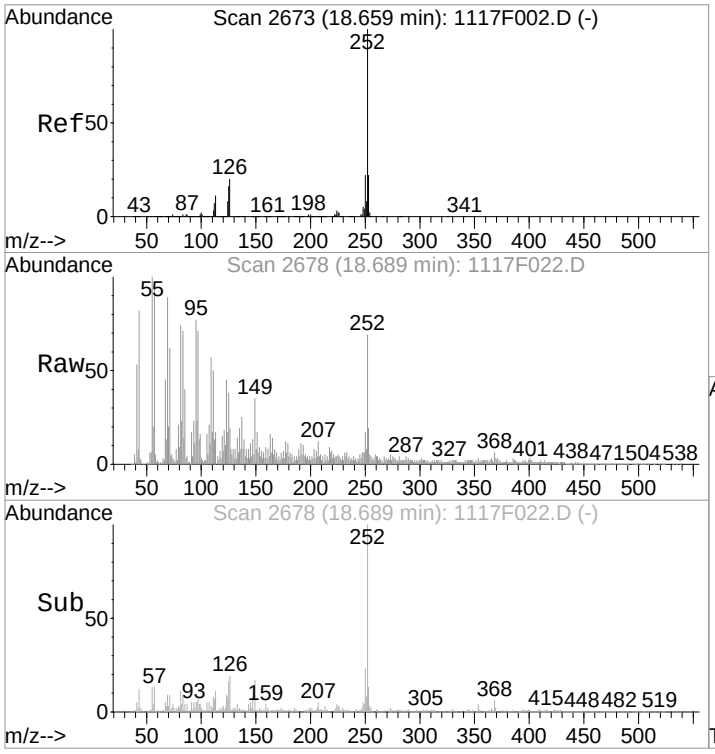


#80
Benzo(k)fluoranthene
Concen: 464.41 ng/ml
RT: 18.20 min Scan# 2595
Delta R.T. 0.06 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:252 Resp: 111931

Ion	Ratio	Lower	Upper
252	100		
253	21.8	0.0	51.5
125	33.2	0.0	43.3

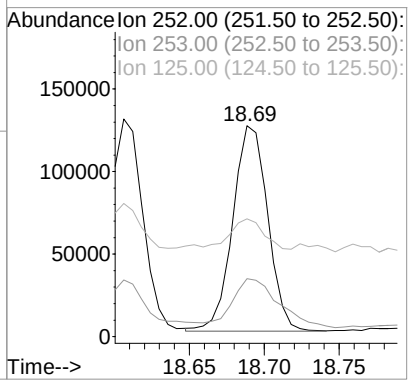




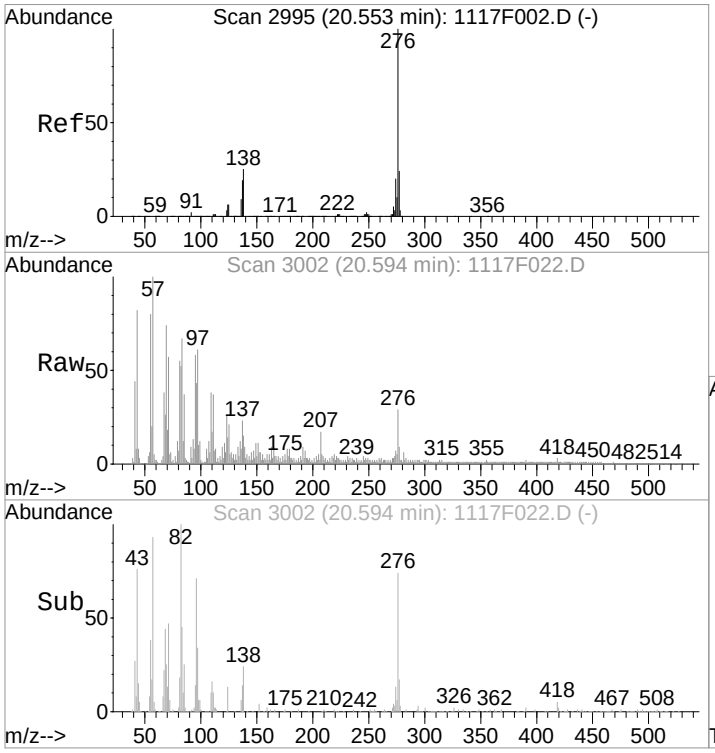
#81
Benzo(a)pyrene
Concen: 904.55 ng/ml
RT: 18.69 min Scan# 2678
Delta R.T. 0.06 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:252 Resp: 202430

Ion	Ratio	Lower	Upper
252	100		
253	23.1	0.0	52.0
125	14.2	0.0	45.4



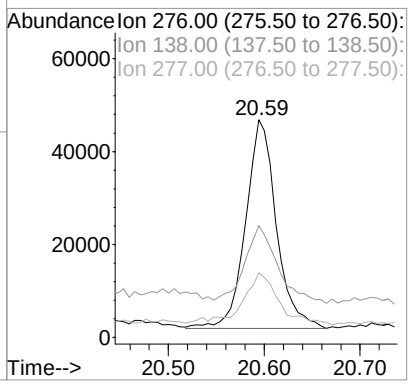
1st 12/07/18
2nd 12/10/18

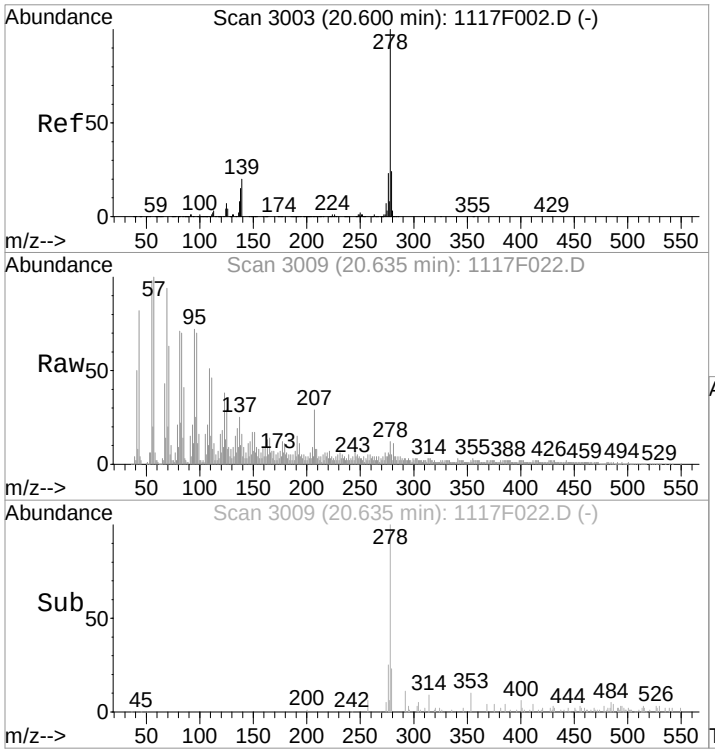


#82
Indeno(1,2,3-cd)pyrene
Concen: 587.07 ng/ml
RT: 20.59 min Scan# 3002
Delta R.T. 0.08 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:276 Resp: 100307

Ion	Ratio	Lower	Upper
276	100		
138	37.2	0.0	53.7
277	24.2	0.0	53.2

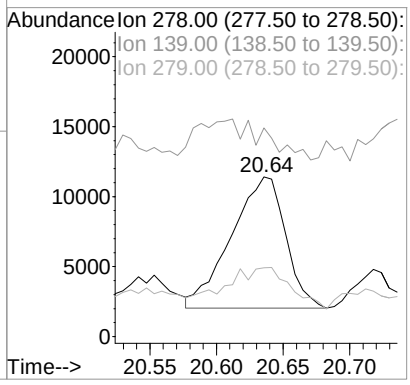




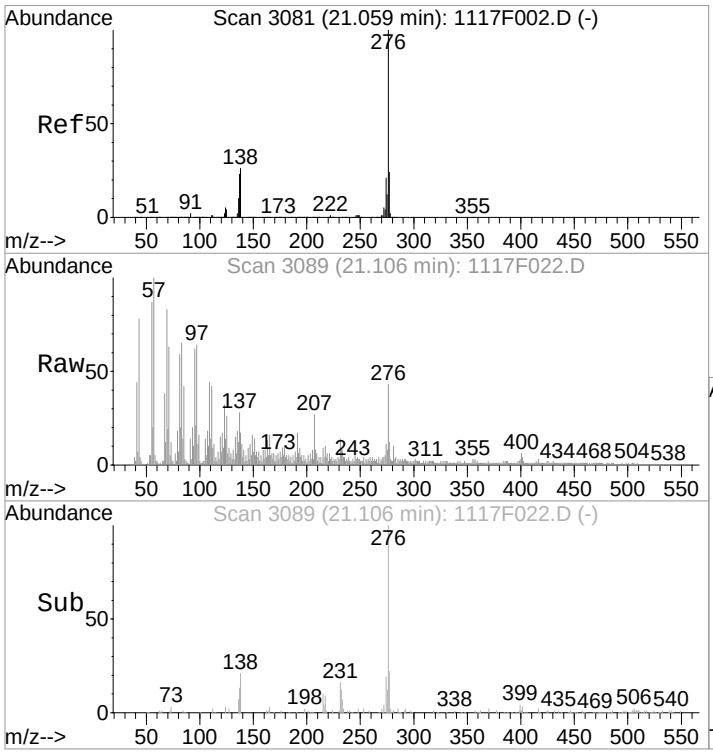
#83
Dibenz(a,h)anthracene
Concen: 220.37 ng/ml
RT: 20.64 min Scan# 3009
Delta R.T. 0.08 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:278 Resp: 26621

Ion	Ratio	Lower	Upper
278	100		
139	14.6	0.0	51.0
279	31.4	0.0	54.3



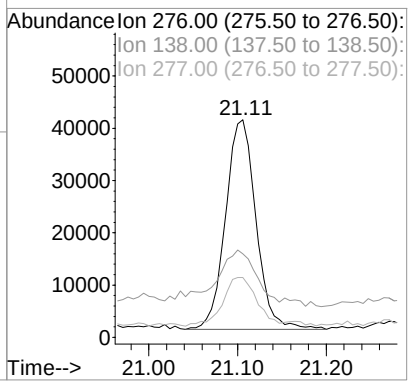
1st 12/07/18
2nd 12/10/18



#84
Benzo(g,h,i)perylene
Concen: 527.87 ng/ml
RT: 21.11 min Scan# 3089
Delta R.T. 0.10 min
Lab File: 1117F022.D
Acq: 18 Nov 2018 1:31 am

Tgt Ion:276 Resp: 95768

Ion	Ratio	Lower	Upper
276	100		
138	24.9	0.0	56.8
277	23.2	0.0	53.6



Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F022.D Vial: 69
Acq On : 18 Nov 2018 1:31 am Operator: CConover
Sample : K1810302-027 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 11:53:31 2018 Quant Results File: 110618_8270LL.RES

Quant Method : J:\MS29\M...\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.07	152	61448	1000.00	ng/ml	0.02
21) Naphthalene-d8	6.37	136	257394	1000.00	ng/ml	0.02
35) Acenaphthene-d10	9.79	164	125445	1000.00	ng/ml	0.04
59) Phenanthrene-d10	12.11	188	237477	1000.00	ng/ml	0.02
69) Chrysene-d12	15.67	240	227589	1000.00	ng/ml	0.05
77) Perylene-d12	18.78	264	205523	1000.00	ng/ml	0.06
System Monitoring Compounds						
4) 2-Fluorophenol	3.98	112	114373	1645.31	ng/ml	0.01
Spiked Amount 3750.000	Range 38 - 110		Recovery = 43.87%			
6) Phenol-d6	4.72	99	194907	2062.76	ng/ml	0.02
Spiked Amount 3750.000	Range 43 - 128		Recovery = 55.01%			
19) Nitrobenzene-d5	5.57	82	111377	1408.71	ng/ml	0.02
Spiked Amount 2500.000	Range 30 - 139		Recovery = 56.35%			
39) 2-Fluorobiphenyl	8.30	172	280444	1465.90	ng/ml	0.04
Spiked Amount 2500.000	Range 37 - 126		Recovery = 58.64%			
60) 2,4,6-Tribromophenol	11.14	330	73980	2304.77	ng/ml	0.04
Spiked Amount 3750.000	Range 38 - 157		Recovery = 61.46%			
71) Terphenyl-d14	14.02	244	350765	1530.30	ng/ml	0.03
Spiked Amount 2500.000	Range 54 - 158		Recovery = 61.21%			
Target Compounds						Qvalue
7) Phenol	4.74	94	5548	53.44	ng/ml	65
11) 1,4-Dichlorobenzene	5.08	146	2172	21.25	ng/ml	87
12) 1,2-Dichlorobenzene	5.22	146	518m	5.33	ng/ml	
13) Benzyl Alcohol	5.18	108	3286	61.09	ng/ml	90
18) 4-Methylphenol	5.41	107	7663	75.90	ng/ml	88
22) Isophorone	5.82	82	13240	77.92	ng/ml	92
27) Benzoic Acid	6.00	122	11946	751.77	ng/ml	89
29) Naphthalene	6.40	128	43591	155.84	ng/ml	98
33) 2-Methylnaphthalene	7.48	141	10462	64.05	ng/ml	93
34) 1-Methylnaphthalene	7.68	141	6424	42.98	ng/ml	85
42) Acenaphthylene	9.51	152	23474	89.03	ng/ml	98
43) Dimethyl Phthalate	9.30	163	5683	30.93	ng/ml	78
45) Acenaphthene	9.85	154	19795	119.44	ng/ml	90
48) Dibenzofuran	10.17	168	16783	82.38	ng/ml	91
52) Fluorene	10.76	166	21052	110.12	ng/ml	92
54) Diethyl Phthalate	10.64	149	3507m	20.29	ng/ml	
57) Diphenylamine	10.98	169	4945	38.96	ng/ml	87
63) Pentachlorophenol	11.87	266	5712	410.28	ng/ml	90
64) Phenanthrene	12.14	178	230557	799.38	ng/ml	98
65) Anthracene	12.21	178	66169	235.13	ng/ml	98
66) Carbazole	12.43	167	17088	76.73	ng/ml	98
67) Di-n-butyl Phthalate	12.87	149	111725	396.11	ng/ml	98
68) Fluoranthene	13.56	202	619558	2028.19	ng/ml	99
70) Pyrene	13.82	202	643322	1806.10	ng/ml	99
72) Butyl Benzyl Phthalate	14.69	149	37188	298.79	ng/ml	96
74) Benz(a)anthracene	15.65	228	234047	798.43	ng/ml	96
75) Chrysene	15.72	228	351379	1267.36	ng/ml	98
76) Bis(2-ethylhexyl) Phthalat	15.71	149	974343	5033.84	ng/ml	99
78) Di-n-octyl Phthalate	17.38	149	175610	672.45	ng/ml	84
79) Benzo(b)fluoranthene	18.15	252	370391	1511.84	ng/ml	96
80) Benzo(k)fluoranthene	18.20	252	111931	464.41	ng/ml	81
81) Benzo(a)pyrene	18.69	252	202430	904.55	ng/ml	97
82) Indeno(1,2,3-cd)pyrene	20.59	276	100307	587.07	ng/ml	85
83) Dibenz(a,h)anthracene	20.64	278	26621	220.37	ng/ml	86
84) Benzo(g,h,i)perylene	21.11	276	95768	527.87	ng/ml	98

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

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F023.D\
Lab ID: K1810302-028
RunType: N/A
Matrix: Sediment

Date Acquired: 11/18/18 01:59:00
Batch ID: 615546
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 12/7/18 15:58
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F023.D\	**Instrument:**	K-MS-29
Acqu Date:	11/18/18 01:59:00	**Vial:**	23
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-028	**Raw Units:**	ng/mL

Bottle ID:	K1810302-028.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615546	**Prep Lot:**	324899	**Report Group:**	K1810302
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.71	+0.06	240665	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	14.04	+0.03	315857	1303.14	52	30 - 102	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.74	+0.06	266593	1302.49	120		Y

Prep Amount:	40.137 g	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	52.00

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

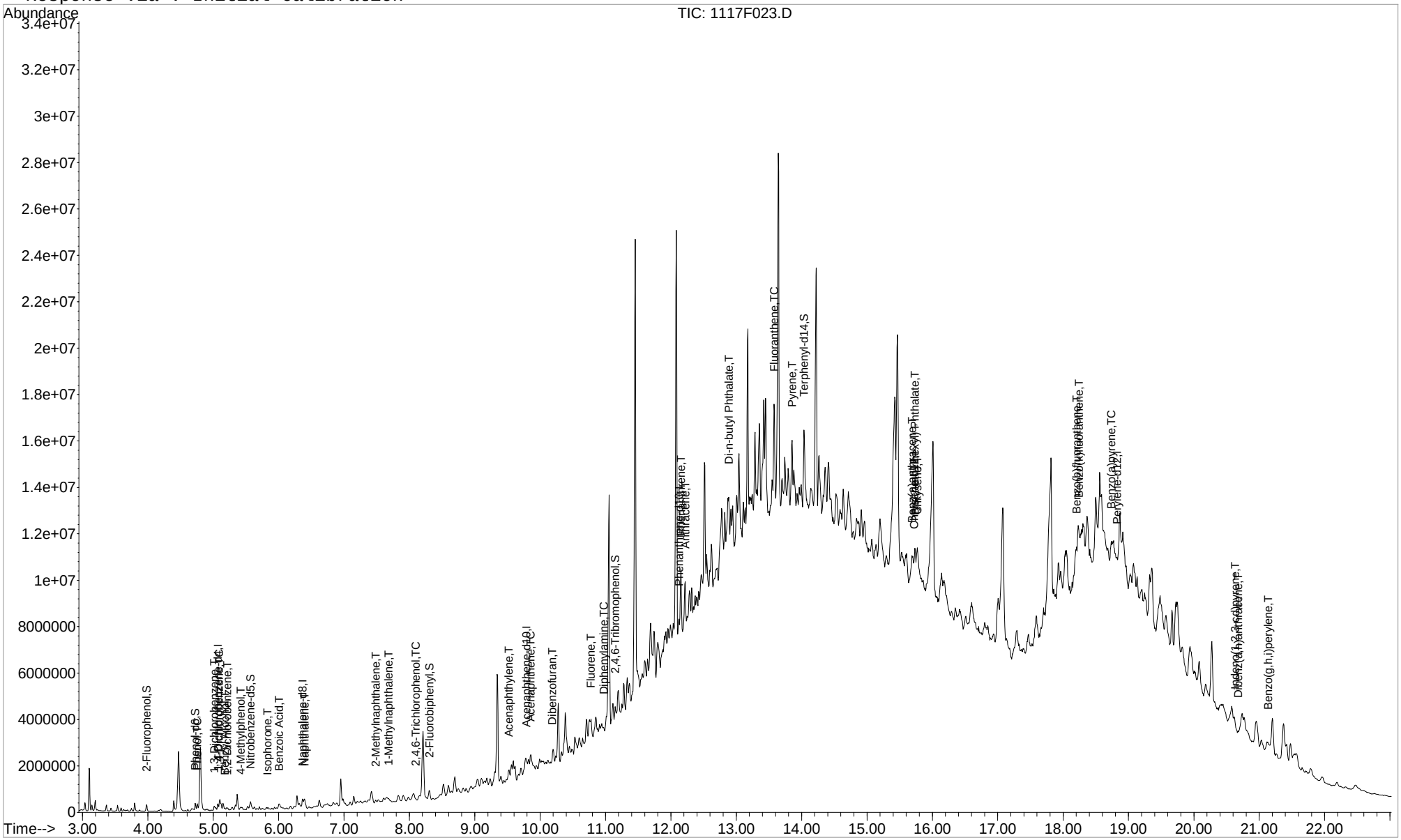
Printed: 12/7/18 15:58
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Quantitation Report (QT Reviewed)

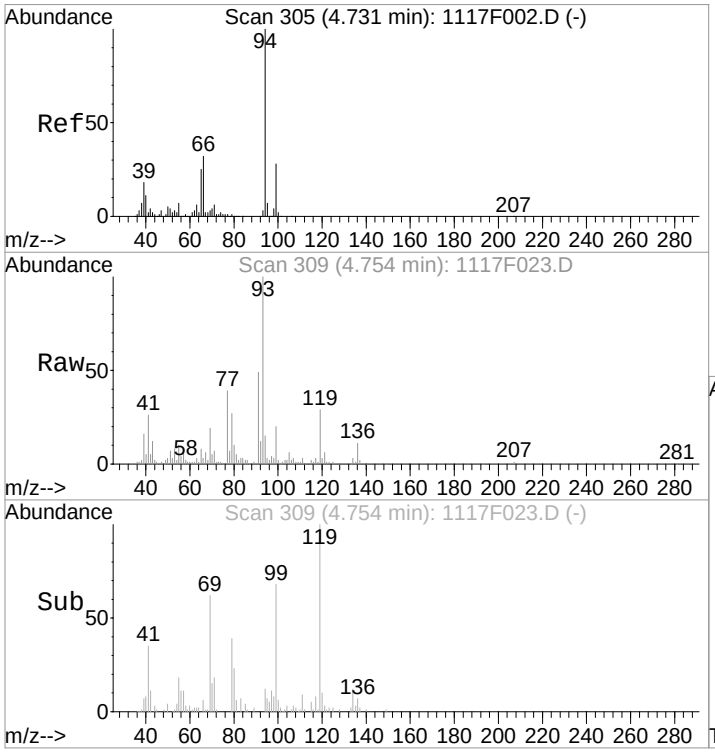
1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F023.D Vial: 70
Acq On : 18 Nov 2018 1:59 am Operator: CConover
Sample : K1810302-028 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 15:09 2018 Quant Results File: 110618_8270LL.RES

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration



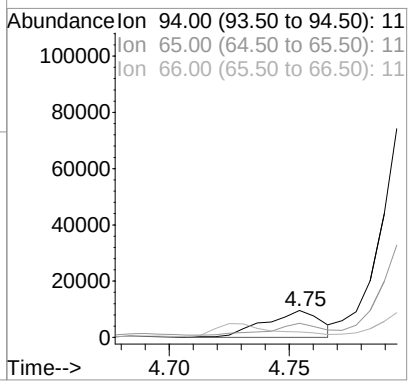
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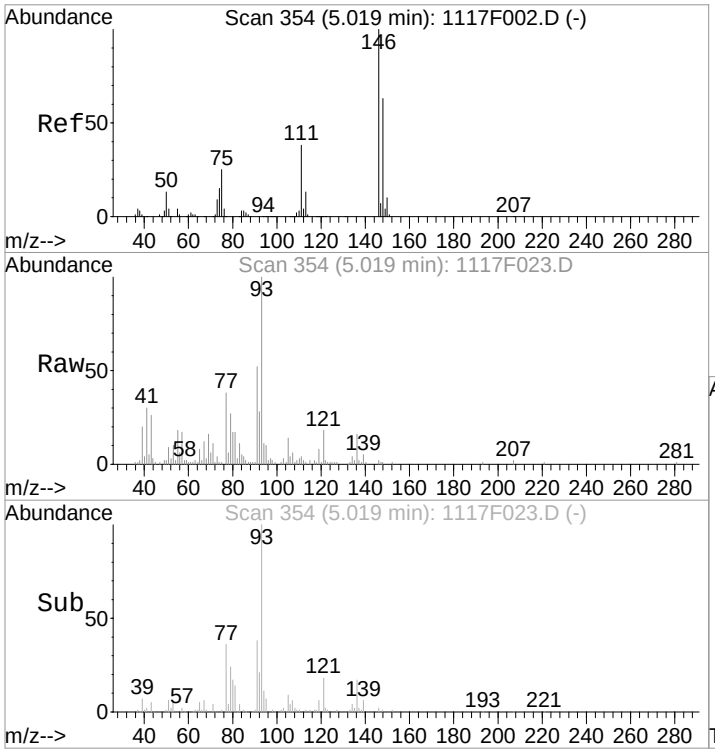


#7
Phenol
Concen: 151.22 ng/ml m
RT: 4.75 min Scan# 309
Delta R.T. 0.04 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion: 94 Resp: 15531

Ion	Ratio	Lower	Upper
94	100		
65	53.0	0.0	53.9
66	20.7	0.9	60.9

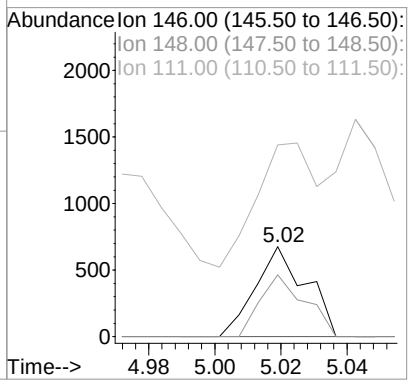




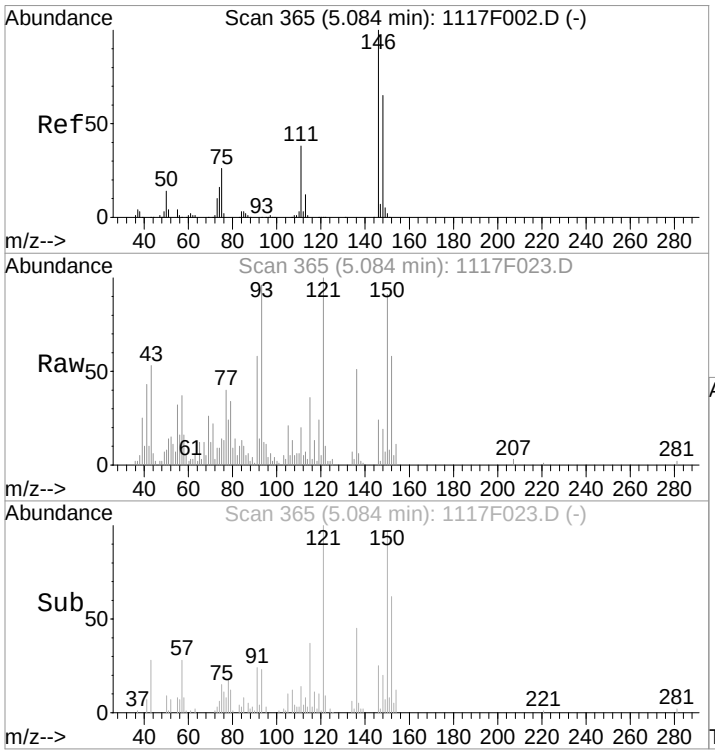
#10
1,3-Dichlorobenzene
Concen: 7.35 ng/ml m
RT: 5.02 min Scan# 354
Delta R.T. 0.02 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:146 Resp: 720

Ion	Ratio	Lower	Upper
146	100		
148	68.7	33.2	93.2
111	213.5	9.7	69.7#



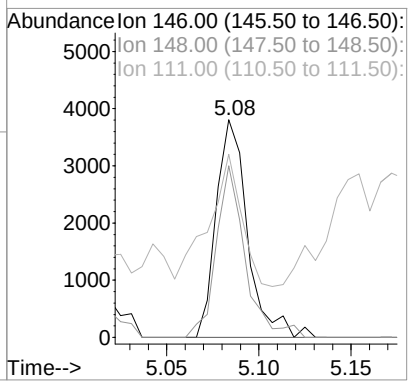
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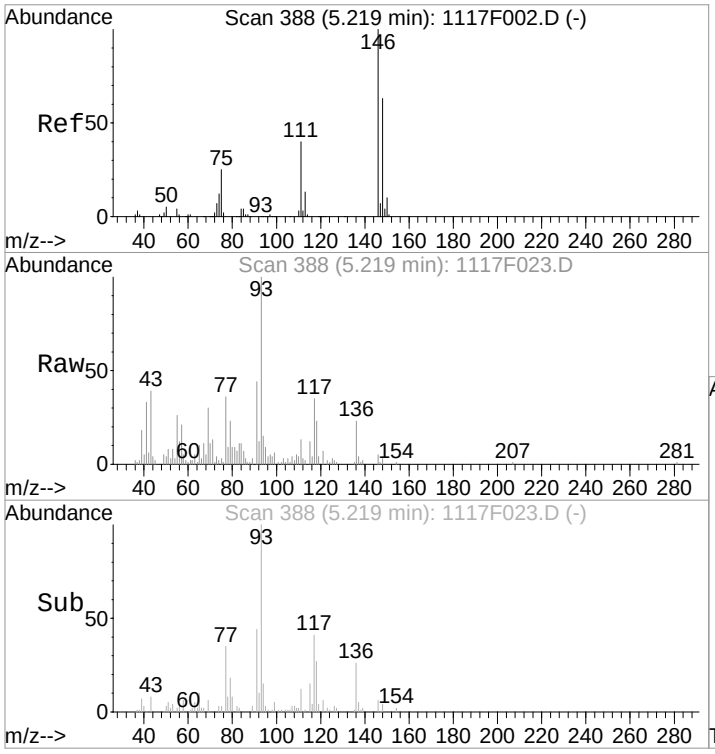


#11
1,4-Dichlorobenzene
Concen: 44.88 ng/ml
RT: 5.08 min Scan# 365
Delta R.T. 0.02 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:146 Resp: 4538

Ion	Ratio	Lower	Upper
146	100		
148	78.8	33.3	93.3
111	46.3	8.5	68.5

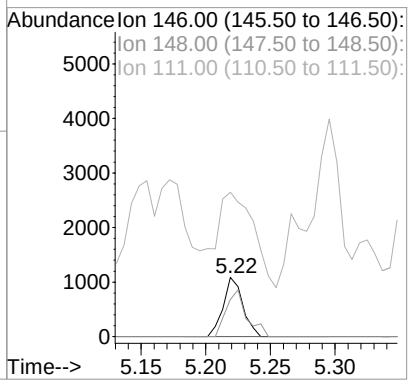




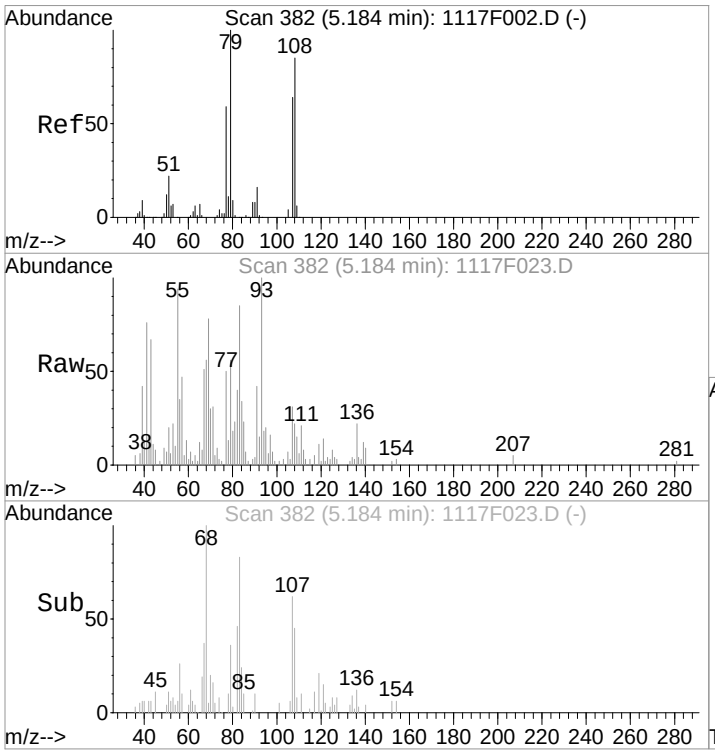
#12
1,2-Dichlorobenzene
Concen: 11.83 ng/ml m
RT: 5.22 min Scan# 388
Delta R.T. 0.02 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:146 Resp: 1138

Ion	Ratio	Lower	Upper
146	100		
148	62.8	31.9	91.9
111	243.5	9.8	69.8#



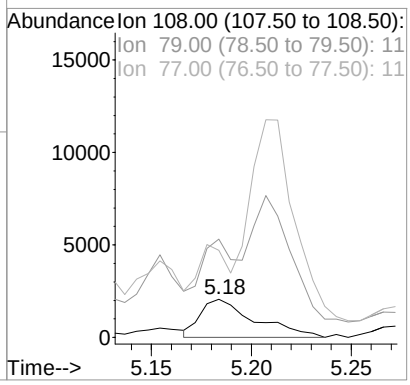
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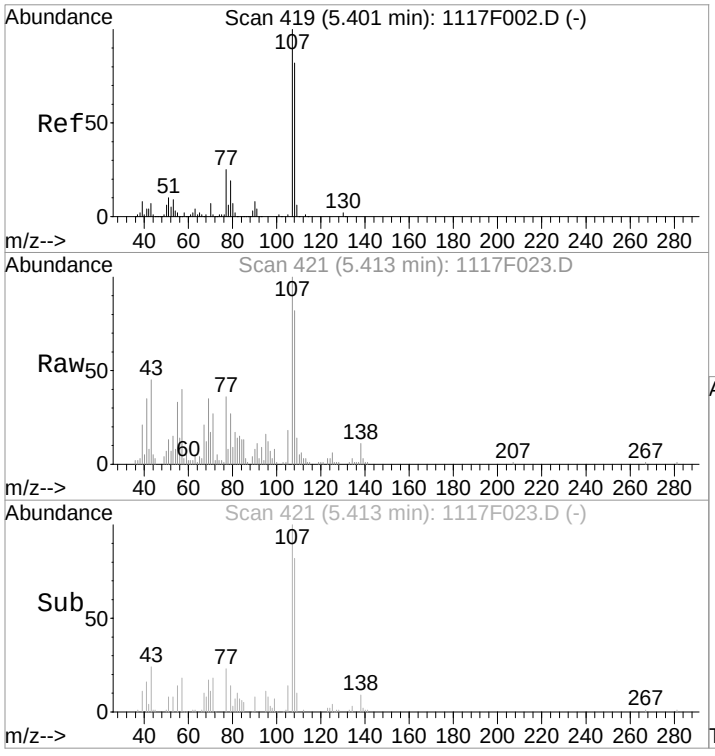


#13
Benzyl Alcohol
Concen: 73.60 ng/ml m
RT: 5.18 min Scan# 382
Delta R.T. 0.02 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:108 Resp: 3916

Ion	Ratio	Lower	Upper
108	100		
79	258.6	85.3	145.3#
77	228.7	38.7	98.7#

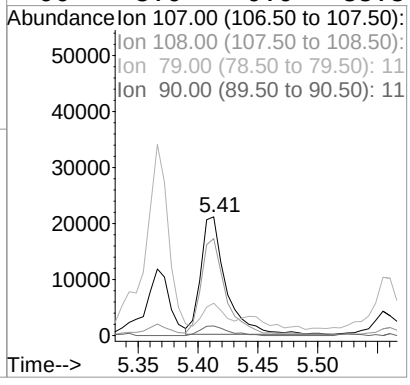




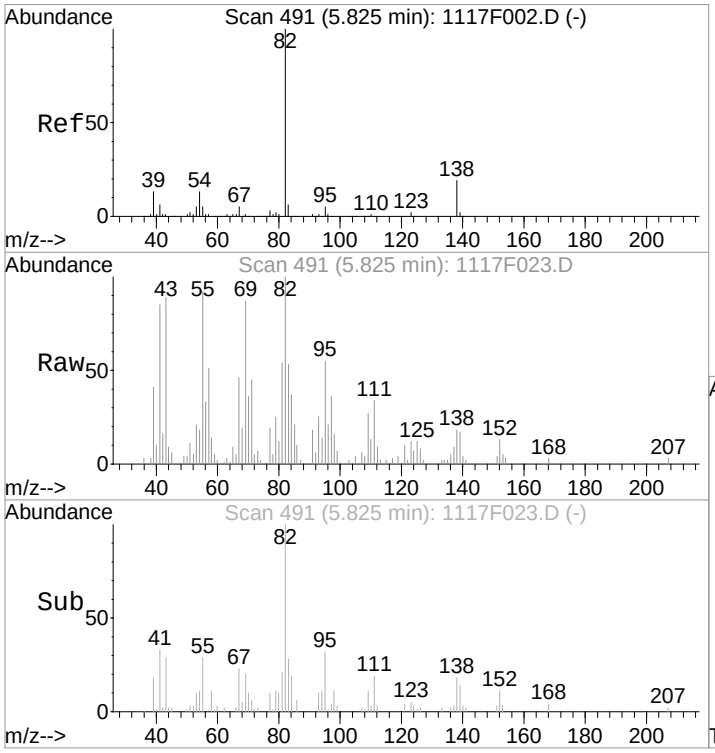
#18
4-Methylphenol
Concen: 307.49 ng/ml
RT: 5.41 min Scan# 421
Delta R.T. 0.03 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:107 Resp: 30710

Ion	Ratio	Lower	Upper
107	100		
108	81.2	51.4	111.4
79	21.3	0.0	47.7
90	8.0	0.0	38.3



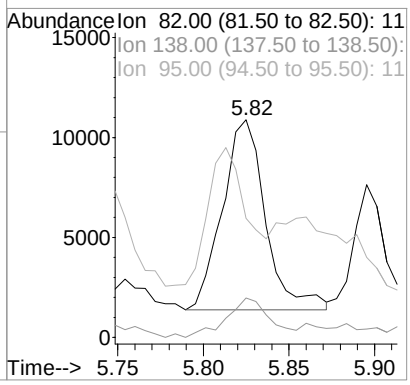
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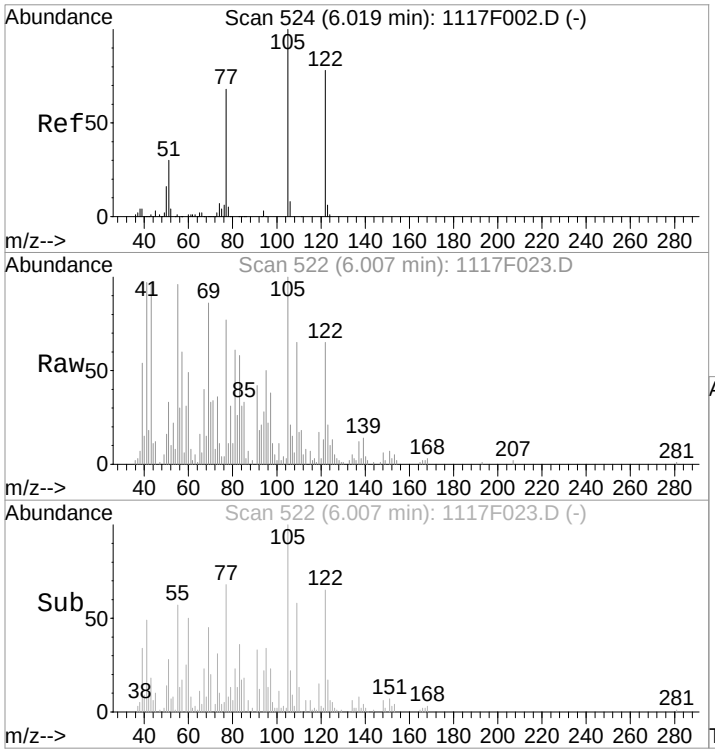


#22
Isophorone
Concen: 103.85 ng/ml
RT: 5.82 min Scan# 491
Delta R.T. 0.02 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion: 82 Resp: 16688

Ion	Ratio	Lower	Upper
82	100		
138	20.8	0.0	49.8
95	34.9	0.0	35.9

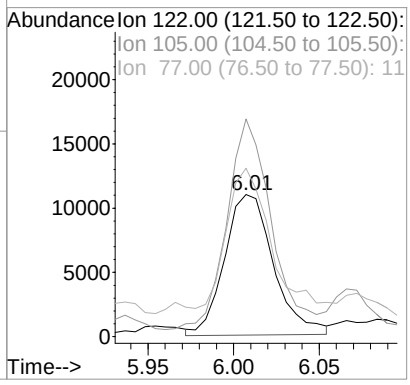




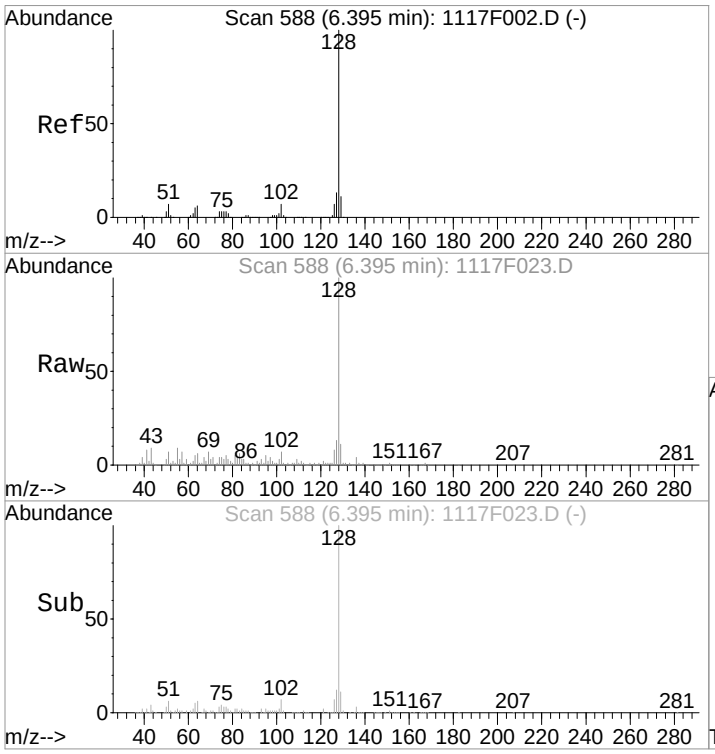
#27
Benzoic Acid
Concen: 1033.26 ng/ml
RT: 6.01 min Scan# 522
Delta R.T. 0.02 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:122 Resp: 21866

Ion	Ratio	Lower	Upper
122	100		
105	151.9	86.3	146.3#
77	103.2	54.7	114.7



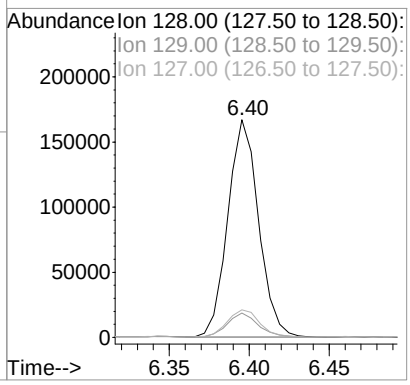
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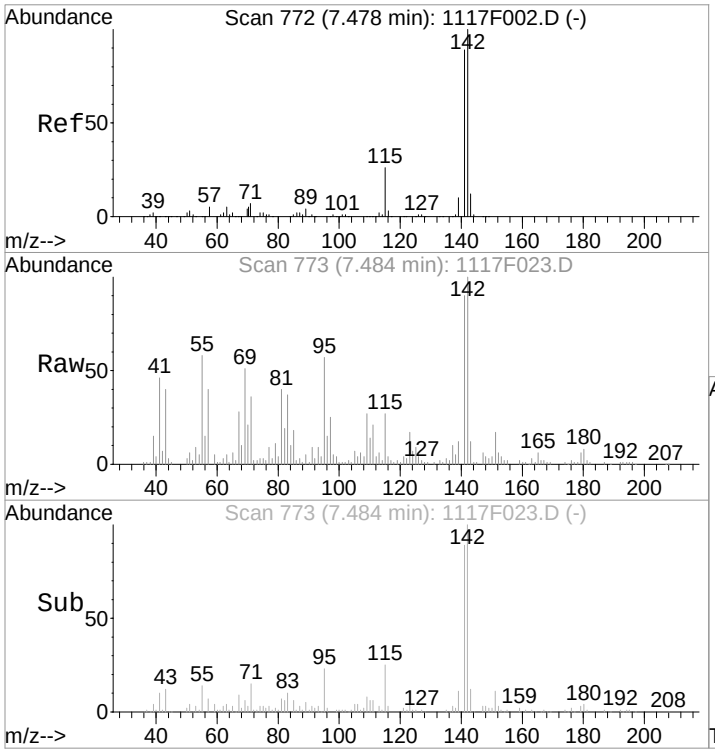


#29
Naphthalene
Concen: 844.56 ng/ml
RT: 6.40 min Scan# 588
Delta R.T. 0.02 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:128 Resp: 223405

Ion	Ratio	Lower	Upper
128	100		
129	11.0	0.0	41.0
127	12.5	0.0	43.2

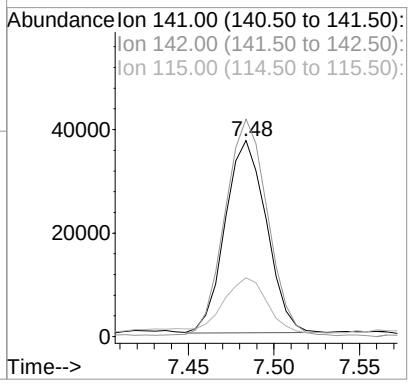




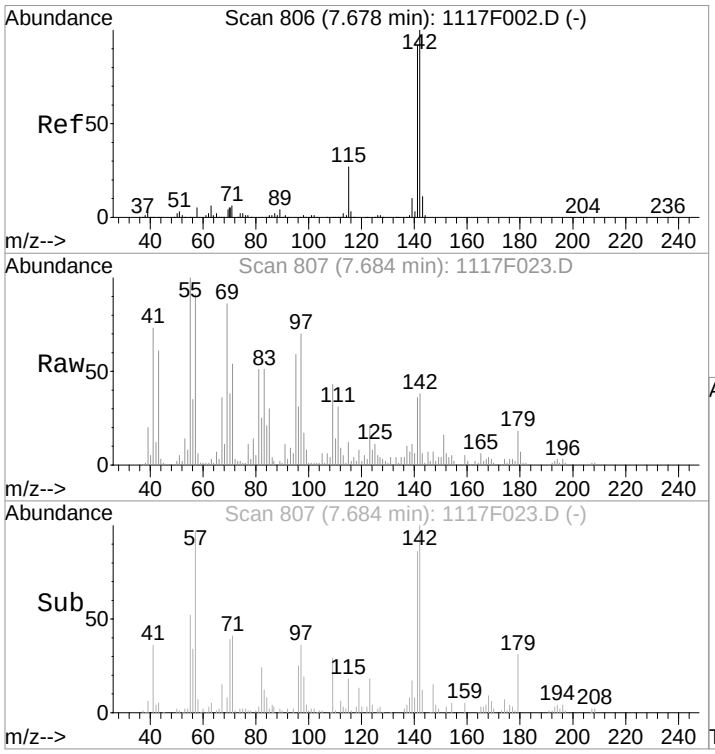
#33
2-Methylnaphthalene
Concen: 404.01 ng/ml
RT: 7.48 min Scan# 773
Delta R.T. 0.04 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:141 Resp: 62408

Ion	Ratio	Lower	Upper
141	100		
142	112.2	84.5	144.5
115	28.8	0.0	59.3



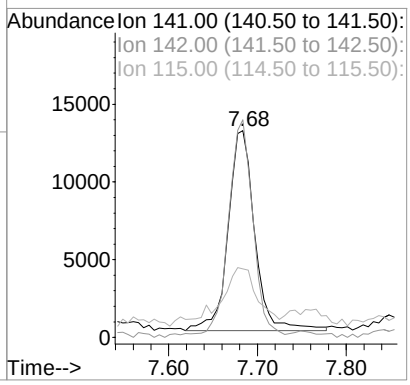
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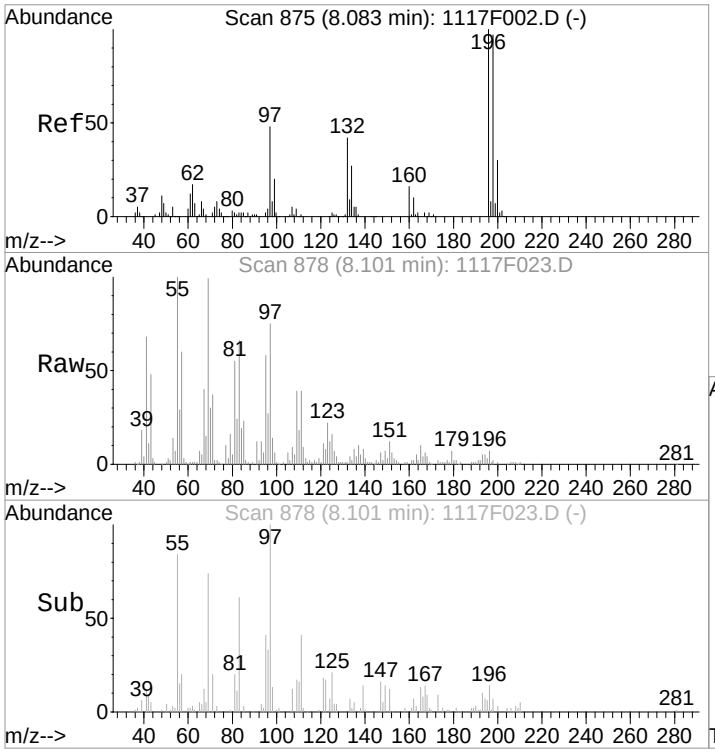


#34
1-Methylnaphthalene
Concen: 189.89 ng/ml
RT: 7.68 min Scan# 807
Delta R.T. 0.04 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:141 Resp: 26844

Ion	Ratio	Lower	Upper
141	100		
142	107.0	77.2	143.4
115	25.3	20.7	38.5

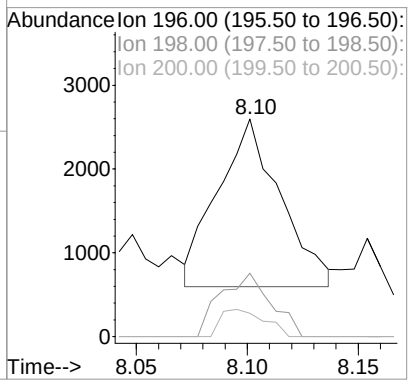




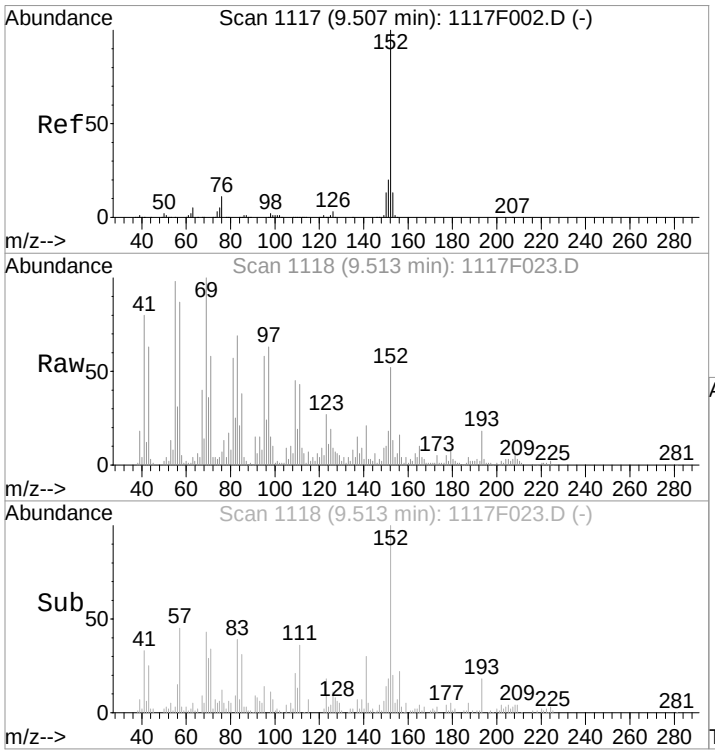
#37
2,4,6-Trichlorophenol
Concen: 77.94 ng/ml m
RT: 8.10 min Scan# 878
Delta R.T. 0.06 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:196 Resp: 3932

Ion	Ratio	Lower	Upper
196	100		
198	29.2	64.0	124.0#
200	10.8	1.2	61.2



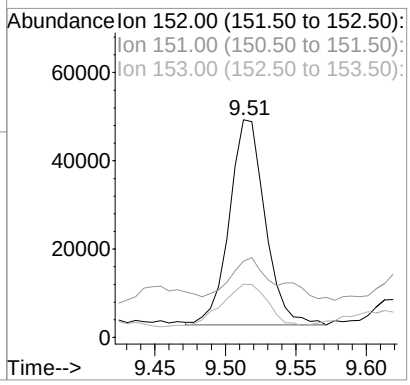
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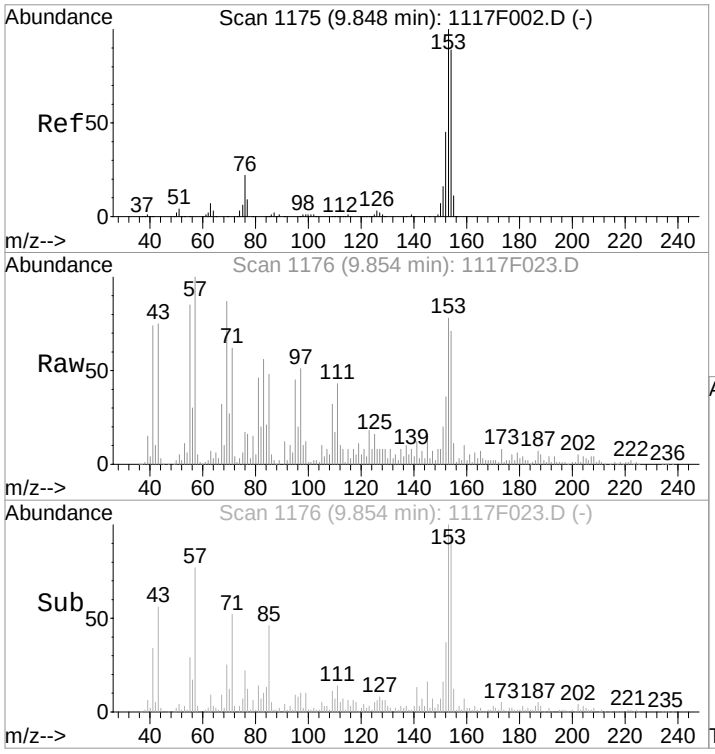


#42
Acenaphthylene
Concen: 294.75 ng/ml
RT: 9.51 min Scan# 1118
Delta R.T. 0.04 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:152 Resp: 81795

Ion	Ratio	Lower	Upper
152	100		
151	17.6	0.0	50.0
153	20.2	0.0	42.7

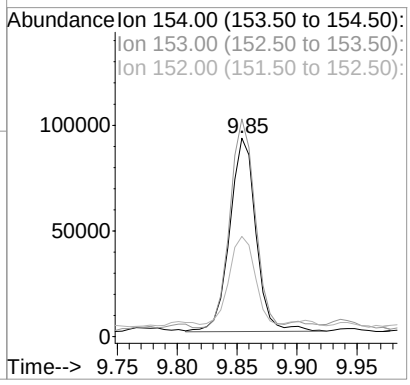




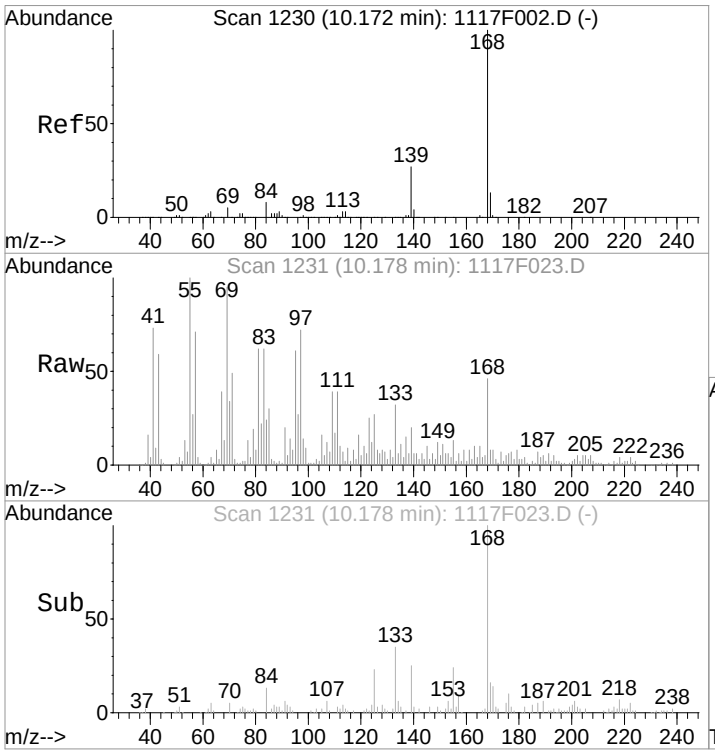
#45
Acenaphthene
Concen: 802.38 ng/ml
RT: 9.85 min Scan# 1176
Delta R.T. 0.04 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:154 Resp: 139958

Ion	Ratio	Lower	Upper
154	100		
153	106.3	81.7	141.7
152	46.2	20.5	80.5



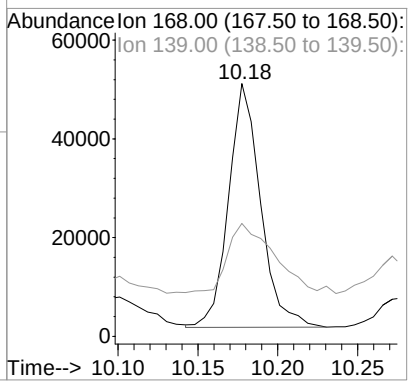
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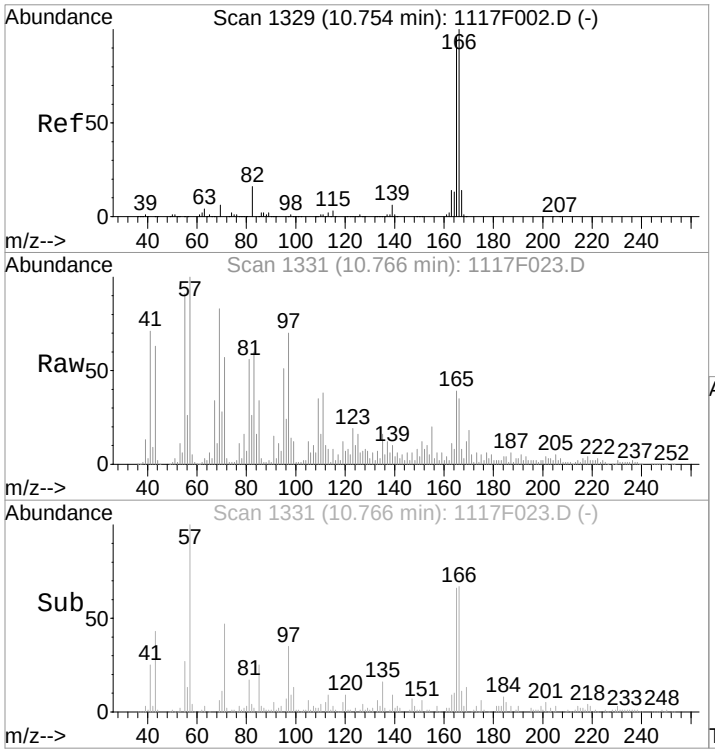


#48
Dibenzofuran
Concen: 321.72 ng/ml
RT: 10.18 min Scan# 1231
Delta R.T. 0.04 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:168 Resp: 68984

Ion	Ratio	Lower	Upper
168	100		
139	28.4	1.7	61.7

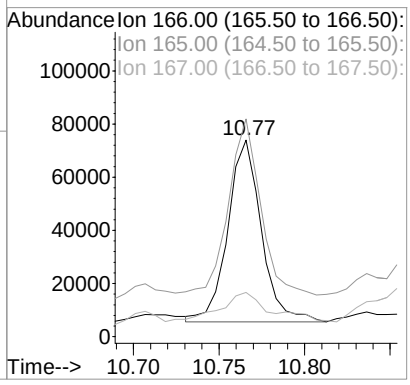




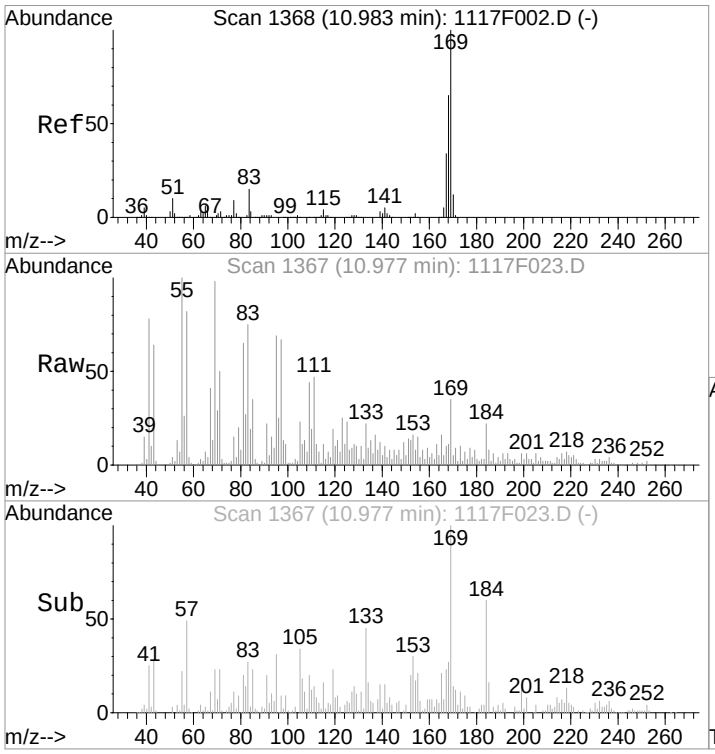
#52
Fluorene
Concen: 462.72 ng/ml
RT: 10.77 min Scan# 1331
Delta R.T. 0.04 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:166 Resp: 93099

Ion	Ratio	Lower	Upper
166	100		
165	96.5	65.9	125.9
167	15.4	0.0	42.7



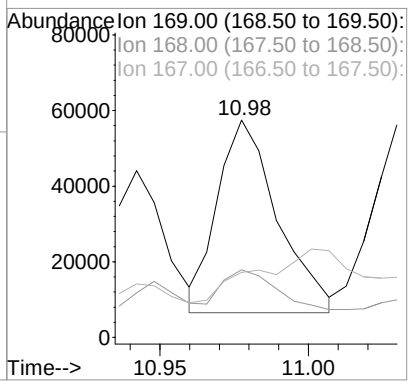
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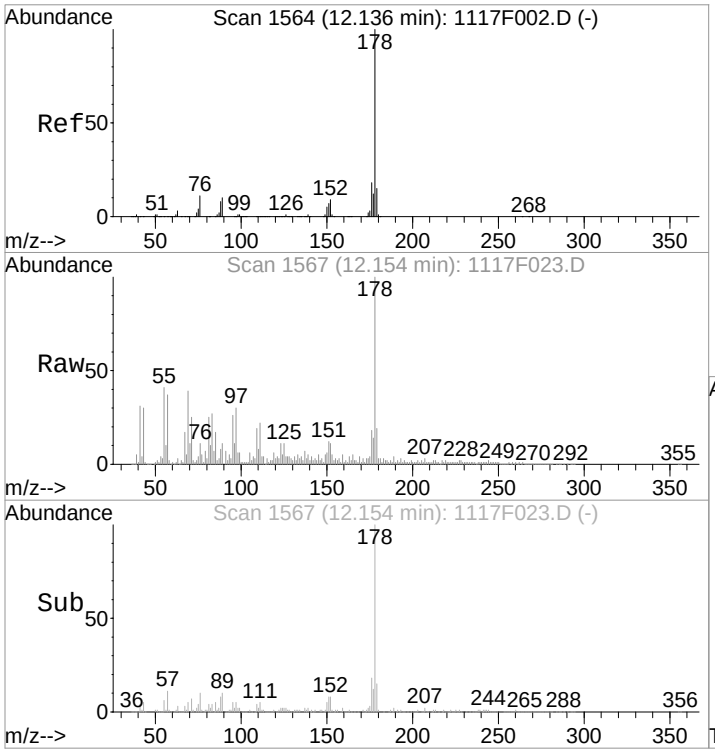


#57
Diphenylamine
Concen: 537.05 ng/ml m
RT: 10.98 min Scan# 1367
Delta R.T. 0.02 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:169 Resp: 71737

Ion	Ratio	Lower	Upper
169	100		
168	31.1	35.6	95.6#
167	29.9	3.3	63.3

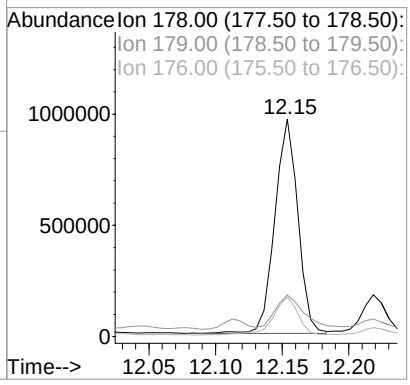


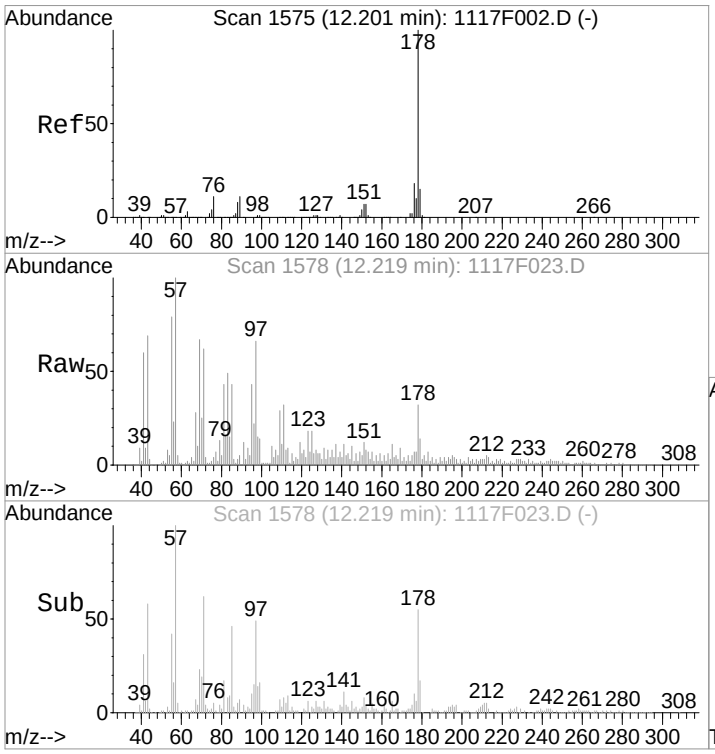


#64
Phenanthrene
Concen: 3802.27 ng/ml
RT: 12.15 min Scan# 1567
Delta R.T. 0.04 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:178 Resp: 1160853

Ion	Ratio	Lower	Upper
178	100		
179	15.3	0.0	45.6
176	17.6	0.0	47.8

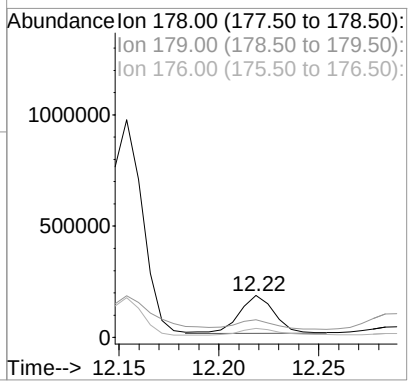


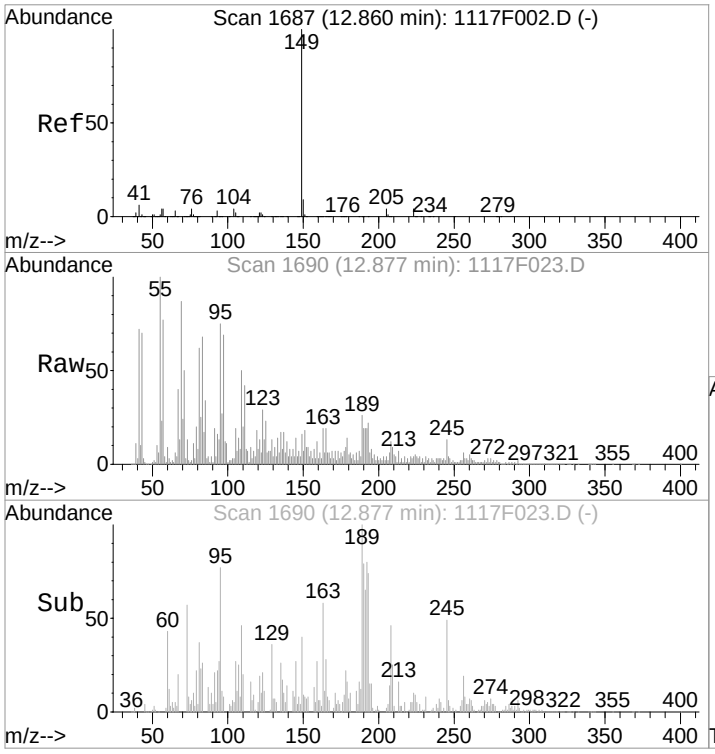


#65
Anthracene
Concen: 704.18 ng/ml
RT: 12.22 min Scan# 1578
Delta R.T. 0.04 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:178 Resp: 209774

Ion	Ratio	Lower	Upper
178	100		
179	25.4	0.0	44.6
176	18.2	0.0	47.4

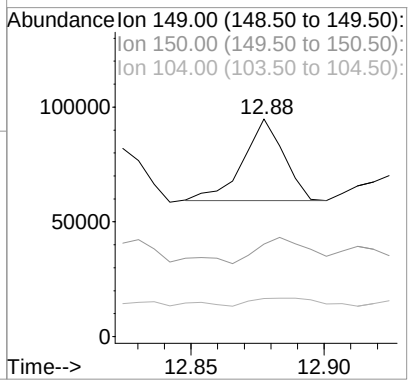




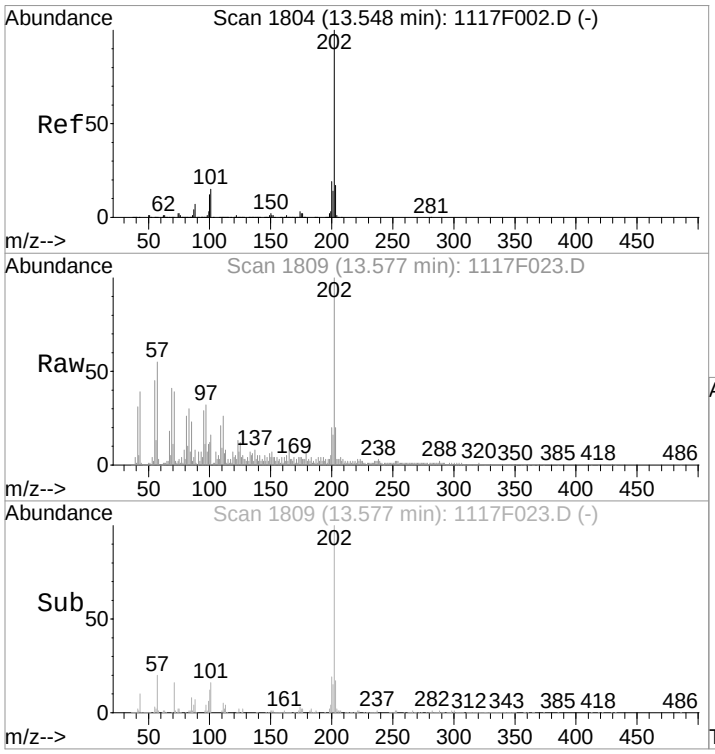
#67
Di-n-butyl Phthalate
Concen: 127.19 ng/ml
RT: 12.88 min Scan# 1690
Delta R.T. 0.04 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:149 Resp: 37976

Ion	Ratio	Lower	Upper
149	100		
150	17.2	0.0	39.1
104	6.5	0.0	33.8



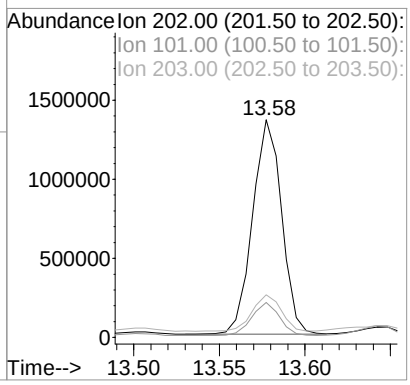
1st 12/07/18
2nd 12/10/18

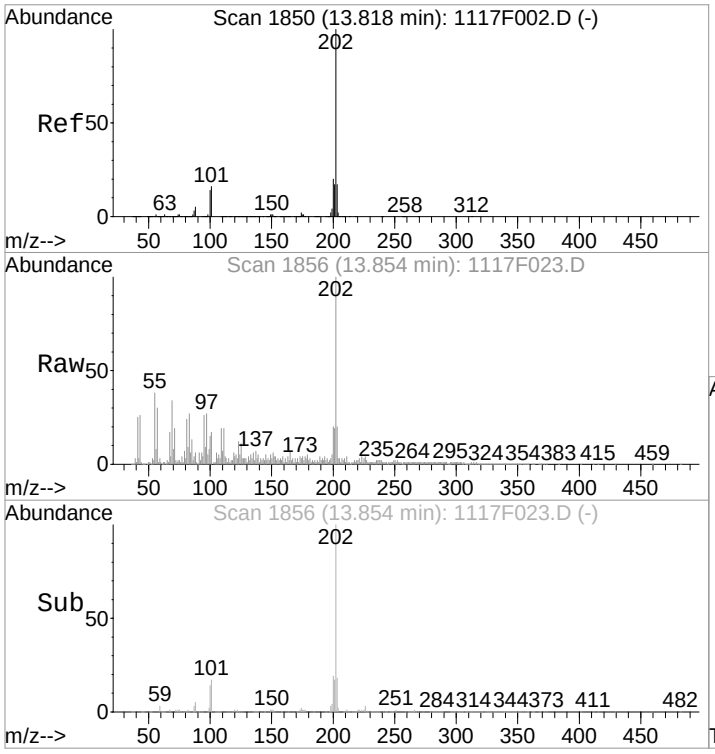


#68
Fluoranthene
Concen: 4949.81 ng/ml
RT: 13.58 min Scan# 1809
Delta R.T. 0.05 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:202 Resp: 1600568

Ion	Ratio	Lower	Upper
202	100		
101	15.5	0.0	43.9
203	16.9	0.0	46.8

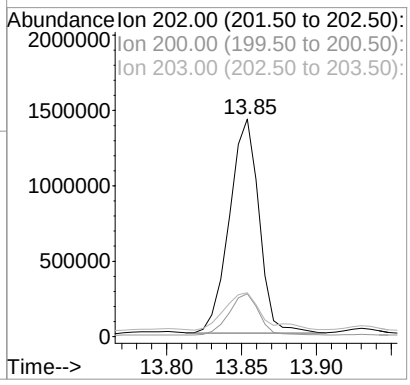




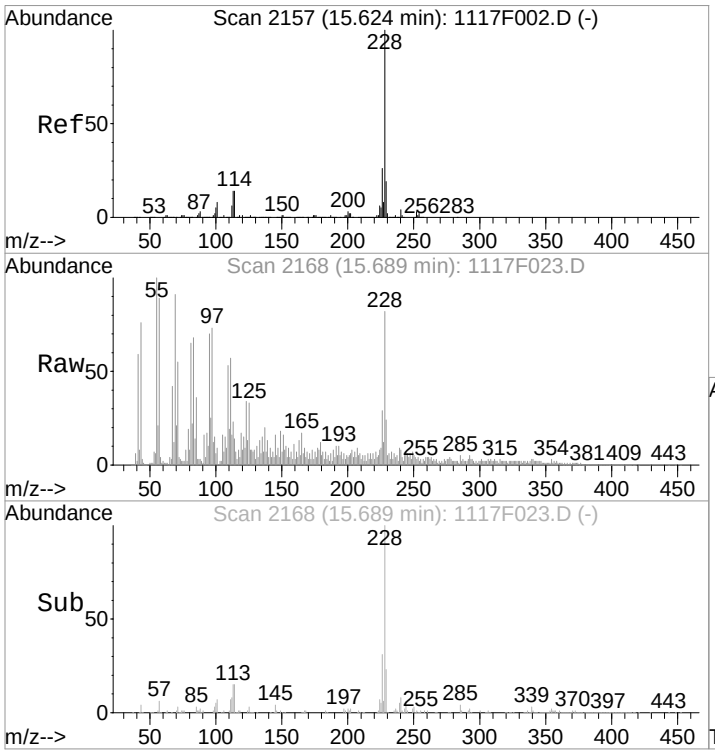
#70
Pyrene
Concen: 5217.86 ng/ml
RT: 13.85 min Scan# 1856
Delta R.T. 0.06 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:202 Resp: 1965351

Ion	Ratio	Lower	Upper
202	100		
200	19.4	0.0	49.6
203	17.4	0.0	47.0



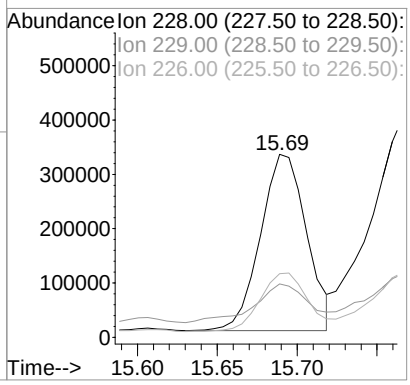
1st 12/07/18
2nd 12/10/18

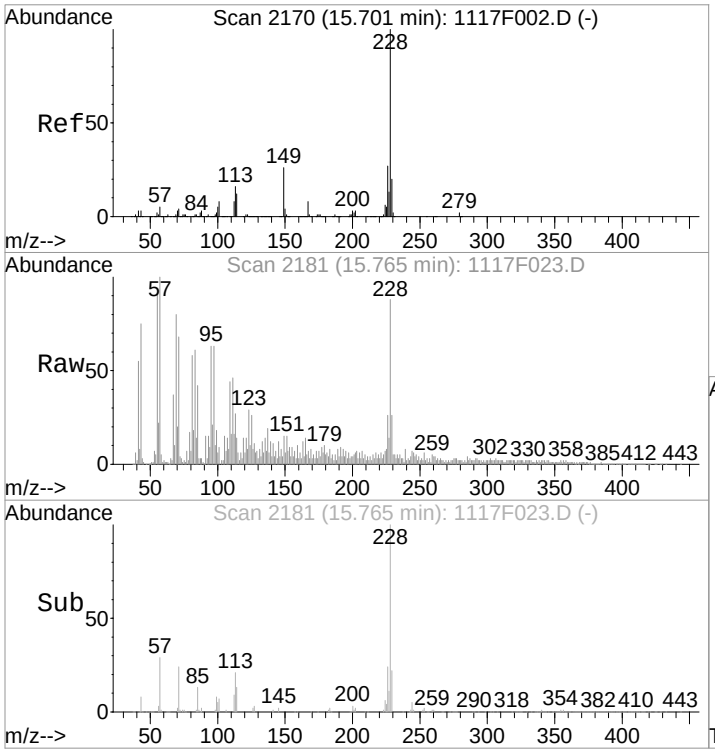


#74
Benz(a)anthracene
Concen: 2102.01 ng/ml
RT: 15.69 min Scan# 2168
Delta R.T. 0.09 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:228 Resp: 651570

Ion	Ratio	Lower	Upper
228	100		
229	21.8	0.0	48.9
226	32.7	0.0	55.1

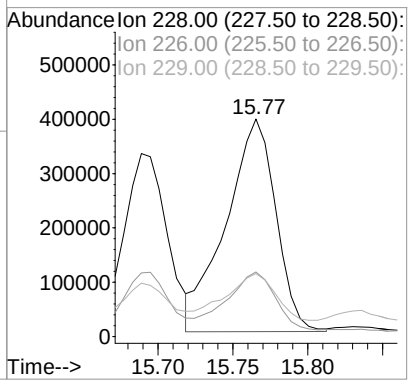




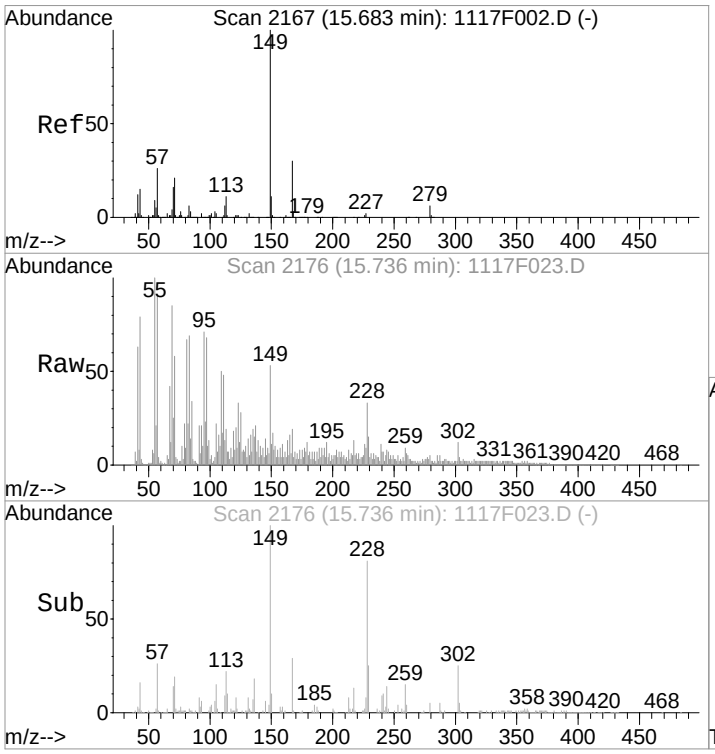
#75
Chrysene
Concen: 3099.98 ng/ml
RT: 15.77 min Scan# 2181
Delta R.T. 0.10 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:228 Resp: 908858

Ion	Ratio	Lower	Upper
228	100		
226	27.4	0.0	57.6
229	21.2	0.0	49.3



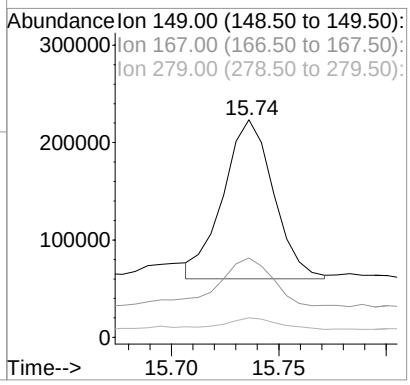
1st 12/07/18
2nd 12/10/18

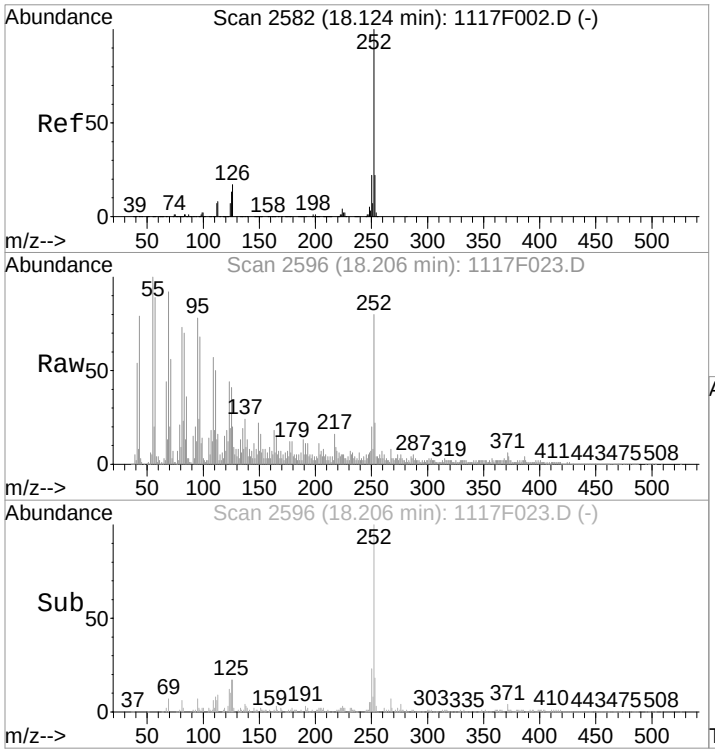


#76
Bis(2-ethylhexyl) Phthalate
Concen: 1302.49 ng/ml m
RT: 15.74 min Scan# 2176
Delta R.T. 0.08 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:149 Resp: 266593

Ion	Ratio	Lower	Upper
149	100		
167	36.5	0.0	59.7
279	9.0	0.0	36.4

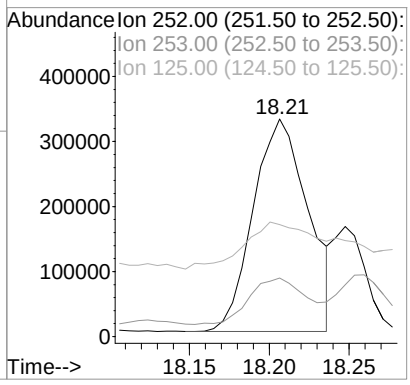




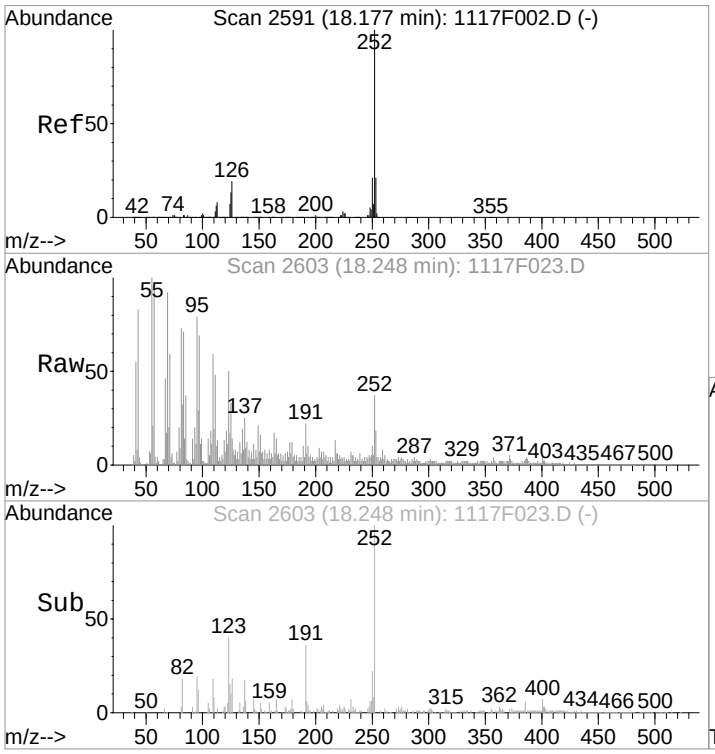
#79
Benzo(b)fluoranthene
Concen: 4010.15 ng/ml
RT: 18.21 min Scan# 2596
Delta R.T. 0.12 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:252 Resp: 782239

Ion	Ratio	Lower	Upper
252	100		
253	21.7	0.0	51.6
125	21.0	0.0	43.2



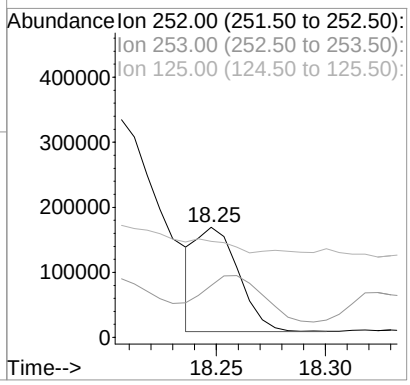
1st 12/07/18
2nd 12/10/18

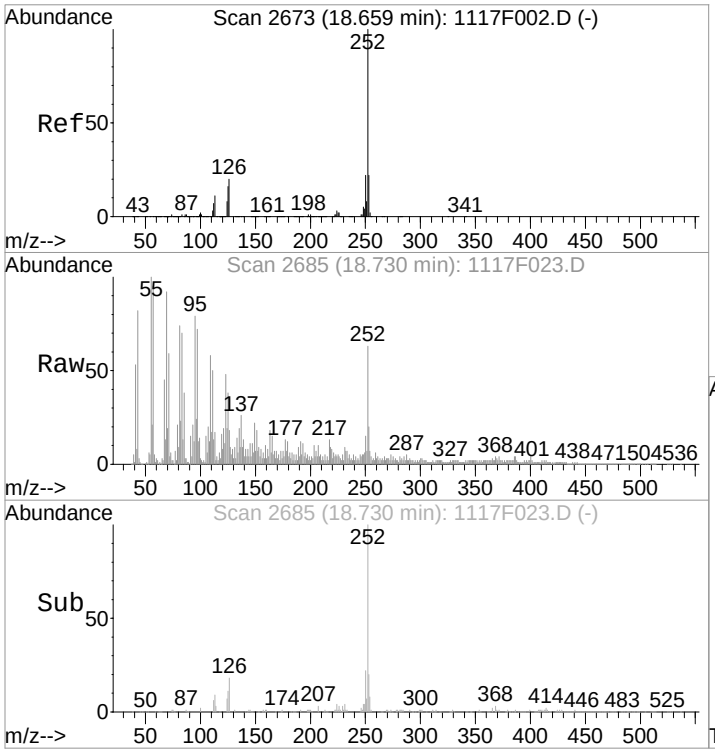


#80
Benzo(k)fluoranthene
Concen: 1149.20 ng/ml
RT: 18.25 min Scan# 2603
Delta R.T. 0.11 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:252 Resp: 220533

Ion	Ratio	Lower	Upper
252	100		
253	33.0	0.0	51.5
125	7.0	0.0	43.3

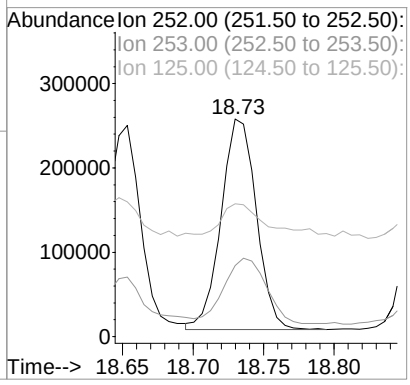




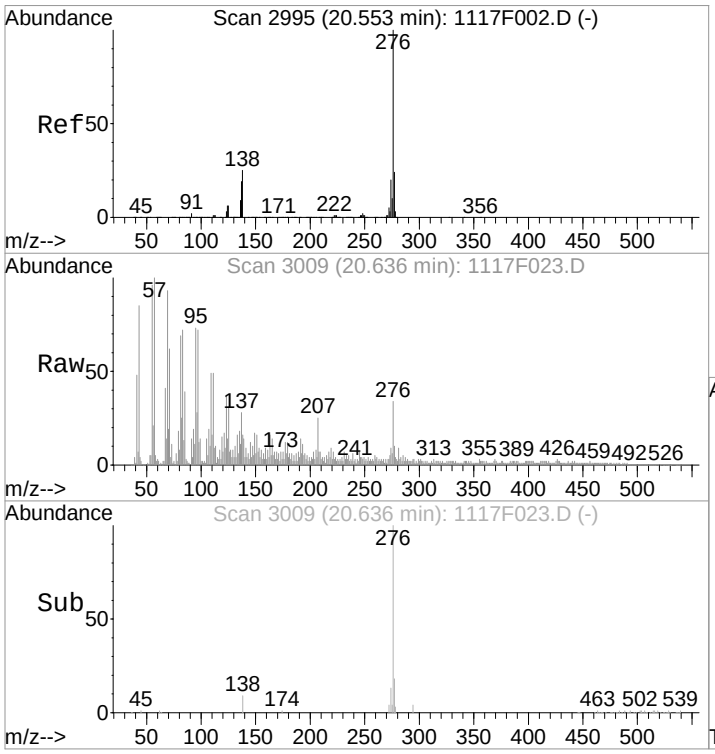
#81
Benzo(a)pyrene
Concen: 2441.47 ng/ml
RT: 18.73 min Scan# 2685
Delta R.T. 0.10 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:252 Resp: 435029

Ion	Ratio	Lower	Upper
252	100		
253	27.5	0.0	52.0
125	14.2	0.0	45.4



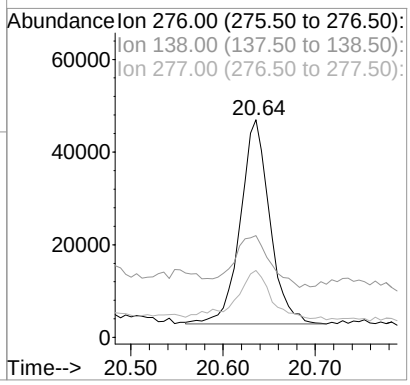
1st 12/07/18
2nd 12/10/18

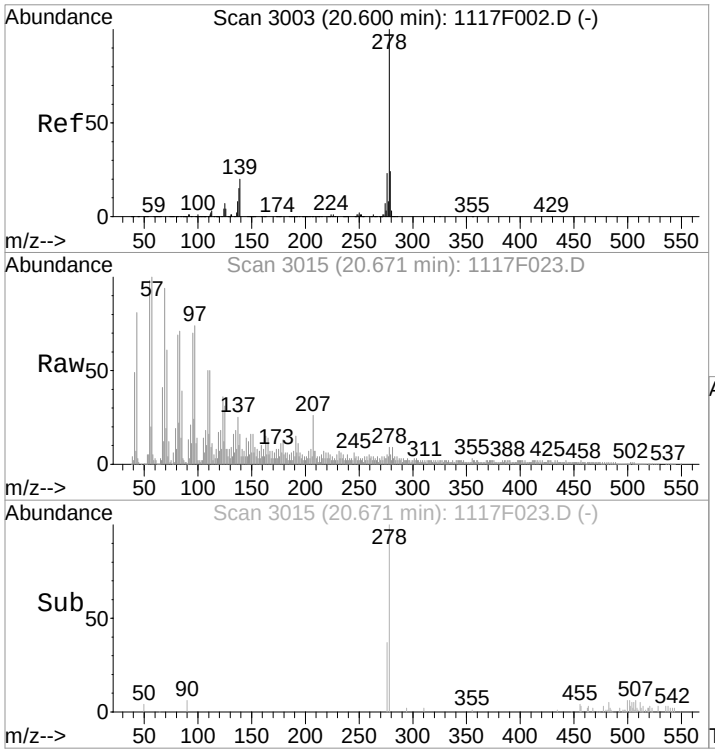


#82
Indeno(1,2,3-cd)pyrene
Concen: 719.28 ng/ml
RT: 20.64 min Scan# 3009
Delta R.T. 0.12 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:276 Resp: 97850

Ion	Ratio	Lower	Upper
276	100		
138	23.7	0.0	53.7
277	24.2	0.0	53.2

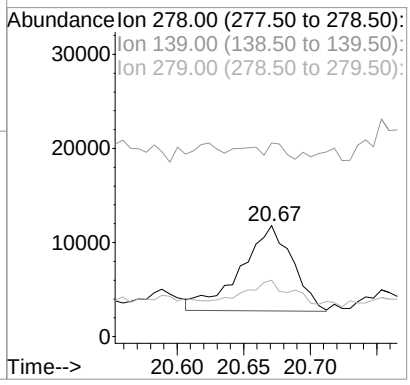




#83
Dibenz(a,h)anthracene
Concen: 246.26 ng/ml
RT: 20.67 min Scan# 3015
Delta R.T. 0.11 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

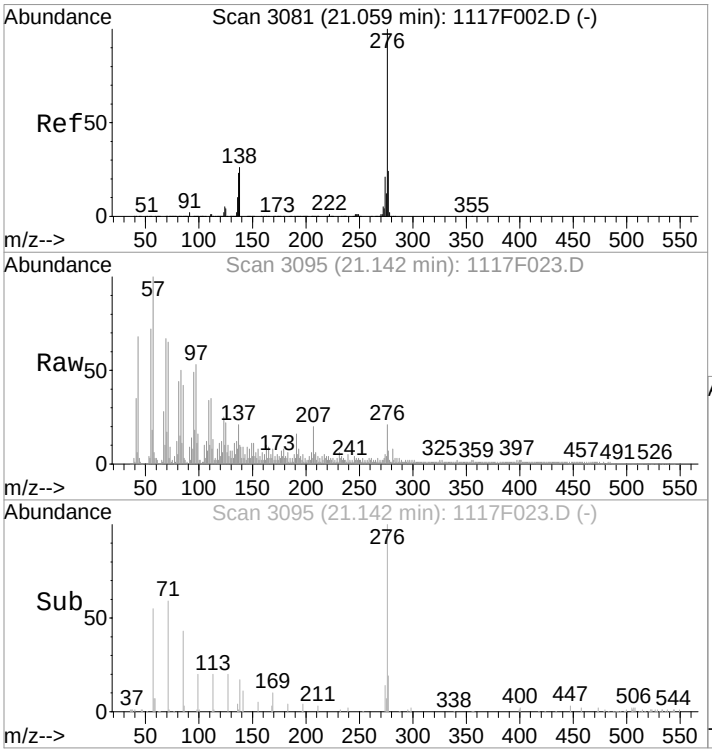
Tgt Ion:278 Resp: 24531

Ion	Ratio	Lower	Upper
278	100		
139	13.6	0.0	51.0
279	24.9	0.0	54.3



1st 12/07/18

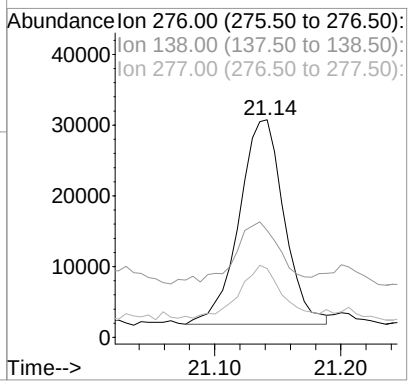
2nd 12/10/18



#84
Benzo(g,h,i)perylene
Concen: 497.21 ng/ml
RT: 21.14 min Scan# 3095
Delta R.T. 0.14 min
Lab File: 1117F023.D
Acq: 18 Nov 2018 1:59 am

Tgt Ion:276 Resp: 71822

Ion	Ratio	Lower	Upper
276	100		
138	24.3	0.0	56.8
277	23.4	0.0	53.6



Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F023.D Vial: 70
Acq On : 18 Nov 2018 1:59 am Operator: CConover
Sample : K1810302-028 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 11:53:33 2018 Quant Results File: 110618_8270LL.RES

Quant Method : J:\MS29\M...\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.07	152	60787	1000.00	ng/ml	0.02
21) Naphthalene-d8	6.37	136	243416	1000.00	ng/ml	0.02
35) Acenaphthene-d10	9.80	164	132029	1000.00	ng/ml	0.04
59) Phenanthrene-d10	12.12	188	251381	1000.00	ng/ml	0.04
69) Chrysene-d12	15.71	240	240665	1000.00	ng/ml	0.10
77) Perylene-d12	18.82	264	163638	1000.00	ng/ml	0.11
System Monitoring Compounds						
4) 2-Fluorophenol	3.98	112	95555	1389.56	ng/ml	0.01
Spiked Amount 3750.000	Range 38 - 110		Recovery =	37.05%#		
6) Phenol-d6	4.72	99	166063	1776.60	ng/ml	0.02
Spiked Amount 3750.000	Range 43 - 128		Recovery =	47.38%		
19) Nitrobenzene-d5	5.57	82	95455	1220.45	ng/ml	0.02
Spiked Amount 2500.000	Range 30 - 139		Recovery =	48.82%		
39) 2-Fluorobiphenyl	8.31	172	256772	1275.24	ng/ml	0.05
Spiked Amount 2500.000	Range 37 - 126		Recovery =	51.01%		
60) 2,4,6-Tribromophenol	11.15	330	69229	2037.47	ng/ml	0.04
Spiked Amount 3750.000	Range 38 - 157		Recovery =	54.33%		
71) Terphenyl-d14	14.04	244	315857	1303.14	ng/ml	0.05
Spiked Amount 2500.000	Range 54 - 158		Recovery =	52.13%#		
Target Compounds						Qvalue
7) Phenol	4.75	94	15531m	151.22	ng/ml	
10) 1,3-Dichlorobenzene	5.02	146	720m	7.35	ng/ml	
11) 1,4-Dichlorobenzene	5.08	146	4538	44.88	ng/ml	83
12) 1,2-Dichlorobenzene	5.22	146	1138m	11.83	ng/ml	
13) Benzyl Alcohol	5.18	108	3916m	73.60	ng/ml	
18) 4-Methylphenol	5.41	107	30710	307.49	ng/ml	98
22) Isophorone	5.82	82	16688	103.85	ng/ml	79
27) Benzoic Acid	6.01	122	21866	1033.26	ng/ml#	73
29) Naphthalene	6.40	128	223405	844.56	ng/ml	99
33) 2-Methylnaphthalene	7.48	141	62408	404.01	ng/ml	98
34) 1-Methylnaphthalene	7.68	141	26844	189.89	ng/ml	96
37) 2,4,6-Trichlorophenol	8.10	196	3932m	77.94	ng/ml	
42) Acenaphthylene	9.51	152	81795	294.75	ng/ml	89
45) Acenaphthene	9.85	154	139958	802.38	ng/ml	95
48) Dibenzofuran	10.18	168	68984	321.72	ng/ml	94
52) Fluorene	10.77	166	93099	462.72	ng/ml	99
57) Diphenylamine	10.98	169	71737m	537.05	ng/ml	
64) Phenanthrene	12.15	178	1160853	3802.27	ng/ml	99
65) Anthracene	12.22	178	209774	704.18	ng/ml	87
67) Di-n-butyl Phthalate	12.88	149	37976	127.19	ng/ml	82
68) Fluoranthene	13.58	202	1600568	4949.81	ng/ml	98
70) Pyrene	13.85	202	1965351	5217.86	ng/ml	99
74) Benz(a)anthracene	15.69	228	651570	2102.01	ng/ml	89
75) Chrysene	15.77	228	908858	3099.98	ng/ml	98
76) Bis(2-ethylhexyl) Phthalat	15.74	149	266593m	1302.49	ng/ml	
79) Benzo(b)fluoranthene	18.21	252	782239	4010.15	ng/ml	92
80) Benzo(k)fluoranthene	18.25	252	220533	1149.20	ng/ml	79
81) Benzo(a)pyrene	18.73	252	435029	2441.47	ng/ml	92
82) Indeno(1,2,3-cd)pyrene	20.64	276	97850	719.28	ng/ml	99
83) Dibenz(a,h)anthracene	20.67	278	24531	246.26	ng/ml	92
84) Benzo(g,h,i)perylene	21.14	276	71822	497.21	ng/ml	97

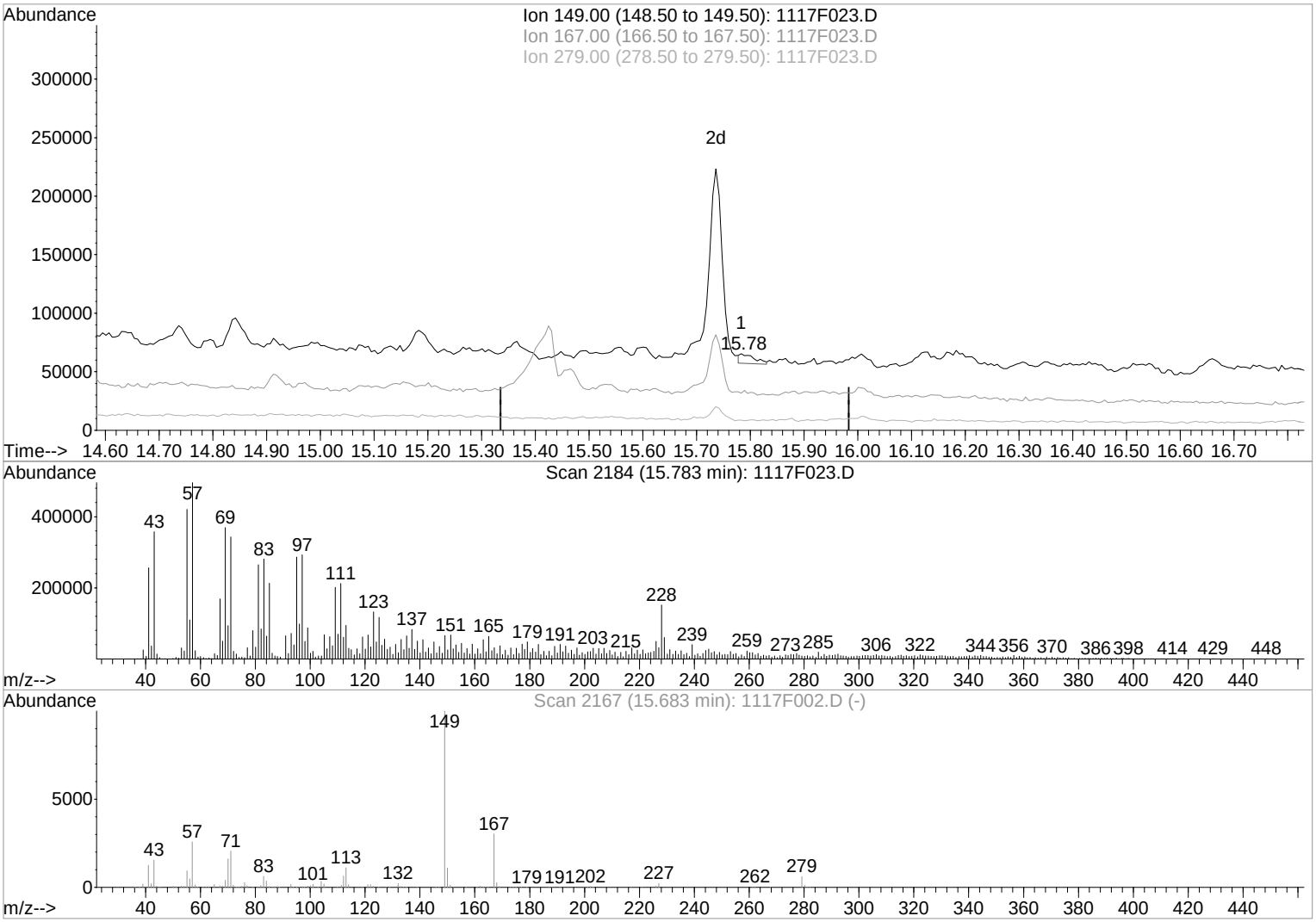
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F023.D Vial: 70
Acq On : 18 Nov 2018 1:59 am Operator: CConover
Sample : K1810302-028 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 15:08 2018 Quant Results File: temp.res

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Multiple Level Calibration



TIC: 1117F023.D

(76) Bis(2-ethylhexyl) Phthalate (T)

15.78min 74.60ng/ml

response 15270

Ion	Exp%	Act%
149.00	100	100
167.00	29.70	19.06
279.00	6.40	2.52
0.00	0.00	0.00

Manual Integration:

Before

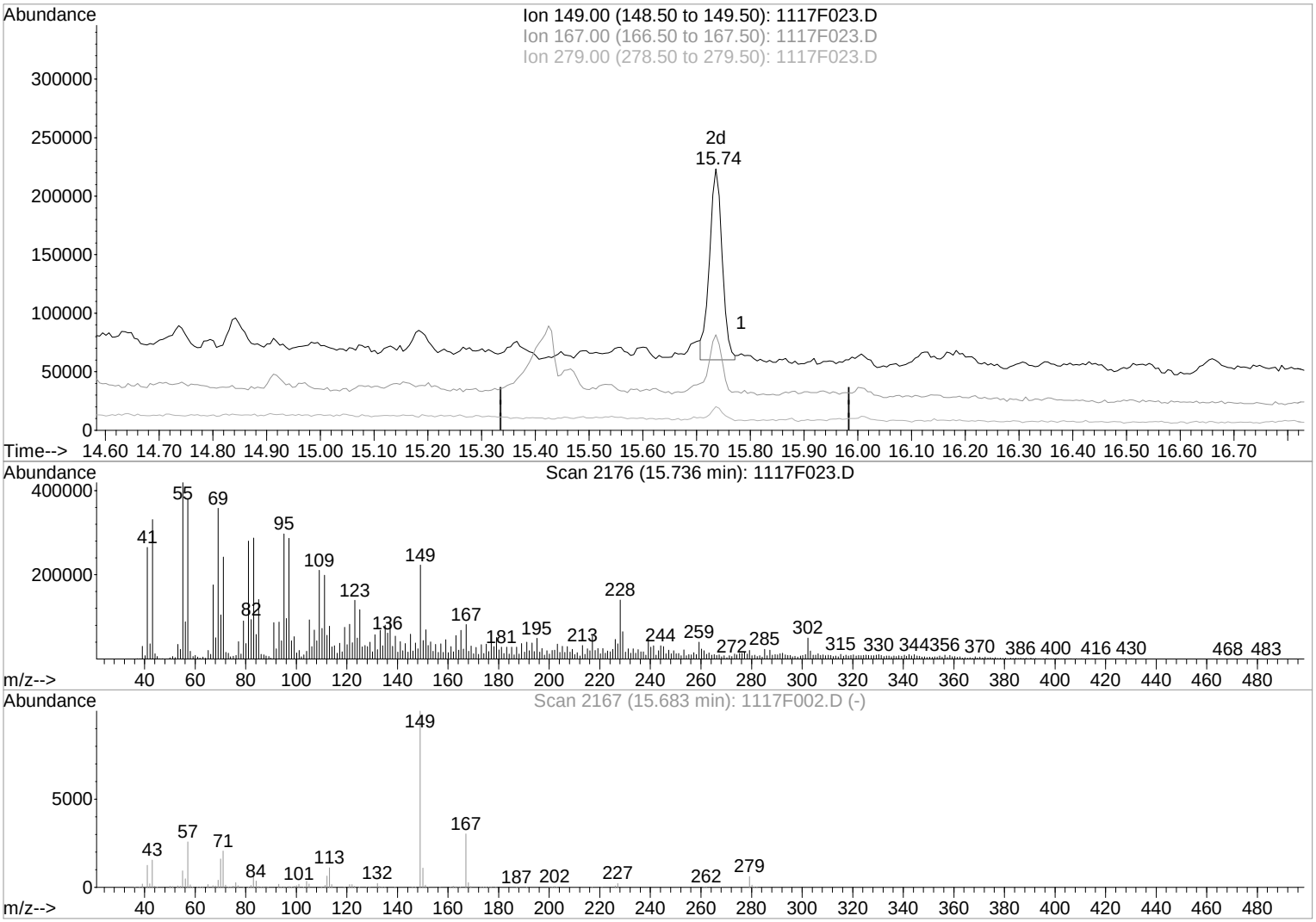
12/07/18

Quantitation Report (Qedit)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F023.D Vial: 70
Acq On : 18 Nov 2018 1:59 am Operator: CConover
Sample : K1810302-028 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 15:08 2018 Quant Results File: temp.res

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Multiple Level Calibration



TIC: 1117F023.D

(76) Bis(2-ethylhexyl) Phthalate (T)

15.74min 1302.49ng/ml m

response 266593

Ion	Exp%	Act%
149.00	100	100
167.00	29.70	36.49
279.00	6.40	8.98
0.00	0.00	0.00

Manual Integration:

After

WP

12/07/18

1st 12/19/18
2nd 12/21/18

Validation Report

Data File: J:\MS29\DATA\121118\1211F022.D\
Lab ID: K1810302-029
RunType: N/A
Matrix: Sediment

Date Acquired: 12/12/18 00:34:00
Batch ID: 619456
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time		X
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Sample Exceptions

Exception Categories	Result	Corrective Action
Analytical Hold Time	Analysis Date/Time: 12/12/2018 0034 Hold Date/Time: 12/10/2018 2359	dilution past hold

Primary Review: _____

Secondary Review: _____

1st 12/19/18
2nd 12/21/18

Quantitation Report

Data File:	J:\MS29\DATA\121118\1211F022.D\	**Instrument:**	K-MS-29
Acqu Date:	12/12/18 00:34:00	**Vial:**	21
Run Type:	N/A	**Dilution:**	10
Lab ID:	K1810302-029	**Raw Units:**	ng/mL

Bottle ID:	K1810302-029.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	619456	**Prep Lot:**	324899	**Report Group:**	K1810302
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800541
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.60		115917	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	13.98		15559	133.16	53	30 - 102	N

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.65		609311	5342.89	5800		Y

Prep Amount:	40.230 g	**Dilution:**	10
Prep Final Amount:	2.00 mL	**Basis Factor:**	45.90

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

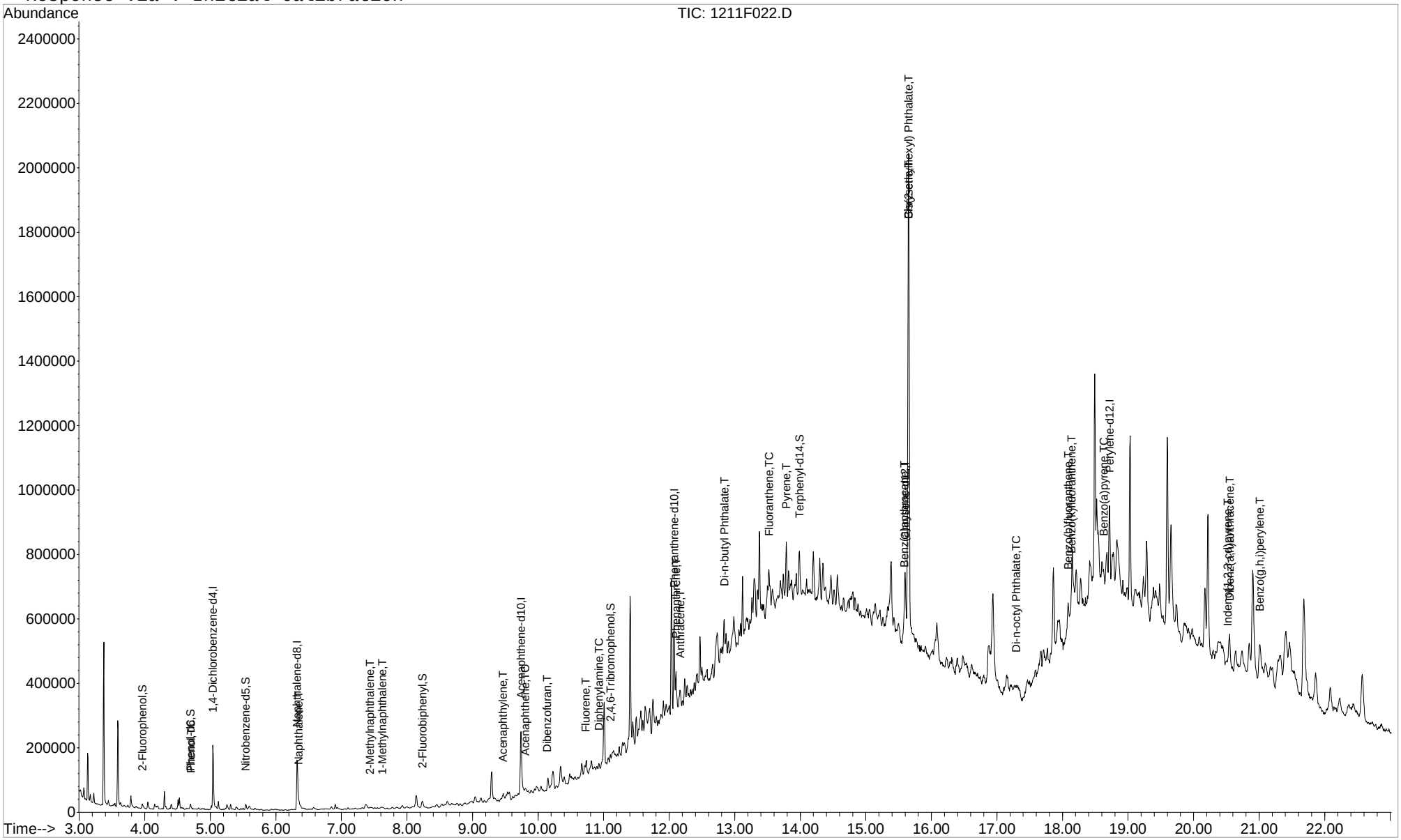
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\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Quantitation Report (QT Reviewed)

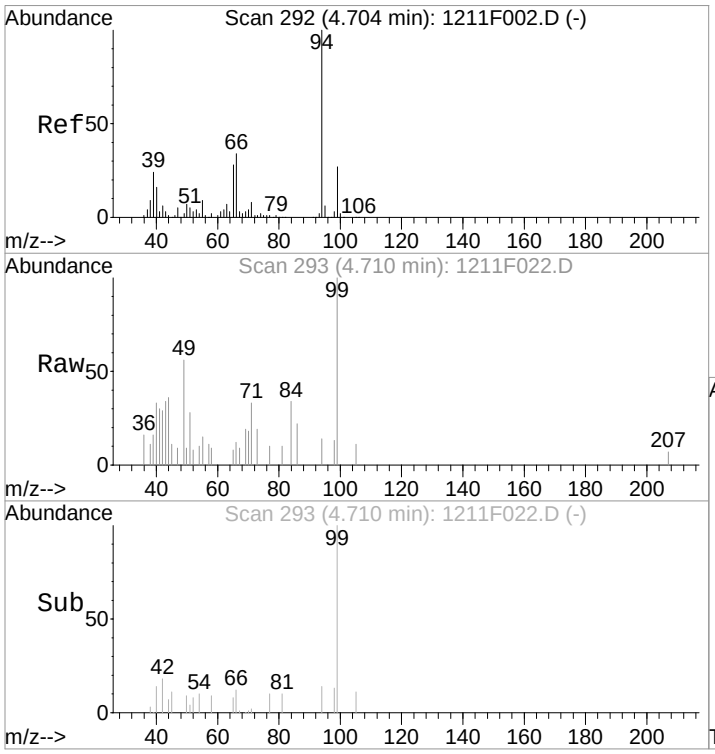
1st 12/19/18
2nd 12/21/18

Data File : J:\MS29\DATA\121118\1211F022.D Vial: 21
Acq On : 12 Dec 2018 12:34 am Operator: CConover
Sample : K1810302-029 10X Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 19 13:33 2018 Quant Results File: 112918_8270LL.RES

Method : J:\MS29\METHODS\SCAN\112918_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Wed Dec 19 12:21:09 2018
Response via : Initial Calibration



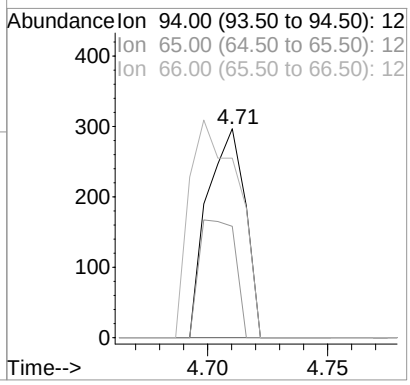
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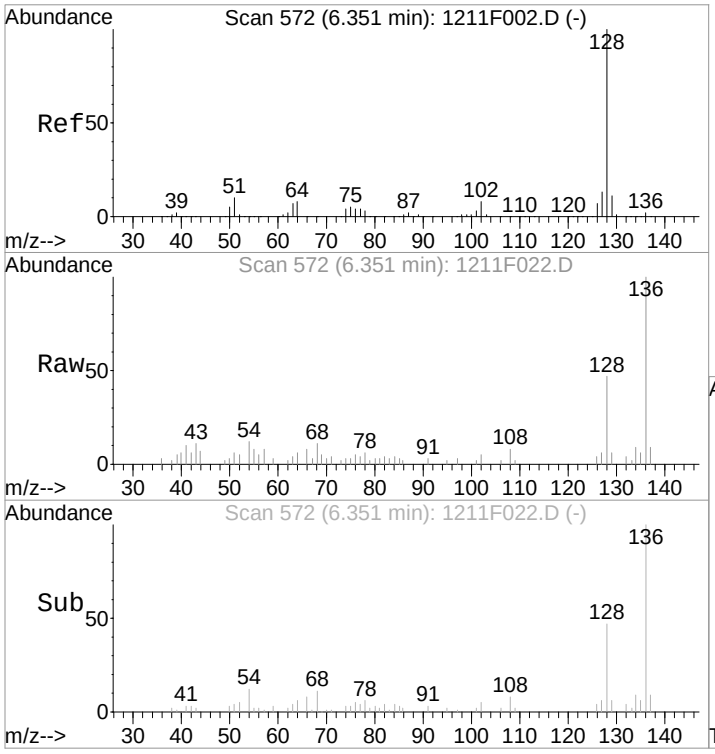


#7
Phenol
Concen: 4.63 ng/ml m
RT: 4.71 min Scan# 293
Delta R.T. -0.00 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion: 94 Resp: 325

Ion	Ratio	Lower	Upper
94	100		
65	53.2	0.0	53.9
66	85.9	0.9	60.9#

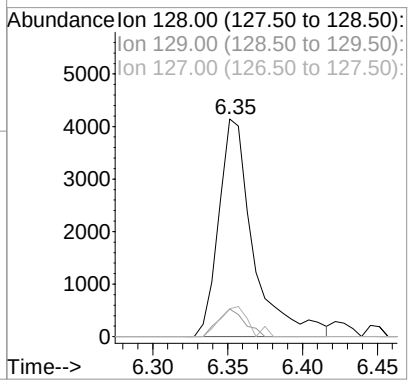




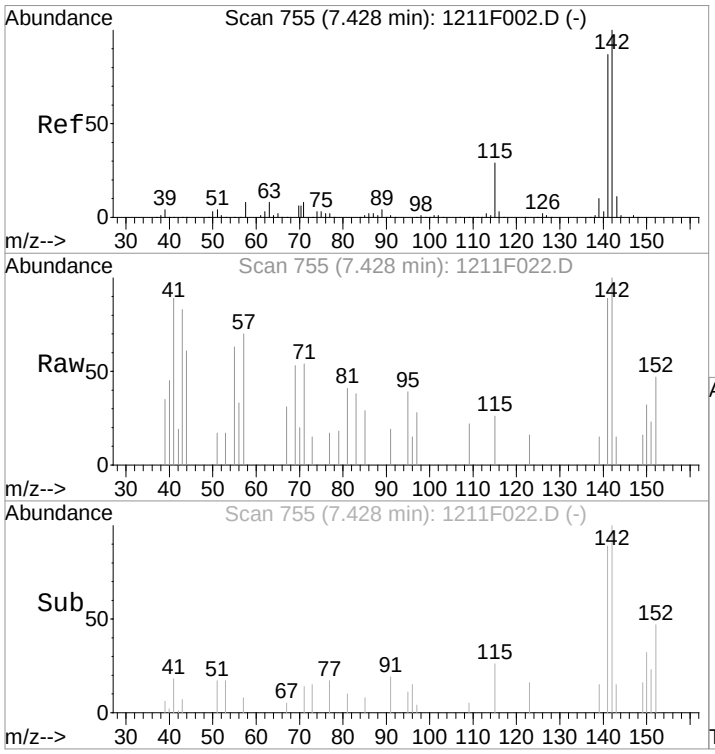
#29
Naphthalene
Concen: 46.38 ng/ml
RT: 6.35 min Scan# 572
Delta R.T. -0.02 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:128 Resp: 6635

Ion	Ratio	Lower	Upper
128	100		
129	12.7	0.0	41.0
127	12.8	0.0	43.2



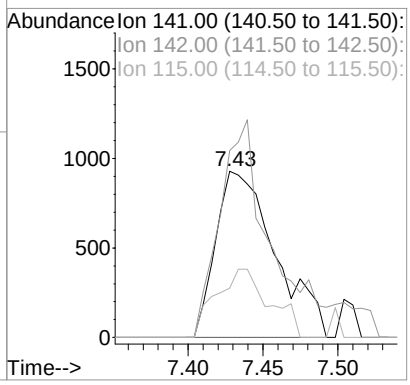
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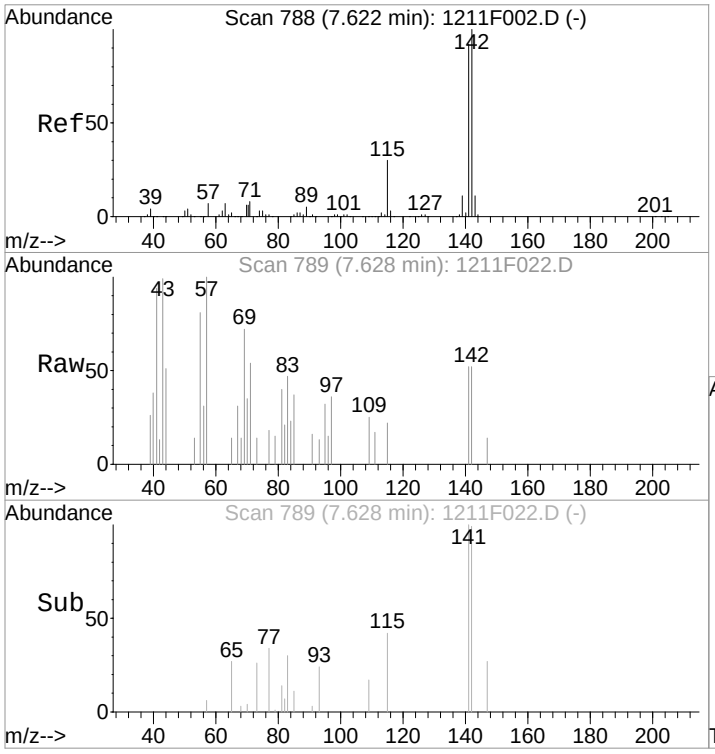


#33
2-Methylnaphthalene
Concen: 31.97 ng/ml
RT: 7.43 min Scan# 755
Delta R.T. -0.02 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:141 Resp: 2567

Ion	Ratio	Lower	Upper
141	100		
142	112.6	84.5	144.5
115	29.7	0.0	59.3

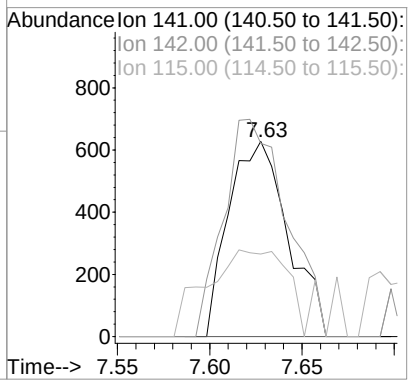




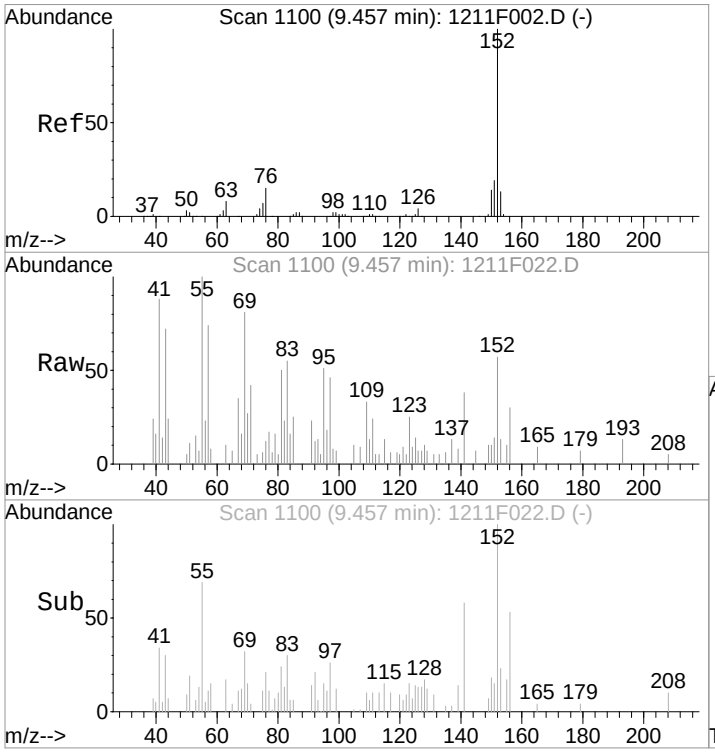
#34
1-Methylnaphthalene
Concen: 19.31 ng/ml m
RT: 7.63 min Scan# 789
Delta R.T. -0.01 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:141 Resp: 1404

Ion	Ratio	Lower	Upper
141	100		
142	99.0	77.2	143.4
115	42.4	20.7	38.5#



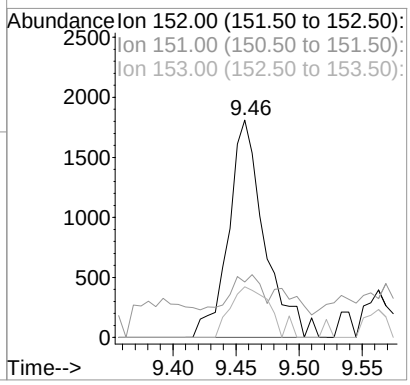
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2nd 12/21/18

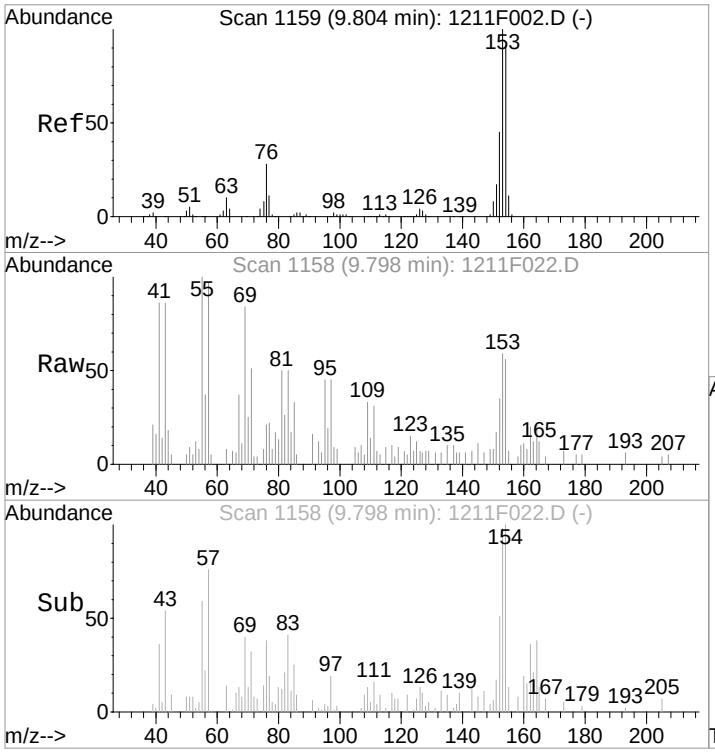


#42
Acenaphthylene
Concen: 25.01 ng/ml
RT: 9.46 min Scan# 1100
Delta R.T. -0.01 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:152 Resp: 3579

Ion	Ratio	Lower	Upper
152	100		
151	11.5	0.0	50.0
153	23.3	0.0	42.7

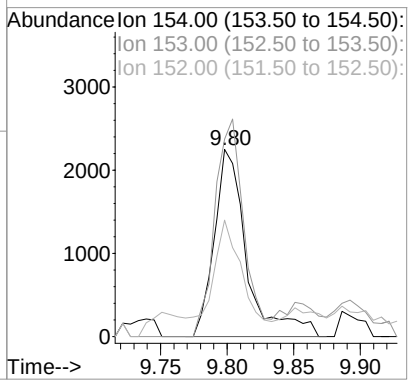




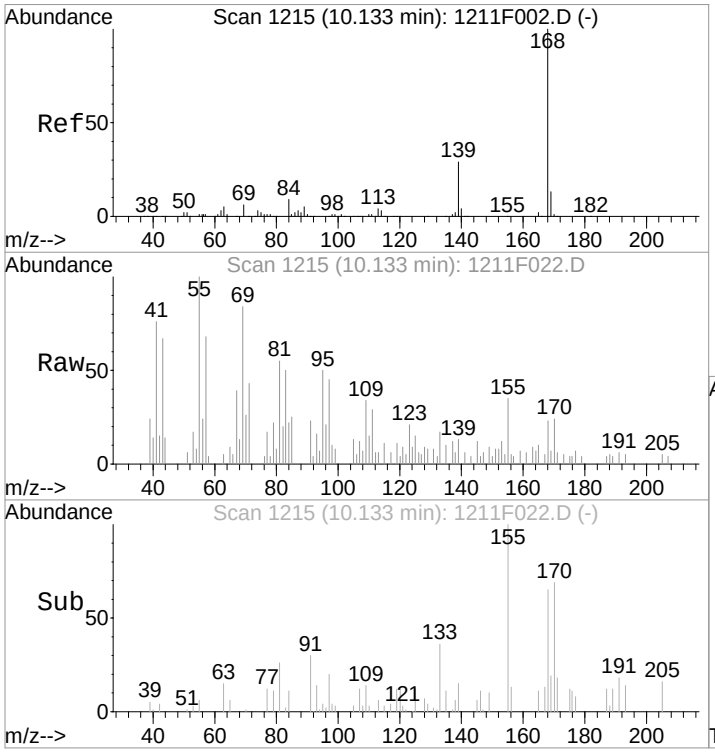
#45
Acenaphthene
Concen: 42.36 ng/ml
RT: 9.80 min Scan# 1158
Delta R.T. -0.02 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:154 Resp: 3819

Ion	Ratio	Lower	Upper
154	100		
153	105.5	81.7	141.7
152	52.4	20.5	80.5



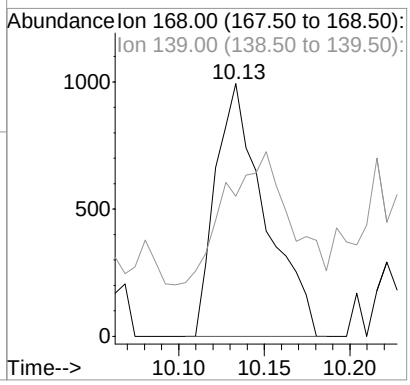
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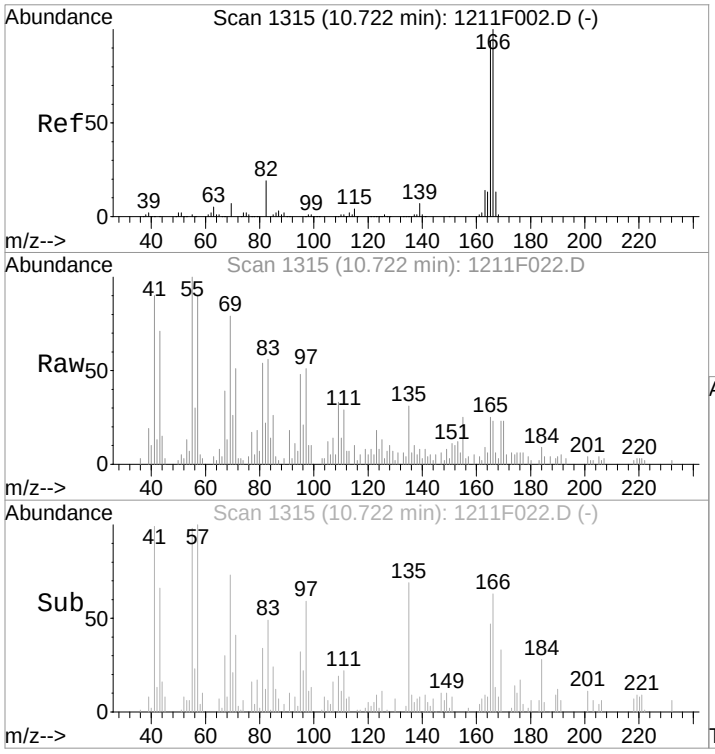


#48
Dibenzofuran
Concen: 18.35 ng/ml
RT: 10.13 min Scan# 1215
Delta R.T. -0.01 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:168 Resp: 1997

Ion	Ratio	Lower	Upper
168	100		
139	34.2	1.7	61.7

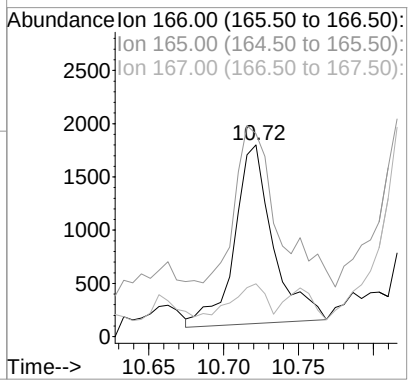


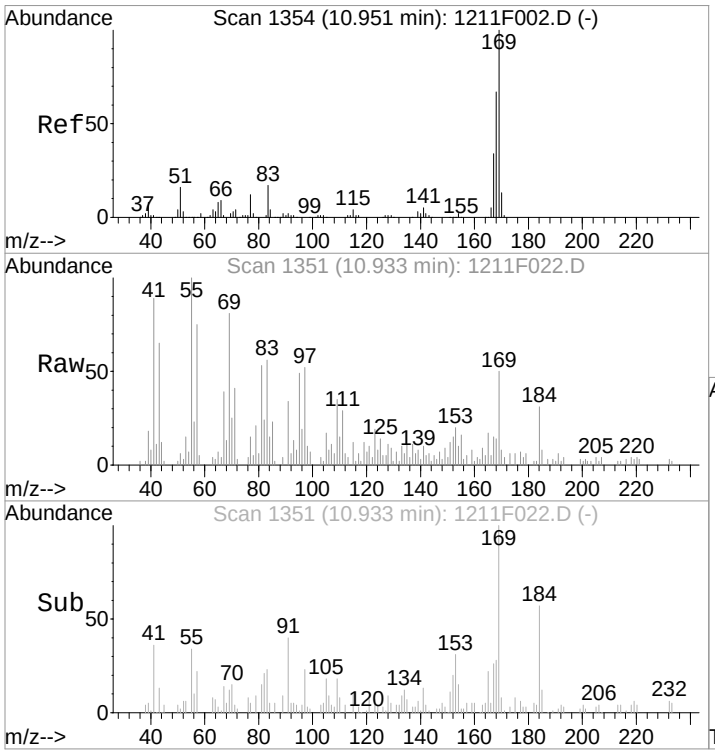


#52
Fluorene
Concen: 29.43 ng/ml
RT: 10.72 min Scan# 1315
Delta R.T. -0.01 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:166 Resp: 3017

Ion	Ratio	Lower	Upper
166	100		
165	84.5	65.9	125.9
167	20.5	0.0	42.7

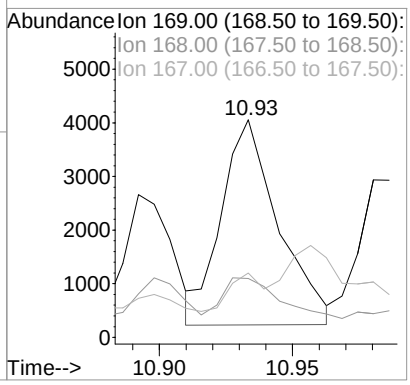


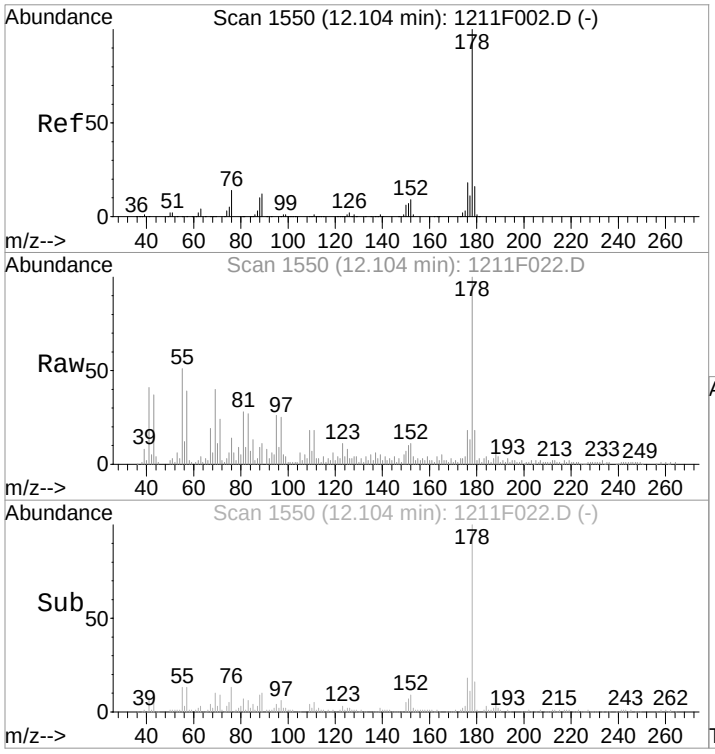


#57
Diphenylamine
Concen: 85.31 ng/ml
RT: 10.93 min Scan# 1351
Delta R.T. -0.03 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:169 Resp: 5690

Ion	Ratio	Lower	Upper
169	100		
168	19.2	35.6	95.6#
167	19.0	3.3	63.3

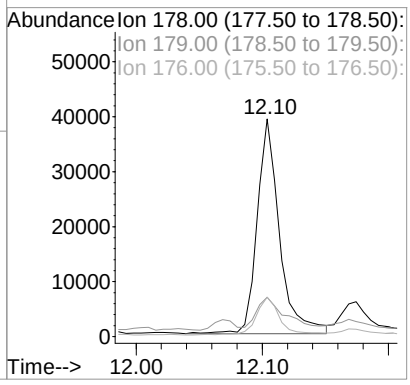


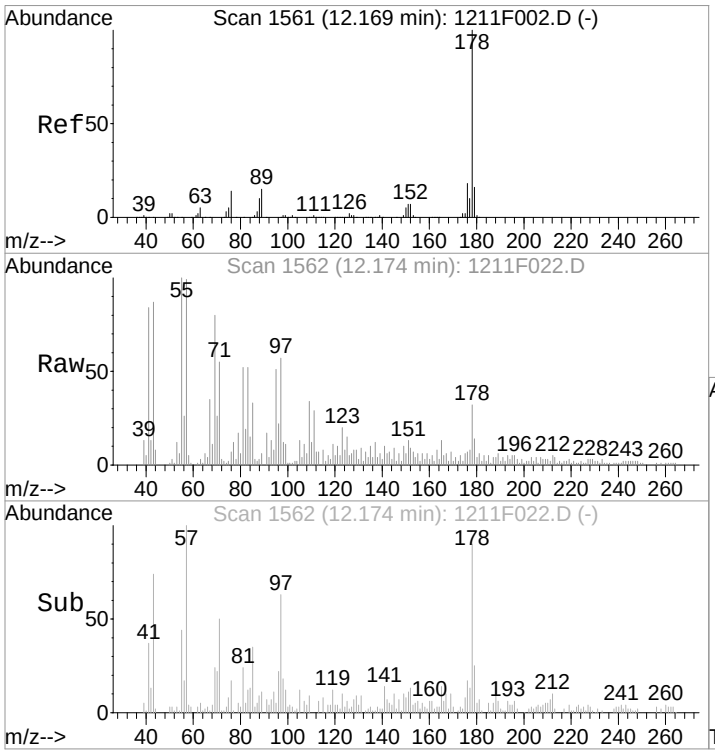


#64
Phenanthrene
Concen: 315.78 ng/ml
RT: 12.10 min Scan# 1550
Delta R.T. -0.01 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:178 Resp: 48506

Ion	Ratio	Lower	Upper
178	100		
179	14.8	0.0	45.6
176	17.5	0.0	47.8

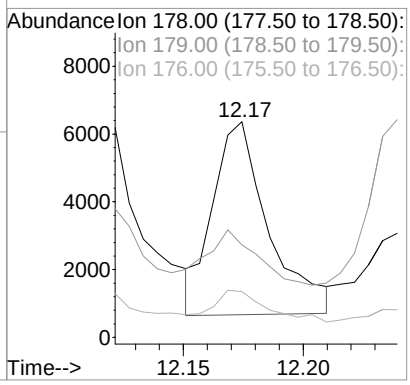


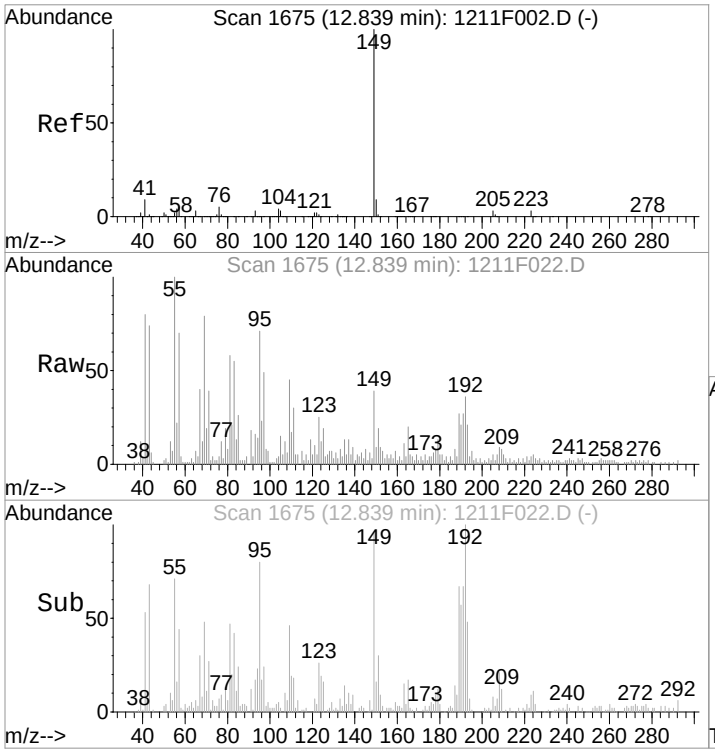


#65
Anthracene
Concen: 63.80 ng/ml
RT: 12.17 min Scan# 1562
Delta R.T. -0.01 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:178 Resp: 9266

Ion	Ratio	Lower	Upper
178	100		
179	23.1	0.0	44.6
176	18.4	0.0	47.4

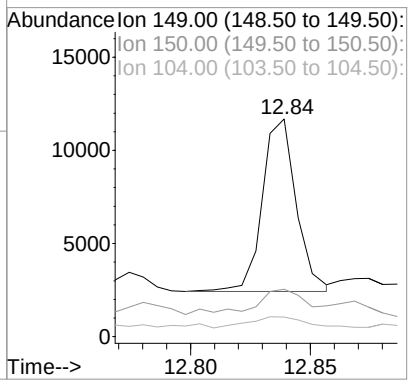


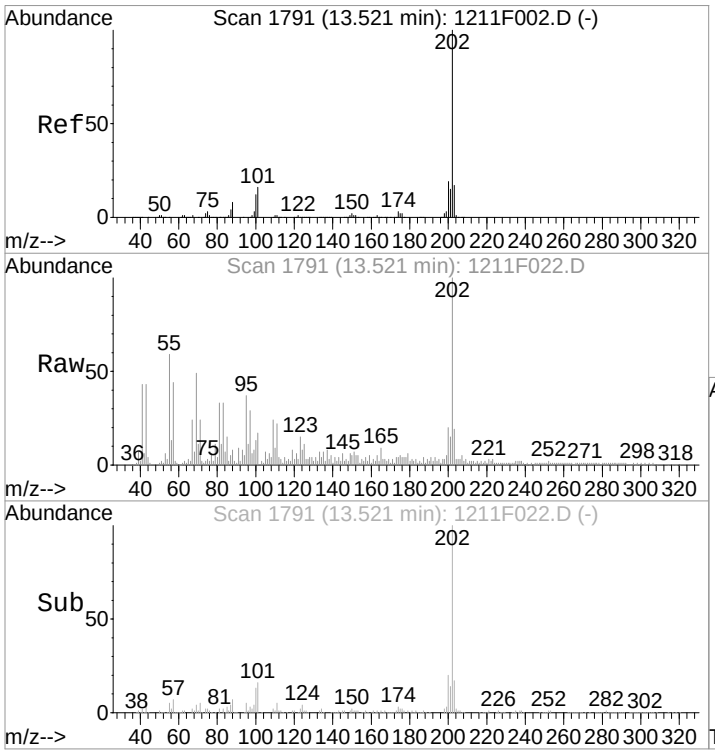


#67
Di-n-butyl Phthalate
Concen: 54.15 ng/ml
RT: 12.84 min Scan# 1675
Delta R.T. -0.00 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:149 Resp: 9113

Ion	Ratio	Lower	Upper
149	100		
150	14.8	0.0	39.1
104	5.2	0.0	33.8

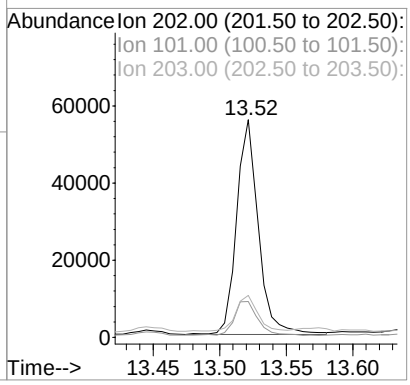


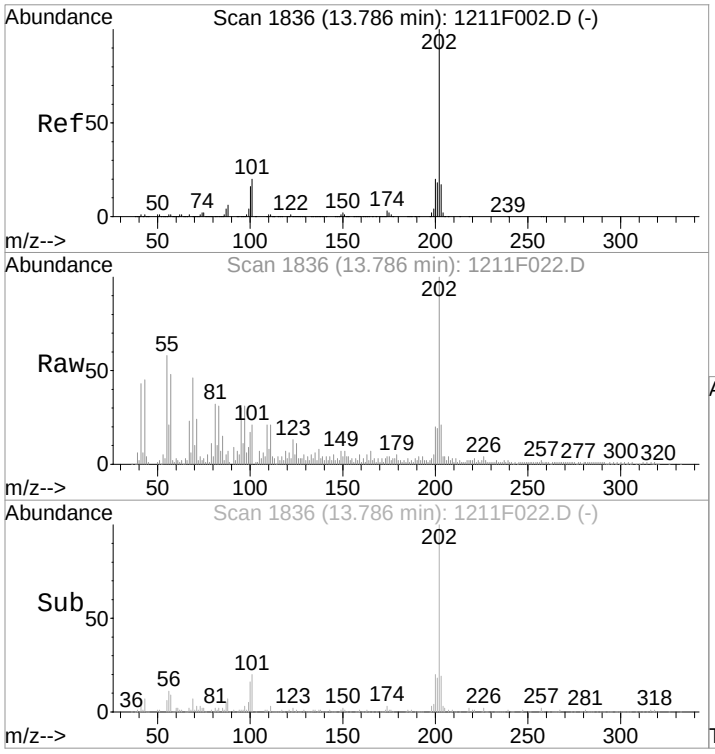


#68
Fluoranthene
Concen: 413.46 ng/ml
RT: 13.52 min Scan# 1791
Delta R.T. -0.01 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:202 Resp: 63349

Ion	Ratio	Lower	Upper
202	100		
101	15.7	0.0	43.9
203	16.8	0.0	46.8

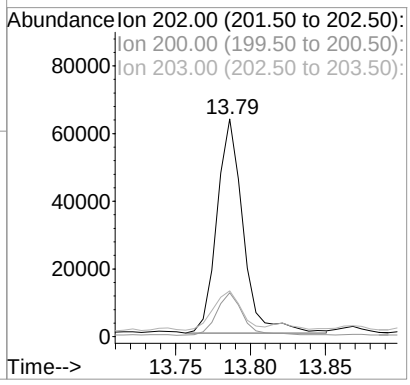


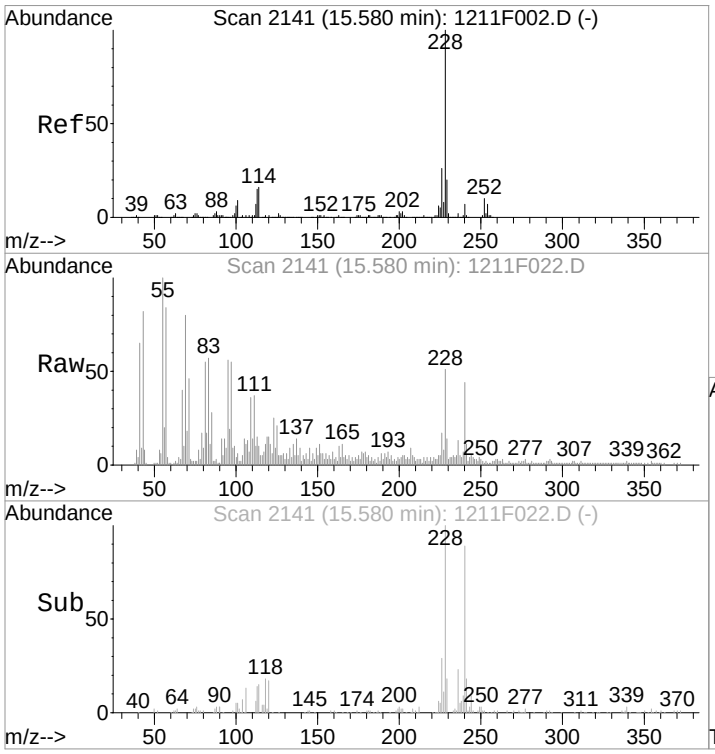


#70
Pyrene
Concen: 419.52 ng/ml
RT: 13.79 min Scan# 1836
Delta R.T. -0.01 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:202 Resp: 77135

Ion	Ratio	Lower	Upper
202	100		
200	19.9	0.0	49.6
203	18.5	0.0	47.0

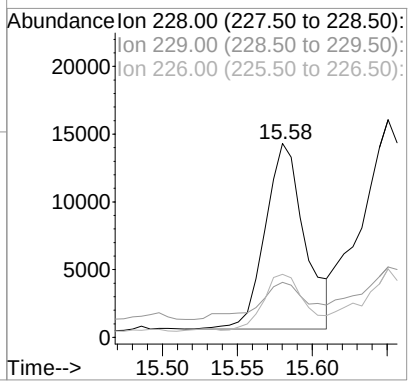


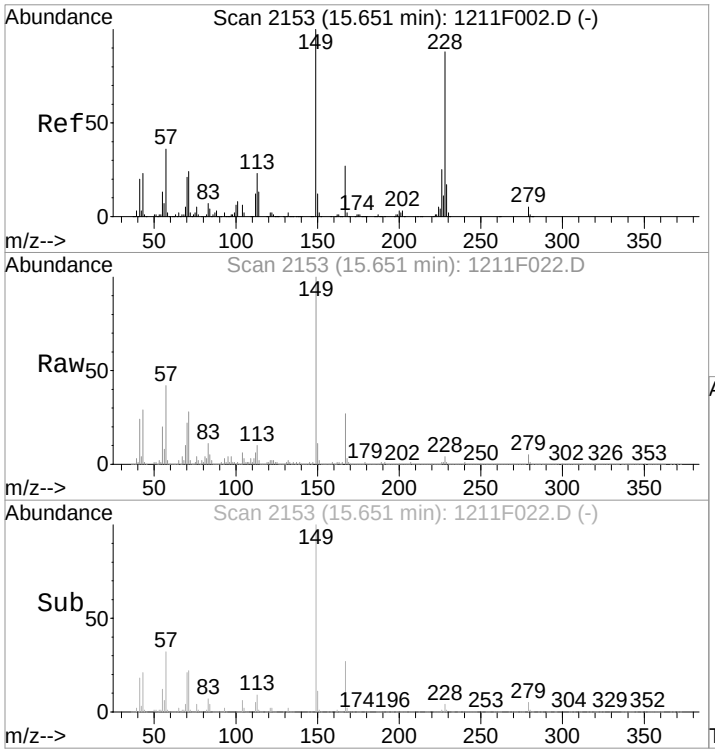


#74
Benz(a)anthracene
Concen: 160.90 ng/ml
RT: 15.58 min Scan# 2141
Delta R.T. -0.01 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:228 Resp: 25285

Ion	Ratio	Lower	Upper
228	100		
229	20.0	0.0	48.9
226	30.3	0.0	55.1

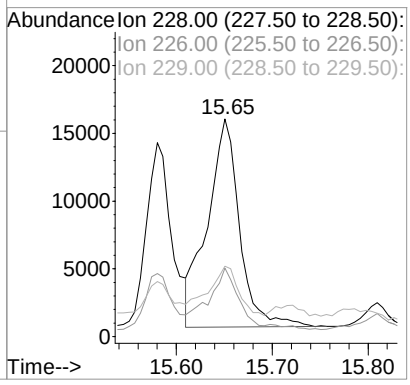


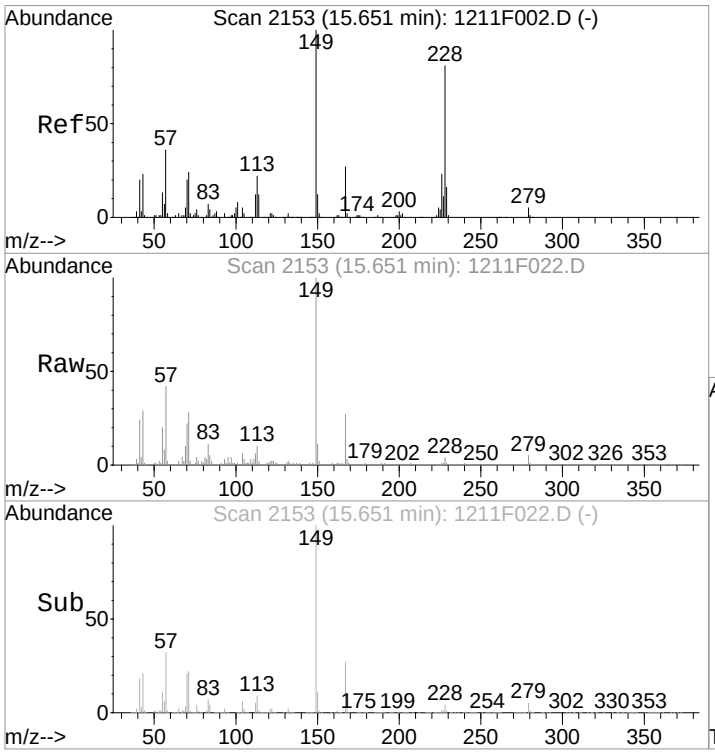


#75
Chrysene
Concen: 254.50 ng/ml
RT: 15.65 min Scan# 2153
Delta R.T. -0.01 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:228 Resp: 36097

Ion	Ratio	Lower	Upper
228	100		
226	29.4	0.0	57.6
229	23.4	0.0	49.3

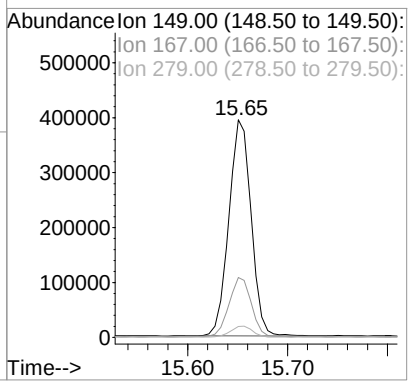


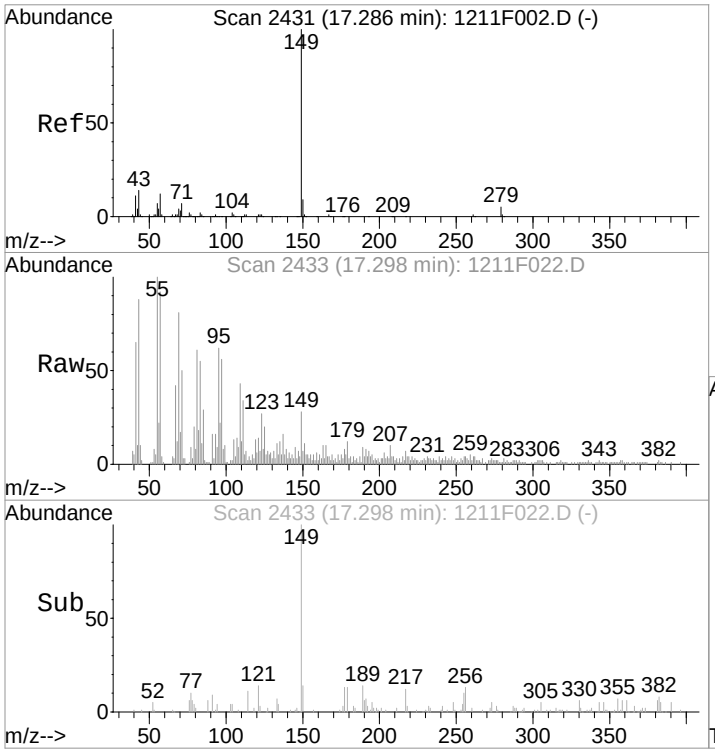


#76
Bis(2-ethylhexyl) Phthalate
Concen: 5342.89 ng/ml
RT: 15.65 min Scan# 2153
Delta R.T. -0.01 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:149 Resp: 609311

Ion	Ratio	Lower	Upper
149	100		
167	27.3	0.0	59.7
279	5.0	0.0	36.4

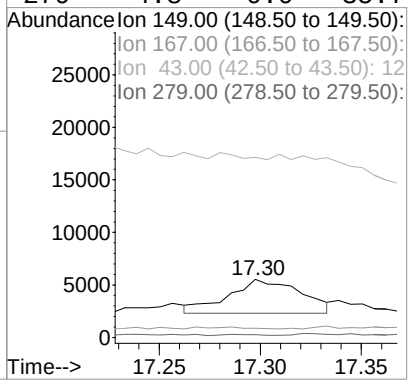


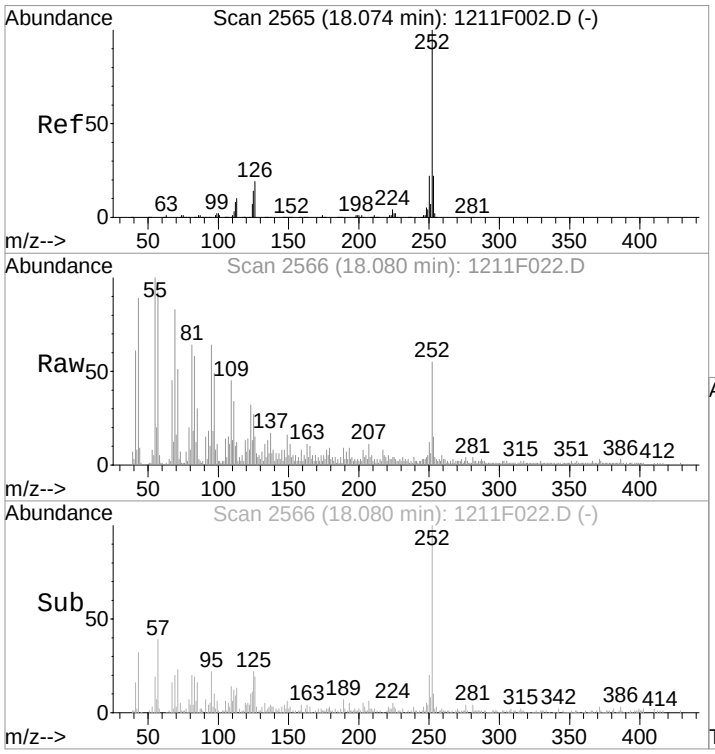


#78
Di-n-octyl Phthalate
Concen: 90.29 ng/ml m
RT: 17.30 min Scan# 2433
Delta R.T. -0.00 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:149 Resp: 8027

Ion	Ratio	Lower	Upper
149	100		
167	15.6	0.0	31.5
43	310.5	0.0	38.6#
279	4.8	0.0	35.7

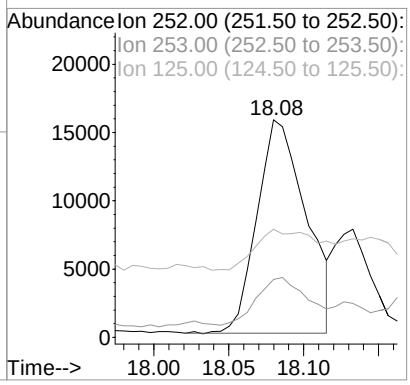


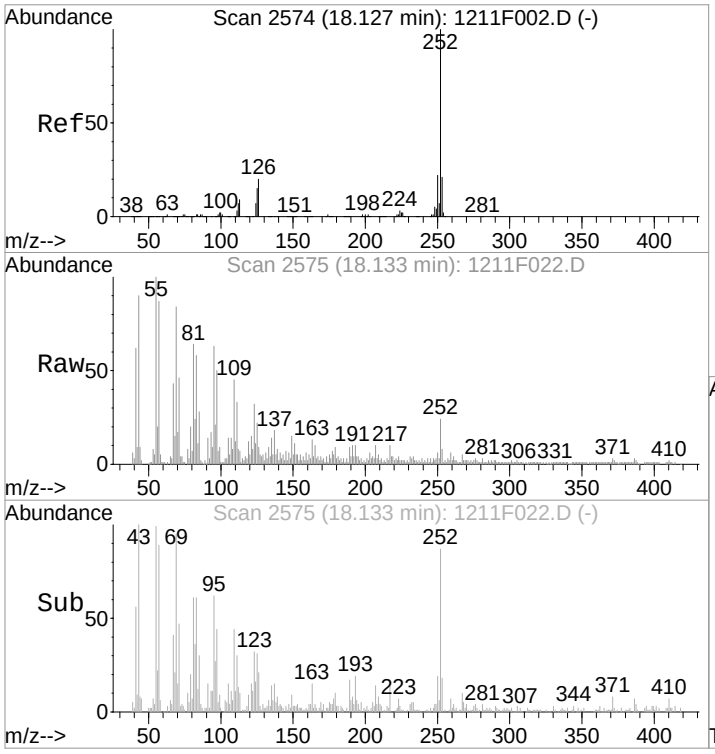


#79
Benzo(b)fluoranthene
Concen: 251.50 ng/ml
RT: 18.08 min Scan# 2566
Delta R.T. -0.01 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:252 Resp: 35729

Ion	Ratio	Lower	Upper
252	100		
253	20.4	0.0	51.6
125	17.1	0.0	43.2

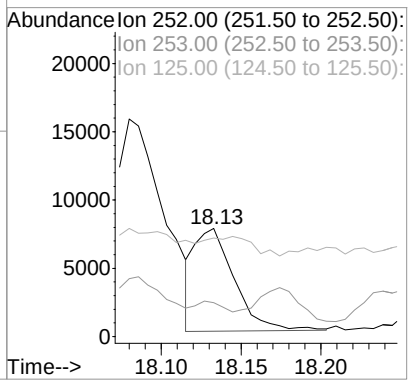


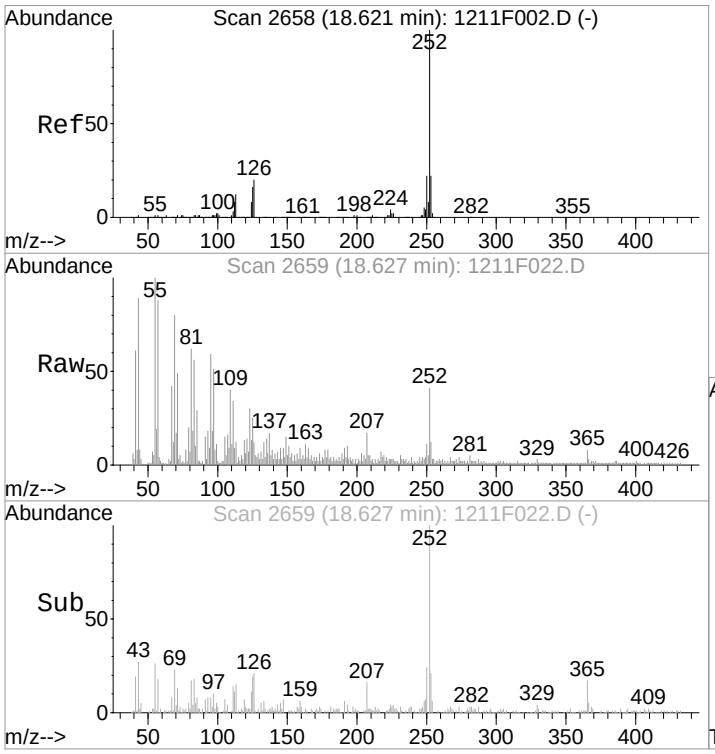


#80
Benzo(k)fluoranthene
Concen: 92.63 ng/ml
RT: 18.13 min Scan# 2575
Delta R.T. -0.01 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:252 Resp: 13140

Ion	Ratio	Lower	Upper
252	100		
253	18.6	0.0	51.5
125	9.2	0.0	43.3

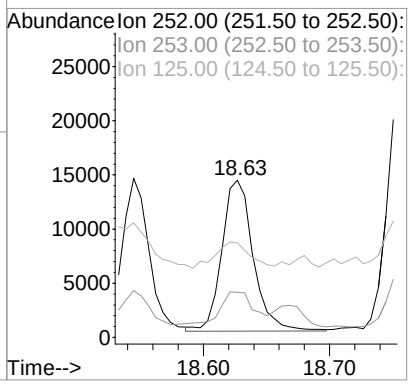


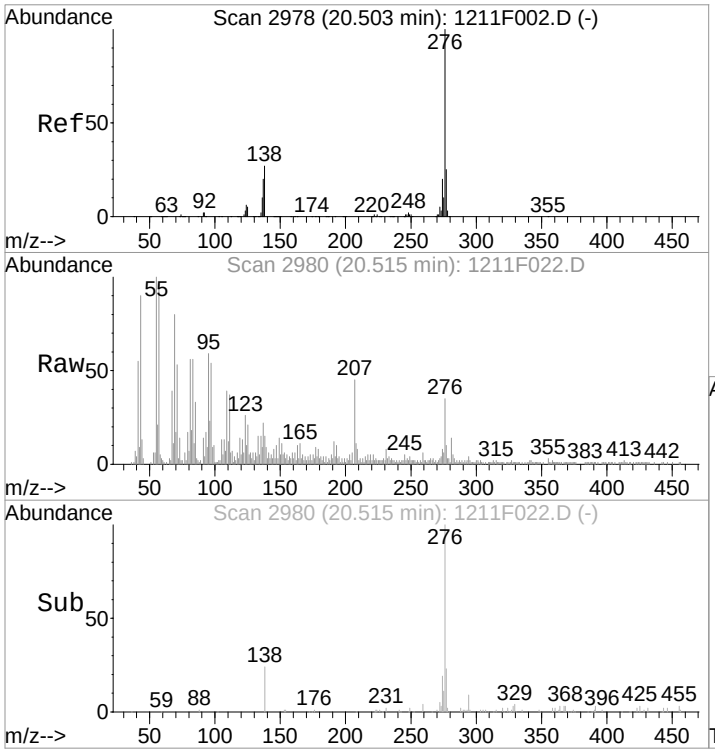


#81
Benzo(a)pyrene
Concen: 180.47 ng/ml
RT: 18.63 min Scan# 2659
Delta R.T. -0.00 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:252 Resp: 24169

Ion	Ratio	Lower	Upper
252	100		
253	23.2	0.0	52.0
125	14.5	0.0	45.4

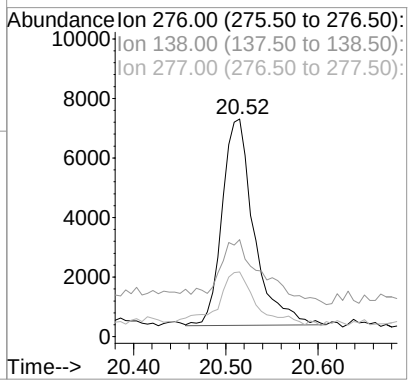


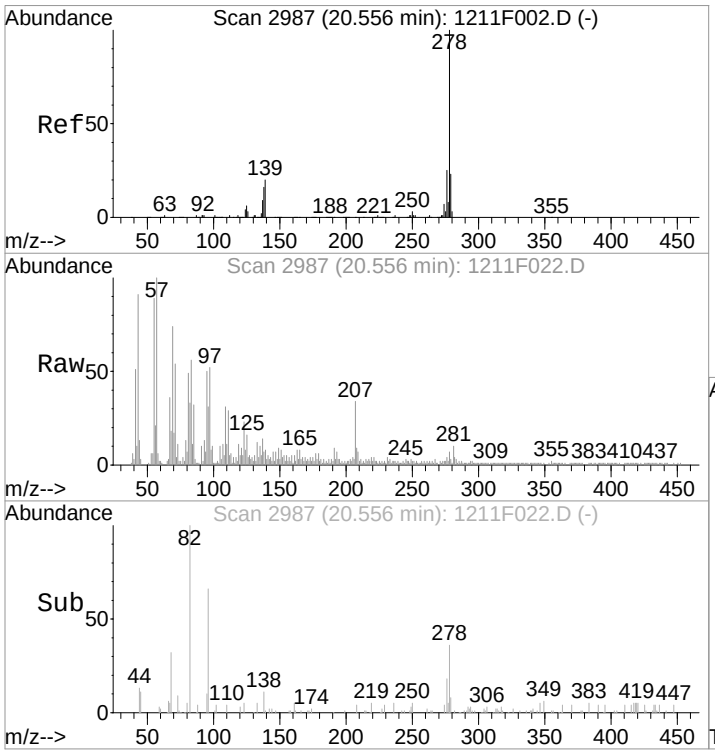


#82
Indeno(1,2,3-cd)pyrene
Concen: 147.73 ng/ml
RT: 20.52 min Scan# 2980
Delta R.T. 0.00 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:276 Resp: 16652

Ion	Ratio	Lower	Upper
276	100		
138	31.6	0.0	53.7
277	24.2	0.0	53.2

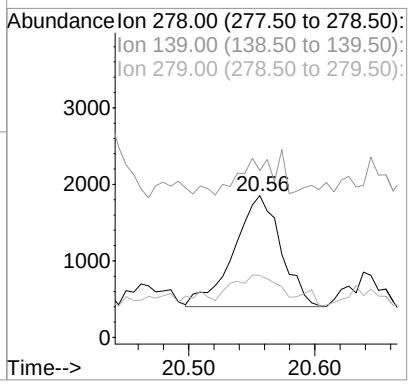


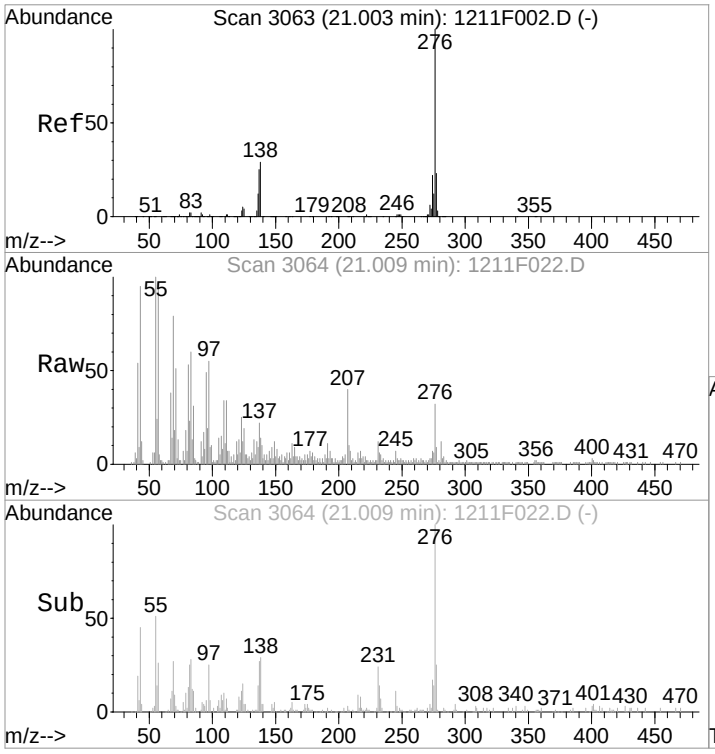


#83
Dibenz(a,h)anthracene
Concen: 29.77 ng/ml
RT: 20.56 min Scan# 2987
Delta R.T. -0.00 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:278 Resp: 3764

Ion	Ratio	Lower	Upper
278	100		
139	15.4	0.0	51.0
279	26.9	0.0	54.3

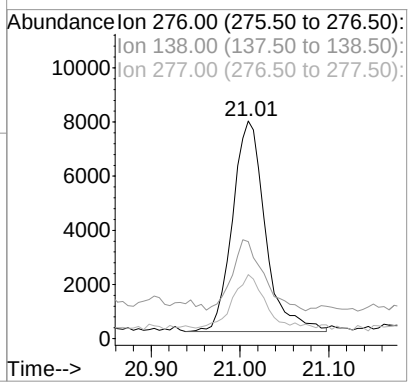




#84
Benzo(g,h,i)perylene
Concen: 131.97 ng/ml
RT: 21.01 min Scan# 3064
Delta R.T. 0.00 min
Lab File: 1211F022.D
Acq: 12 Dec 2018 12:34 am

Tgt Ion:276 Resp: 19970

Ion	Ratio	Lower	Upper
276	100		
138	30.8	0.0	56.8
277	24.3	0.0	53.6



Quantitation Report (QT Reviewed)

1st 12/19/18
2nd 12/21/18

Data File : J:\MS29\DATA\121118\1211F022.D Vial: 21
Acq On : 12 Dec 2018 12:34 am Operator: CConover
Sample : K1810302-029 10X Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 19 12:21:57 2018 Quant Results File: 112918_8270LL.RES

Quant Method : J:\MS29\M...\112918_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Wed Dec 19 12:21:09 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.04	152	34915	1000.00	ng/ml	-0.01
21) Naphthalene-d8	6.32	136	128839	1000.00	ng/ml	-0.02
35) Acenaphthene-d10	9.74	164	67964	1000.00	ng/ml	-0.01
59) Phenanthrene-d10	12.07	188	125470	1000.00	ng/ml	0.00
69) Chrysene-d12	15.60	240	115917	1000.00	ng/ml	-0.01
77) Perylene-d12	18.72	264	114605	1000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	3.96	112	5221	120.81	ng/ml	0.00
Spiked Amount 3750.000	Range 38 - 110		Recovery = 3.22%#			
6) Phenol-d6	4.70	99	8455	138.69	ng/ml	0.00
Spiked Amount 3750.000	Range 43 - 128		Recovery = 3.70%#			
19) Nitrobenzene-d5	5.55	82	5727	105.68	ng/ml	0.00
Spiked Amount 2500.000	Range 30 - 139		Recovery = 4.23%#			
39) 2-Fluorobiphenyl	8.24	172	11777	115.24	ng/ml	-0.02
Spiked Amount 2500.000	Range 37 - 126		Recovery = 4.61%#			
60) 2,4,6-Tribromophenol	11.10	330	2327	156.62	ng/ml	0.00
Spiked Amount 3750.000	Range 38 - 157		Recovery = 4.18%#			
71) Terphenyl-d14	13.98	244	15559	133.16	ng/ml	0.00
Spiked Amount 2500.000	Range 54 - 158		Recovery = 5.33%#			
Target Compounds						Qvalue
7) Phenol	4.71	94	325m	4.63	ng/ml	
29) Naphthalene	6.35	128	6635	46.38	ng/ml	97
33) 2-Methylnaphthalene	7.43	141	2567	31.97	ng/ml	98
34) 1-Methylnaphthalene	7.63	141	1404m	19.31	ng/ml	
42) Acenaphthylene	9.46	152	3579	25.01	ng/ml	78
45) Acenaphthene	9.80	154	3819	42.36	ng/ml	95
48) Dibenzofuran	10.13	168	1997	18.35	ng/ml	95
52) Fluorene	10.72	166	3017	29.43	ng/ml	87
57) Diphenylamine	10.93	169	5690	85.31	ng/ml#	53
64) Phenanthrene	12.10	178	48506	315.78	ng/ml	99
65) Anthracene	12.17	178	9266	63.80	ng/ml	89
67) Di-n-butyl Phthalate	12.84	149	9113	54.15	ng/ml	88
68) Fluoranthene	13.52	202	63349	413.46	ng/ml	98
70) Pyrene	13.79	202	77135	419.52	ng/ml	98
74) Benz(a)anthracene	15.58	228	25285	160.90	ng/ml	93
75) Chrysene	15.65	228	36097	254.50	ng/ml	94
76) Bis(2-ethylhexyl) Phthalat	15.65	149	609311	5342.89	ng/ml	96
78) Di-n-octyl Phthalate	17.30	149	8027m	90.29	ng/ml	
79) Benzo(b)fluoranthene	18.08	252	35729	251.50	ng/ml	95
80) Benzo(k)fluoranthene	18.13	252	13140	92.63	ng/ml	92
81) Benzo(a)pyrene	18.63	252	24169	180.47	ng/ml	98
82) Indeno(1,2,3-cd)pyrene	20.52	276	16652	147.73	ng/ml	91
83) Dibenz(a,h)anthracene	20.56	278	3764	29.77	ng/ml	92
84) Benzo(g,h,i)perylene	21.01	276	19970	131.97	ng/ml	95

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

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F024.D\
Lab ID: K1810302-029
RunType: N/A
Matrix: Sediment

Date Acquired: 11/18/18 02:27:00
Batch ID: 615546
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Preparation Hold Time	X	
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Lab Control Sample Recovery	X	
Method Blank	X	
Method Blank Surrogates	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level		X

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Above Highest ICAL Level	Bis(2-ethylhexyl) Phthalate	44933.74		10000	see dilution

Primary Review: _____

Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F024.D\	**Instrument:**	K-MS-29
Acqu Date:	11/18/18 02:27:00	**Vial:**	24
Run Type:	N/A	**Dilution:**	1
Lab ID:	K1810302-029	**Raw Units:**	ng/mL

Bottle ID:	K1810302-029.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615546	**Prep Lot:**	324899	**Report Group:**	K1810302
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.69	+0.04	237314	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	14.03	+0.02	309582	1295.28	52	30 - 102	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.74	+0.06	9068956	44933.74	4900	E	Y

Prep Amount:	40.230 g	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	45.90

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

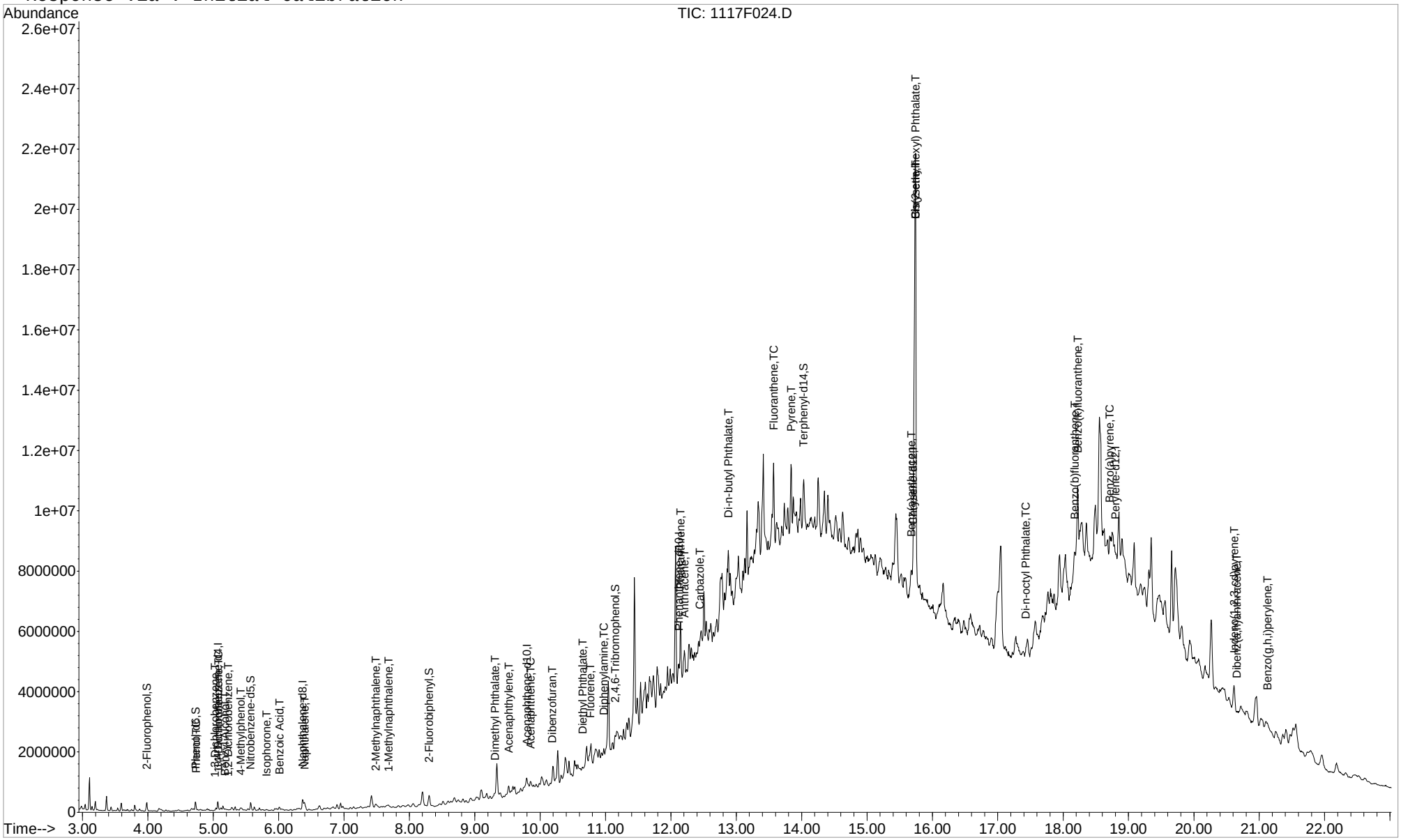
Printed: 12/7/18 15:58
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Quantitation Report (QT Reviewed)

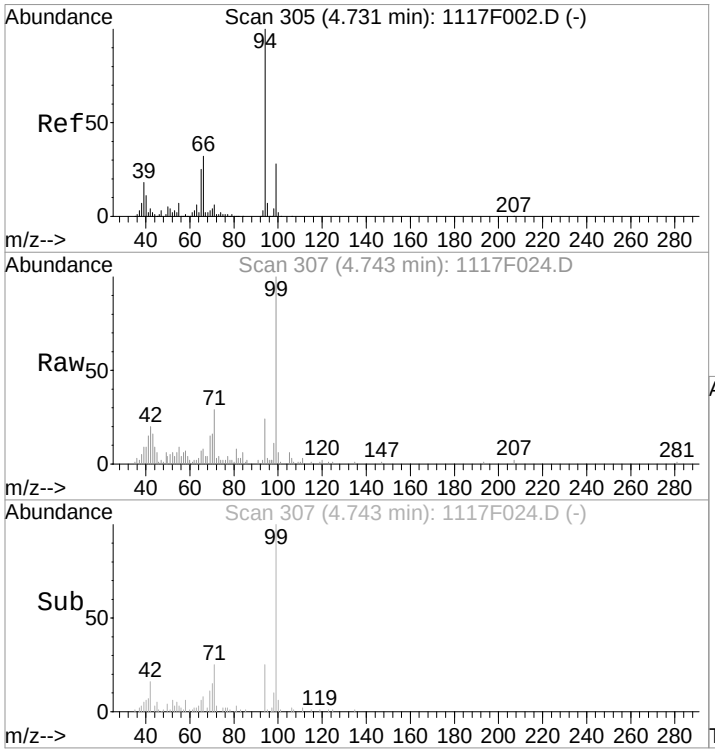
1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F024.D Vial: 71
Acq On : 18 Nov 2018 2:27 am Operator: CConover
Sample : K1810302-029 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 15:12 2018 Quant Results File: 110618_8270LL.RES

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration



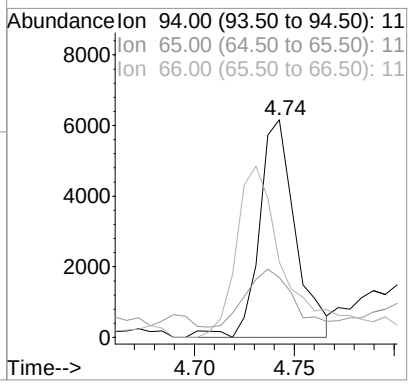
1st 12/07/18
2nd 12/10/18

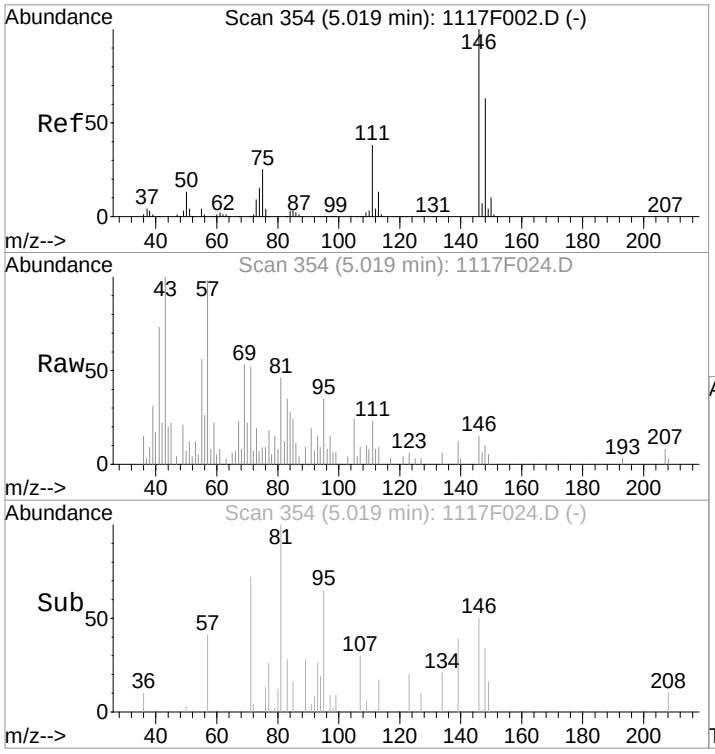


#7
Phenol
Concen: 75.22 ng/ml
RT: 4.74 min Scan# 307
Delta R.T. 0.03 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion: 94 Resp: 7783

Ion	Ratio	Lower	Upper
94	100		
65	20.2	0.0	53.9
66	34.6	0.9	60.9

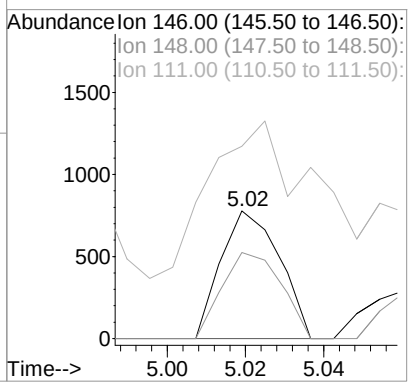




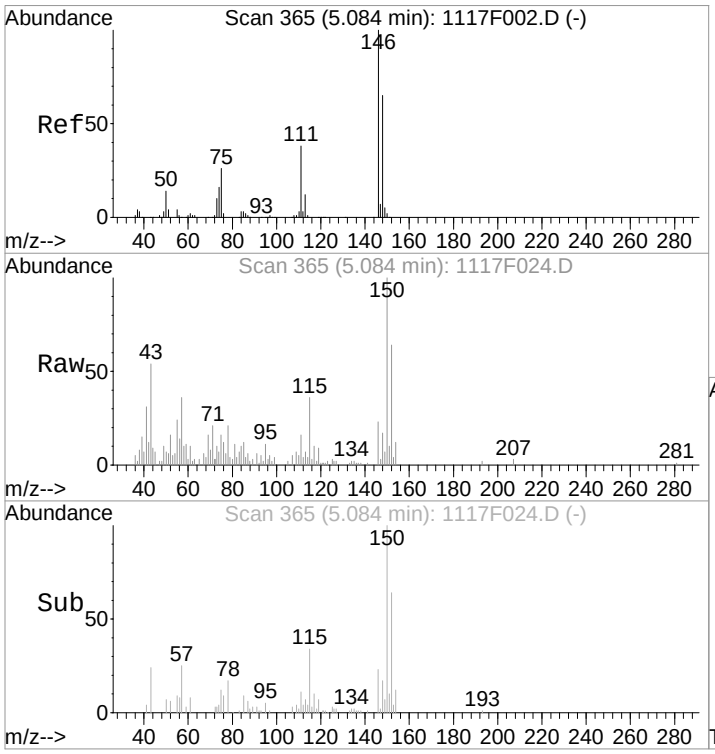
#10
1,3-Dichlorobenzene
Concen: 8.21 ng/ml m
RT: 5.02 min Scan# 354
Delta R.T. 0.02 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:146 Resp: 810

Ion	Ratio	Lower	Upper
146	100		
148	67.4	33.2	93.2
111	150.8	9.7	69.7#



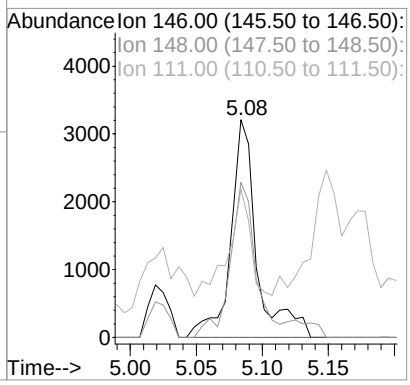
1st 12/07/18
2nd 12/10/18

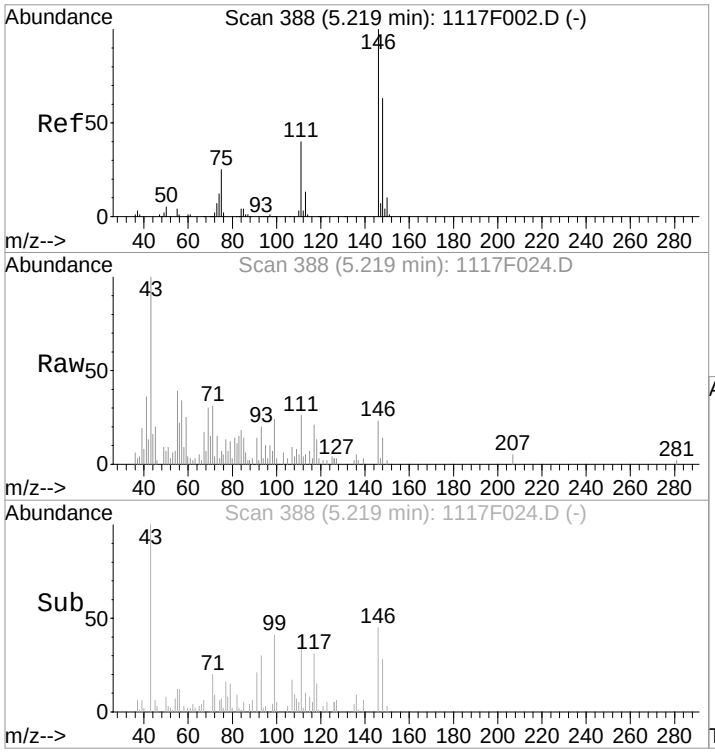


#11
1,4-Dichlorobenzene
Concen: 43.38 ng/ml m
RT: 5.08 min Scan# 365
Delta R.T. 0.02 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:146 Resp: 4419

Ion	Ratio	Lower	Upper
146	100		
148	71.3	33.3	93.3
111	68.1	8.5	68.5

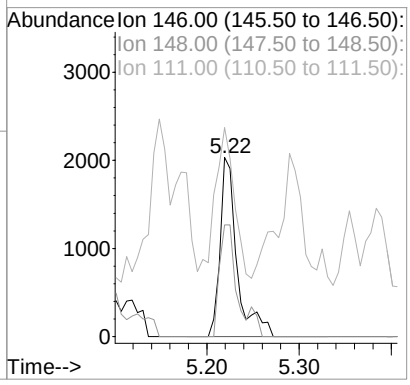




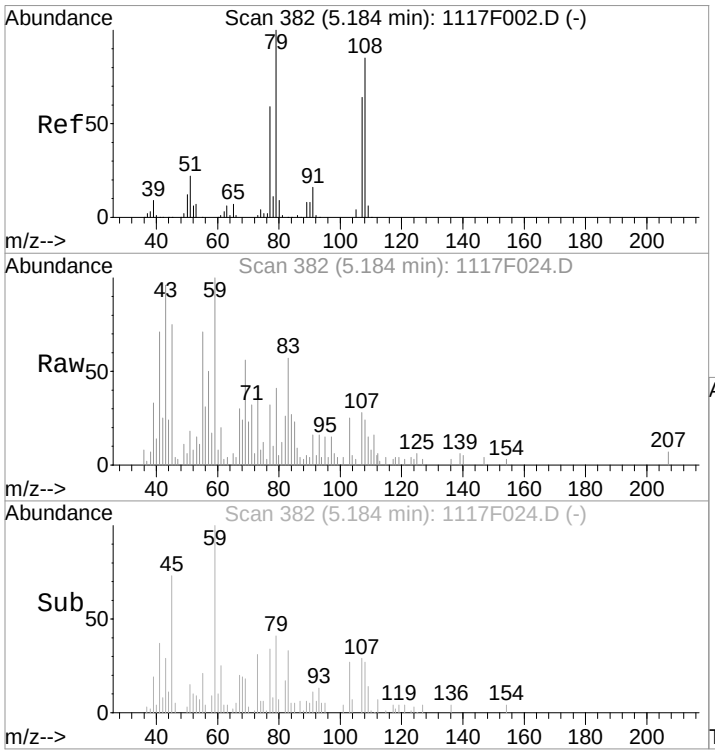
#12
1,2-Dichlorobenzene
Concen: 26.62 ng/ml m
RT: 5.22 min Scan# 388
Delta R.T. 0.02 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:146 Resp: 2580

Ion	Ratio	Lower	Upper
146	100		
148	62.4	31.9	91.9
111	116.6	9.8	69.8#



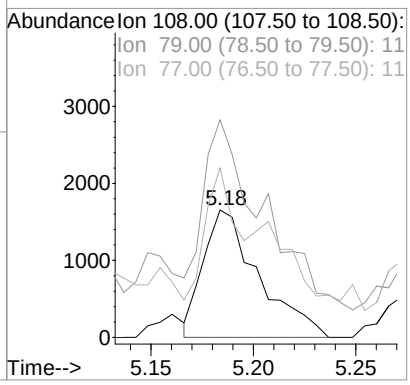
1st 12/07/18
2nd 12/10/18

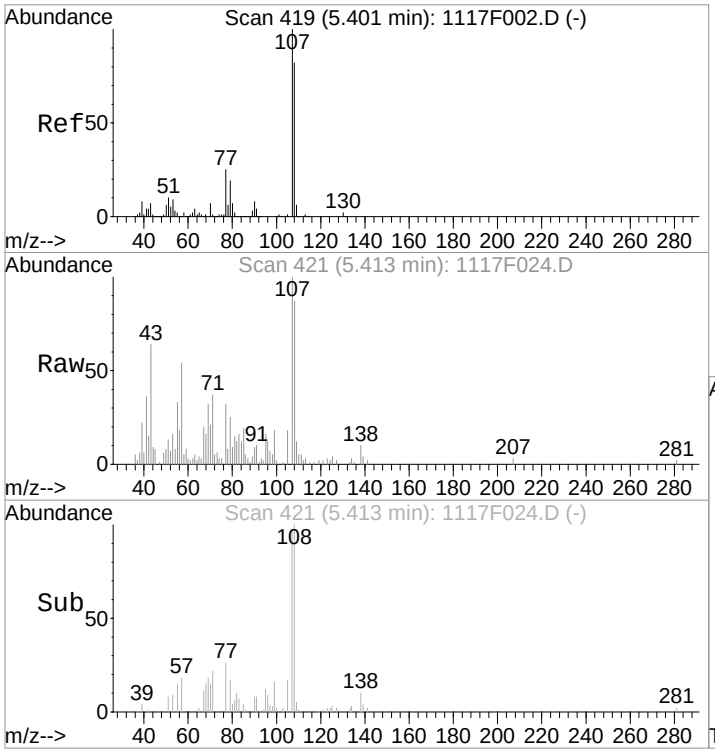


#13
Benzyl Alcohol
Concen: 57.92 ng/ml m
RT: 5.18 min Scan# 382
Delta R.T. 0.02 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:108 Resp: 3105

Ion	Ratio	Lower	Upper
108	100		
79	170.9	85.3	145.3#
77	133.2	38.7	98.7#

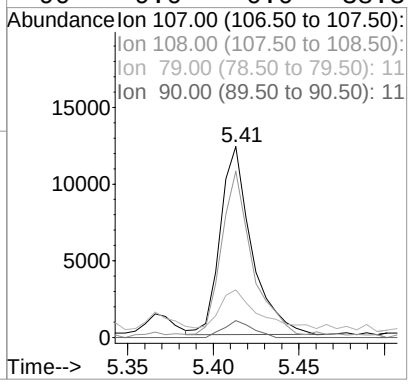




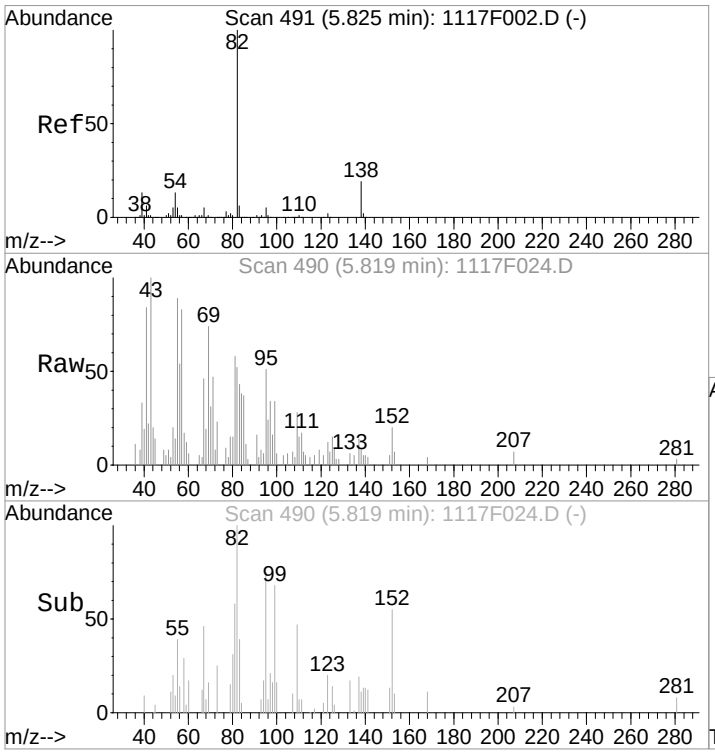
#18
4-Methylphenol
Concen: 155.09 ng/ml
RT: 5.41 min Scan# 421
Delta R.T. 0.03 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:107 Resp: 15606

Ion	Ratio	Lower	Upper
107	100		
108	87.0	51.4	111.4
79	19.5	0.0	47.7
90	9.0	0.0	38.3



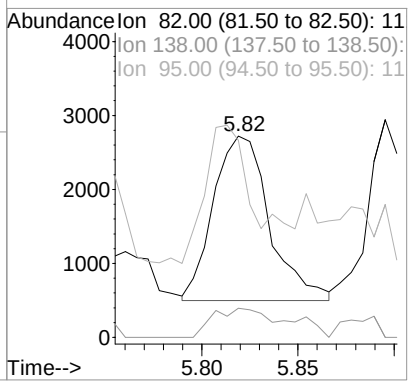
1st 12/07/18
2nd 12/10/18

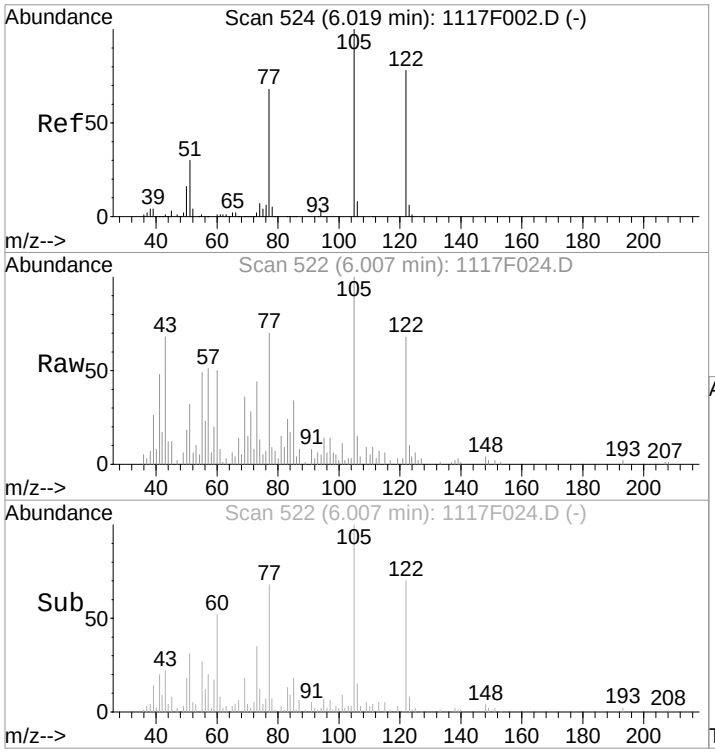


#22
Isophorone
Concen: 28.18 ng/ml m
RT: 5.82 min Scan# 490
Delta R.T. 0.01 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion: 82 Resp: 4511

Ion	Ratio	Lower	Upper
82	100		
138	14.4	0.0	49.8
95	97.9	0.0	35.9#

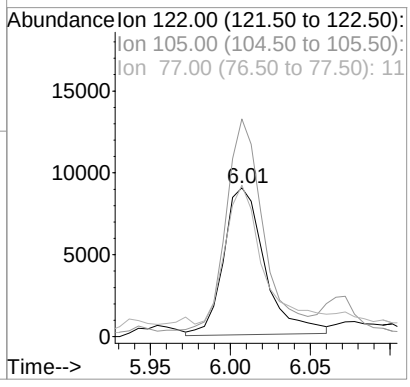




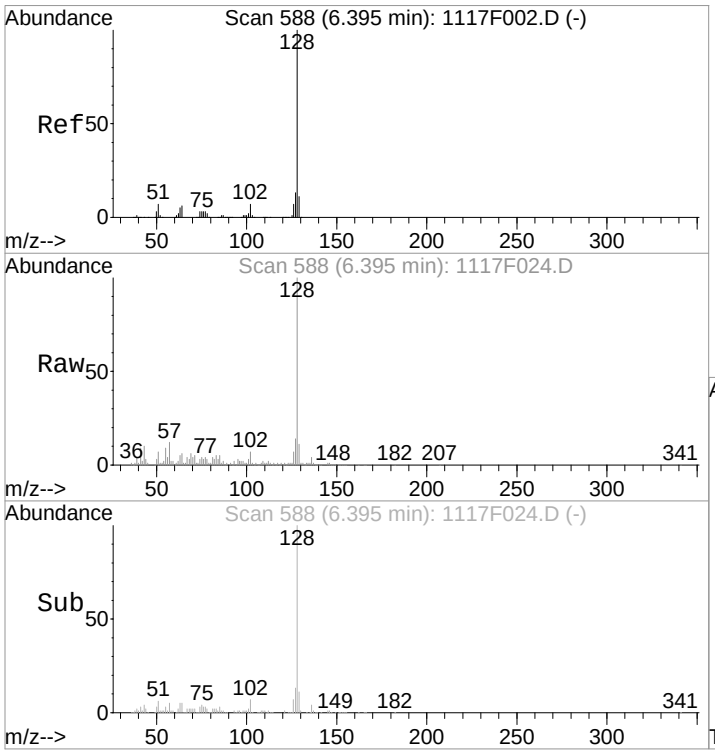
#27
Benzoic Acid
Concen: 882.11 ng/ml
RT: 6.01 min Scan# 522
Delta R.T. 0.02 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:122 Resp: 16114

Ion	Ratio	Lower	Upper
122	100		
105	145.9	86.3	146.3
77	91.4	54.7	114.7



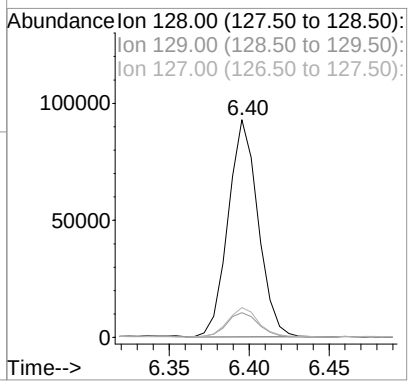
1st 12/07/18
2nd 12/10/18

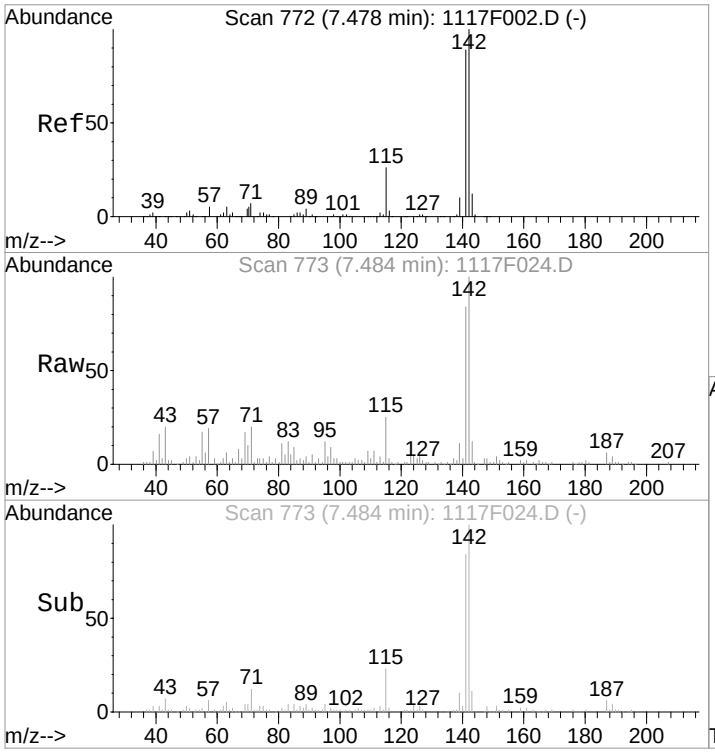


#29
Naphthalene
Concen: 459.80 ng/ml
RT: 6.40 min Scan# 588
Delta R.T. 0.02 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:128 Resp: 121143

Ion	Ratio	Lower	Upper
128	100		
129	11.4	0.0	41.0
127	13.5	0.0	43.2

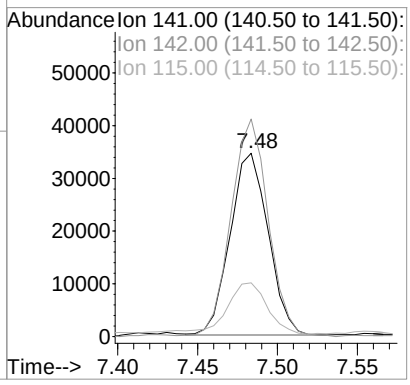




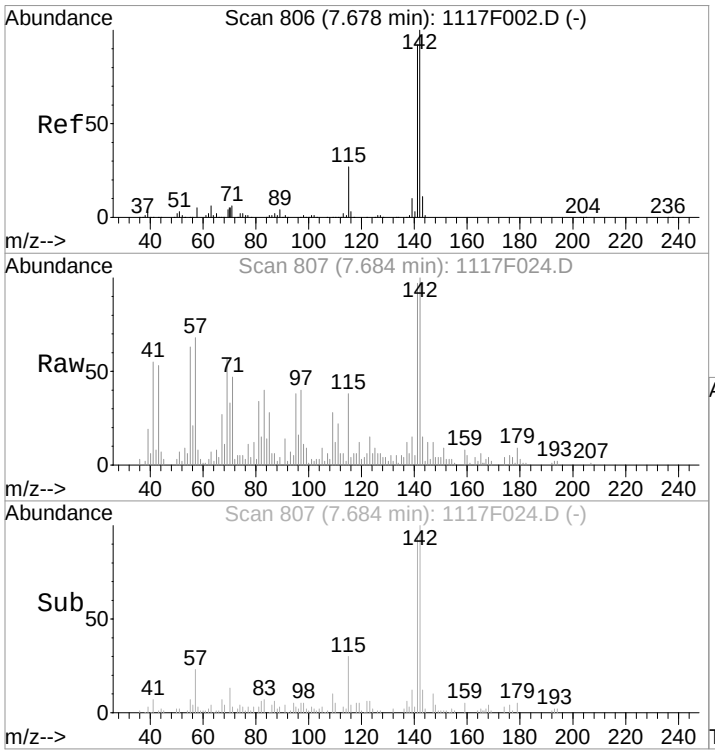
#33
2-Methylnaphthalene
Concen: 372.53 ng/ml
RT: 7.48 min Scan# 773
Delta R.T. 0.04 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:141 Resp: 57316

Ion	Ratio	Lower	Upper
141	100		
142	118.8	84.5	144.5
115	28.0	0.0	59.3



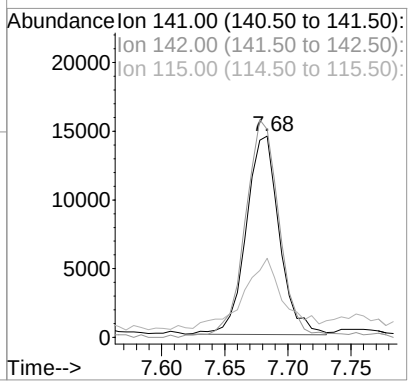
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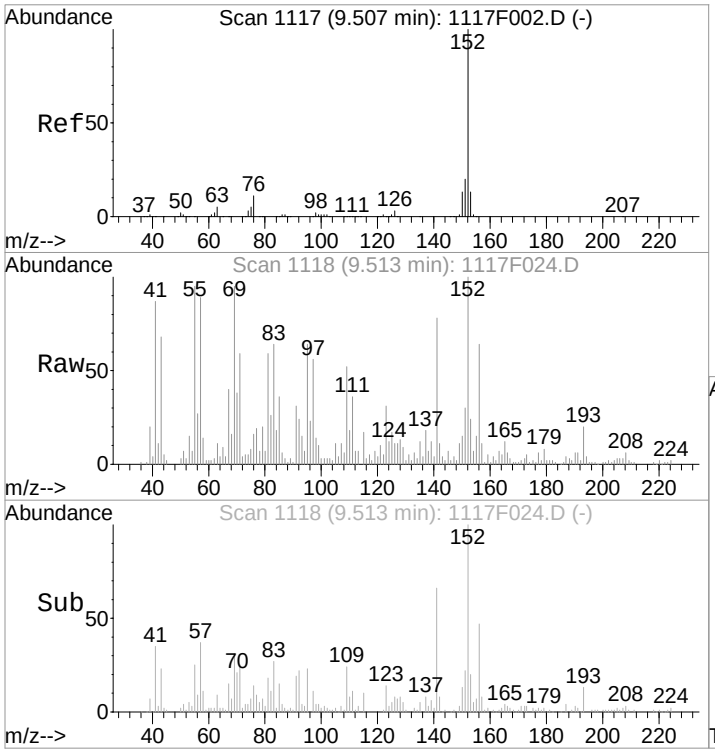


#34
1-Methylnaphthalene
Concen: 187.61 ng/ml
RT: 7.68 min Scan# 807
Delta R.T. 0.04 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:141 Resp: 26416

Ion	Ratio	Lower	Upper
141	100		
142	103.9	77.2	143.4
115	35.1	20.7	38.5

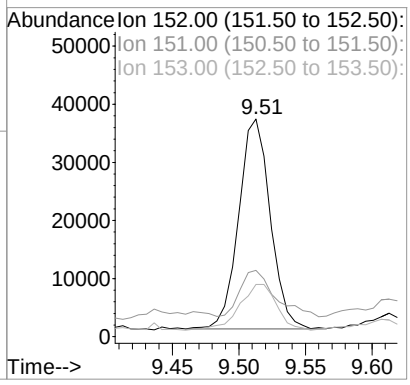




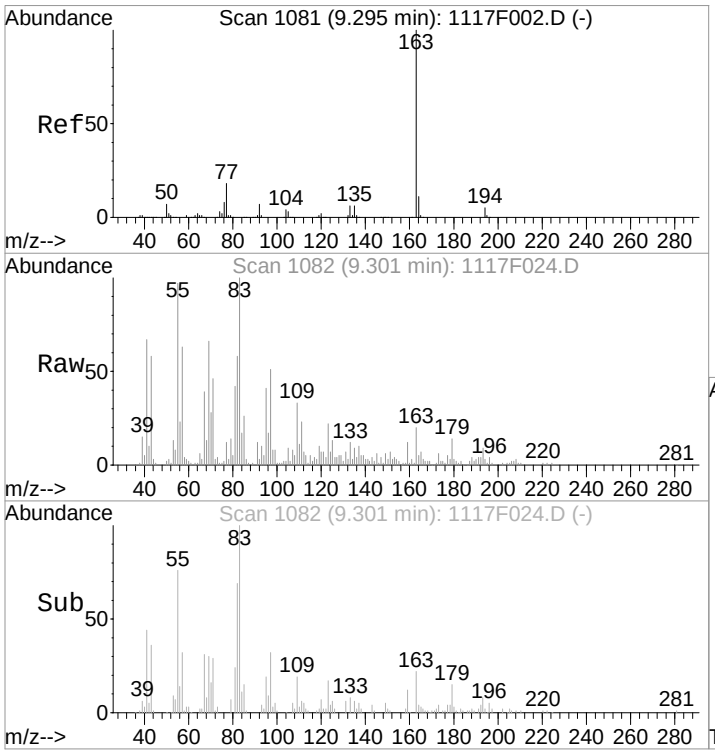
#42
Acenaphthylene
Concen: 221.36 ng/ml
RT: 9.51 min Scan# 1118
Delta R.T. 0.04 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:152 Resp: 59804

Ion	Ratio	Lower	Upper
152	100		
151	21.7	0.0	50.0
153	21.9	0.0	42.7



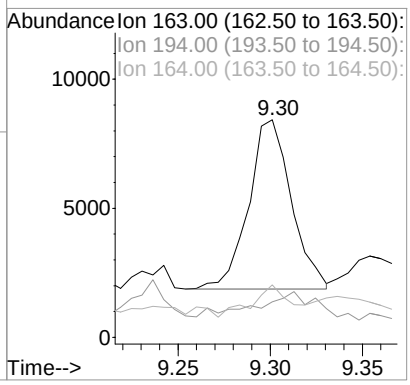
1st 12/07/18
2nd 12/10/18

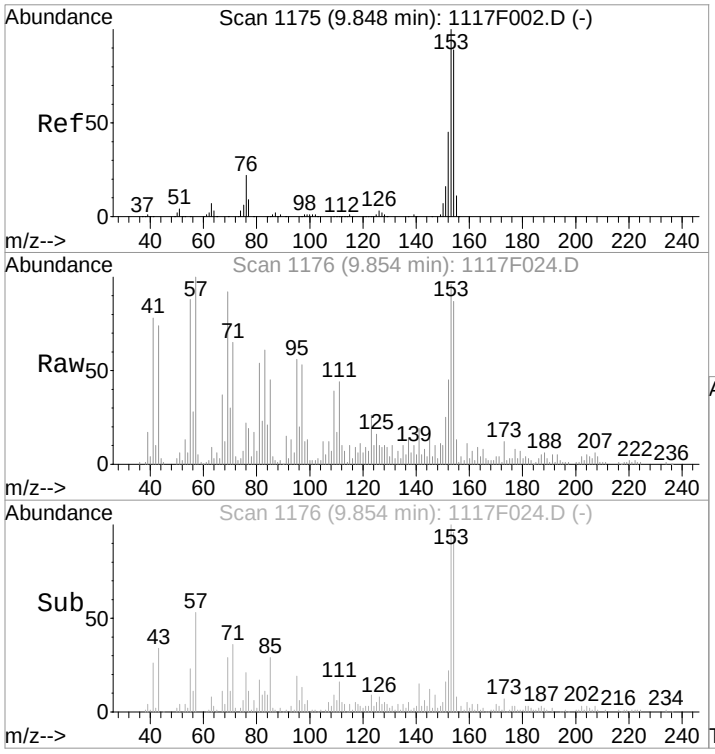


#43
Dimethyl Phthalate
Concen: 56.09 ng/ml
RT: 9.30 min Scan# 1082
Delta R.T. 0.04 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:163 Resp: 10561

Ion	Ratio	Lower	Upper
163	100		
194	8.3	0.0	34.7
164	17.4	0.0	40.0

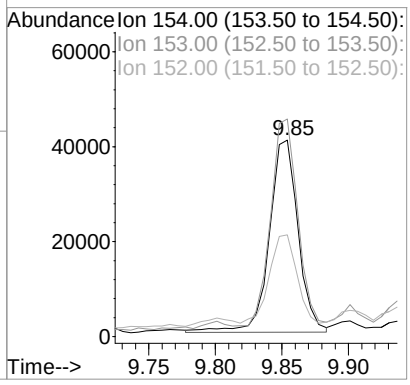




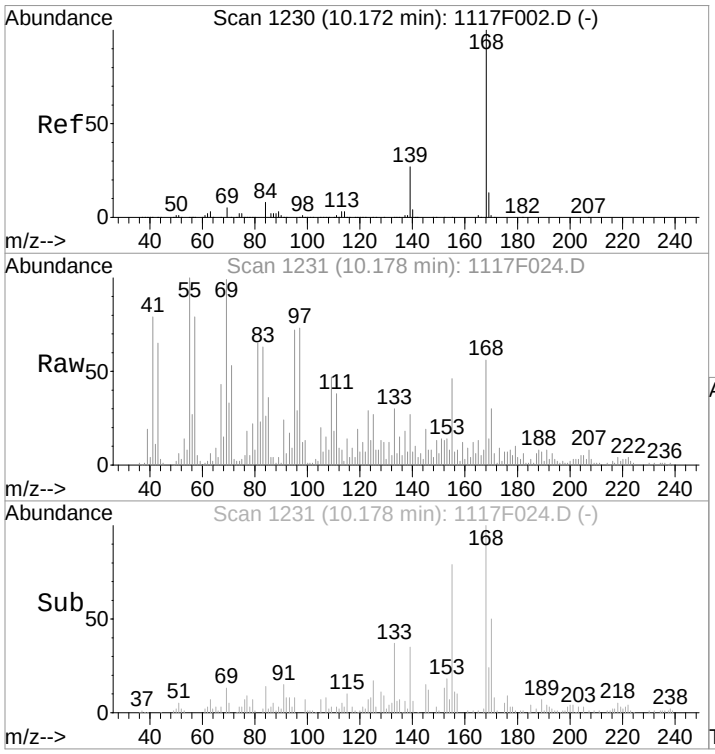
#45
Acenaphthene
Concen: 359.20 ng/ml
RT: 9.85 min Scan# 1176
Delta R.T. 0.04 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:154 Resp: 60997

Ion	Ratio	Lower	Upper
154	100		
153	109.3	81.7	141.7
152	48.1	20.5	80.5



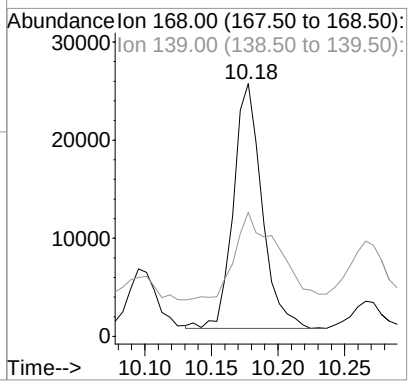
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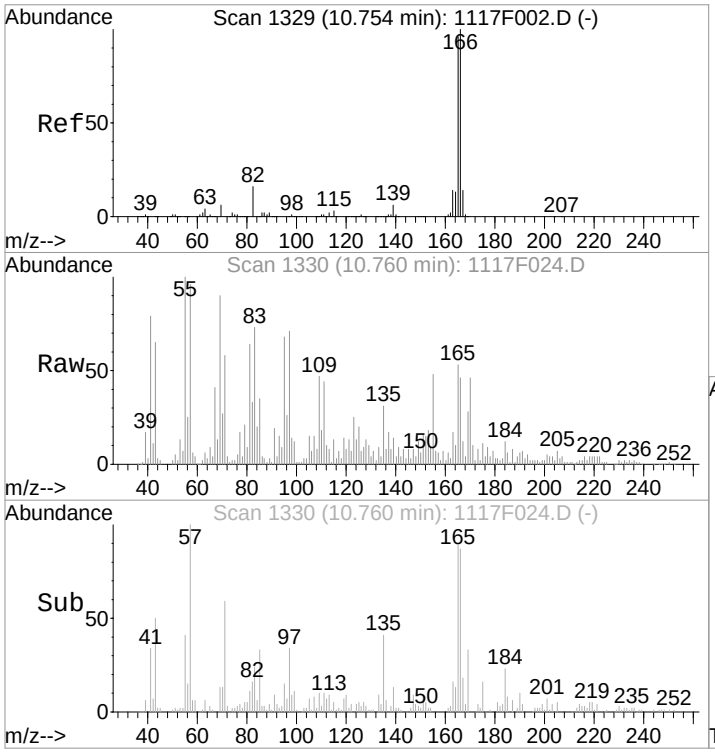


#48
Dibenzofuran
Concen: 178.19 ng/ml
RT: 10.18 min Scan# 1231
Delta R.T. 0.04 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:168 Resp: 37197

Ion	Ratio	Lower	Upper
168	100		
139	35.9	1.7	61.7

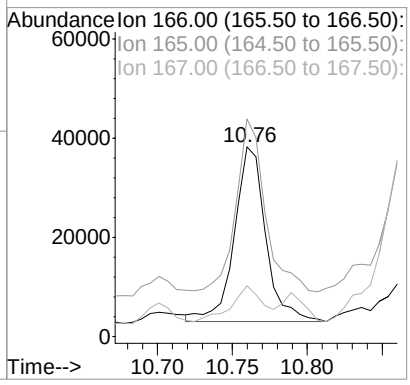




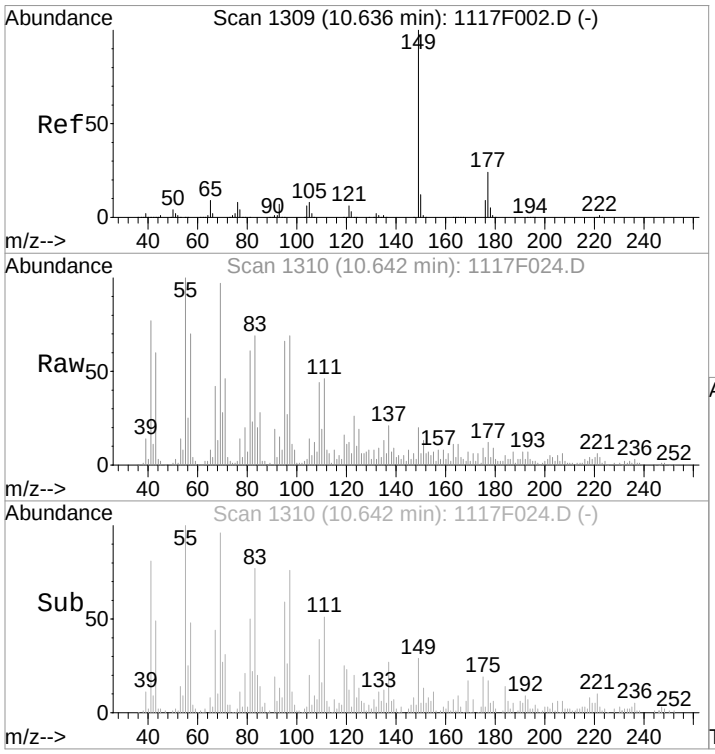
#52
Fluorene
Concen: 261.83 ng/ml
RT: 10.76 min Scan# 1330
Delta R.T. 0.03 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:166 Resp: 51286

Ion	Ratio	Lower	Upper
166	100		
165	98.1	65.9	125.9
167	20.7	0.0	42.7



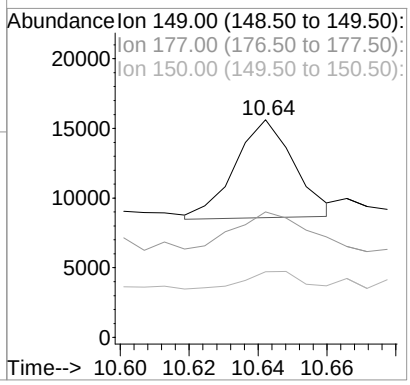
1st 12/07/18
2nd 12/10/18

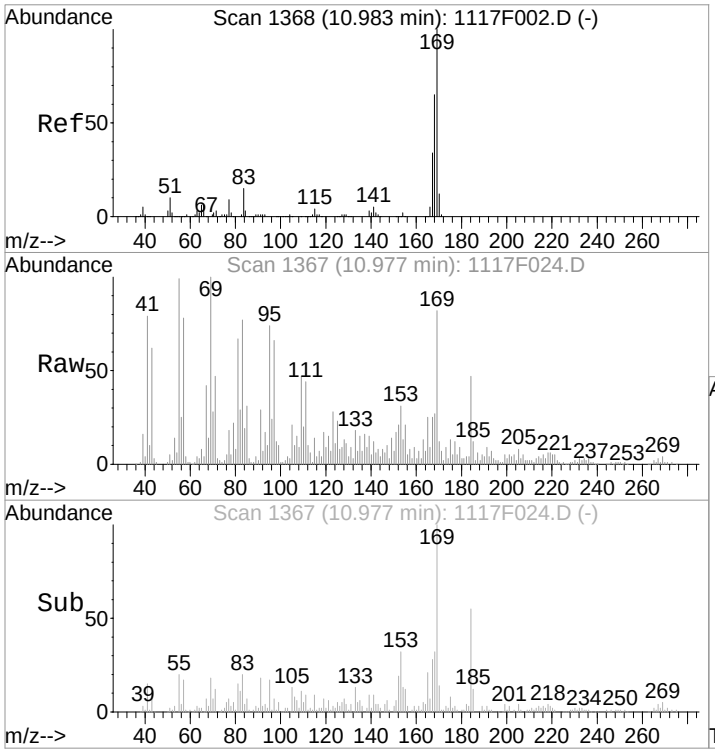


#54
Diethyl Phthalate
Concen: 47.57 ng/ml m
RT: 10.64 min Scan# 1310
Delta R.T. 0.02 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:149 Resp: 8427

Ion	Ratio	Lower	Upper
149	100		
177	57.7	0.0	53.4#
150	30.2	0.0	41.9

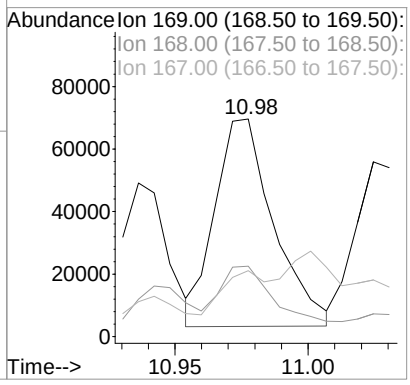




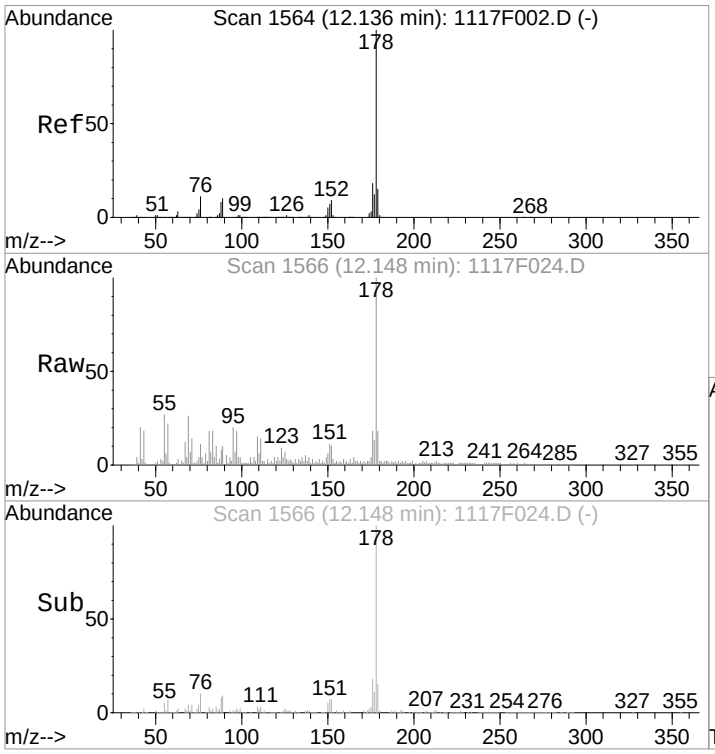
#57
Diphenylamine
Concen: 783.36 ng/ml
RT: 10.98 min Scan# 1367
Delta R.T. 0.02 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:169 Resp: 101869

Ion	Ratio	Lower	Upper
169	100		
168	28.6	35.6	95.6#
167	22.4	3.3	63.3



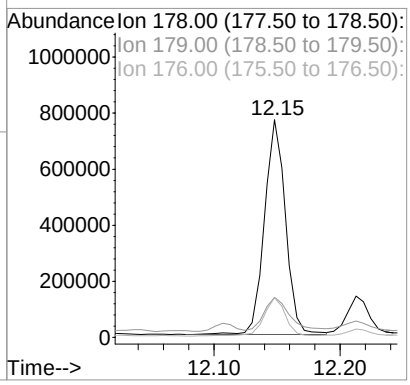
1st 12/07/18
2nd 12/10/18

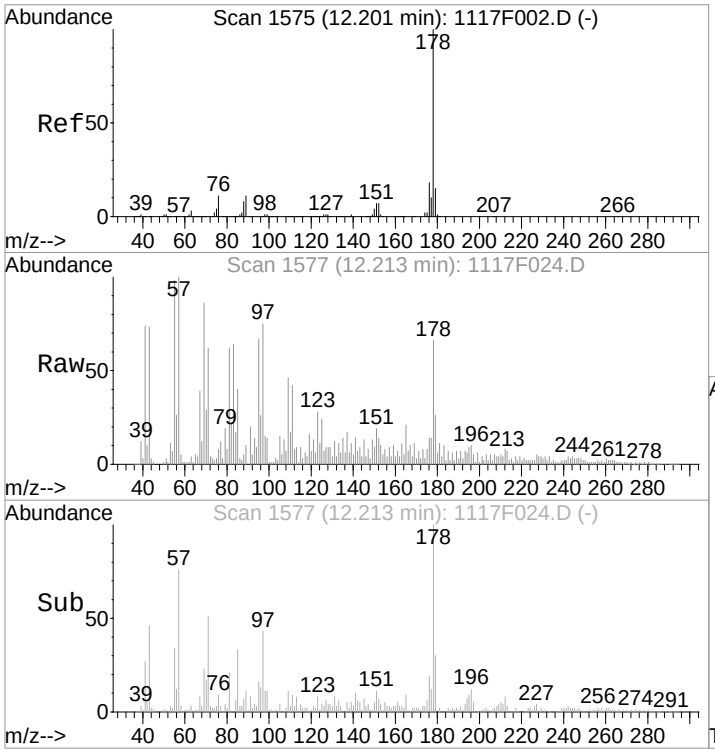


#64
Phenanthrene
Concen: 2851.10 ng/ml
RT: 12.15 min Scan# 1566
Delta R.T. 0.04 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:178 Resp: 892110

Ion	Ratio	Lower	Upper
178	100		
179	15.4	0.0	45.6
176	17.8	0.0	47.8

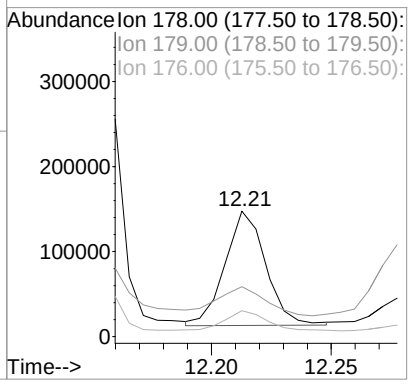




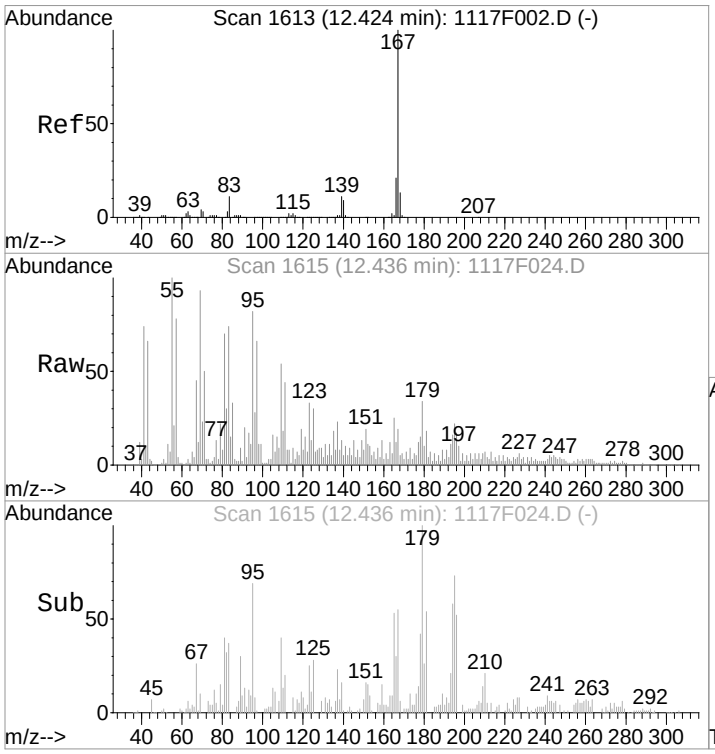
#65
Anthracene
Concen: 521.60 ng/ml
RT: 12.21 min Scan# 1577
Delta R.T. 0.03 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:178 Resp: 159249

Ion	Ratio	Lower	Upper
178	100		
179	24.7	0.0	44.6
176	17.6	0.0	47.4



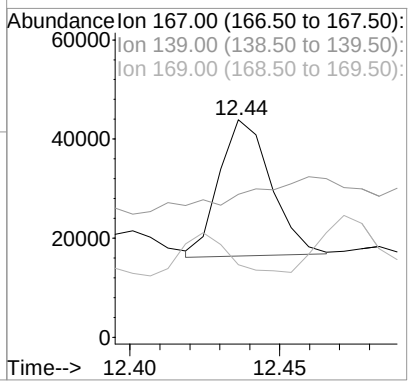
1st 12/07/18
2nd 12/10/18

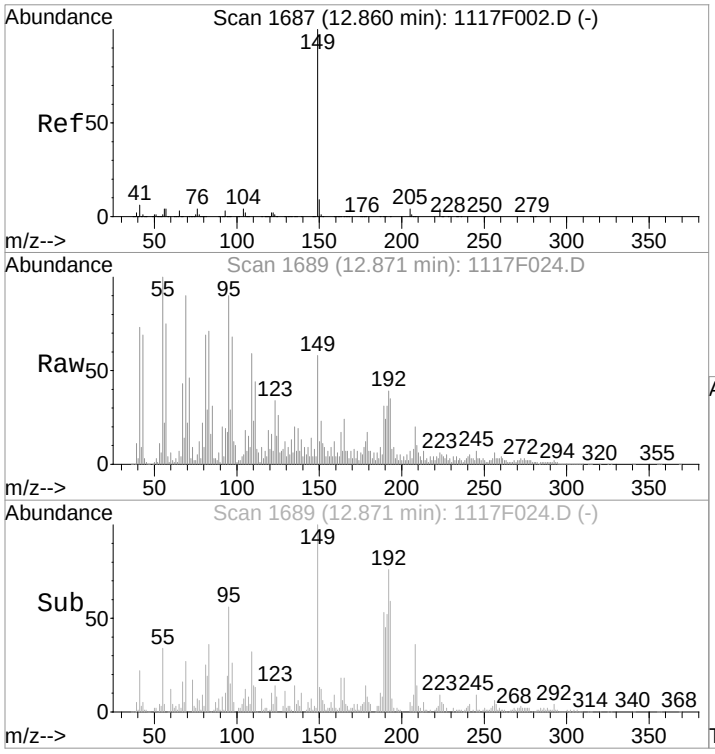


#66
Carbazole
Concen: 137.44 ng/ml
RT: 12.44 min Scan# 1615
Delta R.T. 0.03 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:167 Resp: 33206

Ion	Ratio	Lower	Upper
167	100		
139	8.5	0.0	41.3
169	0.0	0.0	31.0

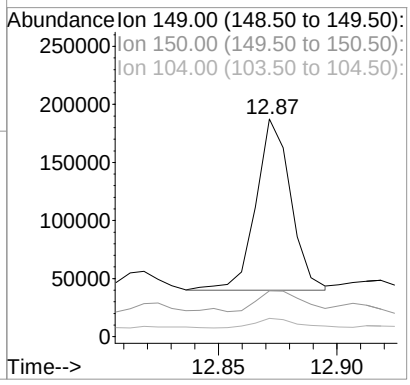




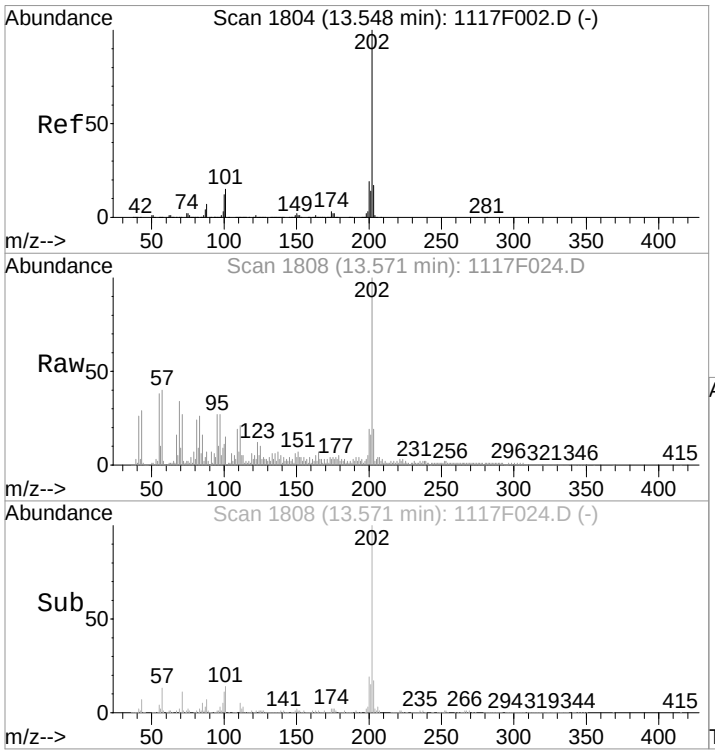
#67
Di-n-butyl Phthalate
Concen: 494.85 ng/ml m
RT: 12.87 min Scan# 1689
Delta R.T. 0.03 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:149 Resp: 151422

Ion	Ratio	Lower	Upper
149	100		
150	21.0	0.0	39.1
104	8.5	0.0	33.8



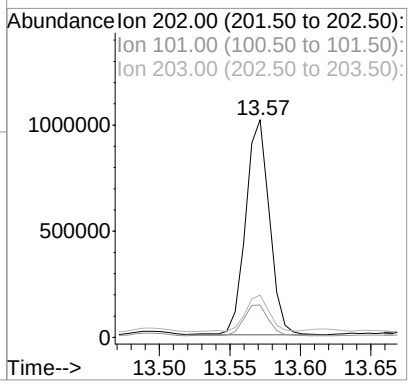
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2nd 12/10/18

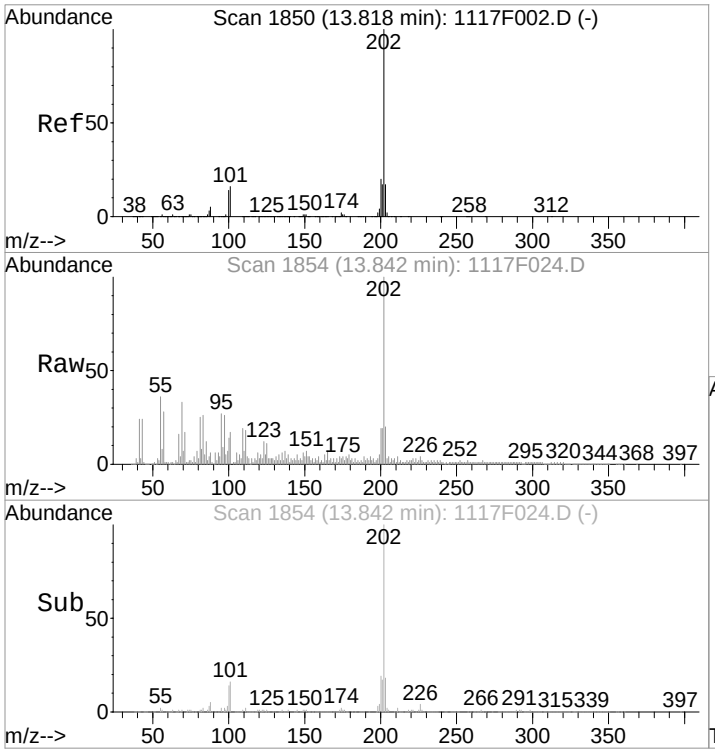


#68
Fluoranthene
Concen: 3569.63 ng/ml
RT: 13.57 min Scan# 1808
Delta R.T. 0.04 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:202 Resp: 1182990

Ion	Ratio	Lower	Upper
202	100		
101	14.3	0.0	43.9
203	17.0	0.0	46.8

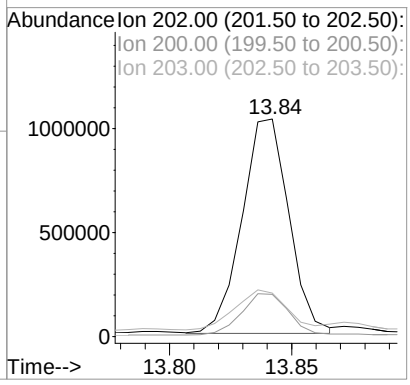




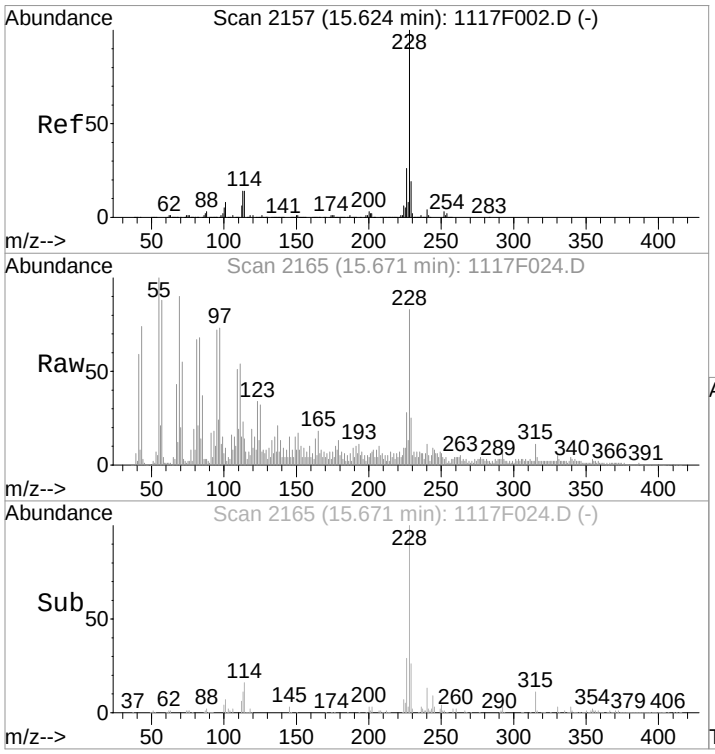
#70
Pyrene
Concen: 3719.17 ng/ml m
RT: 13.84 min Scan# 1854
Delta R.T. 0.05 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:202 Resp: 1381352

Ion	Ratio	Lower	Upper
202	100		
200	19.5	0.0	49.6
203	20.0	0.0	47.0



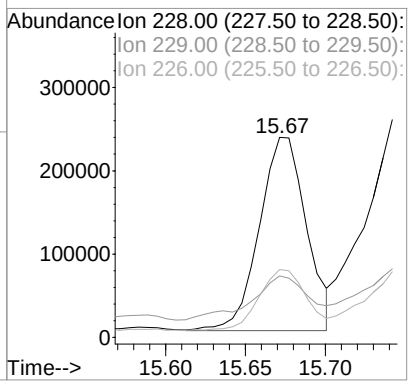
1st 12/07/18
2nd 12/10/18

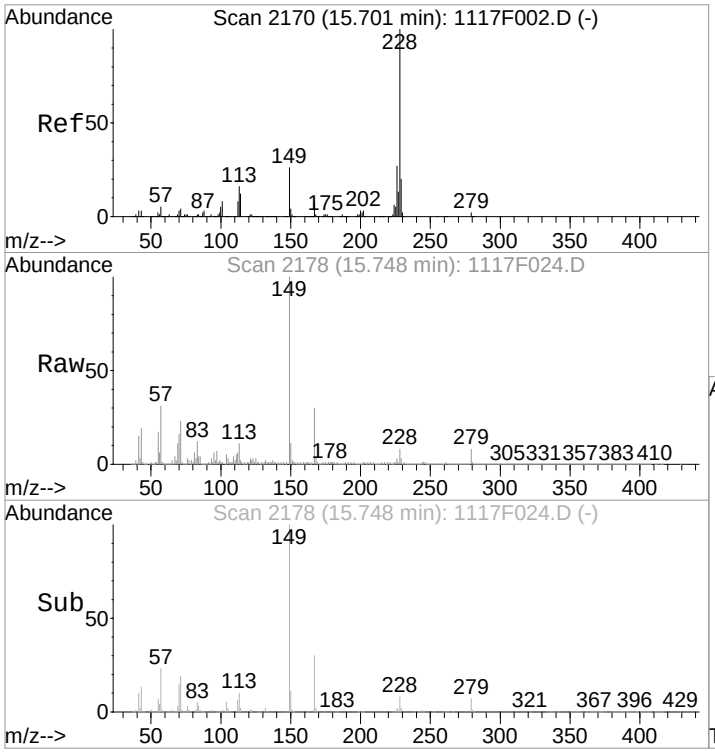


#74
Benz(a)anthracene
Concen: 1558.52 ng/ml
RT: 15.67 min Scan# 2165
Delta R.T. 0.08 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:228 Resp: 476375

Ion	Ratio	Lower	Upper
228	100		
229	22.8	0.0	48.9
226	31.6	0.0	55.1

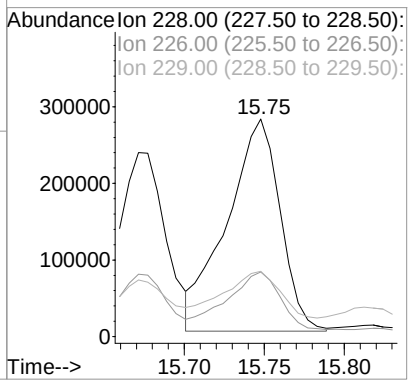




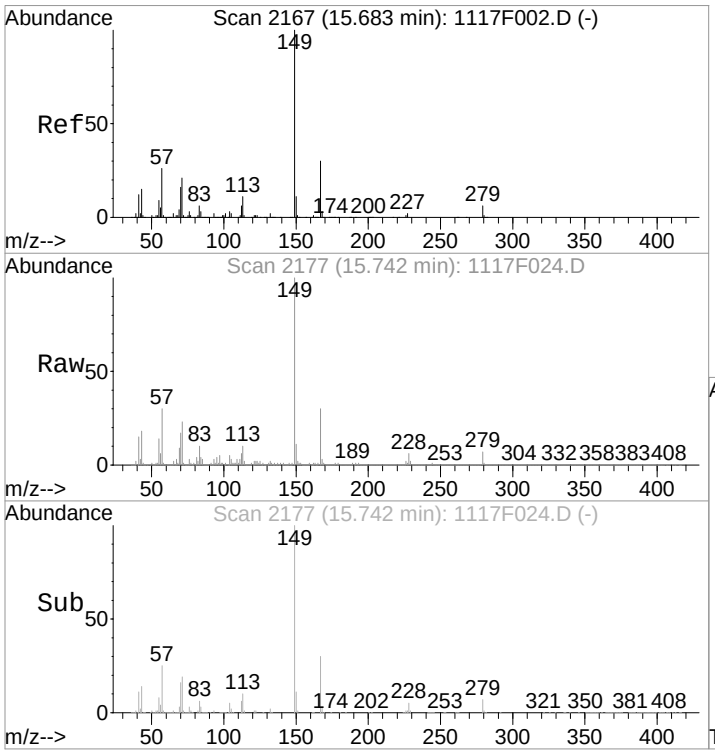
#75
Chrysene
Concen: 2223.94 ng/ml
RT: 15.75 min Scan# 2178
Delta R.T. 0.08 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:228 Resp: 642939

Ion	Ratio	Lower	Upper
228	100		
226	27.6	0.0	57.6
229	21.7	0.0	49.3



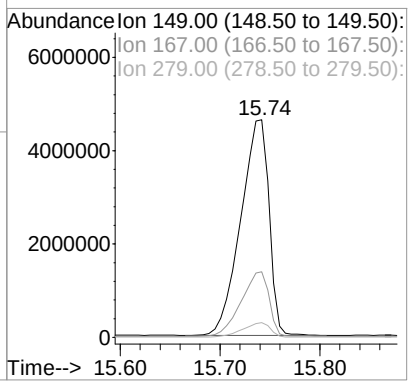
1st 12/07/18
2nd 12/10/18

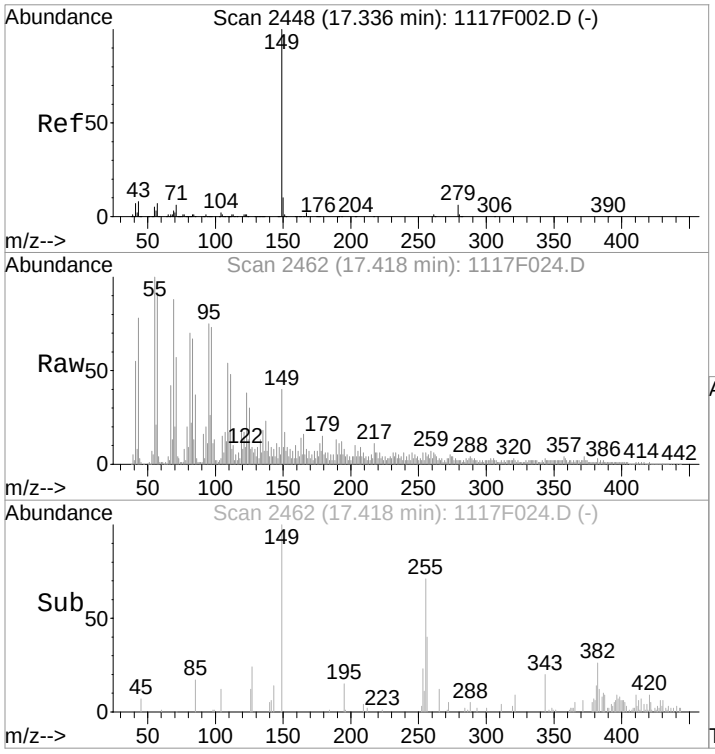


#76
Bis(2-ethylhexyl) Phthalate
Concen: 44933.74 ng/ml
RT: 15.74 min Scan# 2177
Delta R.T. 0.08 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:149 Resp: 9068956

Ion	Ratio	Lower	Upper
149	100		
167	30.0	0.0	59.7
279	6.8	0.0	36.4

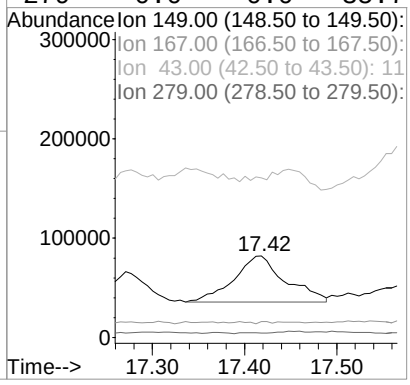




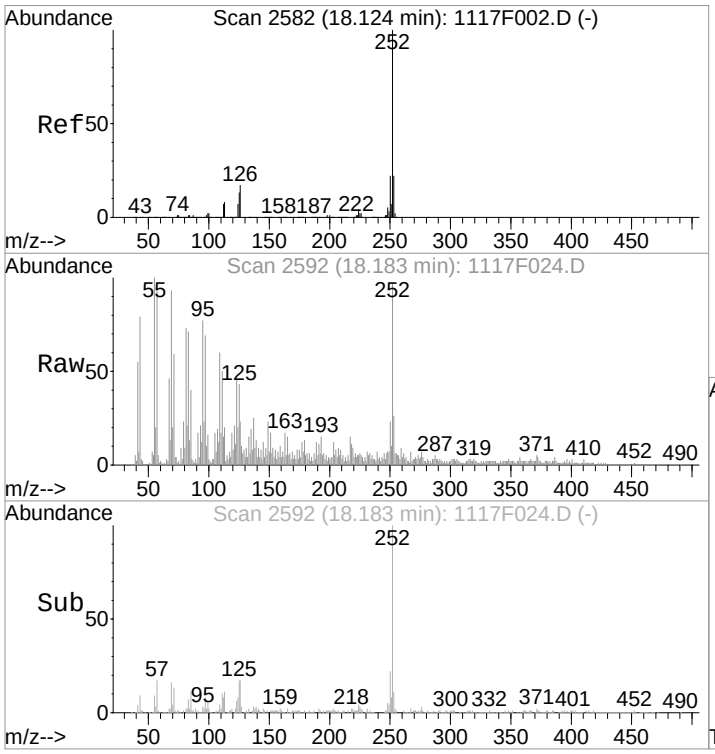
#78
Di-n-octyl Phthalate
Concen: 748.39 ng/ml
RT: 17.42 min Scan# 2462
Delta R.T. 0.12 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:149 Resp: 180047

Ion	Ratio	Lower	Upper
149	100		
167	1.7	0.0	31.5
43	24.8	0.0	38.6
279	0.0	0.0	35.7



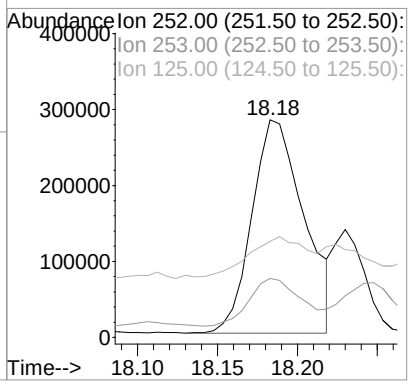
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2nd 12/10/18

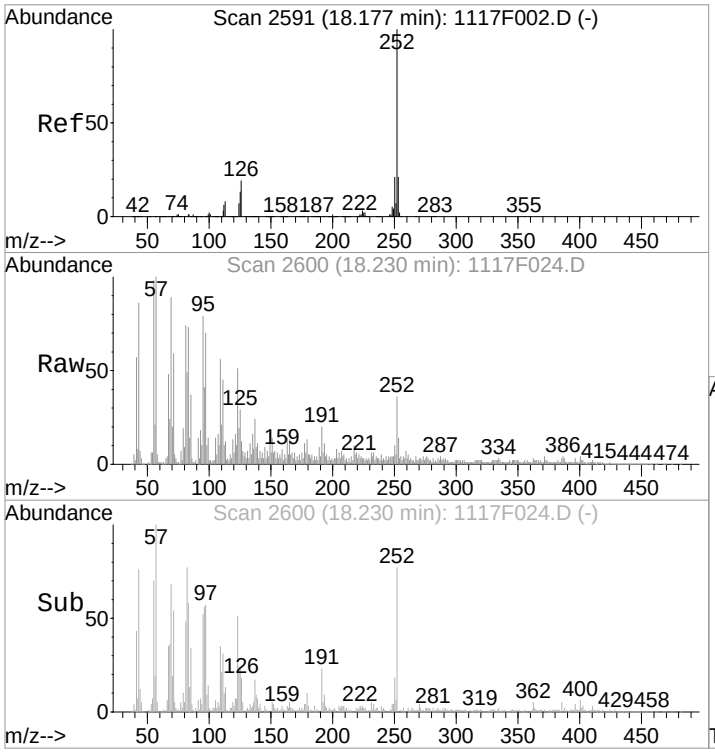


#79
Benzo(b)fluoranthene
Concen: 2853.27 ng/ml
RT: 18.18 min Scan# 2592
Delta R.T. 0.09 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:252 Resp: 638308

Ion	Ratio	Lower	Upper
252	100		
253	21.8	0.0	51.6
125	15.9	0.0	43.2

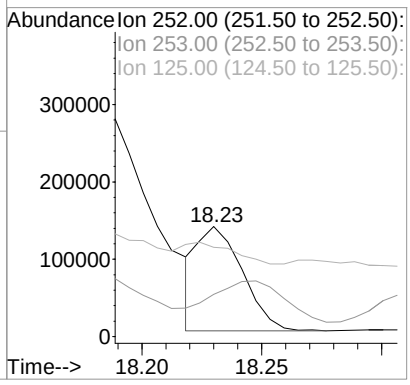




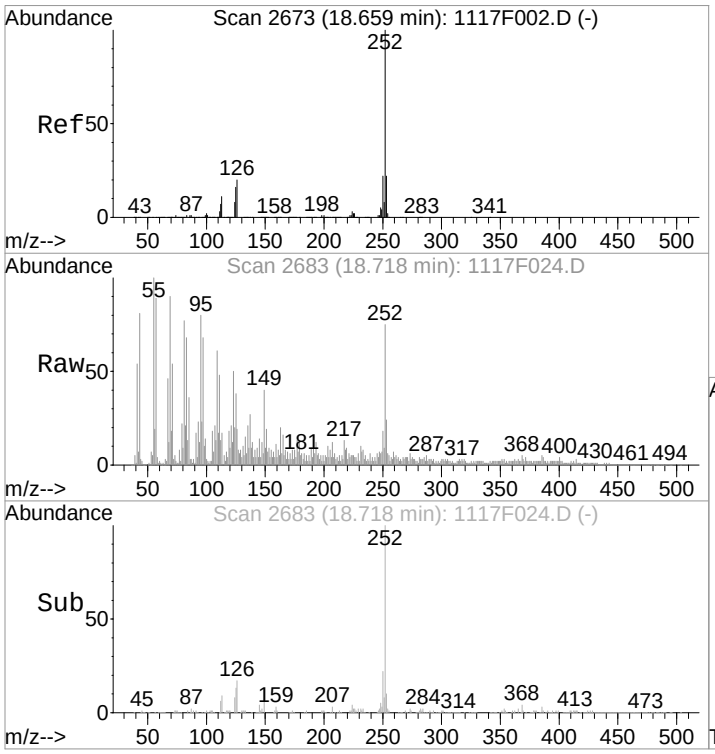
#80
Benzo(k)fluoranthene
Concen: 813.14 ng/ml
RT: 18.23 min Scan# 2600
Delta R.T. 0.09 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:252 Resp: 178958

Ion	Ratio	Lower	Upper
252	100		
253	26.8	0.0	51.5
125	13.3	0.0	43.3



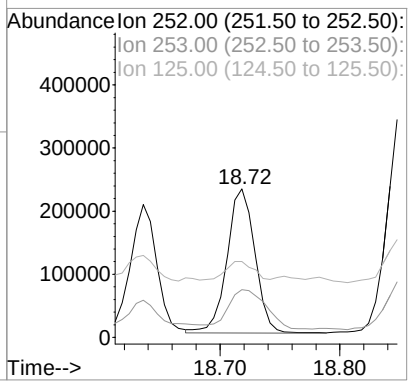
1st 12/07/18
2nd 12/10/18

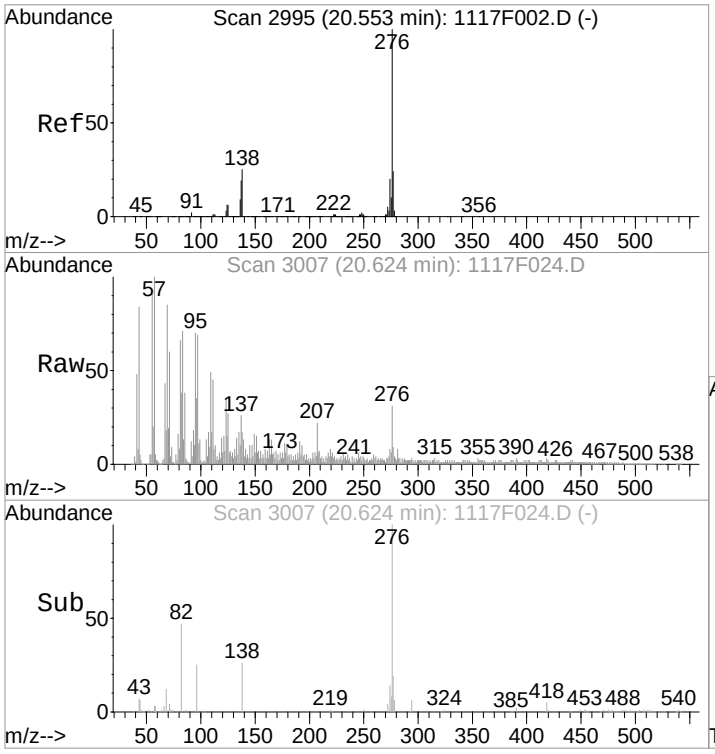


#81
Benzo(a)pyrene
Concen: 1814.21 ng/ml
RT: 18.72 min Scan# 2683
Delta R.T. 0.09 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:252 Resp: 370734

Ion	Ratio	Lower	Upper
252	100		
253	27.0	0.0	52.0
125	12.4	0.0	45.4

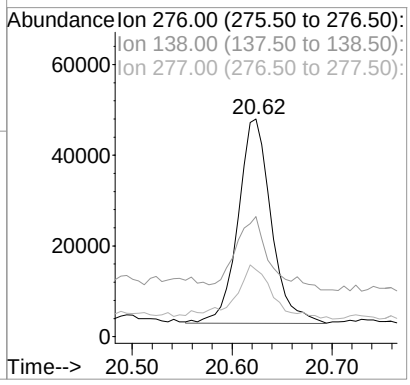




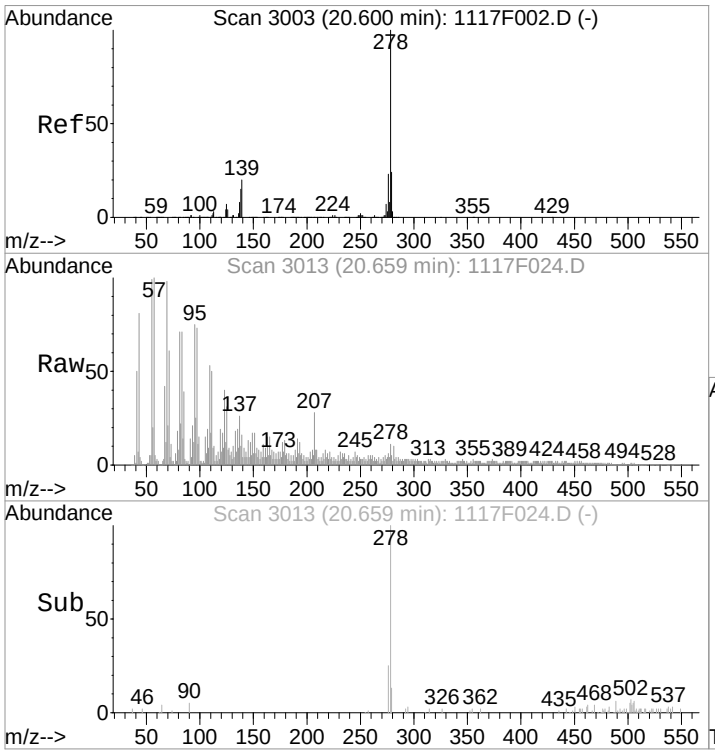
#82
Indeno(1,2,3-cd)pyrene
Concen: 666.23 ng/ml
RT: 20.62 min Scan# 3007
Delta R.T. 0.11 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:276 Resp: 103943

Ion	Ratio	Lower	Upper
276	100		
138	35.9	0.0	53.7
277	23.1	0.0	53.2



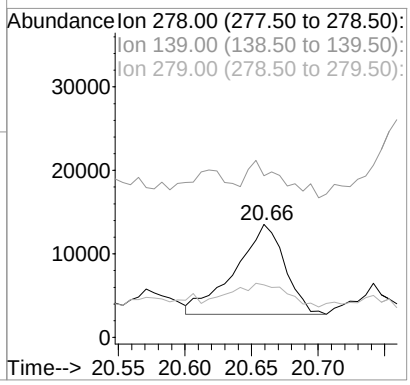
1st 12/07/18
2nd 12/10/18

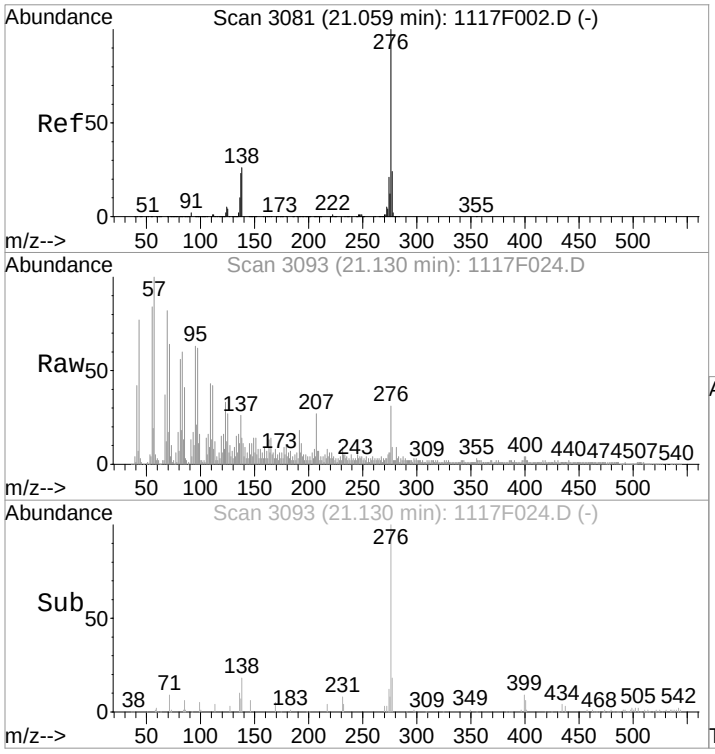


#83
Dibenz(a,h)anthracene
Concen: 246.21 ng/ml
RT: 20.66 min Scan# 3013
Delta R.T. 0.10 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:278 Resp: 28126

Ion	Ratio	Lower	Upper
278	100		
139	19.9	0.0	51.0
279	20.6	0.0	54.3

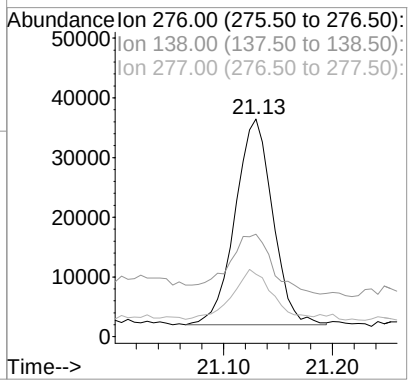




#84
Benzo(g,h,i)perylene
Concen: 500.51 ng/ml
RT: 21.13 min Scan# 3093
Delta R.T. 0.12 min
Lab File: 1117F024.D
Acq: 18 Nov 2018 2:27 am

Tgt Ion:276 Resp: 82915

Ion	Ratio	Lower	Upper
276	100		
138	28.8	0.0	56.8
277	21.9	0.0	53.6



Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F024.D Vial: 71
Acq On : 18 Nov 2018 2:27 am Operator: CConover
Sample : K1810302-029 Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 11:53:34 2018 Quant Results File: 110618_8270LL.RES

Quant Method : J:\MS29\M...\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.07	152	61244	1000.00	ng/ml	0.02
21) Naphthalene-d8	6.37	136	242449	1000.00	ng/ml	0.02
35) Acenaphthene-d10	9.79	164	128535	1000.00	ng/ml	0.04
59) Phenanthrene-d10	12.12	188	257635	1000.00	ng/ml	0.04
69) Chrysene-d12	15.69	240	237314	1000.00	ng/ml	0.08
77) Perylene-d12	18.81	264	187669	1000.00	ng/ml	0.09
System Monitoring Compounds						
4) 2-Fluorophenol	3.98	112	94343	1361.69	ng/ml	0.02
Spiked Amount 3750.000	Range 38 - 110		Recovery =	36.31%#		
6) Phenol-d6	4.73	99	155451	1650.66	ng/ml	0.03
Spiked Amount 3750.000	Range 43 - 128		Recovery =	44.02%		
19) Nitrobenzene-d5	5.57	82	88324	1120.85	ng/ml	0.02
Spiked Amount 2500.000	Range 30 - 139		Recovery =	44.83%		
39) 2-Fluorobiphenyl	8.30	172	239636	1222.49	ng/ml	0.04
Spiked Amount 2500.000	Range 37 - 126		Recovery =	48.90%		
60) 2,4,6-Tribromophenol	11.15	330	65479	1880.32	ng/ml	0.05
Spiked Amount 3750.000	Range 38 - 157		Recovery =	50.14%		
71) Terphenyl-d14	14.03	244	309582	1295.28	ng/ml	0.04
Spiked Amount 2500.000	Range 54 - 158		Recovery =	51.81%#		
Target Compounds						Qvalue
7) Phenol	4.74	94	7783	75.22	ng/ml	93
10) 1,3-Dichlorobenzene	5.02	146	810m	8.21	ng/ml	
11) 1,4-Dichlorobenzene	5.08	146	4419m	43.38	ng/ml	
12) 1,2-Dichlorobenzene	5.22	146	2580m	26.62	ng/ml	
13) Benzyl Alcohol	5.18	108	3105m	57.92	ng/ml	
18) 4-Methylphenol	5.41	107	15606	155.09	ng/ml	94
22) Isophorone	5.82	82	4511m	28.18	ng/ml	
27) Benzoic Acid	6.01	122	16114	882.11	ng/ml	81
29) Naphthalene	6.40	128	121143	459.80	ng/ml	99
33) 2-Methylnaphthalene	7.48	141	57316	372.53	ng/ml	96
34) 1-Methylnaphthalene	7.68	141	26416	187.61	ng/ml	93
42) Acenaphthylene	9.51	152	59804	221.36	ng/ml	89
43) Dimethyl Phthalate	9.30	163	10561	56.09	ng/ml	83
45) Acenaphthene	9.85	154	60997	359.20	ng/ml	97
48) Dibenzofuran	10.18	168	37197	178.19	ng/ml	92
52) Fluorene	10.76	166	51286	261.83	ng/ml	96
54) Diethyl Phthalate	10.64	149	8427m	47.57	ng/ml	
57) Diphenylamine	10.98	169	101869	783.36	ng/ml#	63
64) Phenanthrene	12.15	178	892110	2851.10	ng/ml	100
65) Anthracene	12.21	178	159249	521.60	ng/ml	89
66) Carbazole	12.44	167	33206	137.44	ng/ml	93
67) Di-n-butyl Phthalate	12.87	149	151422m	494.85	ng/ml	
68) Fluoranthene	13.57	202	1182990	3569.63	ng/ml	99
70) Pyrene	13.84	202	1381352m	3719.17	ng/ml	
74) Benz(a)anthracene	15.67	228	476375	1558.52	ng/ml	89
75) Chrysene	15.75	228	642939	2223.94	ng/ml	98
76) Bis(2-ethylhexyl) Phthalat	15.74	149	9068956	44933.74	ng/ml	99
78) Di-n-octyl Phthalate	17.42	149	180047	748.39	ng/ml	69
79) Benzo(b)fluoranthene	18.18	252	638308	2853.27	ng/ml	97
80) Benzo(k)fluoranthene	18.23	252	178958	813.14	ng/ml	93
81) Benzo(a)pyrene	18.72	252	370734	1814.21	ng/ml	91
82) Indeno(1,2,3-cd)pyrene	20.62	276	103943	666.23	ng/ml	87
83) Dibenz(a,h)anthracene	20.66	278	28126	246.21	ng/ml	95
84) Benzo(g,h,i)perylene	21.13	276	82915	500.51	ng/ml	96

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

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F013.D\
Lab ID: KQ1815427-04
RunType: MB
Matrix: Sediment

Date Acquired: 11/17/18 21:17:00
Batch ID: 615546
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 12/7/18 15:58
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Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F013.D\	**Instrument:**	K-MS-29
Acqu Date:	11/17/18 21:17:00	**Vial:**	13
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1815427-04	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615546	**Prep Lot:**	324899	**Report Group:**	KQ1815427
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.65		201052	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	14.01		329601	1627.77	65	30 - 102	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.68		4246	24.83	1.2	U	Y

Prep Amount:	40.3670 g	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

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

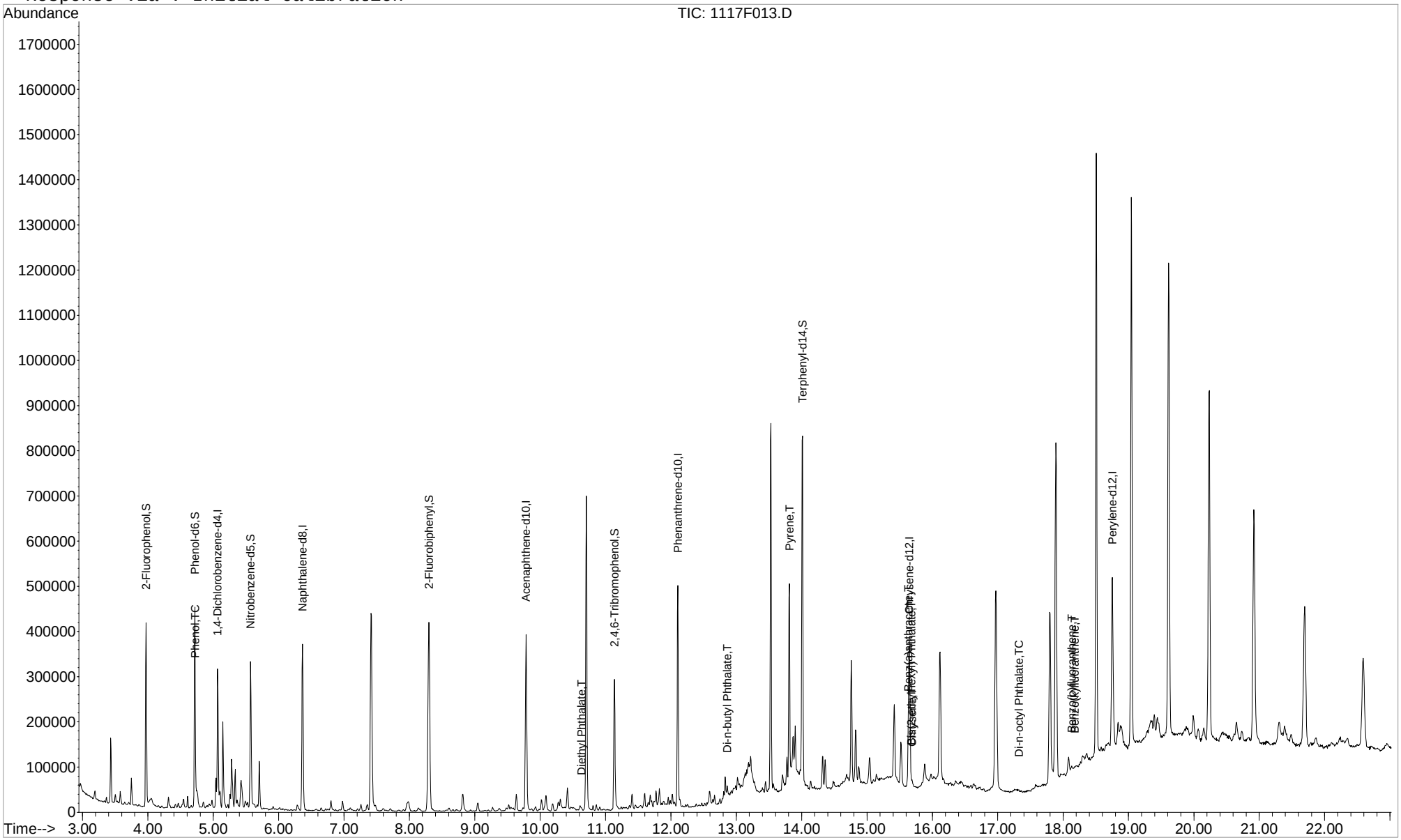
Printed: 12/7/18 15:58
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Quantitation Report (QT Reviewed)

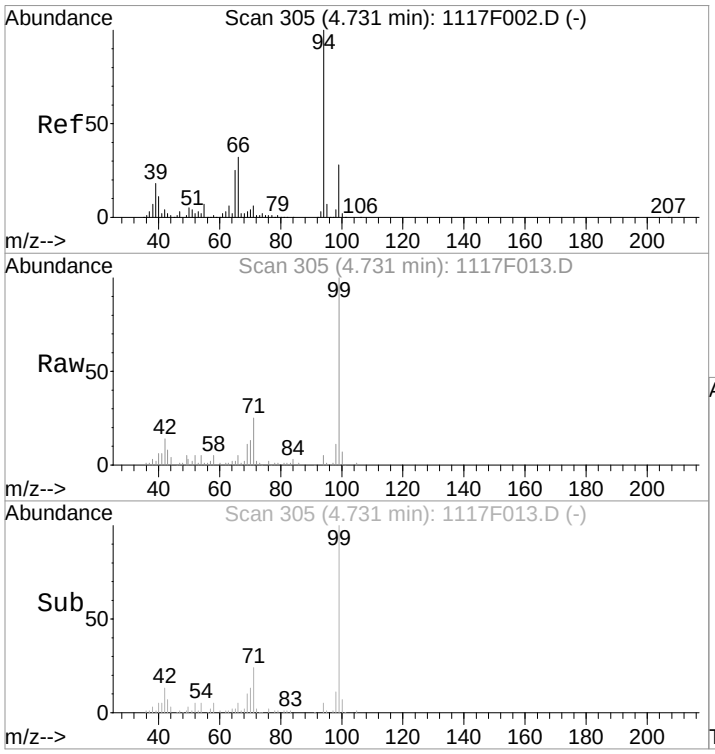
1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F013.D Vial: 60
Acq On : 17 Nov 2018 9:17 pm Operator: CConover
Sample : KQ1815427-04 | MB Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 16:09 2018 Quant Results File: 110618_8270LL.RES

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration



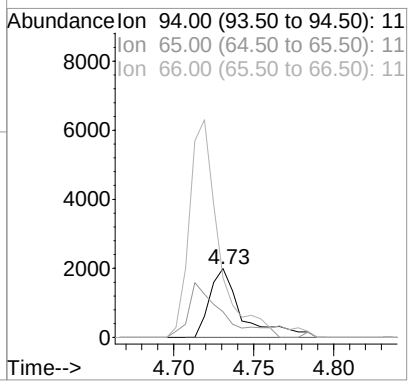
1st 12/07/18
2nd 12/10/18

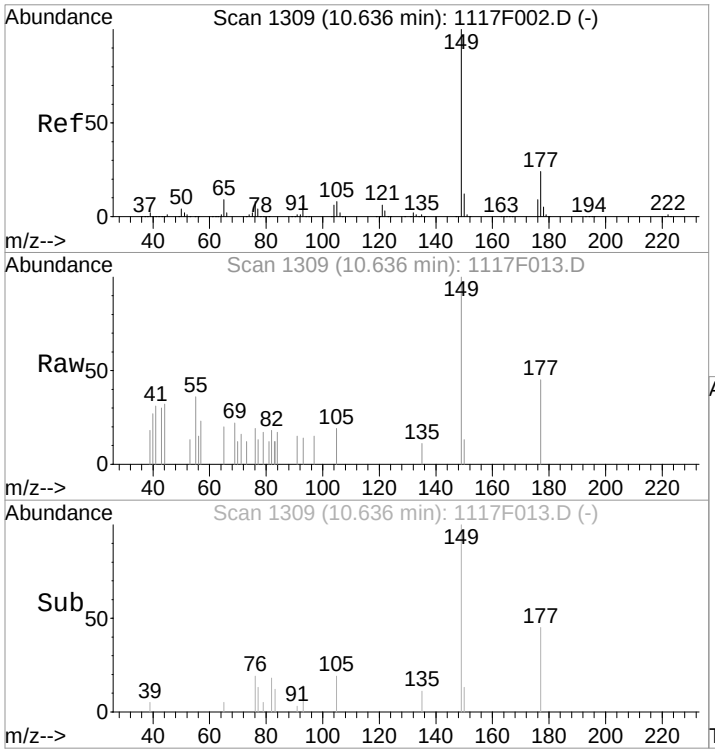


#7
Phenol
Concen: 25.19 ng/ml
RT: 4.73 min Scan# 305
Delta R.T. 0.02 min
Lab File: 1117F013.D
Acq: 17 Nov 2018 9:17 pm

Tgt Ion: 94 Resp: 2788

Ion	Ratio	Lower	Upper
94	100		
65	37.1	0.0	53.9
66	86.2	0.9	60.9#

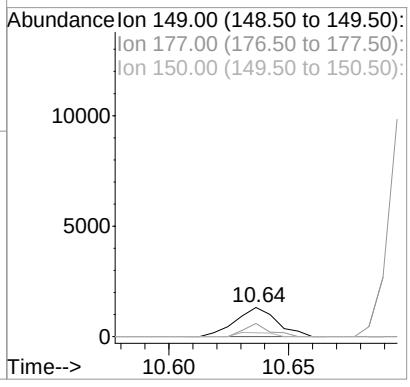




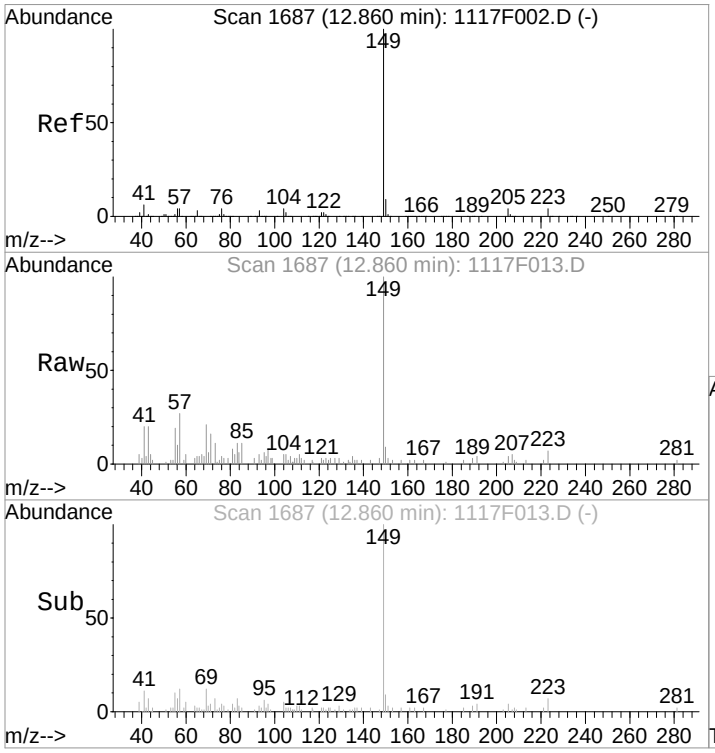
#54
Diethyl Phthalate
Concen: 9.13 ng/ml
RT: 10.64 min Scan# 1309
Delta R.T. 0.02 min
Lab File: 1117F013.D
Acq: 17 Nov 2018 9:17 pm

Tgt Ion:149 Resp: 1590

Ion	Ratio	Lower	Upper
149	100		
177	45.3	0.0	53.4
150	12.7	0.0	41.9



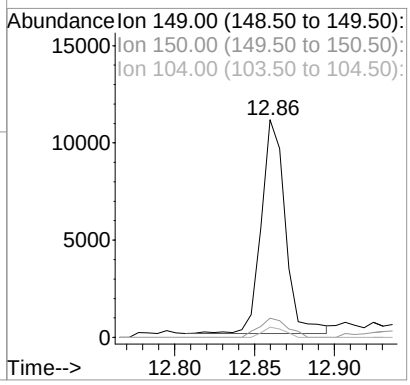
1st 12/07/18
2nd 12/10/18

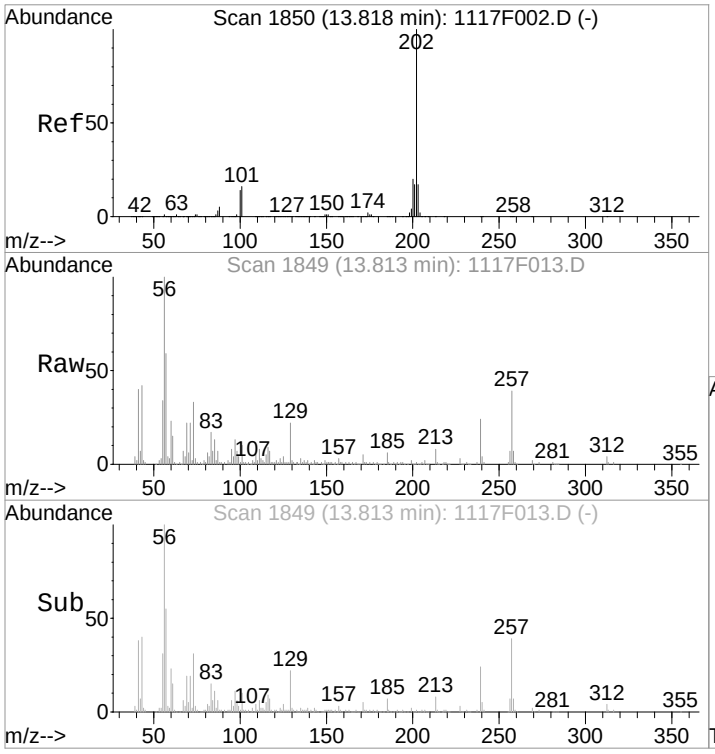


#67
Di-n-butyl Phthalate
Concen: 42.33 ng/ml
RT: 12.86 min Scan# 1687
Delta R.T. 0.02 min
Lab File: 1117F013.D
Acq: 17 Nov 2018 9:17 pm

Tgt Ion:149 Resp: 11527

Ion	Ratio	Lower	Upper
149	100		
150	9.0	0.0	39.1
104	4.9	0.0	33.8

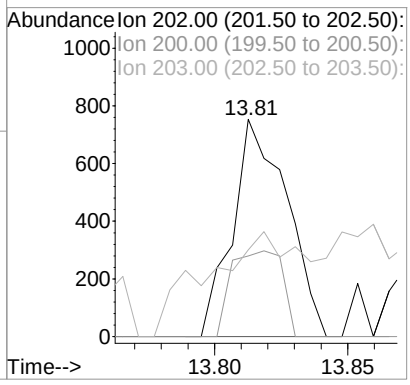




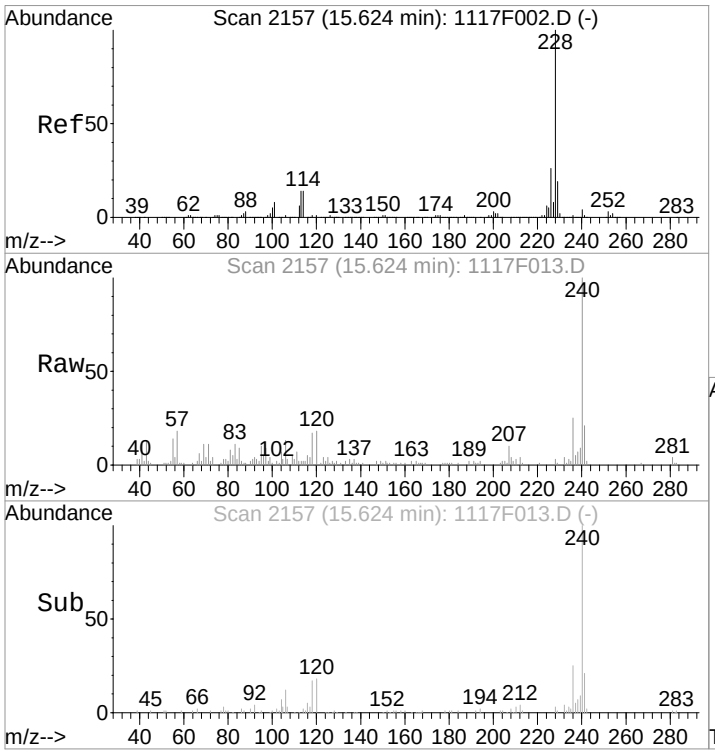
#70
Pyrene
Concen: 3.42 ng/ml
RT: 13.81 min Scan# 1849
Delta R.T. 0.02 min
Lab File: 1117F013.D
Acq: 17 Nov 2018 9:17 pm

Tgt Ion:202 Resp: 1076

Ion	Ratio	Lower	Upper
202	100		
200	37.1	0.0	49.6
203	9.4	0.0	47.0



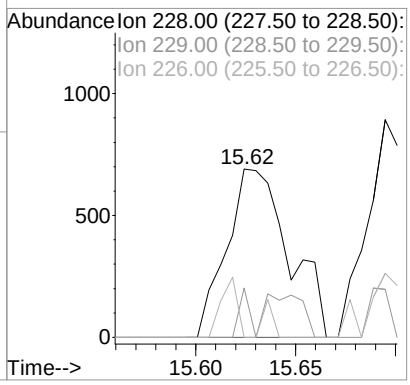
1st 12/07/18
2nd 12/10/18

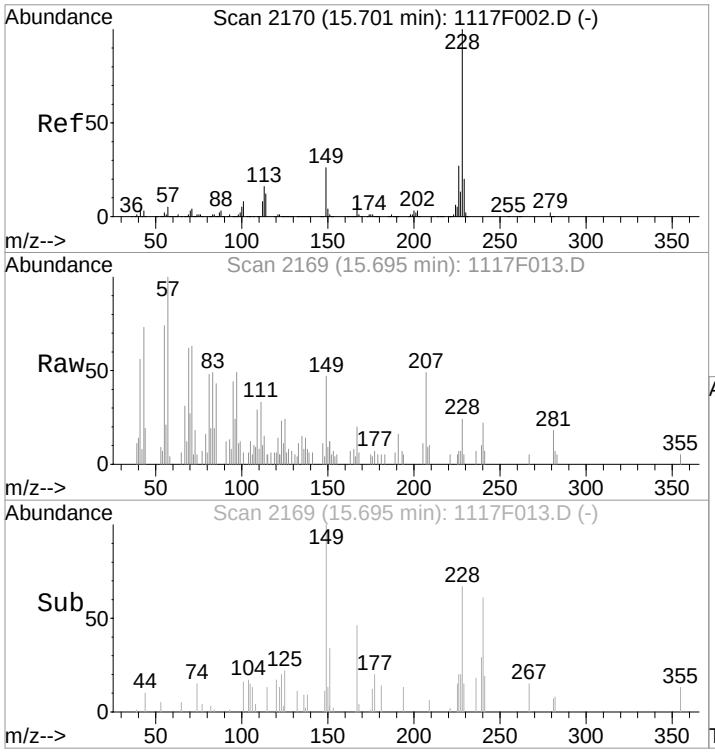


#74
Benz(a)anthracene
Concen: 5.78 ng/ml
RT: 15.62 min Scan# 2157
Delta R.T. 0.03 min
Lab File: 1117F013.D
Acq: 17 Nov 2018 9:17 pm

Tgt Ion:228 Resp: 1498

Ion	Ratio	Lower	Upper
228	100		
229	29.2	0.0	48.9
226	0.0	0.0	55.1

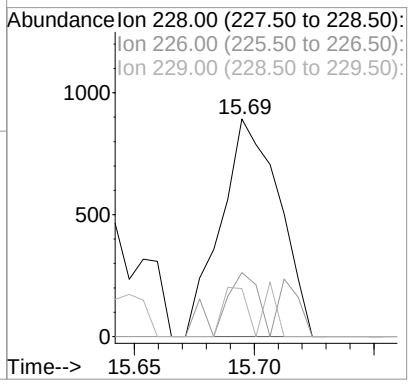




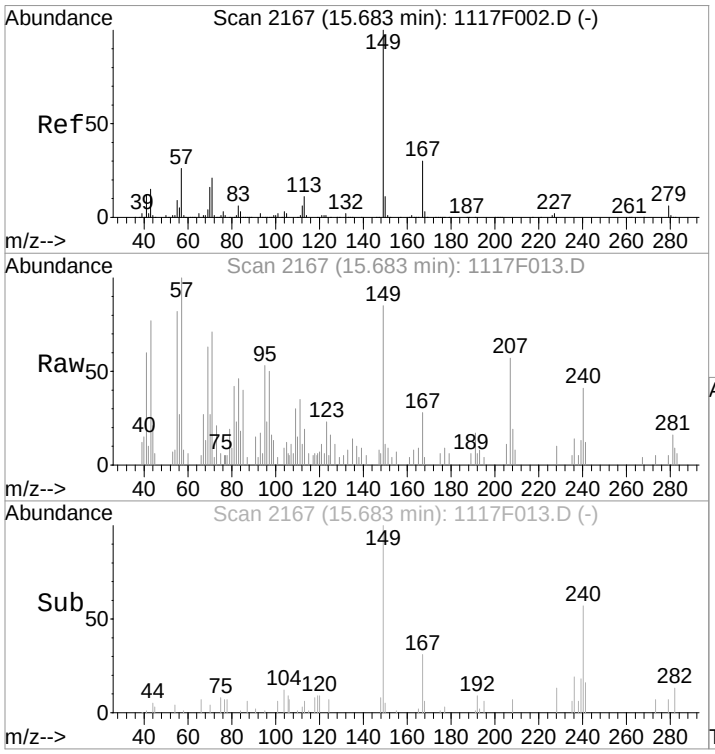
#75
Chrysene
Concen: 6.18 ng/ml
RT: 15.69 min Scan# 2169
Delta R.T. 0.03 min
Lab File: 1117F013.D
Acq: 17 Nov 2018 9:17 pm

Tgt Ion:228 Resp: 1513

Ion	Ratio	Lower	Upper
228	100		
226	29.5	0.0	57.6
229	22.1	0.0	49.3



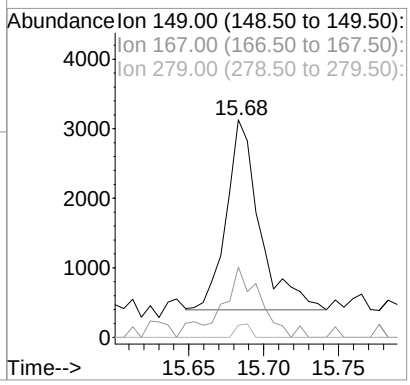
1st 12/07/18
2nd 12/10/18

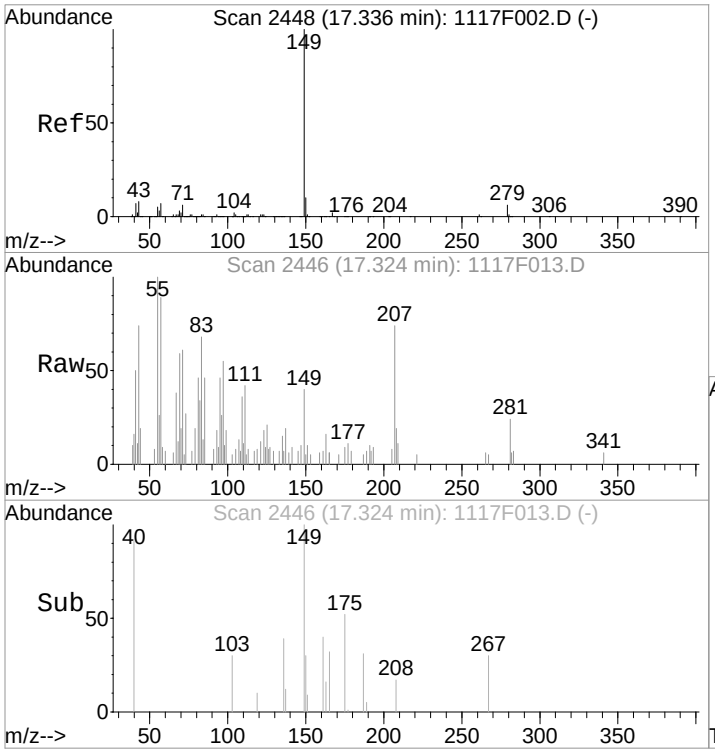


#76
Bis(2-ethylhexyl) Phthalate
Concen: 24.83 ng/ml
RT: 15.68 min Scan# 2167
Delta R.T. 0.02 min
Lab File: 1117F013.D
Acq: 17 Nov 2018 9:17 pm

Tgt Ion:149 Resp: 4246

Ion	Ratio	Lower	Upper
149	100		
167	37.1	0.0	59.7
279	6.4	0.0	36.4

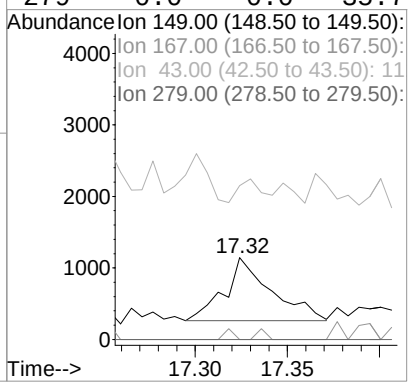




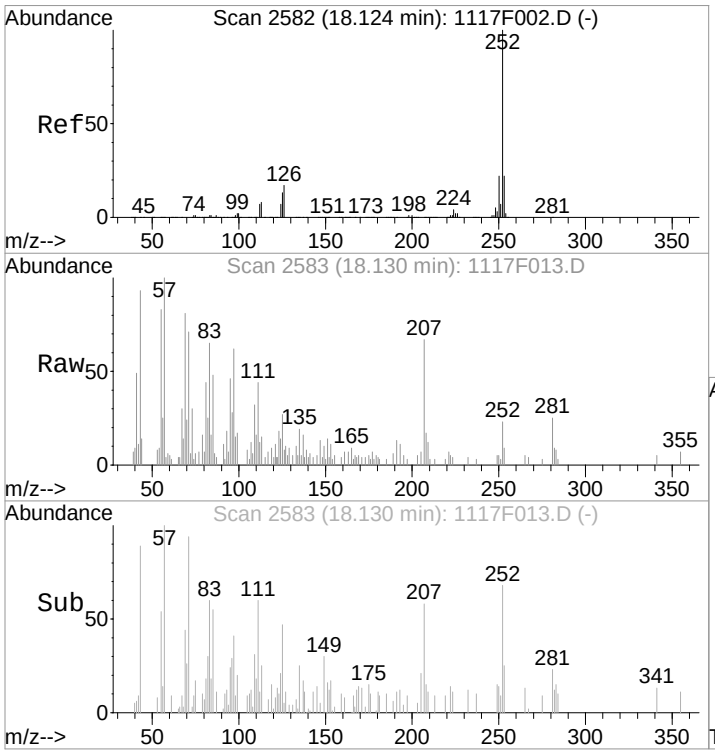
#78
Di-n-octyl Phthalate
Concen: 61.61 ng/ml
RT: 17.32 min Scan# 2446
Delta R.T. 0.02 min
Lab File: 1117F013.D
Acq: 17 Nov 2018 9:17 pm

Tgt Ion:149 Resp: 1565

Ion	Ratio	Lower	Upper
149	100		
167	0.0	0.0	31.5
43	0.0	0.0	38.6
279	0.0	0.0	35.7



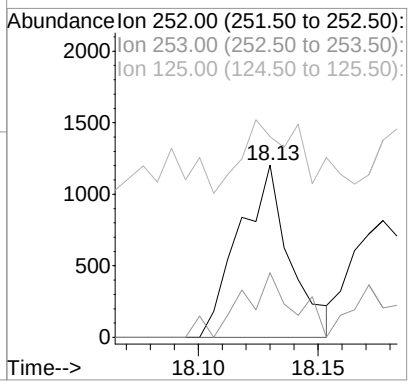
1st 12/07/18
2nd 12/10/18

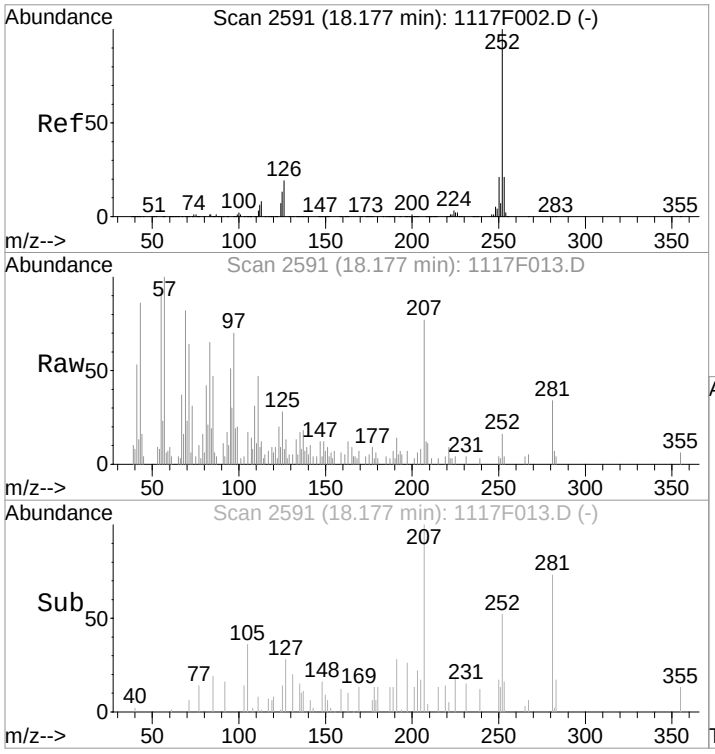


#79
Benzo(b)fluoranthene
Concen: 7.01 ng/ml
RT: 18.13 min Scan# 2583
Delta R.T. 0.04 min
Lab File: 1117F013.D
Acq: 17 Nov 2018 9:17 pm

Tgt Ion:252 Resp: 1787

Ion	Ratio	Lower	Upper
252	100		
253	37.5	0.0	51.6
125	25.1	0.0	43.2

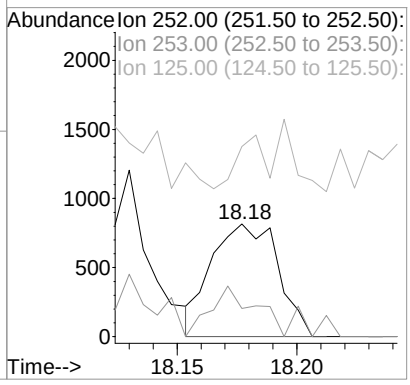




#80
Benzo(k)fluoranthene
Concen: 6.30 ng/ml
RT: 18.18 min Scan# 2591
Delta R.T. 0.04 min
Lab File: 1117F013.D
Acq: 17 Nov 2018 9:17 pm

Tgt Ion:252 Resp: 1579

Ion	Ratio	Lower	Upper
252	100		
253	25.1	0.0	51.5
125	40.2	0.0	43.3



Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F013.D Vial: 60
Acq On : 17 Nov 2018 9:17 pm Operator: CConover
Sample : KQ1815427-04 | MB Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 11:53:18 2018 Quant Results File: 110618_8270LL.RES

Quant Method : J:\MS29\M...\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.07	152	65497	1000.00	ng/ml	0.01
21) Naphthalene-d8	6.37	136	254202	1000.00	ng/ml	0.02
35) Acenaphthene-d10	9.78	164	126348	1000.00	ng/ml	0.03
59) Phenanthrene-d10	12.11	188	229260	1000.00	ng/ml	0.02
69) Chrysene-d12	15.65	240	201052	1000.00	ng/ml	0.04
77) Perylene-d12	18.75	264	213814	1000.00	ng/ml	0.04
System Monitoring Compounds						
4) 2-Fluorophenol	3.97	112	132568	1789.17	ng/ml	0.00
Spiked Amount 3750.000	Range 38 - 110		Recovery = 47.71%			
6) Phenol-d6	4.72	99	213522	2120.07	ng/ml	0.02
Spiked Amount 3750.000	Range 43 - 128		Recovery = 56.54%			
19) Nitrobenzene-d5	5.57	82	131488	1560.26	ng/ml	0.02
Spiked Amount 2500.000	Range 30 - 139		Recovery = 62.41%			
39) 2-Fluorobiphenyl	8.30	172	295105	1531.51	ng/ml	0.04
Spiked Amount 2500.000	Range 37 - 126		Recovery = 61.26%			
60) 2,4,6-Tribromophenol	11.14	330	58977	1903.22	ng/ml	0.03
Spiked Amount 3750.000	Range 38 - 157		Recovery = 50.75%			
71) Terphenyl-d14	14.01	244	329601	1627.77	ng/ml	0.02
Spiked Amount 2500.000	Range 54 - 158		Recovery = 65.11%			
Target Compounds						Qvalue
7) Phenol	4.73	94	2788	25.19	ng/ml#	32
54) Diethyl Phthalate	10.64	149	1590	9.13	ng/ml	70
67) Di-n-butyl Phthalate	12.86	149	11527	42.33	ng/ml	99
70) Pyrene	13.81	202	1076	3.42	ng/ml	71
74) Benz(a)anthracene	15.62	228	1498	5.78	ng/ml	62
75) Chrysene	15.69	228	1513	6.18	ng/ml	95
76) Bis(2-ethylhexyl) Phthalat	15.68	149	4246	24.83	ng/ml	89
78) Di-n-octyl Phthalate	17.32	149	1565	61.61	ng/ml	80
79) Benzo(b)fluoranthene	18.13	252	1787	7.01	ng/ml	68
80) Benzo(k)fluoranthene	18.18	252	1579	6.30	ng/ml	70

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

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F028.D\
Lab ID: KQ1815507-04
RunType: MB
Matrix: Sediment

Date Acquired: 11/18/18 04:21:00
Batch ID: 615547
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F028.D\	**Instrument:**	K-MS-29
Acqu Date:	11/18/18 04:21:00	**Vial:**	5
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1815507-04	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615547	**Prep Lot:**	325014	**Report Group:**	KQ1815507
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	11/1/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.65		196256	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	14.01		287091	1452.48	58	30 - 102	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.69		3550	21.27	1.1	U	Y

Prep Amount:	40.3630 g	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

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

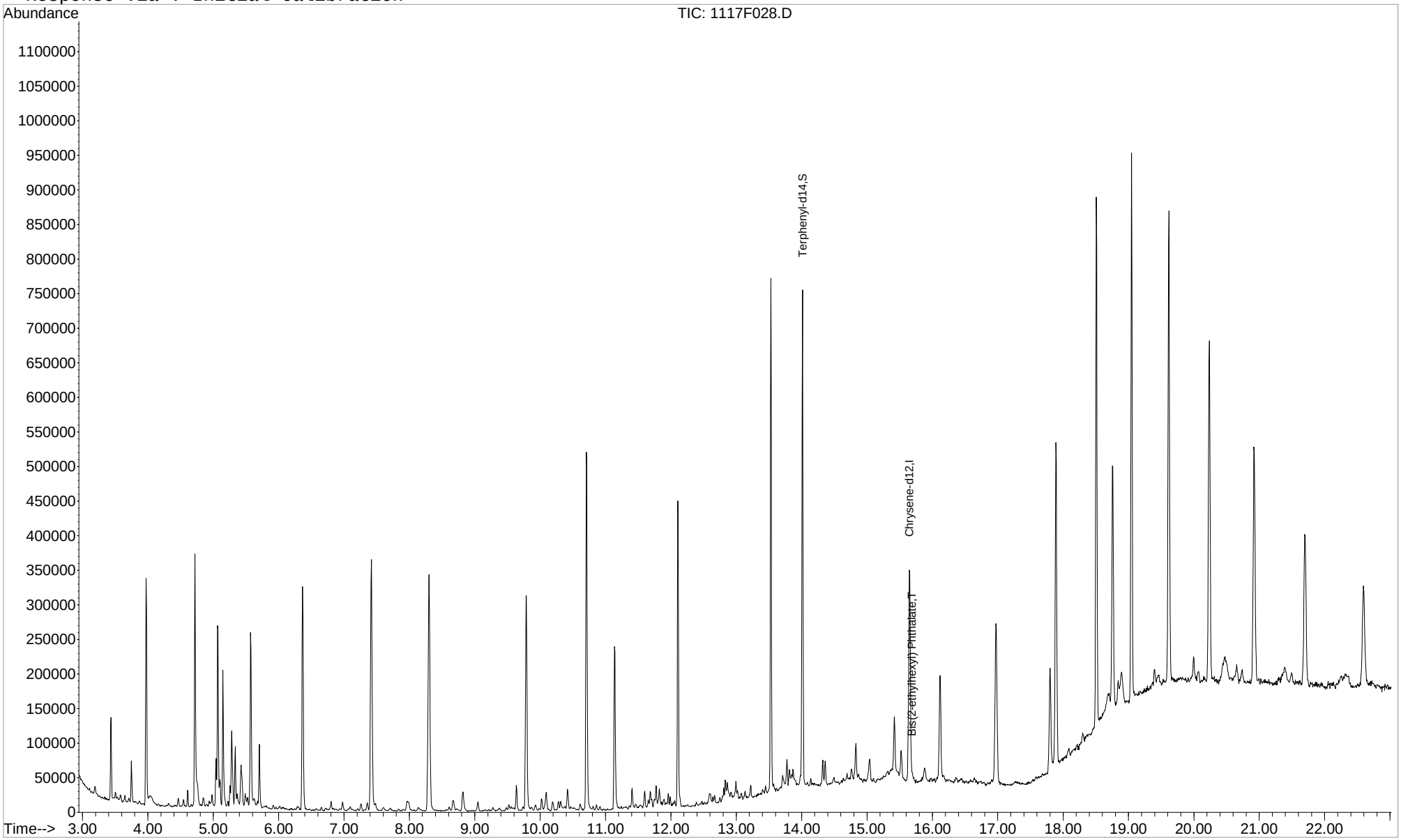
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Quantitation Report (QT Reviewed)

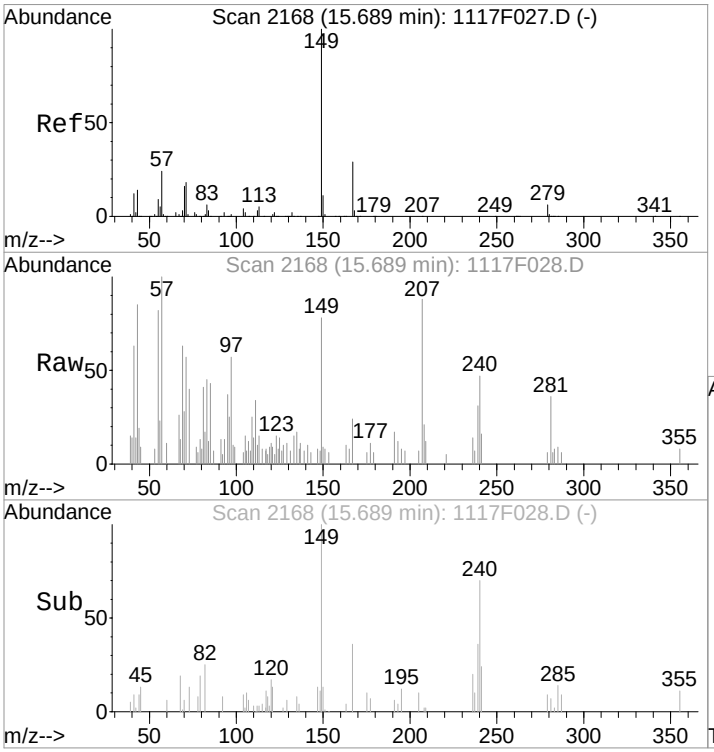
1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F028.D Vial: 72
Acq On : 18 Nov 2018 4:21 am Operator: CConover
Sample : KQ1815507-04 | MB Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 17:08 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 17:07:59 2018
Response via : Initial Calibration



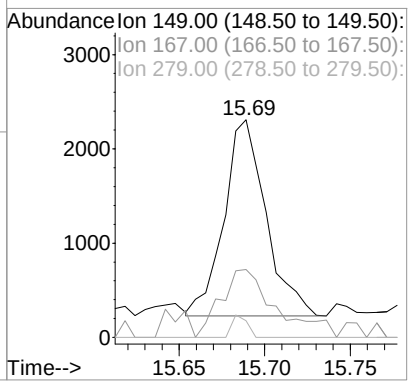
1st 12/07/18
2nd 12/10/18



#3
Bis(2-ethylhexyl) Phthalate
Concen: 21.27 ng/ml
RT: 15.69 min Scan# 2168
Delta R.T. 0.03 min
Lab File: 1117F028.D
Acq: 18 Nov 2018 4:21 am

Tgt Ion:149 Resp: 3550

Ion	Ratio	Lower	Upper
149	100		
167	25.8	0.0	59.7
279	8.5	0.0	36.4



Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F028.D Vial: 72
Acq On : 18 Nov 2018 4:21 am Operator: CConover
Sample : KQ1815507-04 | MB Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 17:08:18 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.65	240	196256	1000.00	ng/ml	0.04
System Monitoring Compounds						
2) Terphenyl-d14	14.01	244	287091	1452.48	ng/ml	0.02
Spiked Amount 2500.000	Range 54 - 158		Recovery = 58.10%			
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.69	149	3550	21.27	ng/ml	93

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

1st CE 11/17/18
2nd TP 11/30/18

Validation Report

Data File: J:\MS29\DATA\111418\1114F004.D\
Lab ID: KQ1816032-04
RunType: MB
Matrix: Sediment

Date Acquired: 11/14/18 12:03:00
Batch ID: 615539
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Secondary Review: _____

1st 11/17/18
2nd 11/30/18

Quantitation Report

Data File:	J:\MS29\DATA\111418\1114F004.D\	**Instrument:**	K-MS-29
Acqu Date:	11/14/18 12:03:00	**Vial:**	5
Run Type:	MB	**Dilution:**	1
Lab ID:	KQ1816032-04	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/31/18	**Receive Date:**	11/1/18

Analysis Lot:	615539	**Prep Lot:**	325584	**Report Group:**	KQ1816032
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	11/7/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.65	+0.01	206934	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	14.01		351546	1686.80	67	30 - 102	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.69	+0.01	5731	32.56	1.6	U	Y

Prep Amount:	40.3880 g	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

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

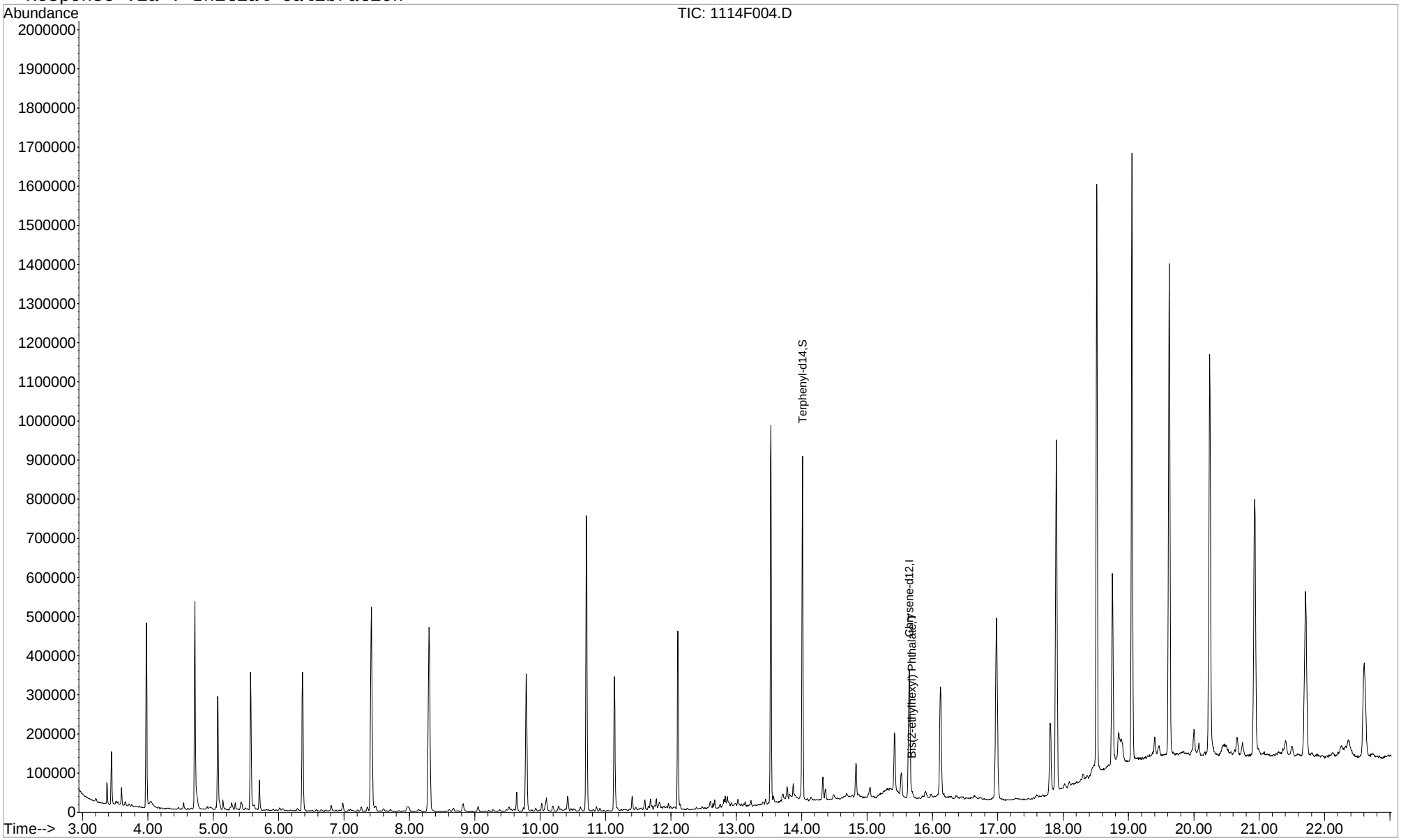
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Quantitation Report (QT Reviewed)

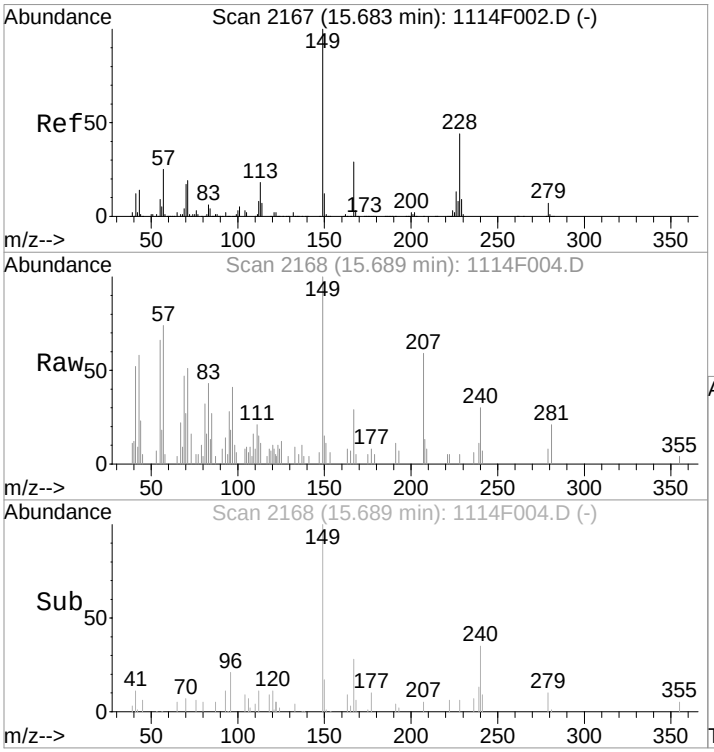
1st 11/17/18
2nd 11/30/18

Data File : J:\MS29\DATA\111418\1114F004.D Vial: 4
Acq On : 14 Nov 2018 12:03 pm Operator: CConover
Sample : KQ1816032-04 | MB Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 17 0:20 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration



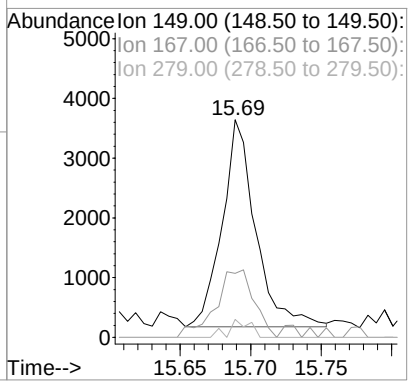
1st 11/17/18
2nd 11/30/18



#3
Bis(2-ethylhexyl) Phthalate
Concen: 32.56 ng/ml
RT: 15.69 min Scan# 2168
Delta R.T. 0.03 min
Lab File: 1114F004.D
Acq: 14 Nov 2018 12:03 pm

Tgt Ion:149 Resp: 5731

Ion	Ratio	Lower	Upper
149	100		
167	26.2	0.0	59.7
279	8.7	0.0	36.4



Quantitation Report (QT Reviewed)

1st 11/17/18
2nd 11/30/18

Data File : J:\MS29\DATA\111418\1114F004.D Vial: 4
Acq On : 14 Nov 2018 12:03 pm Operator: CConover
Sample : KQ1816032-04 | MB Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 17 00:20:42 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.65	240	206934	1000.00	ng/ml	0.04
System Monitoring Compounds						
2) Terphenyl-d14	14.01	244	351546	1686.80	ng/ml	0.02
Spiked Amount 2500.000	Range 54 - 158		Recovery = 67.47%			
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.69	149	5731	32.56	ng/ml	94

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

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F014.D\
Lab ID: KQ1815427-03
RunType: LCS
Matrix: Sediment

Date Acquired: 11/17/18 21:46:00
Batch ID: 615546
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F014.D\	**Instrument:**	K-MS-29
Acqu Date:	11/17/18 21:46:00	**Vial:**	14
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1815427-03	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615546	**Prep Lot:**	324899	**Report Group:**	KQ1815427
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.65		203115	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	14.01		305991	1495.82	60	30 - 102	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.68		293279	1697.76	170		Y

Prep Amount:	20.00 g	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

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

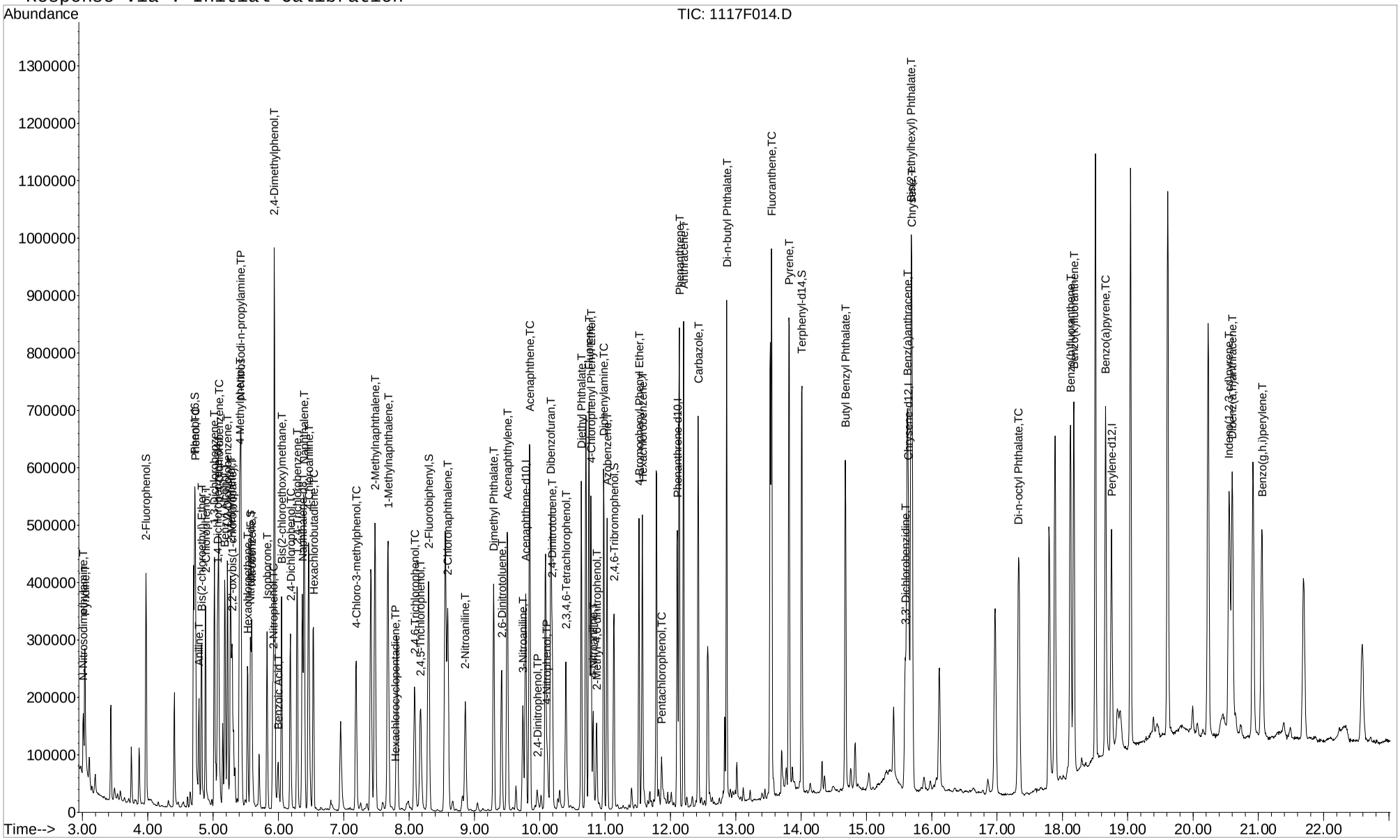
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Quantitation Report (QT Reviewed)

Data File : J:\MS29\DATA\111718\1117F014.D Vial: 61
Acq On : 17 Nov 2018 9:46 pm Operator: CConover
Sample : KQ1815427-03 | LCS Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 12:46 2018 Quant Results File: 110618_8270LL.RES

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration

12/07/18 12/10/18 1st 2nd



Page 1441 of 1561

Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F014.D Vial: 61
Acq On : 17 Nov 2018 9:46 pm Operator: CConover
Sample : KQ1815427-03 | LCS Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 11:53:19 2018 Quant Results File: 110618_8270LL.RES

Quant Method : J:\MS29\M...\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.07	152	62122	1000.00	ng/ml	0.01
21) Naphthalene-d8	6.37	136	249100	1000.00	ng/ml	0.02
35) Acenaphthene-d10	9.78	164	125542	1000.00	ng/ml	0.03
59) Phenanthrene-d10	12.11	188	223578	1000.00	ng/ml	0.02
69) Chrysene-d12	15.65	240	203115	1000.00	ng/ml	0.04
77) Perylene-d12	18.75	264	219618	1000.00	ng/ml	0.04
System Monitoring Compounds						
4) 2-Fluorophenol	3.97	112	133287	1896.60	ng/ml	0.00
Spiked Amount 3750.000	Range 38 - 110		Recovery = 50.58%			
6) Phenol-d6	4.72	99	202248	2117.22	ng/ml	0.02
Spiked Amount 3750.000	Range 43 - 128		Recovery = 56.46%			
19) Nitrobenzene-d5	5.57	82	118033	1476.70	ng/ml	0.02
Spiked Amount 2500.000	Range 30 - 139		Recovery = 59.07%			
39) 2-Fluorobiphenyl	8.30	172	273291	1427.41	ng/ml	0.04
Spiked Amount 2500.000	Range 37 - 126		Recovery = 57.10%			
60) 2,4,6-Tribromophenol	11.14	330	66567	2202.75	ng/ml	0.03
Spiked Amount 3750.000	Range 38 - 157		Recovery = 58.74%			
71) Terphenyl-d14	14.01	244	305991	1495.82	ng/ml	0.02
Spiked Amount 2500.000	Range 54 - 158		Recovery = 59.83%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.01	42	38052	1617.54	ng/ml	98
3) Pyridine	3.04	79	104489	1315.87	ng/ml	94
5) Bis(2-chloroethyl) Ether	4.83	93	130782	1361.92	ng/ml	99
7) Phenol	4.73	94	147868	1408.81	ng/ml	98
8) Aniline	4.78	93	80163	714.35	ng/ml	97
9) 2-Chlorophenol	4.88	128	119788	1330.56	ng/ml	98
10) 1,3-Dichlorobenzene	5.02	146	131008	1309.03	ng/ml	98
11) 1,4-Dichlorobenzene	5.08	146	134567	1302.21	ng/ml	98
12) 1,2-Dichlorobenzene	5.22	146	128778	1310.02	ng/ml	98
13) Benzyl Alcohol	5.18	108	84793	1559.41	ng/ml	98
14) 2,2'-oxybis(1-chloropropan	5.29	45	138832	1186.91	ng/ml	97
15) 2-Methylphenol	5.27	107	89379	1232.26	ng/ml	98
16) Hexachloroethane	5.53	117	36326	1048.39	ng/ml	99
17) N-Nitrosodi-n-propylamine	5.41	70	91540	1453.13	ng/ml	97
18) 4-Methylphenol	5.40	107	139663	1368.35	ng/ml	98
20) Nitrobenzene	5.59	77	122006	1460.29	ng/ml	98
22) Isophorone	5.83	82	163629	995.04	ng/ml	100
23) 2-Nitrophenol	5.91	139	61577	1251.60	ng/ml	89
24) 2,4-Dimethylphenol	5.94	122	243062	3043.54	ng/ml	98
25) Bis(2-chloroethoxy)methane	6.05	93	153781	1520.72	ng/ml	99
26) 2,4-Dichlorophenol	6.18	162	93892	1389.14	ng/ml	97
27) Benzoic Acid	6.00	122	26469	1139.05	ng/ml	98
28) 1,2,4-Trichlorobenzene	6.29	180	109512	1324.91	ng/ml	96
29) Naphthalene	6.40	128	370502	1368.69	ng/ml	99
30) 4-Chloroaniline	6.46	127	101257	1318.55	ng/ml	97
31) Hexachlorobutadiene	6.54	225	56649	1266.64	ng/ml	97
32) 4-Chloro-3-methylphenol	7.19	107	96044	1407.63	ng/ml	99
33) 2-Methylnaphthalene	7.48	141	222643	1408.44	ng/ml	99
34) 1-Methylnaphthalene	7.68	141	231059	1597.21	ng/ml	99
36) Hexachlorocyclopentadiene	7.78	237	665	307.81	ng/ml	80
37) 2,4,6-Trichlorophenol	8.08	196	66452	1385.31	ng/ml	96
38) 2,4,5-Trichlorophenol	8.18	196	68103	1316.52	ng/ml	98
40) 2-Chloronaphthalene	8.59	162	225107	1367.85	ng/ml	98
41) 2-Nitroaniline	8.86	65	63744	1639.37	ng/ml	97
42) Acenaphthylene	9.50	152	362139	1372.40	ng/ml	99
43) Dimethyl Phthalate	9.30	163	282530	1536.42	ng/ml	100

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

Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F014.D Vial: 61
Acq On : 17 Nov 2018 9:46 pm Operator: CConover
Sample : KQ1815427-03 | LCS Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 11:53:19 2018 Quant Results File: 110618_8270LL.RES

Quant Method : J:\MS29\M...\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) 2,6-Dinitrotoluene	9.42	165	62393	1665.85	ng/ml	97
45) Acenaphthene	9.84	154	234087	1411.37	ng/ml	99
46) 3-Nitroaniline	9.74	138	51884	1496.58	ng/ml	98
47) 2,4-Dinitrophenol	9.96	184	11667	1500.94	ng/ml	94
48) Dibenzofuran	10.17	168	337578	1655.70	ng/ml	99
49) 4-Nitrophenol	10.11	109	16105m	1235.73	ng/ml	
50) 2,4-Dinitrotoluene	10.19	165	81980	1614.31	ng/ml	91
51) 2,3,4,6-Tetrachlorophenol	10.40	232	52834	1258.32	ng/ml	98
52) Fluorene	10.75	166	286129	1495.61	ng/ml	97
53) 4-Chlorophenyl Phenyl Ethe	10.78	204	136995	1497.33	ng/ml	99
54) Diethyl Phthalate	10.64	149	273859	1582.91	ng/ml	99
55) 4-Nitroaniline	10.82	138	53217	1992.95	ng/ml	96
56) 2-Methyl-4,6-dinitrophenol	10.87	198	33849	1505.88	ng/ml	97
57) Diphenylamine	10.98	169	200860	1581.41	ng/ml	97
58) Azobenzene	11.03	77	248898	1519.87	ng/ml	99
61) 4-Bromophenyl Phenyl Ether	11.52	248	84075	1537.36	ng/ml	95
62) Hexachlorobenzene	11.57	284	96985	1423.99	ng/ml	98
63) Pentachlorophenol	11.87	266	18000	764.94	ng/ml	98
64) Phenanthrene	12.14	178	402211	1481.23	ng/ml	100
65) Anthracene	12.20	178	400134	1510.23	ng/ml	99
66) Carbazole	12.42	167	347834	1659.01	ng/ml	99
67) Di-n-butyl Phthalate	12.86	149	470562	1772.07	ng/ml	100
68) Fluoranthene	13.55	202	427445	1486.27	ng/ml	98
70) Pyrene	13.82	202	422397	1328.75	ng/ml	99
72) Butyl Benzyl Phthalate	14.68	149	189542	1706.38	ng/ml	98
73) 3,3'-Dichlorobenzidine	15.59	252	92412	1838.40	ng/ml	97
74) Benz(a)anthracene	15.62	228	403388	1541.94	ng/ml	99
75) Chrysene	15.70	228	385396	1557.55	ng/ml	99
76) Bis(2-ethylhexyl) Phthalat	15.68	149	293279	1697.76	ng/ml	99
78) Di-n-octyl Phthalate	17.33	149	486791	1663.09	ng/ml	99
79) Benzo(b)fluoranthene	18.12	252	409044	1562.45	ng/ml	99
80) Benzo(k)fluoranthene	18.18	252	417811	1622.26	ng/ml	100
81) Benzo(a)pyrene	18.66	252	362917	1517.60	ng/ml	100
82) Indeno(1,2,3-cd)pyrene	20.55	276	342874m	1877.95	ng/ml	
83) Dibenz(a,h)anthracene	20.60	278	370147	2098.23	ng/ml	98
84) Benzo(g,h,i)perylene	21.05	276	310739	1602.87	ng/ml	99

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

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F029.D\
Lab ID: KQ1815507-03
RunType: LCS
Matrix: Sediment

Date Acquired: 11/18/18 04:49:00
Batch ID: 615547
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F029.D\	**Instrument:**	K-MS-29
Acqu Date:	11/18/18 04:49:00	**Vial:**	6
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1815507-03	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615547	**Prep Lot:**	325014	**Report Group:**	KQ1815507
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	11/1/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.65		186152	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	14.01		321083	1712.63	69	30 - 102	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.69		298383	1884.71	188		Y

Prep Amount:	20.00 g	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

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

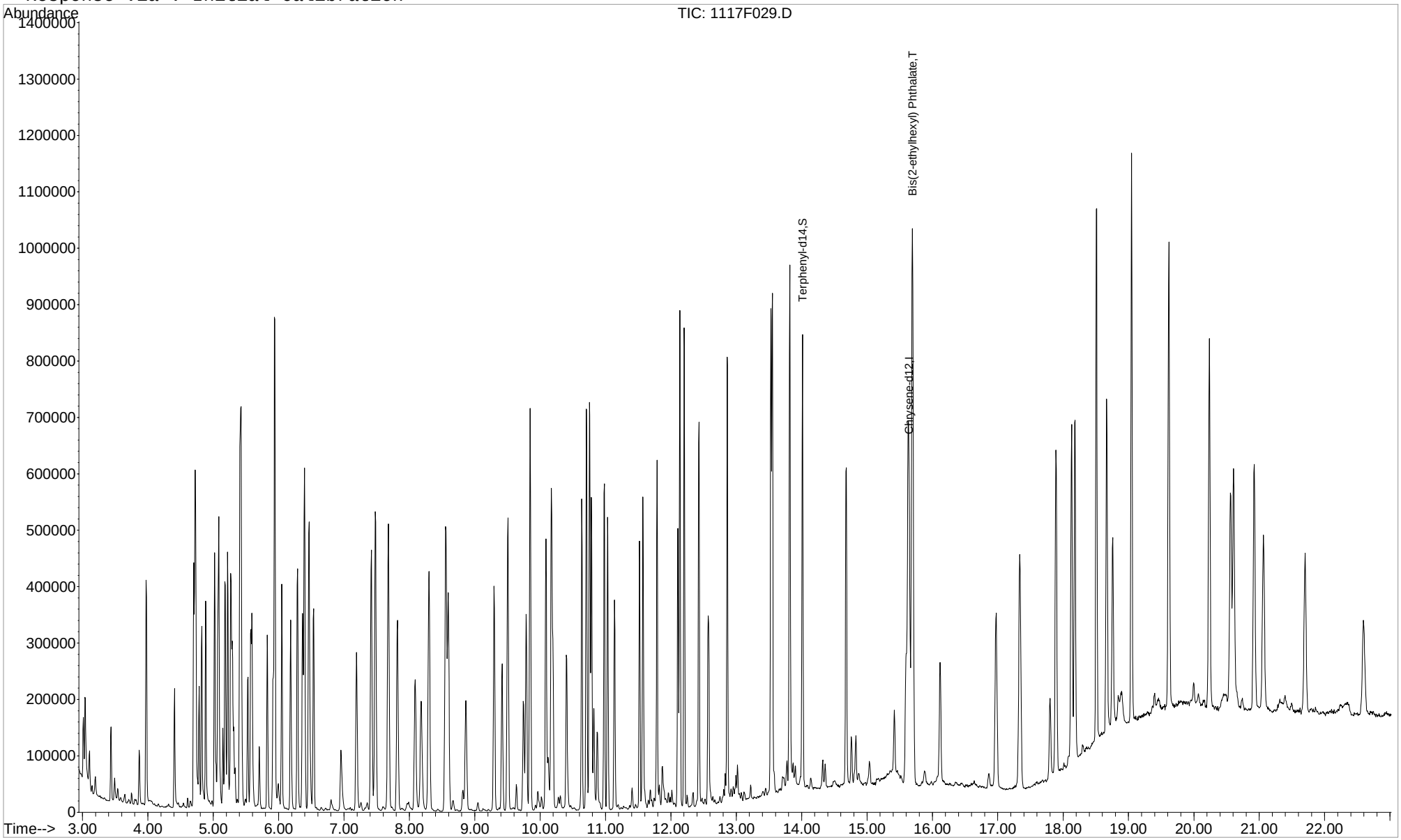
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Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F029.D Vial: 73
Acq On : 18 Nov 2018 4:49 am Operator: CConover
Sample : KQ1815507-03 | LCS Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 17:08 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 17:07:59 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F029.D Vial: 73
Acq On : 18 Nov 2018 4:49 am Operator: CConover
Sample : KQ1815507-03 | LCS Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 17:08:19 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 17:07:59 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.65	240	186152	1000.00	ng/ml	0.04
System Monitoring Compounds						
2) Terphenyl-d14	14.01	244	321083	1712.63	ng/ml	0.02
Spiked Amount 2500.000	Range 54 - 158		Recovery = 68.51%			
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.69	149	298383	1884.71	ng/ml	99

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

1st CE 11/17/18
2nd TP 11/30/18

Validation Report

Data File: J:\MS29\DATA\111418\1114F005.D\
Lab ID: KQ1816032-03
RunType: LCS
Matrix: Sediment

Date Acquired: 11/14/18 12:31:00
Batch ID: 615539
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Secondary Review: _____

1st CE 11/17/18
2nd TP 11/30/18

Quantitation Report

Data File:	J:\MS29\DATA\111418\1114F005.D\	**Instrument:**	K-MS-29
Acqu Date:	11/14/18 12:31:00	**Vial:**	6
Run Type:	LCS	**Dilution:**	1
Lab ID:	KQ1816032-03	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/31/18	**Receive Date:**	11/1/18

Analysis Lot:	615539	**Prep Lot:**	325584	**Report Group:**	KQ1816032
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	11/7/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.64		200343	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	14.01		333622	1653.46	66	30 - 102	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.68		312132	1831.90	183		Y

Prep Amount:	20.00 g	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	100.00

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

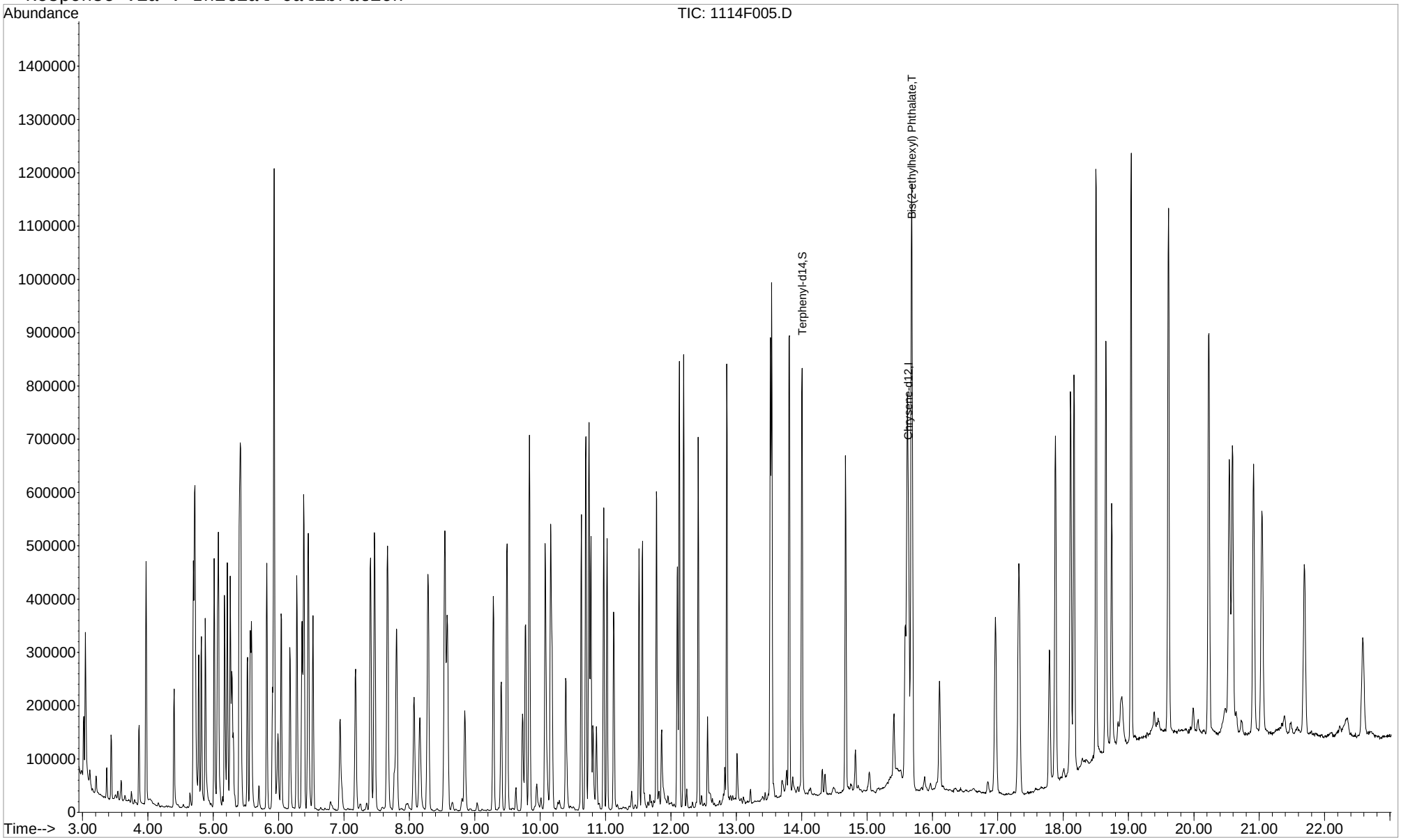
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Quantitation Report (QT Reviewed)

1st CC 11/17/18
2nd TP 11/30/18

Data File : J:\MS29\DATA\111418\1114F005.D Vial: 5
Acq On : 14 Nov 2018 12:31 pm Operator: CConover
Sample : KQ1816032-03 | LCS Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 17 0:20 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 11/17/18
2nd 11/30/18

Data File : J:\MS29\DATA\111418\1114F005.D Vial: 5
Acq On : 14 Nov 2018 12:31 pm Operator: CConover
Sample : KQ1816032-03 | LCS Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 17 00:20:42 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.64	240	200343	1000.00	ng/ml	0.02
System Monitoring Compounds						
2) Terphenyl-d14	14.01	244	333622	1653.46	ng/ml	0.02
Spiked Amount 2500.000	Range 54 - 158		Recovery = 66.14%			
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.68	149	312132	1831.90	ng/ml	99

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

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F015.D\
Lab ID: KQ1815427-01
RunType: MS
Matrix: Sediment

Date Acquired: 11/17/18 22:14:00
Batch ID: 615546
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

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Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F015.D\	**Instrument:**	K-MS-29
Acqu Date:	11/17/18 22:14:00	**Vial:**	15
Run Type:	MS	**Dilution:**	1
Lab ID:	KQ1815427-01	**Raw Units:**	ng/mL

Bottle ID:	K1810302-024.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615546	**Prep Lot:**	324899	**Report Group:**	KQ1815427
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.65		244949	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	14.01		385548	1562.84	63	30 - 102	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.69	+0.01	377260	1810.94	129		Y

Prep Amount:	40.261 g	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	69.90

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

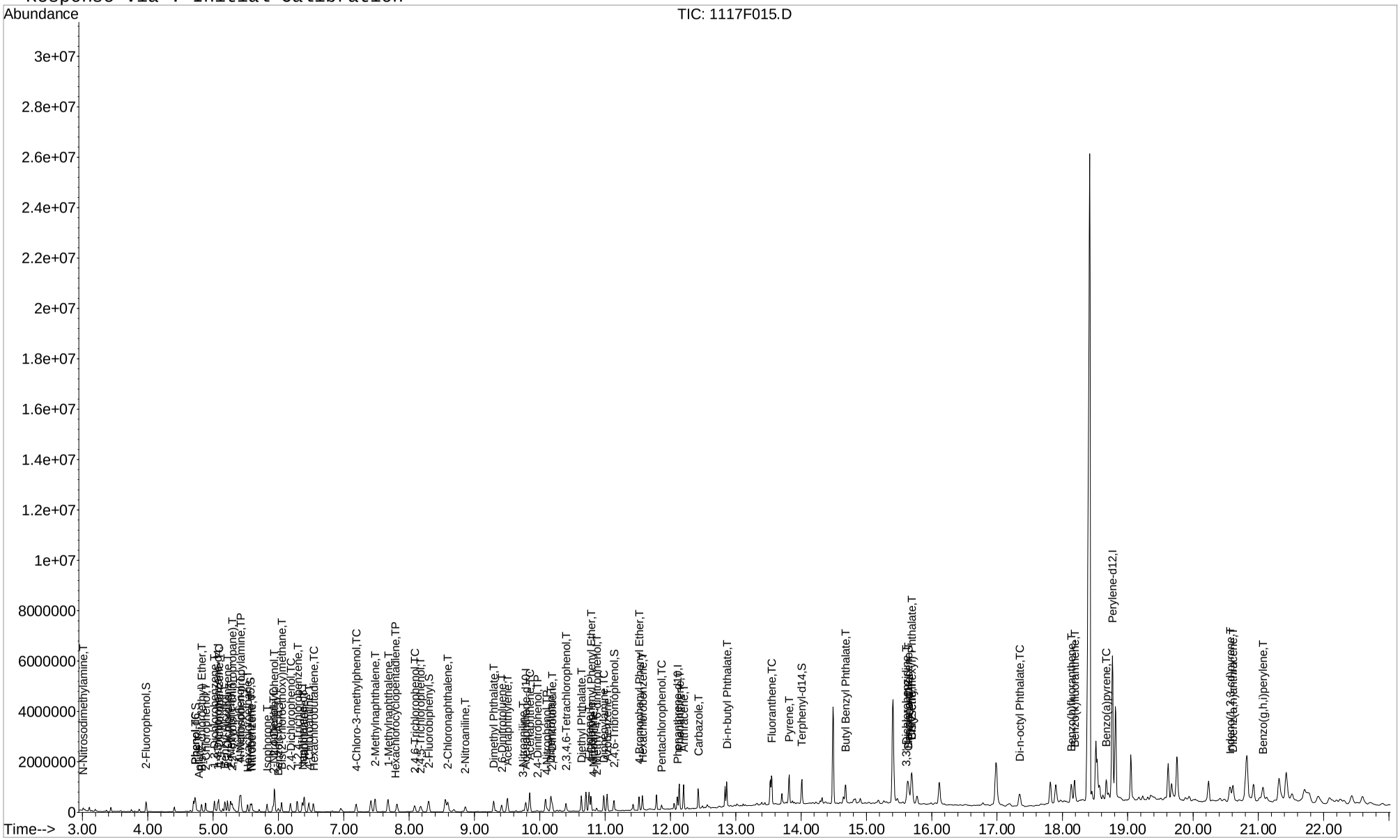
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Quantitation Report (QT Reviewed)

Data File : J:\MS29\DATA\111718\1117F015.D Vial: 62
Acq On : 17 Nov 2018 10:14 pm Operator: CConover
Sample : KQ1815427-01 | MS Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 12:47 2018 Quant Results File: 110618_8270LL.RES

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration

12/07/18 12/10/18 1st 2nd



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Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F015.D Vial: 62
Acq On : 17 Nov 2018 10:14 pm Operator: CConover
Sample : KQ1815427-01 | MS Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 11:53:21 2018 Quant Results File: 110618_8270LL.RES

Quant Method : J:\MS29\M...\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.07	152	62412	1000.00	ng/ml	0.01
21) Naphthalene-d8	6.37	136	244367	1000.00	ng/ml	0.02
35) Acenaphthene-d10	9.78	164	122714	1000.00	ng/ml	0.03
59) Phenanthrene-d10	12.11	188	228301	1000.00	ng/ml	0.02
69) Chrysene-d12	15.65	240	244949	1000.00	ng/ml	0.04
77) Perylene-d12	18.77	264	256972	1000.00	ng/ml	0.05
System Monitoring Compounds						
4) 2-Fluorophenol	3.97	112	137720	1950.57	ng/ml	0.00
Spiked Amount 3750.000	Range 38 - 110		Recovery = 52.02%			
6) Phenol-d6	4.72	99	215707	2247.63	ng/ml	0.02
Spiked Amount 3750.000	Range 43 - 128		Recovery = 59.94%			
19) Nitrobenzene-d5	5.57	82	121010	1506.91	ng/ml	0.02
Spiked Amount 2500.000	Range 30 - 139		Recovery = 60.28%			
39) 2-Fluorobiphenyl	8.30	172	292096	1560.79	ng/ml	0.04
Spiked Amount 2500.000	Range 37 - 126		Recovery = 62.43%			
60) 2,4,6-Tribromophenol	11.14	330	80224	2599.75	ng/ml	0.03
Spiked Amount 3750.000	Range 38 - 157		Recovery = 69.33%			
71) Terphenyl-d14	14.01	244	385548	1562.84	ng/ml	0.02
Spiked Amount 2500.000	Range 54 - 158		Recovery = 62.51%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.01	42	35110	1485.55	ng/ml	98
5) Bis(2-chloroethyl) Ether	4.82	93	132919	1377.74	ng/ml	99
7) Phenol	4.73	94	154376	1463.98	ng/ml	99
8) Aniline	4.79	93	16731	148.40	ng/ml#	79
9) 2-Chlorophenol	4.88	128	120382	1330.94	ng/ml	99
10) 1,3-Dichlorobenzene	5.02	146	130714	1300.02	ng/ml	99
11) 1,4-Dichlorobenzene	5.08	146	137375	1323.21	ng/ml	99
12) 1,2-Dichlorobenzene	5.22	146	131066	1327.10	ng/ml	98
13) Benzyl Alcohol	5.18	108	87980	1610.50	ng/ml	96
14) 2,2'-oxybis(1-chloropropan	5.29	45	141222	1201.74	ng/ml	89
15) 2-Methylphenol	5.27	107	96532	1324.69	ng/ml	99
16) Hexachloroethane	5.52	117	40533	1164.38	ng/ml	99
17) N-Nitrosodi-n-propylamine	5.41	70	92903	1467.92	ng/ml	99
18) 4-Methylphenol	5.40	107	150465	1467.33	ng/ml	99
20) Nitrobenzene	5.59	77	120935	1440.74	ng/ml	97
22) Isophorone	5.82	82	169866	1052.97	ng/ml	98
23) 2-Nitrophenol	5.91	139	62676	1295.75	ng/ml	93
24) 2,4-Dimethylphenol	5.94	122	232932	2973.19	ng/ml	99
25) Bis(2-chloroethoxy)methane	6.05	93	156197	1574.53	ng/ml	98
26) 2,4-Dichlorophenol	6.18	162	100634	1517.73	ng/ml	99
27) Benzoic Acid	6.00	122	38842	1475.79	ng/ml	94
28) 1,2,4-Trichlorobenzene	6.29	180	112730	1390.26	ng/ml	98
29) Naphthalene	6.40	128	391997	1476.14	ng/ml	100
30) 4-Chloroaniline	6.47	127	30572	405.81	ng/ml	93
31) Hexachlorobutadiene	6.54	225	59768	1362.26	ng/ml	97
32) 4-Chloro-3-methylphenol	7.19	107	110154	1645.70	ng/ml	95
33) 2-Methylnaphthalene	7.48	141	235199	1516.68	ng/ml	100
34) 1-Methylnaphthalene	7.68	141	244309	1721.51	ng/ml	100
36) Hexachlorocyclopentadiene	7.78	237	4072	395.64	ng/ml	96
37) 2,4,6-Trichlorophenol	8.08	196	77156	1645.52	ng/ml	99
38) 2,4,5-Trichlorophenol	8.18	196	78113	1544.82	ng/ml	97
40) 2-Chloronaphthalene	8.60	162	242344	1506.53	ng/ml	98
41) 2-Nitroaniline	8.86	65	68125	1792.42	ng/ml	98
42) Acenaphthylene	9.51	152	401017	1554.76	ng/ml	99
43) Dimethyl Phthalate	9.30	163	298569	1661.05	ng/ml	99
44) 2,6-Dinitrotoluene	9.42	165	67671	1848.41	ng/ml	100

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

Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F015.D Vial: 62
Acq On : 17 Nov 2018 10:14 pm Operator: CConover
Sample : KQ1815427-01 | MS Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 11:53:21 2018 Quant Results File: 110618_8270LL.RES

Quant Method : J:\MS29\M...\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45)	Acenaphthene	9.85	154	260212	1605.04	ng/ml	99
46)	3-Nitroaniline	9.75	138	19130	564.52	ng/ml	92
47)	2,4-Dinitrophenol	9.96	184	13278	1629.85	ng/ml	91
48)	Dibenzofuran	10.17	168	372647	1869.82	ng/ml	98
49)	4-Nitrophenol	10.11	109	20982	1647.04	ng/ml	92
50)	2,4-Dinitrotoluene	10.20	165	83663	1681.31	ng/ml	98
51)	2,3,4,6-Tetrachlorophenol	10.40	232	62434	1499.85	ng/ml	97
52)	Fluorene	10.75	166	313082	1674.21	ng/ml	99
53)	4-Chlorophenyl Phenyl Ethe	10.78	204	149704	1673.95	ng/ml	99
54)	Diethyl Phthalate	10.64	149	293743	1736.97	ng/ml	99
55)	4-Nitroaniline	10.82	138	19091	731.42	ng/ml	98
56)	2-Methyl-4,6-dinitrophenol	10.87	198	25157	1242.34	ng/ml	97
57)	Diphenylamine	10.98	169	216057	1740.27	ng/ml	99
58)	Azobenzene	11.03	77	268254	1675.82	ng/ml	98
61)	4-Bromophenyl Phenyl Ether	11.52	248	93210	1669.14	ng/ml	98
62)	Hexachlorobenzene	11.57	284	112702	1620.52	ng/ml	97
63)	Pentachlorophenol	11.87	266	39697	1346.07	ng/ml	94
64)	Phenanthrene	12.14	178	475170	1713.72	ng/ml	99
65)	Anthracene	12.20	178	453283	1675.44	ng/ml	100
66)	Carbazole	12.42	167	403988	1886.98	ng/ml	100
67)	Di-n-butyl Phthalate	12.86	149	532924	1965.39	ng/ml	100
68)	Fluoranthene	13.55	202	535867	1824.72	ng/ml	98
70)	Pyrene	13.82	202	558672	1457.29	ng/ml	99
72)	Butyl Benzyl Phthalate	14.68	149	247089	1844.55	ng/ml	98
73)	3,3'-Dichlorobenzidine	15.60	252	17415	287.28	ng/ml	95
74)	Benz(a)anthracene	15.63	228	531911	1685.97	ng/ml	99
75)	Chrysene	15.70	228	516460	1730.76	ng/ml	98
76)	Bis(2-ethylhexyl) Phthalat	15.69	149	377260	1810.94	ng/ml	99
78)	Di-n-octyl Phthalate	17.34	149	595980	1738.21	ng/ml	100
79)	Benzo(b)fluoranthene	18.14	252	523759	1709.82	ng/ml	100
80)	Benzo(k)fluoranthene	18.19	252	492779	1635.21	ng/ml	100
81)	Benzo(a)pyrene	18.67	252	449105	1605.01	ng/ml	98
82)	Indeno(1,2,3-cd)pyrene	20.57	276	467706m	2189.30	ng/ml	
83)	Dibenz(a,h)anthracene	20.61	278	477934	2297.68	ng/ml	97
84)	Benzo(g,h,i)perylene	21.07	276	433239	1909.90	ng/ml	98

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

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F016.D\
Lab ID: KQ1815427-02
RunType: DMS
Matrix: Sediment

Date Acquired: 11/17/18 22:42:00
Batch ID: 615546
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Analytical Hold Time	X	
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Continuing Calibration Recovery	X	
Internal Standards	X	
Surrogates	X	
Std MRL Unsupported by ICAL	X	
Above Highest ICAL Level	X	

Primary Review: _____

Printed: 12/7/18 15:58
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Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F016.D\	**Instrument:**	K-MS-29
Acqu Date:	11/17/18 22:42:00	**Vial:**	16
Run Type:	DMS	**Dilution:**	1
Lab ID:	KQ1815427-02	**Raw Units:**	ng/mL

Bottle ID:	K1810302-024.01	**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615546	**Prep Lot:**	324899	**Report Group:**	KQ1815427
Analysis	8270D	**Prep Method:**	EPA 3541		
		Prep Date:	10/31/18		

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.65		250144	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	% Rec	% Rec Criteria	Rpt?
p-Terphenyl-d14	14.01		373876	1484.06	59	30 - 102	Y

Target Compounds

Final Conc.Units: ug/Kg

Parameter Name	RT	RT Dev	Response	Solution Conc	Final Conc	Q	Rpt?
Bis(2-ethylhexyl) Phthalate	15.69	+0.01	397133	1866.74	133		Y

Prep Amount:	40.043 g	**Dilution:**	1
Prep Final Amount:	2.00 mL	**Basis Factor:**	69.90

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

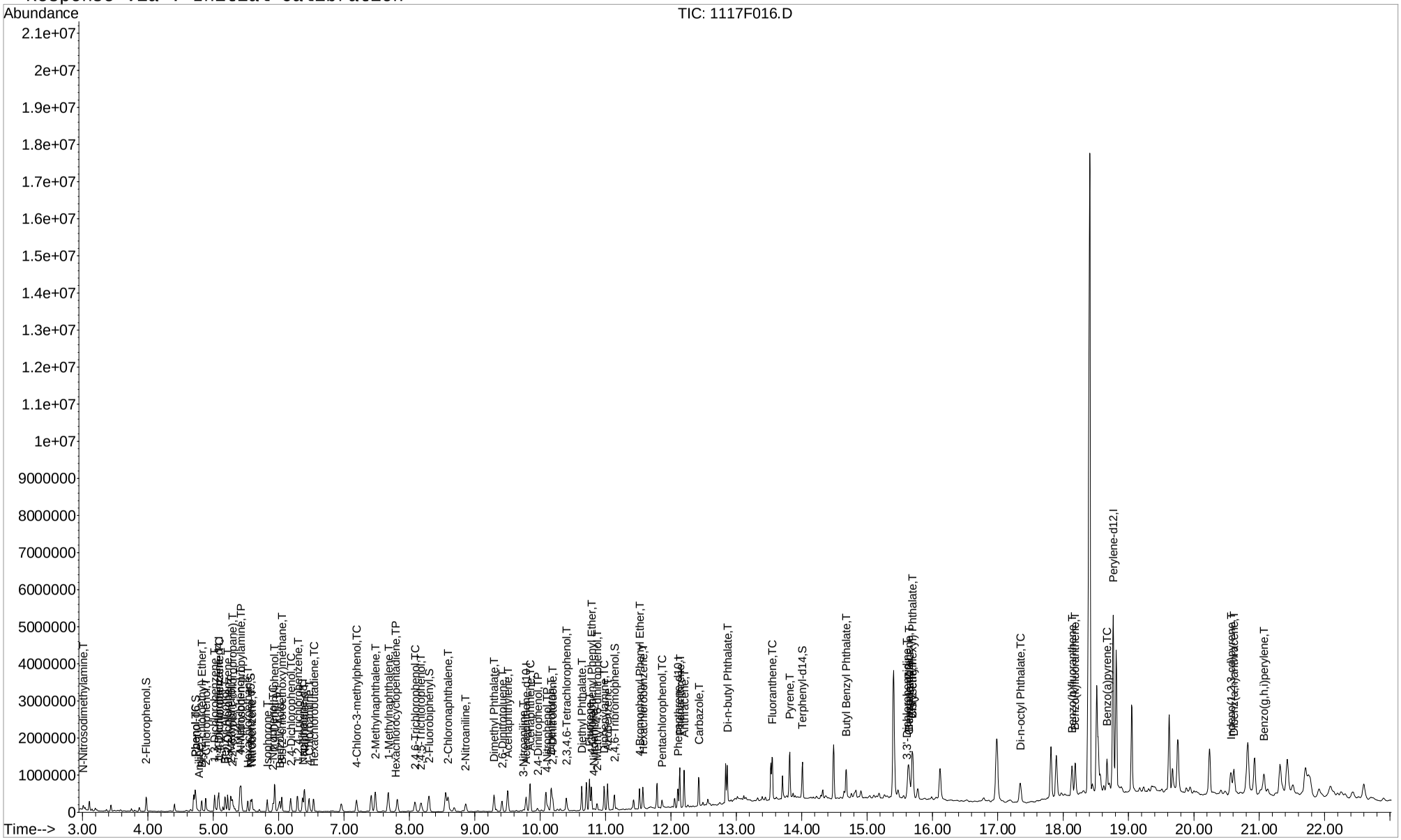
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Quantitation Report (QT Reviewed)

Data File : J:\MS29\DATA\111718\1117F016.D Vial: 63
Acq On : 17 Nov 2018 10:42 pm Operator: CConover
Sample : KQ1815427-02 | DMS Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 12:48 2018 Quant Results File: 110618_8270LL.RES

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration

12/07/18 12/10/18 1st 2nd



Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F016.D Vial: 63
Acq On : 17 Nov 2018 10:42 pm Operator: CConover
Sample : KQ1815427-02 | DMS Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 11:53:22 2018 Quant Results File: 110618_8270LL.RES

Quant Method : J:\MS29\M...\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.07	152	63248	1000.00	ng/ml	0.02
21) Naphthalene-d8	6.37	136	247973	1000.00	ng/ml	0.02
35) Acenaphthene-d10	9.78	164	123062	1000.00	ng/ml	0.03
59) Phenanthrene-d10	12.11	188	232965	1000.00	ng/ml	0.02
69) Chrysene-d12	15.65	240	250144	1000.00	ng/ml	0.04
77) Perylene-d12	18.77	264	256738	1000.00	ng/ml	0.05
System Monitoring Compounds						
4) 2-Fluorophenol	3.97	112	149419	2088.30	ng/ml	0.00
Spiked Amount 3750.000	Range 38 - 110		Recovery = 55.69%			
6) Phenol-d6	4.72	99	211477	2174.43	ng/ml	0.02
Spiked Amount 3750.000	Range 43 - 128		Recovery = 57.98%			
19) Nitrobenzene-d5	5.57	82	119152	1464.16	ng/ml	0.02
Spiked Amount 2500.000	Range 30 - 139		Recovery = 58.57%			
39) 2-Fluorobiphenyl	8.30	172	288359	1536.46	ng/ml	0.04
Spiked Amount 2500.000	Range 37 - 126		Recovery = 61.46%			
60) 2,4,6-Tribromophenol	11.14	330	81035	2573.46	ng/ml	0.03
Spiked Amount 3750.000	Range 38 - 157		Recovery = 68.63%			
71) Terphenyl-d14	14.01	244	373876	1484.06	ng/ml	0.02
Spiked Amount 2500.000	Range 54 - 158		Recovery = 59.36%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.01	42	39031	1629.62	ng/ml	98
5) Bis(2-chloroethyl) Ether	4.83	93	130880m	1338.68	ng/ml	
7) Phenol	4.73	94	162850	1523.93	ng/ml	98
8) Aniline	4.79	93	7034m	61.57	ng/ml	
9) 2-Chlorophenol	4.88	128	125642	1370.73	ng/ml	99
10) 1,3-Dichlorobenzene	5.02	146	134939	1324.30	ng/ml	99
11) 1,4-Dichlorobenzene	5.08	146	140956	1339.76	ng/ml	99
12) 1,2-Dichlorobenzene	5.22	146	134141	1340.28	ng/ml	99
13) Benzyl Alcohol	5.18	108	91366	1650.37	ng/ml	99
14) 2,2'-oxybis(1-chloropropan	5.29	45	143038	1201.10	ng/ml	87
15) 2-Methylphenol	5.27	107	95828	1297.65	ng/ml	99
16) Hexachloroethane	5.52	117	41114	1165.45	ng/ml	98
17) N-Nitrosodi-n-propylamine	5.41	70	96614	1506.37	ng/ml	97
18) 4-Methylphenol	5.40	107	148403	1428.09	ng/ml	99
20) Nitrobenzene	5.59	77	126160	1483.12	ng/ml	98
22) Isophorone	5.82	82	173789	1061.62	ng/ml	100
23) 2-Nitrophenol	5.91	139	65082	1324.10	ng/ml	93
24) 2,4-Dimethylphenol	5.94	122	192725	2424.21	ng/ml	98
25) Bis(2-chloroethoxy)methane	6.05	93	159440	1583.85	ng/ml	98
26) 2,4-Dichlorophenol	6.18	162	105999	1575.40	ng/ml	99
27) Benzoic Acid	6.02	122	111057	3257.42	ng/ml	98
28) 1,2,4-Trichlorobenzene	6.29	180	115350	1401.89	ng/ml	97
29) Naphthalene	6.40	128	399717	1483.32	ng/ml	100
30) 4-Chloroaniline	6.46	127	21104	276.06	ng/ml	92
31) Hexachlorobutadiene	6.54	225	61342	1377.81	ng/ml	100
32) 4-Chloro-3-methylphenol	7.19	107	113376	1669.20	ng/ml	99
33) 2-Methylnaphthalene	7.48	141	241560	1535.05	ng/ml	98
34) 1-Methylnaphthalene	7.68	141	250058	1736.39	ng/ml	98
36) Hexachlorocyclopentadiene	7.78	237	4628	409.56	ng/ml	98
37) 2,4,6-Trichlorophenol	8.08	196	82128	1746.61	ng/ml	95
38) 2,4,5-Trichlorophenol	8.18	196	87382	1723.25	ng/ml	95
40) 2-Chloronaphthalene	8.59	162	248906	1542.94	ng/ml	99
41) 2-Nitroaniline	8.86	65	70771	1856.77	ng/ml	93
42) Acenaphthylene	9.50	152	412056	1593.04	ng/ml	99
43) Dimethyl Phthalate	9.30	163	318569	1767.31	ng/ml	99
44) 2,6-Dinitrotoluene	9.42	165	71570	1949.38	ng/ml	95

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

Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F016.D Vial: 63
Acq On : 17 Nov 2018 10:42 pm Operator: CConover
Sample : KQ1815427-02 | DMS Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 11:53:22 2018 Quant Results File: 110618_8270LL.RES

Quant Method : J:\MS29\M...\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45)	Acenaphthene	9.85	154	269493	1657.58	ng/ml	95
46)	3-Nitroaniline	9.75	138	15740	463.17	ng/ml	83
47)	2,4-Dinitrophenol	9.96	184	22731	2254.45	ng/ml	92
48)	Dibenzofuran	10.17	168	385542	1929.05	ng/ml	99
49)	4-Nitrophenol	10.11	109	22686m	1775.77	ng/ml	
50)	2,4-Dinitrotoluene	10.20	165	94453	1880.32	ng/ml	98
51)	2,3,4,6-Tetrachlorophenol	10.40	232	69044	1642.77	ng/ml	99
52)	Fluorene	10.75	166	329698	1758.08	ng/ml	99
53)	4-Chlorophenyl Phenyl Ethe	10.78	204	156536	1745.39	ng/ml	100
54)	Diethyl Phthalate	10.64	149	311056	1834.15	ng/ml	99
55)	4-Nitroaniline	10.82	138	20208	772.03	ng/ml	95
56)	2-Methyl-4,6-dinitrophenol	10.87	198	41482	1777.27	ng/ml	99
57)	Diphenylamine	10.98	169	221034	1775.32	ng/ml	98
58)	Azobenzene	11.03	77	278694	1736.11	ng/ml	99
61)	4-Bromophenyl Phenyl Ether	11.52	248	97949	1718.89	ng/ml	97
62)	Hexachlorobenzene	11.57	284	116986	1648.44	ng/ml	99
63)	Pentachlorophenol	11.87	266	47573	1533.39	ng/ml	96
64)	Phenanthrene	12.14	178	492287	1739.91	ng/ml	99
65)	Anthracene	12.20	178	477398	1729.25	ng/ml	98
66)	Carbazole	12.42	167	419686	1921.06	ng/ml	100
67)	Di-n-butyl Phthalate	12.86	149	563298	2035.82	ng/ml	100
68)	Fluoranthene	13.55	202	553480	1846.96	ng/ml	99
70)	Pyrene	13.82	202	582168	1487.04	ng/ml	100
72)	Butyl Benzyl Phthalate	14.68	149	256802	1877.25	ng/ml	99
73)	3,3'-Dichlorobenzidine	15.60	252	15705	253.69	ng/ml	97
74)	Benz(a)anthracene	15.63	228	558025	1732.01	ng/ml	98
75)	Chrysene	15.70	228	544369	1786.40	ng/ml	99
76)	Bis(2-ethylhexyl) Phthalat	15.69	149	397133	1866.74	ng/ml	98
78)	Di-n-octyl Phthalate	17.34	149	627449	1829.51	ng/ml	99
79)	Benzo(b)fluoranthene	18.14	252	546275	1784.95	ng/ml	100
80)	Benzo(k)fluoranthene	18.19	252	530022	1760.40	ng/ml	100
81)	Benzo(a)pyrene	18.67	252	483766	1730.46	ng/ml	98
82)	Indeno(1,2,3-cd)pyrene	20.57	276	509718	2388.13	ng/ml	97
83)	Dibenz(a,h)anthracene	20.61	278	508450	2434.34	ng/ml	97
84)	Benzo(g,h,i)perylene	21.07	276	460457	2031.74	ng/ml	100

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

1st CE 11/17/18
2nd TP 11/30/18

Validation Report

Data File: J:\MS29\DATA\111418\1114F002.D\
Lab ID: KQ1816925-02
RunType: CCV
Matrix: Sediment

Date Acquired: 11/14/18 09:22:00
Batch ID: 615539
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Internal Standards	X	
Above Highest ICAL Level	X	

Primary Review: _____

Secondary Review: _____

1st 11/17/18
2nd 11/30/18

Quantitation Report

Data File:	J:\MS29\DATA\111418\1114F002.D\	**Instrument:**	K-MS-29
Acqu Date:	11/14/18 09:22:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1816925-02	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/31/18	**Receive Date:**	11/1/18

Analysis Lot:	615539	**Prep Lot:**		**Report Group:**	KQ1816925
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.64		182932	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
p-Terphenyl-d14	14.01		494039	2681.54	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Bis(2-ethylhexyl) Phthalate	15.68		488623	3140.67	Y

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

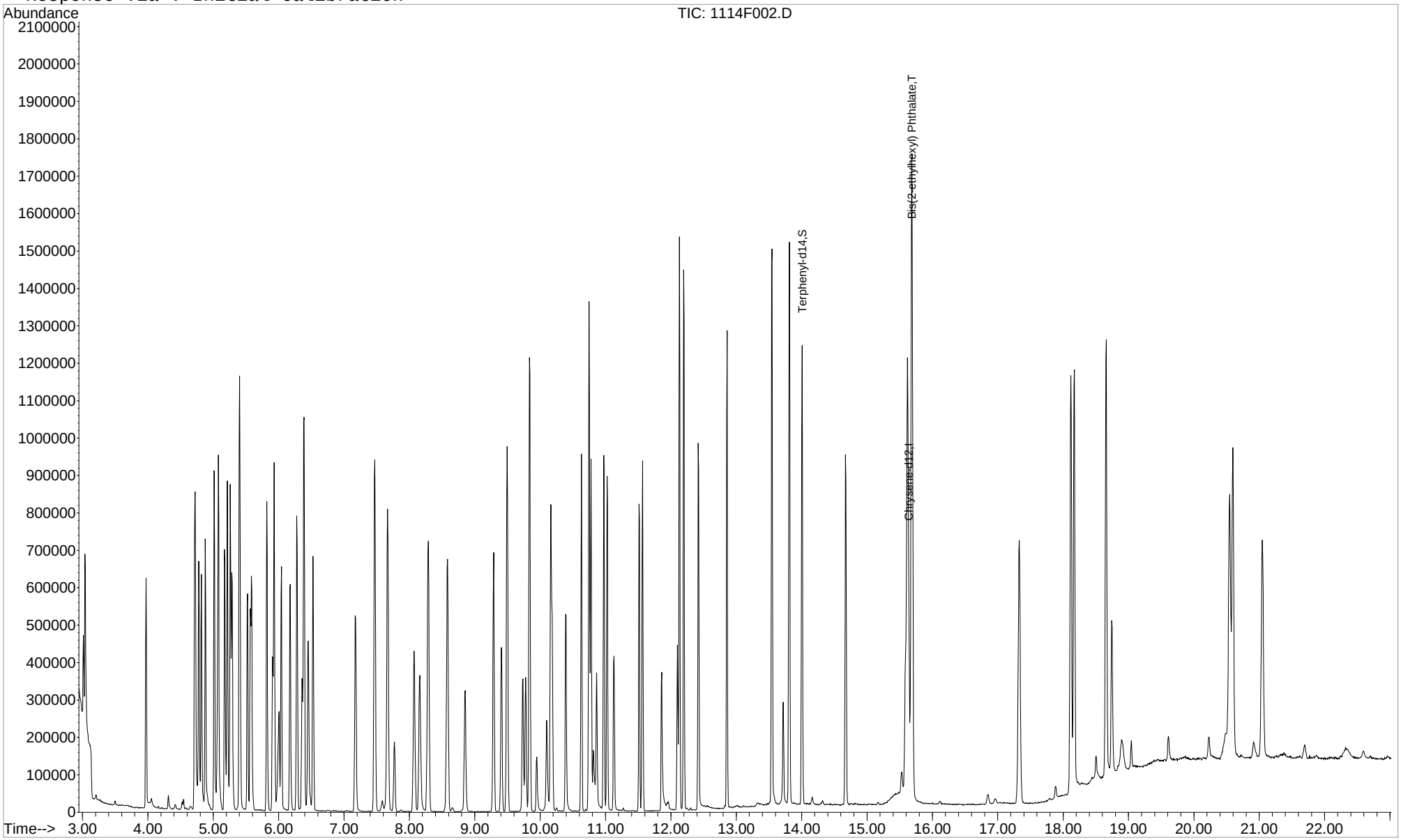
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Quantitation Report (QT Reviewed)

1st CE 11/17/18
2nd TP 11/30/18

Data File : J:\MS29\DATA\111418\1114F002.D Vial: 2
Acq On : 14 Nov 2018 9:22 am Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM59-96B Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 17 0:20 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 11/17/18
2nd 11/30/18

Data File : J:\MS29\DATA\111418\1114F002.D Vial: 2
Acq On : 14 Nov 2018 9:22 am Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM59-96B Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 17 00:20:07 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.64	240	182932	1000.00	ng/ml	0.03
System Monitoring Compounds						
2) Terphenyl-d14	14.01	244	494039	2681.54	ng/ml	0.02
Spiked Amount 2500.000	Range 54 - 158		Recovery = 107.26%			
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.68	149	488623	3140.67	ng/ml	100

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

Evaluate Continuing Calibration Report

1st 11/17/18
2nd 11/30/18

Data File : J:\MS29\DATA\111418\1114F002.D Vial: 2
Acq On : 14 Nov 2018 9:22 am Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM59-96B Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Chrysene-d12	1000.000	1000.000	0.0	106	0.03
2	S	Terphenyl-d14	3000.000	2681.541	10.6	92	0.02
3	T	Bis(2-ethylhexyl) Phthalate	3000.000	3140.674	-4.7	100	0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F002.D\
Lab ID: KQ1816930-02
RunType: CCV
Matrix: Sediment

Date Acquired: 11/17/18 16:07:00
Batch ID: 615546
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Internal Standards	X	
Above Highest ICAL Level	X	

Primary Review: _____

Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F002.D\	**Instrument:**	K-MS-29
Acqu Date:	11/17/18 16:07:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1816930-02	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	II	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/17/18	**Receive Date:**	10/19/18

Analysis Lot:	615546	**Prep Lot:**		**Report Group:**	KQ1816930
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18691

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	5.07		63010	1000.00	NA
Acenaphthene-d10	9.78		122174	1000.00	NA
Chrysene-d12	15.65		184564	1000.00	OK
Naphthalene-d8	6.37		252138	1000.00	NA
Perylene-d12	18.75		191716	1000.00	NA
Phenanthrene-d10	12.11		220922	1000.00	NA

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2,4,6-Tribromophenol	11.14		92195	3087.48	Y
2-Fluorobiphenyl	8.30		551445	2959.62	Y
2-Fluorophenol	3.97		216553	3038.00	Y
Nitrobenzene-d5	5.57		244929	3021.09	Y
Phenol-d6	4.72		298420	3079.97	Y
p-Terphenyl-d14	14.01		499429	2686.83	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
1,2,4-Trichlorobenzene	6.29		240424	2873.68	Y
1,2-Dichlorobenzene	5.22		292942	2938.01	Y
1,3-Dichlorobenzene	5.02		302027	2975.32	Y
1,4-Dichlorobenzene	5.08		303972	2900.10	Y
2,4,5-Trichlorophenol	8.17		160127	3180.79	Y
2,4,6-Trichlorophenol	8.08		148535	3181.83	Y
2,4-Dichlorophenol	6.18		212078	3099.91	Y
2,4-Dimethylphenol	5.94		232323	2874.02	Y
2,4-Dinitrophenol	9.96		36279	3114.76	Y

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

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1st 12/07/18

2nd 12/10/18

Data File:	J:\MS29\DATA\111718\1117F002.D\	**Instrument:**	K-MS-29
Acqu Date:	11/17/18 16:07:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1816930-02	**Raw Units:**	ng/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2,4-Dinitrotoluene	10.20		153424	2992.87	Y
2,6-Dinitrotoluene	9.42		117205	3215.57	Y
2-Chloronaphthalene	8.60		474784	2964.53	Y
2-Chlorophenol	4.88		273042	2990.10	Y
4,6-Dinitro-2-methylphenol	10.87		83183	3106.21	Y
2-Methylnaphthalene	7.48		471310	2945.58	Y
2-Methylphenol	5.27		218597	2971.30	Y
2-Nitroaniline	8.87		123382	3260.62	Y
2-Nitrophenol	5.91		134394	2572.23	Y
3,3'-Dichlorobenzidine	15.60		144652	3166.87	Y
3-Nitroaniline	9.74		113274	3357.43	Y
4-Bromophenyl Phenyl Ether	11.52		160280	2966.05	Y
4-Chloro-3-methylphenol	7.18		213618	3093.09	Y
4-Chloroaniline	6.46		266468	3428.09	Y
4-Chlorophenyl Phenyl Ether	10.78		266916	2997.77	Y
4-Methylphenol	5.40		317263	3064.58	Y
4-Nitroaniline	10.82		89179	3431.77	Y
4-Nitrophenol	10.11		34193	2695.94	Y
Acenaphthene	9.85		474814	2941.69	Y
Acenaphthylene	9.51		782819	3048.44	Y
Anthracene	12.20		767074	2929.98	Y
Benz(a)anthracene	15.62		701707	2951.86	Y
Benzo(a)pyrene	18.66		619506	2967.59	Y
Benzo(b)fluoranthene	18.12		672170	2941.21	Y
Benzo(g,h,i)perylene	21.06		513484	3034.15	Y
Benzo(k)fluoranthene	18.18		647092	2878.16	Y
Benzoic Acid	6.02		117253	3360.14	Y
Benzyl Alcohol	5.18		173888	3152.86	Y
Bis(2-chloroethoxy)methane	6.05		303278	2962.94	Y
Bis(2-chloroethyl) Ether	4.82		280665	2881.56	Y
Bis(2-ethylhexyl) Phthalate	15.68		480869	3063.50	Y
Butyl Benzyl Phthalate	14.68		319595	3166.40	Y
Chrysene	15.70		633802	2818.92	Y
Dibenz(a,h)anthracene	20.60		579255	3577.52	Y
Dibenzofuran	10.17		592162	2984.40	Y
Diethyl Phthalate	10.64		501366	2977.80	Y
Dimethyl Phthalate	9.30		529237	2957.36	Y
Di-n-butyl Phthalate	12.86		752241	2866.88	Y
Di-n-octyl Phthalate	17.34		764206	2966.23	Y
Fluoranthene	13.55		780841	2747.71	Y
Fluorene	10.75		558758	3001.17	Y

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
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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

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1st 12/07/18

2nd 12/10/18

Data File:	J:\MS29\DATA\111718\1117F002.D\	**Instrument:**	K-MS-29
Acqu Date:	11/17/18 16:07:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1816930-02	**Raw Units:**	ng/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Hexachlorobenzene	11.57		191749	2849.21	Y
Hexachlorobutadiene	6.54		129365	2857.68	Y
Hexachlorocyclopentadiene	7.78		41040	1338.17	Y
Hexachloroethane	5.53		96917	2757.67	Y
Indeno(1,2,3-cd)pyrene	20.55		541534	3397.71	Y
Isophorone	5.82		494941	2973.50	Y
Naphthalene	6.40		795438	2903.05	Y
Nitrobenzene	5.60		255682	3017.12	Y
N-Nitrosodi-n-propylamine	5.41		194654	3046.44	Y
N-Nitrosodiphenylamine	10.98		368928	2984.72	Y
Pentachlorophenol (PCP)	11.87		82891	2576.98	Y
Phenanthrene	12.14		770412	2871.33	Y
Phenol	4.73		326728	3069.03	Y
Pyrene	13.82		780506	2702.06	Y
Bis(1-chloroisopropyl) Ether	5.29		349350	2944.60	Y

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

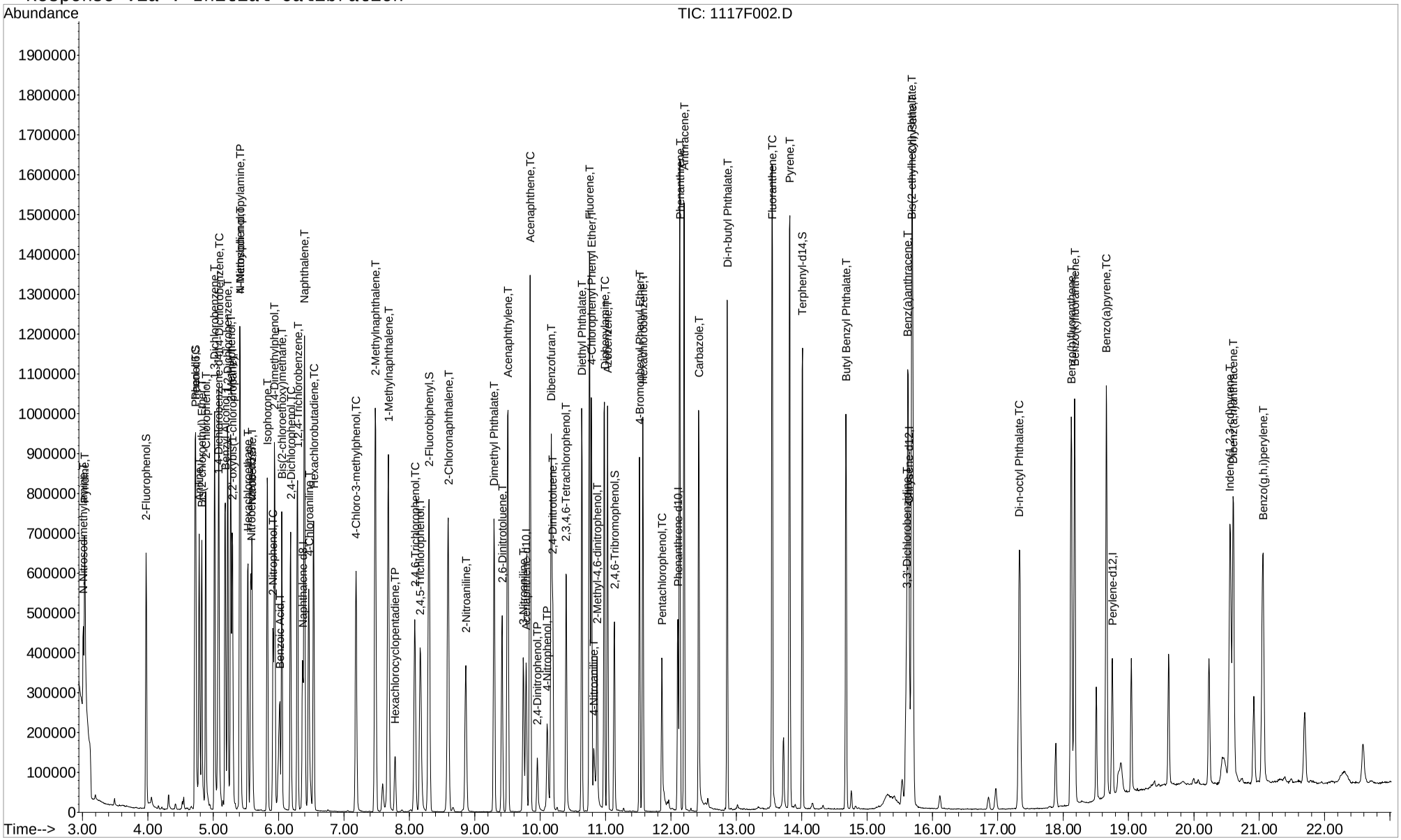
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS29\DATA\111718\1117F002.D Vial: 2
Acq On : 17 Nov 2018 4:07 pm Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM59-96B Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 19 14:28 2018 Quant Results File: 110618_8270LL.RES

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 11:52:38 2018
Response via : Initial Calibration

12/07/18 12/10/18 1st 2nd



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Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F002.D Vial: 2
Acq On : 17 Nov 2018 4:07 pm Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM59-96B Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 19 14:28:26 2018 Quant Results File: 110618_8270LL.RES

Quant Method : J:\MS29\M...\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:33:24 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.07	152	63010	1000.00	ng/ml	0.02
21) Naphthalene-d8	6.37	136	252138	1000.00	ng/ml	0.02
35) Acenaphthene-d10	9.78	164	122174	1000.00	ng/ml	0.03
59) Phenanthrene-d10	12.11	188	220922	1000.00	ng/ml	0.02
69) Chrysene-d12	15.65	240	184564	1000.00	ng/ml	0.04
77) Perylene-d12	18.75	264	191716	1000.00	ng/ml	0.04
System Monitoring Compounds						
4) 2-Fluorophenol	3.97	112	216553	3038.00	ng/ml	0.00
Spiked Amount 3750.000	Range 38 - 110		Recovery = 81.01%			
6) Phenol-d6	4.72	99	298420	3079.97	ng/ml	0.02
Spiked Amount 3750.000	Range 43 - 128		Recovery = 82.13%			
19) Nitrobenzene-d5	5.57	82	244929	3021.09	ng/ml	0.02
Spiked Amount 2500.000	Range 30 - 139		Recovery = 120.84%			
39) 2-Fluorobiphenyl	8.30	172	551445	2959.62	ng/ml	0.04
Spiked Amount 2500.000	Range 37 - 126		Recovery = 118.38%			
60) 2,4,6-Tribromophenol	11.14	330	92195	3087.48	ng/ml	0.03
Spiked Amount 3750.000	Range 38 - 157		Recovery = 82.33%			
71) Terphenyl-d14	14.01	244	499429	2686.83	ng/ml	0.02
Spiked Amount 2500.000	Range 54 - 158		Recovery = 107.47%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.01	42	75863	3179.39	ng/ml	100
3) Pyridine	3.03	79	264973	3289.87	ng/ml	99
5) Bis(2-chloroethyl) Ether	4.82	93	280665	2881.56	ng/ml	99
7) Phenol	4.73	94	326728	3069.03	ng/ml	98
8) Aniline	4.78	93	345280	3033.49	ng/ml	100
9) 2-Chlorophenol	4.88	128	273042	2990.10	ng/ml	99
10) 1,3-Dichlorobenzene	5.02	146	302027	2975.32	ng/ml	99
11) 1,4-Dichlorobenzene	5.08	146	303972	2900.10	ng/ml	99
12) 1,2-Dichlorobenzene	5.22	146	292942	2938.01	ng/ml	99
13) Benzyl Alcohol	5.18	108	173888	3152.86	ng/ml	98
14) 2,2'-oxybis(1-chloropropan	5.29	45	349350	2944.60	ng/ml	97
15) 2-Methylphenol	5.27	107	218597	2971.30	ng/ml	99
16) Hexachloroethane	5.53	117	96917	2757.67	ng/ml	85
17) N-Nitrosodi-n-propylamine	5.41	70	194654	3046.44	ng/ml	97
18) 4-Methylphenol	5.40	107	317263	3064.58	ng/ml	99
20) Nitrobenzene	5.60	77	255682	3017.12	ng/ml	97
22) Isophorone	5.82	82	494941	2973.50	ng/ml	98
23) 2-Nitrophenol	5.91	139	134394	2572.23	ng/ml	95
24) 2,4-Dimethylphenol	5.94	122	232323	2874.02	ng/ml	99
25) Bis(2-chloroethoxy)methane	6.05	93	303278	2962.94	ng/ml	99
26) 2,4-Dichlorophenol	6.18	162	212078	3099.91	ng/ml	99
27) Benzoic Acid	6.02	122	117253	3360.14	ng/ml	96
28) 1,2,4-Trichlorobenzene	6.29	180	240424	2873.68	ng/ml	98
29) Naphthalene	6.40	128	795438	2903.05	ng/ml	99
30) 4-Chloroaniline	6.46	127	266468	3428.09	ng/ml	100
31) Hexachlorobutadiene	6.54	225	129365	2857.68	ng/ml	99
32) 4-Chloro-3-methylphenol	7.18	107	213618	3093.09	ng/ml	98
33) 2-Methylnaphthalene	7.48	141	471310	2945.58	ng/ml	99
34) 1-Methylnaphthalene	7.68	141	426746	2914.36	ng/ml	99
36) Hexachlorocyclopentadiene	7.78	237	41040	1338.17	ng/ml	98
37) 2,4,6-Trichlorophenol	8.08	196	148535	3181.83	ng/ml	97
38) 2,4,5-Trichlorophenol	8.17	196	160127	3180.79	ng/ml	99
40) 2-Chloronaphthalene	8.60	162	474784	2964.53	ng/ml	98
41) 2-Nitroaniline	8.87	65	123382	3260.62	ng/ml	98
42) Acenaphthylene	9.51	152	782819	3048.44	ng/ml	99
43) Dimethyl Phthalate	9.30	163	529237	2957.36	ng/ml	98

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

Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F002.D Vial: 2
Acq On : 17 Nov 2018 4:07 pm Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM59-96B Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 19 14:28:26 2018 Quant Results File: 110618_8270LL.RES

Quant Method : J:\MS29\M...\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:33:24 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44)	2,6-Dinitrotoluene	9.42	165	117205	3215.57	ng/ml	99
45)	Acenaphthene	9.85	154	474814	2941.69	ng/ml	100
46)	3-Nitroaniline	9.74	138	113274	3357.43	ng/ml	98
47)	2,4-Dinitrophenol	9.96	184	36279	3114.76	ng/ml	90
48)	Dibenzofuran	10.17	168	592162	2984.40	ng/ml	99
49)	4-Nitrophenol	10.11	109	34193	2695.94	ng/ml	98
50)	2,4-Dinitrotoluene	10.20	165	153424	2992.87	ng/ml	99
51)	2,3,4,6-Tetrachlorophenol	10.40	232	124288	2869.87	ng/ml	99
52)	Fluorene	10.75	166	558758	3001.17	ng/ml	99
53)	4-Chlorophenyl Phenyl Ethe	10.78	204	266916	2997.77	ng/ml	99
54)	Diethyl Phthalate	10.64	149	501366	2977.80	ng/ml	99
55)	4-Nitroaniline	10.82	138	89179	3431.77	ng/ml	93
56)	2-Methyl-4,6-dinitrophenol	10.87	198	83183	3106.21	ng/ml	95
57)	Diphenylamine	10.98	169	368928	2984.72	ng/ml	100
58)	Azobenzene	11.03	77	496422	3114.92	ng/ml	99
61)	4-Bromophenyl Phenyl Ether	11.52	248	160280	2966.05	ng/ml	97
62)	Hexachlorobenzene	11.57	284	191749	2849.21	ng/ml	99
63)	Pentachlorophenol	11.87	266	82891	2576.98	ng/ml	98
64)	Phenanthrene	12.14	178	770412	2871.33	ng/ml	99
65)	Anthracene	12.20	178	767074	2929.98	ng/ml	99
66)	Carbazole	12.42	167	571054	2756.42	ng/ml	100
67)	Di-n-butyl Phthalate	12.86	149	752241	2866.88	ng/ml	100
68)	Fluoranthene	13.55	202	780841	2747.71	ng/ml	98
70)	Pyrene	13.82	202	780506	2702.06	ng/ml	100
72)	Butyl Benzyl Phthalate	14.68	149	319595	3166.40	ng/ml	98
73)	3,3'-Dichlorobenzidine	15.60	252	144652	3166.87	ng/ml	96
74)	Benz(a)anthracene	15.62	228	701707	2951.86	ng/ml	99
75)	Chrysene	15.70	228	633802	2818.92	ng/ml	99
76)	Bis(2-ethylhexyl) Phthalat	15.68	149	480869	3063.50	ng/ml	99
78)	Di-n-octyl Phthalate	17.34	149	764206	2966.23	ng/ml	100
79)	Benzo(b)fluoranthene	18.12	252	672170	2941.21	ng/ml	99
80)	Benzo(k)fluoranthene	18.18	252	647092	2878.16	ng/ml	99
81)	Benzo(a)pyrene	18.66	252	619506	2967.59	ng/ml	99
82)	Indeno(1,2,3-cd)pyrene	20.55	276	541534	3397.71	ng/ml	97
83)	Dibenz(a,h)anthracene	20.60	278	579255	3577.52	ng/ml	98
84)	Benzo(g,h,i)perylene	21.06	276	513484	3034.15	ng/ml	99

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

Evaluate Continuing Calibration Report

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F002.D Vial: 2
Acq On : 17 Nov 2018 4:07 pm Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM59-96B Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:33:24 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1000.000	1000.000	0.0	106	0.02
2	T	N-Nitrosodimethylamine	3000.000	3179.391	-6.0	105	-0.02
3	T	Pyridine	3000.000	3289.867	-9.7	113	-0.02
4	S	2-Fluorophenol	3000.000	3038.002	-1.3	104	0.00
5	T	Bis(2-chloroethyl) Ether	3000.000	2881.560	3.9	104	0.02
6	S	Phenol-d6	3000.000	3079.970	-2.7	105	0.02
7	TC	Phenol	3000.000	3069.026	-2.3	106	0.02
8	T	Aniline	3000.000	3033.493	-1.1	105	0.01
9	T	2-Chlorophenol	3000.000	2990.097	0.3	104	0.02
10	T	1,3-Dichlorobenzene	3000.000	2975.317	0.8	105	0.02
11	TC	1,4-Dichlorobenzene	3000.000	2900.103	3.3	102	0.02
12	T	1,2-Dichlorobenzene	3000.000	2938.008	2.1	103	0.02
13	T	Benzyl Alcohol	3000.000	3152.859	-5.1	107	0.02
14	T	2,2'-oxybis(1-chloropropane	3000.000	2944.602	1.8	106	0.01
15	T	2-Methylphenol	3000.000	2971.304	1.0	105	0.02
16	T	Hexachloroethane	3000.000	2757.673	8.1	95	0.02
17	TP	N-Nitrosodi-n-propylamine	3000.000	3046.444	-1.5	105	0.02
18	T	4-Methylphenol	3000.000	3064.575	-2.2	105	0.02
19	S	Nitrobenzene-d5	3000.000	3021.092	-0.7	104	0.02
20	T	Nitrobenzene	3000.000	3017.121	-0.6	104	0.02
21	I	Naphthalene-d8	1000.000	1000.000	0.0	108	0.02
22	T	Isophorone	3000.000	2973.498	0.9	105	0.02
23	TC	2-Nitrophenol	3000.000	2572.226	14.3	88	0.02
24	T	2,4-Dimethylphenol	3000.000	2874.022	4.2	102	0.02
25	T	Bis(2-chloroethoxy)methane	3000.000	2962.942	1.2	105	0.02
26	TC	2,4-Dichlorophenol	3000.000	3099.913	-3.3	105	0.03
27	T	Benzoic Acid	3000.000	3360.137	-12.0	120	0.04
28	T	1,2,4-Trichlorobenzene	3000.000	2873.684	4.2	103	0.02
29	T	Naphthalene	3000.000	2903.052	3.2	104	0.02
30	T	4-Chloroaniline	3000.000	3428.091	-14.3	119	0.02
31	TC	Hexachlorobutadiene	3000.000	2857.679	4.7	104	0.02
32	TC	4-Chloro-3-methylphenol	3000.000	3093.088	-3.1	104	0.04
33	T	2-Methylnaphthalene	3000.000	2945.576	1.8	104	0.03
34	T	1-Methylnaphthalene	3000.000	2914.358	2.9	104	0.04
35	I	Acenaphthene-d10	1000.000	1000.000	0.0	107	0.03
36	TP	Hexachlorocyclopentadiene	3000.000	1338.170	55.4#	40	0.04
37	TC	2,4,6-Trichlorophenol	3000.000	3181.834	-6.1	104	0.04
38	T	2,4,5-Trichlorophenol	3000.000	3180.793	-6.0	106	0.04
39	S	2-Fluorobiphenyl	3000.000	2959.623	1.3	103	0.04
40	T	2-Chloronaphthalene	3000.000	2964.532	1.2	103	0.04
41	T	2-Nitroaniline	3000.000	3260.617	-8.7	106	0.04
42	T	Acenaphthylene	3000.000	3048.444	-1.6	104	0.04
43	T	Dimethyl Phthalate	3000.000	2957.363	1.4	103	0.03
44	T	2,6-Dinitrotoluene	3000.000	3215.566	-7.2	101	0.03
45	TC	Acenaphthene	3000.000	2941.689	1.9	103	0.03
46	T	3-Nitroaniline	3000.000	3357.434	-11.9	102	0.03
47	TP	2,4-Dinitrophenol	3000.000	3114.763	-3.8	110	0.04
48	T	Dibenzofuran	3000.000	2984.400	0.5	105	0.03
49	TP	4-Nitrophenol	3000.000	2695.945	10.1	93	0.04
50	T	2,4-Dinitrotoluene	3000.000	2992.874	0.2	104	0.03
51	T	2,3,4,6-Tetrachlorophenol	3000.000	2869.874	4.3	99	0.03
52	T	Fluorene	3000.000	3001.170	-0.0	104	0.02
53	T	4-Chlorophenyl Phenyl Ether	3000.000	2997.773	0.1	104	0.02
54	T	Diethyl Phthalate	3000.000	2977.799	0.7	103	0.02
55	T	4-Nitroaniline	3000.000	3431.772	-14.4	124	0.02

(#) = Out of Range

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F002.D Vial: 2
Acq On : 17 Nov 2018 4:07 pm Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM59-96B Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : J:\MS29\METHODS\SCAN\110618_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:33:24 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
56	T	2-Methyl-4,6-dinitrophenol	3000.000	3106.215	-3.5	110	0.03
57	TC	Diphenylamine	3000.000	2984.724	0.5	104	0.02
58	T	Azobenzene	3000.000	3114.919	-3.8	106	0.02
59	I	Phenanthrene-d10	1000.000	1000.000	0.0	108	0.02
60	S	2,4,6-Tribromophenol	3000.000	3087.479	-2.9	105	0.03
61	T	4-Bromophenyl Phenyl Ether	3000.000	2966.054	1.1	105	0.02
62	T	Hexachlorobenzene	3000.000	2849.211	5.0	104	0.02
63	TC	Pentachlorophenol	3000.000	2576.980	14.1	90	0.03
64	T	Phenanthrene	3000.000	2871.328	4.3	103	0.02
65	T	Anthracene	3000.000	2929.982	2.3	103	0.02
66	T	Carbazole	3000.000	2756.417	8.1	100	0.02
67	T	Di-n-butyl Phthalate	3000.000	2866.885	4.4	101	0.02
68	TC	Fluoranthene	3000.000	2747.710	8.4	99	0.02
69	I	Chrysene-d12	1000.000	1000.000	0.0	107	0.04
70	T	Pyrene	3000.000	2702.059	9.9	98	0.02
71	S	Terphenyl-d14	3000.000	2686.827	10.4	93	0.02
72	T	Butyl Benzyl Phthalate	3000.000	3166.405	-5.5	101	0.02
73	T	3,3'-Dichlorobenzidine	3000.000	3166.871	-5.6	107	0.04
74	T	Benz(a)anthracene	3000.000	2951.858	1.6	97	0.03
75	T	Chrysene	3000.000	2818.919	6.0	101	0.04
76	T	Bis(2-ethylhexyl) Phthalate	3000.000	3063.503	-2.1	98	0.02
77	I	Perylene-d12	1000.000	1000.000	0.0	103	0.04
78	TC	Di-n-octyl Phthalate	3000.000	2966.230	1.1	98	0.04
79	T	Benzo(b)fluoranthene	3000.000	2941.211	2.0	92	0.04
80	T	Benzo(k)fluoranthene	3000.000	2878.165	4.1	92	0.04
81	TC	Benzo(a)pyrene	3000.000	2967.590	1.1	98	0.03
82	T	Indeno(1,2,3-cd)pyrene	3000.000	3397.706	-13.3	105	0.04
83	T	Dibenz(a,h)anthracene	3000.000	3577.517	-19.3	119	0.04
84	T	Benzo(g,h,i)perylene	3000.000	3034.155	-1.1	102	0.05

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F027.D\
Lab ID: KQ1816931-04
RunType: CCV
Matrix: Water

Date Acquired: 11/18/18 03:52:00
Batch ID: 615547
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification	X	
Internal Standards	X	
Above Highest ICAL Level	X	

Primary Review: _____

Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F027.D\	**Instrument:**	K-MS-29
Acqu Date:	11/18/18 03:52:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1816931-02	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/21/18	**Receive Date:**	10/22/18

Analysis Lot:	615547	**Prep Lot:**		**Report Group:**	KQ1816931
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
Chrysene-d12	15.65		185313	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
p-Terphenyl-d14	14.01		530749	2843.78	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Bis(2-ethylhexyl) Phthalate	15.69		540576	3429.96	Y

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

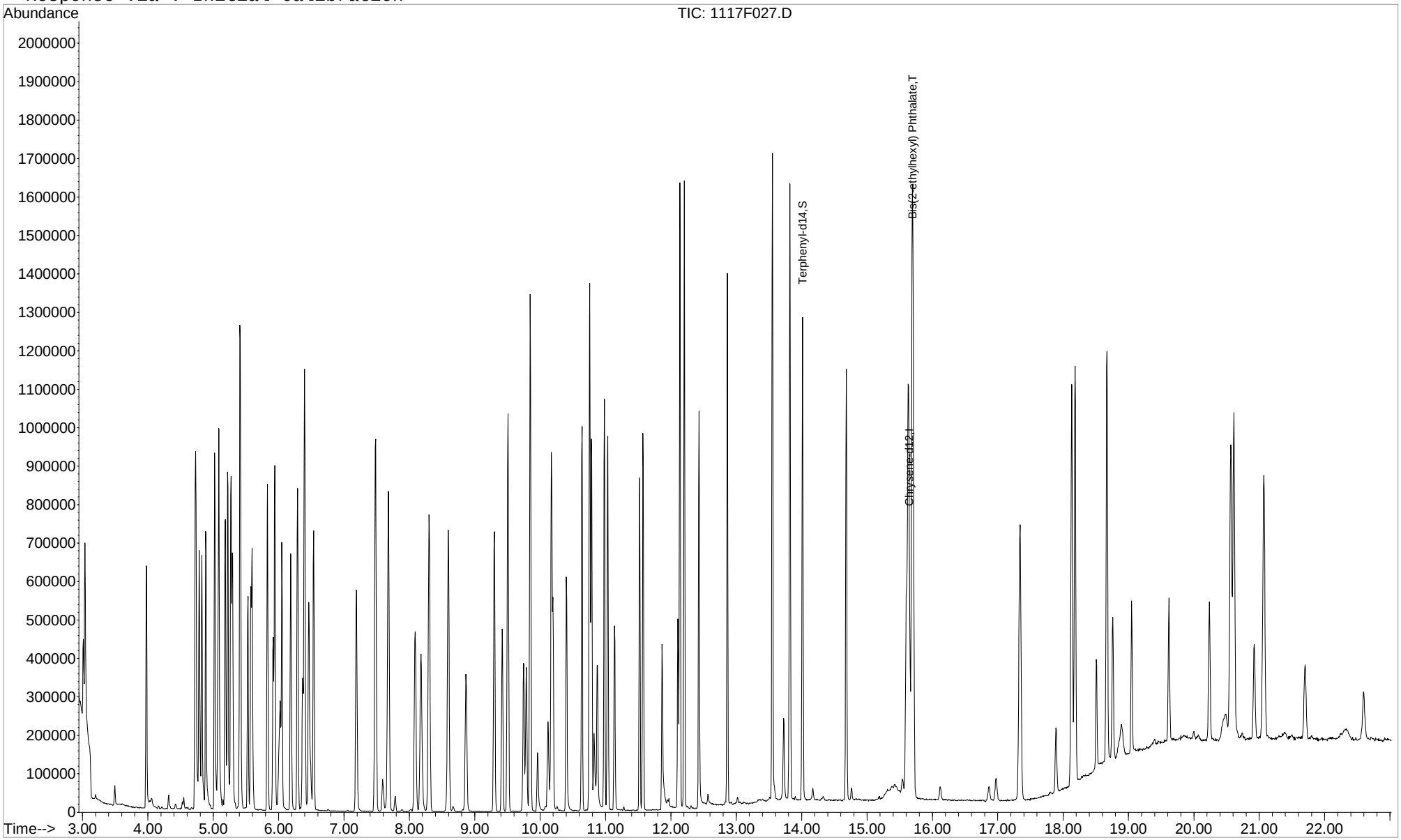
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Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F027.D Vial: 2
Acq On : 18 Nov 2018 3:52 am Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM59-96B Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 7 17:07 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Dec 07 17:07:59 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F027.D Vial: 2
Acq On : 18 Nov 2018 3:52 am Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM59-96B Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 07 17:07:49 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.65	240	185313	1000.00	ng/ml	0.04
System Monitoring Compounds						
2) Terphenyl-d14	14.01	244	530749	2843.78	ng/ml	0.02
Spiked Amount 2500.000	Range 54 - 158		Recovery = 113.75%			
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.69	149	540576	3429.96	ng/ml	98

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

Evaluate Continuing Calibration Report

1st 12/07/18
2nd 12/10/18

Data File : J:\MS29\DATA\111718\1117F027.D Vial: 2
Acq On : 18 Nov 2018 3:52 am Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM59-96B Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Chrysene-d12	1000.000	1000.000	0.0	108	0.04
2	S	Terphenyl-d14	3000.000	2843.782	5.2	99	0.02
3	T	Bis(2-ethylhexyl) Phthalate	3000.000	3429.963	-14.3	110	0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0

1st 12/19/18
2nd 12/21/18

Validation Report

Data File: J:\MS29\DATA\121118\1211F002.D\
Lab ID: KQ1818460-02
RunType: CCV
Matrix: Soil

Date Acquired: 12/11/18 15:03:00
Batch ID: 619456
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
ICAL Analyte Recovery	X	
Second Source ICAL Verification		X
Internal Standards	X	
Above Highest ICAL Level	X	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Second Source ICAL Verification	Bis(1-chloroisopropyl) Ether	-24		20	NT for this SR

Primary Review: _____

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Secondary Review: _____

1st 12/19/18
2nd 12/21/18

Quantitation Report

Data File:	J:\MS29\DATA\121118\1211F002.D\	**Instrument:**	K-MS-29
Acqu Date:	12/11/18 15:03:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1818460-02	**Raw Units:**	ng/mL

Bottle ID:		**Tier:**	IV	**Matrix:**	Soil
Prod Code:	SVO LL	**Collect Date:**	10/15/18	**Receive Date:**	10/18/18

Analysis Lot:	619456	**Prep Lot:**		**Report Group:**	KQ1818460
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800541
		Report List ID:	18691

Internal Standard Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Area Criteria
1,4-Dichlorobenzene-d4	5.04		37421	1000.00	OK
Acenaphthene-d10	9.74		70631	1000.00	OK
Chrysene-d12	15.60		104369	1000.00	OK
Naphthalene-d8	6.33		150244	1000.00	OK
Perylene-d12	18.71		106436	1000.00	OK
Phenanthrene-d10	12.07		123556	1000.00	OK

Surrogate Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2,4,6-Tribromophenol	11.10		45990	3143.33	Y
2-Fluorobiphenyl	8.24		315551	2971.03	Y
2-Fluorophenol	3.96		150336	3245.65	Y
Nitrobenzene-d5	5.55		177083	3048.75	Y
Phenol-d6	4.69		194979	2984.06	Y
p-Terphenyl-d14	13.98		298187	2834.41	Y

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
1,2,4-Trichlorobenzene	6.25		138020	2929.28	Y
1,2-Dichlorobenzene	5.19		177232	3000.02	Y
1,3-Dichlorobenzene	4.99		178615	2965.91	Y
1,4-Dichlorobenzene	5.06		187122	3009.82	Y
2,4,5-Trichlorophenol	8.11		89397	3242.87	Y
2,4,6-Trichlorophenol	8.02		76694	3052.79	Y
2,4-Dichlorophenol	6.15		118378	3063.96	Y
2,4-Dimethylphenol	5.90		122746	2511.95	Y
2,4-Dinitrophenol	9.91		22037	2670.64	Y

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

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1st 12/19/18
2nd 12/21/18

Data File:	J:\MS29\DATA\121118\1211F002.D\	**Instrument:**	K-MS-29
Acqu Date:	12/11/18 15:03:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1818460-02	**Raw Units:**	ng/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
2,4-Dinitrotoluene	10.15		90827	3035.03	Y
2,6-Dinitrotoluene	9.37		69312	2998.90	Y
2-Chloronaphthalene	8.53		280536	3007.36	Y
2-Chlorophenol	4.86		169240	2995.20	Y
4,6-Dinitro-2-methylphenol	10.83		47504	2901.93	Y
2-Methylnaphthalene	7.43		279687	2987.03	Y
2-Methylphenol	5.23		139414	2928.68	Y
2-Nitroaniline	8.82		94413	3183.28	Y
2-Nitrophenol	5.88		80353	2822.82	Y
3,3'-Dichlorobenzidine	15.57		91862	2883.84	Y
3-Nitroaniline	9.70		67510	3275.54	Y
4-Bromophenyl Phenyl Ether	11.49		85520	2978.12	Y
4-Chloro-3-methylphenol	7.13		133915	3108.01	Y
4-Chloroaniline	6.43		142460	2951.34	Y
4-Chlorophenyl Phenyl Ether	10.75		150212	2993.34	Y
4-Methylphenol	5.37		198463	2899.77	Y
4-Nitroaniline	10.80		52118	3132.49	Y
4-Nitrophenol	10.08		27637	2929.47	Y
Acenaphthene	9.80		280560	2994.24	Y
Acenaphthylene	9.46		451132	3033.32	Y
Anthracene	12.17		452095	3161.04	Y
Benz(a)anthracene	15.58		389791	2754.80	Y
Benzo(a)pyrene	18.62		372755	2997.01	Y
Benzo(b)fluoranthene	18.07		379169	2873.89	Y
Benzo(g,h,i)perylene	21.00		245179	2725.71	Y
Benzo(k)fluoranthene	18.13		401082	3044.34	Y
Benzoic Acid	5.97		83965	3589.24	Y
Benzyl Alcohol	5.15		103667	2763.86	Y
Bis(2-chloroethoxy)methane	6.02		204152	2943.25	Y
Bis(2-chloroethyl) Ether	4.80		202245	3178.63	Y
Bis(2-ethylhexyl) Phthalate	15.65		310250	3021.51	Y
Butyl Benzyl Phthalate	14.64		196347	2900.60	Y
Chrysene	15.65		394986	3092.97	Y
Dibenz(a,h)anthracene	20.56		329908	2809.56	Y
Dibenzofuran	10.13		339589	3002.81	Y
Diethyl Phthalate	10.60		313534	2960.82	Y
Dimethyl Phthalate	9.25		319120	2974.07	Y
Di-n-butyl Phthalate	12.84		509434	3074.23	Y
Di-n-octyl Phthalate	17.29		490380	3080.17	Y
Fluoranthene	13.52		473054	3135.34	Y
Fluorene	10.72		325643	3056.15	Y

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

Printed: 12/19/18 14:33
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1st 12/19/18
2nd 12/21/18

Data File:	J:\MS29\DATA\121118\1211F002.D\	**Instrument:**	K-MS-29
Acqu Date:	12/11/18 15:03:00	**Vial:**	2
Run Type:	CCV	**Dilution:**	1
Lab ID:	KQ1818460-02	**Raw Units:**	ng/mL

Target Compounds

Parameter Name	RT	RT Dev	Response	Solution Conc	Rpt?
Hexachlorobenzene	11.54		104023	2916.50	Y
Hexachlorobutadiene	6.49		73644	2971.47	Y
Hexachlorocyclopentadiene	7.73		47499	2484.87	Y
Hexachloroethane	5.50		67845	3093.34	Y
Indeno(1,2,3-cd)pyrene	20.50		284194	2714.75	Y
Isophorone	5.79		351789	3004.51	Y
Naphthalene	6.35		476669	2857.20	Y
Nitrobenzene	5.56		189853	2997.75	Y
N-Nitrosodi-n-propylamine	5.39		144848	2941.48	Y
N-Nitrosodiphenylamine	10.95		218590	3153.53	Y
Pentachlorophenol (PCP)	11.83		50952	2876.85	Y
Phenanthrene	12.10		446160	2949.54	Y
Phenol	4.70		215444	2863.75	Y
Pyrene	13.79		471933	2850.72	Y
Bis(1-chloroisopropyl) Ether	5.26		346956	3131.97	Y

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

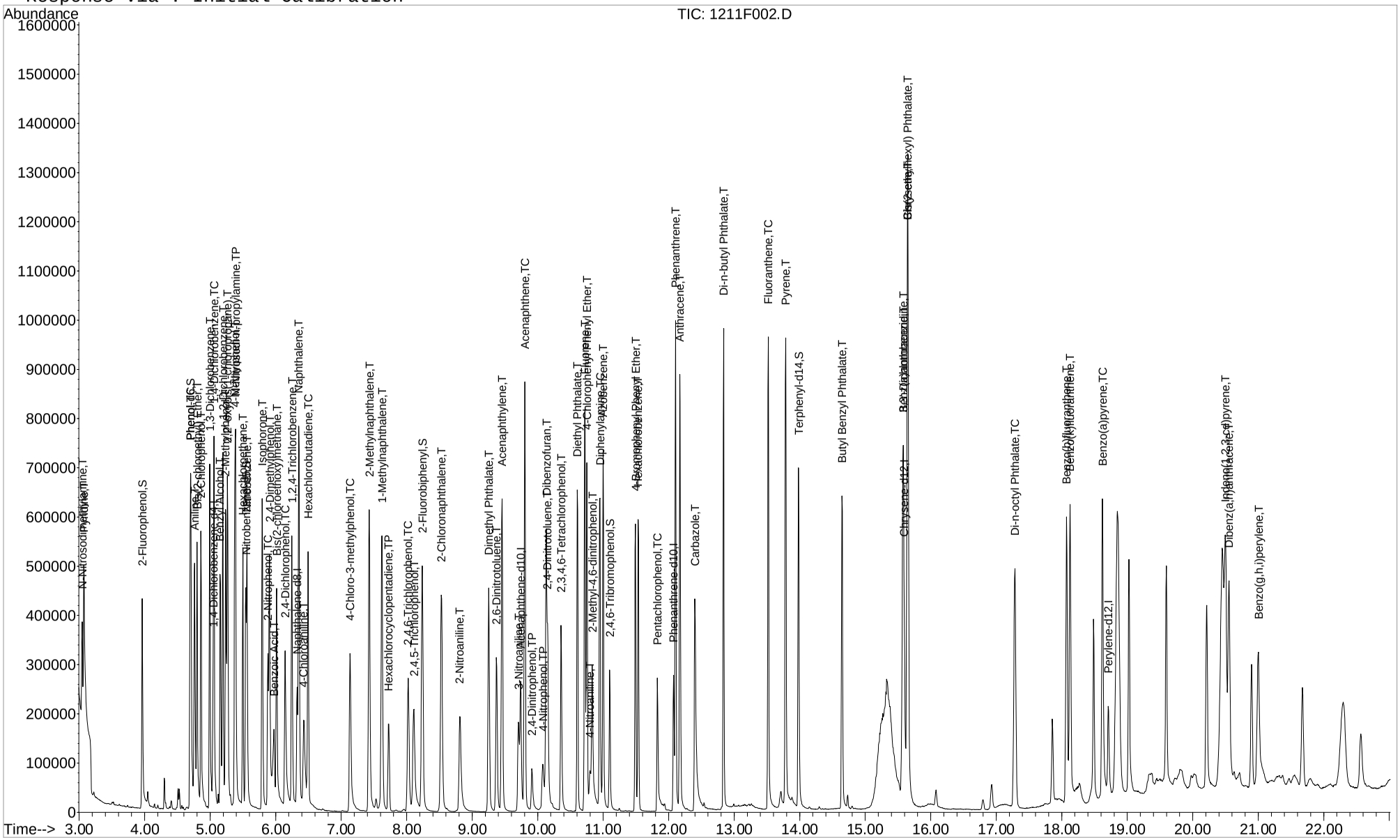
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS29\DATA\121118\1211F002.D Vial: 2
Acq On : 11 Dec 2018 3:03 pm Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM60-6D Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 19 12:20 2018 Quant Results File: 112918_8270LL.RES

Method : J:\MS29\METHODS\SCAN\112918_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Wed Dec 19 12:21:09 2018
Response via : Initial Calibration

12/19/18 12/21/18
1st 2nd



Quantitation Report (QT Reviewed)

1st 12/19/18
2nd 12/21/18

Data File : J:\MS29\DATA\121118\1211F002.D Vial: 2
Acq On : 11 Dec 2018 3:03 pm Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM60-6D Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 15:28:56 2018 Quant Results File: 112918_8270LL.RES

Quant Method : J:\MS29\M...\112918_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Tue Dec 11 14:10:00 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.04	152	37421	1000.00	ng/ml	-0.01
21) Naphthalene-d8	6.33	136	150244	1000.00	ng/ml	-0.01
35) Acenaphthene-d10	9.74	164	70631	1000.00	ng/ml	-0.01
59) Phenanthrene-d10	12.07	188	123556	1000.00	ng/ml	0.00
69) Chrysene-d12	15.60	240	104369	1000.00	ng/ml	-0.01
77) Perylene-d12	18.71	264	106436	1000.00	ng/ml	0.00
System Monitoring Compounds						
4) 2-Fluorophenol	3.96	112	150336	3245.65	ng/ml	0.00
Spiked Amount 3750.000	Range 38 - 110		Recovery = 86.55%			
6) Phenol-d6	4.69	99	194979	2984.06	ng/ml	0.00
Spiked Amount 3750.000	Range 43 - 128		Recovery = 79.57%			
19) Nitrobenzene-d5	5.55	82	177083	3048.75	ng/ml	0.00
Spiked Amount 2500.000	Range 30 - 139		Recovery = 121.95%			
39) 2-Fluorobiphenyl	8.24	172	315551	2971.03	ng/ml	-0.02
Spiked Amount 2500.000	Range 37 - 126		Recovery = 118.84%			
60) 2,4,6-Tribromophenol	11.10	330	45990	3143.33	ng/ml	0.00
Spiked Amount 3750.000	Range 38 - 157		Recovery = 83.82%			
71) Terphenyl-d14	13.98	244	298187	2834.41	ng/ml	0.00
Spiked Amount 2500.000	Range 54 - 158		Recovery = 113.38%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.05	42	75981	3100.98	ng/ml#	71
3) Pyridine	3.07	79	182888	2848.73	ng/ml	79
5) Bis(2-chloroethyl) Ether	4.80	93	202245	3178.63	ng/ml	88
7) Phenol	4.70	94	215444	2863.75	ng/ml	93
8) Aniline	4.76	93	217465	2720.20	ng/ml	93
9) 2-Chlorophenol	4.86	128	169240	2995.20	ng/ml	88
10) 1,3-Dichlorobenzene	4.99	146	178615	2965.91	ng/ml	98
11) 1,4-Dichlorobenzene	5.06	146	187122	3009.82	ng/ml	99
12) 1,2-Dichlorobenzene	5.19	146	177232	3000.02	ng/ml	96
13) Benzyl Alcohol	5.15	108	103667	2763.86	ng/ml	81
14) 2,2'-oxybis(1-chloropropan	5.26	45	346956	3131.97	ng/ml	85
15) 2-Methylphenol	5.23	107	139414	2928.68	ng/ml	95
16) Hexachloroethane	5.50	117	67845	3093.34	ng/ml	97
17) N-Nitrosodi-n-propylamine	5.39	70	144848	2941.48	ng/ml	85
18) 4-Methylphenol	5.37	107	198463	2899.77	ng/ml	98
20) Nitrobenzene	5.56	77	189853	2997.75	ng/ml	92
22) Isophorone	5.79	82	351789	3004.51	ng/ml	93
23) 2-Nitrophenol	5.88	139	80353	2822.82	ng/ml	79
24) 2,4-Dimethylphenol	5.90	122	122746m	2511.95	ng/ml	
25) Bis(2-chloroethoxy)methane	6.02	93	204152	2943.25	ng/ml	97
26) 2,4-Dichlorophenol	6.15	162	118378	3063.96	ng/ml	98
27) Benzoic Acid	5.97	122	83965m	3589.24	ng/ml	
28) 1,2,4-Trichlorobenzene	6.25	180	138020	2929.28	ng/ml	98
29) Naphthalene	6.35	128	476669	2857.20	ng/ml	99
30) 4-Chloroaniline	6.43	127	142460	2951.34	ng/ml	94
31) Hexachlorobutadiene	6.49	225	73644	2971.47	ng/ml	98
32) 4-Chloro-3-methylphenol	7.13	107	133915	3108.01	ng/ml	94
33) 2-Methylnaphthalene	7.43	141	279687	2987.03	ng/ml	98
34) 1-Methylnaphthalene	7.62	141	251646	2967.72	ng/ml	98
36) Hexachlorocyclopentadiene	7.73	237	47499	2484.87	ng/ml	97
37) 2,4,6-Trichlorophenol	8.02	196	76694	3052.79	ng/ml	100
38) 2,4,5-Trichlorophenol	8.11	196	89397	3242.87	ng/ml	99
40) 2-Chloronaphthalene	8.53	162	280536	3007.36	ng/ml	98
41) 2-Nitroaniline	8.82	65	94413	3183.28	ng/ml#	76
42) Acenaphthylene	9.46	152	451132	3033.32	ng/ml	99
43) Dimethyl Phthalate	9.25	163	319120	2974.07	ng/ml	100

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

Quantitation Report (QT Reviewed)

1st 12/19/18
2nd 12/21/18

Data File : J:\MS29\DATA\121118\1211F002.D Vial: 2
Acq On : 11 Dec 2018 3:03 pm Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM60-6D Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 15:28:56 2018 Quant Results File: 112918_8270LL.RES

Quant Method : J:\MS29\M...\112918_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Tue Dec 11 14:10:00 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44)	2,6-Dinitrotoluene	9.37	165	69312	2998.90	ng/ml	70
45)	Acenaphthene	9.80	154	280560	2994.24	ng/ml	98
46)	3-Nitroaniline	9.70	138	67510	3275.54	ng/ml	86
47)	2,4-Dinitrophenol	9.91	184	22037	2670.64	ng/ml	82
48)	Dibenzofuran	10.13	168	339589	3002.81	ng/ml	95
49)	4-Nitrophenol	10.08	109	27637	2929.47	ng/ml#	80
50)	2,4-Dinitrotoluene	10.15	165	90827	3035.03	ng/ml	68
51)	2,3,4,6-Tetrachlorophenol	10.36	232	69741	3182.26	ng/ml	91
52)	Fluorene	10.72	166	325643	3056.15	ng/ml	98
53)	4-Chlorophenyl Phenyl Ethe	10.75	204	150212	2993.34	ng/ml	96
54)	Diethyl Phthalate	10.60	149	313534	2960.82	ng/ml	97
55)	4-Nitroaniline	10.80	138	52118	3132.49	ng/ml	82
56)	2-Methyl-4,6-dinitrophenol	10.83	198	47504	2901.93	ng/ml	82
57)	Diphenylamine	10.95	169	218590	3153.53	ng/ml	99
58)	Azobenzene	11.00	77	374273	3199.40	ng/ml	90
61)	4-Bromophenyl Phenyl Ether	11.49	248	85520	2978.12	ng/ml	95
62)	Hexachlorobenzene	11.54	284	104023	2916.50	ng/ml	95
63)	Pentachlorophenol	11.83	266	50952	2876.85	ng/ml	99
64)	Phenanthrene	12.10	178	446160	2949.54	ng/ml	99
65)	Anthracene	12.17	178	452095	3161.04	ng/ml	98
66)	Carbazole	12.40	167	383072	3395.79	ng/ml	98
67)	Di-n-butyl Phthalate	12.84	149	509434	3074.23	ng/ml	99
68)	Fluoranthene	13.52	202	473054	3135.34	ng/ml	97
70)	Pyrene	13.79	202	471933	2850.72	ng/ml	99
72)	Butyl Benzyl Phthalate	14.64	149	196347	2900.60	ng/ml	82
73)	3,3'-Dichlorobenzidine	15.57	252	91862	2883.84	ng/ml	98
74)	Benz(a)anthracene	15.58	228	389791	2754.80	ng/ml	98
75)	Chrysene	15.65	228	394986	3092.97	ng/ml	99
76)	Bis(2-ethylhexyl) Phthalat	15.65	149	310250	3021.51	ng/ml	96
78)	Di-n-octyl Phthalate	17.29	149	490380	3080.17	ng/ml	91
79)	Benzo(b)fluoranthene	18.07	252	379169	2873.89	ng/ml	99
80)	Benzo(k)fluoranthene	18.13	252	401082	3044.34	ng/ml	99
81)	Benzo(a)pyrene	18.62	252	372755	2997.01	ng/ml	99
82)	Indeno(1,2,3-cd)pyrene	20.50	276	284194	2714.75	ng/ml	95
83)	Dibenz(a,h)anthracene	20.56	278	329908	2809.56	ng/ml	99
84)	Benzo(g,h,i)perylene	21.00	276	245179	2725.71	ng/ml	97

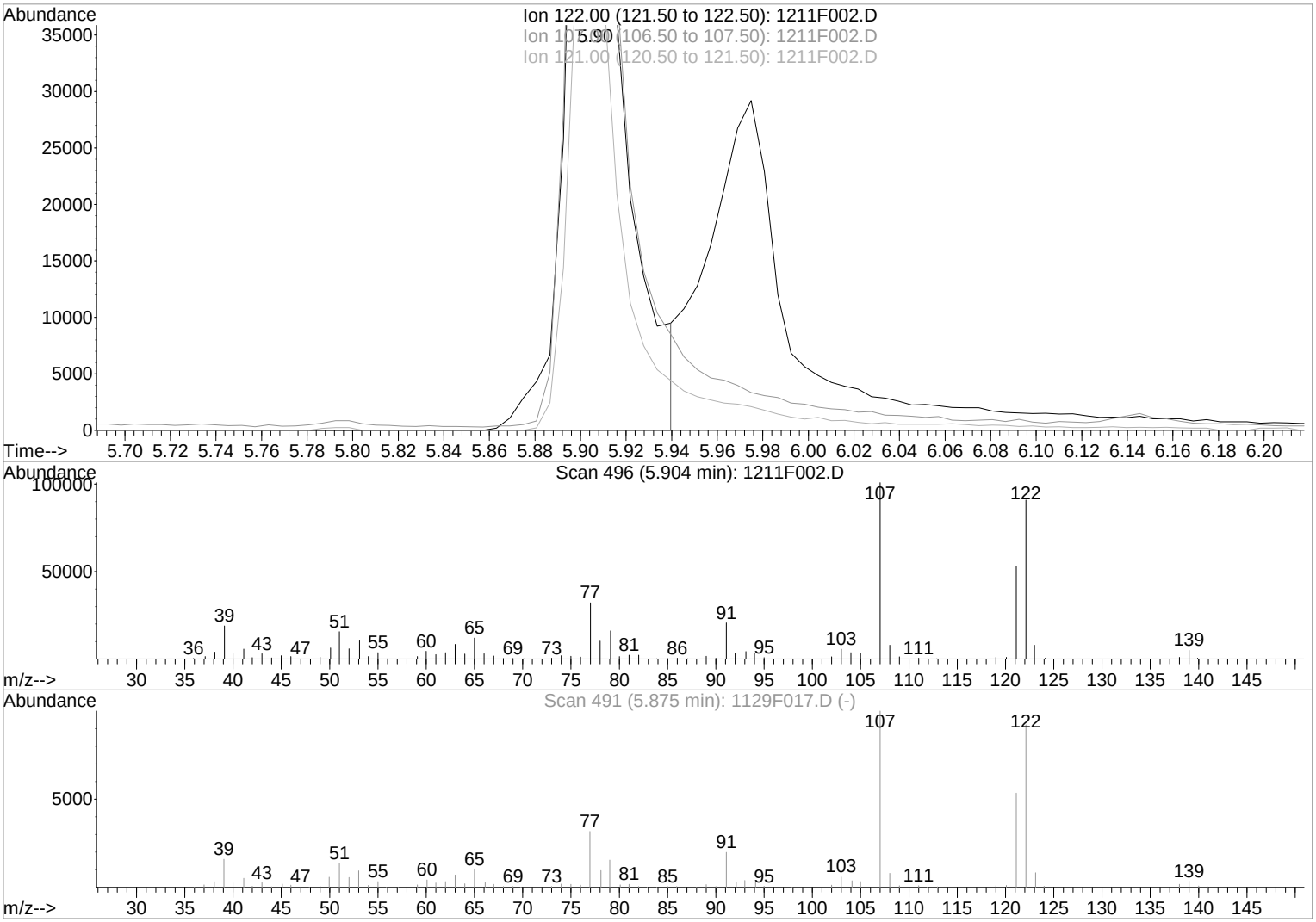
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

1st 12/19/18
2nd 12/21/18

Data File : J:\MS29\DATA\121118\1211F002.D Vial: 2
Acq On : 11 Dec 2018 3:03 pm Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM60-6D Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 11 15:28 2018 Quant Results File: temp.res

Method : J:\MS29\METHODS\SCAN\112918_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Nov 30 00:58:02 2018
Response via : Multiple Level Calibration



TIC: 1211F002.D

(24) 2,4-Dimethylphenol (T)

5.90min 2580.50ng/ml

response 126096

Ion	Exp%	Act%
122.00	100	100
107.00	103.00	110.61
121.00	59.70	58.41
0.00	0.00	0.00

Manual Integration:

Before

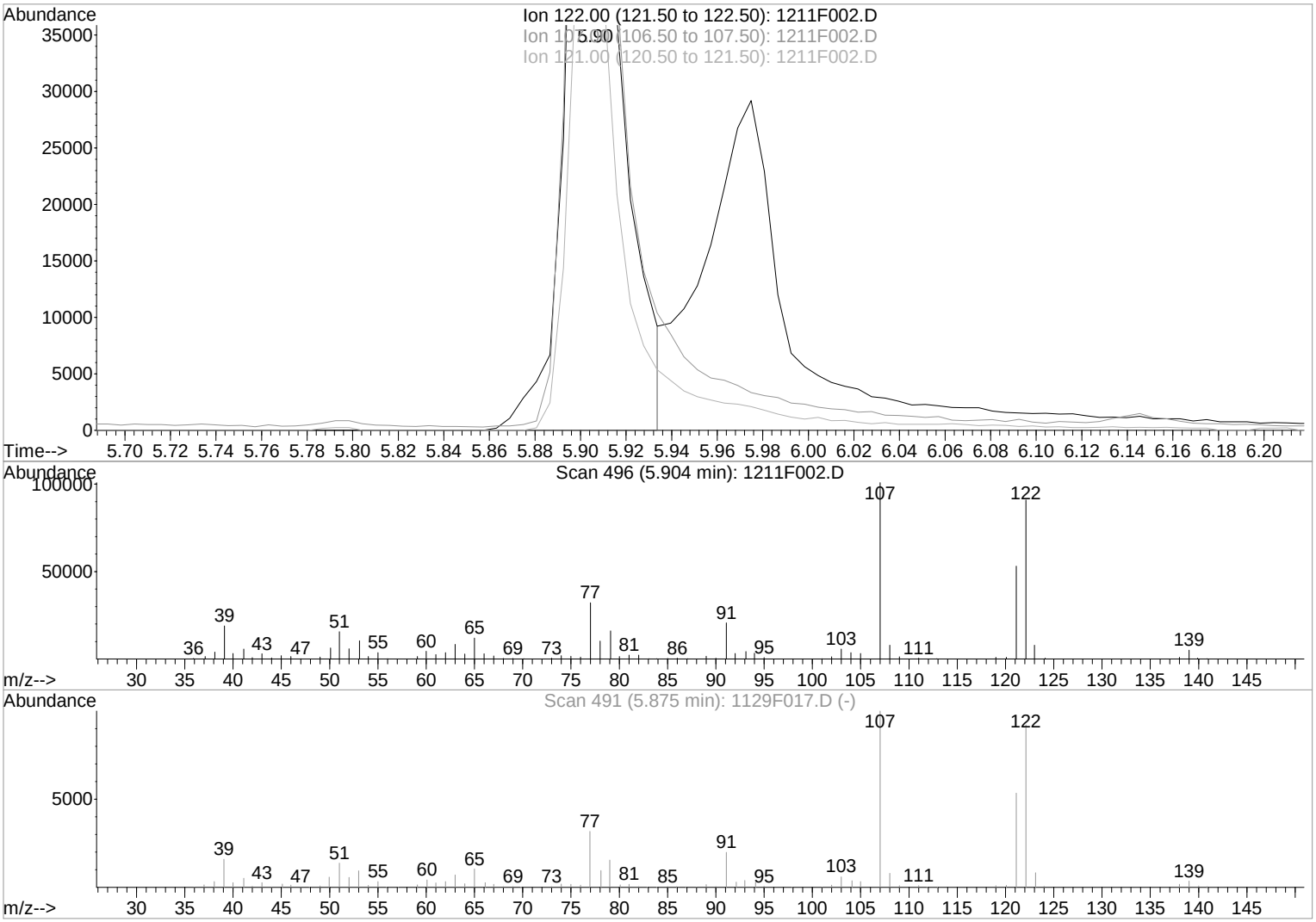
12/19/18

Quantitation Report (Qedit)

1st 12/19/18
2nd 12/21/18

Data File : J:\MS29\DATA\121118\1211F002.D Vial: 2
Acq On : 11 Dec 2018 3:03 pm Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM60-6D Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 19 12:20 2018 Quant Results File: temp.res

Method : J:\MS29\METHODS\SCAN\112918_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Nov 30 00:58:02 2018
Response via : Multiple Level Calibration



TIC: 1211F002.D

(24) 2,4-Dimethylphenol (T)

5.90min 2511.95ng/ml m

response 122746

Ion	Exp%	Act%
122.00	100	100
107.00	103.00	110.94
121.00	59.70	58.41
0.00	0.00	0.00

Manual Integration:

After

IC-Overintegrated

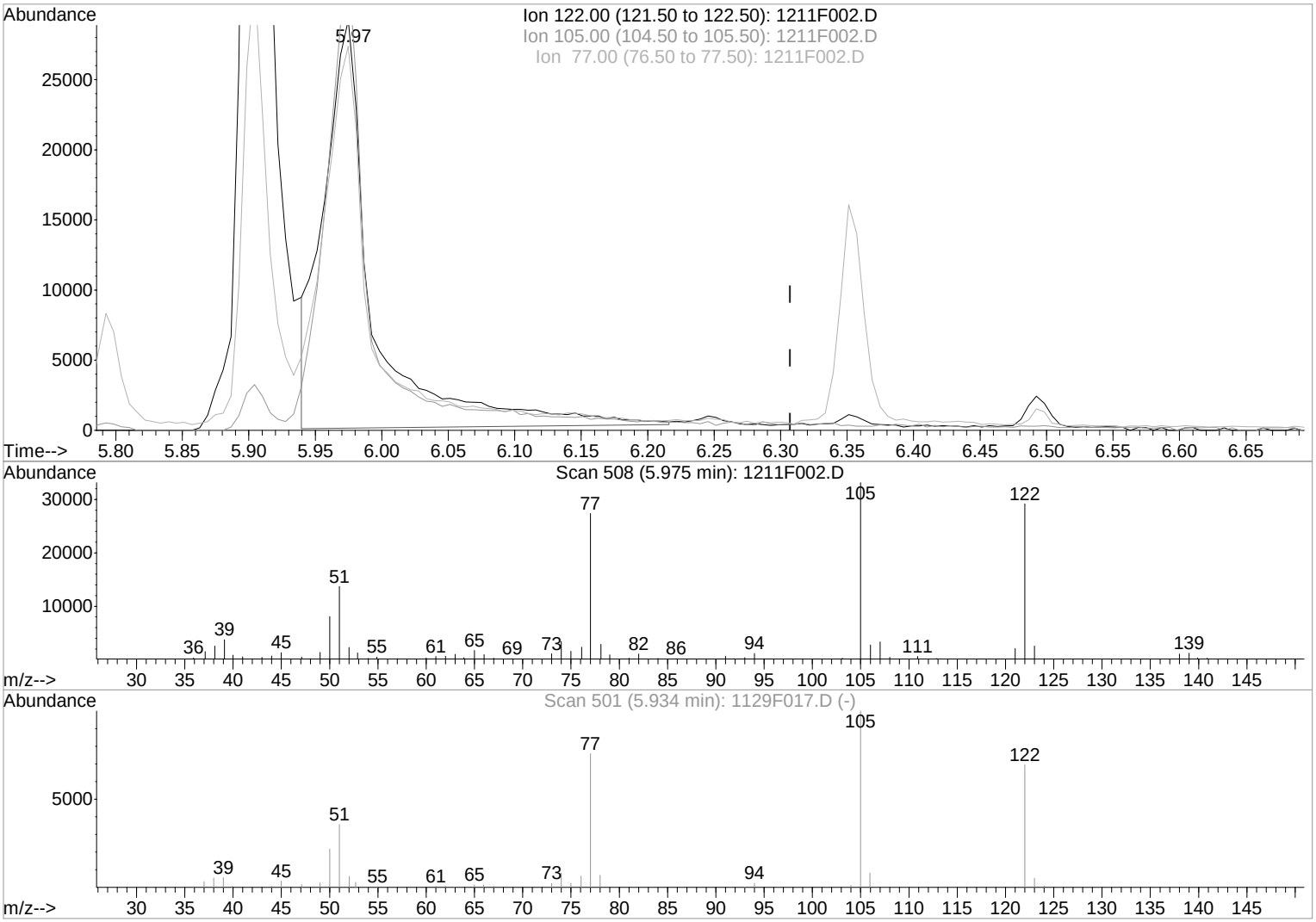
12/19/18

Quantitation Report (Qedit)

1st 12/19/18
2nd 12/21/18

Data File : J:\MS29\DATA\121118\1211F002.D Vial: 2
Acq On : 11 Dec 2018 3:03 pm Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM60-6D Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 19 12:20 2018 Quant Results File: temp.res

Method : J:\MS29\METHODS\SCAN\112918_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Nov 30 00:58:02 2018
Response via : Single Level Calibration



TIC: 1211F002.D

(27) Benzoic Acid (T)

5.97min 3321.11ng/ml

response 76412

Ion	Exp%	Act%
122.00	100	100
105.00	116.30	113.98
77.00	84.70	93.32
0.00	0.00	0.00

Manual Integration:

Before

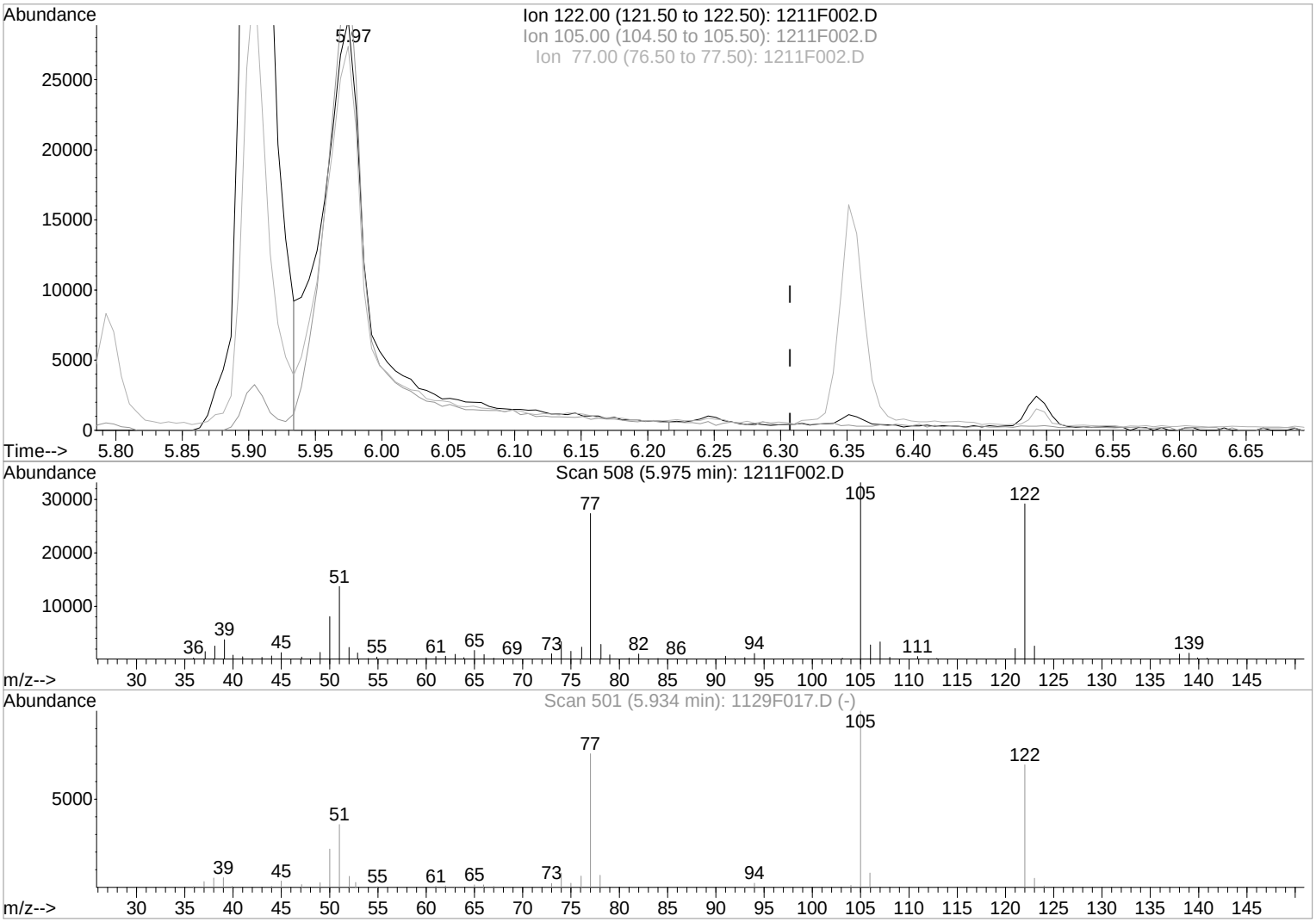
12/19/18

Quantitation Report (Qedit)

1st 12/19/18
2nd 12/21/18

Data File : J:\MS29\DATA\121118\1211F002.D Vial: 2
Acq On : 11 Dec 2018 3:03 pm Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM60-6D Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 19 12:20 2018 Quant Results File: temp.res

Method : J:\MS29\METHODS\SCAN\112918_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Nov 30 00:58:02 2018
Response via : Single Level Calibration



TIC: 1211F002.D

(27) Benzoic Acid (T)

5.97min 3589.24ng/ml m

response 83965

Ion	Exp%	Act%
122.00	100	100
105.00	116.30	113.62
77.00	84.70	93.81
0.00	0.00	0.00

Manual Integration:

After

IC-Incomplete

12/19/18

Evaluate Continuing Calibration Report

1st 12/19/18
2nd 12/21/18

Data File : J:\MS29\DATA\121118\1211F002.D Vial: 2
Acq On : 11 Dec 2018 3:03 pm Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM60-6D Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : J:\MS29\METHODS\SCAN\112918_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Nov 30 00:58:02 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1000.000	1000.000	0.0	109	-0.01
2	T	N-Nitrosodimethylamine	3000.000	3100.976	-3.4	110	0.01
3	T	Pyridine	3000.000	2848.732	5.0	99	0.02
4	S	2-Fluorophenol	3000.000	3245.652	-8.2	115	0.00
5	T	Bis(2-chloroethyl) Ether	3000.000	3178.631	-6.0	114	0.00
6	S	Phenol-d6	3000.000	2984.058	0.5	107	0.00
7	TC	Phenol	3000.000	2863.753	4.5	103	0.00
8	T	Aniline	3000.000	2720.198	9.3	98	0.00
9	T	2-Chlorophenol	3000.000	2995.198	0.2	106	0.00
10	T	1,3-Dichlorobenzene	3000.000	2965.915	1.1	106	0.00
11	TC	1,4-Dichlorobenzene	3000.000	3009.819	-0.3	109	0.00
12	T	1,2-Dichlorobenzene	3000.000	3000.018	-0.0	108	0.00
13	T	Benzyl Alcohol	3000.000	2763.855	7.9	99	-0.01
14	T	2,2'-oxybis(1-chloropropane	3000.000	3131.971	-4.4	113	-0.01
15	T	2-Methylphenol	3000.000	2928.685	2.4	104	-0.01
16	T	Hexachloroethane	3000.000	3093.336	-3.1	108	0.00
17	TP	N-Nitrosodi-n-propylamine	3000.000	2941.485	2.0	105	0.00
18	T	4-Methylphenol	3000.000	2899.771	3.3	103	0.00
19	S	Nitrobenzene-d5	3000.000	3048.749	-1.6	109	0.00
20	T	Nitrobenzene	3000.000	2997.752	0.1	108	0.00
21	I	Naphthalene-d8	1000.000	1000.000	0.0	109	-0.01
22	T	Isophorone	3000.000	3004.512	-0.2	106	-0.01
23	TC	2-Nitrophenol	3000.000	2822.819	5.9	93	-0.01
24	T	2,4-Dimethylphenol	3000.000	2511.948	16.3	90	-0.01
25	T	Bis(2-chloroethoxy)methane	3000.000	2943.253	1.9	105	0.00
26	TC	2,4-Dichlorophenol	3000.000	3063.955	-2.1	106	0.00
27	T	Benzoic Acid	3000.000	3589.237	-19.6	143	0.00
28	T	1,2,4-Trichlorobenzene	3000.000	2929.277	2.4	105	-0.02
29	T	Naphthalene	3000.000	2857.198	4.8	104	-0.02
30	T	4-Chloroaniline	3000.000	2951.340	1.6	105	0.00
31	TC	Hexachlorobutadiene	3000.000	2971.473	1.0	106	-0.02
32	TC	4-Chloro-3-methylphenol	3000.000	3108.010	-3.6	110	-0.01
33	T	2-Methylnaphthalene	3000.000	2987.033	0.4	106	-0.02
34	T	1-Methylnaphthalene	3000.000	2967.716	1.1	106	-0.02
35	I	Acenaphthene-d10	1000.000	1000.000	0.0	111	-0.01
36	TP	Hexachlorocyclopentadiene	3000.000	2484.874	17.2	88	-0.02
37	TC	2,4,6-Trichlorophenol	3000.000	3052.786	-1.8	107	-0.02
38	T	2,4,5-Trichlorophenol	3000.000	3242.866	-8.1	114	-0.01
39	S	2-Fluorobiphenyl	3000.000	2971.033	1.0	108	-0.02
40	T	2-Chloronaphthalene	3000.000	3007.363	-0.2	109	-0.03
41	T	2-Nitroaniline	3000.000	3183.284	-6.1	111	-0.01
42	T	Acenaphthylene	3000.000	3033.317	-1.1	107	-0.01
43	T	Dimethyl Phthalate	3000.000	2974.071	0.9	107	-0.01
44	T	2,6-Dinitrotoluene	3000.000	2998.896	0.0	107	-0.02
45	TC	Acenaphthene	3000.000	2994.238	0.2	109	-0.01
46	T	3-Nitroaniline	3000.000	3275.538	-9.2	105	0.00
47	TP	2,4-Dinitrophenol	3000.000	2670.642	11.0	97	-0.01
48	T	Dibenzofuran	3000.000	3002.812	-0.1	110	0.00
49	TP	4-Nitrophenol	3000.000	2929.471	2.4	104	0.00
50	T	2,4-Dinitrotoluene	3000.000	3035.033	-1.2	109	-0.01
51	T	2,3,4,6-Tetrachlorophenol	3000.000	3182.264	-6.1	111	-0.01
52	T	Fluorene	3000.000	3056.151	-1.9	109	0.00
53	T	4-Chlorophenyl Phenyl Ether	3000.000	2993.340	0.2	109	0.00
54	T	Diethyl Phthalate	3000.000	2960.823	1.3	107	-0.01
55	T	4-Nitroaniline	3000.000	3132.485	-4.4	117	0.00

(#) = Out of Range

1st 12/19/18
2nd 12/21/18

Data File : J:\MS29\DATA\121118\1211F002.D Vial: 2
Acq On : 11 Dec 2018 3:03 pm Operator: CConover
Sample : SVO_LL CCV @ 3.0ppm | SVM60-6D Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : J:\MS29\METHODS\SCAN\112918_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Nov 30 00:58:02 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
56	T	2-Methyl-4,6-dinitrophenol	3000.000	2901.932	3.3	106	0.00
57	TC	Diphenylamine	3000.000	3153.525	-5.1	110	0.00
58	T	Azobenzene	3000.000	3199.399	-6.6	112	0.00
59	I	Phenanthrene-d10	1000.000	1000.000	0.0	108	0.00
60	S	2,4,6-Tribromophenol	3000.000	3143.330	-4.8	108	0.00
61	T	4-Bromophenyl Phenyl Ether	3000.000	2978.119	0.7	107	0.00
62	T	Hexachlorobenzene	3000.000	2916.504	2.8	106	0.00
63	TC	Pentachlorophenol	3000.000	2876.851	4.1	105	0.00
64	T	Phenanthrene	3000.000	2949.535	1.7	106	0.00
65	T	Anthracene	3000.000	3161.044	-5.4	112	-0.01
66	T	Carbazole	3000.000	3395.791	-13.2	120	0.00
67	T	Di-n-butyl Phthalate	3000.000	3074.233	-2.5	110	0.00
68	TC	Fluoranthene	3000.000	3135.339	-4.5	111	0.00
69	I	Chrysene-d12	1000.000	1000.000	0.0	115	-0.01
70	T	Pyrene	3000.000	2850.724	5.0	109	0.00
71	S	Terphenyl-d14	3000.000	2834.412	5.5	109	0.00
72	T	Butyl Benzyl Phthalate	3000.000	2900.595	3.3	105	-0.01
73	T	3,3'-Dichlorobenzidine	3000.000	2883.844	3.9	115	0.00
74	T	Benz(a)anthracene	3000.000	2754.804	8.2	104	-0.01
75	T	Chrysene	3000.000	3092.969	-3.1	116	-0.01
76	T	Bis(2-ethylhexyl) Phthalate	3000.000	3021.512	-0.7	109	0.00
77	I	Perylene-d12	1000.000	1000.000	0.0	109	0.00
78	TC	Di-n-octyl Phthalate	3000.000	3080.173	-2.7	114	-0.01
79	T	Benzo(b)fluoranthene	3000.000	2873.888	4.2	105	-0.01
80	T	Benzo(k)fluoranthene	3000.000	3044.335	-1.5	107	-0.01
81	TC	Benzo(a)pyrene	3000.000	2997.010	0.1	108	0.00
82	T	Indeno(1,2,3-cd)pyrene	3000.000	2714.749	9.5	106	0.00
83	T	Dibenz(a,h)anthracene	3000.000	2809.561	6.3	111	0.00
84	T	Benzo(g,h,i)perylene	3000.000	2725.705	9.1	102	0.00

1st CE 11/17/18
2nd TP 11/30/18

Validation Report

Data File: J:\MS29\DATA\111418\1114F001.D\
Lab ID: KQ1816925-03
RunType: TUNE
Matrix: Water

Date Acquired: 11/14/18 08:54:00
Batch ID: 615539
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Tune Ion Ratio	X	

Primary Review: _____

Printed: 12/5/18 10:39
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Secondary Review: _____

1st 11/17/18
2nd 11/30/18

Quantitation Report

Data File:	J:\MS29\DATA\111418\1114F001.D\	**Instrument:**	K-MS-29
Acqu Date:	11/14/18 08:54:00	**Vial:**	3
Run Type:	TUNE	**Dilution:**	1
Lab ID:	KQ1816925-03	**Raw Units:**	

Bottle ID:		**Tier:**	II	**Matrix:**	Water
Prod Code:	SVO LL	**Collect Date:**	10/26/18	**Receive Date:**	10/26/18

Analysis Lot:	615539	**Prep Lot:**		**Report Group:**	KQ1816925
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	36.61	422677	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	41.39	477923	Pass
70	69	0	2	0.45	2172	Pass
127	198	10	80	47.02	542890	Pass
197	198	0	2	0.00	0	Pass
198	442	30	100	74.35	1154560	Pass
199	198	5	9	6.67	77037	Pass
275	198	10	60	28.74	331776	Pass
365	442	1	50	2.00	31008	Pass
441	443	0.01	100	79.59	239752	Pass
442	442	30	100	100.00	1552917	Pass
443	442	15	24	19.40	301248	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

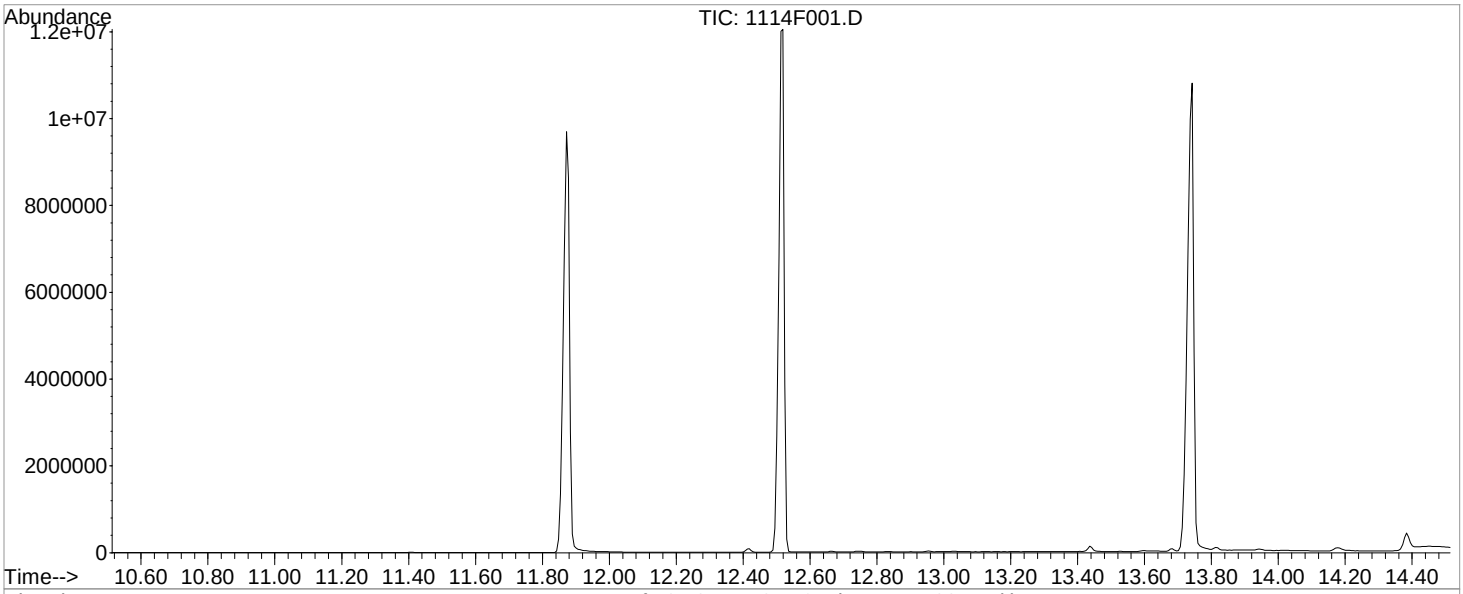
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

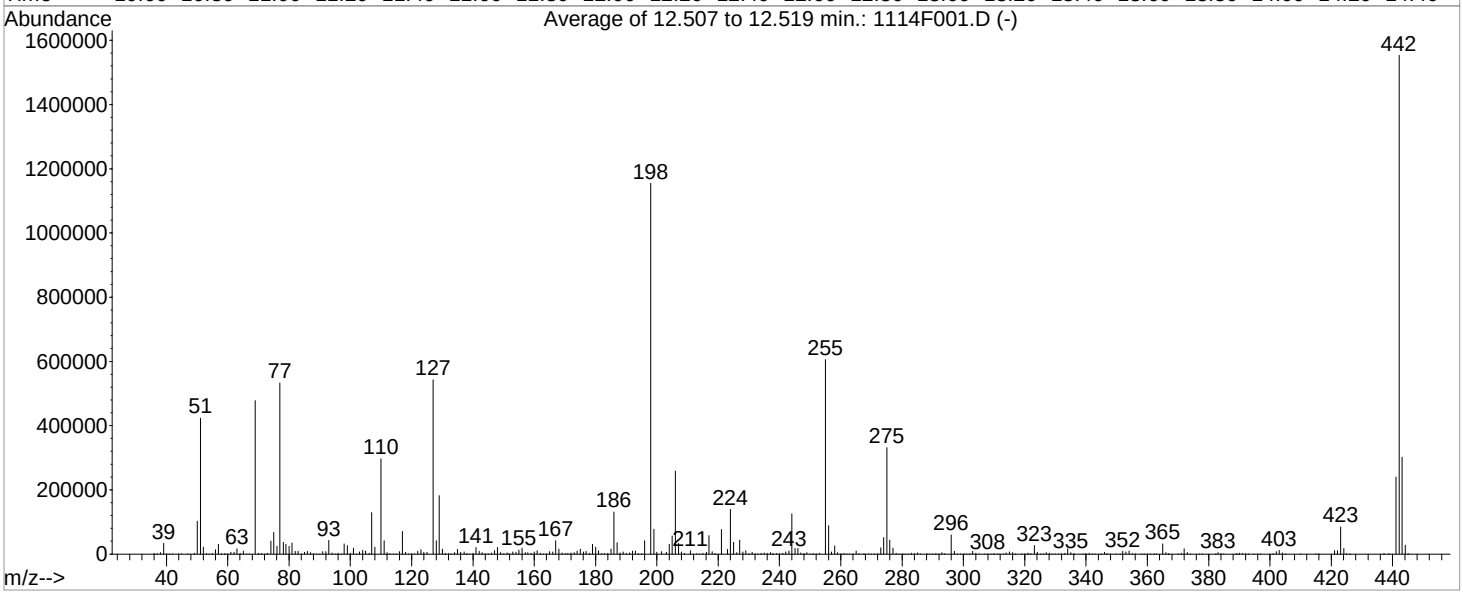
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 12/5/18 10:39
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

1st 12/05/18
2nd 11/30/18

Data File : J:\MS29\DATA\111418\1114F001.D Vial: 1
Acq On : 14 Nov 2018 8:54 am Operator: CConover
Sample : MS29 DFTPP @ 50ug/mL | SVM59-12C Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : J:\MS29\METHODS\SCAN\DFTPPLVI.M (RTE Integrator)
Title : DFTPP





AutoFind: Scans 1627, 1628, 1629; Background Corrected with Scan 1619

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	36.6	422677	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	41.4	477923	PASS
70	69	0.00	2	0.5	2172	PASS
127	198	10	80	47.0	542890	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	74.3	1154560	PASS
199	198	5	9	6.7	77037	PASS
275	198	10	60	28.7	331776	PASS
365	442	1	50	2.0	31008	PASS
441	443	0.01	100	79.6	239752	PASS
442	442	30	100	100.0	1552917	PASS
443	442	15	24	19.4	301248	PASS

Average of 12.507 to 12.519 min.: 1114F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	9	49.15	2968	59.10	198	70.90	135
36.10	171	50.10	101922	60.05	375	71.00	236
37.05	1865	51.10	422677	61.05	5553	72.15	134
38.10	4989	52.10	21008	62.05	5828	73.00	2774
39.10	33322	53.05	1092	63.05	16531	74.10	40333
40.00	1299	53.90	142	64.05	2410	75.00	67528
41.05	1043	55.00	1788	65.10	9391	76.10	24864
42.00	134	56.00	13057	66.05	776	77.05	532299
44.00	240	57.00	30363	67.10	276	78.10	36082
45.00	851	58.05	1374	69.00	477923	79.00	30957
47.00	111	58.90	258	70.05	2172	80.00	24226

Average of 12.507 to 12.519 min.: 1114F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
81.00	34353	92.00	8046	103.00	6692	115.05	582
82.00	8196	93.00	42594	104.00	11251	116.05	7731
83.00	8150	94.00	3383	105.00	9535	116.95	70031
84.05	942	95.05	754	106.10	2548	118.00	5448
85.00	5836	96.00	2210	106.95	129113	118.95	951
86.00	8186	97.00	191	108.00	21837	120.05	1817
87.05	4241	98.00	31362	110.00	296320	120.95	652
87.95	1542	99.00	26554	111.00	41108	122.00	8121
89.05	842	100.05	2550	112.00	4424	123.00	13228
90.05	224	101.00	18351	112.95	1386	124.00	5925
91.00	7545	102.00	976	114.15	398	125.00	5314

Average of 12.507 to 12.519 min.: 1114F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
127.00	542890	137.85	1064	148.00	20103	158.95	3007
128.00	41053	138.05	1242	149.00	4289	160.00	6521
129.00	182421	139.00	1007	150.05	1443	160.95	10083
130.00	15264	140.00	2284	151.15	3325	161.95	2732
131.00	2522	141.00	20932	151.75	1974	163.05	912
132.05	2015	142.05	8078	153.00	6736	164.00	1667
132.85	808	142.95	4985	154.05	5649	165.00	7931
134.00	4819	144.00	1392	155.00	12094	166.00	6900
134.95	14306	145.00	1429	156.00	18930	167.00	41105
136.00	5608	146.00	3649	157.10	4221	168.00	15512
137.10	6470	147.00	10764	157.95	4164	169.05	3299

Average of 12.507 to 12.519 min.: 1114F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
170.15	1518	181.00	10423	192.00	9718	205.00	56477
170.95	2179	182.00	1910	193.00	9883	206.00	258453
172.00	3821	182.95	1277	194.05	2021	207.05	33317
173.00	4954	183.95	2326	195.10	1422	208.00	6552
174.00	9346	185.00	15831	196.00	41424	209.00	2354
175.00	15762	186.00	130909	198.00	1154560	210.95	10345
176.05	6806	187.00	35565	199.00	77037	212.95	713
176.95	8105	188.00	3848	199.95	5396	213.90	274
178.00	2889	189.00	6710	201.55	7261	215.00	2266
179.00	30728	190.00	1161	203.05	5908	216.10	5064
180.00	21307	191.05	3618	204.05	30618	217.00	57520

Average of 12.507 to 12.519 min.: 1114F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
218.00	7735	230.05	1587	240.05	1482	250.00	962
218.85	423	231.05	5216	241.05	2741	250.90	160
219.05	573	232.00	976	242.00	7004	251.05	651
221.05	76730	232.95	1024	243.10	9467	252.00	1000
223.00	14904	233.95	2974	244.05	125237	253.05	2200
224.00	138970	235.00	3784	245.05	17138	255.00	605589
225.00	36781	236.00	2416	246.00	17194	256.00	87800
226.05	4319	237.00	4362	246.95	3447	257.00	6748
227.00	43858	237.80	135	247.90	201	258.00	25003
228.00	6194	238.00	658	248.10	722	259.00	4174
229.00	10770	239.00	1784	248.95	4707	260.05	833

Average of 12.507 to 12.519 min.: 1114F001.D

MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
261.00	1166	272.05	1492	283.05	2060	293.00	4937
261.95	150	273.00	19477	284.05	1695	293.95	1256
262.95	307	274.00	51224	285.05	3766	296.00	59002
263.95	505	275.00	331776	286.00	643	297.00	8983
265.00	9515	276.00	43666	287.90	95	297.95	707
265.90	1441	277.00	18637	288.15	160	299.00	229
267.25	154	278.00	3027	289.00	964	300.00	57
267.80	71	279.00	767	290.00	605	301.10	1015
269.05	100	280.00	63	290.90	108	302.05	1381
269.95	697	281.00	179	291.10	398	303.00	8255
271.00	977	281.95	654	292.05	947	304.05	2307

Average of 12.507 to 12.519 min.: 1114F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
305.05	297	316.00	4714	327.00	4324	336.20	203
307.00	73	317.00	854	327.90	468	339.00	434
307.95	984	318.95	213	328.05	1939	339.90	267
308.95	733	320.05	347	328.90	486	340.10	169
309.90	192	320.90	436	329.95	187	341.00	3063
310.05	879	321.10	2069	331.00	89	342.05	971
311.00	263	322.05	1718	332.05	2022	343.00	67
311.90	236	323.10	26619	333.05	2551	344.80	63
313.00	694	324.05	5348	334.05	16330	346.00	5081
314.00	3608	325.10	638	335.05	4517	346.70	169
315.00	6603	326.05	359	336.00	326	347.00	797

Average of 12.507 to 12.519 min.: 1114F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
347.90	127	361.05	166	374.05	546	392.05	1483
349.80	208	362.10	53	377.05	621	392.95	371
351.10	752	363.00	78	378.00	77	394.80	117
352.00	8284	365.00	31008	382.10	54	396.00	164
353.05	6242	366.00	4302	383.05	4523	396.90	198
354.05	9549	366.80	60	384.00	1250	401.05	1261
355.05	1874	366.95	270	384.95	399	402.05	7213
356.10	137	370.00	891	388.90	58	403.05	11274
358.10	119	371.05	2605	389.20	94	403.90	745
359.00	671	372.05	16779	390.05	2423	404.05	3219
360.00	118	373.05	4507	391.05	1887	405.00	569

Average of 12.507 to 12.519 min.: 1114F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
410.05	378	438.50	157				
415.05	443	439.00	143				
416.00	112	441.10	239752				
421.05	10115	442.10	1552917				
422.05	10590	443.10	301248				
423.10	84362	444.10	27573				
424.10	17740	445.10	1751				
425.05	1550						
426.00	59						
437.00	74						
437.40	118						

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F001.D\
Lab ID: KQ1816930-01
RunType: TUNE
Matrix: Sediment

Date Acquired: 11/17/18 15:39:00
Batch ID: 615546
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Tune Ion Ratio	X	

Primary Review: _____

Printed: 12/7/18 15:58
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Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F001.D\	**Instrument:**	K-MS-29
Acqu Date:	11/17/18 15:39:00	**Vial:**	1
Run Type:	TUNE	**Dilution:**	1
Lab ID:	KQ1816930-01	**Raw Units:**	

Bottle ID:		**Tier:**	II	**Matrix:**	Sediment
Prod Code:	SVO LL	**Collect Date:**	10/17/18	**Receive Date:**	10/19/18

Analysis Lot:	615546	**Prep Lot:**		**Report Group:**	KQ1816930
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18691

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	34.46	407978	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	39.22	464311	Pass
70	69	0	2	0.49	2281	Pass
127	198	10	80	45.83	542528	Pass
197	198	0	2	0.00	0	Pass
198	442	30	100	66.85	1183850	Pass
199	198	5	9	6.76	80048	Pass
275	198	10	60	29.83	353152	Pass
365	442	1	50	1.96	34752	Pass
441	443	0.01	100	79.69	272661	Pass
442	442	30	100	100.00	1771008	Pass
443	442	15	24	19.32	342165	Pass

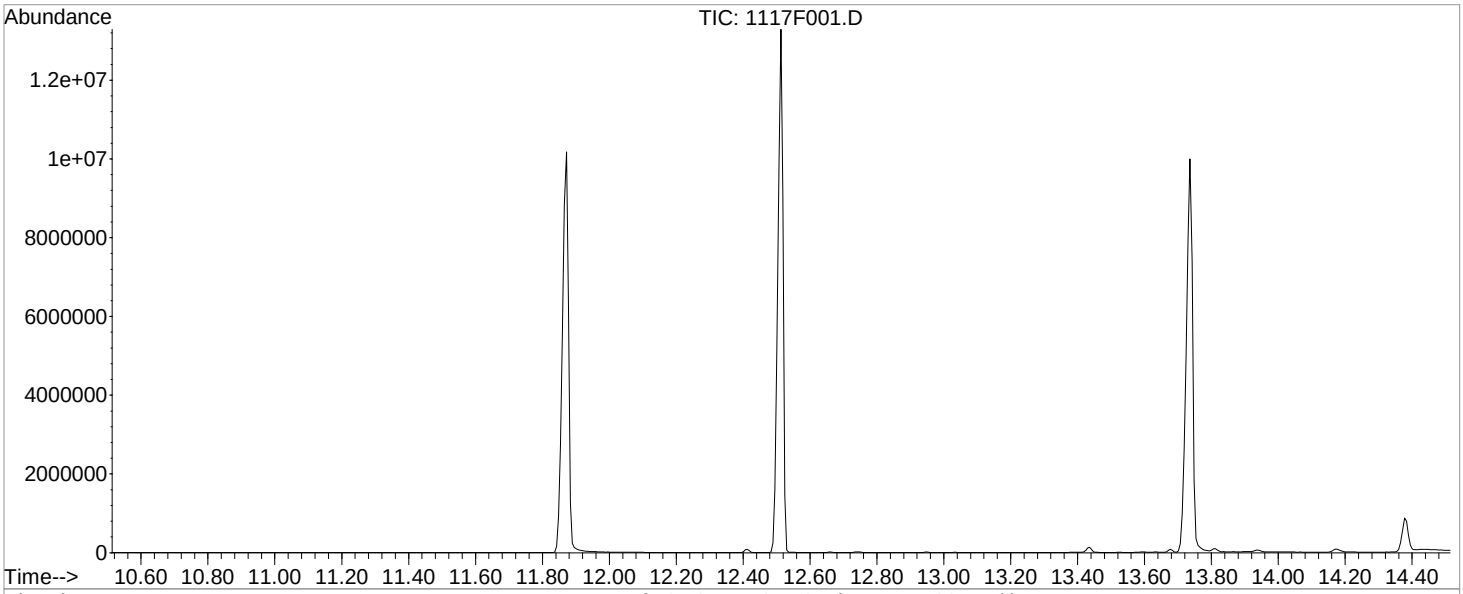
U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

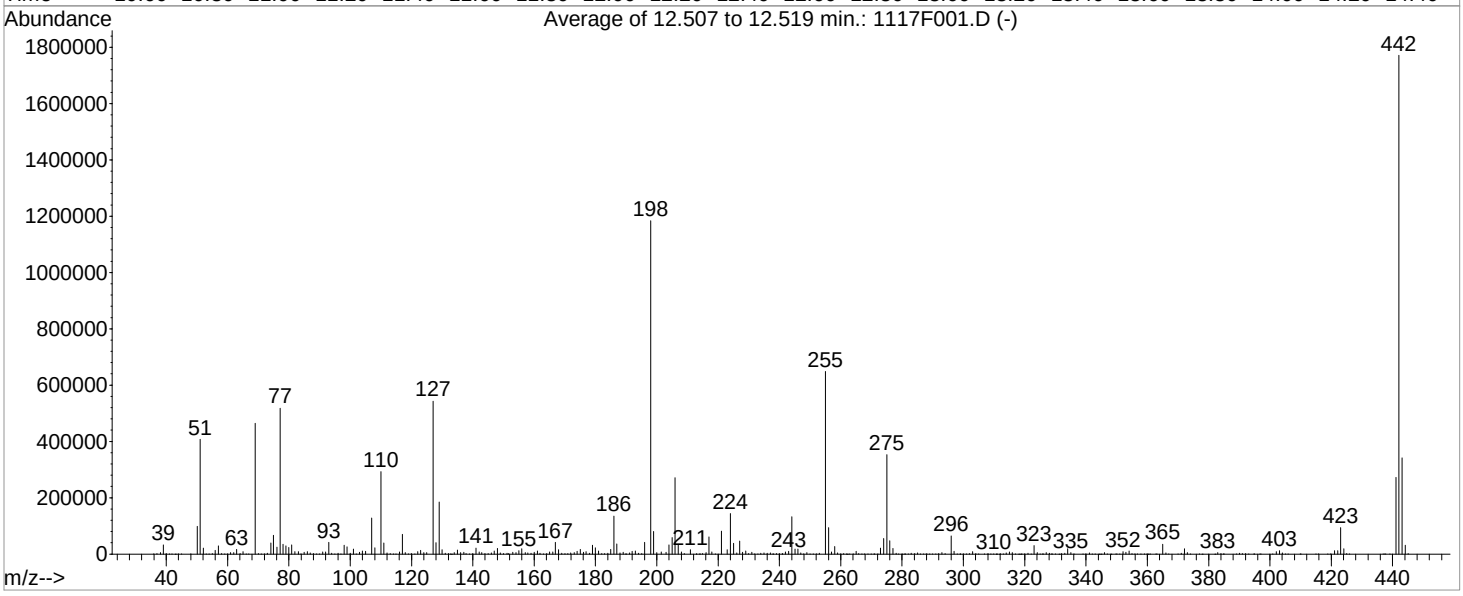
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: 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:\MS29\DATA\111718\1117F001.D Vial: 1
Acq On : 17 Nov 2018 3:39 pm Operator: CConover
Sample : MS29 DFTPP @ 50ug/mL | SVM59-12C Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : J:\MS29\METHODS\SCAN\DFTPPLVI.M (RTE Integrator)
Title : DFTPP





AutoFind: Scans 1627, 1628, 1629; Background Corrected with Scan 1620

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	34.5	407978	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	39.2	464311	PASS
70	69	0.00	2	0.5	2281	PASS
127	198	10	80	45.8	542528	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	66.8	1183850	PASS
199	198	5	9	6.8	80048	PASS
275	198	10	60	29.8	353152	PASS
365	442	1	50	2.0	34752	PASS
441	443	0.01	100	79.7	272661	PASS
442	442	30	100	100.0	1771008	PASS
443	442	15	24	19.3	342165	PASS

1st 12/07/18
2nd 12/10/18

Average of 12.507 to 12.519 min.: 1117F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	206	50.10	98160	61.00	5277	73.00	3206
37.00	1525	51.10	407978	62.05	5639	74.10	39818
38.10	5121	52.10	20764	63.00	16235	75.00	67082
39.10	31946	53.05	883	64.05	2343	76.10	24086
40.00	1298	53.95	124	65.05	8506	77.10	518037
41.05	1133	55.05	2006	66.05	503	78.10	34584
41.90	141	56.00	12740	66.95	407	79.00	29453
42.95	10	56.95	29290	69.00	464311	80.00	22844
43.95	221	58.00	1233	70.00	2281	80.95	32494
45.00	802	59.10	404	71.00	182	82.00	8249
48.00	68	60.00	304	72.05	261	83.05	9047

Average of 12.507 to 12.519 min.: 1117F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
83.95	881	94.95	891	107.00	127840	119.00	939
85.00	5839	96.00	2408	108.00	21807	119.95	1723
86.05	8422	97.00	263	110.00	292565	121.10	610
87.00	4206	98.00	31578	111.00	39170	122.00	8401
88.00	1459	99.00	25829	112.00	4521	123.00	12651
89.00	869	100.00	2642	113.05	1455	124.00	5530
90.00	72	101.00	17658	114.05	287	125.00	5650
91.00	7300	102.00	1100	114.95	600	127.00	542528
92.00	7724	103.00	6763	116.05	7355	128.00	40634
93.00	41434	104.00	10882	117.00	70493	129.00	184578
94.00	3202	105.00	9921	118.00	5382	130.00	15842

Average of 12.507 to 12.519 min.: 1117F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
131.00	3204	141.00	21445	151.65	1739	163.00	888
132.05	1780	142.05	7715	153.00	6391	164.05	1676
132.70	606	142.95	4935	154.05	5512	165.00	7842
132.95	7	144.00	1355	155.00	12519	166.05	7530
133.95	5115	145.00	1392	156.00	18644	166.95	41957
135.00	14643	146.05	3795	157.10	4825	168.00	15634
136.05	5744	147.00	11129	157.95	3956	169.05	3180
137.05	6615	148.00	19941	159.00	3175	170.05	1441
137.80	1237	149.00	4282	160.00	6858	170.95	1962
138.95	1140	150.00	1245	161.05	10314	171.95	4016
140.00	2227	151.20	3340	161.90	3117	173.05	5044

Average of 12.507 to 12.519 min.: 1117F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.05	9732	185.00	16088	195.05	1361	208.00	7136
175.05	16586	186.00	134296	196.00	41229	208.95	2221
176.05	6422	187.00	36301	198.00	1183850	210.95	15055
176.95	8252	188.00	3824	199.00	80048	212.90	226
178.10	2791	189.00	6884	200.00	5702	213.05	456
179.00	31576	189.85	763	201.45	7834	213.90	94
180.00	22744	190.10	380	203.00	6040	214.15	292
181.00	10942	191.10	3555	204.00	32933	214.95	2123
182.00	1668	192.00	10187	205.05	58216	216.05	4730
182.95	1296	193.00	10618	206.00	271104	217.00	60664
184.00	2440	194.05	2385	207.00	34726	218.00	7382

Average of 12.507 to 12.519 min.: 1117F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
219.05	805	231.95	948	241.05	2193	252.05	1030
221.05	80808	232.95	913	242.00	7263	253.05	2533
223.00	15048	233.95	2997	243.05	9868	255.00	648256
224.00	143781	235.00	3656	244.05	132490	256.00	93272
225.00	37693	236.05	2408	245.05	17249	257.00	7434
226.10	4339	237.05	4534	246.00	17782	258.00	26506
227.00	46058	237.85	499	247.00	3634	259.00	4113
228.00	6889	238.10	234	247.95	1117	260.05	958
229.00	11438	239.00	2029	249.00	5071	261.00	1256
230.00	1587	240.00	1492	249.95	995	261.85	184
231.00	5903	240.90	968	251.05	959	262.10	62

Average of 12.507 to 12.519 min.: 1117F001.D

1st 12/07/18
2nd 12/10/18

MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
262.95	358	273.00	20698	283.00	2472	293.05	5068
264.05	1083	274.00	55541	284.10	1676	294.05	1346
265.00	9744	275.00	353152	285.05	4076	296.00	63872
265.90	1296	276.00	47277	286.05	814	297.00	9358
266.95	244	277.00	20096	287.00	101	298.05	751
267.75	194	278.05	3220	287.85	167	298.90	88
268.85	190	278.95	750	288.10	109	299.05	167
269.95	394	279.90	55	289.00	985	300.00	64
270.90	273	280.90	122	289.95	672	301.05	957
271.05	886	281.10	105	291.05	617	302.00	1557
272.10	1076	282.05	662	292.00	1283	303.00	9102

Average of 12.507 to 12.519 min.: 1117F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
304.10	2367	313.00	719	323.10	29960	332.05	1893
304.95	402	314.00	4038	324.10	5220	333.05	2735
306.90	134	315.00	7075	325.05	540	334.05	18482
307.90	712	316.00	5048	325.80	164	335.05	4939
308.10	381	317.00	961	326.05	543	336.15	454
308.95	820	318.00	62	327.00	4739	339.05	470
309.95	1080	318.70	50	328.05	2610	339.95	514
310.70	61	319.10	106	328.80	131	341.10	3764
311.00	295	320.05	375	329.05	316	342.05	1122
311.80	58	321.05	2913	330.05	144	343.00	118
312.05	272	322.15	1025	331.20	56	344.20	60

Average of 12.507 to 12.519 min.: 1117F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
344.90	51	355.90	161	367.05	382	384.80	118
346.00	5356	356.80	72	370.00	957	385.05	408
347.00	1121	357.95	147	371.05	2831	389.10	111
348.10	57	359.05	821	372.10	19110	390.05	2638
349.80	77	359.95	124	373.05	4694	391.05	2191
350.10	245	360.20	59	374.05	559	392.00	1694
351.00	715	360.90	188	377.05	411	393.10	174
352.05	8784	362.85	137	377.90	52	394.80	78
353.05	6744	363.10	79	382.00	59	395.00	65
354.10	10801	365.00	34752	383.00	4954	396.80	70
355.05	2181	366.05	4581	384.05	1433	397.05	153

Average of 12.507 to 12.519 min.: 1117F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
400.95	1154	419.75	203	441.10	272661		
402.05	8220	421.05	11649	442.10	1771008		
403.10	12449	422.10	11958	443.10	342165		
404.05	4471	423.10	93314	444.10	31122		
405.05	733	424.10	19098	445.10	1798		
405.90	66	425.05	1970				
409.90	118	426.00	137				
410.15	326	436.95	144				
415.00	721	437.50	80				
415.80	122	437.80	130				
418.90	127	439.10	422				

1st 12/07/18
2nd 12/10/18

Validation Report

Data File: J:\MS29\DATA\111718\1117F026.D\
Lab ID: KQ1816931-03
RunType: TUNE
Matrix: Water

Date Acquired: 11/18/18 03:24:00
Batch ID: 615547
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Tune Ion Ratio	X	

Primary Review: _____

Printed: 12/7/18 17:26
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Secondary Review: _____

1st 12/07/18
2nd 12/10/18

Quantitation Report

Data File:	J:\MS29\DATA\111718\1117F026.D\	**Instrument:**	K-MS-29
Acqu Date:	11/18/18 03:24:00	**Vial:**	3
Run Type:	TUNE	**Dilution:**	1
Lab ID:	KQ1816931-03	**Raw Units:**	

Bottle ID:		**Tier:**	II	**Matrix:**	Water
Prod Code:	SVO LL	**Collect Date:**	11/5/18	**Receive Date:**	11/5/18

Analysis Lot:	615547	**Prep Lot:**		**Report Group:**	KQ1816931
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800516
		Report List ID:	18710

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	34.75	423232	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	40.01	487298	Pass
70	69	0	2	0.46	2242	Pass
127	198	10	80	46.04	560682	Pass
197	198	0	2	0.00	0	Pass
198	442	30	100	70.49	1217856	Pass
199	198	5	9	6.73	81954	Pass
275	198	10	60	29.11	354560	Pass
365	442	1	50	1.95	33650	Pass
441	443	0.01	100	78.15	263104	Pass
442	442	30	100	100.00	1727786	Pass
443	442	15	24	19.49	336682	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

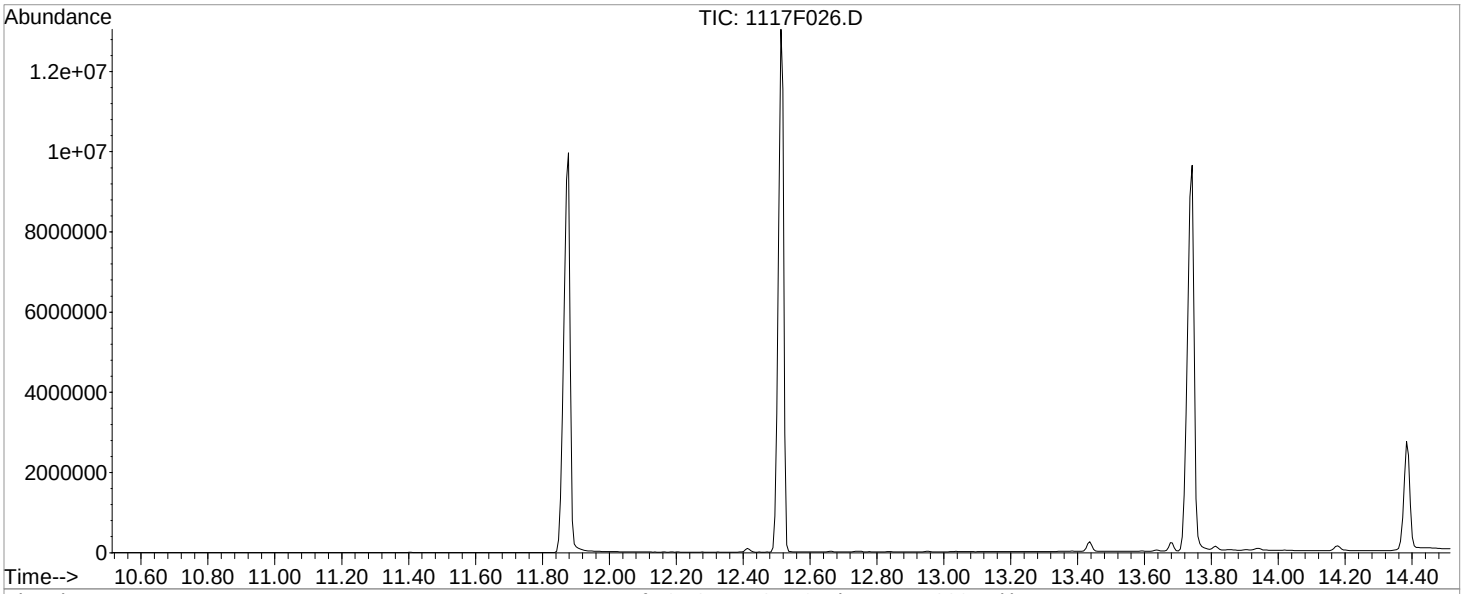
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

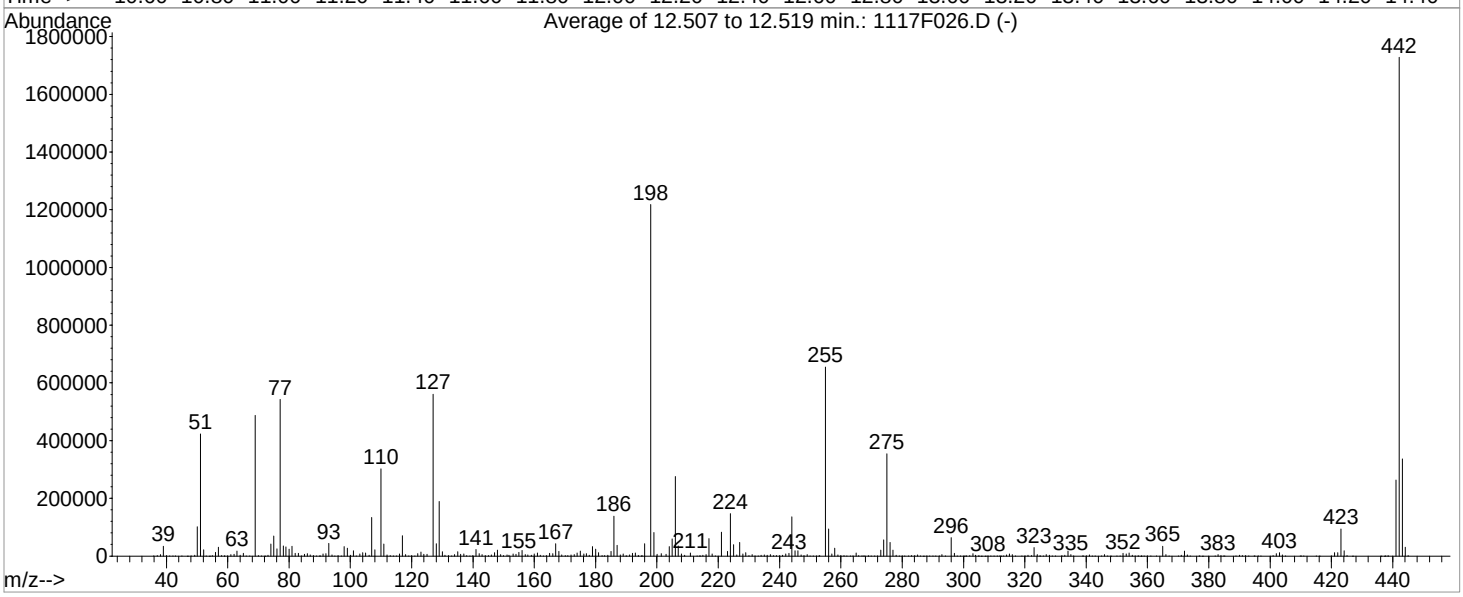
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 12/7/18 17:26
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DFTPP

Data File : J:\MS29\DATA\111718\1117F026.D Vial: 1
Acq On : 18 Nov 2018 3:24 am Operator: CConover
Sample : MS29 DFTPP @ 50ug/mL | SVM59-12C Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : J:\MS29\METHODS\SCAN\DFTPPLVI.M (RTE Integrator)
Title : DFTPP





AutoFind: Scans 1627, 1628, 1629; Background Corrected with Scan 1620

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	34.8	423232	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	40.0	487298	PASS
70	69	0.00	2	0.5	2242	PASS
127	198	10	80	46.0	560682	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	70.5	1217856	PASS
199	198	5	9	6.7	81954	PASS
275	198	10	60	29.1	354560	PASS
365	442	1	50	1.9	33650	PASS
441	443	0.01	100	78.1	263104	PASS
442	442	30	100	100.0	1727786	PASS
443	442	15	24	19.5	336682	PASS

1st 12/07/18
2nd 12/10/18

Average of 12.507 to 12.519 min.: 1117F026.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	348	49.20	3255	59.05	352	71.00	77
37.00	1616	50.10	101928	60.00	237	72.10	57
38.10	5488	51.10	423232	61.05	5560	73.10	3090
39.05	33697	52.10	21532	62.05	6105	74.05	41712
40.00	1425	53.00	1035	63.05	17344	75.00	69632
41.05	992	54.00	59	64.05	2592	76.10	25098
42.10	251	55.00	2172	65.10	9401	77.10	542933
43.00	77	56.00	12925	66.05	750	78.10	34978
45.05	748	57.00	31078	67.15	711	79.00	31346
46.80	53	58.00	1413	69.00	487298	80.00	24120
48.05	141	58.90	194	70.05	2242	80.95	33875

Average of 12.507 to 12.519 min.: 1117F026.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
82.00	9098	92.05	8195	103.05	7220	115.10	776
83.00	9007	92.95	44395	104.00	11465	116.05	7571
84.05	921	94.05	3408	104.95	10218	116.95	70816
85.00	5791	94.95	844	106.10	2610	118.00	5448
86.00	8900	96.00	2217	107.00	133131	119.05	1148
86.95	3839	97.05	195	108.00	22226	120.00	1708
88.00	1568	98.00	32858	110.00	302250	121.05	835
89.00	1078	99.00	27208	110.95	41815	122.00	8751
89.95	193	100.05	2627	112.00	4417	123.00	13873
90.20	133	100.95	18411	113.00	1581	124.00	5783
91.05	7223	101.95	1073	114.05	369	125.00	5856

Average of 12.507 to 12.519 min.: 1117F026.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
127.00	560682	137.90	2068	149.00	4582	160.00	7140
128.00	42626	138.95	1086	149.95	1505	161.05	10688
129.00	188782	139.95	2177	151.15	3654	161.95	3258
130.00	15330	141.00	22589	151.75	2779	163.05	1065
130.90	2726	142.00	8198	153.05	7281	163.95	1751
131.95	1908	142.95	5199	154.00	5750	165.00	9716
133.00	782	144.05	1538	155.00	12628	166.00	8232
134.00	5406	145.05	1573	156.00	19655	166.95	42613
135.00	14906	146.00	4329	157.10	5227	168.00	16185
136.00	5912	147.00	11565	157.90	4454	169.00	3538
137.05	6788	148.00	20586	159.00	3180	170.05	1367

Average of 12.507 to 12.519 min.: 1117F026.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
170.95	2239	182.05	2027	192.00	10040	203.00	6544
172.00	3917	182.90	1361	193.00	10828	204.00	32968
173.00	5096	183.95	2591	193.90	580	205.00	59192
174.00	10196	185.05	16319	194.05	1938	206.00	275989
175.00	17464	186.00	137936	194.90	588	206.95	35359
176.10	7293	187.00	37109	195.10	1919	208.00	7454
176.95	8653	188.05	4071	196.00	42888	209.00	2359
177.95	2927	189.00	6787	198.00	1217856	210.95	10181
179.00	32989	189.90	826	199.00	81954	213.05	603
180.00	23424	190.10	434	200.05	5678	213.90	191
181.00	11704	191.05	3688	201.40	8229	214.10	114

Average of 12.507 to 12.519 min.: 1117F026.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
214.95	2337	228.00	6936	238.95	1942	249.95	936
216.05	5278	229.00	11758	240.05	1707	250.95	885
217.00	60093	230.00	1652	241.00	2994	252.05	970
218.00	7469	231.05	5492	242.05	7473	252.90	522
219.05	862	231.95	1067	243.10	9450	253.05	1738
221.05	82656	233.05	876	244.00	135634	255.00	655381
223.05	15682	233.95	3108	245.05	18919	256.00	94117
224.00	147157	235.00	3709	246.00	18228	257.05	7473
225.00	38960	236.00	3224	247.00	3885	258.00	26893
226.05	4453	237.05	4644	247.95	1168	259.00	4467
227.00	46688	238.05	1200	249.00	5013	259.90	530

Average of 12.507 to 12.519 min.: 1117F026.D

MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

1st 12/07/18
2nd 12/10/18

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
260.10	373	269.05	208	280.00	113	291.00	555
261.00	1265	269.90	560	280.85	161	292.10	1055
261.90	277	271.00	996	282.05	617	293.00	5030
263.05	335	272.00	1080	283.00	2295	294.05	1144
263.90	771	273.00	20279	284.05	1617	296.00	63650
265.00	10074	274.00	56240	285.05	4069	297.00	9225
265.85	1328	275.00	354560	285.95	920	298.00	760
266.90	105	276.00	47152	286.90	50	299.05	195
267.30	79	277.00	20239	288.00	281	300.00	55
267.80	195	278.00	3254	288.95	995	300.80	209
268.90	78	279.05	659	290.00	853	301.00	671

Average of 12.507 to 12.519 min.: 1117F026.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
302.05	1444	311.80	153	323.05	29312	334.05	17309
303.05	8899	312.20	55	324.05	5335	335.00	4619
303.95	2548	313.05	700	324.90	132	336.00	681
304.90	91	314.05	3869	325.10	351	338.90	266
305.05	227	315.00	7483	326.05	717	339.10	180
305.80	58	315.95	4870	327.00	4701	340.10	379
307.00	62	317.00	1009	328.00	2777	341.05	3603
308.00	1104	319.05	173	329.00	546	342.00	1075
308.95	703	320.05	349	330.05	165	342.90	125
309.95	1102	321.05	2700	332.05	1896	345.05	190
311.05	315	322.15	1859	333.05	2847	346.00	5521

Average of 12.507 to 12.519 min.: 1117F026.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
347.00	1000	357.90	58	372.05	17558	388.90	153
348.00	53	358.10	125	373.05	4473	390.05	2746
350.05	253	358.95	858	373.95	610	391.00	1928
351.05	432	360.00	226	376.90	379	392.05	1697
352.05	9352	361.15	155	377.10	243	393.05	305
353.05	6726	363.00	91	377.90	51	394.80	107
354.05	10680	365.00	33650	382.10	80	395.00	120
355.05	2356	366.00	5077	383.05	4915	396.15	127
355.95	107	367.05	405	383.95	1526	397.05	218
356.90	88	370.05	1063	384.90	300	401.00	1194
357.10	89	371.05	2778	385.20	80	402.00	7827

Average of 12.507 to 12.519 min.: 1117F026.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
403.05	11953	423.10	93360	443.10	336682		
404.00	4233	424.10	18505	444.10	30701		
405.05	629	425.05	2048	445.05	1882		
409.90	68	426.90	51				
410.15	380	436.20	53				
411.05	117	437.30	59				
415.05	662	437.75	195				
416.00	60	438.40	81				
420.00	74	438.60	334				
421.05	11422	441.10	263104				
422.10	11482	442.10	1727786				

1st 12/19/18
2nd 12/21/18

Validation Report

Data File: J:\MS29\DATA\121118\1211F001.D\
Lab ID: KQ1818460-01
RunType: TUNE
Matrix: Soil

Date Acquired: 12/11/18 14:34:00
Batch ID: 619456
Analysis Method: 8270D/SVO LL

Validations

Validation Categories	Pass	Fail
Tune Ion Ratio	X	

Primary Review: _____

Printed: 12/19/18 14:33
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

Secondary Review: _____

1st 12/19/18
2nd 12/21/18

Quantitation Report

Data File:	J:\MS29\DATA\121118\1211F001.D\	**Instrument:**	K-MS-29
Acqu Date:	12/11/18 14:34:00	**Vial:**	1
Run Type:	TUNE	**Dilution:**	1
Lab ID:	KQ1818460-01	**Raw Units:**	

Bottle ID:		**Tier:**	IV	**Matrix:**	Soil
Prod Code:	SVO LL	**Collect Date:**	10/15/18	**Receive Date:**	10/18/18

Analysis Lot:	619456	**Prep Lot:**		**Report Group:**	KQ1818460
Analysis	8270D	**Prep Method:**			
		Prep Date:			

Title:	Low Level Semivolatile Organic Compounds by GC/MS	**Calibration ID:**	KC1800541
		Report List ID:	18691

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	36.34	417732	Pass
68	69	0	2	0.00	0	Pass
69	198	0	100	38.94	447563	Pass
70	69	0	2	0.48	2130	Pass
127	198	10	80	44.95	516650	Pass
197	198	0	2	0.00	0	Pass
198	442	30	100	69.06	1149416	Pass
199	198	5	9	6.63	76210	Pass
275	198	10	60	30.81	354112	Pass
365	442	1	50	2.32	38610	Pass
441	443	0.01	100	84.11	269248	Pass
442	442	30	100	100.00	1664402	Pass
443	442	15	24	19.23	320106	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

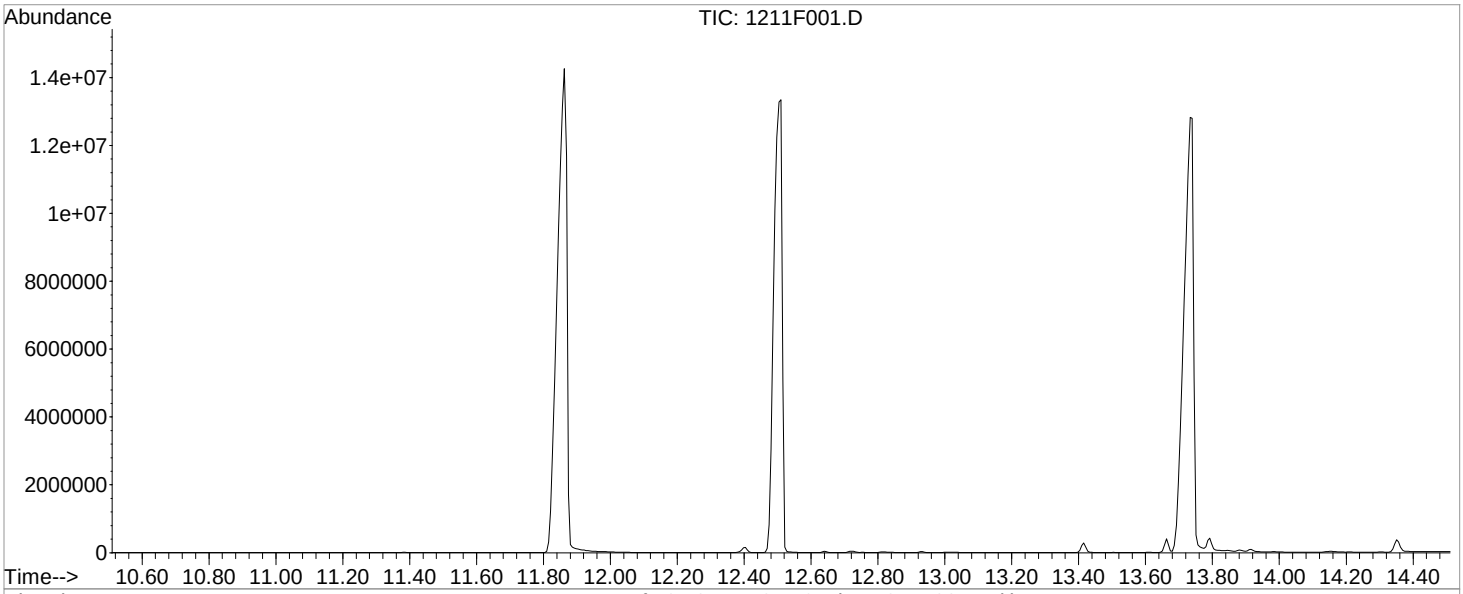
D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

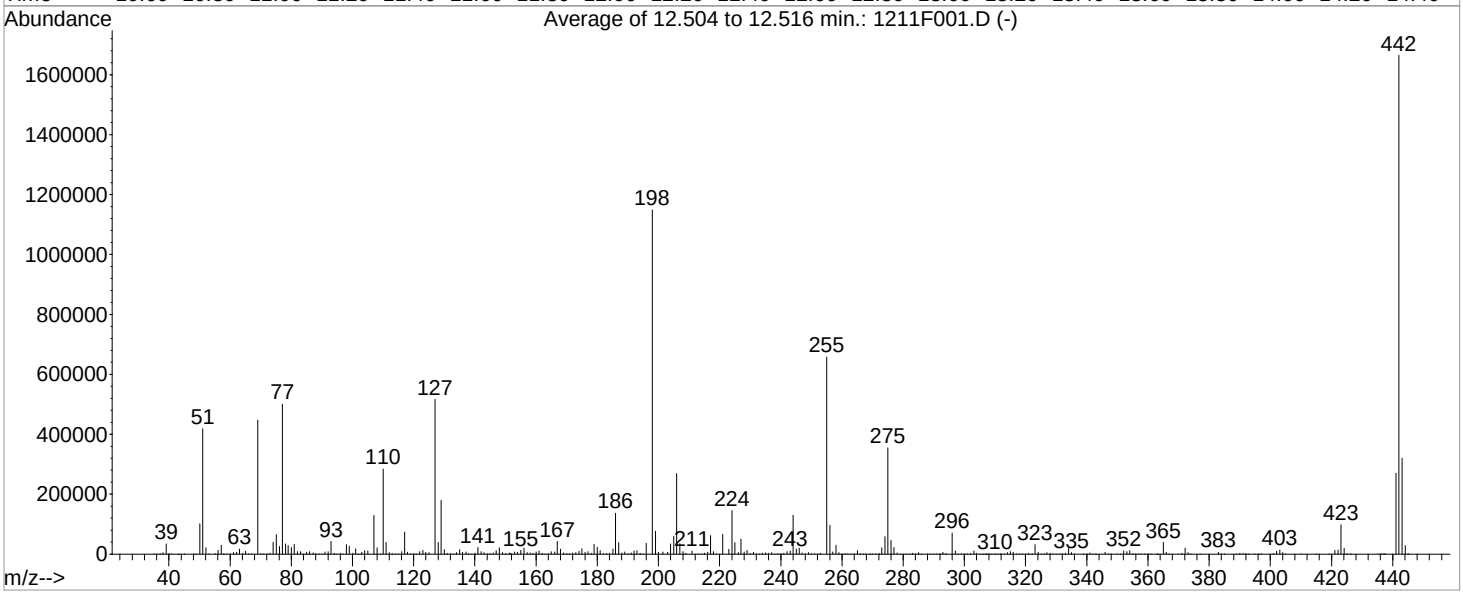
*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Printed: 12/19/18 14:33
\\alprews001\starlims$\LIMSReps\QuantValidation.rpt

DFTPP

Data File : J:\MS29\DATA\121118\1211F001.D Vial: 1
Acq On : 11 Dec 2018 2:34 pm Operator: CConover
Sample : MS29 DFTPP @ 50ug/mL | SVM59-12C Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : J:\MS29\METHODS\SCAN\DFTPPLVI.M (RTE Integrator)
Title : DFTPP





AutoFind: Scans 1618, 1619, 1620; Background Corrected with Scan 1608

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	36.3	417732	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	38.9	447563	PASS
70	69	0.00	2	0.5	2130	PASS
127	198	10	80	44.9	516650	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	69.1	1149416	PASS
199	198	5	9	6.6	76210	PASS
275	198	10	60	30.8	354112	PASS
365	442	1	50	2.3	38610	PASS
441	443	0.01	100	84.1	269248	PASS
442	442	30	100	100.0	1664402	PASS
443	442	15	24	19.2	320106	PASS

1st 12/19/18
2nd 12/21/18

Average of 12.504 to 12.516 min.: 1211F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.10	130	50.10	101066	62.10	5865	74.10	39060
36.00	525	51.05	417732	63.10	16579	75.10	64570
37.10	1695	52.10	20611	64.10	2445	76.20	25165
38.05	5114	53.10	912	65.10	8987	77.05	500196
39.10	33240	55.10	2016	66.00	521	78.10	33261
40.05	1223	56.10	12543	67.00	77	79.00	28900
41.05	890	57.10	29556	69.00	447563	80.00	22400
43.00	16	58.00	1283	70.05	2130	81.00	32383
45.05	873	59.00	337	71.00	232	82.05	7934
48.20	222	60.10	294	72.10	190	83.05	7998
49.00	190	61.05	5364	73.05	2903	84.05	788

Average of 12.504 to 12.516 min.: 1211F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.00	5801	96.10	2356	108.00	20884	119.05	841
86.00	8155	97.00	92	109.10	394	120.05	1600
87.10	3945	98.00	31693	110.00	283749	121.05	670
88.00	1466	99.00	26204	111.00	38643	122.00	8391
89.10	717	100.10	2512	112.00	4468	123.00	12598
90.10	119	101.00	17542	113.00	1302	124.00	5580
91.00	7171	102.00	1011	114.05	352	125.00	5368
92.05	7947	103.05	6456	115.05	623	127.00	516650
93.00	42188	104.00	10867	116.10	7599	128.05	39231
94.00	3144	105.00	9708	117.00	73757	129.00	179144
95.00	721	107.00	129018	118.00	5615	130.00	14354

Average of 12.504 to 12.516 min.: 1211F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
131.00	2874	142.00	7851	152.10	162	163.00	809
132.05	1710	143.00	4954	153.00	7000	164.00	1537
132.85	756	144.00	1328	154.00	5540	164.95	8258
134.00	4984	145.00	1309	155.00	12464	166.10	7065
135.00	14341	146.00	4135	156.05	19379	166.95	42738
136.00	5579	147.00	11305	157.10	4483	168.00	17010
137.10	6858	148.00	21250	158.00	4309	169.00	3467
137.95	1693	149.00	4617	159.00	3101	170.05	1517
139.05	940	150.05	1492	160.00	6986	171.00	2100
140.10	2358	151.20	3345	161.00	10622	172.00	3783
141.00	22221	151.80	2297	162.00	3074	173.05	5203

Average of 12.504 to 12.516 min.: 1211F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.00	9408	185.10	16704	196.00	36032	209.00	2273
175.00	17483	186.00	136528	197.95	1149416	211.00	10322
176.00	6297	187.00	38221	199.00	76210	213.00	713
177.00	8370	188.05	3927	200.00	5556	214.05	258
178.05	3054	189.00	7243	201.50	6609	215.00	2412
179.00	32677	190.05	1169	203.00	6225	216.10	5481
180.00	23272	191.05	3636	204.00	34224	217.00	61048
181.00	10871	192.00	9895	205.05	59901	218.00	7806
182.05	1733	193.00	11049	206.00	269082	219.00	862
183.00	1185	194.00	2474	206.95	34252	221.00	66178
184.00	2727	195.00	257	208.00	7796	223.00	15520

Average of 12.504 to 12.516 min.: 1211F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
224.00	145066	235.00	4120	246.00	19651	258.00	29008
225.00	38128	236.00	2523	247.00	3974	259.00	4639
226.10	4408	237.00	4514	248.00	1090	259.95	930
227.00	49573	238.05	740	249.00	4846	261.00	1166
228.00	7344	239.00	1967	250.00	918	261.90	120
229.00	11932	240.00	1721	251.00	905	263.00	332
230.00	1688	241.00	3215	252.05	1078	264.00	1131
231.00	5679	242.05	7641	253.05	2616	265.00	11287
232.00	1008	243.10	9830	255.00	657109	265.95	1647
233.00	973	244.00	130048	256.00	96090	267.05	278
234.00	3260	245.05	16934	257.00	7299	267.80	142

Average of 12.504 to 12.516 min.: 1211F001.D

MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
269.00	60	280.95	140	293.00	5615	304.00	2683
270.00	668	282.00	612	294.05	1449	305.10	329
271.00	1126	283.05	2625	296.00	69744	306.00	54
272.15	1888	284.00	1931	297.00	9711	306.90	57
273.00	21134	285.00	4491	297.95	722	307.10	75
274.00	57901	286.05	802	299.00	184	308.00	1183
275.00	354112	288.00	287	300.00	54	309.00	881
276.00	45738	289.00	895	301.00	1059	310.00	1294
277.00	21866	290.00	802	301.90	602	310.95	242
278.00	3581	291.00	636	302.05	947	311.80	65
279.05	858	292.05	1218	303.10	9689	312.05	248

Average of 12.504 to 12.516 min.: 1211F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
313.00	923	324.10	5637	335.05	5181	351.10	769
314.10	4381	325.10	492	336.00	689	352.05	10176
315.00	8177	326.10	675	338.95	523	353.10	7797
316.00	5674	327.00	5197	340.10	535	354.10	11792
317.00	1035	328.00	2876	341.05	3744	355.05	2082
317.95	110	329.00	550	342.00	1126	356.00	172
318.95	161	330.00	143	342.90	54	357.00	123
320.05	439	331.10	142	346.00	6284	357.95	158
321.05	2977	332.05	2136	347.00	1125	359.00	785
322.10	1548	333.05	3142	348.00	114	360.10	142
323.10	31864	334.10	19782	350.00	276	361.00	208

Average of 12.504 to 12.516 min.: 1211F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
362.90	67	383.00	5614	401.05	1445	424.10	18914
363.20	61	384.00	1667	402.05	9281	425.10	1789
365.00	38610	385.05	488	403.10	13683	426.10	54
366.00	5609	389.00	173	404.00	4741	435.25	101
366.95	359	390.05	2867	405.00	696	435.90	73
370.05	1123	391.10	2112	410.05	385	436.35	140
371.10	3140	392.05	1643	415.05	618	437.00	111
372.10	19912	393.00	276	419.20	65	437.30	169
373.10	5016	395.00	185	421.10	12564	437.70	182
374.00	582	396.00	51	422.10	13349	441.10	269248
377.05	550	397.05	279	423.10	97826	442.05	1664402

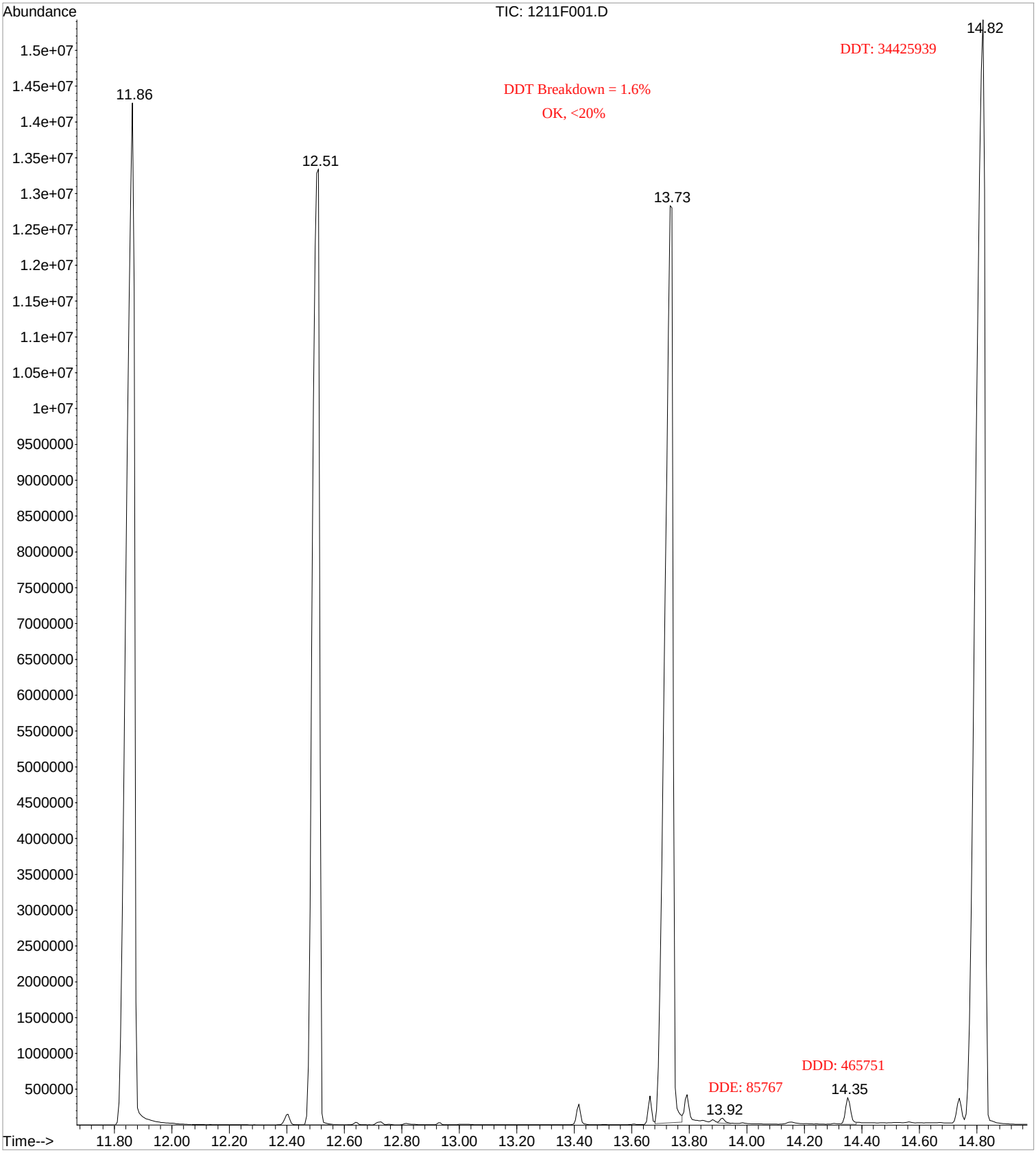
Average of 12.504 to 12.516 min.: 1211F001.D
MS29 DFTPP @ 50ug/mL | SVM59-12C
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
443.10	320106						
444.10	28864						
445.05	1522						

1st 12/19/18
2nd 12/21/18

1st 12/19/18
2nd 12/21/18

File : J:\MS29\DATA\121118\1211F001.D
Operator : CConover
Acquired : 11 Dec 2018 2:34 pm using AcqMethod 8270_SVOLL
Instrument : MS29
Sample Name: MS29 DFTPP @ 50ug/mL | SVM59-12C
Misc Info :
Vial Number: 1

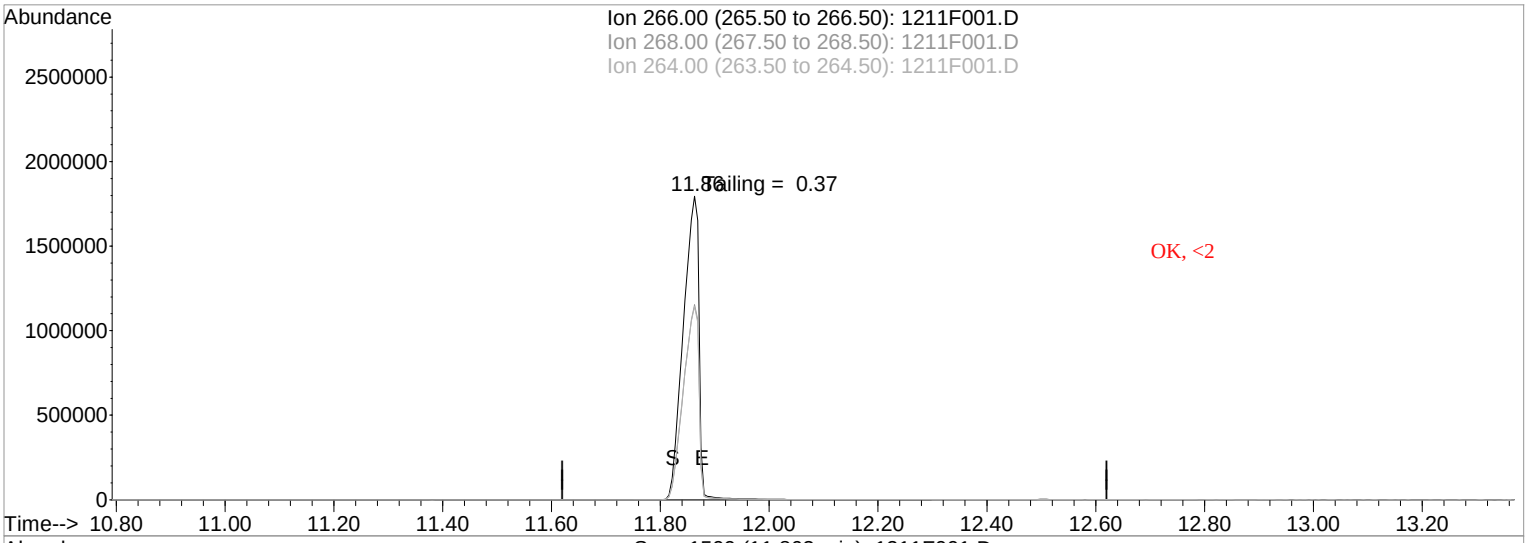


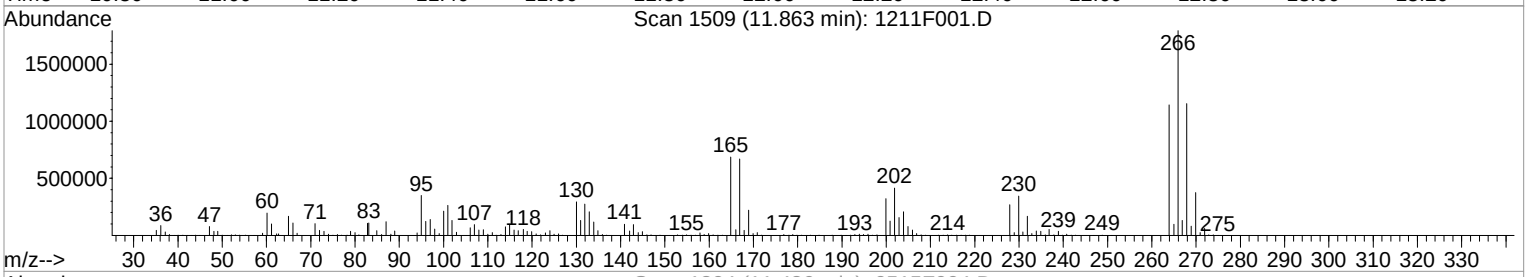
Quantitation Report (Qedit)

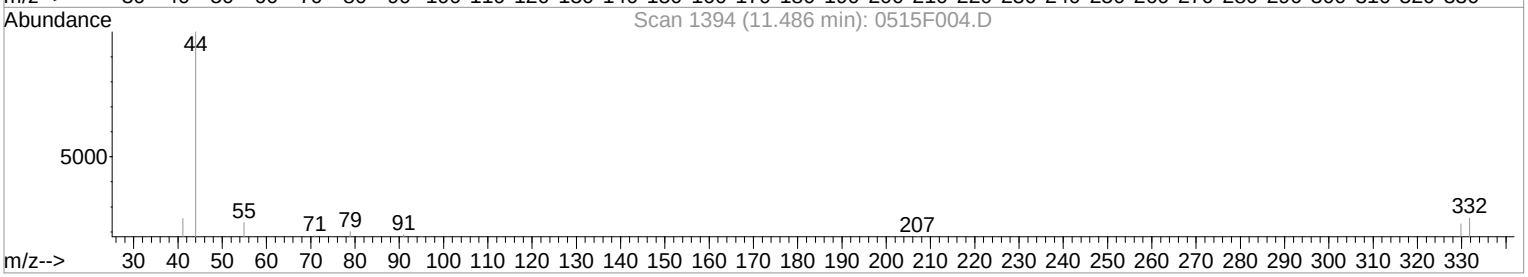
1st 12/19/18
2nd 12/21/18

Data File : J:\MS29\DATA\121118\1211F001.D Vial: 1
Acq On : 11 Dec 2018 2:34 pm Operator: CConover
Sample : MS29 DFTPP @ 50ug/mL | SVM59-12C Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 19 12:18 2018 Quant Results File: temp.res

Method : J:\MS29\METHODS\SCAN\DFTPPLVI.M (RTE Integrator)
Title : DFTPP
Last Update : Fri May 26 12:38:51 2017
Response via : Single Level Calibration







TIC: 1211F001.D

(1) Pentachlorophenol

11.86min 45.75

response 3602206

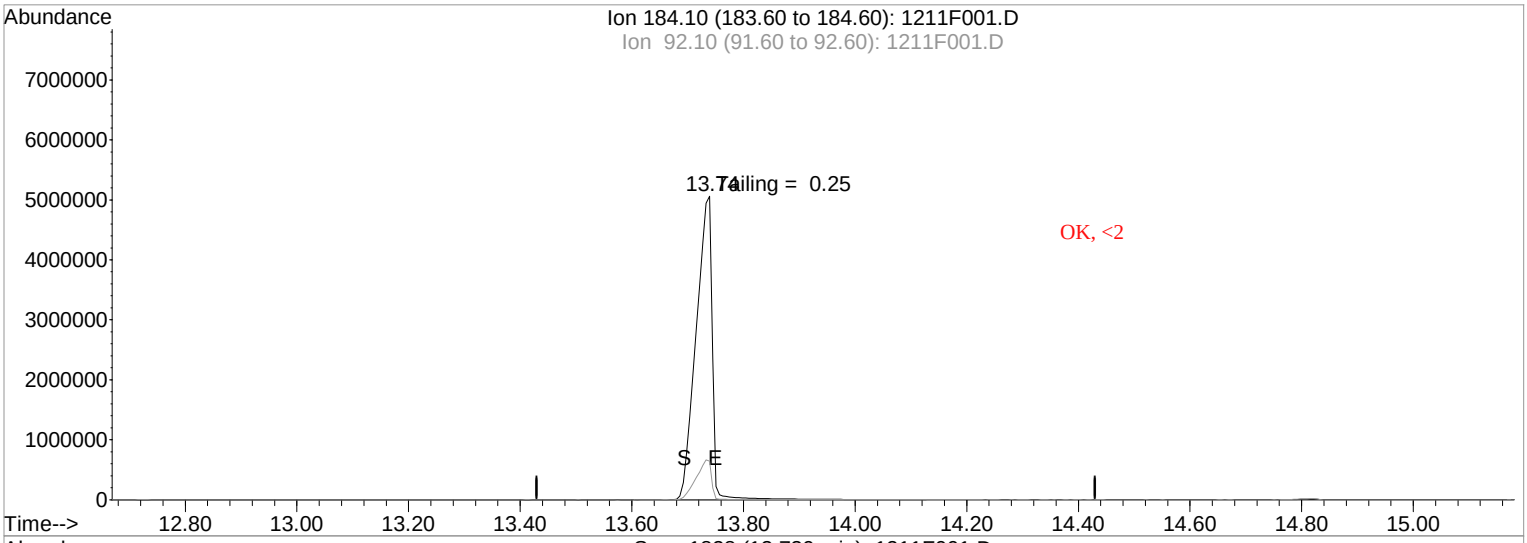
Ion	Exp%	Act%
266.00	100	100
268.00	63.90	63.91
264.00	62.70	63.70
0.00	0.00	0.00

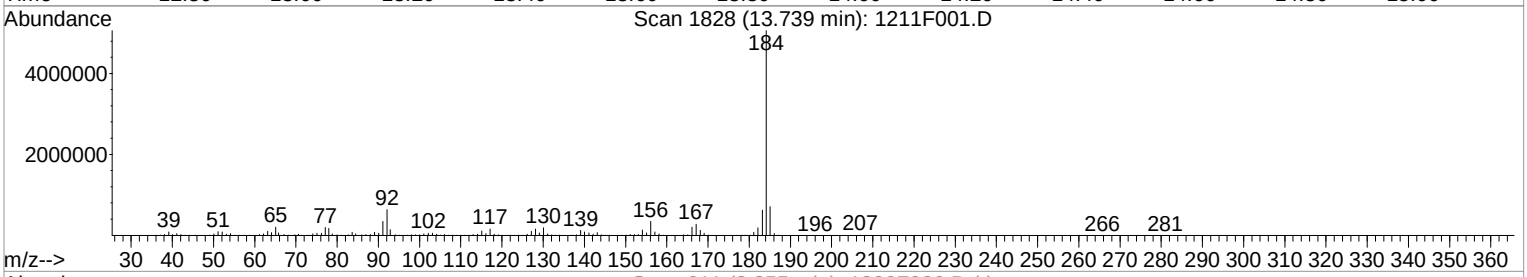
Quantitation Report (Qedit)

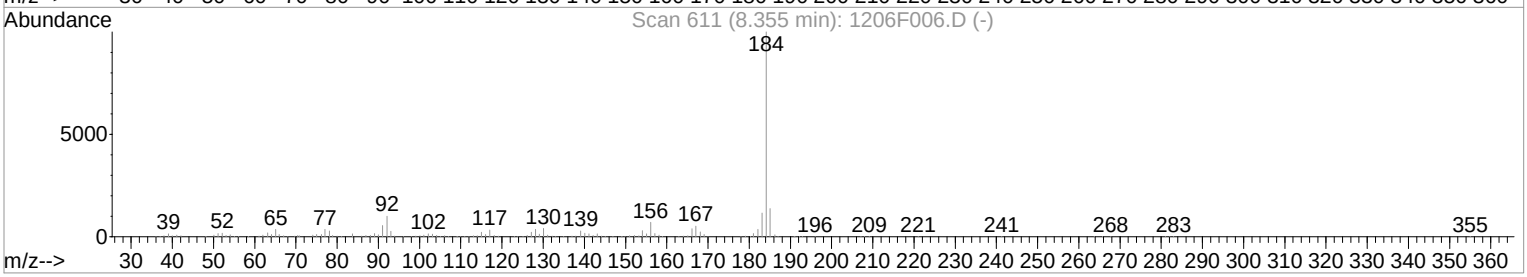
1st 12/19/18
2nd 12/21/18

Data File : J:\MS29\DATA\121118\1211F001.D Vial: 1
Acq On : 11 Dec 2018 2:34 pm Operator: CConover
Sample : MS29 DFTPP @ 50ug/mL | SVM59-12C Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 19 12:18 2018 Quant Results File: temp.res

Method : J:\MS29\METHODS\SCAN\DFTPPLVI.M (RTE Integrator)
Title : DFTPP
Last Update : Fri May 26 12:38:51 2017
Response via : Single Level Calibration







TIC: 1211F001.D

(3) Benzidine

13.74min 53.01

response 10153378

Ion	Exp%	Act%
184.10	100	100
92.10	6.20	12.51#
0.00	0.00	0.00
0.00	0.00	0.00

Injection Log

Directory: J:\MS29\DATA\110618A

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1106A001.D	1.	MS29 DFTPP @ 50ug/mL | SVM59-86M		6 Nov 2018 13:36
2	2	1106A002.D	1.	IB		6 Nov 2018 14:05
3	3	1106A003.D	1.	SVO_LL ICAL @ 0.05ppm | SVM59-69C		6 Nov 2018 14:33
4	4	1106A004.D	1.	SVO_LL ICAL @ 0.10ppm | SVM59-69D		6 Nov 2018 15:01
5	5	1106A005.D	1.	SVO_LL ICAL @ 0.20ppm | SVM59-69E		6 Nov 2018 15:30
6	6	1106A006.D	1.	SVO_LL ICAL @ 0.50ppm | SVM59-69F		6 Nov 2018 15:58
7	7	1106A007.D	1.	SVO_LL ICAL @ 1.0ppm | SVM59-69G		6 Nov 2018 16:27
8	8	1106A008.D	1.	SVO_LL ICAL @ 2.0ppm | SVM59-69H		6 Nov 2018 16:55
9	9	1106A009.D	1.	SVO_LL ICAL @ 3.0ppm | SVM59-69I		6 Nov 2018 17:23
10	10	1106A010.D	1.	SVO_LL ICAL @ 5.0ppm | SVM59-69J		6 Nov 2018 17:52
11	11	1106A011.D	1.	SVO_LL ICAL @ 7.0ppm | SVM59-69K		6 Nov 2018 18:20
12	12	1106A012.D	1.	SVO_LL ICAL @ 10ppm | SVM59-69L		6 Nov 2018 18:48
13	13	1106A013.D	1.	SVO_LL ICV @ 3.0ppm | SVM59-63B		6 Nov 2018 19:17

Bio only

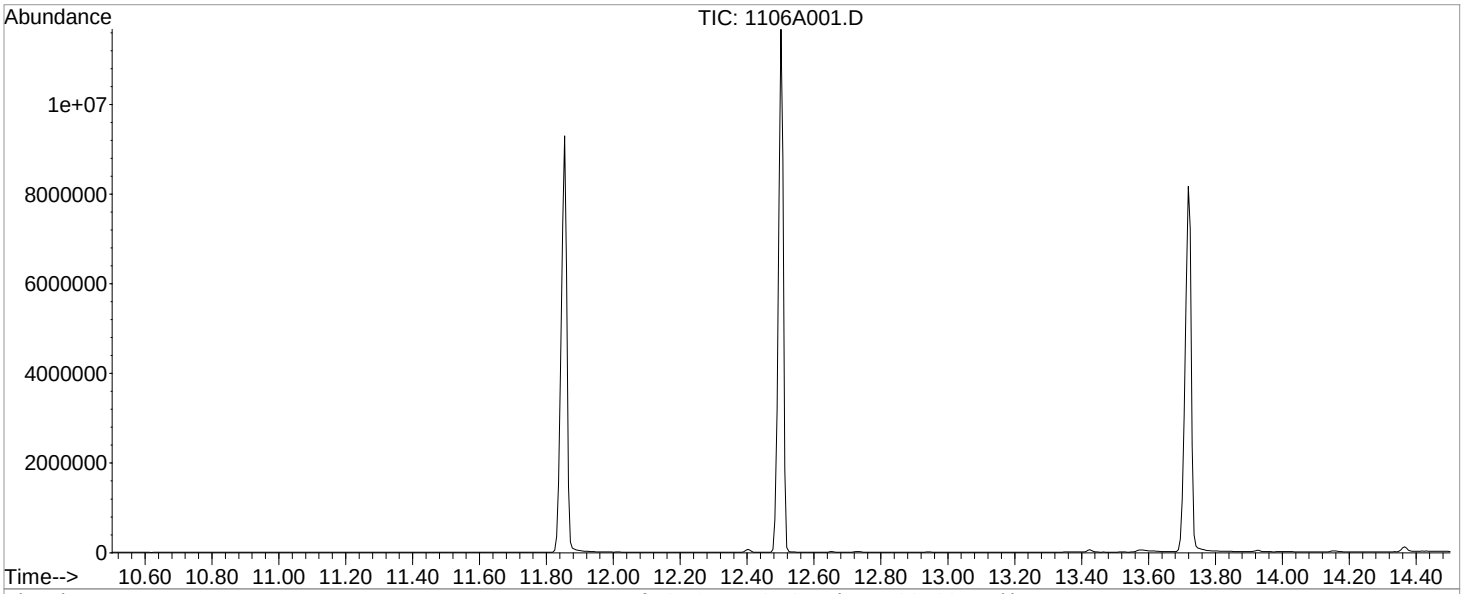
KC1800516

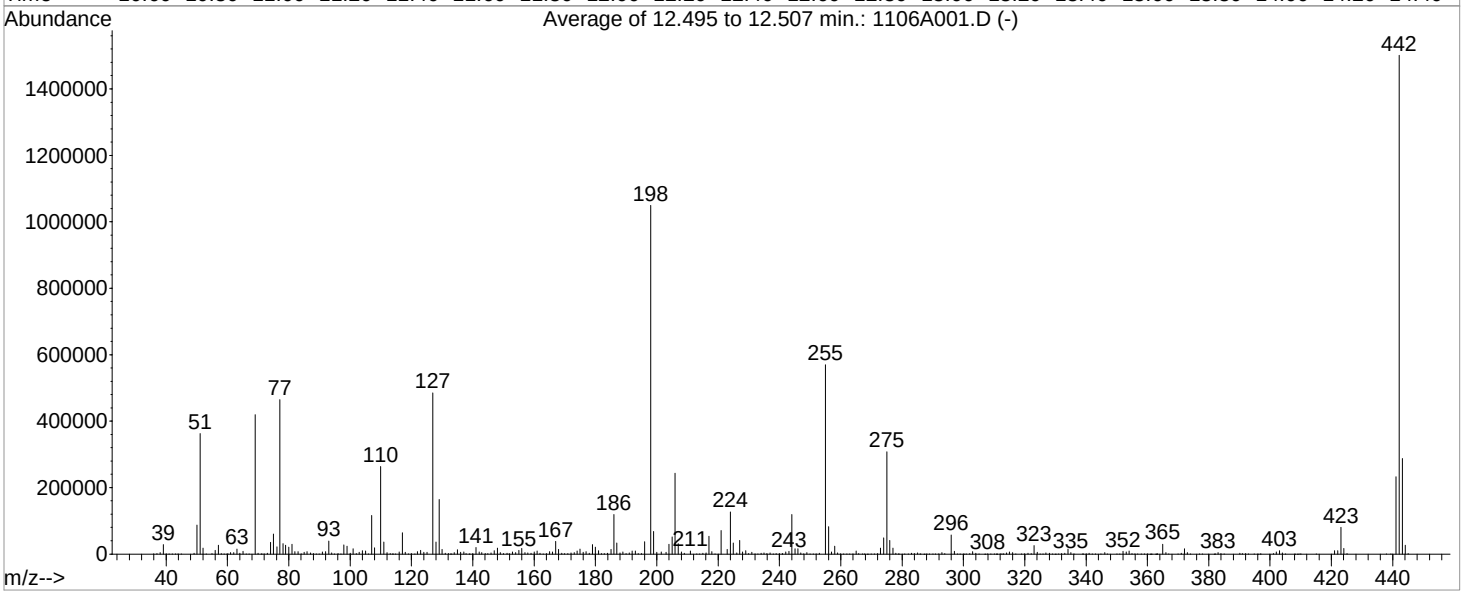
CL 11.08.18

11/15/18

DFTPP

Data File : J:\MS29\DATA\110618A\1106A001.D Vial: 1
Acq On : 6 Nov 2018 1:36 pm Operator: CConover
Sample : MS29 DFTPP @ 50ug/mL | SVM59-86M Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : J:\MS29\METHODS\SCAN\DFTPPLVI.M (RTE Integrator)
Title : DFTPP





AutoFind: Scans 1625, 1626, 1627; Background Corrected with Scan 1618

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	34.5	362368	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	40.0	419434	PASS
70	69	0.00	2	0.5	2091	PASS
127	198	10	80	46.2	485333	PASS
197	198	0.00	2	0.0	0	PASS
198	442	30	100	69.9	1049429	PASS
199	198	5	9	6.5	67882	PASS
275	198	10	60	29.4	308160	PASS
365	442	1	50	2.0	29712	PASS
441	443	0.01	100	80.7	232384	PASS
442	442	30	100	100.0	1500757	PASS
443	442	15	24	19.2	288042	PASS

1st 11/08/18
2nd 11/15/18

Average of 12.495 to 12.507 min.: 1106A001.D
MS29 DFTPP @ 50ug/mL | SVM59-86M
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	276	50.10	86818	61.00	4517	72.00	66
37.05	1361	51.10	362368	62.05	4818	73.05	2937
38.10	4265	52.05	17940	63.10	15376	74.05	34752
39.10	28664	53.05	865	64.05	2063	75.00	60330
40.00	950	55.00	1636	65.10	7760	76.10	21285
41.00	862	56.00	11298	66.10	550	77.10	464448
42.00	73	57.00	26112	67.05	399	78.10	31008
43.05	183	58.00	1163	69.00	419434	79.00	26805
43.90	317	58.95	276	70.00	2091	80.00	20337
44.95	685	59.90	116	71.00	76	81.00	29576
49.15	2295	60.15	176	71.20	177	82.00	7490

Average of 12.495 to 12.507 min.: 1106A001.D
MS29 DFTPP @ 50ug/mL | SVM59-86M
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
83.00	7381	94.00	2951	105.00	8782	116.05	6458
84.05	637	94.95	816	106.00	785	117.00	64477
85.00	4931	96.05	1941	107.00	116541	118.00	5015
86.00	7536	97.05	646	108.00	18901	119.00	775
87.05	3377	98.00	27914	110.00	263466	120.00	1465
88.00	1286	99.00	23608	111.00	35768	121.10	599
89.00	767	100.00	2289	112.00	4091	122.00	7563
89.95	166	101.00	15870	113.05	1189	123.00	11620
91.00	6553	102.00	1026	113.90	111	124.00	5091
92.05	6947	103.00	5705	114.05	181	125.05	4999
93.00	38954	104.00	9721	114.90	324	127.00	485333

Average of 12.495 to 12.507 min.: 1106A001.D
MS29 DFTPP @ 50ug/mL | SVM59-86M
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
128.00	36536	137.85	1498	148.00	18232	159.00	2769
129.00	163968	138.90	555	149.00	4151	160.00	6135
130.00	14119	139.10	416	150.05	1196	161.00	8918
131.00	2657	140.00	1969	151.15	2766	161.95	2830
132.05	1754	141.00	19805	151.95	1413	163.00	888
132.85	739	142.05	6779	152.95	6207	164.05	1339
133.10	232	142.90	4405	154.00	4762	165.00	7048
134.00	4524	144.05	1142	155.00	11019	166.00	6210
135.00	13097	144.90	1264	156.00	16947	167.00	38074
136.00	5043	146.00	3548	157.05	4124	168.00	14376
137.05	5862	147.00	10239	157.95	3859	169.05	2899

Average of 12.495 to 12.507 min.: 1106A001.D
MS29 DFTPP @ 50ug/mL | SVM59-86M
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
169.95	1310	181.00	9871	192.00	8831	205.00	51642
170.95	1890	181.95	1534	193.00	9661	206.00	242794
172.00	3440	182.90	1184	194.00	1946	206.95	30951
173.05	4491	183.95	2178	195.00	1865	208.00	6264
174.00	8743	185.10	13838	196.00	37034	209.00	2051
175.00	15302	186.00	119434	198.00	1049429	210.95	9481
176.05	5698	187.00	33250	199.00	67882	213.00	644
176.95	7483	188.00	3202	200.05	5165	213.95	184
177.95	2398	188.95	5908	201.50	6560	215.00	2039
179.00	28888	189.95	1218	203.00	5378	216.05	3031
180.00	20784	191.05	3292	204.00	28928	217.00	54013

Average of 12.495 to 12.507 min.: 1106A001.D
MS29 DFTPP @ 50ug/mL | SVM59-86M
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
218.00	7012	231.00	5115	241.05	1812	251.95	793
218.95	802	232.00	862	242.05	6494	253.05	2224
221.00	70418	232.95	915	243.15	8388	255.00	569685
223.00	13865	234.00	2560	244.00	118528	256.00	82557
224.00	126882	235.00	3287	245.05	15648	257.00	6081
225.00	32840	235.95	1937	246.00	16052	258.00	23949
226.05	3367	237.00	3876	247.00	3422	259.00	3758
227.00	40520	238.00	622	247.95	929	259.95	911
228.00	6064	238.95	1577	249.00	4434	260.95	980
229.00	10311	239.95	1505	249.95	850	261.95	208
229.95	1403	240.90	698	251.05	825	262.90	305

Average of 12.495 to 12.507 min.: 1106A001.D

1st 11/08/18
2nd 11/15/18

MS29 DFTPP @ 50ug/mL | SVM59-86M
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
263.95	799	275.00	308160	285.90	160	297.05	7886
265.00	9411	276.00	40874	286.10	583	298.05	701
265.90	1395	277.00	17460	287.10	60	298.90	126
267.10	81	278.00	2892	288.10	275	300.00	53
267.75	132	278.90	137	288.95	915	300.95	848
268.70	54	279.05	471	290.05	652	302.05	1313
269.90	630	280.90	294	290.95	407	303.05	7672
270.95	931	282.00	521	291.95	933	304.05	2130
272.05	1516	283.05	2107	293.00	4848	305.05	276
273.00	17910	284.00	1401	293.95	1209	307.00	52
274.00	49053	285.05	3538	296.00	57018	307.95	1004

Average of 12.495 to 12.507 min.: 1106A001.D
MS29 DFTPP @ 50ug/mL | SVM59-86M
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
308.95	554	317.05	800	329.05	391	341.00	2900
310.05	858	319.00	92	329.90	50	342.00	814
310.80	51	319.95	409	331.10	109	343.10	184
310.95	152	321.05	2286	332.05	1817	344.80	67
312.00	93	322.15	1513	333.05	2438	346.05	4591
312.30	146	323.00	25541	334.05	15259	346.95	1001
312.90	156	324.05	5016	335.05	4150	350.05	232
313.10	520	325.00	406	336.05	522	351.00	621
314.05	3121	326.00	351	338.90	192	352.05	8360
315.00	6609	326.95	3878	339.10	230	353.10	6136
316.00	4363	328.00	2352	340.05	545	354.05	9451

Average of 12.495 to 12.507 min.: 1106A001.D
MS29 DFTPP @ 50ug/mL | SVM59-86M
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
355.00	1624	365.00	29712	382.10	82	397.05	201
355.95	197	366.00	4161	383.00	4384	401.05	1091
356.90	76	367.00	277	384.00	1142	402.05	6288
358.00	80	369.95	961	385.00	412	403.05	10557
359.05	776	371.00	2473	390.10	2437	404.00	3832
360.05	128	372.05	15757	391.00	1677	405.10	569
360.90	62	373.05	4131	392.05	1381	408.00	58
361.20	50	374.05	549	392.95	229	408.90	59
362.70	54	377.00	465	394.80	129	409.80	86
363.00	61	377.90	110	395.90	60	410.10	319
363.30	65	381.80	50	396.80	76	415.05	529

Average of 12.495 to 12.507 min.: 1106A001.D
MS29 DFTPP @ 50ug/mL | SVM59-86M
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
421.05	9998	445.05	1524				
422.10	10042						
423.10	80885						
424.05	16936						
425.10	1654						
437.95	201						
439.40	182						
441.10	232384						
442.10	1500757						
443.10	288042						
444.10	26680						

Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A002.D Vial: 2
Acq On : 6 Nov 2018 2:05 pm Operator: CConover
Sample : IB Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 08 15:44:39 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:44:03 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.61	240	230808	1000.00	ng/ml	0.00

System Monitoring Compounds
2) Terphenyl-d14 0.00 244 0 0.00 ng/ml
Spiked Amount 2500.000 Range 54 - 158 Recovery = 0.00%#

Target Compounds Qvalue

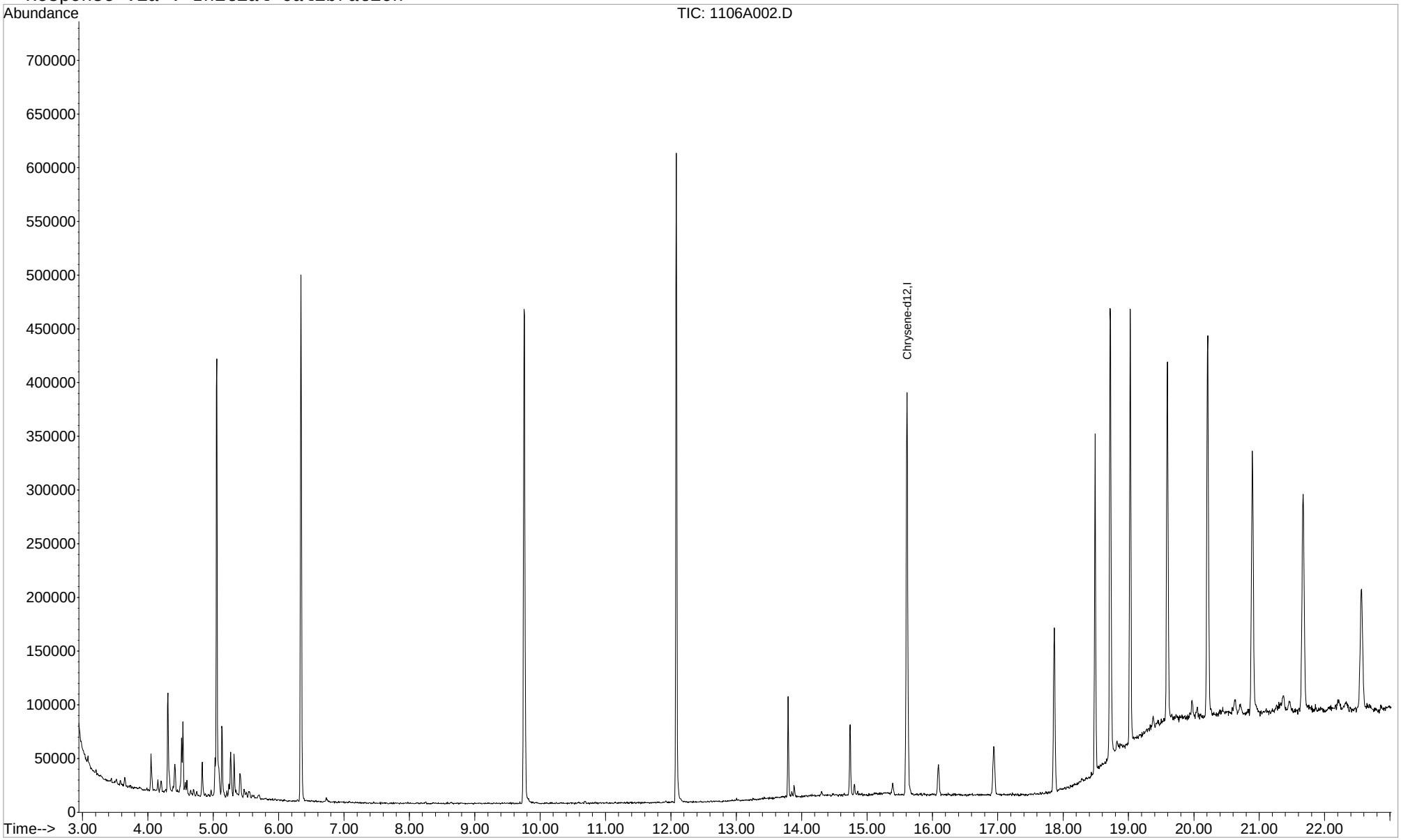
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A002.D Vial: 2
Acq On : 6 Nov 2018 2:05 pm Operator: CConover
Sample : IB Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 8 15:44 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A003.D Vial: 3
Acq On : 6 Nov 2018 2:33 pm Operator: CConover
Sample : SVO_LL ICAL @ 0.05ppm | SVM59-69C Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 08 15:44:39 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:44:03 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.61	240	148844	1000.00	ng/ml	0.00
System Monitoring Compounds						
2) Terphenyl-d14	0.00	244	0d	0.00	ng/ml	
Spiked Amount 2500.000	Range 54 - 158		Recovery =	0.00%#		
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.66	149	5481	54.13	ng/ml	88

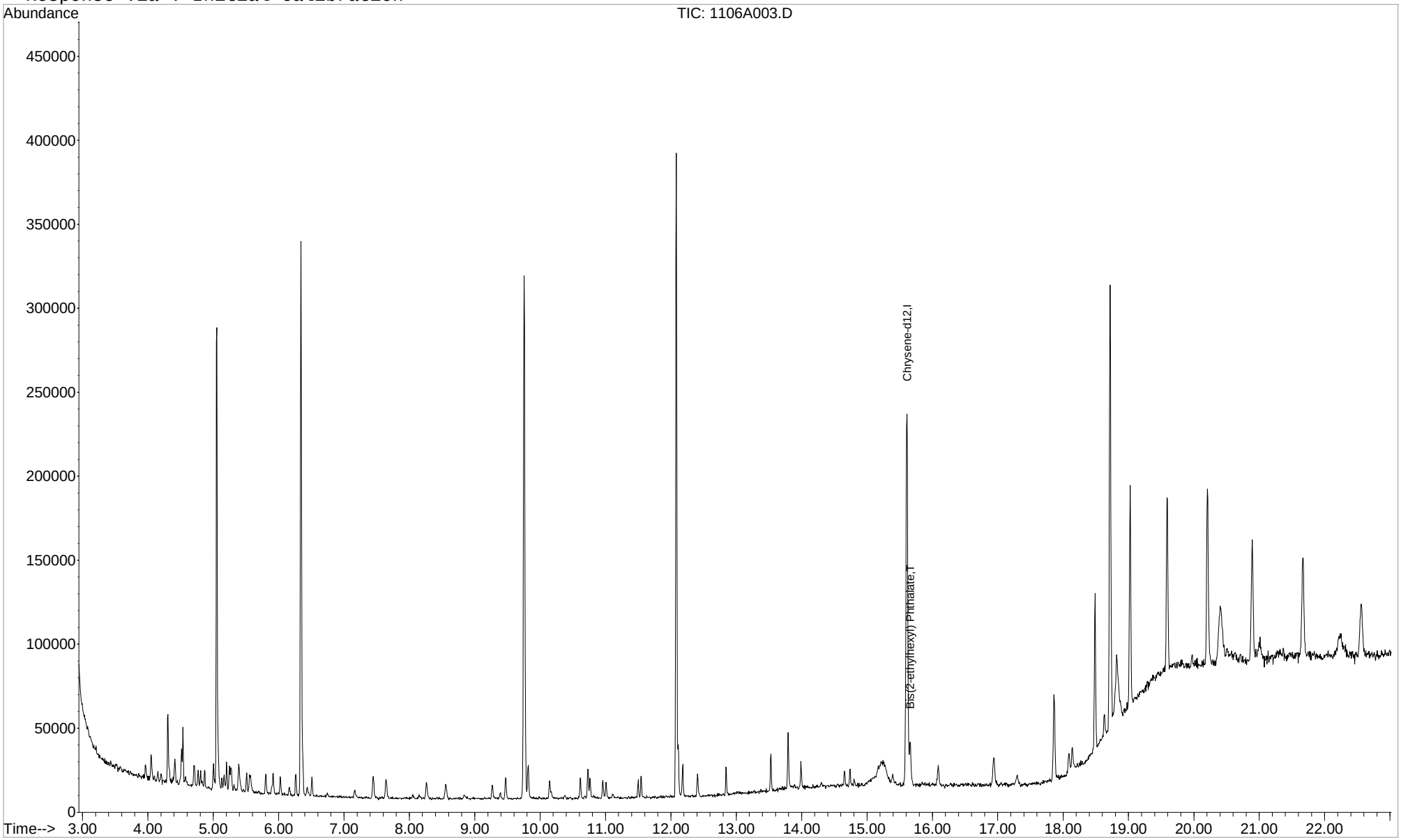
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A003.D Vial: 3
Acq On : 6 Nov 2018 2:33 pm Operator: CConover
Sample : SVO_LL ICAL @ 0.05ppm | SVM59-69C Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 8 15:46 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A004.D Vial: 4
Acq On : 6 Nov 2018 3:01 pm Operator: CConover
Sample : SVO_LL ICAL @ 0.10ppm | SVM59-69D Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 08 15:44:39 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:44:03 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.61	240	144602	1000.00	ng/ml	0.00
System Monitoring Compounds						
2) Terphenyl-d14	0.00	244	0d	0.00	ng/ml	
Spiked Amount 2500.000	Range 54 - 158		Recovery =	0.00%#		
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.65	149	11045	112.29	ng/ml	93

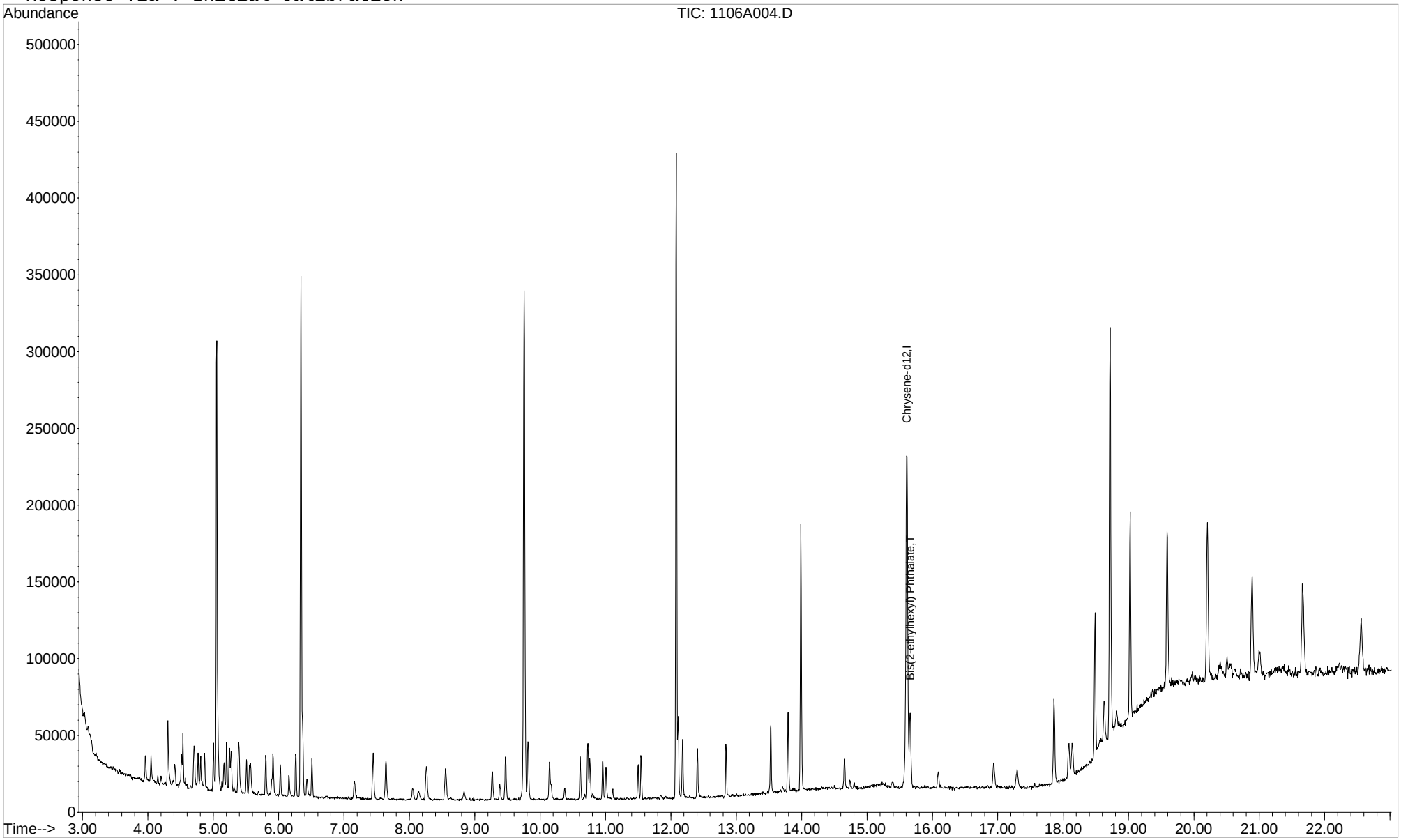
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A004.D Vial: 4
Acq On : 6 Nov 2018 3:01 pm Operator: CConover
Sample : SVO_LL ICAL @ 0.10ppm | SVM59-69D Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 8 15:46 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A005.D Vial: 5
Acq On : 6 Nov 2018 3:30 pm Operator: CConover
Sample : SVO_LL ICAL @ 0.20ppm | SVM59-69E Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 08 15:44:39 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:44:03 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

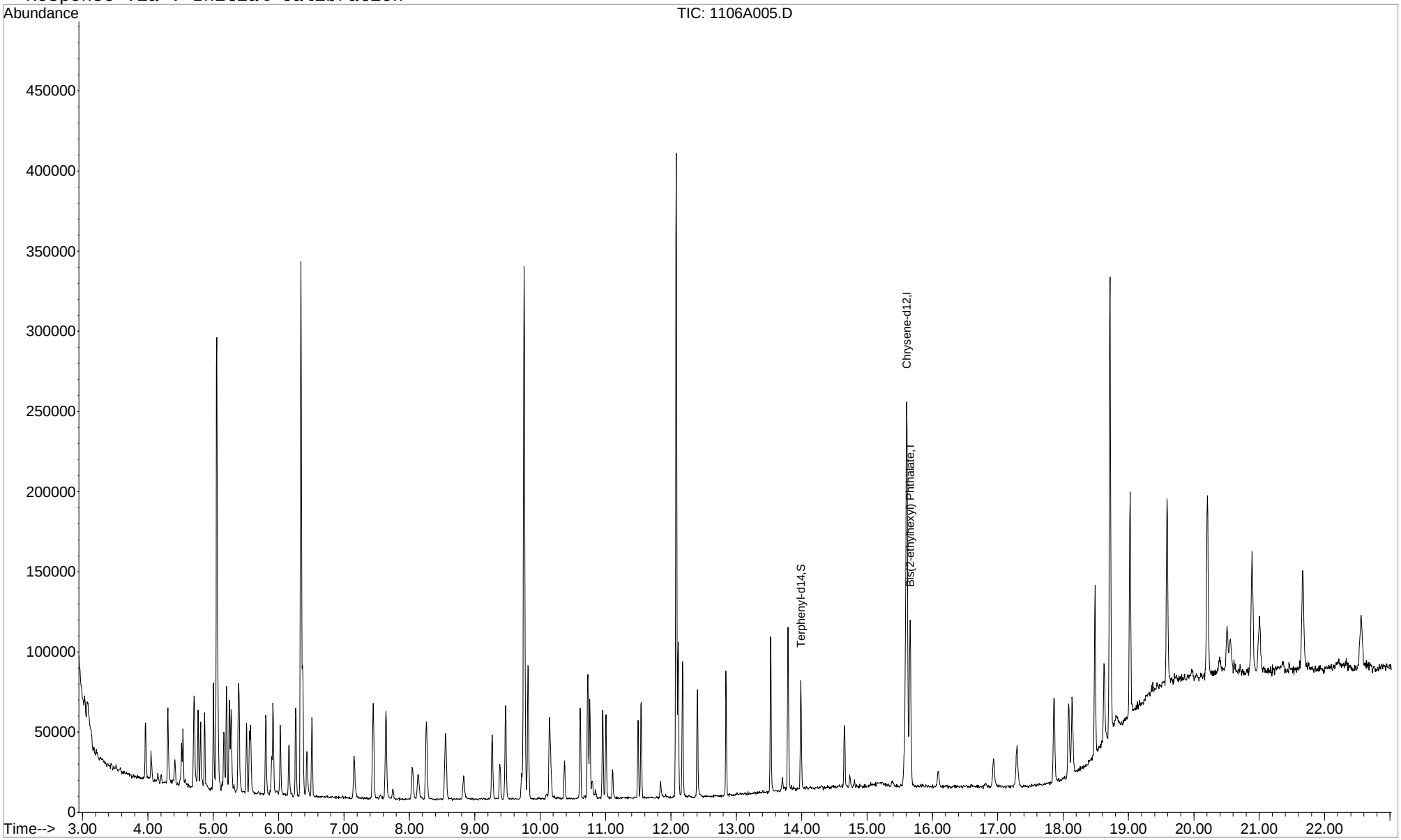
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.61	240	142176	1000.00	ng/ml	0.00
System Monitoring Compounds						
2) Terphenyl-d14	13.99	244	31077	263.44	ng/ml	0.00
Spiked Amount 2500.000	Range 54 - 158		Recovery = 10.54%#			
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.66	149	22178	229.32	ng/ml	92

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

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A005.D Vial: 5
Acq On : 6 Nov 2018 3:30 pm Operator: CConover
Sample : SVO_LL ICAL @ 0.20ppm | SVM59-69E Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 8 15:44 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A006.D Vial: 6
Acq On : 6 Nov 2018 3:58 pm Operator: CConover
Sample : SVO_LL ICAL @ 0.50ppm | SVM59-69F Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 08 15:44:40 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:44:03 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.61	240	166913	1000.00	ng/ml	0.00
System Monitoring Compounds						
2) Terphenyl-d14	13.99	244	79507	574.08	ng/ml	0.00
Spiked Amount 2500.000	Range 54 - 158		Recovery = 22.96%#			
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.65	149	62022	546.26	ng/ml	100

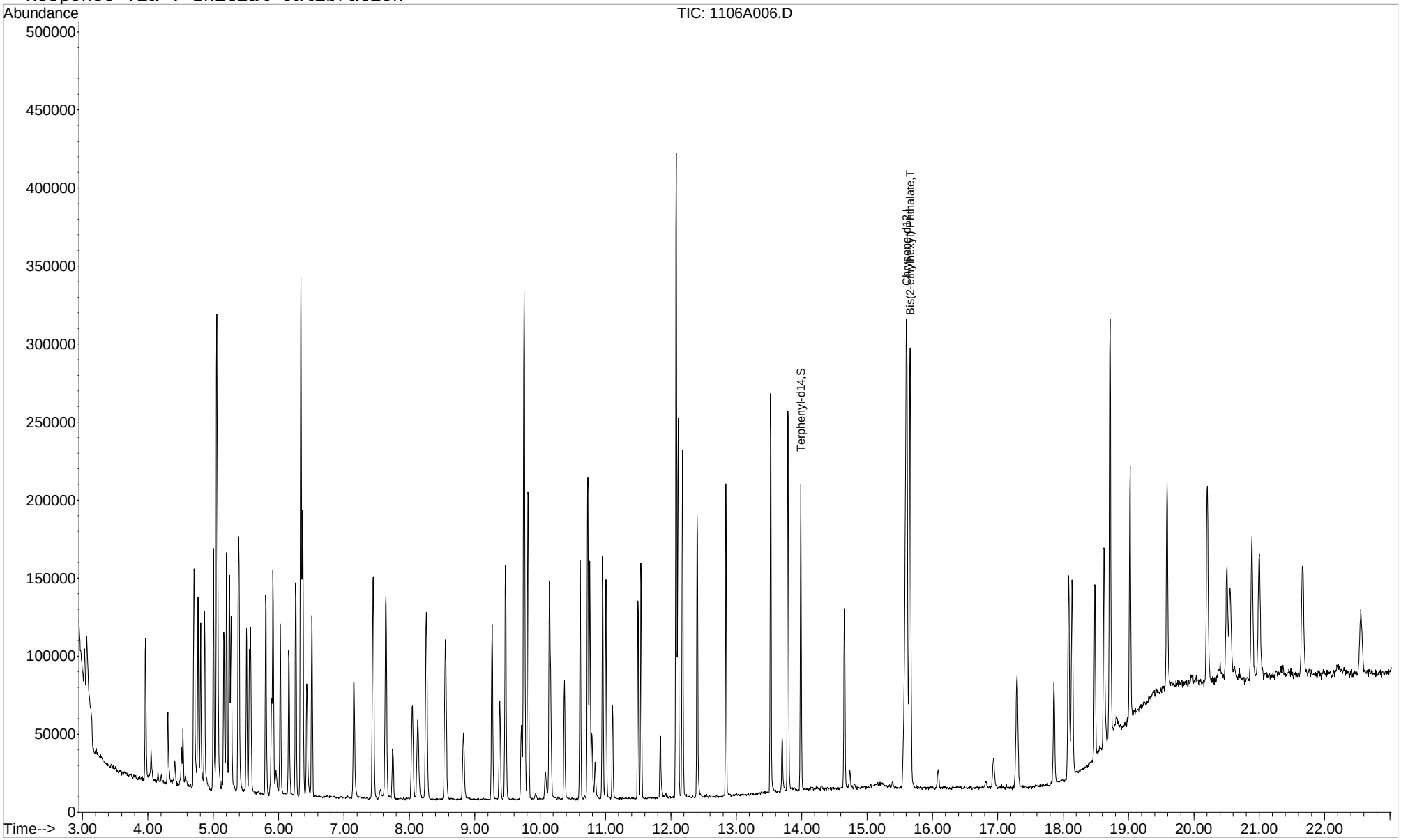
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A006.D Vial: 6
Acq On : 6 Nov 2018 3:58 pm Operator: CConover
Sample : SVO_LL ICAL @ 0.50ppm | SVM59-69F Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 8 15:44 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A007.D Vial: 7
Acq On : 6 Nov 2018 4:27 pm Operator: CConover
Sample : SVO_LL ICAL @ 1.0ppm | SVM59-69G Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 08 15:44:40 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:44:03 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.61	240	169299	1000.00	ng/ml	0.00
System Monitoring Compounds						
2) Terphenyl-d14	13.99	244	164429	1170.54	ng/ml	0.00
Spiked Amount 2500.000	Range 54 - 158		Recovery =	46.82%#		
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.66	149	141121	1225.42	ng/ml	100

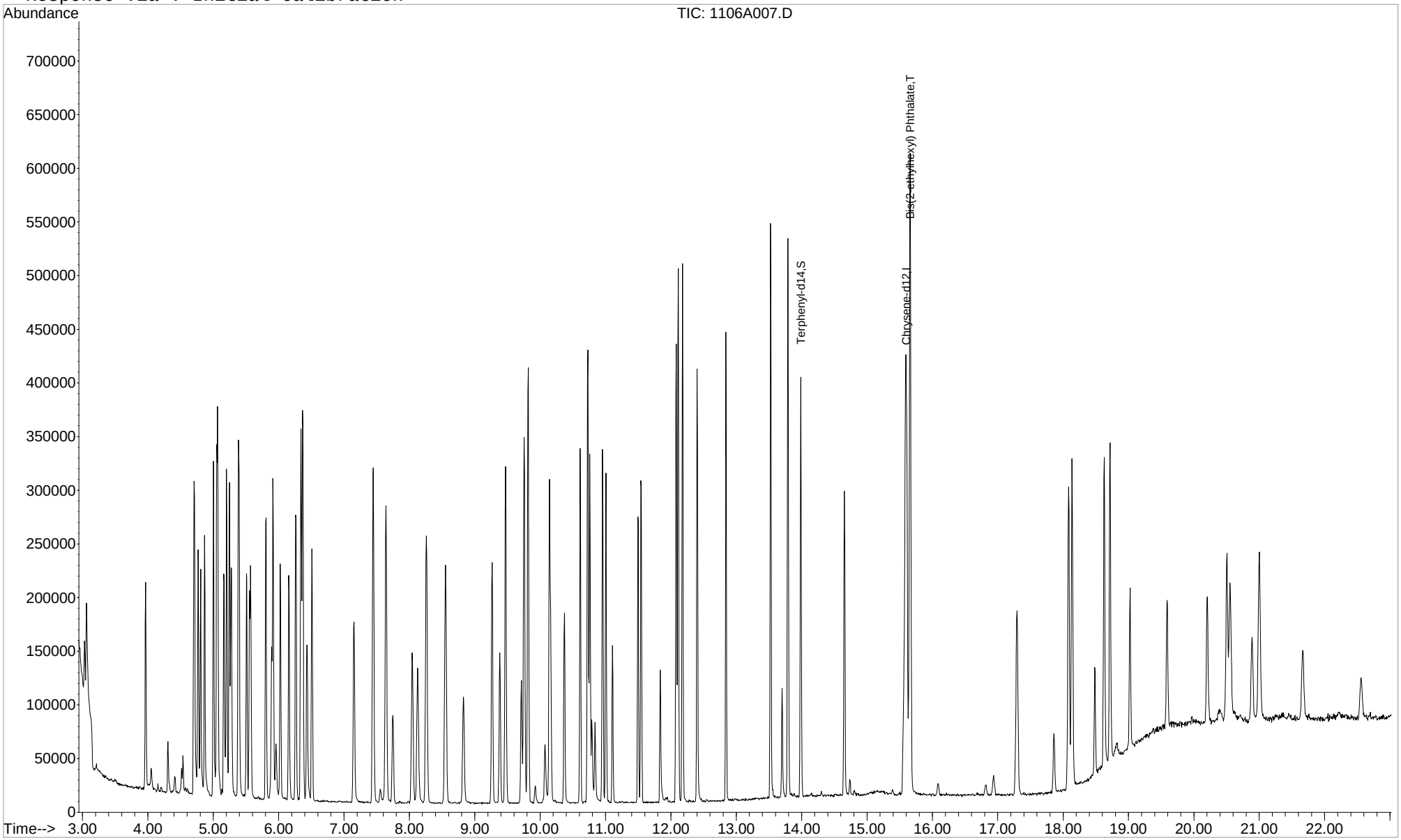
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A007.D Vial: 7
Acq On : 6 Nov 2018 4:27 pm Operator: CConover
Sample : SVO_LL ICAL @ 1.0ppm | SVM59-69G Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 8 15:44 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A008.D Vial: 8
Acq On : 6 Nov 2018 4:55 pm Operator: CConover
Sample : SVO_LL ICAL @ 2.0ppm | SVM59-69H Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 08 15:44:40 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:44:03 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.61	240	176588	1000.00	ng/ml	0.00
System Monitoring Compounds						
2) Terphenyl-d14	13.99	244	344198	2349.14	ng/ml	0.00
Spiked Amount 2500.000	Range 54 - 158		Recovery =	93.97%		
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.66	149	307407	2559.17	ng/ml	98

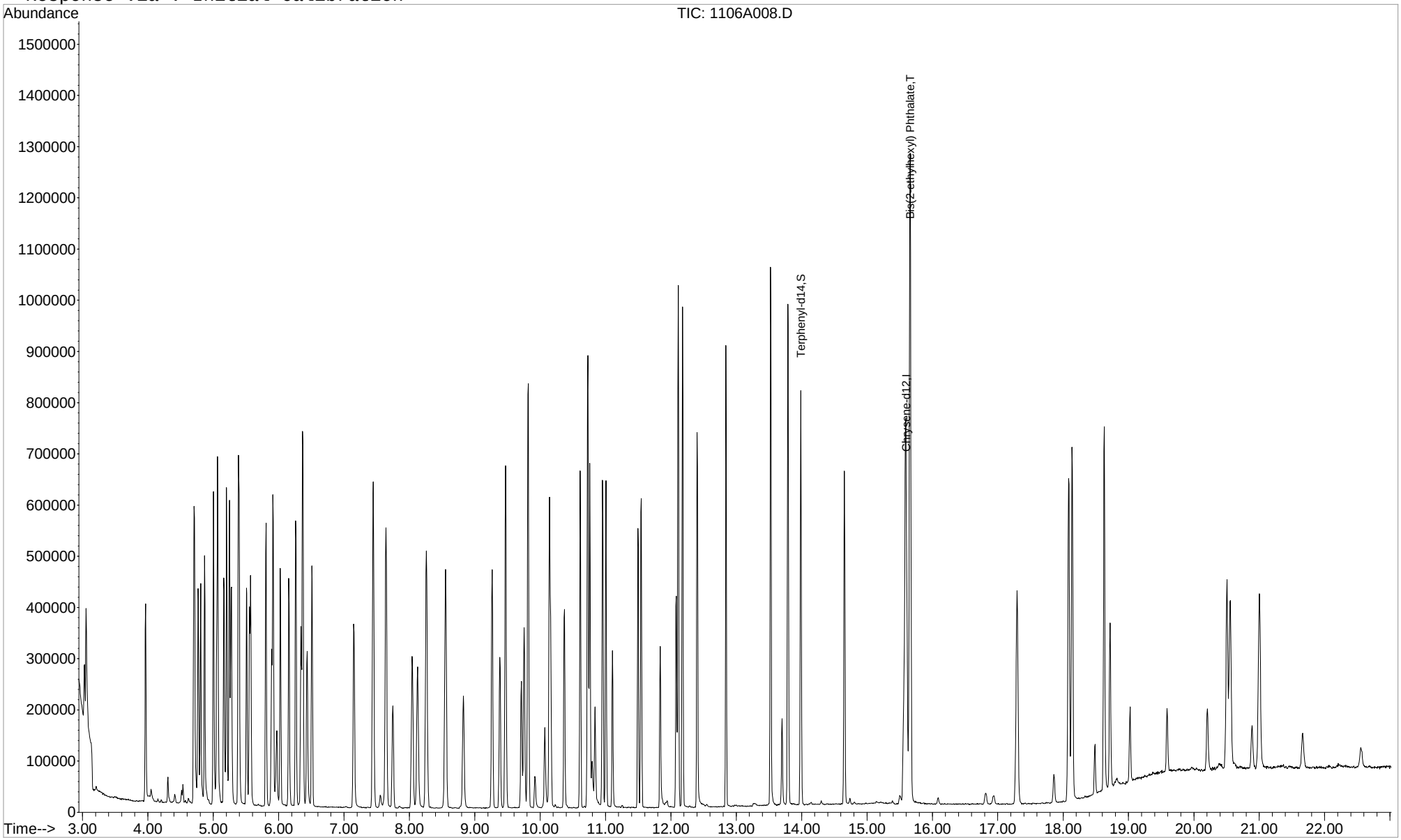
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A008.D Vial: 8
Acq On : 6 Nov 2018 4:55 pm Operator: CConover
Sample : SVO_LL ICAL @ 2.0ppm | SVM59-69H Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 8 15:44 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A009.D Vial: 9
Acq On : 6 Nov 2018 5:23 pm Operator: CConover
Sample : SVO_LL ICAL @ 3.0ppm | SVM59-69I Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 08 15:44:40 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:44:03 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.61	240	172310	1000.00	ng/ml	0.00
System Monitoring Compounds						
2) Terphenyl-d14	13.99	244	535859	3748.01	ng/ml	0.00
Spiked Amount 2500.000	Range 54 - 158		Recovery = 149.92%			
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.66	149	489474	4176.05	ng/ml	100

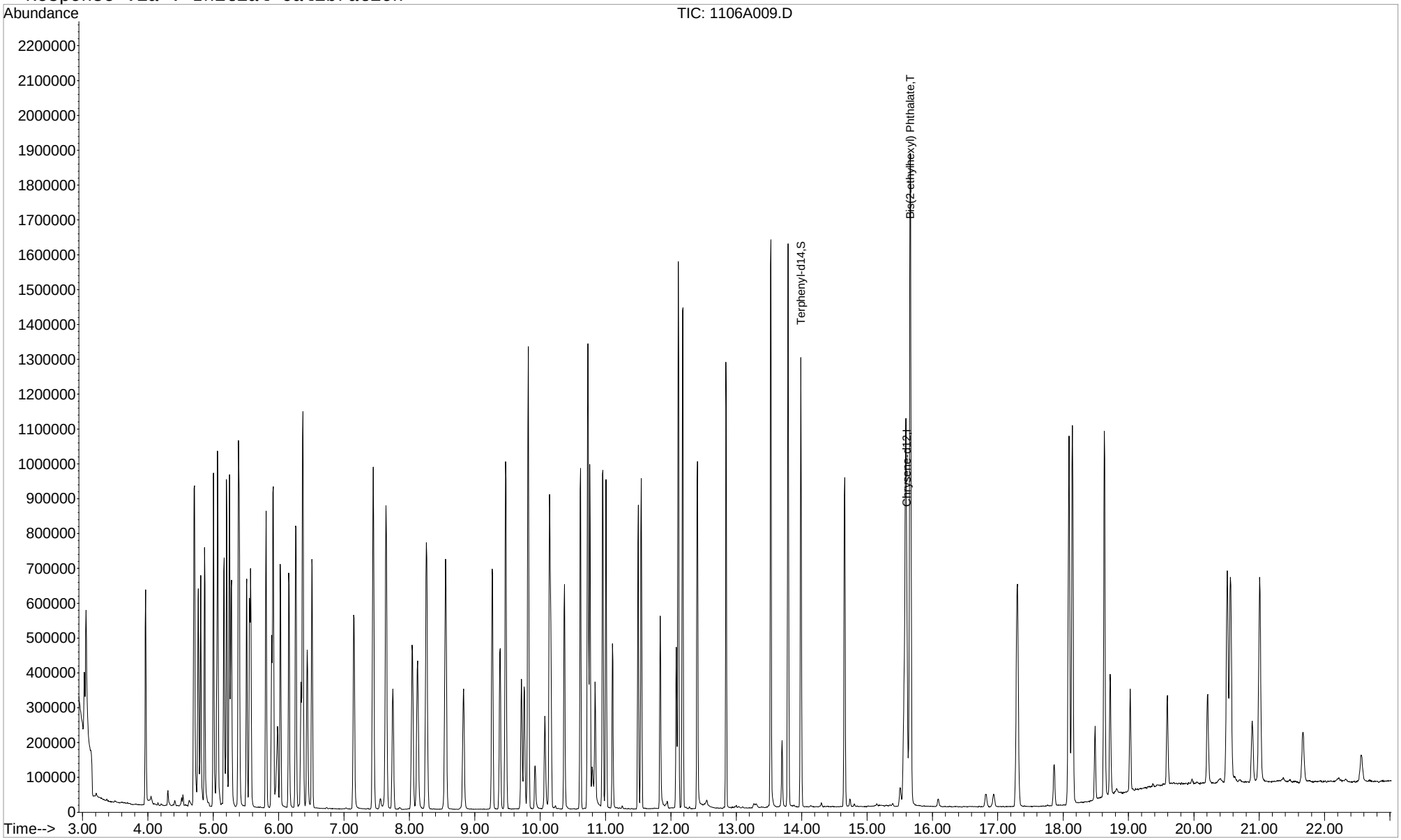
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A009.D Vial: 9
Acq On : 6 Nov 2018 5:23 pm Operator: CConover
Sample : SVO_LL ICAL @ 3.0ppm | SVM59-69I Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 8 15:44 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A010.D Vial: 10
Acq On : 6 Nov 2018 5:52 pm Operator: CConover
Sample : SVO_LL ICAL @ 5.0ppm | SVM59-69J Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 08 15:44:41 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:44:03 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.61	240	167802	1000.00	ng/ml	0.00
System Monitoring Compounds						
2) Terphenyl-d14	13.99	244	894650	6425.65	ng/ml	0.00
Spiked Amount 2500.000	Range 54 - 158		Recovery = 257.03%#			
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.66	149	822835	7208.78	ng/ml	99

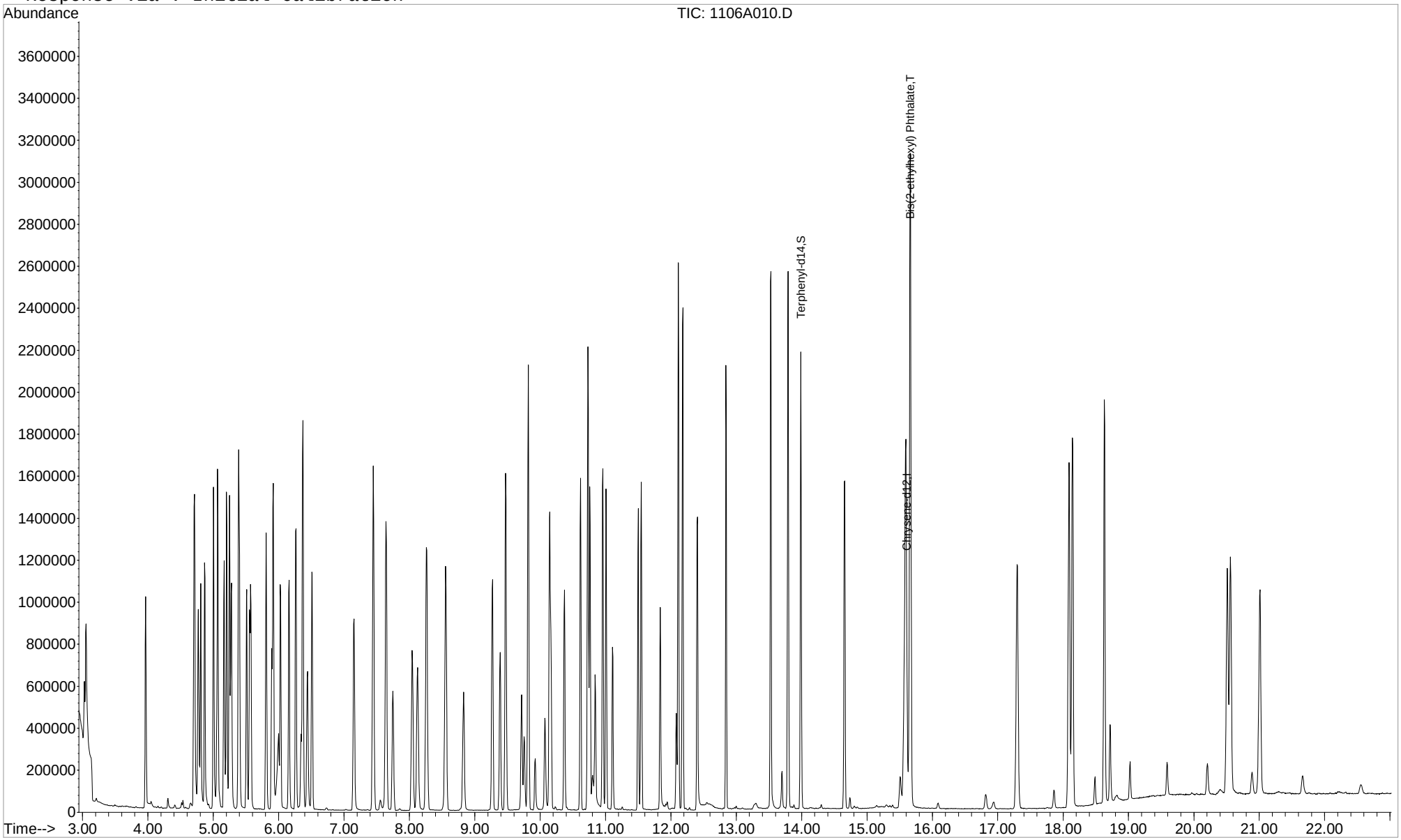
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A010.D Vial: 10
Acq On : 6 Nov 2018 5:52 pm Operator: CConover
Sample : SVO_LL ICAL @ 5.0ppm | SVM59-69J Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 8 15:44 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A011.D Vial: 11
Acq On : 6 Nov 2018 6:20 pm Operator: CConover
Sample : SVO_LL ICAL @ 7.0ppm | SVM59-69K Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 08 15:44:41 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:44:03 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

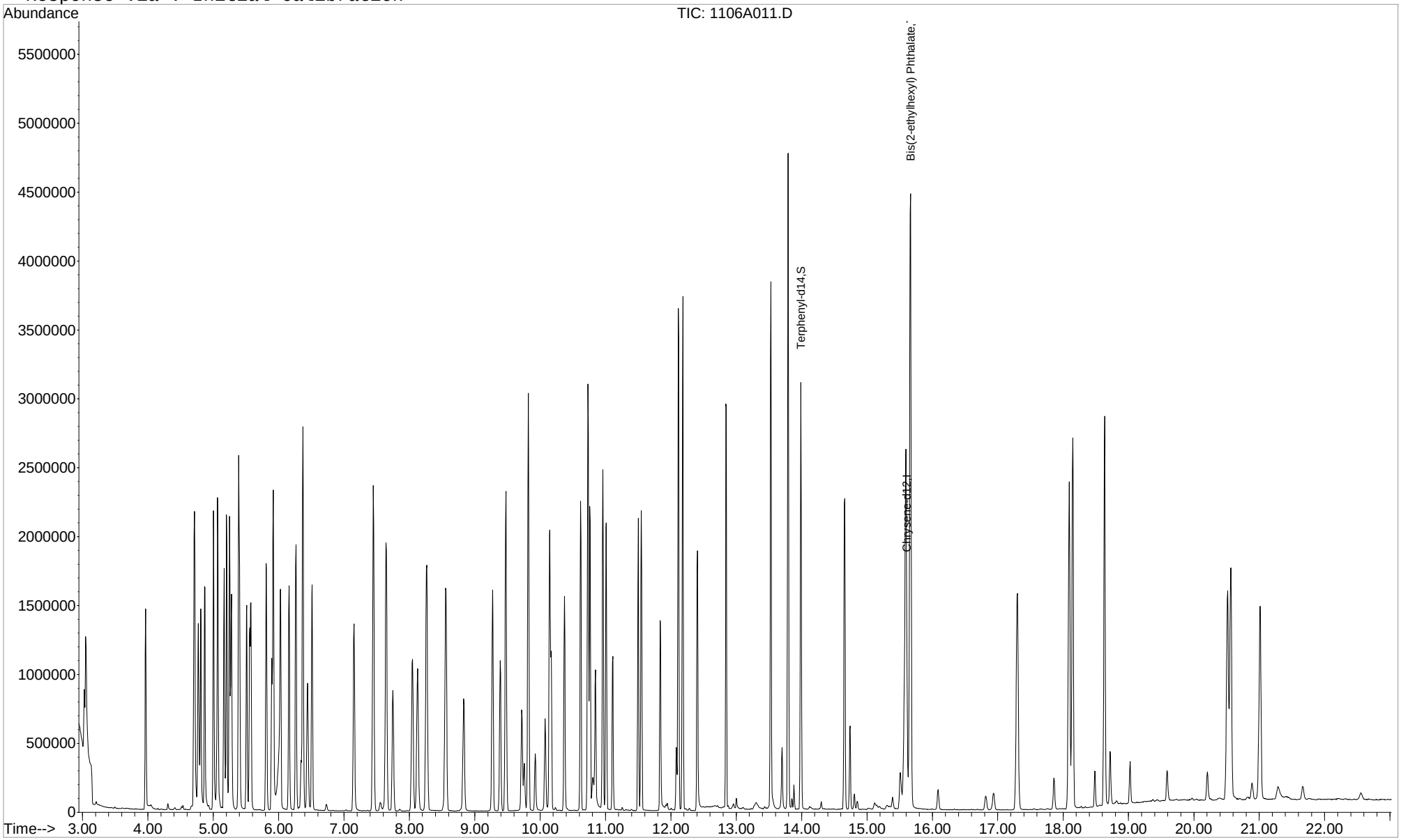
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.61	240	178928	1000.00	ng/ml	0.00
System Monitoring Compounds						
2) Terphenyl-d14	13.99	244	1281973	8634.98	ng/ml	0.00
Spiked Amount 2500.000	Range 54 - 158		Recovery = 345.40%#			
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.66	149	1201479	9871.52	ng/ml	99

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

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A011.D Vial: 11
Acq On : 6 Nov 2018 6:20 pm Operator: CConover
Sample : SVO_LL ICAL @ 7.0ppm | SVM59-69K Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 8 15:44 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A012.D Vial: 12
Acq On : 6 Nov 2018 6:48 pm Operator: CConover
Sample : SVO_LL ICAL @ 10ppm | SVM59-69L Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 08 15:44:41 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:44:03 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.62	240	198419	1000.00	ng/ml	0.00
System Monitoring Compounds						
2) Terphenyl-d14	13.99	244	1863558	11319.32	ng/ml	0.00
Spiked Amount 2500.000	Range 54 - 158		Recovery = 452.77%#			
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.66	149	1766907	13091.11	ng/ml	100

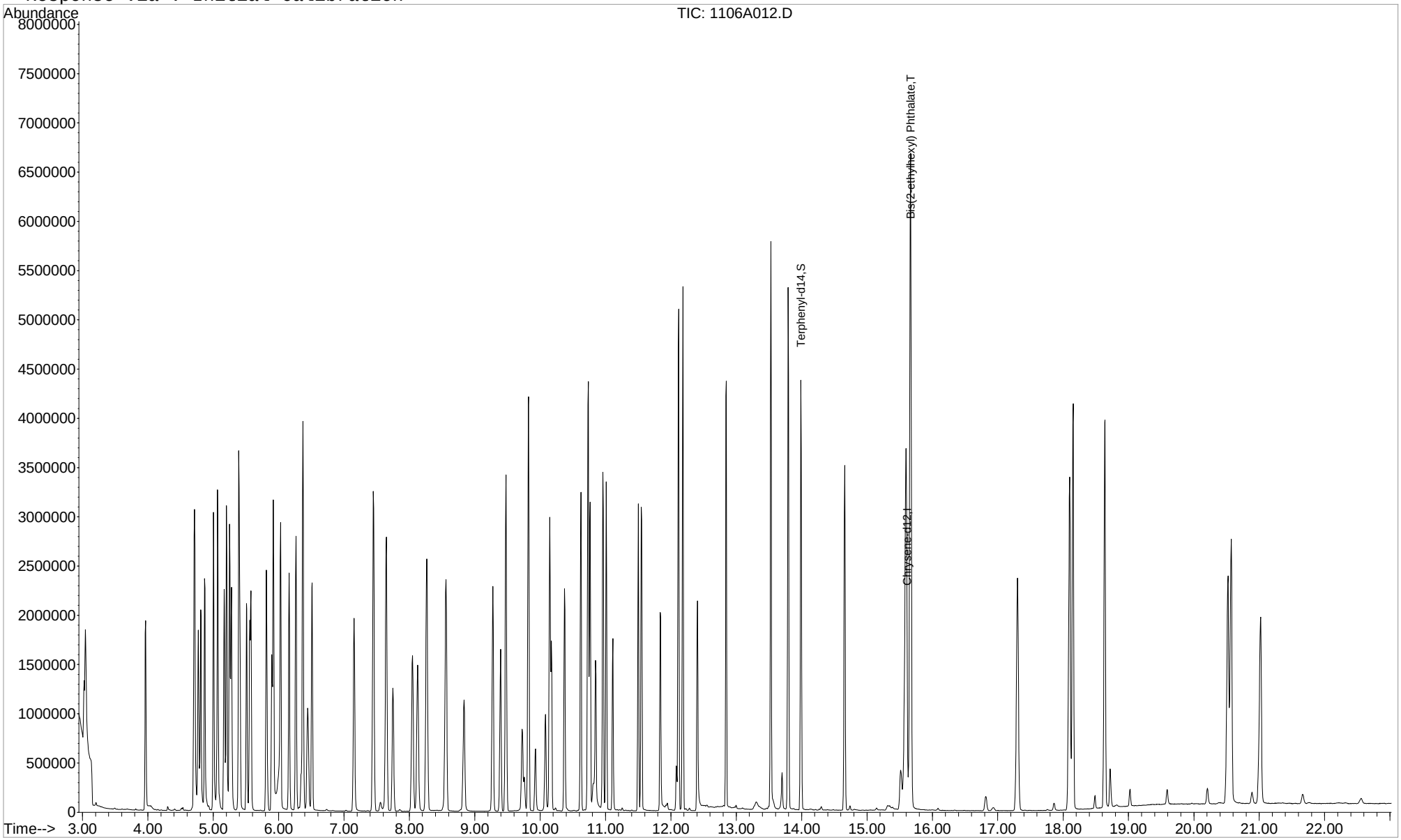
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A012.D Vial: 12
Acq On : 6 Nov 2018 6:48 pm Operator: CConover
Sample : SVO_LL ICAL @ 10ppm | SVM59-69L Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 8 15:44 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A013.D Vial: 13
Acq On : 6 Nov 2018 7:17 pm Operator: CConover
Sample : SVO_LL ICV @ 3.0ppm | SVM59-63B Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 08 15:50:19 2018 Quant Results File: 110618_BIS ONLY.RES

Quant Method : J:\MS29\M...\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Chrysene-d12	15.61	240	207673	1000.00	ng/ml	0.00
System Monitoring Compounds						
2) Terphenyl-d14	13.99	244	588595	2814.16	ng/ml	0.00
Spiked Amount 2500.000	Range 54 - 158		Recovery = 112.57%			
Target Compounds						Qvalue
3) Bis(2-ethylhexyl) Phthalat	15.66	149	518349	2934.82	ng/ml	99

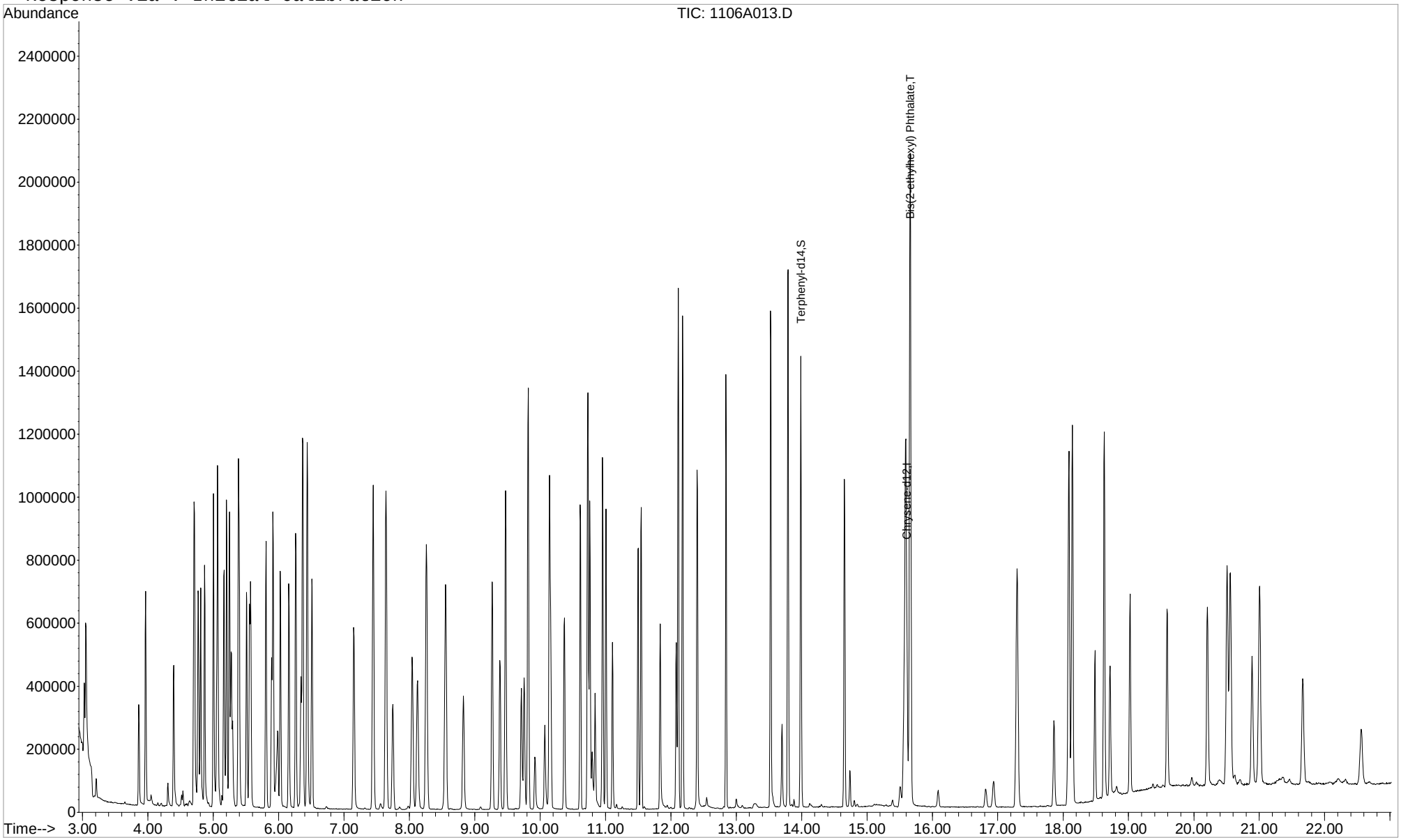
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

1st 11/08/18
2nd 11/15/18

Data File : J:\MS29\DATA\110618A\1106A013.D Vial: 13
Acq On : 6 Nov 2018 7:17 pm Operator: CConover
Sample : SVO_LL ICV @ 3.0ppm | SVM59-63B Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 8 15:50 2018 Quant Results File: 110618_BIS ONLY.RES

Method : J:\MS29\METHODS\SCAN\110618_BIS ONLY.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Thu Nov 08 15:50:04 2018
Response via : Initial Calibration



Injection Log

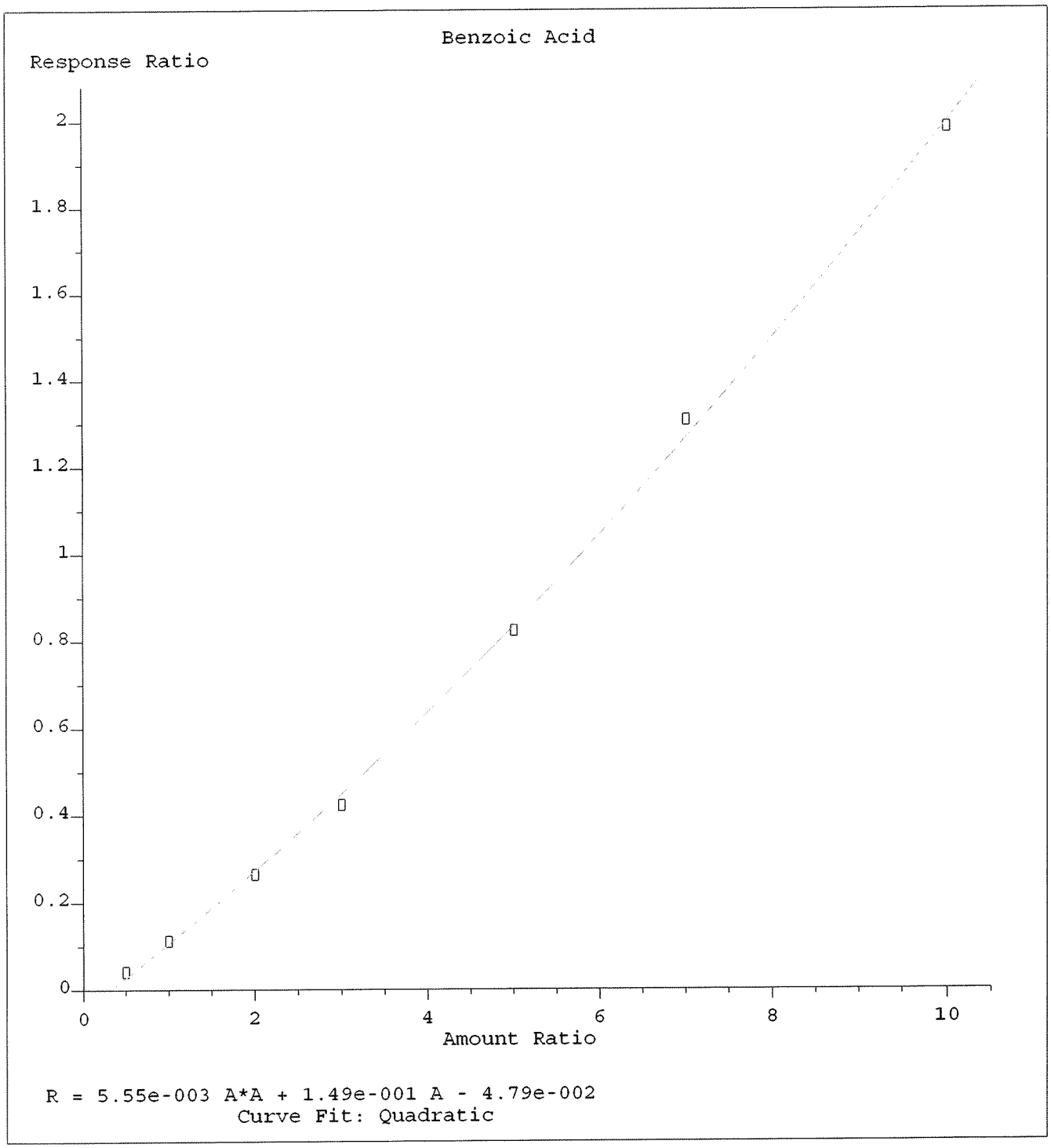
Directory: J:\MS29\DATA\112918

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1129F001.D	1.	MS29 DFTPP @ 50ug/mL | SVM59-12C		29 Nov 2018 15:11
2	2	1129F002.D	1.	IB		29 Nov 2018 15:39
3	3	1129F003.D	1.	SVO_LL ICAL @ 0.05ppm | SVM59-69C		29 Nov 2018 16:08
4	4	1129F004.D	1.	SVO_LL ICAL @ 0.10ppm | SVM59-69D		29 Nov 2018 16:36
5	5	1129F005.D	1.	SVO_LL ICAL @ 0.20ppm | SVM59-69E		29 Nov 2018 17:05
6	6	1129F006.D	1.	SVO_LL ICAL @ 0.50ppm | SVM59-69F		29 Nov 2018 17:33
7	7	1129F007.D	1.	SVO_LL ICAL @ 1.0ppm | SVM59-69G		29 Nov 2018 18:02
8	8	1129F008.D	1.	SVO_LL ICAL @ 2.0ppm | SVM59-69H		29 Nov 2018 18:30
9	9	1129F009.D	1.	SVO_LL ICAL @ 3.0ppm | SVM59-69I		29 Nov 2018 18:59
10	10	1129F010.D	1.	SVO_LL ICAL @ 5.0ppm | SVM59-69J		29 Nov 2018 19:27
11	11	1129F011.D	1.	SVO_LL ICAL @ 7.0ppm | SVM59-69K		29 Nov 2018 19:56
12	12	1129F012.D	1.	SVO_LL ICAL @ 10ppm | SVM59-69L		29 Nov 2018 20:24
13	13	1129F013.D	1.	SVO_LL ICV @ 3.0ppm | SVM59-63B		29 Nov 2018 20:53
14	1	1129F014.D	1.	~~MS29 DFTPP @ 50ug/mL | SVM59-12C-NR~~		29 Nov 2018 21:21

KC1800541

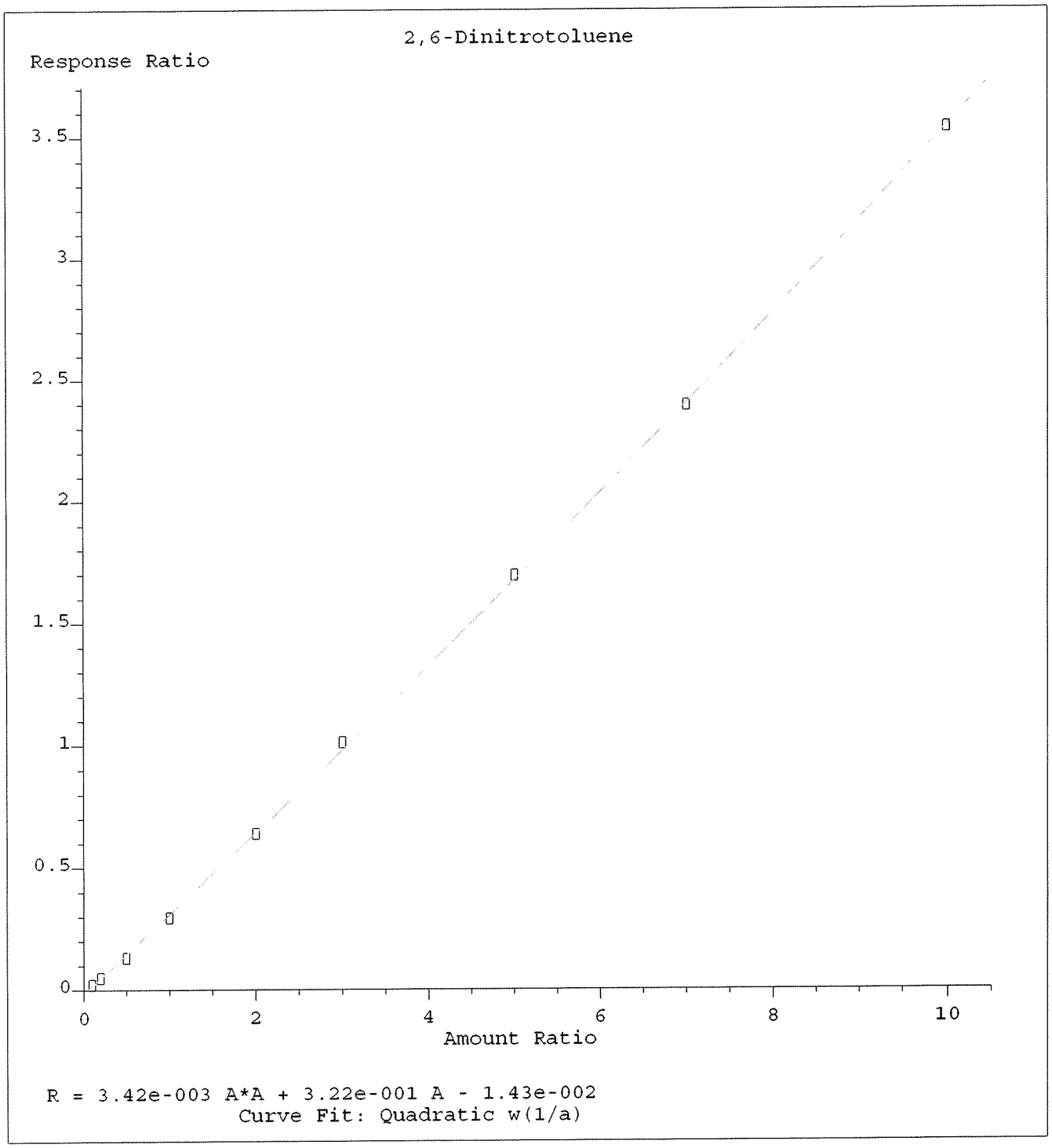
cc 11·30·18

DEC 0 4 2018



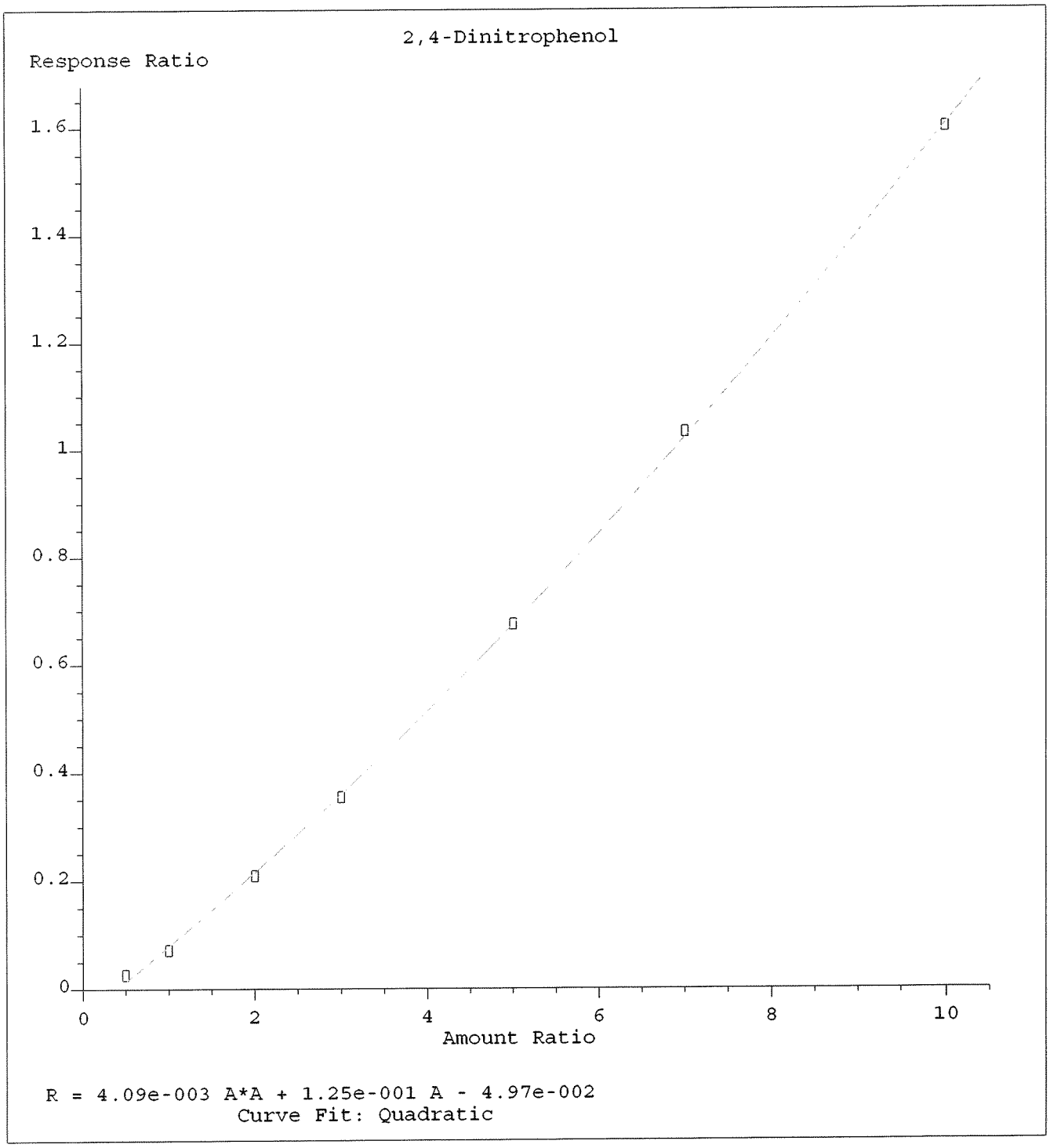
Method Name: J:\MS29\METHODS\SCAN\112918_8270LL.M
Calibration Table Last Updated: Fri Nov 30 00:36:44 2018

DEC 0 4 2018



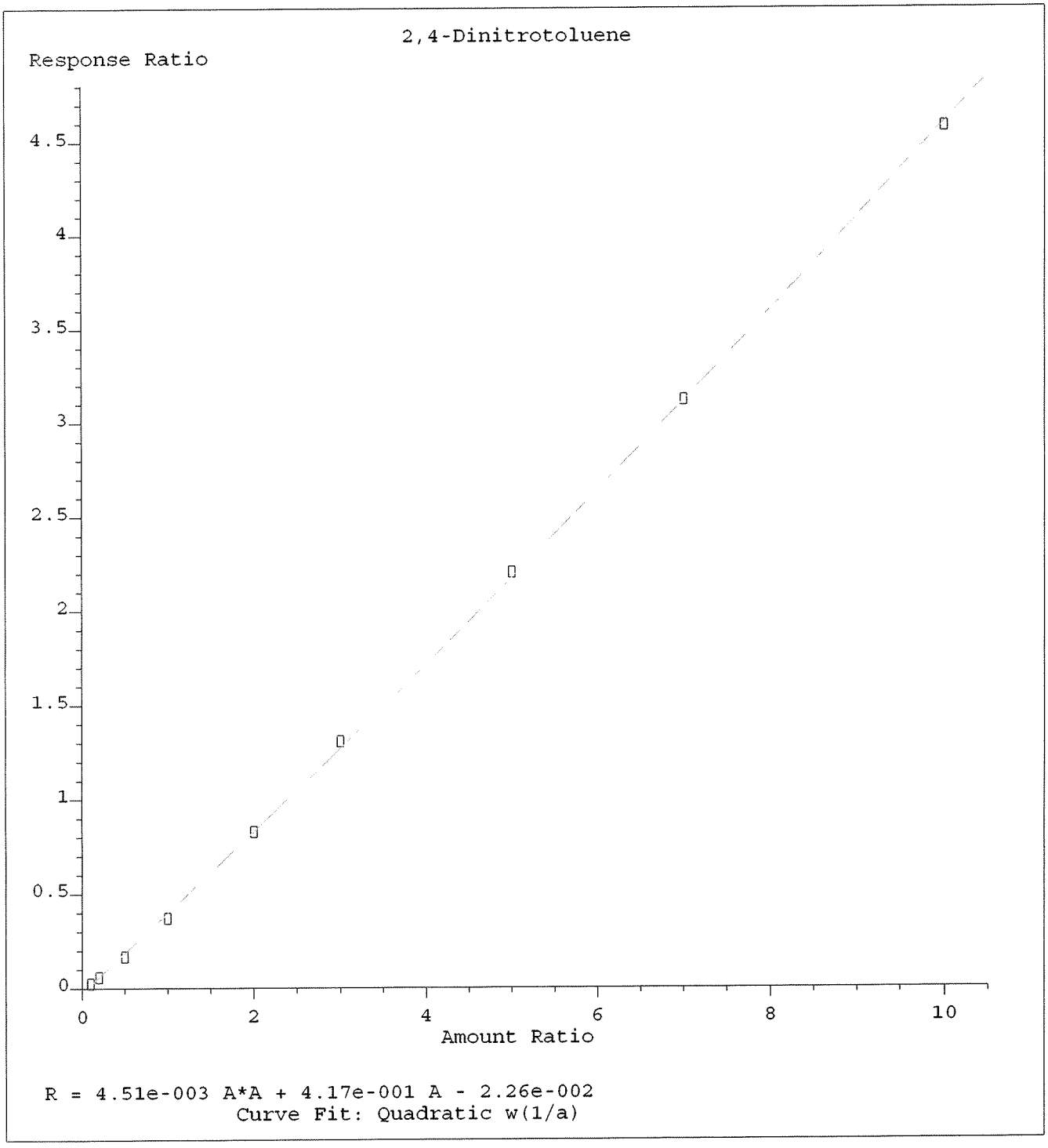
Method Name: J:\MS29\METHODS\SCAN\112918_8270LL.M
Calibration Table Last Updated: Fri Nov 30 00:49:16 2018

DEC 0 4 2018



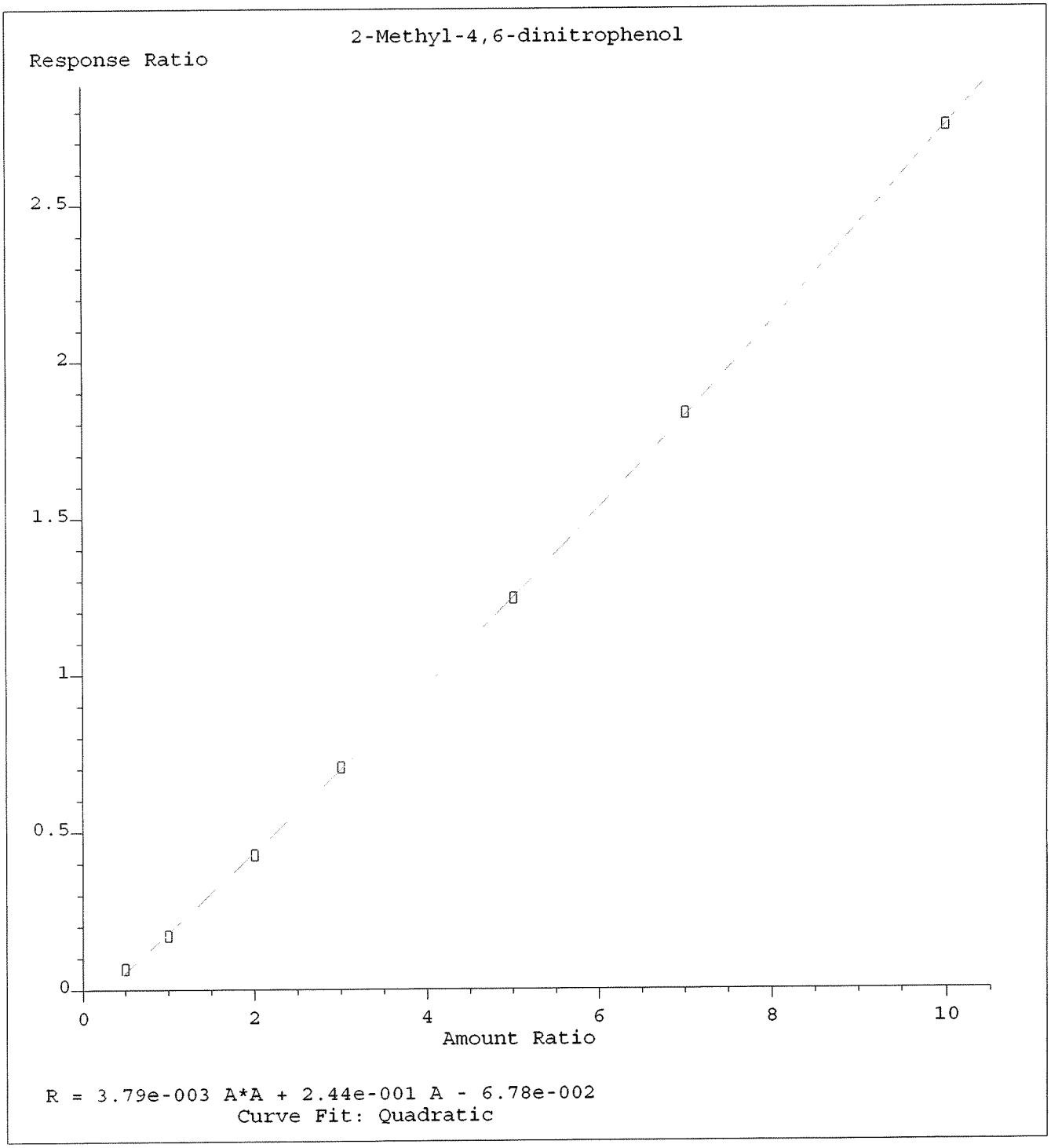
Method Name: J:\MS29\METHODS\SCAN\112918_8270LL.M
Calibration Table Last Updated: Fri Nov 30 00:33:26 2018

DEC 0 4 2018



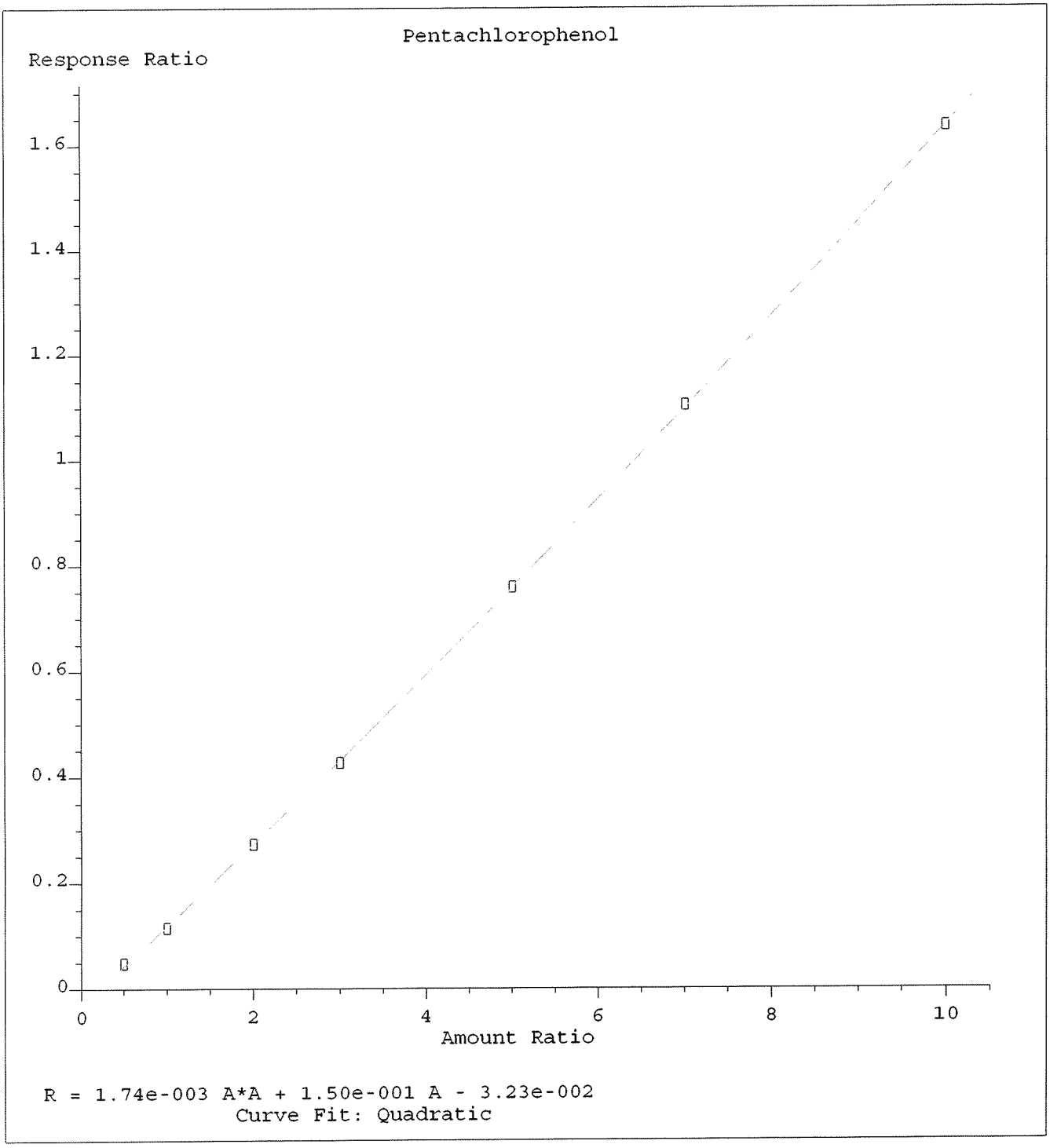
Method Name: J:\MS29\METHODS\SCAN\112918_8270LL.M
Calibration Table Last Updated: Fri Nov 30 00:49:38 2018

DEC 0 4 2018



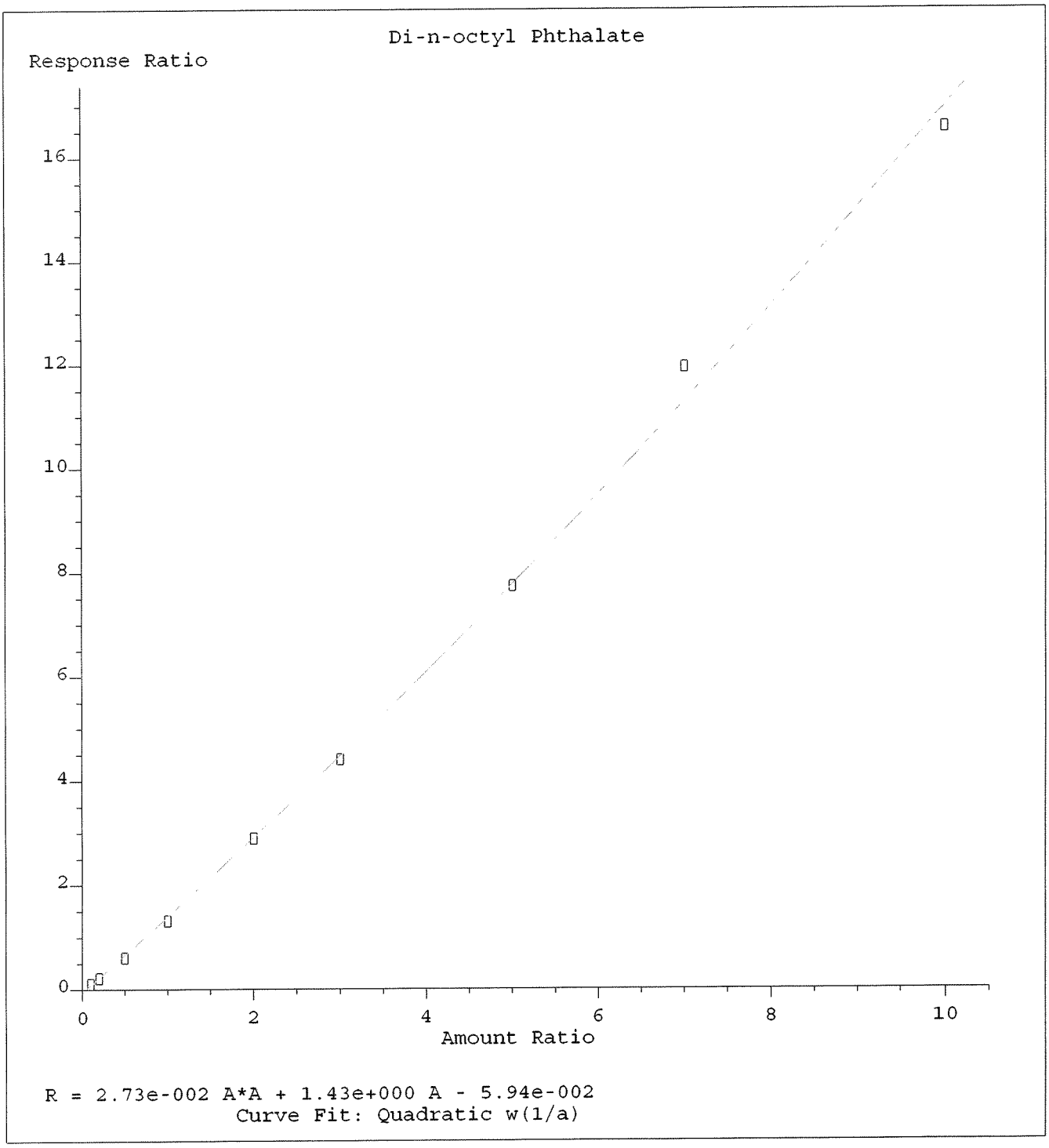
Method Name: J:\MS29\METHODS\SCAN\112918_8270LL.M
Calibration Table Last Updated: Fri Nov 30 00:34:10 2018

DEC 0 4 2018



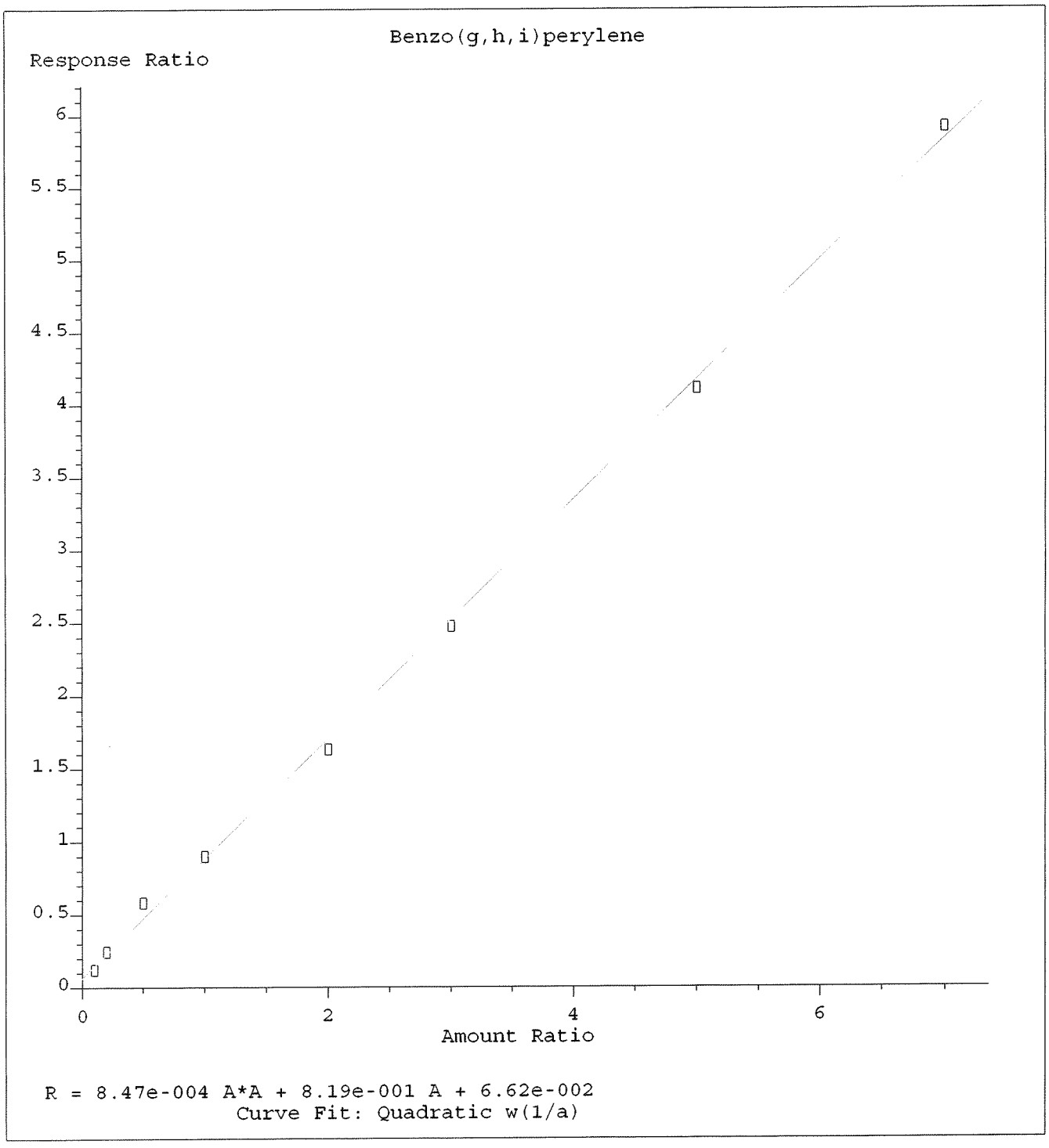
Method Name: J:\MS29\METHODS\SCAN\112918_8270LL.M
Calibration Table Last Updated: Fri Nov 30 00:49:54 2018

DEC 0 4 2018



Method Name: J:\MS29\METHODS\SCAN\112918_8270LL.M
Calibration Table Last Updated: Fri Nov 30 00:50:45 2018

DEC 0 4 2018



Method Name: J:\MS29\METHODS\SCAN\112918_8270LL.M
Calibration Table Last Updated: Fri Nov 30 00:50:55 2018

DEC 0 4 2018

Quantitation Report (QT Reviewed)

1st 11/30/18
2nd 12/04/18

Data File : J:\MS29\DATA\112918\1129F013.D Vial: 13
Acq On : 29 Nov 2018 8:53 pm Operator: CConover
Sample : SVO_LL ICV @ 3.0ppm | SVM59-63B Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 30 00:58:05 2018 Quant Results File: 112918_8270LL.RES

Quant Method : J:\MS29\M...\112918_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Nov 30 00:58:02 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.02	152	41540	1000.00	ng/ml	-0.03
21) Naphthalene-d8	6.30	136	166951	1000.00	ng/ml	-0.04
35) Acenaphthene-d10	9.70	164	79050	1000.00	ng/ml	-0.05
59) Phenanthrene-d10	12.05	188	145267	1000.00	ng/ml	-0.04
69) Chrysene-d12	15.56	240	120235	1000.00	ng/ml	-0.06
77) Perylene-d12	18.67	264	131646	1000.00	ng/ml	-0.05
System Monitoring Compounds						
4) 2-Fluorophenol	3.95	112	154824	3011.11	ng/ml	-0.02
Spiked Amount 3750.000	Range 38 - 110		Recovery = 80.30%			
6) Phenol-d6	4.67	99	214836	2961.93	ng/ml	-0.03
Spiked Amount 3750.000	Range 43 - 128		Recovery = 78.98%			
19) Nitrobenzene-d5	5.52	82	189187	2934.17	ng/ml	-0.03
Spiked Amount 2500.000	Range 30 - 139		Recovery = 117.37%			
39) 2-Fluorobiphenyl	8.20	172	339376	2855.04	ng/ml	-0.06
Spiked Amount 2500.000	Range 37 - 126		Recovery = 114.20%			
60) 2,4,6-Tribromophenol	11.07	330	50821	2954.38	ng/ml	-0.04
Spiked Amount 3750.000	Range 38 - 157		Recovery = 78.78%			
71) Terphenyl-d14	13.96	244	322120	2657.86	ng/ml	-0.03
Spiked Amount 2500.000	Range 54 - 158		Recovery = 106.31%			
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	3.05	42	90108	3312.88	ng/ml#	71
3) Pyridine	3.08	79	213466	2995.33	ng/ml	89
5) Bis(2-chloroethyl) Ether	4.78	93	199281	2821.48	ng/ml	89
7) Phenol	4.68	94	229951	2753.50	ng/ml	97
8) Aniline	4.74	93	270889	3052.47	ng/ml	90
9) 2-Chlorophenol	4.84	128	172242	2746.06	ng/ml	93
10) 1,3-Dichlorobenzene	4.97	146	185988	2782.11	ng/ml	98
11) 1,4-Dichlorobenzene	5.04	146	193732	2807.15	ng/ml	98
12) 1,2-Dichlorobenzene	5.17	146	181000	2760.00	ng/ml	98
13) Benzyl Alcohol	5.13	108	120527	2894.73	ng/ml	86
14) 2,2'-oxybis(1-chloropropan	5.25	45	280907	2284.31	ng/ml	87
15) 2-Methylphenol	5.21	107	142920	2704.63	ng/ml	98
16) Hexachloroethane	5.47	117	70269	2886.17	ng/ml	91
17) N-Nitrosodi-n-propylamine	5.37	70	142691	2610.35	ng/ml	89
18) 4-Methylphenol	5.35	107	214068	2817.64	ng/ml	98
20) Nitrobenzene	5.54	77	193781	2756.38	ng/ml	93
22) Isophorone	5.77	82	355351	2731.22	ng/ml	93
23) 2-Nitrophenol	5.85	139	97224	3073.71	ng/ml	83
24) 2,4-Dimethylphenol	5.87	122	139308	2565.59	ng/ml	95
25) Bis(2-chloroethoxy)methane	5.99	93	221307	2871.29	ng/ml	98
26) 2,4-Dichlorophenol	6.11	162	122231	2847.09	ng/ml	96
27) Benzoic Acid	5.94	122	76113	3035.43	ng/ml	88
28) 1,2,4-Trichlorobenzene	6.22	180	145451	2778.07	ng/ml	96
29) Naphthalene	6.33	128	505537	2727.00	ng/ml	100
30) 4-Chloroaniline	6.39	127	170417	3177.22	ng/ml	93
31) Hexachlorobutadiene	6.47	225	75176	2729.74	ng/ml	98
32) 4-Chloro-3-methylphenol	7.09	107	135485	2829.78	ng/ml	95
33) 2-Methylnaphthalene	7.39	141	288020	2768.21	ng/ml	98
34) 1-Methylnaphthalene	7.59	141	305064	3237.66	ng/ml	99
36) Hexachlorocyclopentadiene	7.69	237	60414	2823.91	ng/ml	97
37) 2,4,6-Trichlorophenol	7.97	196	80141	2850.25	ng/ml	97
38) 2,4,5-Trichlorophenol	8.05	196	83382	2702.54	ng/ml	99
40) 2-Chloronaphthalene	8.49	162	281945	2700.57	ng/ml	98
41) 2-Nitroaniline	8.76	65	96752	2914.72	ng/ml	80
42) Acenaphthylene	9.42	152	439050	2637.68	ng/ml	99
43) Dimethyl Phthalate	9.22	163	321942	2680.82	ng/ml	100

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

Quantitation Report (QT Reviewed)

1st 11/30/18
2nd 12/04/18

Data File : J:\MS29\DATA\112918\1129F013.D Vial: 13
Acq On : 29 Nov 2018 8:53 pm Operator: CConover
Sample : SVO_LL ICV @ 3.0ppm | SVM59-63B Inst : MS29
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Nov 30 00:58:05 2018 Quant Results File: 112918_8270LL.RES

Quant Method : J:\MS29\M...\112918_8270LL.M (RTE Integrator)
Title : 8270LL ICAL 15450
Last Update : Fri Nov 30 00:58:02 2018
Response via : Initial Calibration
DataAcq Meth : 8270_SVOLL

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44)	2,6-Dinitrotoluene	9.33	165	71219	2763.46	ng/ml	75
45)	Acenaphthene	9.77	154	282948	2698.12	ng/ml	98
46)	3-Nitroaniline	9.66	138	72855	3158.40	ng/ml	89
47)	2,4-Dinitrophenol	9.87	184	33151	3389.64	ng/ml	89
48)	Dibenzofuran	10.10	168	398700	3150.03	ng/ml	97
49)	4-Nitrophenol	10.00	109	30107	2851.41	ng/ml#	82
50)	2,4-Dinitrotoluene	10.12	165	94012	2817.25	ng/ml	76
51)	2,3,4,6-Tetrachlorophenol	10.32	232	68902	2809.14	ng/ml	92
52)	Fluorene	10.69	166	328464	2754.32	ng/ml	98
53)	4-Chlorophenyl Phenyl Ethe	10.72	204	152046	2707.20	ng/ml	94
54)	Diethyl Phthalate	10.58	149	310789	2622.33	ng/ml	97
55)	4-Nitroaniline	10.75	138	54270	2914.44	ng/ml	83
56)	2-Methyl-4,6-dinitrophenol	10.80	198	47025	2608.79	ng/ml	87
57)	Diphenylamine	10.92	169	222486	2867.89	ng/ml	99
58)	Azobenzene	10.97	77	366140	2796.54	ng/ml	90
61)	4-Bromophenyl Phenyl Ether	11.46	248	87537	2592.76	ng/ml	92
62)	Hexachlorobenzene	11.51	284	106889	2548.96	ng/ml	96
63)	Pentachlorophenol	11.80	266	58684	2824.15	ng/ml	98
64)	Phenanthrene	12.07	178	449383	2526.83	ng/ml	99
65)	Anthracene	12.15	178	458313	2725.59	ng/ml	99
66)	Carbazole	12.37	167	353707	2666.86	ng/ml	98
67)	Di-n-butyl Phthalate	12.82	149	512393	2629.96	ng/ml	99
68)	Fluoranthene	13.49	202	455066	2565.34	ng/ml	95
70)	Pyrene	13.76	202	473685	2483.73	ng/ml	99
72)	Butyl Benzyl Phthalate	14.62	149	214009	2744.32	ng/ml	87
73)	3,3'-Dichlorobenzidine	15.51	252	93112	2537.36	ng/ml	99
74)	Benz(a)anthracene	15.54	228	432319	2652.19	ng/ml	99
75)	Chrysene	15.61	228	398890	2711.36	ng/ml	100
76)	Bis(2-ethylhexyl) Phthalat	15.63	149	325626	2752.78	ng/ml	95
78)	Di-n-octyl Phthalate	17.26	149	526479	2697.42	ng/ml	92
79)	Benzo(b)fluoranthene	18.03	252	440744	2700.87	ng/ml	98
80)	Benzo(k)fluoranthene	18.09	252	457978	2810.51	ng/ml	98
81)	Benzo(a)pyrene	18.59	252	406758	2644.12	ng/ml	99
82)	Indeno(1,2,3-cd)pyrene	20.45	276	332620	2568.88	ng/ml	96
83)	Dibenz(a,h)anthracene	20.50	278	358429	2467.91	ng/ml	99
84)	Benzo(g,h,i)perylene	20.94	276	298368	2680.64	ng/ml	96

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

Injection Log

Directory: J:\MS29\Data\121118

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1211F001.D	1.	MS29 DFTPP @ 50ug/mL | SVM59-12C		11 Dec 2018 14:34
2	2	1211F002.D	1.	SVO_LL CCV @ 3.0ppm | SVM60-6D		11 Dec 2018 15:03
3	141	1211F003.D	1.	IB		11 Dec 2018 15:32
4	3	1211F004.D	1.	K1810227-014 | MS	recleaned	11 Dec 2018 16:01
5	4	1211F005.D	1.	K1810227-014	recleaned	11 Dec 2018 16:29
6	5	1211F006.D	1.	* K1810227-005 | MS 5X	recleaned	11 Dec 2018 16:58
7	6	1211F007.D	1.	* K1810227-005 | DMS 5X	recleaned	11 Dec 2018 17:26
8	7	1211F008.D	1.	K1810227-004	recleaned	11 Dec 2018 17:55
9	8	1211F009.D	1.	K1810227-006	recleaned	11 Dec 2018 18:23
10	9	1211F010.D	1.	K1810227-007	recleaned	11 Dec 2018 18:52
11	10	1211F011.D	1.	K1810227-008	recleaned	11 Dec 2018 19:20
12	11	1211F012.D	1.	K1810227-010	recleaned	11 Dec 2018 19:49
13	12	1211F013.D	1.	K1810227-011	recleaned	11 Dec 2018 20:17
14	13	1211F014.D	1.	K1810227-012	recleaned	11 Dec 2018 20:46
15	14	1211F015.D	1.	K1810227-013	recleaned	11 Dec 2018 21:14
16	15	1211F016.D	1.	K1810227-015	recleaned	11 Dec 2018 21:43
17	16	1211F017.D	1.	K1810227-016	recleaned	11 Dec 2018 22:11
18	17	1211F018.D	1.	K1810227-017	recleaned	11 Dec 2018 22:40
19	18	1211F019.D	1.	K1810227-018	recleaned	11 Dec 2018 23:08
20	19	1211F020.D	1.	K1810227-019	recleaned	11 Dec 2018 23:37
21	20	1211F021.D	1.	K1810227-020	recleaned	12 Dec 2018 00:05
22	21	1211F022.D	1.	K1810302-029 10X		12 Dec 2018 00:34
23	141	1211F023.D	1.	IB		12 Dec 2018 01:02
24	2	1211F024.D	1.	SVO_LL CCV @ 3.0ppm | SVM60-6D		12 Dec 2018 01:31
25	1	1211F025.D	1.	MS29 DFTPP @ 50ug/mL | SVM59-12C		12 Dec 2018 01:59
26	2	1211F026.D	1.	SVO_LL CCV @ 3.0ppm | SVM60-6D		12 Dec 2018 02:28
27	141	1211F027.D	1.	IB		12 Dec 2018 02:56
28	22	1211F028.D	1.	K1811629-001 5X		12 Dec 2018 03:25
29	23	1211F029.D	1.	K1811565-001 10X		12 Dec 2018 03:53
30	24	1211F030.D	1.	K1811565-002 5X		12 Dec 2018 04:22
31	25	1211F031.D	1.	K1811565-003 10X		12 Dec 2018 04:50

* low IS - remake
Dil & rerun

KC1800541
Stanlims 619456
CL 12/19/18

highlighted ones have no surrogate/spike recovery blank ones have not been run.

GPC RUNLOG

Run Date: 11/2/2018 **Calibration Date:** 10/30/2018

GPC #: 6 **Program Number:** BNA

Lab I.D.	Position	Test	Dilution	Comments
BLANK	1	8270 LL	NA	N/A
BLANK	2	8270 LL	NA	N/A
KQ1815281-06 MB ok	3	8270 LL	NA	N/A
KQ1815281-05 LCS ok	4	8270 LL	NA	N/A
K1810227-01 ok	5	8270 LL	NA	N/A
K1810227-02 ok	6	8270 LL	NA	N/A
K1810227-03 ok	7	8270 LL	NA	N/A
K1810227-04 •	8	8270 LL	NA	N/A
K1810227-05	9	8270 LL	NA	N/A
K1810227-06 •	10	8270 LL	NA	N/A
K1810227-07 •	11	8270 LL	NA	N/A
K1810227-08 •	12	8270 LL	NA	N/A
K1810227-10 •	13	8270 LL	NA	N/A
K1810227-11 •	14	8270 LL	NA	N/A
K1810227-12 •	15	8270 LL	NA	N/A
K1810227-13 •	16	8270 LL	NA	N/A
K1810227-14 •	17	8270 LL	NA	N/A
K1810227-15 •	18	8270 LL	NA	N/A
K1810227-16 •	19	8270 LL	NA	N/A
K1810227-17 •	20	8270 LL	NA	N/A
K1810227-18 •	21	8270 LL	NA	N/A
K1810227-19 •	22	8270 LL	NA	N/A
K1810227-20 •	23	8270 LL	NA	N/A
K1810227-05 MS •	24	8270 LL	NA	N/A
K1810227-05 DMS •	25	8270 LL	NA	N/A
K1810227-14 MS •	26	8270 LL	NA	N/A
~~K1810227-14 DMS~~	27	8270 LL	NA	N/A
BLANK	28	8270 LL	NA	N/A
BLANK	29	8270 LL	NA	N/A
~~KQ1815727-04 MB~~	30	8270 LL	NA	N/A
~~KQ1815727-03 LCS~~	31	8270 LL	NA	N/A
~~K1810417-022~~	32	8270 LL	NA	N/A
~~K1810417-023~~	33	8270 LL	NA	N/A
~~K1810417-024~~	34	8270 LL	NA	N/A
~~K1810417-025~~	35	8270 LL	NA	N/A
~~K1810417-026~~	36	8270 LL	NA	N/A
~~K1810510-01~~	37	8270 LL	NA	N/A

login error

~~K1810565-01~~	38	8270 LL	NA	N/A
~~K1810565-02~~	39	8270 LL	NA	N/A
~~K1810417-026 MS~~	40	8270 LL	NA	N/A
~~K1810417-026 DMS~~	42	8270 LL	NA	N/A
BLANK	43	8270 LL	NA	N/A
BLANK	44	8270 LL	NA	N/A
~~KQ185027-04 MB~~	45	8270 LL	NA	N/A
KQ185027-03 LCS	46	8270 LL	NA	N/A
~~K1810088-05~~	47	8270 LL	NA	N/A
~~K1810088-012~~	48	8270 LL	NA	N/A
K1810088-014 OK	49	8270 LL	NA	N/A
K1810088-016 OK	50	8270 LL	NA	N/A
K1810088-017 OK	51	8270 LL	NA	N/A
K1810088-019 OK	52	8270 LL	NA	N/A
K1810088-021 OK	53	8270 LL	NA	N/A
K1810088-028 OK	54	8270 LL	NA	N/A
K1810088-029 OK	55	8270 LL	NA	N/A
K1810277-06 OK	56	8270 LL	NA	N/A
K1810277-07 OK	57	8270 LL	NA	N/A
K1810277-08 OK	58	8270 LL	NA	N/A
K1810088-14 MS OK	60	8270 LL	NA	N/A
K1810088-14 DMS OK	61	8270 LL	NA	N/A

Rozie* Bear

Final Volume Calculation

Intermediate Volume before GPC:	**10**	mL
Aliquot taken from intermediate volume:	**10**	mL
Aliquot diluted up to....	**10**	mL
Volume Injected onto column:	**5**	mL
GPC'd Extract brought to the Final Volume of:	**1**	mL
Calculated True Final Volume:	**2**	mL

Filter Lot # FC8051

Operator Date and Initial: TP 11/2/18

Injection Log

Directory: J:\MS29\DATA\111418

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1114F001.D	1.	MS29 DFTPP @ 50ug/mL | SVM59-12C		14 Nov 2018 08:54
2	2	1114F002.D	1.	SVO_LL CCV @ 3.0ppm | SVM59-96B		14 Nov 2018 09:22
3	3	1114F003.D	1.	KQ1815727-04 | MB (NR)	uncleaned	14 Nov 2018 09:51
4	4	1114F004.D	1.	KQ1816032-04 | MB		14 Nov 2018 12:03
5	5	1114F005.D	1.	KQ1816032-03 | LCS		14 Nov 2018 12:31
6	6	1114F006.D	1.	KQ1816032-01 | MS		14 Nov 2018 13:00
7	7	1114F007.D	1.	KQ1816032-02 | DMS		14 Nov 2018 13:28
8	8	1114F008.D	1.	K1810683-002		14 Nov 2018 13:56
9	9	1114F009.D	1.	K1810683-001		14 Nov 2018 14:25
10	10	1114F010.D	1.	K1810683-003		14 Nov 2018 14:53
11	11	1114F011.D	1.	K1810683-004		14 Nov 2018 15:21
12	12	1114F012.D	1.	K1810270-001		14 Nov 2018 15:50
13	13	1114F013.D	1.	K1810302-016		14 Nov 2018 16:18
14	14	1114F014.D	1.	KQ1814984-04 | MB	reanalysis	14 Nov 2018 17:31
15	15	1114F015.D	1.	* KQ1815773-03 | MB 10X		14 Nov 2018 17:59
16	16	1114F016.D	1.	KQ1815773-01 | LCS 10X		14 Nov 2018 18:27
17	17	1114F017.D	1.	KQ1815773-02 | DLCS 10X		14 Nov 2018 18:55
18	18	1114F018.D	1.	K1810516-001 10X		14 Nov 2018 19:23
19	19	1114F019.D	1.	K1810083-002 5X		14 Nov 2018 19:52
20	20	1114F020.D	1.	K1810083-003 5X		14 Nov 2018 20:20
21	21	1114F021.D	1.	K1810088-019 5X		14 Nov 2018 20:48
22	22	1114F022.D	1.	KQ1815281-06 | MB	just a check	14 Nov 2018 21:16
23	23	1114F023.D	1.	K1810227-014 | DMS	just a check	14 Nov 2018 21:45
24	24	1114F024.D	1.	KQ1815027-04 | MB	just a check	14 Nov 2018 22:13
25	25	1114F025.D	1.	K1810088-014 | DMS	just a check	14 Nov 2018 22:41

NR

* needs response from PC: looks like it was spiked like an 8270D SVD, not LL

KC1800516
Starlims 615539
CL 11/16/18

6

Injection Log

Directory: J:\MS29\DATA\111718

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1117F001.D	1.	MS29 DFTPP @ 50ug/mL | SVM59-12C		17 Nov 2018 15:39
2	2	1117F002.D	1.	SVO_LL CCV @ 3.0ppm | SVM59-96B		17 Nov 2018 16:07
3	50	1117F003.D	1.	* KQ1815781-04 | MB		17 Nov 2018 16:36
4	51	1117F004.D	1.	KQ1815781-03 | LCS		17 Nov 2018 17:04
5	52	1117F005.D	1.	KQ1815781-01 | MS		17 Nov 2018 17:32
6	53	1117F006.D	1.	KQ1815781-02 | DMS		17 Nov 2018 18:00
7	54	1117F007.D	1.	K1810249-009		17 Nov 2018 18:28
8	55	1117F008.D	1.	K1810249-007		17 Nov 2018 18:56
9	56	1117F009.D	1.	K1810249-008		17 Nov 2018 19:25
10	57	1117F010.D	1.	K1810249-010		17 Nov 2018 19:53
11	58	1117F011.D	1.	K1810249-011		17 Nov 2018 20:21
12	59	1117F012.D	1.	K1810249-012		17 Nov 2018 20:49
13	60	1117F013.D	1.	KQ1815427-04 | MB	KC1800515	17 Nov 2018 21:17
14	61	1117F014.D	1.	KQ1815427-03 | LCS		17 Nov 2018 21:46
15	62	1117F015.D	1.	KQ1815427-01 | MS	Starting 615546	17 Nov 2018 22:14
16	63	1117F016.D	1.	KQ1815427-02 | DMS		17 Nov 2018 22:42
17	64	1117F017.D	1.	K1810302-024		17 Nov 2018 23:10
18	65	1117F018.D	1.	K1810302-022		17 Nov 2018 23:38
19	66	1117F019.D	1.	K1810302-023	CL 12/07/18	18 Nov 2018 00:07
20	67	1117F020.D	1.	K1810302-025	a 12.07.18	18 Nov 2018 00:35
21	68	1117F021.D	1.	K1810302-026		18 Nov 2018 01:03
22	69	1117F022.D	1.	K1810302-027		18 Nov 2018 01:31
23	70	1117F023.D	1.	K1810302-028	* 5x reanalysis for HCCPD	18 Nov 2018 01:59
24	71	1117F024.D	1.	K1810302-029	— 5x dil.	18 Nov 2018 02:27 ✓
25	141	1117F025.D	1.	IB		18 Nov 2018 02:56
26	1	1117F026.D	1.	MS29 DFTPP @ 50ug/mL | SVM59-12C		18 Nov 2018 03:24
27	2	1117F027.D	1.	SVO_LL CCV @ 3.0ppm | SVM59-96B		18 Nov 2018 03:52
28	72	1117F028.D	1.	KQ1815507-04 | MB		18 Nov 2018 04:21
29	73	1117F029.D	1.	KQ1815507-03 | LCS		18 Nov 2018 04:49
30	74	1117F030.D	1.	KQ1815507-01 | MS		18 Nov 2018 05:17
31	75	1117F031.D	1.	KQ1815507-02 | DMS		18 Nov 2018 05:45
32	76	1117F032.D	1.	K1810305-007		18 Nov 2018 06:13
33	77	1117F033.D	1.	K1810305-001		18 Nov 2018 06:42
34	78	1117F034.D	1.	K1810305-002		18 Nov 2018 07:10
35	79	1117F035.D	1.	K1810305-004		18 Nov 2018 07:38
36	80	1117F036.D	1.	K1810305-005		18 Nov 2018 08:06
37	81	1117F037.D	1.	K1810305-006		18 Nov 2018 08:35
38	82	1117F038.D	1.	K1810305-008		18 Nov 2018 09:03
39	83	1117F039.D	1.	K1810305-009		18 Nov 2018 09:31
40	84	1117F040.D	1.	K1810305-010		18 Nov 2018 10:00
41	85	1117F041.D	1.	K1810305-011		18 Nov 2018 10:28
42	86	1117F042.D	1.	K1810305-012		18 Nov 2018 10:56
43	87	1117F043.D	1.	K1810305-013		18 Nov 2018 11:24
44	88	1117F044.D	1.	K1810305-014		18 Nov 2018 11:53
45	89	1117F045.D	1.	K1810305-015		18 Nov 2018 12:21
46	90	1117F046.D	1.	K1810305-016		18 Nov 2018 12:49
47	91	1117F047.D	1.	K1810782-001		18 Nov 2018 13:17
48	92	1117F048.D	1.	K1810782-002		18 Nov 2018 13:46

Injection Log

Directory: J:\MS29\DATA\111718

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	1117F001.D	1.	MS29 DFTPP @ 50ug/mL | SVM59-12C		17 Nov 2018 15:39
2	2	1117F002.D	1.	SVO_LL CCV @ 3.0ppm | SVM59-96B		17 Nov 2018 16:07
3	50	1117F003.D	1.	KQ1815781-04 | MB		17 Nov 2018 16:36
4	51	1117F004.D	1.	KQ1815781-03 | LCS		17 Nov 2018 17:04
5	52	1117F005.D	1.	KQ1815781-01 | MS		17 Nov 2018 17:32
6	53	1117F006.D	1.	KQ1815781-02 | DMS		17 Nov 2018 18:00
7	54	1117F007.D	1.	K1810249-009		17 Nov 2018 18:28
8	55	1117F008.D	1.	K1810249-007		17 Nov 2018 18:56
9	56	1117F009.D	1.	K1810249-008		17 Nov 2018 19:25
10	57	1117F010.D	1.	K1810249-010		17 Nov 2018 19:53
11	58	1117F011.D	1.	K1810249-011		17 Nov 2018 20:21
12	59	1117F012.D	1.	K1810249-012		17 Nov 2018 20:49
13	60	1117F013.D	1.	KQ1815427-04 | MB		17 Nov 2018 21:17
14	61	1117F014.D	1.	KQ1815427-03 | LCS		17 Nov 2018 21:46
15	62	1117F015.D	1.	KQ1815427-01 | MS		17 Nov 2018 22:14
16	63	1117F016.D	1.	KQ1815427-02 | DMS		17 Nov 2018 22:42
17	64	1117F017.D	1.	K1810302-024		17 Nov 2018 23:10
18	65	1117F018.D	1.	K1810302-022		17 Nov 2018 23:38
19	66	1117F019.D	1.	K1810302-023		18 Nov 2018 00:07
20	67	1117F020.D	1.	K1810302-025		18 Nov 2018 00:35
21	68	1117F021.D	1.	K1810302-026		18 Nov 2018 01:03
22	69	1117F022.D	1.	K1810302-027		18 Nov 2018 01:31
23	70	1117F023.D	1.	K1810302-028		18 Nov 2018 01:59
24	71	1117F024.D	1.	K1810302-029		18 Nov 2018 02:27
25	141	1117F025.D	1.	IB		18 Nov 2018 02:56
26	1	1117F026.D	1.	MS29 DFTPP @ 50ug/mL | SVM59-12C		18 Nov 2018 03:24
27	2	1117F027.D	1.	SVO_LL CCV @ 3.0ppm | SVM59-96B		18 Nov 2018 03:52
28	72	1117F028.D	1.	KQ1815507-04 | MB		18 Nov 2018 04:21
29	73	1117F029.D	1.	KQ1815507-03 | LCS		18 Nov 2018 04:49
30	74	1117F030.D	1.	KQ1815507-01 | MS		18 Nov 2018 05:17
31	75	1117F031.D	1.	KQ1815507-02 | DMS		18 Nov 2018 05:45
32	76	1117F032.D	1.	K1810305-007		18 Nov 2018 06:13
33	77	1117F033.D	1.	K1810305-001		18 Nov 2018 06:42
34	78	1117F034.D	1.	K1810305-002		18 Nov 2018 07:10
35	79	1117F035.D	1.	K1810305-004		18 Nov 2018 07:38
36	80	1117F036.D	1.	K1810305-005		18 Nov 2018 08:06
37	81	1117F037.D	1.	K1810305-006		18 Nov 2018 08:35
38	82	1117F038.D	1.	K1810305-008		18 Nov 2018 09:03
39	83	1117F039.D	1.	K1810305-009	KC1800516 12/10/18	18 Nov 2018 09:31
40	84	1117F040.D	1.	K1810305-010		18 Nov 2018 10:00
41	85	1117F041.D	1.	K1810305-011	Stanlins 1015547	18 Nov 2018 10:28
42	86	1117F042.D	1.	K1810305-012		18 Nov 2018 10:56
43	87	1117F043.D	1.	K1810305-013		18 Nov 2018 11:24
44	88	1117F044.D	1.	K1810305-014		18 Nov 2018 11:53
45	89	1117F045.D	1.	K1810305-015		18 Nov 2018 12:21
46	90	1117F046.D	1.	K1810305-016		18 Nov 2018 12:49
47	91	1117F047.D	1.	K1810782-001		18 Nov 2018 13:17
48	92	1117F048.D	1.	K1810782-002		18 Nov 2018 13:46