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Automated Report

Technical Report for

Anderson Mulholland and Assoc.

BMSMC, Building 5 Area, Puerto Rico

Offsite Wells

SGS Accutest Job Number: MC48999

Sampling Dates: 12/02/16 - 12/05/16

Report to:

Anderson Mulholland and Assoc.

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Total number of pages in report: **960**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

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Sample Summary

Anderson Mulholland and Assoc.

Job No: MC48999

BMSMC, Building 5 Area, Puerto Rico
Project No: Offsite Wells

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC48999-1	12/02/16	13:55	RSNR	12/07/16	AQ	Ground Water	OWMW-1D
MC48999-2	12/02/16	12:18	RSNR	12/07/16	AQ	Ground Water	OWMW-1S
MC48999-3	12/02/16	15:35	RSNR	12/07/16	AQ	Ground Water	OWMW-2S
MC48999-4	12/02/16	10:50	RSNR	12/07/16	AQ	Field Blank Water	FB120216
MC48999-5	12/05/16	10:03	RSNR	12/07/16	AQ	Equipment Blank	EB120516
MC48999-6	12/05/16	11:30	RSNR	12/07/16	AQ	Field Blank Water	FB120516
MC48999-7	12/05/16	12:39	RSNR	12/07/16	AQ	Ground Water	OSMW-6D
MC48999-8	12/05/16	12:58	RSNR	12/07/16	AQ	Ground Water	OSMW-6S
MC48999-9	12/05/16	16:28	RSNR	12/07/16	AQ	Ground Water	OSMW-5D
MC48999-10	12/05/16	16:32	RSNR	12/07/16	AQ	Ground Water	OSMW-5S

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Anderson Mulholland and Assoc.	**Job No**	MC48999
Site:	BMSMC, Building 5 Area, Puerto Rico	**Report Date**	12/21/2016 3:41:22 P

8 Sample(s) and 2 Field Blank(s) were collected on between 12/02/2016 and 12/05/2016 and were received at SGS Accutest New England on 12/07/2016 properly preserved, at 5.2 Deg. C and intact. These Samples received a job number of MC48999. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GC By Method MADEP VPH REV 1.1

Matrix: AQ **Batch ID:** GBH2436

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC49029-1MS, MC49029-1MSD were used as the QC samples indicated.

Extractables by GC By Method MADEP EPH REV 1.1

Matrix: AQ **Batch ID:** OP49287

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC49053-11MS, MC49053-11MSD were used as the QC samples indicated.
- Sample(s) OP49287-MS, MC48999-1, MC48999-5 have surrogates outside control limits. Probable cause due to matrix interference.
- MC48999-1 and MC48999-5: Confirmation run.
- MC48999-1 and MC48999-5 for 1-Chlorooctadecane: Outside control limits due to possible matrix interference. Confirmed by refractionation/reanalysis.
- OP49287-MS for 1-Chlorooctadecane: Outside control limits due to possible matrix interference.
- OP49287-BSD for C11-C22 Aromatics (Unadj.): Range recovery satisfactory.

Matrix: AQ **Batch ID:** OP49293

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC49029-1MS, MC49029-1MSD were used as the QC samples indicated.

SGS Accutest New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Laboratory Director for SGS Accutest New England or assignee as verified by the signature on the cover page has authorized the release of this report(MC48999).

Summary of Hits

Job Number: MC48999
Account: Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico
Collected: 12/02/16 thru 12/05/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC48999-1	**OWMW-1D**					
No hits reported in this sample.						
MC48999-2	**OWMW-1S**					
No hits reported in this sample.						
MC48999-3	**OWMW-2S**					
C11-C22 Aromatics (Unadj.)		52.8 JB	100	30	ug/l	MADEP EPH REV 1.1
C11-C22 Aromatics		52.8 JB	100	30	ug/l	MADEP EPH REV 1.1
MC48999-4	**FB120216**					
No hits reported in this sample.						
MC48999-5	**EB120516**					
No hits reported in this sample.						
MC48999-6	**FB120516**					
No hits reported in this sample.						
MC48999-7	**OSMW-6D**					
C11-C22 Aromatics (Unadj.)		31.7 JB	100	30	ug/l	MADEP EPH REV 1.1
C11-C22 Aromatics		31.7 JB	100	30	ug/l	MADEP EPH REV 1.1
MC48999-8	**OSMW-6S**					
No hits reported in this sample.						
MC48999-9	**OSMW-5D**					
No hits reported in this sample.						
MC48999-10	**OSMW-5S**					
C11-C22 Aromatics (Unadj.)		47.1 J	100	30	ug/l	MADEP EPH REV 1.1
C11-C22 Aromatics		47.1 J	100	30	ug/l	MADEP EPH REV 1.1

Sample Results

Report of Analysis

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Report of Analysis

Client Sample ID:	OWMW-1D		
Lab Sample ID:	MC48999-1	**Date Sampled:**	12/02/16
Matrix:	AQ - Ground Water	**Date Received:**	12/07/16
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BH40793.D	1	12/09/16	AF	n/a	n/a	GBH2436
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C9- C10 Aromatics (Unadj.)	ND	50	9.7	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	82%		70-130%
	2,3,4-Trifluorotoluene	79%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@170787 10:23 04-Jan-2017

Report of Analysis

Client Sample ID:	OWMW-1D		
Lab Sample ID:	MC48999-1	**Date Sampled:**	12/02/16
Matrix:	AQ - Ground Water	**Date Received:**	12/07/16
Method:	MADEP EPH REV 1.1 SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DE16417.D	1	12/19/16	TA	12/15/16	OP49287	GDE916
Run #2 [a]	DE16440.D	1	12/20/16	TA	12/15/16	OP49287	GDE917

	Initial Volume	Final Volume
Run #1	980 ml	2.0 ml
Run #2	980 ml	2.0 ml

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	100	29	ug/l	
	C11-C22 Aromatics	ND	100	29	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	55%	66%	40-140%
321-60-8	2-Fluorobiphenyl	68%	80%	40-140%
3386-33-2	1-Chlorooctadecane	26% [b]	30% [b]	40-140%
580-13-2	2-Bromonaphthalene	71%	83%	40-140%

(a) Confirmation run.
(b) Outside control limits due to possible matrix interference. Confirmed by refractionation/reanalysis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	OWMW-1S		
Lab Sample ID:	MC48999-2	**Date Sampled:**	12/02/16
Matrix:	AQ - Ground Water	**Date Received:**	12/07/16
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BH40794.D	1	12/09/16	AF	n/a	n/a	GBH2436
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C9- C10 Aromatics (Unadj.)	ND	50	9.7	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	86%		70-130%
	2,3,4-Trifluorotoluene	83%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	OWMW-1S		
Lab Sample ID:	MC48999-2	**Date Sampled:**	12/02/16
Matrix:	AQ - Ground Water	**Date Received:**	12/07/16
Method:	MADEP EPH REV 1.1 SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DE16418.D	1	12/19/16	TA	12/15/16	OP49287	GDE916
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	100	30	ug/l	
	C11-C22 Aromatics	ND	100	30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	70%		40-140%
321-60-8	2-Fluorobiphenyl	69%		40-140%
3386-33-2	1-Chlorooctadecane	44%		40-140%
580-13-2	2-Bromonaphthalene	72%		40-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	OWMW-2S		
Lab Sample ID:	MC48999-3	**Date Sampled:**	12/02/16
Matrix:	AQ - Ground Water	**Date Received:**	12/07/16
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BH40795.D	1	12/09/16	AF	n/a	n/a	GBH2436
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C9- C10 Aromatics (Unadj.)	ND	50	9.7	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	88%		70-130%
	2,3,4-Trifluorotoluene	83%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	OWMW-2S		
Lab Sample ID:	MC48999-3	**Date Sampled:**	12/02/16
Matrix:	AQ - Ground Water	**Date Received:**	12/07/16
Method:	MADEP EPH REV 1.1 SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DE16441.D	1	12/20/16	TA	12/15/16	OP49287	GDE917
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	52.8	100	30	ug/l	JB
	C11-C22 Aromatics	52.8	100	30	ug/l	JB

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	76%		40-140%
321-60-8	2-Fluorobiphenyl	74%		40-140%
3386-33-2	1-Chlorooctadecane	40%		40-140%
580-13-2	2-Bromonaphthalene	78%		40-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	FB120216		
Lab Sample ID:	MC48999-4	**Date Sampled:**	12/02/16
Matrix:	AQ - Field Blank Water	**Date Received:**	12/07/16
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BH40806.D	1	12/09/16	AF	n/a	n/a	GBH2436
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C9- C10 Aromatics (Unadj.)	ND	50	9.7	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	88%		70-130%
	2,3,4-Trifluorotoluene	81%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	FB120216		
Lab Sample ID:	MC48999-4	**Date Sampled:**	12/02/16
Matrix:	AQ - Field Blank Water	**Date Received:**	12/07/16
Method:	MADEP EPH REV 1.1 SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DE16420.D	1	12/19/16	TA	12/15/16	OP49287	GDE916
Run #2							

	Initial Volume	Final Volume
Run #1	920 ml	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	110	31	ug/l	
	C11-C22 Aromatics	ND	110	31	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	73%		40-140%
321-60-8	2-Fluorobiphenyl	69%		40-140%
3386-33-2	1-Chlorooctadecane	46%		40-140%
580-13-2	2-Bromonaphthalene	72%		40-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@170787 10:23 04-Jan-2017

Report of Analysis

Client Sample ID:	EB120516		
Lab Sample ID:	MC48999-5	**Date Sampled:**	12/05/16
Matrix:	AQ - Equipment Blank	**Date Received:**	12/07/16
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BH40807.D	1	12/09/16	AF	n/a	n/a	GBH2436
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C9- C10 Aromatics (Unadj.)	ND	50	9.7	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	90%		70-130%
	2,3,4-Trifluorotoluene	84%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	EB120516		
Lab Sample ID:	MC48999-5	**Date Sampled:**	12/05/16
Matrix:	AQ - Equipment Blank	**Date Received:**	12/07/16
Method:	MADEP EPH REV 1.1 SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DE16442.D	1	12/20/16	TA	12/15/16	OP49287	GDE917
Run #2 [a]	DE16421.D	1	12/19/16	TA	12/15/16	OP49287	GDE916

	Initial Volume	Final Volume
Run #1	930 ml	2.0 ml
Run #2	930 ml	2.0 ml

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	110	31	ug/l	
	C11-C22 Aromatics	ND	110	31	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	48%	55%	40-140%
321-60-8	2-Fluorobiphenyl	64%	75%	40-140%
3386-33-2	1-Chlorooctadecane	34% [b]	30% [b]	40-140%
580-13-2	2-Bromonaphthalene	67%	77%	40-140%

(a) Confirmation run.
(b) Outside control limits due to possible matrix interference. Confirmed by refractionation/reanalysis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@170787 10:23 04-Jan-2017

Report of Analysis

Client Sample ID:	FB120516		
Lab Sample ID:	MC48999-6	**Date Sampled:**	12/05/16
Matrix:	AQ - Field Blank Water	**Date Received:**	12/07/16
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BH40808.D	1	12/09/16	AF	n/a	n/a	GBH2436
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C9- C10 Aromatics (Unadj.)	ND	50	9.7	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	88%		70-130%
	2,3,4-Trifluorotoluene	83%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@170787 10:23 04-Jan-2017

Report of Analysis

Client Sample ID:	FB120516		
Lab Sample ID:	MC48999-6	**Date Sampled:**	12/05/16
Matrix:	AQ - Field Blank Water	**Date Received:**	12/07/16
Method:	MADEP EPH REV 1.1 SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DE16423.D	1	12/20/16	TA	12/15/16	OP49287	GDE916
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	100	30	ug/l	
	C11-C22 Aromatics	ND	100	30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%		40-140%
321-60-8	2-Fluorobiphenyl	74%		40-140%
3386-33-2	1-Chlorooctadecane	55%		40-140%
580-13-2	2-Bromonaphthalene	77%		40-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@170787 10:23 04-Jan-2017

Report of Analysis

Client Sample ID:	OSMW-6D		
Lab Sample ID:	MC48999-7	**Date Sampled:**	12/05/16
Matrix:	AQ - Ground Water	**Date Received:**	12/07/16
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BH40796.D	1	12/09/16	AF	n/a	n/a	GBH2436
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C9- C10 Aromatics (Unadj.)	ND	50	9.7	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	88%		70-130%
	2,3,4-Trifluorotoluene	83%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@170787 10:23 04-Jan-2017

Report of Analysis

Client Sample ID:	OSMW-6D		
Lab Sample ID:	MC48999-7	**Date Sampled:**	12/05/16
Matrix:	AQ - Ground Water	**Date Received:**	12/07/16
Method:	MADEP EPH REV 1.1 SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DE16424.D	1	12/20/16	TA	12/15/16	OP49287	GDE916
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	31.7	100	30	ug/l	JB
	C11-C22 Aromatics	31.7	100	30	ug/l	JB

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	83%		40-140%
321-60-8	2-Fluorobiphenyl	75%		40-140%
3386-33-2	1-Chlorooctadecane	45%		40-140%
580-13-2	2-Bromonaphthalene	79%		40-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@170787 10:23 04-Jan-2017

Report of Analysis

Client Sample ID:	OSMW-6S		
Lab Sample ID:	MC48999-8	**Date Sampled:**	12/05/16
Matrix:	AQ - Ground Water	**Date Received:**	12/07/16
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BH40797.D	1	12/09/16	AF	n/a	n/a	GBH2436
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C9- C10 Aromatics (Unadj.)	ND	50	9.7	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	86%		70-130%
	2,3,4-Trifluorotoluene	83%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@170787 10:23 04-Jan-2017

Report of Analysis

Client Sample ID:	OSMW-6S		
Lab Sample ID:	MC48999-8	**Date Sampled:**	12/05/16
Matrix:	AQ - Ground Water	**Date Received:**	12/07/16
Method:	MADEP EPH REV 1.1 SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DE16425.D	1	12/20/16	TA	12/15/16	OP49287	GDE916
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	110	30	ug/l	
	C11-C22 Aromatics	ND	110	30	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	69%		40-140%
321-60-8	2-Fluorobiphenyl	70%		40-140%
3386-33-2	1-Chlorooctadecane	43%		40-140%
580-13-2	2-Bromonaphthalene	72%		40-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@170787 10:23 04-Jan-2017

Report of Analysis

Client Sample ID:	OSMW-5D		
Lab Sample ID:	MC48999-9	**Date Sampled:**	12/05/16
Matrix:	AQ - Ground Water	**Date Received:**	12/07/16
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BH40798.D	1	12/09/16	AF	n/a	n/a	GBH2436
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C9- C10 Aromatics (Unadj.)	ND	50	9.7	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	89%		70-130%
	2,3,4-Trifluorotoluene	84%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@170787 10:23 04-Jan-2017

Report of Analysis

Client Sample ID:	OSMW-5D		
Lab Sample ID:	MC48999-9	**Date Sampled:**	12/05/16
Matrix:	AQ - Ground Water	**Date Received:**	12/07/16
Method:	MADEP EPH REV 1.1 SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DE16426.D	1	12/20/16	TA	12/15/16	OP49287	GDE916
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	100	29	ug/l	
	C11-C22 Aromatics	ND	100	29	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	71%		40-140%
321-60-8	2-Fluorobiphenyl	70%		40-140%
3386-33-2	1-Chlorooctadecane	44%		40-140%
580-13-2	2-Bromonaphthalene	72%		40-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@170787 10:23 04-Jan-2017

Report of Analysis

Client Sample ID:	OSMW-5S		
Lab Sample ID:	MC48999-10	**Date Sampled:**	12/05/16
Matrix:	AQ - Ground Water	**Date Received:**	12/07/16
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BH40799.D	1	12/09/16	AF	n/a	n/a	GBH2436
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Volatile TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C9- C10 Aromatics (Unadj.)	ND	50	9.7	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
	2,3,4-Trifluorotoluene	86%		70-130%
	2,3,4-Trifluorotoluene	83%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@170787 10:23 04-Jan-2017

Report of Analysis

Client Sample ID:	OSMW-5S		
Lab Sample ID:	MC48999-10	**Date Sampled:**	12/05/16
Matrix:	AQ - Ground Water	**Date Received:**	12/07/16
Method:	MADEP EPH REV 1.1 SW846 3510C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Puerto Rico		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DE16462.D	1	12/21/16	TA	12/19/16	OP49293	GDE918
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	2.0 ml
Run #2		

Extractable TPHC Ranges

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	47.1	100	30	ug/l	J
	C11-C22 Aromatics	47.1	100	30	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	75%		40-140%
321-60-8	2-Fluorobiphenyl	71%		40-140%
3386-33-2	1-Chlorooctadecane	46%		40-140%
580-13-2	2-Bromonaphthalene	72%		40-140%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

PAGE 1 OF 1

MA

50 d' Angelo Drive, Building One, Marlsborough, MA 01752
TEL. 508-481-6200 FAX. 508-481-7753
www.accutest.com

FED-EX Tracking # 777873354407
Bottle Order Control #
Accutest Quote #
Accutest Job # MC48969

Client / Reporting Information

Company Name: Anderson Mulholland & Associates
Street Address: 2700 Westchester Avenue, Suite 417
City / State / Zip: Purchase NY 10577
Project Contact / E-mail: Terry Taylor
Phone # / Fax #: 914-251-0400
Sampler(s) Name(s) / Phone #:

Project Information

Project Name: 4th Q 2016 Groundwater Sampling - Offsite Wells
Street:
City / State: Humacao PR
Project #:
Client Purchase Order #:
Project Manager: Terry Taylor

Billing Information (if different from Report to)
Company Name:
Street Address:
City / State / Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	VMAVPH (C9-C10)	BMAEPH (C11-C22)	LAB USE ONLY
1	OSMW-1D		12-2-16	1355	RS	GW	5	5								X	X	
2	OSMW-1S		12-2-16	1218	RS	GW	5	5								X	X	
3	OSMW-2S		12-2-16	1535	NR	GW	5	5								X	X	
4	FB120216		12-2-16	1050	JV	FB	5	5								X	X	
5	EB120516		12-5-16	1003	RS	EB	5	5								X	X	
6	FB120516		12-5-16	1130	RS	FB	5	5								X	X	
7	OSMW-6D		12-5-16	1239	NR	GW	5	5								X	X	
8	OSMW-6S		12-5-16	1258	NR	GW	5	5								X	X	
9	OSMW-5D		12-5-16	1628	NR	GW	5	5								X	X	
10	OSMW-5S		12-5-16	1632	NR	GW	5	5								X	X	

INITIAL ASSESSMENT
LABEL VERIFICATION

Turnaround Time (Business days)

- [X] Std. 15 Business Days
- [ ] Std. 10 Business Days (by Contract only)
- [ ] 10 Day *RUSH*
- [ ] 5 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [X] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

3T3
19B

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Nad Wester	12-16-16 1500	1 Fed Ex	2		2
Relinquished by Sampler: 3 FedEx Vicky	12/07/16 09:62	Received By: 3 Vicky	Relinquished By: 4	Date Time:	Received By: 4
Relinquished By: 5	Date Time:	Received By: 5	Custody Seal # 632,633,634,635	Intact / Not Intact	Preserved where applicable / On Ice / Cooler Temp. 4.1 - 1.3

MC48999: Chain of Custody
Page 1 of 3

SGS Accutest Sample Receipt Summary

Job Number: MC48999 **Client:** ANDERSON MULHOLLAND **Project:** OFFSITE WELLS

Date / Time Received: 12/7/2016 9:42:00 AM **Delivery Method:** FEDEX **Airbill #'s:** 777873252950

Cooler Temps (Initial/Adjusted): #1: (4.1/4.1); #2: (4.3/4.3); #3: (4.1/4.1); #4

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	IRGUN1
3. Cooler media:	Ice (Bag)
4. No. Coolers:	2

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☐	☑	
2. Trip Blank listed on COC:	☐	☑	
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample rec'd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Broken / Leaking

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume rec'd for analysis:	☐	☑	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

The following samples were received with 1 of 2 liters submitted broken:

-1 OSMW-1D
-2 OSMW-1S
-9 OSMW-5D

Note: 2 of 4 coolers were rec'd 12/7 from Fed Ex. The missing 2 coolers were received 12/8/16.

Sample Receipt Summary - Problem Resolution

Job Number: MC48999

CSR: Rob Soll **Response Date:** 12/8/2016

Response: OK to proceed with limited volume, email on file

Internal Sample Tracking Chronicle

Anderson Mulholland and Assoc.

Job No: MC48999

BMSMC, Building 5 Area, Puerto Rico
Project No: Offsite Wells

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC48999-1 OWMW-1D	Collected: 02-DEC-16 13:55 By: RSNR		Received: 07-DEC-16 By: TF			
MC48999-1	MADEP VPH REV 1.1	09-DEC-16 14:26	AF			VMAVPHR
MC48999-1	MADEP EPH REV 1.1	19-DEC-16 21:48	TA	15-DEC-16	AJ	BMAEPHR
MC48999-1	MADEP EPH REV 1.1	20-DEC-16 12:56	TA	15-DEC-16	AJ	BMAEPHR
MC48999-2 OWMW-1S	Collected: 02-DEC-16 12:18 By: RSNR		Received: 07-DEC-16 By: TF			
MC48999-2	MADEP VPH REV 1.1	09-DEC-16 15:00	AF			VMAVPHR
MC48999-2	MADEP EPH REV 1.1	19-DEC-16 22:16	TA	15-DEC-16	AJ	BMAEPHR
MC48999-3 OWMW-2S	Collected: 02-DEC-16 15:35 By: RSNR		Received: 07-DEC-16 By: TF			
MC48999-3	MADEP VPH REV 1.1	09-DEC-16 15:35	AF			VMAVPHR
MC48999-3	MADEP EPH REV 1.1	20-DEC-16 13:24	TA	15-DEC-16	AJ	BMAEPHR
MC48999-4 FB120216	Collected: 02-DEC-16 10:50 By: RSNR		Received: 07-DEC-16 By: TF			
MC48999-4	MADEP VPH REV 1.1	09-DEC-16 21:55	AF			VMAVPHR
MC48999-4	MADEP EPH REV 1.1	19-DEC-16 23:11	TA	15-DEC-16	AJ	BMAEPHR
MC48999-5 EB120516	Collected: 05-DEC-16 10:03 By: RSNR		Received: 07-DEC-16 By: TF			
MC48999-5	MADEP VPH REV 1.1	09-DEC-16 22:30	AF			VMAVPHR
MC48999-5	MADEP EPH REV 1.1	19-DEC-16 23:39	TA	15-DEC-16	AJ	BMAEPHR
MC48999-5	MADEP EPH REV 1.1	20-DEC-16 13:52	TA	15-DEC-16	AJ	BMAEPHR
MC48999-6 FB120516	Collected: 05-DEC-16 11:30 By: RSNR		Received: 07-DEC-16 By: TF			
MC48999-6	MADEP VPH REV 1.1	09-DEC-16 23:04	AF			VMAVPHR
MC48999-6	MADEP EPH REV 1.1	20-DEC-16 00:35	TA	15-DEC-16	AJ	BMAEPHR

Internal Sample Tracking Chronicle

Anderson Mulholland and Assoc.

Job No: MC48999

BMSMC, Building 5 Area, Puerto Rico
Project No: Offsite Wells

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC48999-7 OSMW-6D	Collected: 05-DEC-16 12:39 By: RSNR		Received: 07-DEC-16 By: TF			
MC48999-7	MADEP VPH REV 1.1	09-DEC-16 16:09	AF			VMAVPHR
MC48999-7	MADEP EPH REV 1.1	20-DEC-16 01:03	TA	15-DEC-16	AJ	BMAEPHR
MC48999-8 OSMW-6S	Collected: 05-DEC-16 12:58 By: RSNR		Received: 07-DEC-16 By: TF			
MC48999-8	MADEP VPH REV 1.1	09-DEC-16 16:44	AF			VMAVPHR
MC48999-8	MADEP EPH REV 1.1	20-DEC-16 01:31	TA	15-DEC-16	AJ	BMAEPHR
MC48999-9 OSMW-5D	Collected: 05-DEC-16 16:28 By: RSNR		Received: 07-DEC-16 By: TF			
MC48999-9	MADEP VPH REV 1.1	09-DEC-16 17:19	AF			VMAVPHR
MC48999-9	MADEP EPH REV 1.1	20-DEC-16 01:58	TA	15-DEC-16	AJ	BMAEPHR
MC48999-10 OSMW-5S	Collected: 05-DEC-16 16:32 By: RSNR		Received: 07-DEC-16 By: TF			
MC48999-10	MADEP VPH REV 1.1	09-DEC-16 17:53	AF			VMAVPHR
MC48999-10	MADEP EPH REV 1.1	21-DEC-16 02:00	TA	19-DEC-16	AJ	BMAEPHR

SGS Accutest Internal Chain of Custody

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico
Received: 12/07/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC48999-1.1	Walk In Ref #22	Ilir Capi	12/15/16 18:21	Retrieve from Storage
MC48999-1.1	Ilir Capi		12/17/16 07:27	Depleted
MC48999-1.5	VOC Ref #5	Anthony Franciosa	12/09/16 06:56	Retrieve from Storage
MC48999-1.5	Anthony Franciosa	GCBH	12/09/16 06:56	Load on Instrument
MC48999-1.5	GCBH	Anthony Franciosa	12/13/16 08:16	Unload from Instrument
MC48999-1.5	Anthony Franciosa	VOC Ref #5	12/13/16 08:19	Return to Storage
MC48999-2.1	Walk In Ref #22	Ilir Capi	12/15/16 18:21	Retrieve from Storage
MC48999-2.1	Ilir Capi		12/17/16 07:27	Depleted
MC48999-2.5	VOC Ref #5	Anthony Franciosa	12/09/16 06:56	Retrieve from Storage
MC48999-2.5	Anthony Franciosa	GCBH	12/09/16 06:56	Load on Instrument
MC48999-2.5	GCBH	Anthony Franciosa	12/13/16 08:16	Unload from Instrument
MC48999-2.5	Anthony Franciosa	VOC Ref #5	12/13/16 08:19	Return to Storage
MC48999-3.1	Walk In Ref #22	Ilir Capi	12/15/16 18:21	Retrieve from Storage
MC48999-3.1	Ilir Capi		12/17/16 07:27	Depleted
MC48999-3.5	VOC Ref #5	Anthony Franciosa	12/09/16 06:56	Retrieve from Storage
MC48999-3.5	Anthony Franciosa	GCBH	12/09/16 06:56	Load on Instrument
MC48999-3.5	GCBH	Anthony Franciosa	12/13/16 08:16	Unload from Instrument
MC48999-3.5	Anthony Franciosa	VOC Ref #5	12/13/16 08:19	Return to Storage
MC48999-4.2	Walk In Ref #22	Ilir Capi	12/15/16 18:21	Retrieve from Storage
MC48999-4.2	Ilir Capi		12/17/16 07:27	Depleted
MC48999-4.5	VOC Ref #5	Anthony Franciosa	12/09/16 06:56	Retrieve from Storage
MC48999-4.5	Anthony Franciosa	GCBH	12/09/16 06:56	Load on Instrument
MC48999-4.5	GCBH	Anthony Franciosa	12/13/16 08:16	Unload from Instrument
MC48999-4.5	Anthony Franciosa	VOC Ref #5	12/13/16 08:19	Return to Storage
MC48999-5.1	Walk In Ref #22	Ilir Capi	12/15/16 18:21	Retrieve from Storage
MC48999-5.1	Ilir Capi		12/17/16 07:27	Depleted
MC48999-5.3	VOC Ref #5	Anthony Franciosa	12/09/16 06:56	Retrieve from Storage
MC48999-5.3	Anthony Franciosa	GCBH	12/09/16 06:56	Load on Instrument
MC48999-5.3	GCBH	Anthony Franciosa	12/13/16 08:16	Unload from Instrument
MC48999-5.3	Anthony Franciosa	VOC Ref #5	12/13/16 08:19	Return to Storage
MC48999-6.2	Walk In Ref #22	Ilir Capi	12/15/16 18:21	Retrieve from Storage
MC48999-6.2	Ilir Capi		12/17/16 07:27	Depleted
MC48999-6.5	VOC Ref #5	Anthony Franciosa	12/09/16 06:56	Retrieve from Storage

SGS Accutest Internal Chain of Custody

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico
Received: 12/07/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC48999-6.5	Anthony Franciosa	GCBH	12/09/16 06:56	Load on Instrument
MC48999-6.5	GCBH	Anthony Franciosa	12/13/16 08:16	Unload from Instrument
MC48999-6.5	Anthony Franciosa	VOC Ref #5	12/13/16 08:19	Return to Storage
MC48999-7.1	Walk In Ref #22	Ilir Capi	12/15/16 18:21	Retrieve from Storage
MC48999-7.1	Ilir Capi		12/17/16 07:27	Depleted
MC48999-7.5	VOC Ref #5	Anthony Franciosa	12/09/16 06:56	Retrieve from Storage
MC48999-7.5	Anthony Franciosa	GCBH	12/09/16 06:56	Load on Instrument
MC48999-7.5	GCBH	Anthony Franciosa	12/13/16 08:16	Unload from Instrument
MC48999-7.5	Anthony Franciosa	VOC Ref #5	12/13/16 08:19	Return to Storage
MC48999-8.2	Walk In Ref #22	Ilir Capi	12/15/16 18:21	Retrieve from Storage
MC48999-8.2	Ilir Capi		12/17/16 07:27	Depleted
MC48999-8.5	VOC Ref #5	Anthony Franciosa	12/09/16 06:56	Retrieve from Storage
MC48999-8.5	Anthony Franciosa	GCBH	12/09/16 06:56	Load on Instrument
MC48999-8.5	GCBH	Anthony Franciosa	12/13/16 08:16	Unload from Instrument
MC48999-8.5	Anthony Franciosa	VOC Ref #5	12/13/16 08:19	Return to Storage
MC48999-9.1	Walk In Ref #22	Ilir Capi	12/15/16 18:21	Retrieve from Storage
MC48999-9.1	Ilir Capi		12/17/16 07:27	Depleted
MC48999-9.5	VOC Ref #5	Anthony Franciosa	12/09/16 06:56	Retrieve from Storage
MC48999-9.5	Anthony Franciosa	GCBH	12/09/16 06:56	Load on Instrument
MC48999-9.5	GCBH	Anthony Franciosa	12/13/16 08:16	Unload from Instrument
MC48999-9.5	Anthony Franciosa	VOC Ref #5	12/13/16 08:19	Return to Storage
MC48999-10.2	Walk In Ref #22	Ilir Capi	12/19/16 13:07	Retrieve from Storage
MC48999-10.2	Ilir Capi		12/19/16 13:07	Depleted
MC48999-10.4	VOC Ref #5	Anthony Franciosa	12/09/16 06:56	Retrieve from Storage
MC48999-10.4	Anthony Franciosa	GCBH	12/09/16 06:56	Load on Instrument
MC48999-10.4	GCBH	Anthony Franciosa	12/13/16 08:16	Unload from Instrument
MC48999-10.4	Anthony Franciosa	VOC Ref #5	12/13/16 08:19	Return to Storage

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GBH2436-MB	BH40783A.D	1	12/09/16	AF	n/a	n/a	GBH2436

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

MC48999-1, MC48999-2, MC48999-3, MC48999-4, MC48999-5, MC48999-6, MC48999-7, MC48999-8, MC48999-9, MC48999-10

CAS No.	Compound	Result	RL	MDL	Units	Q
	C9- C10 Aromatics (Unadj.)	ND	50	9.7	ug/l	

CAS No.	Surrogate Recoveries		Limits
	2,3,4-Trifluorotoluene	111%	70-130%
	2,3,4-Trifluorotoluene	106%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GBH2436-BSP	BH40784A.D	1	12/09/16	AF	n/a	n/a	GBH2436
GBH2436-BSD	BH40785A.D	1	12/09/16	AF	n/a	n/a	GBH2436

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

MC48999-1, MC48999-2, MC48999-3, MC48999-4, MC48999-5, MC48999-6, MC48999-7, MC48999-8, MC48999-9, MC48999-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
	C9- C10 Aromatics (Unadj.)	50	54.7	109	54.7	109	0	70-130/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
	2,3,4-Trifluorotoluene	104%	100%	70-130%
	2,3,4-Trifluorotoluene	94%	96%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC49029-1MS	BH40790.D	1	12/09/16	AF	n/a	n/a	GBH2436
MC49029-1MSD	BH40791.D	1	12/09/16	AF	n/a	n/a	GBH2436
MC49029-1	BH40789.D	1	12/09/16	AF	n/a	n/a	GBH2436

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

MC48999-1, MC48999-2, MC48999-3, MC48999-4, MC48999-5, MC48999-6, MC48999-7, MC48999-8, MC48999-9, MC48999-10

CAS No.	Compound	MC49029-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
	C9- C10 Aromatics (Unadj.)	43.9	J	150	171	85	150	173	86	1	70-130/25

CAS No.	Surrogate Recoveries	MS	MSD	MC49029-1	Limits
	2,3,4-Trifluorotoluene	95%	98%	90%	70-130%
	2,3,4-Trifluorotoluene	91%	94%	86%	70-130%

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Method: MADEP VPH REV 1.1 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC48999-1	BH40793.D	82	79
MC48999-2	BH40794.D	86	83
MC48999-3	BH40795.D	88	83
MC48999-4	BH40806.D	88	81
MC48999-5	BH40807.D	90	84
MC48999-6	BH40808.D	88	83
MC48999-7	BH40796.D	88	83
MC48999-8	BH40797.D	86	83
MC48999-9	BH40798.D	89	84
MC48999-10	BH40799.D	86	83
GBH2436-BSD	BH40785A.D	100	96
GBH2436-BSP	BH40784A.D	104	94
GBH2436-MB	BH40783A.D	111	106
MC49029-1MS	BH40790.D	95	91
MC49029-1MSD	BH40791.D	98	94

Surrogate Compounds	Recovery Limits
S1 = 2,3,4-Trifluorotoluene	70-130%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Check Std:	GBH2436-CC2394	**Injection Date:**	12/09/16
Lab File ID:	BH40782A.D	**Injection Time:**	08:05
Instrument ID:	GCBH	**Method:**	MADEP VPH REV 1.1

	S1 [a] RT	S1 [b] RT
Check Std	19.78	19.78

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GBH2436-MB	BH40783A.D	12/09/16	08:39	19.78	19.78
GBH2437-MB	BH40783B.D	12/09/16	08:39	19.78	19.78
GBH2435-MB	BH40783.D	12/09/16	08:39	19.78	19.78
GBH2436-BSP	BH40784A.D	12/09/16	09:14	19.78	19.78
GBH2437-BSP	BH40784B.D	12/09/16	09:14	19.78	19.78
GBH2435-BSP	BH40784.D	12/09/16	09:14	19.78	19.78
GBH2436-BSD	BH40785A.D	12/09/16	09:49	19.78	19.78
GBH2435-BSD	BH40785.D	12/09/16	09:49	19.78	19.78
GBH2437-BSD	BH40785B.D	12/09/16	09:49	19.78	19.78
ZZZZZZ	BH40786.D	12/09/16	10:23	19.78	19.78
ZZZZZZ	BH40787.D	12/09/16	10:58	19.78	19.78
MC49029-1	BH40789.D	12/09/16	12:07	19.78	19.78
MC49029-1MS	BH40790.D	12/09/16	12:42	19.78	19.78
MC49029-1MSD	BH40791.D	12/09/16	13:17	19.78	19.78

Surrogate Compounds

S1 = 2,3,4-Trifluorotoluene

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Check Std:	GBH2435-CC2394	**Injection Date:**	12/09/16
Lab File ID:	BH40782.D	**Injection Time:**	08:05
Instrument ID:	GCBH	**Method:**	MADEP VPH REV 1.1

	S1 [a] RT	S1 [b] RT
Check Std	19.78	19.78

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GBH2436-MB	BH40783A.D	12/09/16	08:39	19.78	19.78
GBH2437-MB	BH40783B.D	12/09/16	08:39	19.78	19.78
GBH2435-MB	BH40783.D	12/09/16	08:39	19.78	19.78
GBH2436-BSP	BH40784A.D	12/09/16	09:14	19.78	19.78
GBH2437-BSP	BH40784B.D	12/09/16	09:14	19.78	19.78
GBH2435-BSP	BH40784.D	12/09/16	09:14	19.78	19.78
GBH2436-BSD	BH40785A.D	12/09/16	09:49	19.78	19.78
GBH2435-BSD	BH40785.D	12/09/16	09:49	19.78	19.78
GBH2437-BSD	BH40785B.D	12/09/16	09:49	19.78	19.78
ZZZZZZ	BH40786.D	12/09/16	10:23	19.78	19.78
ZZZZZZ	BH40787.D	12/09/16	10:58	19.78	19.78
MC49029-1	BH40789.D	12/09/16	12:07	19.78	19.78
MC49029-1MS	BH40790.D	12/09/16	12:42	19.78	19.78
MC49029-1MSD	BH40791.D	12/09/16	13:17	19.78	19.78

Surrogate Compounds

S1 = 2,3,4-Trifluorotoluene

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Check Std:	GBH2437-CC2394	**Injection Date:**	12/09/16
Lab File ID:	BH40782B.D	**Injection Time:**	08:05
Instrument ID:	GCBH	**Method:**	MADEP VPH REV 1.1

	S1 [a] RT	S1 [b] RT
Check Std	19.78	19.78

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
GBH2436-MB	BH40783A.D	12/09/16	08:39	19.78	19.78
GBH2437-MB	BH40783B.D	12/09/16	08:39	19.78	19.78
GBH2435-MB	BH40783.D	12/09/16	08:39	19.78	19.78
GBH2436-BSP	BH40784A.D	12/09/16	09:14	19.78	19.78
GBH2437-BSP	BH40784B.D	12/09/16	09:14	19.78	19.78
GBH2435-BSP	BH40784.D	12/09/16	09:14	19.78	19.78
GBH2436-BSD	BH40785A.D	12/09/16	09:49	19.78	19.78
GBH2435-BSD	BH40785.D	12/09/16	09:49	19.78	19.78
GBH2437-BSD	BH40785B.D	12/09/16	09:49	19.78	19.78
ZZZZZZ	BH40786.D	12/09/16	10:23	19.78	19.78
ZZZZZZ	BH40787.D	12/09/16	10:58	19.78	19.78
MC49029-1	BH40789.D	12/09/16	12:07	19.78	19.78
MC49029-1MS	BH40790.D	12/09/16	12:42	19.78	19.78
MC49029-1MSD	BH40791.D	12/09/16	13:17	19.78	19.78

Surrogate Compounds

S1 = 2,3,4-Trifluorotoluene

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Check Std:	GBH2436-CC2394	**Injection Date:**	12/09/16
Lab File ID:	BH40792A.D	**Injection Time:**	13:51
Instrument ID:	GCBH	**Method:**	MADEP VPH REV 1.1

	S1 [a] RT	S1 [b] RT
Check Std	19.78	19.78

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC48999-1	BH40793.D	12/09/16	14:26	19.78	19.78
MC48999-2	BH40794.D	12/09/16	15:00	19.78	19.78
MC48999-3	BH40795.D	12/09/16	15:35	19.78	19.78
MC48999-7	BH40796.D	12/09/16	16:09	19.78	19.78
MC48999-8	BH40797.D	12/09/16	16:44	19.78	19.78
MC48999-9	BH40798.D	12/09/16	17:19	19.78	19.78
MC48999-10	BH40799.D	12/09/16	17:53	19.78	19.78
ZZZZZZ	BH40800.D	12/09/16	18:28	19.78	19.78
ZZZZZZ	BH40801.D	12/09/16	19:02	19.78	19.78
ZZZZZZ	BH40802.D	12/09/16	19:37	19.78	19.78
ZZZZZZ	BH40803.D	12/09/16	20:12	19.78	19.78
ZZZZZZ	BH40804.D	12/09/16	20:46	19.78	19.78
ZZZZZZ	BH40805.D	12/09/16	21:21	19.78	19.78
MC48999-4	BH40806.D	12/09/16	21:55	19.78	19.78
MC48999-5	BH40807.D	12/09/16	22:30	19.78	19.78
MC48999-6	BH40808.D	12/09/16	23:04	19.78	19.78
MC49033-6	BH40809.D	12/09/16	23:39	19.78	19.78
MC49033-6MS	BH40810.D	12/10/16	00:13	19.78	19.78
MC49033-6MSD	BH40811.D	12/10/16	00:48	19.78	19.78

Surrogate Compounds

S1 = 2,3,4-Trifluorotoluene

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Check Std:	GBH2435-CC2394	**Injection Date:**	12/09/16
Lab File ID:	BH40792.D	**Injection Time:**	13:51
Instrument ID:	GCBH	**Method:**	MADEP VPH REV 1.1

	S1 [a] RT	S1 [b] RT
Check Std	19.78	19.78

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC48999-1	BH40793.D	12/09/16	14:26	19.78	19.78
MC48999-2	BH40794.D	12/09/16	15:00	19.78	19.78
MC48999-3	BH40795.D	12/09/16	15:35	19.78	19.78
MC48999-7	BH40796.D	12/09/16	16:09	19.78	19.78
MC48999-8	BH40797.D	12/09/16	16:44	19.78	19.78
MC48999-9	BH40798.D	12/09/16	17:19	19.78	19.78
MC48999-10	BH40799.D	12/09/16	17:53	19.78	19.78
ZZZZZZ	BH40800.D	12/09/16	18:28	19.78	19.78
ZZZZZZ	BH40801.D	12/09/16	19:02	19.78	19.78
ZZZZZZ	BH40802.D	12/09/16	19:37	19.78	19.78
ZZZZZZ	BH40803.D	12/09/16	20:12	19.78	19.78
ZZZZZZ	BH40804.D	12/09/16	20:46	19.78	19.78
ZZZZZZ	BH40805.D	12/09/16	21:21	19.78	19.78
MC48999-4	BH40806.D	12/09/16	21:55	19.78	19.78
MC48999-5	BH40807.D	12/09/16	22:30	19.78	19.78
MC48999-6	BH40808.D	12/09/16	23:04	19.78	19.78
MC49033-6	BH40809.D	12/09/16	23:39	19.78	19.78
MC49033-6MS	BH40810.D	12/10/16	00:13	19.78	19.78
MC49033-6MSD	BH40811.D	12/10/16	00:48	19.78	19.78

Surrogate Compounds

S1 = 2,3,4-Trifluorotoluene

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Check Std:	GBH2437-CC2394	**Injection Date:**	12/09/16
Lab File ID:	BH40792B.D	**Injection Time:**	13:51
Instrument ID:	GCBH	**Method:**	MADEP VPH REV 1.1

	S1 [a] RT	S1 [b] RT
Check Std	19.78	19.78

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC48999-1	BH40793.D	12/09/16	14:26	19.78	19.78
MC48999-2	BH40794.D	12/09/16	15:00	19.78	19.78
MC48999-3	BH40795.D	12/09/16	15:35	19.78	19.78
MC48999-7	BH40796.D	12/09/16	16:09	19.78	19.78
MC48999-8	BH40797.D	12/09/16	16:44	19.78	19.78
MC48999-9	BH40798.D	12/09/16	17:19	19.78	19.78
MC48999-10	BH40799.D	12/09/16	17:53	19.78	19.78
ZZZZZZ	BH40800.D	12/09/16	18:28	19.78	19.78
ZZZZZZ	BH40801.D	12/09/16	19:02	19.78	19.78
ZZZZZZ	BH40802.D	12/09/16	19:37	19.78	19.78
ZZZZZZ	BH40803.D	12/09/16	20:12	19.78	19.78
ZZZZZZ	BH40804.D	12/09/16	20:46	19.78	19.78
ZZZZZZ	BH40805.D	12/09/16	21:21	19.78	19.78
MC48999-4	BH40806.D	12/09/16	21:55	19.78	19.78
MC48999-5	BH40807.D	12/09/16	22:30	19.78	19.78
MC48999-6	BH40808.D	12/09/16	23:04	19.78	19.78
MC49033-6	BH40809.D	12/09/16	23:39	19.78	19.78
MC49033-6MS	BH40810.D	12/10/16	00:13	19.78	19.78
MC49033-6MSD	BH40811.D	12/10/16	00:48	19.78	19.78

Surrogate Compounds

S1 = 2,3,4-Trifluorotoluene

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

Initial Calibration Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico
Sample: GBH2394-ICC2394
Lab FileID: BH40250.D

Response Factor Report GCBH

Method : C:\msdchem\1\METHODS\bh161031vph.m (ChemStation Integrator)
Title : vph
Last Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration

Calibration Files
7 =BH40247.d 6 =BH40248.d 5 =BH40249.d 4 =BH40250.d
3 =BH40251.d 1 =BH40253.d 9 =BH40252.d =
= =

Compound

	7	6	5	4	3	1	9	Avg	%RSD
1) rt5.5-7									
	9.607			9.607				9.607 E5	0.00
2) rt7/10									
	9.607			9.607				9.607 E5	0.00
3) rt10/13									
	9.607			9.607				9.607 E5	0.00
4) fluorobenzene									
	9.435	9.572	9.458	9.421	9.617	9.675	9.809	9.570 E5	1.50
5) rt13/16									
								0.000	-1.00
6) 2,3,4-trifluorotoluene									
	7.764	7.741	7.492	7.517	7.849	9.937	8.597	8.128 E5	10.81
7) rt16/20									
								0.000	-1.00
8) rt20/25									
	1.102			1.102				1.102 E6	0.00
9) rt25/29									
								0.000	-1.00
10) decane									
	1.102			1.102				1.102 E6	0.00
11) butylcyclohexane									
	1.102			1.102				1.102 E6	0.00
12) 2,5-dibromotoluene									
								0.000	-1.00

Signal #2

14) mtbe #2									
	2.090	2.332	2.551	2.588	2.528	2.480	2.514	2.440 E5	7.16
15) benzene #2									
	5.346	5.605	5.611	5.564	5.716	5.938	5.660	5.635 E5	3.15
16) fluorobenzene #2									
	3.463	3.608	3.615	3.590	3.707	3.623	3.626	3.604 E5	2.01
17) toluene #2									
	4.994	5.175	5.137	5.128	5.149	5.428	5.157	5.167 E5	2.51
18) 2,3,4-trifluorotoluene #2									
	2.051	2.098	2.042	2.060	2.106	2.615	2.223	2.171 E5	9.46
19) ethylbenzene #2									
	4.490	4.613	4.436	4.497	4.382	4.862	4.584	4.552 E5	3.47
20) m,p-xylene #2									
	5.325	5.553	5.455	5.552	5.515	6.194	5.806	5.629 E5	5.12
21) o-xylene #2									
	4.733	4.894	4.725	4.790	4.704	5.307	4.917	4.867 E5	4.34
22) 1,3,5-trimethylbenzene #2									
	6.307	6.712	6.779	6.822	6.794	7.712	7.388	6.931 E5	6.74

Initial Calibration Summary

Job Number: MC48999 **Sample:** GBH2394-ICC2394
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** BH40250.D
Project: BMSMC, Building 5 Area, Puerto Rico

```
23)  1,2,4-trimethylbenzene #2
           4.716 5.016 5.098 5.058 4.944 5.779 5.421              5.147 E5    6.77
24)  naphthalene #2
           2.671 2.972 4.449 4.372 4.274 4.531 4.516              3.969 E5   19.99
25)  c9-c10 arom as 1,2,4-tmb
           4.721 5.002 5.082 5.053 4.925 5.781 5.474              5.148 E5    6.98
26)  2,5-dibromotoluene #2
                                                                  0.000   -1.00
-------------------------------------------------------------------------------
(#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          bh161031vph.m        Tue Nov 01 15:26:27 2016
```

Initial Calibration Verification

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico
Sample: GBH2394-ICV2394
Lab FileID: BH40254.D

Evaluate Continuing Calibration Report

```
Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40254.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: CPDET2B.ch
Acq On    : 31 Oct 2016   4:59 pm
Operator  : tonyf
Sample    : icv2394-50,gv16557 (Sig #1); icv2394-1000,gv16557 (Sig #2)
Misc      : gc26718,gbh2394,,,,5,1
ALS Vial  : 8   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 01 08:54:34 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vph.m
Quant Title  : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	h	rt5.5-7	960.679	841.519 E3	12.4	88	0.00
2	h	rt7/10	960.679	929.721 E3	3.2	97	0.00
3	h	rt10/13	960.679	1126.348 E3	-17.2	117	0.00
4	s	fluorobenzene	956.972	937.968 E3	2.0	100	0.00
6	s	2,3,4-trifluorotoluene	812.822	745.945 E3	8.2	99	0.00
8	h	rt20/25	1.102	1.009 E6	8.4	92	0.00
10	h	decane	1.102	0.989 E6	10.3	90	0.00
11	h	butylcyclohexane	1.102	1.089 E6	1.2	99	0.00
Signal #2							
14	t	mtbe #2	244.044	237.591 E3	2.6	92	0.00
15	t	benzene #2	563.455	549.684 E3	2.4	99	0.00
16	s	fluorobenzene #2	360.446	354.824 E3	1.6	99	0.00
17	t	toluene #2	516.675	506.103 E3	2.0	99	0.00
18	s	2,3,4-trifluorotoluene #2	217.072	201.398 E3	7.2	98	0.00
19	t	ethylbenzene #2	455.224	435.541 E3	4.3	97	0.00
20	t	m,p-xylene #2	562.855	537.327 E3	4.5	97	0.00
21	t	o-xylene #2	486.705	464.980 E3	4.5	97	0.00
22	t	1,3,5-trimethylbenzene #2	693.057	659.198 E3	4.9	97	0.00
23	t	1,2,4-trimethylbenzene #2	514.729	491.606 E3	4.5	97	0.00
24	t	naphthalene #2	396.937	425.153 E3	-7.1	97	0.00
25	h	c9-c10 arom as 1,2,4-tmb	514.827	490.110 E3	4.8	97	0.00

Evaluate Continuing Calibration Report - Not Founds

5		rt13/16	0.000	0.000	0.0	0#	0.00
7		rt16/20	0.000	0.000	0.0	0#	0.00
9		rt25/29	0.000	0.000	0.0	0#	0.00
12		2,5-dibromotoluene	0.000	0.000	0.0	0#	0.00

Initial Calibration Verification

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample: GBH2394-ICV2394
Lab FileID: BH40254.D

```
  Signal #2

 26     2,5-dibromotoluene #2         0.000   0.000       0.0     0#  0.00
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0

bh161031vph.m Tue Nov 01 15:21:29 2016
```

Continuing Calibration Summary

Job Number: MC48999 **Sample:** GBH2435-CC2394
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** BH40782.D
Project: BMSMC, Building 5 Area, Puerto Rico

Evaluate Continuing Calibration Report

```
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40782.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: CPDET2B.ch
Acq On    :  9 Dec 2016   8:05 am
Operator  : tonyf
Sample    : cc2394-50
Misc      : gc26797,gbh2435,,,,5,1
ALS Vial  : 2   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 08:39:08 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title  : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	h	rt5.5-7	960.679	724.222 E3	24.6	75	0.00
2	h	rt7/10	960.679	861.998 E3	10.3	90	0.00
3	h	rt10/13	960.679	1055.899 E3	-9.9	110	0.00
4	s	fluorobenzene	956.972	923.301 E3	3.5	98	0.00
6	s	2,3,4-trifluorotoluene	812.822	747.829 E3	8.0	99	0.00
8	h	rt20/25	1.102	0.977 E6	11.3	89	0.00
10	h	decane	1.102	0.978 E6	11.3	89	0.00
11	h	butylcyclohexane	1.102	1.055 E6	4.3	96	0.00
Signal #2							
14	t	mtbe #2	244.044	260.815 E3	-6.9	101	0.00
15	t	benzene #2	563.455	585.814 E3	-4.0	105	0.00
16	s	fluorobenzene #2	360.446	377.782 E3	-4.8	105	0.00
17	t	toluene #2	516.675	513.793 E3	0.6	100	0.00
18	s	2,3,4-trifluorotoluene #2	217.072	206.426 E3	4.9	100	0.00
19	t	ethylbenzene #2	455.224	448.269 E3	1.5	100	0.00
20	t	m,p-xylene #2	562.855	552.539 E3	1.8	100	0.00
21	t	o-xylene #2	486.705	472.644 E3	2.9	99	0.00
22	t	1,3,5-trimethylbenzene #2	693.057	648.611 E3	6.4	95	0.00
23	t	1,2,4-trimethylbenzene #2	514.729	506.872 E3	1.5	100	0.00
24	t	naphthalene #2	396.937	464.643 E3	-17.1	106	0.00
25	h	c9-c10 arom as 1,2,4-tmb	514.827	507.738 E3	1.4	100	0.00

Evaluate Continuing Calibration Report - Not Founds

5		rt13/16	0.000	0.000	0.0	0#	0.00
7		rt16/20	0.000	0.000	0.0	0#	0.00
9		rt25/29	0.000	0.000	0.0	0#	0.00
12		2,5-dibromotoluene	0.000	0.000	0.0	0#	0.00

Continuing Calibration Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample: GBH2435-CC2394
Lab FileID: BH40782.D

```
  Signal #2

 26     2,5-dibromotoluene #2         0.000   0.000       0.0     0#  0.00
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0

bh161209vph.m Mon Dec 12 11:09:54 2016
```

Continuing Calibration Summary

Job Number: MC48999 **Sample:** GBH2436-CC2394
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** BH40782A.D
Project: BMSMC, Building 5 Area, Puerto Rico

Evaluate Continuing Calibration Report

```
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40782a.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: CPDET2B.ch
Acq On    :  9 Dec 2016   8:05 am
Operator  : tonyf
Sample    : cc2394-50
Misc      : gc26798,gbh2436,,,,5,1
ALS Vial  : 2   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 08:39:08 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title  : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	h	rt5.5-7	960.679	724.222 E3	24.6	75	0.00
2	h	rt7/10	960.679	861.998 E3	10.3	90	0.00
3	h	rt10/13	960.679	1055.899 E3	-9.9	110	0.00
4	s	fluorobenzene	956.972	923.301 E3	3.5	98	0.00
6	s	2,3,4-trifluorotoluene	812.822	747.829 E3	8.0	99	0.00
8	h	rt20/25	1.102	0.977 E6	11.3	89	0.00
10	h	decane	1.102	0.978 E6	11.3	89	0.00
11	h	butylcyclohexane	1.102	1.055 E6	4.3	96	0.00

Signal #2

14	t	mtbe #2	244.044	260.815 E3	-6.9	101	0.00
15	t	benzene #2	563.455	585.814 E3	-4.0	105	0.00
16	s	fluorobenzene #2	360.446	377.782 E3	-4.8	105	0.00
17	t	toluene #2	516.675	513.793 E3	0.6	100	0.00
18	s	2,3,4-trifluorotoluene #2	217.072	206.426 E3	4.9	100	0.00
19	t	ethylbenzene #2	455.224	448.269 E3	1.5	100	0.00
20	t	m,p-xylene #2	562.855	552.539 E3	1.8	100	0.00
21	t	o-xylene #2	486.705	472.644 E3	2.9	99	0.00
22	t	1,3,5-trimethylbenzene #2	693.057	648.611 E3	6.4	95	0.00
23	t	1,2,4-trimethylbenzene #2	514.729	506.872 E3	1.5	100	0.00
24	t	naphthalene #2	396.937	464.643 E3	-17.1	106	0.00
25	h	c9-c10 arom as 1,2,4-tmb	514.827	507.738 E3	1.4	100	0.00

Evaluate Continuing Calibration Report - Not Founds

5	rt13/16	0.000	0.000	0.0	0#	0.00
7	rt16/20	0.000	0.000	0.0	0#	0.00
9	rt25/29	0.000	0.000	0.0	0#	0.00
12	2,5-dibromotoluene	0.000	0.000	0.0	0#	0.00

Continuing Calibration Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample: GBH2436-CC2394
Lab FileID: BH40782A.D

```
  Signal #2

 26     2,5-dibromotoluene #2         0.000   0.000       0.0     0#  0.00
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0

bh161209vph.m Mon Dec 12 11:09:56 2016
```

Continuing Calibration Summary

Job Number: MC48999 **Sample:** GBH2437-CC2394
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** BH40782B.D
Project: BMSMC, Building 5 Area, Puerto Rico

Evaluate Continuing Calibration Report

```
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40782b.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: CPDET2B.ch
Acq On    :  9 Dec 2016   8:05 am
Operator  : tonyf
Sample    : cc2394-50
Misc      : gc26799,gbh2437,,,,5,1
ALS Vial  : 2   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 08:39:08 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title  : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	h	rt5.5-7	960.679	724.222 E3	24.6	75	0.00
2	h	rt7/10	960.679	861.998 E3	10.3	90	0.00
3	h	rt10/13	960.679	1055.899 E3	-9.9	110	0.00
4	s	fluorobenzene	956.972	923.301 E3	3.5	98	0.00
6	s	2,3,4-trifluorotoluene	812.822	747.829 E3	8.0	99	0.00
8	h	rt20/25	1.102	0.977 E6	11.3	89	0.00
10	h	decane	1.102	0.978 E6	11.3	89	0.00
11	h	butylcyclohexane	1.102	1.055 E6	4.3	96	0.00
Signal #2							
14	t	mtbe #2	244.044	260.815 E3	-6.9	101	0.00
15	t	benzene #2	563.455	585.814 E3	-4.0	105	0.00
16	s	fluorobenzene #2	360.446	377.782 E3	-4.8	105	0.00
17	t	toluene #2	516.675	513.793 E3	0.6	100	0.00
18	s	2,3,4-trifluorotoluene #2	217.072	206.426 E3	4.9	100	0.00
19	t	ethylbenzene #2	455.224	448.269 E3	1.5	100	0.00
20	t	m,p-xylene #2	562.855	552.539 E3	1.8	100	0.00
21	t	o-xylene #2	486.705	472.644 E3	2.9	99	0.00
22	t	1,3,5-trimethylbenzene #2	693.057	648.611 E3	6.4	95	0.00
23	t	1,2,4-trimethylbenzene #2	514.729	506.872 E3	1.5	100	0.00
24	t	naphthalene #2	396.937	464.643 E3	-17.1	106	0.00
25	h	c9-c10 arom as 1,2,4-tmb	514.827	507.738 E3	1.4	100	0.00

Evaluate Continuing Calibration Report - Not Founds

5		rt13/16	0.000	0.000	0.0	0#	0.00
7		rt16/20	0.000	0.000	0.0	0#	0.00
9		rt25/29	0.000	0.000	0.0	0#	0.00
12		2,5-dibromotoluene	0.000	0.000	0.0	0#	0.00

Continuing Calibration Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample: GBH2437-CC2394
Lab FileID: BH40782B.D

```
  Signal #2

 26     2,5-dibromotoluene #2         0.000   0.000       0.0     0#  0.00
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0

bh161209vph.m Mon Dec 12 11:09:58 2016
```

Continuing Calibration Summary

Job Number: MC48999 **Sample:** GBH2435-CC2394
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** BH40792.D
Project: BMSMC, Building 5 Area, Puerto Rico

Evaluate Continuing Calibration Report

```
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40792.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: CPDET2B.ch
Acq On    :  9 Dec 2016   1:51 pm
Operator  : tonyf
Sample    : cc2394-50
Misc      : gc26797,gbh2435,,,,5,1
ALS Vial  : 12   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:43:30 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title  : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	h	rt5.5-7	960.679	714.941 E3	25.6#	74#	0.00
2	h	rt7/10	960.679	845.931 E3	11.9	88	0.00
3	h	rt10/13	960.679	1041.583 E3	-8.4	108	0.00
4	s	fluorobenzene	956.972	909.213 E3	5.0	97	0.00
6	s	2,3,4-trifluorotoluene	812.822	735.610 E3	9.5	98	0.00
8	h	rt20/25	1.102	0.975 E6	11.5	89	0.00
10	h	decane	1.102	0.976 E6	11.4	89	0.00
11	h	butylcyclohexane	1.102	1.046 E6	5.1	95	0.00
Signal #2							
14	t	mtbe #2	244.044	247.488 E3	-1.4	96	0.00
15	t	benzene #2	563.455	563.345 E3	0.0	101	0.00
16	s	fluorobenzene #2	360.446	364.299 E3	-1.1	101	0.00
17	t	toluene #2	516.675	507.440 E3	1.8	99	0.00
18	s	2,3,4-trifluorotoluene #2	217.072	204.401 E3	5.8	99	0.00
19	t	ethylbenzene #2	455.224	443.963 E3	2.5	99	0.00
20	t	m,p-xylene #2	562.855	546.146 E3	3.0	98	0.00
21	t	o-xylene #2	486.705	465.140 E3	4.4	97	0.00
22	t	1,3,5-trimethylbenzene #2	693.057	639.597 E3	7.7	94	0.00
23	t	1,2,4-trimethylbenzene #2	514.729	500.856 E3	2.7	99	0.00
24	t	naphthalene #2	396.937	459.918 E3	-15.9	105	0.00
25	h	c9-c10 arom as 1,2,4-tmb	514.827	501.544 E3	2.6	99	0.00

Evaluate Continuing Calibration Report - Not Founds

5		rt13/16	0.000	0.000	0.0	0#	0.00
7		rt16/20	0.000	0.000	0.0	0#	0.00
9		rt25/29	0.000	0.000	0.0	0#	0.00
12		2,5-dibromotoluene	0.000	0.000	0.0	0#	0.00

Continuing Calibration Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample: GBH2435-CC2394
Lab FileID: BH40792.D

```
  Signal #2

 26     2,5-dibromotoluene #2         0.000   0.000       0.0     0#  0.00
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0

bh161209vph.m Mon Dec 12 11:09:33 2016
```

Continuing Calibration Summary

Job Number: MC48999 **Sample:** GBH2436-CC2394
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** BH40792A.D
Project: BMSMC, Building 5 Area, Puerto Rico

Evaluate Continuing Calibration Report

```
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40792a.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: CPDET2B.ch
Acq On    :  9 Dec 2016   1:51 pm
Operator  : tonyf
Sample    : cc2394-50
Misc      : gc26798,gbh2436,,,,5,1
ALS Vial  : 12   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:43:30 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title  : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	h	rt5.5-7	960.679	714.941 E3	25.6#	74#	0.00
2	h	rt7/10	960.679	845.931 E3	11.9	88	0.00
3	h	rt10/13	960.679	1041.583 E3	-8.4	108	0.00
4	s	fluorobenzene	956.972	909.213 E3	5.0	97	0.00
6	s	2,3,4-trifluorotoluene	812.822	735.610 E3	9.5	98	0.00
8	h	rt20/25	1.102	0.975 E6	11.5	89	0.00
10	h	decane	1.102	0.976 E6	11.4	89	0.00
11	h	butylcyclohexane	1.102	1.046 E6	5.1	95	0.00
Signal #2							
14	t	mtbe #2	244.044	247.488 E3	-1.4	96	0.00
15	t	benzene #2	563.455	563.345 E3	0.0	101	0.00
16	s	fluorobenzene #2	360.446	364.299 E3	-1.1	101	0.00
17	t	toluene #2	516.675	507.440 E3	1.8	99	0.00
18	s	2,3,4-trifluorotoluene #2	217.072	204.401 E3	5.8	99	0.00
19	t	ethylbenzene #2	455.224	443.963 E3	2.5	99	0.00
20	t	m,p-xylene #2	562.855	546.146 E3	3.0	98	0.00
21	t	o-xylene #2	486.705	465.140 E3	4.4	97	0.00
22	t	1,3,5-trimethylbenzene #2	693.057	639.597 E3	7.7	94	0.00
23	t	1,2,4-trimethylbenzene #2	514.729	500.856 E3	2.7	99	0.00
24	t	naphthalene #2	396.937	459.918 E3	-15.9	105	0.00
25	h	c9-c10 arom as 1,2,4-tmb	514.827	501.544 E3	2.6	99	0.00

Evaluate Continuing Calibration Report - Not Founds

5		rt13/16	0.000	0.000	0.0	0#	0.00
7		rt16/20	0.000	0.000	0.0	0#	0.00
9		rt25/29	0.000	0.000	0.0	0#	0.00
12		2,5-dibromotoluene	0.000	0.000	0.0	0#	0.00

Continuing Calibration Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample: GBH2436-CC2394
Lab FileID: BH40792A.D

```
  Signal #2

 26     2,5-dibromotoluene #2         0.000   0.000       0.0     0#  0.00
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0

bh161209vph.m Mon Dec 12 11:09:35 2016
```

Continuing Calibration Summary

Job Number: MC48999 **Sample:** GBH2437-CC2394
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** BH40792B.D
Project: BMSMC, Building 5 Area, Puerto Rico

Evaluate Continuing Calibration Report

```
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40792b.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: CPDET2B.ch
Acq On    :  9 Dec 2016   1:51 pm
Operator  : tonyf
Sample    : cc2394-50
Misc      : gc26799,gbh2437,,,,5,1
ALS Vial  : 12   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:43:30 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title  : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	h	rt5.5-7	960.679	714.941 E3	25.6#	74#	0.00
2	h	rt7/10	960.679	845.931 E3	11.9	88	0.00
3	h	rt10/13	960.679	1041.583 E3	-8.4	108	0.00
4	s	fluorobenzene	956.972	909.213 E3	5.0	97	0.00
6	s	2,3,4-trifluorotoluene	812.822	735.610 E3	9.5	98	0.00
8	h	rt20/25	1.102	0.975 E6	11.5	89	0.00
10	h	decane	1.102	0.976 E6	11.4	89	0.00
11	h	butylcyclohexane	1.102	1.046 E6	5.1	95	0.00
Signal #2							
14	t	mtbe #2	244.044	247.488 E3	-1.4	96	0.00
15	t	benzene #2	563.455	563.345 E3	0.0	101	0.00
16	s	fluorobenzene #2	360.446	364.299 E3	-1.1	101	0.00
17	t	toluene #2	516.675	507.440 E3	1.8	99	0.00
18	s	2,3,4-trifluorotoluene #2	217.072	204.401 E3	5.8	99	0.00
19	t	ethylbenzene #2	455.224	443.963 E3	2.5	99	0.00
20	t	m,p-xylene #2	562.855	546.146 E3	3.0	98	0.00
21	t	o-xylene #2	486.705	465.140 E3	4.4	97	0.00
22	t	1,3,5-trimethylbenzene #2	693.057	639.597 E3	7.7	94	0.00
23	t	1,2,4-trimethylbenzene #2	514.729	500.856 E3	2.7	99	0.00
24	t	naphthalene #2	396.937	459.918 E3	-15.9	105	0.00
25	h	c9-c10 arom as 1,2,4-tmb	514.827	501.544 E3	2.6	99	0.00

Evaluate Continuing Calibration Report - Not Founds

5		rt13/16	0.000	0.000	0.0	0#	0.00
7		rt16/20	0.000	0.000	0.0	0#	0.00
9		rt25/29	0.000	0.000	0.0	0#	0.00
12		2,5-dibromotoluene	0.000	0.000	0.0	0#	0.00

Continuing Calibration Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample: GBH2437-CC2394
Lab FileID: BH40792B.D

```
  Signal #2

 26     2,5-dibromotoluene #2         0.000   0.000       0.0     0#  0.00
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0

bh161209vph.m Mon Dec 12 11:09:37 2016
```

Continuing Calibration Summary

Job Number: MC48999 **Sample:** GBH2436-CC2394
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** BH40812.D
Project: BMSMC, Building 5 Area, Puerto Rico

Evaluate Continuing Calibration Report

```
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40812.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: CPDET2B.ch
Acq On    : 10 Dec 2016   1:23 am
Operator  : tonyf
Sample    : cc2394-50
Misc      : gc26798,gbh2436,,,,5,1
ALS Vial  : 32   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:41:29 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title  : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	h	rt5.5-7	960.679	676.099 E3	29.6#	70#	0.00
2	h	rt7/10	960.679	807.360 E3	16.0	84	0.00
3	h	rt10/13	960.679	988.531 E3	-2.9	103	0.00
4	s	fluorobenzene	956.972	878.795 E3	8.2	93	0.00
6	s	2,3,4-trifluorotoluene	812.822	711.514 E3	12.5	95	0.00
8	h	rt20/25	1.102	0.930 E6	15.6	84	0.00
10	h	decane	1.102	0.929 E6	15.7	84	0.00
11	h	butylcyclohexane	1.102	0.992 E6	10.0	90	0.00

Signal #2

14	t	mtbe #2	244.044	245.720 E3	-0.7	95	0.00
15	t	benzene #2	563.455	548.626 E3	2.6	99	0.00
16	s	fluorobenzene #2	360.446	356.869 E3	1.0	99	0.00
17	t	toluene #2	516.675	503.034 E3	2.6	98	0.00
18	s	2,3,4-trifluorotoluene #2	217.072	204.583 E3	5.8	99	0.00
19	t	ethylbenzene #2	455.224	441.369 E3	3.0	98	0.00
20	t	m,p-xylene #2	562.855	542.604 E3	3.6	98	0.00
21	t	o-xylene #2	486.705	460.219 E3	5.4	96	0.00
22	t	1,3,5-trimethylbenzene #2	693.057	632.543 E3	8.7	93	0.00
23	t	1,2,4-trimethylbenzene #2	514.729	495.055 E3	3.8	98	0.00
24	t	naphthalene #2	396.937	464.162 E3	-16.9	106	0.00
25	h	c9-c10 arom as 1,2,4-tmb	514.827	493.700 E3	4.1	98	0.00

Evaluate Continuing Calibration Report - Not Founds

5	rt13/16	0.000	0.000	0.0	0#	0.00
7	rt16/20	0.000	0.000	0.0	0#	0.00
9	rt25/29	0.000	0.000	0.0	0#	0.00
12	2,5-dibromotoluene	0.000	0.000	0.0	0#	0.00

Continuing Calibration Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample: GBH2436-CC2394
Lab FileID: BH40812.D

```
  Signal #2

 26     2,5-dibromotoluene #2         0.000   0.000       0.0     0#  0.00
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0

bh161209vph.m Mon Dec 12 11:09:39 2016
```

GC Volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
Andri Piluri
12/13/16 11:51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40793.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 2:26 pm
Operator : tonyf
Sample : mc48999-1,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:13:40 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.669	41946027	43.832	ppb	
Spiked Amount 50.000		Recovery =	87.66%		
6) s 2,3,4-trifluorotoluene	19.782	32230345	39.652	ppb	
Spiked Amount 50.000		Recovery =	79.30%		
16) s fluorobenzene #2	14.670	16718592	46.383	ppb	
Spiked Amount 50.000		Recovery =	92.77%		
18) s 2,3,4-trifluorotoluen...	19.782	8901648	41.008	ppb	
Spiked Amount 50.000		Recovery =	82.02%		
Target Compounds					
1) h rt5.5-7	5.980	9917492	10.323	ppb	m
2) h rt7/10	8.250	1974983	2.056	ppb	m
3) h rt10/13	13.360	13072938	13.608	ppb	m
8) h rt20/25	21.460	8982770	8.154	ppb	
24) t naphthalene #2	27.706	211622	0.533	ppb	m
25) h c9-c10 arom as 1,2,4-tmb	24.800	3056939	5.938	ppb	m

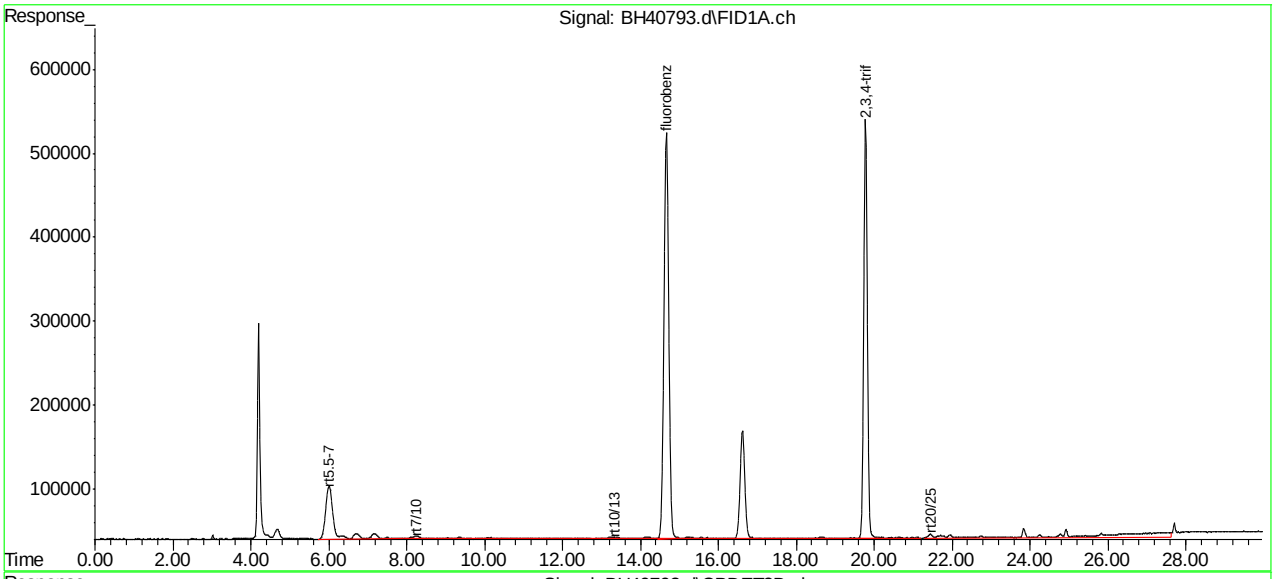
(f)=RT Delta > 1/2 Window (m)=manual int.

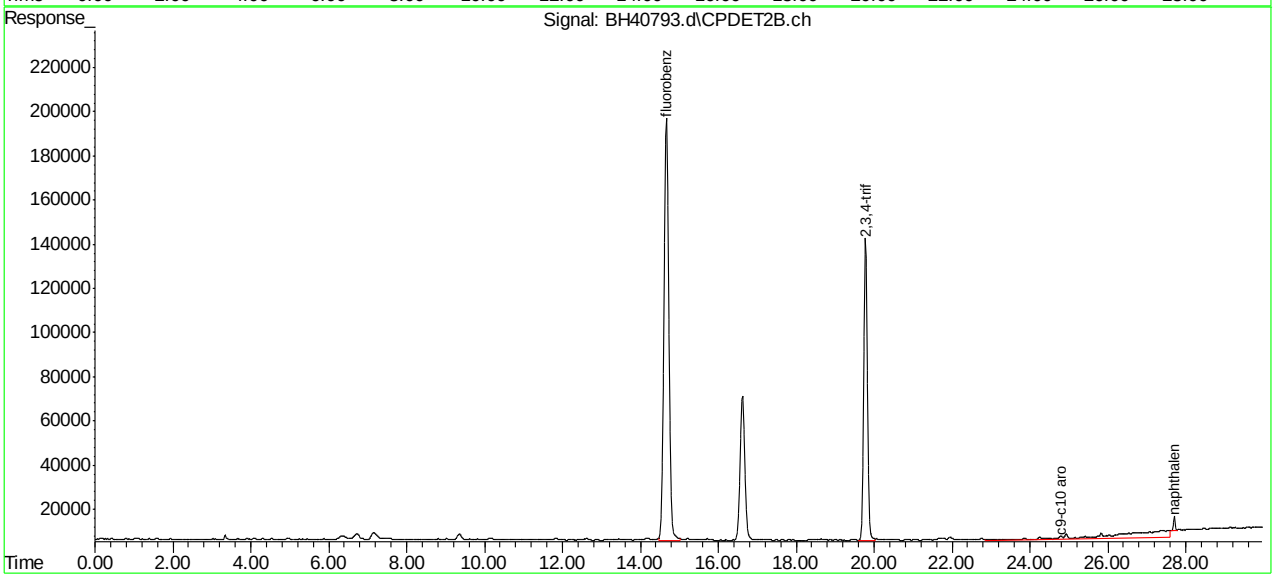
Quantitation Report (QT Reviewed)

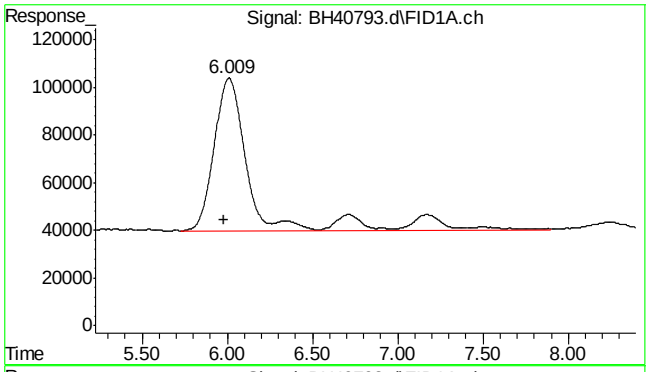
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40793.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 2:26 pm
Operator : tonyf
Sample : mc48999-1,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:13:40 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

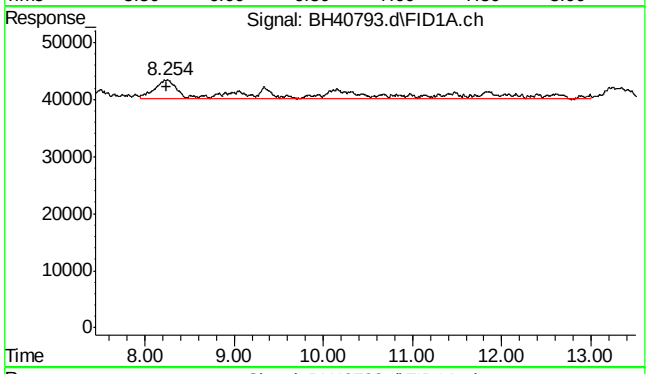






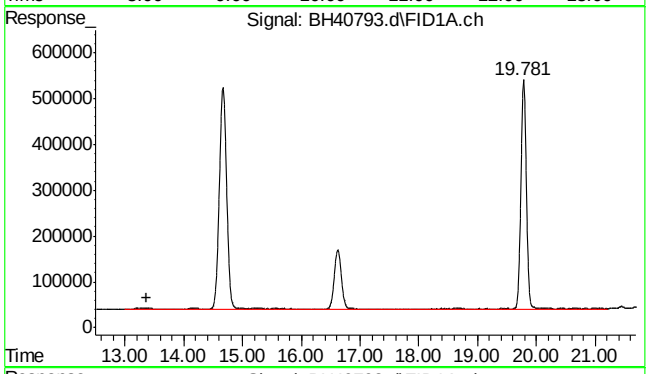
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 9917492
Conc: 10.32 ppb m



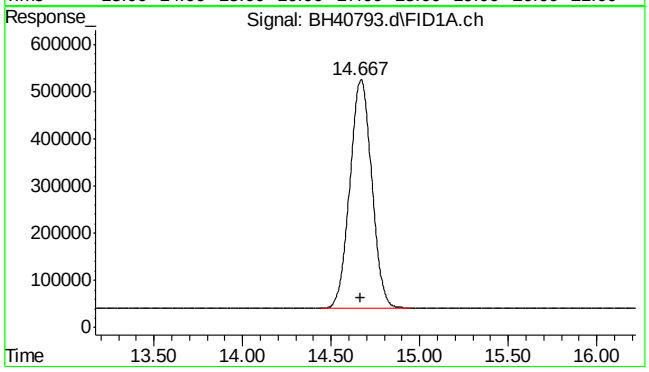
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 1974983
Conc: 2.06 ppb m



#3 rt10/13

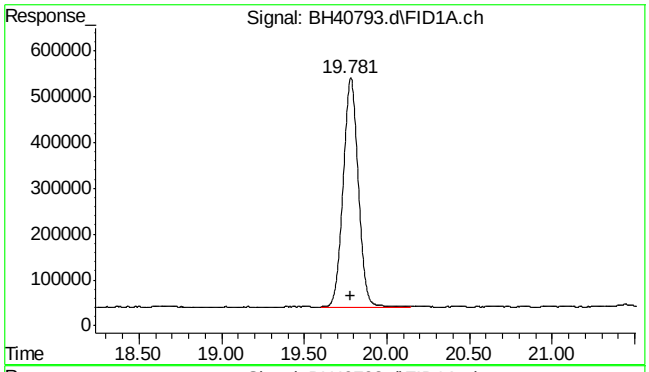
R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 13072938
Conc: 13.61 ppb m



#4 fluorobenzene

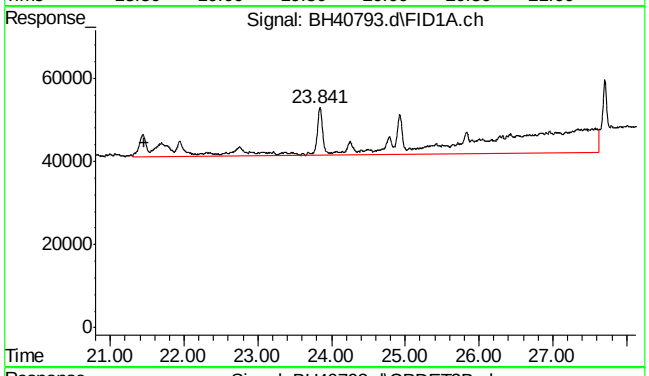
R.T.: 14.669 min
Delta R.T.: 0.005 min
Response: 41946027
Conc: 43.83 ppb

SGS ACCUTEST MC48999



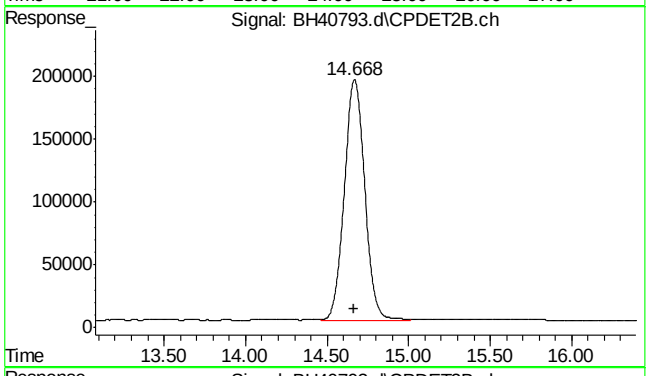
#6 2,3,4-trifluorotoluene

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 32230345
Conc: 39.65 ppb



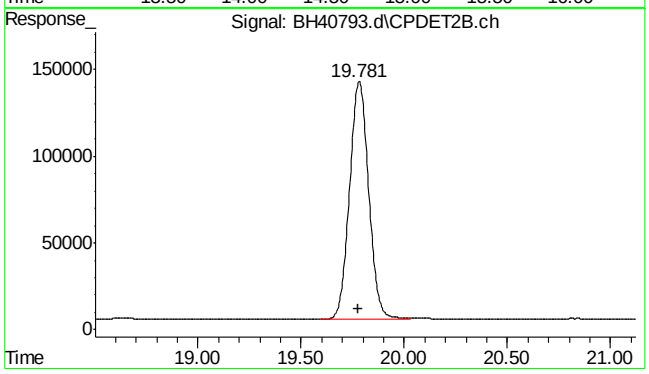
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 8982770
Conc: 8.15 ppb



#16 fluorobenzene #2

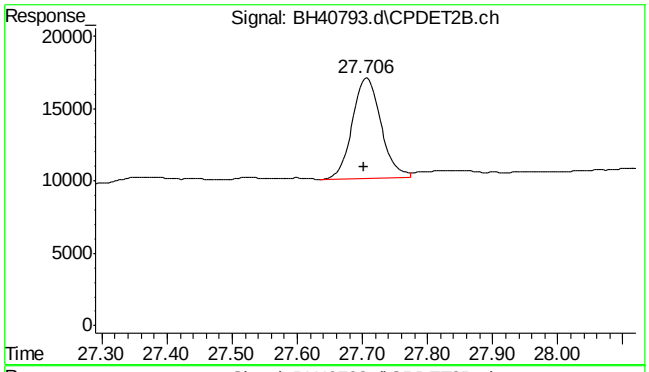
R.T.: 14.670 min
Delta R.T.: 0.006 min
Response: 16718592
Conc: 46.38 ppb



#18 2,3,4-trifluorotoluene #2

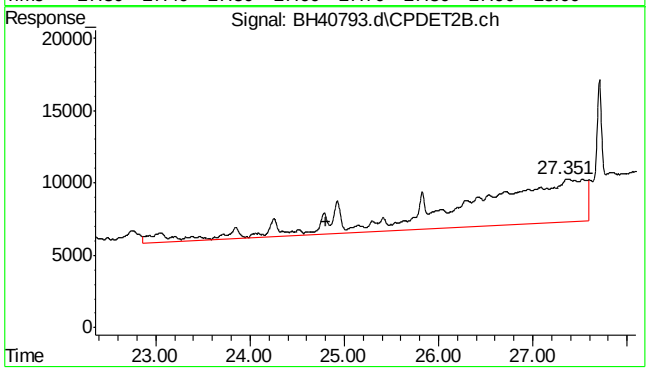
R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 8901648
Conc: 41.01 ppb

SGS ACCUTEST MC48999



#24 naphthalene #2

R.T.: 27.706 min
Delta R.T.: 0.004 min
Response: 211622
Conc: 0.53 ppb m



#25 c9-c10 arom as 1,2,4-tmb

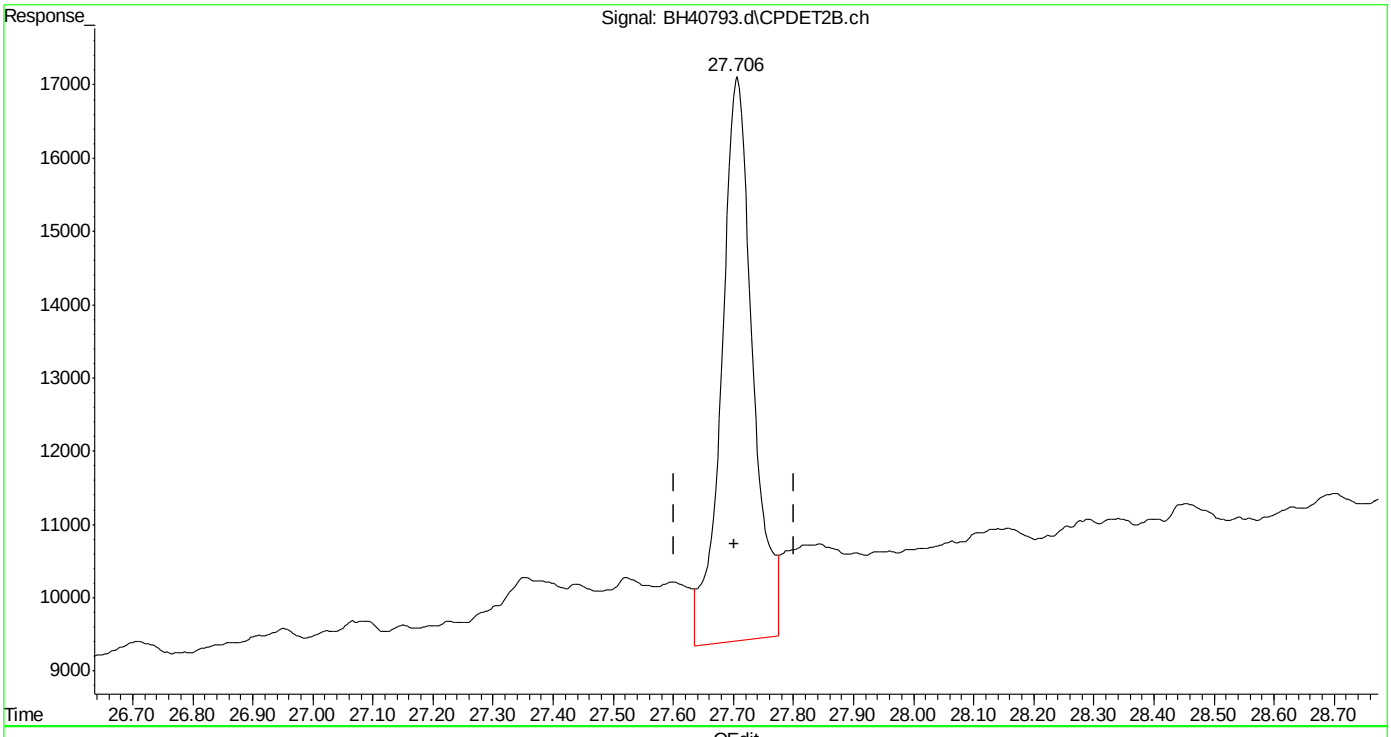
R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 3056939
Conc: 5.94 ppb m

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40793.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 2:26 pm
Operator : tonyf
Sample : mc48999-1,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 13 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:37:59 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(24) naphthalene #2 (t)
27.707min 0.698 ppb
response 277049

(+) = Expected Retention Time
bh161209vph.m Mon Dec 12 07:13:32 2016

SGS ACCUTEST MC48999

Manual Integrations APPROVED (compounds with "m" flag)
Andri Piluri
12/13/16 11:51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40794.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 3:00 pm
Operator : tonyf
Sample : mc48999-2,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:14:48 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s fluorobenzene	14.667	43252688	45.197 ppb
Spiked Amount 50.000		Recovery	= 90.39%
6) s 2,3,4-trifluorotoluene	19.782	33732449	41.500 ppb
Spiked Amount 50.000		Recovery	= 83.00%
16) s fluorobenzene #2	14.667	17349765	48.134 ppb
Spiked Amount 50.000		Recovery	= 96.27%
18) s 2,3,4-trifluorotoluen...	19.782	9339094	43.023 ppb
Spiked Amount 50.000		Recovery	= 86.05%
Target Compounds			
1) h rt5.5-7	5.980	7633851	7.946 ppb
2) h rt7/10	8.250	1891568	1.969 ppb m
3) h rt10/13	13.360	10566605	10.999 ppb m
8) h rt20/25	21.460	8251963	7.490 ppb
24) t naphthalene #2	27.705	79687	0.201 ppb m
25) h c9-c10 arom as 1,2,4-tmb	24.800	3229300	6.273 ppb m

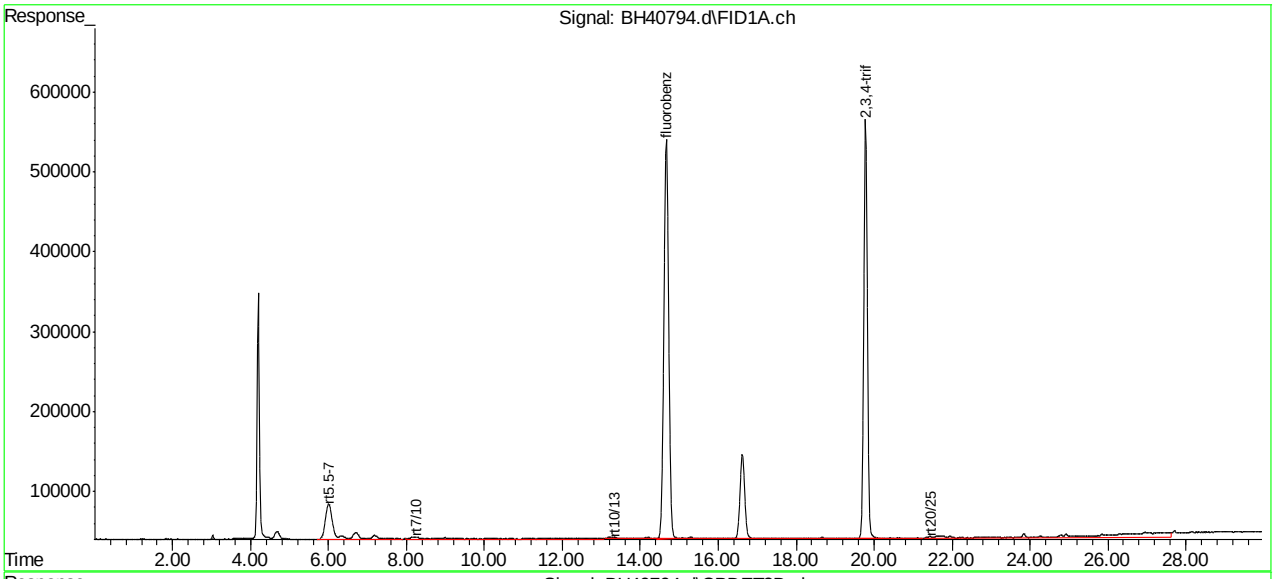
(f)=RT Delta > 1/2 Window (m)=manual int.

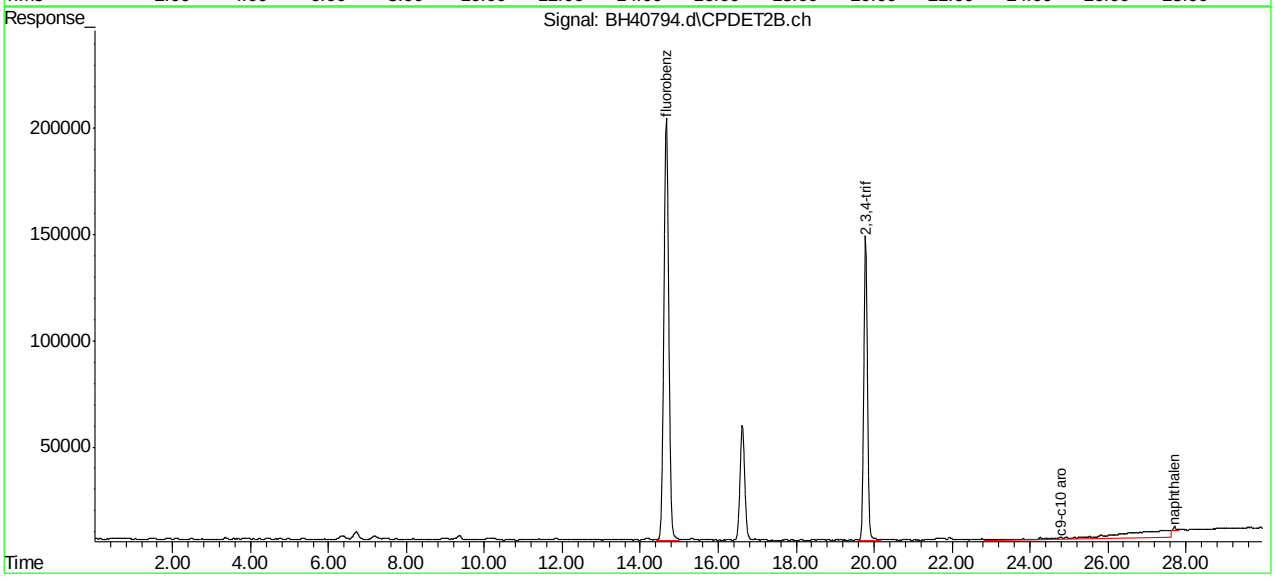
Quantitation Report (QT Reviewed)

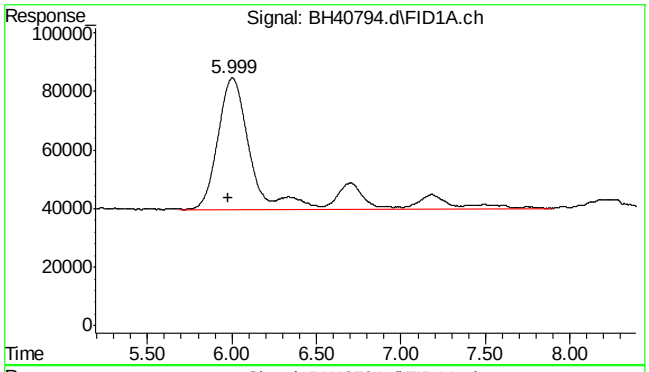
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40794.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 3:00 pm
Operator : tonyf
Sample : mc48999-2,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:14:48 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

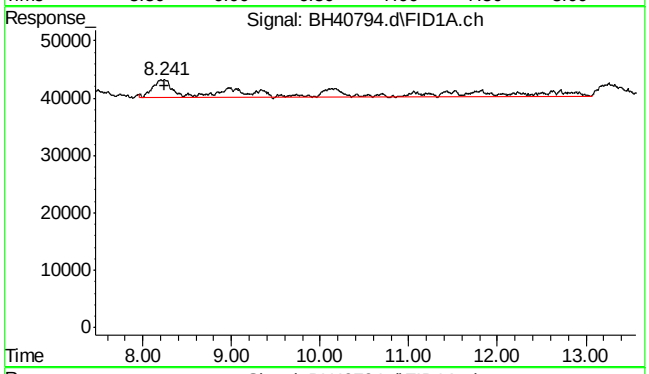






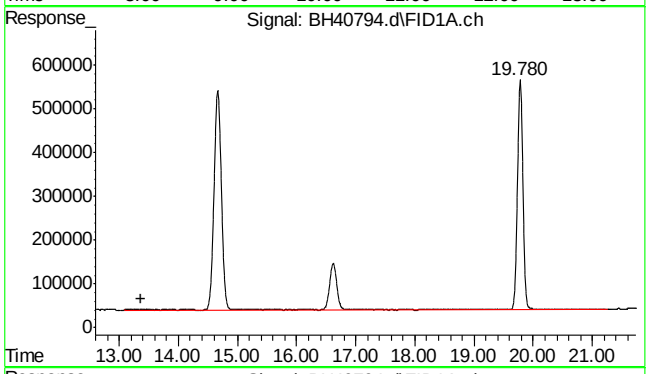
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 7633851
Conc: 7.95 ppb



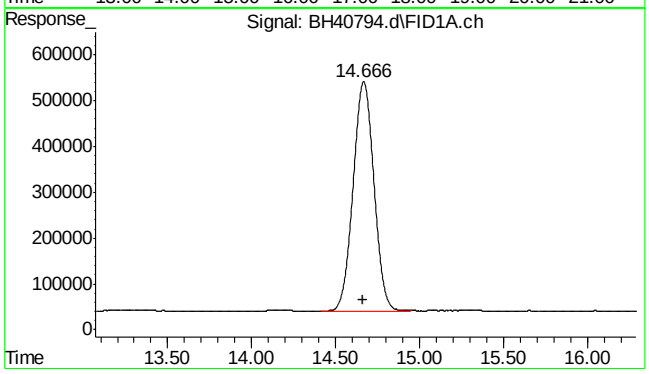
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 1891568
Conc: 1.97 ppb m



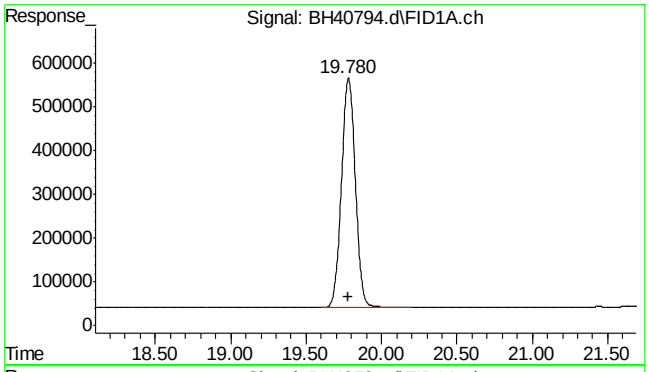
#3 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 10566605
Conc: 11.00 ppb m



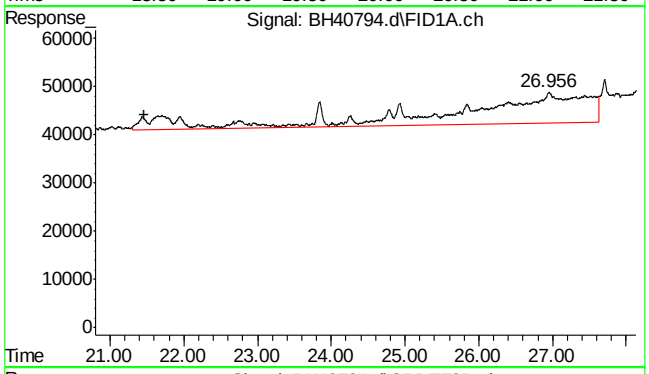
#4 fluorobenzene

R.T.: 14.667 min
Delta R.T.: 0.003 min
Response: 43252688
Conc: 45.20 ppb



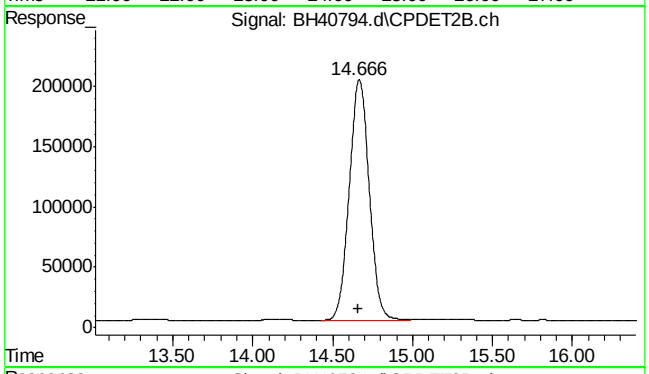
#6 2,3,4-trifluorotoluene

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 33732449
Conc: 41.50 ppb



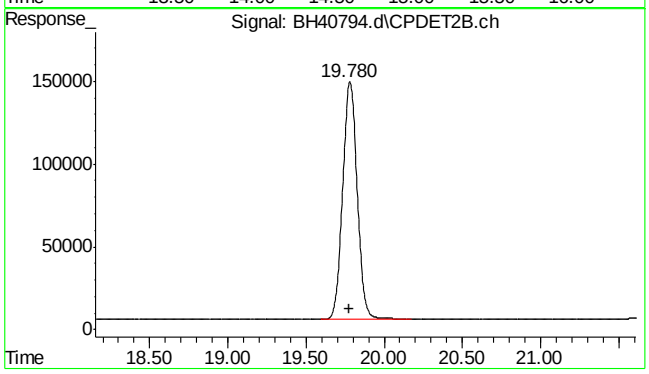
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 8251963
Conc: 7.49 ppb



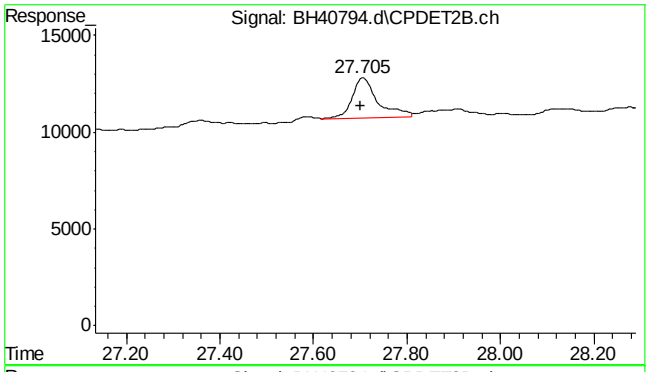
#16 fluorobenzene #2

R.T.: 14.667 min
Delta R.T.: 0.003 min
Response: 17349765
Conc: 48.13 ppb



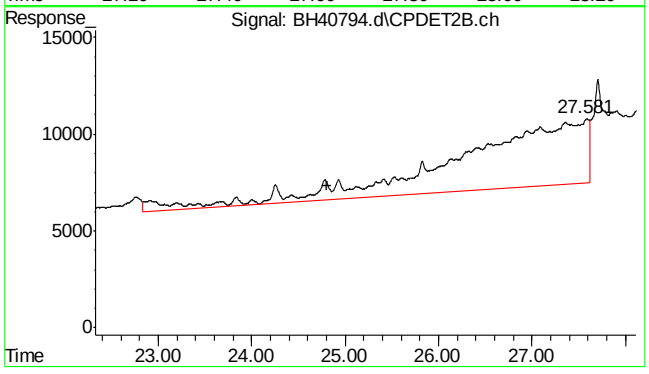
#18 2,3,4-trifluorotoluene #2

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 9339094
Conc: 43.02 ppb



#24 naphthalene #2

R.T.: 27.705 min
Delta R.T.: 0.003 min
Response: 79687
Conc: 0.20 ppb m



#25 c9-c10 arom as 1,2,4-tmb

R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 3229300
Conc: 6.27 ppb m

7.1.2

7

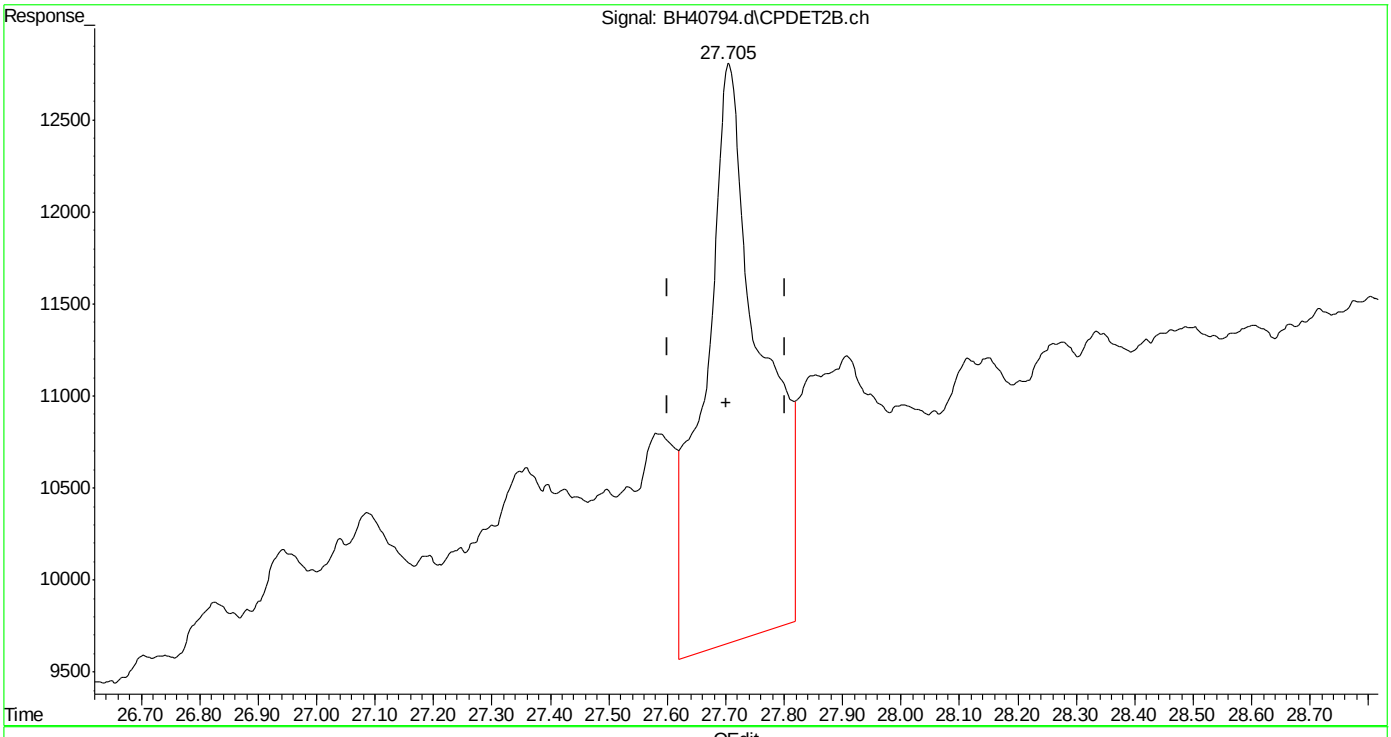
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40794.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 3:00 pm
Operator : tonyf
Sample : mc48999-2,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:38:03 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(24) naphthalene #2 (t)
27.706min 0.526 ppb
response 208879

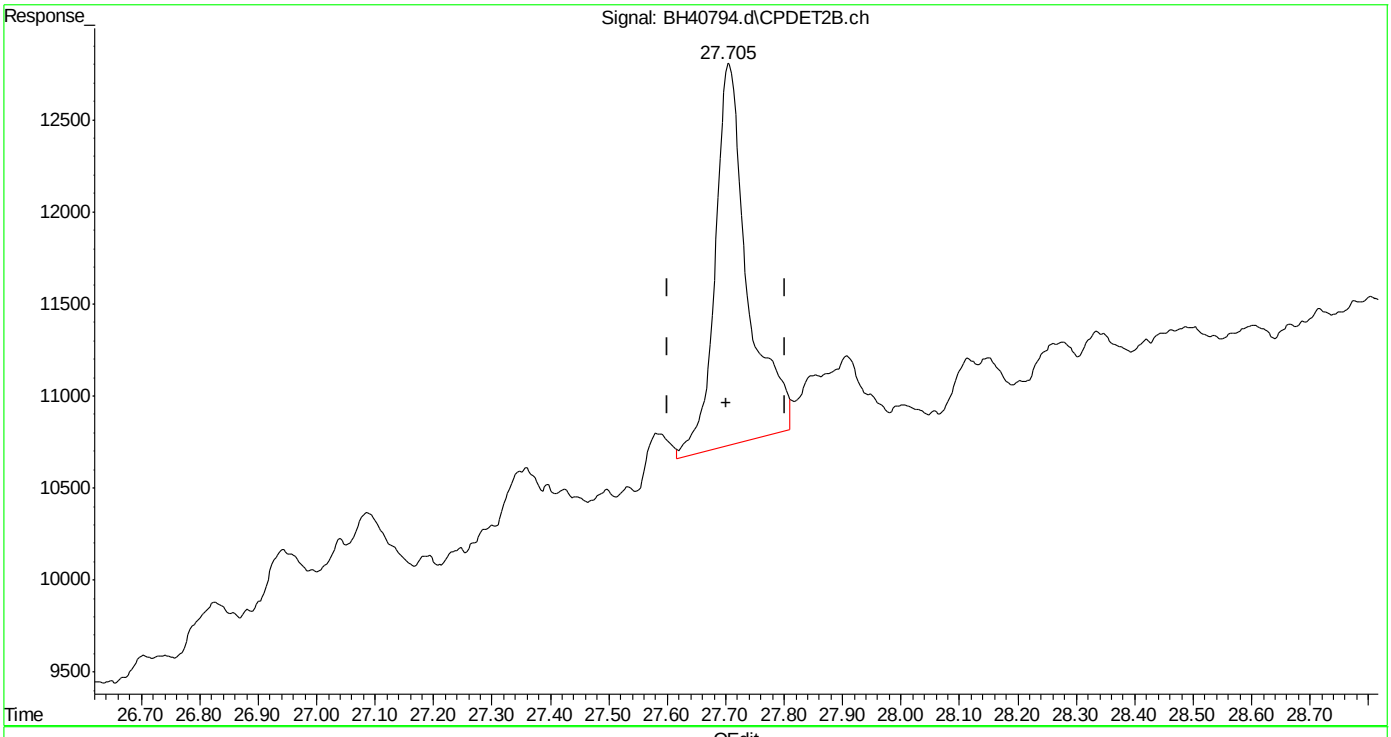
(+) = Expected Retention Time
bh161209vph.m Mon Dec 12 07:14:29 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40794.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 3:00 pm
Operator : tonyf
Sample : mc48999-2,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:38:03 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(24) naphthalene #2 (t)
27.705min 0.201 ppb m
response 79687

(+) = Expected Retention Time
bh161209vph.m Mon Dec 12 07:14:34 2016

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40795.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 3:35 pm
Operator : tonyf
Sample : mc48999-3,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:15:39 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.667	43172921	45.114	ppb	
Spiked Amount 50.000		Recovery =	90.23%		
6) s 2,3,4-trifluorotoluene	19.782	33786565	41.567	ppb	
Spiked Amount 50.000		Recovery =	83.13%		
16) s fluorobenzene #2	14.668	17115781	47.485	ppb	
Spiked Amount 50.000		Recovery =	94.97%		
18) s 2,3,4-trifluorotoluen...	19.782	9534959	43.925	ppb	
Spiked Amount 50.000		Recovery =	87.85%		
Target Compounds					
1) h rt5.5-7	5.980	3221714	3.354	ppb	m
2) h rt7/10	8.250	1155230	1.203	ppb	m
3) h rt10/13	13.360	2069698	2.154	ppb	m
8) h rt20/25	21.460	7171908	6.510	ppb	
25) h c9-c10 arom as 1,2,4-tmb	24.800	3016668	5.860	ppb	

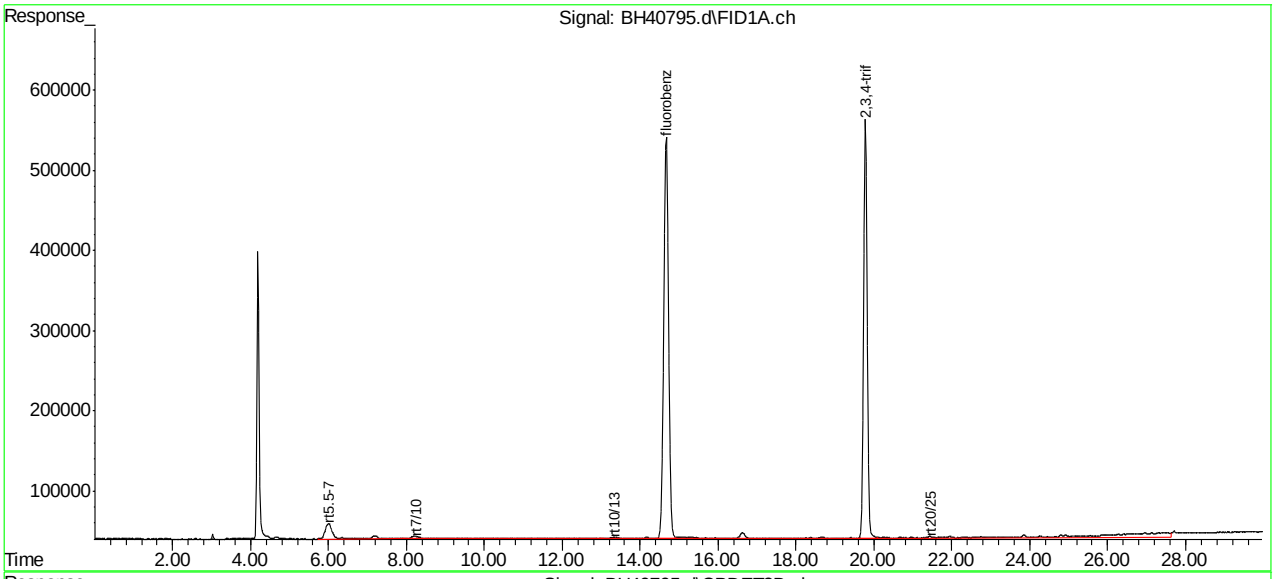
(f)=RT Delta > 1/2 Window (m)=manual int.

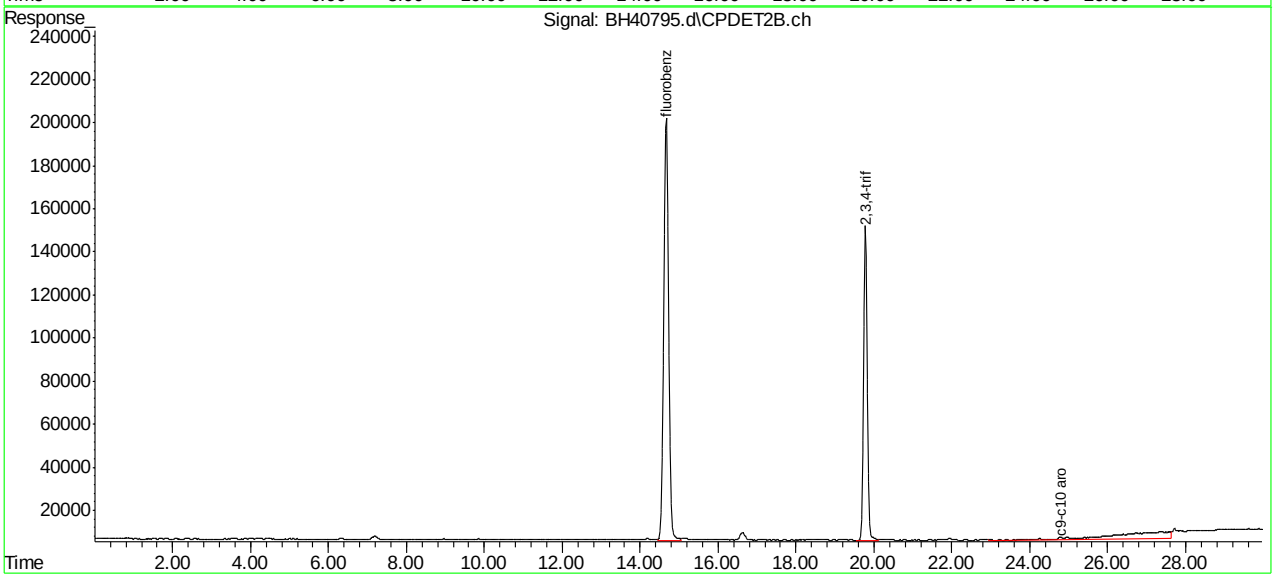
Quantitation Report (QT Reviewed)

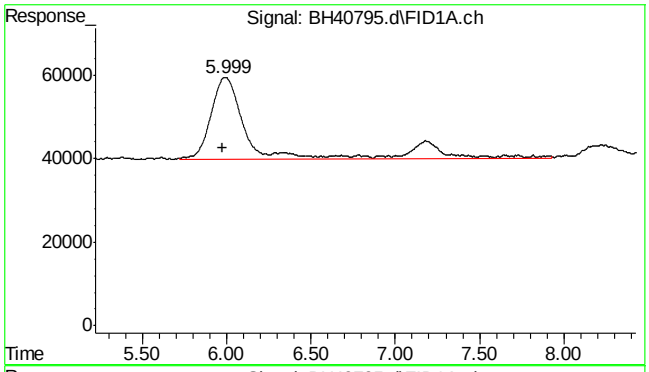
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40795.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 3:35 pm
Operator : tonyf
Sample : mc48999-3,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:15:39 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

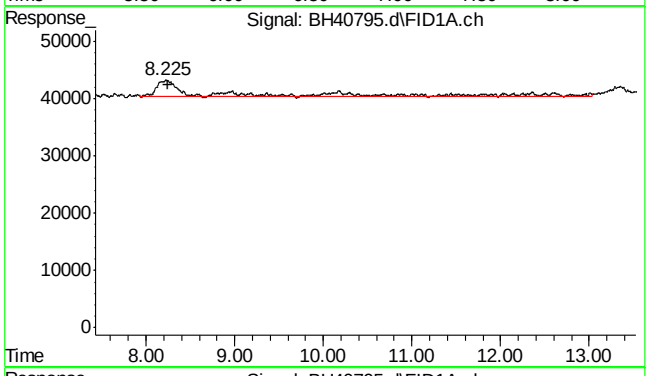






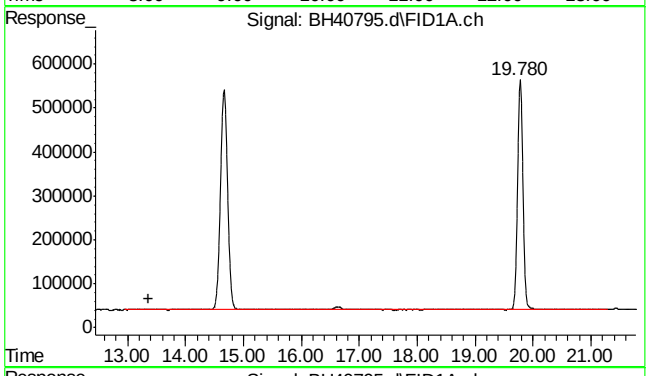
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 3221714
Conc: 3.35 ppb m



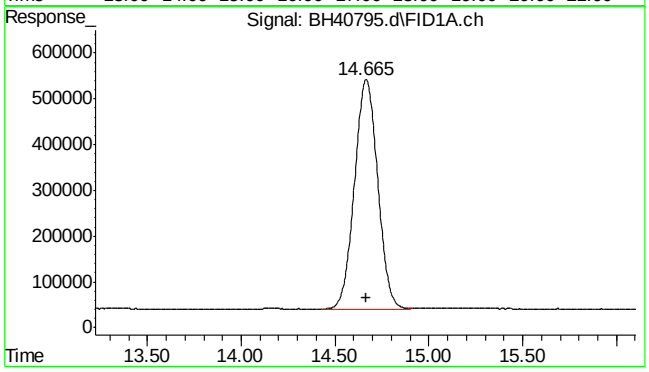
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 1155230
Conc: 1.20 ppb m



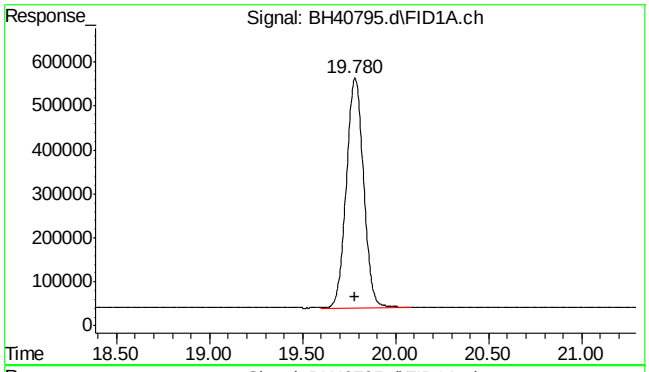
#3 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 2069698
Conc: 2.15 ppb m



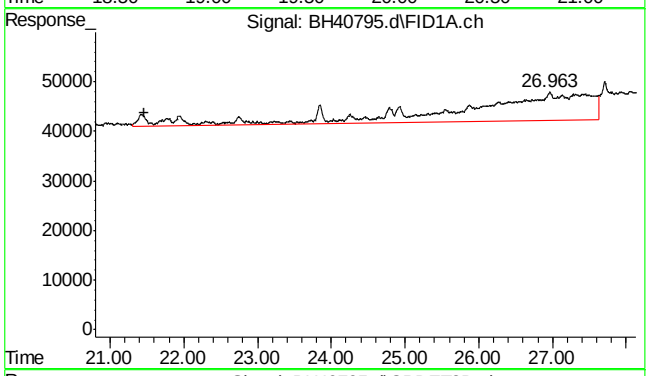
#4 fluorobenzene

R.T.: 14.667 min
Delta R.T.: 0.003 min
Response: 43172921
Conc: 45.11 ppb



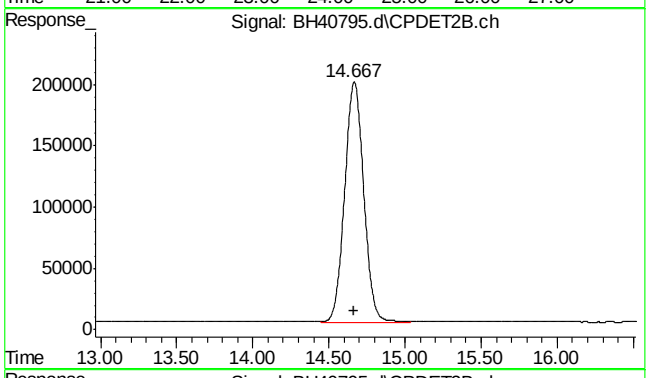
#6 2,3,4-trifluorotoluene

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 33786565
Conc: 41.57 ppb



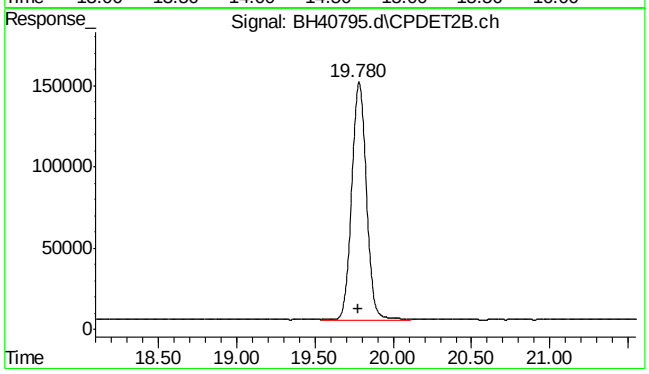
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 7171908
Conc: 6.51 ppb



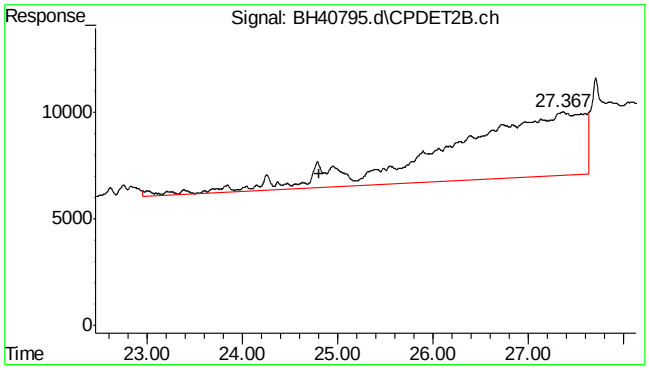
#16 fluorobenzene #2

R.T.: 14.668 min
Delta R.T.: 0.004 min
Response: 17115781
Conc: 47.49 ppb



#18 2,3,4-trifluorotoluene #2

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 9534959
Conc: 43.93 ppb



#25 c9-c10 arom as 1,2,4-tmb

R.T.:	24.800 min
Delta R.T.:	0.000 min
Response:	3016668
Conc:	5.86 ppb

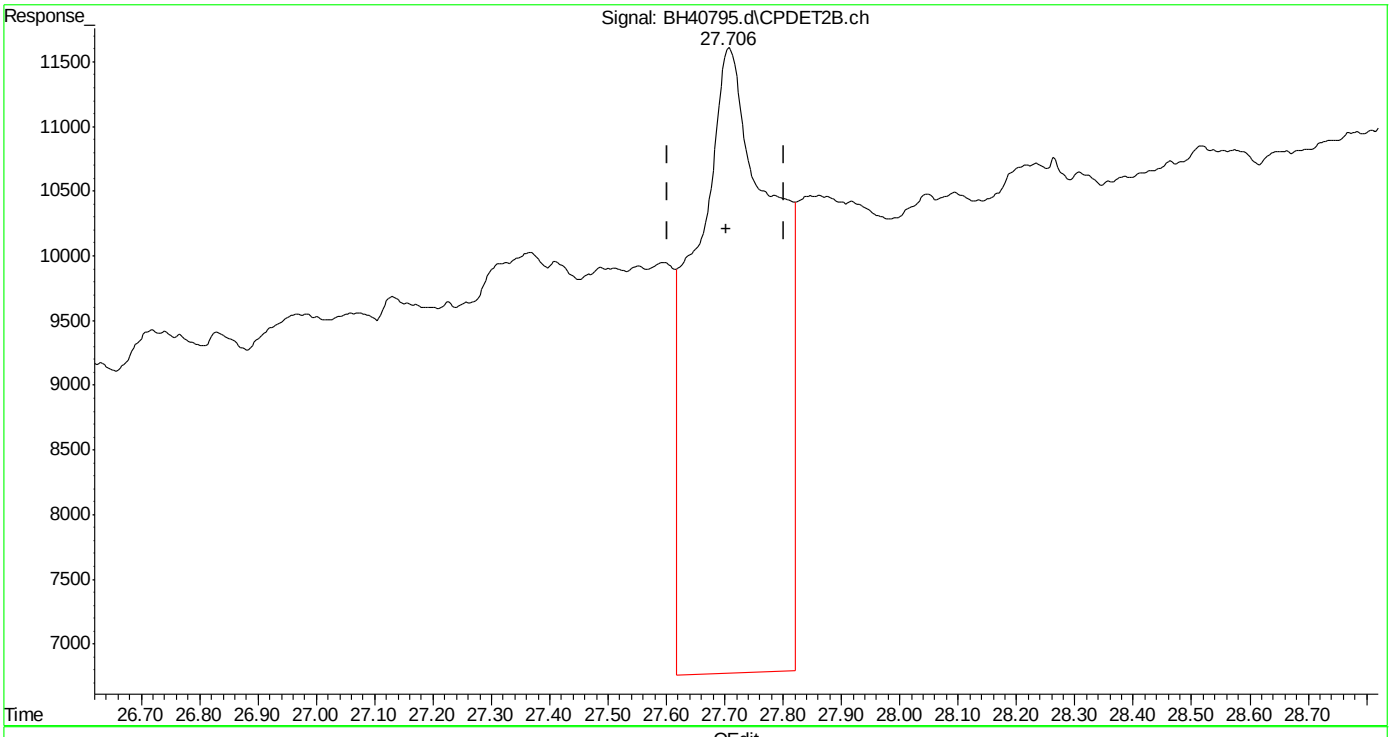
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40795.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 3:35 pm
Operator : tonyf
Sample : mc48999-3,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 15 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:38:11 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(24) naphthalene #2 (t)
27.709min 1.180 ppb
response 468354

(+) = Expected Retention Time
bh161209vph.m Mon Dec 12 07:15:35 2016 Page: 1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40806.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 9:55 pm
Operator : tonyf
Sample : mc48999-4,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 11:02:42 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.665	42442795	44.351	ppb	
Spiked Amount 50.000		Recovery =	88.70%		
6) s 2,3,4-trifluorotoluene	19.781	33071064	40.687	ppb	
Spiked Amount 50.000		Recovery =	81.37%		
16) s fluorobenzene #2	14.666	16882343	46.837	ppb	
Spiked Amount 50.000		Recovery =	93.67%		
18) s 2,3,4-trifluorotoluen...	19.781	9514407	43.831	ppb	
Spiked Amount 50.000		Recovery =	87.66%		
Target Compounds					
1) h rt5.5-7	5.980	1171493	1.219	ppb	m
2) h rt7/10	8.250	952075	0.991	ppb	m
3) h rt10/13	13.360	1575846	1.640	ppb	m
8) h rt20/25	21.460	6812458	6.184	ppb	
25) h c9-c10 arom as 1,2,4-tmb	24.800	2944347	5.719	ppb	m

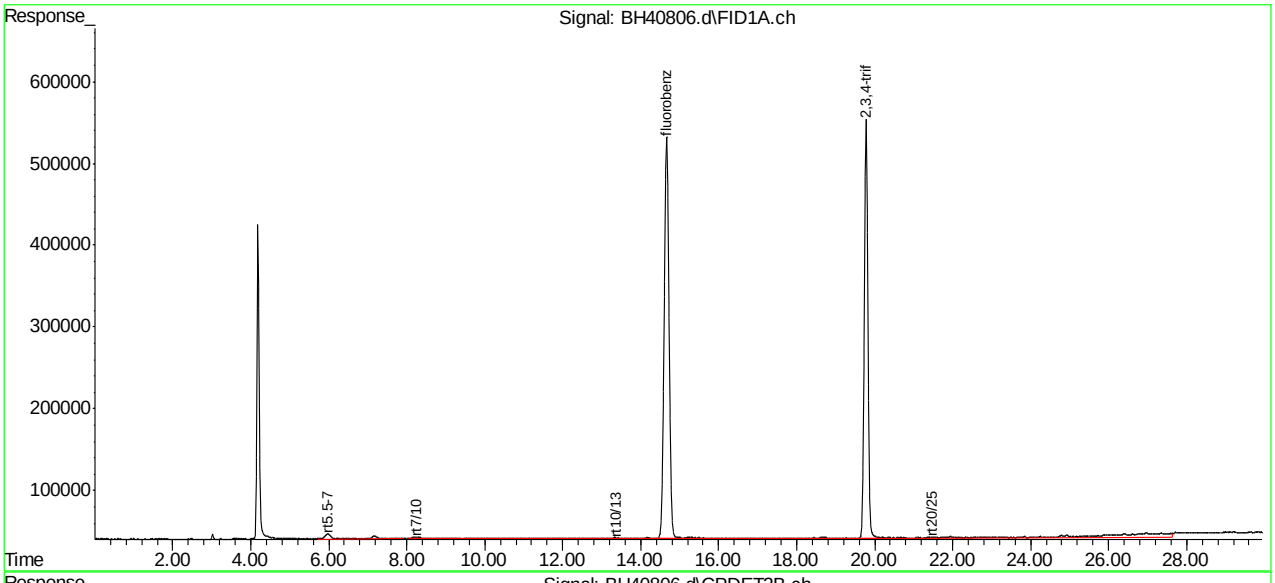
(f)=RT Delta > 1/2 Window (m)=manual int.

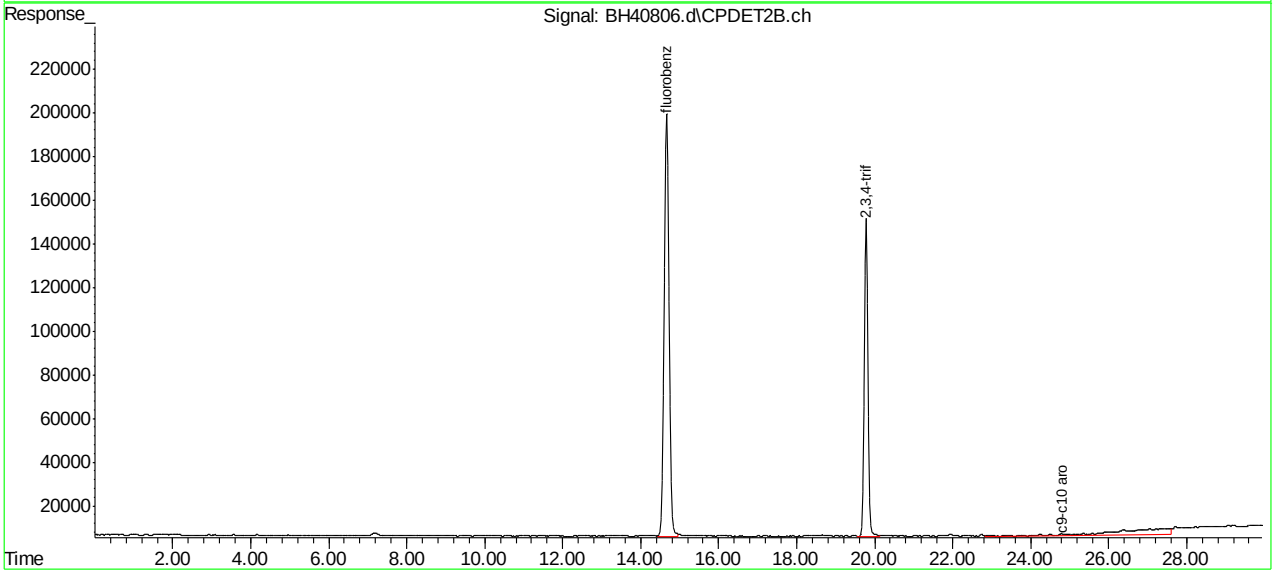
Quantitation Report (QT Reviewed)

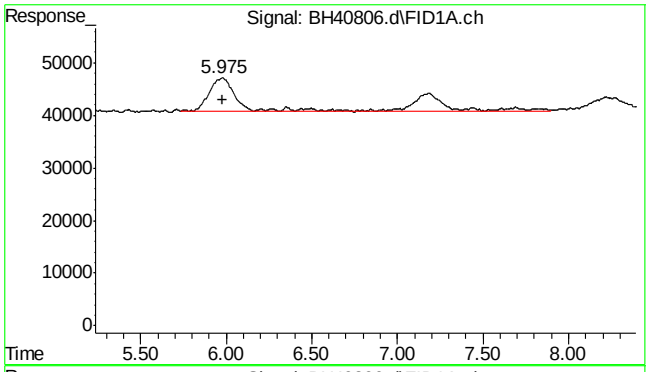
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40806.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 9:55 pm
Operator : tonyf
Sample : mc48999-4,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 11:02:42 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

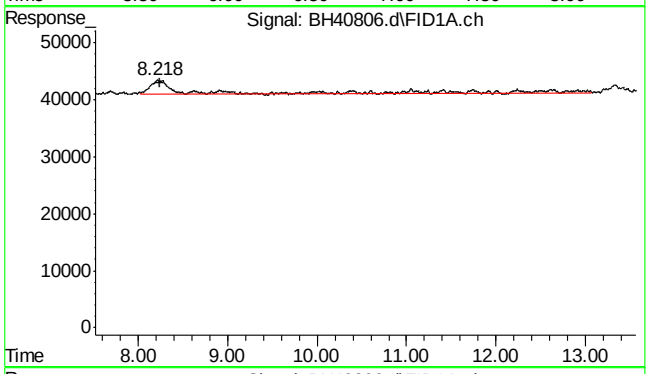






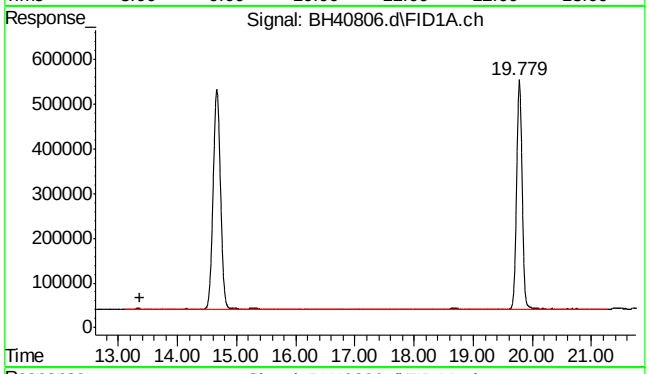
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 1171493
Conc: 1.22 ppb m



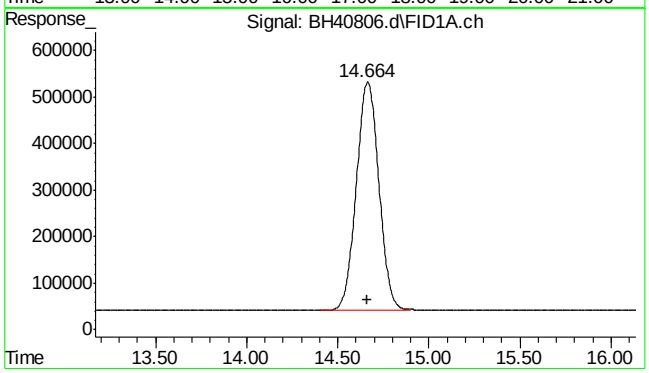
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 952075
Conc: 0.99 ppb m



#3 rt10/13

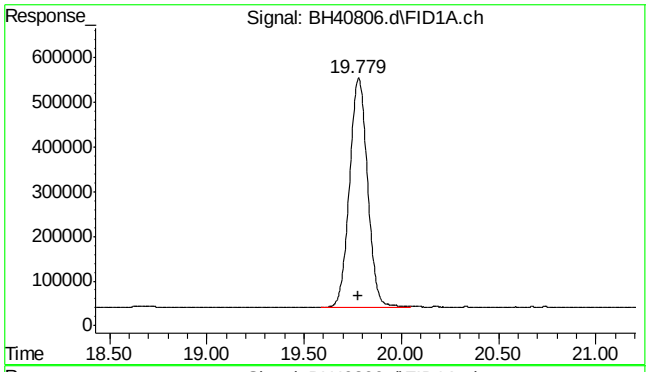
R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 1575846
Conc: 1.64 ppb m



#4 fluorobenzene

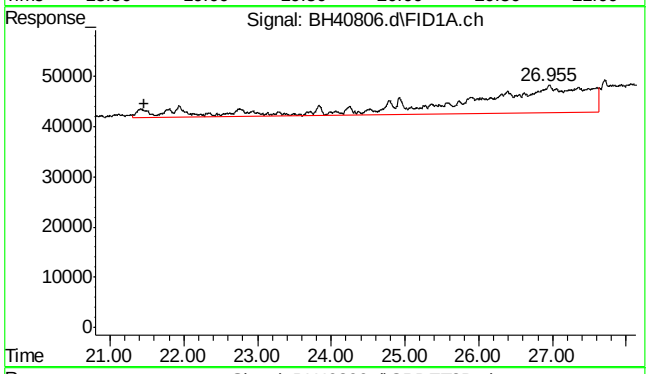
R.T.: 14.665 min
Delta R.T.: 0.000 min
Response: 42442795
Conc: 44.35 ppb

SGS ACCUTEST MC48999



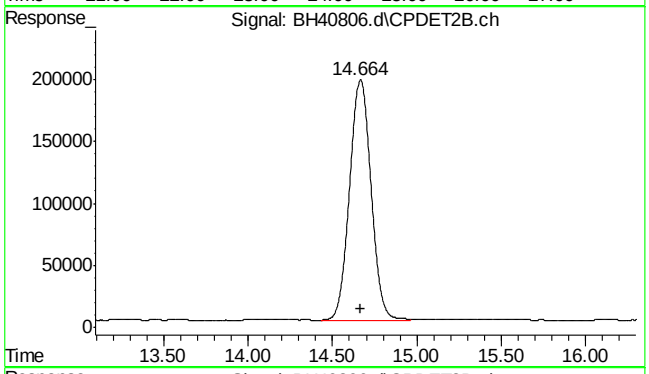
#6 2,3,4-trifluorotoluene

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 33071064
Conc: 40.69 ppb



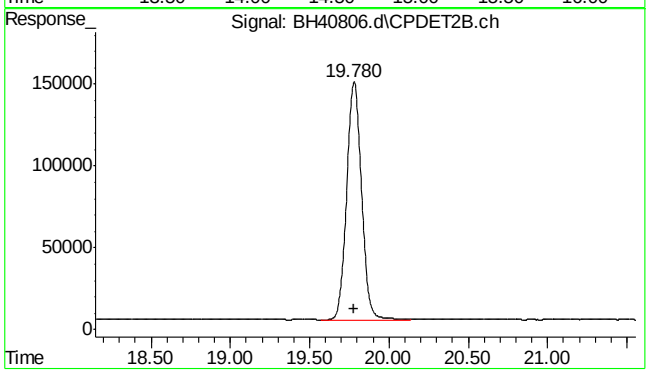
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 6812458
Conc: 6.18 ppb



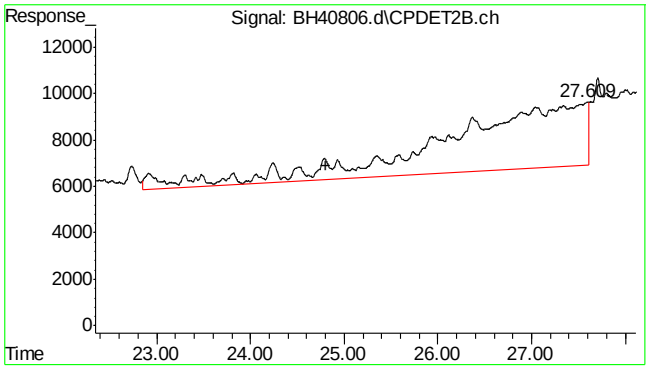
#16 fluorobenzene #2

R.T.: 14.666 min
Delta R.T.: 0.002 min
Response: 16882343
Conc: 46.84 ppb



#18 2,3,4-trifluorotoluene #2

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 9514407
Conc: 43.83 ppb



#25 c9-c10 arom as 1,2,4-tmb

R.T.:	24.800 min
Delta R.T.:	0.000 min
Response:	2944347
Conc:	5.72 ppb m

7.1.4

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40807.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 10:30 pm
Operator : tonyf
Sample : mc48999-5,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 27 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 11:03:34 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.665	43898865	45.873	ppb	
Spiked Amount 50.000		Recovery =	91.75%		
6) s 2,3,4-trifluorotoluene	19.781	34235846	42.120	ppb	
Spiked Amount 50.000		Recovery =	84.24%		
16) s fluorobenzene #2	14.666	17474487	48.480	ppb	
Spiked Amount 50.000		Recovery =	96.96%		
18) s 2,3,4-trifluorotoluen...	19.781	9817183	45.225	ppb	
Spiked Amount 50.000		Recovery =	90.45%		
Target Compounds					
1) h rt5.5-7	5.980	1505875	1.568	ppb	m
2) h rt7/10	8.250	1169691	1.218	ppb	m
3) h rt10/13	13.360	1478377	1.539	ppb	m
8) h rt20/25	21.460	6871160	6.237	ppb	
25) h c9-c10 arom as 1,2,4-tmb	24.800	2818459	5.475	ppb	m

(f)=RT Delta > 1/2 Window (m)=manual int.

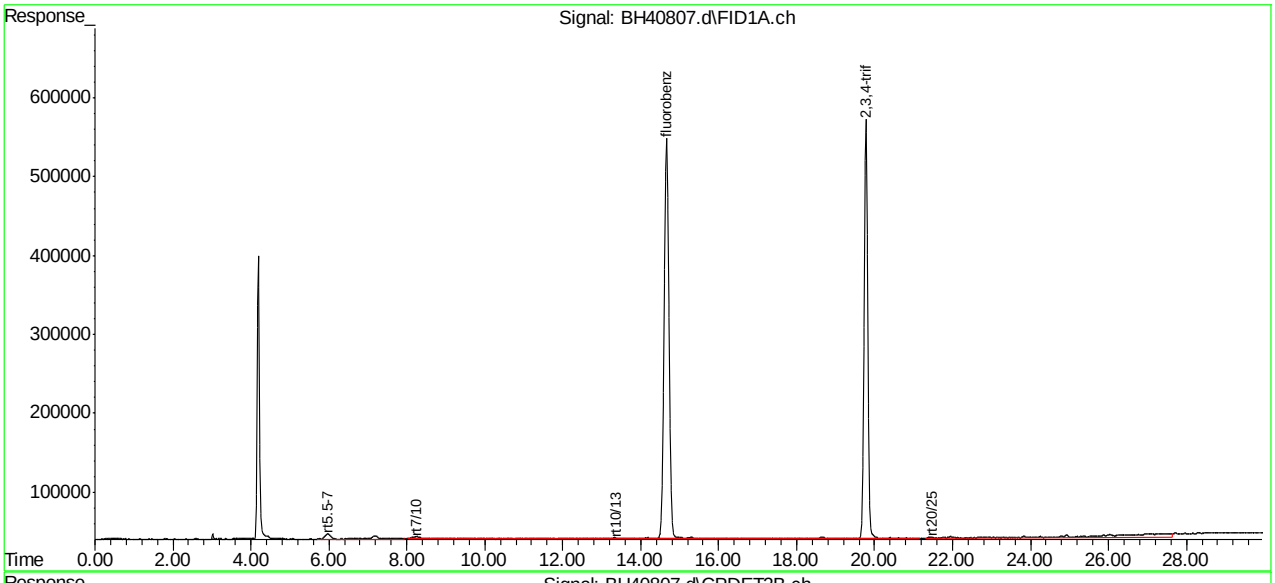
SGS ACCUTEST MC48999

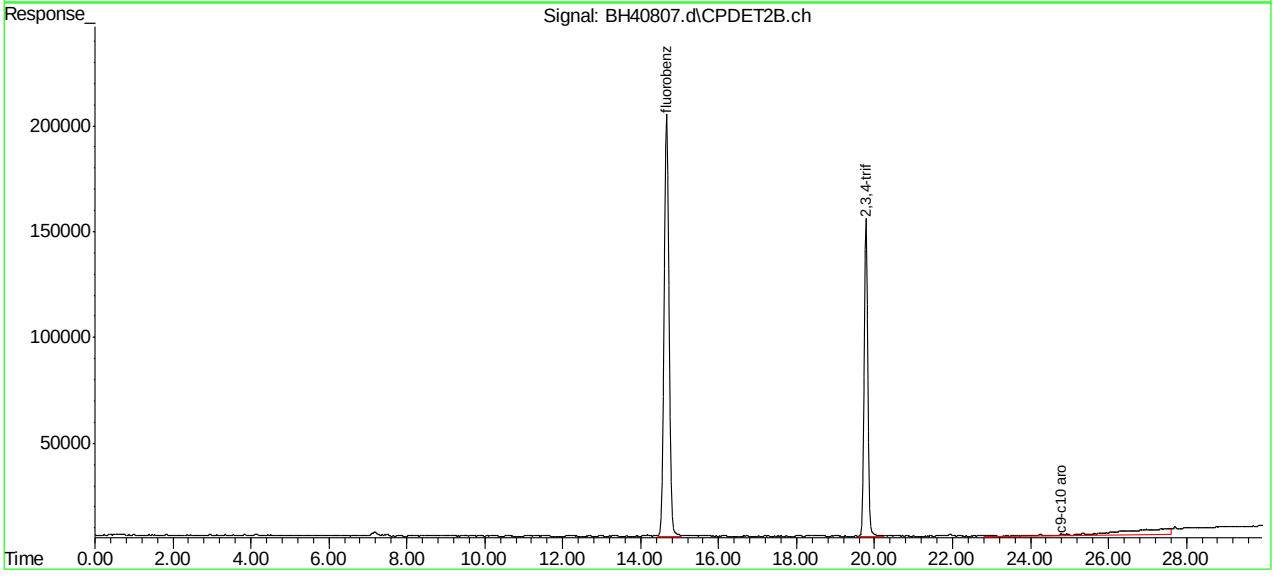
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40807.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 10:30 pm
Operator : tonyf
Sample : mc48999-5,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 27 Sample Multiplier: 1

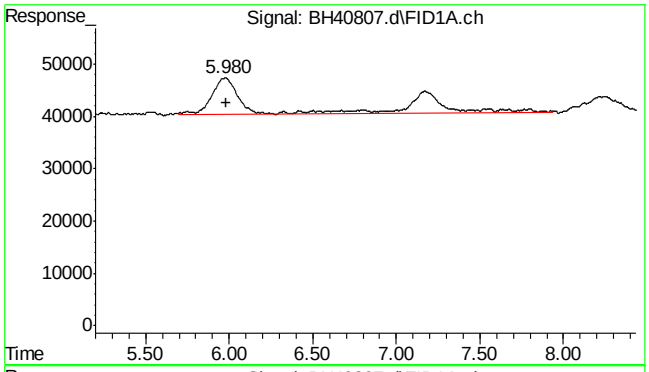
Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 11:03:34 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



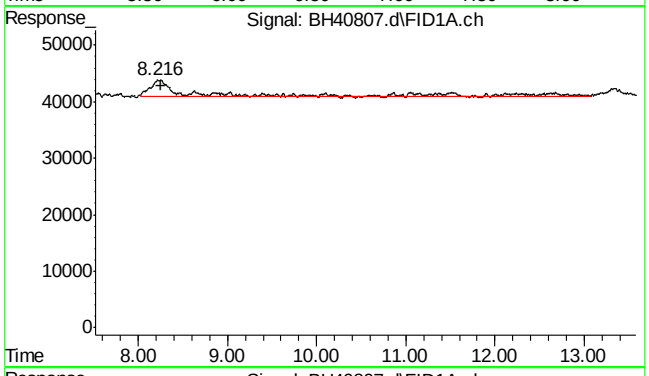


SGS ACCUTEST MC48999



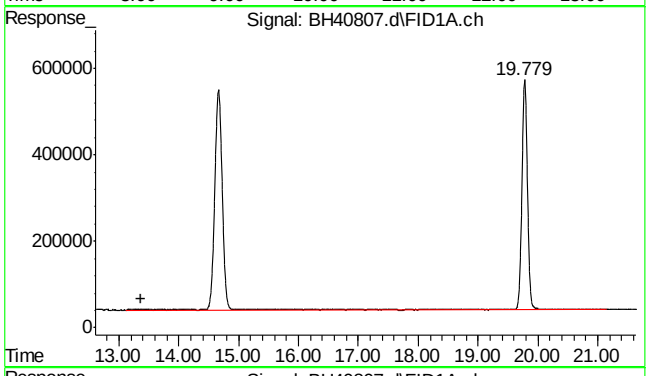
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 1505875
Conc: 1.57 ppb m



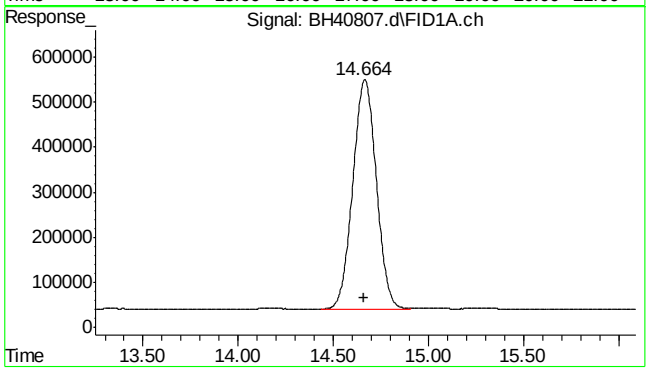
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 1169691
Conc: 1.22 ppb m



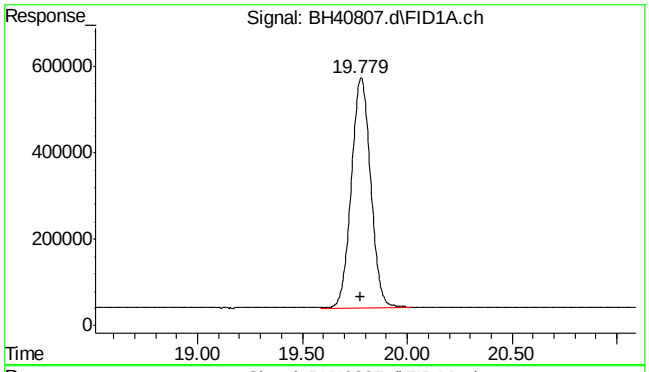
#3 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 1478377
Conc: 1.54 ppb m



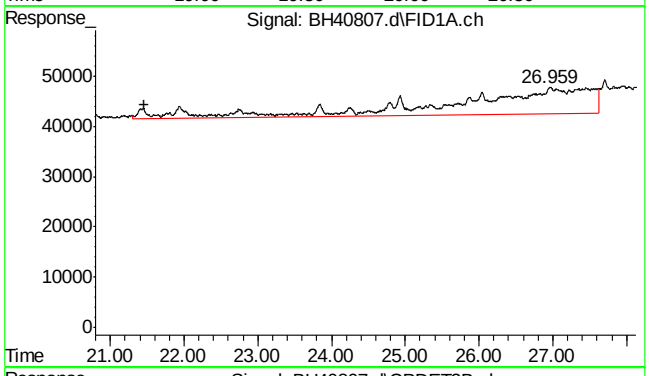
#4 fluorobenzene

R.T.: 14.665 min
Delta R.T.: 0.001 min
Response: 43898865
Conc: 45.87 ppb



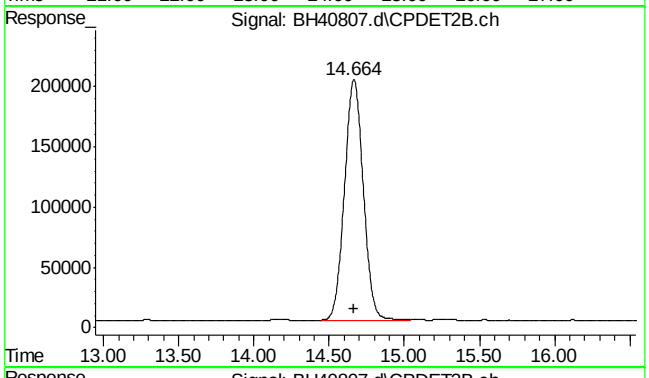
#6 2,3,4-trifluorotoluene

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 34235846
Conc: 42.12 ppb



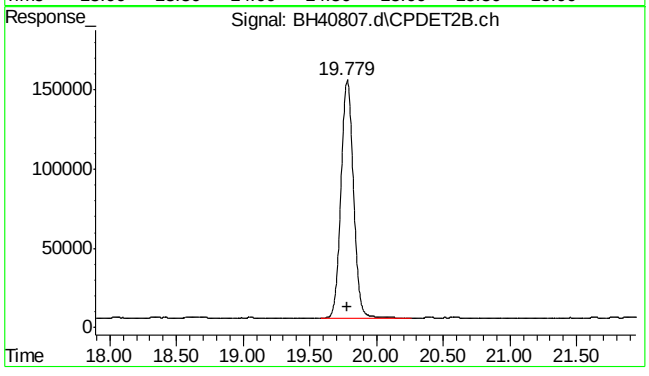
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 6871160
Conc: 6.24 ppb



#16 fluorobenzene #2

R.T.: 14.666 min
Delta R.T.: 0.002 min
Response: 17474487
Conc: 48.48 ppb



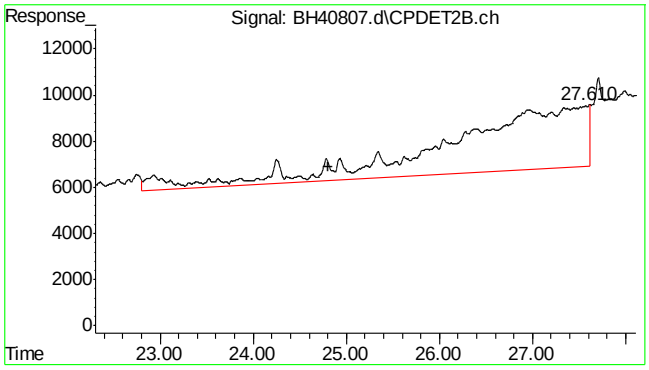
#18 2,3,4-trifluorotoluene #2

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 9817183
Conc: 45.23 ppb

7.1.5

7

SGS ACCUTEST MC48999



#25 c9-c10 arom as 1,2,4-tmb

R.T.:	24.800 min
Delta R.T.:	0.000 min
Response:	2818459
Conc:	5.47 ppb m

7.1.5

7

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40808.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 11:04 pm
Operator : tonyf
Sample : mc48999-6,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 11:04:37 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.666	42969998	44.902	ppb	
Spiked Amount 50.000		Recovery =	89.80%		
6) s 2,3,4-trifluorotoluene	19.781	33646977	41.395	ppb	
Spiked Amount 50.000		Recovery =	82.79%		
16) s fluorobenzene #2	14.666	17055861	47.319	ppb	
Spiked Amount 50.000		Recovery =	94.64%		
18) s 2,3,4-trifluorotoluen...	19.781	9571896	44.095	ppb	
Spiked Amount 50.000		Recovery =	88.19%		
Target Compounds					
1) h rt5.5-7	5.980	1312292	1.366	ppb	m
2) h rt7/10	8.250	1097605	1.143	ppb	m
3) h rt10/13	13.360	3108138	3.235	ppb	
8) h rt20/25	21.460	6428731	5.835	ppb	
25) h c9-c10 arom as 1,2,4-tmb	24.800	2610020	5.070	ppb	m

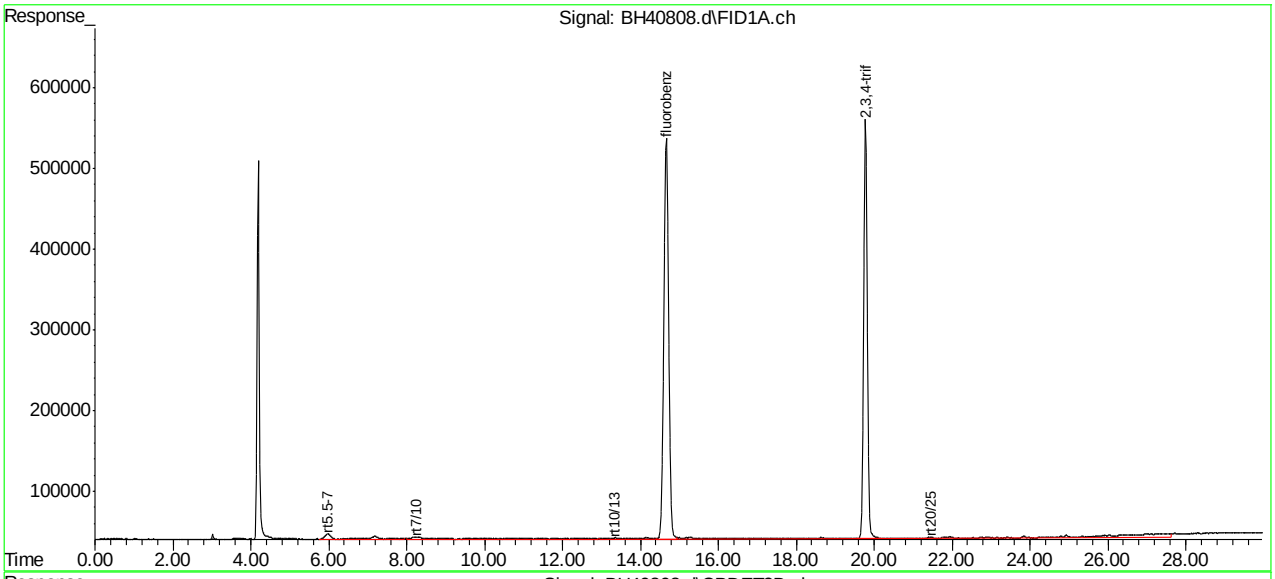
(f)=RT Delta > 1/2 Window (m)=manual int.

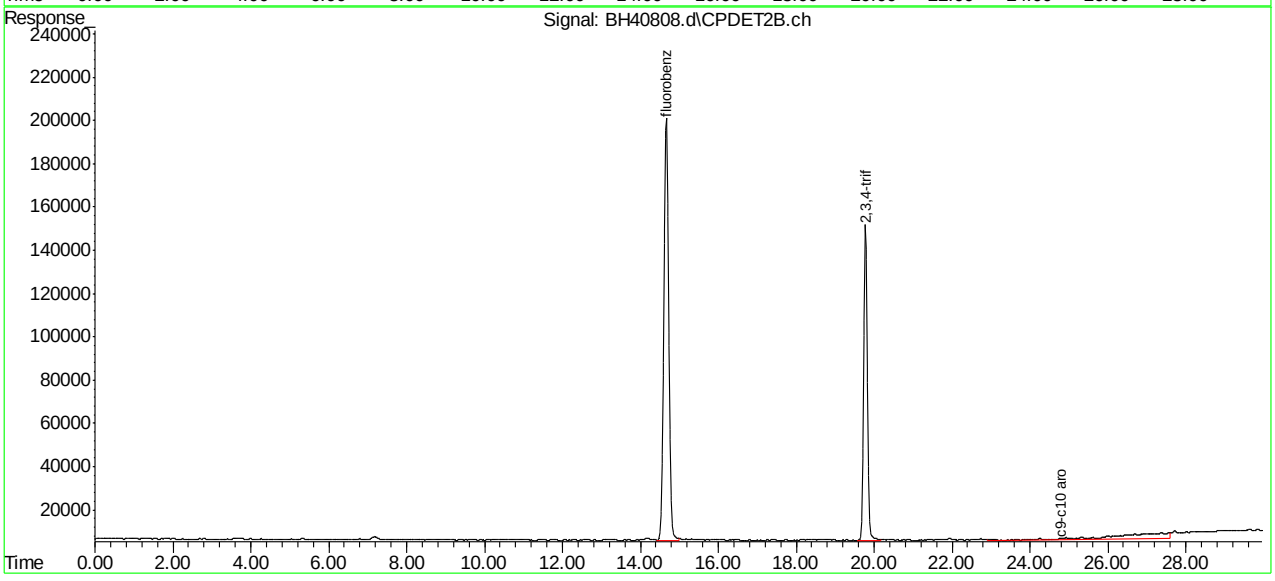
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40808.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 11:04 pm
Operator : tonyf
Sample : mc48999-6,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 28 Sample Multiplier: 1

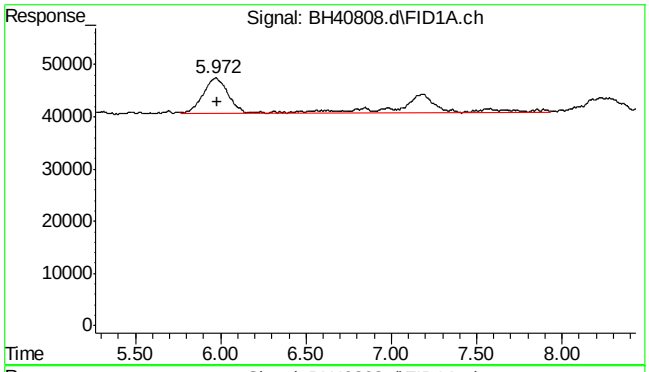
Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 11:04:37 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



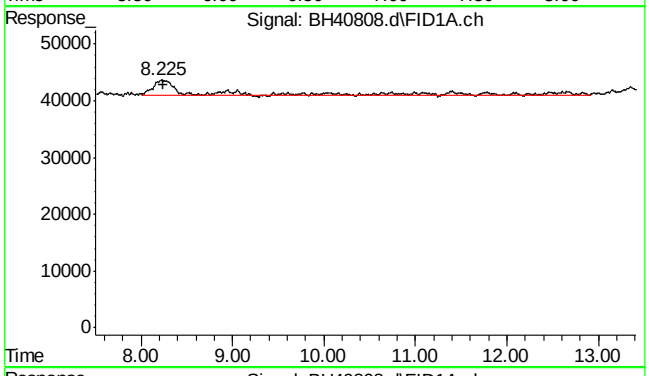


SGS ACCUTEST MC48999



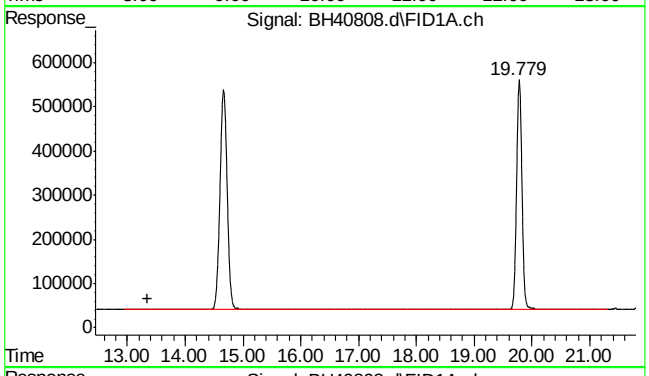
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 1312292
Conc: 1.37 ppb m



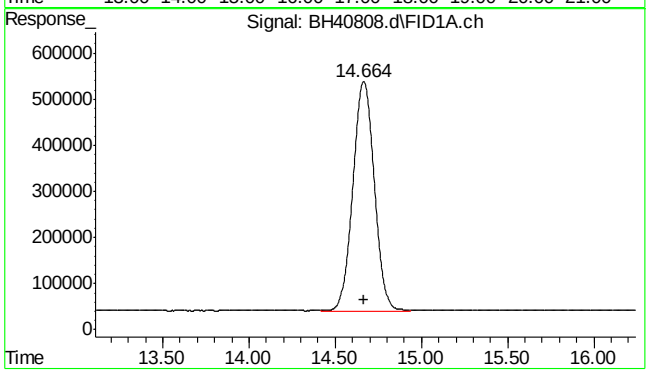
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 1097605
Conc: 1.14 ppb m



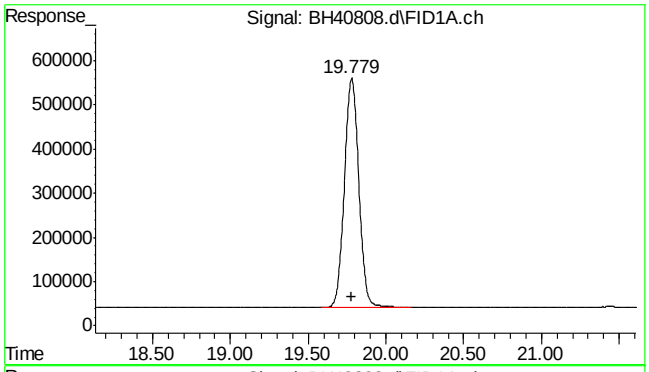
#3 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 3108138
Conc: 3.24 ppb



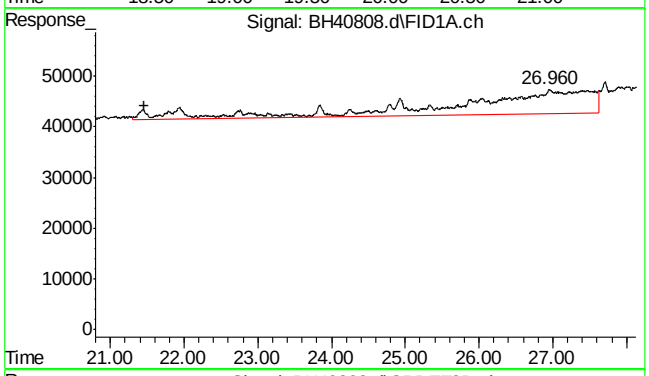
#4 fluorobenzene

R.T.: 14.666 min
Delta R.T.: 0.002 min
Response: 42969998
Conc: 44.90 ppb



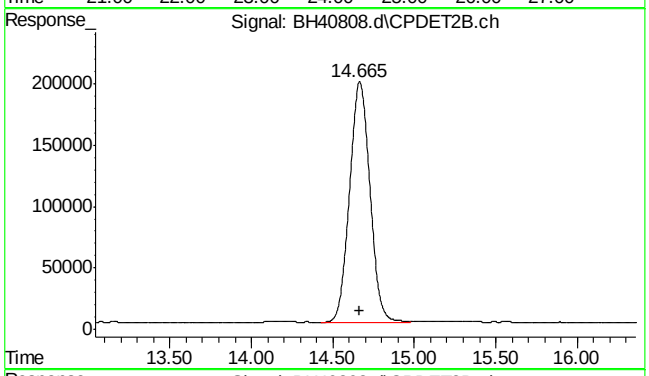
#6 2,3,4-trifluorotoluene

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 33646977
Conc: 41.40 ppb



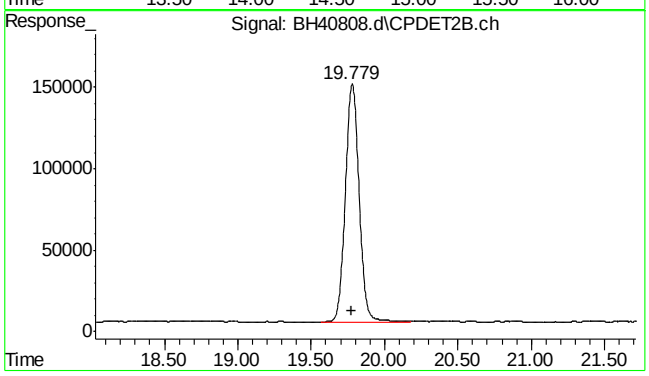
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 6428731
Conc: 5.84 ppb



#16 fluorobenzene #2

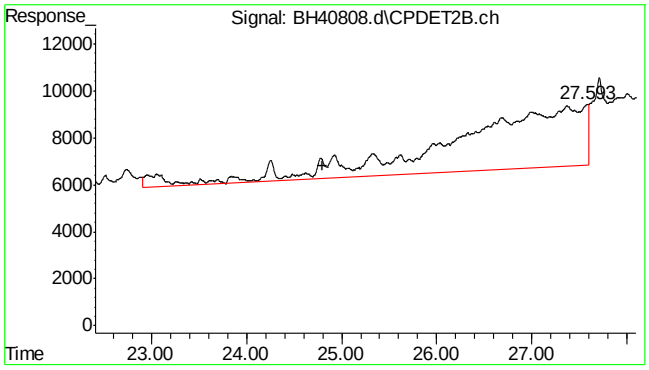
R.T.: 14.666 min
Delta R.T.: 0.002 min
Response: 17055861
Conc: 47.32 ppb



#18 2,3,4-trifluorotoluene #2

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 9571896
Conc: 44.10 ppb

SGS ACCUTEST MC48999



#25 c9-c10 arom as 1,2,4-tmb

R.T.:	24.800 min
Delta R.T.:	0.000 min
Response:	2610020
Conc:	5.07 ppb m

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40796.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 4:09 pm
Operator : tonyf
Sample : mc48999-7,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:16:33 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.666	43141618	45.081	ppb	
Spiked Amount 50.000		Recovery =	90.16%		
6) s 2,3,4-trifluorotoluene	19.781	33725320	41.492	ppb	
Spiked Amount 50.000		Recovery =	82.98%		
16) s fluorobenzene #2	14.666	16789793	46.581	ppb	
Spiked Amount 50.000		Recovery =	93.16%		
18) s 2,3,4-trifluorotoluen...	19.782	9528713	43.896	ppb	
Spiked Amount 50.000		Recovery =	87.79%		
Target Compounds					
1) h rt5.5-7	5.980	1406360	1.464	ppb	m
2) h rt7/10	8.250	1104086	1.149	ppb	m
3) h rt10/13	13.360	3607238	3.755	ppb	
8) h rt20/25	21.460	6718435	6.098	ppb	
25) h c9-c10 arom as 1,2,4-tmb	24.800	2652094	5.151	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

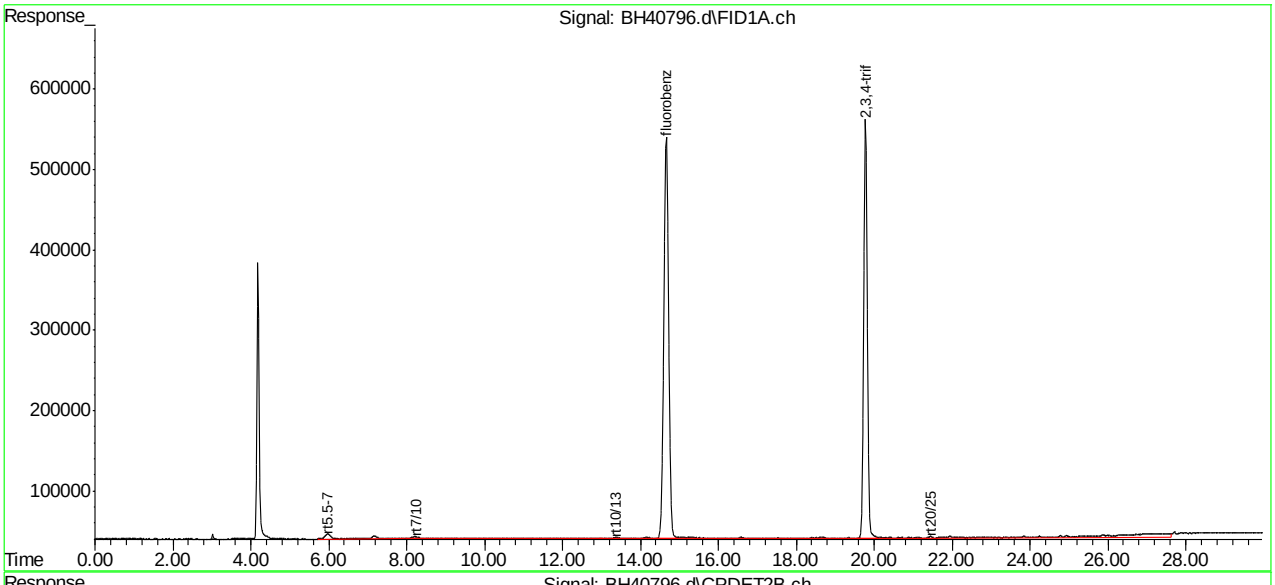
SGS ACCUTEST MC48999

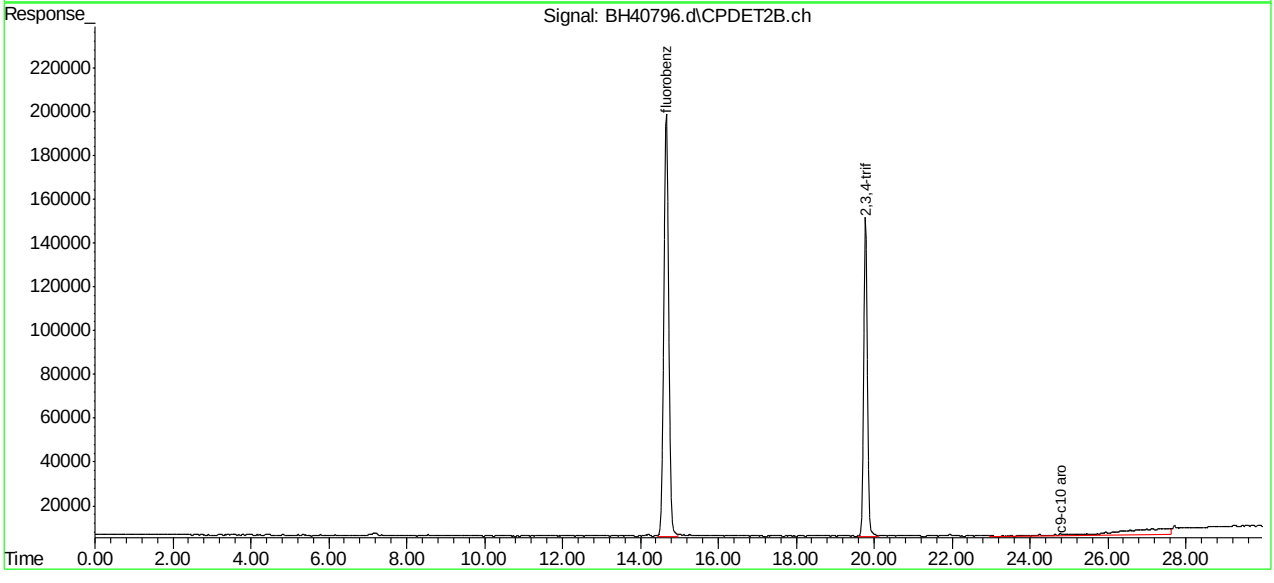
Quantitation Report (QT Reviewed)

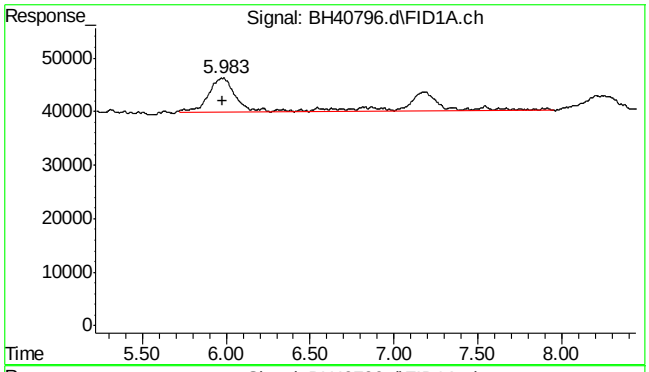
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40796.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 4:09 pm
Operator : tonyf
Sample : mc48999-7,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:16:33 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

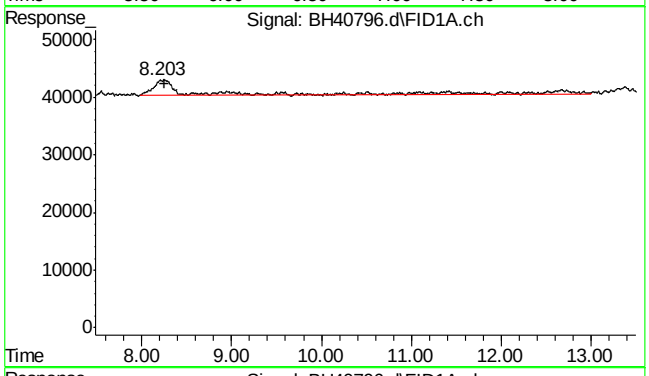






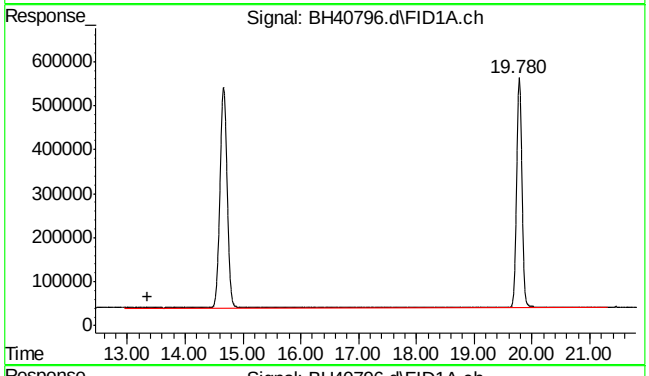
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 1406360
Conc: 1.46 ppb m



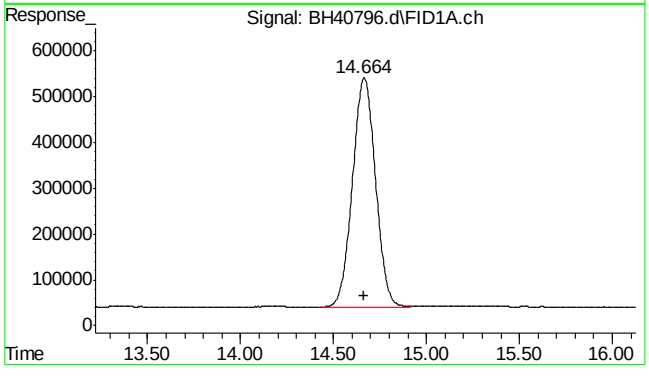
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 1104086
Conc: 1.15 ppb m



#3 rt10/13

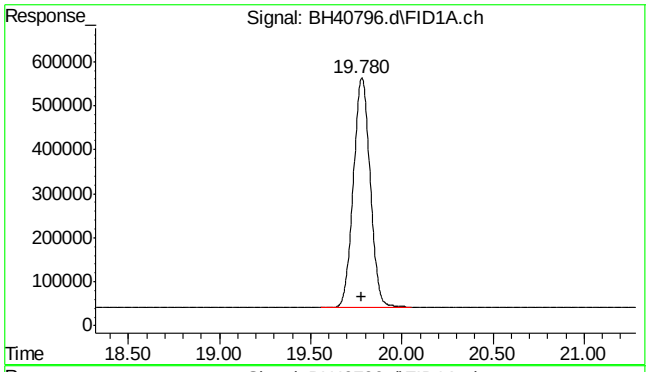
R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 3607238
Conc: 3.75 ppb



#4 fluorobenzene

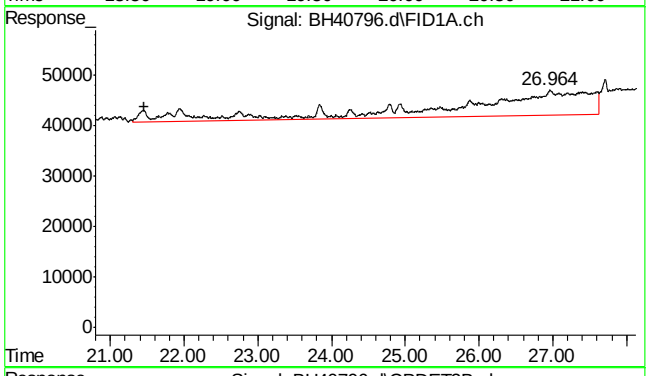
R.T.: 14.666 min
Delta R.T.: 0.002 min
Response: 43141618
Conc: 45.08 ppb

SGS ACCUTEST MC48999



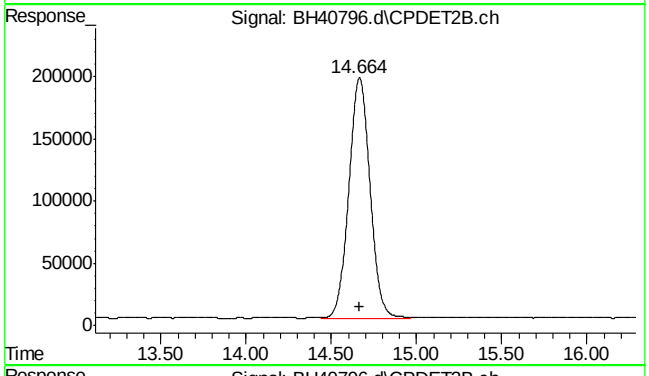
#6 2,3,4-trifluorotoluene

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 33725320
Conc: 41.49 ppb



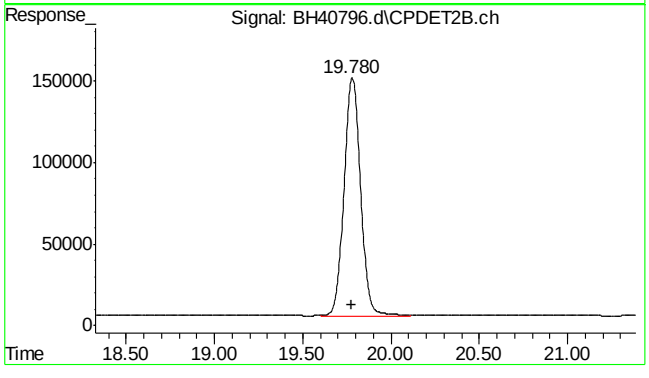
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 6718435
Conc: 6.10 ppb



#16 fluorobenzene #2

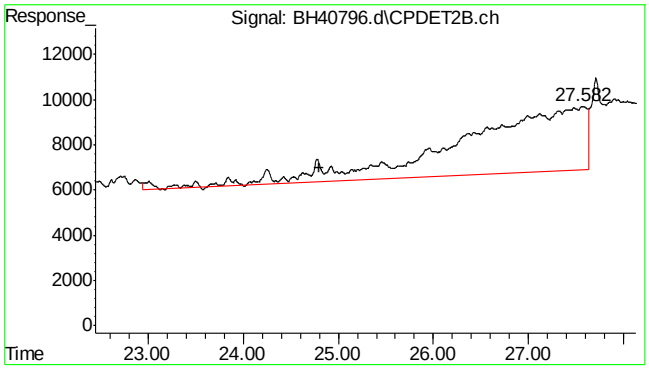
R.T.: 14.666 min
Delta R.T.: 0.002 min
Response: 16789793
Conc: 46.58 ppb



#18 2,3,4-trifluorotoluene #2

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 9528713
Conc: 43.90 ppb

SGS ACCUTEST MC48999



#25 c9-c10 arom as 1,2,4-tmb

R.T.:	24.800 min
Delta R.T.:	0.000 min
Response:	2652094
Conc:	5.15 ppb

7.1.7

7

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40797.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 4:44 pm
Operator : tonyf
Sample : mc48999-8,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:17:07 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s fluorobenzene	14.666	42976826	44.909 ppb
Spiked Amount 50.000		Recovery =	89.82%
6) s 2,3,4-trifluorotoluene	19.781	33538319	41.262 ppb
Spiked Amount 50.000		Recovery =	82.52%
16) s fluorobenzene #2	14.667	16546302	45.905 ppb
Spiked Amount 50.000		Recovery =	91.81%
18) s 2,3,4-trifluorotoluen...	19.781	9383006	43.225 ppb
Spiked Amount 50.000		Recovery =	86.45%
Target Compounds			
1) h rt5.5-7	5.980	1939715	2.019 ppb
2) h rt7/10	8.250	1866116	1.942 ppb
3) h rt10/13	13.360	3614067	3.762 ppb
8) h rt20/25	21.460	6714542	6.095 ppb
25) h c9-c10 arom as 1,2,4-tmb	24.800	2841597	5.520 ppb m

(f)=RT Delta > 1/2 Window (m)=manual int.

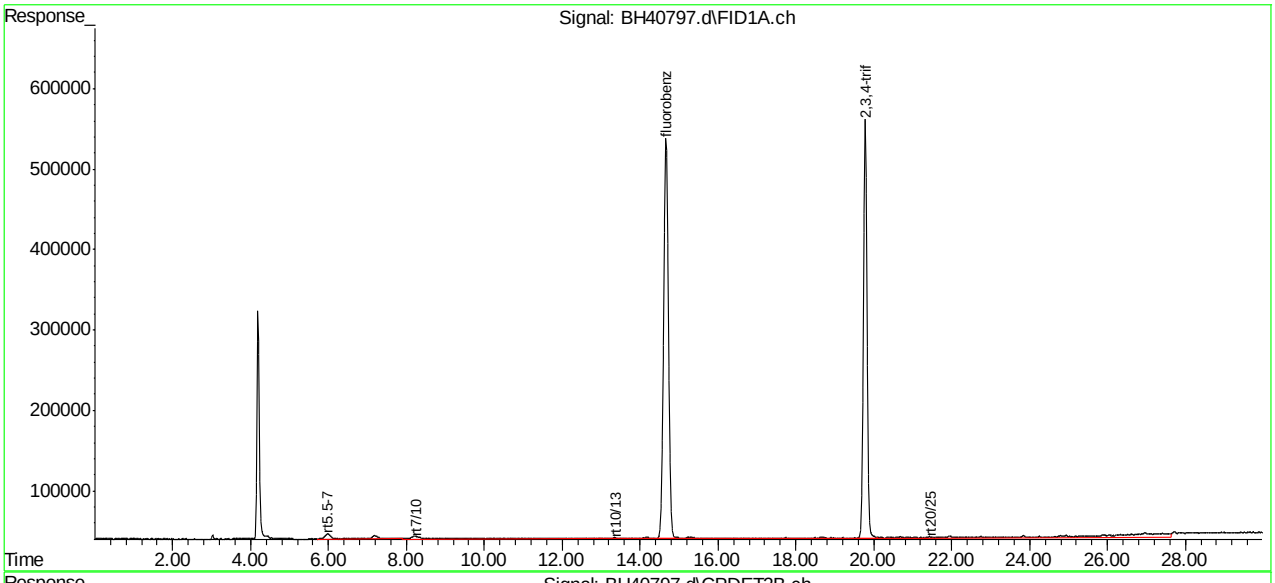
SGS ACCUTEST MC48999

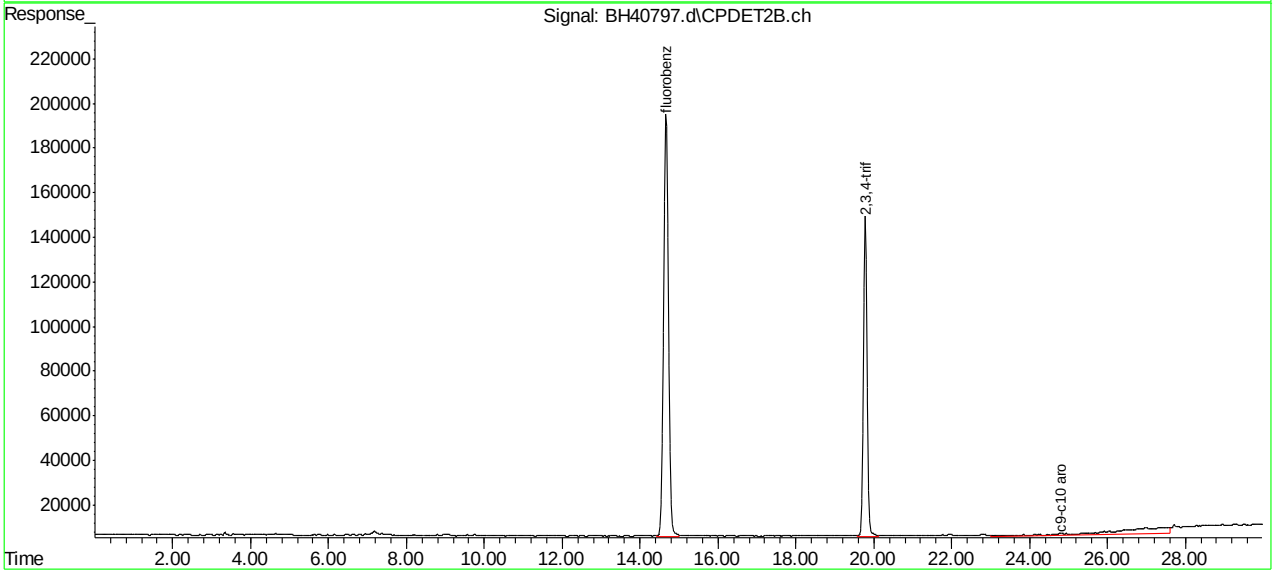
Quantitation Report (QT Reviewed)

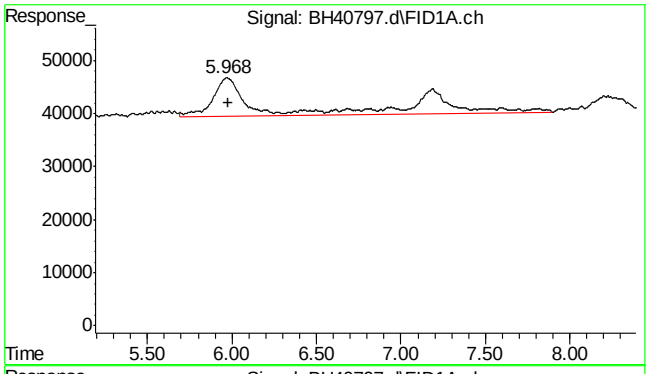
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40797.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 4:44 pm
Operator : tonyf
Sample : mc48999-8,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:17:07 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

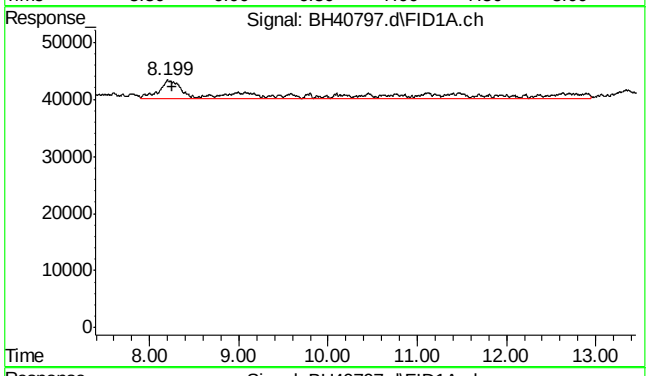






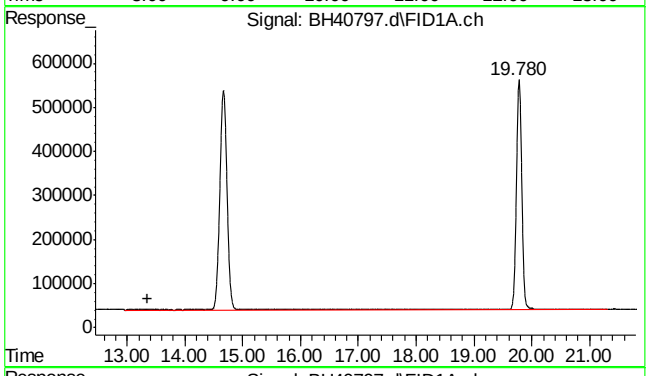
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 1939715
Conc: 2.02 ppb



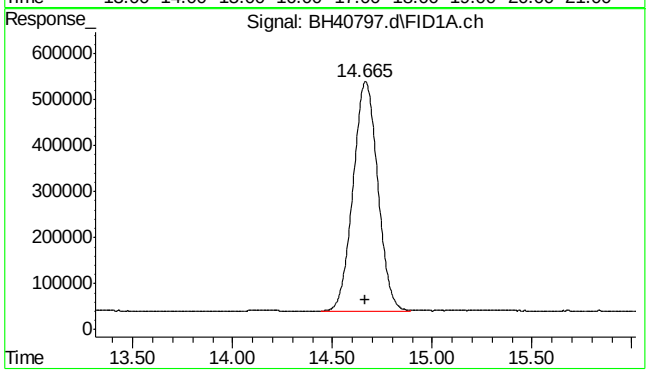
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 1866116
Conc: 1.94 ppb



#3 rt10/13

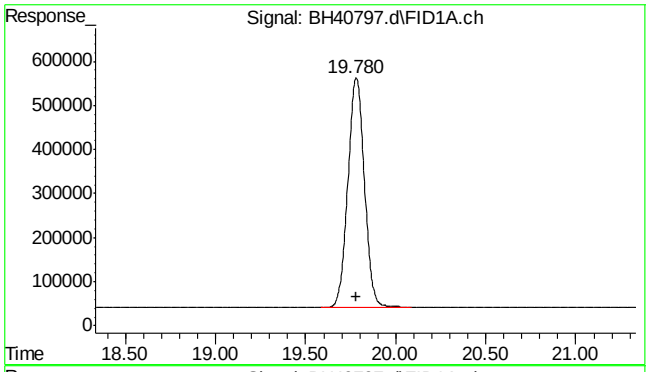
R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 3614067
Conc: 3.76 ppb



#4 fluorobenzene

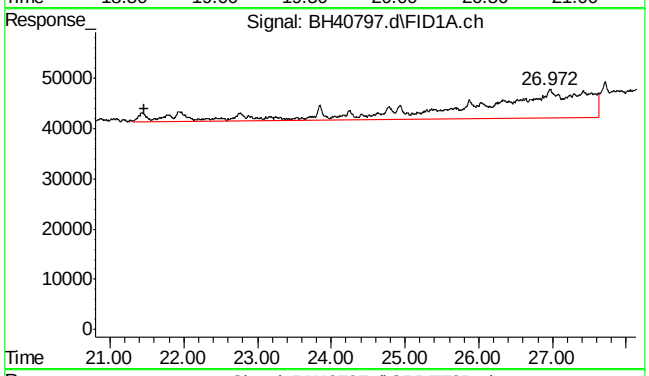
R.T.: 14.666 min
Delta R.T.: 0.002 min
Response: 42976826
Conc: 44.91 ppb

SGS ACCUTEST MC48999



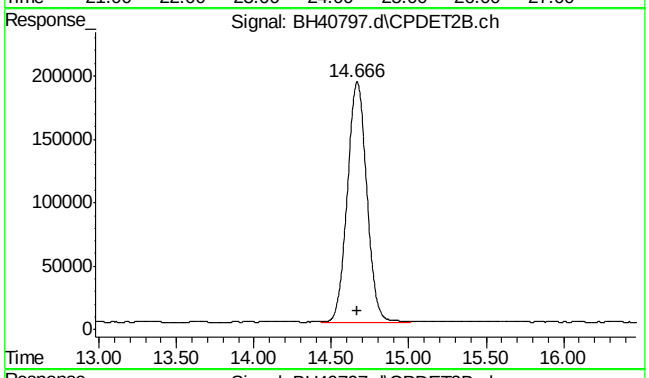
#6 2,3,4-trifluorotoluene

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 33538319
Conc: 41.26 ppb



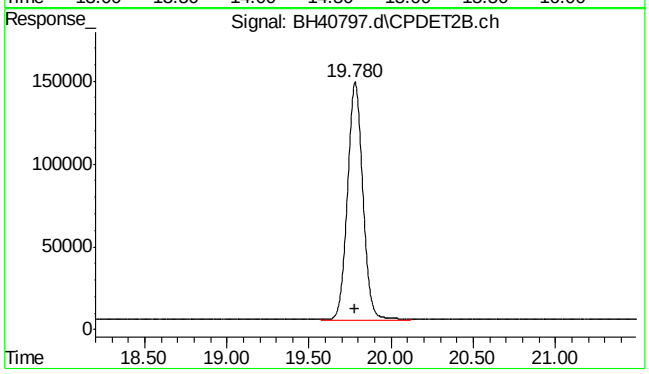
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 6714542
Conc: 6.09 ppb



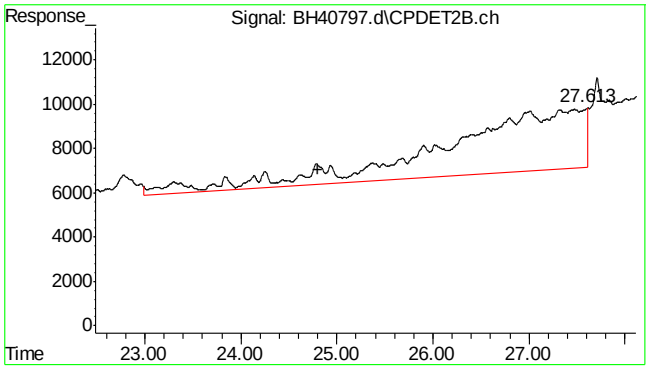
#16 fluorobenzene #2

R.T.: 14.667 min
Delta R.T.: 0.003 min
Response: 16546302
Conc: 45.91 ppb



#18 2,3,4-trifluorotoluene #2

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 9383006
Conc: 43.23 ppb



#25 c9-c10 arom as 1,2,4-tmb

R.T.:	24.800 min
Delta R.T.:	0.000 min
Response:	2841597
Conc:	5.52 ppb m

7.1.8

7

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40798.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 5:19 pm
Operator : tonyf
Sample : mc48999-9,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:17:51 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.666	43688689	45.653	ppb	
Spiked Amount 50.000		Recovery =	91.31%		
6) s 2,3,4-trifluorotoluene	19.781	34213599	42.092	ppb	
Spiked Amount 50.000		Recovery =	84.18%		
16) s fluorobenzene #2	14.666	17510375	48.580	ppb	
Spiked Amount 50.000		Recovery =	97.16%		
18) s 2,3,4-trifluorotoluen...	19.781	9611765	44.279	ppb	
Spiked Amount 50.000		Recovery =	88.56%		
Target Compounds					
1) h rt5.5-7	5.980	1729833	1.801	ppb	m
2) h rt7/10	8.250	1370378	1.426	ppb	m
3) h rt10/13	13.360	2529521	2.633	ppb	m
8) h rt20/25	21.460	6719661	6.100	ppb	
25) h c9-c10 arom as 1,2,4-tmb	24.800	3007797	5.842	ppb	m

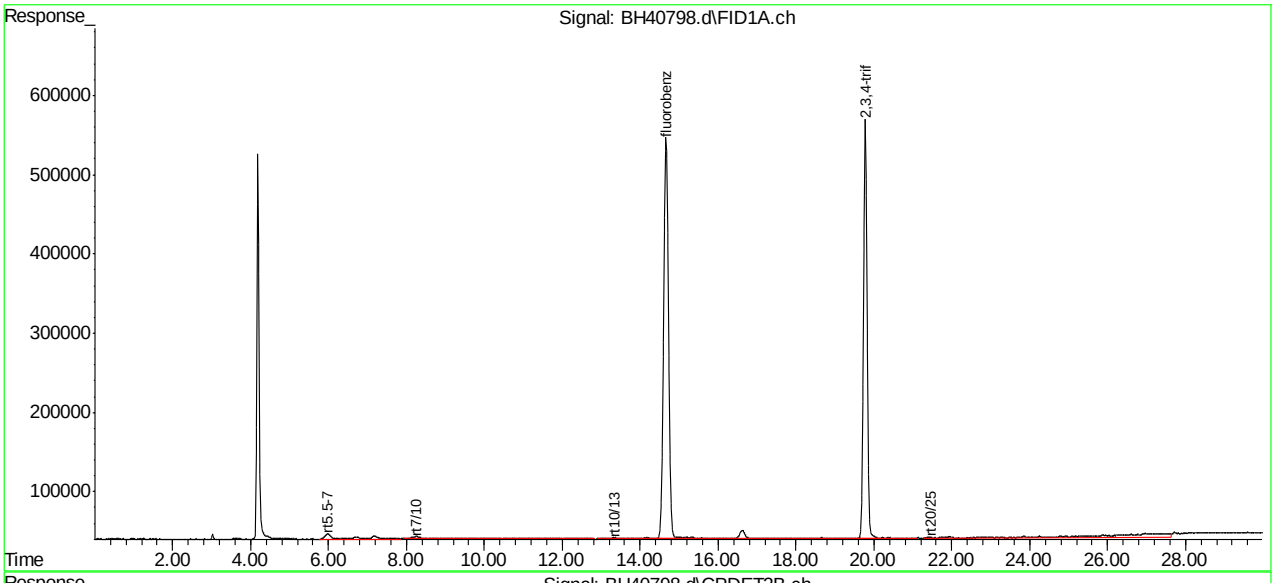
(f)=RT Delta > 1/2 Window (m)=manual int.

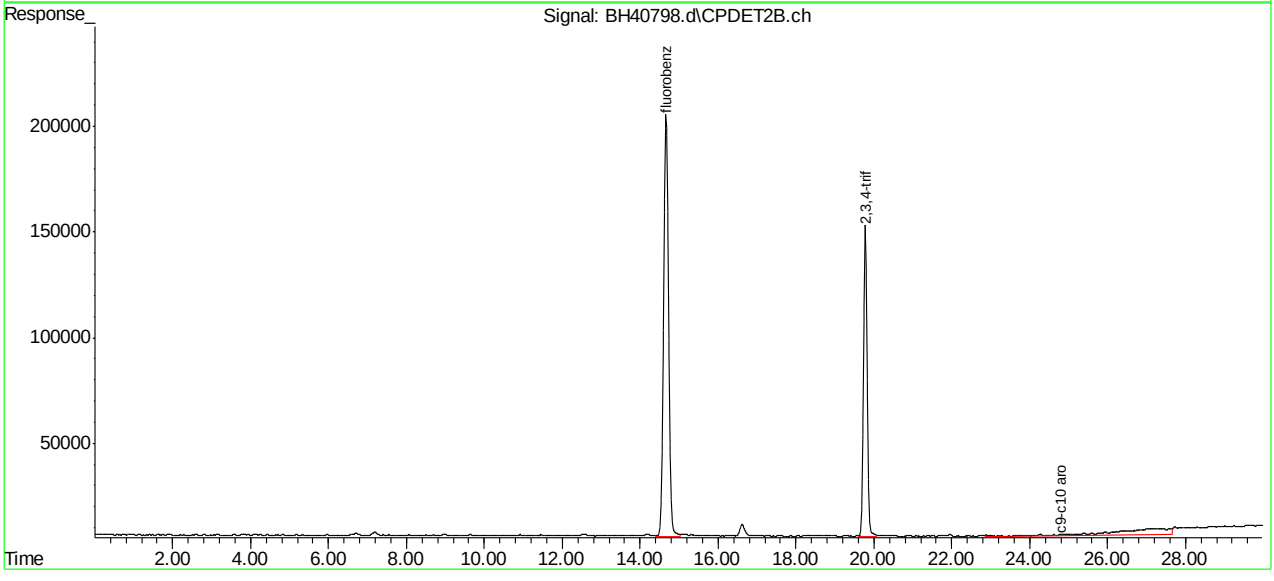
Quantitation Report (QT Reviewed)

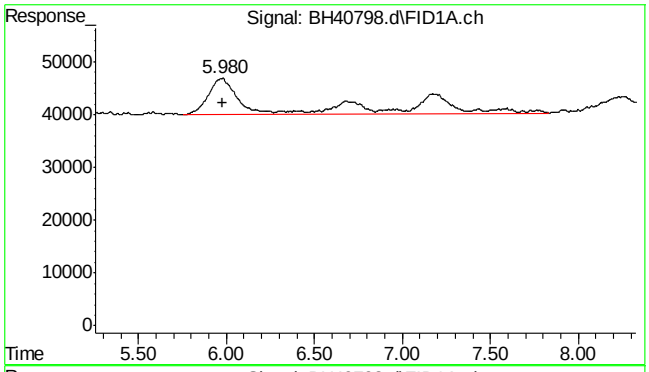
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40798.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 5:19 pm
Operator : tonyf
Sample : mc48999-9,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:17:51 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

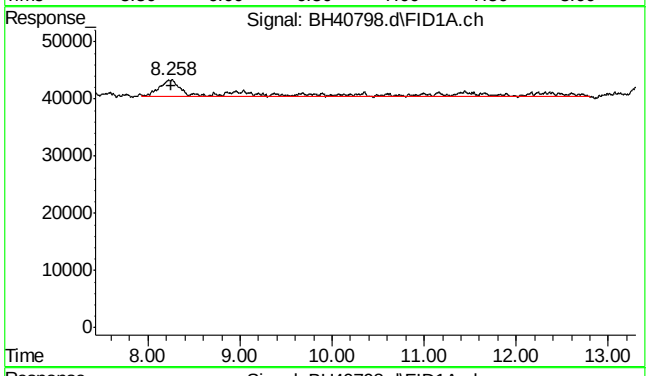






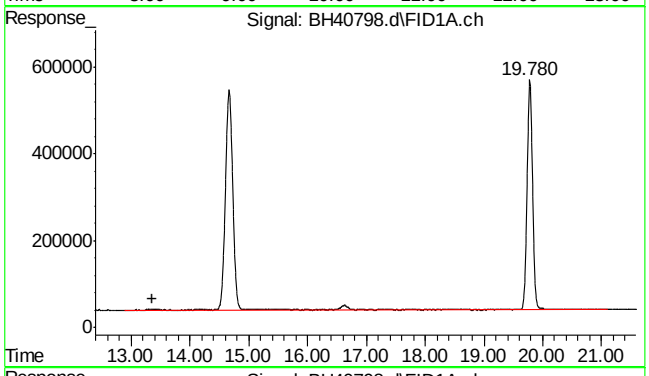
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 1729833
Conc: 1.80 ppb m



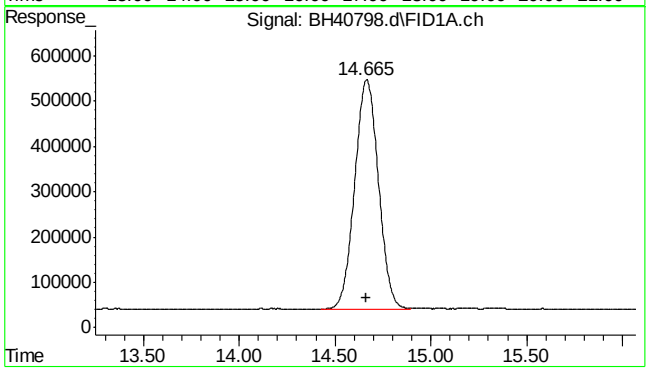
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 1370378
Conc: 1.43 ppb m



#3 rt10/13

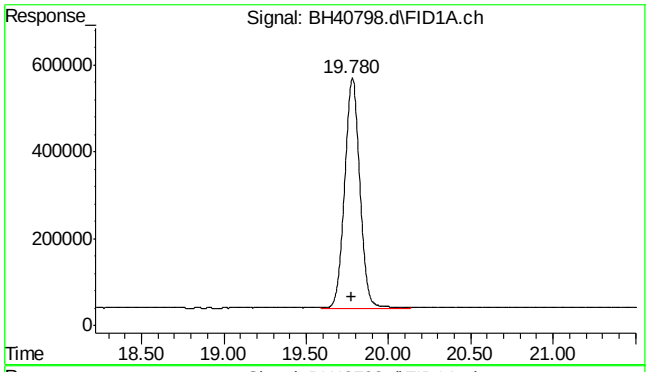
R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 2529521
Conc: 2.63 ppb m



#4 fluorobenzene

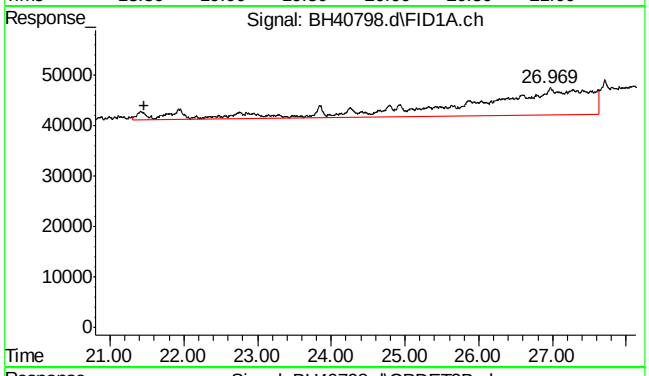
R.T.: 14.666 min
Delta R.T.: 0.002 min
Response: 43688689
Conc: 45.65 ppb

SGS ACCUTEST MC48999



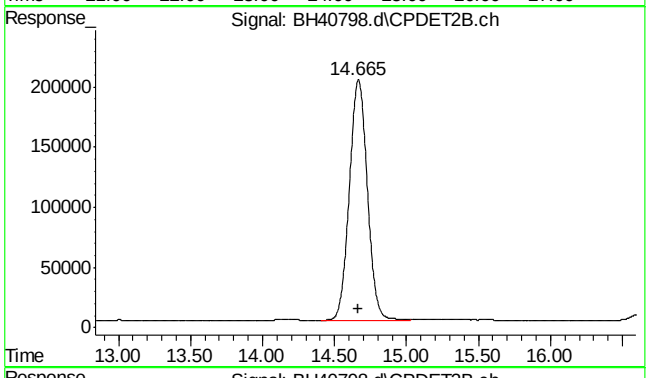
#6 2,3,4-trifluorotoluene

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 34213599
Conc: 42.09 ppb



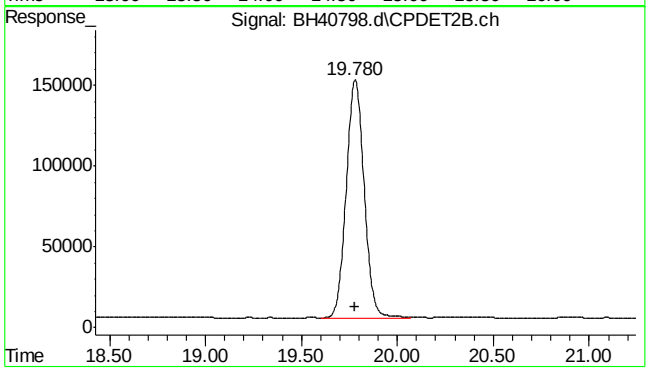
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 6719661
Conc: 6.10 ppb



#16 fluorobenzene #2

R.T.: 14.666 min
Delta R.T.: 0.002 min
Response: 17510375
Conc: 48.58 ppb



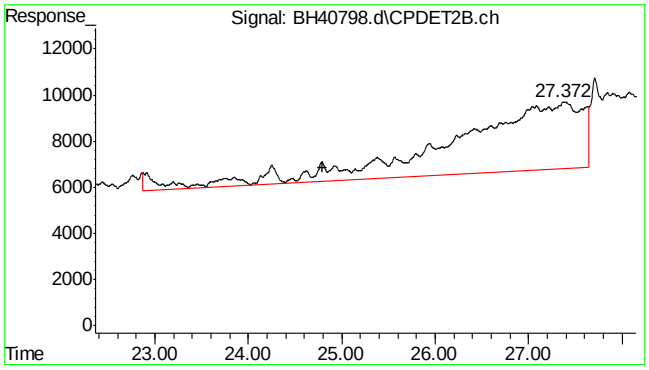
#18 2,3,4-trifluorotoluene #2

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 9611765
Conc: 44.28 ppb

7.1.9

7

SGS ACCUTEST MC48999



#25 c9-c10 arom as 1,2,4-tmb

R.T.:	24.800 min
Delta R.T.:	0.000 min
Response:	3007797
Conc:	5.84 ppb m

7.1.9

7

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40799.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 5:53 pm
Operator : tonyf
Sample : mc48999-10,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:18:37 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.666	43297040	45.244	ppb	
Spiked Amount 50.000		Recovery =	90.49%		
6) s 2,3,4-trifluorotoluene	19.781	33836735	41.629	ppb	
Spiked Amount 50.000		Recovery =	83.26%		
16) s fluorobenzene #2	14.666	16873336	46.812	ppb	
Spiked Amount 50.000		Recovery =	93.62%		
18) s 2,3,4-trifluorotoluen...	19.781	9360392	43.121	ppb	
Spiked Amount 50.000		Recovery =	86.24%		
Target Compounds					
1) h rt5.5-7	5.980	1574436	1.639	ppb	m
2) h rt7/10	8.250	1153855	1.201	ppb	m
3) h rt10/13	13.360	2608134	2.715	ppb	m
8) h rt20/25	21.460	6637670	6.025	ppb	
25) h c9-c10 arom as 1,2,4-tmb	24.800	2612356	5.074	ppb	m

(f)=RT Delta > 1/2 Window (m)=manual int.

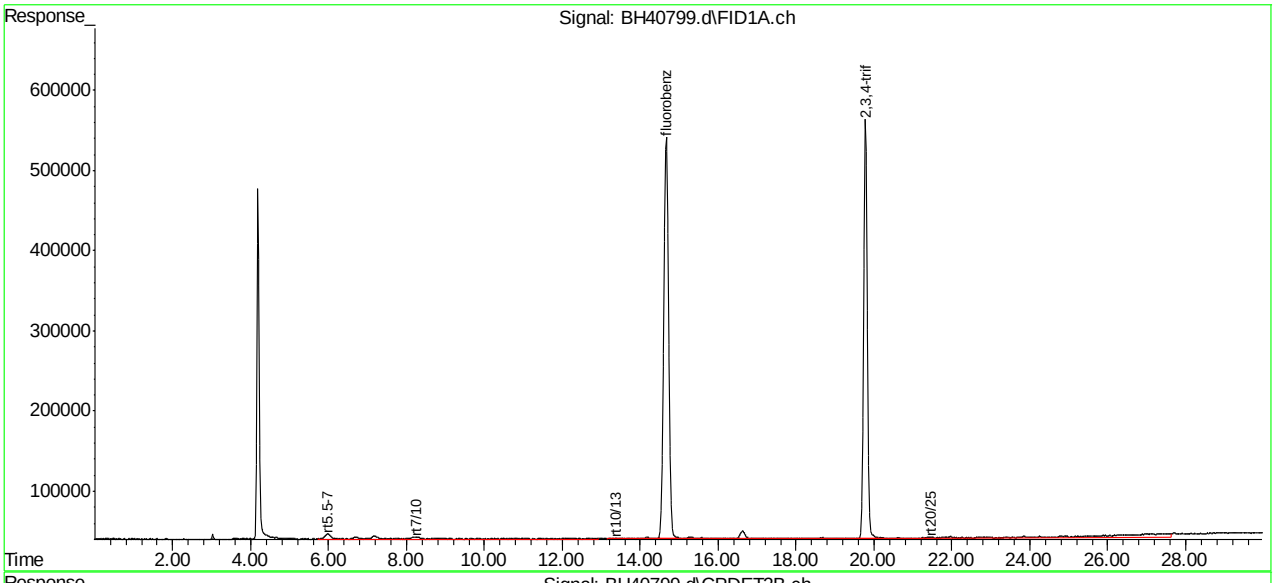
SGS ACCUTEST MC48999

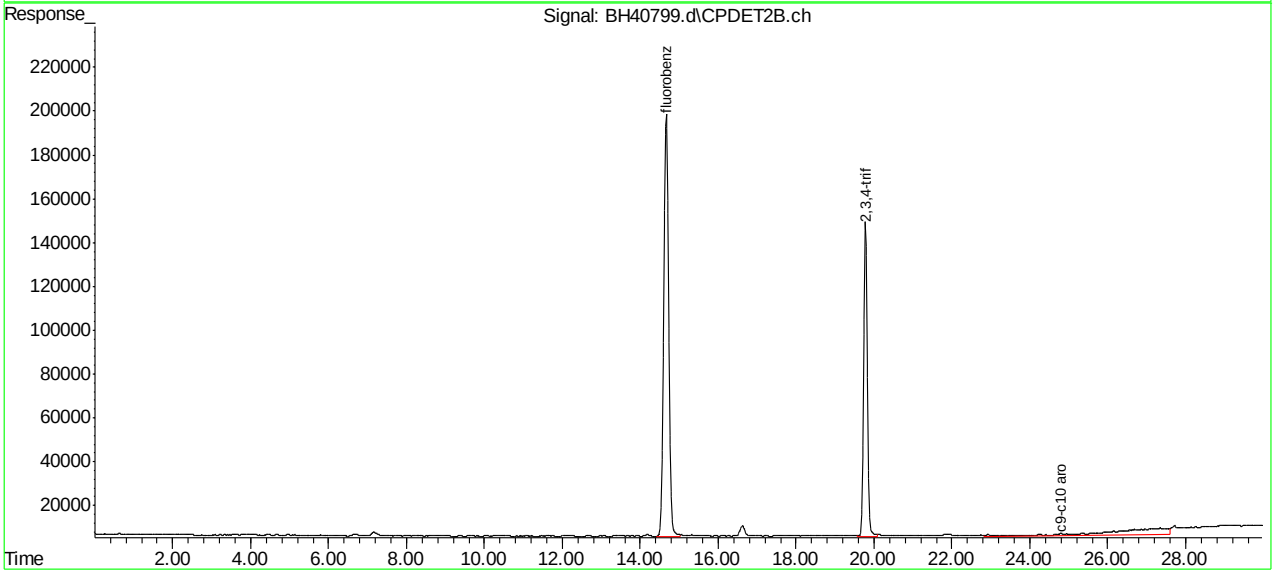
Quantitation Report (QT Reviewed)

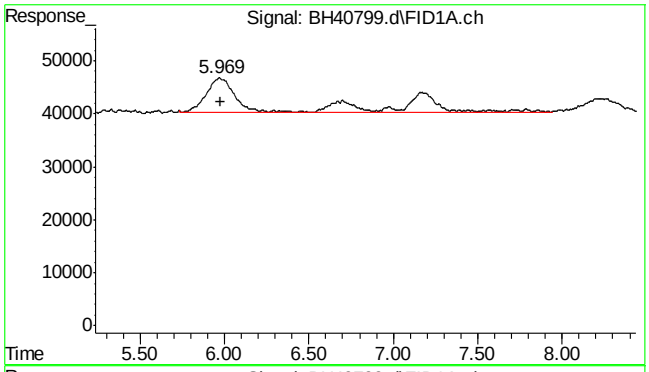
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40799.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 5:53 pm
Operator : tonyf
Sample : mc48999-10,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 19 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:18:37 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

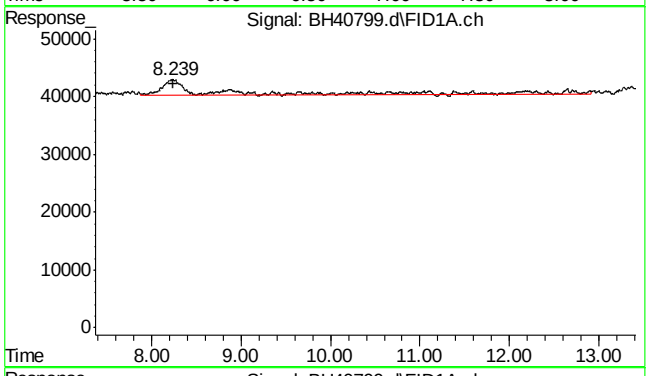






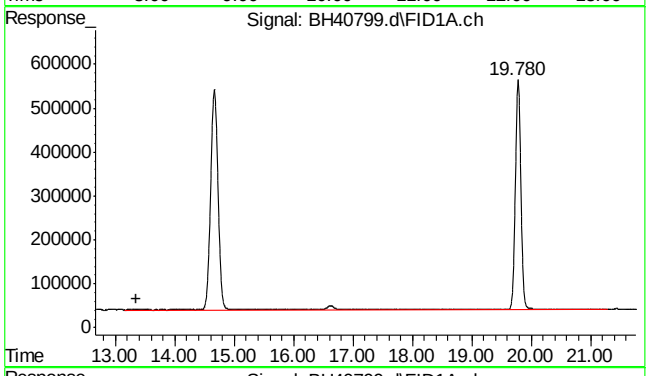
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 1574436
Conc: 1.64 ppb m



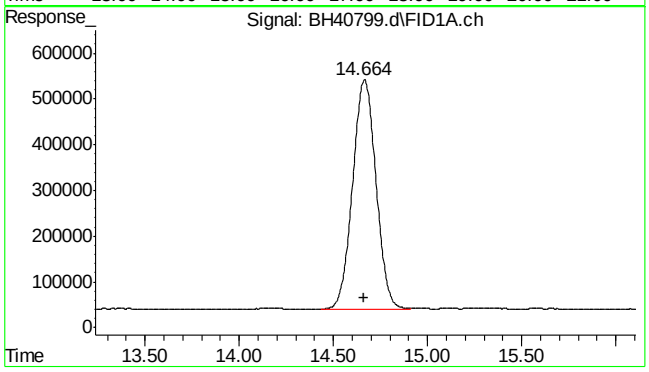
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 1153855
Conc: 1.20 ppb m



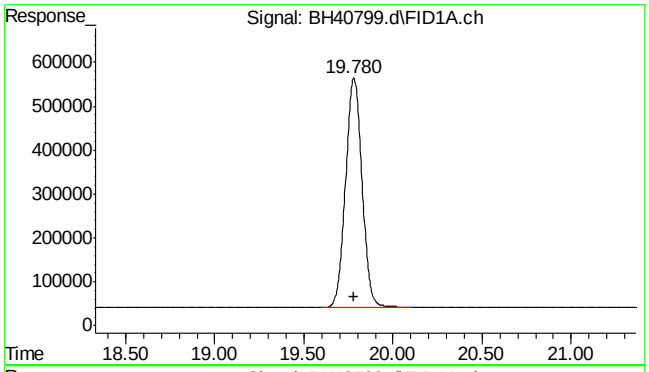
#3 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 2608134
Conc: 2.71 ppb m



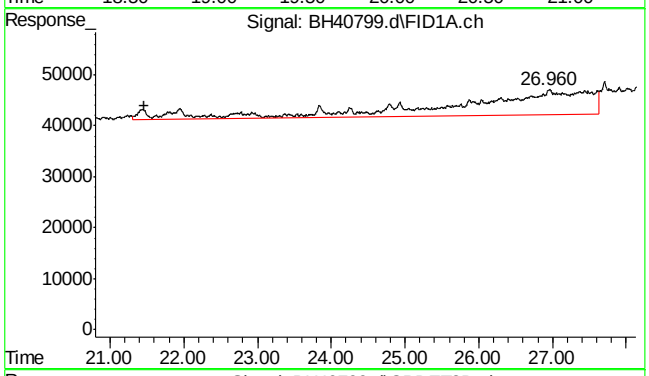
#4 fluorobenzene

R.T.: 14.666 min
Delta R.T.: 0.002 min
Response: 43297040
Conc: 45.24 ppb



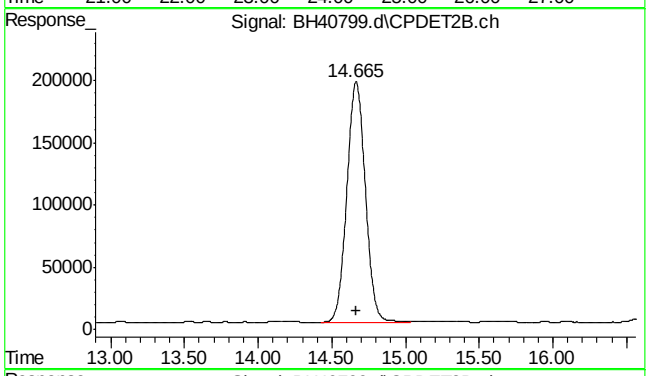
#6 2,3,4-trifluorotoluene

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 33836735
Conc: 41.63 ppb



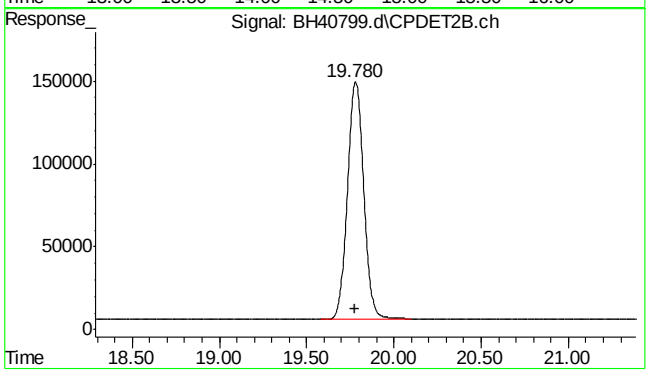
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 6637670
Conc: 6.03 ppb



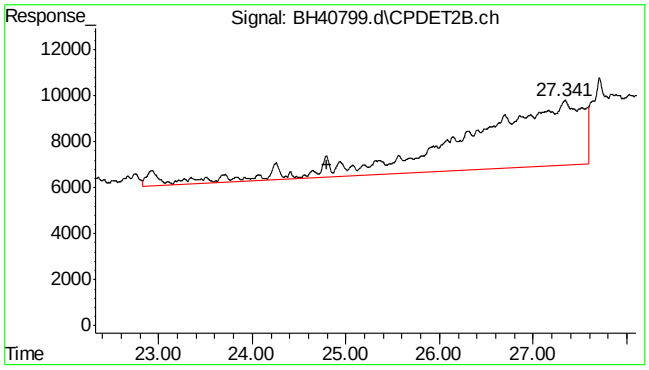
#16 fluorobenzene #2

R.T.: 14.666 min
Delta R.T.: 0.002 min
Response: 16873336
Conc: 46.81 ppb



#18 2,3,4-trifluorotoluene #2

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 9360392
Conc: 43.12 ppb



#25 c9-c10 arom as 1,2,4-tmb

R.T.:	24.800 min
Delta R.T.:	0.000 min
Response:	2612356
Conc:	5.07 ppb m

Manual Integrations
APPROVED
(compounds with "m" flag)
Andri Piluri
12/13/16 11:51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40783a.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 8:39 am
Operator : tonyf
Sample : mb,s,vmavph,20
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 09:18:17 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.666	53384092	55.784	ppb	
Spiked Amount 50.000		Recovery = 111.57%			
6) s 2,3,4-trifluorotoluene	19.782	43113700	53.042	ppb	
Spiked Amount 50.000		Recovery = 106.08%			
16) s fluorobenzene #2	14.666	20802433	57.713	ppb	
Spiked Amount 50.000		Recovery = 115.43%			
18) s 2,3,4-trifluorotoluen...	19.782	12052866	55.525	ppb	
Spiked Amount 50.000		Recovery = 111.05%			
Target Compounds					
1) h rt5.5-7	5.980	1738352	1.810	ppb	m
2) h rt7/10	8.250	701587	0.730	ppb	m
3) h rt10/13	13.360	2227319	2.318	ppb	m
8) h rt20/25	21.460	7765387	7.049	ppb	m
24) t naphthalene #2	27.706	200876	0.506	ppb	m
25) h c9-c10 arom as 1,2,4-tmb	24.800	2897953	5.629	ppb	m

(f)=RT Delta > 1/2 Window (m)=manual int.

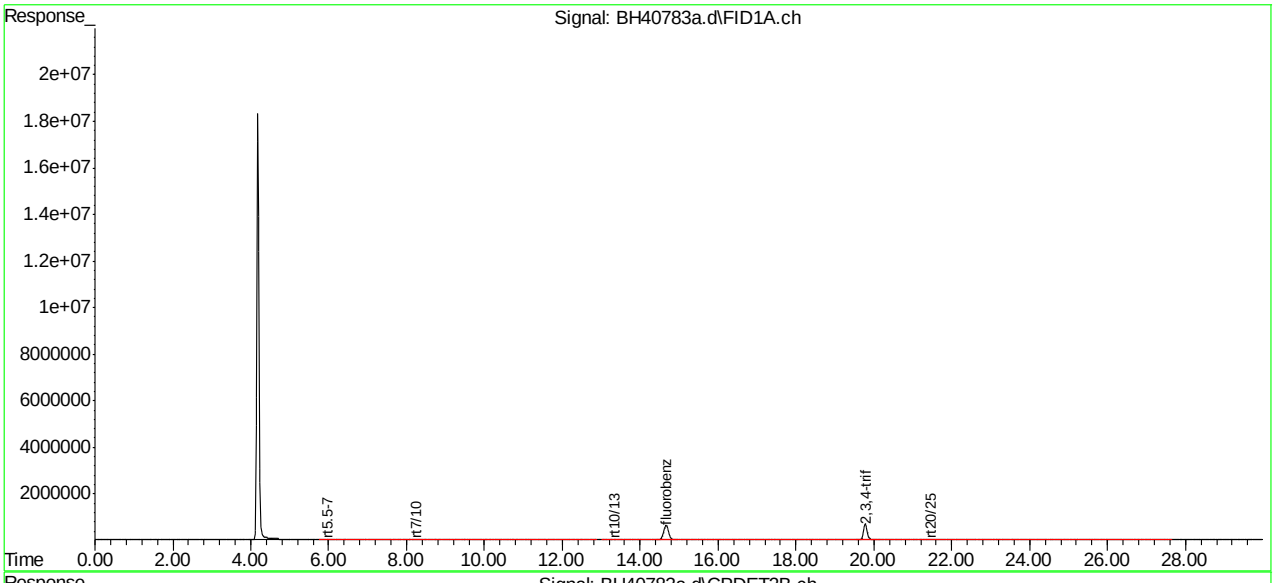
SGS ACCUTEST MC48999

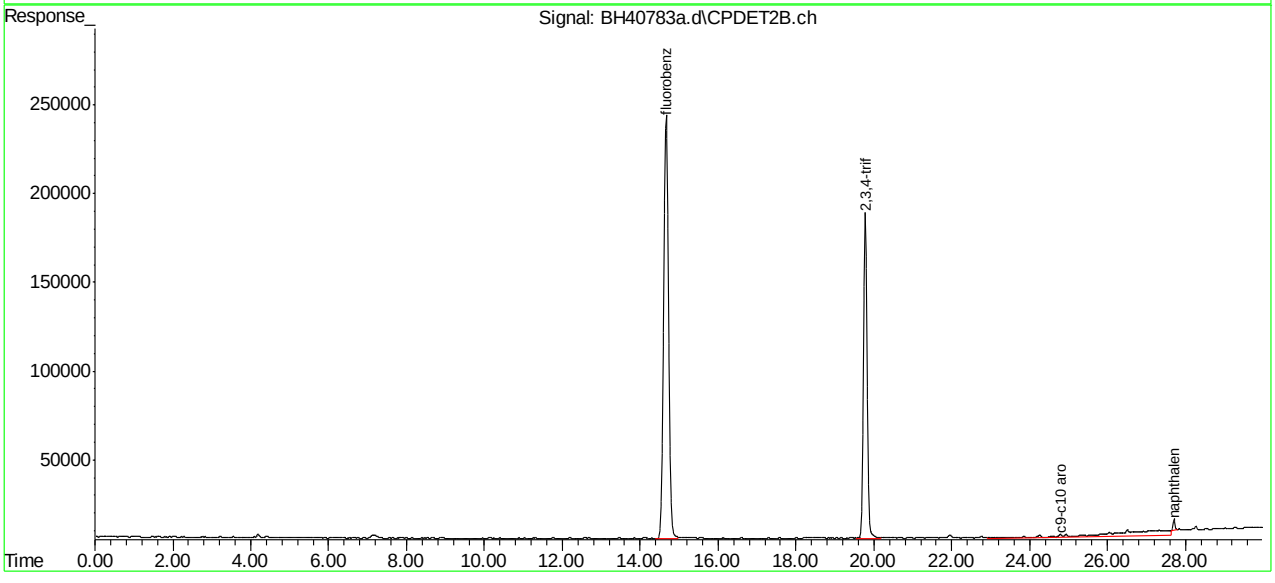
Quantitation Report (QT Reviewed)

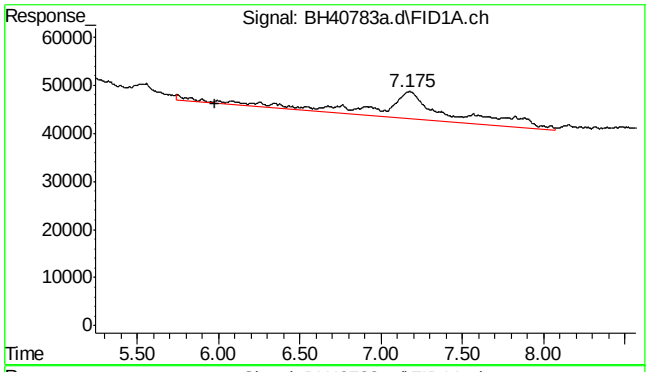
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40783a.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 8:39 am
Operator : tonyf
Sample : mb,s,vmavph,20
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 09:18:17 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

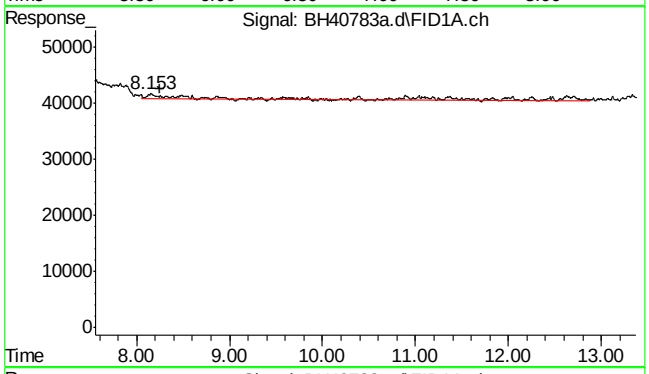






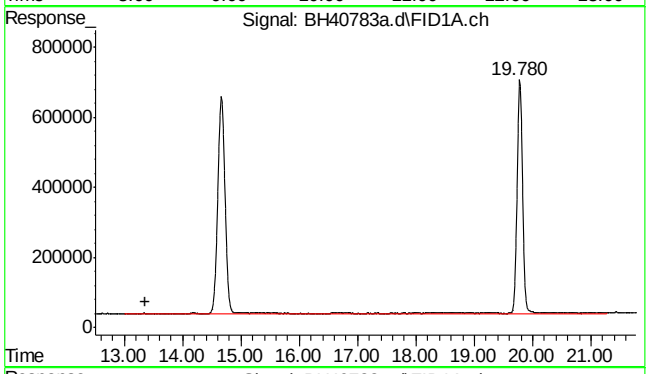
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 1738352
Conc: 1.81 ppb m



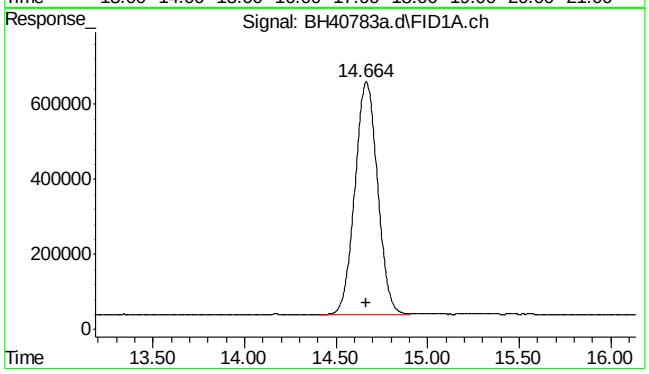
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 701587
Conc: 0.73 ppb m



#3 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 2227319
Conc: 2.32 ppb m



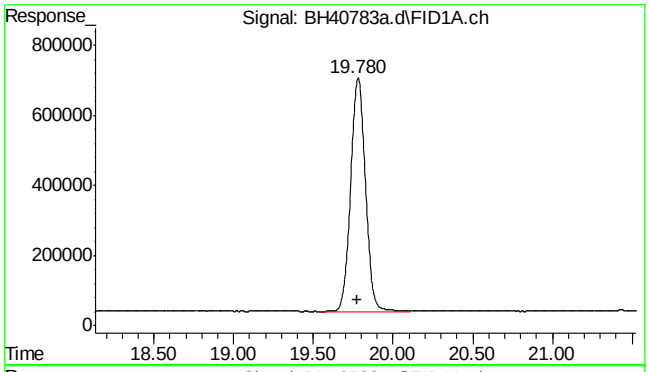
#4 fluorobenzene

R.T.: 14.666 min
Delta R.T.: 0.002 min
Response: 53384092
Conc: 55.78 ppb

7.2.1

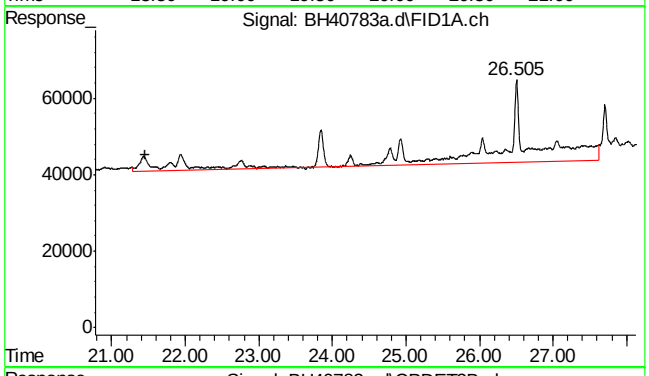
7

SGS ACCUTEST MC48999



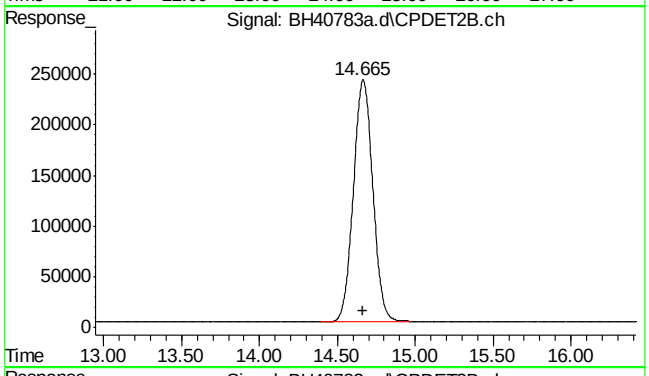
#6 2,3,4-trifluorotoluene

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 43113700
Conc: 53.04 ppb



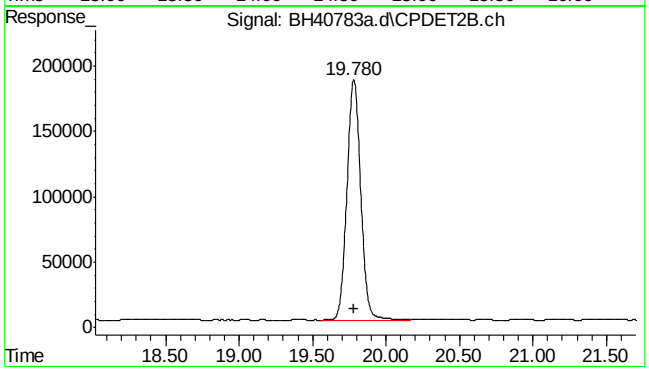
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 7765387
Conc: 7.05 ppb m



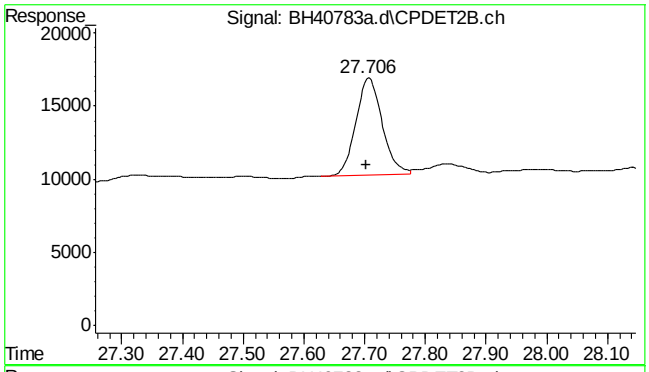
#16 fluorobenzene #2

R.T.: 14.666 min
Delta R.T.: 0.002 min
Response: 20802433
Conc: 57.71 ppb



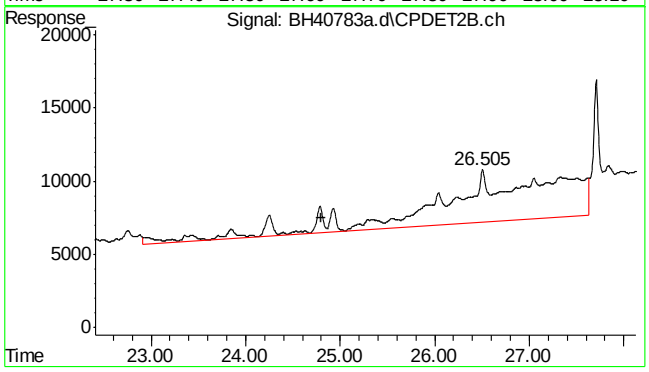
#18 2,3,4-trifluorotoluene #2

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 12052866
Conc: 55.52 ppb



#24 naphthalene #2

R.T.: 27.706 min
Delta R.T.: 0.004 min
Response: 200876
Conc: 0.51 ppb m



#25 c9-c10 arom as 1,2,4-tmb

R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 2897953
Conc: 5.63 ppb m

7.2.1

7

SGS ACCUTEST MC48999

Manual Integrations
APPROVED
(compounds with "m" flag)
Andri Piluri
12/13/16 11:51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40784A.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 9:14 am
Operator : tonyf
Sample : bsp,s,vmavph,20
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 09:45:39 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.667	47085526	49.203	ppb	
Spiked Amount 50.000		Recovery =	98.41%		
6) s 2,3,4-trifluorotoluene	19.782	38274358	47.088	ppb	
Spiked Amount 50.000		Recovery =	94.18%		
16) s fluorobenzene #2	14.667	18768887	52.071	ppb	
Spiked Amount 50.000		Recovery =	104.14%		
18) s 2,3,4-trifluorotoluen...	19.782	11329210	52.191	ppb	
Spiked Amount 50.000		Recovery =	104.38%		
Target Compounds					
1) h rt5.5-7	5.980	41241036	42.929	ppb	m
2) h rt7/10	8.250	47287033	49.223	ppb	m
3) h rt10/13	13.360	57105937	59.443	ppb	m
8) h rt20/25	21.460	53338734	48.416	ppb	m
10) h decane	23.856	54032984	49.046	ppb	
11) h butylcyclohexane	24.940	56458003	51.248	ppb	
14) t mtbe #2	9.012	12908956	52.896	ppb	
15) t benzene #2	14.164	30017231	53.273	ppb	
17) t toluene #2	18.662	28713298	55.573	ppb	
19) t ethylbenzene #2	21.796	25310163	55.599	ppb	
20) t m,p-xylene #2	21.940	62681588	111.364	ppb	
21) t o-xylene #2	22.752	26404008	54.251	ppb	
22) t 1,3,5-trimethylbenzen...	24.251	36212954	52.251	ppb	
23) t 1,2,4-trimethylbenzen...	24.787	28254308	54.892	ppb	
24) t naphthalene #2	27.704	22466905	56.601	ppb	m
25) h c9-c10 arom as 1,2,4-tmb	24.800	28178580	54.734	ppb	m

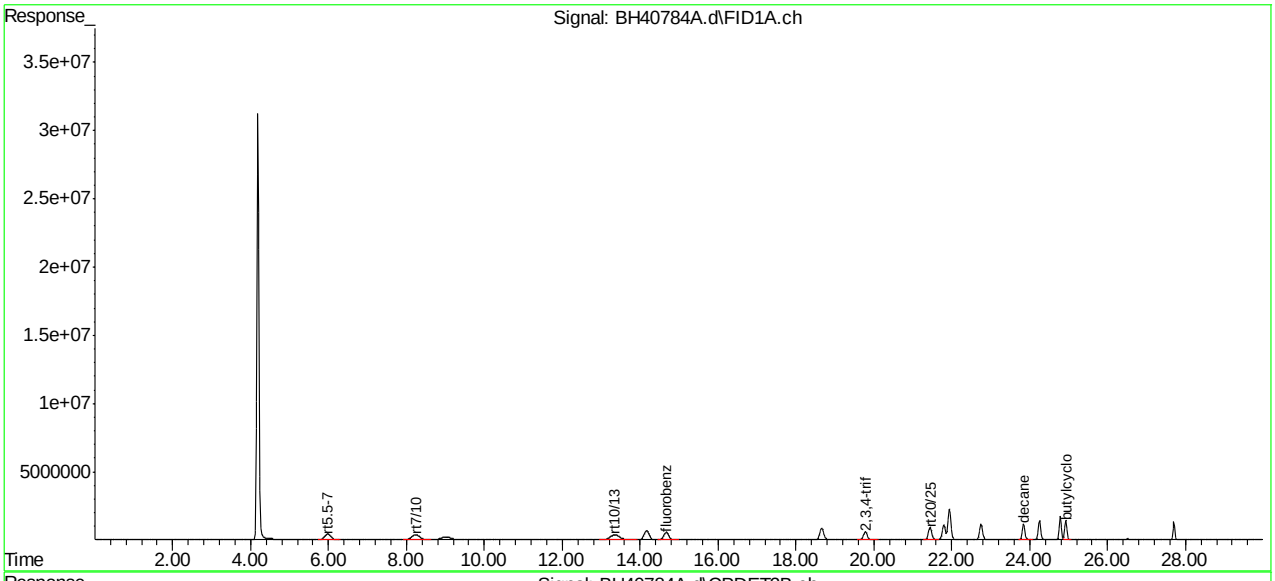
(f)=RT Delta > 1/2 Window (m)=manual int.

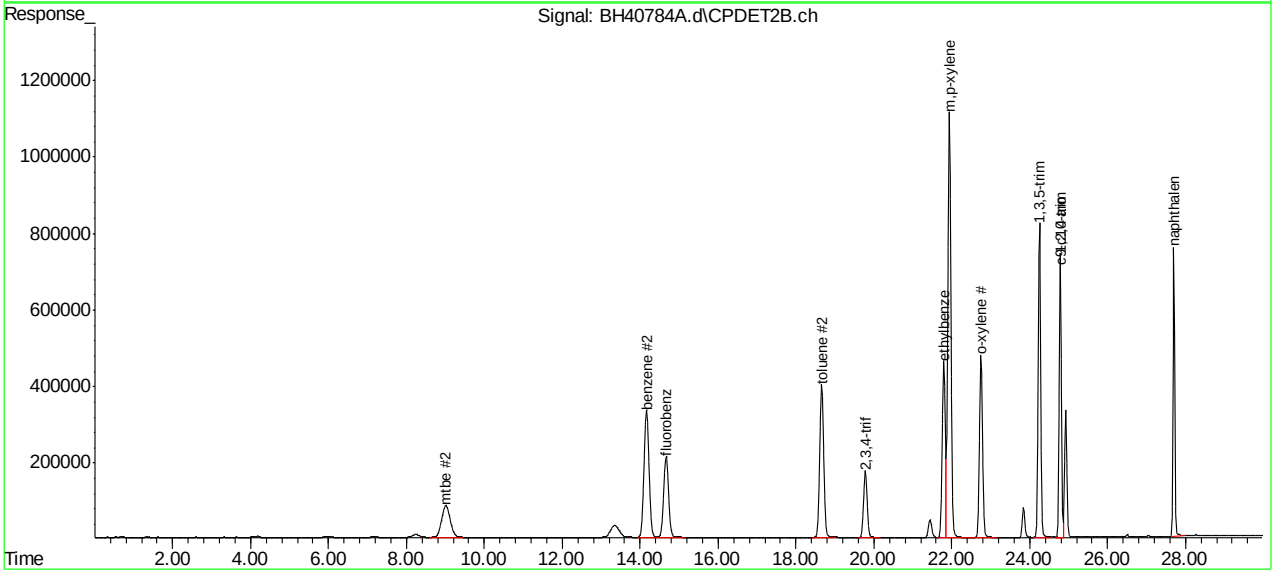
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40784A.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 9:14 am
Operator : tonyf
Sample : bsp,s,vmavph,20
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

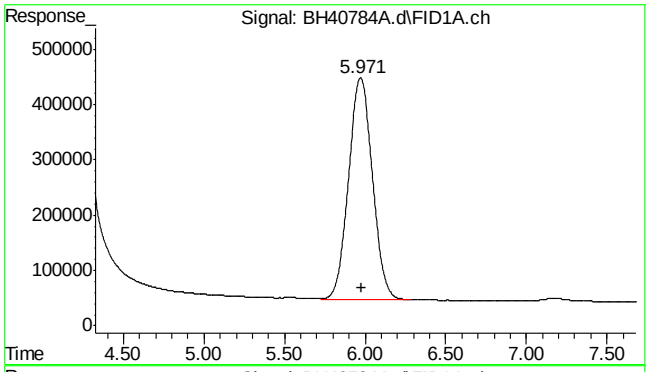
Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 09:45:39 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



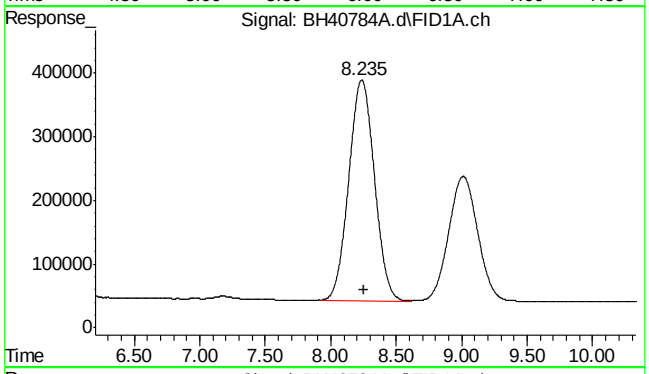


SGS ACCUTEST MC48999



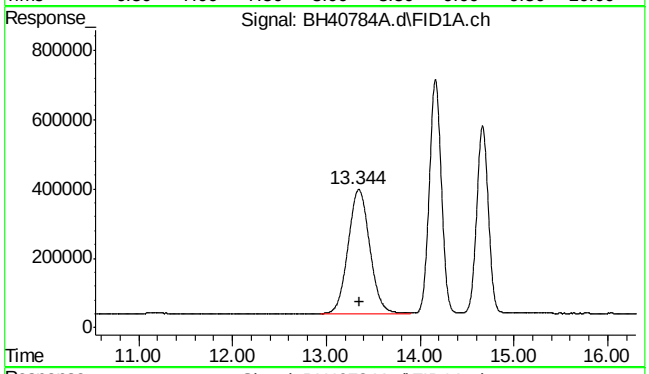
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 41241036
Conc: 42.93 ppb m



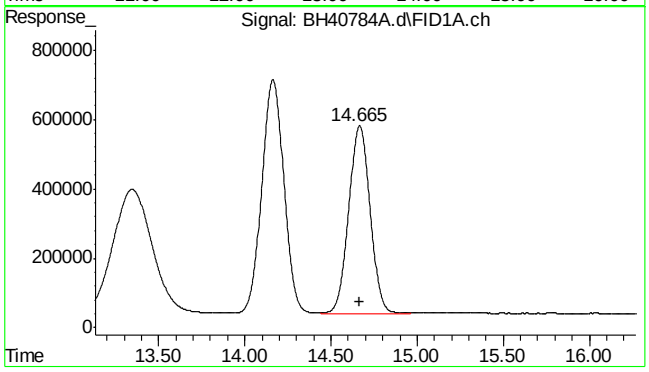
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 47287033
Conc: 49.22 ppb m



#3 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 57105937
Conc: 59.44 ppb m



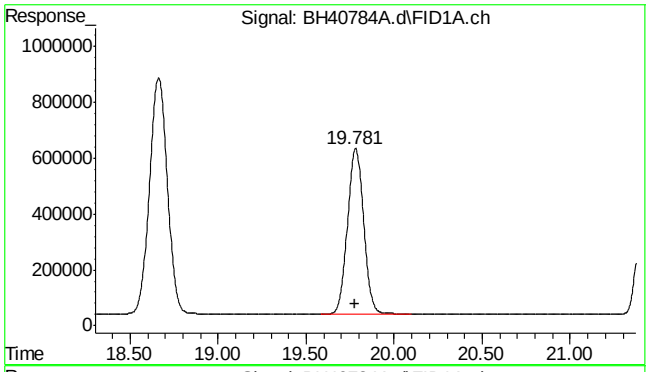
#4 fluorobenzene

R.T.: 14.667 min
Delta R.T.: 0.003 min
Response: 47085526
Conc: 49.20 ppb

7.3.1

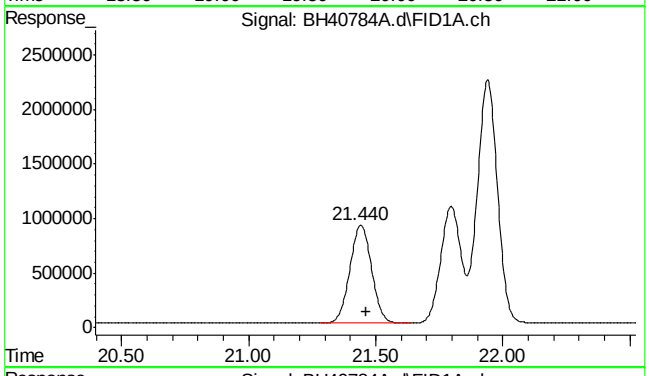
7

SGS ACCUTEST MC48999



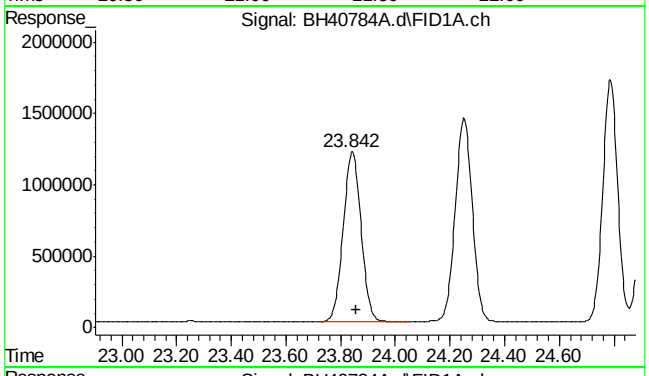
#6 2,3,4-trifluorotoluene

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 38274358
Conc: 47.09 ppb



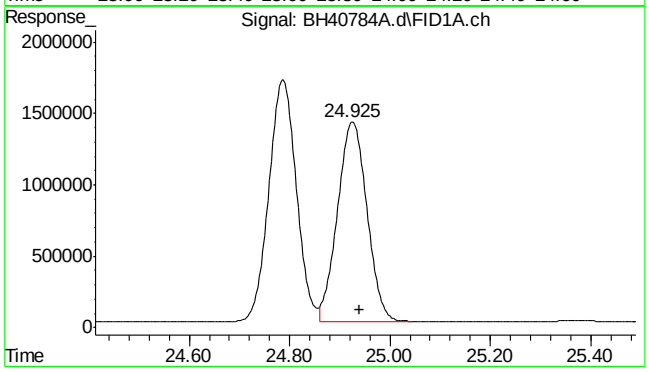
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 53338734
Conc: 48.42 ppb m



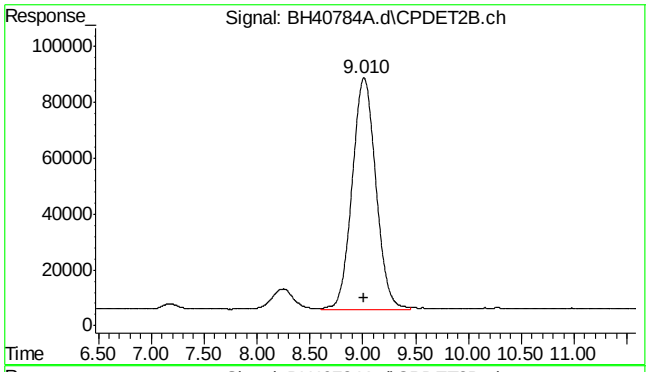
#10 decane

R.T.: 23.856 min
Delta R.T.: 0.000 min
Response: 54032984
Conc: 49.05 ppb



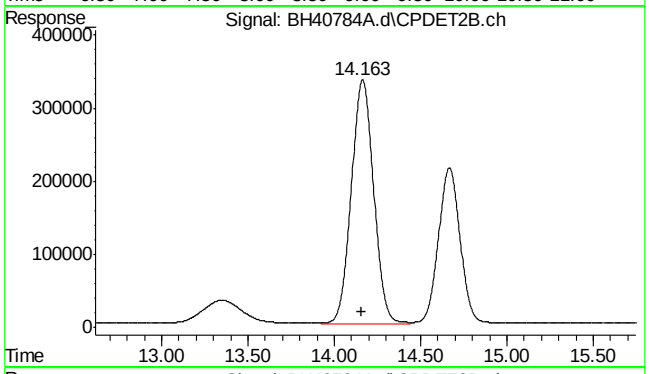
#11 butylcyclohexane

R.T.: 24.940 min
Delta R.T.: 0.000 min
Response: 56458003
Conc: 51.25 ppb



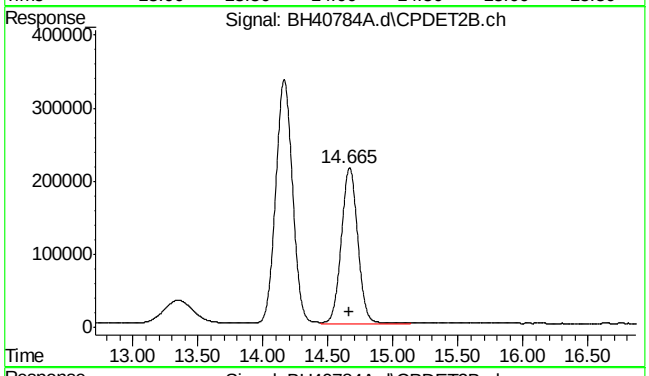
#14 mtbe #2

R.T.: 9.012 min
Delta R.T.: 0.002 min
Response: 12908956
Conc: 52.90 ppb



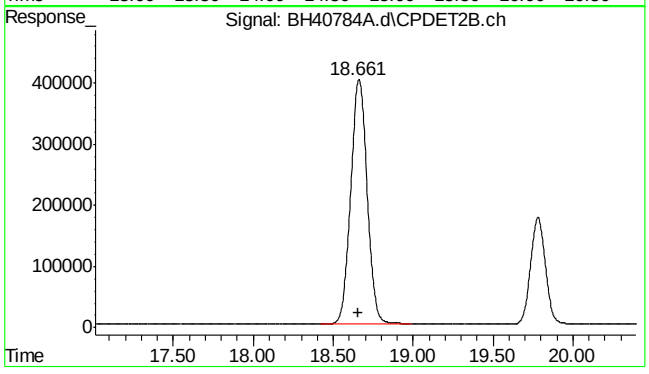
#15 benzene #2

R.T.: 14.164 min
Delta R.T.: 0.003 min
Response: 30017231
Conc: 53.27 ppb



#16 fluorobenzene #2

R.T.: 14.667 min
Delta R.T.: 0.003 min
Response: 18768887
Conc: 52.07 ppb



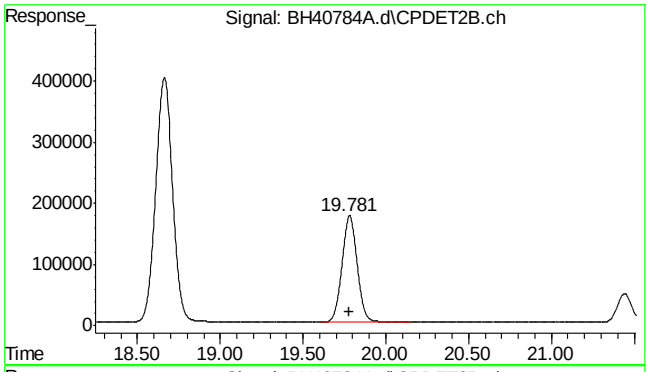
#17 toluene #2

R.T.: 18.662 min
Delta R.T.: 0.003 min
Response: 28713298
Conc: 55.57 ppb

7.3.1

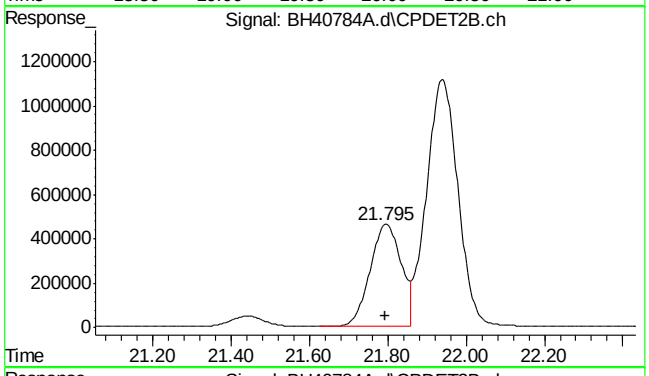
7

SGS ACCUTEST MC48999



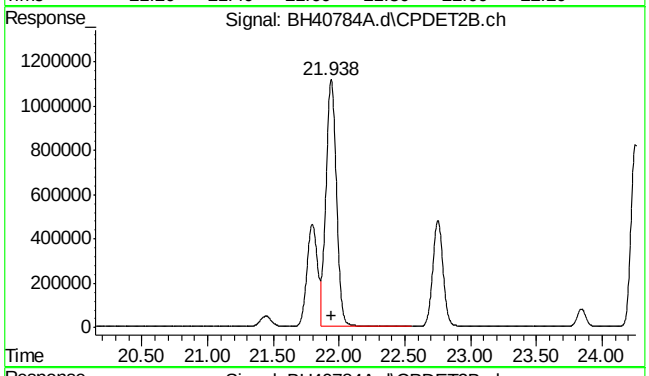
#18 2,3,4-trifluorotoluene #2

```
      R.T.:   19.782 min
Delta R.T.:    0.003 min
  Response:  11329210
      Conc:  52.19 ppb
```



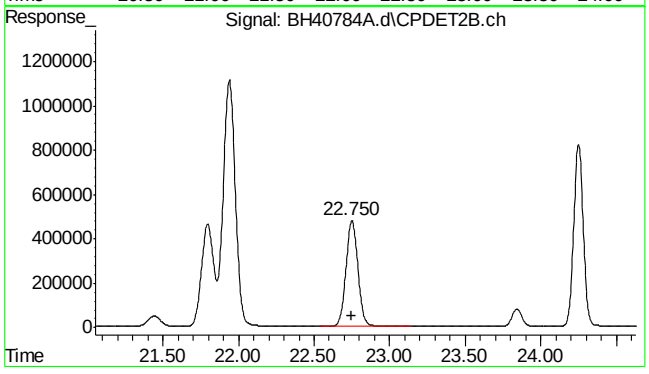
#19 ethylbenzene #2

```
      R.T.:   21.796 min
Delta R.T.:    0.002 min
  Response:  25310163
      Conc:  55.60 ppb
```



#20 m,p-xylene #2

```
      R.T.:   21.940 min
Delta R.T.:    0.002 min
  Response:  62681588
      Conc: 111.36 ppb
```



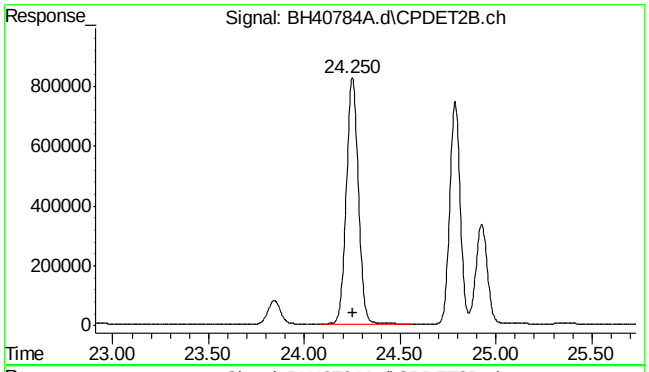
#21 o-xylene #2

```
      R.T.:   22.752 min
Delta R.T.:    0.002 min
  Response:  26404008
      Conc:  54.25 ppb
```

7.3.1

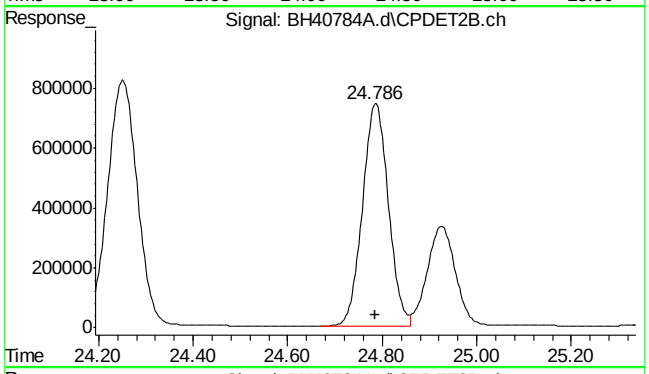
7

SGS ACCUTEST MC48999



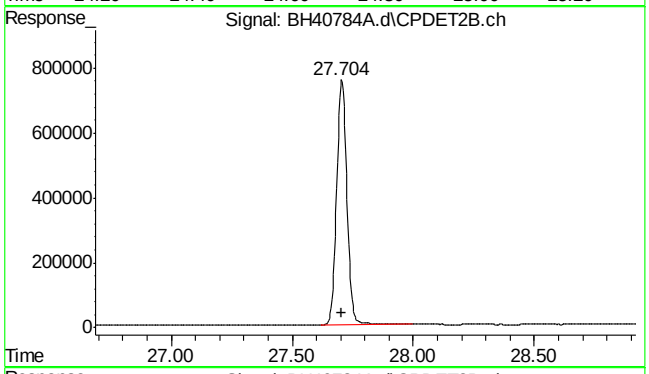
#22 1,3,5-trimethylbenzene #2

R.T.: 24.251 min
Delta R.T.: 0.001 min
Response: 36212954
Conc: 52.25 ppb



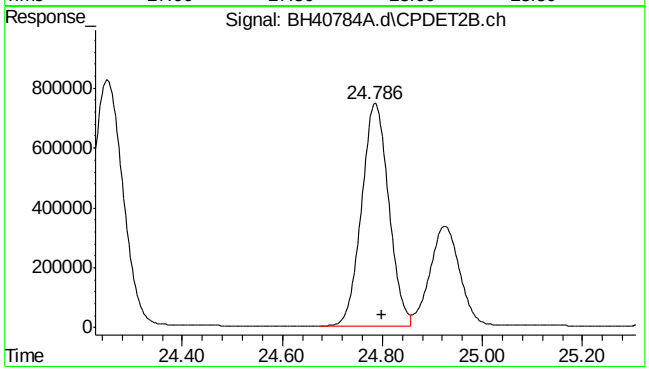
#23 1,2,4-trimethylbenzene #2

R.T.: 24.787 min
Delta R.T.: 0.002 min
Response: 28254308
Conc: 54.89 ppb



#24 naphthalene #2

R.T.: 27.704 min
Delta R.T.: 0.002 min
Response: 22466905
Conc: 56.60 ppb m



#25 c9-c10 arom as 1,2,4-tmb

R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 28178580
Conc: 54.73 ppb m

Manual Integrations
APPROVED
(compounds with "m" flag)
Andri Piluri
12/13/16 11:51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40785A.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 9:49 am
Operator : tonyf
Sample : bsd,s,vmavph,20
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 10:20:41 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.667	47676698	49.820	ppb	
Spiked Amount 50.000		Recovery = 99.64%			
6) s 2,3,4-trifluorotoluene	19.781	38900160	47.858	ppb	
Spiked Amount 50.000		Recovery = 95.72%			
16) s fluorobenzene #2	14.667	18770567	52.076	ppb	
Spiked Amount 50.000		Recovery = 104.15%			
18) s 2,3,4-trifluorotoluen...	19.781	10906506	50.244	ppb	
Spiked Amount 50.000		Recovery = 100.49%			
Target Compounds					
1) h rt5.5-7	5.980	41325539	43.017	ppb	m
2) h rt7/10	8.250	47612153	49.561	ppb	m
3) h rt10/13	13.360	57769610	60.134	ppb	m
8) h rt20/25	21.460	54224124	49.220	ppb	m
10) h decane	23.856	55031461	49.953	ppb	
11) h butylcyclohexane	24.940	57254035	51.970	ppb	
14) t mtbe #2	9.014	13742240	56.310	ppb	
15) t benzene #2	14.164	30394809	53.944	ppb	
17) t toluene #2	18.662	28040872	54.272	ppb	
19) t ethylbenzene #2	21.796	24399486	53.599	ppb	
20) t m,p-xylene #2	21.940	60952483	108.292	ppb	
21) t o-xylene #2	22.752	25765301	52.938	ppb	
22) t 1,3,5-trimethylbenzen...	24.252	35871866	51.759	ppb	
23) t 1,2,4-trimethylbenzen...	24.787	28299927	54.980	ppb	
24) t naphthalene #2	27.704	23338583	58.797	ppb	m
25) h c9-c10 arom as 1,2,4-tmb	24.800	28177521	54.732	ppb	m

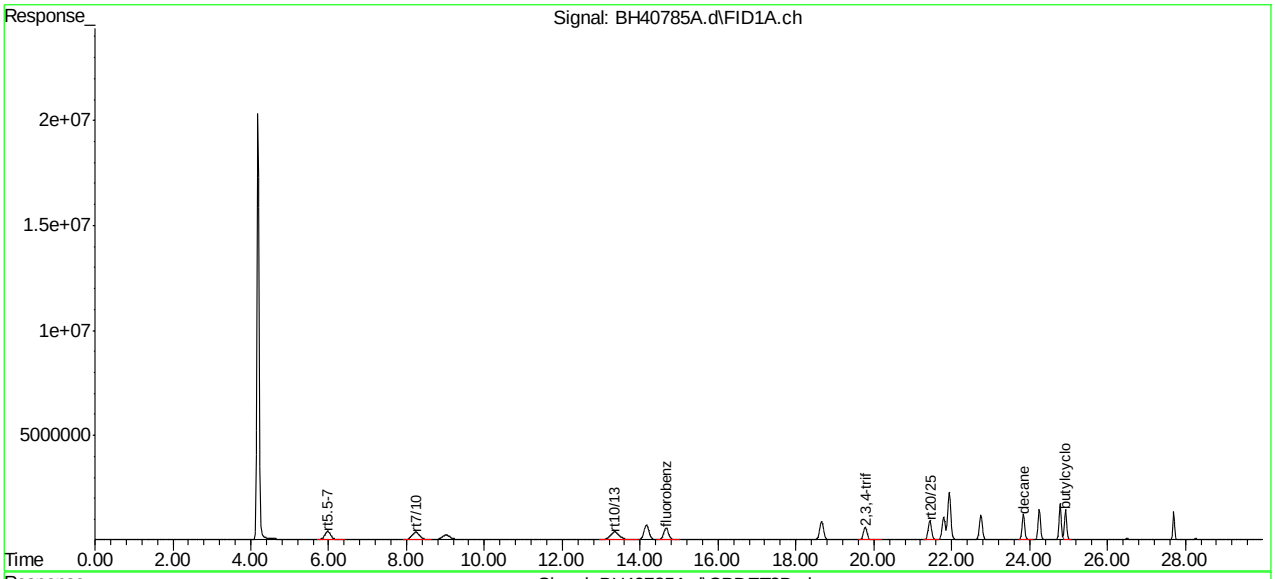
(f)=RT Delta > 1/2 Window (m)=manual int.

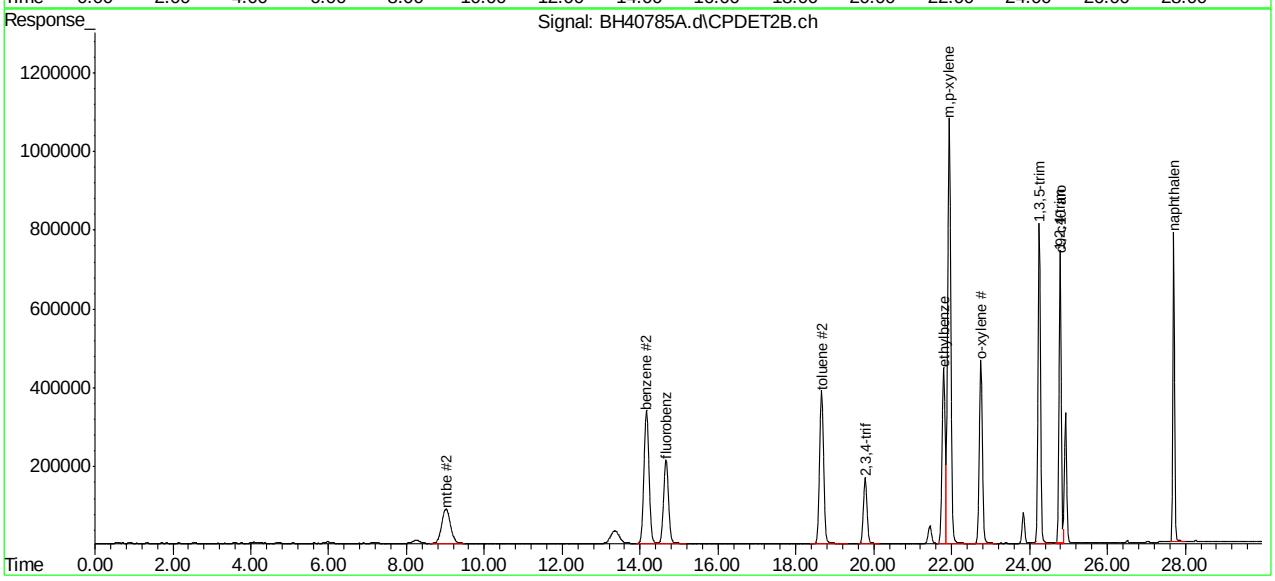
Quantitation Report (QT Reviewed)

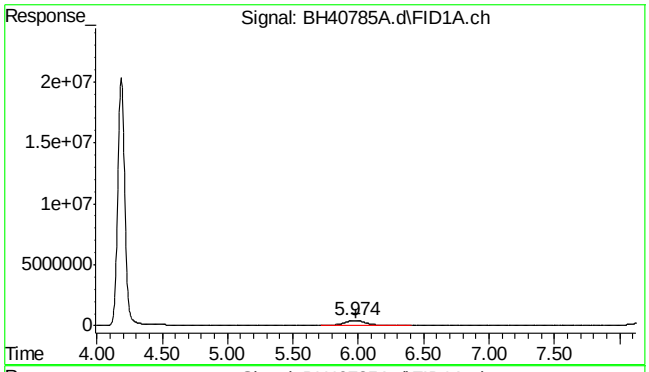
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40785A.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 9:49 am
Operator : tonyf
Sample : bsd,s,vmavph,20
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 10:20:41 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

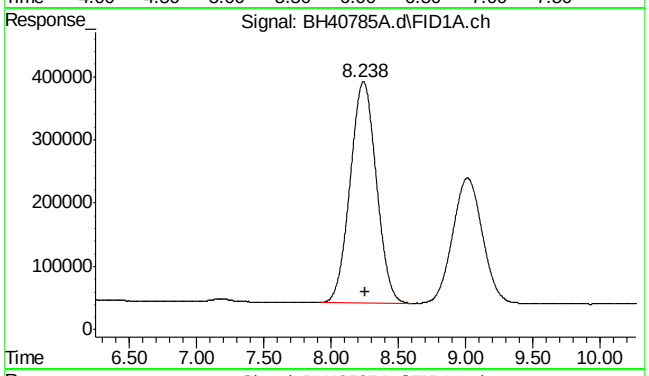






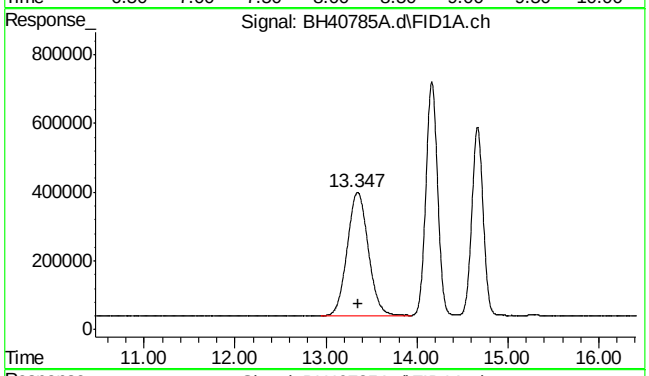
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 41325539
Conc: 43.02 ppb m



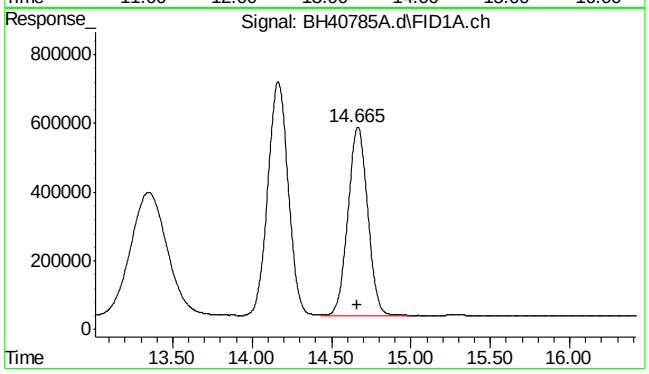
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 47612153
Conc: 49.56 ppb m



#3 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 57769610
Conc: 60.13 ppb m



#4 fluorobenzene

R.T.: 14.667 min
Delta R.T.: 0.003 min
Response: 47676698
Conc: 49.82 ppb

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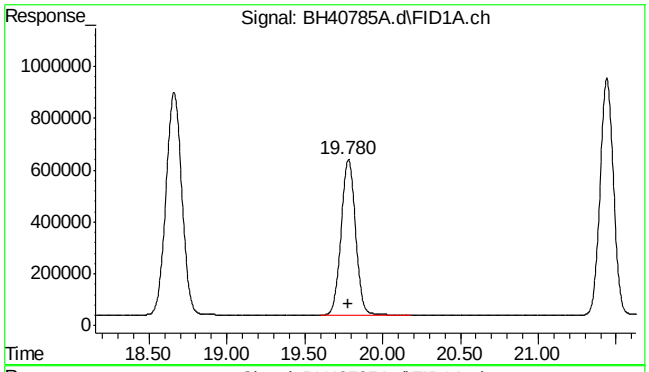
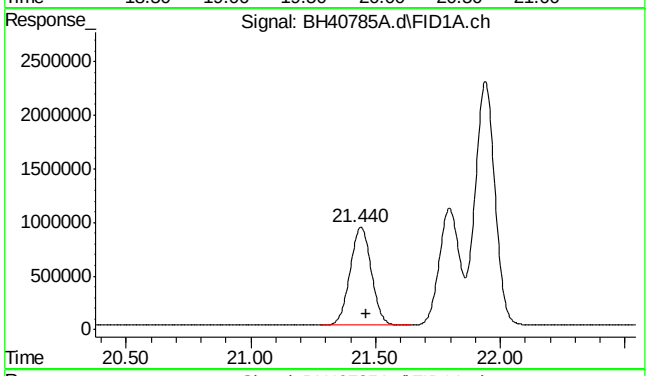


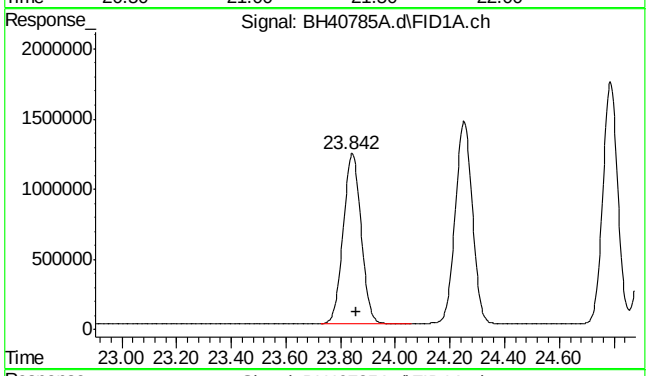
#6 2,3,4-trifluorotoluene

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 38900160
Conc: 47.86 ppb



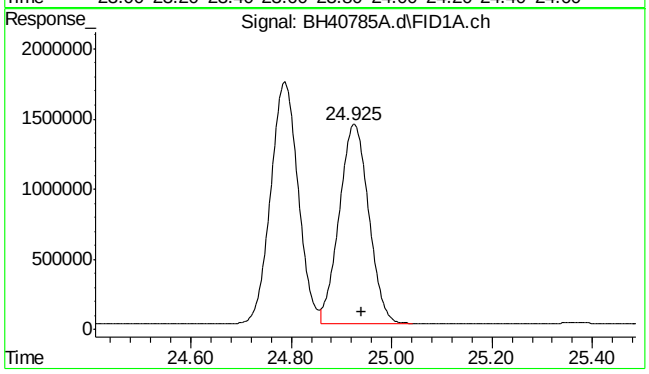
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 54224124
Conc: 49.22 ppb m



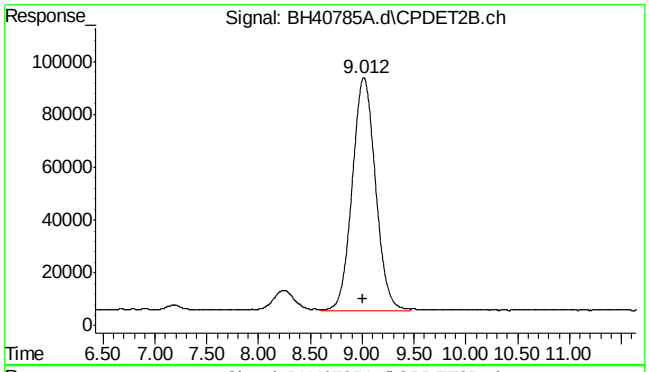
#10 decane

R.T.: 23.856 min
Delta R.T.: 0.000 min
Response: 55031461
Conc: 49.95 ppb



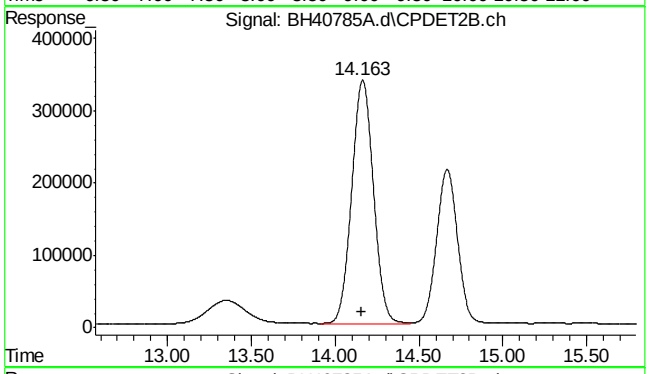
#11 butylcyclohexane

R.T.: 24.940 min
Delta R.T.: 0.000 min
Response: 57254035
Conc: 51.97 ppb



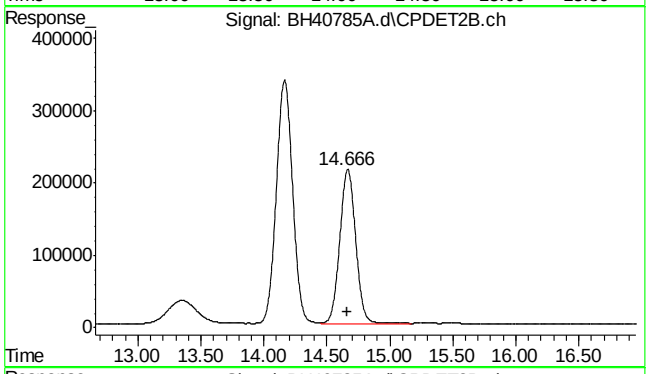
#14 mtbe #2

R.T.: 9.014 min
Delta R.T.: 0.004 min
Response: 13742240
Conc: 56.31 ppb



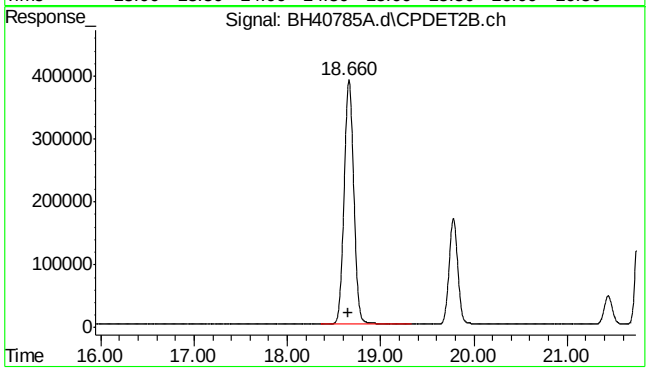
#15 benzene #2

R.T.: 14.164 min
Delta R.T.: 0.003 min
Response: 30394809
Conc: 53.94 ppb



#16 fluorobenzene #2

R.T.: 14.667 min
Delta R.T.: 0.003 min
Response: 18770567
Conc: 52.08 ppb



#17 toluene #2

R.T.: 18.662 min
Delta R.T.: 0.003 min
Response: 28040872
Conc: 54.27 ppb

7.3.2

7

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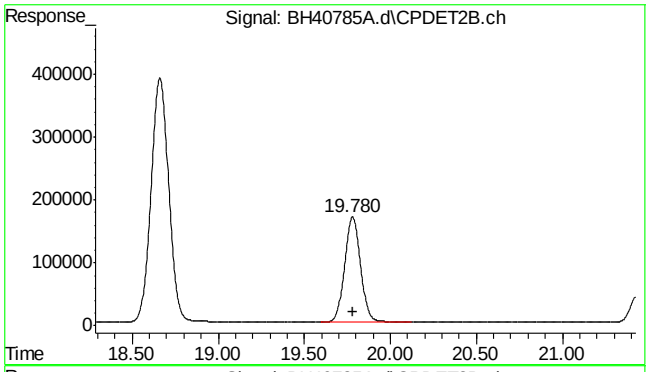
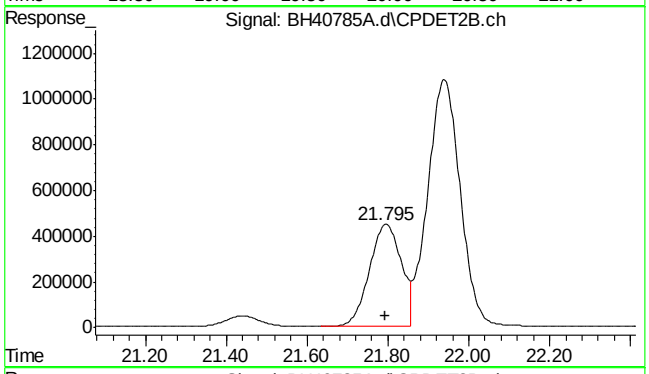


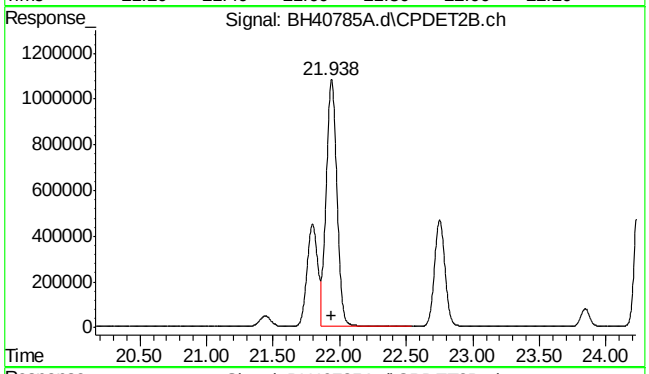
#18 2,3,4-trifluorotoluene #2

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 10906506
Conc: 50.24 ppb



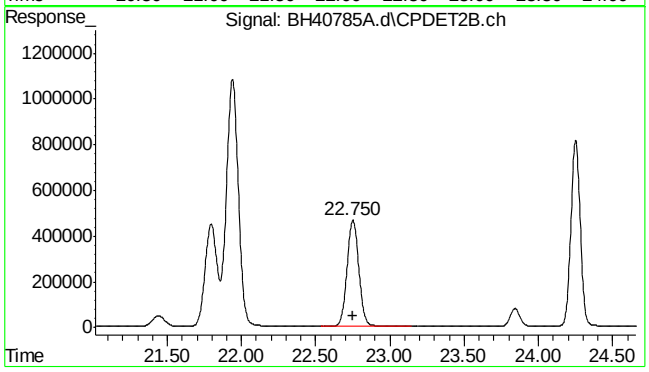
#19 ethylbenzene #2

R.T.: 21.796 min
Delta R.T.: 0.002 min
Response: 24399486
Conc: 53.60 ppb



#20 m,p-xylene #2

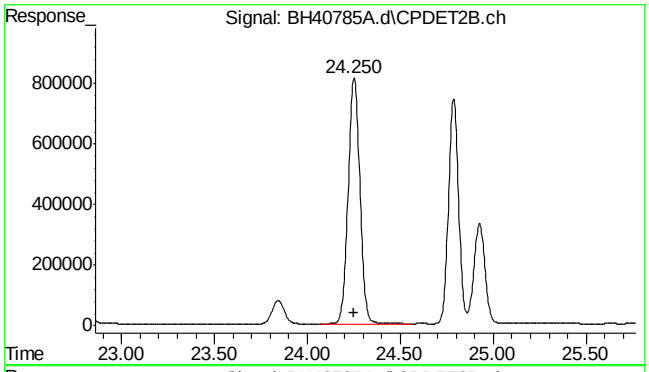
R.T.: 21.940 min
Delta R.T.: 0.002 min
Response: 60952483
Conc: 108.29 ppb



#21 o-xylene #2

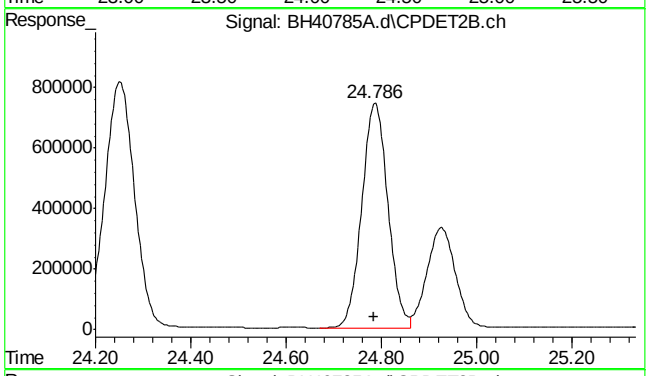
R.T.: 22.752 min
Delta R.T.: 0.002 min
Response: 25765301
Conc: 52.94 ppb

SGS ACCUTEST MC48999



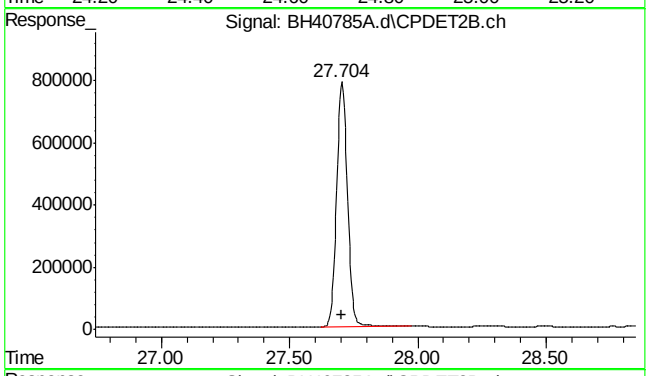
#22 1,3,5-trimethylbenzene #2

R.T.: 24.252 min
Delta R.T.: 0.002 min
Response: 35871866
Conc: 51.76 ppb



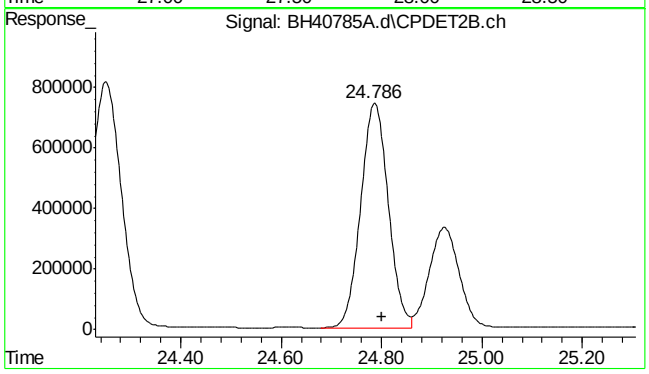
#23 1,2,4-trimethylbenzene #2

R.T.: 24.787 min
Delta R.T.: 0.002 min
Response: 28299927
Conc: 54.98 ppb



#24 naphthalene #2

R.T.: 27.704 min
Delta R.T.: 0.002 min
Response: 23338583
Conc: 58.80 ppb m



#25 c9-c10 arom as 1,2,4-tmb

R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 28177521
Conc: 54.73 ppb m

SGS ACCUTEST MC48999

Manual Integrations
APPROVED
(compounds with "m" flag)
Andri Piluri
12/13/16 11:51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40790.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 12:42 pm
Operator : tonyf
Sample : mc49029-1ms,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:09:12 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
4) s fluorobenzene	14.667	43792094	45.761 ppb	
Spiked Amount 50.000		Recovery =	91.52%	
6) s 2,3,4-trifluorotoluene	19.782	36942015	45.449 ppb	
Spiked Amount 50.000		Recovery =	90.90%	
16) s fluorobenzene #2	14.667	17052755	47.310 ppb	
Spiked Amount 50.000		Recovery =	94.62%	
18) s 2,3,4-trifluorotoluen...	19.782	10280228	47.359 ppb	
Spiked Amount 50.000		Recovery =	94.72%	
Target Compounds				
1) h rt5.5-7	5.980	35712151	37.174 ppb	
2) h rt7/10	8.250	70673590	73.566 ppb	
3) h rt10/13	13.360	162188655	168.827 ppb	
8) h rt20/25	21.460	527657327	478.960 ppb	m
14) t mtbe #2	9.015	12201851	49.998 ppb	
15) t benzene #2	14.165	26448665	46.940 ppb	
17) t toluene #2	18.662	24184407	46.808 ppb	
19) t ethylbenzene #2	21.797	21583708	47.413 ppb	
20) t m,p-xylene #2	21.941	51808735	92.046 ppb	
21) t o-xylene #2	22.752	21909432	45.016 ppb	
23) t 1,2,4-trimethylbenzen...	24.787	23136593	44.949 ppb	
24) t naphthalene #2	27.704	22980891	57.896 ppb	m
25) h c9-c10 arom as 1,2,4-tmb	24.800	87856368	170.652 ppb	m

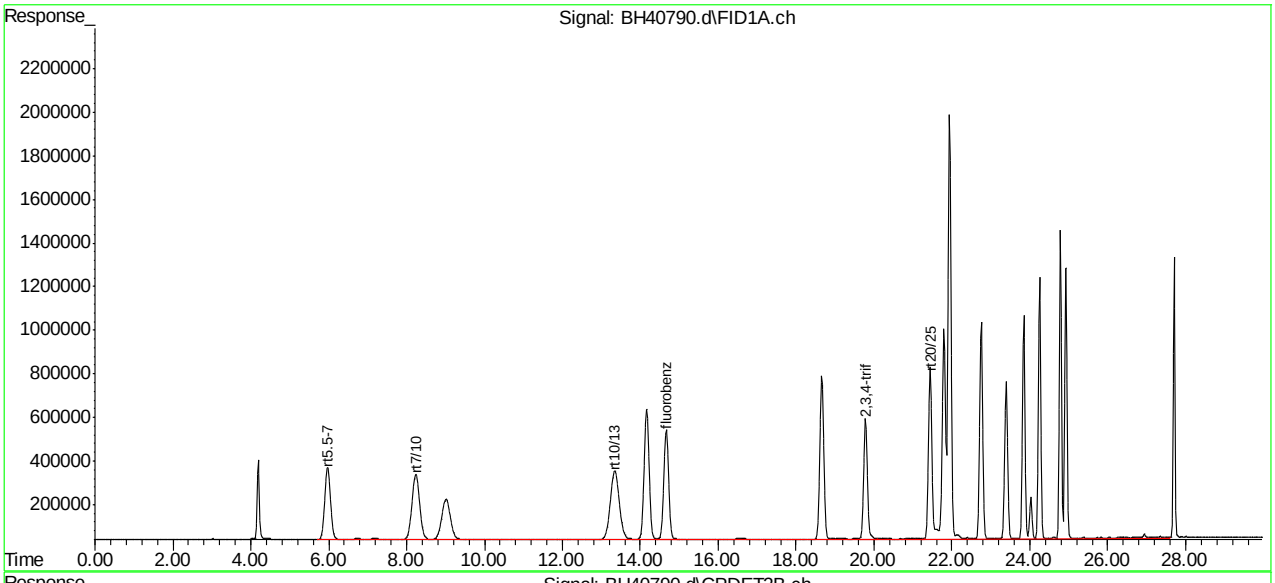
(f)=RT Delta > 1/2 Window (m)=manual int.

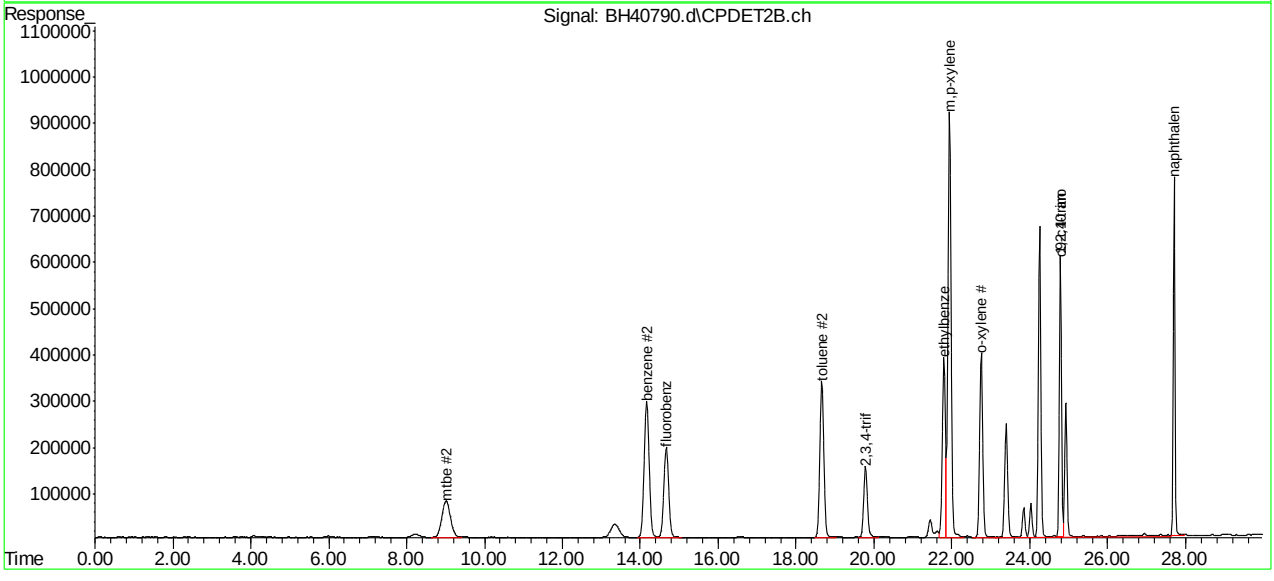
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40790.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 12:42 pm
Operator : tonyf
Sample : mc49029-1ms,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:09:12 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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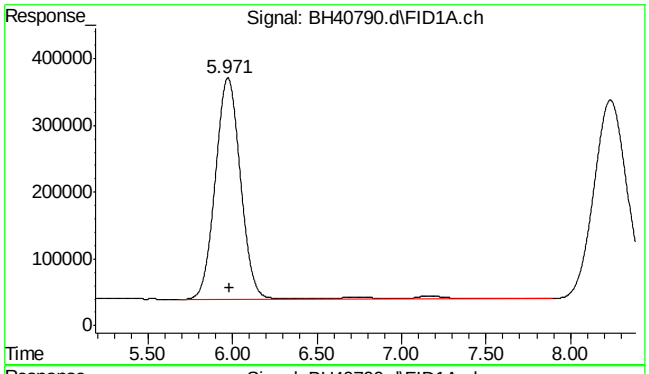
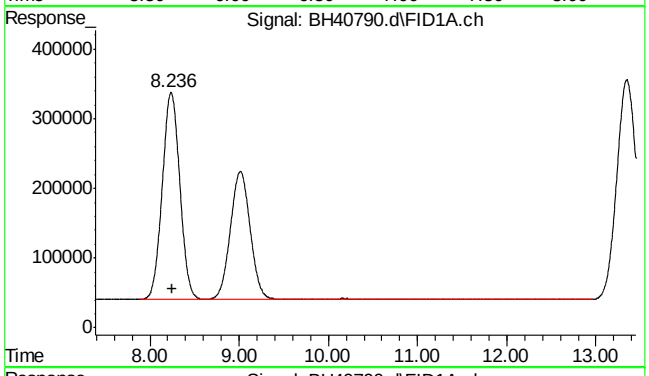


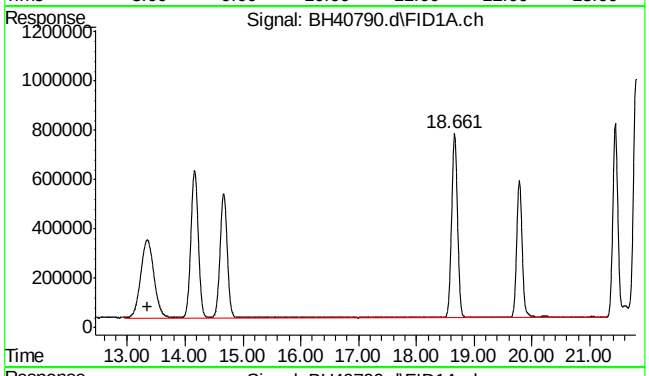
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 35712151
Conc: 37.17 ppb



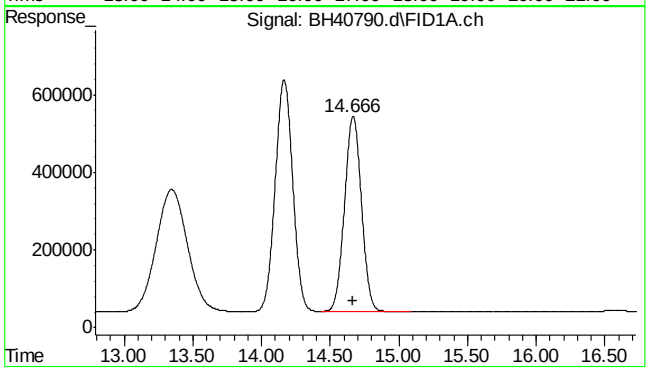
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 70673590
Conc: 73.57 ppb



#3 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 162188655
Conc: 168.83 ppb



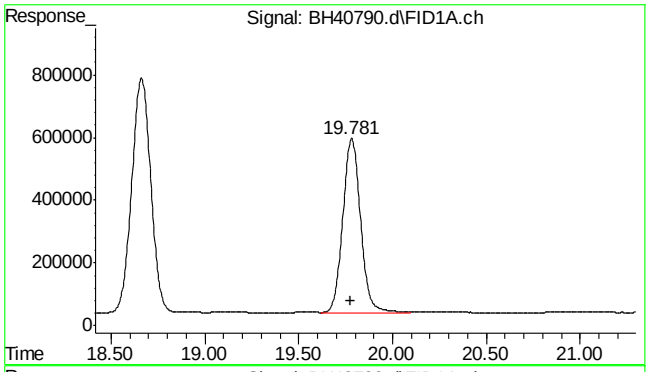
#4 fluorobenzene

R.T.: 14.667 min
Delta R.T.: 0.003 min
Response: 43792094
Conc: 45.76 ppb

7.4.1

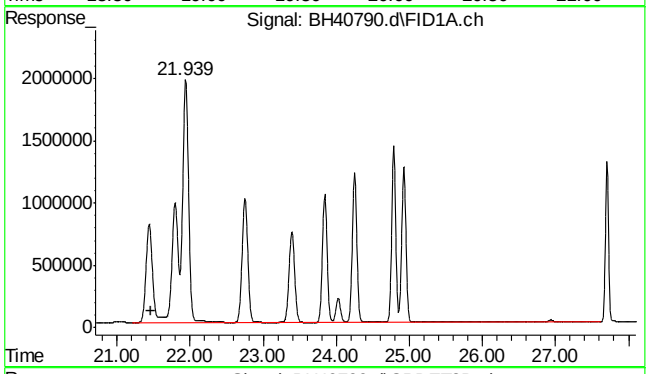
7

SGS ACCUTEST MC48999



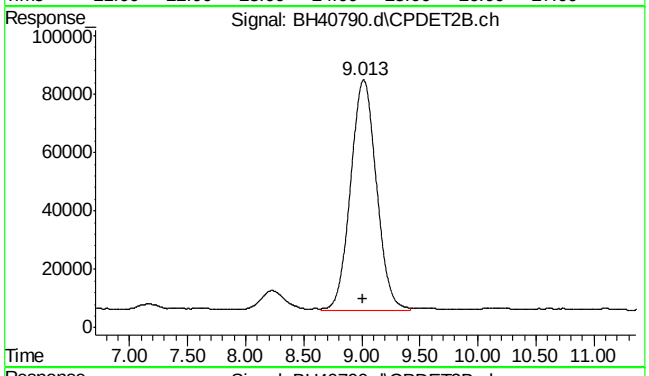
#6 2,3,4-trifluorotoluene

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 36942015
Conc: 45.45 ppb



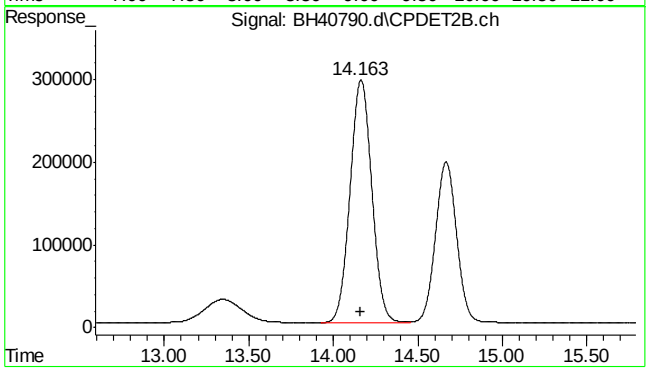
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 527657327
Conc: 478.96 ppb m



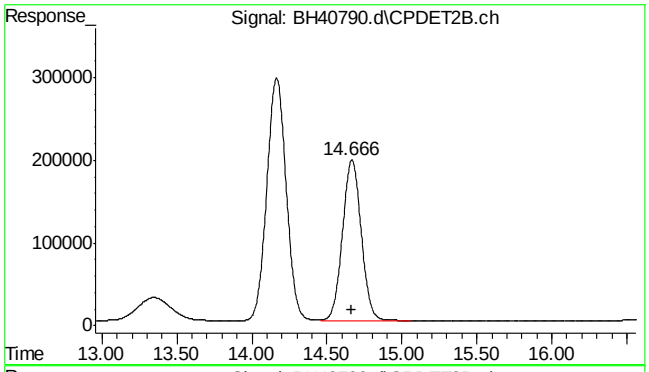
#14 mtbe #2

R.T.: 9.015 min
Delta R.T.: 0.005 min
Response: 12201851
Conc: 50.00 ppb



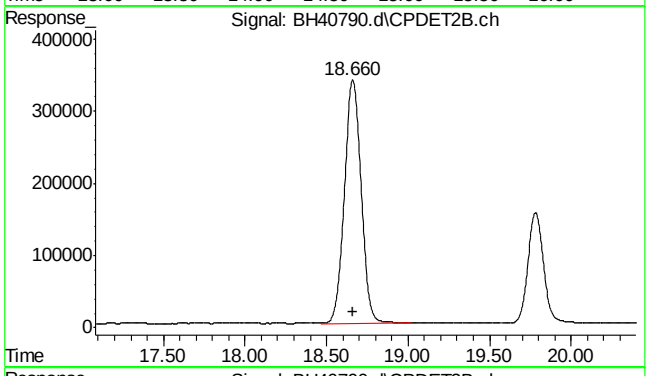
#15 benzene #2

R.T.: 14.165 min
Delta R.T.: 0.004 min
Response: 26448665
Conc: 46.94 ppb



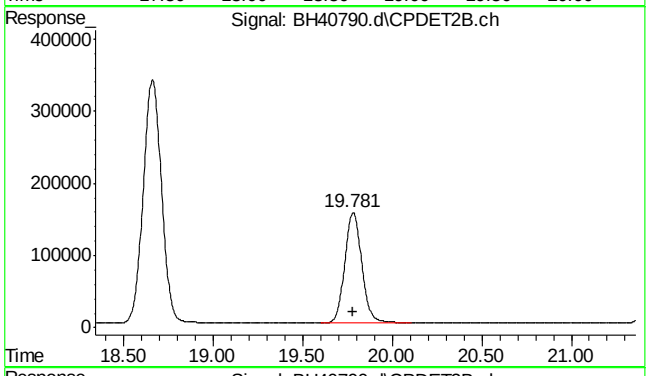
#16 fluorobenzene #2

R.T.: 14.667 min
Delta R.T.: 0.003 min
Response: 17052755
Conc: 47.31 ppb



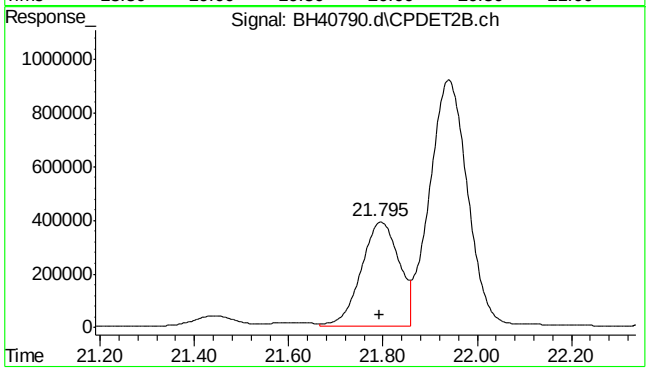
#17 toluene #2

R.T.: 18.662 min
Delta R.T.: 0.003 min
Response: 24184407
Conc: 46.81 ppb



#18 2,3,4-trifluorotoluene #2

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 10280228
Conc: 47.36 ppb



#19 ethylbenzene #2

R.T.: 21.797 min
Delta R.T.: 0.003 min
Response: 21583708
Conc: 47.41 ppb

7.4.1

7

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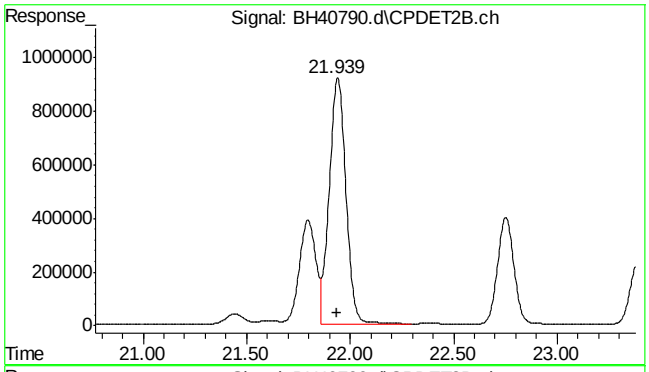
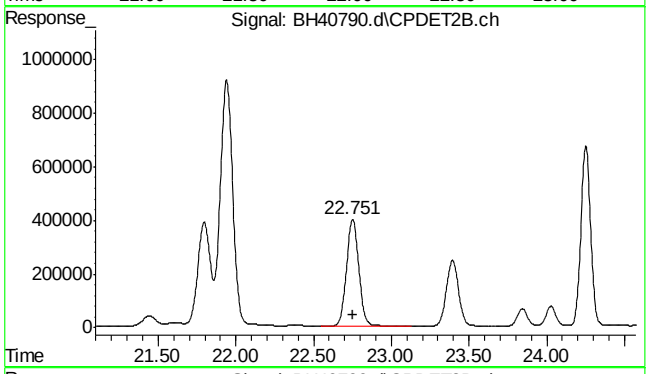


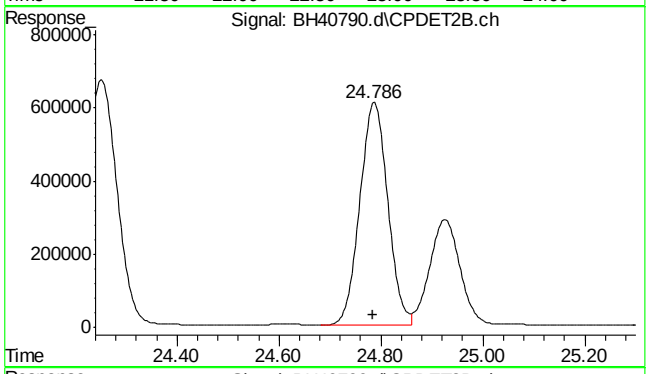
#20 m,p-xylene #2

R.T.: 21.941 min
Delta R.T.: 0.003 min
Response: 51808735
Conc: 92.05 ppb



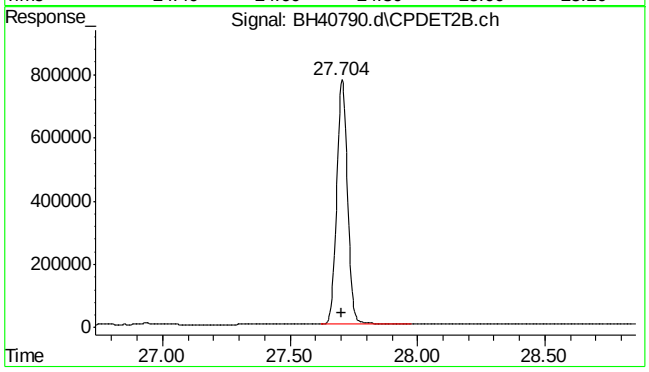
#21 o-xylene #2

R.T.: 22.752 min
Delta R.T.: 0.002 min
Response: 21909432
Conc: 45.02 ppb



#23 1,2,4-trimethylbenzene #2

R.T.: 24.787 min
Delta R.T.: 0.002 min
Response: 23136593
Conc: 44.95 ppb



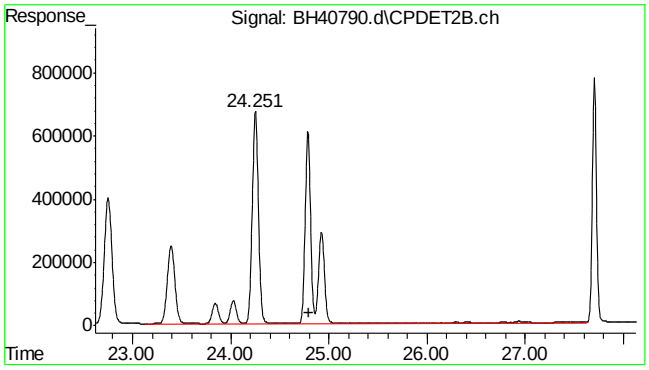
#24 naphthalene #2

R.T.: 27.704 min
Delta R.T.: 0.002 min
Response: 22980891
Conc: 57.90 ppb m

7.4.1

7

SGS ACCUTEST MC48999



#25 c9-c10 arom as 1,2,4-tmb

R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 87856368
Conc: 170.65 ppb m

7.4.1

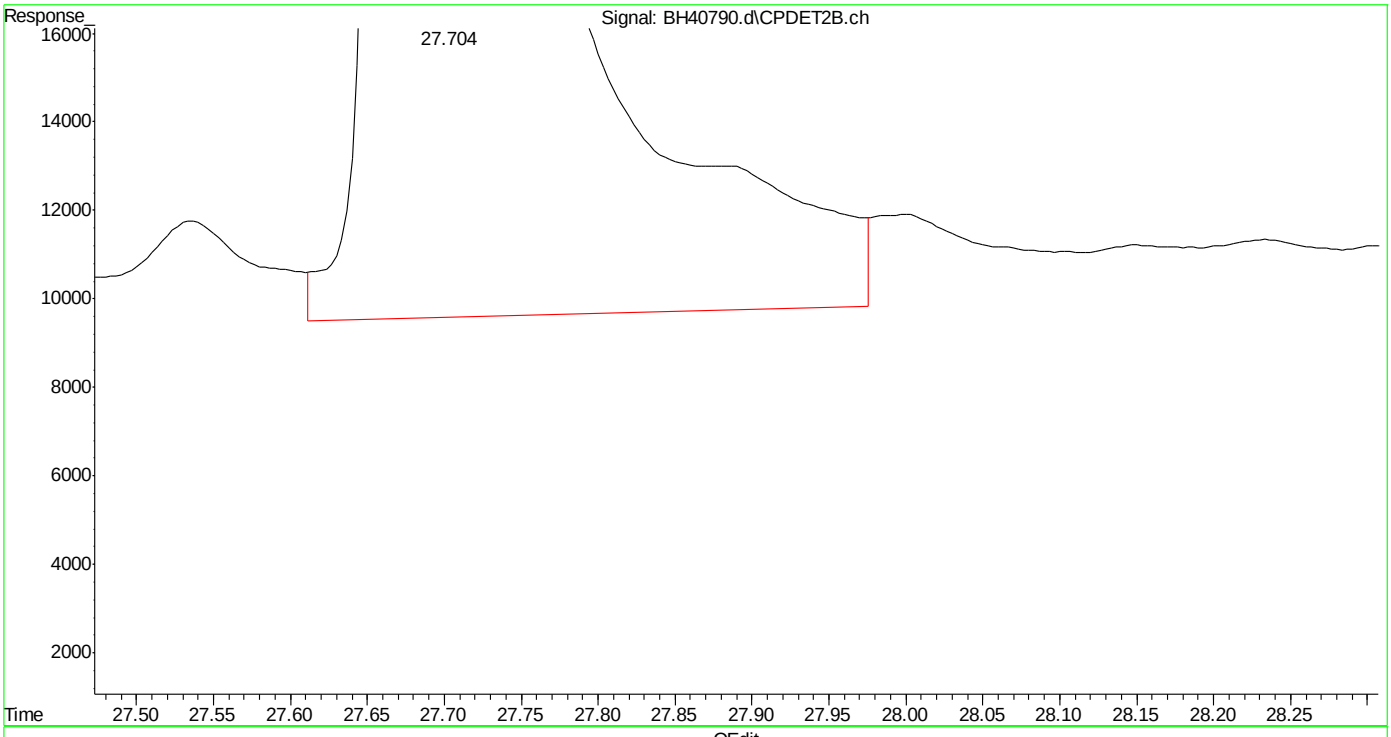
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40790.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 12:42 pm
Operator : tonyf
Sample : mc49029-1ms,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:37:40 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(24) naphthalene #2 (t)
27.705min 58.464 ppb
response 23206363

(+) = Expected Retention Time
bh161209vph.m Mon Dec 12 07:08:56 2016

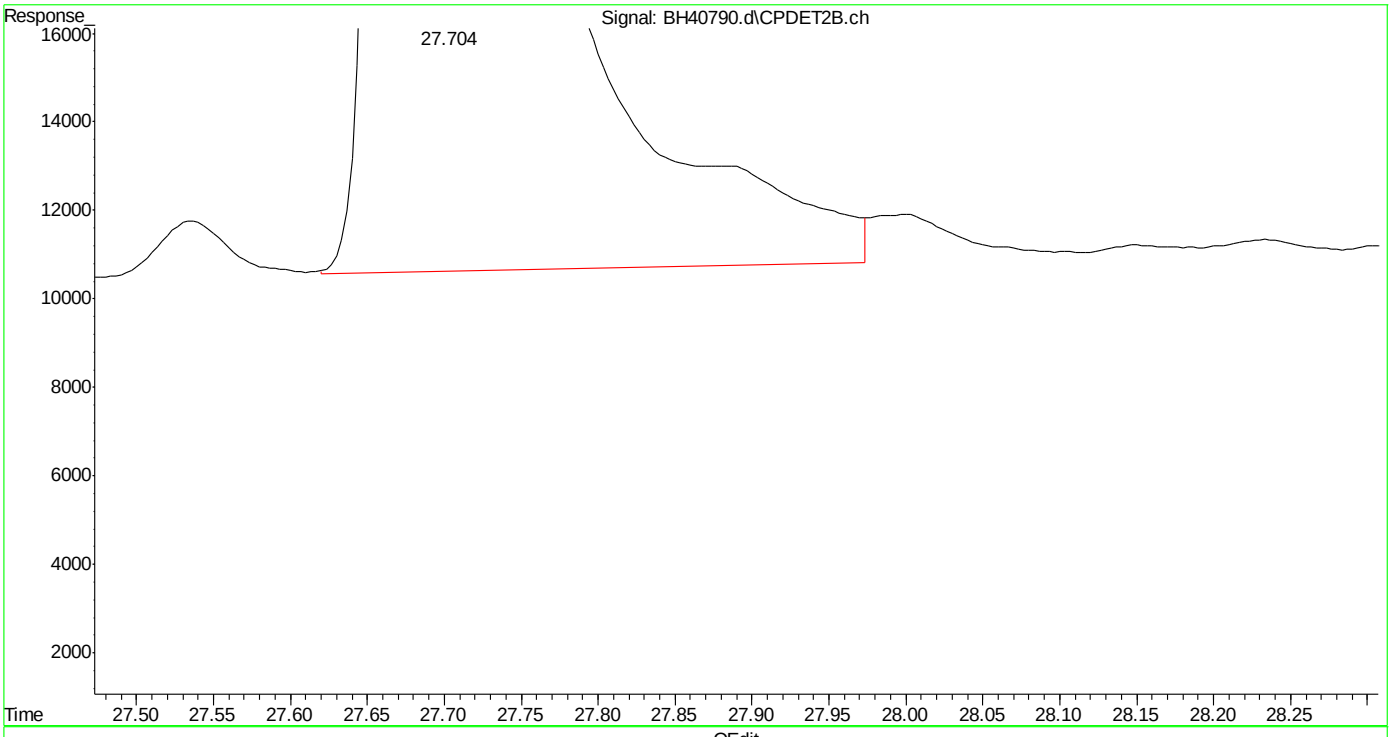
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40790.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: CPDET2B.ch
Acq On    :  9 Dec 2016  12:42 pm
Operator  : tonyf
Sample    : mc49029-1ms,vmavph,00
Misc      : gc26798,gbh2436,,,,5,1
ALS Vial  : 10   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:37:40 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title  : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```



(24) naphthalene #2 (t)

27.704min 57.896 ppb m

response 22980891

(+) = Expected Retention Time

bh161209vph.m Mon Dec 12 07:09:05 2016

SGS ACCUTEST MC48999

Manual Integrations APPROVED (compounds with "m" flag)
Andri Piluri
12/13/16 11:51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40791.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 1:17 pm
Operator : tonyf
Sample : mc49029-1msd,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:10:06 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.666	45104657	47.133	ppb	
Spiked Amount 50.000		Recovery = 94.27%			
6) s 2,3,4-trifluorotoluene	19.782	38019539	46.775	ppb	
Spiked Amount 50.000		Recovery = 93.55%			
16) s fluorobenzene #2	14.666	18032639	50.029	ppb	
Spiked Amount 50.000		Recovery = 100.06%			
18) s 2,3,4-trifluorotoluen...	19.782	10624182	48.943	ppb	
Spiked Amount 50.000		Recovery = 97.89%			
Target Compounds					
1) h rt5.5-7	5.980	36332565	37.820	ppb	
2) h rt7/10	8.250	72691304	75.667	ppb	
3) h rt10/13	13.360	167067543	173.906	ppb	
8) h rt20/25	21.460	541023461	491.093	ppb	m
14) t mtbe #2	9.010	12411719	50.858	ppb	
15) t benzene #2	14.164	27854938	49.436	ppb	
17) t toluene #2	18.662	24915492	48.223	ppb	
19) t ethylbenzene #2	21.796	22250751	48.879	ppb	
20) t m,p-xylene #2	21.940	53603448	95.235	ppb	
21) t o-xylene #2	22.752	22597362	46.429	ppb	
23) t 1,2,4-trimethylbenzen...	24.787	23900211	46.433	ppb	
24) t naphthalene #2	27.704	22845715	57.555	ppb	m
25) h c9-c10 arom as 1,2,4-tmb	24.800	88956988	172.790	ppb	m

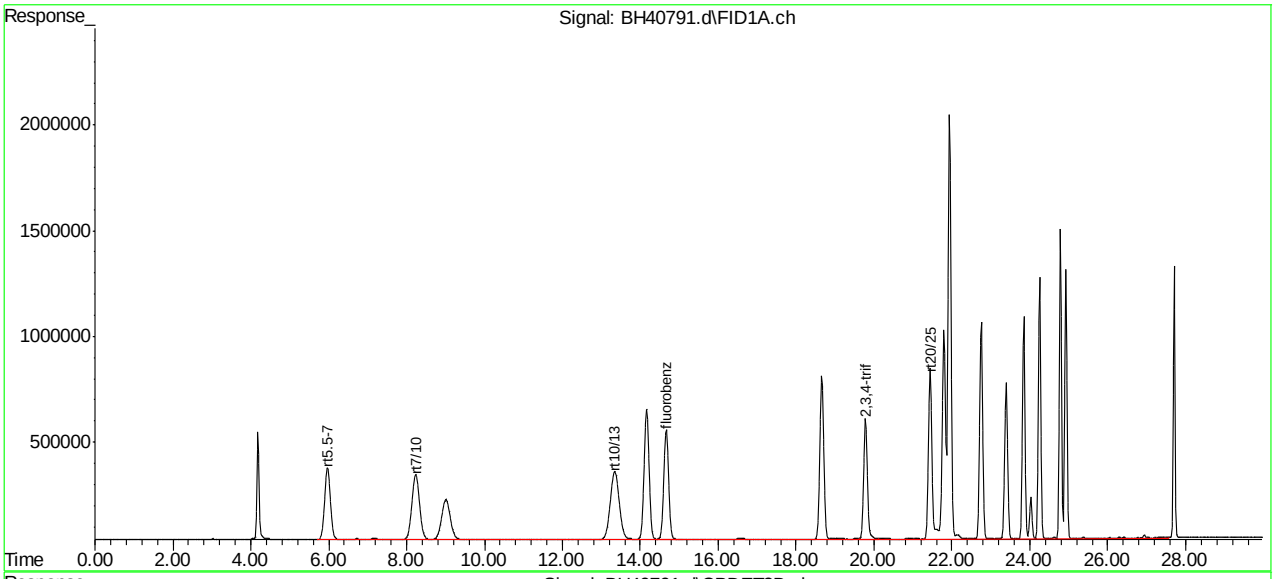
(f)=RT Delta > 1/2 Window (m)=manual int.

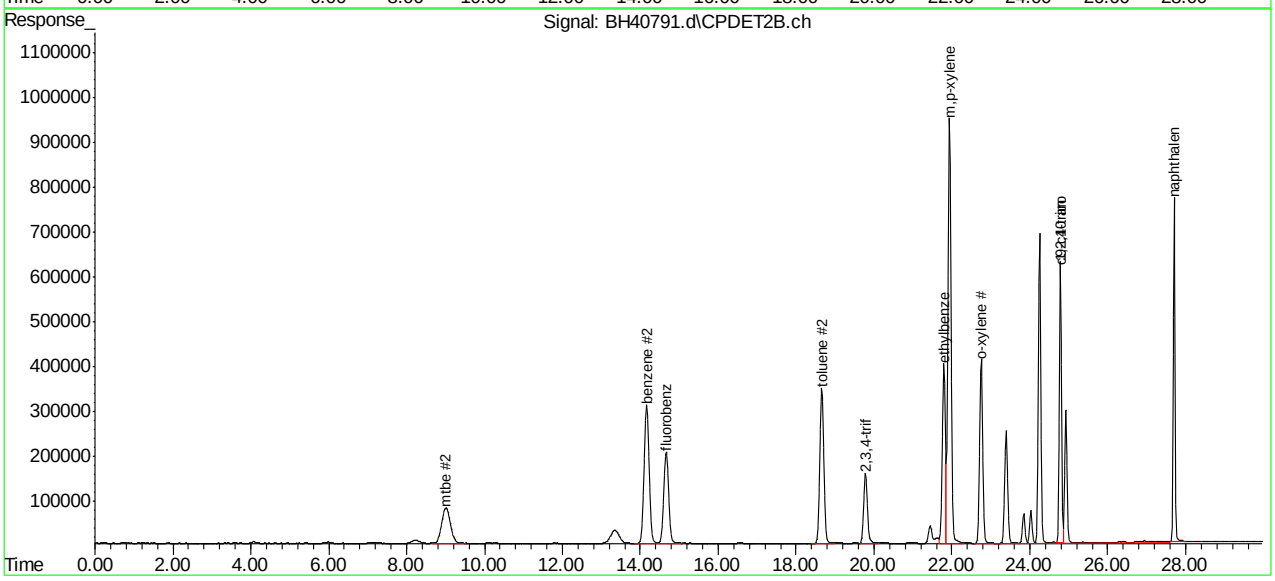
Quantitation Report (QT Reviewed)

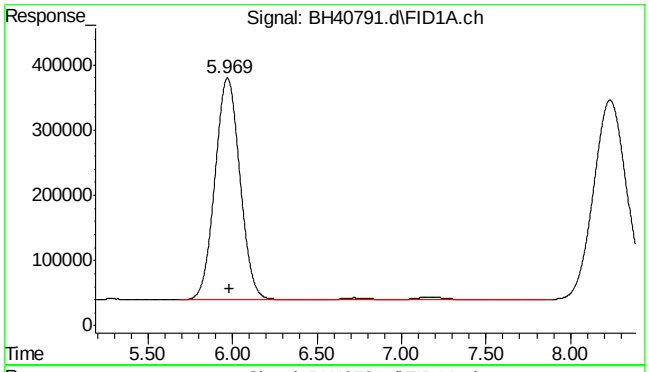
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40791.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 1:17 pm
Operator : tonyf
Sample : mc49029-1msd,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 07:10:06 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

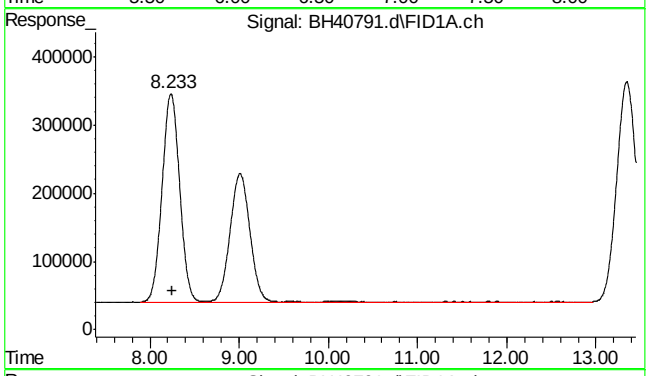






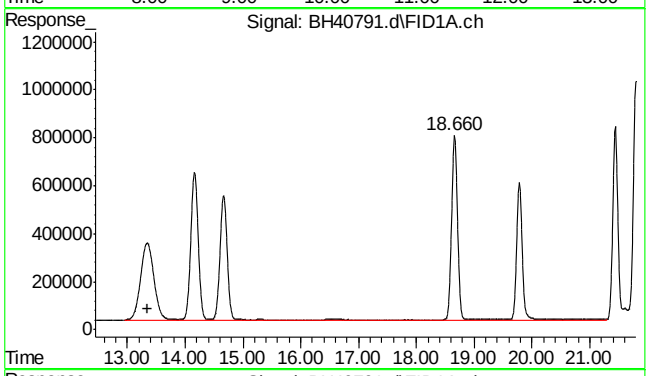
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 36332565
Conc: 37.82 ppb



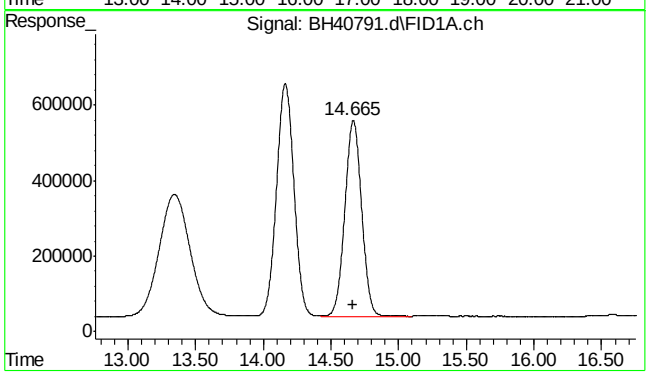
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 72691304
Conc: 75.67 ppb



#3 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 167067543
Conc: 173.91 ppb



#4 fluorobenzene

R.T.: 14.666 min
Delta R.T.: 0.002 min
Response: 45104657
Conc: 47.13 ppb

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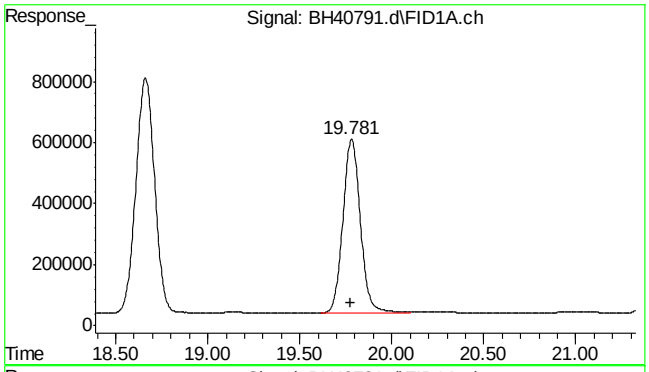
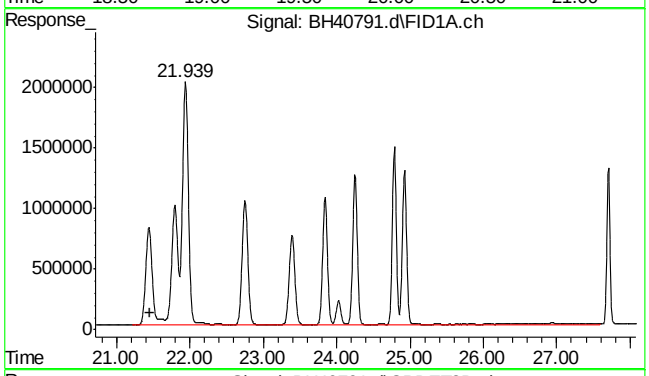


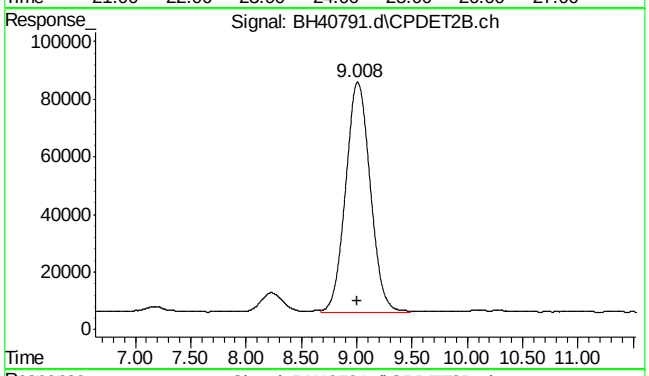
#6 2,3,4-trifluorotoluene

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 38019539
Conc: 46.77 ppb



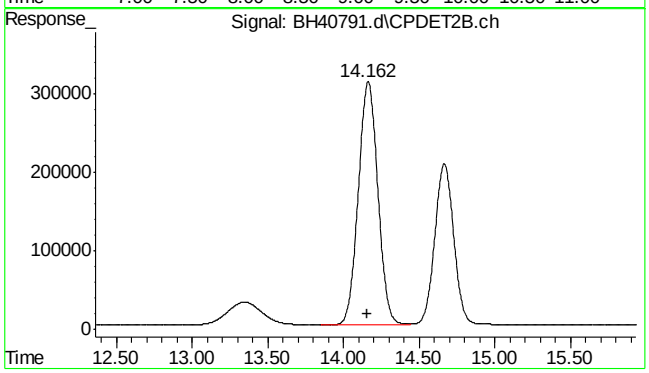
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 541023461
Conc: 491.09 ppb m



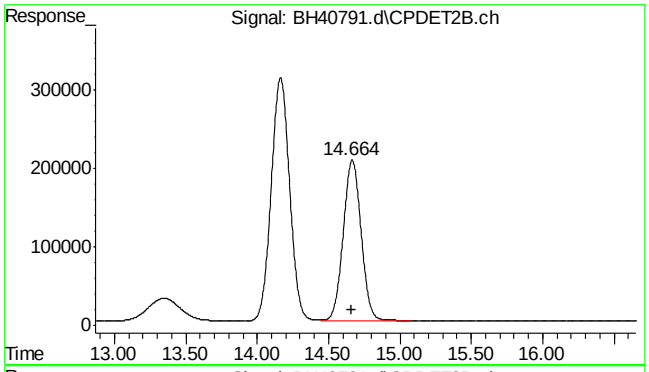
#14 mtbe #2

R.T.: 9.010 min
Delta R.T.: 0.000 min
Response: 12411719
Conc: 50.86 ppb



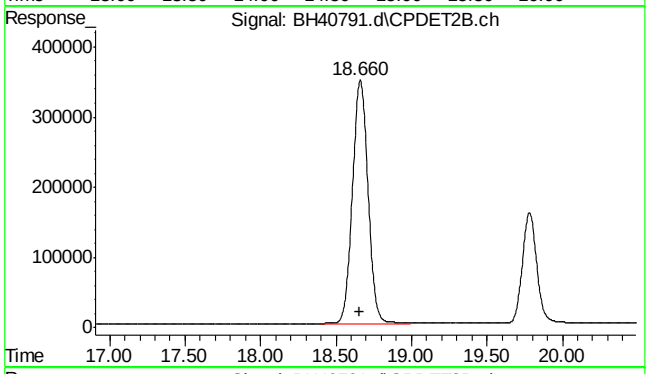
#15 benzene #2

R.T.: 14.164 min
Delta R.T.: 0.003 min
Response: 27854938
Conc: 49.44 ppb



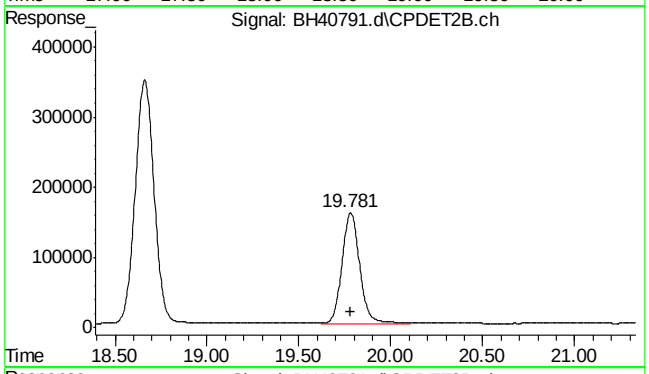
#16 fluorobenzene #2

R.T.: 14.666 min
Delta R.T.: 0.002 min
Response: 18032639
Conc: 50.03 ppb



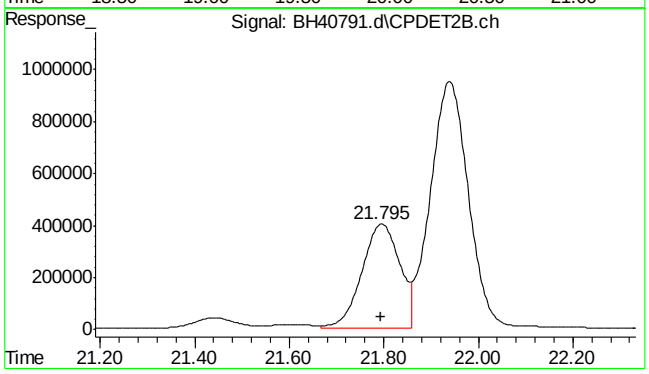
#17 toluene #2

R.T.: 18.662 min
Delta R.T.: 0.003 min
Response: 24915492
Conc: 48.22 ppb



#18 2,3,4-trifluorotoluene #2

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 10624182
Conc: 48.94 ppb



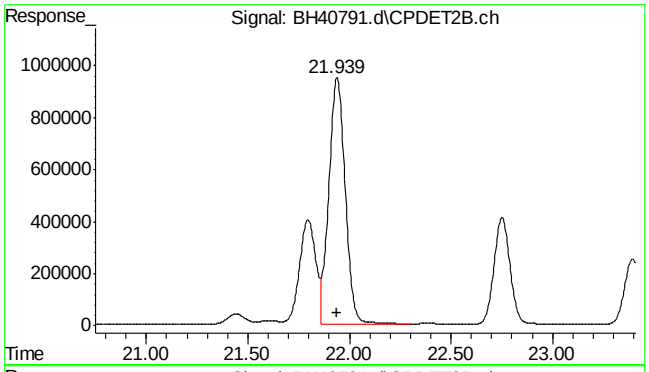
#19 ethylbenzene #2

R.T.: 21.796 min
Delta R.T.: 0.002 min
Response: 22250751
Conc: 48.88 ppb

7.4.2

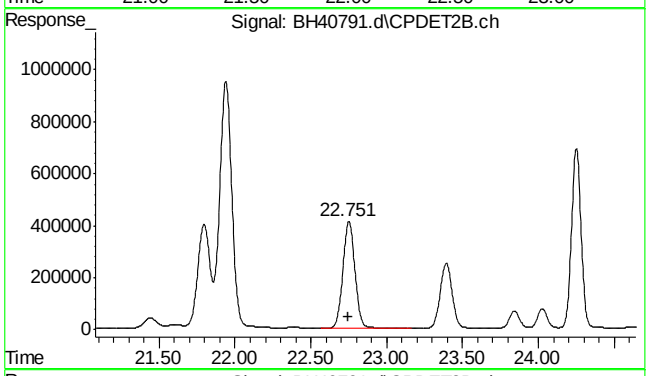
7

SGS ACCUTEST MC48999



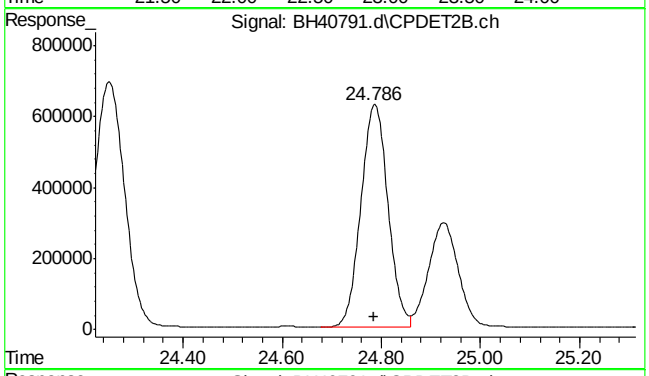
#20 m,p-xylene #2

R.T.: 21.940 min
Delta R.T.: 0.002 min
Response: 53603448
Conc: 95.23 ppb



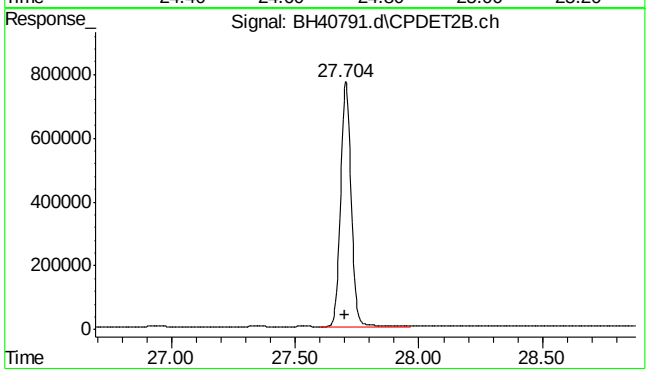
#21 o-xylene #2

R.T.: 22.752 min
Delta R.T.: 0.002 min
Response: 22597362
Conc: 46.43 ppb



#23 1,2,4-trimethylbenzene #2

R.T.: 24.787 min
Delta R.T.: 0.002 min
Response: 23900211
Conc: 46.43 ppb



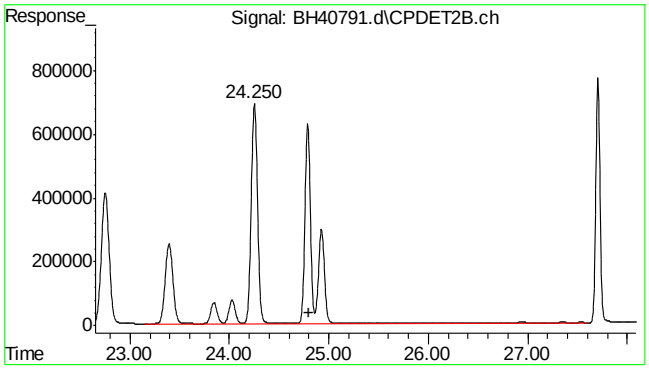
#24 naphthalene #2

R.T.: 27.704 min
Delta R.T.: 0.002 min
Response: 22845715
Conc: 57.56 ppb m

7.4.2

7

SGS ACCUTEST MC48999



#25 c9-c10 arom as 1,2,4-tmb

R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 88956988
Conc: 172.79 ppb m

7.4.2

7

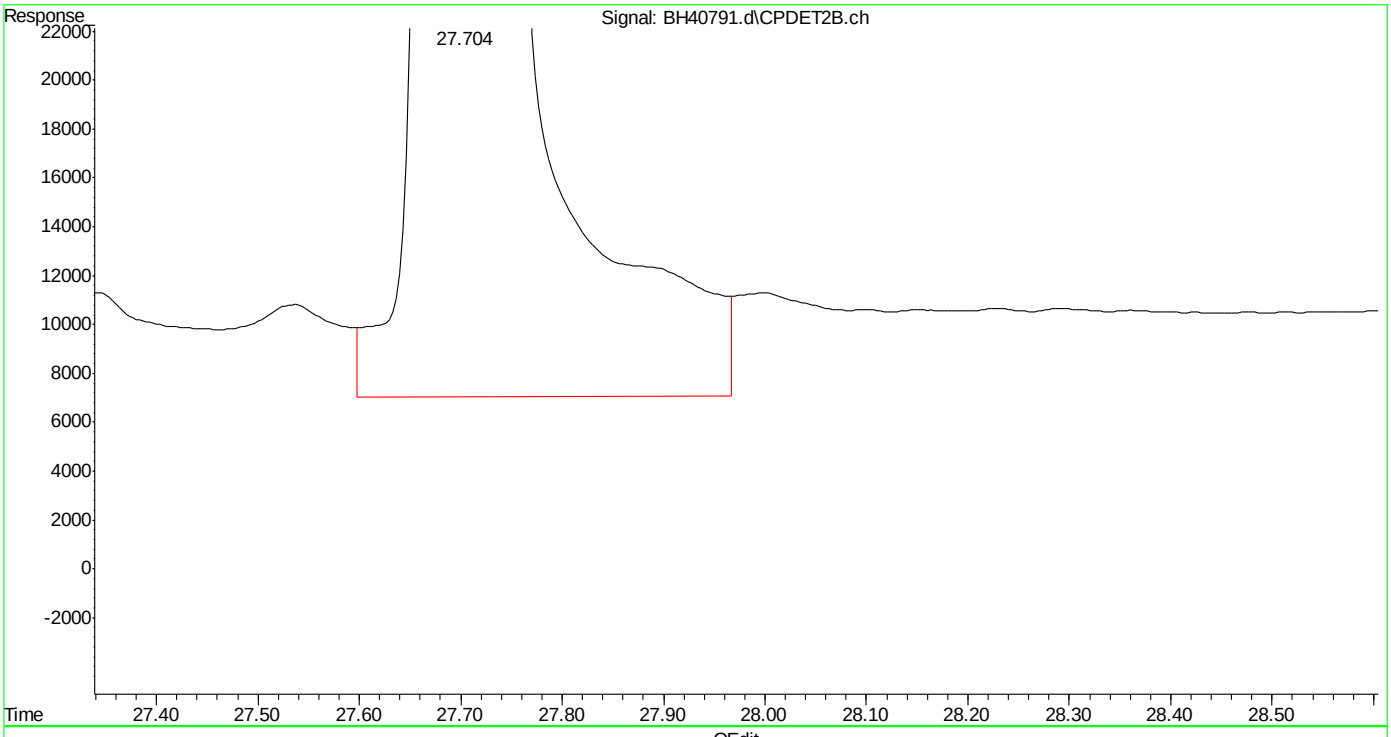
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40791.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 1:17 pm
Operator : tonyf
Sample : mc49029-1msd,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:37:47 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(24) naphthalene #2 (t)
27.706min 59.168 ppb
response 23485907

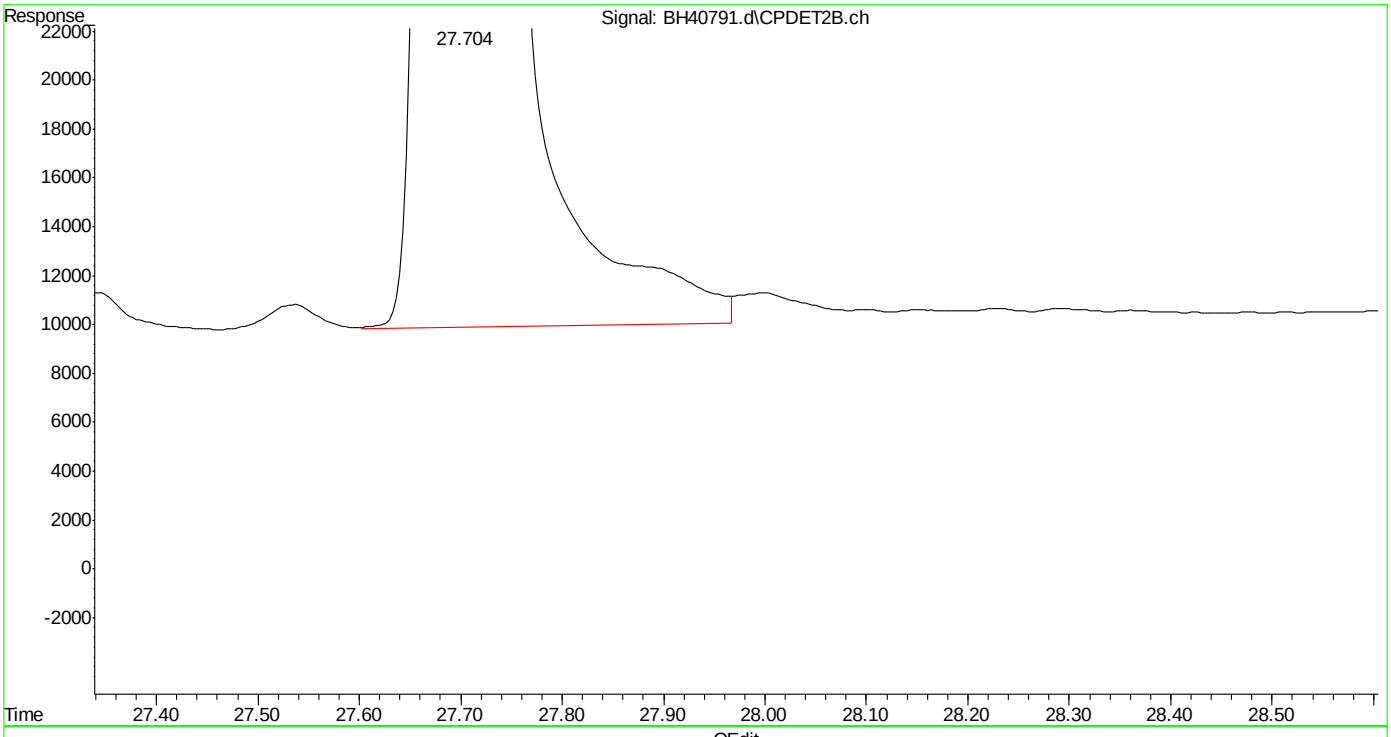
(+) = Expected Retention Time
bh161209vph.m Mon Dec 12 07:09:52 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40791.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 1:17 pm
Operator : tonyf
Sample : mc49029-1msd,vmavph,00
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 11 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:37:47 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(24) naphthalene #2 (t)
27.704min 57.555 ppb m
response 22845715

(+) = Expected Retention Time

Manual Integrations
APPROVED
(compounds with "m" flag)
Andri Piluri
11/02/16 12:49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40247.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 12:29 pm
Operator : tonyf
Sample : ic2394-1000,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:34:10 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:29:05 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
6) s fluorobenzene	14.665	943519136	985.343	ppb	
Spiked Amount 50.000		Recovery	= 1970.69%		
9) s 2,3,4-trifluorotoluene	19.781	776407837	990.416	ppb	
Spiked Amount 50.000		Recovery	= 1980.83%		
25) s fluorobenzene #2	14.664	346266134	954.117	ppb	
Spiked Amount 50.000		Recovery	= 1908.23%		
27) s 2,3,4-trifluorotoluen...	19.781	205141009	974.224	ppb	
Spiked Amount 50.000		Recovery	= 1948.45%		
Target Compounds					
1) h rt5.5-7	5.980	857783738	959.388	ppb	m
2) h rt7/10	8.250	937715107	940.989	ppb	m
3) t mtbe	9.007	526895375	859.556	ppb	
4) h rt10/13	13.360	807923588	662.976	ppb	m
5) t benzene	14.163	1172332385	987.100	ppb	
8) t toluene	18.661	1185047240	1009.201	ppb	
11) h rt20/25	21.460	1116251819	991.490	ppb	m
13) t ethylbenzene	21.800	1196551613	1032.732	ppb	
14) t m,p-xylene	21.946	2492314741	2063.962	ppb	
15) t o-xylene	22.754	1263650010	1039.016	ppb	
16) h decane	23.856	1120919112	983.714	ppb	
17) t 1,3,5-trimethylbenzene	24.255	1226936693	965.249	ppb	
18) t 1,2,4-trimethylbenzene	24.790	1180819927	960.566	ppb	
19) h butylcyclohexane	24.940	1102768231	919.921	ppb	
20) t naphthalene	27.705	478916850	670.247	ppb	m
23) t mtbe #2	9.007	209028633	835.227	ppb	
24) t benzene #2	14.162	534639467	949.388	ppb	
26) t toluene #2	18.661	499364898	969.819	ppb	
28) t ethylbenzene #2	21.799	449038609	997.293	ppb	
29) t m,p-xylene #2	21.946	1064939710	1909.758	ppb	
30) t o-xylene #2	22.753	473283275	984.797	ppb	
31) t 1,3,5-trimethylbenzen...	24.255	630722781	914.238	ppb	
32) t 1,2,4-trimethylbenzen...	24.789	471628914	923.467	ppb	
33) t naphthalene #2	27.704	267093234	648.808	ppb	m
34) h c9-c10 arom as 1,2,4-tmb	24.800	472052741	924.284	ppb	m

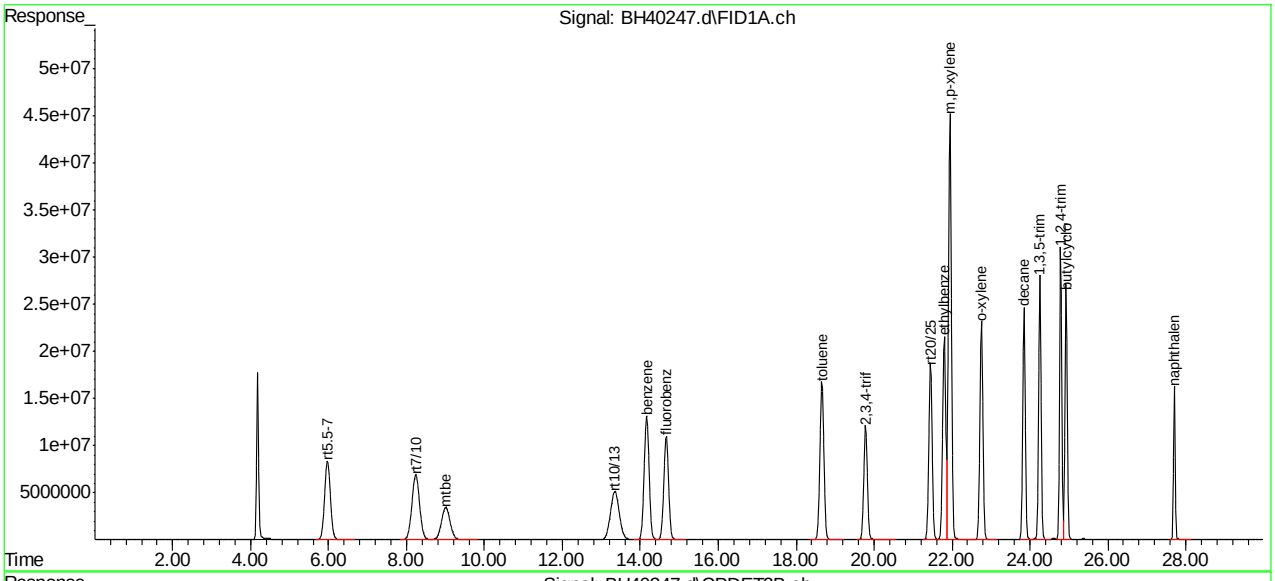
(f)=RT Delta > 1/2 Window (m)=manual int.

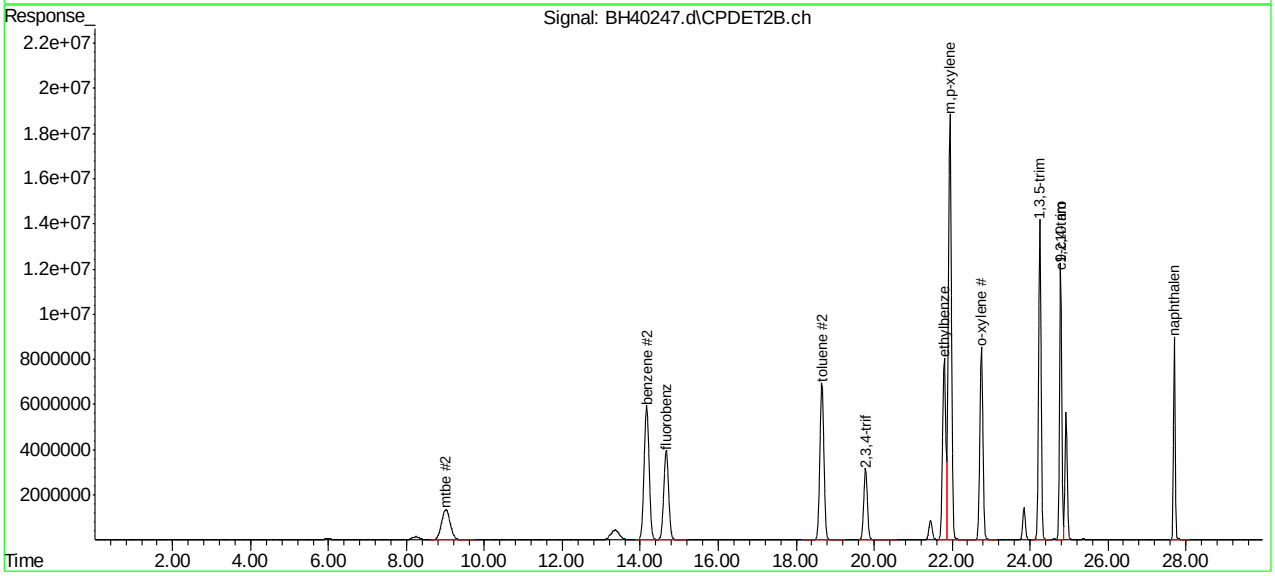
Quantitation Report (QT Reviewed)

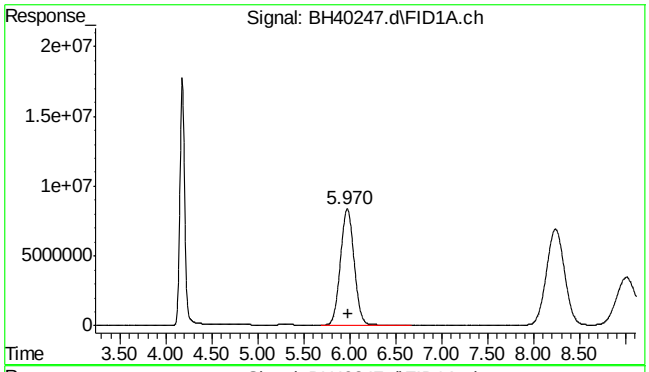
Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40247.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 12:29 pm
Operator : tonyf
Sample : ic2394-1000,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:34:10 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:29:05 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

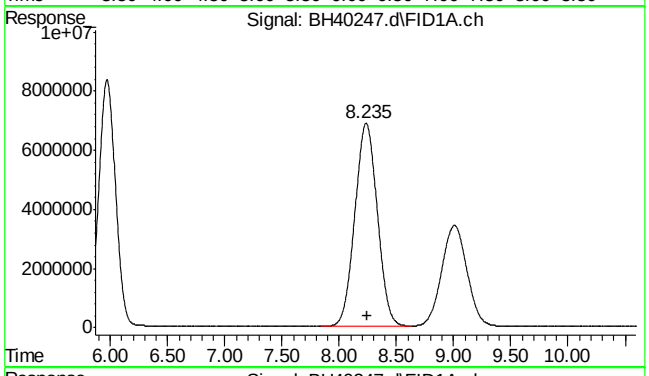






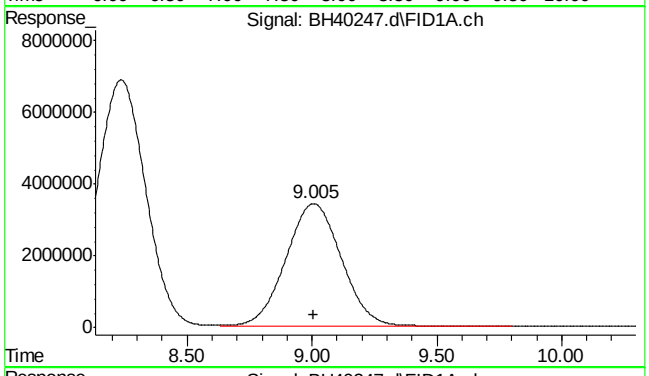
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 857783738
Conc: 959.39 ppb m



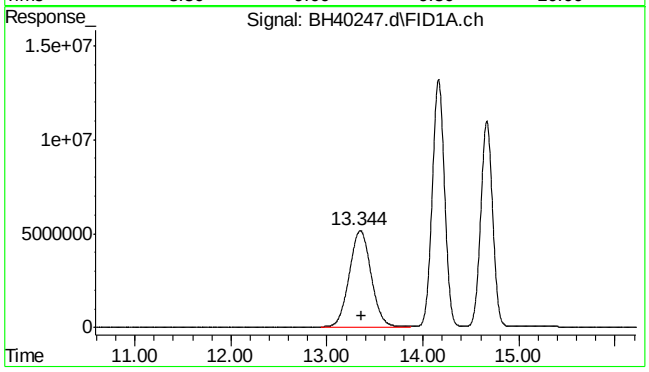
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 937715107
Conc: 940.99 ppb m



#3 mtbe

R.T.: 9.007 min
Delta R.T.: -0.001 min
Response: 526895375
Conc: 859.56 ppb



#4 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 807923588
Conc: 662.98 ppb m

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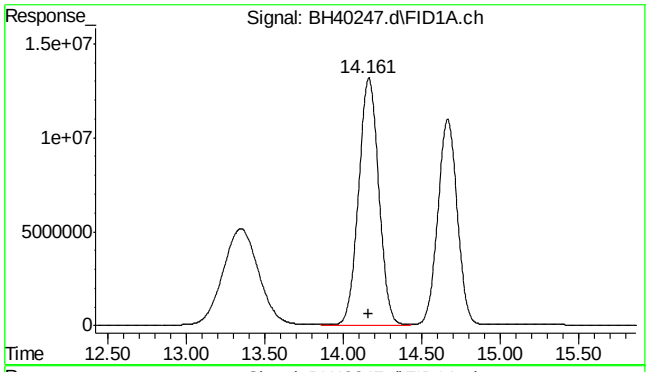
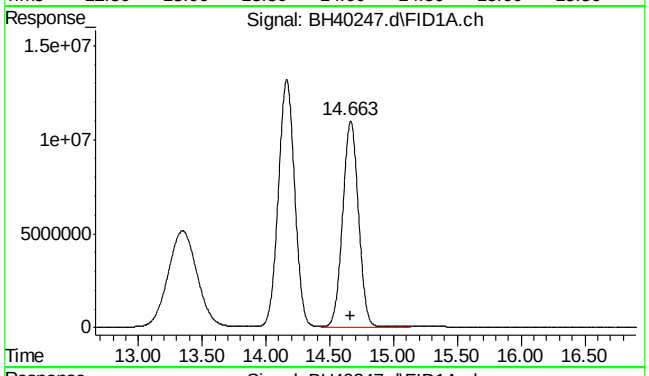


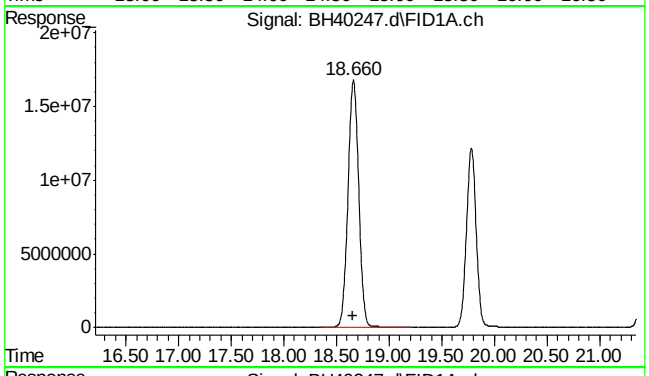
#5 benzene

R.T.: 14.163 min
Delta R.T.: 0.002 min
Response: 1172332385
Conc: 987.10 ppb



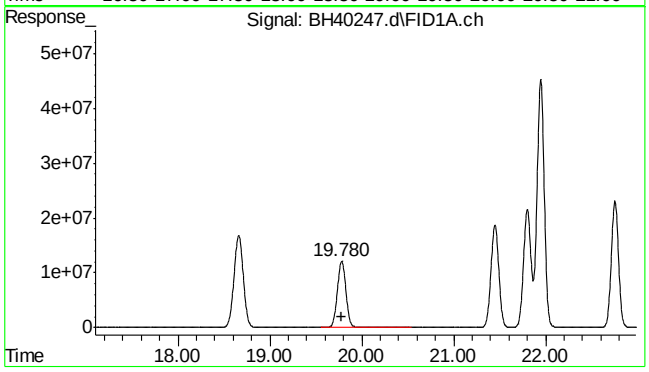
#6 fluorobenzene

R.T.: 14.665 min
Delta R.T.: 0.000 min
Response: 943519136
Conc: 985.34 ppb



#8 toluene

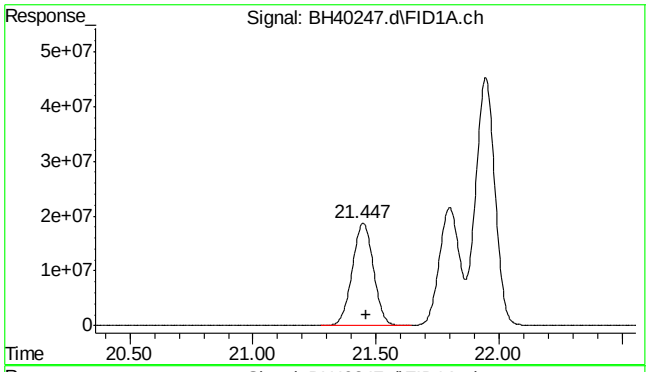
R.T.: 18.661 min
Delta R.T.: 0.002 min
Response: 1185047240
Conc: 1009.20 ppb



#9 2,3,4-trifluorotoluene

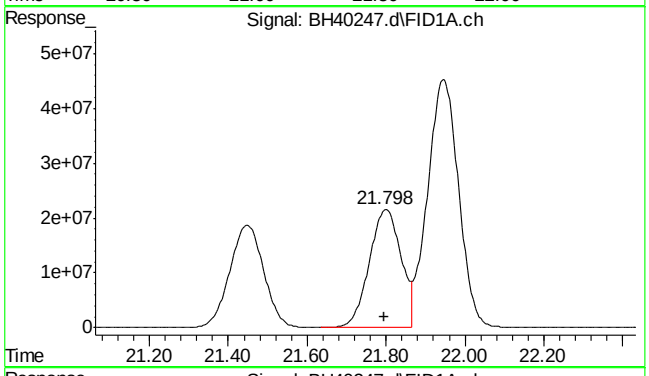
R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 776407837
Conc: 990.42 ppb

SGS ACCUTEST MC48999



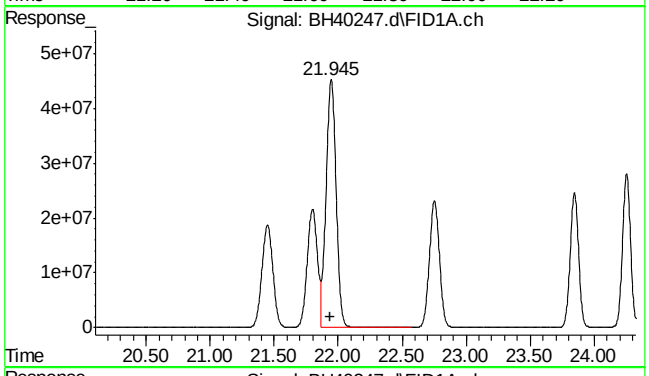
#11 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 1116251819
Conc: 991.49 ppb m



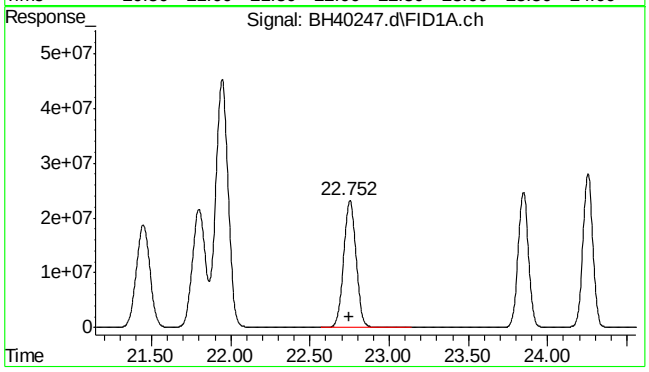
#13 ethylbenzene

R.T.: 21.800 min
Delta R.T.: 0.006 min
Response: 1196551613
Conc: 1032.73 ppb



#14 m,p-xylene

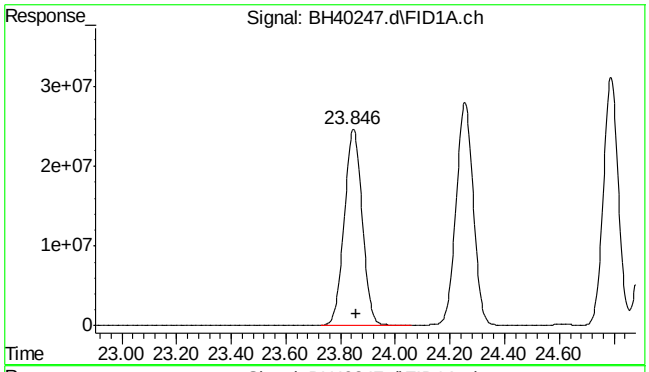
R.T.: 21.946 min
Delta R.T.: 0.008 min
Response: 2492314741
Conc: 2063.96 ppb



#15 o-xylene

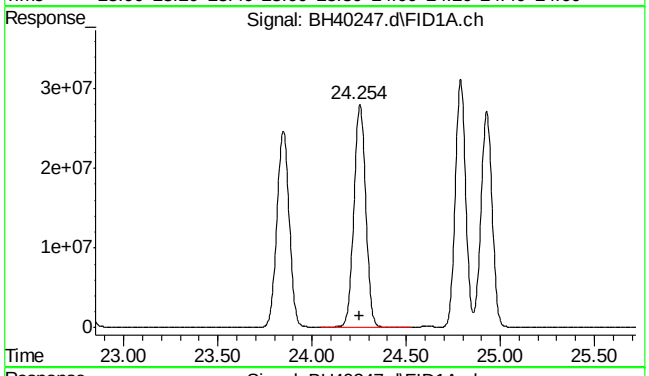
R.T.: 22.754 min
Delta R.T.: 0.004 min
Response: 1263650010
Conc: 1039.02 ppb

SGS ACCUTEST MC48999



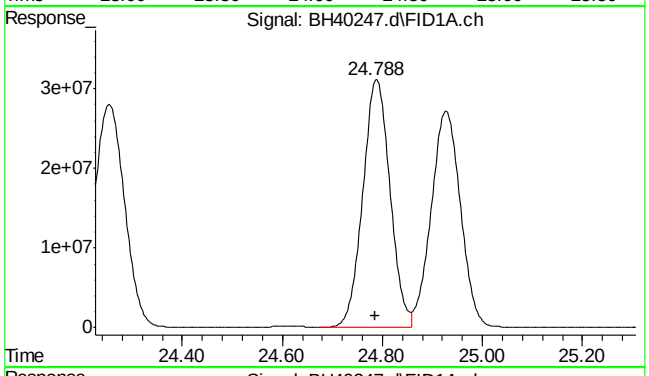
#16 decane

R.T.: 23.856 min
Delta R.T.: 0.000 min
Response: 1120919112
Conc: 983.71 ppb



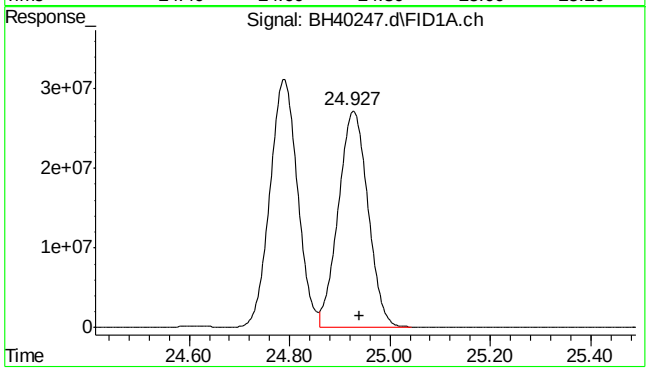
#17 1,3,5-trimethylbenzene

R.T.: 24.255 min
Delta R.T.: 0.005 min
Response: 1226936693
Conc: 965.25 ppb



#18 1,2,4-trimethylbenzene

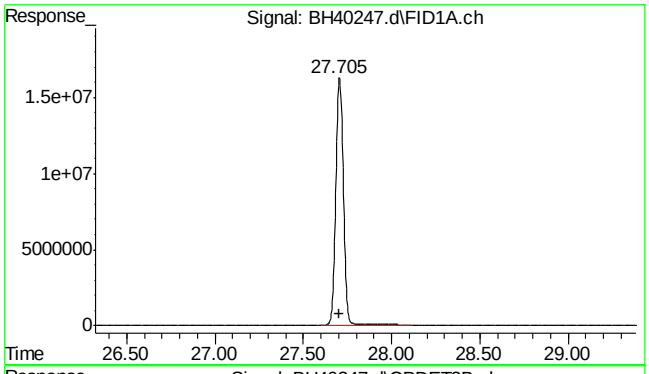
R.T.: 24.790 min
Delta R.T.: 0.004 min
Response: 1180819927
Conc: 960.57 ppb



#19 butylcyclohexane

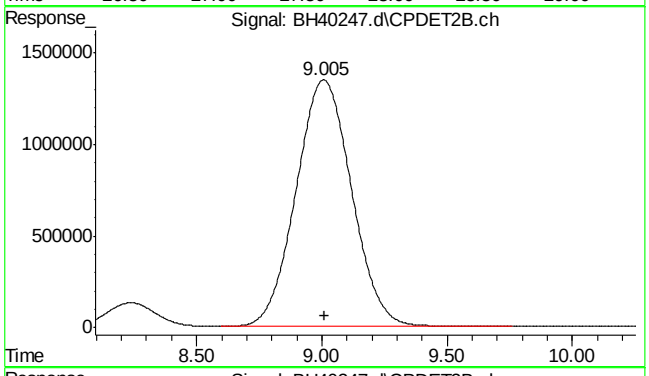
R.T.: 24.940 min
Delta R.T.: 0.000 min
Response: 1102768231
Conc: 919.92 ppb

SGS ACCUTEST MC48999



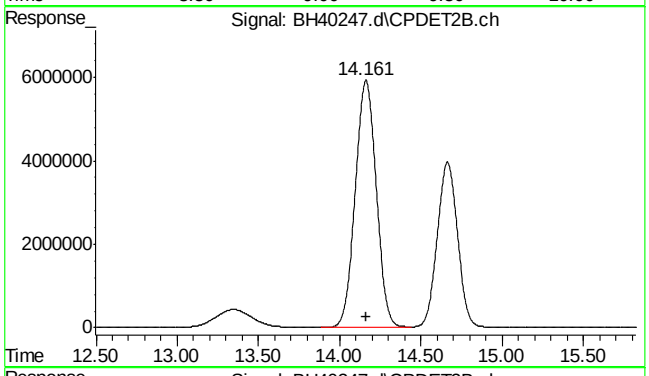
#20 naphthalene

R.T.: 27.705 min
Delta R.T.: 0.002 min
Response: 478916850
Conc: 670.25 ppb m



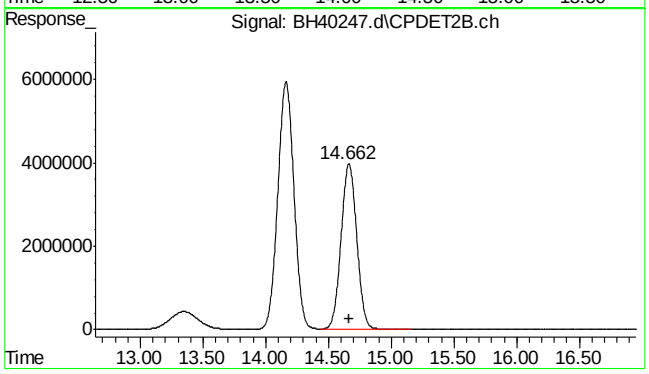
#23 mtbe #2

R.T.: 9.007 min
Delta R.T.: -0.002 min
Response: 209028633
Conc: 835.23 ppb



#24 benzene #2

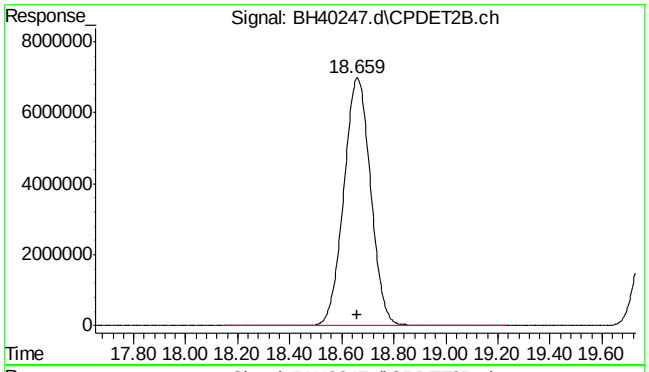
R.T.: 14.162 min
Delta R.T.: 0.001 min
Response: 534639467
Conc: 949.39 ppb



#25 fluorobenzene #2

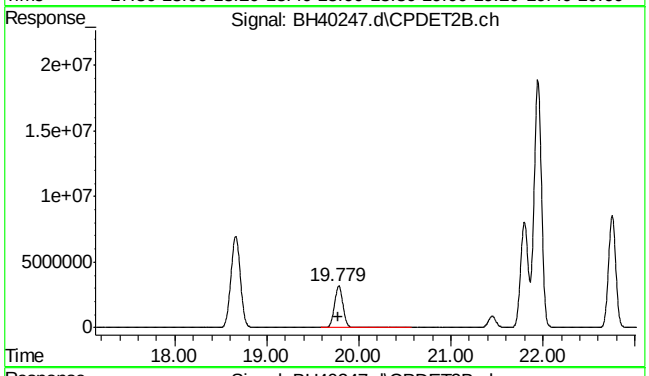
R.T.: 14.664 min
Delta R.T.: 0.000 min
Response: 346266134
Conc: 954.12 ppb

SGS ACCUTEST MC48999



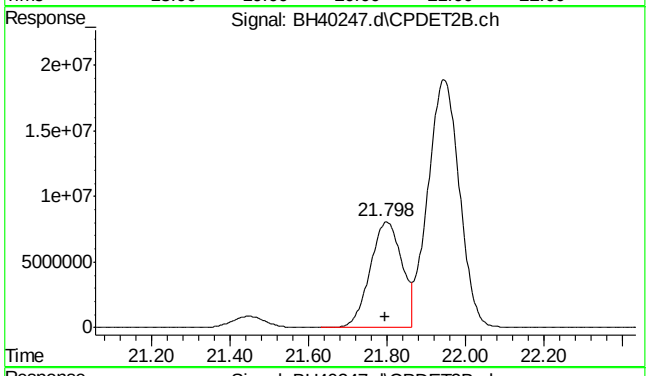
#26 toluene #2

R.T.: 18.661 min
Delta R.T.: 0.002 min
Response: 499364898
Conc: 969.82 ppb



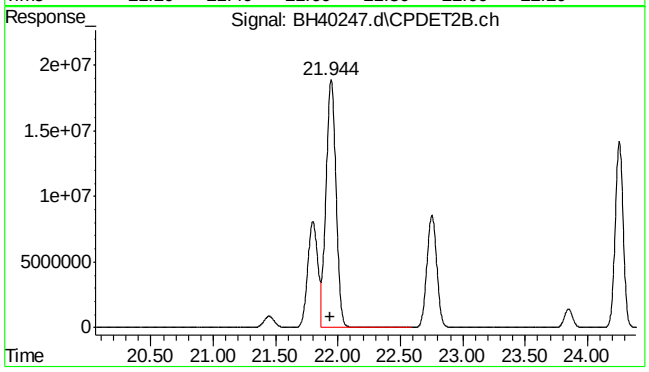
#27 2,3,4-trifluorotoluene #2

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 205141009
Conc: 974.22 ppb



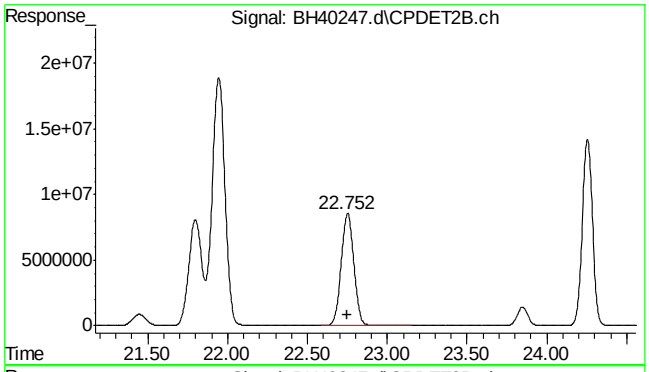
#28 ethylbenzene #2

R.T.: 21.799 min
Delta R.T.: 0.005 min
Response: 449038609
Conc: 997.29 ppb



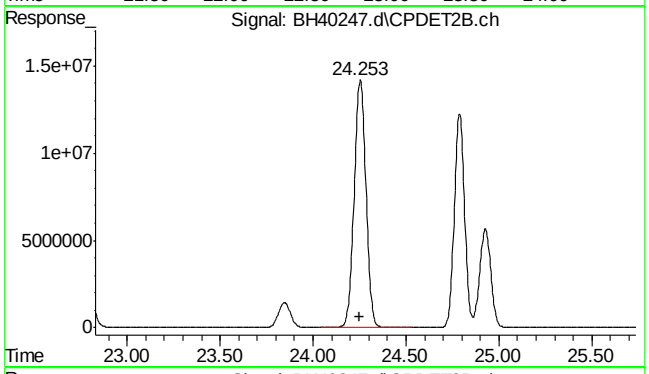
#29 m,p-xylene #2

R.T.: 21.946 min
Delta R.T.: 0.008 min
Response: 1064939710
Conc: 1909.76 ppb



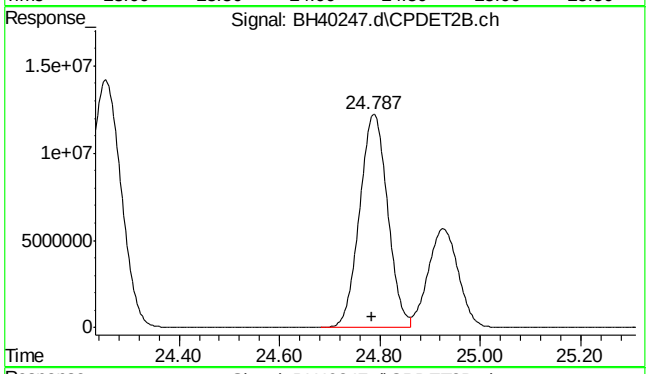
#30 o-xylene #2

R.T.: 22.753 min
Delta R.T.: 0.003 min
Response: 473283275
Conc: 984.80 ppb



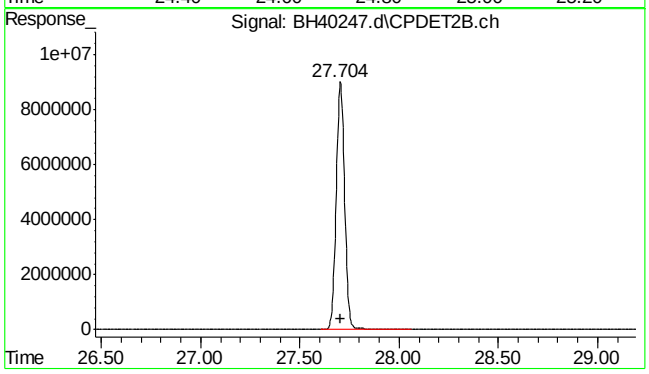
#31 1,3,5-trimethylbenzene #2

R.T.: 24.255 min
Delta R.T.: 0.005 min
Response: 630722781
Conc: 914.24 ppb



#32 1,2,4-trimethylbenzene #2

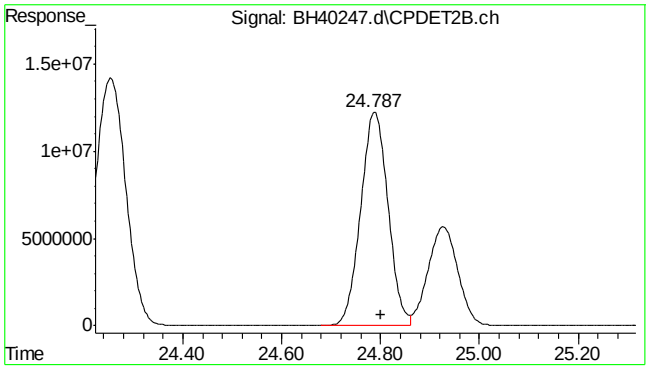
R.T.: 24.789 min
Delta R.T.: 0.004 min
Response: 471628914
Conc: 923.47 ppb



#33 naphthalene #2

R.T.: 27.704 min
Delta R.T.: 0.002 min
Response: 267093234
Conc: 648.81 ppb m

SGS ACCUTEST MC48999



#34 c9-c10 arom as 1,2,4-tmb

R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 472052741
Conc: 924.28 ppb m

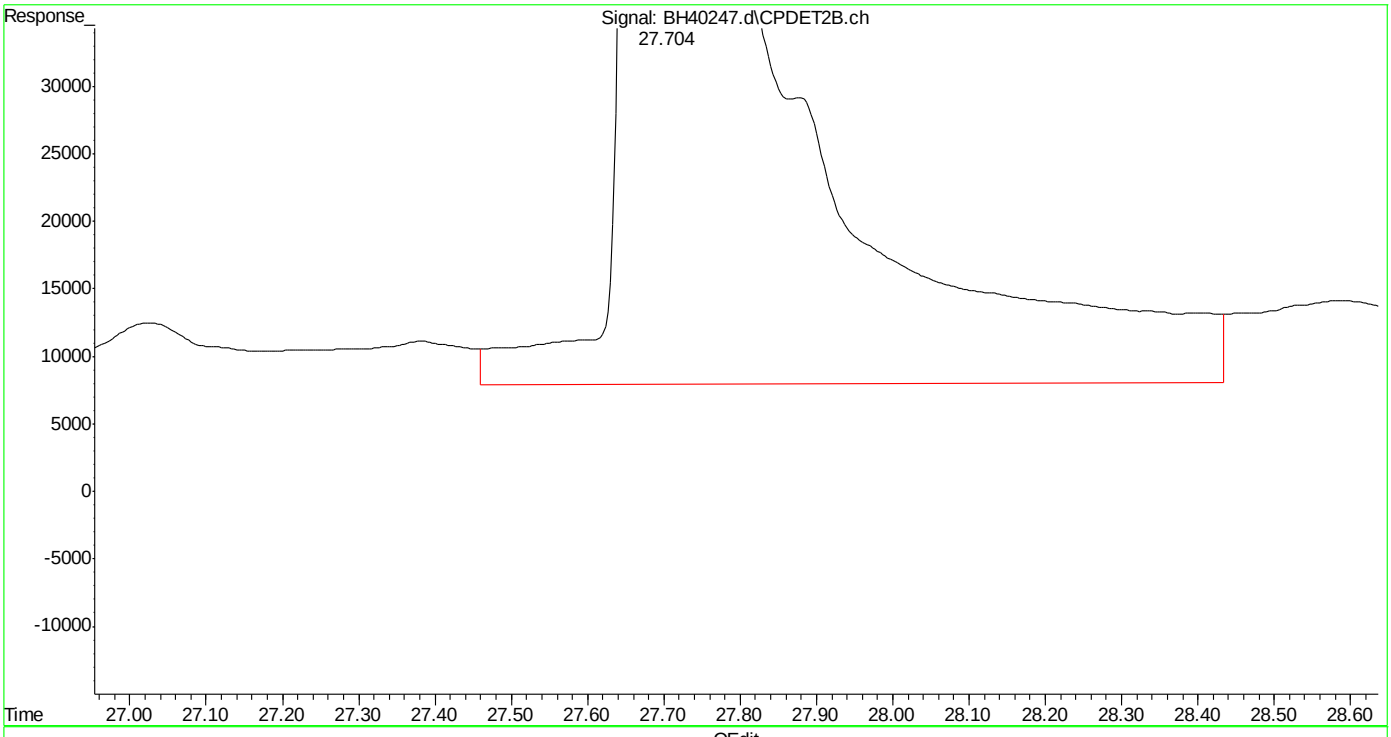
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40247.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 12:29 pm
Operator : tonyf
Sample : ic2394-1000,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 1 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:32:27 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:29:05 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(33) naphthalene #2 (t)
27.706min 655.192 ppb
response 269721504

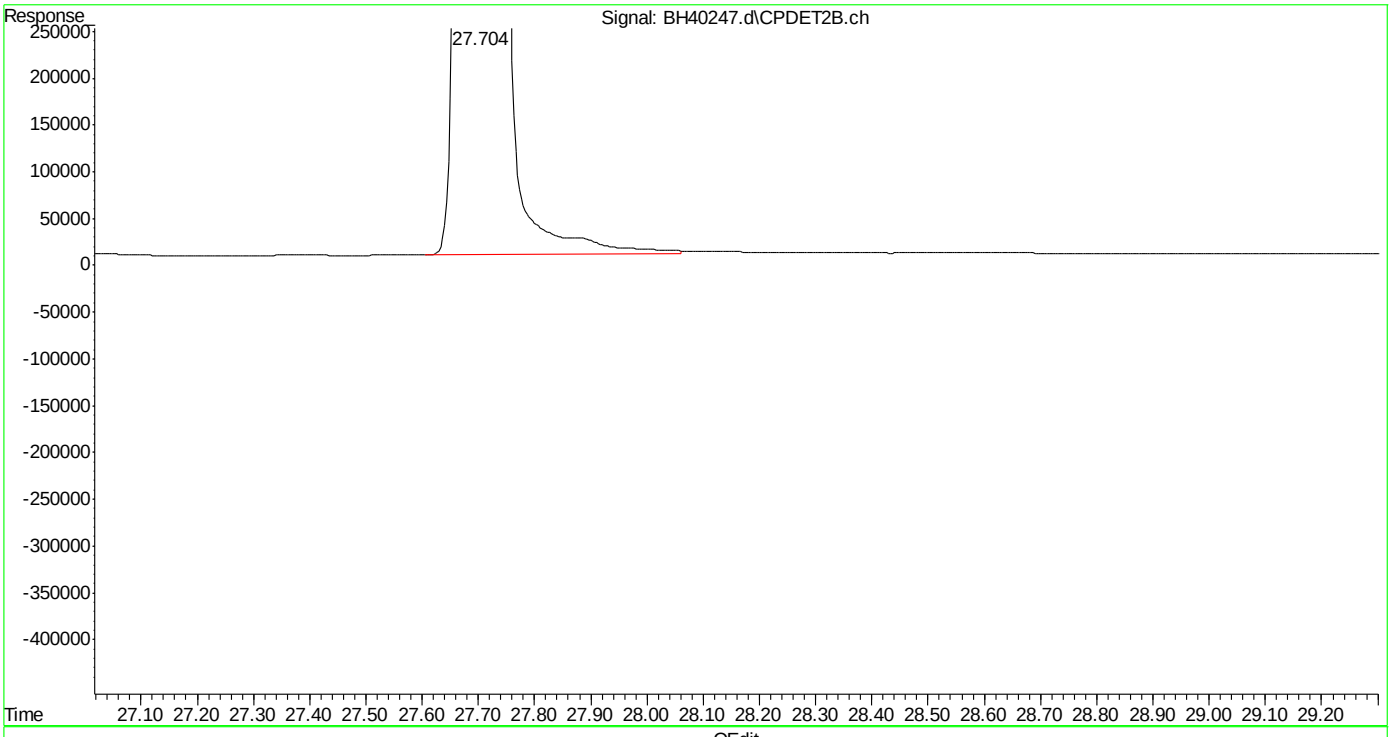
(+) = Expected Retention Time

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40247.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: CPDET2B.ch
Acq On    : 31 Oct 2016  12:29 pm
Operator  : tonyf
Sample    : ic2394-1000,gv16554
Misc      : gc26718,gbh2394,,,,5,1
ALS Vial  : 1   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:32:27 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title  : vph - master
QLast Update : Mon Oct 31 16:29:05 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```



(33) naphthalene #2 (t)

27.704min 648.808 ppb m

response 267093234

(+) = Expected Retention Time

bh161031vphmaster.m Mon Oct 31 16:33:49 2016

Manual Integrations APPROVED (compounds with "m" flag)
Andri Piluri
11/02/16 12:49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40248.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:04 pm
Operator : tonyf
Sample : ic2394-500,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:18:09 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:13:53 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
6) s fluorobenzene	14.665	478616937	507.016	ppb	
Spiked Amount 50.000		Recovery	= 1014.03%		
9) s 2,3,4-trifluorotoluene	19.780	387060841	515.773	ppb	
Spiked Amount 50.000		Recovery	= 1031.55%		
25) s fluorobenzene #2	14.664	180406002	500.757	ppb	
Spiked Amount 50.000		Recovery	= 1001.51%		
27) s 2,3,4-trifluorotoluen...	19.780	104884429	511.439	ppb	
Spiked Amount 50.000		Recovery	= 1022.88%		
Target Compounds					
1) h rt5.5-7	5.980	434565128	506.573	ppb	m
2) h rt7/10	8.250	477158967	504.542	ppb	m
3) t mtbe	9.007	289692421	469.655	ppb	
4) h rt10/13	13.360	513608403	453.342	ppb	m
5) t benzene	14.162	594643033	506.397	ppb	
8) t toluene	18.659	595015244	512.482	ppb	m
11) h rt20/25	21.460	550363069	535.703	ppb	m
13) t ethylbenzene	21.797	593993186	525.097	ppb	
14) t m,p-xylene	21.942	1242878760	1052.581	ppb	
15) t o-xylene	22.752	628837401	526.663	ppb	
16) h decane	23.856	566177837	560.340	ppb	
17) t 1,3,5-trimethylbenzene	24.253	623151960	506.353	ppb	
18) t 1,2,4-trimethylbenzene	24.788	603344628	503.524	ppb	
19) h butylcyclohexane	24.940	571913996	516.173	ppb	
20) t naphthalene	27.704	262377891	345.577	ppb	m
23) t mtbe #2	9.007	116598537	453.771	ppb	
24) t benzene #2	14.162	280273768	501.600	ppb	
26) t toluene #2	18.660	258726569	504.102	ppb	
28) t ethylbenzene #2	21.797	230659416	516.402	ppb	
29) t m,p-xylene #2	21.941	555349257	1009.118	ppb	
30) t o-xylene #2	22.751	244690210	514.335	ppb	
31) t 1,3,5-trimethylbenzen...	24.252	335592660	493.491	ppb	
32) t 1,2,4-trimethylbenzen...	24.787	250775807	493.886	ppb	
33) t naphthalene #2	27.703	148623039	336.963	ppb	m
34) h c9-c10 arom as 1,2,4-tmb	24.800	250096021	493.532	ppb	m

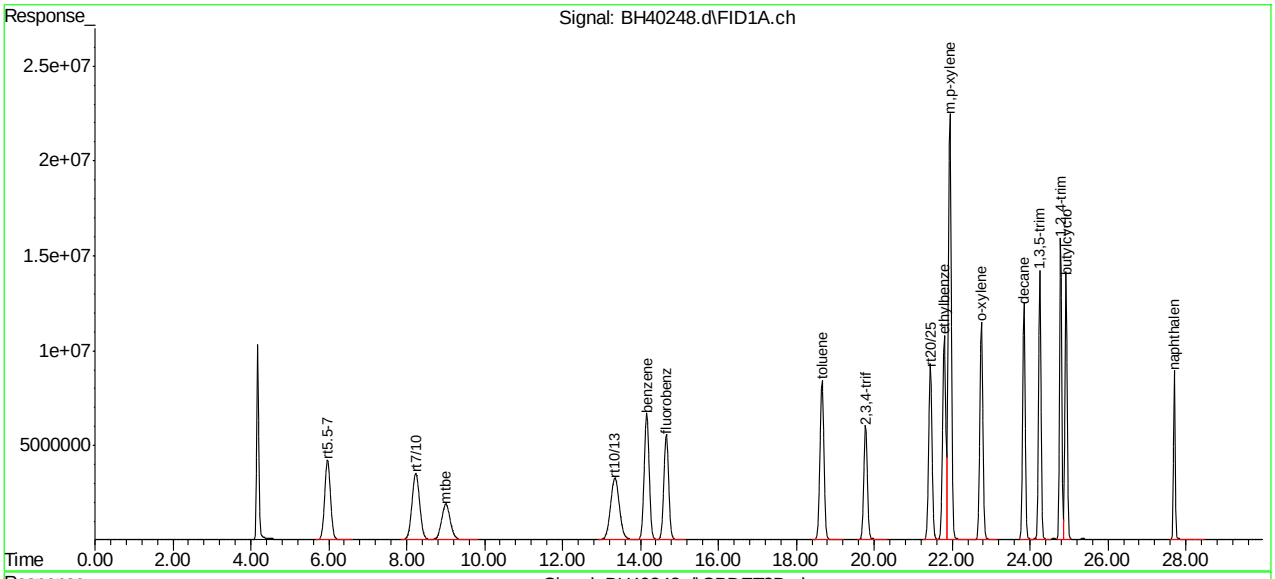
(f)=RT Delta > 1/2 Window (m)=manual int.

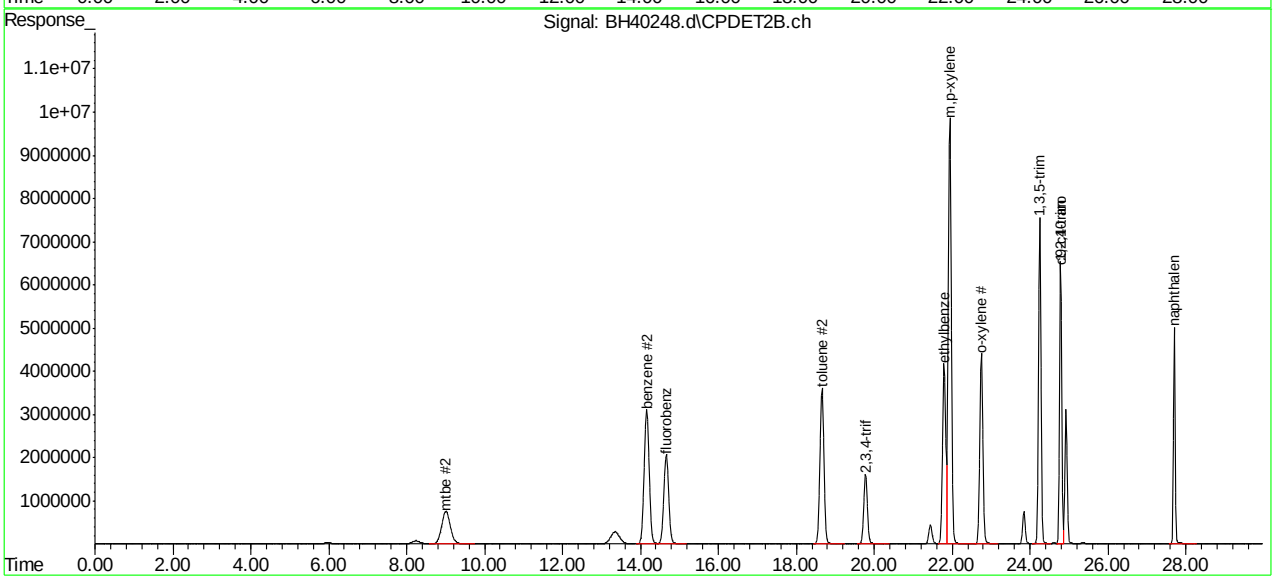
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40248.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:04 pm
Operator : tonyf
Sample : ic2394-500,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

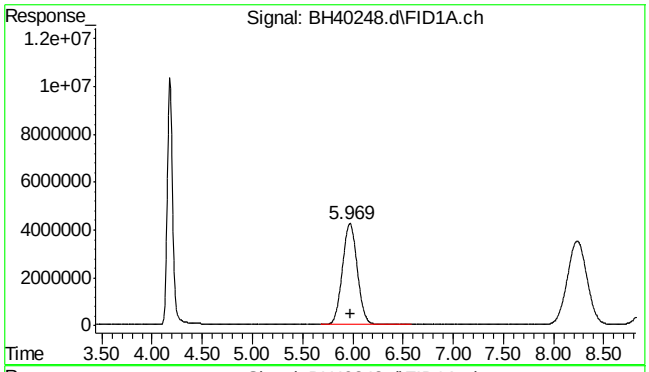
Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:18:09 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:13:53 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



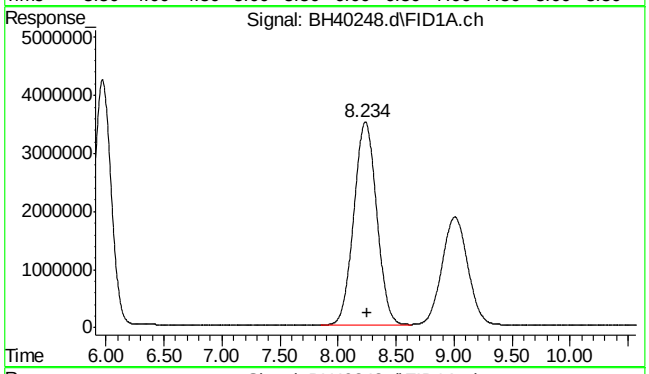


SGS ACCUTEST MC48999



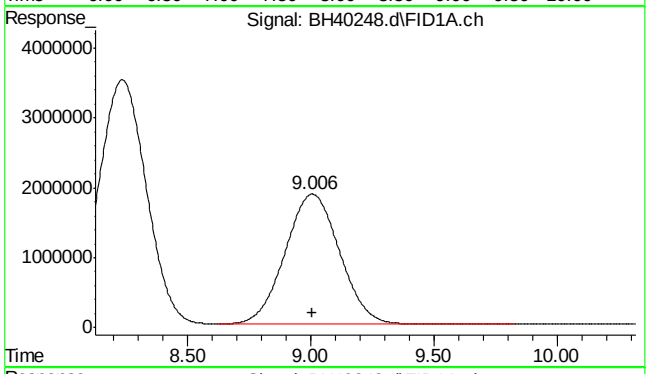
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 434565128
Conc: 506.57 ppb m



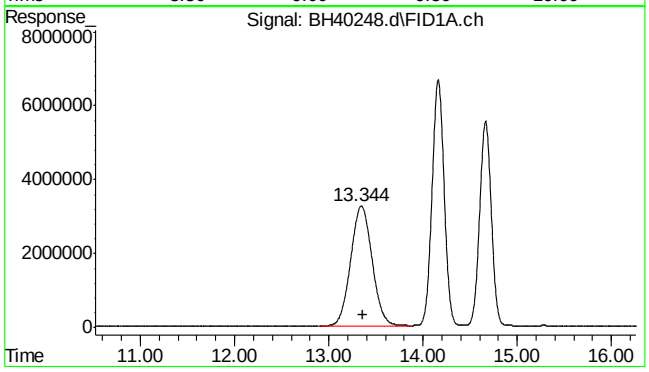
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 477158967
Conc: 504.54 ppb m



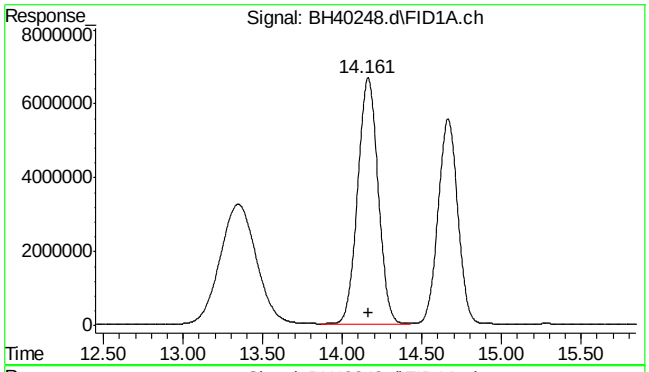
#3 mtbe

R.T.: 9.007 min
Delta R.T.: 0.000 min
Response: 289692421
Conc: 469.65 ppb



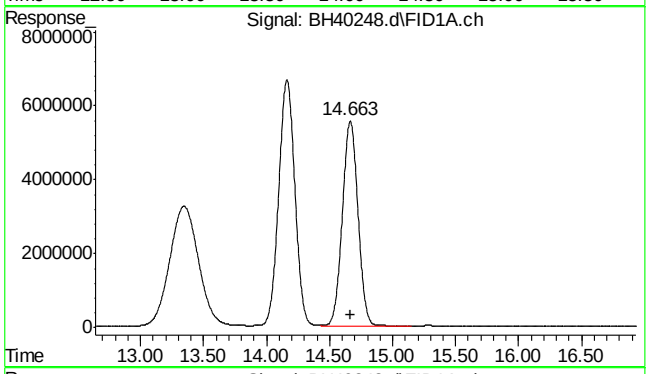
#4 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 513608403
Conc: 453.34 ppb m



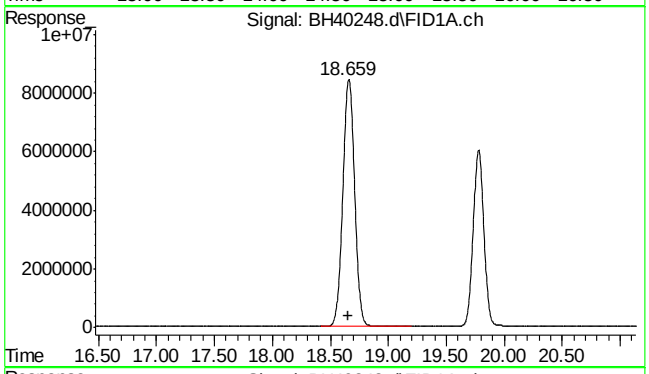
#5 benzene

R.T.: 14.162 min
Delta R.T.: 0.001 min
Response: 594643033
Conc: 506.40 ppb



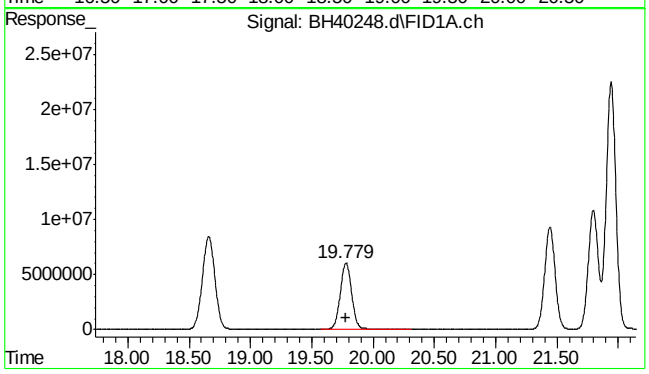
#6 fluorobenzene

R.T.: 14.665 min
Delta R.T.: 0.001 min
Response: 478616937
Conc: 507.02 ppb



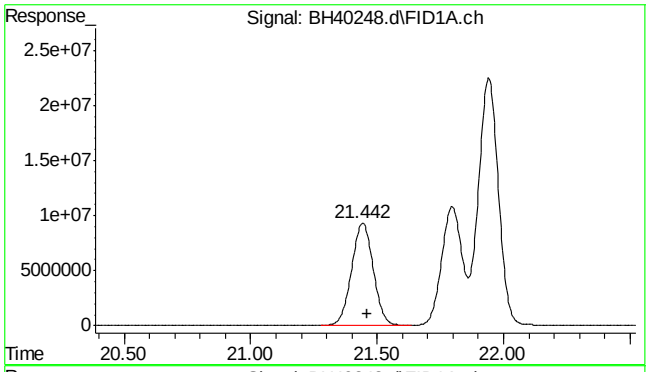
#8 toluene

R.T.: 18.659 min
Delta R.T.: 0.000 min
Response: 595015244
Conc: 512.48 ppb m



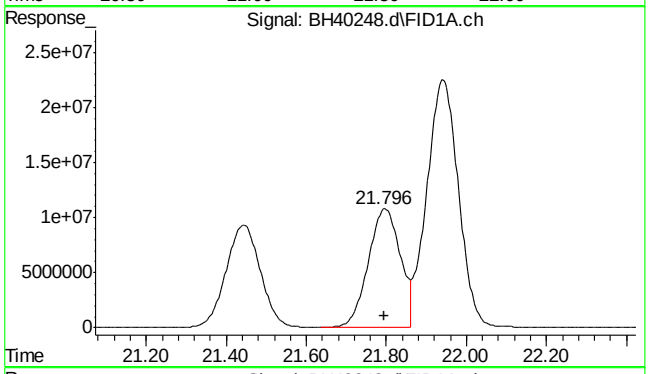
#9 2,3,4-trifluorotoluene

R.T.: 19.780 min
Delta R.T.: 0.001 min
Response: 387060841
Conc: 515.77 ppb



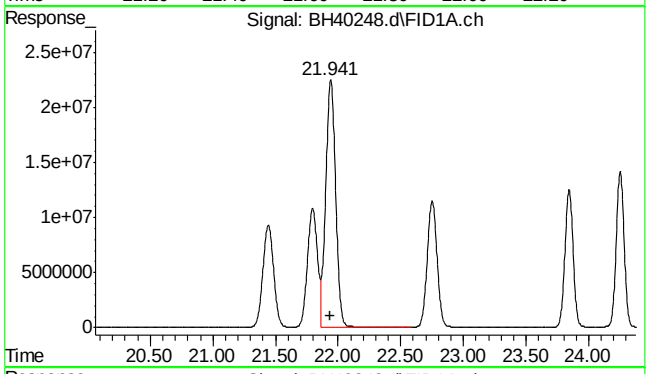
#11 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 550363069
Conc: 535.70 ppb m



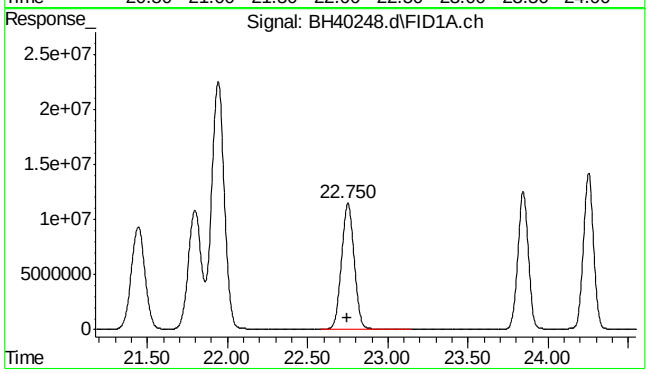
#13 ethylbenzene

R.T.: 21.797 min
Delta R.T.: 0.003 min
Response: 593993186
Conc: 525.10 ppb



#14 m,p-xylene

R.T.: 21.942 min
Delta R.T.: 0.004 min
Response: 1242878760
Conc: 1052.58 ppb



#15 o-xylene

R.T.: 22.752 min
Delta R.T.: 0.002 min
Response: 628837401
Conc: 526.66 ppb

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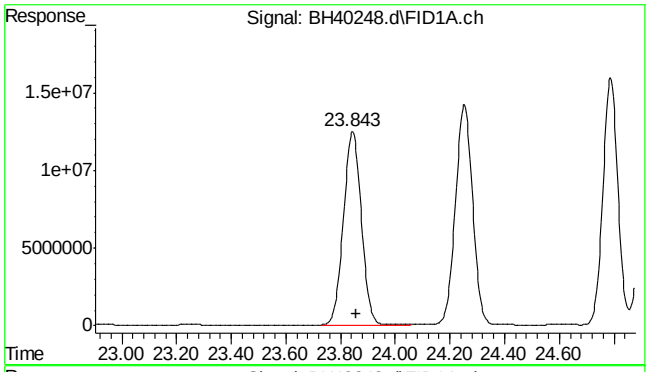
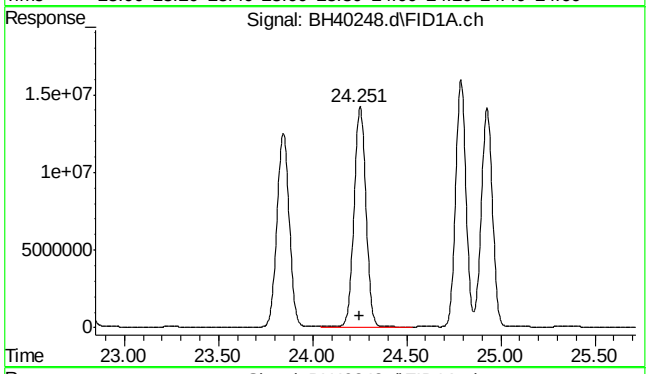


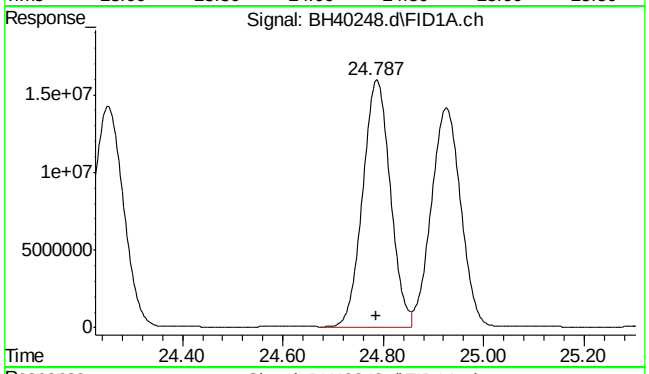
#16 decane

R.T.: 23.856 min
Delta R.T.: 0.000 min
Response: 566177837
Conc: 560.34 ppb



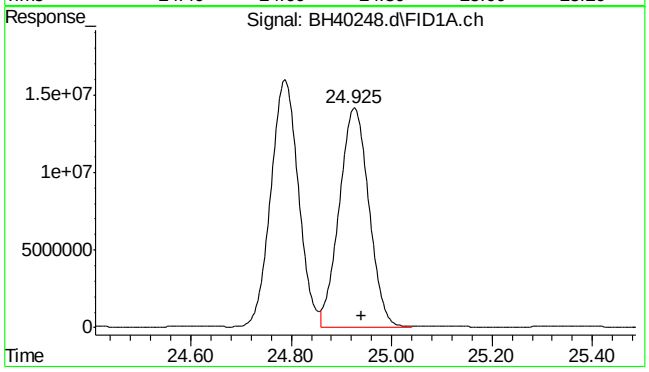
#17 1,3,5-trimethylbenzene

R.T.: 24.253 min
Delta R.T.: 0.003 min
Response: 623151960
Conc: 506.35 ppb



#18 1,2,4-trimethylbenzene

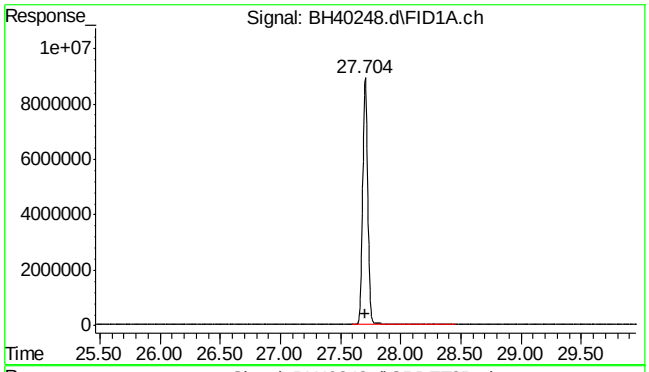
R.T.: 24.788 min
Delta R.T.: 0.002 min
Response: 603344628
Conc: 503.52 ppb



#19 butylcyclohexane

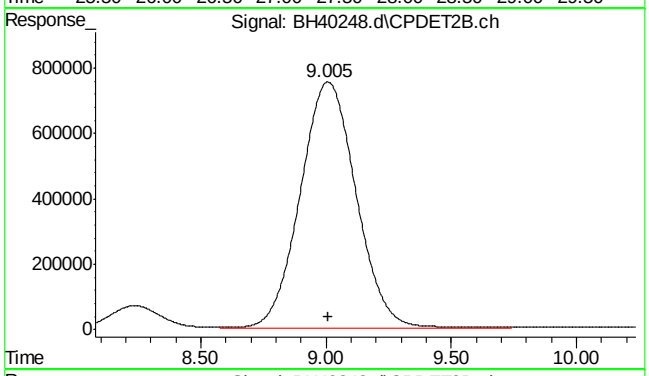
R.T.: 24.940 min
Delta R.T.: 0.000 min
Response: 571913996
Conc: 516.17 ppb

SGS ACCUTEST MC48999



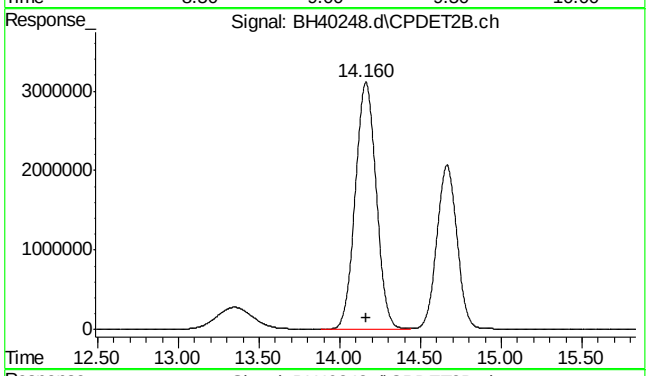
#20 naphthalene

R.T.: 27.704 min
Delta R.T.: 0.002 min
Response: 262377891
Conc: 345.58 ppb m



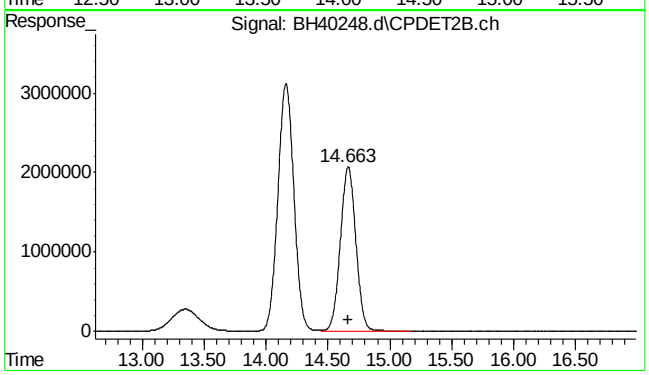
#23 mtbe #2

R.T.: 9.007 min
Delta R.T.: -0.002 min
Response: 116598537
Conc: 453.77 ppb



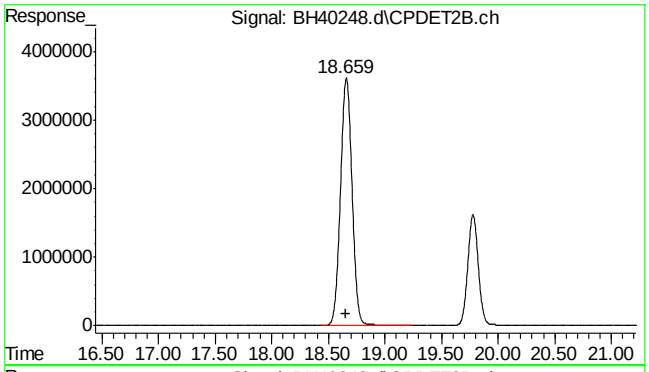
#24 benzene #2

R.T.: 14.162 min
Delta R.T.: 0.000 min
Response: 280273768
Conc: 501.60 ppb



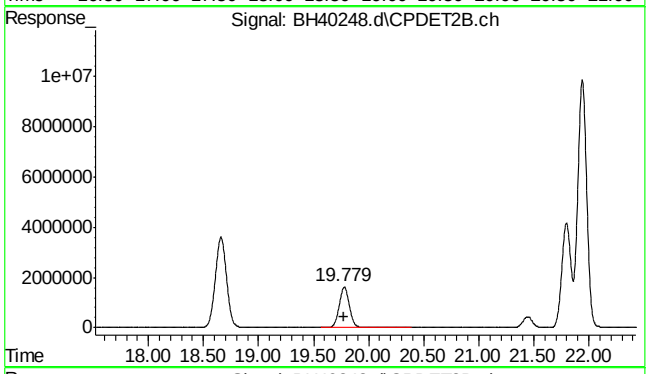
#25 fluorobenzene #2

R.T.: 14.664 min
Delta R.T.: 0.000 min
Response: 180406002
Conc: 500.76 ppb



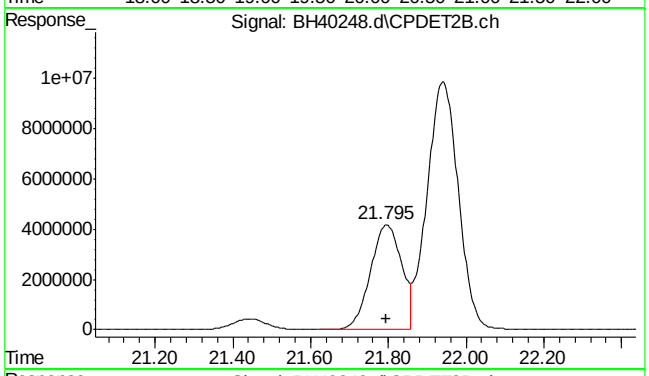
#26 toluene #2

R.T.: 18.660 min
Delta R.T.: 0.000 min
Response: 258726569
Conc: 504.10 ppb



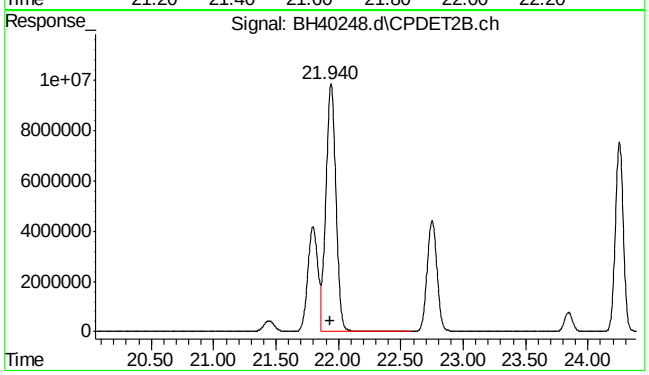
#27 2,3,4-trifluorotoluene #2

R.T.: 19.780 min
Delta R.T.: 0.000 min
Response: 104884429
Conc: 511.44 ppb



#28 ethylbenzene #2

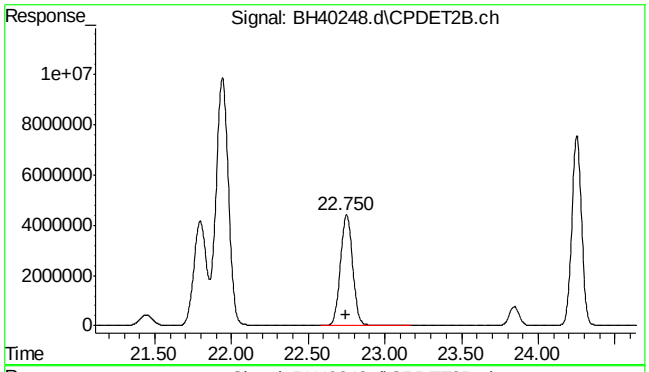
R.T.: 21.797 min
Delta R.T.: 0.002 min
Response: 230659416
Conc: 516.40 ppb



#29 m,p-xylene #2

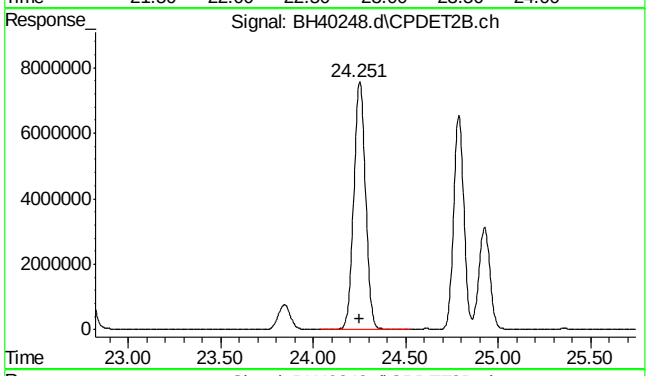
R.T.: 21.941 min
Delta R.T.: 0.004 min
Response: 555349257
Conc: 1009.12 ppb

SGS ACCUTEST MC48999



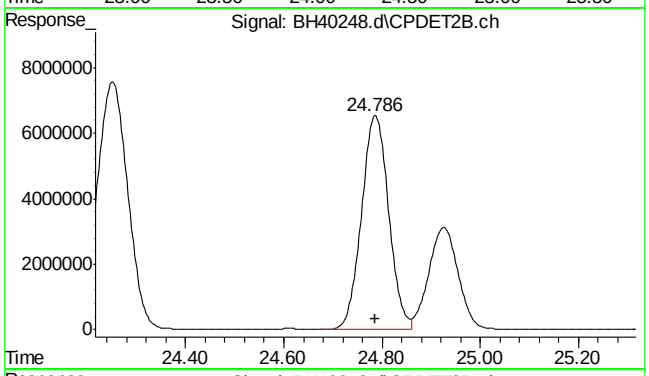
#30 o-xylene #2

R.T.: 22.751 min
Delta R.T.: 0.002 min
Response: 244690210
Conc: 514.33 ppb



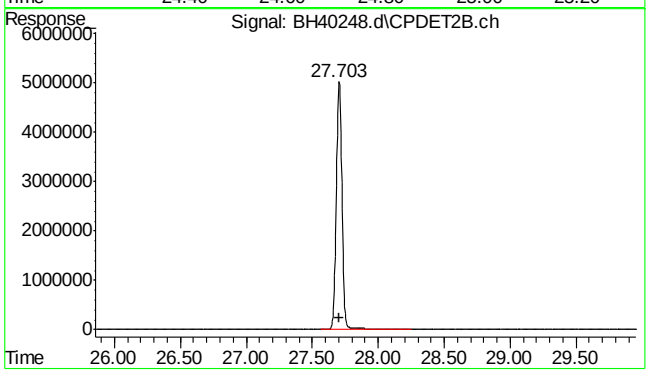
#31 1,3,5-trimethylbenzene #2

R.T.: 24.252 min
Delta R.T.: 0.002 min
Response: 335592660
Conc: 493.49 ppb



#32 1,2,4-trimethylbenzene #2

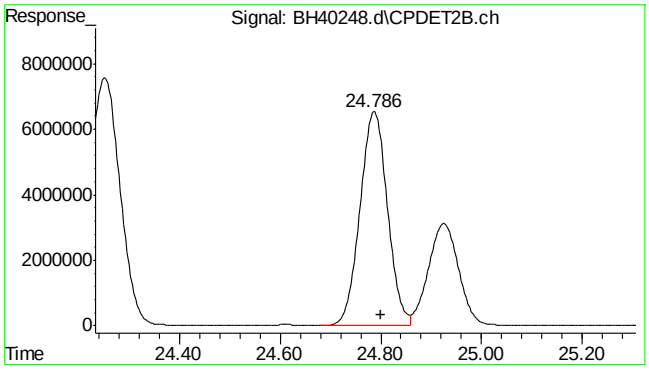
R.T.: 24.787 min
Delta R.T.: 0.002 min
Response: 250775807
Conc: 493.89 ppb



#33 naphthalene #2

R.T.: 27.703 min
Delta R.T.: 0.001 min
Response: 148623039
Conc: 336.96 ppb m

SGS ACCUTEST MC48999



#34 c9-c10 arom as 1,2,4-tmb

R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 250096021
Conc: 493.53 ppb m

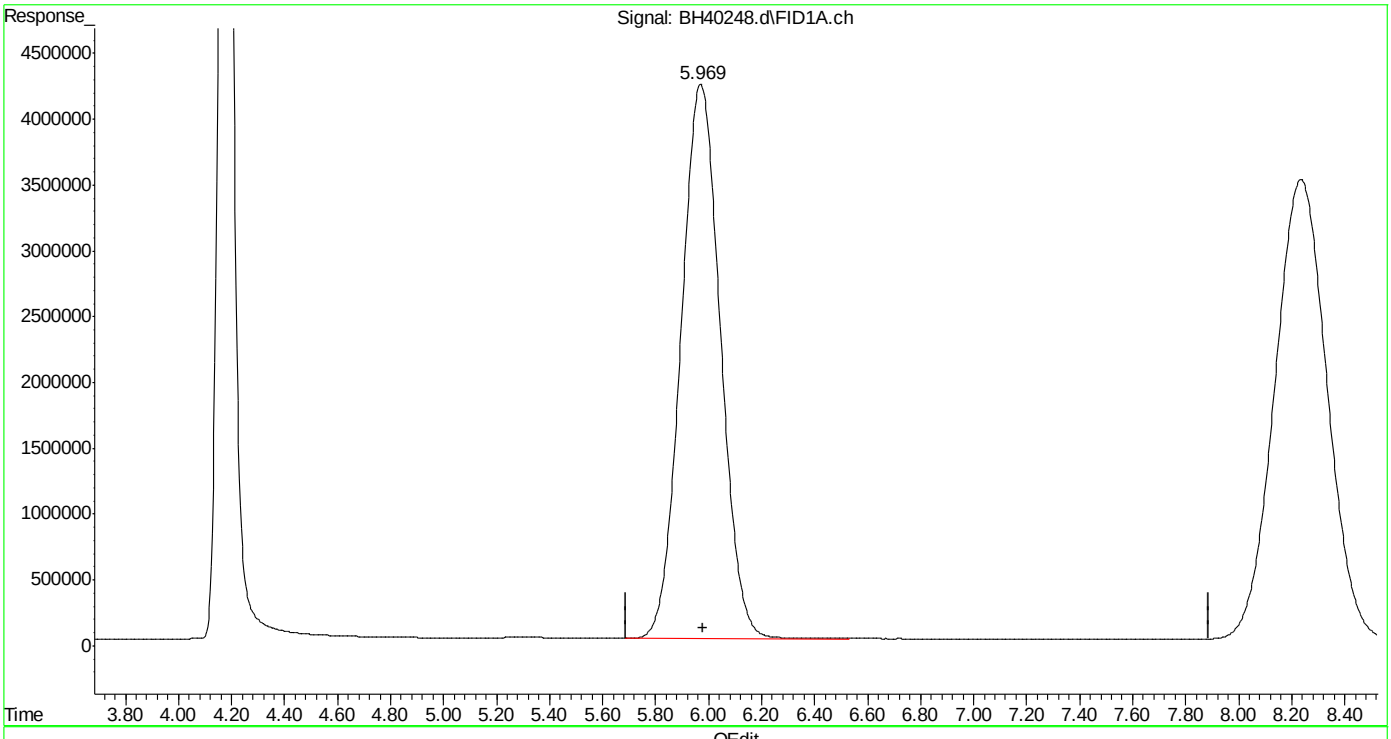
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40248.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:04 pm
Operator : tonyf
Sample : ic2394-500,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:08:58 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:08:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(1) rt5.5-7 (h)
5.980min 506.580 ppb m
response 434571499

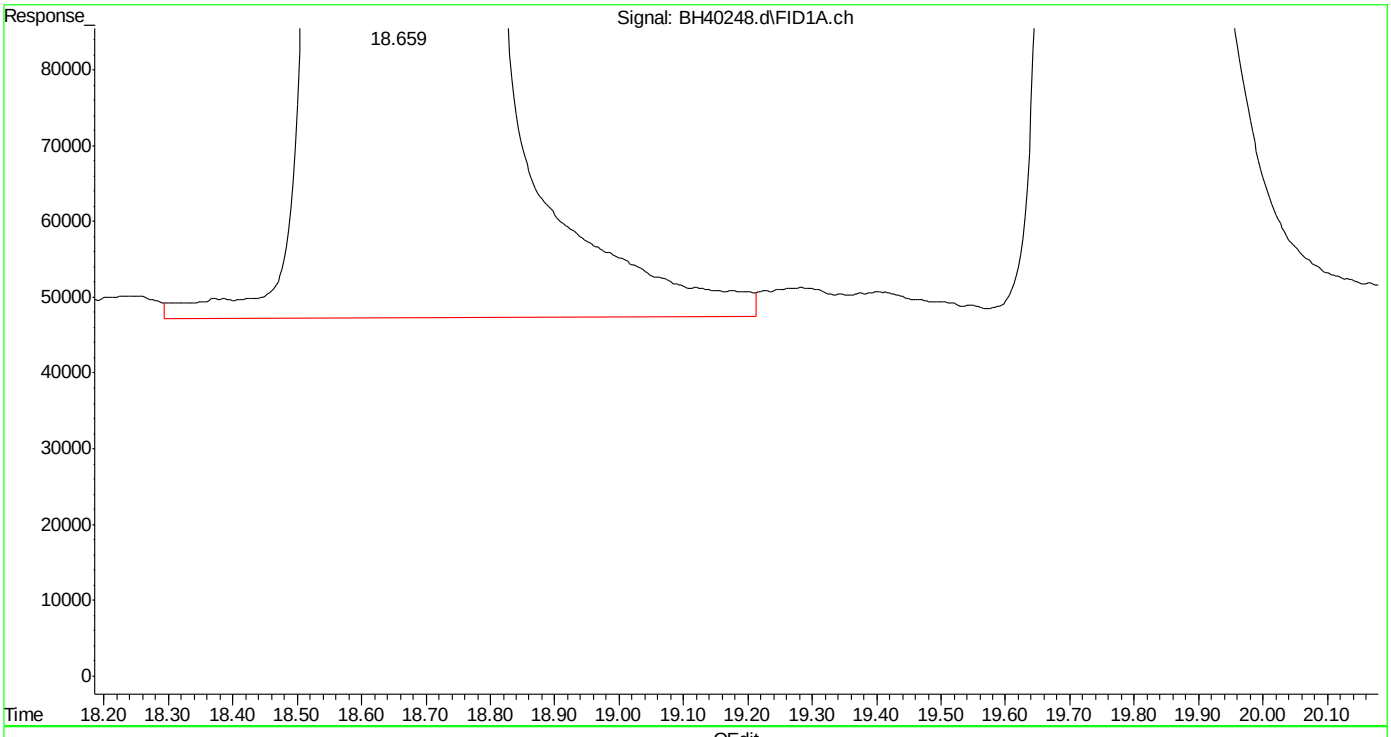
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:09:25 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40248.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:04 pm
Operator : tonyf
Sample : ic2394-500,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:08:58 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:08:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(8) toluene (t)
18.660min 513.045 ppb
response 595668128

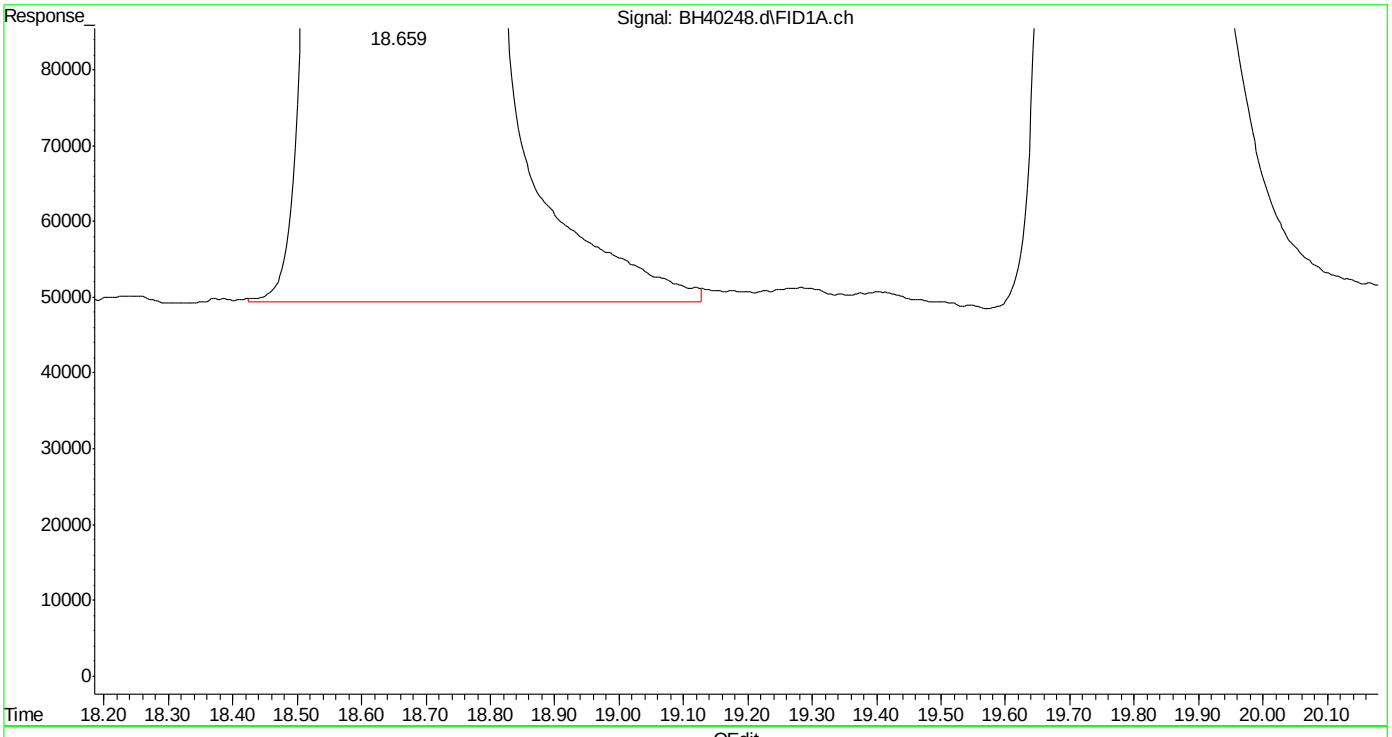
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:09:48 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40248.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:04 pm
Operator : tonyf
Sample : ic2394-500,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:08:58 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:08:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(8) toluene (t)
18.659min 511.980 ppb m
response 594432077

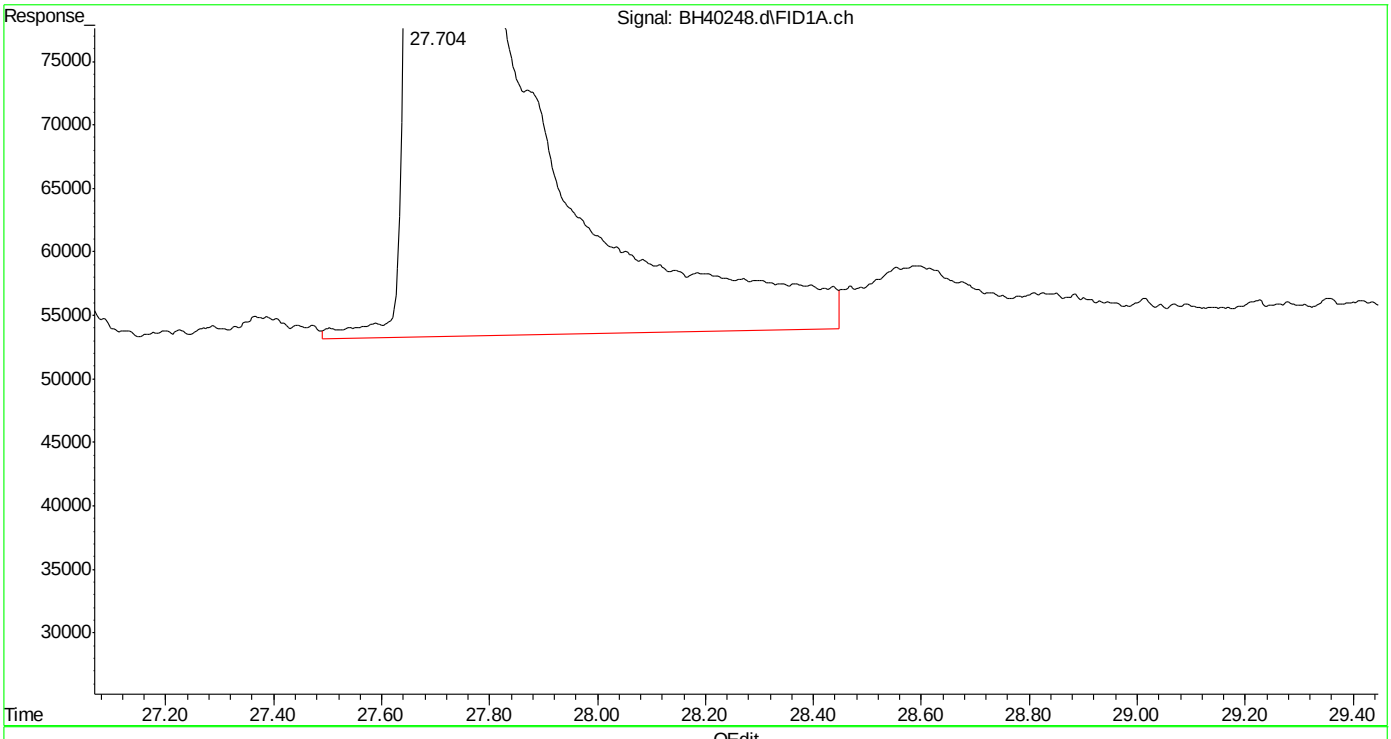
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:09:54 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40248.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:04 pm
Operator : tonyf
Sample : ic2394-500,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:08:58 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:08:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(20) naphthalene (t)
27.706min 346.100 ppb
response 262775043

(+) = Expected Retention Time

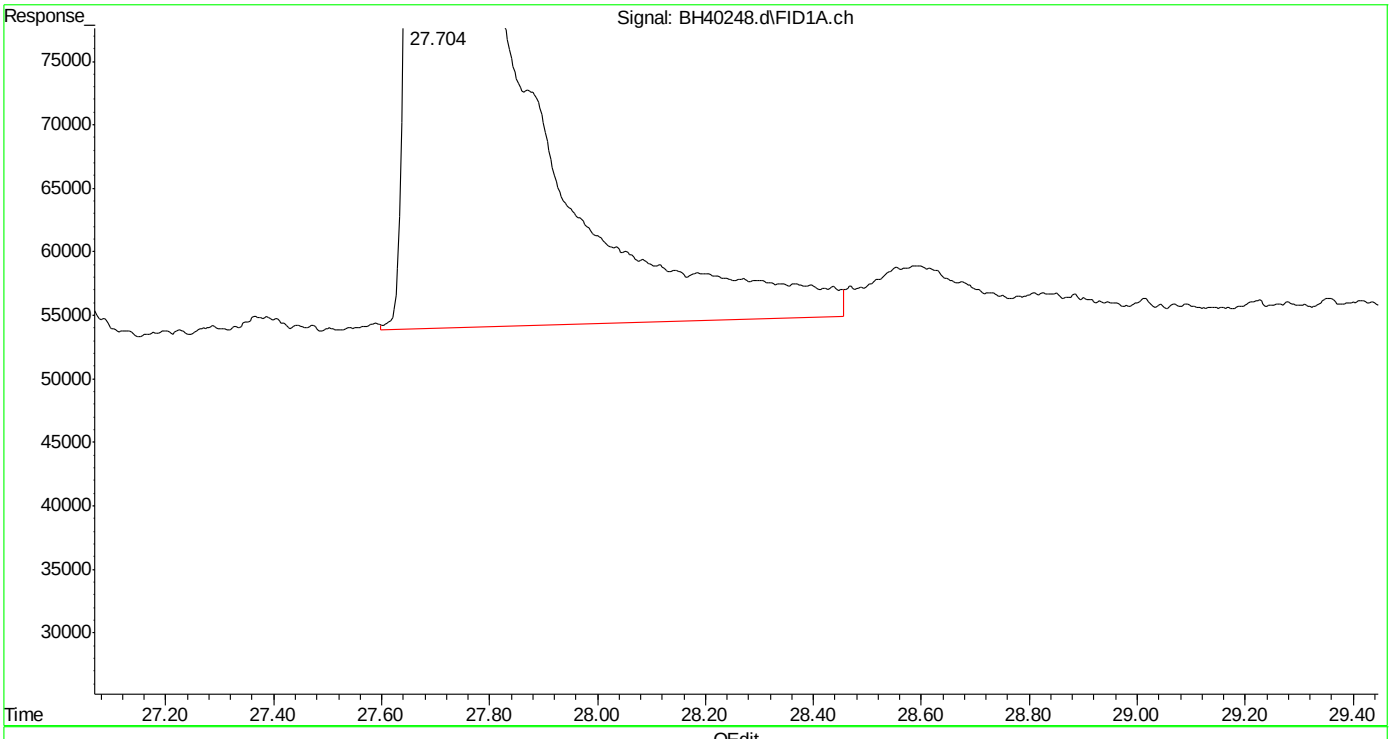
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40248.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:04 pm
Operator : tonyf
Sample : ic2394-500,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:08:58 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:08:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(20) naphthalene (t)
27.704min 345.522 ppb m
response 262335799

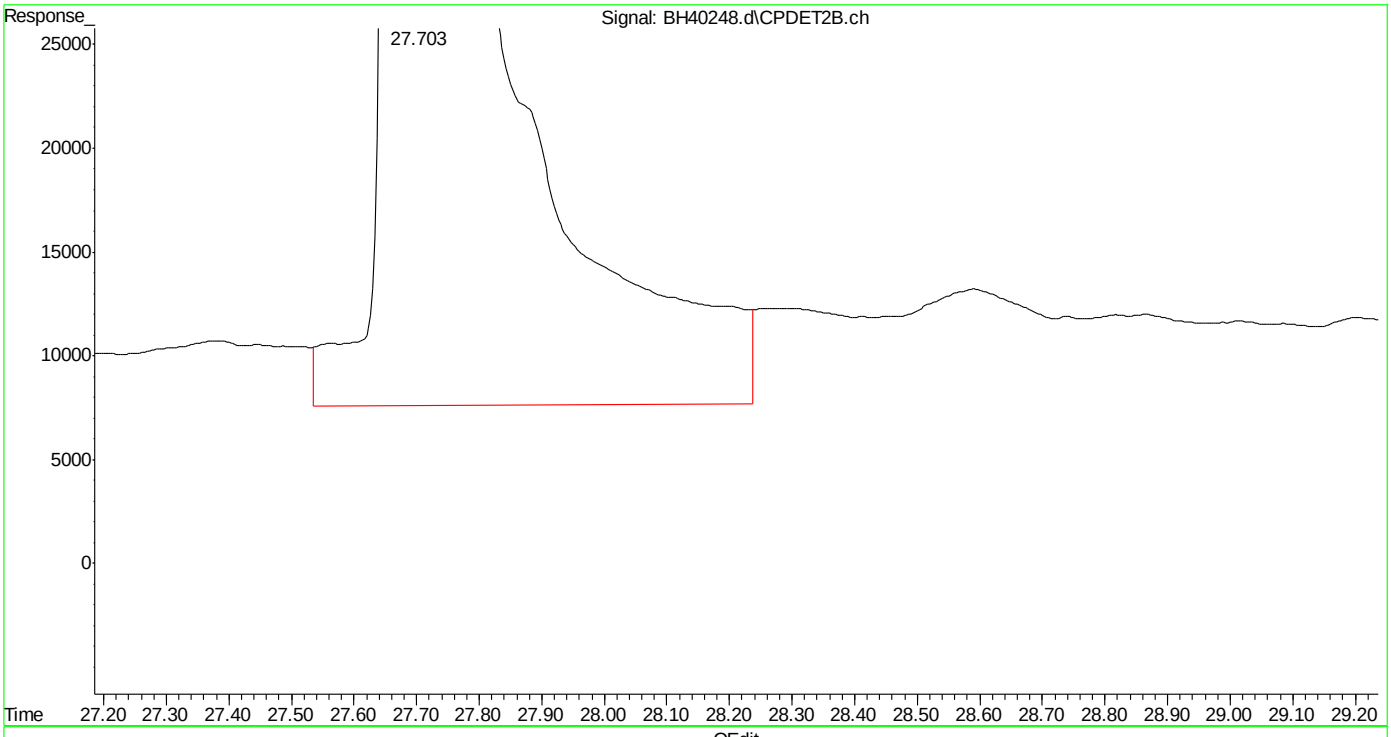
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40248.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:04 pm
Operator : tonyf
Sample : ic2394-500,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:08:58 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:08:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(33) naphthalene #2 (t)
27.705min 339.913 ppb
response 149924282

(+) = Expected Retention Time

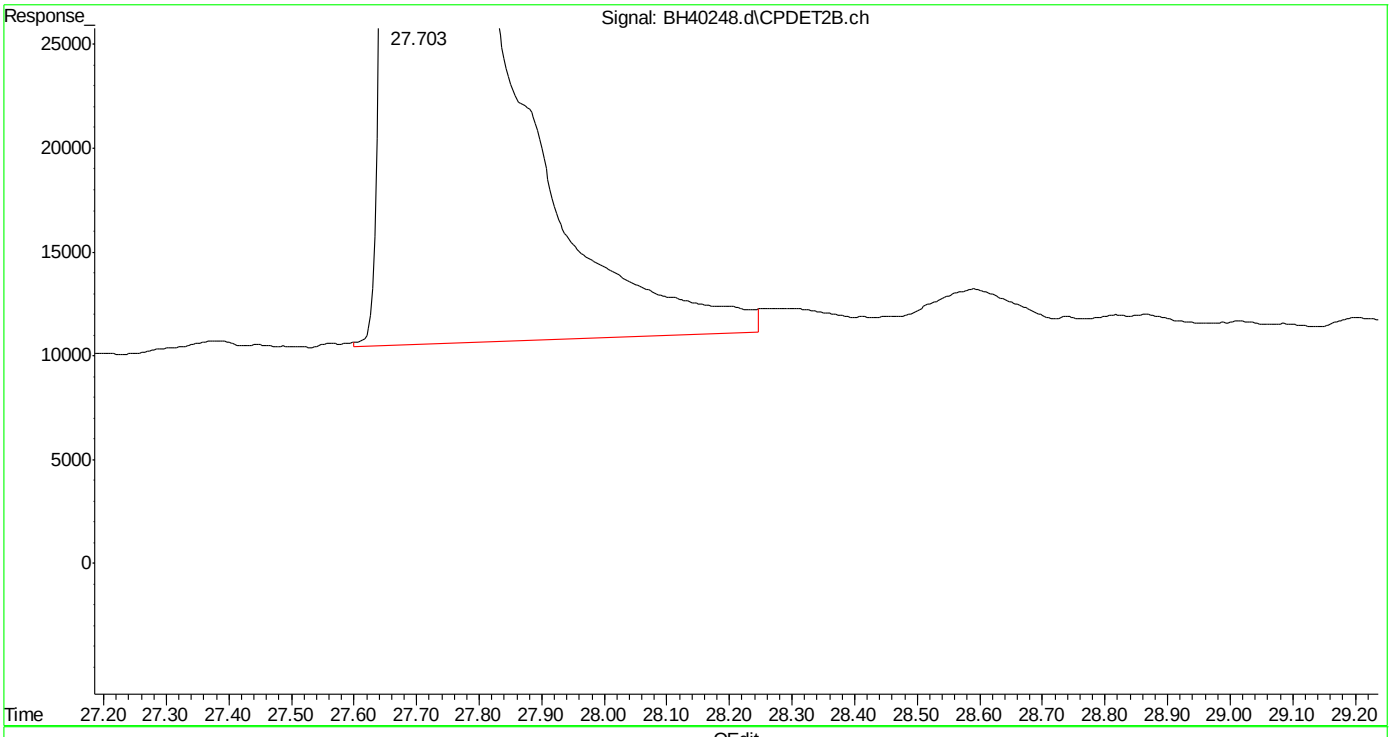
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40248.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:04 pm
Operator : tonyf
Sample : ic2394-500,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:08:58 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:08:47 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(33) naphthalene #2 (t)
27.703min 336.928 ppb m
response 148607633

(+) = Expected Retention Time

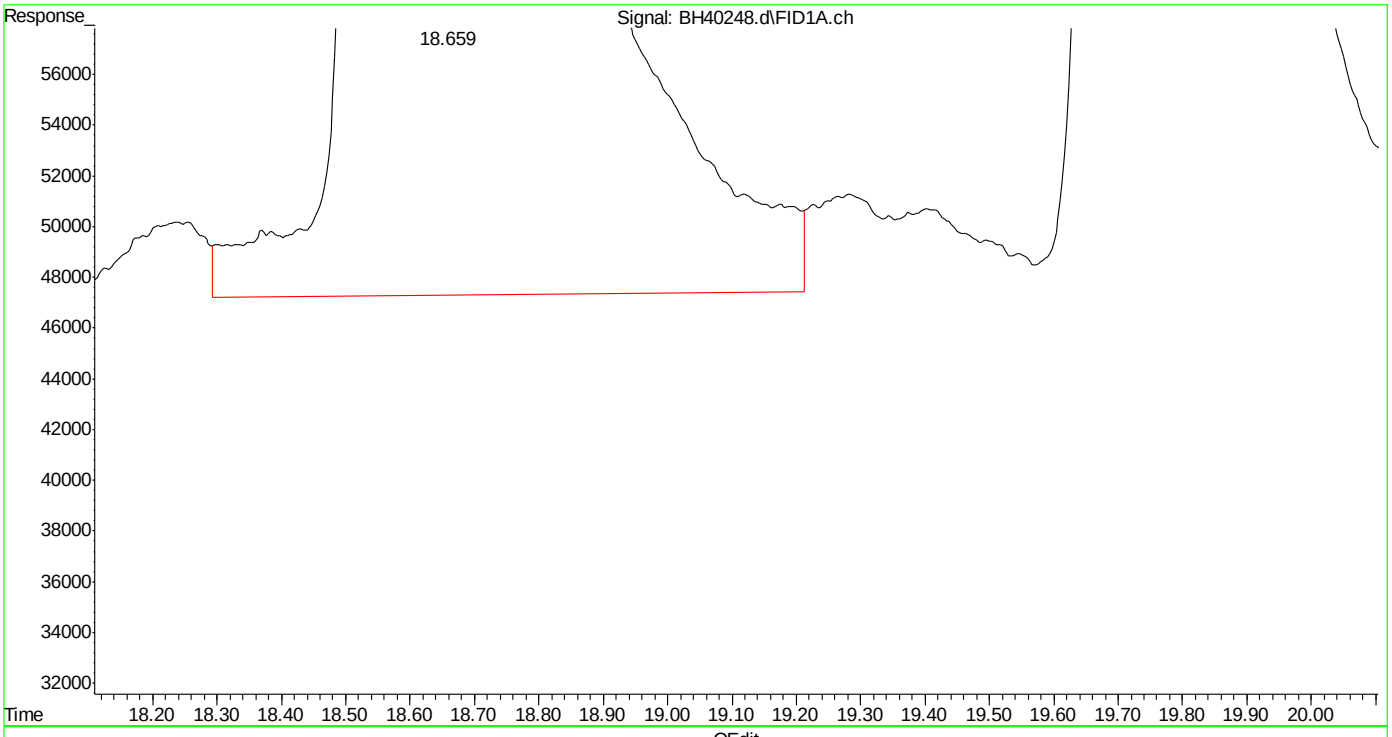
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40248.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:04 pm
Operator : tonyf
Sample : ic2394-500,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:16:07 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:13:53 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(8) toluene (t)
18.660min 513.045 ppb
response 595668128

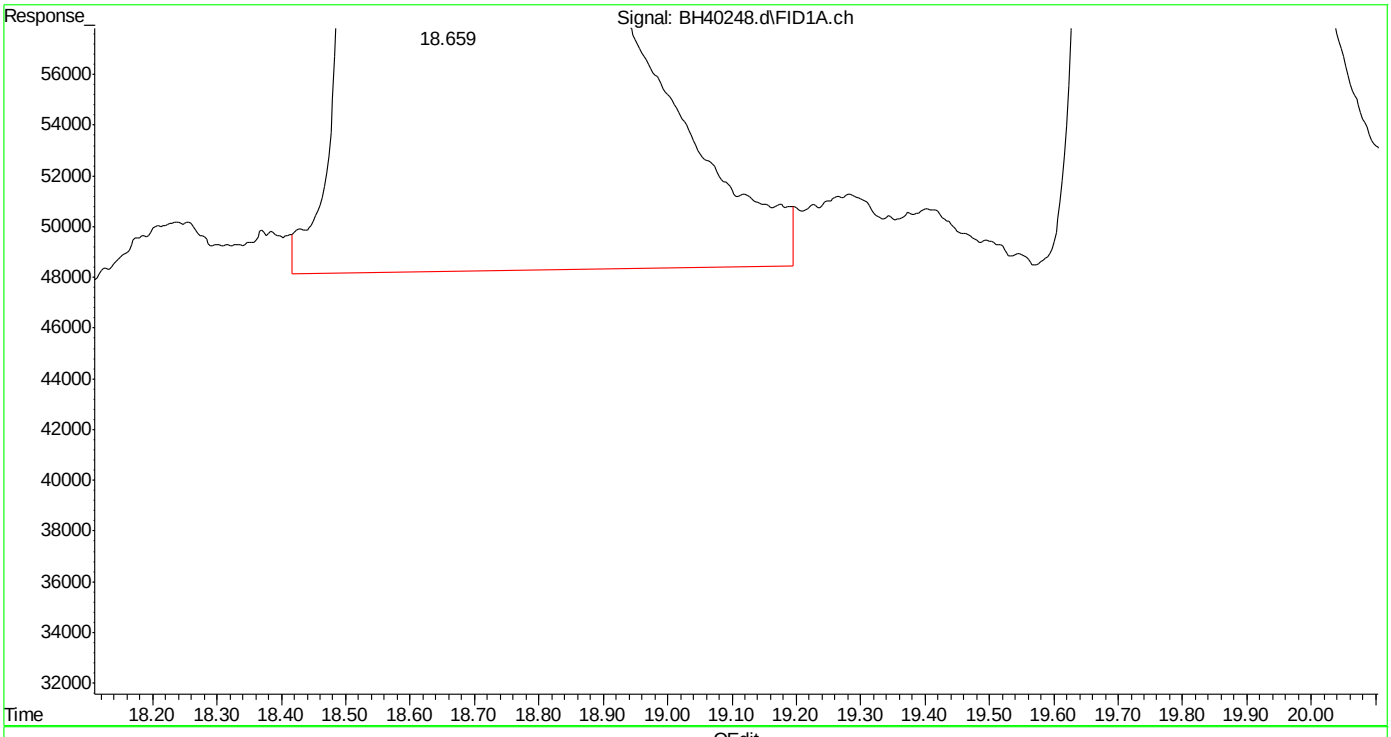
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:16:48 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40248.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:04 pm
Operator : tonyf
Sample : ic2394-500,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:16:07 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:13:53 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(8) toluene (t)
18.659min 512.482 ppb m
response 595015244

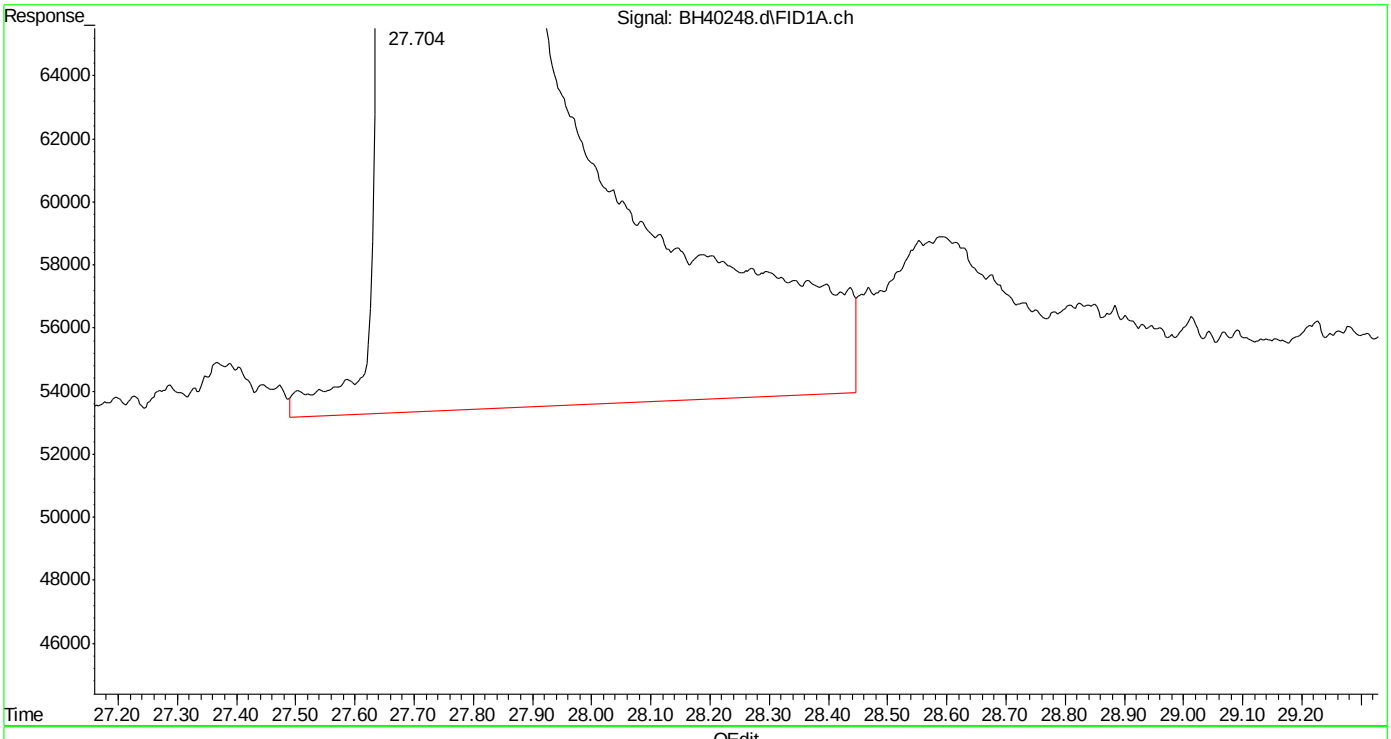
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40248.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:04 pm
Operator : tonyf
Sample : ic2394-500,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:16:07 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:13:53 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(20) naphthalene (t)
27.706min 346.100 ppb
response 262775043

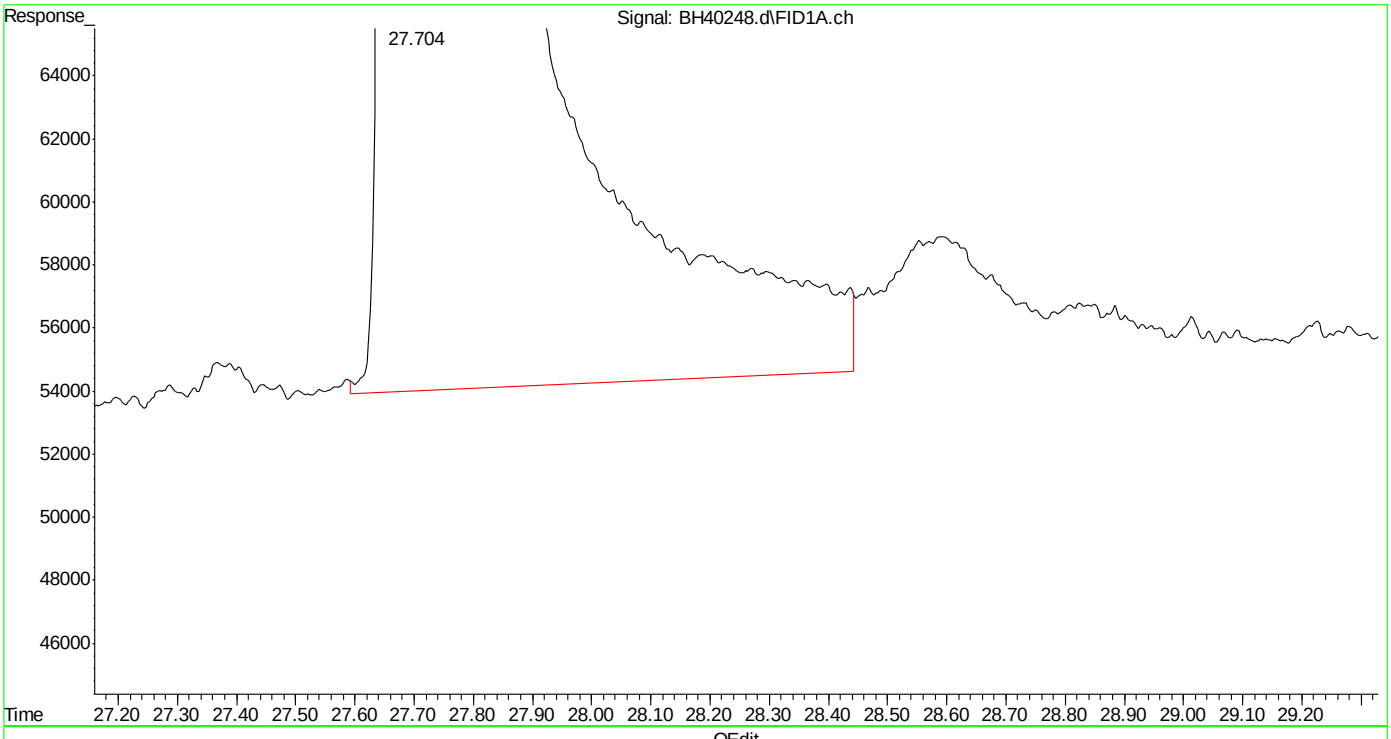
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40248.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:04 pm
Operator : tonyf
Sample : ic2394-500,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:16:07 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:13:53 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(20) naphthalene (t)
27.704min 345.577 ppb m
response 262377891

(+) = Expected Retention Time

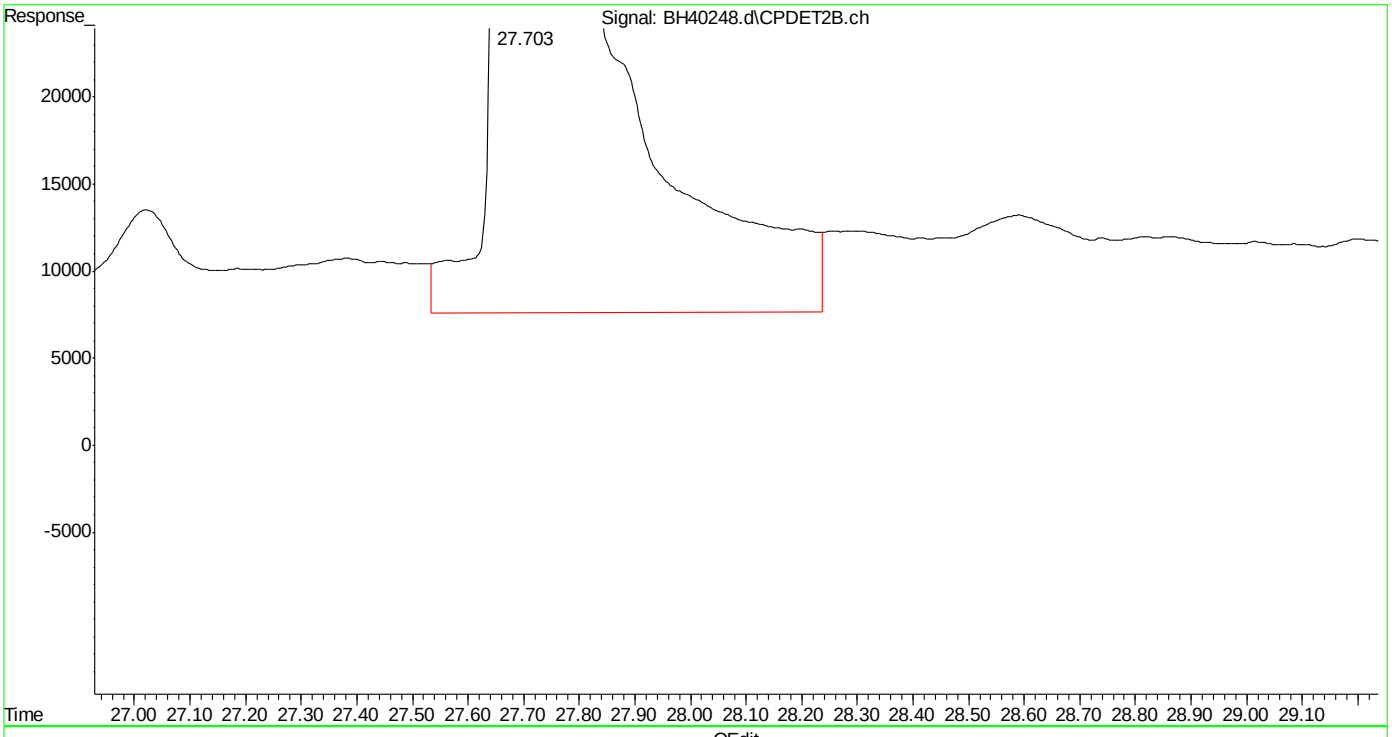
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40248.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:04 pm
Operator : tonyf
Sample : ic2394-500,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:16:07 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:13:53 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(33) naphthalene #2 (t)
27.705min 339.913 ppb
response 149924282

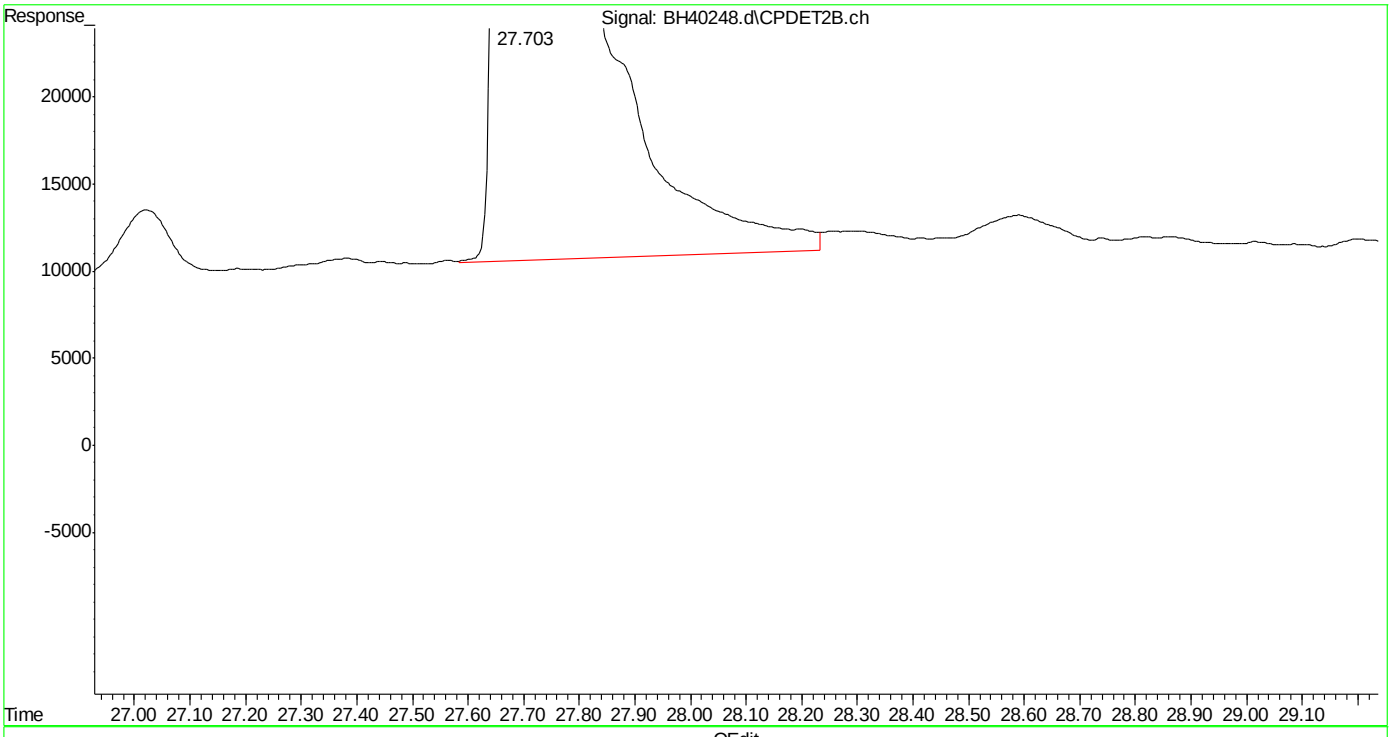
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:17:31 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40248.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:04 pm
Operator : tonyf
Sample : ic2394-500,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:16:07 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:13:53 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(33) naphthalene #2 (t)
27.703min 336.856 ppb m
response 148575747

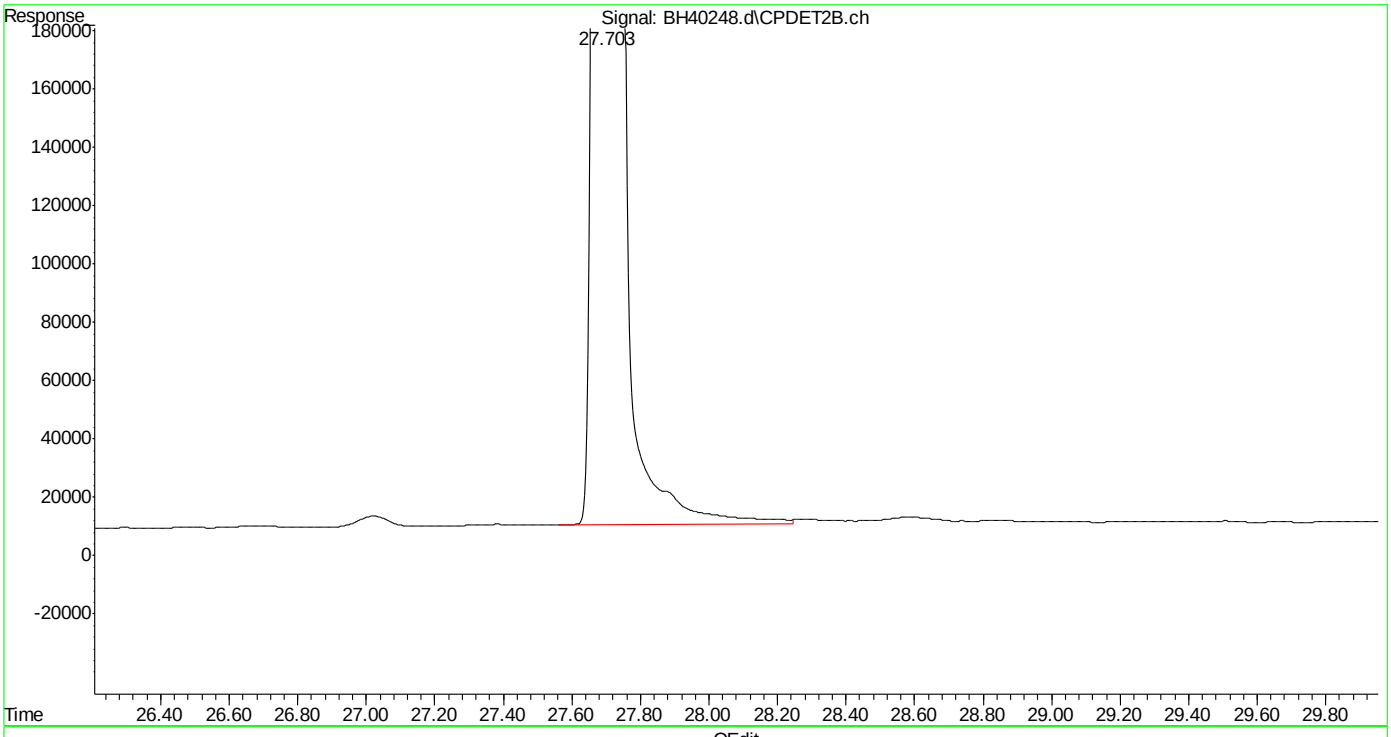
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:17:38 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40248.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:04 pm
Operator : tonyf
Sample : ic2394-500,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:16:07 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:13:53 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(33) naphthalene #2 (t)
27.703min 336.963 ppb m
response 148623039

(+) = Expected Retention Time

SGS ACCUTEST MC48999

Manual Integrations APPROVED (compounds with "m" flag)
Andri Piluri
11/02/16 12:49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40249.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:38 pm
Operator : tonyf
Sample : ic2394-100,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:13:39 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:02:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
6) s fluorobenzene	14.663	94583672	100.393 ppb	
Spiked Amount 50.000		Recovery	= 200.79%	
9) s 2,3,4-trifluorotoluene	19.779	74917893	99.662 ppb	
Spiked Amount 50.000		Recovery	= 199.32%	
25) s fluorobenzene #2	14.663	36152403	100.700 ppb	
Spiked Amount 50.000		Recovery	= 201.40%	
27) s 2,3,4-trifluorotoluen...	19.779	20419387	99.142 ppb	
Spiked Amount 50.000		Recovery	= 198.28%	
Target Compounds				
1) h rt5.5-7	5.980	86088137	100.708 ppb	m
2) h rt7/10	8.250	95005074	100.919 ppb	m
3) t mtbe	9.005	61044984	97.956 ppb	
4) h rt10/13	13.360	113867510	101.018 ppb	m
5) t benzene	14.160	117512688	100.147 ppb	
8) t toluene	18.659	116183783	100.137 ppb	
11) h rt20/25	21.460	103337448	101.177 ppb	m
13) t ethylbenzene	21.795	113179283	100.104 ppb	
14) t m,p-xylene	21.939	236255823	200.165 ppb	
15) t o-xylene	22.750	119473570	100.123 ppb	
16) h decane	23.856	101979409	101.873 ppb	
17) t 1,3,5-trimethylbenzene	24.251	122808426	99.581 ppb	
18) t 1,2,4-trimethylbenzene	24.786	119829023	100.008 ppb	
19) h butylcyclohexane	24.940	111427425	101.141 ppb	
20) t naphthalene	27.703	75604317	99.160 ppb	m
23) t mtbe #2	9.006	25508563	98.556 ppb	
24) t benzene #2	14.160	56108454	100.836 ppb	
26) t toluene #2	18.659	51372961	100.190 ppb	
28) t ethylbenzene #2	21.795	44363255	98.651 ppb	
29) t m,p-xylene #2	21.938	109093105	196.494 ppb	
30) t o-xylene #2	22.750	47252929	98.659 ppb	
31) t 1,3,5-trimethylbenzen...	24.250	67791316	99.377 ppb	
32) t 1,2,4-trimethylbenzen...	24.786	50975120	100.787 ppb	
33) t naphthalene #2	27.702	44492841	101.767 ppb	m
34) h c9-c10 arom as 1,2,4-tmb	24.800	50816139	100.560 ppb	m

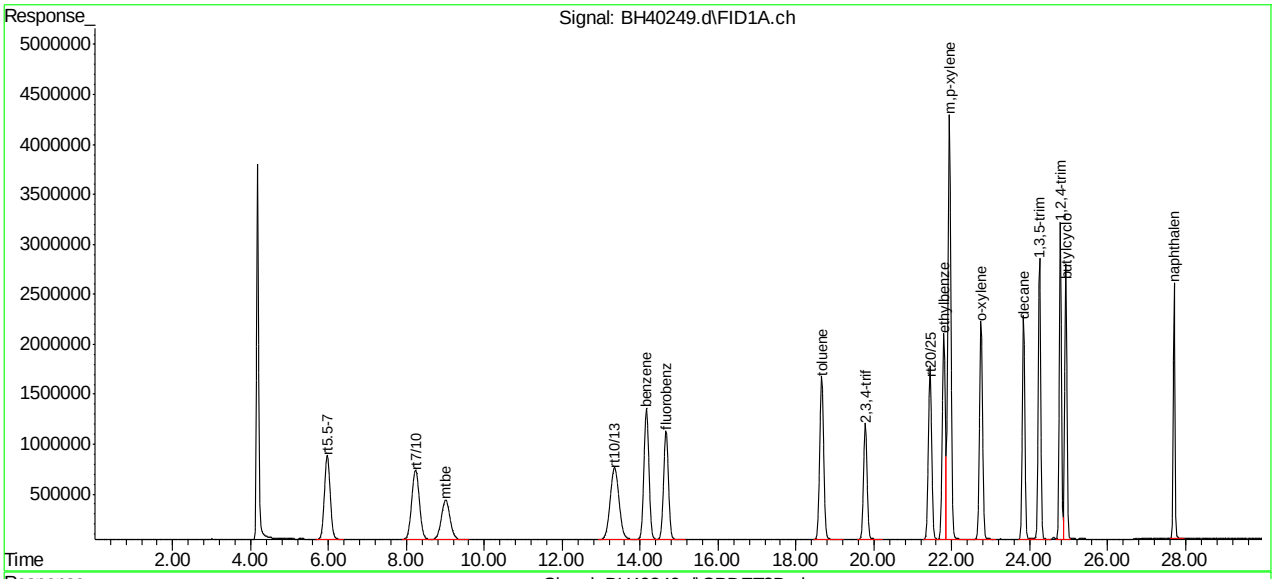
(f)=RT Delta > 1/2 Window (m)=manual int.

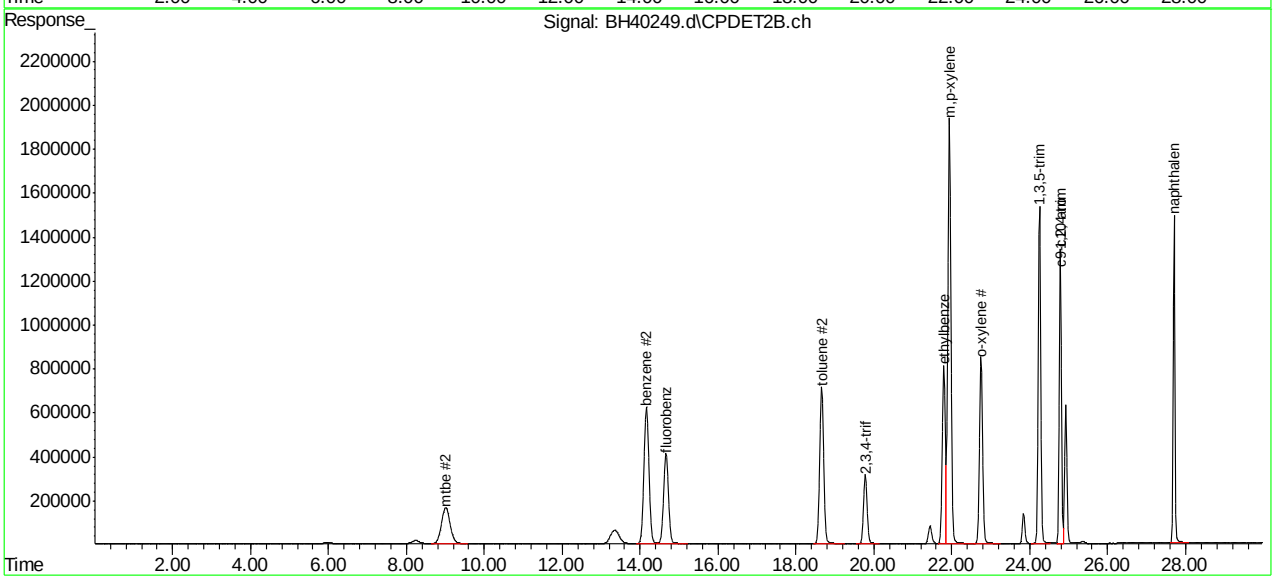
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40249.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:38 pm
Operator : tonyf
Sample : ic2394-100,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

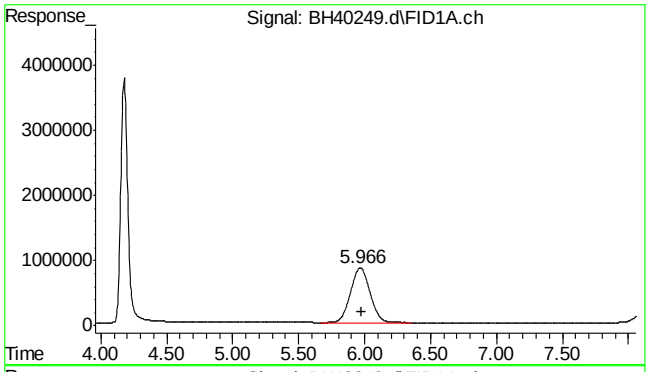
Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:13:39 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:02:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



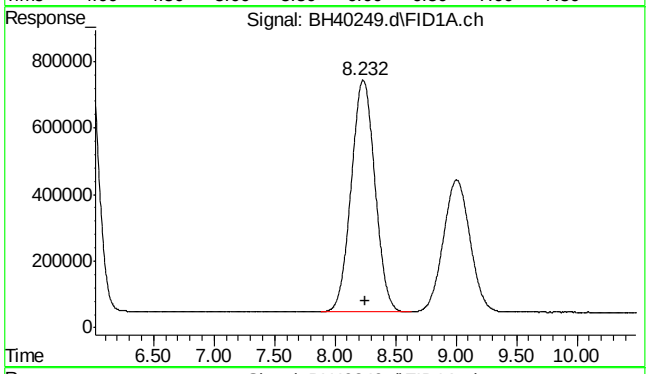


SGS ACCUTEST MC48999



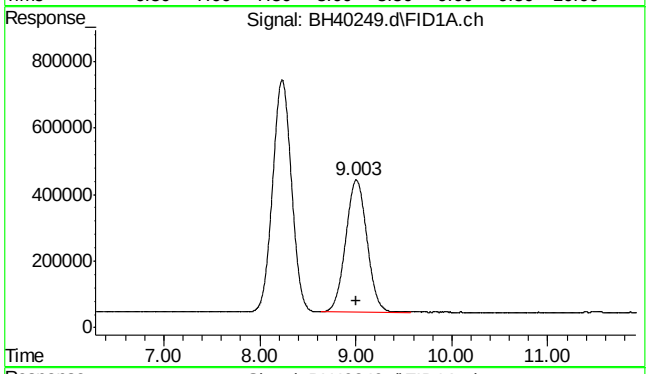
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 86088137
Conc: 100.71 ppb m



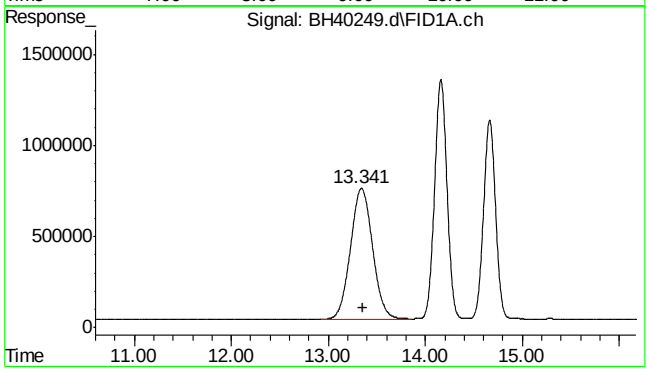
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 95005074
Conc: 100.92 ppb m



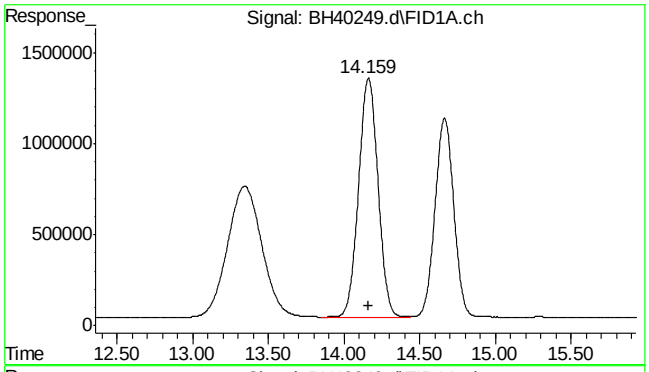
#3 mtbe

R.T.: 9.005 min
Delta R.T.: -0.003 min
Response: 61044984
Conc: 97.96 ppb



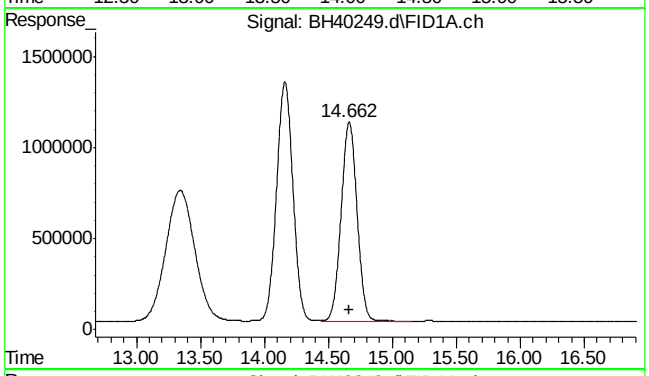
#4 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 113867510
Conc: 101.02 ppb m



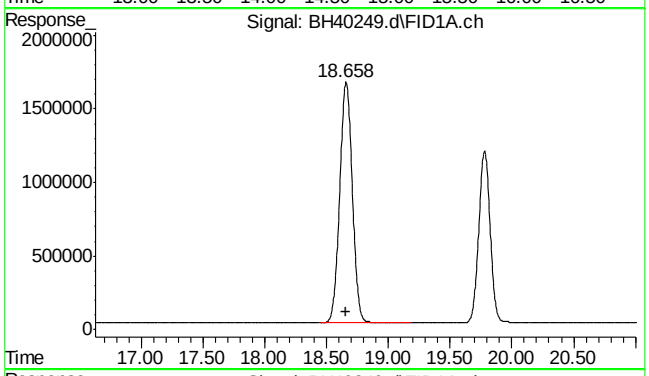
#5 benzene

R.T.: 14.160 min
Delta R.T.: 0.000 min
Response: 117512688
Conc: 100.15 ppb



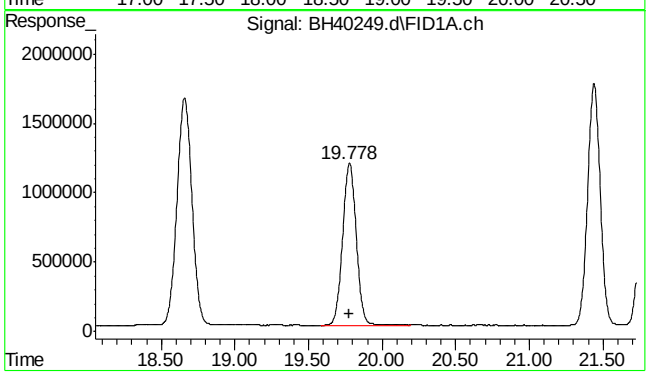
#6 fluorobenzene

R.T.: 14.663 min
Delta R.T.: 0.000 min
Response: 94583672
Conc: 100.39 ppb



#8 toluene

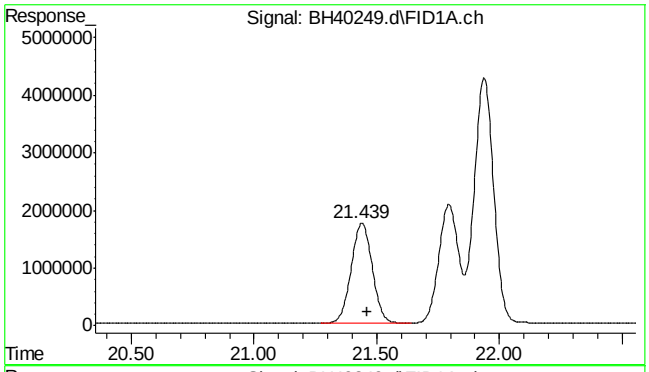
R.T.: 18.659 min
Delta R.T.: 0.000 min
Response: 116183783
Conc: 100.14 ppb



#9 2,3,4-trifluorotoluene

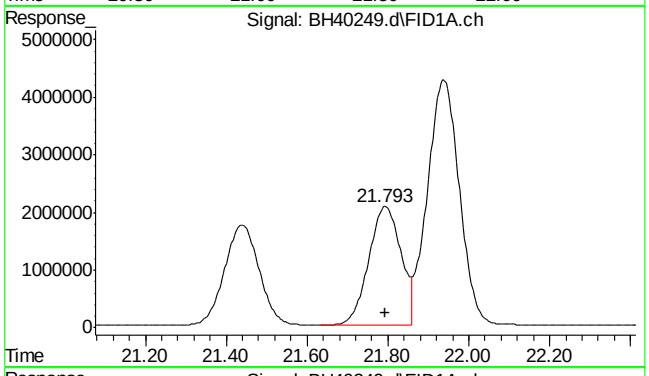
R.T.: 19.779 min
Delta R.T.: 0.000 min
Response: 74917893
Conc: 99.66 ppb

SGS ACCUTEST MC48999



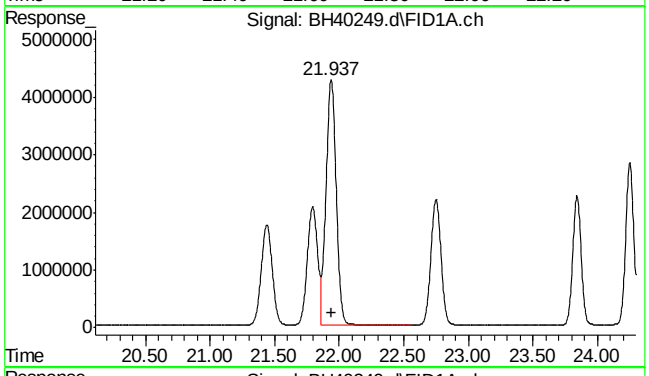
#11 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 103337448
Conc: 101.18 ppb m



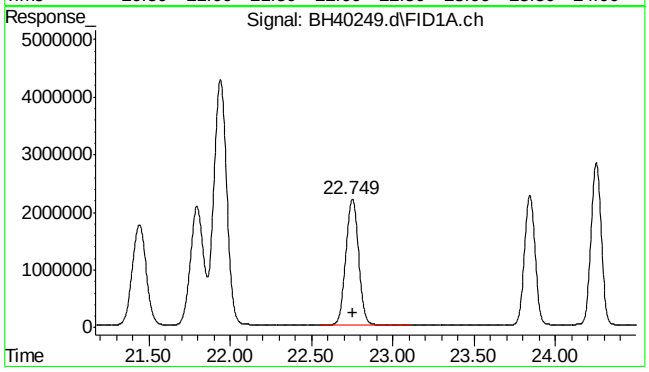
#13 ethylbenzene

R.T.: 21.795 min
Delta R.T.: 0.000 min
Response: 113179283
Conc: 100.10 ppb



#14 m,p-xylene

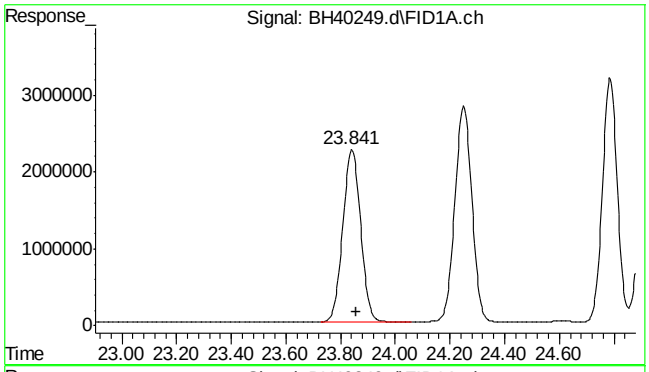
R.T.: 21.939 min
Delta R.T.: 0.000 min
Response: 236255823
Conc: 200.17 ppb



#15 o-xylene

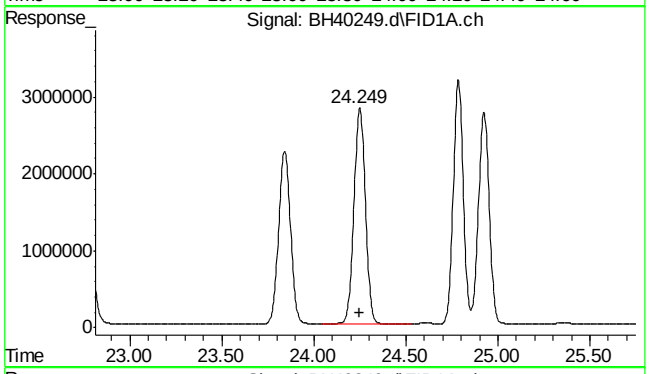
R.T.: 22.750 min
Delta R.T.: 0.000 min
Response: 119473570
Conc: 100.12 ppb

SGS ACCUTEST MC48999



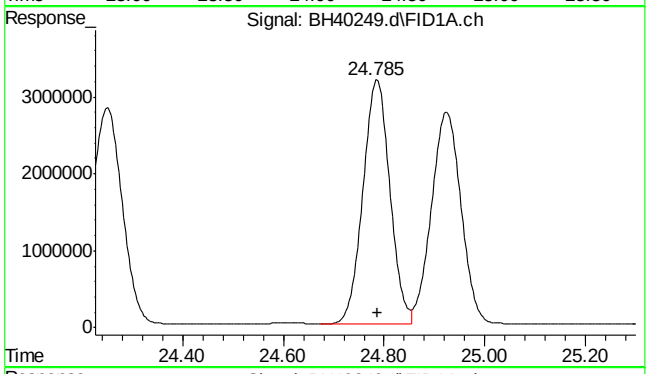
#16 decane

R.T.: 23.856 min
Delta R.T.: 0.000 min
Response: 101979409
Conc: 101.87 ppb



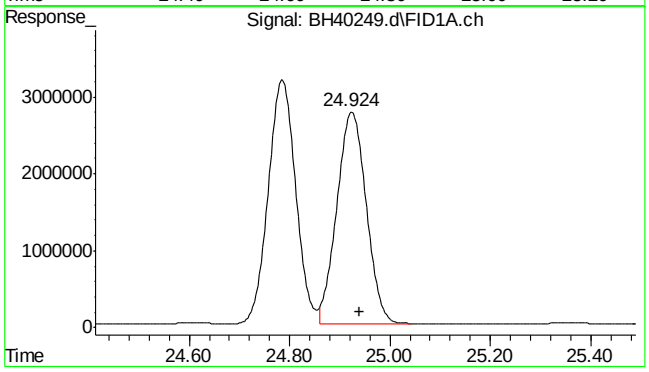
#17 1,3,5-trimethylbenzene

R.T.: 24.251 min
Delta R.T.: 0.000 min
Response: 122808426
Conc: 99.58 ppb



#18 1,2,4-trimethylbenzene

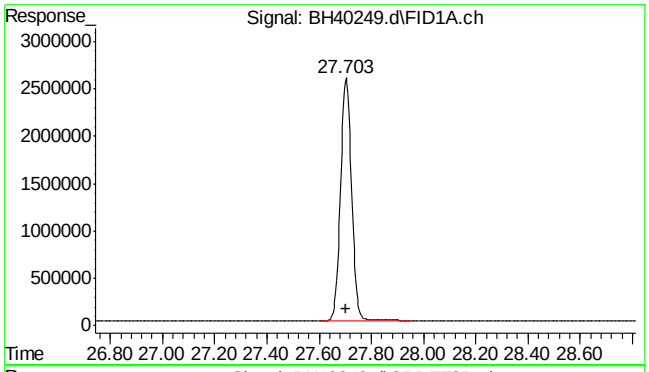
R.T.: 24.786 min
Delta R.T.: 0.000 min
Response: 119829023
Conc: 100.01 ppb



#19 butylcyclohexane

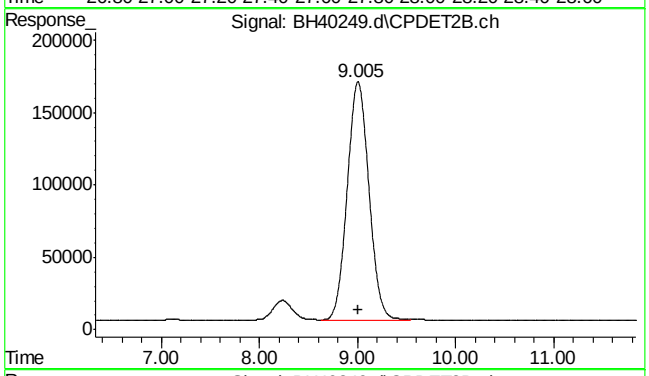
R.T.: 24.940 min
Delta R.T.: 0.000 min
Response: 111427425
Conc: 101.14 ppb

SGS ACCUTEST MC48999



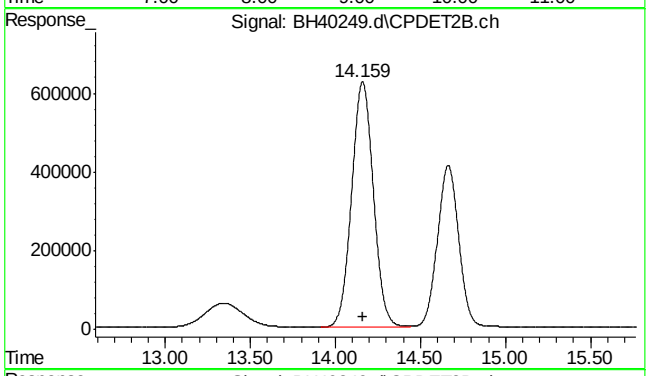
#20 naphthalene

R.T.: 27.703 min
Delta R.T.: 0.000 min
Response: 75604317
Conc: 99.16 ppb m



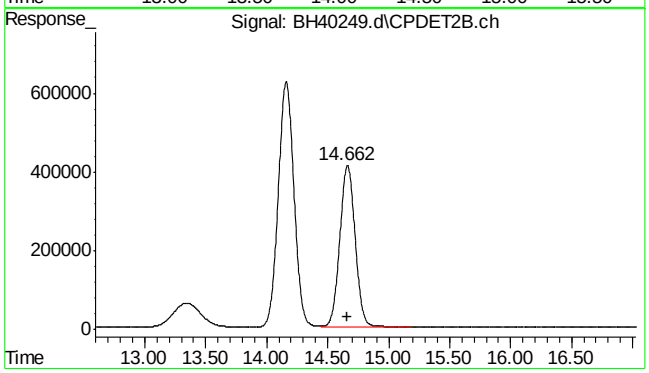
#23 mtbe #2

R.T.: 9.006 min
Delta R.T.: -0.003 min
Response: 25508563
Conc: 98.56 ppb



#24 benzene #2

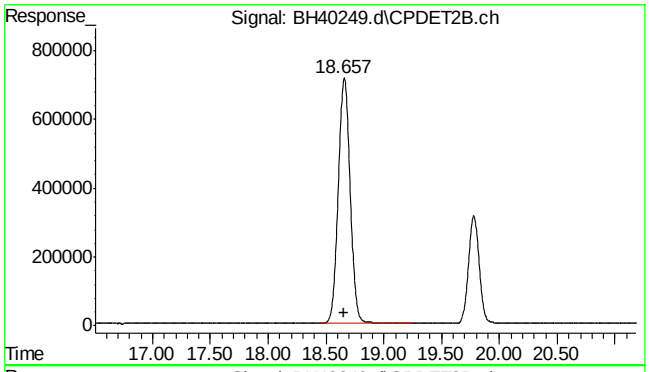
R.T.: 14.160 min
Delta R.T.: 0.000 min
Response: 56108454
Conc: 100.84 ppb



#25 fluorobenzene #2

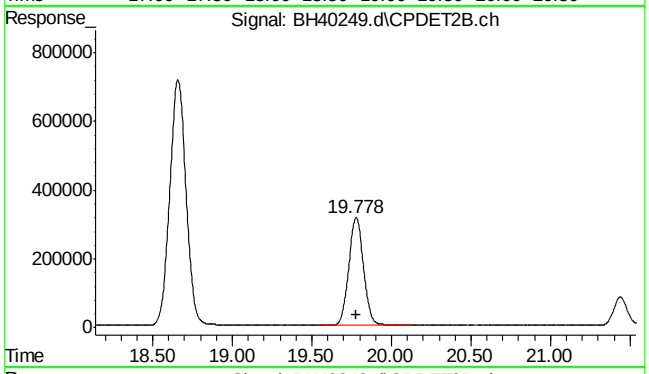
R.T.: 14.663 min
Delta R.T.: 0.000 min
Response: 36152403
Conc: 100.70 ppb

SGS ACCUTEST MC48999



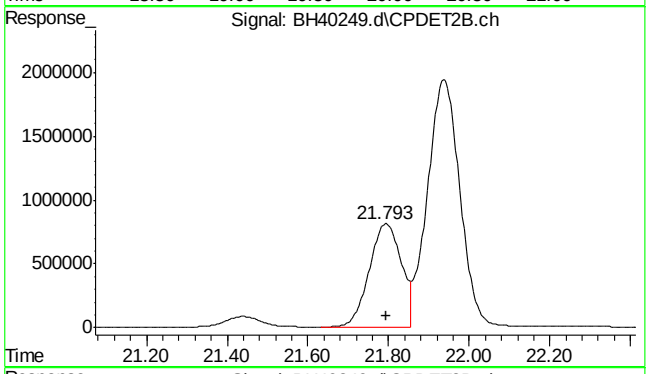
#26 toluene #2

R.T.: 18.659 min
Delta R.T.: 0.000 min
Response: 51372961
Conc: 100.19 ppb



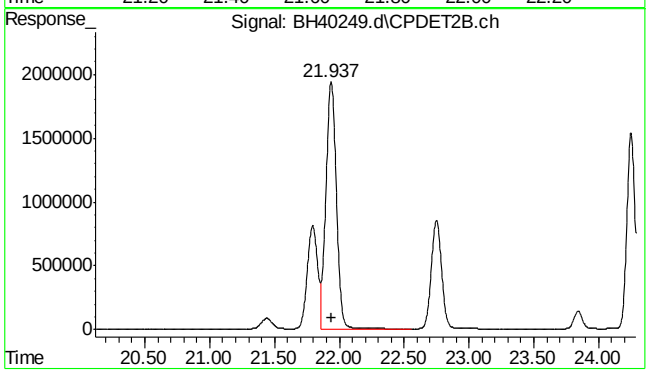
#27 2,3,4-trifluorotoluene #2

R.T.: 19.779 min
Delta R.T.: 0.000 min
Response: 20419387
Conc: 99.14 ppb



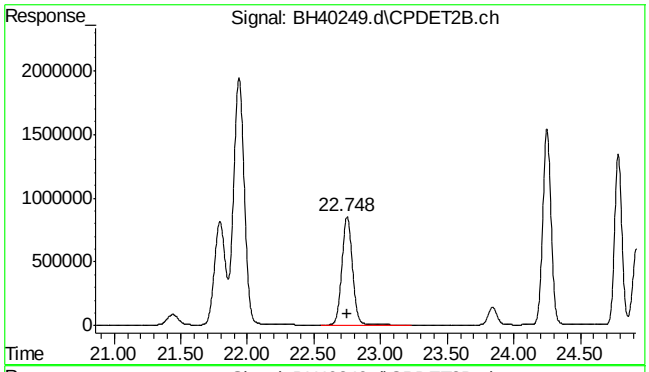
#28 ethylbenzene #2

R.T.: 21.795 min
Delta R.T.: 0.000 min
Response: 44363255
Conc: 98.65 ppb



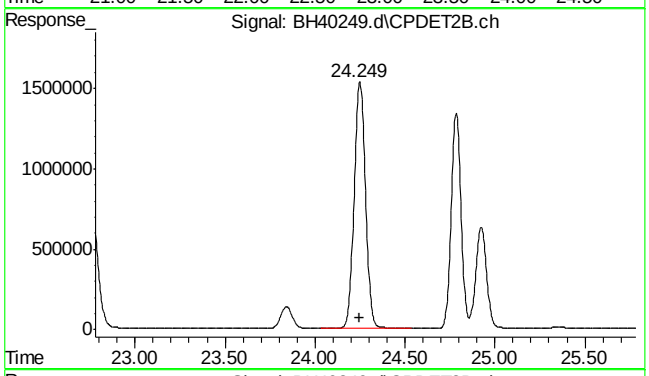
#29 m,p-xylene #2

R.T.: 21.938 min
Delta R.T.: 0.000 min
Response: 109093105
Conc: 196.49 ppb



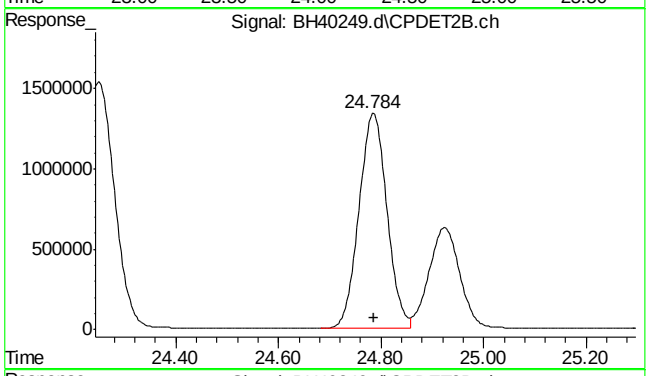
#30 o-xylene #2

R.T.: 22.750 min
Delta R.T.: 0.000 min
Response: 47252929
Conc: 98.66 ppb



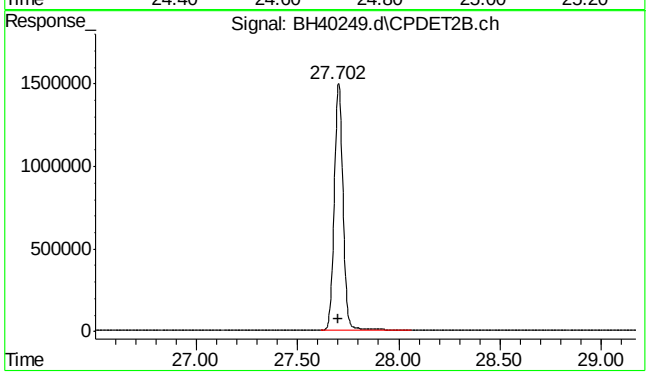
#31 1,3,5-trimethylbenzene #2

R.T.: 24.250 min
Delta R.T.: 0.000 min
Response: 67791316
Conc: 99.38 ppb



#32 1,2,4-trimethylbenzene #2

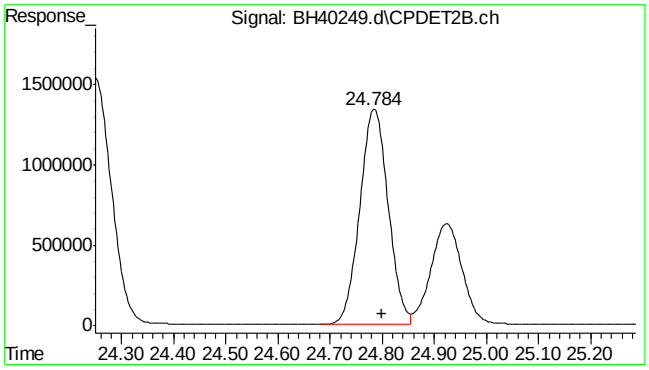
R.T.: 24.786 min
Delta R.T.: 0.000 min
Response: 50975120
Conc: 100.79 ppb



#33 naphthalene #2

R.T.: 27.702 min
Delta R.T.: 0.000 min
Response: 44492841
Conc: 101.77 ppb m

SGS ACCUTEST MC48999




```
#34  c9-c10 arom as 1,2,4-tmb

      R.T.:   24.800 min
Delta R.T.:    0.000 min
  Response:  50816139
      Conc: 100.56 ppb m
```

7.5.3

7

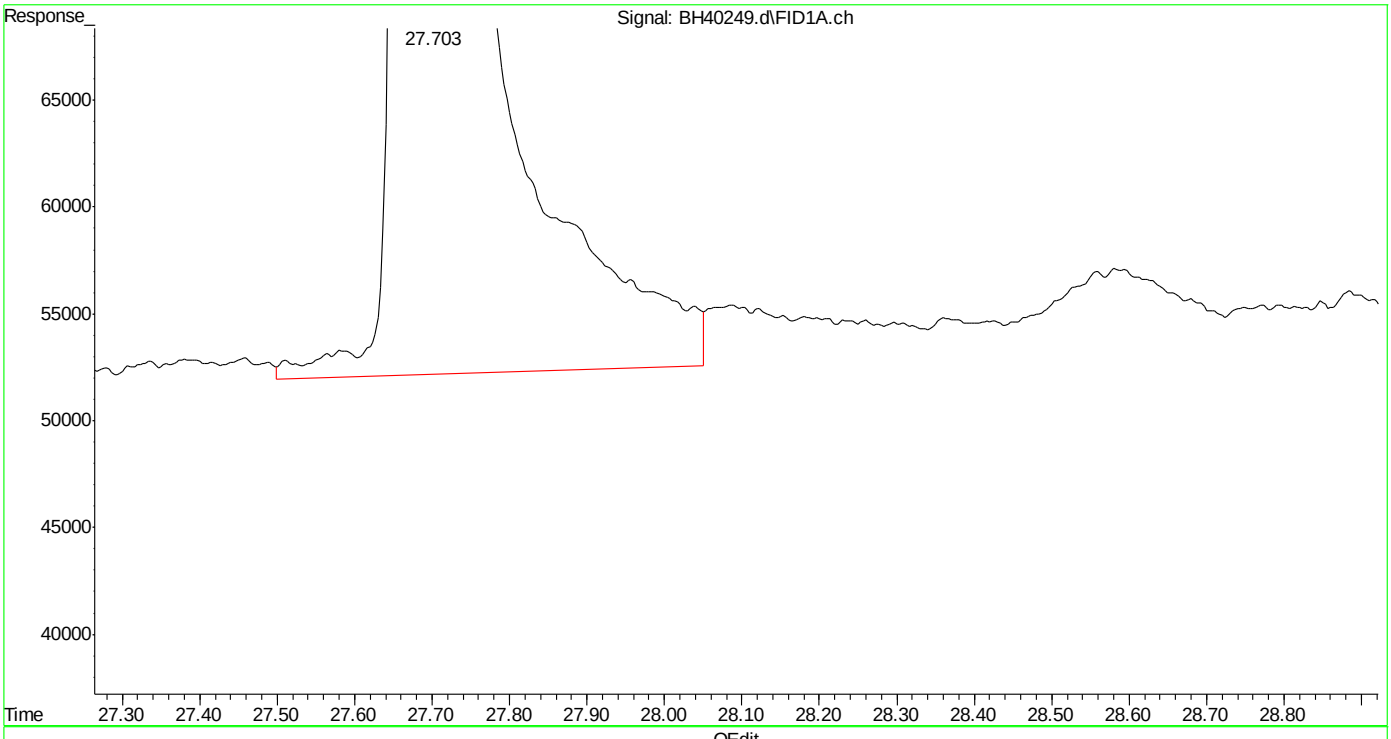
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40249.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:38 pm
Operator : tonyf
Sample : ic2394-100,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:02:20 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:02:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(20) naphthalene (t)
27.704min 99.752 ppb
response 76055374

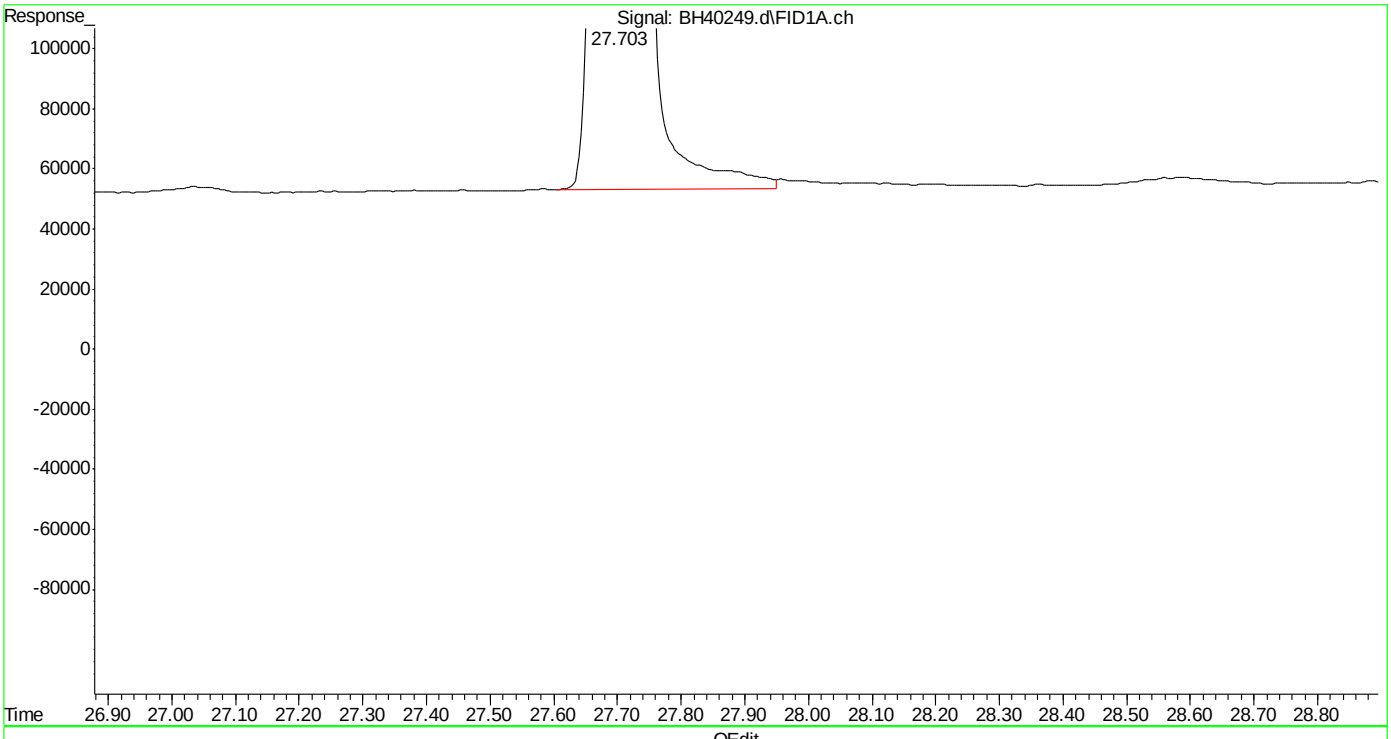
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40249.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:38 pm
Operator : tonyf
Sample : ic2394-100,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:02:20 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:02:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(20) naphthalene (t)
27.703min 99.160 ppb m
response 75604317

(+) = Expected Retention Time

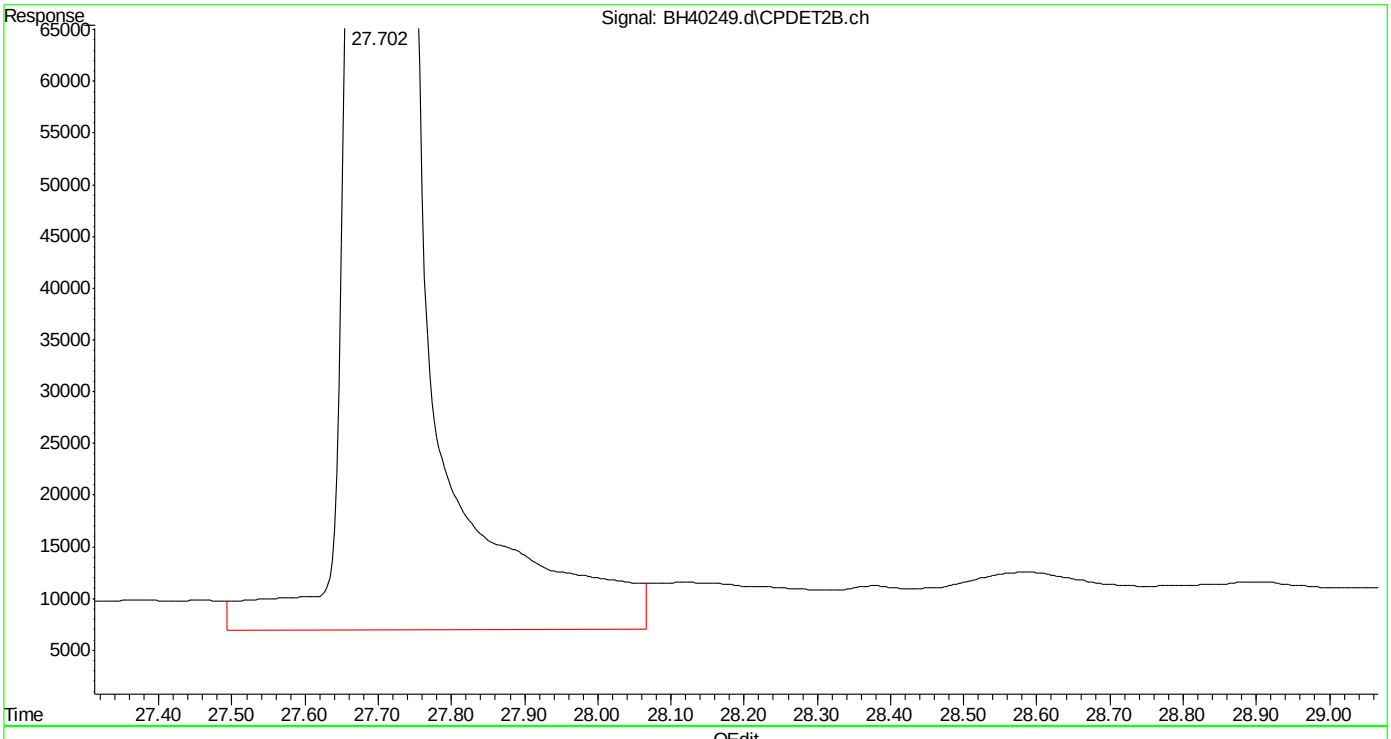
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40249.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:38 pm
Operator : tonyf
Sample : ic2394-100,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:02:20 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:02:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(33) naphthalene #2 (t)
27.704min 104.475 ppb
response 45676945

(+) = Expected Retention Time

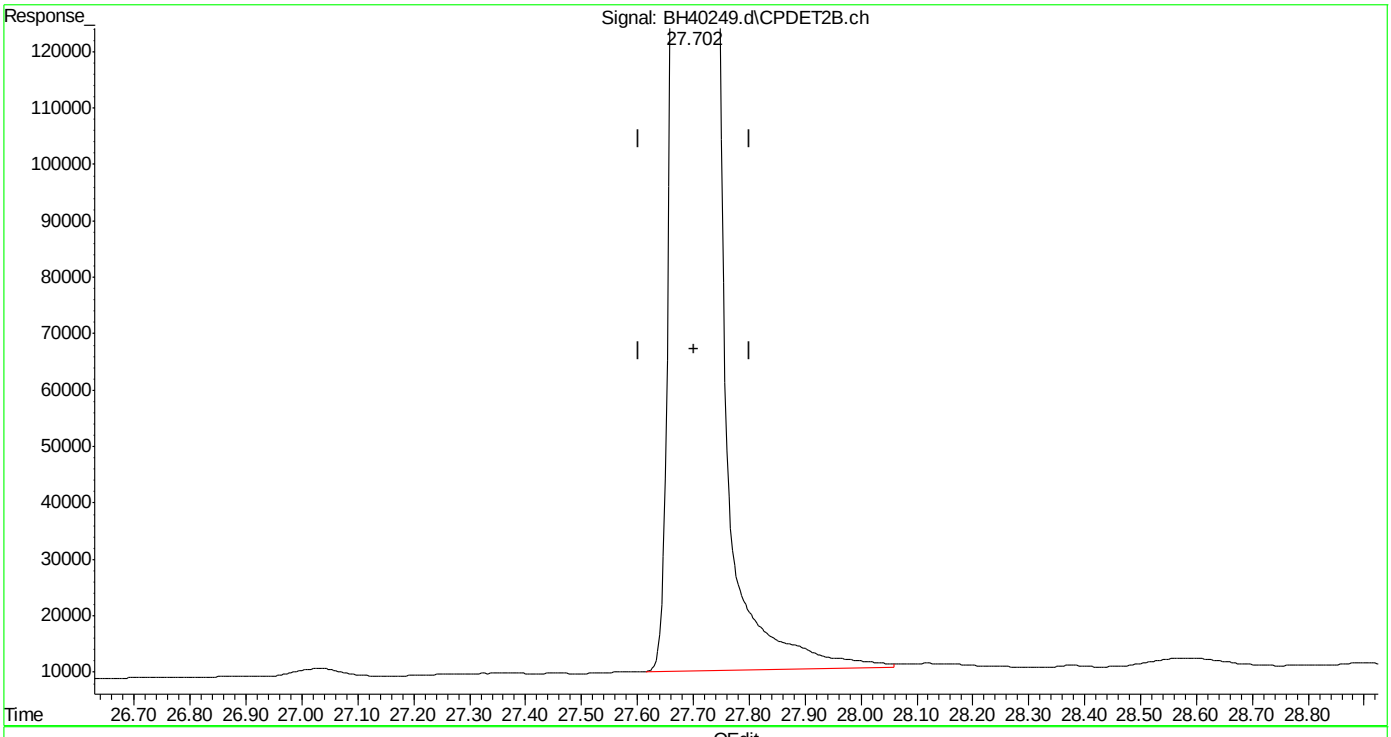
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40249.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 1:38 pm
Operator : tonyf
Sample : ic2394-100,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 3 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:02:20 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:02:02 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(33) naphthalene #2 (t)
27.702min 101.767 ppb m
response 44492841

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Andri Piluri
11/02/16 12:49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40250.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:13 pm
Operator : tonyf
Sample : icc2394-50,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:01:47 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 14:59:17 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
6) s fluorobenzene	14.664	47106906	50.000	ppb	
Spiked Amount 50.000		Recovery = 100.00%			
9) s 2,3,4-trifluorotoluene	19.779	37585841	50.000	ppb	
Spiked Amount 50.000		Recovery = 100.00%			
25) s fluorobenzene #2	14.664	17950464	50.000	ppb	
Spiked Amount 50.000		Recovery = 100.00%			
27) s 2,3,4-trifluorotoluen...	19.779	10298009	50.000	ppb	
Spiked Amount 50.000		Recovery = 100.00%			
Target Compounds					
1) h rt5.5-7	5.980	42741291	50.041	ppb	m
2) h rt7/10	8.250	47070191	50.058	ppb	m
3) t mtbe	9.008	31159493	50.000	ppb	
4) h rt10/13	13.360	56360063	50.021	ppb	m
5) t benzene	14.161	58669916	50.000	ppb	
8) t toluene	18.659	58012646	50.000	ppb	
11) h rt20/25	21.460	51067902	50.046	ppb	m
13) t ethylbenzene	21.794	56531049	50.000	ppb	
14) t m,p-xylene	21.938	118030322	100.000	ppb	
15) t o-xylene	22.750	59663574	50.000	ppb	
16) h decane	23.856	50052069	50.000	ppb	
17) t 1,3,5-trimethylbenzene	24.250	61662471	50.000	ppb	
18) t 1,2,4-trimethylbenzene	24.786	59909937	50.000	ppb	
19) h butylcyclohexane	24.940	55085183	50.000	ppb	
20) t naphthalene	27.703	38122411	50.018	ppb	m
23) t mtbe #2	9.010	12941154	50.000	ppb	
24) t benzene #2	14.161	27821762	50.000	ppb	
26) t toluene #2	18.659	25637793	50.000	ppb	
28) t ethylbenzene #2	21.794	22484987	50.000	ppb	
29) t m,p-xylene #2	21.938	55519724	100.000	ppb	
30) t o-xylene #2	22.750	23947645	50.000	ppb	
31) t 1,3,5-trimethylbenzen...	24.250	34108192	50.000	ppb	
32) t 1,2,4-trimethylbenzen...	24.785	25288513	50.000	ppb	
33) t naphthalene #2	27.702	21860184	50.050	ppb	m
34) h c9-c10 arom as 1,2,4-tmb	24.800	25266626	50.078	ppb	m

(f)=RT Delta > 1/2 Window (m)=manual int.

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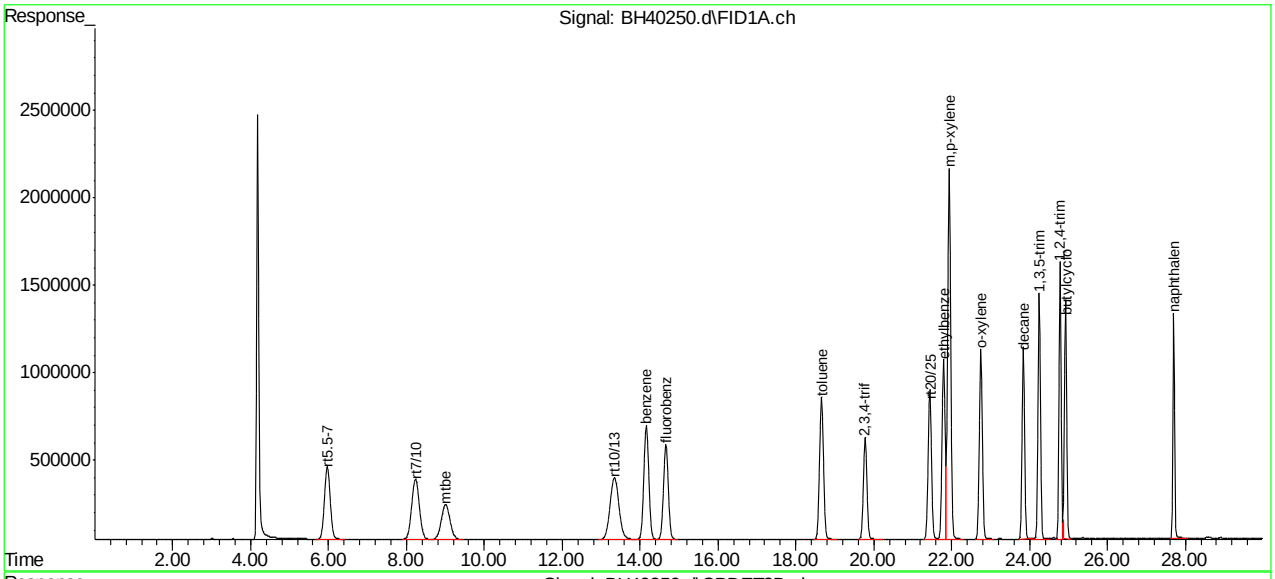
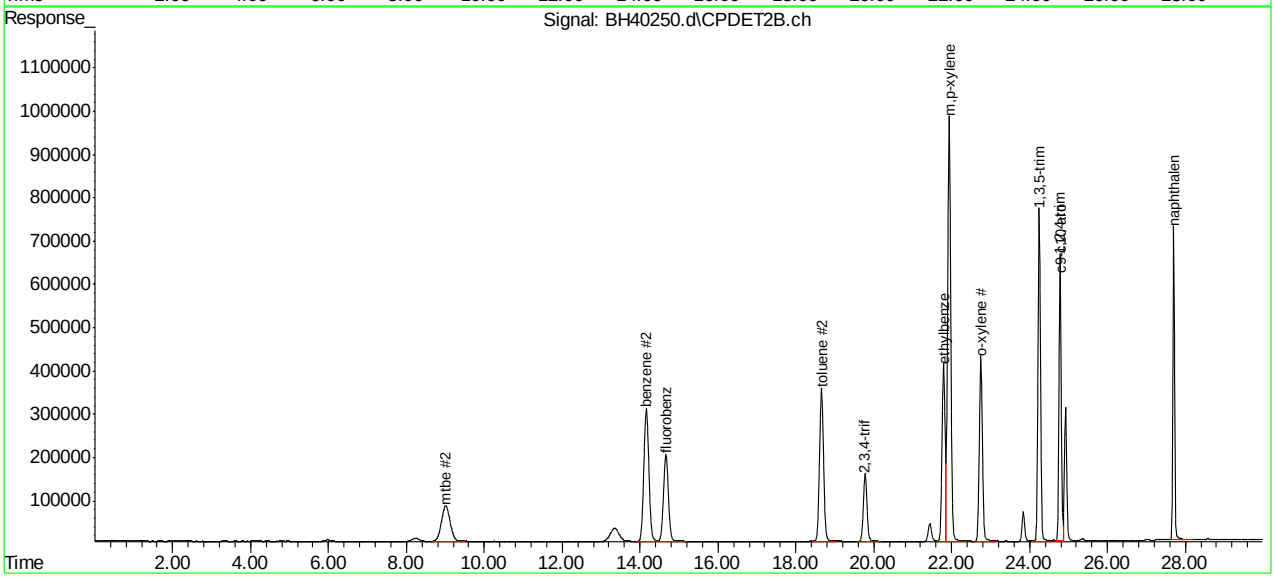
Quantitation Report (QT Reviewed)

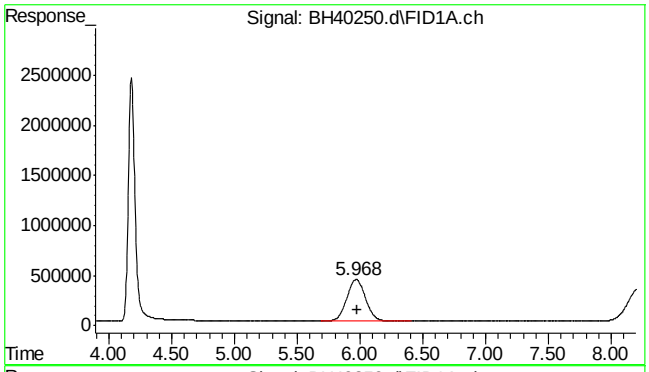
Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40250.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:13 pm
Operator : tonyf
Sample : icc2394-50,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:01:47 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 14:59:17 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

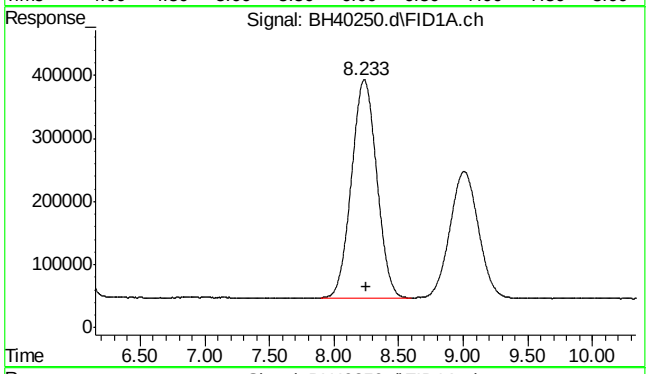






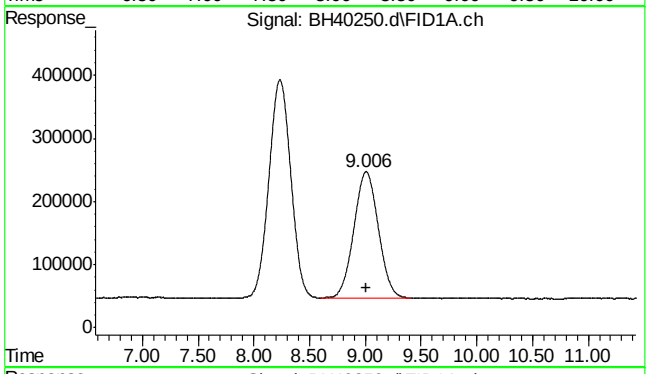
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 42741291
Conc: 50.04 ppb m



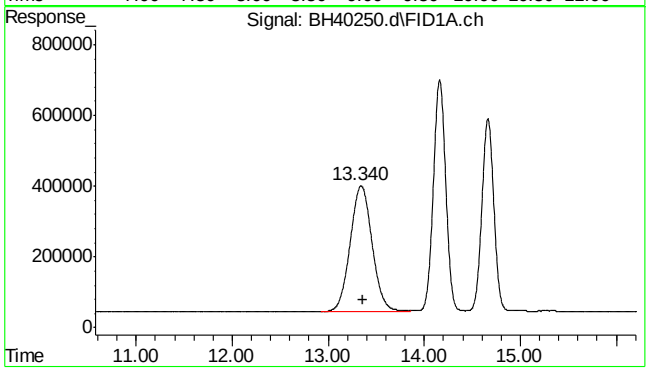
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 47070191
Conc: 50.06 ppb m



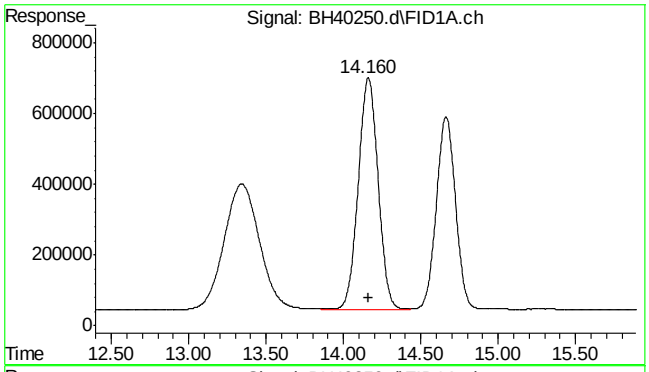
#3 mtbe

R.T.: 9.008 min
Delta R.T.: 0.000 min
Response: 31159493
Conc: 50.00 ppb



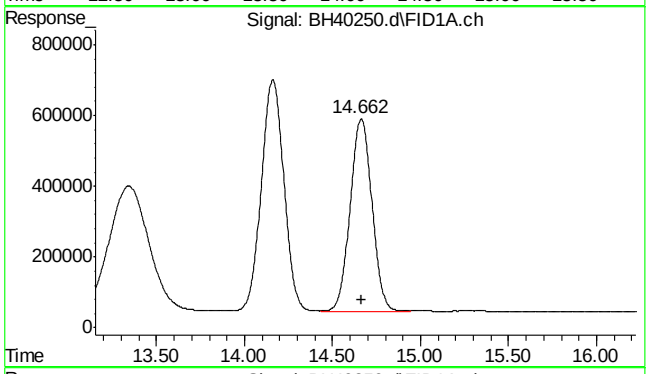
#4 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 56360063
Conc: 50.02 ppb m



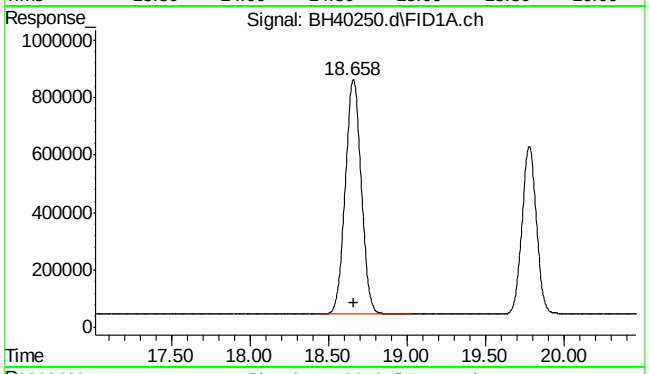
#5 benzene

R.T.: 14.161 min
Delta R.T.: 0.000 min
Response: 58669916
Conc: 50.00 ppb



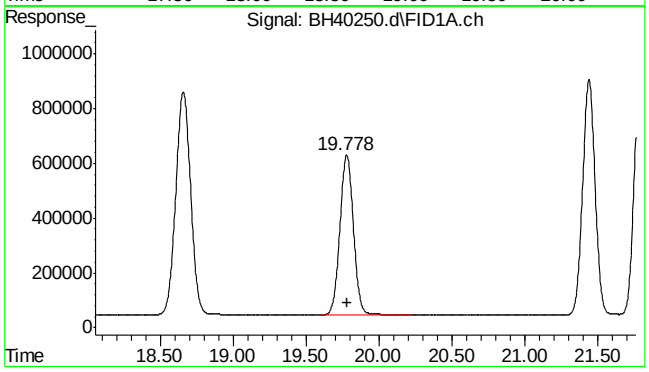
#6 fluorobenzene

R.T.: 14.664 min
Delta R.T.: 0.000 min
Response: 47106906
Conc: 50.00 ppb



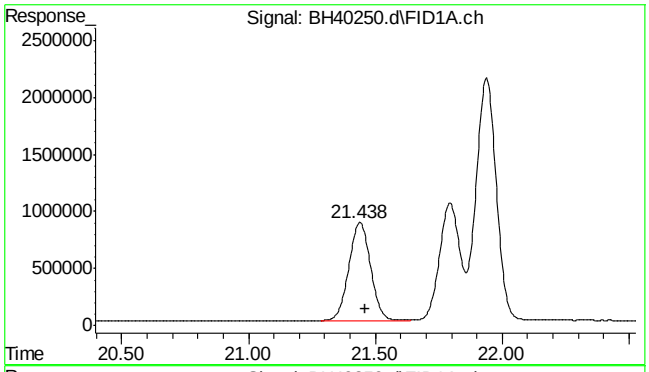
#8 toluene

R.T.: 18.659 min
Delta R.T.: 0.000 min
Response: 58012646
Conc: 50.00 ppb



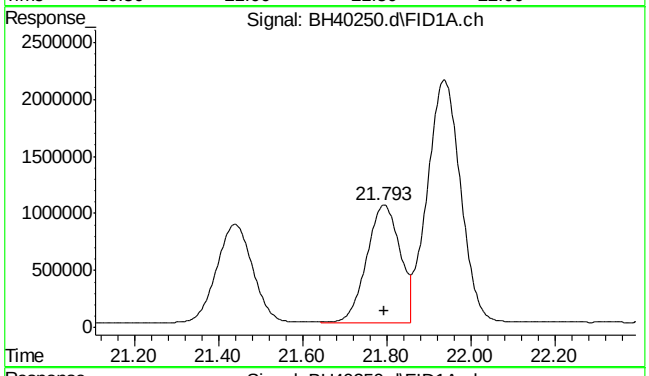
#9 2,3,4-trifluorotoluene

R.T.: 19.779 min
Delta R.T.: 0.000 min
Response: 37585841
Conc: 50.00 ppb



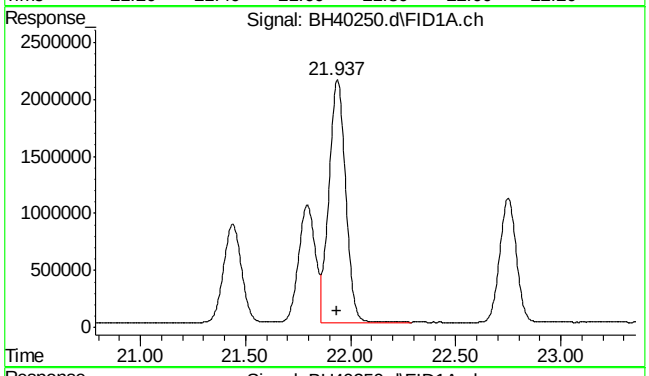
#11 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 51067902
Conc: 50.05 ppb m



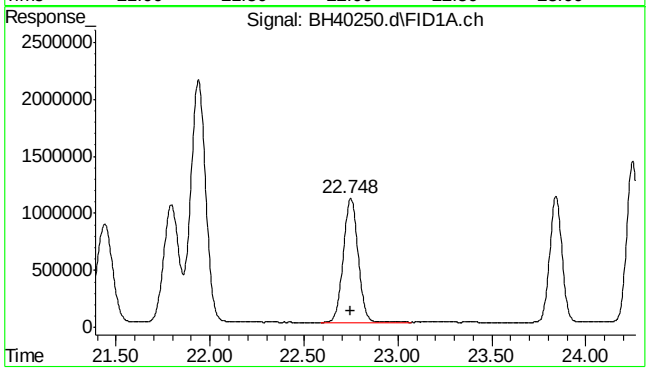
#13 ethylbenzene

R.T.: 21.794 min
Delta R.T.: 0.000 min
Response: 56531049
Conc: 50.00 ppb



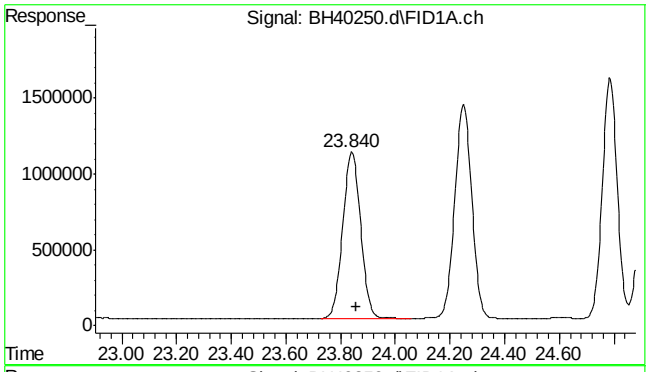
#14 m,p-xylene

R.T.: 21.938 min
Delta R.T.: 0.000 min
Response: 118030322
Conc: 100.00 ppb



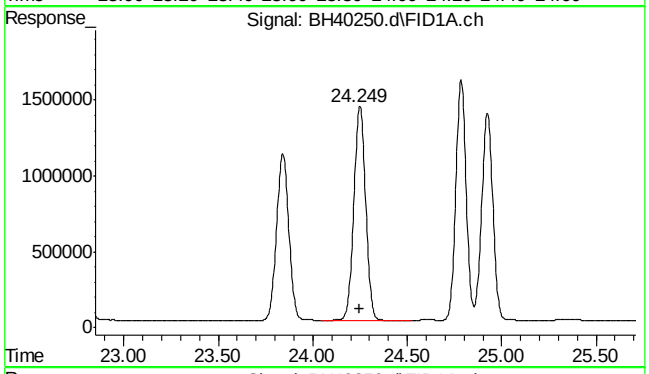
#15 o-xylene

R.T.: 22.750 min
Delta R.T.: 0.000 min
Response: 59663574
Conc: 50.00 ppb



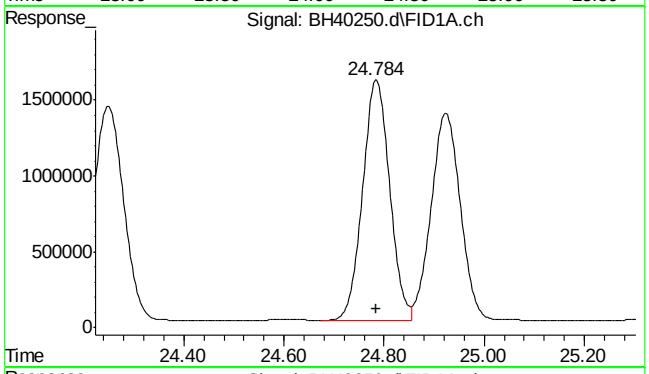
#16 decane

R.T.: 23.856 min
Delta R.T.: 0.000 min
Response: 50052069
Conc: 50.00 ppb



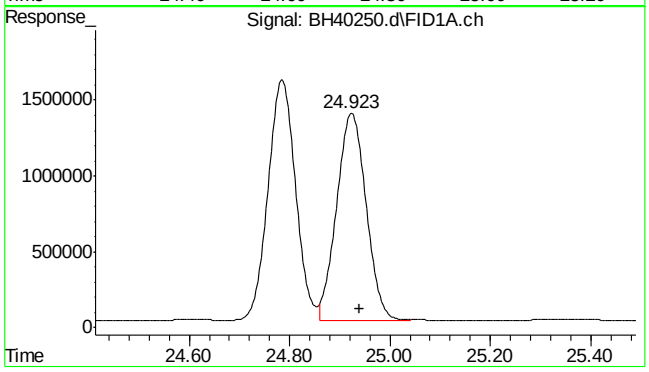
#17 1,3,5-trimethylbenzene

R.T.: 24.250 min
Delta R.T.: 0.000 min
Response: 61662471
Conc: 50.00 ppb



#18 1,2,4-trimethylbenzene

R.T.: 24.786 min
Delta R.T.: 0.000 min
Response: 59909937
Conc: 50.00 ppb



#19 butylcyclohexane

R.T.: 24.940 min
Delta R.T.: 0.000 min
Response: 55085183
Conc: 50.00 ppb

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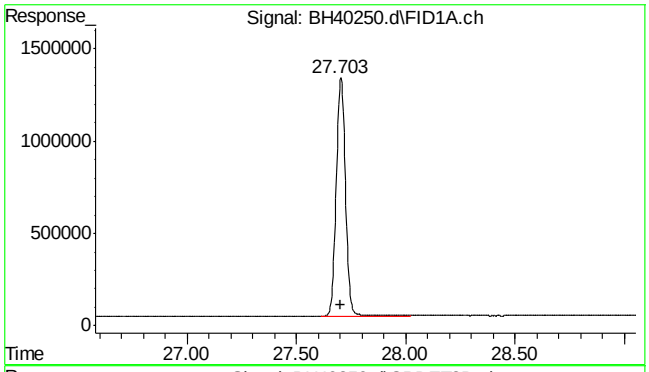
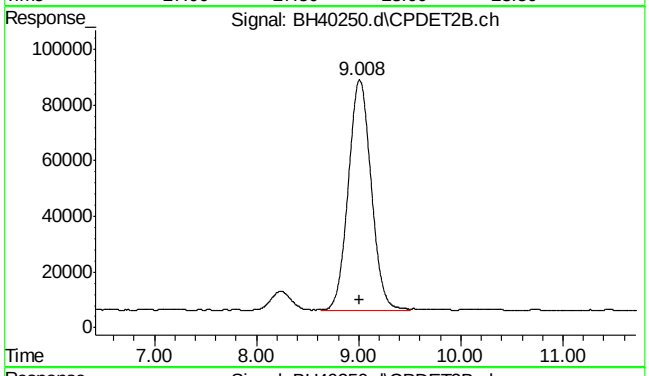


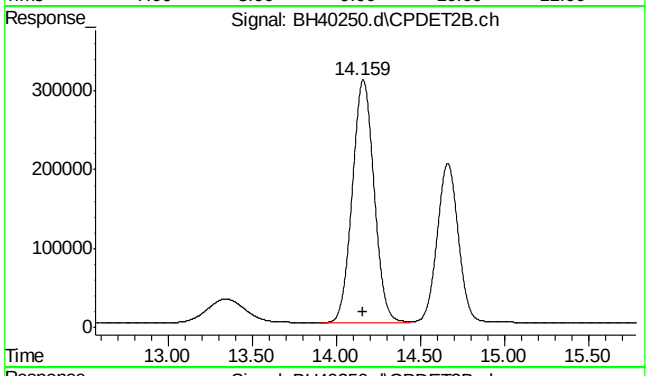
#20 naphthalene

R.T.: 27.703 min
Delta R.T.: 0.000 min
Response: 38122411
Conc: 50.02 ppb m



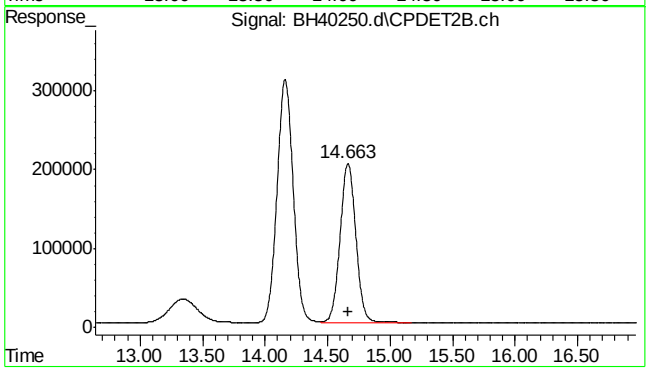
#23 mtbe #2

R.T.: 9.010 min
Delta R.T.: 0.000 min
Response: 12941154
Conc: 50.00 ppb



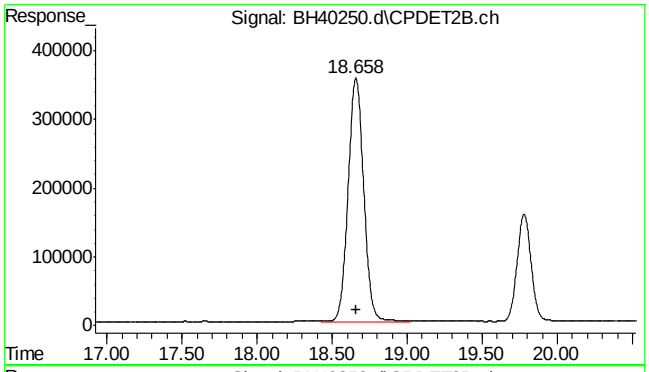
#24 benzene #2

R.T.: 14.161 min
Delta R.T.: 0.000 min
Response: 27821762
Conc: 50.00 ppb



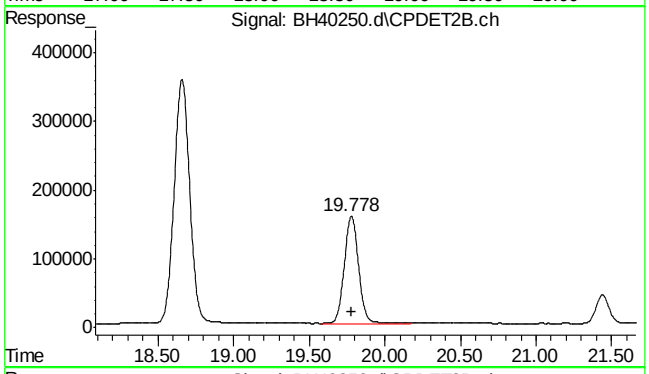
#25 fluorobenzene #2

R.T.: 14.664 min
Delta R.T.: 0.000 min
Response: 17950464
Conc: 50.00 ppb



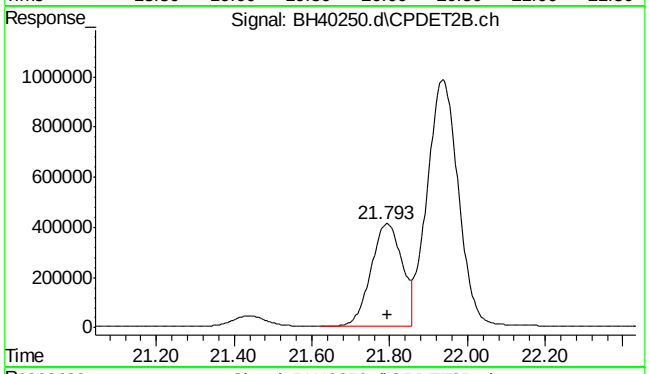
#26 toluene #2

R.T.: 18.659 min
Delta R.T.: 0.000 min
Response: 25637793
Conc: 50.00 ppb



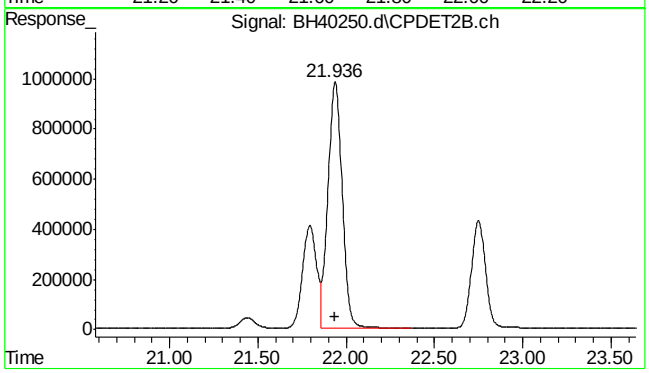
#27 2,3,4-trifluorotoluene #2

R.T.: 19.779 min
Delta R.T.: 0.000 min
Response: 10298009
Conc: 50.00 ppb



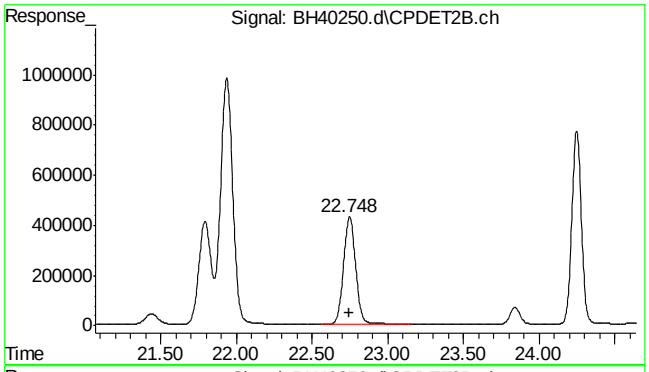
#28 ethylbenzene #2

R.T.: 21.794 min
Delta R.T.: 0.000 min
Response: 22484987
Conc: 50.00 ppb



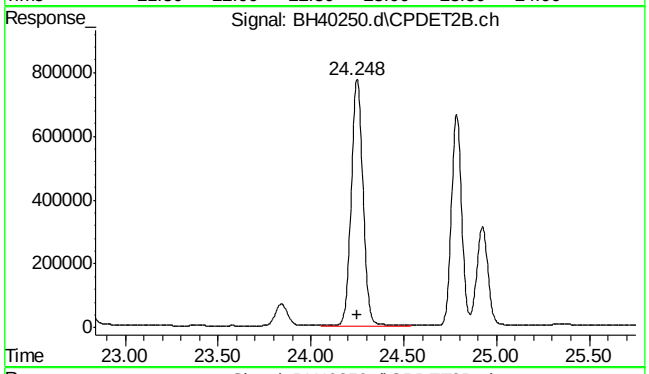
#29 m,p-xylene #2

R.T.: 21.938 min
Delta R.T.: 0.000 min
Response: 55519724
Conc: 100.00 ppb



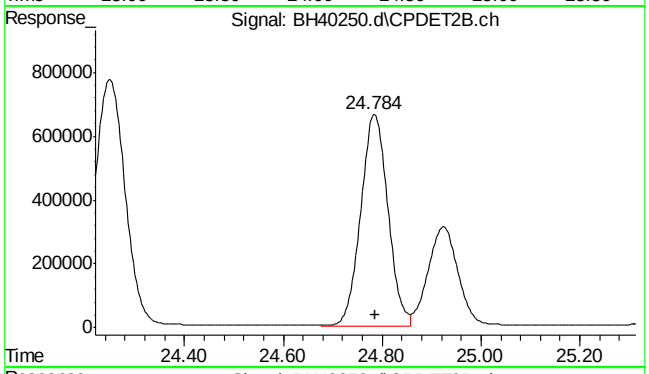
#30 o-xylene #2

R.T.: 22.750 min
Delta R.T.: 0.000 min
Response: 23947645
Conc: 50.00 ppb



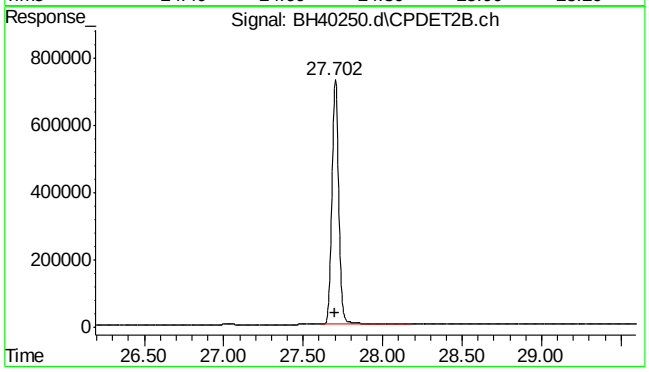
#31 1,3,5-trimethylbenzene #2

R.T.: 24.250 min
Delta R.T.: 0.000 min
Response: 34108192
Conc: 50.00 ppb



#32 1,2,4-trimethylbenzene #2

R.T.: 24.785 min
Delta R.T.: 0.000 min
Response: 25288513
Conc: 50.00 ppb



#33 naphthalene #2

R.T.: 27.702 min
Delta R.T.: 0.000 min
Response: 21860184
Conc: 50.05 ppb m

7.5.4

7

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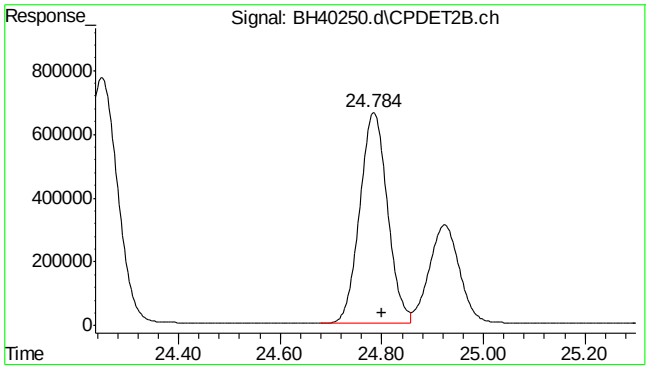

#34 c9-c10 arom as 1,2,4-tmb

R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 25266626
Conc: 50.08 ppb m

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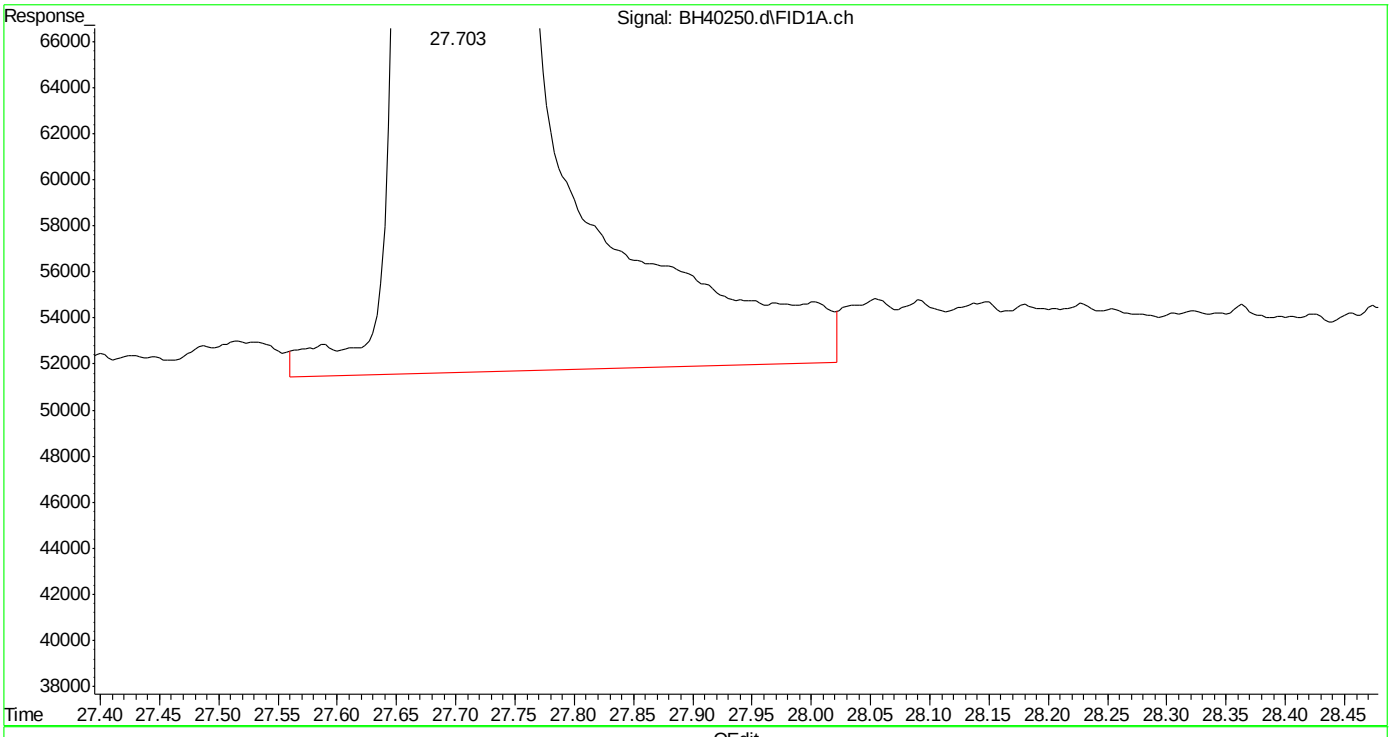
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40250.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:13 pm
Operator : tonyf
Sample : icc2394-50,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 14:59:32 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 14:59:17 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(20) naphthalene (t)
27.704min 50.445 ppb
response 38448237

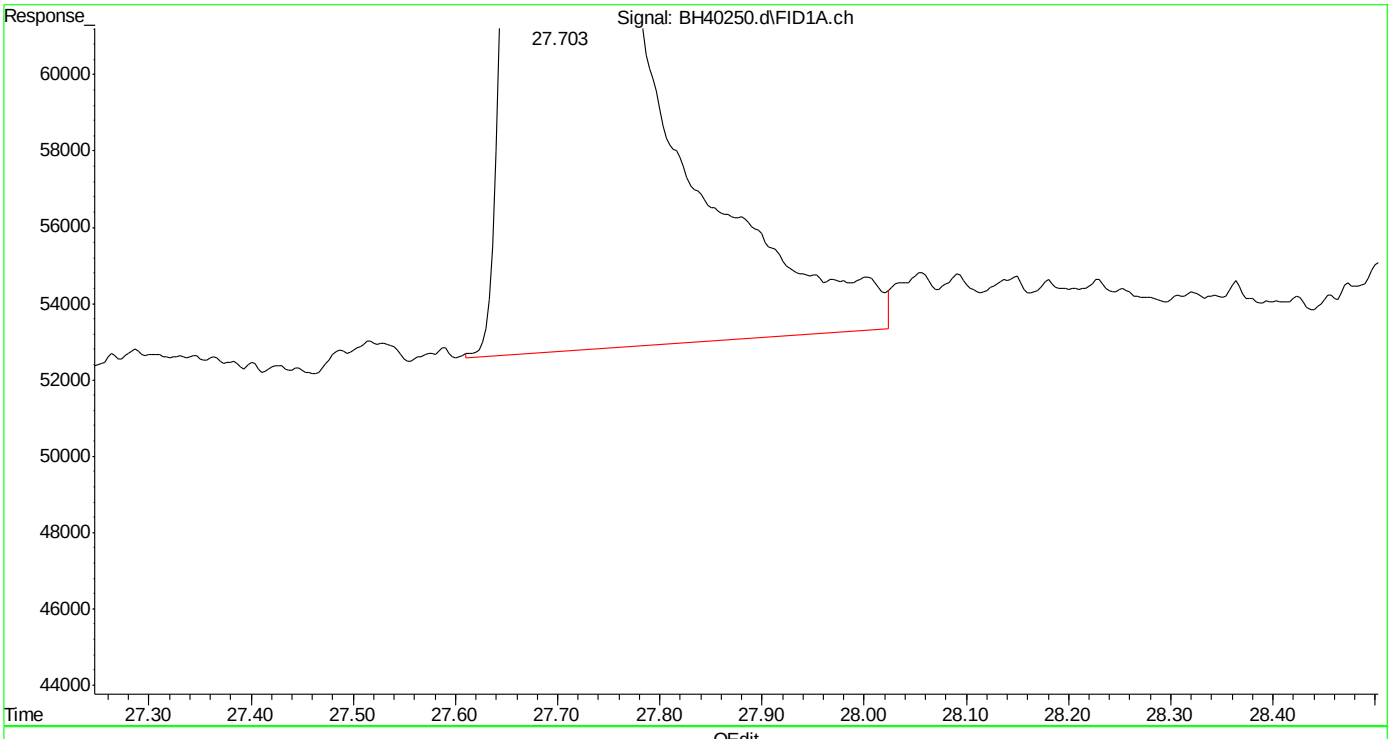
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40250.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:13 pm
Operator : tonyf
Sample : icc2394-50,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 14:59:32 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 14:59:17 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(20) naphthalene (t)
27.703min 50.018 ppb m
response 38122411

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:00:42 2016 Page: 1

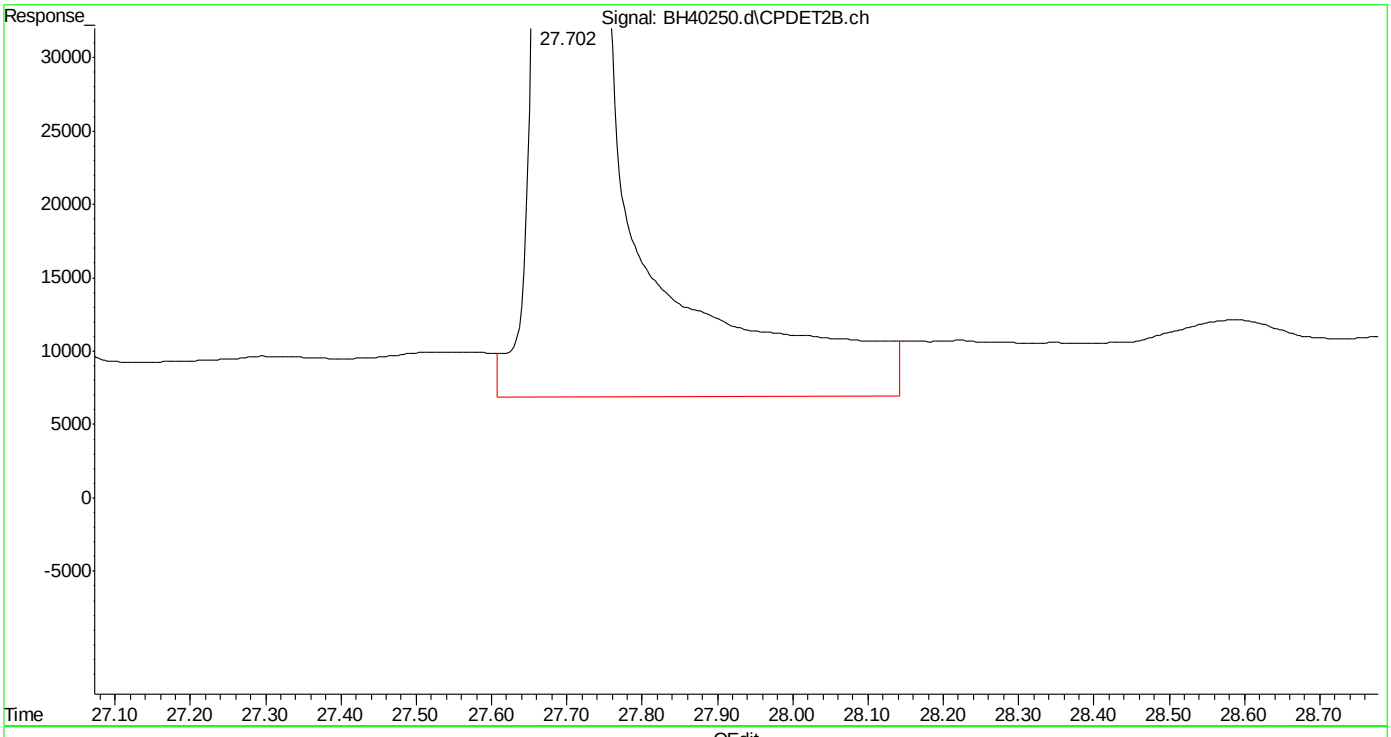
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40250.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:13 pm
Operator : tonyf
Sample : icc2394-50,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 14:59:32 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 14:59:17 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(33) naphthalene #2 (t)
27.703min 52.350 ppb
response 22864789

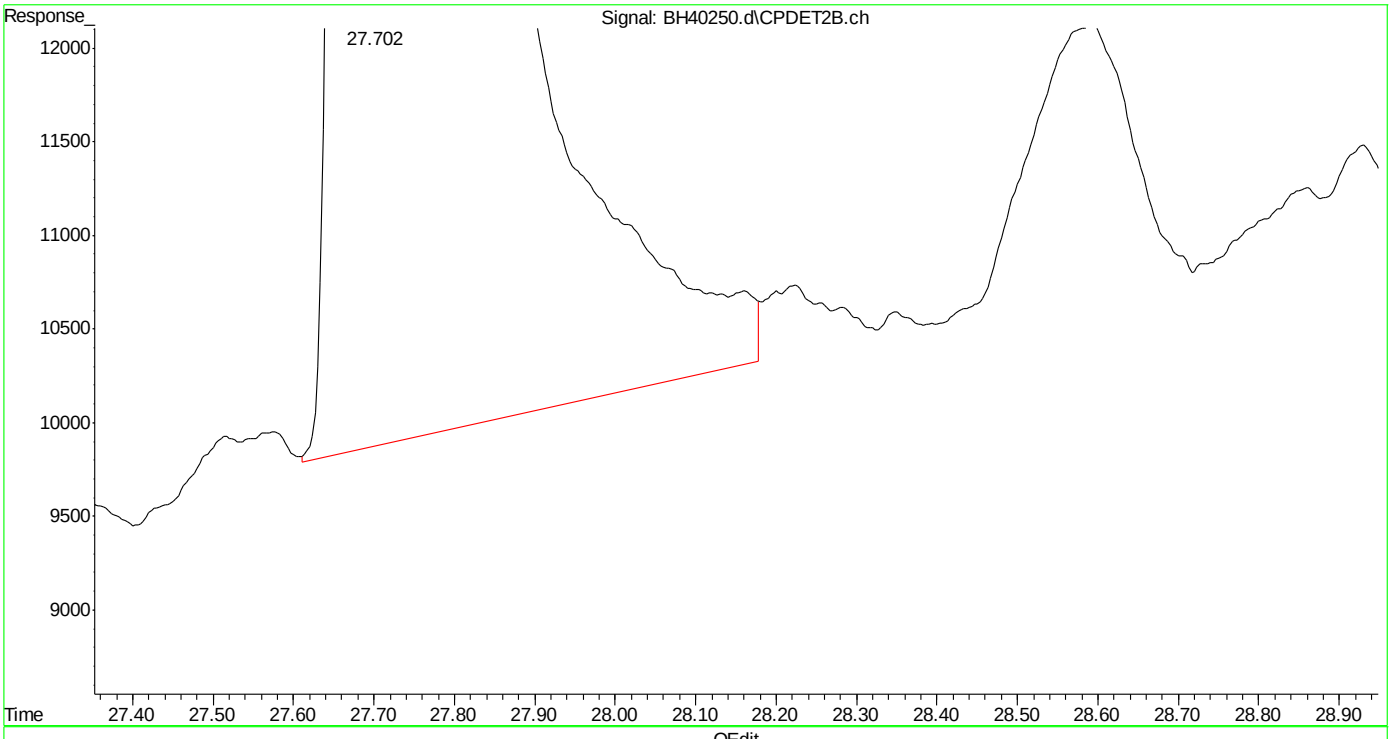
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40250.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:13 pm
Operator : tonyf
Sample : icc2394-50,gv16554
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 14:59:32 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 14:59:17 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(33) naphthalene #2 (t)
27.702min 50.050 ppb m
response 21860184

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Andri Piluri
11/02/16 12:49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40251.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:48 pm
Operator : tonyf
Sample : ic2394-10,gv16555
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:22:23 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:18:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
6) s fluorobenzene	14.664	9616653	10.140 ppb	
Spiked Amount 50.000		Recovery =	20.28%	
9) s 2,3,4-trifluorotoluene	19.779	7849309	10.351 ppb	
Spiked Amount 50.000		Recovery =	20.70%	
25) s fluorobenzene #2	14.663	3706509	10.283 ppb	m
Spiked Amount 50.000		Recovery =	20.57%	
27) s 2,3,4-trifluorotoluen...	19.778	2106019	10.192 ppb	m
Spiked Amount 50.000		Recovery =	20.38%	
Target Compounds				
1) h rt5.5-7	5.980	8839495	10.259 ppb	m
2) h rt7/10	8.250	9796581	10.328 ppb	m
3) t mtbe	9.010	6194618	10.250 ppb	m
4) h rt10/13	13.360	12194481	11.109 ppb	m
5) t benzene	14.160	11704832	9.925 ppb	
8) t toluene	18.659	11727852	10.018 ppb	
11) h rt20/25	21.460	11481817	10.916 ppb	m
13) t ethylbenzene	21.794	11376140	9.891 ppb	
14) t m,p-xylene	21.937	23605020	19.647 ppb	
15) t o-xylene	22.748	11939232	9.825 ppb	m
16) h decane	23.856	11668530	11.102 ppb	m
17) t 1,3,5-trimethylbenzene	24.250	12601173	10.196 ppb	
18) t 1,2,4-trimethylbenzene	24.785	12075847	10.054 ppb	
19) h butylcyclohexane	24.940	12016589	10.730 ppb	
20) t naphthalene	27.703	7421339	10.896 ppb	m
23) t mtbe #2	9.010	2527837	10.151 ppb	
24) t benzene #2	14.161	5716141	10.219 ppb	
26) t toluene #2	18.657	5148791	10.005 ppb	m
28) t ethylbenzene #2	21.794	4382450	9.705 ppb	
29) t m,p-xylene #2	21.937	11030713	19.983 ppb	
30) t o-xylene #2	22.749	4704033	9.794 ppb	
31) t 1,3,5-trimethylbenzen...	24.250	6794189	10.034 ppb	
32) t 1,2,4-trimethylbenzen...	24.785	4944168	9.777 ppb	
33) t naphthalene #2	27.703	4273654	10.871 ppb	m
34) h c9-c10 arom as 1,2,4-tmb	24.800	4924973	9.761 ppb	m

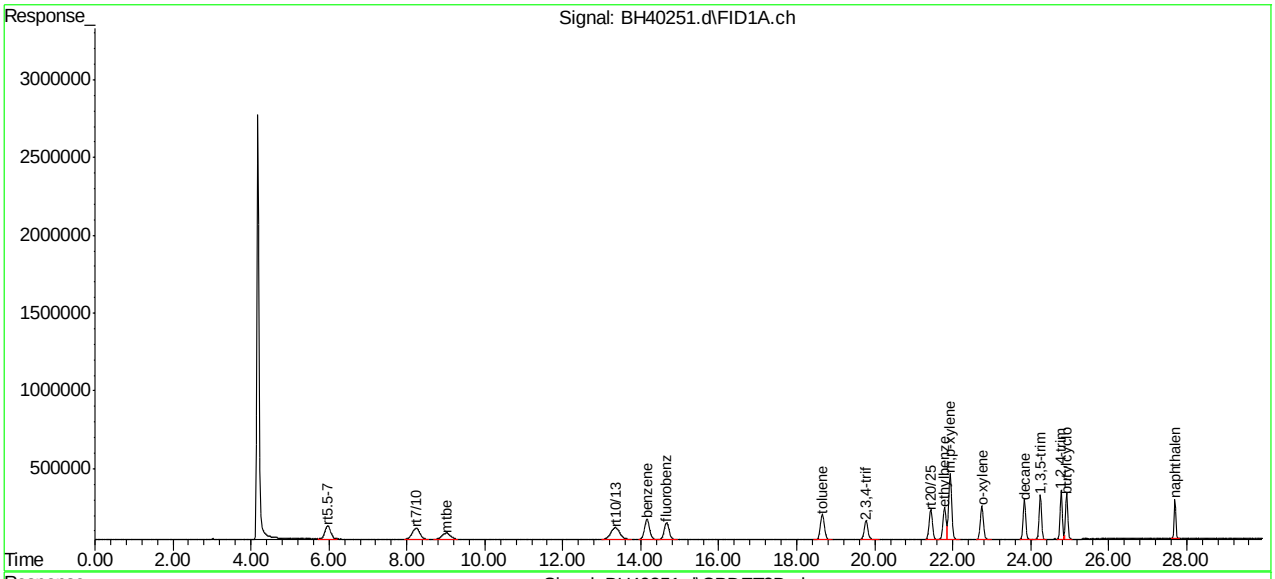
(f)=RT Delta > 1/2 Window (m)=manual int.

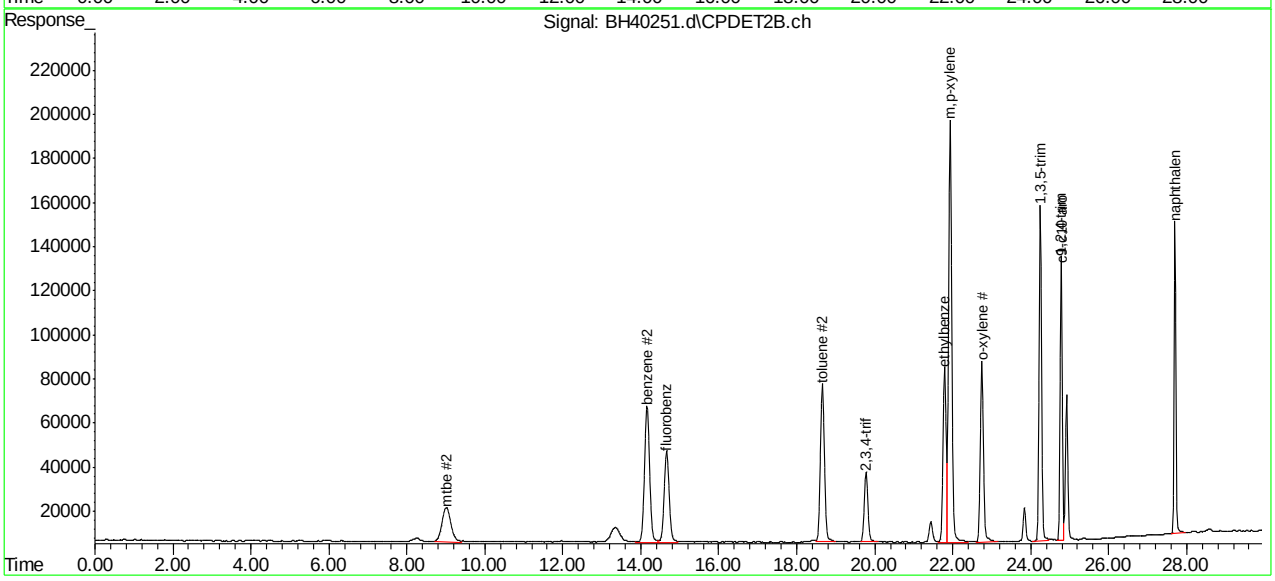
Quantitation Report (QT Reviewed)

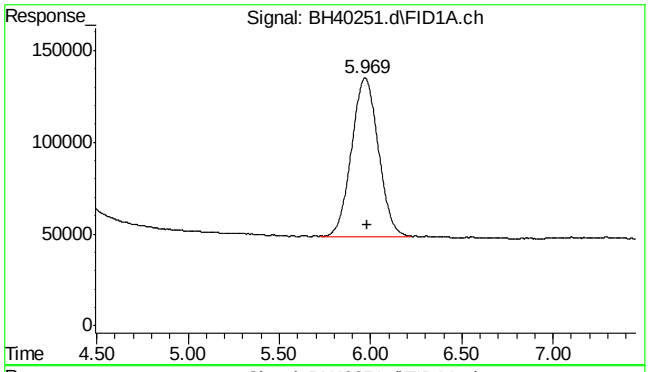
Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40251.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:48 pm
Operator : tonyf
Sample : ic2394-10,gv16555
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:22:23 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:18:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

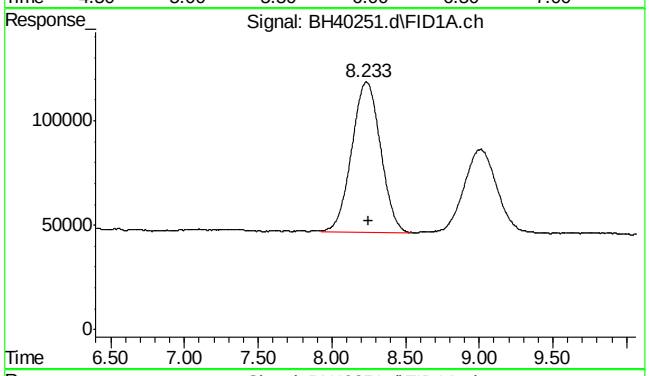






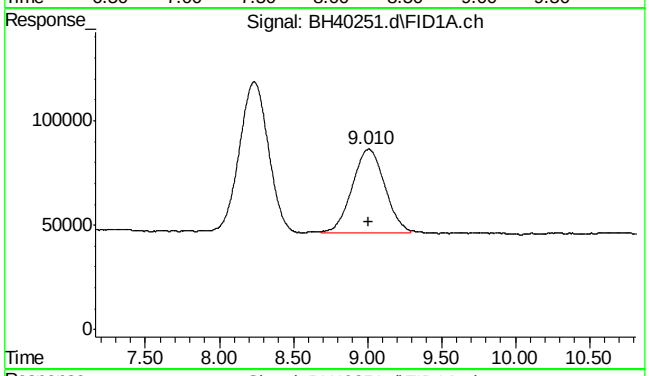
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 8839495
Conc: 10.26 ppb m



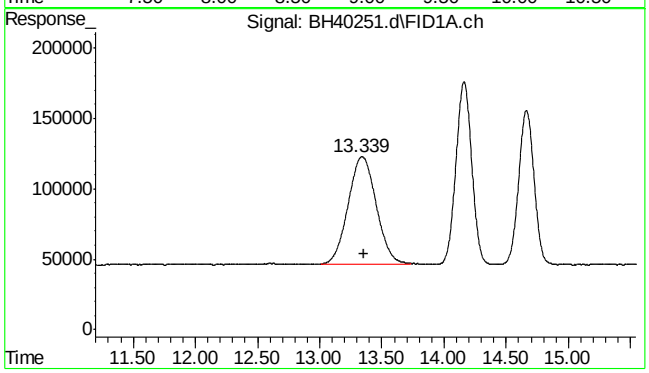
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 9796581
Conc: 10.33 ppb m



#3 mtbe

R.T.: 9.010 min
Delta R.T.: 0.002 min
Response: 6194618
Conc: 10.25 ppb m



#4 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 12194481
Conc: 11.11 ppb m

7.5.5

7

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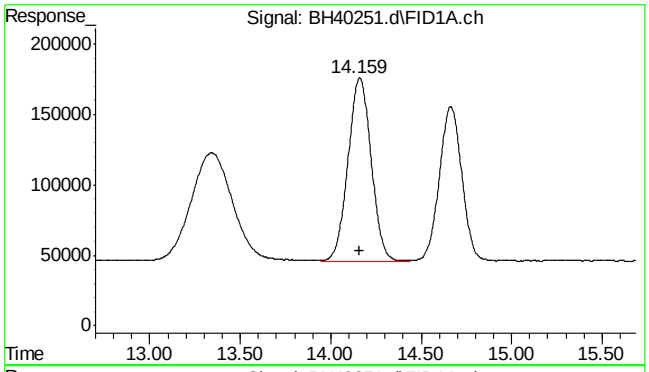
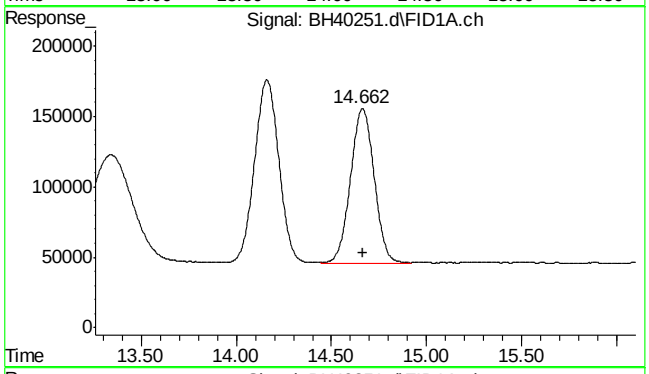


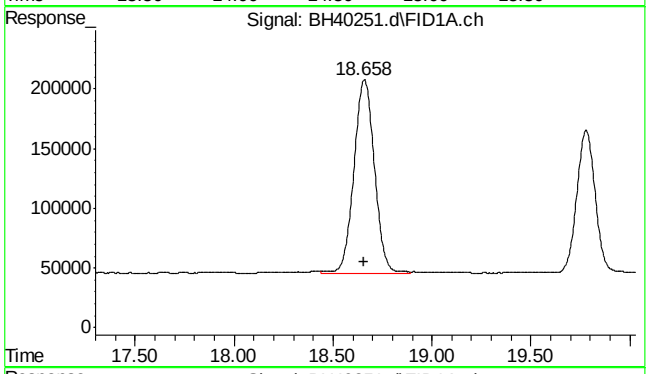
#5 benzene

R.T.: 14.160 min
Delta R.T.: 0.000 min
Response: 11704832
Conc: 9.93 ppb



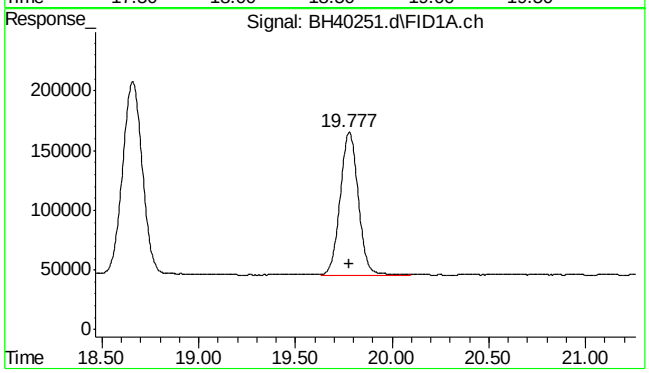
#6 fluorobenzene

R.T.: 14.664 min
Delta R.T.: 0.000 min
Response: 9616653
Conc: 10.14 ppb



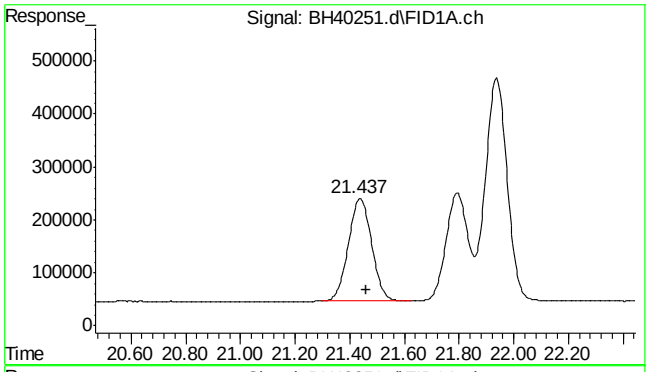
#8 toluene

R.T.: 18.659 min
Delta R.T.: 0.000 min
Response: 11727852
Conc: 10.02 ppb



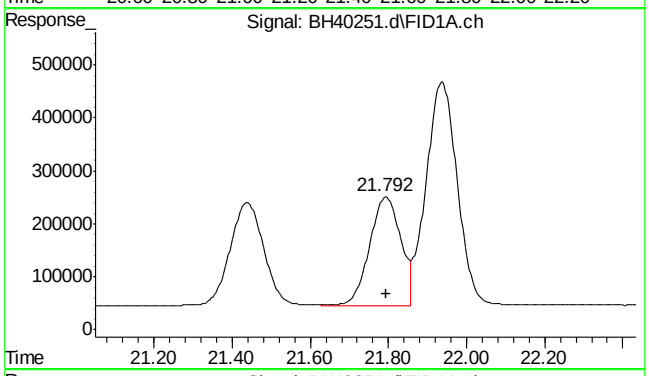
#9 2,3,4-trifluorotoluene

R.T.: 19.779 min
Delta R.T.: 0.000 min
Response: 7849309
Conc: 10.35 ppb



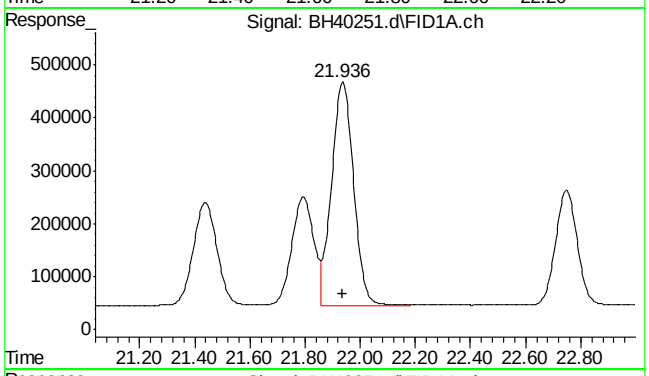
#11 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 11481817
Conc: 10.92 ppb m



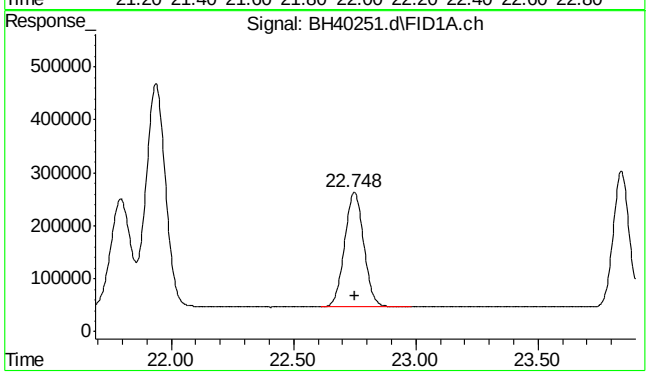
#13 ethylbenzene

R.T.: 21.794 min
Delta R.T.: 0.000 min
Response: 11376140
Conc: 9.89 ppb



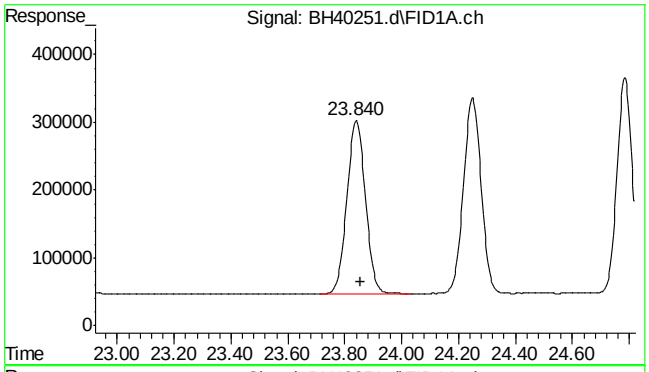
#14 m,p-xylene

R.T.: 21.937 min
Delta R.T.: 0.000 min
Response: 23605020
Conc: 19.65 ppb



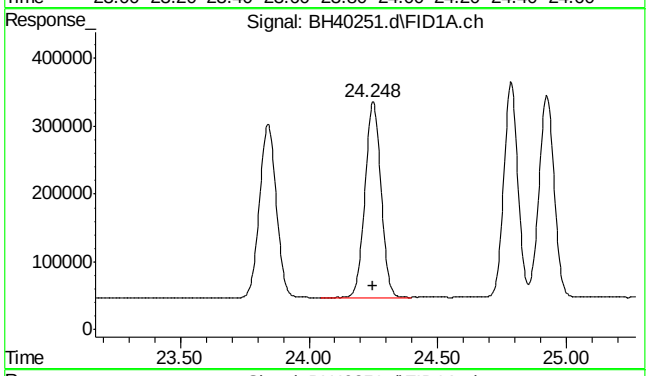
#15 o-xylene

R.T.: 22.748 min
Delta R.T.: -0.002 min
Response: 11939232
Conc: 9.82 ppb m



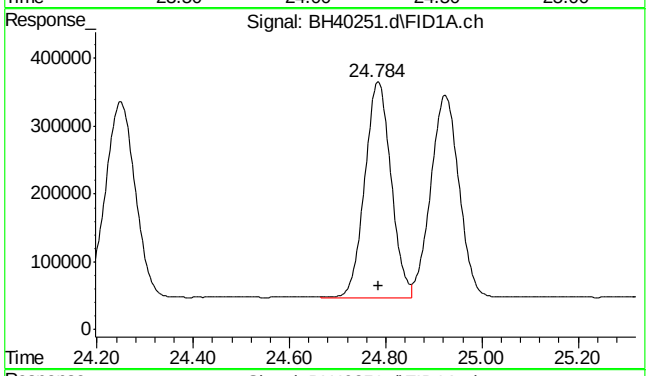
#16 decane

R.T.: 23.856 min
Delta R.T.: 0.000 min
Response: 11668530
Conc: 11.10 ppb m



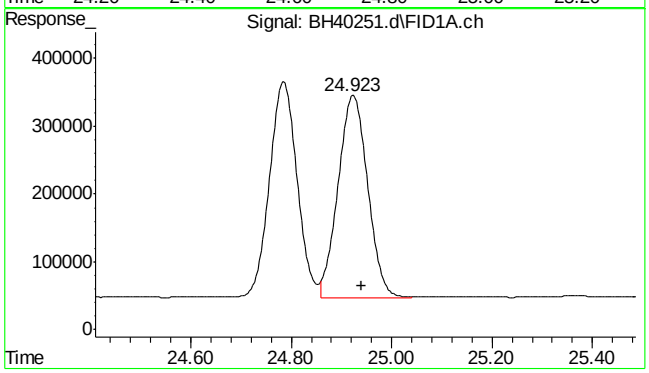
#17 1,3,5-trimethylbenzene

R.T.: 24.250 min
Delta R.T.: 0.000 min
Response: 12601173
Conc: 10.20 ppb



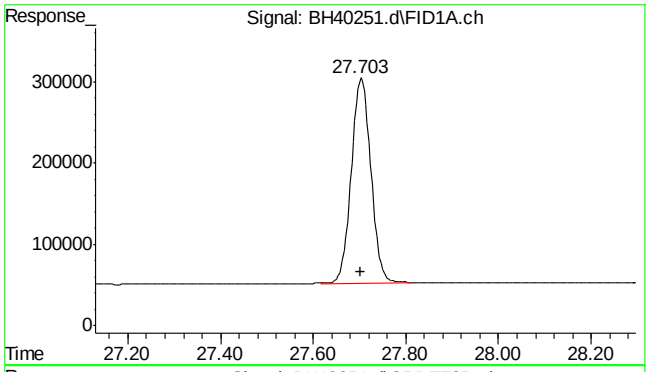
#18 1,2,4-trimethylbenzene

R.T.: 24.785 min
Delta R.T.: 0.000 min
Response: 12075847
Conc: 10.05 ppb



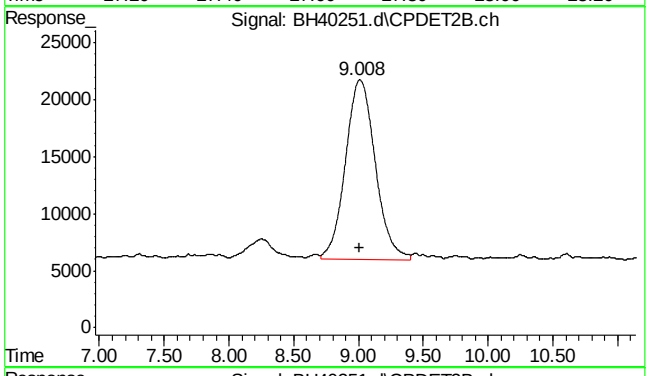
#19 butylcyclohexane

R.T.: 24.940 min
Delta R.T.: 0.000 min
Response: 12016589
Conc: 10.73 ppb



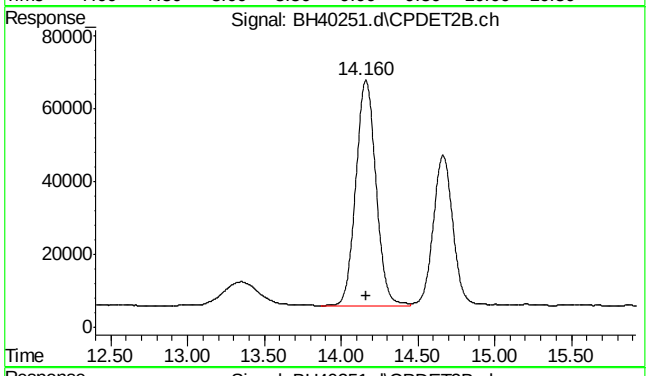
#20 naphthalene

R.T.: 27.703 min
Delta R.T.: 0.000 min
Response: 7421339
Conc: 10.90 ppb m



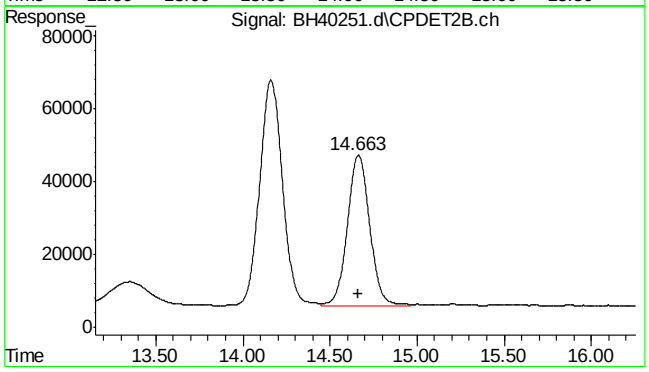
#23 mtbe #2

R.T.: 9.010 min
Delta R.T.: 0.000 min
Response: 2527837
Conc: 10.15 ppb



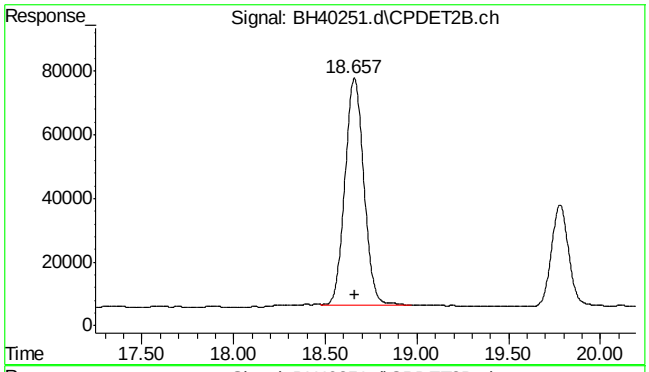
#24 benzene #2

R.T.: 14.161 min
Delta R.T.: 0.000 min
Response: 5716141
Conc: 10.22 ppb



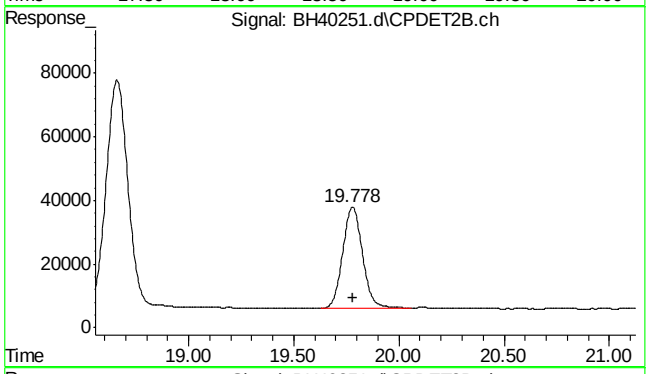
#25 fluorobenzene #2

R.T.: 14.663 min
Delta R.T.: -0.001 min
Response: 3706509
Conc: 10.28 ppb m



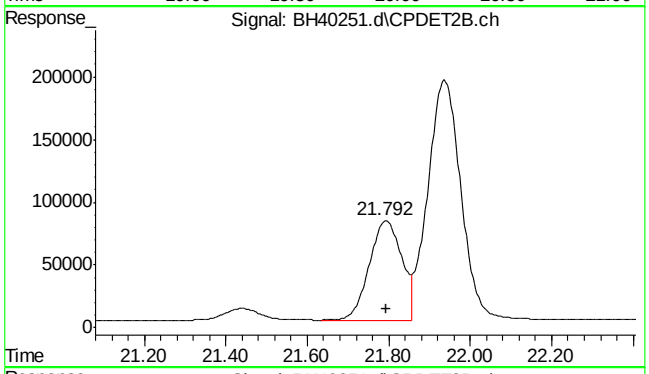
#26 toluene #2

R.T.: 18.657 min
Delta R.T.: -0.002 min
Response: 5148791
Conc: 10.00 ppb m



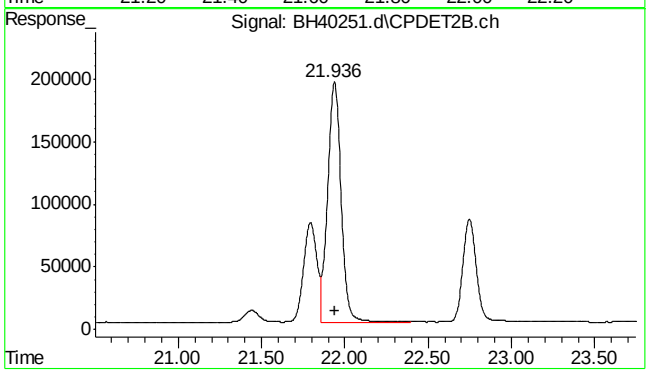
#27 2,3,4-trifluorotoluene #2

R.T.: 19.778 min
Delta R.T.: -0.001 min
Response: 2106019
Conc: 10.19 ppb m



#28 ethylbenzene #2

R.T.: 21.794 min
Delta R.T.: 0.000 min
Response: 4382450
Conc: 9.71 ppb



#29 m,p-xylene #2

R.T.: 21.937 min
Delta R.T.: 0.000 min
Response: 11030713
Conc: 19.98 ppb

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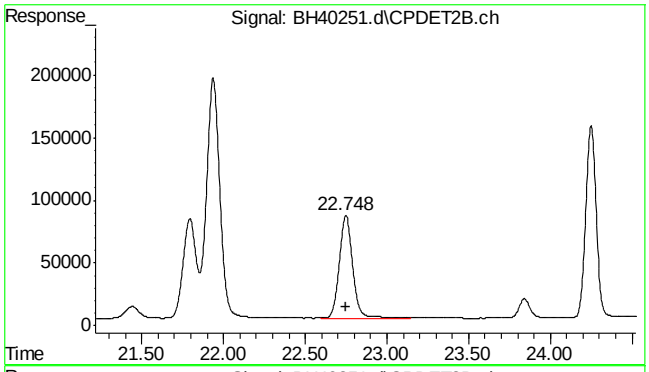
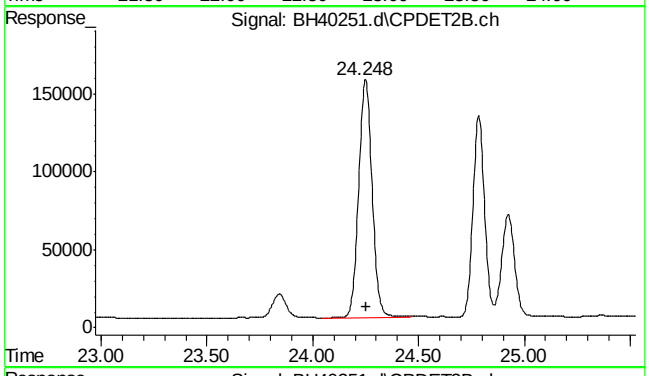


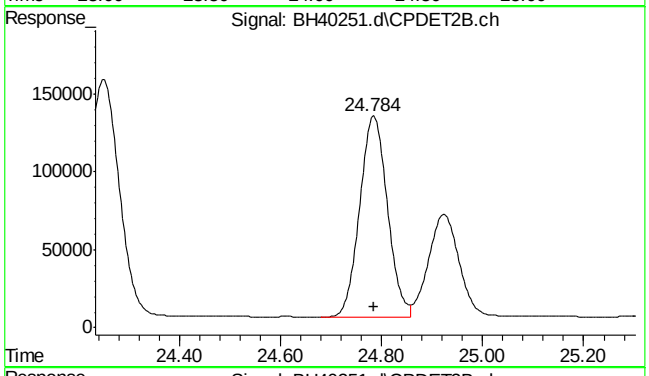
#30 o-xylene #2

R.T.: 22.749 min
Delta R.T.: 0.000 min
Response: 4704033
Conc: 9.79 ppb



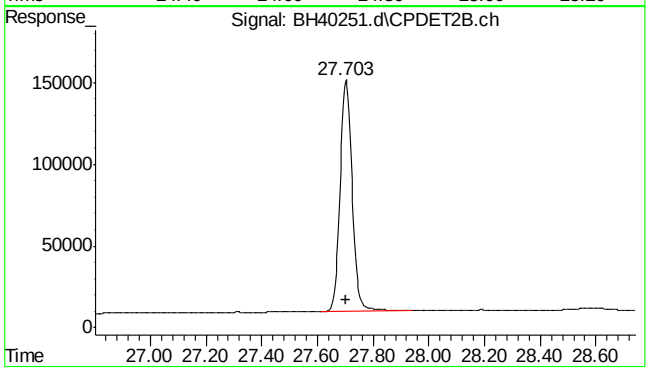
#31 1,3,5-trimethylbenzene #2

R.T.: 24.250 min
Delta R.T.: 0.000 min
Response: 6794189
Conc: 10.03 ppb



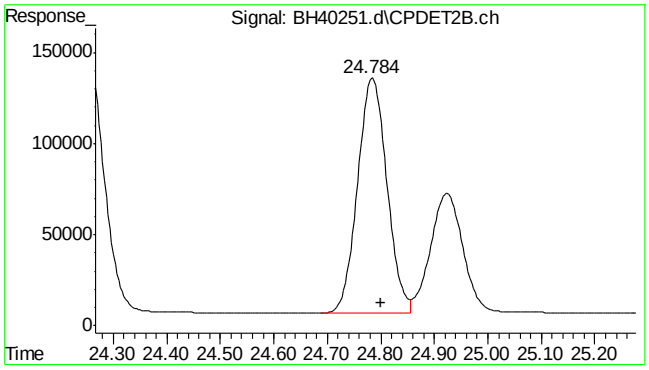
#32 1,2,4-trimethylbenzene #2

R.T.: 24.785 min
Delta R.T.: 0.000 min
Response: 4944168
Conc: 9.78 ppb



#33 naphthalene #2

R.T.: 27.703 min
Delta R.T.: 0.000 min
Response: 4273654
Conc: 10.87 ppb m



#34 c9-c10 arom as 1,2,4-tmb

R.T.:	24.800 min
Delta R.T.:	0.000 min
Response:	4924973
Conc:	9.76 ppb m

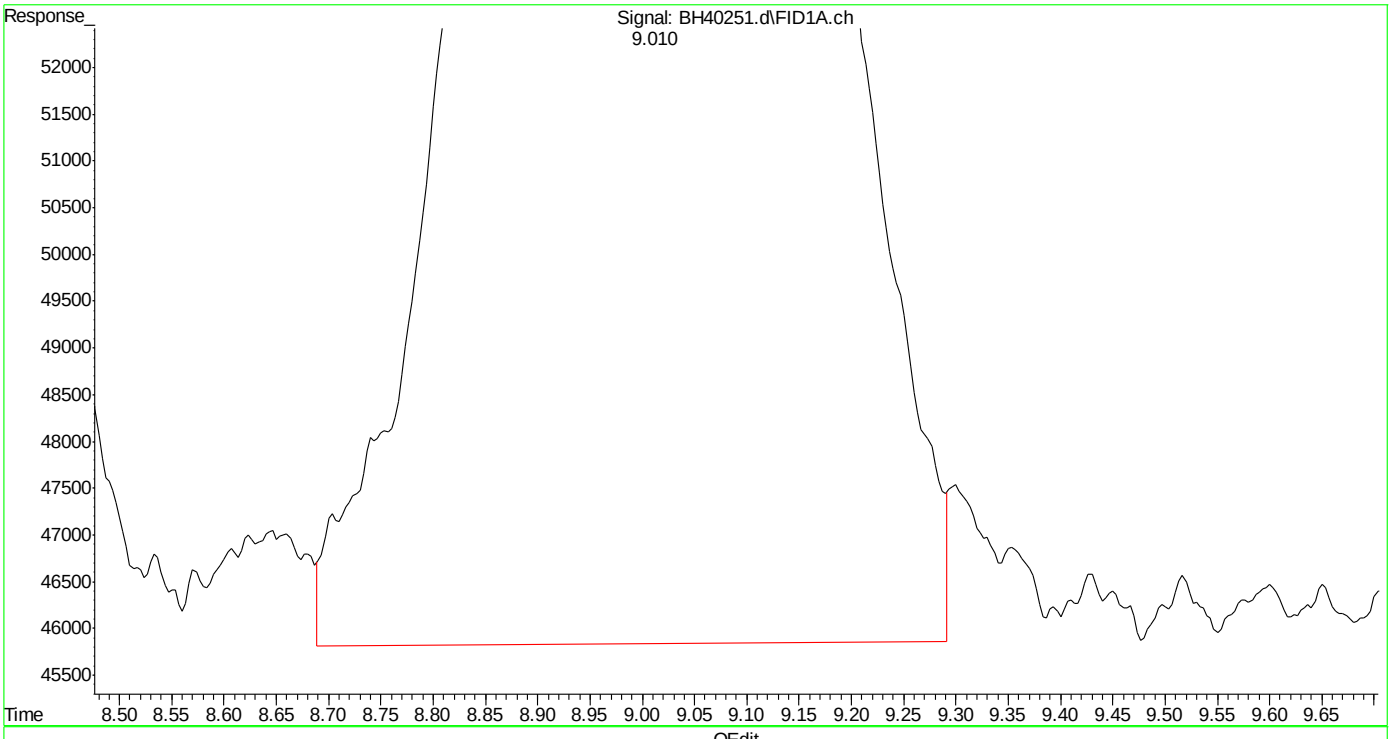
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40251.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:48 pm
Operator : tonyf
Sample : ic2394-10,gv16555
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:19:12 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:18:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(3) mtbe (t)
9.011min 10.477 ppb
response 6331810

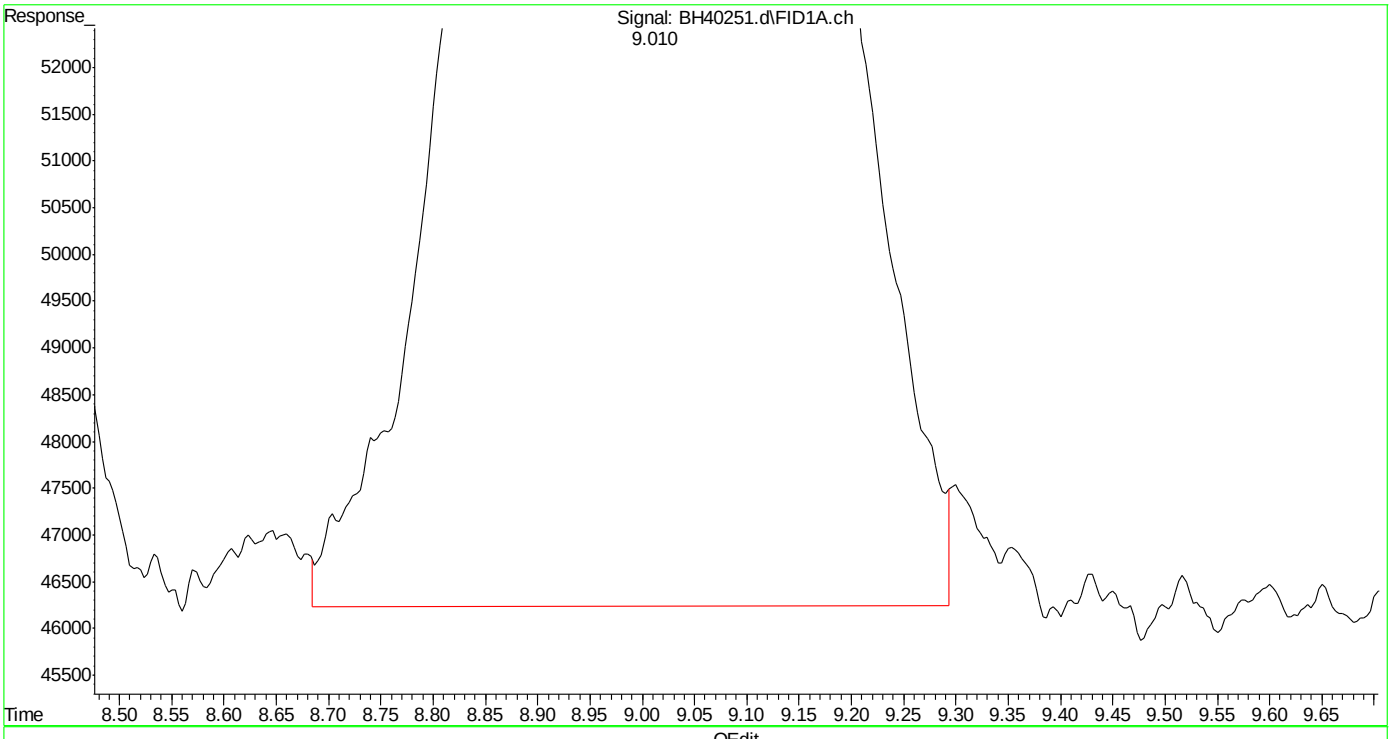
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:19:36 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40251.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:48 pm
Operator : tonyf
Sample : ic2394-10,gv16555
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:19:12 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:18:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(3) mtbe (t)
9.010min 10.250 ppb m
response 6194618

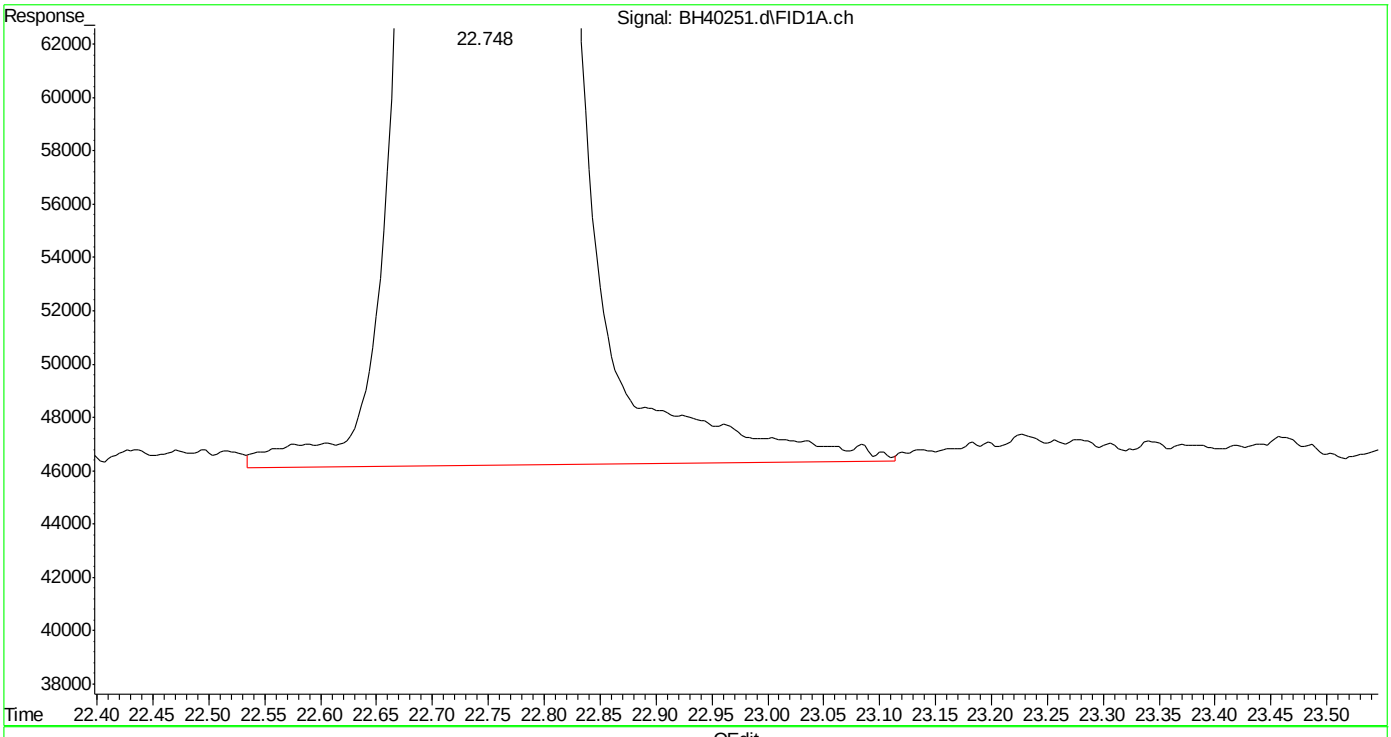
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:19:42 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40251.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:48 pm
Operator : tonyf
Sample : ic2394-10,gv16555
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:19:12 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:18:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(15) o-xylene (t)
22.749min 9.953 ppb
response 12094686

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:20:27 2016

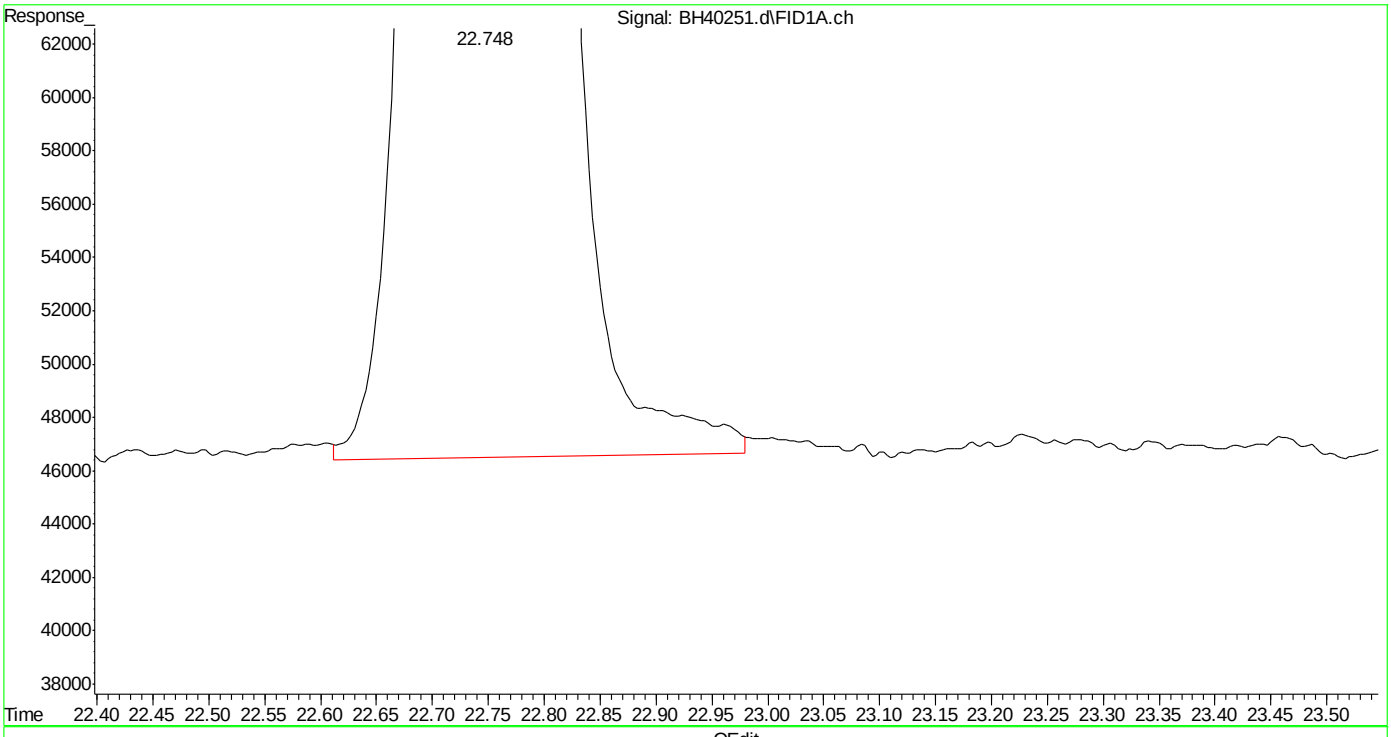
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40251.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:48 pm
Operator : tonyf
Sample : ic2394-10,gv16555
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:19:12 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:18:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(15) o-xylene (t)
22.748min 9.825 ppb m
response 11939232

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:20:33 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40251.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:48 pm
Operator : tonyf
Sample : ic2394-10,gv16555
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:19:12 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:18:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

(16) decane (h)
23.856min 11.138 ppb
response 11706884

(+) = Expected Retention Time

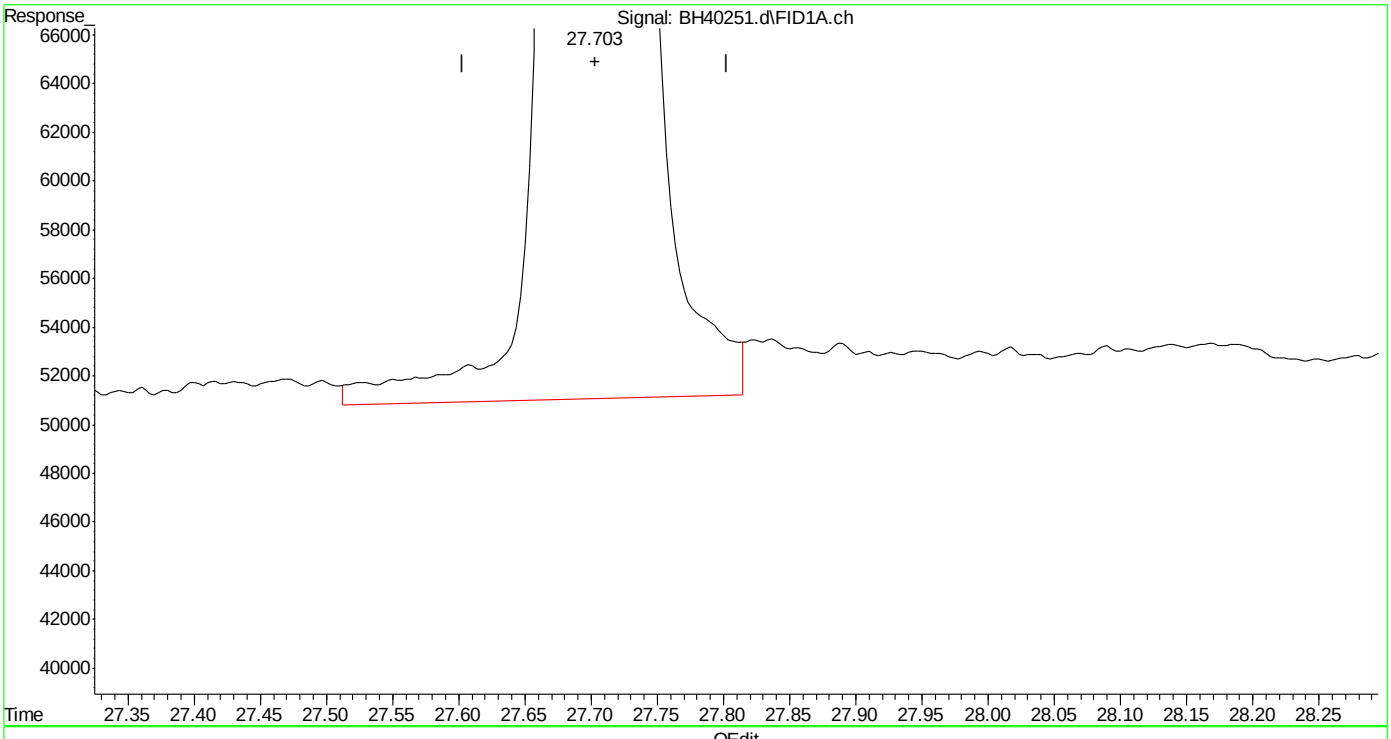
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40251.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:48 pm
Operator : tonyf
Sample : ic2394-10,gv16555
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:19:12 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:18:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(20) naphthalene (t)
27.705min 11.219 ppb
response 7641227

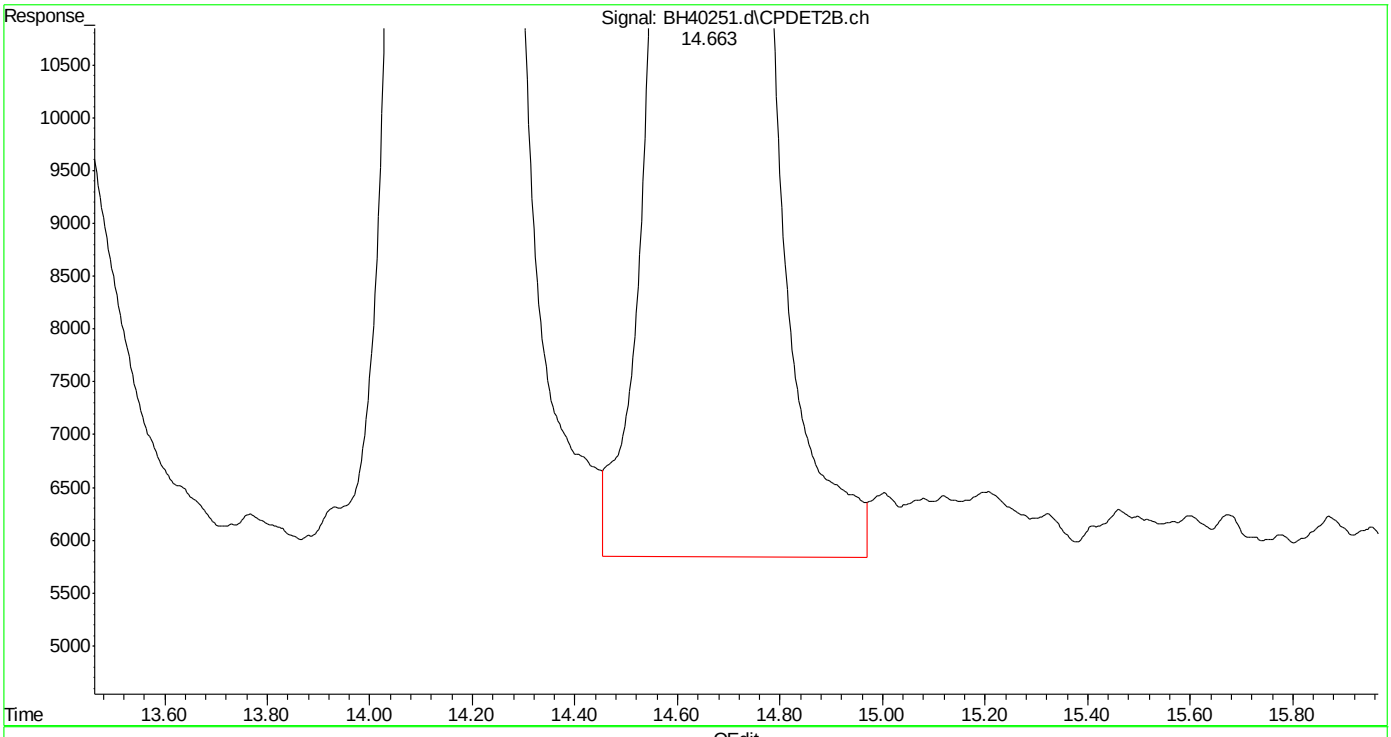
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:20:55 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40251.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:48 pm
Operator : tonyf
Sample : ic2394-10,gv16555
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:19:12 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:18:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(25) fluorobenzene #2 (s)
14.664min 10.378 ppb
response 3740663

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:21:09 2016

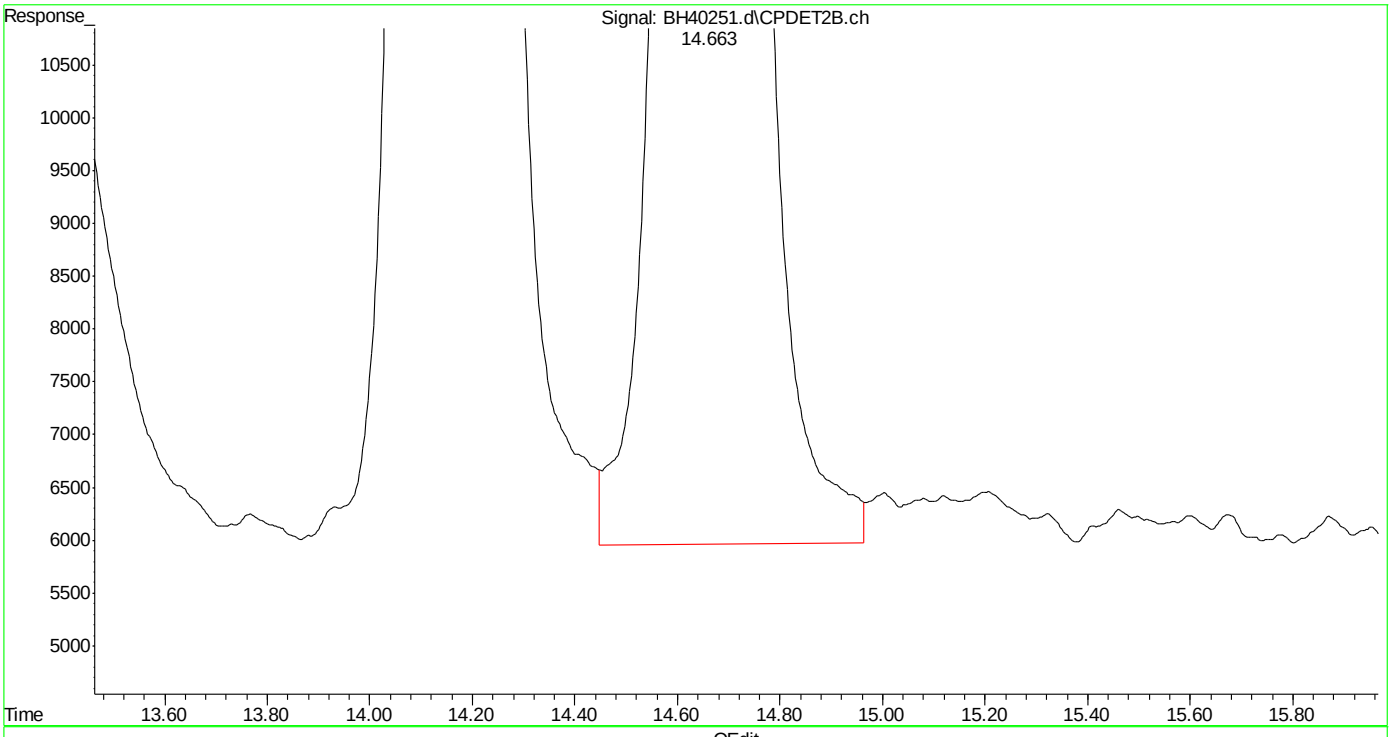
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40251.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:48 pm
Operator : tonyf
Sample : ic2394-10,gv16555
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:19:12 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:18:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(25) fluorobenzene #2 (s)
14.663min 10.283 ppb m
response 3706509

(+) = Expected Retention Time

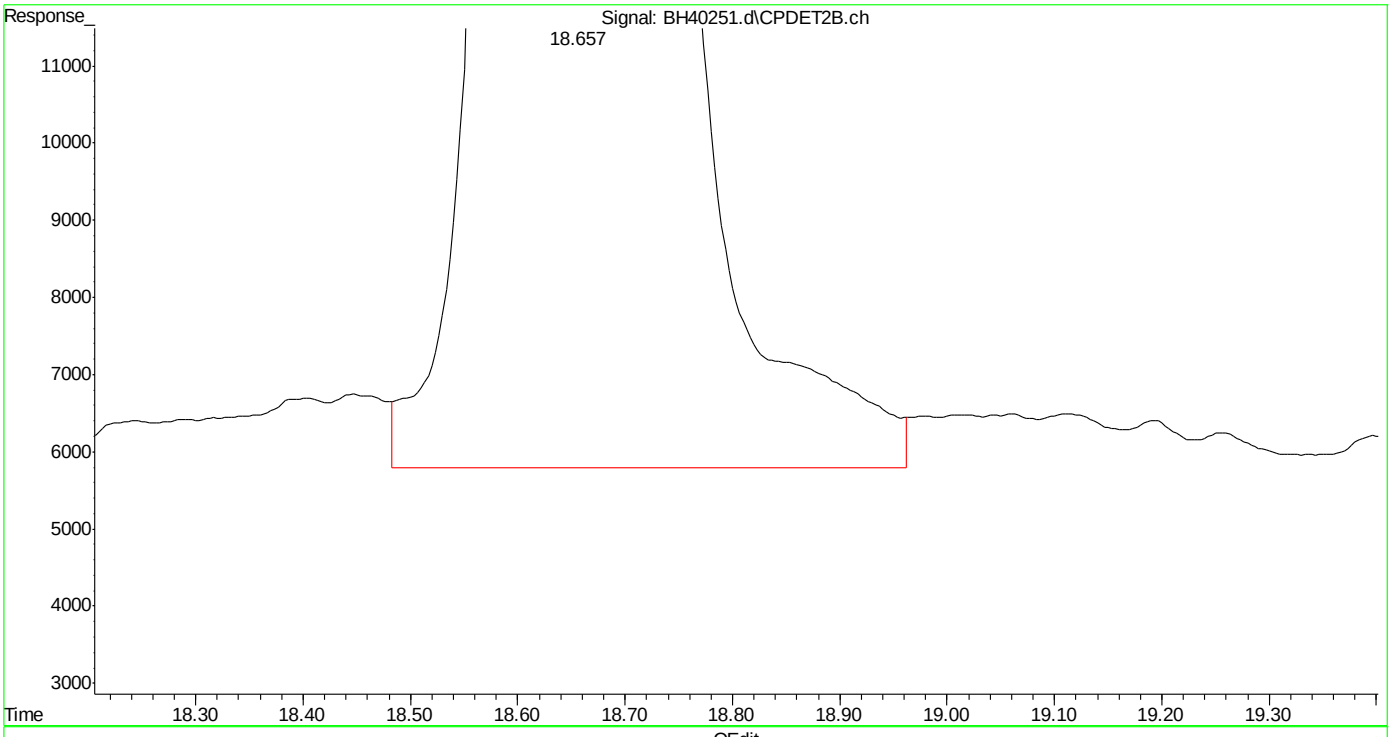
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40251.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:48 pm
Operator : tonyf
Sample : ic2394-10,gv16555
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:19:12 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:18:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(26) toluene #2 (t)
18.659min 10.340 ppb
response 5321281

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:21:20 2016

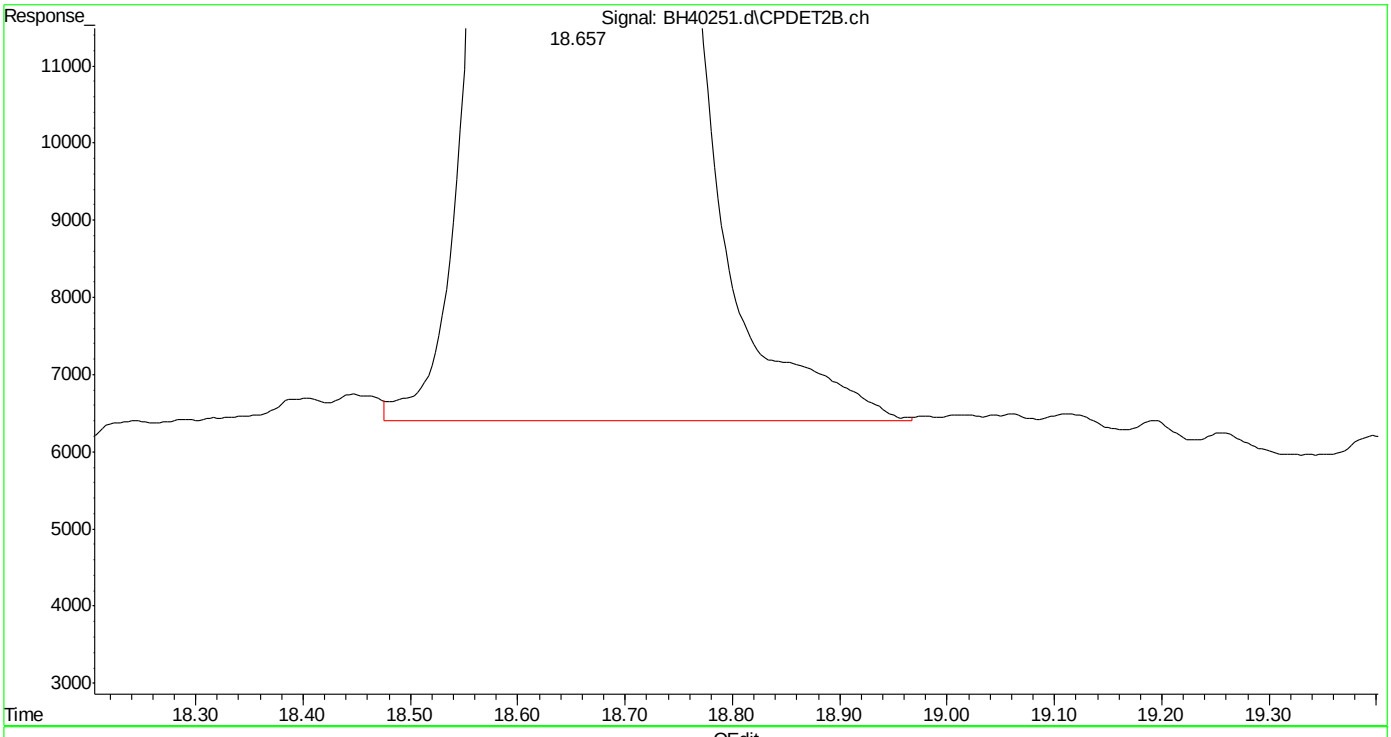
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40251.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:48 pm
Operator : tonyf
Sample : ic2394-10,gv16555
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:19:12 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:18:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(26) toluene #2 (t)
18.657min 10.005 ppb m
response 5148791

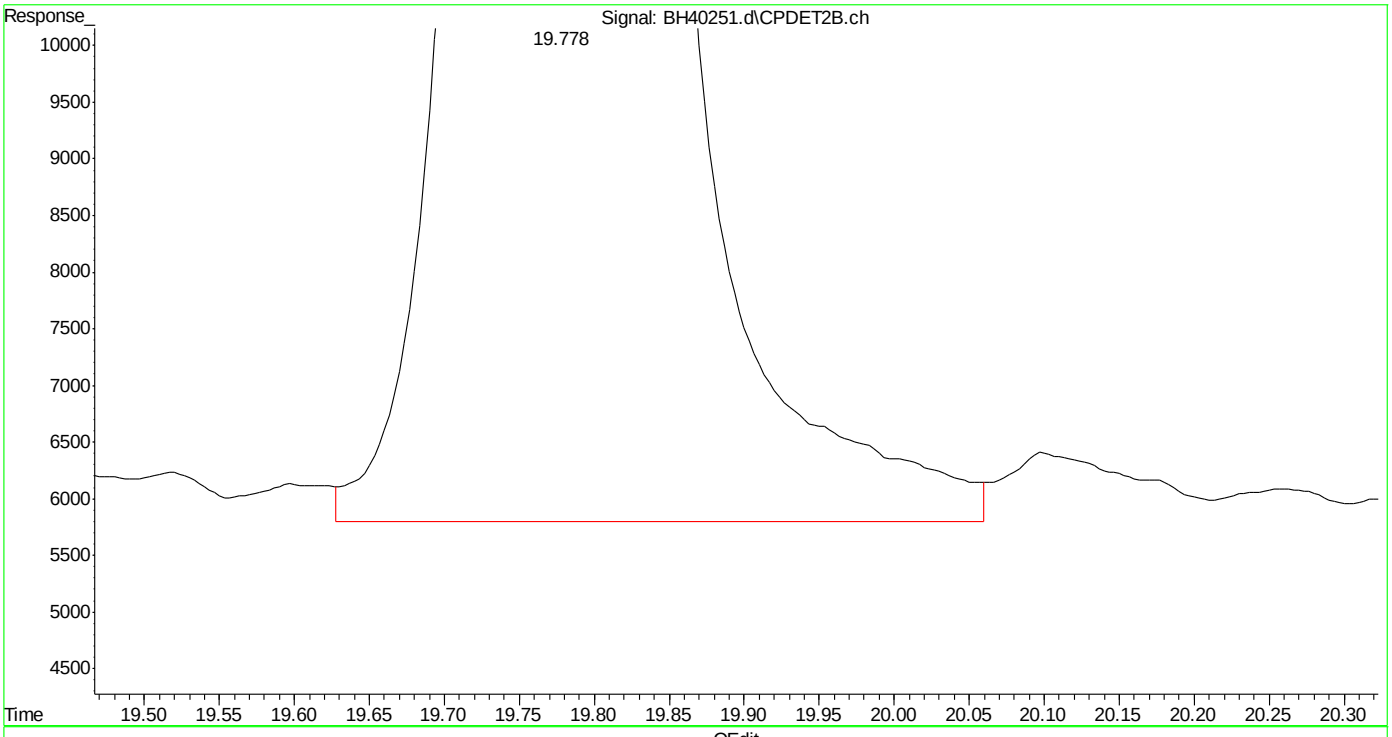
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:21:28 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40251.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:48 pm
Operator : tonyf
Sample : ic2394-10,gv16555
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:19:12 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:18:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(27) 2,3,4-trifluorotoluene #2 (s)
19.780min 10.503 ppb
response 2170321

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:21:34 2016

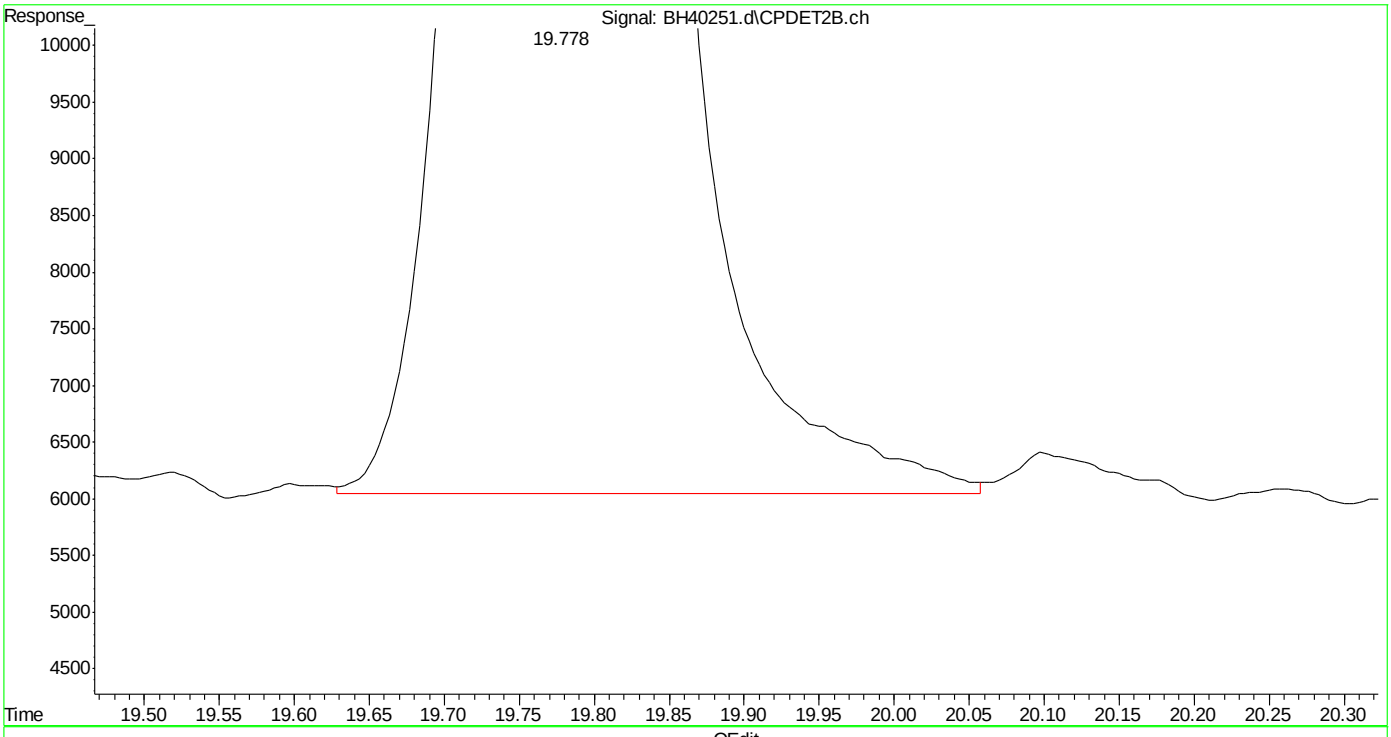
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40251.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:48 pm
Operator : tonyf
Sample : ic2394-10,gv16555
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:19:12 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:18:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(27) 2,3,4-trifluorotoluene #2 (s)
19.778min 10.192 ppb m
response 2106019

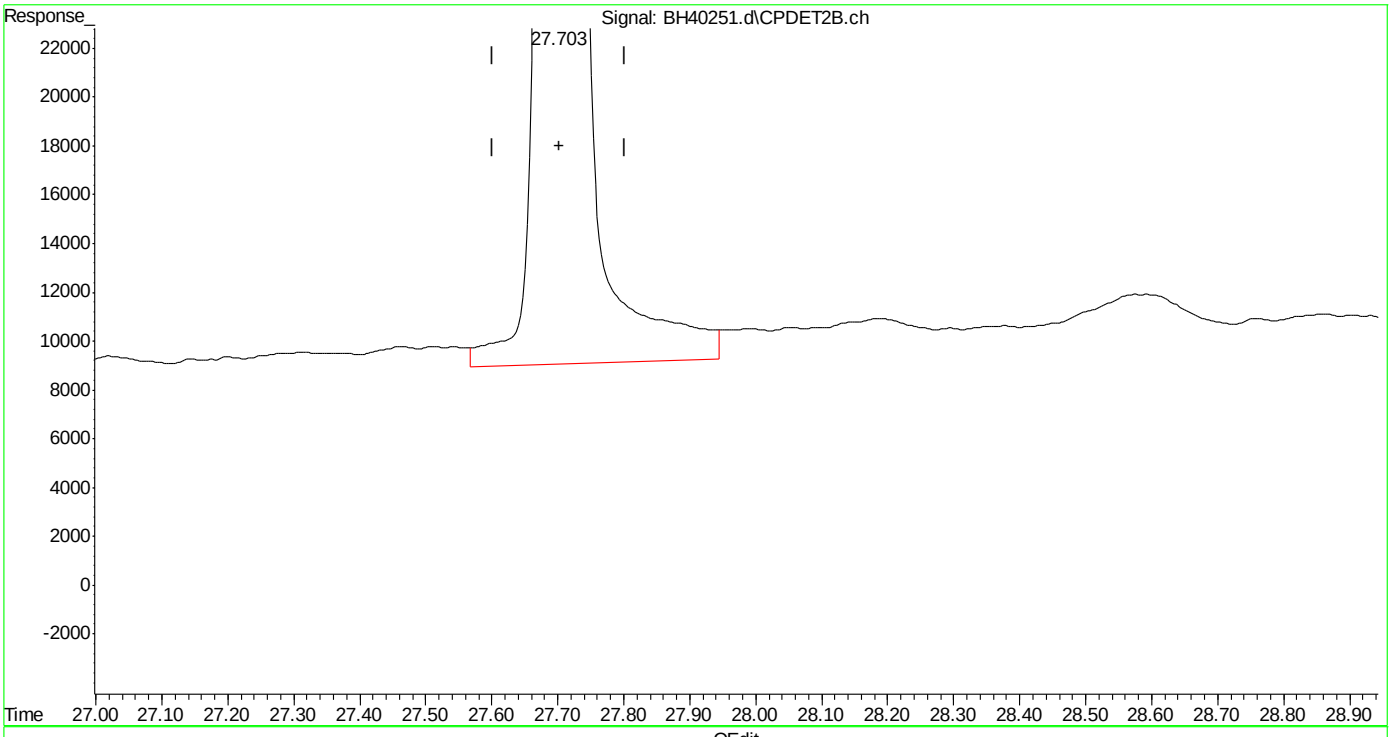
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:21:39 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40251.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:48 pm
Operator : tonyf
Sample : ic2394-10,gv16555
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:19:12 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:18:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(33) naphthalene #2 (t)
27.704min 11.444 ppb
response 4498988

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 15:21:47 2016

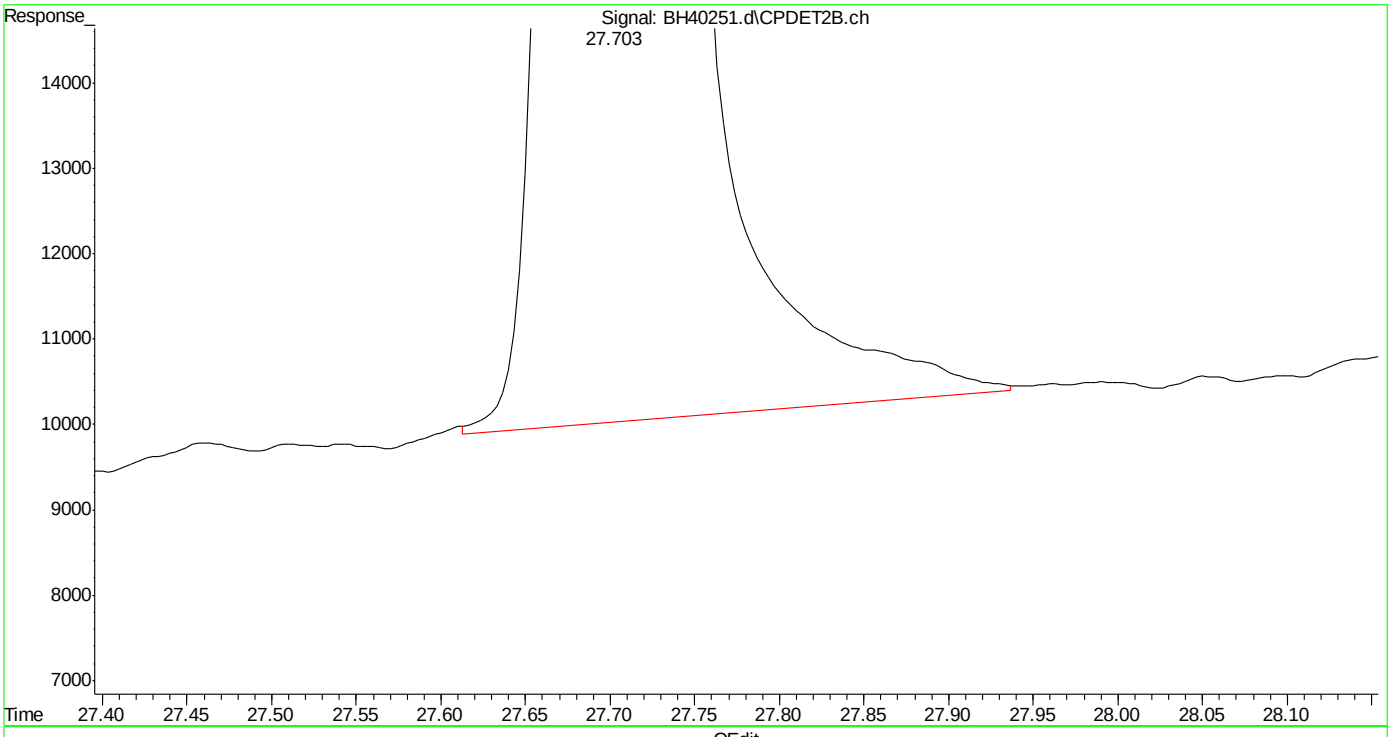
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40251.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 2:48 pm
Operator : tonyf
Sample : ic2394-10,gv16555
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 5 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 15:19:12 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:18:22 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(33) naphthalene #2 (t)
27.703min 10.871 ppb m
response 4273654

(+) = Expected Retention Time

SGS ACCUTEST MC48999

Manual Integrations APPROVED (compounds with "m" flag)
Andri Piluri
11/02/16 12:49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:28:50 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds				
6) s fluorobenzene	14.661	1961787	2.061 ppb	m
Spiked Amount 50.000		Recovery =	4.12%	
9) s 2,3,4-trifluorotoluene	19.778	1719310	2.248 ppb	m
Spiked Amount 50.000		Recovery =	4.50%	
25) s fluorobenzene #2	14.663	725186	1.998 ppb	m
Spiked Amount 50.000		Recovery =	4.00%	
27) s 2,3,4-trifluorotoluen...	19.779	444637	2.141 ppb	m
Spiked Amount 50.000		Recovery =	4.28%	
Target Compounds				
1) h rt5.5-7	5.980	2003374	2.310 ppb	m
2) h rt7/10	8.250	2314343	2.420 ppb	m
3) t mtbe	9.002	1264881	2.080 ppb	m
4) h rt10/13	13.360	3161232	2.802 ppb	m
5) t benzene	14.157	2459937	2.090 ppb	m
8) t toluene	18.658	2372614	2.026 ppb	m
11) h rt20/25	21.460	2651043	2.464 ppb	m
13) t ethylbenzene	21.792	2410247	2.101 ppb	m
14) t m,p-xylene	21.936	5011929	4.190 ppb	m
15) t o-xylene	22.749	2482783	2.052 ppb	m
16) h decane	23.856	2754674	2.551 ppb	m
17) t 1,3,5-trimethylbenzene	24.249	2775575	2.235 ppb	m
18) t 1,2,4-trimethylbenzene	24.785	2671437	2.221 ppb	m
19) h butylcyclohexane	24.940	2864712	2.512 ppb	m
20) t naphthalene	27.706	1574613	2.261 ppb	m
23) t mtbe #2	9.005	502877	2.012 ppb	m
24) t benzene #2	14.161	1132048	2.013 ppb	m
26) t toluene #2	18.657	1031417	2.004 ppb	m
28) t ethylbenzene #2	21.795	916781	2.045 ppb	
29) t m,p-xylene #2	21.937	2322423	4.208 ppb	m
30) t o-xylene #2	22.749	983365	2.058 ppb	m
31) t 1,3,5-trimethylbenzen...	24.249	1477524	2.180 ppb	m
32) t 1,2,4-trimethylbenzen...	24.785	1084175	2.156 ppb	m
33) t naphthalene #2	27.706	903191	2.249 ppb	m
34) h c9-c10 arom as 1,2,4-tmb	24.800	1094860	2.183 ppb	m

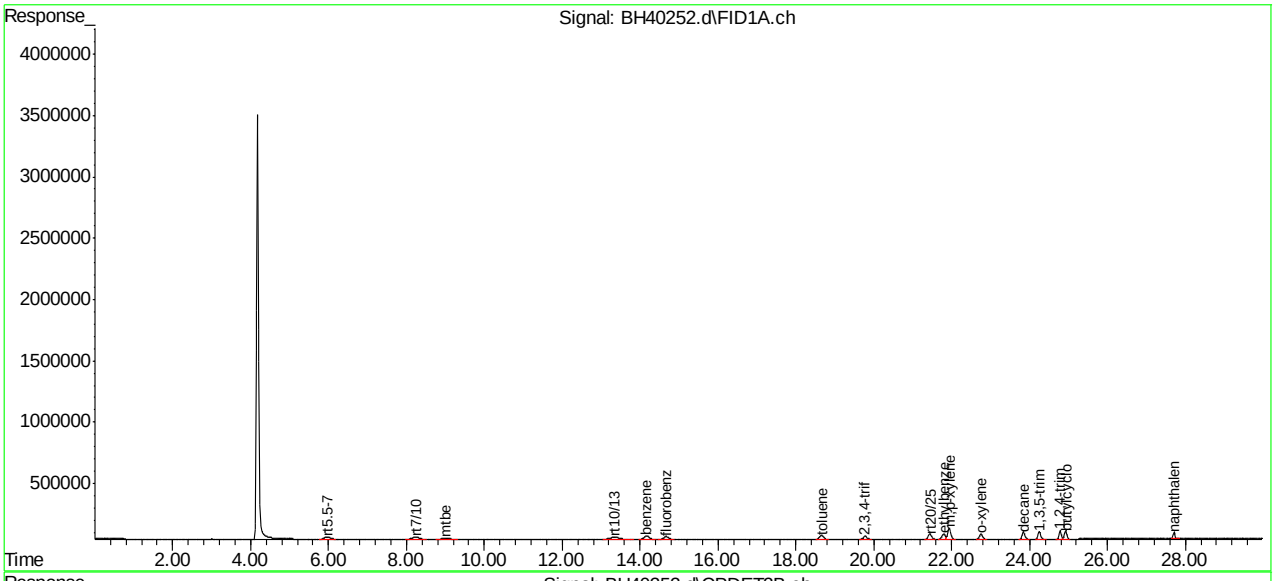
(f)=RT Delta > 1/2 Window (m)=manual int.

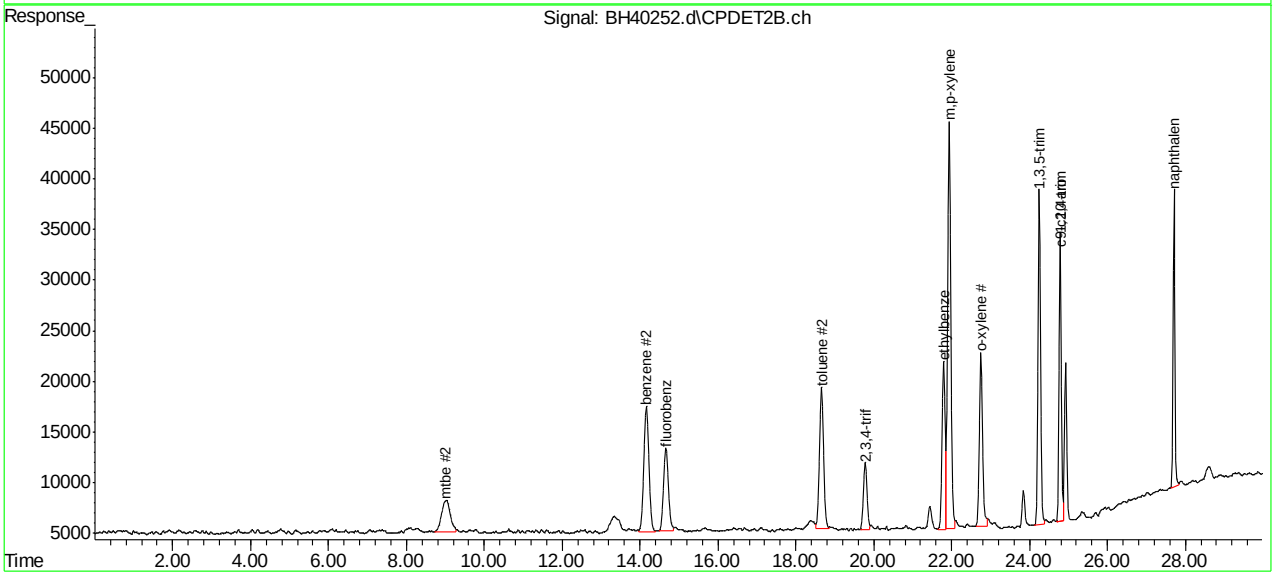
Quantitation Report (QT Reviewed)

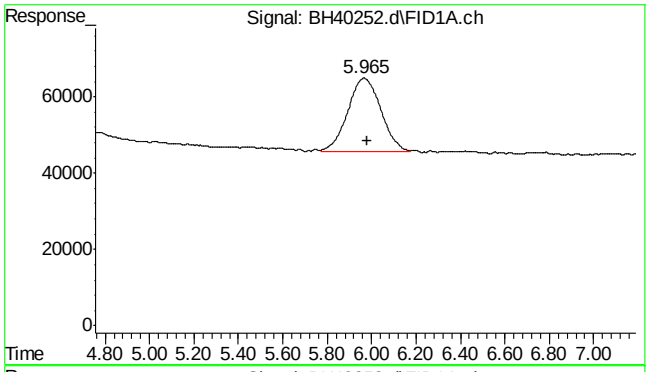
Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:28:50 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

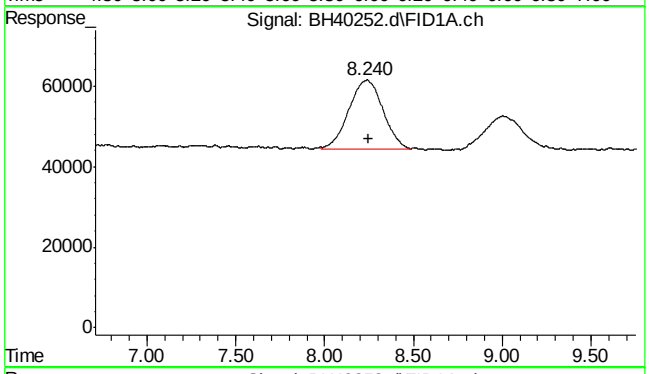






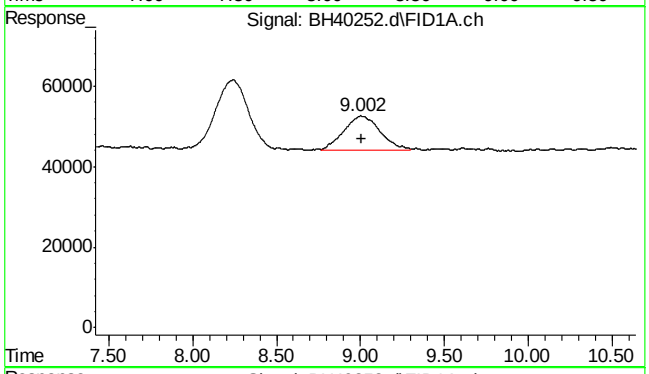
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 2003374
Conc: 2.31 ppb m



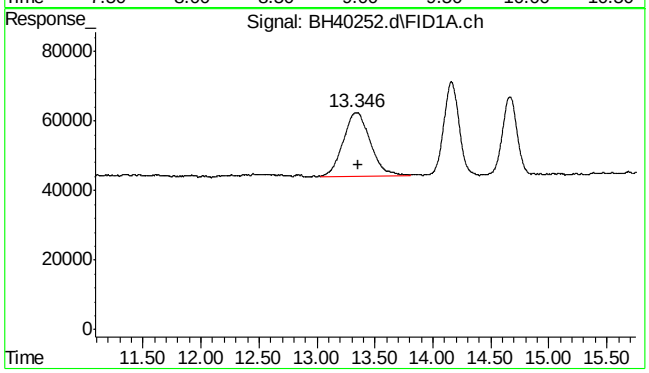
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 2314343
Conc: 2.42 ppb m



#3 mtbe

R.T.: 9.002 min
Delta R.T.: -0.006 min
Response: 1264881
Conc: 2.08 ppb m



#4 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 3161232
Conc: 2.80 ppb m

7.5.6

7

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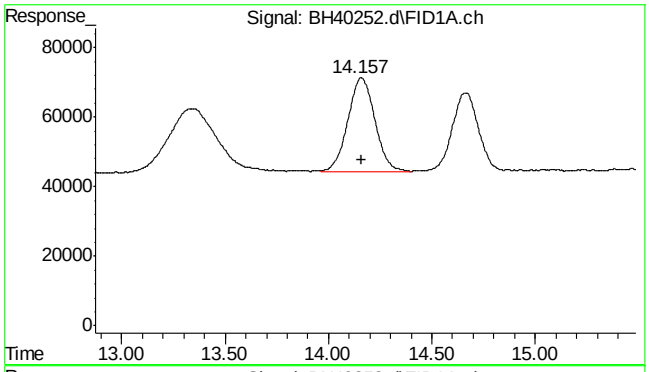
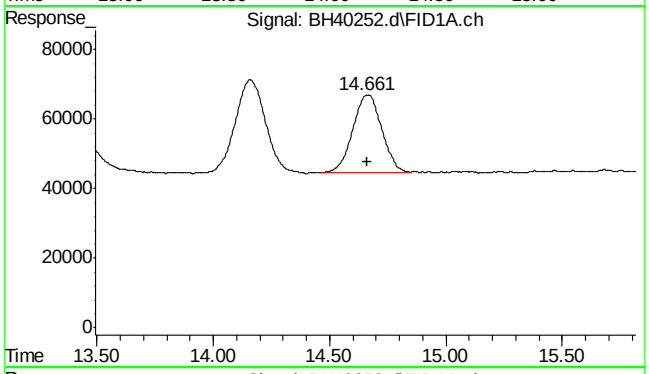


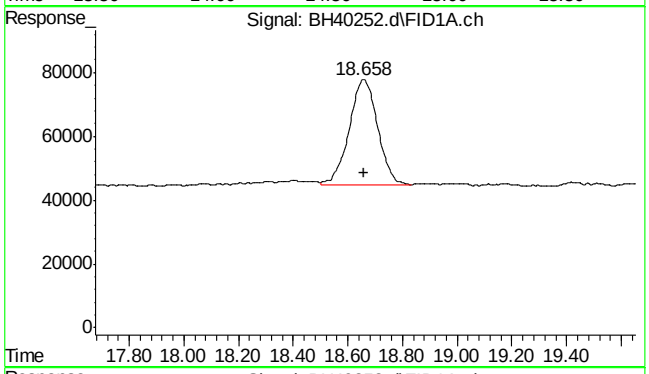
#5 benzene

R.T.: 14.157 min
Delta R.T.: -0.004 min
Response: 2459937
Conc: 2.09 ppb m



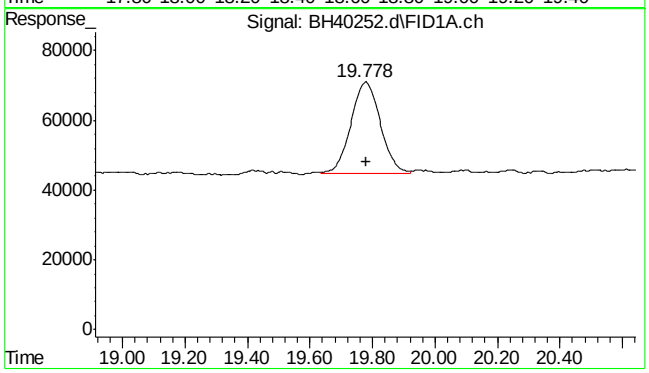
#6 fluorobenzene

R.T.: 14.661 min
Delta R.T.: -0.003 min
Response: 1961787
Conc: 2.06 ppb m



#8 toluene

R.T.: 18.658 min
Delta R.T.: -0.001 min
Response: 2372614
Conc: 2.03 ppb m



#9 2,3,4-trifluorotoluene

R.T.: 19.778 min
Delta R.T.: -0.001 min
Response: 1719310
Conc: 2.25 ppb m

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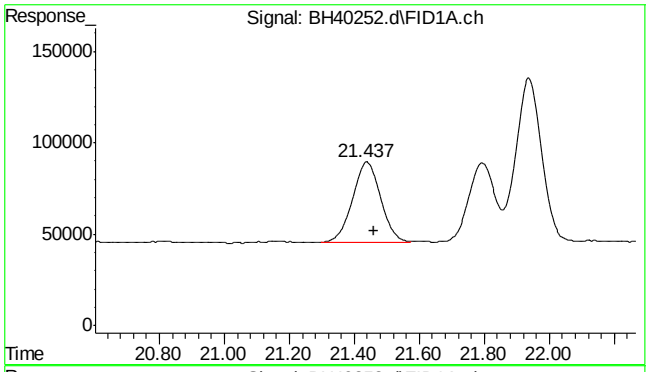
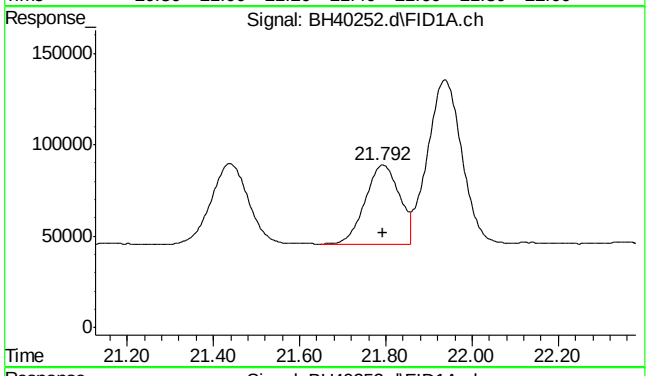


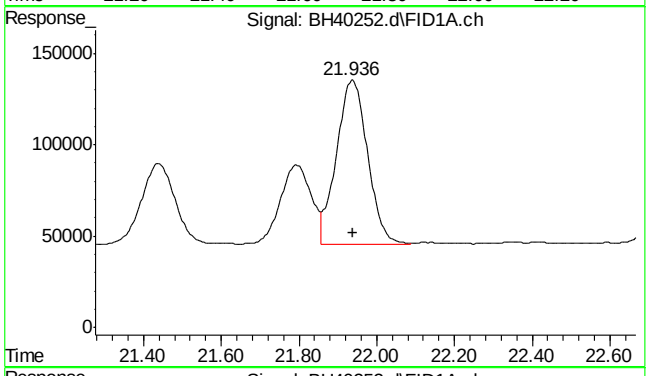
#11 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 2651043
Conc: 2.46 ppb m



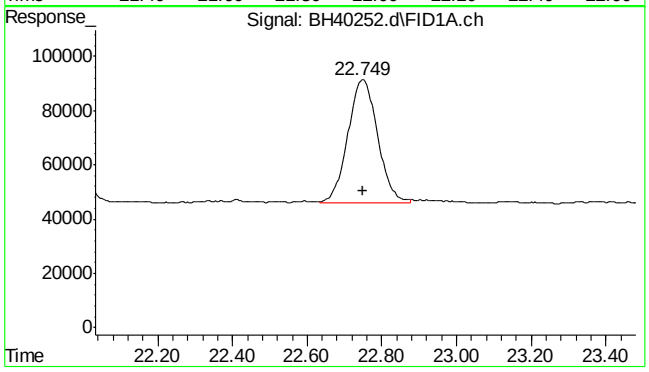
#13 ethylbenzene

R.T.: 21.792 min
Delta R.T.: -0.002 min
Response: 2410247
Conc: 2.10 ppb m



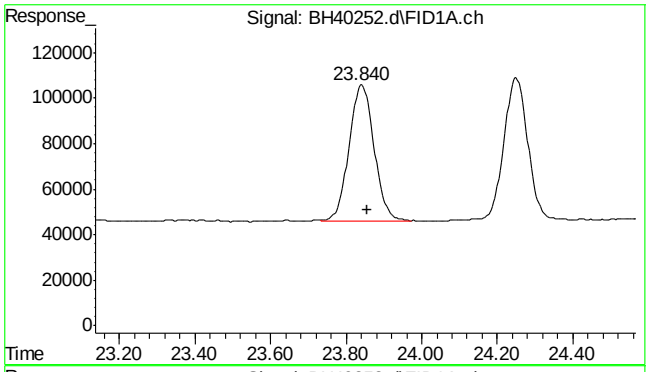
#14 m,p-xylene

R.T.: 21.936 min
Delta R.T.: -0.002 min
Response: 5011929
Conc: 4.19 ppb m



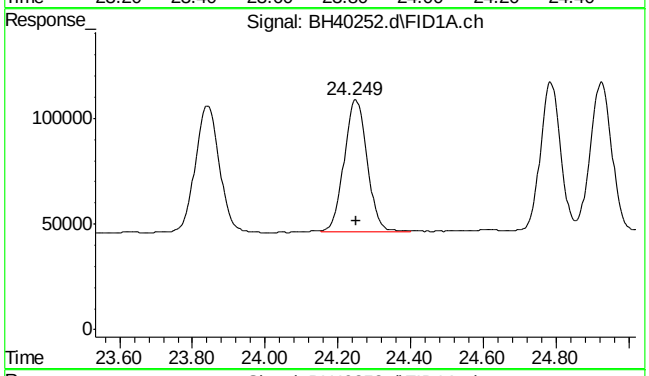
#15 o-xylene

R.T.: 22.749 min
Delta R.T.: -0.001 min
Response: 2482783
Conc: 2.05 ppb m



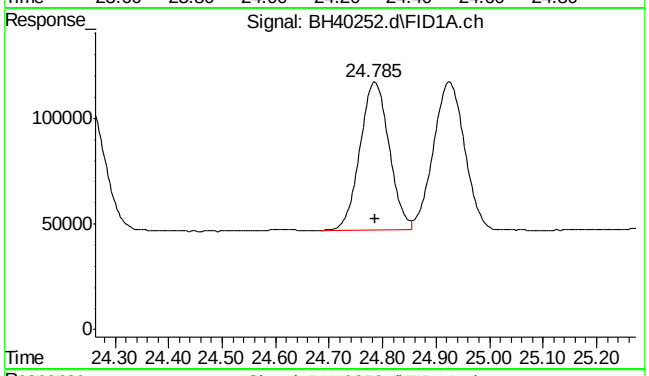
#16 decane

R.T.: 23.856 min
Delta R.T.: 0.000 min
Response: 2754674
Conc: 2.55 ppb m



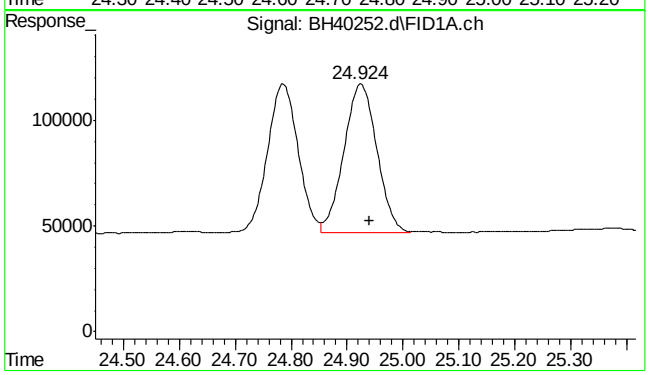
#17 1,3,5-trimethylbenzene

R.T.: 24.249 min
Delta R.T.: -0.001 min
Response: 2775575
Conc: 2.23 ppb m



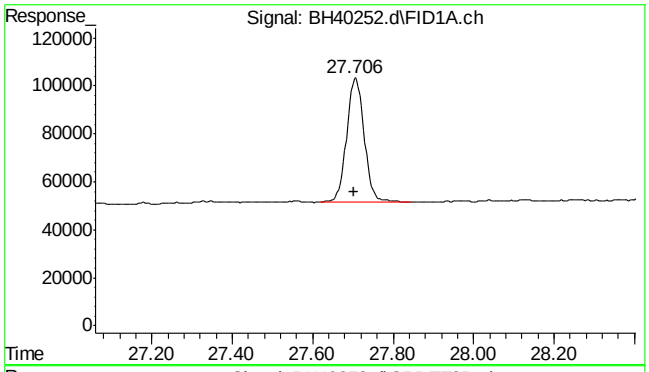
#18 1,2,4-trimethylbenzene

R.T.: 24.785 min
Delta R.T.: -0.001 min
Response: 2671437
Conc: 2.22 ppb m



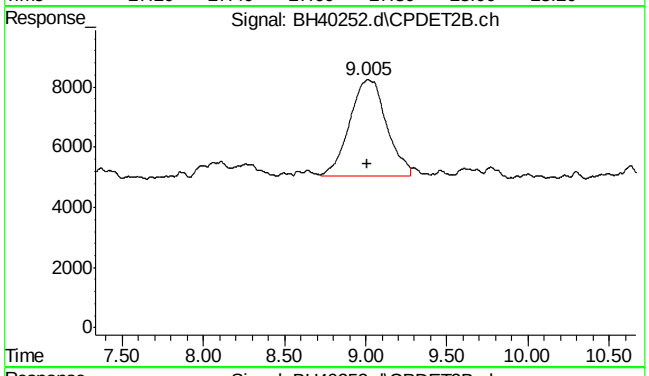
#19 butylcyclohexane

R.T.: 24.940 min
Delta R.T.: 0.000 min
Response: 2864712
Conc: 2.51 ppb m



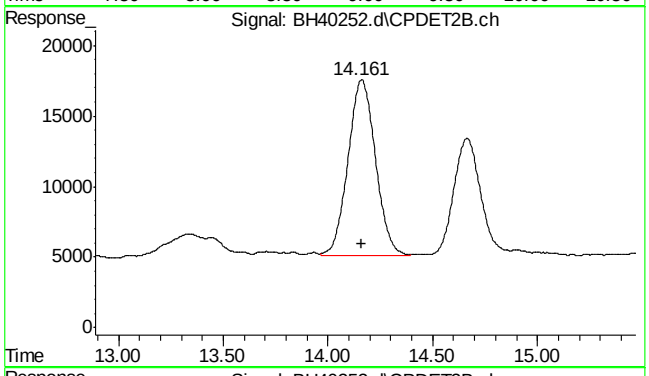
#20 naphthalene

R.T.: 27.706 min
Delta R.T.: 0.003 min
Response: 1574613
Conc: 2.26 ppb m



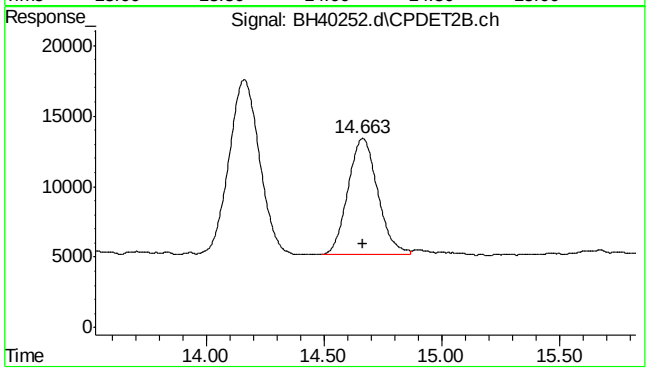
#23 mtbe #2

R.T.: 9.005 min
Delta R.T.: -0.005 min
Response: 502877
Conc: 2.01 ppb m



#24 benzene #2

R.T.: 14.161 min
Delta R.T.: 0.000 min
Response: 1132048
Conc: 2.01 ppb m



#25 fluorobenzene #2

R.T.: 14.663 min
Delta R.T.: 0.000 min
Response: 725186
Conc: 2.00 ppb m

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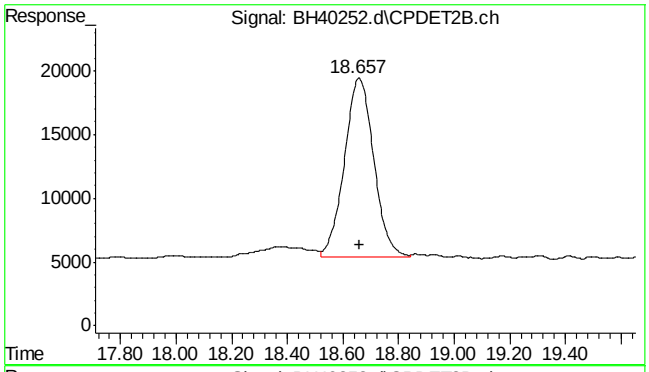
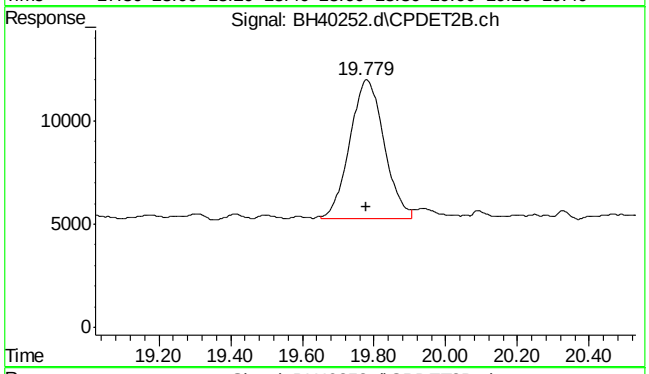


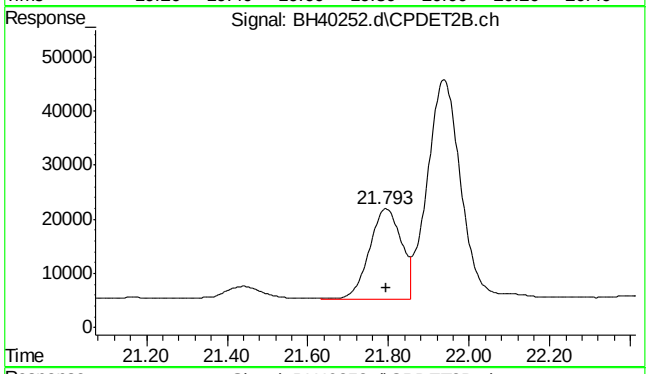
#26 toluene #2

R.T.: 18.657 min
Delta R.T.: -0.002 min
Response: 1031417
Conc: 2.00 ppb m



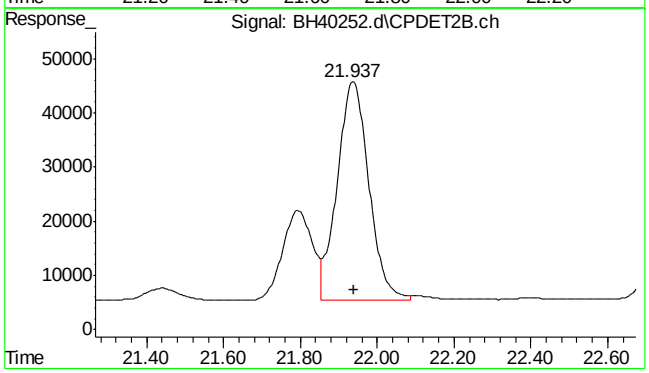
#27 2,3,4-trifluorotoluene #2

R.T.: 19.779 min
Delta R.T.: 0.000 min
Response: 444637
Conc: 2.14 ppb m



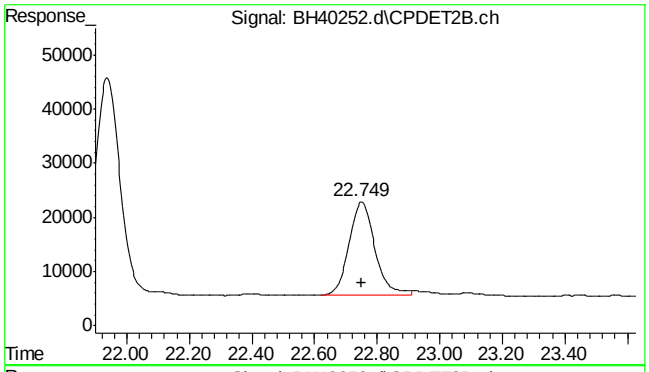
#28 ethylbenzene #2

R.T.: 21.795 min
Delta R.T.: 0.000 min
Response: 916781
Conc: 2.05 ppb



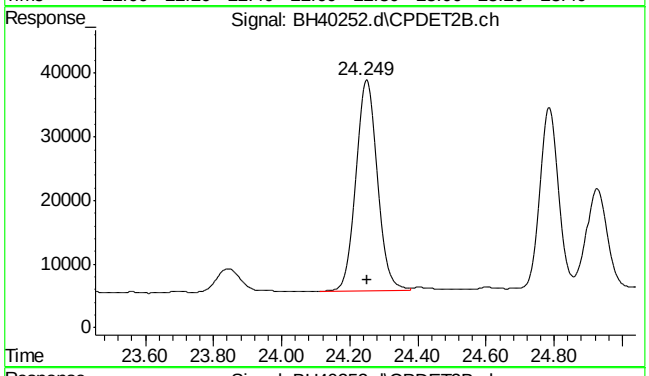
#29 m,p-xylene #2

R.T.: 21.937 min
Delta R.T.: -0.001 min
Response: 2322423
Conc: 4.21 ppb m



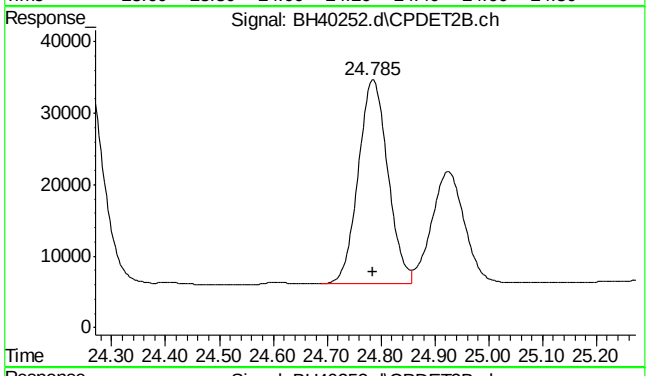
#30 o-xylene #2

R.T.: 22.749 min
Delta R.T.: 0.000 min
Response: 983365
Conc: 2.06 ppb m



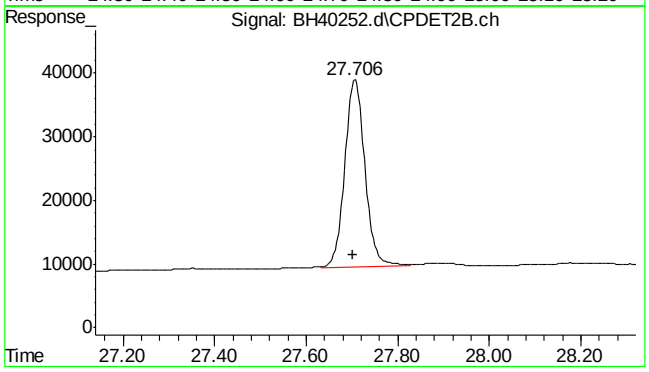
#31 1,3,5-trimethylbenzene #2

R.T.: 24.249 min
Delta R.T.: 0.000 min
Response: 1477524
Conc: 2.18 ppb m



#32 1,2,4-trimethylbenzene #2

R.T.: 24.785 min
Delta R.T.: 0.000 min
Response: 1084175
Conc: 2.16 ppb m



#33 naphthalene #2

R.T.: 27.706 min
Delta R.T.: 0.004 min
Response: 903191
Conc: 2.25 ppb m

7.5.6

7

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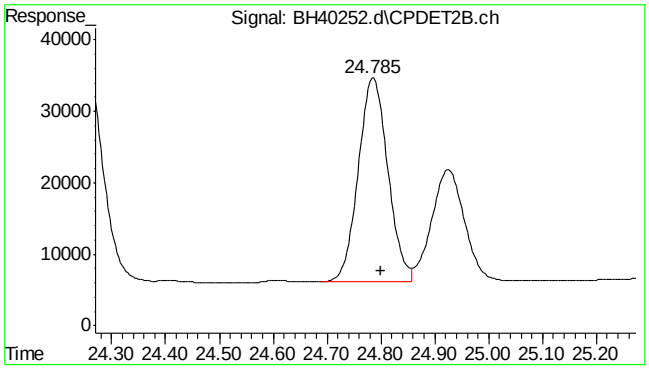


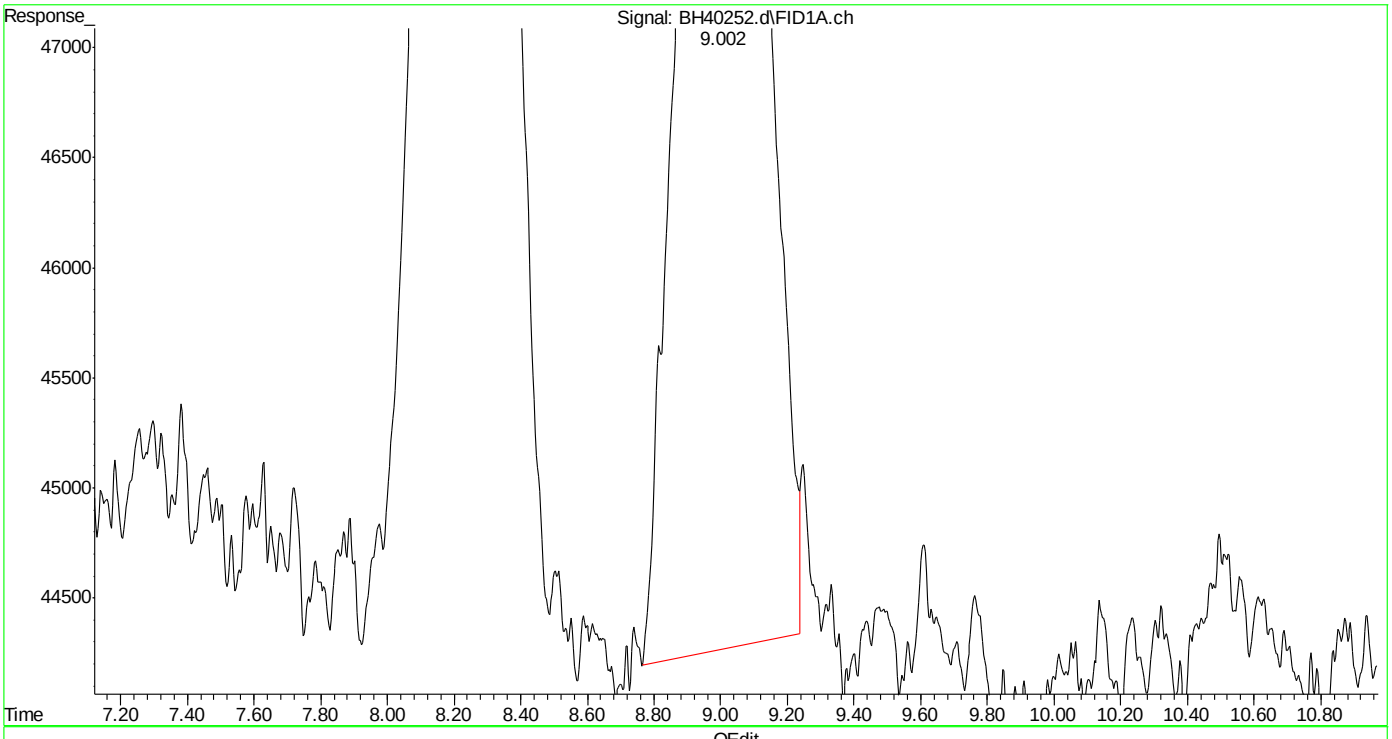

```
#34  c9-c10 arom as 1,2,4-tmb

      R.T.:   24.800 min
Delta R.T.:    0.000 min
  Response:   1094860
      Conc:   2.18 ppb m
```

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(3) mtbe (t)
9.003min 1.970 ppb
response 1198088

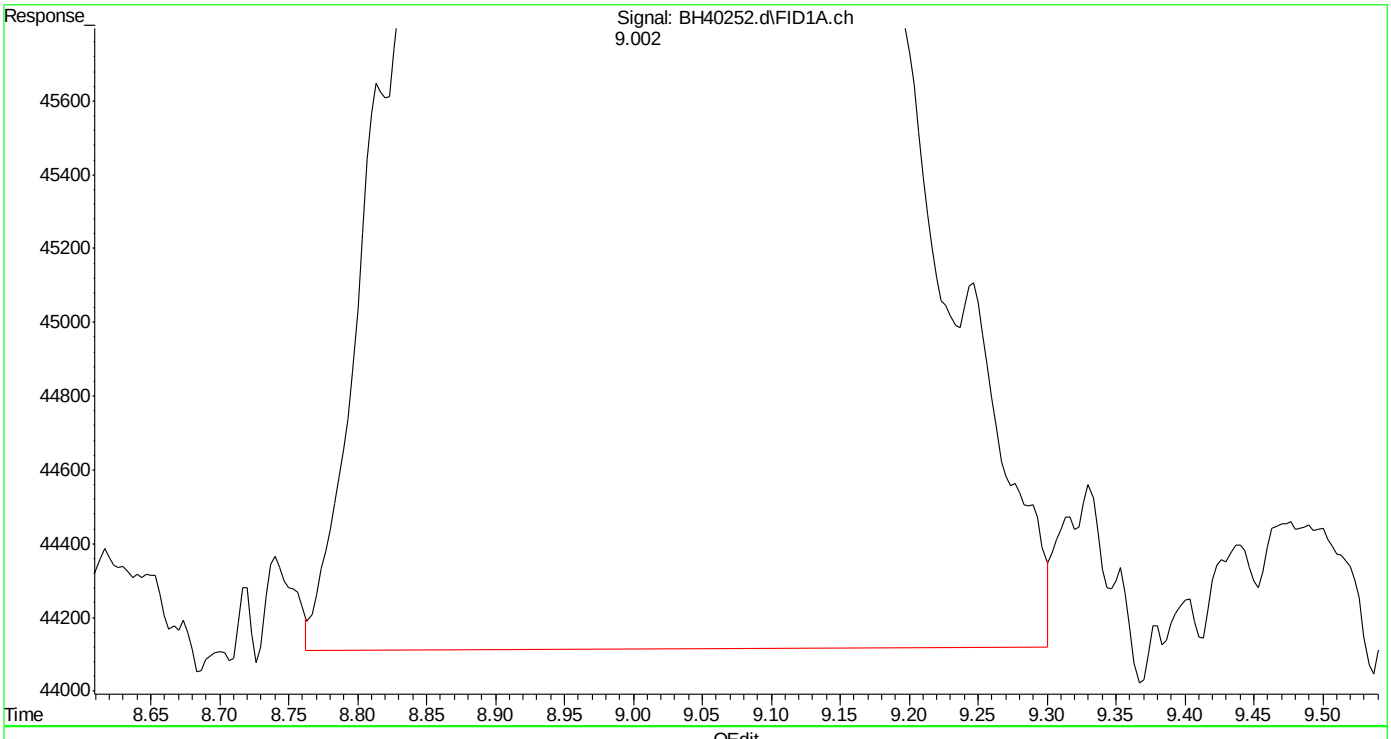
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:23:47 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(3) mtbe (t)
9.002min 2.080 ppb m
response 1264881

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:24:05 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

(4) rt10/13 (h)
13.360min 2.611 ppb m
response 2945306

(+) = Expected Retention Time

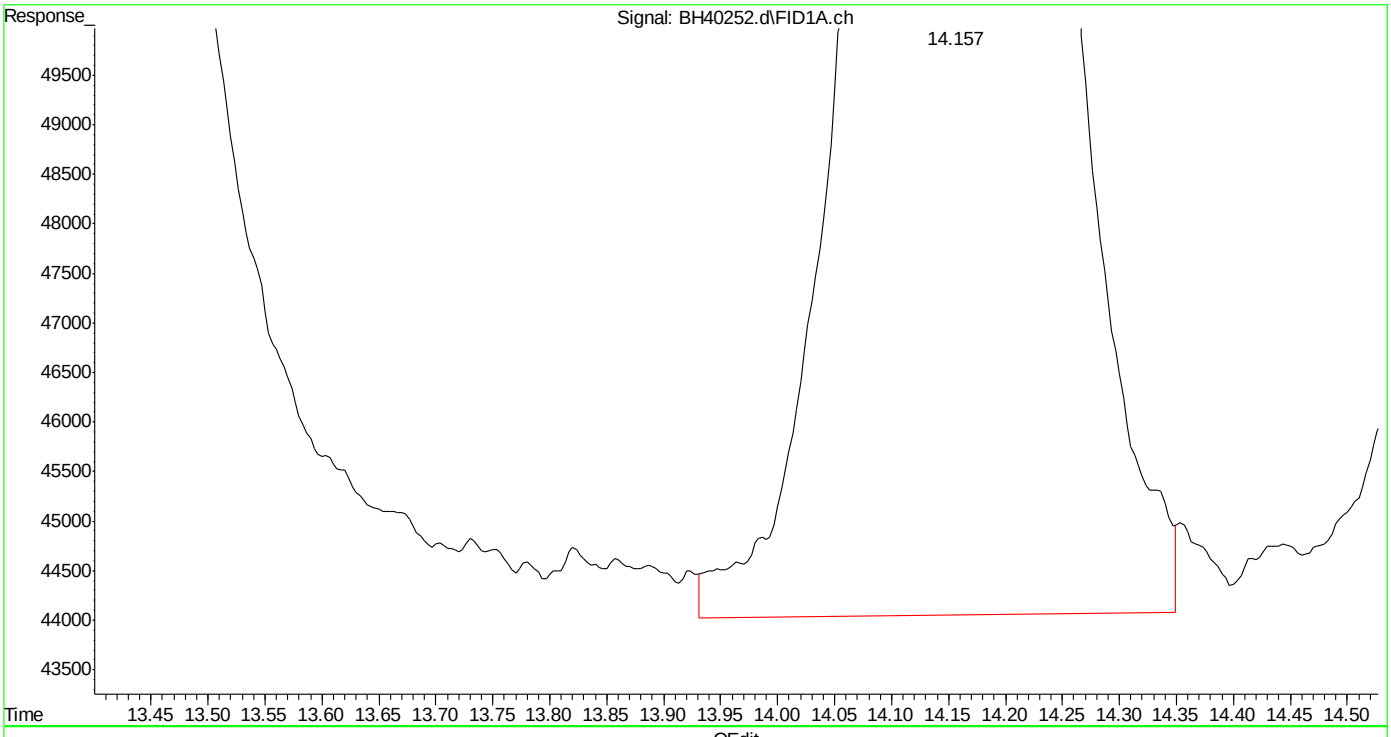
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(5) benzene (t)
14.158min 2.144 ppb
response 2523888

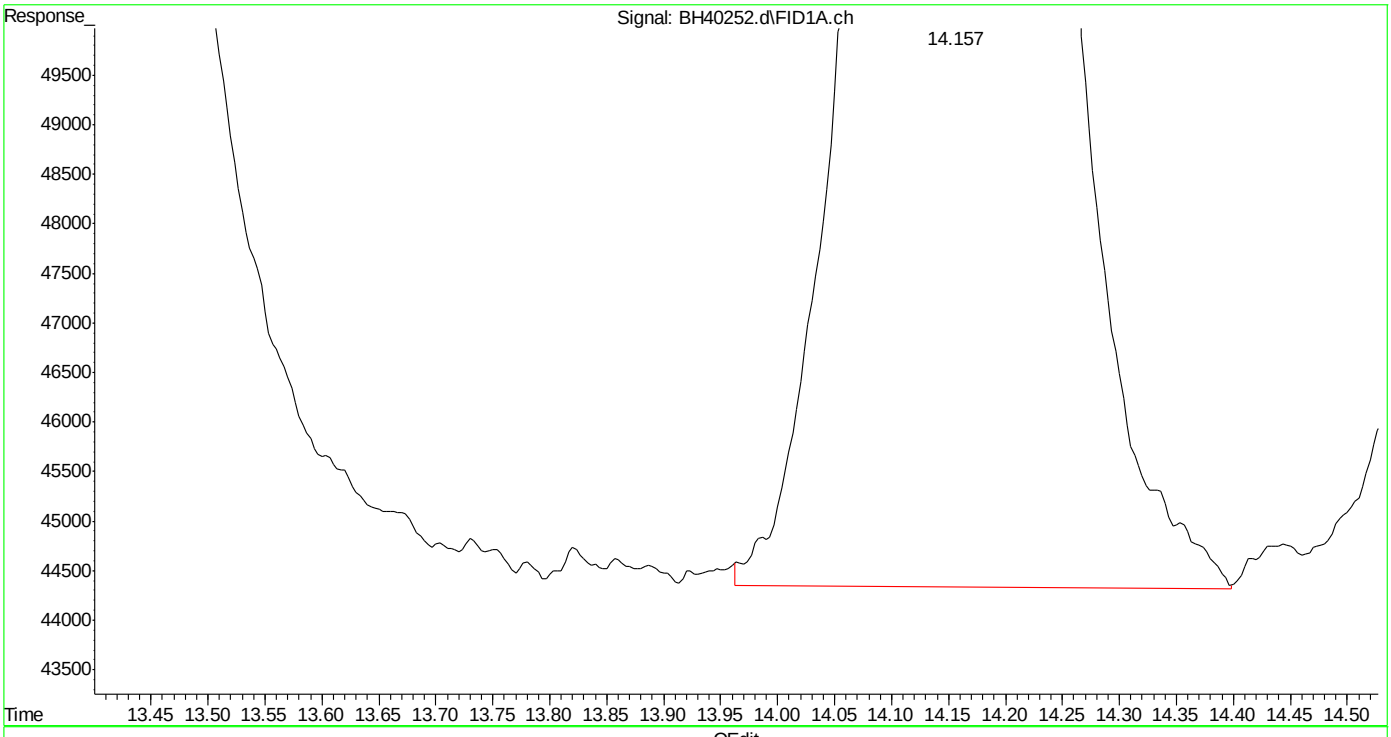
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:24:17 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(5) benzene (t)
14.157min 2.090 ppb m
response 2459937

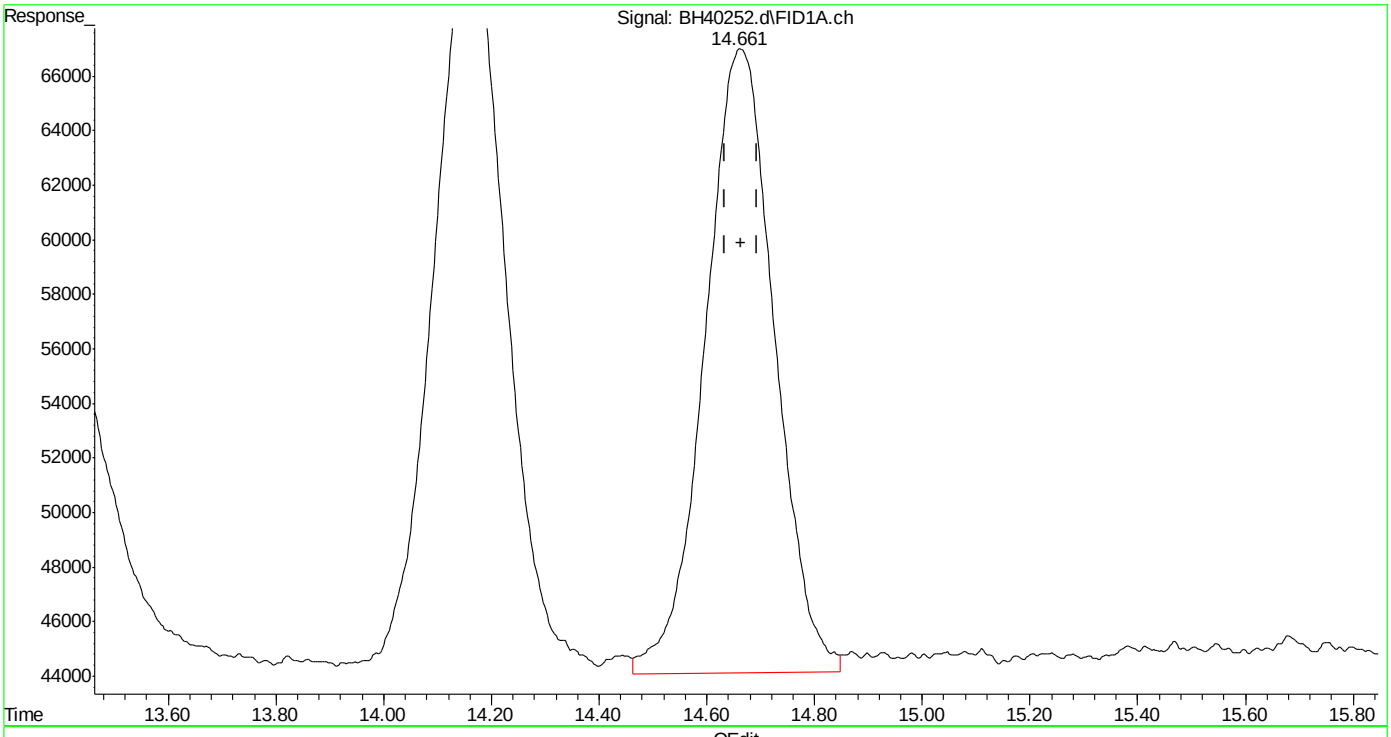
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:24:21 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(6) fluorobenzene (s)
14.663min 2.154 ppb
response 2050022

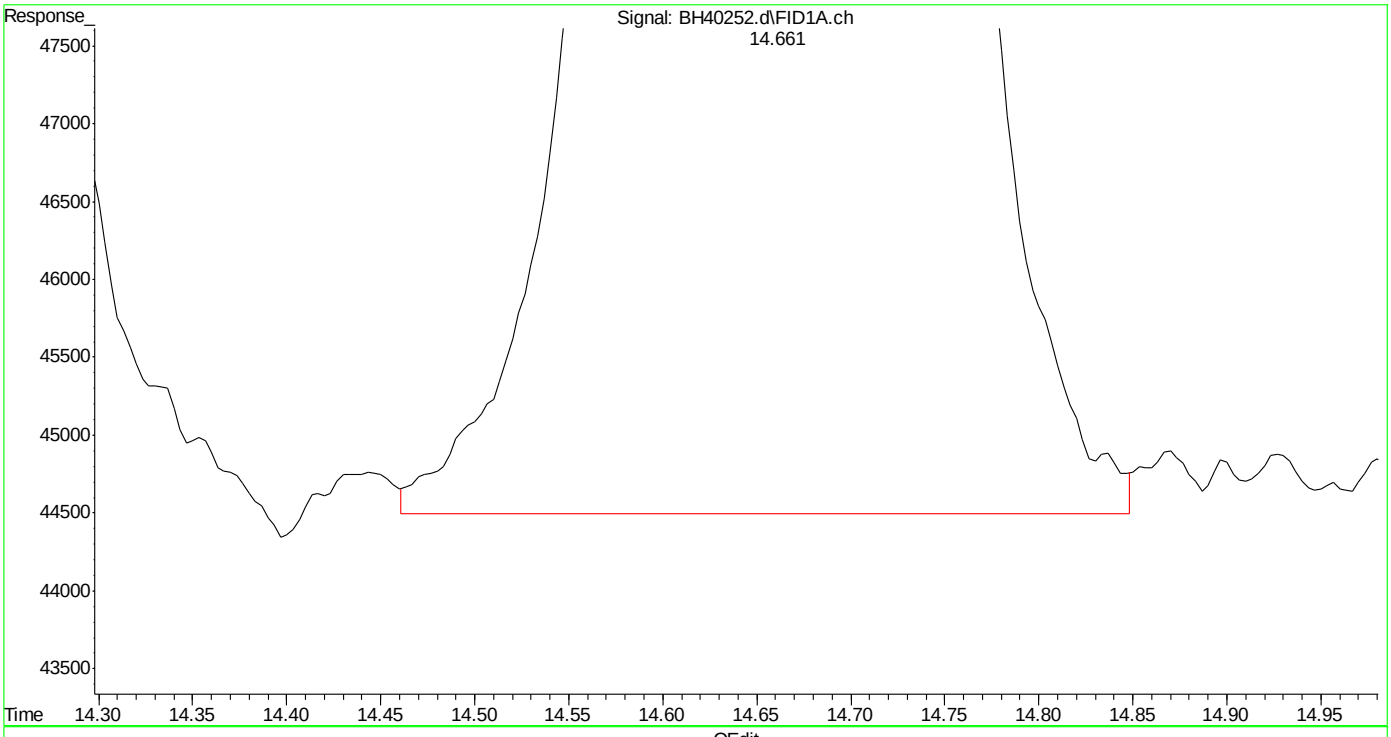
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(6) fluorobenzene (s)
14.661min 2.061 ppb m
response 1961787

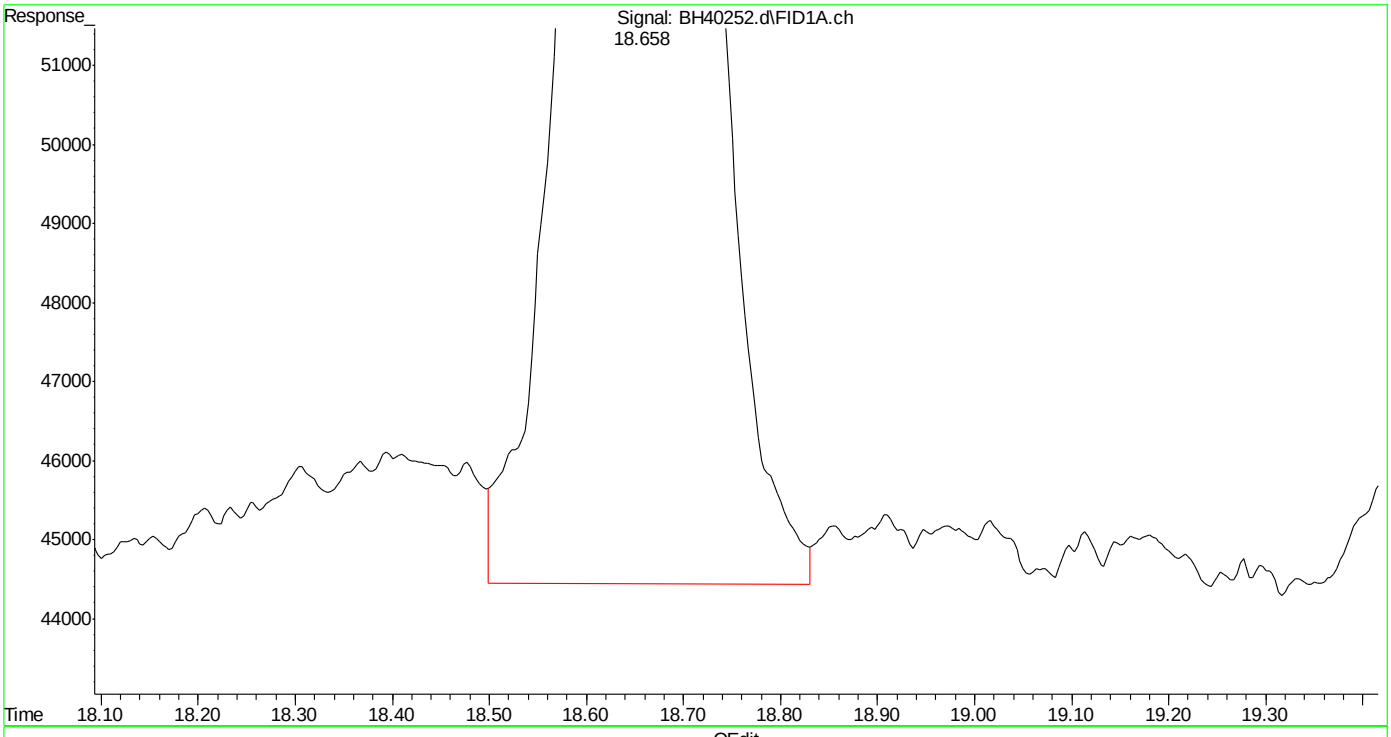
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(8) toluene (t)
18.659min 2.106 ppb
response 2466542

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:24:36 2016

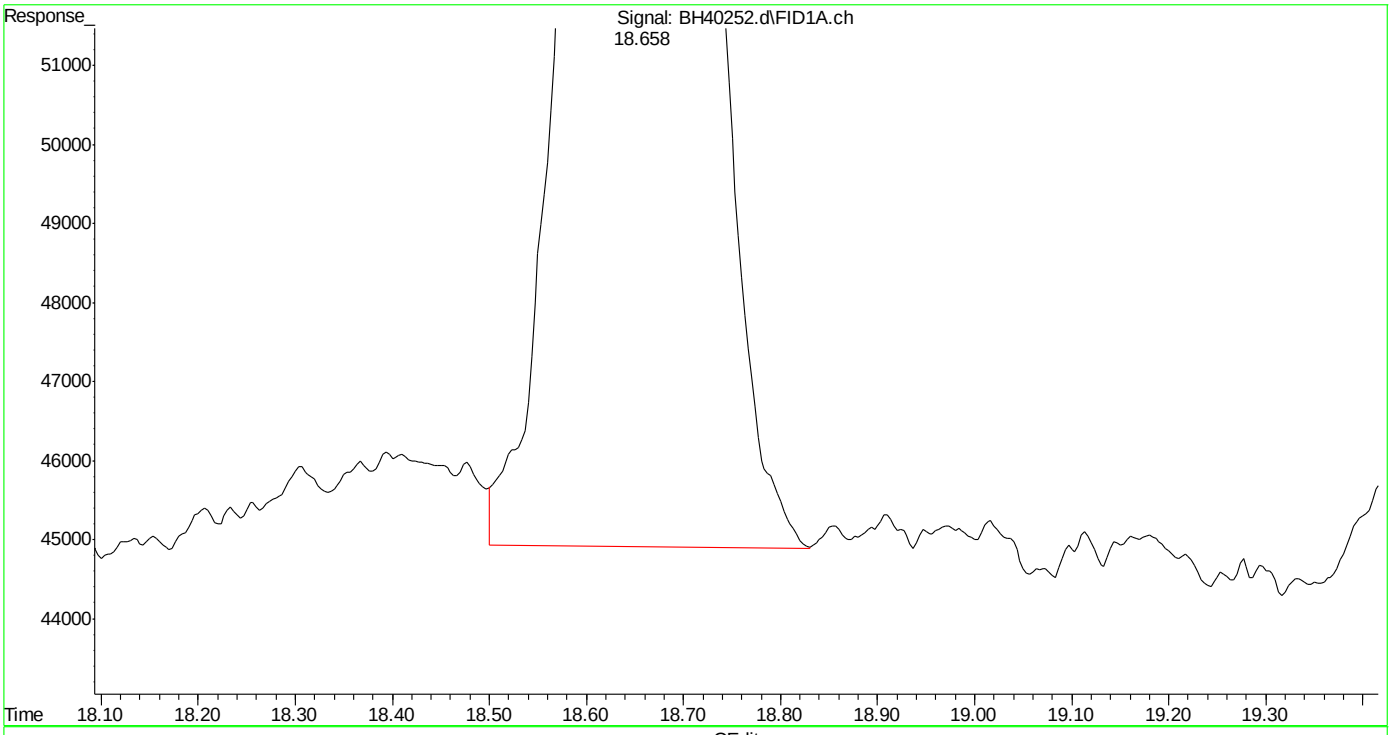
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(8) toluene (t)
18.658min 2.026 ppb m
response 2372614

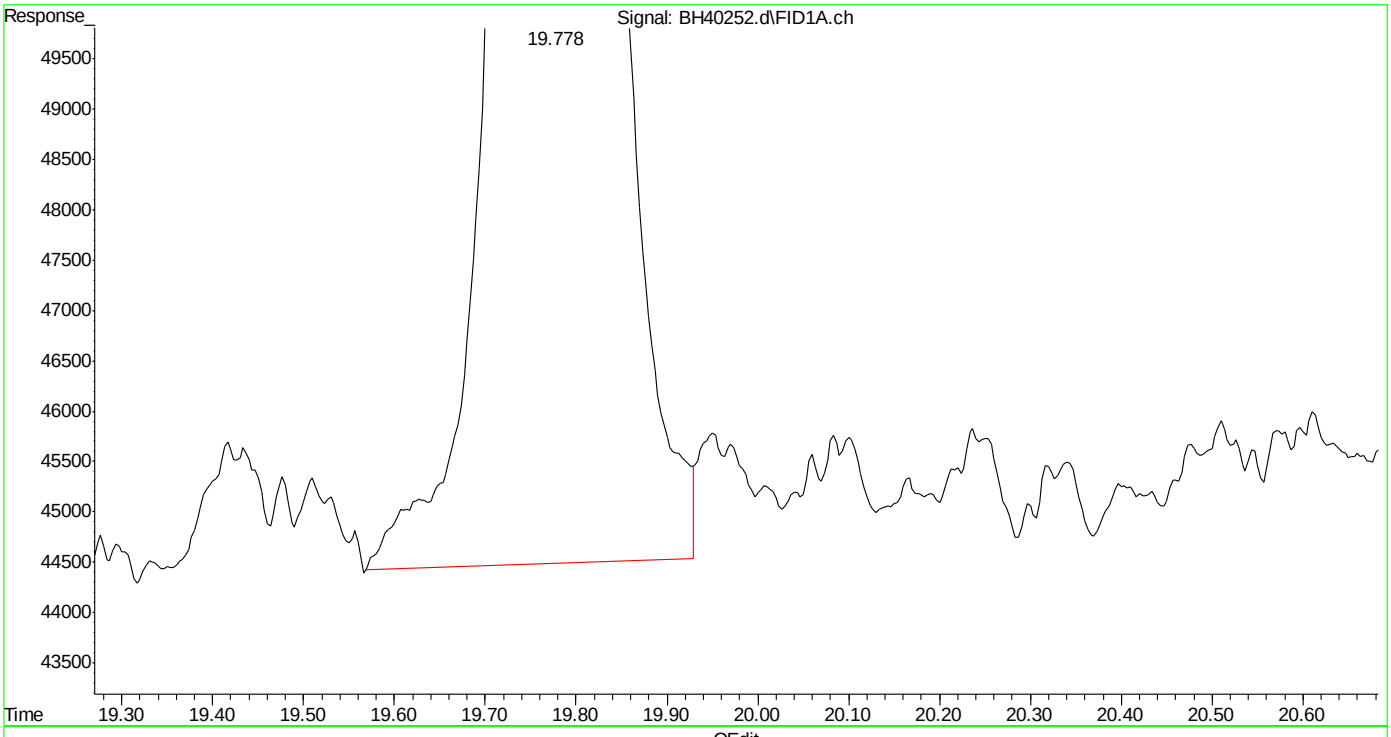
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:24:43 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(9) 2,3,4-trifluorotoluene (s)
19.779min 2.344 ppb
response 1793133

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:24:48 2016

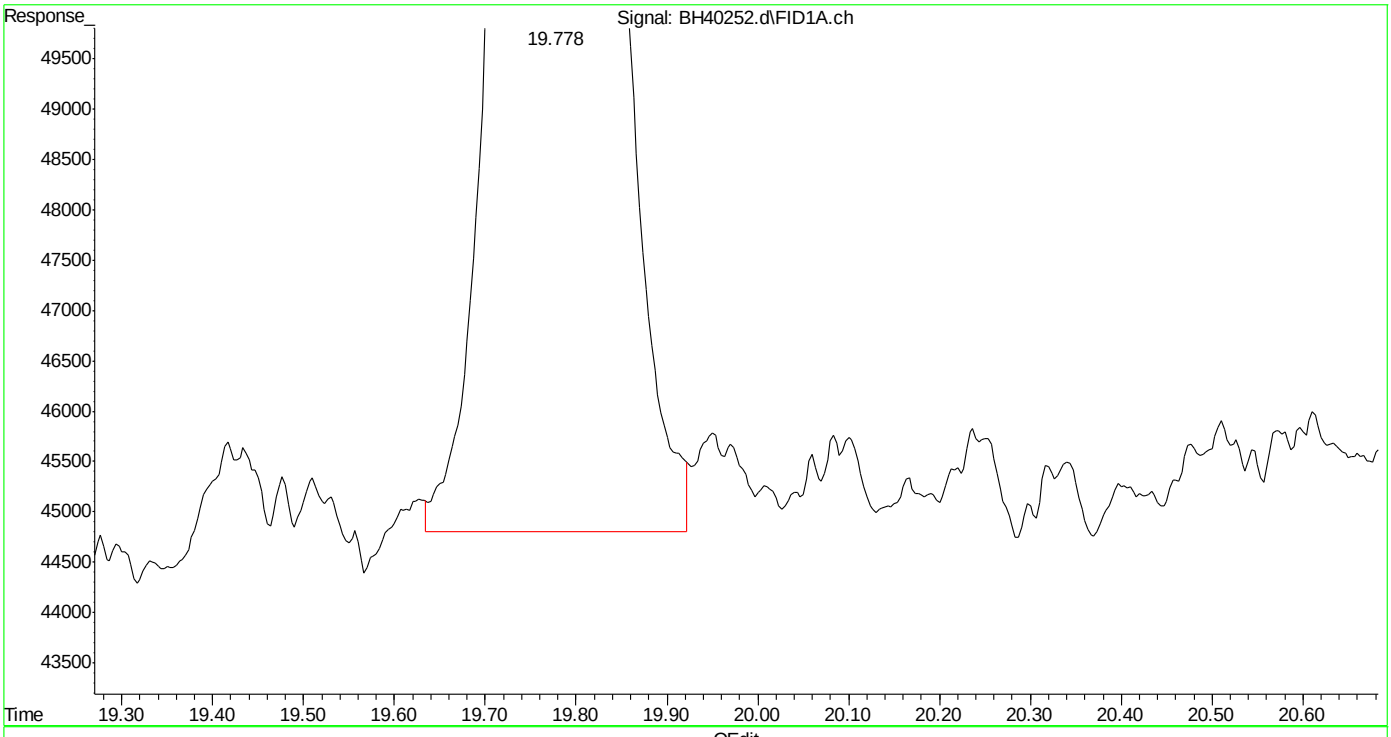
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(9) 2,3,4-trifluorotoluene (s)
19.778min 2.248 ppb m
response 1719310

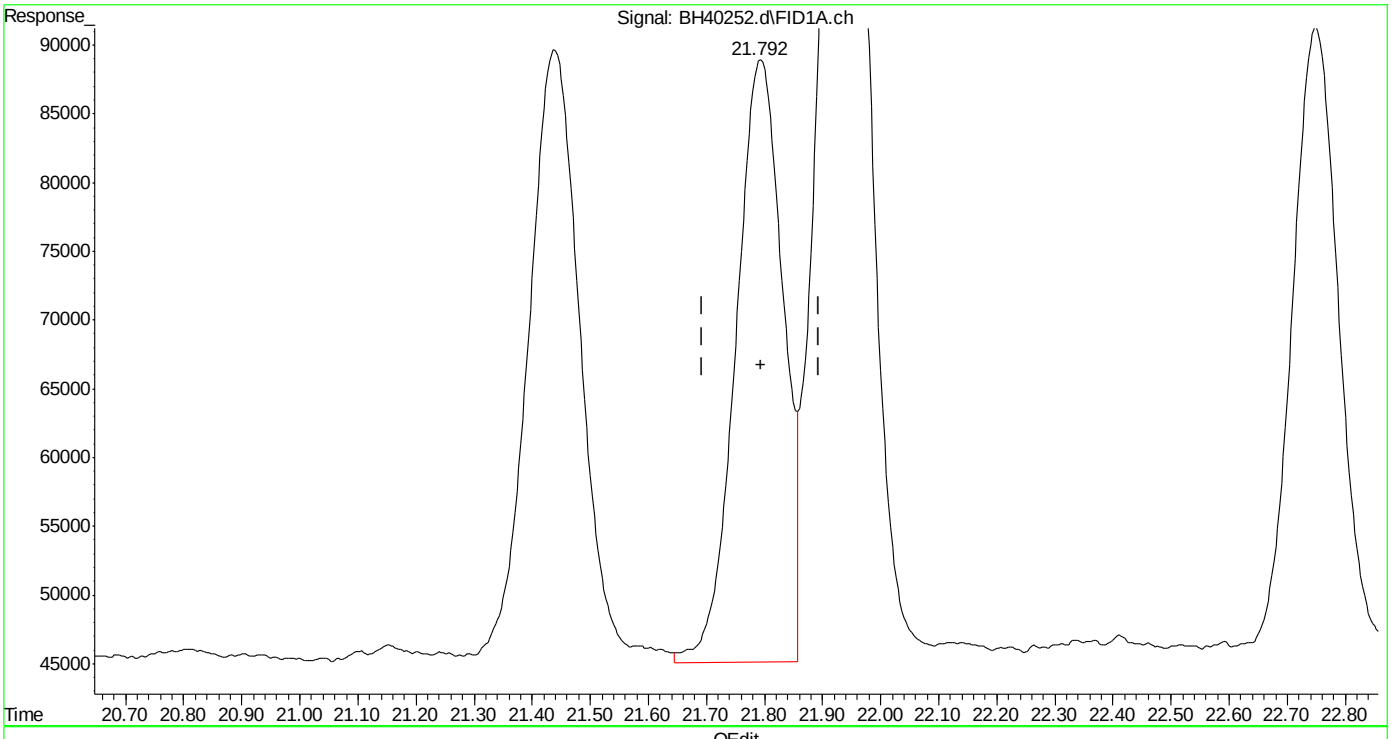
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:24:58 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(13) ethylbenzene (t)
21.794min 2.145 ppb
response 2460721

(+) = Expected Retention Time

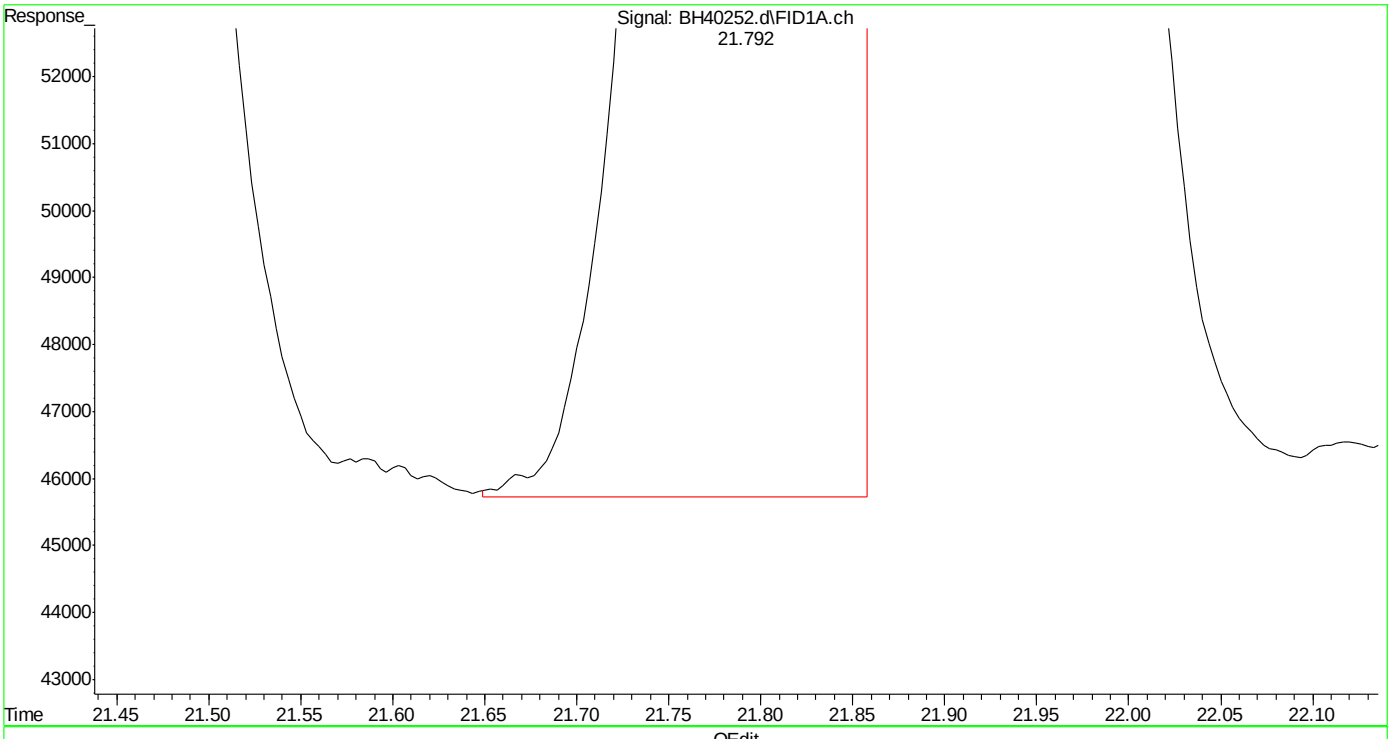
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(13) ethylbenzene (t)
21.792min 2.101 ppb m
response 2410247

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:25:20 2016

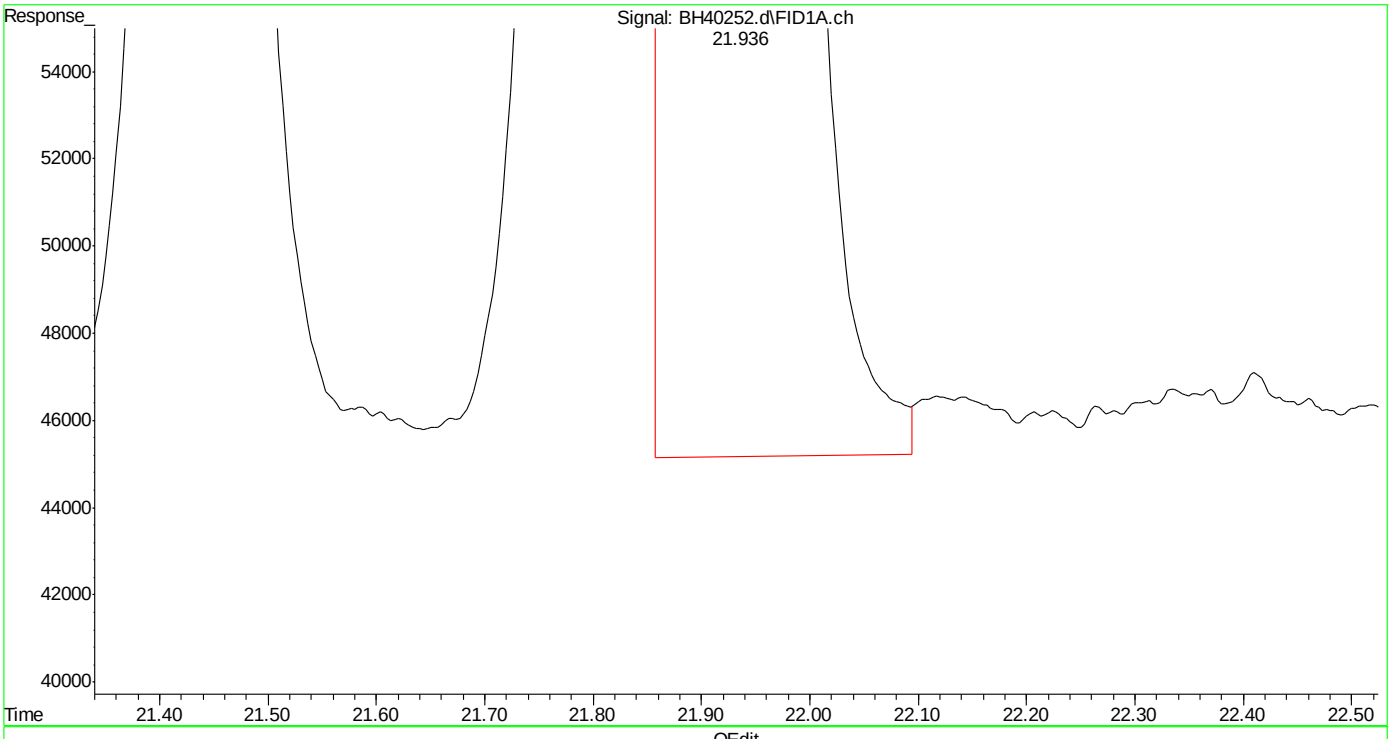
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(14) m,p-xylene (t)
21.938min 4.240 ppb
response 5071332

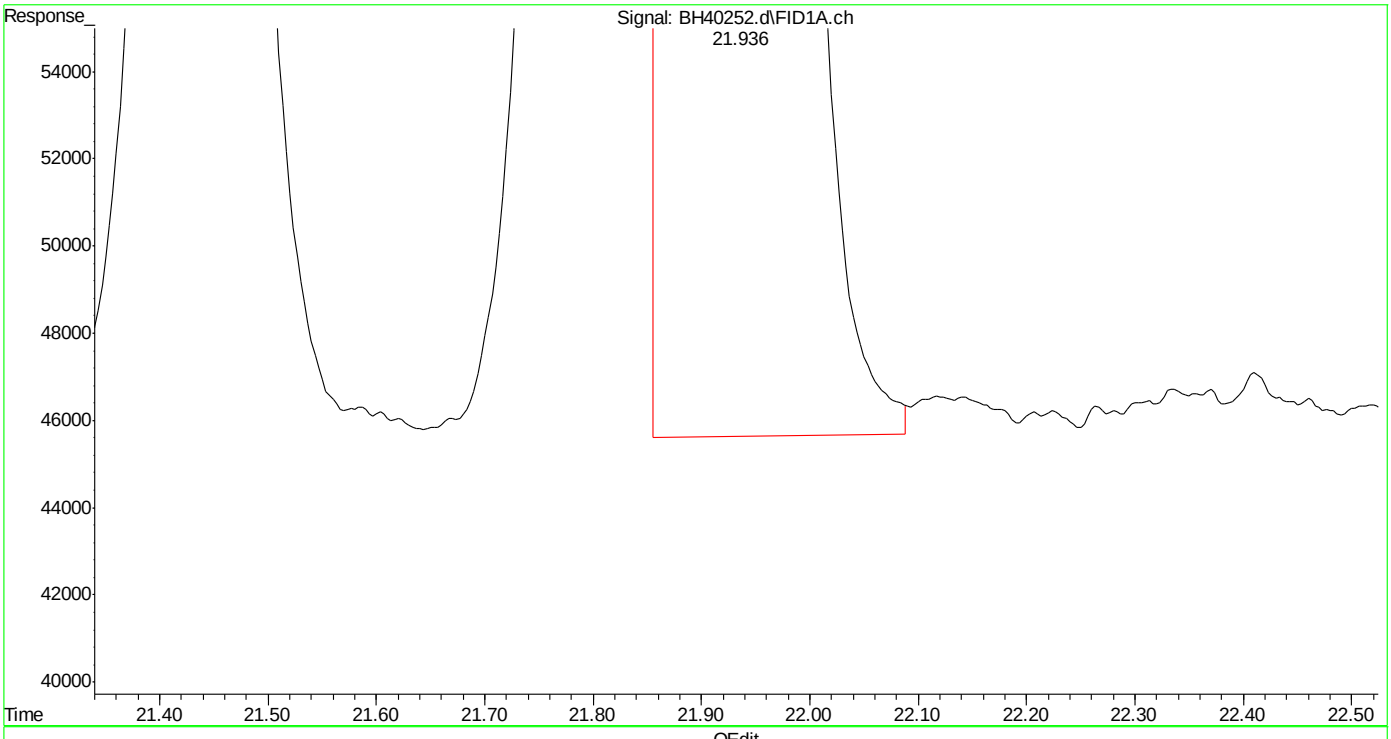
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:25:26 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(14) m,p-xylene (t)
21.936min 4.190 ppb m
response 5011929

(+) = Expected Retention Time

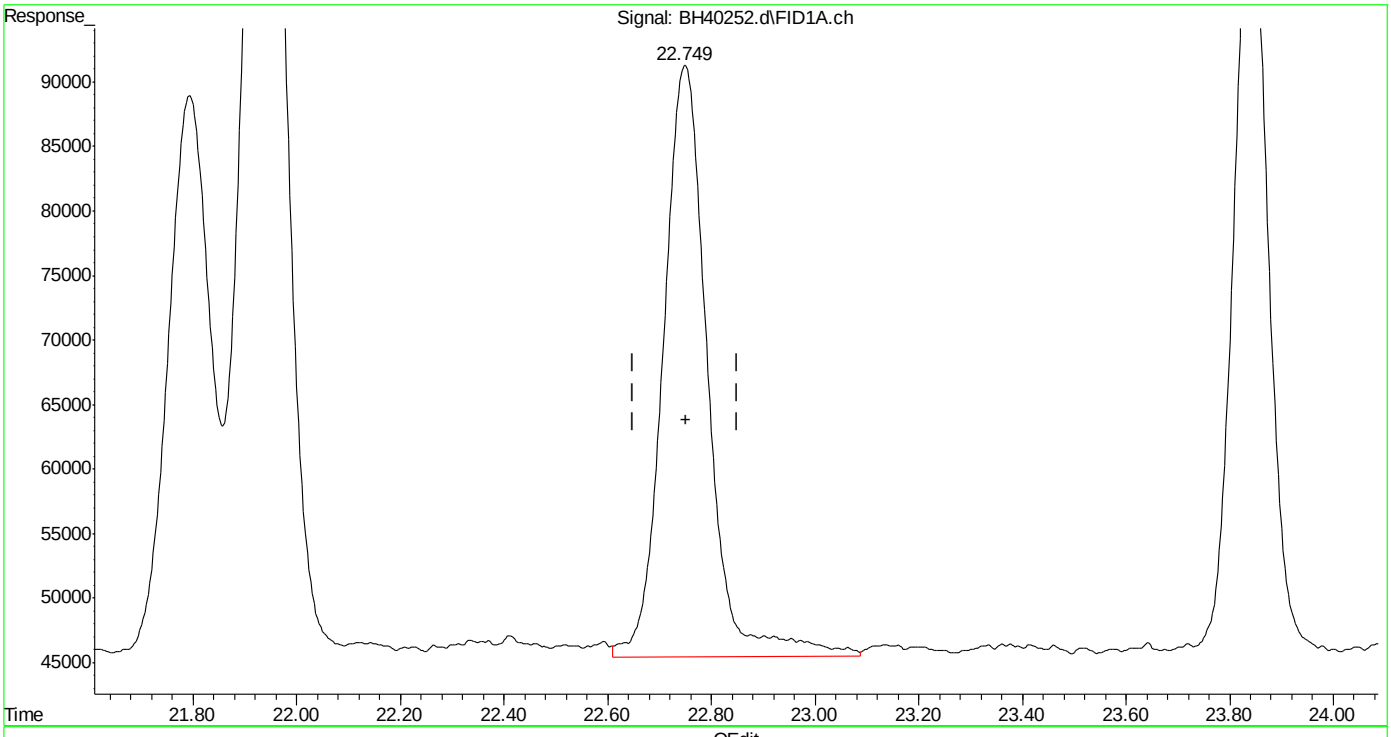
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(15) o-xylene (t)
22.750min 2.263 ppb
response 2738462

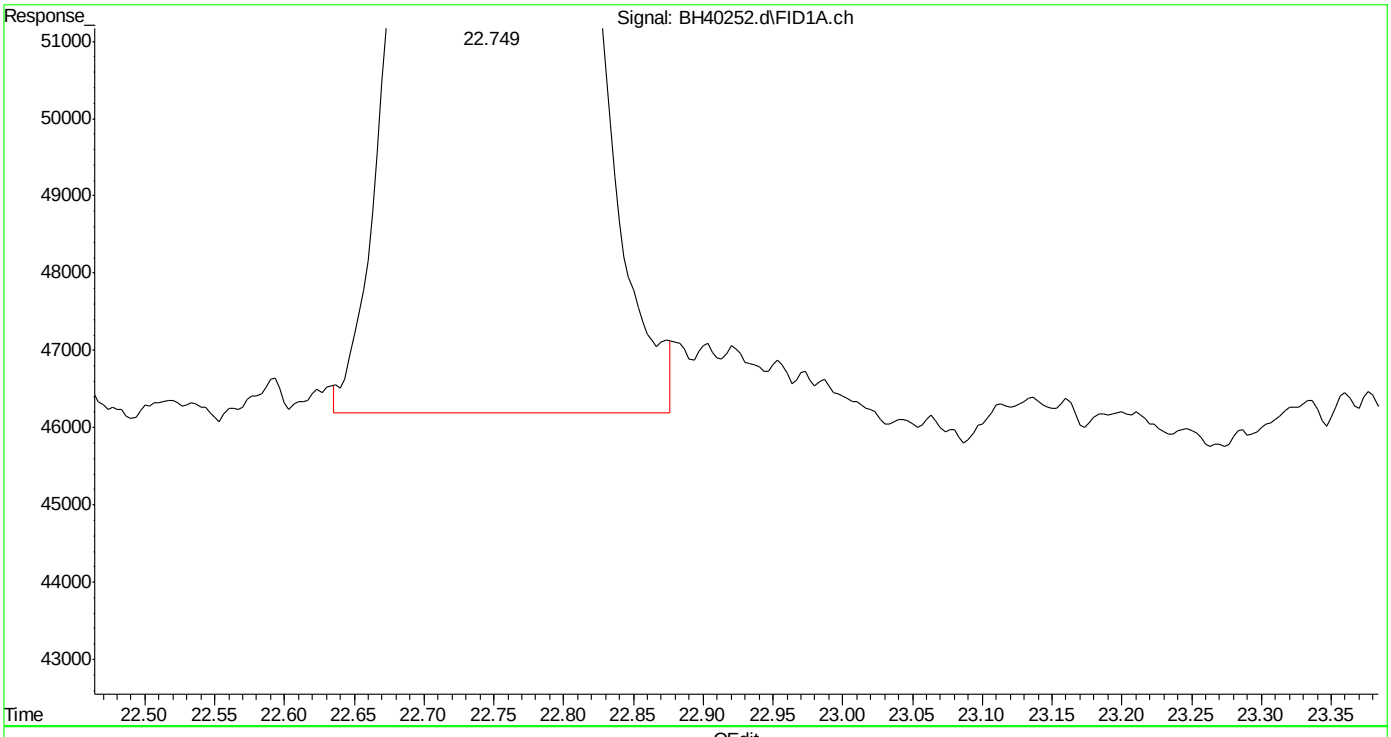
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:25:35 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(15) o-xylene (t)
22.749min 2.052 ppb m
response 2482783

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:25:44 2016

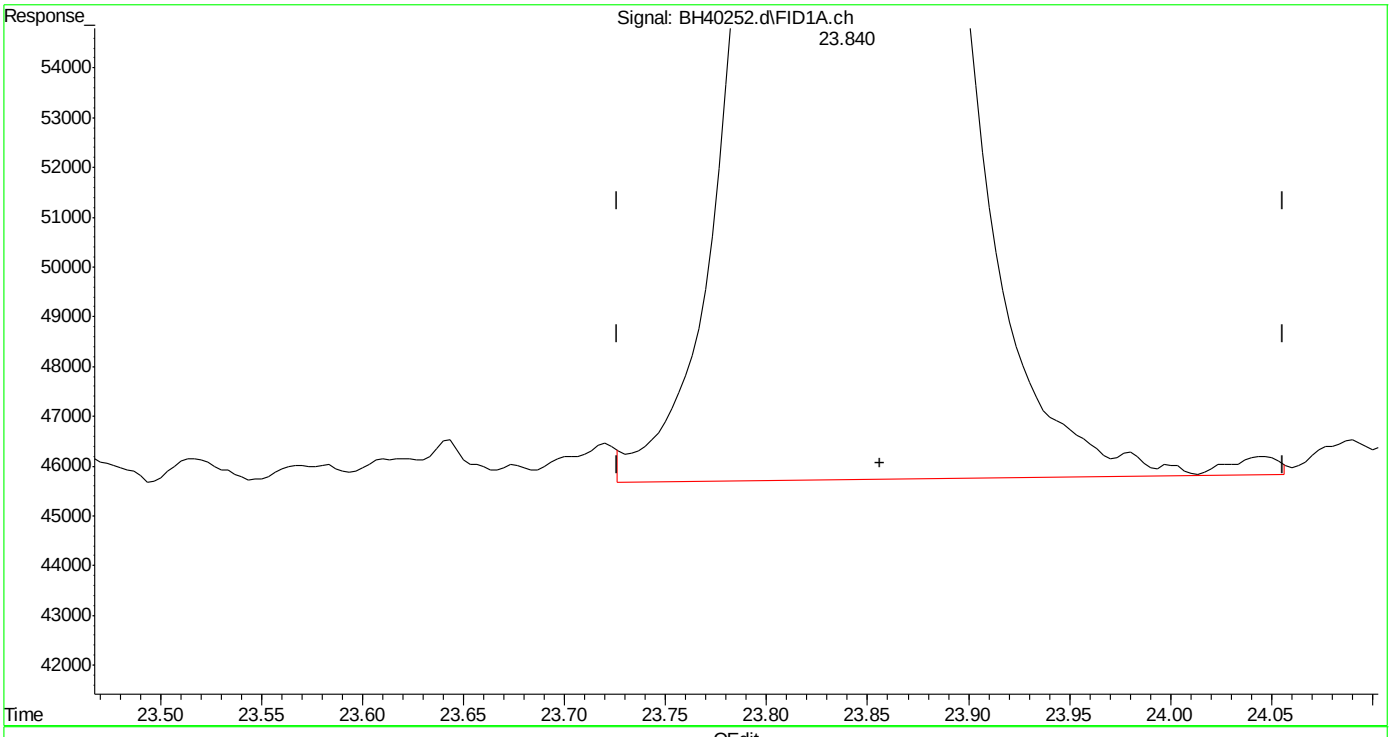
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(16) decane (h)
23.856min 2.596 ppb
response 2803545

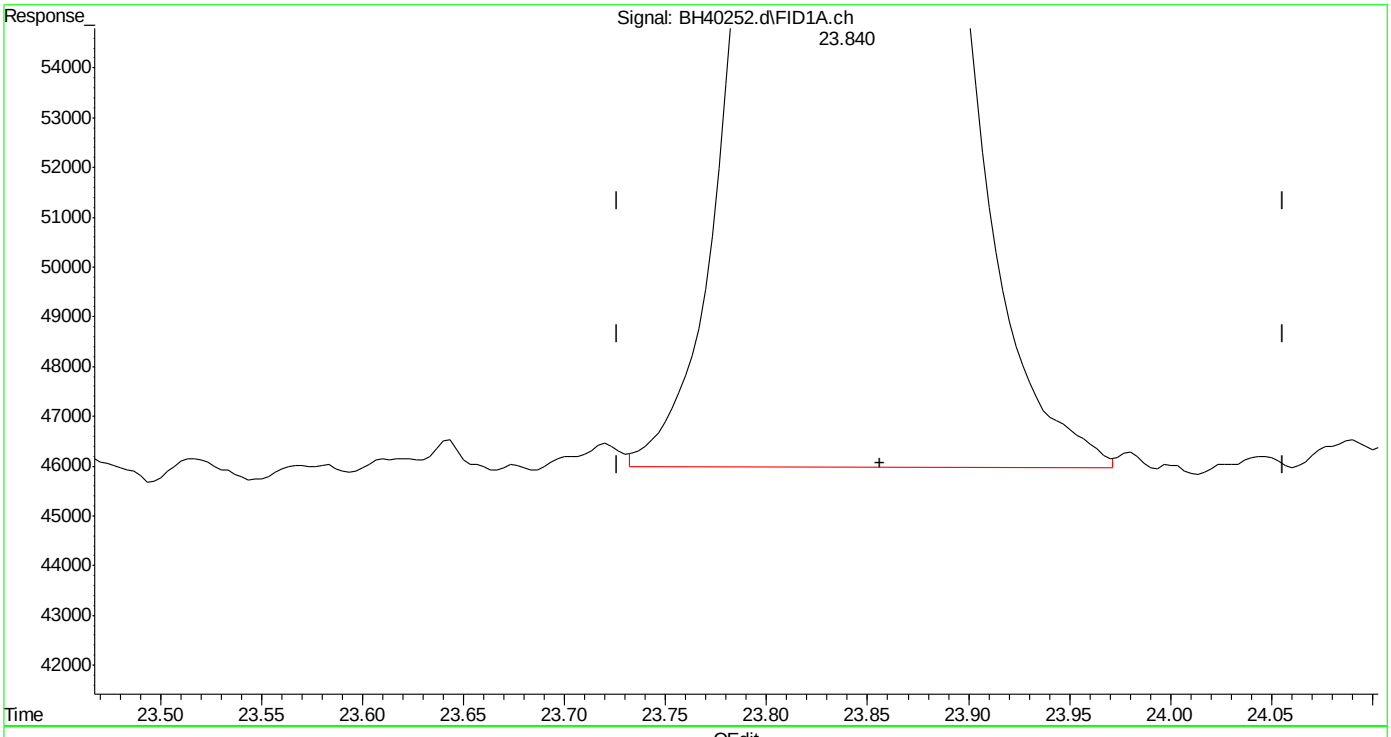
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:25:50 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(16) decane (h)
23.856min 2.551 ppb m
response 2754674

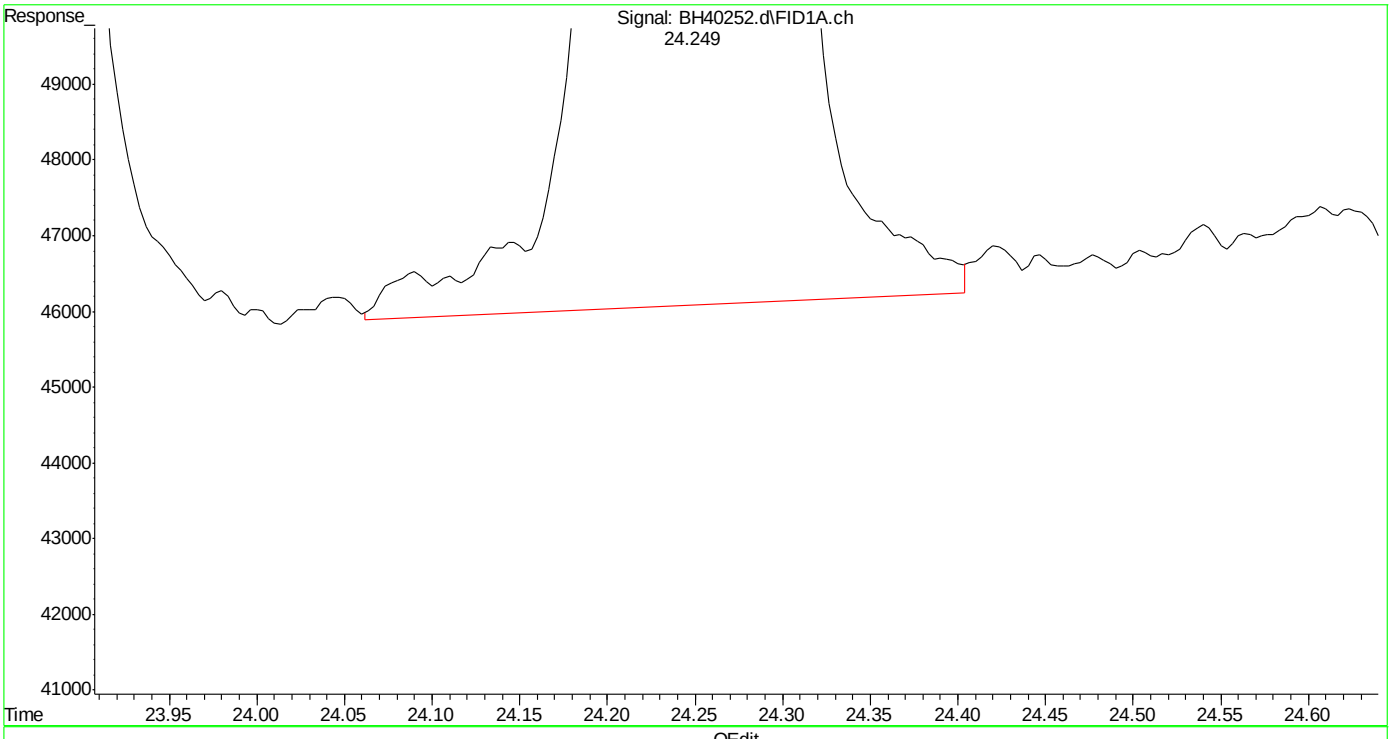
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:25:55 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(17) 1,3,5-trimethylbenzene (t)
24.250min 2.271 ppb
response 2820688

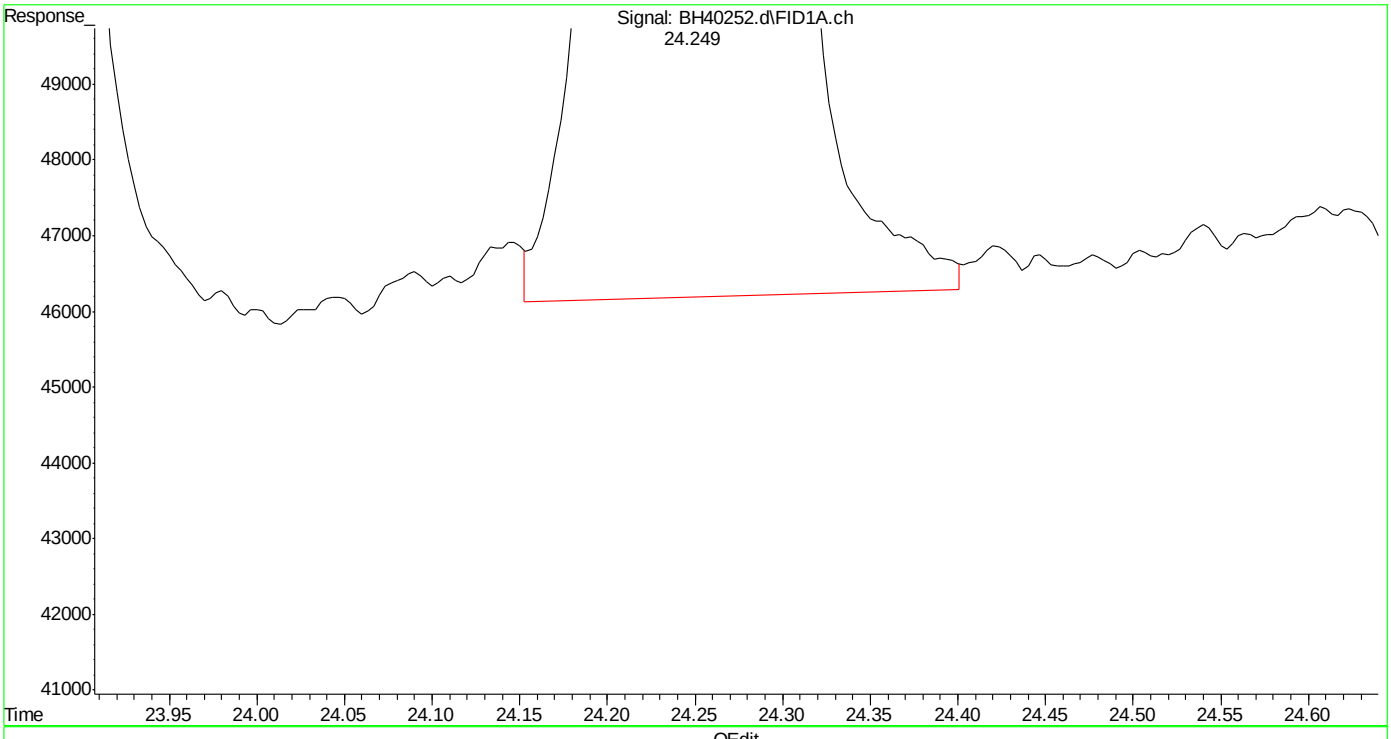
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:26:00 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(17) 1,3,5-trimethylbenzene (t)
24.249min 2.235 ppb m
response 2775575

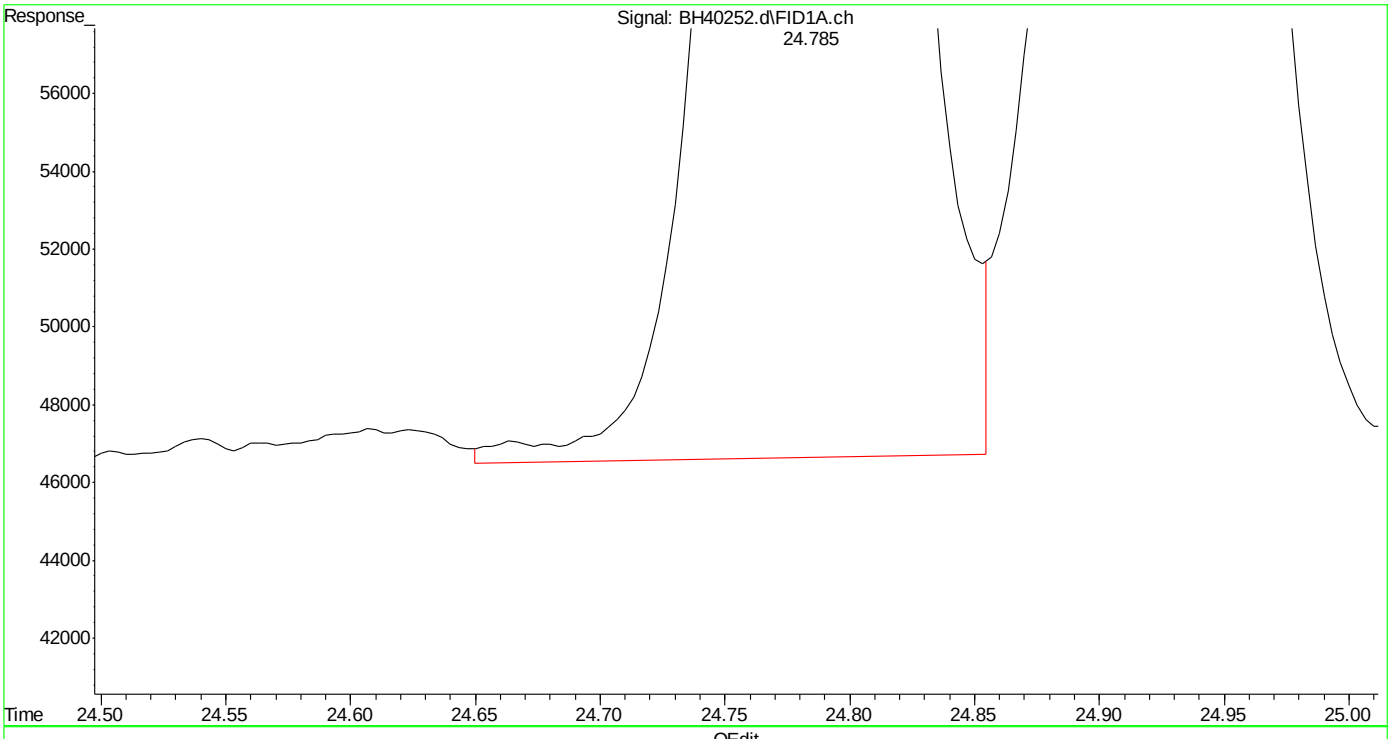
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:26:04 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(18) 1,2,4-trimethylbenzene (t)
24.786min 2.256 ppb
response 2713477

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:26:09 2016

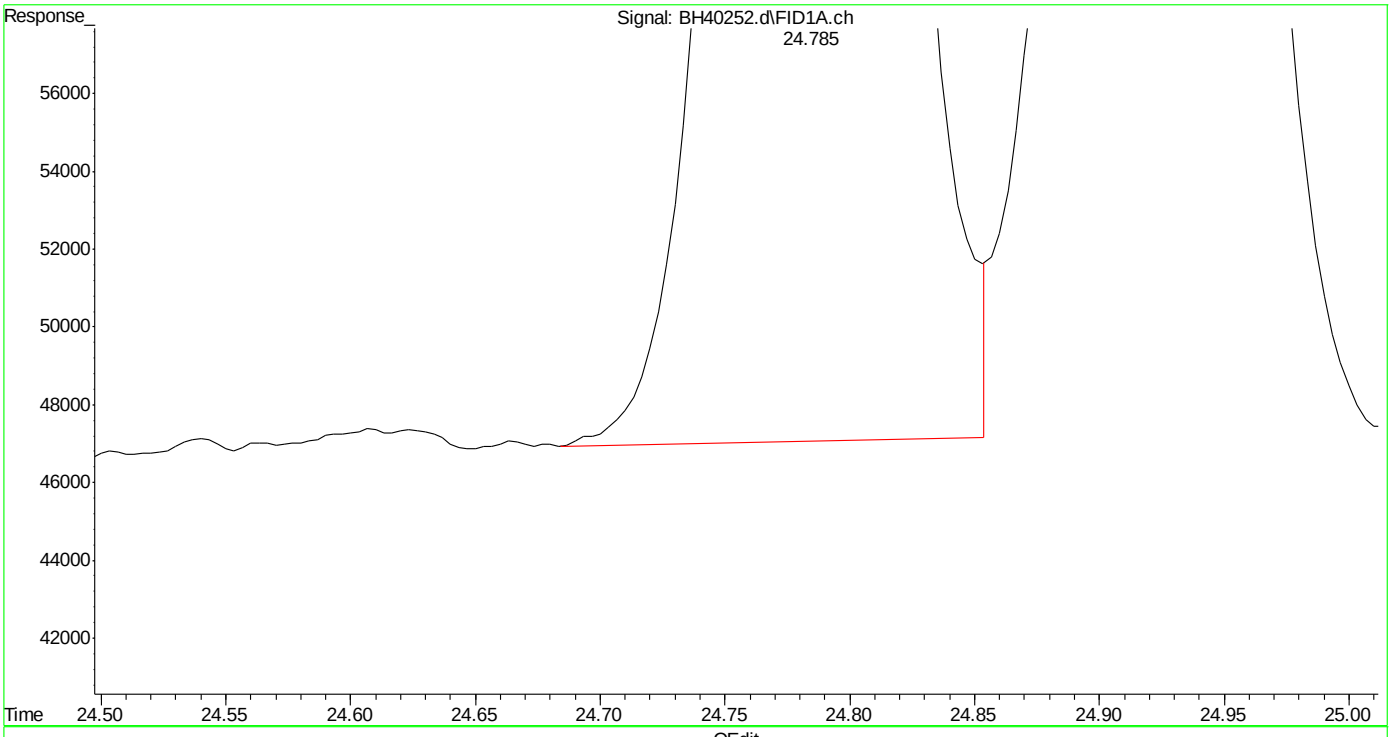
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(18) 1,2,4-trimethylbenzene (t)
24.785min 2.221 ppb m
response 2671437

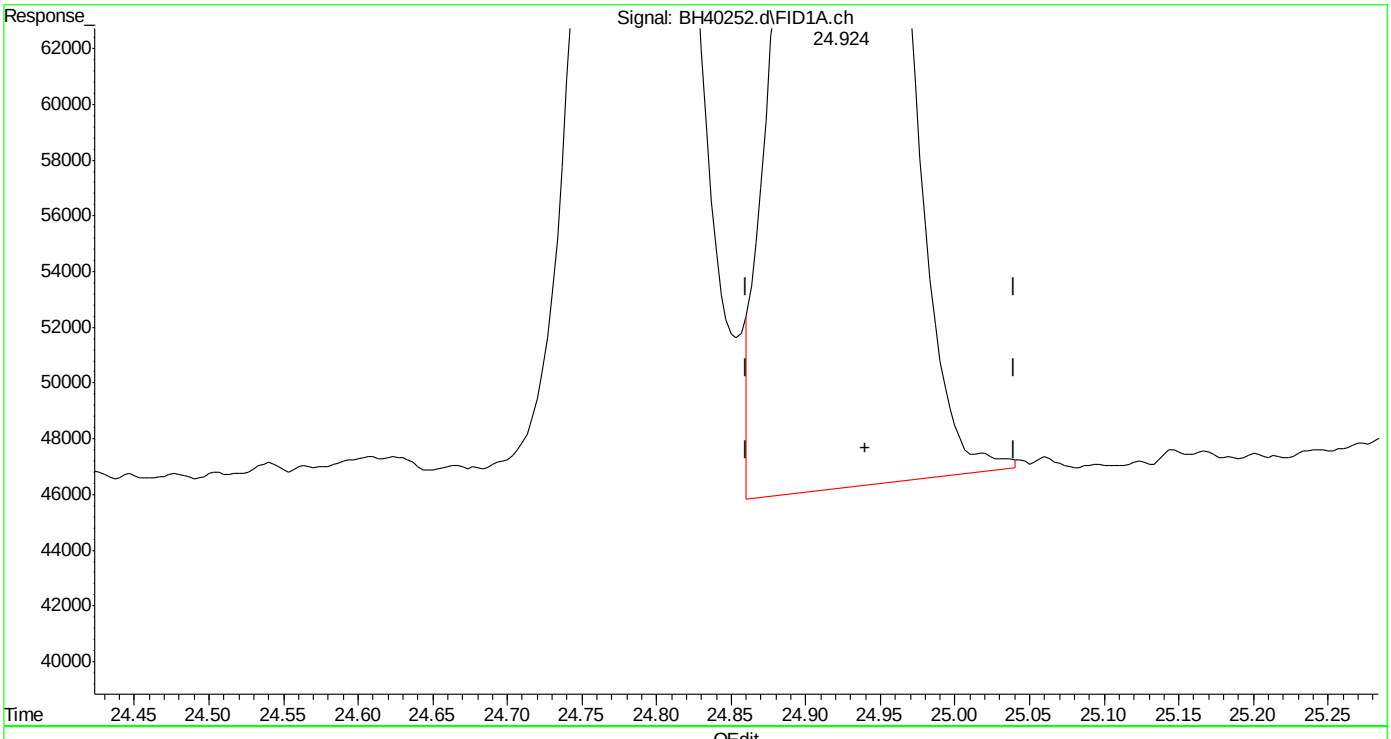
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:26:15 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(19) butylcyclohexane (h)
24.940min 2.531 ppb
response 2885708

(+) = Expected Retention Time

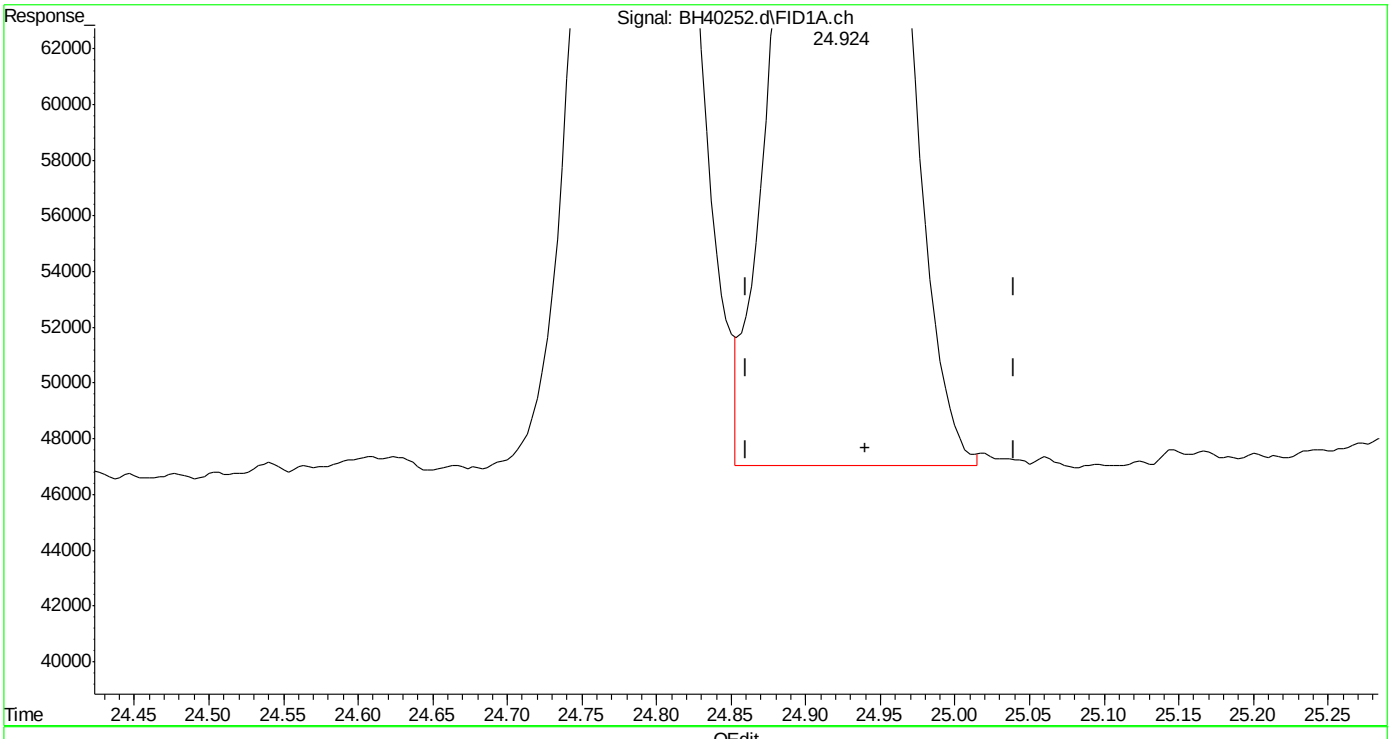
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(19) butylcyclohexane (h)
24.940min 2.512 ppb m
response 2864712

(+) = Expected Retention Time

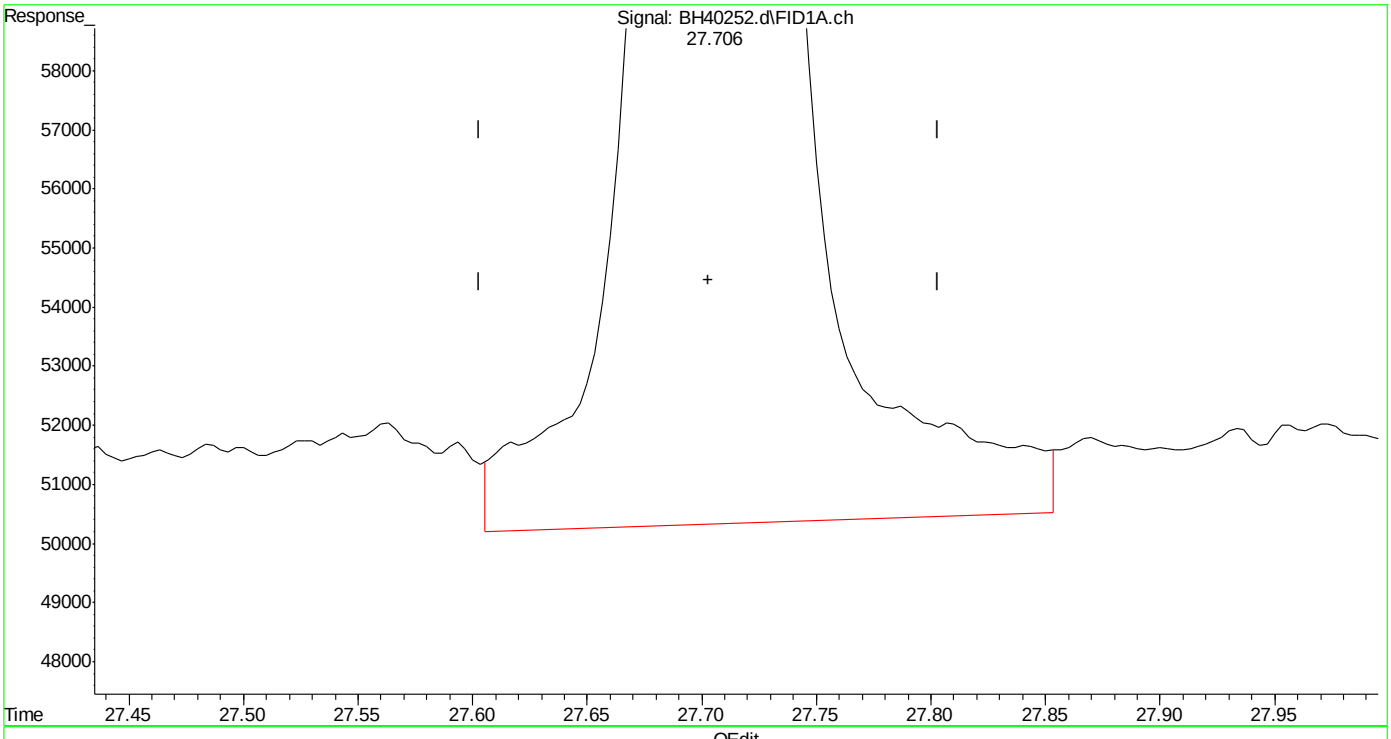
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(20) naphthalene (t)
27.707min 2.503 ppb
response 1743048

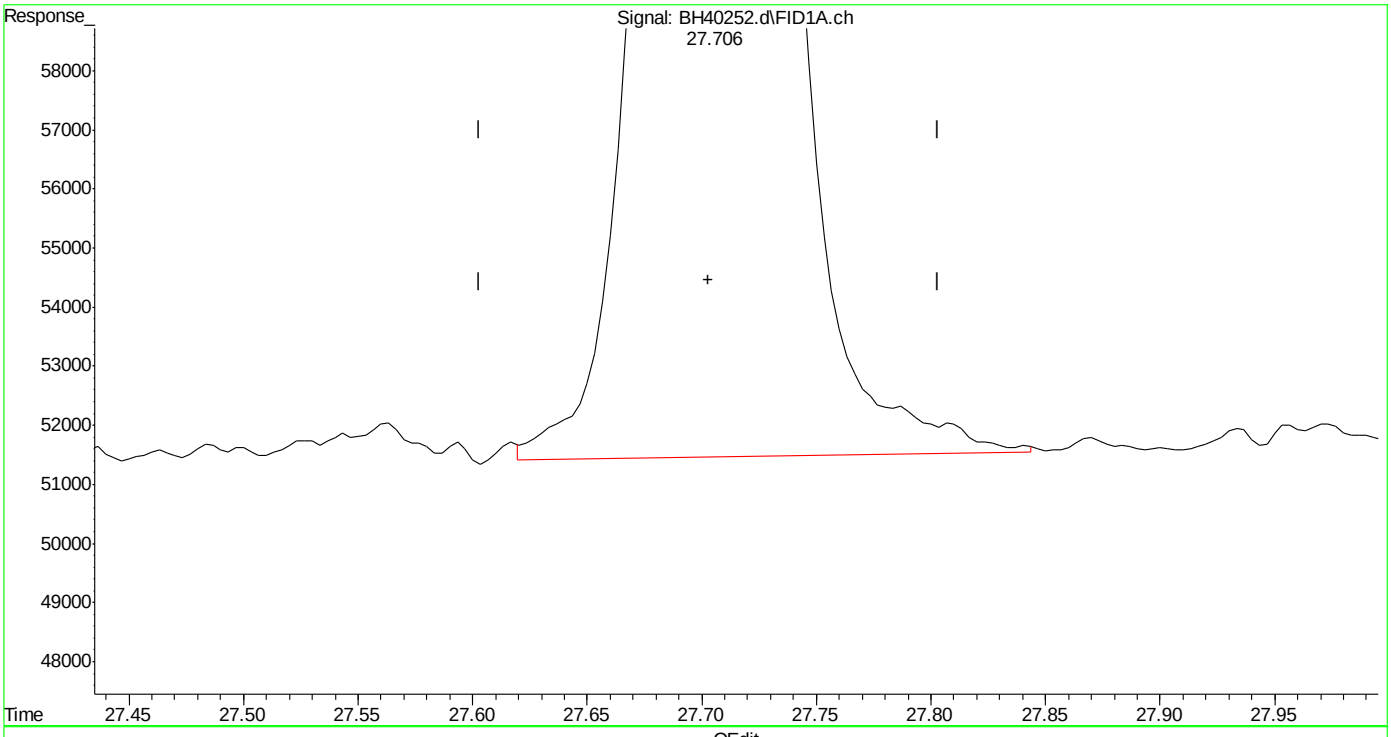
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(20) naphthalene (t)
27.706min 2.261 ppb m
response 1574613

(+) = Expected Retention Time

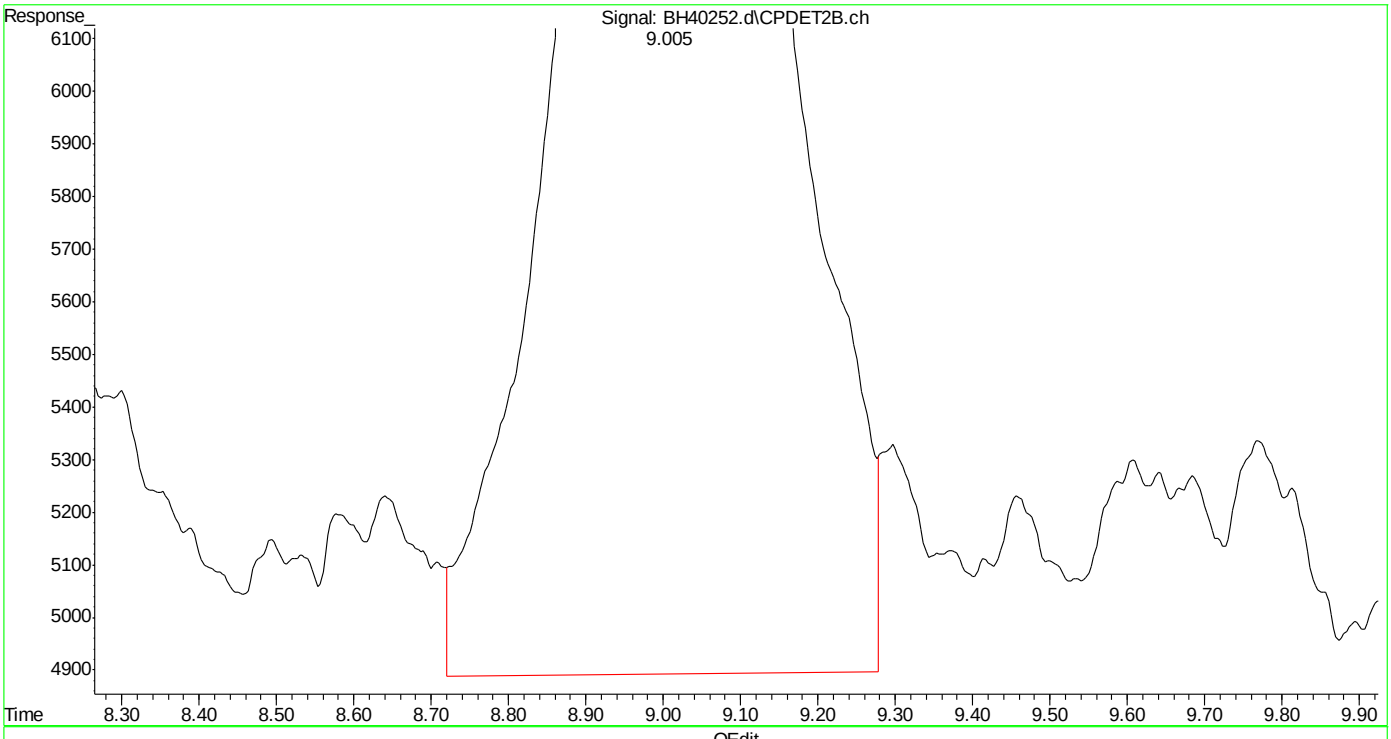
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(23) mtbe #2 (t)
9.007min 2.231 ppb
response 557645

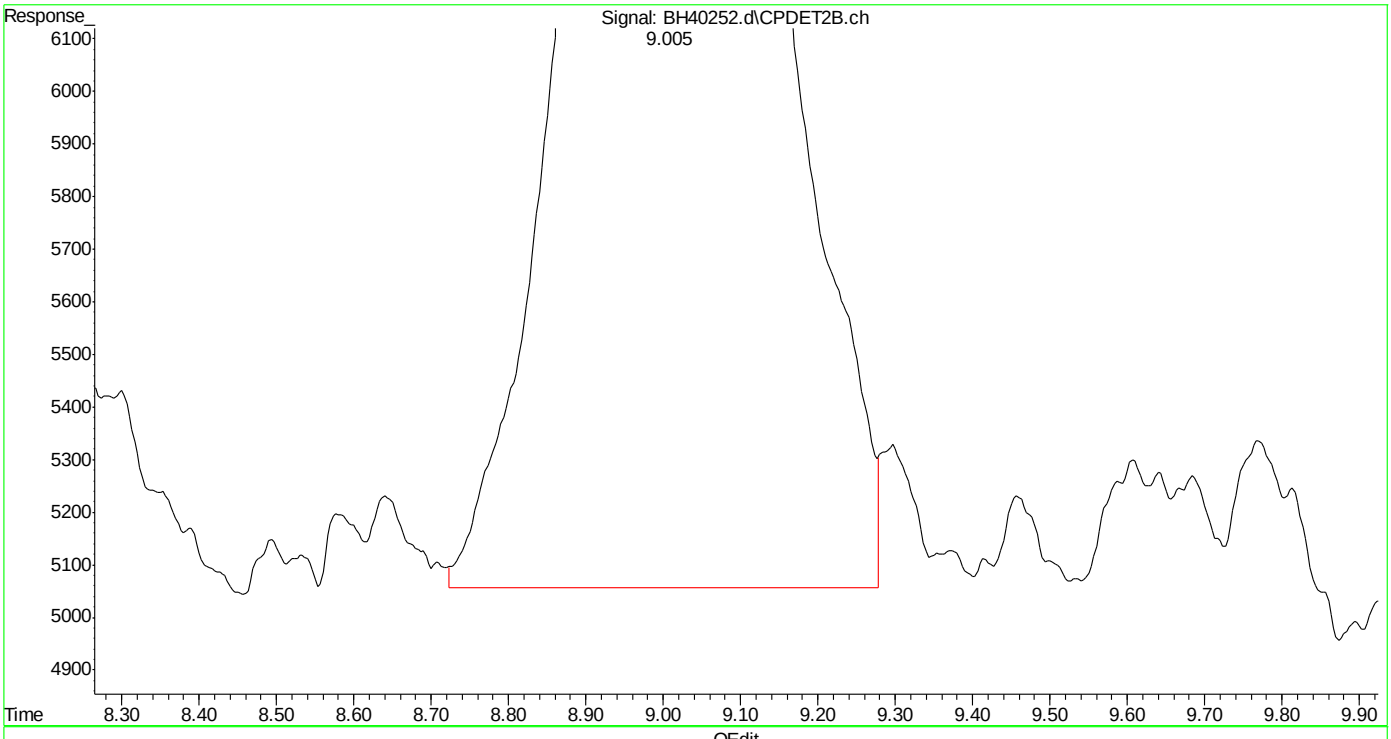
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(23) mtbe #2 (t)
9.005min 2.012 ppb m
response 502877

(+) = Expected Retention Time

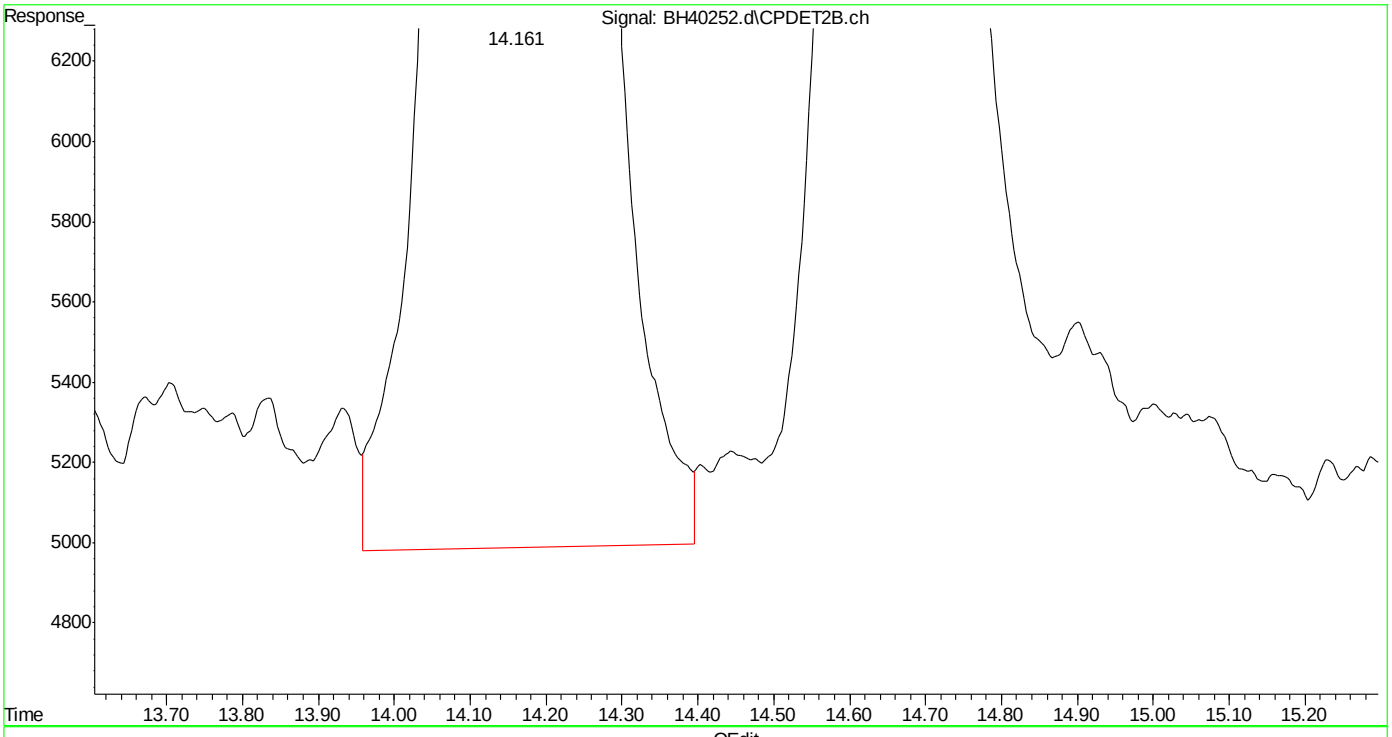
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(24) benzene #2 (t)
14.162min 2.083 ppb
response 1171677

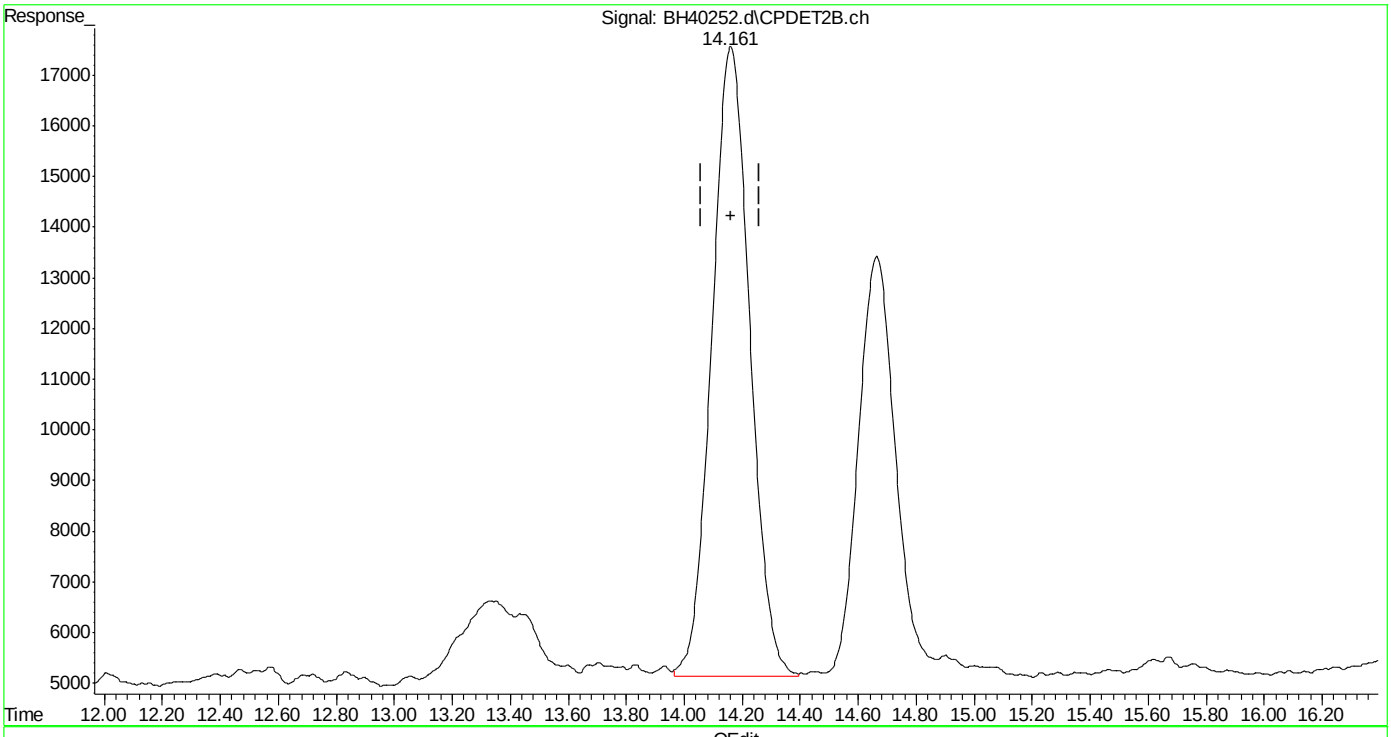
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(24) benzene #2 (t)
14.161min 2.013 ppb m
response 1132048

(+) = Expected Retention Time

bh161031vphmaster.m Mon Oct 31 16:27:02 2016

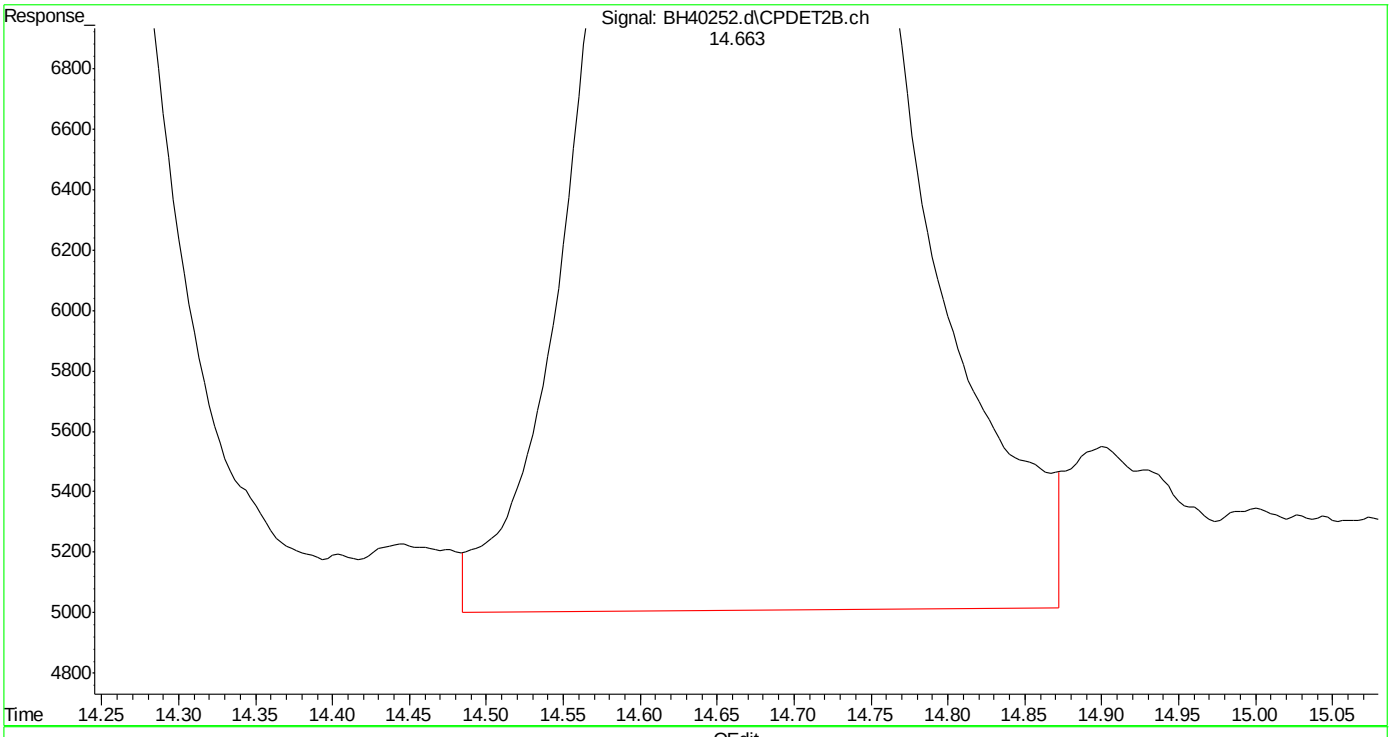
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(25) fluorobenzene #2 (s)
14.665min 2.113 ppb
response 766901

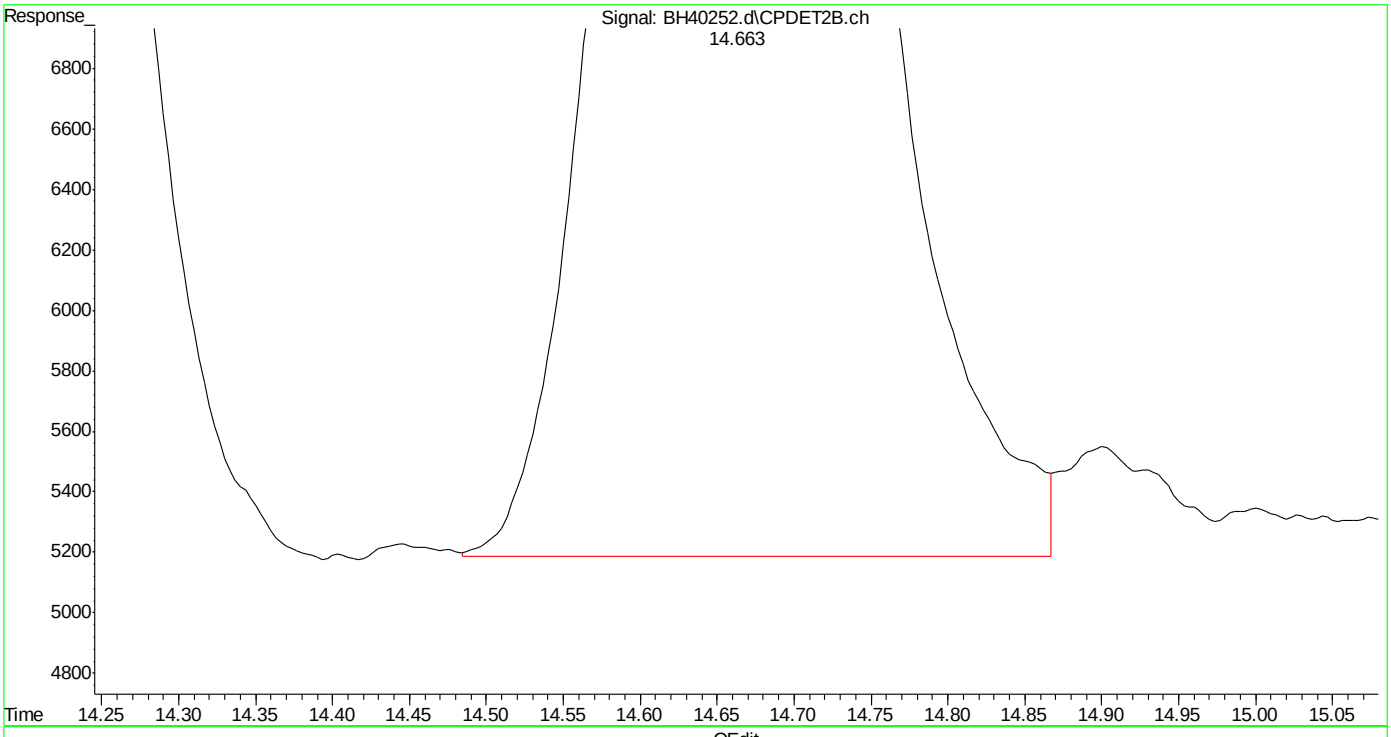
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(25) fluorobenzene #2 (s)
14.663min 1.998 ppb m
response 725186

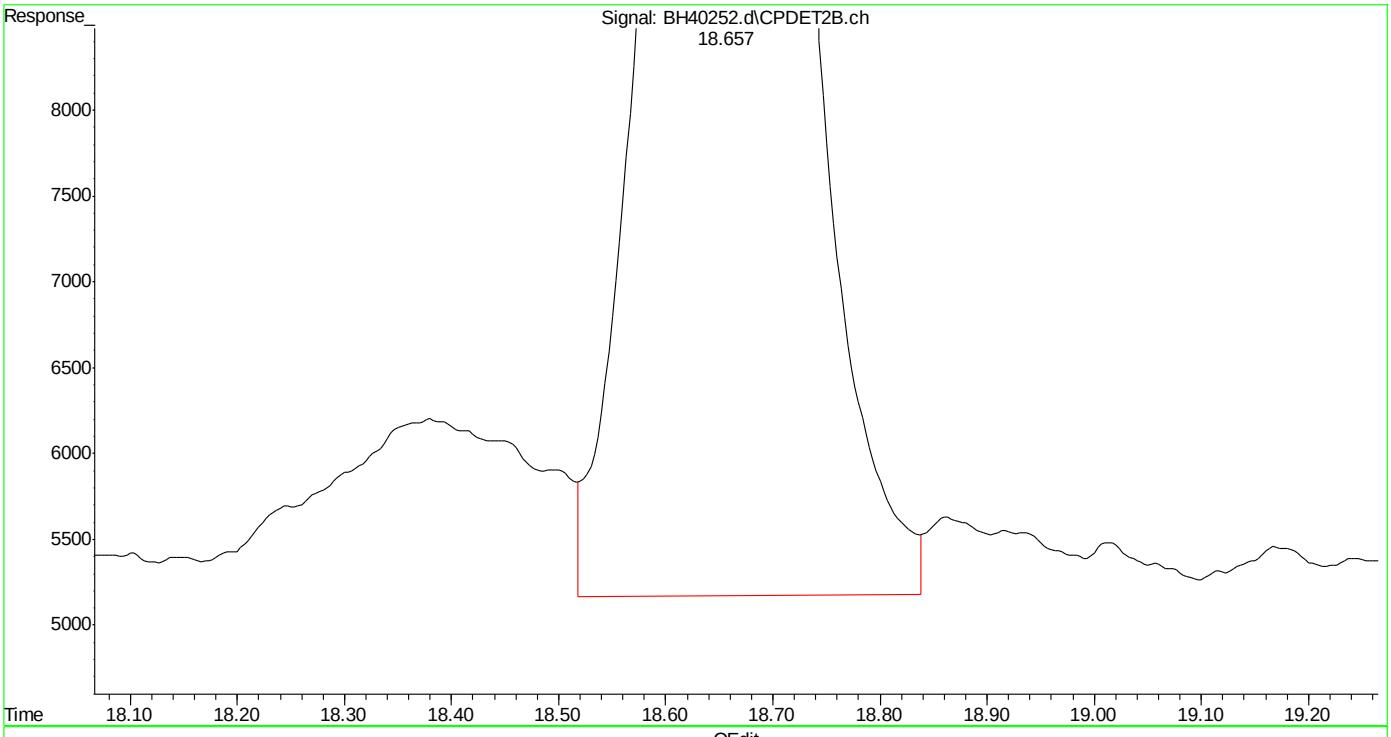
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(26) toluene #2 (t)
18.658min 2.092 ppb
response 1076505

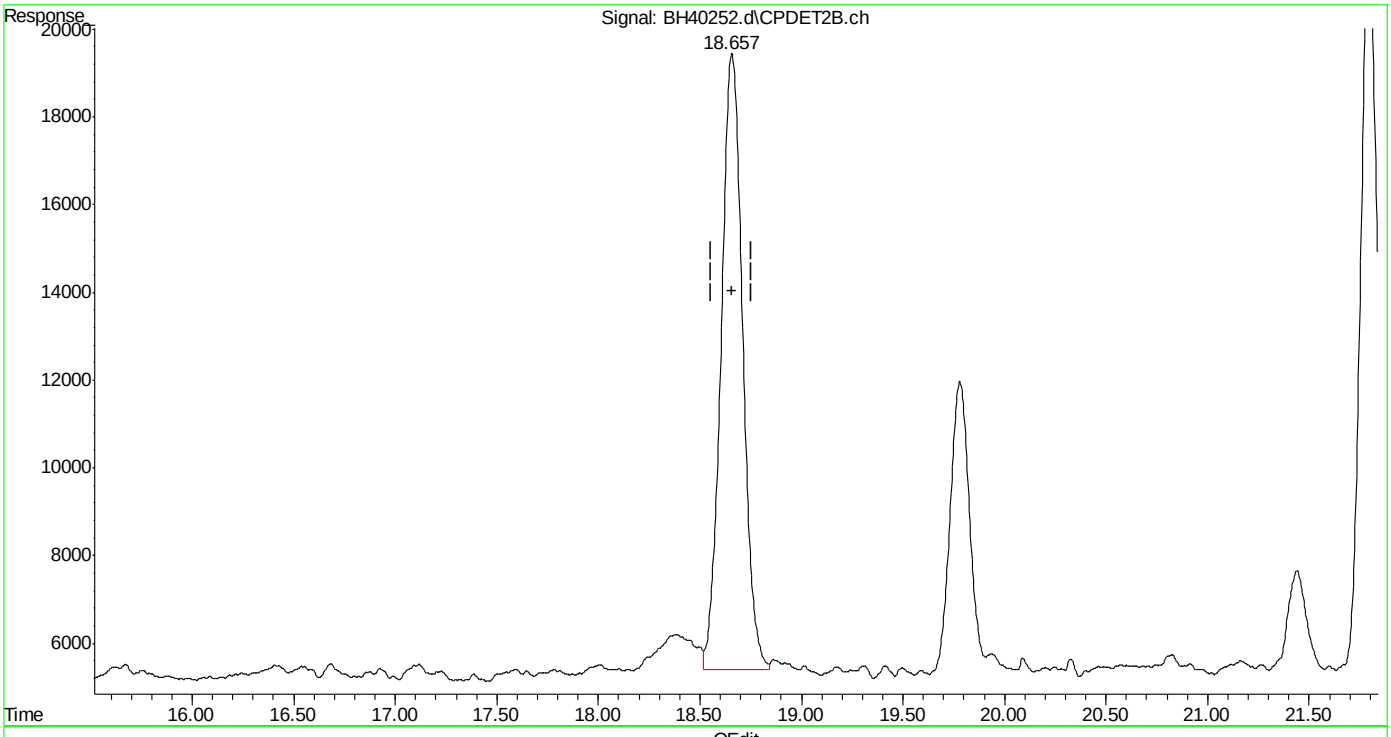
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:27:15 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(26) toluene #2 (t)
18.657min 2.004 ppb m
response 1031417

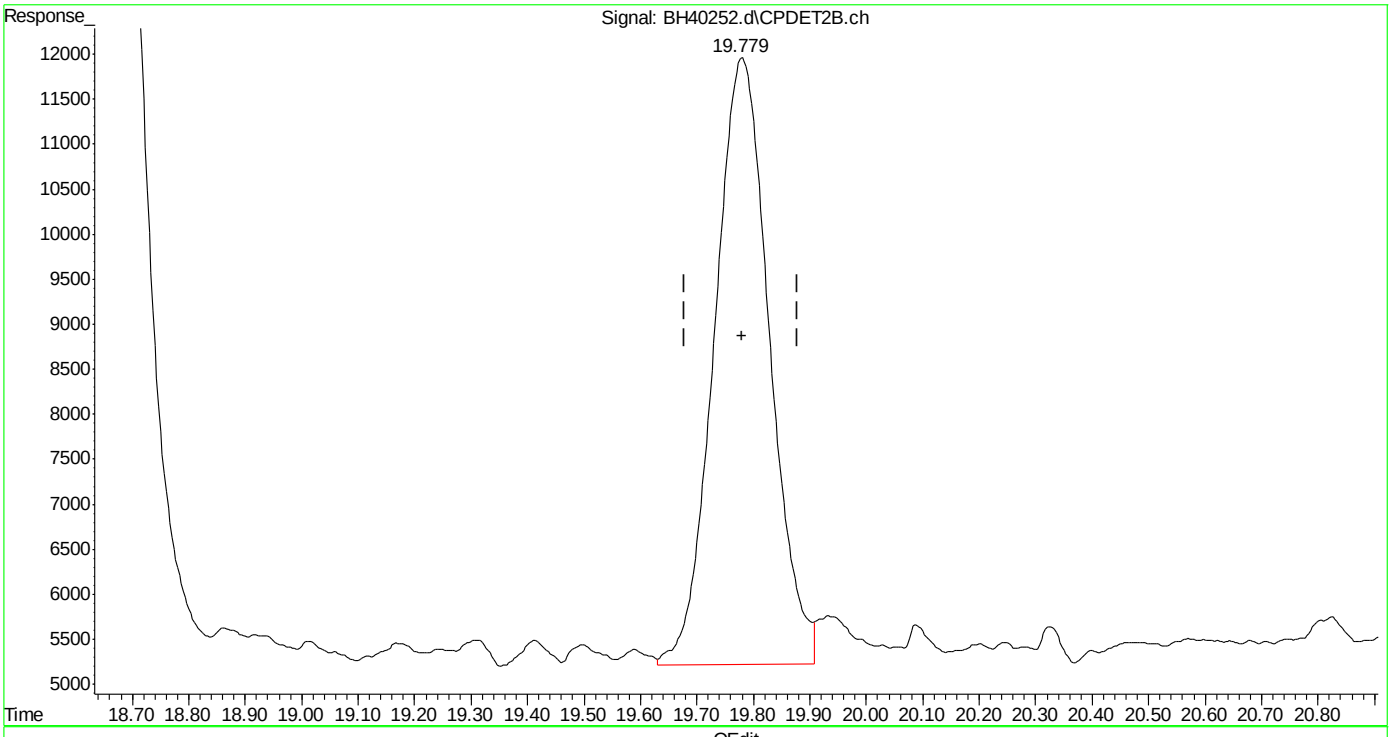
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:27:27 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(27) 2,3,4-trifluorotoluene #2 (s)
19.781min 2.200 ppb
response 456788

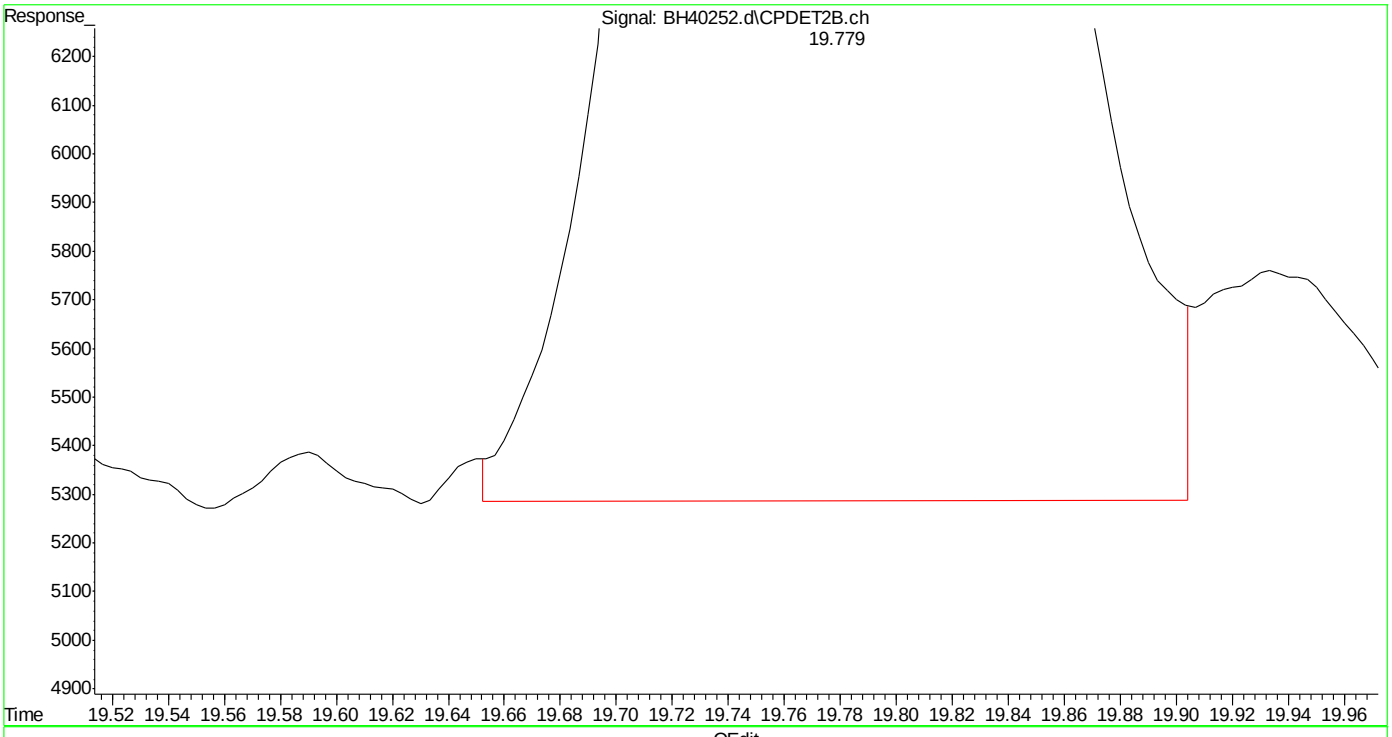
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(27) 2,3,4-trifluorotoluene #2 (s)
19.779min 2.141 ppb m
response 444637

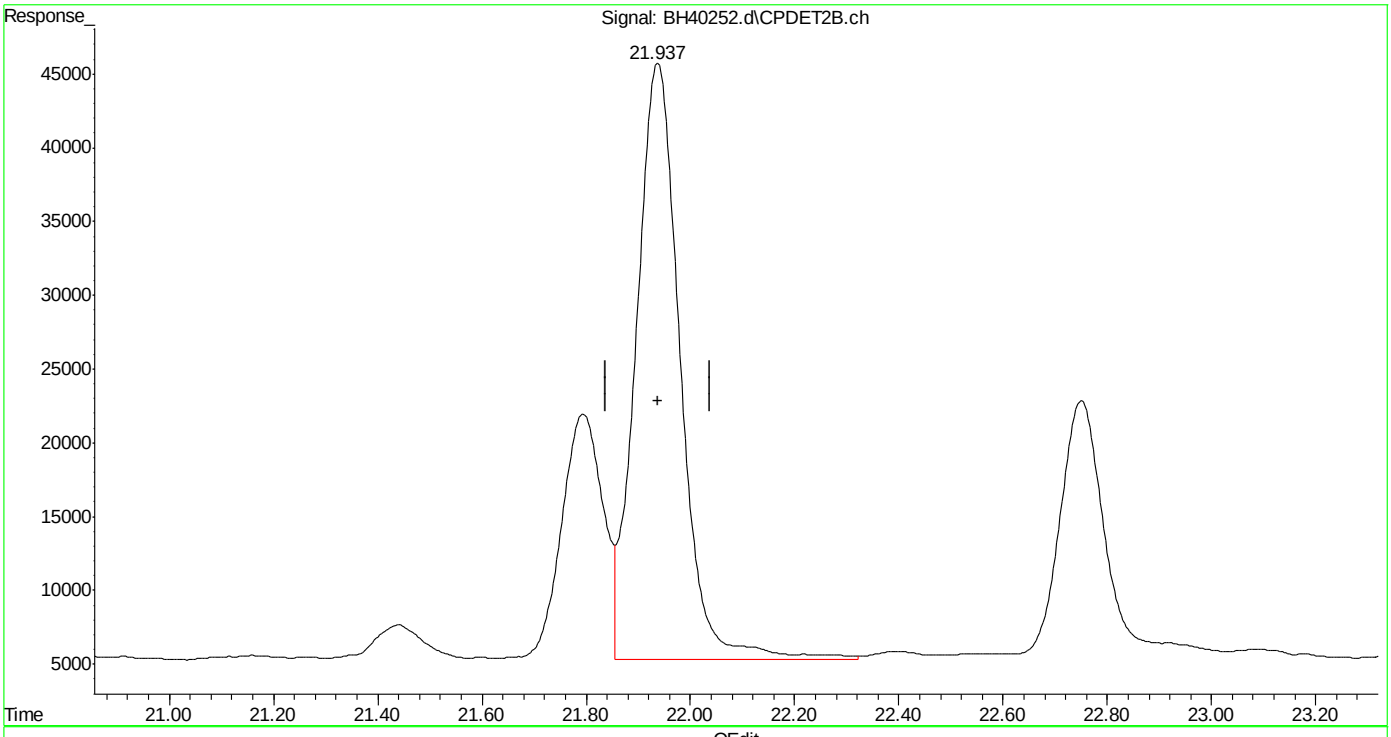
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(29) m,p-xylene #2 (t)
21.938min 4.309 ppb
response 2378292

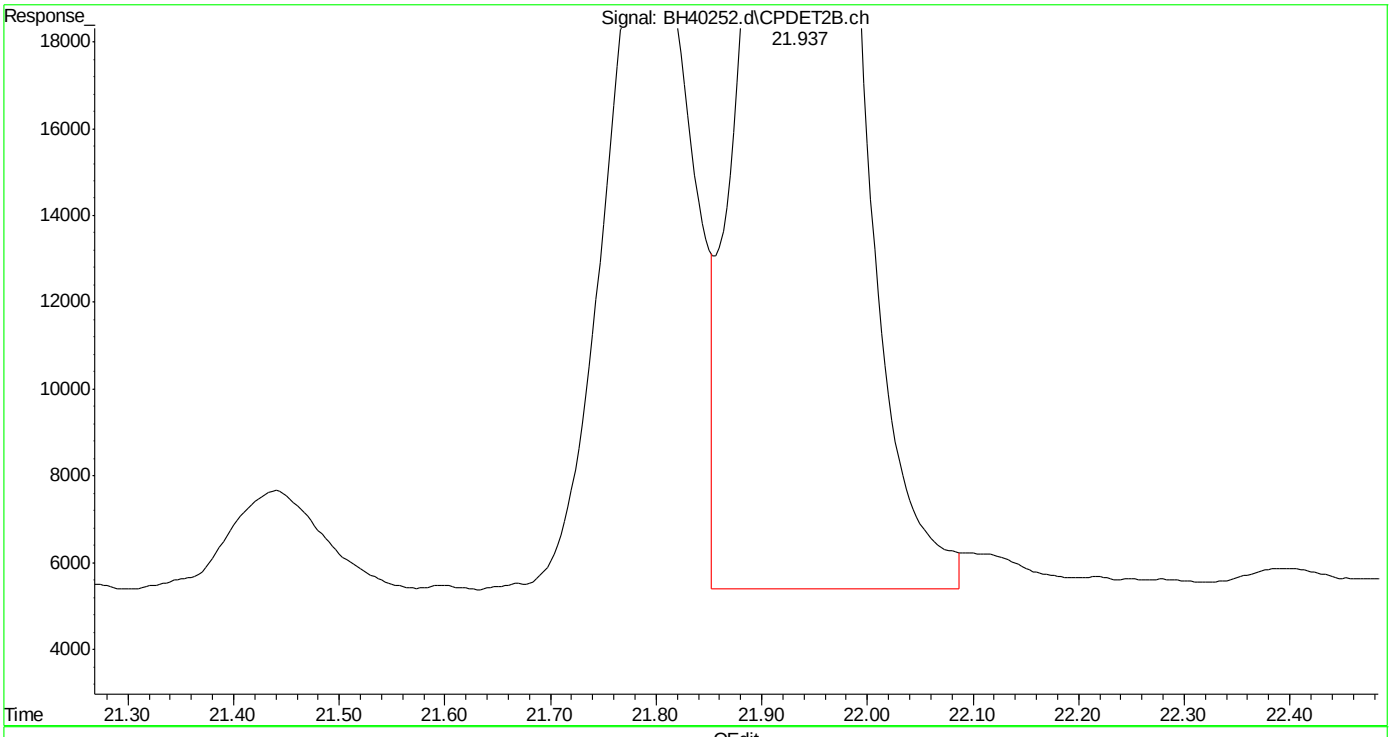
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:27:43 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(29) m,p-xylene #2 (t)
21.937min 4.208 ppb m
response 2322423

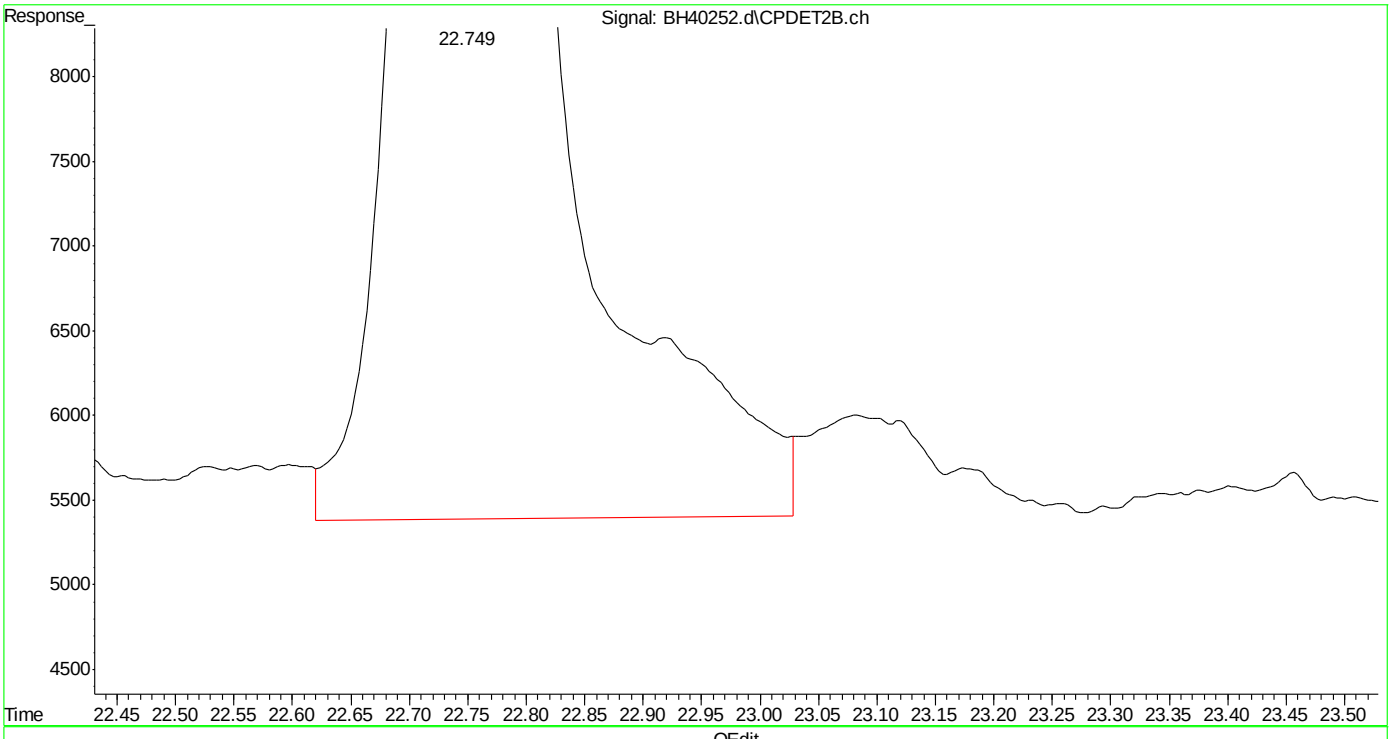
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:27:50 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(30) o-xylene #2 (t)
22.751min 2.281 ppb
response 1089752

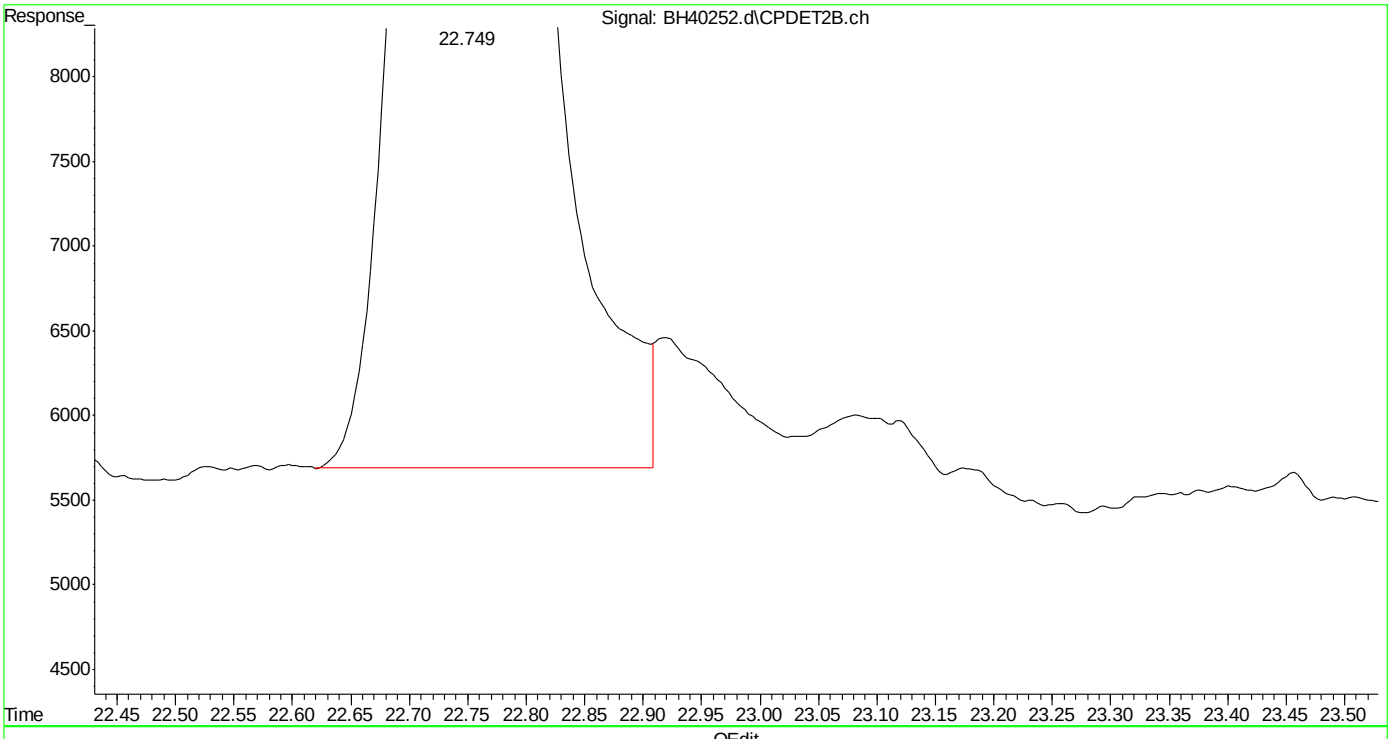
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:27:54 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(30) o-xylene #2 (t)
22.749min 2.058 ppb m
response 983365

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:27:59 2016

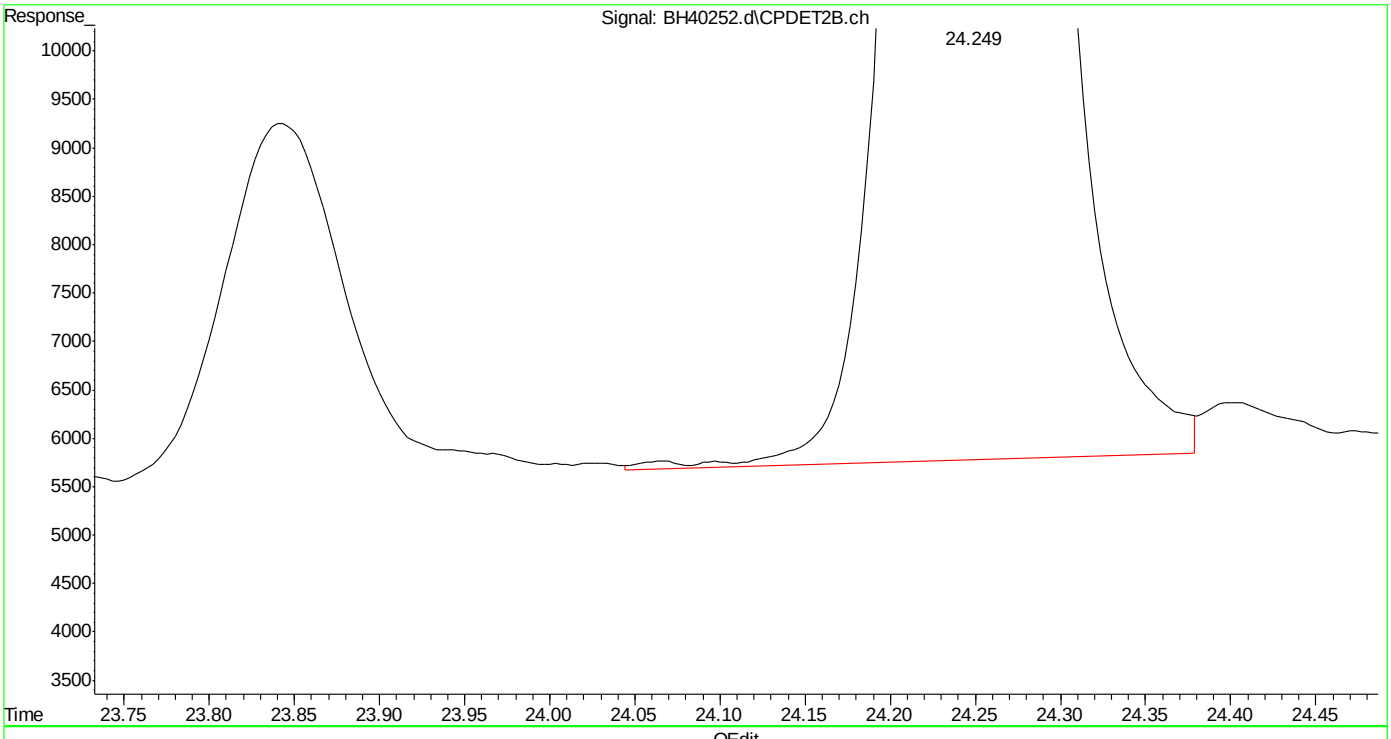
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(31) 1,3,5-trimethylbenzene #2 (t)
24.250min 2.183 ppb
response 1479648

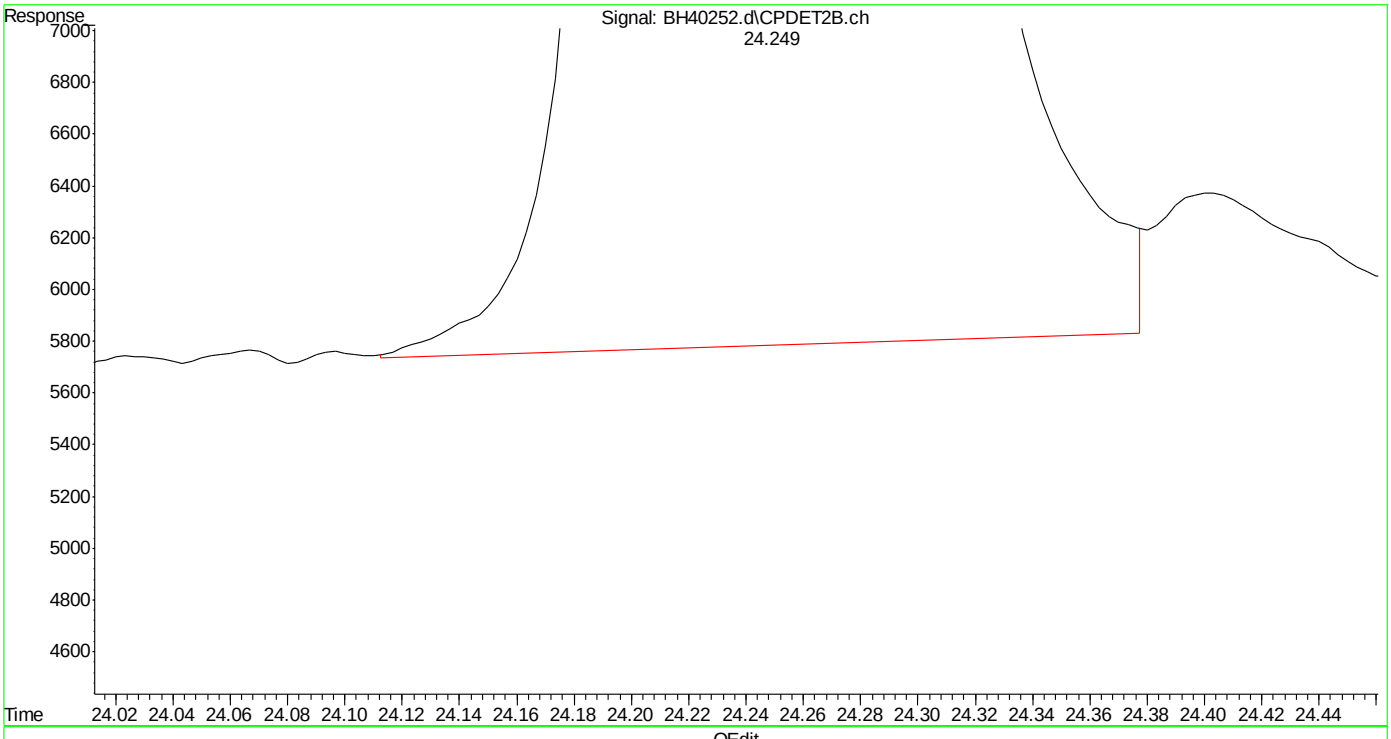
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:28:06 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(31) 1,3,5-trimethylbenzene #2 (t)
24.249min 2.180 ppb m
response 1477524

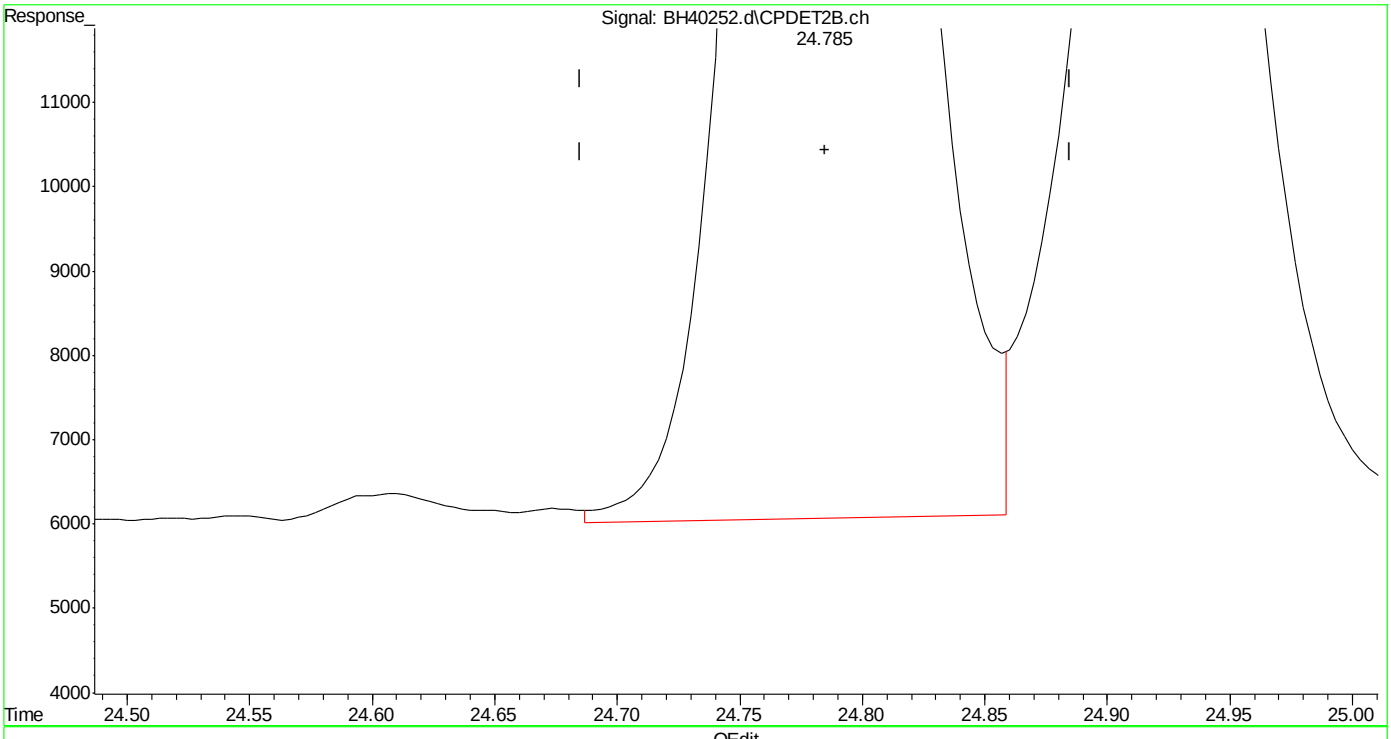
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 16:28:14 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(32) 1,2,4-trimethylbenzene #2 (t)
24.786min 2.192 ppb
response 1102145

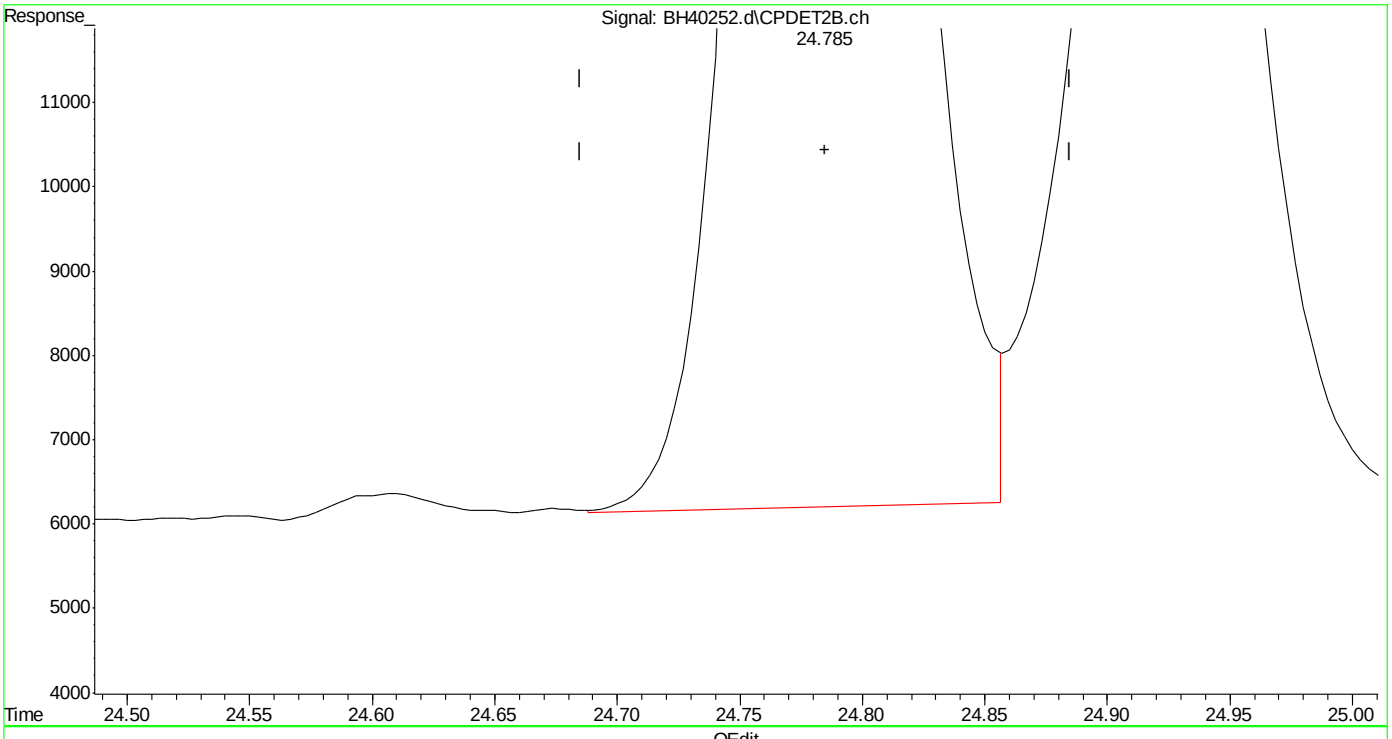
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(32) 1,2,4-trimethylbenzene #2 (t)
24.785min 2.156 ppb m
response 1084175

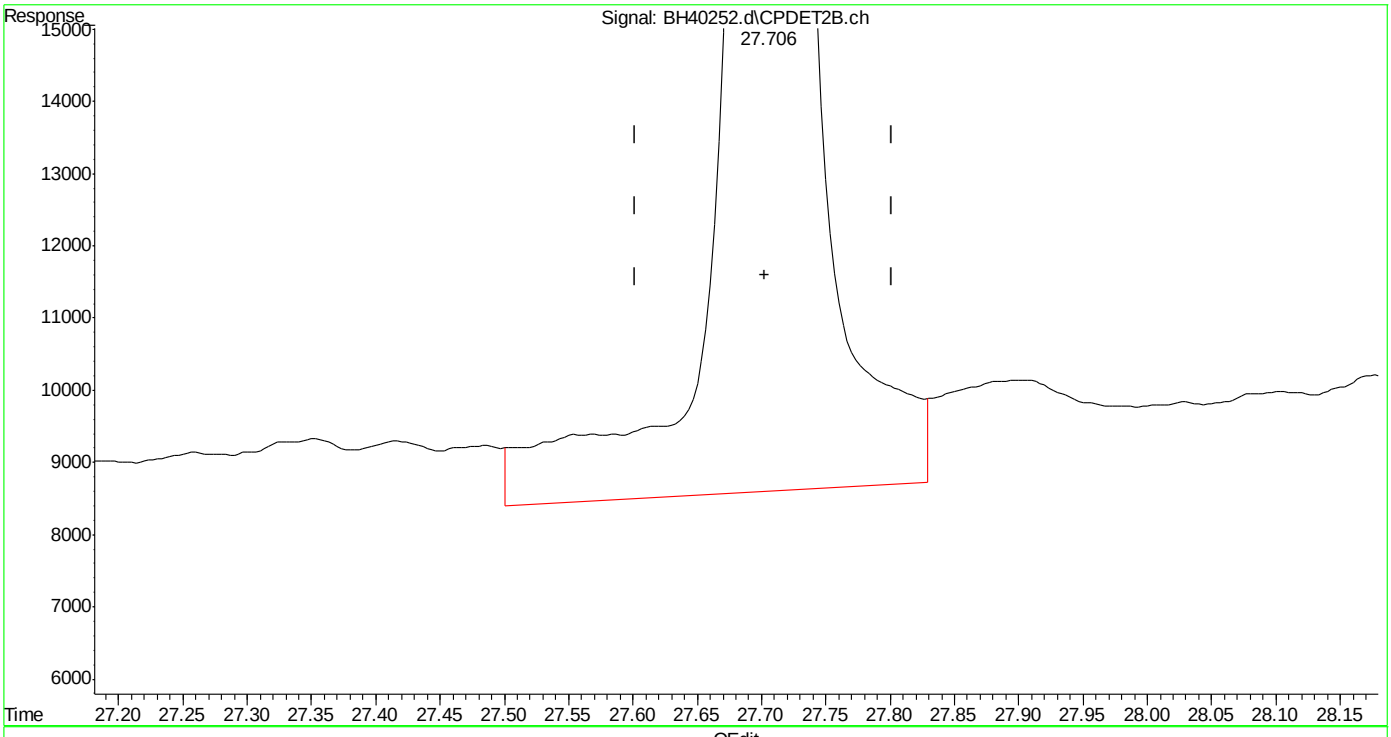
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(33) naphthalene #2 (t)
27.707min 2.708 ppb
response 1087828

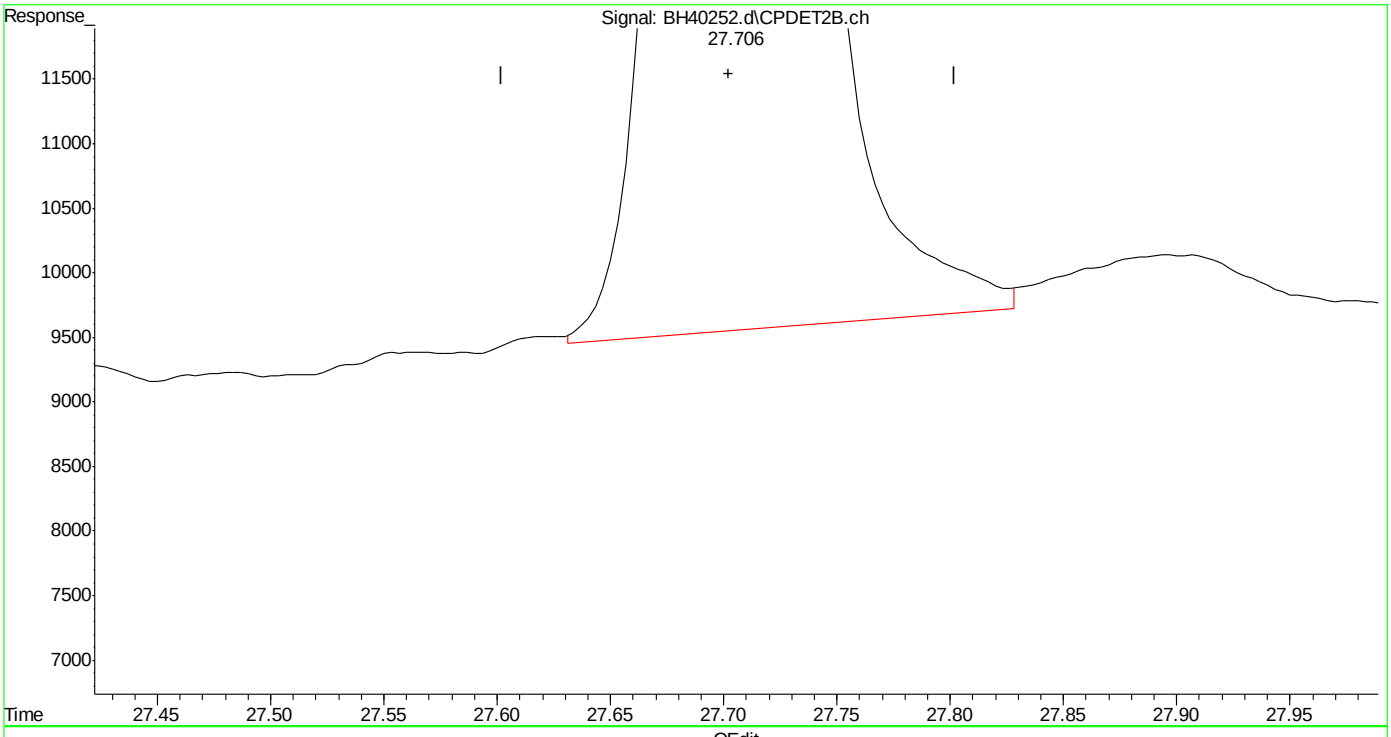
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40252.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 3:48 pm
Operator : tonyf
Sample : ic2394-2,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 16:23:26 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 15:22:49 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(33) naphthalene #2 (t)
27.706min 2.249 ppb m
response 903191

(+) = Expected Retention Time

BH40253.D

Manual Integrations APPROVED (compounds with "m" flag)

Andri Piluri
11/02/16 12:49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:27:35 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
6) s fluorobenzene	14.667	967517	1.013	ppb	m
Spiked Amount 50.000		Recovery =	2.03%		
9) s 2,3,4-trifluorotoluene	19.776	993744	1.270	ppb	m
Spiked Amount 50.000		Recovery =	2.54%		
25) s fluorobenzene #2	14.665	362265	1.006	ppb	m
Spiked Amount 50.000		Recovery =	2.01%		
27) s 2,3,4-trifluorotoluen...	19.782	261523	1.247	ppb	m
Spiked Amount 50.000		Recovery =	2.49%		
Target Compounds					
1) h rt5.5-7	5.980	1030928	1.161	ppb	m
2) h rt7/10	8.250	1064290	1.079	ppb	m
3) t mtbe	9.001	694076	1.159	ppb	m
4) h rt10/13	13.360	1581958	1.375	ppb	m
5) t benzene	14.159	1236032	1.043	ppb	m
8) t toluene	18.658	1191221	1.013	ppb	m
11) h rt20/25	21.460	1719498	1.529	ppb	m
13) t ethylbenzene	21.793	1302363	1.118	ppb	
14) t m,p-xylene	21.937	2683286	2.210	ppb	
15) t o-xylene	22.748	1339727	1.094	ppb	m
16) h decane	23.856	1889255	1.663	ppb	m
17) t 1,3,5-trimethylbenzene	24.249	1474517	1.167	ppb	m
18) t 1,2,4-trimethylbenzene	24.784	1459482	1.195	ppb	m
19) h butylcyclohexane	24.940	1810143	1.530	ppb	m
20) t naphthalene	27.704	763770	1.131	ppb	m
23) t mtbe #2	9.028	247955	1.019	ppb	m
24) t benzene #2	14.159	593842	1.063	ppb	m
26) t toluene #2	18.661	542837	1.060	ppb	m
28) t ethylbenzene #2	21.794	486241	1.080	ppb	
29) t m,p-xylene #2	21.938	1238725	2.238	ppb	
30) t o-xylene #2	22.749	530700	1.107	ppb	m
31) t 1,3,5-trimethylbenzen...	24.248	771232	1.134	ppb	m
32) t 1,2,4-trimethylbenzen...	24.785	577898	1.146	ppb	m
33) t naphthalene #2	27.703	453125	1.169	ppb	m
34) h c9-c10 arom as 1,2,4-tmb	24.800	578122	1.146	ppb	m

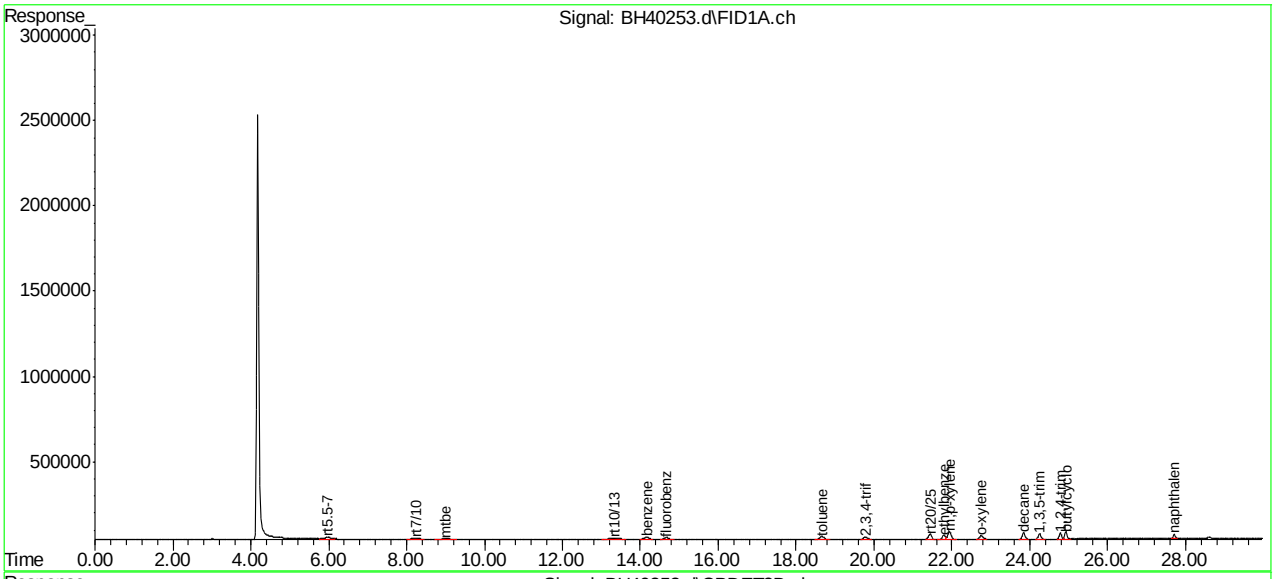
(f)=RT Delta > 1/2 Window (m)=manual int.

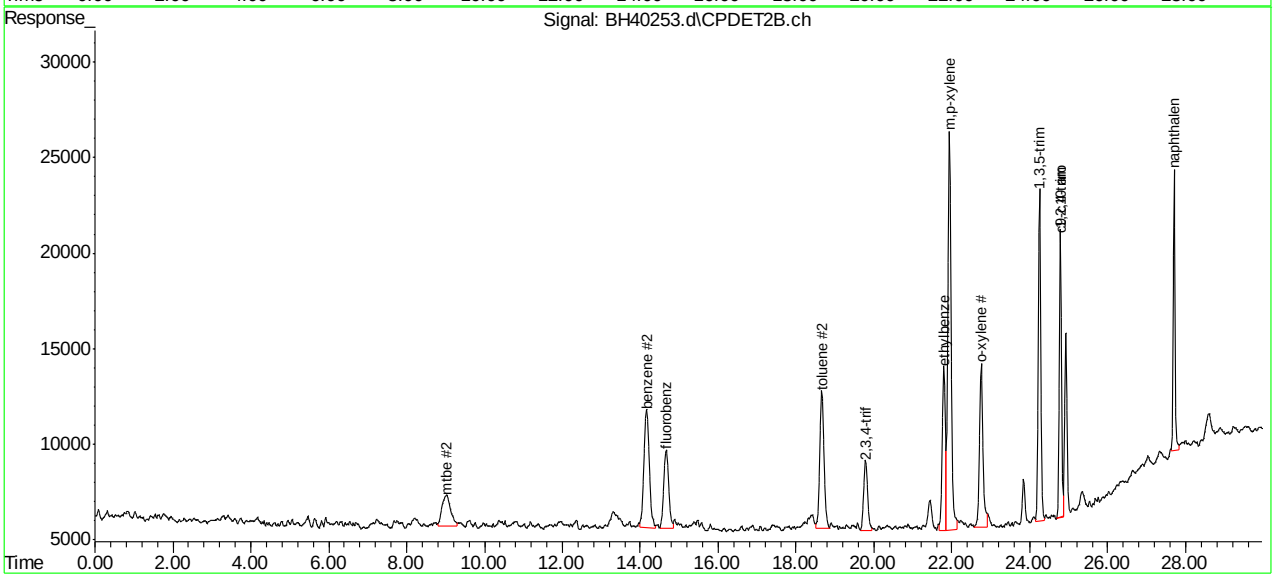
Quantitation Report (QT Reviewed)

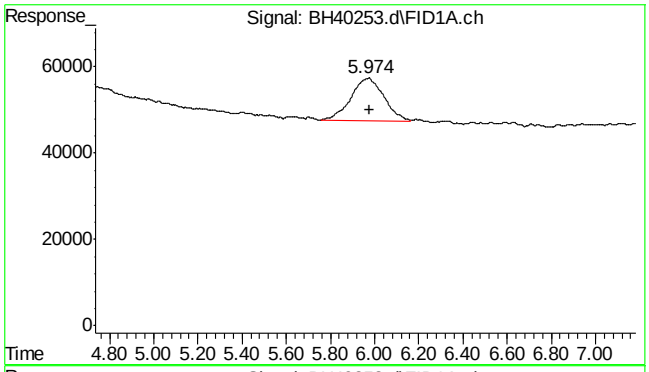
Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:27:35 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

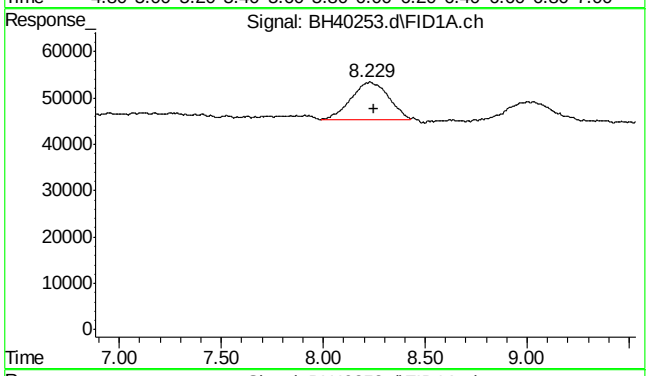






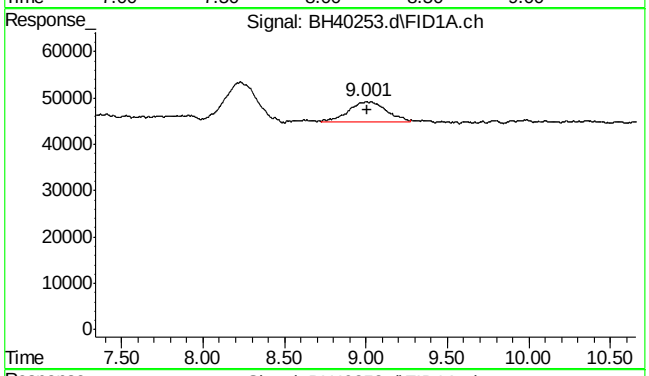
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 1030928
Conc: 1.16 ppb m



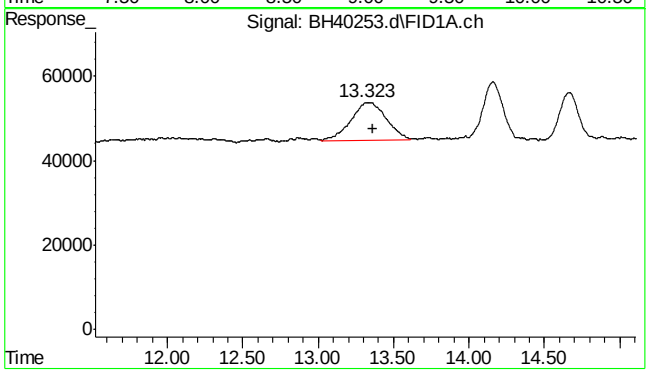
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 1064290
Conc: 1.08 ppb m



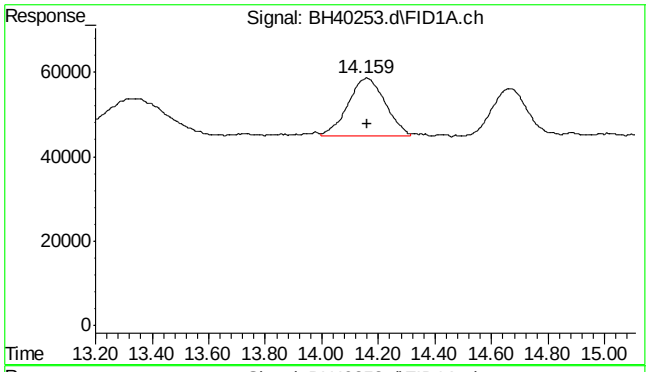
#3 mtbe

R.T.: 9.001 min
Delta R.T.: -0.007 min
Response: 694076
Conc: 1.16 ppb m



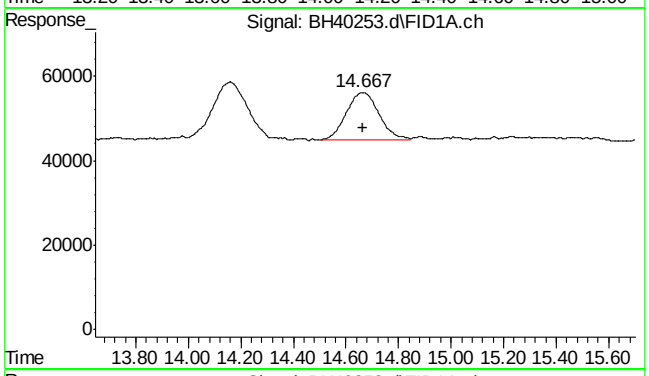
#4 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 1581958
Conc: 1.38 ppb m



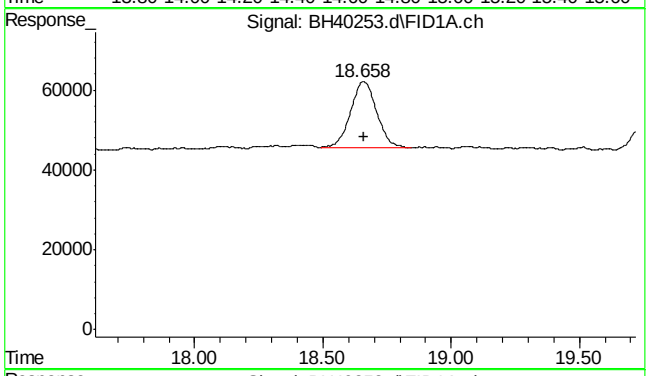
#5 benzene

```
      R.T.:   14.159 min
Delta R.T.:   -0.002 min
  Response:   1236032
      Conc:   1.04 ppb m
```



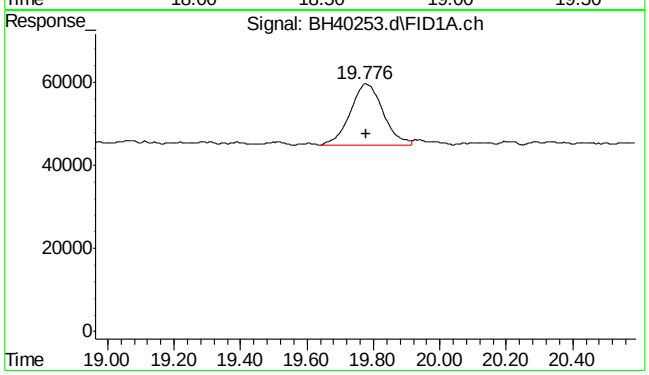
#6 fluorobenzene

```
      R.T.:   14.667 min
Delta R.T.:    0.003 min
  Response:    967517
      Conc:   1.01 ppb m
```



#8 toluene

```
      R.T.:   18.658 min
Delta R.T.:   -0.001 min
  Response:   1191221
      Conc:   1.01 ppb m
```



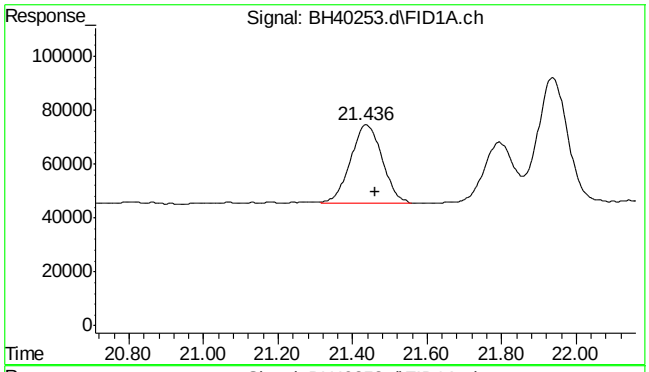
#9 2,3,4-trifluorotoluene

```
      R.T.:   19.776 min
Delta R.T.:   -0.003 min
  Response:    993744
      Conc:   1.27 ppb m
```

7.5.7

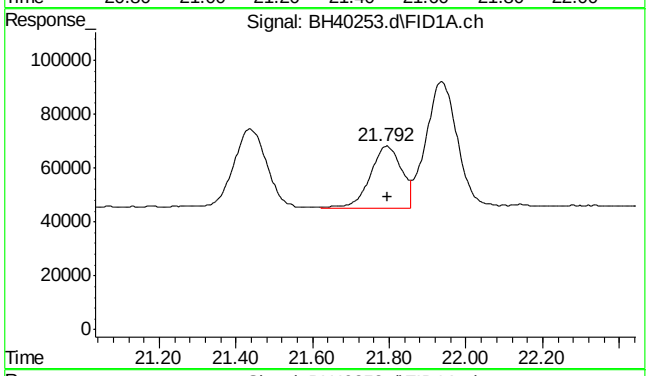
7

SGS ACCUTEST MC48999



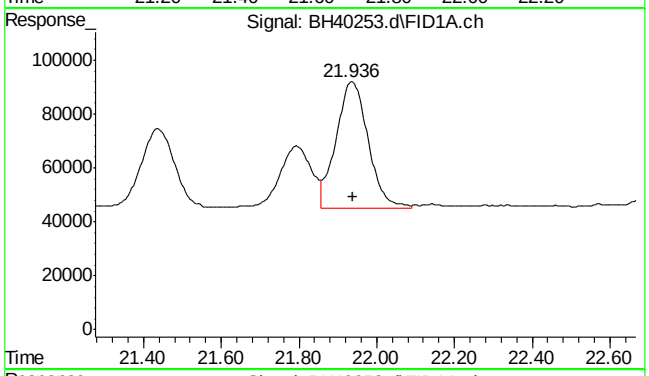
#11 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 1719498
Conc: 1.53 ppb m



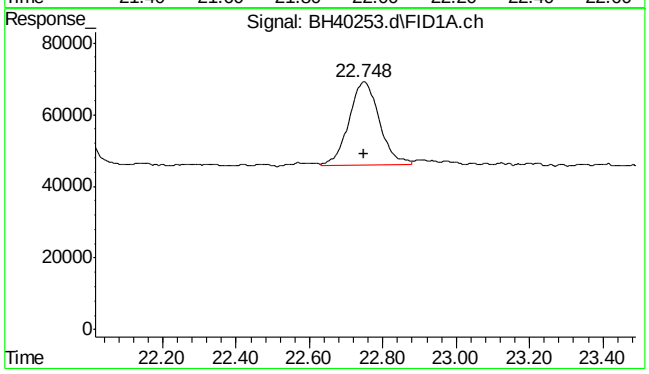
#13 ethylbenzene

R.T.: 21.793 min
Delta R.T.: 0.000 min
Response: 1302363
Conc: 1.12 ppb



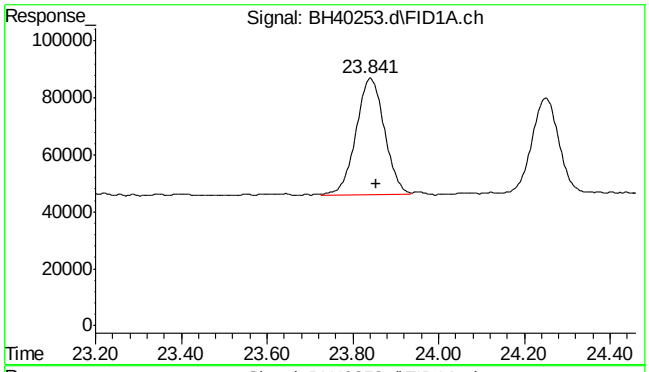
#14 m,p-xylene

R.T.: 21.937 min
Delta R.T.: 0.000 min
Response: 2683286
Conc: 2.21 ppb



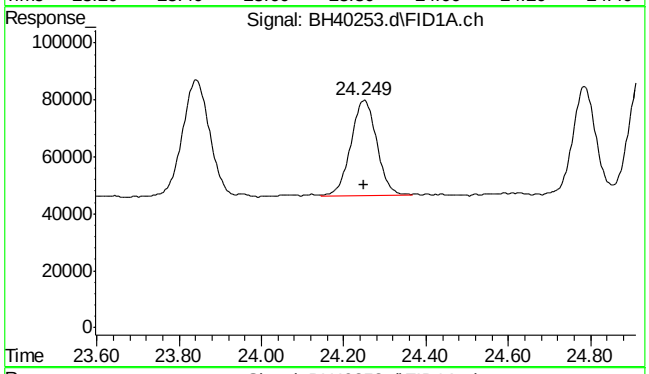
#15 o-xylene

R.T.: 22.748 min
Delta R.T.: -0.002 min
Response: 1339727
Conc: 1.09 ppb m



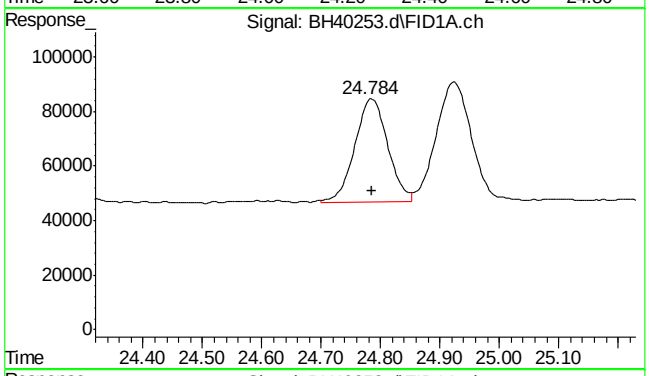
#16 decane

R.T.: 23.856 min
Delta R.T.: 0.000 min
Response: 1889255
Conc: 1.66 ppb m



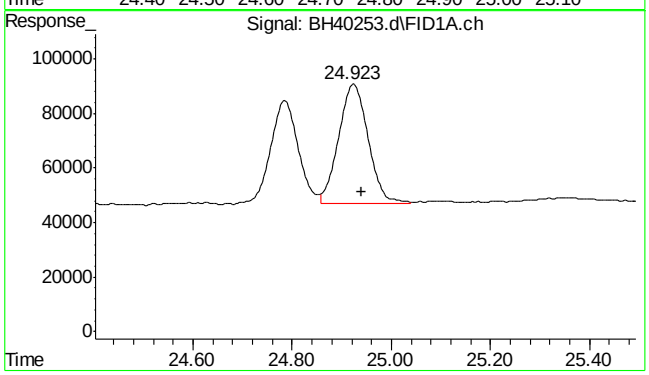
#17 1,3,5-trimethylbenzene

R.T.: 24.249 min
Delta R.T.: 0.000 min
Response: 1474517
Conc: 1.17 ppb m



#18 1,2,4-trimethylbenzene

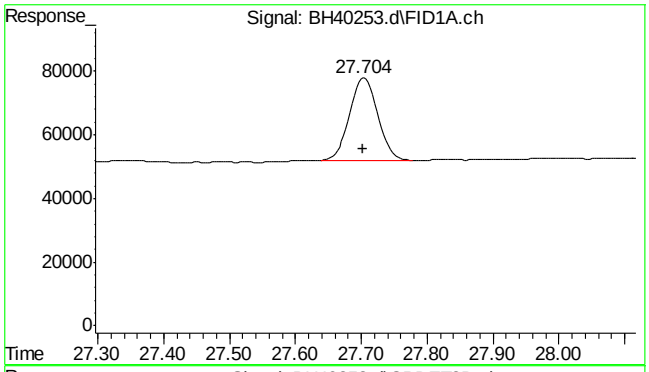
R.T.: 24.784 min
Delta R.T.: -0.002 min
Response: 1459482
Conc: 1.20 ppb m



#19 butylcyclohexane

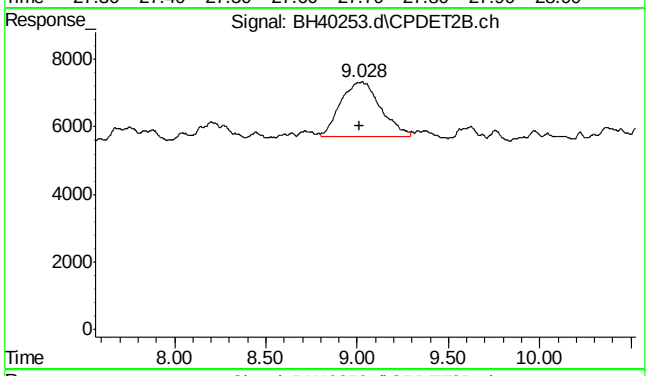
R.T.: 24.940 min
Delta R.T.: 0.000 min
Response: 1810143
Conc: 1.53 ppb m

SGS ACCUTEST MC48999



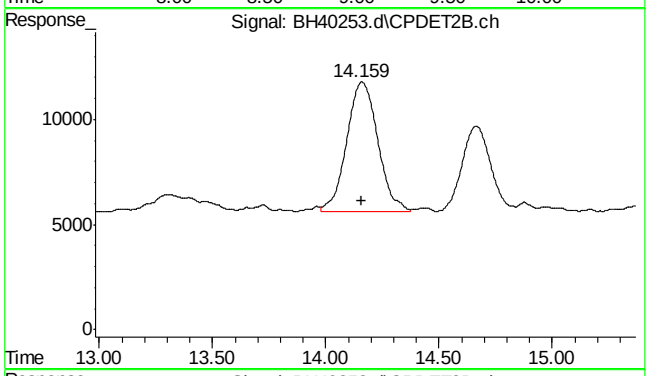
#20 naphthalene

R.T.: 27.704 min
Delta R.T.: 0.000 min
Response: 763770
Conc: 1.13 ppb m



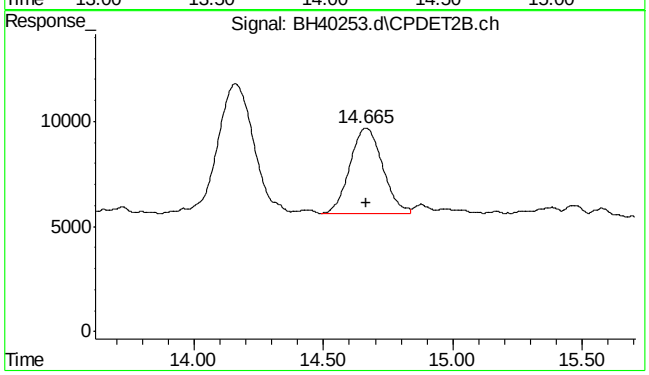
#23 mtbe #2

R.T.: 9.028 min
Delta R.T.: 0.018 min
Response: 247955
Conc: 1.02 ppb m



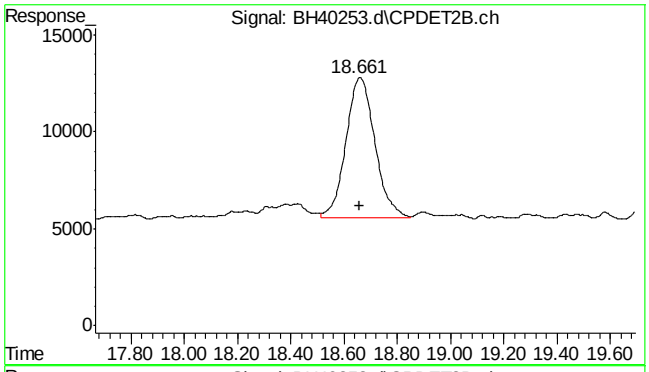
#24 benzene #2

R.T.: 14.159 min
Delta R.T.: -0.002 min
Response: 593842
Conc: 1.06 ppb m



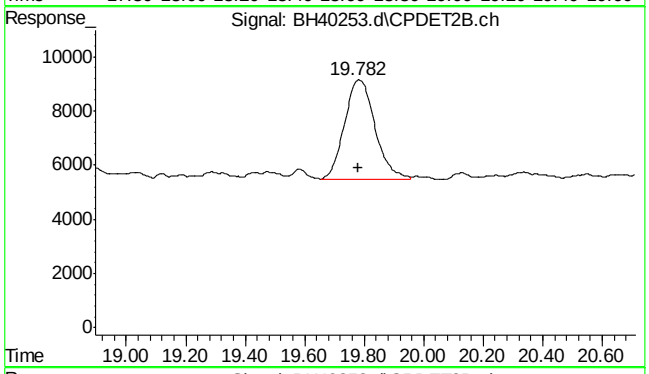
#25 fluorobenzene #2

R.T.: 14.665 min
Delta R.T.: 0.001 min
Response: 362265
Conc: 1.01 ppb m



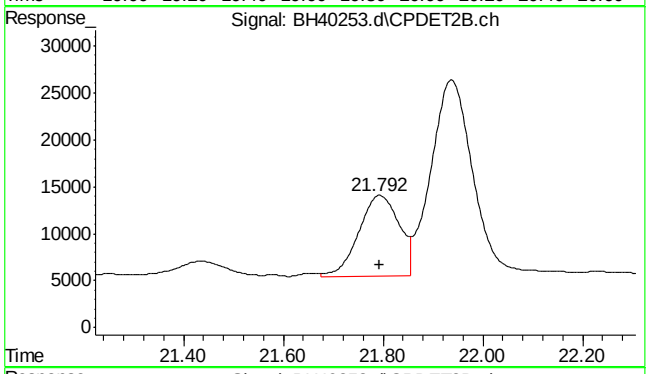
#26 toluene #2

R.T.: 18.661 min
Delta R.T.: 0.002 min
Response: 542837
Conc: 1.06 ppb m



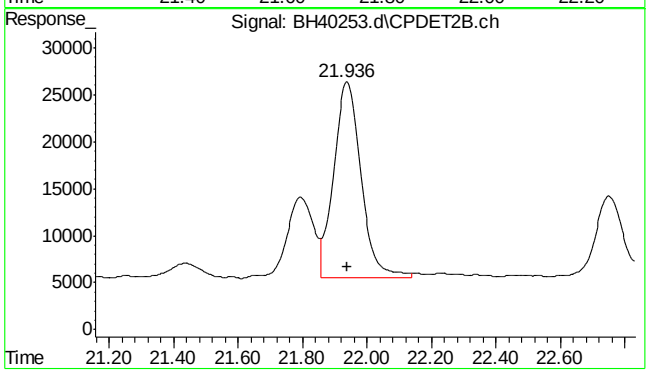
#27 2,3,4-trifluorotoluene #2

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 261523
Conc: 1.25 ppb m



#28 ethylbenzene #2

R.T.: 21.794 min
Delta R.T.: 0.000 min
Response: 486241
Conc: 1.08 ppb



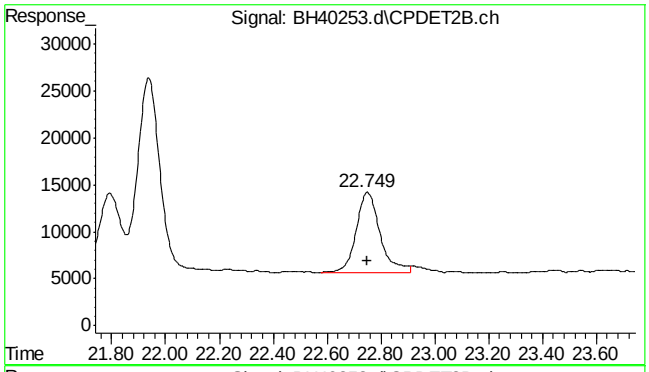
#29 m,p-xylene #2

R.T.: 21.938 min
Delta R.T.: 0.000 min
Response: 1238725
Conc: 2.24 ppb

7.5.7

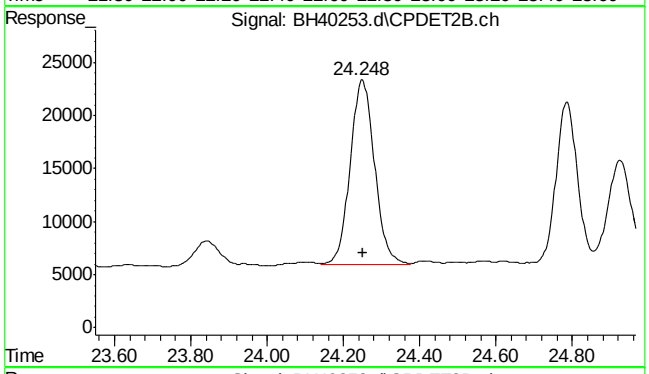
7

SGS ACCUTEST MC48999



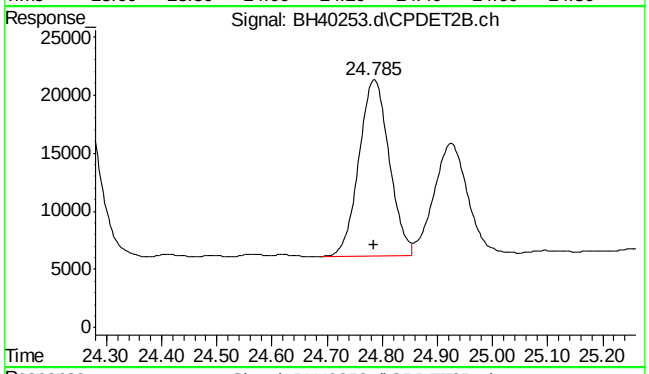
#30 o-xylene #2

R.T.: 22.749 min
Delta R.T.: 0.000 min
Response: 530700
Conc: 1.11 ppb m



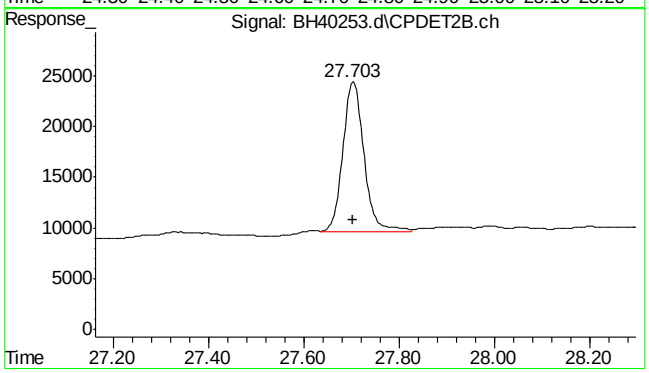
#31 1,3,5-trimethylbenzene #2

R.T.: 24.248 min
Delta R.T.: -0.002 min
Response: 771232
Conc: 1.13 ppb m



#32 1,2,4-trimethylbenzene #2

R.T.: 24.785 min
Delta R.T.: 0.000 min
Response: 577898
Conc: 1.15 ppb m



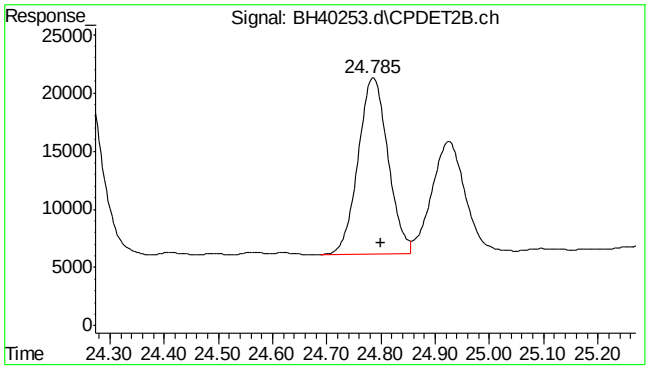
#33 naphthalene #2

R.T.: 27.703 min
Delta R.T.: 0.001 min
Response: 453125
Conc: 1.17 ppb m

7.5.7

7

SGS ACCUTEST MC48999




```
#34  c9-c10 arom as 1,2,4-tmb

      R.T.:   24.800 min
Delta R.T.:    0.000 min
  Response:    578122
      Conc:   1.15 ppb m
```

7.5.7

7

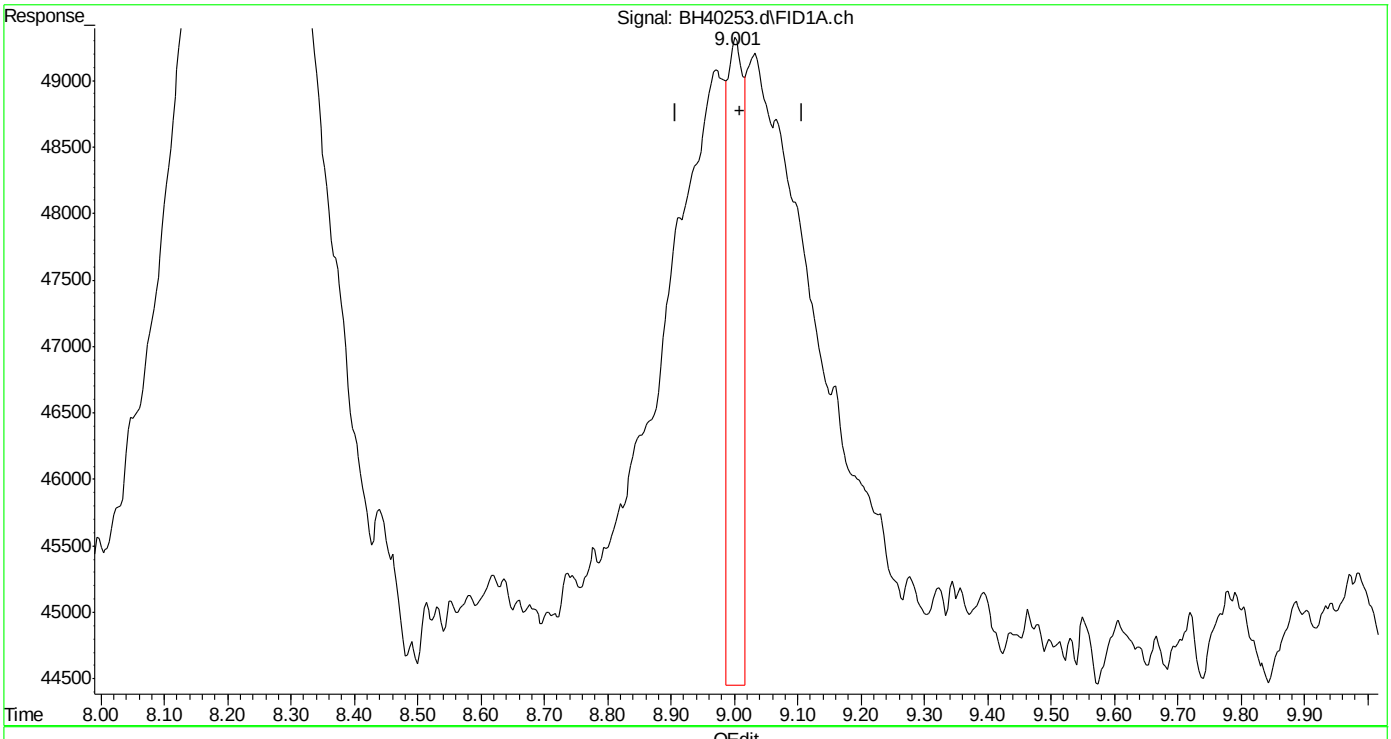
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(3) mtbe (t)
9.002min 0.140 ppb
response 83888

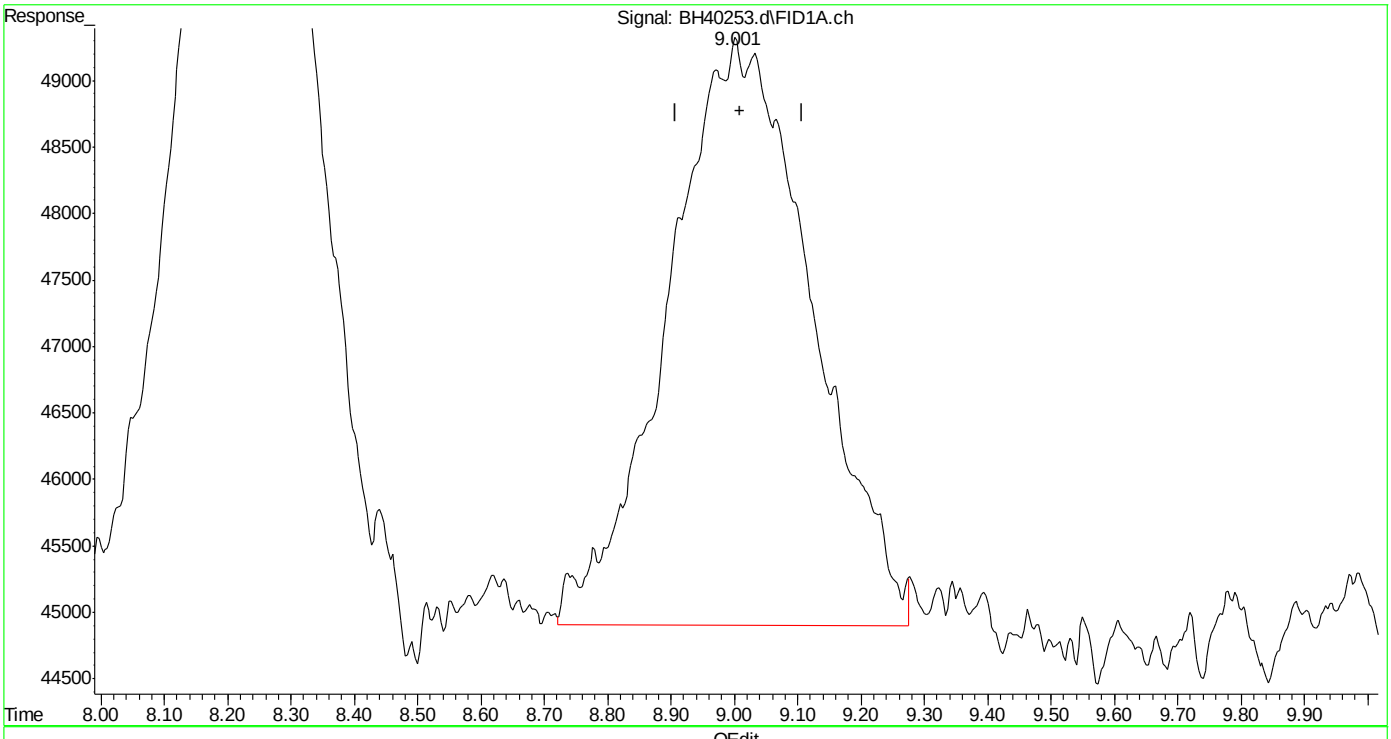
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(3) mtbe (t)
9.001min 1.159 ppb m
response 694076

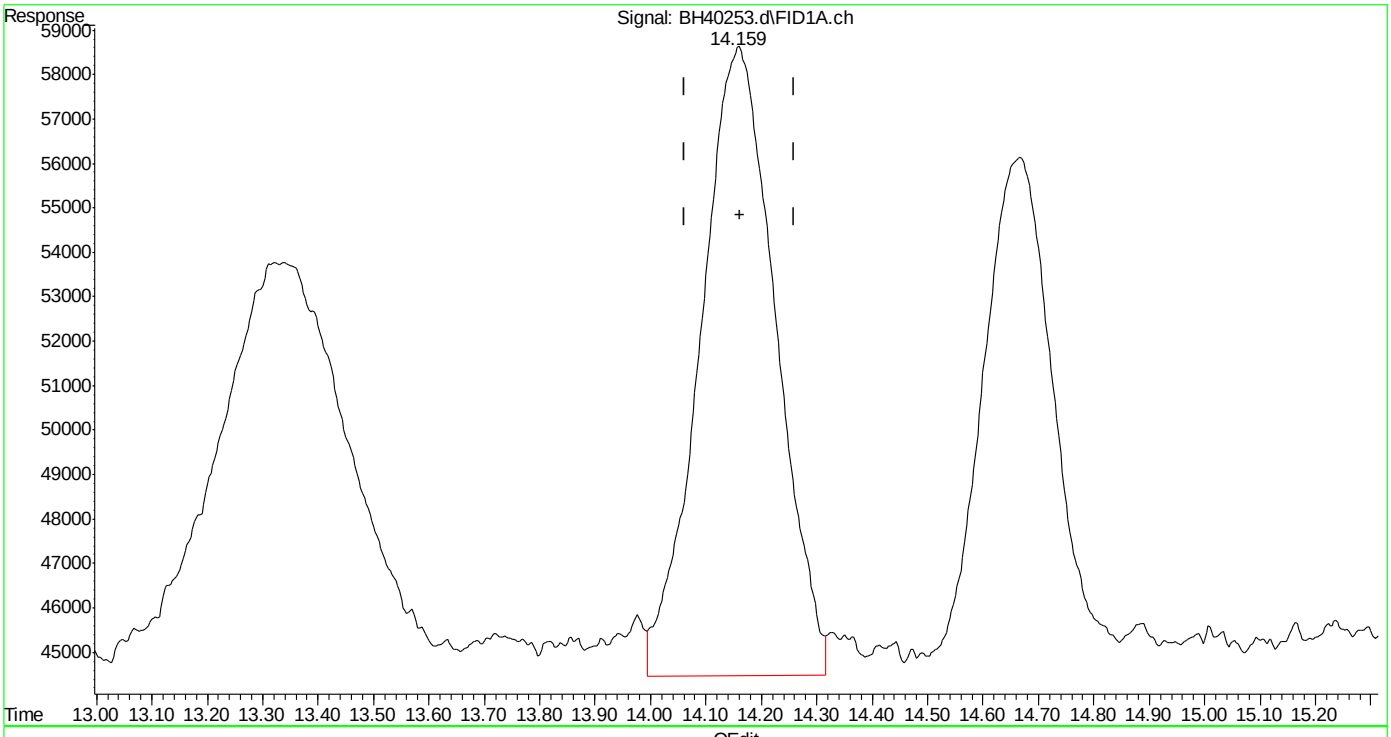
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:21:45 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(5) benzene (t)
14.160min 1.129 ppb
response 1338453

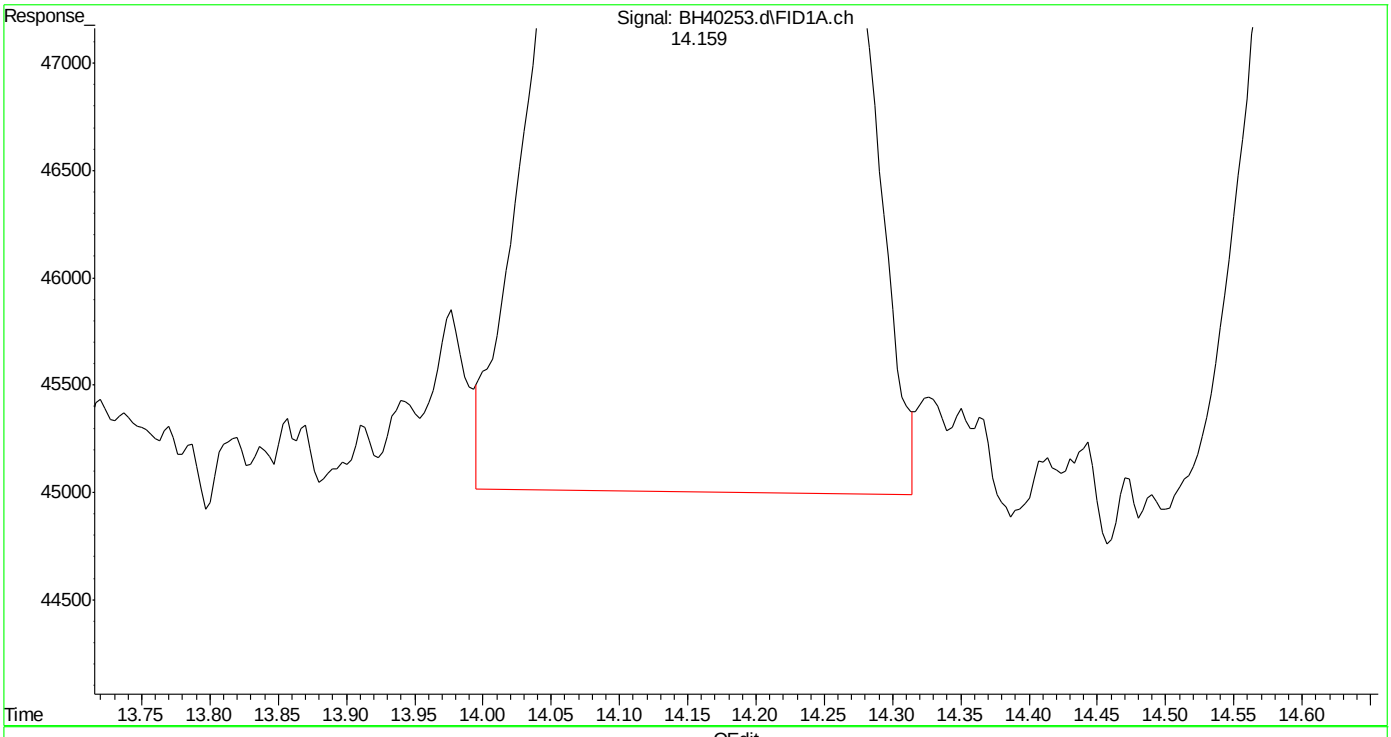
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:21:55 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(5) benzene (t)
14.159min 1.043 ppb m
response 1236032

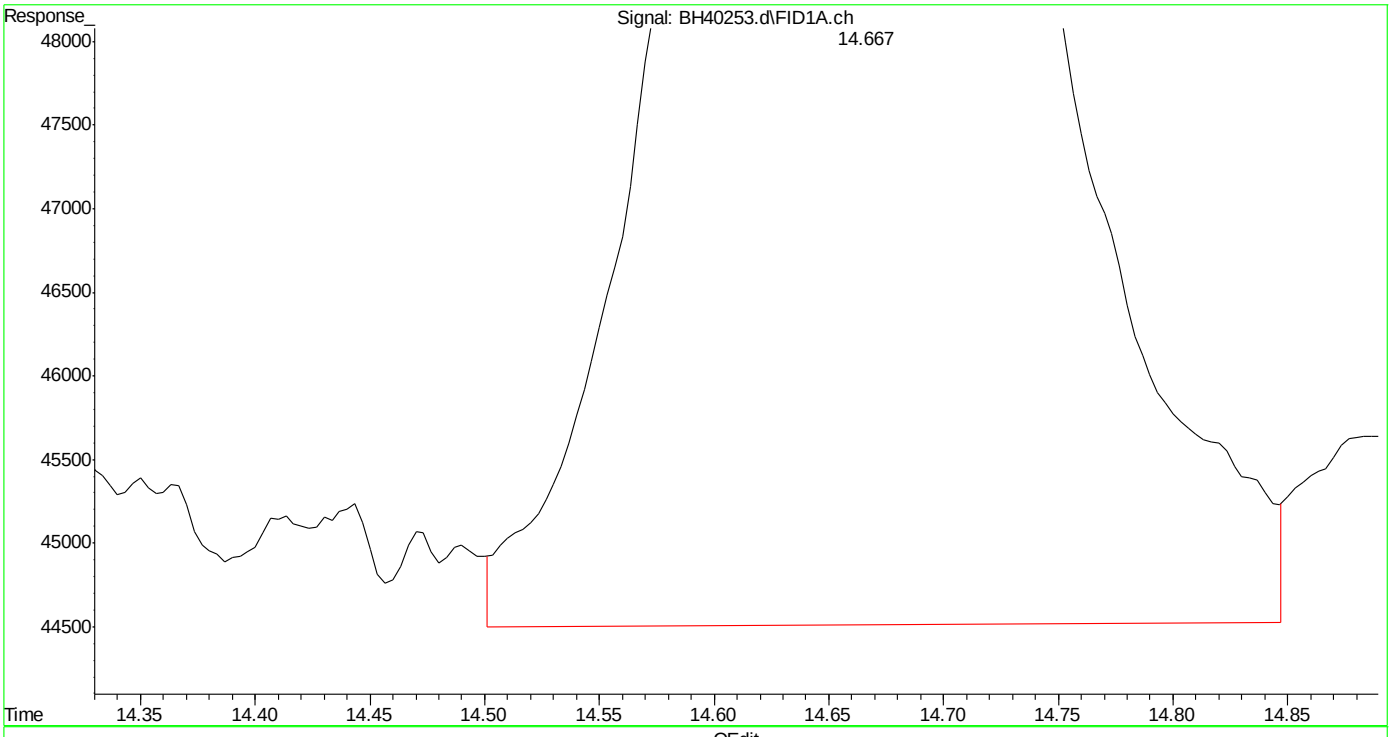
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:22:02 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(6) fluorobenzene (s)
14.668min 1.101 ppb
response 1051330

(+) = Expected Retention Time

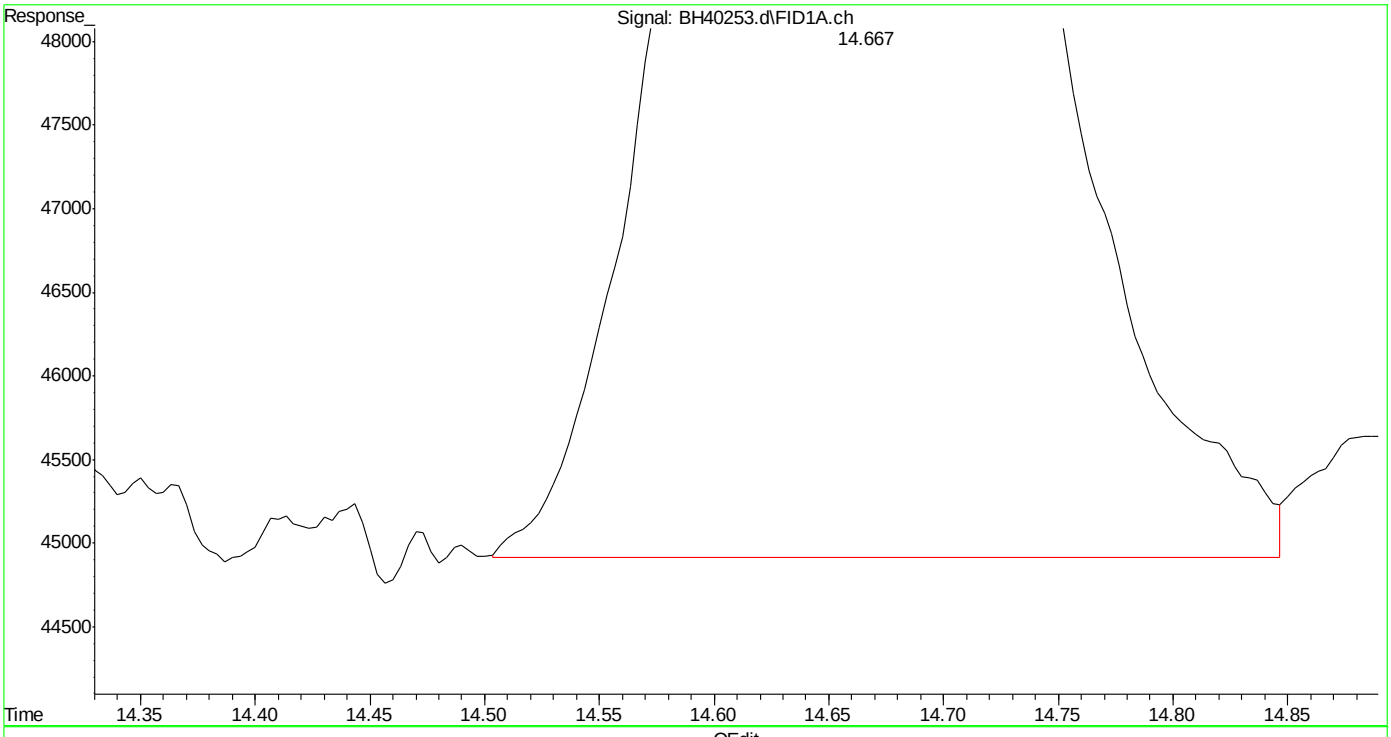
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(6) fluorobenzene (s)
14.667min 1.013 ppb m
response 967517

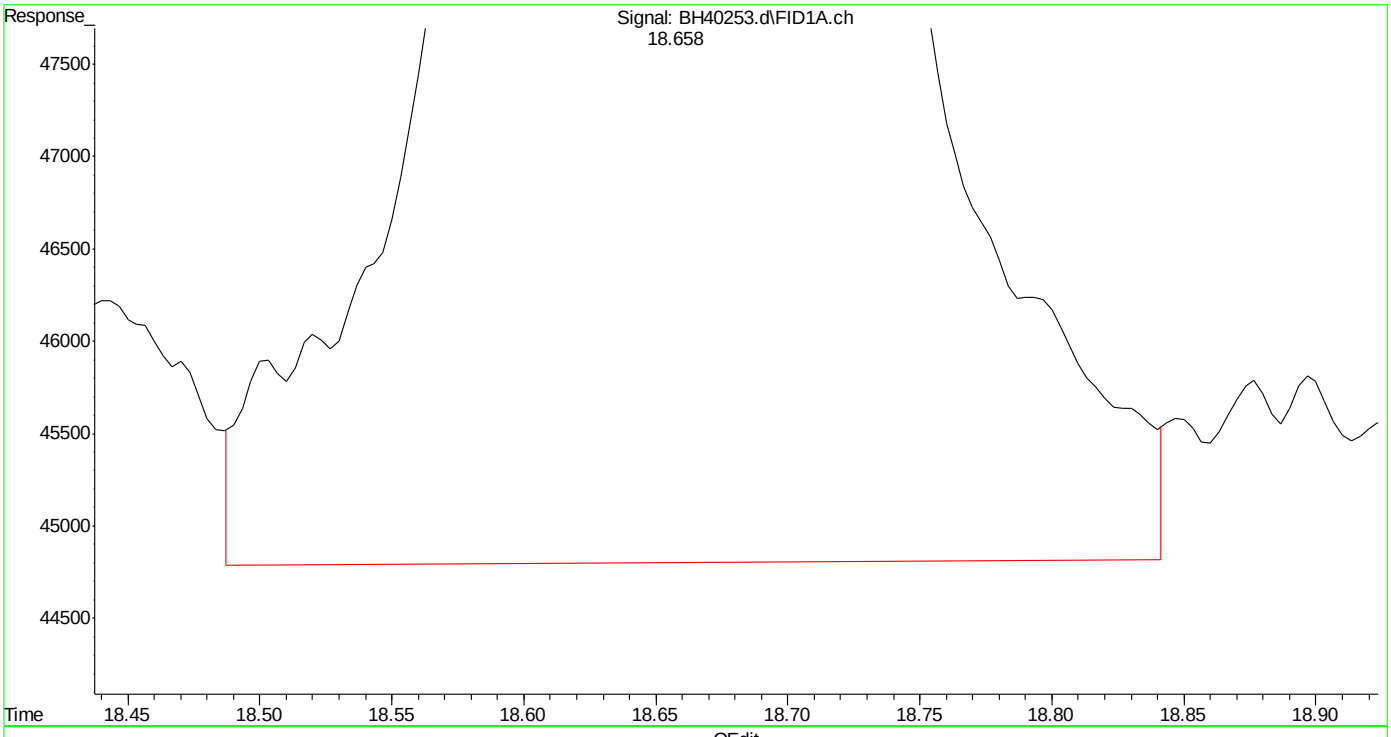
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:22:13 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(8) toluene (t)
18.659min 1.138 ppb
response 1338377

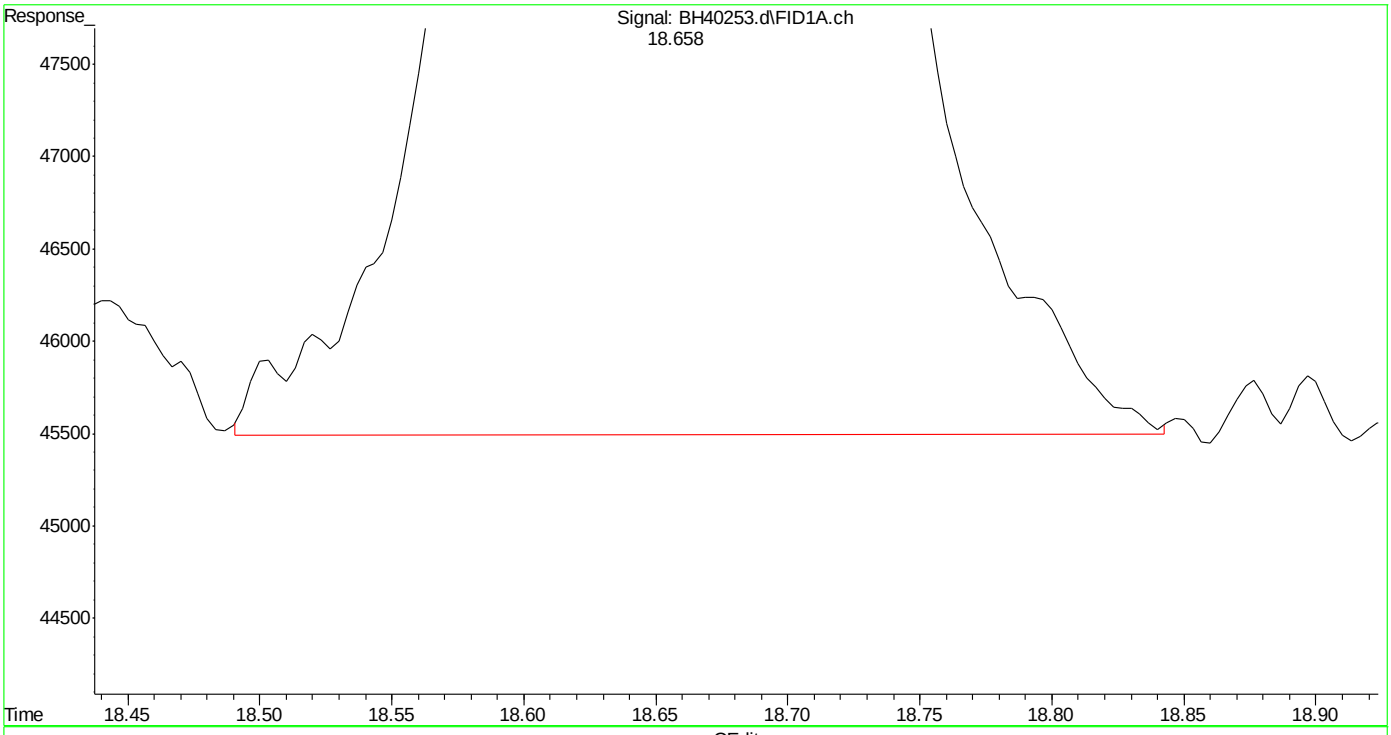
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(8) toluene (t)
18.658min 1.013 ppb m
response 1191221

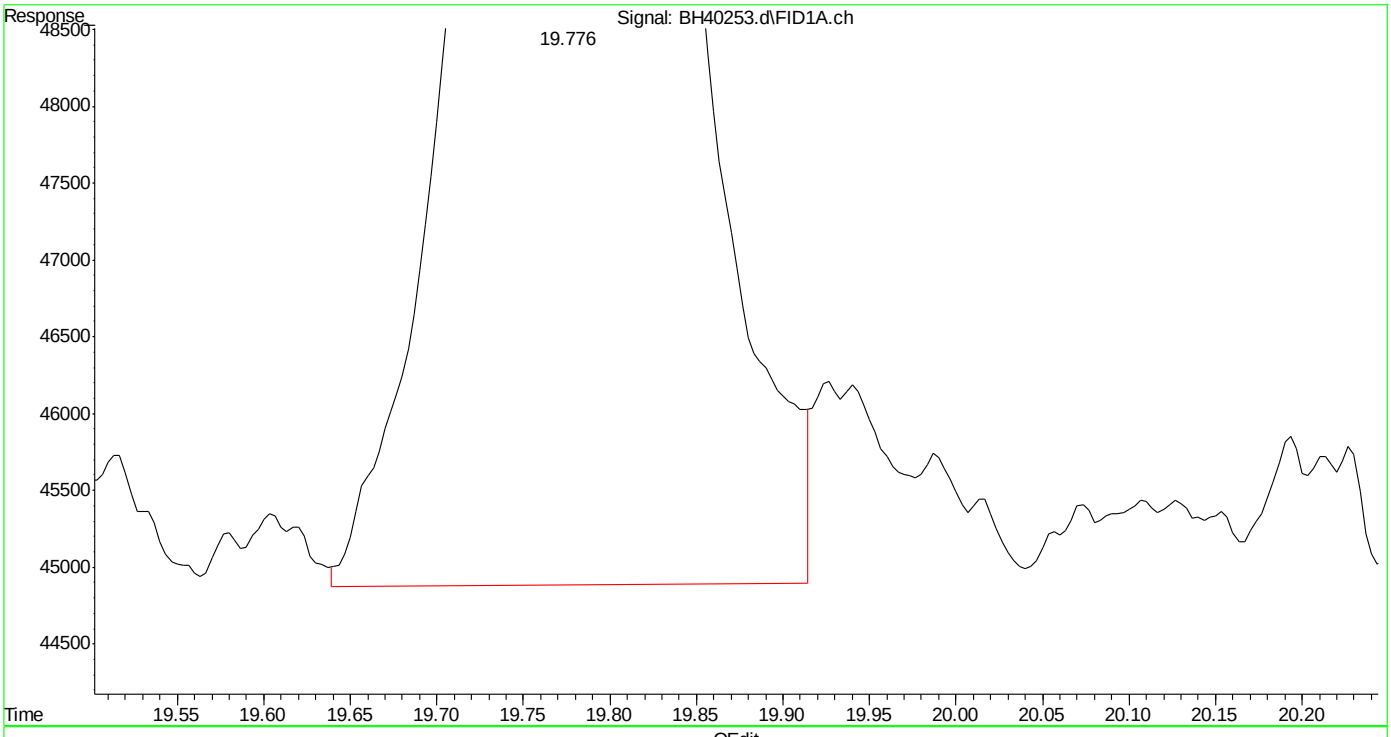
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:22:23 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(9) 2,3,4-trifluorotoluene (s)
19.778min 1.286 ppb
response 1006198

(+) = Expected Retention Time

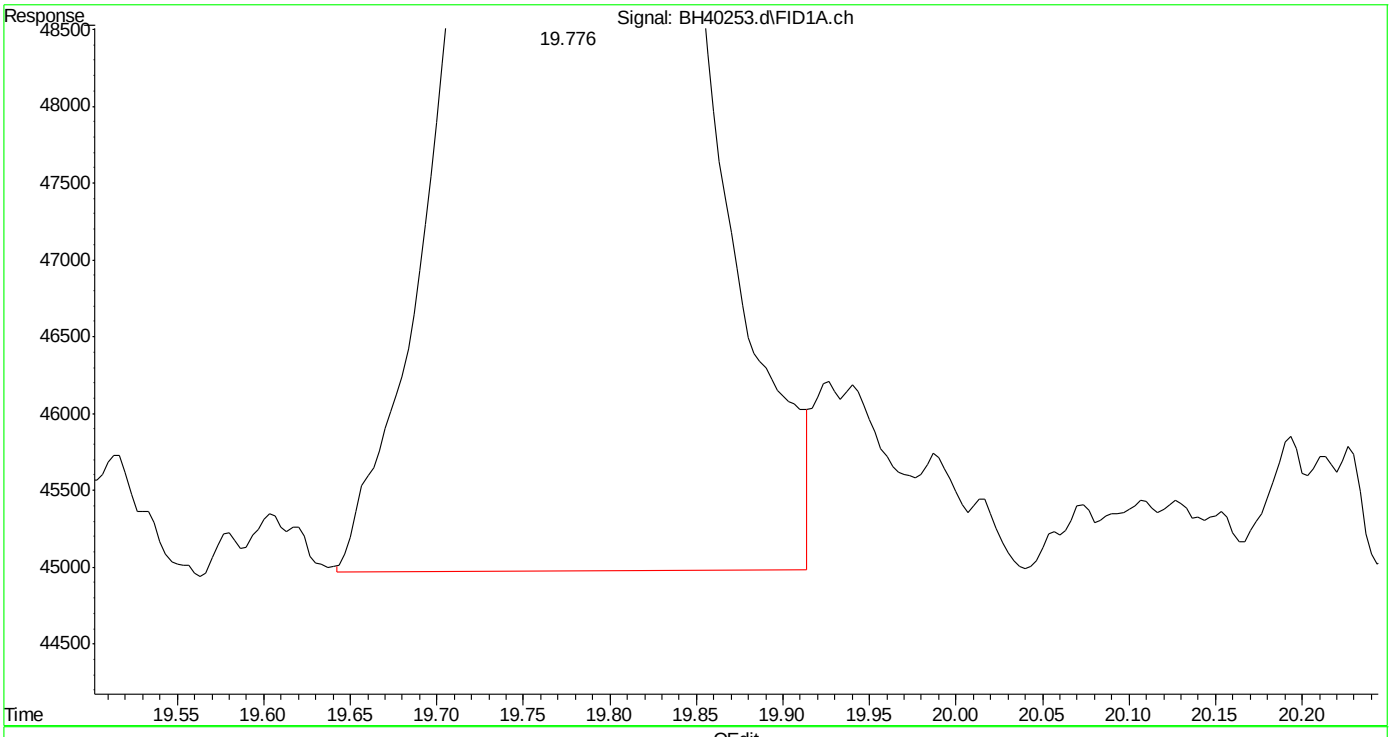
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(9) 2,3,4-trifluorotoluene (s)
19.776min 1.270 ppb m
response 993744

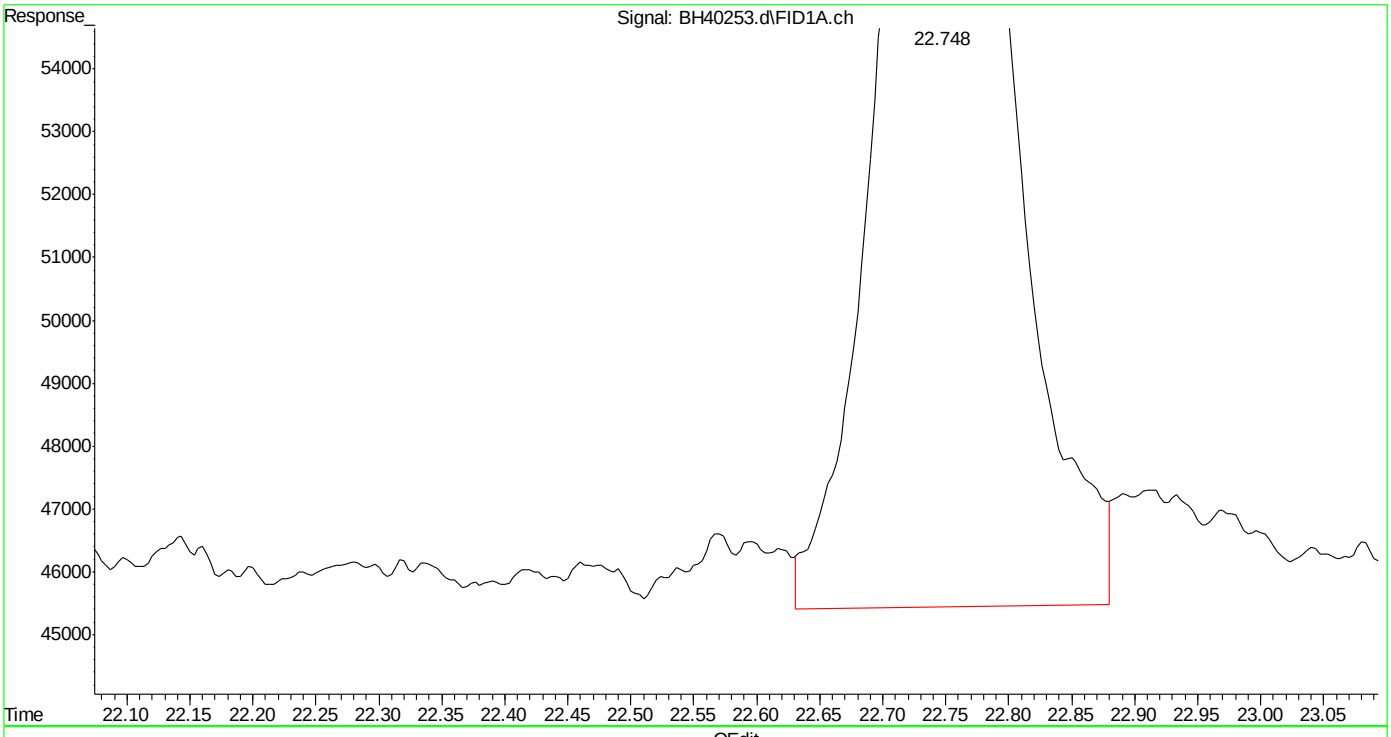
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(15) o-xylene (t)
22.750min 1.158 ppb
response 1417608

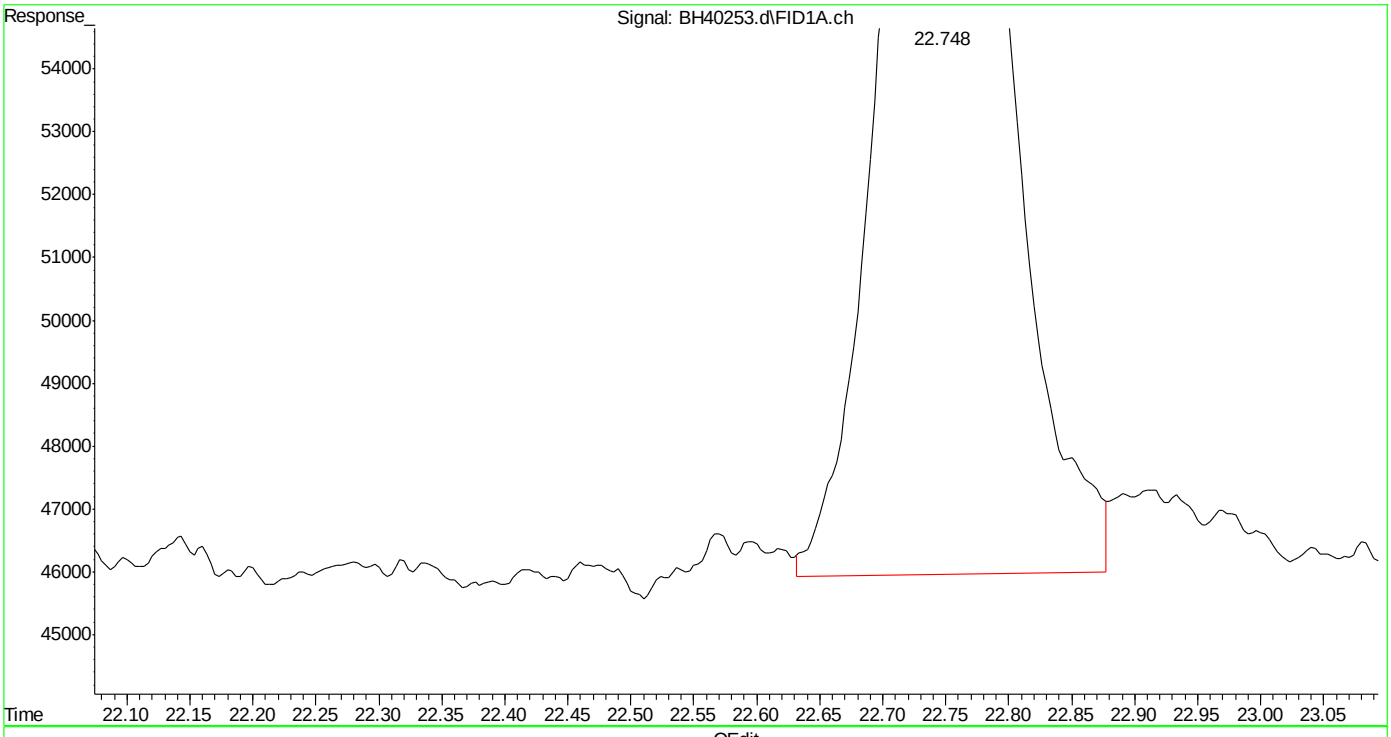
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(15) o-xylene (t)
22.748min 1.094 ppb m
response 1339727

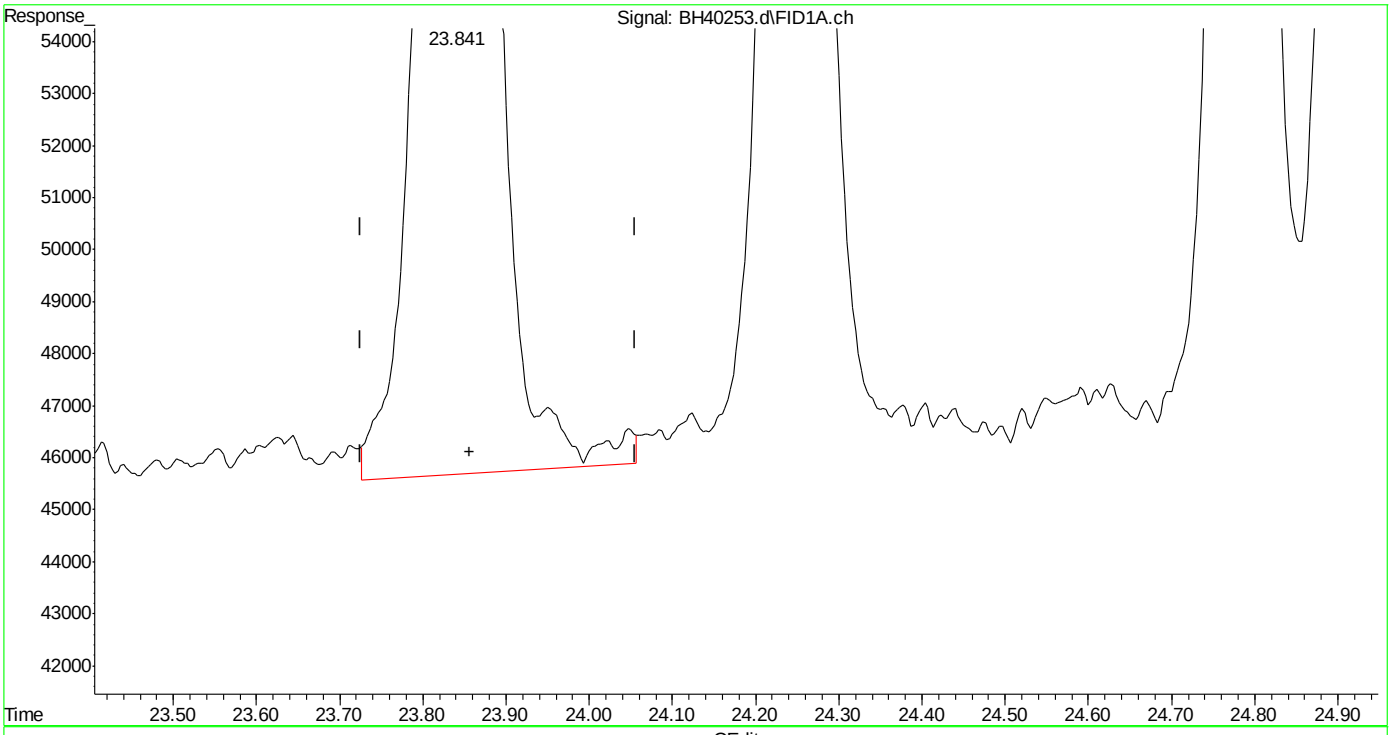
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(16) decane (h)
23.856min 1.736 ppb m
response 1973078

(+) = Expected Retention Time

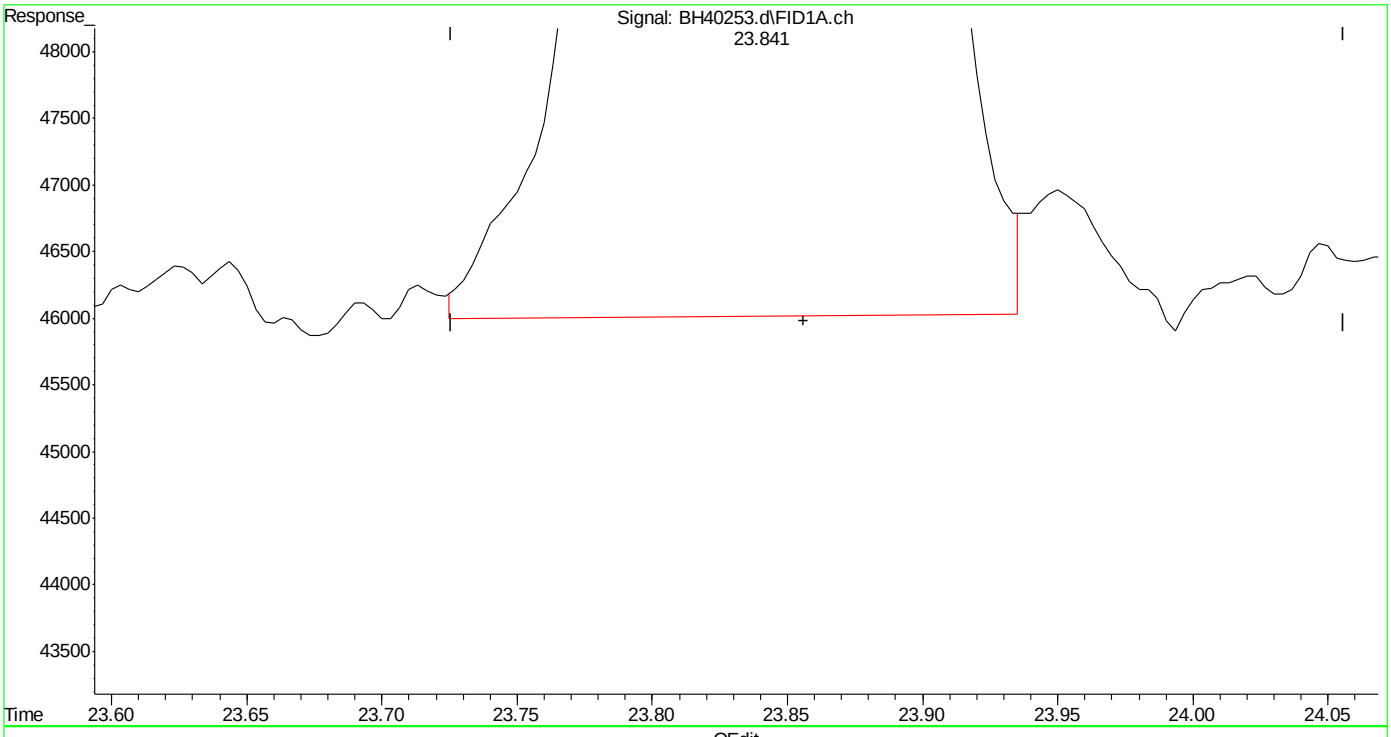
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(16) decane (h)
23.856min 1.663 ppb m
response 1889255

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:23:09 2016

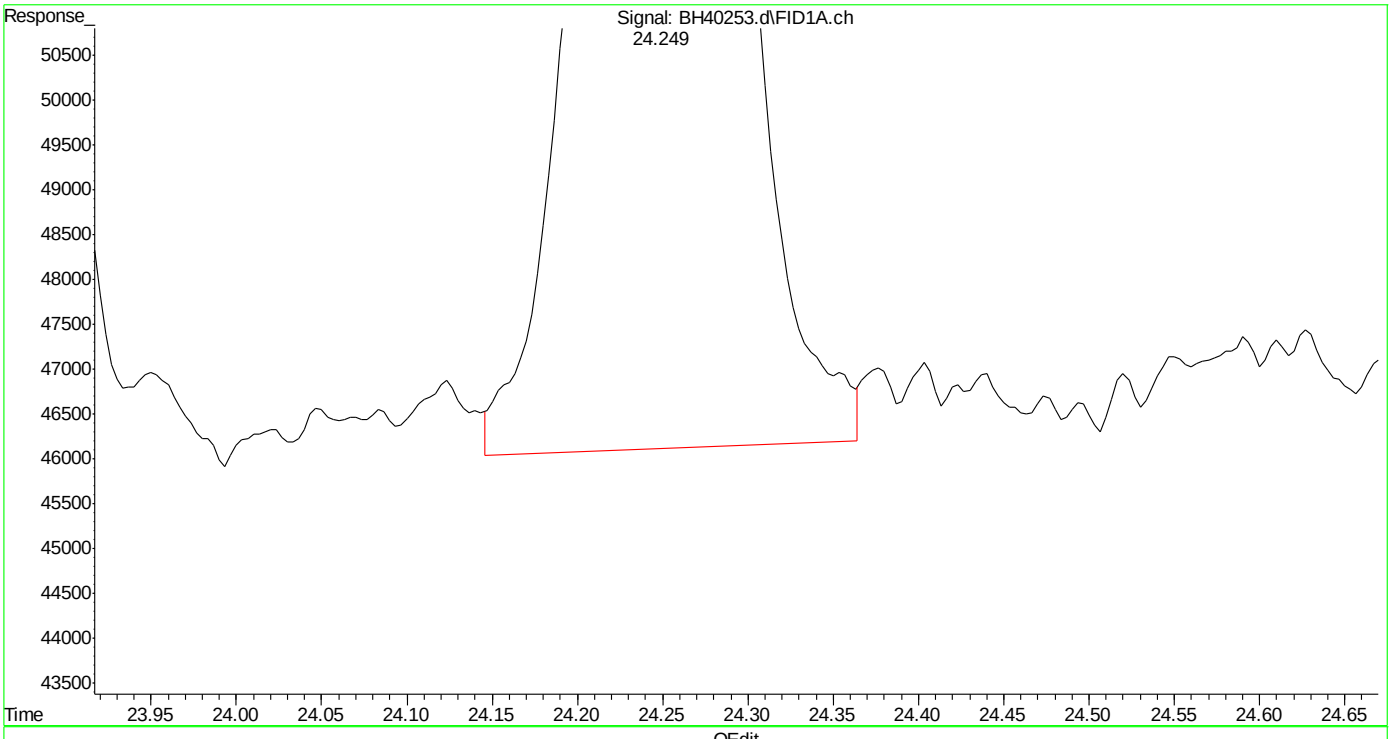
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(17) 1,3,5-trimethylbenzene (t)
24.251min 1.197 ppb
response 1513150

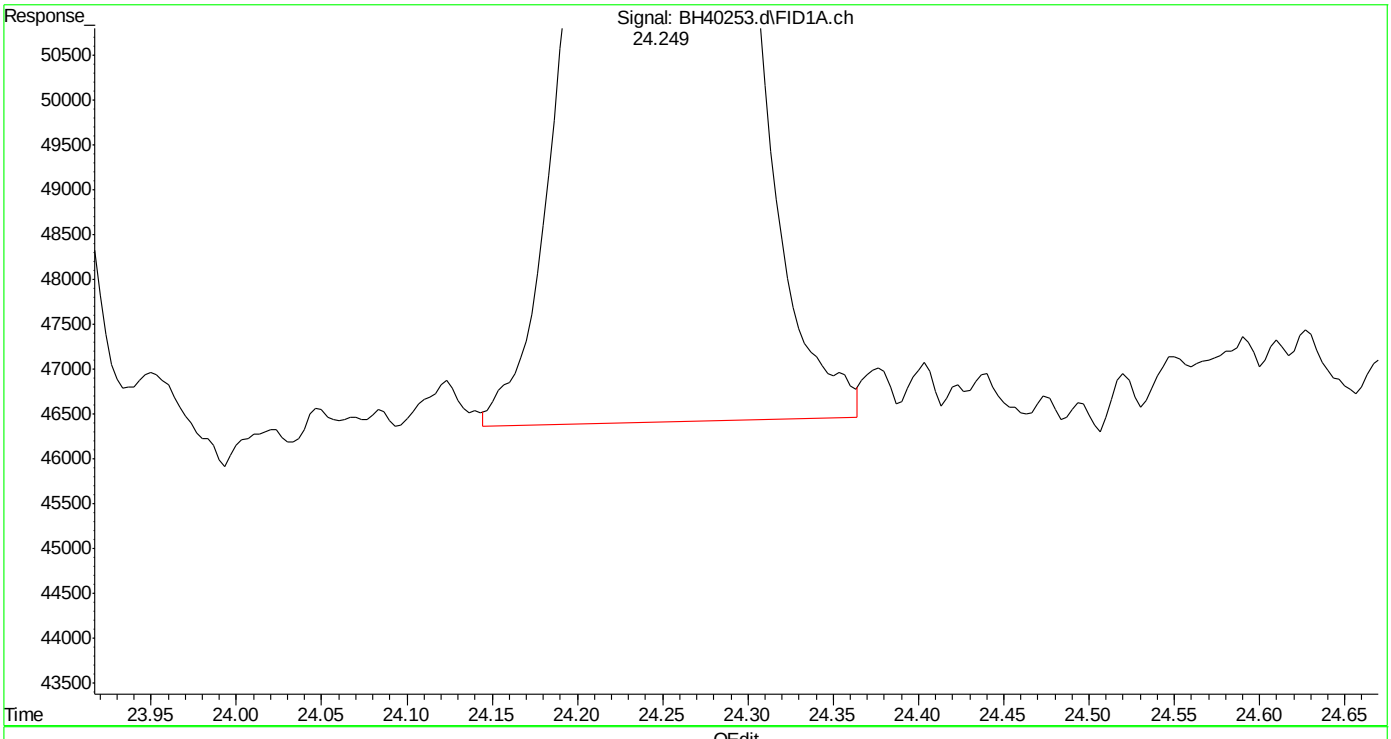
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:23:14 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(17) 1,3,5-trimethylbenzene (t)
24.249min 1.167 ppb m
response 1474517

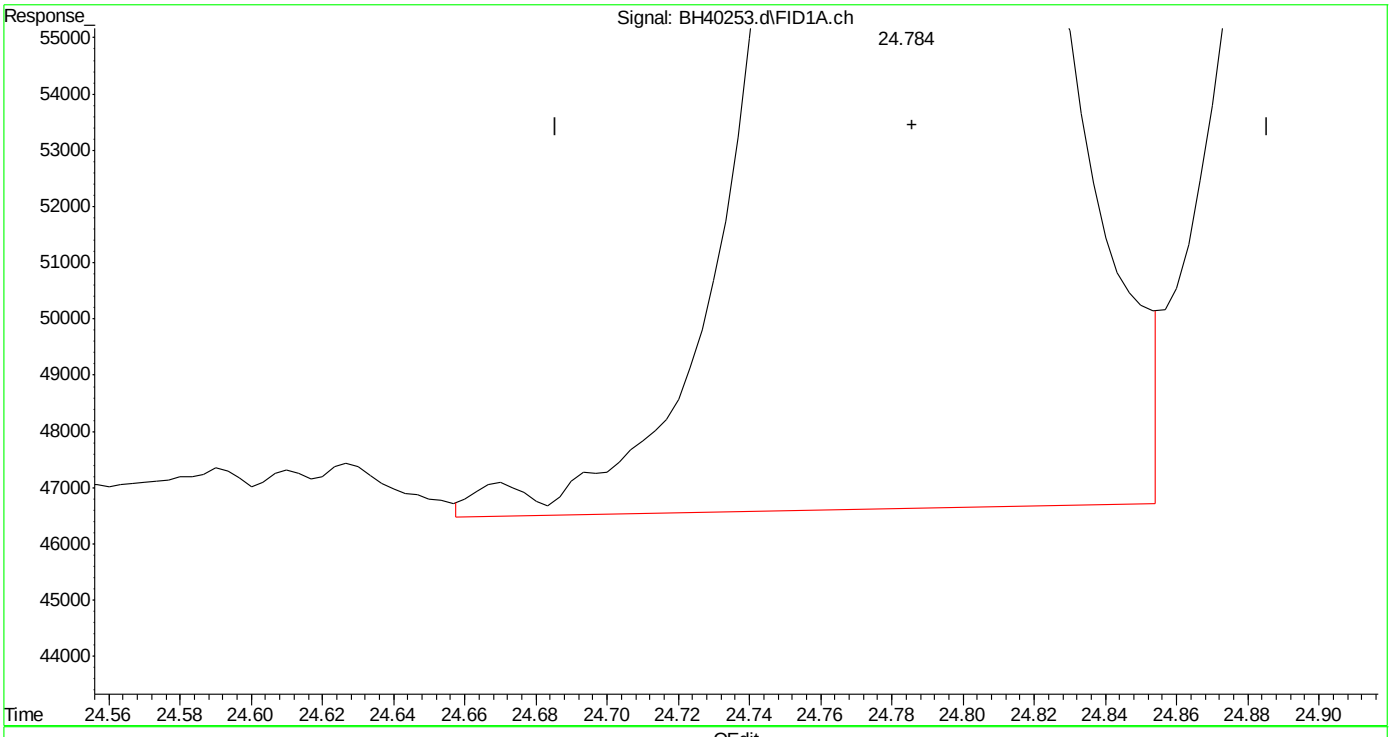
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(18) 1,2,4-trimethylbenzene (t)
24.786min 1.224 ppb
response 1494365

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:23:24 2016

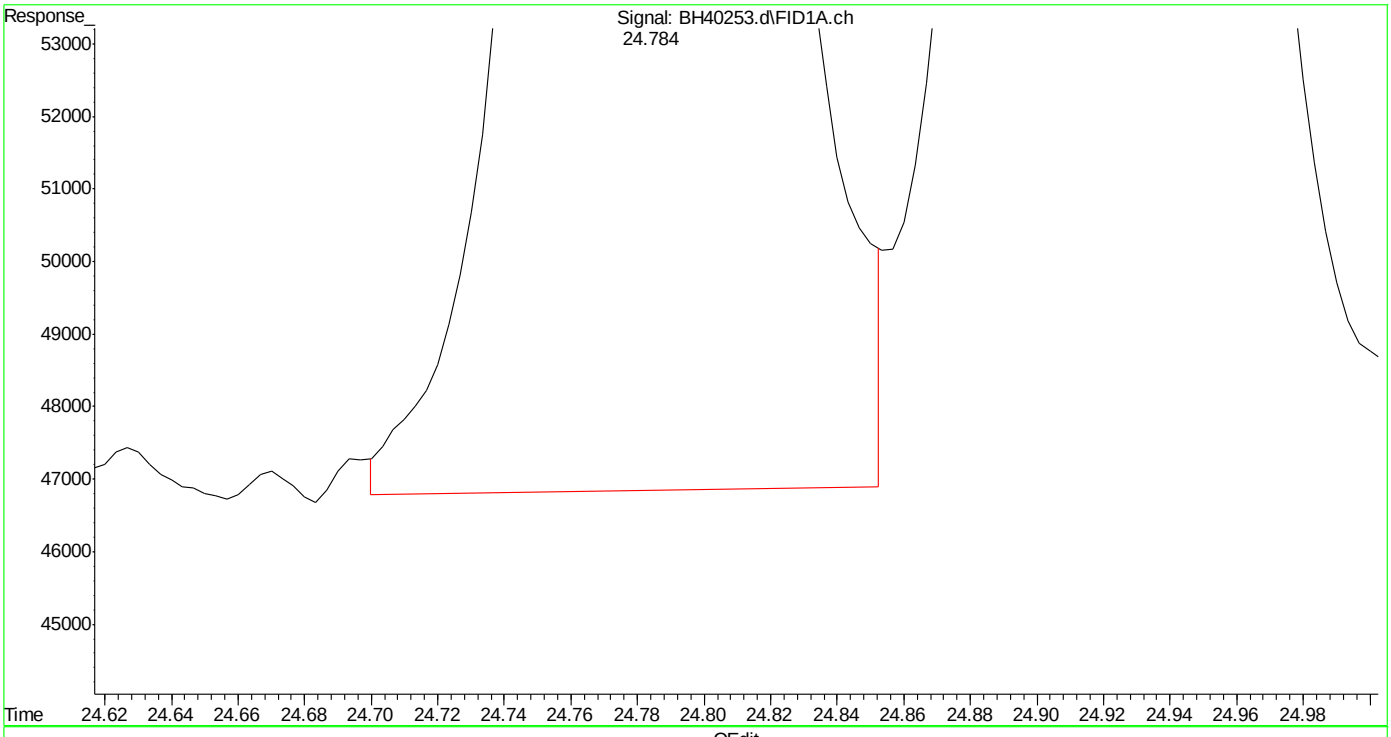
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(18) 1,2,4-trimethylbenzene (t)
24.784min 1.195 ppb m
response 1459482

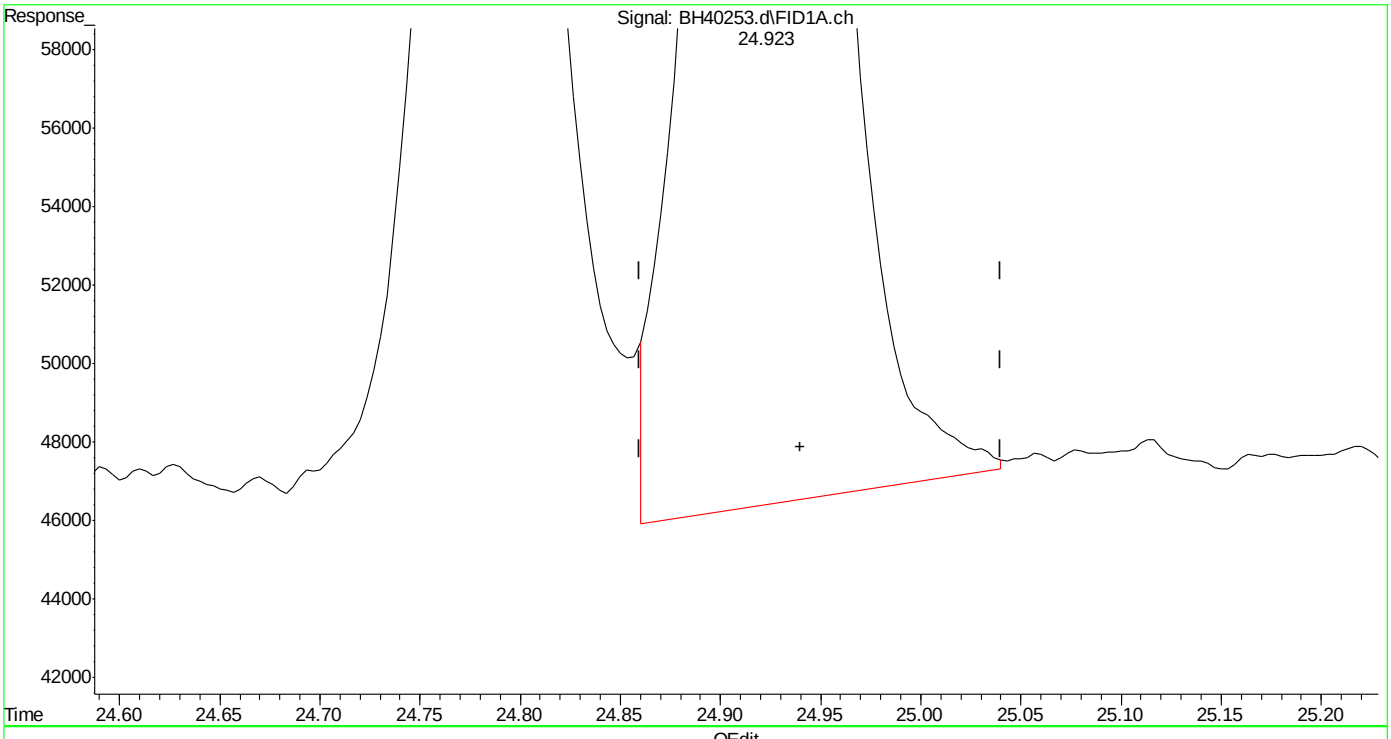
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:23:36 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(19) butylcyclohexane (h)
24.940min 1.554 ppb
response 1837685

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:23:40 2016

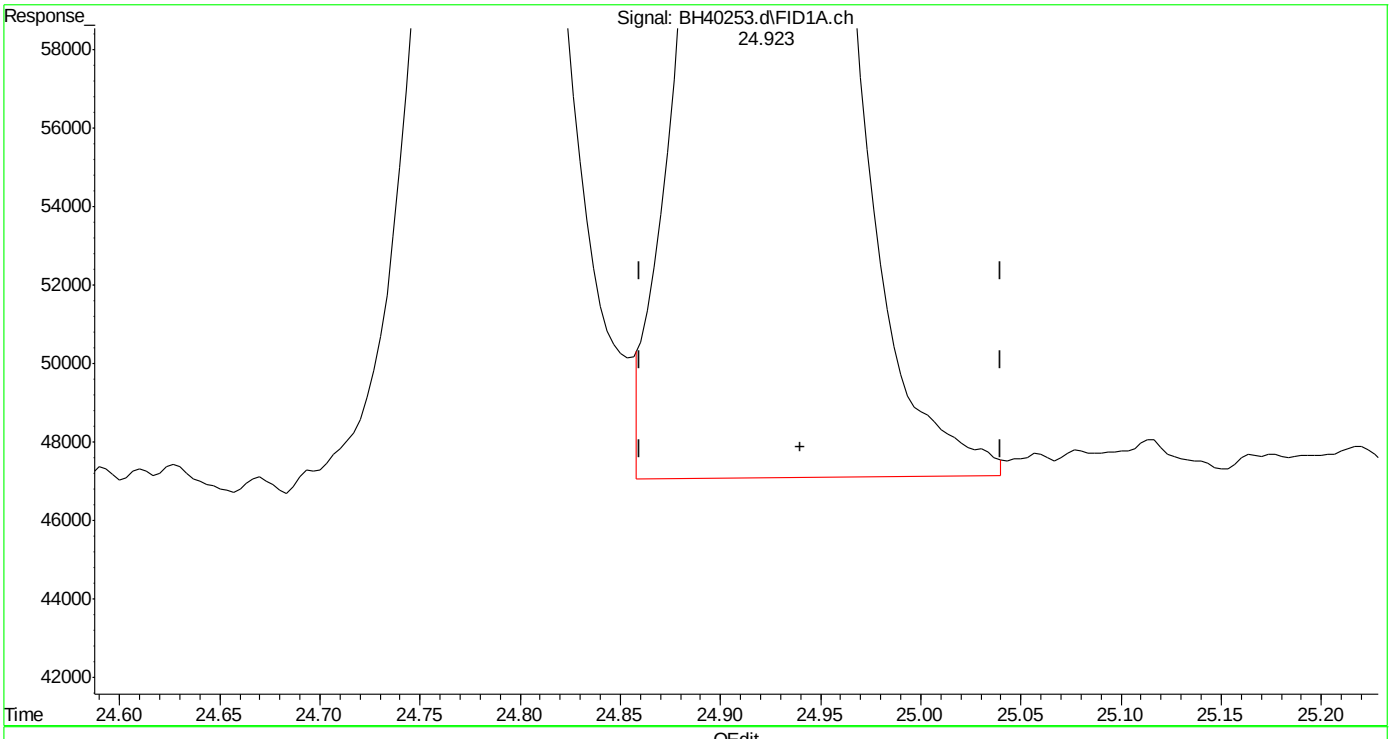
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(19) butylcyclohexane (h)
24.940min 1.530 ppb m
response 1810143

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:23:47 2016

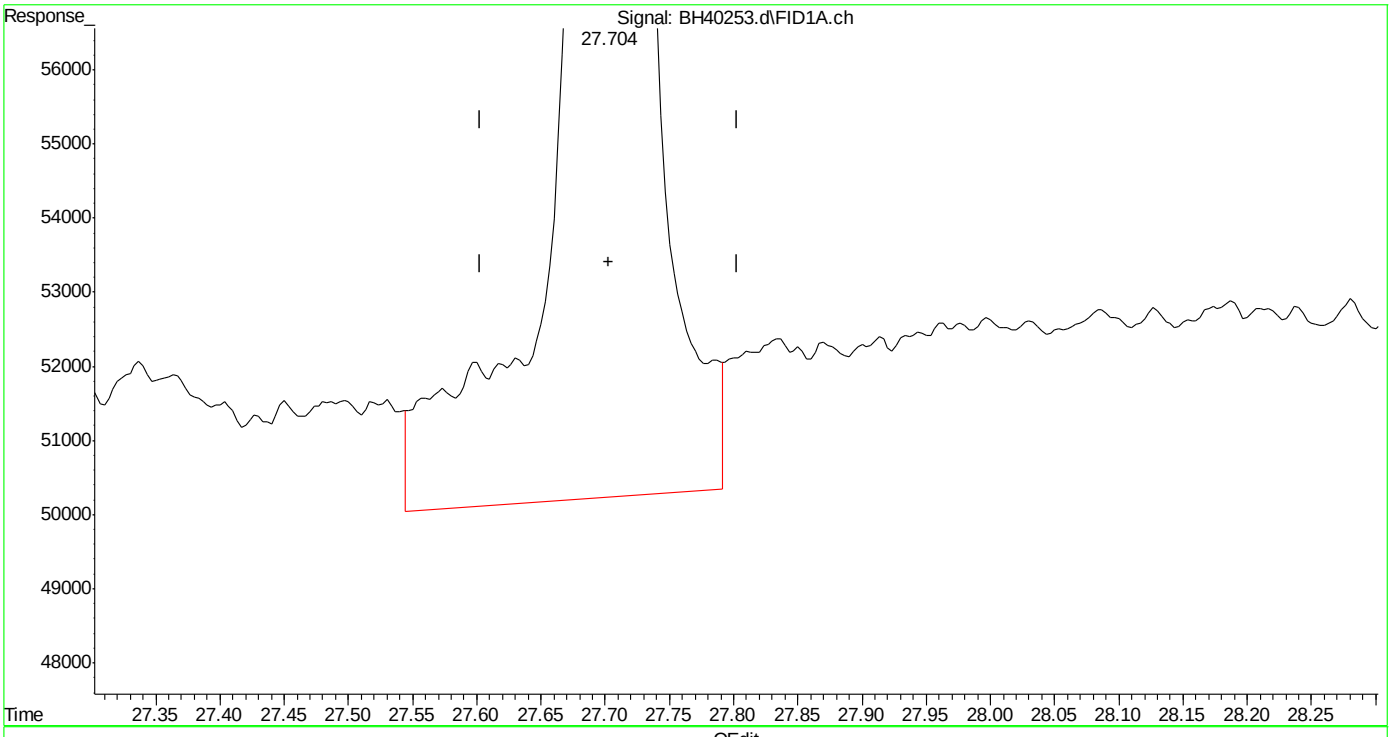
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(20) naphthalene (t)
27.705min 1.506 ppb
response 1016814

(+) = Expected Retention Time

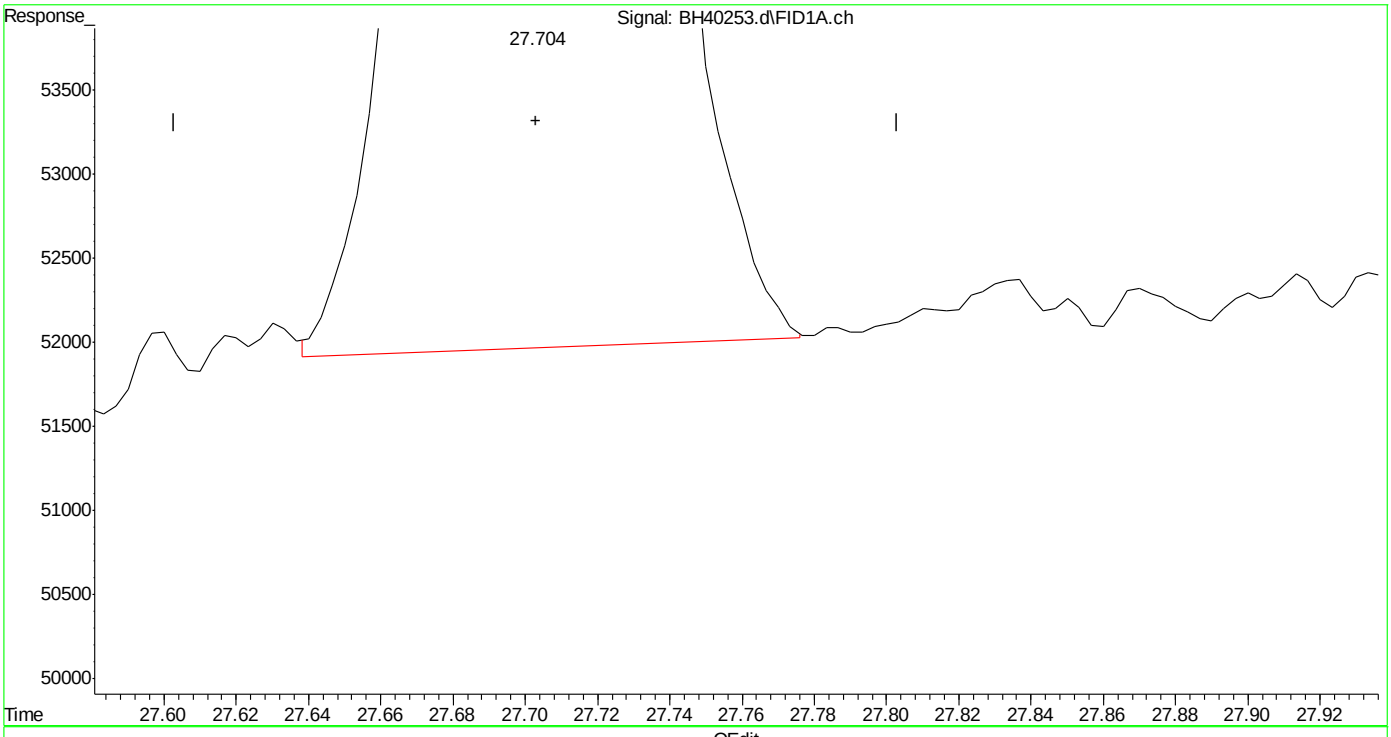
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(20) naphthalene (t)
27.704min 1.131 ppb m
response 763770

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:24:02 2016 Page: 1

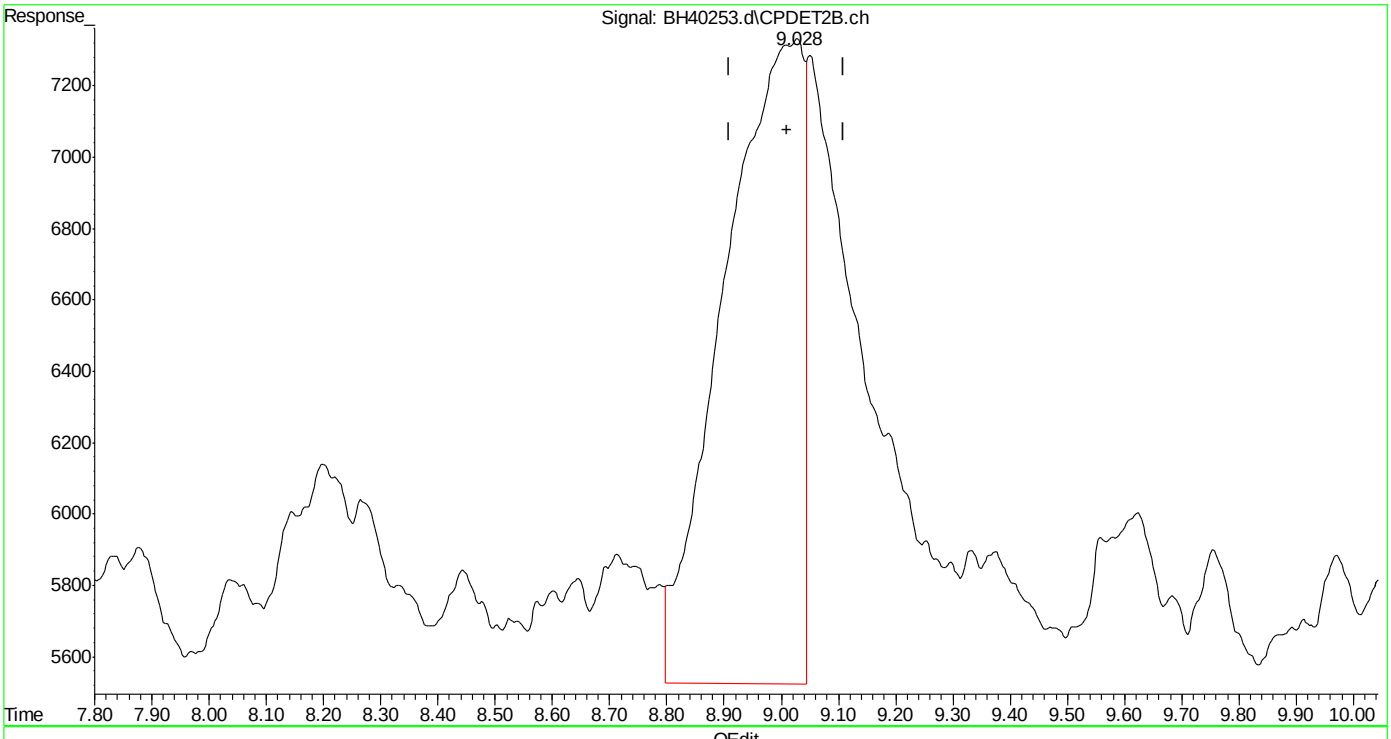
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(23) mtbe #2 (t)
9.029min 0.708 ppb
response 172404

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:24:07 2016

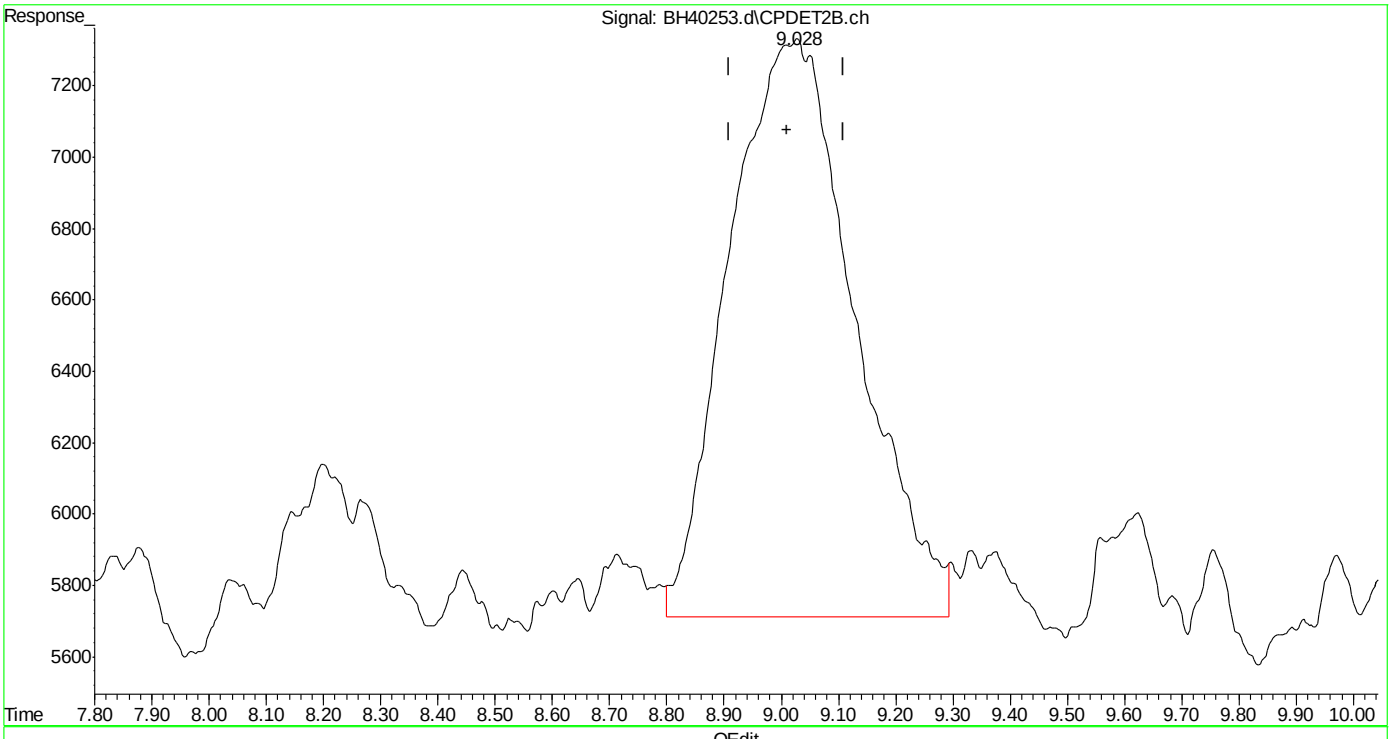
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(23) mtbe #2 (t)
9.028min 1.019 ppb m
response 247955

(+) = Expected Retention Time

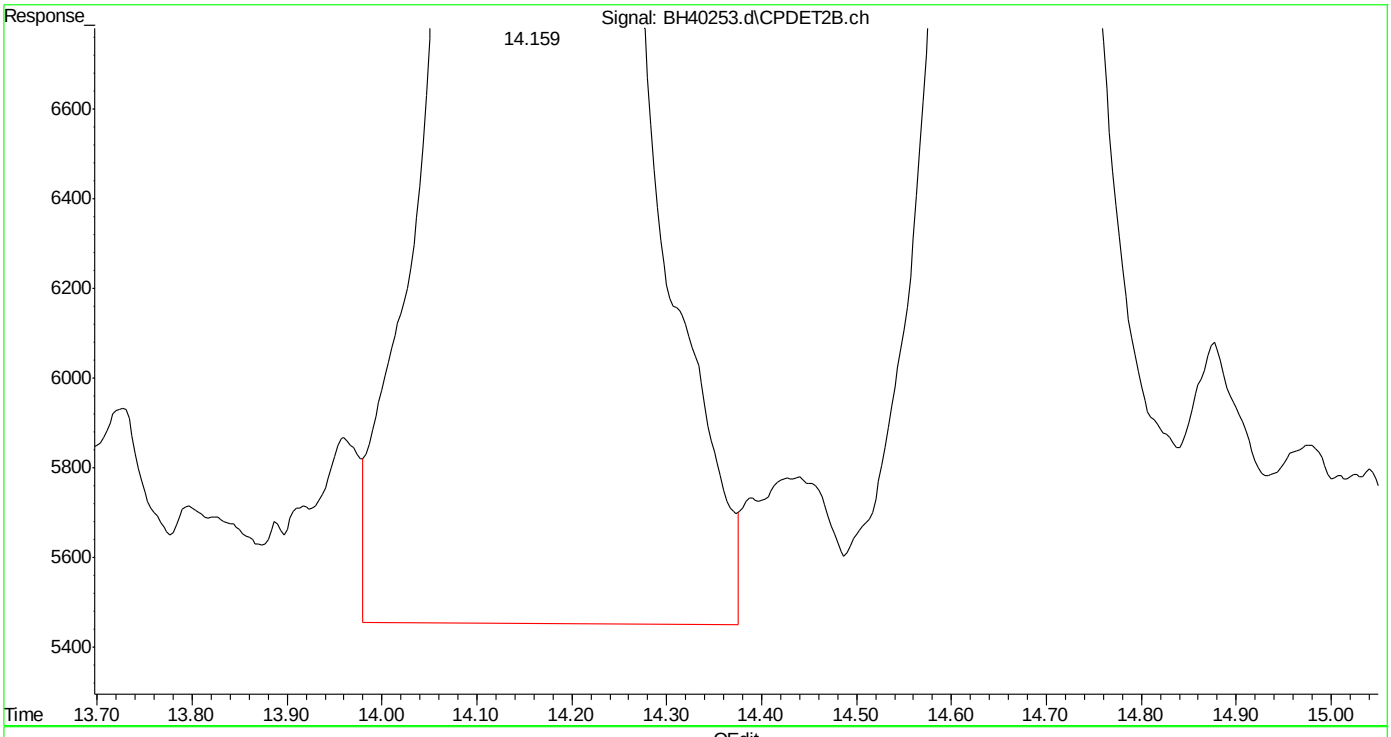
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(24) benzene #2 (t)
14.160min 1.133 ppb
response 632450

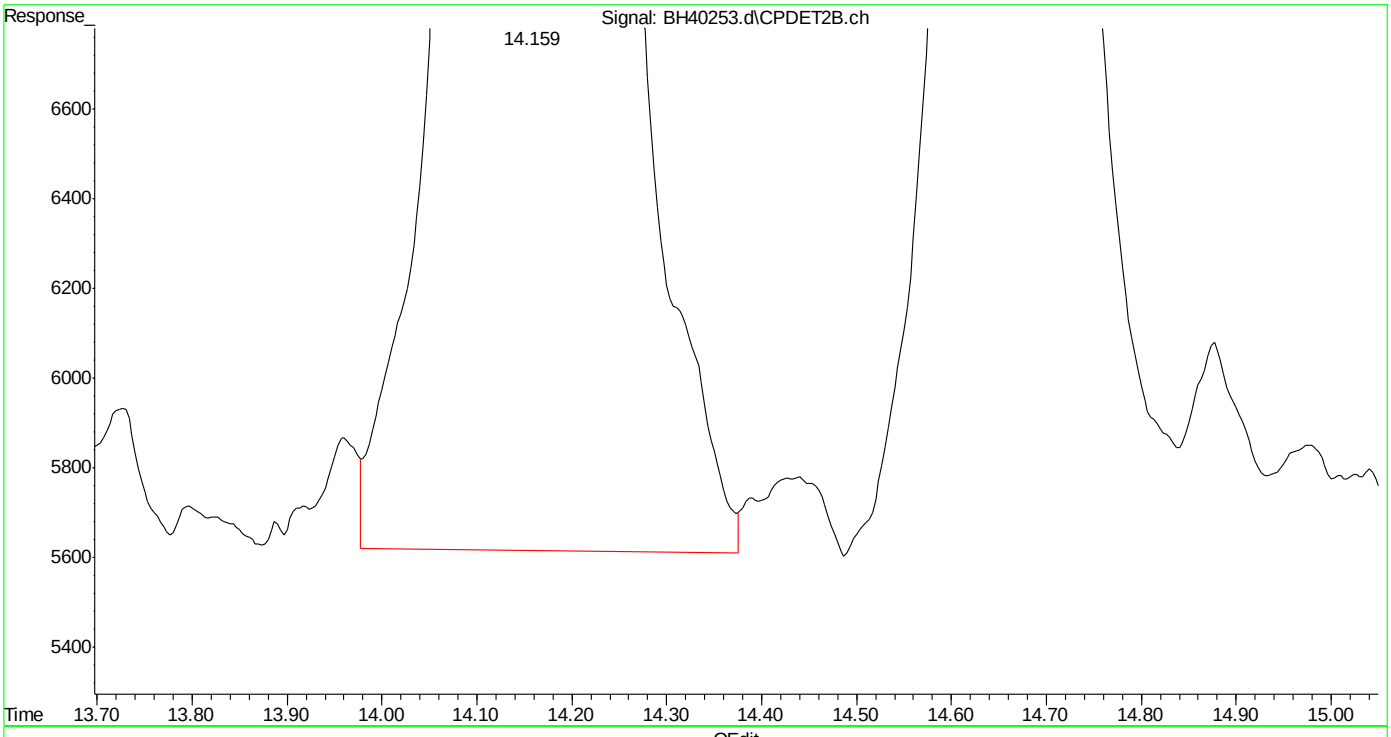
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:24:19 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(24) benzene #2 (t)
14.159min 1.063 ppb m
response 593842

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:24:25 2016

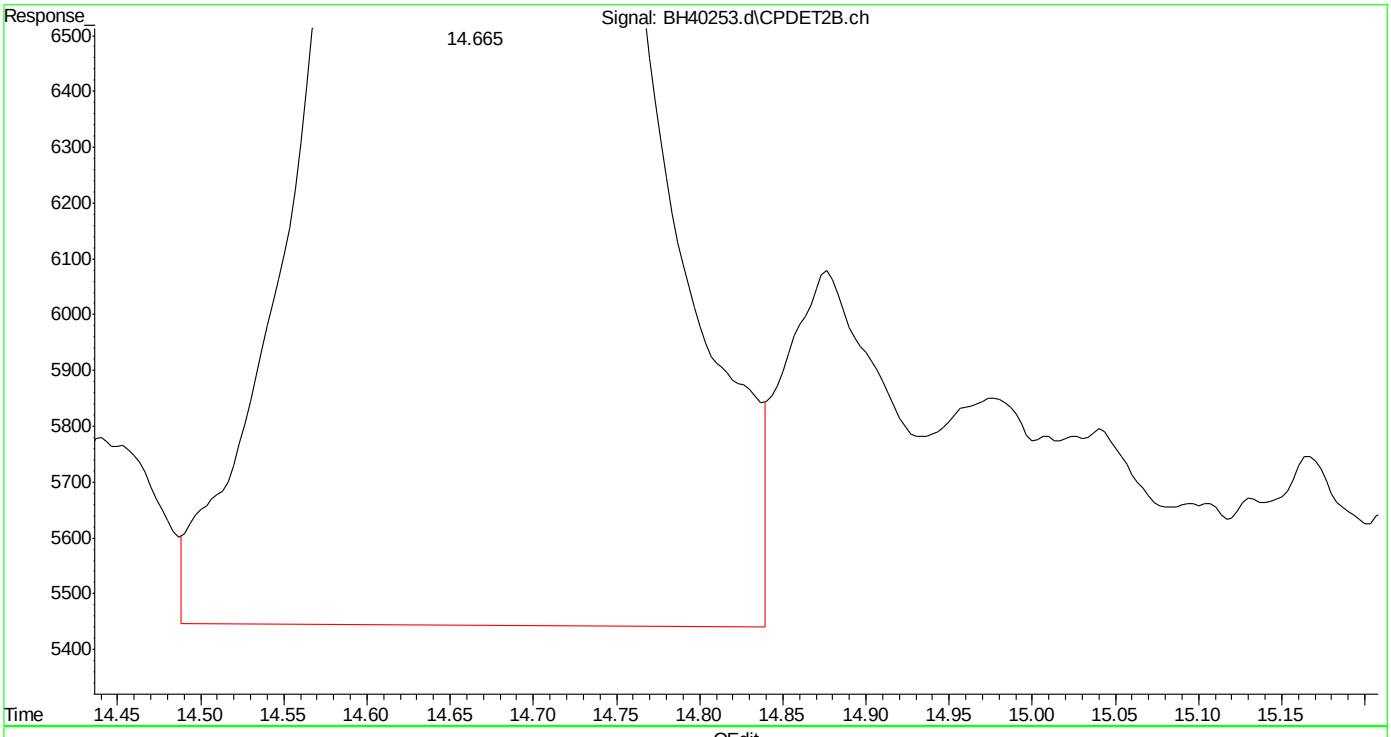
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(25) fluorobenzene #2 (s)
14.666min 1.096 ppb
response 394627

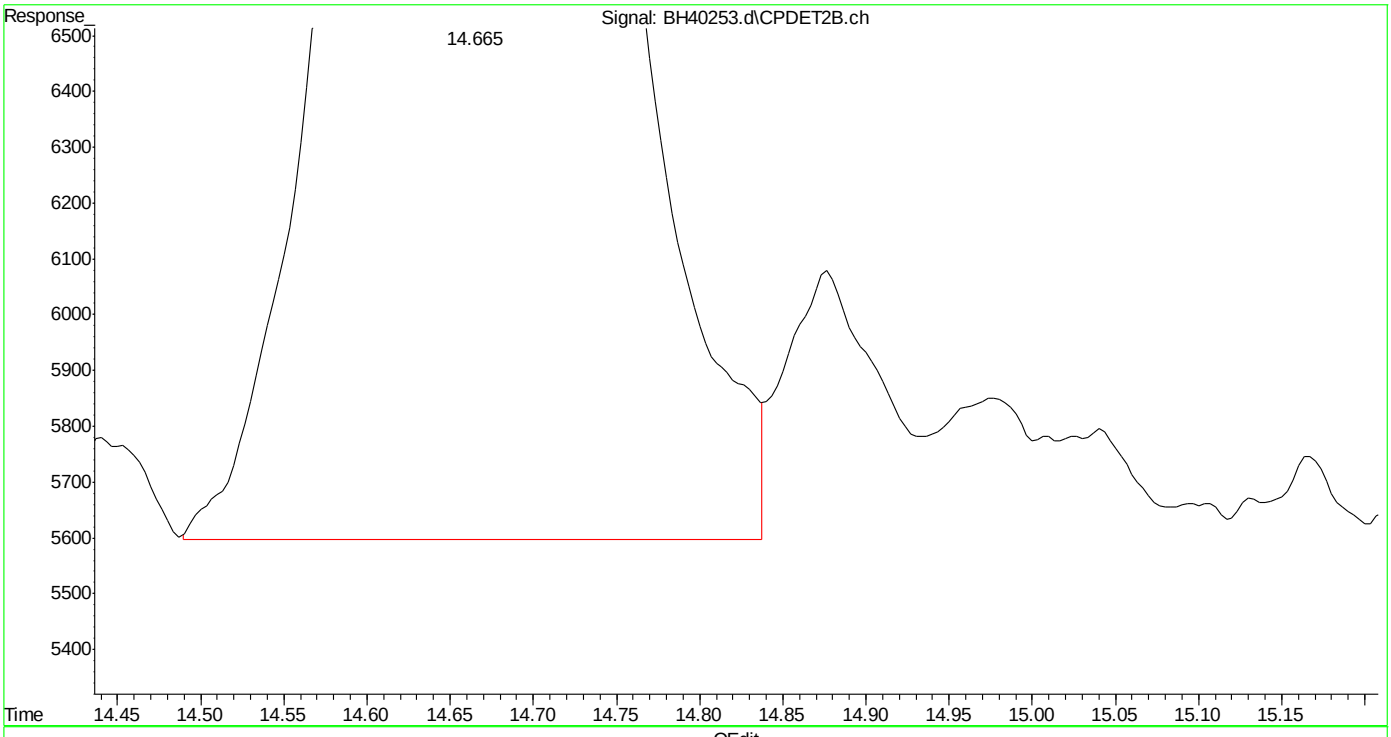
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(25) fluorobenzene #2 (s)
14.665min 1.006 ppb m
response 362265

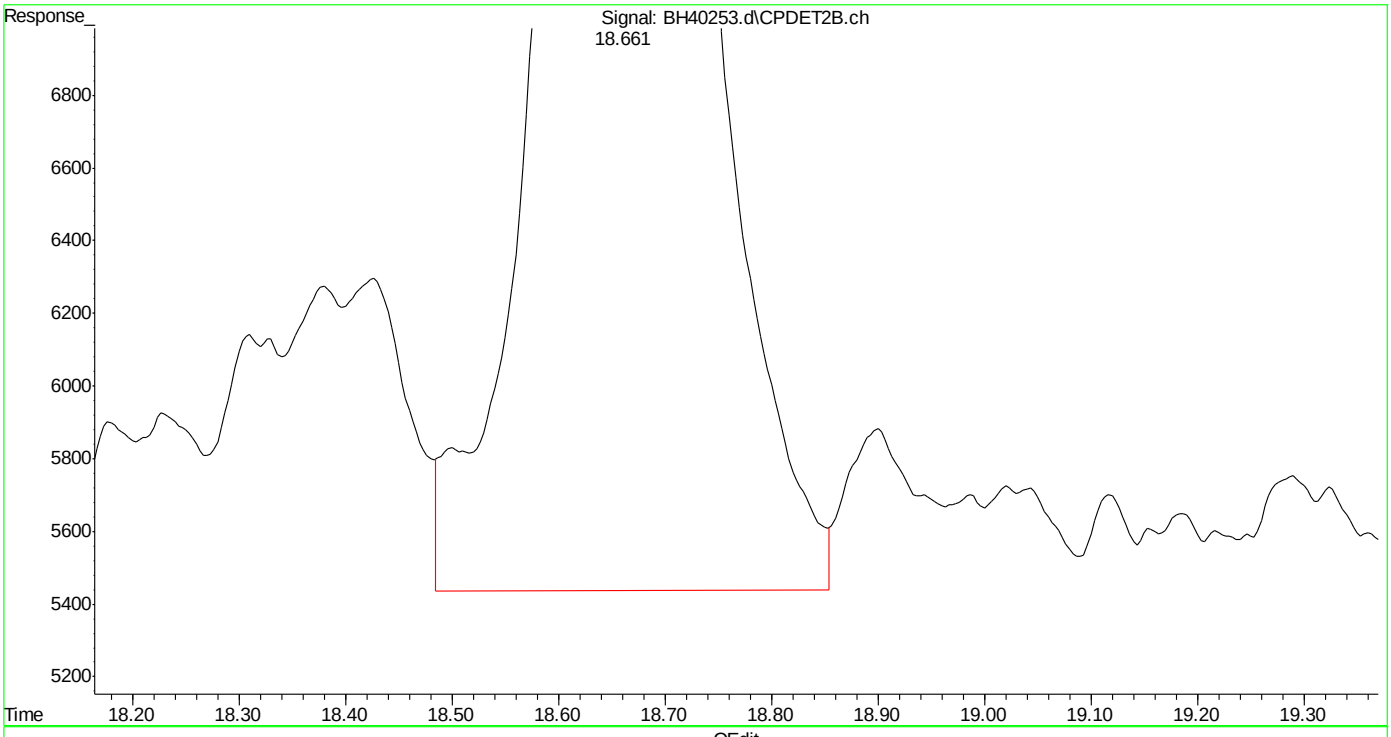
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(26) toluene #2 (t)
18.661min 1.134 ppb
response 581001

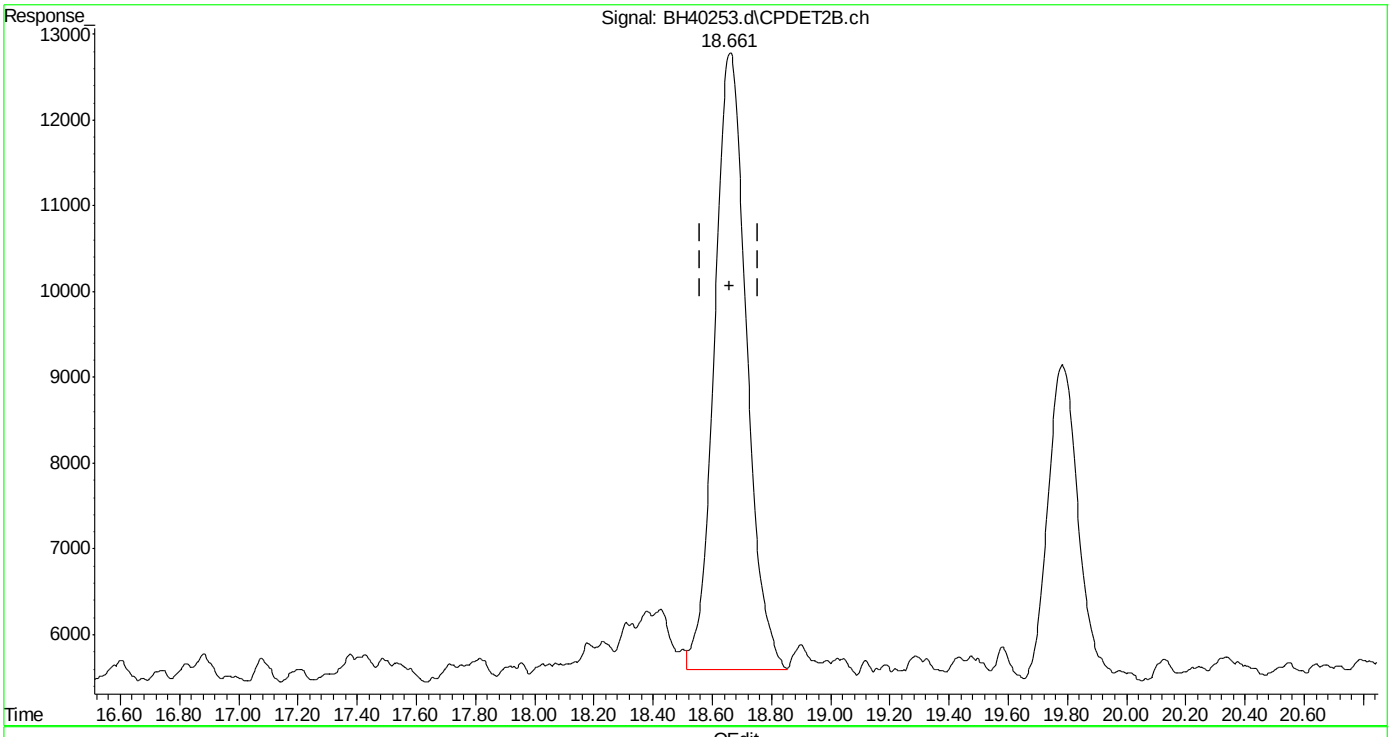
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(26) toluene #2 (t)
18.661min 1.060 ppb m
response 542837

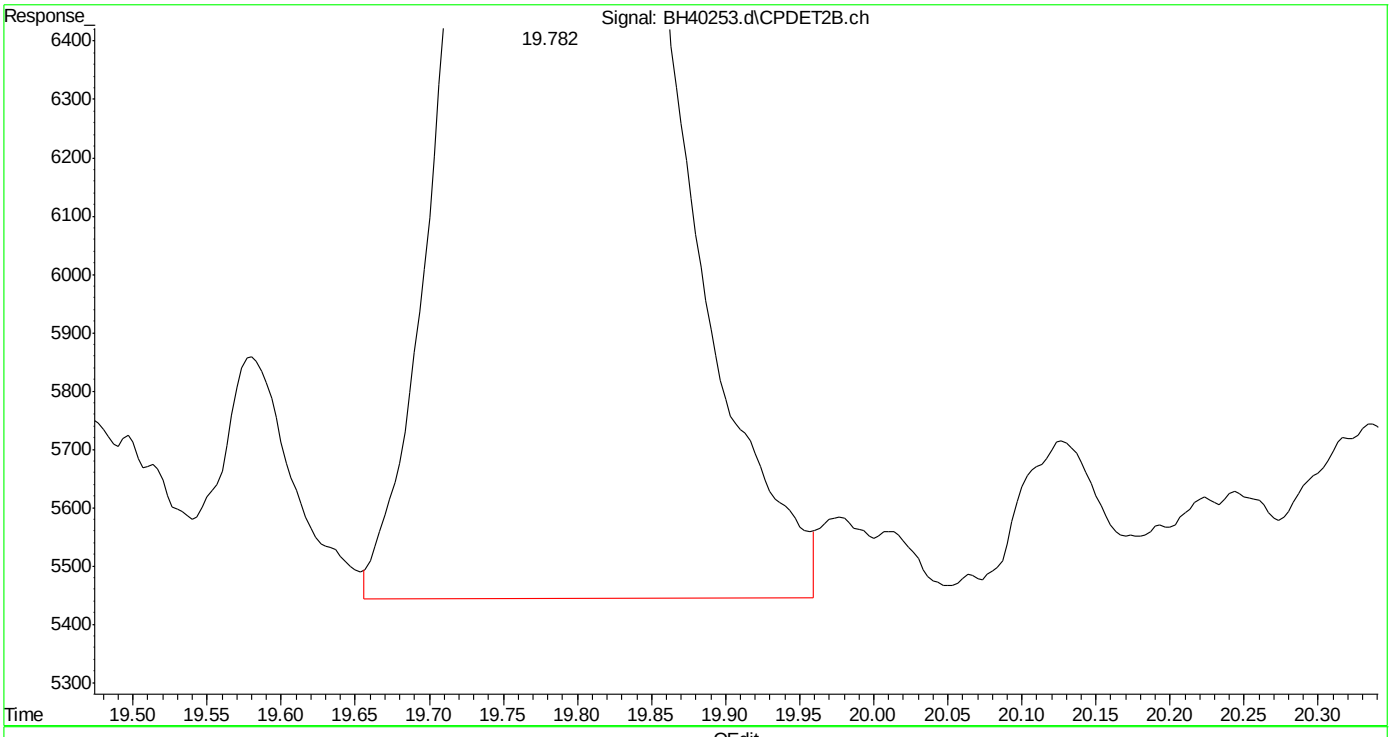
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(27) 2,3,4-trifluorotoluene #2 (s)
19.783min 1.275 ppb
response 267362

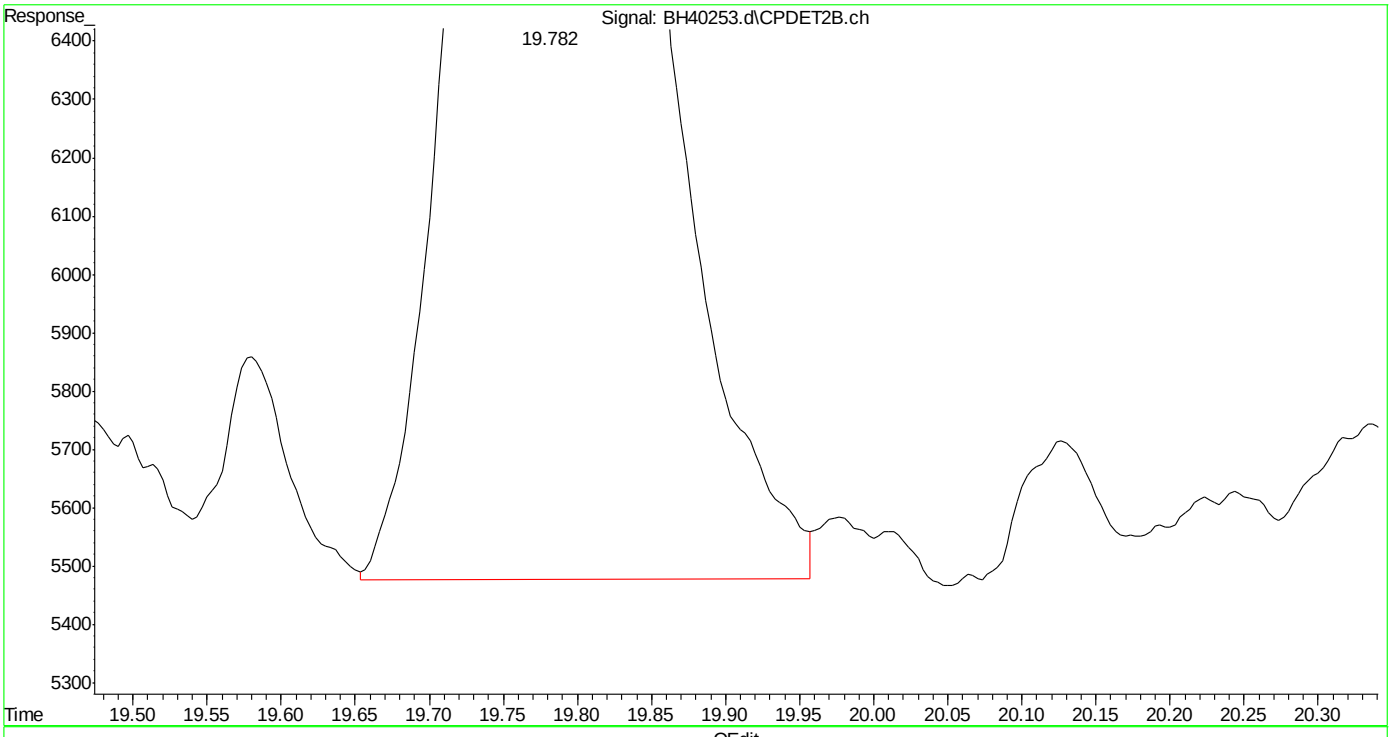
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(27) 2,3,4-trifluorotoluene #2 (s)
19.782min 1.247 ppb m
response 261523

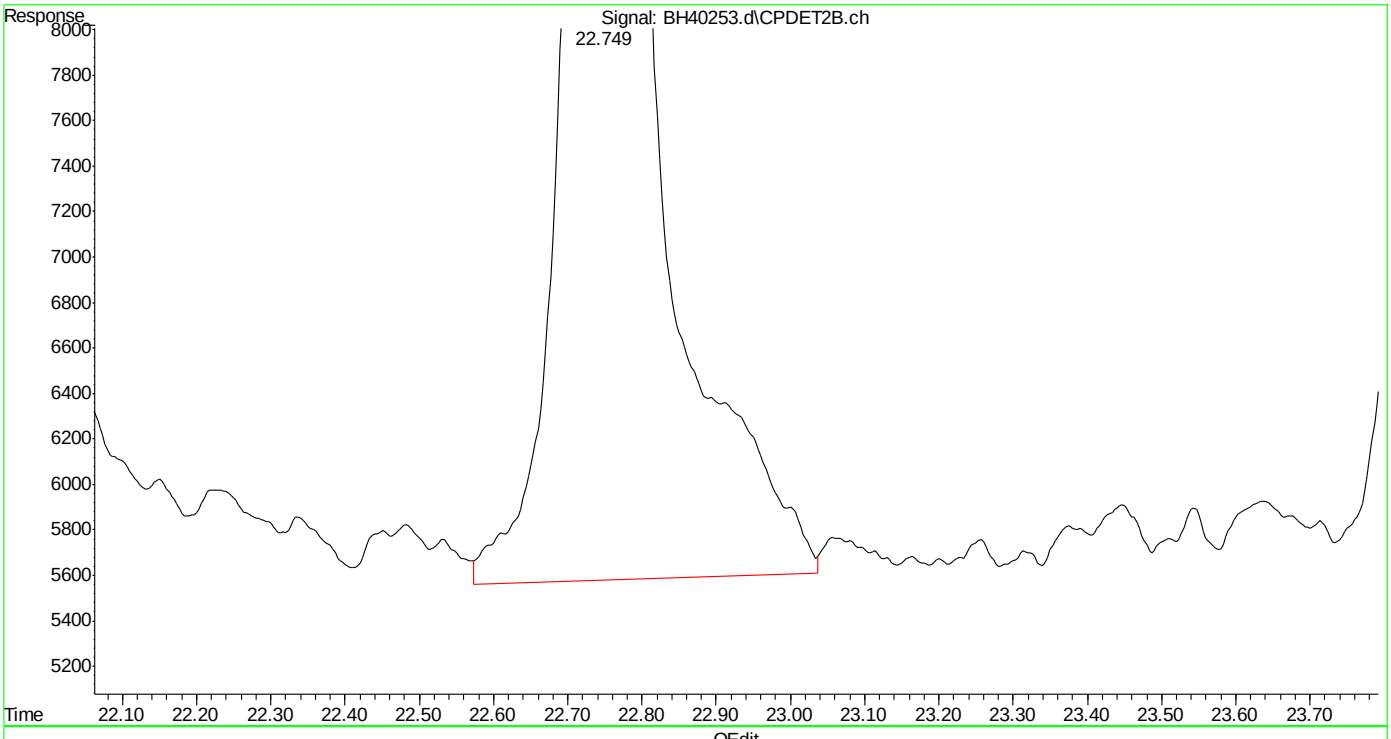
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(30) o-xylene #2 (t)
22.751min 1.209 ppb
response 579577

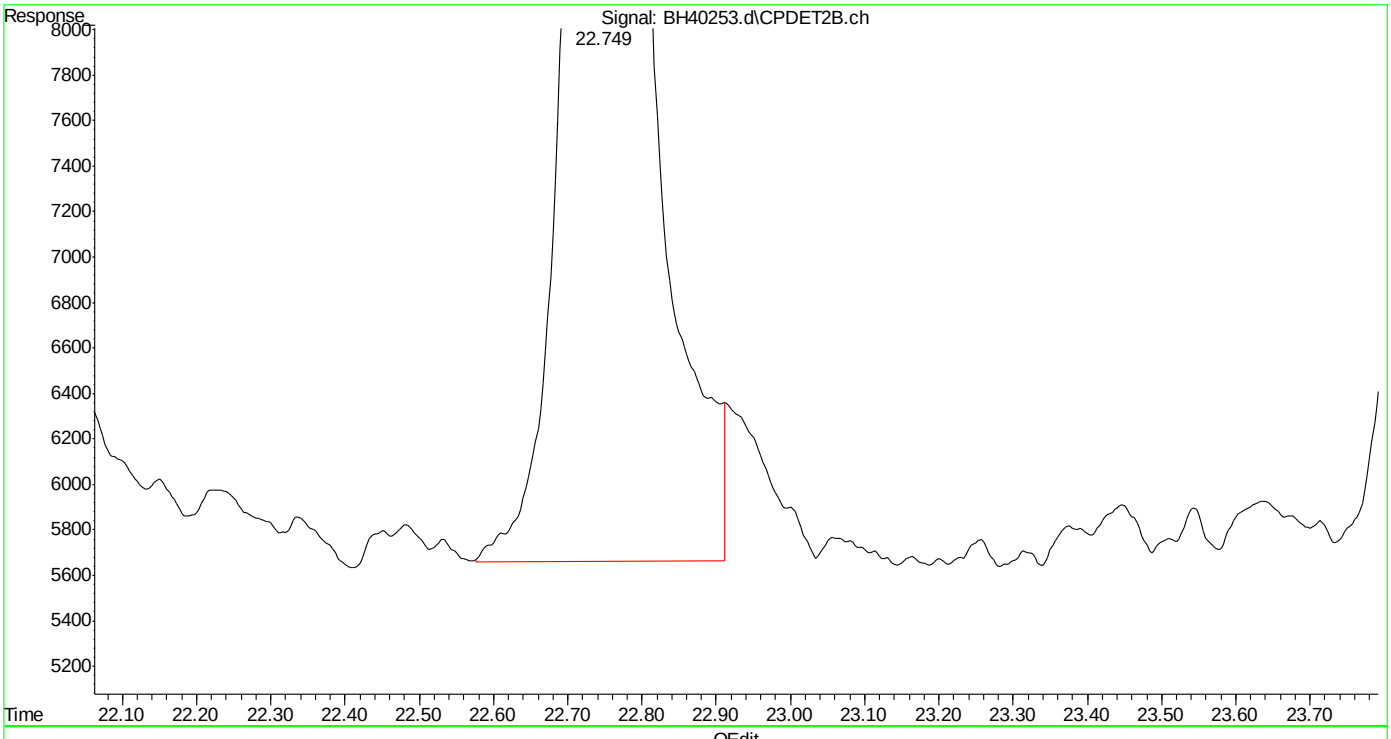
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:25:41 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(30) o-xylene #2 (t)
22.749min 1.107 ppb m
response 530700

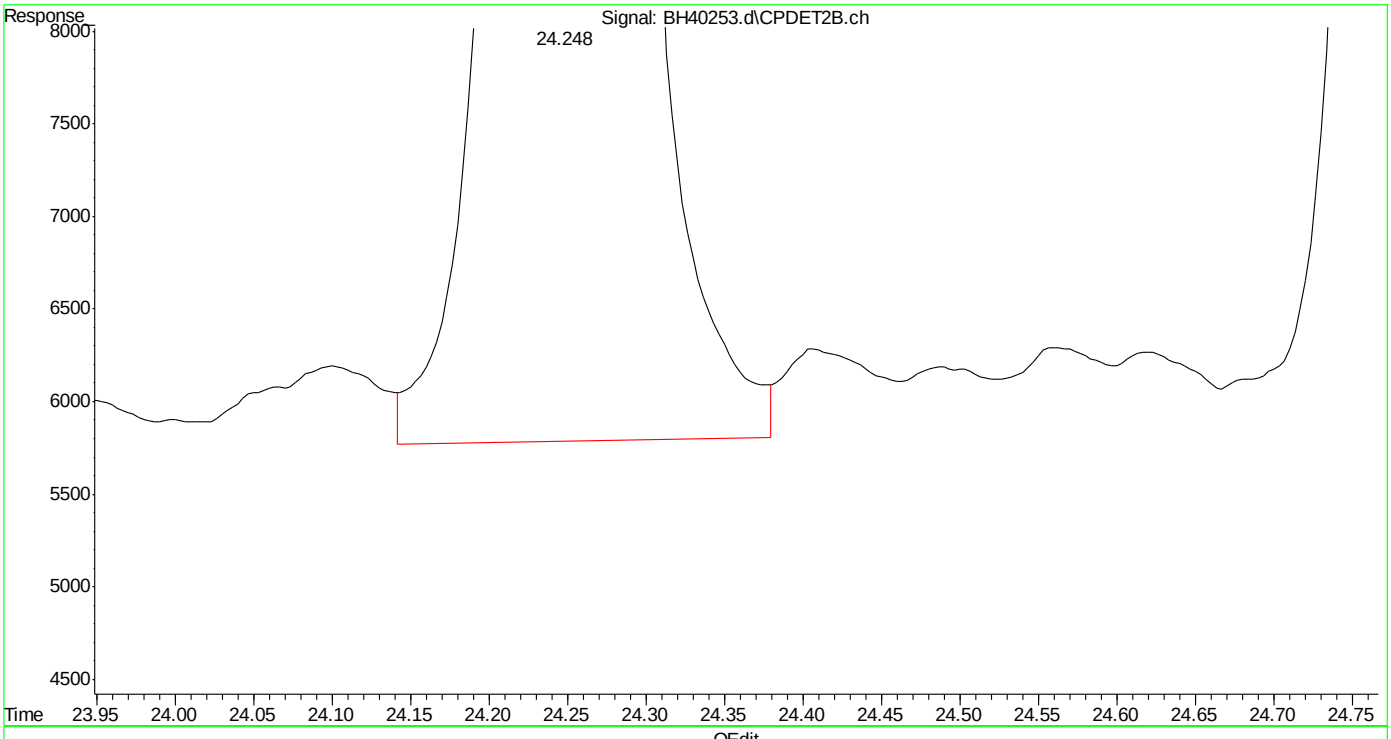
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:25:48 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(31) 1,3,5-trimethylbenzene #2 (t)
24.250min 1.176 ppb
response 799925

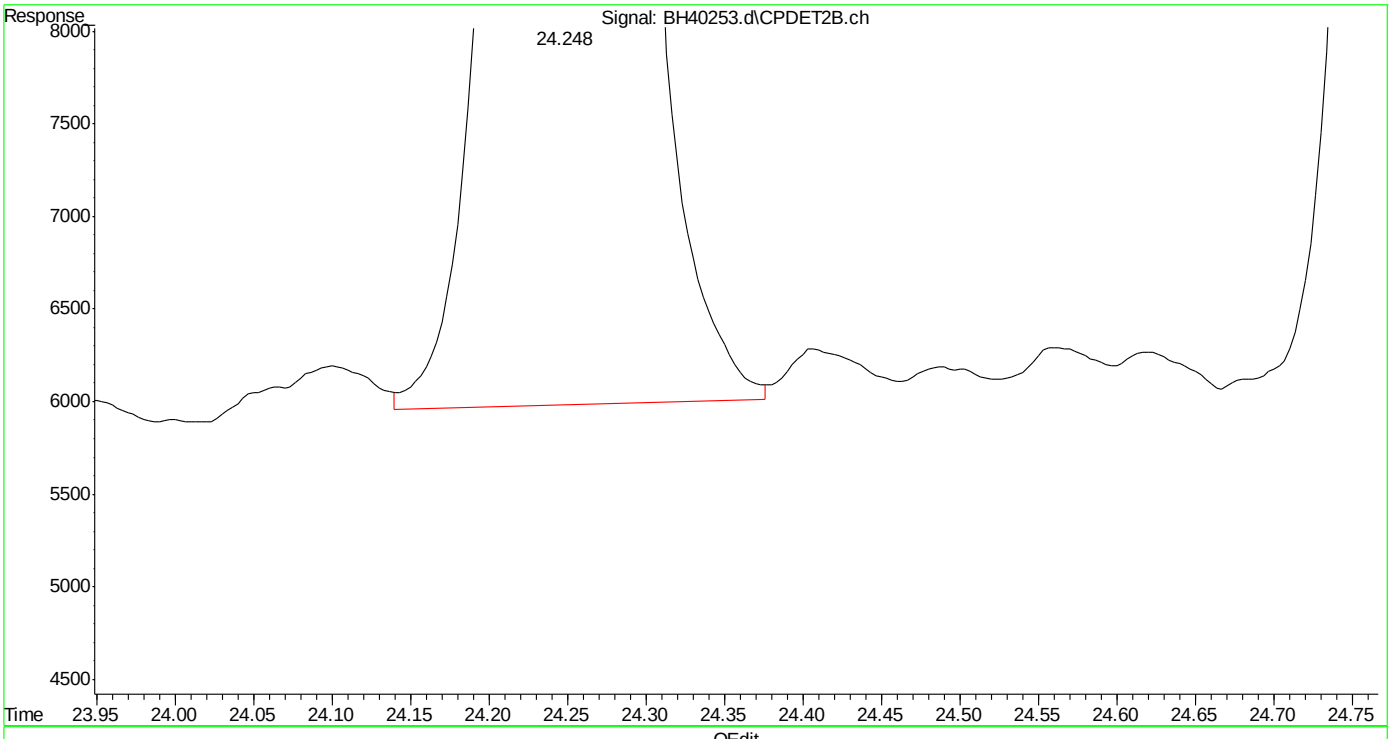
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(31) 1,3,5-trimethylbenzene #2 (t)
24.248min 1.134 ppb m
response 771232

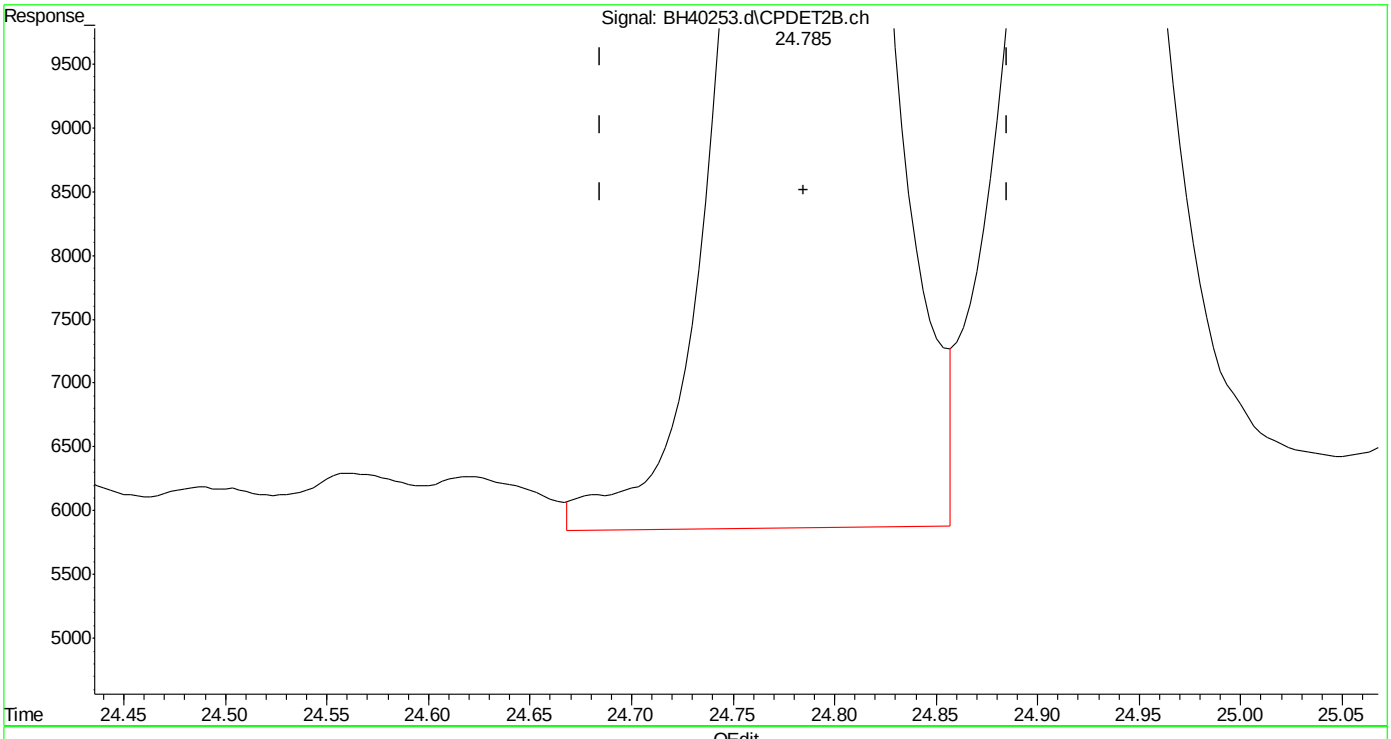
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:25:59 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(32) 1,2,4-trimethylbenzene #2 (t)
24.786min 1.214 ppb
response 612348

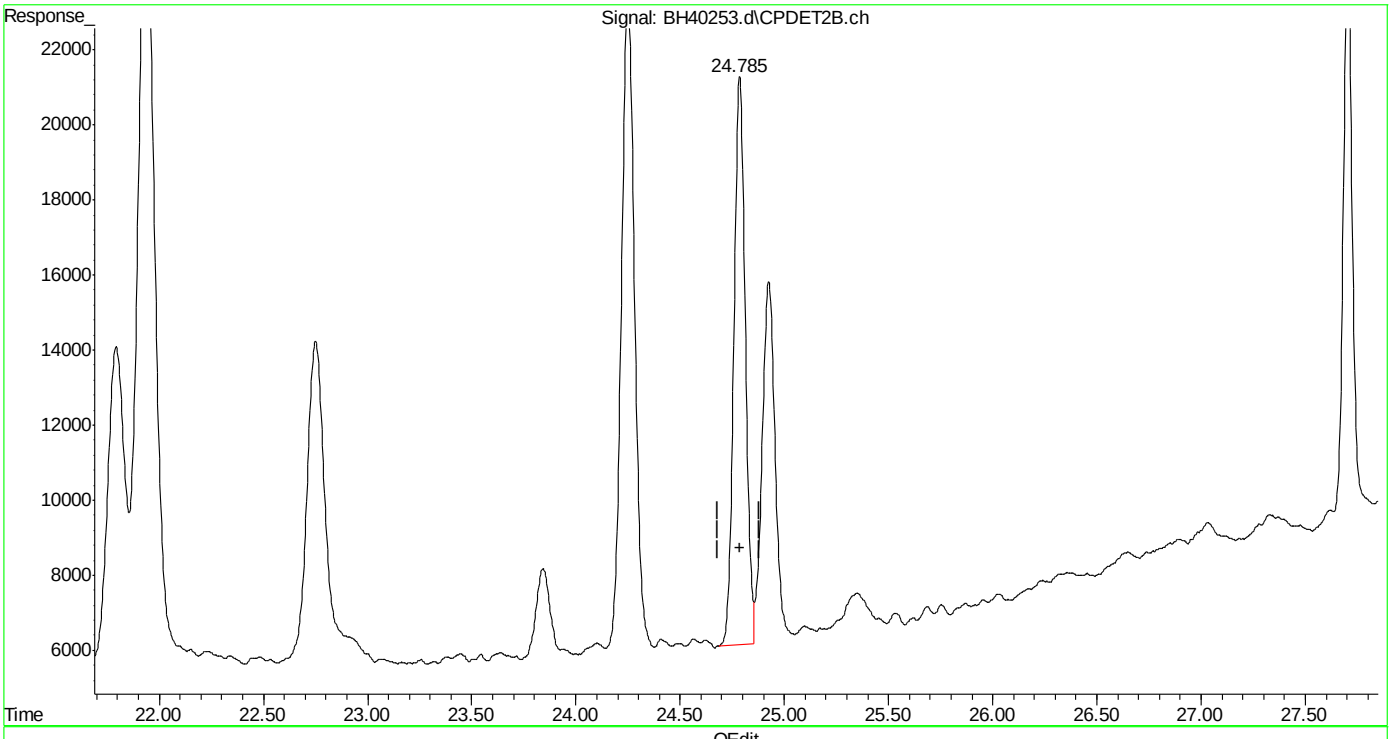
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(32) 1,2,4-trimethylbenzene #2 (t)
24.785min 1.146 ppb m
response 577898

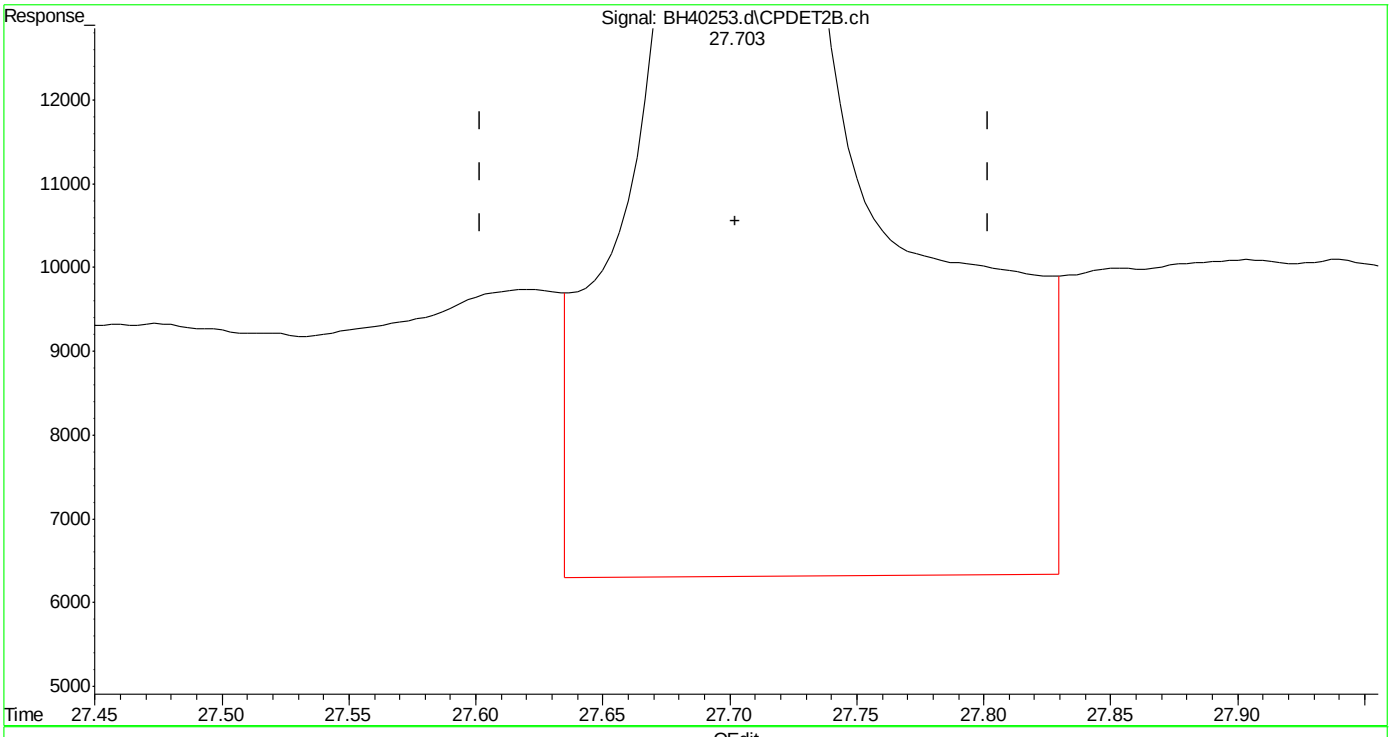
(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:26:16 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(33) naphthalene #2 (t)
27.705min 2.179 ppb
response 844415

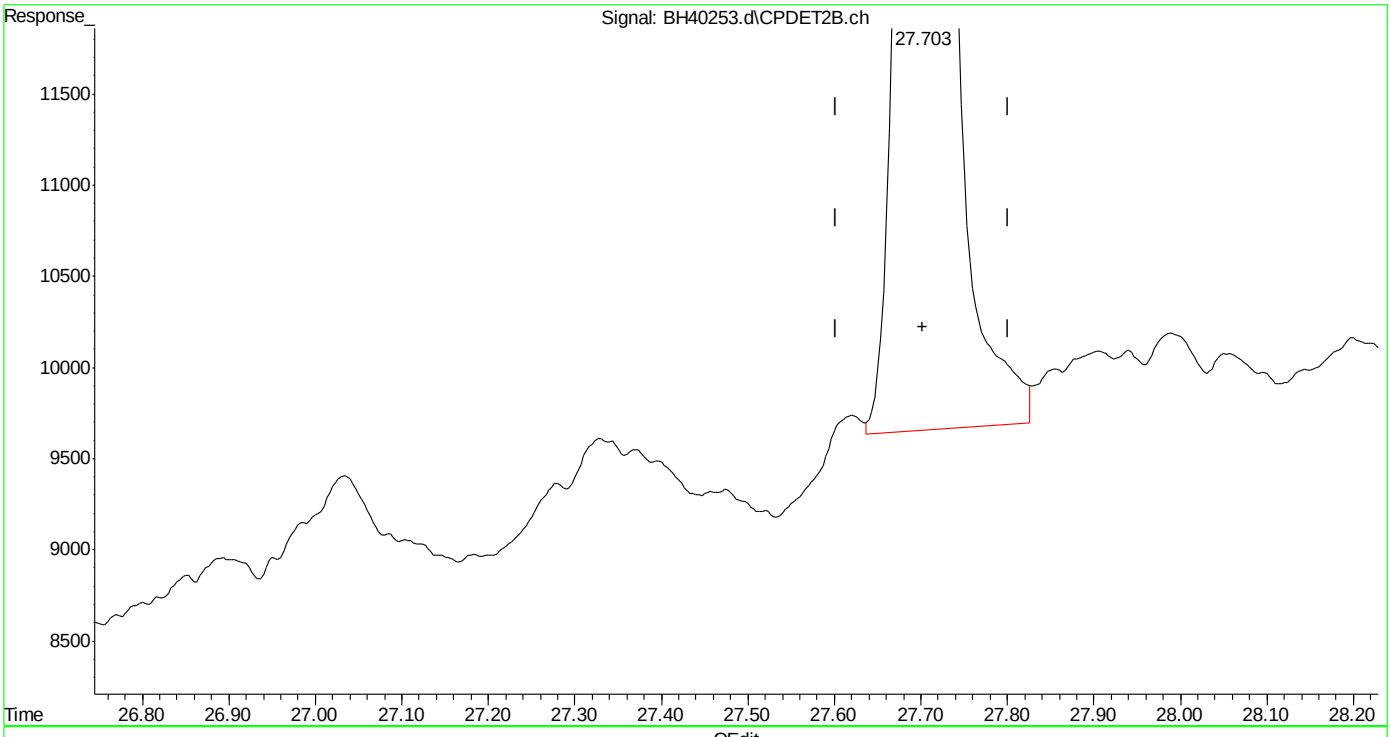
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40253.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:25 pm
Operator : tonyf
Sample : ic2394-1,gv16556
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 7 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:21:15 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vphmaster.m
Quant Title : vph - master
QLast Update : Mon Oct 31 16:34:28 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(33) naphthalene #2 (t)
27.703min 1.169 ppb m
response 453125

(+) = Expected Retention Time
bh161031vphmaster.m Mon Oct 31 17:27:13 2016

SGS ACCUTEST MC48999

Manual Integrations
APPROVED
(compounds with "m" flag)
Andri Piluri
11/02/16 12:49

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40254.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:59 pm
Operator : tonyf
Sample : icv2394-50,gv16557 (Sig #1); icv2394-1000,gv16557 (Sig #2)
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 01 08:54:34 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.663	46898419	49.007	ppb	
Spiked Amount 50.000		Recovery =	98.01%		
6) s 2,3,4-trifluorotoluene	19.779	37297260	45.886	ppb	
Spiked Amount 50.000		Recovery =	91.77%		
16) s fluorobenzene #2	14.663	17741181	49.220	ppb	
Spiked Amount 50.000		Recovery =	98.44%		
18) s 2,3,4-trifluorotoluen...	19.779	10069901	46.390	ppb	
Spiked Amount 50.000		Recovery =	92.78%		
Target Compounds					
1) h rt5.5-7	5.980	42075945	43.798	ppb	m
2) h rt7/10	8.250	46486033	48.389	ppb	m
3) h rt10/13	13.360	56317399	58.623	ppb	m
8) h rt20/25	21.460	50427467	45.774	ppb	m
10) h decane	23.856	49464172	44.899	ppb	
11) h butylcyclohexane	24.940	54447904	49.423	ppb	
14) t mtbe #2	9.008	11879544	48.678	ppb	
15) t benzene #2	14.161	27484184	48.778	ppb	
17) t toluene #2	18.659	25305154	48.977	ppb	
19) t ethylbenzene #2	21.794	21777059	47.838	ppb	
20) t m,p-xylene #2	21.937	53732737	95.465	ppb	
21) t o-xylene #2	22.749	23248982	47.768	ppb	
22) t 1,3,5-trimethylbenzen...	24.249	32959912	47.557	ppb	
23) t 1,2,4-trimethylbenzen...	24.785	24580313	47.754	ppb	
24) t naphthalene #2	27.702	21257670	53.554	ppb	m
25) h c9-c10 arom as 1,2,4-tmb	24.800	24505490	47.599	ppb	m

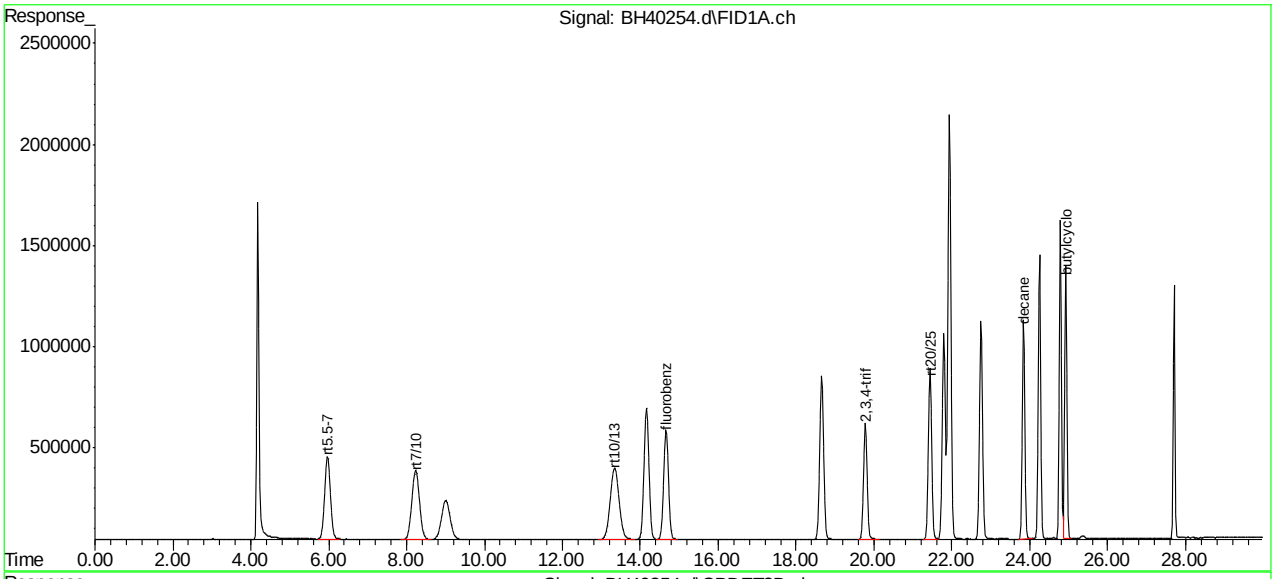
(f)=RT Delta > 1/2 Window (m)=manual int.

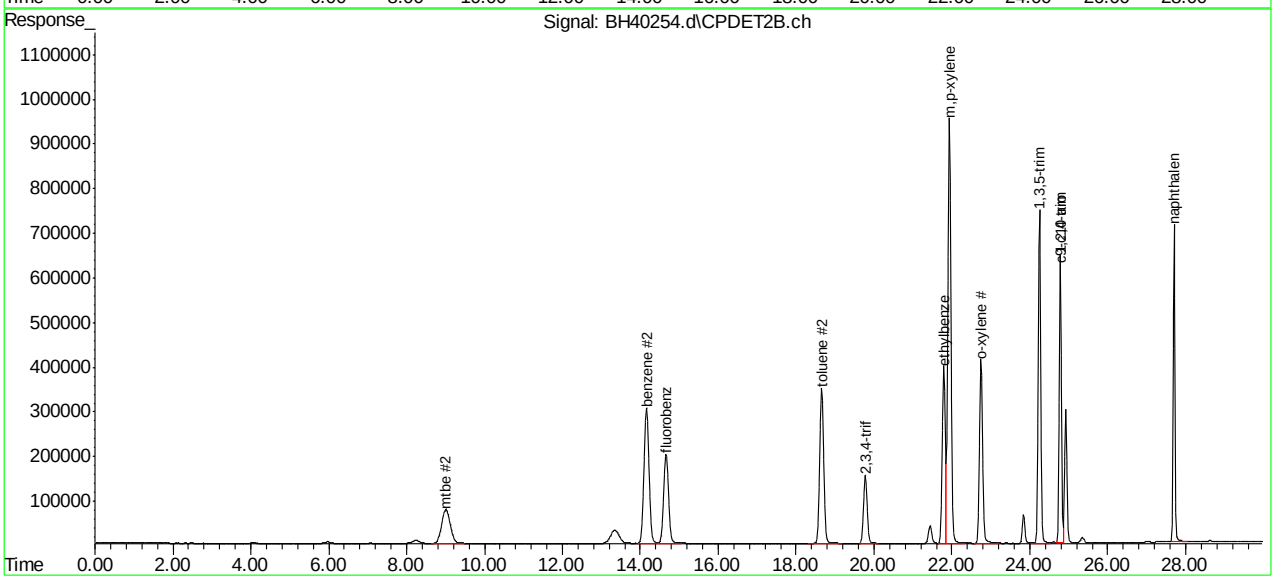
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40254.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:59 pm
Operator : tonyf
Sample : icv2394-50,gv16557 (Sig #1); icv2394-1000,gv16557 (Sig #2)
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 8 Sample Multiplier: 1

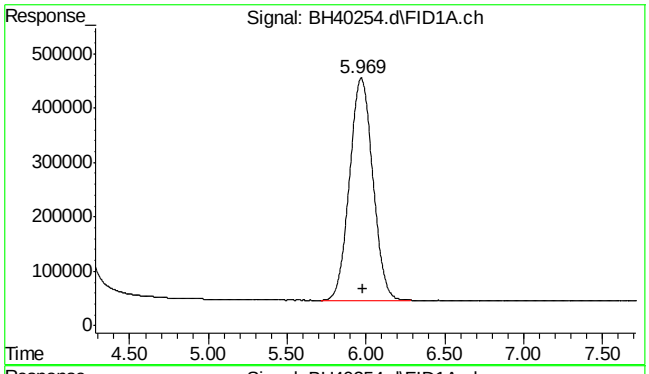
Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 01 08:54:34 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



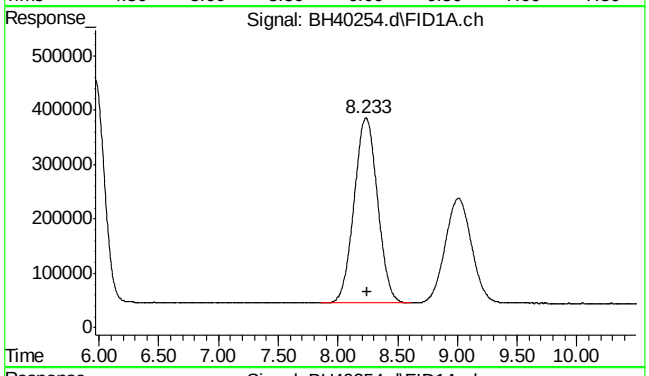


SGS ACCUTEST MC48999



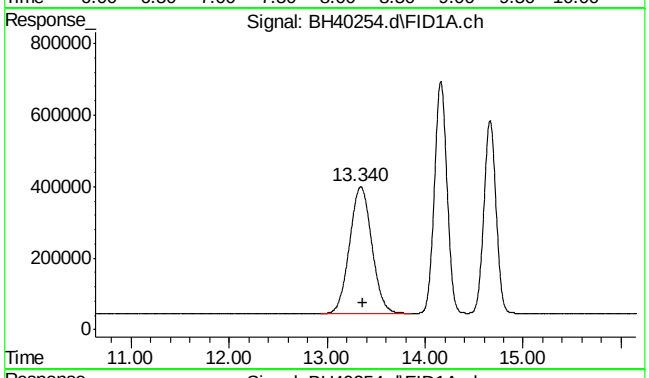
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 42075945
Conc: 43.80 ppb m



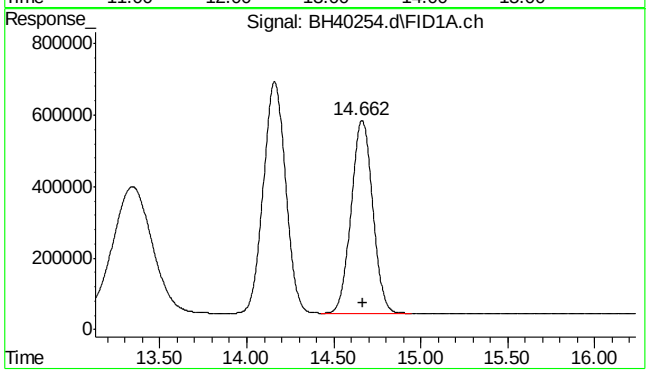
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 46486033
Conc: 48.39 ppb m



#3 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 56317399
Conc: 58.62 ppb m



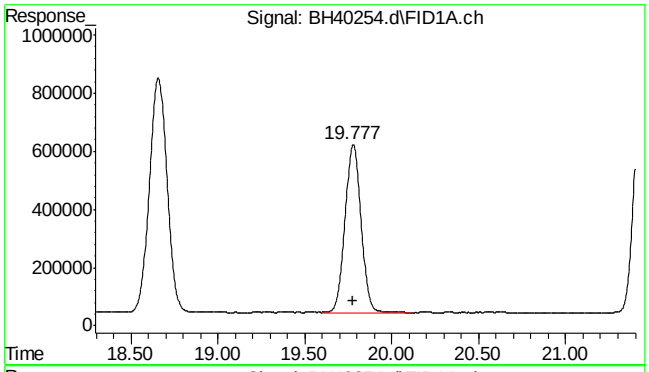
#4 fluorobenzene

R.T.: 14.663 min
Delta R.T.: -0.001 min
Response: 46898419
Conc: 49.01 ppb

7.5.8

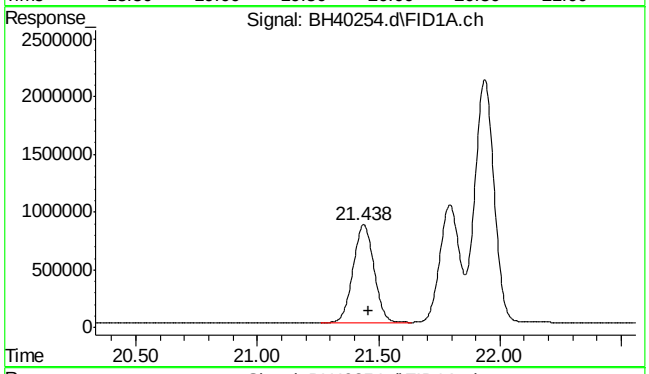
7

SGS ACCUTEST MC48999



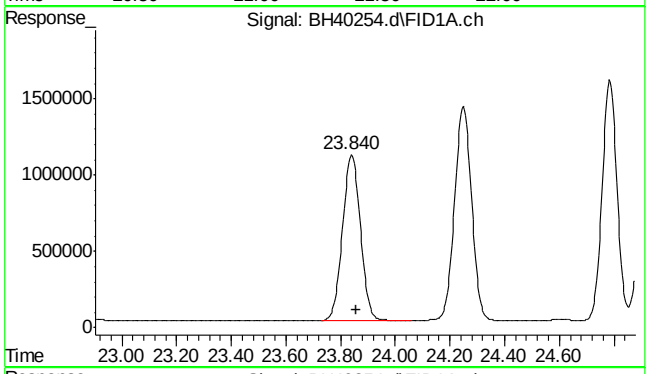
#6 2,3,4-trifluorotoluene

R.T.: 19.779 min
Delta R.T.: 0.000 min
Response: 37297260
Conc: 45.89 ppb



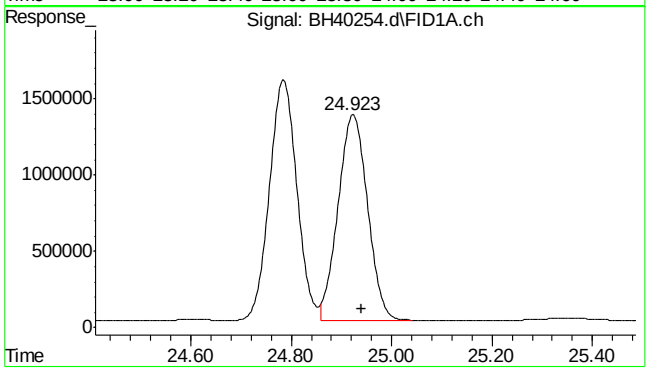
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 50427467
Conc: 45.77 ppb m



#10 decane

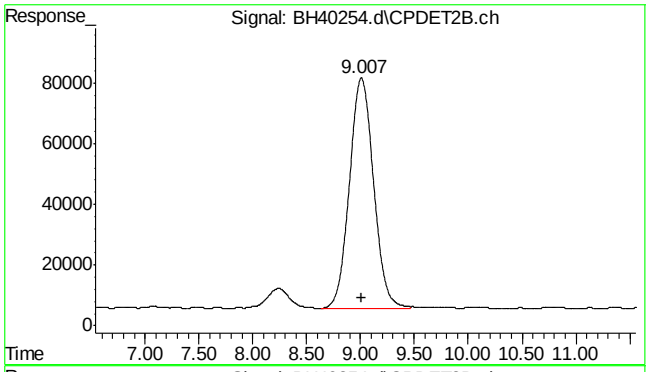
R.T.: 23.856 min
Delta R.T.: 0.000 min
Response: 49464172
Conc: 44.90 ppb



#11 butylcyclohexane

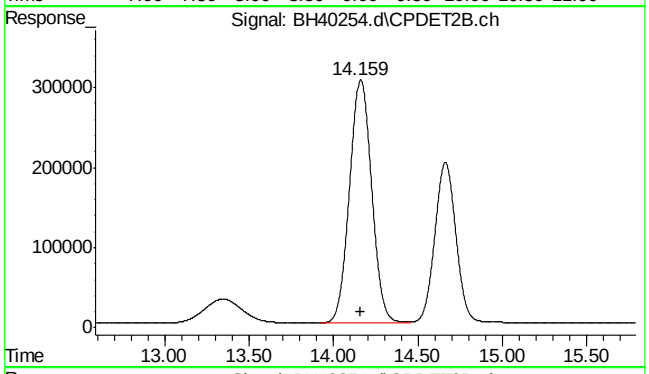
R.T.: 24.940 min
Delta R.T.: 0.000 min
Response: 54447904
Conc: 49.42 ppb

SGS ACCUTEST MC48999



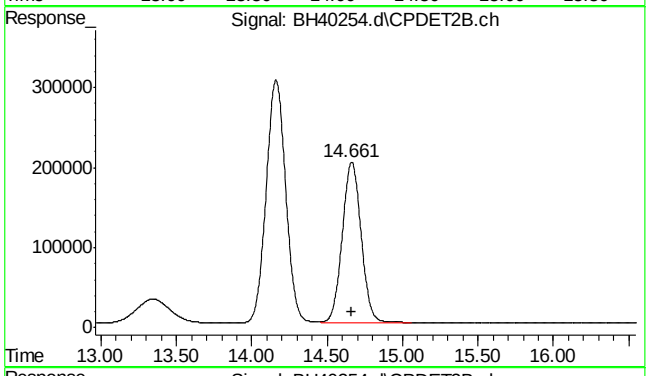
#14 mtbe #2

R.T.: 9.008 min
Delta R.T.: -0.002 min
Response: 11879544
Conc: 48.68 ppb



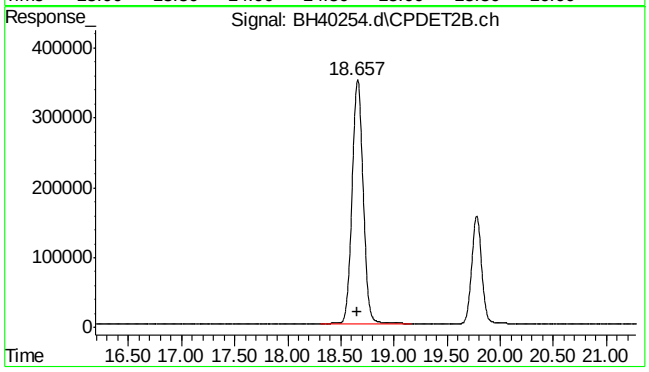
#15 benzene #2

R.T.: 14.161 min
Delta R.T.: 0.000 min
Response: 27484184
Conc: 48.78 ppb



#16 fluorobenzene #2

R.T.: 14.663 min
Delta R.T.: 0.000 min
Response: 17741181
Conc: 49.22 ppb



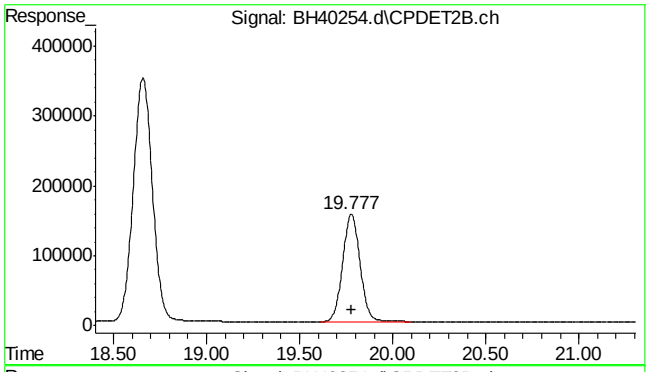
#17 toluene #2

R.T.: 18.659 min
Delta R.T.: 0.000 min
Response: 25305154
Conc: 48.98 ppb

7.5.8

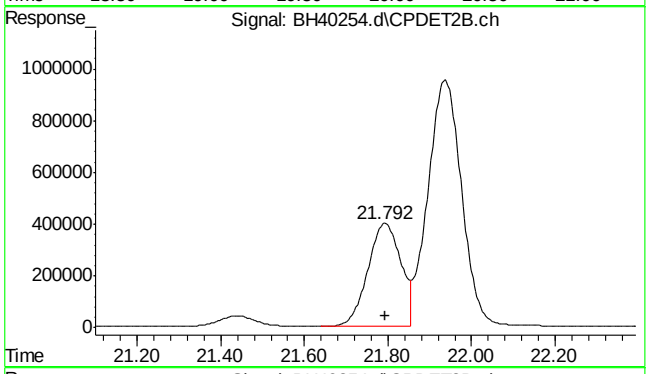
7

SGS ACCUTEST MC48999



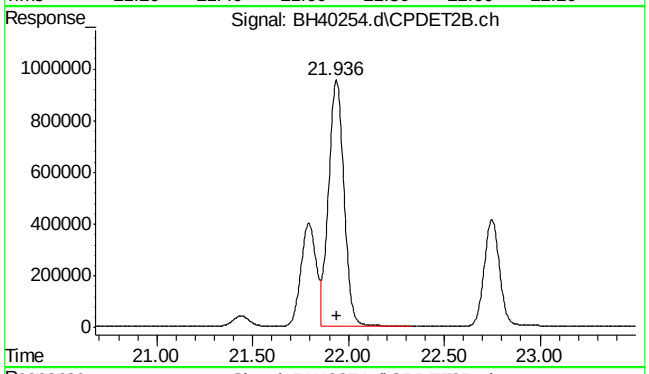
#18 2,3,4-trifluorotoluene #2

R.T.: 19.779 min
Delta R.T.: 0.000 min
Response: 10069901
Conc: 46.39 ppb



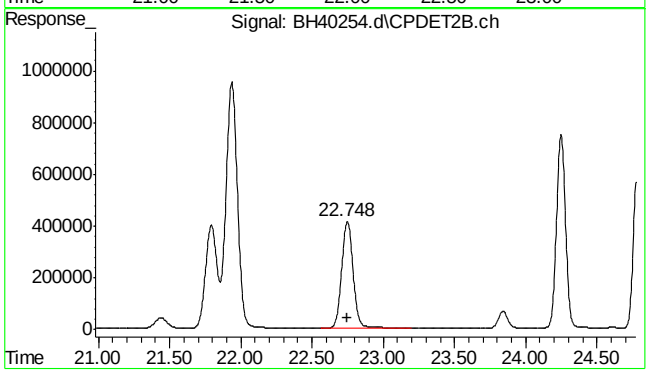
#19 ethylbenzene #2

R.T.: 21.794 min
Delta R.T.: 0.000 min
Response: 21777059
Conc: 47.84 ppb



#20 m,p-xylene #2

R.T.: 21.937 min
Delta R.T.: 0.000 min
Response: 53732737
Conc: 95.46 ppb



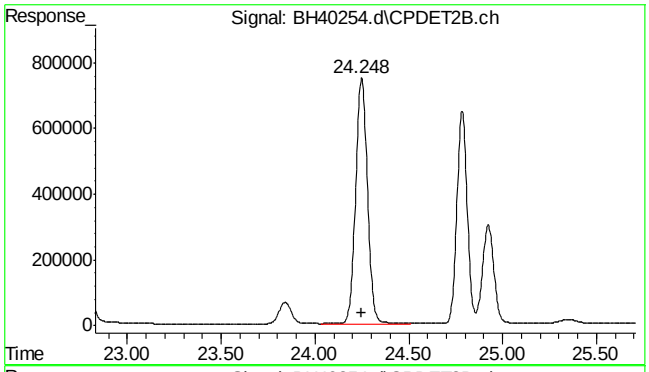
#21 o-xylene #2

R.T.: 22.749 min
Delta R.T.: -0.001 min
Response: 23248982
Conc: 47.77 ppb

7.5.8

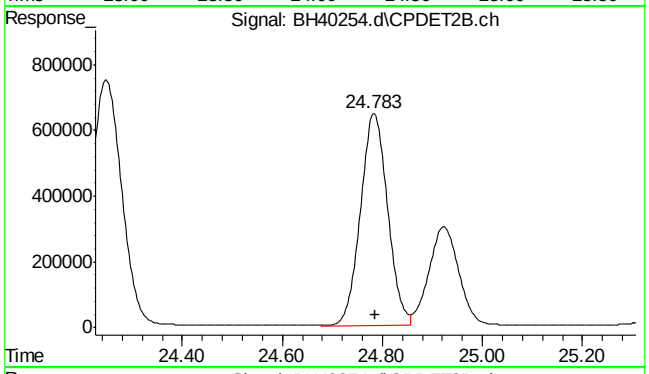
7

SGS ACCUTEST MC48999



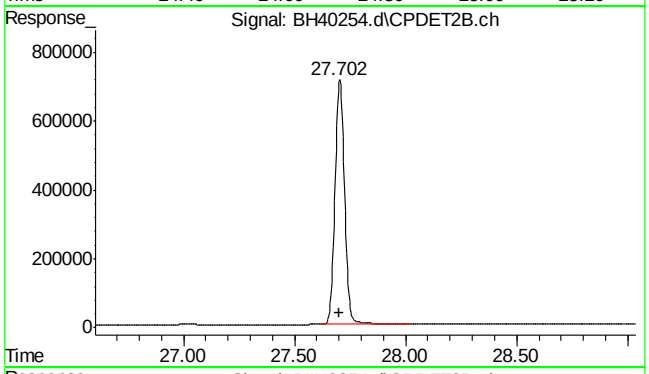
#22 1,3,5-trimethylbenzene #2

R.T.: 24.249 min
Delta R.T.: 0.000 min
Response: 32959912
Conc: 47.56 ppb



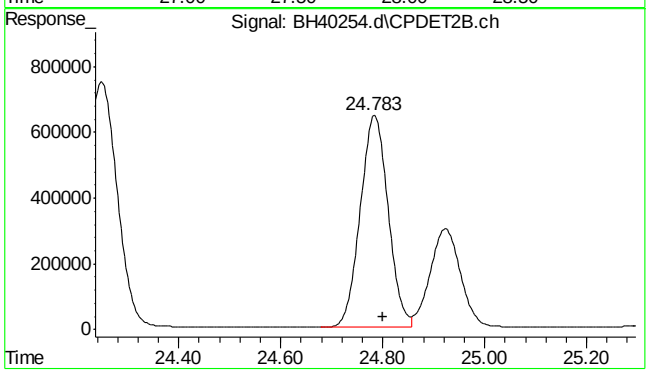
#23 1,2,4-trimethylbenzene #2

R.T.: 24.785 min
Delta R.T.: 0.000 min
Response: 24580313
Conc: 47.75 ppb



#24 naphthalene #2

R.T.: 27.702 min
Delta R.T.: 0.000 min
Response: 21257670
Conc: 53.55 ppb m



#25 c9-c10 arom as 1,2,4-tmb

R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 24505490
Conc: 47.60 ppb m

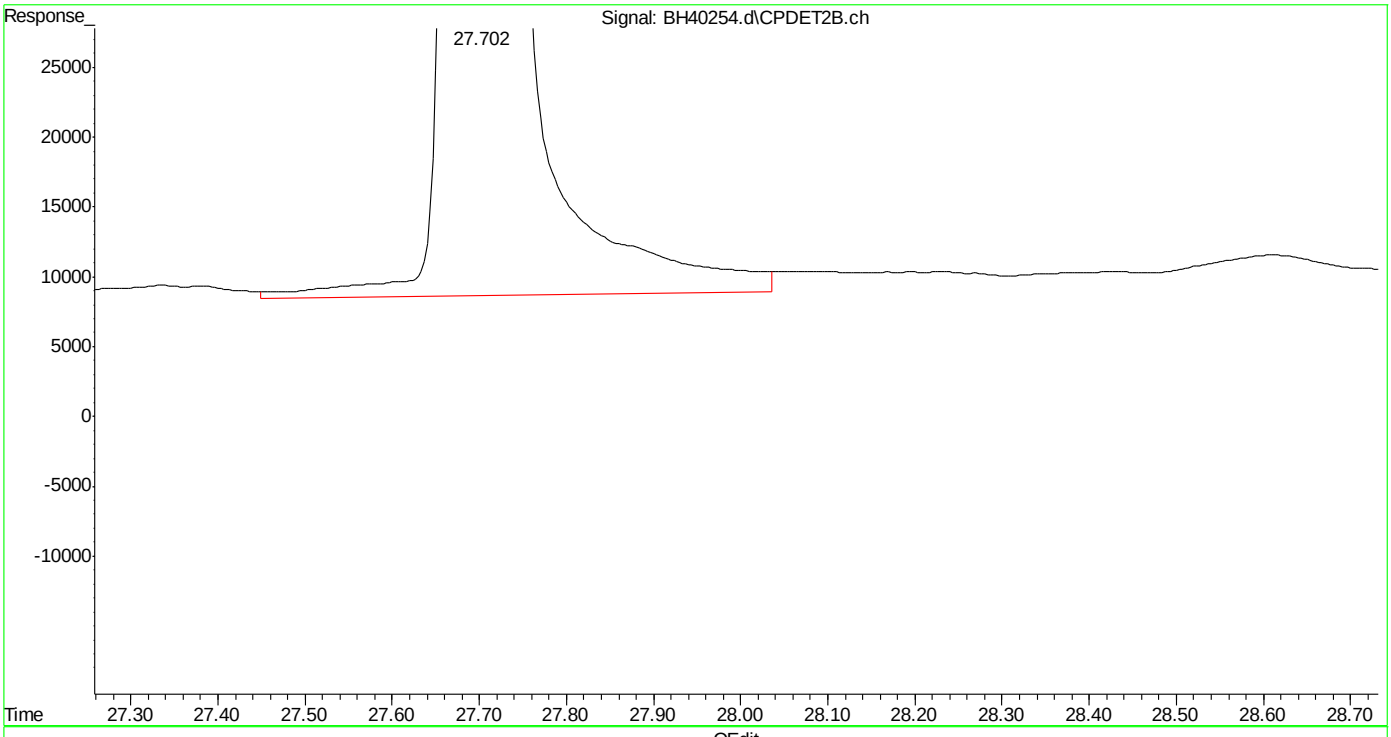
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40254.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:59 pm
Operator : tonyf
Sample : icv2394-1000,gv16557
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:37:28 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vph.m
Quant Title : vph
QLast Update : Mon Oct 31 17:37:11 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

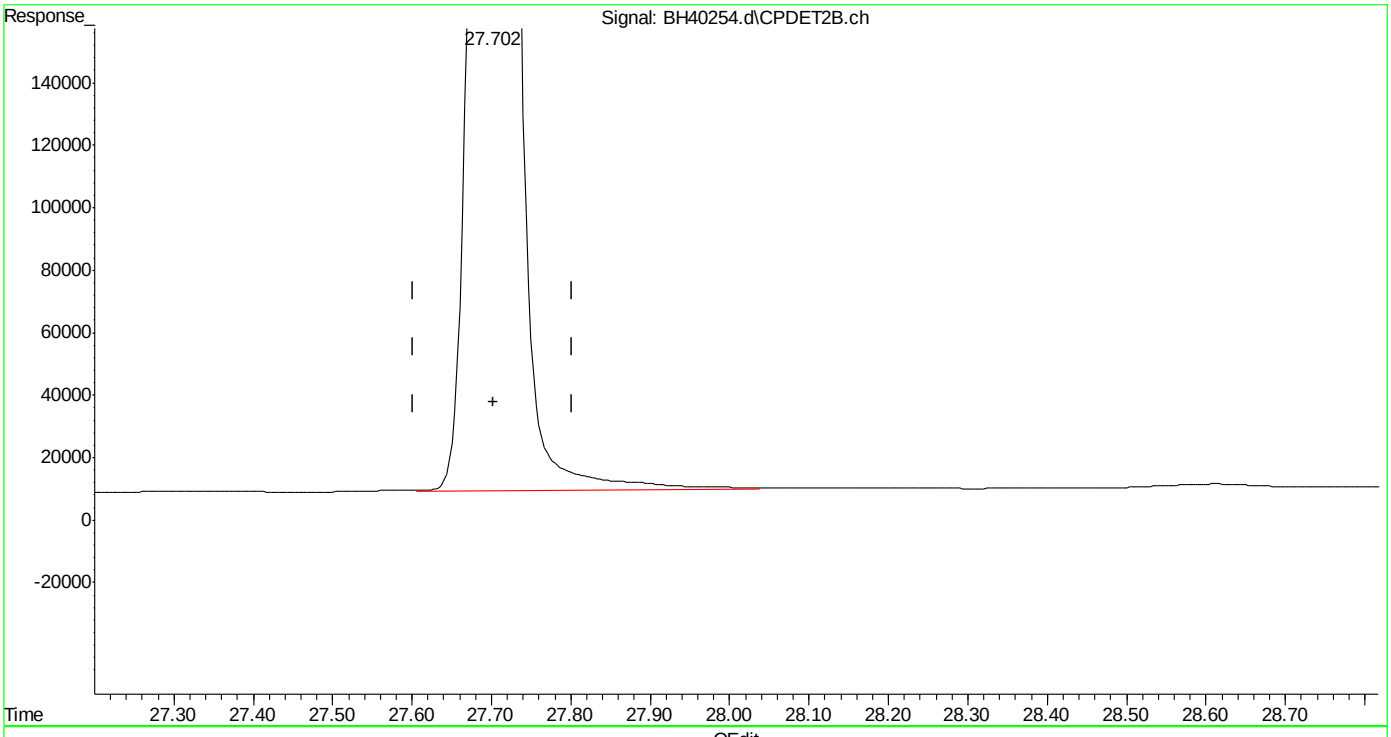


(24) naphthalene #2 (t)
27.704min 54.430 ppb
response 21605207

(+) = Expected Retention Time
bh161031vph.m Mon Oct 31 17:38:02 2016

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40254.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: CPDET2B.ch
Acq On    : 31 Oct 2016   4:59 pm
Operator  : tonyf
Sample    : icv2394-1000,gv16557
Misc      : gc26718,gbh2394,,,,5,1
ALS Vial  : 8   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Oct 31 17:37:28 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vph.m
Quant Title  : vph
QLast Update : Mon Oct 31 17:37:11 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```



(24) naphthalene #2 (t)

27.702min 53.647 ppb m

response 21294344

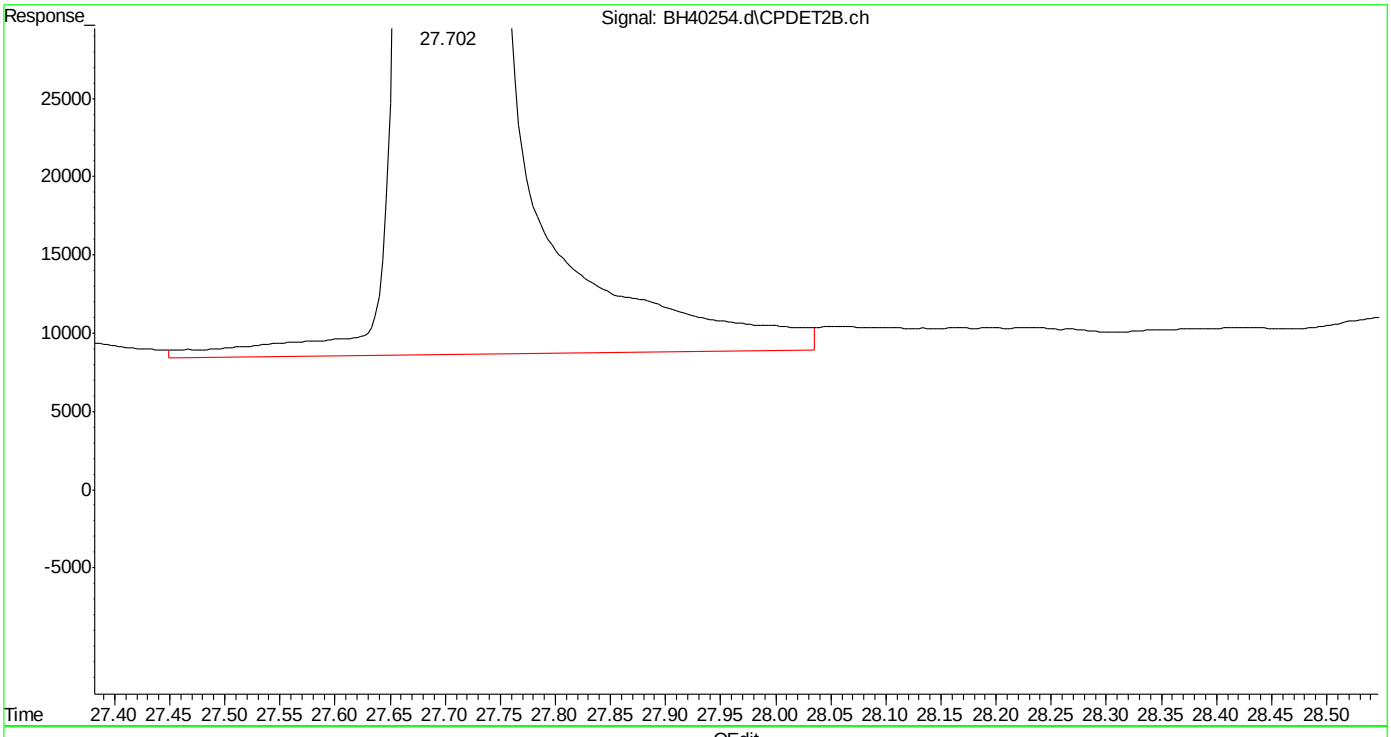
(+) = Expected Retention Time

bh161031vph.m Mon Oct 31 17:38:10 2016

SGS ACCUTEST MC48999

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40254.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: CPDET2B.ch
Acq On    : 31 Oct 2016   4:59 pm
Operator  : tonyf
Sample    : icv2394-1000,gv16557
Misc      : gc26718,gbh2394,,,,5,1
ALS Vial  : 8   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 01 08:49:00 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vph.m
Quant Title  : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```



(24) naphthalene #2 (t)

27.704min 54.430 ppb

response 21605207

(+) = Expected Retention Time

bh161031vph.m Tue Nov 01 08:54:15 2016

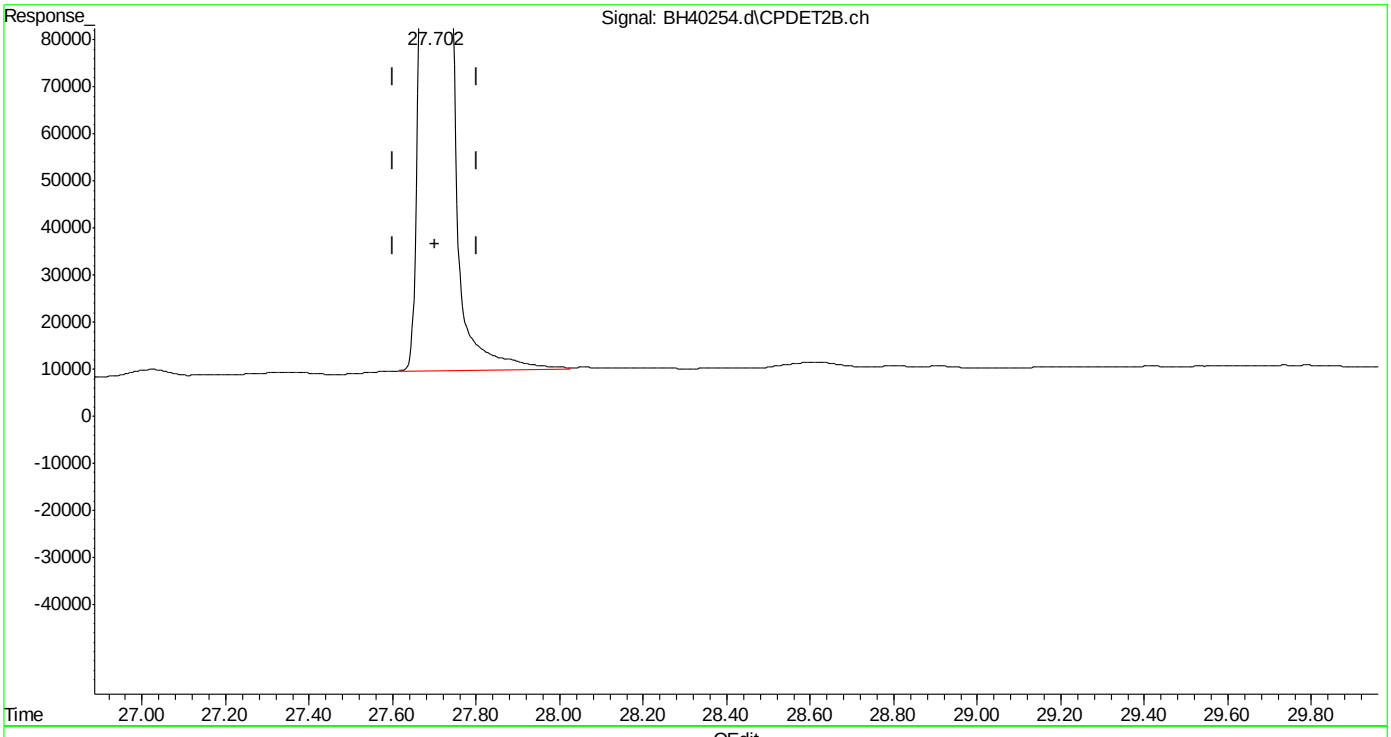
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161031\
Data File : BH40254.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 31 Oct 2016 4:59 pm
Operator : tonyf
Sample : icv2394-1000,gv16557
Misc : gc26718,gbh2394,,,,5,1
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Nov 01 08:49:00 2016
Quant Method : C:\msdchem\1\METHODS\bh161031vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(24) naphthalene #2 (t)
27.702min 53.554 ppb m
response 21257670

(+) = Expected Retention Time
bh161031vph.m Tue Nov 01 08:54:26 2016

SGS ACCUTEST MC48999

Manual Integrations
APPROVED
(compounds with "m" flag)
Andri Piluri
12/12/16 13:41

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40782.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 8:05 am
Operator : tonyf
Sample : cc2394-50
Misc : gc26797,gbh2435,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 08:39:08 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.668	46165056	48.241	ppb	
Spiked Amount 50.000		Recovery =	96.48%		
6) s 2,3,4-trifluorotoluene	19.782	37391470	46.002	ppb	
Spiked Amount 50.000		Recovery =	92.00%		
16) s fluorobenzene #2	14.668	18889085	52.405	ppb	
Spiked Amount 50.000		Recovery =	104.81%		
18) s 2,3,4-trifluorotoluen...	19.782	10321278	47.548	ppb	
Spiked Amount 50.000		Recovery =	95.10%		
Target Compounds					
1) h rt5.5-7	5.980	36211086	37.693	ppb	m
2) h rt7/10	8.250	43099895	44.864	ppb	m
3) h rt10/13	13.360	52794950	54.956	ppb	m
8) h rt20/25	21.460	48834548	44.328	ppb	m
10) h decane	23.856	48877596	44.367	ppb	
11) h butylcyclohexane	24.940	52740732	47.873	ppb	
14) t mtbe #2	9.019	13040764	53.436	ppb	
15) t benzene #2	14.166	29290689	51.984	ppb	
17) t toluene #2	18.663	25689664	49.721	ppb	
19) t ethylbenzene #2	21.797	22413446	49.236	ppb	
20) t m,p-xylene #2	21.941	55253866	98.167	ppb	
21) t o-xylene #2	22.752	23632199	48.556	ppb	
22) t 1,3,5-trimethylbenzen...	24.252	32430542	46.793	ppb	
23) t 1,2,4-trimethylbenzen...	24.788	25343580	49.237	ppb	
24) t naphthalene #2	27.705	23232126	58.529	ppb	m
25) h c9-c10 arom as 1,2,4-tmb	24.800	25386882	49.311	ppb	m

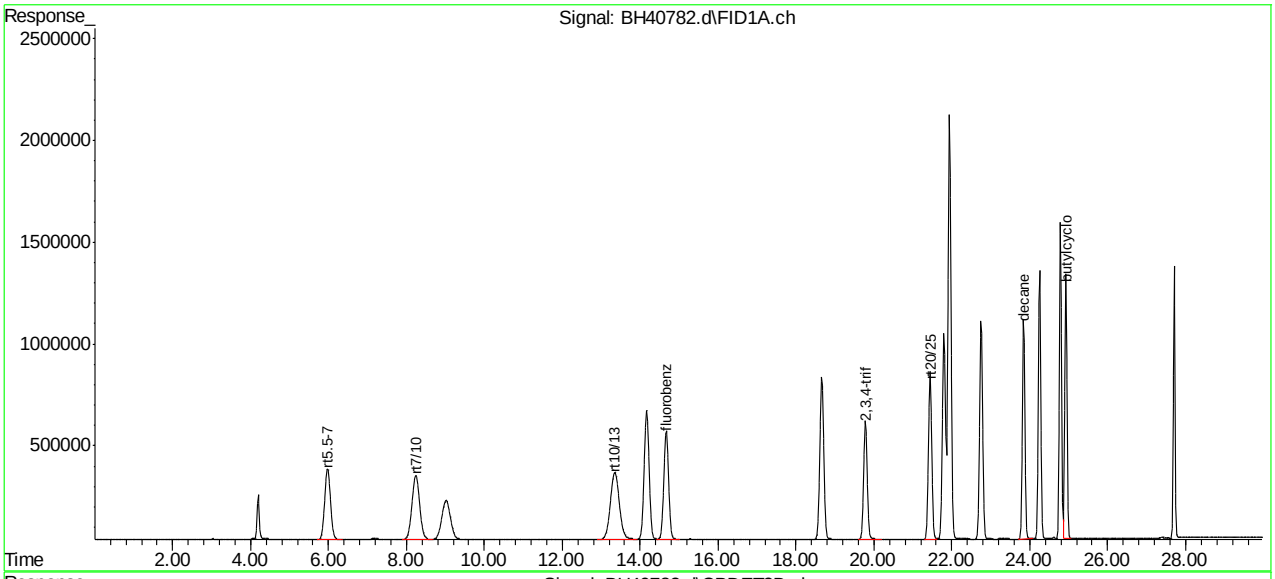
(f)=RT Delta > 1/2 Window (m)=manual int.

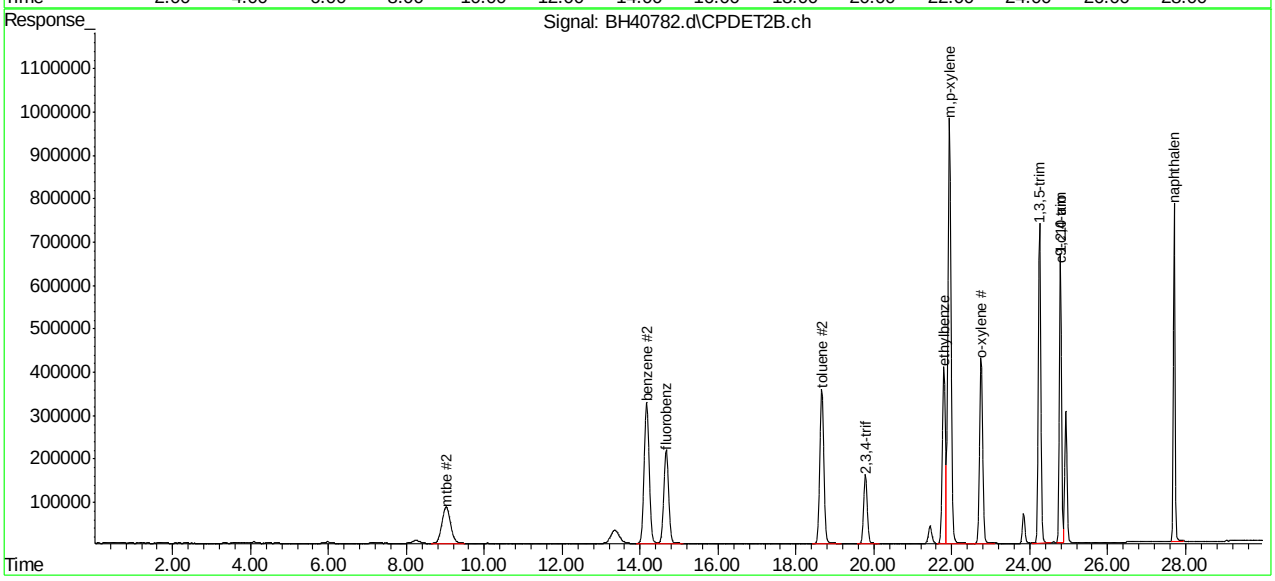
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40782.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 8:05 am
Operator : tonyf
Sample : cc2394-50
Misc : gc26797,gbh2435,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

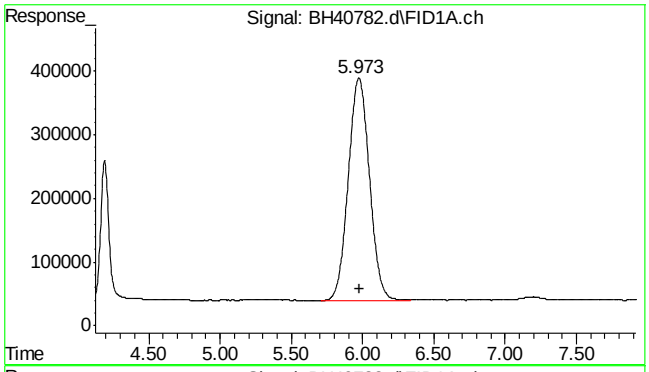
Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 08:39:08 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



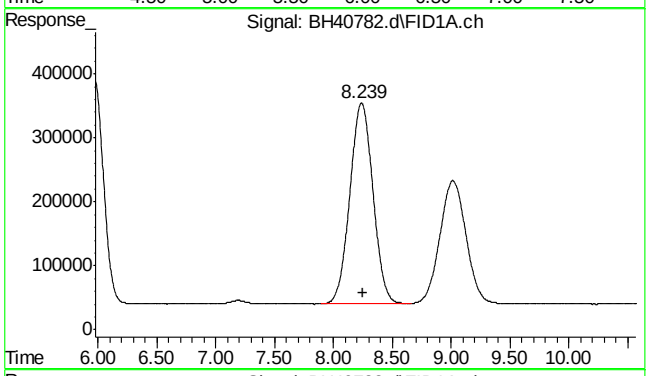


SGS ACCUTEST MC48999



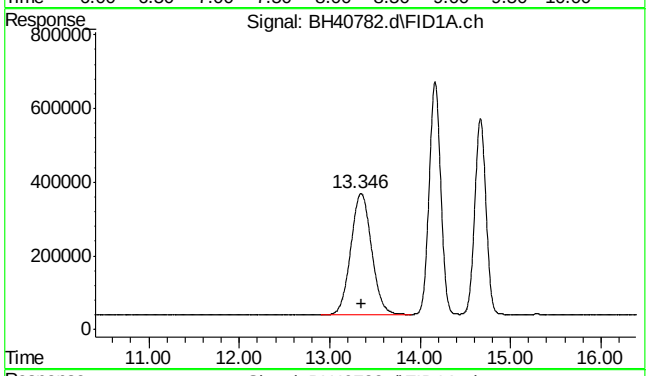
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 36211086
Conc: 37.69 ppb m



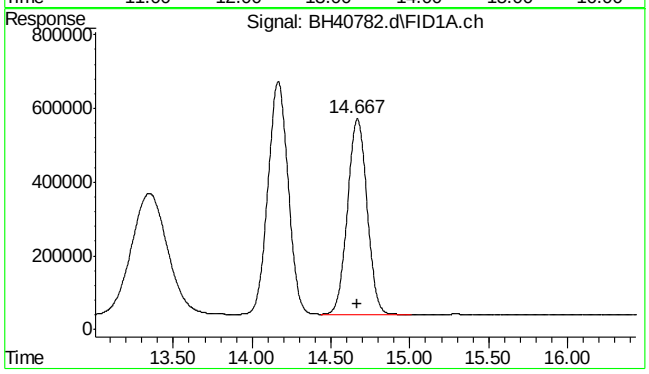
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 43099895
Conc: 44.86 ppb m



#3 rt10/13

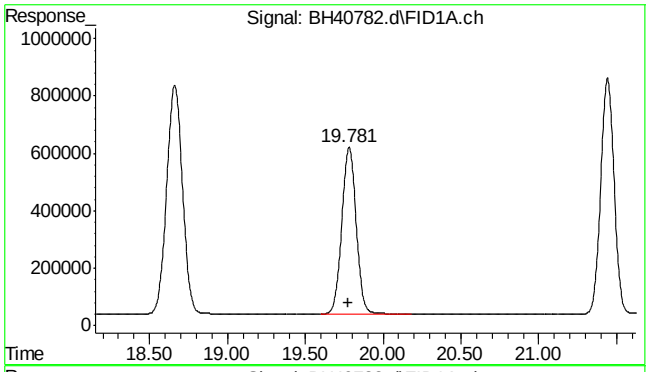
R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 52794950
Conc: 54.96 ppb m



#4 fluorobenzene

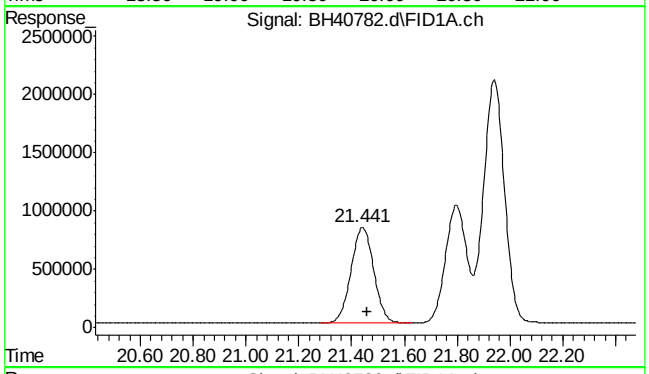
R.T.: 14.668 min
Delta R.T.: 0.004 min
Response: 46165056
Conc: 48.24 ppb

SGS ACCUTEST MC48999



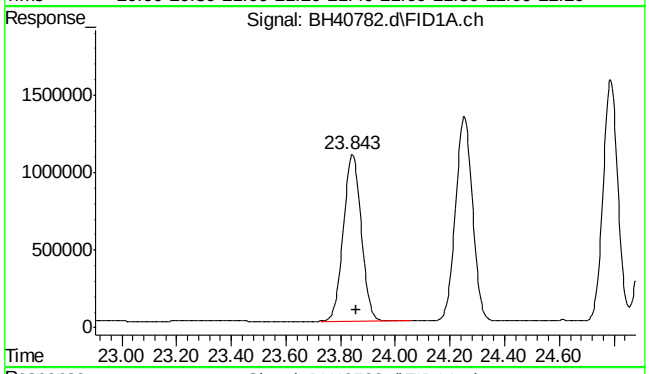
#6 2,3,4-trifluorotoluene

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 37391470
Conc: 46.00 ppb



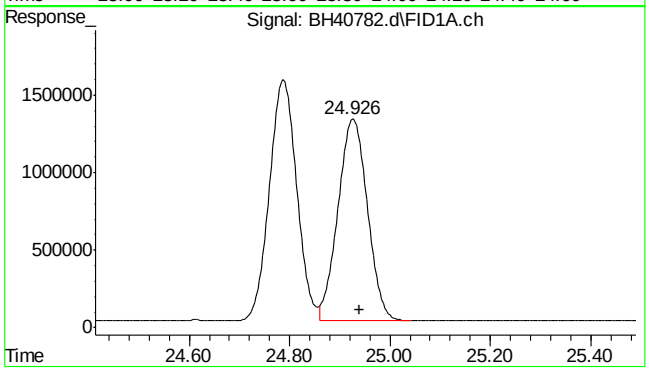
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 48834548
Conc: 44.33 ppb m



#10 decane

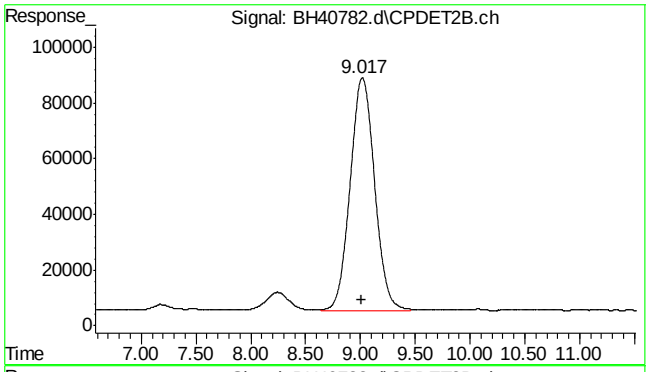
R.T.: 23.856 min
Delta R.T.: 0.000 min
Response: 48877596
Conc: 44.37 ppb



#11 butylcyclohexane

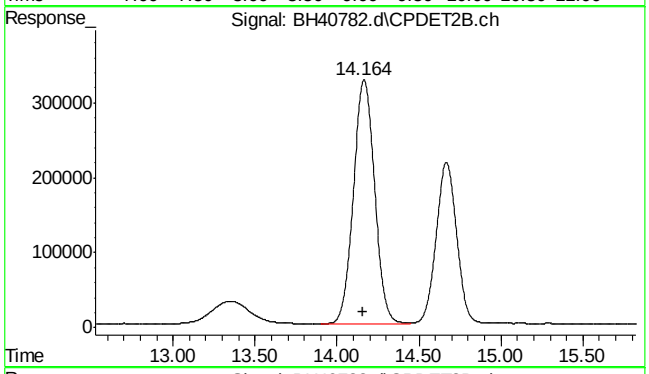
R.T.: 24.940 min
Delta R.T.: 0.000 min
Response: 52740732
Conc: 47.87 ppb

SGS ACCUTEST MC48999



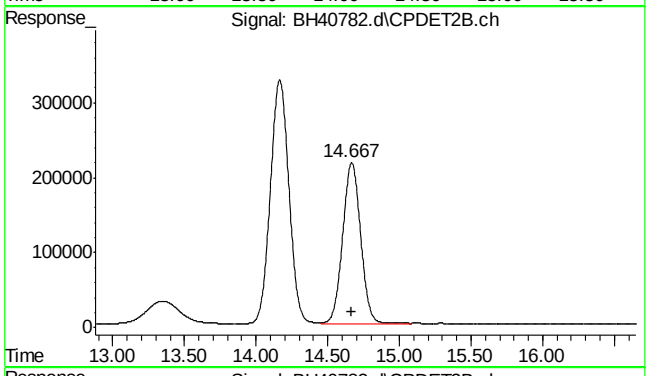
#14 mtbe #2

R.T.: 9.019 min
Delta R.T.: 0.009 min
Response: 13040764
Conc: 53.44 ppb



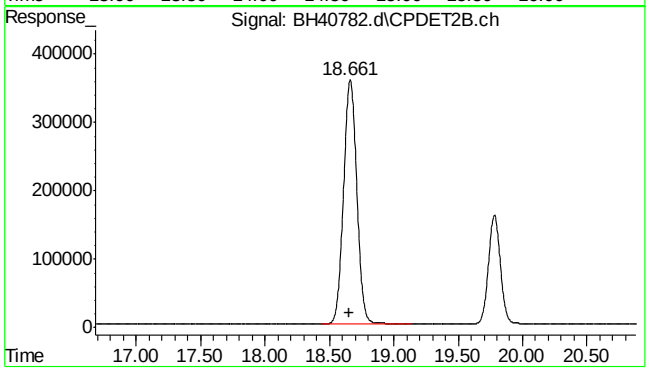
#15 benzene #2

R.T.: 14.166 min
Delta R.T.: 0.005 min
Response: 29290689
Conc: 51.98 ppb



#16 fluorobenzene #2

R.T.: 14.668 min
Delta R.T.: 0.004 min
Response: 18889085
Conc: 52.40 ppb



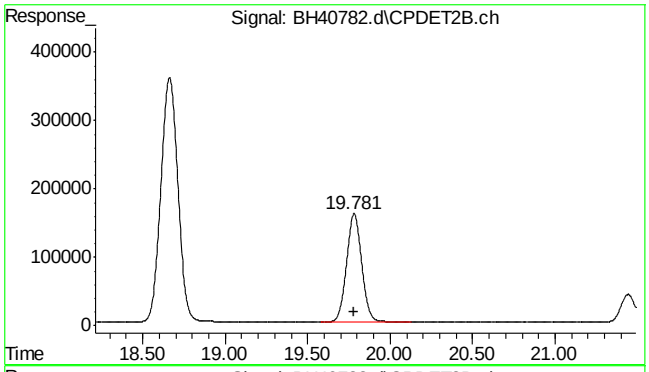
#17 toluene #2

R.T.: 18.663 min
Delta R.T.: 0.004 min
Response: 25689664
Conc: 49.72 ppb

7.5.9

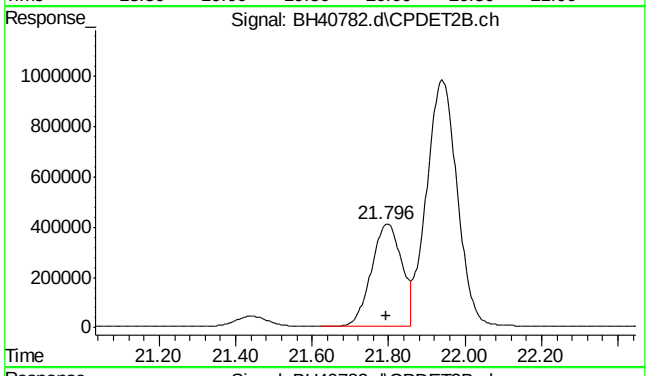
7

SGS ACCUTEST MC48999



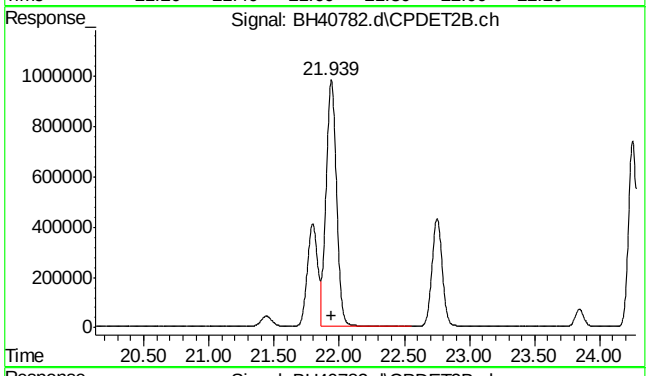
#18 2,3,4-trifluorotoluene #2

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 10321278
Conc: 47.55 ppb



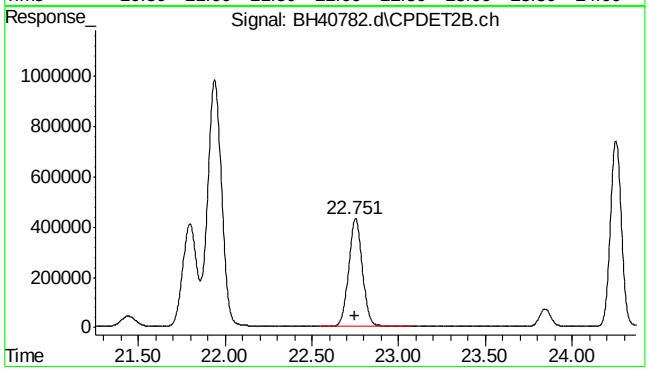
#19 ethylbenzene #2

R.T.: 21.797 min
Delta R.T.: 0.003 min
Response: 22413446
Conc: 49.24 ppb



#20 m,p-xylene #2

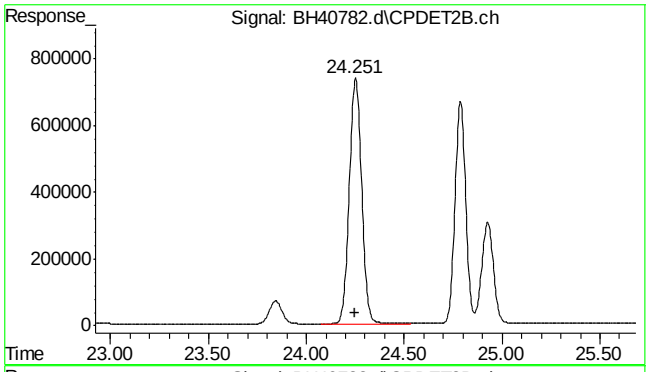
R.T.: 21.941 min
Delta R.T.: 0.003 min
Response: 55253866
Conc: 98.17 ppb



#21 o-xylene #2

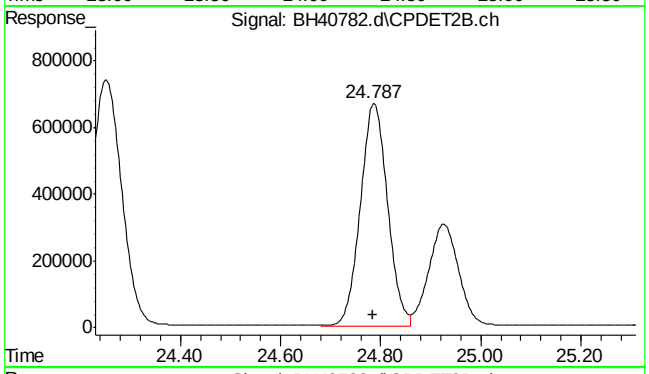
R.T.: 22.752 min
Delta R.T.: 0.002 min
Response: 23632199
Conc: 48.56 ppb

SGS ACCUTEST MC48999



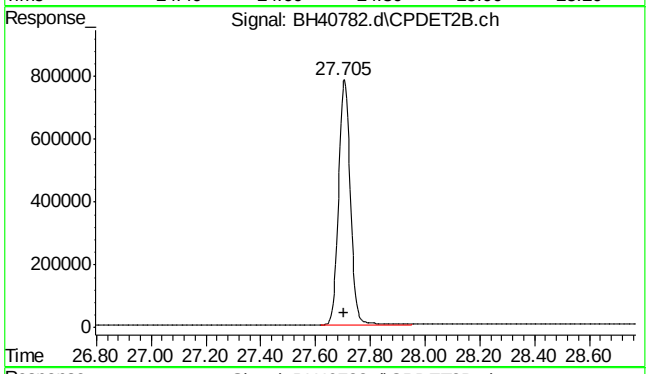
#22 1,3,5-trimethylbenzene #2

R.T.: 24.252 min
Delta R.T.: 0.002 min
Response: 32430542
Conc: 46.79 ppb



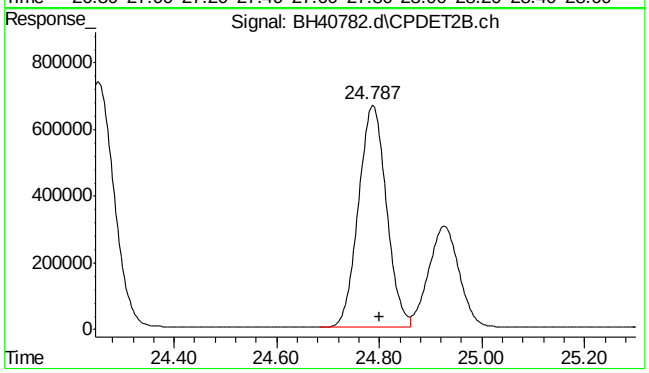
#23 1,2,4-trimethylbenzene #2

R.T.: 24.788 min
Delta R.T.: 0.003 min
Response: 25343580
Conc: 49.24 ppb



#24 naphthalene #2

R.T.: 27.705 min
Delta R.T.: 0.003 min
Response: 23232126
Conc: 58.53 ppb m



#25 c9-c10 arom as 1,2,4-tmb

R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 25386882
Conc: 49.31 ppb m

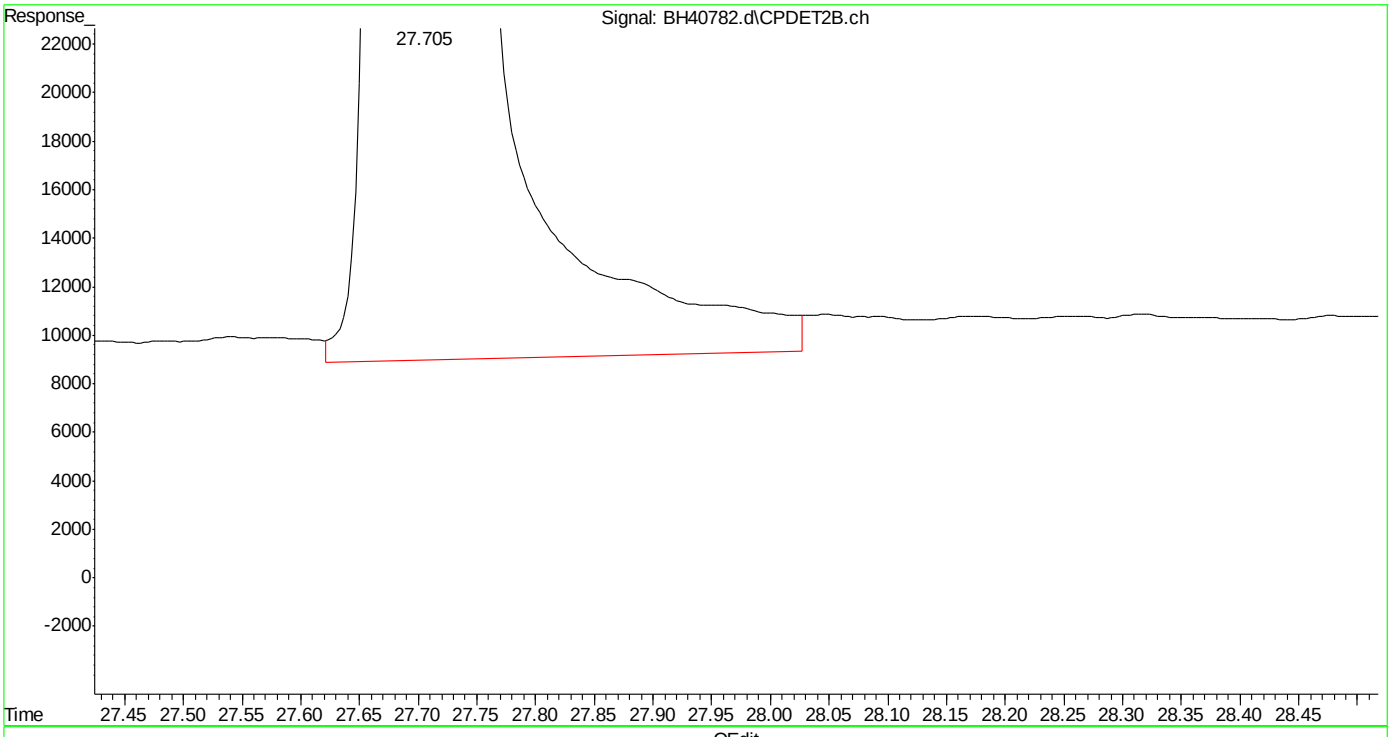
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40782.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 8:05 am
Operator : tonyf
Sample : cc2394-50
Misc : gc26797,gbh2435,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 08:38:05 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(24) naphthalene #2 (t)
27.707min 59.189 ppb
response 23494108

(+) = Expected Retention Time
bh161209vph.m Fri Dec 09 08:38:54 2016

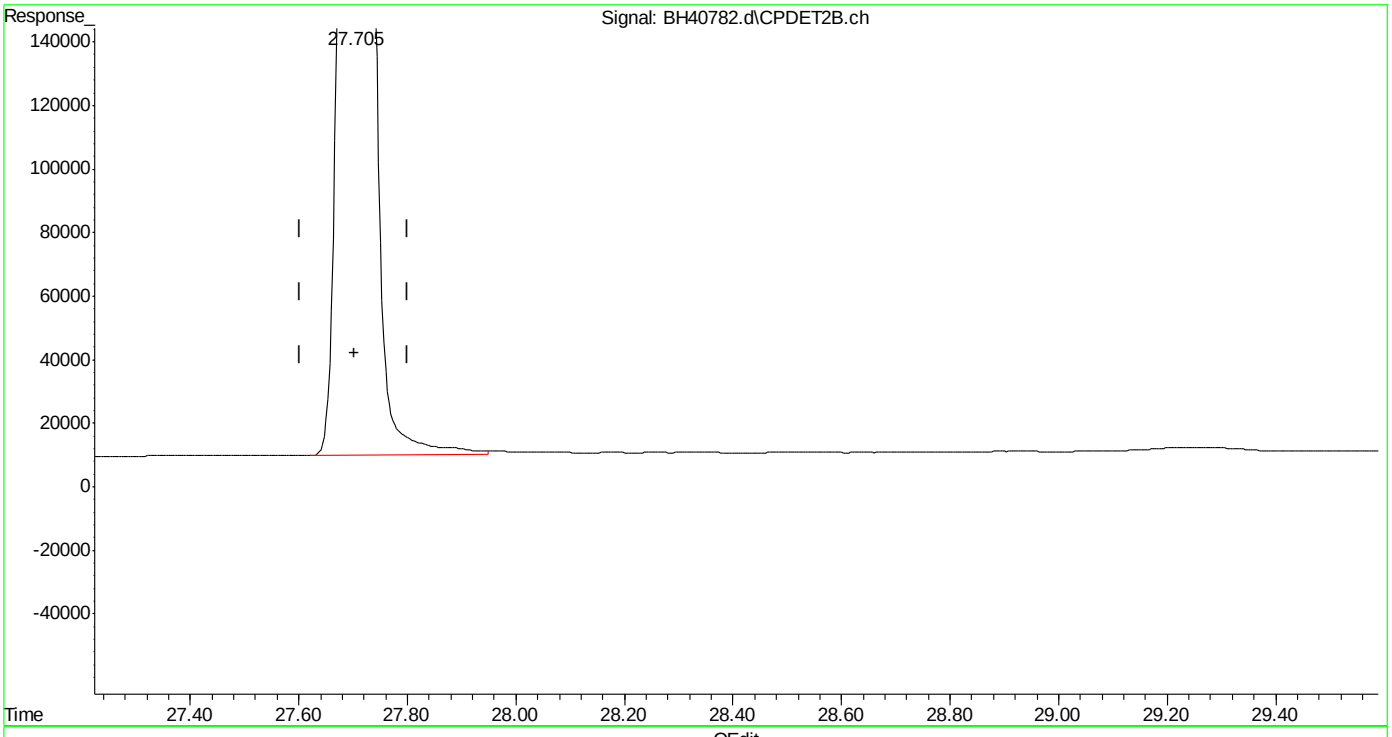
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40782.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 8:05 am
Operator : tonyf
Sample : cc2394-50
Misc : gc26797,gbh2435,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 08:38:05 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(24) naphthalene #2 (t)
27.705min 58.529 ppb m
response 23232126

(+) = Expected Retention Time
bh161209vph.m Fri Dec 09 08:39:02 2016 Page: 1

Manual Integrations
APPROVED
(compounds with "m" flag)
Andri Piluri
12/13/16 11:51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40782a.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 8:05 am
Operator : tonyf
Sample : cc2394-50
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 08:39:08 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.668	46165056	48.241	ppb	
Spiked Amount 50.000		Recovery =	96.48%		
6) s 2,3,4-trifluorotoluene	19.782	37391470	46.002	ppb	
Spiked Amount 50.000		Recovery =	92.00%		
16) s fluorobenzene #2	14.668	18889085	52.405	ppb	
Spiked Amount 50.000		Recovery =	104.81%		
18) s 2,3,4-trifluorotoluen...	19.782	10321278	47.548	ppb	
Spiked Amount 50.000		Recovery =	95.10%		
Target Compounds					
1) h rt5.5-7	5.980	36211086	37.693	ppb	m
2) h rt7/10	8.250	43099895	44.864	ppb	m
3) h rt10/13	13.360	52794950	54.956	ppb	m
8) h rt20/25	21.460	48834548	44.328	ppb	m
10) h decane	23.856	48877596	44.367	ppb	
11) h butylcyclohexane	24.940	52740732	47.873	ppb	
14) t mtbe #2	9.019	13040764	53.436	ppb	
15) t benzene #2	14.166	29290689	51.984	ppb	
17) t toluene #2	18.663	25689664	49.721	ppb	
19) t ethylbenzene #2	21.797	22413446	49.236	ppb	
20) t m,p-xylene #2	21.941	55253866	98.167	ppb	
21) t o-xylene #2	22.752	23632199	48.556	ppb	
22) t 1,3,5-trimethylbenzen...	24.252	32430542	46.793	ppb	
23) t 1,2,4-trimethylbenzen...	24.788	25343580	49.237	ppb	
24) t naphthalene #2	27.705	23232126	58.529	ppb	m
25) h c9-c10 arom as 1,2,4-tmb	24.800	25386882	49.311	ppb	m

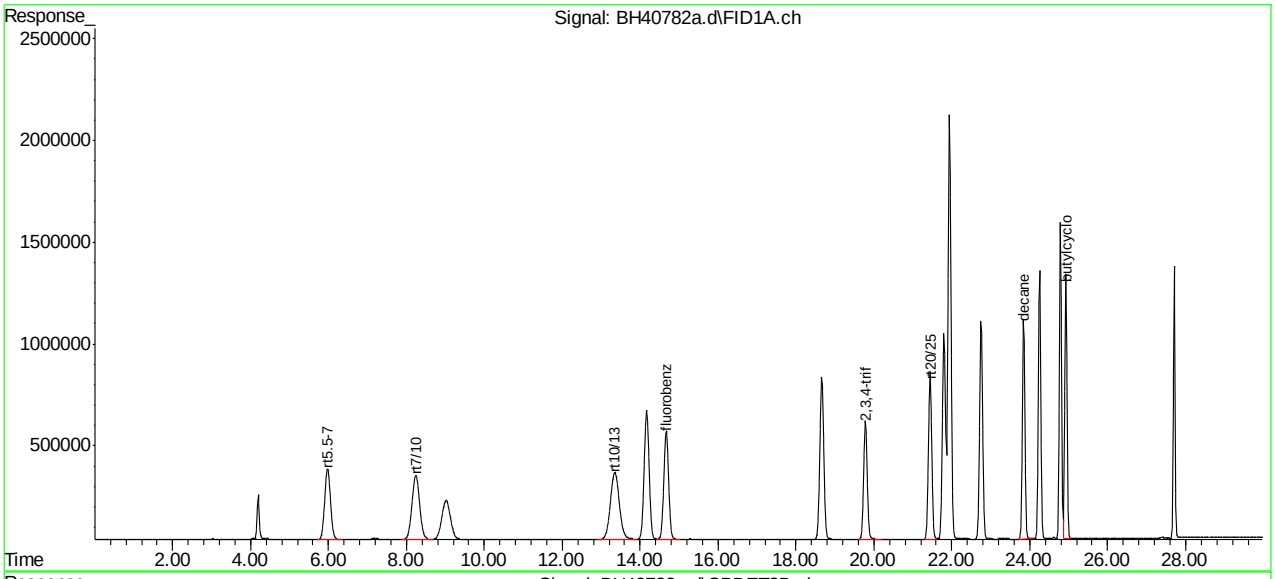
(f)=RT Delta > 1/2 Window (m)=manual int.

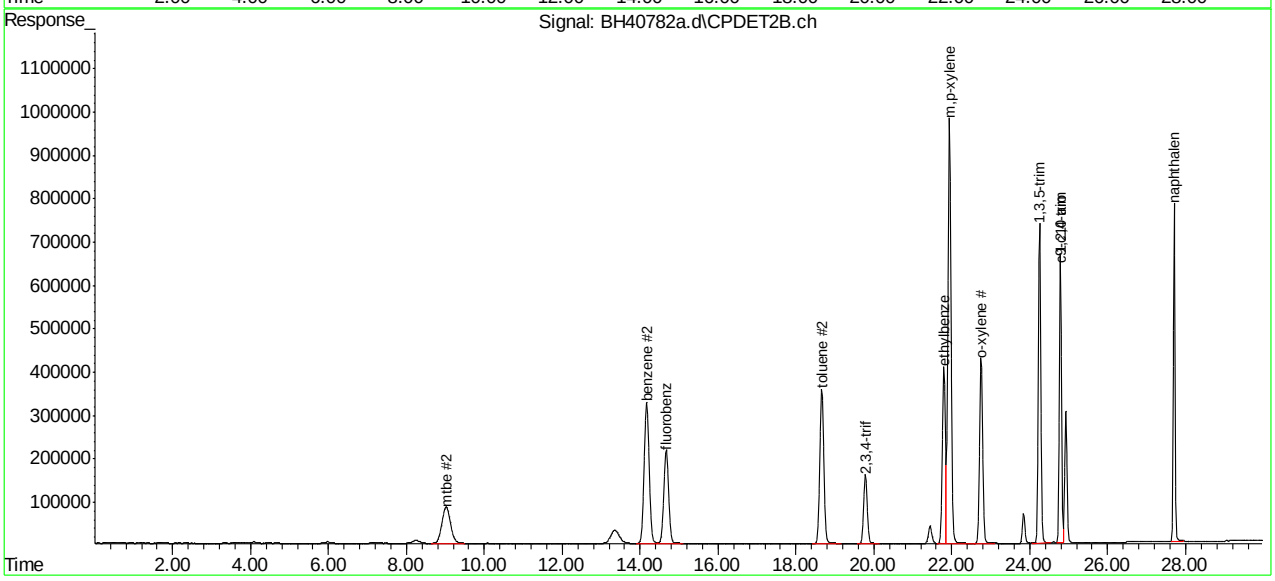
Quantitation Report (QT Reviewed)

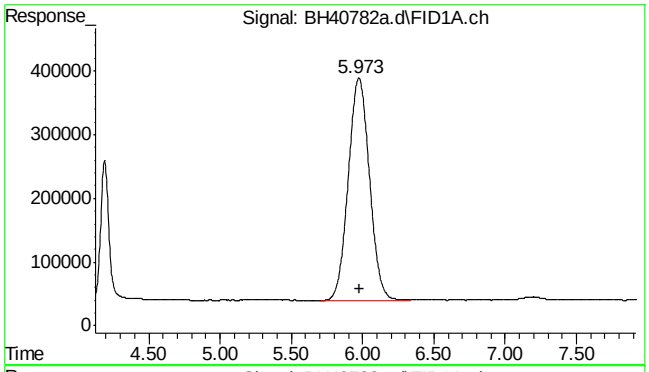
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40782a.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 8:05 am
Operator : tonyf
Sample : cc2394-50
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 08:39:08 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

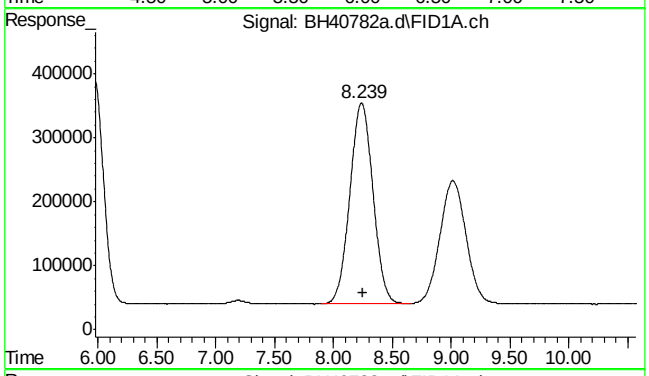






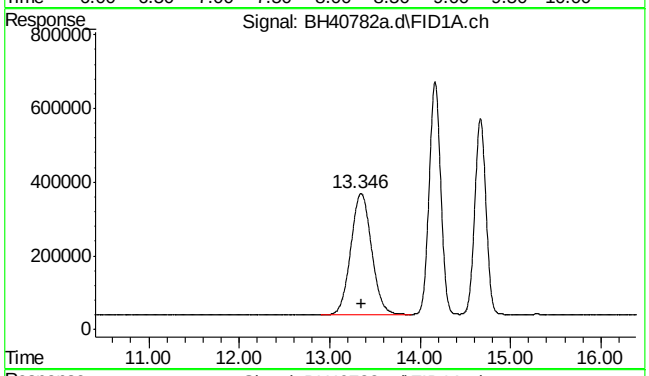
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 36211086
Conc: 37.69 ppb m



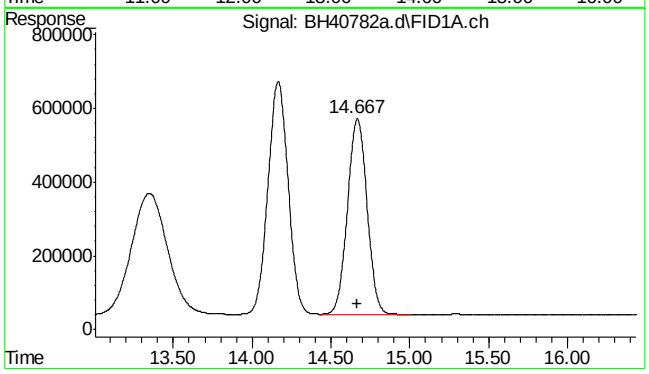
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 43099895
Conc: 44.86 ppb m



#3 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 52794950
Conc: 54.96 ppb m



#4 fluorobenzene

R.T.: 14.668 min
Delta R.T.: 0.004 min
Response: 46165056
Conc: 48.24 ppb

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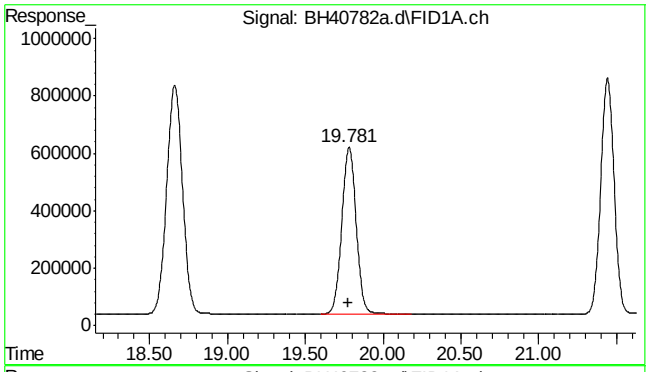
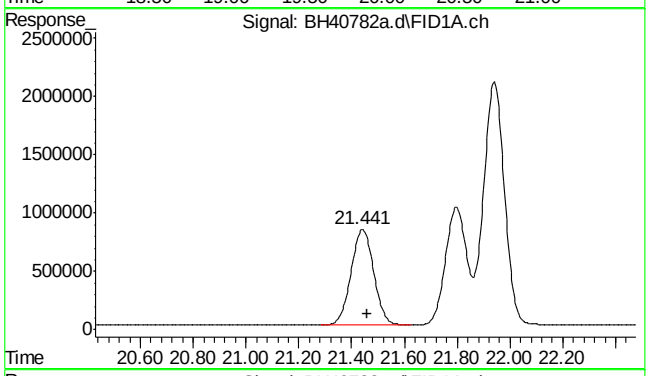


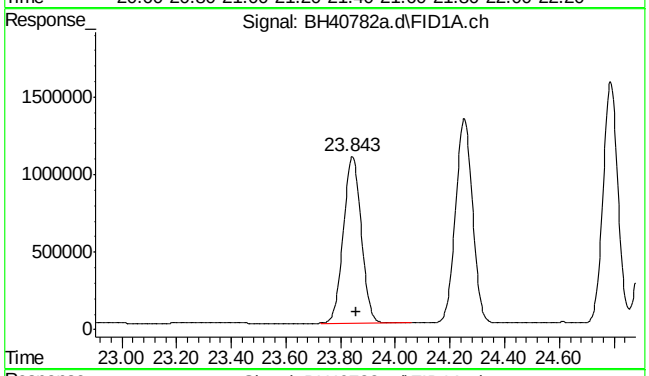
#6 2,3,4-trifluorotoluene

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 37391470
Conc: 46.00 ppb



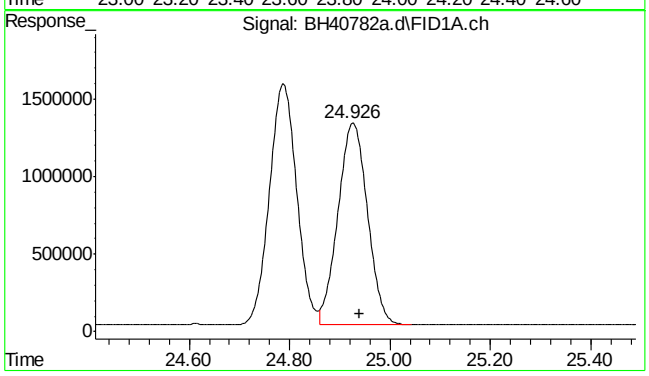
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 48834548
Conc: 44.33 ppb m



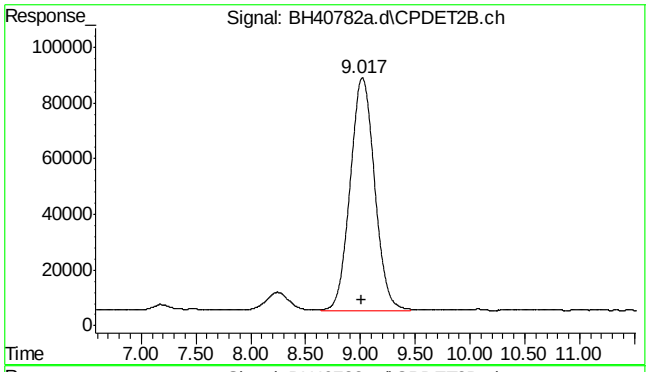
#10 decane

R.T.: 23.856 min
Delta R.T.: 0.000 min
Response: 48877596
Conc: 44.37 ppb



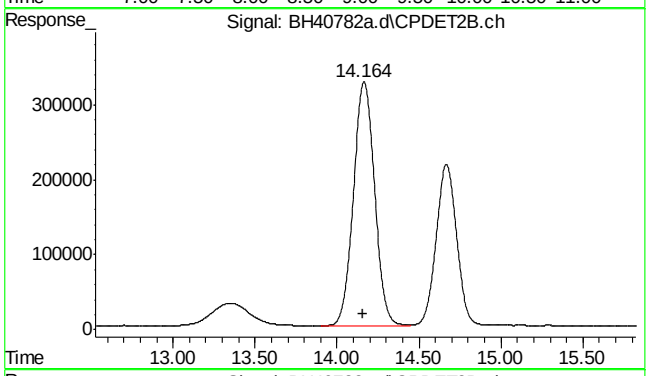
#11 butylcyclohexane

R.T.: 24.940 min
Delta R.T.: 0.000 min
Response: 52740732
Conc: 47.87 ppb



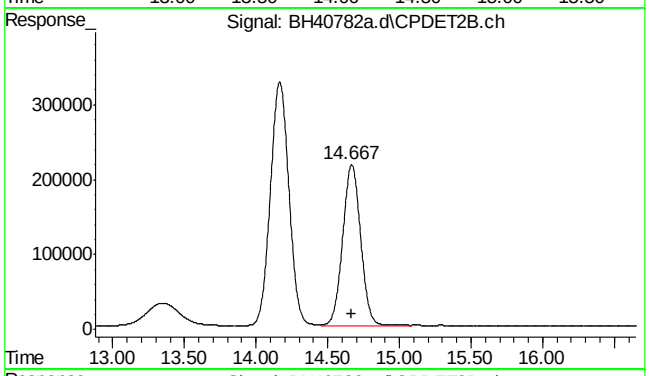
#14 mtbe #2

R.T.: 9.019 min
Delta R.T.: 0.009 min
Response: 13040764
Conc: 53.44 ppb



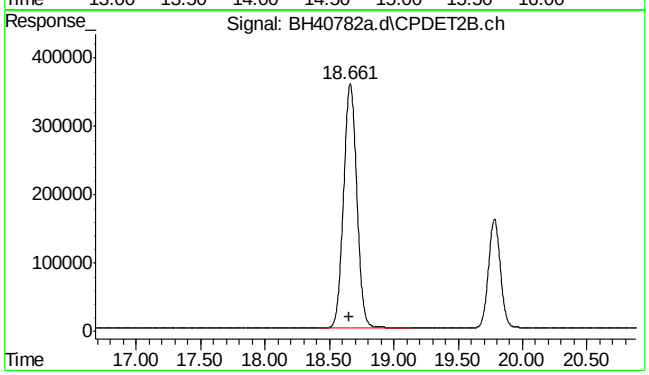
#15 benzene #2

R.T.: 14.166 min
Delta R.T.: 0.005 min
Response: 29290689
Conc: 51.98 ppb



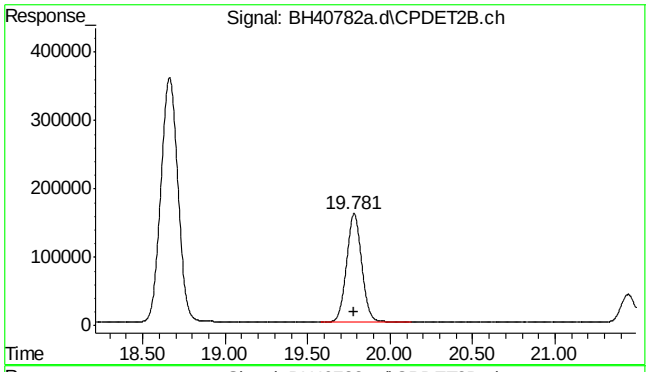
#16 fluorobenzene #2

R.T.: 14.668 min
Delta R.T.: 0.004 min
Response: 18889085
Conc: 52.40 ppb



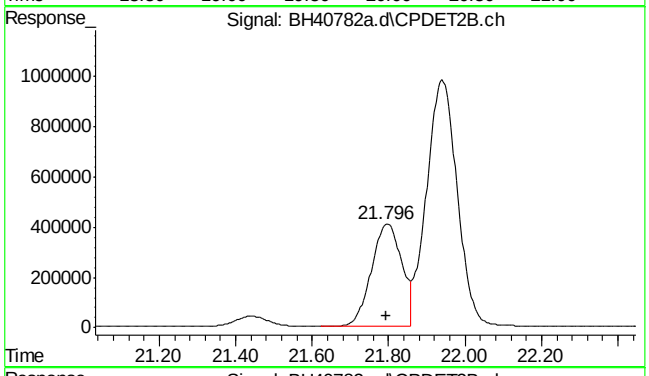
#17 toluene #2

R.T.: 18.663 min
Delta R.T.: 0.004 min
Response: 25689664
Conc: 49.72 ppb



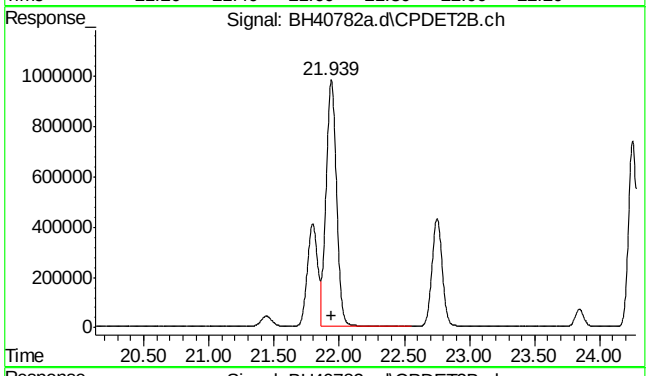
#18 2,3,4-trifluorotoluene #2

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 10321278
Conc: 47.55 ppb



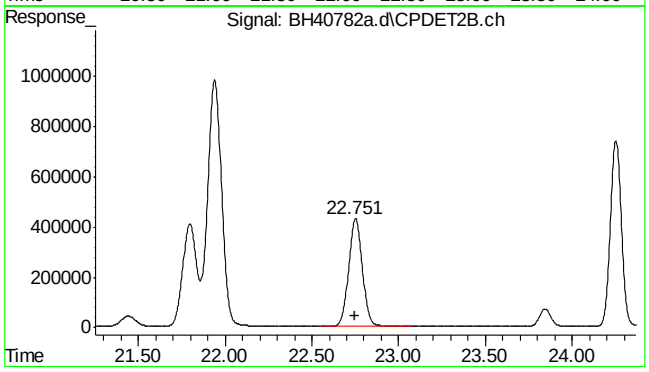
#19 ethylbenzene #2

R.T.: 21.797 min
Delta R.T.: 0.003 min
Response: 22413446
Conc: 49.24 ppb



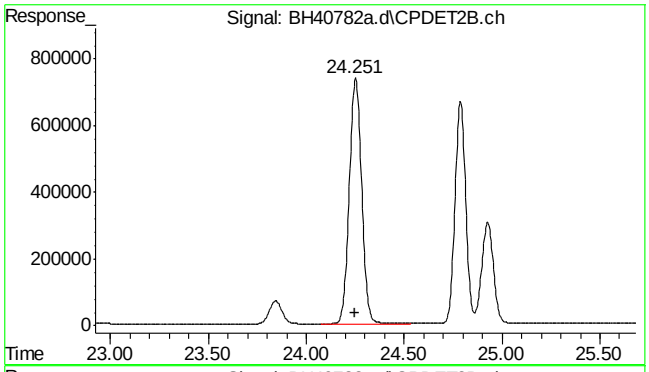
#20 m,p-xylene #2

R.T.: 21.941 min
Delta R.T.: 0.003 min
Response: 55253866
Conc: 98.17 ppb



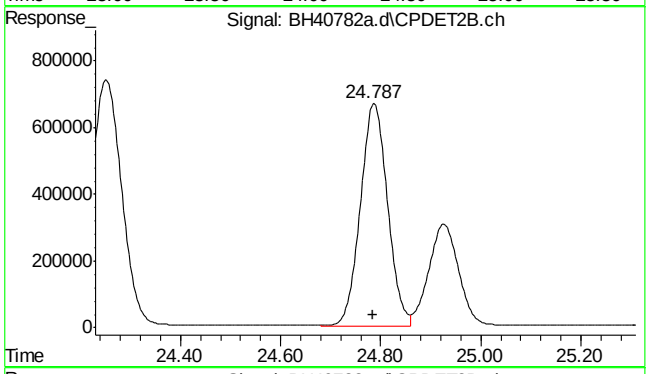
#21 o-xylene #2

R.T.: 22.752 min
Delta R.T.: 0.002 min
Response: 23632199
Conc: 48.56 ppb



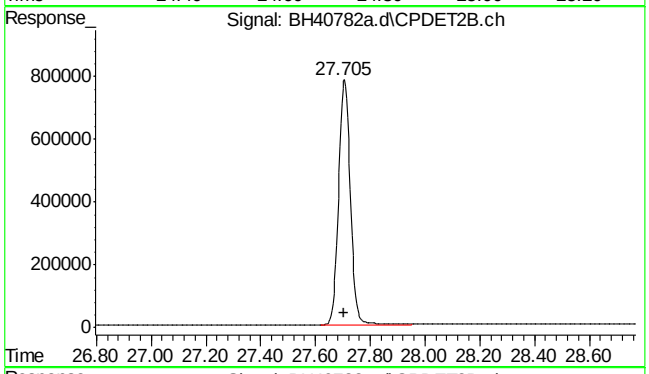
#22 1,3,5-trimethylbenzene #2

R.T.: 24.252 min
Delta R.T.: 0.002 min
Response: 32430542
Conc: 46.79 ppb



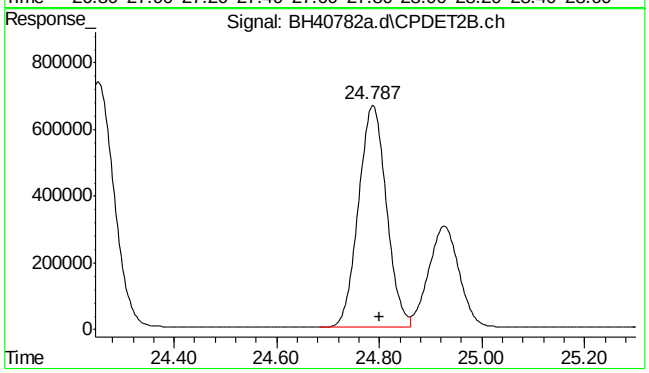
#23 1,2,4-trimethylbenzene #2

R.T.: 24.788 min
Delta R.T.: 0.003 min
Response: 25343580
Conc: 49.24 ppb



#24 naphthalene #2

R.T.: 27.705 min
Delta R.T.: 0.003 min
Response: 23232126
Conc: 58.53 ppb m



#25 c9-c10 arom as 1,2,4-tmb

R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 25386882
Conc: 49.31 ppb m

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Manual Integrations
APPROVED
(compounds with "m" flag)
Andri Piluri
12/13/16 12:51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40782b.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 8:05 am
Operator : tonyf
Sample : cc2394-50
Misc : gc26799,gbh2437,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 08:39:08 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.668	46165056	48.241	ppb	
Spiked Amount 50.000		Recovery =	96.48%		
6) s 2,3,4-trifluorotoluene	19.782	37391470	46.002	ppb	
Spiked Amount 50.000		Recovery =	92.00%		
16) s fluorobenzene #2	14.668	18889085	52.405	ppb	
Spiked Amount 50.000		Recovery =	104.81%		
18) s 2,3,4-trifluorotoluen...	19.782	10321278	47.548	ppb	
Spiked Amount 50.000		Recovery =	95.10%		
Target Compounds					
1) h rt5.5-7	5.980	36211086	37.693	ppb	m
2) h rt7/10	8.250	43099895	44.864	ppb	m
3) h rt10/13	13.360	52794950	54.956	ppb	m
8) h rt20/25	21.460	48834548	44.328	ppb	m
10) h decane	23.856	48877596	44.367	ppb	
11) h butylcyclohexane	24.940	52740732	47.873	ppb	
14) t mtbe #2	9.019	13040764	53.436	ppb	
15) t benzene #2	14.166	29290689	51.984	ppb	
17) t toluene #2	18.663	25689664	49.721	ppb	
19) t ethylbenzene #2	21.797	22413446	49.236	ppb	
20) t m,p-xylene #2	21.941	55253866	98.167	ppb	
21) t o-xylene #2	22.752	23632199	48.556	ppb	
22) t 1,3,5-trimethylbenzen...	24.252	32430542	46.793	ppb	
23) t 1,2,4-trimethylbenzen...	24.788	25343580	49.237	ppb	
24) t naphthalene #2	27.705	23232126	58.529	ppb	m
25) h c9-c10 arom as 1,2,4-tmb	24.800	25386882	49.311	ppb	m

(f)=RT Delta > 1/2 Window (m)=manual int.

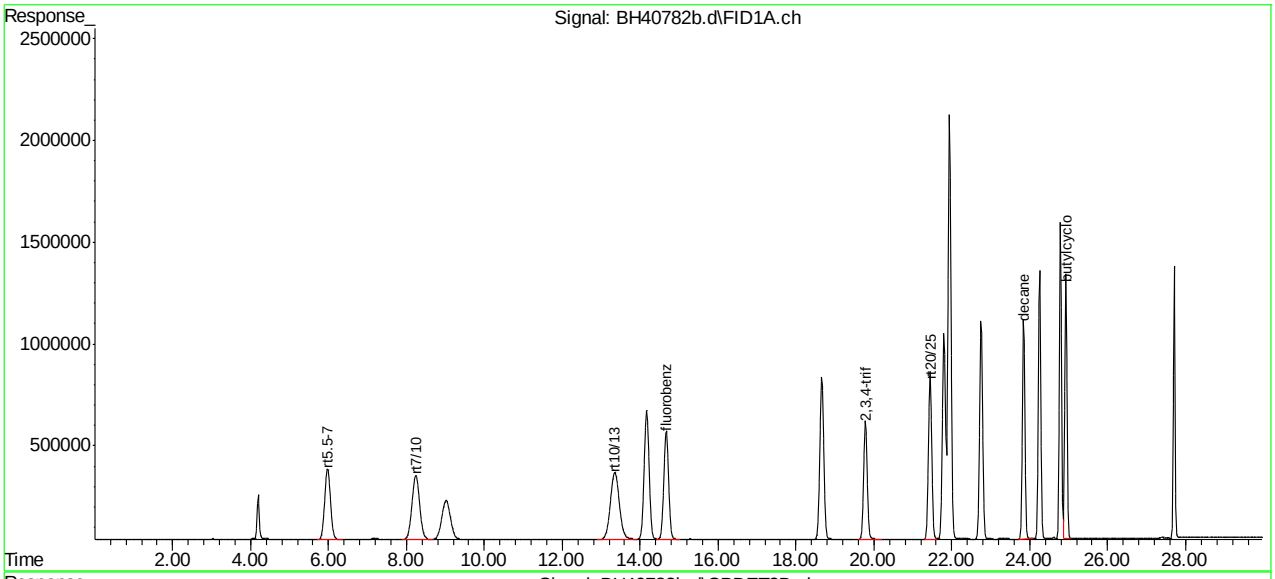
7.5.11
7

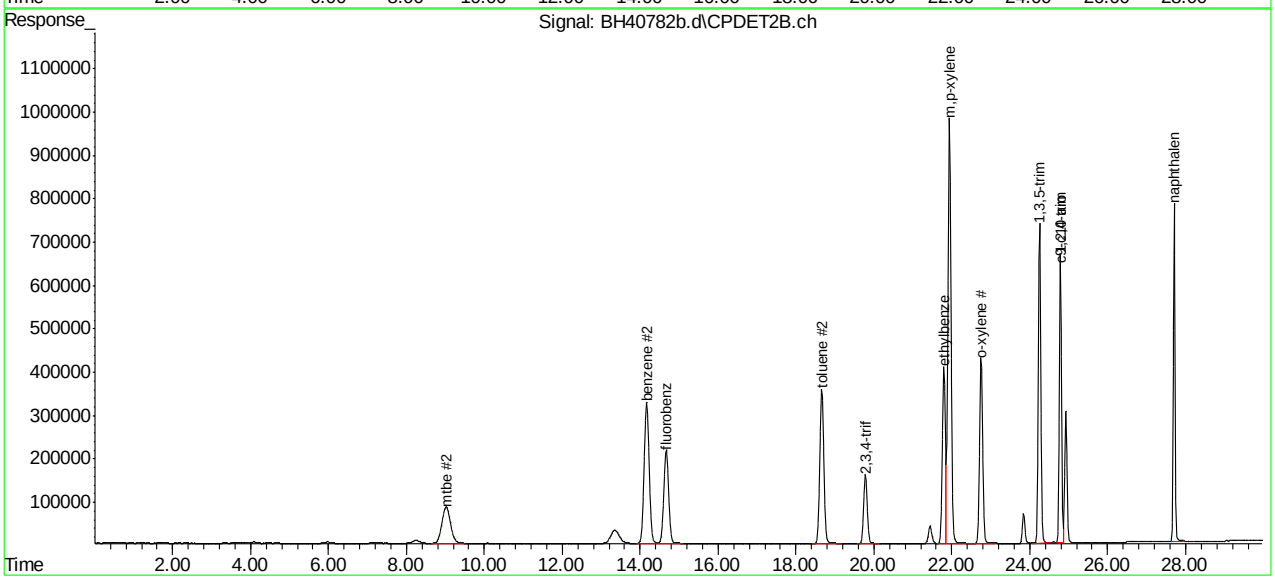
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40782b.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 8:05 am
Operator : tonyf
Sample : cc2394-50
Misc : gc26799,gbh2437,,,,5,1
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 09 08:39:08 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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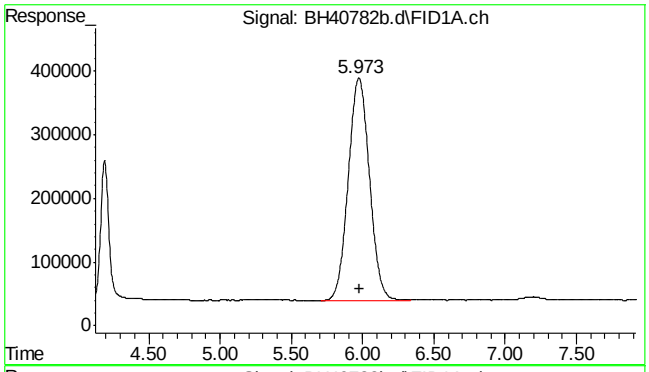
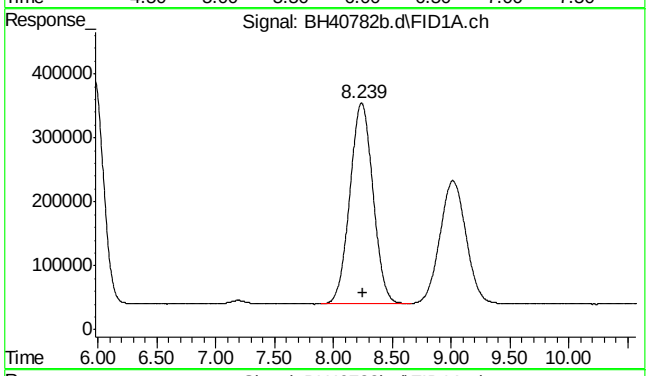


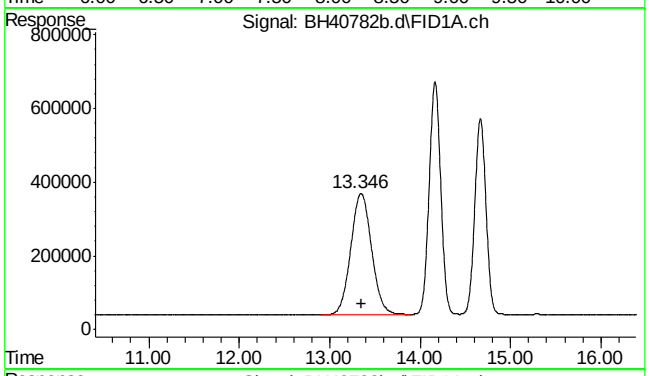
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 36211086
Conc: 37.69 ppb m



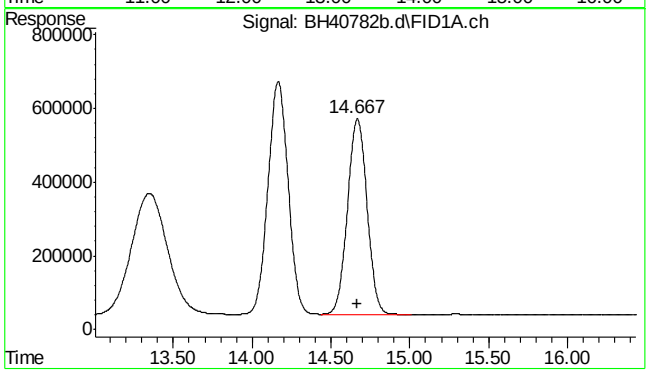
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 43099895
Conc: 44.86 ppb m



#3 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 52794950
Conc: 54.96 ppb m



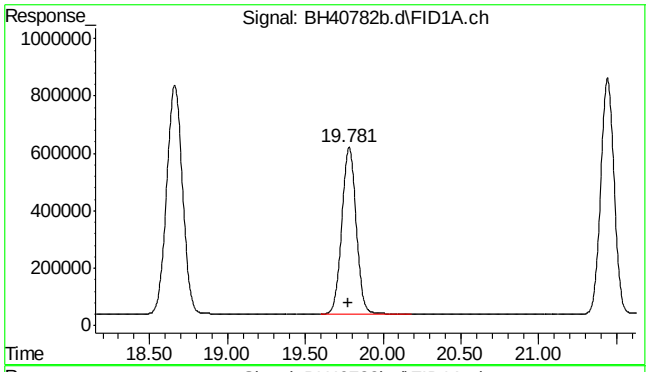
#4 fluorobenzene

R.T.: 14.668 min
Delta R.T.: 0.004 min
Response: 46165056
Conc: 48.24 ppb

7.5.11

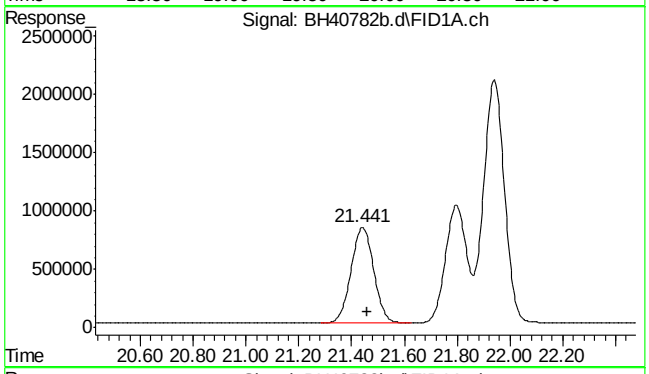
7

SGS ACCUTEST MC48999



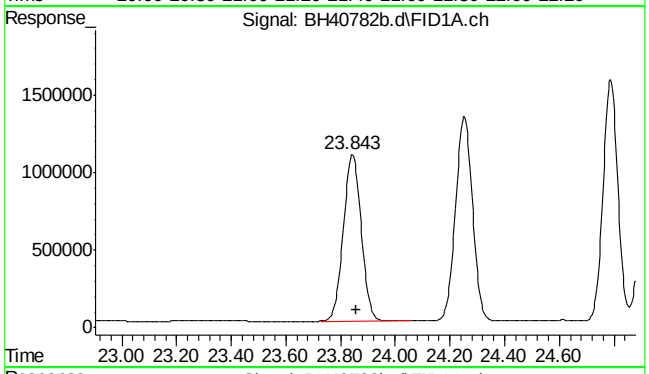
#6 2,3,4-trifluorotoluene

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 37391470
Conc: 46.00 ppb



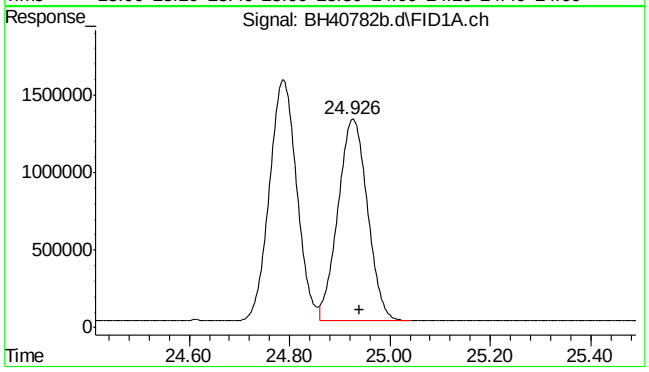
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 48834548
Conc: 44.33 ppb m



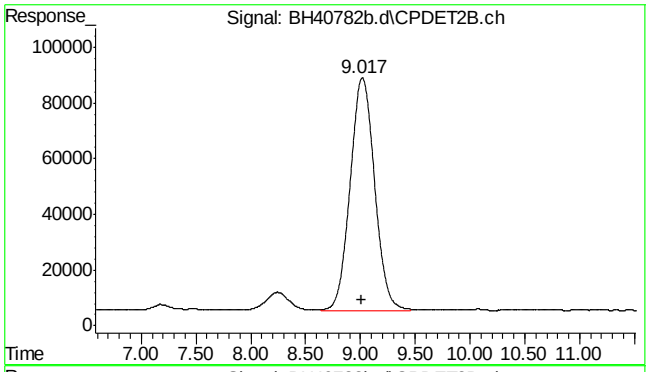
#10 decane

R.T.: 23.856 min
Delta R.T.: 0.000 min
Response: 48877596
Conc: 44.37 ppb



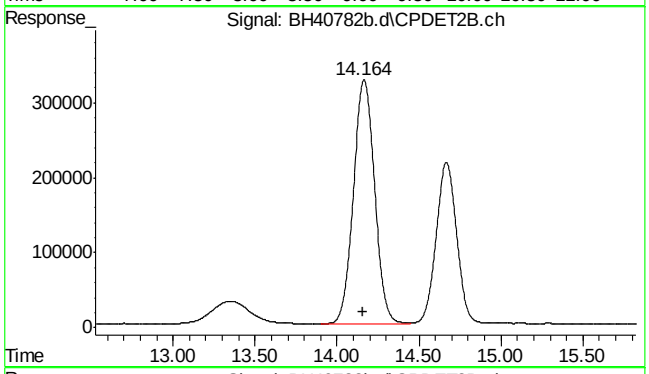
#11 butylcyclohexane

R.T.: 24.940 min
Delta R.T.: 0.000 min
Response: 52740732
Conc: 47.87 ppb



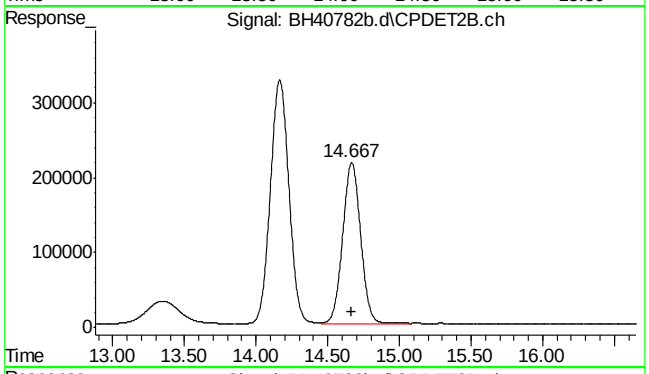
#14 mtbe #2

R.T.: 9.019 min
Delta R.T.: 0.009 min
Response: 13040764
Conc: 53.44 ppb



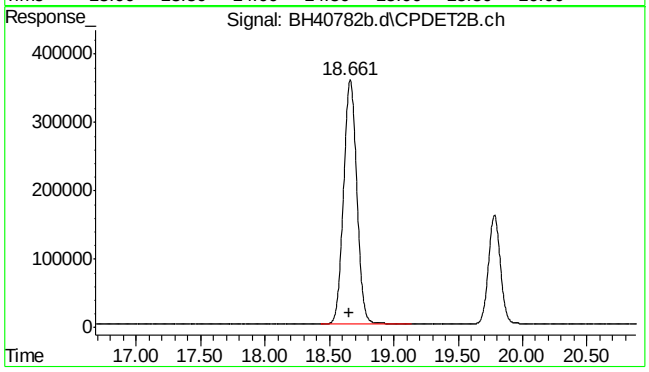
#15 benzene #2

R.T.: 14.166 min
Delta R.T.: 0.005 min
Response: 29290689
Conc: 51.98 ppb



#16 fluorobenzene #2

R.T.: 14.668 min
Delta R.T.: 0.004 min
Response: 18889085
Conc: 52.40 ppb



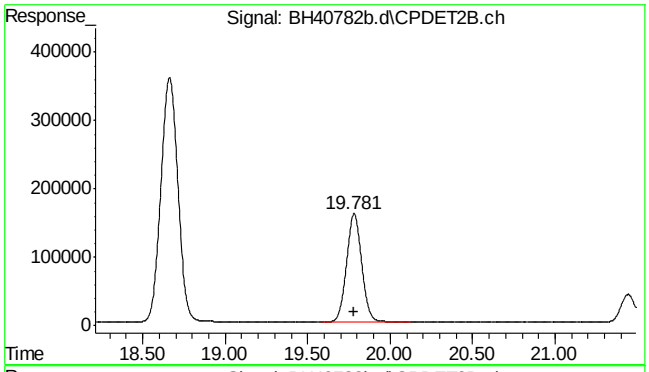
#17 toluene #2

R.T.: 18.663 min
Delta R.T.: 0.004 min
Response: 25689664
Conc: 49.72 ppb

7.5.11

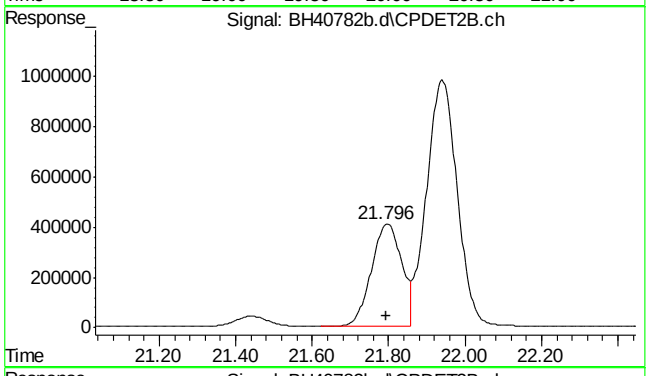
7

SGS ACCUTEST MC48999



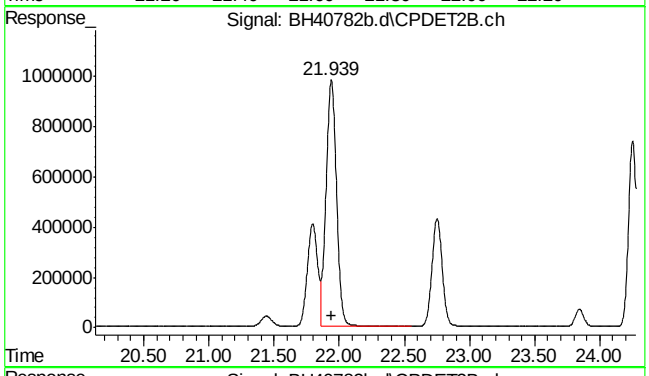
#18 2,3,4-trifluorotoluene #2

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 10321278
Conc: 47.55 ppb



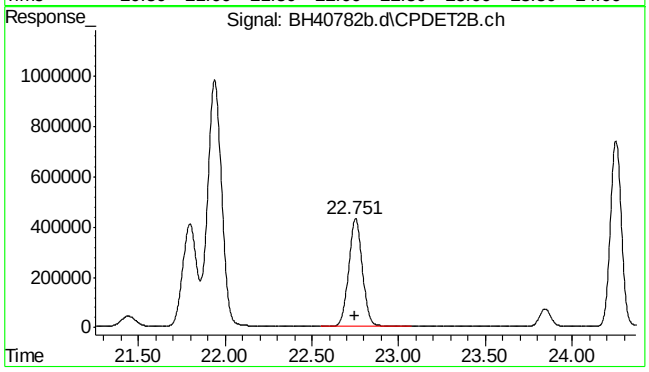
#19 ethylbenzene #2

R.T.: 21.797 min
Delta R.T.: 0.003 min
Response: 22413446
Conc: 49.24 ppb



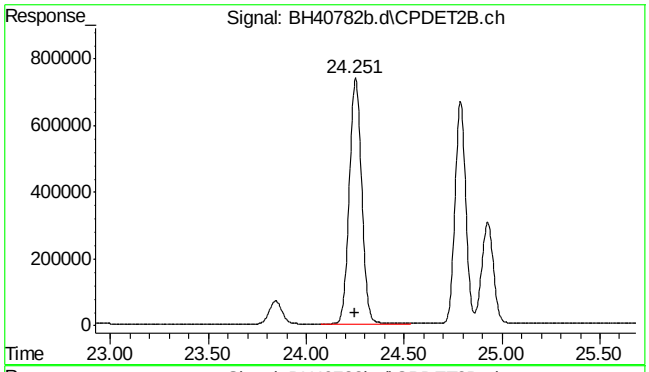
#20 m,p-xylene #2

R.T.: 21.941 min
Delta R.T.: 0.003 min
Response: 55253866
Conc: 98.17 ppb



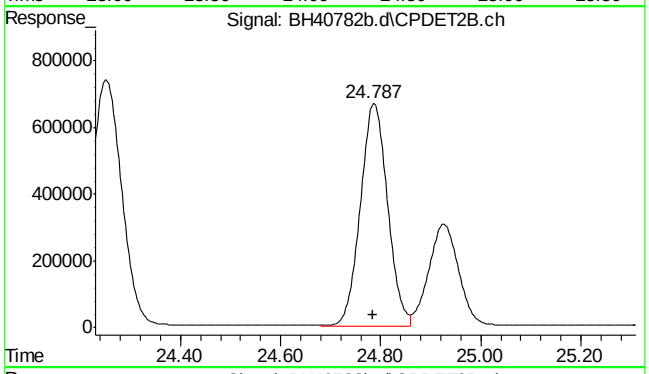
#21 o-xylene #2

R.T.: 22.752 min
Delta R.T.: 0.002 min
Response: 23632199
Conc: 48.56 ppb



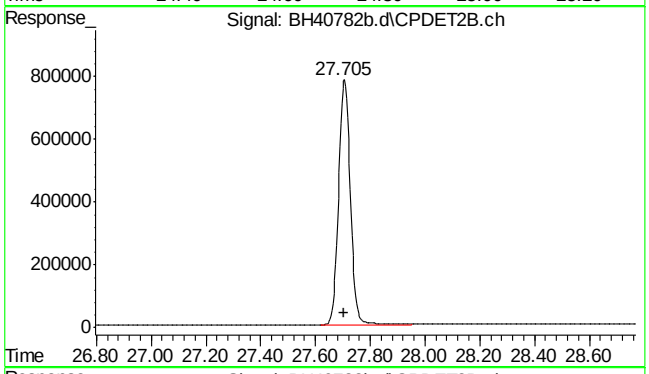
#22 1,3,5-trimethylbenzene #2

R.T.: 24.252 min
Delta R.T.: 0.002 min
Response: 32430542
Conc: 46.79 ppb



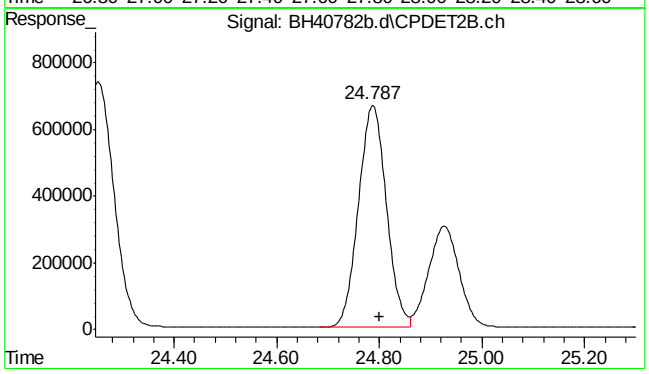
#23 1,2,4-trimethylbenzene #2

R.T.: 24.788 min
Delta R.T.: 0.003 min
Response: 25343580
Conc: 49.24 ppb



#24 naphthalene #2

R.T.: 27.705 min
Delta R.T.: 0.003 min
Response: 23232126
Conc: 58.53 ppb m



#25 c9-c10 arom as 1,2,4-tmb

R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 25386882
Conc: 49.31 ppb m

7.5.11

7

SGS ACCUTEST MC48999

Manual Integrations
APPROVED
(compounds with "m" flag)
Andri Piluri
12/13/16 11:51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40792a.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 1:51 pm
Operator : tonyf
Sample : cc2394-50
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:43:30 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.667	45460661	47.505	ppb	
Spiked Amount 50.000		Recovery =	95.01%		
6) s 2,3,4-trifluorotoluene	19.782	36780484	45.250	ppb	
Spiked Amount 50.000		Recovery =	90.50%		
16) s fluorobenzene #2	14.667	18214975	50.535	ppb	
Spiked Amount 50.000		Recovery =	101.07%		
18) s 2,3,4-trifluorotoluen...	19.782	10220055	47.081	ppb	
Spiked Amount 50.000		Recovery =	94.16%		
Target Compounds					
1) h rt5.5-7	5.980	35747073	37.210	ppb	m
2) h rt7/10	8.250	42296569	44.028	ppb	m
3) h rt10/13	13.360	52079157	54.211	ppb	m
8) h rt20/25	21.460	48750404	44.251	ppb	m
10) h decane	23.856	48818738	44.313	ppb	
11) h butylcyclohexane	24.940	52291850	47.466	ppb	
14) t mtbe #2	9.014	12374406	50.706	ppb	
15) t benzene #2	14.164	28167274	49.990	ppb	
17) t toluene #2	18.662	25371994	49.106	ppb	
19) t ethylbenzene #2	21.796	22198131	48.763	ppb	
20) t m,p-xylene #2	21.940	54614647	97.031	ppb	
21) t o-xylene #2	22.752	23256990	47.785	ppb	
22) t 1,3,5-trimethylbenzen...	24.251	31979836	46.143	ppb	
23) t 1,2,4-trimethylbenzen...	24.787	25042797	48.652	ppb	
24) t naphthalene #2	27.704	22995878	57.933	ppb	m
25) h c9-c10 arom as 1,2,4-tmb	24.800	25077177	48.710	ppb	m

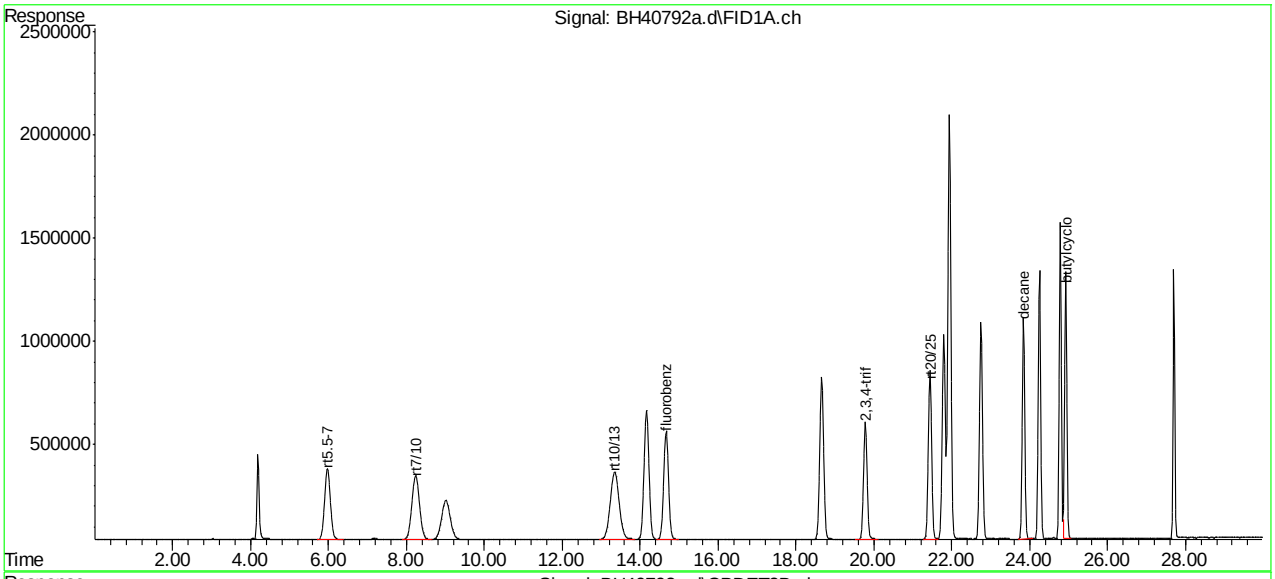
(f)=RT Delta > 1/2 Window (m)=manual int.

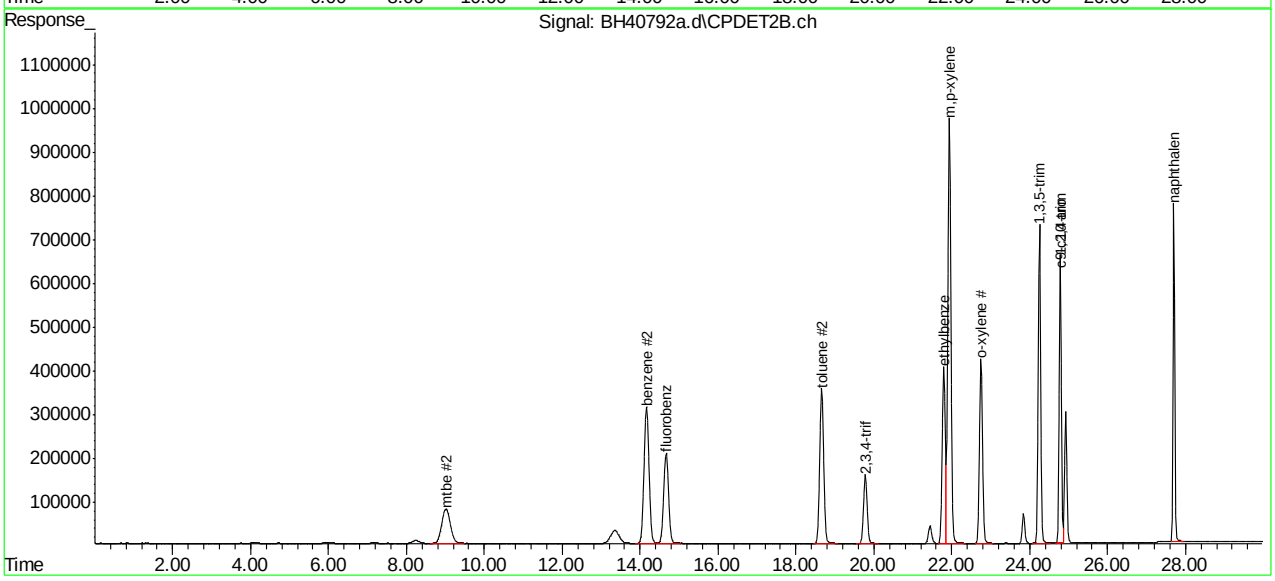
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40792a.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 1:51 pm
Operator : tonyf
Sample : cc2394-50
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 12 Sample Multiplier: 1

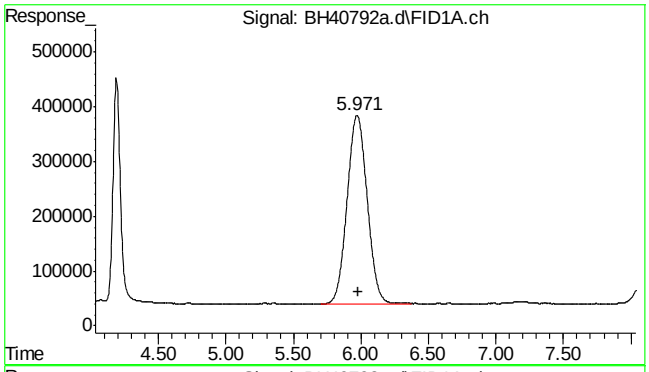
Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:43:30 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



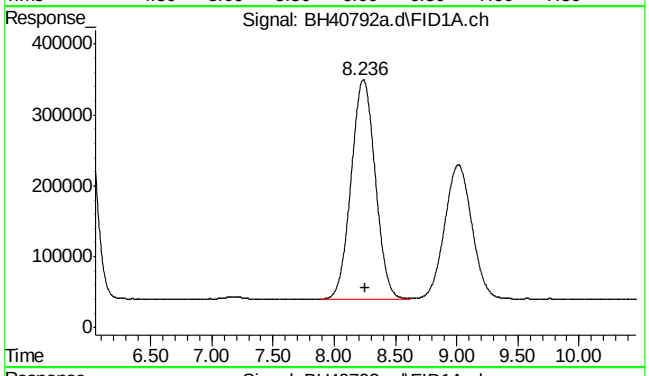


bh161209vph.m Mon Dec 12 11:15:57 2016 Page: 2



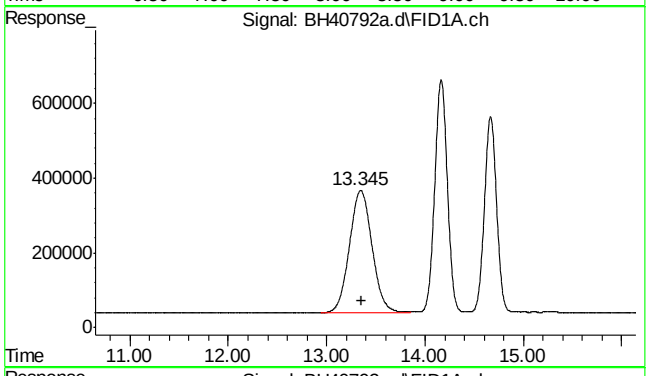
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 35747073
Conc: 37.21 ppb m



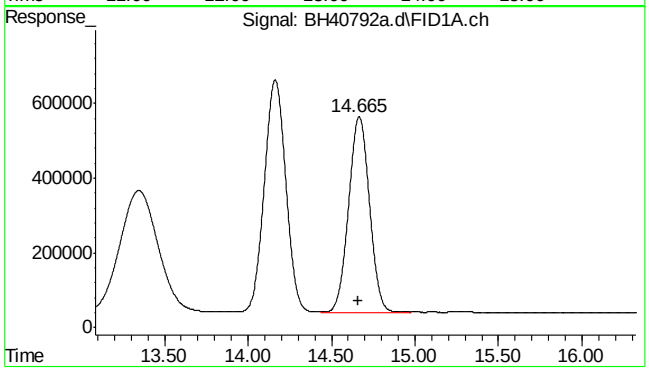
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 42296569
Conc: 44.03 ppb m



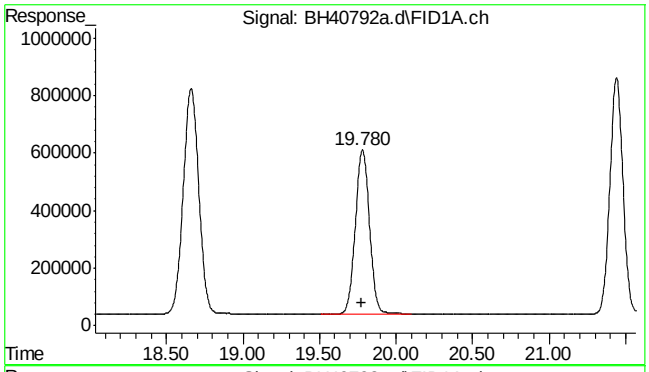
#3 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 52079157
Conc: 54.21 ppb m



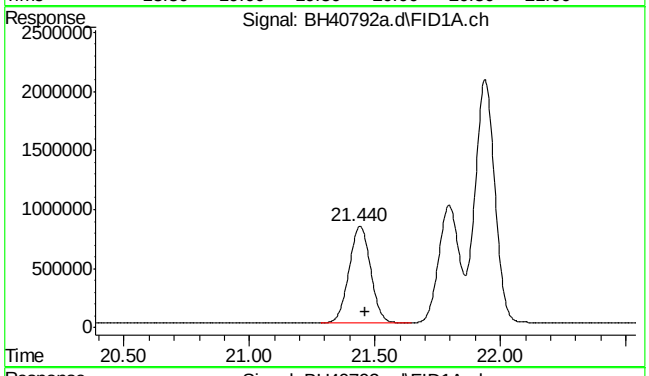
#4 fluorobenzene

R.T.: 14.667 min
Delta R.T.: 0.003 min
Response: 45460661
Conc: 47.50 ppb



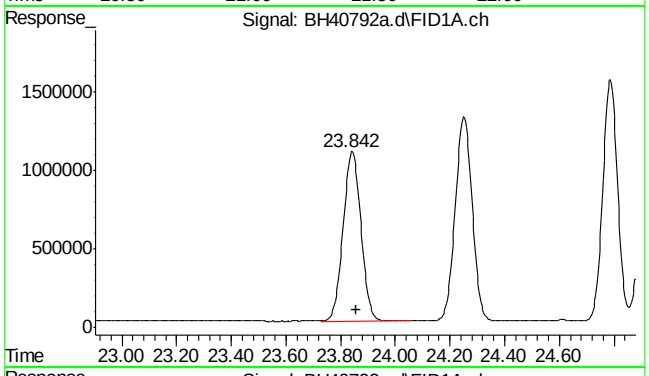
#6 2,3,4-trifluorotoluene

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 36780484
Conc: 45.25 ppb



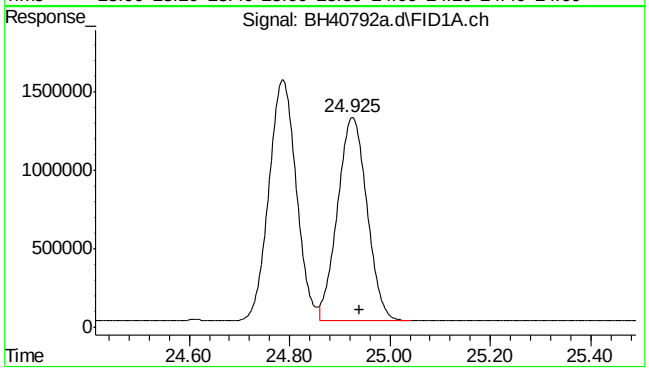
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 48750404
Conc: 44.25 ppb m



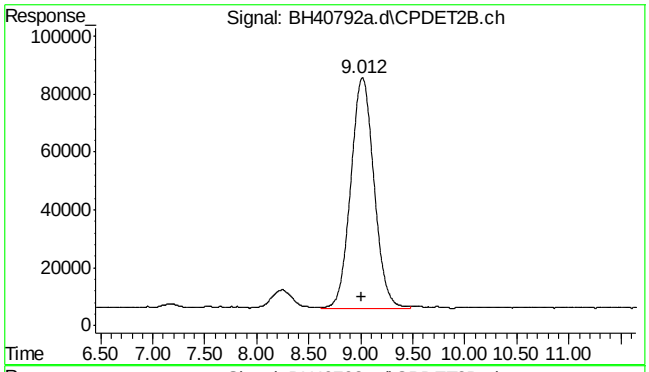
#10 decane

R.T.: 23.856 min
Delta R.T.: 0.000 min
Response: 48818738
Conc: 44.31 ppb



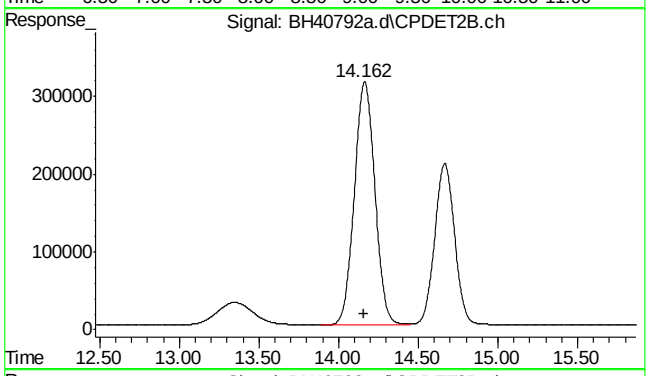
#11 butylcyclohexane

R.T.: 24.940 min
Delta R.T.: 0.000 min
Response: 52291850
Conc: 47.47 ppb



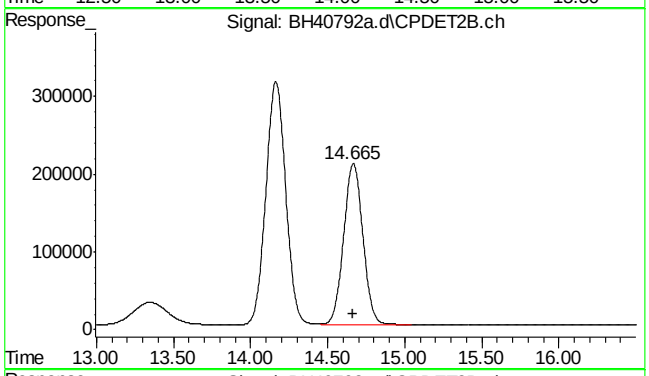
#14 mtbe #2

R.T.: 9.014 min
Delta R.T.: 0.004 min
Response: 12374406
Conc: 50.71 ppb



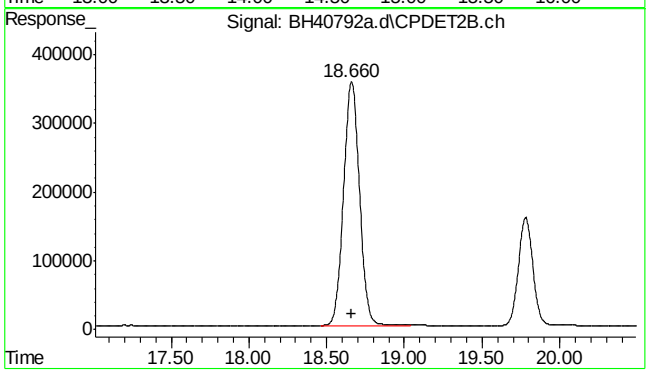
#15 benzene #2

R.T.: 14.164 min
Delta R.T.: 0.003 min
Response: 28167274
Conc: 49.99 ppb



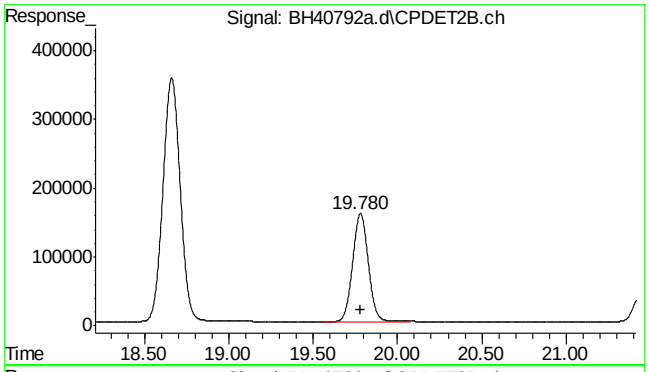
#16 fluorobenzene #2

R.T.: 14.667 min
Delta R.T.: 0.003 min
Response: 18214975
Conc: 50.53 ppb



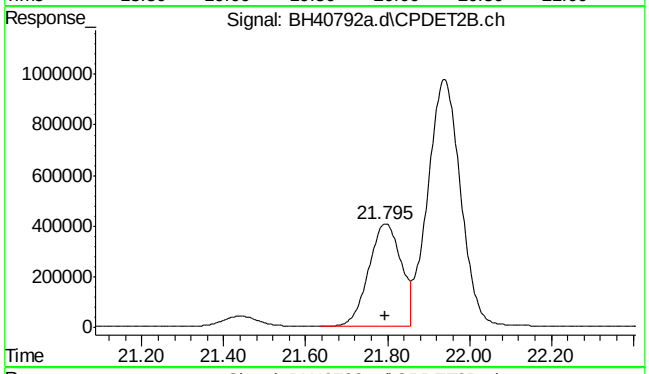
#17 toluene #2

R.T.: 18.662 min
Delta R.T.: 0.003 min
Response: 25371994
Conc: 49.11 ppb



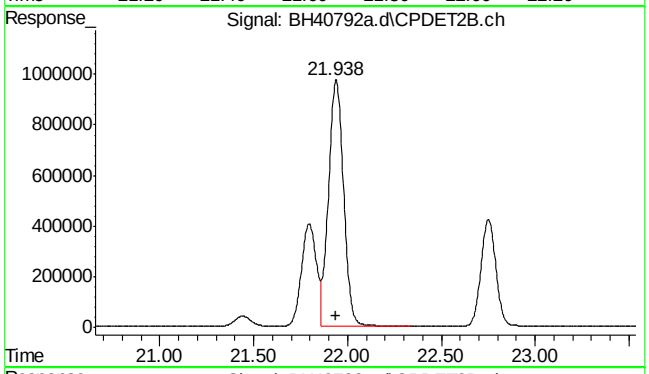
#18 2,3,4-trifluorotoluene #2

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 10220055
Conc: 47.08 ppb



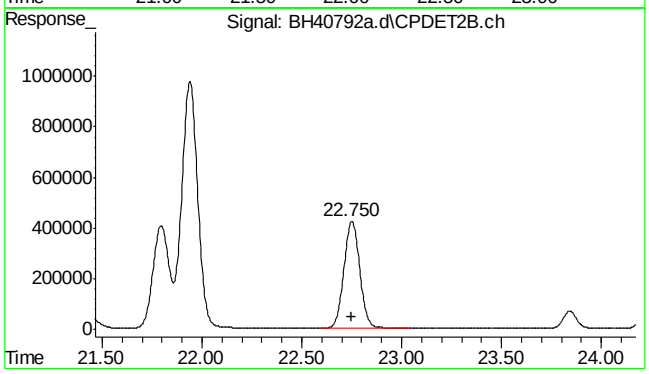
#19 ethylbenzene #2

R.T.: 21.796 min
Delta R.T.: 0.002 min
Response: 22198131
Conc: 48.76 ppb



#20 m,p-xylene #2

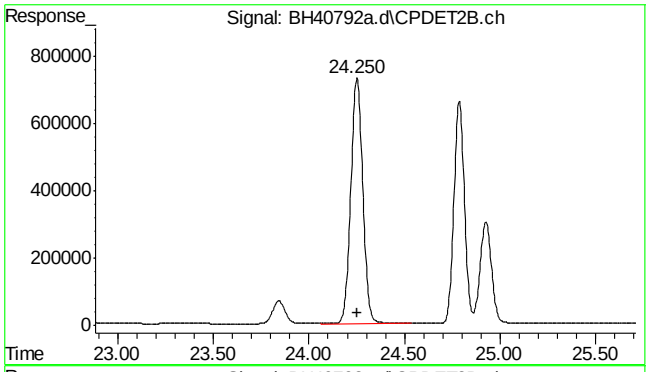
R.T.: 21.940 min
Delta R.T.: 0.002 min
Response: 54614647
Conc: 97.03 ppb



#21 o-xylene #2

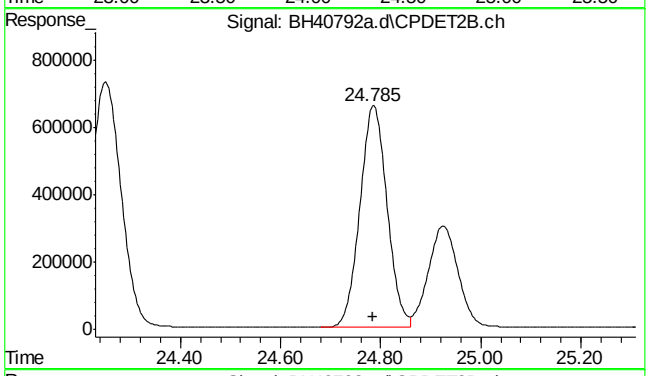
R.T.: 22.752 min
Delta R.T.: 0.002 min
Response: 23256990
Conc: 47.78 ppb

SGS ACCUTEST MC48999



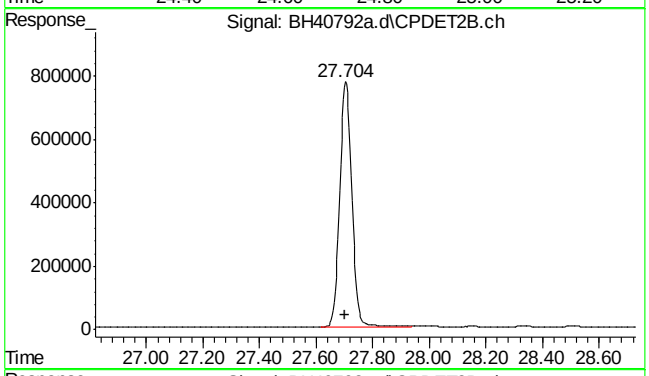
#22 1,3,5-trimethylbenzene #2

R.T.: 24.251 min
Delta R.T.: 0.001 min
Response: 31979836
Conc: 46.14 ppb



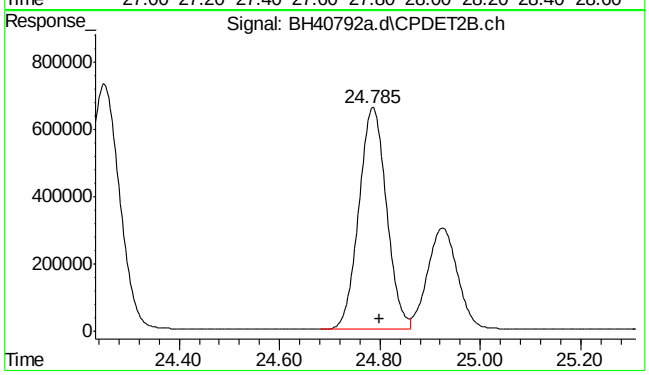
#23 1,2,4-trimethylbenzene #2

R.T.: 24.787 min
Delta R.T.: 0.002 min
Response: 25042797
Conc: 48.65 ppb



#24 naphthalene #2

R.T.: 27.704 min
Delta R.T.: 0.002 min
Response: 22995878
Conc: 57.93 ppb m



#25 c9-c10 arom as 1,2,4-tmb

R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 25077177
Conc: 48.71 ppb m

SGS ACCUTEST MC48999

Manual Integrations
APPROVED
(compounds with "m" flag)
Andri Piluri
12/13/16 12:51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40792b.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 1:51 pm
Operator : tonyf
Sample : cc2394-50
Misc : gc26799,gbh2437,,,,5,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:43:30 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.667	45460661	47.505	ppb	
Spiked Amount 50.000		Recovery =	95.01%		
6) s 2,3,4-trifluorotoluene	19.782	36780484	45.250	ppb	
Spiked Amount 50.000		Recovery =	90.50%		
16) s fluorobenzene #2	14.667	18214975	50.535	ppb	
Spiked Amount 50.000		Recovery =	101.07%		
18) s 2,3,4-trifluorotoluen...	19.782	10220055	47.081	ppb	
Spiked Amount 50.000		Recovery =	94.16%		
Target Compounds					
1) h rt5.5-7	5.980	35747073	37.210	ppb	m
2) h rt7/10	8.250	42296569	44.028	ppb	m
3) h rt10/13	13.360	52079157	54.211	ppb	m
8) h rt20/25	21.460	48750404	44.251	ppb	m
10) h decane	23.856	48818738	44.313	ppb	
11) h butylcyclohexane	24.940	52291850	47.466	ppb	
14) t mtbe #2	9.014	12374406	50.706	ppb	
15) t benzene #2	14.164	28167274	49.990	ppb	
17) t toluene #2	18.662	25371994	49.106	ppb	
19) t ethylbenzene #2	21.796	22198131	48.763	ppb	
20) t m,p-xylene #2	21.940	54614647	97.031	ppb	
21) t o-xylene #2	22.752	23256990	47.785	ppb	
22) t 1,3,5-trimethylbenzen...	24.251	31979836	46.143	ppb	
23) t 1,2,4-trimethylbenzen...	24.787	25042797	48.652	ppb	
24) t naphthalene #2	27.704	22995878	57.933	ppb	m
25) h c9-c10 arom as 1,2,4-tmb	24.800	25077177	48.710	ppb	m

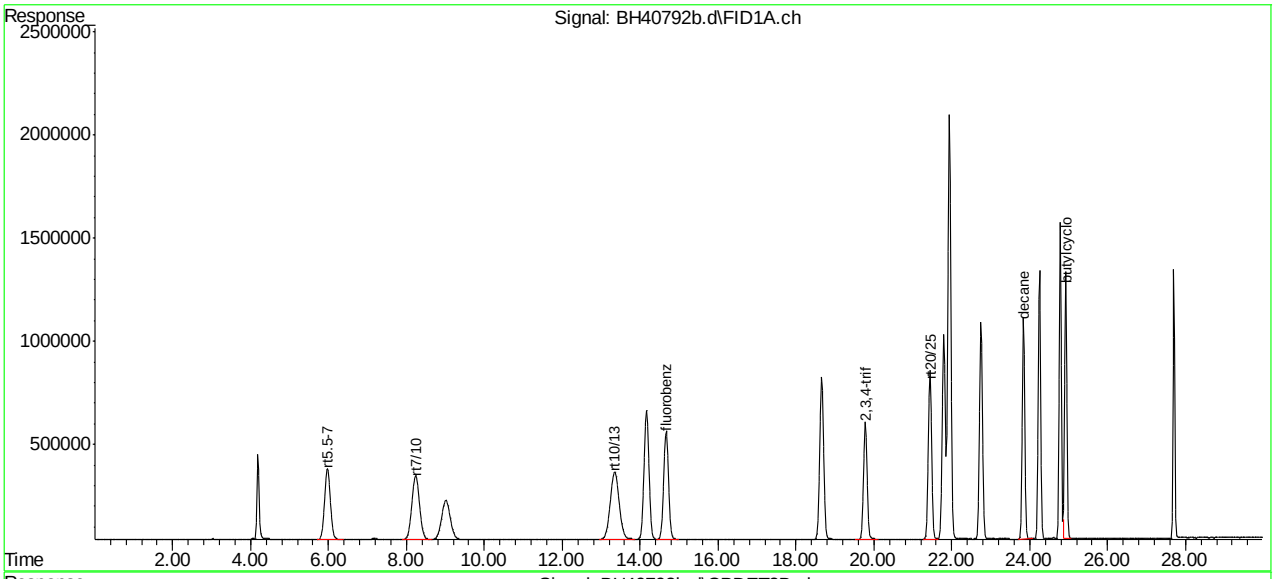
(f)=RT Delta > 1/2 Window (m)=manual int.

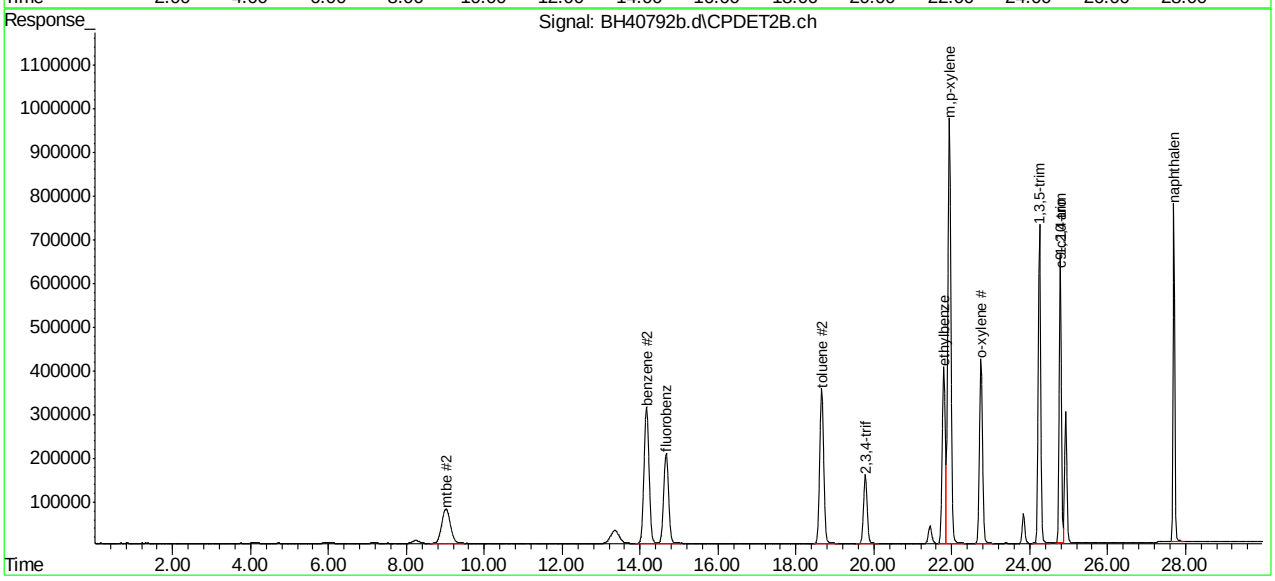
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40792b.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 1:51 pm
Operator : tonyf
Sample : cc2394-50
Misc : gc26799,gbh2437,,,,5,1
ALS Vial : 12 Sample Multiplier: 1

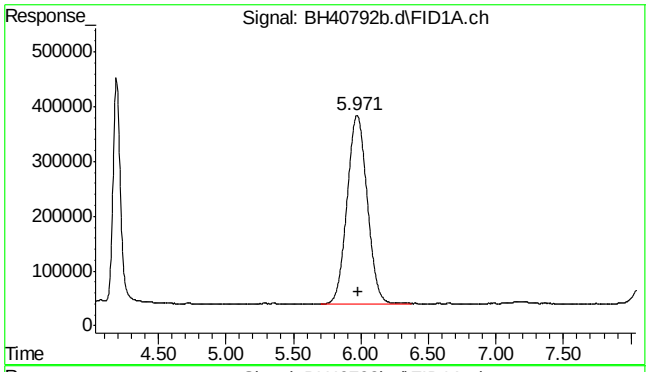
Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:43:30 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



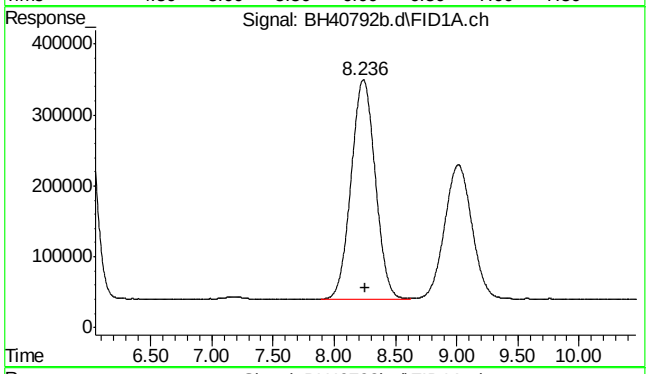


SGS ACCUTEST MC48999



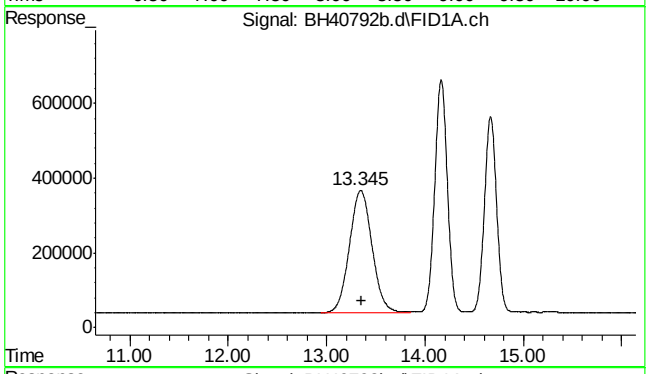
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 35747073
Conc: 37.21 ppb m



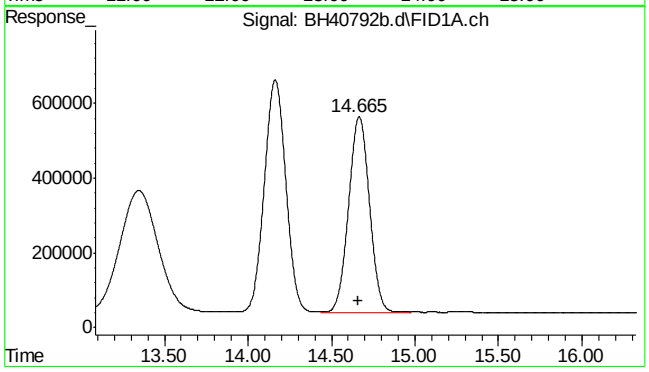
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 42296569
Conc: 44.03 ppb m



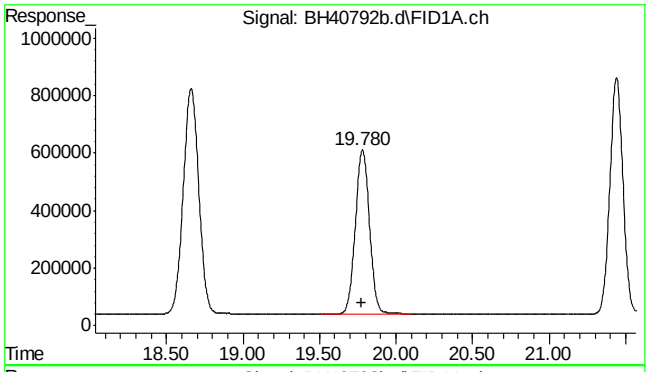
#3 rt10/13

R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 52079157
Conc: 54.21 ppb m



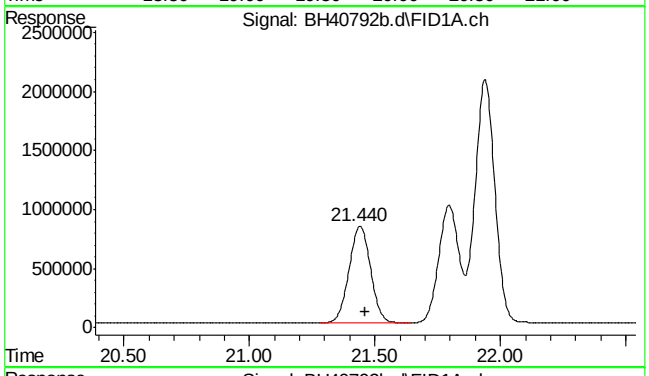
#4 fluorobenzene

R.T.: 14.667 min
Delta R.T.: 0.003 min
Response: 45460661
Conc: 47.50 ppb



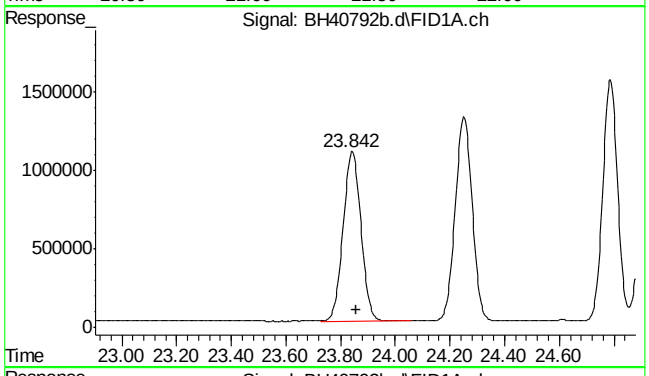
#6 2,3,4-trifluorotoluene

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 36780484
Conc: 45.25 ppb



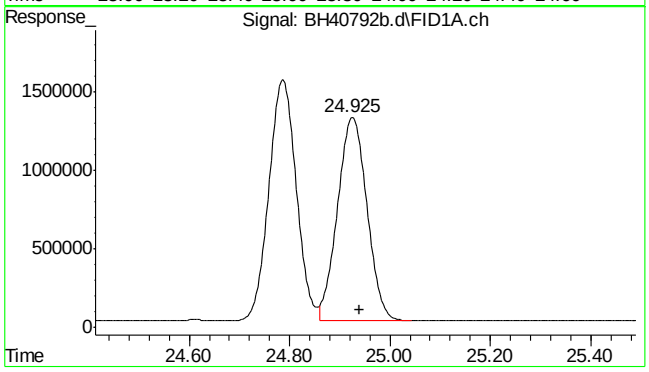
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 48750404
Conc: 44.25 ppb m



#10 decane

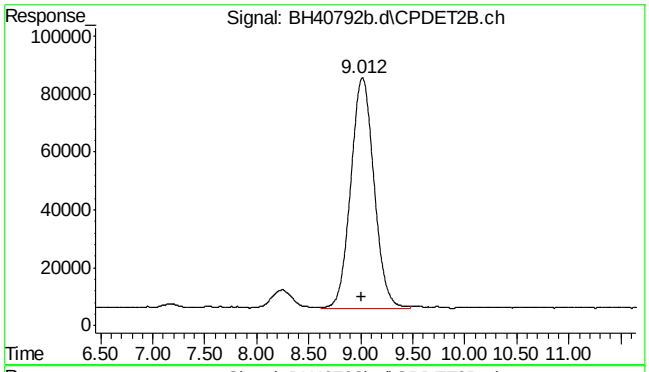
R.T.: 23.856 min
Delta R.T.: 0.000 min
Response: 48818738
Conc: 44.31 ppb



#11 butylcyclohexane

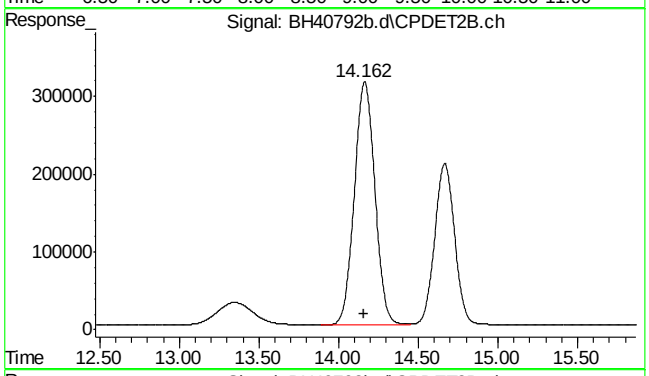
R.T.: 24.940 min
Delta R.T.: 0.000 min
Response: 52291850
Conc: 47.47 ppb

SGS ACCUTEST MC48999



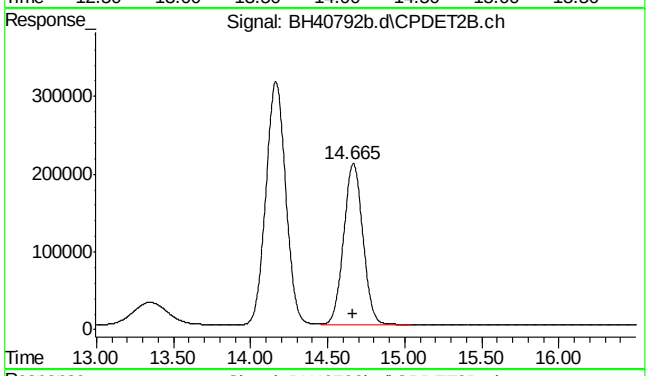
#14 mtbe #2

R.T.: 9.014 min
Delta R.T.: 0.004 min
Response: 12374406
Conc: 50.71 ppb



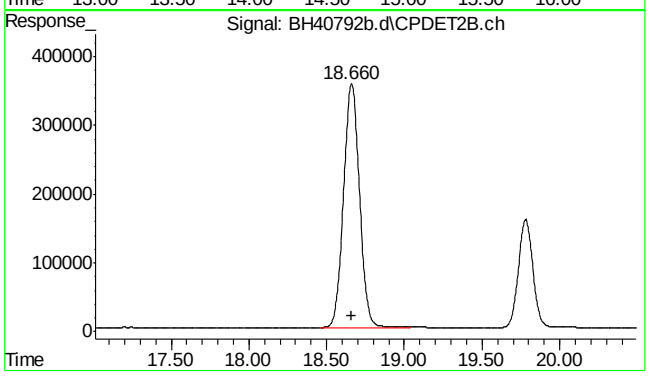
#15 benzene #2

R.T.: 14.164 min
Delta R.T.: 0.003 min
Response: 28167274
Conc: 49.99 ppb



#16 fluorobenzene #2

R.T.: 14.667 min
Delta R.T.: 0.003 min
Response: 18214975
Conc: 50.53 ppb



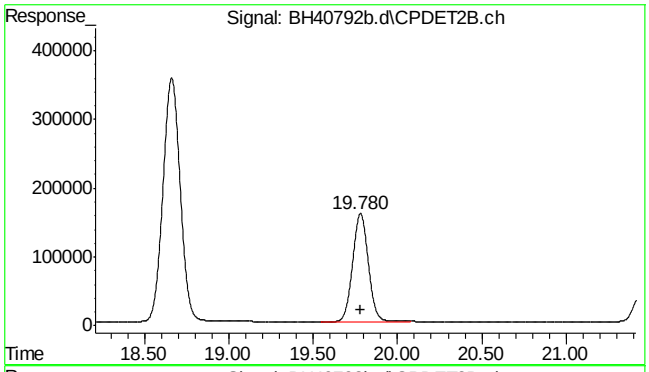
#17 toluene #2

R.T.: 18.662 min
Delta R.T.: 0.003 min
Response: 25371994
Conc: 49.11 ppb

7.5.13

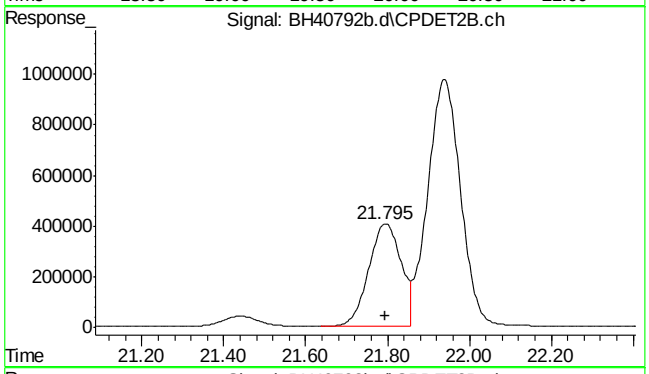
7

SGS ACCUTEST MC48999



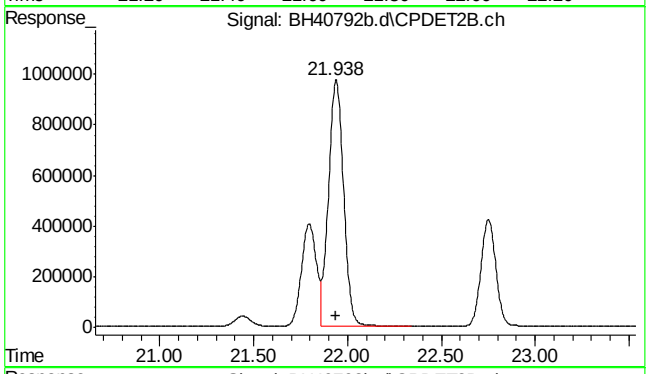
#18 2,3,4-trifluorotoluene #2

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 10220055
Conc: 47.08 ppb



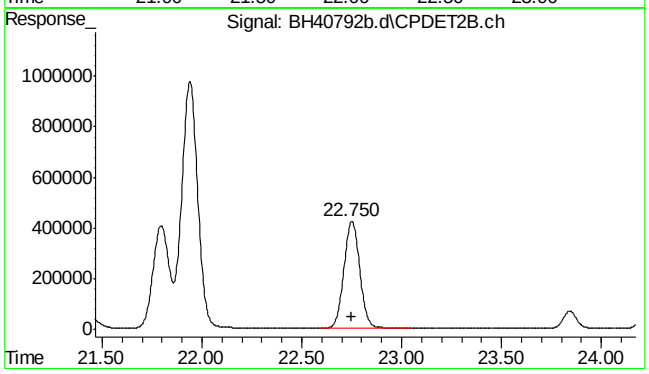
#19 ethylbenzene #2

R.T.: 21.796 min
Delta R.T.: 0.002 min
Response: 22198131
Conc: 48.76 ppb



#20 m,p-xylene #2

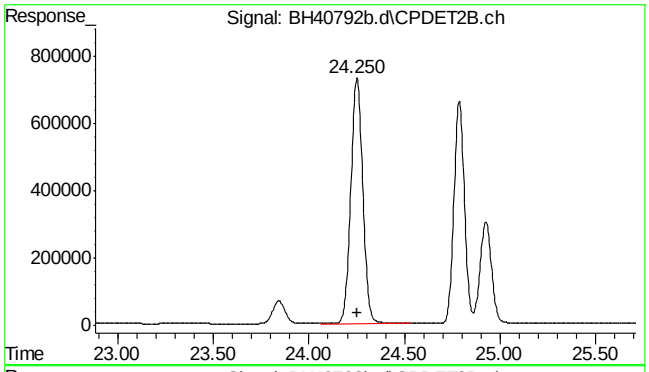
R.T.: 21.940 min
Delta R.T.: 0.002 min
Response: 54614647
Conc: 97.03 ppb



#21 o-xylene #2

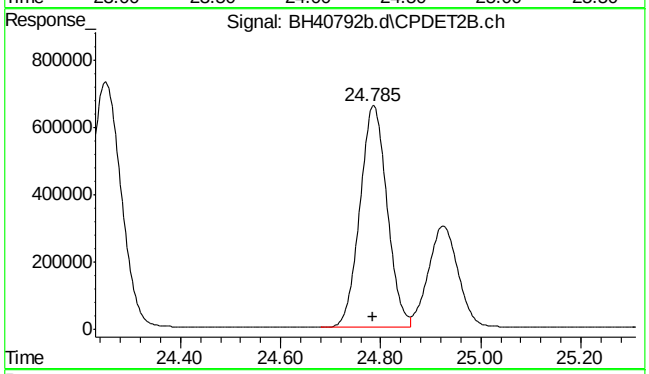
R.T.: 22.752 min
Delta R.T.: 0.002 min
Response: 23256990
Conc: 47.78 ppb

SGS ACCUTEST MC48999



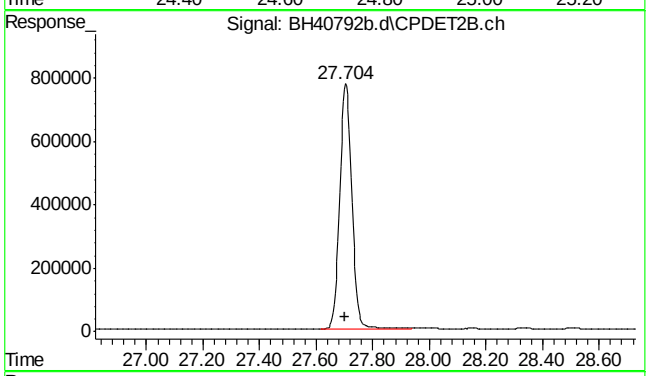
#22 1,3,5-trimethylbenzene #2

R.T.: 24.251 min
Delta R.T.: 0.001 min
Response: 31979836
Conc: 46.14 ppb



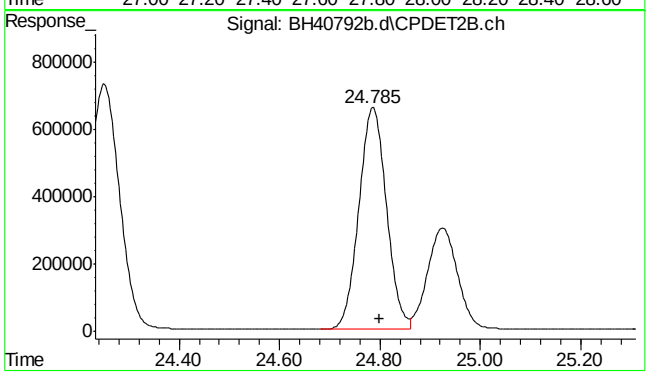
#23 1,2,4-trimethylbenzene #2

R.T.: 24.787 min
Delta R.T.: 0.002 min
Response: 25042797
Conc: 48.65 ppb



#24 naphthalene #2

R.T.: 27.704 min
Delta R.T.: 0.002 min
Response: 22995878
Conc: 57.93 ppb m



#25 c9-c10 arom as 1,2,4-tmb

R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 25077177
Conc: 48.71 ppb m

SGS ACCUTEST MC48999

Manual Integrations
APPROVED
(compounds with "m" flag)
Andri Piluri
12/12/16 13:41

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40792.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 1:51 pm
Operator : tonyf
Sample : cc2394-50
Misc : gc26797,gbh2435,,,,5,1
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:43:30 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.667	45460661	47.505	ppb	
Spiked Amount 50.000		Recovery =	95.01%		
6) s 2,3,4-trifluorotoluene	19.782	36780484	45.250	ppb	
Spiked Amount 50.000		Recovery =	90.50%		
16) s fluorobenzene #2	14.667	18214975	50.535	ppb	
Spiked Amount 50.000		Recovery =	101.07%		
18) s 2,3,4-trifluorotoluen...	19.782	10220055	47.081	ppb	
Spiked Amount 50.000		Recovery =	94.16%		
Target Compounds					
1) h rt5.5-7	5.980	35747073	37.210	ppb	m
2) h rt7/10	8.250	42296569	44.028	ppb	m
3) h rt10/13	13.360	52079157	54.211	ppb	m
8) h rt20/25	21.460	48750404	44.251	ppb	m
10) h decane	23.856	48818738	44.313	ppb	
11) h butylcyclohexane	24.940	52291850	47.466	ppb	
14) t mtbe #2	9.014	12374406	50.706	ppb	
15) t benzene #2	14.164	28167274	49.990	ppb	
17) t toluene #2	18.662	25371994	49.106	ppb	
19) t ethylbenzene #2	21.796	22198131	48.763	ppb	
20) t m,p-xylene #2	21.940	54614647	97.031	ppb	
21) t o-xylene #2	22.752	23256990	47.785	ppb	
22) t 1,3,5-trimethylbenzen...	24.251	31979836	46.143	ppb	
23) t 1,2,4-trimethylbenzen...	24.787	25042797	48.652	ppb	
24) t naphthalene #2	27.704	22995878	57.933	ppb	m
25) h c9-c10 arom as 1,2,4-tmb	24.800	25077177	48.710	ppb	m

(f)=RT Delta > 1/2 Window (m)=manual int.

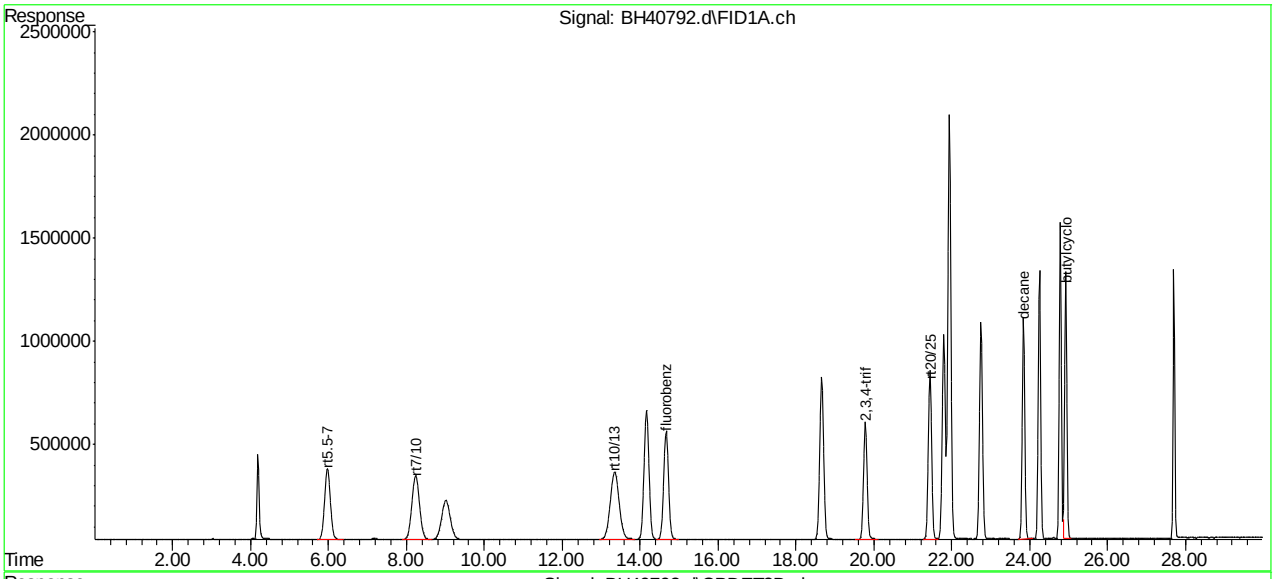
SGS ACCUTEST MC48999

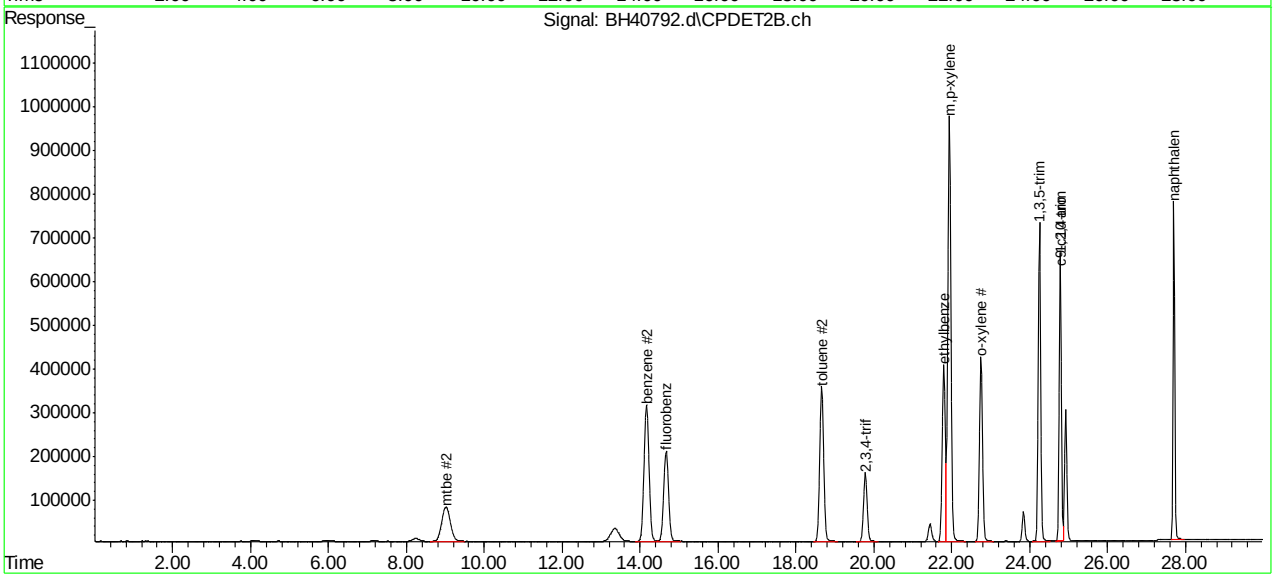
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40792.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 9 Dec 2016 1:51 pm
Operator : tonyf
Sample : cc2394-50
Misc : gc26797,gbh2435,,,,5,1
ALS Vial : 12 Sample Multiplier: 1

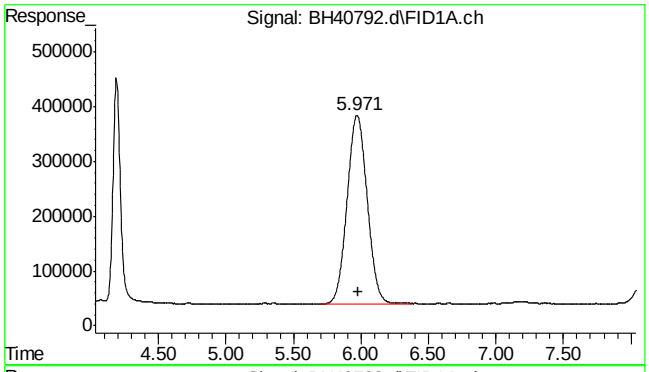
Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:43:30 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



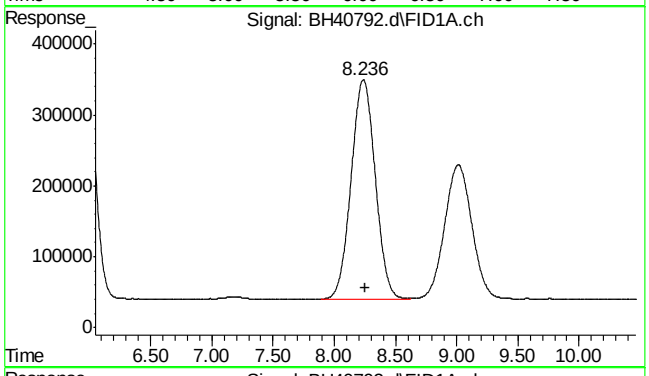


SGS ACCUTEST MC48999



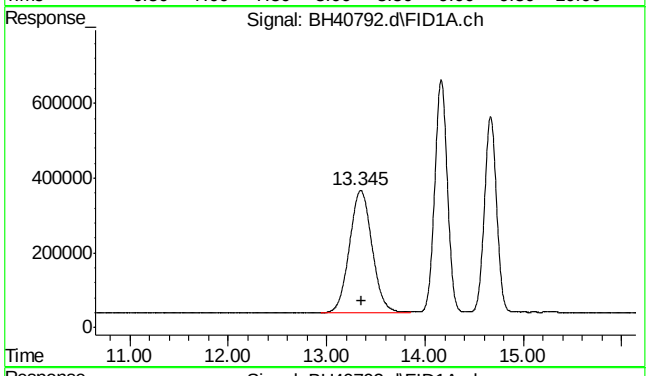
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 35747073
Conc: 37.21 ppb m



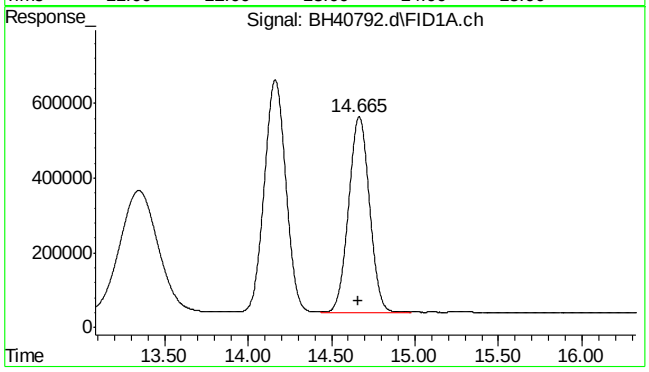
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 42296569
Conc: 44.03 ppb m



#3 rt10/13

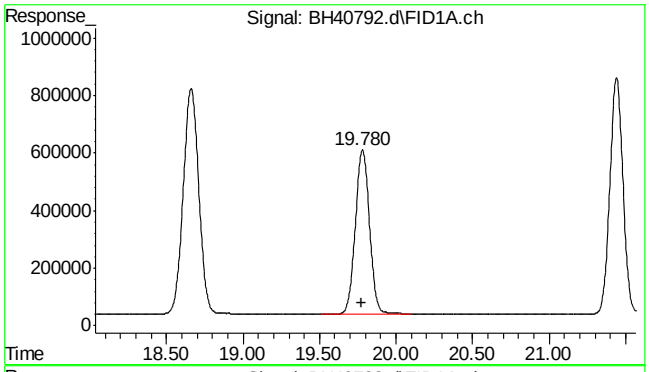
R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 52079157
Conc: 54.21 ppb m



#4 fluorobenzene

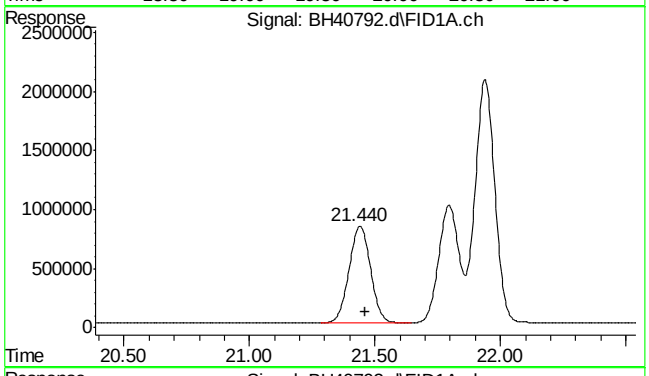
R.T.: 14.667 min
Delta R.T.: 0.003 min
Response: 45460661
Conc: 47.50 ppb

SGS ACCUTEST MC48999



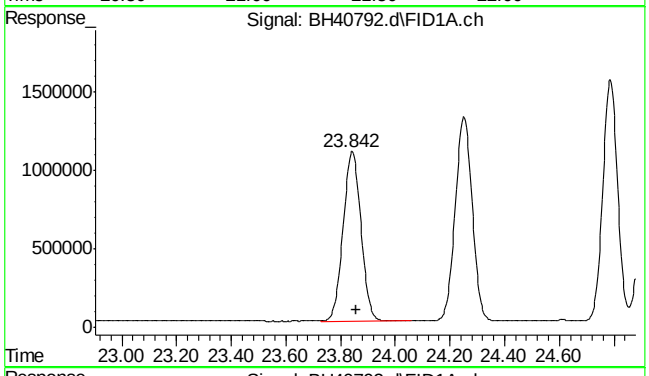
#6 2,3,4-trifluorotoluene

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 36780484
Conc: 45.25 ppb



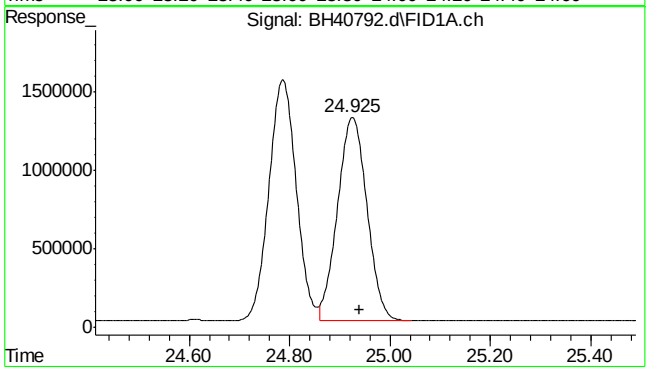
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 48750404
Conc: 44.25 ppb m



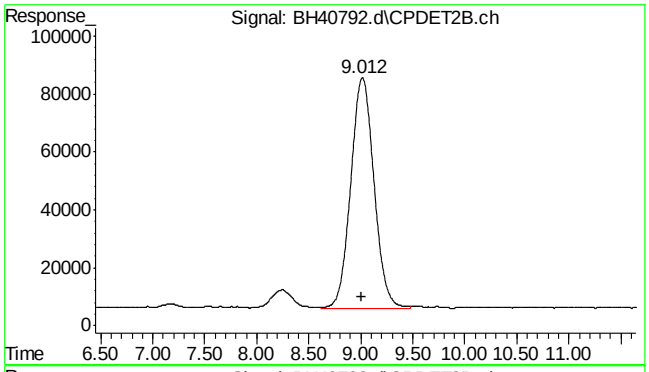
#10 decane

R.T.: 23.856 min
Delta R.T.: 0.000 min
Response: 48818738
Conc: 44.31 ppb



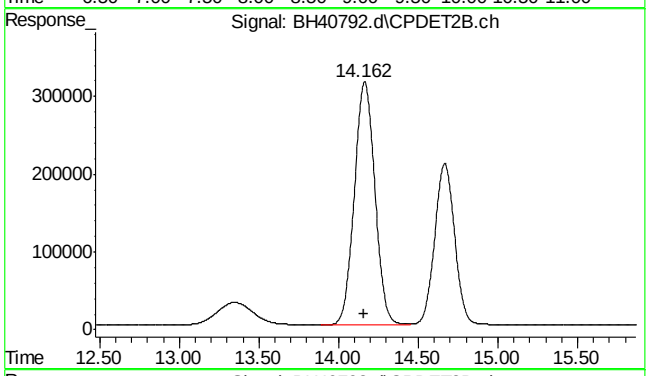
#11 butylcyclohexane

R.T.: 24.940 min
Delta R.T.: 0.000 min
Response: 52291850
Conc: 47.47 ppb



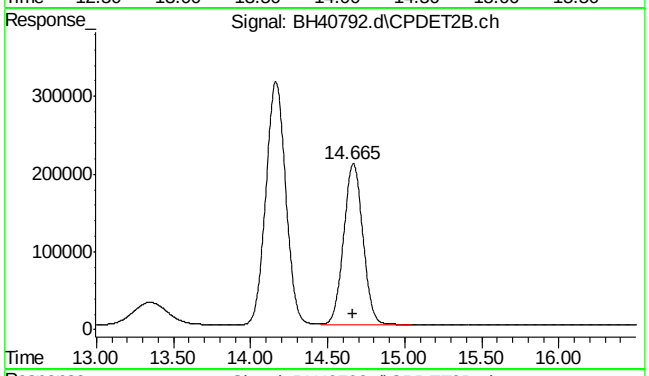
#14 mtbe #2

R.T.: 9.014 min
Delta R.T.: 0.004 min
Response: 12374406
Conc: 50.71 ppb



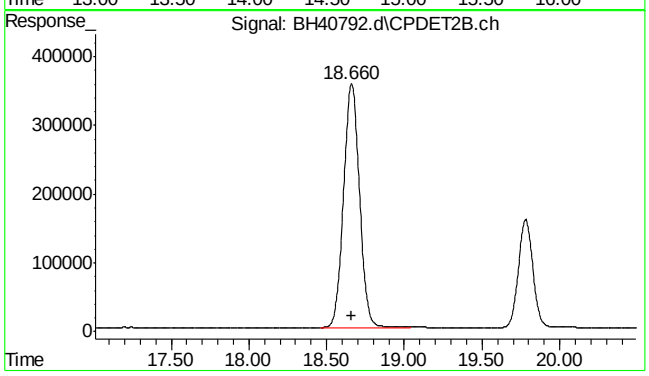
#15 benzene #2

R.T.: 14.164 min
Delta R.T.: 0.003 min
Response: 28167274
Conc: 49.99 ppb



#16 fluorobenzene #2

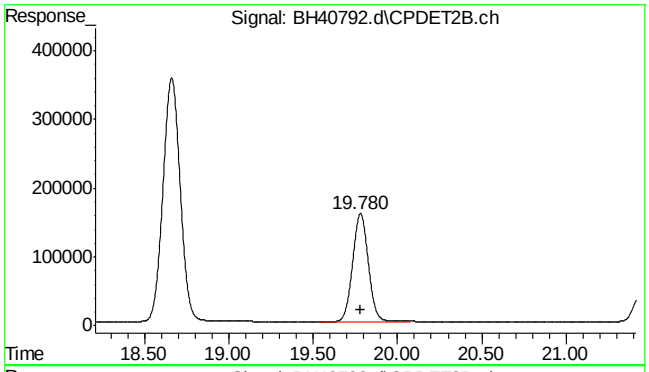
R.T.: 14.667 min
Delta R.T.: 0.003 min
Response: 18214975
Conc: 50.53 ppb



#17 toluene #2

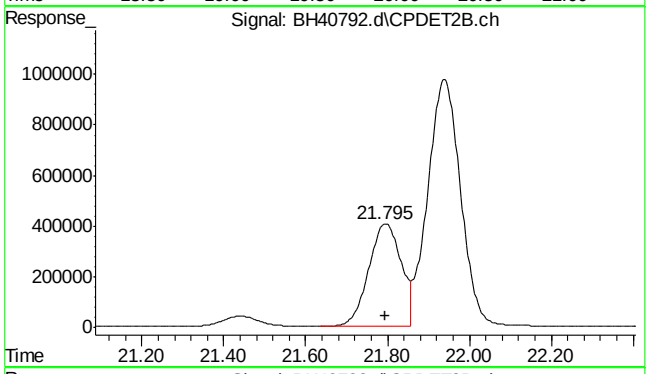
R.T.: 18.662 min
Delta R.T.: 0.003 min
Response: 25371994
Conc: 49.11 ppb

SGS ACCUTEST MC48999



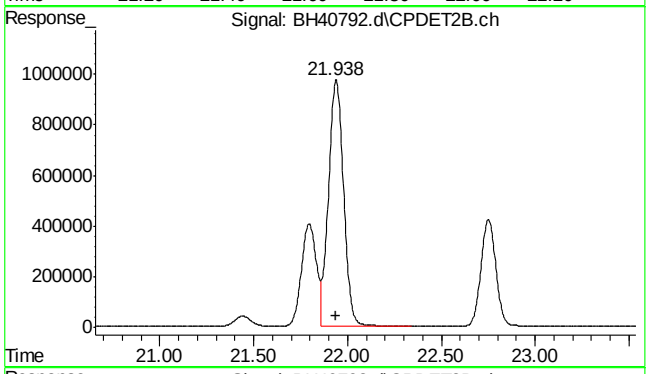
#18 2,3,4-trifluorotoluene #2

R.T.: 19.782 min
Delta R.T.: 0.003 min
Response: 10220055
Conc: 47.08 ppb



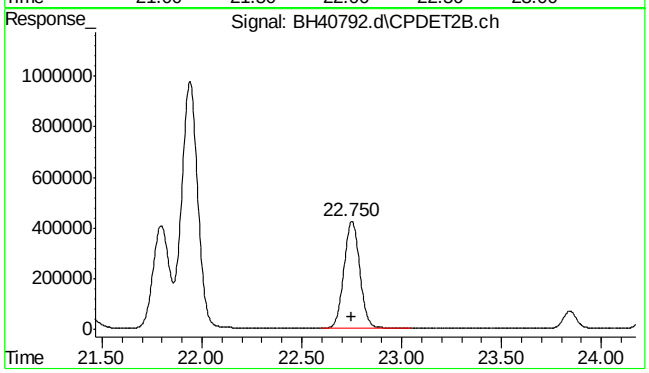
#19 ethylbenzene #2

R.T.: 21.796 min
Delta R.T.: 0.002 min
Response: 22198131
Conc: 48.76 ppb



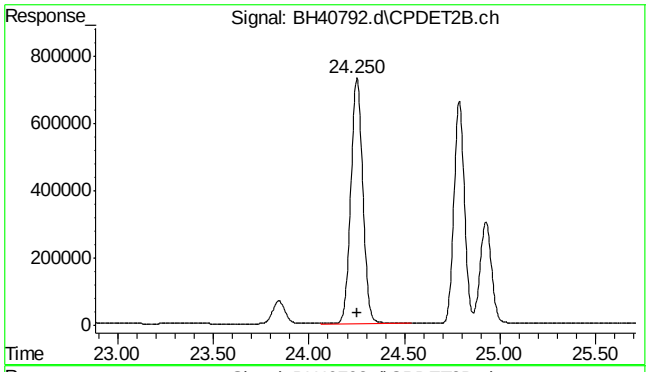
#20 m,p-xylene #2

R.T.: 21.940 min
Delta R.T.: 0.002 min
Response: 54614647
Conc: 97.03 ppb



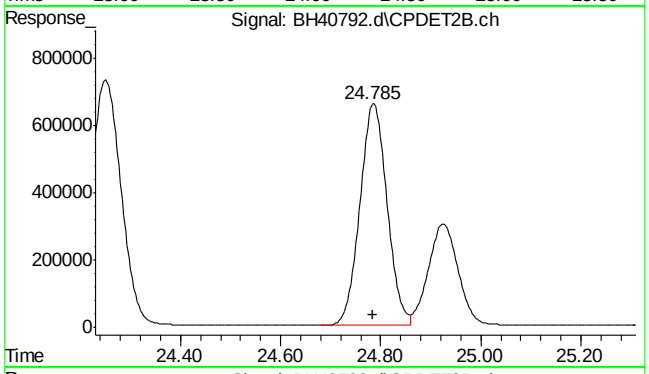
#21 o-xylene #2

R.T.: 22.752 min
Delta R.T.: 0.002 min
Response: 23256990
Conc: 47.78 ppb



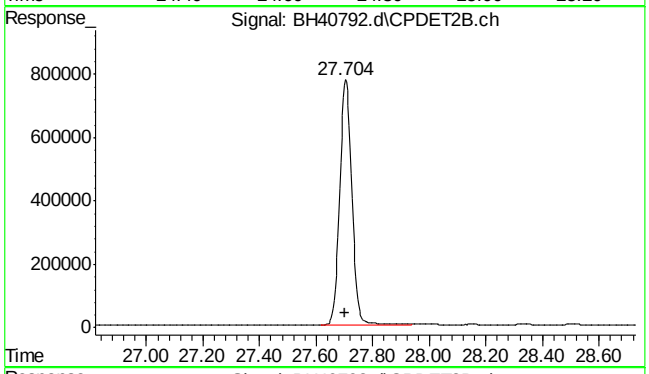
#22 1,3,5-trimethylbenzene #2

R.T.: 24.251 min
Delta R.T.: 0.001 min
Response: 31979836
Conc: 46.14 ppb



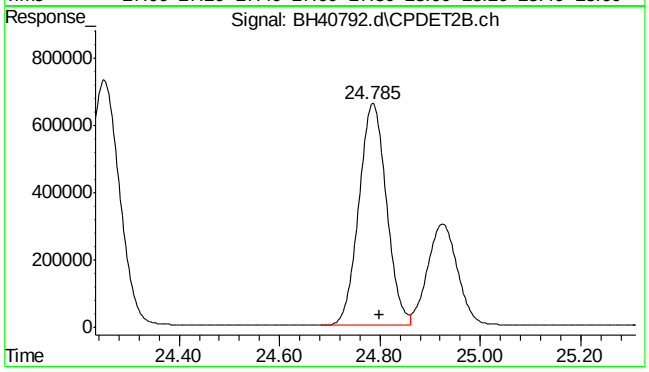
#23 1,2,4-trimethylbenzene #2

R.T.: 24.787 min
Delta R.T.: 0.002 min
Response: 25042797
Conc: 48.65 ppb



#24 naphthalene #2

R.T.: 27.704 min
Delta R.T.: 0.002 min
Response: 22995878
Conc: 57.93 ppb m



#25 c9-c10 arom as 1,2,4-tmb

R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 25077177
Conc: 48.71 ppb m

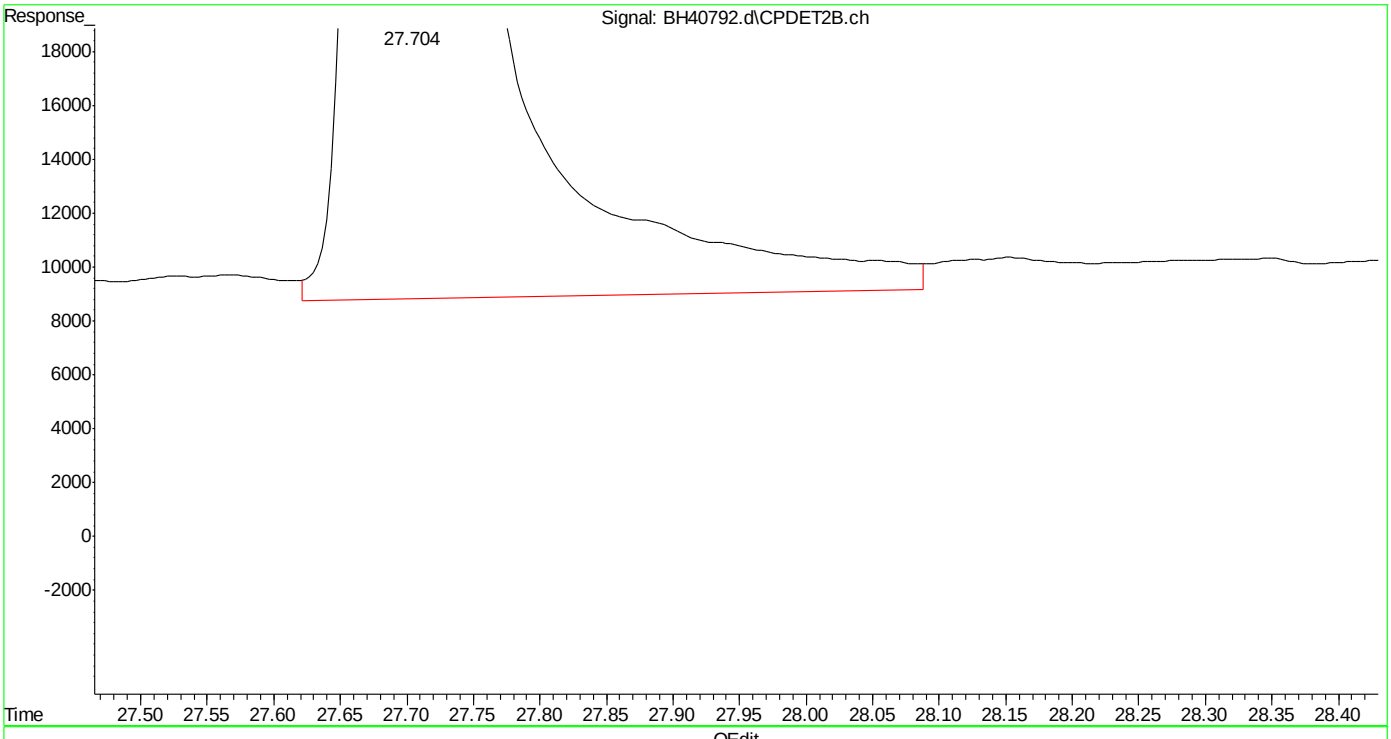
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40792.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: CPDET2B.ch
Acq On    :  9 Dec 2016   1:51 pm
Operator  : tonyf
Sample    : cc2394-50
Misc      : gc26797,gbh2435,,,,5,1
ALS Vial  : 12   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:37:54 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title  : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```



(24) naphthalene #2 (t)

27.706min 58.611 ppb

response 23264694

(+) = Expected Retention Time

bh161209vph.m Mon Dec 12 06:43:19 2016

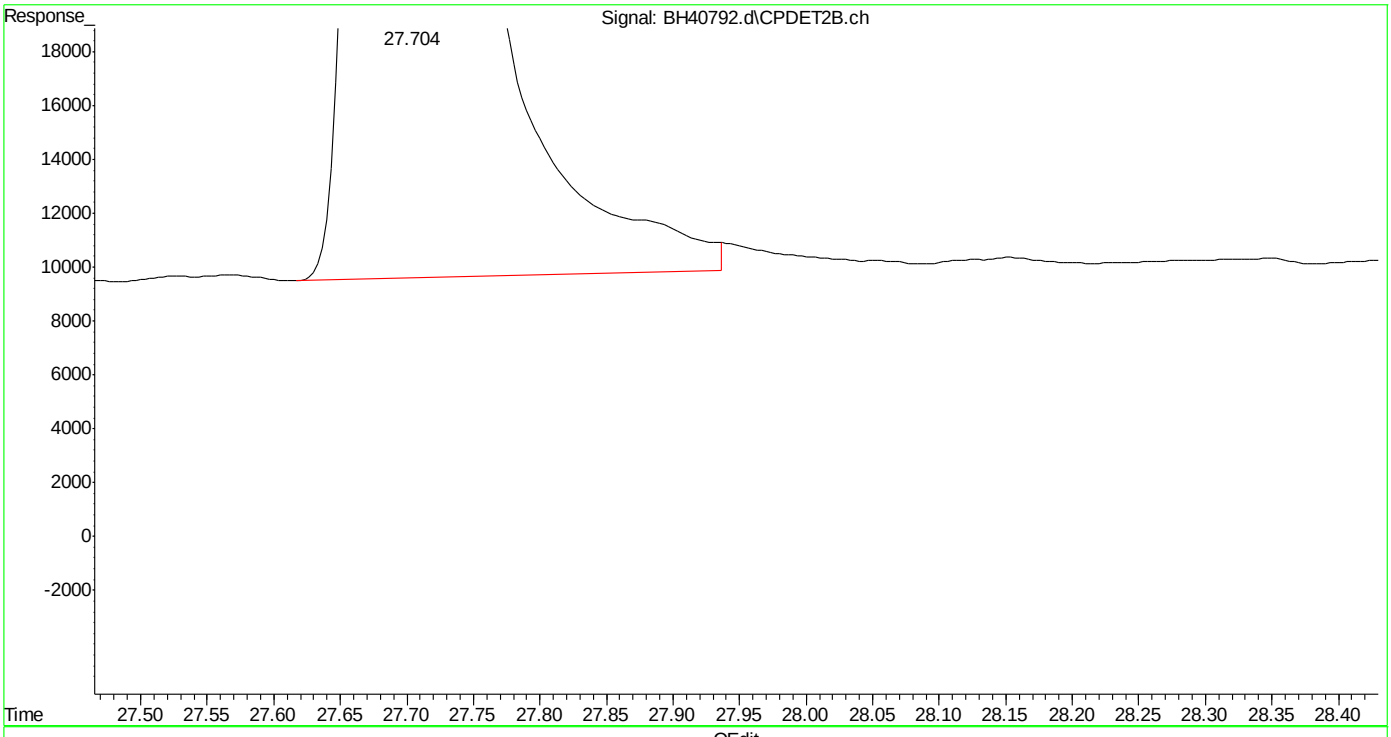
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40792.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: CPDET2B.ch
Acq On    :  9 Dec 2016   1:51 pm
Operator  : tonyf
Sample    : cc2394-50
Misc      : gc26797,gbh2435,,,,5,1
ALS Vial  : 12   Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:37:54 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title  : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :
```



(24) naphthalene #2 (t)

27.704min 57.933 ppb m

response 22995878

(+) = Expected Retention Time

bh161209vph.m Mon Dec 12 06:43:25 2016

Manual Integrations APPROVED (compounds with "m" flag)
Andri Piluri
12/13/16 11:51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40812.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 10 Dec 2016 1:23 am
Operator : tonyf
Sample : cc2394-50
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:41:29 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
4) s fluorobenzene	14.666	43939732	45.915	ppb	
Spiked Amount 50.000		Recovery =	91.83%		
6) s 2,3,4-trifluorotoluene	19.781	35575690	43.768	ppb	
Spiked Amount 50.000		Recovery =	87.54%		
16) s fluorobenzene #2	14.666	17843457	49.504	ppb	
Spiked Amount 50.000		Recovery =	99.01%		
18) s 2,3,4-trifluorotoluen...	19.781	10229172	47.123	ppb	
Spiked Amount 50.000		Recovery =	94.25%		
Target Compounds					
1) h rt5.5-7	5.980	33804927	35.189	ppb	m
2) h rt7/10	8.250	40367985	42.020	ppb	m
3) h rt10/13	13.360	49426540	51.450	ppb	m
8) h rt20/25	21.460	46501430	42.210	ppb	m
10) h decane	23.856	46431446	42.146	ppb	
11) h butylcyclohexane	24.940	49605742	45.028	ppb	
14) t mtbe #2	9.013	12285979	50.343	ppb	
15) t benzene #2	14.163	27431322	48.684	ppb	
17) t toluene #2	18.661	25151677	48.680	ppb	
19) t ethylbenzene #2	21.796	22068464	48.478	ppb	
20) t m,p-xylene #2	21.939	54260360	96.402	ppb	
21) t o-xylene #2	22.751	23010958	47.279	ppb	
22) t 1,3,5-trimethylbenzen...	24.251	31627144	45.634	ppb	
23) t 1,2,4-trimethylbenzen...	24.786	24752767	48.089	ppb	
24) t naphthalene #2	27.704	23208075	58.468	ppb	m
25) h c9-c10 arom as 1,2,4-tmb	24.800	24684986	47.948	ppb	m

(f)=RT Delta > 1/2 Window (m)=manual int.

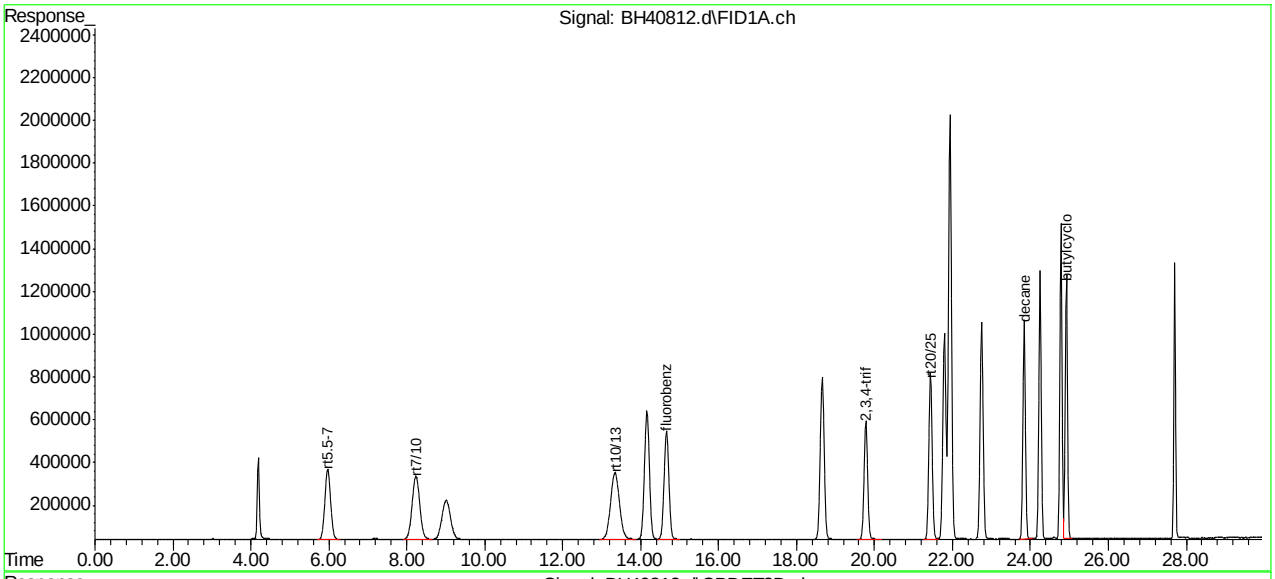
7.5.15
7

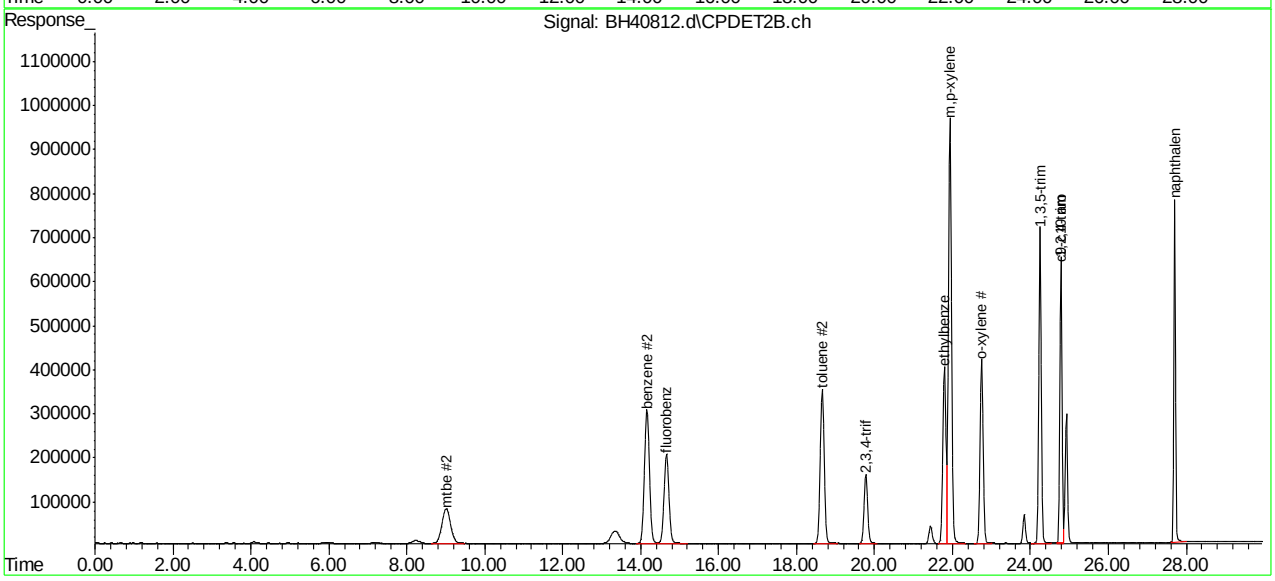
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40812.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 10 Dec 2016 1:23 am
Operator : tonyf
Sample : cc2394-50
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

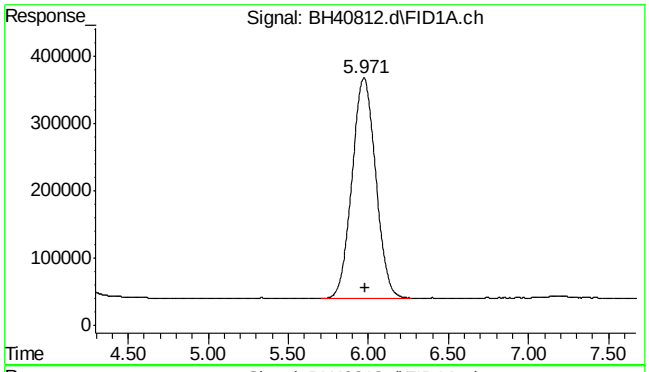
Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:41:29 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



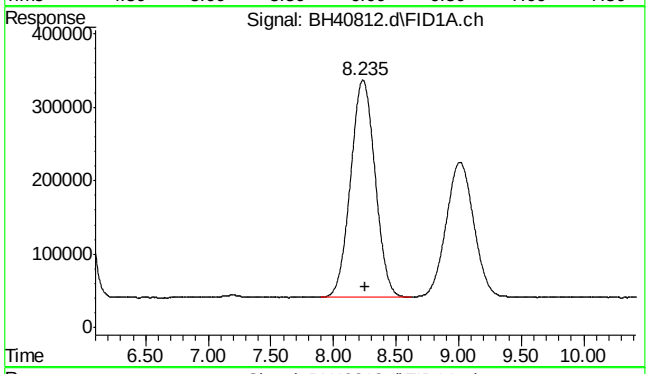


SGS ACCUTEST MC48999



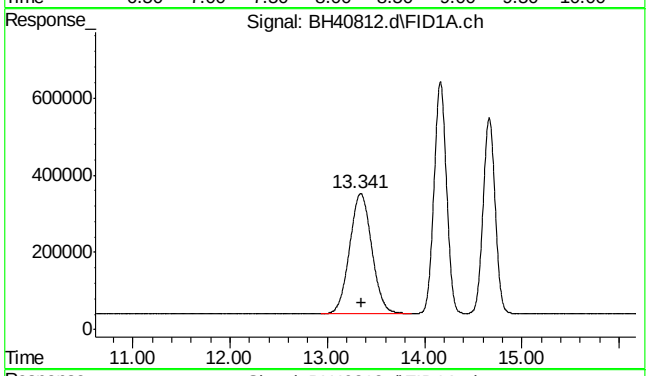
#1 rt5.5-7

R.T.: 5.980 min
Delta R.T.: 0.000 min
Response: 33804927
Conc: 35.19 ppb m



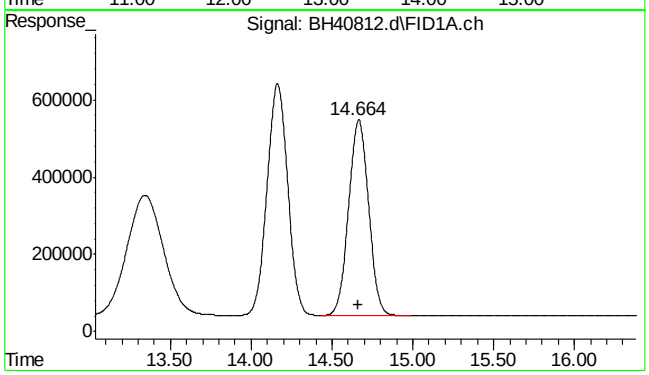
#2 rt7/10

R.T.: 8.250 min
Delta R.T.: 0.000 min
Response: 40367985
Conc: 42.02 ppb m



#3 rt10/13

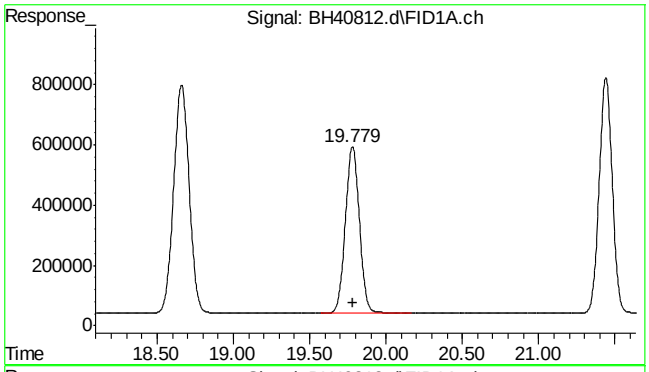
R.T.: 13.360 min
Delta R.T.: 0.000 min
Response: 49426540
Conc: 51.45 ppb m



#4 fluorobenzene

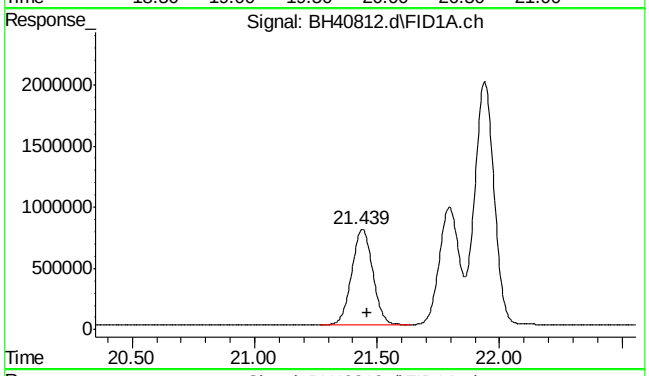
R.T.: 14.666 min
Delta R.T.: 0.002 min
Response: 43939732
Conc: 45.92 ppb

SGS ACCUTEST MC48999



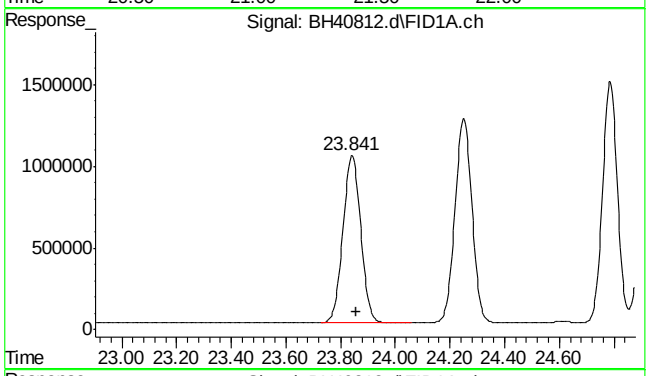
#6 2,3,4-trifluorotoluene

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 35575690
Conc: 43.77 ppb



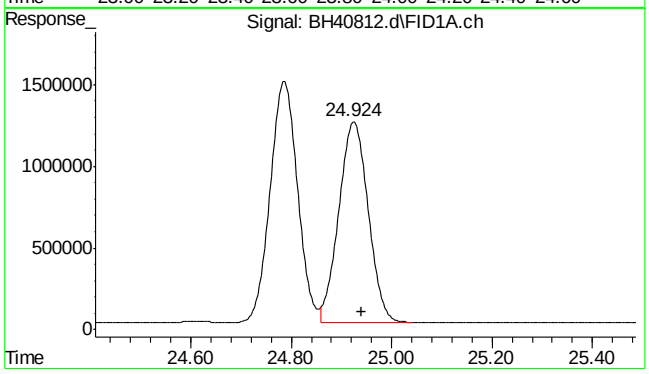
#8 rt20/25

R.T.: 21.460 min
Delta R.T.: 0.000 min
Response: 46501430
Conc: 42.21 ppb m



#10 decane

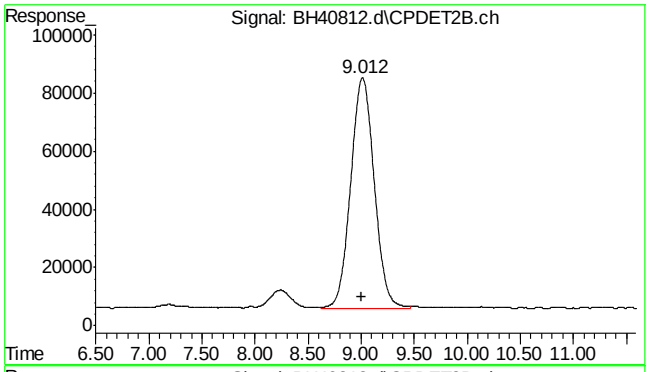
R.T.: 23.856 min
Delta R.T.: 0.000 min
Response: 46431446
Conc: 42.15 ppb



#11 butylcyclohexane

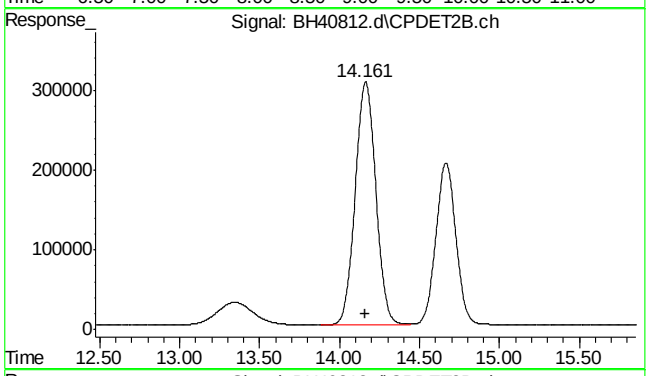
R.T.: 24.940 min
Delta R.T.: 0.000 min
Response: 49605742
Conc: 45.03 ppb

SGS ACCUTEST MC48999



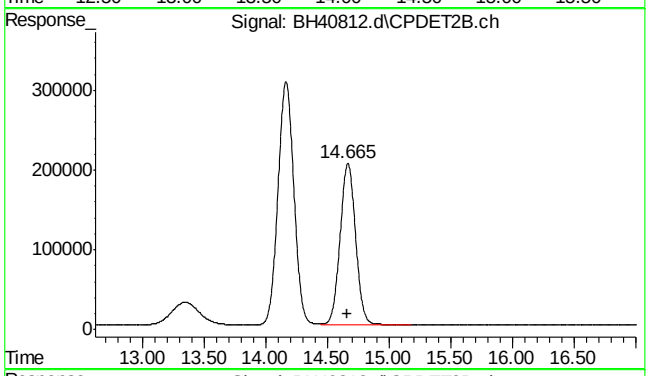
#14 mtbe #2

R.T.: 9.013 min
Delta R.T.: 0.003 min
Response: 12285979
Conc: 50.34 ppb



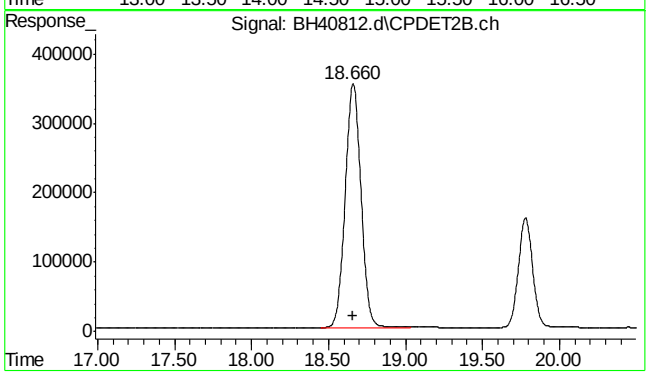
#15 benzene #2

R.T.: 14.163 min
Delta R.T.: 0.002 min
Response: 27431322
Conc: 48.68 ppb



#16 fluorobenzene #2

R.T.: 14.666 min
Delta R.T.: 0.002 min
Response: 17843457
Conc: 49.50 ppb



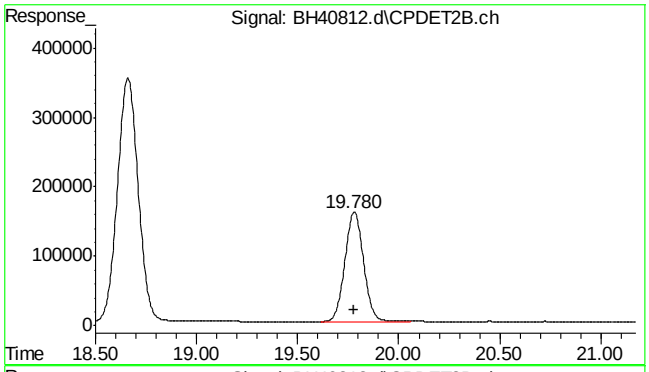
#17 toluene #2

R.T.: 18.661 min
Delta R.T.: 0.002 min
Response: 25151677
Conc: 48.68 ppb

7.5.15

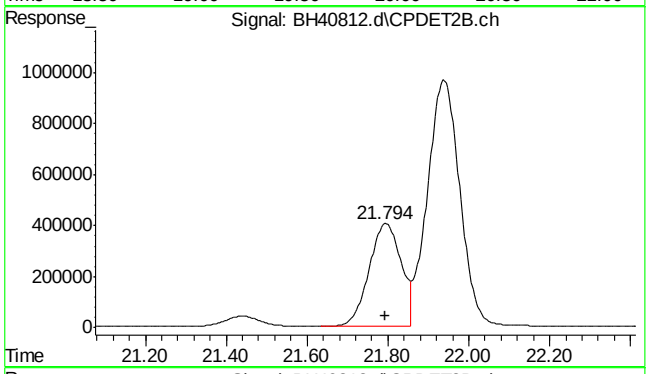
7

SGS ACCUTEST MC48999



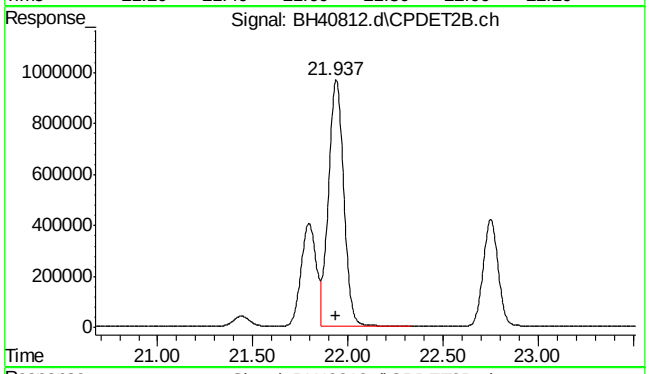
#18 2,3,4-trifluorotoluene #2

R.T.: 19.781 min
Delta R.T.: 0.002 min
Response: 10229172
Conc: 47.12 ppb



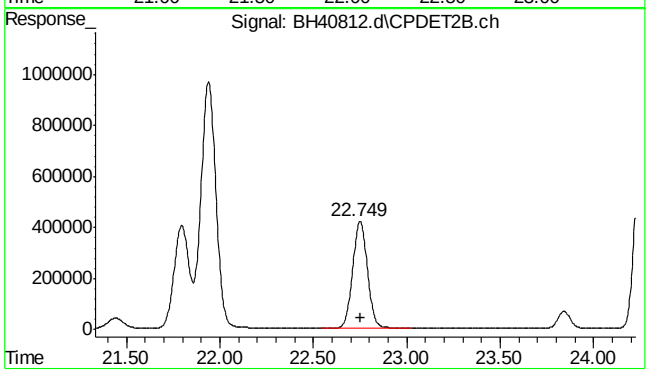
#19 ethylbenzene #2

R.T.: 21.796 min
Delta R.T.: 0.002 min
Response: 22068464
Conc: 48.48 ppb



#20 m,p-xylene #2

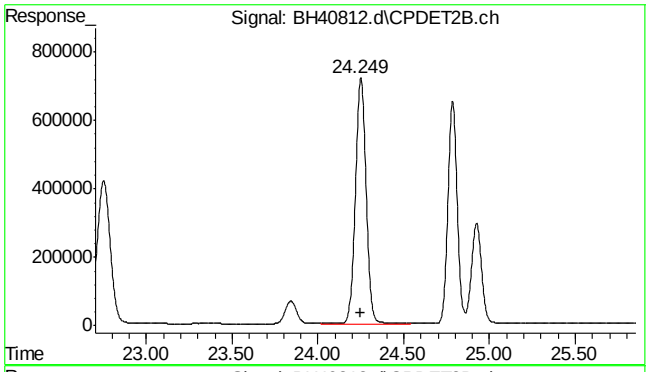
R.T.: 21.939 min
Delta R.T.: 0.000 min
Response: 54260360
Conc: 96.40 ppb



#21 o-xylene #2

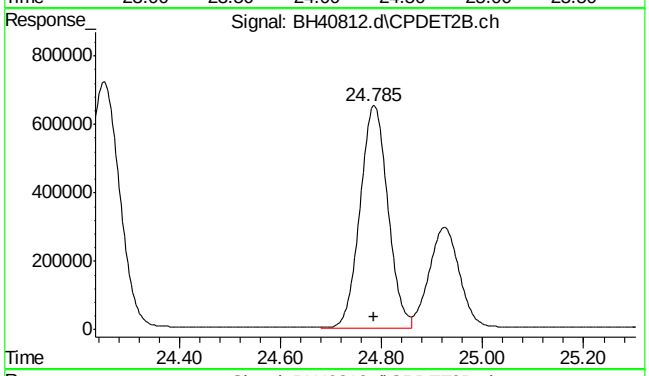
R.T.: 22.751 min
Delta R.T.: 0.000 min
Response: 23010958
Conc: 47.28 ppb

SGS ACCUTEST MC48999



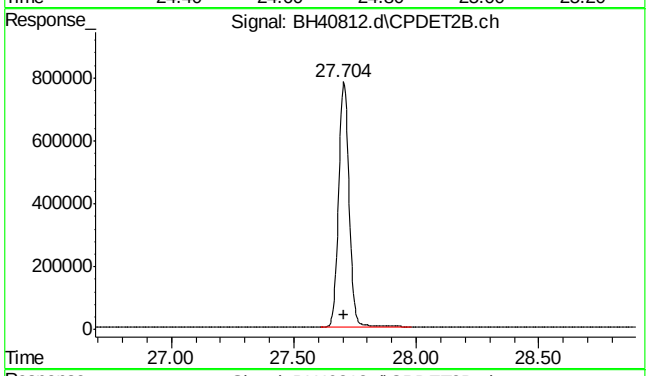
#22 1,3,5-trimethylbenzene #2

R.T.: 24.251 min
Delta R.T.: 0.000 min
Response: 31627144
Conc: 45.63 ppb



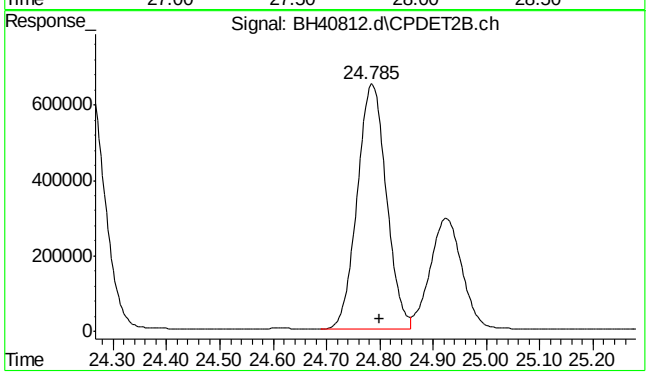
#23 1,2,4-trimethylbenzene #2

R.T.: 24.786 min
Delta R.T.: 0.001 min
Response: 24752767
Conc: 48.09 ppb



#24 naphthalene #2

R.T.: 27.704 min
Delta R.T.: 0.002 min
Response: 23208075
Conc: 58.47 ppb m



#25 c9-c10 arom as 1,2,4-tmb

R.T.: 24.800 min
Delta R.T.: 0.000 min
Response: 24684986
Conc: 47.95 ppb m

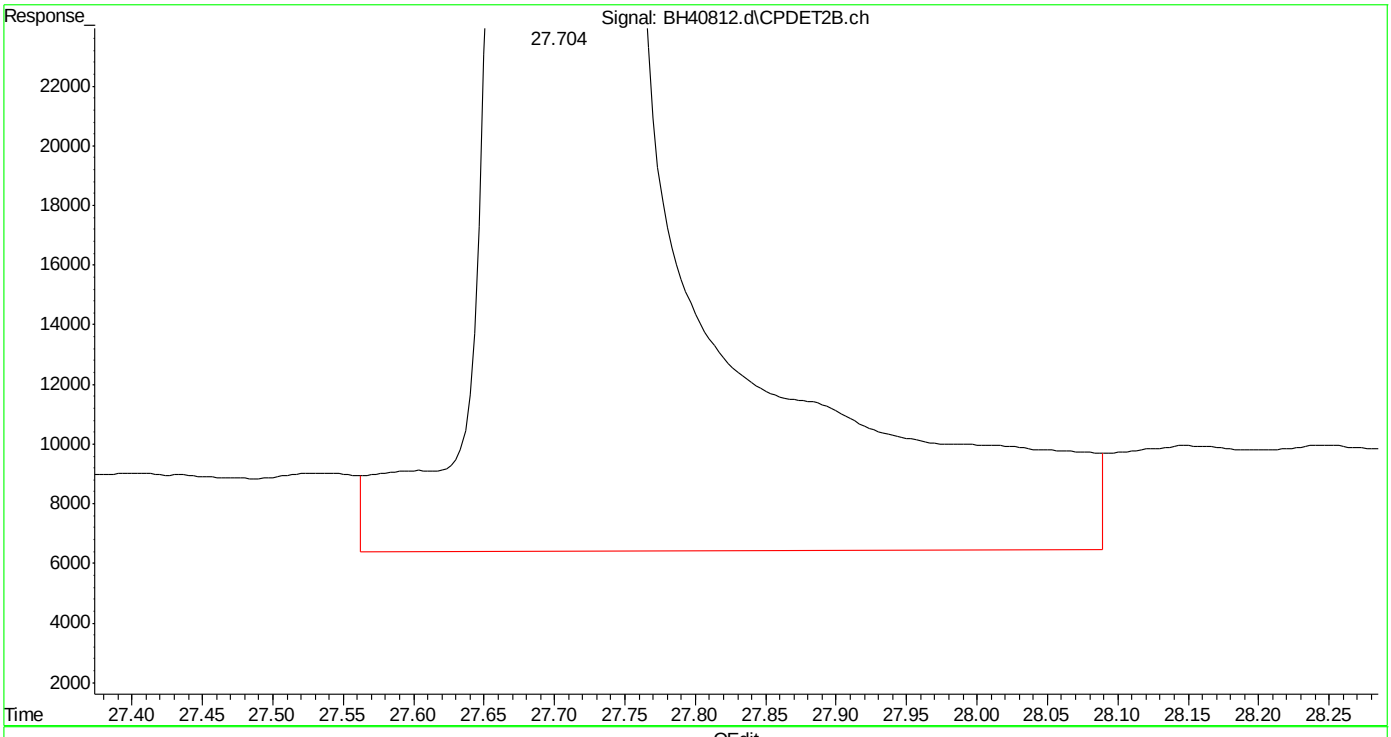
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40812.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 10 Dec 2016 1:23 am
Operator : tonyf
Sample : cc2394-50
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:40:11 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(24) naphthalene #2 (t)
27.705min 60.722 ppb
response 24102716

(+) = Expected Retention Time
bh161209vph.m Mon Dec 12 06:41:01 2016

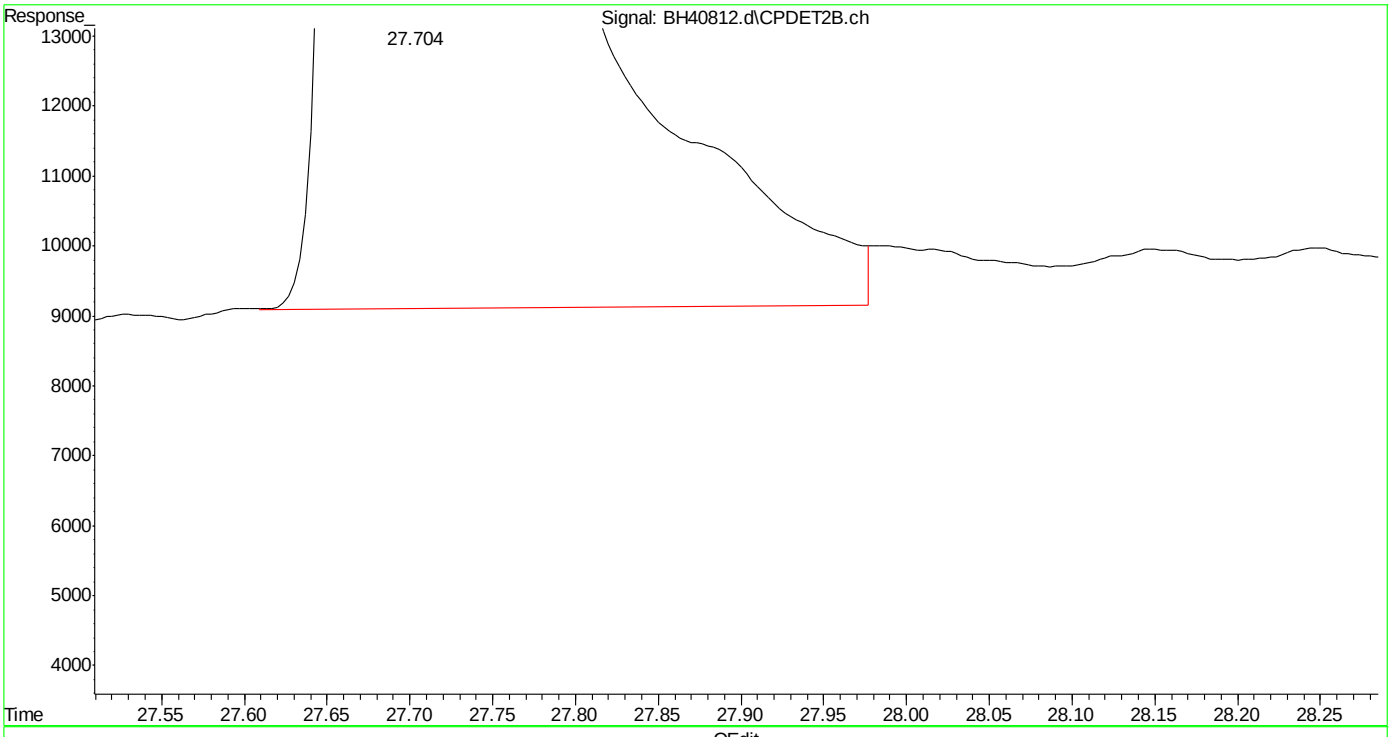
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40812.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 10 Dec 2016 1:23 am
Operator : tonyf
Sample : cc2394-50
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:40:11 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(24) naphthalene #2 (t)
27.704min 58.468 ppb m
response 23208075

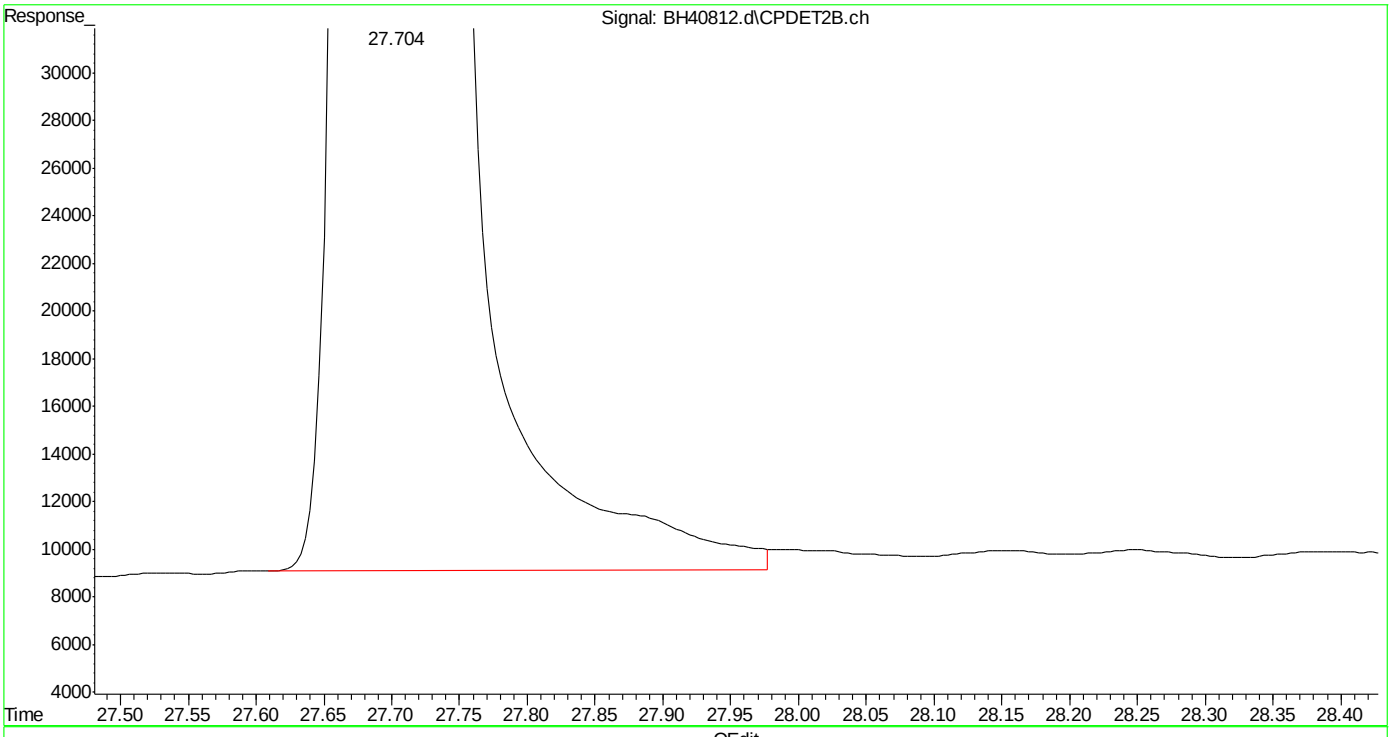
(+) = Expected Retention Time
bh161209vph.m Mon Dec 12 06:41:17 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\bh161209\
Data File : BH40812.d
Signal(s) : Signal #1: FID1A.ch Signal #2: CPDET2B.ch
Acq On : 10 Dec 2016 1:23 am
Operator : tonyf
Sample : cc2394-50
Misc : gc26798,gbh2436,,,,5,1
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: autoint1.e
Integration File signal 2: autoint2.e
Quant Time: Dec 12 06:40:11 2016
Quant Method : C:\msdchem\1\METHODS\bh161209vph.m
Quant Title : vph
QLast Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(24) naphthalene #2 (t)
27.704min 58.468 ppb m
response 23208075

(+) = Expected Retention Time
bh161209vph.m Mon Dec 12 06:41:36 2016

SGS ACCUTEST

Instrument: GC 28 (BH)

VOLATILE ORGANICS BY GC ANALYSIS LOG

page 1 of 2

Date: 10/31/16

Analyst Signature: aef

Column: mt-502.2

Standards Data

Test	Workgroup	Batch
Vmovph Alb	qa 26718	gbH 2394
VBOZ16bmmlbb	qa 26725	gbH 2396
qu16547	VPH 2ml 50ug-50ug/ml	11/30/16

Standards Data

Lot #	Description	Expiration
qu16550	CC/bsp 250ug/ml	11/30/16
qu16551	Sim	↓
qu16544	VPH std 50 ug/ml	11/30/16
qu16545	5.0	↓
qu16546	1.0	↓

Method: BHVPH1

GC Seq. File: BH161031.S

Method Files:

BH161031VPH master

BH161031VPH CC2394-50

AS Seq. File: 2-2, 3-4, 5-24, 25-77

Date of ICAL: 10-31-16 ICAL Verified: _____ Seq. Verification: aef

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	Dil. Fact.	pH	Comments
BH 40,2487	ICC2394-1000	N/A	gbH2394	Vmovph	N/A	W	10ml qu16544 / 5ml	N/A	N/A	50 std
488	-500		qa26718				5ml			
489	-100						10ml			
490	ICC2394-50						5ml			
491	IC2394-10						10ml qu16545 / 5ml			5 std
492	-2						10ml qu16546			1.0 std
493	-1						5ml qu16546			
494	ICV2394-50						5ml qu16547			50 std
55	mb				2		1ml qu16551			
56	bsp				3		1ml qu16550			
57	bsd				4					
58	mc48523-1	4			5		5ml		2	
59	mc48490-5	3			6					
60	-2	2			7					
61	-4	2			8					
62	-3	2			9					
63	mc48522-1	4			10					tmb 1:22
64	-12	4			11					tmb 1:2
65	-9	4			12					confirm 1:2?
66	-2	4			13					
67	-3	4			14					
68	-10	4			15					
69	-11	4			16					
70	-5	4			17					
71	-6	4			18					
72	-7	4			19					
73	-8	4			20					

GC001-07 Date: 4/27/16 Dilution Solvent: _____ Lot Number: _____ pH Paper Lot: 216315

Review: _____

MTX = Matrix: Designate W for water, S for soil, O for oil, A for air. *Note: If sample matrix is soil – method SW846 5035 used for preparation SW846 5030 for water/soil P&T. Sample amount is reported in grams (wet) for soil and oil, mls for water, mg/m3 for air.

SGS ACCUTEST

Instrument: GC 28 (BH)

VOLATILE ORGANICS BY GC ANALYSIS LOG

Date: 10/31/16 Analyst Signature: alf page 2 of 2

Column:

Standards Data

Test	Workgroup	Batch
		see

Standards Data

Lot #	Description	Expiration
prior	page	

Method:
GC Seq. File:
Method Files:

AS Seq. File:

Date of ICAL: ICAL Verified: Seq. Verification:

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	Dil. Fact.	pH	Comments
BH40274 :	mc48524-2	6	gc26718	√mayh	21	W	5ml	N/A	<2	
75 "	-1	6			22					
76 :	-3	6			23					
77 "	mc48522-4	5			24					
78 "	-4ms	5			25					
79 "	-4msd	4			26					
80 "	Lmcal50	N/A			27		lot gv16550		N/A	
										10/31/16 alf

GC001-07 Date: 4/27/16 Dilution Solvent: Lot Number: pH Paper Lot: 216315
Review:

MTX = Matrix: Designate W for water, S for soil, O for oil, A for air. *Note: If sample matrix is soil – method SW846 5035 used for preparation SW846 5030 for water/soil P&T. Sample amount is reported in grams (wet) for soil and oil, mls for water, mg/m3 for air.

Response Factor Report GCBH

original curve 10/31/16

Method : C:\msdchem\1\MET...61031vphmaster.m (ChemStation Integrator)
Title : vph - master
Last Update : Mon Oct 31 17:27:46 2016
Response via : Initial Calibration

Calibration Files
7 =BH40247.d 6 =BH40248.d 5 =BH40249.d 4 =BH40250.d
3 =BH40251.d 1 =BH40253.d 9 =BH40252.d =
= =

Compound	7	6	5	4	3	1	9	Avg	% RSD
1) rt5.5-7	0.858	0.869	0.861	0.855	0.884	1.031	1.002	0.908 E6	8.23
2) rt7/10	0.938	0.954	0.950	0.941	0.980	1.064	1.157	0.998 E6	8.30
3) mtbe	5.269	5.794	6.104	6.232	6.195	6.941	6.324	6.123 E5	8.34
4) rt10/13	0.808	1.027	1.139	1.127	1.219	1.582	1.581	1.212 E6	23.41
5) benzene	1.172	1.189	1.175	1.173	1.170	1.236	1.230	1.192 E6	2.39
6) fluorobenzene	9.435	9.572	9.458	9.421	9.617	9.675	9.809	9.570 E5	1.50
7) rt13/16								0.000 -	1.00
8) toluene	1.185	1.190	1.162	1.160	1.173	1.191	1.186	1.178 E6	1.12
9) 2,3,4-trifluorotoluene	7.764	7.741	7.492	7.517	7.849	9.937	8.597	8.128 E5	10.81
10) rt16/20								0.000 -	1.00
11) rt20/25	1.116	1.101	1.033	1.021	1.148	1.719	1.326	1.209 E6	20.38
12) rt25/29								0.000 -	1.00
13) ethylbenzene	1.197	1.188	1.132	1.131	1.138	1.302	1.205	1.185 E6	5.15
14) m,p-xylene	1.246	1.243	1.181	1.180	1.180	1.342	1.253	1.232 E6	

4.77
15) o-xylene
1.264 1.258 1.195 1.193 1.194 1.340 1.241 1.241 E6
4.31
16) decane
1.121 1.132 1.020 1.001 1.167 1.889 1.377 1.244 E6
24.93
17) 1,3,5-trimethylbenzene
1.227 1.246 1.228 1.233 1.260 1.475 1.388 1.294 E6
7.56
18) 1,2,4-trimethylbenzene
1.181 1.207 1.198 1.198 1.208 1.459 1.336 1.255 E6
8.28
19) butylcyclohexane
1.103 1.144 1.114 1.102 1.202 1.810 1.432 1.272 E6
20.77
20) naphthalene
4.789 5.248 7.560 7.624 7.421 7.638 7.873 6.879 E5
18.68
21) 2,5-dibromotoluene
0.000 -
1.00

Signal #2

23) mtbe #2
2.090 2.332 2.551 2.588 2.528 2.480 2.514 2.440 E5
7.16
24) benzene #2
5.346 5.605 5.611 5.564 5.716 5.938 5.660 5.635 E5
3.15
25) fluorobenzene #2
3.463 3.608 3.615 3.590 3.707 3.623 3.626 3.604 E5
2.01
26) toluene #2
4.994 5.175 5.137 5.128 5.149 5.428 5.157 5.167 E5
2.51
27) 2,3,4-trifluorotoluene #2
2.051 2.098 2.042 2.060 2.106 2.615 2.223 2.171 E5
9.46
28) ethylbenzene #2
4.490 4.613 4.436 4.497 4.382 4.862 4.584 4.552 E5
3.47
29) m,p-xylene #2
5.325 5.553 5.455 5.552 5.515 6.194 5.806 5.629 E5
5.12
30) o-xylene #2
4.733 4.894 4.725 4.790 4.704 5.307 4.917 4.867 E5
4.34
31) 1,3,5-trimethylbenzene #2
6.307 6.712 6.779 6.822 6.794 7.712 7.388 6.931 E5
6.74
32) 1,2,4-trimethylbenzene #2
4.716 5.016 5.098 5.058 4.944 5.779 5.421 5.147 E5
6.77
33) naphthalene #2
2.671 2.972 4.449 4.372 4.274 4.531 4.516 3.969 E5

10/31/16
cg

```
19.99
 34)  c9-c10 arom as 1,2,4-tmb
            4.721 5.002 5.082 5.053 4.925 5.781 5.474                5.148 E5
6.98
 35)  2,5-dibromotoluene #2
                                                                     0.000   -
1.00
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          bh161031vphmaster.m        Tue Nov 01 06:31:56 2016
```

7.6.1

7

10/31/16
ef

Data File Name	BH40242.d
Operator	tonyf
Date Acquired	10/31/2016 8:53
Sample Name	cc2362-50
Misc Info	26718,gbh2394,,,,5,1
Sample Multiplier	1

	BH40247.d	BH40248.d	BH40249.d	BH40250.d	BH40251.d
	1000.00	500.00	100.00	50.00	10.00
rt5.5-7	857783738.04	434565127.85	86088136.54	42741291.25	8839495.32
rt7/10	937715107.04	477158966.93	95005073.92	47070190.66	9796580.68
rt10/13	807923587.85	513608402.75	113867510.24	56360062.80	12194480.93
rt20/25	1116251819.36	550363068.55	103337447.85	51067901.98	11481816.99
decane	1120919111.60	566177837.18	101979409.36	50052068.69	11668529.59
butylcyclohexane	1102768230.70	571913996.22	111427424.93	55085182.57	12016588.50

vph pentane,2-methylpentane,icooctane

Total area	2603422432.93	1425332497.54	294960720.70	146171544.72	30830556.94
Total mass	3000.00	1500.00	300.00	150.00	30.00
RF	867807.48	950221.67	983202.40	974476.96	1027685.23

	Average RF	Area 1000	Area 50
	960678.75	960678748.20	48033937.41
%RSD	**6.14**		

noname,butylcyclohexane,decane

Total area	3339939161.66	1688454901.96	316744282.14	156205153.24	35166935.08
Total mass	3000.00	1500.00	300.00	150.00	30.00
RF	1113313.05	1125636.60	1055814.27	1041367.69	1172231.17

	Average RF	Area 1000	Area 50
	1101672.56	1101672557.34	55083627.87
%RSD	**4.85**		

Created by Andrip 07/01/08

C_5-C_8 10ppb cutoff x 3 comps = 30ppb total
C_9-C_{12} 10ppb cutoff x 3 comps = 30 ppb total

11/1/16

Response Factor Report GCBH

Method : C:\msdchem\1\METHODS\bh161031vph.m (ChemStation Integrator)
Title : vph
Last Update : Tue Nov 01 08:48:32 2016
Response via : Initial Calibration

VPH Curve in use 11/1/16 gf

Calibration Files
7 =BH40247.d 6 =BH40248.d 5 =BH40249.d 4 =BH40250.d
3 =BH40251.d 1 =BH40253.d 9 =BH40252.d =
= =

Compound	7	6	5	4	3	1	9	Avg	% RSD
1) rt5.5-7	9.607			9.607				9.607 E5	0.00
2) rt7/10	9.607			9.607				9.607 E5	0.00
3) rt10/13	9.607			9.607				9.607 E5	0.00
4) fluorobenzene	9.435	9.572	9.458	9.421	9.617	9.675	9.809	9.570 E5	1.50
5) rt13/16								0.000 -	1.00
6) 2,3,4-trifluorotoluene	7.764	7.741	7.492	7.517	7.849	9.937	8.597	8.128 E5	10.81
7) rt16/20								0.000 -	1.00
8) rt20/25	1.102			1.102				1.102 E6	0.00
9) rt25/29								0.000 -	1.00
10) decane	1.102			1.102				1.102 E6	0.00
11) butylcyclohexane	1.102			1.102				1.102 E6	0.00
12) 2,5-dibromotoluene								0.000 -	1.00
Signal #2									
14) mtbe #2	2.090	2.332	2.551	2.588	2.528	2.480	2.514	2.440 E5	

7.6.1

7

SGS ACCUTEST MC48999

```
7.16
 15)  benzene #2
            5.346 5.605 5.611 5.564 5.716 5.938 5.660                5.635 E5
3.15
 16)  fluorobenzene #2
            3.463 3.608 3.615 3.590 3.707 3.623 3.626                3.604 E5
2.01
 17)  toluene #2
            4.994 5.175 5.137 5.128 5.149 5.428 5.157                5.167 E5
2.51
 18)  2,3,4-trifluorotoluene #2
            2.051 2.098 2.042 2.060 2.106 2.615 2.223                2.171 E5
9.46
 19)  ethylbenzene #2
            4.490 4.613 4.436 4.497 4.382 4.862 4.584                4.552 E5
3.47
 20)  m,p-xylene #2
            5.325 5.553 5.455 5.552 5.515 6.194 5.806                5.629 E5
5.12
 21)  o-xylene #2
            4.733 4.894 4.725 4.790 4.704 5.307 4.917                4.867 E5
4.34
 22)  1,3,5-trimethylbenzene #2
            6.307 6.712 6.779 6.822 6.794 7.712 7.388                6.931 E5
6.74
 23)  1,2,4-trimethylbenzene #2
            4.716 5.016 5.098 5.058 4.944 5.779 5.421                5.147 E5
6.77
 24)  naphthalene #2
            2.671 2.972 4.449 4.372 4.274 4.531 4.516                3.969 E5
19.99
 25)  c9-c10 arom as 1,2,4-tmb
            4.721 5.002 5.082 5.053 4.925 5.781 5.474                5.148 E5
6.98
 26)  2,5-dibromotoluene #2
                                                                     0.000   -
1.00
--------------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          bh161031vph.m        Tue Nov 01 08:58:56 2016
```

11/1/16
gf

7.6.1

7

SGS ACCUTEST MC48999

Data File Name	BH40254.d
Operator	tonyf
Date Acquired	10/31/2016 16:59
Sample Name	**v2394-1000,gv16557**
Sample Multiplier	1

Name FID	Target Response		Continuing CF	Initial CF	Percent Difference	Out of Criteria
rt5.5-7	42075945	C5 - C8 area	CF	CF		
rt7/10	46486033	144879377	965863	960679	**-0.54**	
rt10/13	56317399					
rt20/25	50427467					
decane	49464172	C9-C12 area				
butylcyclohexane	54447904	154339543	1028930	1101673	**6.60**	

jfh 04/23/02
edited for decane butylcylclohexane 02/18/08 andrip
edited for 50ppb ck 072104 aa
Analyst/date: 11/1/16 cg

Edit: Methylpentane, Iso-octane to 50.
ZM April 14,2005
aromatic format edit jfh 083005
%drift jfh 10/04/05

SGS ACCUTEST MC48999

Data File Name	BH40280.d
Operator	tonyf
Date Acquired	11/1/2016 7:59
Sample Name	**cc2362-50**
Sample Multiplier	1

Name FID	Target Response		Continuing CF	Initial CF	Percent Difference	Out of Criteria
rt5.5-7	39266351	C5 - C8 area	CF	CF		
rt7/10	44719583	135765511	905103	960679	**5.79**	
rt10/13	51779577					
rt20/25	45809132					
decane	43751660	C9-C12 area				
butylcyclohexane	49327538	138888330	925922	1101673	**15.95**	

jfh 04/23/02
edited for decane butylcylclohexane 02/18/08 andrip
edited for 50ppb ck 072104 aa
Analyst/date: 11/1/16 ay

Edit: Methylpentane, Iso-octane to 50.
ZM April 14,2005
aromatic format edit jfh 083005
%drift jfh 10/04/05

7.6.1

7

SGS ACCUTEST MC48999

SGS ACCUTEST

Instrument: GC 28 (BH)

VOLATILE ORGANICS BY GC ANALYSIS LOG

page 1 of 2

Date: 12/9/16 Analyst Signature: [illegible]

Column: mtx 502.2

Method: BHVPH1

GC Seq. File: BH 161209.5

Method Files: BH 161209 VPH cc 2394-50

AS Seq. File: 1-2-2, 3-3, 4-5, 6-7, 8-9, 10-12, 13-29, 30-32

Standards Data

Test	Workgroup	Batch
VmAvph Soil	qc 26797	BH 2435
VmAvph AB	qc 26798	BH 2436
VmAvph AB	qc 26799	BH 2437

Standards Data

Lot #	Description	Expiration
qv16577	cc 2500 ug/ml	12/28/16
qv16578	Sun	↓
qv16565	Sun Sure 250	12/21/16
qv16171H	1,35 tmb 1000	4/30/17
qv16170C	VPH 2000	5/9/17

Date of ICAL: 10-31-16 ICAL Verified: Seq. Verification: [illegible] 10-12, 13-29, 30-32

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	Dil. Fact.	pH	Comments
BH 40,781	WAVMOP	N/A	qc 26797	VmAvph	1	W	1ml qv16577	N/A	N/A	
82	AB Conical 50				2	12/9/16 W	1ml qv16577			
83	AB mb		20g 20ml		3	S	5ml 1ml/5ml			
84	AB bsp				4					
85	AB bsd				5					
86	mc49032-1	1	12.415g 11ml		6					sim high conc 12/9/16
87	mc49008-1	1	10.068g 16ml		7					sim low
88	clean w502.2				8	W	5ml DI			
89	mc49029-1	7	qc 26798		9		5ml		<2	
90	-1ms	8			10		+1ml qv16577			
91	-1msd	9			11					
92	AB Conical 50	N/A			12		1ml qv16577		N/A	
93	mc48999-1	5			13		5ml		<2	
94	-2	5			14					
95	-3	5			15					
96	-7	5			16					
97	-8	5			17					
98	-9	5			18					
99	-10	5			19					
40,100	mc49033-7	1	qc 26799		20					
01	-5	1			21					
02	-4	1			22					
03	-3	1			23					
04	-2	1			24					
05	-1	1	TB		25					
06	mc48999-4	5	~~TB~~ qc 26798 12/9/16		26					
07	-5	3			27					

Continued 12/9/16

GC001-07 Date: 4/27/16 Dilution Solvent:_____ Lot Number:_____ pH Paper Lot:_____

Review:_____

MTX = Matrix: Designate W for water, S for soil, O for oil, A for air. *Note: If sample matrix is soil – method SW846 5035 used for preparation SW846 5030 for water/soil P&T. Sample amount is reported in grams (wet) for soil and oil, mls for water, mg/m3 for air.

2

7.6.2

7

SGS ACCUTEST

Instrument: GC 28 (BH)

VOLATILE ORGANICS BY GC ANALYSIS LOG

Page 2 of 2

Date: 12/9/16

Analyst Signature: alf

Column:

Standards Data

Test	Workgroup	Batch
		see

Standards Data

Lot #	Description	Expiration
	prior	page

Method:

GC Seq. File:

Method Files:

AS Seq. File:

Date of ICAL: ICAL Verified: Seq. Verification:

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	Dil. Fact.	pH	Comments
BH 10,168	mc48999-6	5	gc26798	8mAugh	28	W	5ml	N/A	<2	
09	mc49033-6	1	gc26799		29					
10	-6mS-2 12/9/16	2			30		+1ml gv16577			
11	-6mSB	3			31					
12	Concal 50	N/A			32		1ml gv16577		N/A	
										12/9/16 alf

GC001-07 Date: 4/27/16 Dilution Solvent: Lot Number: pH Paper Lot:

Review:

MTX = Matrix: Designate W for water, S for soil, O for oil, A for air. *Note: If sample matrix is soil – method SW846 5035 used for preparation SW846 5030 for water/soil P&T. Sample amount is reported in grams (wet) for soil and oil, mls for water, mg/m3 for air.

3

7.6.2

7

12/9/16 Vanaugh Soil cl4

mb Extract
20g sand Fisher 156690
19ml meoH Fisher 158718
1ml Surrogate 50ug/ml qv16565 Exp 12/21/16
for OI 1ml Extract to 50ml DI ~~sum~~ recovery 50ppb

bsp/bsd
20g sand Fisher 156690
19ml meoH Fisher 158718
1ml surrogate 50ug/ml qv16565 Exp 12/21/16
0.050ml 1,3,5-Tmb 1000ug/ml Exp 4/30/17
0.025ml VPH 2000ug/ml Exp 5/9/17
for OI 5ml of 0.1ml Extract to 5ml FV
FC 50 ~~ug/ml~~ 12/9/16 ppb each surrogate + analytes

Samples

mc49032-1 11ml's total
12.415g
10ml
1ml surrogate 50ug/ml qv16565 Exp 12/21/16
for OI 1ml/50ml DF Extract FC sure 90.9ppb

mc 49008-1 10.065g
15ml
1ml surrogate 50ug/ml Exp 12/21/16
for OI 1ml extract/50ml DI FC sure 62.5ppb

Page 0001A

SGS ACCUTEST MC48999

ACCUTEST

Methanol Prep Log

Vial #:	Sample ID:	Initial Tare Wt (g)	Total Wt (g)	Sample Wt (g)	Comments:
050216-3:10646	MC49008-1.1	40.05	50.118	10.068	15ml + 1mesuvv s/m Low
080116-3:51368	MC49032-1.1	36.220	48.635	12.415	10ml ↓

Analyst: aaf Date: 12/9/16

Page 1 of 1

Data File Name	BH40782.d
Operator	tonyf
Date Acquired	12/9/2016 8:05
Sample Name	**cc2394-50**
Sample Multiplier	1

Name FID	Target Response		Continuing CF	Initial CF	Percent Difference	Out of Criteria
rt5.5-7	36211086	C5 - C8 area	CF	CF		
rt7/10	43099895	132105931	880706	960679	**8.32**	
rt10/13	52794950					
rt20/25	48834548					
decane	48877596	C9-C12 area				
butylcyclohexane	52740732	150452876	1003019	1101673	**8.95**	

jfh 04/23/02
edited for decane butylcylclohexane 02/18/08 andrip
edited for 50ppb ck 072104 aa
Analyst/date: 12/9/16 g

Edit: Methylpentane, Iso-octane to 50.
ZM April 14,2005
aromatic format edit jfh 083005
%drift jfh 10/04/05

SGS ACCUTEST MC48999

Data File Name	BH40792.d
Operator	tonyf
Date Acquired	12/9/2016 13:51
Sample Name	**cc2394-50**
Sample Multiplier	1

Name FID	Target Response		Continuing CF	Initial CF	Percent Difference	Out of Criteria
rt5.5-7	35747073	C5 - C8 area	CF	CF		
rt7/10	42296569	130122800	867485	960679	**9.70**	
rt10/13	52079157					
rt20/25	48750404					
decane	48818738	C9-C12 area				
butylcyclohexane	52291850	149860992	999073	1101673	**9.31**	

jfh 04/23/02
edited for decane butylcylclohexane 02/18/08 andrip
edited for 50ppb ck 072104 aa
Analyst/date: 12/12/16 aof

Edit: Methylpentane, Iso-octane to 50.
ZM April 14,2005
aromatic format edit jfh 083005
%drift jfh 10/04/05

SGS ACCUTEST MC48999

SGS ACCUTEST

Instrument: GC 28 (BH)

VOLATILE ORGANICS BY GC ANALYSIS LOG page 1 of 2

Date: 12/9/16 Analyst Signature: [illegible]

Column: mtx 502.2

Method: BHVPH1

GC Seq. File: BH 161209.S

Method Files: BH 161209 VPH cc 2394-50

AS Seq. File: 1-2, 3-3, 4-5, 6-7, 8-9, 10-12, 13-29, 30-32

Standards Data

Test	Workgroup	Batch
VMAVPH Soil	qc 26797	BH 2435
VMAVPH Aq	qc 26798	BH 2436
VMAVPH Aq	qc 26799	BH 2437

Standards Data

Lot #	Description	Expiration
qv16577	cc 2394 50 ug/ml	12/23/16
qv16578	Surr	↓
qv16565	5ml SurrR50	12/21/16
qv16171H	1,3,5 tmb 1000	4/30/17
qv16170C	VPH 2000	5/9/17

Date of ICAL: 10-31-16 ICAL Verified: Seq. Verification: [illegible] 10-12, 13-29, 30-32

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	Dil. Fact.	pH	Comments
BH40,781	WASMOP	N/A	qc26797	VMAVPH	1	W	1ml qv16577	N/A	N/A	
83	AB Conical 50				2	12/9/16 W	1ml qv16577			
83	AB mb		20g	20ml	3	S	5ml of 1ml/50ml			
84	AB bsp				4					
85	AB bsd				5					
86	mc49632-1	1	12.415g	11ml	6					Sim High 12/14/16
87	mc49008-1	1	10.068g	16ml	7					Sim Low
88	clean w502.2				8	W	5ml DI			
89	mc49029-1	7	qc26798		9		5ml		<2	
90	-1ms	8			10		+1ml qv16577			
91	-1msD	9			11					
92	AB Conical 50	N/A			12		1ml qv16577		N/A	
93	mc48999-1	5			13		5ml		<2	
94	-2	5			14					
95	-3	5			15					
96	-7	5			16					
97	-8	5			17					
98	-9	5			18					
99	-10	5			19					
40,100	mc49033-7	1	qc26799		20					
01	-5	1			21					
02	-4	1			22					
03	-3	1			23					
04	-2	1			24					
05	-1	1	TB		25					
06	mc48999-4	5	~~TB~~ qc26798 12/9/16		26					
07	-5	3			27					

Continued 12/9/16

GC001-07 Date: 4/27/16 Dilution Solvent:_____ Lot Number:_____ pH Paper Lot:_____

Review:_____

MTX = Matrix: Designate W for water, S for soil, O for oil, A for air. *Note: If sample matrix is soil – method SW846 5035 used for preparation SW846 5030 for water/soil P&T. Sample amount is reported in grams (wet) for soil and oil, mls for water, mg/m3 for air.

2

7.6.3

7

SGS ACCUTEST

Instrument: GC 28 (BH)

VOLATILE ORGANICS BY GC ANALYSIS LOG

Page 2 of 2

Date: 12/9/16 Analyst Signature: alf

Column:

Standards Data

Test	Workgroup	Batch
		see

Standards Data

Lot #	Description	Expiration
	prev	page

Method:
GC Seq. File:
Method Files:

AS Seq. File:

Date of ICAL: ICAL Verified: Seq. Verification:

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	Dil. Fact.	pH	Comments
BH 40,168	mc48999-6	5	qc26798	1mAugh	28	W	5mL	n/a	<2	
09	mc49033-6	1	qc26799	↓	29	↓	↓	↓	↓	
10	-6mS-2 12/9/16	2	↓	↓	30	↓	+1ul qv16577	↓	↓	
11	-6mSB	3	↓	↓	31	↓	↓	↓	↓	
12	B Concal 50	n/a	↓	↓	32	↓	1ul qv16577	↓	n/a	
										12/9/16 alf

GC001-07 Date: 4/27/16 Dilution Solvent: Lot Number: pH Paper Lot:
Review:

MTX = Matrix: Designate W for water, S for soil, O for oil, A for air. *Note: If sample matrix is soil – method SW846 5035 used for preparation SW846 5030 for water/soil P&T. Sample amount is reported in grams (wet) for soil and oil, mls for water, mg/m3 for air.

12/9/16 Vmaugh Soil ad4

mb Extract
20g sand Fisher 156690
19ml meoH Fisher 158718
1ml Surrogate 50ug/ml gv16565 Exp 12/21/16
for OI 1ml Extract to 50ml DI spike recovery 50ppb

bsp/bsd
20g sand Fisher 156690
19ml meoH Fisher 158718
1ml surrogate 50ug/ml gv16565 Exp 12/21/16
0.050ml 1,3,5-trib 1000ug/ml Exp 4/30/17
0.025ml VPH 2000ug/ml Exp 5/9/17
for OI 5ml of 0.1ml Extract to 5ml FV
FC 50ppb each surrogate + analytes
12/9/16

Samples

mc49032-1 11ml's total
12.415g
10ml
1ml surrogate 50ug/ml gv16565 Exp 12/21/16
for OI 1ml/50ml DF Extract FC sure 90.9ppb

mc49008-1 10.065g
15ml
1ml surrogate 50ug/ml Exp 12/21/16
for OI 1ml extract/50ml DI FC sure 63.5ppb

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SGS ACCUTEST MC48999

 A-file

Data File Name	BH40782.d
Operator	tonyf
Date Acquired	12/9/2016 8:05
Sample Name	**cc2394-50**
Sample Multiplier	1

Name FID	Target Response		Continuing CF	Initial CF	Percent Difference	Out of Criteria
rt5.5-7	36211086	C5 - C8 area	CF	CF		
rt7/10	43099895	132105931	880706	960679	**8.32**	
rt10/13	52794950					
rt20/25	48834548					
decane	48877596	C9-C12 area				
butylcyclohexane	52740732	150452876	1003019	1101673	**8.95**	

jfh 04/23/02
edited for decane butylcylclohexane 02/18/08 andrip
edited for 50ppb ck 072104 aa
Analyst/date: 12/9/16 aif

Edit: Methylpentane, Iso-octane to 50.
ZM April 14,2005
aromatic format edit jfh 083005
%drift jfh 10/04/05

 A file

Data File Name	BH40792.d
Operator	tonyf
Date Acquired	12/9/2016 13:51
Sample Name	**cc2394-50**
Sample Multiplier	1

Name FID	Target Response		Continuing CF	Initial CF	Percent Difference	Out of Criteria
rt5.5-7	35747073	C5 - C8 area	CF	CF		
rt7/10	42296569	130122800	867485	960679	**9.70**	
rt10/13	52079157					
rt20/25	48750404					
decane	48818738	C9-C12 area				
butylcyclohexane	52291850	149860992	999073	1101673	**9.31**	

jfh 04/23/02
edited for decane butylcylclohexane 02/18/08 andrip
edited for 50ppb ck 072104 aa
Analyst/date: 12/12/16 acf

Edit: Methylpentane, Iso-octane to 50.
ZM April 14,2005
aromatic format edit jfh 083005
%drift jfh 10/04/05

7.6.3

7

Data File Name	BH40812.d
Operator	tonyf
Date Acquired	12/10/2016 1:23
Sample Name	**cc2394-50**
Sample Multiplier	1

Name FID	Target Response		Continuing CF	Initial CF	Percent Difference	Out of Criteria
rt5.5-7	33804927	C5 - C8 area	CF	CF		
rt7/10	40367985	123599451	823996	960679	**14.23**	
rt10/13	49426540					
rt20/25	46501430					
decane	46431446	C9-C12 area				
butylcyclohexane	49605742	142538617	950257	1101673	**13.74**	

jfh 04/23/02
edited for decane butylcylclohexane 02/18/08 andrip
edited for 50ppb ck 072104 aa
Analyst/date: 12/12/16 aey

Edit: Methylpentane, Iso-octane to 50.
ZM April 14,2005
aromatic format edit jfh 083005
%drift jfh 10/04/05

SGS ACCUTEST MC48999

SGS ACCUTEST

Instrument: GC 28 (BH)

VOLATILE ORGANICS BY GC ANALYSIS LOG page 1 of 2

Date: 12/9/16 Analyst Signature: [signature]

Column: mtx 502.2

Method: BHVPH1

GC Seq. File: BH 161209.5

Method Files: BH 161209 VPH CC 2394-50

AS Seq. File: 1-2, 3-3, 4-5, 6-7, 8-9,

Standards Data

Test	Workgroup	Batch
VMAVPH Soil	qc 26797	qBH 2435
VMAVPH AQ	qc 26798	qBH 2436
VMAVPH AQ	qc 26799	qBH 2437

Standards Data

Lot #	Description	Expiration
qv16577	CC 2394 qml	12/23/16
qv16578	Sum	
qv16565	Sm CS2 QR50	12/21/16
qv161714	1,3,5 tmb 1000	4/30/17
qv161700	VPH 2000	5/9/17

Date of ICAL: 10-31-16 ICAL Verified: Seq. Verification: 10-12, 13-29, 30-32

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	Dil. Fact.	pH	Comments
BH 40,781	WAVMOP	N/A	qc 26797	VMAVPH	1	W	1ml qv16577	N/A	N/A	
82	AB Concal 50				2	12/9/16 W	1ml qv16577			
83	AB mb		20g 20ml		3	S	5ml of 1ml/5ml			
84	AB bsp				4					
85	AB bsd				5					
86	mc49632-1	1	12.415g 11ml		6					Sim High Dil 12/9/16
87	mc49008-1	1	10.068g 16ml		7					Sim Low
88	clean w SQR				8	W	5ml DI			
89	mc49029-1	7	qc 26798		9		5ml		<2	
90	-1ms	8			10		+1ml qv16577			
91	-1msd	9			11					
92	AB Concal 50	N/A			12		1ml qv16577		N/A	
93	mc48999-1	5			13		5ml		<2	
94	-2	5			14					
95	-3	5			15					
96	-7	5			16					
97	-8	5			17					
98	-9	5			18					
99	-10	5			19					
40,100	mc49033-7	1	qc 26799		20					
01	-5	1			21					
02	-4	1			22					
03	-3	1			23					
04	-2	1			24					
05	-1	1	TB		25					
06	mc48999-4	5	~~TB~~ qc 26798 12/9/16		26					
07	-5	3			27					

Continued 12/9/16

GC001-07 Date: 4/27/16 Dilution Solvent:_____ Lot Number:_____ pH Paper Lot:_____

Review:_____

MTX = Matrix: Designate W for water, S for soil, O for oil, A for air. *Note: If sample matrix is soil – method SW846 5035 used for preparation SW846 5030 for water/soil P&T. Sample amount is reported in grams (wet) for soil and oil, mls for water, mg/m3 for air.

2

7.6.4

7

SGS ACCUTEST

Instrument: GC 28 (BH)

VOLATILE ORGANICS BY GC ANALYSIS LOG

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Date: 12/9/16 Analyst Signature: alf

Column:

Standards Data

Test	Workgroup	Batch
		see

Standards Data

Lot #	Description	Expiration
	prior	page

Method:
GC Seq. File:
Method Files:

AS Seq. File:

Date of ICAL: ICAL Verified: Seq. Verification:

Data File	Sample ID	Bot No.	Work Group	Test	ALS #	*MTX	Samp Amt.	Dil. Fact.	pH	Comments
BH 70,168	mc48999-6	5	gc26798	1mAugh	28	W	5ml	N/A	12	
09	mc49033-6	1	gb26799		29					
10	-6mS-2 12/9/16	2			30		+1ml gv16577			
11	-6mSB	3			31					
12	Concal 50	N/A			32		1ml gv16577		N/A	
										12/9/16 alf

GC001-07 Date: 4/27/16 Dilution Solvent: Lot Number: pH Paper Lot:
Review:

MTX = Matrix: Designate W for water, S for soil, O for oil, A for air. *Note: If sample matrix is soil – method SW846 5035 used for preparation SW846 5030 for water/soil P&T. Sample amount is reported in grams (wet) for soil and oil, mls for water, mg/m3 for air.

3

7.6.4

7

12/9/16 Vmaugh Soil cal4

mb Extract
20g sand Fisher 156690
19ml meoH Fisher 158718
1ml Surrogate 50ug/ml qv16565 Exp 12/21/16
for 0.1 ml Extract to 50ml DI SWW recovery 50ppb

bsp/bsd
20g sand Fisher 156690
19ml meoH Fisher 158718
1ml surrogate 50ug/ml qv16565 Exp 12/21/16
0.050 ml 1,3,5-Tmb 1000ug/ml Exp 4/30/17
0.025ml VPH 2000ug/ml Exp 5/9/17
for 0.1 ml of 0.1ml Extract to 5ml FV
FC 50 ~~ug/ml~~ 12/9/16 ppb each surrogate + analytes

Sampleles

mc49052-1 11ml's total
12.415g
10ml
1ml surrogate 50ug/ml qv16565 Exp 12/21/16
for 0.1 1ml/50ml DF Extract FC SURR 90.9ppb

mc 49008-1 10.065g
15ml
1ml surrogate 50ug/ml Exp 12/21/16
for 0.1 1ml extract/50ml DI FC SURR 63.5ppb

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SGS ACCUTEST MC48999

 B file

Data File Name	BH40782.d
Operator	tonyf
Date Acquired	12/9/2016 8:05
Sample Name	**cc2394-50**
Sample Multiplier	1

Name FID	Target Response		Continuing CF	Initial CF	Percent Difference	Out of Criteria
rt5.5-7	36211086	C5 - C8 area	CF	CF		
rt7/10	43099895	132105931	880706	960679	**8.32**	
rt10/13	52794950					
rt20/25	48834548					
decane	48877596	C9-C12 area				
butylcyclohexane	52740732	150452876	1003019	1101673	**8.95**	

jfh 04/23/02
edited for decane butylcylclohexane 02/18/08 andrip
edited for 50ppb ck 072104 aa
Analyst/date: 12/9/16 aof

Edit: Methylpentane, Iso-octane to 50.
ZM April 14,2005
aromatic format edit jfh 083005
%drift jfh 10/04/05

 B file

Data File Name	BH40792.d
Operator	tonyf
Date Acquired	12/9/2016 13:51
Sample Name	**cc2394-50**
Sample Multiplier	1

Name FID	Target Response		Continuing CF	Initial CF	Percent Difference	Out of Criteria
rt5.5-7	35747073	C5 - C8 area	CF	CF		
rt7/10	42296569	130122800	867485	960679	**9.70**	
rt10/13	52079157					
rt20/25	48750404					
decane	48818738	C9-C12 area				
butylcyclohexane	52291850	149860992	999073	1101673	**9.31**	

jfh 04/23/02
edited for decane butylcylclohexane 02/18/08 andrip
edited for 50ppb ck 072104 aa
Analyst/date: 12/12/16 aof

Edit: Methylpentane, Iso-octane to 50.
ZM April 14,2005
aromatic format edit jfh 083005
%drift jfh 10/04/05

7.6.4

7

 B file

Data File Name	BH40812.d
Operator	tonyf
Date Acquired	12/10/2016 1:23
Sample Name	**cc2394-50**
Sample Multiplier	1

Name FID	Target Response		Continuing CF	Initial CF	Percent Difference	Out of Criteria
rt5.5-7	33804927	C5 - C8 area	CF	CF		
rt7/10	40367985	123599451	823996	960679	**14.23**	
rt10/13	49426540					
rt20/25	46501430					
decane	46431446	C9-C12 area				
butylcyclohexane	49605742	142538617	950257	1101673	**13.74**	

jfh 04/23/02
edited for decane butylcylclohexane 02/18/08 andrip
edited for 50ppb ck 072104 aa
Analyst/date: 12/12/16 aff

Edit: Methylpentane, Iso-octane to 50.
ZM April 14,2005
aromatic format edit jfh 083005
%drift jfh 10/04/05

7.6.4

7

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP49287-MB	DE16412.D	1	12/19/16	TA	12/15/16	OP49287	GDE916

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

MC48999-1, MC48999-2, MC48999-3, MC48999-4, MC48999-5, MC48999-6, MC48999-7, MC48999-8, MC48999-9

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	44.6	100	29	ug/l	J
	C11-C22 Aromatics	44.6	100	29	ug/l	J

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	77%	40-140%
321-60-8	2-Fluorobiphenyl	75%	40-140%
3386-33-2	1-Chlorooctadecane	44%	40-140%
580-13-2	2-Bromonaphthalene	77%	40-140%

Method Blank Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP49293-MB	DE16446.D	1	12/20/16	TA	12/19/16	OP49293	GDE918

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

MC48999-10

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	100	29	ug/l	
	C11-C22 Aromatics	ND	100	29	ug/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	60%	40-140%
321-60-8	2-Fluorobiphenyl	60%	40-140%
3386-33-2	1-Chlorooctadecane	45%	40-140%
580-13-2	2-Bromonaphthalene	62%	40-140%

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP49287-BS	DE16434.D	1	12/20/16	TA	12/15/16	OP49287	GDE916
OP49287-BSD	DE16414.D	1	12/19/16	TA	12/15/16	OP49287	GDE916

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

MC48999-1, MC48999-2, MC48999-3, MC48999-4, MC48999-5, MC48999-6, MC48999-7, MC48999-8, MC48999-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
	C11-C22 Aromatics (Unadj.)	800	605	76	843	105	33* [a]	40-140/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	82%	107%	40-140%
321-60-8	2-Fluorobiphenyl	103%	89%	40-140%
3386-33-2	1-Chlorooctadecane	56%	43%	40-140%
580-13-2	2-Bromonaphthalene	108%	92%	40-140%

Sample	Compound	Col #1	Col #2	Breakthrough	Limit
OP49287-BS	2-Methylnaphthalene	23.8	ND	0.0%	5.0
OP49287-BS	Naphthalene	20.9	ND	0.0%	5.0
OP49287-BSD	2-Methylnaphthalene	31.6	ND	0.0%	5.0
OP49287-BSD	Naphthalene	26.3	ND	0.0%	5.0

(a) Range recovery satisfactory.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP49293-BS	DE16447.D	1	12/20/16	TA	12/19/16	OP49293	GDE918
OP49293-BSD	DE16448.D	1	12/20/16	TA	12/19/16	OP49293	GDE918

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

MC48999-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
	C11-C22 Aromatics (Unadj.)	800	584	73	635	79	8	40-140/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	78%	82%	40-140%
321-60-8	2-Fluorobiphenyl	72%	70%	40-140%
3386-33-2	1-Chlorooctadecane	60%	53%	40-140%
580-13-2	2-Bromonaphthalene	74%	73%	40-140%

Sample	Compound	Col #1	Col #2	Breakthrough	Limit
OP49293-BS	2-Methylnaphthalene	24.4	ND	0.0%	5.0
OP49293-BS	Naphthalene	21.2	ND	0.0%	5.0
OP49293-BSD	2-Methylnaphthalene	25.1	ND	0.0%	5.0
OP49293-BSD	Naphthalene	21.4	ND	0.0%	5.0

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP49287-MS	DE16415.D	1	12/19/16	TA	12/15/16	OP49287	GDE916
OP49287-MSD	DE16416.D	1	12/19/16	TA	12/15/16	OP49287	GDE916
MC49053-11	DE16431.D	1	12/20/16	TA	12/15/16	OP49287	GDE916

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

MC48999-1, MC48999-2, MC48999-3, MC48999-4, MC48999-5, MC48999-6, MC48999-7, MC48999-8, MC48999-9

CAS No.	Compound	MC49053-11 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
	C11-C22 Aromatics (Unadj.)	119	B	816	633	63	800	700	73	10	40-140/25

CAS No.	Surrogate Recoveries	MS	MSD	MC49053-11	Limits
84-15-1	o-Terphenyl	66%	71%	68%	40-140%
321-60-8	2-Fluorobiphenyl	81%	77%	72%	40-140%
3386-33-2	1-Chlorooctadecane	39%* [a]	41%	44%	40-140%
580-13-2	2-Bromonaphthalene	83%	79%	74%	40-140%

(a) Outside control limits due to possible matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP49293-MS	DE16449.D	1	12/20/16	TA	12/19/16	OP49293	GDE918
OP49293-MSD	DE16450.D	1	12/20/16	TA	12/19/16	OP49293	GDE918
MC49029-1	DE16473.D	1	12/21/16	TA	12/19/16	OP49293	GDE919

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

MC48999-10

CAS No.	Compound	MC49029-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
	C11-C22 Aromatics (Unadj.)	36.8	J	851	758	85	889	625	66	19	40-140/25

CAS No.	Surrogate Recoveries	MS	MSD	MC49029-1	Limits
84-15-1	o-Terphenyl	91%	72%	76%	40-140%
321-60-8	2-Fluorobiphenyl	80%	70%	67%	40-140%
3386-33-2	1-Chlorooctadecane	44%	47%	52%	40-140%
580-13-2	2-Bromonaphthalene	82%	73%	70%	40-140%

* = Outside of Control Limits.

Semivolatile Surrogate Recovery Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Method: MADEP EPH REV 1.1 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S2 [a]	S3 [b]	S4 [a]
MC48999-1	DE16440.D	66	80	30* [c]	83
MC48999-1	DE16417.D	55	68	26* [c]	71
MC48999-2	DE16418.D	70	69	44	72
MC48999-3	DE16441.D	76	74	40	78
MC48999-4	DE16420.D	73	69	46	72
MC48999-5	DE16442.D	48	64	34* [c]	67
MC48999-5	DE16421.D	55	75	30* [c]	77
MC48999-6	DE16423.D	88	74	55	77
MC48999-7	DE16424.D	83	75	45	79
MC48999-8	DE16425.D	69	70	43	72
MC48999-9	DE16426.D	71	70	44	72
MC48999-10	DE16462.D	75	71	46	72
OP49287-BS	DE16434.D	82	103	56	108
OP49287-BSD	DE16414.D	107	89	43	92
OP49287-MB	DE16412.D	77	75	44	77
OP49287-MS	DE16415.D	66	81	39* [d]	83
OP49287-MSD	DE16416.D	71	77	41	79
OP49293-BS	DE16447.D	78	72	60	74
OP49293-BSD	DE16448.D	82	70	53	73
OP49293-MB	DE16446.D	60	60	45	62
OP49293-MS	DE16449.D	91	80	44	82
OP49293-MSD	DE16450.D	72	70	47	73

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	40-140%
S2 = 2-Fluorobiphenyl	40-140%
S3 = 1-Chlorooctadecane	40-140%
S4 = 2-Bromonaphthalene	40-140%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2
(c) Outside control limits due to possible matrix interference. Confirmed by refractionation/reanalysis.
(d) Outside control limits due to possible matrix interference.

GC Surrogate Retention Time Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Check Std:	GDE916-CC908	**Injection Date:**	12/19/16
Lab File ID:	DE16411.D	**Injection Time:**	17:47
Instrument ID:	GCDE	**Method:**	MADEP EPH REV 1.1

	S1 [a] RT	S2 [a] RT	S3 [b] RT	S4 [a] RT
Check Std	10.53	7.23	11.06	7.97

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT	S3 [b] RT	S4 [a] RT
OP49287-MB	DE16412.D	12/19/16	19:31	10.53	7.23	11.07	7.98
OP49287-BSD	DE16414.D	12/19/16	20:25	10.53	7.22	11.06	7.97
OP49287-MS	DE16415.D	12/19/16	20:53	10.53	7.22	11.07	7.97
OP49287-MSD	DE16416.D	12/19/16	21:20	10.53	7.22	11.06	7.97
MC48999-1	DE16417.D	12/19/16	21:48	10.53	7.22	11.07	7.97
MC48999-2	DE16418.D	12/19/16	22:16	10.53	7.22	11.06	7.97
MC48999-4	DE16420.D	12/19/16	23:11	10.53	7.22	11.07	7.97
MC48999-5	DE16421.D	12/19/16	23:39	10.53	7.22	11.07	7.97

Surrogate Compounds

S1 = o-Terphenyl
S2 = 2-Fluorobiphenyl
S3 = 1-Chlorooctadecane
S4 = 2-Bromonaphthalene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Check Std:	GDE916-CC908	**Injection Date:**	12/20/16
Lab File ID:	DE16422.D	**Injection Time:**	00:07
Instrument ID:	GCDE	**Method:**	MADEP EPH REV 1.1

	S1 [a] RT	S2 [a] RT	S3 [b] RT	S4 [a] RT
Check Std	10.53	7.23	11.06	7.98

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT	S3 [b] RT	S4 [a] RT
MC48999-6	DE16423.D	12/20/16	00:35	10.53	7.22	11.07	7.97
MC48999-7	DE16424.D	12/20/16	01:03	10.53	7.22	11.07	7.97
MC48999-8	DE16425.D	12/20/16	01:31	10.53	7.22	11.07	7.97
MC48999-9	DE16426.D	12/20/16	01:58	10.53	7.22	11.07	7.97
ZZZZZZ	DE16427.D	12/20/16	02:25	10.53	7.22	11.06	7.97
ZZZZZZ	DE16430.D	12/20/16	03:49	10.53	7.22	11.07	7.97
MC49053-11	DE16431.D	12/20/16	04:17	10.53	7.22	11.06	7.97
ZZZZZZ	DE16432.D	12/20/16	04:45	10.53	7.22	11.07	7.97

Surrogate Compounds

S1 = o-Terphenyl
S2 = 2-Fluorobiphenyl
S3 = 1-Chlorooctadecane
S4 = 2-Bromonaphthalene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Check Std:	GDE916-CC908	**Injection Date:**	12/20/16
Lab File ID:	DE16433.D	**Injection Time:**	05:13
Instrument ID:	GCDE	**Method:**	MADEP EPH REV 1.1

	S1 [a] RT	S2 [a] RT	S3 [b] RT	S4 [a] RT
Check Std	10.53	7.23	11.07	7.97

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT	S3 [b] RT	S4 [a] RT
OP49287-BS	DE16434.D	12/20/16	08:37	10.53	7.22	11.06	7.97
GDE916-ECC908	DE16436.D	12/20/16	09:33	10.53	7.22	11.06	7.97

Surrogate Compounds

S1 = o-Terphenyl
S2 = 2-Fluorobiphenyl
S3 = 1-Chlorooctadecane
S4 = 2-Bromonaphthalene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Check Std:	GDE917-CC908	**Injection Date:**	12/20/16
Lab File ID:	DE16437.D	**Injection Time:**	11:09
Instrument ID:	GCDE	**Method:**	MADEP EPH REV 1.1

	S1 [a] RT	S2 [a] RT	S3 [b] RT	S4 [a] RT
Check Std	10.53	7.22	11.06	7.97

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT	S3 [b] RT	S4 [a] RT
ZZZZZZ	DE16438.D	12/20/16	12:00	10.53	7.22	11.07	7.97
ZZZZZZ	DE16439.D	12/20/16	12:28	10.53	7.22	11.07	7.97
MC48999-1	DE16440.D	12/20/16	12:56	10.53	7.22	11.07	7.97
MC48999-3	DE16441.D	12/20/16	13:24	10.53	7.22	11.07	7.97
MC48999-5	DE16442.D	12/20/16	13:52	10.53	7.22	11.07	7.97
ZZZZZZ	DE16443.D	12/20/16	14:20	10.53	7.22	11.06	7.97

Surrogate Compounds

S1 = o-Terphenyl
S2 = 2-Fluorobiphenyl
S3 = 1-Chlorooctadecane
S4 = 2-Bromonaphthalene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Check Std:	GDE917-CC908	**Injection Date:**	12/20/16
Lab File ID:	DE16444.D	**Injection Time:**	14:48
Instrument ID:	GCDE	**Method:**	MADEP EPH REV 1.1

	S1 [a] RT	S2 [a] RT	S3 [b] RT	S4 [a] RT
Check Std	10.53	7.22	11.06	7.97

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT	S3 [b] RT	S4 [a] RT
OP49293-MB	DE16446.D	12/20/16	18:33	10.53	7.23	11.07	7.98
OP49293-BS	DE16447.D	12/20/16	19:01	10.53	7.22	11.06	7.97
OP49293-BSD	DE16448.D	12/20/16	19:28	10.53	7.22	11.06	7.97
OP49293-MS	DE16449.D	12/20/16	19:56	10.53	7.22	11.06	7.97
OP49293-MSD	DE16450.D	12/20/16	20:24	10.53	7.22	11.06	7.97
ZZZZZZ	DE16451.D	12/20/16	20:52	10.53	7.22	11.07	7.97
ZZZZZZ	DE16452.D	12/20/16	21:20	10.53	7.22	11.07	7.97
ZZZZZZ	DE16454.D	12/20/16	22:16	10.53	7.22	11.07	7.97
ZZZZZZ	DE16455.D	12/20/16	22:44	10.53	7.22	11.07	7.97

Surrogate Compounds

S1 = o-Terphenyl
S2 = 2-Fluorobiphenyl
S3 = 1-Chlorooctadecane
S4 = 2-Bromonaphthalene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Check Std:	GDE918-CC908	**Injection Date:**	12/20/16
Lab File ID:	DE16456.D	**Injection Time:**	23:13
Instrument ID:	GCDE	**Method:**	MADEP EPH REV 1.1

	S1 [a] RT	S2 [a] RT	S3 [b] RT	S4 [a] RT
Check Std	10.53	7.23	11.06	7.98

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT	S3 [b] RT	S4 [a] RT
ZZZZZZ	DE16457.D	12/20/16	23:40	10.53	7.22	11.07	7.97
ZZZZZZ	DE16458.D	12/21/16	00:08	10.53	7.22	11.07	7.97
ZZZZZZ	DE16459.D	12/21/16	00:36	10.53	7.22	11.07	7.97
ZZZZZZ	DE16460.D	12/21/16	01:04	10.53	7.22	11.07	7.97
MC48999-10	DE16462.D	12/21/16	02:00	10.53	7.22	11.06	7.97
ZZZZZZ	DE16463.D	12/21/16	02:28	10.53	7.22	11.07	7.97
ZZZZZZ	DE16464.D	12/21/16	02:56	10.53	7.22	11.07	7.97
ZZZZZZ	DE16465.D	12/21/16	03:24	10.53	7.22	11.07	7.97

Surrogate Compounds

S1 = o-Terphenyl
S2 = 2-Fluorobiphenyl
S3 = 1-Chlorooctadecane
S4 = 2-Bromonaphthalene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico
Sample: GDE908-ICC908
Lab FileID: DE16238.D

Response Factor Report GCDE

Method : C:\msdchem\1\METHODS\EPH161207W.M (RTE Integrator)
Title : BMAEPH-working method
Last Update : Wed Dec 07 09:55:58 2016
Response via : Initial Calibration

Calibration Files
1 =de16240.d 2 =de16239.d 3 =de16238.d 4 =de16237.d
5 =de16236.d 6 =de16235.d 7 =de16234.d

Compound	1	2	3	4	5	6	7	Avg	%RSD
1)h c11-c22 Aromatics	9.994							9.994 E4	0.00
2) naphthalene	0.838	0.899	0.959	1.127	1.050	0.970	1.007	0.978 E5	9.73
3) 2-methylnaphthale	0.811	0.868	0.922	1.094	1.024	0.943	0.999	0.952 E5	10.11
4)s 2-fluorobiphenyl	0.745	0.796	0.843	1.006	0.946	0.875	0.910	0.874 E5	10.18
5) acenaphthylene	0.812	0.865	0.911	1.093	1.036	0.964	1.013	0.956 E5	10.42
6)s 2-bromonaphthalen	5.062	5.380	5.648	6.798	6.596	5.991	6.235	5.959 E4	10.67
7) acenaphthene	0.821	0.871	0.915	1.099	1.040	0.963	1.006	0.959 E5	10.17
8) fluorene	0.803	0.850	0.886	1.070	1.016	0.945	0.992	0.938 E5	10.23
9) phenanthrene	0.802	0.844	0.874	1.057	1.008	0.947	1.001	0.933 E5	10.17
10) anthracene	0.791	0.833	0.863	1.043	0.994	0.931	0.980	0.919 E5	10.10
11)s o-terphenyl	0.815	0.857	0.887	1.072	1.026	0.965	1.021	0.949 E5	10.24
12) fluoranthene	0.782	0.818	0.846	1.020	0.978	0.923	0.983	0.907 E5	10.18
13) pyrene	0.803	0.838	0.866	1.028	0.978	0.918	0.966	0.914 E5	8.97
14) benzo(a)anthracen	7.703	7.947	8.250	9.912	9.433	8.800	9.252	8.757 E4	9.40
15) chrysene	0.775	0.806	0.836	1.007	0.954	0.889	0.941	0.887 E5	9.59
16) benzo(B)fluoranth	0.787	0.822	0.852	1.011	0.962	0.882	0.945	0.894 E5	9.08
17) benzo(k)fluoranth	7.784	7.829	8.190	9.935	9.449	8.500	8.755	8.635 E4	9.41
18) benzo(a)pyrene	7.630	7.805	8.141	9.772	9.471	8.940	9.776	8.791 E4	10.55
19) indeno(1,2,3-cd)p	7.942	7.953	8.183	9.770	9.319	8.537	8.994	8.671 E4	8.20
20) dibenzo(ah)anthra	7.378	7.568	8.009	9.577	9.095	8.346	8.627	8.372 E4	9.51
21) benzo(ghi)perylen	7.645	7.740	8.097	9.671	9.303	8.700	9.166	8.617 E4	9.33
22)s bht								0.000	-1.00
23) bht								0.000	-1.00

Signal #2

25)h c-9	7.694							7.694 E4	0.00
26)h c-10	7.694							7.694 E4	0.00
27) naphthalene #2	8.039	8.503	8.465	8.557	7.586	7.054	6.030	7.748 E4	12.11
28) c-12	7.694							7.694 E4	0.00
29) 2-methylnaphthale	7.852	8.374	8.341	8.419	7.341	6.910	6.211	7.635 E4	11.15
30) c-14	7.694							7.694 E4	0.00
31) c-16	7.694							7.694 E4	0.00
32) c-18	7.694							7.694 E4	0.00
33) c-19	6.780							6.780 E4	0.00
34) c-20	6.780							6.780 E4	0.00
35)s 1-chlorooctadecan	5.777	5.937	5.951	6.255	5.575	5.455	4.873	5.689 E4	7.83
36) c-22	6.780							6.780 E4	0.00
37) c-24	6.780							6.780 E4	0.00
38) c-26	6.780							6.780 E4	0.00
39) c-28	6.780							6.780 E4	0.00
40)h c-30	6.780							6.780 E4	0.00
41)h c-36	6.780							6.780 E4	0.00
42)s bht								0.000	-1.00
43)s bht								0.000	-1.00
44)s bht								0.000	-1.00
45)s bht								0.000	-1.00

Initial Calibration Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample: GDE908-ICC908
Lab FileID: DE16238.D

(#) = Out of Range

EPH161207W.M Wed Dec 07 15:41:26 2016

Initial Calibration Verification

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico
Sample: GDE908-ICV908
Lab FileID: DE16241.D

Evaluate Continuing Calibration Report

```
Data Path : G:\1\DATA\DE161206aEPH\
Data File : de16241.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: FID2B.ch
Acq On    :  6 Dec 2016   9:23 pm
Operator  : thomasa
Sample    : icv908-50
Misc      : op49223,gde908,1000,,,2,,w
ALS Vial  : 16   Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 10:00:19 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title  : BMAEPH-working method
QLast Update : Wed Dec 07 09:55:58 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  80%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 120%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	97.842	107.839 E3	-10.2	113	0.00
3		2-methylnaphthalene	95.177	105.907 E3	-11.3	115	0.00
4	s	2-fluorobiphenyl	87.433	96.873 E3	-10.8	115	0.00
5		acenaphthylene	95.628	102.375 E3	-7.1	112	0.00
6	s	2-bromonaphthalene	59.587	65.374 E3	-9.7	116	0.00
7		acenaphthene	95.936	107.766 E3	-12.3	118	0.00
8		fluorene	93.753	102.918 E3	-9.8	116	0.00
9		phenanthrene	93.338	101.685 E3	-8.9	116	0.00
10		anthracene	91.929	101.873 E3	-10.8	118	0.00
11	s	o-terphenyl	94.899	104.244 E3	-9.8	117	0.00
12		fluoranthene	90.716	101.381 E3	-11.8	120	0.00
13		pyrene	91.395	101.842 E3	-11.4	118	0.00
14		benzo(a)anthracene	87.568	98.677 E3	-12.7	120	0.00
15		chrysene	88.688	99.146 E3	-11.8	119	0.00
16		benzo(B)fluoranthene	89.426	103.309 E3	-15.5	121#	0.00
17		benzo(k)fluoranthene	86.347	91.558 E3	-6.0	112	0.00
18		benzo(a)pyrene	87.906	97.939 E3	-11.4	120#	0.00
19		indeno(1,2,3-cd)pyrene	86.711	98.294 E3	-13.4	120#	0.00
20		dibenzo(ah)anthracene	83.716	93.057 E3	-11.2	116	0.00
21		benzo(ghi)perylene	86.174	97.343 E3	-13.0	120#	0.00
Signal #2							
25	h	c-9	76.939	82.283 E3	-6.9	0#	0.00
26	h	c-10	76.939	81.928 E3	-6.5	0#	0.00
27		naphthalene #2	77.479	91.181 E3	-17.7	108	0.00
28		c-12	76.939	83.101 E3	-8.0	0#	0.00
29		2-methylnaphthalene #2	76.354	89.260 E3	-16.9	107	0.00
30		c-14	76.939	81.914 E3	-6.5	0#	0.00
31		c-16	76.939	80.317 E3	-4.4	0#	0.00

Initial Calibration Verification

Job Number: MC48999 **Sample:** GDE908-ICV908
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** DE16241.D
Project: BMSMC, Building 5 Area, Puerto Rico

32		c-18	76.939	79.690	E3	-3.6	0#	0.00
33		c-19	67.799	78.240	E3	-15.4	0#	0.00
34		c-20	67.799	76.829	E3	-13.3	0#	0.00
35	s	1-chlorooctadecane	56.891	62.825	E3	-10.4	106	0.00
36		c-22	67.799	75.287	E3	-11.0	0#	0.00
37		c-24	67.799	73.383	E3	-8.2	0#	0.00
38		c-26	67.799	71.725	E3	-5.8	0#	0.00
39		c-28	67.799	70.626	E3	-4.2	0#	0.00
40	h	c-30	67.799	68.871	E3	-1.6	0#	0.00
41	h	c-36	67.799	65.029	E3	4.1	0#	0.00

Evaluate Continuing Calibration Report - Not Founds

1	h	c11-c22 Aromatics (Unadj.)	99.943	0.000	E3	100.0#	0#	-5.82#
22	s	bht	0.000	0.000		0.0	0#	-11.56#
23		bht	0.000	0.000		0.0	0#	-20.00#

Signal #2

42	s	bht	0.000	0.000		0.0	0#	-23.00#
43	s	bht	0.000	0.000		0.0	0#	-23.00#
44	s	bht	0.000	0.000		0.0	0#	-23.00#
45	s	bht	0.000	0.000		0.0	0#	-23.00#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EPH161207W.M Thu Dec 08 08:03:43 2016

8.6.2

8

Continuing Calibration Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico
Sample: GDE916-CC908
Lab FileID: DE16411.D

Evaluate Continuing Calibration Report

```
Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16411.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: FID2B.ch
Acq On    : 19 Dec 2016   5:47 pm
Operator  : thomasa
Sample    : cc908-50,gde916,(aro 50 ali 20) (Sig #1); cc908-50,gde916 (Sig #2)
Misc      : op49276,gde916,1000,,,2,,w
ALS Vial  : 142   Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 07:44:51 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title  : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	97.842	80.843 E3	17.4	84	0.00
3		2-methylnaphthalene	95.177	79.812 E3	16.1	87	0.00
4	s	2-fluorobiphenyl	87.433	73.932 E3	15.4	88	0.00
5		acenaphthylene	95.628	81.724 E3	14.5	90	0.00
6	s	2-bromonaphthalene	59.587	51.142 E3	14.2	91	0.00
7		acenaphthene	95.936	82.631 E3	13.9	90	0.00
8		fluorene	93.753	81.616 E3	12.9	92	0.00
9		phenanthrene	93.338	82.015 E3	12.1	94	0.00
10		anthracene	91.929	80.890 E3	12.0	94	0.00
11	s	o-terphenyl	94.899	82.875 E3	12.7	93	0.00
12		fluoranthene	90.716	79.657 E3	12.2	94	0.00
13		pyrene	91.395	80.379 E3	12.1	93	0.00
14		benzo(a)anthracene	87.568	76.749 E3	12.4	93	0.00
15		chrysene	88.688	77.618 E3	12.5	93	0.00
16		benzo(B)fluoranthene	89.426	75.334 E3	15.8	88	0.00
17		benzo(k)fluoranthene	86.347	79.169 E3	8.3	97	0.00
18		benzo(a)pyrene	87.906	75.142 E3	14.5	92	0.00
19		indeno(1,2,3-cd)pyrene	86.711	78.077 E3	10.0	95	0.00
20		dibenzo(ah)anthracene	83.716	74.103 E3	11.5	93	0.00
21		benzo(ghi)perylene	86.174	76.022 E3	11.8	94	0.00
Signal #2							
25	h	c-9	76.939	30.115 E3	60.9#	0#	0.00
26	h	c-10	76.939	29.600 E3	61.5#	0#	0.00
27		naphthalene #2	77.479	30.711 E3	60.4#	36#	0.00
28		c-12	76.939	30.660 E3	60.2#	0#	0.00
29		2-methylnaphthalene #2	76.354	30.130 E3	60.5#	36#	0.00
30		c-14	76.939	29.802 E3	61.3#	0#	0.00
31		c-16	76.939	29.904 E3	61.1#	0#	0.00

Continuing Calibration Summary

Job Number: MC48999 **Sample:** GDE916-CC908
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** DE16411.D
Project: BMSMC, Building 5 Area, Puerto Rico

32		c-18	76.939	29.976	E3	61.0#	0#	0.00
33		c-19	67.799	31.018	E3	54.3#	0#	0.00
34		c-20	67.799	30.234	E3	55.4#	0#	0.00
35	s	1-chlorooctadecane	56.891	23.903	E3	58.0#	40#	0.00
36		c-22	67.799	30.336	E3	55.3#	0#	0.00
37		c-24	67.799	29.915	E3	55.9#	0#	0.00
38		c-26	67.799	29.750	E3	56.1#	0#	0.00
39		c-28	67.799	29.496	E3	56.5#	0#	0.00
40	h	c-30	67.799	28.980	E3	57.3#	0#	0.00
41	h	c-36	67.799	24.357	E3	64.1#	0#	0.00

Evaluate Continuing Calibration Report - Not Founds

1	h	c11-c22 Aromatics (Unadj.)	99.943	0.000	E3	100.0#	0#	-5.82#
22	s	bht	0.000	0.000		0.0	0#	-11.54#
23		bht	0.000	0.000		0.0	0#	-20.00#

Signal #2

42	s	bht	0.000	0.000		0.0	0#	-6.78#
43	s	bht	0.000	0.000		0.0	0#	-7.51#
44	s	bht	0.000	0.000		0.0	0#	-10.04#
45	s	bht	0.000	0.000		0.0	0#	-23.00#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EPH161219W.M Tue Dec 20 10:37:08 2016

8.6.3

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Continuing Calibration Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico
Sample: GDE916-CC908
Lab FileID: DE16422.D

Evaluate Continuing Calibration Report

```
Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16422.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: FID2B.ch
Acq On    : 20 Dec 2016  12:07 am
Operator  : thomasa
Sample    : cc908-50,gde916
Misc      : op49287,gde916,1000,,,2,,w
ALS Vial  : 144   Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 10:14:58 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title  : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	97.842	75.940 E3	22.4	79	0.00
3		2-methylnaphthalene	95.177	75.415 E3	20.8	82	0.00
4	s	2-fluorobiphenyl	87.433	70.094 E3	19.8	83	0.00
5		acenaphthylene	95.628	77.575 E3	18.9	85	0.00
6	s	2-bromonaphthalene	59.587	48.671 E3	18.3	86	0.00
7		acenaphthene	95.936	78.688 E3	18.0	86	0.00
8		fluorene	93.753	77.934 E3	16.9	88	0.00
9		phenanthrene	93.338	78.889 E3	15.5	90	0.00
10		anthracene	91.929	77.799 E3	15.4	90	0.00
11	s	o-terphenyl	94.899	80.176 E3	15.5	90	0.00
12		fluoranthene	90.716	77.431 E3	14.6	92	0.00
13		pyrene	91.395	78.074 E3	14.6	90	0.00
14		benzo(a)anthracene	87.568	75.166 E3	14.2	91	0.00
15		chrysene	88.688	76.106 E3	14.2	91	0.00
16		benzo(B)fluoranthene	89.426	74.967 E3	16.2	88	0.00
17		benzo(k)fluoranthene	86.347	76.602 E3	11.3	94	0.00
18		benzo(a)pyrene	87.906	73.850 E3	16.0	91	0.00
19		indeno(1,2,3-cd)pyrene	86.711	77.434 E3	10.7	95	0.00
20		dibenzo(ah)anthracene	83.716	71.936 E3	14.1	90	-0.01
21		benzo(ghi)perylene	86.174	74.467 E3	13.6	92	0.00
Signal #2							
25	h	c-9	76.939	80.147 E3	-4.2	0#	0.00
26	h	c-10	76.939	80.032 E3	-4.0	0#	0.00
27		naphthalene #2	77.479	85.164 E3	-9.9	101	0.00
28		c-12	76.939	82.165 E3	-6.8	0#	0.00
29		2-methylnaphthalene #2	76.354	83.702 E3	-9.6	100	0.00
30		c-14	76.939	80.203 E3	-4.2	0#	0.00
31		c-16	76.939	80.325 E3	-4.4	0#	0.00

Continuing Calibration Summary

Job Number: MC48999 **Sample:** GDE916-CC908
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** DE16422.D
Project: BMSMC, Building 5 Area, Puerto Rico

32		c-18	76.939	77.548	E3	-0.8	0#	0.00
33		c-19	67.799	80.098	E3	-18.1	0#	0.00
34		c-20	67.799	78.274	E3	-15.5	0#	0.00
35	s	1-chlorooctadecane	56.891	61.737	E3	-8.5	104	0.00
36		c-22	67.799	77.493	E3	-14.3	0#	0.00
37		c-24	67.799	75.703	E3	-11.7	0#	0.00
38		c-26	67.799	74.298	E3	-9.6	0#	0.00
39		c-28	67.799	73.034	E3	-7.7	0#	0.00
40	h	c-30	67.799	70.785	E3	-4.4	0#	0.00
41	h	c-36	67.799	50.736	E3	25.2#	0#	0.00

Evaluate Continuing Calibration Report - Not Founds

1	h	c11-c22 Aromatics (Unadj.)	99.943	0.000	E3	100.0#	0#	-5.82#
22	s	bht	0.000	0.000		0.0	0#	-11.54#
23		bht	0.000	0.000		0.0	0#	-20.00#

Signal #2

42	s	bht	0.000	0.000		0.0	0#	-6.78#
43	s	bht	0.000	0.000		0.0	0#	-7.51#
44	s	bht	0.000	0.000		0.0	0#	-10.04#
45	s	bht	0.000	0.000		0.0	0#	-23.00#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EPH161219W.M Tue Dec 20 13:02:09 2016

8.6.4

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Continuing Calibration Summary

Job Number: MC48999 **Sample:** GDE916-CC908
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** DE16433.D
Project: BMSMC, Building 5 Area, Puerto Rico

Evaluate Continuing Calibration Report

```
Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16433.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: FID2B.ch
Acq On    : 20 Dec 2016   5:13 am
Operator  : thomasa
Sample    : cc908-50,gde916 (Sig #1); ecc908-50,gde916 (Sig #2)
Misc      : op49287,gde916,1000,,,2,,w
ALS Vial  : 144   Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 07:29:33 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title  : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	97.842	76.597 E3	21.7	80	0.00
3		2-methylnaphthalene	95.177	76.188 E3	20.0	83	0.00
4	s	2-fluorobiphenyl	87.433	70.882 E3	18.9	84	0.00
5		acenaphthylene	95.628	78.517 E3	17.9	86	0.00
6	s	2-bromonaphthalene	59.587	49.281 E3	17.3	87	0.00
7		acenaphthene	95.936	79.653 E3	17.0	87	0.00
8		fluorene	93.753	78.979 E3	15.8	89	0.00
9		phenanthrene	93.338	80.035 E3	14.3	92	0.00
10		anthracene	91.929	78.774 E3	14.3	91	0.00
11	s	o-terphenyl	94.899	81.472 E3	14.1	92	0.00
12		fluoranthene	90.716	78.738 E3	13.2	93	0.00
13		pyrene	91.395	79.364 E3	13.2	92	0.00
14		benzo(a)anthracene	87.568	76.473 E3	12.7	93	0.00
15		chrysene	88.688	77.513 E3	12.6	93	0.00
16		benzo(B)fluoranthene	89.426	81.194 E3	9.2	95	0.00
17		benzo(k)fluoranthene	86.347	76.593 E3	11.3	94	0.00
18		benzo(a)pyrene	87.906	75.659 E3	13.9	93	0.00
19		indeno(1,2,3-cd)pyrene	86.711	79.397 E3	8.4	97	0.00
20		dibenzo(ah)anthracene	83.716	74.577 E3	10.9	93	0.00
21		benzo(ghi)perylene	86.174	77.119 E3	10.5	95	0.00

Signal #2

25	h	c-9	76.939	86.265 E3	-12.1	0#	0.00
26	h	c-10	76.939	85.941 E3	-11.7	0#	0.00
27		naphthalene #2	77.479	91.421 E3	-18.0	108	0.00
28		c-12	76.939	88.613 E3	-15.2	0#	0.00
29		2-methylnaphthalene #2	76.354	89.873 E3	-17.7	108	0.00
30		c-14	76.939	85.596 E3	-11.3	0#	0.00
31		c-16	76.939	85.588 E3	-11.2	0#	0.00

Continuing Calibration Summary

Job Number: MC48999 **Sample:** GDE916-CC908
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** DE16433.D
Project: BMSMC, Building 5 Area, Puerto Rico

32		c-18	76.939	82.396	E3	-7.1	0#	0.00
33		c-19	67.799	84.780	E3	-25.0#	0#	0.00
34		c-20	67.799	82.776	E3	-22.1	0#	0.00
35	s	1-chlorooctadecane	56.891	65.247	E3	-14.7	110	0.00
36		c-22	67.799	81.348	E3	-20.0	0#	0.00
37		c-24	67.799	79.176	E3	-16.8	0#	0.00
38		c-26	67.799	77.183	E3	-13.8	0#	0.00
39		c-28	67.799	75.724	E3	-11.7	0#	0.00
40	h	c-30	67.799	73.309	E3	-8.1	0#	0.00
41	h	c-36	67.799	52.852	E3	22.0	0#	0.00

Evaluate Continuing Calibration Report - Not Founds

1	h	c11-c22 Aromatics (Unadj.)	99.943	0.000	E3	100.0#	0#	-5.82#
22	s	bht	0.000	0.000		0.0	0#	-11.54#
23		bht	0.000	0.000		0.0	0#	-20.00#

Signal #2

42	s	bht	0.000	0.000		0.0	0#	-6.78#
43	s	bht	0.000	0.000		0.0	0#	-7.51#
44	s	bht	0.000	0.000		0.0	0#	-10.04#
45	s	bht	0.000	0.000		0.0	0#	-23.00#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EPH161219W.M Tue Dec 20 13:02:20 2016

8.6.5

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Continuing Calibration Summary

Job Number: MC48999 **Sample:** GDE916-ECC908
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** DE16436.D
Project: BMSMC, Building 5 Area, Puerto Rico

Evaluate Continuing Calibration Report

```
Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16436.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: FID2B.ch
Acq On    : 20 Dec 2016   9:33 am
Operator  : thomasa
Sample    : ecc908-50,gde916
Misc      : op49287,gde916,1000,,,2,,w
ALS Vial  : 144   Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 09:57:22 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title  : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	97.842	80.606 E3	17.6	84	0.00
3		2-methylnaphthalene	95.177	80.288 E3	15.6	87	0.00
4	s	2-fluorobiphenyl	87.433	74.762 E3	14.5	89	0.00
5		acenaphthylene	95.628	82.804 E3	13.4	91	0.00
6	s	2-bromonaphthalene	59.587	51.961 E3	12.8	92	0.00
7		acenaphthene	95.936	83.859 E3	12.6	92	0.00
8		fluorene	93.753	83.160 E3	11.3	94	0.00
9		phenanthrene	93.338	83.915 E3	10.1	96	0.00
10		anthracene	91.929	82.695 E3	10.0	96	0.00
11	s	o-terphenyl	94.899	85.340 E3	10.1	96	0.00
12		fluoranthene	90.716	81.858 E3	9.8	97	0.00
13		pyrene	91.395	82.576 E3	9.6	95	0.00
14		benzo(a)anthracene	87.568	78.983 E3	9.8	96	0.00
15		chrysene	88.688	79.991 E3	9.8	96	0.00
16		benzo(B)fluoranthene	89.426	78.144 E3	12.6	92	0.00
17		benzo(k)fluoranthene	86.347	81.144 E3	6.0	99	0.00
18		benzo(a)pyrene	87.906	77.725 E3	11.6	95	0.00
19		indeno(1,2,3-cd)pyrene	86.711	81.648 E3	5.8	100	0.00
20		dibenzo(ah)anthracene	83.716	76.250 E3	8.9	95	-0.01
21		benzo(ghi)perylene	86.174	78.815 E3	8.5	97	0.00
Signal #2							
25	h	c-9	76.939	86.749 E3	-12.8	0#	0.00
26	h	c-10	76.939	87.333 E3	-13.5	0#	0.00
27		naphthalene #2	77.479	93.164 E3	-20.2	110	0.00
28		c-12	76.939	89.531 E3	-16.4	0#	0.00
29		2-methylnaphthalene #2	76.354	91.965 E3	-20.4	110	0.00
30		c-14	76.939	88.267 E3	-14.7	0#	0.00
31		c-16	76.939	88.883 E3	-15.5	0#	0.00

Continuing Calibration Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample: GDE916-ECC908
Lab FileID: DE16436.D

32		c-18	76.939	86.242	E3	-12.1	0#	0.00
33		c-19	67.799	88.855	E3	-31.1#	0#	0.00
34		c-20	67.799	86.572	E3	-27.7#	0#	0.00
35	s	1-chlorooctadecane	56.891	67.852	E3	-19.3	114	0.00
36		c-22	67.799	85.146	E3	-25.6#	0#	0.00
37		c-24	67.799	82.548	E3	-21.8	0#	0.00
38		c-26	67.799	80.177	E3	-18.3	0#	0.00
39		c-28	67.799	78.150	E3	-15.3	0#	0.00
40	h	c-30	67.799	75.756	E3	-11.7	0#	0.00
41	h	c-36	67.799	53.013	E3	21.8	0#	0.00

Evaluate Continuing Calibration Report - Not Founds

1	h	c11-c22 Aromatics (Unadj.)	99.943	0.000	E3	100.0#	0#	-5.82#
22	s	bht	0.000	0.000		0.0	0#	-11.54#
23		bht	0.000	0.000		0.0	0#	-20.00#

Signal #2

42	s	bht	0.000	0.000		0.0	0#	-6.78#
43	s	bht	0.000	0.000		0.0	0#	-7.51#
44	s	bht	0.000	0.000		0.0	0#	-10.04#
45	s	bht	0.000	0.000		0.0	0#	-23.00#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EPH161219W.M Tue Dec 20 13:02:29 2016

8.6.6

8

Continuing Calibration Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico
Sample: GDE917-CC908
Lab FileID: DE16437.D

Evaluate Continuing Calibration Report

```
Data Path : C:\msdchem\1\DATA\DE161220EPH\
Data File : de16437.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: FID2B.ch
Acq On    : 20 Dec 2016  11:09 am
Operator  : thomasa
Sample    : cc908-50,gde917
Misc      : op49287,gde917,1000,,,2,,w
ALS Vial  : 142   Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:23:02 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220W.M
Quant Title  : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	97.842	75.313 E3	23.0	79	0.00
3		2-methylnaphthalene	95.177	74.568 E3	21.7	81	0.00
4	s	2-fluorobiphenyl	87.433	69.262 E3	20.8	82	0.00
5		acenaphthylene	95.628	76.666 E3	19.8	84	0.00
6	s	2-bromonaphthalene	59.587	48.055 E3	19.4	85	0.00
7		acenaphthene	95.936	77.749 E3	19.0	85	0.00
8		fluorene	93.753	76.948 E3	17.9	87	0.00
9		phenanthrene	93.338	77.792 E3	16.7	89	0.00
10		anthracene	91.929	76.586 E3	16.7	89	0.00
11	s	o-terphenyl	94.899	79.035 E3	16.7	89	0.00
12		fluoranthene	90.716	76.162 E3	16.0	90	0.00
13		pyrene	91.395	77.921 E3	14.7	90	0.00
14		benzo(a)anthracene	87.568	73.662 E3	15.9	89	0.00
15		chrysene	88.688	74.258 E3	16.3	89	-0.01
16		benzo(B)fluoranthene	89.426	77.530 E3	13.3	91	-0.01
17		benzo(k)fluoranthene	86.347	70.679 E3	18.1	86	-0.01
18		benzo(a)pyrene	87.906	72.247 E3	17.8	89	0.00
19		indeno(1,2,3-cd)pyrene	86.711	75.434 E3	13.0	92	-0.01
20		dibenzo(ah)anthracene	83.716	71.265 E3	14.9	89	-0.01
21		benzo(ghi)perylene	86.174	73.369 E3	14.9	91	-0.01

Signal #2

25	h	c-9	76.939	83.232 E3	-8.2	0#	0.00
26	h	c-10	76.939	82.554 E3	-7.3	0#	0.00
27		naphthalene #2	77.479	87.565 E3	-13.0	103	0.00
28		c-12	76.939	84.560 E3	-9.9	0#	0.00
29		2-methylnaphthalene #2	76.354	85.903 E3	-12.5	103	0.00
30		c-14	76.939	81.778 E3	-6.3	0#	0.00
31		c-16	76.939	81.625 E3	-6.1	0#	0.00

Continuing Calibration Summary

Job Number: MC48999 **Sample:** GDE917-CC908
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** DE16437.D
Project: BMSMC, Building 5 Area, Puerto Rico

32		c-18	76.939	78.813	E3	-2.4	0#	0.00
33		c-19	67.799	80.793	E3	-19.2	0#	0.00
34		c-20	67.799	78.839	E3	-16.3	0#	0.00
35	s	1-chlorooctadecane	56.891	61.216	E3	-7.6	103	0.00
36		c-22	67.799	77.435	E3	-14.2	0#	0.00
37		c-24	67.799	75.211	E3	-10.9	0#	0.00
38		c-26	67.799	73.044	E3	-7.7	0#	0.00
39		c-28	67.799	71.320	E3	-5.2	0#	0.00
40	h	c-30	67.799	68.926	E3	-1.7	0#	0.00
41	h	c-36	67.799	43.936	E3	35.2#	0#	0.00

Evaluate Continuing Calibration Report - Not Founds

1	h	c11-c22 Aromatics (Unadj.)	99.943	0.000	E3	100.0#	0#	-5.82#
22	s	bht	0.000	0.000		0.0	0#	-11.54#
23		bht	0.000	0.000		0.0	0#	-20.00#

Signal #2

42	s	bht	0.000	0.000		0.0	0#	-6.78#
43	s	bht	0.000	0.000		0.0	0#	-7.51#
44	s	bht	0.000	0.000		0.0	0#	-10.04#
45	s	bht	0.000	0.000		0.0	0#	-23.00#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EPH161220W.M Tue Dec 20 13:30:12 2016

8.6.7

8

Continuing Calibration Summary

Job Number: MC48999 **Sample:** GDE917-CC908
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** DE16444.D
Project: BMSMC, Building 5 Area, Puerto Rico

Evaluate Continuing Calibration Report

```
Data Path : C:\MSDCHEM\1\DATA\DE161220EPH\
Data File : de16444.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: FID2B.ch
Acq On    : 20 Dec 2016   2:48 pm
Operator  : thomasa
Sample    : cc908-50,gde917 (Sig #1); ecc908-50,gde917 (Sig #2)
Misc      : op49287,gde917,1000,,,2,,w
ALS Vial  : 142   Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 15:11:00 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220W.M
Quant Title  : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	97.842	74.605 E3	23.7	78	0.00
3		2-methylnaphthalene	95.177	74.100 E3	22.1	80	0.00
4	s	2-fluorobiphenyl	87.433	68.924 E3	21.2	82	0.00
5		acenaphthylene	95.628	76.398 E3	20.1	84	0.00
6	s	2-bromonaphthalene	59.587	47.942 E3	19.5	85	0.00
7		acenaphthene	95.936	77.389 E3	19.3	85	0.00
8		fluorene	93.753	76.904 E3	18.0	87	0.00
9		phenanthrene	93.338	78.044 E3	16.4	89	0.00
10		anthracene	91.929	76.844 E3	16.4	89	0.00
11	s	o-terphenyl	94.899	79.411 E3	16.3	89	0.00
12		fluoranthene	90.716	76.840 E3	15.3	91	0.00
13		pyrene	91.395	77.748 E3	14.9	90	0.00
14		benzo(a)anthracene	87.568	75.194 E3	14.1	91	0.00
15		chrysene	88.688	75.891 E3	14.4	91	0.00
16		benzo(B)fluoranthene	89.426	77.694 E3	13.1	91	0.00
17		benzo(k)fluoranthene	86.347	75.263 E3	12.8	92	0.00
18		benzo(a)pyrene	87.906	74.680 E3	15.0	92	0.00
19		indeno(1,2,3-cd)pyrene	86.711	77.618 E3	10.5	95	-0.01
20		dibenzo(ah)anthracene	83.716	74.882 E3	10.6	93	-0.01
21		benzo(ghi)perylene	86.174	76.119 E3	11.7	94	0.00
Signal #2							
25	h	c-9	76.939	85.631 E3	-11.3	0#	0.00
26	h	c-10	76.939	85.206 E3	-10.7	0#	0.00
27		naphthalene #2	77.479	90.546 E3	-16.9	107	0.00
28		c-12	76.939	87.851 E3	-14.2	0#	0.00
29		2-methylnaphthalene #2	76.354	89.075 E3	-16.7	107	0.00
30		c-14	76.939	85.182 E3	-10.7	0#	0.00
31		c-16	76.939	85.183 E3	-10.7	0#	0.00

Continuing Calibration Summary

Job Number: MC48999 **Sample:** GDE917-CC908
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** DE16444.D
Project: BMSMC, Building 5 Area, Puerto Rico

32		c-18	76.939	81.846	E3	-6.4	0#	0.00
33		c-19	67.799	84.141	E3	-24.1	0#	0.00
34		c-20	67.799	81.974	E3	-20.9	0#	0.00
35	s	1-chlorooctadecane	56.891	64.267	E3	-13.0	108	0.00
36		c-22	67.799	80.539	E3	-18.8	0#	0.00
37		c-24	67.799	78.143	E3	-15.3	0#	0.00
38		c-26	67.799	76.003	E3	-12.1	0#	0.00
39		c-28	67.799	74.302	E3	-9.6	0#	0.00
40	h	c-30	67.799	72.187	E3	-6.5	0#	0.00
41	h	c-36	67.799	50.722	E3	25.2#	0#	0.00

Evaluate Continuing Calibration Report - Not Founds

1	h	c11-c22 Aromatics (Unadj.)	99.943	0.000	E3	100.0#	0#	-5.82#
22	s	bht	0.000	0.000		0.0	0#	-11.54#
23		bht	0.000	0.000		0.0	0#	-20.00#

Signal #2

42	s	bht	0.000	0.000		0.0	0#	-6.78#
43	s	bht	0.000	0.000		0.0	0#	-7.51#
44	s	bht	0.000	0.000		0.0	0#	-10.04#
45	s	bht	0.000	0.000		0.0	0#	-23.00#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EPH161220W.M Tue Dec 20 15:16:48 2016

8.6.8

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Continuing Calibration Summary

Job Number: MC48999 **Sample:** GDE918-CC908
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** DE16445.D
Project: BMSMC, Building 5 Area, Puerto Rico

Evaluate Continuing Calibration Report

```
Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16445.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: FID2B.ch
Acq On    : 20 Dec 2016   5:49 pm
Operator  : thomasa
Sample    : cc908-50,gde918
Misc      : op49287,gde918,1000,,,2,,w
ALS Vial  : 142   Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:29:06 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title  : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	97.842	76.935 E3	21.4	80	0.00
3		2-methylnaphthalene	95.177	76.380 E3	19.7	83	0.00
4	s	2-fluorobiphenyl	87.433	71.064 E3	18.7	84	0.00
5		acenaphthylene	95.628	78.714 E3	17.7	86	0.00
6	s	2-bromonaphthalene	59.587	49.375 E3	17.1	87	0.00
7		acenaphthene	95.936	79.845 E3	16.8	87	0.00
8		fluorene	93.753	79.166 E3	15.6	89	0.00
9		phenanthrene	93.338	80.338 E3	13.9	92	0.00
10		anthracene	91.929	79.008 E3	14.1	92	0.00
11	s	o-terphenyl	94.899	81.712 E3	13.9	92	0.00
12		fluoranthene	90.716	78.987 E3	12.9	93	0.00
13		pyrene	91.395	79.786 E3	12.7	92	0.00
14		benzo(a)anthracene	87.568	76.989 E3	12.1	93	0.00
15		chrysene	88.688	77.717 E3	12.4	93	0.00
16		benzo(B)fluoranthene	89.426	79.718 E3	10.9	94	0.00
17		benzo(k)fluoranthene	86.347	76.601 E3	11.3	94	0.00
18		benzo(a)pyrene	87.906	76.367 E3	13.1	94	0.00
19		indeno(1,2,3-cd)pyrene	86.711	79.314 E3	8.5	97	0.00
20		dibenzo(ah)anthracene	83.716	76.334 E3	8.8	95	0.00
21		benzo(ghi)perylene	86.174	77.925 E3	9.6	96	0.00
Signal #2							
25	h	c-9	76.939	79.627 E3	-3.5	0#	0.00
26	h	c-10	76.939	79.182 E3	-2.9	0#	0.00
27		naphthalene #2	77.479	84.213 E3	-8.7	99	0.00
28		c-12	76.939	81.551 E3	-6.0	0#	0.00
29		2-methylnaphthalene #2	76.354	82.895 E3	-8.6	99	0.00
30		c-14	76.939	79.702 E3	-3.6	0#	0.00
31		c-16	76.939	80.003 E3	-4.0	0#	0.00

Continuing Calibration Summary

Job Number: MC48999 **Sample:** GDE918-CC908
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** DE16445.D
Project: BMSMC, Building 5 Area, Puerto Rico

32		c-18	76.939	77.143	E3	-0.3	0#	0.00
33		c-19	67.799	79.190	E3	-16.8	0#	0.00
34		c-20	67.799	77.170	E3	-13.8	0#	0.00
35	s	1-chlorooctadecane	56.891	59.994	E3	-5.5	101	0.00
36		c-22	67.799	75.821	E3	-11.8	0#	0.00
37		c-24	67.799	73.279	E3	-8.1	0#	0.00
38		c-26	67.799	71.199	E3	-5.0	0#	0.00
39		c-28	67.799	69.363	E3	-2.3	0#	0.00
40	h	c-30	67.799	67.102	E3	1.0	0#	0.00
41	h	c-36	67.799	43.574	E3	35.7#	0#	0.00

Evaluate Continuing Calibration Report - Not Founds

1	h	c11-c22 Aromatics (Unadj.)	99.943	0.000	E3	100.0#	0#	-5.82#
22	s	bht	0.000	0.000		0.0	0#	-11.54#
23		bht	0.000	0.000		0.0	0#	-20.00#

Signal #2

42	s	bht	0.000	0.000		0.0	0#	-6.78#
43	s	bht	0.000	0.000		0.0	0#	-7.51#
44	s	bht	0.000	0.000		0.0	0#	-10.04#
45	s	bht	0.000	0.000		0.0	0#	-23.00#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EPH161220aW.M Wed Dec 21 13:02:40 2016

8.6.9

8

Continuing Calibration Summary

Job Number: MC48999 **Sample:** GDE918-CC908
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** DE16456.D
Project: BMSMC, Building 5 Area, Puerto Rico

Evaluate Continuing Calibration Report

```
Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16456.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: FID2B.ch
Acq On    : 20 Dec 2016  11:13 pm
Operator  : thomasa
Sample    : cc908-50,gde918
Misc      : op49287,gde918,1000,,,2,,w
ALS Vial  : 142   Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:27:45 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title  : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	h	c11-c22 Aromatics (Unadj.)	99.943	0.821 E3	99.2#	0#	-5.82#
2		naphthalene	97.842	78.332 E3	19.9	82	0.00
3		2-methylnaphthalene	95.177	78.144 E3	17.9	85	0.00
4	s	2-fluorobiphenyl	87.433	72.885 E3	16.6	86	0.00
5		acenaphthylene	95.628	80.962 E3	15.3	89	0.00
6	s	2-bromonaphthalene	59.587	50.304 E3	15.6	89	0.00
7		acenaphthene	95.936	82.052 E3	14.5	90	0.00
8		fluorene	93.753	81.897 E3	12.6	92	0.00
9		phenanthrene	93.338	83.548 E3	10.5	96	0.00
10		anthracene	91.929	82.412 E3	10.4	95	0.00
11	s	o-terphenyl	94.899	85.245 E3	10.2	96	0.00
12		fluoranthene	90.716	82.350 E3	9.2	97	0.00
13		pyrene	91.395	83.081 E3	9.1	96	0.00
14		benzo(a)anthracene	87.568	80.414 E3	8.2	97	0.00
15		chrysene	88.688	80.623 E3	9.1	96	0.00
16		benzo(B)fluoranthene	89.426	85.611 E3	4.3	100	0.00
17		benzo(k)fluoranthene	86.347	76.248 E3	11.7	93	0.00
18		benzo(a)pyrene	87.906	78.905 E3	10.2	97	0.00
19		indeno(1,2,3-cd)pyrene	86.711	82.086 E3	5.3	100	0.00
20		dibenzo(ah)anthracene	83.716	77.762 E3	7.1	97	0.00
21		benzo(ghi)perylene	86.174	79.682 E3	7.5	98	0.00
Signal #2							
25	h	c-9	76.939	91.048 E3	-18.3	0#	0.00
26	h	c-10	76.939	90.644 E3	-17.8	0#	0.00
27		naphthalene #2	77.479	96.041 E3	-24.0	113	0.00
28		c-12	76.939	92.728 E3	-20.5	0#	0.00
29		2-methylnaphthalene #2	76.354	94.014 E3	-23.1	113	0.00
30		c-14	76.939	89.916 E3	-16.9	0#	0.00

Continuing Calibration Summary

Job Number: MC48999
Account: AMANYWP Anderson Mulholland and Assoc.
Project: BMSMC, Building 5 Area, Puerto Rico

Sample: GDE918-CC908
Lab FileID: DE16456.D

31		c-16	76.939	88.985	E3	-15.7	0#	0.00
32		c-18	76.939	85.476	E3	-11.1	0#	0.00
33		c-19	67.799	87.162	E3	-28.6#	0#	0.00
34		c-20	67.799	84.733	E3	-25.0	0#	0.00
35	s	1-chlorooctadecane	56.891	66.436	E3	-16.8	112	0.00
36		c-22	67.799	82.896	E3	-22.3	0#	0.00
37		c-24	67.799	80.150	E3	-18.2	0#	0.00
38		c-26	67.799	77.724	E3	-14.6	0#	0.00
39		c-28	67.799	75.781	E3	-11.8	0#	0.00
40	h	c-30	67.799	73.488	E3	-8.4	0#	0.00
41	h	c-36	67.799	52.091	E3	23.2	0#	0.00

Evaluate Continuing Calibration Report - Not Founds

22	s	bht	0.000	0.000		0.0	0#	-11.54#
23		bht	0.000	0.000		0.0	0#	-20.00#

Signal #2

42	s	bht	0.000	0.000		0.0	0#	-6.78#
43	s	bht	0.000	0.000		0.0	0#	-7.51#
44	s	bht	0.000	0.000		0.0	0#	-10.04#
45	s	bht	0.000	0.000		0.0	0#	-23.00#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EPH161220aW.M Wed Dec 21 13:07:45 2016

8.6.10

8

Continuing Calibration Summary

Job Number: MC48999 **Sample:** GDE918-CC908
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** DE16467.D
Project: BMSMC, Building 5 Area, Puerto Rico

Evaluate Continuing Calibration Report

```
Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16467.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: FID2B.ch
Acq On    : 21 Dec 2016   4:20 am
Operator  : thomasa
Sample    : cc908-50,gde918
Misc      : op49287,gde918,1000,,,2,,w
ALS Vial  : 144   Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:26:36 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title  : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :


Min. RRF     :   0.000  Min. Rel. Area :  75%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 125%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
2		naphthalene	97.842	74.031 E3	24.3	77	0.00
3		2-methylnaphthalene	95.177	73.888 E3	22.4	80	0.00
4	s	2-fluorobiphenyl	87.433	68.961 E3	21.1	82	0.00
5		acenaphthylene	95.628	76.758 E3	19.7	84	0.00
6	s	2-bromonaphthalene	59.587	48.308 E3	18.9	86	0.00
7		acenaphthene	95.936	77.997 E3	18.7	85	0.00
8		fluorene	93.753	77.853 E3	17.0	88	0.00
9		phenanthrene	93.338	79.668 E3	14.6	91	0.00
10		anthracene	91.929	78.446 E3	14.7	91	0.00
11	s	o-terphenyl	94.899	81.166 E3	14.5	91	0.00
12		fluoranthene	90.716	78.708 E3	13.2	93	0.00
13		pyrene	91.395	79.458 E3	13.1	92	0.00
14		benzo(a)anthracene	87.568	76.602 E3	12.5	93	0.00
15		chrysene	88.688	77.725 E3	12.4	93	0.00
16		benzo(B)fluoranthene	89.426	82.946 E3	7.2	97	0.00
17		benzo(k)fluoranthene	86.347	72.829 E3	15.7	89	0.00
18		benzo(a)pyrene	87.906	76.061 E3	13.5	93	0.00
19		indeno(1,2,3-cd)pyrene	86.711	79.260 E3	8.6	97	0.00
20		dibenzo(ah)anthracene	83.716	75.213 E3	10.2	94	0.00
21		benzo(ghi)perylene	86.174	77.291 E3	10.3	95	0.00

Signal #2

25	h	c-9	76.939	87.656 E3	-13.9	0#	0.00
26	h	c-10	76.939	87.166 E3	-13.3	0#	0.00
27		naphthalene #2	77.479	92.650 E3	-19.6	109	0.00
28		c-12	76.939	89.307 E3	-16.1	0#	0.00
29		2-methylnaphthalene #2	76.354	90.854 E3	-19.0	109	0.00
30		c-14	76.939	86.968 E3	-13.0	0#	0.00
31		c-16	76.939	86.897 E3	-12.9	0#	0.00

Continuing Calibration Summary

Job Number: MC48999 **Sample:** GDE918-CC908
Account: AMANYWP Anderson Mulholland and Assoc. **Lab FileID:** DE16467.D
Project: BMSMC, Building 5 Area, Puerto Rico

32		c-18	76.939	84.222	E3	-9.5	0#	0.00
33		c-19	67.799	85.896	E3	-26.7#	0#	0.00
34		c-20	67.799	83.827	E3	-23.6	0#	0.00
35	s	1-chlorooctadecane	56.891	65.940	E3	-15.9	111	0.00
36		c-22	67.799	82.511	E3	-21.7	0#	0.00
37		c-24	67.799	80.347	E3	-18.5	0#	0.00
38		c-26	67.799	78.143	E3	-15.3	0#	0.00
39		c-28	67.799	76.625	E3	-13.0	0#	0.00
40	h	c-30	67.799	73.969	E3	-9.1	0#	0.00
41	h	c-36	67.799	52.981	E3	21.9	0#	0.00

Evaluate Continuing Calibration Report - Not Founds

1	h	c11-c22 Aromatics (Unadj.)	99.943	0.000	E3	100.0#	0#	-5.82#
22	s	bht	0.000	0.000		0.0	0#	-11.54#
23		bht	0.000	0.000		0.0	0#	-20.00#

Signal #2

42	s	bht	0.000	0.000		0.0	0#	-6.78#
43	s	bht	0.000	0.000		0.0	0#	-7.51#
44	s	bht	0.000	0.000		0.0	0#	-10.04#
45	s	bht	0.000	0.000		0.0	0#	-23.00#

(#) = Out of Range SPCC's out = 0 CCC's out = 0

EPH161220aW.M Wed Dec 21 13:03:26 2016

8.9.11

8

GC Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16417.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 9:48 pm
Operator : thomasa
Sample : mc48999-1,op49287
Misc : op49287,gde916,980,,,2,,w
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:26:27 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.225	1195876	13.678 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 68.39%#		
6) s 2-bromonaphthalene	7.973	850723	14.277 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 71.39%#		
11) s o-terphenyl	10.527	1047698	11.040 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 55.20%#		
35) s 1-chlorooctadecane	11.068	292264	5.137 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 25.68%		
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	1399599	14.004 µg/mlm
25) h c-9	2.495	526655	6.845 µg/mlm
41) h c-36	16.838	555480	8.193 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

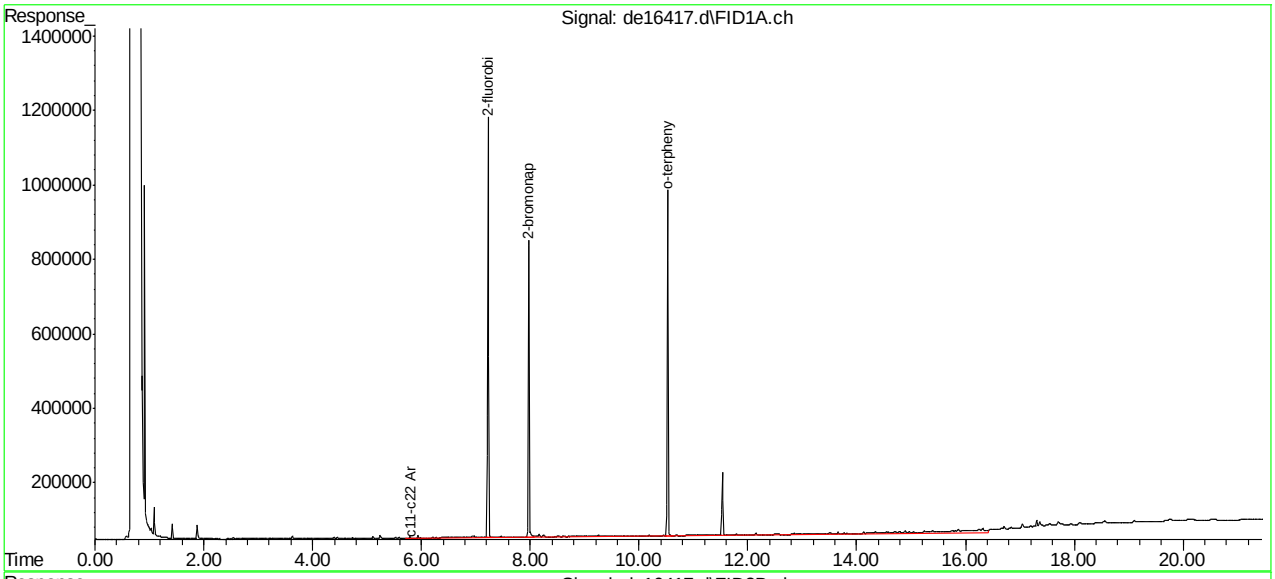
SGS ACCUTEST MC48999

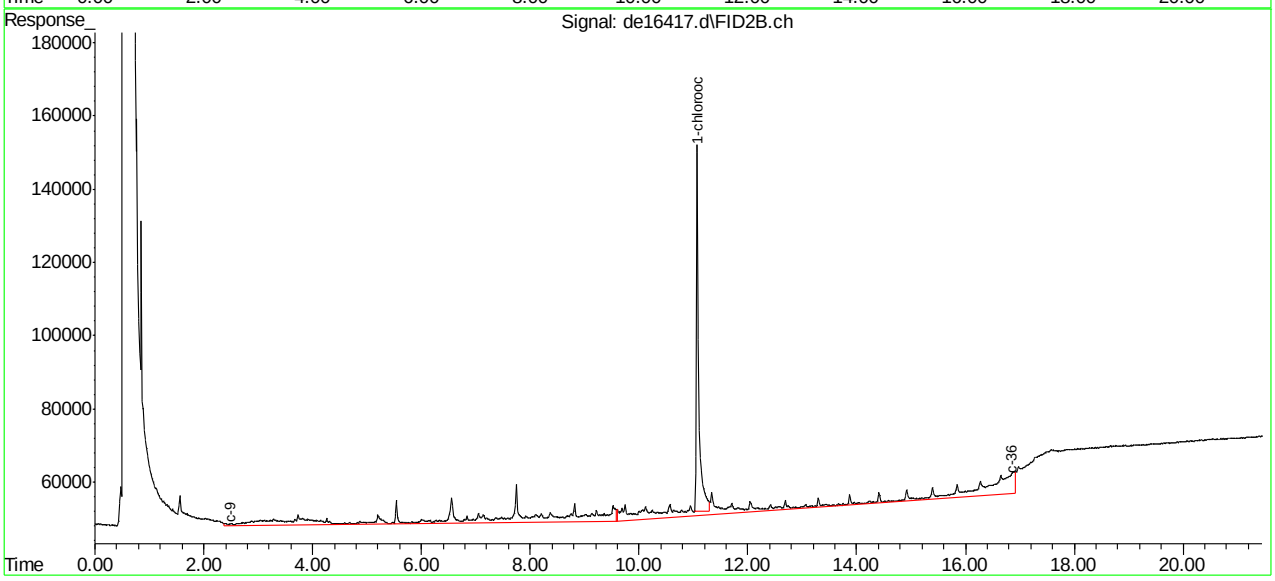
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16417.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 9:48 pm
Operator : thomasa
Sample : mc48999-1,op49287
Misc : op49287,gde916,980,,,2,,w
ALS Vial : 32 Sample Multiplier: 1

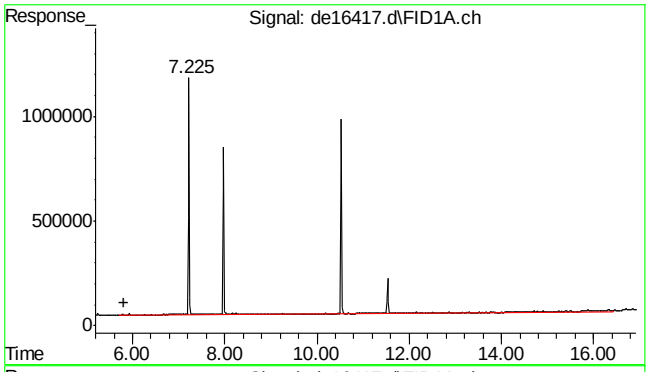
Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:26:27 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



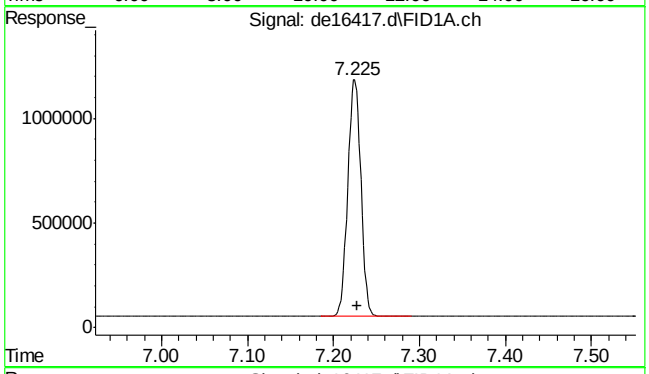


SGS ACCUTEST MC48999



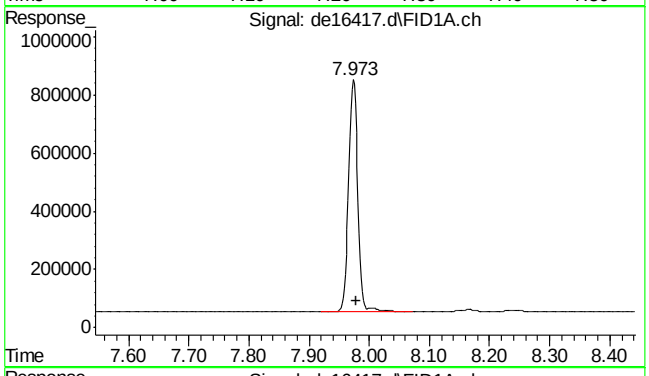
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 1399599
Conc: 14.00 µg/ml m



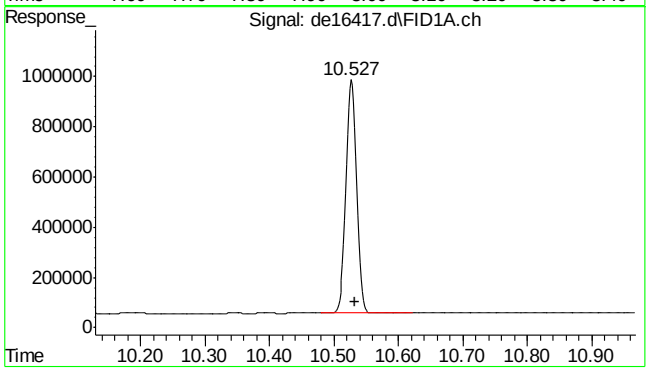
#4 2-fluorobiphenyl

R.T.: 7.225 min
Delta R.T.: -0.003 min
Response: 1195876
Conc: 13.68 µg/ml



#6 2-bromonaphthalene

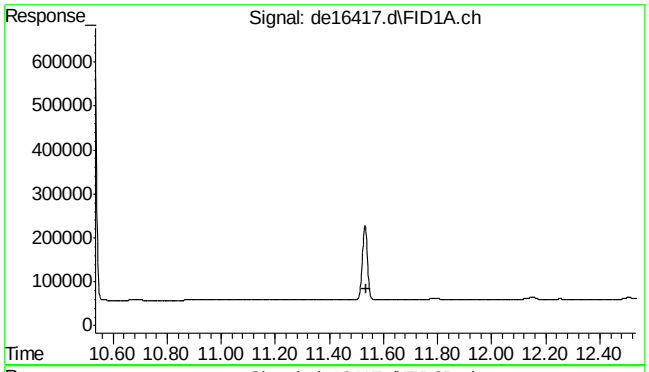
R.T.: 7.973 min
Delta R.T.: -0.005 min
Response: 850723
Conc: 14.28 µg/ml



#11 o-terphenyl

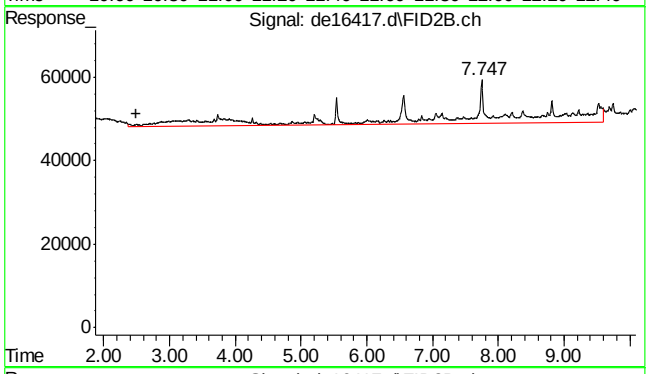
R.T.: 10.527 min
Delta R.T.: -0.007 min
Response: 1047698
Conc: 11.04 µg/ml

SGS ACCUTEST MC48999



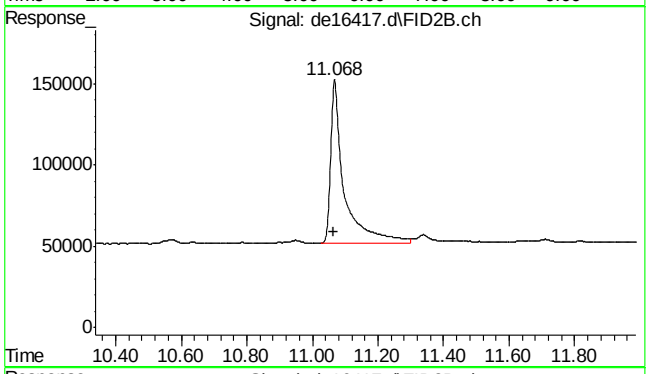
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



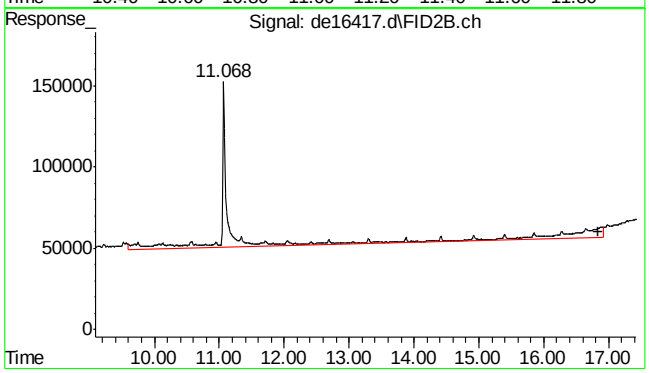
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 526655
Conc: 6.85 µg/ml m



#35 1-chlorooctadecane

R.T.: 11.068 min
Delta R.T.: 0.002 min
Response: 292264
Conc: 5.14 µg/ml



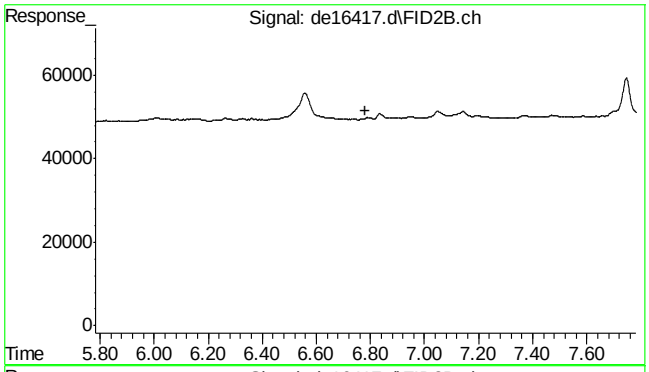
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 555480
Conc: 8.19 µg/ml m

9.1.1

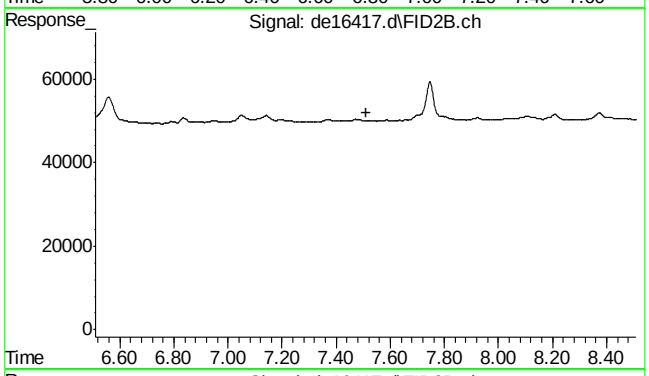
9

SGS ACCUTEST MC48999



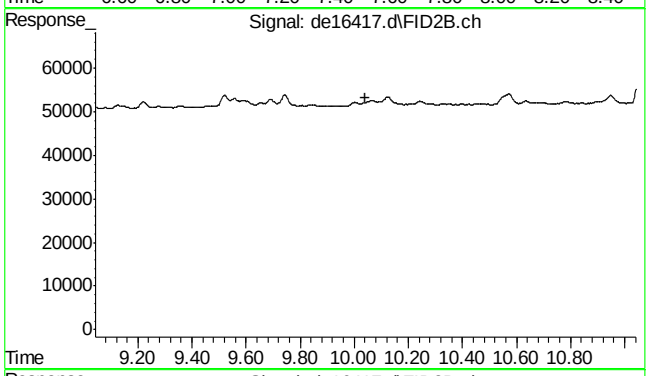
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



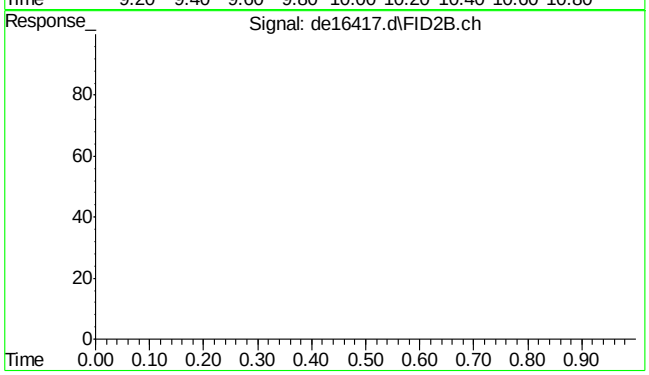
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220EPH\
Data File : de16440.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 12:56 pm
Operator : thomasa
Sample : mc48999-1cf,RF op49287 (Sig #1); mc48999-1,RF op49287 (Sig #2)
Misc : op49287,gde917,980,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 14:07:03 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.225	1390417	15.903 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 79.52%#		
6) s 2-bromonaphthalene	7.973	992611	16.658 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 83.29%#		
11) s o-terphenyl	10.527	1251245	13.185 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 65.92%#		
35) s 1-chlorooctadecane	11.067	345442	6.072 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 30.36%#		
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	1093381	10.940 µg/mlm
25) h c-9	2.495	1636314	21.268 µg/mlm
41) h c-36	16.838	1949243	28.750 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

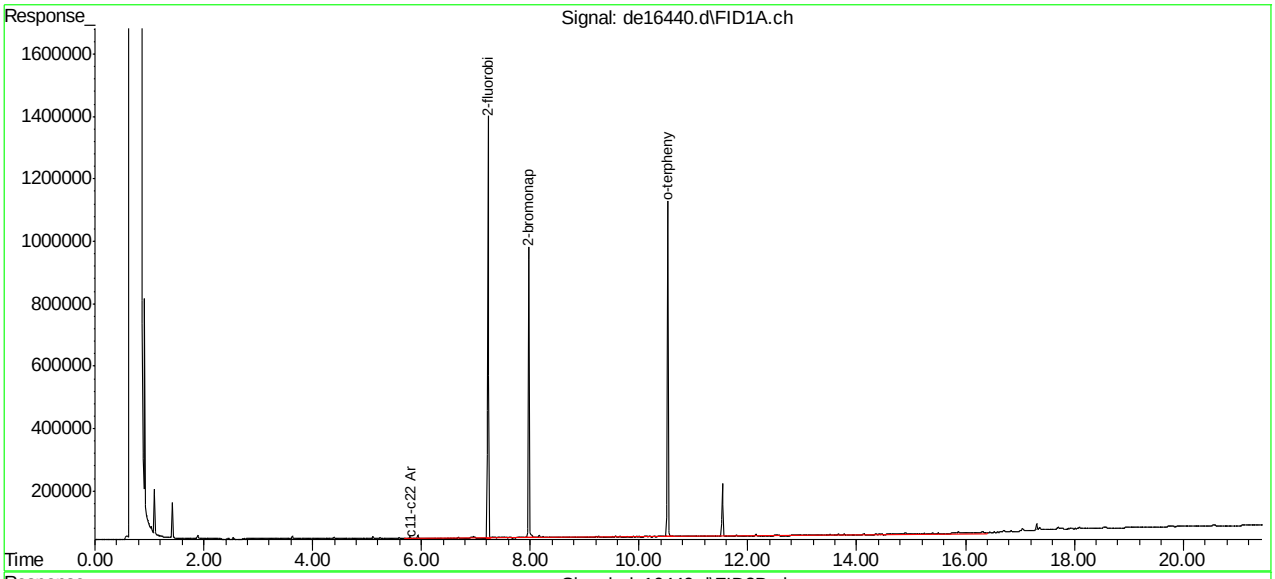
SGS ACCUTEST MC48999

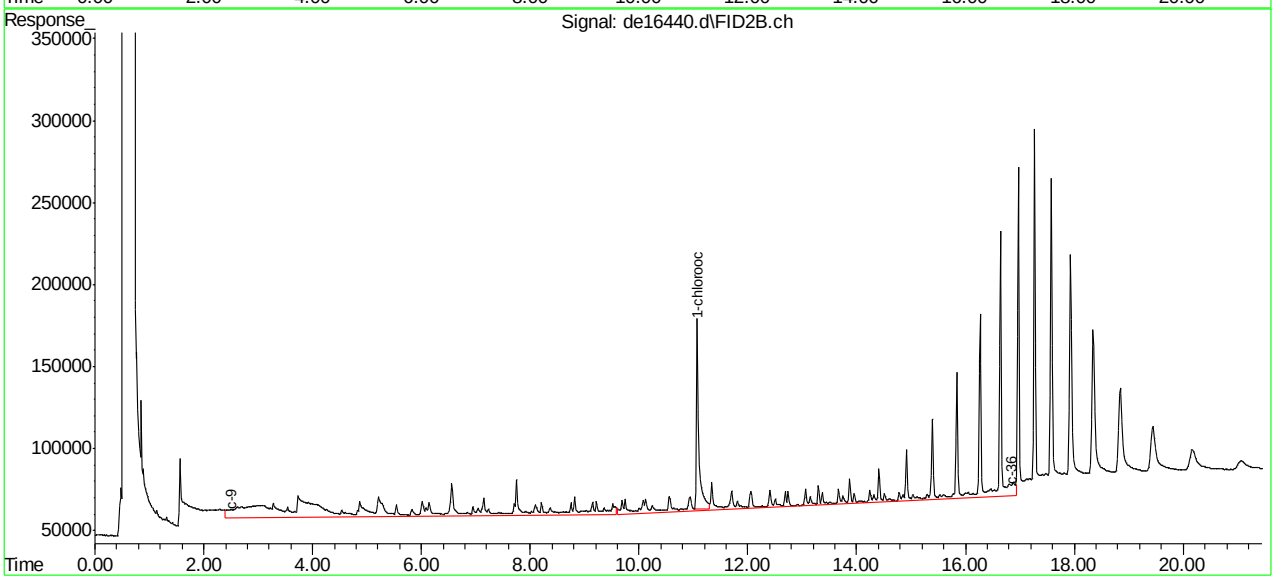
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220EPH\
Data File : de16440.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 12:56 pm
Operator : thomasa
Sample : mc48999-1cf,RF op49287 (Sig #1); mc48999-1,RF op49287 (Sig #2)
Misc : op49287,gde917,980,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

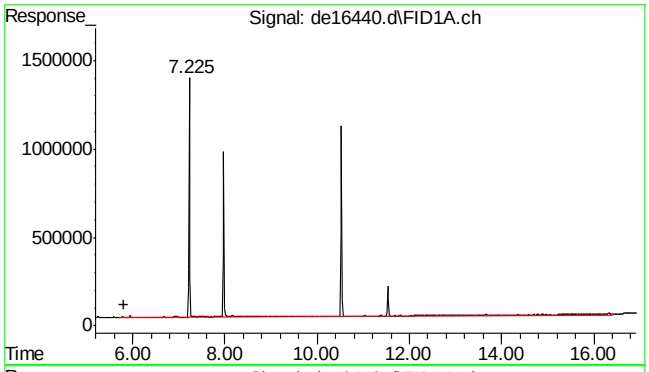
Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 14:07:03 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



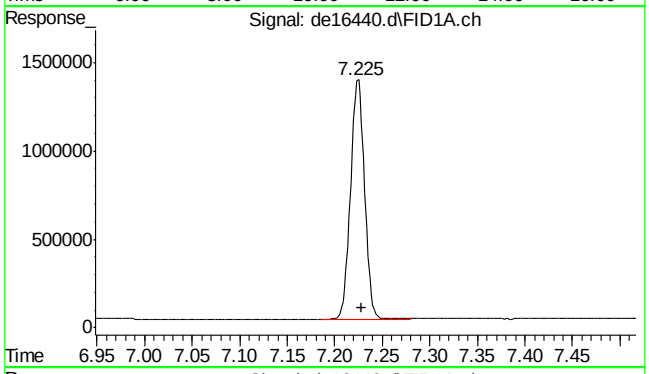


EPH161220W.M Tue Dec 20 14:07:08 2016 Page: 2



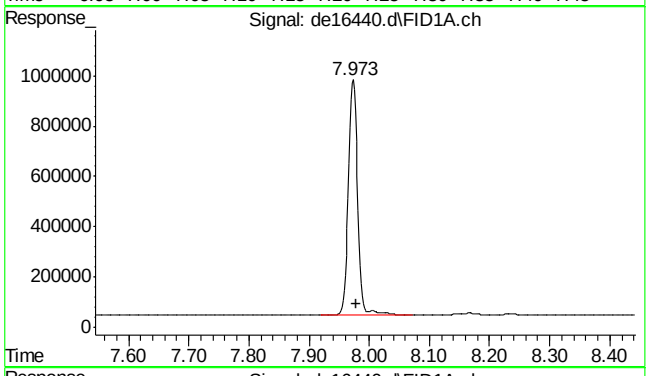
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 1093381
Conc: 10.94 µg/ml m



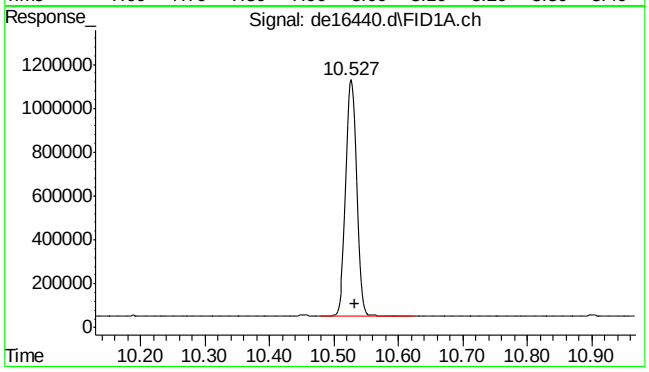
#4 2-fluorobiphenyl

R.T.: 7.225 min
Delta R.T.: -0.003 min
Response: 1390417
Conc: 15.90 µg/ml



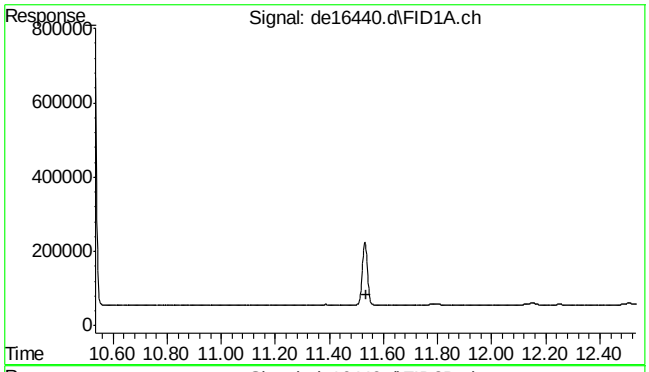
#6 2-bromonaphthalene

R.T.: 7.973 min
Delta R.T.: -0.005 min
Response: 992611
Conc: 16.66 µg/ml



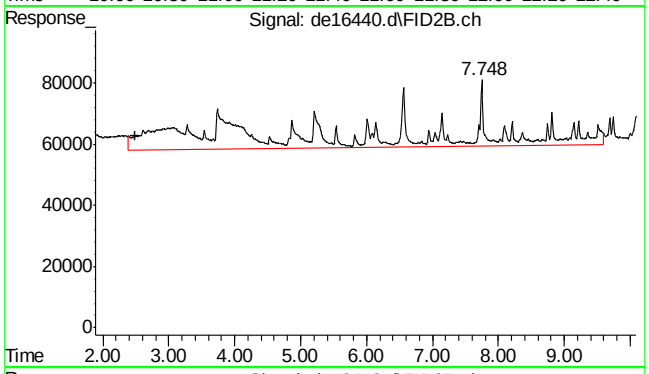
#11 o-terphenyl

R.T.: 10.527 min
Delta R.T.: -0.007 min
Response: 1251245
Conc: 13.18 µg/ml



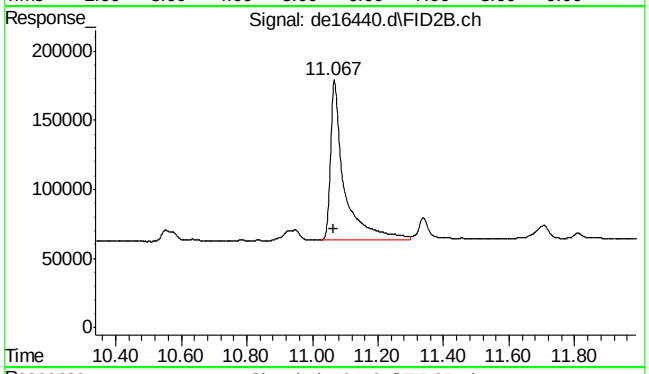
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



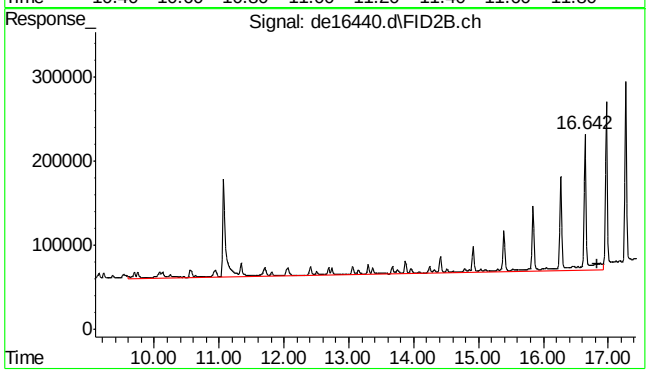
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 1636314
Conc: 21.27 µg/ml m



#35 1-chlorooctadecane

R.T.: 11.067 min
Delta R.T.: 0.000 min
Response: 345442
Conc: 6.07 µg/ml



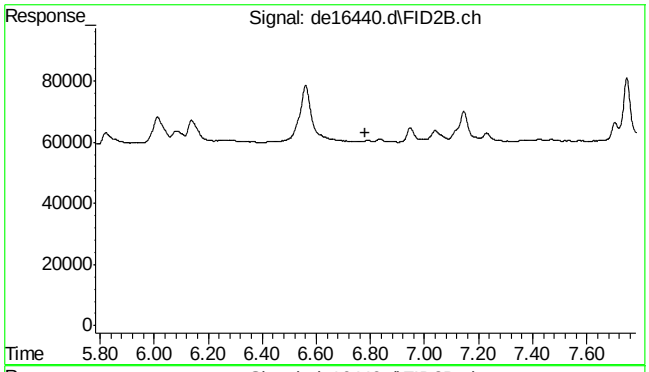
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 1949243
Conc: 28.75 µg/ml m

9.1.2

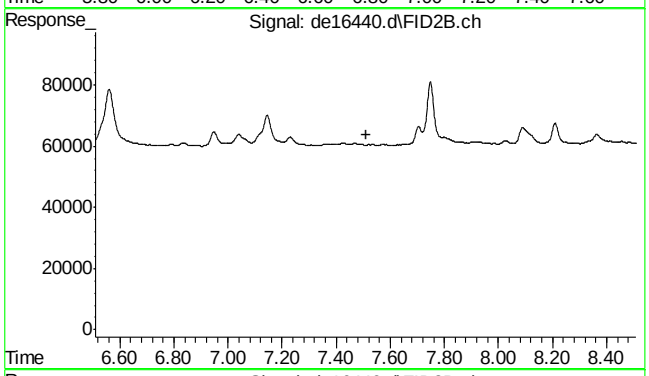
9

SGS ACCUTEST MC48999



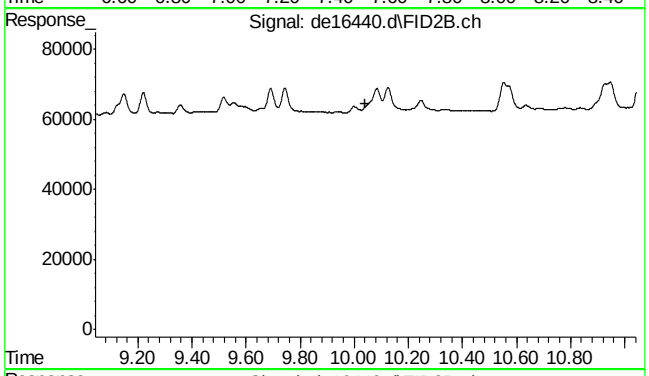
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



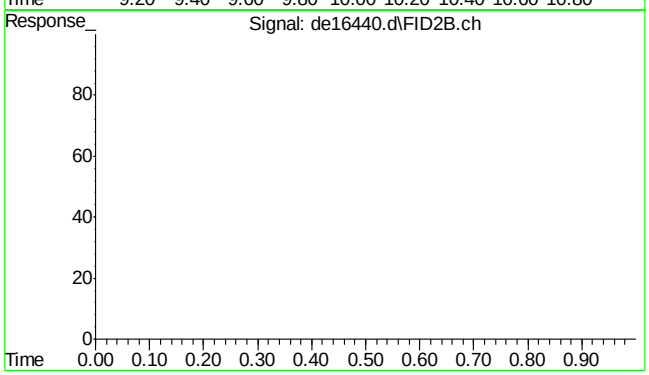
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16418.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 10:16 pm
Operator : thomasa
Sample : mc48999-2,op49287
Misc : op49287,gde916,970,,,2,,w
ALS Vial : 34 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:27:58 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.225	1207160	13.807 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 69.03%#	
6) s 2-bromonaphthalene	7.973	859134	14.418 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 72.09%#	
11) s o-terphenyl	10.528	1335657	14.074 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 70.37%#	
35) s 1-chlorooctadecane	11.063	500146	8.791 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 43.95%#	
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	1249629	12.503 µg/mlm
25) h c-9	2.495	637266	8.283 µg/mlm
41) h c-36	16.838	760392	11.215 µg/mlm

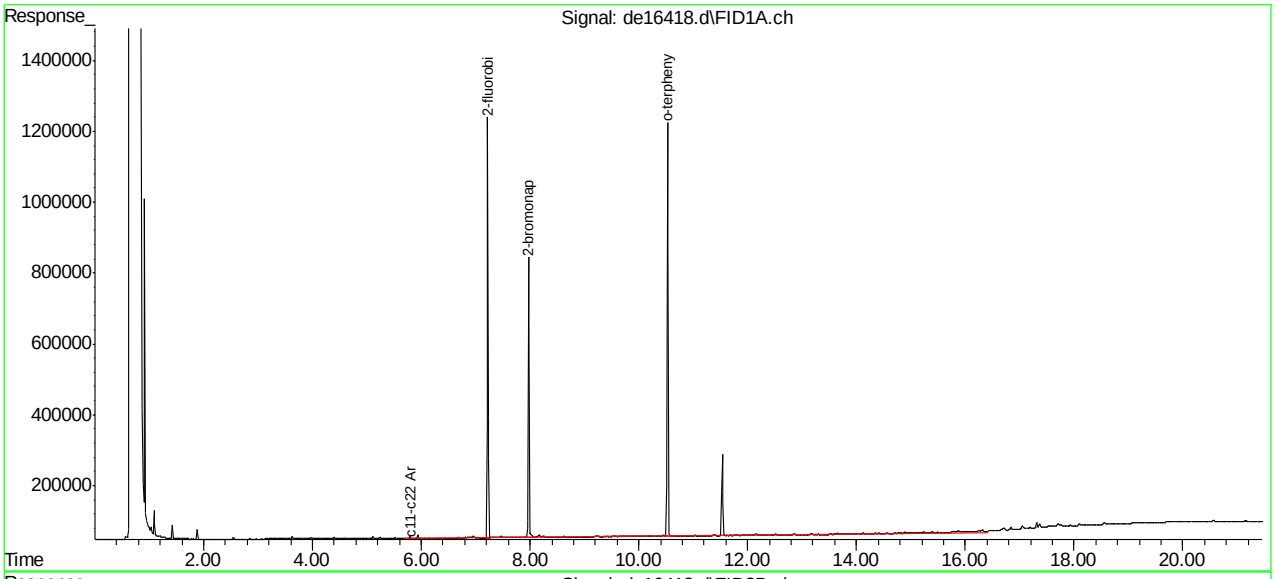
(f)=RT Delta > 1/2 Window (m)=manual int.

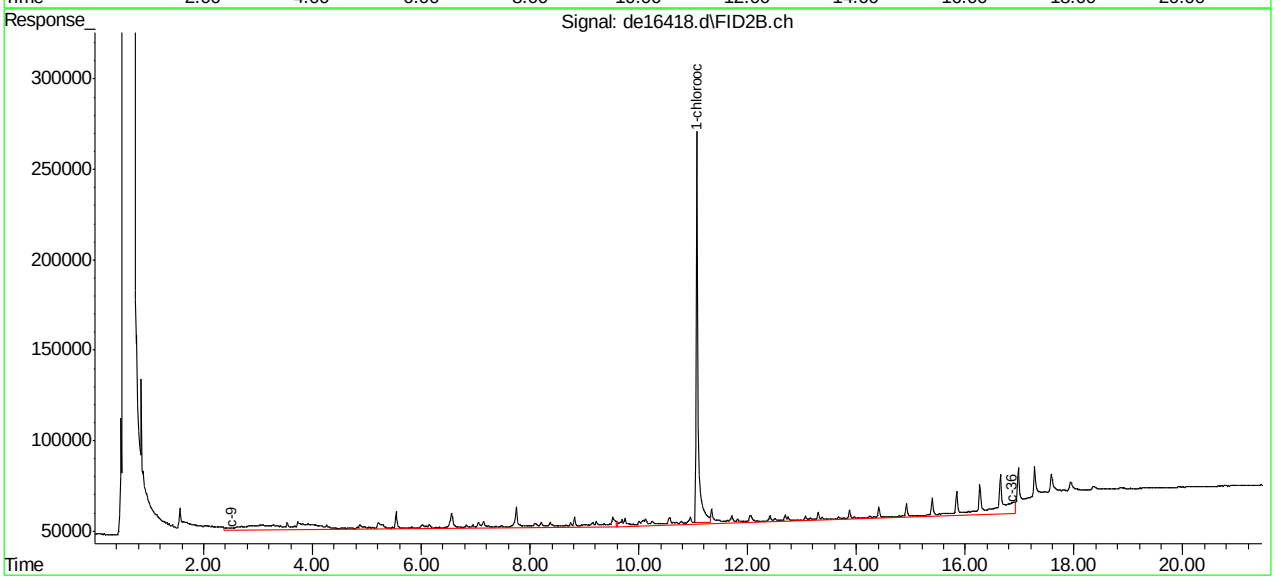
Quantitation Report (QT Reviewed)

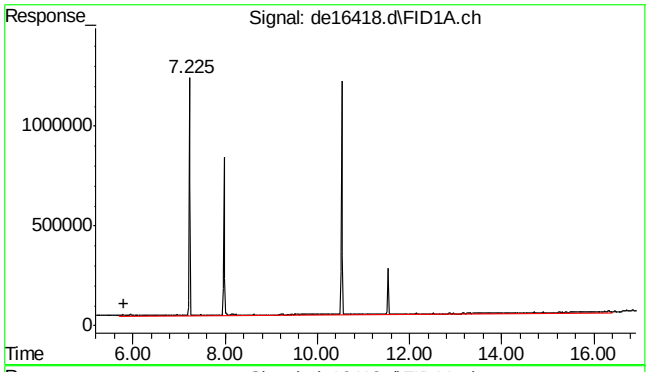
Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16418.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 10:16 pm
Operator : thomasa
Sample : mc48999-2,op49287
Misc : op49287,gde916,970,,,2,,w
ALS Vial : 34 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:27:58 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

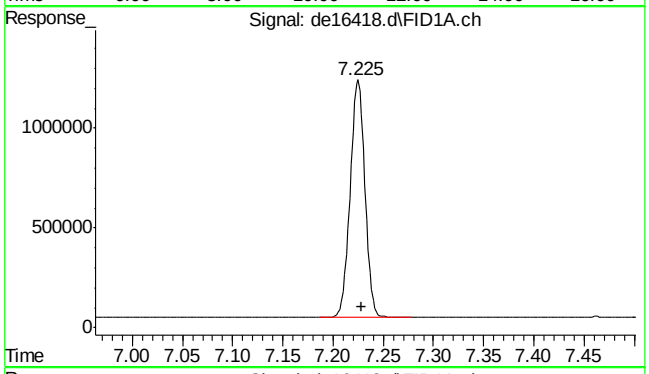






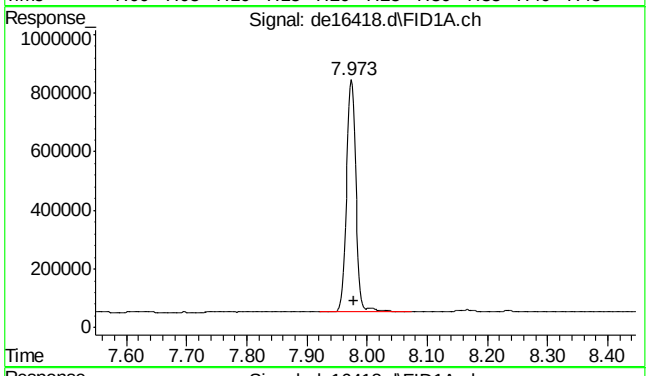
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 1249629
Conc: 12.50 µg/ml m



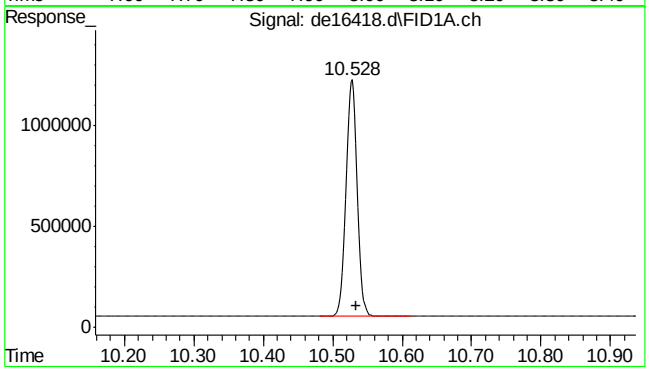
#4 2-fluorobiphenyl

R.T.: 7.225 min
Delta R.T.: -0.003 min
Response: 1207160
Conc: 13.81 µg/ml



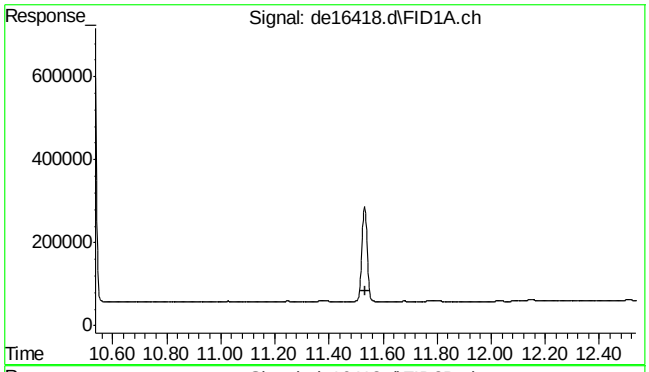
#6 2-bromonaphthalene

R.T.: 7.973 min
Delta R.T.: -0.005 min
Response: 859134
Conc: 14.42 µg/ml



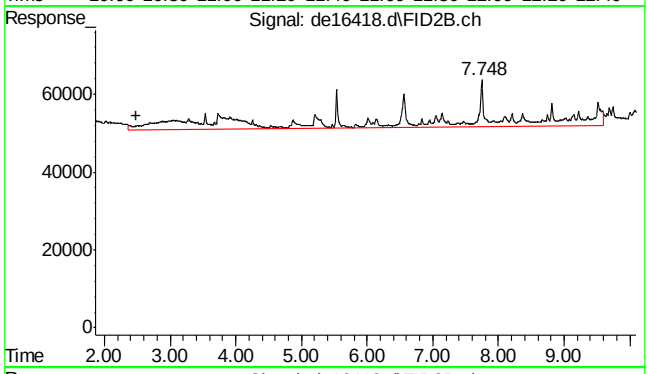
#11 o-terphenyl

R.T.: 10.528 min
Delta R.T.: -0.005 min
Response: 1335657
Conc: 14.07 µg/ml



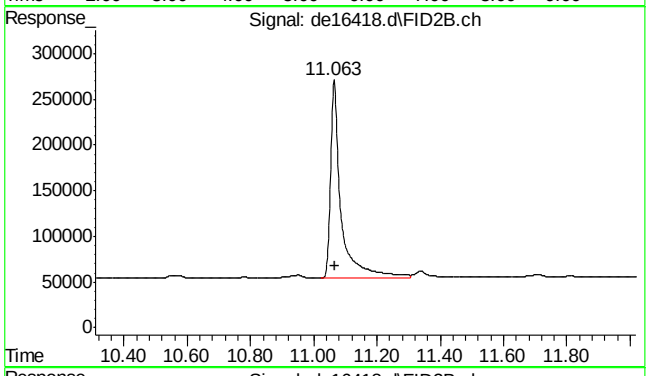
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



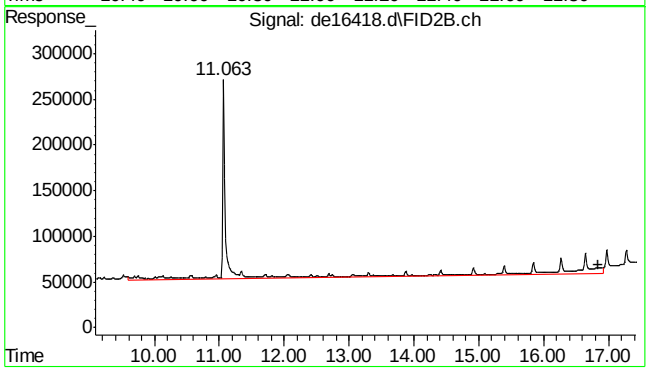
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 637266
Conc: 8.28 µg/ml m



#35 1-chlorooctadecane

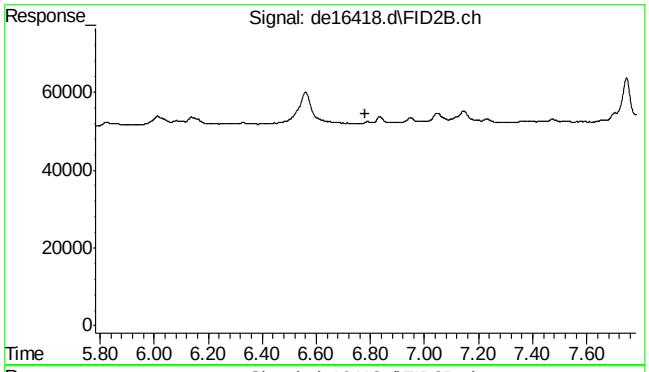
R.T.: 11.063 min
Delta R.T.: -0.003 min
Response: 500146
Conc: 8.79 µg/ml



#41 c-36

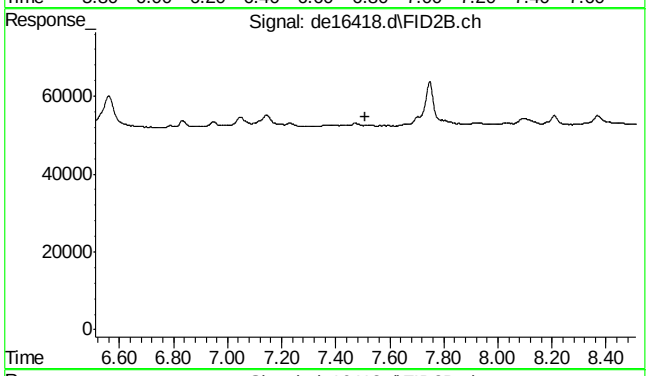
R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 760392
Conc: 11.22 µg/ml m

SGS ACCUTEST MC48999



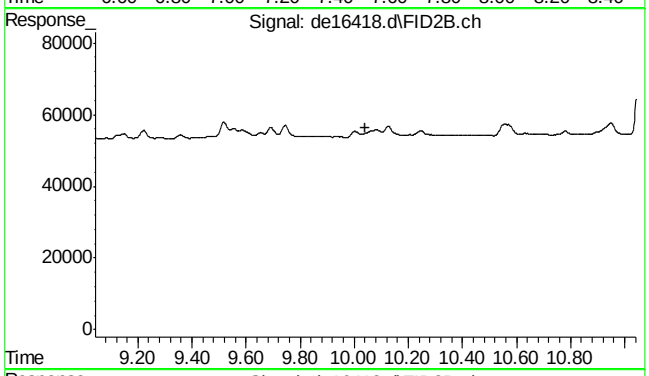
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



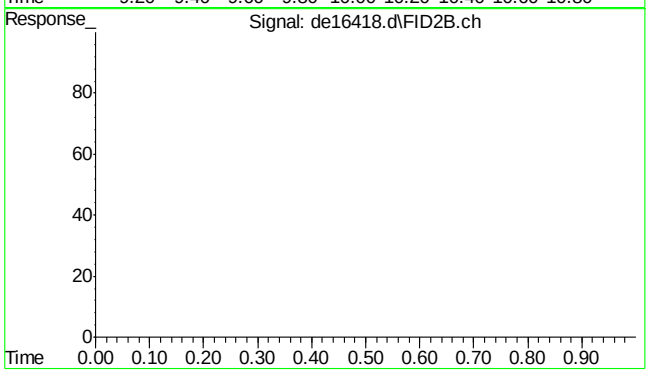
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220EPH\
Data File : de16441.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 1:24 pm
Operator : thomasa
Sample : mc48999-3,RF op49287
Misc : op49287,gde917,960,,,2,,w
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 14:05:42 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.223	1299462	14.862 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 74.31%#		
6) s 2-bromonaphthalene	7.973	932390	15.648 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 78.24%#		
11) s o-terphenyl	10.527	1441931	15.194 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 75.97%#		
35) s 1-chlorooctadecane	11.067	449982	7.910 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 39.55%#		
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	2534454	25.359 µg/mlm
25) h c-9	2.495	925042	12.023 µg/mlm
41) h c-36	16.838	1169458	17.249 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

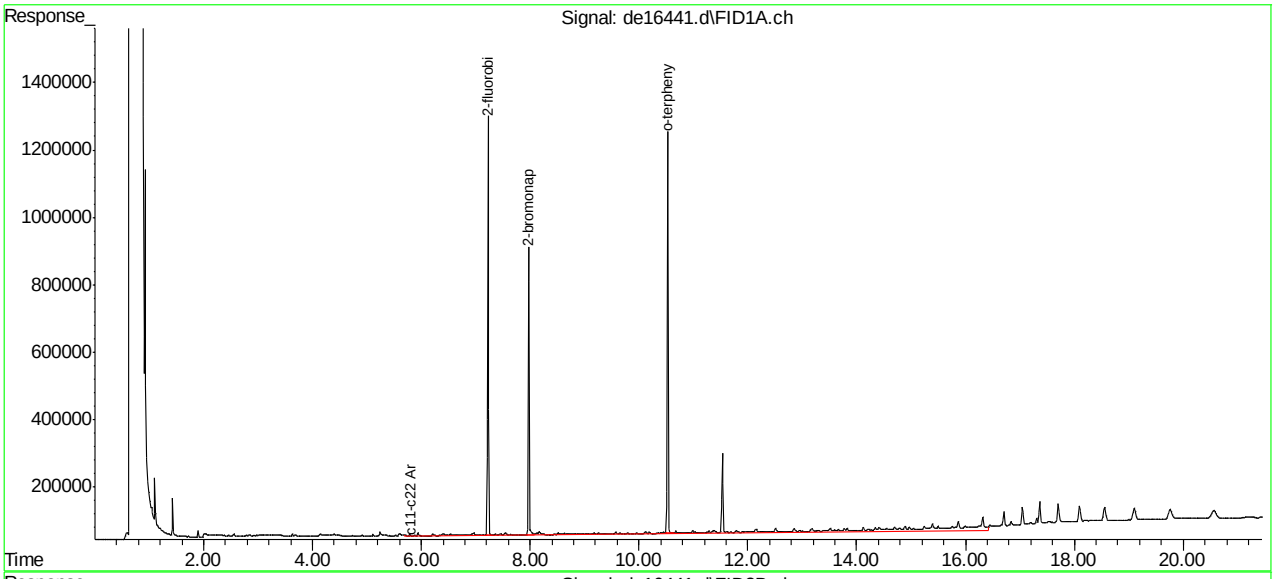
SGS ACCUTEST MC48999

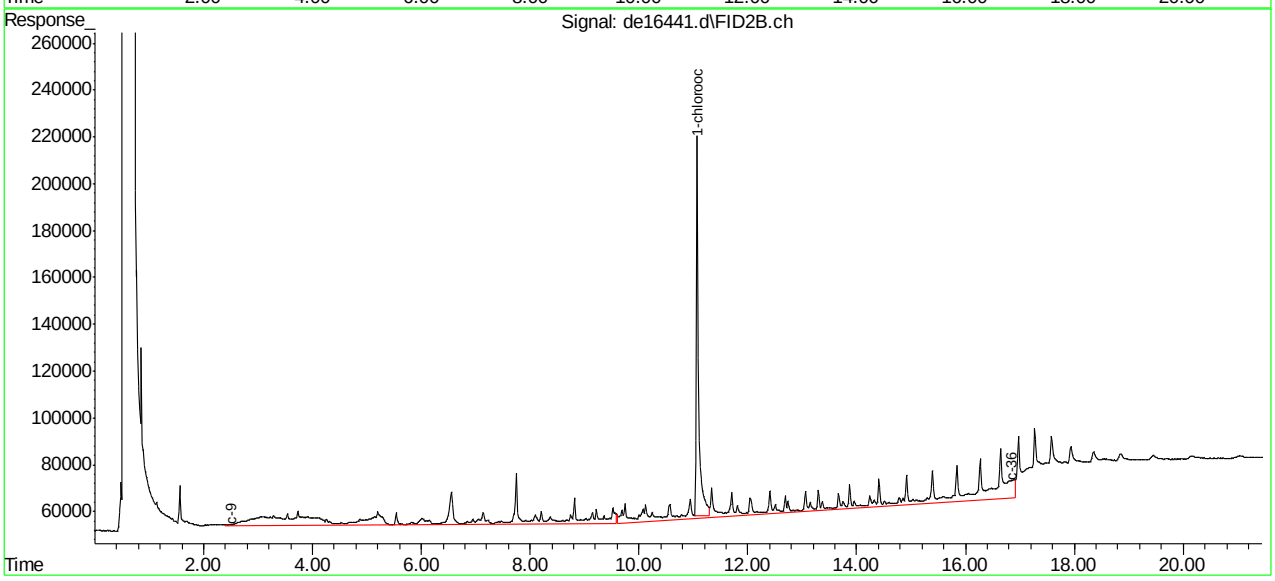
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220EPH\
Data File : de16441.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 1:24 pm
Operator : thomasa
Sample : mc48999-3,RF op49287
Misc : op49287,gde917,960,,,2,,w
ALS Vial : 8 Sample Multiplier: 1

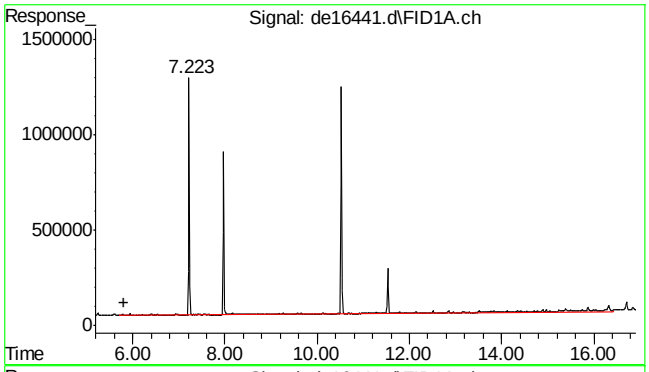
Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 14:05:42 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



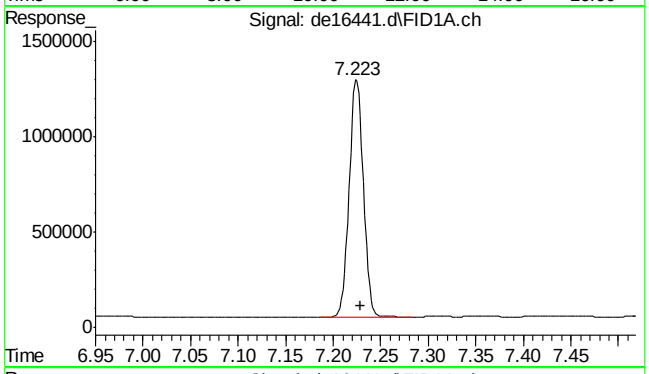


EPH161220W.M Tue Dec 20 14:05:46 2016 Page: 2



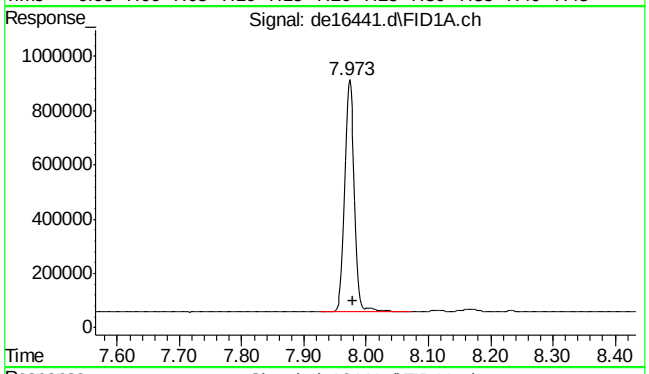
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 2534454
Conc: 25.36 µg/ml m



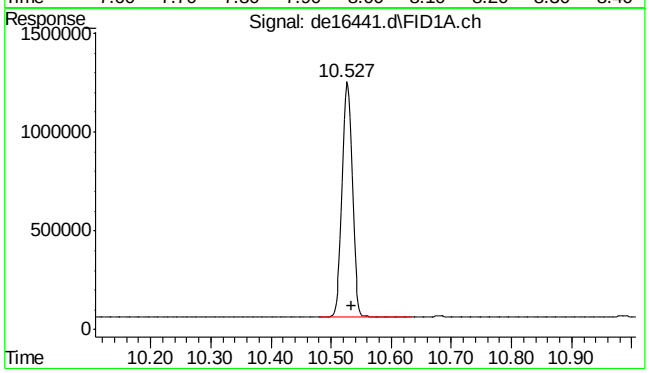
#4 2-fluorobiphenyl

R.T.: 7.223 min
Delta R.T.: -0.005 min
Response: 1299462
Conc: 14.86 µg/ml



#6 2-bromonaphthalene

R.T.: 7.973 min
Delta R.T.: -0.005 min
Response: 932390
Conc: 15.65 µg/ml



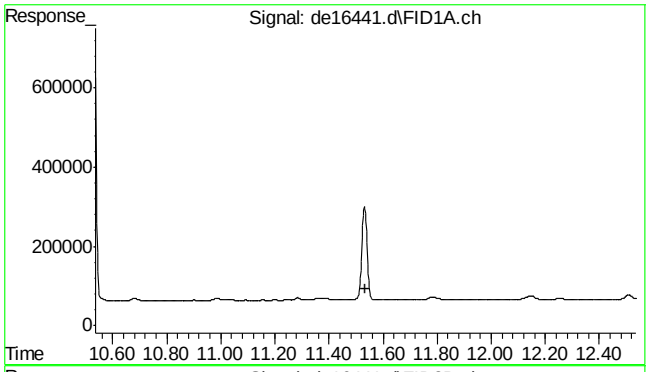
#11 o-terphenyl

R.T.: 10.527 min
Delta R.T.: -0.007 min
Response: 1441931
Conc: 15.19 µg/ml

9.1.4

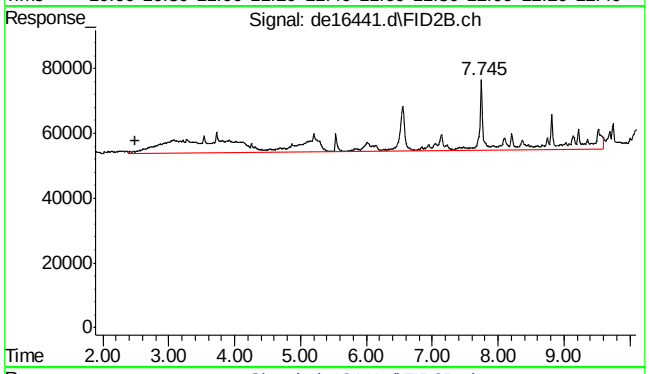
9

SGS ACCUTEST MC48999



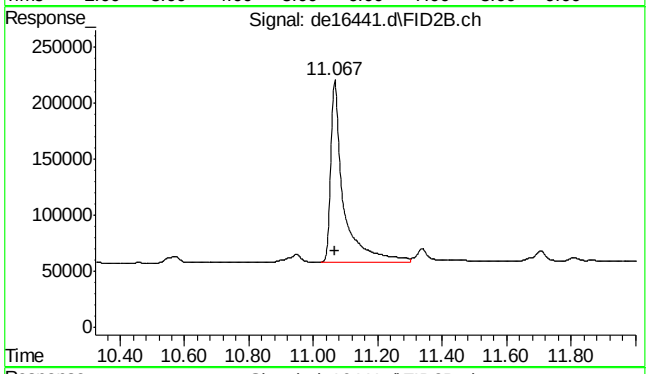
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



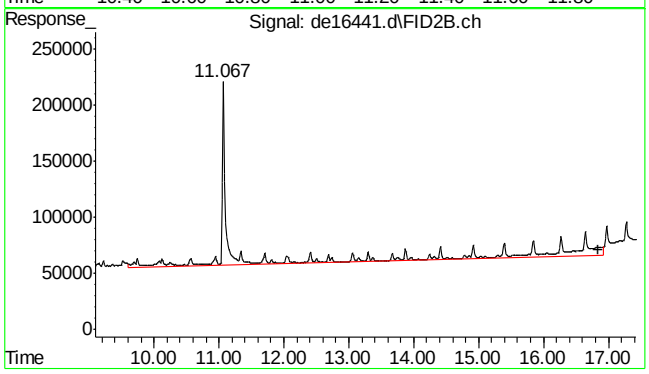
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 925042
Conc: 12.02 µg/ml m



#35 1-chlorooctadecane

R.T.: 11.067 min
Delta R.T.: 0.000 min
Response: 449982
Conc: 7.91 µg/ml



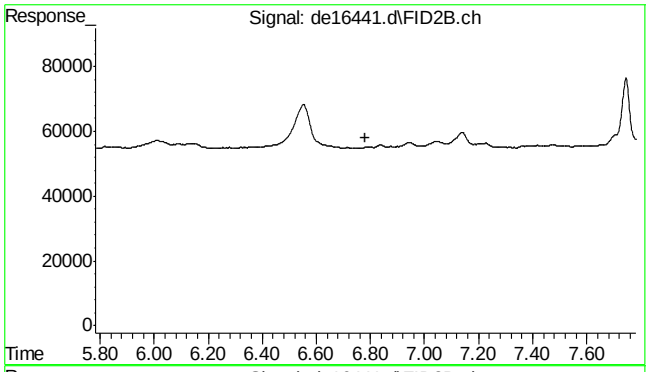
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 1169458
Conc: 17.25 µg/ml m

9.1.4

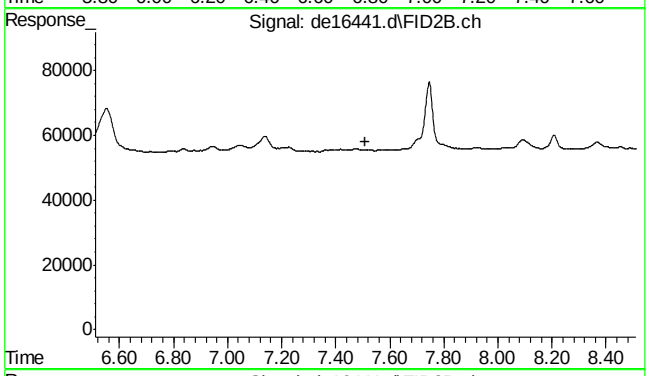
9

SGS ACCUTEST MC48999



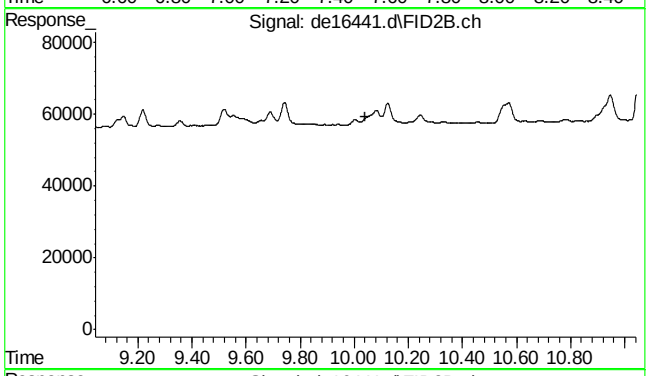
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



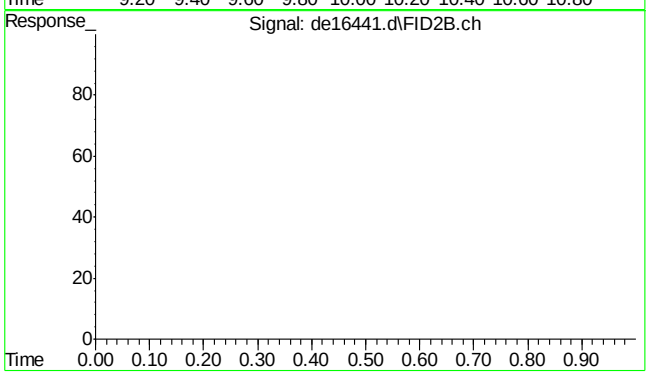
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16420.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 11:11 pm
Operator : thomasa
Sample : mc48999-4,op49287
Misc : op49287,gde916,920,,,2,,w
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:31:09 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.223	1201728	13.744 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 68.72%#	
6) s 2-bromonaphthalene	7.973	853299	14.320 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 71.60%#	
11) s o-terphenyl	10.527	1389938	14.646 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 73.23%#	
35) s 1-chlorooctadecane	11.065	522694	9.188 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 45.94%#	
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	1377076	13.779 µg/mlm
25) h c-9	2.495	578032	7.513 µg/mlm
41) h c-36	16.838	788759	11.634 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

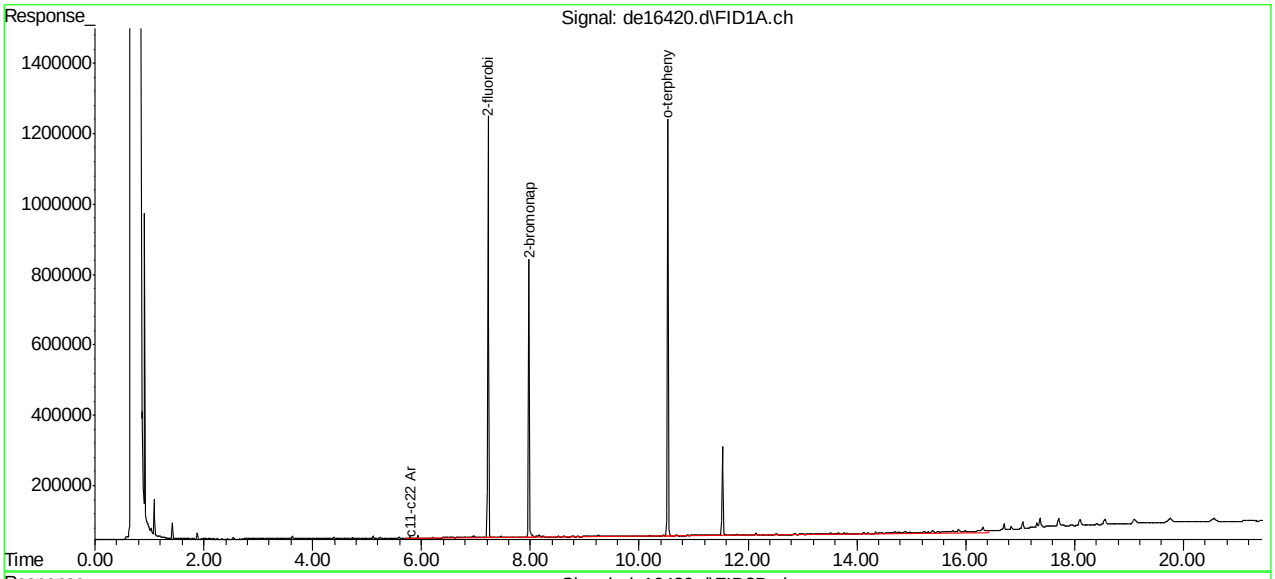
SGS ACCUTEST MC48999

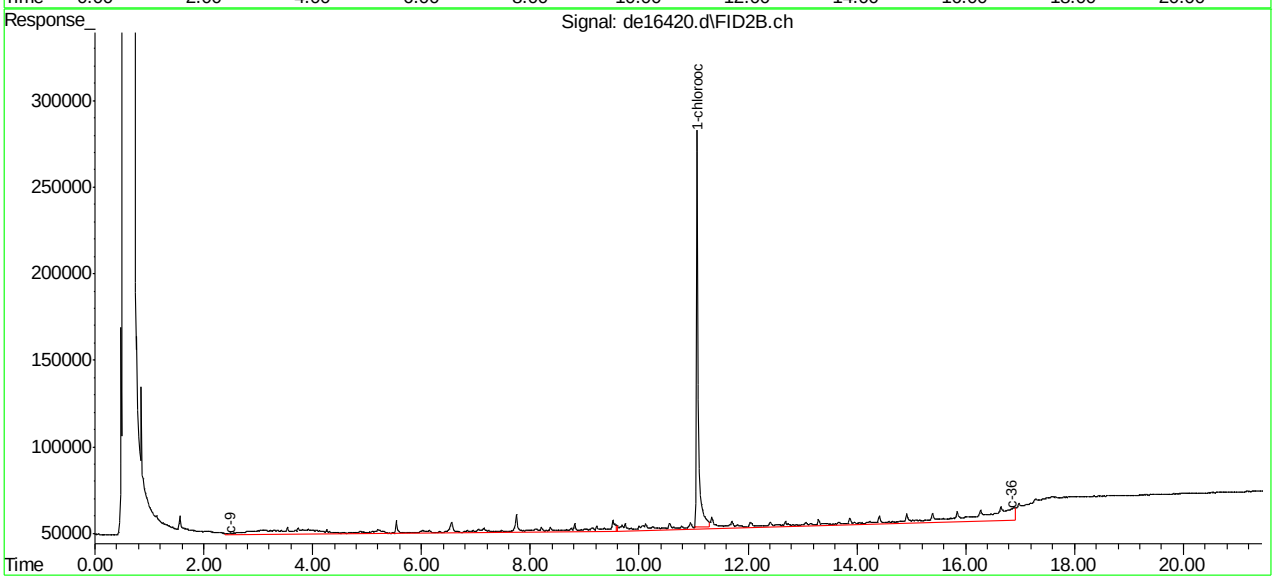
Quantitation Report (QT Reviewed)

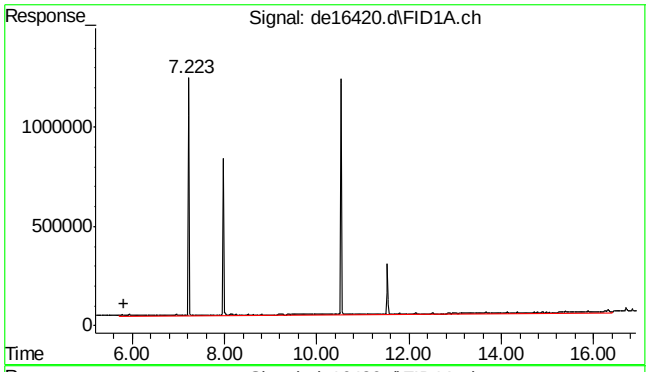
Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16420.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 11:11 pm
Operator : thomasa
Sample : mc48999-4,op49287
Misc : op49287,gde916,920,,,2,,w
ALS Vial : 38 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:31:09 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

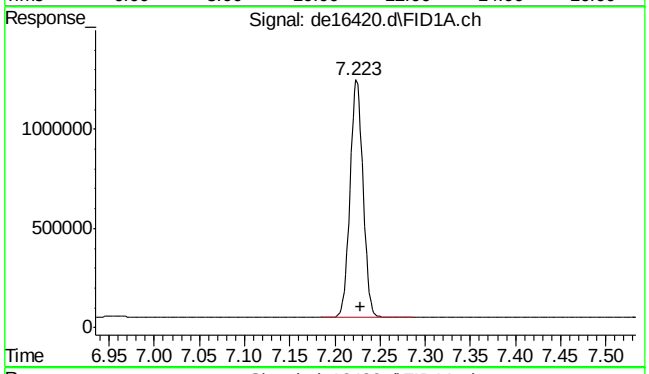






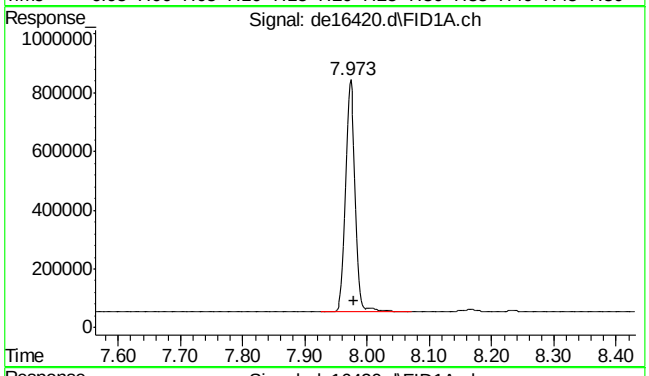
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 1377076
Conc: 13.78 µg/ml m



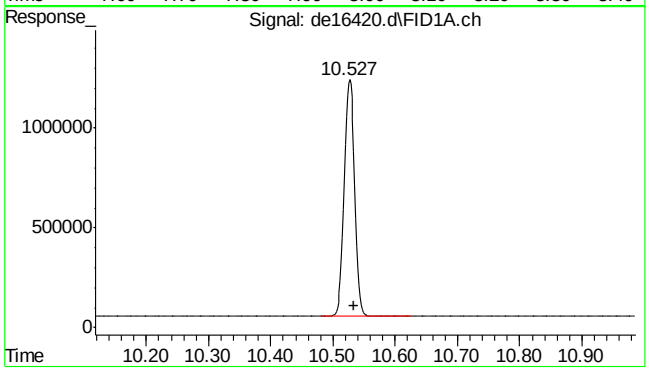
#4 2-fluorobiphenyl

R.T.: 7.223 min
Delta R.T.: -0.005 min
Response: 1201728
Conc: 13.74 µg/ml



#6 2-bromonaphthalene

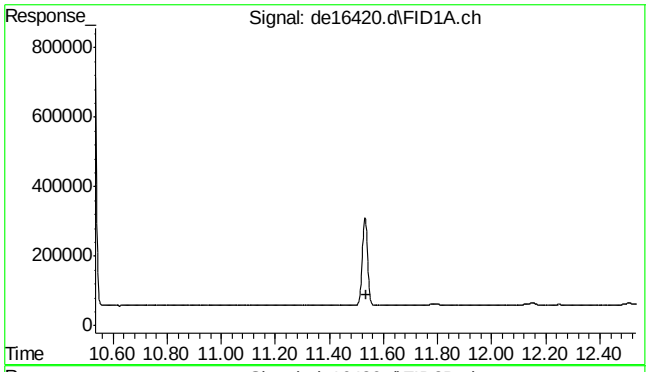
R.T.: 7.973 min
Delta R.T.: -0.005 min
Response: 853299
Conc: 14.32 µg/ml



#11 o-terphenyl

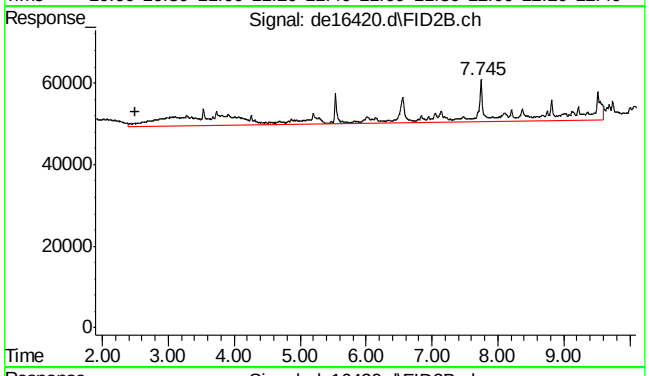
R.T.: 10.527 min
Delta R.T.: -0.007 min
Response: 1389938
Conc: 14.65 µg/ml

SGS ACCUTEST MC48999



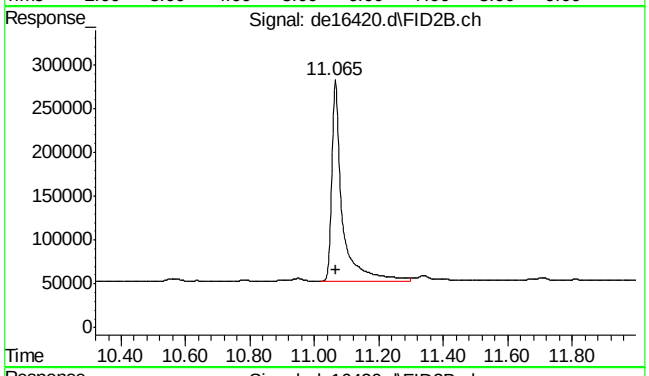
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



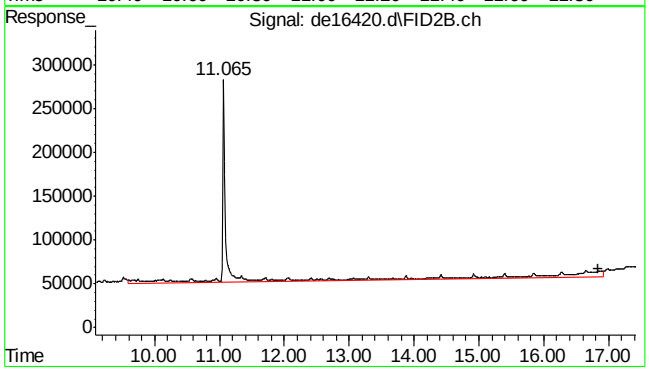
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 578032
Conc: 7.51 µg/ml m



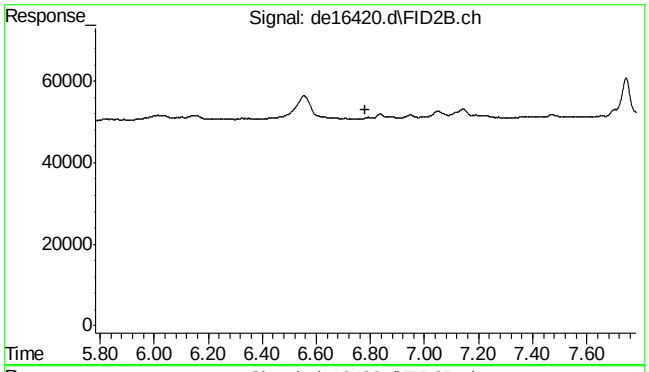
#35 1-chlorooctadecane

R.T.: 11.065 min
Delta R.T.: -0.002 min
Response: 522694
Conc: 9.19 µg/ml



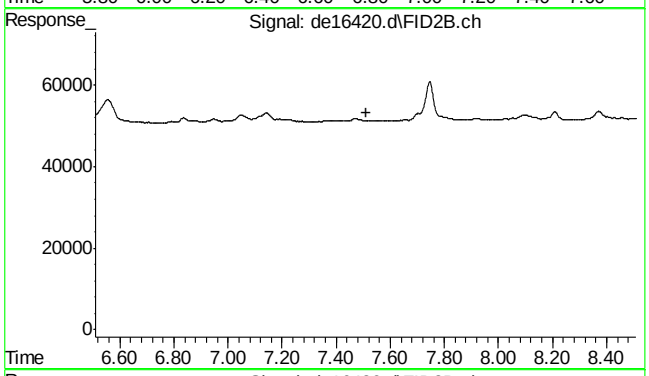
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 788759
Conc: 11.63 µg/ml m



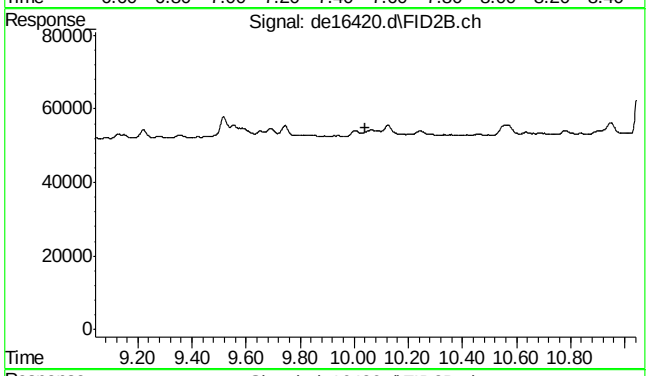
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



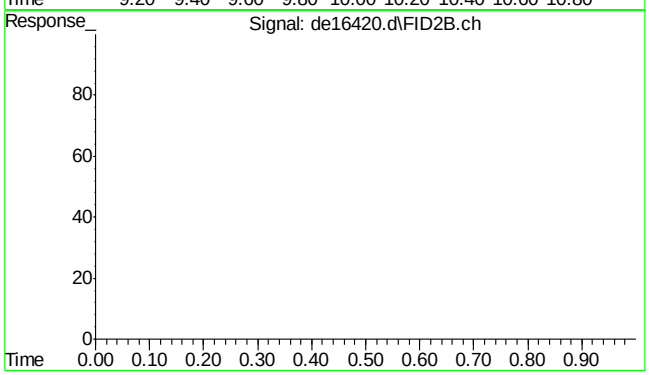
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

Quantitation Report (QT Reviewed)

Data Path : G:\1\DATA\DE161220EPH\
Data File : de16442.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 1:52 pm
Operator : thomasa
Sample : mc48999-5,RF op49287
Misc : op49287,gde917,930,,,2,,w
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 14:56:48 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.223	1117582	12.782 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 63.91%#		
6) s 2-bromonaphthalene	7.973	796236	13.363 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 66.81%#		
11) s o-terphenyl	10.527	901673	9.501 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 47.50%#		
35) s 1-chlorooctadecane	11.067	381382	6.704 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 33.52%#		
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	1258111	12.588 µg/mlm
25) h c-9	2.495	855529	11.120 µg/mlm
41) h c-36	16.838	997977	14.720 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.1.6

9

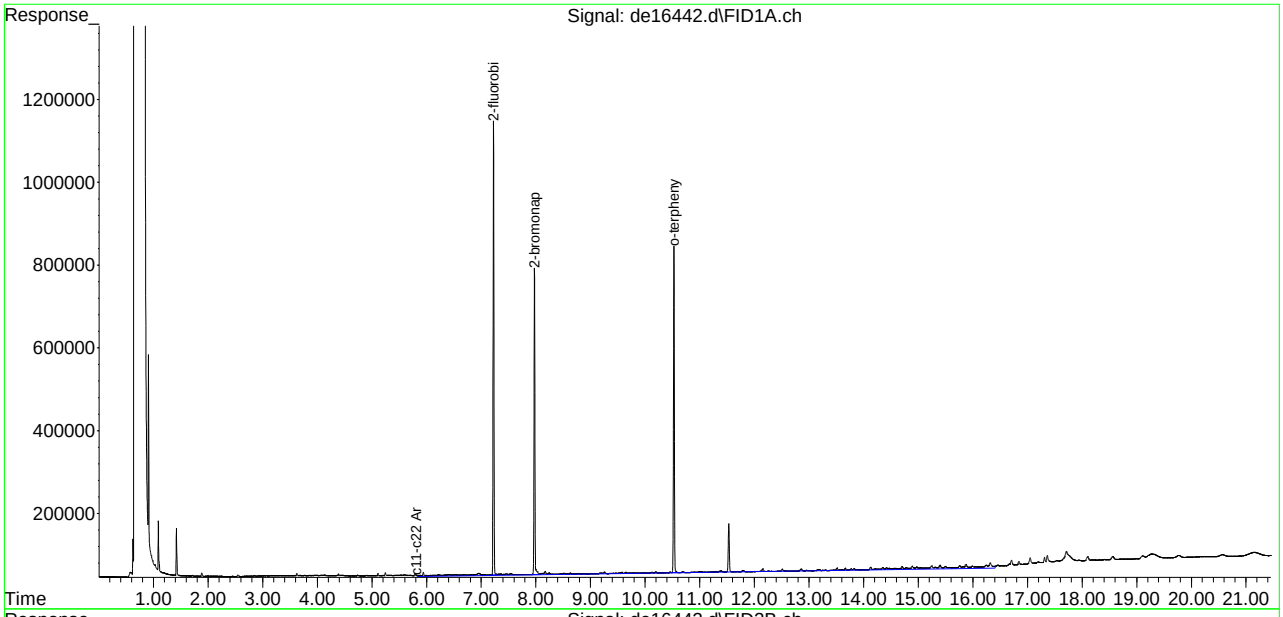
SGS ACCUTEST MC48999

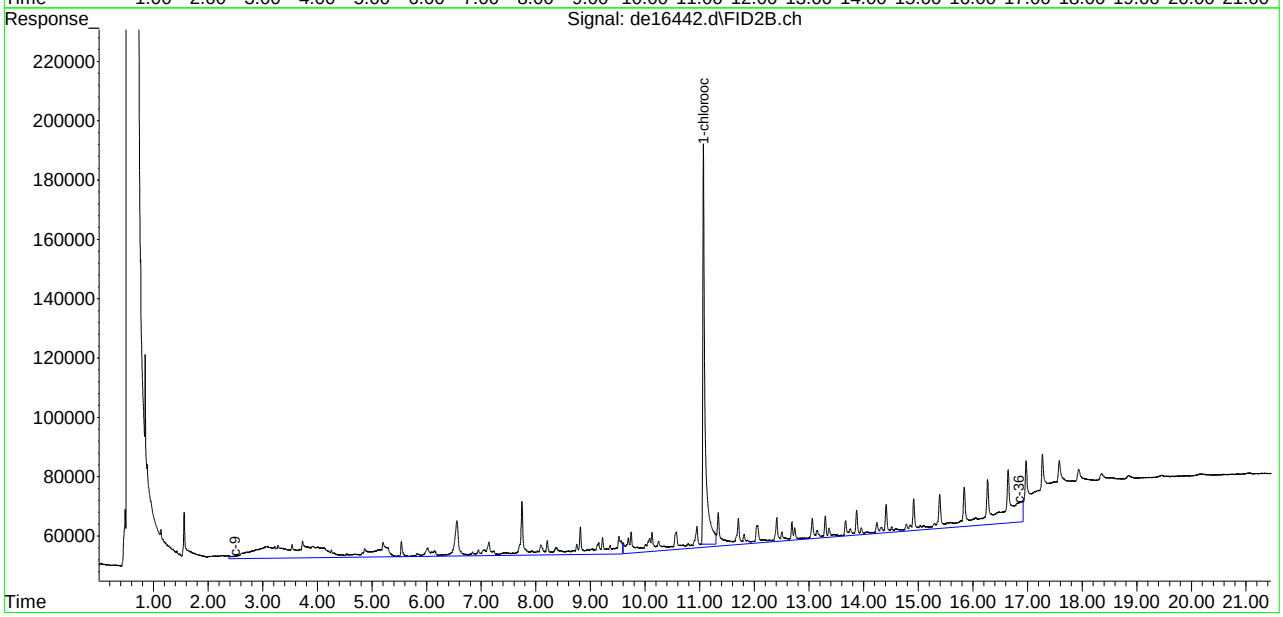
Quantitation Report (QT Reviewed)

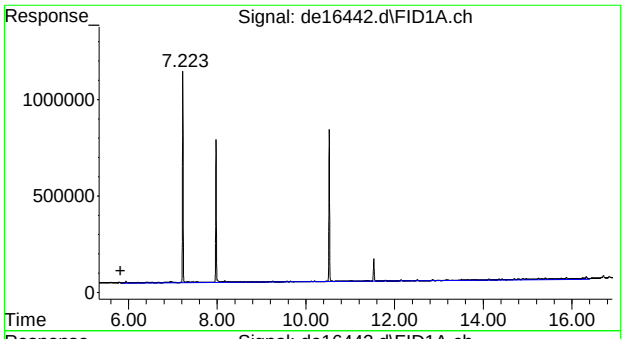
Data Path : G:\1\DATA\DE161220EPH\
Data File : de16442.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 1:52 pm
Operator : thomasa
Sample : mc48999-5,RF op49287
Misc : op49287,gde917,930,,,2,,w
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 14:56:48 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

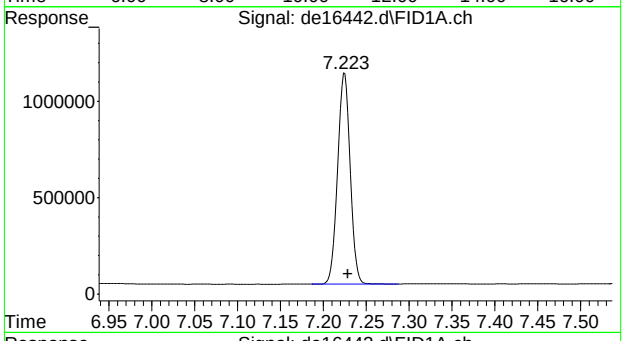






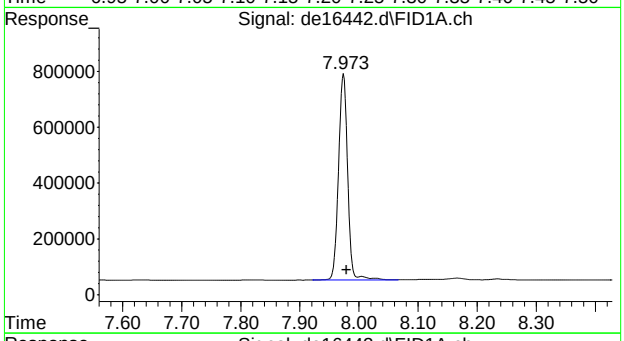
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 1258111
Conc: 12.59 µg/ml m



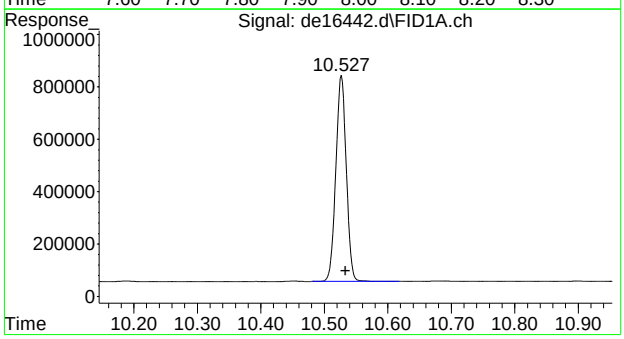
#4 2-fluorobiphenyl

R.T.: 7.223 min
Delta R.T.: -0.005 min
Response: 1117582
Conc: 12.78 µg/ml



#6 2-bromonaphthalene

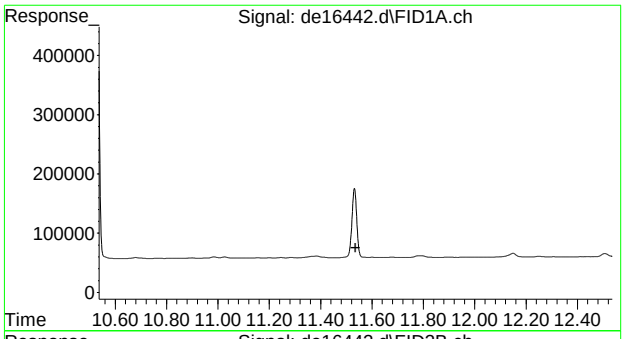
R.T.: 7.973 min
Delta R.T.: -0.005 min
Response: 796236
Conc: 13.36 µg/ml



#11 o-terphenyl

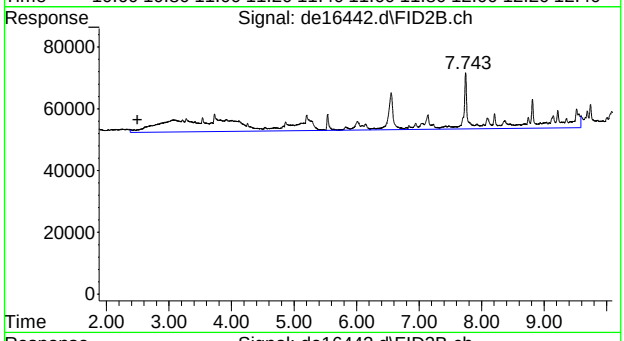
R.T.: 10.527 min
Delta R.T.: -0.007 min
Response: 901673
Conc: 9.50 µg/ml

SGS ACCUTEST MC48999



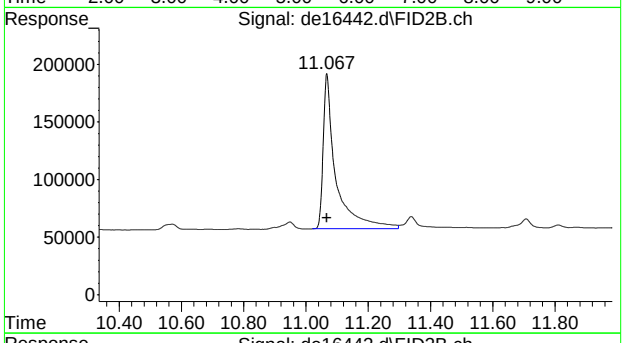
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



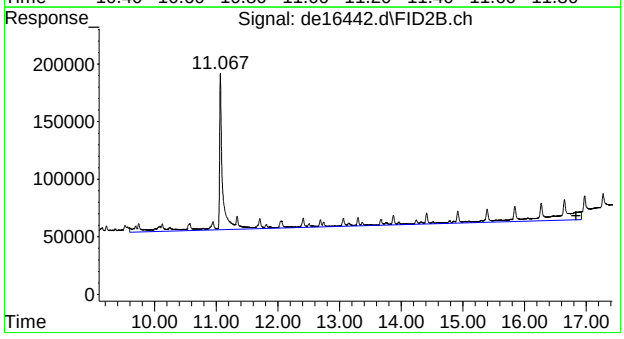
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 855529
Conc: 11.12 µg/ml m



#35 1-chlorooctadecane

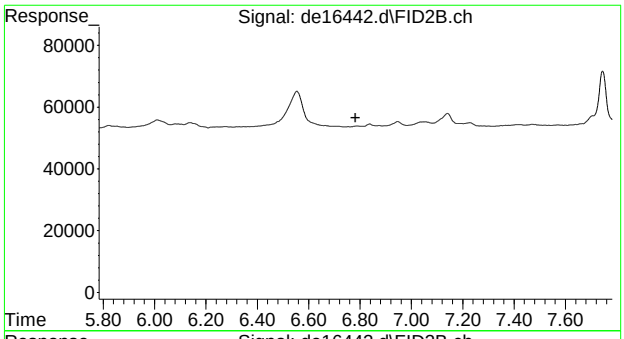
R.T.: 11.067 min
Delta R.T.: 0.000 min
Response: 381382
Conc: 6.70 µg/ml



#41 c-36

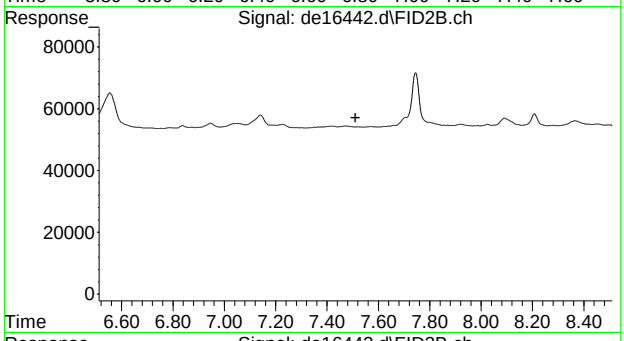
R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 997977
Conc: 14.72 µg/ml m

SGS ACCUTEST MC48999



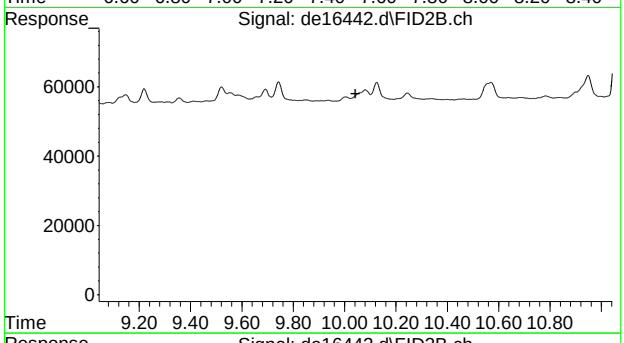
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



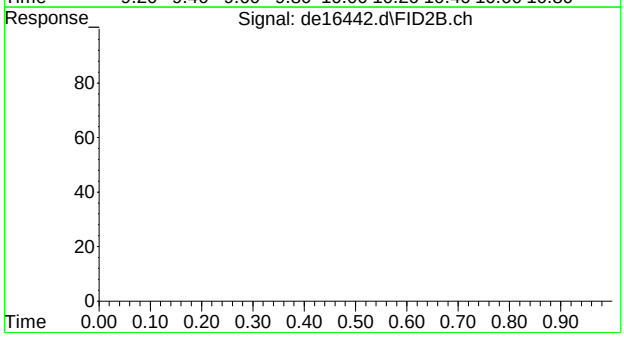
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

9.1.6

9

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : G:\1\DATA\DE161219EPH\
Data File : de16421.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 11:39 pm
Operator : thomasa
Sample : mc48999-5,op49287
Misc : op49287,gde916,930,,,2,,w
ALS Vial : 40 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 14:55:14 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.223	1305836	14.935 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery =	74.67%#
6) s 2-bromonaphthalene	7.973	922280	15.478 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery =	77.39%#
11) s o-terphenyl	10.527	1041996	10.980 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery =	54.90%#
35) s 1-chlorooctadecane	11.067	338057	5.942 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery =	29.71%#
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	947926	9.485 µg/mlm
25) h c-9	2.495	591141	7.683 µg/mlm
41) h c-36	16.838	1350416	19.918 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.1.7

9

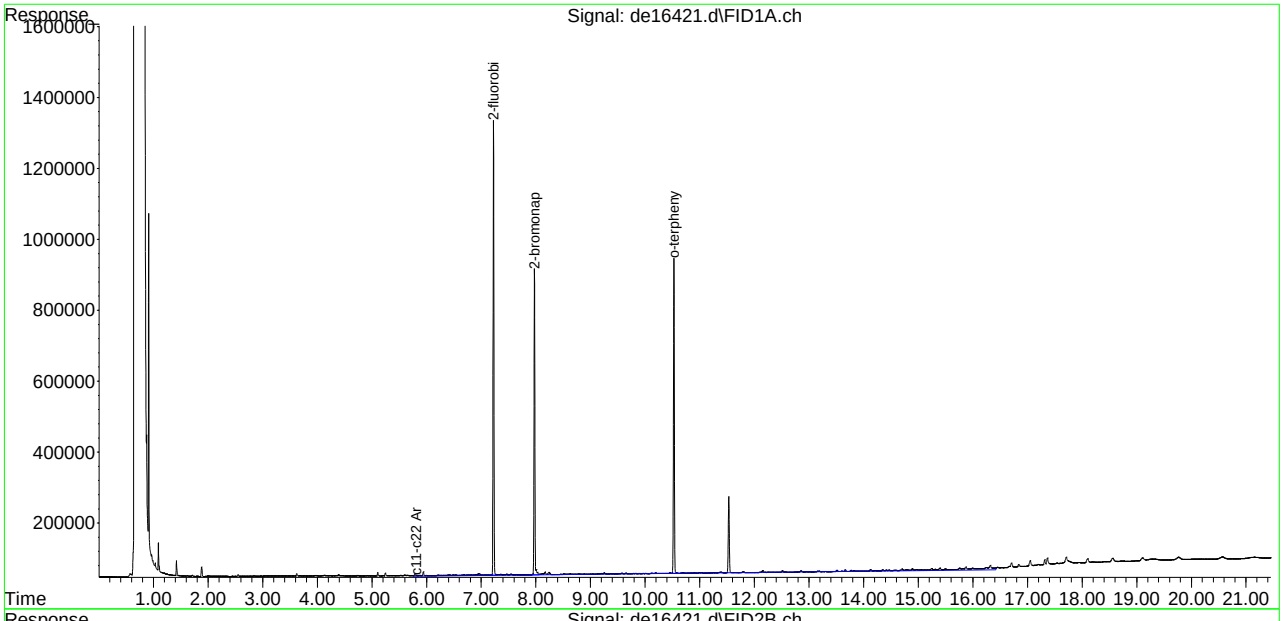
SGS ACCUTEST MC48999

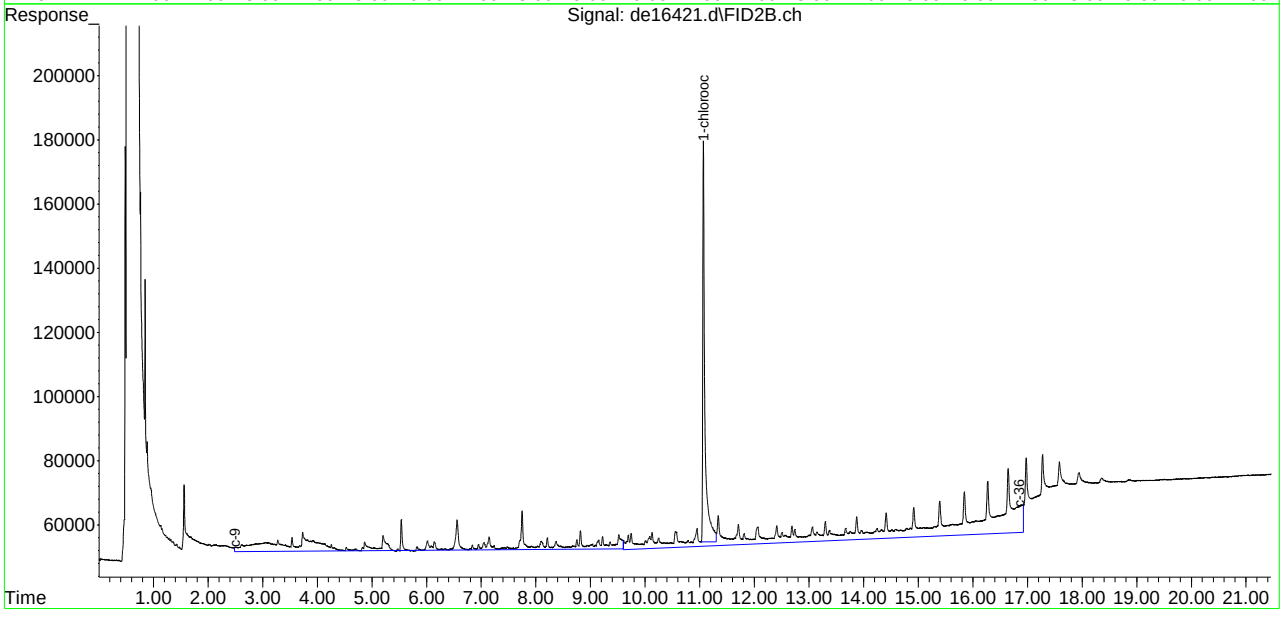
Quantitation Report (QT Reviewed)

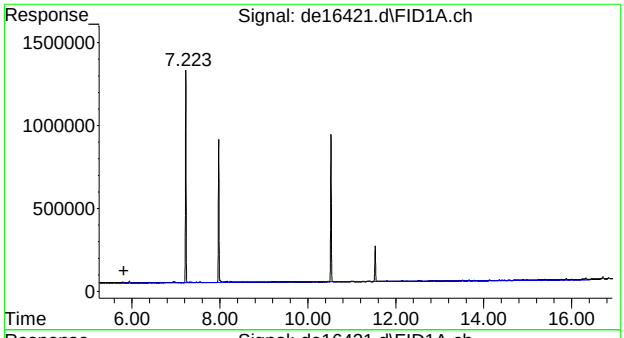
Data Path : G:\1\DATA\DE161219EPH\
Data File : de16421.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 11:39 pm
Operator : thomasa
Sample : mc48999-5,op49287
Misc : op49287,gde916,930,,,2,,w
ALS Vial : 40 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 14:55:14 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

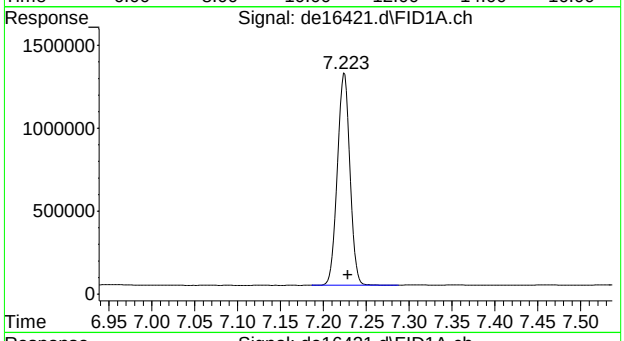






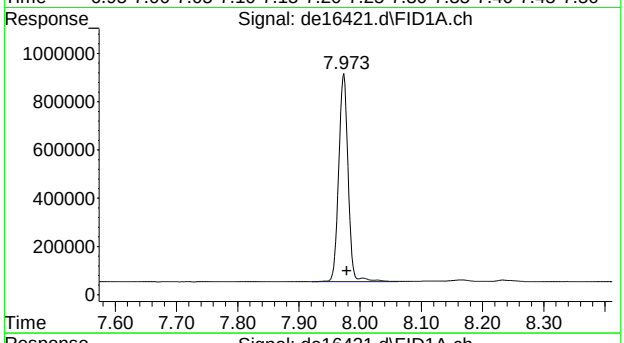
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 947926
Conc: 9.48 µg/ml m



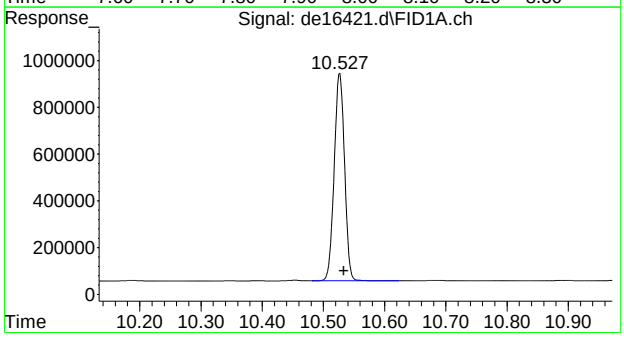
#4 2-fluorobiphenyl

R.T.: 7.223 min
Delta R.T.: -0.005 min
Response: 1305836
Conc: 14.94 µg/ml



#6 2-bromonaphthalene

R.T.: 7.973 min
Delta R.T.: -0.005 min
Response: 922280
Conc: 15.48 µg/ml



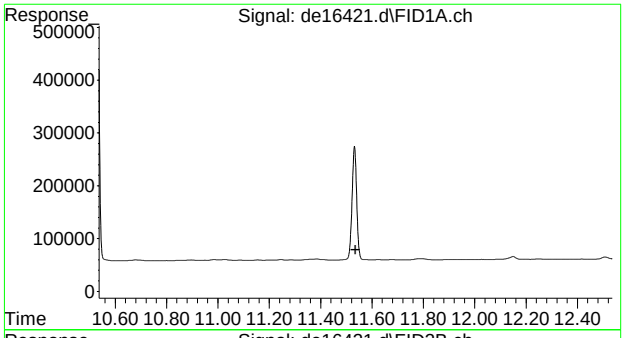
#11 o-terphenyl

R.T.: 10.527 min
Delta R.T.: -0.007 min
Response: 1041996
Conc: 10.98 µg/ml

9.1.7

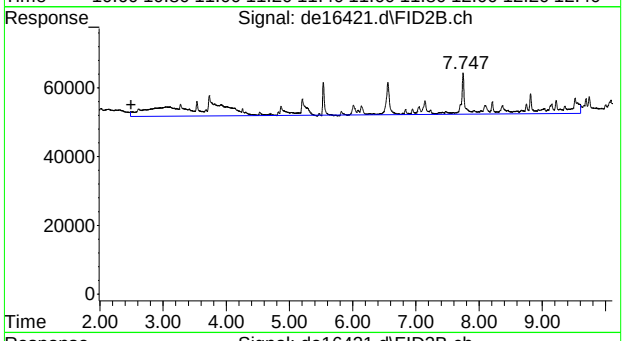
9

SGS ACCUTEST MC48999



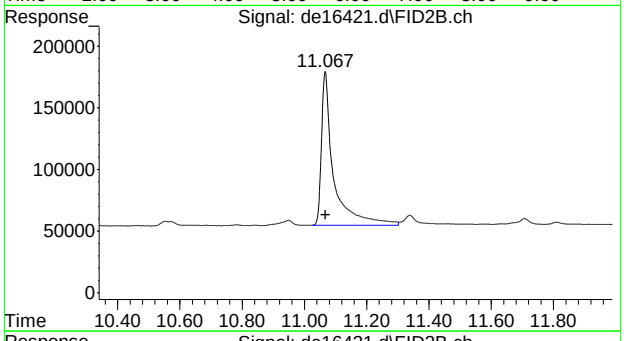
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



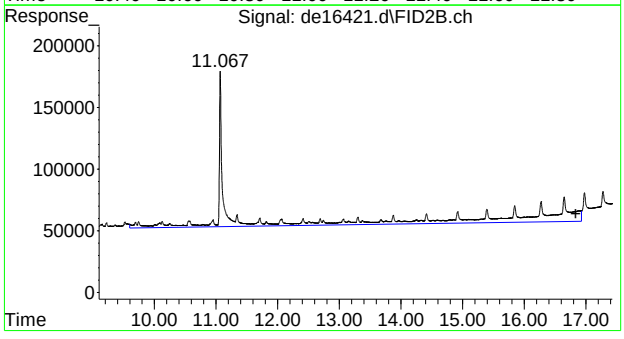
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 591141
Conc: 7.68 µg/ml m



#35 1-chlorooctadecane

R.T.: 11.067 min
Delta R.T.: 0.000 min
Response: 338057
Conc: 5.94 µg/ml



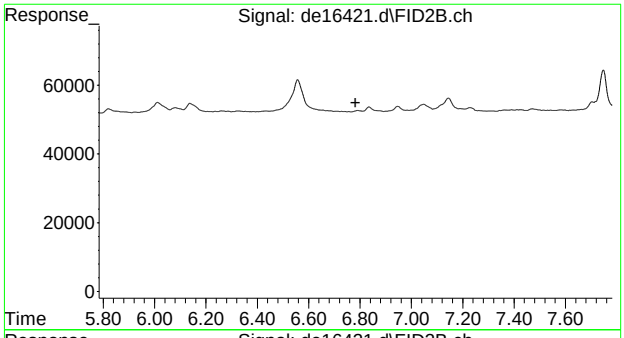
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 1350416
Conc: 19.92 µg/ml m

9.1.7

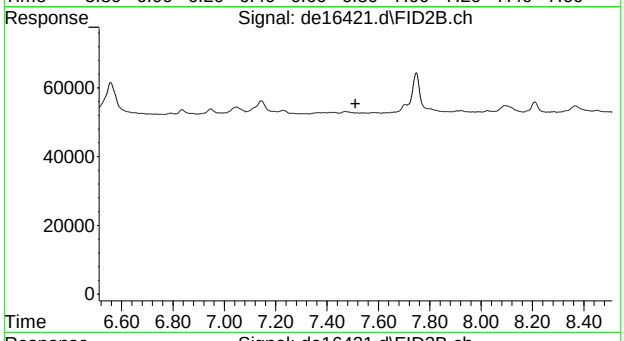
9

SGS ACCUTEST MC48999



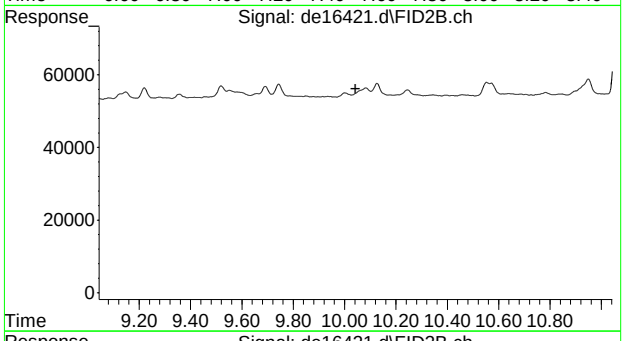
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



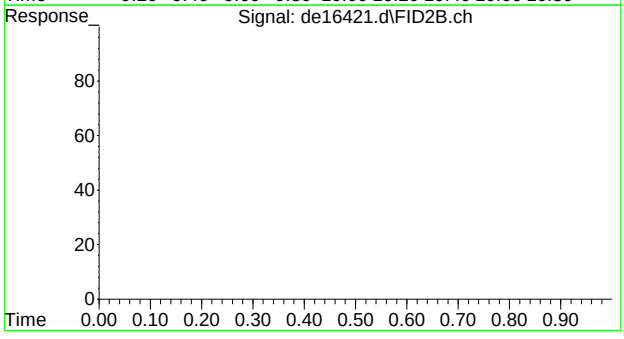
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : G:\1\DATA\DE161219EPH\
Data File : de16423.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 12:35 am
Operator : thomasa
Sample : mc48999-6,op49287
Misc : op49287,gde916,960,,,2,,w
ALS Vial : 42 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 15:03:04 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.225	1287135	14.721 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery =	73.61%#
6) s 2-bromonaphthalene	7.975	914626	15.349 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery =	76.74%#
11) s o-terphenyl	10.527	1675907	17.660 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery =	88.30%#
35) s 1-chlorooctadecane	11.065	624577	10.978 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery =	54.89%#
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	1244121	12.448 µg/mlm
25) h c-9	2.495	651061	8.462 µg/mlm
41) h c-36	16.838	1093139	16.123 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.1.8

9

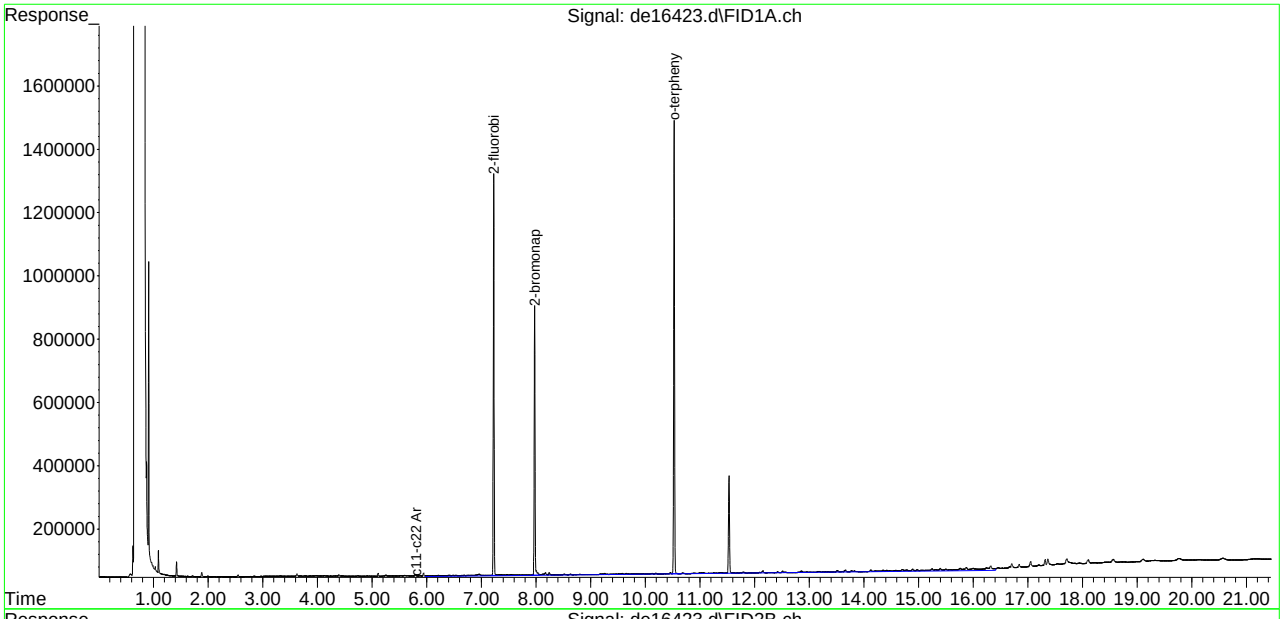
SGS ACCUTEST MC48999

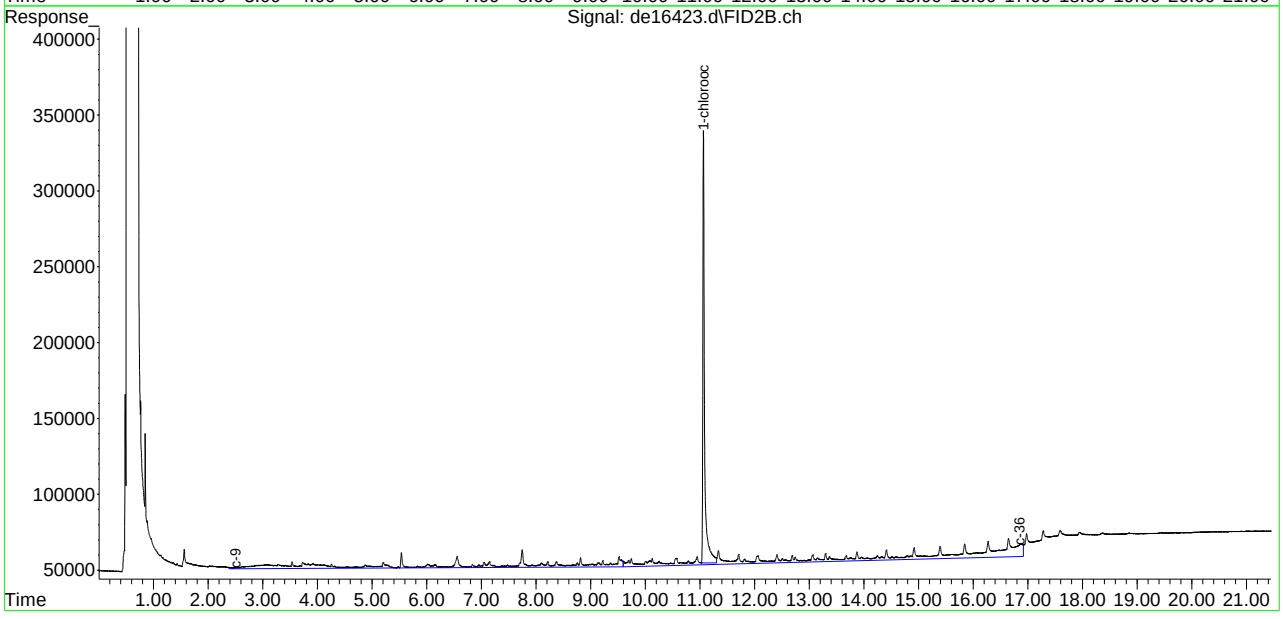
Quantitation Report (QT Reviewed)

Data Path : G:\1\DATA\DE161219EPH\
Data File : de16423.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 12:35 am
Operator : thomasa
Sample : mc48999-6,op49287
Misc : op49287,gde916,960,,,2,,w
ALS Vial : 42 Sample Multiplier: 1

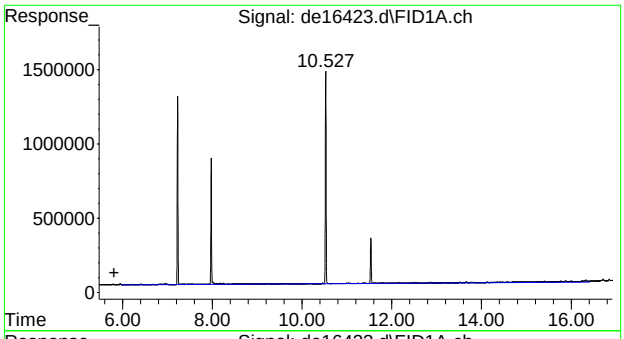
Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 15:03:04 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



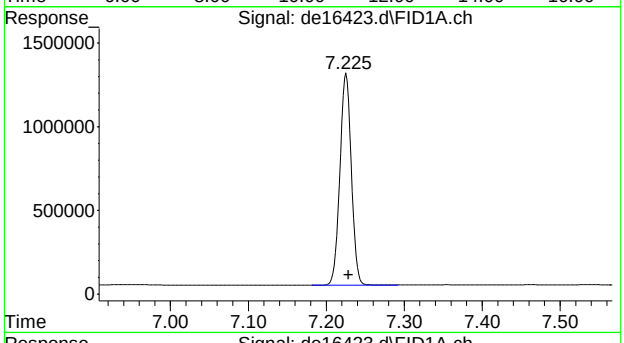


SGS ACCUTEST MC48999



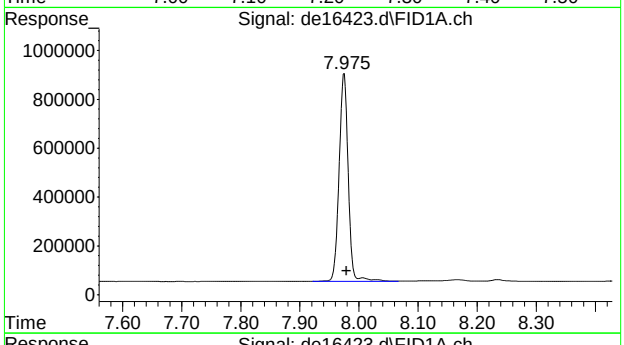
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 1244121
Conc: 12.45 µg/ml m



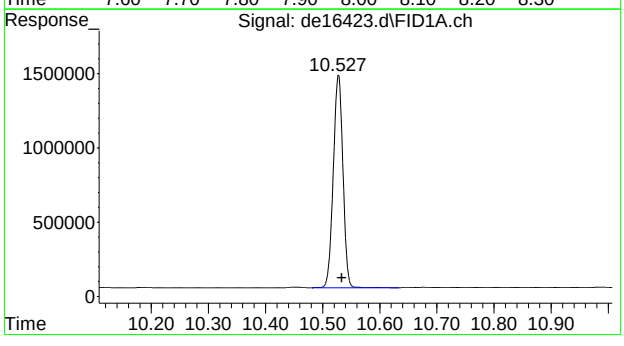
#4 2-fluorobiphenyl

R.T.: 7.225 min
Delta R.T.: -0.003 min
Response: 1287135
Conc: 14.72 µg/ml



#6 2-bromonaphthalene

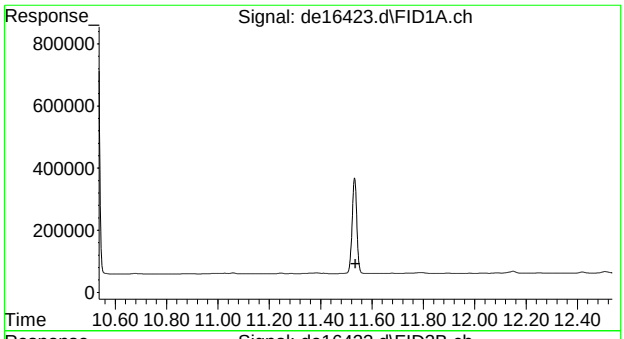
R.T.: 7.975 min
Delta R.T.: -0.003 min
Response: 914626
Conc: 15.35 µg/ml



#11 o-terphenyl

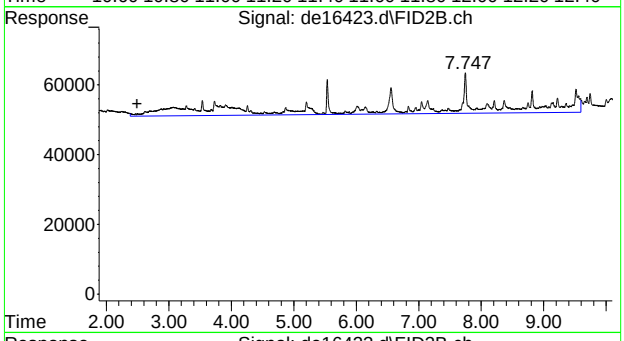
R.T.: 10.527 min
Delta R.T.: -0.007 min
Response: 1675907
Conc: 17.66 µg/ml

SGS ACCUTEST MC48999



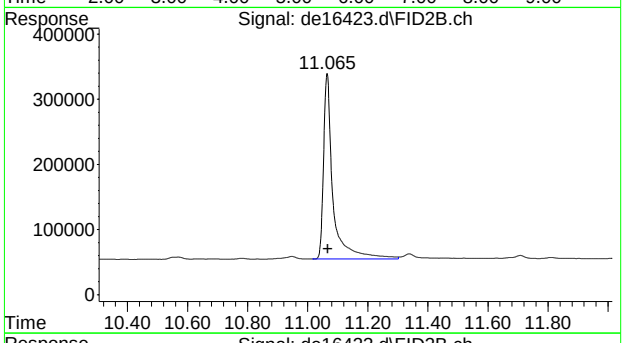
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



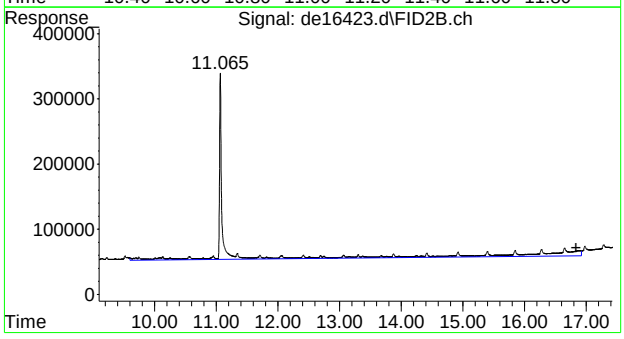
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 651061
Conc: 8.46 µg/ml m



#35 1-chlorooctadecane

R.T.: 11.065 min
Delta R.T.: -0.002 min
Response: 624577
Conc: 10.98 µg/ml



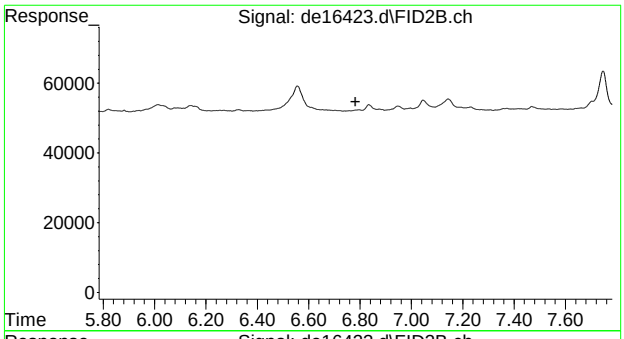
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 1093139
Conc: 16.12 µg/ml m

9.1.8

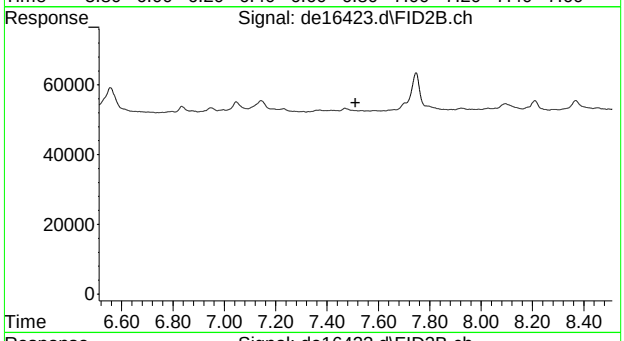
9

SGS ACCUTEST MC48999



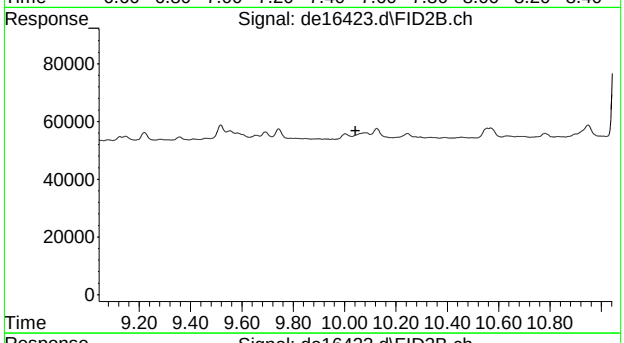
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



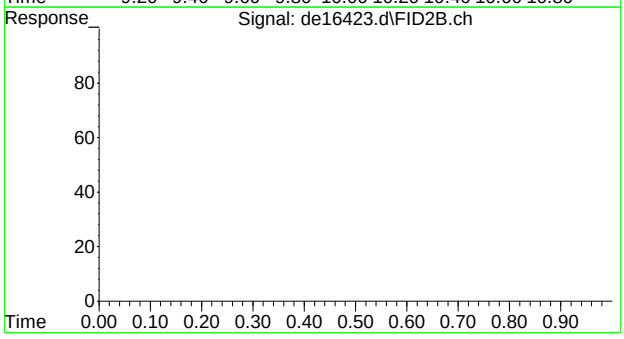
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16424.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 1:03 am
Operator : thomasa
Sample : mc48999-7,op49287
Misc : op49287,gde916,960,,,2,,w
ALS Vial : 44 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:43:45 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.225	1317393	15.067 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 75.33%#	
6) s 2-bromonaphthalene	7.975	937269	15.729 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 78.64%#	
11) s o-terphenyl	10.528	1581720	16.667 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 83.34%#	
35) s 1-chlorooctadecane	11.065	514819	9.049 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 45.24%#	
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	1519271	15.201 µg/mlm
25) h c-9	2.495	693242	9.010 µg/mlm
41) h c-36	16.838	943554	13.917 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

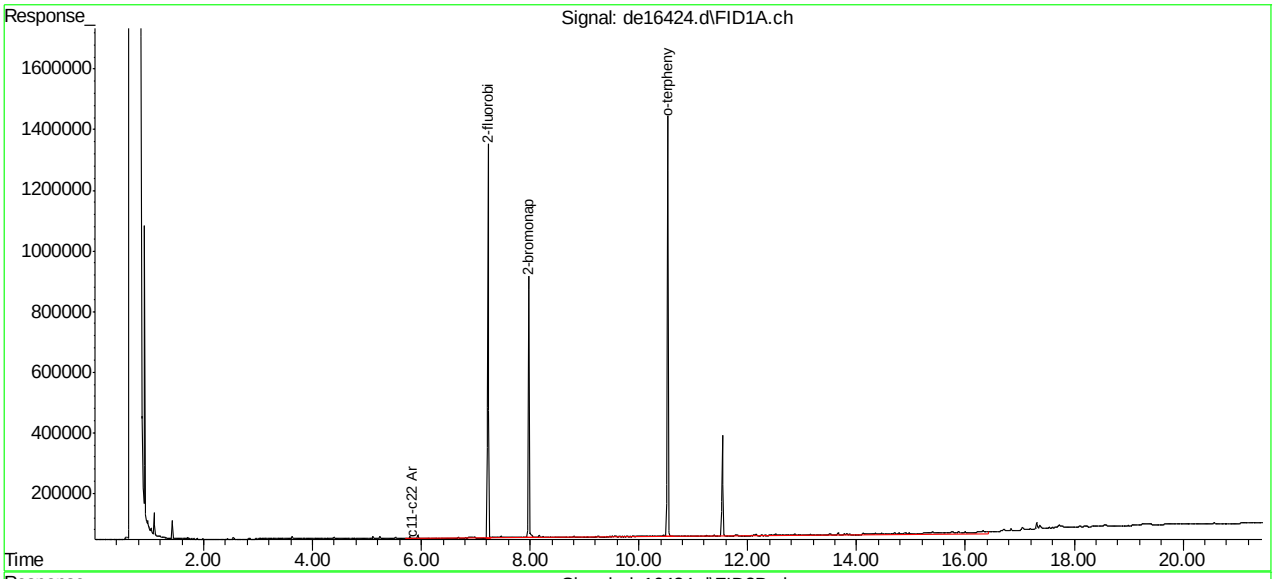
SGS ACCUTEST MC48999

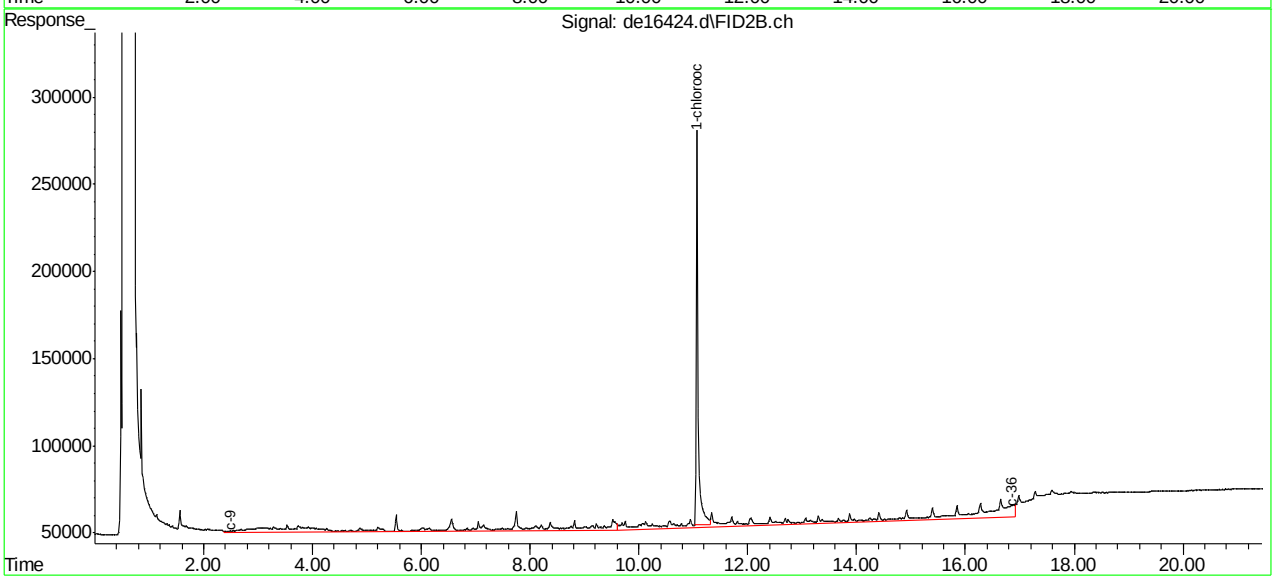
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16424.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 1:03 am
Operator : thomasa
Sample : mc48999-7,op49287
Misc : op49287,gde916,960,,,2,,w
ALS Vial : 44 Sample Multiplier: 1

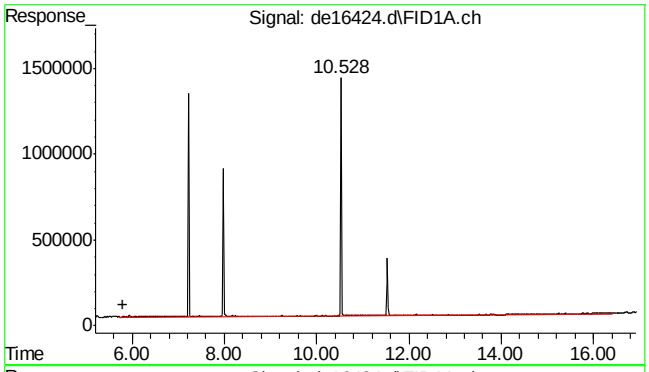
Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:43:45 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



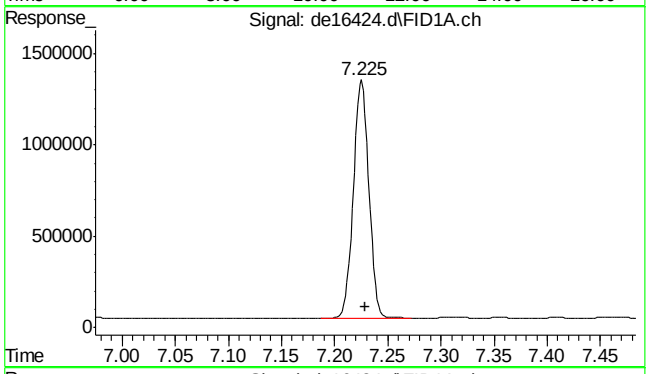


SGS ACCUTEST MC48999



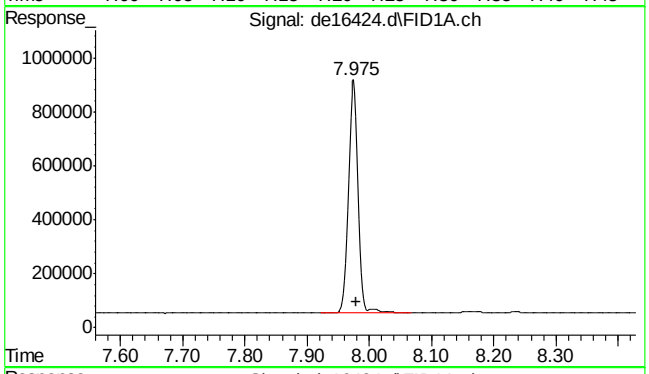
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 1519271
Conc: 15.20 µg/ml m



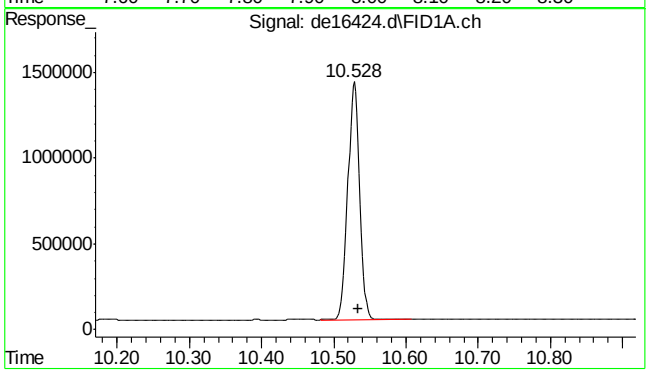
#4 2-fluorobiphenyl

R.T.: 7.225 min
Delta R.T.: -0.003 min
Response: 1317393
Conc: 15.07 µg/ml



#6 2-bromonaphthalene

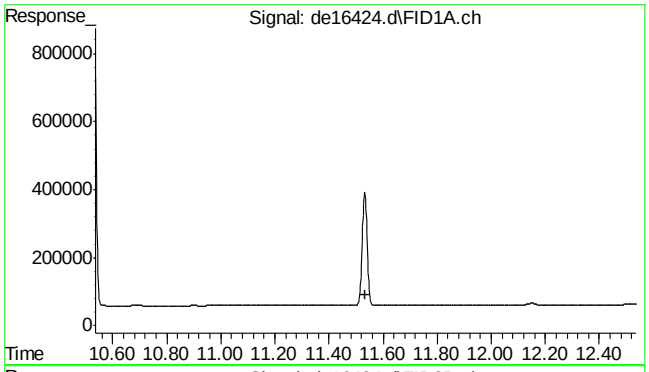
R.T.: 7.975 min
Delta R.T.: -0.003 min
Response: 937269
Conc: 15.73 µg/ml



#11 o-terphenyl

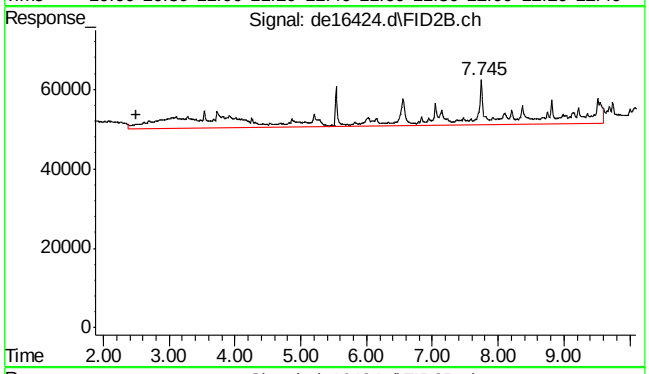
R.T.: 10.528 min
Delta R.T.: -0.005 min
Response: 1581720
Conc: 16.67 µg/ml

SGS ACCUTEST MC48999



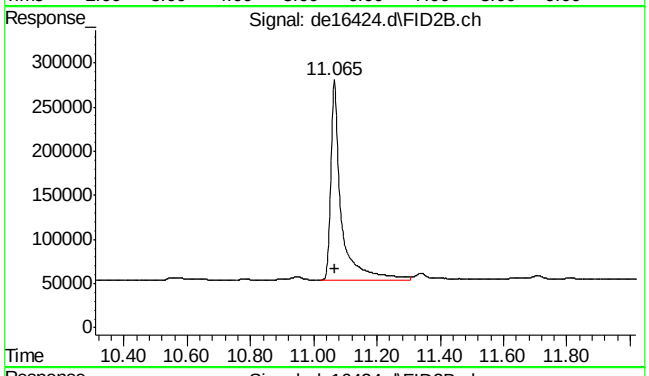
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



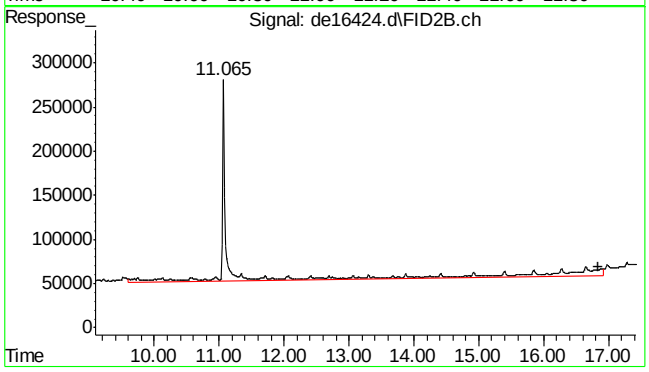
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 693242
Conc: 9.01 µg/ml m



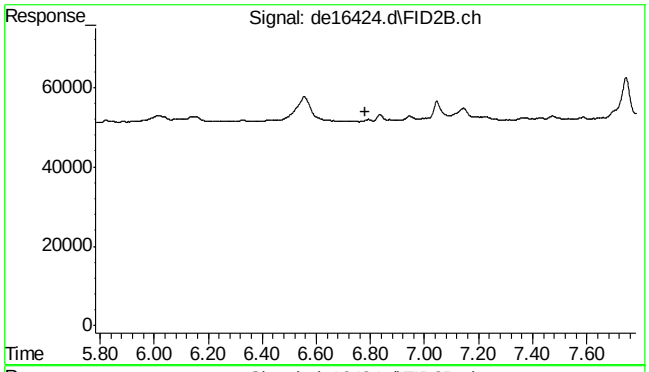
#35 1-chlorooctadecane

R.T.: 11.065 min
Delta R.T.: -0.002 min
Response: 514819
Conc: 9.05 µg/ml



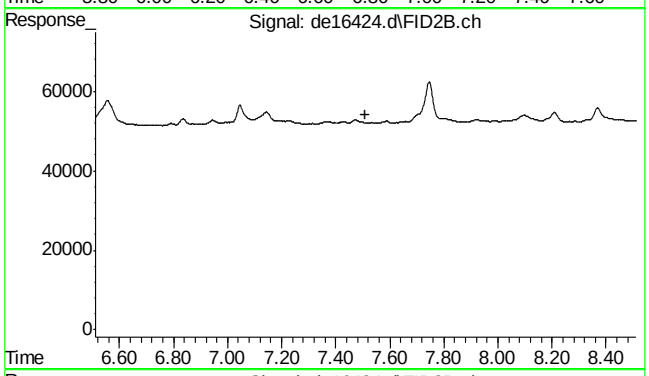
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 943554
Conc: 13.92 µg/ml m



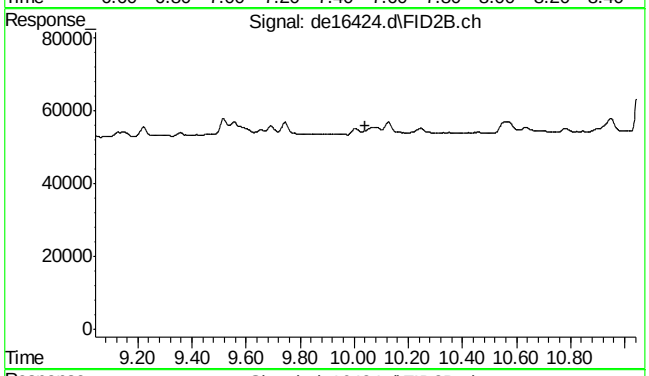
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



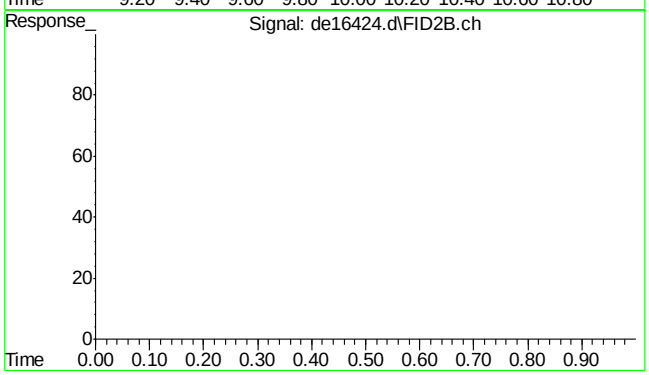
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16425.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 1:31 am
Operator : thomasa
Sample : mc48999-8,op49287
Misc : op49287,gde916,950,,,2,,w
ALS Vial : 46 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:45:07 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.225	1228218	14.047 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 70.23%#		
6) s 2-bromonaphthalene	7.973	863576	14.493 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 72.47%#		
11) s o-terphenyl	10.527	1302283	13.723 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 68.62%#		
35) s 1-chlorooctadecane	11.067	493664	8.677 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 43.38%#		
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	1311053	13.118 µg/mlm
25) h c-9	2.495	662481	8.611 µg/mlm
41) h c-36	16.838	784396	11.569 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.1.10

9

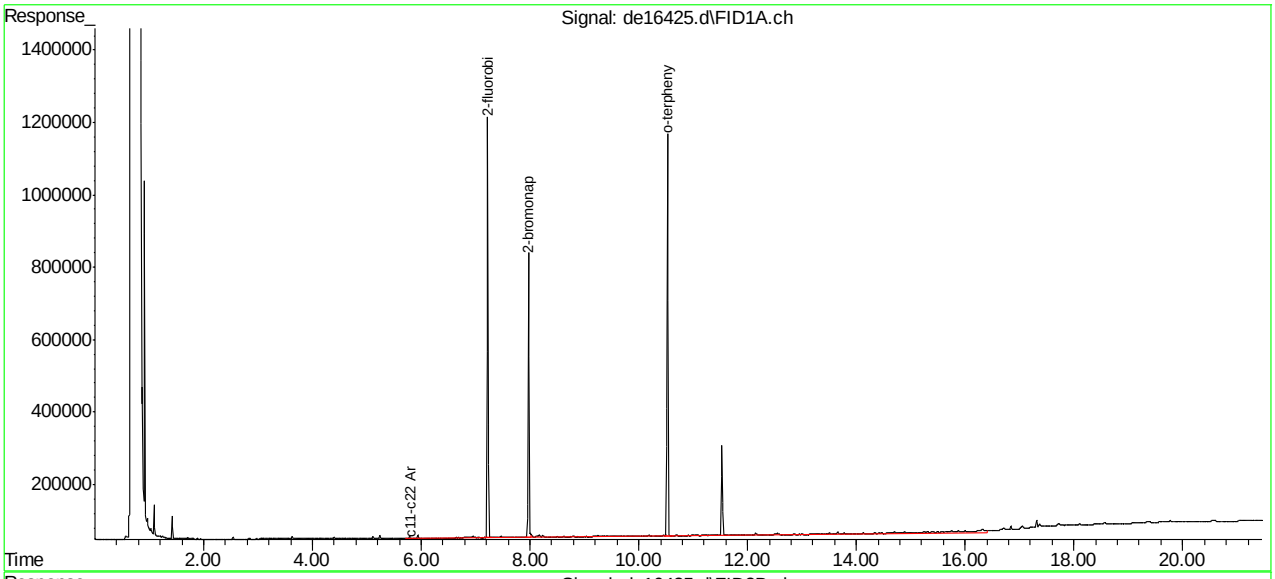
SGS ACCUTEST MC48999

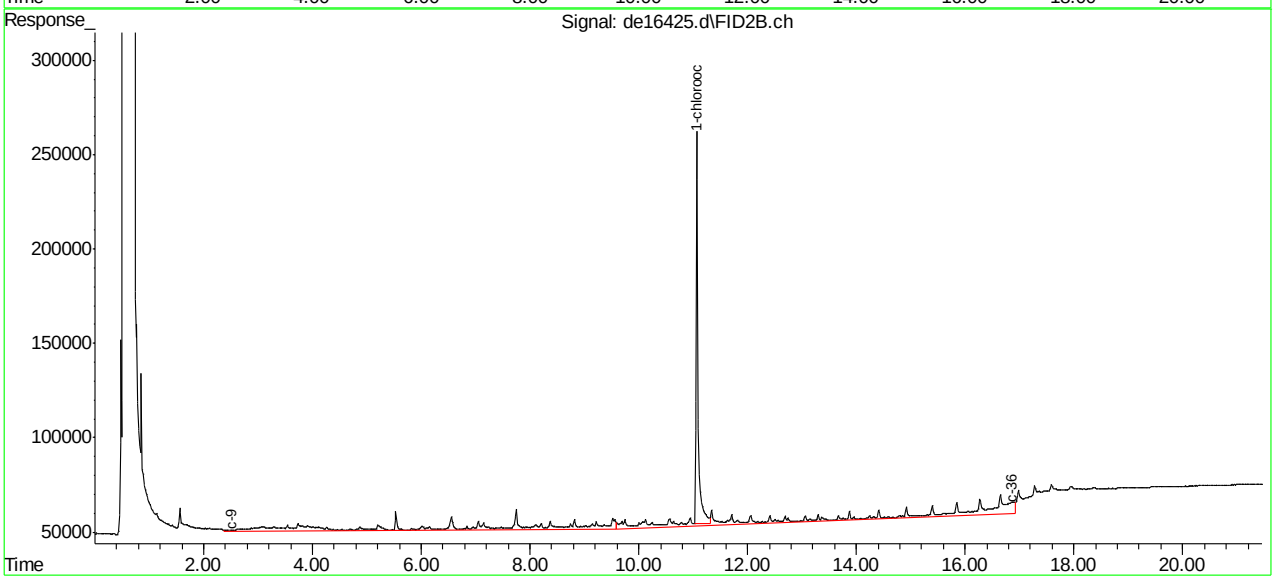
Quantitation Report (QT Reviewed)

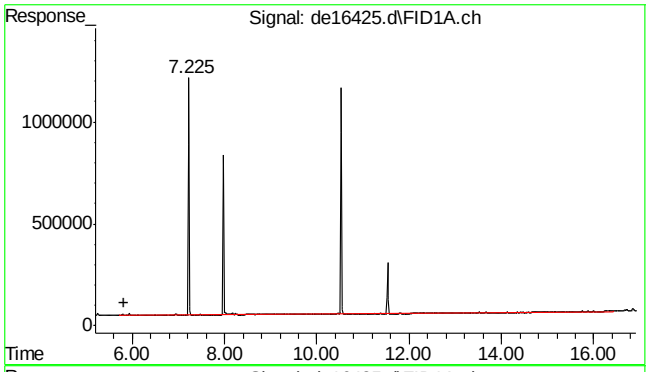
Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16425.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 1:31 am
Operator : thomasa
Sample : mc48999-8,op49287
Misc : op49287,gde916,950,,,2,,w
ALS Vial : 46 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:45:07 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

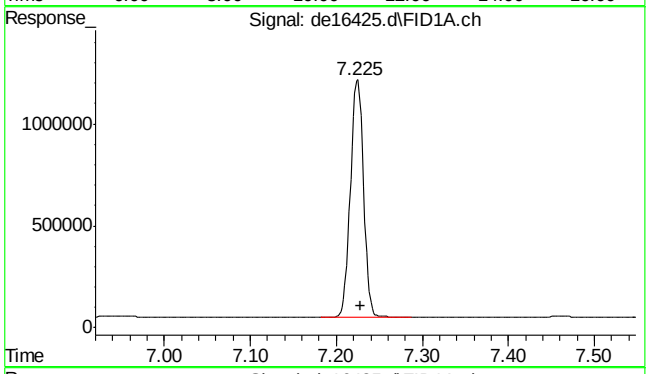






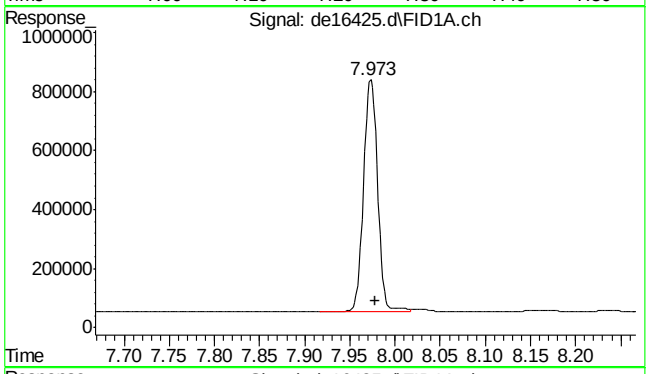
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 1311053
Conc: 13.12 µg/ml m



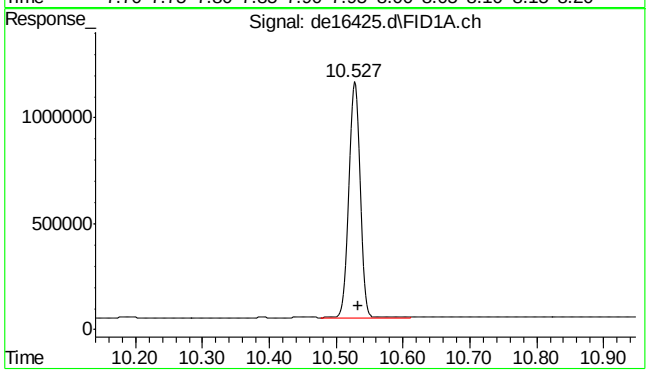
#4 2-fluorobiphenyl

R.T.: 7.225 min
Delta R.T.: -0.003 min
Response: 1228218
Conc: 14.05 µg/ml



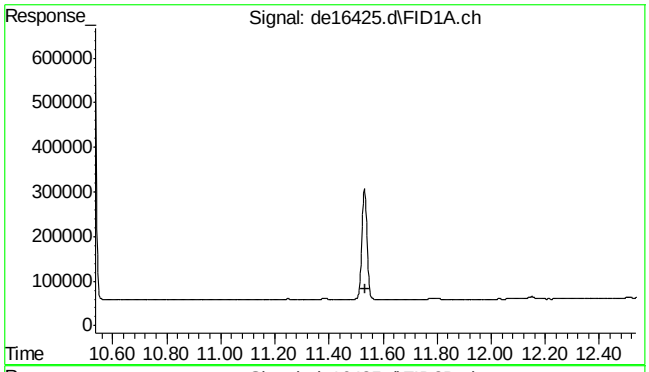
#6 2-bromonaphthalene

R.T.: 7.973 min
Delta R.T.: -0.005 min
Response: 863576
Conc: 14.49 µg/ml



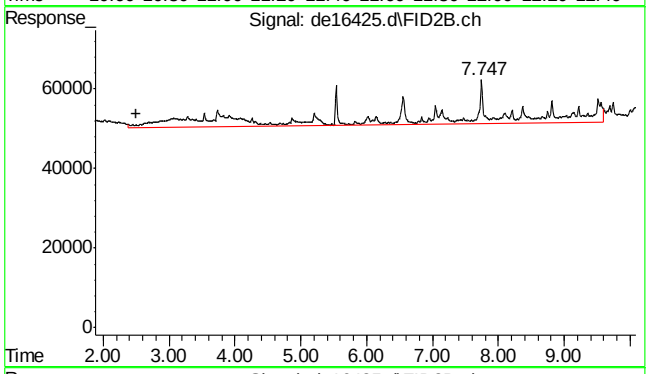
#11 o-terphenyl

R.T.: 10.527 min
Delta R.T.: -0.007 min
Response: 1302283
Conc: 13.72 µg/ml



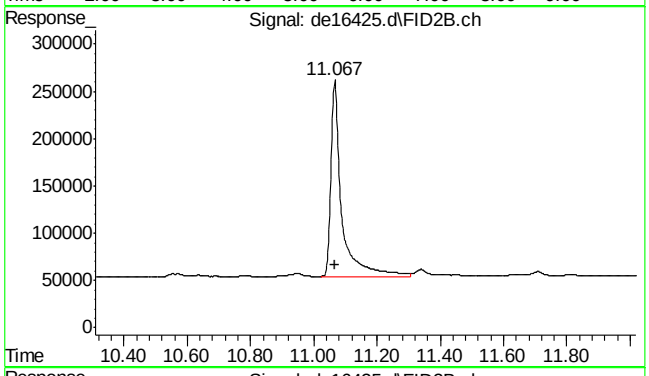
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



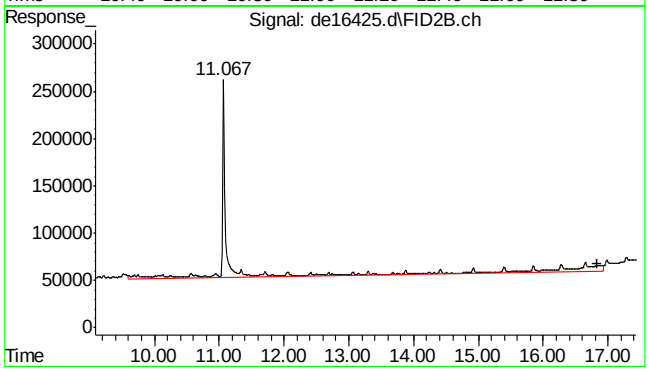
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 662481
Conc: 8.61 µg/ml m



#35 1-chlorooctadecane

R.T.: 11.067 min
Delta R.T.: 0.000 min
Response: 493664
Conc: 8.68 µg/ml



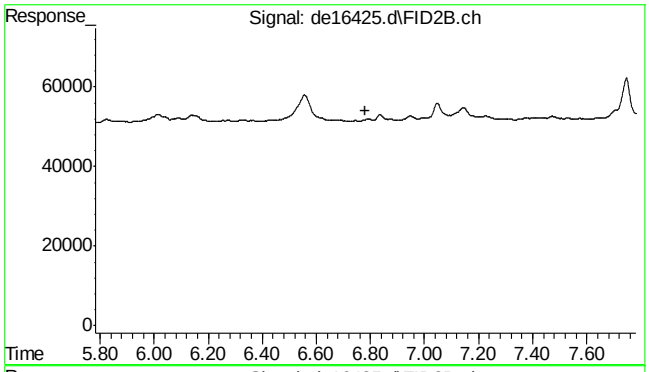
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 784396
Conc: 11.57 µg/ml m

9.1.10

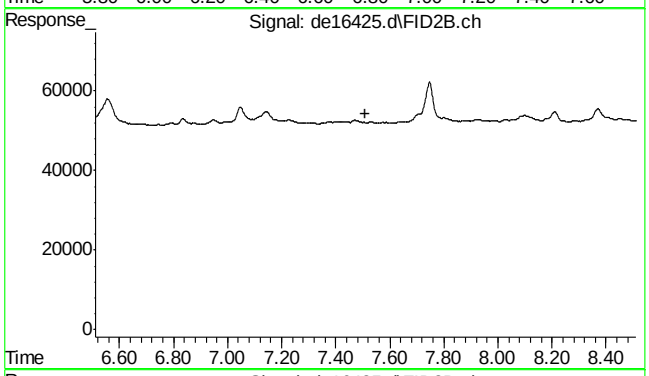
9

SGS ACCUTEST MC48999



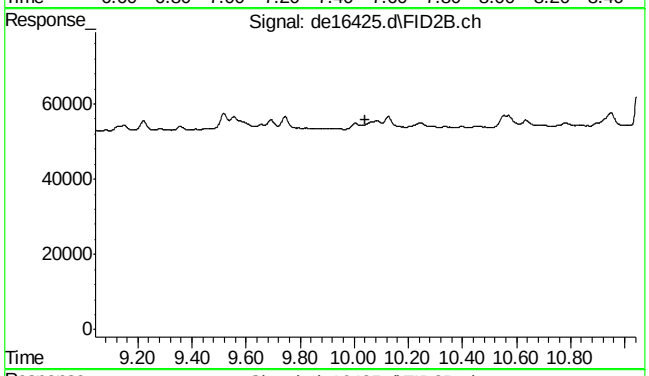
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



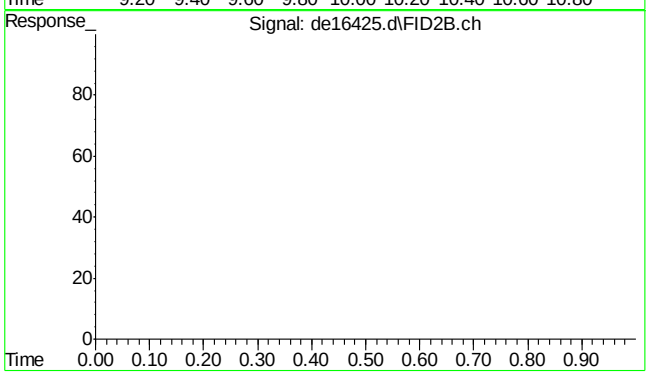
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16426.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 1:58 am
Operator : thomasa
Sample : mc48999-9,op49287
Misc : op49287,gde916,980,,,2,,w
ALS Vial : 48 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:46:36 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.223	1226335	14.026 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 70.13%#		
6) s 2-bromonaphthalene	7.972	862349	14.472 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 72.36%#		
11) s o-terphenyl	10.527	1348774	14.213 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 71.06%#		
35) s 1-chlorooctadecane	11.065	500741	8.802 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 44.01%#		
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	1368336	13.691 µg/mlm
25) h c-9	2.495	717109	9.321 µg/mlm
41) h c-36	16.838	901763	13.301 µg/mlm

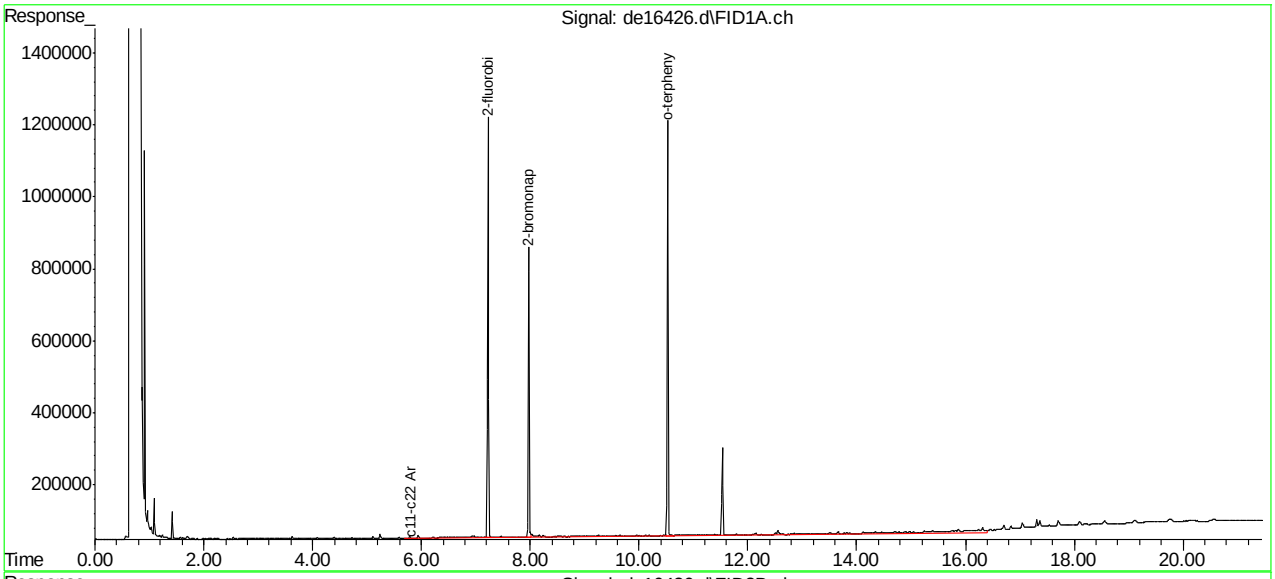
(f)=RT Delta > 1/2 Window (m)=manual int.

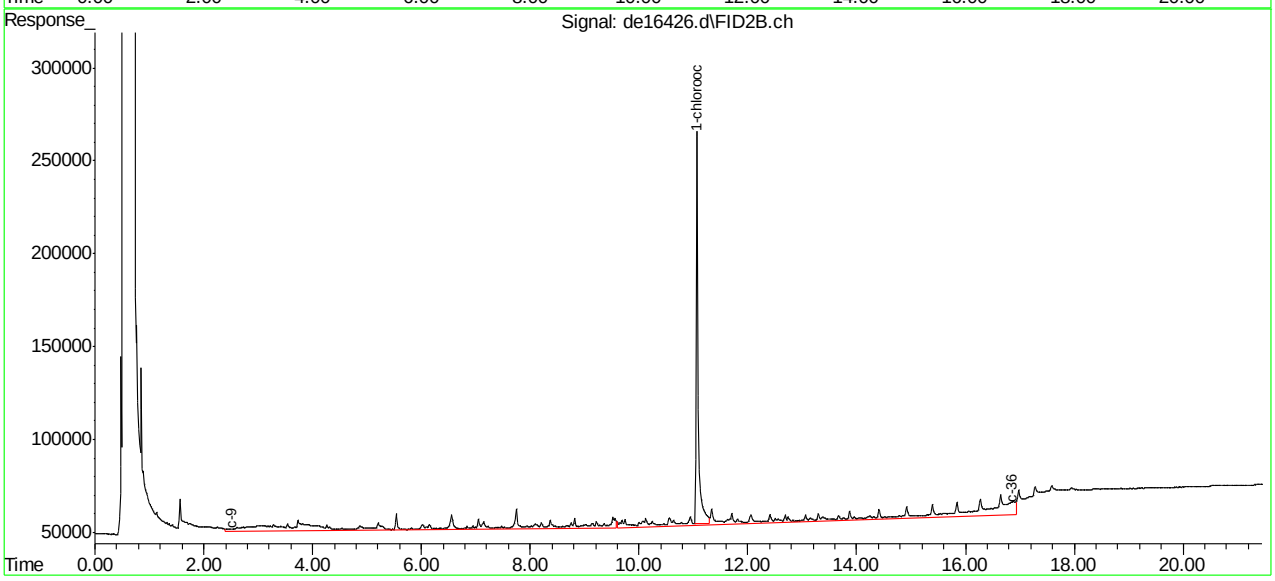
Quantitation Report (QT Reviewed)

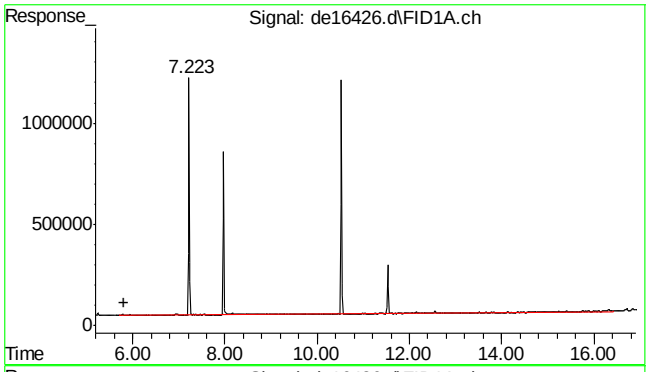
Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16426.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 1:58 am
Operator : thomasa
Sample : mc48999-9,op49287
Misc : op49287,gde916,980,,,2,,w
ALS Vial : 48 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:46:36 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

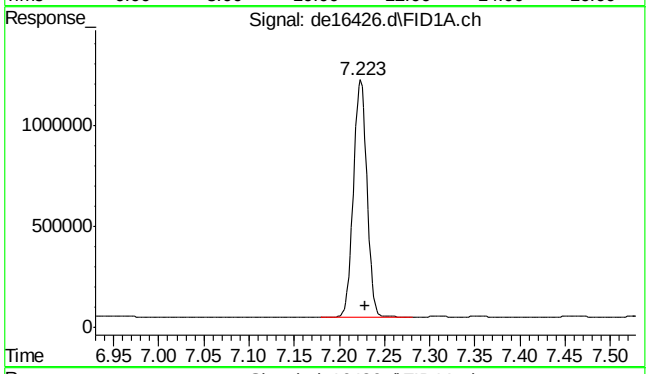






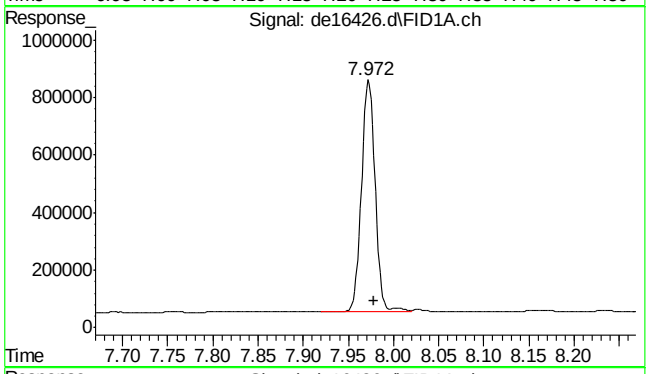
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 1368336
Conc: 13.69 µg/ml m



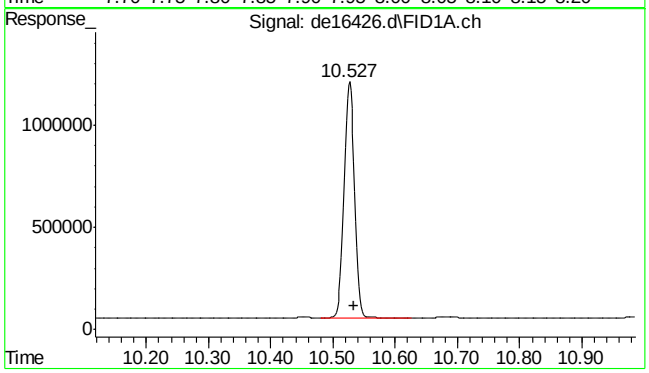
#4 2-fluorobiphenyl

R.T.: 7.223 min
Delta R.T.: -0.005 min
Response: 1226335
Conc: 14.03 µg/ml



#6 2-bromonaphthalene

R.T.: 7.972 min
Delta R.T.: -0.007 min
Response: 862349
Conc: 14.47 µg/ml



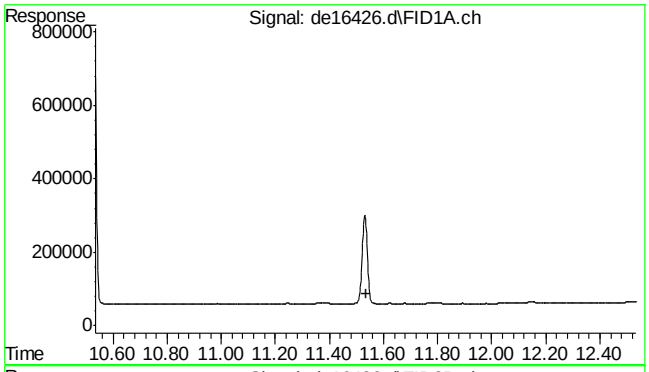
#11 o-terphenyl

R.T.: 10.527 min
Delta R.T.: -0.007 min
Response: 1348774
Conc: 14.21 µg/ml

9.1.11

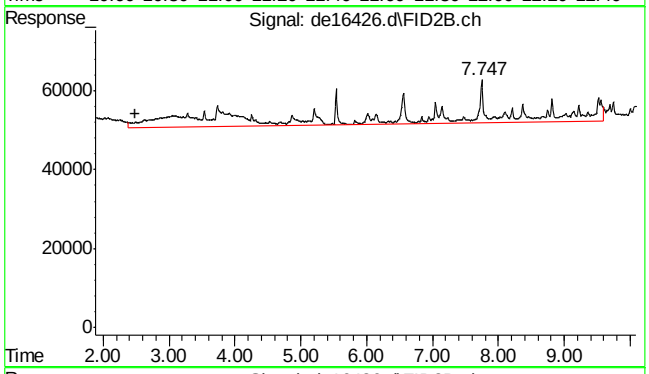
9

SGS ACCUTEST MC48999



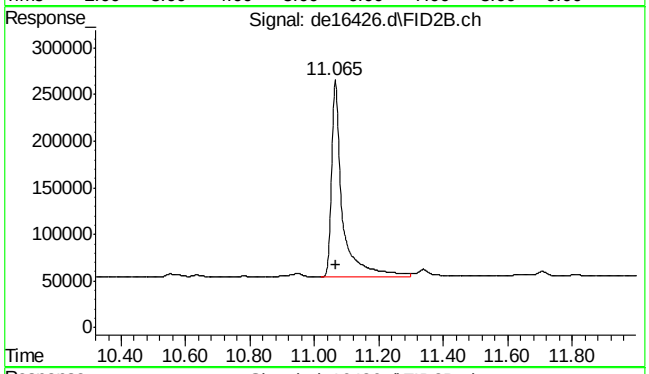
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



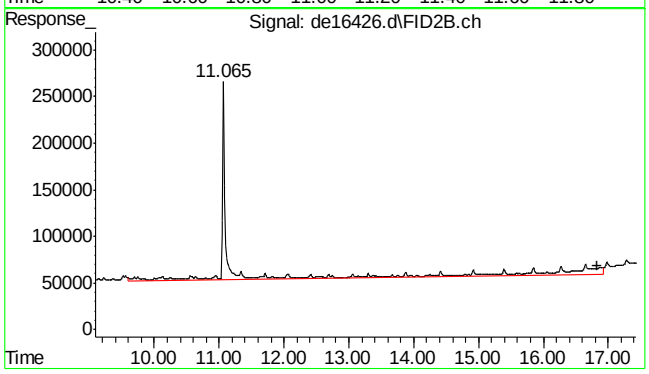
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 717109
Conc: 9.32 µg/ml m



#35 1-chlorooctadecane

R.T.: 11.065 min
Delta R.T.: -0.002 min
Response: 500741
Conc: 8.80 µg/ml



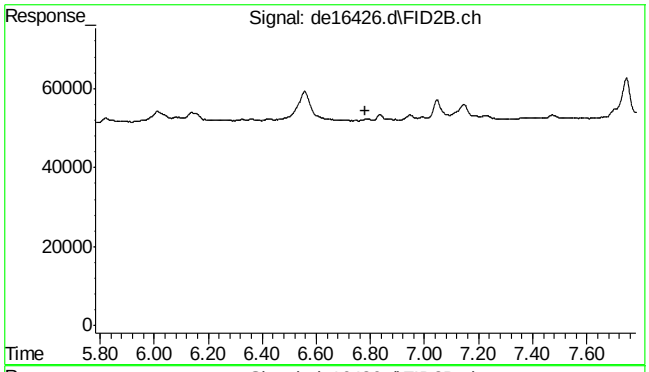
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 901763
Conc: 13.30 µg/ml m

9.1.11

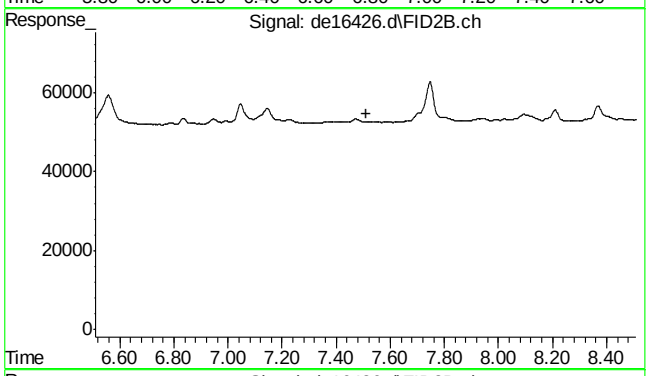
9

SGS ACCUTEST MC48999



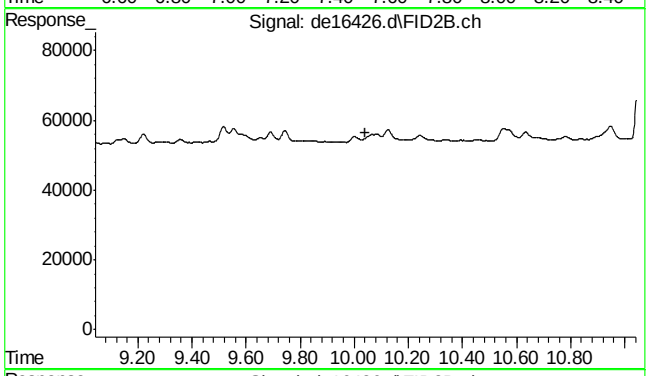
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



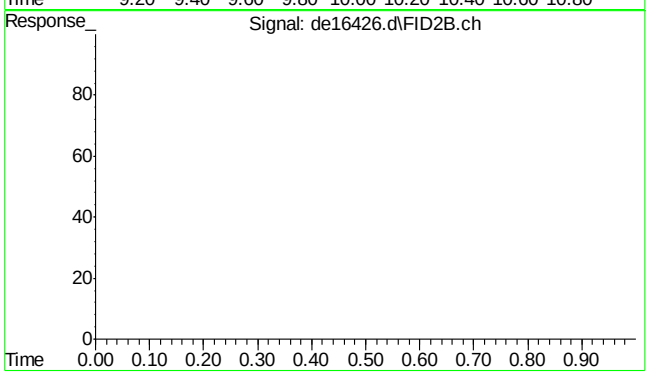
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16462.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 21 Dec 2016 2:00 am
Operator : thomasa
Sample : mc48999-10,op49293
Misc : op49293,gde918,960,,,2,,w
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 12:47:14 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.223	1237610	14.155 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 70.78%#	
6) s 2-bromonaphthalene	7.973	863075	14.484 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 72.42%#	
11) s o-terphenyl	10.528	2826980	29.789 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 148.95%#	
35) s 1-chlorooctadecane	11.063	1050654	18.468 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 92.34%#	
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	2259050	22.603 µg/mlm
25) h c-9	2.495	691090	8.982 µg/mlm
41) h c-36	16.838	724005	10.679 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.1.12

9

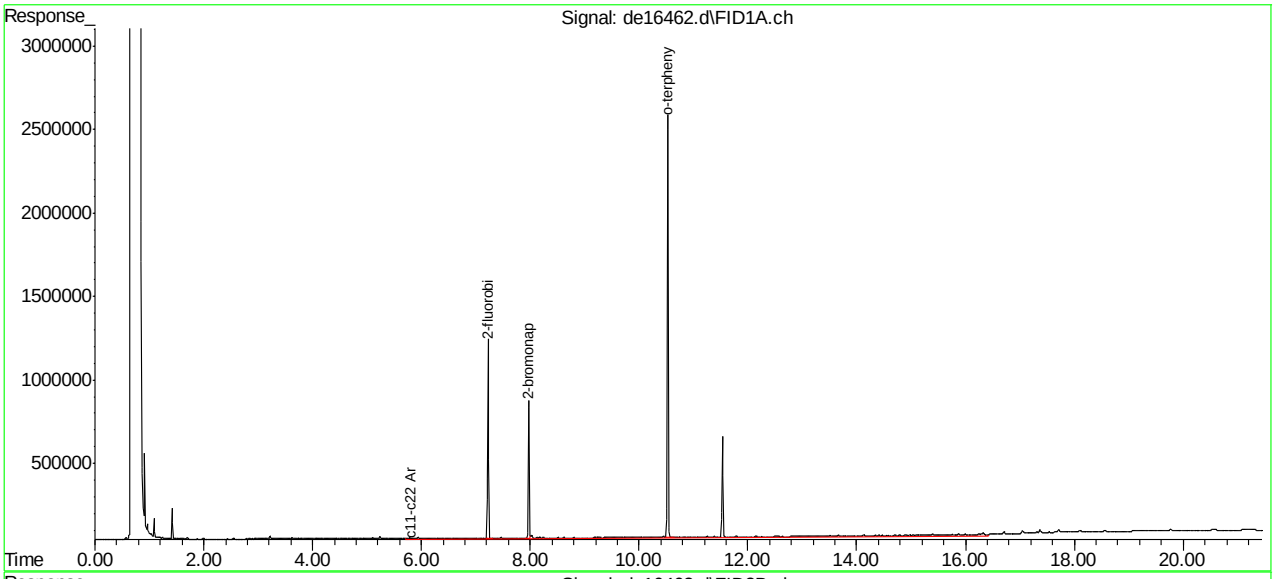
SGS ACCUTEST MC48999

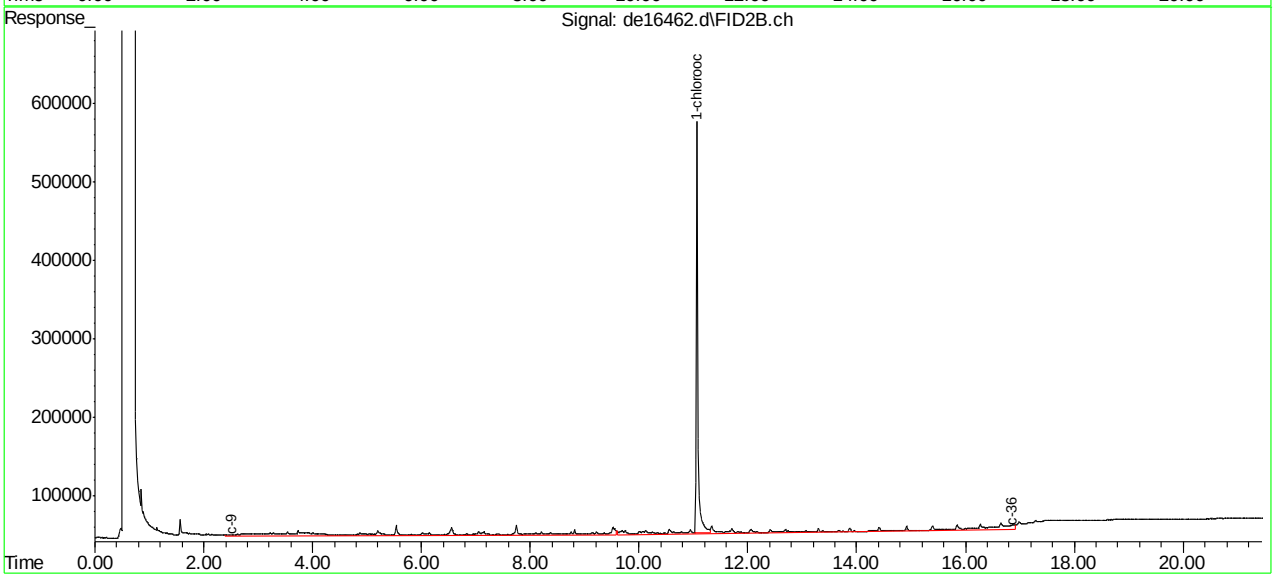
Quantitation Report (QT Reviewed)

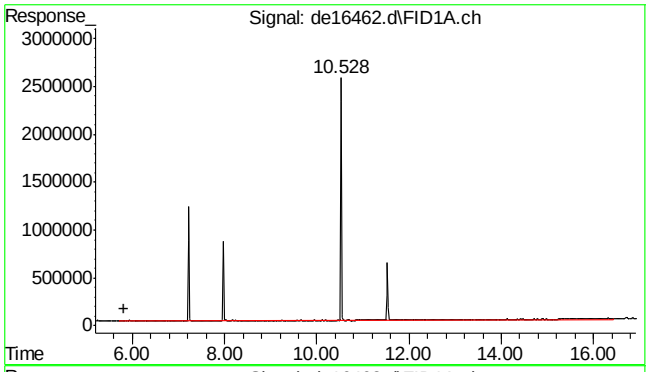
Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16462.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 21 Dec 2016 2:00 am
Operator : thomasa
Sample : mc48999-10,op49293
Misc : op49293,gde918,960,,,2,,w
ALS Vial : 32 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 12:47:14 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

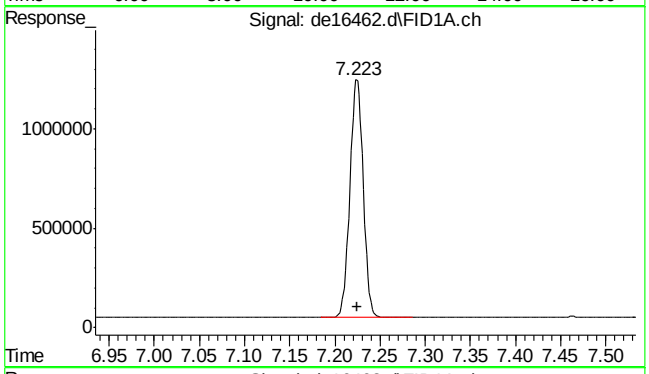






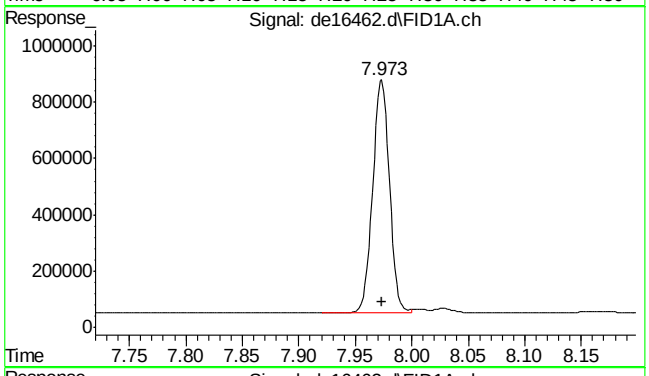
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 2259050
Conc: 22.60 µg/ml m



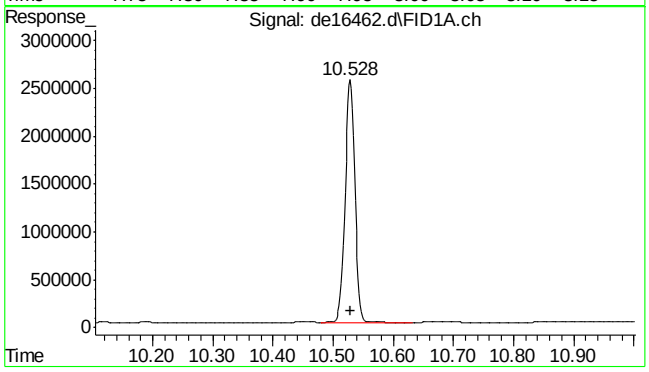
#4 2-fluorobiphenyl

R.T.: 7.223 min
Delta R.T.: -0.002 min
Response: 1237610
Conc: 14.15 µg/ml



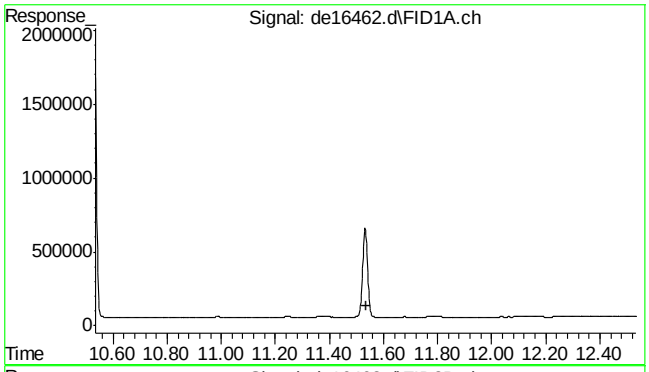
#6 2-bromonaphthalene

R.T.: 7.973 min
Delta R.T.: 0.000 min
Response: 863075
Conc: 14.48 µg/ml



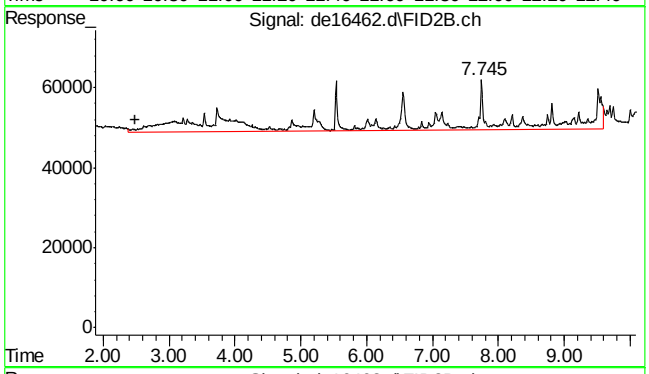
#11 o-terphenyl

R.T.: 10.528 min
Delta R.T.: 0.000 min
Response: 2826980
Conc: 29.79 µg/ml



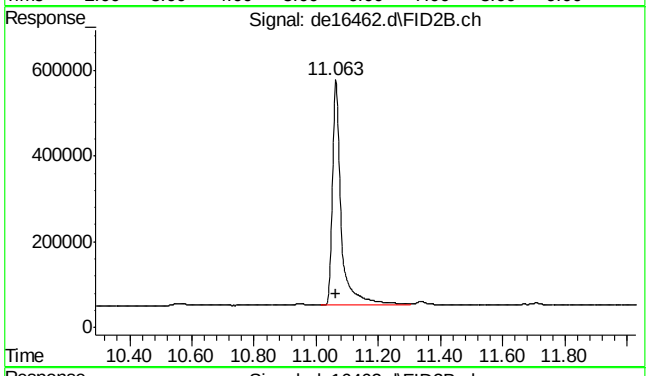
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



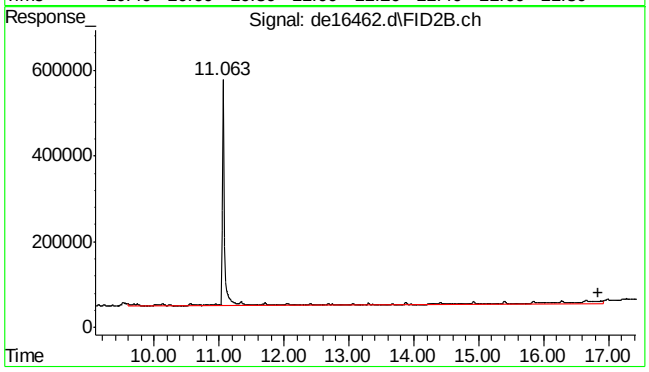
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 691090
Conc: 8.98 µg/ml m



#35 1-chlorooctadecane

R.T.: 11.063 min
Delta R.T.: 0.000 min
Response: 1050654
Conc: 18.47 µg/ml



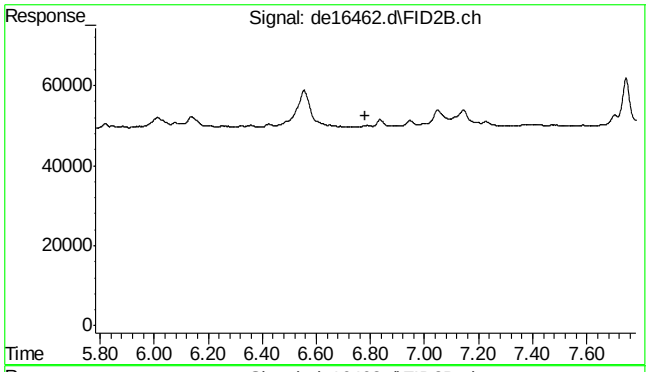
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 724005
Conc: 10.68 µg/ml m

9.1.12

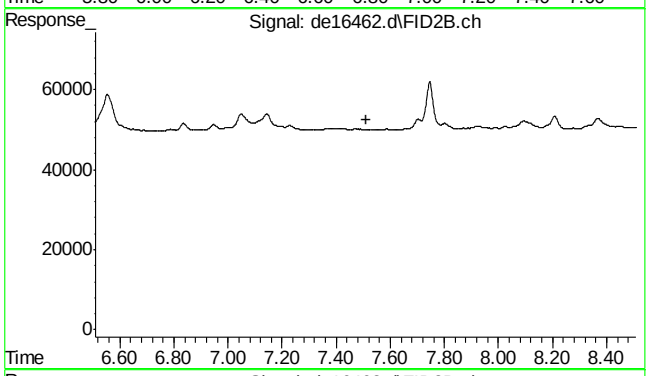
9

SGS ACCUTEST MC48999



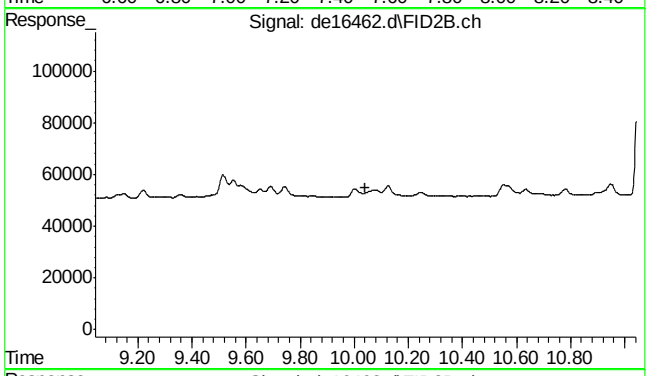
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



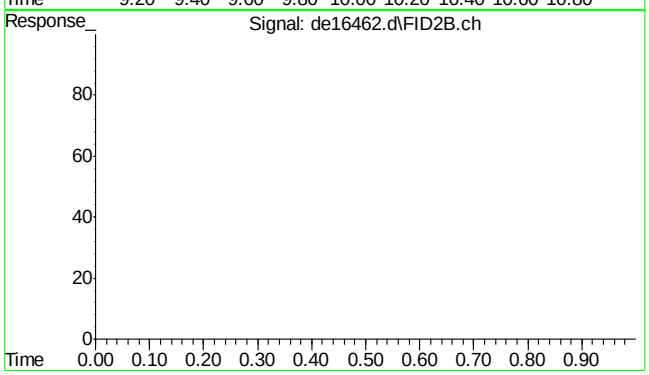
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

Quantitation Report (QT Reviewed)

```
Data Path : G:\1\DATA\DE161219EPH\
Data File : de16412.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: FID2B.ch
Acq On    : 19 Dec 2016   7:31 pm
Operator  : thomasa
Sample    : op49287-mb
Misc      : op49287,gde916,1000,,,2,,w
ALS Vial  : 22   Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 14:32:53 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title  : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :

        Compound                      R.T.       Response    Conc Units
 ---------------------------------------------------------------------------

 System Monitoring Compounds
 4) s   2-fluorobiphenyl              7.228        1314615   15.036 µg/ml
Spiked Amount     20.000   Range   8 -  28    Recovery   =   75.18%#
 6) s   2-bromonaphthalene            7.977         914565   15.348 µg/ml
Spiked Amount     20.000   Range   8 -  28    Recovery   =   76.74%#
11) s   o-terphenyl                 10.532        1465045   15.438 µg/ml
Spiked Amount     20.000   Range   8 -  28    Recovery   =   77.19%#
35) s   1-chlorooctadecane          11.065         502766    8.837 µg/ml
Spiked Amount     20.000   Range   8 -  28    Recovery   =   44.18%#

 Target Compounds
 1) h   c11-c22 Aromatics (Un...     5.815        2228504   22.298 µg/mlm
25) h   c-9                          2.495         532858    6.926 µg/mlm
41) h   c-36                        16.838         752935   11.105 µg/mlm
 ---------------------------------------------------------------------------

(f)=RT Delta > 1/2 Window                                  (m)=manual int.
```

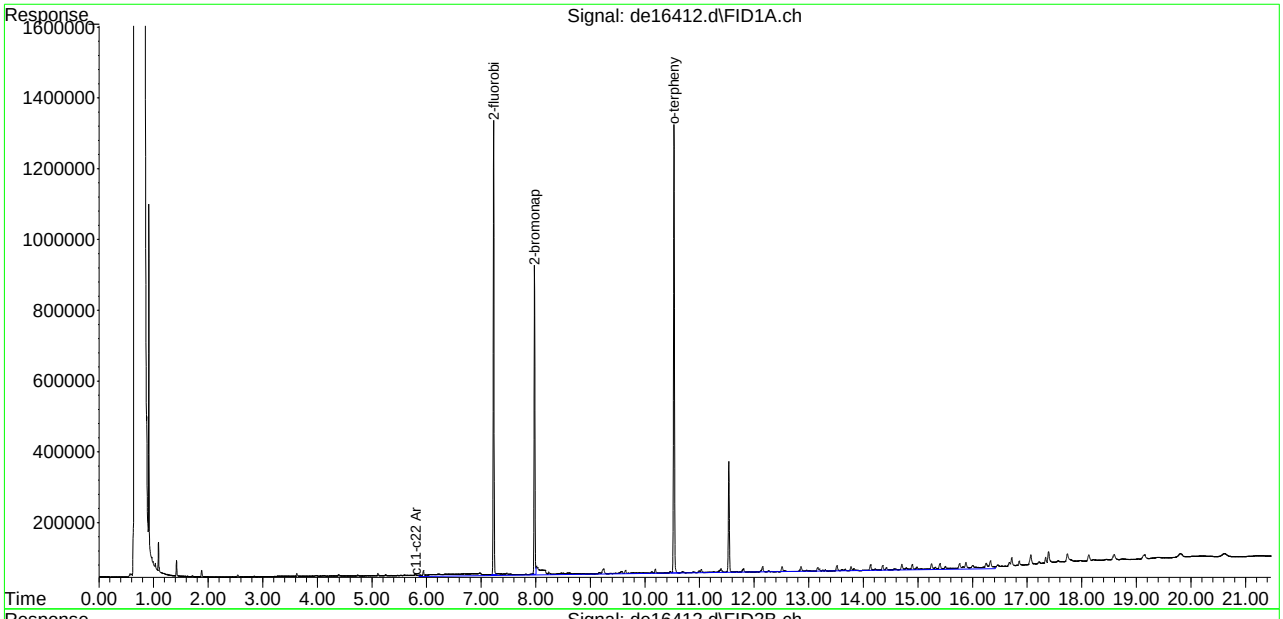

SGS ACCUTEST MC48999

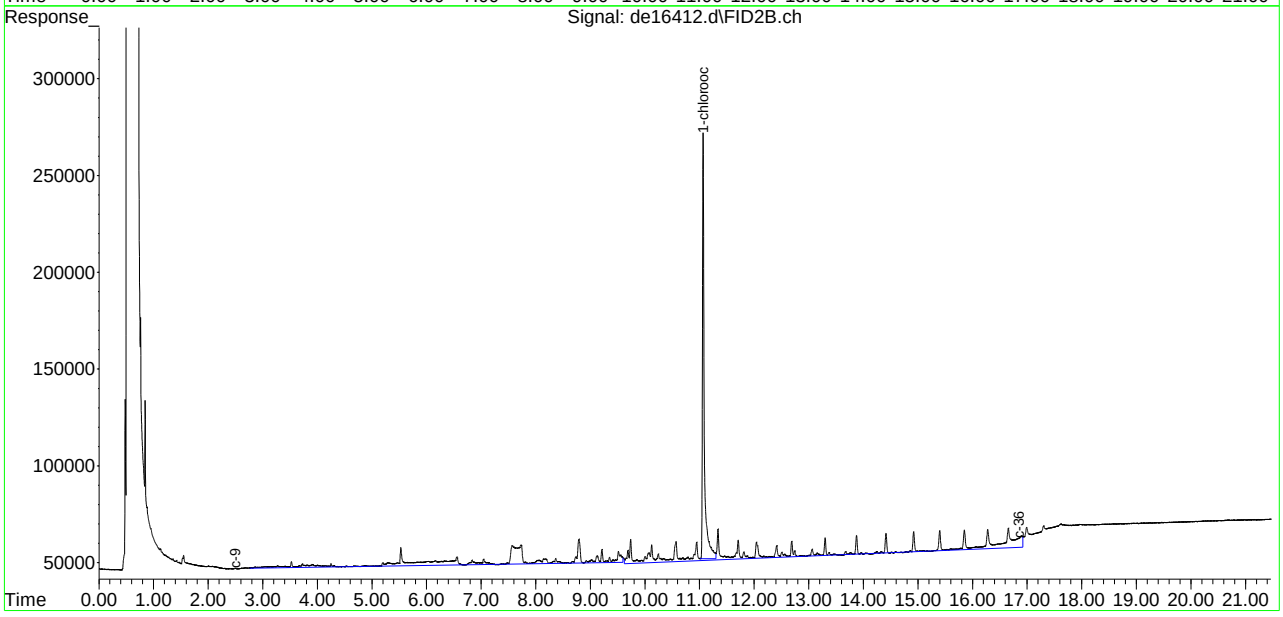
Quantitation Report (QT Reviewed)

Data Path : G:\1\DATA\DE161219EPH\
Data File : de16412.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 7:31 pm
Operator : thomasa
Sample : op49287-mb
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 22 Sample Multiplier: 1

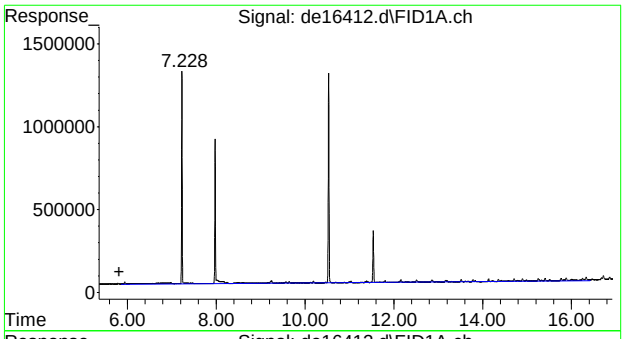
Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 14:32:53 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



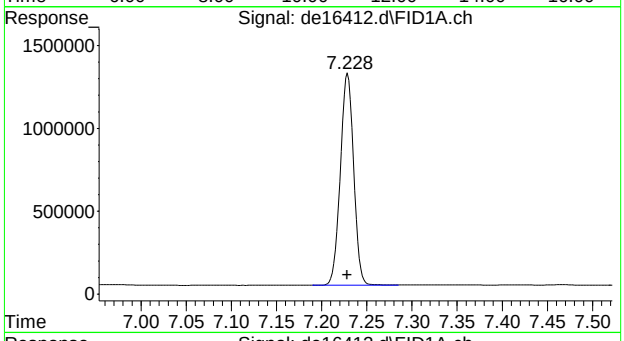


SGS ACCUTEST MC48999



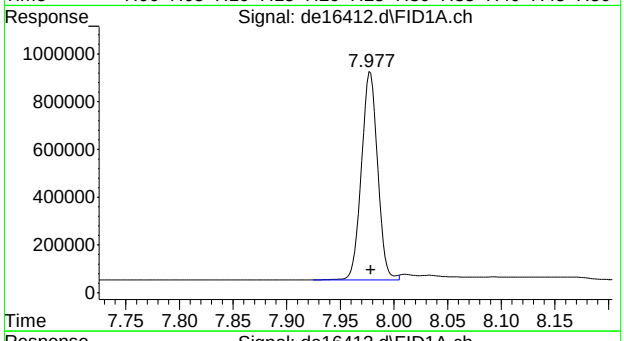
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 2228504
Conc: 22.30 µg/ml m



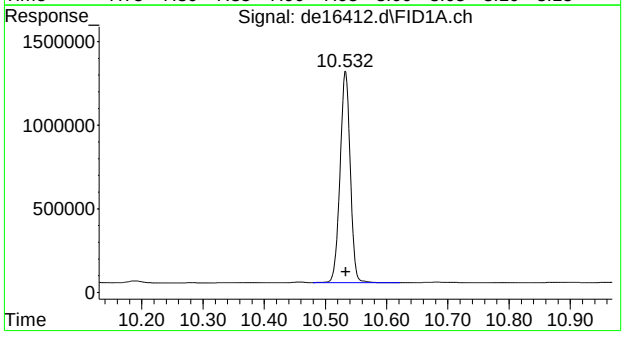
#4 2-fluorobiphenyl

R.T.: 7.228 min
Delta R.T.: 0.000 min
Response: 1314615
Conc: 15.04 µg/ml



#6 2-bromonaphthalene

R.T.: 7.977 min
Delta R.T.: -0.002 min
Response: 914565
Conc: 15.35 µg/ml



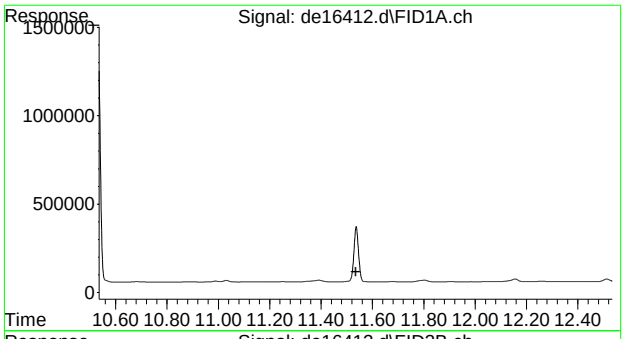
#11 o-terphenyl

R.T.: 10.532 min
Delta R.T.: -0.002 min
Response: 1465045
Conc: 15.44 µg/ml

9.2.1

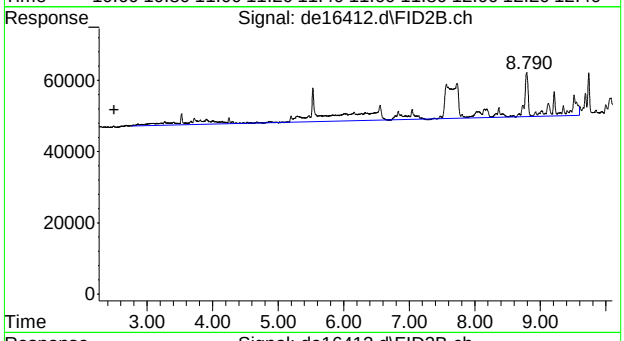
9

SGS ACCUTEST MC48999



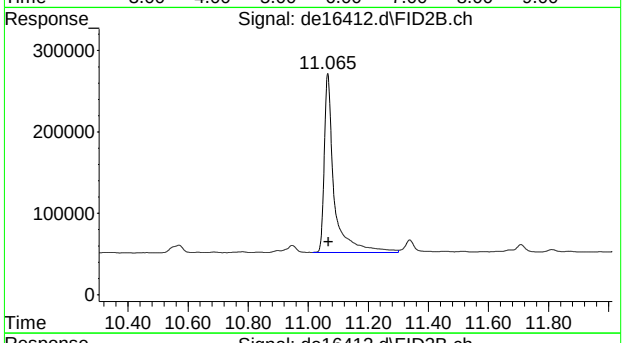
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



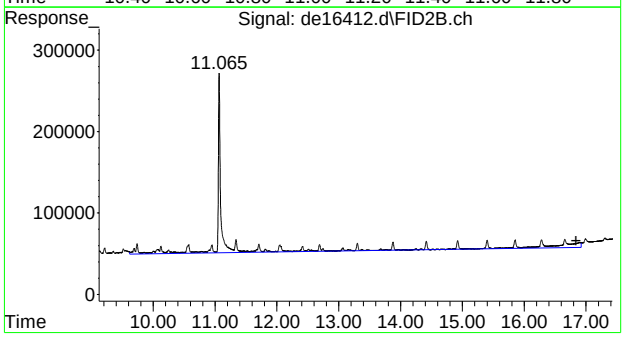
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 532858
Conc: 6.93 µg/ml m



#35 1-chlorooctadecane

R.T.: 11.065 min
Delta R.T.: -0.002 min
Response: 502766
Conc: 8.84 µg/ml



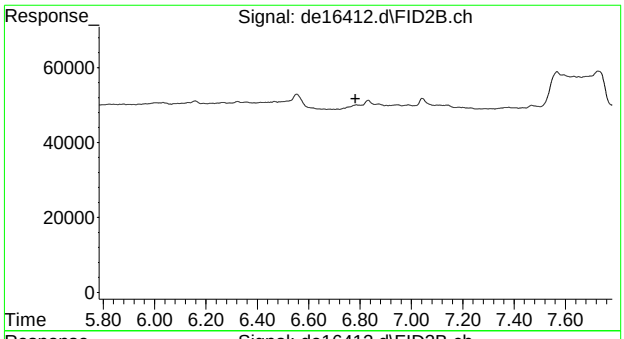
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 752935
Conc: 11.11 µg/ml m

9.2.1

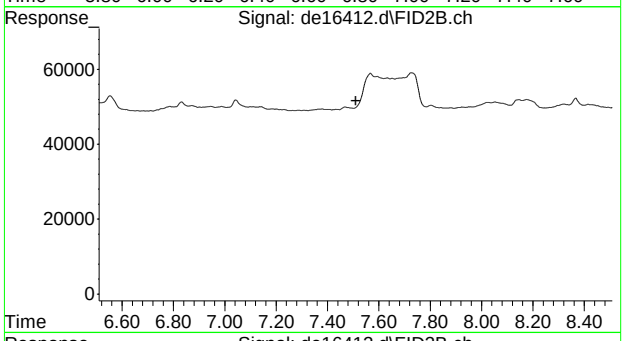
9

SGS ACCUTEST MC48999



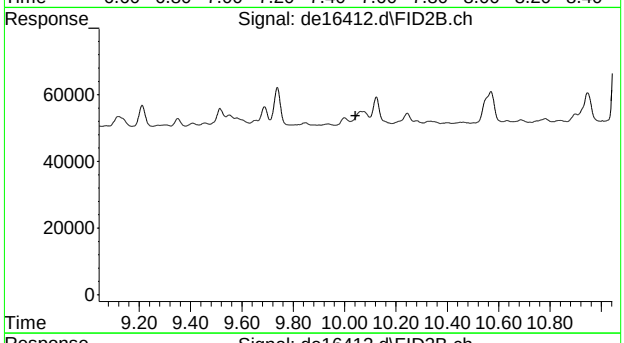
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



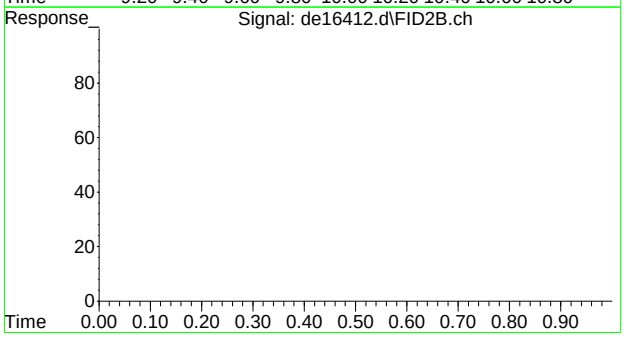
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

```
Data Path : G:\1\DATA\DE161220aEPH\
Data File : de16446.d
Signal(s) : Signal #1: FID1A.ch  Signal #2: FID2B.ch
Acq On    : 20 Dec 2016   6:33 pm
Operator  : thomasa
Sample    : op49293-mb
Misc      : op49293,gde918,1000,,,2,,w
ALS Vial  : 2   Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 14:05:53 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title  : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj.     :
Signal #1 Phase :                    Signal #2 Phase:
Signal #1 Info  :                    Signal #2 Info :

        Compound                      R.T.       Response    Conc Units
 ---------------------------------------------------------------------------

 System Monitoring Compounds
 4) s   2-fluorobiphenyl              7.227        1045156   11.954 µg/ml
Spiked Amount     20.000   Range   8 -  28    Recovery   =   59.77%#
 6) s   2-bromonaphthalene            7.977         738854   12.400 µg/ml
Spiked Amount     20.000   Range   8 -  28    Recovery   =   62.00%#
11) s   o-terphenyl                 10.530        1146177   12.078 µg/ml
Spiked Amount     20.000   Range   8 -  28    Recovery   =   60.39%#
35) s   1-chlorooctadecane          11.065         515802    9.066 µg/ml
Spiked Amount     20.000   Range   8 -  28    Recovery   =   45.33%#

 Target Compounds
 1) h   c11-c22 Aromatics (Un...     5.815        1387705   13.885 µg/mlm
25) h   c-9                          2.495         655536    8.520 µg/mlm
41) h   c-36                        16.838         600850    8.862 µg/mlm
 ---------------------------------------------------------------------------

(f)=RT Delta > 1/2 Window                                (m)=manual int.
```

9.2.2

9

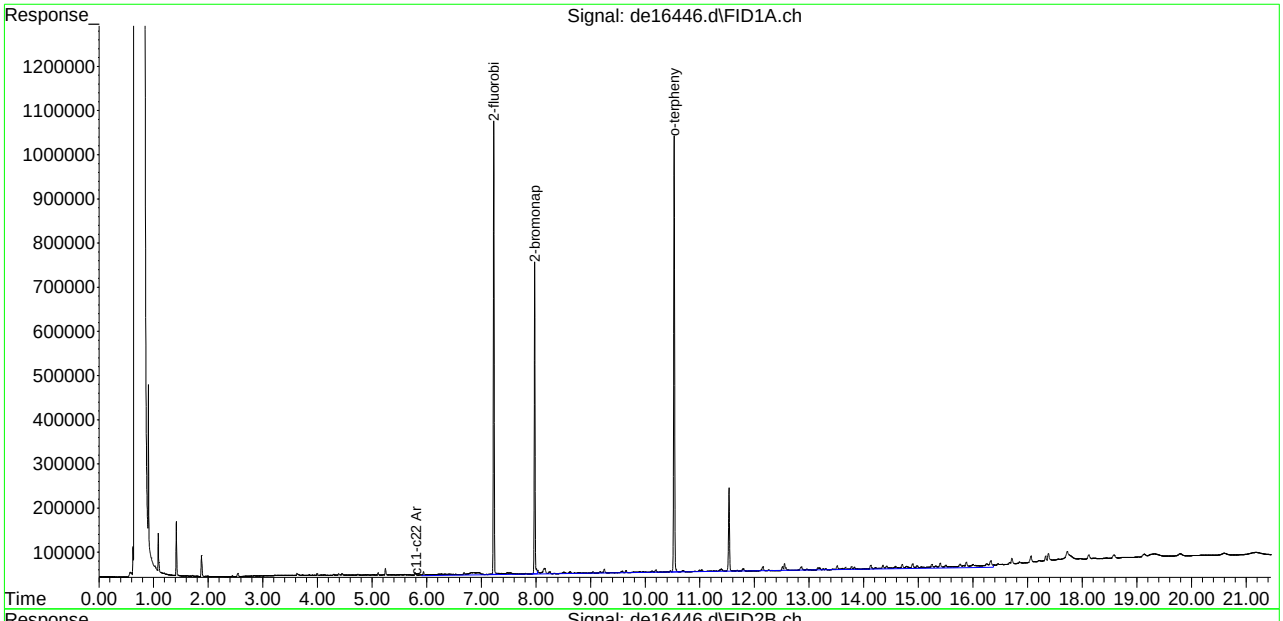
SGS ACCUTEST MC48999

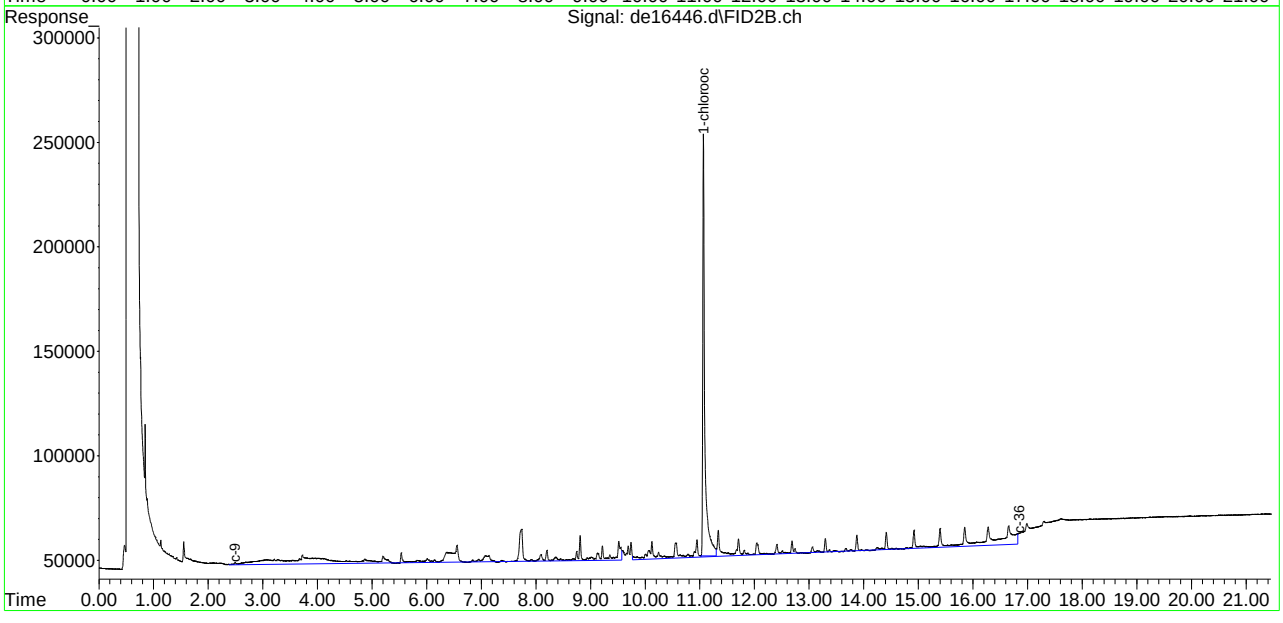
Quantitation Report (QT Reviewed)

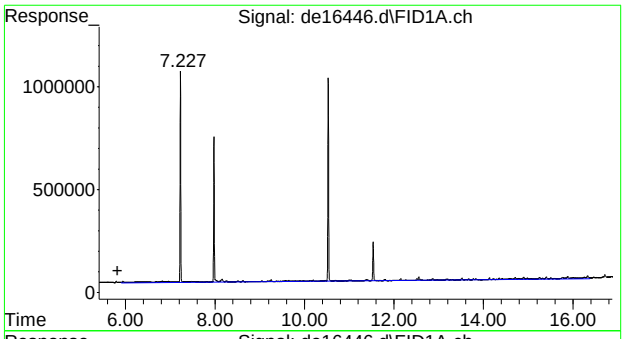
Data Path : G:\1\DATA\DE161220aEPH\
Data File : de16446.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 6:33 pm
Operator : thomasa
Sample : op49293-mb
Misc : op49293,gde918,1000,,,2,,w
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 14:05:53 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

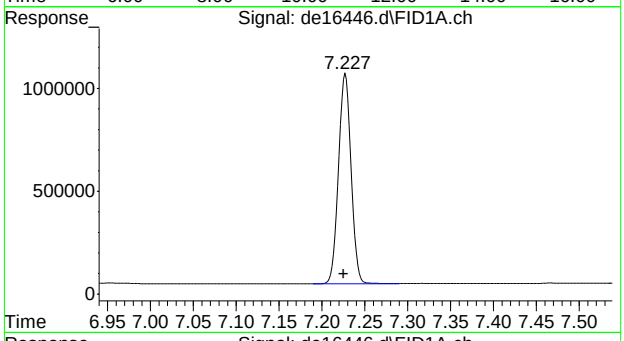






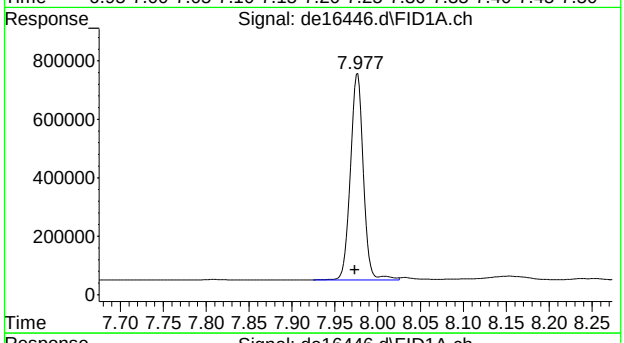
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 1387705
Conc: 13.88 µg/ml m



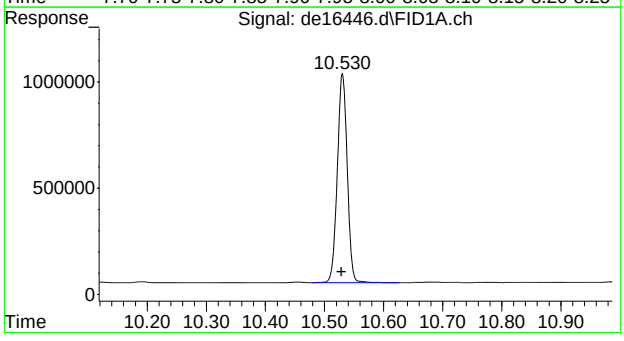
#4 2-fluorobiphenyl

R.T.: 7.227 min
Delta R.T.: 0.002 min
Response: 1045156
Conc: 11.95 µg/ml



#6 2-bromonaphthalene

R.T.: 7.977 min
Delta R.T.: 0.003 min
Response: 738854
Conc: 12.40 µg/ml



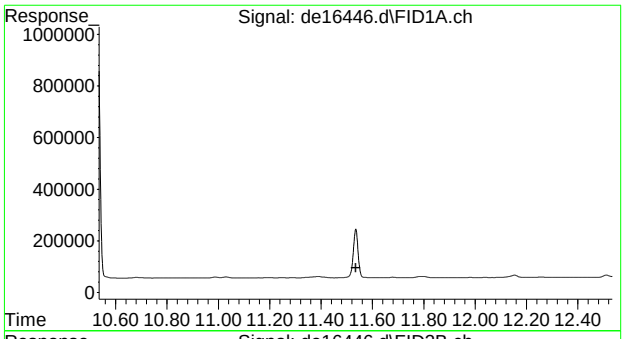
#11 o-terphenyl

R.T.: 10.530 min
Delta R.T.: 0.002 min
Response: 1146177
Conc: 12.08 µg/ml

9.2.2

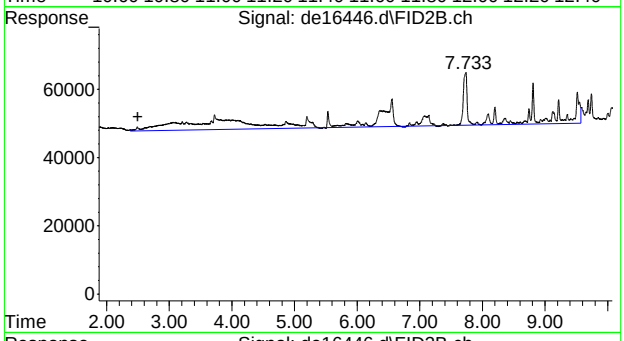
9

SGS ACCUTEST MC48999



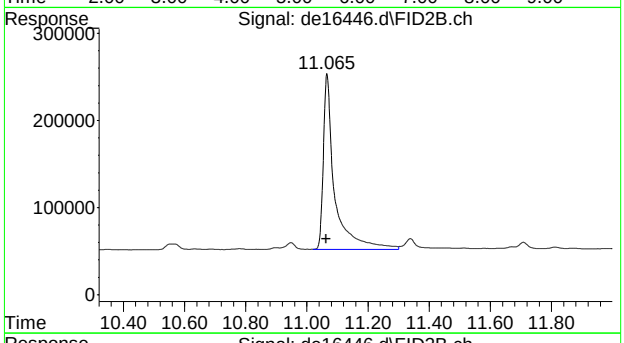
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



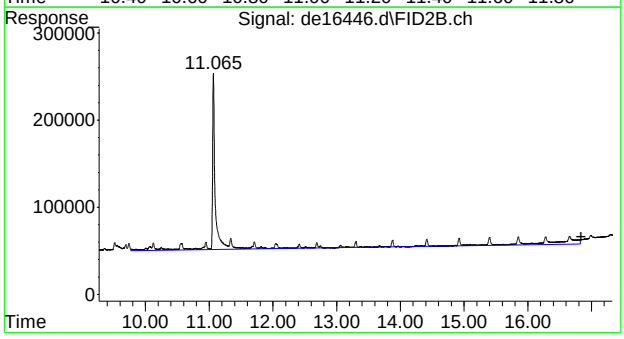
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 655536
Conc: 8.52 µg/ml m



#35 1-chlorooctadecane

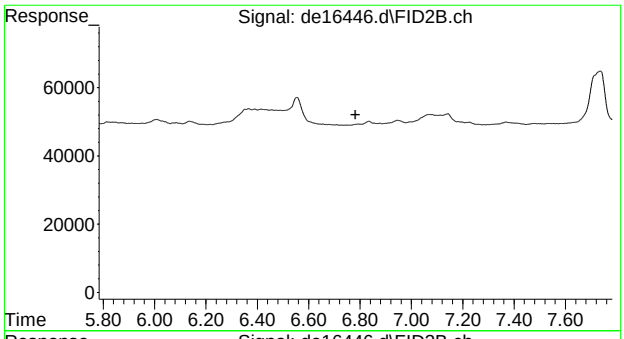
R.T.: 11.065 min
Delta R.T.: 0.002 min
Response: 515802
Conc: 9.07 µg/ml



#41 c-36

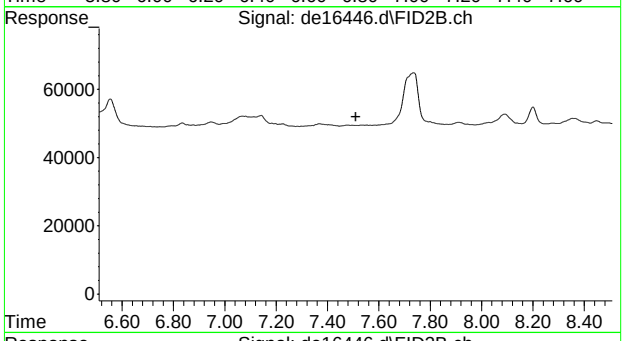
R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 600850
Conc: 8.86 µg/ml m

SGS ACCUTEST MC48999



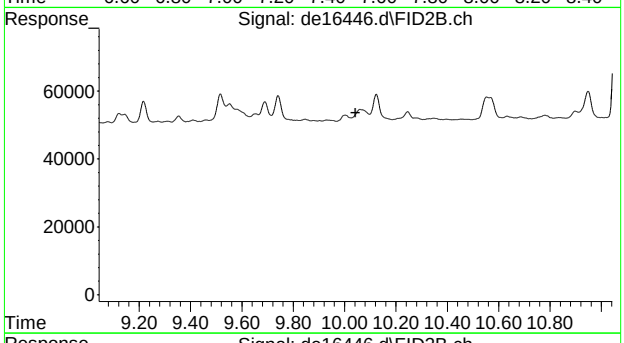
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



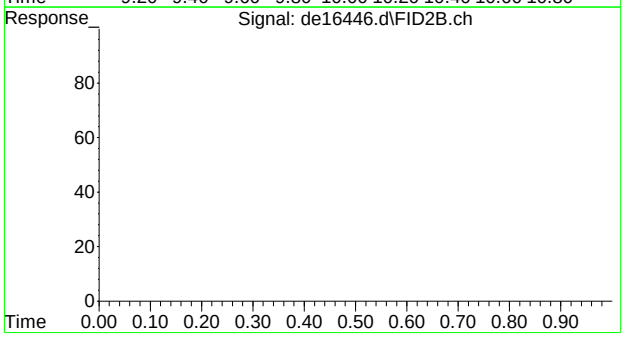
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

9.2.2

9

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16414.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 8:25 pm
Operator : thomasa
Sample : op49287-bsd
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 11:17:33 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.225	1551370	17.743 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 88.71%#	
6) s 2-bromonaphthalene	7.973	1094781	18.373 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 91.87%#	
11) s o-terphenyl	10.527	2026357	21.353 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 106.77%#	
35) s 1-chlorooctadecane	11.063	493993	8.683 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 43.41%#	
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	42136595	421.604 µg/mlm
2) naphthalene	5.782	1287913	13.163 µg/ml
3) 2-methylnaphthalene	6.678	1504492	15.807 µg/ml
5) acenaphthylene	7.807	1795275	18.773 µg/ml
7) acenaphthene	8.052	1981168	20.651 µg/ml
8) fluorene	8.698	2108786	22.493 µg/ml
9) phenanthrene	9.895	2319980	24.856 µg/ml
10) anthracene	9.952	2305016	25.074 µg/ml
12) fluoranthene	11.417	2495876	27.513 µg/ml
13) pyrene	11.682	2483000	27.168 µg/ml
14) benzo(a)anthracene	13.252	2607770	29.780 µg/ml
15) chrysene	13.302	2628908	29.642 µg/ml
16) benzo(B)fluoranthene	14.560	2758348	30.845 µg/ml
17) benzo(k)fluoranthene	14.590	2552369	29.559 µg/ml
18) benzo(a)pyrene	14.902	2613070	29.726 µg/ml
19) indeno(1,2,3-cd)pyrene	16.047	2689065	31.012 µg/ml
20) dibenzo(ah)anthracene	16.090	2664138	31.823 µg/ml
21) benzo(ghi)perylene	16.273	2686169	31.172 µg/ml
25) h c-9	2.495	258384	3.358 µg/mlm
26) h c-10	3.675	366759	4.767 µg/ml
28) c-12	5.528	633505	8.234 µg/ml
29) 2-methylnaphthalene #2	6.260	1188	0.016 µg/ml
30) c-14	7.038	1041293	13.534 µg/ml
31) c-16	8.360	1241216	16.133 µg/ml
32) c-18	9.548	1320627	17.165 µg/ml
33) c-19	10.102	1332270	19.650 µg/ml
34) c-20	10.630	1312083	19.353 µg/ml
36) c-22	11.622	1326726	19.569 µg/ml
37) c-24	12.537	1293190	19.074 µg/ml
38) c-26	13.385	1246858	18.391 µg/ml

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16414.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 8:25 pm
Operator : thomasa
Sample : op49287-bsd
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 26 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 11:17:33 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
39)	c-28	14.175	1212924	17.890	µg/ml
40) h	c-30	14.927	1169035	17.243	µg/ml
41) h	c-36	16.838	872486	12.869	µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.3.1

9

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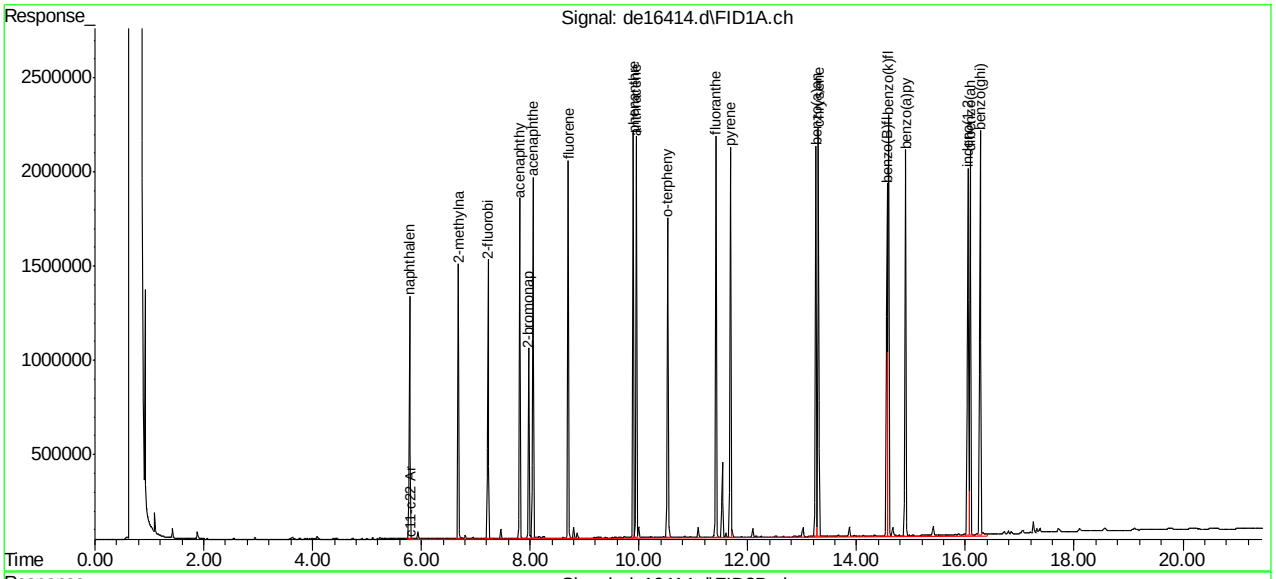
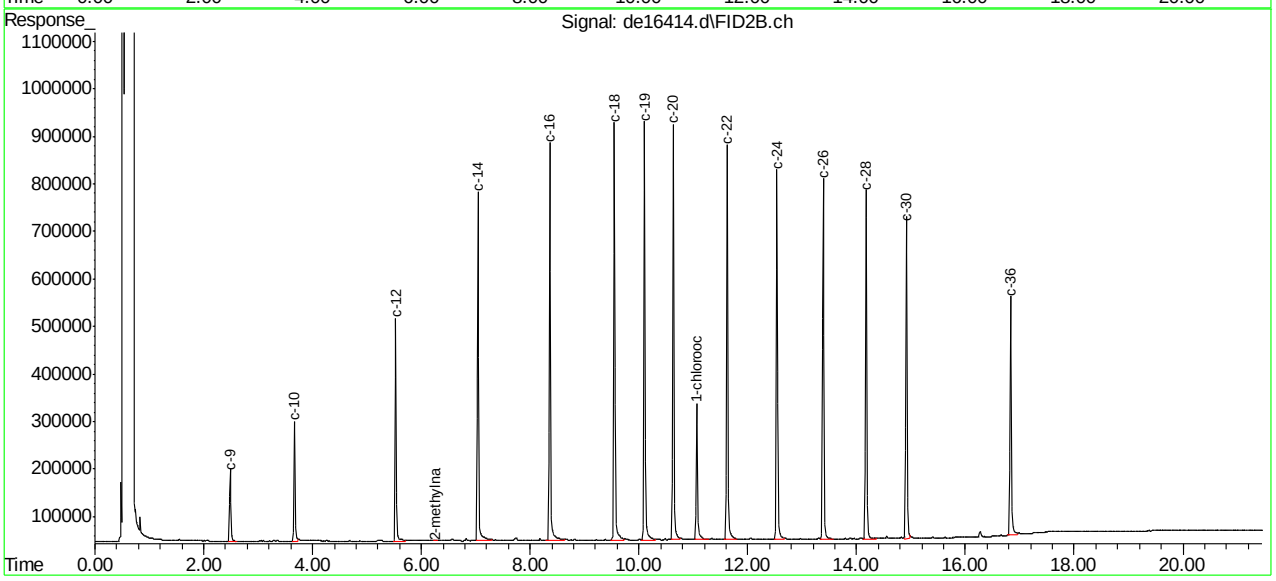
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16414.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 8:25 pm
Operator : thomasa
Sample : op49287-bsd
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 26 Sample Multiplier: 1

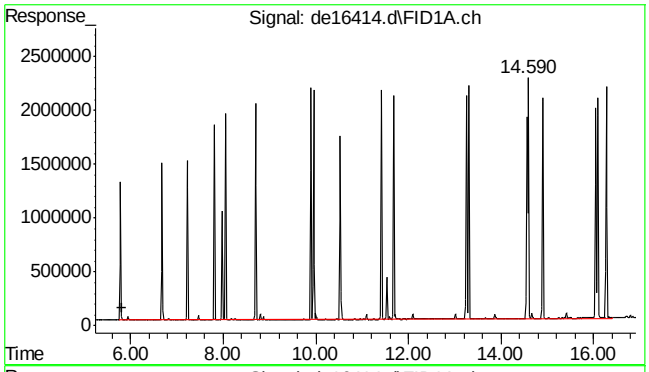
Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 11:17:33 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



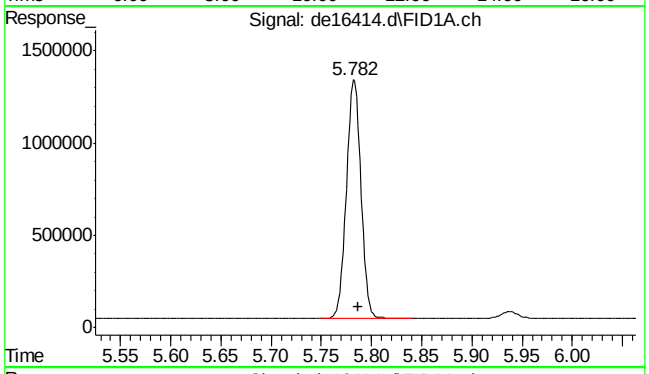


SGS ACCUTEST MC48999



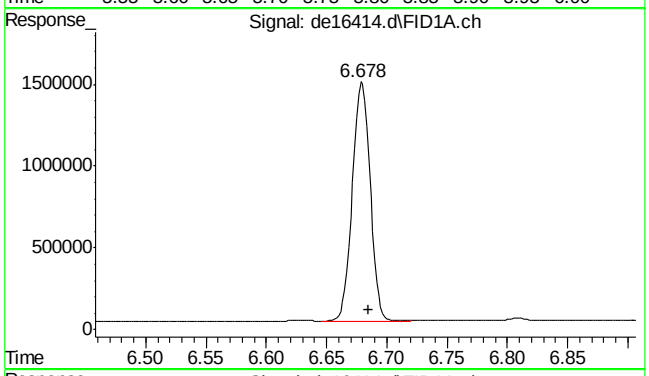
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 42136595
Conc: 421.60 µg/ml m



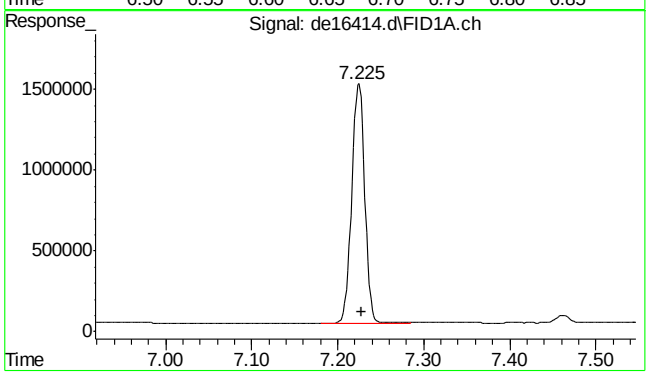
#2 naphthalene

R.T.: 5.782 min
Delta R.T.: -0.005 min
Response: 1287913
Conc: 13.16 µg/ml



#3 2-methylnaphthalene

R.T.: 6.678 min
Delta R.T.: -0.007 min
Response: 1504492
Conc: 15.81 µg/ml



#4 2-fluorobiphenyl

R.T.: 7.225 min
Delta R.T.: -0.003 min
Response: 1551370
Conc: 17.74 µg/ml

9.3.1

9

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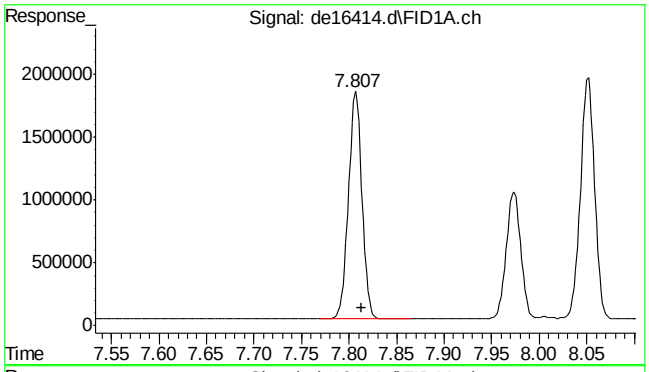
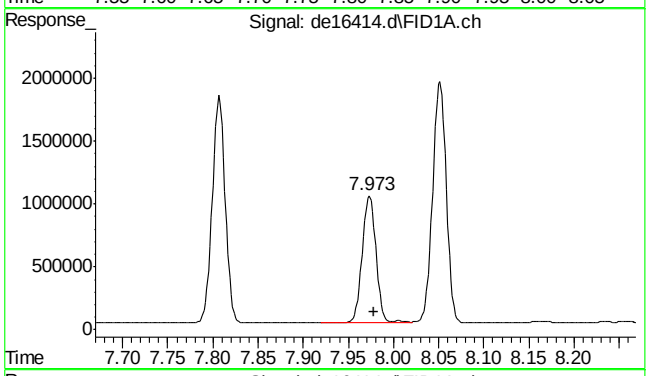


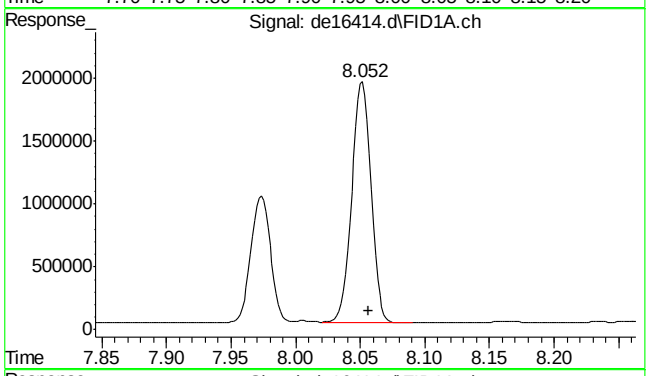
#5 acenaphthylene

R.T.: 7.807 min
Delta R.T.: -0.007 min
Response: 1795275
Conc: 18.77 µg/ml



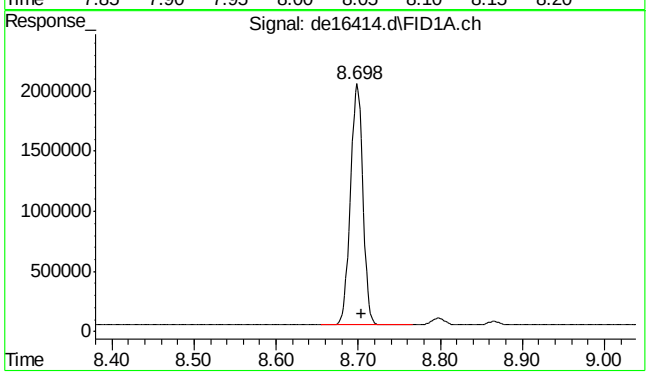
#6 2-bromonaphthalene

R.T.: 7.973 min
Delta R.T.: -0.005 min
Response: 1094781
Conc: 18.37 µg/ml



#7 acenaphthene

R.T.: 8.052 min
Delta R.T.: -0.005 min
Response: 1981168
Conc: 20.65 µg/ml



#8 fluorene

R.T.: 8.698 min
Delta R.T.: -0.007 min
Response: 2108786
Conc: 22.49 µg/ml

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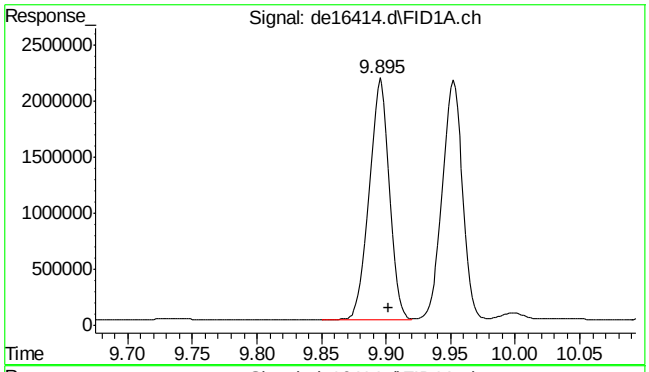
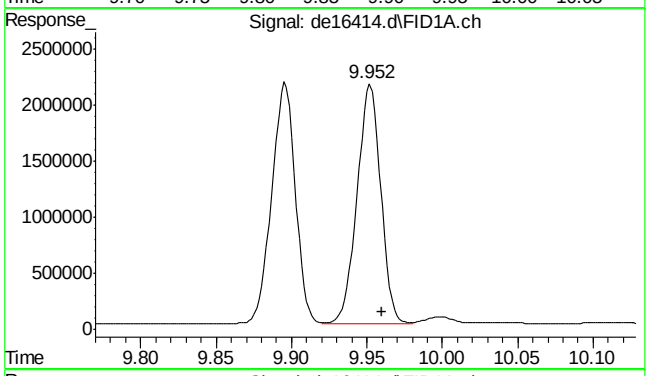


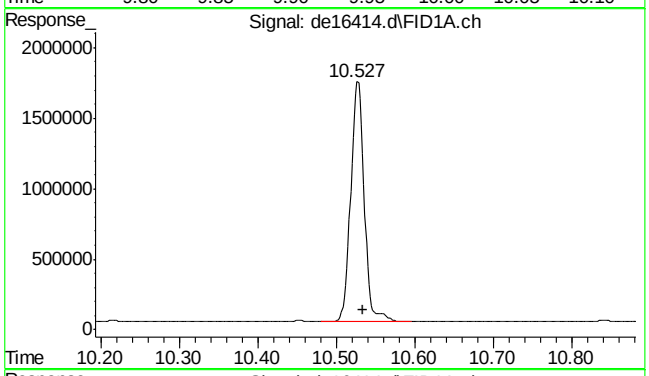
#9 phenanthrene

R.T.: 9.895 min
Delta R.T.: -0.007 min
Response: 2319980
Conc: 24.86 µg/ml



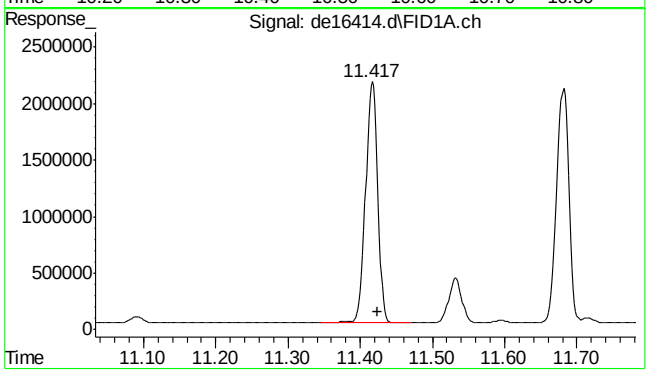
#10 anthracene

R.T.: 9.952 min
Delta R.T.: -0.008 min
Response: 2305016
Conc: 25.07 µg/ml



#11 o-terphenyl

R.T.: 10.527 min
Delta R.T.: -0.007 min
Response: 2026357
Conc: 21.35 µg/ml

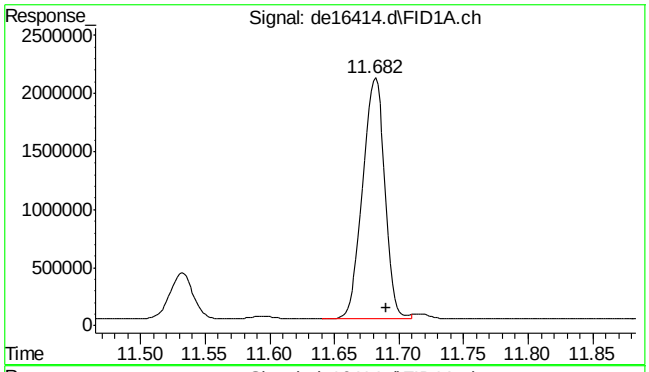


#12 fluoranthene

R.T.: 11.417 min
Delta R.T.: -0.007 min
Response: 2495876
Conc: 27.51 µg/ml

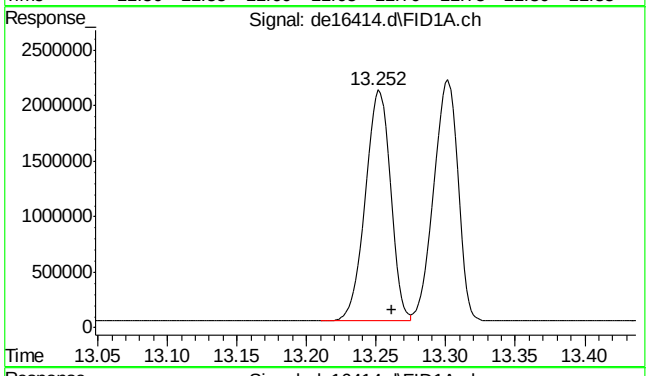
9.3.1
9

SGS ACCUTEST MC48999



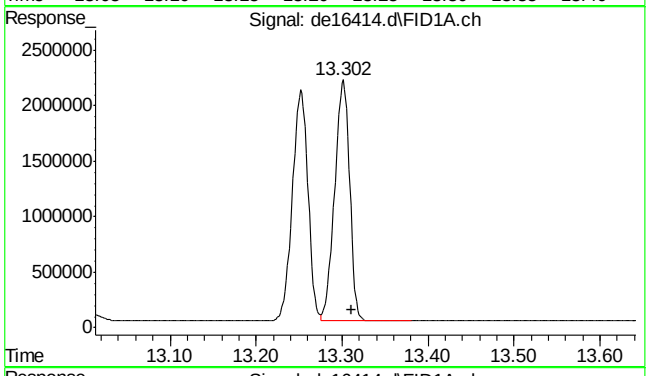
#13 pyrene

R.T.: 11.682 min
Delta R.T.: -0.008 min
Response: 2483000
Conc: 27.17 µg/ml



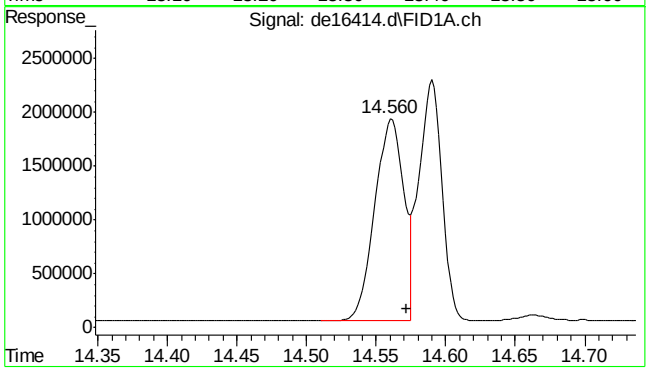
#14 benzo(a)anthracene

R.T.: 13.252 min
Delta R.T.: -0.010 min
Response: 2607770
Conc: 29.78 µg/ml



#15 chrysene

R.T.: 13.302 min
Delta R.T.: -0.010 min
Response: 2628908
Conc: 29.64 µg/ml



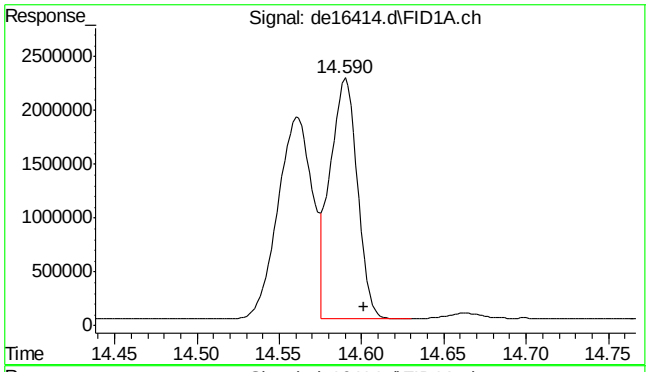
#16 benzo(B)fluoranthene

R.T.: 14.560 min
Delta R.T.: -0.012 min
Response: 2758348
Conc: 30.85 µg/ml

9.3.1

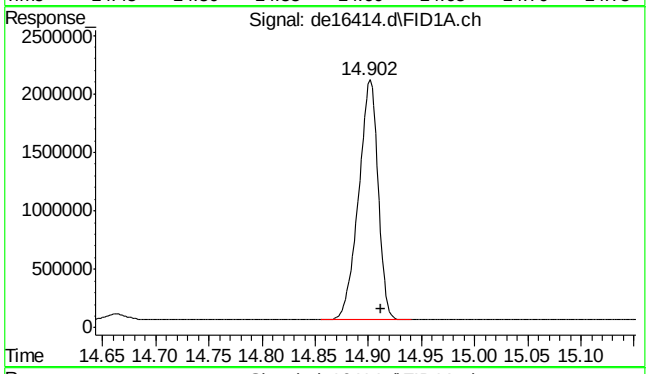
9

SGS ACCUTEST MC48999



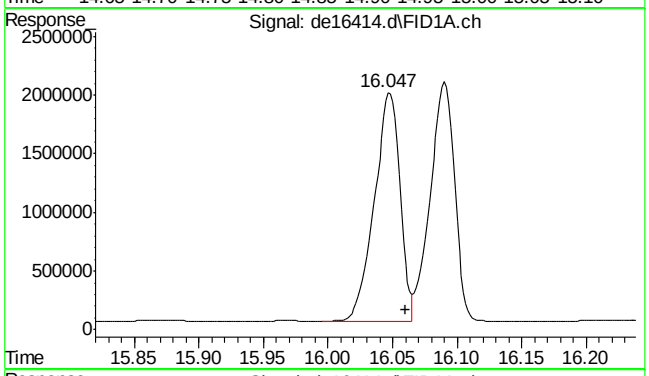
#17 benzo(k)fluoranthene

R.T.: 14.590 min
Delta R.T.: -0.012 min
Response: 2552369
Conc: 29.56 µg/ml



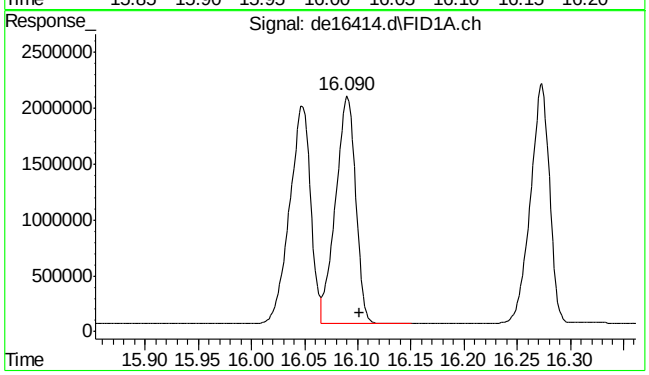
#18 benzo(a)pyrene

R.T.: 14.902 min
Delta R.T.: -0.010 min
Response: 2613070
Conc: 29.73 µg/ml



#19 indeno(1,2,3-cd)pyrene

R.T.: 16.047 min
Delta R.T.: -0.013 min
Response: 2689065
Conc: 31.01 µg/ml



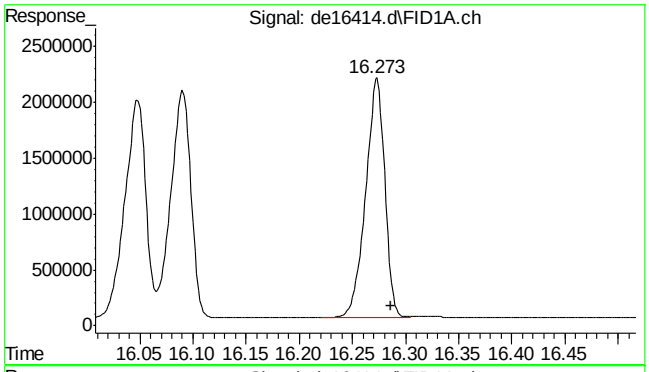
#20 dibenzo(ah)anthracene

R.T.: 16.090 min
Delta R.T.: -0.012 min
Response: 2664138
Conc: 31.82 µg/ml

9.3.1

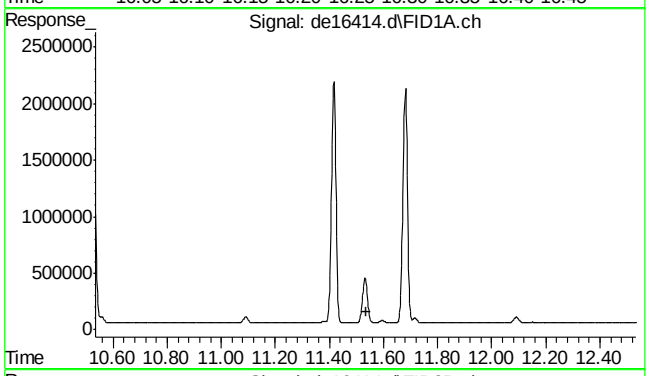
9

SGS ACCUTEST MC48999



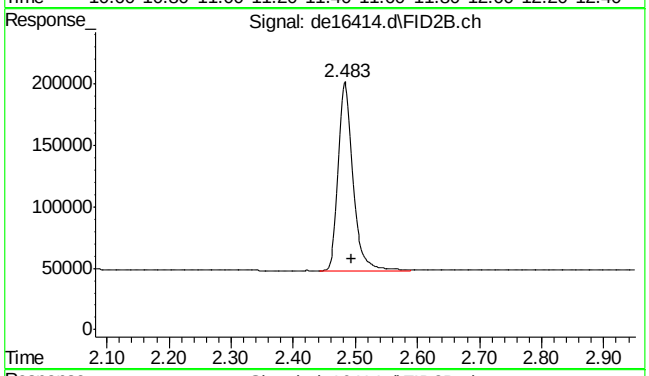
#21 benzo(ghi)perylene

R.T.: 16.273 min
Delta R.T.: -0.013 min
Response: 2686169
Conc: 31.17 µg/ml



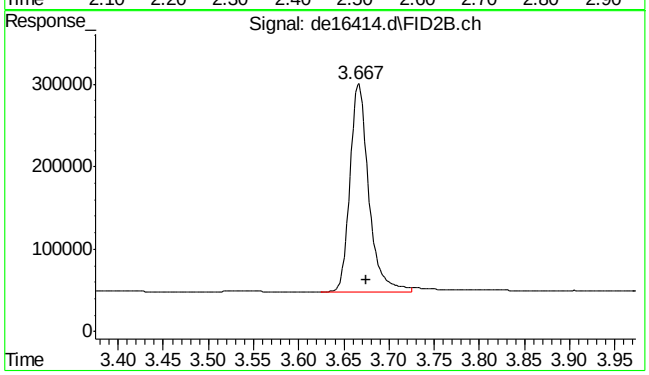
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 258384
Conc: 3.36 µg/ml m



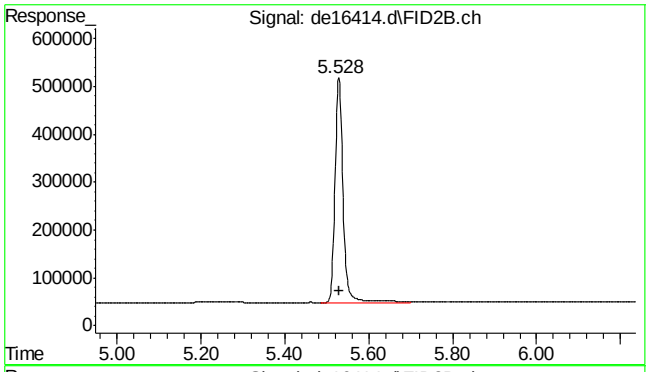
#26 c-10

R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 366759
Conc: 4.77 µg/ml

9.3.1

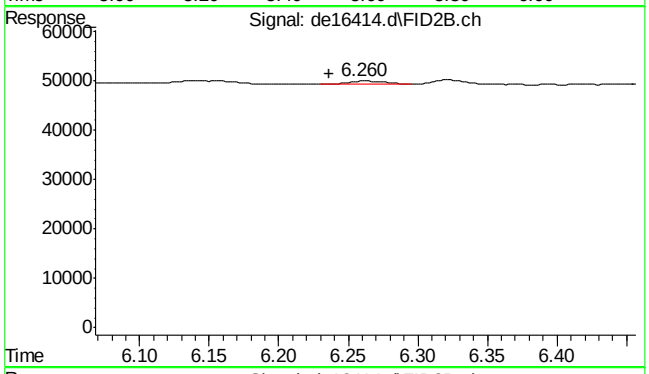
9

SGS ACCUTEST MC48999



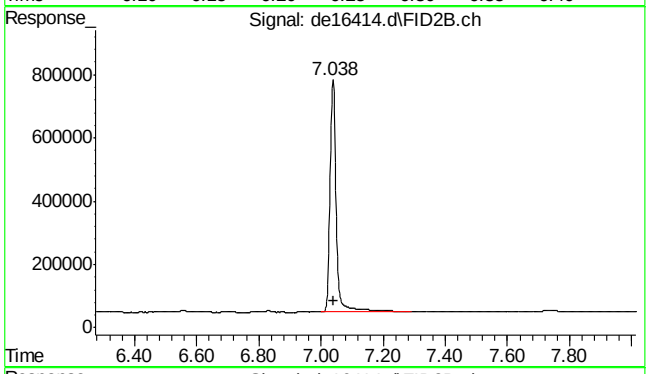
#28 c-12

R.T.: 5.528 min
Delta R.T.: -0.002 min
Response: 633505
Conc: 8.23 µg/ml



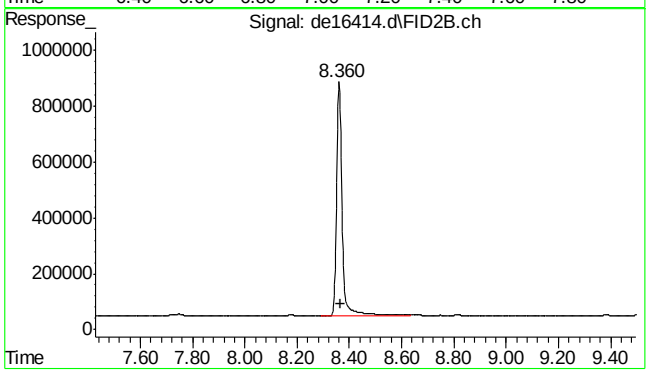
#29 2-methylnaphthalene #2

R.T.: 6.260 min
Delta R.T.: 0.023 min
Response: 1188
Conc: 0.02 µg/ml



#30 c-14

R.T.: 7.038 min
Delta R.T.: -0.003 min
Response: 1041293
Conc: 13.53 µg/ml



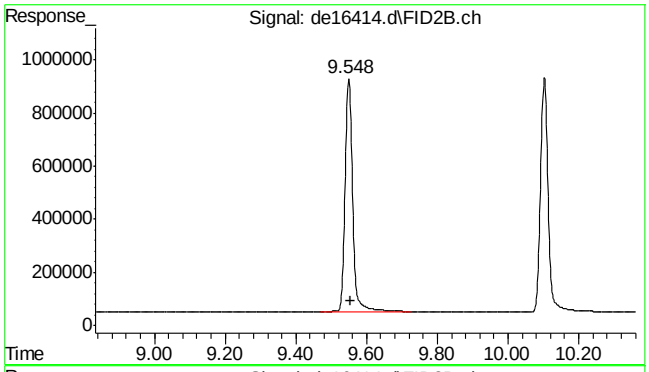
#31 c-16

R.T.: 8.360 min
Delta R.T.: -0.005 min
Response: 1241216
Conc: 16.13 µg/ml

9.3.1

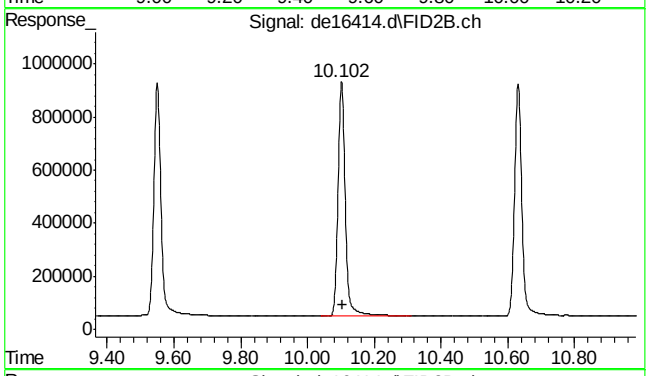
9

SGS ACCUTEST MC48999



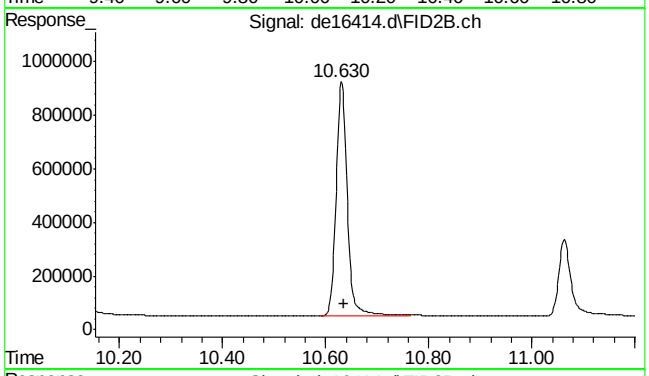
#32 c-18

R.T.: 9.548 min
Delta R.T.: -0.005 min
Response: 1320627
Conc: 17.16 µg/ml



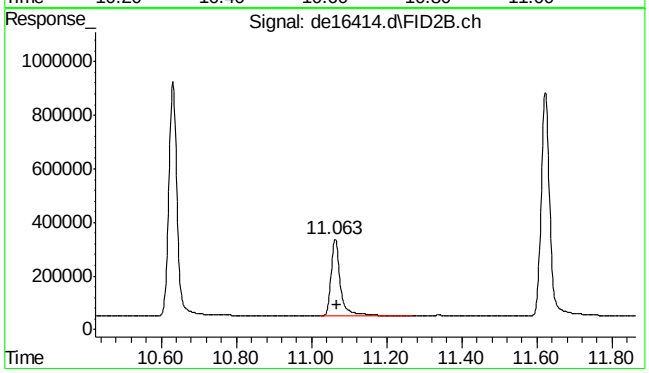
#33 c-19

R.T.: 10.102 min
Delta R.T.: -0.005 min
Response: 1332270
Conc: 19.65 µg/ml



#34 c-20

R.T.: 10.630 min
Delta R.T.: -0.005 min
Response: 1312083
Conc: 19.35 µg/ml



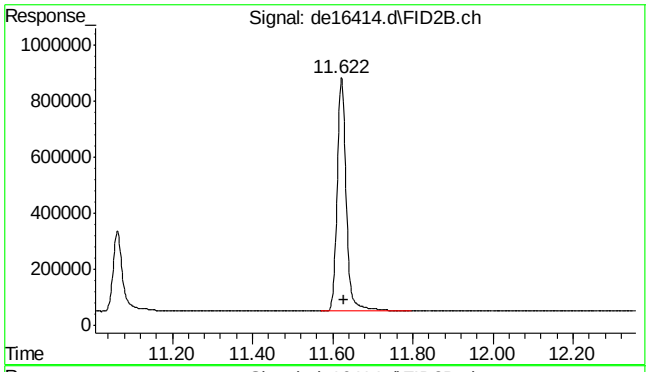
#35 1-chlorooctadecane

R.T.: 11.063 min
Delta R.T.: -0.003 min
Response: 493993
Conc: 8.68 µg/ml

9.3.1

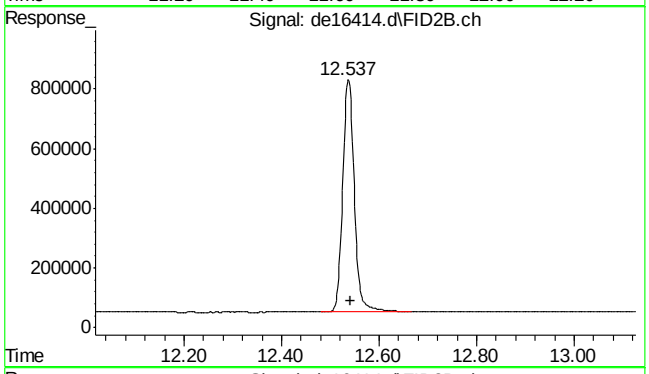
9

SGS ACCUTEST MC48999



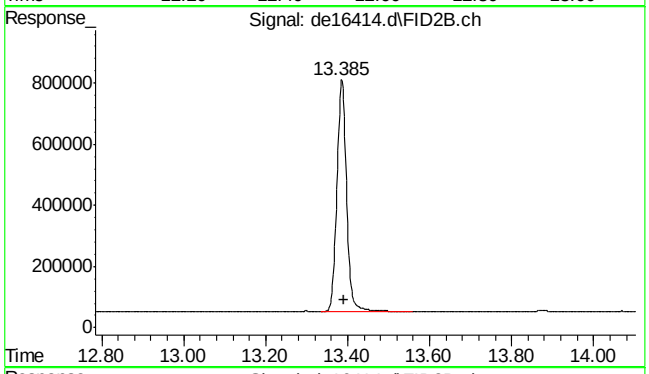
#36 c-22

R.T.: 11.622 min
Delta R.T.: -0.007 min
Response: 1326726
Conc: 19.57 µg/ml



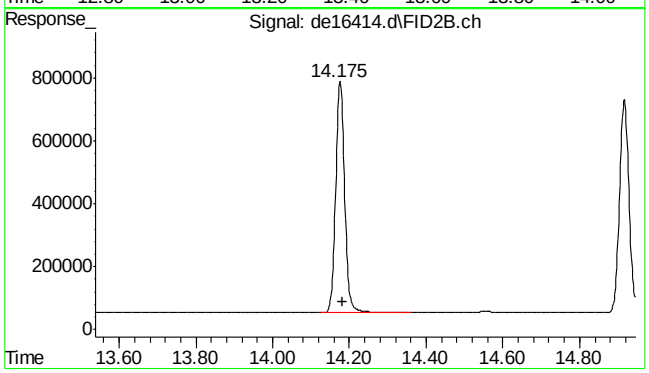
#37 c-24

R.T.: 12.537 min
Delta R.T.: -0.005 min
Response: 1293190
Conc: 19.07 µg/ml



#38 c-26

R.T.: 13.385 min
Delta R.T.: -0.007 min
Response: 1246858
Conc: 18.39 µg/ml



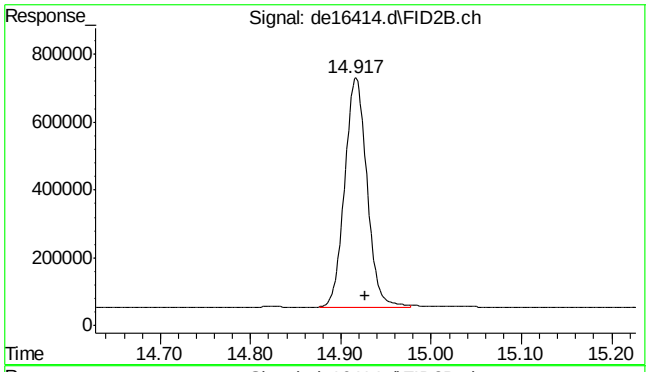
#39 c-28

R.T.: 14.175 min
Delta R.T.: -0.008 min
Response: 1212924
Conc: 17.89 µg/ml

9.3.1

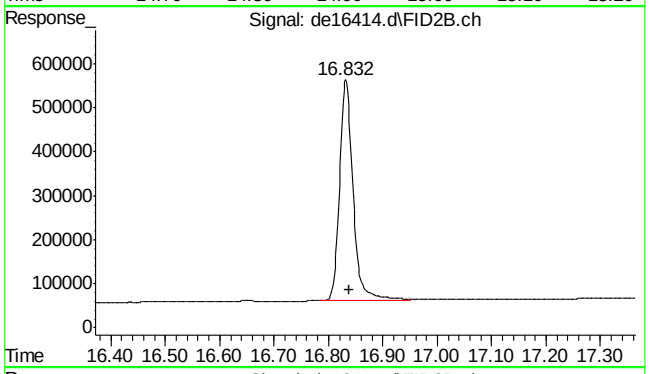
9

SGS ACCUTEST MC48999



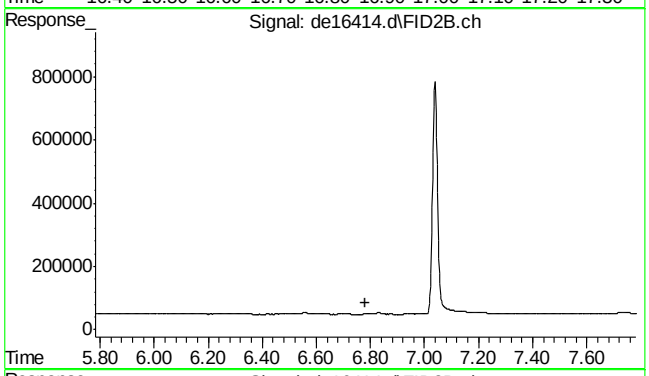
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 1169035
Conc: 17.24 µg/ml



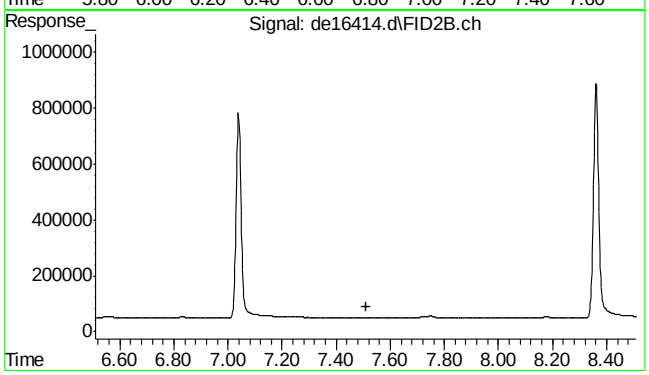
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 872486
Conc: 12.87 µg/ml m



#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



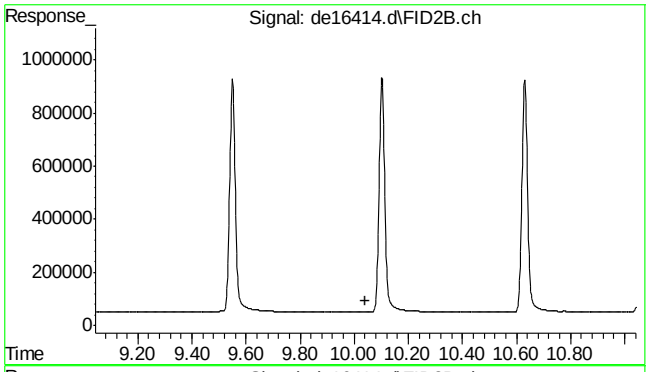
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.

9.3.1

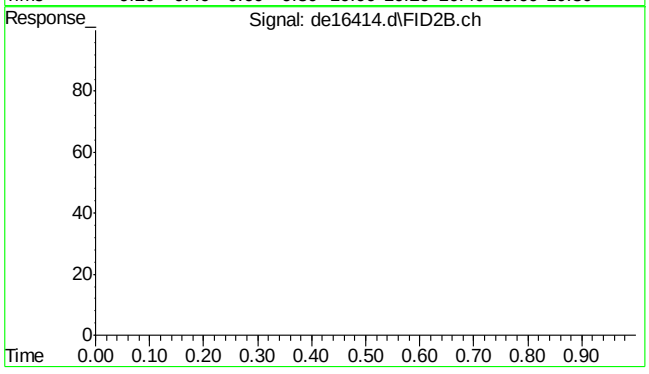
9

SGS ACCUTEST MC48999



#44 bht

```
      R.T.:    0.000 min
Exp R.T.  :   10.042 min
  Response:         0
      Conc:   N.D.
```



#45 bht

```
      R.T.:    0.000 min
Exp R.T.  :   23.000 min
  Response:         0
      Conc:   N.D.
```

9.3.1

9

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16434.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 8:37 am
Operator : thomasa
Sample : op49287-bs,rr
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 10:42:31 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.225	1809670	20.698 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 103.49%#	
6) s 2-bromonaphthalene	7.973	1281378	21.504 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 107.52%#	
11) s o-terphenyl	10.527	1561499	16.454 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 82.27%#	
35) s 1-chlorooctadecane	11.062	636081	11.181 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 55.90%#	
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	30247723	302.648 µg/mlm
2) naphthalene	5.783	1020896	10.434 µg/ml
3) 2-methylnaphthalene	6.678	1132264	11.896 µg/ml
5) acenaphthylene	7.807	1316713	13.769 µg/ml
7) acenaphthene	8.050	1439729	15.007 µg/ml
8) fluorene	8.698	1511721	16.124 µg/ml
9) phenanthrene	9.895	1656705	17.749 µg/ml
10) anthracene	9.952	1625139	17.678 µg/ml
12) fluoranthene	11.415	1774114	19.557 µg/ml
13) pyrene	11.680	1758715	19.243 µg/ml
14) benzo(a)anthracene	13.250	1823361	20.822 µg/ml
15) chrysene	13.298	1844012	20.792 µg/ml
16) benzo(B)fluoranthene	14.557	1940906	21.704 µg/ml
17) benzo(k)fluoranthene	14.587	1796643	20.807 µg/ml
18) benzo(a)pyrene	14.897	1841456	20.948 µg/ml
19) indeno(1,2,3-cd)pyrene	16.043	1899878	21.910 µg/ml
20) dibenzo(ah)anthracene	16.085	1890515	22.582 µg/ml
21) benzo(ghi)perylene	16.268	1915185	22.225 µg/ml
25) h c-9	2.495	376739	4.897 µg/mlm
26) h c-10	3.675	509934	6.628 µg/ml
28) c-12	5.528	783962	10.189 µg/ml
29) 2-methylnaphthalene #2	6.258	2067	0.027 µg/ml
30) c-14	7.038	1259977	16.376 µg/ml
31) c-16	8.360	1460785	18.986 µg/ml
32) c-18	9.548	1557130	20.239 µg/ml
33) c-19	10.102	1571656	23.181 µg/ml
34) c-20	10.630	1557877	22.978 µg/ml
36) c-22	11.622	1569063	23.143 µg/ml
37) c-24	12.537	1516567	22.369 µg/ml
38) c-26	13.385	1447892	21.356 µg/ml

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16434.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 8:37 am
Operator : thomasa
Sample : op49287-bs,rr
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 24 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 10:42:31 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
39)	c-28	14.175	1396349	20.596 µg/ml
40) h	c-30	14.927	1339489	19.757 µg/ml
41) h	c-36	16.838	883406	13.030 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.3.2

9

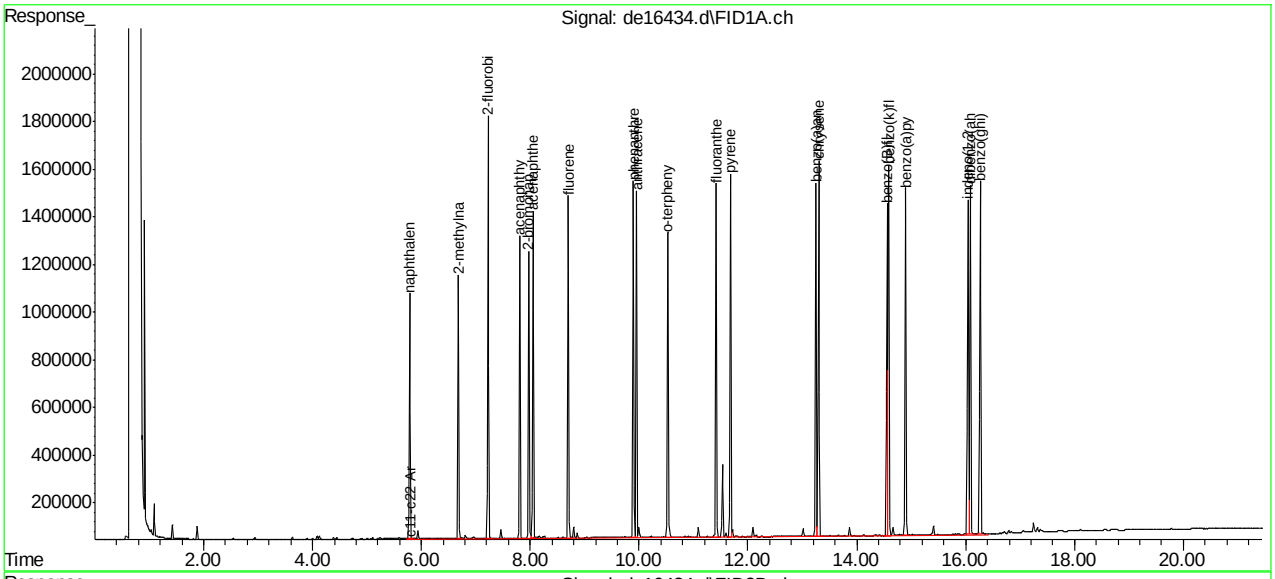
SGS ACCUTEST MC48999

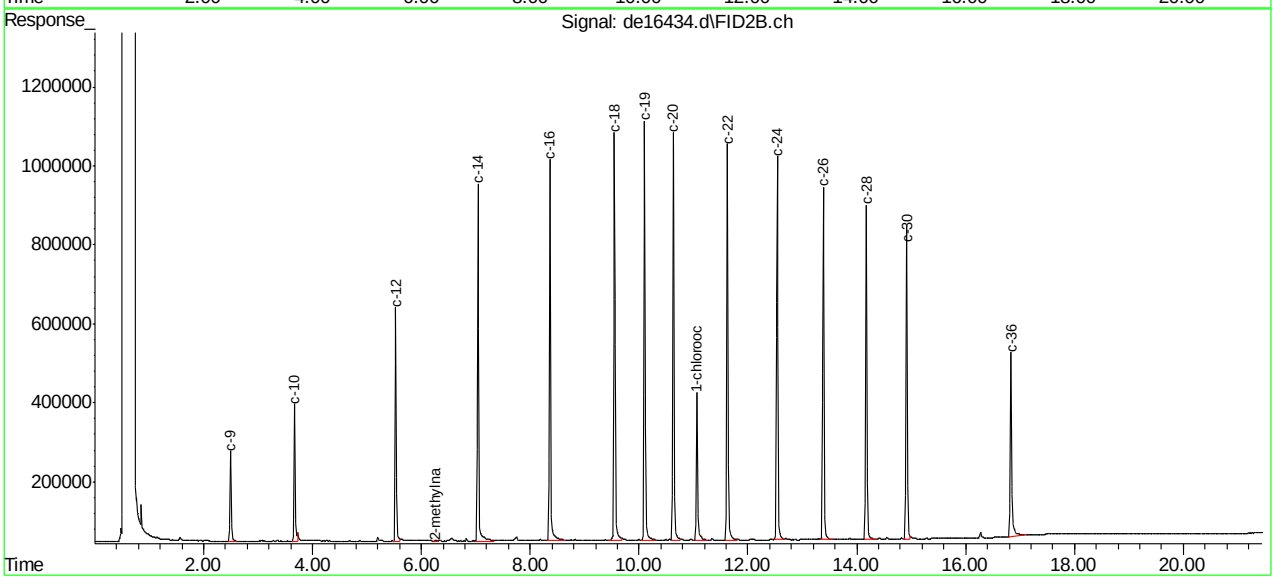
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16434.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 8:37 am
Operator : thomasa
Sample : op49287-bs,rr
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 24 Sample Multiplier: 1

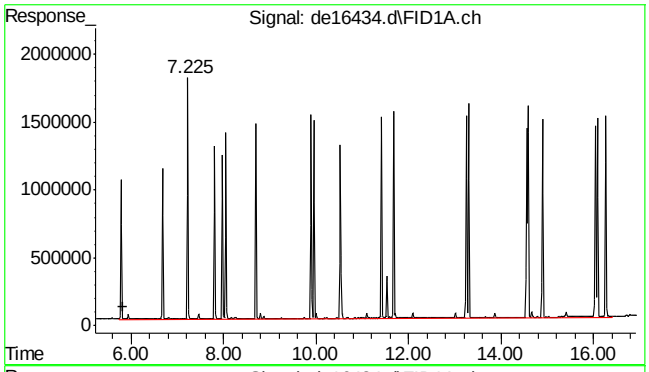
Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 10:42:31 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



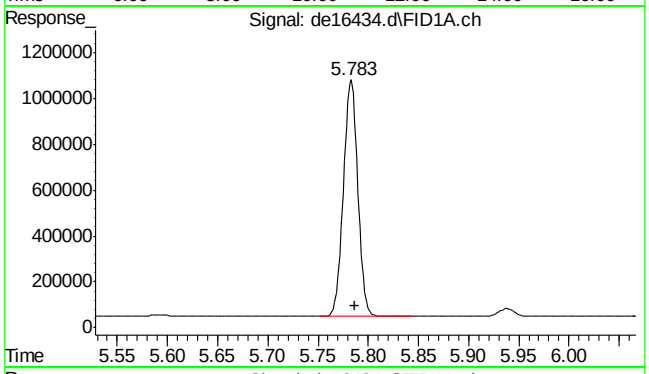


SGS ACCUTEST MC48999



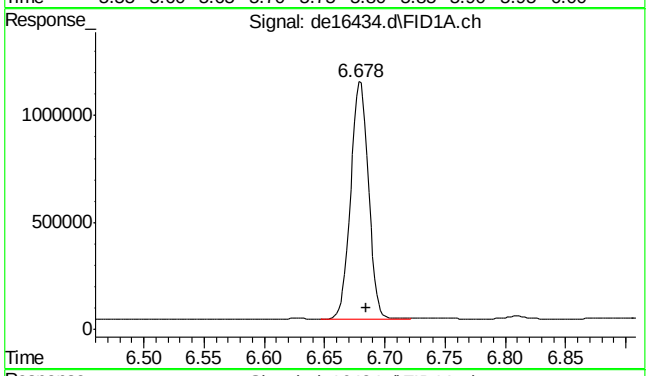
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 30247723
Conc: 302.65 µg/ml m



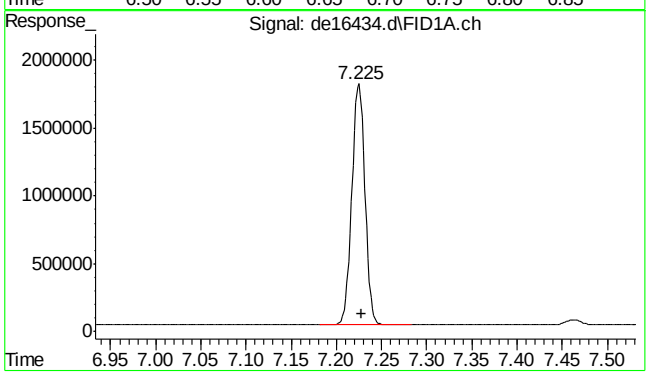
#2 naphthalene

R.T.: 5.783 min
Delta R.T.: -0.003 min
Response: 1020896
Conc: 10.43 µg/ml



#3 2-methylnaphthalene

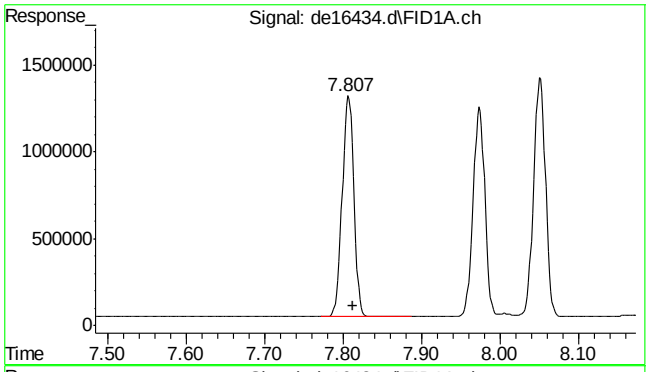
R.T.: 6.678 min
Delta R.T.: -0.007 min
Response: 1132264
Conc: 11.90 µg/ml



#4 2-fluorobiphenyl

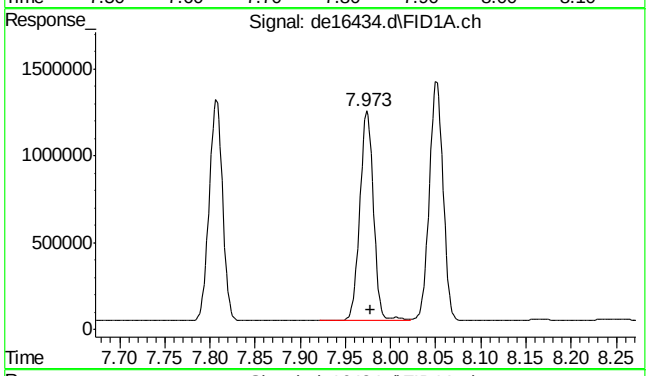
R.T.: 7.225 min
Delta R.T.: -0.003 min
Response: 1809670
Conc: 20.70 µg/ml

SGS ACCUTEST MC48999



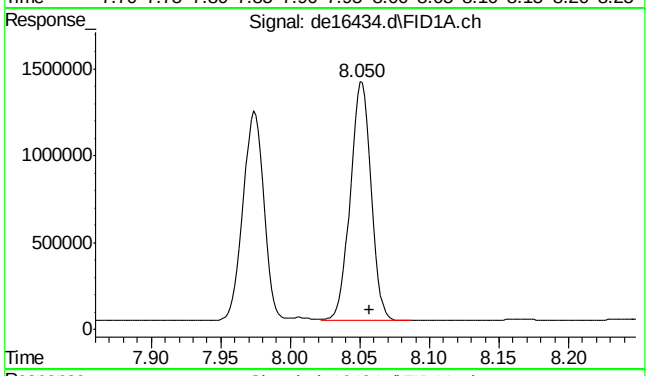
#5 acenaphthylene

R.T.: 7.807 min
Delta R.T.: -0.007 min
Response: 1316713
Conc: 13.77 µg/ml



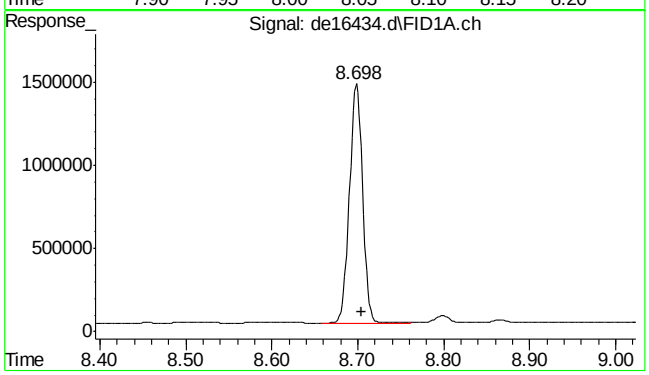
#6 2-bromonaphthalene

R.T.: 7.973 min
Delta R.T.: -0.005 min
Response: 1281378
Conc: 21.50 µg/ml



#7 acenaphthene

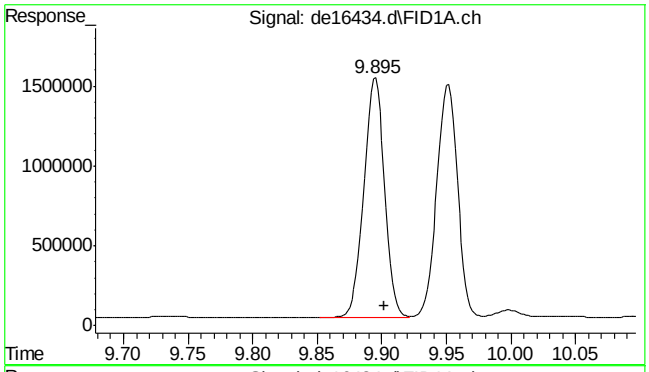
R.T.: 8.050 min
Delta R.T.: -0.007 min
Response: 1439729
Conc: 15.01 µg/ml



#8 fluorene

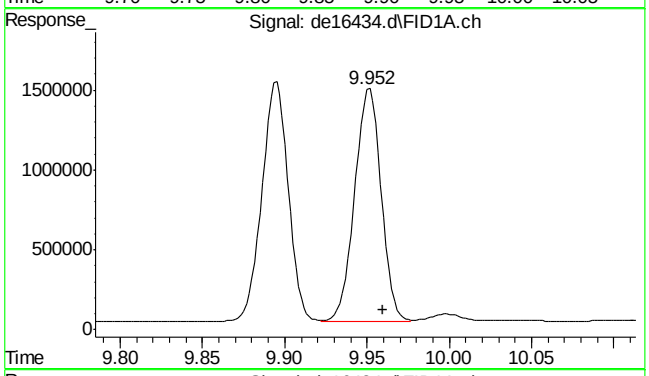
R.T.: 8.698 min
Delta R.T.: -0.007 min
Response: 1511721
Conc: 16.12 µg/ml

SGS ACCUTEST MC48999



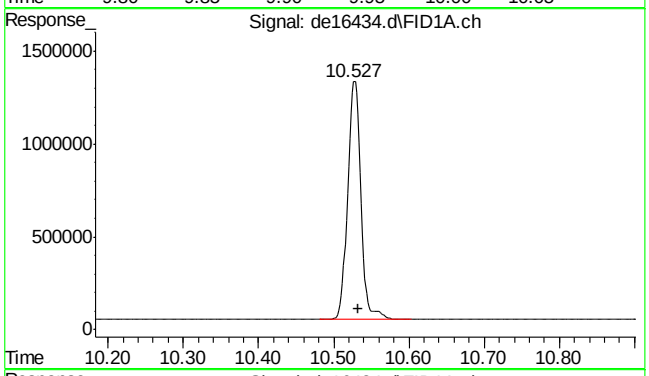
#9 phenanthrene

R.T.: 9.895 min
Delta R.T.: -0.007 min
Response: 1656705
Conc: 17.75 µg/ml



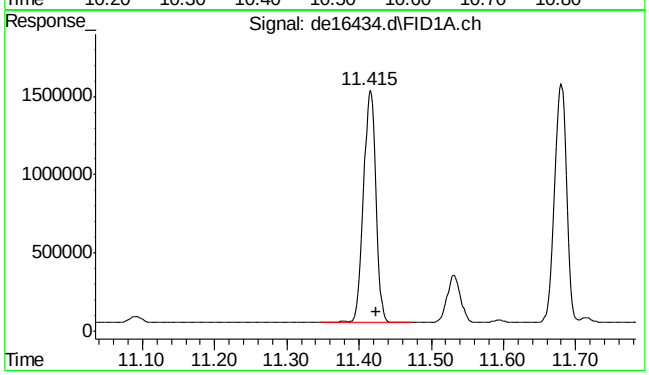
#10 anthracene

R.T.: 9.952 min
Delta R.T.: -0.008 min
Response: 1625139
Conc: 17.68 µg/ml



#11 o-terphenyl

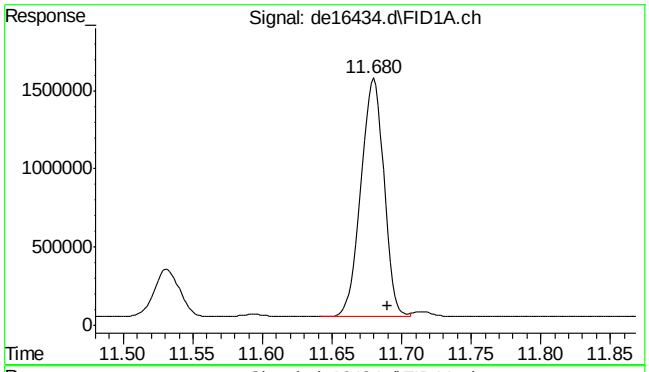
R.T.: 10.527 min
Delta R.T.: -0.007 min
Response: 1561499
Conc: 16.45 µg/ml



#12 fluoranthene

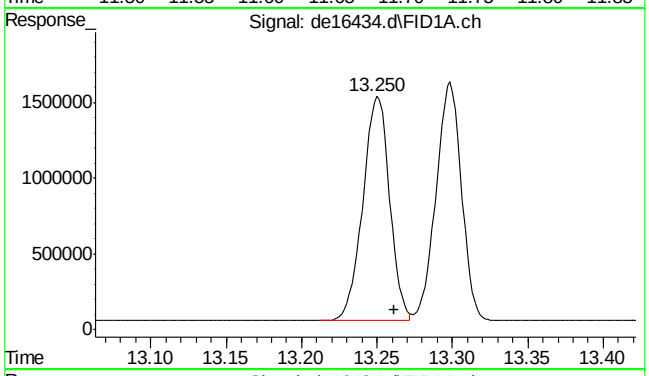
R.T.: 11.415 min
Delta R.T.: -0.008 min
Response: 1774114
Conc: 19.56 µg/ml

SGS ACCUTEST MC48999



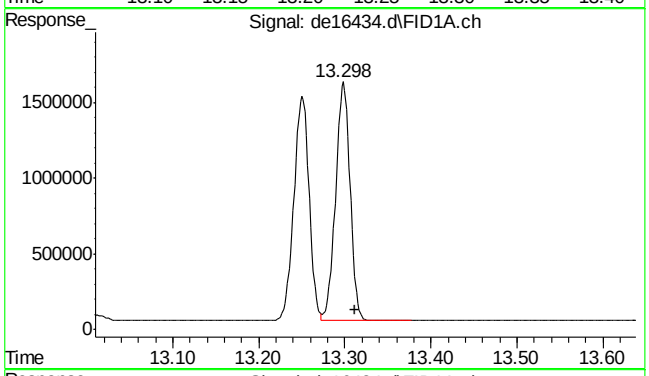
#13 pyrene

R.T.: 11.680 min
Delta R.T.: -0.010 min
Response: 1758715
Conc: 19.24 µg/ml



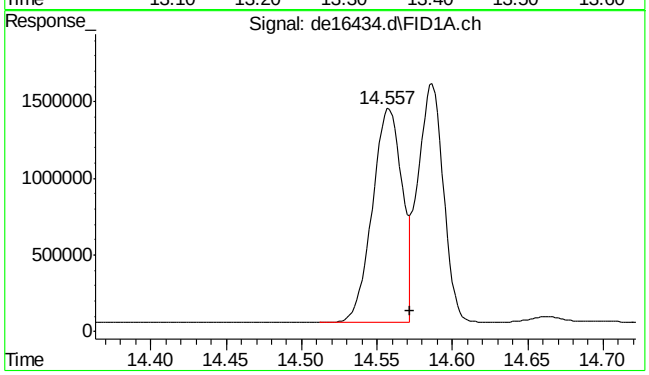
#14 benzo(a)anthracene

R.T.: 13.250 min
Delta R.T.: -0.012 min
Response: 1823361
Conc: 20.82 µg/ml



#15 chrysene

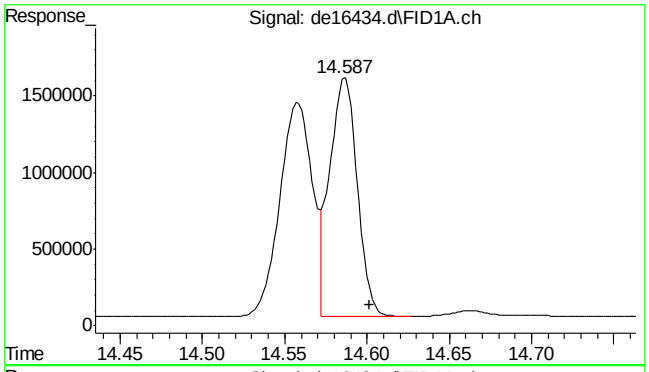
R.T.: 13.298 min
Delta R.T.: -0.013 min
Response: 1844012
Conc: 20.79 µg/ml



#16 benzo(B)fluoranthene

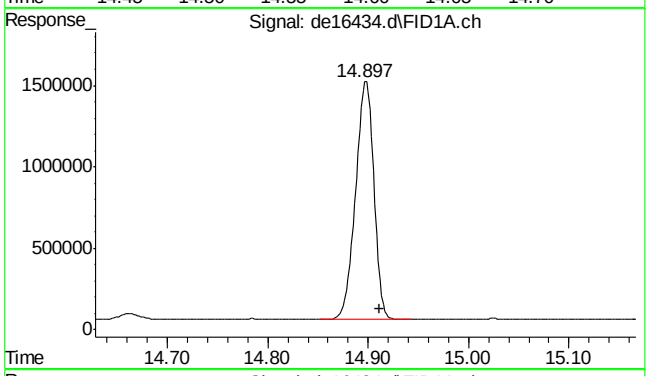
R.T.: 14.557 min
Delta R.T.: -0.015 min
Response: 1940906
Conc: 21.70 µg/ml

SGS ACCUTEST MC48999



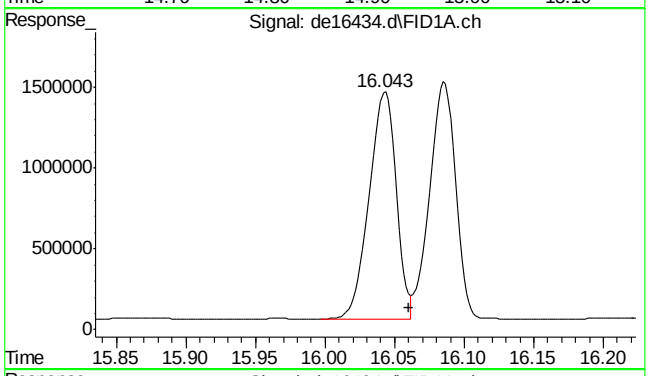
#17 benzo(k)fluoranthene

R.T.: 14.587 min
Delta R.T.: -0.015 min
Response: 1796643
Conc: 20.81 µg/ml



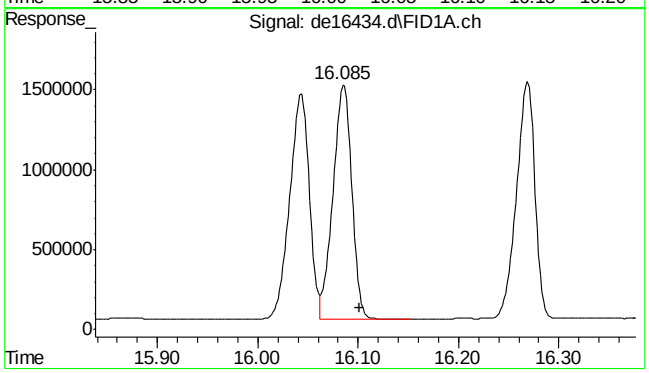
#18 benzo(a)pyrene

R.T.: 14.897 min
Delta R.T.: -0.015 min
Response: 1841456
Conc: 20.95 µg/ml



#19 indeno(1,2,3-cd)pyrene

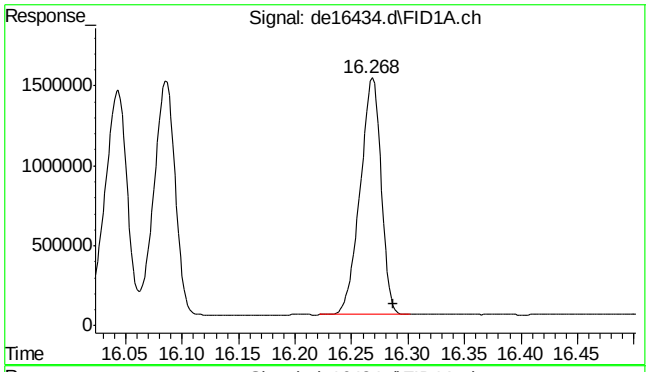
R.T.: 16.043 min
Delta R.T.: -0.017 min
Response: 1899878
Conc: 21.91 µg/ml



#20 dibenzo(ah)anthracene

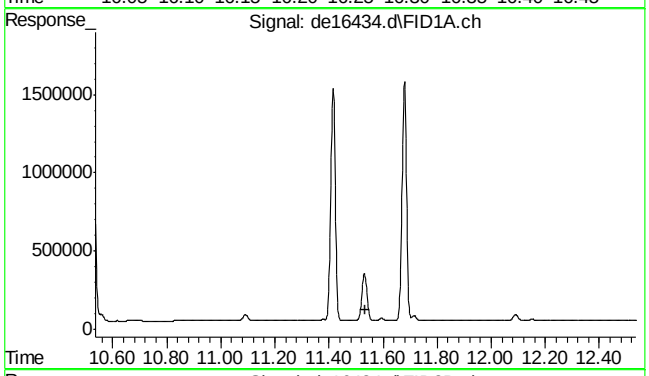
R.T.: 16.085 min
Delta R.T.: -0.017 min
Response: 1890515
Conc: 22.58 µg/ml

SGS ACCUTEST MC48999



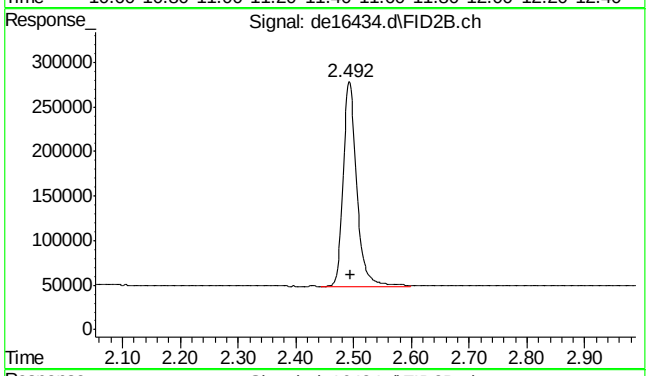
#21 benzo(ghi)perylene

R.T.: 16.268 min
Delta R.T.: -0.018 min
Response: 1915185
Conc: 22.22 µg/ml



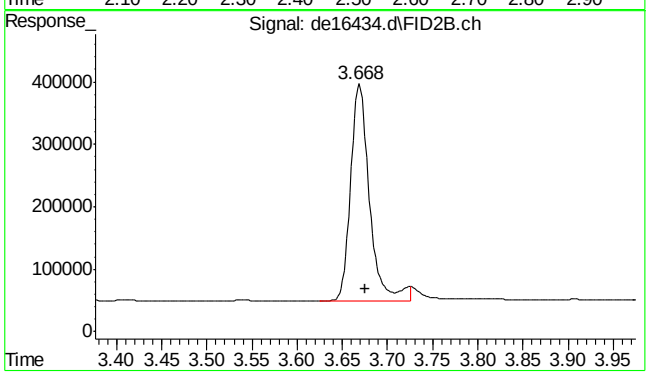
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 376739
Conc: 4.90 µg/ml m



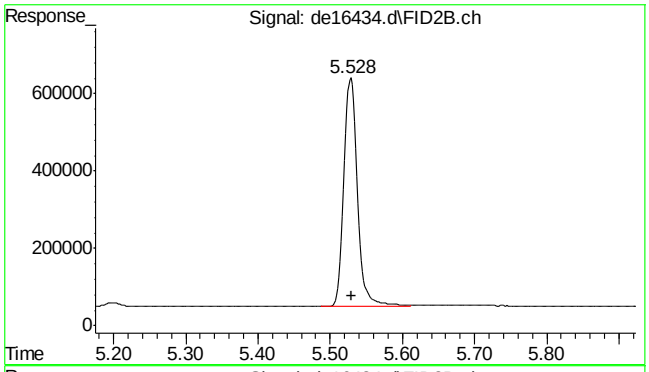
#26 c-10

R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 509934
Conc: 6.63 µg/ml

9.3.2

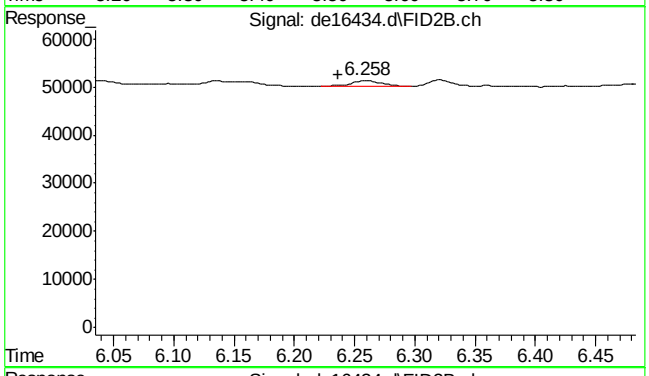
9

SGS ACCUTEST MC48999



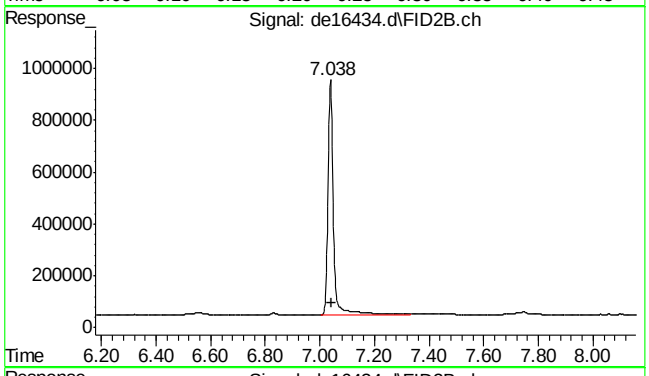
#28 c-12

R.T.: 5.528 min
Delta R.T.: -0.002 min
Response: 783962
Conc: 10.19 µg/ml



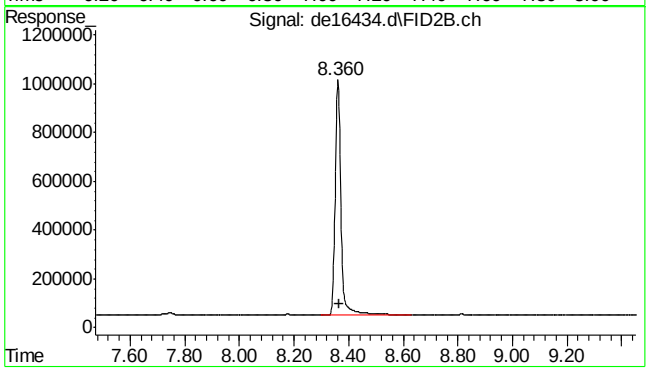
#29 2-methylnaphthalene #2

R.T.: 6.258 min
Delta R.T.: 0.022 min
Response: 2067
Conc: 0.03 µg/ml



#30 c-14

R.T.: 7.038 min
Delta R.T.: -0.003 min
Response: 1259977
Conc: 16.38 µg/ml



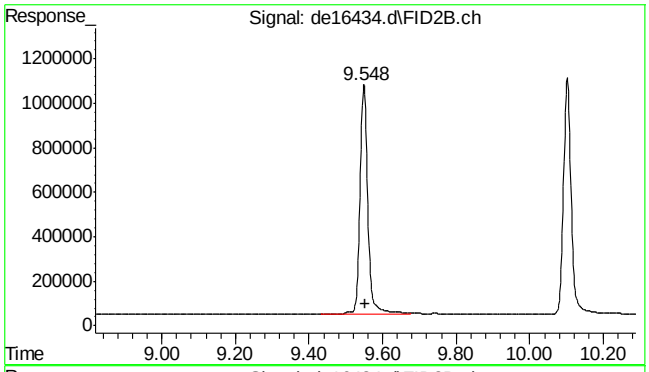
#31 c-16

R.T.: 8.360 min
Delta R.T.: -0.005 min
Response: 1460785
Conc: 18.99 µg/ml

9.3.2

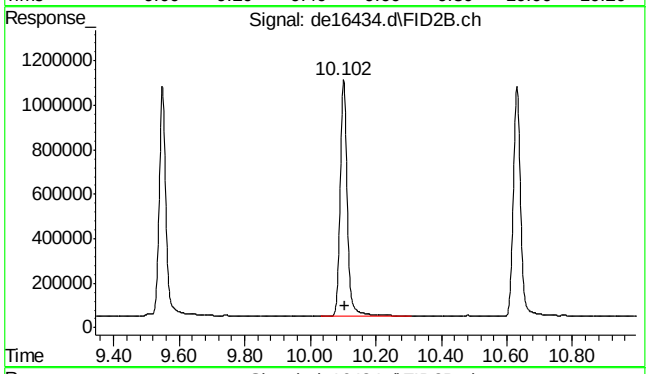
9

SGS ACCUTEST MC48999



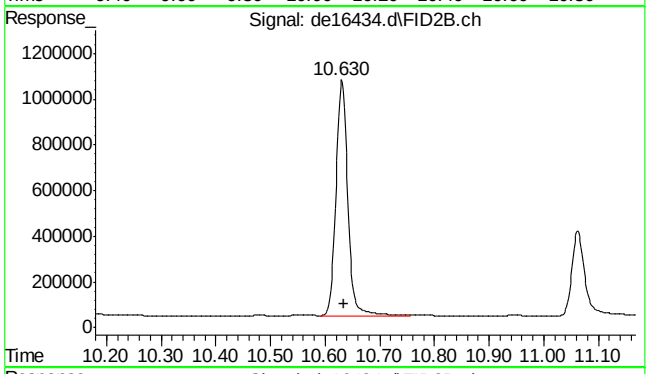
#32 c-18

R.T.: 9.548 min
Delta R.T.: -0.005 min
Response: 1557130
Conc: 20.24 µg/ml



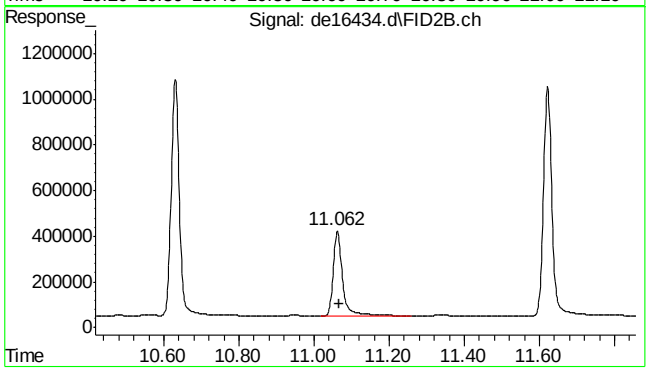
#33 c-19

R.T.: 10.102 min
Delta R.T.: -0.005 min
Response: 1571656
Conc: 23.18 µg/ml



#34 c-20

R.T.: 10.630 min
Delta R.T.: -0.005 min
Response: 1557877
Conc: 22.98 µg/ml



#35 1-chlorooctadecane

R.T.: 11.062 min
Delta R.T.: -0.005 min
Response: 636081
Conc: 11.18 µg/ml

9.3.2

9

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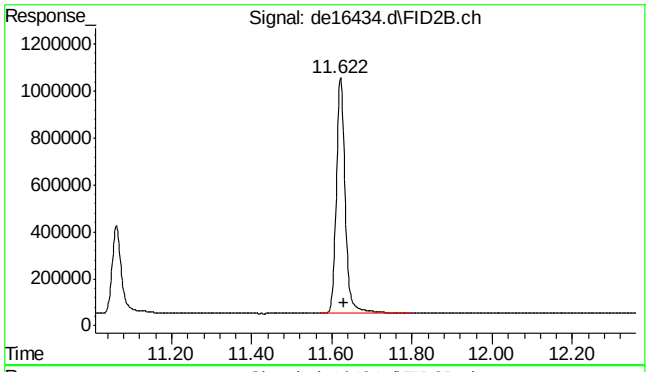
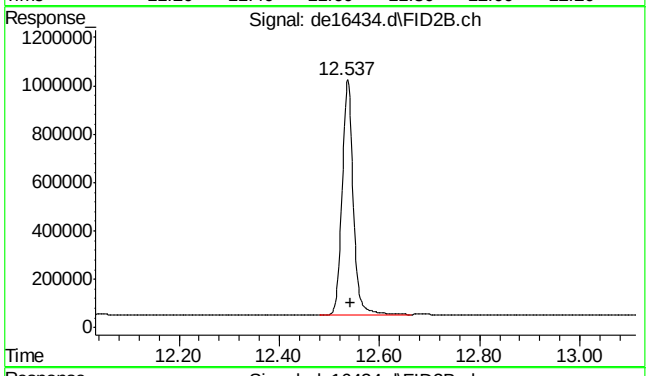


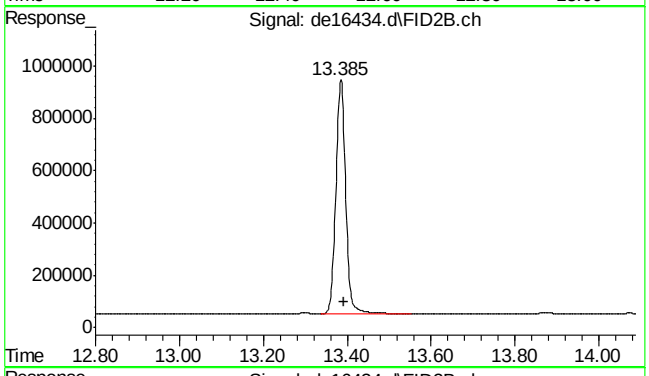
#36 c-22

R.T.: 11.622 min
Delta R.T.: -0.007 min
Response: 1569063
Conc: 23.14 µg/ml



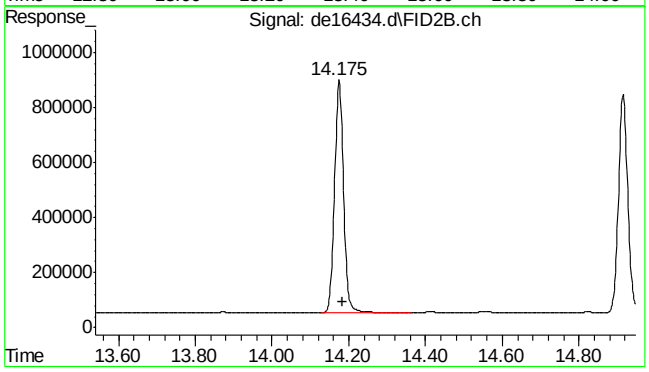
#37 c-24

R.T.: 12.537 min
Delta R.T.: -0.005 min
Response: 1516567
Conc: 22.37 µg/ml



#38 c-26

R.T.: 13.385 min
Delta R.T.: -0.007 min
Response: 1447892
Conc: 21.36 µg/ml



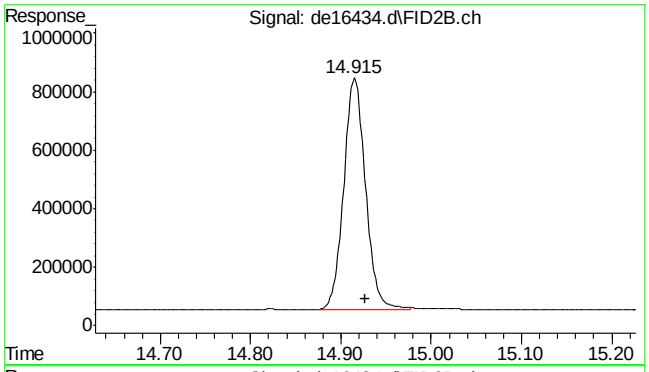
#39 c-28

R.T.: 14.175 min
Delta R.T.: -0.008 min
Response: 1396349
Conc: 20.60 µg/ml

9.3.2

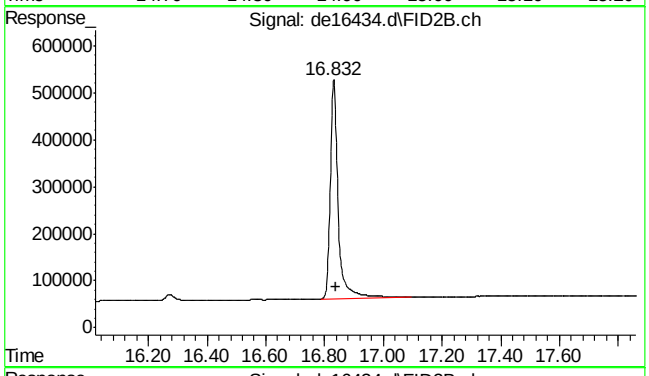
9

SGS ACCUTEST MC48999



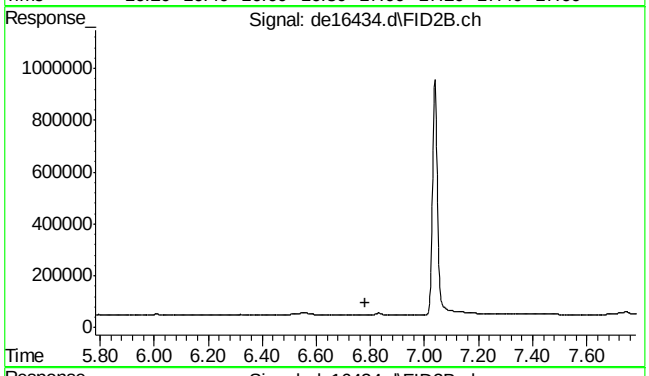
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 1339489
Conc: 19.76 µg/ml



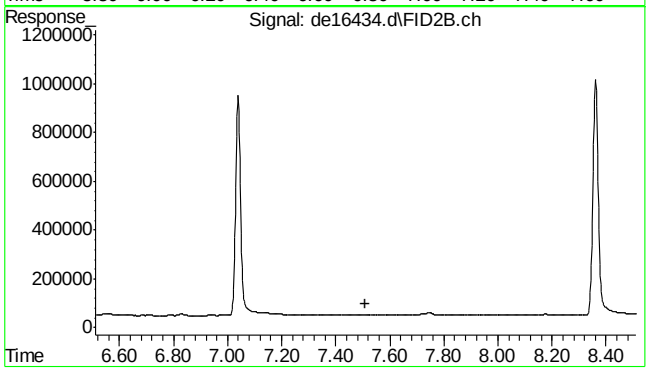
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 883406
Conc: 13.03 µg/ml m



#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



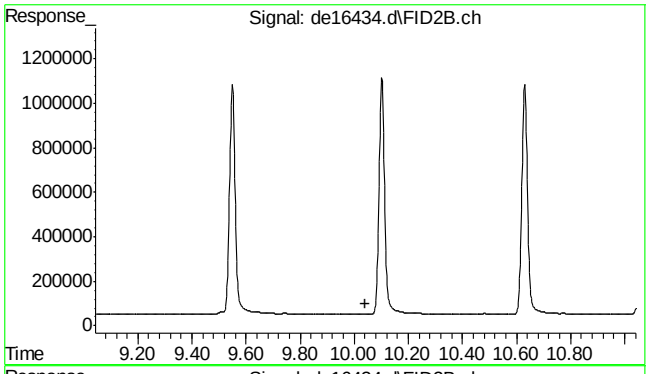
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.

9.3.2

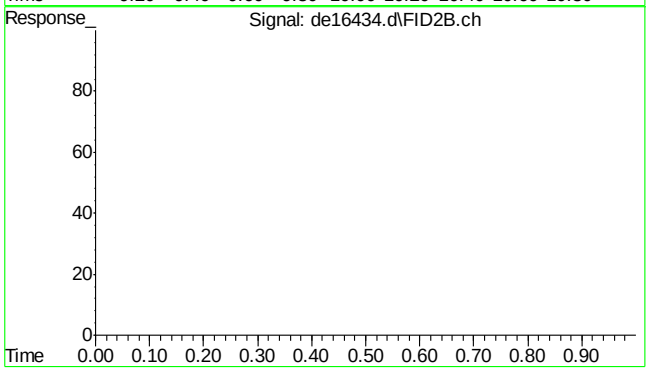
9

SGS ACCUTEST MC48999



#44 bht

```
      R.T.:    0.000 min
Exp R.T.  :   10.042 min
  Response:         0
      Conc:   N.D.
```



#45 bht

```
      R.T.:    0.000 min
Exp R.T.  :   23.000 min
  Response:         0
      Conc:   N.D.
```

9.3.2

9

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16447.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 7:01 pm
Operator : thomasa
Sample : op49293-bs
Misc : op49293,gde918,1000,,,2,,w
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:35:49 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.223	1252818	14.329 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 71.65%#	
6) s 2-bromonaphthalene	7.973	886894	14.884 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 74.42%#	
11) s o-terphenyl	10.527	1484979	15.648 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 78.24%#	
35) s 1-chlorooctadecane	11.062	687326	12.081 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 60.41%#	
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	29182548	291.991 µg/mlm
2) naphthalene	5.782	1034762	10.576 µg/ml
3) 2-methylnaphthalene	6.680	1162595	12.215 µg/ml
5) acenaphthylene	7.807	1273881	13.321 µg/ml
7) acenaphthene	8.050	1379306	14.377 µg/ml
8) fluorene	8.698	1423217	15.180 µg/ml
9) phenanthrene	9.893	1584599	16.977 µg/ml
10) anthracene	9.952	1564930	17.023 µg/ml
12) fluoranthene	11.415	1710779	18.859 µg/ml
13) pyrene	11.680	1695230	18.548 µg/ml
14) benzo(a)anthracene	13.252	1761668	20.118 µg/ml
15) chrysene	13.298	1784489	20.121 µg/ml
16) benzo(B)fluoranthene	14.558	1818325	20.333 µg/ml
17) benzo(k)fluoranthene	14.587	1782257	20.641 µg/ml
18) benzo(a)pyrene	14.900	1773272	20.172 µg/ml
19) indeno(1,2,3-cd)pyrene	16.045	1801289	20.774 µg/ml
20) dibenzo(ah)anthracene	16.087	1823110	21.777 µg/ml
21) benzo(ghi)perylene	16.270	1822724	21.152 µg/ml
25) h c-9	2.495	525800	6.834 µg/mlm
26) h c-10	3.675	677063	8.800 µg/ml
28) c-12	5.527	1024190	13.312 µg/ml
29) 2-methylnaphthalene #2	6.260	1647	0.022 µg/ml
30) c-14	7.038	1286834	16.725 µg/ml
31) c-16	8.360	1421955	18.482 µg/ml
32) c-18	9.548	1536923	19.976 µg/ml
33) c-19	10.102	1548917	22.846 µg/ml
34) c-20	10.630	1515565	22.354 µg/ml
36) c-22	11.622	1511222	22.290 µg/ml
37) c-24	12.537	1450617	21.396 µg/ml
38) c-26	13.383	1377768	20.321 µg/ml

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16447.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 7:01 pm
Operator : thomasa
Sample : op49293-bs
Misc : op49293,gde918,1000,,,2,,w
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:35:49 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
39)	c-28	14.175	1328272	19.591 µg/ml
40) h	c-30	14.927	1277193	18.838 µg/ml
41) h	c-36	16.838	888207	13.101 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.3.3

9

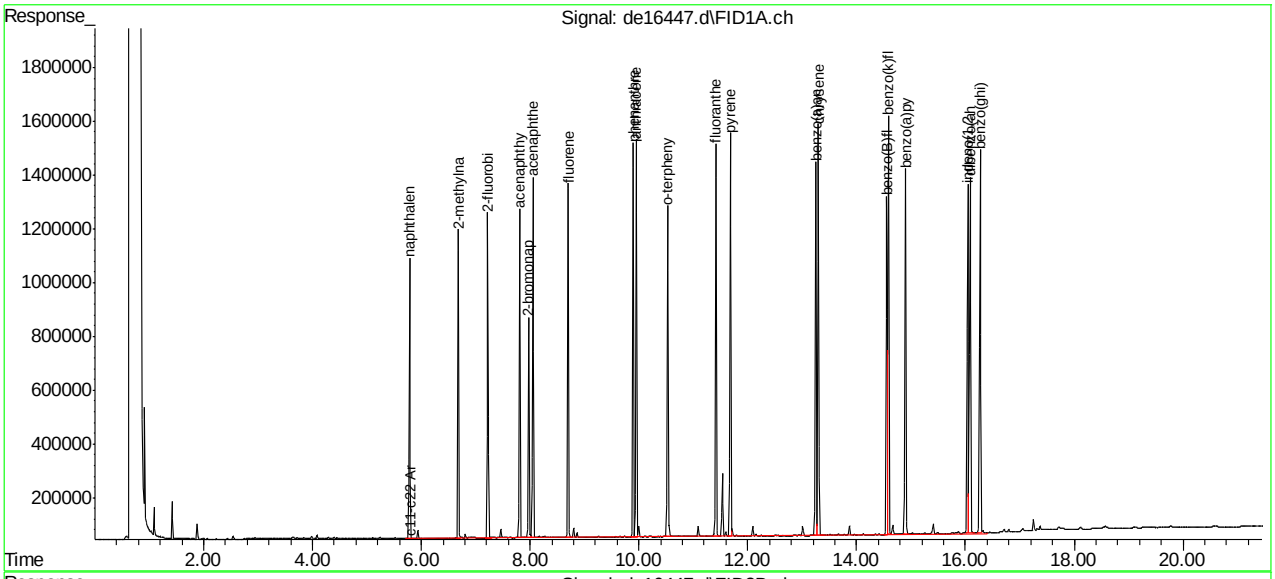
SGS ACCUTEST MC48999

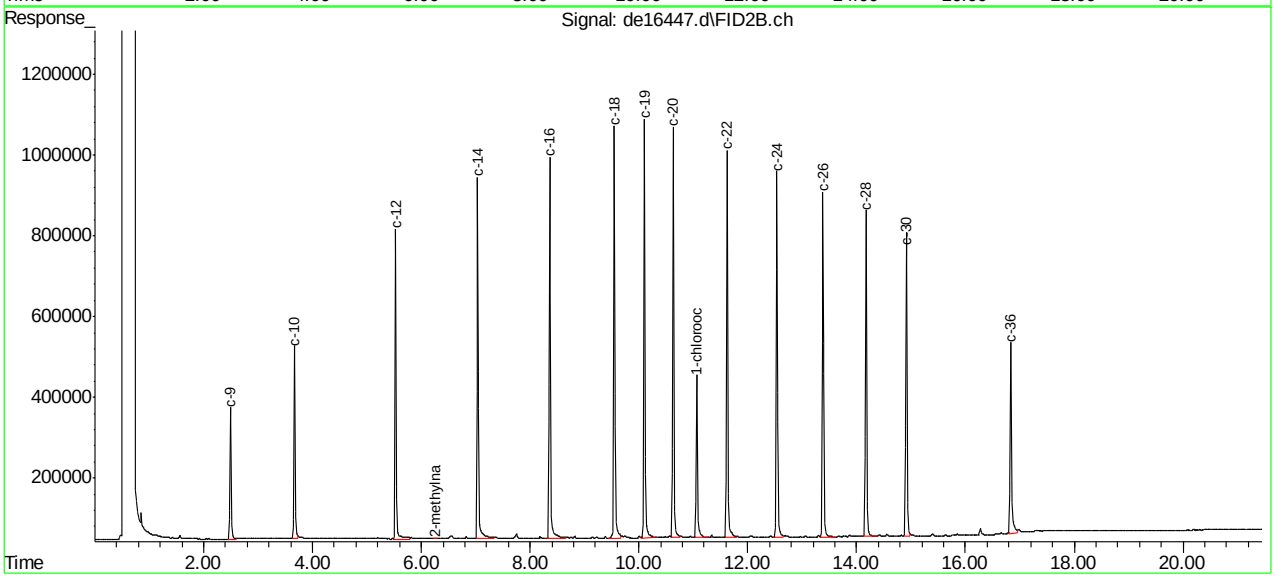
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16447.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 7:01 pm
Operator : thomasa
Sample : op49293-bs
Misc : op49293,gde918,1000,,,2,,w
ALS Vial : 4 Sample Multiplier: 1

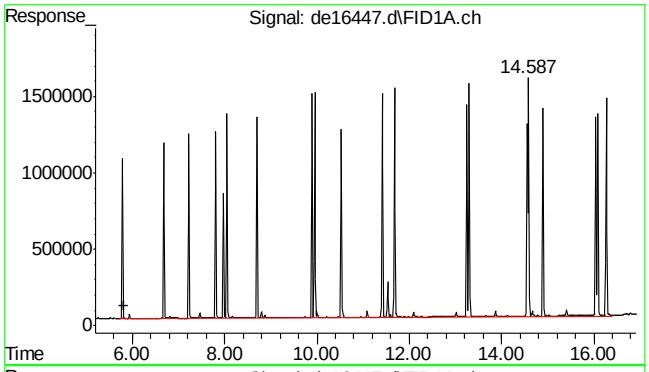
Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:35:49 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



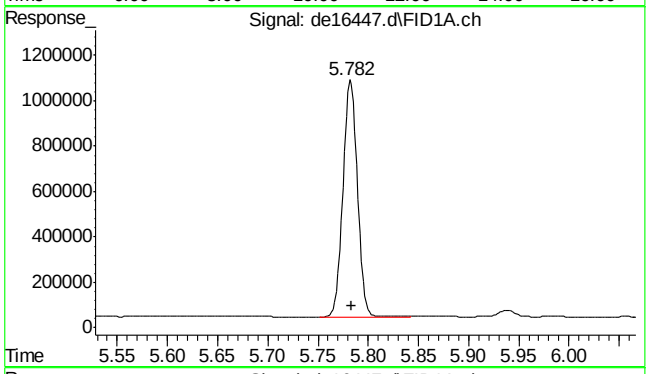


SGS ACCUTEST MC48999



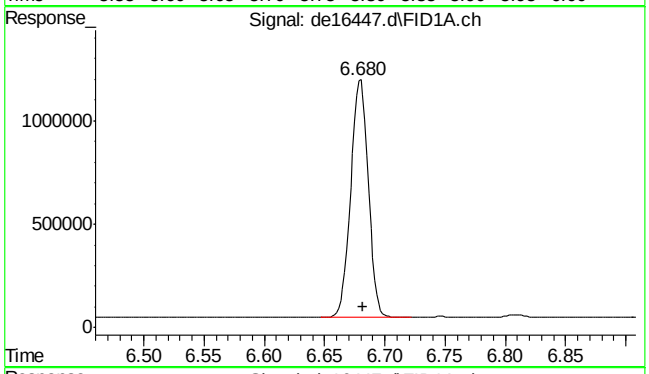
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 29182548
Conc: 291.99 µg/ml m



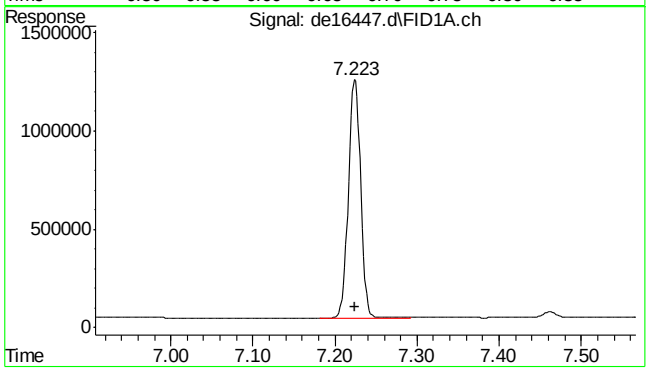
#2 naphthalene

R.T.: 5.782 min
Delta R.T.: -0.002 min
Response: 1034762
Conc: 10.58 µg/ml



#3 2-methylnaphthalene

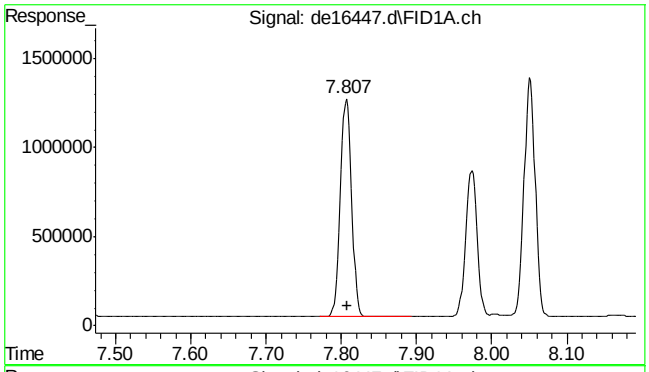
R.T.: 6.680 min
Delta R.T.: -0.002 min
Response: 1162595
Conc: 12.22 µg/ml



#4 2-fluorobiphenyl

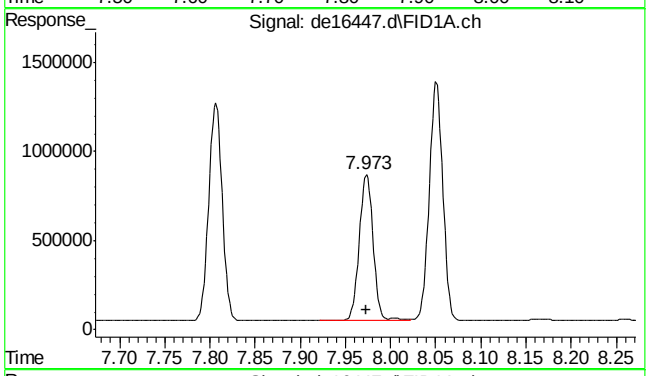
R.T.: 7.223 min
Delta R.T.: -0.002 min
Response: 1252818
Conc: 14.33 µg/ml

SGS ACCUTEST MC48999



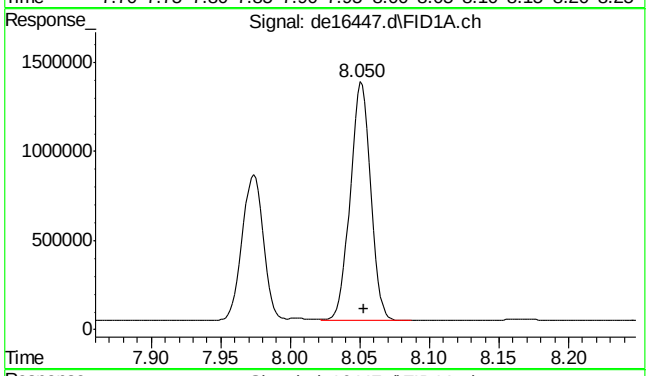
#5 acenaphthylene

R.T.: 7.807 min
Delta R.T.: -0.002 min
Response: 1273881
Conc: 13.32 µg/ml



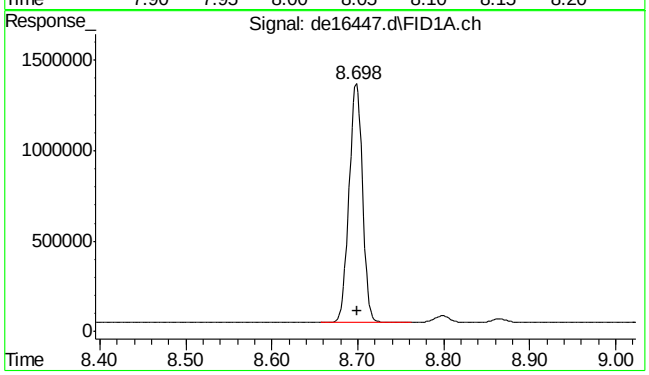
#6 2-bromonaphthalene

R.T.: 7.973 min
Delta R.T.: 0.000 min
Response: 886894
Conc: 14.88 µg/ml



#7 acenaphthene

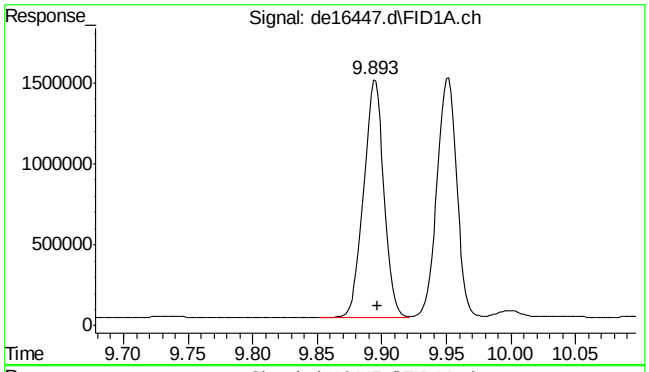
R.T.: 8.050 min
Delta R.T.: -0.003 min
Response: 1379306
Conc: 14.38 µg/ml



#8 fluorene

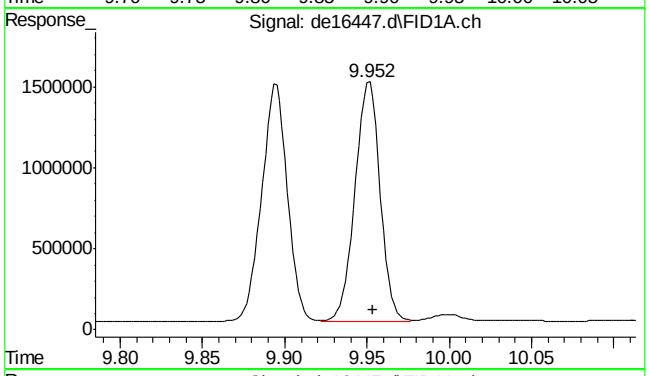
R.T.: 8.698 min
Delta R.T.: -0.002 min
Response: 1423217
Conc: 15.18 µg/ml

SGS ACCUTEST MC48999



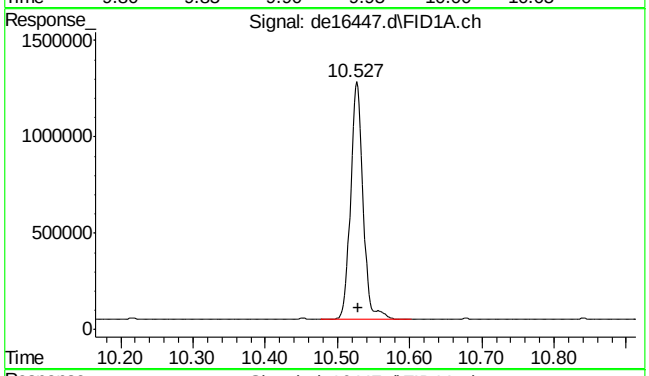
#9 phenanthrene

R.T.: 9.893 min
Delta R.T.: -0.003 min
Response: 1584599
Conc: 16.98 µg/ml



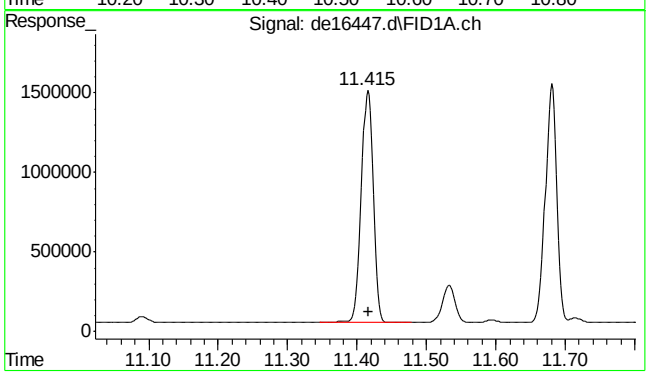
#10 anthracene

R.T.: 9.952 min
Delta R.T.: -0.002 min
Response: 1564930
Conc: 17.02 µg/ml



#11 o-terphenyl

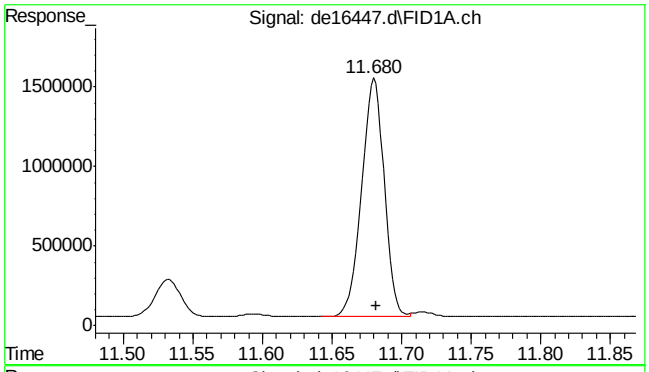
R.T.: 10.527 min
Delta R.T.: -0.002 min
Response: 1484979
Conc: 15.65 µg/ml



#12 fluoranthene

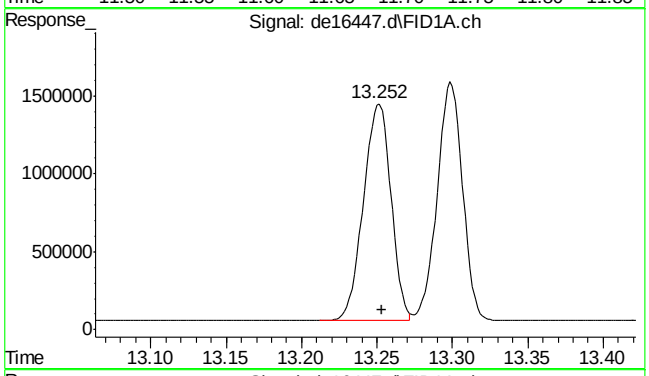
R.T.: 11.415 min
Delta R.T.: -0.002 min
Response: 1710779
Conc: 18.86 µg/ml

SGS ACCUTEST MC48999



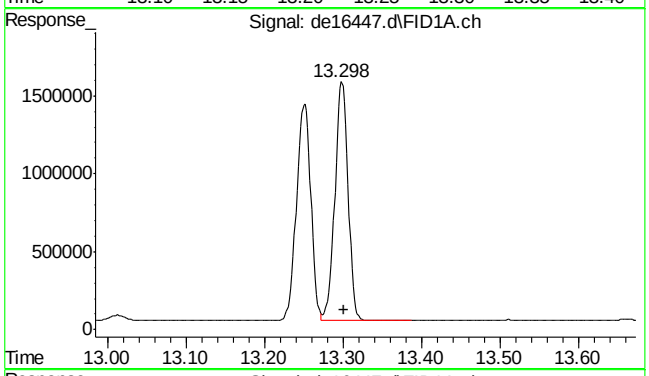
#13 pyrene

R.T.: 11.680 min
Delta R.T.: -0.002 min
Response: 1695230
Conc: 18.55 µg/ml



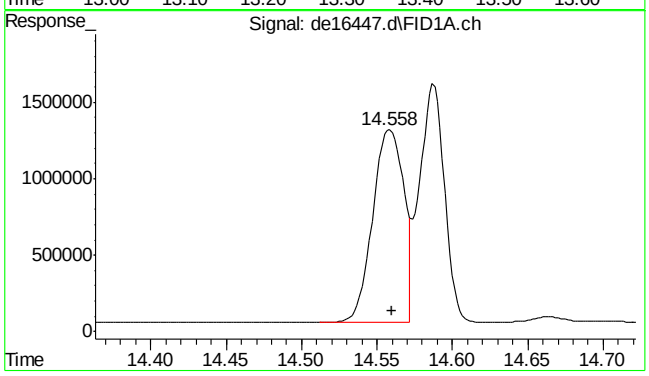
#14 benzo(a)anthracene

R.T.: 13.252 min
Delta R.T.: -0.002 min
Response: 1761668
Conc: 20.12 µg/ml



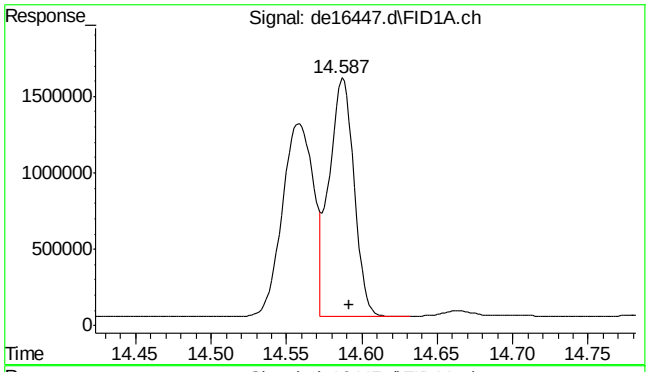
#15 chrysene

R.T.: 13.298 min
Delta R.T.: -0.003 min
Response: 1784489
Conc: 20.12 µg/ml



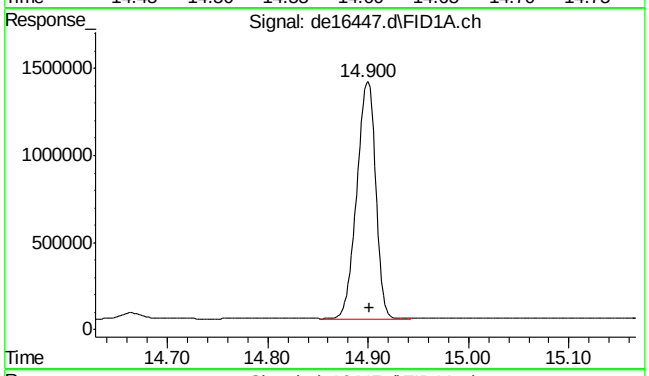
#16 benzo(B)fluoranthene

R.T.: 14.558 min
Delta R.T.: -0.002 min
Response: 1818325
Conc: 20.33 µg/ml



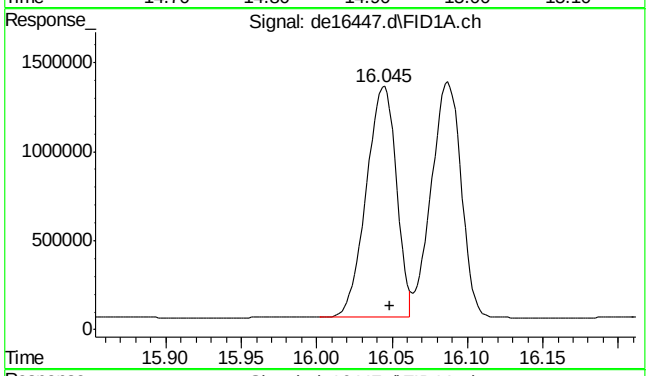
#17 benzo(k)fluoranthene

R.T.: 14.587 min
Delta R.T.: -0.005 min
Response: 1782257
Conc: 20.64 µg/ml



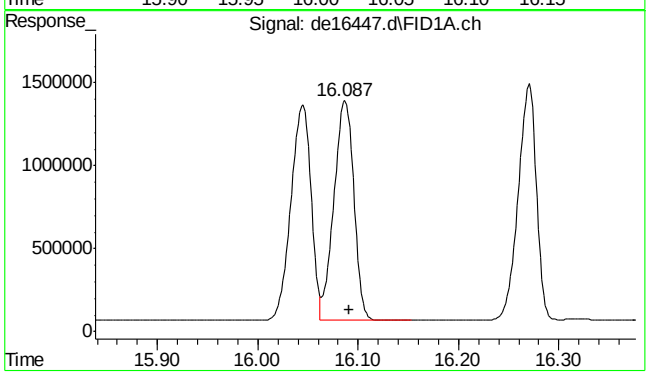
#18 benzo(a)pyrene

R.T.: 14.900 min
Delta R.T.: -0.002 min
Response: 1773272
Conc: 20.17 µg/ml



#19 indeno(1,2,3-cd)pyrene

R.T.: 16.045 min
Delta R.T.: -0.003 min
Response: 1801289
Conc: 20.77 µg/ml



#20 dibenzo(ah)anthracene

R.T.: 16.087 min
Delta R.T.: -0.005 min
Response: 1823110
Conc: 21.78 µg/ml

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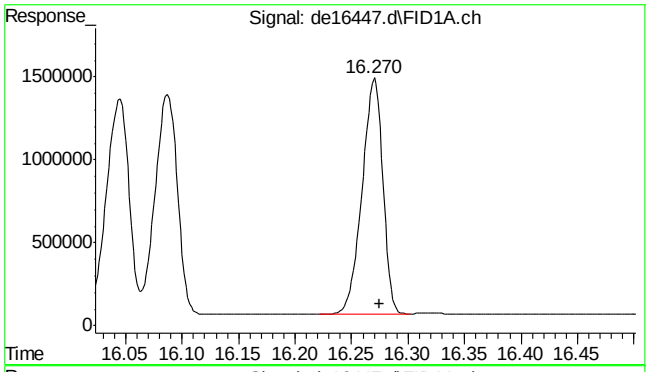
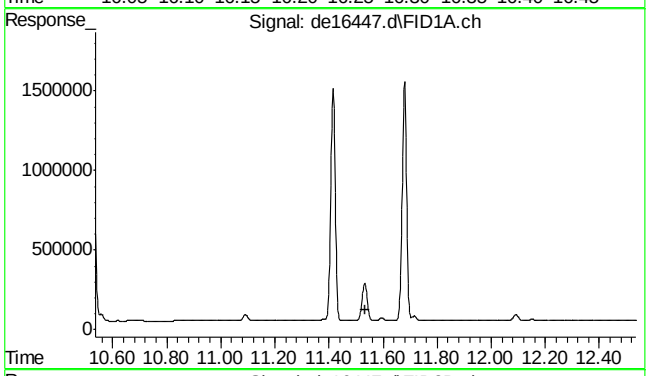


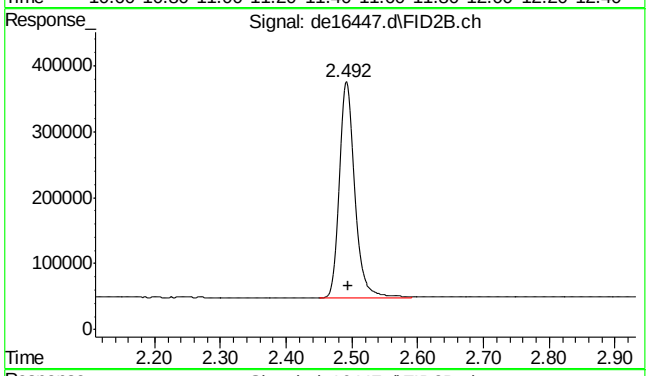
#21 benzo(ghi)perylene

R.T.: 16.270 min
Delta R.T.: -0.005 min
Response: 1822724
Conc: 21.15 µg/ml



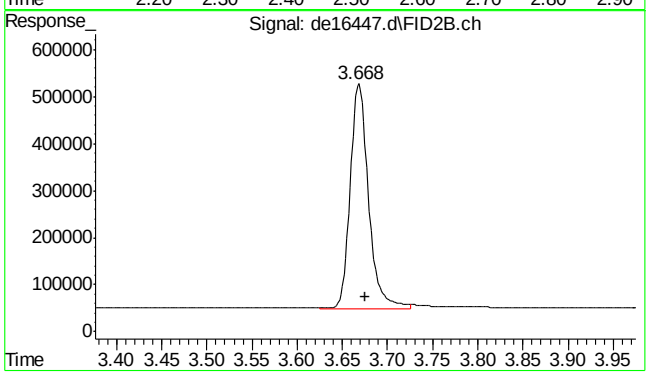
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



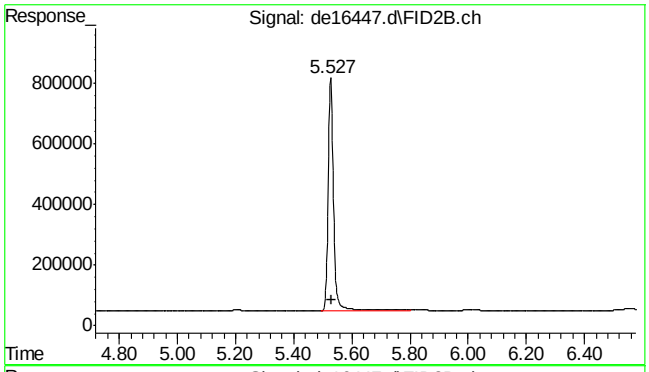
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 525800
Conc: 6.83 µg/ml m



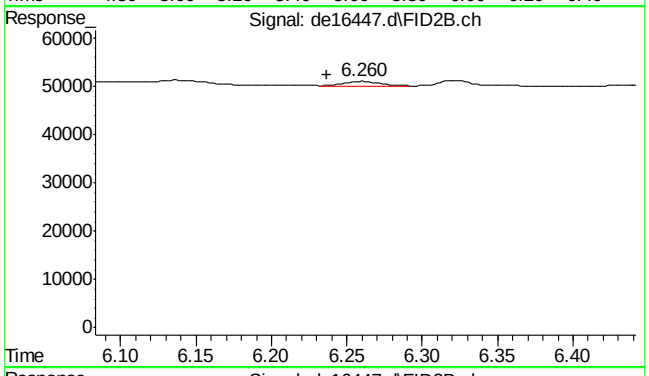
#26 c-10

R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 677063
Conc: 8.80 µg/ml



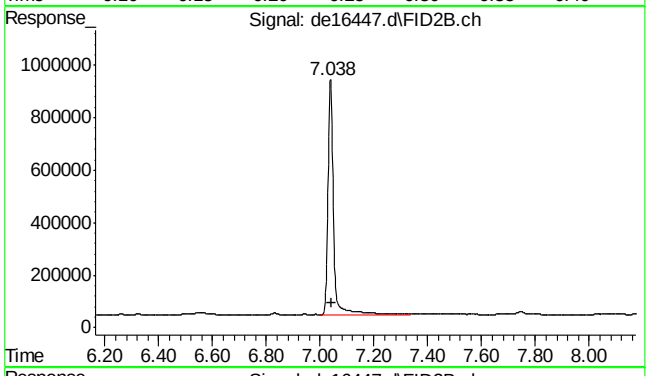
#28 c-12

R.T.: 5.527 min
Delta R.T.: -0.003 min
Response: 1024190
Conc: 13.31 µg/ml



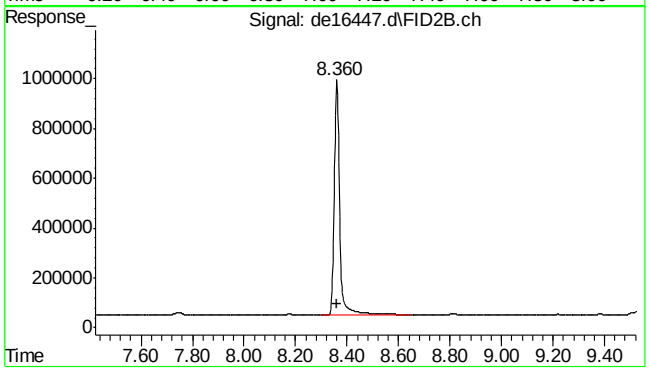
#29 2-methylnaphthalene #2

R.T.: 6.260 min
Delta R.T.: 0.023 min
Response: 1647
Conc: 0.02 µg/ml



#30 c-14

R.T.: 7.038 min
Delta R.T.: -0.003 min
Response: 1286834
Conc: 16.73 µg/ml



#31 c-16

R.T.: 8.360 min
Delta R.T.: -0.003 min
Response: 1421955
Conc: 18.48 µg/ml

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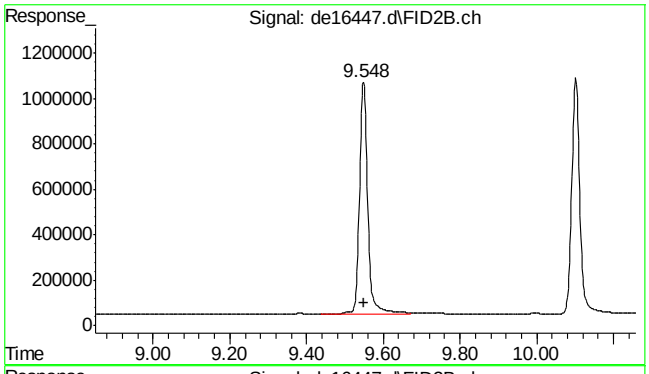
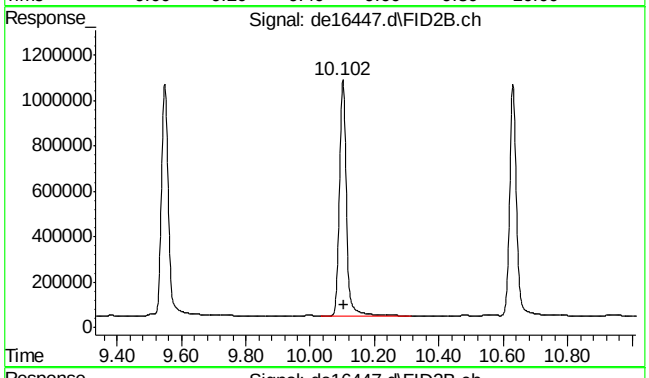


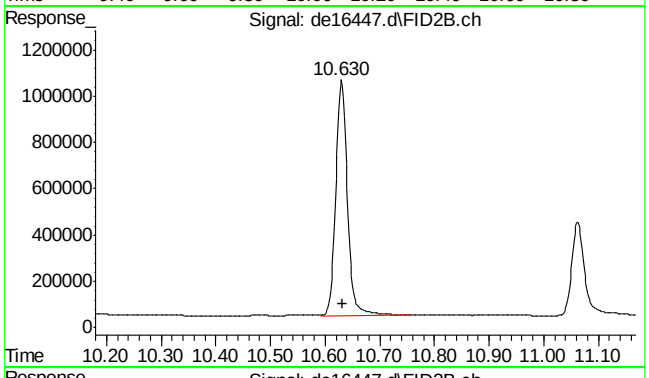
#32 c-18

R.T.: 9.548 min
Delta R.T.: -0.002 min
Response: 1536923
Conc: 19.98 µg/ml



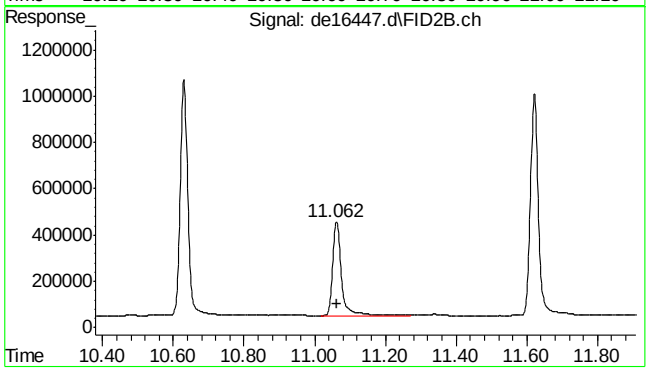
#33 c-19

R.T.: 10.102 min
Delta R.T.: -0.003 min
Response: 1548917
Conc: 22.85 µg/ml



#34 c-20

R.T.: 10.630 min
Delta R.T.: -0.002 min
Response: 1515565
Conc: 22.35 µg/ml



#35 1-chlorooctadecane

R.T.: 11.062 min
Delta R.T.: -0.002 min
Response: 687326
Conc: 12.08 µg/ml

9.3.3

9

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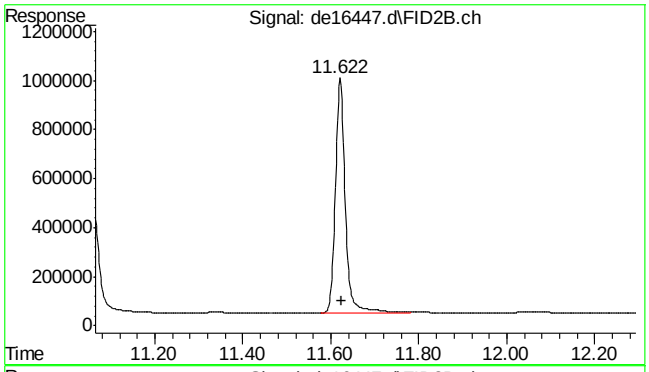
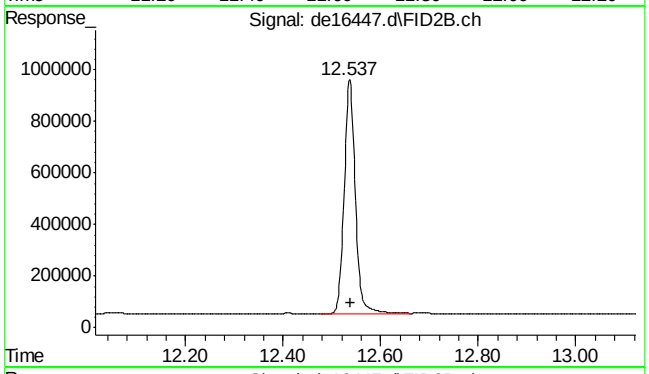


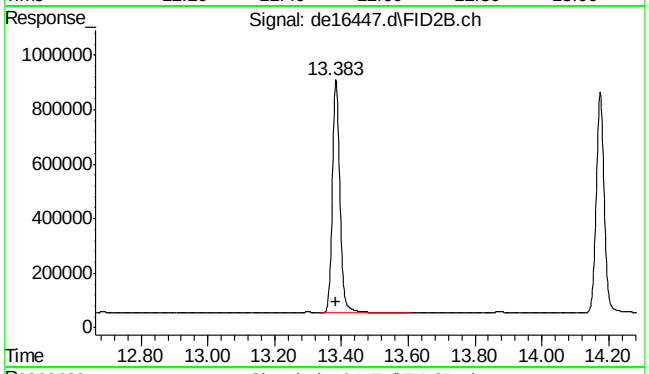
#36 c-22

R.T.: 11.622 min
Delta R.T.: -0.002 min
Response: 1511222
Conc: 22.29 µg/ml



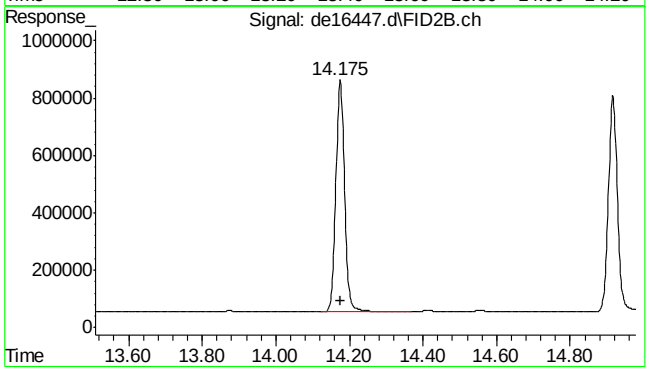
#37 c-24

R.T.: 12.537 min
Delta R.T.: -0.002 min
Response: 1450617
Conc: 21.40 µg/ml



#38 c-26

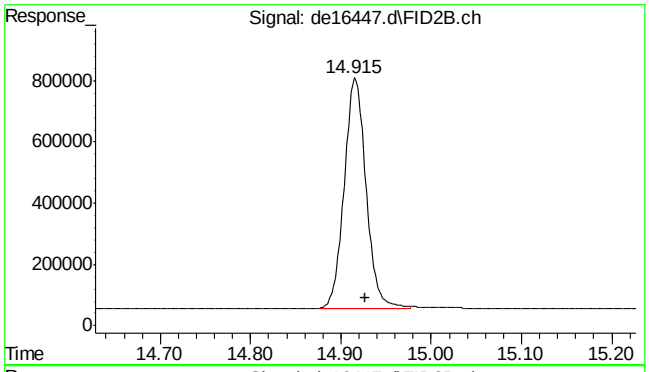
R.T.: 13.383 min
Delta R.T.: -0.002 min
Response: 1377768
Conc: 20.32 µg/ml



#39 c-28

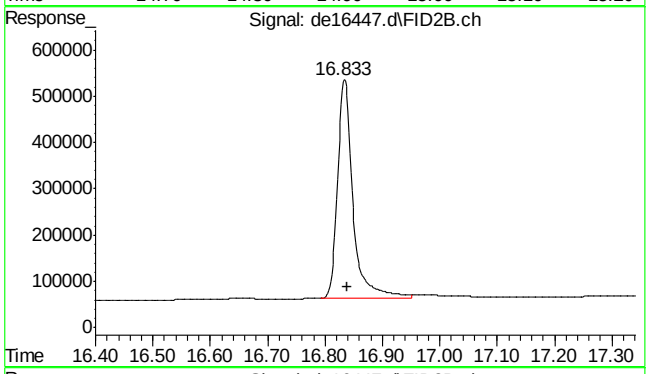
R.T.: 14.175 min
Delta R.T.: -0.002 min
Response: 1328272
Conc: 19.59 µg/ml

SGS ACCUTEST MC48999



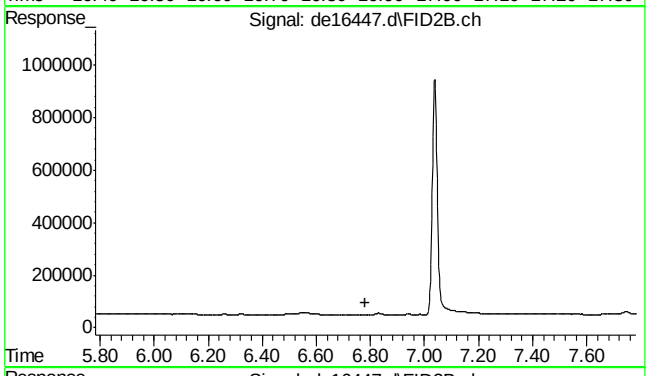
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 1277193
Conc: 18.84 µg/ml



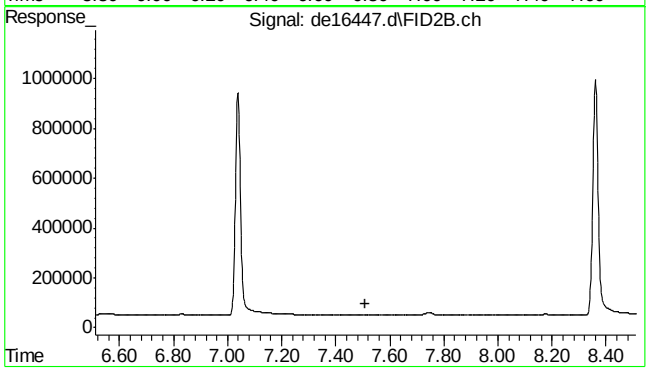
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 888207
Conc: 13.10 µg/ml m



#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



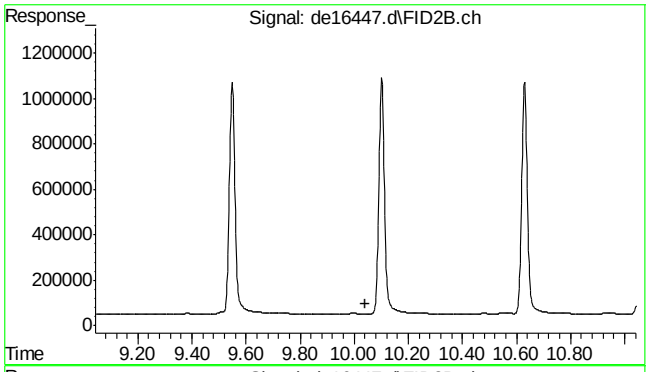
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.

9.3.3

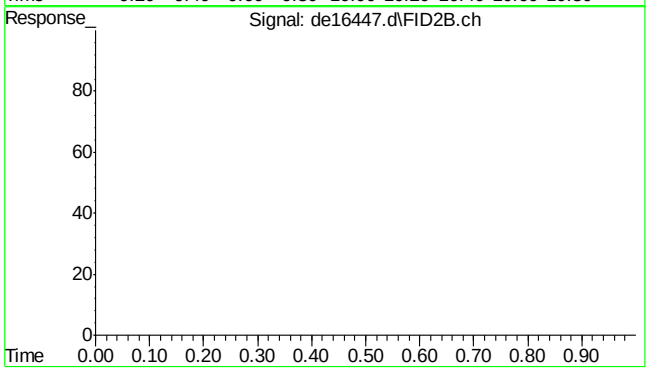
9

SGS ACCUTEST MC48999



#44 bht

```
      R.T.:    0.000 min
Exp R.T.  :   10.042 min
  Response:         0
      Conc:   N.D.
```



#45 bht

```
      R.T.:    0.000 min
Exp R.T.  :   23.000 min
  Response:         0
      Conc:   N.D.
```

9.3.3

9

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16448.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 7:28 pm
Operator : thomasa
Sample : op49293-bsd
Misc : op49293,gde918,1000,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:36:34 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.223	1225599	14.018 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 70.09%#		
6) s 2-bromonaphthalene	7.973	870845	14.615 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 73.08%#		
11) s o-terphenyl	10.527	1547493	16.307 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 81.53%#		
35) s 1-chlorooctadecane	11.062	602640	10.593 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 52.96%#		
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	31749454	317.674 µg/mlm
2) naphthalene	5.783	1045025	10.681 µg/ml
3) 2-methylnaphthalene	6.678	1193256	12.537 µg/ml
5) acenaphthylene	7.807	1324437	13.850 µg/ml
7) acenaphthene	8.050	1438970	14.999 µg/ml
8) fluorene	8.698	1499512	15.994 µg/ml
9) phenanthrene	9.893	1696894	18.180 µg/ml
10) anthracene	9.950	1682060	18.297 µg/ml
12) fluoranthene	11.415	1886952	20.801 µg/ml
13) pyrene	11.680	1872070	20.483 µg/ml
14) benzo(a)anthracene	13.250	1953182	22.305 µg/ml
15) chrysene	13.298	1965559	22.163 µg/ml
16) benzo(B)fluoranthene	14.558	1949189	21.797 µg/ml
17) benzo(k)fluoranthene	14.587	2029408	23.503 µg/ml
18) benzo(a)pyrene	14.898	1953400	22.221 µg/ml
19) indeno(1,2,3-cd)pyrene	16.043	2026187	23.367 µg/ml
20) dibenzo(ah)anthracene	16.088	1980829	23.661 µg/ml
21) benzo(ghi)perylene	16.270	2024975	23.499 µg/ml
25) h c-9	2.495	483259	6.281 µg/mlm
26) h c-10	3.675	643455	8.363 µg/ml
28) c-12	5.528	941407	12.236 µg/ml
29) 2-methylnaphthalene #2	6.260	1836	0.024 µg/ml
30) c-14	7.038	1242040	16.143 µg/ml
31) c-16	8.360	1363310	17.719 µg/ml
32) c-18	9.548	1512083	19.653 µg/ml
33) c-19	10.102	1535504	22.648 µg/ml
34) c-20	10.628	1502301	22.158 µg/ml
36) c-22	11.622	1513163	22.318 µg/ml
37) c-24	12.535	1446496	21.335 µg/ml
38) c-26	13.385	1381442	20.376 µg/ml

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16448.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 7:28 pm
Operator : thomasa
Sample : op49293-bsd
Misc : op49293,gde918,1000,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:36:34 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
39)	c-28	14.175	1330987	19.631 µg/ml
40) h	c-30	14.927	1287359	18.988 µg/ml
41) h	c-36	16.838	864764	12.755 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.3.4

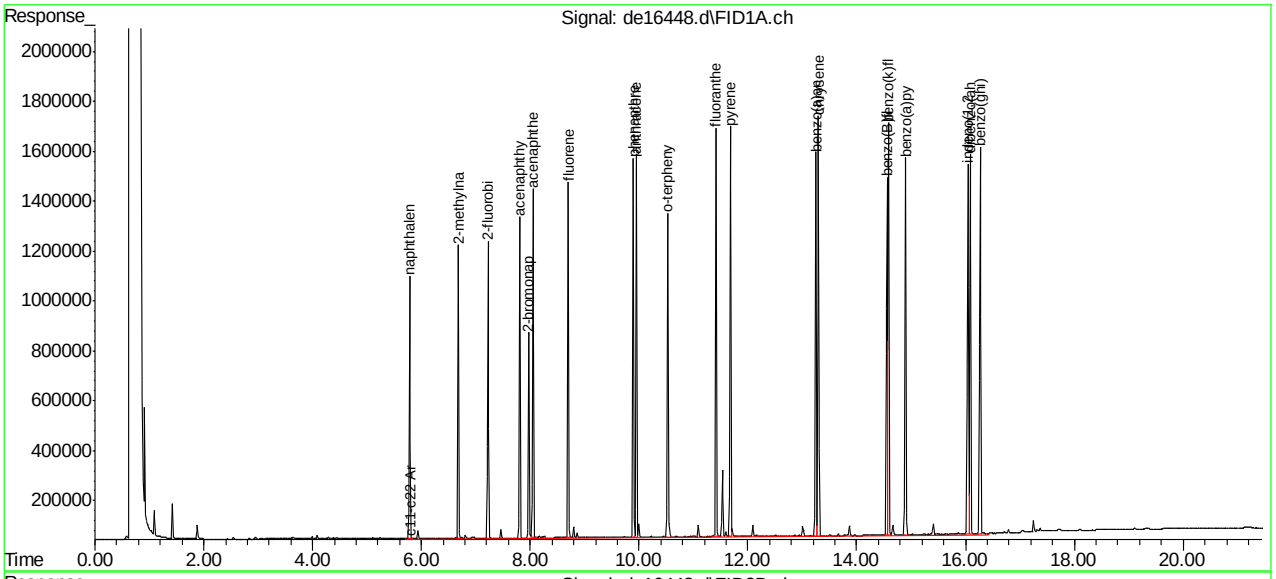
9

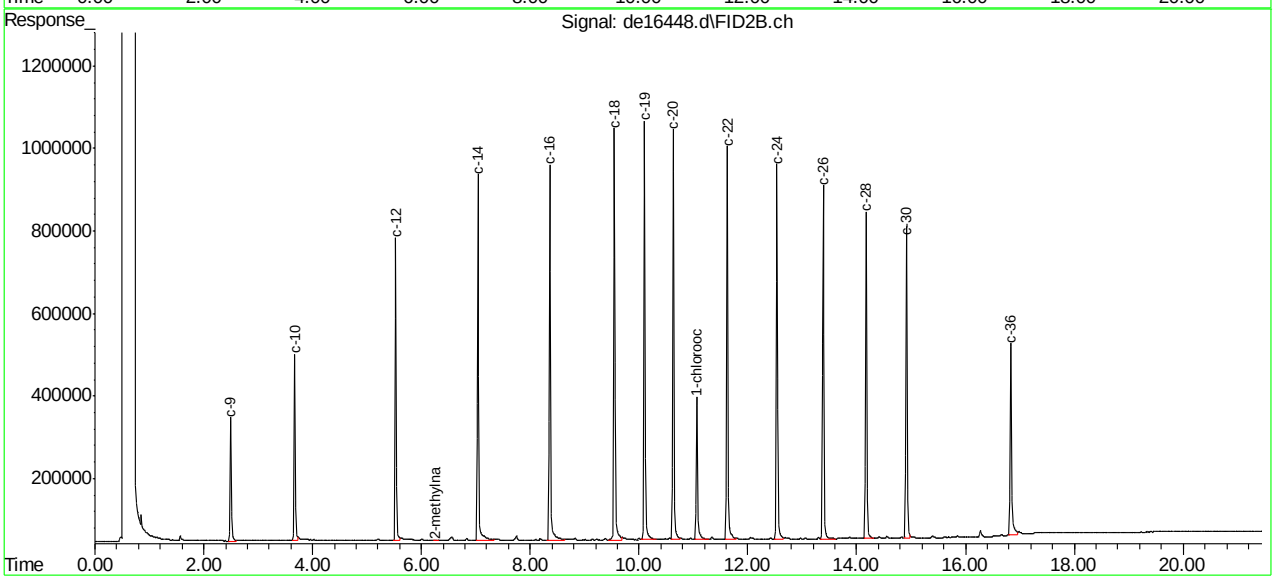
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16448.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 7:28 pm
Operator : thomasa
Sample : op49293-bsd
Misc : op49293,gde918,1000,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:36:34 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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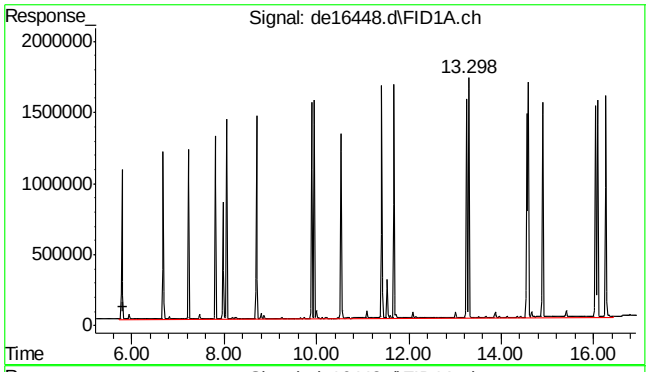
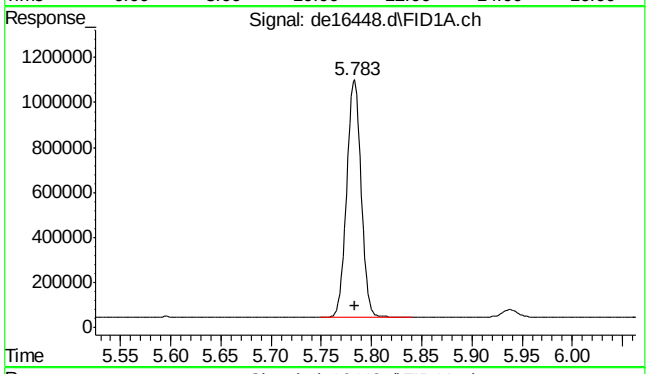


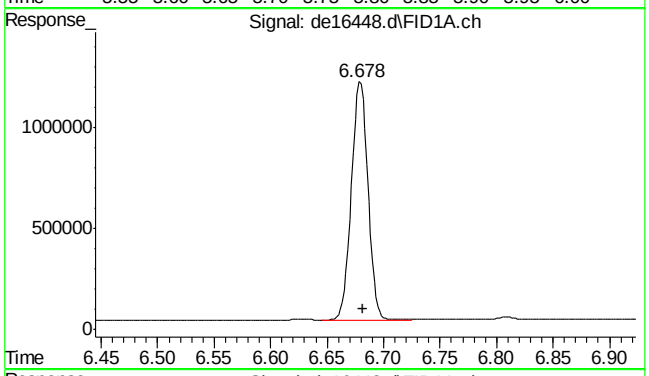
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 31749454
Conc: 317.67 µg/ml m



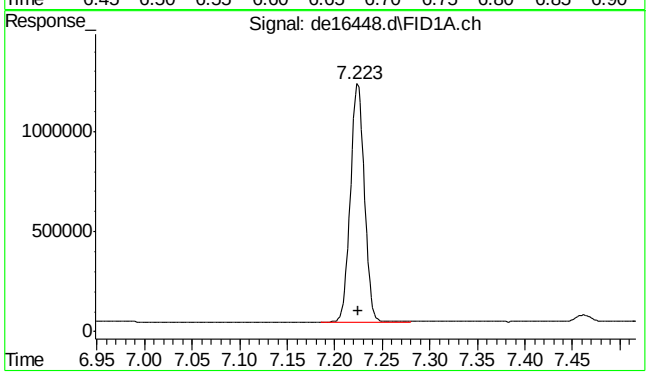
#2 naphthalene

R.T.: 5.783 min
Delta R.T.: 0.000 min
Response: 1045025
Conc: 10.68 µg/ml



#3 2-methylnaphthalene

R.T.: 6.678 min
Delta R.T.: -0.003 min
Response: 1193256
Conc: 12.54 µg/ml



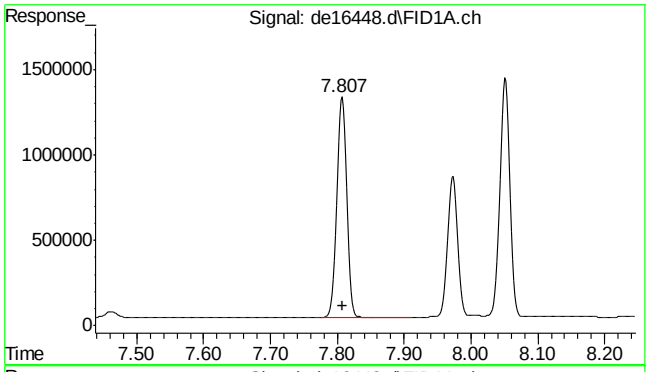
#4 2-fluorobiphenyl

R.T.: 7.223 min
Delta R.T.: -0.002 min
Response: 1225599
Conc: 14.02 µg/ml

9.3.4

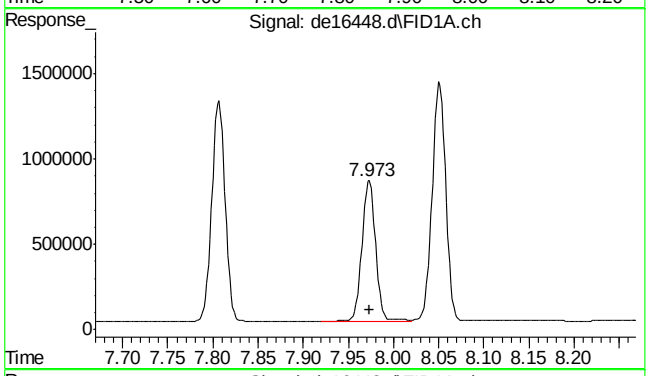
9

SGS ACCUTEST MC48999



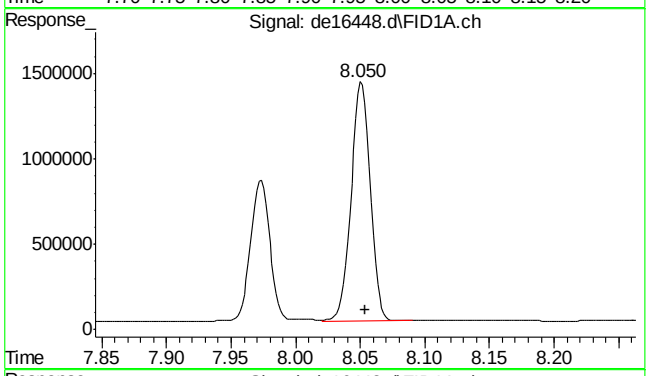
#5 acenaphthylene

R.T.: 7.807 min
Delta R.T.: -0.002 min
Response: 1324437
Conc: 13.85 µg/ml



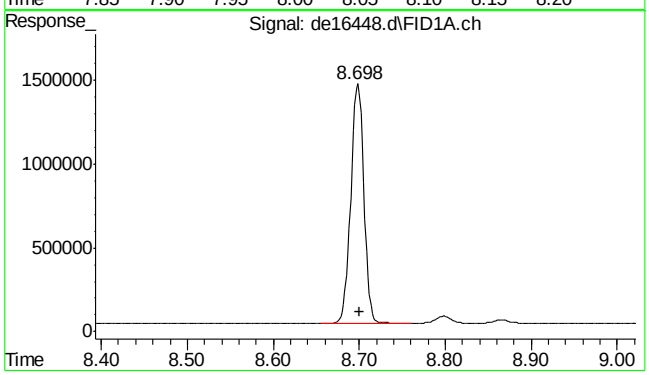
#6 2-bromonaphthalene

R.T.: 7.973 min
Delta R.T.: 0.000 min
Response: 870845
Conc: 14.61 µg/ml



#7 acenaphthene

R.T.: 8.050 min
Delta R.T.: -0.003 min
Response: 1438970
Conc: 15.00 µg/ml



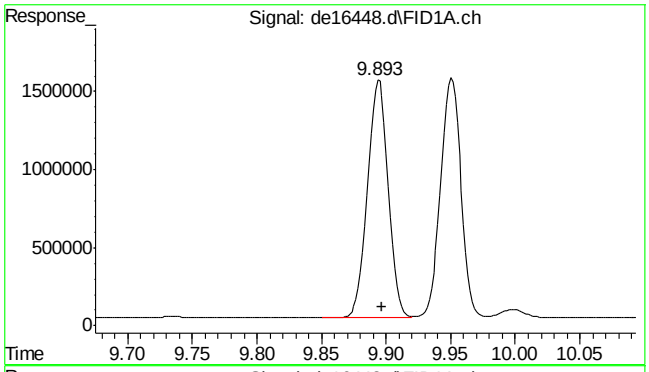
#8 fluorene

R.T.: 8.698 min
Delta R.T.: -0.002 min
Response: 1499512
Conc: 15.99 µg/ml

9.3.4

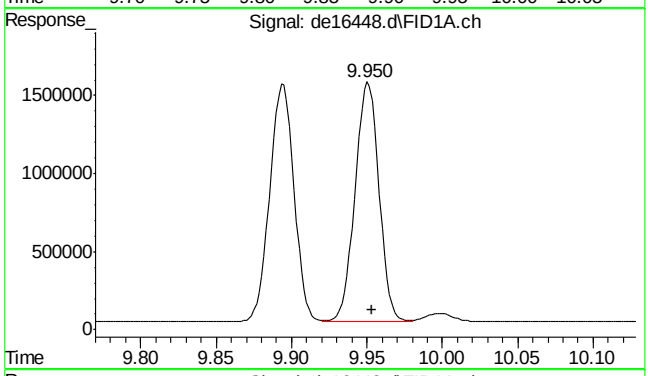
9

SGS ACCUTEST MC48999



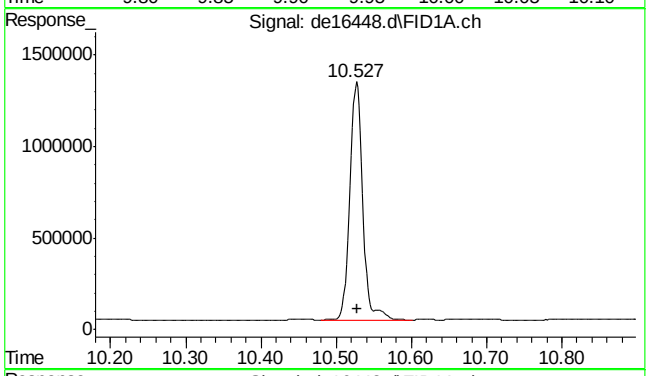
#9 phenanthrene

R.T.: 9.893 min
Delta R.T.: -0.003 min
Response: 1696894
Conc: 18.18 µg/ml



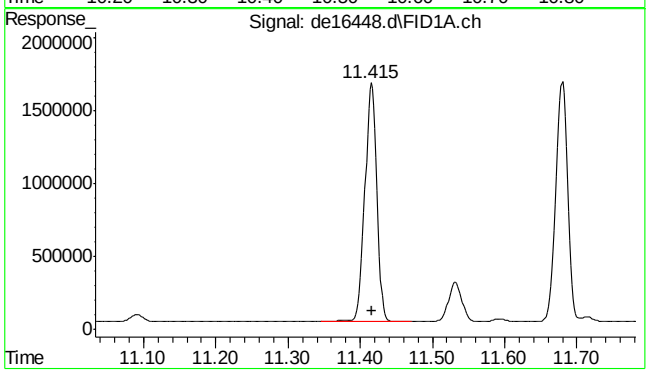
#10 anthracene

R.T.: 9.950 min
Delta R.T.: -0.003 min
Response: 1682060
Conc: 18.30 µg/ml



#11 o-terphenyl

R.T.: 10.527 min
Delta R.T.: -0.002 min
Response: 1547493
Conc: 16.31 µg/ml



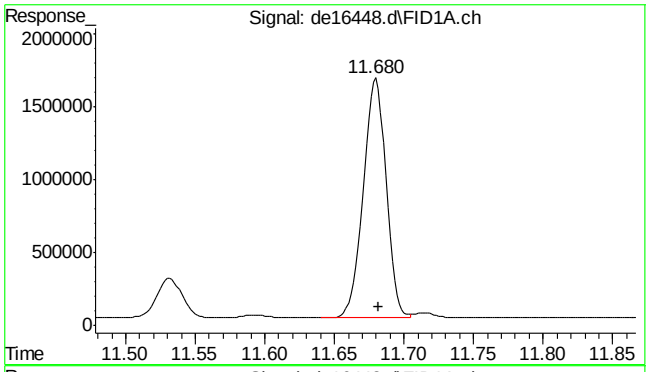
#12 fluoranthene

R.T.: 11.415 min
Delta R.T.: -0.002 min
Response: 1886952
Conc: 20.80 µg/ml

9.3.4

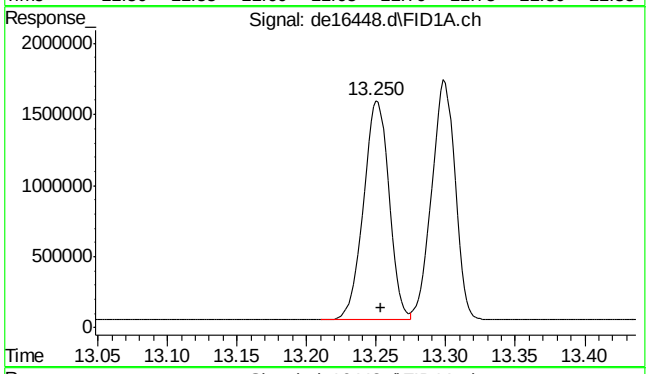
9

SGS ACCUTEST MC48999



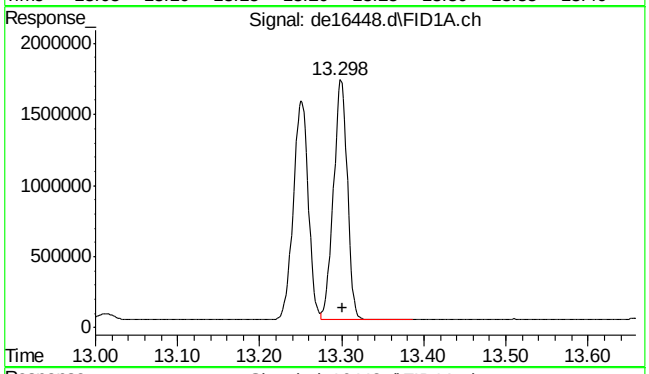
#13 pyrene

R.T.: 11.680 min
Delta R.T.: -0.002 min
Response: 1872070
Conc: 20.48 µg/ml



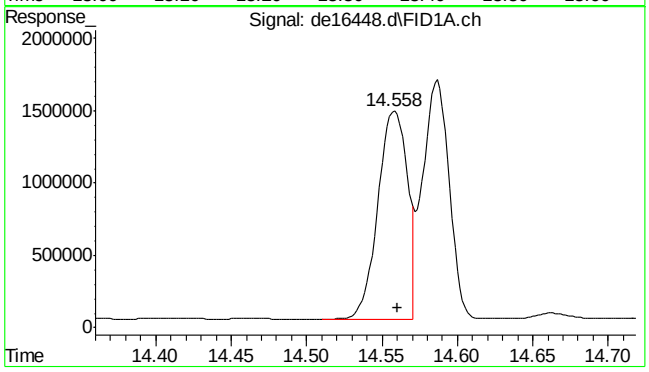
#14 benzo(a)anthracene

R.T.: 13.250 min
Delta R.T.: -0.003 min
Response: 1953182
Conc: 22.30 µg/ml



#15 chrysene

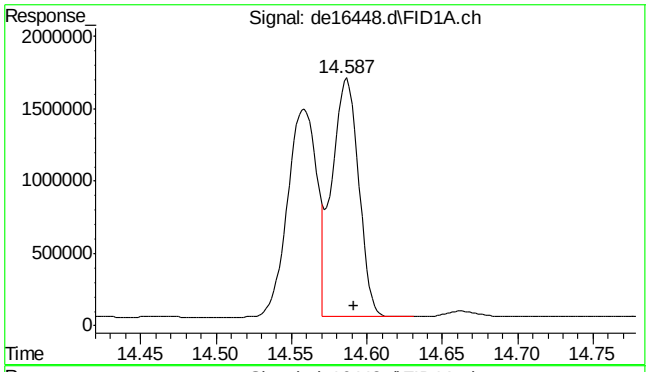
R.T.: 13.298 min
Delta R.T.: -0.003 min
Response: 1965559
Conc: 22.16 µg/ml



#16 benzo(B)fluoranthene

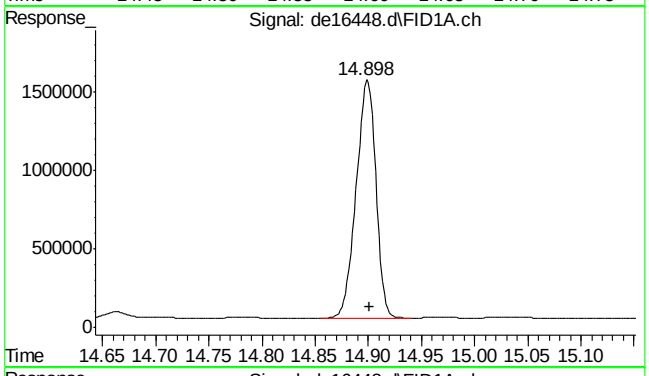
R.T.: 14.558 min
Delta R.T.: -0.002 min
Response: 1949189
Conc: 21.80 µg/ml

SGS ACCUTEST MC48999



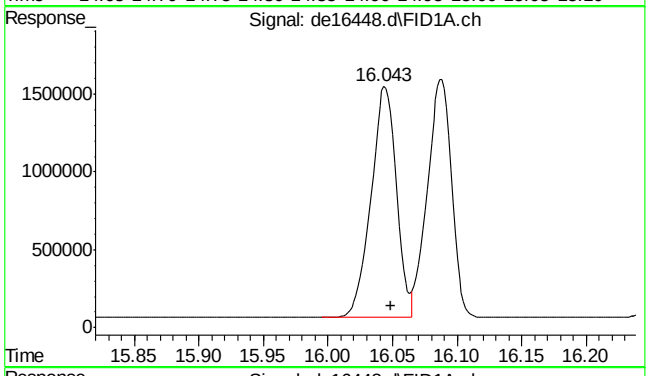
#17 benzo(k)fluoranthene

R.T.: 14.587 min
Delta R.T.: -0.005 min
Response: 2029408
Conc: 23.50 µg/ml



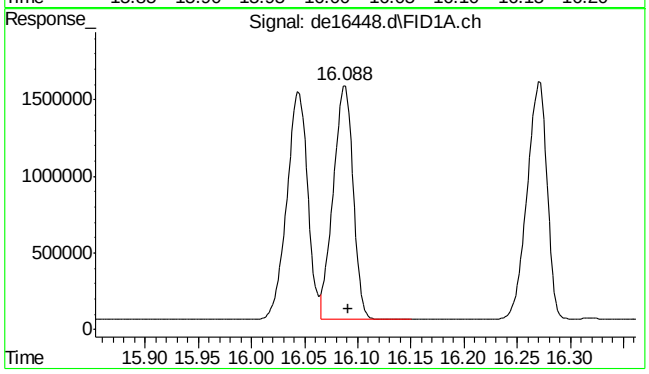
#18 benzo(a)pyrene

R.T.: 14.898 min
Delta R.T.: -0.003 min
Response: 1953400
Conc: 22.22 µg/ml



#19 indeno(1,2,3-cd)pyrene

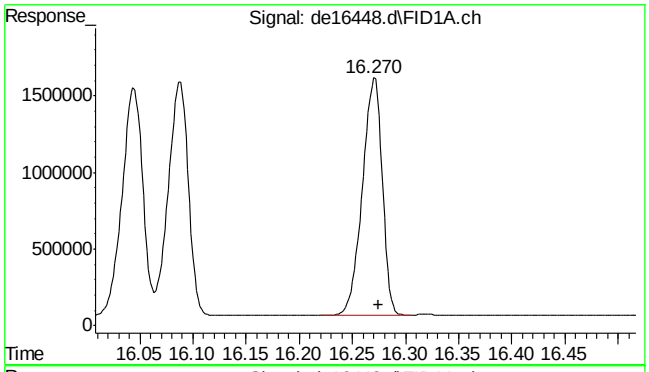
R.T.: 16.043 min
Delta R.T.: -0.005 min
Response: 2026187
Conc: 23.37 µg/ml



#20 dibenzo(ah)anthracene

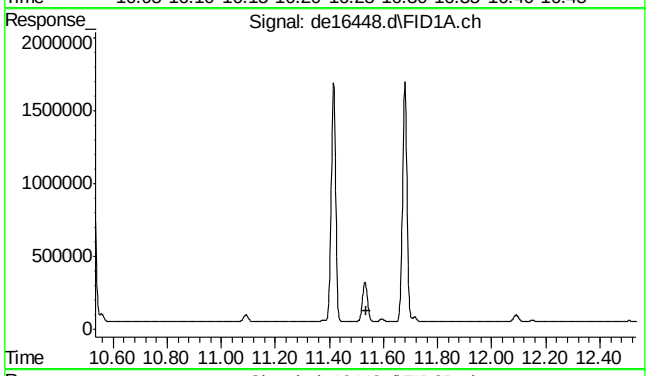
R.T.: 16.088 min
Delta R.T.: -0.003 min
Response: 1980829
Conc: 23.66 µg/ml

SGS ACCUTEST MC48999



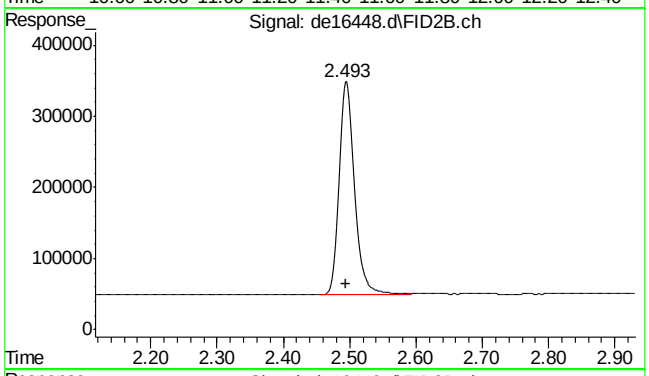
#21 benzo(ghi)perylene

R.T.: 16.270 min
Delta R.T.: -0.005 min
Response: 2024975
Conc: 23.50 µg/ml



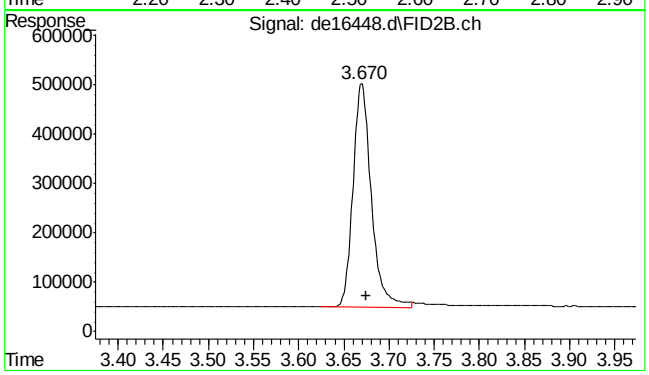
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 483259
Conc: 6.28 µg/ml m



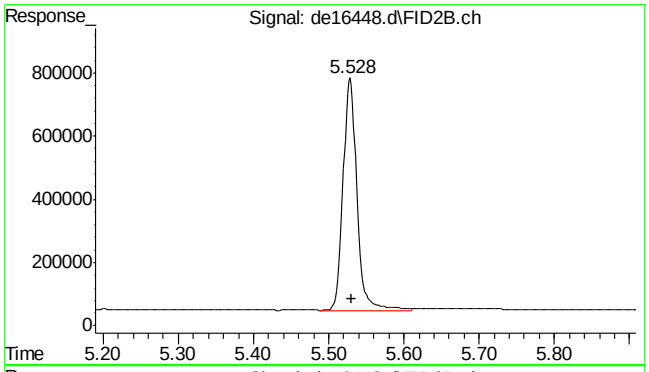
#26 c-10

R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 643455
Conc: 8.36 µg/ml

9.3.4

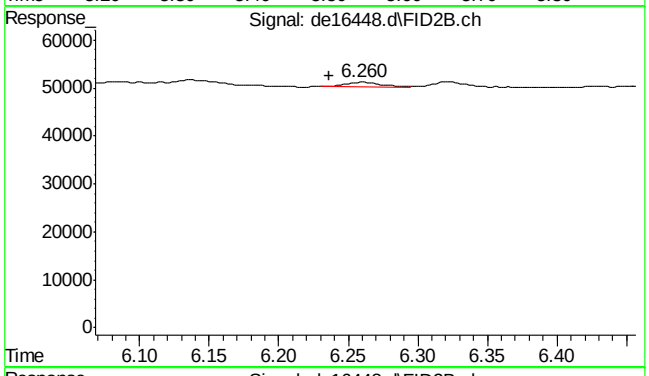
9

SGS ACCUTEST MC48999



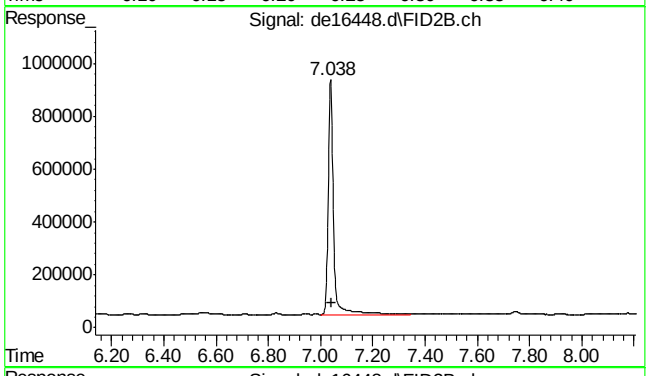
#28 c-12

R.T.: 5.528 min
Delta R.T.: -0.002 min
Response: 941407
Conc: 12.24 µg/ml



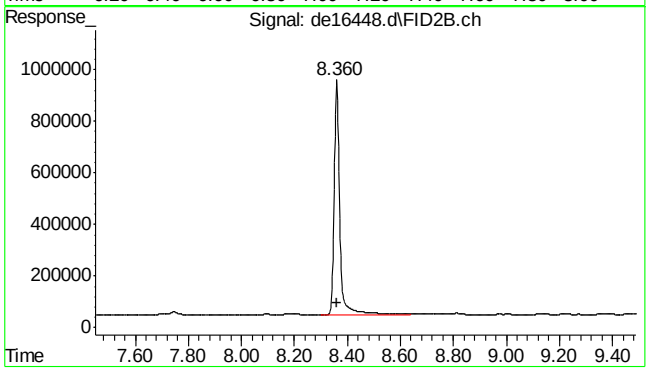
#29 2-methylnaphthalene #2

R.T.: 6.260 min
Delta R.T.: 0.023 min
Response: 1836
Conc: 0.02 µg/ml



#30 c-14

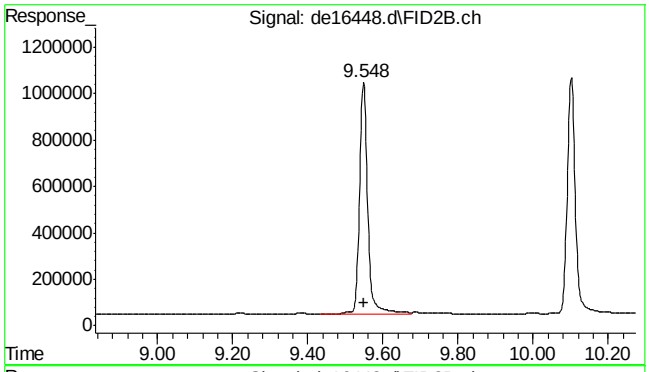
R.T.: 7.038 min
Delta R.T.: -0.003 min
Response: 1242040
Conc: 16.14 µg/ml



#31 c-16

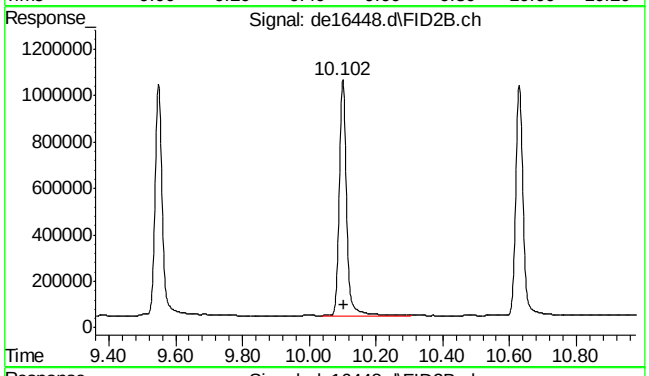
R.T.: 8.360 min
Delta R.T.: -0.003 min
Response: 1363310
Conc: 17.72 µg/ml

SGS ACCUTEST MC48999



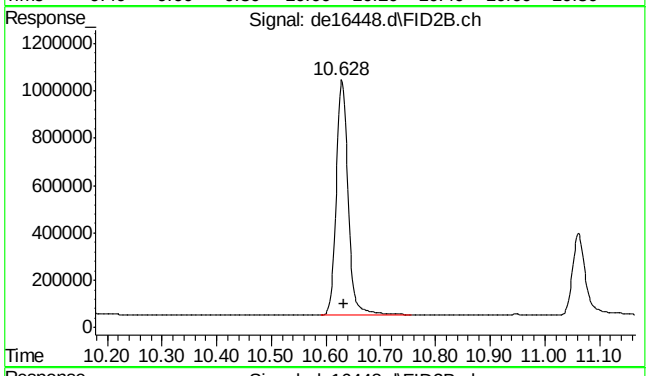
#32 c-18

R.T.: 9.548 min
Delta R.T.: -0.002 min
Response: 1512083
Conc: 19.65 µg/ml



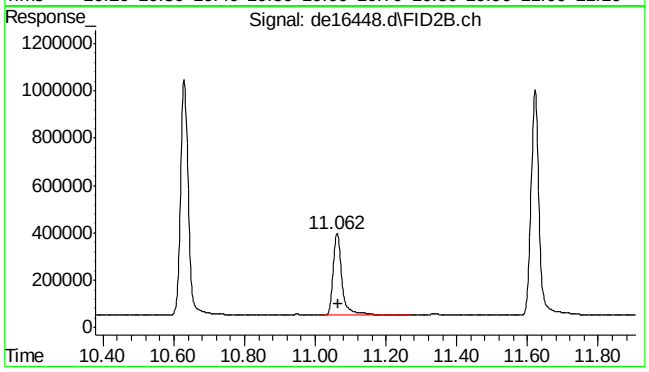
#33 c-19

R.T.: 10.102 min
Delta R.T.: -0.003 min
Response: 1535504
Conc: 22.65 µg/ml



#34 c-20

R.T.: 10.628 min
Delta R.T.: -0.003 min
Response: 1502301
Conc: 22.16 µg/ml



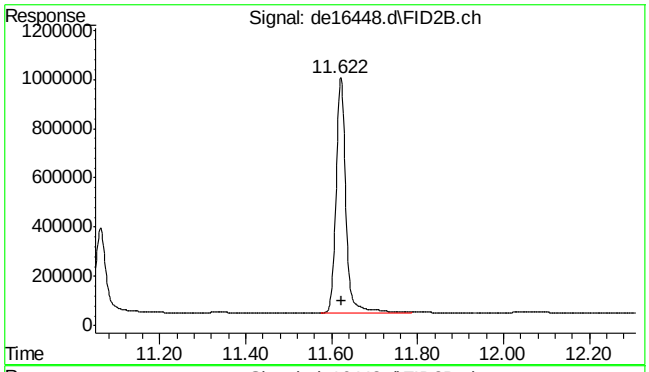
#35 1-chlorooctadecane

R.T.: 11.062 min
Delta R.T.: -0.002 min
Response: 602640
Conc: 10.59 µg/ml

9.3.4

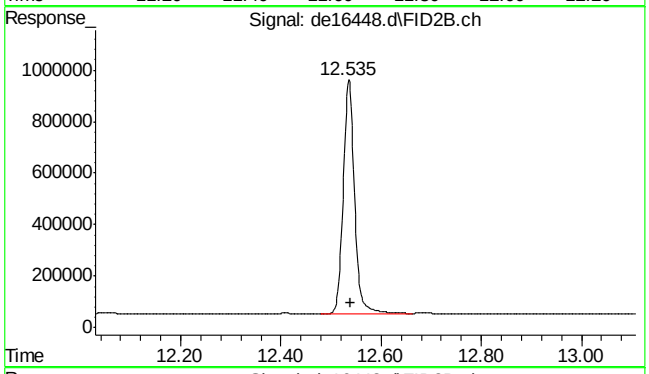
9

SGS ACCUTEST MC48999



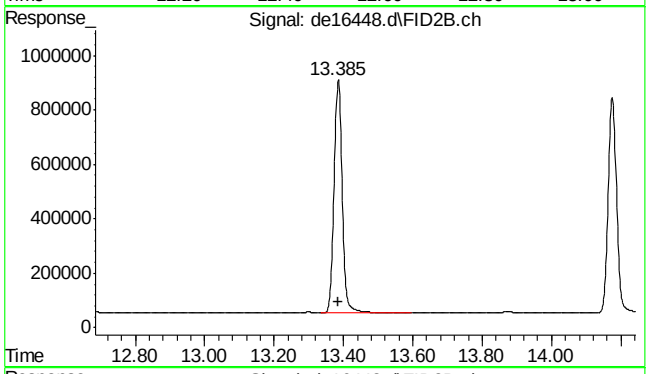
#36 c-22

R.T.: 11.622 min
Delta R.T.: -0.002 min
Response: 1513163
Conc: 22.32 µg/ml



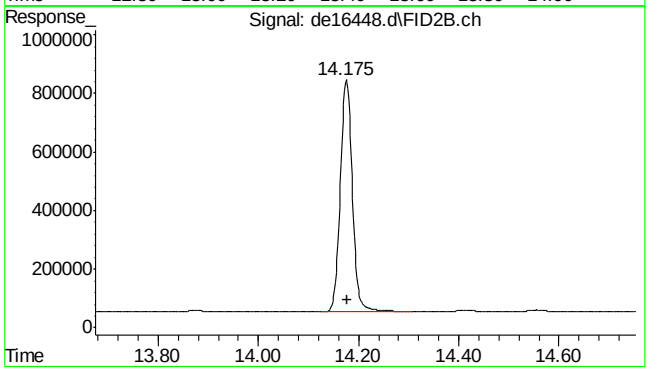
#37 c-24

R.T.: 12.535 min
Delta R.T.: -0.003 min
Response: 1446496
Conc: 21.34 µg/ml



#38 c-26

R.T.: 13.385 min
Delta R.T.: 0.000 min
Response: 1381442
Conc: 20.38 µg/ml



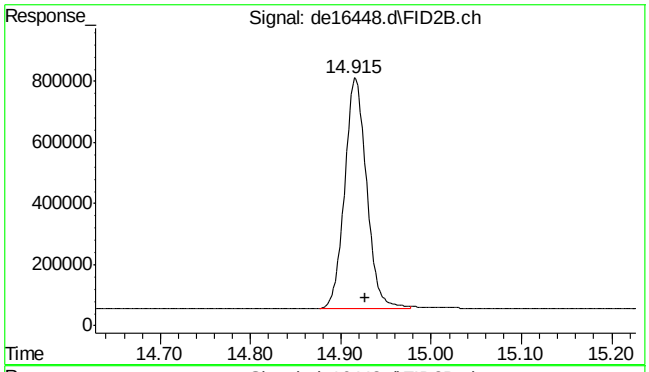
#39 c-28

R.T.: 14.175 min
Delta R.T.: -0.002 min
Response: 1330987
Conc: 19.63 µg/ml

9.3.4

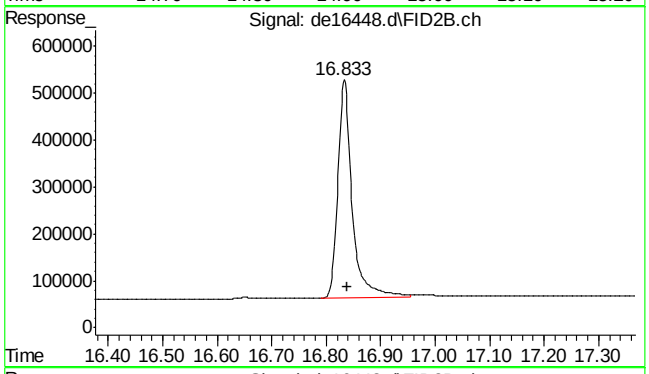
9

SGS ACCUTEST MC48999



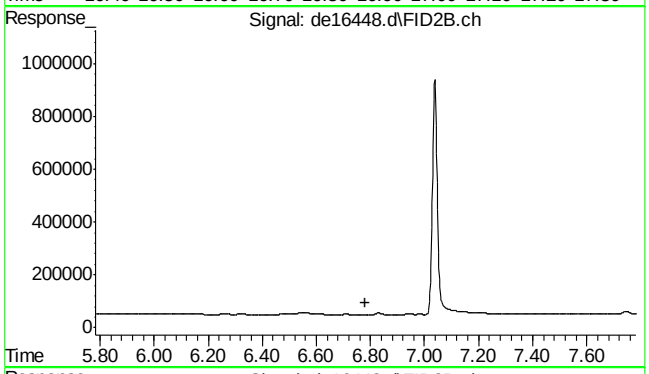
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 1287359
Conc: 18.99 µg/ml



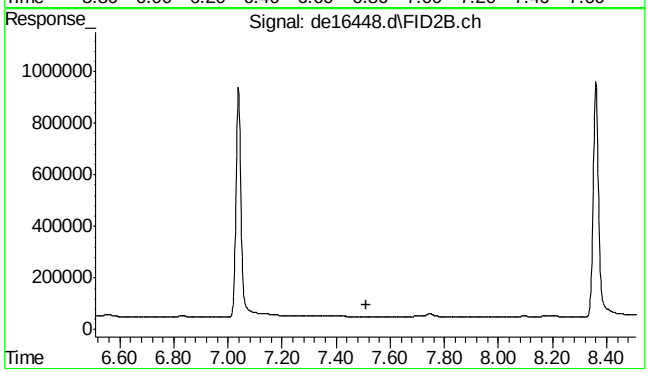
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 864764
Conc: 12.75 µg/ml m



#42 bht

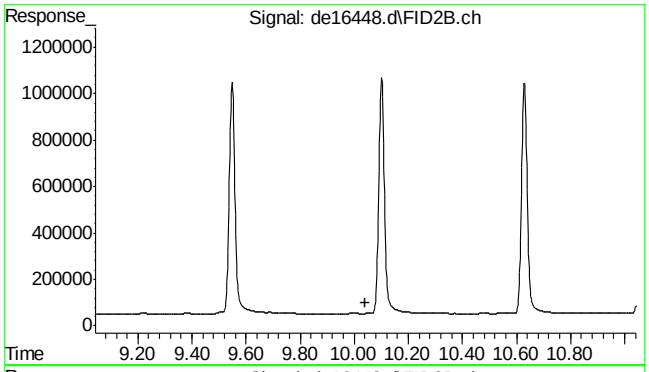
R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



#43 bht

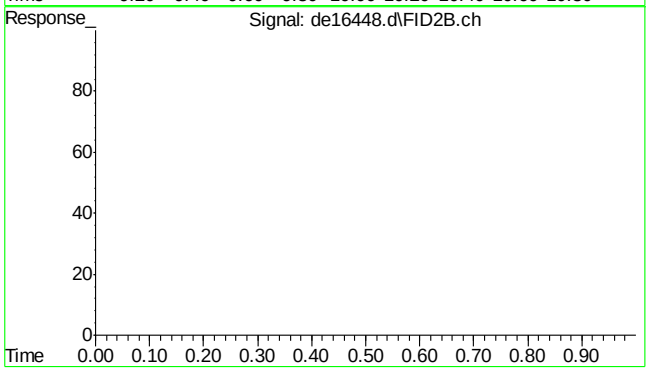
R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.

SGS ACCUTEST MC48999



#44 bht

```
      R.T.:    0.000 min
Exp R.T.  :   10.042 min
  Response:         0
      Conc:   N.D.
```



#45 bht

```
      R.T.:    0.000 min
Exp R.T.  :   23.000 min
  Response:         0
      Conc:   N.D.
```

9.3.4

9

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16415.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 8:53 pm
Operator : thomasa
Sample : op49287-ms
Misc : op49287,gde916,980,,,2,,w
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 11:19:25 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.225	1409815	16.124 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 80.62%#		
6) s 2-bromonaphthalene	7.973	985467	16.538 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 82.69%#		
11) s o-terphenyl	10.527	1261354	13.292 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 66.46%#		
35) s 1-chlorooctadecane	11.065	439173	7.720 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 38.60%#		
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	30995632	310.132 µg/mlm
2) naphthalene	5.782	1750256	17.889 µg/ml
3) 2-methylnaphthalene	6.680	1805033	18.965 µg/ml
5) acenaphthylene	7.807	1173574	12.272 µg/ml
7) acenaphthene	8.052	1296536	13.515 µg/ml
8) fluorene	8.698	1326982	14.154 µg/ml
9) phenanthrene	9.895	1444462	15.476 µg/ml
10) anthracene	9.952	1425178	15.503 µg/ml
12) fluoranthene	11.415	1559680	17.193 µg/ml
13) pyrene	11.680	1546796	16.924 µg/ml
14) benzo(a)anthracene	13.250	1606453	18.345 µg/ml
15) chrysene	13.298	1620078	18.267 µg/ml
16) benzo(B)fluoranthene	14.558	1702211	19.035 µg/ml
17) benzo(k)fluoranthene	14.585	1567314	18.151 µg/ml
18) benzo(a)pyrene	14.898	1629085	18.532 µg/ml
19) indeno(1,2,3-cd)pyrene	16.043	1662372	19.171 µg/ml
20) dibenzo(ah)anthracene	16.085	1659764	19.826 µg/ml
21) benzo(ghi)perylene	16.268	1605172	18.627 µg/ml
25) h c-9	2.495	6632774	86.209 µg/mlm
41) h c-36	16.838	10072732	148.568 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

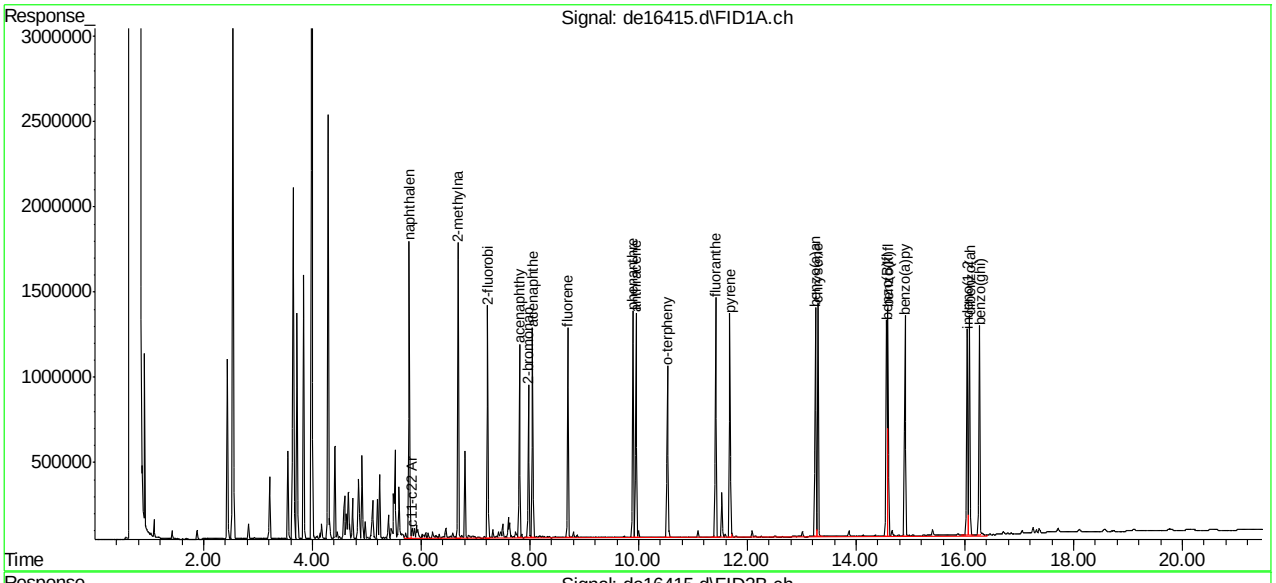
SGS ACCUTEST MC48999

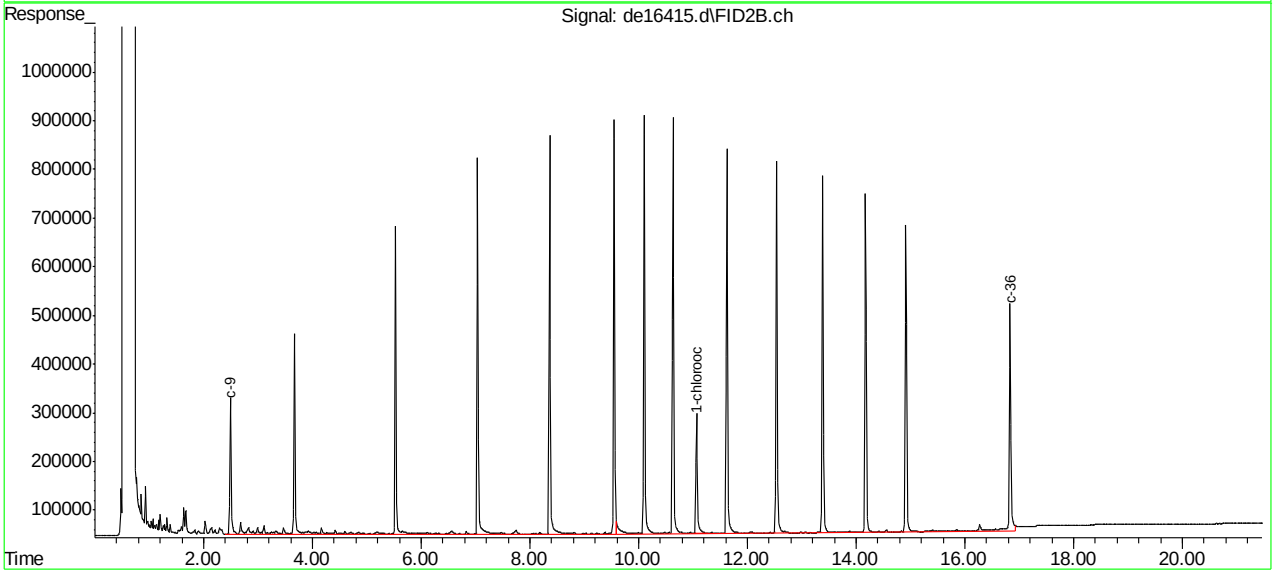
Quantitation Report (QT Reviewed)

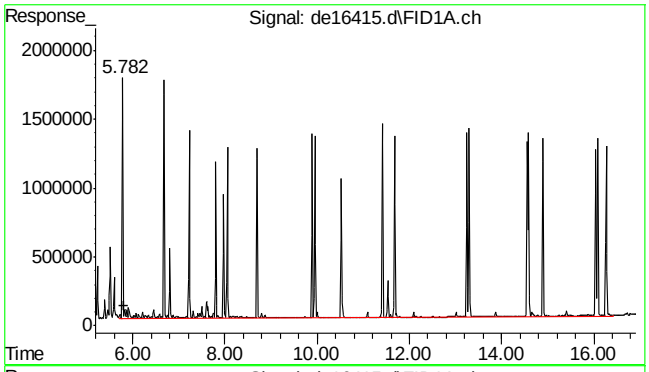
Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16415.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 8:53 pm
Operator : thomasa
Sample : op49287-ms
Misc : op49287,gde916,980,,,2,,w
ALS Vial : 28 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 11:19:25 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

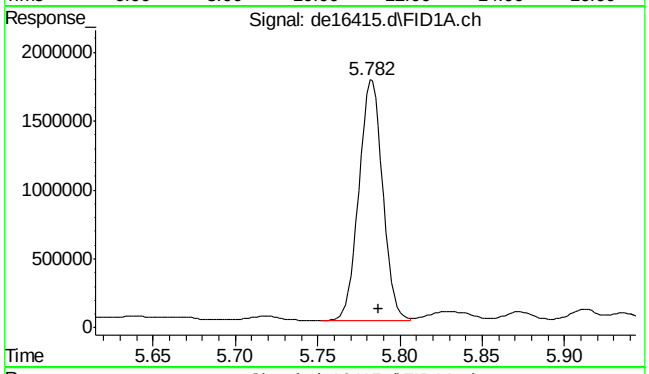






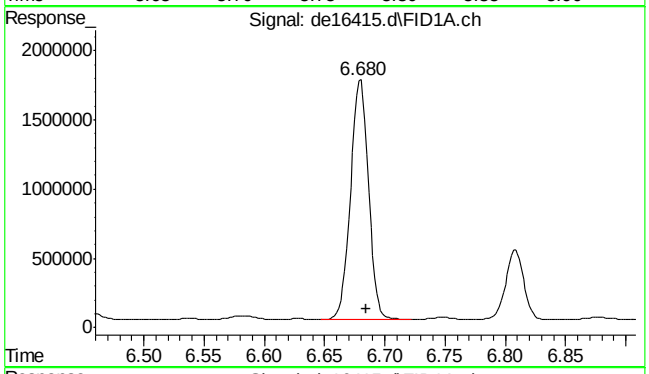
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 30995632
Conc: 310.13 µg/ml m



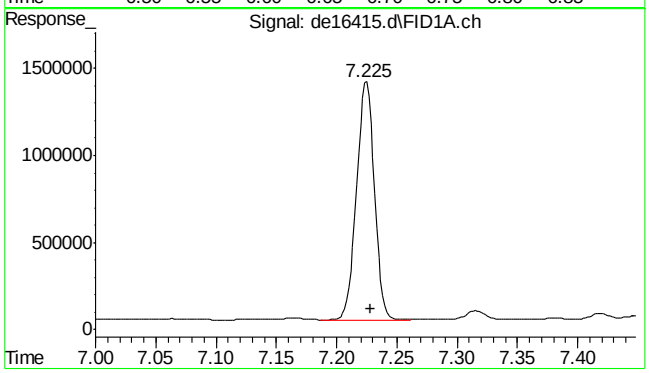
#2 naphthalene

R.T.: 5.782 min
Delta R.T.: -0.005 min
Response: 1750256
Conc: 17.89 µg/ml



#3 2-methylnaphthalene

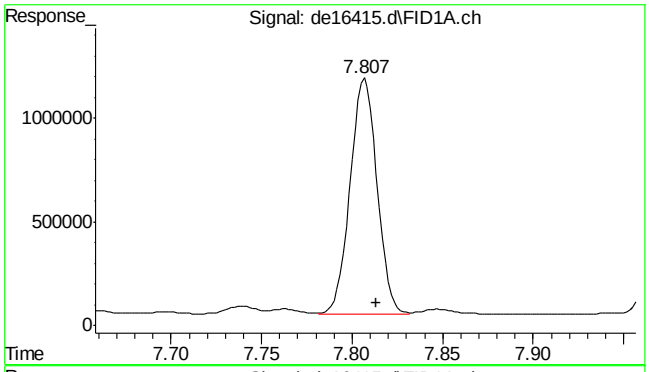
R.T.: 6.680 min
Delta R.T.: -0.005 min
Response: 1805033
Conc: 18.96 µg/ml



#4 2-fluorobiphenyl

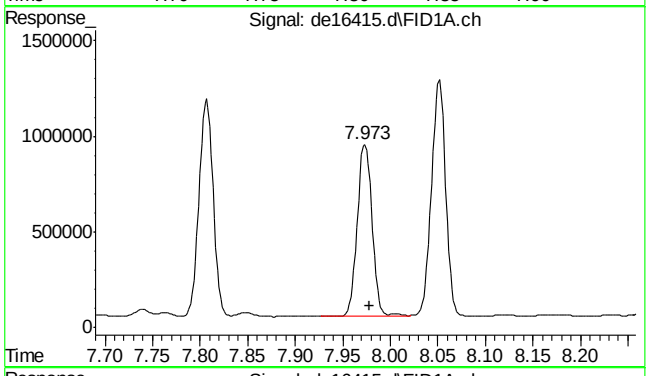
R.T.: 7.225 min
Delta R.T.: -0.003 min
Response: 1409815
Conc: 16.12 µg/ml

SGS ACCUTEST MC48999



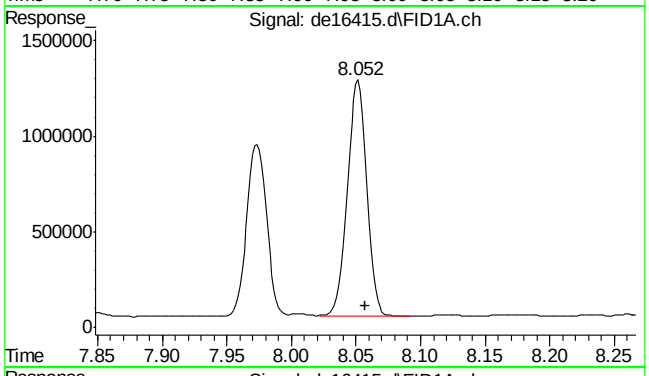
#5 acenaphthylene

R.T.: 7.807 min
Delta R.T.: -0.007 min
Response: 1173574
Conc: 12.27 µg/ml



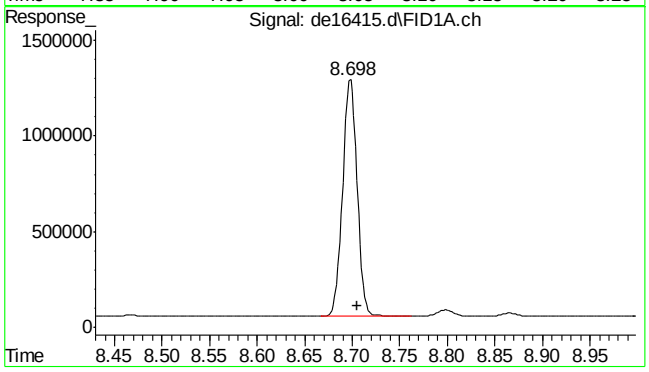
#6 2-bromonaphthalene

R.T.: 7.973 min
Delta R.T.: -0.005 min
Response: 985467
Conc: 16.54 µg/ml



#7 acenaphthene

R.T.: 8.052 min
Delta R.T.: -0.005 min
Response: 1296536
Conc: 13.51 µg/ml



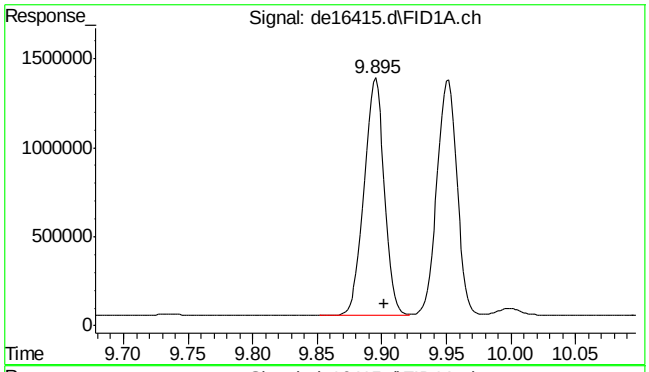
#8 fluorene

R.T.: 8.698 min
Delta R.T.: -0.007 min
Response: 1326982
Conc: 14.15 µg/ml

9.4.1

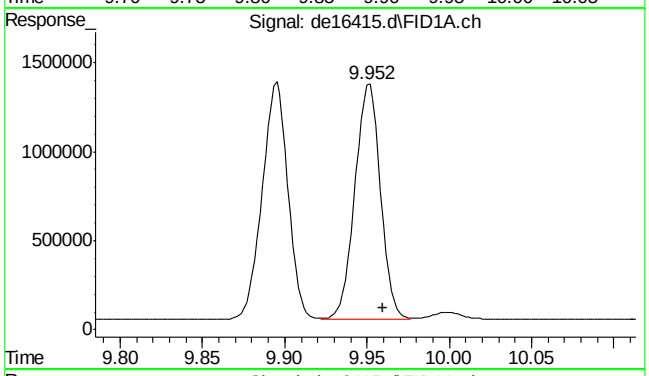
9

SGS ACCUTEST MC48999



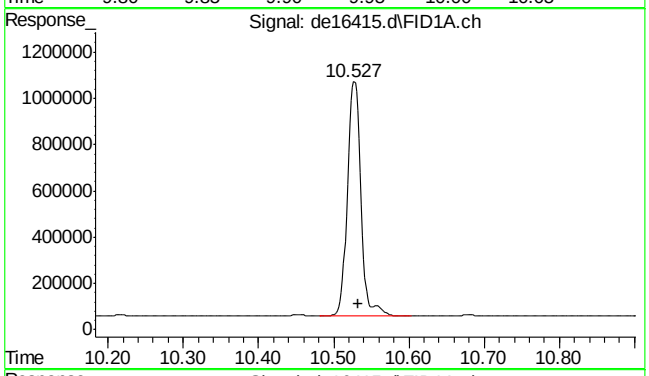
#9 phenanthrene

R.T.: 9.895 min
Delta R.T.: -0.007 min
Response: 1444462
Conc: 15.48 µg/ml



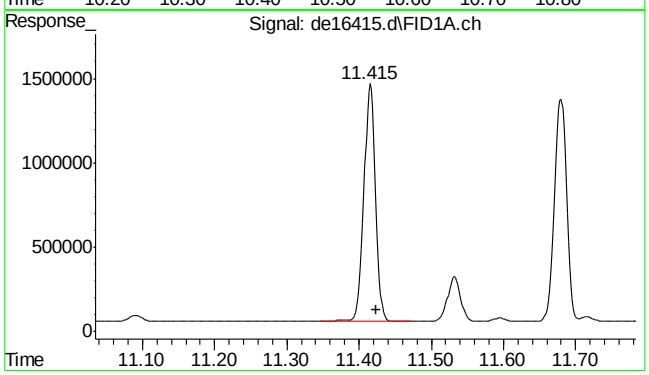
#10 anthracene

R.T.: 9.952 min
Delta R.T.: -0.008 min
Response: 1425178
Conc: 15.50 µg/ml



#11 o-terphenyl

R.T.: 10.527 min
Delta R.T.: -0.007 min
Response: 1261354
Conc: 13.29 µg/ml



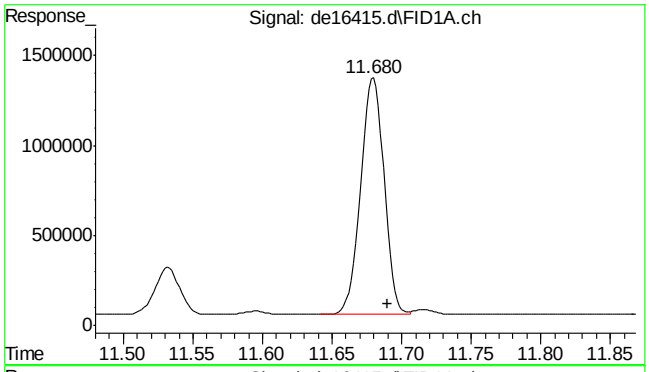
#12 fluoranthene

R.T.: 11.415 min
Delta R.T.: -0.008 min
Response: 1559680
Conc: 17.19 µg/ml

9.4.1

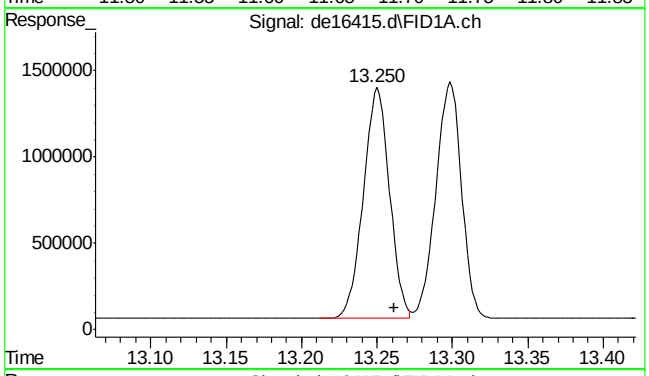
9

SGS ACCUTEST MC48999



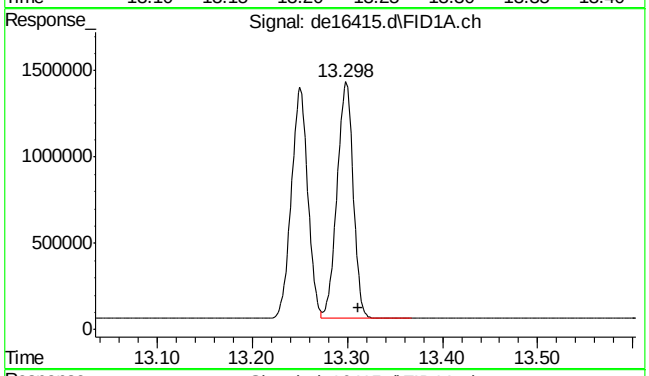
#13 pyrene

R.T.: 11.680 min
Delta R.T.: -0.010 min
Response: 1546796
Conc: 16.92 µg/ml



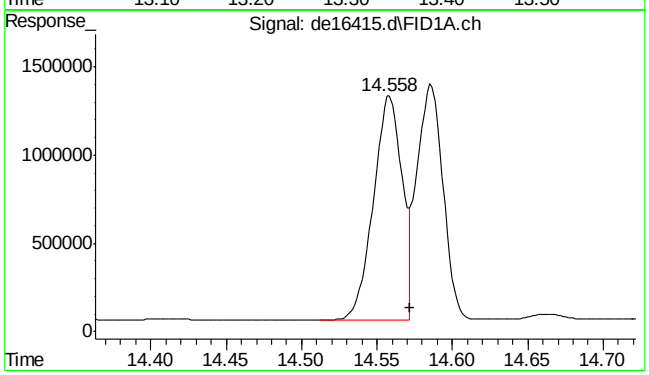
#14 benzo(a)anthracene

R.T.: 13.250 min
Delta R.T.: -0.012 min
Response: 1606453
Conc: 18.35 µg/ml



#15 chrysene

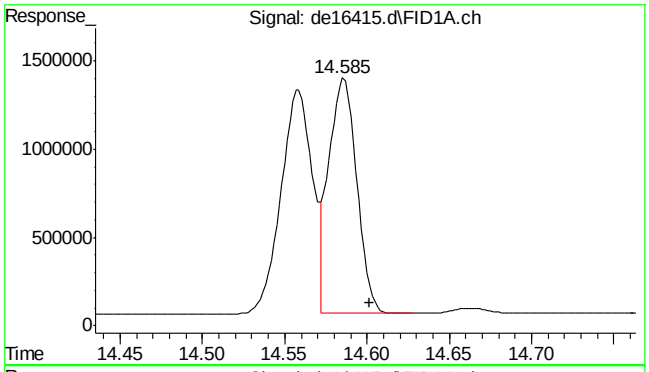
R.T.: 13.298 min
Delta R.T.: -0.013 min
Response: 1620078
Conc: 18.27 µg/ml



#16 benzo(B)fluoranthene

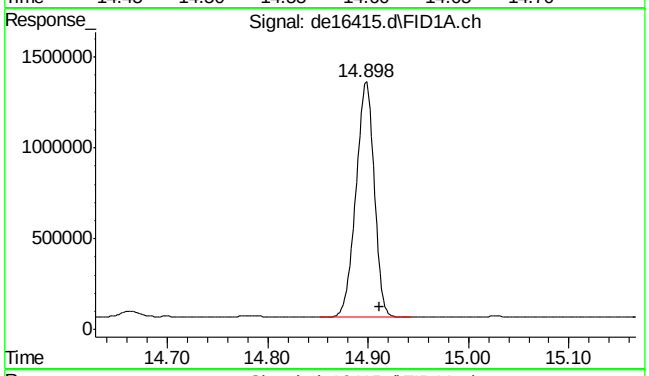
R.T.: 14.558 min
Delta R.T.: -0.013 min
Response: 1702211
Conc: 19.03 µg/ml

SGS ACCUTEST MC48999



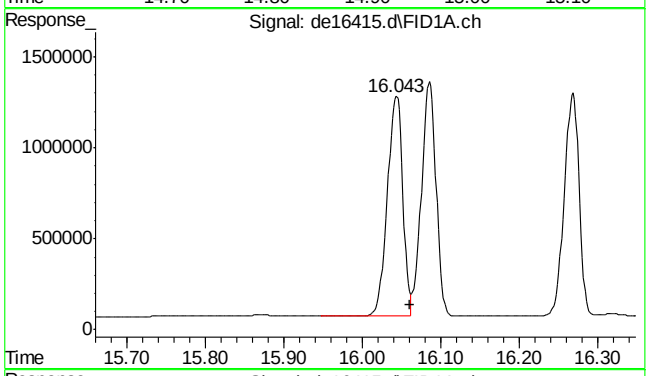
#17 benzo(k)fluoranthene

R.T.: 14.585 min
Delta R.T.: -0.017 min
Response: 1567314
Conc: 18.15 µg/ml



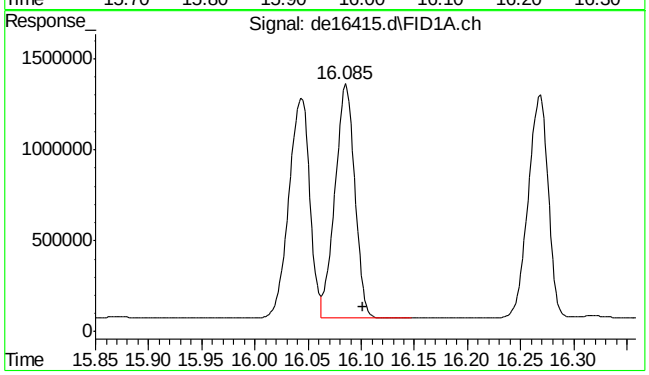
#18 benzo(a)pyrene

R.T.: 14.898 min
Delta R.T.: -0.013 min
Response: 1629085
Conc: 18.53 µg/ml



#19 indeno(1,2,3-cd)pyrene

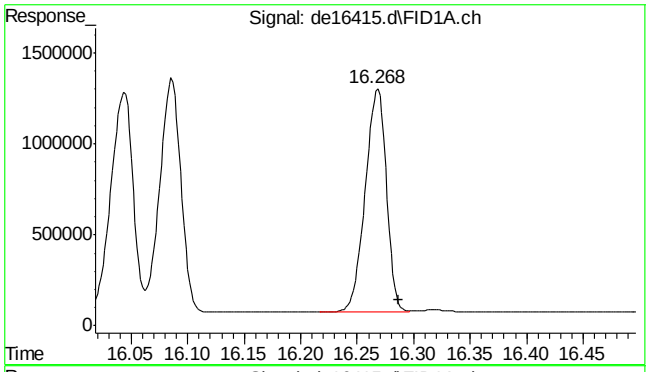
R.T.: 16.043 min
Delta R.T.: -0.017 min
Response: 1662372
Conc: 19.17 µg/ml



#20 dibenzo(ah)anthracene

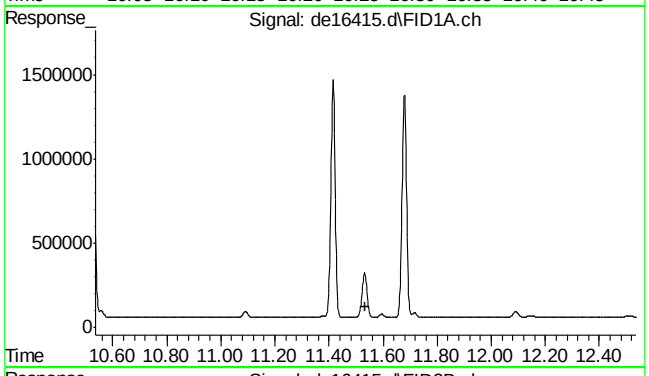
R.T.: 16.085 min
Delta R.T.: -0.017 min
Response: 1659764
Conc: 19.83 µg/ml

SGS ACCUTEST MC48999



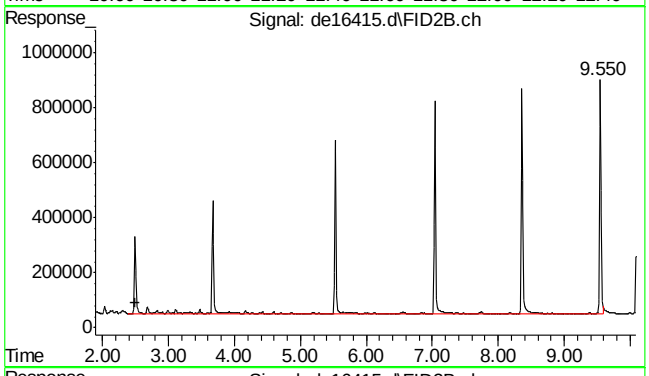
#21 benzo(ghi)perylene

R.T.: 16.268 min
Delta R.T.: -0.018 min
Response: 1605172
Conc: 18.63 µg/ml



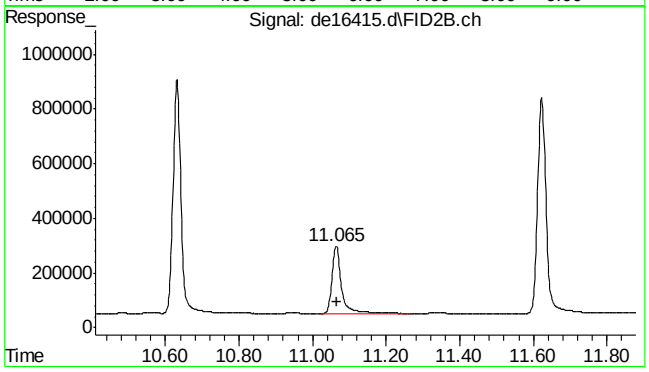
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



#25 c-9

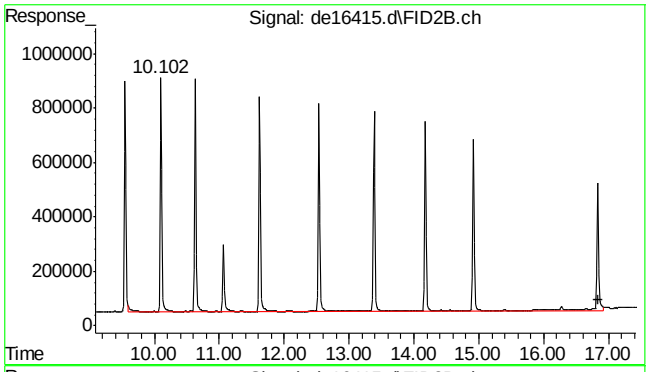
R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 6632774
Conc: 86.21 µg/ml m



#35 1-chlorooctadecane

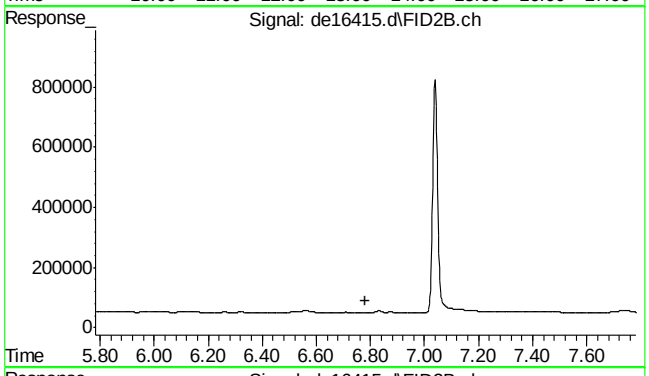
R.T.: 11.065 min
Delta R.T.: -0.002 min
Response: 439173
Conc: 7.72 µg/ml

SGS ACCUTEST MC48999



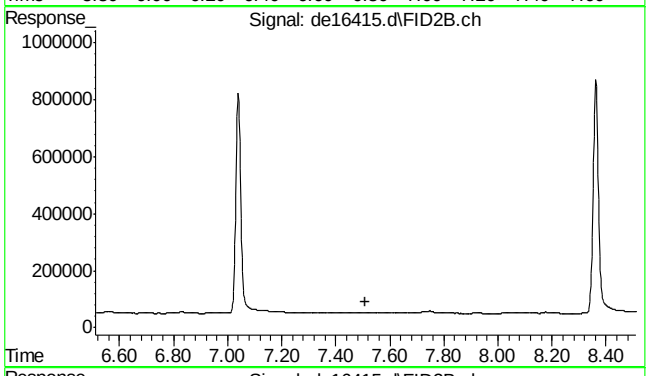
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 10072732
Conc: 148.57 µg/ml m



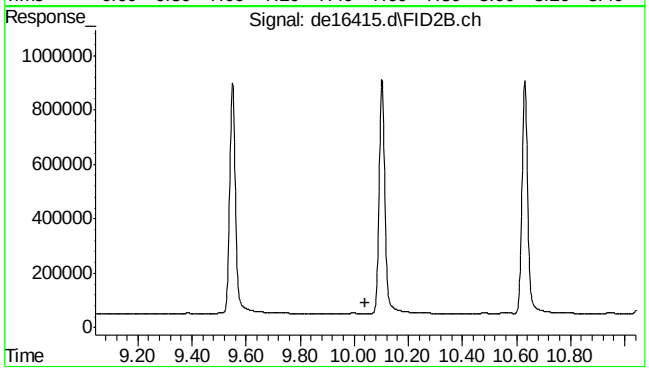
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



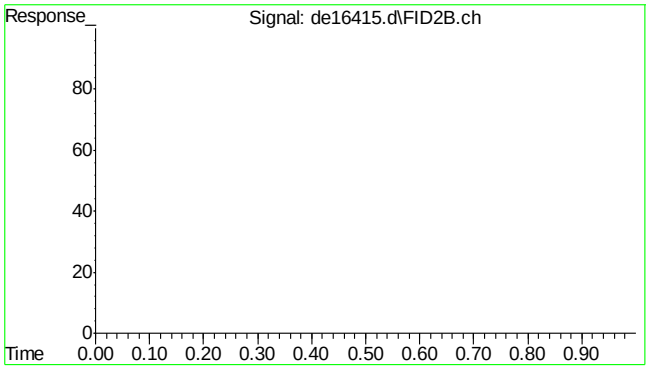
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

9.4.1

9

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16416.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 9:20 pm
Operator : thomasa
Sample : op49287-msd
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:24:41 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.225	1342222	15.351 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 76.76%#	
6) s 2-bromonaphthalene	7.973	935634	15.702 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 78.51%#	
11) s o-terphenyl	10.527	1343080	14.153 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 70.77%#	
35) s 1-chlorooctadecane	11.063	466343	8.197 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 40.98%#	
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	34972316	349.921 µg/mlm
2) naphthalene	5.783	2062567	21.081 µg/ml
3) 2-methylnaphthalene	6.680	2155909	22.652 µg/ml
5) acenaphthylene	7.807	1354971	14.169 µg/ml
7) acenaphthene	8.052	1488208	15.513 µg/ml
8) fluorene	8.698	1510668	16.113 µg/ml
9) phenanthrene	9.895	1634202	17.508 µg/ml
10) anthracene	9.952	1616504	17.584 µg/ml
12) fluoranthene	11.415	1756914	19.367 µg/ml
13) pyrene	11.680	1742567	19.066 µg/ml
14) benzo(a)anthracene	13.250	1804568	20.608 µg/ml
15) chrysene	13.298	1803227	20.332 µg/ml
16) benzo(B)fluoranthene	14.558	1788620	20.001 µg/ml
17) benzo(k)fluoranthene	14.587	1868600	21.641 µg/ml
18) benzo(a)pyrene	14.898	1811440	20.606 µg/ml
19) indeno(1,2,3-cd)pyrene	16.043	1818982	20.978 µg/ml
20) dibenzo(ah)anthracene	16.088	1851925	22.121 µg/ml
21) benzo(ghi)perylene	16.268	1845868	21.420 µg/ml
25) h c-9	2.495	7291933	94.776 µg/mlm
41) h c-36	16.838	10993647	162.151 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

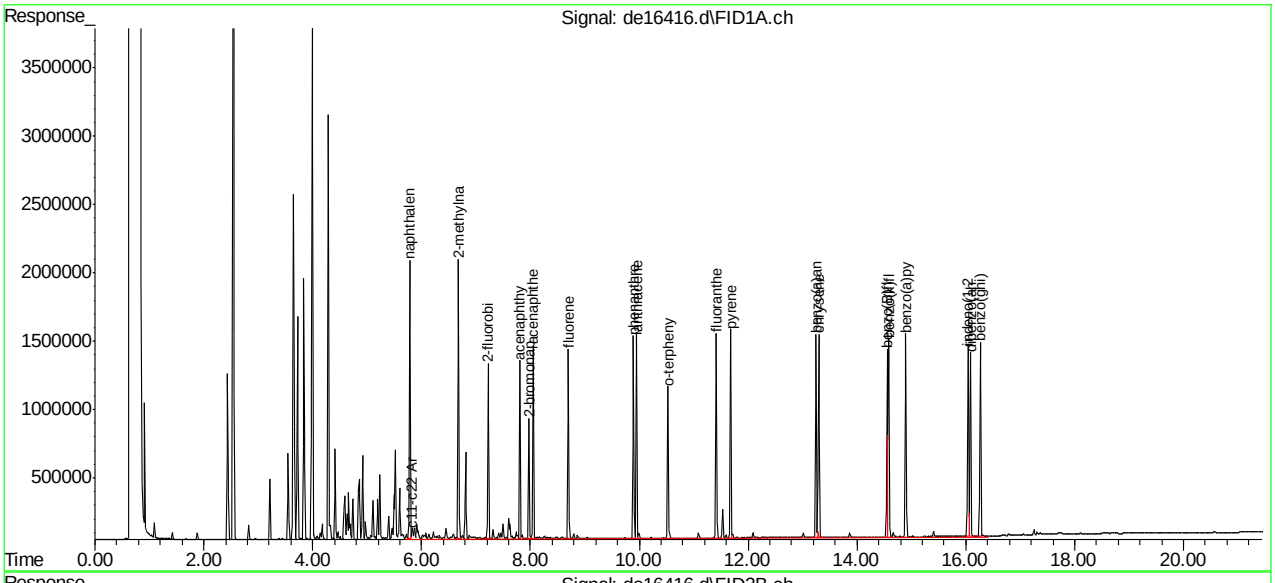
SGS ACCUTEST MC48999

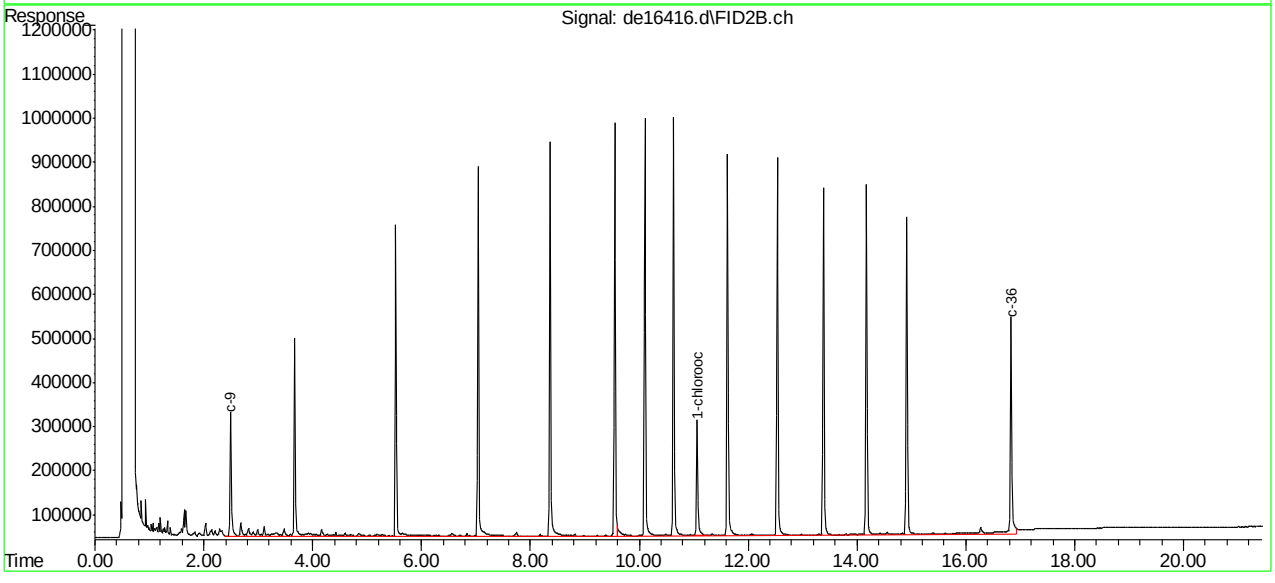
Quantitation Report (QT Reviewed)

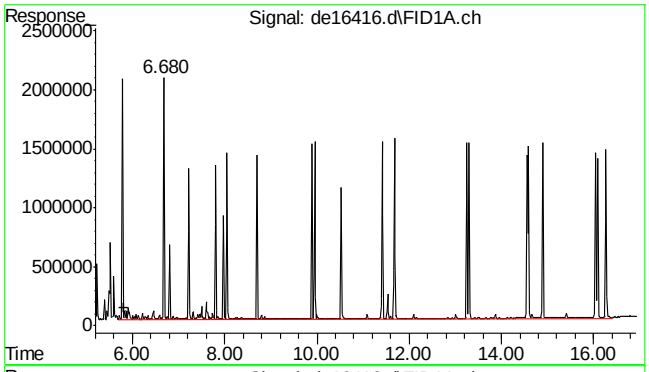
Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16416.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 9:20 pm
Operator : thomasa
Sample : op49287-msd
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 30 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:24:41 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

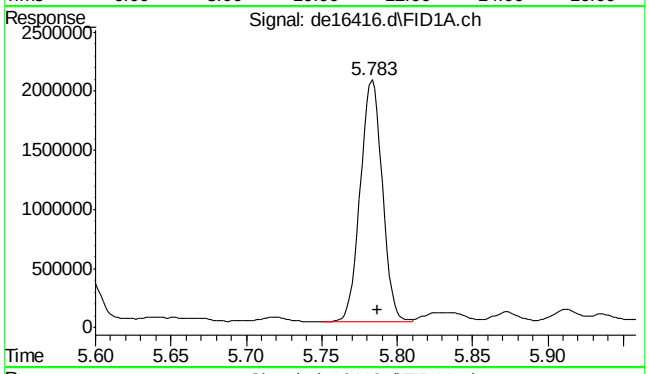






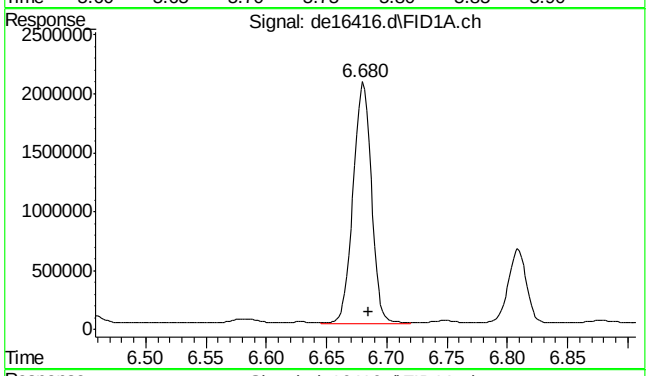
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 34972316
Conc: 349.92 µg/ml m



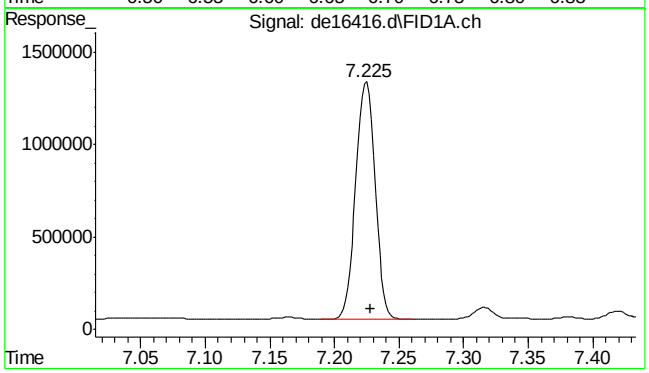
#2 naphthalene

R.T.: 5.783 min
Delta R.T.: -0.003 min
Response: 2062567
Conc: 21.08 µg/ml



#3 2-methylnaphthalene

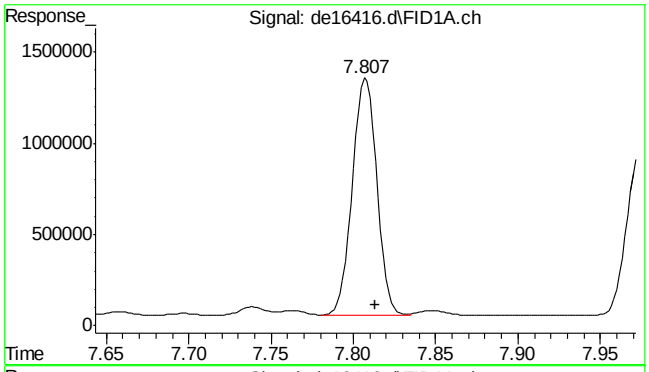
R.T.: 6.680 min
Delta R.T.: -0.005 min
Response: 2155909
Conc: 22.65 µg/ml



#4 2-fluorobiphenyl

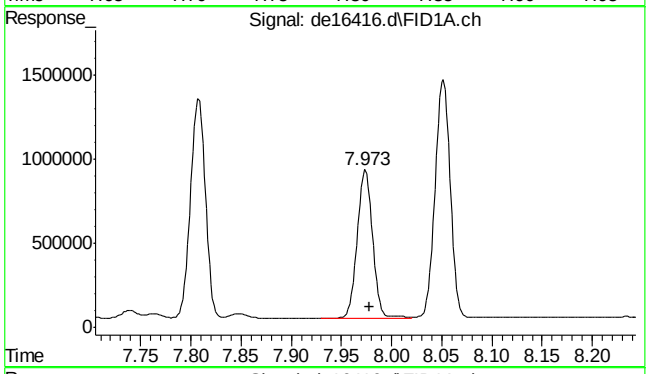
R.T.: 7.225 min
Delta R.T.: -0.003 min
Response: 1342222
Conc: 15.35 µg/ml

SGS ACCUTEST MC48999



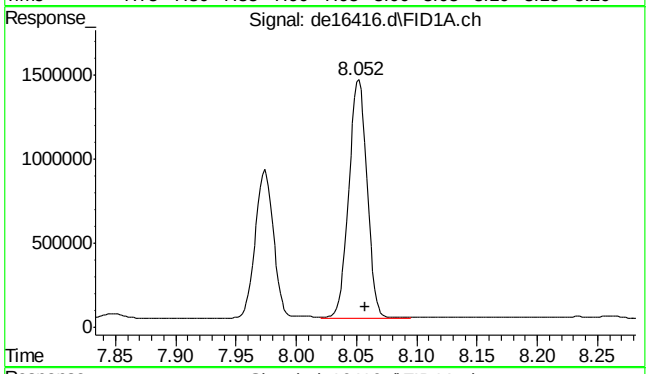
#5 acenaphthylene

R.T.: 7.807 min
Delta R.T.: -0.007 min
Response: 1354971
Conc: 14.17 µg/ml



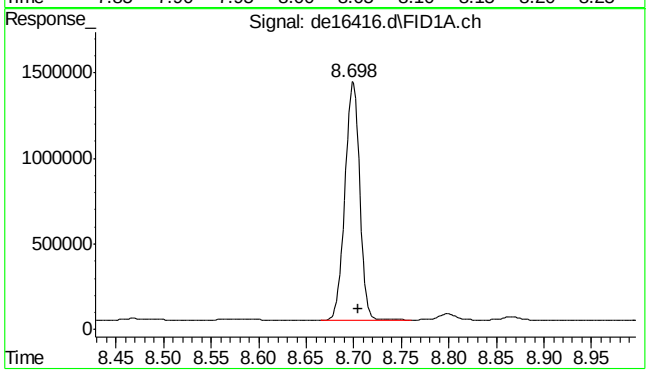
#6 2-bromonaphthalene

R.T.: 7.973 min
Delta R.T.: -0.005 min
Response: 935634
Conc: 15.70 µg/ml



#7 acenaphthene

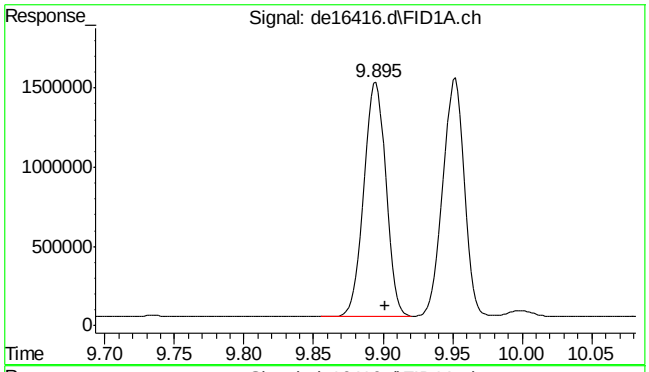
R.T.: 8.052 min
Delta R.T.: -0.005 min
Response: 1488208
Conc: 15.51 µg/ml



#8 fluorene

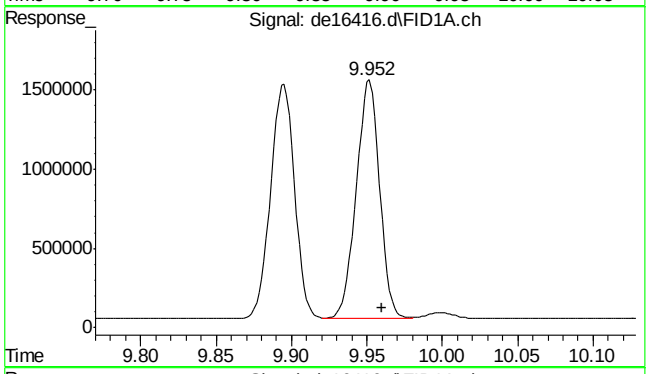
R.T.: 8.698 min
Delta R.T.: -0.007 min
Response: 1510668
Conc: 16.11 µg/ml

SGS ACCUTEST MC48999



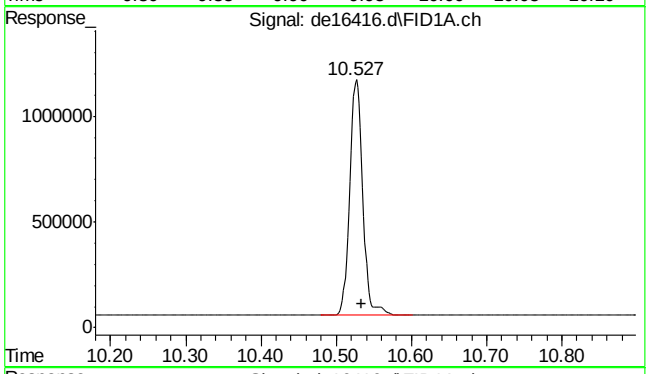
#9 phenanthrene

R.T.: 9.895 min
Delta R.T.: -0.007 min
Response: 1634202
Conc: 17.51 µg/ml



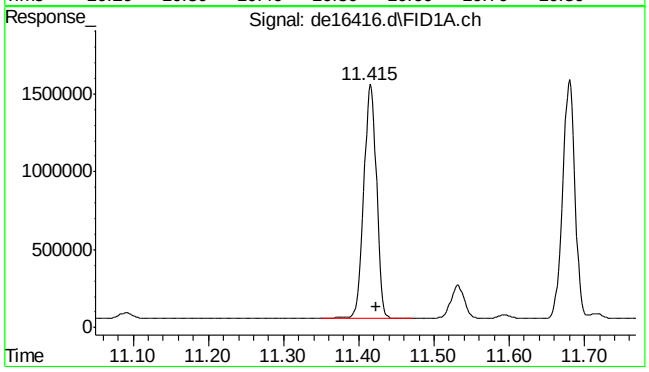
#10 anthracene

R.T.: 9.952 min
Delta R.T.: -0.008 min
Response: 1616504
Conc: 17.58 µg/ml



#11 o-terphenyl

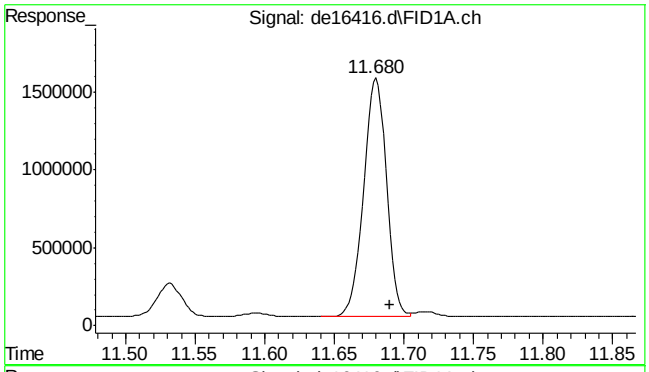
R.T.: 10.527 min
Delta R.T.: -0.007 min
Response: 1343080
Conc: 14.15 µg/ml



#12 fluoranthene

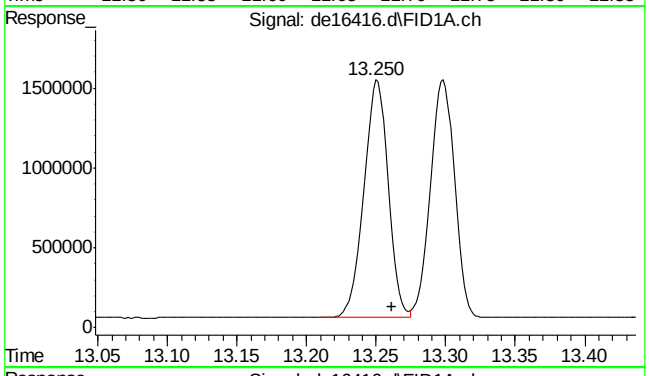
R.T.: 11.415 min
Delta R.T.: -0.008 min
Response: 1756914
Conc: 19.37 µg/ml

SGS ACCUTEST MC48999



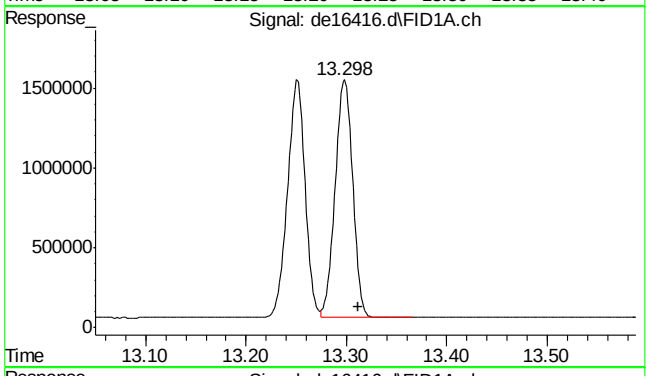
#13 pyrene

R.T.: 11.680 min
Delta R.T.: -0.010 min
Response: 1742567
Conc: 19.07 µg/ml



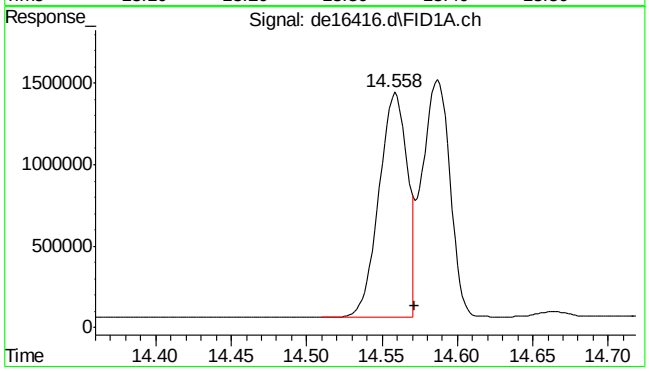
#14 benzo(a)anthracene

R.T.: 13.250 min
Delta R.T.: -0.012 min
Response: 1804568
Conc: 20.61 µg/ml



#15 chrysene

R.T.: 13.298 min
Delta R.T.: -0.013 min
Response: 1803227
Conc: 20.33 µg/ml



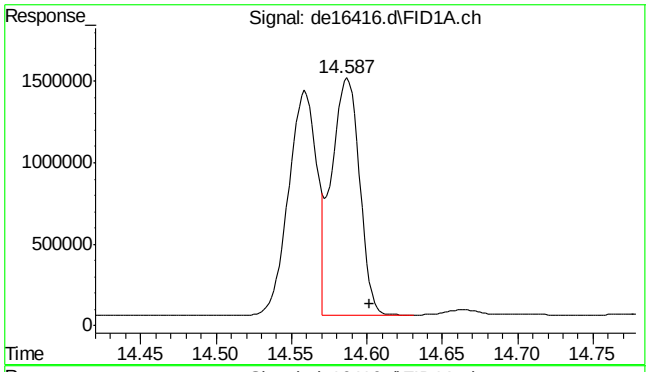
#16 benzo(B)fluoranthene

R.T.: 14.558 min
Delta R.T.: -0.013 min
Response: 1788620
Conc: 20.00 µg/ml

9.4.2

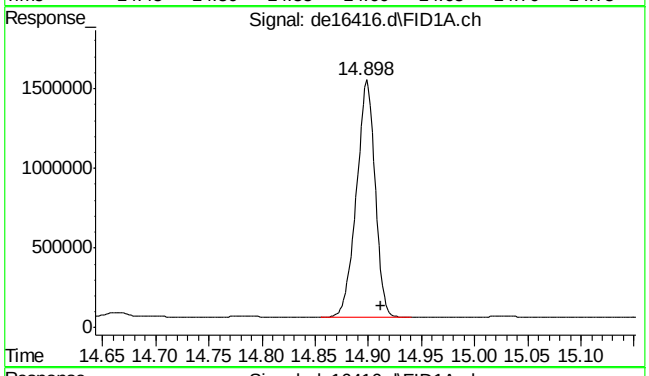
9

SGS ACCUTEST MC48999



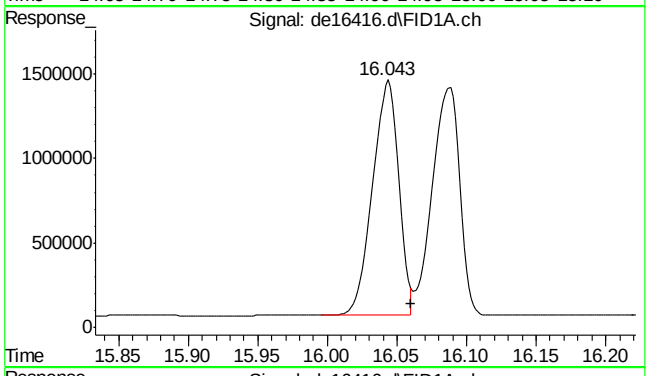
#17 benzo(k)fluoranthene

R.T.: 14.587 min
Delta R.T.: -0.015 min
Response: 1868600
Conc: 21.64 µg/ml



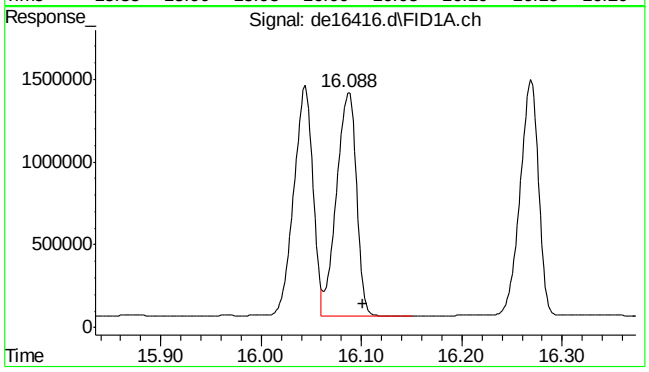
#18 benzo(a)pyrene

R.T.: 14.898 min
Delta R.T.: -0.013 min
Response: 1811440
Conc: 20.61 µg/ml



#19 indeno(1,2,3-cd)pyrene

R.T.: 16.043 min
Delta R.T.: -0.017 min
Response: 1818982
Conc: 20.98 µg/ml



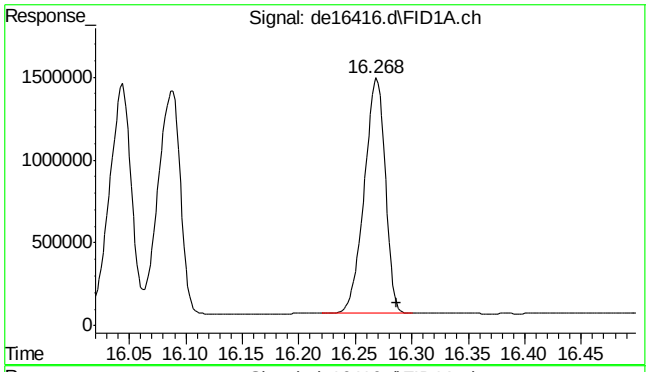
#20 dibenzo(ah)anthracene

R.T.: 16.088 min
Delta R.T.: -0.013 min
Response: 1851925
Conc: 22.12 µg/ml

9.4.2

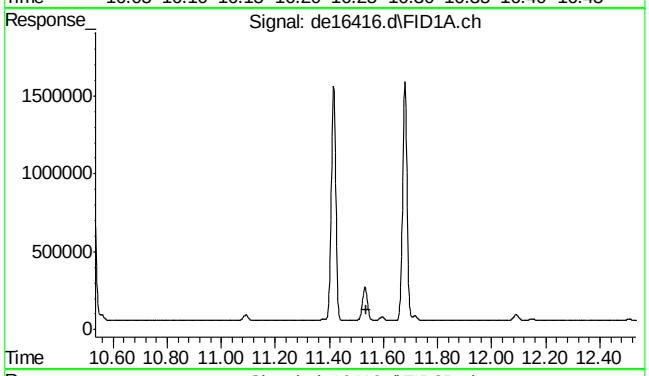
9

SGS ACCUTEST MC48999



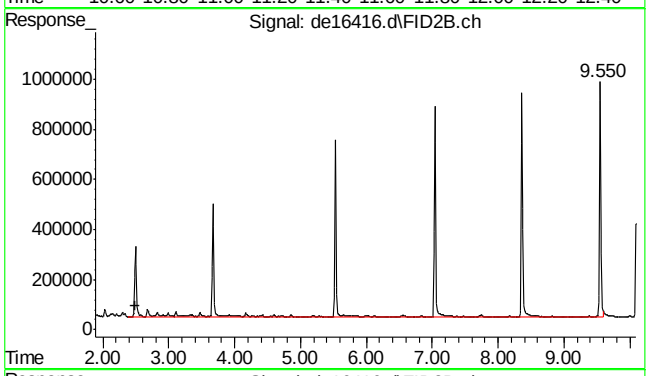
#21 benzo(ghi)perylene

R.T.: 16.268 min
Delta R.T.: -0.018 min
Response: 1845868
Conc: 21.42 µg/ml



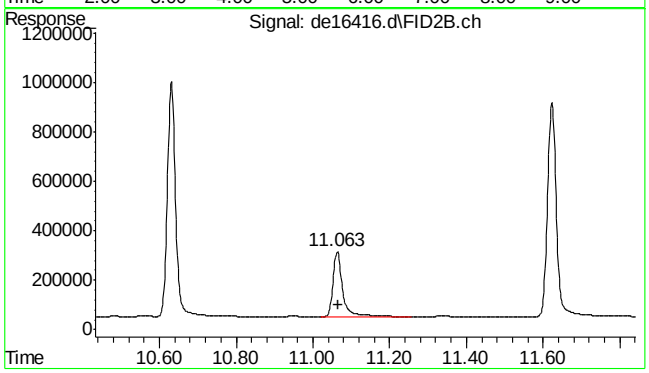
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



#25 c-9

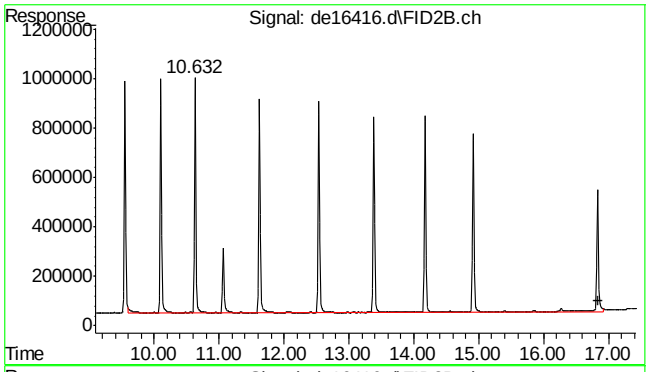
R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 7291933
Conc: 94.78 µg/ml m



#35 1-chlorooctadecane

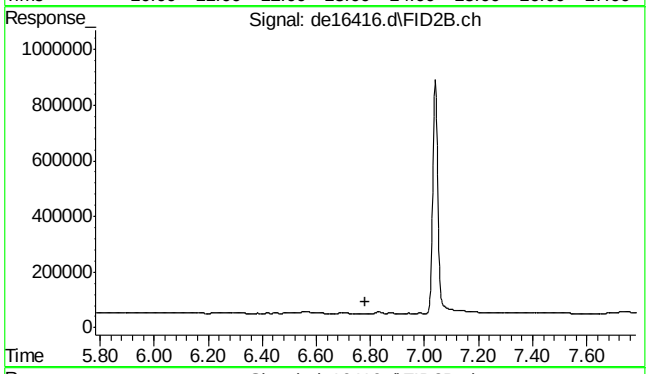
R.T.: 11.063 min
Delta R.T.: -0.003 min
Response: 466343
Conc: 8.20 µg/ml

SGS ACCUTEST MC48999



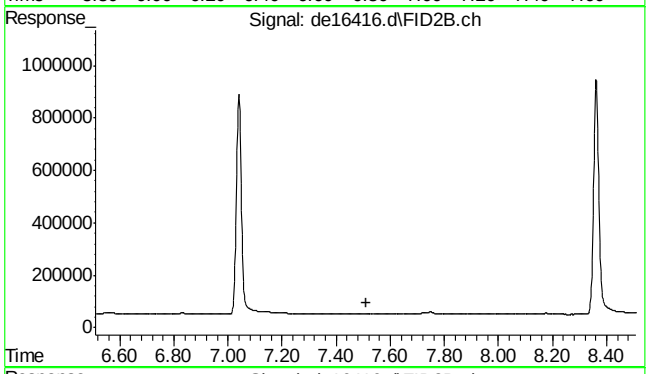
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 10993647
Conc: 162.15 µg/ml m



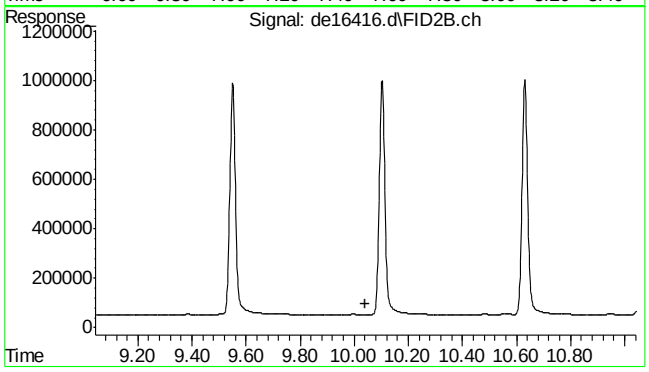
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



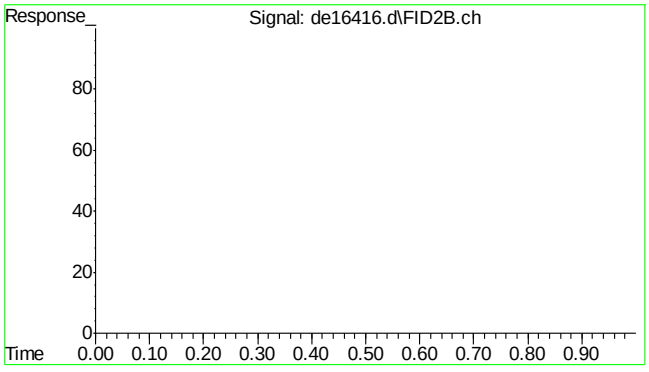
#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.

9.4.2

9

SGS ACCUTEST MC48999



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

9.4.2

9

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16449.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 7:56 pm
Operator : thomasa
Sample : op49293-ms
Misc : op49293,gde918,940,,,2,,w
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:41:58 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.223	1400858	16.022 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 80.11%#		
6) s 2-bromonaphthalene	7.973	979755	16.442 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 82.21%#		
11) s o-terphenyl	10.528	1721912	18.145 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 90.72%#		
35) s 1-chlorooctadecane	11.062	496234	8.723 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 43.62%#		
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	35610492	356.306 µg/mlm
2) naphthalene	5.783	1216685	12.435 µg/ml
3) 2-methylnaphthalene	6.680	1354779	14.234 µg/ml
5) acenaphthylene	7.807	1483785	15.516 µg/ml
7) acenaphthene	8.052	1596057	16.637 µg/ml
8) fluorene	8.698	1659947	17.705 µg/ml
9) phenanthrene	9.895	1889197	20.240 µg/ml
10) anthracene	9.952	1956373	21.281 µg/ml
12) fluoranthene	11.415	2084004	22.973 µg/ml
13) pyrene	11.680	2064394	22.588 µg/ml
14) benzo(a)anthracene	13.252	2173483	24.821 µg/ml
15) chrysene	13.300	2191311	24.708 µg/ml
16) benzo(B)fluoranthene	14.558	2390004	26.726 µg/ml
17) benzo(k)fluoranthene	14.588	2045851	23.693 µg/ml
18) benzo(a)pyrene	14.898	2185763	24.865 µg/ml
19) indeno(1,2,3-cd)pyrene	16.045	2245523	25.897 µg/ml
20) dibenzo(ah)anthracene	16.087	2224712	26.574 µg/ml
21) benzo(ghi)perylene	16.272	2240361	25.998 µg/ml
25) h c-9	2.495	7117224	92.505 µg/mlm
41) h c-36	16.838	11948152	176.230 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

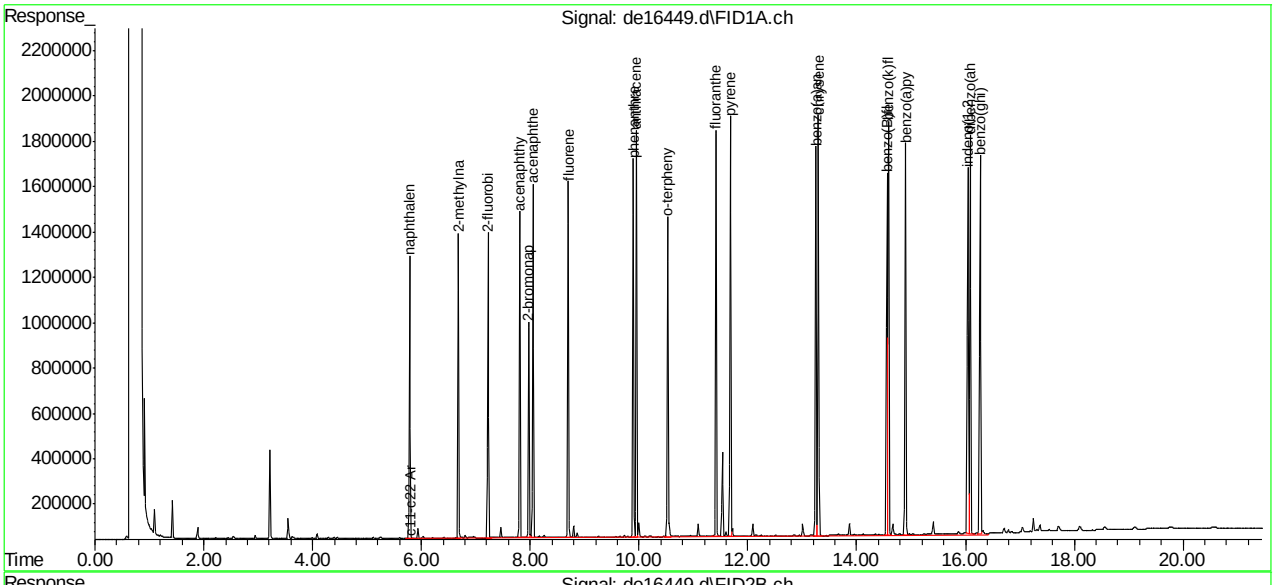
SGS ACCUTEST MC48999

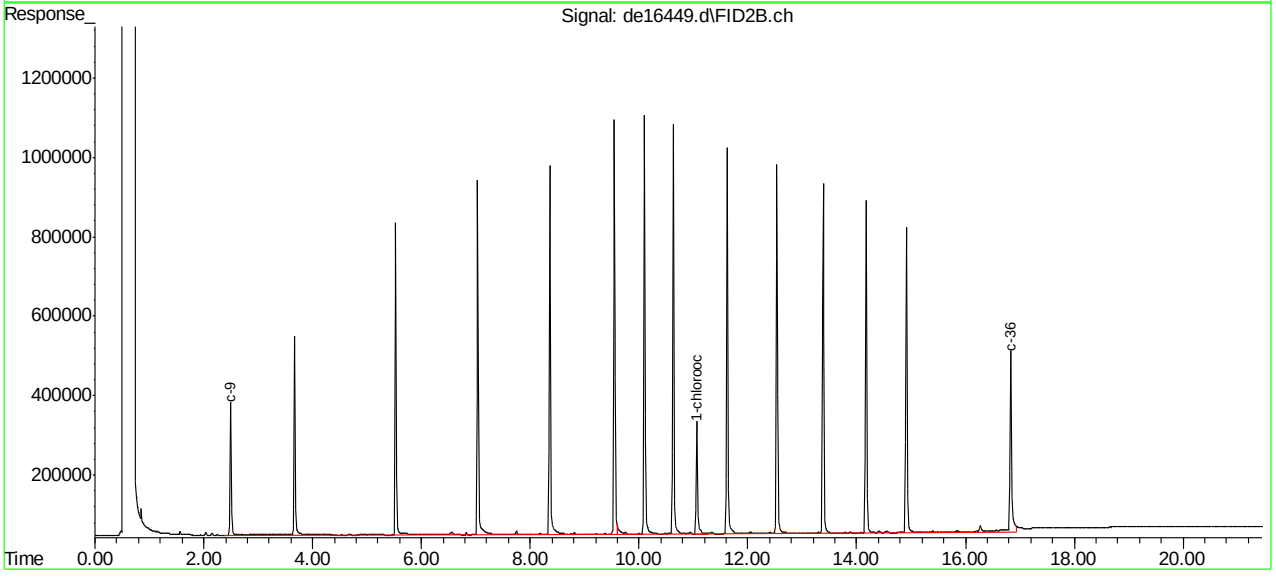
Quantitation Report (QT Reviewed)

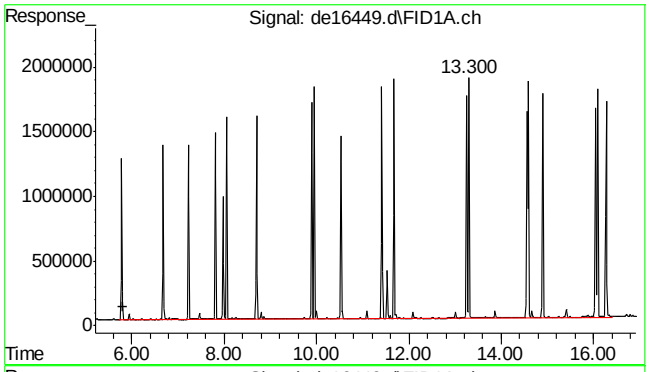
Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16449.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 7:56 pm
Operator : thomasa
Sample : op49293-ms
Misc : op49293,gde918,940,,,2,,w
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:41:58 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

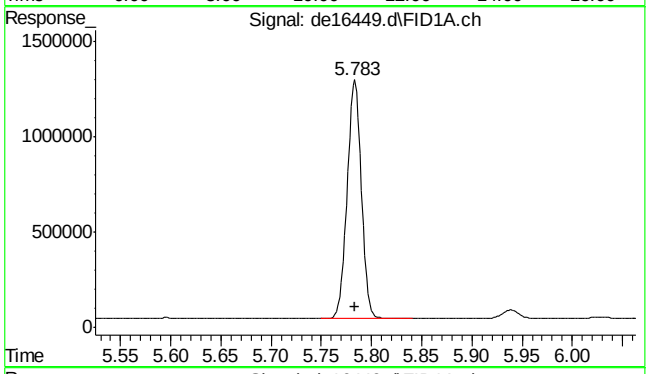






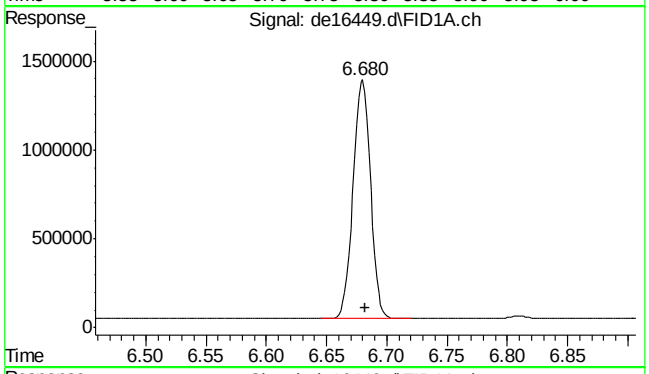
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 35610492
Conc: 356.31 µg/ml m



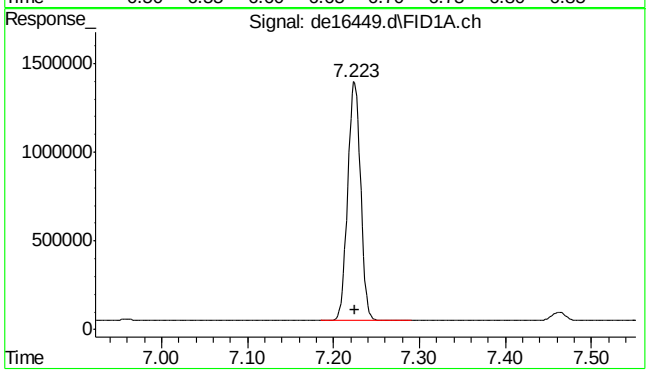
#2 naphthalene

R.T.: 5.783 min
Delta R.T.: 0.000 min
Response: 1216685
Conc: 12.44 µg/ml



#3 2-methylnaphthalene

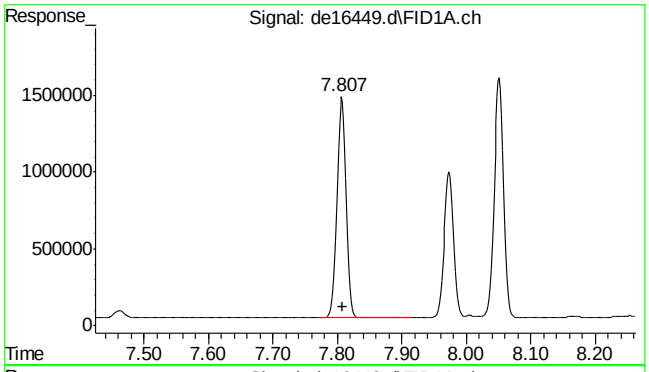
R.T.: 6.680 min
Delta R.T.: -0.002 min
Response: 1354779
Conc: 14.23 µg/ml



#4 2-fluorobiphenyl

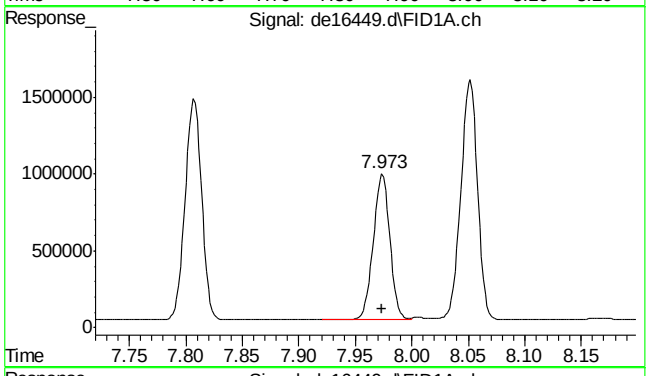
R.T.: 7.223 min
Delta R.T.: -0.002 min
Response: 1400858
Conc: 16.02 µg/ml

SGS ACCUTEST MC48999



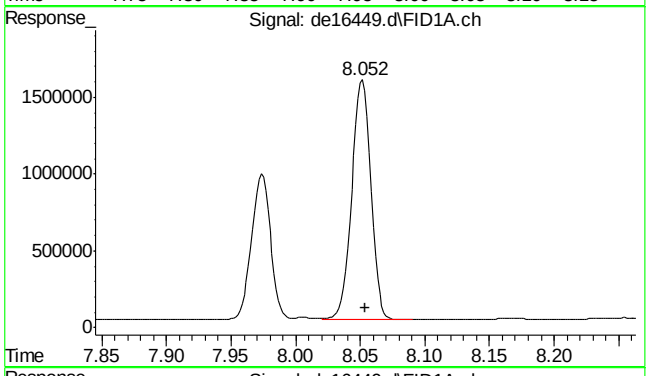
#5 acenaphthylene

R.T.: 7.807 min
Delta R.T.: -0.002 min
Response: 1483785
Conc: 15.52 µg/ml



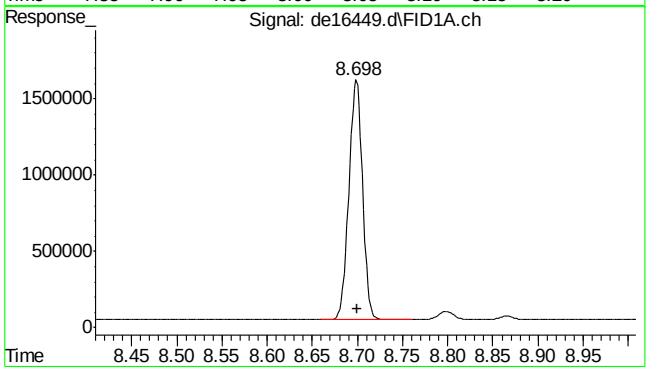
#6 2-bromonaphthalene

R.T.: 7.973 min
Delta R.T.: 0.000 min
Response: 979755
Conc: 16.44 µg/ml



#7 acenaphthene

R.T.: 8.052 min
Delta R.T.: -0.002 min
Response: 1596057
Conc: 16.64 µg/ml



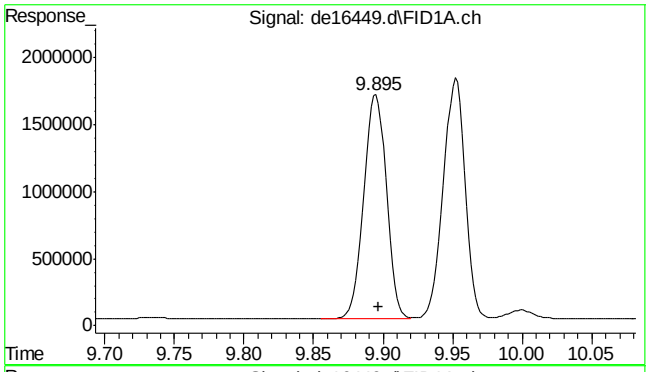
#8 fluorene

R.T.: 8.698 min
Delta R.T.: -0.002 min
Response: 1659947
Conc: 17.71 µg/ml

9.4.3

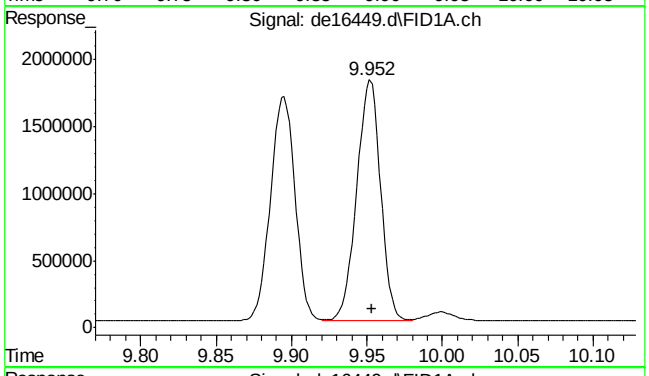
9

SGS ACCUTEST MC48999



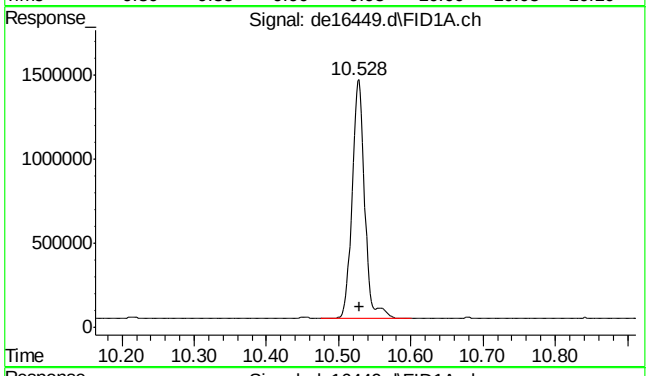
#9 phenanthrene

R.T.: 9.895 min
Delta R.T.: -0.002 min
Response: 1889197
Conc: 20.24 µg/ml



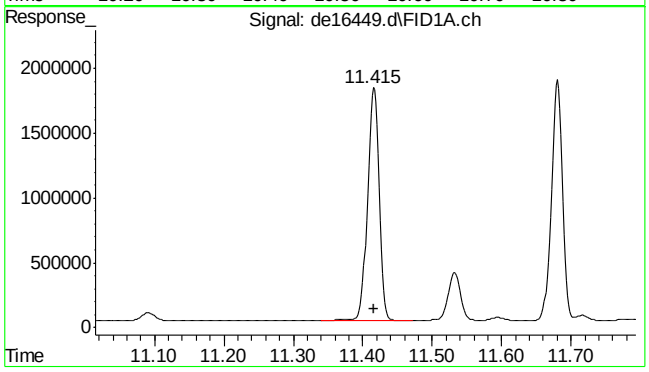
#10 anthracene

R.T.: 9.952 min
Delta R.T.: -0.002 min
Response: 1956373
Conc: 21.28 µg/ml



#11 o-terphenyl

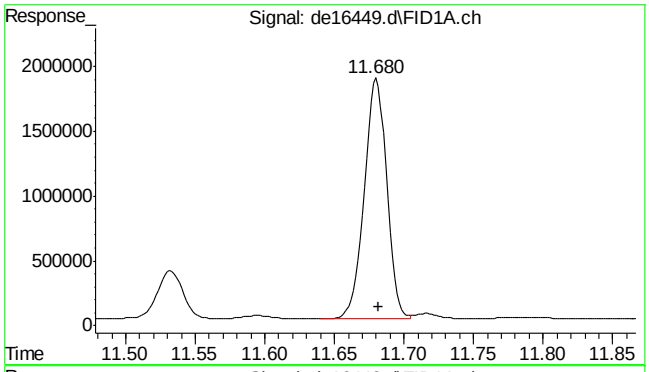
R.T.: 10.528 min
Delta R.T.: 0.000 min
Response: 1721912
Conc: 18.14 µg/ml



#12 fluoranthene

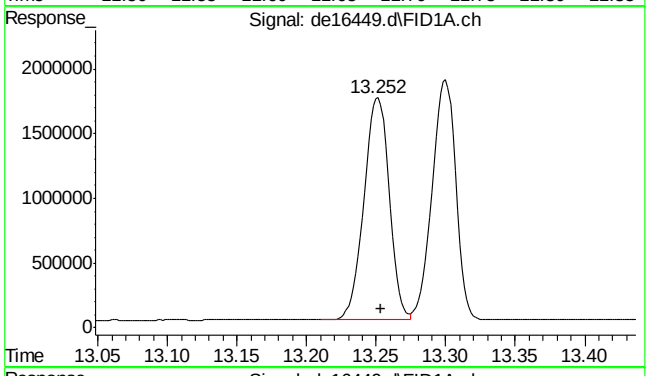
R.T.: 11.415 min
Delta R.T.: -0.002 min
Response: 2084004
Conc: 22.97 µg/ml

SGS ACCUTEST MC48999



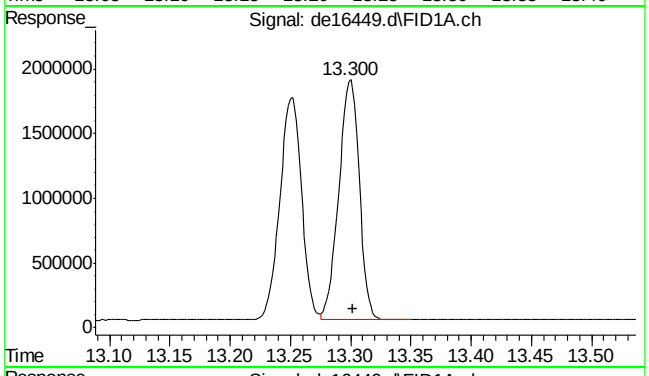
#13 pyrene

R.T.: 11.680 min
Delta R.T.: -0.002 min
Response: 2064394
Conc: 22.59 µg/ml



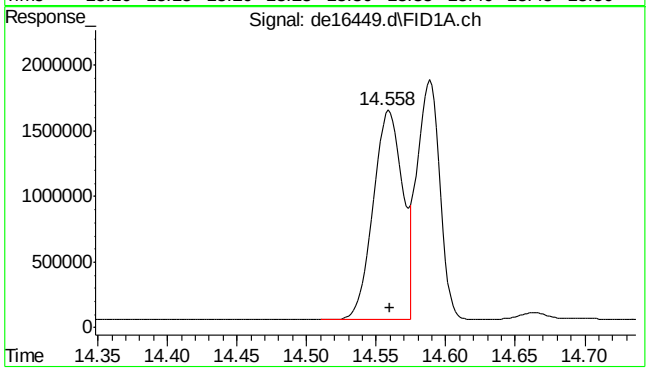
#14 benzo(a)anthracene

R.T.: 13.252 min
Delta R.T.: -0.002 min
Response: 2173483
Conc: 24.82 µg/ml



#15 chrysene

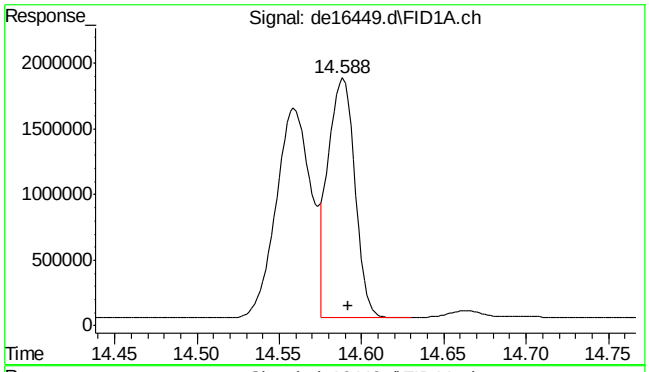
R.T.: 13.300 min
Delta R.T.: -0.002 min
Response: 2191311
Conc: 24.71 µg/ml



#16 benzo(B)fluoranthene

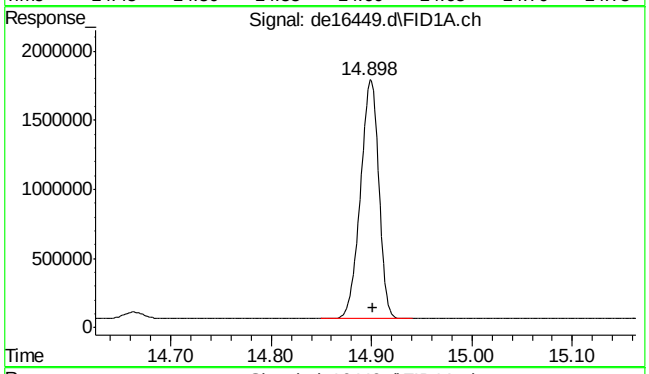
R.T.: 14.558 min
Delta R.T.: -0.002 min
Response: 2390004
Conc: 26.73 µg/ml

SGS ACCUTEST MC48999



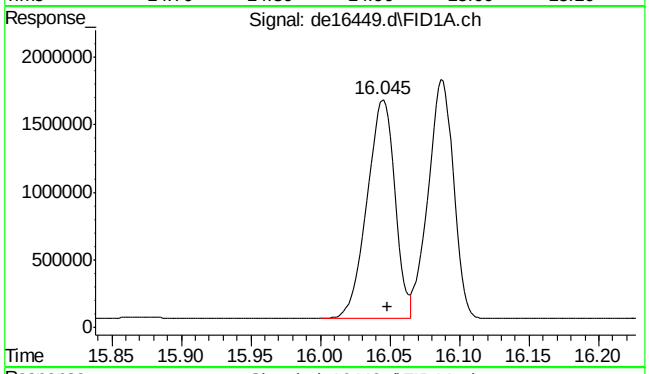
#17 benzo(k)fluoranthene

R.T.: 14.588 min
Delta R.T.: -0.003 min
Response: 2045851
Conc: 23.69 µg/ml



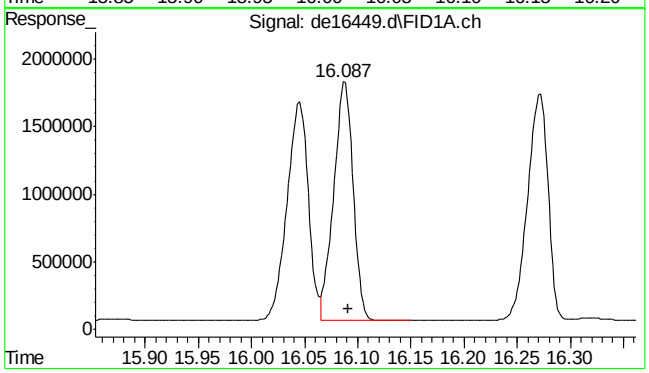
#18 benzo(a)pyrene

R.T.: 14.898 min
Delta R.T.: -0.003 min
Response: 2185763
Conc: 24.86 µg/ml



#19 indeno(1,2,3-cd)pyrene

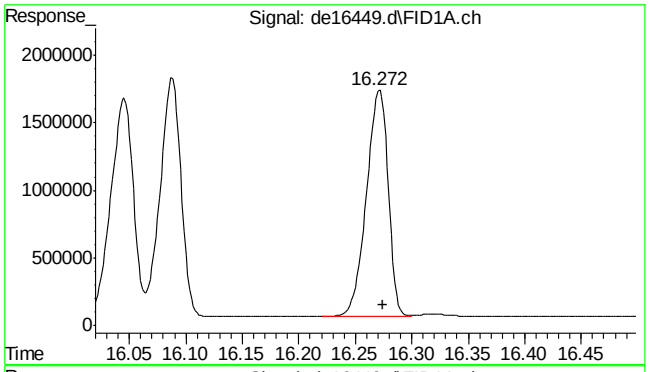
R.T.: 16.045 min
Delta R.T.: -0.003 min
Response: 2245523
Conc: 25.90 µg/ml



#20 dibenzo(ah)anthracene

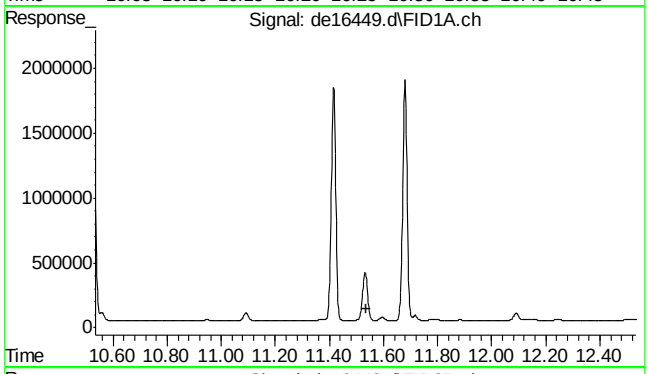
R.T.: 16.087 min
Delta R.T.: -0.005 min
Response: 2224712
Conc: 26.57 µg/ml

SGS ACCUTEST MC48999



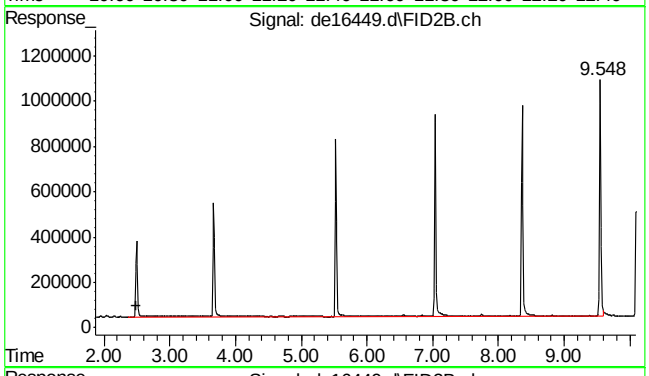
#21 benzo(ghi)perylene

R.T.: 16.272 min
Delta R.T.: -0.003 min
Response: 2240361
Conc: 26.00 µg/ml



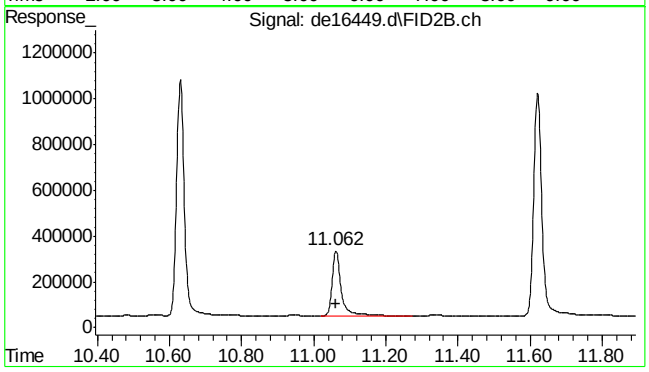
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



#25 c-9

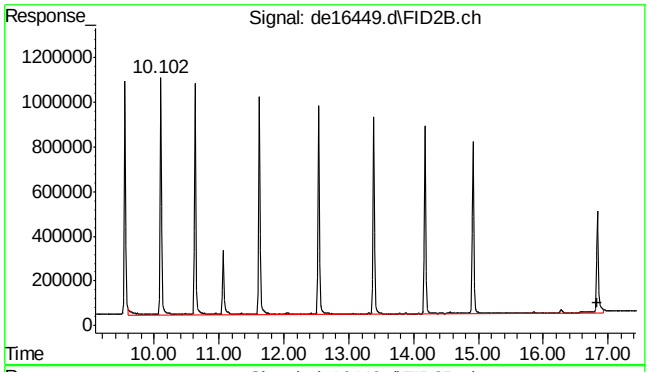
R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 7117224
Conc: 92.51 µg/ml m



#35 1-chlorooctadecane

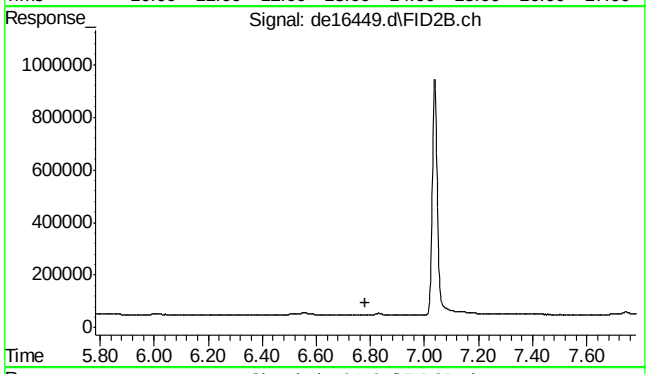
R.T.: 11.062 min
Delta R.T.: -0.002 min
Response: 496234
Conc: 8.72 µg/ml

SGS ACCUTEST MC48999



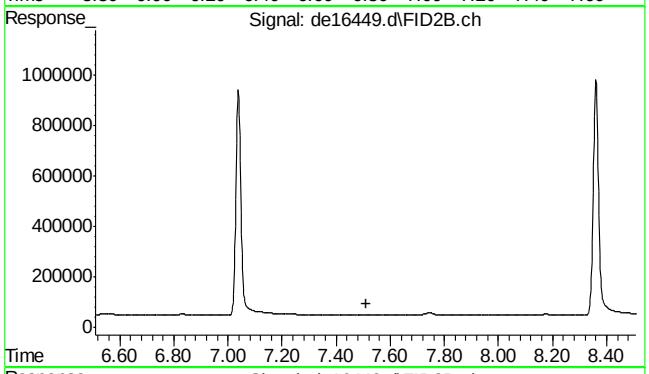
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 11948152
Conc: 176.23 µg/ml m



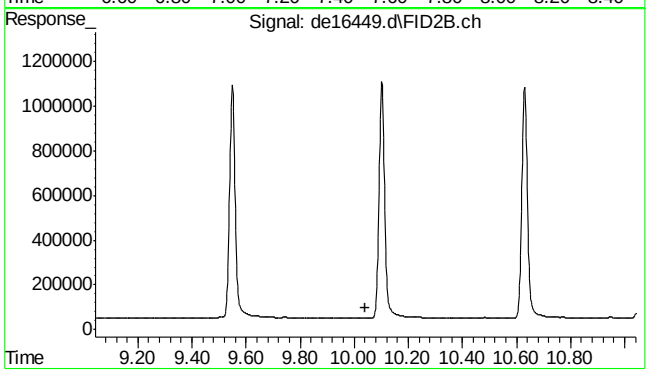
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



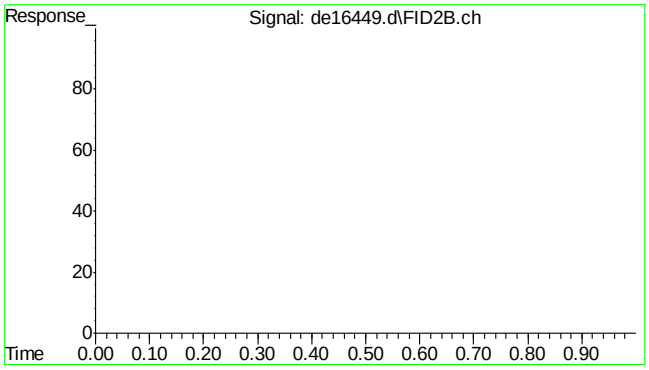
#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.

9.4.3

9

SGS ACCUTEST MC48999



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

9.4.3

9

de16449.d EPH161220aW.M Wed Dec 21 13:04:13 2016 Page 11

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16450.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 8:24 pm
Operator : thomasa
Sample : op49293-msd
Misc : op49293,gde918,900,,,2,,w
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:45:00 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.225	1227452	14.039 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 70.19%#		
6) s 2-bromonaphthalene	7.973	870991	14.617 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 73.08%#		
11) s o-terphenyl	10.527	1360444	14.336 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 71.68%#		
35) s 1-chlorooctadecane	11.062	533230	9.373 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 46.86%#		
Target Compounds			
1) h c11-c22 Aromatics (Un...	5.815	28097173	281.131 µg/mlm
2) naphthalene	5.782	931018	9.516 µg/ml
3) 2-methylnaphthalene	6.678	1048808	11.020 µg/ml
5) acenaphthylene	7.807	1167861	12.213 µg/ml
7) acenaphthene	8.050	1261158	13.146 µg/ml
8) fluorene	8.698	1331425	14.201 µg/ml
9) phenanthrene	9.893	1522191	16.308 µg/ml
10) anthracene	9.950	1568007	17.057 µg/ml
12) fluoranthene	11.415	1658392	18.281 µg/ml
13) pyrene	11.678	1644856	17.997 µg/ml
14) benzo(a)anthracene	13.250	1707996	19.505 µg/ml
15) chrysene	13.297	1728502	19.490 µg/ml
16) benzo(B)fluoranthene	14.557	1810317	20.244 µg/ml
17) benzo(k)fluoranthene	14.587	1665073	19.283 µg/ml
18) benzo(a)pyrene	14.898	1713538	19.493 µg/ml
19) indeno(1,2,3-cd)pyrene	16.043	1739172	20.057 µg/ml
20) dibenzo(ah)anthracene	16.085	1747648	20.876 µg/ml
21) benzo(ghi)perylene	16.268	1743920	20.237 µg/ml
25) h c-9	2.495	6861424	89.181 µg/mlm
41) h c-36	16.838	11793376	173.947 µg/mlm

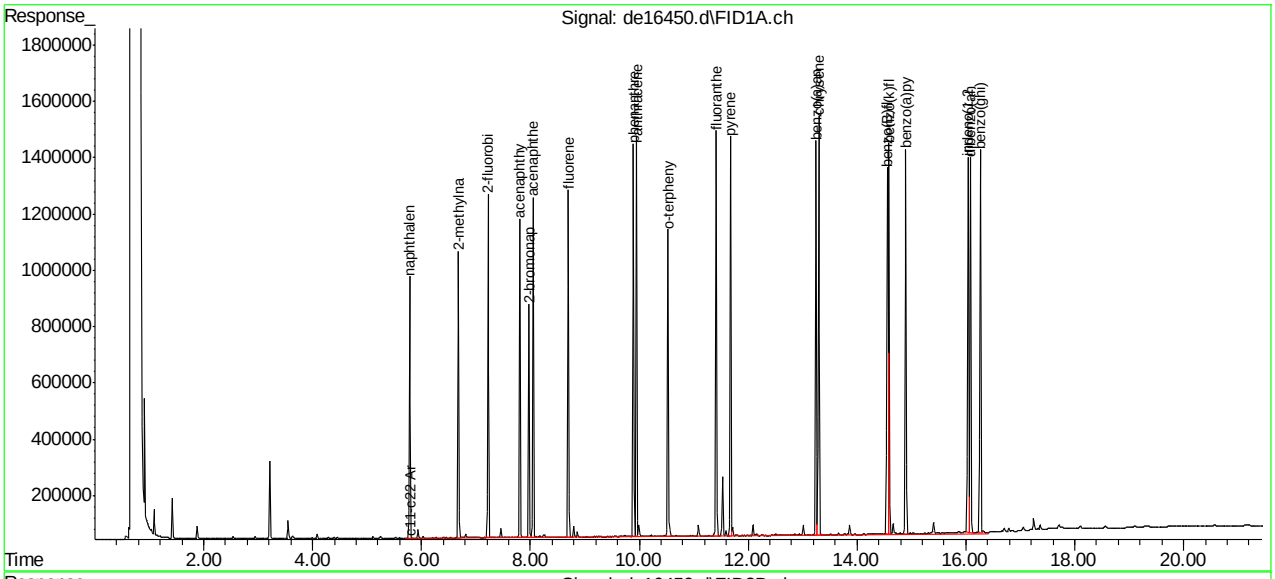
(f)=RT Delta > 1/2 Window (m)=manual int.

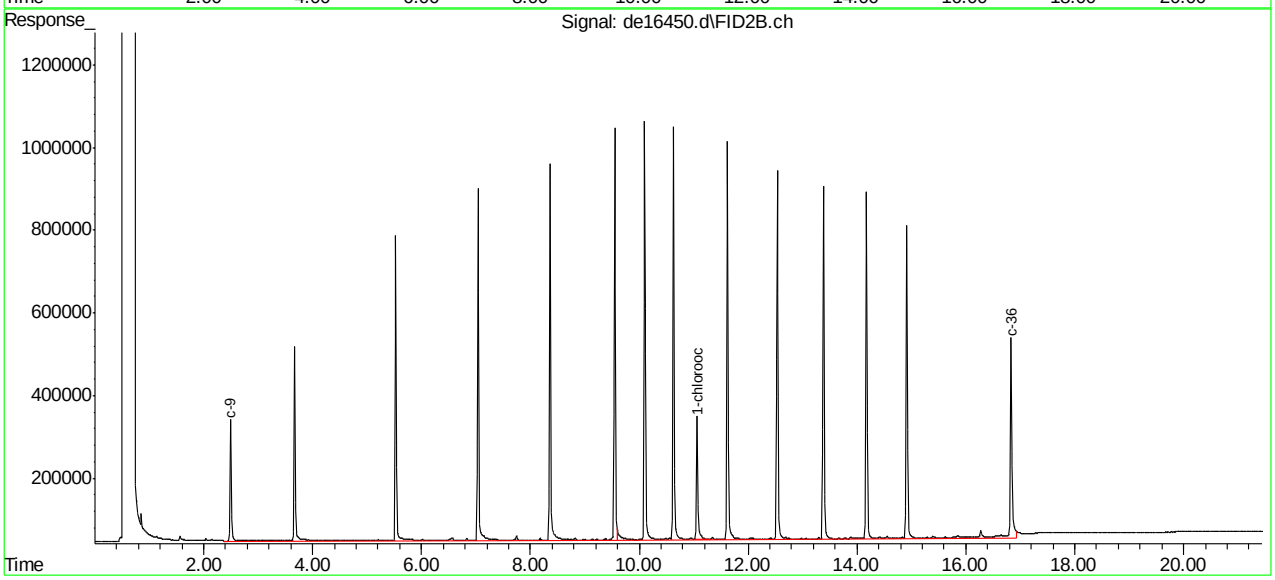
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16450.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 8:24 pm
Operator : thomasa
Sample : op49293-msd
Misc : op49293,gde918,900,,,2,,w
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:45:00 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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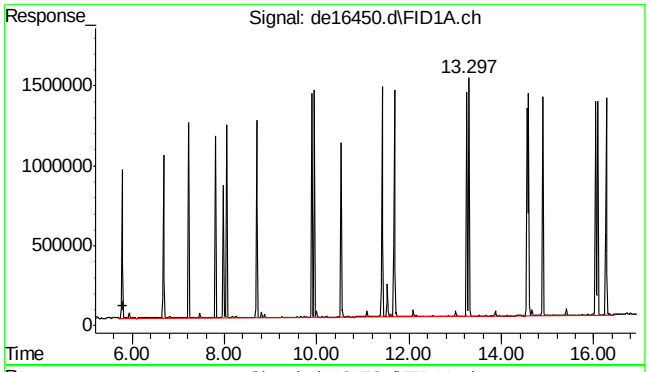
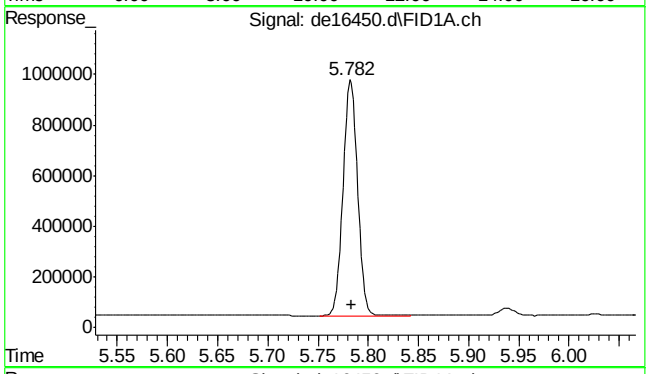


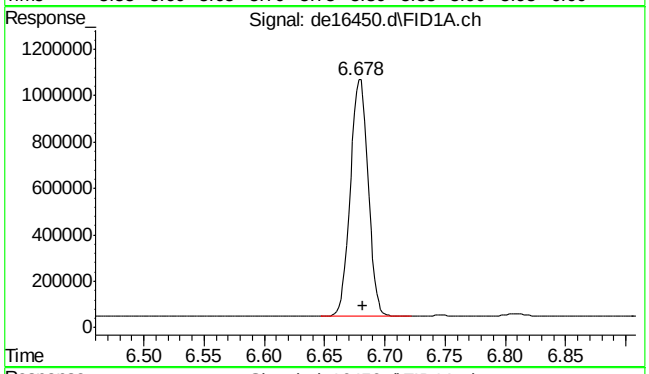
#1 c11-c22 Aromatics (Unadj.)

R.T.: 5.815 min
Delta R.T.: 0.000 min
Response: 28097173
Conc: 281.13 µg/ml m



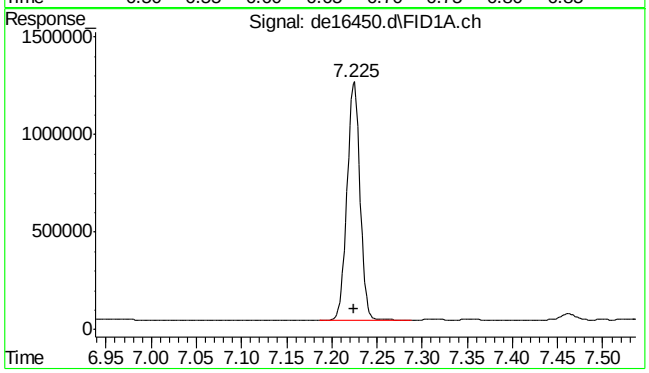
#2 naphthalene

R.T.: 5.782 min
Delta R.T.: -0.002 min
Response: 931018
Conc: 9.52 µg/ml



#3 2-methylnaphthalene

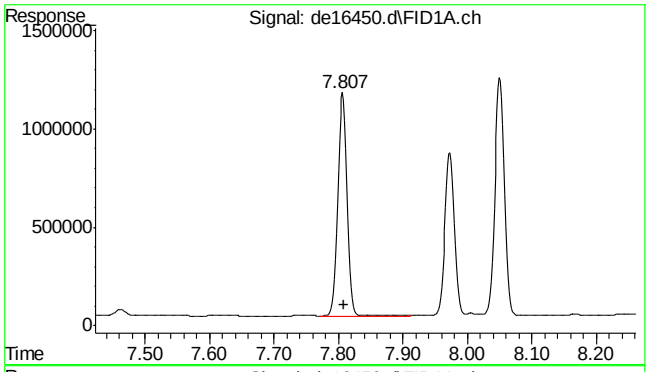
R.T.: 6.678 min
Delta R.T.: -0.003 min
Response: 1048808
Conc: 11.02 µg/ml



#4 2-fluorobiphenyl

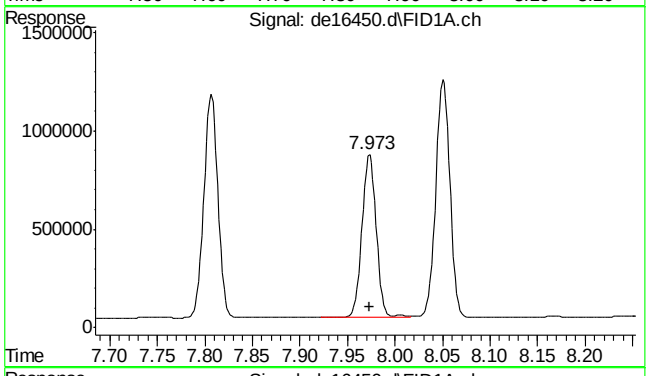
R.T.: 7.225 min
Delta R.T.: 0.000 min
Response: 1227452
Conc: 14.04 µg/ml

SGS ACCUTEST MC48999



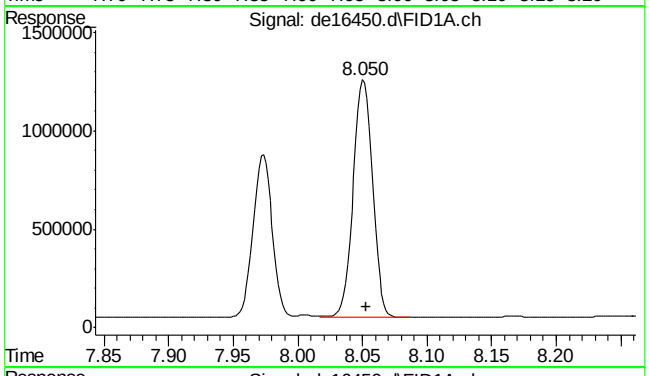
#5 acenaphthylene

R.T.: 7.807 min
Delta R.T.: -0.002 min
Response: 1167861
Conc: 12.21 µg/ml



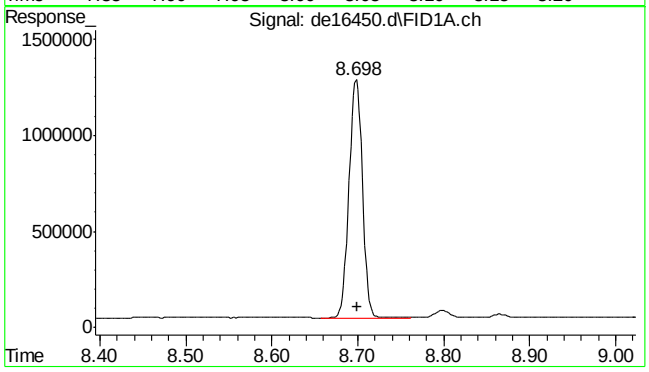
#6 2-bromonaphthalene

R.T.: 7.973 min
Delta R.T.: 0.000 min
Response: 870991
Conc: 14.62 µg/ml



#7 acenaphthene

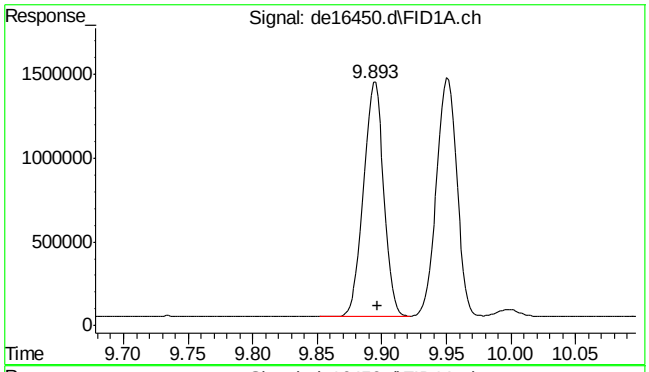
R.T.: 8.050 min
Delta R.T.: -0.003 min
Response: 1261158
Conc: 13.15 µg/ml



#8 fluorene

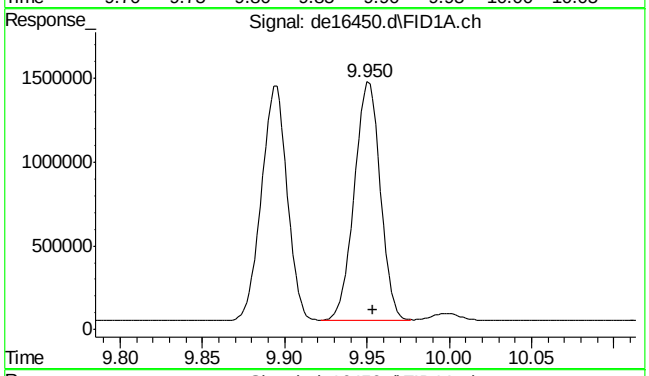
R.T.: 8.698 min
Delta R.T.: -0.002 min
Response: 1331425
Conc: 14.20 µg/ml

SGS ACCUTEST MC48999



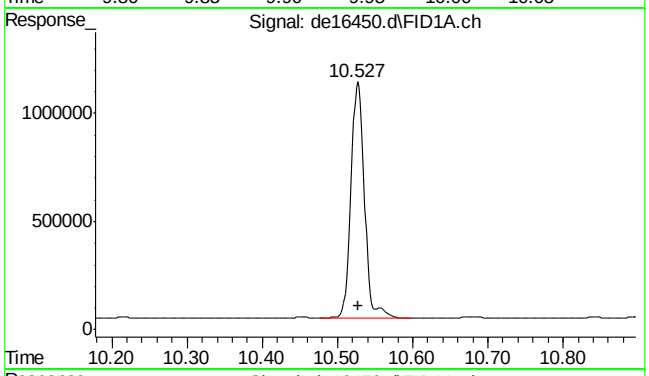
#9 phenanthrene

R.T.: 9.893 min
Delta R.T.: -0.003 min
Response: 1522191
Conc: 16.31 µg/ml



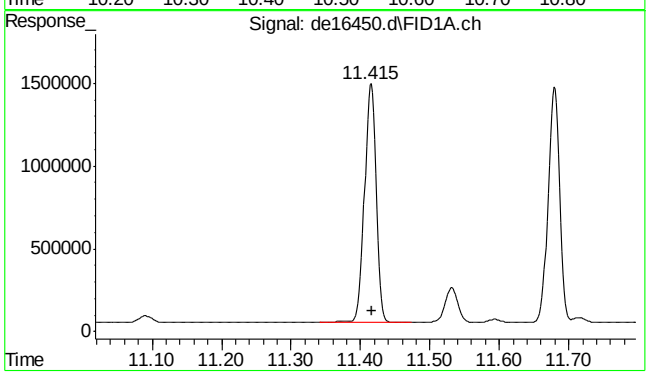
#10 anthracene

R.T.: 9.950 min
Delta R.T.: -0.003 min
Response: 1568007
Conc: 17.06 µg/ml



#11 o-terphenyl

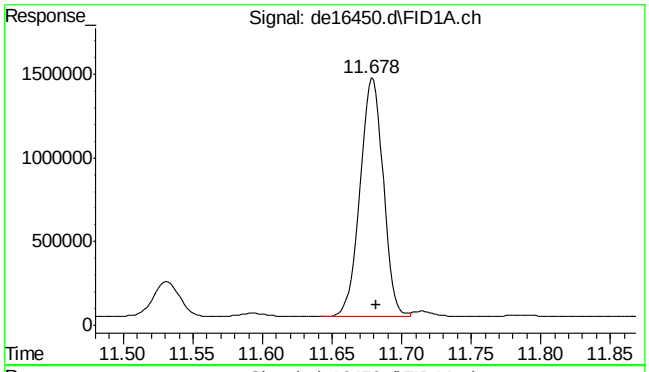
R.T.: 10.527 min
Delta R.T.: -0.002 min
Response: 1360444
Conc: 14.34 µg/ml



#12 fluoranthene

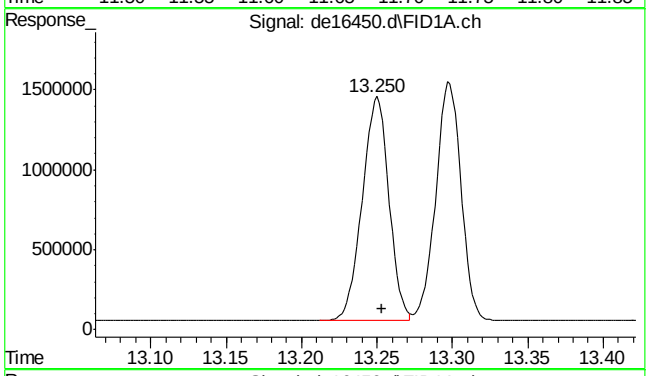
R.T.: 11.415 min
Delta R.T.: -0.002 min
Response: 1658392
Conc: 18.28 µg/ml

SGS ACCUTEST MC48999



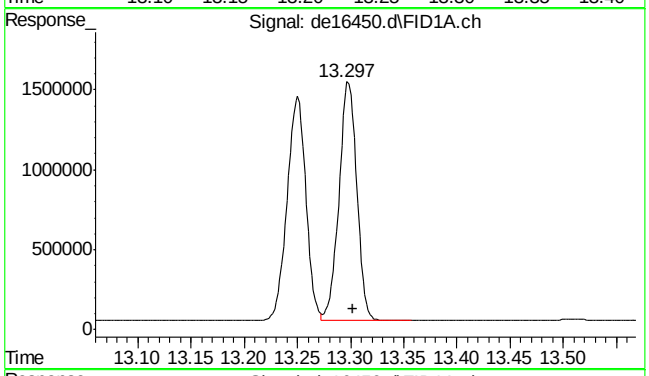
#13 pyrene

R.T.: 11.678 min
Delta R.T.: -0.003 min
Response: 1644856
Conc: 18.00 µg/ml



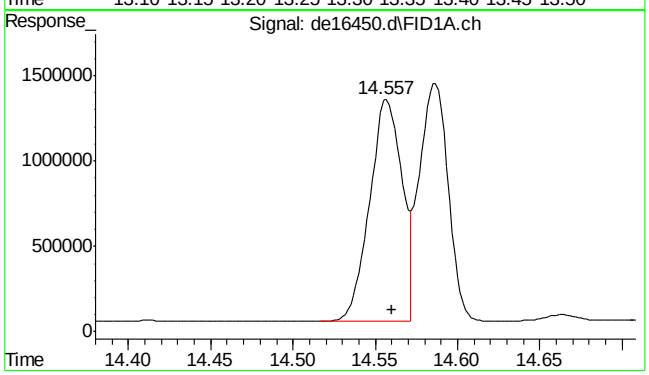
#14 benzo(a)anthracene

R.T.: 13.250 min
Delta R.T.: -0.003 min
Response: 1707996
Conc: 19.50 µg/ml



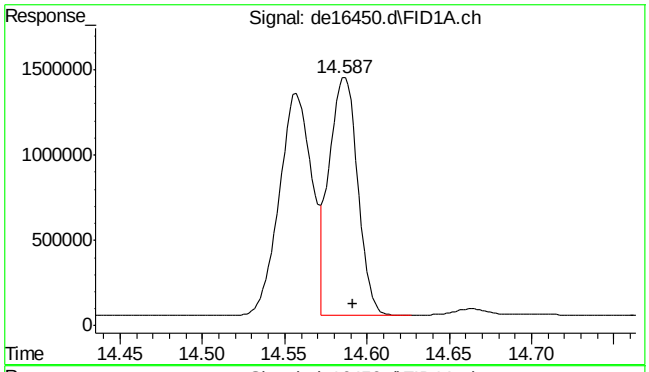
#15 chrysene

R.T.: 13.297 min
Delta R.T.: -0.005 min
Response: 1728502
Conc: 19.49 µg/ml



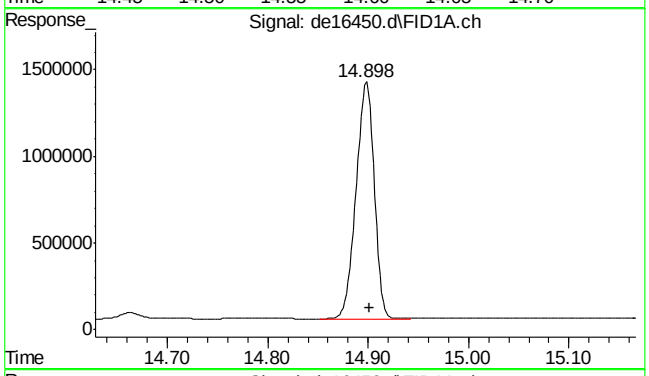
#16 benzo(B)fluoranthene

R.T.: 14.557 min
Delta R.T.: -0.003 min
Response: 1810317
Conc: 20.24 µg/ml



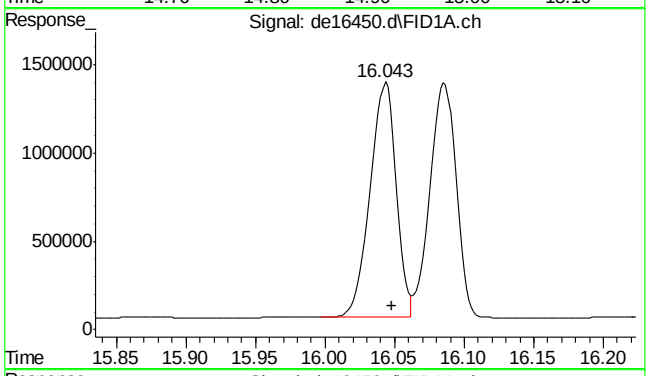
#17 benzo(k)fluoranthene

R.T.: 14.587 min
Delta R.T.: -0.005 min
Response: 1665073
Conc: 19.28 µg/ml



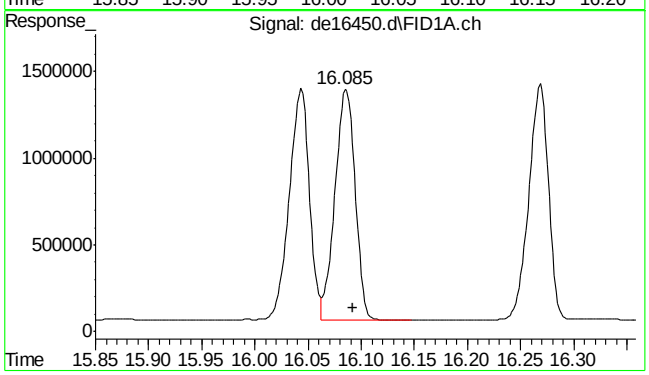
#18 benzo(a)pyrene

R.T.: 14.898 min
Delta R.T.: -0.003 min
Response: 1713538
Conc: 19.49 µg/ml



#19 indeno(1,2,3-cd)pyrene

R.T.: 16.043 min
Delta R.T.: -0.005 min
Response: 1739172
Conc: 20.06 µg/ml



#20 dibenzo(ah)anthracene

R.T.: 16.085 min
Delta R.T.: -0.007 min
Response: 1747648
Conc: 20.88 µg/ml

9.4.4

9

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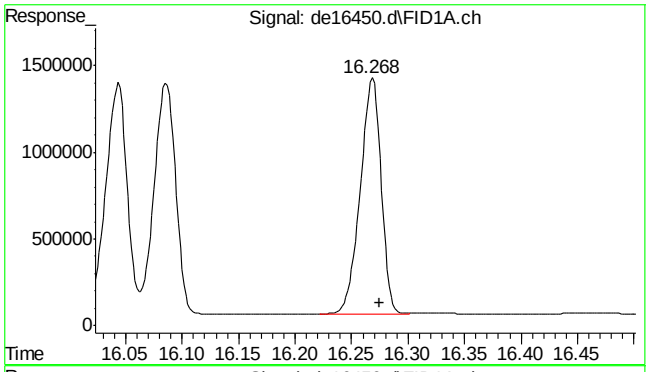
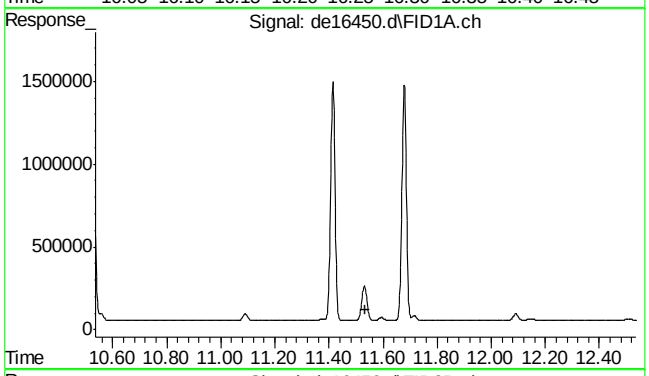


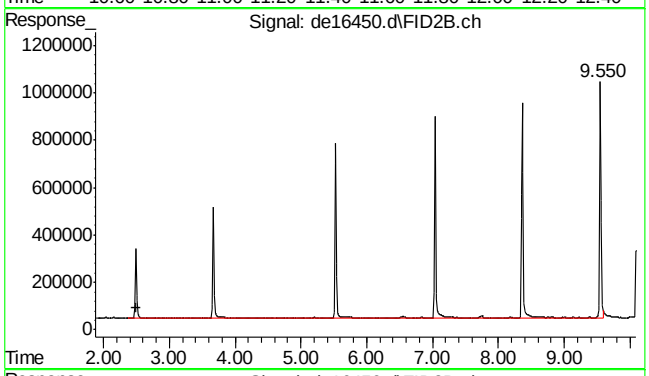
#21 benzo(ghi)perylene

R.T.: 16.268 min
Delta R.T.: -0.007 min
Response: 1743920
Conc: 20.24 µg/ml



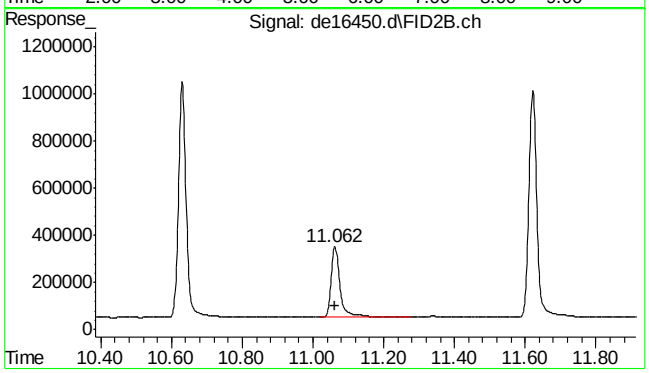
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



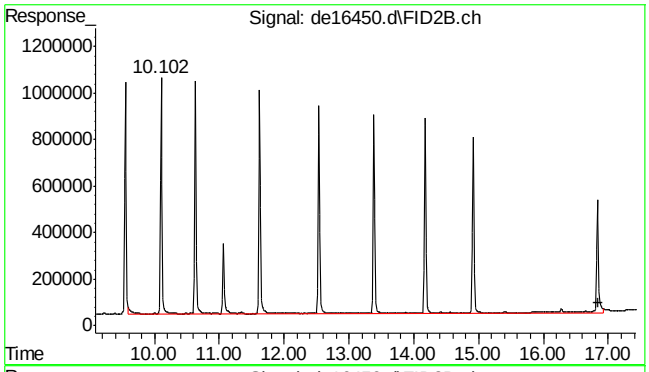
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 6861424
Conc: 89.18 µg/ml m



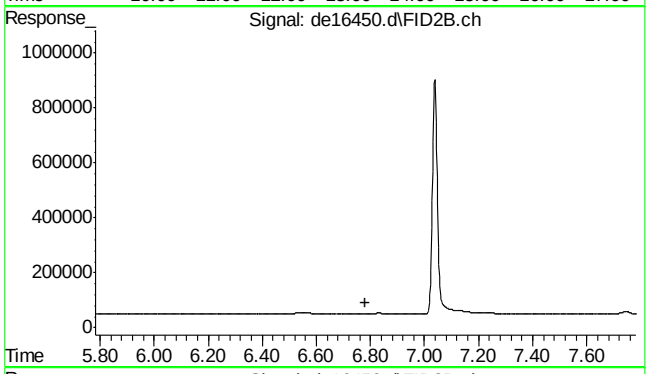
#35 1-chlorooctadecane

R.T.: 11.062 min
Delta R.T.: -0.002 min
Response: 533230
Conc: 9.37 µg/ml



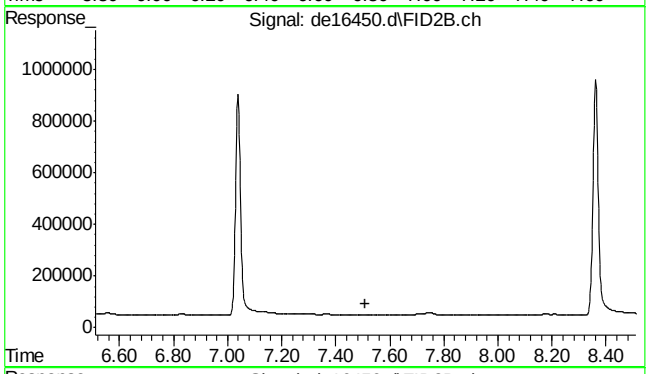
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 11793376
Conc: 173.95 µg/ml m



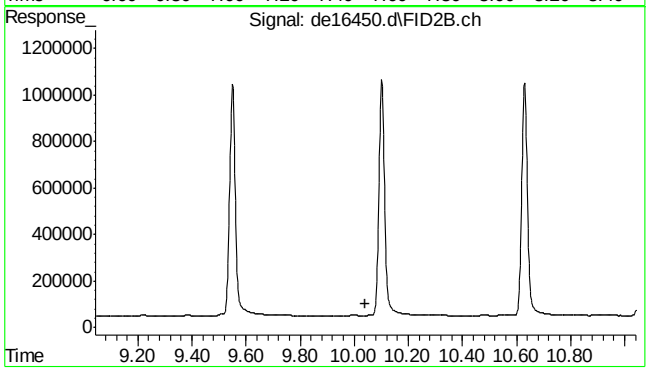
#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.



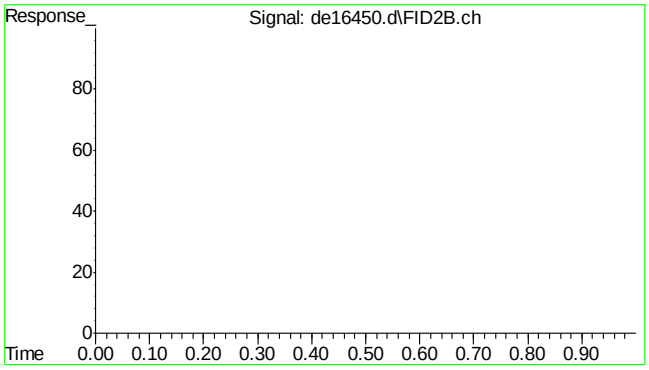
#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.

9.4.4

9

SGS ACCUTEST MC48999



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

9.4.4

9

SGS ACCUTEST MC48999

Manual Integrations APPROVED (compounds with "m" flag)
Andri Piluri
12/07/16 16:10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16234.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:08 pm
Operator : thomasa
Sample : ic908-1
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:38:28 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 06 14:08:03 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.225	90962	0.611 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 3.06%#		
6) s 2-bromonaphthalene	7.975	62352	0.616 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 3.08%#		
11) s o-terphenyl	10.528	102114	0.620 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 3.10%#		
35) s 1-chlorooctadecane	11.070	48735	0.869 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 4.35%#		
Target Compounds			
2) naphthalene	5.785	100723	0.611 µg/ml
3) 2-methylnaphthalene	6.680	99929	0.670 µg/ml
5) acenaphthylene	7.807	101294	0.629 µg/ml
7) acenaphthene	8.052	100638	0.613 µg/ml
8) fluorene	8.698	99222	0.610 µg/ml
9) phenanthrene	9.893	100105	0.626 µg/ml
10) anthracene	9.950	98019	0.604 µg/ml
12) fluoranthene	11.415	98320	0.619 µg/ml
13) pyrene	11.680	96611	0.608 µg/ml
14) benzo(a)anthracene	13.248	92524	0.592 µg/ml
15) chrysene	13.297	94106	0.604 µg/ml
16) benzo(B)fluoranthene	14.555	94486	0.590 µg/mlm
17) benzo(k)fluoranthene	14.582f	87548	0.584 µg/ml
18) benzo(a)pyrene	14.895	97758	0.639 µg/ml
19) indeno(1,2,3-cd)pyrene	16.037f	89944	0.577 µg/mlm
20) dibenzo(ah)anthracene	16.082	86273	0.621 µg/ml
21) benzo(ghi)perylene	16.262f	91660	0.637 µg/mlm
25) h c-9	2.495	75397	0.997 µg/mlm
26) h c-10	3.675	70862	0.937 µg/mlm
27) naphthalene #2	5.352	60304	0.783 µg/ml
28) c-12	5.535	68870	0.911 µg/ml
29) 2-methylnaphthalene #2	6.243	62110	0.821 µg/ml
30) c-14	7.045	63569	0.841 µg/ml
31) c-16	8.367	72095	0.954 µg/ml
32) c-18	9.555	68483	0.906 µg/ml
33) c-19	10.107	68418	1.021 µg/ml
34) c-20	10.637	63925	0.954 µg/ml
36) c-22	11.630	62737	0.937 µg/ml
37) c-24	12.545	64314	0.960 µg/ml
38) c-26	13.395	64790	0.967 µg/ml

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16234.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:08 pm
Operator : thomasa
Sample : ic908-1
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:38:28 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 06 14:08:03 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
39)	c-28	14.187	59080	0.882 µg/ml
40) h	c-30	14.927	67655	1.010 µg/mlm
41) h	c-36	16.838	13595	0.203 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.1

9

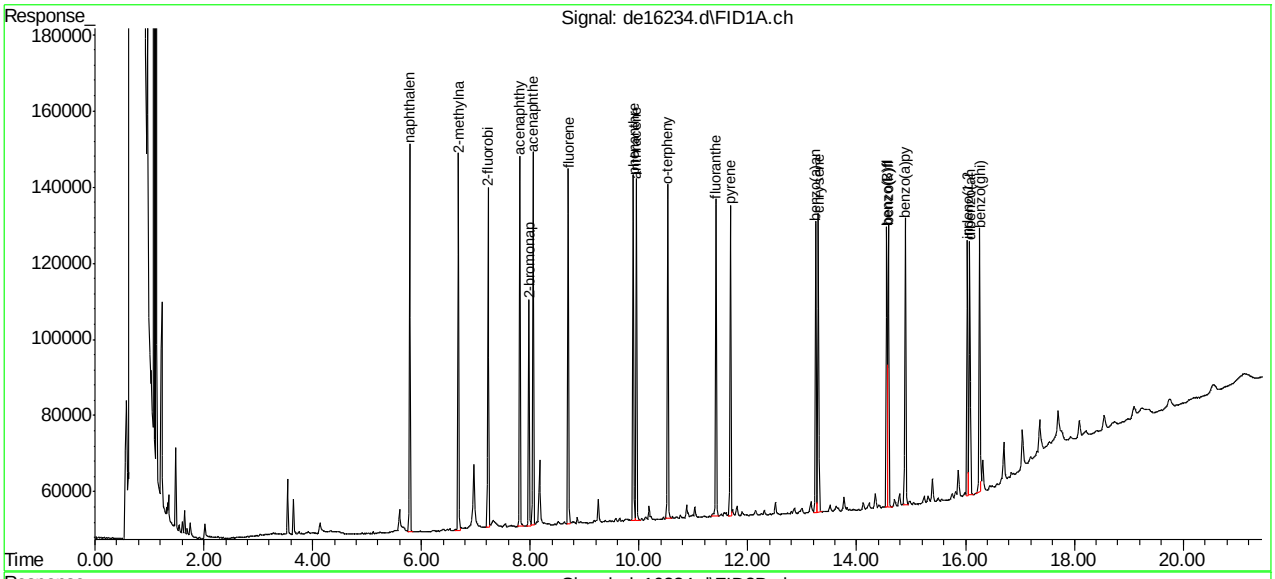
SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

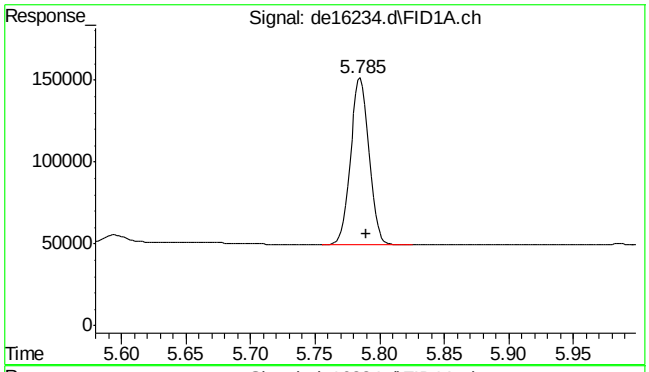
Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16234.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:08 pm
Operator : thomasa
Sample : ic908-1
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:38:28 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 06 14:08:03 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

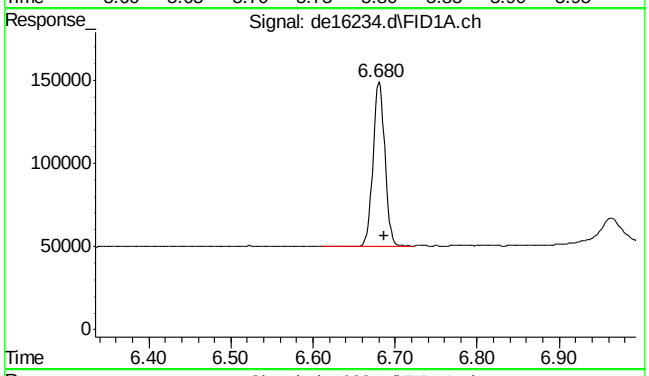


SGS ACCUTEST MC48999



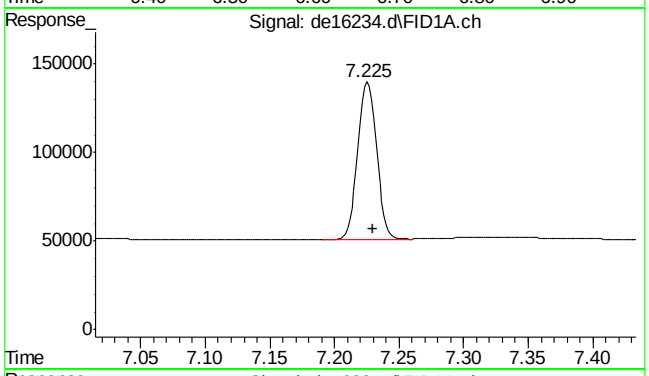
#2 naphthalene

R.T.: 5.785 min
Delta R.T.: -0.005 min
Response: 100723
Conc: 0.61 µg/ml



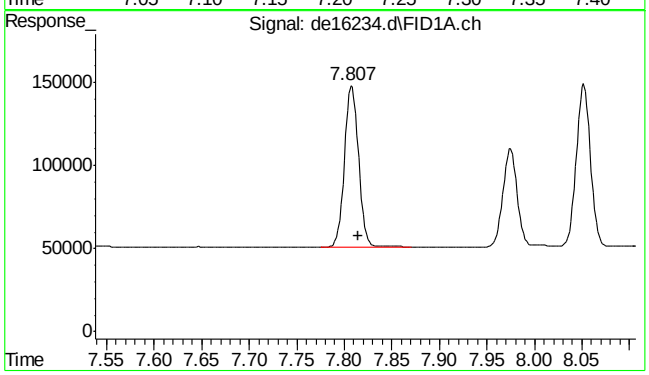
#3 2-methylnaphthalene

R.T.: 6.680 min
Delta R.T.: -0.007 min
Response: 99929
Conc: 0.67 µg/ml



#4 2-fluorobiphenyl

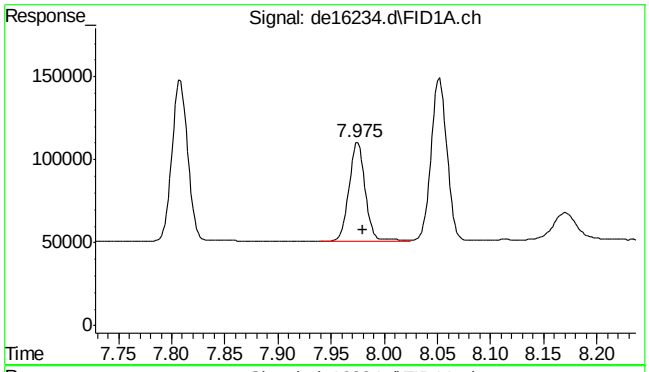
R.T.: 7.225 min
Delta R.T.: -0.005 min
Response: 90962
Conc: 0.61 µg/ml



#5 acenaphthylene

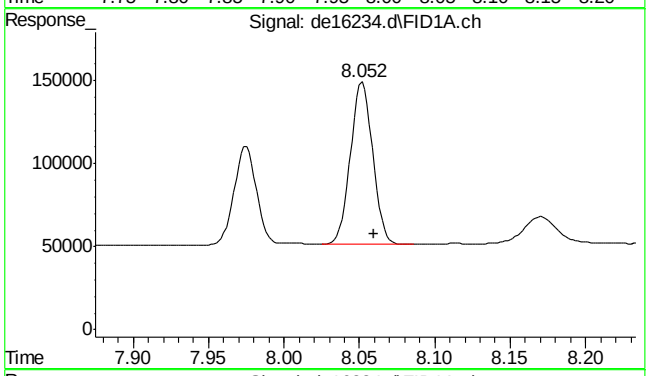
R.T.: 7.807 min
Delta R.T.: -0.008 min
Response: 101294
Conc: 0.63 µg/ml

SGS ACCUTEST MC48999



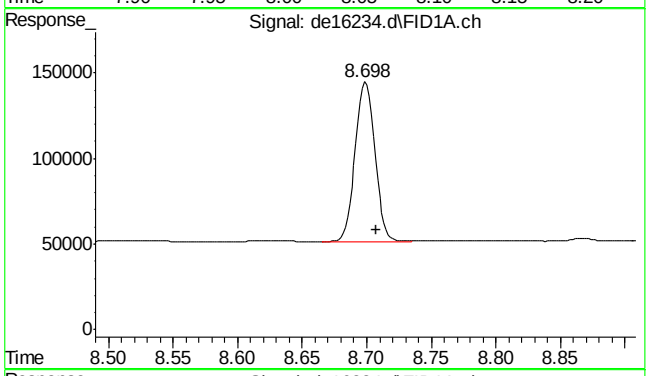
#6 2-bromonaphthalene

R.T.: 7.975 min
Delta R.T.: -0.005 min
Response: 62352
Conc: 0.62 µg/ml



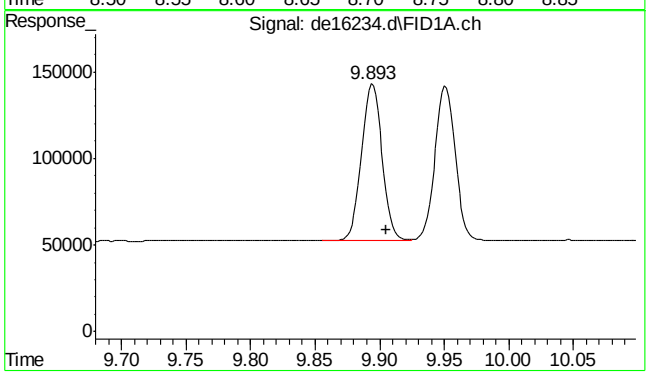
#7 acenaphthene

R.T.: 8.052 min
Delta R.T.: -0.008 min
Response: 100638
Conc: 0.61 µg/ml



#8 fluorene

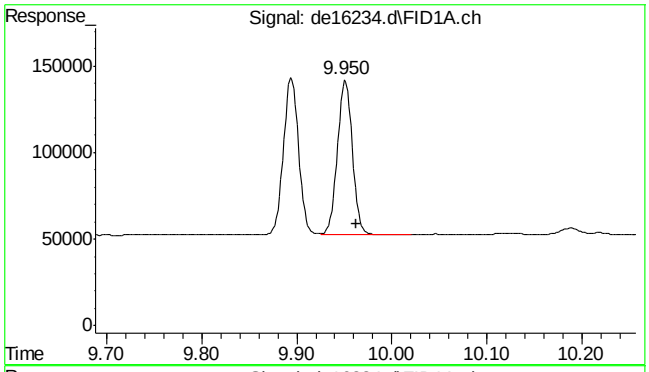
R.T.: 8.698 min
Delta R.T.: -0.009 min
Response: 99222
Conc: 0.61 µg/ml



#9 phenanthrene

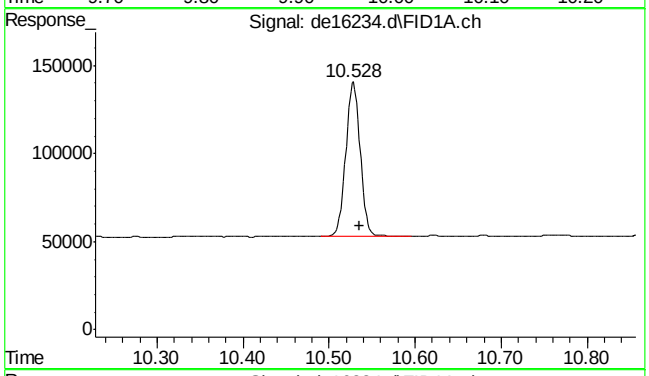
R.T.: 9.893 min
Delta R.T.: -0.012 min
Response: 100105
Conc: 0.63 µg/ml

SGS ACCUTEST MC48999



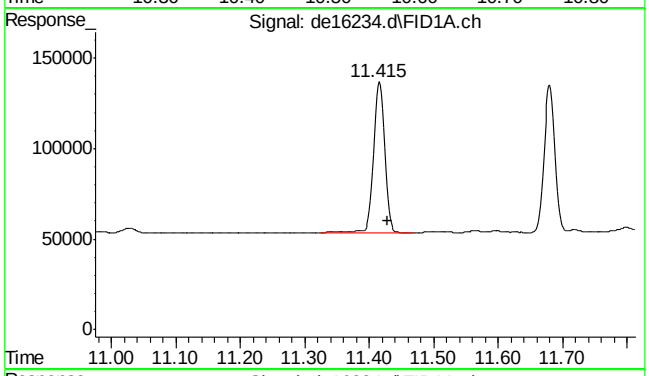
#10 anthracene

R.T.: 9.950 min
Delta R.T.: -0.013 min
Response: 98019
Conc: 0.60 µg/ml



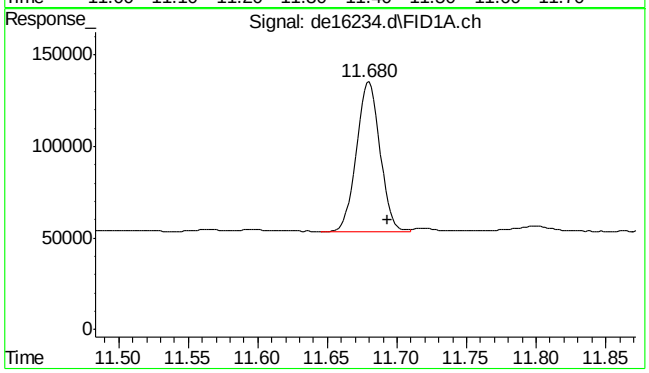
#11 o-terphenyl

R.T.: 10.528 min
Delta R.T.: -0.007 min
Response: 102114
Conc: 0.62 µg/ml



#12 fluoranthene

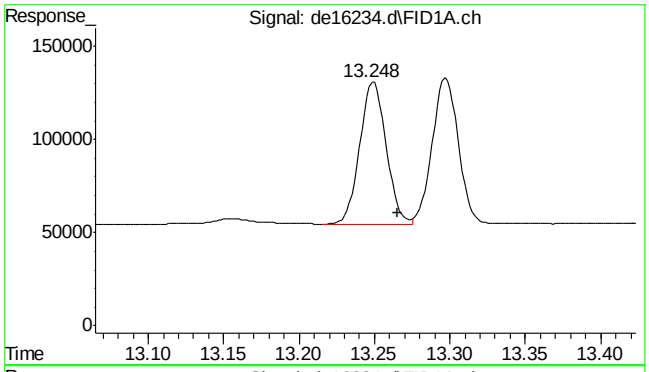
R.T.: 11.415 min
Delta R.T.: -0.013 min
Response: 98320
Conc: 0.62 µg/ml



#13 pyrene

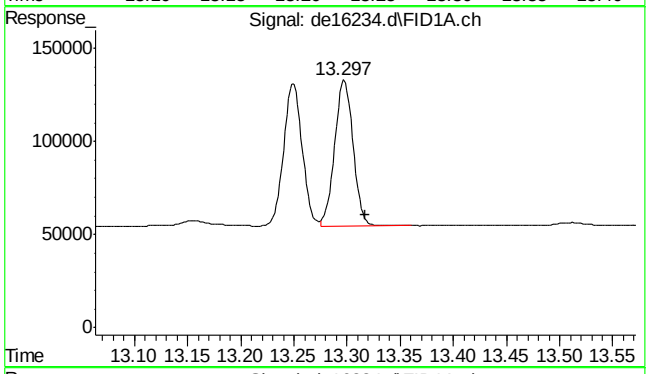
R.T.: 11.680 min
Delta R.T.: -0.013 min
Response: 96611
Conc: 0.61 µg/ml

SGS ACCUTEST MC48999



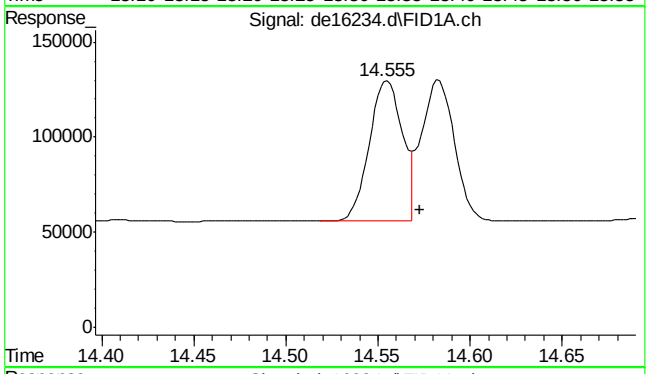
#14 benzo(a)anthracene

R.T.: 13.248 min
Delta R.T.: -0.017 min
Response: 92524
Conc: 0.59 µg/ml



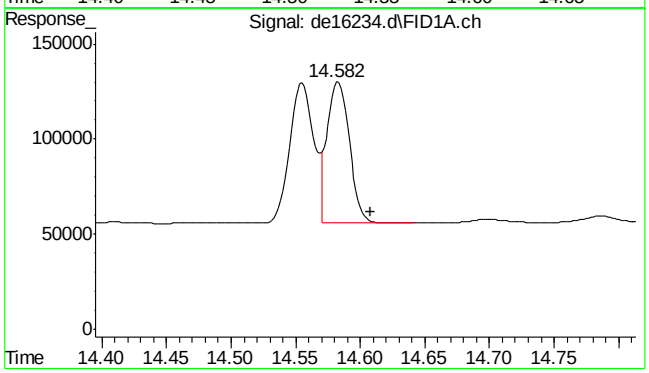
#15 chrysene

R.T.: 13.297 min
Delta R.T.: -0.020 min
Response: 94106
Conc: 0.60 µg/ml



#16 benzo(B)fluoranthene

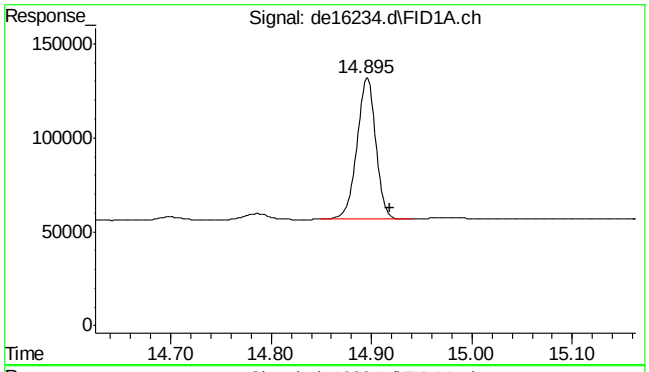
R.T.: 14.555 min
Delta R.T.: -0.018 min
Response: 94486
Conc: 0.59 µg/ml m



#17 benzo(k)fluoranthene

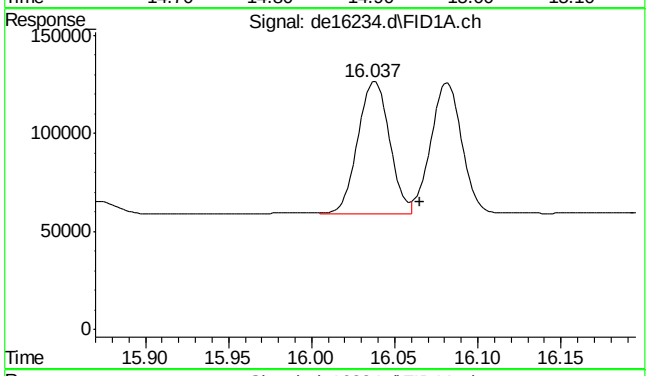
R.T.: 14.582 min
Delta R.T.: -0.026 min
Response: 87548
Conc: 0.58 µg/ml

SGS ACCUTEST MC48999



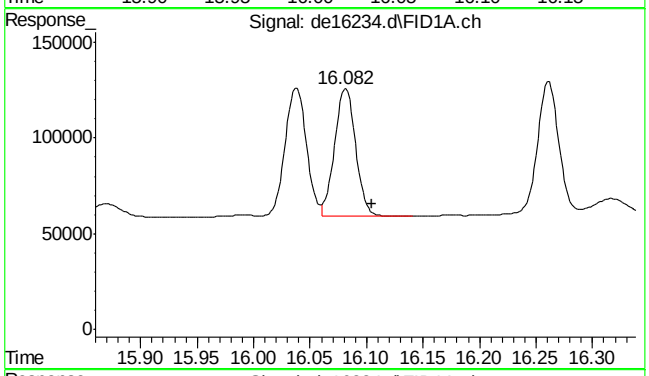
#18 benzo(a)pyrene

R.T.: 14.895 min
Delta R.T.: -0.023 min
Response: 97758
Conc: 0.64 µg/ml



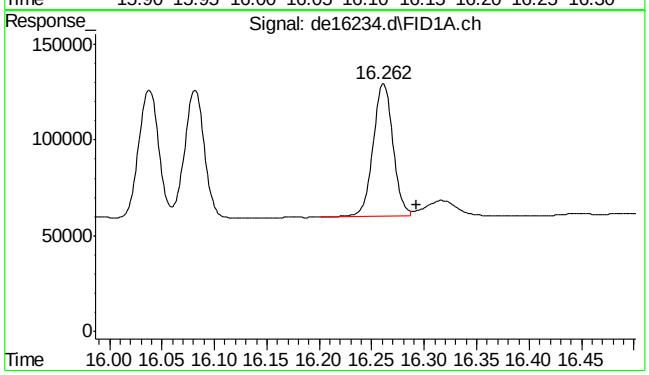
#19 indeno(1,2,3-cd)pyrene

R.T.: 16.037 min
Delta R.T.: -0.028 min
Response: 89944
Conc: 0.58 µg/ml m



#20 dibenzo(ah)anthracene

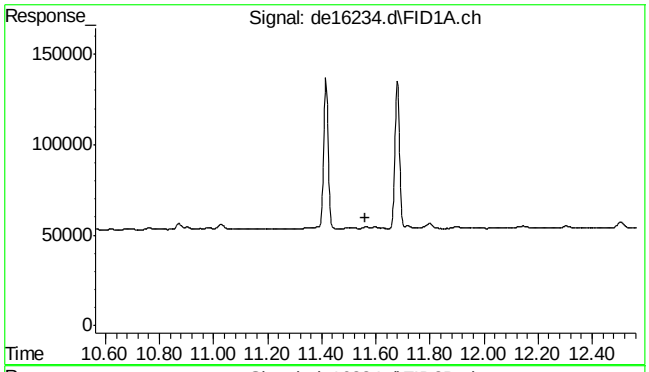
R.T.: 16.082 min
Delta R.T.: -0.023 min
Response: 86273
Conc: 0.62 µg/ml



#21 benzo(ghi)perylene

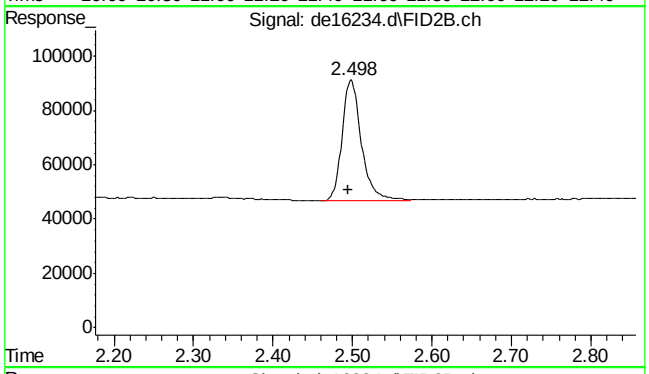
R.T.: 16.262 min
Delta R.T.: -0.031 min
Response: 91660
Conc: 0.64 µg/ml m

SGS ACCUTEST MC48999



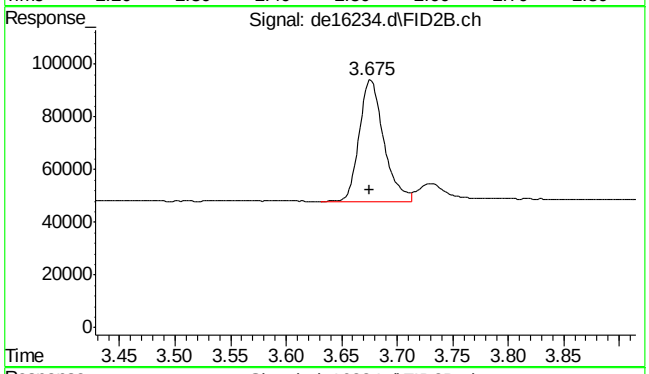
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.562 min
Response: 0
Conc: N.D.



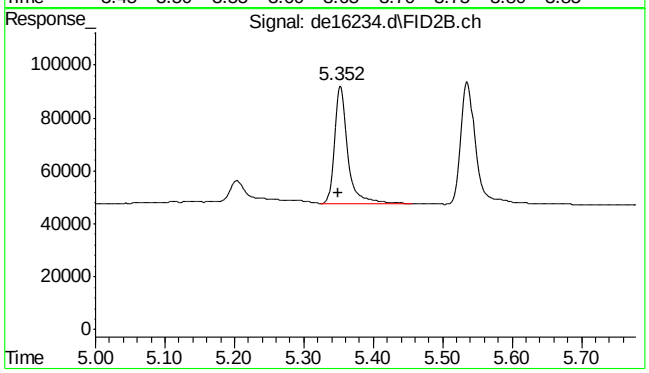
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 75397
Conc: 1.00 µg/ml m



#26 c-10

R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 70862
Conc: 0.94 µg/ml m



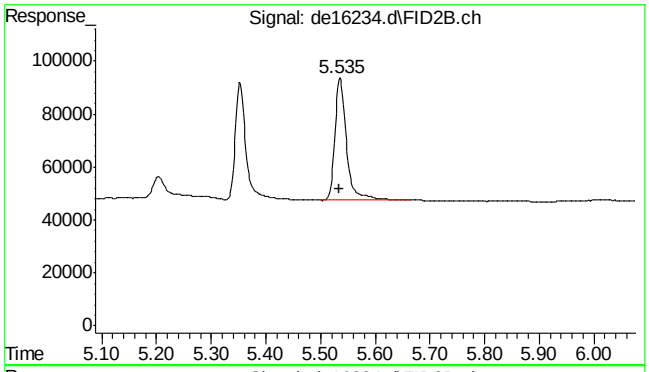
#27 naphthalene #2

R.T.: 5.352 min
Delta R.T.: 0.002 min
Response: 60304
Conc: 0.78 µg/ml

9.5.1

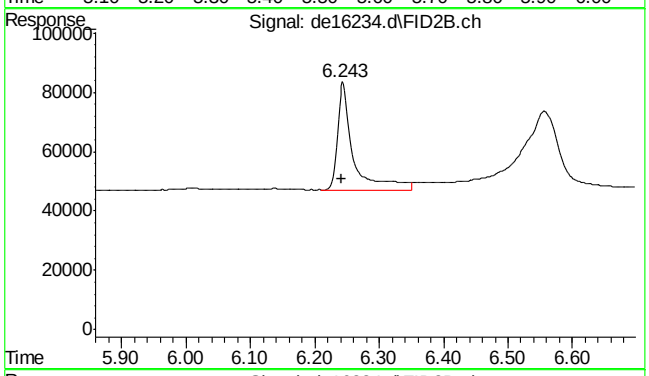
9

SGS ACCUTEST MC48999



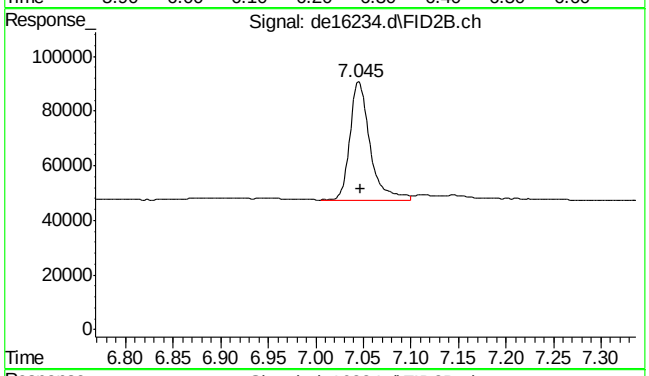
#28 c-12

R.T.: 5.535 min
Delta R.T.: 0.000 min
Response: 68870
Conc: 0.91 µg/ml



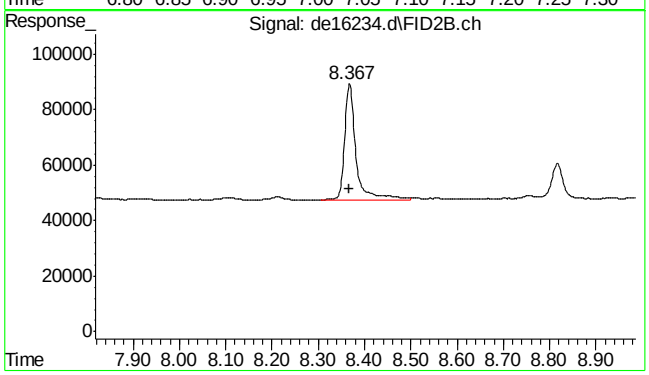
#29 2-methylnaphthalene #2

R.T.: 6.243 min
Delta R.T.: 0.001 min
Response: 62110
Conc: 0.82 µg/ml



#30 c-14

R.T.: 7.045 min
Delta R.T.: -0.002 min
Response: 63569
Conc: 0.84 µg/ml



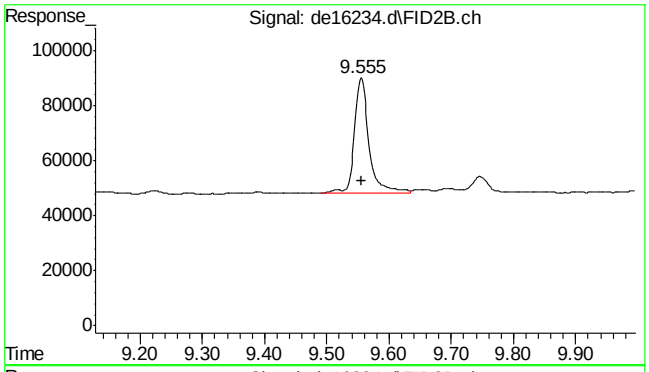
#31 c-16

R.T.: 8.367 min
Delta R.T.: -0.001 min
Response: 72095
Conc: 0.95 µg/ml

9.5.1

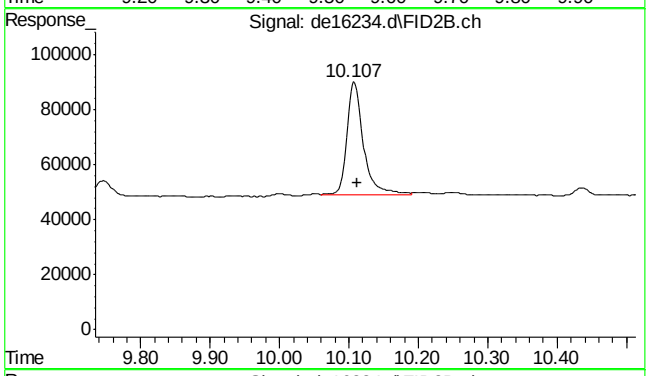
9

SGS ACCUTEST MC48999



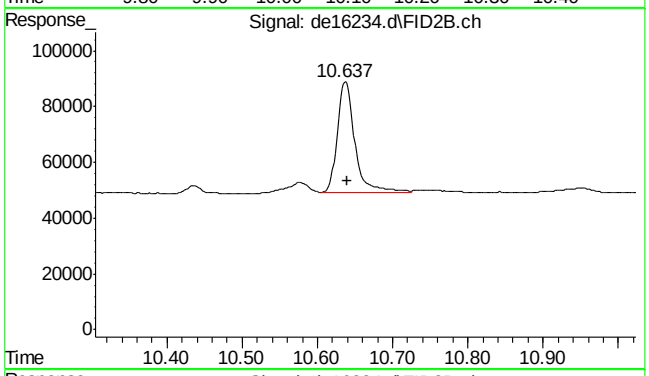
#32 c-18

R.T.: 9.555 min
Delta R.T.: -0.002 min
Response: 68483
Conc: 0.91 µg/ml



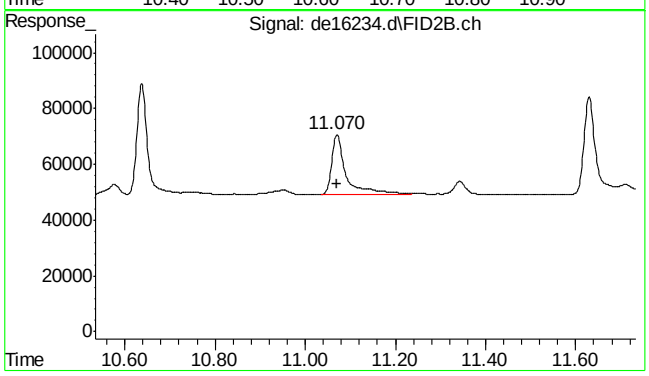
#33 c-19

R.T.: 10.107 min
Delta R.T.: -0.005 min
Response: 68418
Conc: 1.02 µg/ml



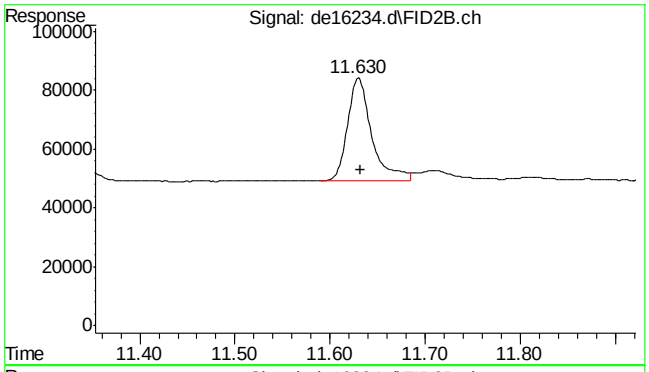
#34 c-20

R.T.: 10.637 min
Delta R.T.: -0.003 min
Response: 63925
Conc: 0.95 µg/ml



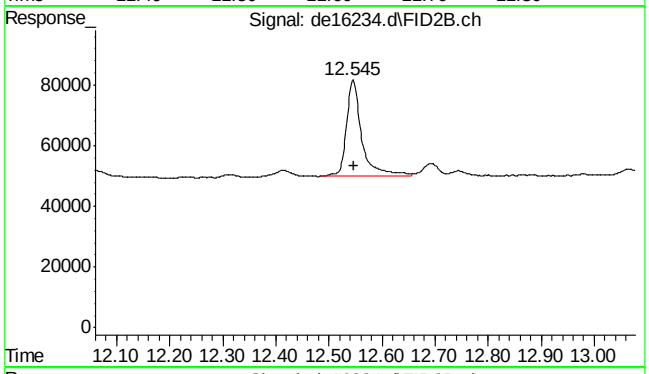
#35 1-chlorooctadecane

R.T.: 11.070 min
Delta R.T.: 0.000 min
Response: 48735
Conc: 0.87 µg/ml



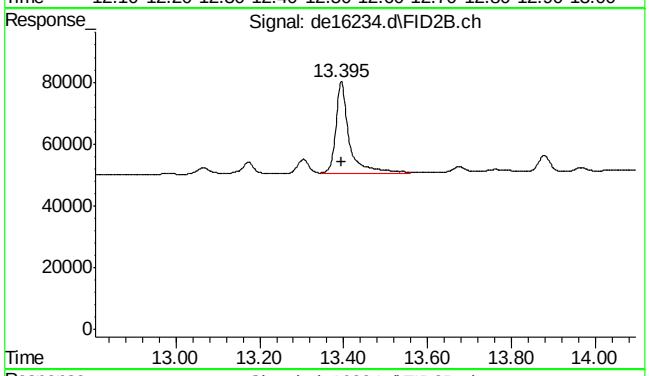
#36 c-22

R.T.: 11.630 min
Delta R.T.: -0.002 min
Response: 62737
Conc: 0.94 µg/ml



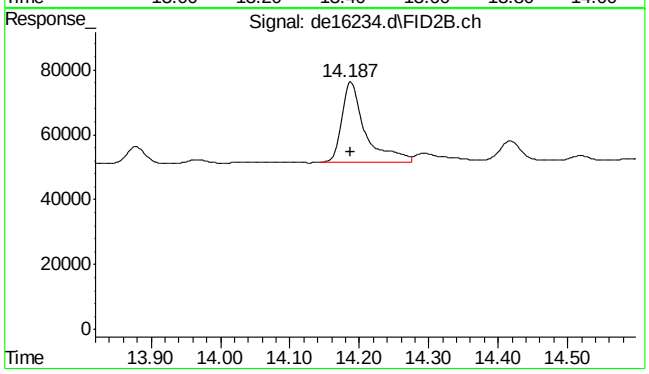
#37 c-24

R.T.: 12.545 min
Delta R.T.: -0.002 min
Response: 64314
Conc: 0.96 µg/ml



#38 c-26

R.T.: 13.395 min
Delta R.T.: 0.000 min
Response: 64790
Conc: 0.97 µg/ml



#39 c-28

R.T.: 14.187 min
Delta R.T.: 0.000 min
Response: 59080
Conc: 0.88 µg/ml

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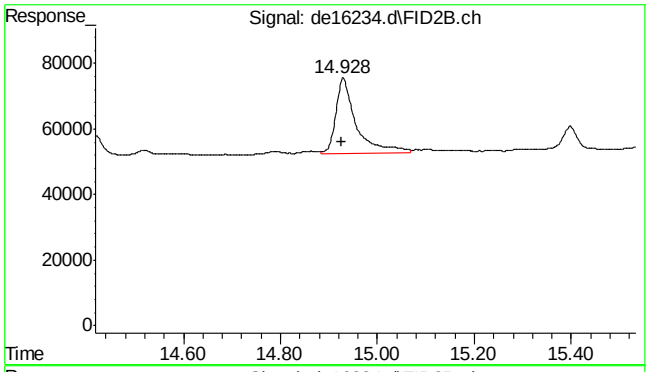
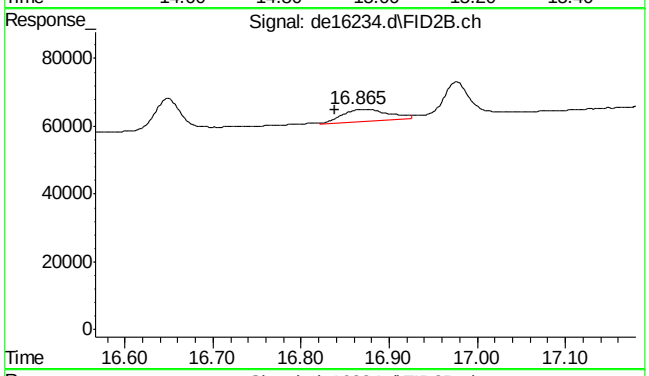


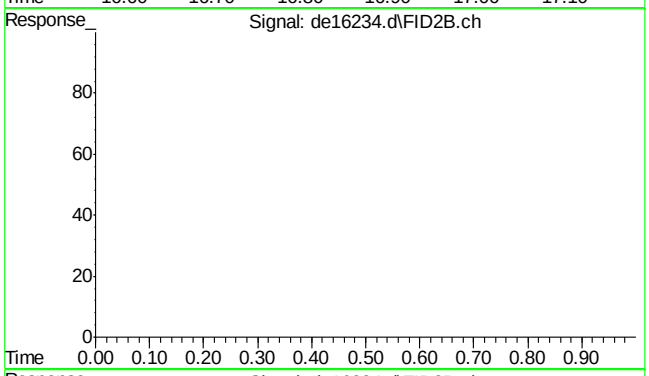
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 67655
Conc: 1.01 µg/ml m



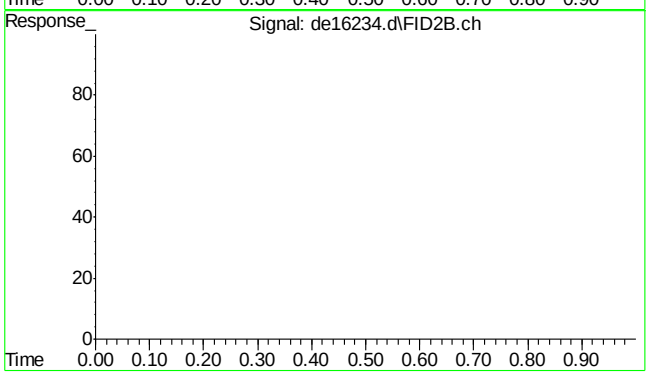
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 13595
Conc: 0.20 µg/ml m



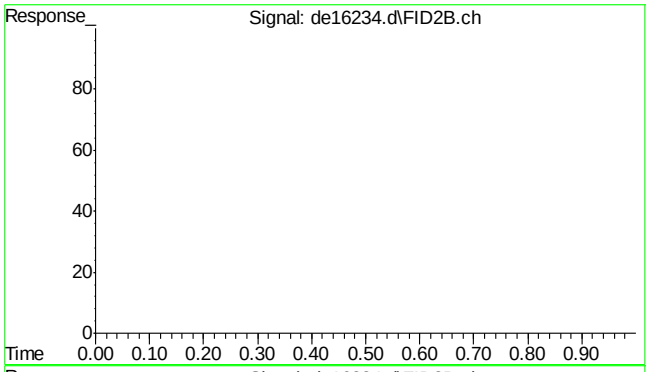
#42 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.



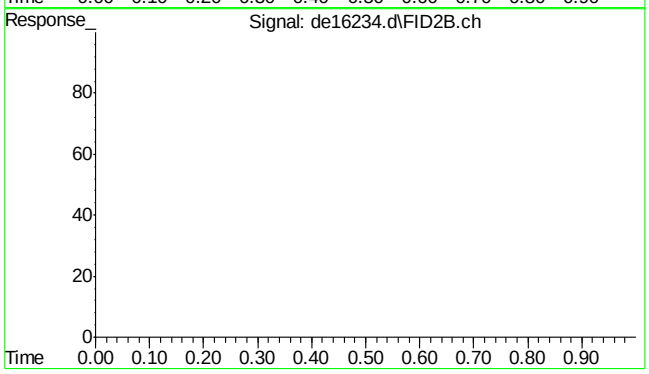
#43 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.



#44 bht

```
      R.T.:    0.000 min
Exp R.T.  :   23.000 min
  Response:         0
      Conc:   N.D.
```



#45 bht

```
      R.T.:    0.000 min
Exp R.T.  :   23.000 min
  Response:         0
      Conc:   N.D.
```

9.5.1

9

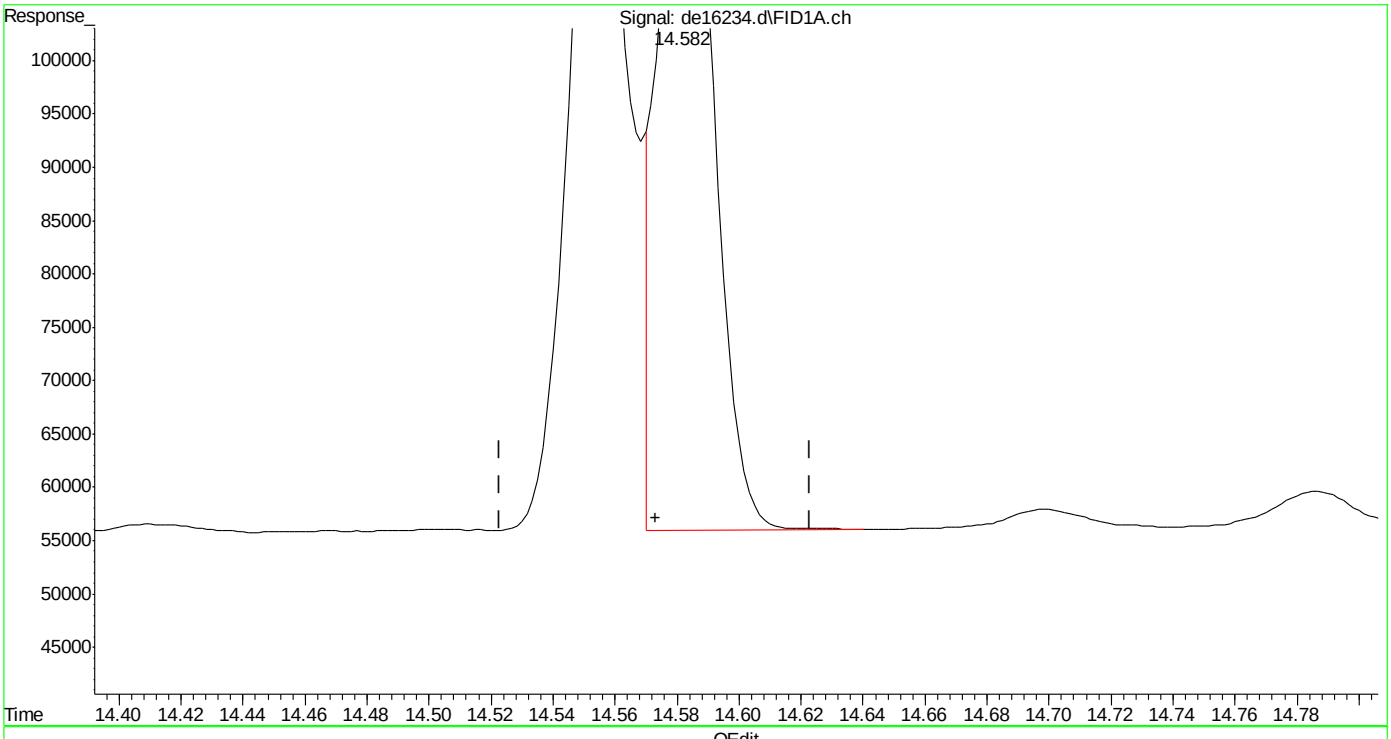
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16234.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:08 pm
Operator : thomasa
Sample : ic908-1
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:36:25 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 06 14:08:03 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(16) benzo(B)fluoranthene
14.582min 0.546 µg/ml
response 87548

(+) = Expected Retention Time

EPH161207W.M Wed Dec 07 09:36:44 2016

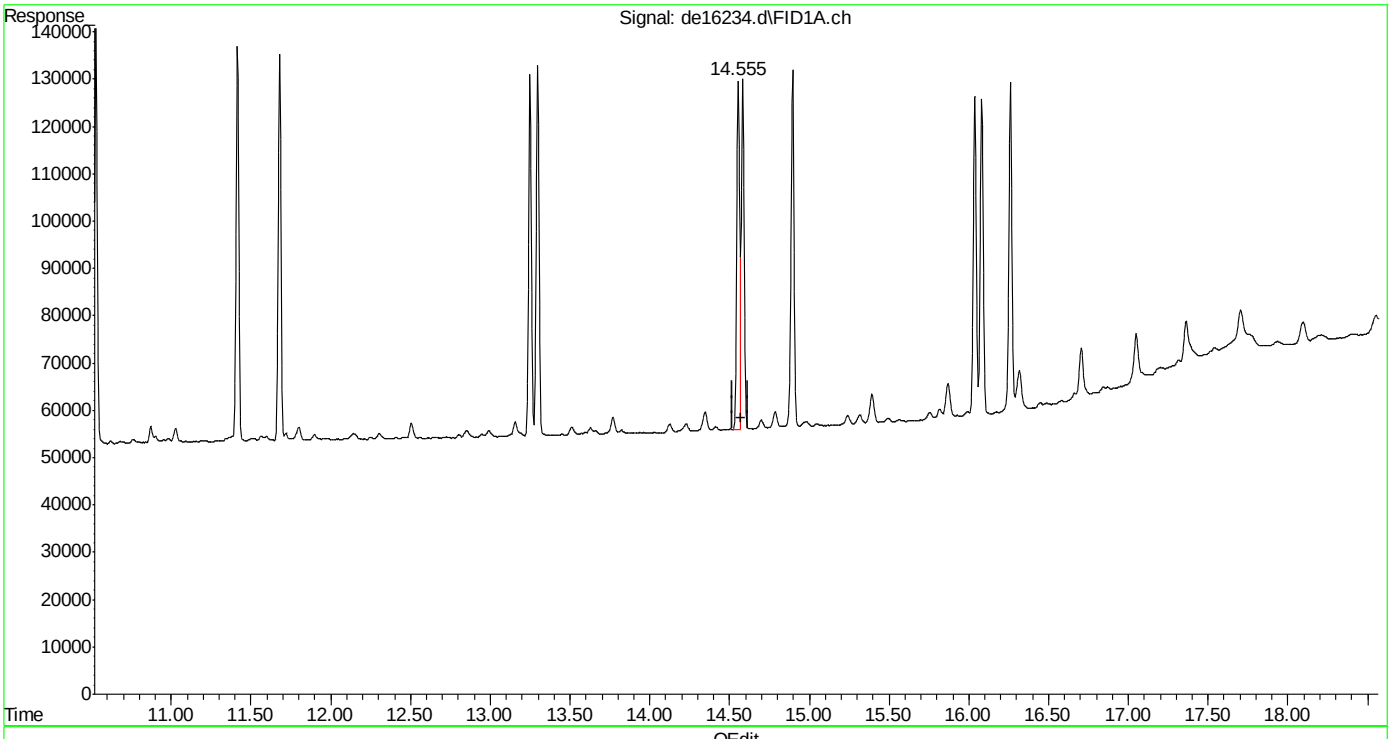
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16234.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:08 pm
Operator : thomasa
Sample : ic908-1
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:36:25 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 06 14:08:03 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(16) benzo(B)fluoranthene
14.555min 0.590 µg/ml m
response 94486

(+) = Expected Retention Time

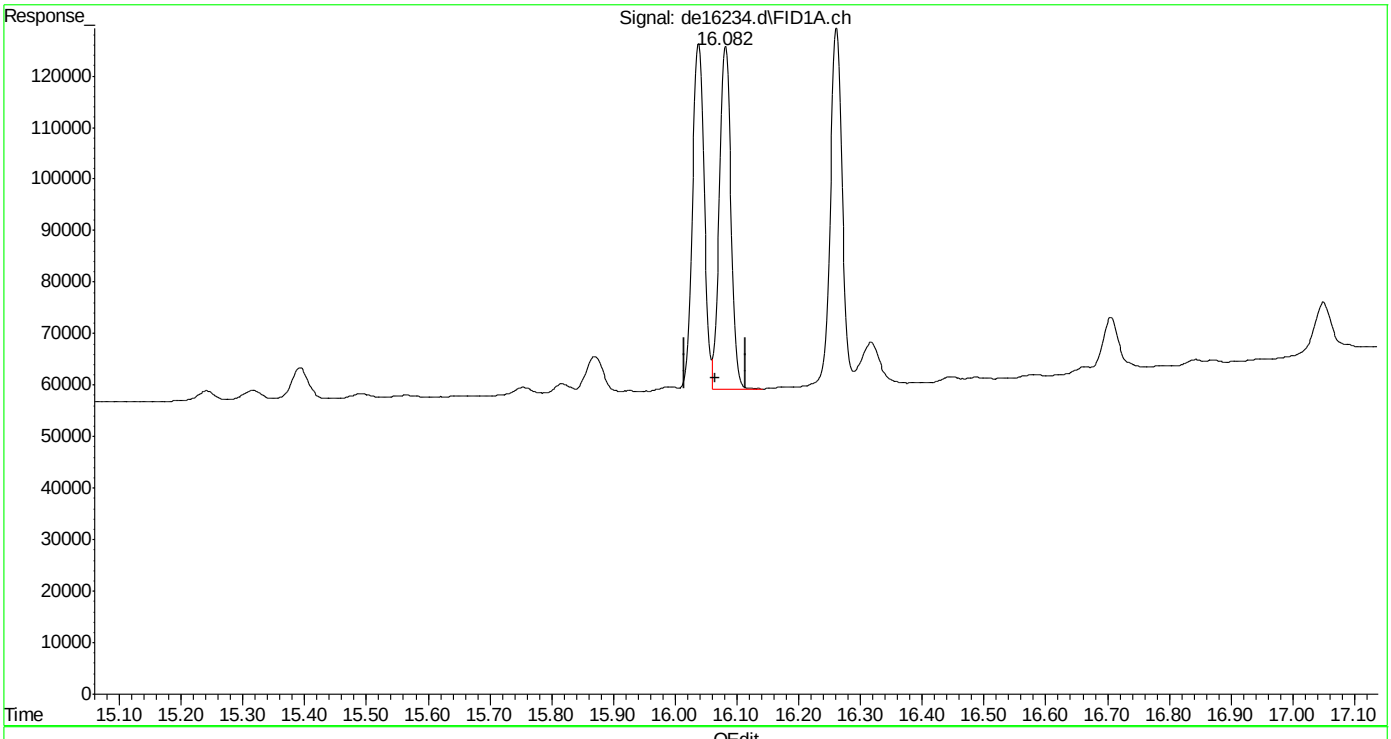
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16234.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:08 pm
Operator : thomasa
Sample : ic908-1
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:36:25 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 06 14:08:03 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(19) indeno(1,2,3-cd)pyrene
16.082min 0.553 µg/ml
response 86273

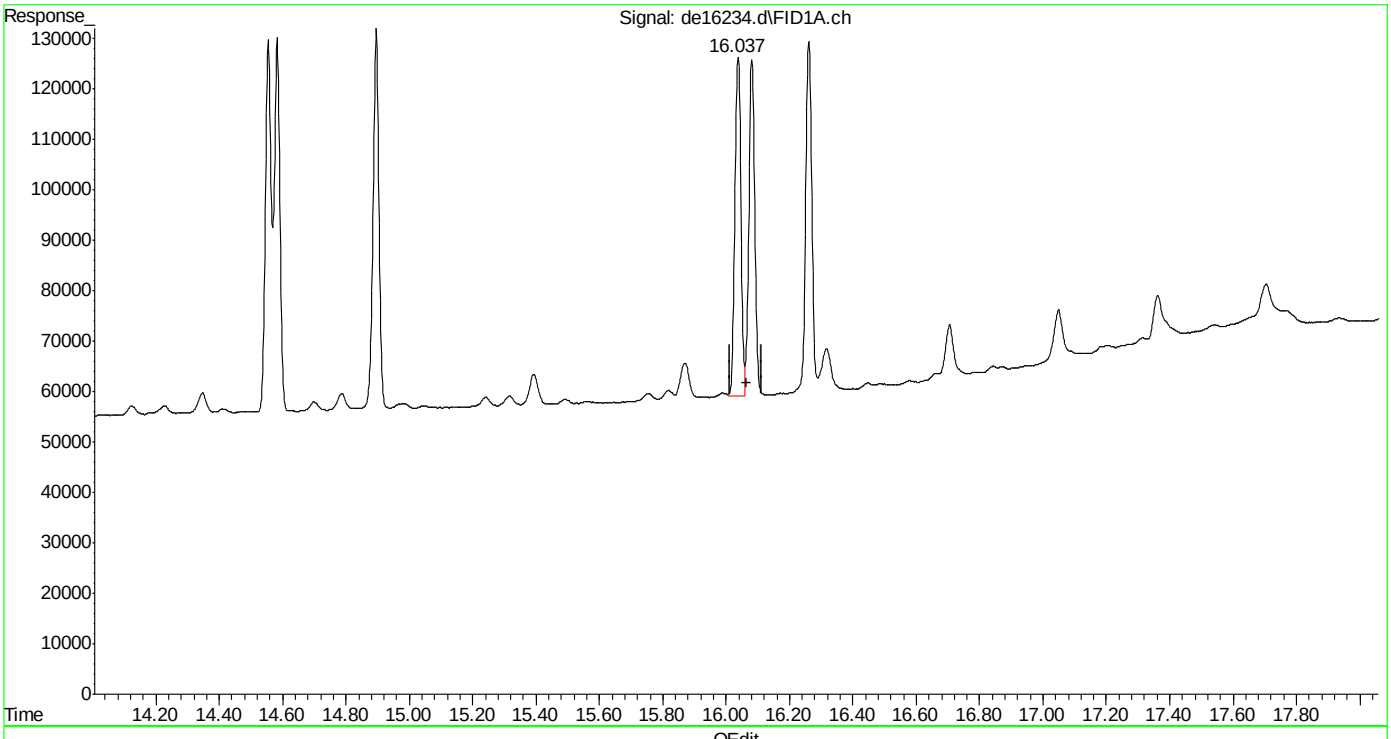
(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:37:06 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16234.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:08 pm
Operator : thomasa
Sample : ic908-1
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:36:25 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 06 14:08:03 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(19) indeno(1,2,3-cd)pyrene
16.037min 0.577 µg/ml m
response 89944

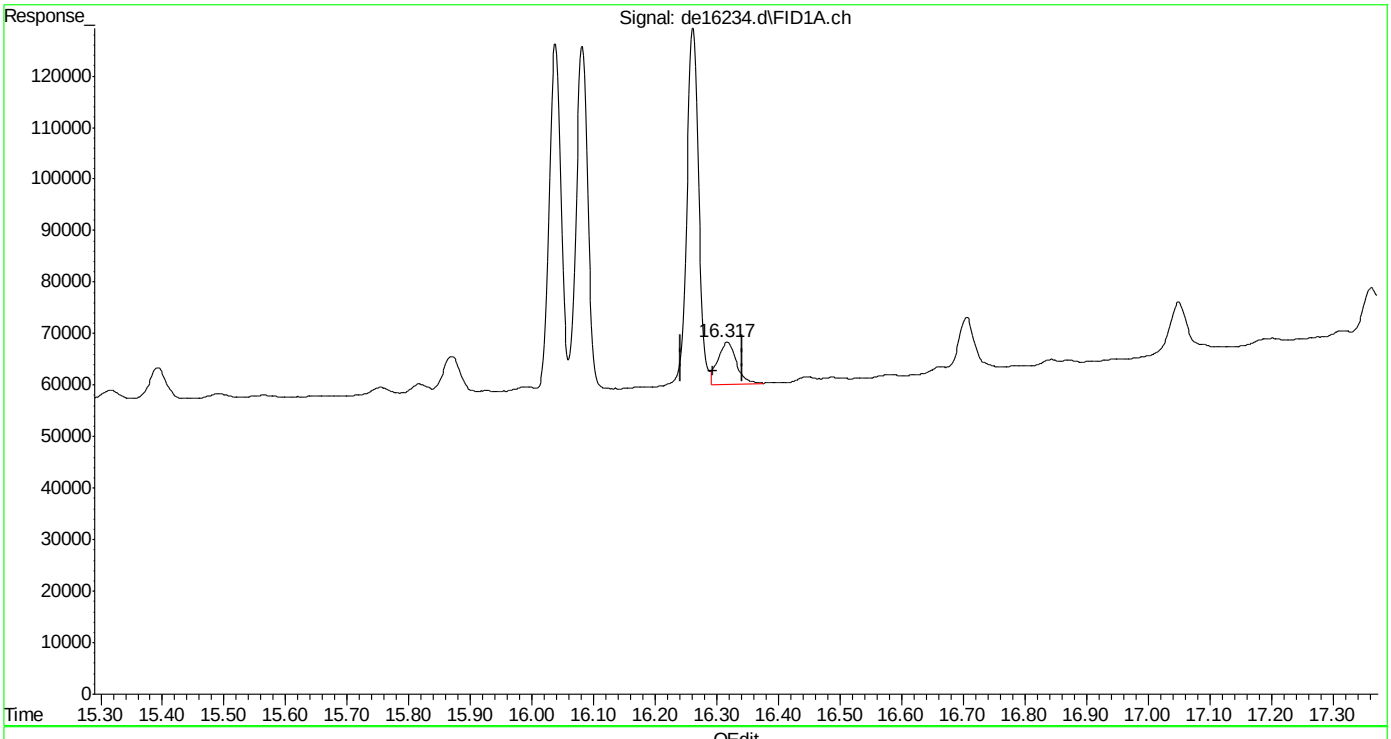
(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:37:11 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16234.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:08 pm
Operator : thomasa
Sample : ic908-1
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:36:25 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 06 14:08:03 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(21) benzo(ghi)perylene
16.317min 0.117 µg/ml
response 16894

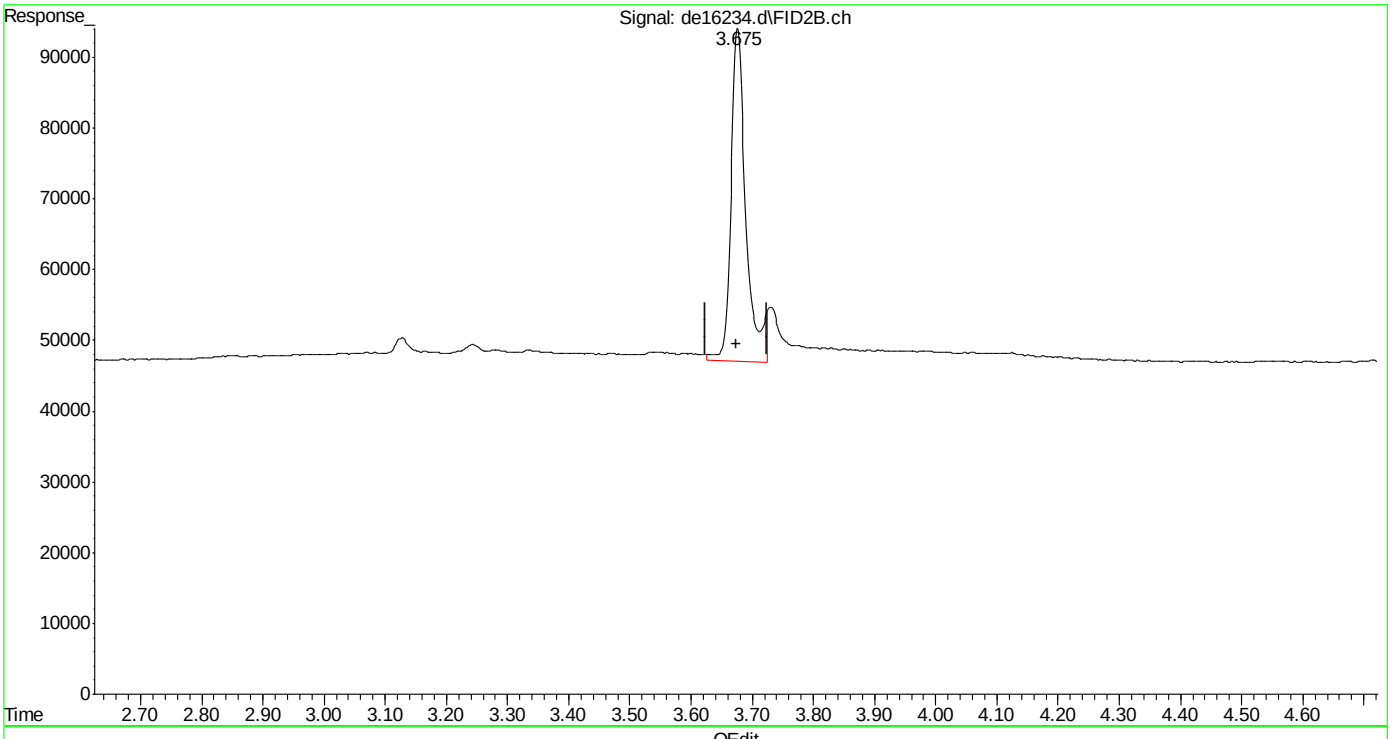
(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:37:17 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16234.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:08 pm
Operator : thomasa
Sample : ic908-1
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:36:25 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 06 14:08:03 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(26) c-10 (h)
3.675min 1.055 µg/ml
response 79727

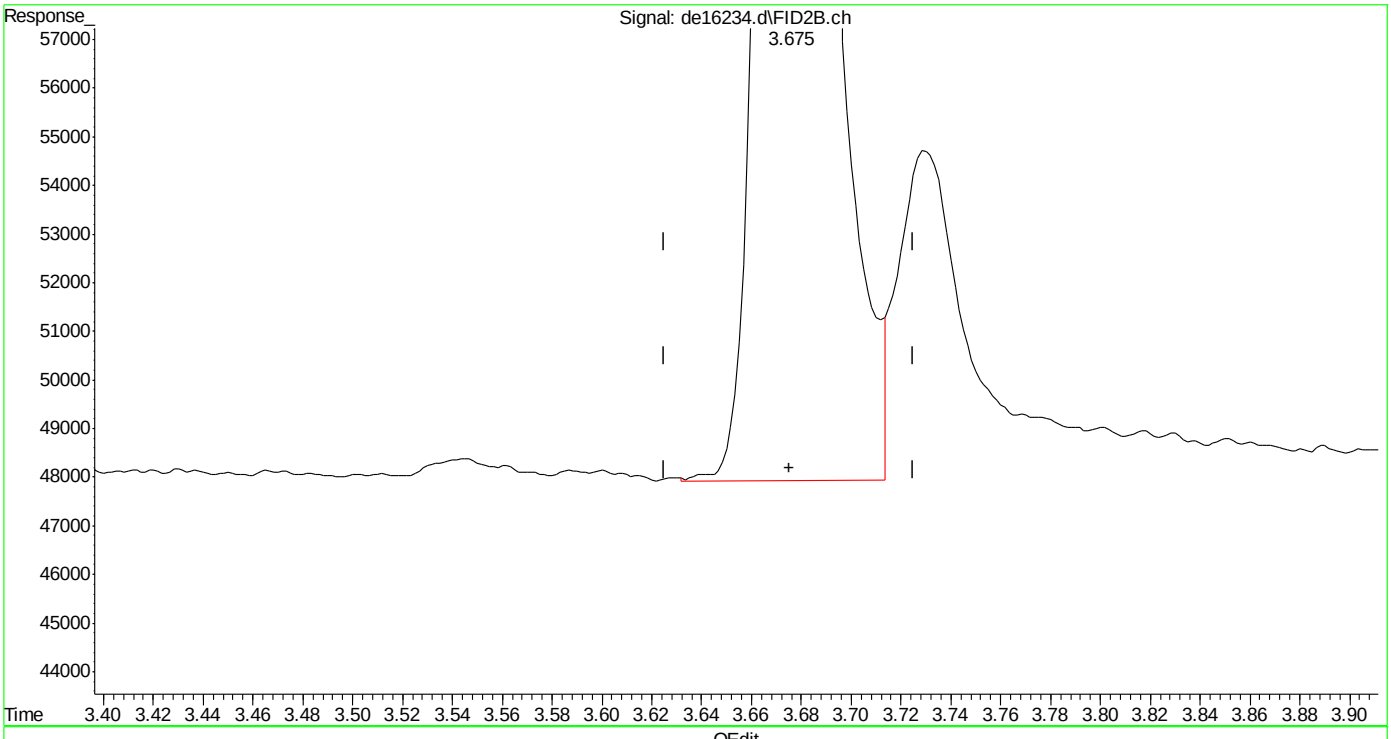
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16234.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:08 pm
Operator : thomasa
Sample : ic908-1
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:36:25 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 06 14:08:03 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(26) c-10 (h)
3.675min 0.937 µg/ml m
response 70862

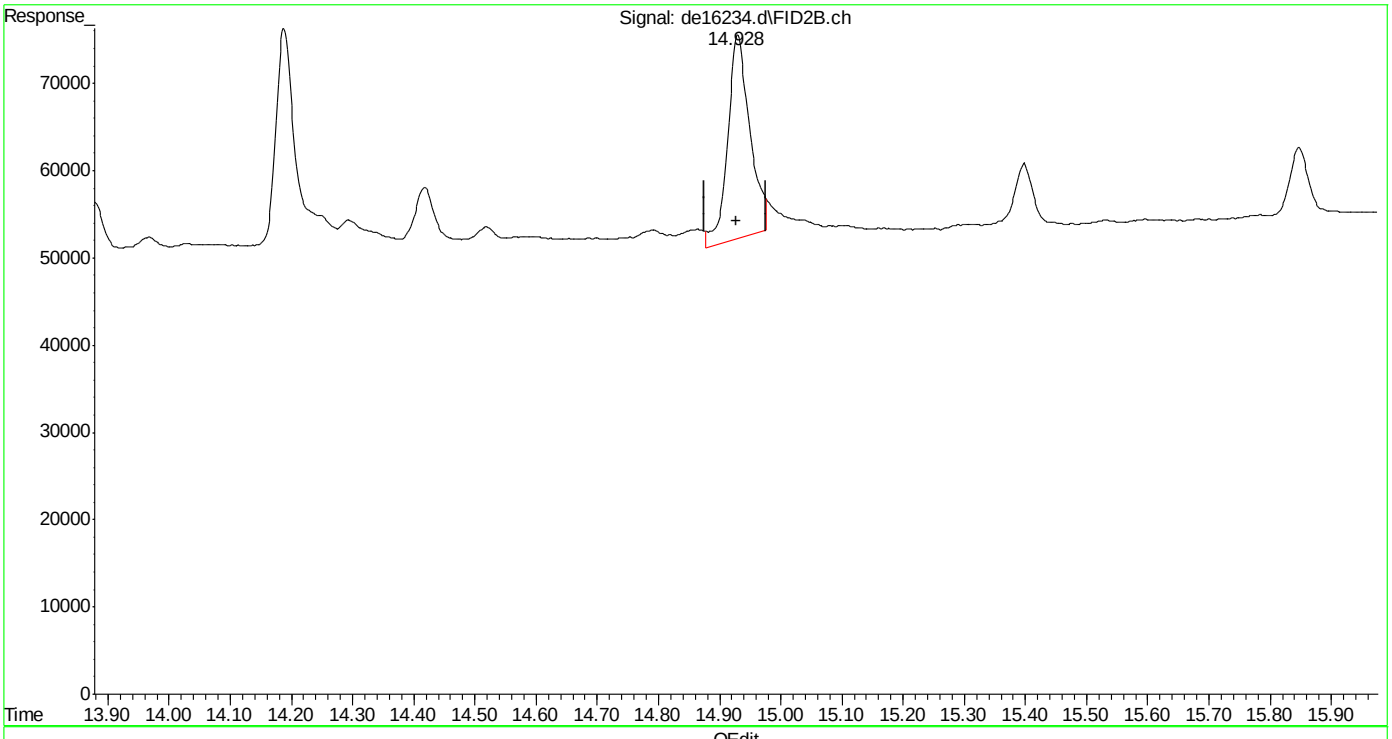
(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:37:44 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16234.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:08 pm
Operator : thomasa
Sample : ic908-1
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:36:25 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 06 14:08:03 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(40) c-30 (h)
14.927min 0.882 µg/ml
response 59076

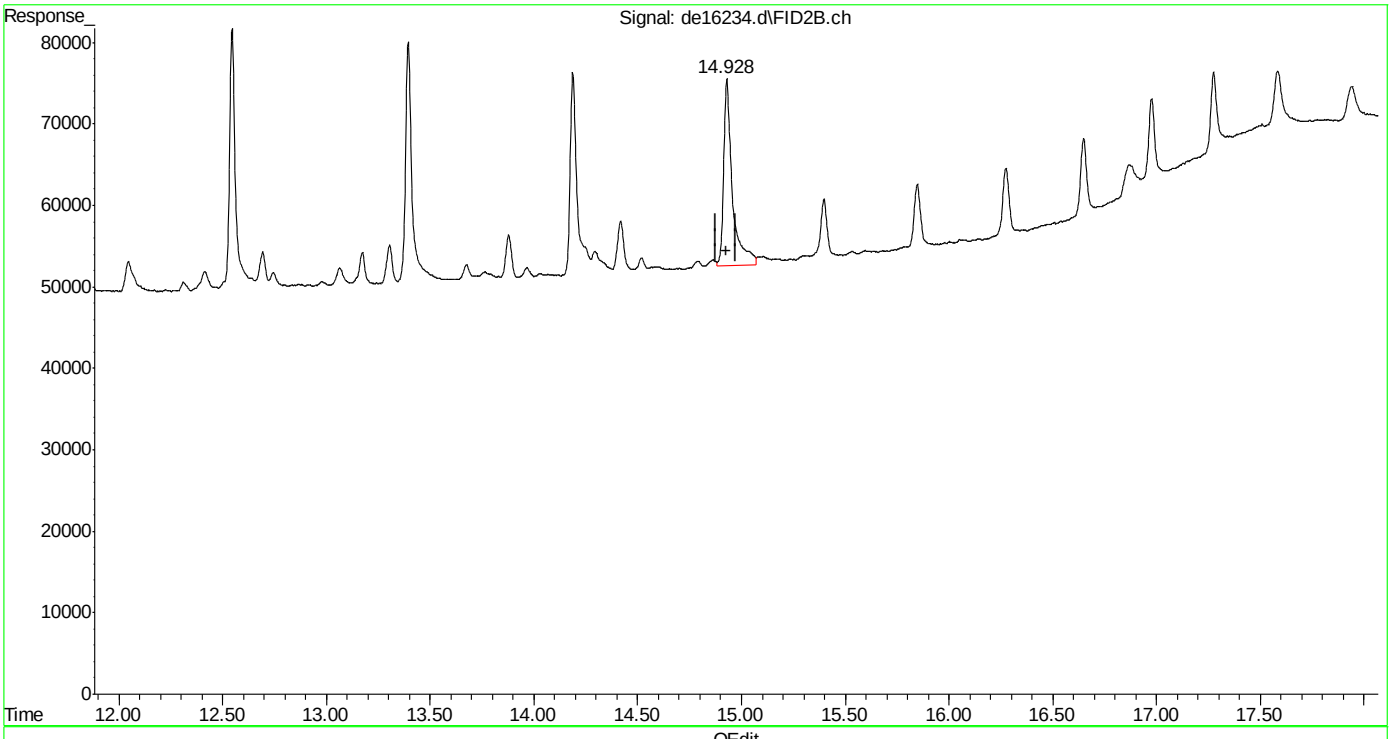
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16234.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:08 pm
Operator : thomasa
Sample : ic908-1
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 2 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:36:25 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 06 14:08:03 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(40) c-30 (h)
14.927min 1.010 µg/ml m
response 67655

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:38:05 2016

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Manual Integrations APPROVED (compounds with "m" flag)
Andri Piluri
12/07/16 16:10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16235.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:36 pm
Operator : thomasa
Sample : ic908-2
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:40:51 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:38:37 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.225	174919	1.260 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 6.30%#		
6) s 2-bromonaphthalene	7.975	119817	1.269 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 6.34%#		
11) s o-terphenyl	10.528	192965	1.259 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 6.29%#		
35) s 1-chlorooctadecane	11.068	109102	1.952 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 9.76%		
Target Compounds			
2) naphthalene	5.785	193957	1.258 µg/ml
3) 2-methylnaphthalene	6.680	188617	1.341 µg/ml
5) acenaphthylene	7.808	192803	1.282 µg/ml
7) acenaphthene	8.052	192623	1.257 µg/ml
8) fluorene	8.698	189053	1.247 µg/ml
9) phenanthrene	9.895	189398	1.269 µg/ml
10) anthracene	9.952	186199	1.232 µg/ml
12) fluoranthene	11.415	184634	1.251 µg/ml
13) pyrene	11.680	183520	1.239 µg/ml
14) benzo(a)anthracene	13.250	175990	1.212 µg/ml
15) chrysene	13.297	177758	1.228 µg/ml
16) benzo(B)fluoranthene	14.555	176363	1.187 µg/mlm
17) benzo(k)fluoranthene	14.583	170005	1.226 µg/ml
18) benzo(a)pyrene	14.895	178793	1.262 µg/ml
19) indeno(1,2,3-cd)pyrene	16.038f	170738	1.174 µg/mlm
20) dibenzo(ah)anthracene	16.083	166927	1.295 µg/mlm
21) benzo(ghi)perylene	16.262f	173995	1.299 µg/mlm
25) h c-9	2.495	158775	2.103 µg/mlm
26) h c-10	3.675	151766	2.072 µg/mlm
27) naphthalene #2	5.350	141082	1.838 µg/ml
28) c-12	5.533	151410	2.096 µg/ml
29) 2-methylnaphthalene #2	6.243	138191	1.827 µg/ml
30) c-14	7.045	144462	2.076 µg/ml
31) c-16	8.367	153372	2.077 µg/ml
32) c-18	9.555	145918	2.025 µg/ml
33) c-19	10.107	152232	2.249 µg/ml
34) c-20	10.637	141176	2.157 µg/ml
36) c-22	11.628	138100	2.129 µg/ml
37) c-24	12.545	137936	2.101 µg/ml
38) c-26	13.392	135145	2.051 µg/ml

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16235.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:36 pm
Operator : thomasa
Sample : ic908-2
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:40:51 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:38:37 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
39)	c-28	14.185	128544	2.039 µg/ml
40) h	c-30	14.927	131689	1.956 µg/mlm
41) h	c-36	16.838	45803	1.137 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.2

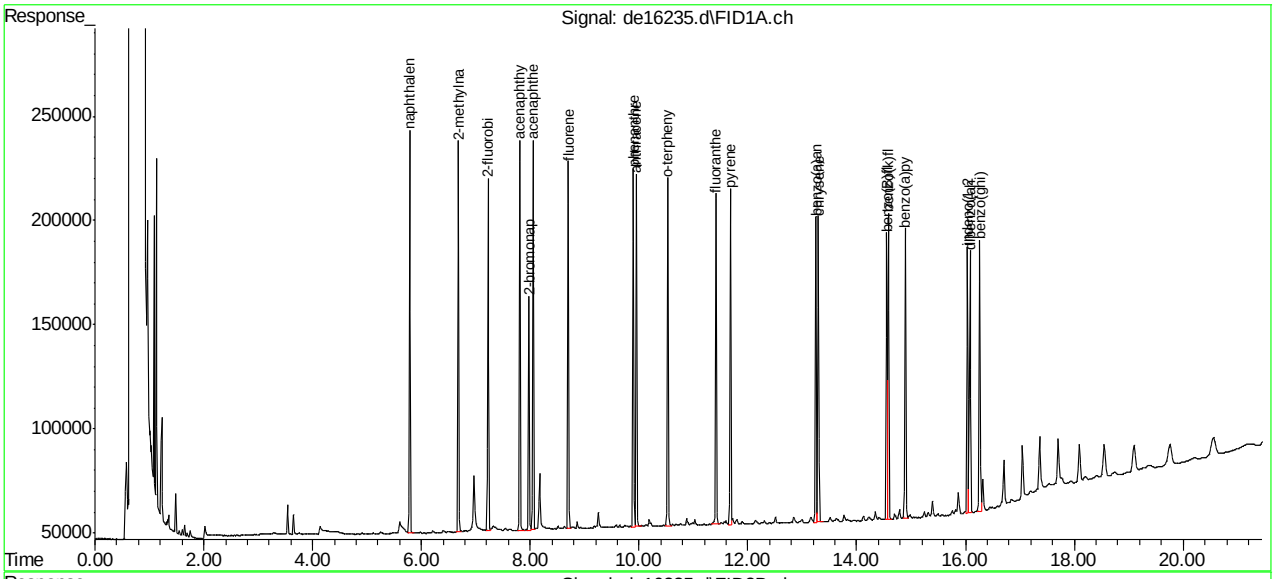
9

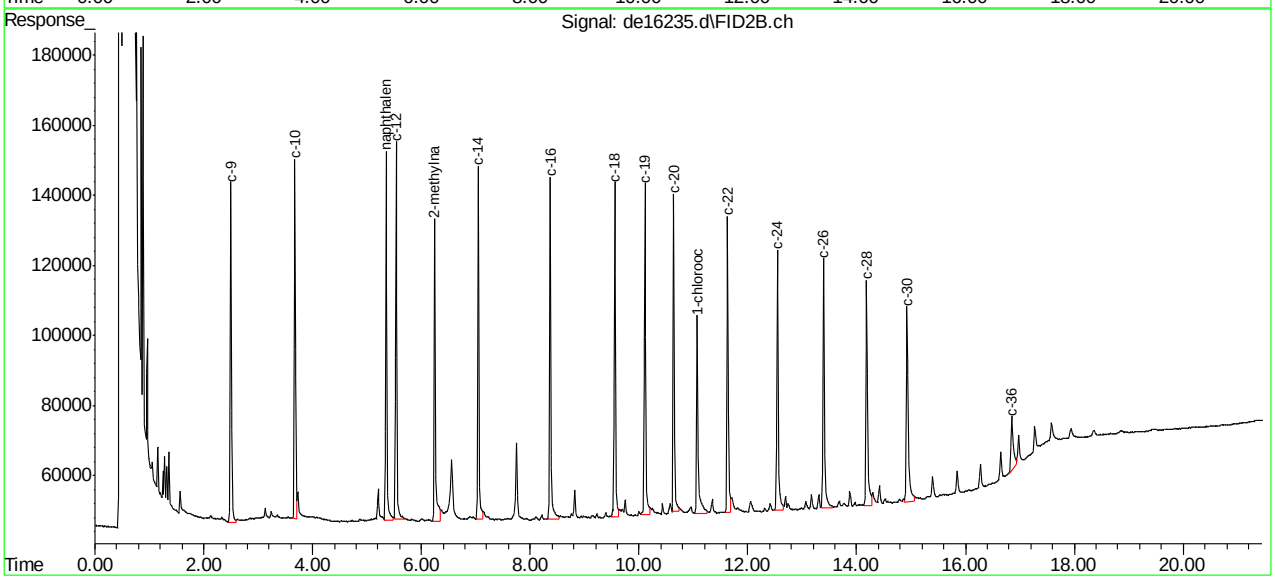
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16235.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:36 pm
Operator : thomasa
Sample : ic908-2
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:40:51 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:38:37 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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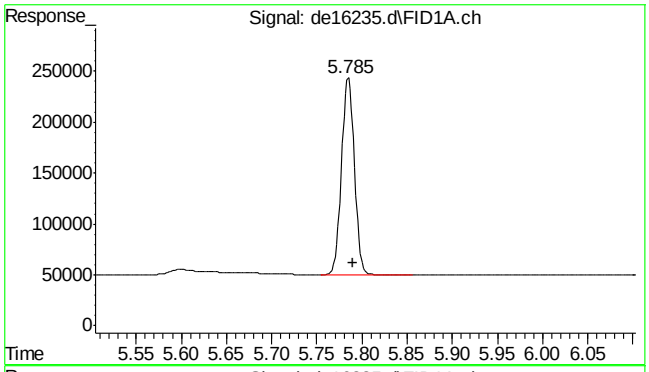
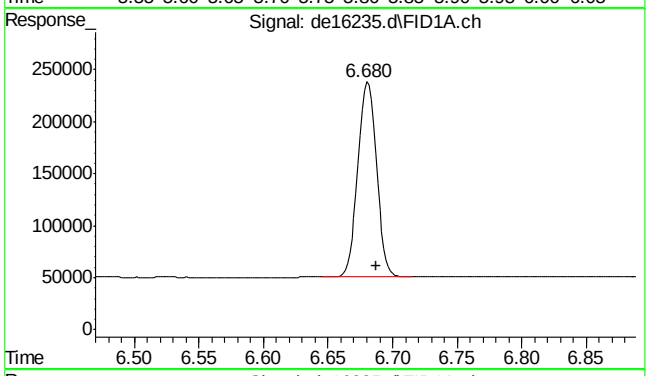


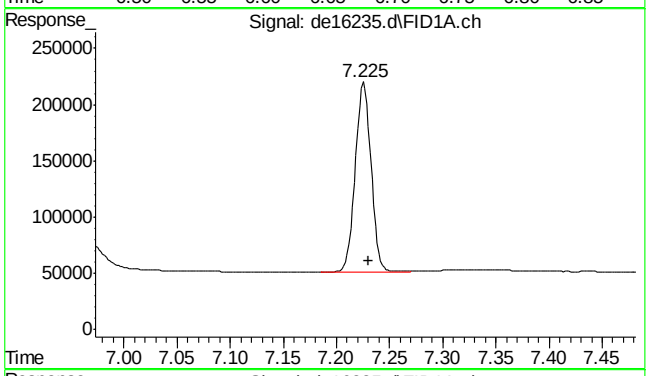
#2 naphthalene

R.T.: 5.785 min
Delta R.T.: -0.005 min
Response: 193957
Conc: 1.26 µg/ml



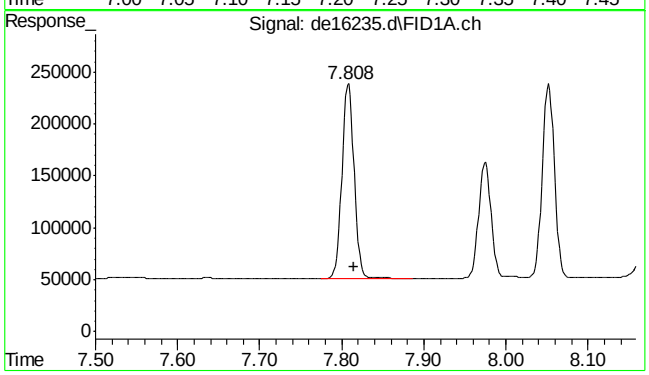
#3 2-methylnaphthalene

R.T.: 6.680 min
Delta R.T.: -0.007 min
Response: 188617
Conc: 1.34 µg/ml



#4 2-fluorobiphenyl

R.T.: 7.225 min
Delta R.T.: -0.005 min
Response: 174919
Conc: 1.26 µg/ml



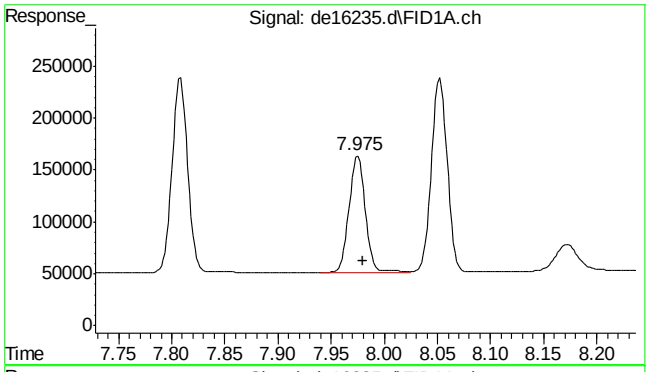
#5 acenaphthylene

R.T.: 7.808 min
Delta R.T.: -0.007 min
Response: 192803
Conc: 1.28 µg/ml

9.5.2

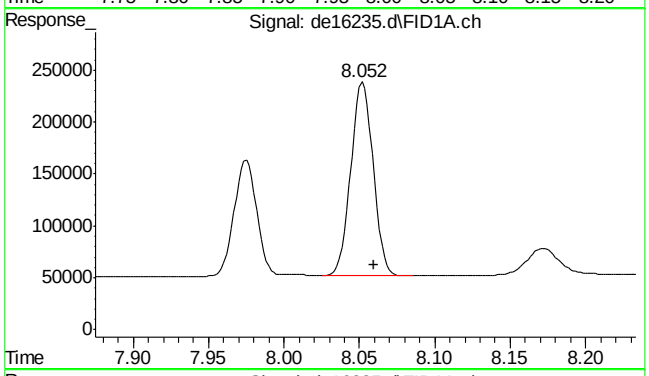
9

SGS ACCUTEST MC48999



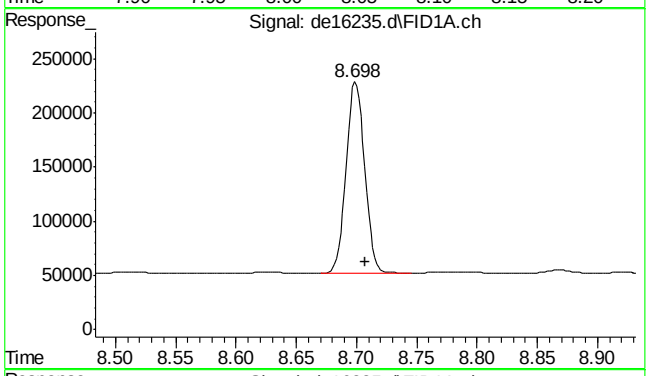
#6 2-bromonaphthalene

R.T.: 7.975 min
Delta R.T.: -0.005 min
Response: 119817
Conc: 1.27 µg/ml



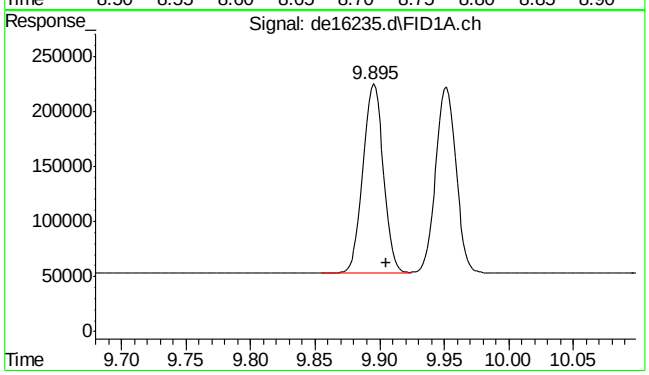
#7 acenaphthene

R.T.: 8.052 min
Delta R.T.: -0.008 min
Response: 192623
Conc: 1.26 µg/ml



#8 fluorene

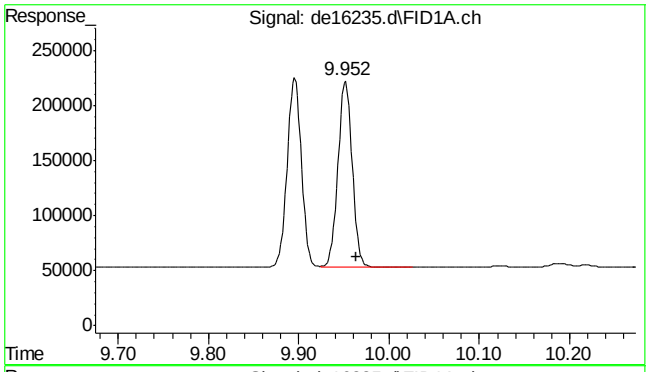
R.T.: 8.698 min
Delta R.T.: -0.009 min
Response: 189053
Conc: 1.25 µg/ml



#9 phenanthrene

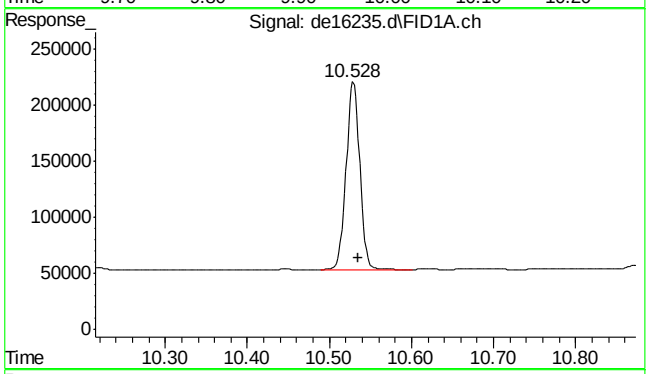
R.T.: 9.895 min
Delta R.T.: -0.010 min
Response: 189398
Conc: 1.27 µg/ml

SGS ACCUTEST MC48999



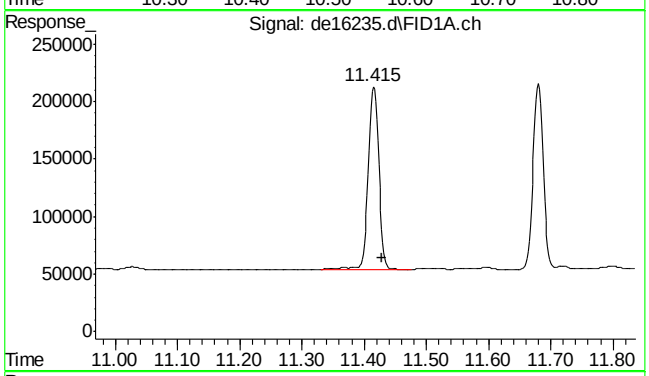
#10 anthracene

R.T.: 9.952 min
Delta R.T.: -0.011 min
Response: 186199
Conc: 1.23 µg/ml



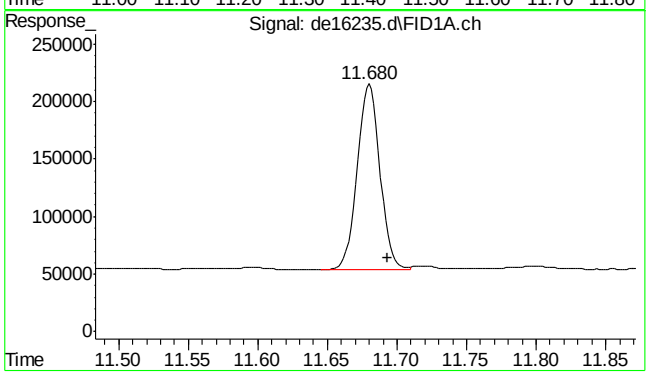
#11 o-terphenyl

R.T.: 10.528 min
Delta R.T.: -0.007 min
Response: 192965
Conc: 1.26 µg/ml



#12 fluoranthene

R.T.: 11.415 min
Delta R.T.: -0.013 min
Response: 184634
Conc: 1.25 µg/ml



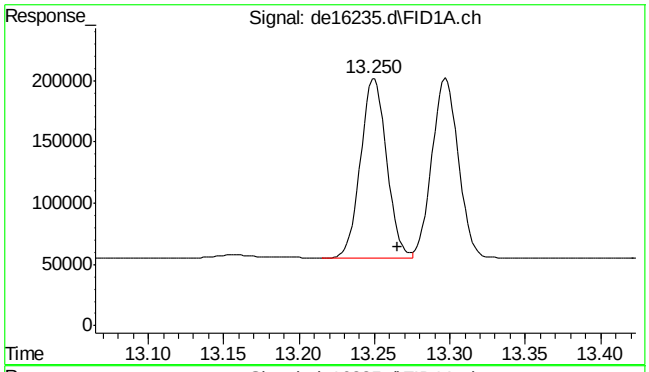
#13 pyrene

R.T.: 11.680 min
Delta R.T.: -0.013 min
Response: 183520
Conc: 1.24 µg/ml

9.5.2

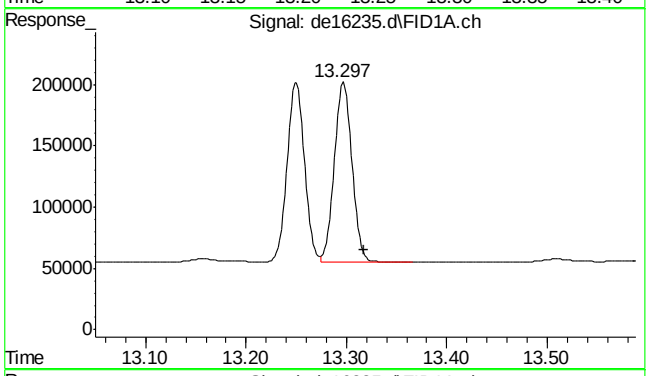
9

SGS ACCUTEST MC48999



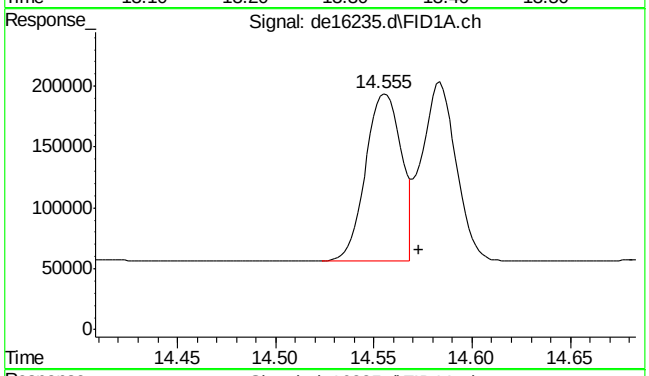
#14 benzo(a)anthracene

R.T.: 13.250 min
Delta R.T.: -0.015 min
Response: 175990
Conc: 1.21 µg/ml



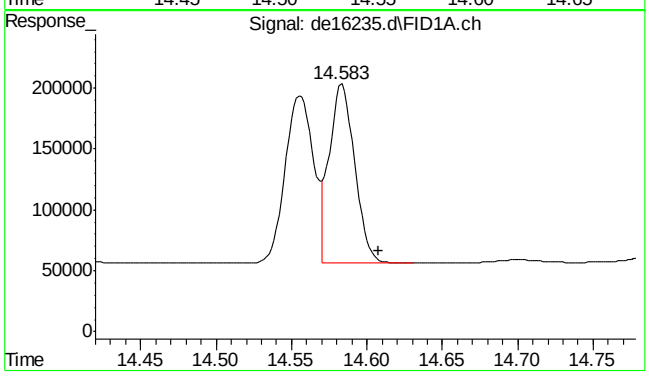
#15 chrysene

R.T.: 13.297 min
Delta R.T.: -0.020 min
Response: 177758
Conc: 1.23 µg/ml



#16 benzo(B)fluoranthene

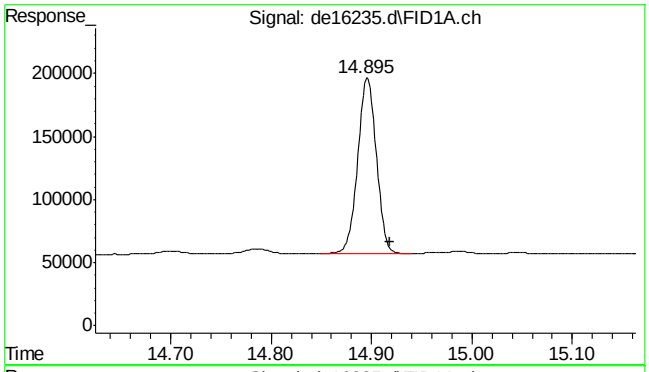
R.T.: 14.555 min
Delta R.T.: -0.018 min
Response: 176363
Conc: 1.19 µg/ml m



#17 benzo(k)fluoranthene

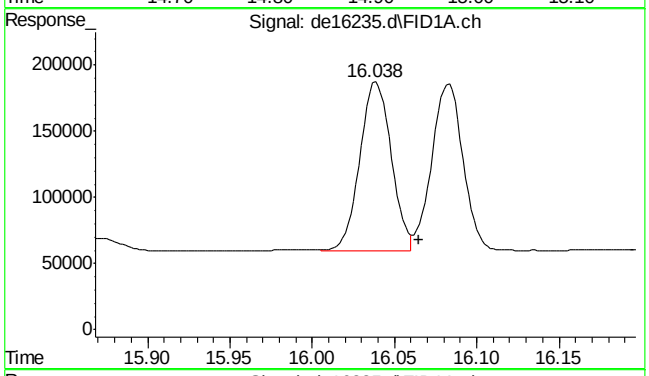
R.T.: 14.583 min
Delta R.T.: -0.025 min
Response: 170005
Conc: 1.23 µg/ml

SGS ACCUTEST MC48999



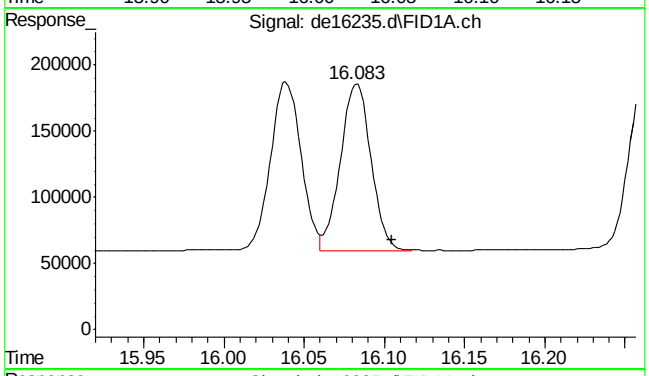
#18 benzo(a)pyrene

R.T.: 14.895 min
Delta R.T.: -0.023 min
Response: 178793
Conc: 1.26 µg/ml



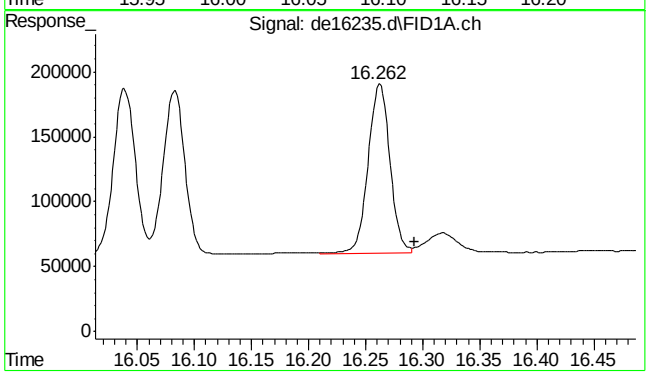
#19 indeno(1,2,3-cd)pyrene

R.T.: 16.038 min
Delta R.T.: -0.027 min
Response: 170738
Conc: 1.17 µg/ml m



#20 dibenzo(ah)anthracene

R.T.: 16.083 min
Delta R.T.: -0.022 min
Response: 166927
Conc: 1.29 µg/ml m



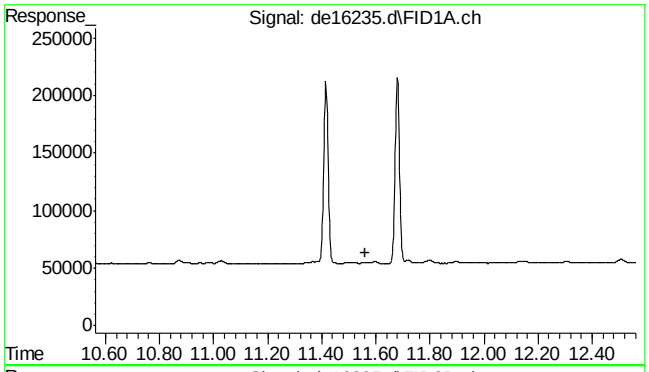
#21 benzo(ghi)perylene

R.T.: 16.262 min
Delta R.T.: -0.031 min
Response: 173995
Conc: 1.30 µg/ml m

9.5.2

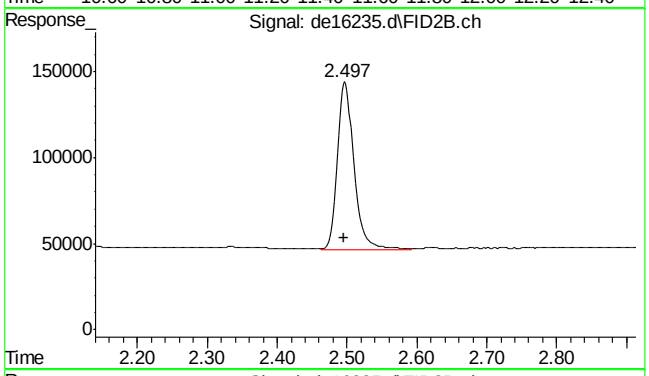
9

SGS ACCUTEST MC48999



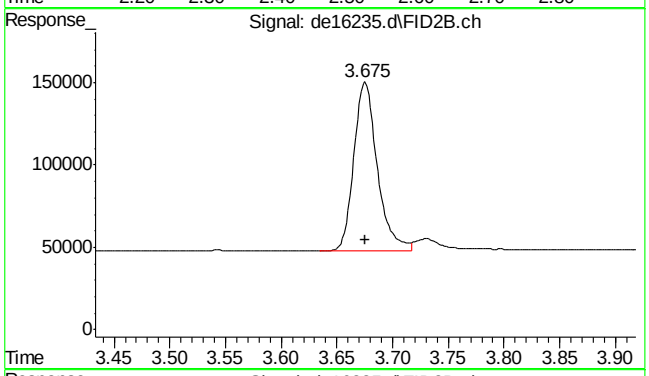
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.562 min
Response: 0
Conc: N.D.



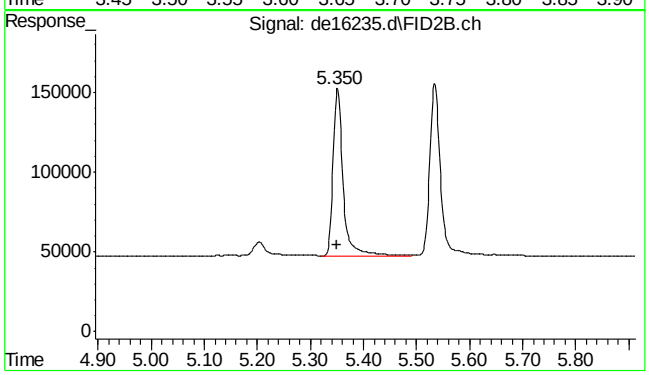
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 158775
Conc: 2.10 µg/ml m



#26 c-10

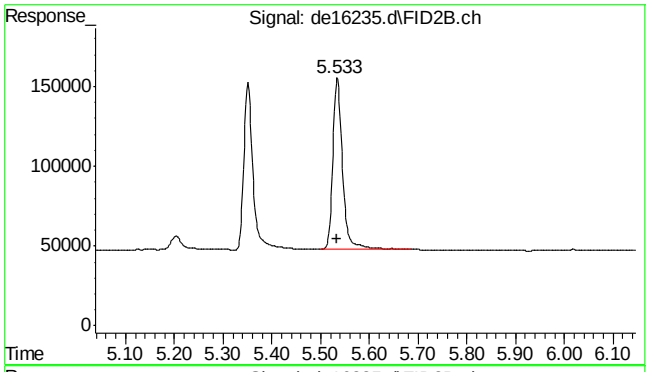
R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 151766
Conc: 2.07 µg/ml m



#27 naphthalene #2

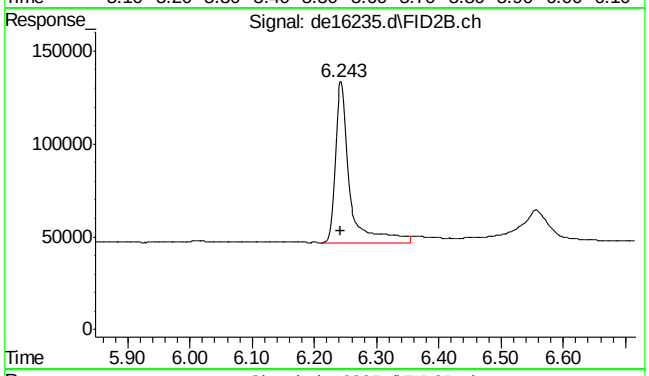
R.T.: 5.350 min
Delta R.T.: 0.000 min
Response: 141082
Conc: 1.84 µg/ml

SGS ACCUTEST MC48999



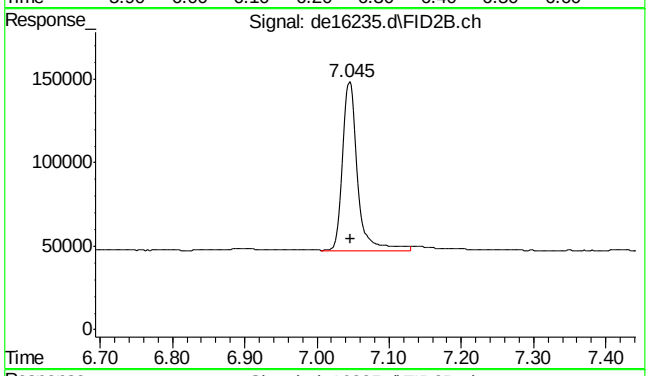
#28 c-12

R.T.: 5.533 min
Delta R.T.: -0.002 min
Response: 151410
Conc: 2.10 µg/ml



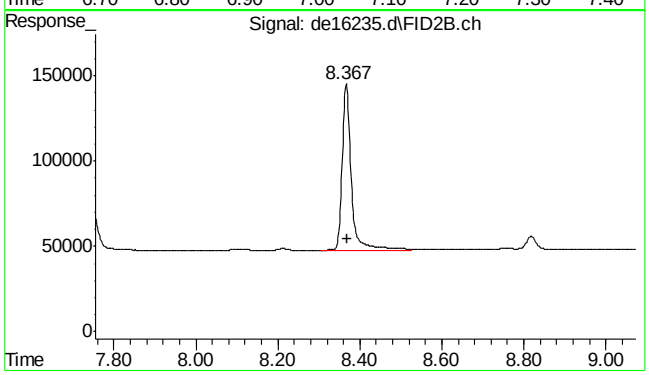
#29 2-methylnaphthalene #2

R.T.: 6.243 min
Delta R.T.: 0.001 min
Response: 138191
Conc: 1.83 µg/ml



#30 c-14

R.T.: 7.045 min
Delta R.T.: -0.002 min
Response: 144462
Conc: 2.08 µg/ml



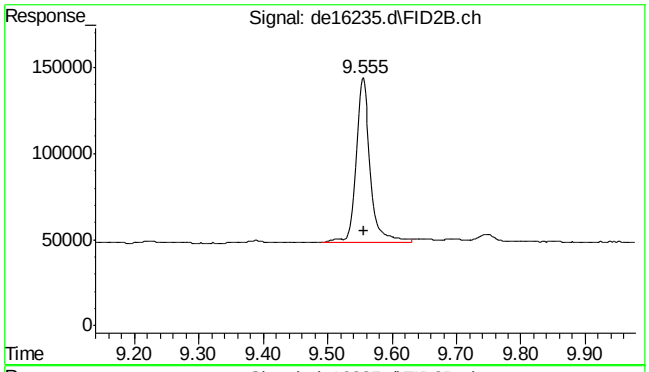
#31 c-16

R.T.: 8.367 min
Delta R.T.: -0.001 min
Response: 153372
Conc: 2.08 µg/ml

9.5.2

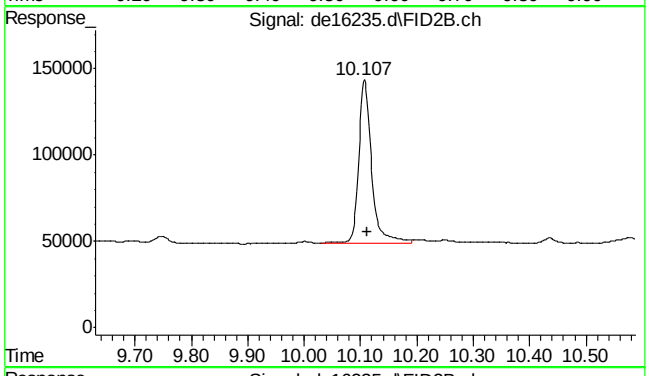
9

SGS ACCUTEST MC48999



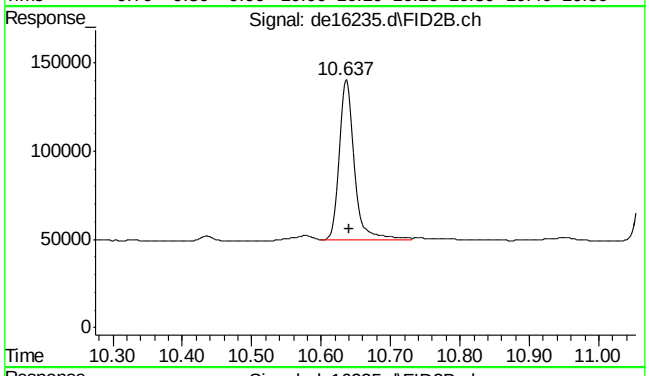
#32 c-18

R.T.: 9.555 min
Delta R.T.: -0.002 min
Response: 145918
Conc: 2.03 µg/ml



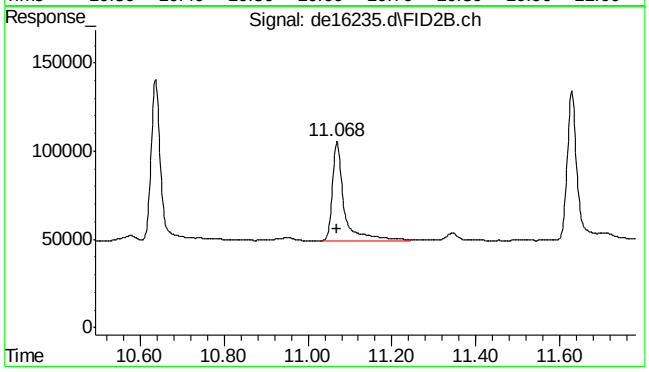
#33 c-19

R.T.: 10.107 min
Delta R.T.: -0.005 min
Response: 152232
Conc: 2.25 µg/ml



#34 c-20

R.T.: 10.637 min
Delta R.T.: -0.003 min
Response: 141176
Conc: 2.16 µg/ml



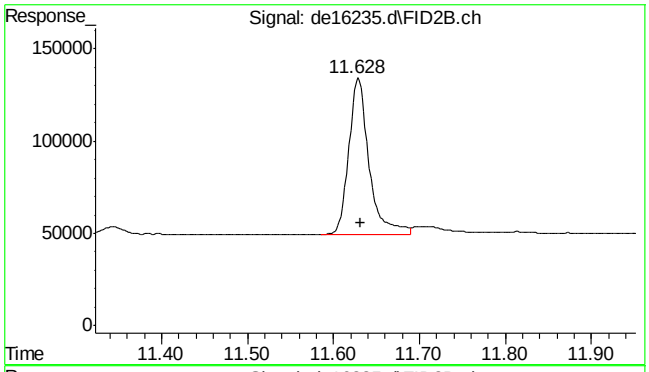
#35 1-chlorooctadecane

R.T.: 11.068 min
Delta R.T.: -0.002 min
Response: 109102
Conc: 1.95 µg/ml

9.5.2

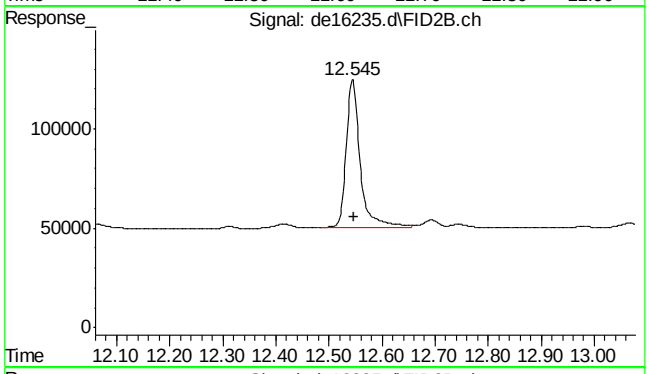
9

SGS ACCUTEST MC48999



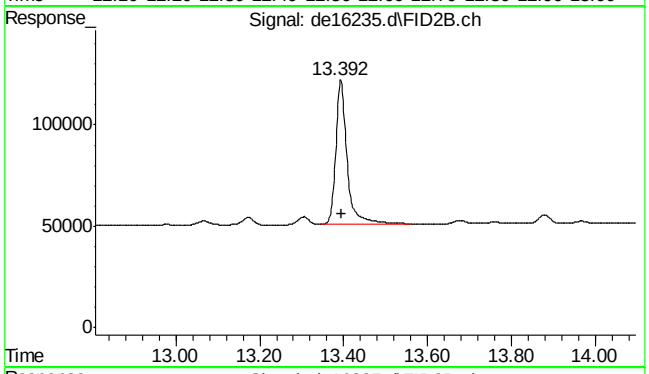
#36 c-22

R.T.: 11.628 min
Delta R.T.: -0.004 min
Response: 138100
Conc: 2.13 µg/ml



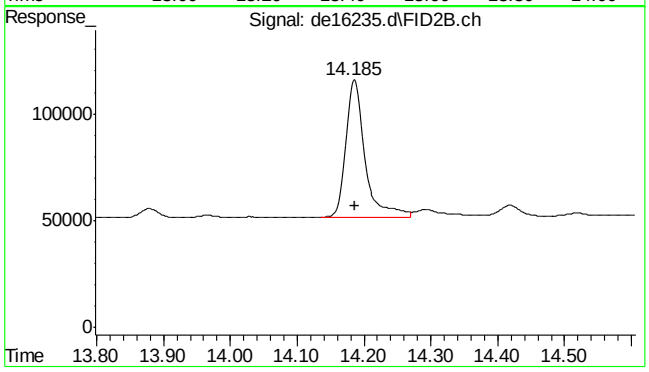
#37 c-24

R.T.: 12.545 min
Delta R.T.: -0.002 min
Response: 137936
Conc: 2.10 µg/ml



#38 c-26

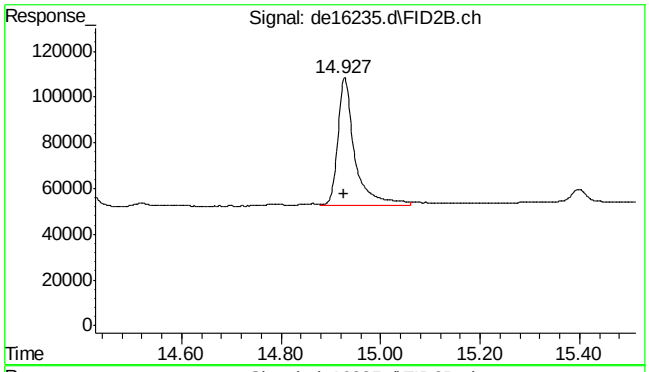
R.T.: 13.392 min
Delta R.T.: -0.003 min
Response: 135145
Conc: 2.05 µg/ml



#39 c-28

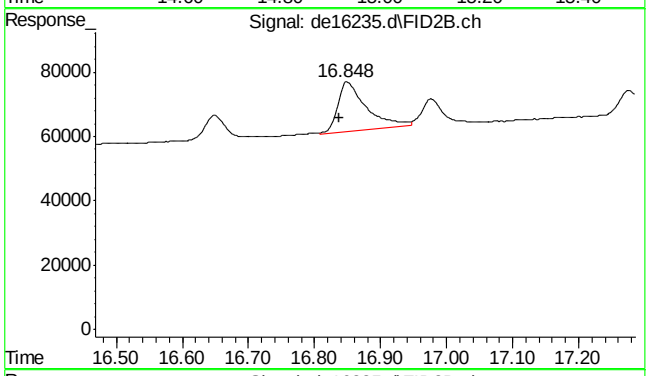
R.T.: 14.185 min
Delta R.T.: -0.002 min
Response: 128544
Conc: 2.04 µg/ml

SGS ACCUTEST MC48999



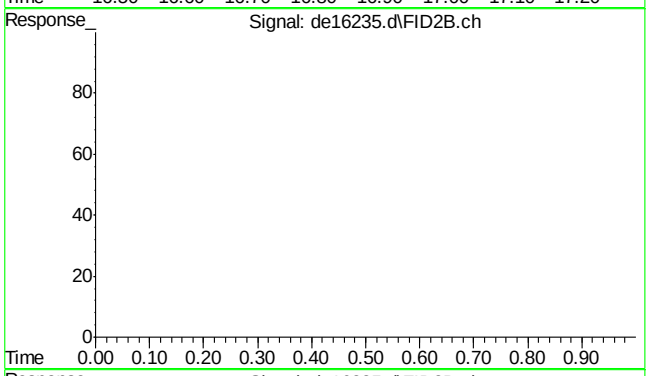
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 131689
Conc: 1.96 µg/ml m



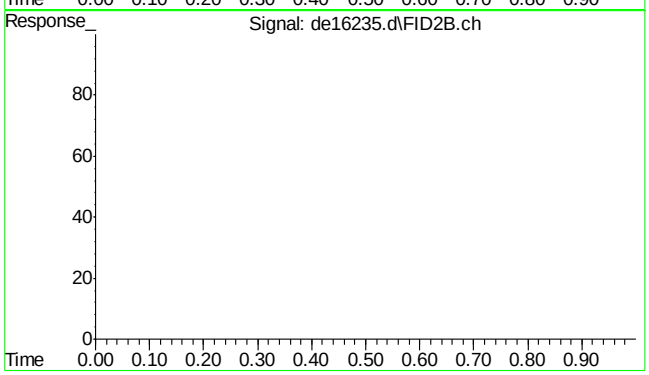
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 45803
Conc: 1.14 µg/ml m



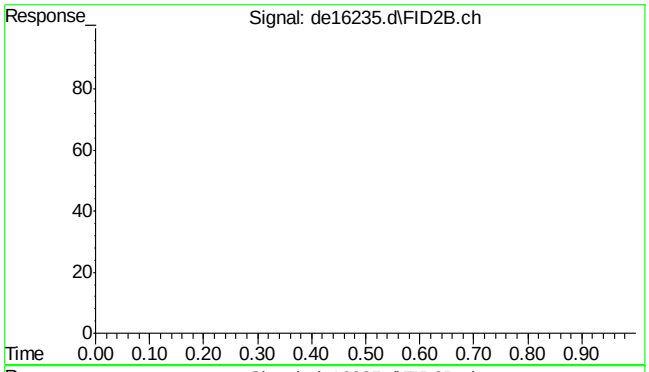
#42 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.



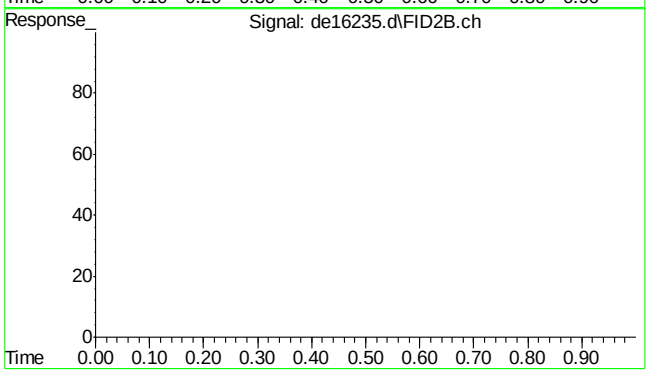
#43 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.



#44 bht

```
      R.T.:    0.000 min
Exp R.T.  :   23.000 min
  Response:         0
      Conc:   N.D.
```



#45 bht

```
      R.T.:    0.000 min
Exp R.T.  :   23.000 min
  Response:         0
      Conc:   N.D.
```

9.5.2

9

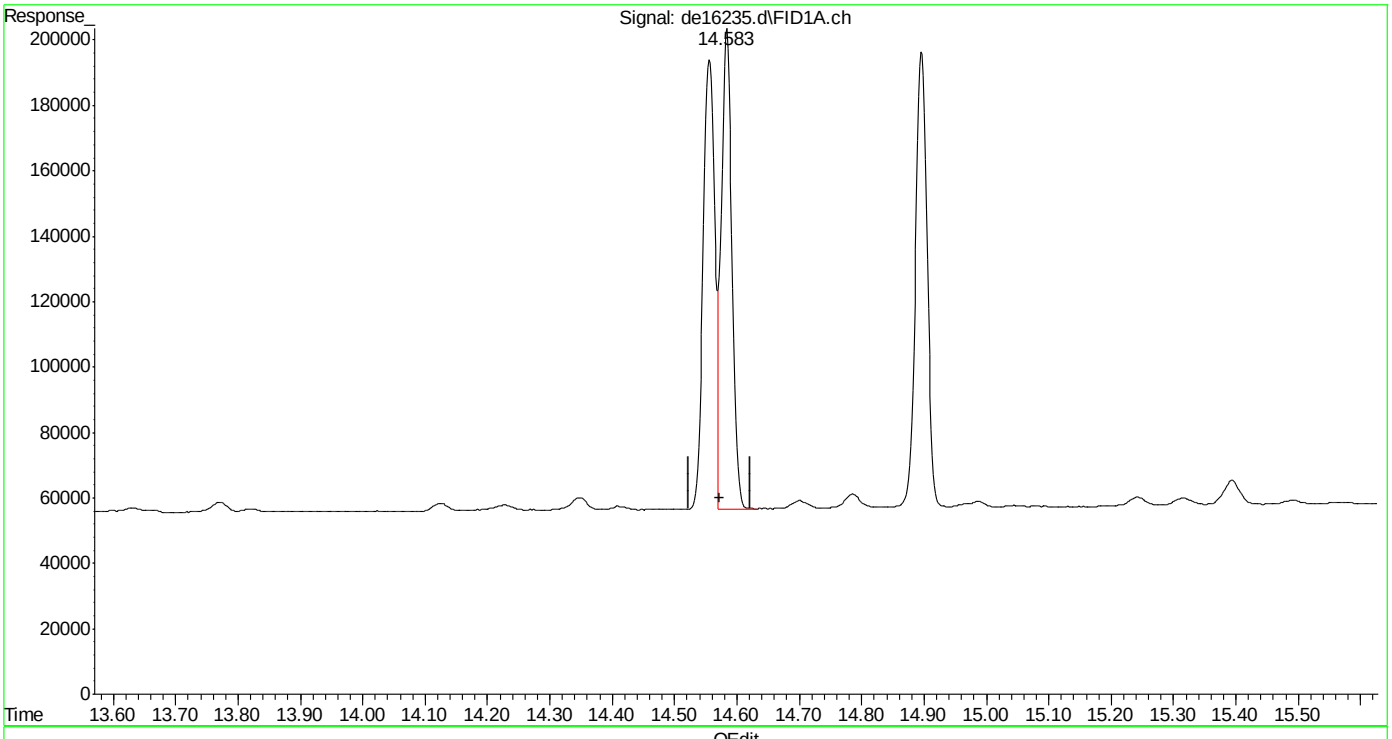
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16235.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:36 pm
Operator : thomasa
Sample : ic908-2
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:38:46 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:38:37 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(16) benzo(B)fluoranthene
14.583min 1.144 µg/ml
response 170005

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:38:55 2016

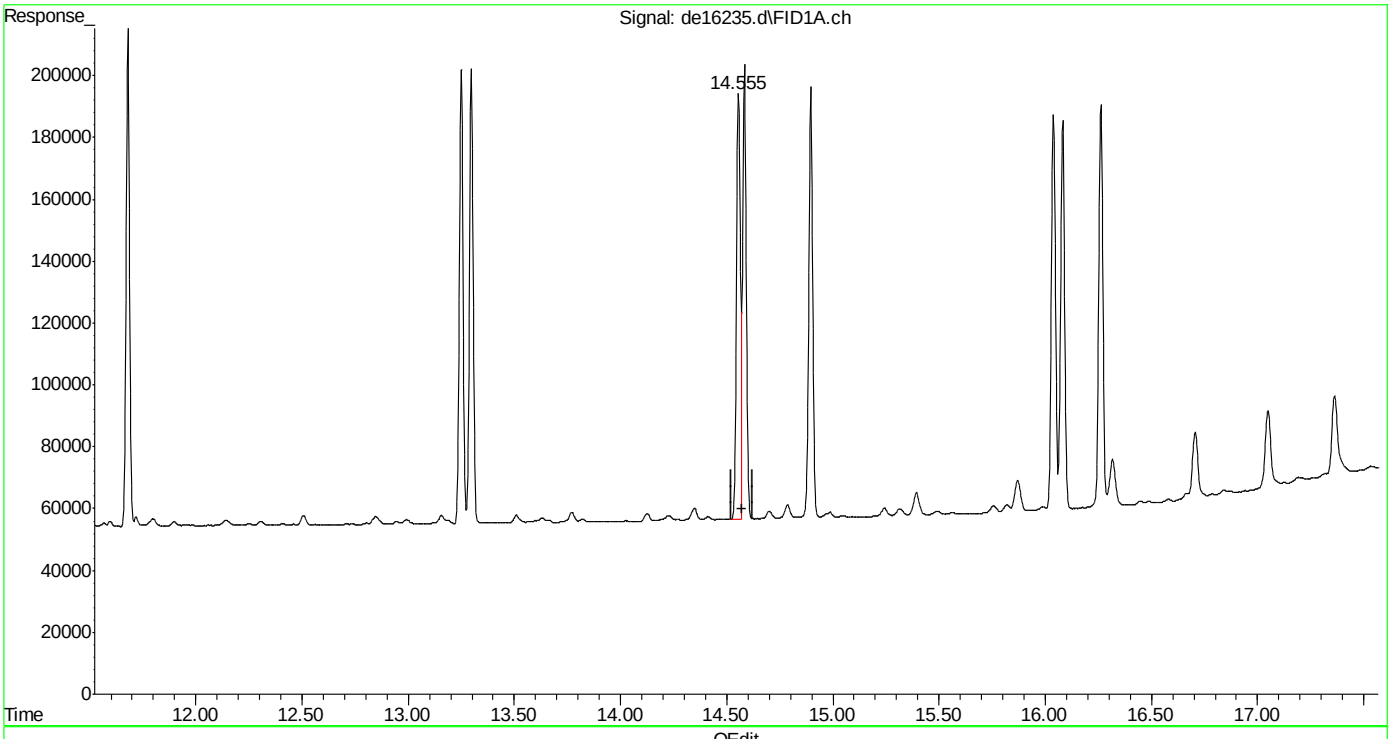
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16235.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:36 pm
Operator : thomasa
Sample : ic908-2
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:38:46 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:38:37 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(16) benzo(B)fluoranthene
14.555min 1.187 µg/ml m
response 176363

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:39:12 2016

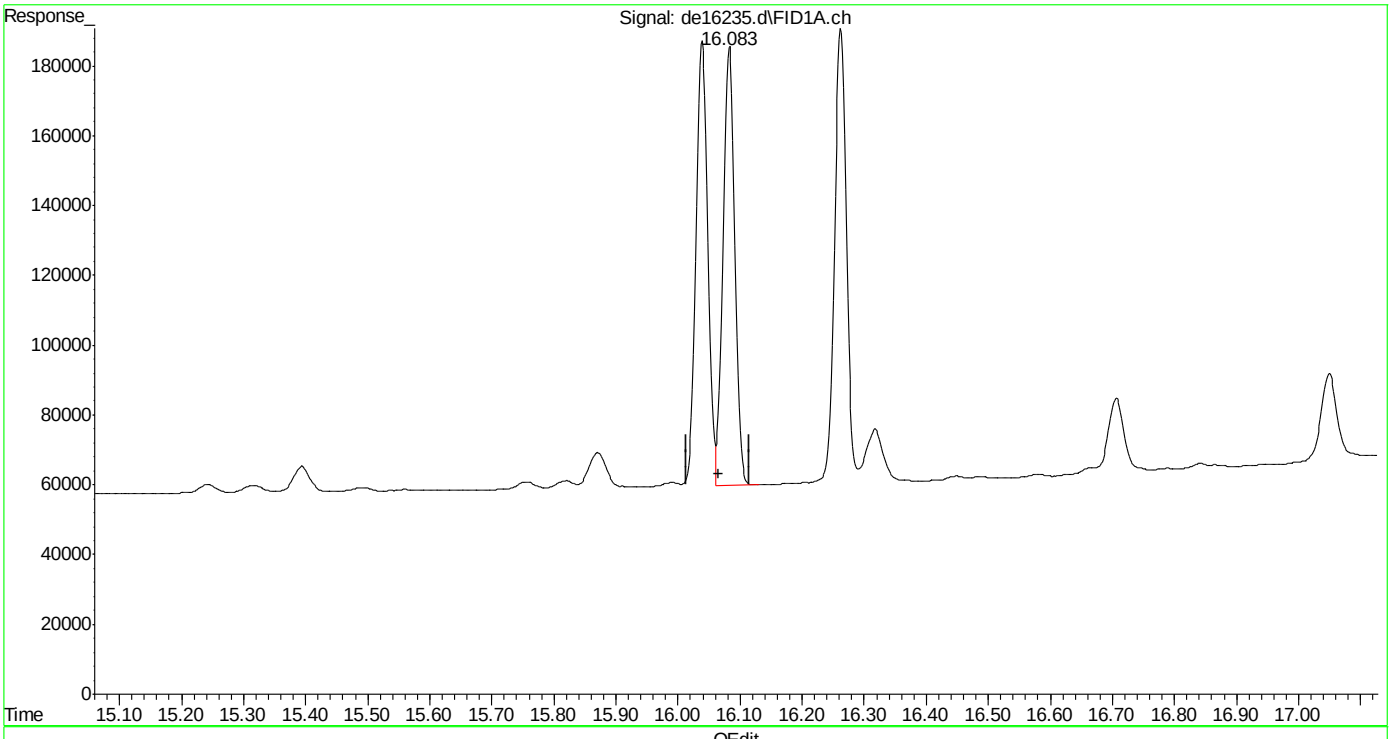
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16235.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:36 pm
Operator : thomasa
Sample : ic908-2
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:38:46 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:38:37 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(19) indeno(1,2,3-cd)pyrene
16.083min 1.140 µg/ml
response 165799

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:39:18 2016

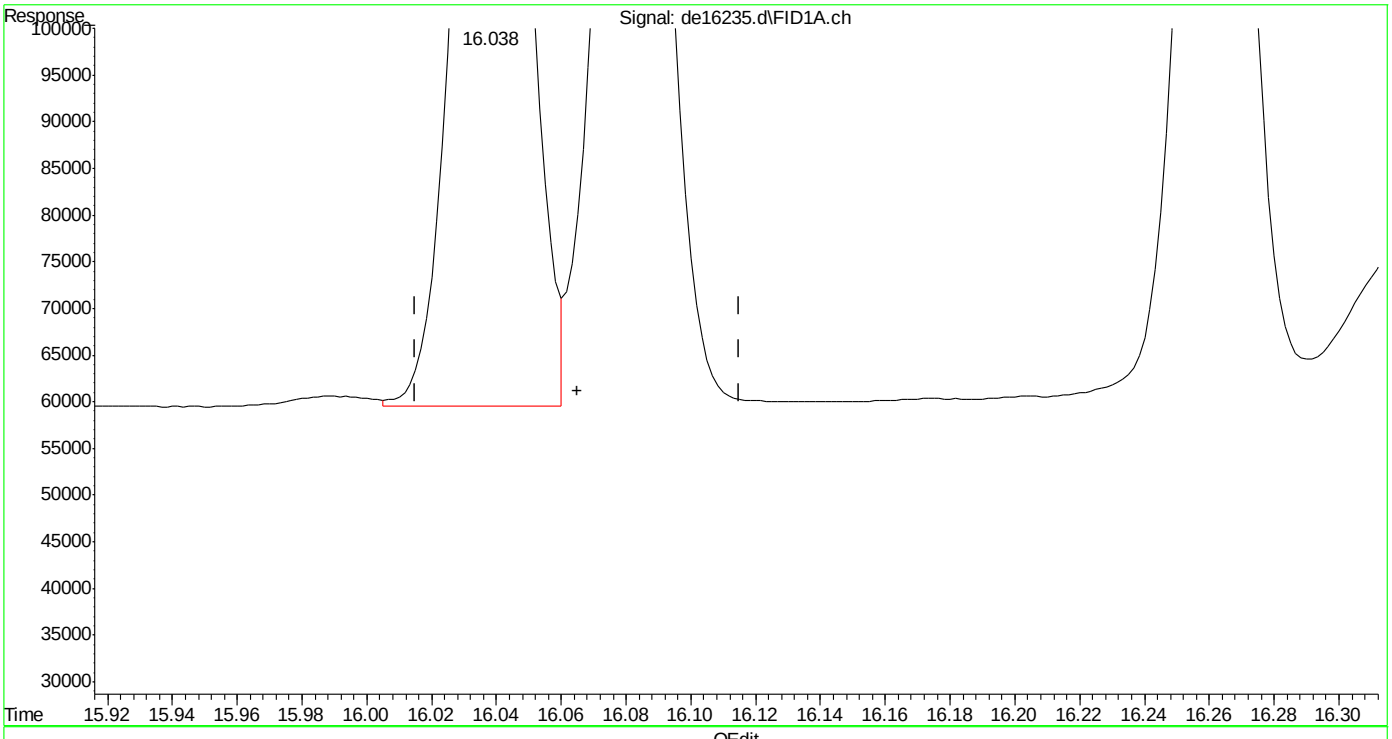
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16235.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:36 pm
Operator : thomasa
Sample : ic908-2
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:38:46 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:38:37 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(19) indeno(1,2,3-cd)pyrene
16.038min 1.174 µg/ml m
response 170738

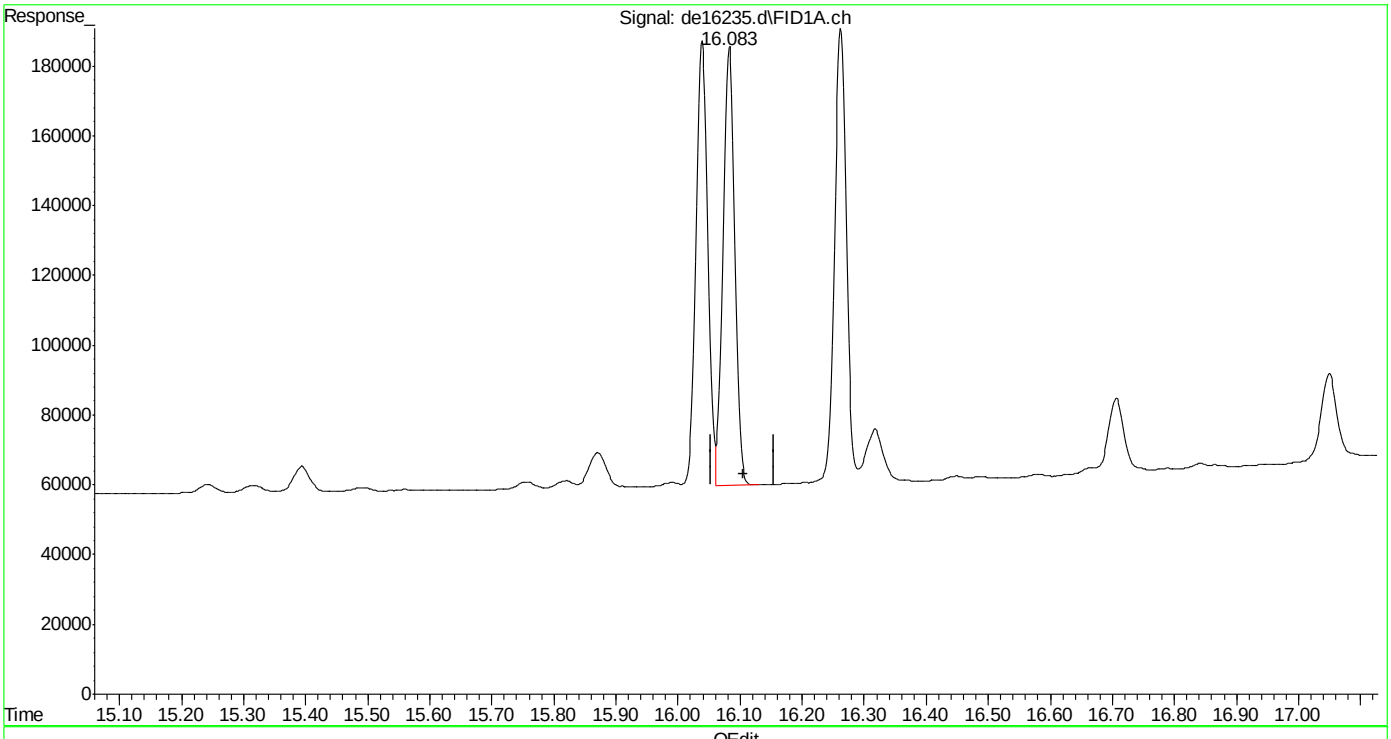
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16235.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:36 pm
Operator : thomasa
Sample : ic908-2
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:38:46 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:38:37 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(20) dibenzo(ah)anthracene
16.083min 1.286 µg/ml
response 165799

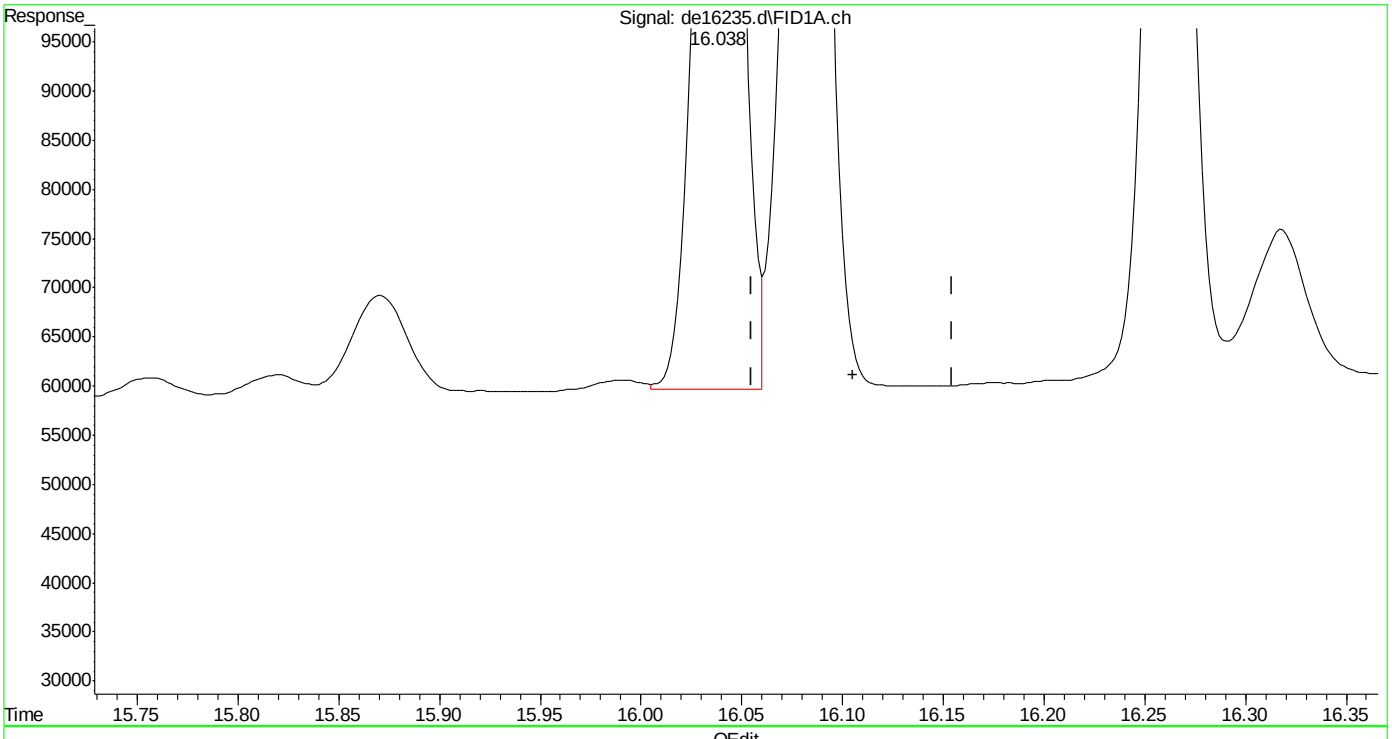
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16235.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:36 pm
Operator : thomasa
Sample : ic908-2
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:38:46 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:38:37 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(20) dibenzo(ah)anthracene
16.038min 1.320 µg/ml m
response 170204

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:39:45 2016

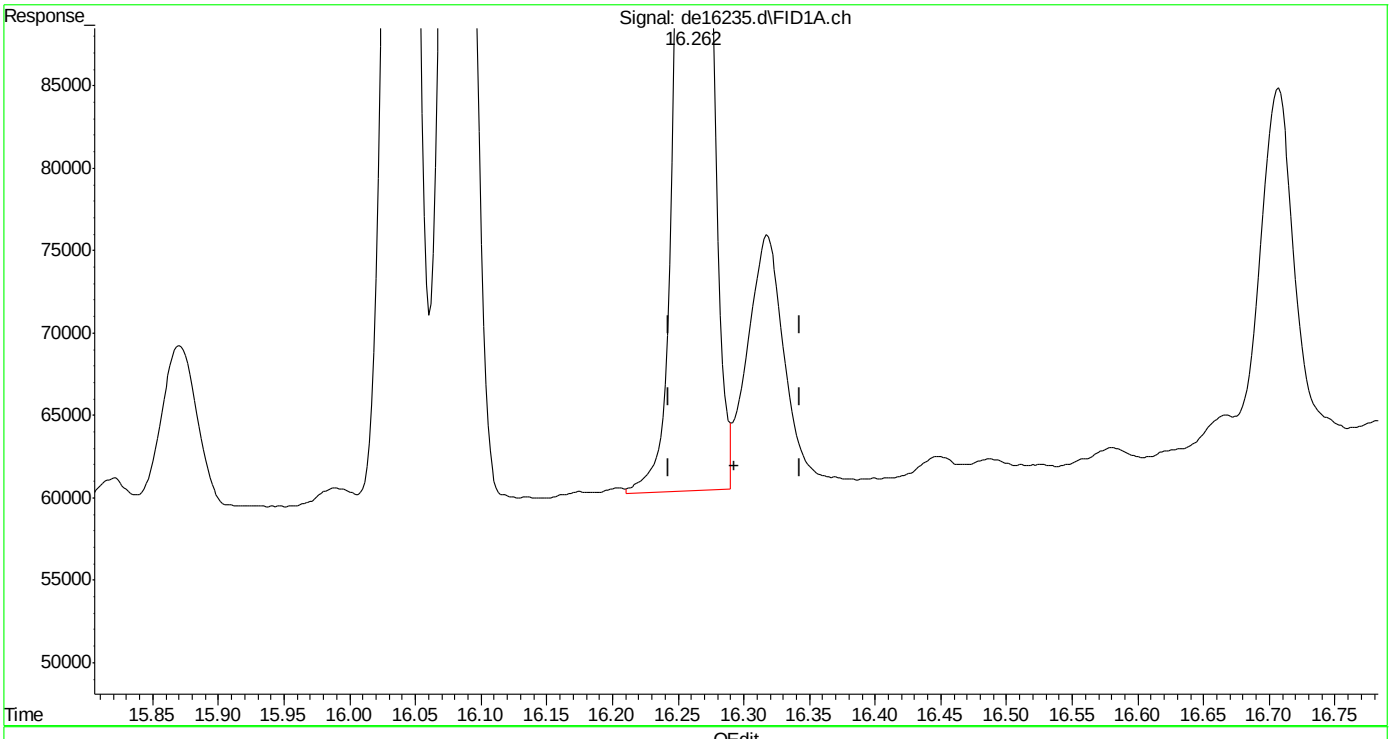
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16235.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:36 pm
Operator : thomasa
Sample : ic908-2
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:38:46 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:38:37 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(21) benzo(ghi)perylene
16.262min 1.299 µg/ml m
response 173995

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:40:08 2016

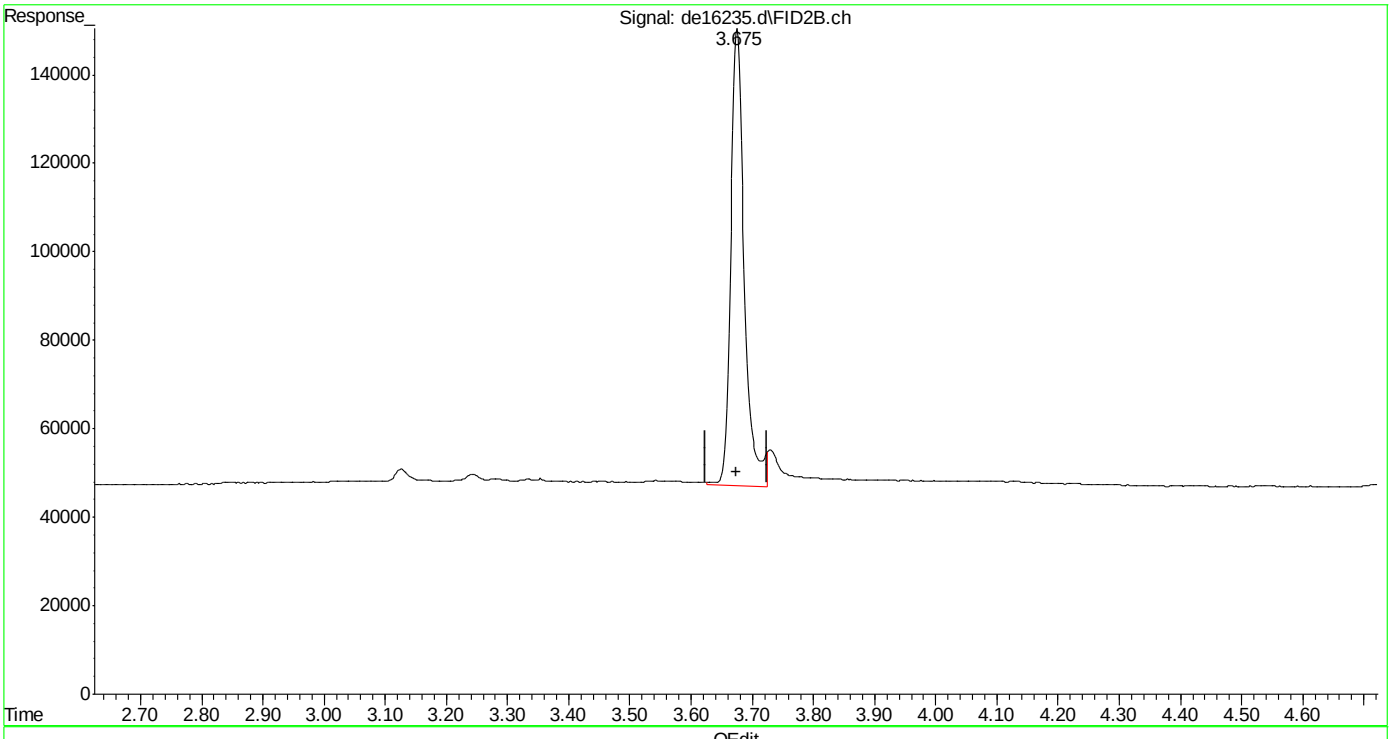
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16235.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:36 pm
Operator : thomasa
Sample : ic908-2
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:38:46 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:38:37 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(26) c-10 (h)
3.675min 2.173 µg/ml
response 159133

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:40:23 2016

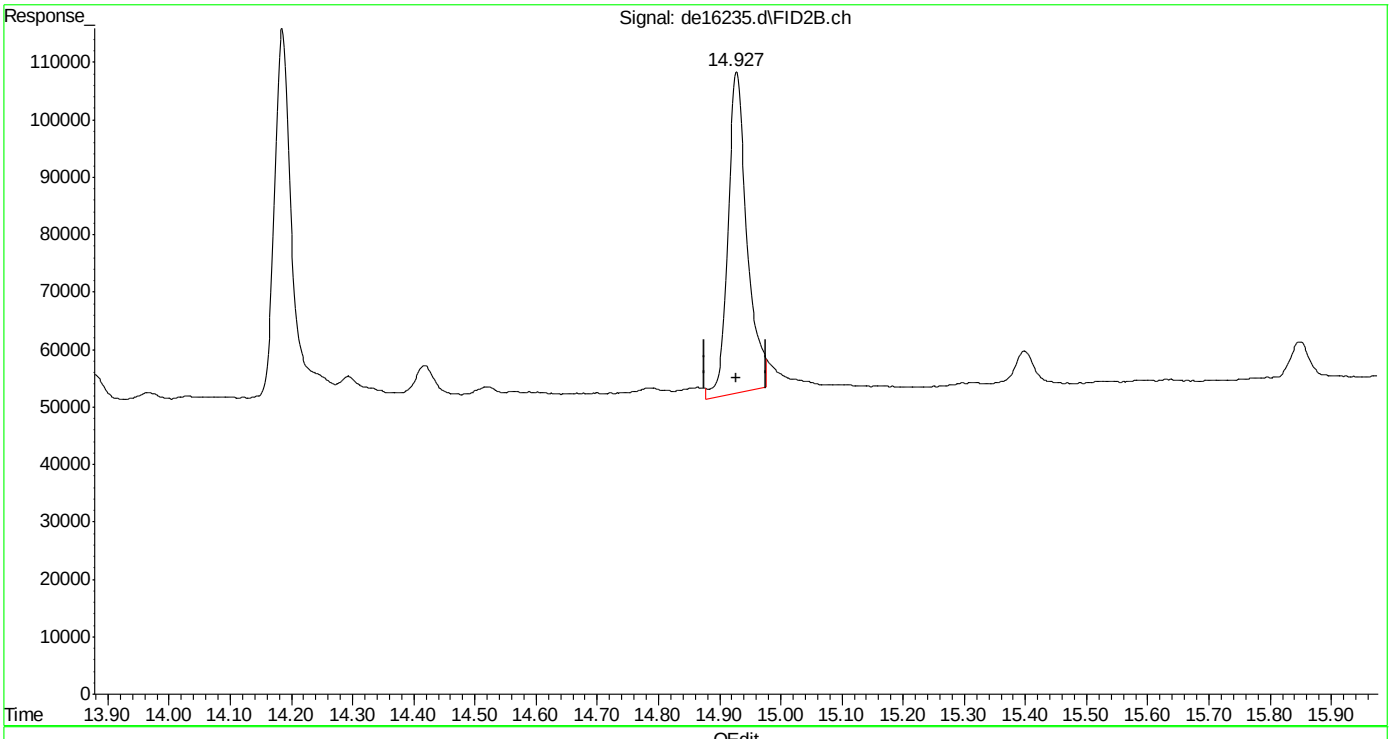
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16235.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 6:36 pm
Operator : thomasa
Sample : ic908-2
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 4 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:38:46 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:38:37 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(40) c-30 (h)
14.927min 1.803 µg/ml
response 121380

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Andri Piluri
12/07/16 16:10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16236.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:04 pm
Operator : thomasa
Sample : ic908-5
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:45:52 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:40:57 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.225	473188	3.673 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 18.37%		
6) s 2-bromonaphthalene	7.975	329787	3.766 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 18.83%		
11) s o-terphenyl	10.528	512988	3.617 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 18.09%		
35) s 1-chlorooctadecane	11.067	278727	4.974 µg/ml
Spiked Amount 20.000 Range 8 - 28	Recovery = 24.87%		
Target Compounds			
2) naphthalene	5.785	524983	3.660 µg/ml
3) 2-methylnaphthalene	6.680	512218	3.889 µg/ml
5) acenaphthylene	7.808	517814	3.704 µg/ml
7) acenaphthene	8.052	520145	3.661 µg/ml
8) fluorene	8.698	508203	3.620 µg/ml
9) phenanthrene	9.895	504077	3.644 µg/ml
10) anthracene	9.952	497094	3.558 µg/ml
12) fluoranthene	11.415	489011	3.584 µg/ml
13) pyrene	11.680	489060	3.568 µg/ml
14) benzo(a)anthracene	13.252	471659	3.529 µg/ml
15) chrysene	13.298	477107	3.575 µg/ml
16) benzo(B)fluoranthene	14.557	480846	3.516 µg/mlm
17) benzo(k)fluoranthene	14.583	472466	3.691 µg/ml
18) benzo(a)pyrene	14.898	473529	3.626 µg/ml
19) indeno(1,2,3-cd)pyrene	16.040f	465945	3.469 µg/mlm
20) dibenzo(ah)anthracene	16.083	454764	3.841 µg/ml
21) benzo(ghi)perylene	16.265f	465136	3.751 µg/mlm
25) h c-9	2.495	390540	5.085 µg/mlm
26) h c-10	3.675	379965	5.127 µg/mlm
27) naphthalene #2	5.348	379304	4.939 µg/ml
28) c-12	5.533	403681	5.500 µg/ml
29) 2-methylnaphthalene #2	6.240	367045	4.853 µg/ml
30) c-14	7.043	380532	5.400 µg/ml
31) c-16	8.365	381463	5.100 µg/ml
32) c-18	9.555	367843	5.084 µg/ml
33) c-19	10.107	389618	5.526 µg/ml
34) c-20	10.635	362094	5.391 µg/ml
36) c-22	11.627	351902	5.311 µg/ml
37) c-24	12.543	347811	5.210 µg/ml
38) c-26	13.392	338092	5.088 µg/ml

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16236.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:04 pm
Operator : thomasa
Sample : ic908-5
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:45:52 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:40:57 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
39)	c-28	14.182	327628	5.164 µg/ml
40) h	c-30	14.927	324012	4.848 µg/mlm
41) h	c-36	16.838	183492	5.320 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.3

9

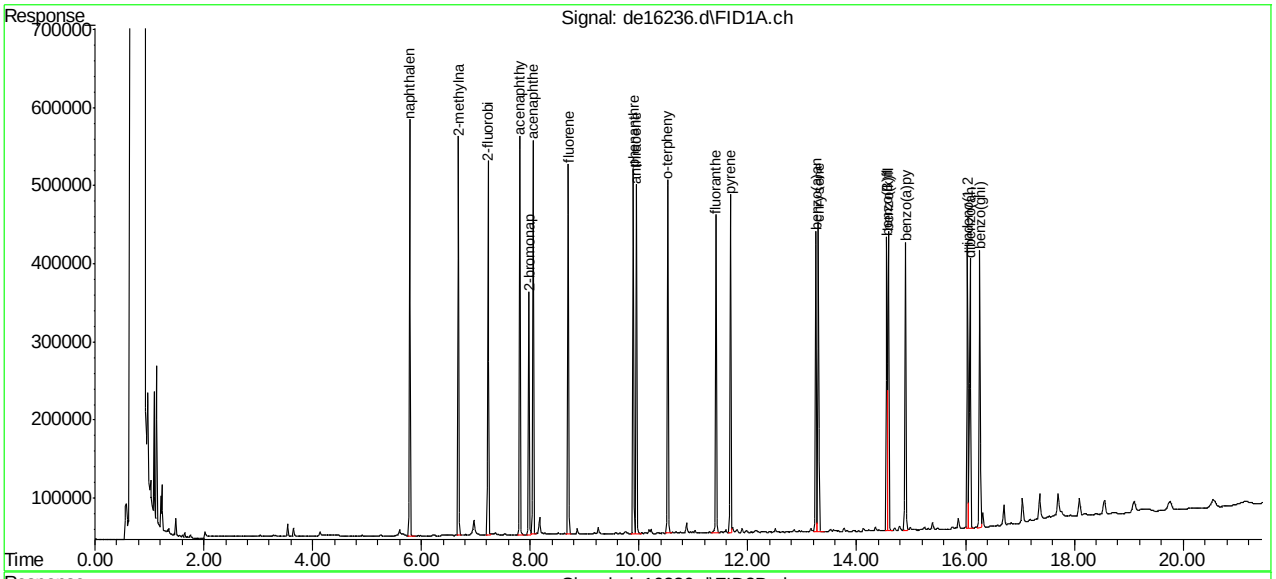
SGS ACCUTEST MC48999

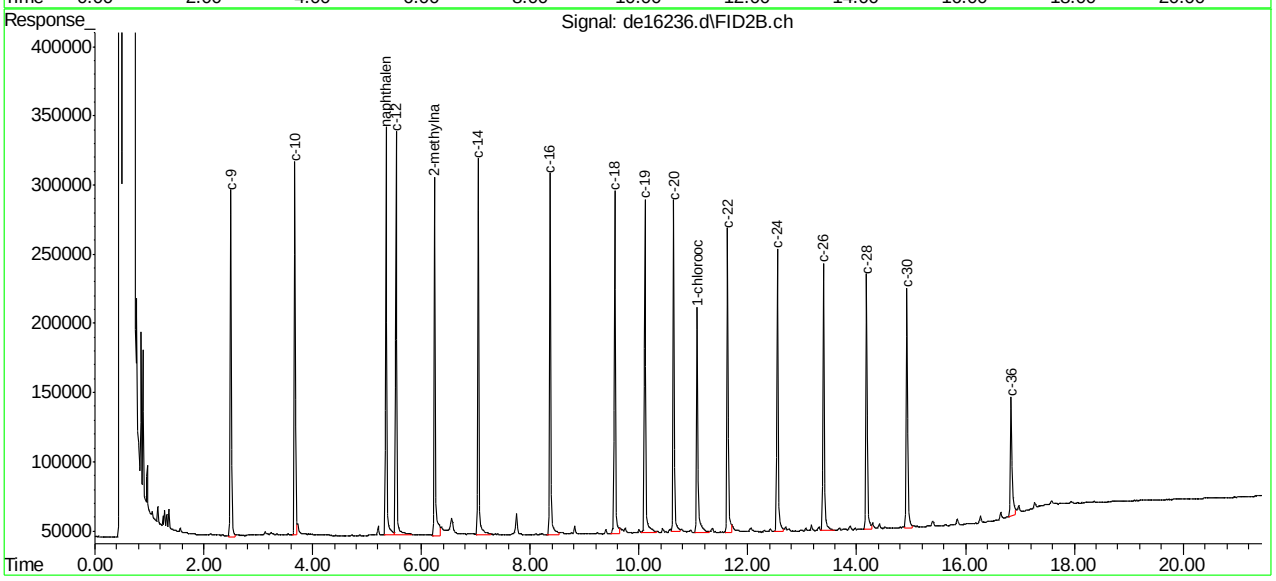
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16236.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:04 pm
Operator : thomasa
Sample : ic908-5
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

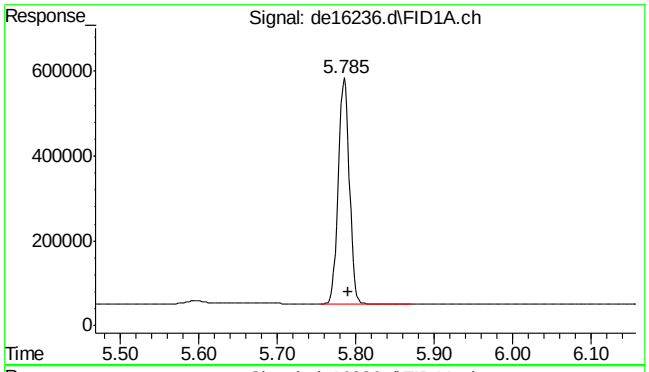
Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:45:52 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:40:57 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



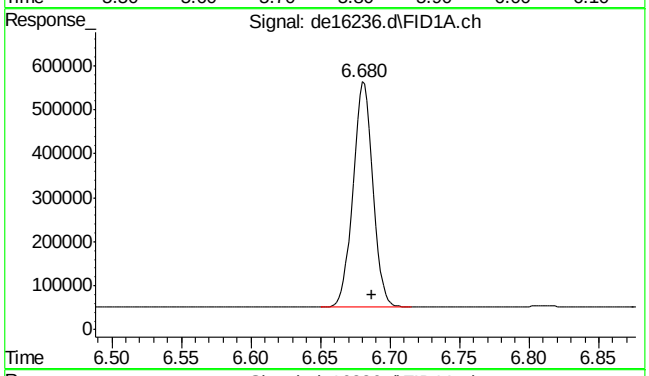


SGS ACCUTEST MC48999



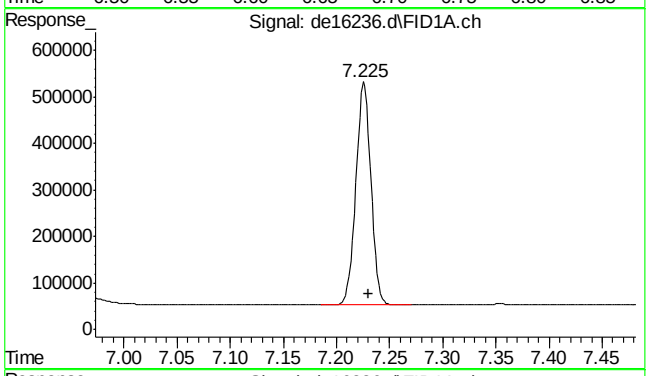
#2 naphthalene

R.T.: 5.785 min
Delta R.T.: -0.005 min
Response: 524983
Conc: 3.66 µg/ml



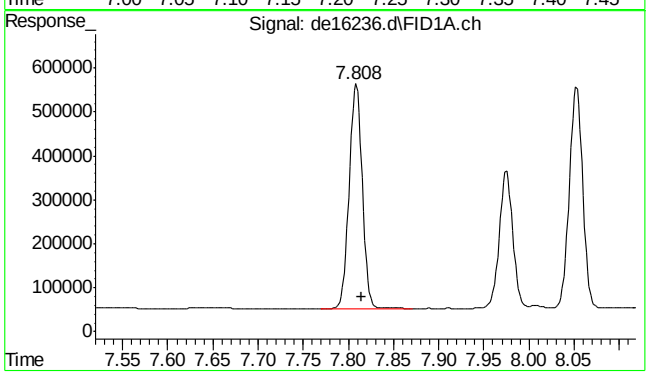
#3 2-methylnaphthalene

R.T.: 6.680 min
Delta R.T.: -0.007 min
Response: 512218
Conc: 3.89 µg/ml



#4 2-fluorobiphenyl

R.T.: 7.225 min
Delta R.T.: -0.005 min
Response: 473188
Conc: 3.67 µg/ml



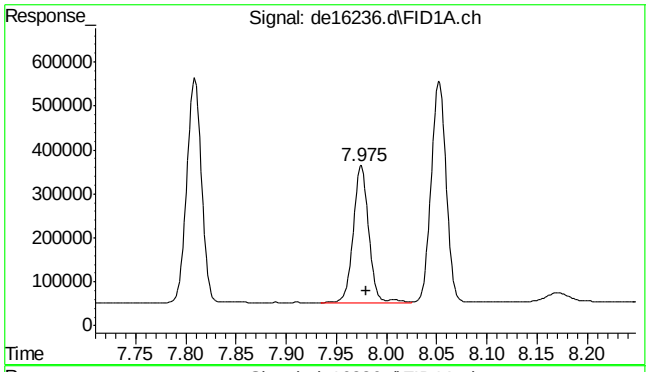
#5 acenaphthylene

R.T.: 7.808 min
Delta R.T.: -0.007 min
Response: 517814
Conc: 3.70 µg/ml

9.5.3

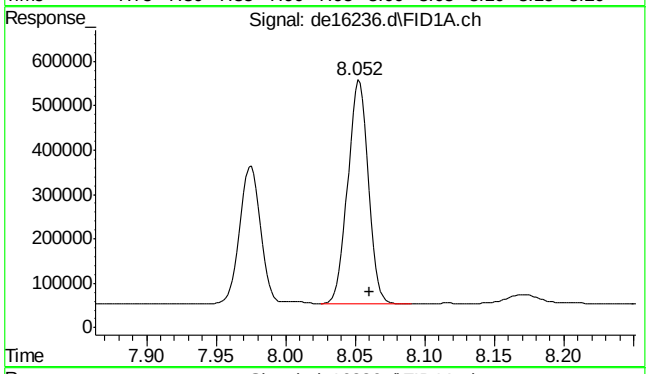
9

SGS ACCUTEST MC48999



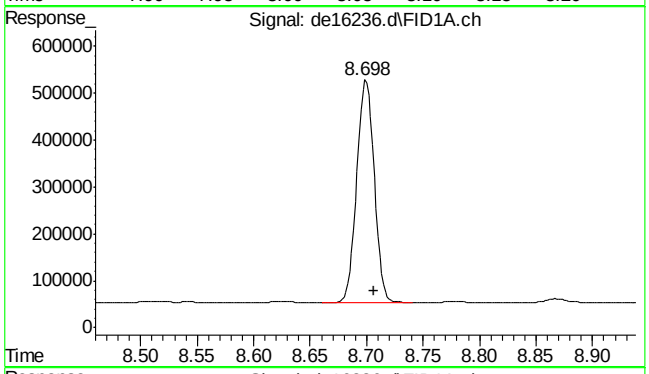
#6 2-bromonaphthalene

R.T.: 7.975 min
Delta R.T.: -0.005 min
Response: 329787
Conc: 3.77 µg/ml



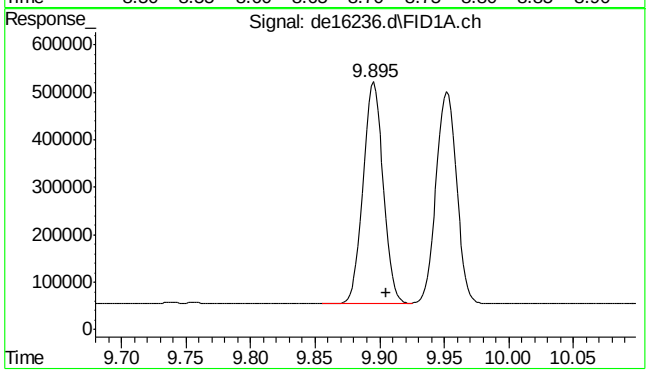
#7 acenaphthene

R.T.: 8.052 min
Delta R.T.: -0.008 min
Response: 520145
Conc: 3.66 µg/ml



#8 fluorene

R.T.: 8.698 min
Delta R.T.: -0.009 min
Response: 508203
Conc: 3.62 µg/ml



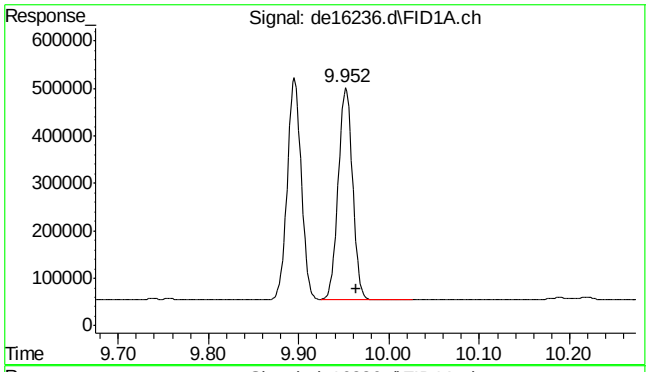
#9 phenanthrene

R.T.: 9.895 min
Delta R.T.: -0.010 min
Response: 504077
Conc: 3.64 µg/ml

9.5.3

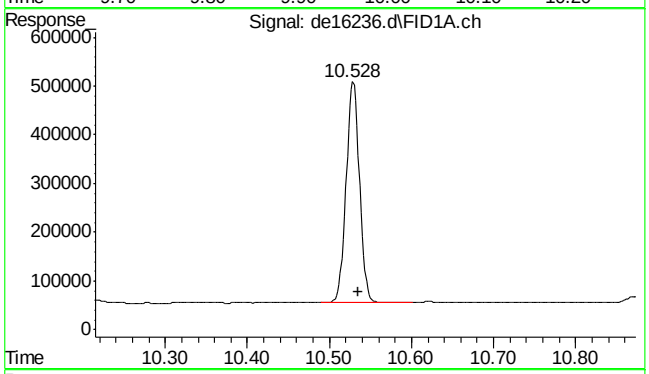
9

SGS ACCUTEST MC48999



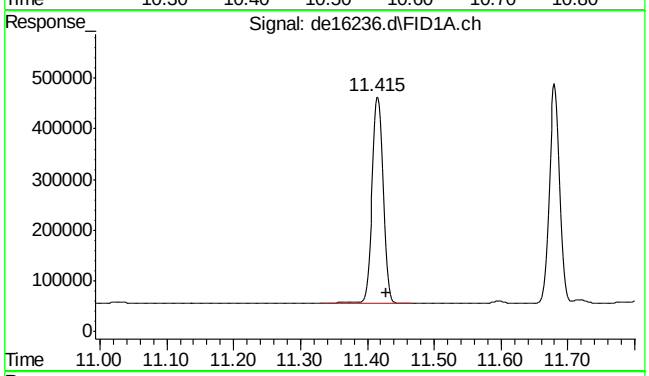
#10 anthracene

R.T.: 9.952 min
Delta R.T.: -0.011 min
Response: 497094
Conc: 3.56 µg/ml



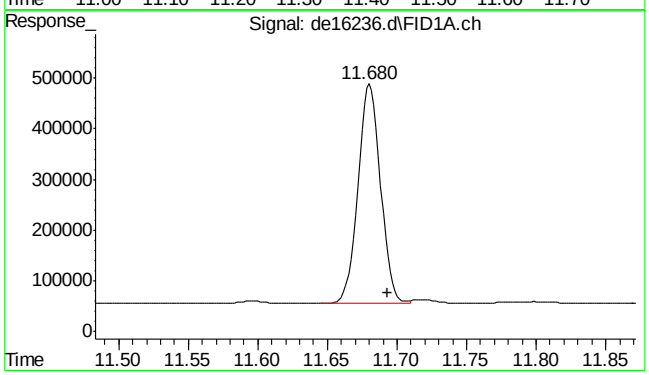
#11 o-terphenyl

R.T.: 10.528 min
Delta R.T.: -0.007 min
Response: 512988
Conc: 3.62 µg/ml



#12 fluoranthene

R.T.: 11.415 min
Delta R.T.: -0.013 min
Response: 489011
Conc: 3.58 µg/ml



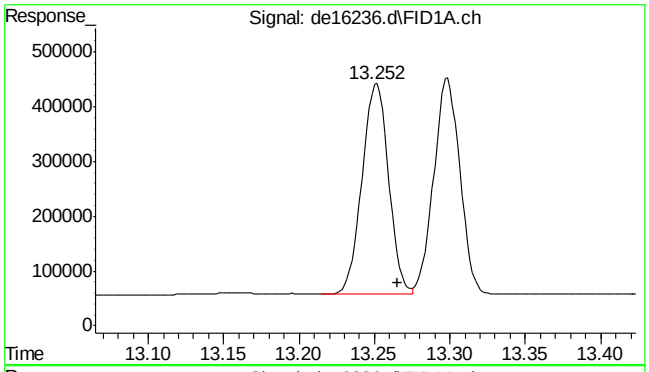
#13 pyrene

R.T.: 11.680 min
Delta R.T.: -0.013 min
Response: 489060
Conc: 3.57 µg/ml

9.5.3

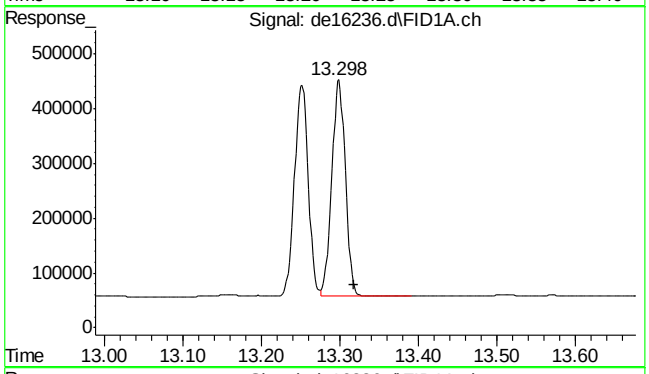
9

SGS ACCUTEST MC48999



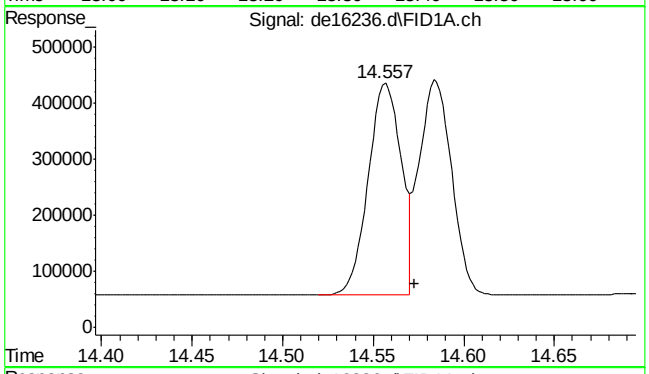
#14 benzo(a)anthracene

R.T.: 13.252 min
Delta R.T.: -0.013 min
Response: 471659
Conc: 3.53 µg/ml



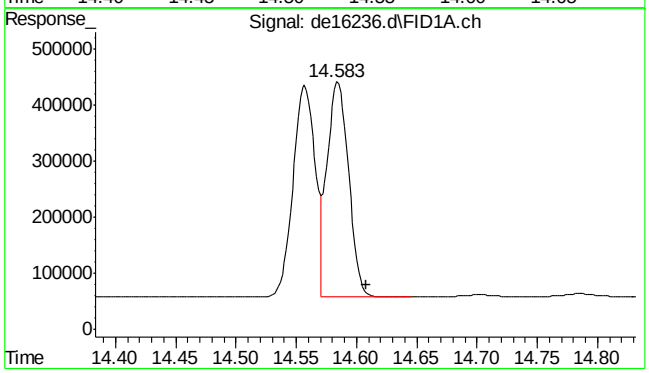
#15 chrysene

R.T.: 13.298 min
Delta R.T.: -0.019 min
Response: 477107
Conc: 3.58 µg/ml



#16 benzo(B)fluoranthene

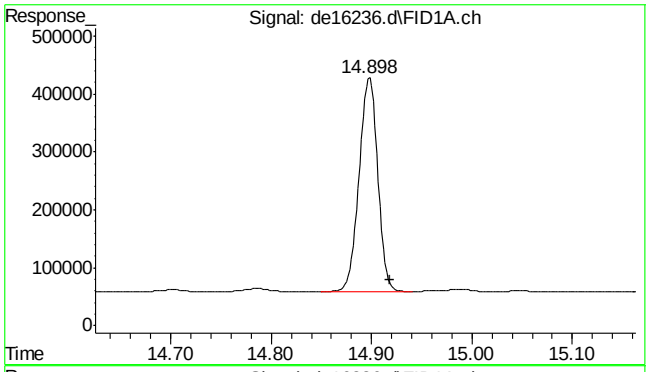
R.T.: 14.557 min
Delta R.T.: -0.016 min
Response: 480846
Conc: 3.52 µg/ml m



#17 benzo(k)fluoranthene

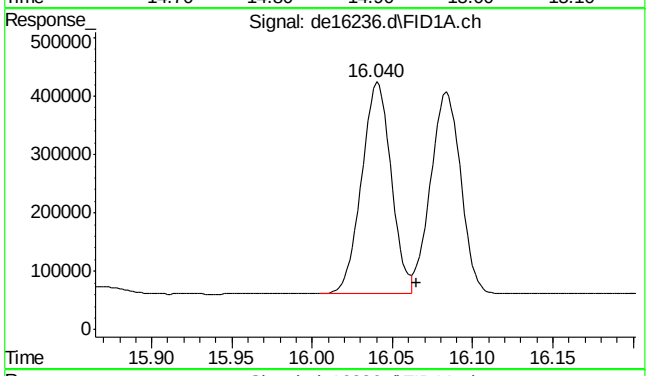
R.T.: 14.583 min
Delta R.T.: -0.025 min
Response: 472466
Conc: 3.69 µg/ml

SGS ACCUTEST MC48999



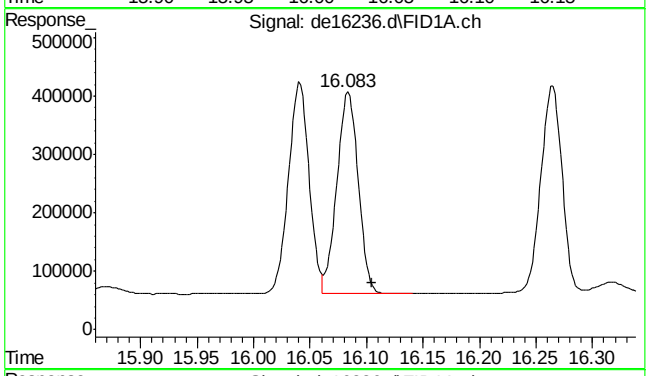
#18 benzo(a)pyrene

R.T.: 14.898 min
Delta R.T.: -0.020 min
Response: 473529
Conc: 3.63 µg/ml



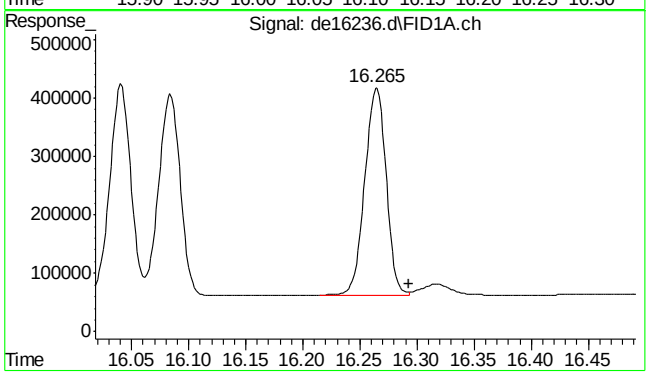
#19 indeno(1,2,3-cd)pyrene

R.T.: 16.040 min
Delta R.T.: -0.025 min
Response: 465945
Conc: 3.47 µg/ml m



#20 dibenzo(ah)anthracene

R.T.: 16.083 min
Delta R.T.: -0.022 min
Response: 454764
Conc: 3.84 µg/ml



#21 benzo(ghi)perylene

R.T.: 16.265 min
Delta R.T.: -0.028 min
Response: 465136
Conc: 3.75 µg/ml m

9.5.3

9

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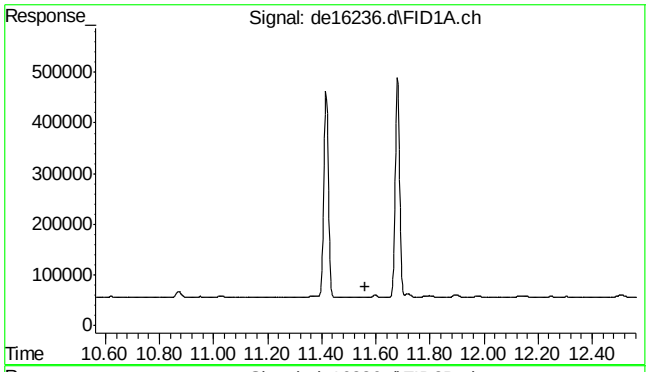
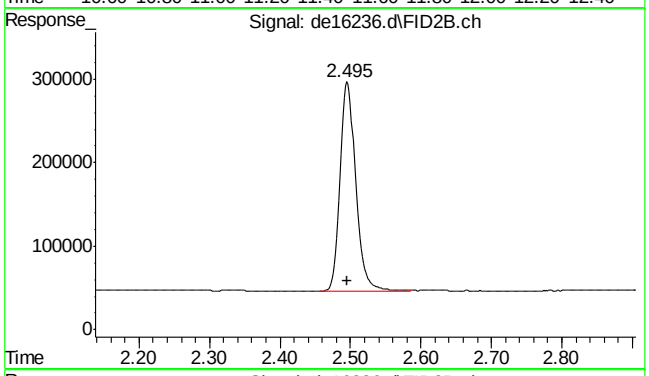


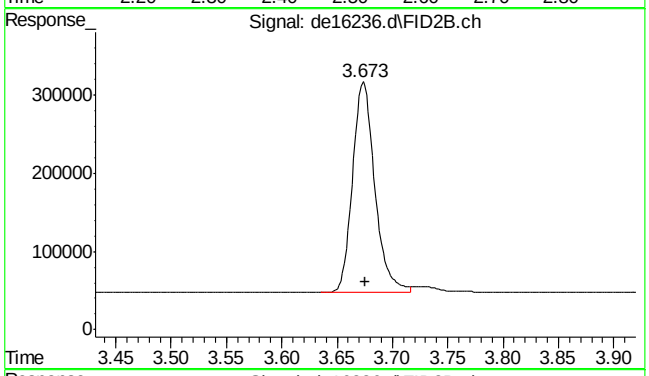
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.562 min
Response: 0
Conc: N.D.



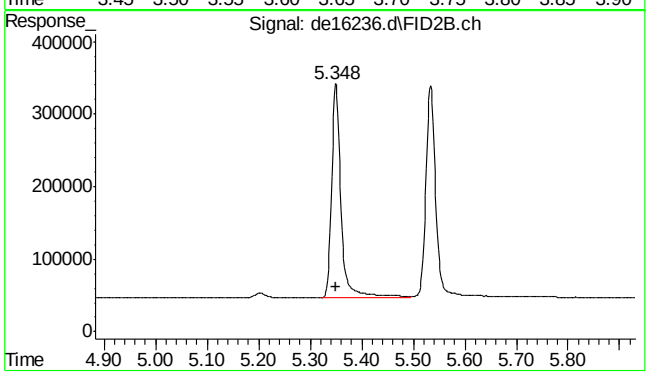
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 390540
Conc: 5.09 µg/ml m



#26 c-10

R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 379965
Conc: 5.13 µg/ml m



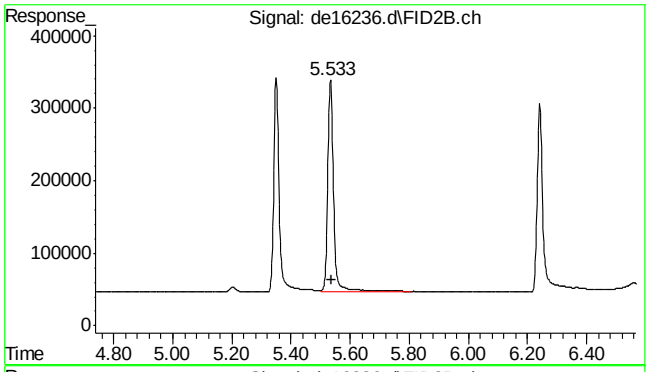
#27 naphthalene #2

R.T.: 5.348 min
Delta R.T.: -0.002 min
Response: 379304
Conc: 4.94 µg/ml

9.5.3

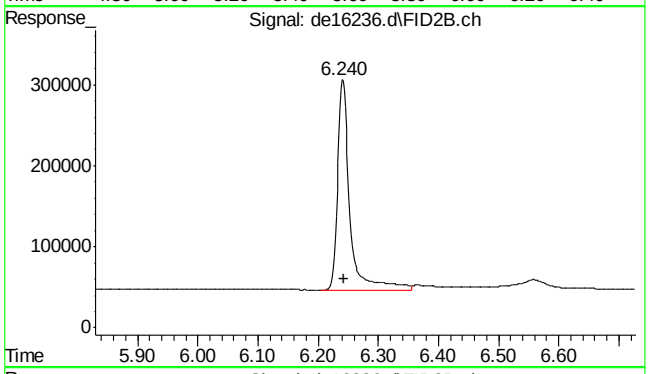
9

SGS ACCUTEST MC48999



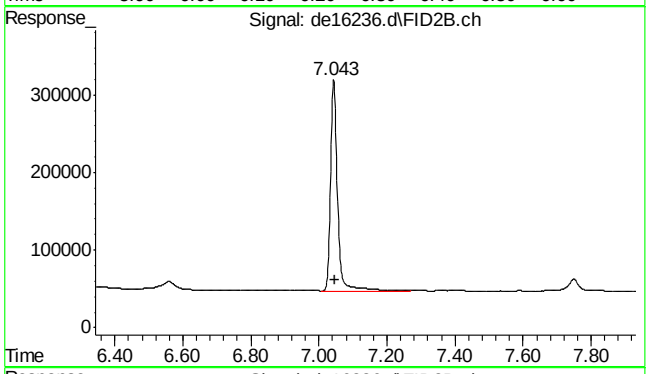
#28 c-12

R.T.: 5.533 min
Delta R.T.: -0.002 min
Response: 403681
Conc: 5.50 µg/ml



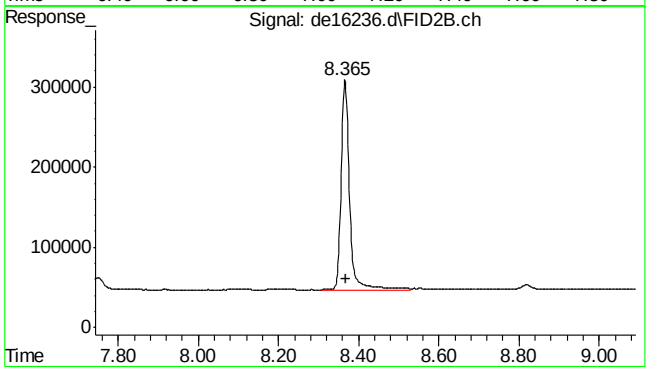
#29 2-methylnaphthalene #2

R.T.: 6.240 min
Delta R.T.: -0.002 min
Response: 367045
Conc: 4.85 µg/ml



#30 c-14

R.T.: 7.043 min
Delta R.T.: -0.004 min
Response: 380532
Conc: 5.40 µg/ml



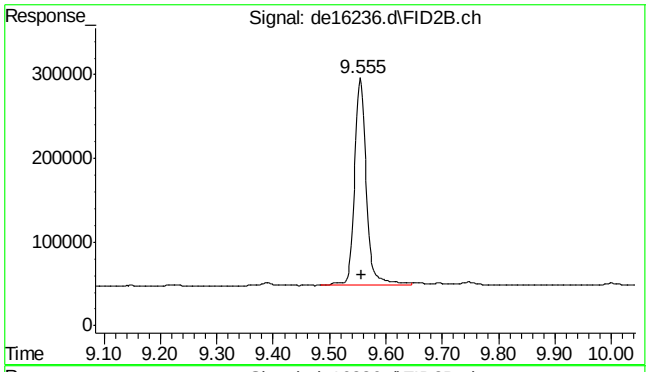
#31 c-16

R.T.: 8.365 min
Delta R.T.: -0.003 min
Response: 381463
Conc: 5.10 µg/ml

9.5.3

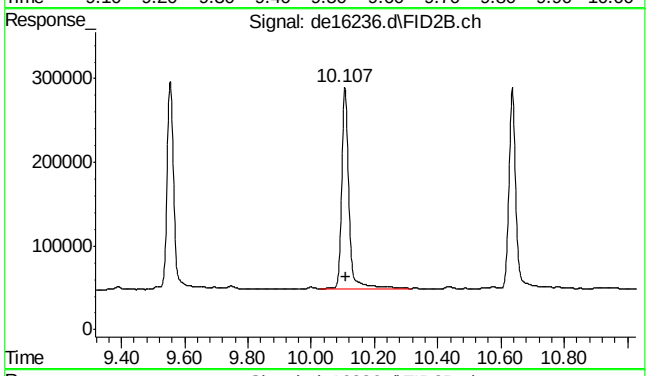
9

SGS ACCUTEST MC48999



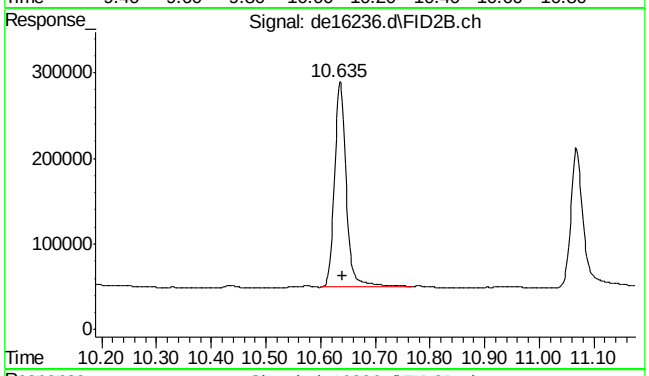
#32 c-18

R.T.: 9.555 min
Delta R.T.: -0.002 min
Response: 367843
Conc: 5.08 µg/ml



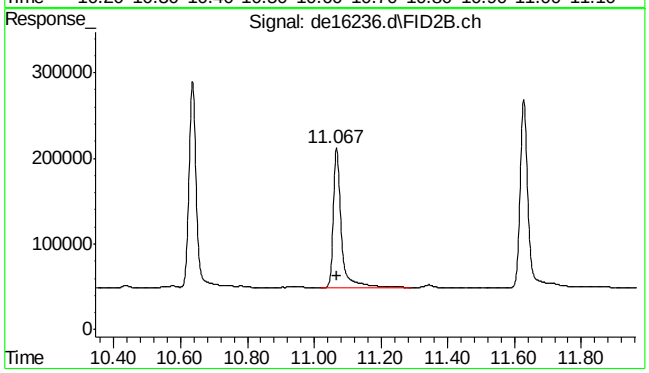
#33 c-19

R.T.: 10.107 min
Delta R.T.: -0.005 min
Response: 389618
Conc: 5.53 µg/ml



#34 c-20

R.T.: 10.635 min
Delta R.T.: -0.005 min
Response: 362094
Conc: 5.39 µg/ml



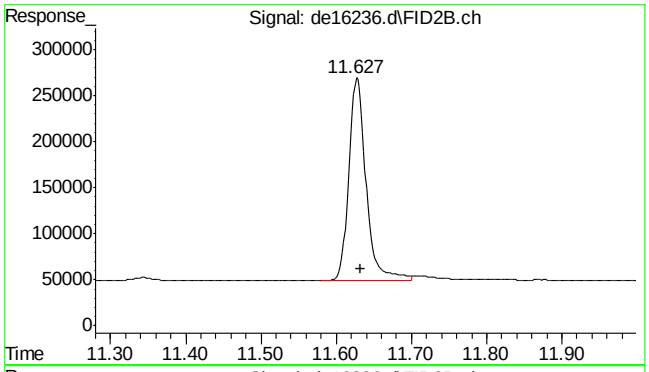
#35 1-chlorooctadecane

R.T.: 11.067 min
Delta R.T.: -0.003 min
Response: 278727
Conc: 4.97 µg/ml

9.5.3

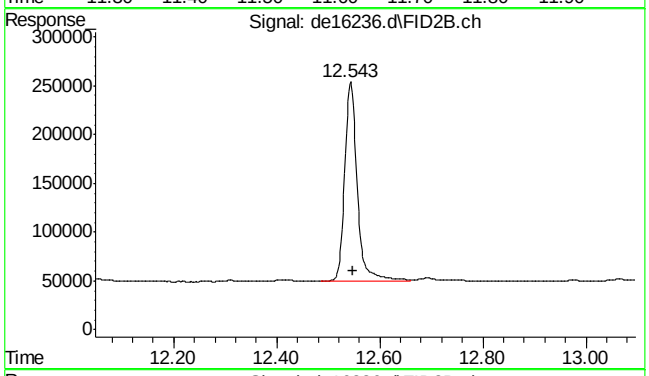
9

SGS ACCUTEST MC48999



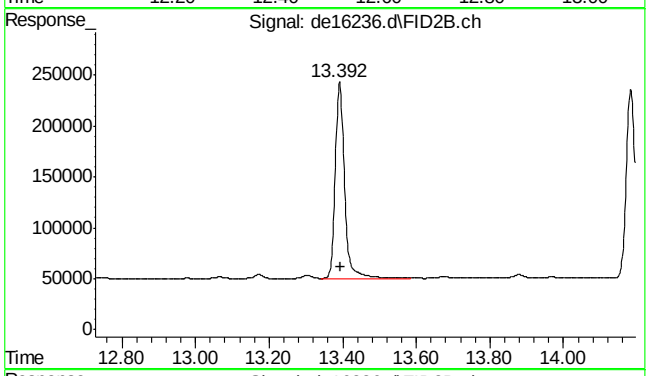
#36 c-22

R.T.: 11.627 min
Delta R.T.: -0.005 min
Response: 351902
Conc: 5.31 µg/ml



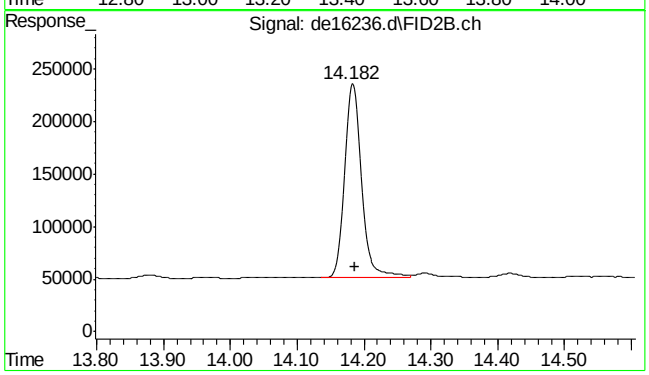
#37 c-24

R.T.: 12.543 min
Delta R.T.: -0.004 min
Response: 347811
Conc: 5.21 µg/ml



#38 c-26

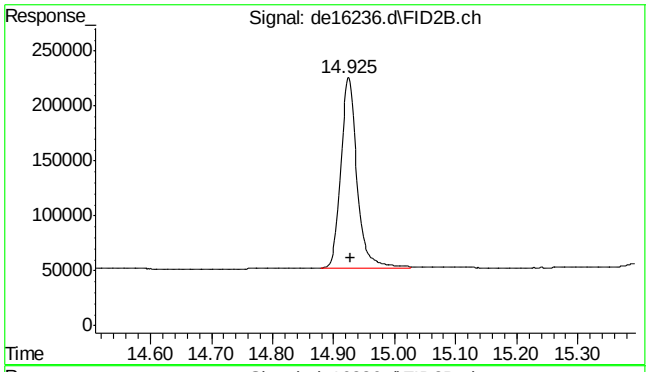
R.T.: 13.392 min
Delta R.T.: -0.003 min
Response: 338092
Conc: 5.09 µg/ml



#39 c-28

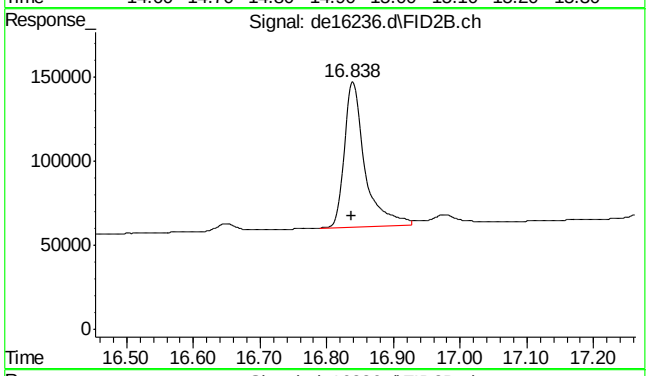
R.T.: 14.182 min
Delta R.T.: -0.005 min
Response: 327628
Conc: 5.16 µg/ml

SGS ACCUTEST MC48999



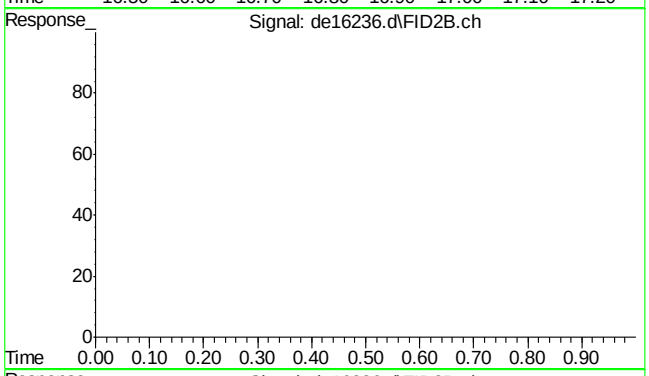
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 324012
Conc: 4.85 µg/ml m



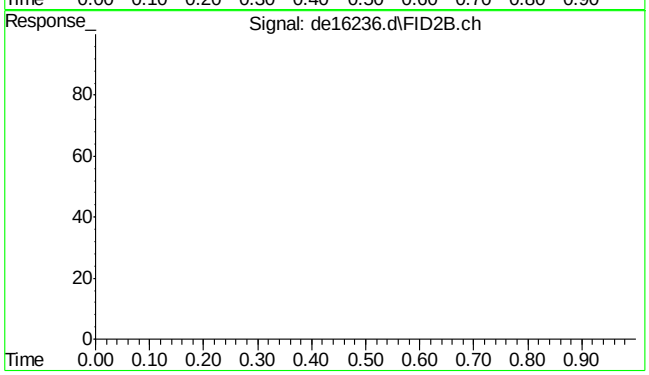
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 183492
Conc: 5.32 µg/ml m



#42 bht

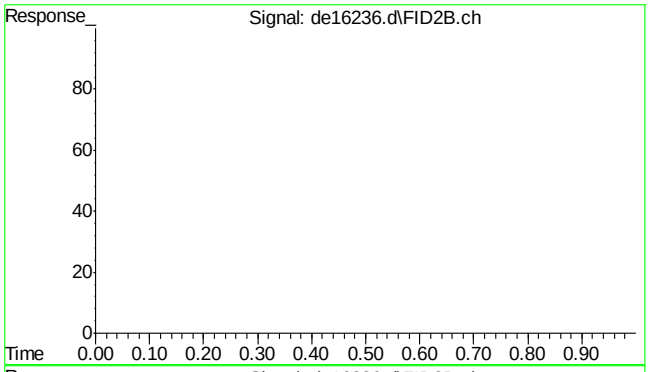
R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.



#43 bht

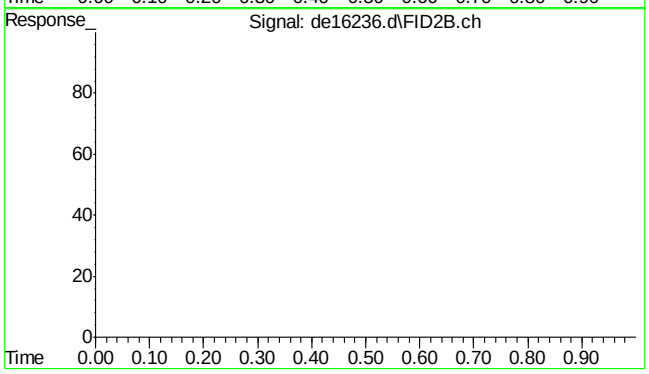
R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

SGS ACCUTEST MC48999



#44 bht

```
      R.T.:    0.000 min
Exp R.T.  :   23.000 min
  Response:         0
      Conc:   N.D.
```



#45 bht

```
      R.T.:    0.000 min
Exp R.T.  :   23.000 min
  Response:         0
      Conc:   N.D.
```

9.5.3

9

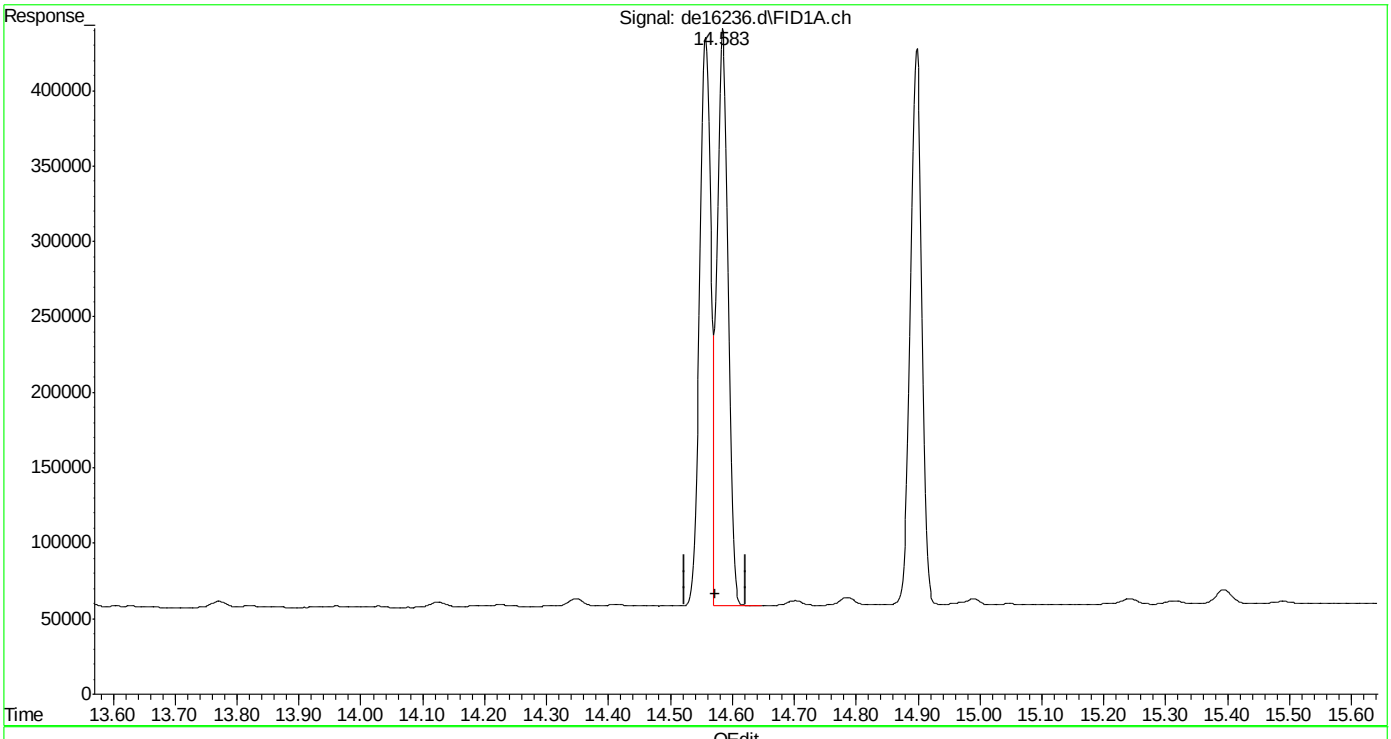
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16236.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:04 pm
Operator : thomasa
Sample : ic908-5
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:41:36 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:40:57 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(16) benzo(B)fluoranthene
14.583min 3.455 µg/ml
response 472466

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:41:46 2016

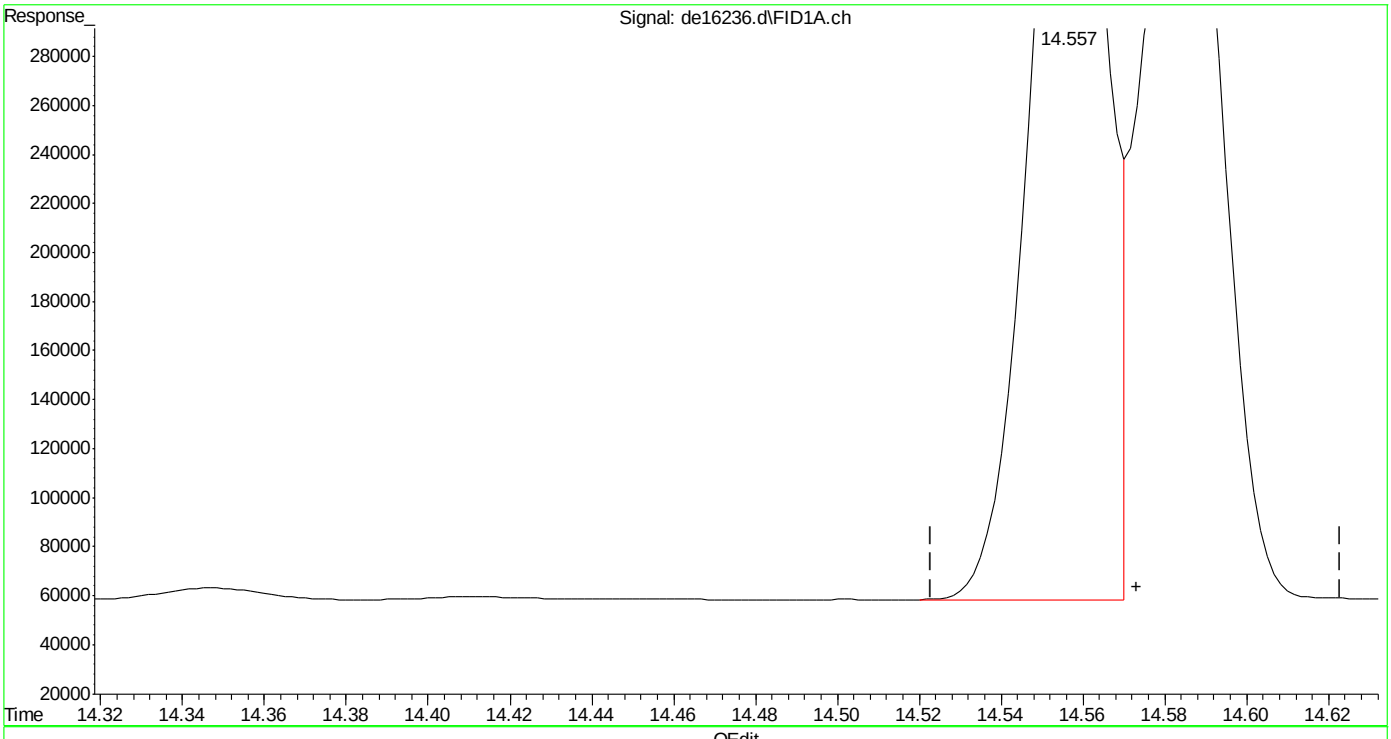
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16236.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:04 pm
Operator : thomasa
Sample : ic908-5
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:41:36 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:40:57 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(16) benzo(B)fluoranthene
14.557min 3.516 µg/ml m
response 480846

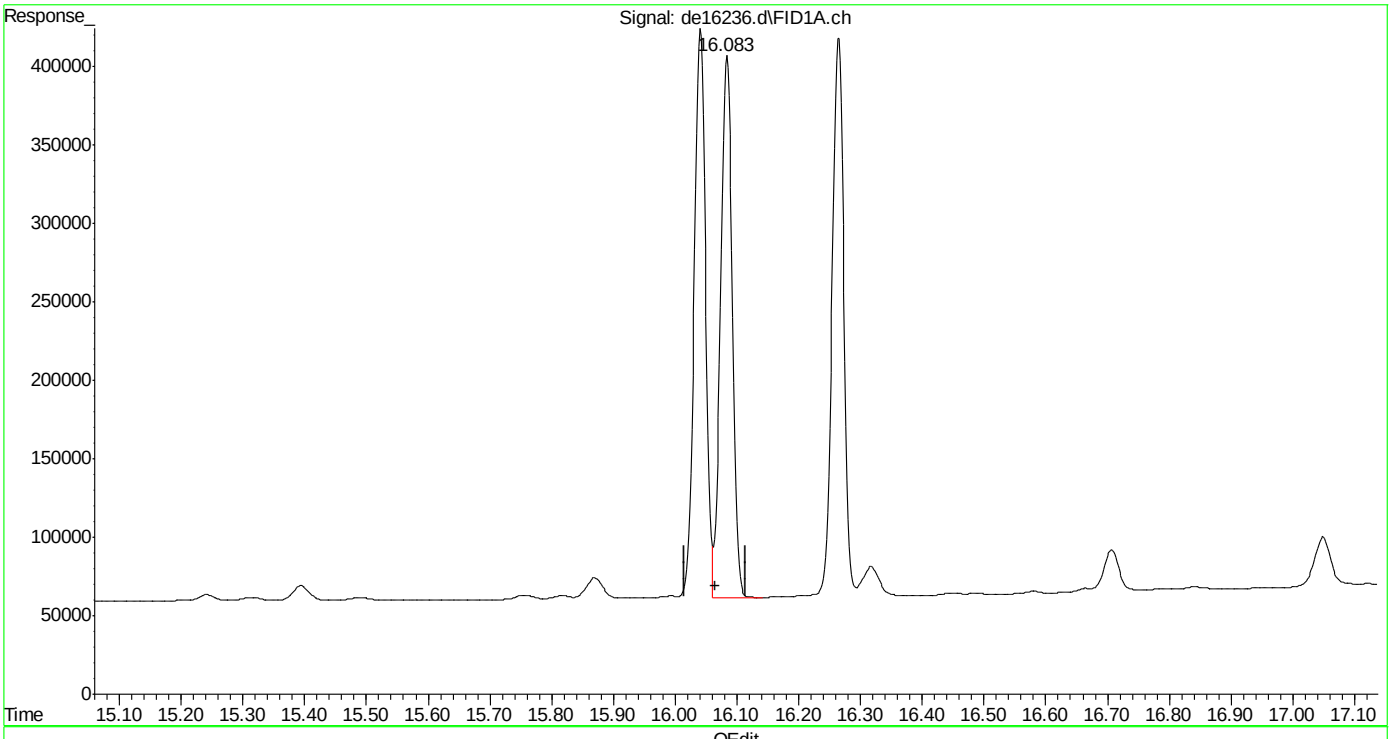
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16236.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:04 pm
Operator : thomasa
Sample : ic908-5
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:41:36 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:40:57 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(19) indeno(1,2,3-cd)pyrene
16.083min 3.386 µg/ml
response 454764

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:42:02 2016

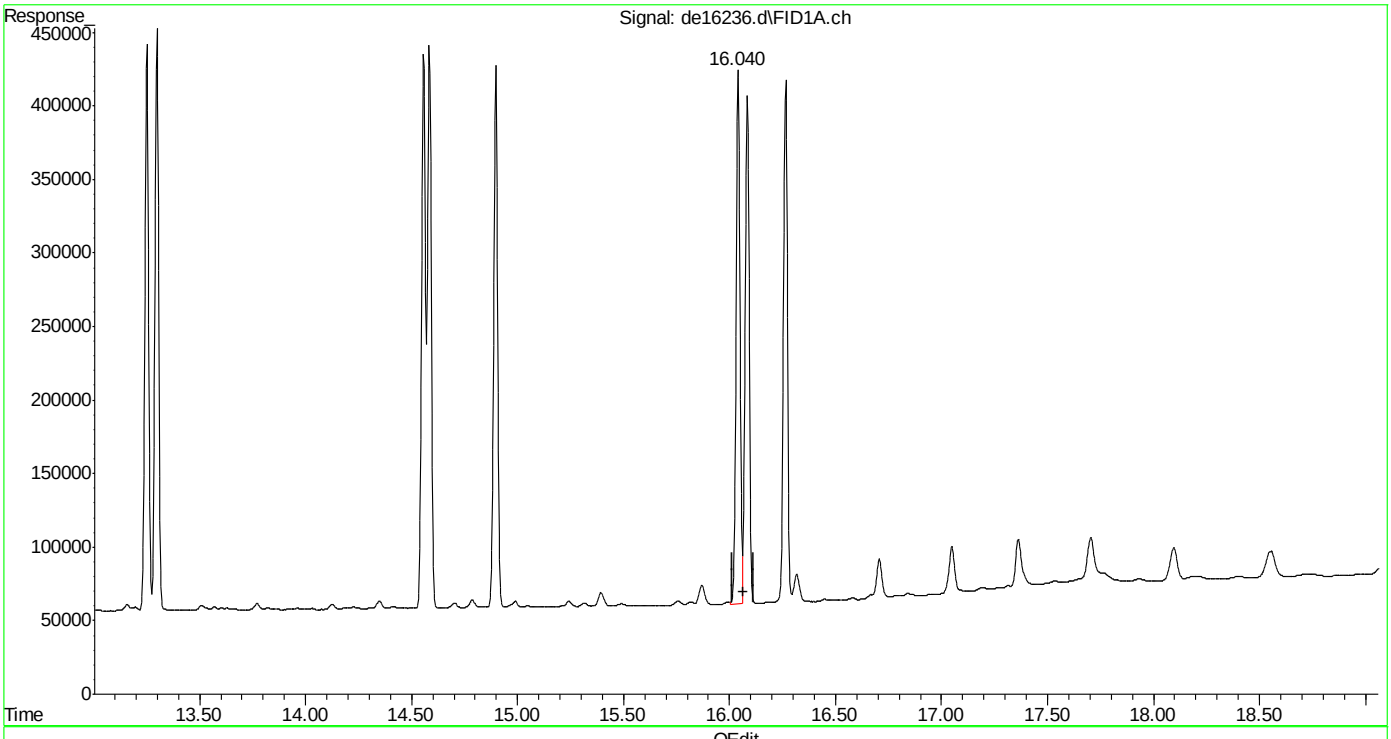
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16236.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:04 pm
Operator : thomasa
Sample : ic908-5
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:41:36 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:40:57 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(19) indeno(1,2,3-cd)pyrene
16.040min 3.469 µg/ml m
response 465945

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:42:22 2016

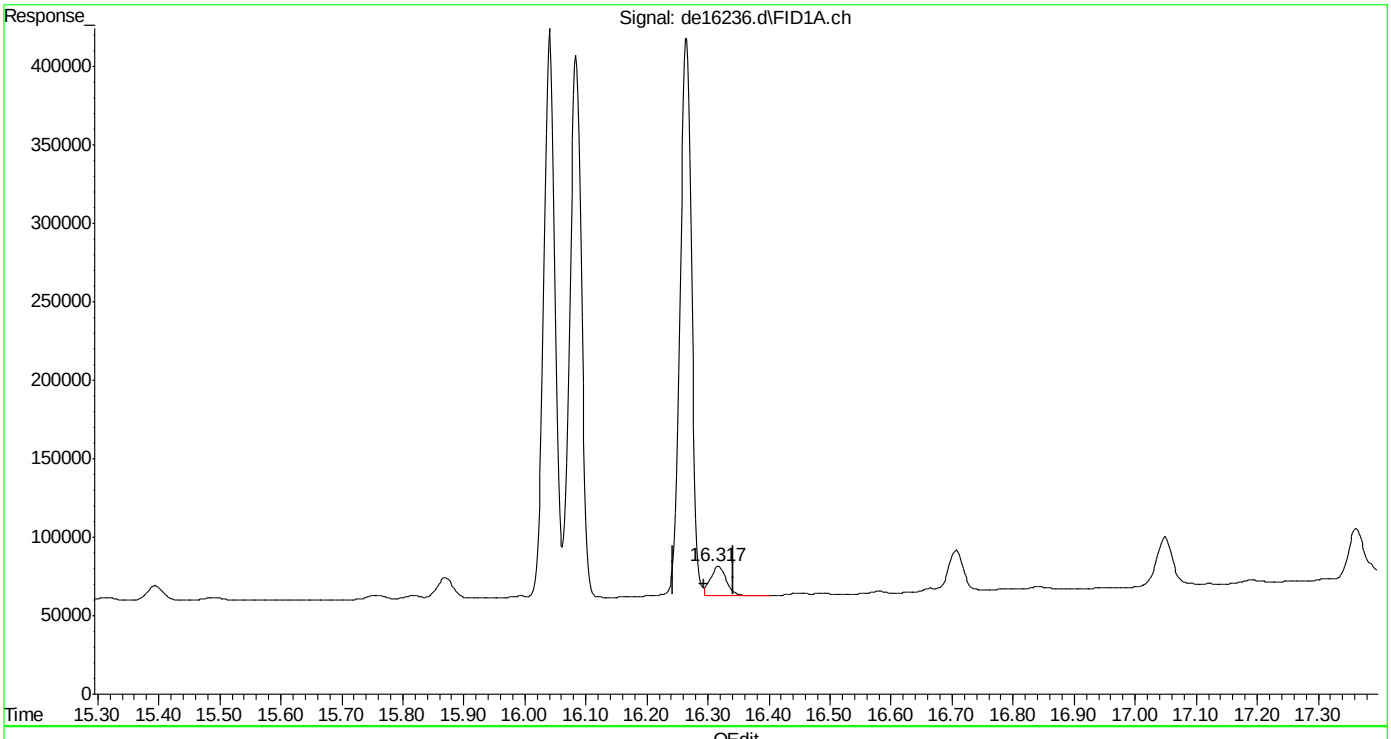
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16236.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:04 pm
Operator : thomasa
Sample : ic908-5
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:41:36 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:40:57 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(21) benzo(ghi)perylene
16.317min 0.264 µg/ml
response 32735

(+) = Expected Retention Time

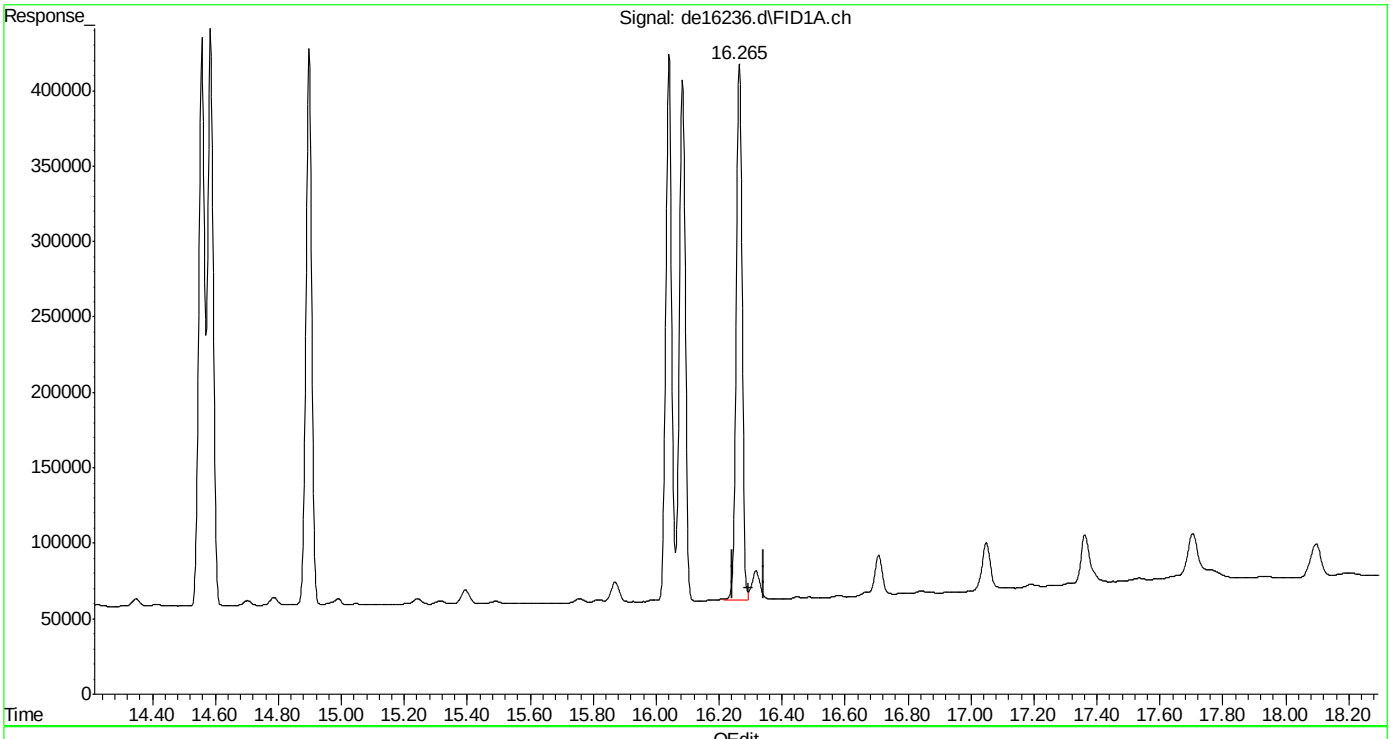
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16236.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:04 pm
Operator : thomasa
Sample : ic908-5
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:41:36 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:40:57 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(21) benzo(ghi)perylene
16.265min 3.751 µg/ml m
response 465136

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:42:36 2016

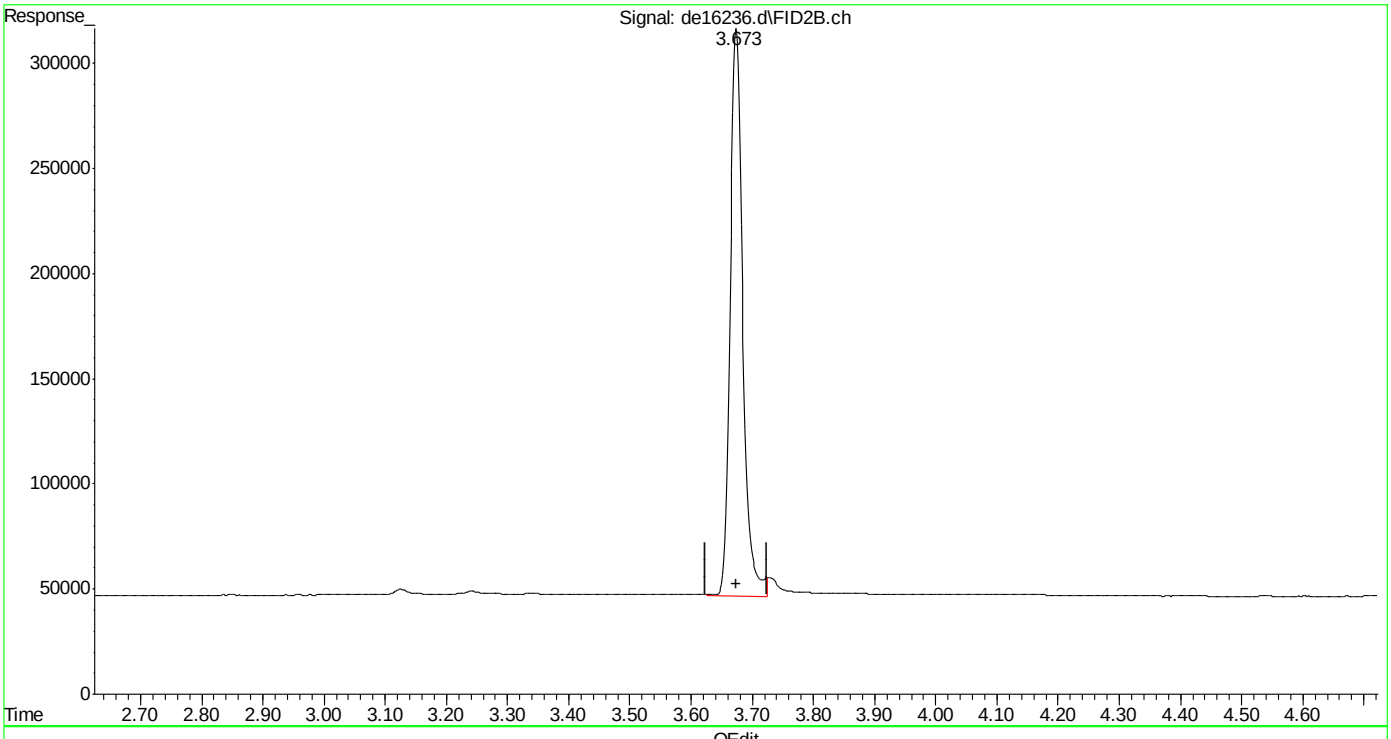
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16236.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:04 pm
Operator : thomasa
Sample : ic908-5
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:41:36 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:40:57 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(26) c-10 (h)
3.675min 5.229 µg/ml
response 387540

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:45:04 2016

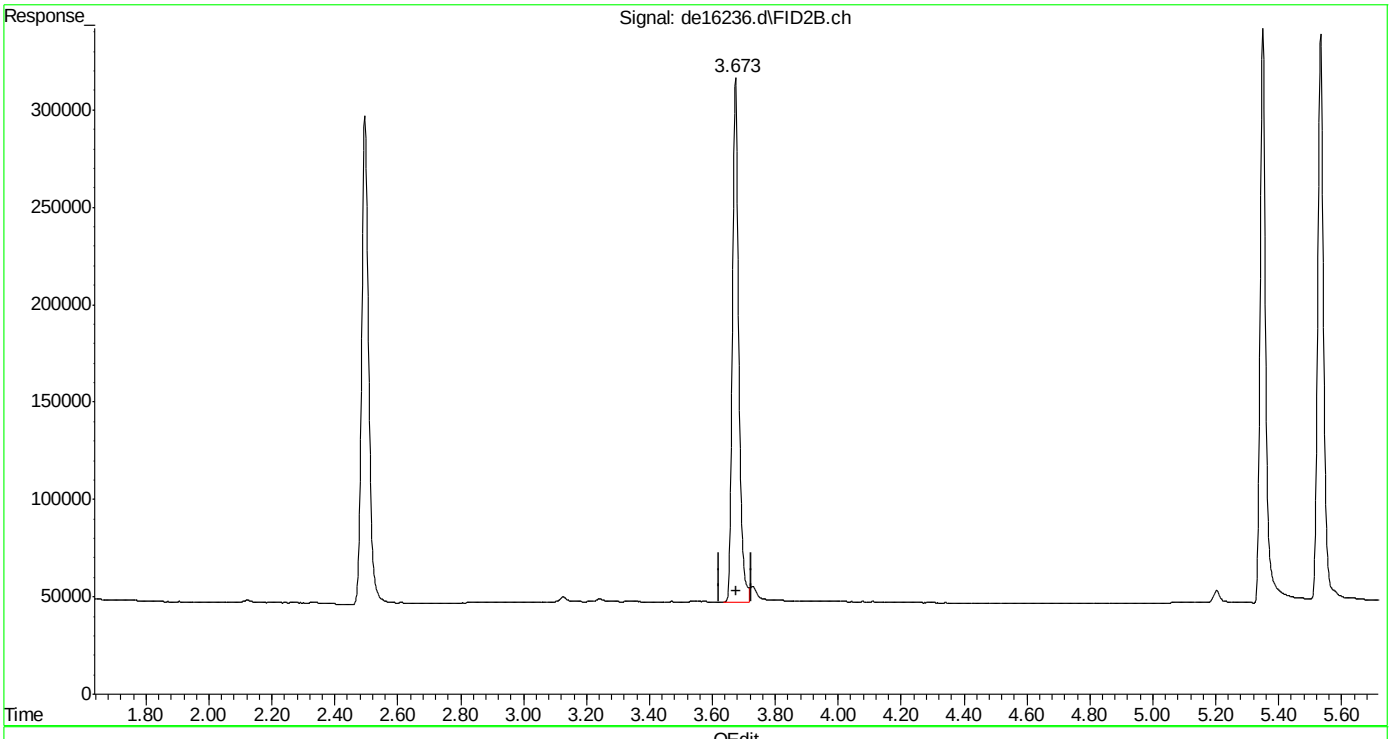
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16236.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:04 pm
Operator : thomasa
Sample : ic908-5
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:41:36 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:40:57 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(26) c-10 (h)
3.675min 5.127 µg/ml m
response 379965

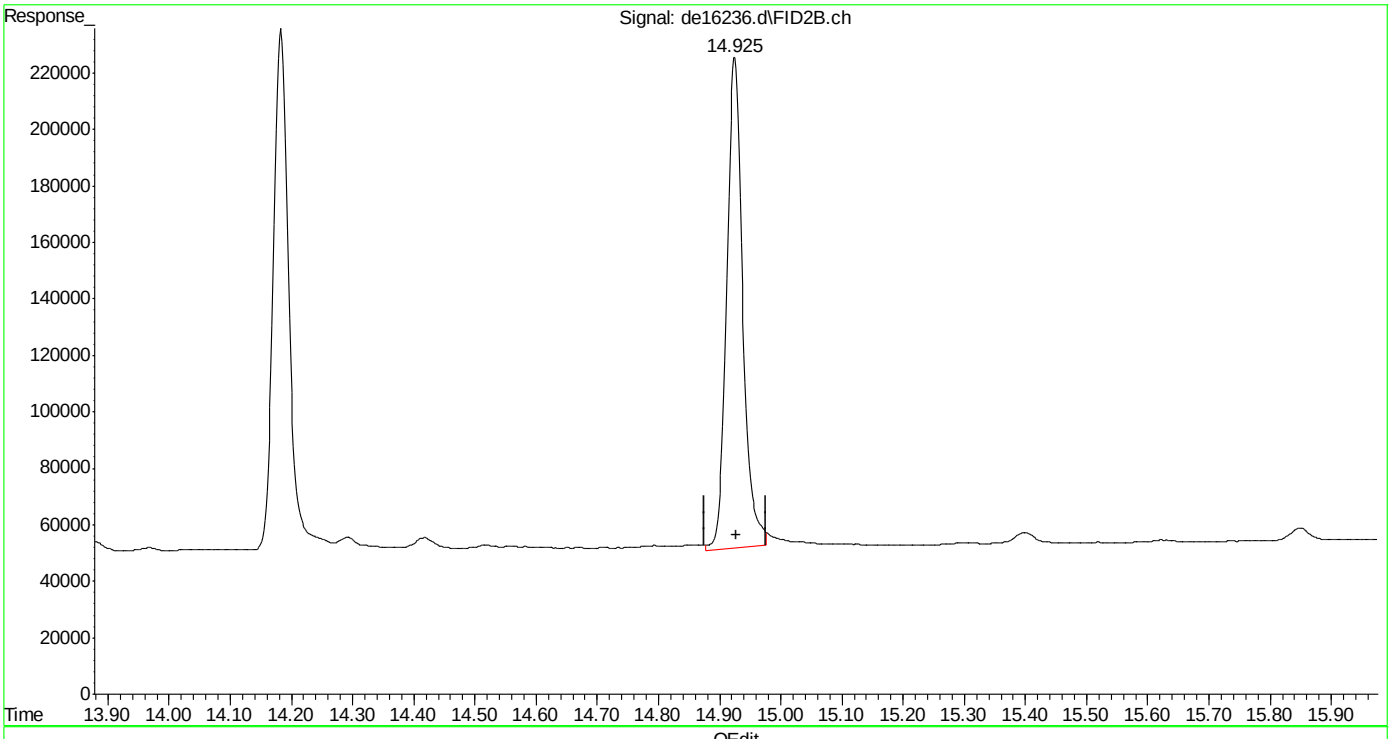
(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:45:14 2016 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16236.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:04 pm
Operator : thomasa
Sample : ic908-5
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:41:36 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:40:57 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(40) c-30 (h)
14.927min 4.754 µg/ml
response 317700

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:45:24 2016

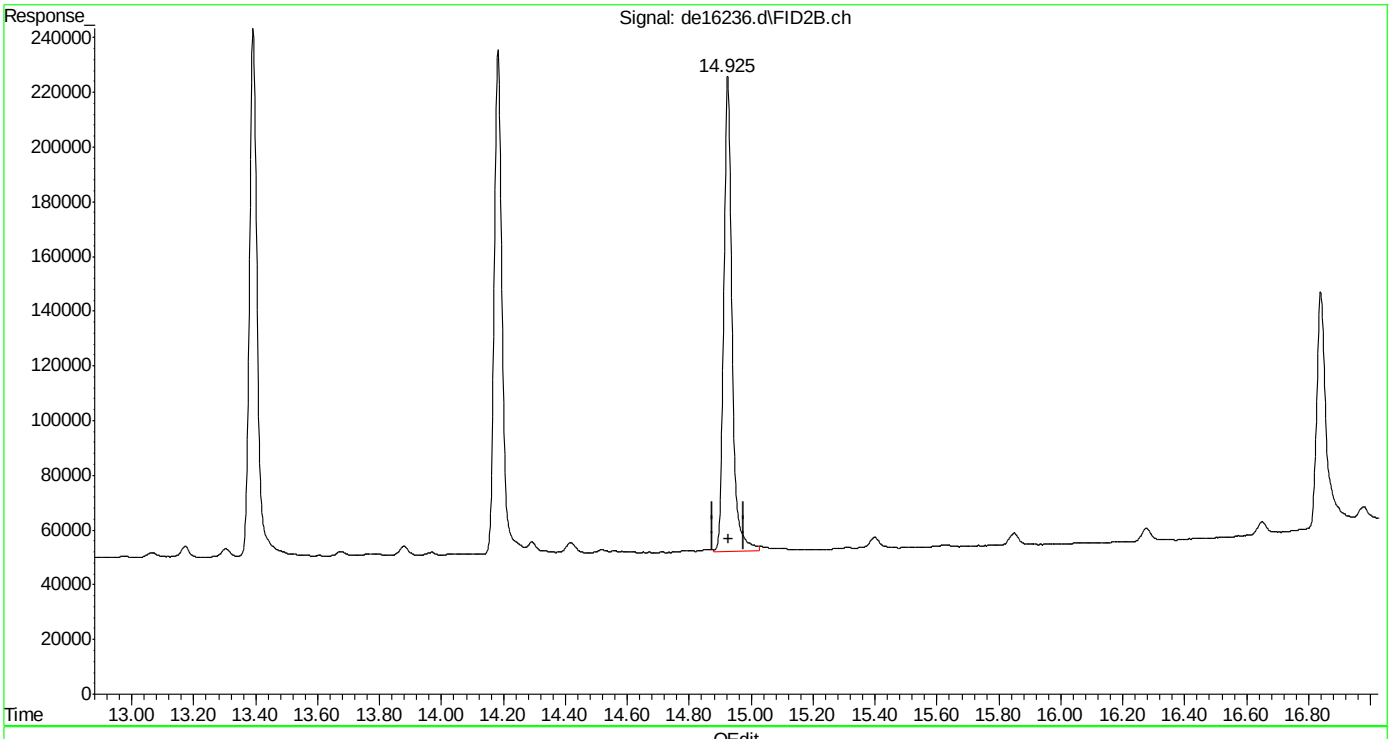
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16236.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:04 pm
Operator : thomasa
Sample : ic908-5
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 6 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:41:36 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:40:57 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(40) c-30 (h)
14.927min 4.848 µg/ml m
response 324012

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:45:31 2016

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16237.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:32 pm
Operator : thomasa
Sample : ic908-20
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:46:59 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:45:58 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) s	2-fluorobiphenyl	7.227	2011528	16.818 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 84.09%#
6) s	2-bromonaphthalene	7.977	1359672	16.640 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 83.20%#
11) s	o-terphenyl	10.530	2143258	16.245 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 81.23%#
35) s	1-chlorooctadecane	11.067	1250945	22.308 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 111.54%#
	Target Compounds			
2)	naphthalene	5.787	2253134	16.903 µg/ml
3)	2-methylnaphthalene	6.682	2188633	17.712 µg/ml
5)	acenaphthylene	7.810	2186921	16.821 µg/ml
7)	acenaphthene	8.053	2197189	16.651 µg/ml
8)	fluorene	8.702	2139500	16.430 µg/ml
9)	phenanthrene	9.898	2113013	16.410 µg/ml
10)	anthracene	9.953	2085040	16.084 µg/ml
12)	fluoranthene	11.420	2040272	16.071 µg/ml
13)	pyrene	11.683	2056905	16.108 µg/ml
14)	benzo(a)anthracene	13.255	1982398	15.950 µg/ml
15)	chrysene	13.303	2013689	16.193 µg/ml
16)	benzo(B)fluoranthene	14.562	2022145	15.921 µg/ml
17)	benzo(k)fluoranthene	14.592	1987094	16.604 µg/ml
18)	benzo(a)pyrene	14.902	1954488	16.028 µg/ml
19)	indeno(1,2,3-cd)pyrene	16.047	1953968	15.548 µg/ml
20)	dibenzo(ah)anthracene	16.090	1915337	17.355 µg/ml
21)	benzo(ghi)perylene	16.272	1934290	16.612 µg/ml
25) h	c-9	2.495	1645908	21.341 µg/mlm
26) h	c-10	3.675	1632475	21.887 µg/mlm
27)	naphthalene #2	5.348	1711451	22.418 µg/ml
28)	c-12	5.533	1695907	22.543 µg/ml
29)	2-methylnaphthalene #2	6.240	1683894	22.394 µg/ml
30)	c-14	7.043	1636053	22.761 µg/ml
31)	c-16	8.365	1656495	22.037 µg/ml
32)	c-18	9.555	1614453	22.221 µg/ml
33)	c-19	10.108	1662454	22.975 µg/ml
34)	c-20	10.637	1611811	23.537 µg/ml
36)	c-22	11.627	1602243	23.812 µg/ml
37)	c-24	12.543	1563852	23.183 µg/ml
38)	c-26	13.392	1529290	22.914 µg/ml

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16237.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:32 pm
Operator : thomasa
Sample : ic908-20
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:46:59 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:45:58 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
39)	c-28	14.183	1486261	23.235 µg/ml
40) h	c-30	14.927	1435089	21.638 µg/ml
41) h	c-36	16.838	1133375	32.341 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.4

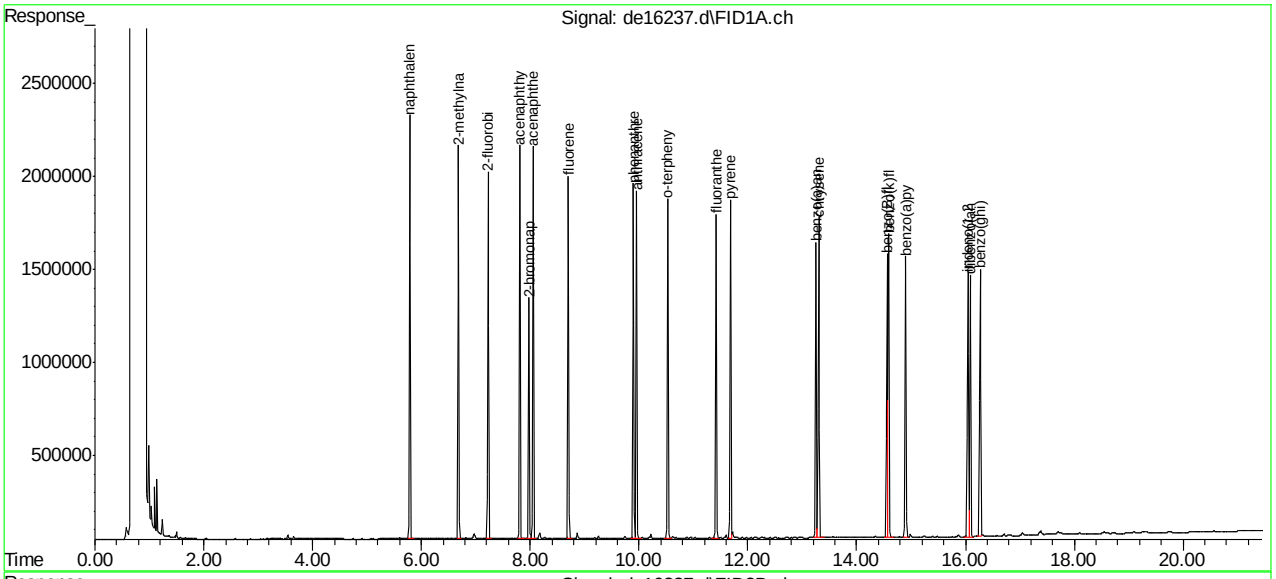
9

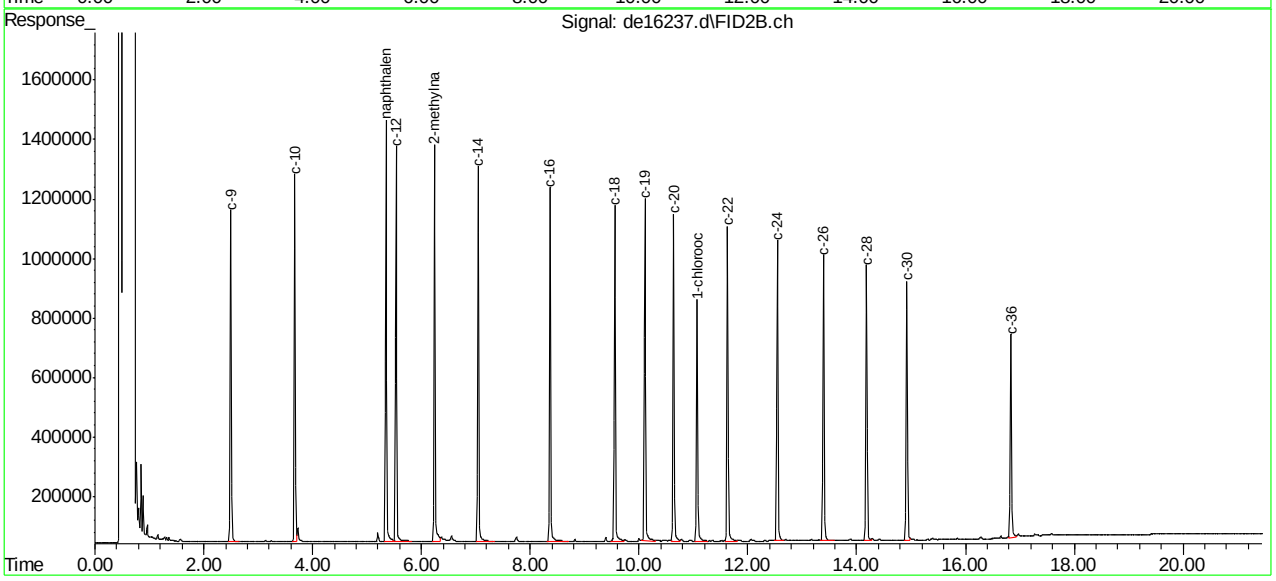
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16237.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:32 pm
Operator : thomasa
Sample : ic908-20
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:46:59 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:45:58 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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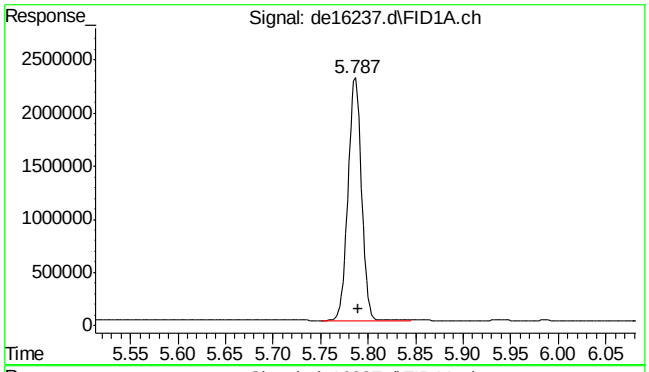
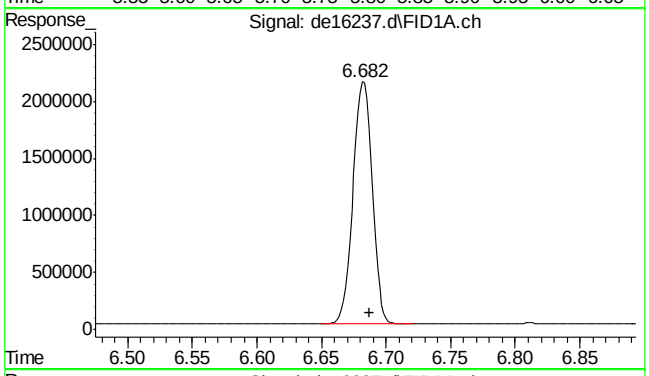


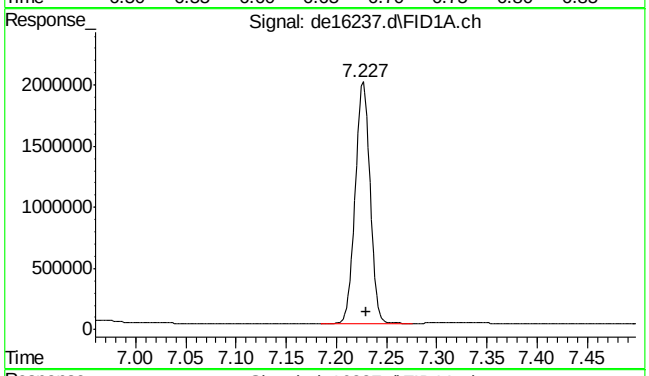
#2 naphthalene

R.T.: 5.787 min
Delta R.T.: -0.003 min
Response: 2253134
Conc: 16.90 µg/ml



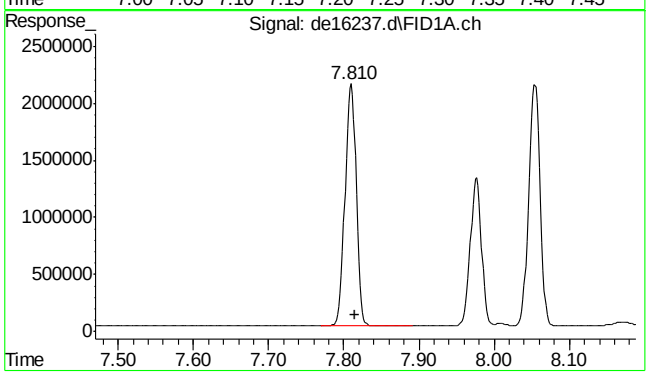
#3 2-methylnaphthalene

R.T.: 6.682 min
Delta R.T.: -0.005 min
Response: 2188633
Conc: 17.71 µg/ml



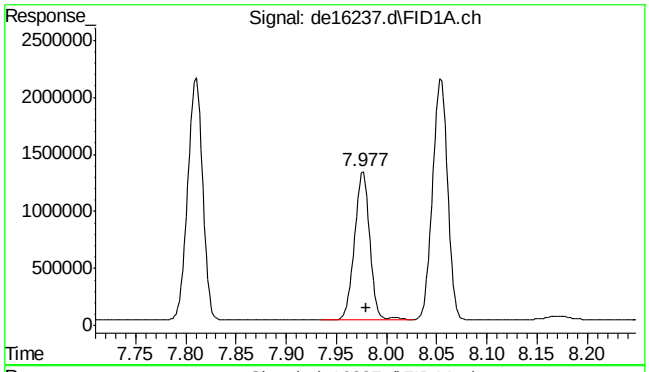
#4 2-fluorobiphenyl

R.T.: 7.227 min
Delta R.T.: -0.003 min
Response: 2011528
Conc: 16.82 µg/ml



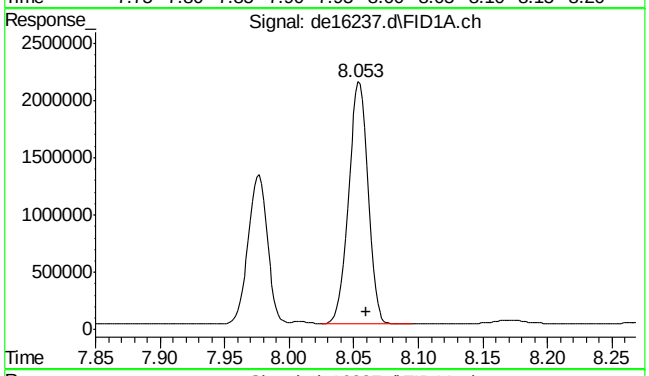
#5 acenaphthylene

R.T.: 7.810 min
Delta R.T.: -0.005 min
Response: 2186921
Conc: 16.82 µg/ml



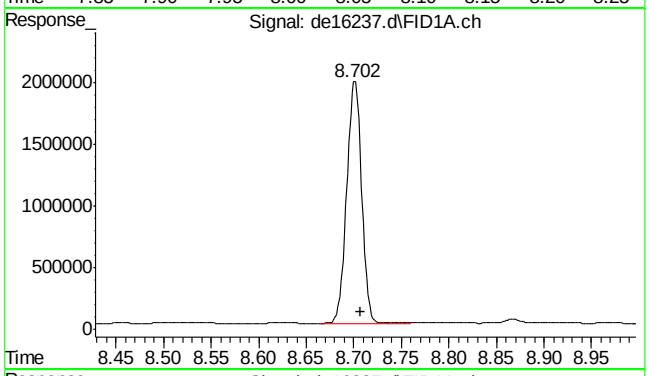
#6 2-bromonaphthalene

R.T.: 7.977 min
Delta R.T.: -0.003 min
Response: 1359672
Conc: 16.64 µg/ml



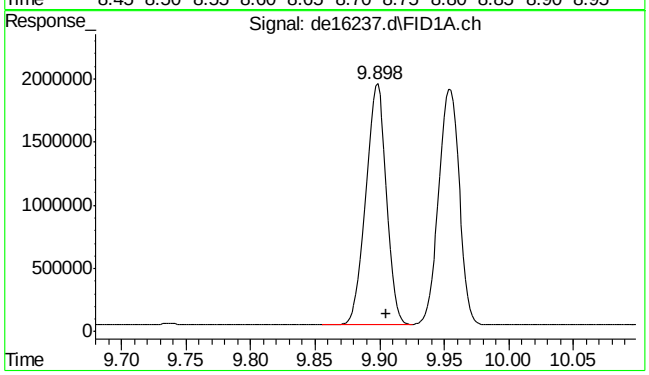
#7 acenaphthene

R.T.: 8.053 min
Delta R.T.: -0.007 min
Response: 2197189
Conc: 16.65 µg/ml



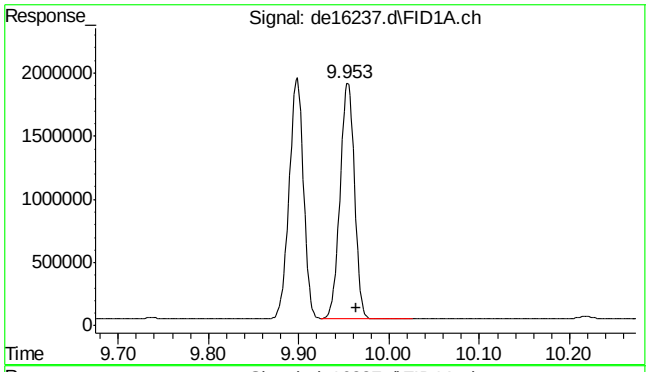
#8 fluorene

R.T.: 8.702 min
Delta R.T.: -0.005 min
Response: 2139500
Conc: 16.43 µg/ml



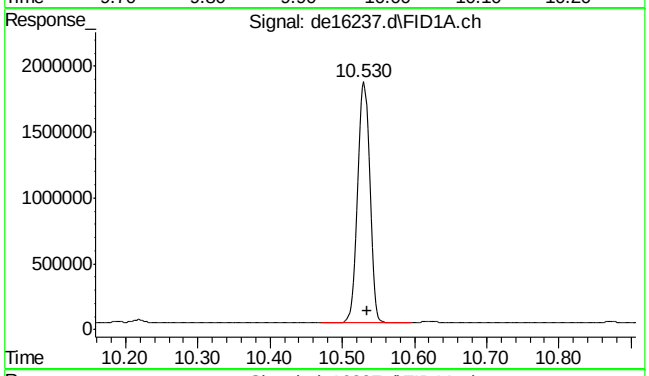
#9 phenanthrene

R.T.: 9.898 min
Delta R.T.: -0.007 min
Response: 2113013
Conc: 16.41 µg/ml



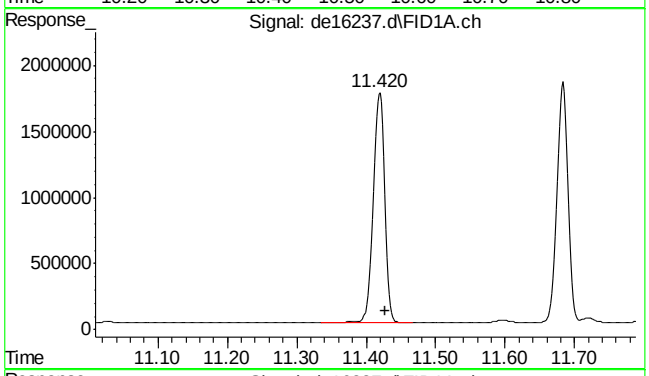
#10 anthracene

R.T.: 9.953 min
Delta R.T.: -0.010 min
Response: 2085040
Conc: 16.08 µg/ml



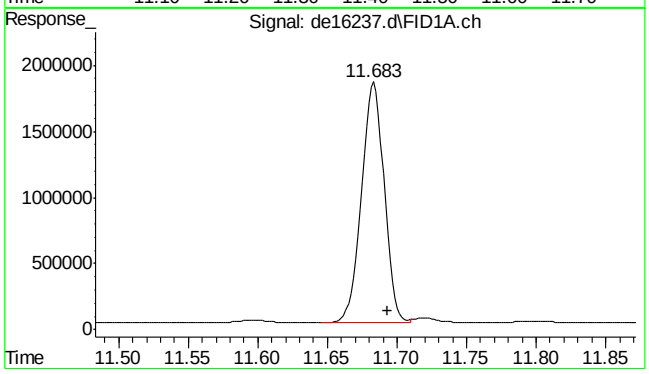
#11 o-terphenyl

R.T.: 10.530 min
Delta R.T.: -0.005 min
Response: 2143258
Conc: 16.24 µg/ml



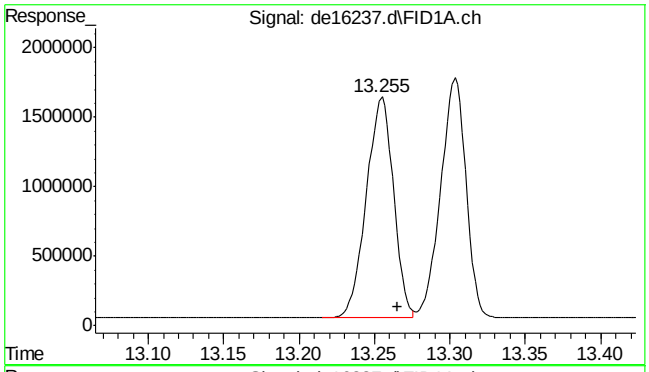
#12 fluoranthene

R.T.: 11.420 min
Delta R.T.: -0.008 min
Response: 2040272
Conc: 16.07 µg/ml



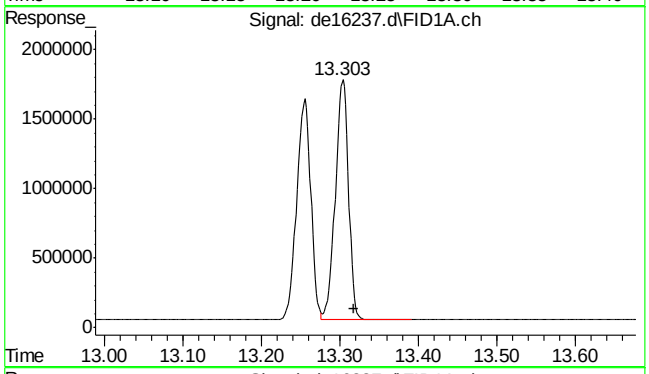
#13 pyrene

R.T.: 11.683 min
Delta R.T.: -0.010 min
Response: 2056905
Conc: 16.11 µg/ml



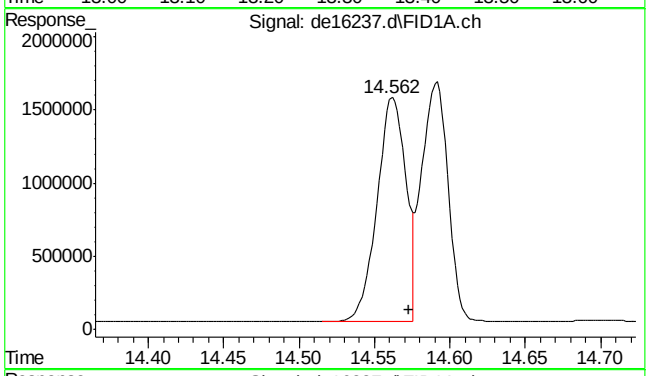
#14 benzo(a)anthracene

R.T.: 13.255 min
Delta R.T.: -0.010 min
Response: 1982398
Conc: 15.95 µg/ml



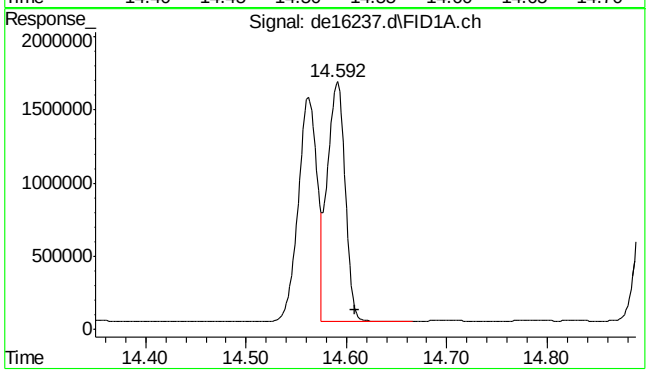
#15 chrysene

R.T.: 13.303 min
Delta R.T.: -0.014 min
Response: 2013689
Conc: 16.19 µg/ml



#16 benzo(B)fluoranthene

R.T.: 14.562 min
Delta R.T.: -0.011 min
Response: 2022145
Conc: 15.92 µg/ml



#17 benzo(k)fluoranthene

R.T.: 14.592 min
Delta R.T.: -0.016 min
Response: 1987094
Conc: 16.60 µg/ml

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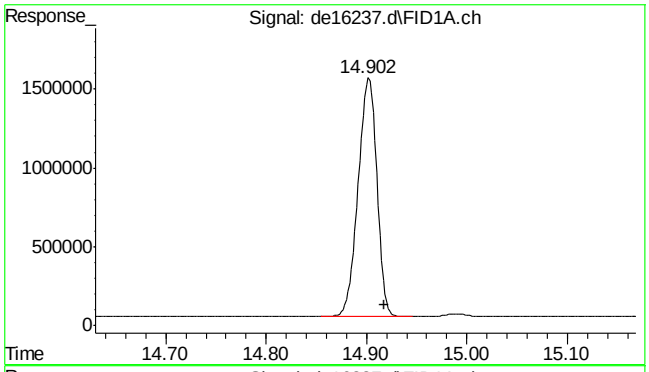
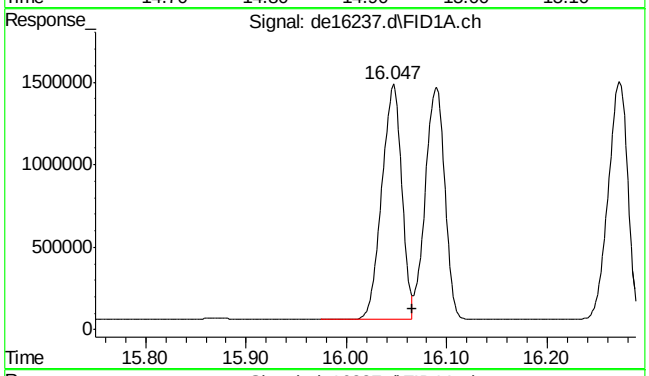


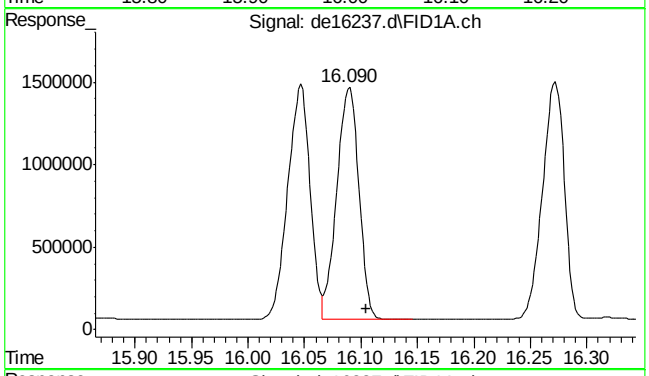
#18 benzo(a)pyrene

R.T.: 14.902 min
Delta R.T.: -0.016 min
Response: 1954488
Conc: 16.03 µg/ml



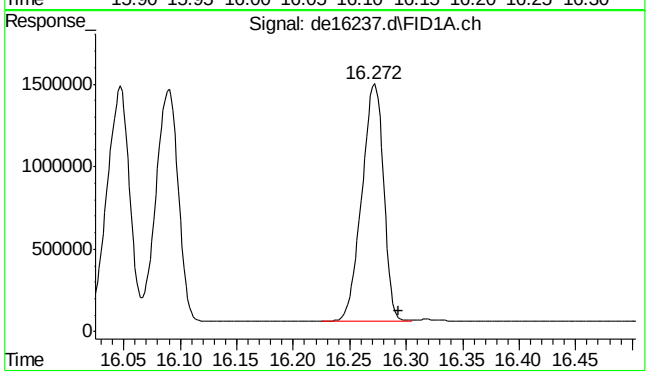
#19 indeno(1,2,3-cd)pyrene

R.T.: 16.047 min
Delta R.T.: -0.018 min
Response: 1953968
Conc: 15.55 µg/ml



#20 dibenzo(ah)anthracene

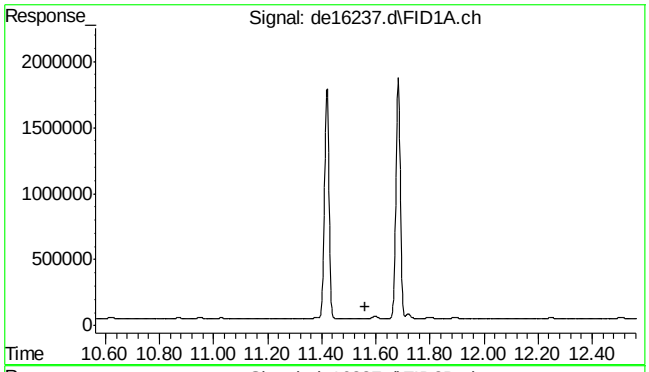
R.T.: 16.090 min
Delta R.T.: -0.015 min
Response: 1915337
Conc: 17.36 µg/ml



#21 benzo(ghi)perylene

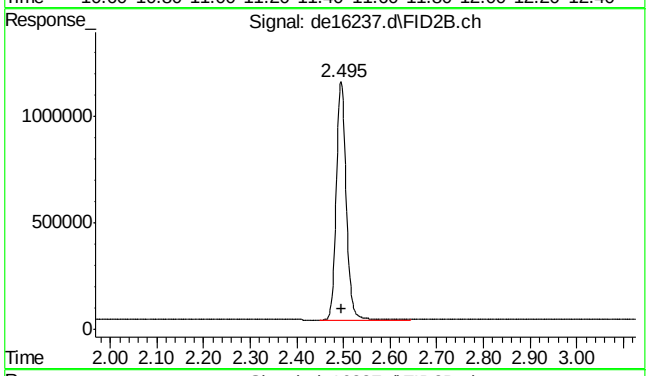
R.T.: 16.272 min
Delta R.T.: -0.021 min
Response: 1934290
Conc: 16.61 µg/ml

SGS ACCUTEST MC48999



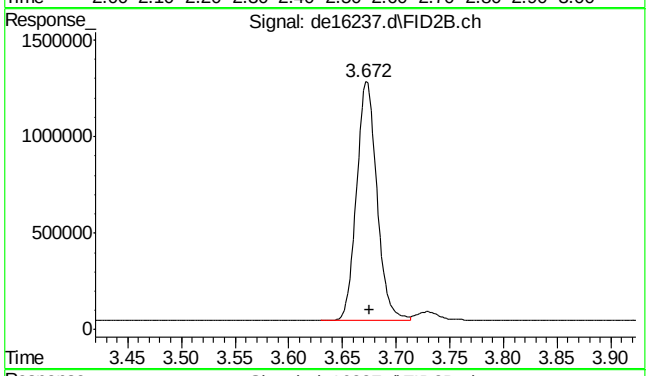
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.562 min
Response: 0
Conc: N.D.



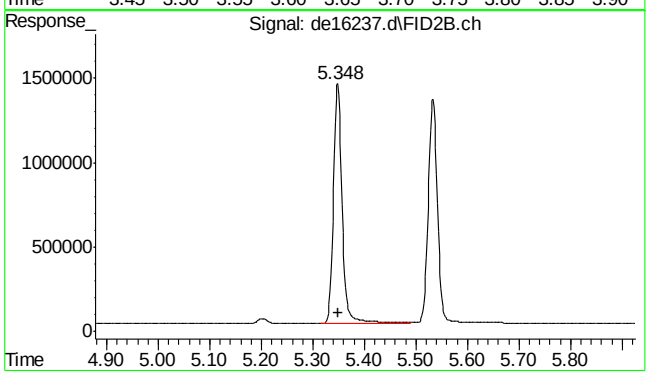
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 1645908
Conc: 21.34 µg/ml m



#26 c-10

R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 1632475
Conc: 21.89 µg/ml m



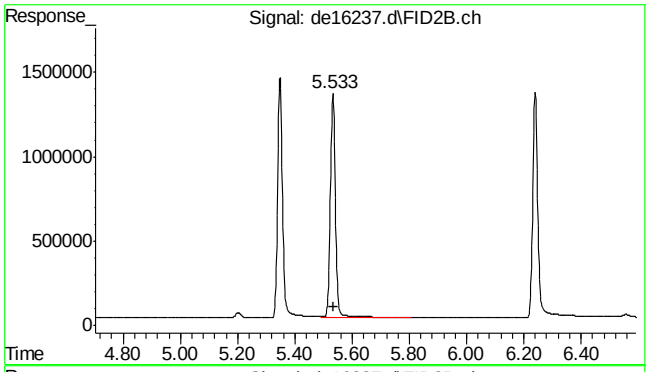
#27 naphthalene #2

R.T.: 5.348 min
Delta R.T.: -0.002 min
Response: 1711451
Conc: 22.42 µg/ml

9.5.4

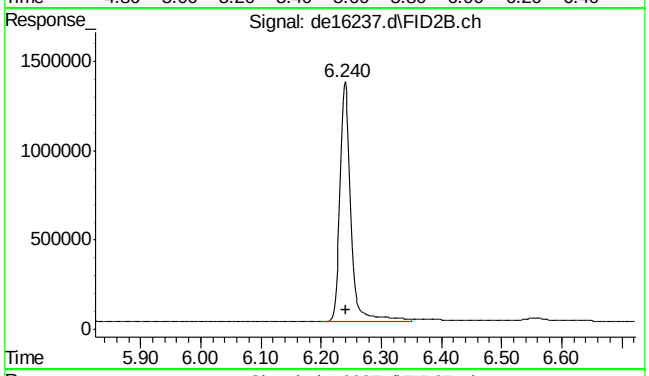
9

SGS ACCUTEST MC48999



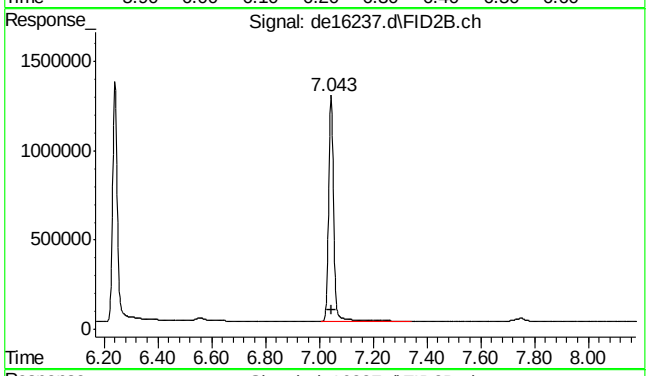
#28 c-12

R.T.: 5.533 min
Delta R.T.: -0.002 min
Response: 1695907
Conc: 22.54 µg/ml



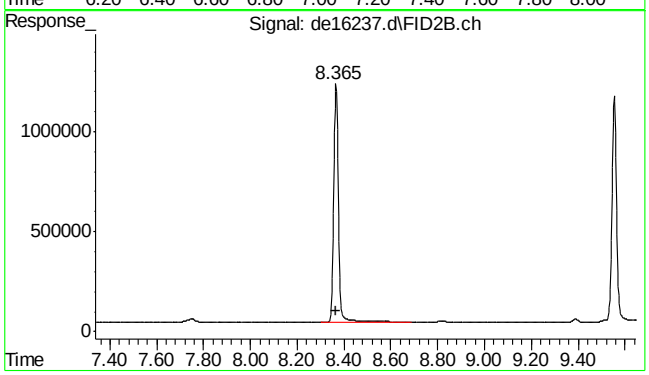
#29 2-methylnaphthalene #2

R.T.: 6.240 min
Delta R.T.: -0.002 min
Response: 1683894
Conc: 22.39 µg/ml



#30 c-14

R.T.: 7.043 min
Delta R.T.: -0.004 min
Response: 1636053
Conc: 22.76 µg/ml



#31 c-16

R.T.: 8.365 min
Delta R.T.: -0.003 min
Response: 1656495
Conc: 22.04 µg/ml

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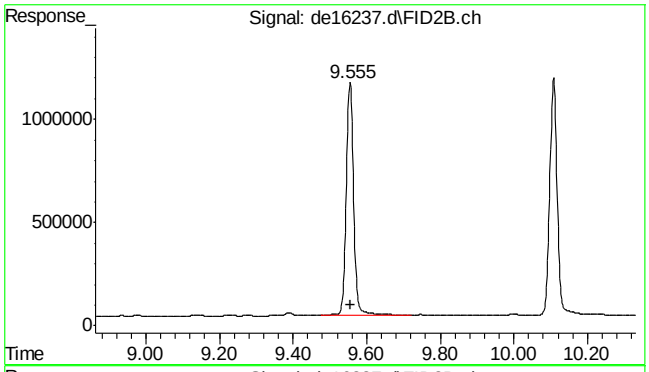
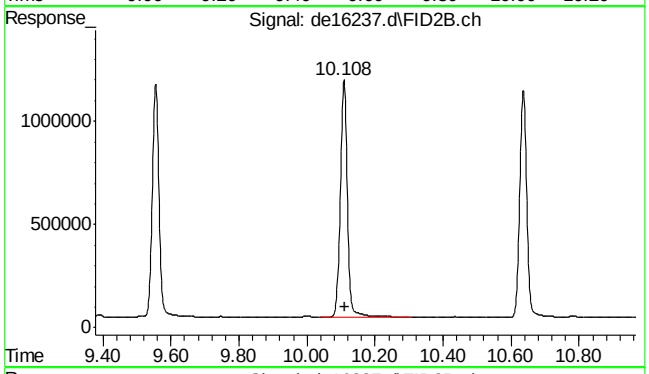


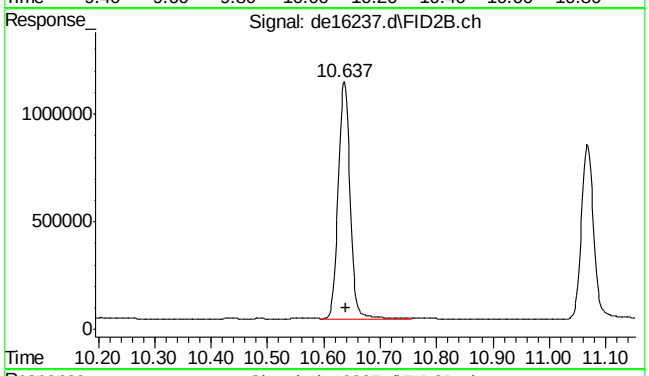
#32 c-18

R.T.: 9.555 min
Delta R.T.: -0.002 min
Response: 1614453
Conc: 22.22 µg/ml



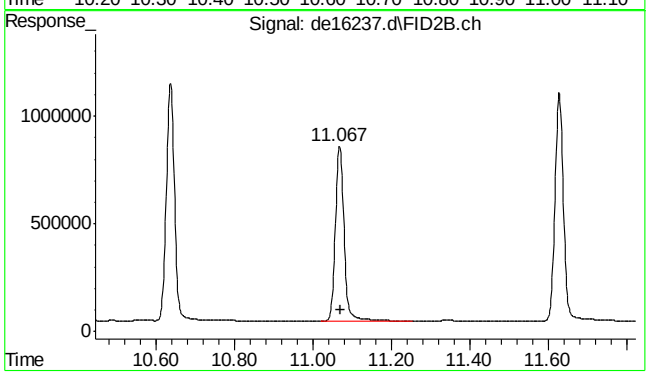
#33 c-19

R.T.: 10.108 min
Delta R.T.: -0.004 min
Response: 1662454
Conc: 22.97 µg/ml



#34 c-20

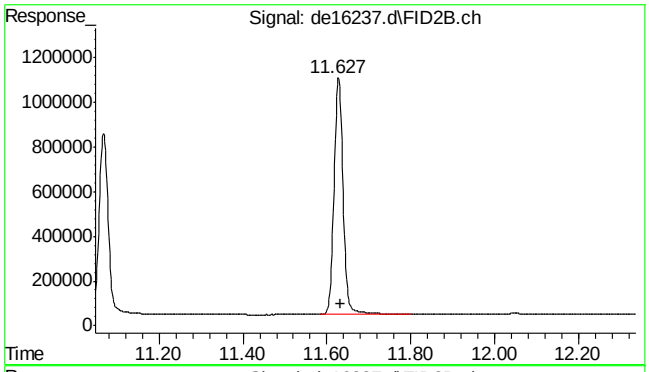
R.T.: 10.637 min
Delta R.T.: -0.003 min
Response: 1611811
Conc: 23.54 µg/ml



#35 1-chlorooctadecane

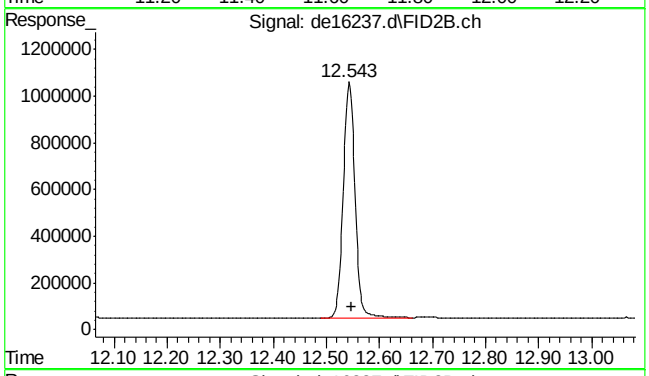
R.T.: 11.067 min
Delta R.T.: -0.003 min
Response: 1250945
Conc: 22.31 µg/ml

SGS ACCUTEST MC48999



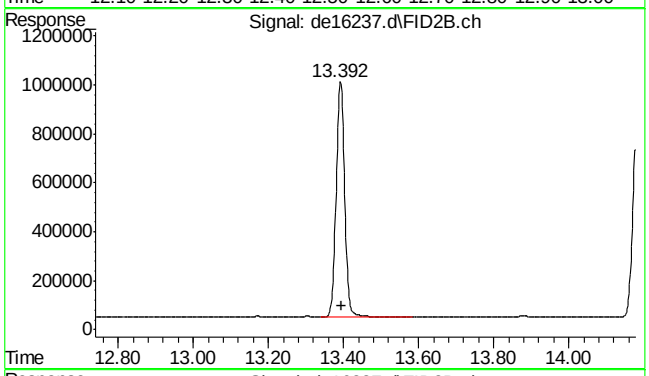
#36 c-22

R.T.: 11.627 min
Delta R.T.: -0.005 min
Response: 1602243
Conc: 23.81 µg/ml



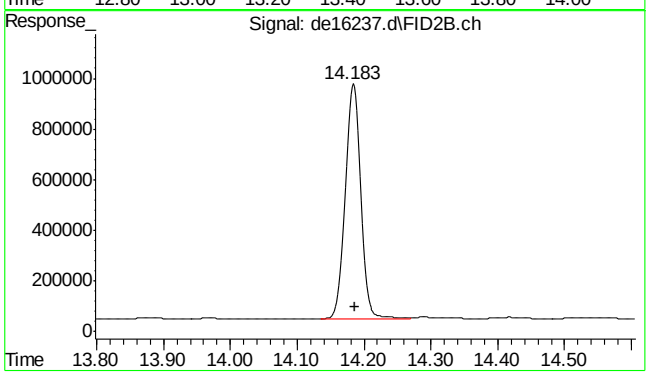
#37 c-24

R.T.: 12.543 min
Delta R.T.: -0.004 min
Response: 1563852
Conc: 23.18 µg/ml



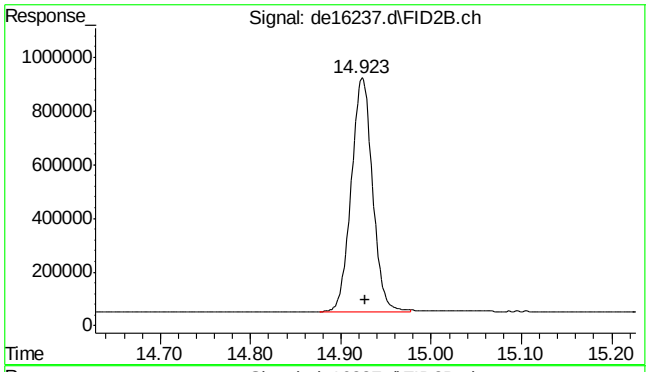
#38 c-26

R.T.: 13.392 min
Delta R.T.: -0.003 min
Response: 1529290
Conc: 22.91 µg/ml



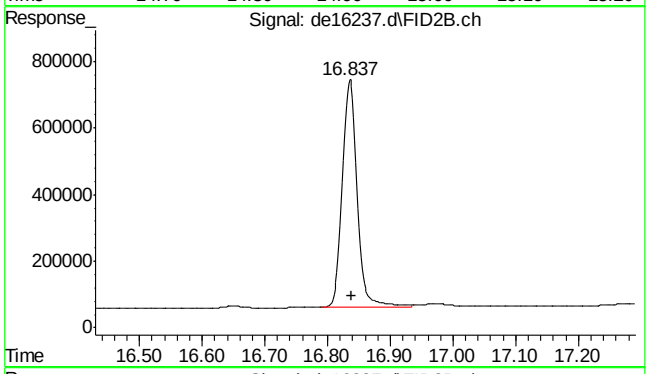
#39 c-28

R.T.: 14.183 min
Delta R.T.: -0.004 min
Response: 1486261
Conc: 23.24 µg/ml



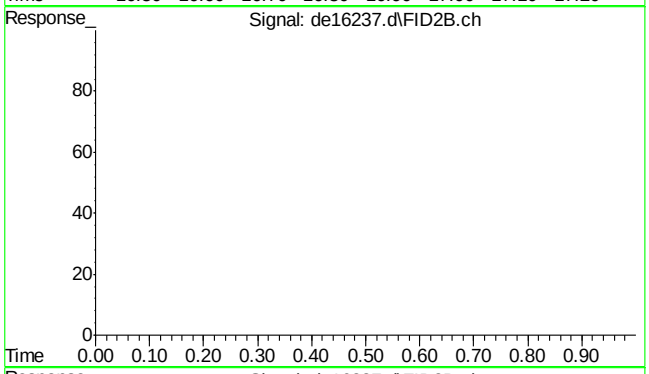
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 1435089
Conc: 21.64 µg/ml



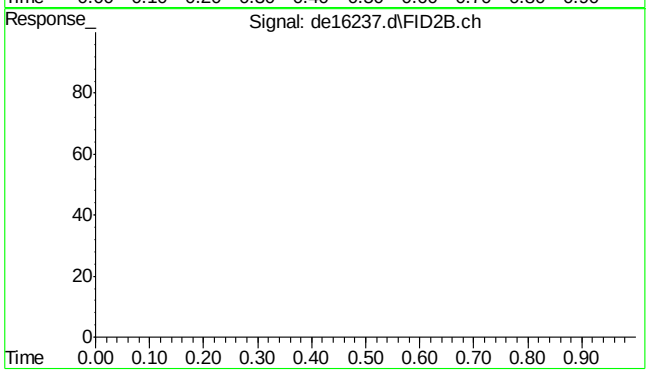
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 1133375
Conc: 32.34 µg/ml m



#42 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.



#43 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

9.5.4

9

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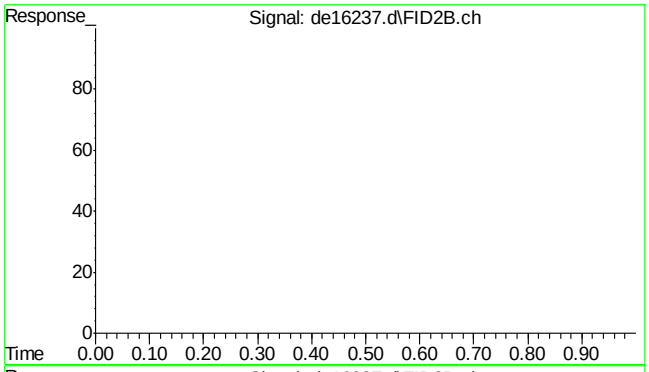
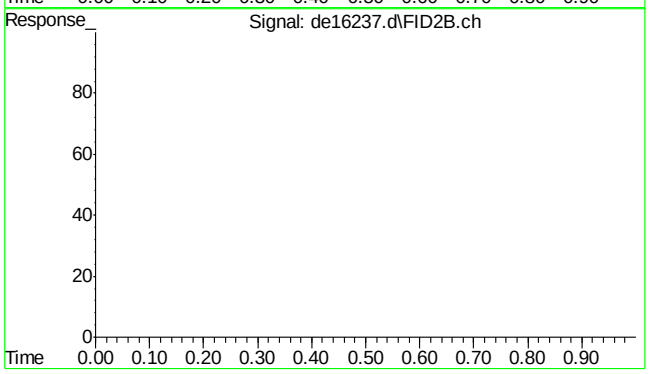


#44 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.



#45 bht

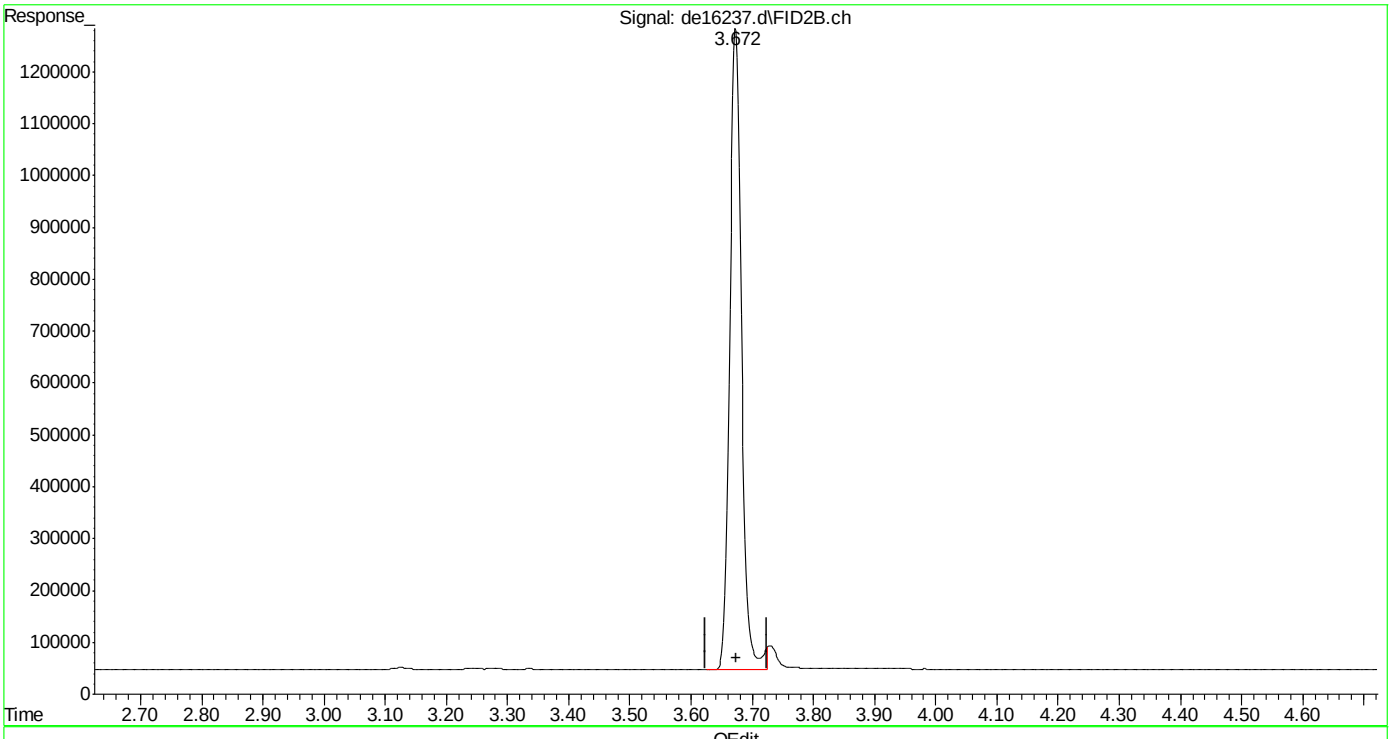
R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16237.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:32 pm
Operator : thomasa
Sample : ic908-20
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:46:08 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:45:58 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(26) c-10 (h)
3.675min 22.203 µg/ml
response 1656069

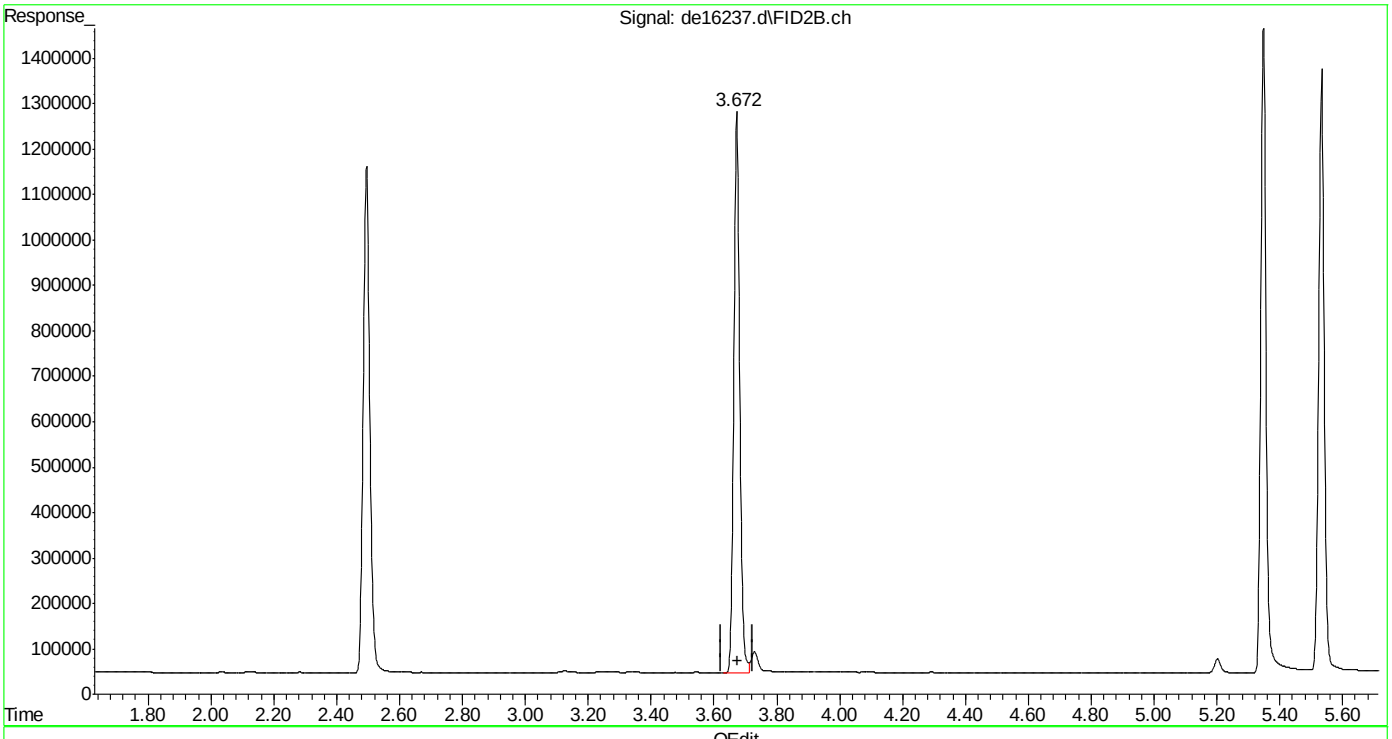
(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:46:30 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16237.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 7:32 pm
Operator : thomasa
Sample : ic908-20
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:46:08 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:45:58 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(26) c-10 (h)
3.675min 21.887 µg/ml m
response 1632475

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:46:38 2016

SGS ACCUTEST MC48999

Manual Integrations APPROVED (compounds with "m" flag)
Andri Piluri
12/07/16 16:10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16238.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 8:00 pm
Operator : thomasa
Sample : icc908-50
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:48:31 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:47:11 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.228	4214176	37.051 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 185.26%#	
6) s 2-bromonaphthalene	7.978	2824173	36.377 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 181.89%#	
11) s o-terphenyl	10.532	4437186	35.529 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 177.65%#	
35) s 1-chlorooctadecane	11.070	2975702	52.965 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 264.82%#	
Target Compounds			
2) naphthalene	5.788	4792678	37.763 µg/ml
3) 2-methylnaphthalene	6.685	4609303	38.782 µg/ml
5) acenaphthylene	7.813	4554254	36.791 µg/ml
7) acenaphthene	8.057	4577099	36.518 µg/ml
8) fluorene	8.703	4432143	35.915 µg/ml
9) phenanthrene	9.900	4371574	35.799 µg/ml
10) anthracene	9.958	4314786	35.264 µg/ml
12) fluoranthene	11.422	4228031	35.262 µg/ml
13) pyrene	11.687	4332232	35.876 µg/ml
14) benzo(a)anthracene	13.258	4124974	35.278 µg/ml
15) chrysene	13.308	4178638	35.588 µg/ml
16) benzo(B)fluoranthene	14.568	4260315	35.539 µg/mlm
17) benzo(k)fluoranthene	14.598	4094826	36.293 µg/mlm
18) benzo(a)pyrene	14.908	4070543	35.322 µg/ml
19) indeno(1,2,3-cd)pyrene	16.055	4091520	34.367 µg/ml
20) dibenzo(ah)anthracene	16.097	4004679	38.490 µg/ml
21) benzo(ghi)perylene	16.282	4048508	36.587 µg/ml
25) h c-9	2.495	4021325	51.451 µg/mlm
26) h c-10	3.675	4008758	52.751 µg/ml
27) naphthalene #2	5.350	4232582	55.492 µg/ml
28) c-12	5.535	4103296	53.191 µg/ml
29) 2-methylnaphthalene #2	6.242	4170427	55.486 µg/ml
30) c-14	7.045	3954001	53.532 µg/ml
31) c-16	8.368	3946358	51.451 µg/ml
32) c-18	9.557	3795397	51.104 µg/ml
33) c-19	10.110	3887430	52.171 µg/ml
34) c-20	10.638	3796717	53.549 µg/ml
36) c-22	11.630	3755132	53.758 µg/ml
37) c-24	12.545	3694379	53.077 µg/ml
38) c-26	13.393	3653437	53.190 µg/ml

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16238.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 8:00 pm
Operator : thomasa
Sample : icc908-50
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:48:31 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:47:11 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
39)	c-28	14.187	3621428	54.841	µg/ml
40) h	c-30	14.927	3549374	52.655	µg/ml
41) h	c-36	16.838	3182785	80.844	µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.5

9

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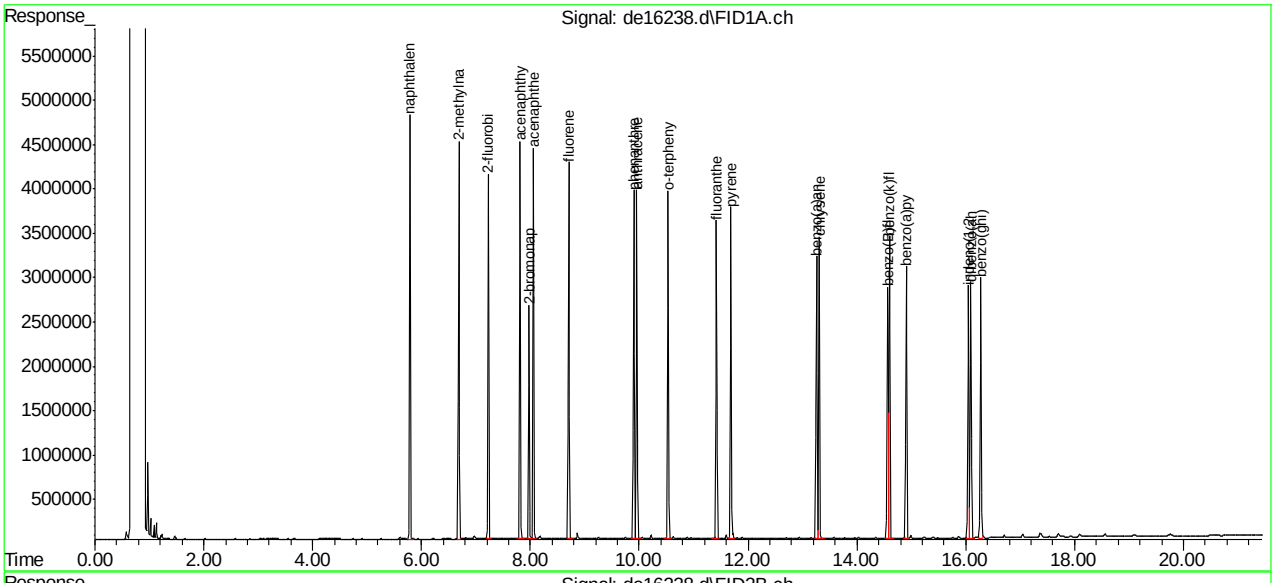
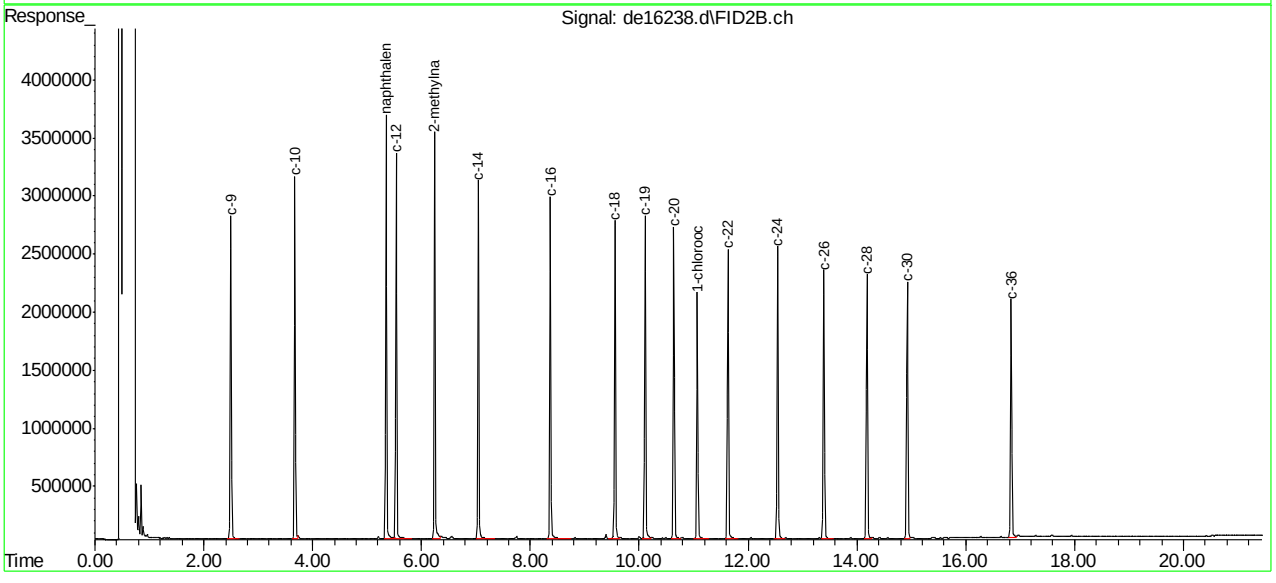
Quantitation Report (QT Reviewed)

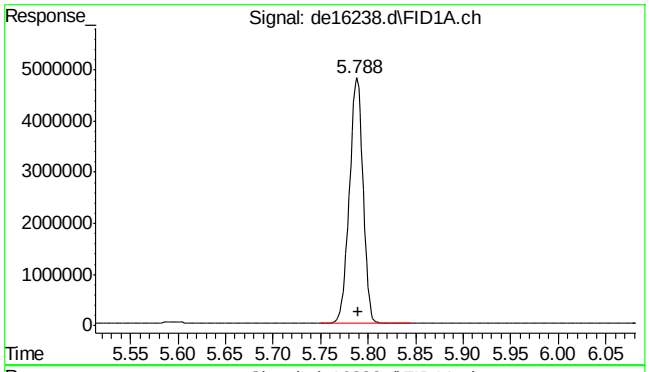
Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16238.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 8:00 pm
Operator : thomasa
Sample : icc908-50
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:48:31 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:47:11 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

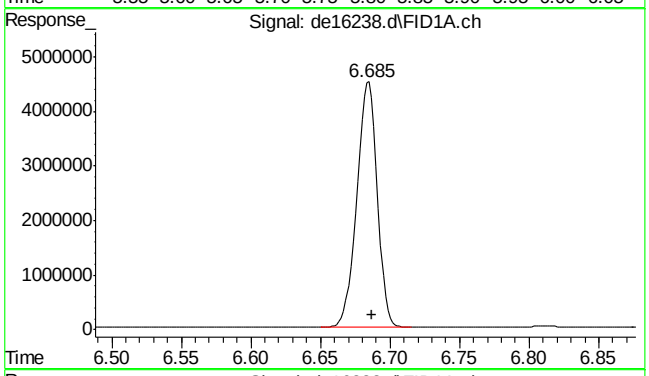






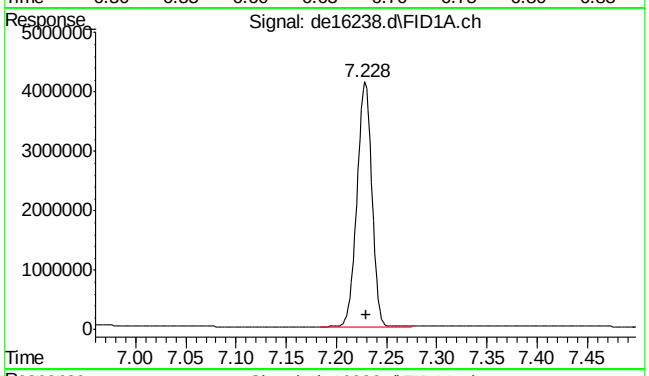
#2 naphthalene

R.T.: 5.788 min
Delta R.T.: -0.002 min
Response: 4792678
Conc: 37.76 µg/ml



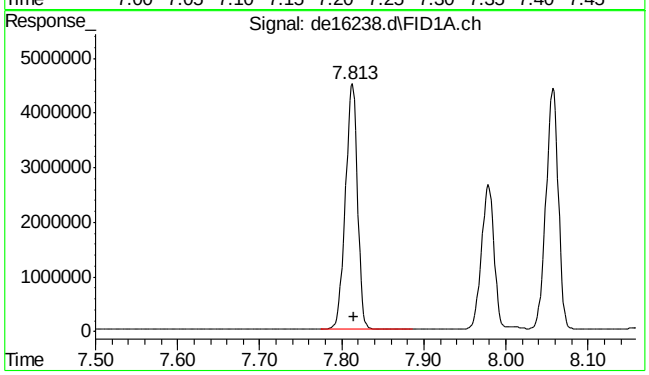
#3 2-methylnaphthalene

R.T.: 6.685 min
Delta R.T.: -0.002 min
Response: 4609303
Conc: 38.78 µg/ml



#4 2-fluorobiphenyl

R.T.: 7.228 min
Delta R.T.: -0.002 min
Response: 4214176
Conc: 37.05 µg/ml



#5 acenaphthylene

R.T.: 7.813 min
Delta R.T.: -0.002 min
Response: 4554254
Conc: 36.79 µg/ml

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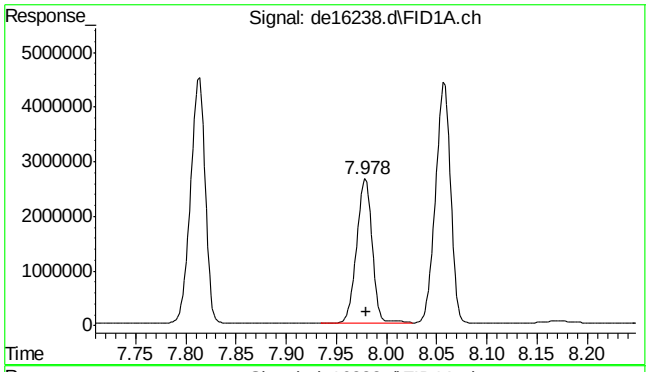
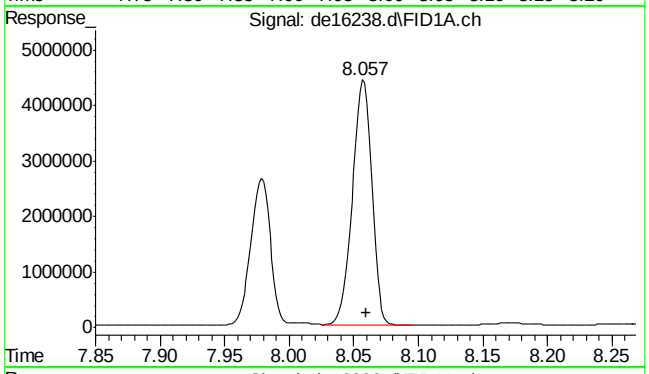


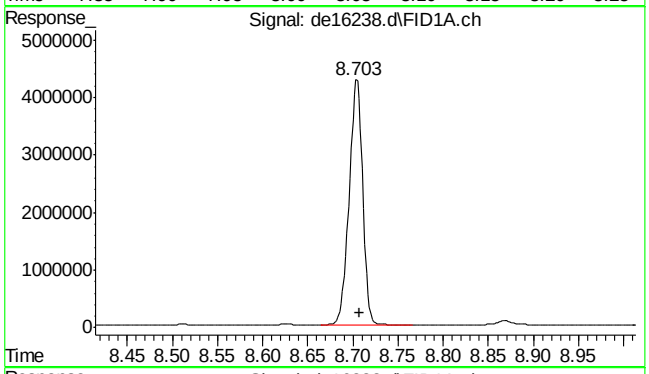
#6 2-bromonaphthalene

R.T.: 7.978 min
Delta R.T.: -0.002 min
Response: 2824173
Conc: 36.38 µg/ml



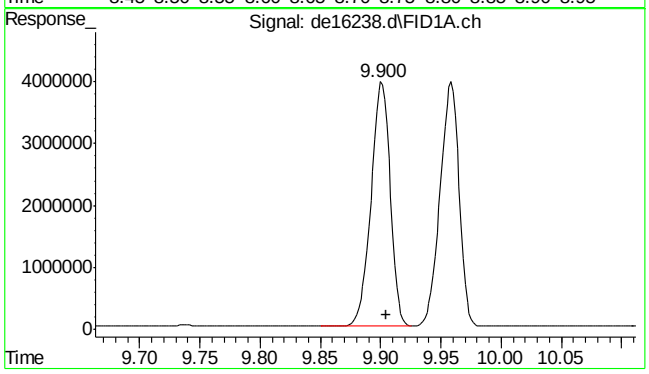
#7 acenaphthene

R.T.: 8.057 min
Delta R.T.: -0.003 min
Response: 4577099
Conc: 36.52 µg/ml



#8 fluorene

R.T.: 8.703 min
Delta R.T.: -0.004 min
Response: 4432143
Conc: 35.92 µg/ml



#9 phenanthrene

R.T.: 9.900 min
Delta R.T.: -0.005 min
Response: 4371574
Conc: 35.80 µg/ml

9.5.5

9

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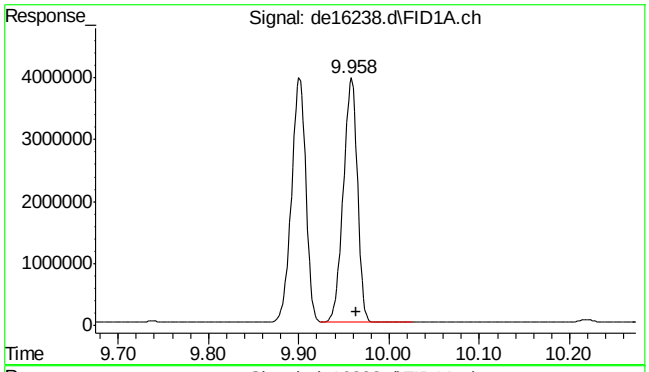
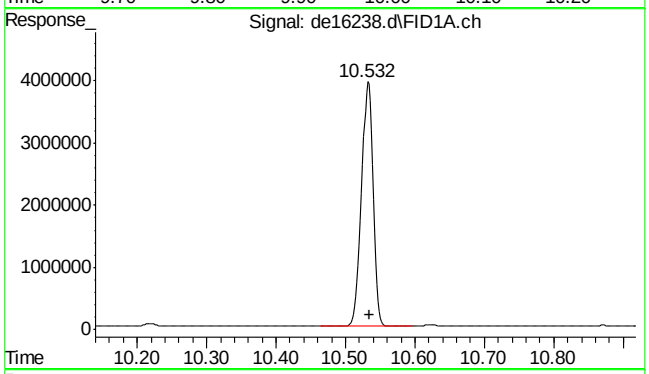


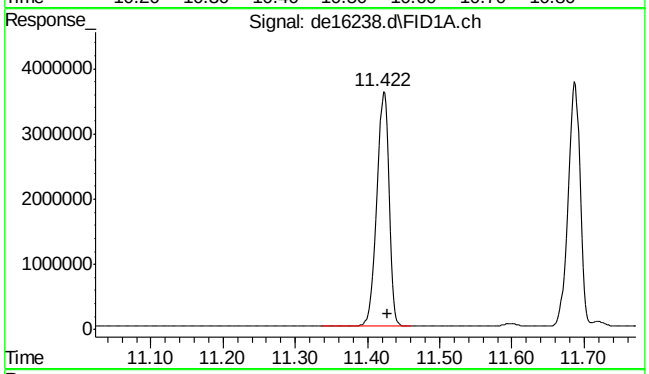
#10 anthracene

R.T.: 9.958 min
Delta R.T.: -0.005 min
Response: 4314786
Conc: 35.26 µg/ml



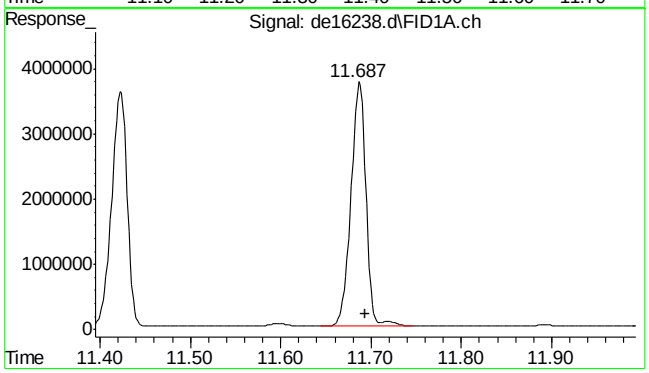
#11 o-terphenyl

R.T.: 10.532 min
Delta R.T.: -0.003 min
Response: 4437186
Conc: 35.53 µg/ml



#12 fluoranthene

R.T.: 11.422 min
Delta R.T.: -0.006 min
Response: 4228031
Conc: 35.26 µg/ml



#13 pyrene

R.T.: 11.687 min
Delta R.T.: -0.006 min
Response: 4332232
Conc: 35.88 µg/ml

9.5.5

9

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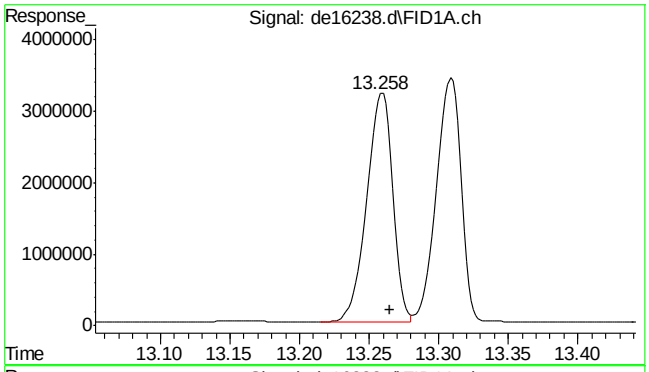
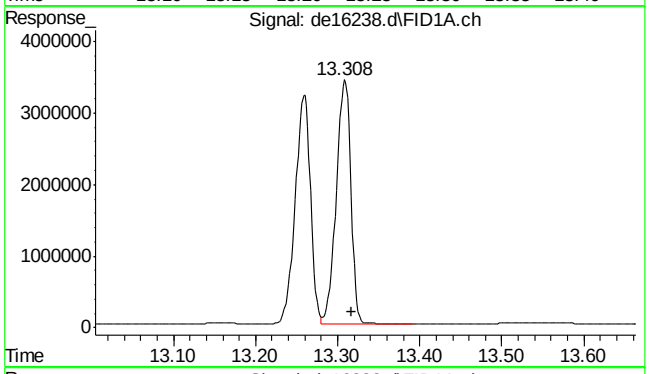


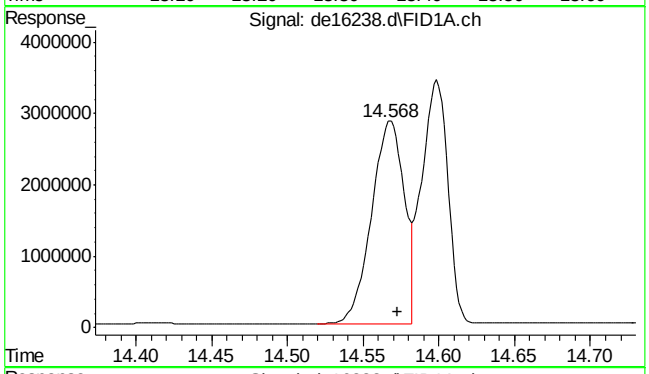
#14 benzo(a)anthracene

R.T.: 13.258 min
Delta R.T.: -0.007 min
Response: 4124974
Conc: 35.28 µg/ml



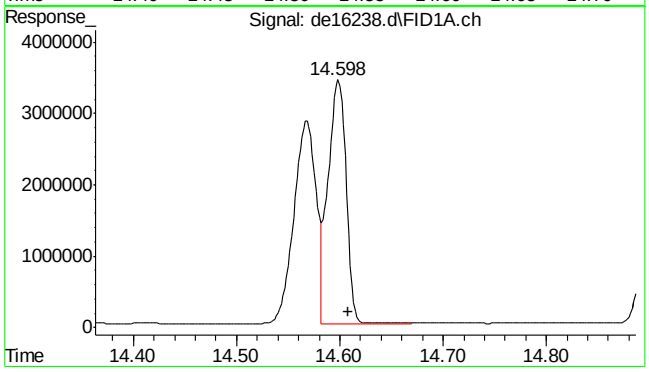
#15 chrysene

R.T.: 13.308 min
Delta R.T.: -0.009 min
Response: 4178638
Conc: 35.59 µg/ml



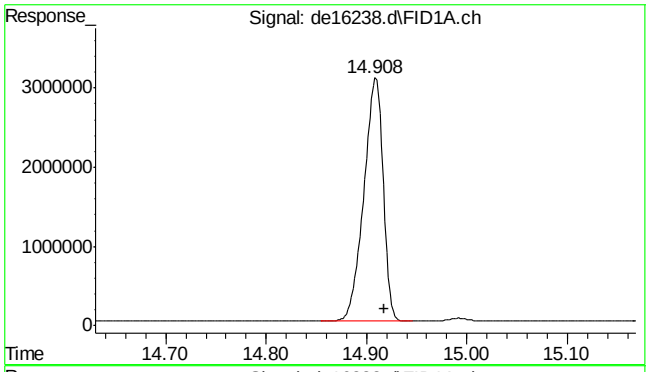
#16 benzo(B)fluoranthene

R.T.: 14.568 min
Delta R.T.: -0.005 min
Response: 4260315
Conc: 35.54 µg/ml m



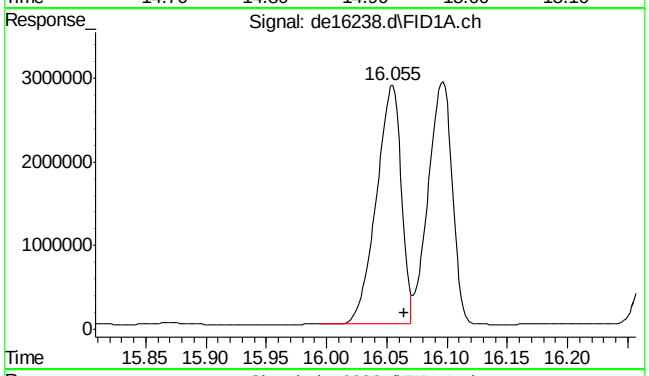
#17 benzo(k)fluoranthene

R.T.: 14.598 min
Delta R.T.: -0.010 min
Response: 4094826
Conc: 36.29 µg/ml m



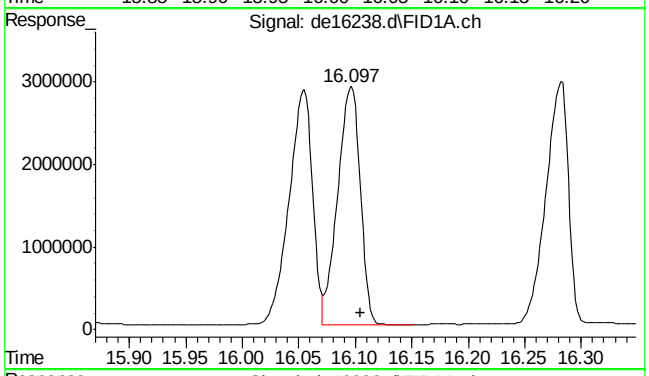
#18 benzo(a)pyrene

R.T.: 14.908 min
Delta R.T.: -0.010 min
Response: 4070543
Conc: 35.32 µg/ml



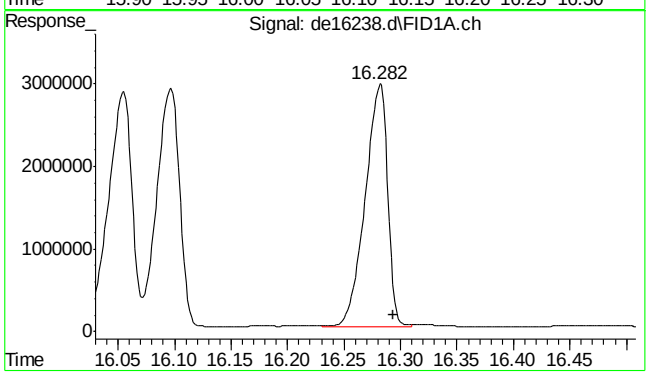
#19 indeno(1,2,3-cd)pyrene

R.T.: 16.055 min
Delta R.T.: -0.010 min
Response: 4091520
Conc: 34.37 µg/ml



#20 dibenzo(ah)anthracene

R.T.: 16.097 min
Delta R.T.: -0.008 min
Response: 4004679
Conc: 38.49 µg/ml



#21 benzo(ghi)perylene

R.T.: 16.282 min
Delta R.T.: -0.011 min
Response: 4048508
Conc: 36.59 µg/ml

9.5.5

9

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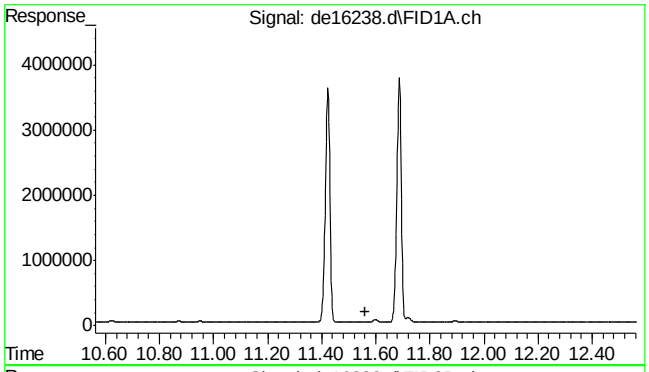
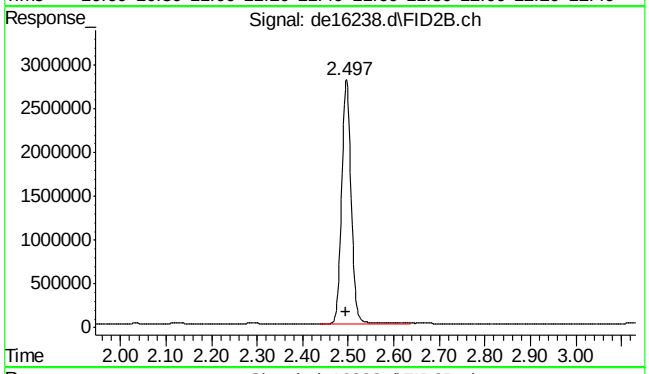


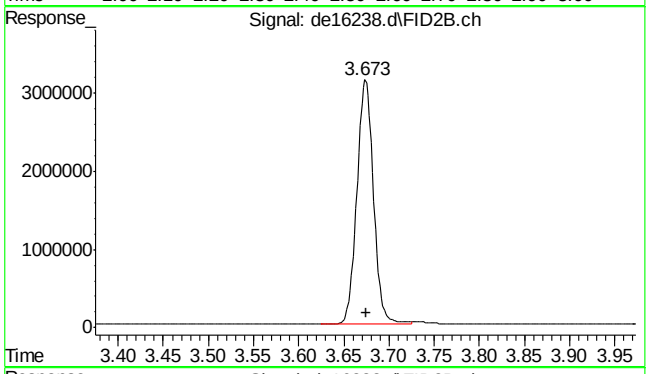
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.562 min
Response: 0
Conc: N.D.



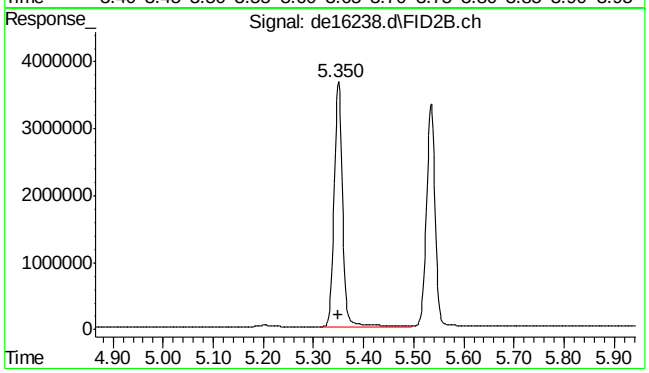
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 4021325
Conc: 51.45 µg/ml m



#26 c-10

R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 4008758
Conc: 52.75 µg/ml



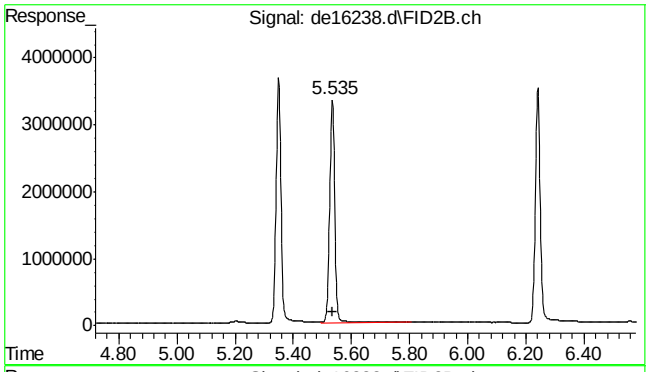
#27 naphthalene #2

R.T.: 5.350 min
Delta R.T.: 0.000 min
Response: 4232582
Conc: 55.49 µg/ml

9.5.5

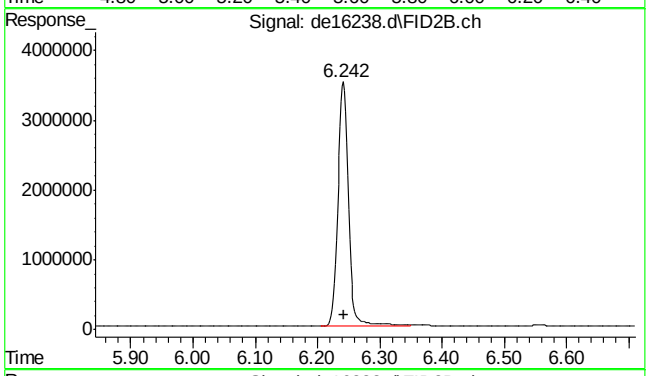
9

SGS ACCUTEST MC48999



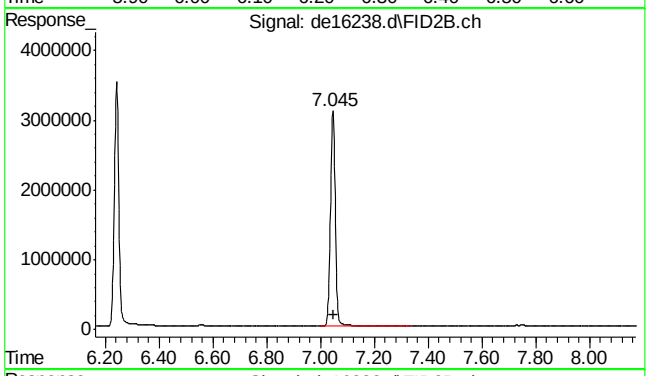
#28 c-12

R.T.: 5.535 min
Delta R.T.: 0.000 min
Response: 4103296
Conc: 53.19 µg/ml



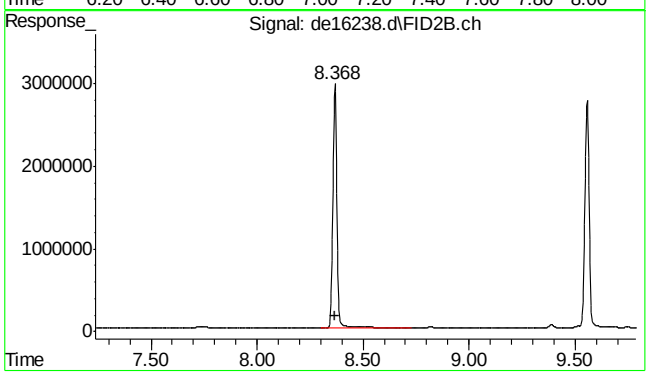
#29 2-methylnaphthalene #2

R.T.: 6.242 min
Delta R.T.: 0.000 min
Response: 4170427
Conc: 55.49 µg/ml



#30 c-14

R.T.: 7.045 min
Delta R.T.: -0.002 min
Response: 3954001
Conc: 53.53 µg/ml



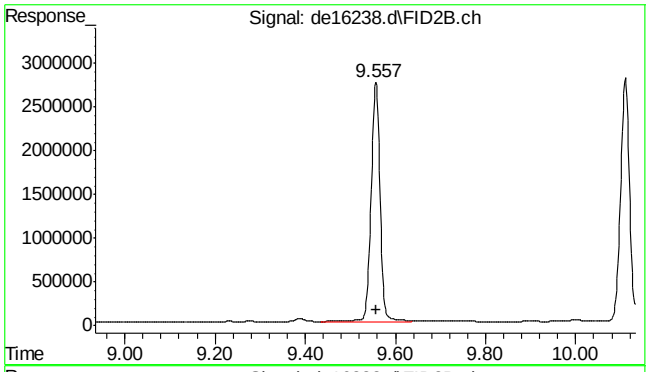
#31 c-16

R.T.: 8.368 min
Delta R.T.: 0.000 min
Response: 3946358
Conc: 51.45 µg/ml

9.5.5

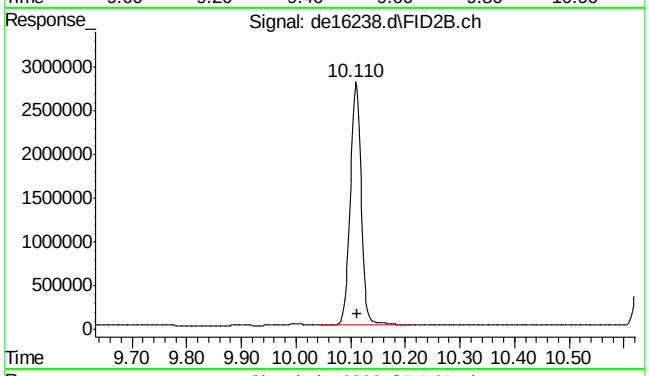
9

SGS ACCUTEST MC48999



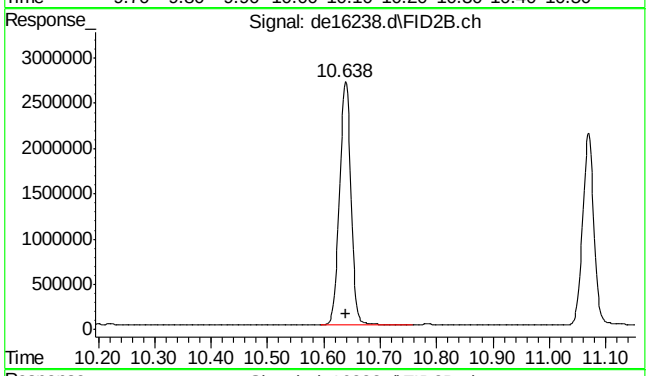
#32 c-18

R.T.: 9.557 min
Delta R.T.: 0.000 min
Response: 3795397
Conc: 51.10 µg/ml



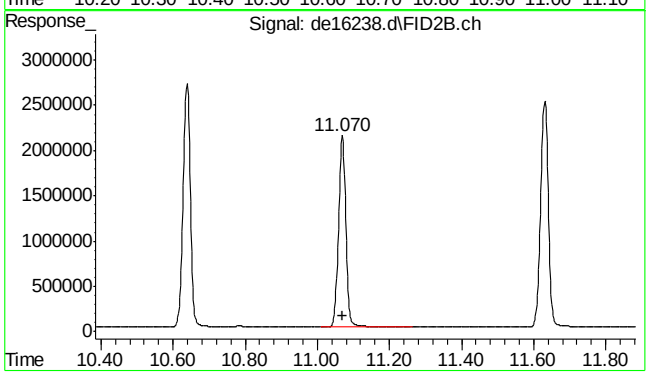
#33 c-19

R.T.: 10.110 min
Delta R.T.: -0.002 min
Response: 3887430
Conc: 52.17 µg/ml



#34 c-20

R.T.: 10.638 min
Delta R.T.: -0.002 min
Response: 3796717
Conc: 53.55 µg/ml

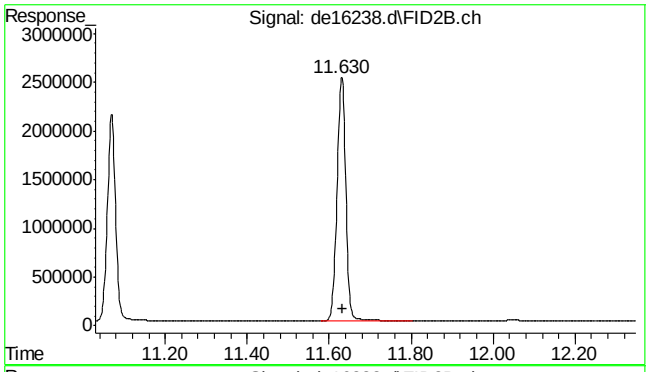


#35 1-chlorooctadecane

R.T.: 11.070 min
Delta R.T.: 0.000 min
Response: 2975702
Conc: 52.97 µg/ml

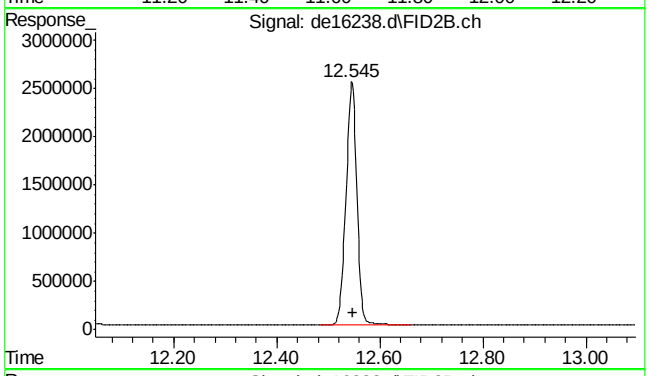
9.5.5
9

SGS ACCUTEST MC48999



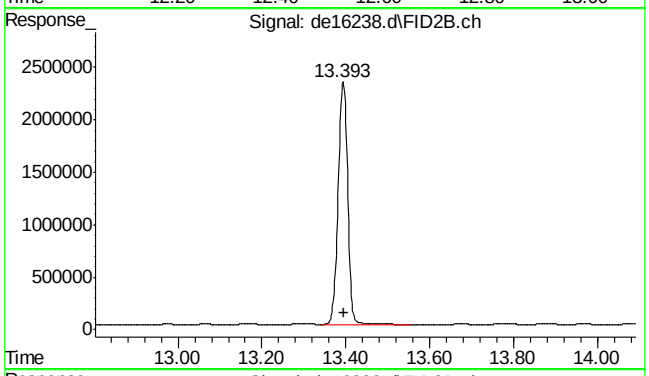
#36 c-22

R.T.: 11.630 min
Delta R.T.: -0.002 min
Response: 3755132
Conc: 53.76 µg/ml



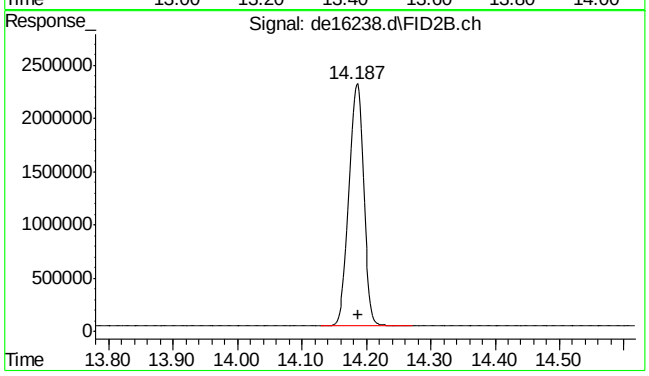
#37 c-24

R.T.: 12.545 min
Delta R.T.: -0.002 min
Response: 3694379
Conc: 53.08 µg/ml



#38 c-26

R.T.: 13.393 min
Delta R.T.: -0.002 min
Response: 3653437
Conc: 53.19 µg/ml



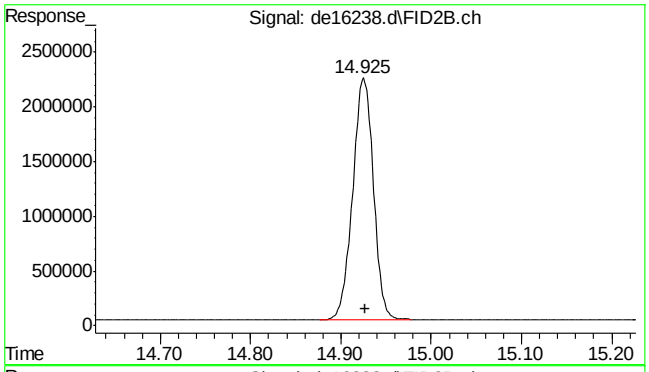
#39 c-28

R.T.: 14.187 min
Delta R.T.: 0.000 min
Response: 3621428
Conc: 54.84 µg/ml

9.5.5

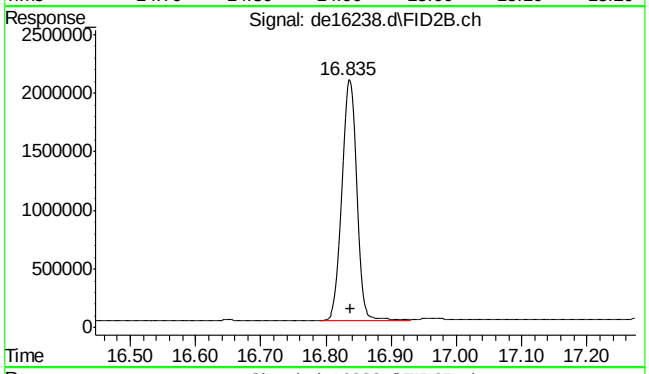
9

SGS ACCUTEST MC48999



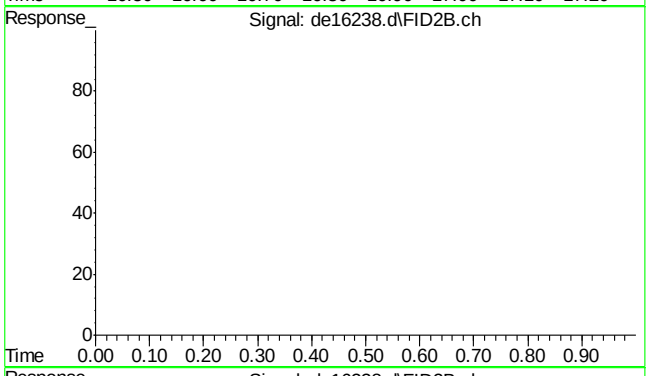
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 3549374
Conc: 52.65 µg/ml



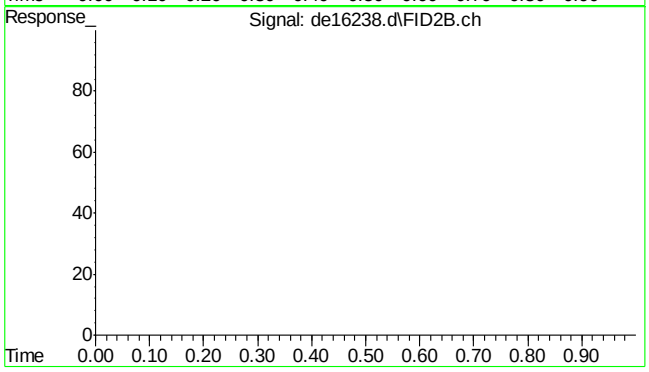
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 3182785
Conc: 80.84 µg/ml m



#42 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.



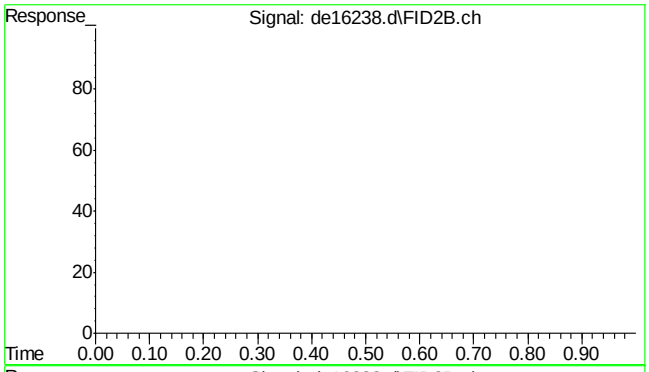
#43 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

9.5.5

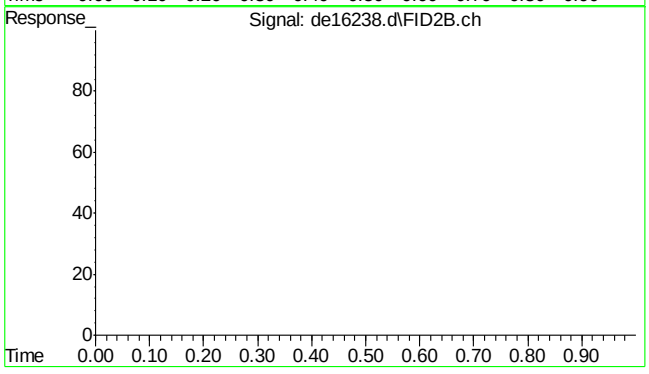
9

SGS ACCUTEST MC48999



#44 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

9.5.5
9

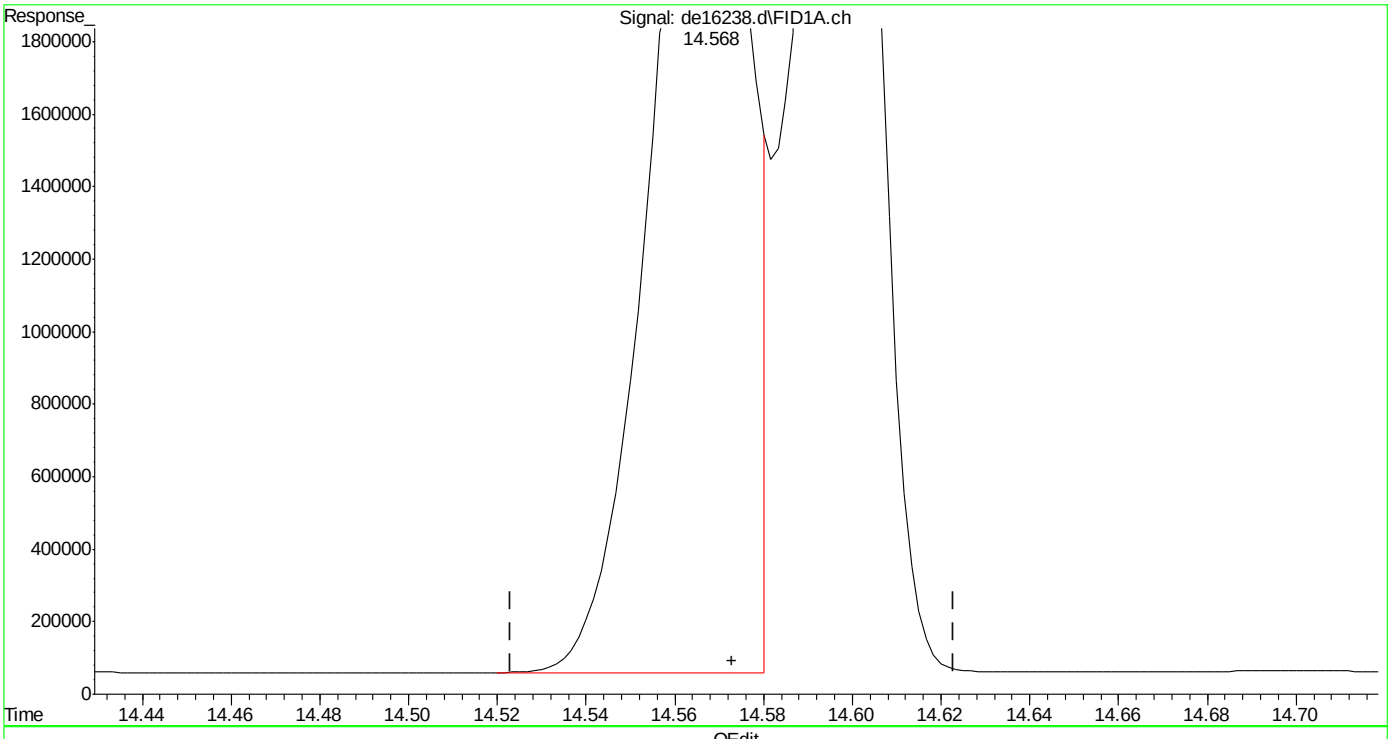
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16238.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 8:00 pm
Operator : thomasa
Sample : icc908-50
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:47:20 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:47:11 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(16) benzo(B)fluoranthene
14.568min 34.379 µg/ml
response 4121247

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:47:34 2016

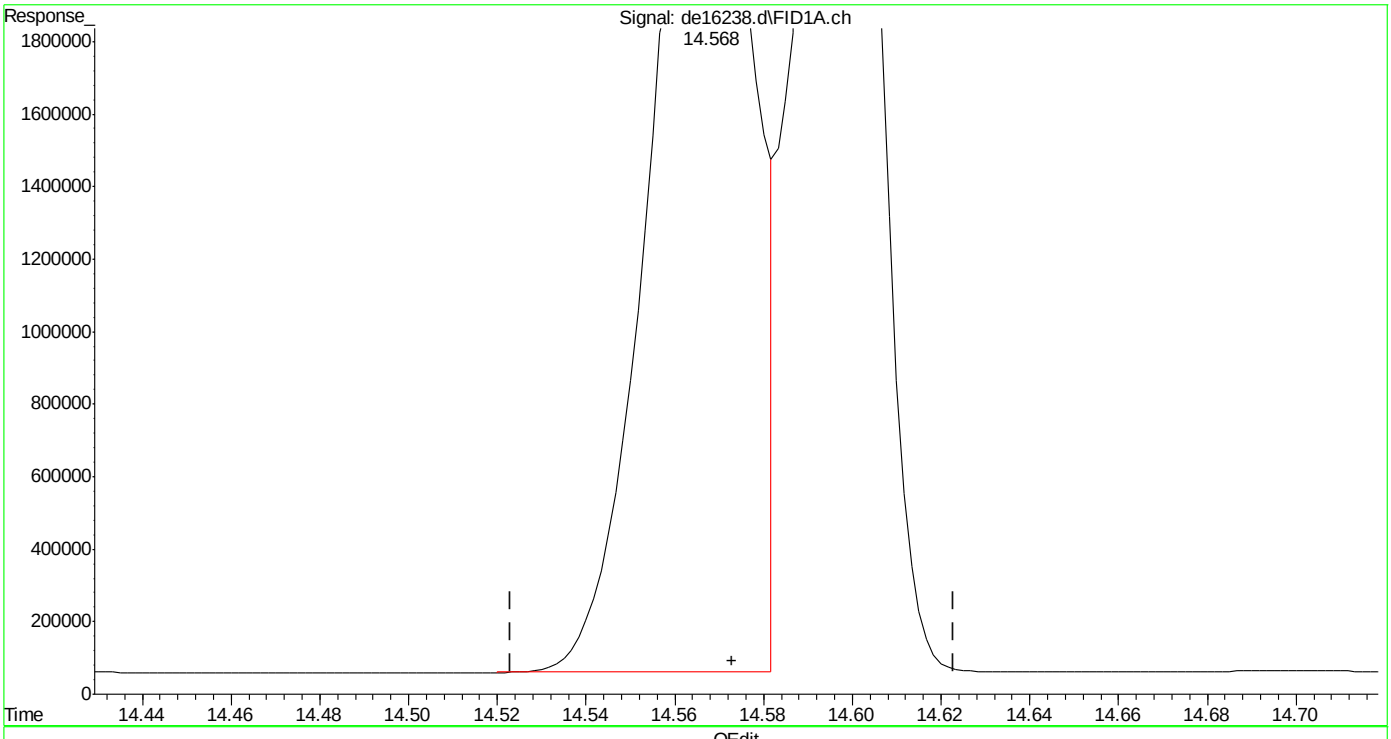
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16238.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 8:00 pm
Operator : thomasa
Sample : icc908-50
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:47:20 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:47:11 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(16) benzo(B)fluoranthene
14.568min 35.539 µg/ml m
response 4260315

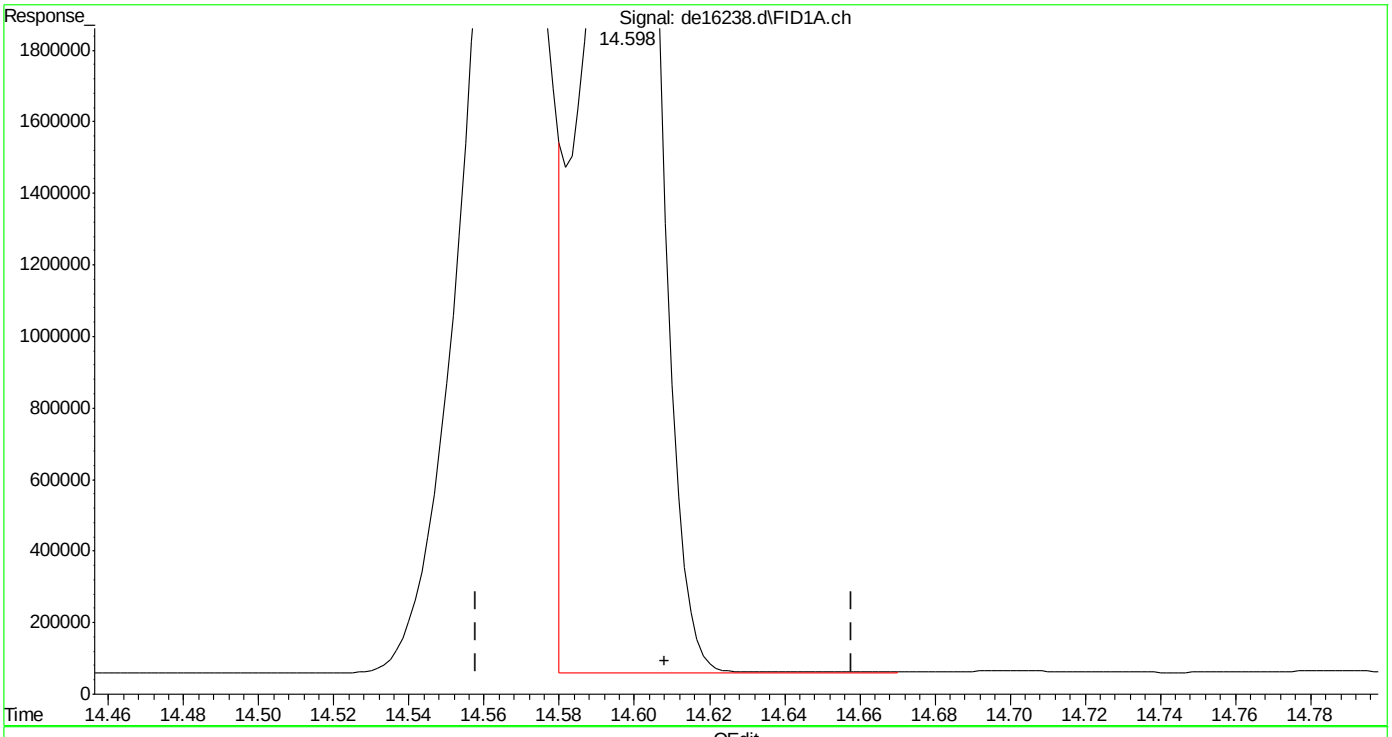
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16238.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 8:00 pm
Operator : thomasa
Sample : icc908-50
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:47:20 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:47:11 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(17) benzo(k)fluoranthene
14.598min 37.524 µg/ml
response 4233767

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:47:44 2016

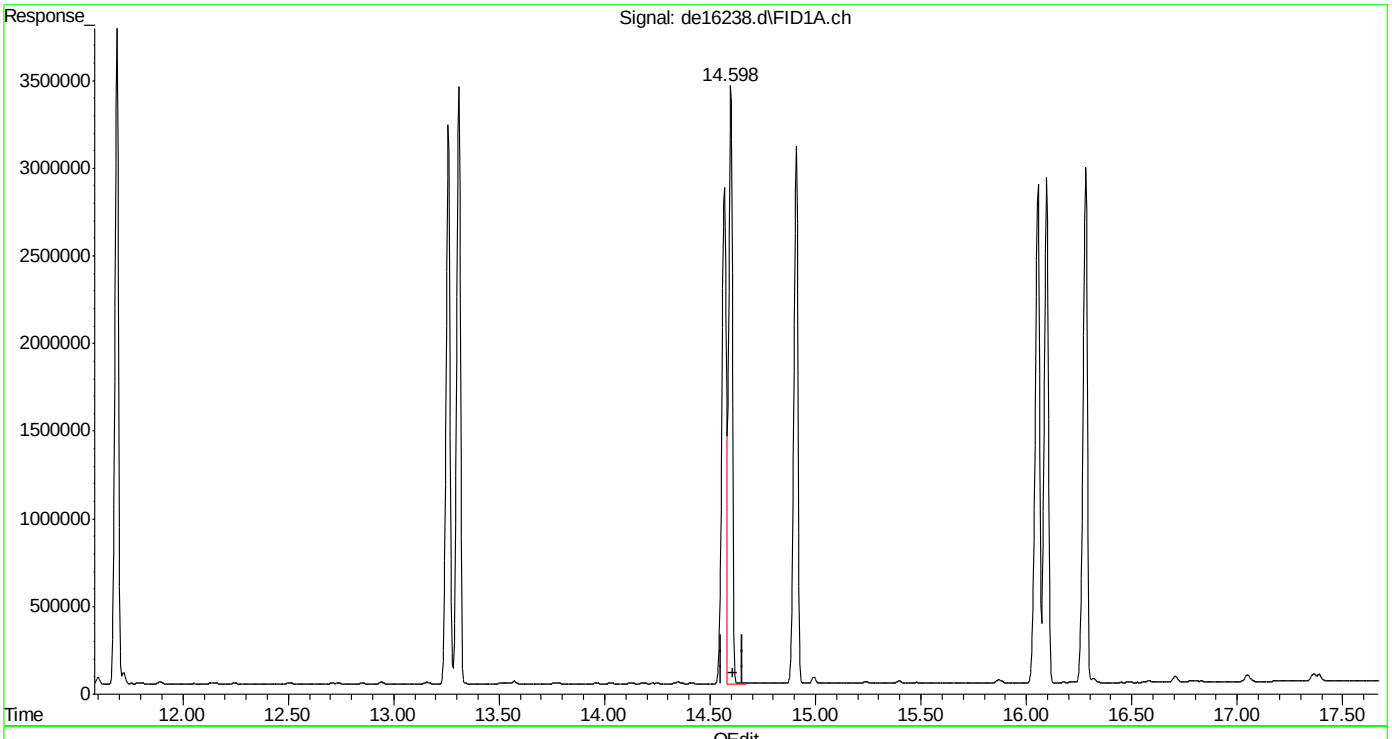
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16238.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 8:00 pm
Operator : thomasa
Sample : icc908-50
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 10 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:47:20 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:47:11 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(17) benzo(k)fluoranthene
14.598min 36.293 µg/ml m
response 4094826

(+) = Expected Retention Time
EPH161207W.M Wed Dec 07 09:48:00 2016

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16239.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 8:28 pm
Operator : thomasa
Sample : ic908-100
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:49:19 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:48:38 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) s	2-fluorobiphenyl	7.232	7959855	76.058 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 380.29%#
6) s	2-bromonaphthalene	7.982	5380456	75.420 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 377.10%#
11) s	o-terphenyl	10.535	8573443	75.023 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 375.12%#
35) s	1-chlorooctadecane	11.073	5937227	105.258 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 526.29%#
	Target Compounds			
2)	naphthalene	5.792	8989592	76.817 µg/ml
3)	2-methylnaphthalene	6.688	8683657	78.416 µg/ml
5)	acenaphthylene	7.817	8649048	75.856 µg/ml
7)	acenaphthene	8.062	8710565	75.676 µg/ml
8)	fluorene	8.708	8498243	75.200 µg/ml
9)	phenanthrene	9.907	8443527	75.412 µg/ml
10)	anthracene	9.965	8332463	74.653 µg/ml
12)	fluoranthene	11.428	8176796	74.606 µg/ml
13)	pyrene	11.695	8379390	75.907 µg/ml
14)	benzo(a)anthracene	13.267	7947158	74.543 µg/ml
15)	chrysene	13.318	8060554	75.071 µg/ml
16)	benzo(B)fluoranthene	14.575	8216871	75.165 µg/ml
17)	benzo(k)fluoranthene	14.610	7829325	75.613 µg/ml
18)	benzo(a)pyrene	14.918	7804599	73.825 µg/ml
19)	indeno(1,2,3-cd)pyrene	16.067	7952680	72.821 µg/ml
20)	dibenzo(ah)anthracene	16.107	7568051	79.014 µg/ml
21)	benzo(ghi)perylene	16.297	7739512	75.765 µg/ml
25) h	c-9	2.495	8007943	101.964 µg/mlm
26) h	c-10	3.675	8017340	104.541 µg/ml
27)	naphthalene #2	5.353	8502908	111.051 µg/ml
28)	c-12	5.538	8116772	104.110 µg/ml
29)	2-methylnaphthalene #2	6.247	8374032	110.936 µg/ml
30)	c-14	7.050	7887954	105.549 µg/ml
31)	c-16	8.372	7835792	101.669 µg/ml
32)	c-18	9.562	7554463	101.346 µg/ml
33)	c-19	10.115	7714200	102.784 µg/ml
34)	c-20	10.643	7532354	104.995 µg/ml
36)	c-22	11.635	7438139	105.166 µg/ml
37)	c-24	12.550	7279989	103.529 µg/ml
38)	c-26	13.398	7210658	103.875 µg/ml

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16239.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 8:28 pm
Operator : thomasa
Sample : ic908-100
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:49:19 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:48:38 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
39)	c-28	14.190	7182926	107.047	µg/ml
40) h	c-30	14.927	7103069	104.450	µg/ml
41) h	c-36	16.838	6745065	155.354	µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.6

9

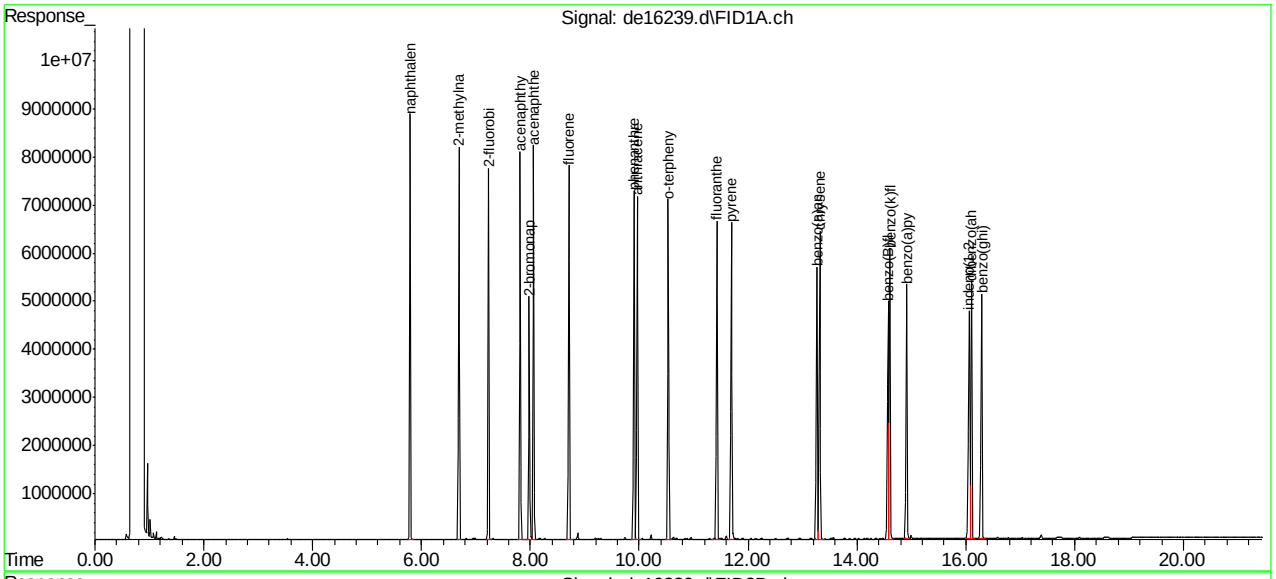
SGS ACCUTEST MC48999

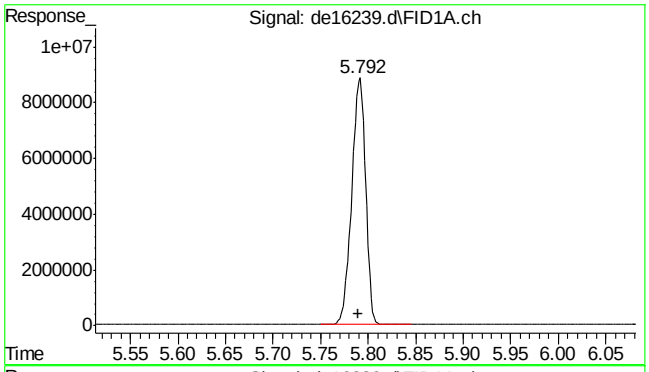
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16239.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 8:28 pm
Operator : thomasa
Sample : ic908-100
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 12 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:49:19 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:48:38 2016
Response via : Initial Calibration
Integrator: RTE

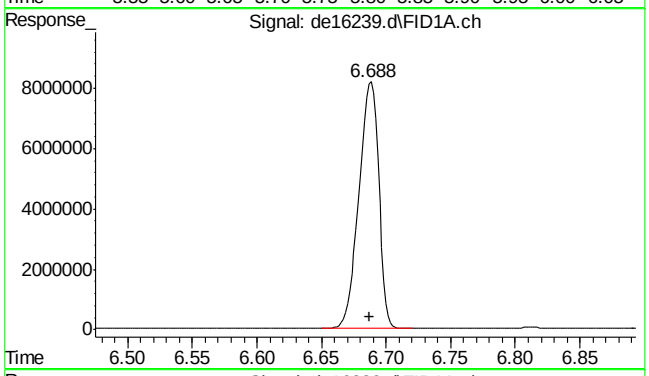
Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





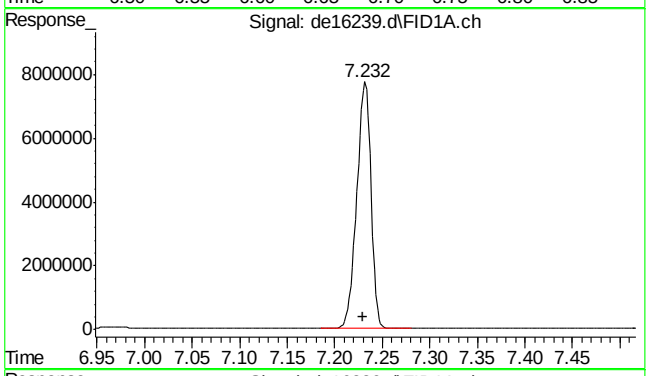
#2 naphthalene

R.T.: 5.792 min
Delta R.T.: 0.002 min
Response: 8989592
Conc: 76.82 µg/ml



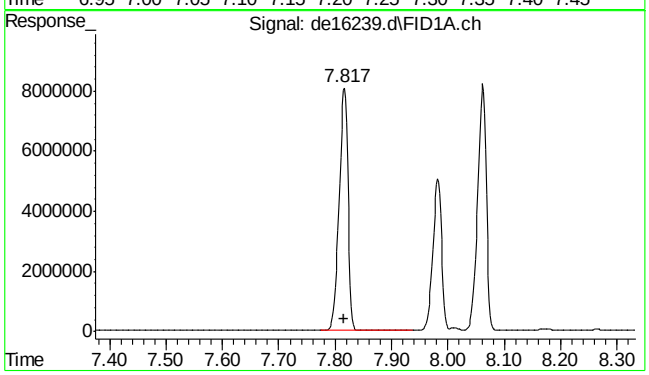
#3 2-methylnaphthalene

R.T.: 6.688 min
Delta R.T.: 0.001 min
Response: 8683657
Conc: 78.42 µg/ml



#4 2-fluorobiphenyl

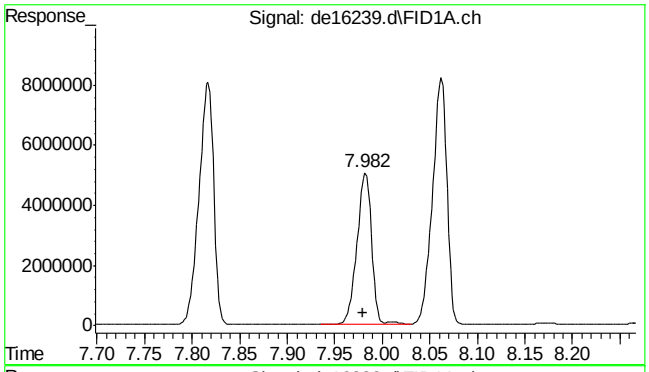
R.T.: 7.232 min
Delta R.T.: 0.002 min
Response: 7959855
Conc: 76.06 µg/ml



#5 acenaphthylene

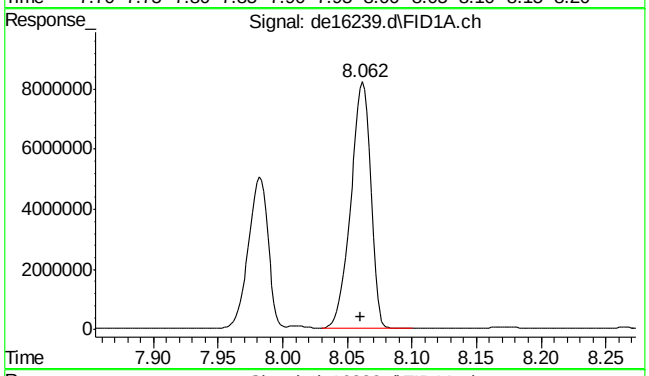
R.T.: 7.817 min
Delta R.T.: 0.002 min
Response: 8649048
Conc: 75.86 µg/ml

SGS ACCUTEST MC48999



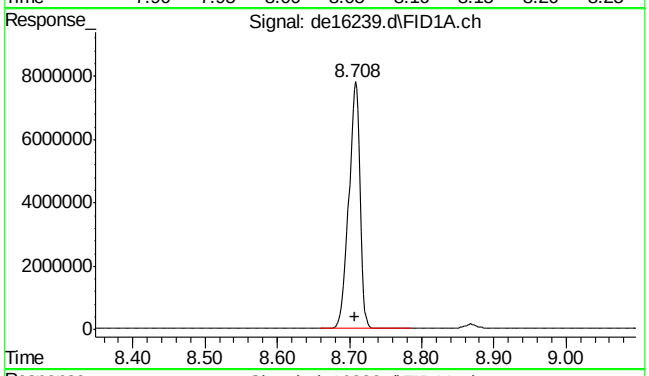
#6 2-bromonaphthalene

R.T.: 7.982 min
Delta R.T.: 0.002 min
Response: 5380456
Conc: 75.42 µg/ml



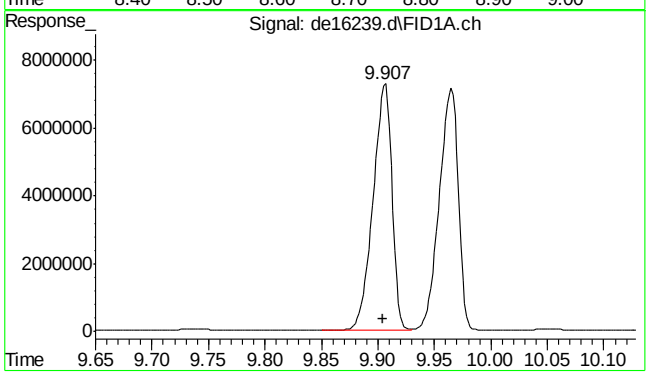
#7 acenaphthene

R.T.: 8.062 min
Delta R.T.: 0.002 min
Response: 8710565
Conc: 75.68 µg/ml



#8 fluorene

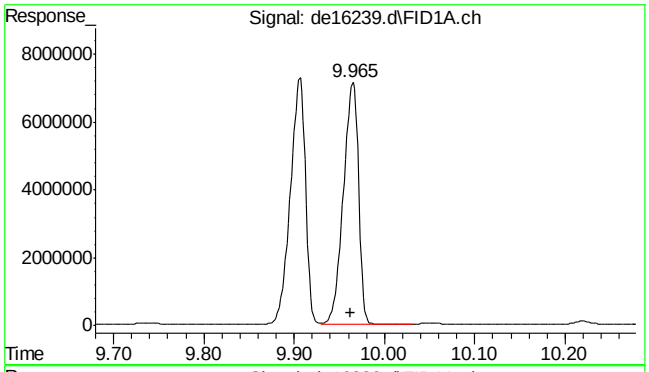
R.T.: 8.708 min
Delta R.T.: 0.001 min
Response: 8498243
Conc: 75.20 µg/ml



#9 phenanthrene

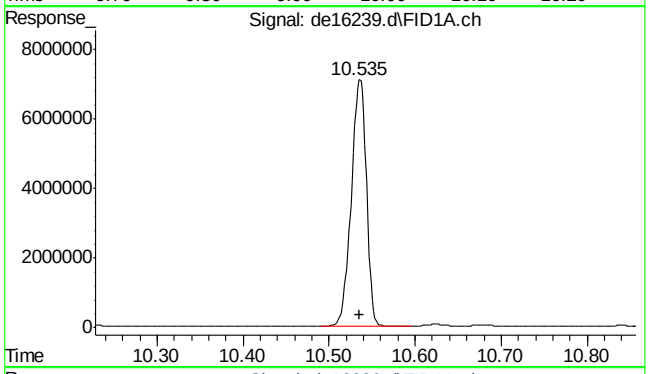
R.T.: 9.907 min
Delta R.T.: 0.002 min
Response: 8443527
Conc: 75.41 µg/ml

SGS ACCUTEST MC48999



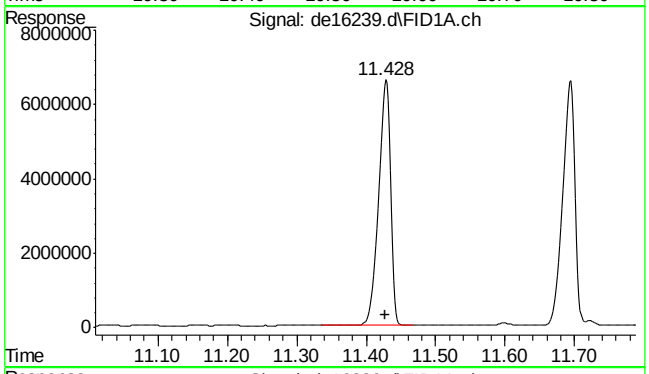
#10 anthracene

R.T.: 9.965 min
Delta R.T.: 0.002 min
Response: 8332463
Conc: 74.65 µg/ml



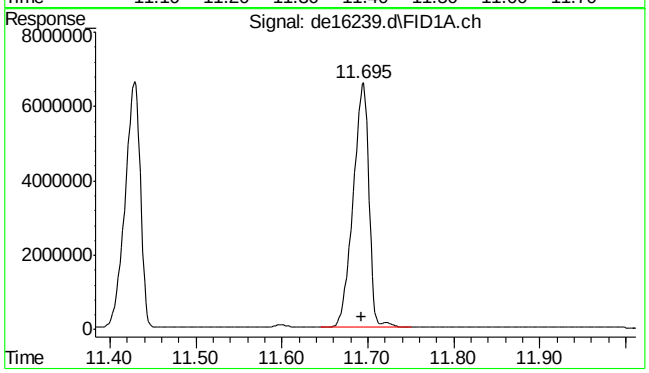
#11 o-terphenyl

R.T.: 10.535 min
Delta R.T.: 0.000 min
Response: 8573443
Conc: 75.02 µg/ml



#12 fluoranthene

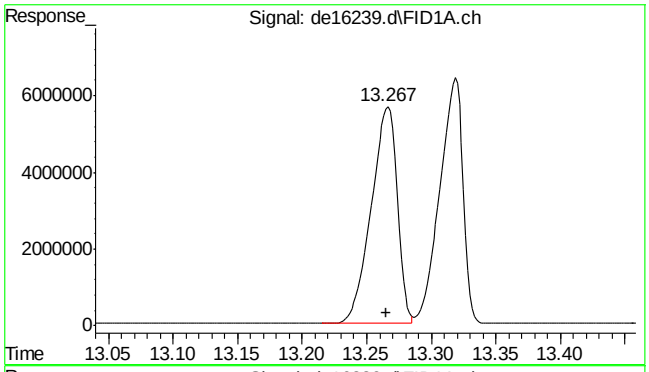
R.T.: 11.428 min
Delta R.T.: 0.000 min
Response: 8176796
Conc: 74.61 µg/ml



#13 pyrene

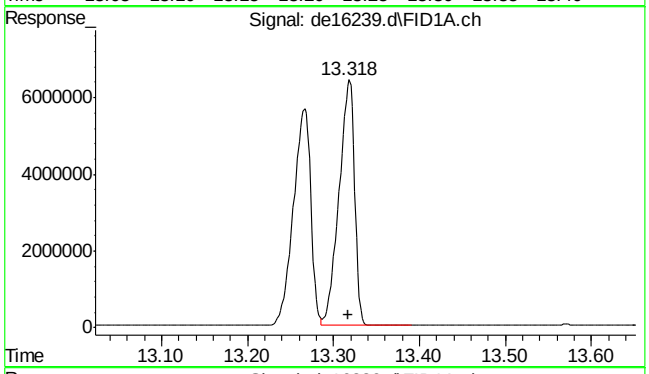
R.T.: 11.695 min
Delta R.T.: 0.002 min
Response: 8379390
Conc: 75.91 µg/ml

SGS ACCUTEST MC48999



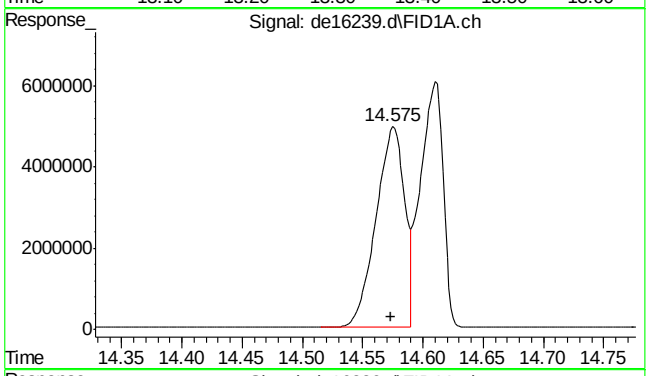
#14 benzo(a)anthracene

R.T.: 13.267 min
Delta R.T.: 0.002 min
Response: 7947158
Conc: 74.54 µg/ml



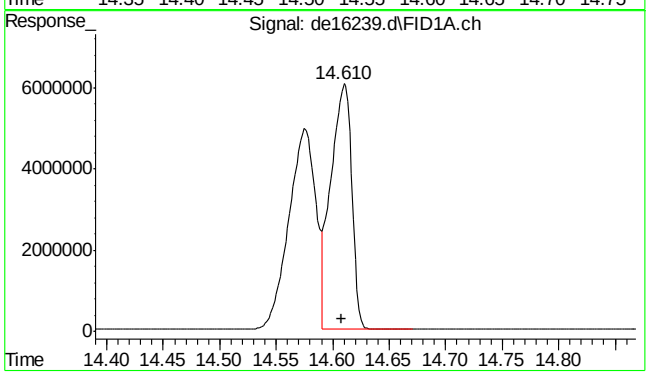
#15 chrysene

R.T.: 13.318 min
Delta R.T.: 0.001 min
Response: 8060554
Conc: 75.07 µg/ml



#16 benzo(B)fluoranthene

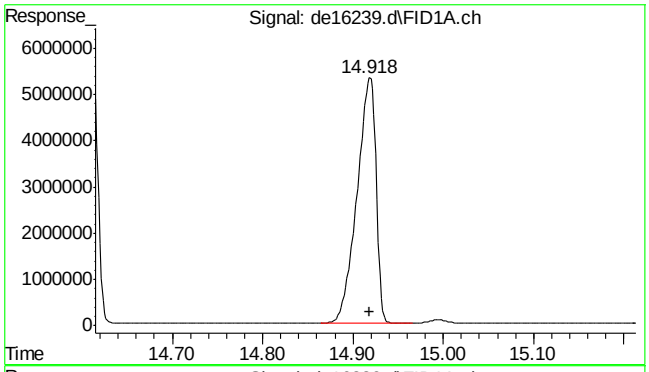
R.T.: 14.575 min
Delta R.T.: 0.002 min
Response: 8216871
Conc: 75.17 µg/ml



#17 benzo(k)fluoranthene

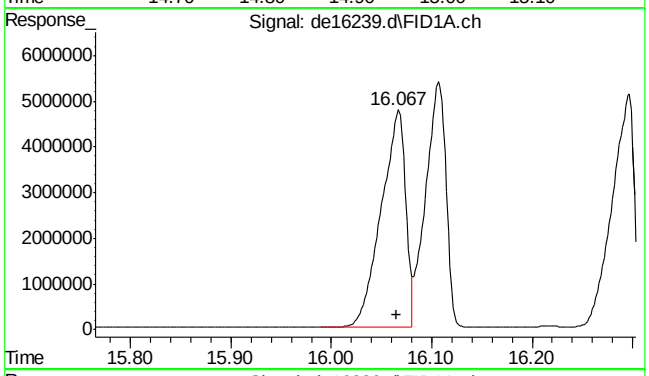
R.T.: 14.610 min
Delta R.T.: 0.002 min
Response: 7829325
Conc: 75.61 µg/ml

SGS ACCUTEST MC48999



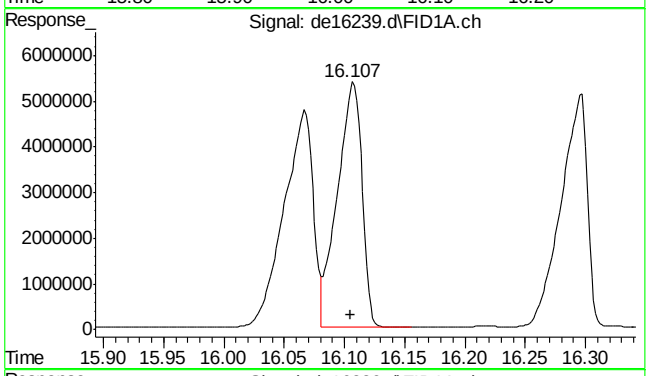
#18 benzo(a)pyrene

R.T.: 14.918 min
Delta R.T.: 0.000 min
Response: 7804599
Conc: 73.83 µg/ml



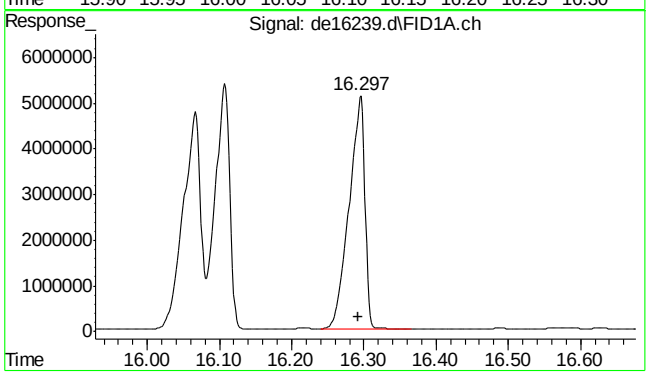
#19 indeno(1,2,3-cd)pyrene

R.T.: 16.067 min
Delta R.T.: 0.002 min
Response: 7952680
Conc: 72.82 µg/ml



#20 dibenzo(ah)anthracene

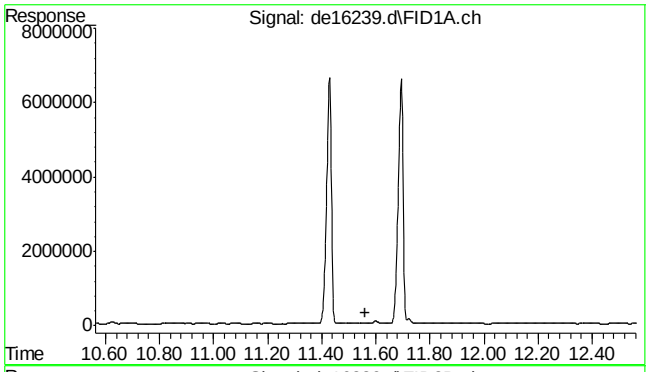
R.T.: 16.107 min
Delta R.T.: 0.002 min
Response: 7568051
Conc: 79.01 µg/ml



#21 benzo(ghi)perylene

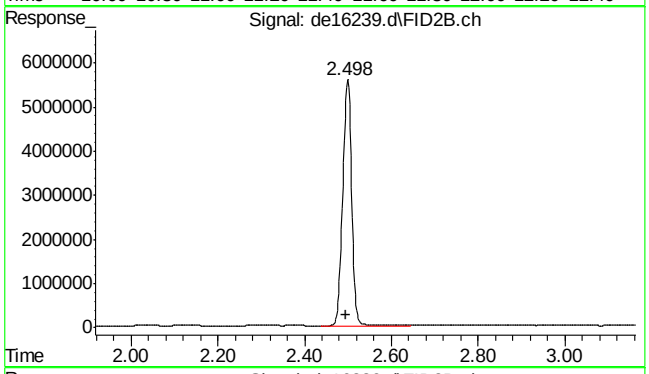
R.T.: 16.297 min
Delta R.T.: 0.004 min
Response: 7739512
Conc: 75.76 µg/ml

SGS ACCUTEST MC48999



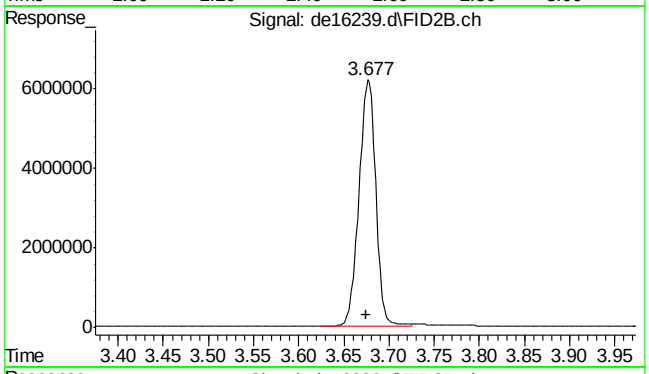
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.562 min
Response: 0
Conc: N.D.



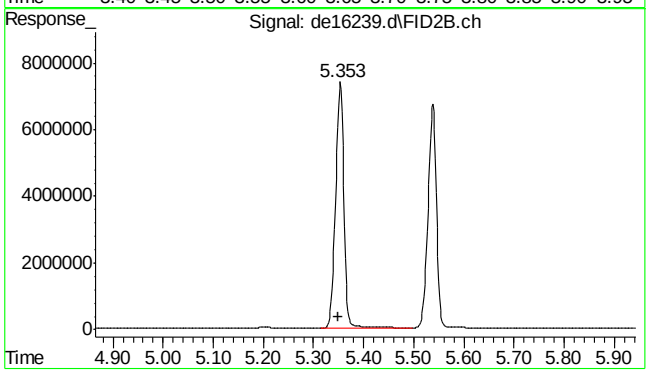
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 8007943
Conc: 101.96 µg/ml m



#26 c-10

R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 8017340
Conc: 104.54 µg/ml



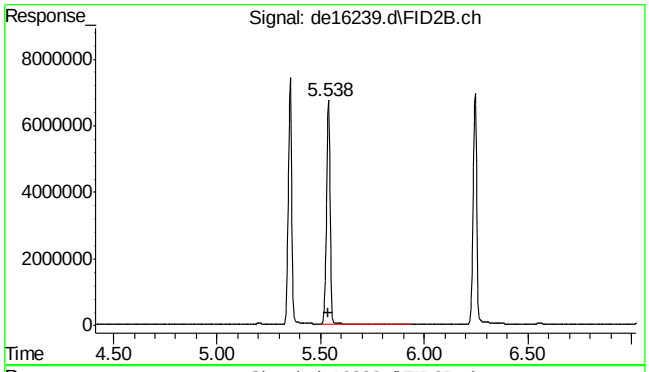
#27 naphthalene #2

R.T.: 5.353 min
Delta R.T.: 0.003 min
Response: 8502908
Conc: 111.05 µg/ml

9.5.6

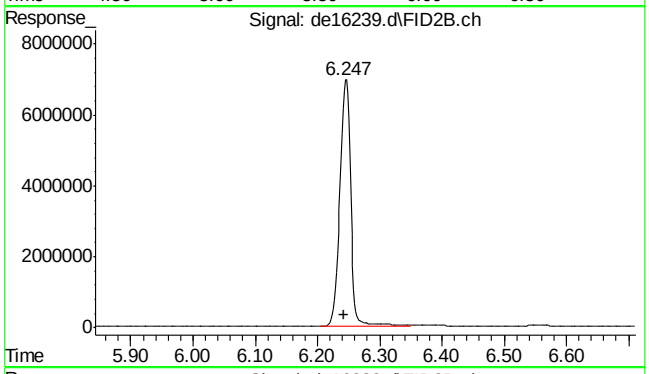
9

SGS ACCUTEST MC48999



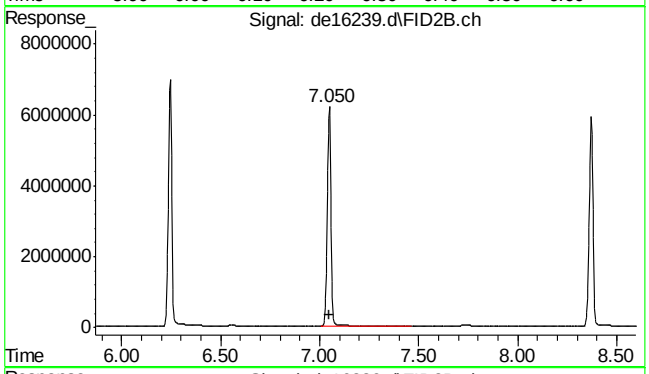
#28 c-12

R.T.: 5.538 min
Delta R.T.: 0.003 min
Response: 8116772
Conc: 104.11 µg/ml



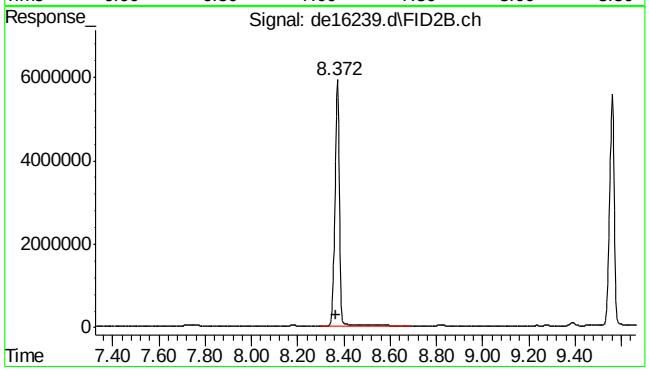
#29 2-methylnaphthalene #2

R.T.: 6.247 min
Delta R.T.: 0.005 min
Response: 8374032
Conc: 110.94 µg/ml



#30 c-14

R.T.: 7.050 min
Delta R.T.: 0.003 min
Response: 7887954
Conc: 105.55 µg/ml



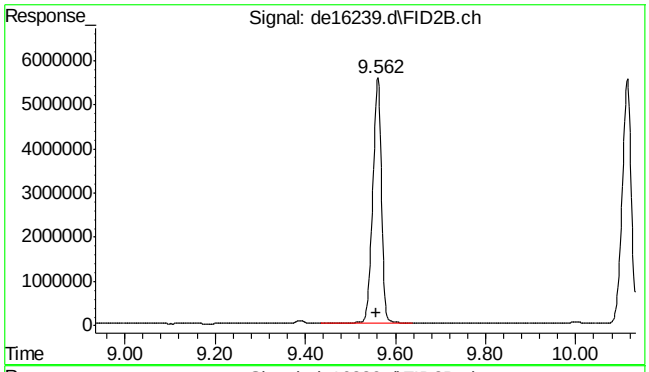
#31 c-16

R.T.: 8.372 min
Delta R.T.: 0.004 min
Response: 7835792
Conc: 101.67 µg/ml

9.5.6

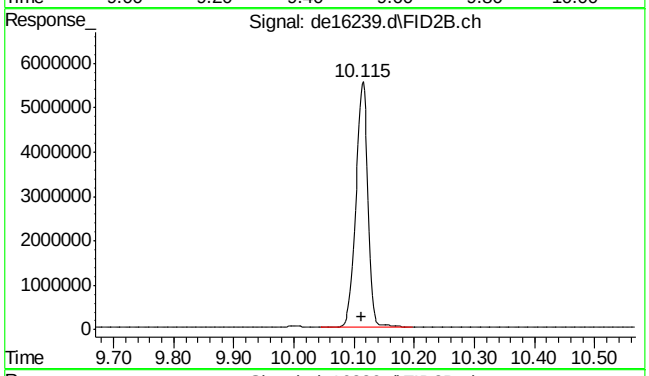
9

SGS ACCUTEST MC48999



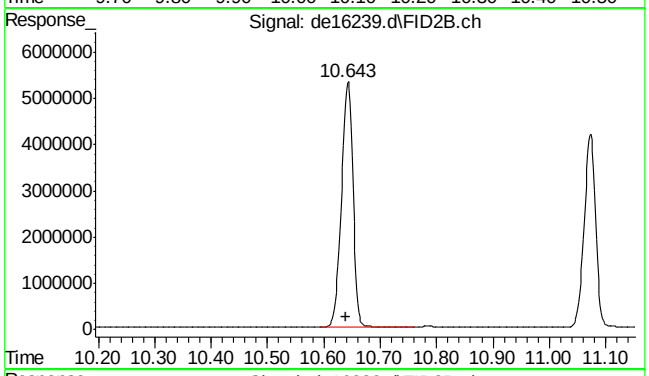
#32 c-18

R.T.: 9.562 min
Delta R.T.: 0.005 min
Response: 7554463
Conc: 101.35 µg/ml



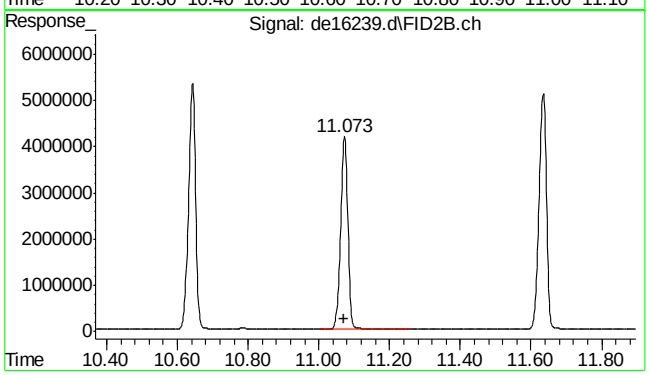
#33 c-19

R.T.: 10.115 min
Delta R.T.: 0.003 min
Response: 7714200
Conc: 102.78 µg/ml



#34 c-20

R.T.: 10.643 min
Delta R.T.: 0.003 min
Response: 7532354
Conc: 104.99 µg/ml



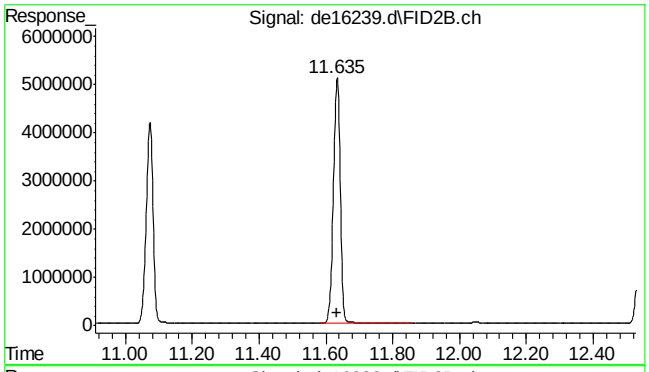
#35 1-chlorooctadecane

R.T.: 11.073 min
Delta R.T.: 0.003 min
Response: 5937227
Conc: 105.26 µg/ml

9.5.6

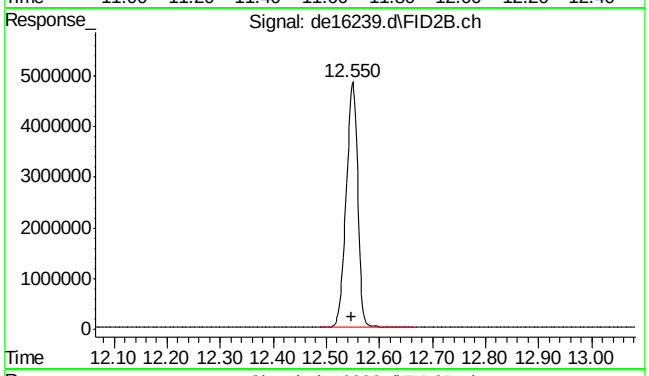
9

SGS ACCUTEST MC48999



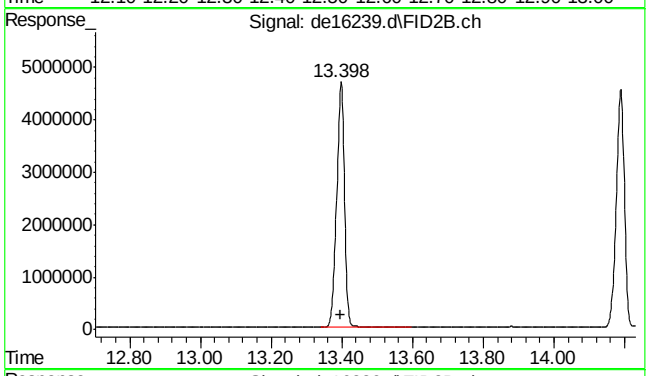
#36 c-22

R.T.: 11.635 min
Delta R.T.: 0.003 min
Response: 7438139
Conc: 105.17 µg/ml



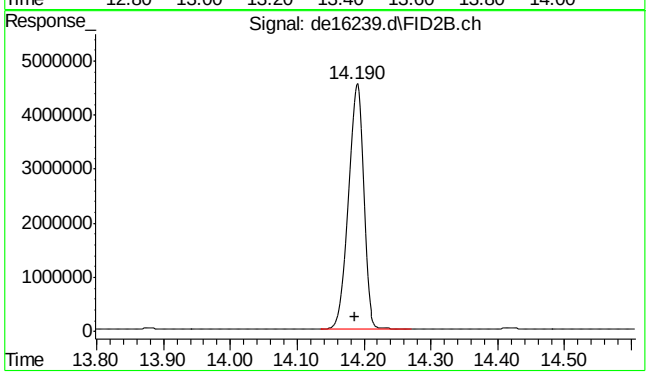
#37 c-24

R.T.: 12.550 min
Delta R.T.: 0.003 min
Response: 7279989
Conc: 103.53 µg/ml



#38 c-26

R.T.: 13.398 min
Delta R.T.: 0.003 min
Response: 7210658
Conc: 103.88 µg/ml



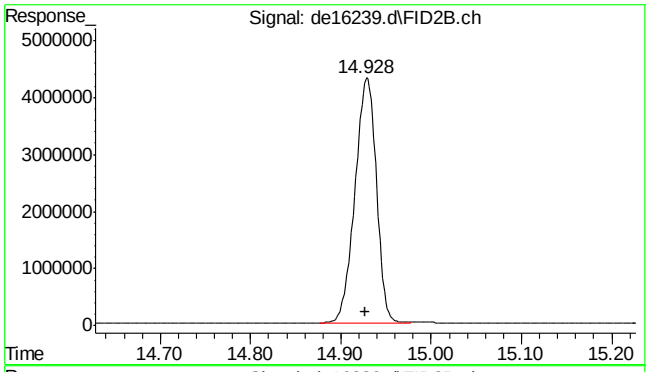
#39 c-28

R.T.: 14.190 min
Delta R.T.: 0.003 min
Response: 7182926
Conc: 107.05 µg/ml

9.5.6

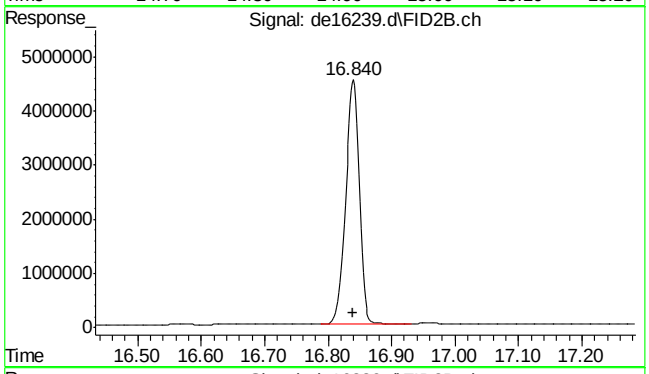
9

SGS ACCUTEST MC48999



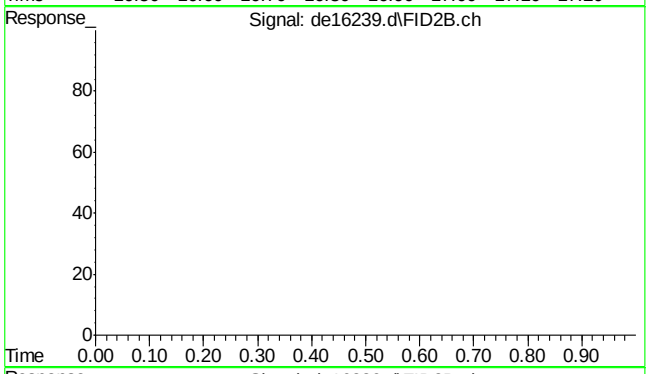
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 7103069
Conc: 104.45 µg/ml



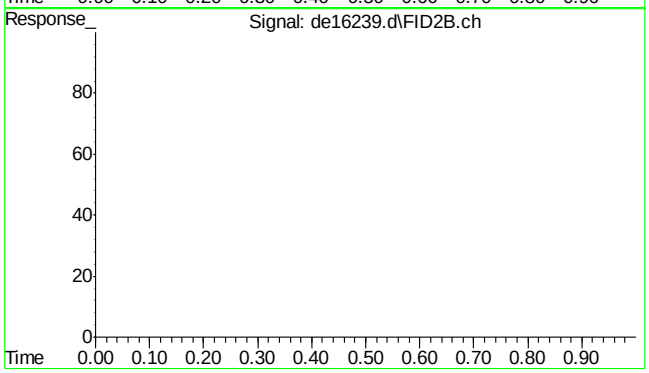
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 6745065
Conc: 155.35 µg/ml m



#42 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.



#43 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

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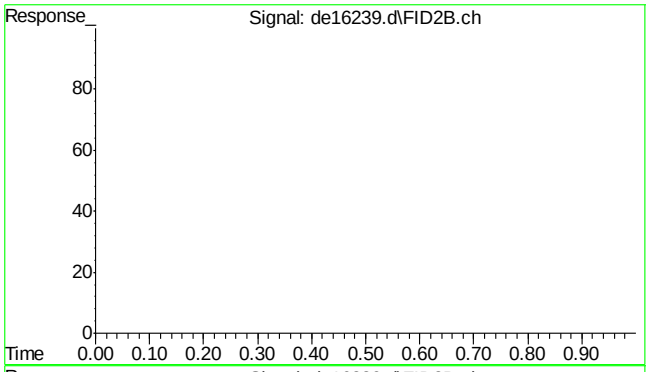
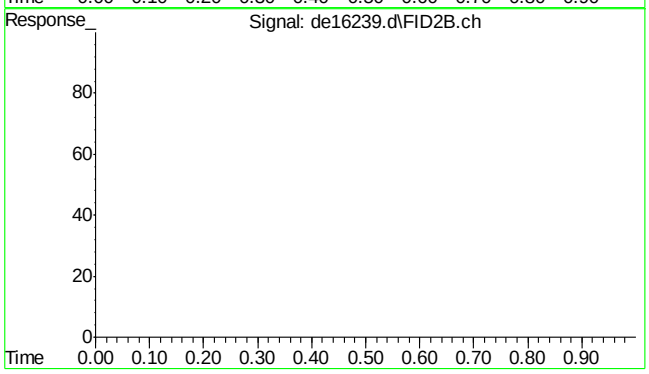


#44 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

9.5.6

9

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16240.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 8:56 pm
Operator : thomasa
Sample : ic908-200
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:50:02 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:49:25 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) s	2-fluorobiphenyl	7.237	14903311	155.475 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 777.38%#
6) s	2-bromonaphthalene	7.988	10123735	154.845 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 774.23%#
11) s	o-terphenyl	10.542	16291931	155.837 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 779.18%#
35) s	1-chlorooctadecane	11.078	11554707	203.686 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 1018.43%#
	Target Compounds			
2)	naphthalene	5.797	16757897	156.405 µg/ml
3)	2-methylnaphthalene	6.693	16221079	157.828 µg/ml
5)	acenaphthylene	7.822	16243496	155.164 µg/ml
7)	acenaphthene	8.068	16412592	155.762 µg/ml
8)	fluorene	8.715	16056702	155.473 µg/ml
9)	phenanthrene	9.912	16046193	156.363 µg/ml
10)	anthracene	9.973	15819228	155.525 µg/ml
12)	fluoranthene	11.437	15646426	156.157 µg/ml
13)	pyrene	11.703	16059591	159.104 µg/ml
14)	benzo(a)anthracene	13.275	15406742	158.504 µg/ml
15)	chrysene	13.330	15508958	158.081 µg/ml
16)	benzo(B)fluoranthene	14.588	15732166	158.277 µg/ml
17)	benzo(k)fluoranthene	14.627	15568643	163.428 µg/ml
18)	benzo(a)pyrene	14.933	15260493	157.273 µg/ml
19)	indeno(1,2,3-cd)pyrene	16.082	15883740	157.927 µg/ml
20)	dibenzo(ah)anthracene	16.125	14756961	167.613 µg/ml
21)	benzo(ghi)perylene	16.315	15290452	161.467 µg/ml
25) h	c-9	2.495	14962199	189.979 µg/mlm
26) h	c-10	3.675	15056089	195.057 µg/ml
27)	naphthalene #2	5.360	16078976	208.234 µg/ml
28)	c-12	5.543	15174229	193.497 µg/ml
29)	2-methylnaphthalene #2	6.253	15704613	206.308 µg/ml
30)	c-14	7.055	14814823	196.679 µg/ml
31)	c-16	8.378	14855890	192.295 µg/ml
32)	c-18	9.567	14431382	193.231 µg/ml
33)	c-19	10.122	14870803	197.354 µg/ml
34)	c-20	10.650	14487979	200.520 µg/ml
36)	c-22	11.642	14419050	202.373 µg/ml
37)	c-24	12.558	14288887	202.184 µg/ml
38)	c-26	13.405	14282538	204.619 µg/ml

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16240.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 8:56 pm
Operator : thomasa
Sample : ic908-200
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:50:02 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:49:25 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
39)	c-28	14.197	14403836	212.521	µg/ml
40) h	c-30	14.927	14381247	210.139	µg/ml
41) h	c-36	16.838	14223598	303.595	µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.7

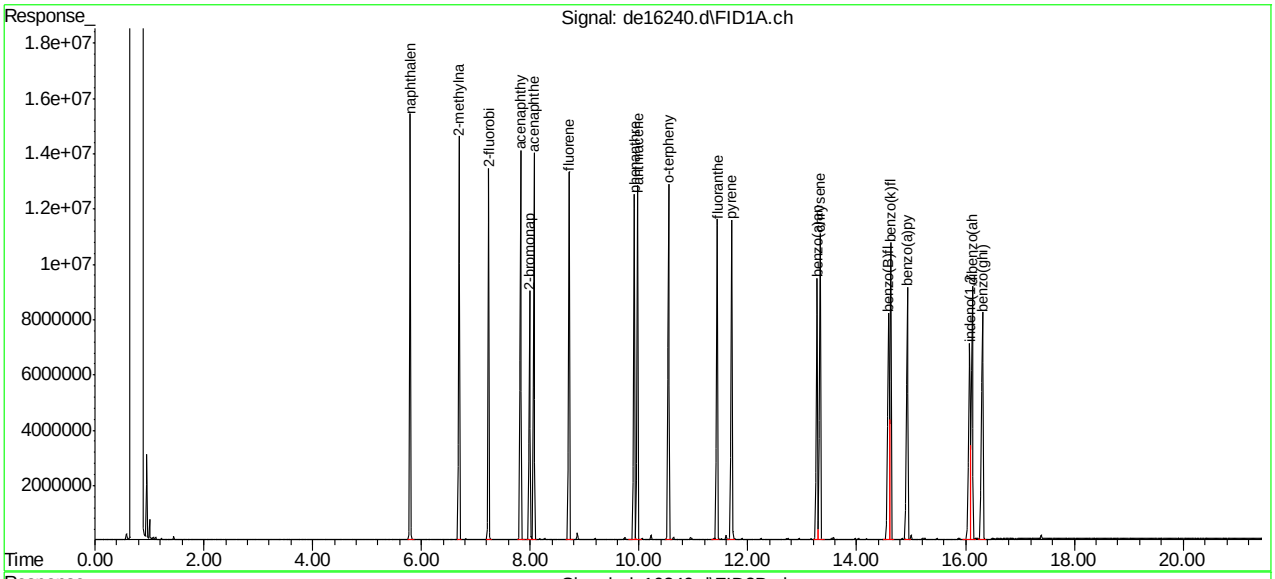
9

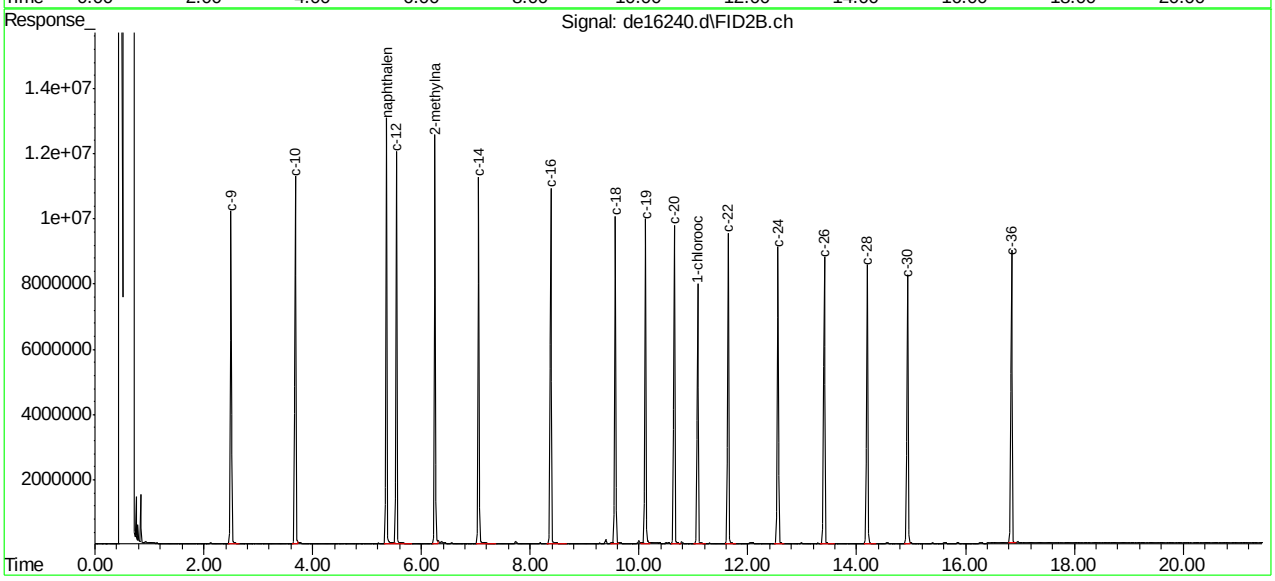
Quantitation Report (QT Reviewed)

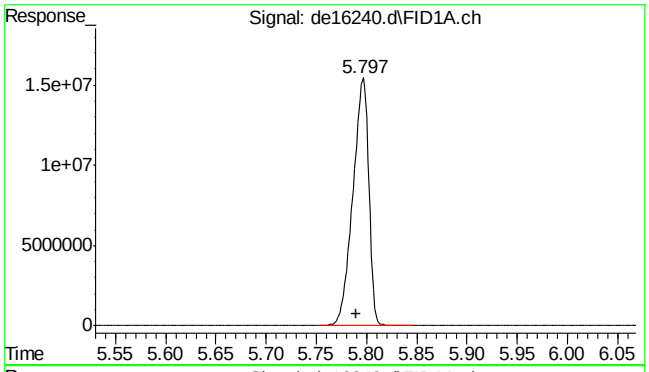
Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16240.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 8:56 pm
Operator : thomasa
Sample : ic908-200
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 09:50:02 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:49:25 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

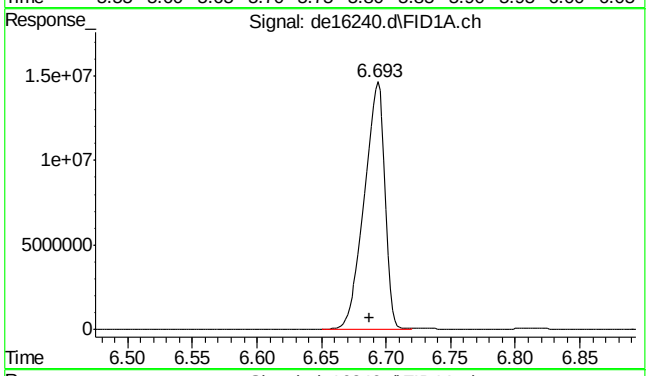






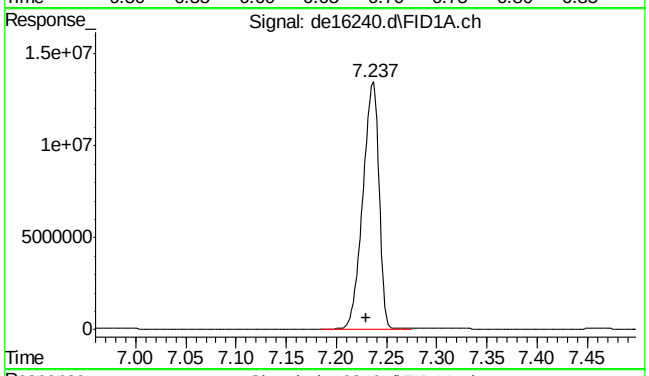
#2 naphthalene

R.T.: 5.797 min
Delta R.T.: 0.007 min
Response: 16757897
Conc: 156.40 µg/ml



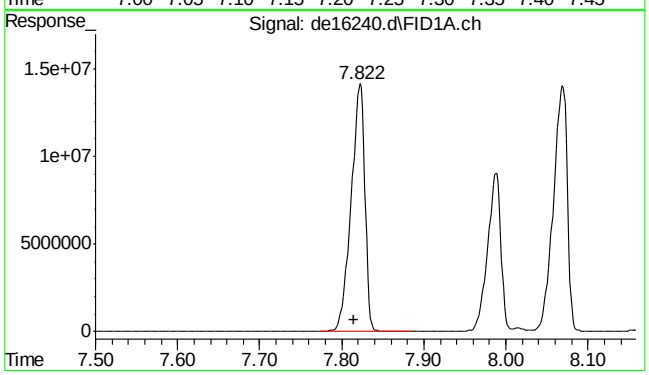
#3 2-methylnaphthalene

R.T.: 6.693 min
Delta R.T.: 0.006 min
Response: 16221079
Conc: 157.83 µg/ml



#4 2-fluorobiphenyl

R.T.: 7.237 min
Delta R.T.: 0.007 min
Response: 14903311
Conc: 155.47 µg/ml



#5 acenaphthylene

R.T.: 7.822 min
Delta R.T.: 0.007 min
Response: 16243496
Conc: 155.16 µg/ml

9.5.7

9

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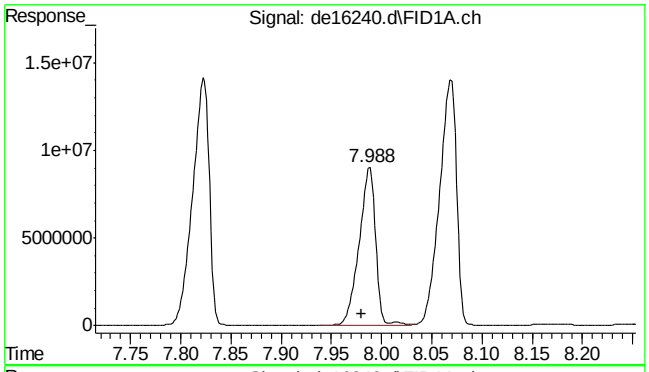
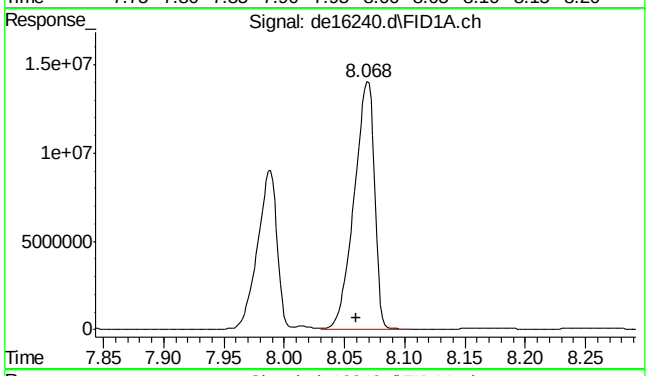


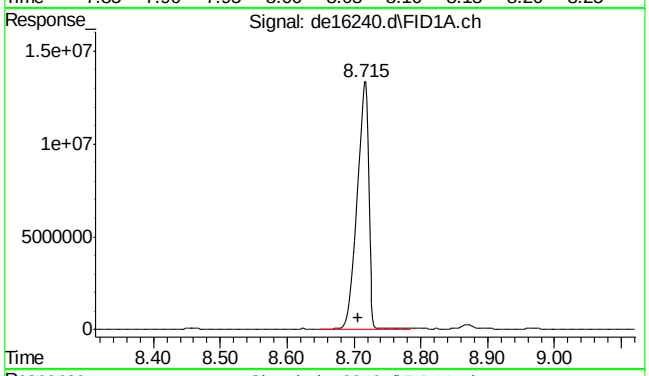
#6 2-bromonaphthalene

R.T.: 7.988 min
Delta R.T.: 0.008 min
Response: 10123735
Conc: 154.84 µg/ml



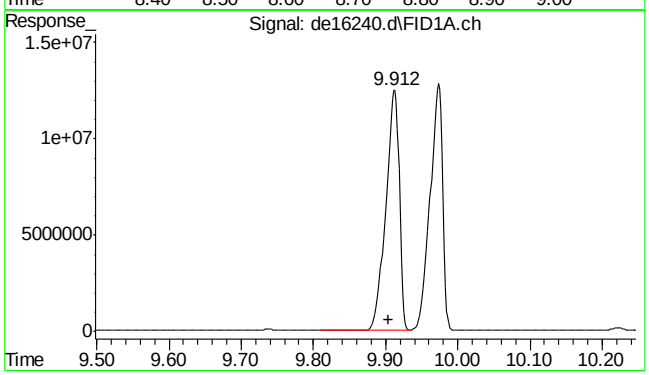
#7 acenaphthene

R.T.: 8.068 min
Delta R.T.: 0.008 min
Response: 16412592
Conc: 155.76 µg/ml



#8 fluorene

R.T.: 8.715 min
Delta R.T.: 0.008 min
Response: 16056702
Conc: 155.47 µg/ml



#9 phenanthrene

R.T.: 9.912 min
Delta R.T.: 0.007 min
Response: 16046193
Conc: 156.36 µg/ml

9.5.7

9

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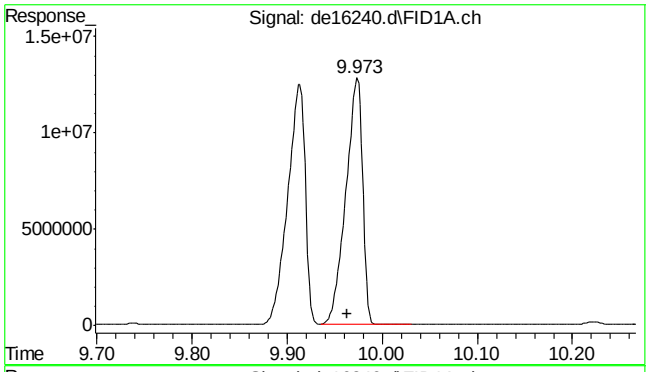
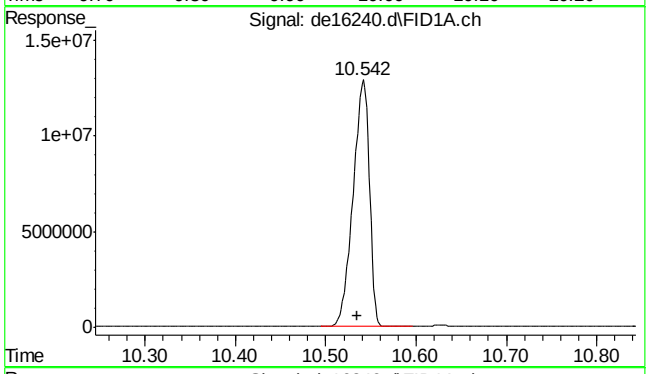


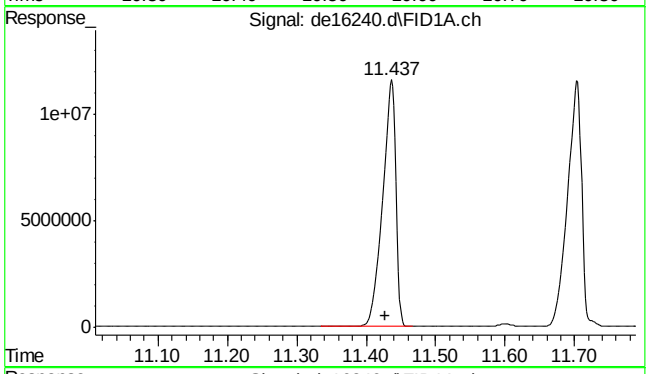
#10 anthracene

R.T.: 9.973 min
Delta R.T.: 0.010 min
Response: 15819228
Conc: 155.52 µg/ml



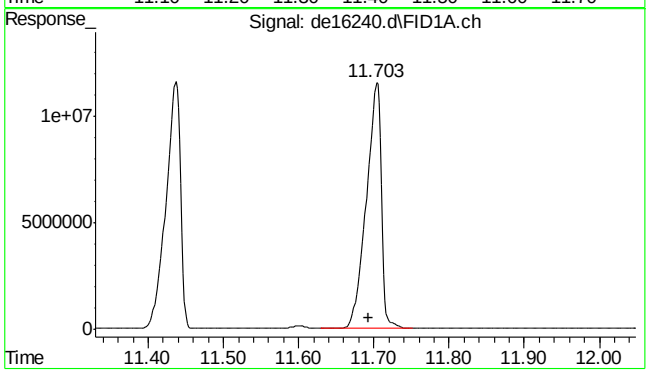
#11 o-terphenyl

R.T.: 10.542 min
Delta R.T.: 0.007 min
Response: 16291931
Conc: 155.84 µg/ml



#12 fluoranthene

R.T.: 11.437 min
Delta R.T.: 0.009 min
Response: 15646426
Conc: 156.16 µg/ml



#13 pyrene

R.T.: 11.703 min
Delta R.T.: 0.010 min
Response: 16059591
Conc: 159.10 µg/ml

9.5.7

9

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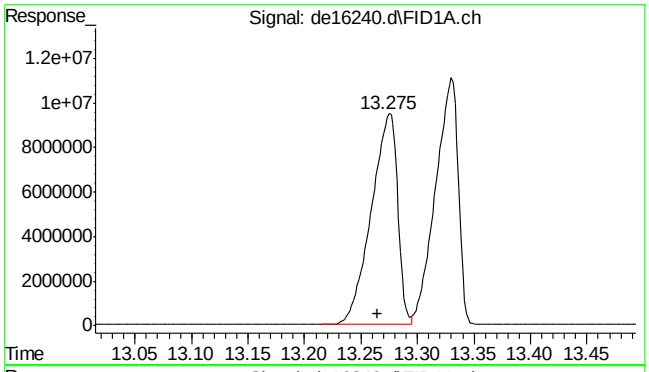
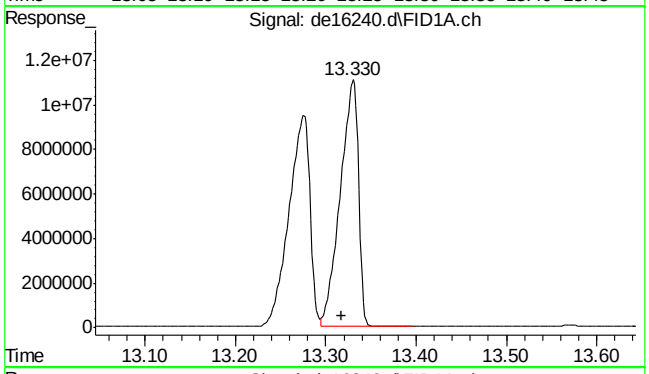


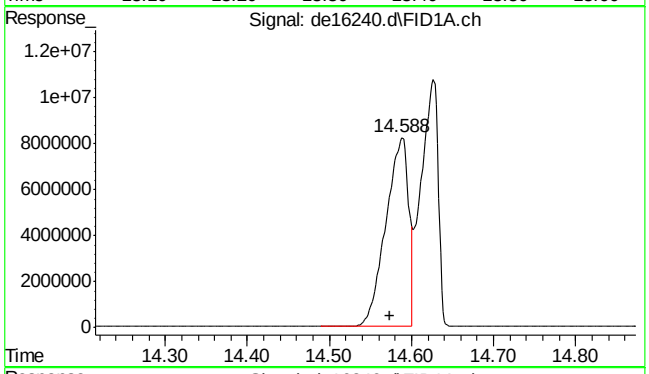
#14 benzo(a)anthracene

R.T.: 13.275 min
Delta R.T.: 0.010 min
Response: 15406742
Conc: 158.50 µg/ml



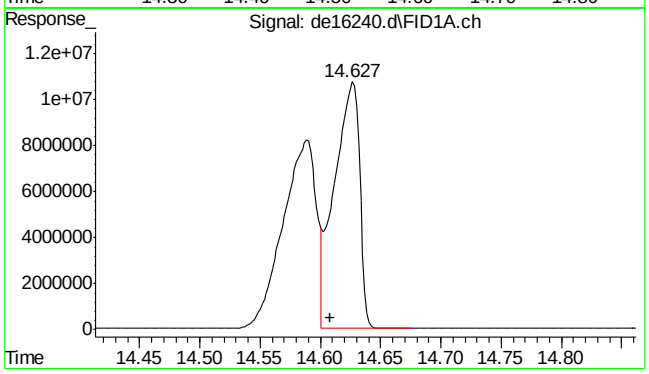
#15 chrysene

R.T.: 13.330 min
Delta R.T.: 0.013 min
Response: 15508958
Conc: 158.08 µg/ml



#16 benzo(B)fluoranthene

R.T.: 14.588 min
Delta R.T.: 0.015 min
Response: 15732166
Conc: 158.28 µg/ml



#17 benzo(k)fluoranthene

R.T.: 14.627 min
Delta R.T.: 0.019 min
Response: 15568643
Conc: 163.43 µg/ml

9.5.7

9

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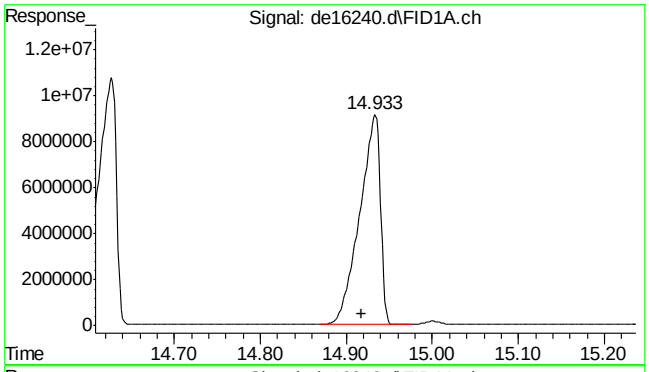
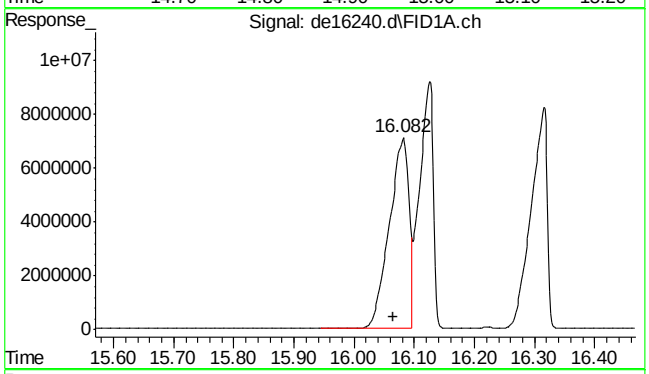


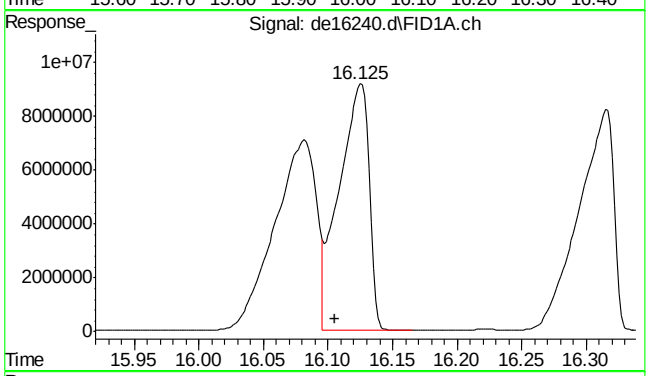
#18 benzo(a)pyrene

R.T.: 14.933 min
Delta R.T.: 0.015 min
Response: 15260493
Conc: 157.27 µg/ml



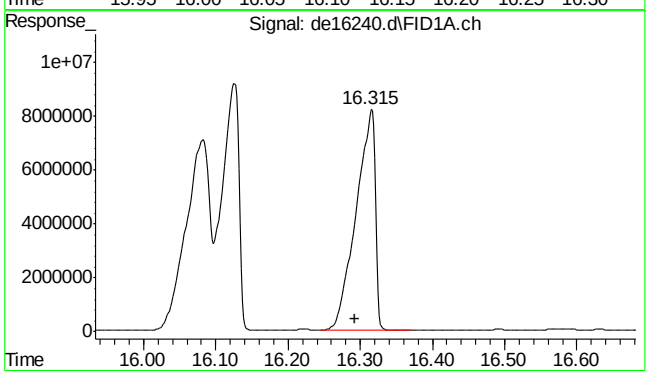
#19 indeno(1,2,3-cd)pyrene

R.T.: 16.082 min
Delta R.T.: 0.017 min
Response: 15883740
Conc: 157.93 µg/ml



#20 dibenzo(ah)anthracene

R.T.: 16.125 min
Delta R.T.: 0.020 min
Response: 14756961
Conc: 167.61 µg/ml



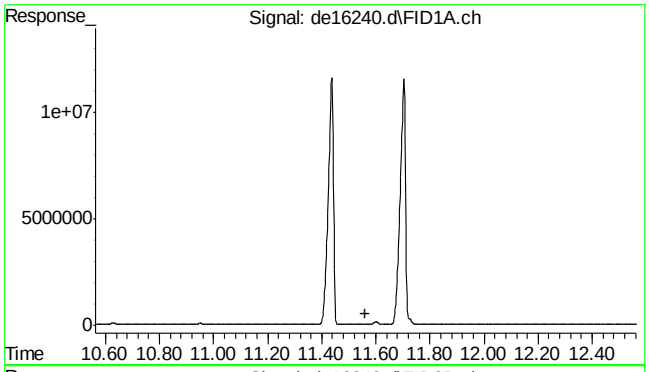
#21 benzo(ghi)perylene

R.T.: 16.315 min
Delta R.T.: 0.022 min
Response: 15290452
Conc: 161.47 µg/ml

9.5.7

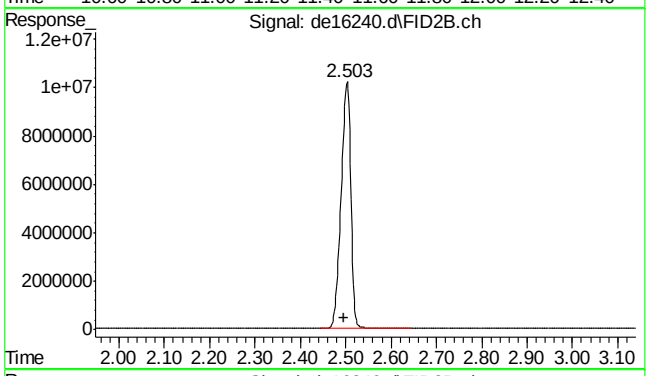
9

SGS ACCUTEST MC48999



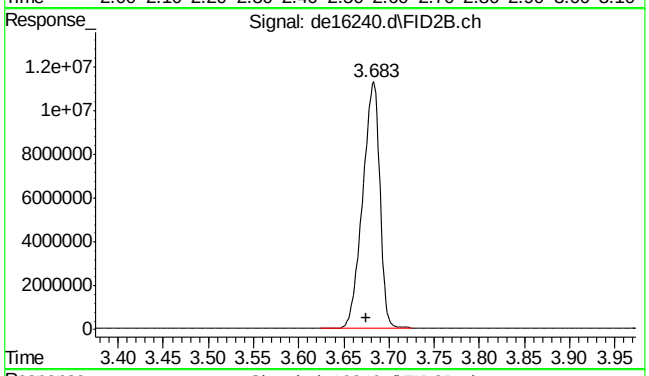
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.562 min
Response: 0
Conc: N.D.



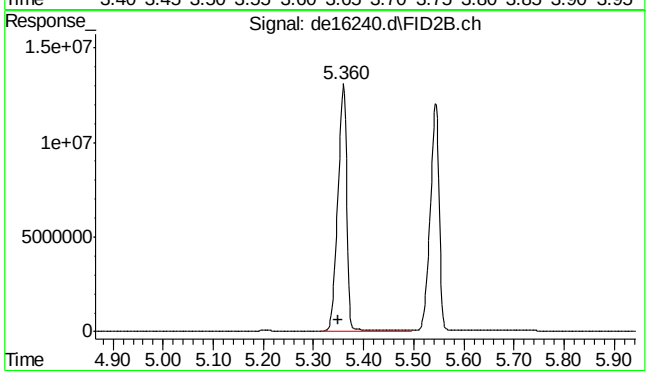
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 14962199
Conc: 189.98 µg/ml m



#26 c-10

R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 15056089
Conc: 195.06 µg/ml



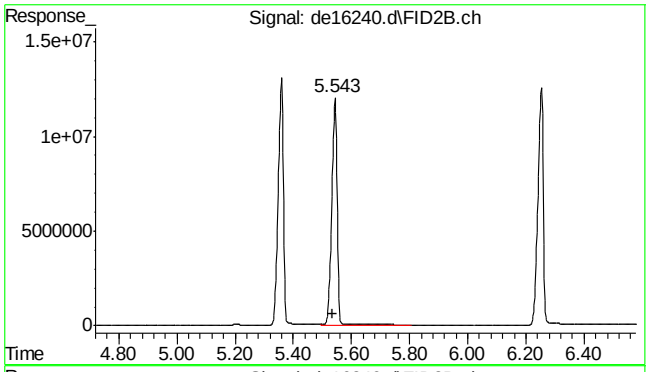
#27 naphthalene #2

R.T.: 5.360 min
Delta R.T.: 0.010 min
Response: 16078976
Conc: 208.23 µg/ml

9.5.7

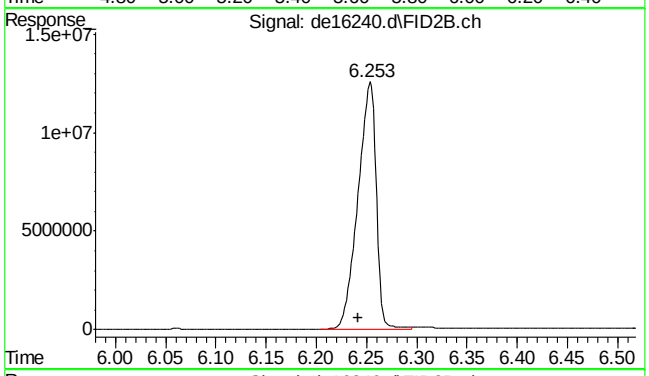
9

SGS ACCUTEST MC48999



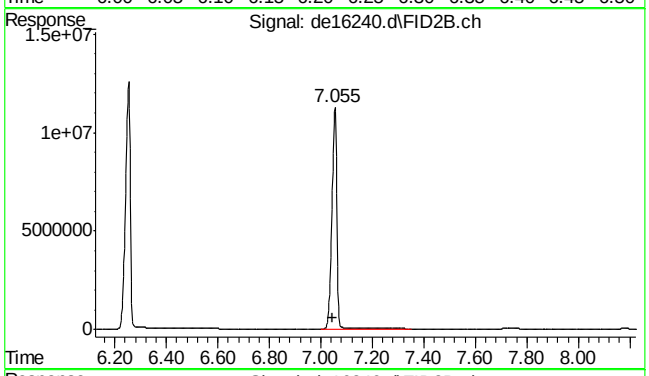
#28 c-12

R.T.: 5.543 min
Delta R.T.: 0.008 min
Response: 15174229
Conc: 193.50 µg/ml



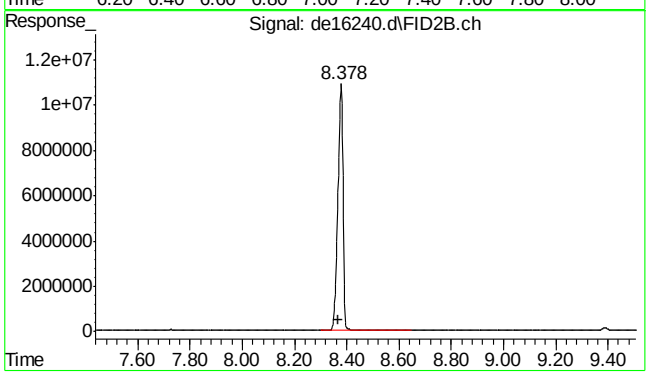
#29 2-methylnaphthalene #2

R.T.: 6.253 min
Delta R.T.: 0.011 min
Response: 15704613
Conc: 206.31 µg/ml



#30 c-14

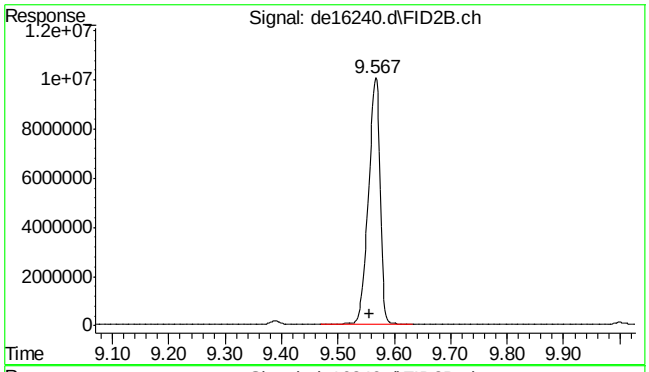
R.T.: 7.055 min
Delta R.T.: 0.008 min
Response: 14814823
Conc: 196.68 µg/ml



#31 c-16

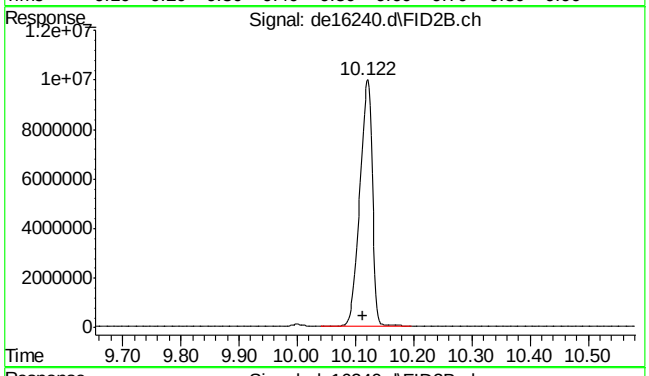
R.T.: 8.378 min
Delta R.T.: 0.010 min
Response: 14855890
Conc: 192.30 µg/ml

SGS ACCUTEST MC48999



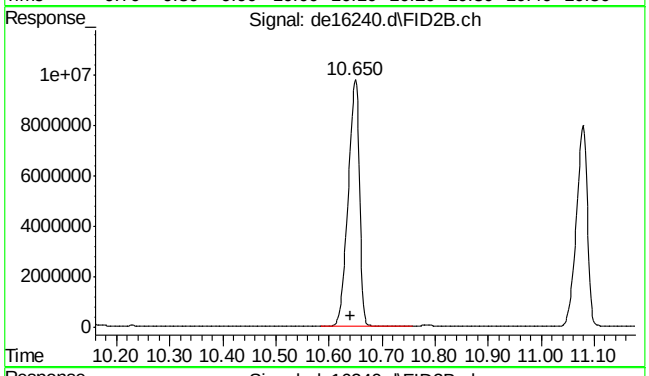
#32 c-18

R.T.: 9.567 min
Delta R.T.: 0.010 min
Response: 14431382
Conc: 193.23 µg/ml



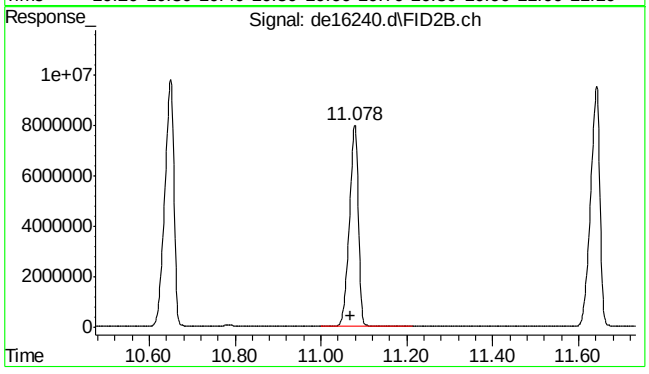
#33 c-19

R.T.: 10.122 min
Delta R.T.: 0.010 min
Response: 14870803
Conc: 197.35 µg/ml



#34 c-20

R.T.: 10.650 min
Delta R.T.: 0.010 min
Response: 14487979
Conc: 200.52 µg/ml



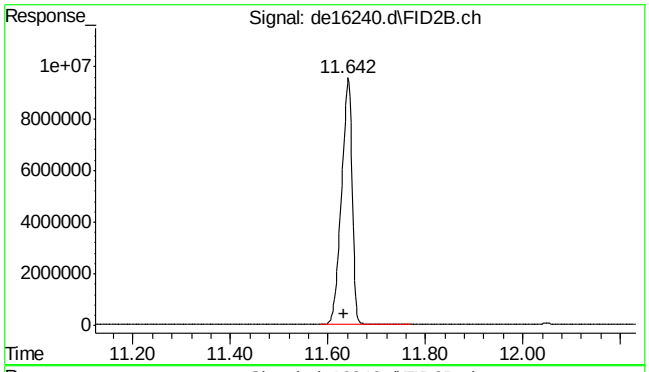
#35 1-chlorooctadecane

R.T.: 11.078 min
Delta R.T.: 0.008 min
Response: 11554707
Conc: 203.69 µg/ml

9.5.7

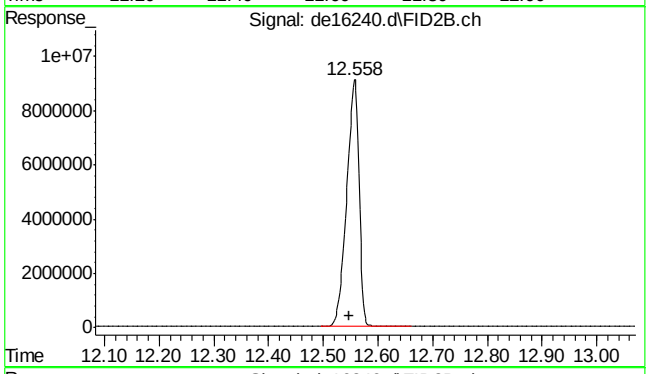
9

SGS ACCUTEST MC48999



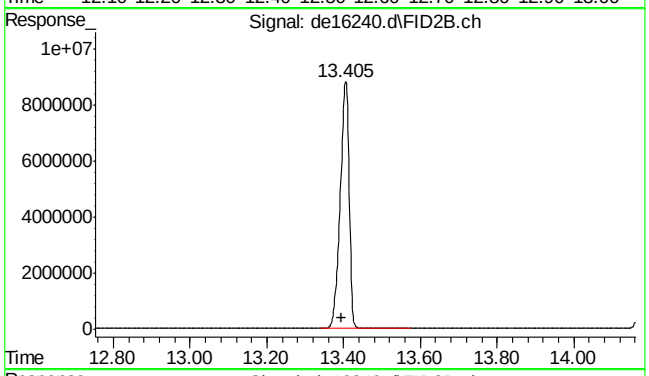
#36 c-22

R.T.: 11.642 min
Delta R.T.: 0.010 min
Response: 14419050
Conc: 202.37 µg/ml



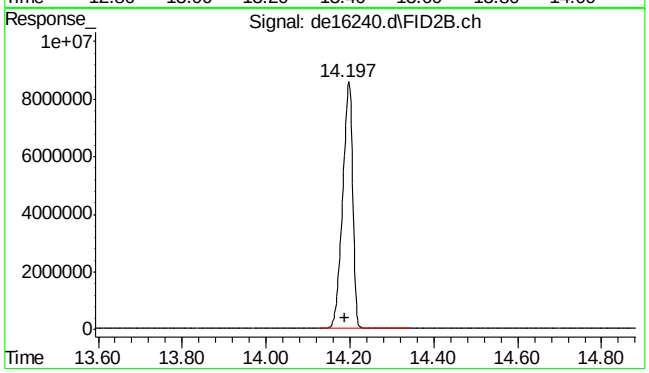
#37 c-24

R.T.: 12.558 min
Delta R.T.: 0.011 min
Response: 14288887
Conc: 202.18 µg/ml



#38 c-26

R.T.: 13.405 min
Delta R.T.: 0.010 min
Response: 14282538
Conc: 204.62 µg/ml



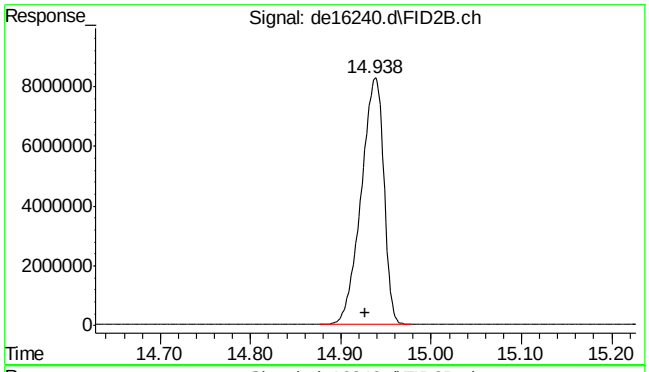
#39 c-28

R.T.: 14.197 min
Delta R.T.: 0.010 min
Response: 14403836
Conc: 212.52 µg/ml

9.5.7

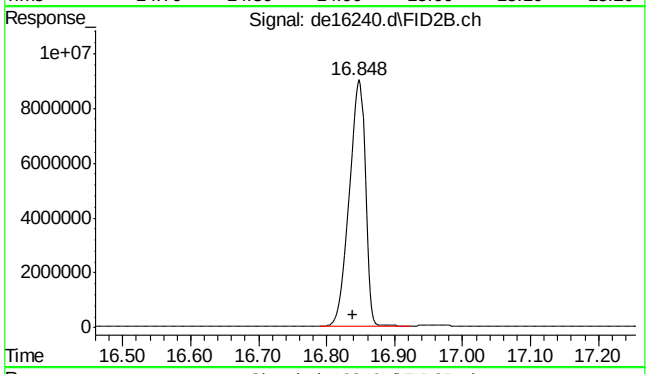
9

SGS ACCUTEST MC48999



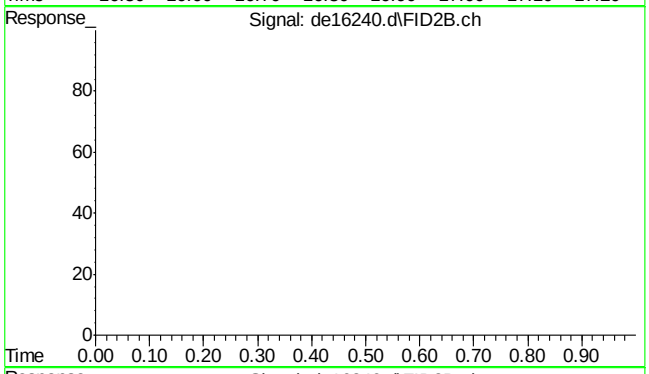
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 14381247
Conc: 210.14 µg/ml



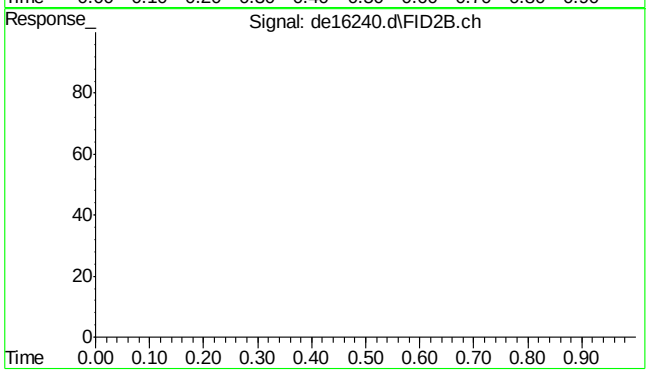
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 14223598
Conc: 303.59 µg/ml m



#42 bht

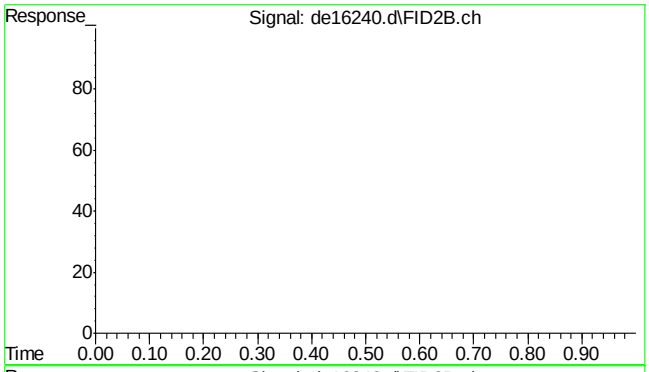
R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.



#43 bht

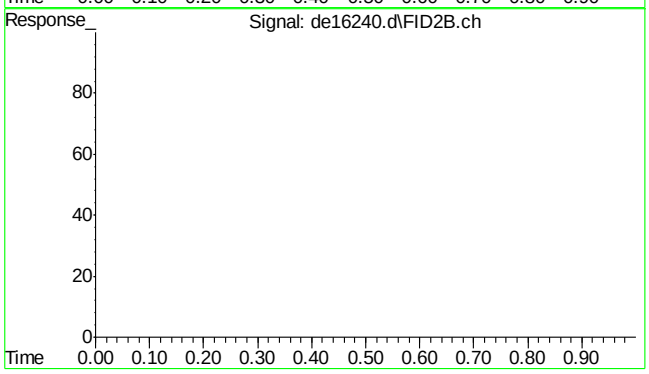
R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

SGS ACCUTEST MC48999



#44 bht

```
      R.T.:    0.000 min
Exp R.T.  :   23.000 min
  Response:         0
      Conc:   N.D.
```



#45 bht

```
      R.T.:    0.000 min
Exp R.T.  :   23.000 min
  Response:         0
      Conc:   N.D.
```

9.5.7

9

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16241.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 9:23 pm
Operator : thomasa
Sample : icv908-50
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 10:00:19 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:55:58 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) s	2-fluorobiphenyl	7.228	4843634	55.398 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 276.99%#
6) s	2-bromonaphthalene	7.978	3268694	54.856 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 274.28%#
11) s	o-terphenyl	10.533	5212191	54.923 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 274.62%#
35) s	1-chlorooctadecane	11.070	3141260	55.215 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 276.08%#
	Target Compounds			
2)	naphthalene	5.788	5391950	55.109 µg/ml
3)	2-methylnaphthalene	6.685	5295363	55.637 µg/ml
5)	acenaphthylene	7.812	5118730	53.527 µg/ml
7)	acenaphthene	8.057	5388276	56.166 µg/ml
8)	fluorene	8.705	5145898	54.888 µg/ml
9)	phenanthrene	9.902	5084234	54.471 µg/ml
10)	anthracene	9.960	5093635	55.408 µg/ml
12)	fluoranthene	11.423	5069040	55.878 µg/ml
13)	pyrene	11.688	5092103	55.715 µg/ml
14)	benzo(a)anthracene	13.258	4933861	56.343 µg/ml
15)	chrysene	13.310	4957286	55.896 µg/ml
16)	benzo(B)fluoranthene	14.568	5165470	57.763 µg/ml
17)	benzo(k)fluoranthene	14.602	4577894	53.017 µg/ml
18)	benzo(a)pyrene	14.912	4896935	55.706 µg/ml
19)	indeno(1,2,3-cd)pyrene	16.057	4914681	56.679 µg/ml
20)	dibenzo(ah)anthracene	16.100	4652872	55.579 µg/ml
21)	benzo(ghi)perylene	16.285	4867155	56.481 µg/ml
25) h	c-9	2.495	4114168	53.473 µg/mlm
26) h	c-10	3.675	4096386	53.242 µg/ml
27)	naphthalene #2	5.350	4559073	58.843 µg/ml
28)	c-12	5.535	4155040	54.005 µg/ml
29)	2-methylnaphthalene #2	6.242	4463019	58.451 µg/ml
30)	c-14	7.045	4095690	53.233 µg/ml
31)	c-16	8.368	4015859	52.196 µg/ml
32)	c-18	9.558	3984499	51.788 µg/ml
33)	c-19	10.110	3911984	57.700 µg/ml
34)	c-20	10.638	3841460	56.660 µg/ml
36)	c-22	11.630	3764328	55.522 µg/ml
37)	c-24	12.545	3669144	54.118 µg/ml
38)	c-26	13.395	3586272	52.896 µg/ml

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16241.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 9:23 pm
Operator : thomasa
Sample : icv908-50
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 10:00:19 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:55:58 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
39)	c-28	14.185	3531325	52.085	µg/ml
40) h	c-30	14.927	3443533	50.791	µg/ml
41) h	c-36	16.838	3251454	47.957	µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.8

9

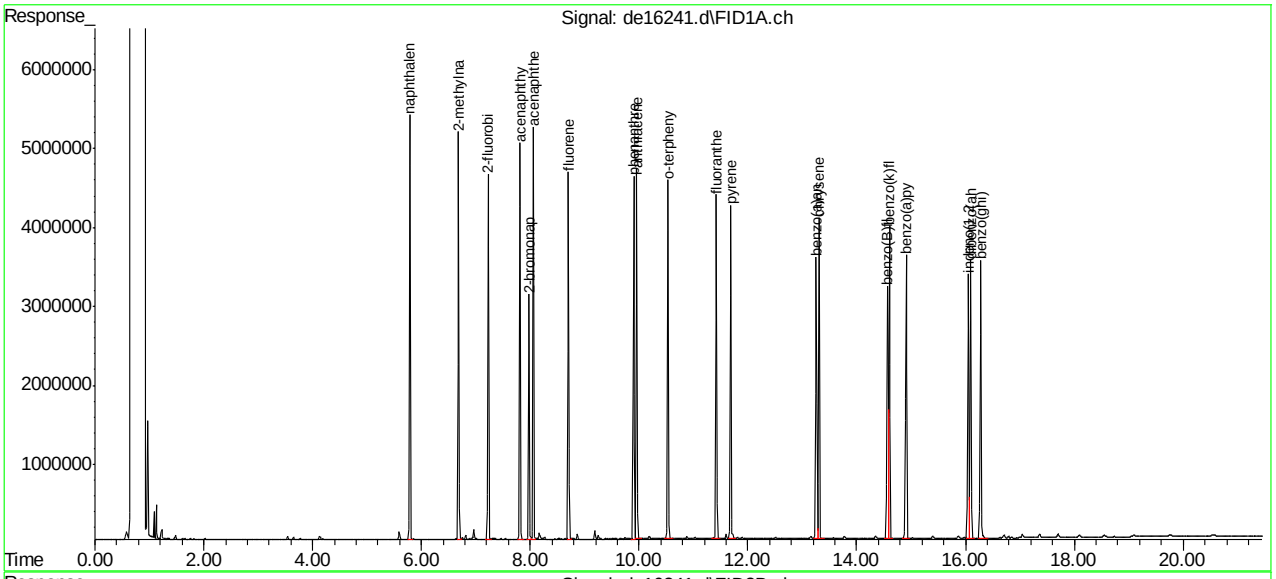
SGS ACCUTEST MC48999

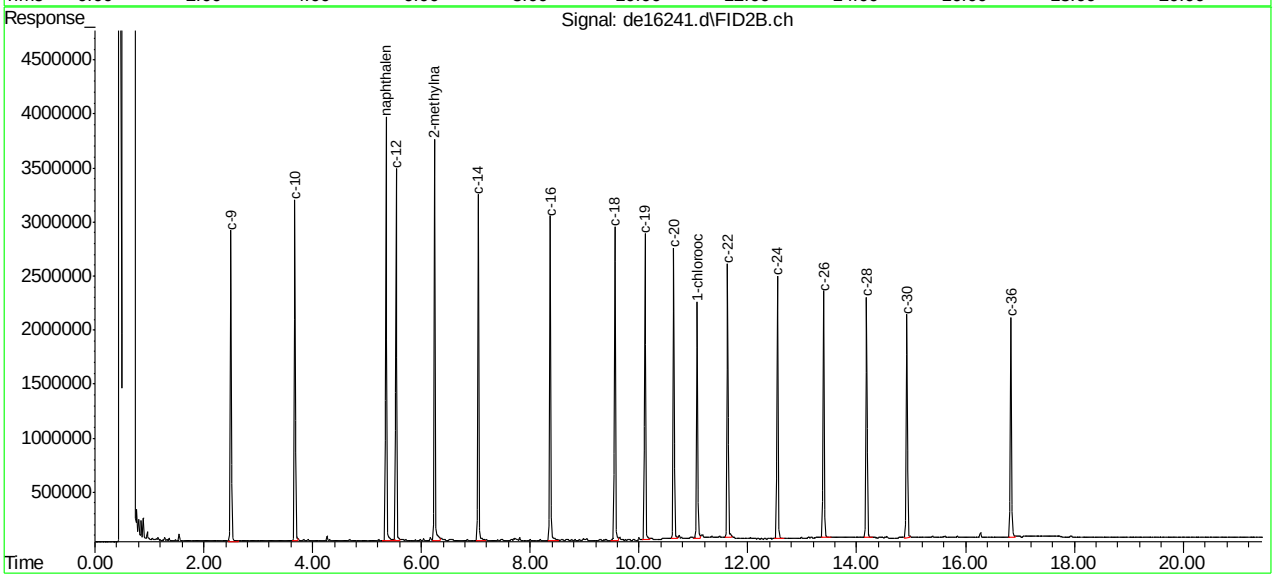
Quantitation Report (QT Reviewed)

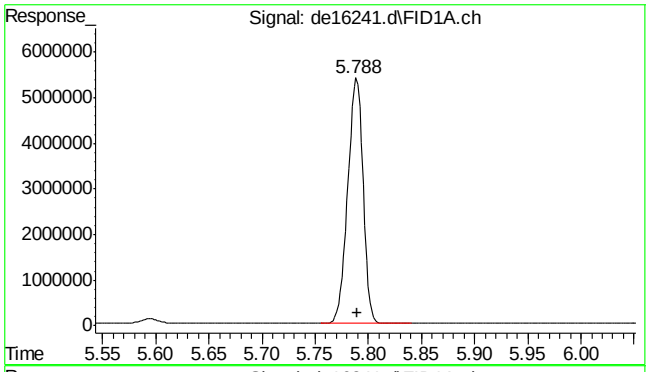
Data Path : C:\msdchem\1\DATA\DE161206aEPH\
Data File : de16241.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 6 Dec 2016 9:23 pm
Operator : thomasa
Sample : icv908-50
Misc : op49223,gde908,1000,,,2,,w
ALS Vial : 16 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 07 10:00:19 2016
Quant Method : C:\msdchem\1\METHODS\EPH161207W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 07 09:55:58 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

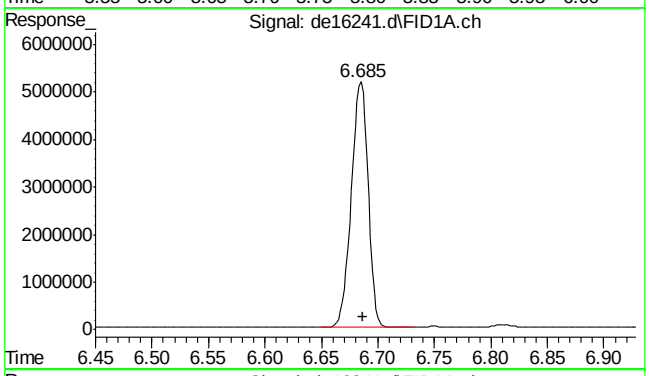






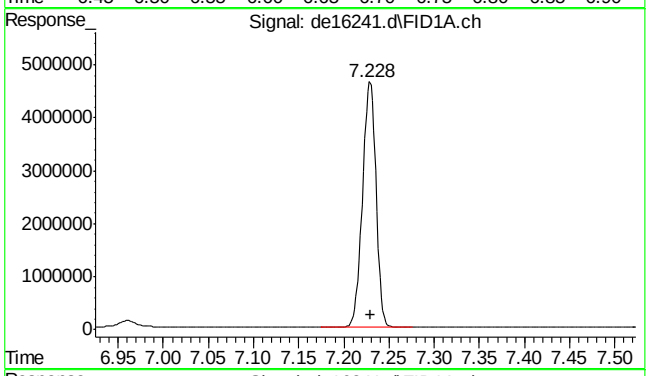
#2 naphthalene

R.T.: 5.788 min
Delta R.T.: -0.002 min
Response: 5391950
Conc: 55.11 µg/ml



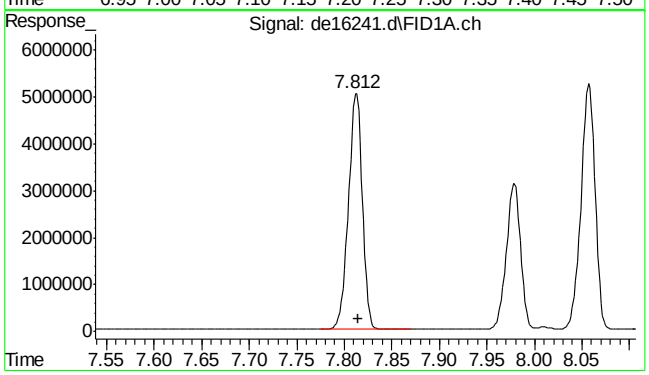
#3 2-methylnaphthalene

R.T.: 6.685 min
Delta R.T.: -0.002 min
Response: 5295363
Conc: 55.64 µg/ml



#4 2-fluorobiphenyl

R.T.: 7.228 min
Delta R.T.: -0.002 min
Response: 4843634
Conc: 55.40 µg/ml



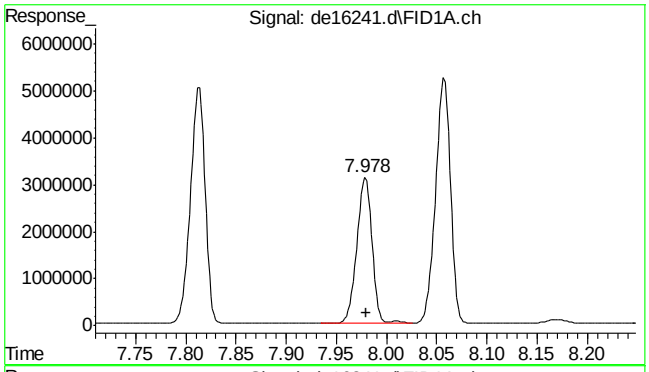
#5 acenaphthylene

R.T.: 7.812 min
Delta R.T.: -0.003 min
Response: 5118730
Conc: 53.53 µg/ml

9.5.8

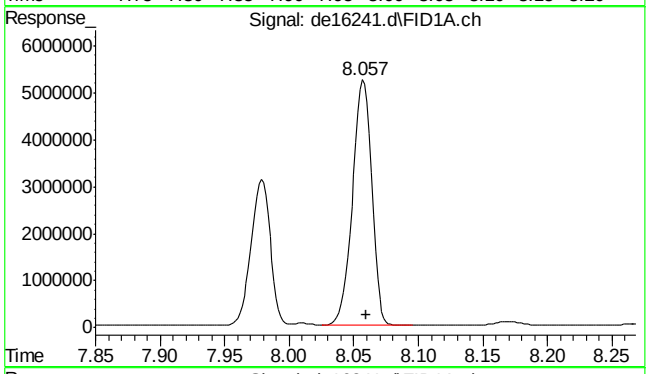
9

SGS ACCUTEST MC48999



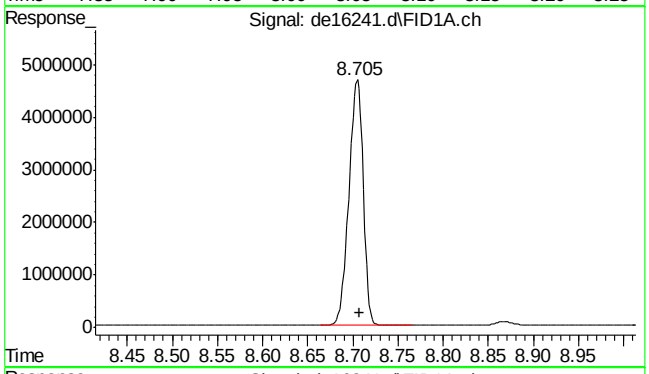
#6 2-bromonaphthalene

R.T.: 7.978 min
Delta R.T.: -0.002 min
Response: 3268694
Conc: 54.86 µg/ml



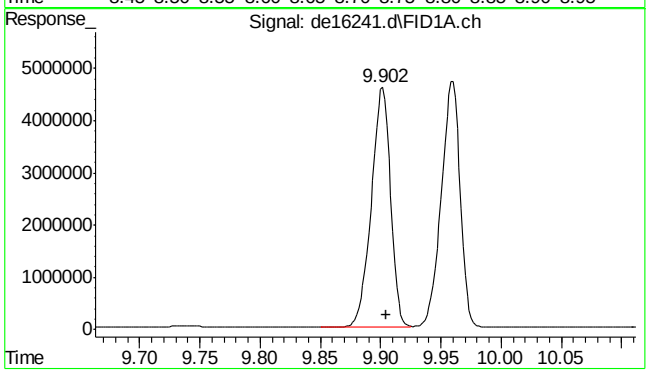
#7 acenaphthene

R.T.: 8.057 min
Delta R.T.: -0.003 min
Response: 5388276
Conc: 56.17 µg/ml



#8 fluorene

R.T.: 8.705 min
Delta R.T.: -0.002 min
Response: 5145898
Conc: 54.89 µg/ml



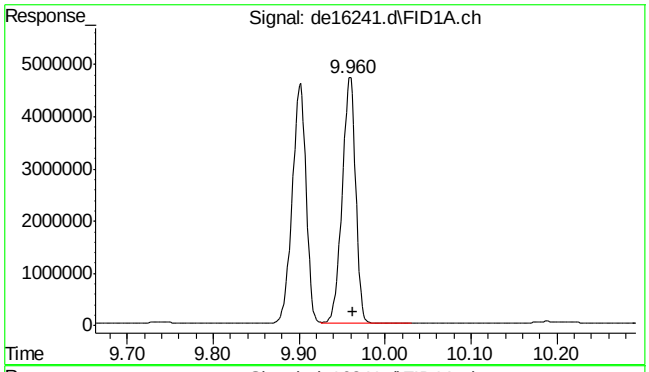
#9 phenanthrene

R.T.: 9.902 min
Delta R.T.: -0.003 min
Response: 5084234
Conc: 54.47 µg/ml

9.5.8

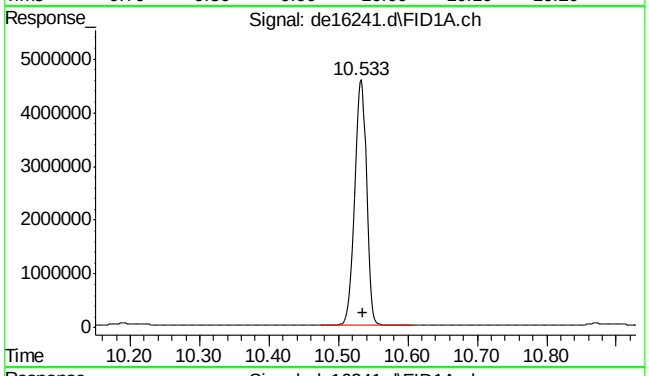
9

SGS ACCUTEST MC48999



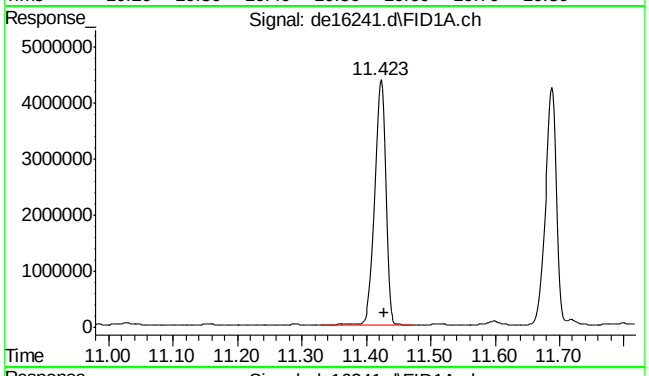
#10 anthracene

R.T.: 9.960 min
Delta R.T.: -0.003 min
Response: 5093635
Conc: 55.41 µg/ml



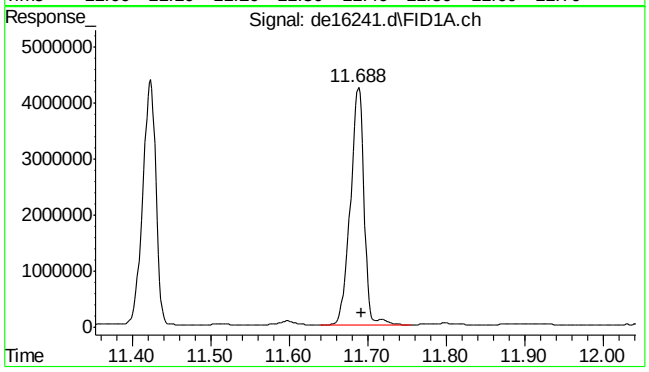
#11 o-terphenyl

R.T.: 10.533 min
Delta R.T.: -0.002 min
Response: 5212191
Conc: 54.92 µg/ml



#12 fluoranthene

R.T.: 11.423 min
Delta R.T.: -0.005 min
Response: 5069040
Conc: 55.88 µg/ml



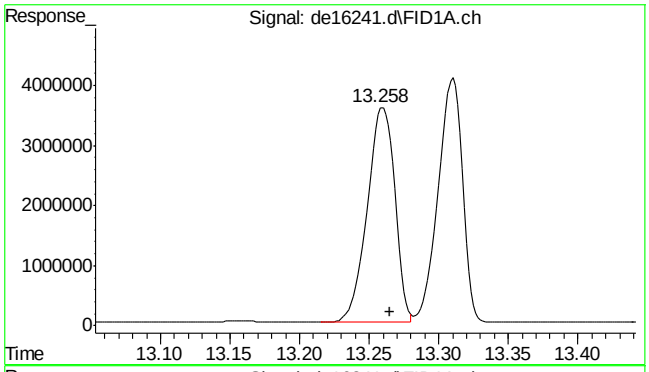
#13 pyrene

R.T.: 11.688 min
Delta R.T.: -0.005 min
Response: 5092103
Conc: 55.72 µg/ml

9.5.8

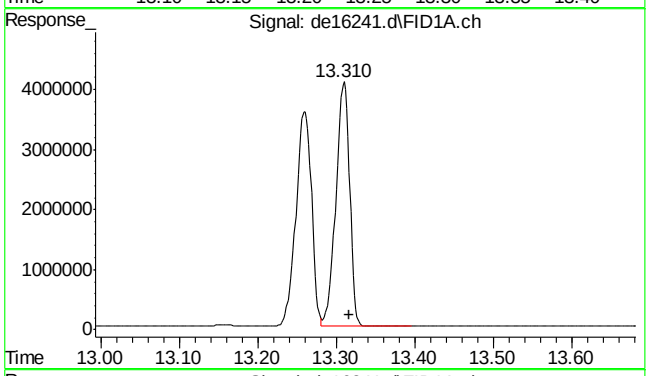
9

SGS ACCUTEST MC48999



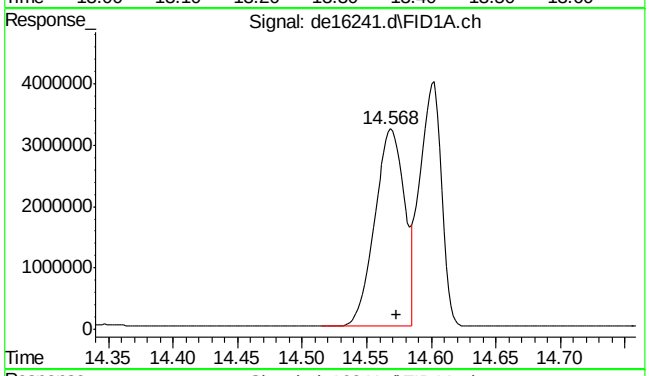
#14 benzo(a)anthracene

R.T.: 13.258 min
Delta R.T.: -0.007 min
Response: 4933861
Conc: 56.34 µg/ml



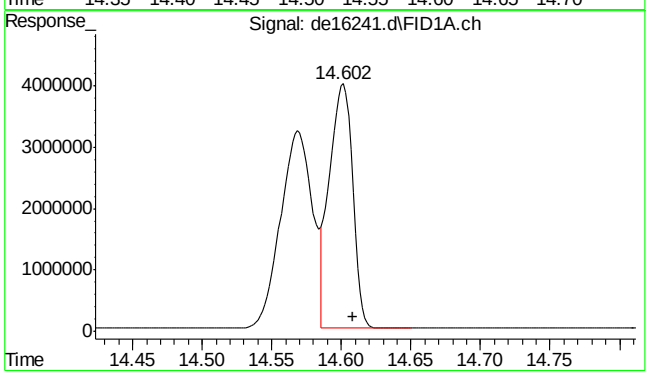
#15 chrysene

R.T.: 13.310 min
Delta R.T.: -0.007 min
Response: 4957286
Conc: 55.90 µg/ml



#16 benzo(B)fluoranthene

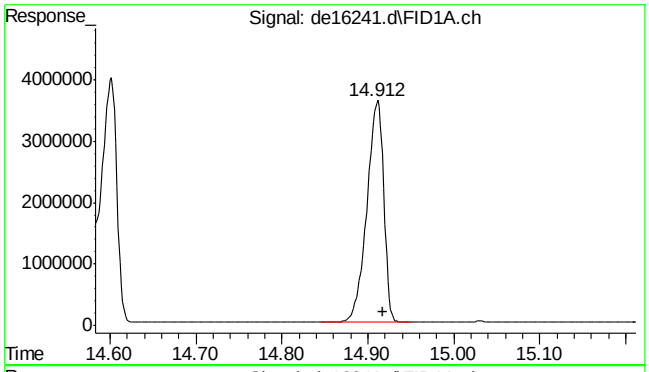
R.T.: 14.568 min
Delta R.T.: -0.005 min
Response: 5165470
Conc: 57.76 µg/ml



#17 benzo(k)fluoranthene

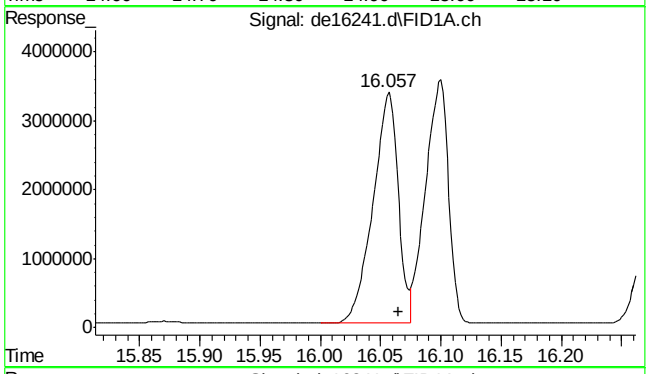
R.T.: 14.602 min
Delta R.T.: -0.006 min
Response: 4577894
Conc: 53.02 µg/ml

SGS ACCUTEST MC48999



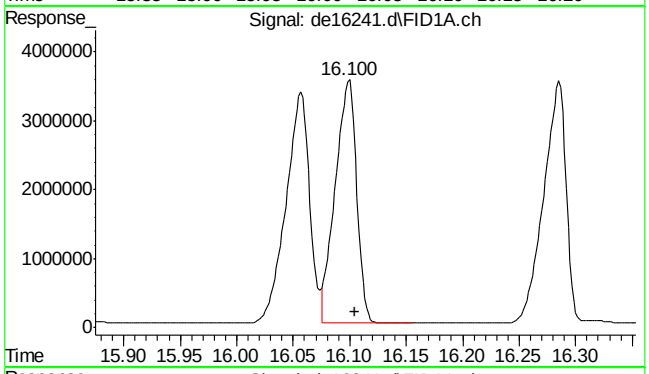
#18 benzo(a)pyrene

R.T.: 14.912 min
Delta R.T.: -0.006 min
Response: 4896935
Conc: 55.71 µg/ml



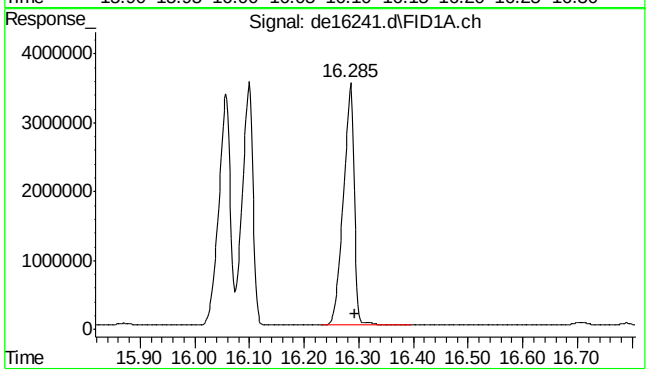
#19 indeno(1,2,3-cd)pyrene

R.T.: 16.057 min
Delta R.T.: -0.008 min
Response: 4914681
Conc: 56.68 µg/ml



#20 dibenzo(ah)anthracene

R.T.: 16.100 min
Delta R.T.: -0.005 min
Response: 4652872
Conc: 55.58 µg/ml



#21 benzo(ghi)perylene

R.T.: 16.285 min
Delta R.T.: -0.008 min
Response: 4867155
Conc: 56.48 µg/ml

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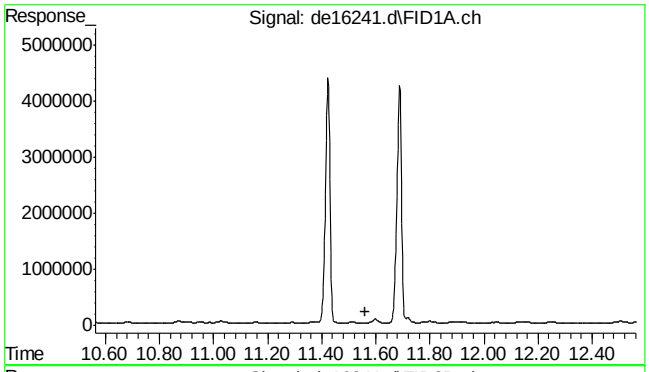
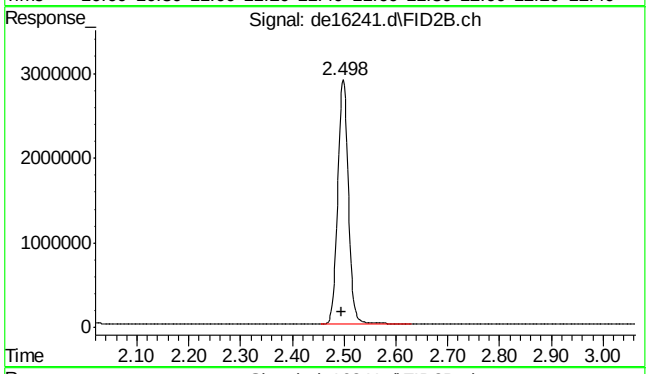


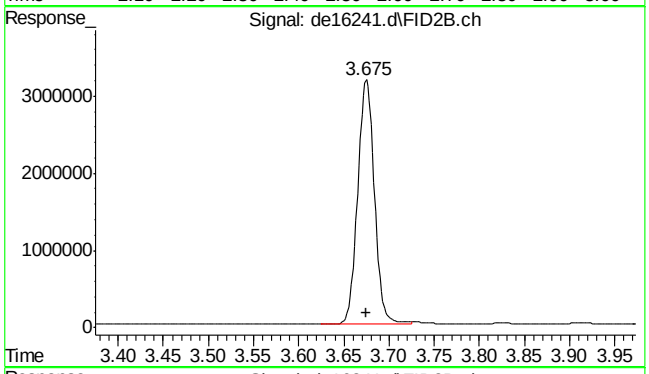
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.562 min
Response: 0
Conc: N.D.



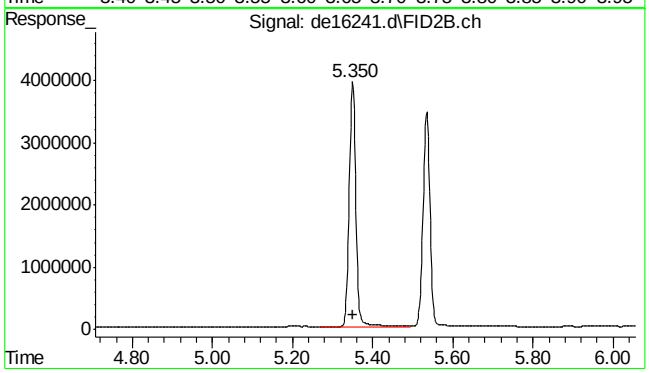
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 4114168
Conc: 53.47 µg/ml m



#26 c-10

R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 4096386
Conc: 53.24 µg/ml



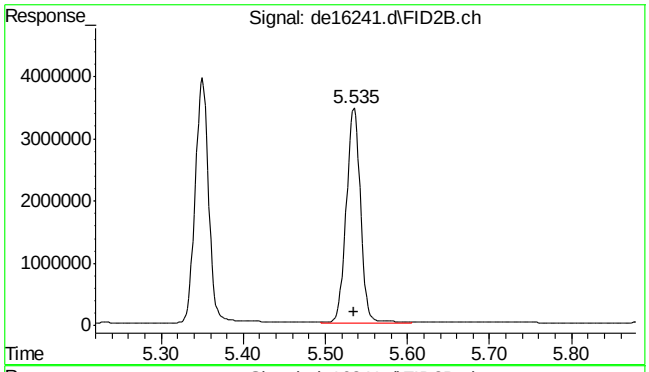
#27 naphthalene #2

R.T.: 5.350 min
Delta R.T.: 0.000 min
Response: 4559073
Conc: 58.84 µg/ml

9.5.8

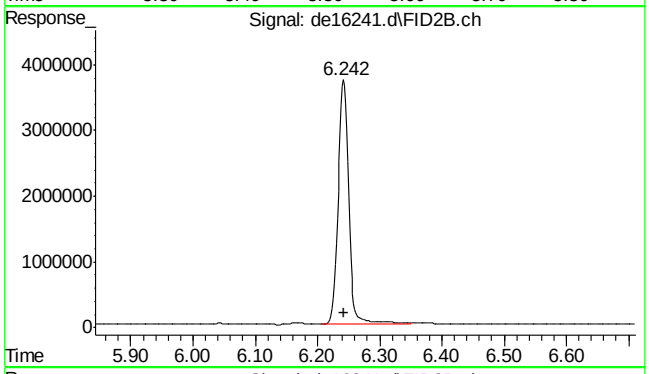
9

SGS ACCUTEST MC48999



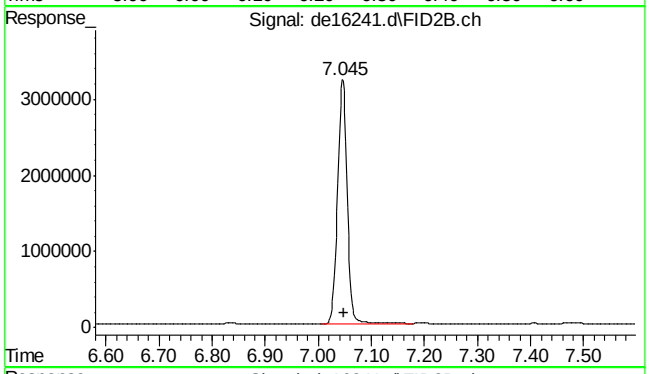
#28 c-12

R.T.: 5.535 min
Delta R.T.: 0.000 min
Response: 4155040
Conc: 54.00 µg/ml



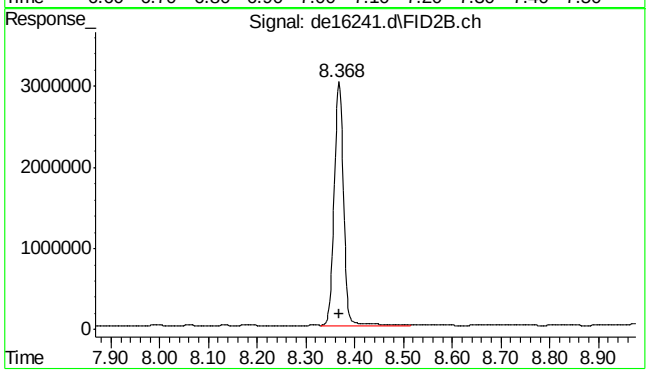
#29 2-methylnaphthalene #2

R.T.: 6.242 min
Delta R.T.: 0.000 min
Response: 4463019
Conc: 58.45 µg/ml



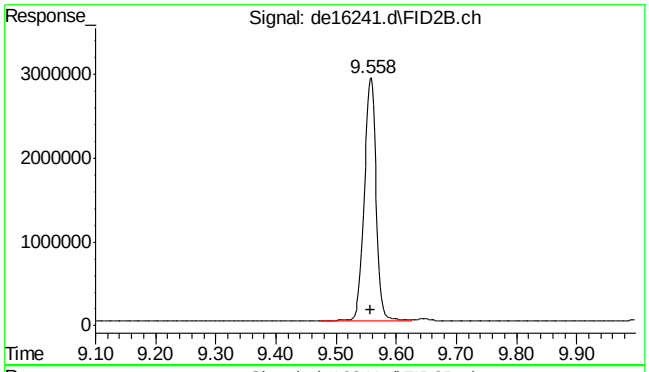
#30 c-14

R.T.: 7.045 min
Delta R.T.: -0.002 min
Response: 4095690
Conc: 53.23 µg/ml



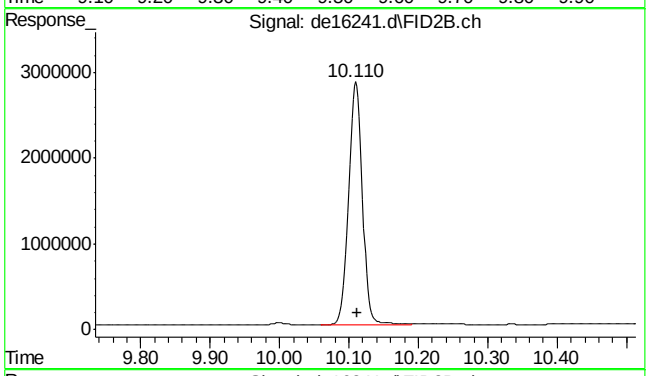
#31 c-16

R.T.: 8.368 min
Delta R.T.: 0.000 min
Response: 4015859
Conc: 52.20 µg/ml



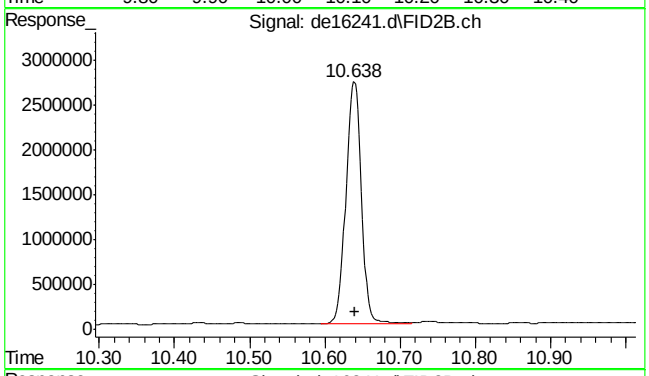
#32 c-18

R.T.: 9.558 min
Delta R.T.: 0.001 min
Response: 3984499
Conc: 51.79 µg/ml



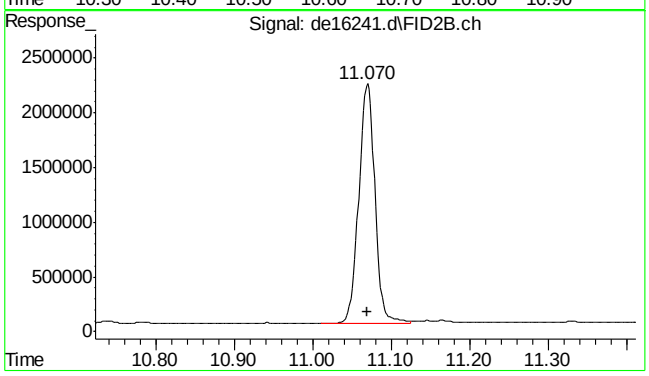
#33 c-19

R.T.: 10.110 min
Delta R.T.: -0.002 min
Response: 3911984
Conc: 57.70 µg/ml



#34 c-20

R.T.: 10.638 min
Delta R.T.: -0.002 min
Response: 3841460
Conc: 56.66 µg/ml



#35 1-chlorooctadecane

R.T.: 11.070 min
Delta R.T.: 0.000 min
Response: 3141260
Conc: 55.22 µg/ml

9.5.8

9

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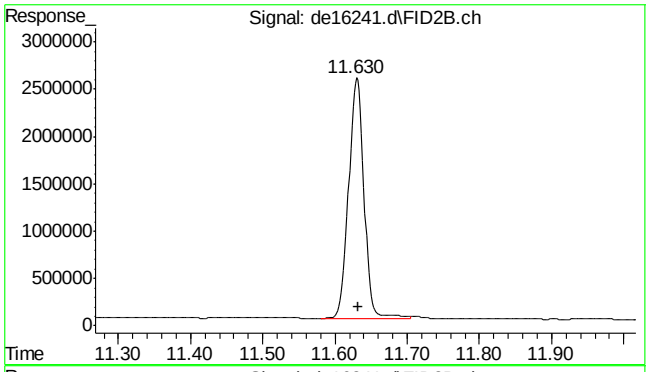
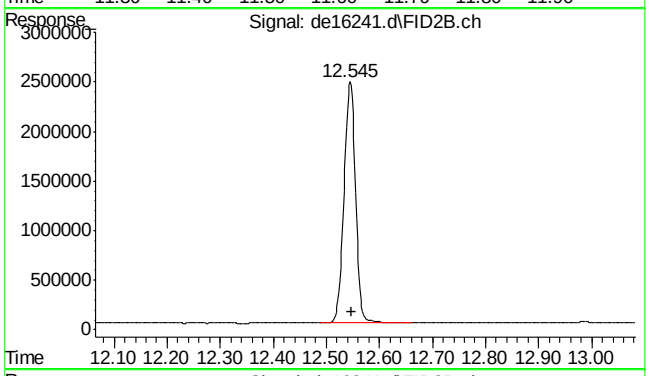


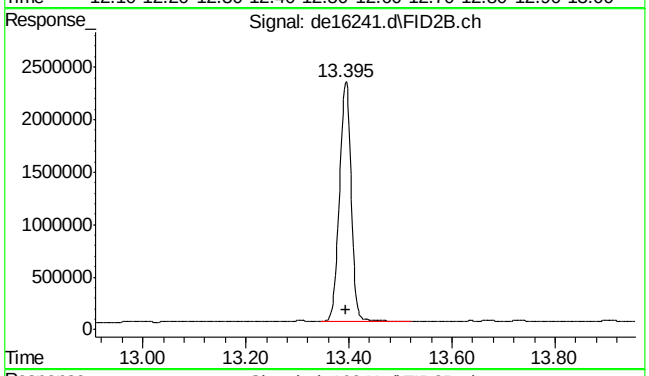
#36 c-22

R.T.: 11.630 min
Delta R.T.: -0.002 min
Response: 3764328
Conc: 55.52 µg/ml



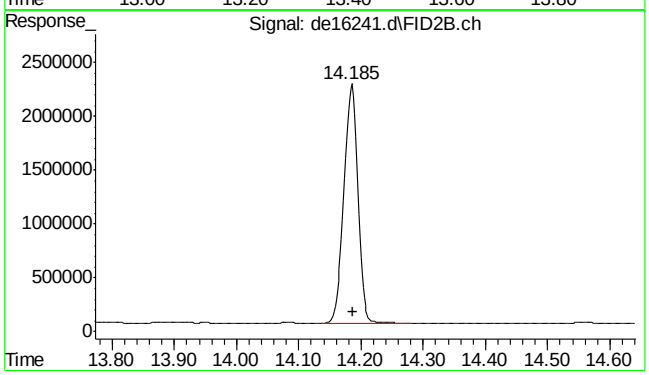
#37 c-24

R.T.: 12.545 min
Delta R.T.: -0.002 min
Response: 3669144
Conc: 54.12 µg/ml



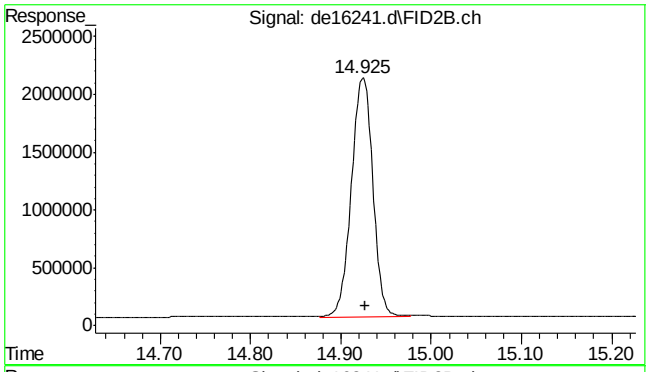
#38 c-26

R.T.: 13.395 min
Delta R.T.: 0.000 min
Response: 3586272
Conc: 52.90 µg/ml



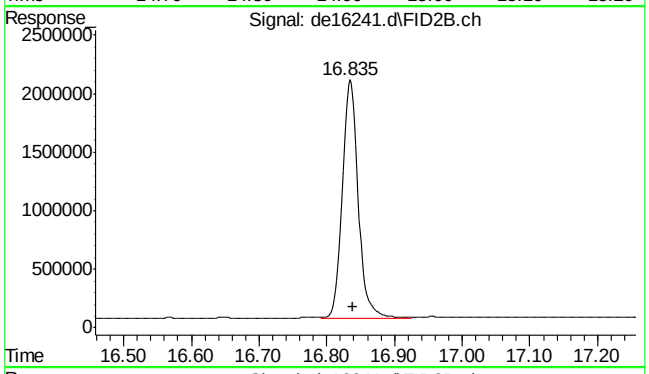
#39 c-28

R.T.: 14.185 min
Delta R.T.: -0.002 min
Response: 3531325
Conc: 52.09 µg/ml



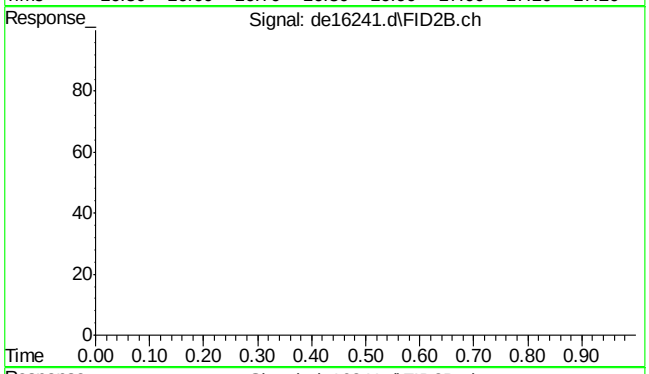
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 3443533
Conc: 50.79 µg/ml



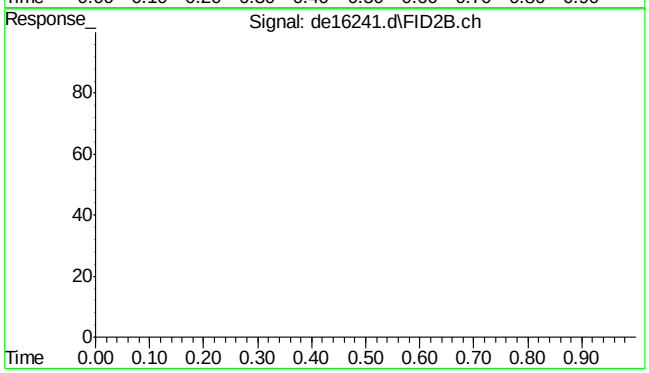
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 3251454
Conc: 47.96 µg/ml m



#42 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.



#43 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

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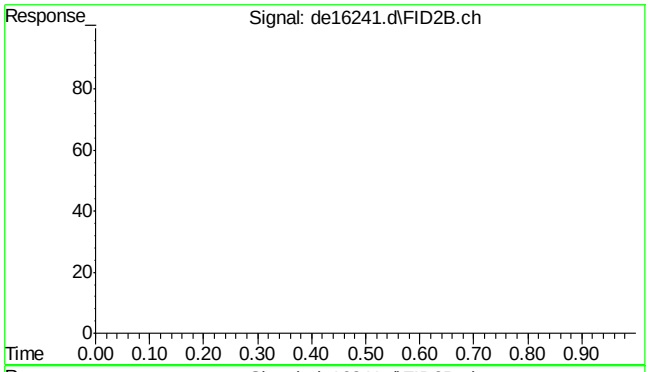
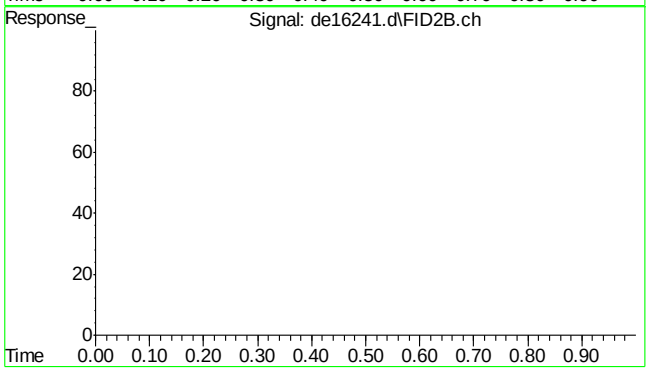


#44 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16411.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 5:47 pm
Operator : thomasa
Sample : cc908-50,gde916,(aro 50 ali 20) (Sig #1); cc908-50,gde916 (Sig #2)
Misc : op49276,gde916,1000,,,2,,w
ALS Vial : 142 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 07:44:51 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.227	3696611	42.279 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 211.40%#	
6) s 2-bromonaphthalene	7.975	2557118	42.914 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 214.57%#	
11) s o-terphenyl	10.528	4143732	43.665 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 218.33%#	
35) s 1-chlorooctadecane	11.063	1195137	21.007 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 105.04%#	
Target Compounds			
2) naphthalene	5.785	4042166	41.313 µg/ml
3) 2-methylnaphthalene	6.682	3990597	41.928 µg/ml
5) acenaphthylene	7.810	4086205	42.730 µg/ml
7) acenaphthene	8.053	4131548	43.066 µg/ml
8) fluorene	8.702	4080794	43.527 µg/ml
9) phenanthrene	9.898	4100764	43.934 µg/ml
10) anthracene	9.955	4044522	43.996 µg/ml
12) fluoranthene	11.420	3982831	43.904 µg/ml
13) pyrene	11.683	4018925	43.973 µg/ml
14) benzo(a)anthracene	13.253	3837428	43.822 µg/ml
15) chrysene	13.303	3880891	43.759 µg/ml
16) benzo(B)fluoranthene	14.563	3766717	42.121 µg/ml
17) benzo(k)fluoranthene	14.593	3958426	45.843 µg/ml
18) benzo(a)pyrene	14.905	3757076	42.740 µg/ml
19) indeno(1,2,3-cd)pyrene	16.050	3903853	45.021 µg/ml
20) dibenzo(ah)anthracene	16.093	3705168	44.259 µg/ml
21) benzo(ghi)perylene	16.280	3801115	44.110 µg/ml
25) h c-9	2.495	1505770	19.571 µg/mlm
26) h c-10	3.675	1480024	19.236 µg/ml
27) naphthalene #2	5.342	1535542	19.819 µg/ml
28) c-12	5.528	1532978	19.925 µg/ml
29) 2-methylnaphthalene #2	6.235	1506501	19.730 µg/ml
30) c-14	7.040	1490088	19.367 µg/ml
31) c-16	8.362	1495213	19.434 µg/ml
32) c-18	9.548	1498781	19.480 µg/ml
33) c-19	10.103	1550919	22.875 µg/ml
34) c-20	10.630	1511683	22.297 µg/ml
36) c-22	11.623	1516797	22.372 µg/ml
37) c-24	12.537	1495735	22.061 µg/ml
38) c-26	13.385	1487492	21.940 µg/ml

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16411.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 5:47 pm
Operator : thomasa
Sample : cc908-50,gde916,(aro 50 ali 20) (Sig #1); cc908-50,gde916 (Sig #2)
Misc : op49276,gde916,1000,,,2,,w
ALS Vial : 142 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 07:44:51 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
39)	c-28	14.175	1474787	21.752 µg/ml
40) h	c-30	14.927	1449021	21.372 µg/ml
41) h	c-36	16.838	1217836	17.963 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.9

9

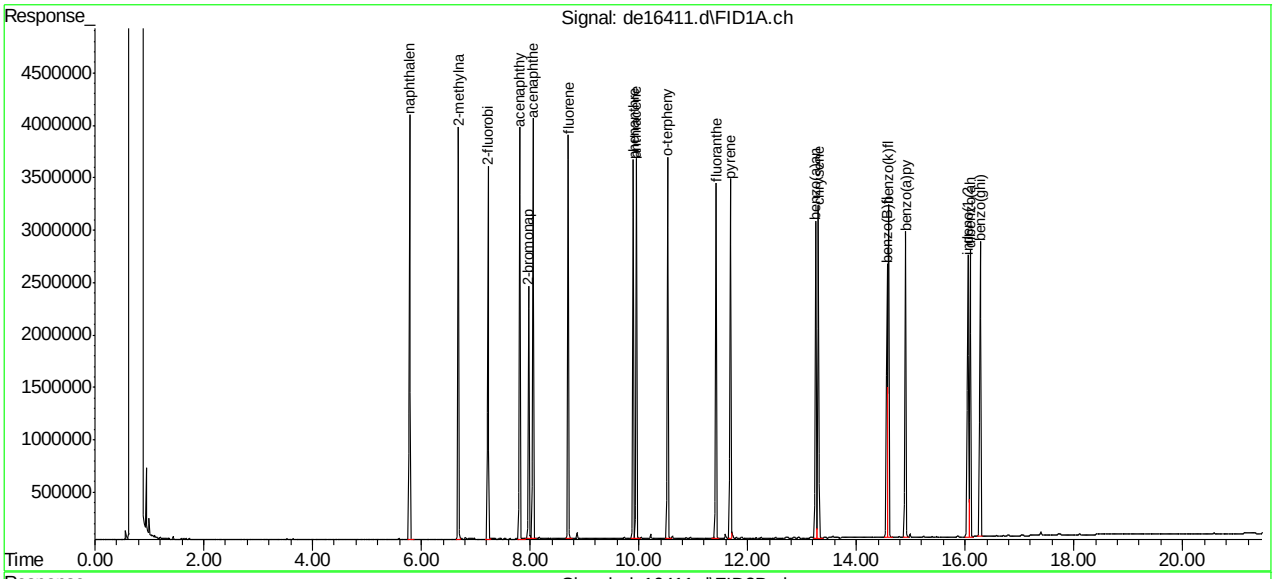
SGS ACCUTEST MC48999

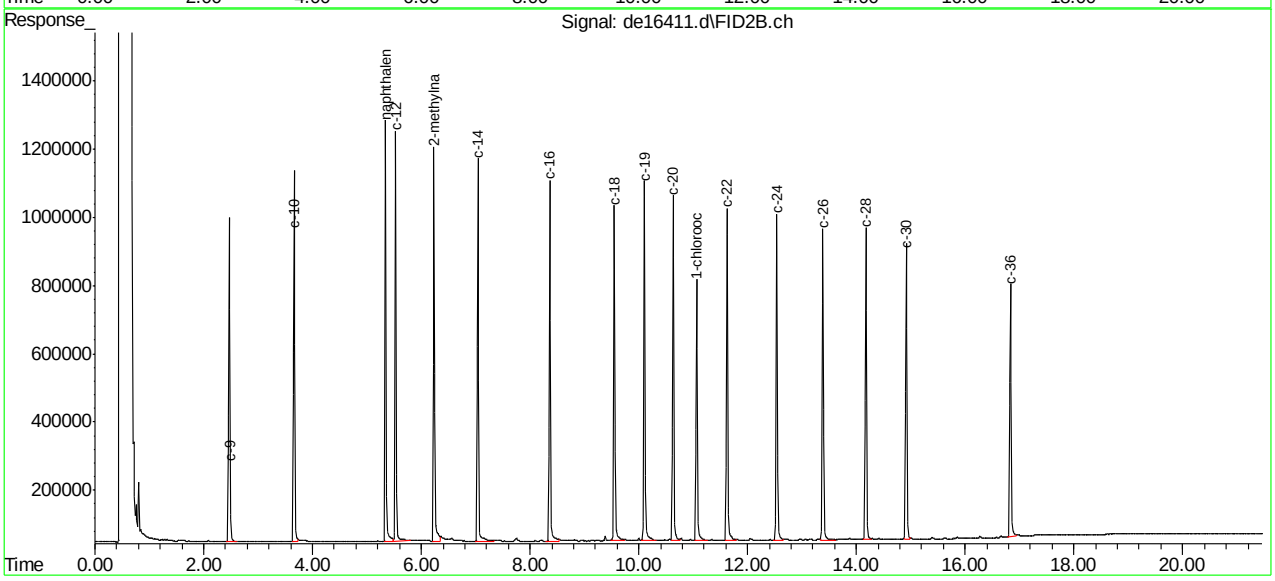
Quantitation Report (QT Reviewed)

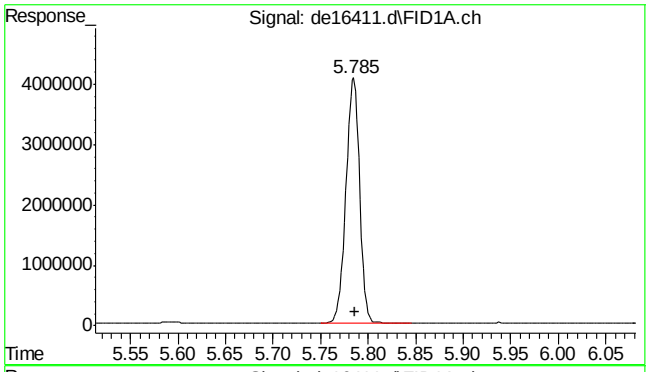
Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16411.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 5:47 pm
Operator : thomasa
Sample : cc908-50,gde916,(aro 50 ali 20) (Sig #1); cc908-50,gde916 (Sig #2)
Misc : op49276,gde916,1000,,,2,,w
ALS Vial : 142 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 07:44:51 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

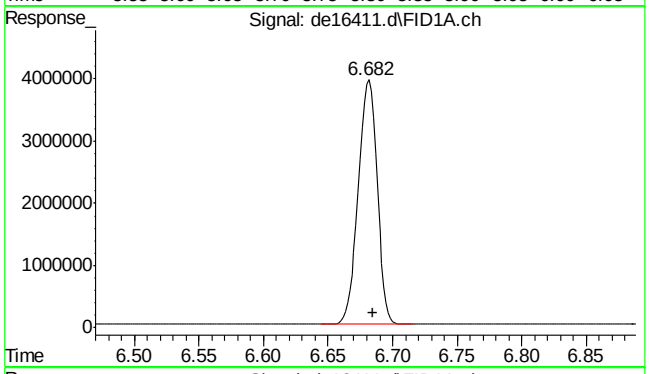






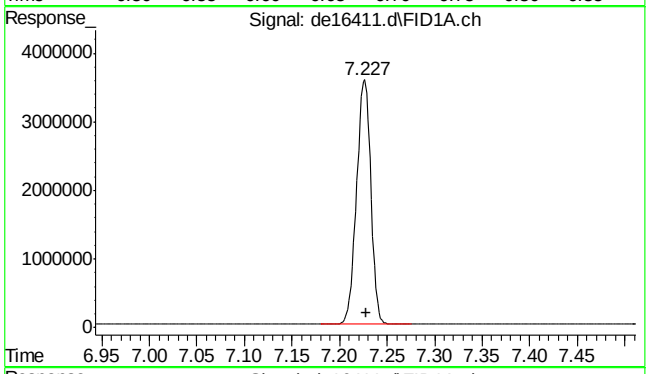
#2 naphthalene

R.T.: 5.785 min
Delta R.T.: -0.002 min
Response: 4042166
Conc: 41.31 µg/ml



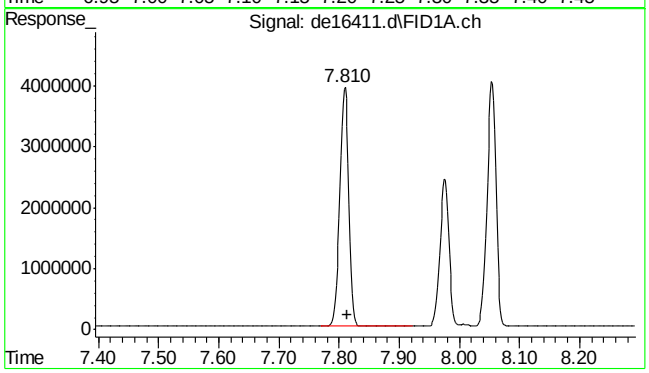
#3 2-methylnaphthalene

R.T.: 6.682 min
Delta R.T.: -0.003 min
Response: 3990597
Conc: 41.93 µg/ml



#4 2-fluorobiphenyl

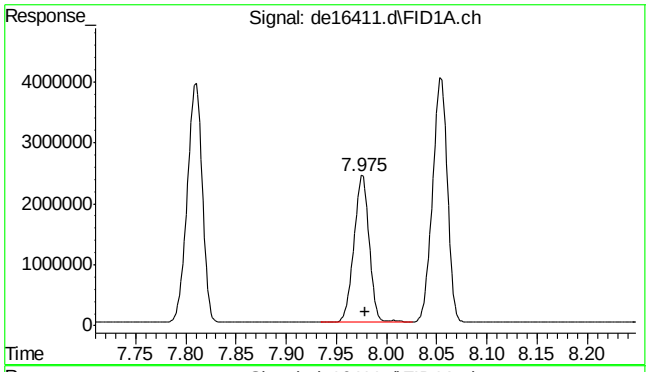
R.T.: 7.227 min
Delta R.T.: -0.002 min
Response: 3696611
Conc: 42.28 µg/ml



#5 acenaphthylene

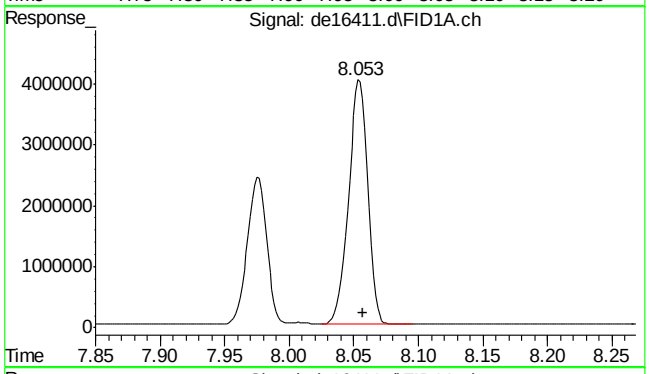
R.T.: 7.810 min
Delta R.T.: -0.003 min
Response: 4086205
Conc: 42.73 µg/ml

SGS ACCUTEST MC48999



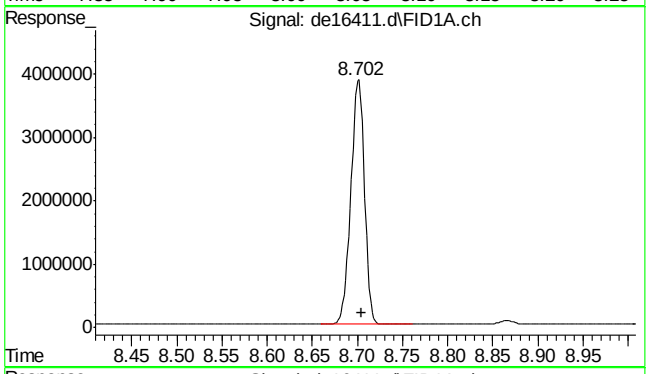
#6 2-bromonaphthalene

R.T.: 7.975 min
Delta R.T.: -0.003 min
Response: 2557118
Conc: 42.91 µg/ml



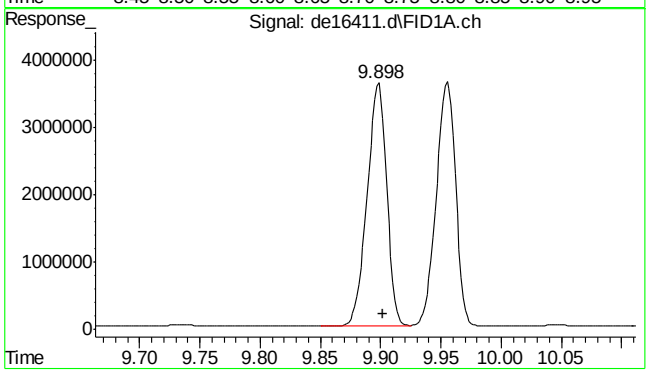
#7 acenaphthene

R.T.: 8.053 min
Delta R.T.: -0.003 min
Response: 4131548
Conc: 43.07 µg/ml



#8 fluorene

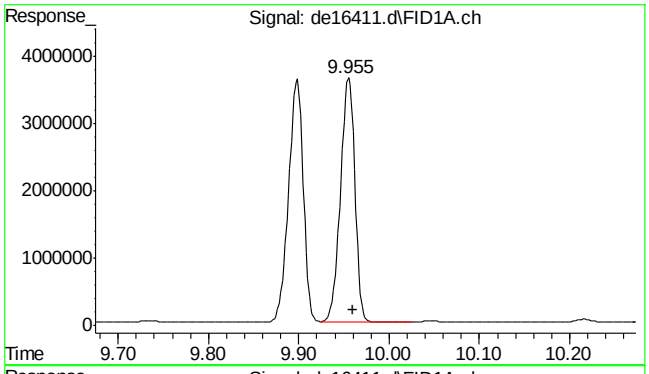
R.T.: 8.702 min
Delta R.T.: -0.003 min
Response: 4080794
Conc: 43.53 µg/ml



#9 phenanthrene

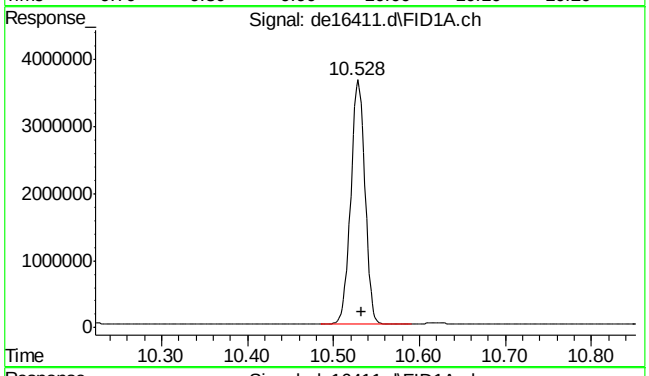
R.T.: 9.898 min
Delta R.T.: -0.003 min
Response: 4100764
Conc: 43.93 µg/ml

SGS ACCUTEST MC48999



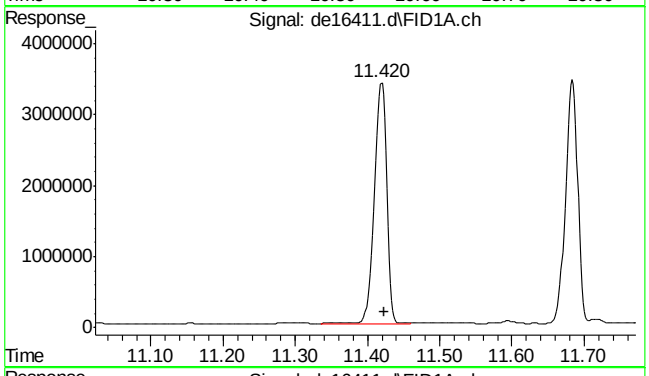
#10 anthracene

R.T.: 9.955 min
Delta R.T.: -0.005 min
Response: 4044522
Conc: 44.00 µg/ml



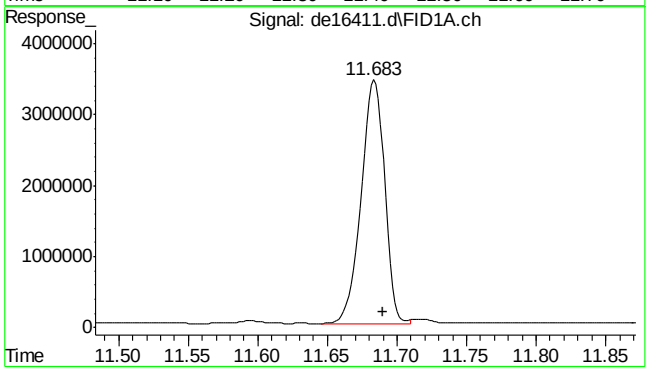
#11 o-terphenyl

R.T.: 10.528 min
Delta R.T.: -0.005 min
Response: 4143732
Conc: 43.66 µg/ml



#12 fluoranthene

R.T.: 11.420 min
Delta R.T.: -0.003 min
Response: 3982831
Conc: 43.90 µg/ml



#13 pyrene

R.T.: 11.683 min
Delta R.T.: -0.007 min
Response: 4018925
Conc: 43.97 µg/ml

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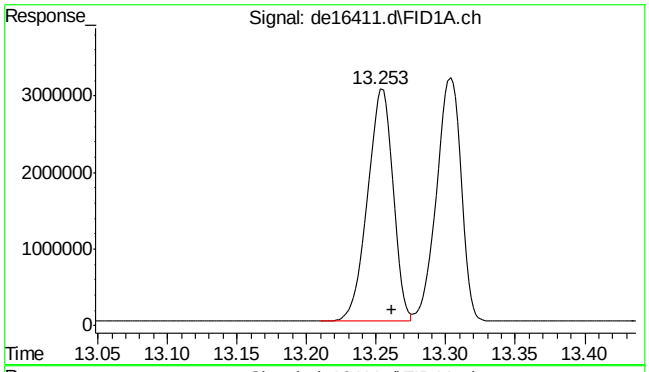
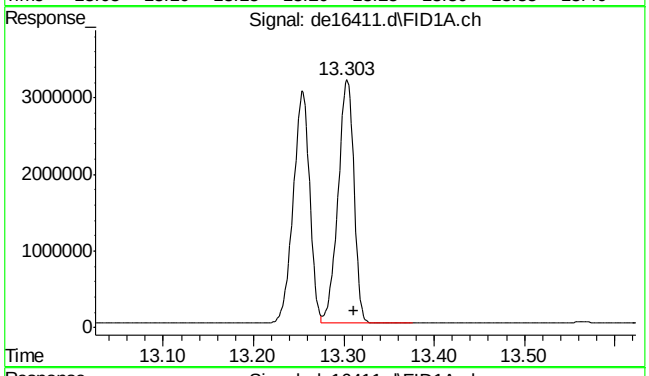


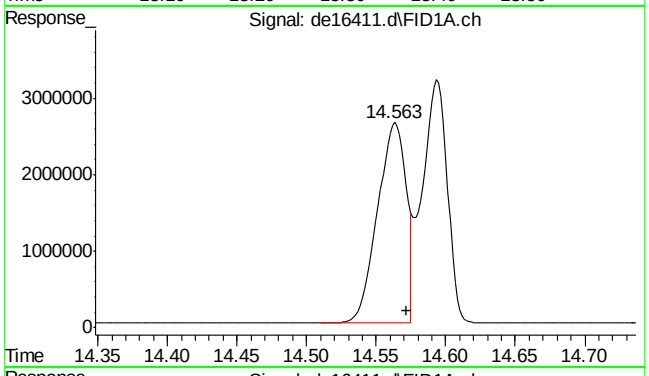
#14 benzo(a)anthracene

R.T.: 13.253 min
Delta R.T.: -0.008 min
Response: 3837428
Conc: 43.82 µg/ml



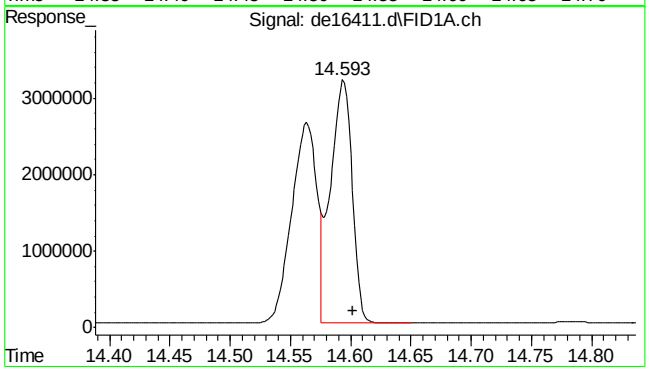
#15 chrysene

R.T.: 13.303 min
Delta R.T.: -0.008 min
Response: 3880891
Conc: 43.76 µg/ml



#16 benzo(B)fluoranthene

R.T.: 14.563 min
Delta R.T.: -0.008 min
Response: 3766717
Conc: 42.12 µg/ml



#17 benzo(k)fluoranthene

R.T.: 14.593 min
Delta R.T.: -0.008 min
Response: 3958426
Conc: 45.84 µg/ml

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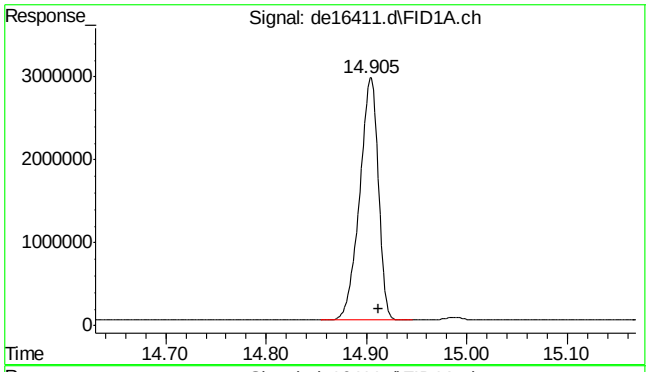
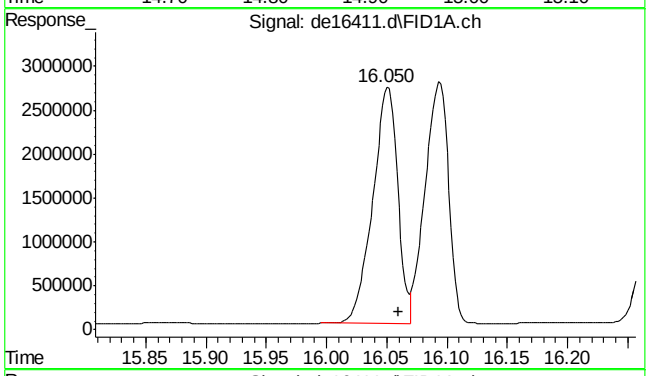


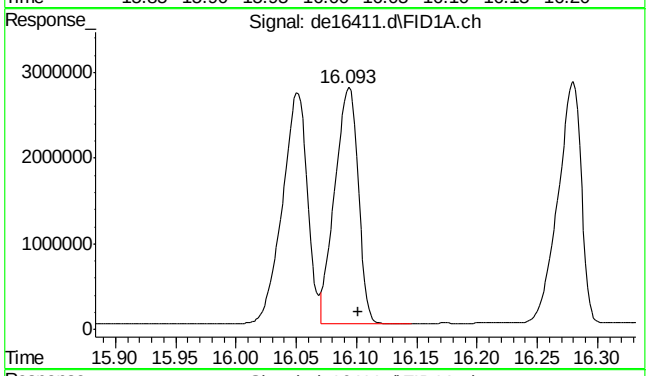
#18 benzo(a)pyrene

R.T.: 14.905 min
Delta R.T.: -0.007 min
Response: 3757076
Conc: 42.74 µg/ml



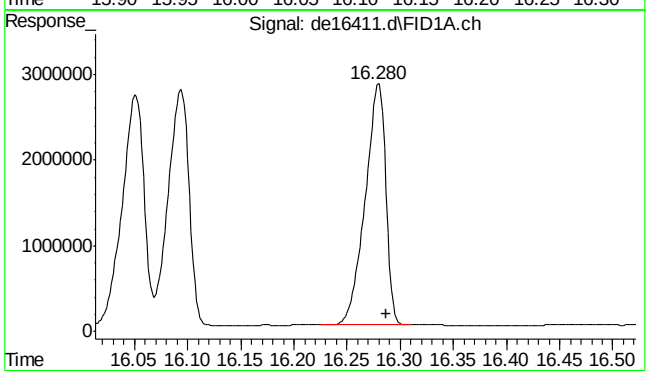
#19 indeno(1,2,3-cd)pyrene

R.T.: 16.050 min
Delta R.T.: -0.010 min
Response: 3903853
Conc: 45.02 µg/ml



#20 dibenzo(ah)anthracene

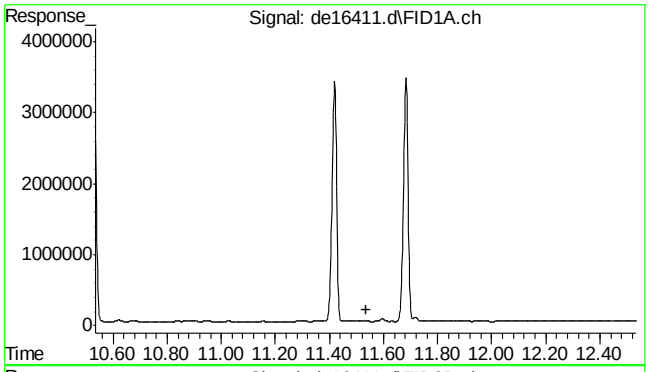
R.T.: 16.093 min
Delta R.T.: -0.008 min
Response: 3705168
Conc: 44.26 µg/ml



#21 benzo(ghi)perylene

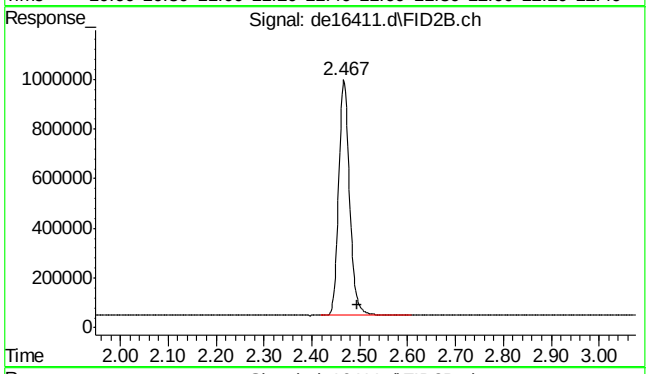
R.T.: 16.280 min
Delta R.T.: -0.007 min
Response: 3801115
Conc: 44.11 µg/ml

SGS ACCUTEST MC48999



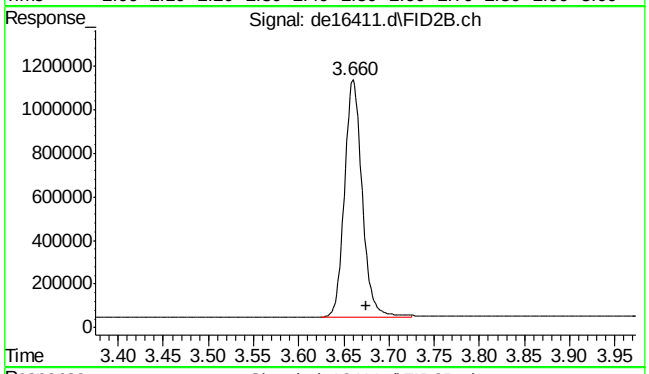
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



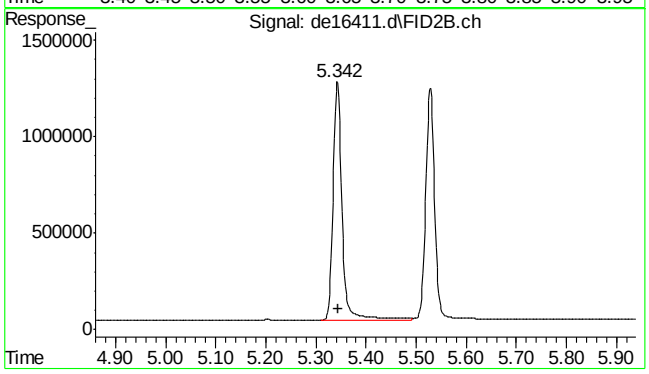
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 1505770
Conc: 19.57 µg/ml m



#26 c-10

R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 1480024
Conc: 19.24 µg/ml



#27 naphthalene #2

R.T.: 5.342 min
Delta R.T.: -0.003 min
Response: 1535542
Conc: 19.82 µg/ml

9.5.9

9

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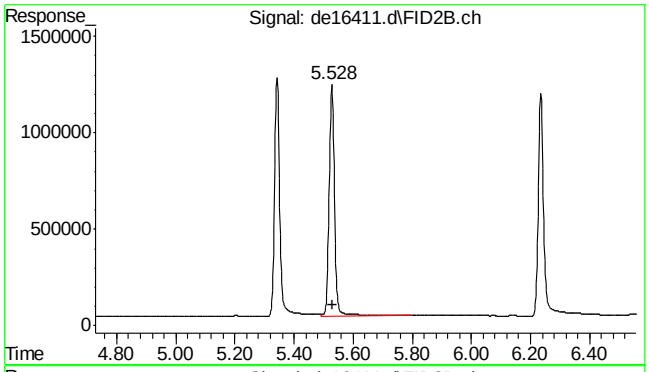
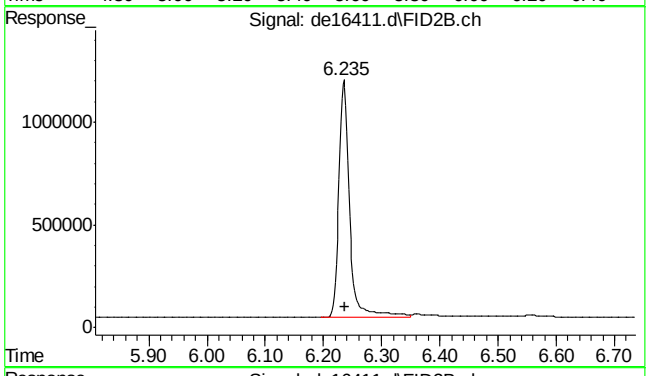


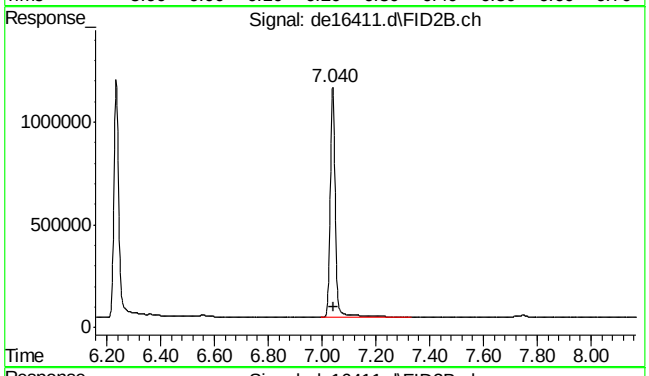
#28 c-12

R.T.: 5.528 min
Delta R.T.: -0.002 min
Response: 1532978
Conc: 19.92 µg/ml



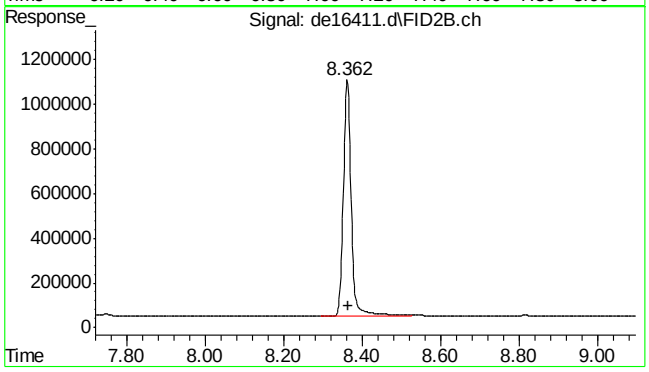
#29 2-methylnaphthalene #2

R.T.: 6.235 min
Delta R.T.: -0.002 min
Response: 1506501
Conc: 19.73 µg/ml



#30 c-14

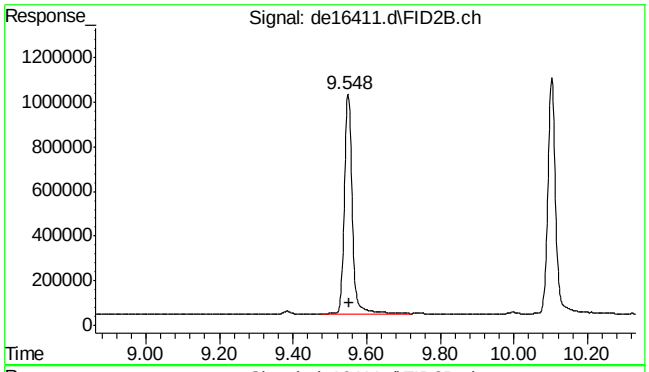
R.T.: 7.040 min
Delta R.T.: -0.002 min
Response: 1490088
Conc: 19.37 µg/ml



#31 c-16

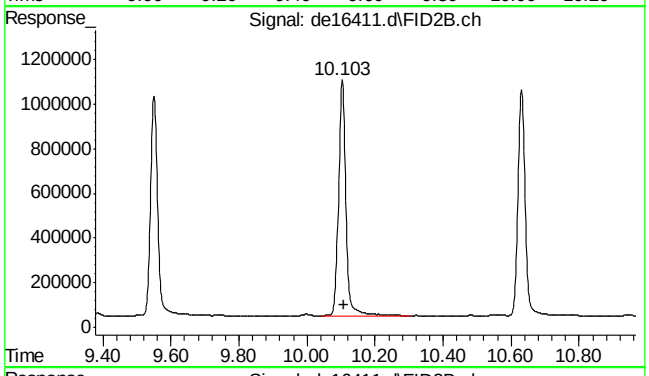
R.T.: 8.362 min
Delta R.T.: -0.003 min
Response: 1495213
Conc: 19.43 µg/ml

SGS ACCUTEST MC48999



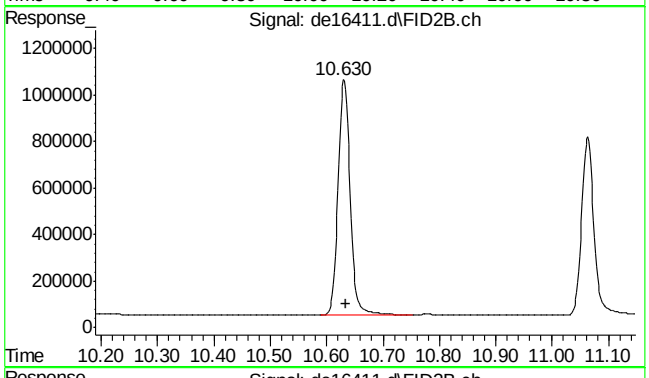
#32 c-18

R.T.: 9.548 min
Delta R.T.: -0.005 min
Response: 1498781
Conc: 19.48 µg/ml



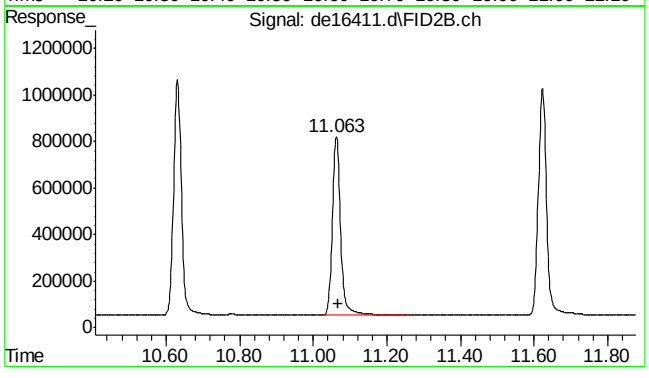
#33 c-19

R.T.: 10.103 min
Delta R.T.: -0.003 min
Response: 1550919
Conc: 22.88 µg/ml



#34 c-20

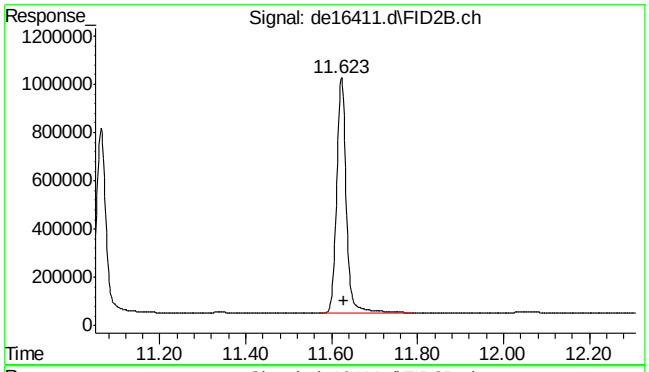
R.T.: 10.630 min
Delta R.T.: -0.005 min
Response: 1511683
Conc: 22.30 µg/ml



#35 1-chlorooctadecane

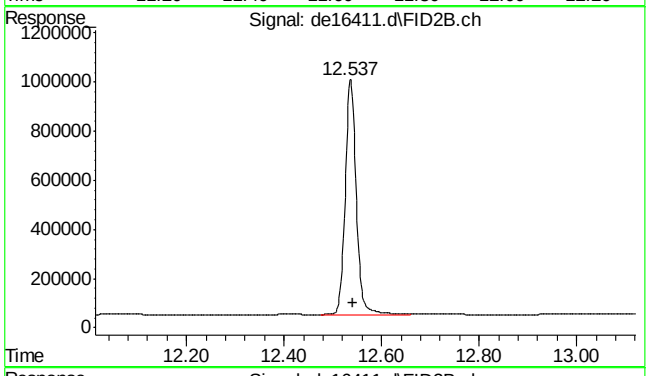
R.T.: 11.063 min
Delta R.T.: -0.003 min
Response: 1195137
Conc: 21.01 µg/ml

SGS ACCUTEST MC48999



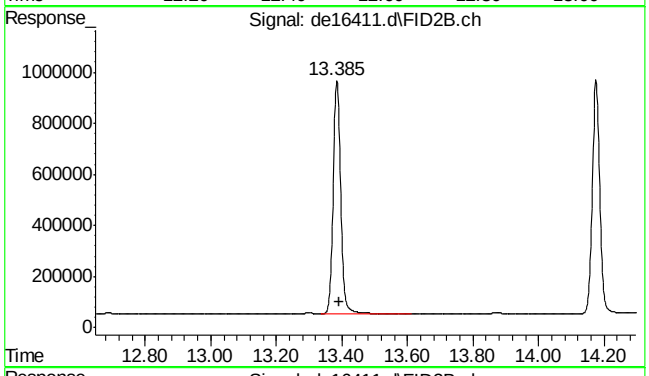
#36 c-22

R.T.: 11.623 min
Delta R.T.: -0.005 min
Response: 1516797
Conc: 22.37 µg/ml



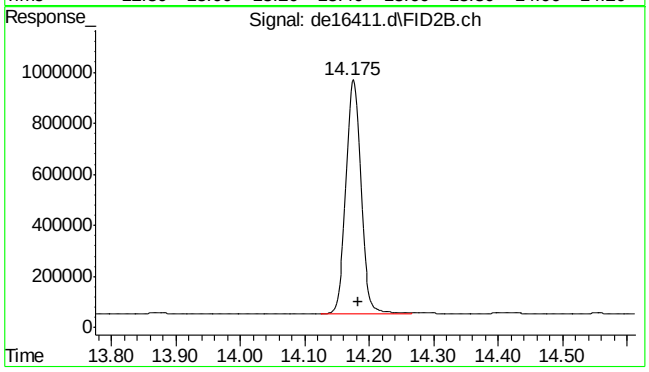
#37 c-24

R.T.: 12.537 min
Delta R.T.: -0.005 min
Response: 1495735
Conc: 22.06 µg/ml



#38 c-26

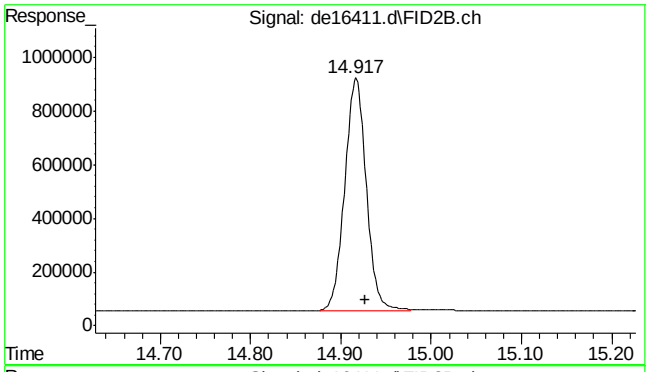
R.T.: 13.385 min
Delta R.T.: -0.007 min
Response: 1487492
Conc: 21.94 µg/ml



#39 c-28

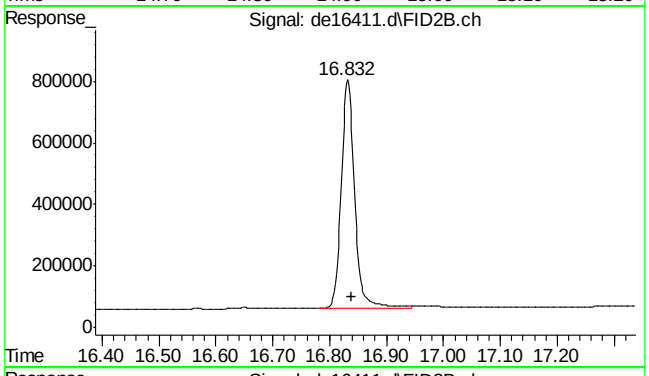
R.T.: 14.175 min
Delta R.T.: -0.008 min
Response: 1474787
Conc: 21.75 µg/ml

SGS ACCUTEST MC48999



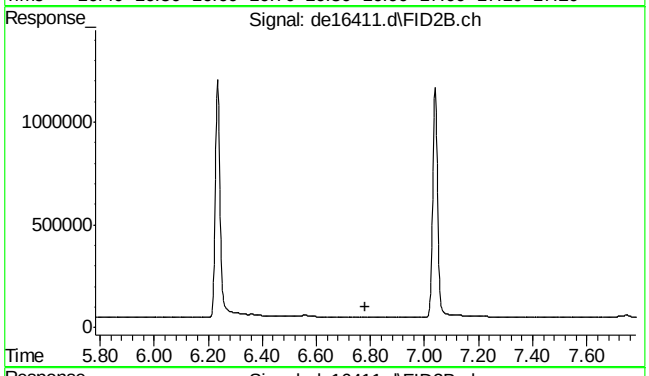
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 1449021
Conc: 21.37 µg/ml



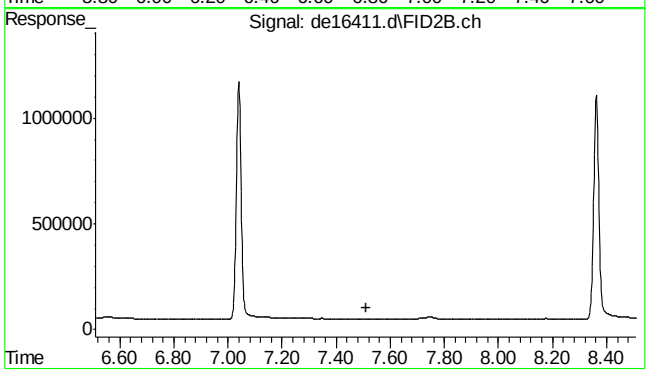
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 1217836
Conc: 17.96 µg/ml m



#42 bht

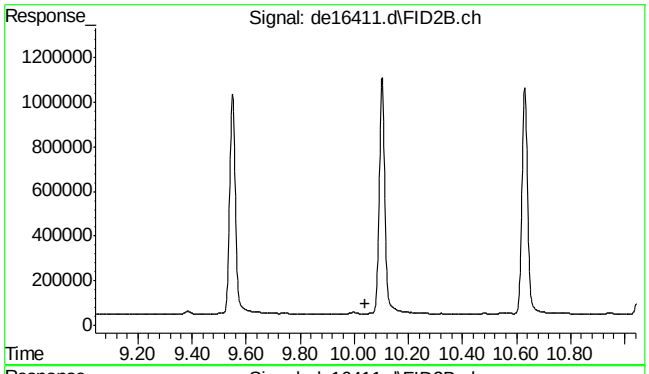
R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



#43 bht

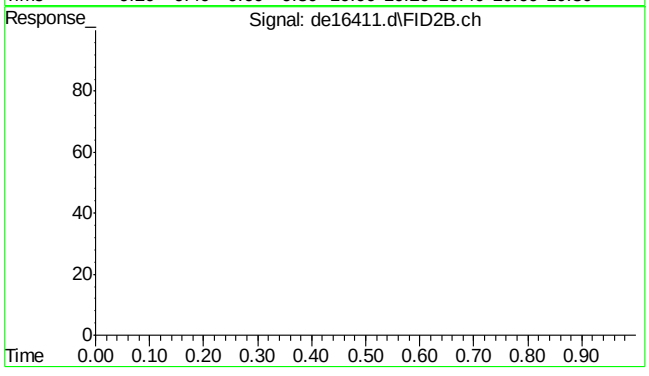
R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.

SGS ACCUTEST MC48999



#44 bht

```
      R.T.:    0.000 min
Exp R.T.  :   10.042 min
  Response:         0
      Conc:   N.D.
```



#45 bht

```
      R.T.:    0.000 min
Exp R.T.  :   23.000 min
  Response:         0
      Conc:   N.D.
```

9.5.9

9

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16422.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 12:07 am
Operator : thomasa
Sample : cc908-50,gde916
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 144 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 10:14:58 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.227	3504691	40.084 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 200.42%#	
6) s 2-bromonaphthalene	7.977	2433546	40.840 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 204.20%#	
11) s o-terphenyl	10.530	4008812	42.243 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 211.22%#	
35) s 1-chlorooctadecane	11.063	3086849	54.259 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 271.30%#	
Target Compounds			
2) naphthalene	5.785	3797014	38.808 µg/ml
3) 2-methylnaphthalene	6.682	3770732	39.618 µg/ml
5) acenaphthylene	7.810	3878750	40.561 µg/ml
7) acenaphthene	8.055	3934381	41.011 µg/ml
8) fluorene	8.702	3896679	41.563 µg/ml
9) phenanthrene	9.898	3944427	42.259 µg/ml
10) anthracene	9.955	3889930	42.314 µg/ml
12) fluoranthene	11.420	3871573	42.678 µg/ml
13) pyrene	11.685	3903711	42.713 µg/ml
14) benzo(a)anthracene	13.255	3758316	42.919 µg/ml
15) chrysene	13.303	3805304	42.907 µg/ml
16) benzo(B)fluoranthene	14.563	3748341	41.916 µg/ml
17) benzo(k)fluoranthene	14.593	3830111	44.357 µg/ml
18) benzo(a)pyrene	14.903	3692481	42.005 µg/ml
19) indeno(1,2,3-cd)pyrene	16.050	3871705	44.651 µg/ml
20) dibenzo(ah)anthracene	16.092	3596808	42.964 µg/ml
21) benzo(ghi)perylene	16.278	3723359	43.208 µg/ml
25) h c-9	2.495	4007331	52.085 µg/mlm
26) h c-10	3.675	4001609	52.010 µg/ml
27) naphthalene #2	5.345	4258181	54.959 µg/ml
28) c-12	5.530	4108267	53.397 µg/ml
29) 2-methylnaphthalene #2	6.237	4185117	54.812 µg/ml
30) c-14	7.042	4010165	52.122 µg/ml
31) c-16	8.363	4016271	52.201 µg/ml
32) c-18	9.552	3877419	50.396 µg/ml
33) c-19	10.105	4004907	59.071 µg/ml
34) c-20	10.633	3913691	57.725 µg/ml
36) c-22	11.623	3874648	57.149 µg/ml
37) c-24	12.538	3785173	55.830 µg/ml
38) c-26	13.387	3714911	54.793 µg/ml

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16422.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 12:07 am
Operator : thomasa
Sample : cc908-50,gde916
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 144 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 10:14:58 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
39)	c-28	14.178	3651722	53.861	µg/ml
40) h	c-30	14.927	3539240	52.202	µg/ml
41) h	c-36	16.838	2536792	37.417	µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.10

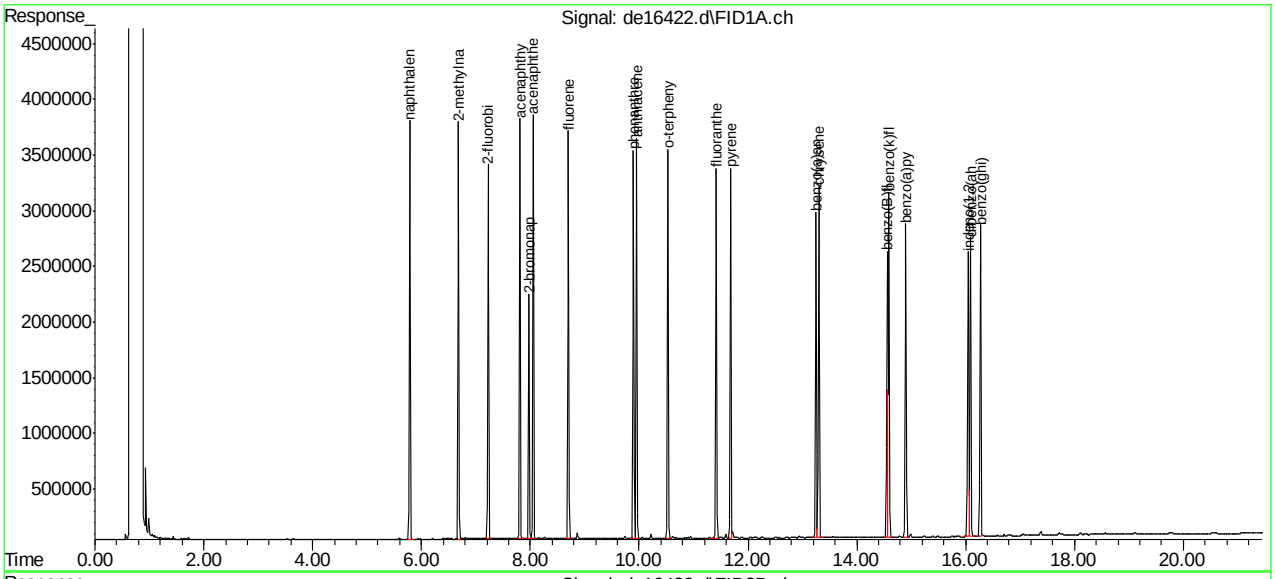
9

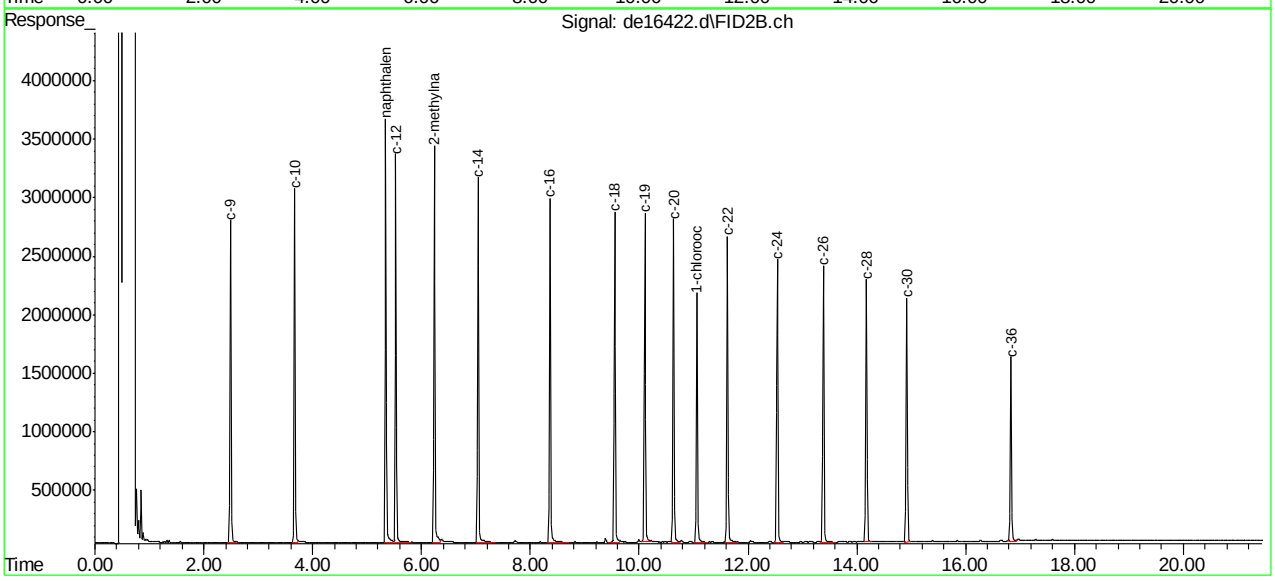
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16422.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 12:07 am
Operator : thomasa
Sample : cc908-50,gde916
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 144 Sample Multiplier: 1

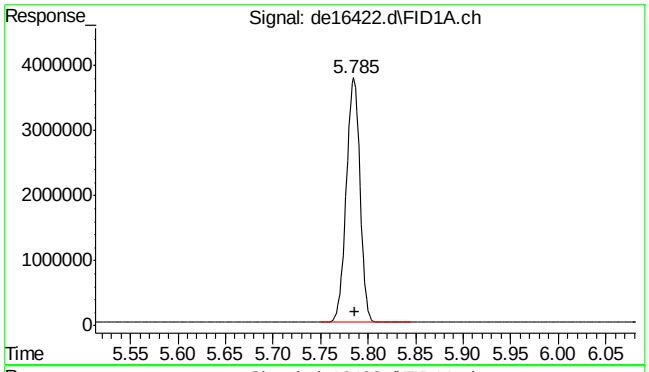
Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 10:14:58 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



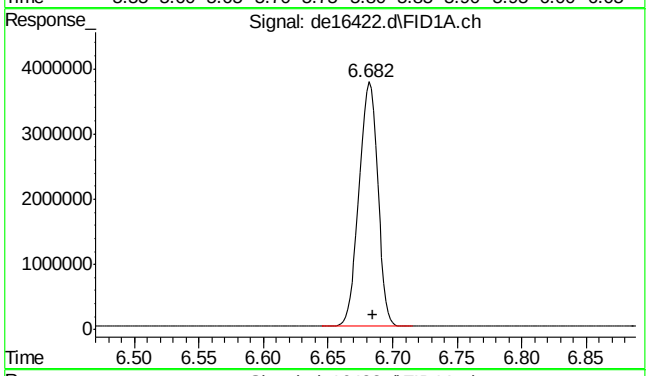


SGS ACCUTEST MC48999



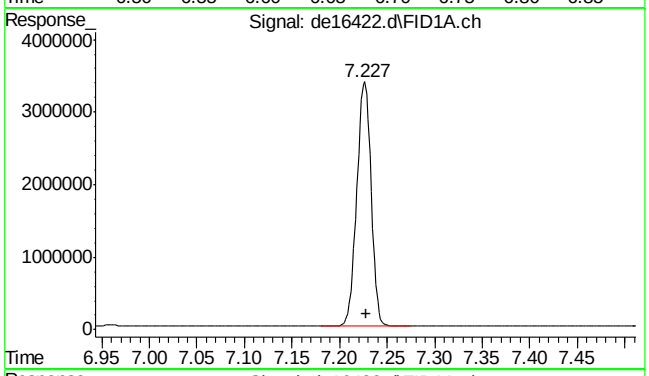
#2 naphthalene

R.T.: 5.785 min
Delta R.T.: -0.002 min
Response: 3797014
Conc: 38.81 µg/ml



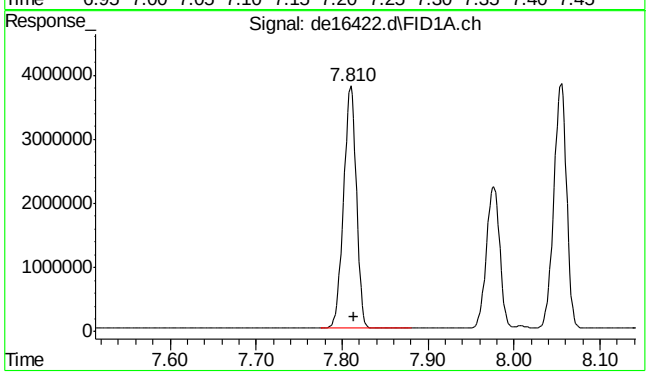
#3 2-methylnaphthalene

R.T.: 6.682 min
Delta R.T.: -0.003 min
Response: 3770732
Conc: 39.62 µg/ml



#4 2-fluorobiphenyl

R.T.: 7.227 min
Delta R.T.: -0.002 min
Response: 3504691
Conc: 40.08 µg/ml



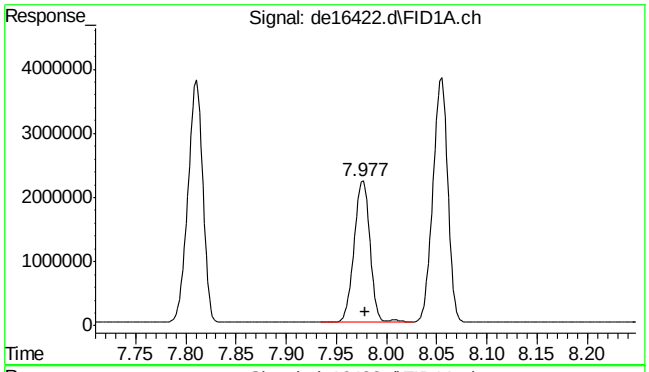
#5 acenaphthylene

R.T.: 7.810 min
Delta R.T.: -0.003 min
Response: 3878750
Conc: 40.56 µg/ml

9.5.10

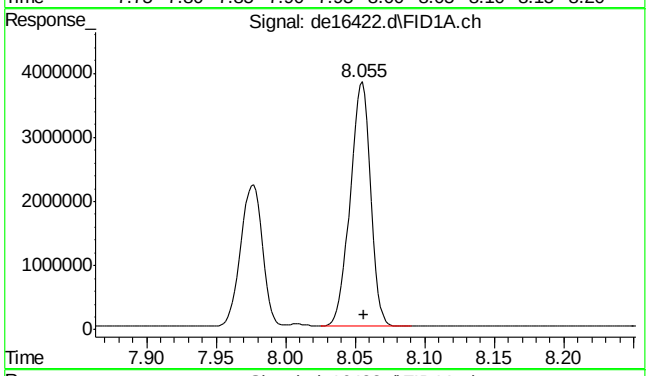
9

SGS ACCUTEST MC48999



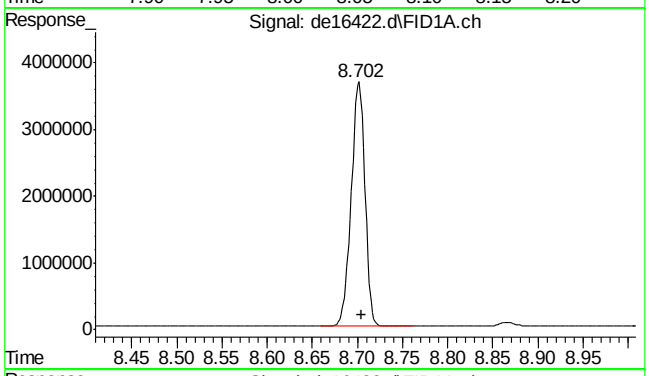
#6 2-bromonaphthalene

R.T.: 7.977 min
Delta R.T.: -0.002 min
Response: 2433546
Conc: 40.84 µg/ml



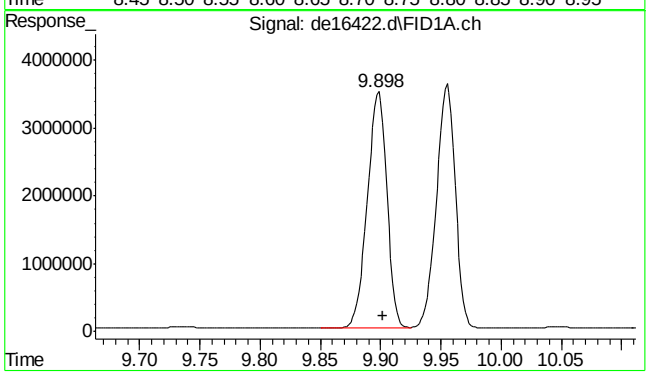
#7 acenaphthene

R.T.: 8.055 min
Delta R.T.: -0.002 min
Response: 3934381
Conc: 41.01 µg/ml



#8 fluorene

R.T.: 8.702 min
Delta R.T.: -0.003 min
Response: 3896679
Conc: 41.56 µg/ml



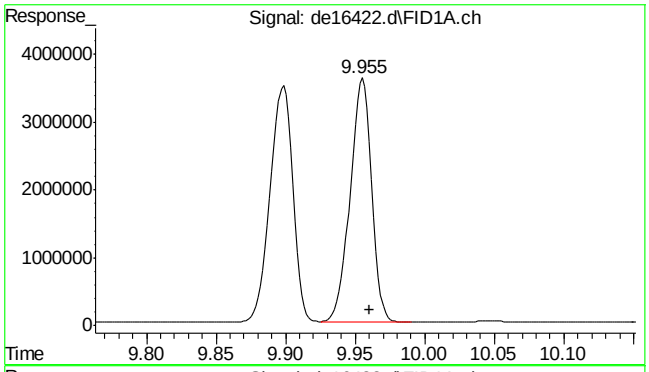
#9 phenanthrene

R.T.: 9.898 min
Delta R.T.: -0.003 min
Response: 3944427
Conc: 42.26 µg/ml

9.5.10

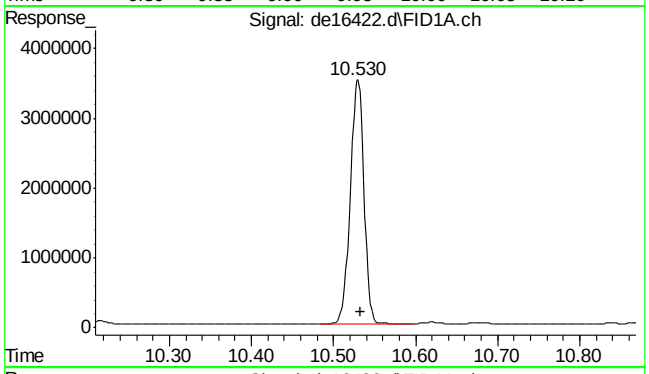
9

SGS ACCUTEST MC48999



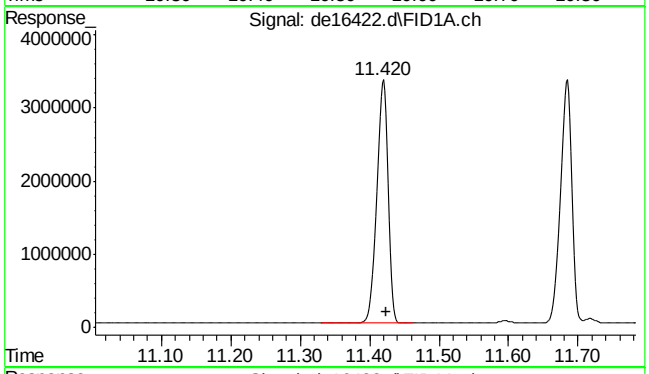
#10 anthracene

R.T.: 9.955 min
Delta R.T.: -0.005 min
Response: 3889930
Conc: 42.31 µg/ml



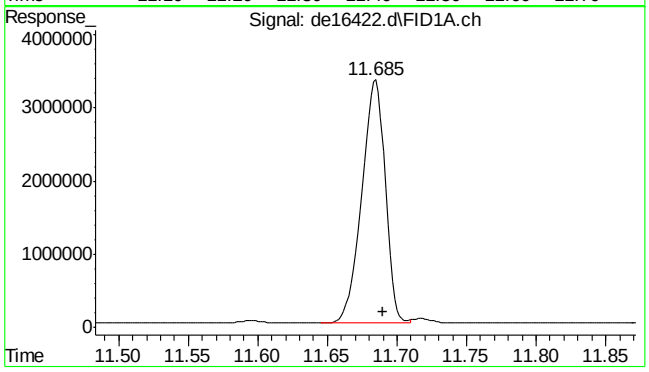
#11 o-terphenyl

R.T.: 10.530 min
Delta R.T.: -0.003 min
Response: 4008812
Conc: 42.24 µg/ml



#12 fluoranthene

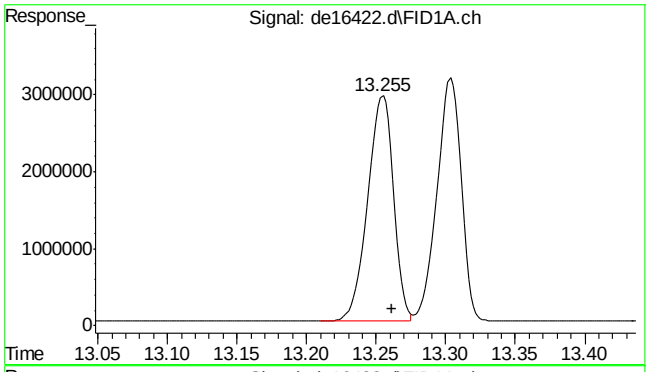
R.T.: 11.420 min
Delta R.T.: -0.003 min
Response: 3871573
Conc: 42.68 µg/ml



#13 pyrene

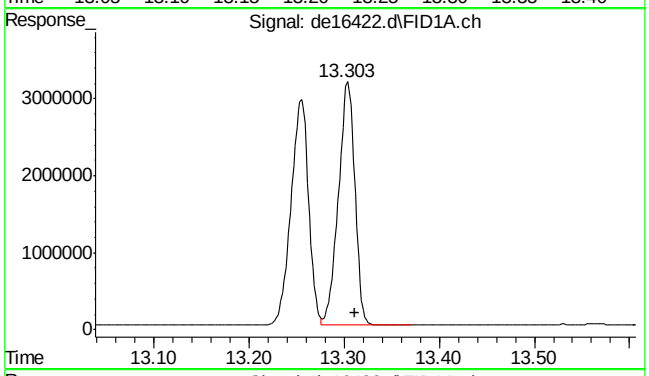
R.T.: 11.685 min
Delta R.T.: -0.005 min
Response: 3903711
Conc: 42.71 µg/ml

SGS ACCUTEST MC48999



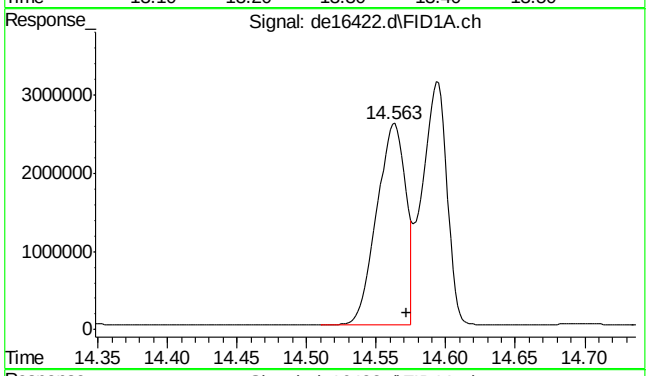
#14 benzo(a)anthracene

R.T.: 13.255 min
Delta R.T.: -0.007 min
Response: 3758316
Conc: 42.92 µg/ml



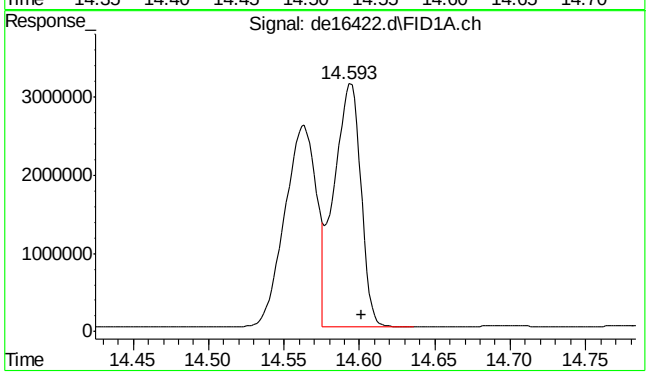
#15 chrysene

R.T.: 13.303 min
Delta R.T.: -0.008 min
Response: 3805304
Conc: 42.91 µg/ml



#16 benzo(B)fluoranthene

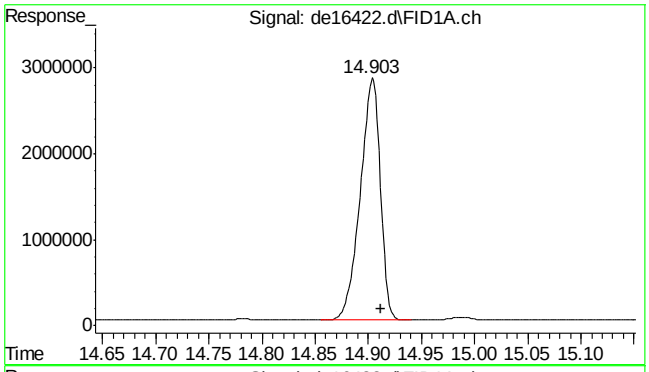
R.T.: 14.563 min
Delta R.T.: -0.008 min
Response: 3748341
Conc: 41.92 µg/ml



#17 benzo(k)fluoranthene

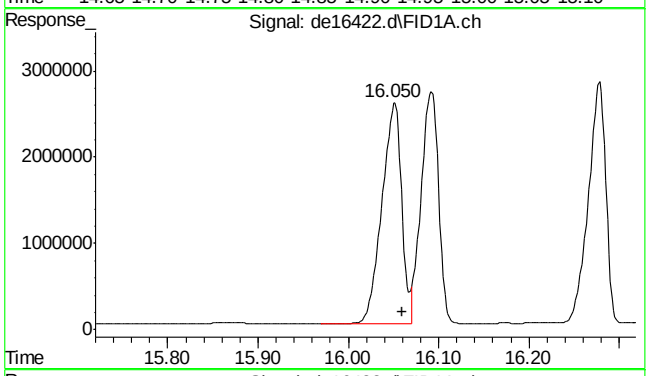
R.T.: 14.593 min
Delta R.T.: -0.008 min
Response: 3830111
Conc: 44.36 µg/ml

SGS ACCUTEST MC48999



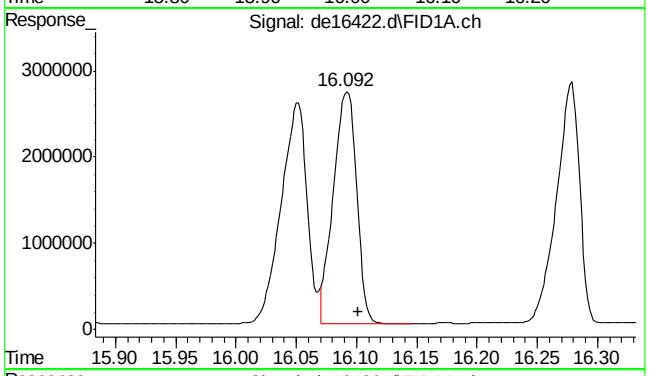
#18 benzo(a)pyrene

R.T.: 14.903 min
Delta R.T.: -0.008 min
Response: 3692481
Conc: 42.00 µg/ml



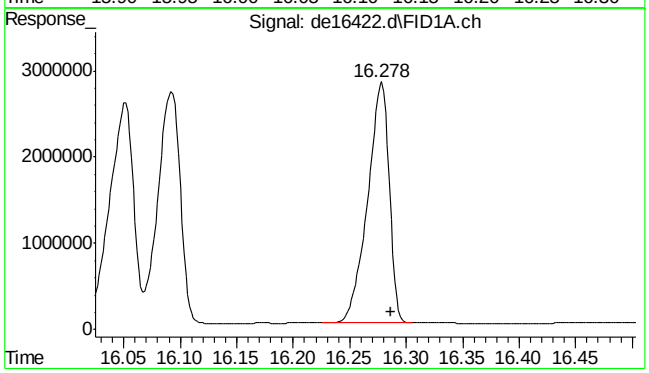
#19 indeno(1,2,3-cd)pyrene

R.T.: 16.050 min
Delta R.T.: -0.010 min
Response: 3871705
Conc: 44.65 µg/ml



#20 dibenzo(ah)anthracene

R.T.: 16.092 min
Delta R.T.: -0.010 min
Response: 3596808
Conc: 42.96 µg/ml



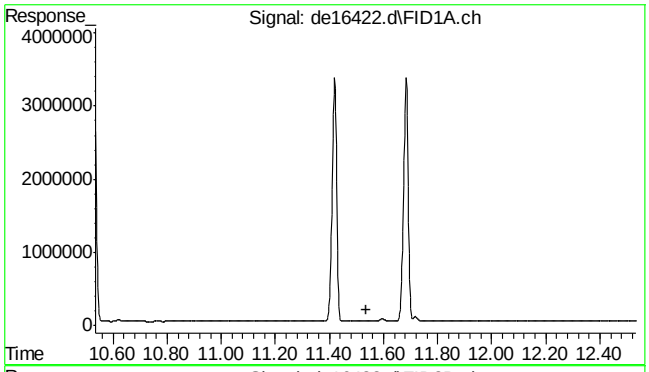
#21 benzo(ghi)perylene

R.T.: 16.278 min
Delta R.T.: -0.008 min
Response: 3723359
Conc: 43.21 µg/ml

9.5.10

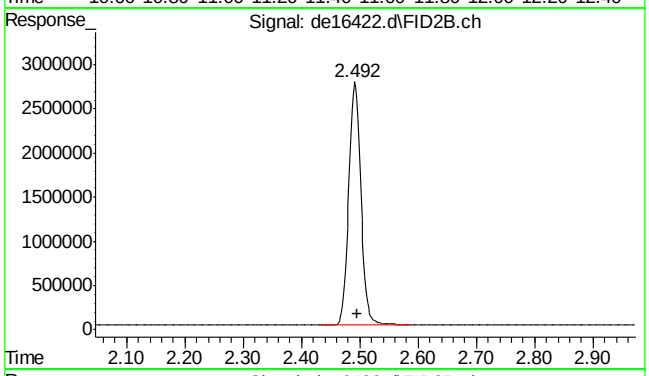
9

SGS ACCUTEST MC48999



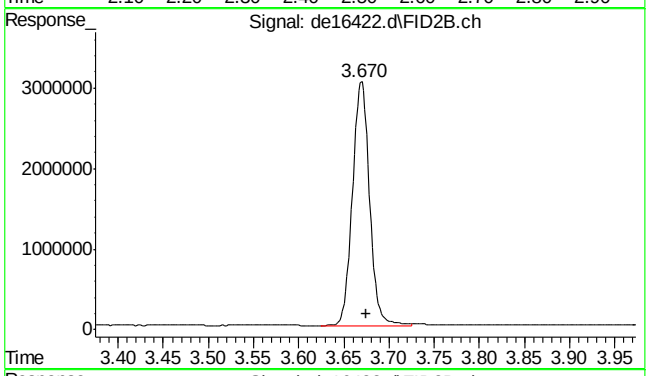
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



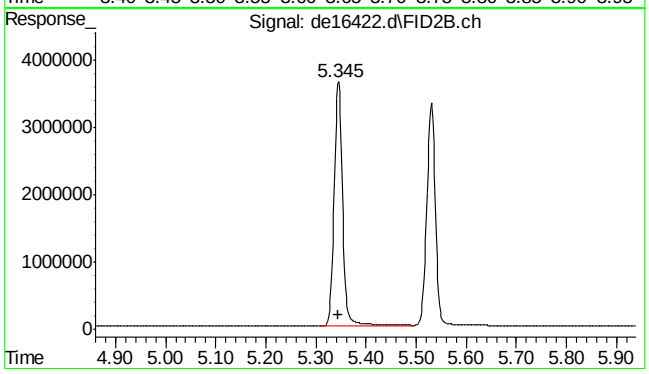
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 4007331
Conc: 52.08 µg/ml m



#26 c-10

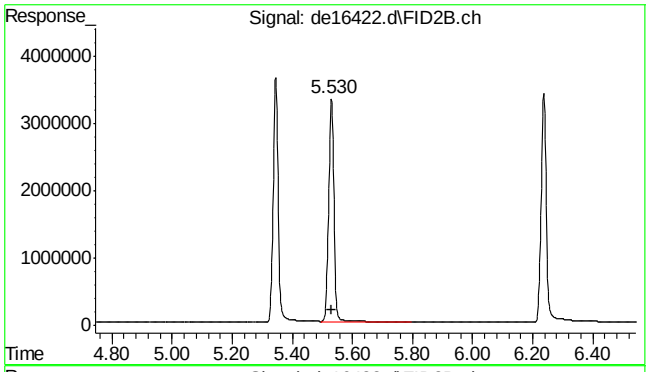
R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 4001609
Conc: 52.01 µg/ml



#27 naphthalene #2

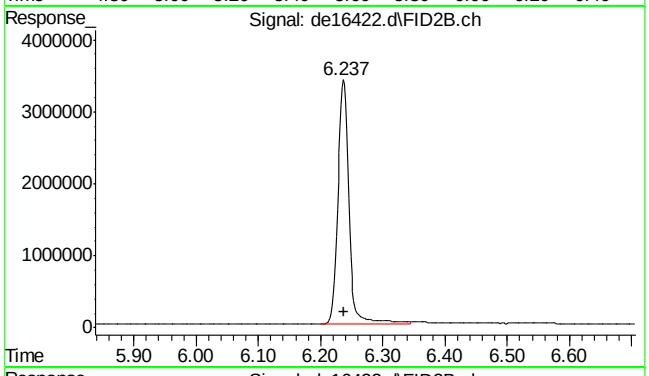
R.T.: 5.345 min
Delta R.T.: 0.000 min
Response: 4258181
Conc: 54.96 µg/ml

SGS ACCUTEST MC48999



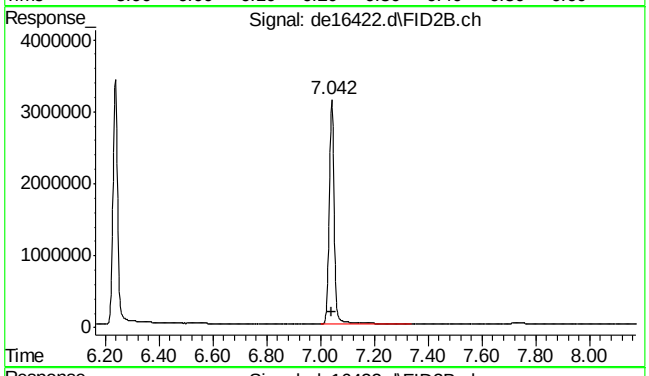
#28 c-12

R.T.: 5.530 min
Delta R.T.: 0.000 min
Response: 4108267
Conc: 53.40 µg/ml



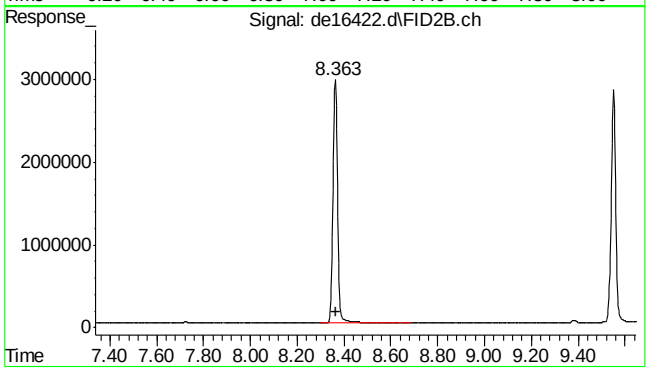
#29 2-methylnaphthalene #2

R.T.: 6.237 min
Delta R.T.: 0.000 min
Response: 4185117
Conc: 54.81 µg/ml



#30 c-14

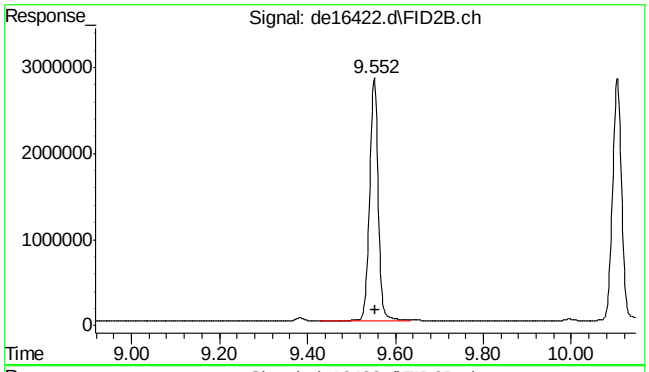
R.T.: 7.042 min
Delta R.T.: 0.000 min
Response: 4010165
Conc: 52.12 µg/ml



#31 c-16

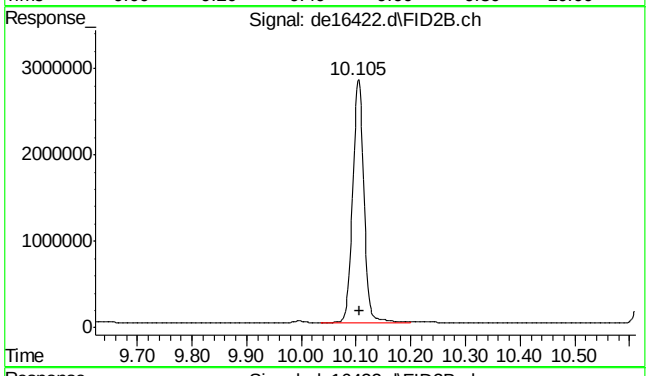
R.T.: 8.363 min
Delta R.T.: -0.002 min
Response: 4016271
Conc: 52.20 µg/ml

SGS ACCUTEST MC48999



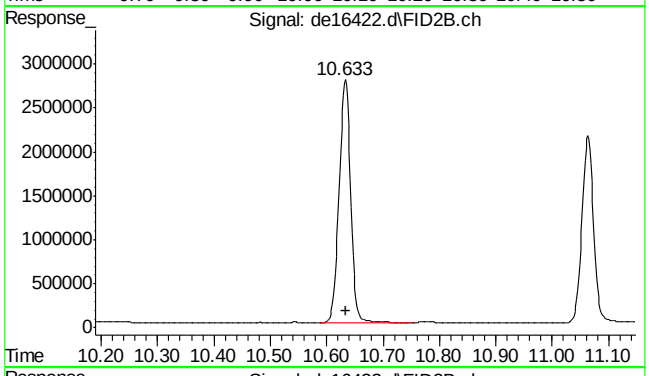
#32 c-18

R.T.: 9.552 min
Delta R.T.: -0.002 min
Response: 3877419
Conc: 50.40 µg/ml



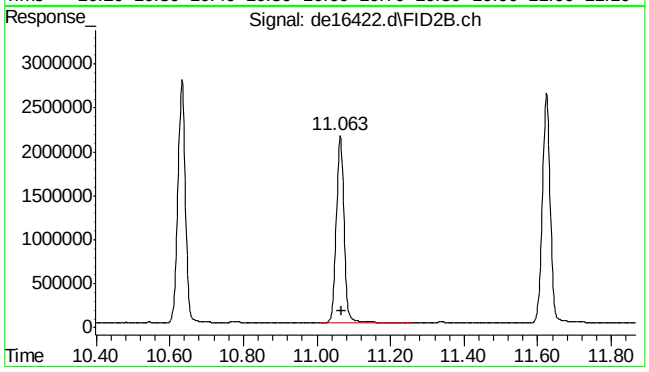
#33 c-19

R.T.: 10.105 min
Delta R.T.: -0.002 min
Response: 4004907
Conc: 59.07 µg/ml



#34 c-20

R.T.: 10.633 min
Delta R.T.: -0.002 min
Response: 3913691
Conc: 57.73 µg/ml



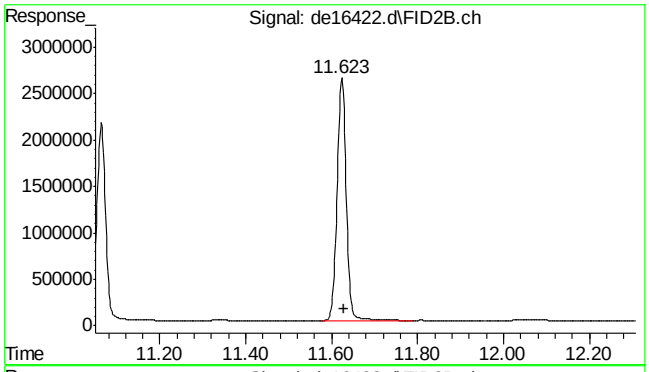
#35 1-chlorooctadecane

R.T.: 11.063 min
Delta R.T.: -0.003 min
Response: 3086849
Conc: 54.26 µg/ml

9.5.10

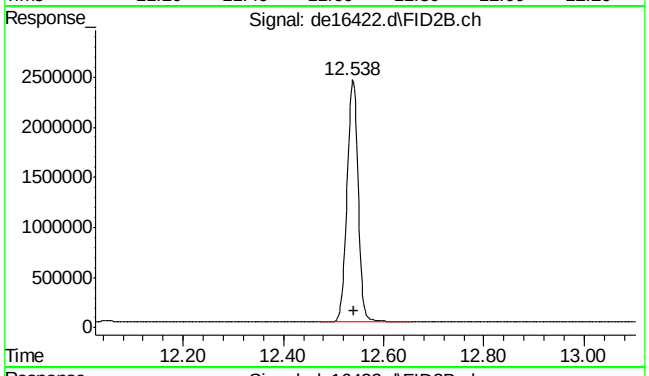
9

SGS ACCUTEST MC48999



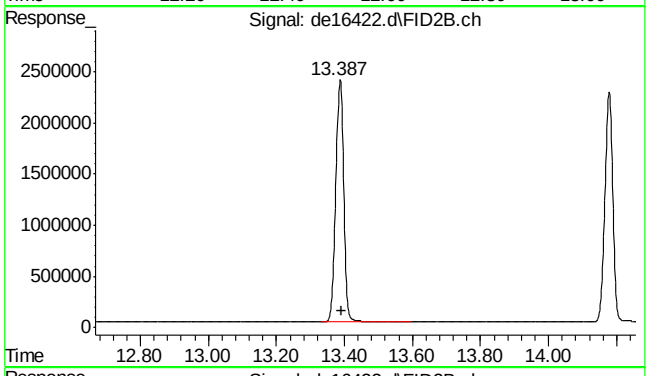
#36 c-22

R.T.: 11.623 min
Delta R.T.: -0.005 min
Response: 3874648
Conc: 57.15 µg/ml



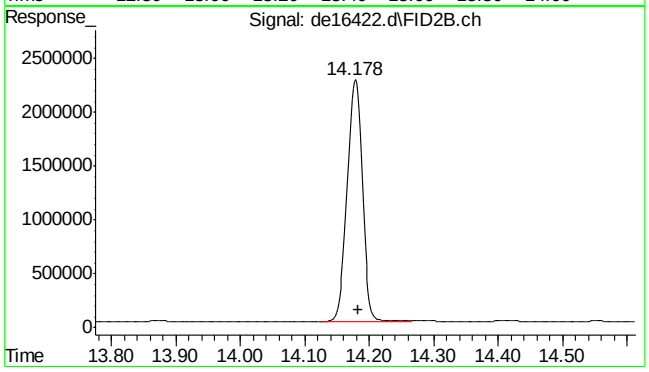
#37 c-24

R.T.: 12.538 min
Delta R.T.: -0.003 min
Response: 3785173
Conc: 55.83 µg/ml



#38 c-26

R.T.: 13.387 min
Delta R.T.: -0.005 min
Response: 3714911
Conc: 54.79 µg/ml



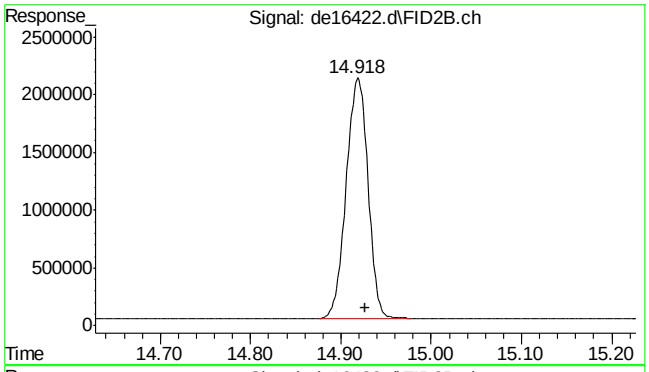
#39 c-28

R.T.: 14.178 min
Delta R.T.: -0.005 min
Response: 3651722
Conc: 53.86 µg/ml

9.5.10

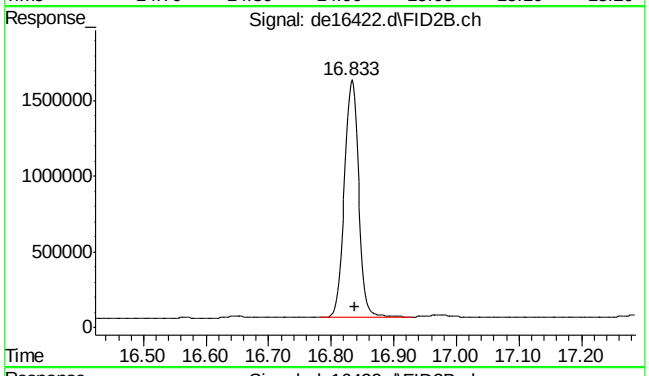
9

SGS ACCUTEST MC48999



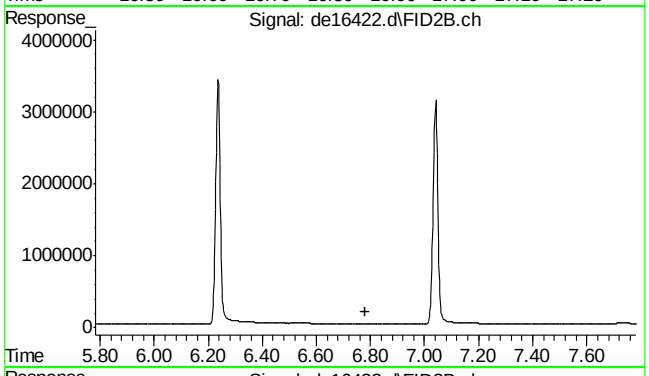
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 3539240
Conc: 52.20 µg/ml



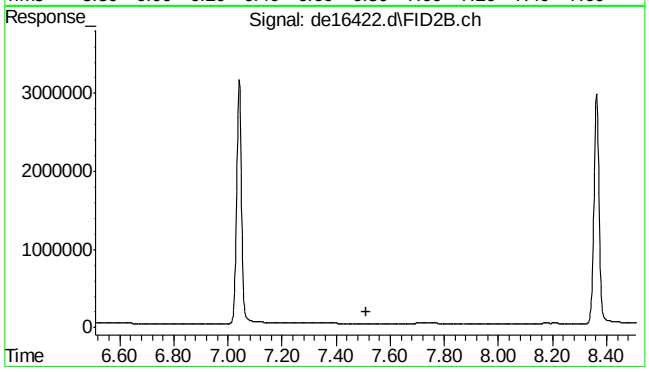
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 2536792
Conc: 37.42 µg/ml m



#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



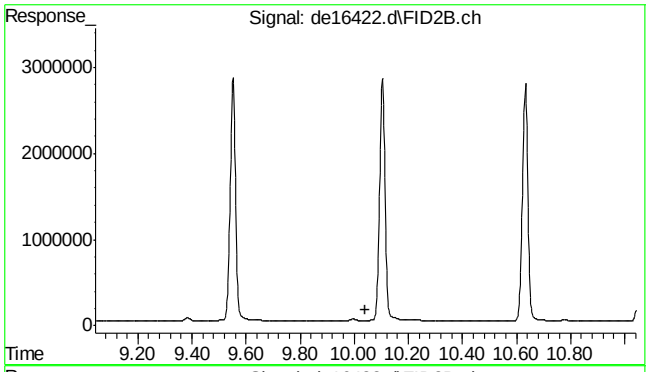
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.

9.5.10

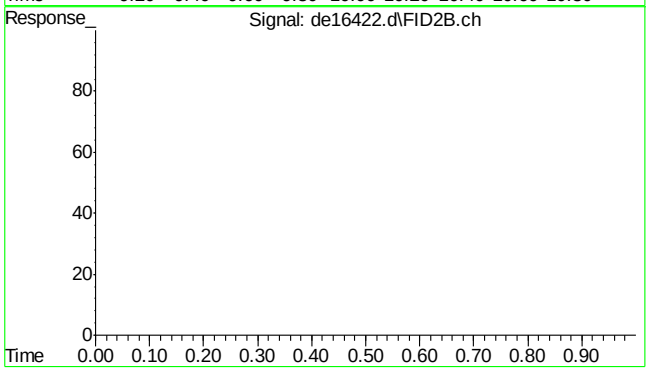
9

SGS ACCUTEST MC48999



#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

9.5.10

9

SGS ACCUTEST MC48999

Manual Integrations APPROVED (compounds with "m" flag)
Andri Piluri
12/20/16 14:40

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16433.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 5:13 am
Operator : thomasa
Sample : cc908-50,gde916 (Sig #1); ecc908-50,gde916 (Sig #2)
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 144 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 07:29:33 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.227	3544116	40.535 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 202.67%#	
6) s 2-bromonaphthalene	7.975	2464040	41.352 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 206.76%#	
11) s o-terphenyl	10.528	4073603	42.926 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 214.63%#	
35) s 1-chlorooctadecane	11.065	3262355	57.344 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 286.72%#	
Target Compounds			
2) naphthalene	5.785	3829853	39.143 µg/ml
3) 2-methylnaphthalene	6.682	3809414	40.024 µg/ml
5) acenaphthylene	7.810	3925860	41.053 µg/ml
7) acenaphthene	8.053	3982633	41.514 µg/ml
8) fluorene	8.702	3948938	42.121 µg/ml
9) phenanthrene	9.898	4001732	42.873 µg/ml
10) anthracene	9.955	3938681	42.845 µg/ml
12) fluoranthene	11.418	3936905	43.398 µg/ml
13) pyrene	11.683	3968185	43.418 µg/ml
14) benzo(a)anthracene	13.255	3823653	43.665 µg/ml
15) chrysene	13.303	3875655	43.700 µg/ml
16) benzo(B)fluoranthene	14.563	4059675	45.397 µg/mlm
17) benzo(k)fluoranthene	14.593	3829670	44.352 µg/mlm
18) benzo(a)pyrene	14.905	3782951	43.034 µg/ml
19) indeno(1,2,3-cd)pyrene	16.052	3969848	45.783 µg/ml
20) dibenzo(ah)anthracene	16.093	3728855	44.541 µg/ml
21) benzo(ghi)perylene	16.278	3855926	44.746 µg/ml
25) h c-9	2.495	4313250	56.061 µg/mlm
26) h c-10	3.675	4297074	55.851 µg/ml
27) naphthalene #2	5.345	4571044	58.997 µg/ml
28) c-12	5.530	4430634	57.587 µg/ml
29) 2-methylnaphthalene #2	6.237	4493661	58.853 µg/ml
30) c-14	7.042	4279777	55.626 µg/ml
31) c-16	8.363	4279410	55.621 µg/ml
32) c-18	9.552	4119814	53.547 µg/ml
33) c-19	10.105	4239004	62.523 µg/ml
34) c-20	10.633	4138813	61.046 µg/ml
36) c-22	11.625	4067401	59.992 µg/ml
37) c-24	12.540	3958778	58.390 µg/ml
38) c-26	13.388	3859165	56.921 µg/ml

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16433.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 5:13 am
Operator : thomasa
Sample : cc908-50,gde916 (Sig #1); ecc908-50,gde916 (Sig #2)
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 144 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 07:29:33 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
39)	c-28	14.180	3786177	55.844	µg/ml
40) h	c-30	14.927	3665456	54.064	µg/ml
41) h	c-36	16.838	2642624	38.977	µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.11

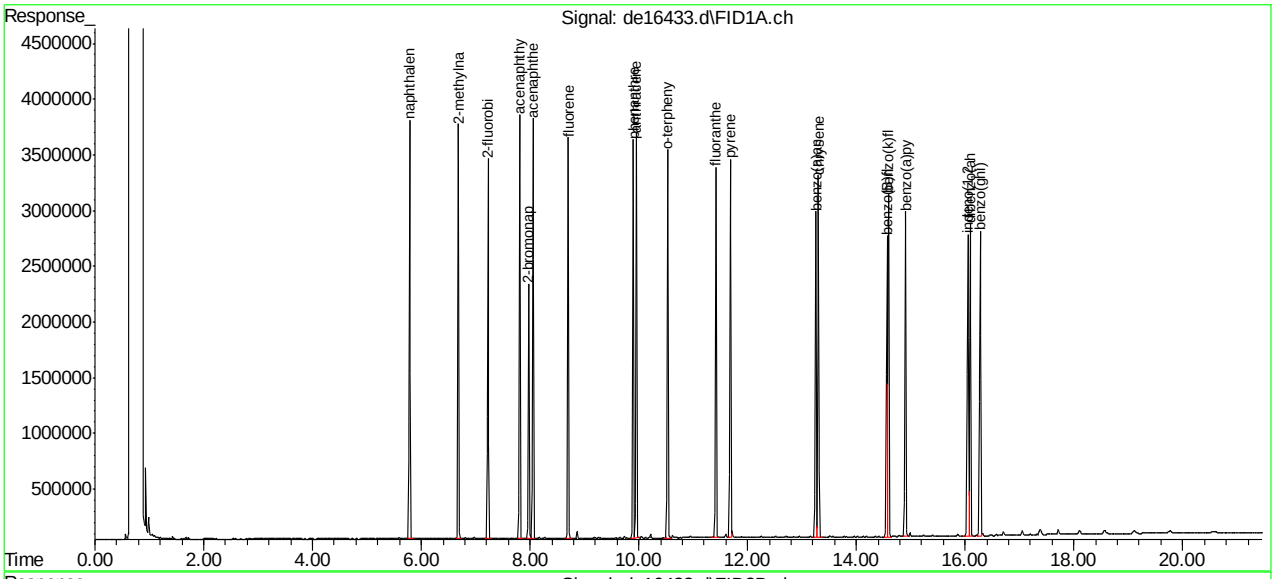
9

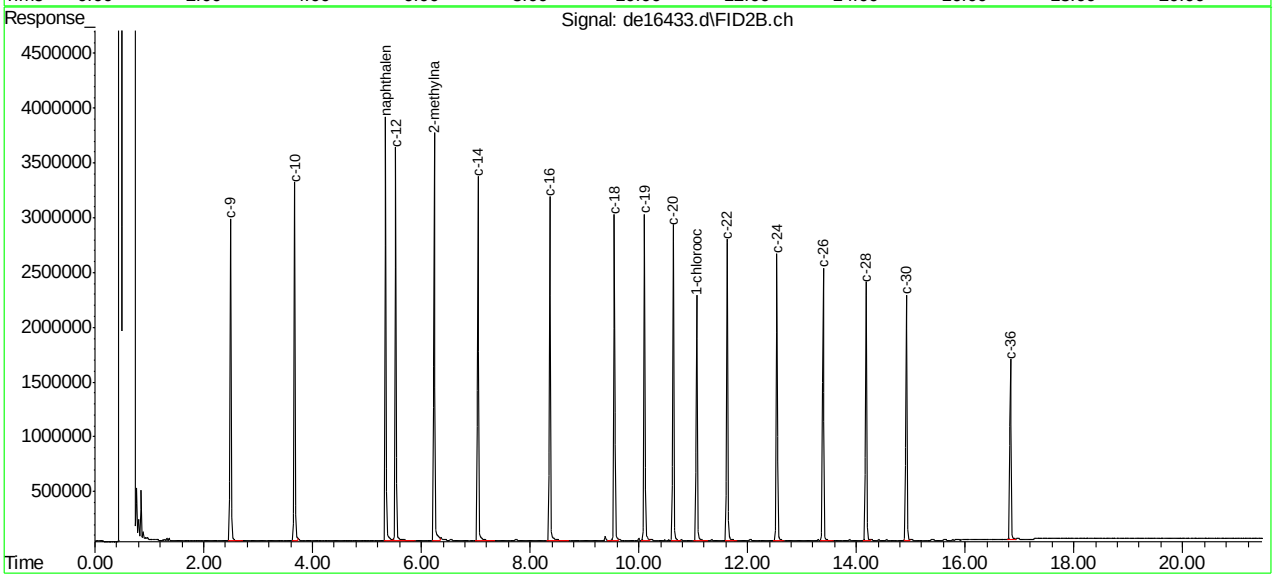
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16433.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 5:13 am
Operator : thomasa
Sample : cc908-50,gde916 (Sig #1); ecc908-50,gde916 (Sig #2)
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 144 Sample Multiplier: 1

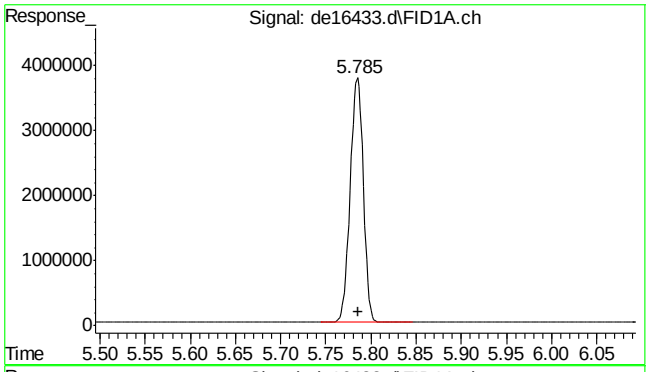
Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 07:29:33 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



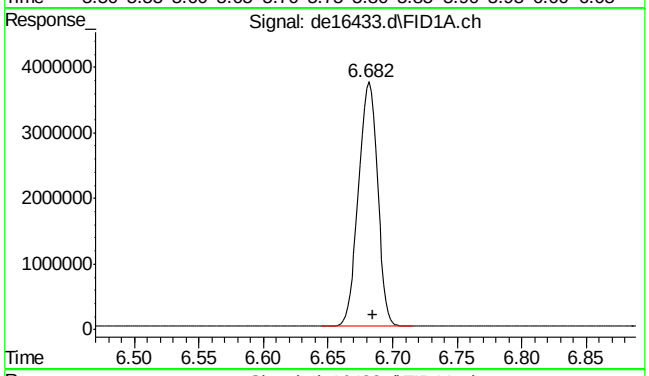


SGS ACCUTEST MC48999



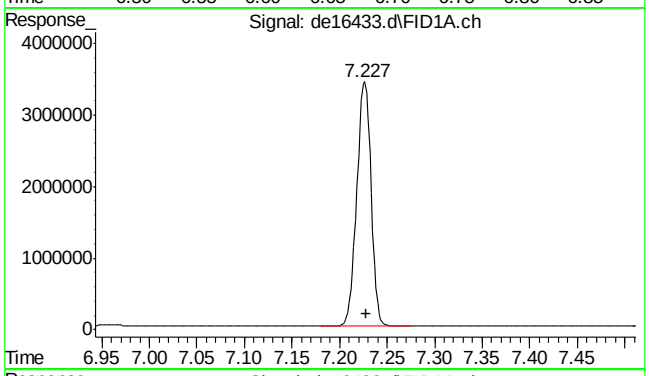
#2 naphthalene

R.T.: 5.785 min
Delta R.T.: -0.002 min
Response: 3829853
Conc: 39.14 µg/ml



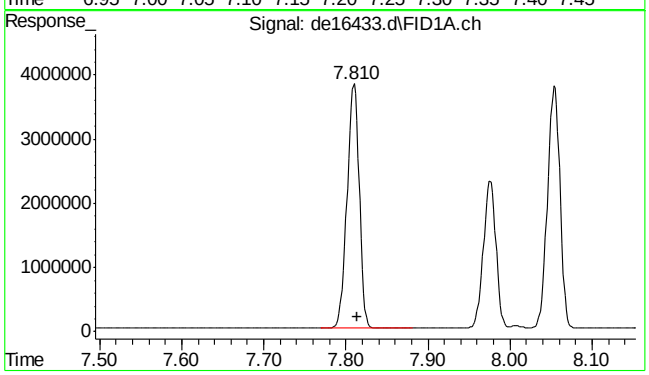
#3 2-methylnaphthalene

R.T.: 6.682 min
Delta R.T.: -0.003 min
Response: 3809414
Conc: 40.02 µg/ml



#4 2-fluorobiphenyl

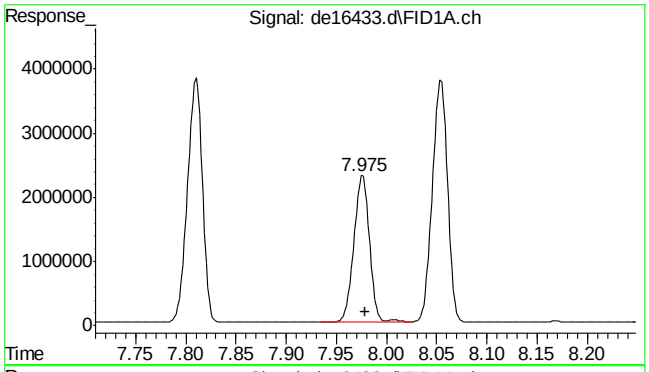
R.T.: 7.227 min
Delta R.T.: -0.002 min
Response: 3544116
Conc: 40.54 µg/ml



#5 acenaphthylene

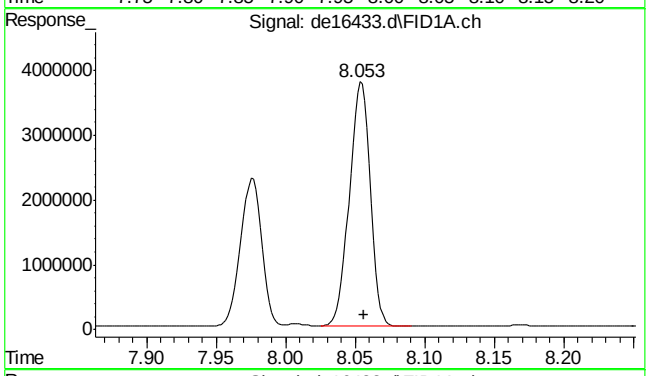
R.T.: 7.810 min
Delta R.T.: -0.003 min
Response: 3925860
Conc: 41.05 µg/ml

SGS ACCUTEST MC48999



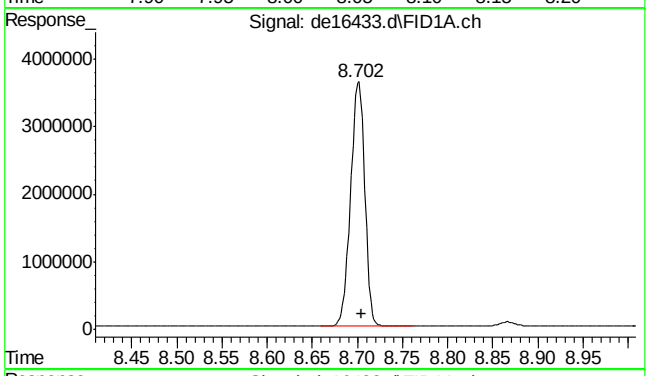
#6 2-bromonaphthalene

R.T.: 7.975 min
Delta R.T.: -0.003 min
Response: 2464040
Conc: 41.35 µg/ml



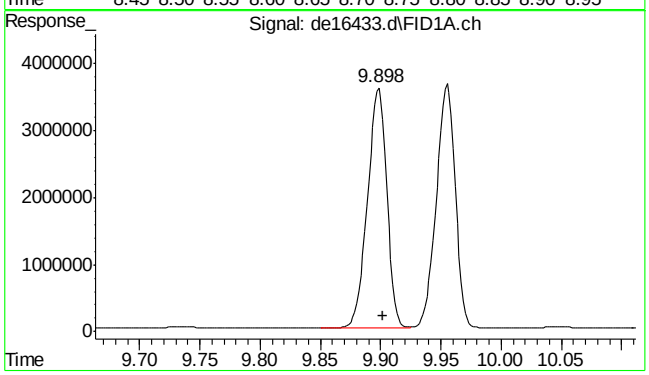
#7 acenaphthene

R.T.: 8.053 min
Delta R.T.: -0.003 min
Response: 3982633
Conc: 41.51 µg/ml



#8 fluorene

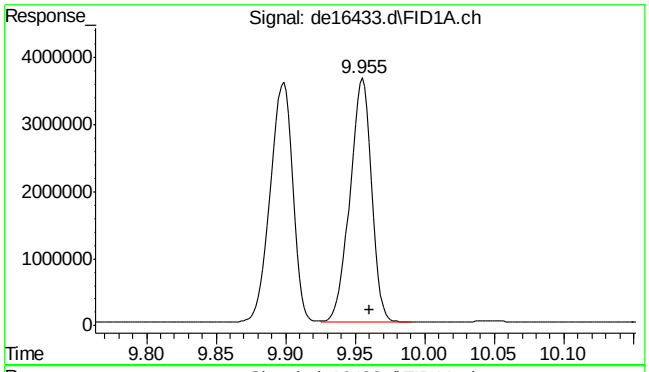
R.T.: 8.702 min
Delta R.T.: -0.003 min
Response: 3948938
Conc: 42.12 µg/ml



#9 phenanthrene

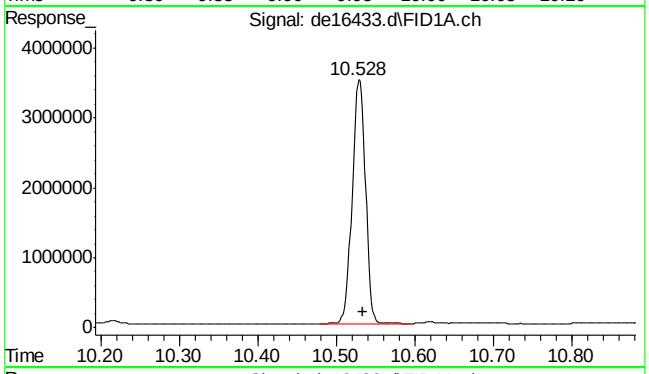
R.T.: 9.898 min
Delta R.T.: -0.003 min
Response: 4001732
Conc: 42.87 µg/ml

SGS ACCUTEST MC48999



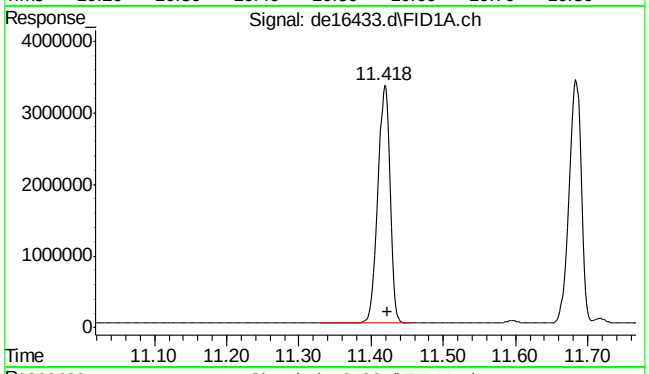
#10 anthracene

R.T.: 9.955 min
Delta R.T.: -0.005 min
Response: 3938681
Conc: 42.84 µg/ml



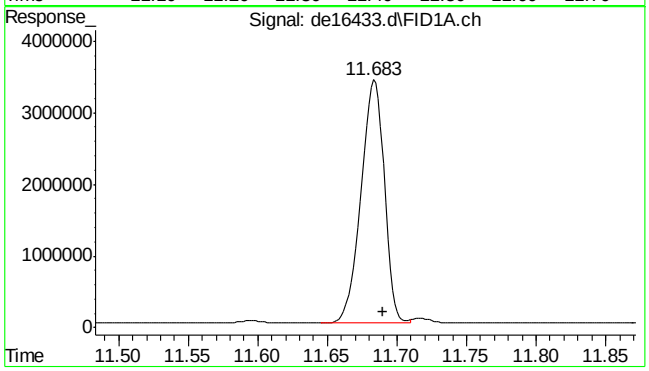
#11 o-terphenyl

R.T.: 10.528 min
Delta R.T.: -0.005 min
Response: 4073603
Conc: 42.93 µg/ml



#12 fluoranthene

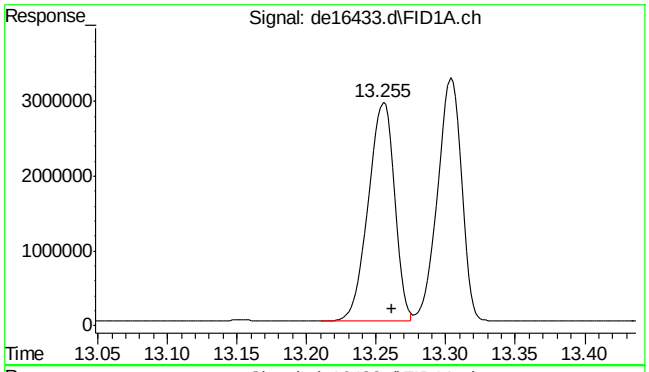
R.T.: 11.418 min
Delta R.T.: -0.005 min
Response: 3936905
Conc: 43.40 µg/ml



#13 pyrene

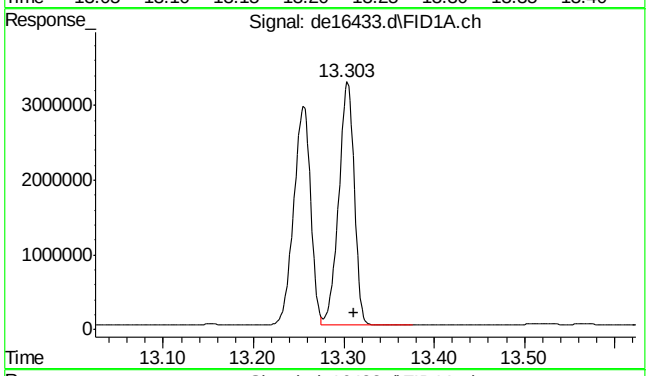
R.T.: 11.683 min
Delta R.T.: -0.007 min
Response: 3968185
Conc: 43.42 µg/ml

SGS ACCUTEST MC48999



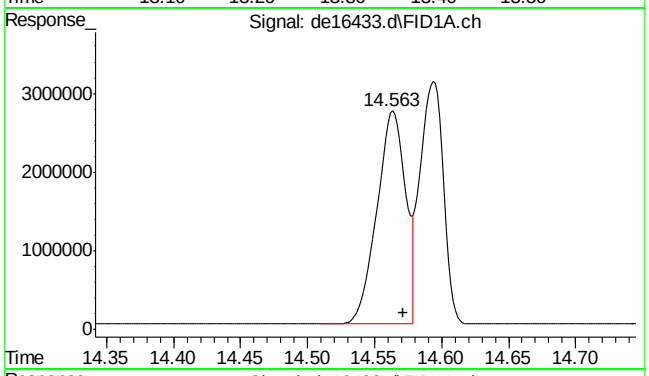
#14 benzo(a)anthracene

R.T.: 13.255 min
Delta R.T.: -0.007 min
Response: 3823653
Conc: 43.66 µg/ml



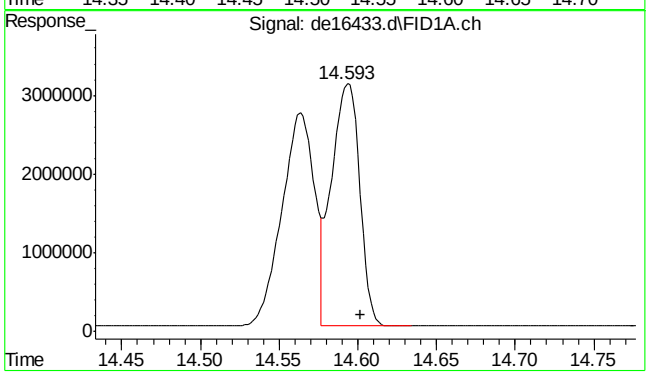
#15 chrysene

R.T.: 13.303 min
Delta R.T.: -0.008 min
Response: 3875655
Conc: 43.70 µg/ml



#16 benzo(B)fluoranthene

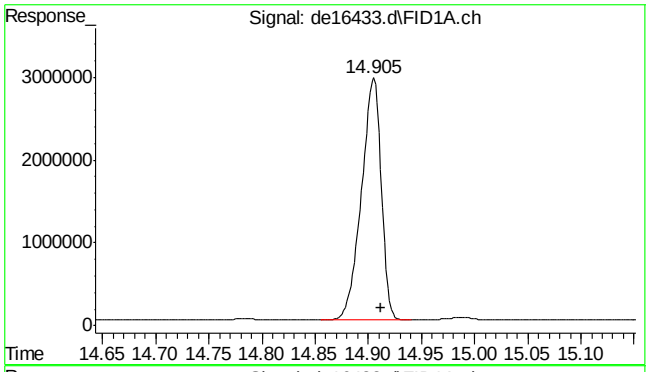
R.T.: 14.563 min
Delta R.T.: -0.008 min
Response: 4059675
Conc: 45.40 µg/ml m



#17 benzo(k)fluoranthene

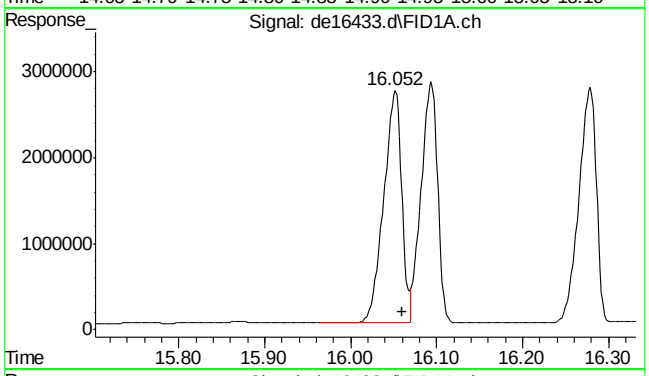
R.T.: 14.593 min
Delta R.T.: -0.008 min
Response: 3829670
Conc: 44.35 µg/ml m

SGS ACCUTEST MC48999



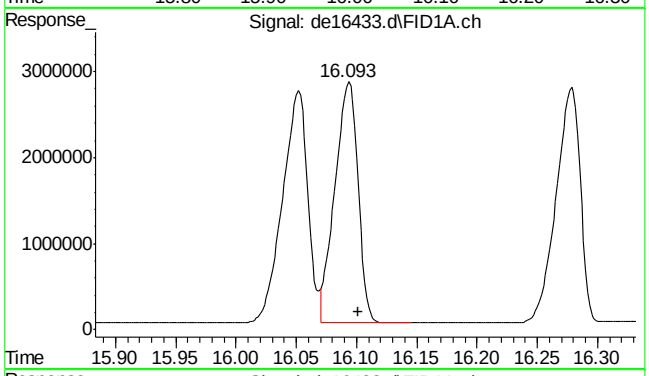
#18 benzo(a)pyrene

R.T.: 14.905 min
Delta R.T.: -0.007 min
Response: 3782951
Conc: 43.03 µg/ml



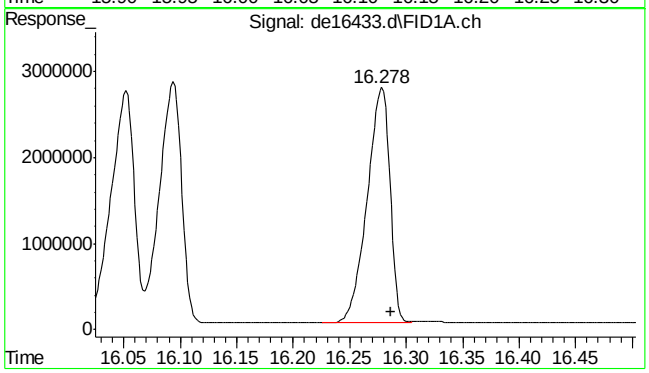
#19 indeno(1,2,3-cd)pyrene

R.T.: 16.052 min
Delta R.T.: -0.008 min
Response: 3969848
Conc: 45.78 µg/ml



#20 dibenzo(ah)anthracene

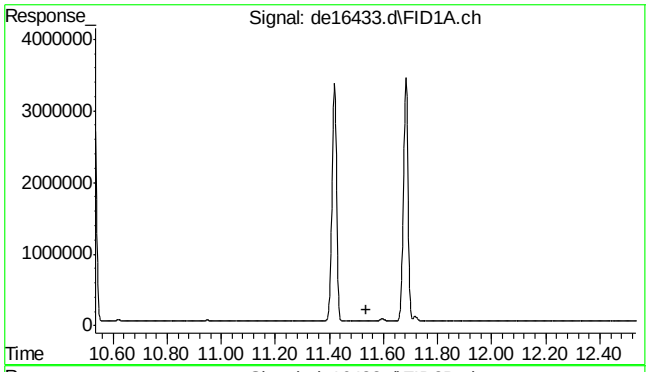
R.T.: 16.093 min
Delta R.T.: -0.008 min
Response: 3728855
Conc: 44.54 µg/ml



#21 benzo(ghi)perylene

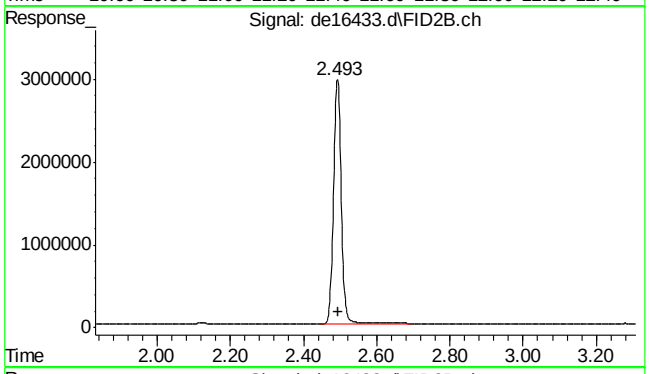
R.T.: 16.278 min
Delta R.T.: -0.008 min
Response: 3855926
Conc: 44.75 µg/ml

SGS ACCUTEST MC48999



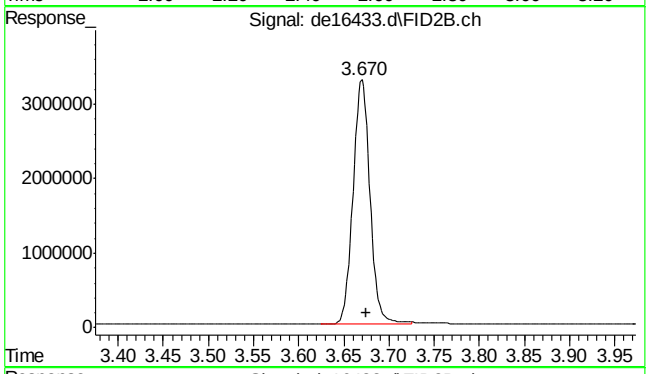
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



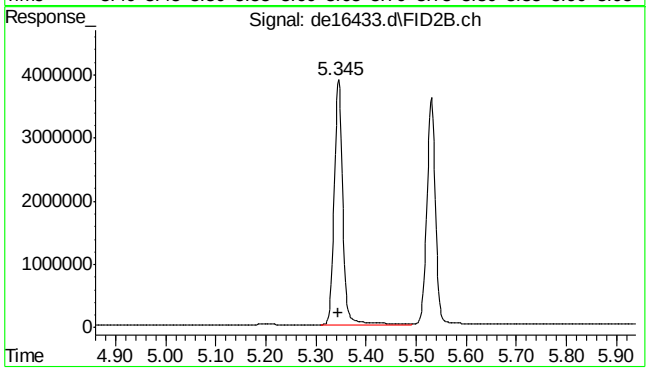
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 4313250
Conc: 56.06 µg/ml m



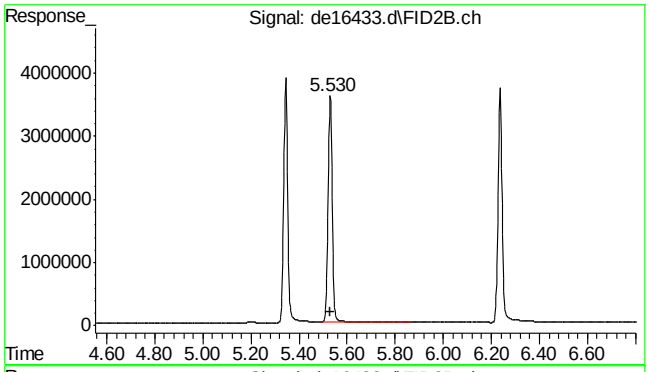
#26 c-10

R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 4297074
Conc: 55.85 µg/ml



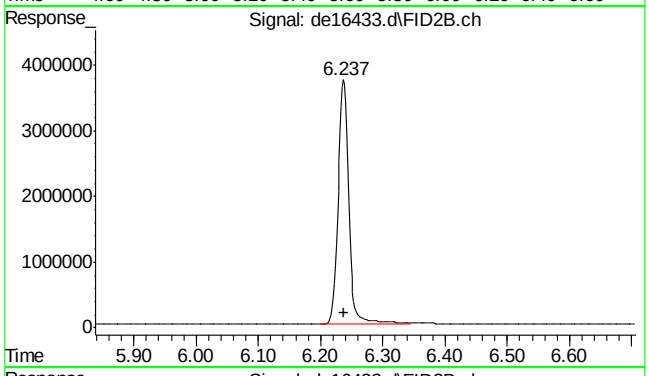
#27 naphthalene #2

R.T.: 5.345 min
Delta R.T.: 0.000 min
Response: 4571044
Conc: 59.00 µg/ml



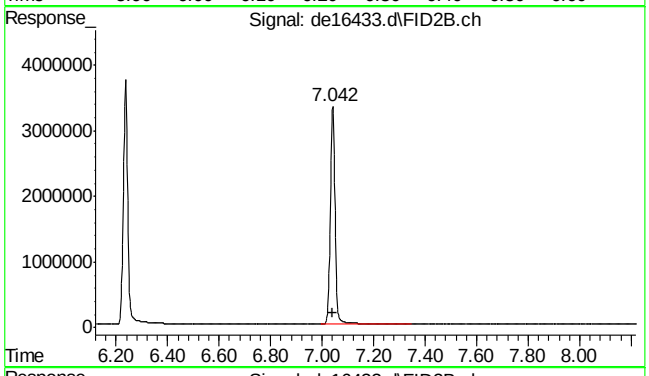
#28 c-12

R.T.: 5.530 min
Delta R.T.: 0.000 min
Response: 4430634
Conc: 57.59 µg/ml



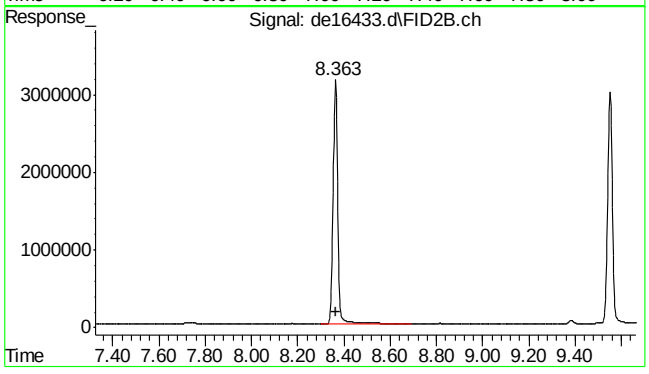
#29 2-methylnaphthalene #2

R.T.: 6.237 min
Delta R.T.: 0.000 min
Response: 4493661
Conc: 58.85 µg/ml



#30 c-14

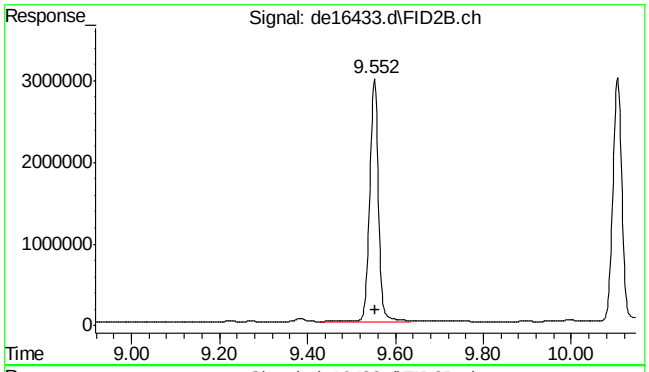
R.T.: 7.042 min
Delta R.T.: 0.000 min
Response: 4279777
Conc: 55.63 µg/ml



#31 c-16

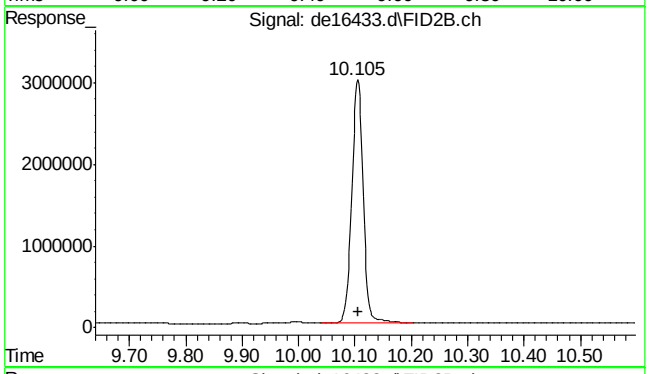
R.T.: 8.363 min
Delta R.T.: -0.002 min
Response: 4279410
Conc: 55.62 µg/ml

SGS ACCUTEST MC48999



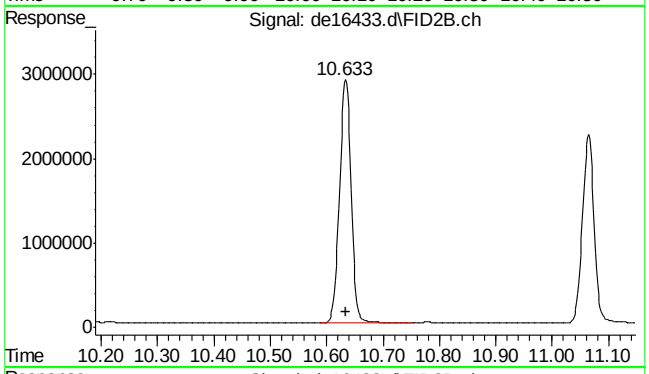
#32 c-18

R.T.: 9.552 min
Delta R.T.: -0.002 min
Response: 4119814
Conc: 53.55 µg/ml



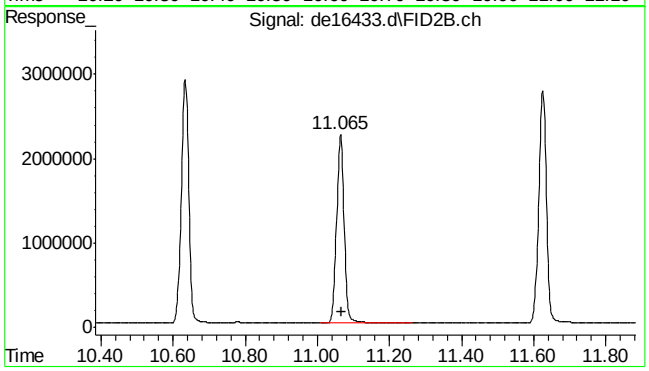
#33 c-19

R.T.: 10.105 min
Delta R.T.: -0.002 min
Response: 4239004
Conc: 62.52 µg/ml



#34 c-20

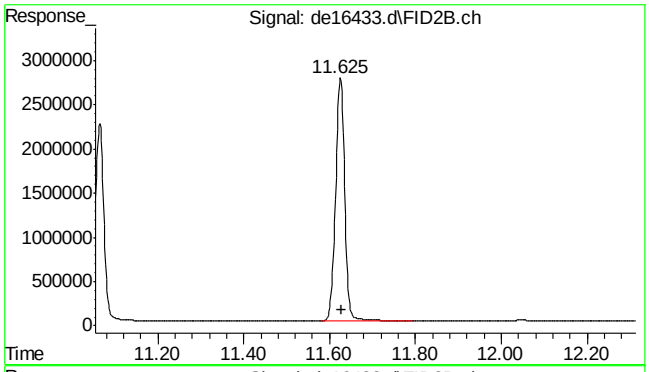
R.T.: 10.633 min
Delta R.T.: -0.002 min
Response: 4138813
Conc: 61.05 µg/ml



#35 1-chlorooctadecane

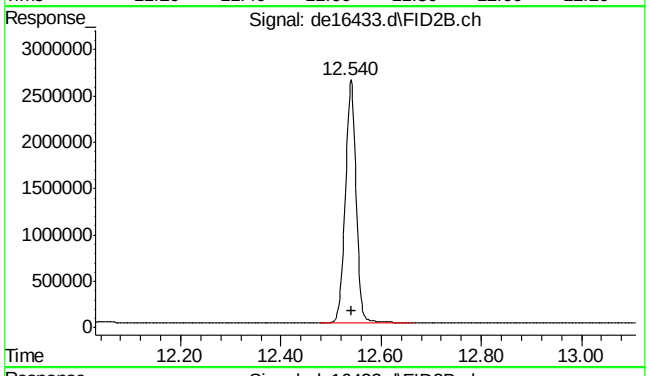
R.T.: 11.065 min
Delta R.T.: -0.002 min
Response: 3262355
Conc: 57.34 µg/ml

SGS ACCUTEST MC48999



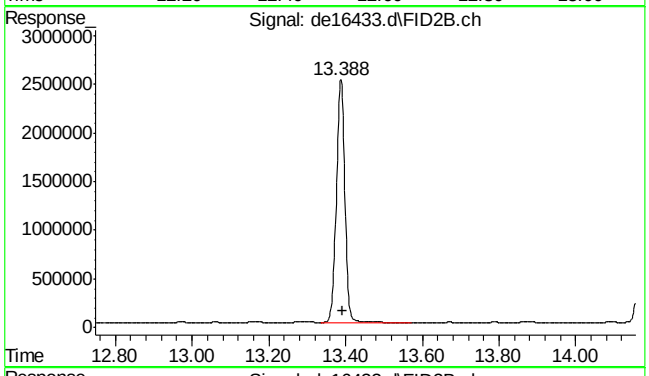
#36 c-22

R.T.: 11.625 min
Delta R.T.: -0.003 min
Response: 4067401
Conc: 59.99 µg/ml



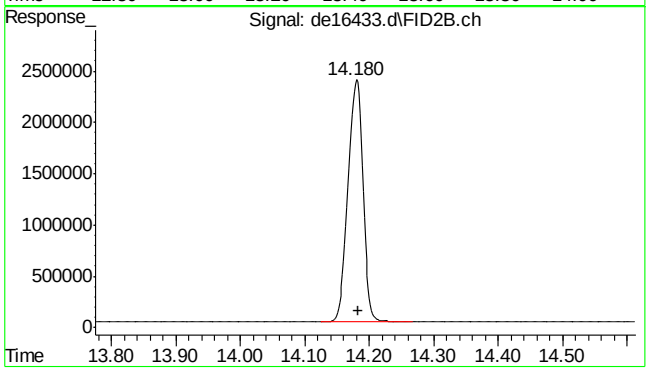
#37 c-24

R.T.: 12.540 min
Delta R.T.: -0.002 min
Response: 3958778
Conc: 58.39 µg/ml



#38 c-26

R.T.: 13.388 min
Delta R.T.: -0.003 min
Response: 3859165
Conc: 56.92 µg/ml



#39 c-28

R.T.: 14.180 min
Delta R.T.: -0.003 min
Response: 3786177
Conc: 55.84 µg/ml

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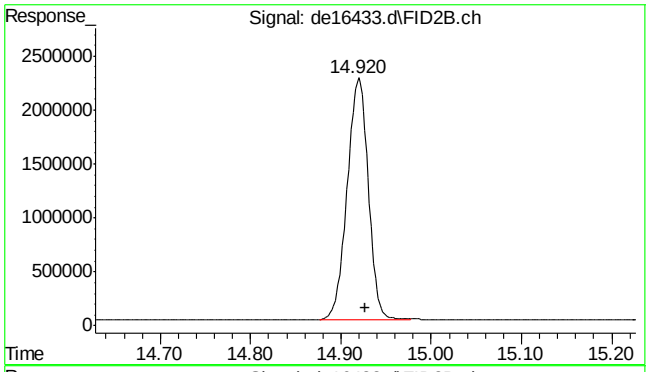
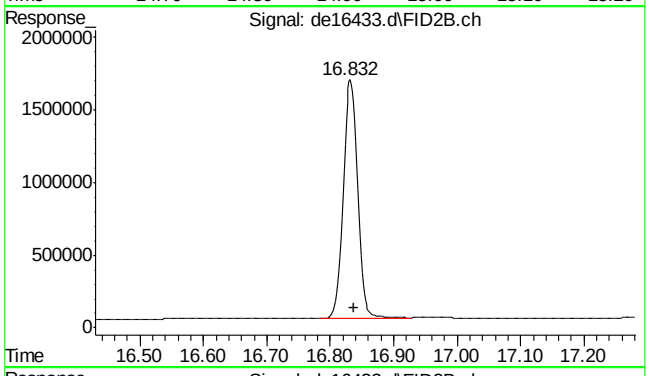


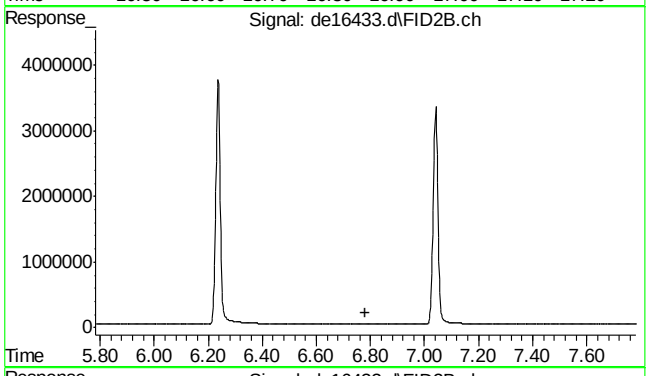
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 3665456
Conc: 54.06 µg/ml



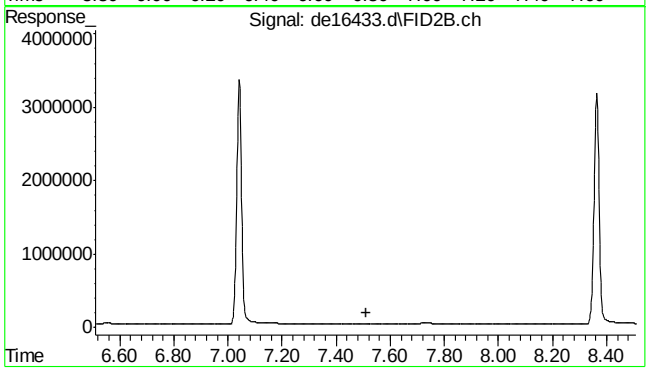
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 2642624
Conc: 38.98 µg/ml m



#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.

9.5.11

9

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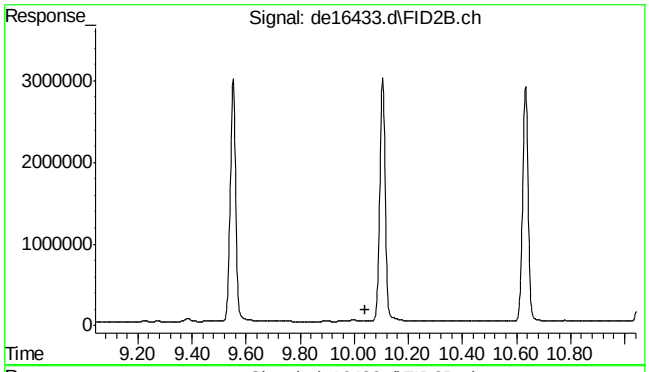
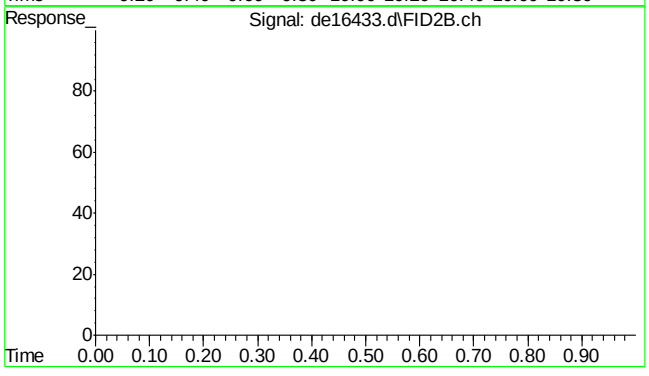


#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

9.5.11

9

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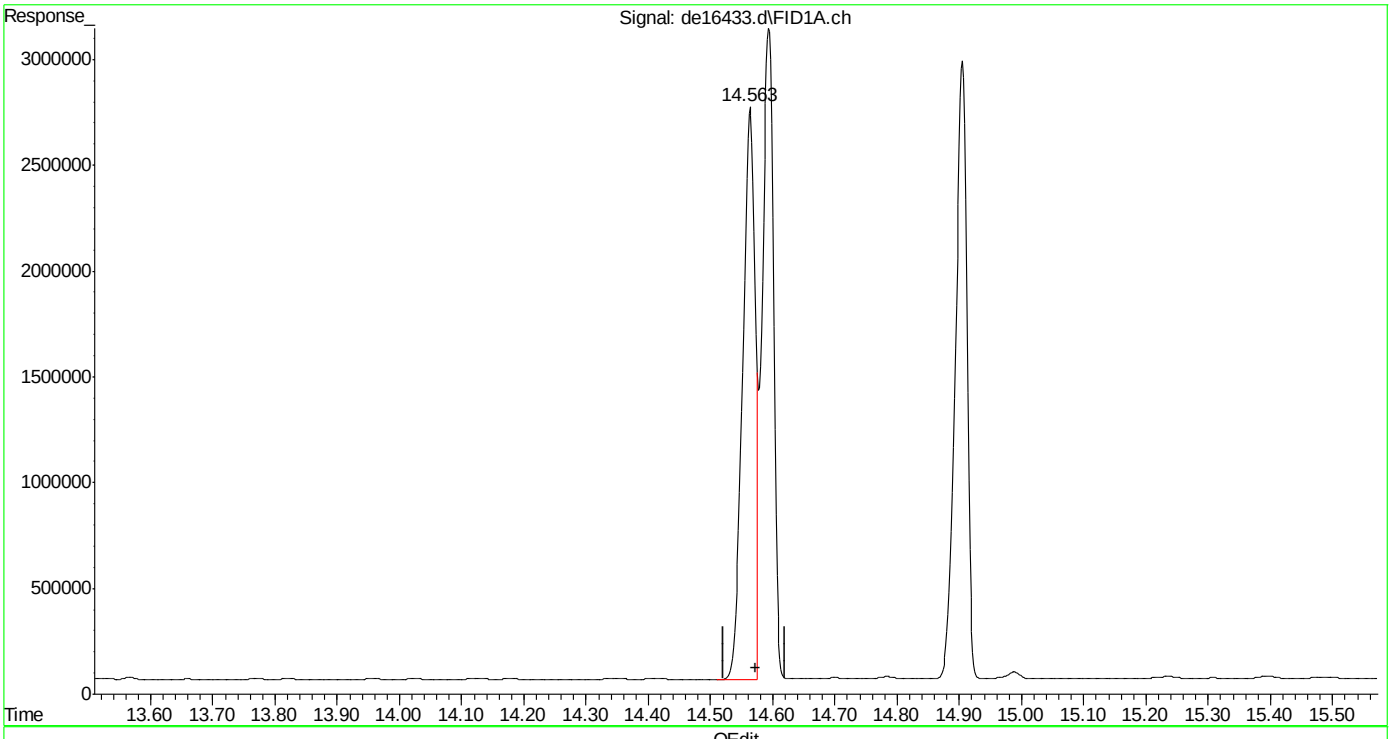
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16433.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 5:13 am
Operator : thomasa
Sample : ecc908-50,gde916
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 144 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 07:27:53 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(16) benzo(B)fluoranthene
14.563min 42.347 µg/ml
response 3786939

(+) = Expected Retention Time

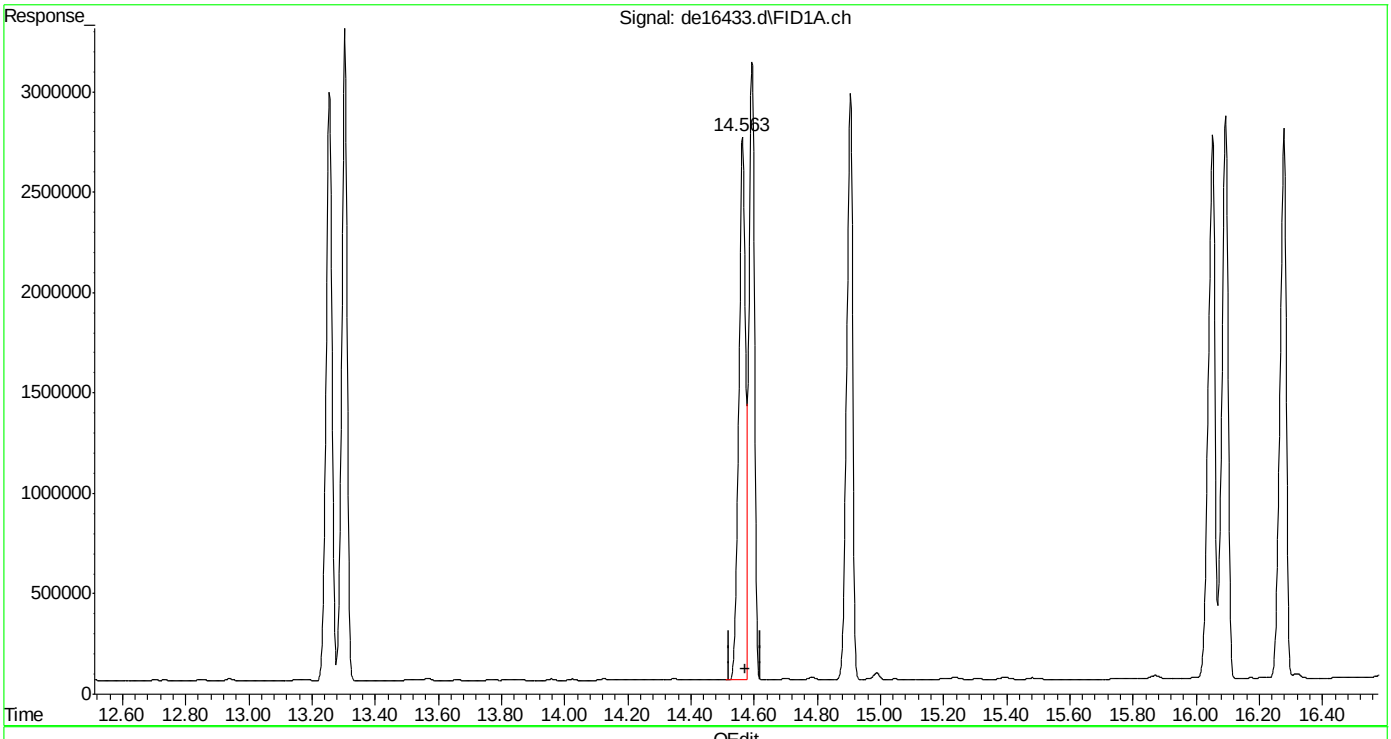
EPH161219W.M Tue Dec 20 07:28:33 2016

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16433.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 5:13 am
Operator : thomasa
Sample : ecc908-50,gde916
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 144 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 07:27:53 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(16) benzo(B)fluoranthene
14.563min 45.397 µg/ml m
response 4059675

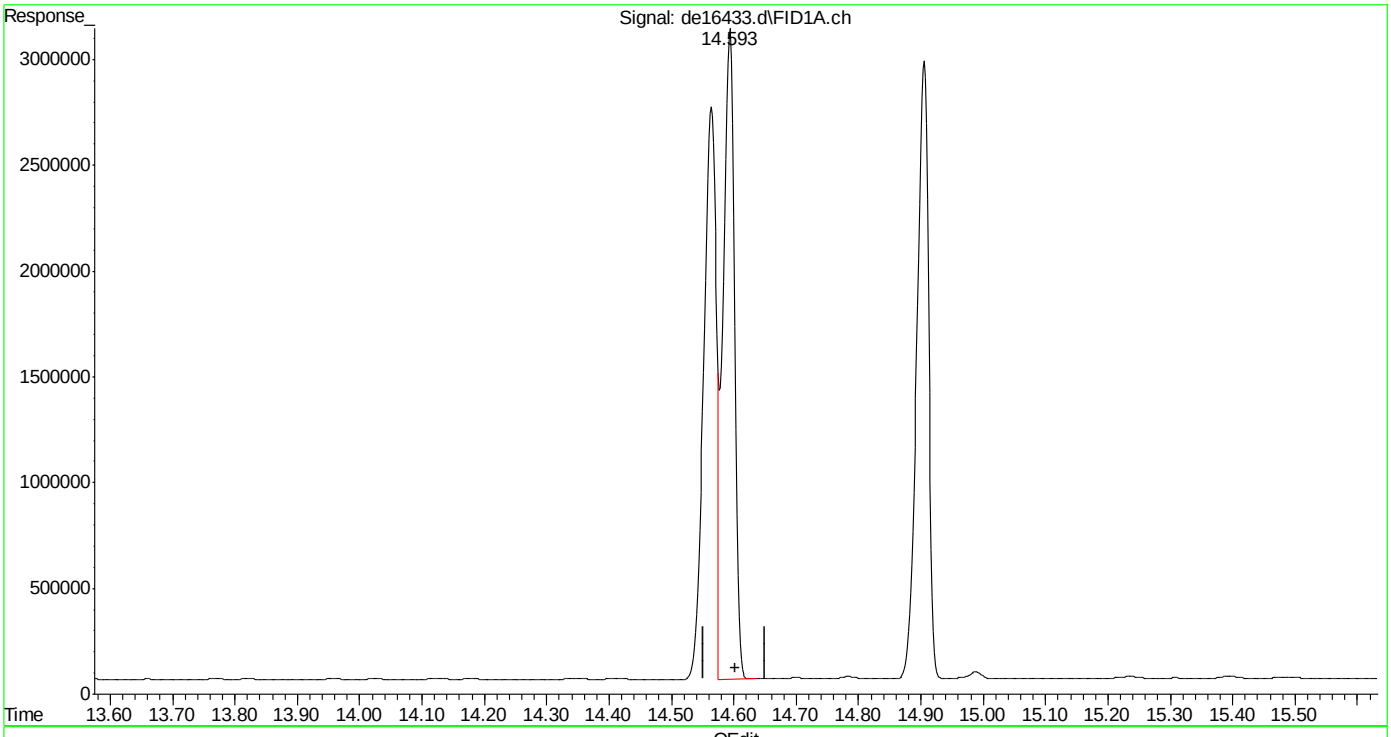
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16433.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 5:13 am
Operator : thomasa
Sample : ecc908-50,gde916
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 144 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 07:27:53 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(17) benzo(k)fluoranthene
14.593min 45.899 µg/ml
response 3963229

(+) = Expected Retention Time
EPH161219W.M Tue Dec 20 07:28:47 2016

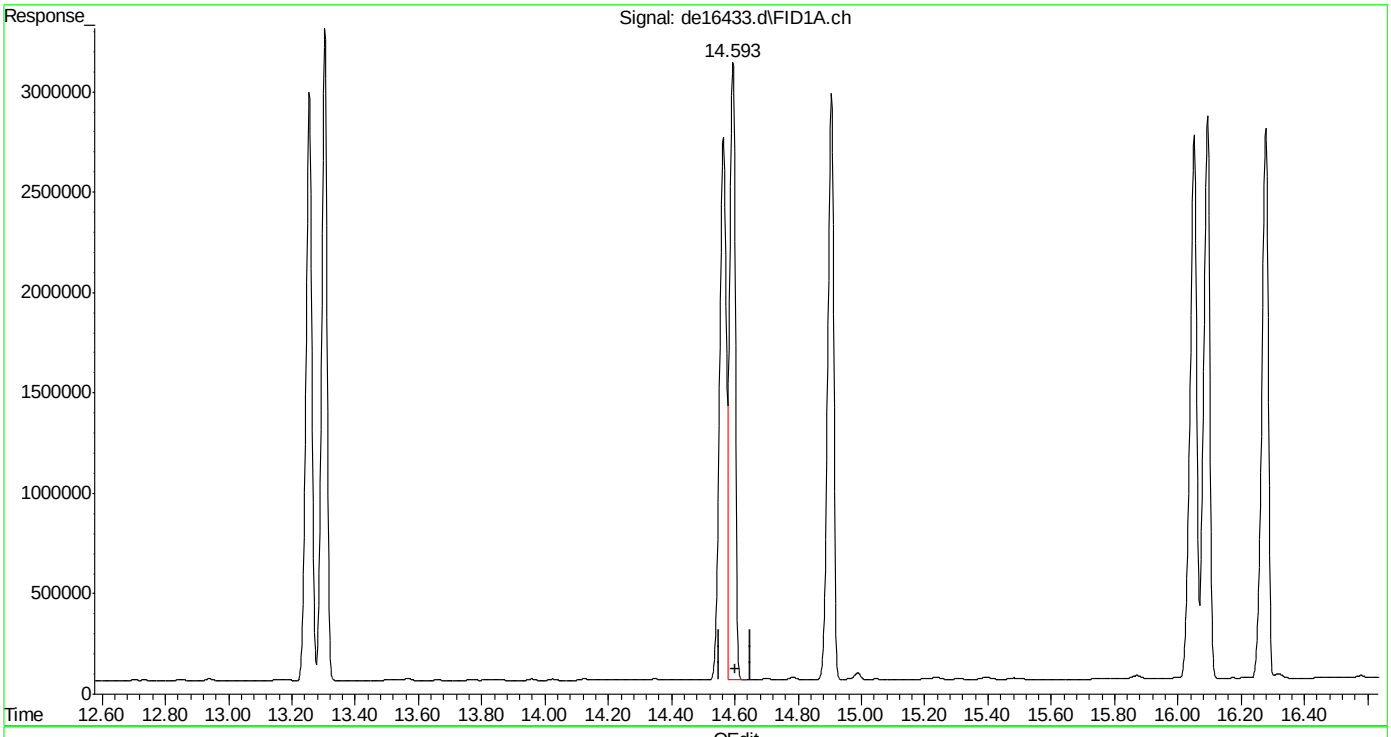
SGS ACCUTEST MC48999

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16433.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 5:13 am
Operator : thomasa
Sample : ecc908-50,gde916
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 144 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 07:27:53 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



(17) benzo(k)fluoranthene
14.593min 44.352 µg/ml m
response 3829670

(+) = Expected Retention Time
EPH161219W.M Tue Dec 20 07:28:54 2016

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16436.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 9:33 am
Operator : thomasa
Sample : ecc908-50,gde916
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 144 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 09:57:22 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) s	2-fluorobiphenyl	7.225	3738115	42.754 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 213.77%#
6) s	2-bromonaphthalene	7.975	2598059	43.601 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 218.01%#
11) s	o-terphenyl	10.530	4266985	44.963 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 224.82%#
35) s	1-chlorooctadecane	11.063	3392575	59.633 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 298.17%#
	Target Compounds			
2)	naphthalene	5.783	4030316	41.192 µg/ml
3)	2-methylnaphthalene	6.680	4014402	42.178 µg/ml
5)	acenaphthylene	7.808	4140193	43.295 µg/ml
7)	acenaphthene	8.053	4192951	43.706 µg/ml
8)	fluorene	8.700	4158019	44.351 µg/ml
9)	phenanthrene	9.897	4195731	44.952 µg/ml
10)	anthracene	9.955	4134765	44.978 µg/ml
12)	fluoranthene	11.418	4092903	45.118 µg/ml
13)	pyrene	11.683	4128819	45.176 µg/ml
14)	benzo(a)anthracene	13.253	3949155	45.098 µg/ml
15)	chrysene	13.303	3999535	45.097 µg/ml
16)	benzo(B)fluoranthene	14.562	3907193	43.692 µg/ml
17)	benzo(k)fluoranthene	14.593	4057191	46.987 µg/ml
18)	benzo(a)pyrene	14.903	3886269	44.209 µg/ml
19)	indeno(1,2,3-cd)pyrene	16.050	4082424	47.081 µg/ml
20)	dibenzo(ah)anthracene	16.092	3812497	45.541 µg/ml
21)	benzo(ghi)perylene	16.277	3940732	45.730 µg/ml
25) h	c-9	2.495	4337442	56.375 µg/mlm
26) h	c-10	3.675	4366666	56.755 µg/ml
27)	naphthalene #2	5.345	4658189	60.122 µg/ml
28)	c-12	5.530	4476536	58.183 µg/ml
29)	2-methylnaphthalene #2	6.237	4598236	60.222 µg/ml
30)	c-14	7.042	4413361	57.362 µg/ml
31)	c-16	8.363	4444150	57.762 µg/ml
32)	c-18	9.552	4312115	56.046 µg/ml
33)	c-19	10.105	4442734	65.528 µg/ml
34)	c-20	10.633	4328614	63.845 µg/ml
36)	c-22	11.623	4257320	62.794 µg/ml
37)	c-24	12.540	4127422	60.878 µg/ml
38)	c-26	13.388	4008875	59.129 µg/ml

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16436.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 9:33 am
Operator : thomasa
Sample : ecc908-50,gde916
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 144 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 09:57:22 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
39)	c-28	14.178	3907511	57.634 µg/ml
40) h	c-30	14.927	3787810	55.868 µg/ml
41) h	c-36	16.838	2650641	39.096 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.12

9

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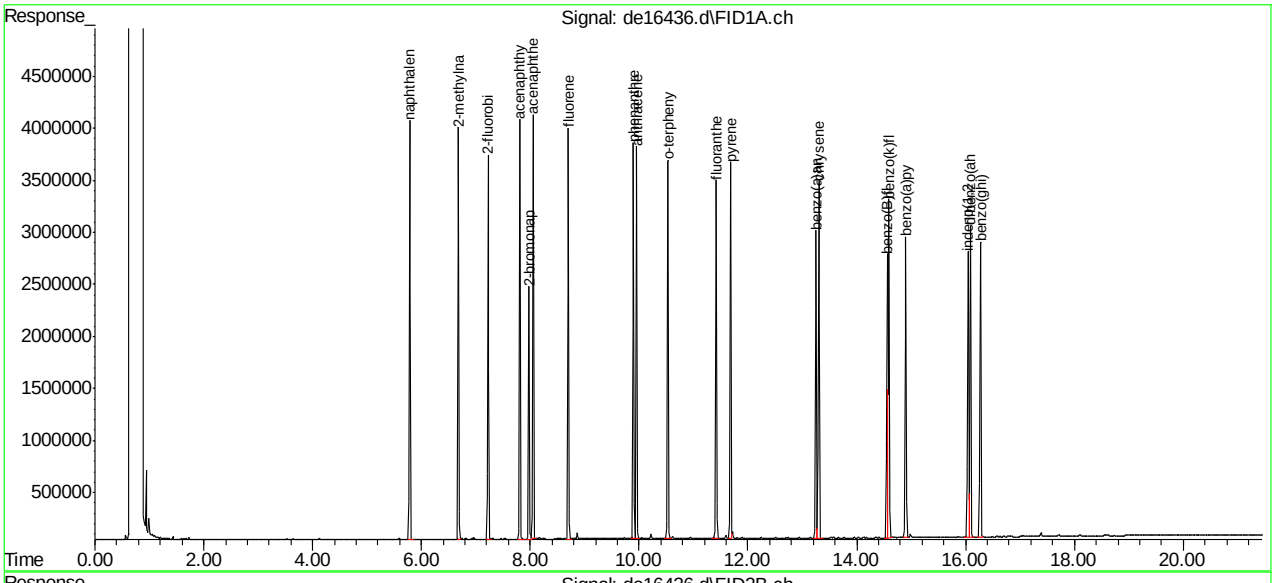
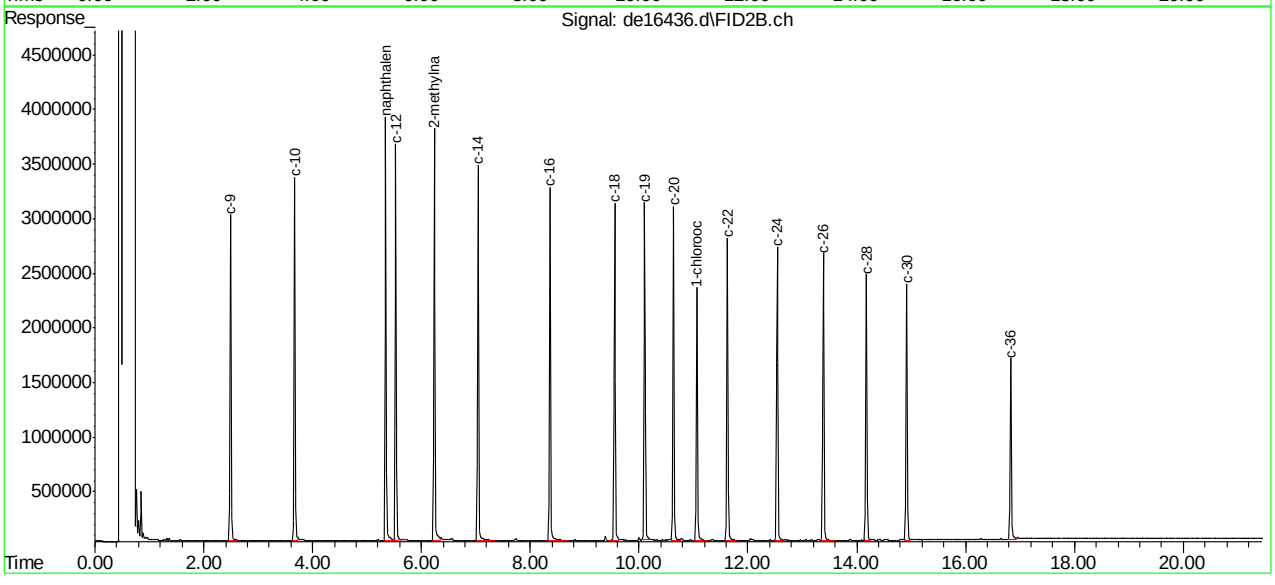
Quantitation Report (QT Reviewed)

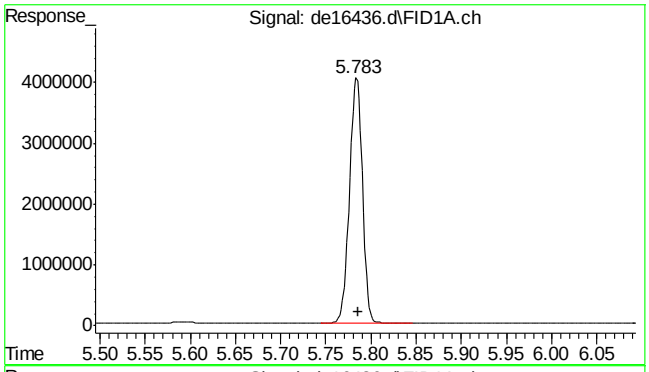
Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16436.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 9:33 am
Operator : thomasa
Sample : ecc908-50,gde916
Misc : op49287,gde916,1000,,,2,,w
ALS Vial : 144 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 09:57:22 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

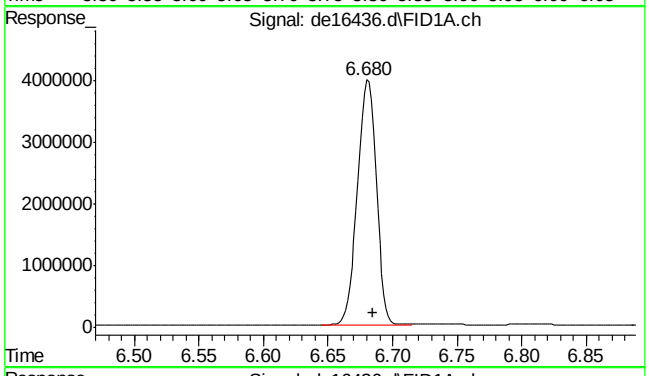






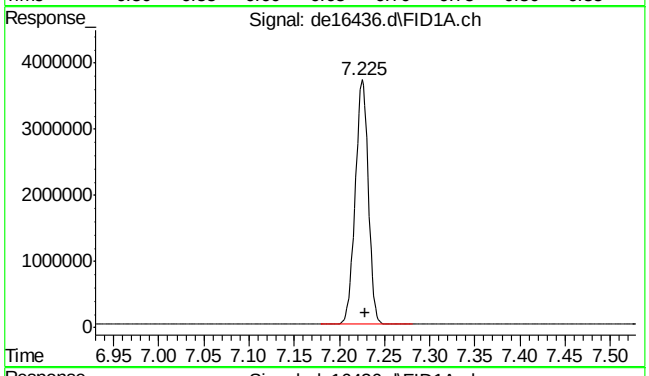
#2 naphthalene

R.T.: 5.783 min
Delta R.T.: -0.003 min
Response: 4030316
Conc: 41.19 µg/ml



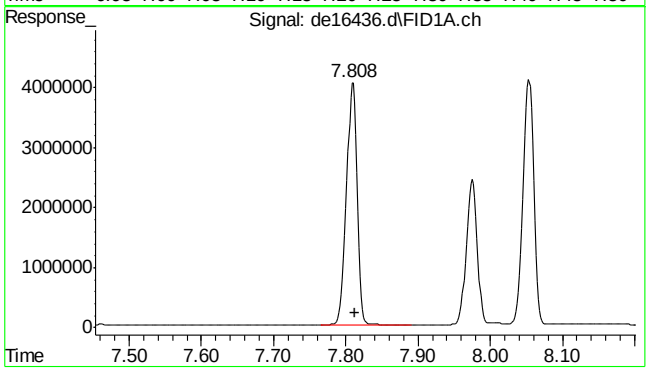
#3 2-methylnaphthalene

R.T.: 6.680 min
Delta R.T.: -0.005 min
Response: 4014402
Conc: 42.18 µg/ml



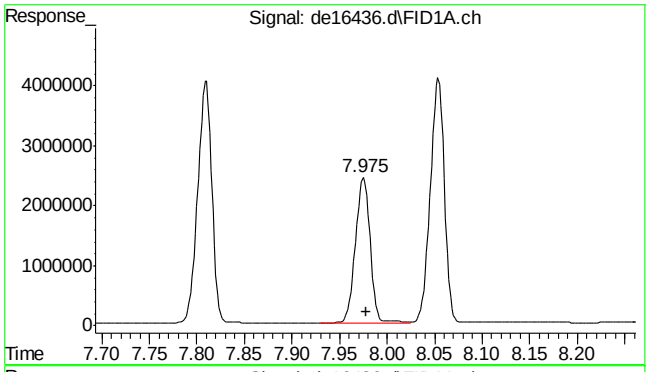
#4 2-fluorobiphenyl

R.T.: 7.225 min
Delta R.T.: -0.003 min
Response: 3738115
Conc: 42.75 µg/ml



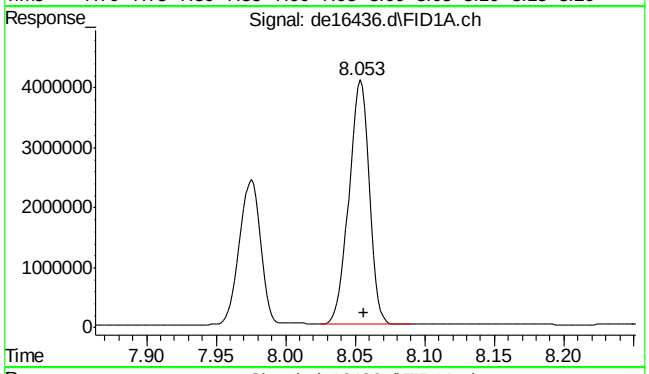
#5 acenaphthylene

R.T.: 7.808 min
Delta R.T.: -0.005 min
Response: 4140193
Conc: 43.29 µg/ml



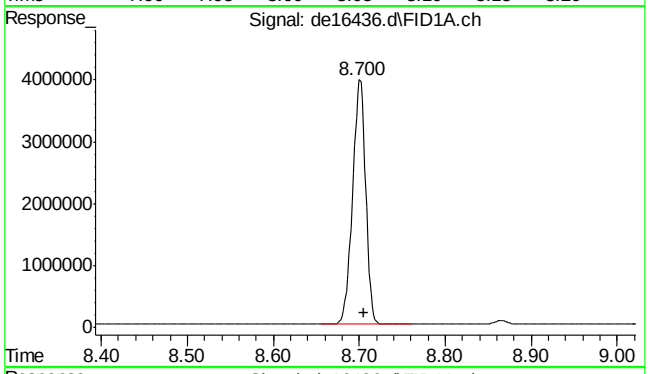
#6 2-bromonaphthalene

R.T.: 7.975 min
Delta R.T.: -0.003 min
Response: 2598059
Conc: 43.60 µg/ml



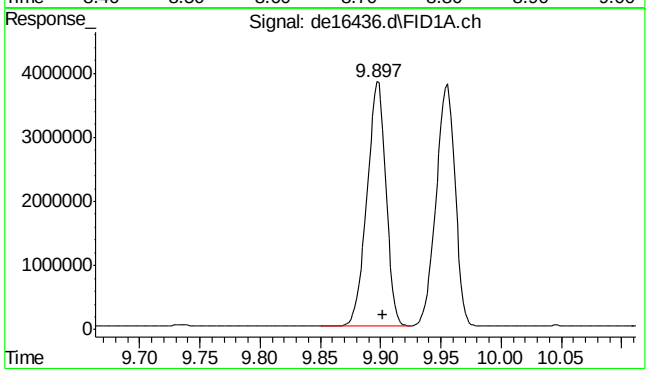
#7 acenaphthene

R.T.: 8.053 min
Delta R.T.: -0.003 min
Response: 4192951
Conc: 43.71 µg/ml



#8 fluorene

R.T.: 8.700 min
Delta R.T.: -0.005 min
Response: 4158019
Conc: 44.35 µg/ml



#9 phenanthrene

R.T.: 9.897 min
Delta R.T.: -0.005 min
Response: 4195731
Conc: 44.95 µg/ml

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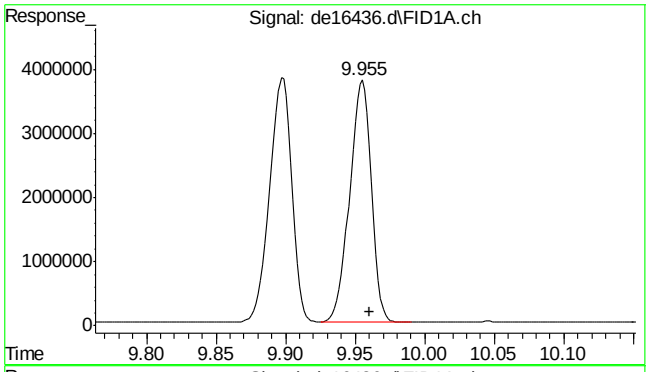
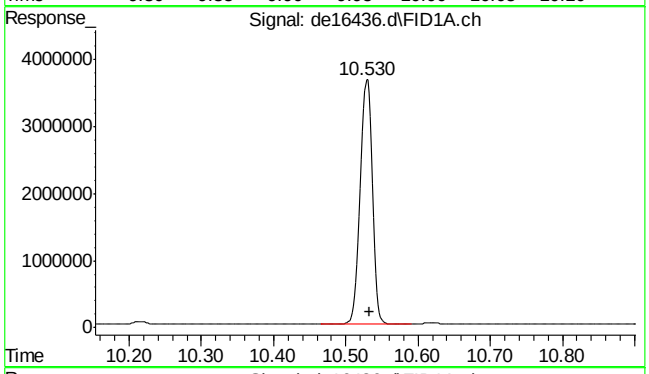


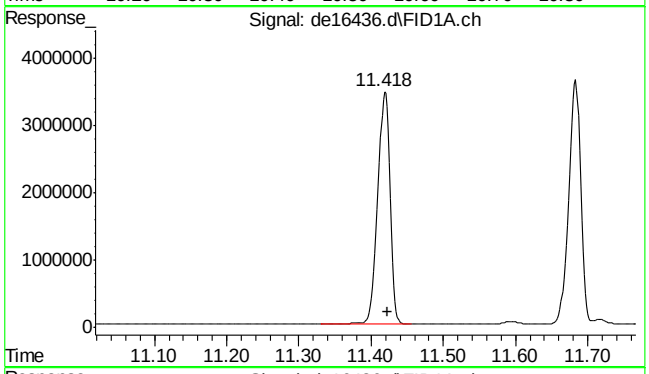
#10 anthracene

R.T.: 9.955 min
Delta R.T.: -0.005 min
Response: 4134765
Conc: 44.98 µg/ml



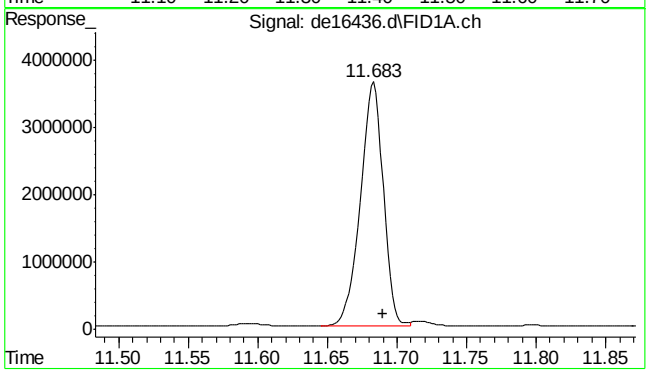
#11 o-terphenyl

R.T.: 10.530 min
Delta R.T.: -0.003 min
Response: 4266985
Conc: 44.96 µg/ml



#12 fluoranthene

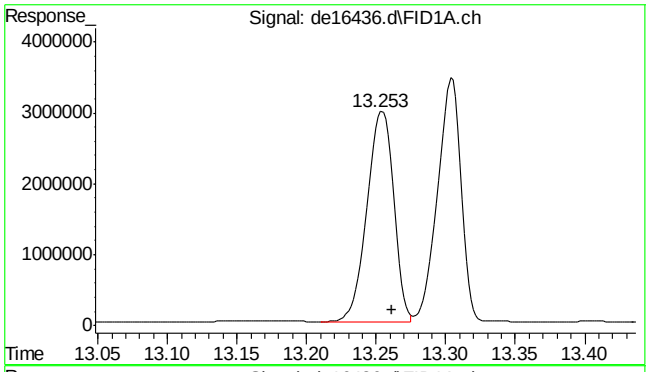
R.T.: 11.418 min
Delta R.T.: -0.005 min
Response: 4092903
Conc: 45.12 µg/ml



#13 pyrene

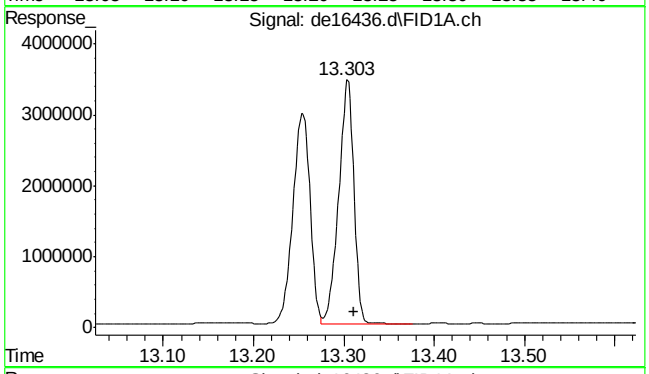
R.T.: 11.683 min
Delta R.T.: -0.007 min
Response: 4128819
Conc: 45.18 µg/ml

SGS ACCUTEST MC48999



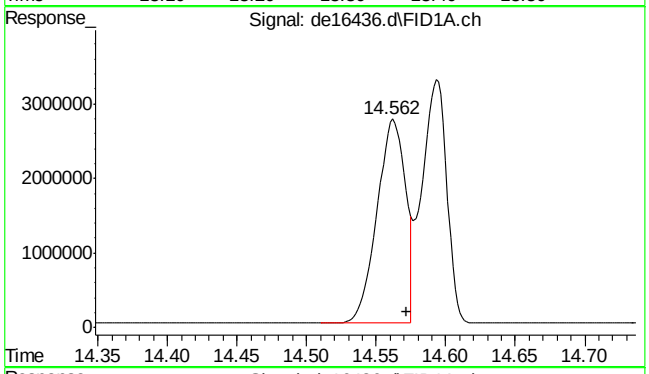
#14 benzo(a)anthracene

R.T.: 13.253 min
Delta R.T.: -0.008 min
Response: 3949155
Conc: 45.10 µg/ml



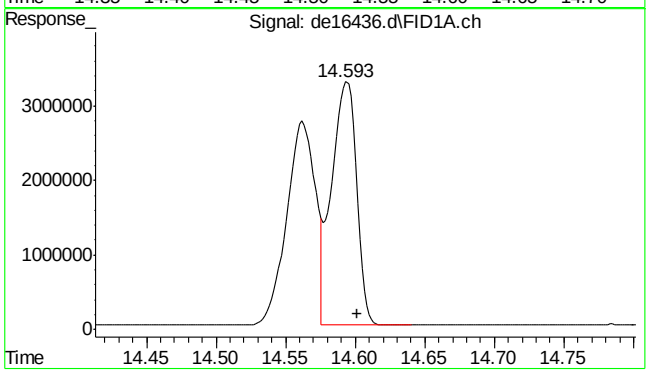
#15 chrysene

R.T.: 13.303 min
Delta R.T.: -0.008 min
Response: 3999535
Conc: 45.10 µg/ml



#16 benzo(B)fluoranthene

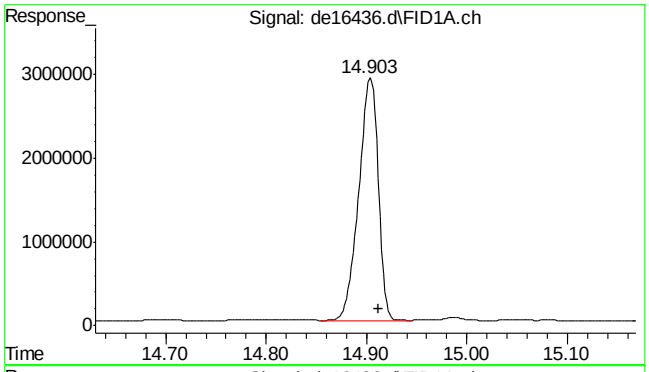
R.T.: 14.562 min
Delta R.T.: -0.010 min
Response: 3907193
Conc: 43.69 µg/ml



#17 benzo(k)fluoranthene

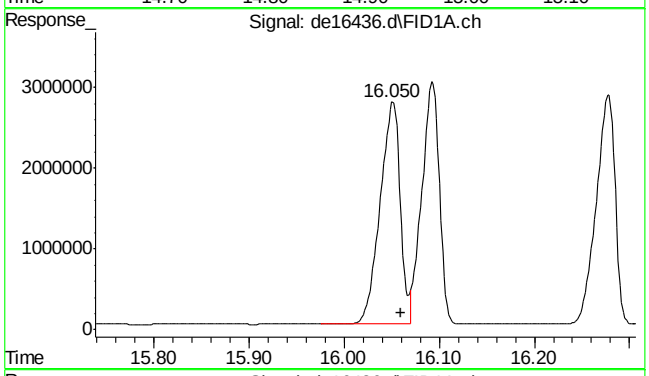
R.T.: 14.593 min
Delta R.T.: -0.008 min
Response: 4057191
Conc: 46.99 µg/ml

SGS ACCUTEST MC48999



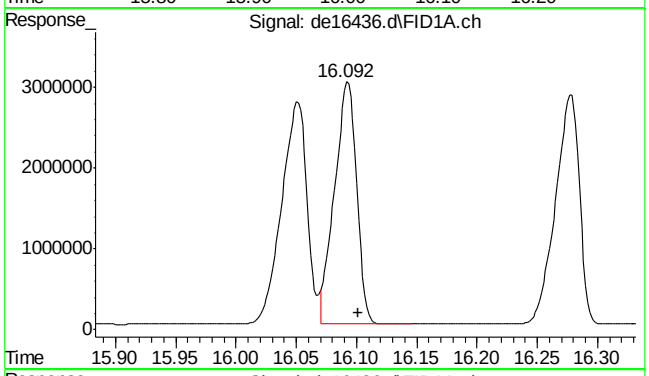
#18 benzo(a)pyrene

R.T.: 14.903 min
Delta R.T.: -0.008 min
Response: 3886269
Conc: 44.21 µg/ml



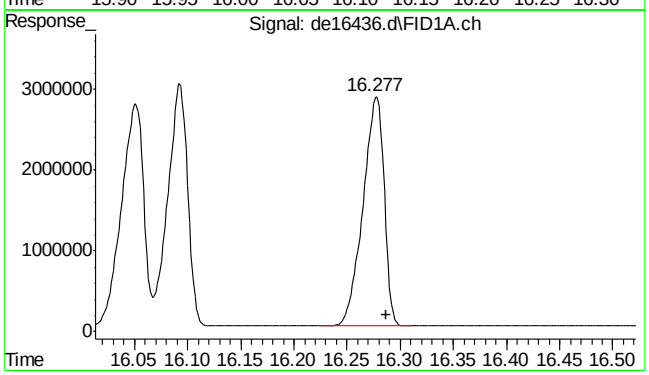
#19 indeno(1,2,3-cd)pyrene

R.T.: 16.050 min
Delta R.T.: -0.010 min
Response: 4082424
Conc: 47.08 µg/ml



#20 dibenzo(ah)anthracene

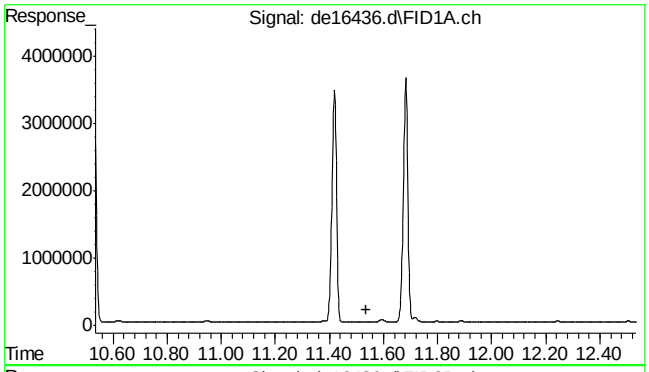
R.T.: 16.092 min
Delta R.T.: -0.010 min
Response: 3812497
Conc: 45.54 µg/ml



#21 benzo(ghi)perylene

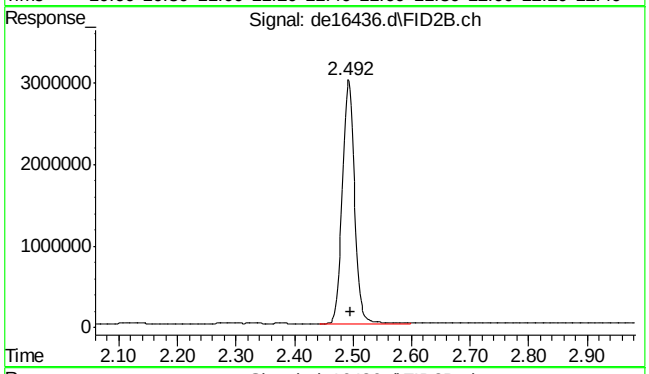
R.T.: 16.277 min
Delta R.T.: -0.010 min
Response: 3940732
Conc: 45.73 µg/ml

SGS ACCUTEST MC48999



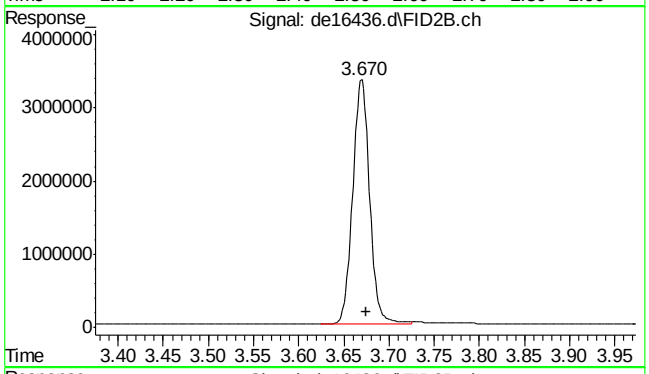
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



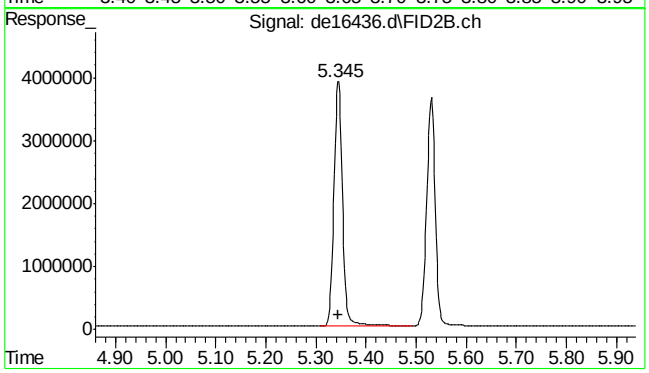
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 4337442
Conc: 56.38 µg/ml m



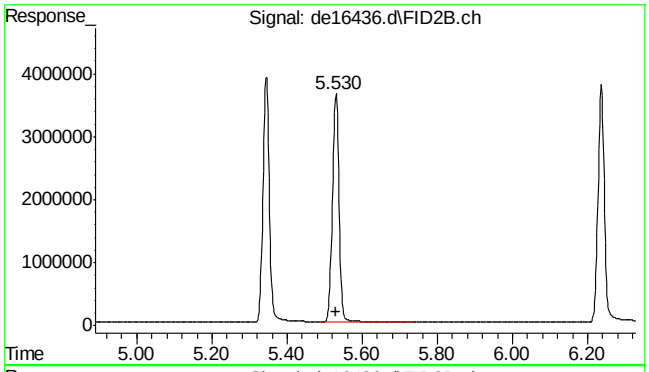
#26 c-10

R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 4366666
Conc: 56.76 µg/ml



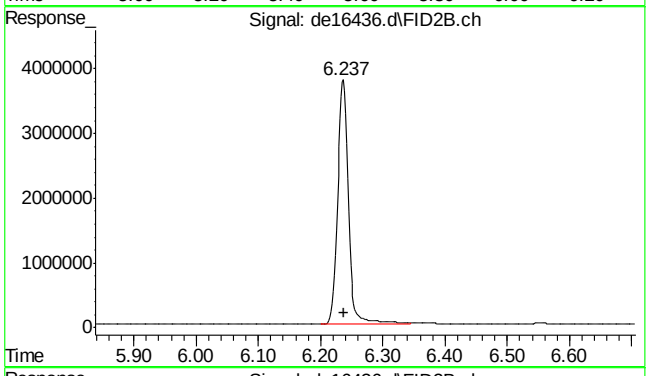
#27 naphthalene #2

R.T.: 5.345 min
Delta R.T.: 0.000 min
Response: 4658189
Conc: 60.12 µg/ml



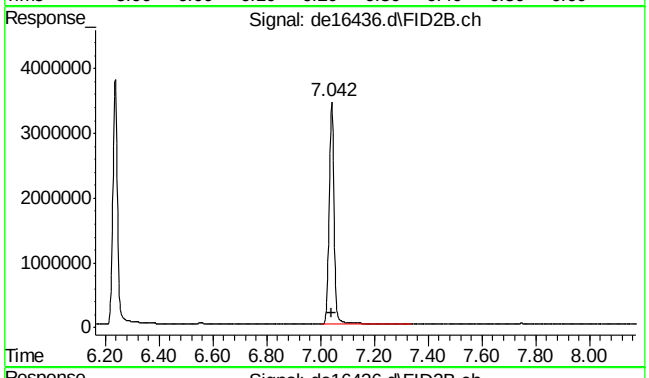
#28 c-12

R.T.: 5.530 min
Delta R.T.: 0.000 min
Response: 4476536
Conc: 58.18 µg/ml



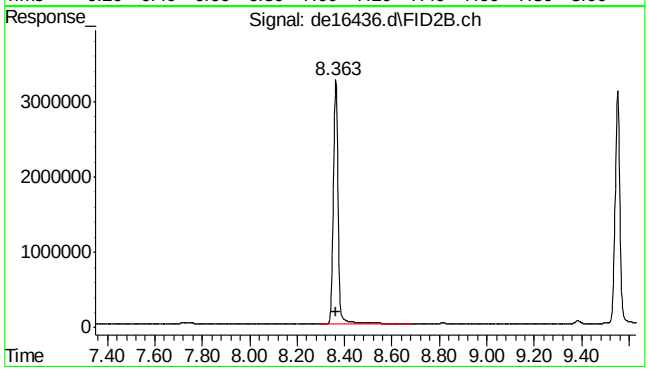
#29 2-methylnaphthalene #2

R.T.: 6.237 min
Delta R.T.: 0.000 min
Response: 4598236
Conc: 60.22 µg/ml



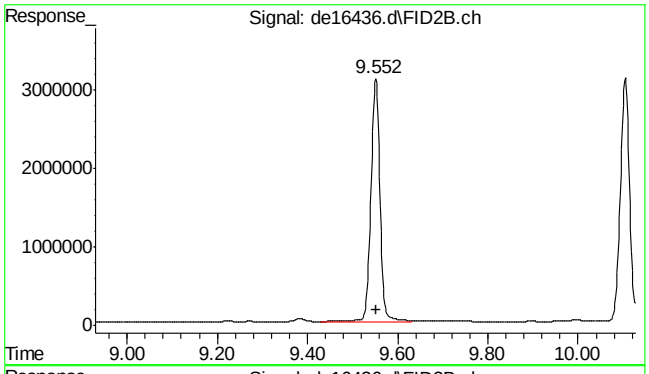
#30 c-14

R.T.: 7.042 min
Delta R.T.: 0.000 min
Response: 4413361
Conc: 57.36 µg/ml



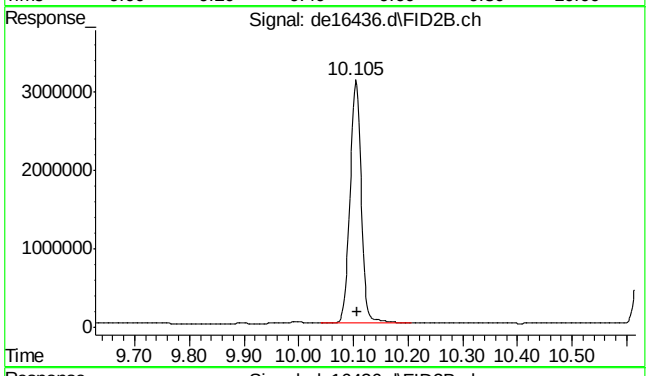
#31 c-16

R.T.: 8.363 min
Delta R.T.: -0.002 min
Response: 4444150
Conc: 57.76 µg/ml



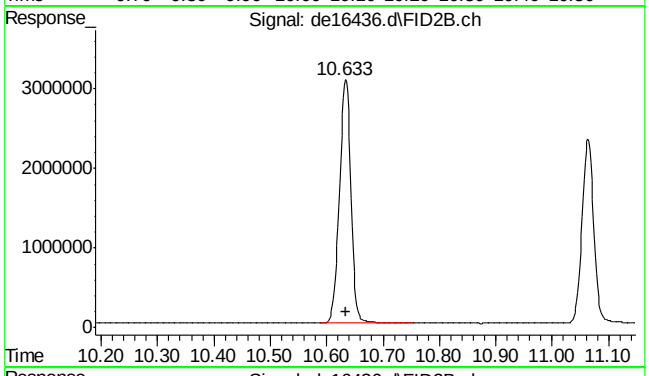
#32 c-18

R.T.: 9.552 min
Delta R.T.: -0.002 min
Response: 4312115
Conc: 56.05 µg/ml



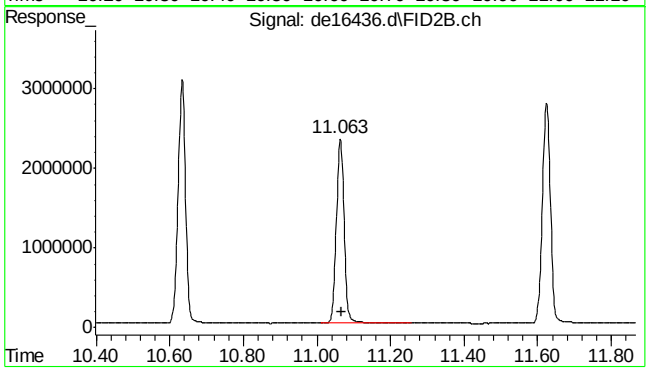
#33 c-19

R.T.: 10.105 min
Delta R.T.: -0.002 min
Response: 4442734
Conc: 65.53 µg/ml



#34 c-20

R.T.: 10.633 min
Delta R.T.: -0.002 min
Response: 4328614
Conc: 63.85 µg/ml



#35 1-chlorooctadecane

R.T.: 11.063 min
Delta R.T.: -0.003 min
Response: 3392575
Conc: 59.63 µg/ml

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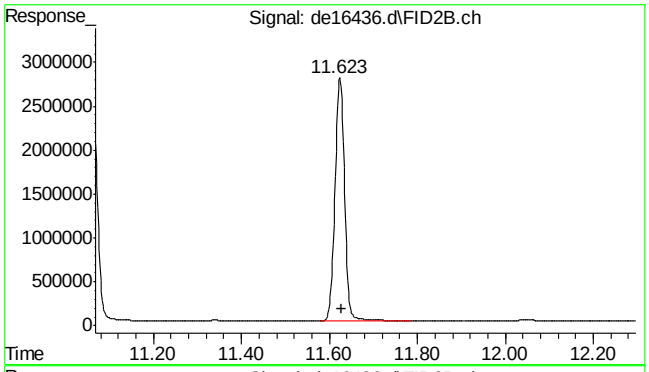
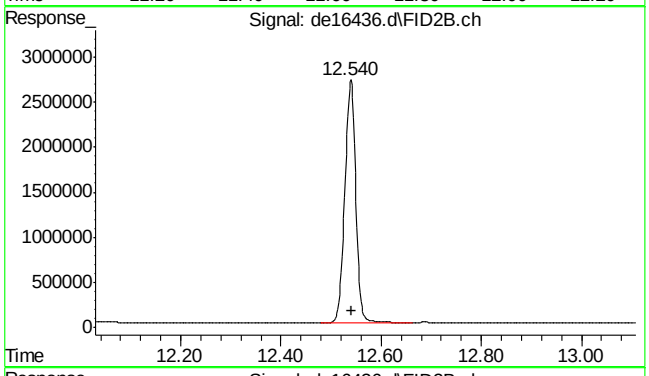


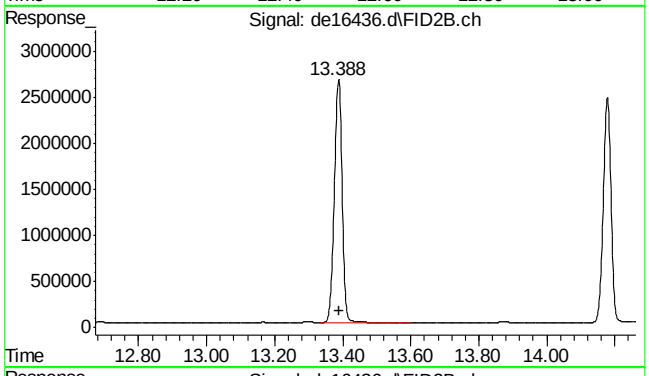
#36 c-22

R.T.: 11.623 min
Delta R.T.: -0.005 min
Response: 4257320
Conc: 62.79 µg/ml



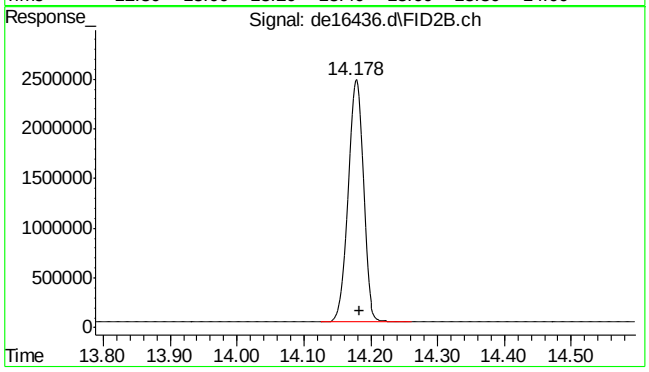
#37 c-24

R.T.: 12.540 min
Delta R.T.: -0.002 min
Response: 4127422
Conc: 60.88 µg/ml



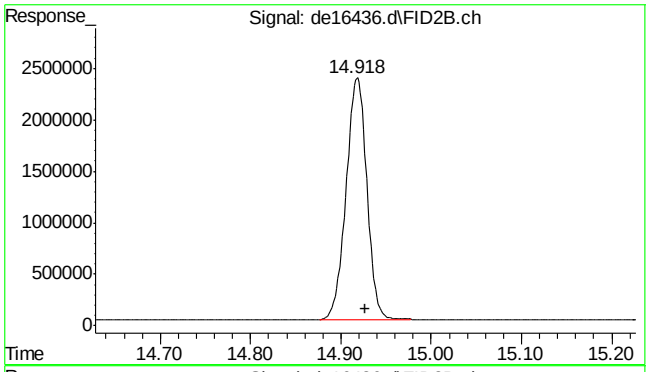
#38 c-26

R.T.: 13.388 min
Delta R.T.: -0.003 min
Response: 4008875
Conc: 59.13 µg/ml



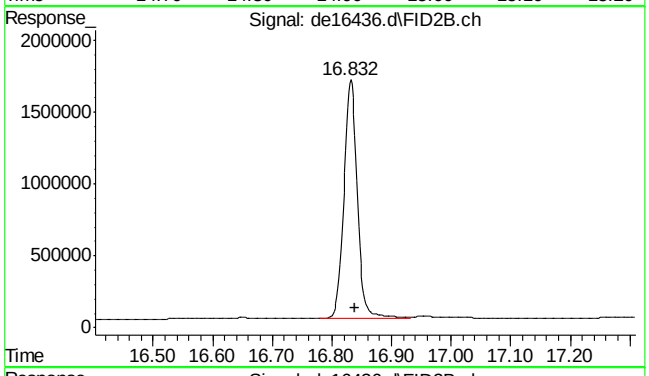
#39 c-28

R.T.: 14.178 min
Delta R.T.: -0.005 min
Response: 3907511
Conc: 57.63 µg/ml



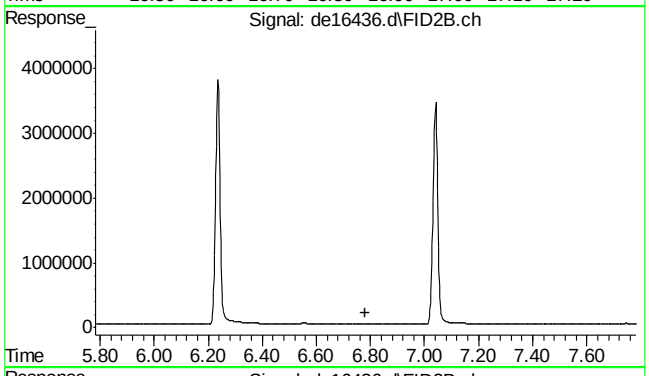
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 3787810
Conc: 55.87 µg/ml



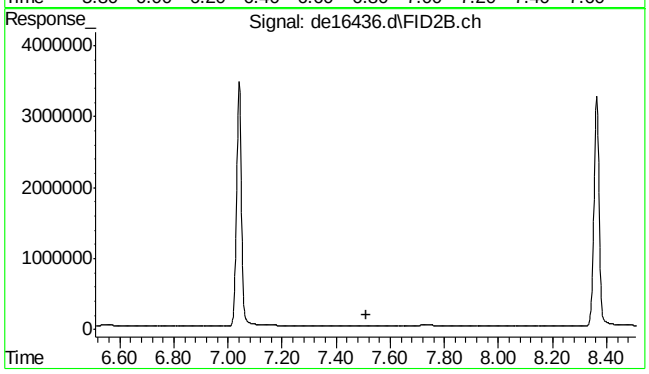
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 2650641
Conc: 39.10 µg/ml m



#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.

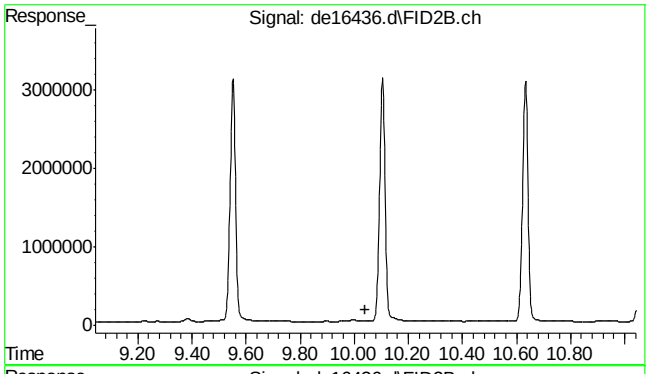


#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.

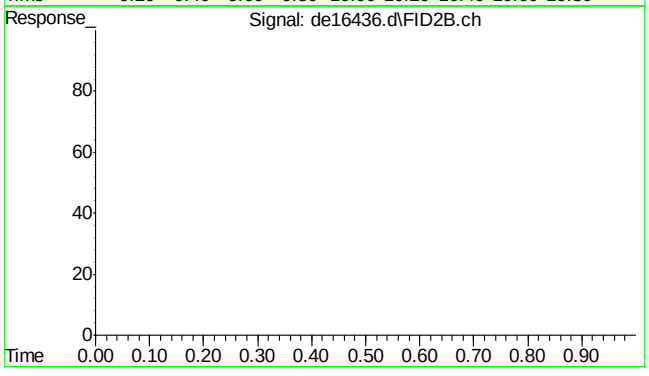
9.5.12

9



#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

9.5.12

9

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220EPH\
Data File : de16437.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 11:09 am
Operator : thomasa
Sample : cc908-50,gde917
Misc : op49287,gde917,1000,,,2,,w
ALS Vial : 142 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:23:02 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.225	3463121	39.609 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 198.05%#	
6) s 2-bromonaphthalene	7.973	2402772	40.324 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 201.62%#	
11) s o-terphenyl	10.528	3951737	41.641 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 208.20%#	
35) s 1-chlorooctadecane	11.063	3060824	53.801 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 269.01%#	
Target Compounds			
2) naphthalene	5.783	3765669	38.487 µg/ml
3) 2-methylnaphthalene	6.680	3728393	39.173 µg/ml
5) acenaphthylene	7.808	3833311	40.086 µg/ml
7) acenaphthene	8.053	3887432	40.521 µg/ml
8) fluorene	8.698	3847397	41.037 µg/ml
9) phenanthrene	9.895	3889591	41.672 µg/ml
10) anthracene	9.953	3829301	41.655 µg/ml
12) fluoranthene	11.417	3808086	41.978 µg/ml
13) pyrene	11.682	3896032	42.629 µg/ml
14) benzo(a)anthracene	13.253	3683082	42.060 µg/ml
15) chrysene	13.300	3712903	41.865 µg/ml
16) benzo(B)fluoranthene	14.560	3876493	43.349 µg/ml
17) benzo(k)fluoranthene	14.590	3533949	40.927 µg/ml
18) benzo(a)pyrene	14.902	3612361	41.093 µg/ml
19) indeno(1,2,3-cd)pyrene	16.045	3771696	43.497 µg/ml
20) dibenzo(ah)anthracene	16.088	3563227	42.563 µg/ml
21) benzo(ghi)perylene	16.273	3668428	42.570 µg/ml
25) h c-9	2.495	4161588	54.090 µg/mlm
26) h c-10	3.675	4127679	53.649 µg/ml
27) naphthalene #2	5.345	4378255	56.509 µg/ml
28) c-12	5.532	4228004	54.953 µg/ml
29) 2-methylnaphthalene #2	6.238	4295154	56.253 µg/ml
30) c-14	7.042	4088887	53.145 µg/ml
31) c-16	8.363	4081254	53.046 µg/ml
32) c-18	9.552	3940655	51.218 µg/ml
33) c-19	10.105	4039659	59.583 µg/ml
34) c-20	10.633	3941935	58.142 µg/ml
36) c-22	11.623	3871731	57.106 µg/ml
37) c-24	12.538	3760558	55.467 µg/ml
38) c-26	13.387	3652181	53.868 µg/ml

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220EPH\
Data File : de16437.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 11:09 am
Operator : thomasa
Sample : cc908-50,gde917
Misc : op49287,gde917,1000,,,2,,w
ALS Vial : 142 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:23:02 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
39)	c-28	14.177	3566009	52.597	µg/ml
40) h	c-30	14.927	3446292	50.831	µg/ml
41) h	c-36	16.838	2196793	32.402	µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.13

9

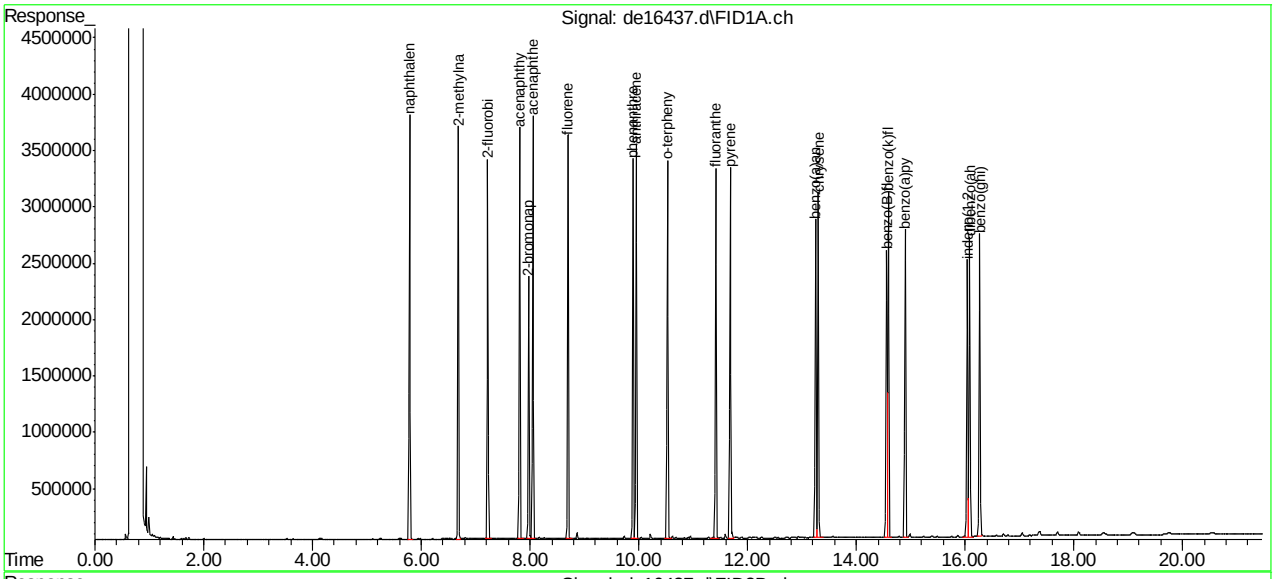
SGS ACCUTEST MC48999

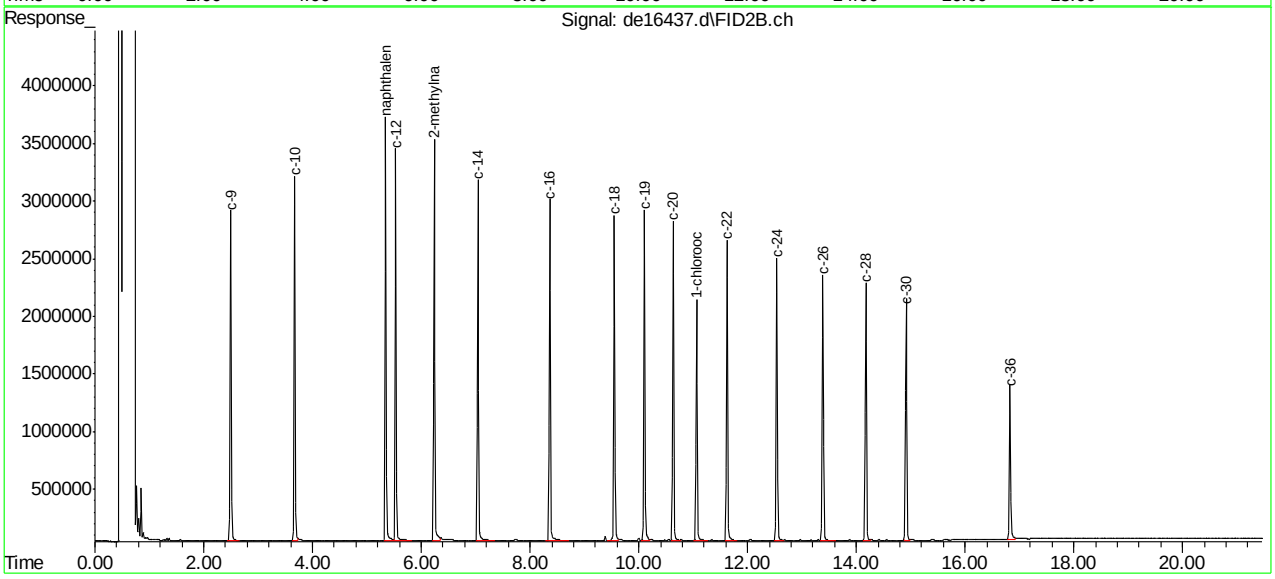
Quantitation Report (QT Reviewed)

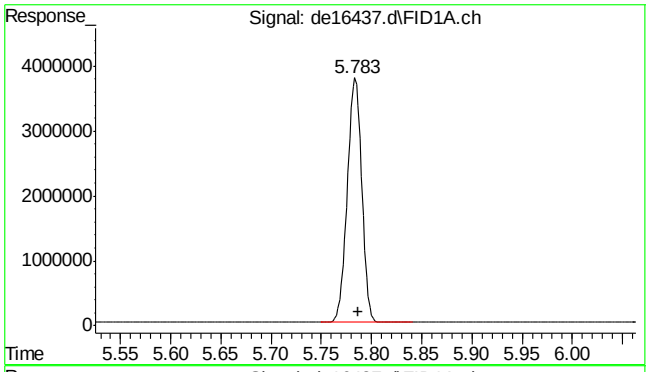
Data Path : C:\msdchem\1\DATA\DE161220EPH\
Data File : de16437.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 11:09 am
Operator : thomasa
Sample : cc908-50,gde917
Misc : op49287,gde917,1000,,,2,,w
ALS Vial : 142 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 12:23:02 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

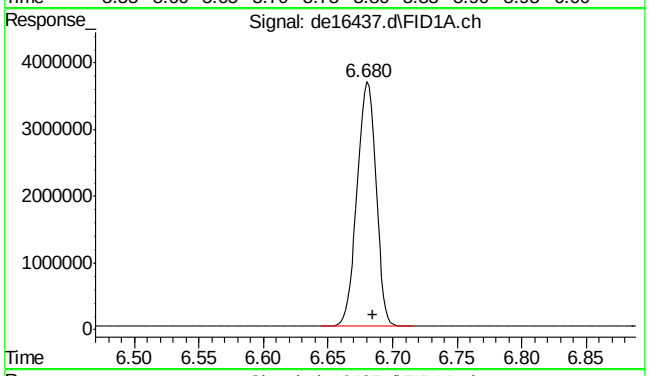






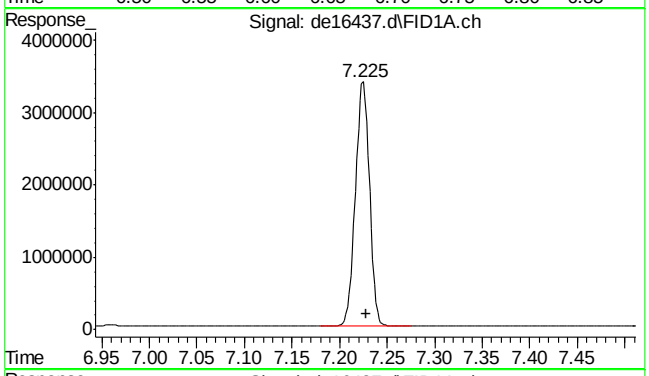
#2 naphthalene

R.T.: 5.783 min
Delta R.T.: -0.003 min
Response: 3765669
Conc: 38.49 µg/ml



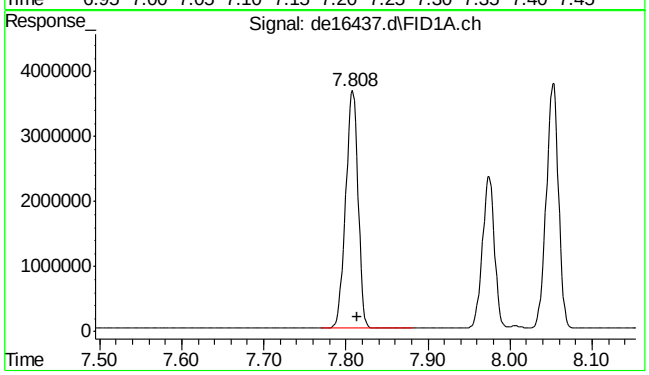
#3 2-methylnaphthalene

R.T.: 6.680 min
Delta R.T.: -0.005 min
Response: 3728393
Conc: 39.17 µg/ml



#4 2-fluorobiphenyl

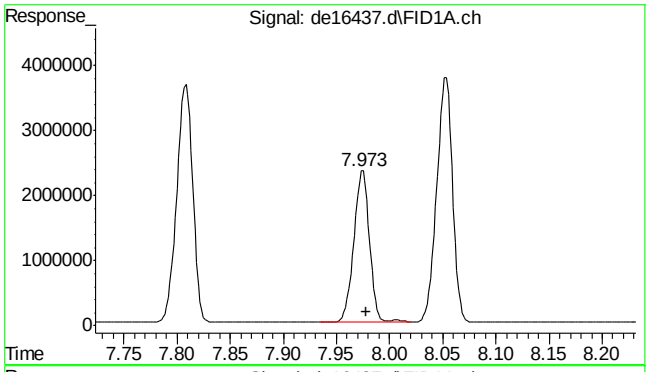
R.T.: 7.225 min
Delta R.T.: -0.003 min
Response: 3463121
Conc: 39.61 µg/ml



#5 acenaphthylene

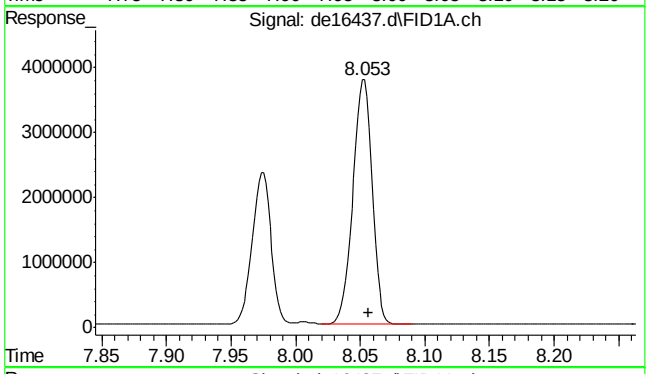
R.T.: 7.808 min
Delta R.T.: -0.005 min
Response: 3833311
Conc: 40.09 µg/ml

SGS ACCUTEST MC48999



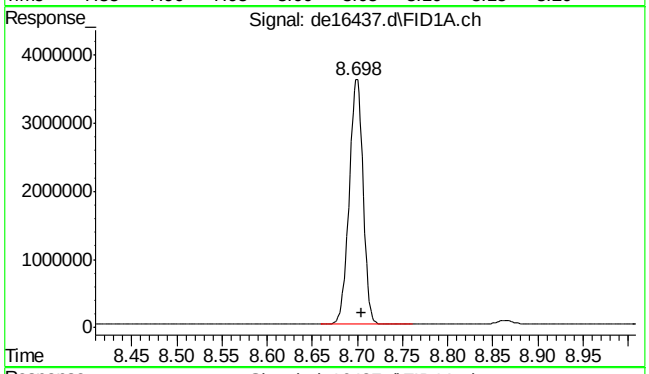
#6 2-bromonaphthalene

R.T.: 7.973 min
Delta R.T.: -0.005 min
Response: 2402772
Conc: 40.32 µg/ml



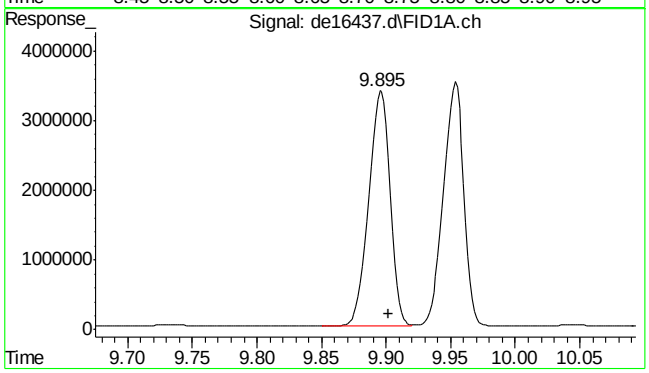
#7 acenaphthene

R.T.: 8.053 min
Delta R.T.: -0.003 min
Response: 3887432
Conc: 40.52 µg/ml



#8 fluorene

R.T.: 8.698 min
Delta R.T.: -0.007 min
Response: 3847397
Conc: 41.04 µg/ml



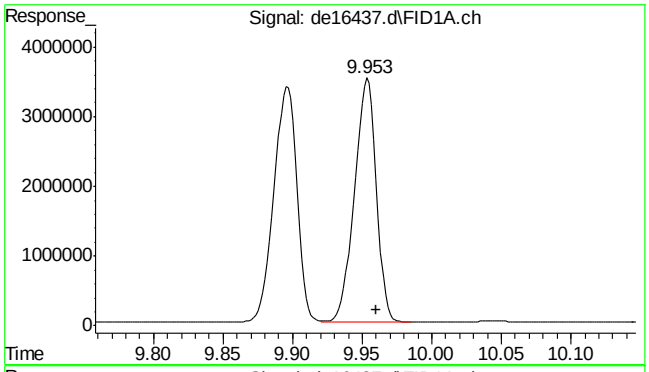
#9 phenanthrene

R.T.: 9.895 min
Delta R.T.: -0.007 min
Response: 3889591
Conc: 41.67 µg/ml

9.5.13

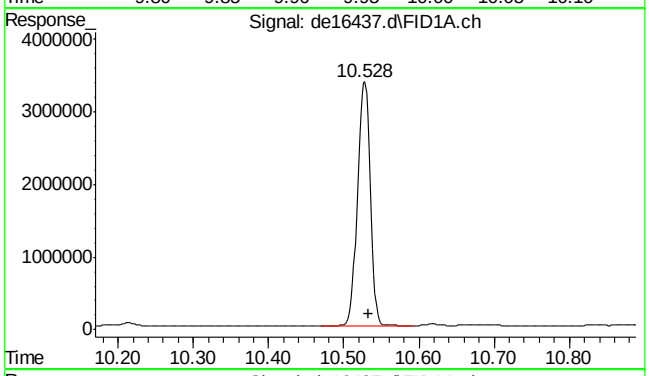
9

SGS ACCUTEST MC48999



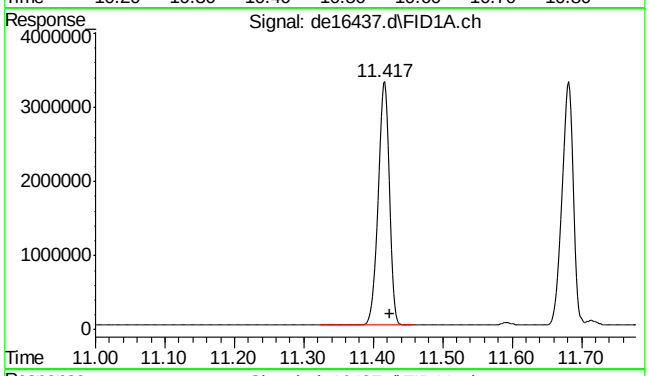
#10 anthracene

R.T.: 9.953 min
Delta R.T.: -0.007 min
Response: 3829301
Conc: 41.65 µg/ml



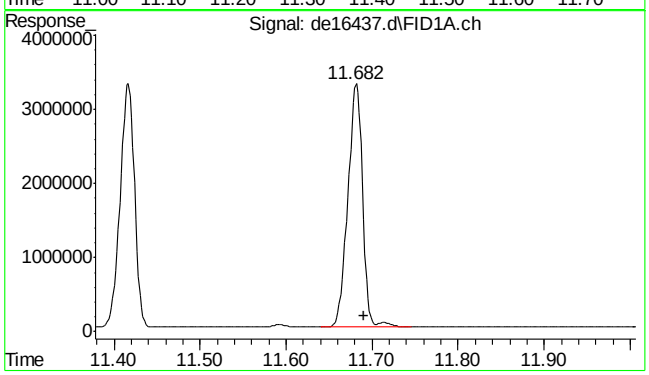
#11 o-terphenyl

R.T.: 10.528 min
Delta R.T.: -0.005 min
Response: 3951737
Conc: 41.64 µg/ml



#12 fluoranthene

R.T.: 11.417 min
Delta R.T.: -0.007 min
Response: 3808086
Conc: 41.98 µg/ml



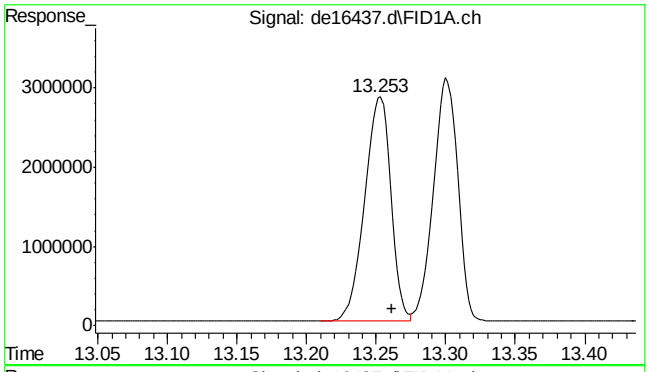
#13 pyrene

R.T.: 11.682 min
Delta R.T.: -0.008 min
Response: 3896032
Conc: 42.63 µg/ml

9.5.13

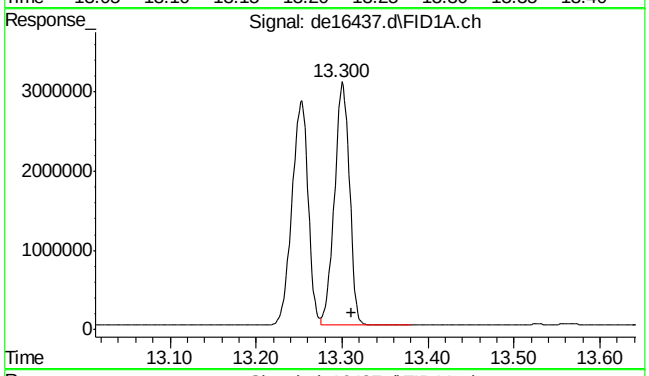
9

SGS ACCUTEST MC48999



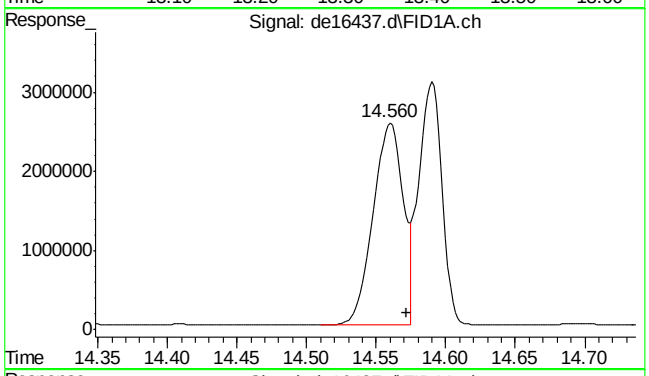
#14 benzo(a)anthracene

R.T.: 13.253 min
Delta R.T.: -0.008 min
Response: 3683082
Conc: 42.06 µg/ml



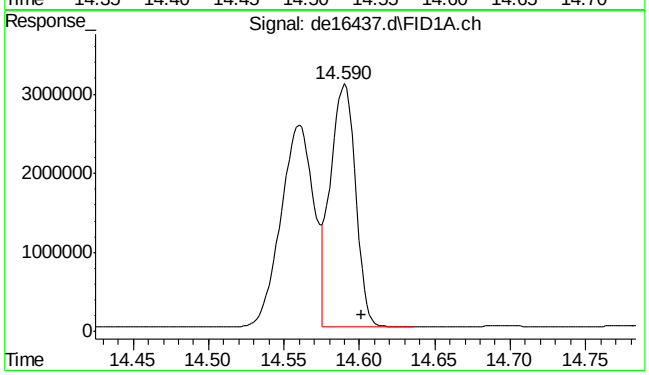
#15 chrysene

R.T.: 13.300 min
Delta R.T.: -0.012 min
Response: 3712903
Conc: 41.86 µg/ml



#16 benzo(B)fluoranthene

R.T.: 14.560 min
Delta R.T.: -0.012 min
Response: 3876493
Conc: 43.35 µg/ml



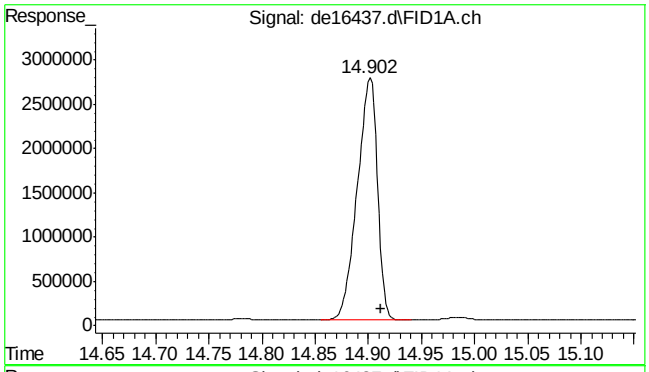
#17 benzo(k)fluoranthene

R.T.: 14.590 min
Delta R.T.: -0.012 min
Response: 3533949
Conc: 40.93 µg/ml

9.5.13

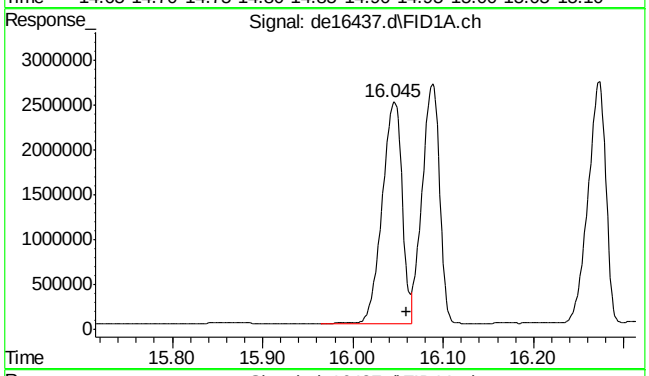
9

SGS ACCUTEST MC48999



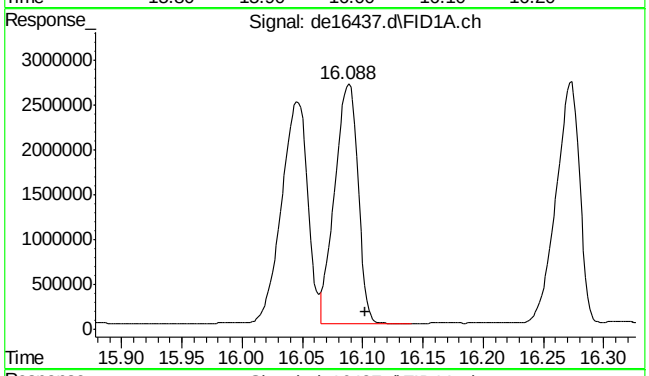
#18 benzo(a)pyrene

R.T.: 14.902 min
Delta R.T.: -0.010 min
Response: 3612361
Conc: 41.09 µg/ml



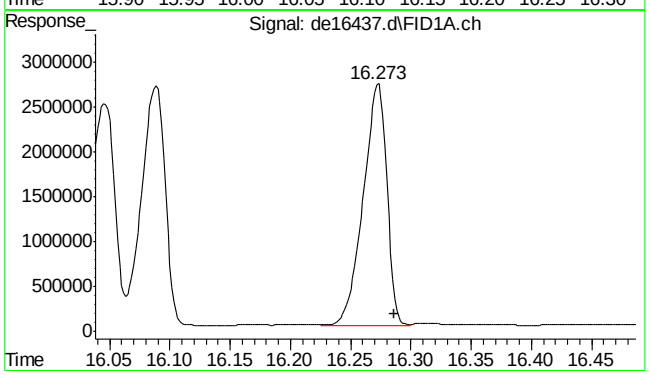
#19 indeno(1,2,3-cd)pyrene

R.T.: 16.045 min
Delta R.T.: -0.015 min
Response: 3771696
Conc: 43.50 µg/ml



#20 dibenzo(ah)anthracene

R.T.: 16.088 min
Delta R.T.: -0.013 min
Response: 3563227
Conc: 42.56 µg/ml



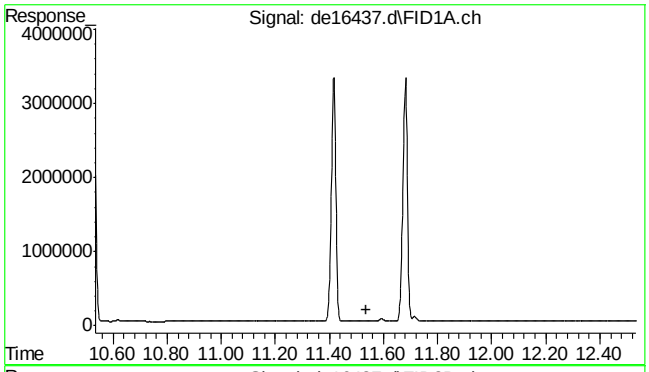
#21 benzo(ghi)perylene

R.T.: 16.273 min
Delta R.T.: -0.013 min
Response: 3668428
Conc: 42.57 µg/ml

9.5.13

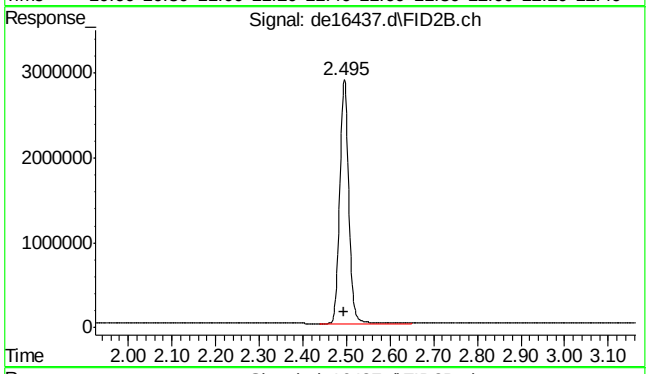
9

SGS ACCUTEST MC48999



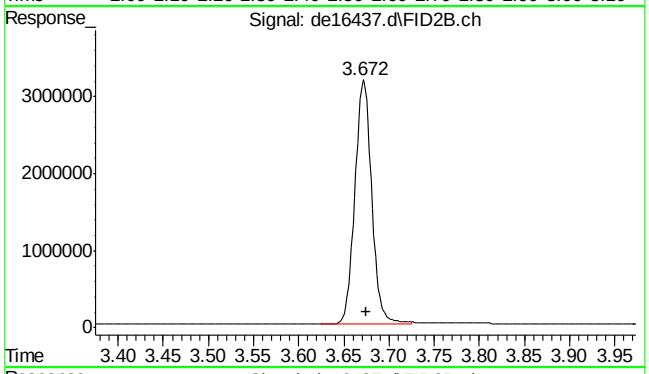
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



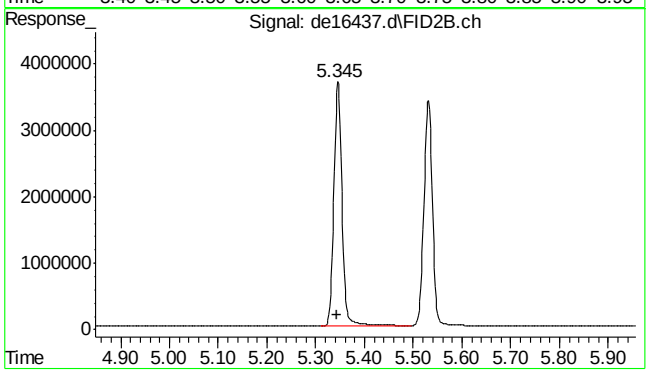
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 4161588
Conc: 54.09 µg/ml m



#26 c-10

R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 4127679
Conc: 53.65 µg/ml



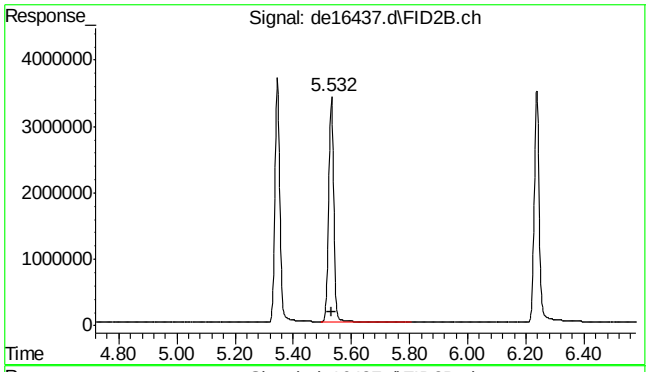
#27 naphthalene #2

R.T.: 5.345 min
Delta R.T.: 0.000 min
Response: 4378255
Conc: 56.51 µg/ml

9.5.13

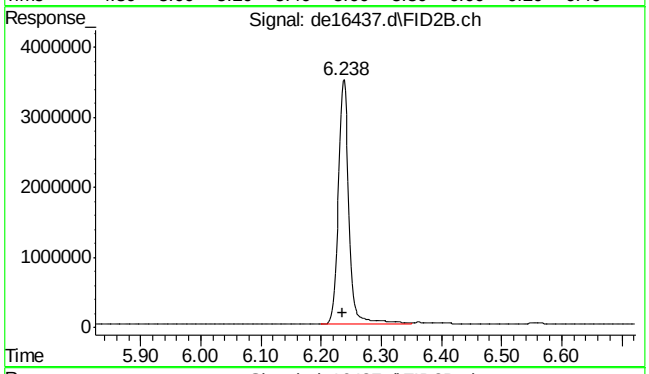
9

SGS ACCUTEST MC48999



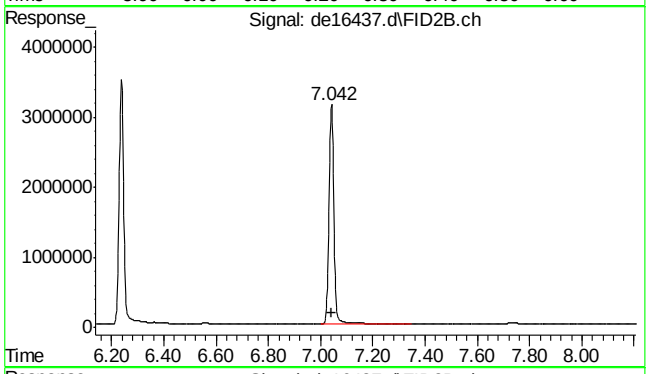
#28 c-12

R.T.: 5.532 min
Delta R.T.: 0.002 min
Response: 4228004
Conc: 54.95 µg/ml



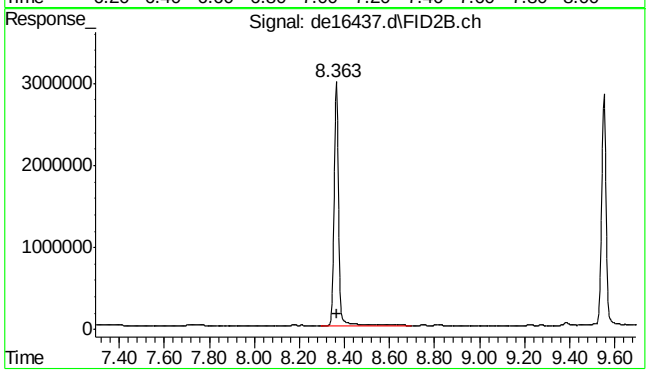
#29 2-methylnaphthalene #2

R.T.: 6.238 min
Delta R.T.: 0.002 min
Response: 4295154
Conc: 56.25 µg/ml



#30 c-14

R.T.: 7.042 min
Delta R.T.: 0.000 min
Response: 4088887
Conc: 53.14 µg/ml



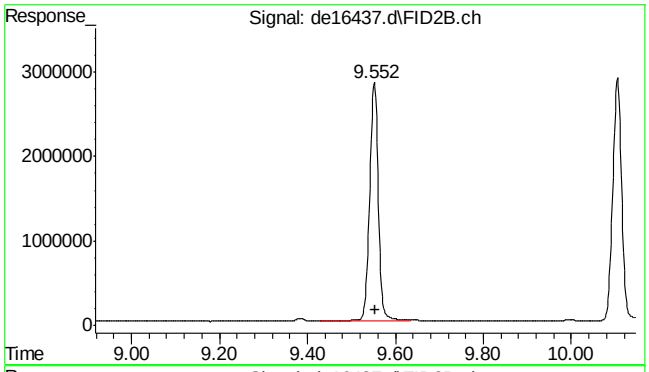
#31 c-16

R.T.: 8.363 min
Delta R.T.: -0.002 min
Response: 4081254
Conc: 53.05 µg/ml

9.5.13

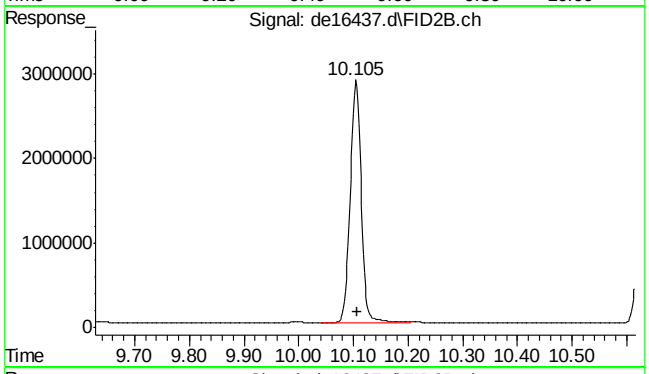
9

SGS ACCUTEST MC48999



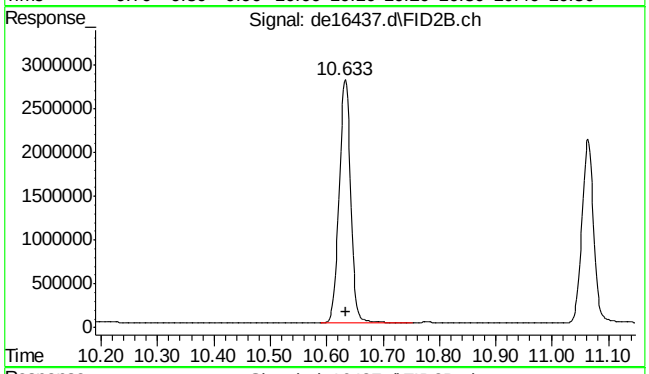
#32 c-18

R.T.: 9.552 min
Delta R.T.: -0.002 min
Response: 3940655
Conc: 51.22 µg/ml



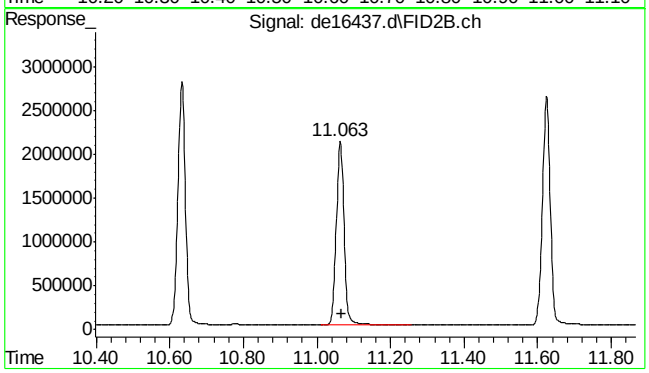
#33 c-19

R.T.: 10.105 min
Delta R.T.: -0.002 min
Response: 4039659
Conc: 59.58 µg/ml



#34 c-20

R.T.: 10.633 min
Delta R.T.: -0.002 min
Response: 3941935
Conc: 58.14 µg/ml



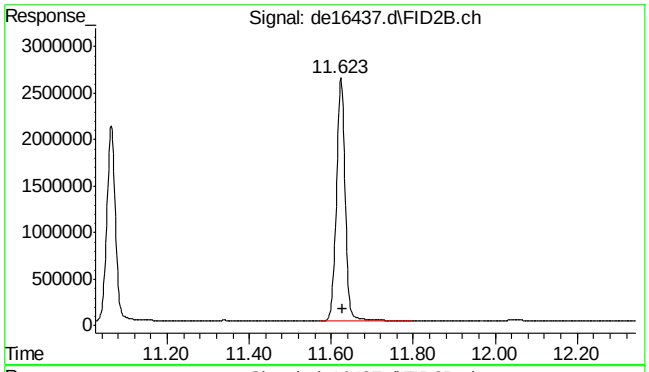
#35 1-chlorooctadecane

R.T.: 11.063 min
Delta R.T.: -0.003 min
Response: 3060824
Conc: 53.80 µg/ml

9.5.13

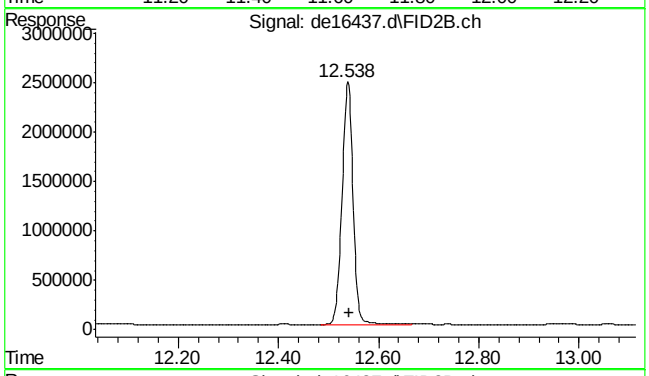
9

SGS ACCUTEST MC48999



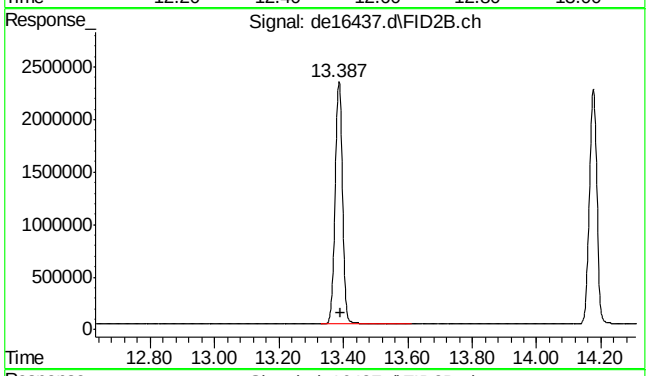
#36 c-22

R.T.: 11.623 min
Delta R.T.: -0.005 min
Response: 3871731
Conc: 57.11 µg/ml



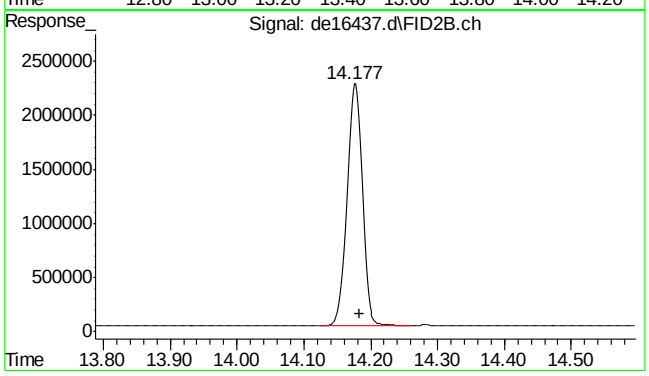
#37 c-24

R.T.: 12.538 min
Delta R.T.: -0.003 min
Response: 3760558
Conc: 55.47 µg/ml



#38 c-26

R.T.: 13.387 min
Delta R.T.: -0.005 min
Response: 3652181
Conc: 53.87 µg/ml



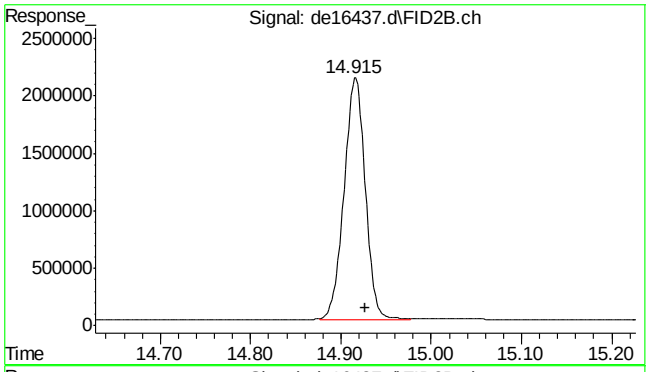
#39 c-28

R.T.: 14.177 min
Delta R.T.: -0.007 min
Response: 3566009
Conc: 52.60 µg/ml

9.5.13

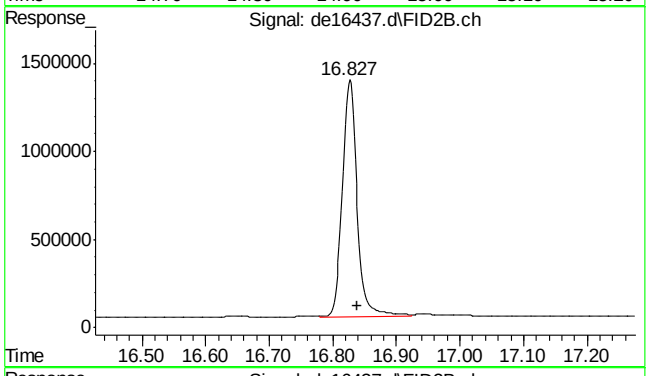
9

SGS ACCUTEST MC48999



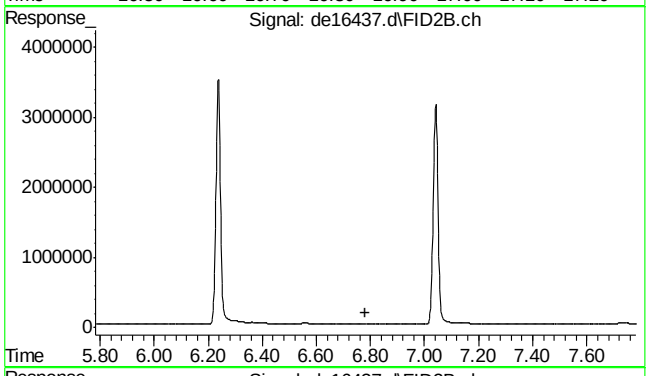
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 3446292
Conc: 50.83 µg/ml



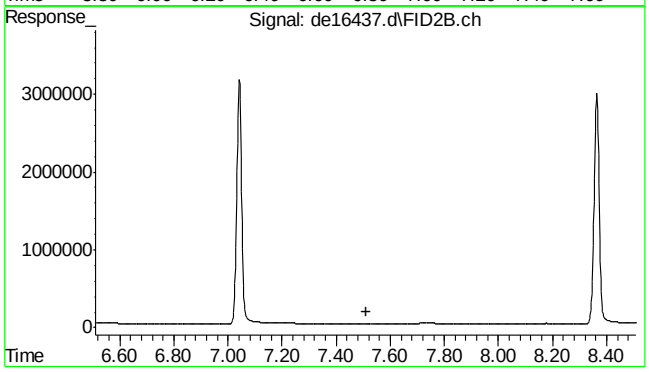
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 2196793
Conc: 32.40 µg/ml m



#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



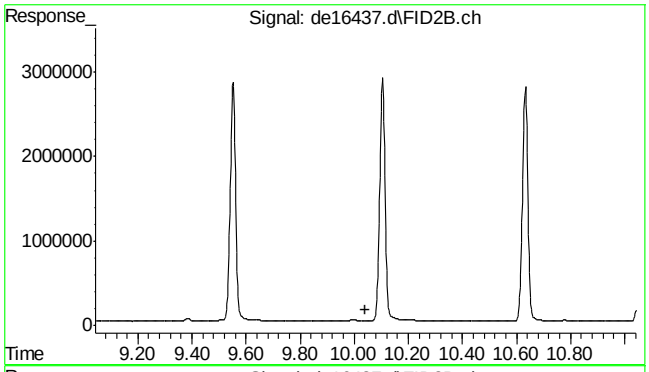
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.

9.5.13

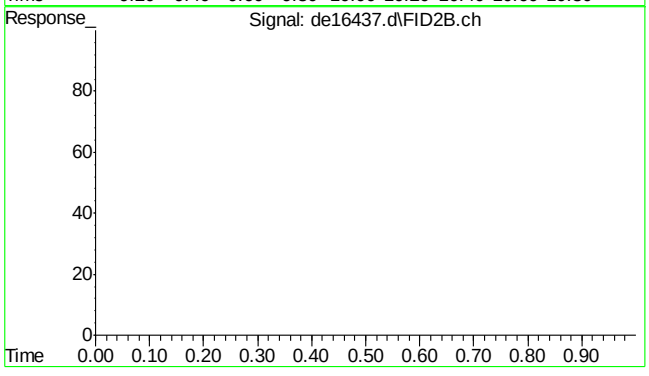
9

SGS ACCUTEST MC48999



#44 bht

```
      R.T.:    0.000 min
Exp R.T.  :   10.042 min
  Response:         0
      Conc:   N.D.
```



#45 bht

```
      R.T.:    0.000 min
Exp R.T.  :   23.000 min
  Response:         0
      Conc:   N.D.
```

9.5.13

9

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\DE161220EPH\
Data File : de16444.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 2:48 pm
Operator : thomasa
Sample : cc908-50,gde917 (Sig #1); ecc908-50,gde917 (Sig #2)
Misc : op49287,gde917,1000,,,2,,w
ALS Vial : 142 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 15:11:00 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) s	2-fluorobiphenyl	7.225	3446224	39.415 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 197.07%#
6) s	2-bromonaphthalene	7.975	2397081	40.228 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 201.14%#
11) s	o-terphenyl	10.528	3970548	41.840 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 209.20%#
35) s	1-chlorooctadecane	11.063	3213334	56.482 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 282.41%#
	Target Compounds			
2)	naphthalene	5.783	3730256	38.125 µg/ml
3)	2-methylnaphthalene	6.682	3704998	38.927 µg/ml
5)	acenaphthylene	7.810	3819917	39.946 µg/ml
7)	acenaphthene	8.053	3869427	40.334 µg/ml
8)	fluorene	8.700	3845182	41.014 µg/ml
9)	phenanthrene	9.897	3902185	41.807 µg/ml
10)	anthracene	9.955	3842210	41.795 µg/ml
12)	fluoranthene	11.418	3842023	42.352 µg/ml
13)	pyrene	11.683	3887403	42.534 µg/ml
14)	benzo(a)anthracene	13.255	3759689	42.935 µg/ml
15)	chrysene	13.303	3794544	42.785 µg/ml
16)	benzo(B)fluoranthene	14.562	3884718	43.441 µg/ml
17)	benzo(k)fluoranthene	14.593	3763141	43.581 µg/ml
18)	benzo(a)pyrene	14.905	3733990	42.477 µg/ml
19)	indeno(1,2,3-cd)pyrene	16.048	3880922	44.757 µg/ml
20)	dibenzo(ah)anthracene	16.090	3744077	44.723 µg/ml
21)	benzo(ghi)perylene	16.277	3805931	44.166 µg/ml
25) h	c-9	2.495	4281528	55.649 µg/mlm
26) h	c-10	3.675	4260304	55.373 µg/ml
27)	naphthalene #2	5.343	4527300	58.433 µg/ml
28)	c-12	5.530	4392555	57.092 µg/ml
29)	2-methylnaphthalene #2	6.237	4453745	58.330 µg/ml
30)	c-14	7.040	4259123	55.357 µg/ml
31)	c-16	8.363	4259131	55.358 µg/ml
32)	c-18	9.552	4092322	53.189 µg/ml
33)	c-19	10.103	4207068	62.052 µg/ml
34)	c-20	10.633	4098689	60.454 µg/ml
36)	c-22	11.623	4026969	59.396 µg/ml
37)	c-24	12.538	3907171	57.629 µg/ml
38)	c-26	13.387	3800143	56.050 µg/ml

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\DE161220EPH\
Data File : de16444.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 2:48 pm
Operator : thomasa
Sample : cc908-50,gde917 (Sig #1); ecc908-50,gde917 (Sig #2)
Misc : op49287,gde917,1000,,,2,,w
ALS Vial : 142 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 15:11:00 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
39)	c-28	14.177	3715121	54.796	µg/ml
40) h	c-30	14.927	3609328	53.236	µg/ml
41) h	c-36	16.838	2536100	37.406	µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

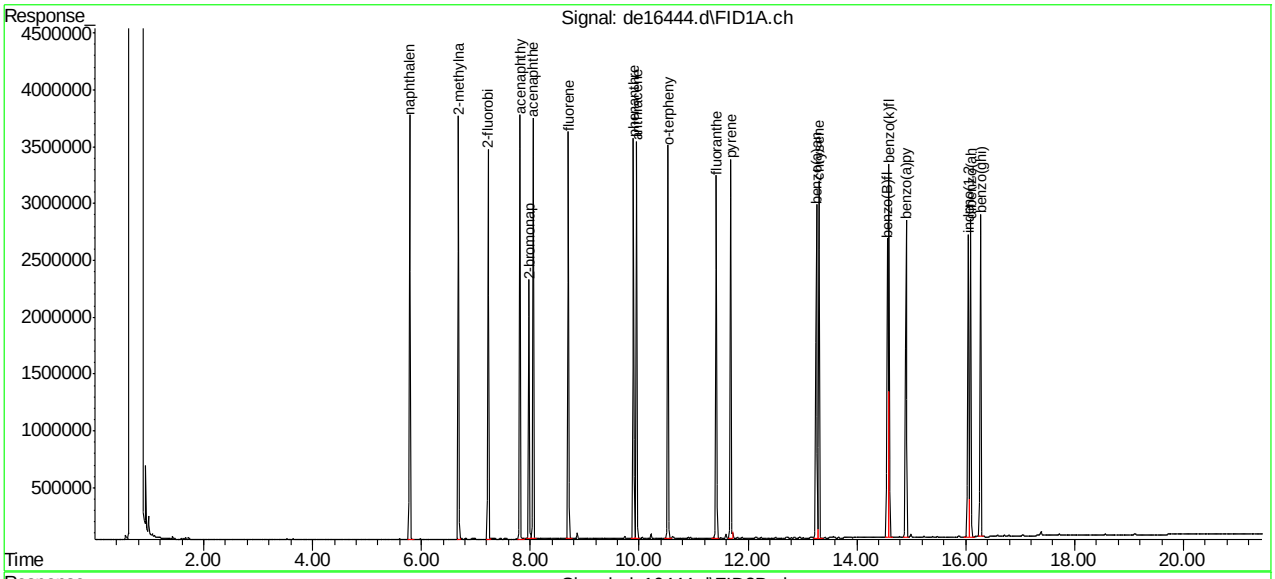
SGS ACCUTEST MC48999

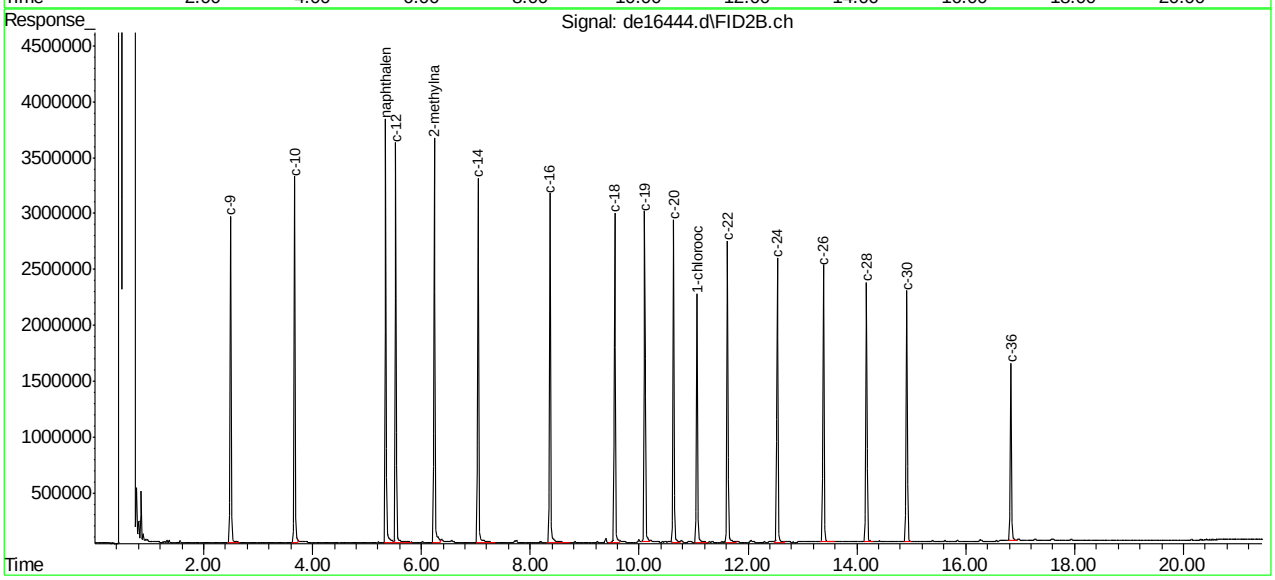
Quantitation Report (QT Reviewed)

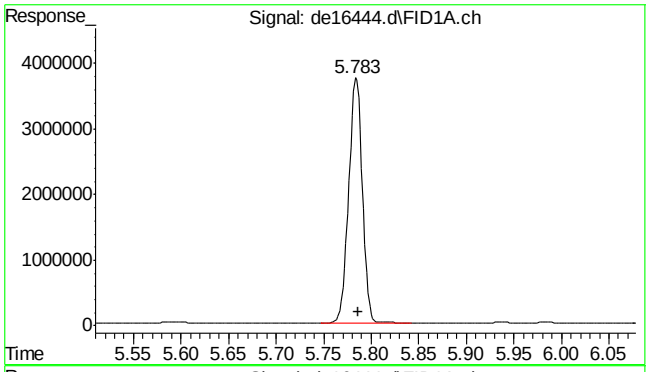
Data Path : C:\MSDCHEM\1\DATA\DE161220EPH\
Data File : de16444.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 2:48 pm
Operator : thomasa
Sample : cc908-50,gde917 (Sig #1); ecc908-50,gde917 (Sig #2)
Misc : op49287,gde917,1000,,,2,,w
ALS Vial : 142 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 15:11:00 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

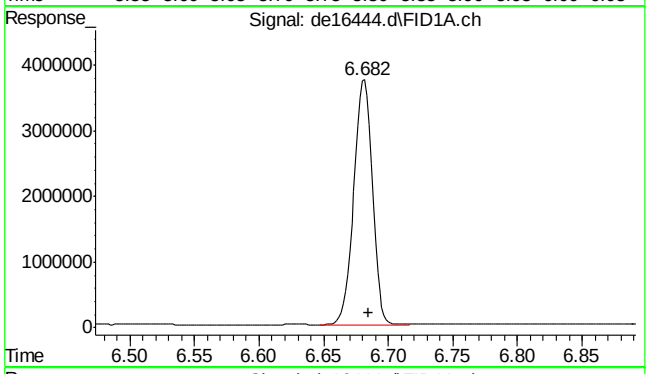






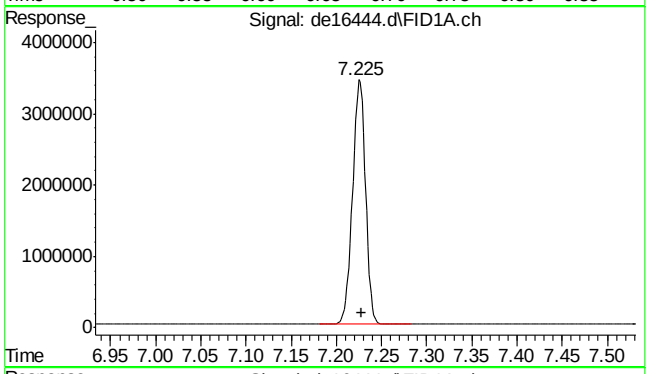
#2 naphthalene

R.T.: 5.783 min
Delta R.T.: -0.003 min
Response: 3730256
Conc: 38.13 µg/ml



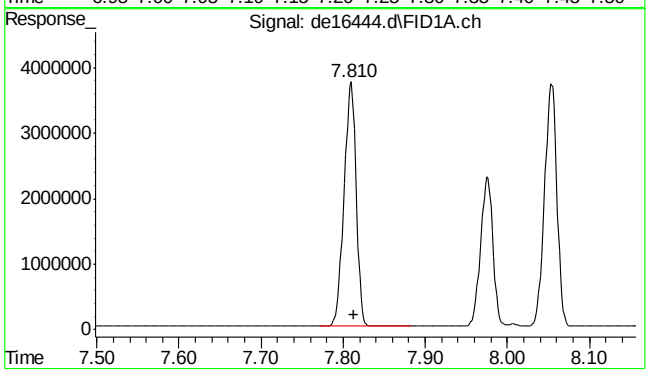
#3 2-methylnaphthalene

R.T.: 6.682 min
Delta R.T.: -0.003 min
Response: 3704998
Conc: 38.93 µg/ml



#4 2-fluorobiphenyl

R.T.: 7.225 min
Delta R.T.: -0.003 min
Response: 3446224
Conc: 39.42 µg/ml



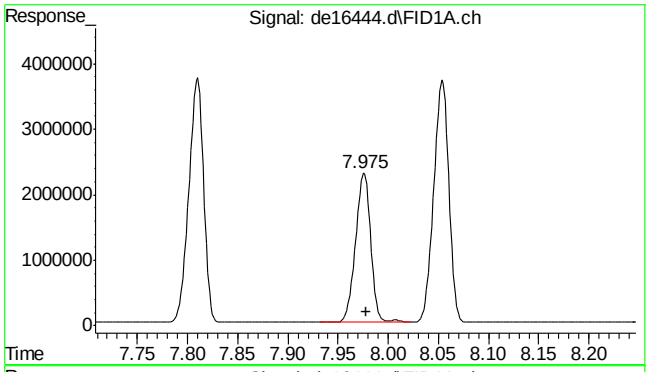
#5 acenaphthylene

R.T.: 7.810 min
Delta R.T.: -0.003 min
Response: 3819917
Conc: 39.95 µg/ml

9.5.14

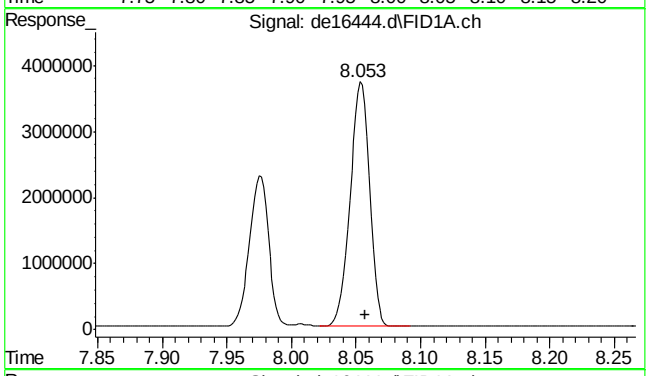
9

SGS ACCUTEST MC48999



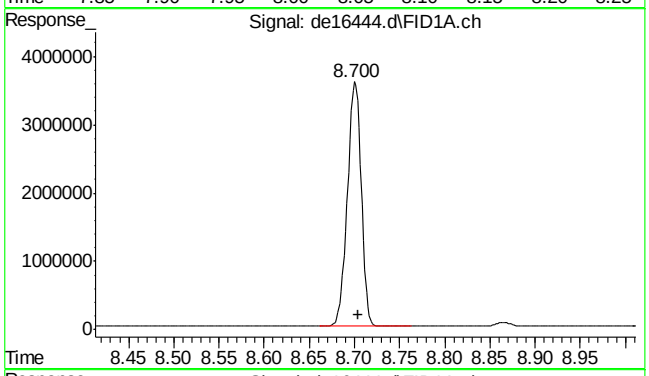
#6 2-bromonaphthalene

R.T.: 7.975 min
Delta R.T.: -0.003 min
Response: 2397081
Conc: 40.23 µg/ml



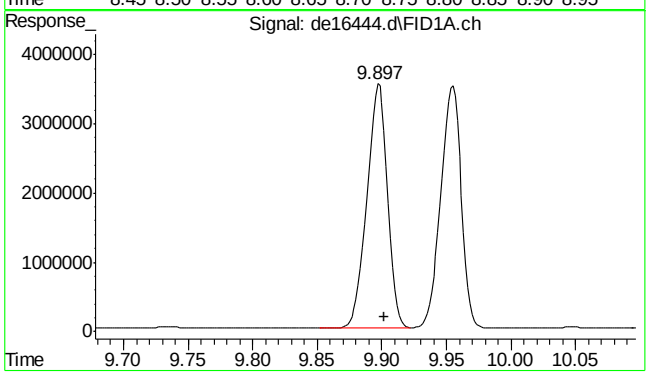
#7 acenaphthene

R.T.: 8.053 min
Delta R.T.: -0.003 min
Response: 3869427
Conc: 40.33 µg/ml



#8 fluorene

R.T.: 8.700 min
Delta R.T.: -0.005 min
Response: 3845182
Conc: 41.01 µg/ml



#9 phenanthrene

R.T.: 9.897 min
Delta R.T.: -0.005 min
Response: 3902185
Conc: 41.81 µg/ml

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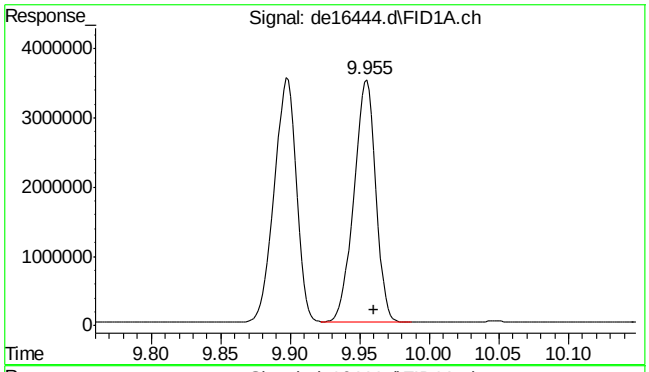
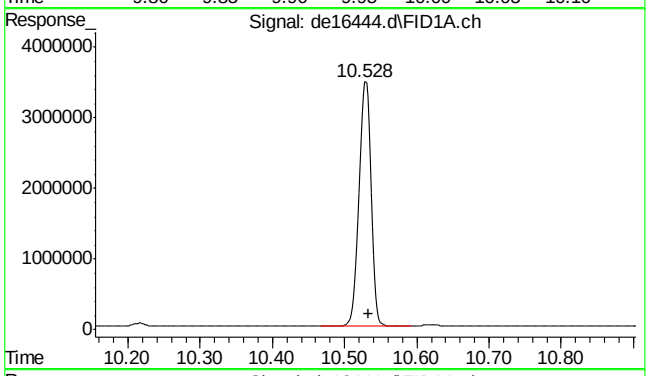


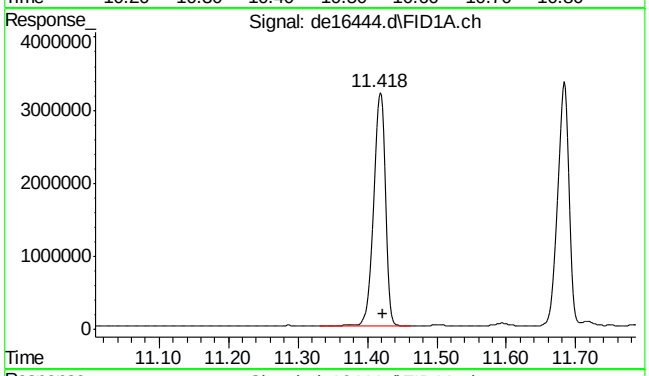
#10 anthracene

R.T.: 9.955 min
Delta R.T.: -0.005 min
Response: 3842210
Conc: 41.80 µg/ml



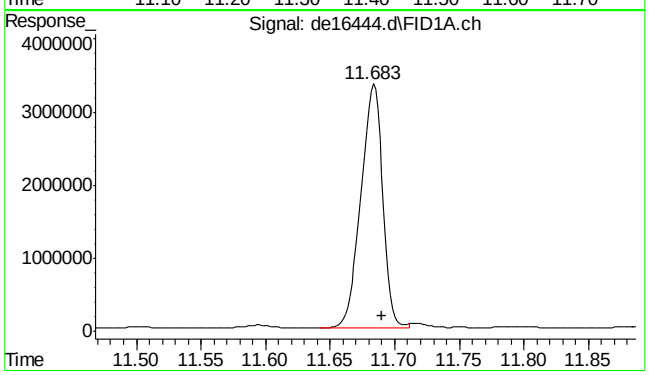
#11 o-terphenyl

R.T.: 10.528 min
Delta R.T.: -0.005 min
Response: 3970548
Conc: 41.84 µg/ml



#12 fluoranthene

R.T.: 11.418 min
Delta R.T.: -0.005 min
Response: 3842023
Conc: 42.35 µg/ml



#13 pyrene

R.T.: 11.683 min
Delta R.T.: -0.007 min
Response: 3887403
Conc: 42.53 µg/ml

9.5.14

9

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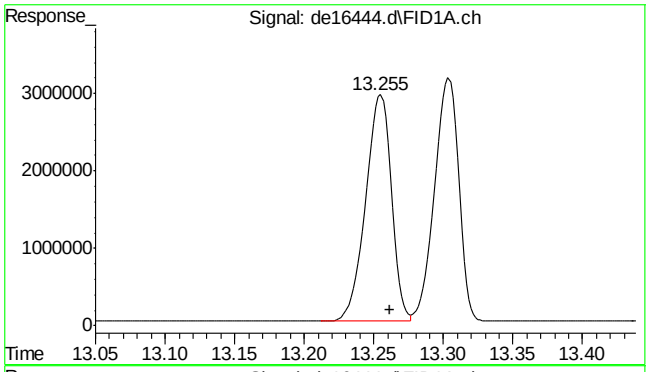
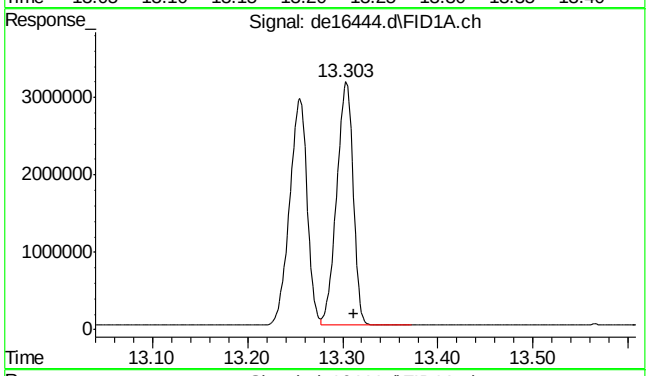


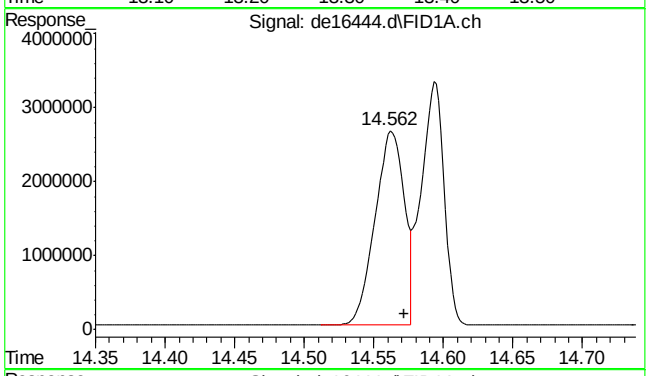
#14 benzo(a)anthracene

R.T.: 13.255 min
Delta R.T.: -0.007 min
Response: 3759689
Conc: 42.93 µg/ml



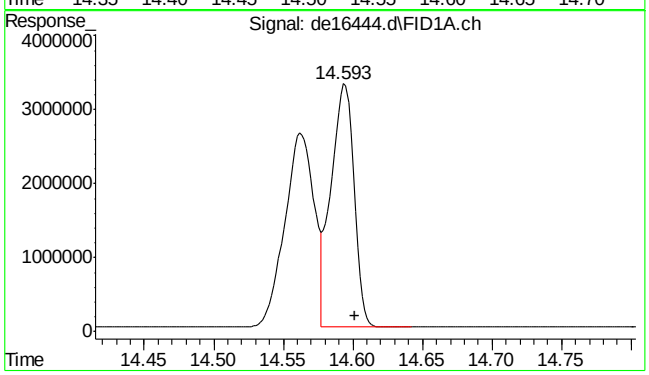
#15 chrysene

R.T.: 13.303 min
Delta R.T.: -0.008 min
Response: 3794544
Conc: 42.79 µg/ml



#16 benzo(B)fluoranthene

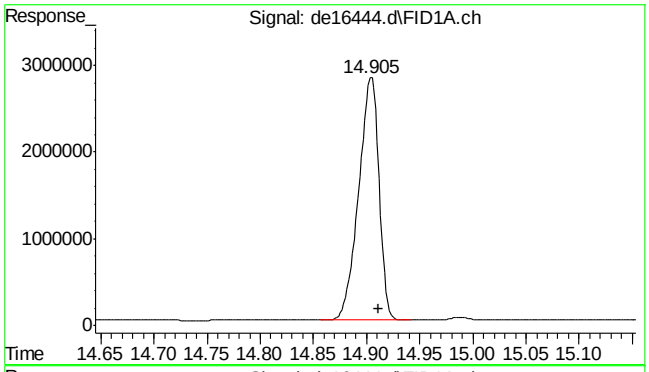
R.T.: 14.562 min
Delta R.T.: -0.010 min
Response: 3884718
Conc: 43.44 µg/ml



#17 benzo(k)fluoranthene

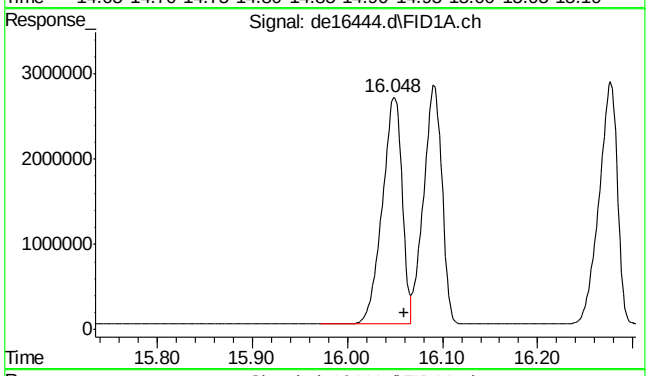
R.T.: 14.593 min
Delta R.T.: -0.008 min
Response: 3763141
Conc: 43.58 µg/ml

SGS ACCUTEST MC48999



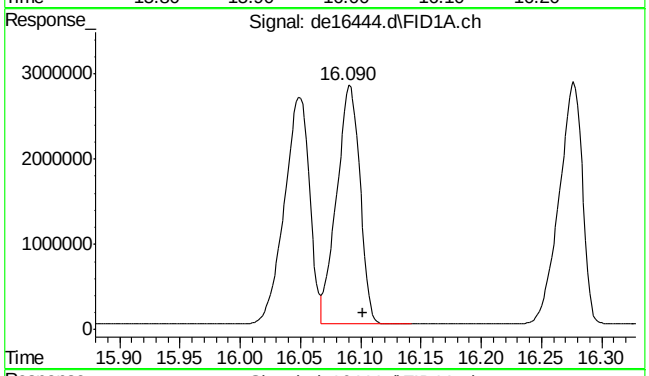
#18 benzo(a)pyrene

R.T.: 14.905 min
Delta R.T.: -0.007 min
Response: 3733990
Conc: 42.48 µg/ml



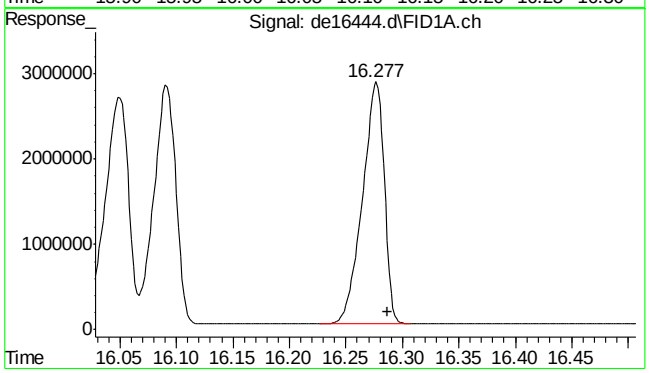
#19 indeno(1,2,3-cd)pyrene

R.T.: 16.048 min
Delta R.T.: -0.012 min
Response: 3880922
Conc: 44.76 µg/ml



#20 dibenzo(ah)anthracene

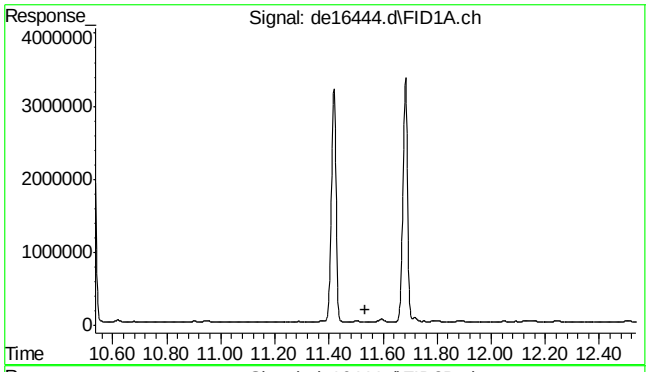
R.T.: 16.090 min
Delta R.T.: -0.012 min
Response: 3744077
Conc: 44.72 µg/ml



#21 benzo(ghi)perylene

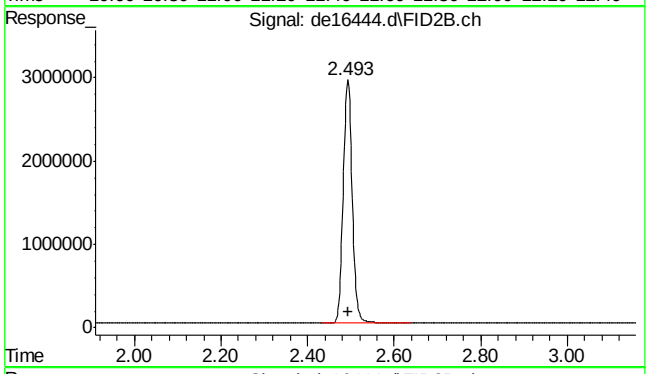
R.T.: 16.277 min
Delta R.T.: -0.010 min
Response: 3805931
Conc: 44.17 µg/ml

SGS ACCUTEST MC48999



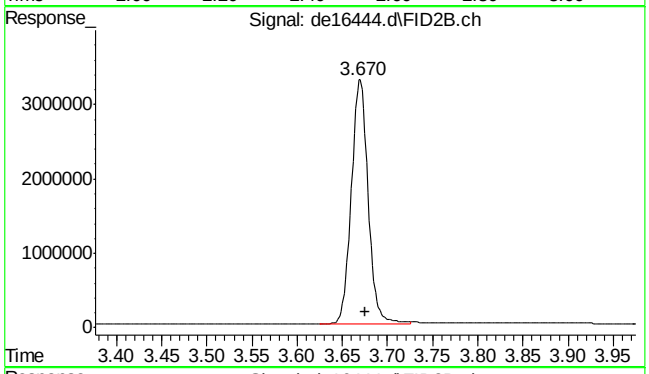
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



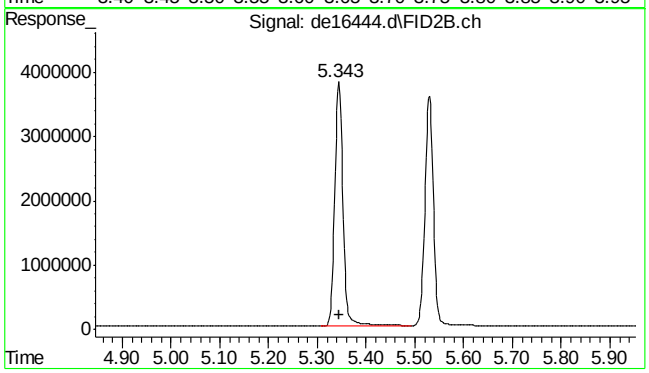
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 4281528
Conc: 55.65 µg/ml m



#26 c-10

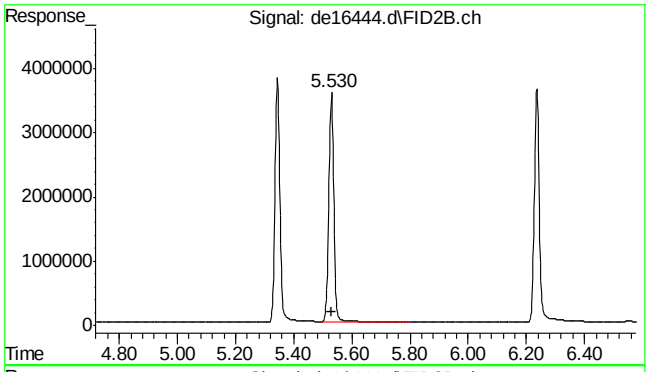
R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 4260304
Conc: 55.37 µg/ml



#27 naphthalene #2

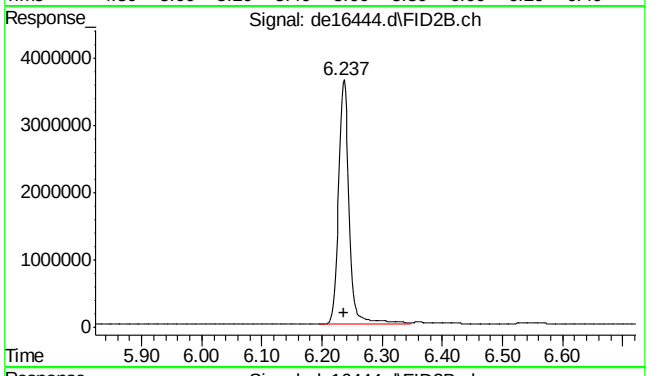
R.T.: 5.343 min
Delta R.T.: -0.002 min
Response: 4527300
Conc: 58.43 µg/ml

SGS ACCUTEST MC48999



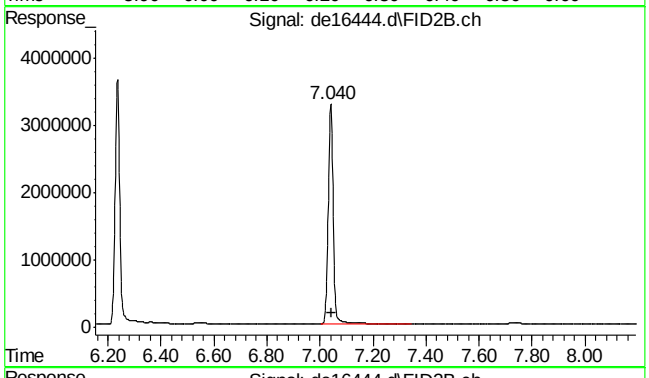
#28 c-12

R.T.: 5.530 min
Delta R.T.: 0.000 min
Response: 4392555
Conc: 57.09 µg/ml



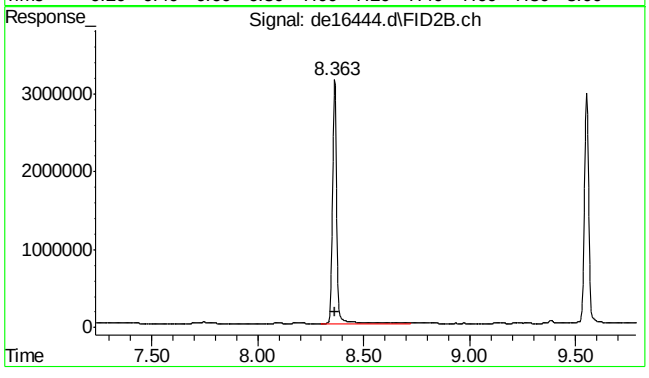
#29 2-methylnaphthalene #2

R.T.: 6.237 min
Delta R.T.: 0.000 min
Response: 4453745
Conc: 58.33 µg/ml



#30 c-14

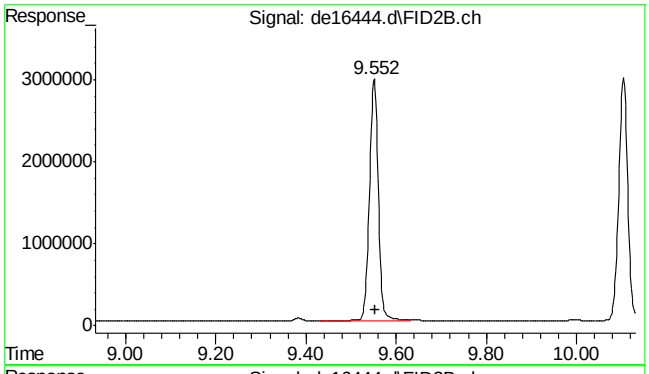
R.T.: 7.040 min
Delta R.T.: -0.002 min
Response: 4259123
Conc: 55.36 µg/ml



#31 c-16

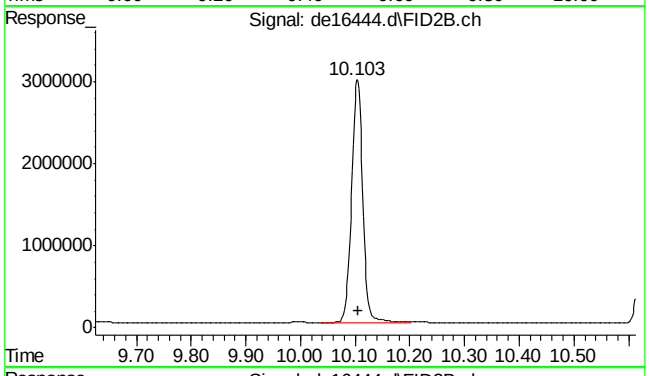
R.T.: 8.363 min
Delta R.T.: -0.002 min
Response: 4259131
Conc: 55.36 µg/ml

SGS ACCUTEST MC48999



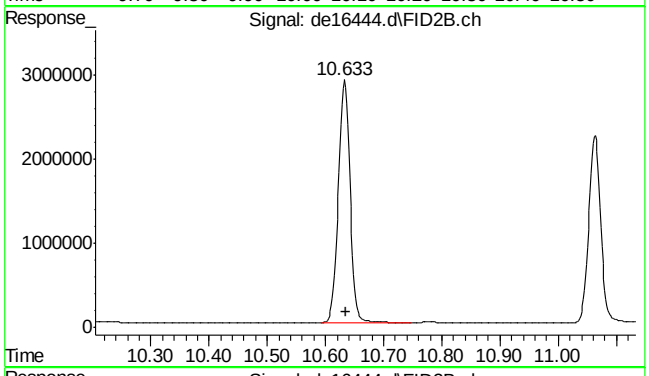
#32 c-18

R.T.: 9.552 min
Delta R.T.: -0.002 min
Response: 4092322
Conc: 53.19 µg/ml



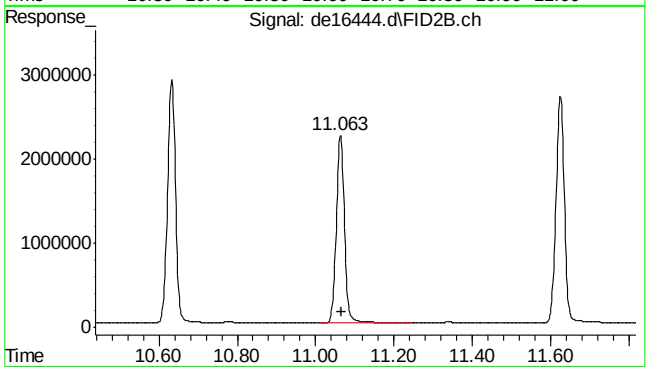
#33 c-19

R.T.: 10.103 min
Delta R.T.: -0.003 min
Response: 4207068
Conc: 62.05 µg/ml



#34 c-20

R.T.: 10.633 min
Delta R.T.: -0.002 min
Response: 4098689
Conc: 60.45 µg/ml



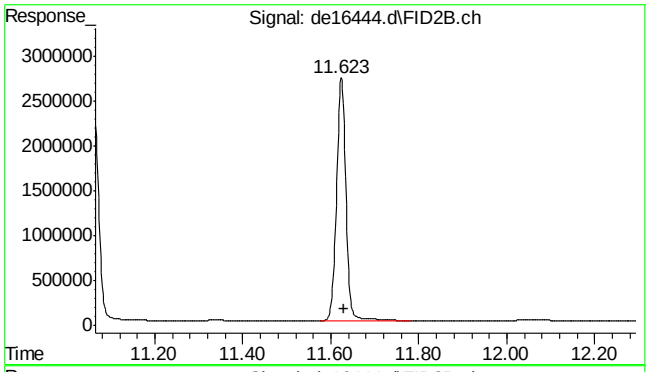
#35 1-chlorooctadecane

R.T.: 11.063 min
Delta R.T.: -0.003 min
Response: 3213334
Conc: 56.48 µg/ml

9.5.14

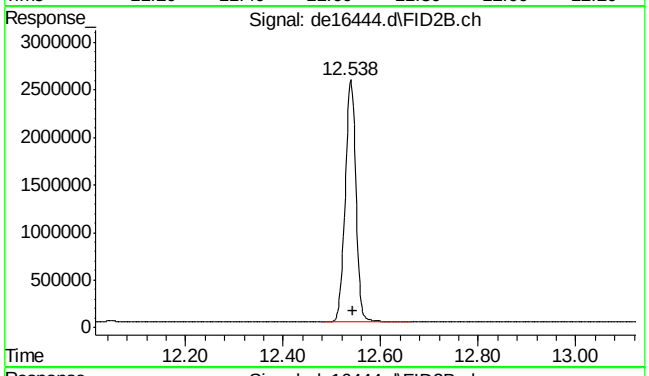
9

SGS ACCUTEST MC48999



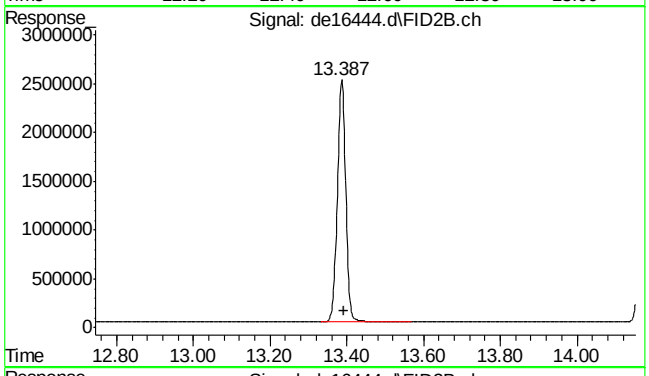
#36 c-22

R.T.: 11.623 min
Delta R.T.: -0.005 min
Response: 4026969
Conc: 59.40 µg/ml



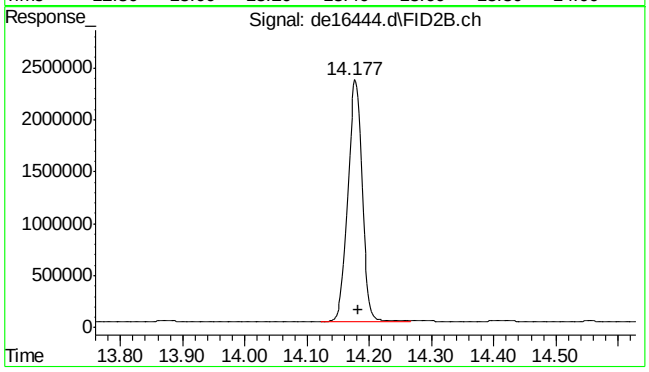
#37 c-24

R.T.: 12.538 min
Delta R.T.: -0.003 min
Response: 3907171
Conc: 57.63 µg/ml



#38 c-26

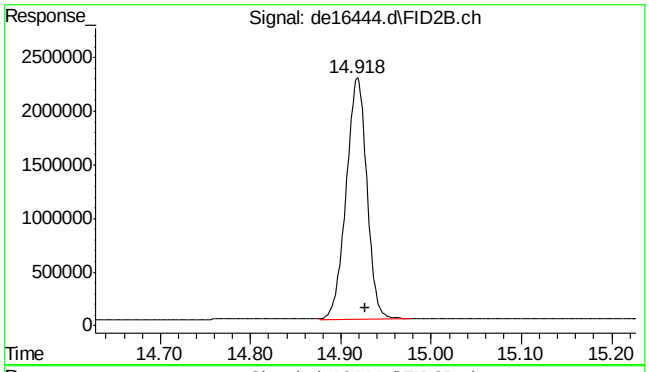
R.T.: 13.387 min
Delta R.T.: -0.005 min
Response: 3800143
Conc: 56.05 µg/ml



#39 c-28

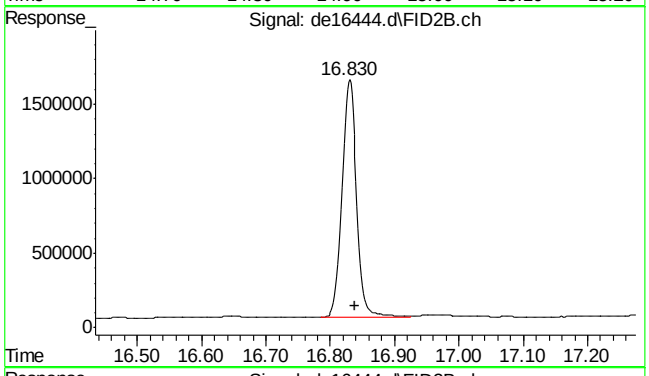
R.T.: 14.177 min
Delta R.T.: -0.007 min
Response: 3715121
Conc: 54.80 µg/ml

SGS ACCUTEST MC48999



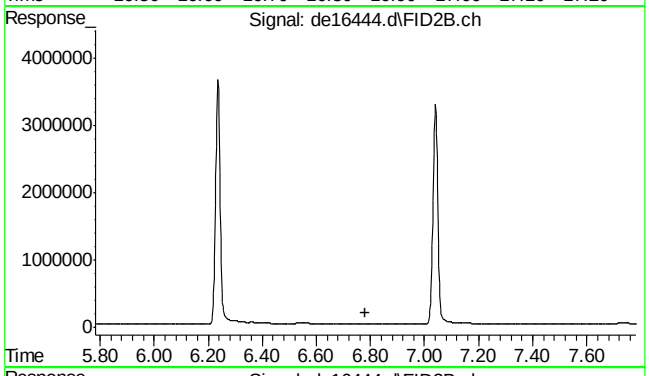
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 3609328
Conc: 53.24 µg/ml



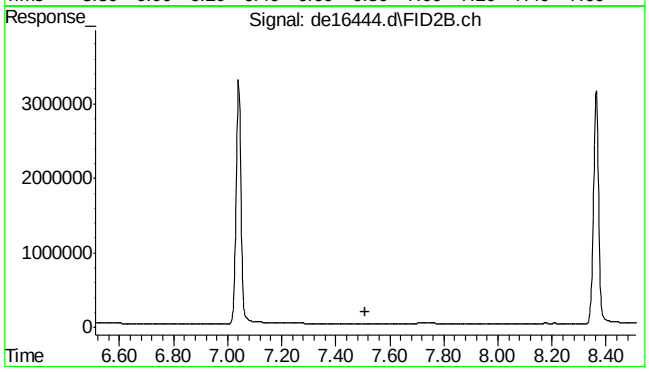
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 2536100
Conc: 37.41 µg/ml m



#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



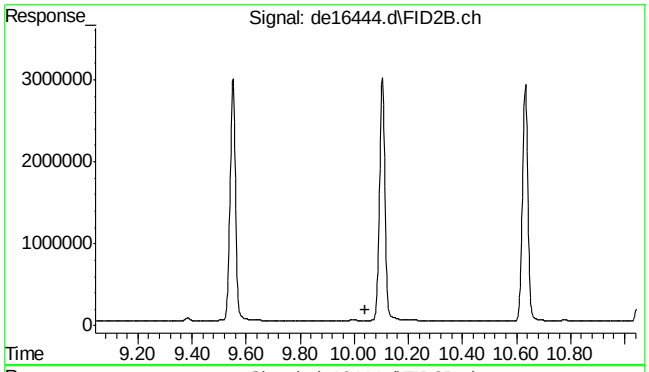
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.

9.5.14

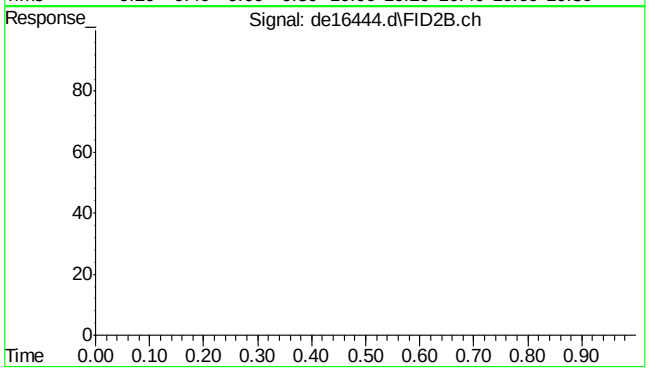
9

SGS ACCUTEST MC48999



#44 bht

```
      R.T.:    0.000 min
Exp R.T.  :   10.042 min
  Response:         0
      Conc:   N.D.
```



#45 bht

```
      R.T.:    0.000 min
Exp R.T.  :   23.000 min
  Response:         0
      Conc:   N.D.
```

9.5.14

9

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16445.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 5:49 pm
Operator : thomasa
Sample : cc908-50,gde918
Misc : op49287,gde918,1000,,,2,,w
ALS Vial : 142 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:29:06 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.225	3553199	40.639 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 203.20%#	
6) s 2-bromonaphthalene	7.973	2468734	41.431 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 207.15%#	
11) s o-terphenyl	10.528	4085590	43.052 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 215.26%#	
35) s 1-chlorooctadecane	11.063	2999713	52.727 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 263.63%#	
Target Compounds			
2) naphthalene	5.783	3846746	39.316 µg/ml
3) 2-methylnaphthalene	6.682	3819002	40.125 µg/ml
5) acenaphthylene	7.808	3935701	41.156 µg/ml
7) acenaphthene	8.053	3992237	41.614 µg/ml
8) fluorene	8.700	3958283	42.220 µg/ml
9) phenanthrene	9.897	4016906	43.036 µg/ml
10) anthracene	9.953	3950415	42.972 µg/ml
12) fluoranthene	11.417	3949333	43.535 µg/ml
13) pyrene	11.682	3989281	43.649 µg/ml
14) benzo(a)anthracene	13.253	3849450	43.960 µg/ml
15) chrysene	13.302	3885850	43.815 µg/ml
16) benzo(B)fluoranthene	14.560	3985918	44.572 µg/ml
17) benzo(k)fluoranthene	14.592	3830050	44.356 µg/ml
18) benzo(a)pyrene	14.902	3818372	43.437 µg/ml
19) indeno(1,2,3-cd)pyrene	16.048	3965710	45.735 µg/ml
20) dibenzo(ah)anthracene	16.092	3816720	45.591 µg/ml
21) benzo(ghi)perylene	16.275	3896251	45.214 µg/ml
25) h c-9	2.495	3981343	51.747 µg/mlm
26) h c-10	3.675	3959103	51.458 µg/ml
27) naphthalene #2	5.345	4210644	54.346 µg/ml
28) c-12	5.530	4077563	52.998 µg/ml
29) 2-methylnaphthalene #2	6.237	4144750	54.283 µg/ml
30) c-14	7.042	3985094	51.796 µg/ml
31) c-16	8.363	4000148	51.991 µg/ml
32) c-18	9.550	3857161	50.133 µg/ml
33) c-19	10.105	3959501	58.401 µg/ml
34) c-20	10.632	3858482	56.911 µg/ml
36) c-22	11.623	3791031	55.916 µg/ml
37) c-24	12.538	3663947	54.042 µg/ml
38) c-26	13.385	3559956	52.508 µg/ml

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16445.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 5:49 pm
Operator : thomasa
Sample : cc908-50,gde918
Misc : op49287,gde918,1000,,,2,,w
ALS Vial : 142 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:29:06 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
39)	c-28	14.177	3468136	51.153	µg/ml
40) h	c-30	14.927	3355115	49.486	µg/ml
41) h	c-36	16.838	2178710	32.135	µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.15

9

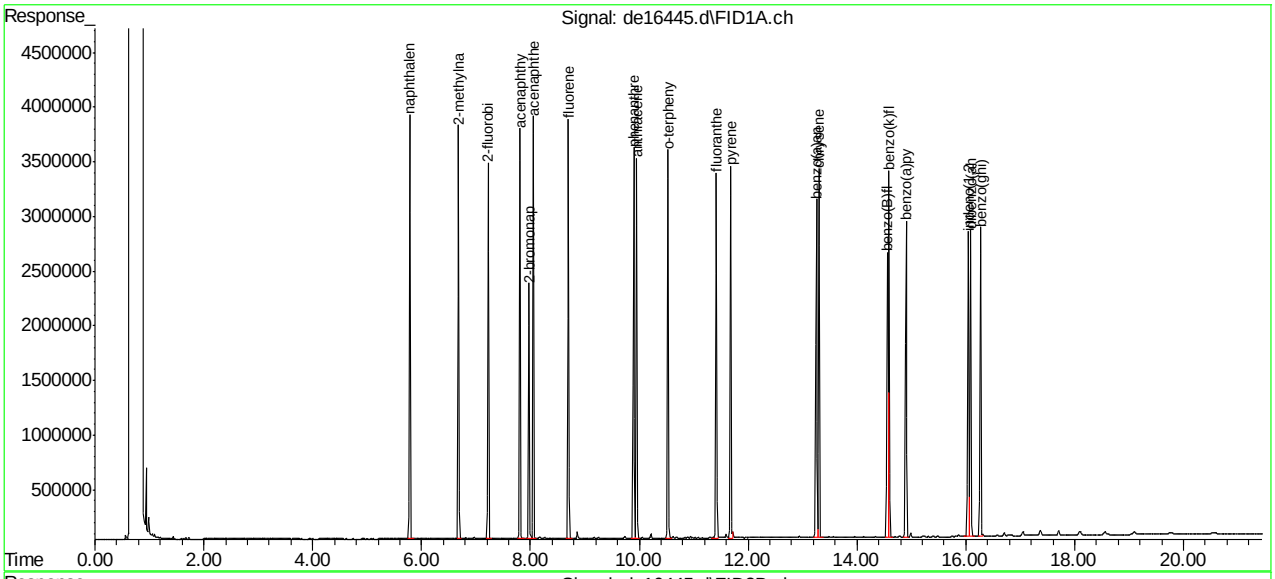
SGS ACCUTEST MC48999

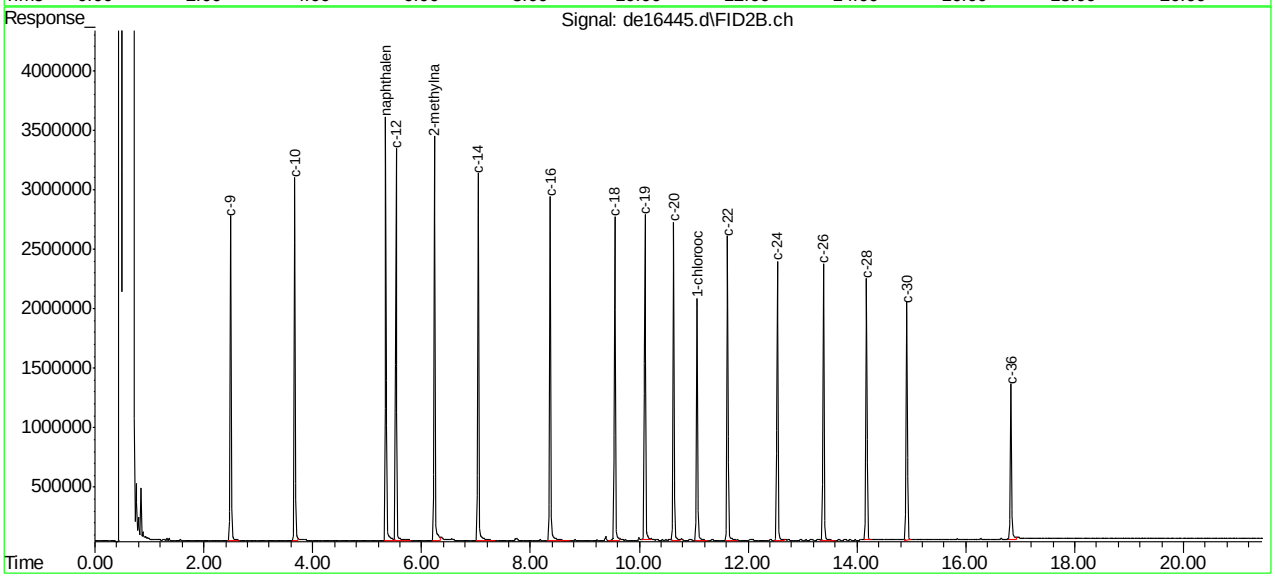
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16445.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 5:49 pm
Operator : thomasa
Sample : cc908-50,gde918
Misc : op49287,gde918,1000,,,2,,w
ALS Vial : 142 Sample Multiplier: 1

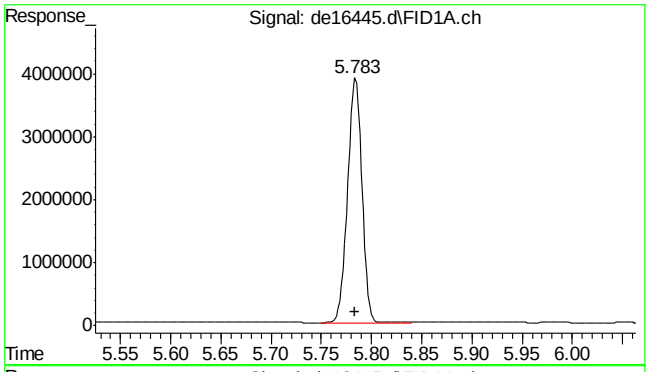
Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:29:06 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



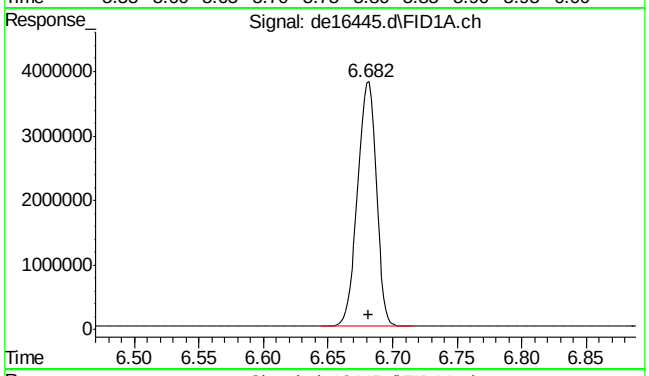


SGS ACCUTEST MC48999



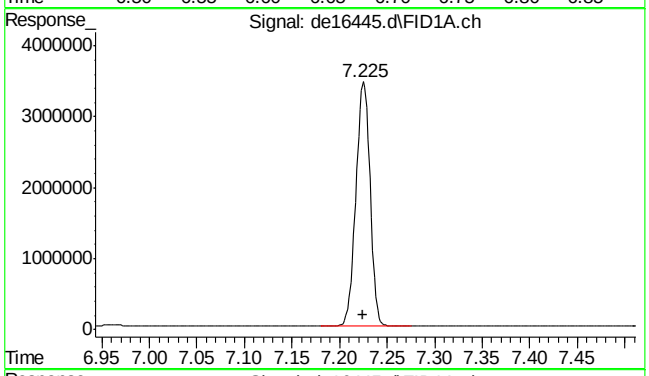
#2 naphthalene

R.T.: 5.783 min
Delta R.T.: 0.000 min
Response: 3846746
Conc: 39.32 µg/ml



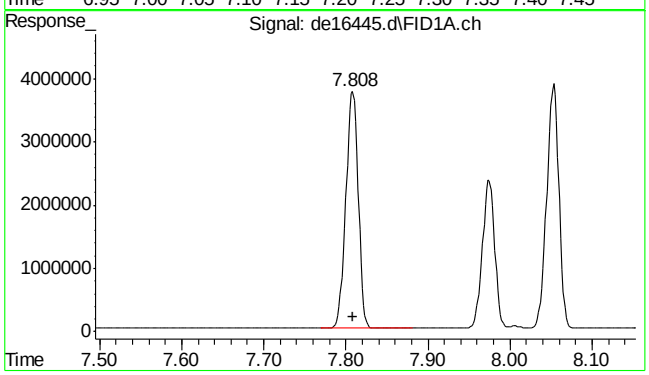
#3 2-methylnaphthalene

R.T.: 6.682 min
Delta R.T.: 0.000 min
Response: 3819002
Conc: 40.13 µg/ml



#4 2-fluorobiphenyl

R.T.: 7.225 min
Delta R.T.: 0.000 min
Response: 3553199
Conc: 40.64 µg/ml



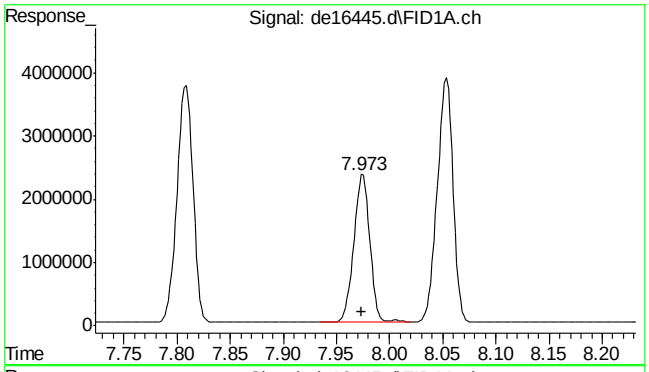
#5 acenaphthylene

R.T.: 7.808 min
Delta R.T.: 0.000 min
Response: 3935701
Conc: 41.16 µg/ml

9.5.15

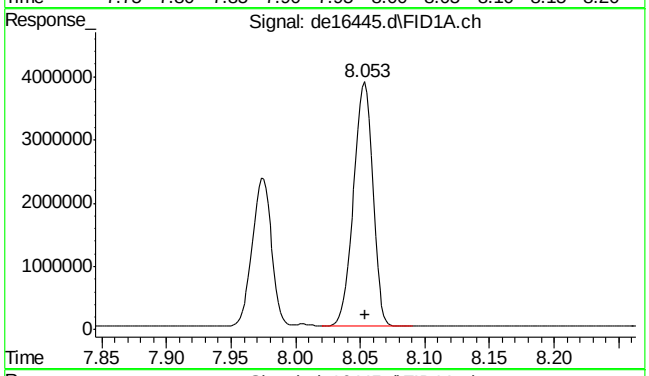
9

SGS ACCUTEST MC48999



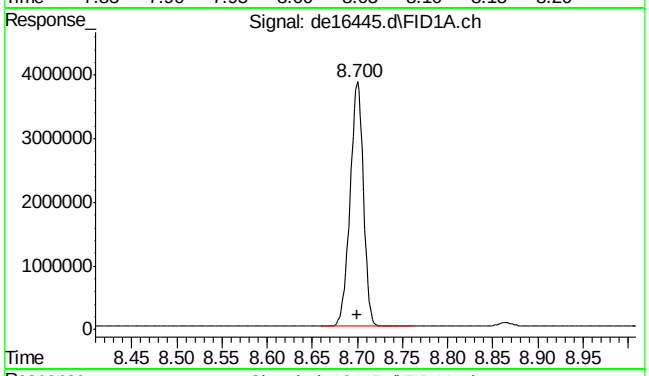
#6 2-bromonaphthalene

R.T.: 7.973 min
Delta R.T.: 0.000 min
Response: 2468734
Conc: 41.43 µg/ml



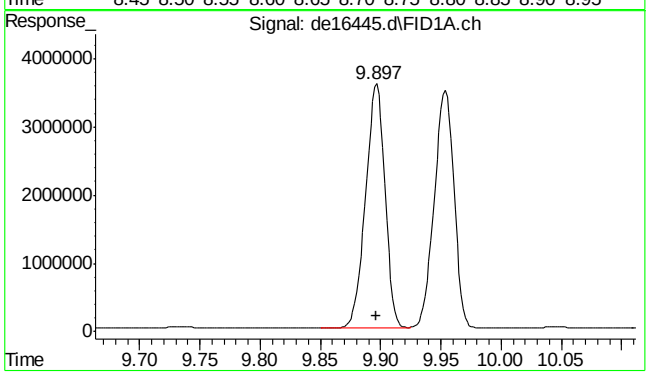
#7 acenaphthene

R.T.: 8.053 min
Delta R.T.: 0.000 min
Response: 3992237
Conc: 41.61 µg/ml



#8 fluorene

R.T.: 8.700 min
Delta R.T.: 0.000 min
Response: 3958283
Conc: 42.22 µg/ml



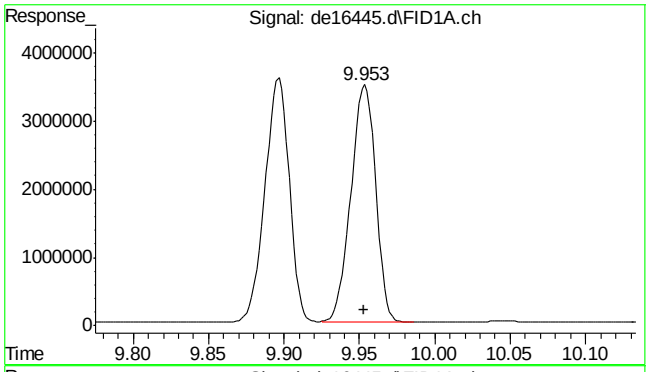
#9 phenanthrene

R.T.: 9.897 min
Delta R.T.: 0.000 min
Response: 4016906
Conc: 43.04 µg/ml

9.5.15

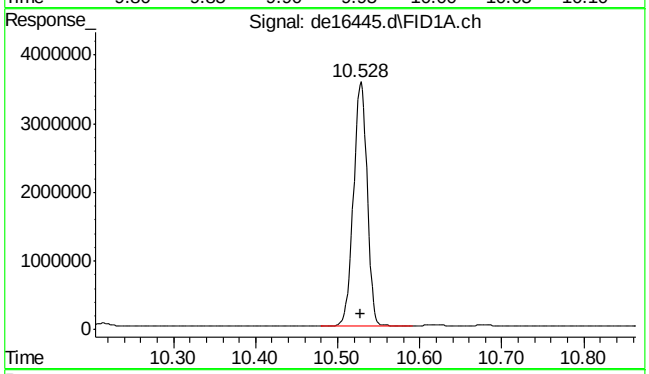
9

SGS ACCUTEST MC48999



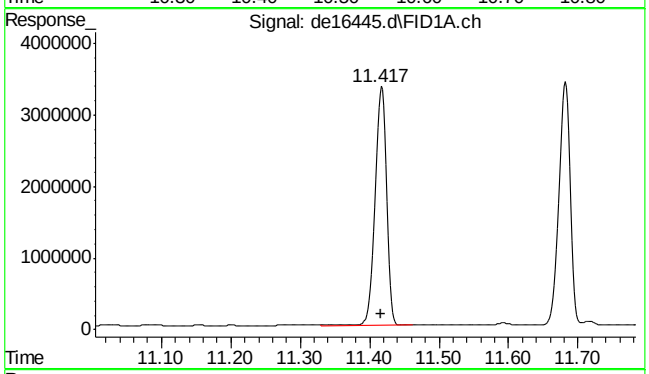
#10 anthracene

R.T.: 9.953 min
Delta R.T.: 0.000 min
Response: 3950415
Conc: 42.97 µg/ml



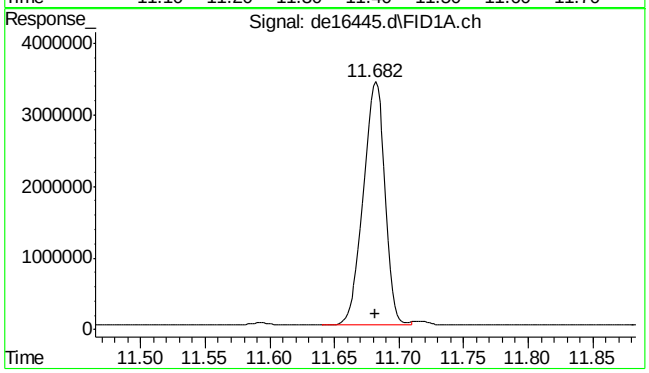
#11 o-terphenyl

R.T.: 10.528 min
Delta R.T.: 0.000 min
Response: 4085590
Conc: 43.05 µg/ml



#12 fluoranthene

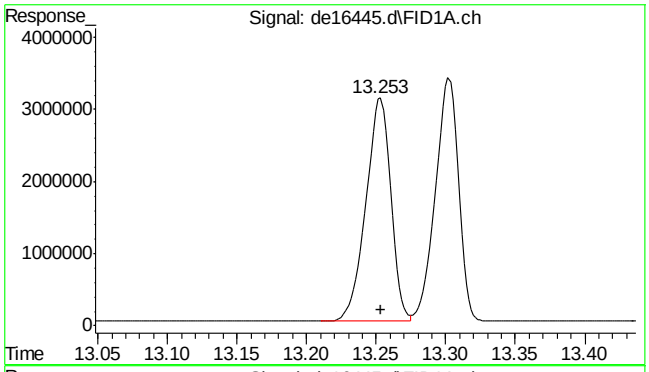
R.T.: 11.417 min
Delta R.T.: 0.000 min
Response: 3949333
Conc: 43.54 µg/ml



#13 pyrene

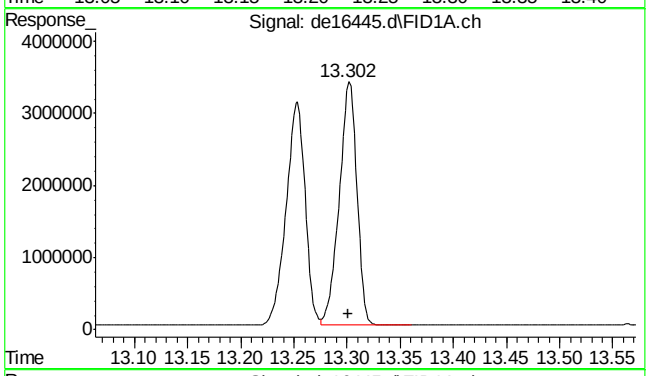
R.T.: 11.682 min
Delta R.T.: 0.000 min
Response: 3989281
Conc: 43.65 µg/ml

SGS ACCUTEST MC48999



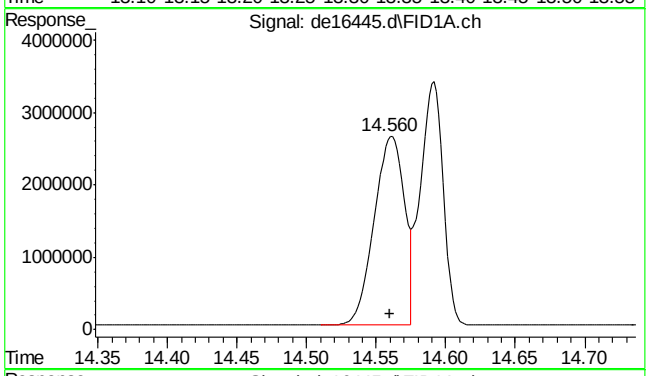
#14 benzo(a)anthracene

R.T.: 13.253 min
Delta R.T.: 0.000 min
Response: 3849450
Conc: 43.96 µg/ml



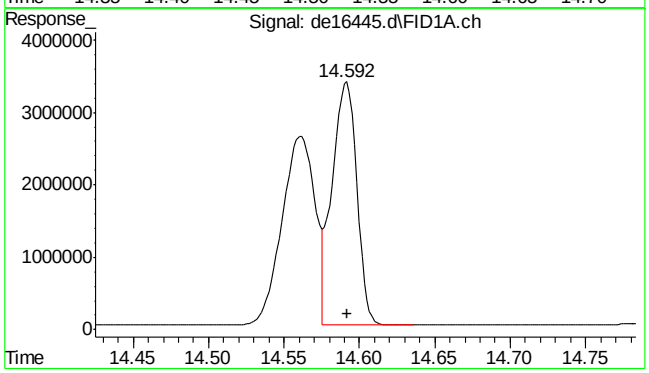
#15 chrysene

R.T.: 13.302 min
Delta R.T.: 0.000 min
Response: 3885850
Conc: 43.81 µg/ml



#16 benzo(B)fluoranthene

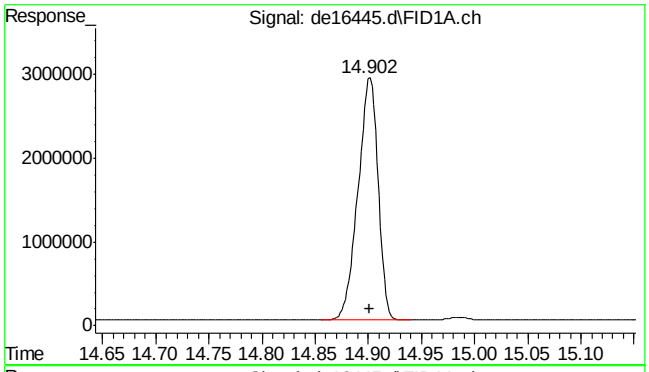
R.T.: 14.560 min
Delta R.T.: 0.000 min
Response: 3985918
Conc: 44.57 µg/ml



#17 benzo(k)fluoranthene

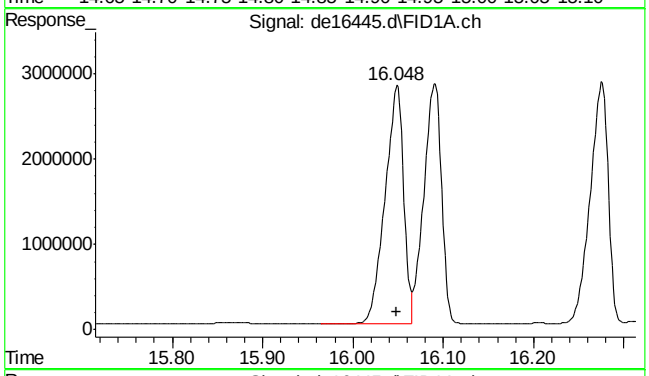
R.T.: 14.592 min
Delta R.T.: 0.000 min
Response: 3830050
Conc: 44.36 µg/ml

SGS ACCUTEST MC48999



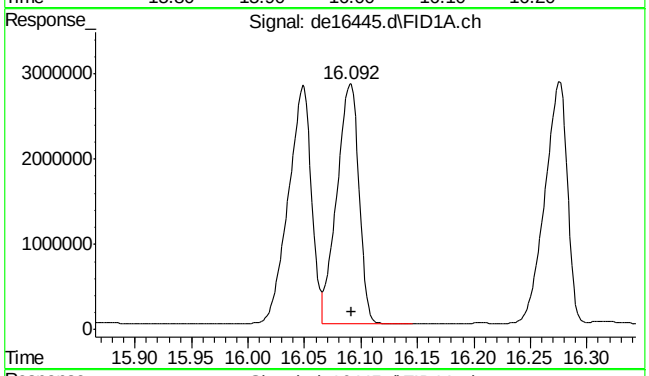
#18 benzo(a)pyrene

R.T.: 14.902 min
Delta R.T.: 0.000 min
Response: 3818372
Conc: 43.44 µg/ml



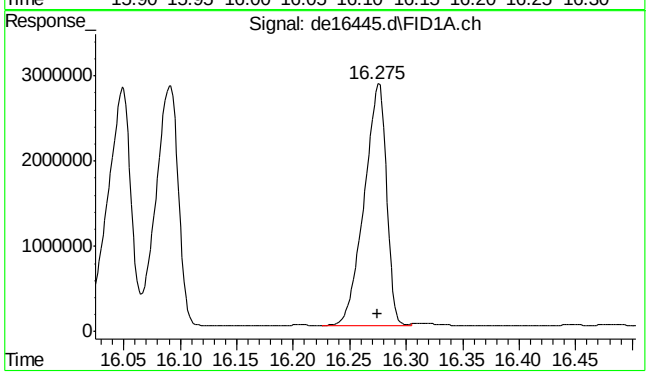
#19 indeno(1,2,3-cd)pyrene

R.T.: 16.048 min
Delta R.T.: 0.000 min
Response: 3965710
Conc: 45.73 µg/ml



#20 dibenzo(ah)anthracene

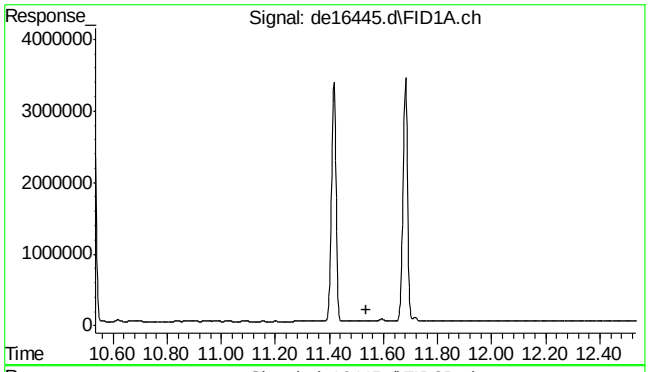
R.T.: 16.092 min
Delta R.T.: 0.000 min
Response: 3816720
Conc: 45.59 µg/ml



#21 benzo(ghi)perylene

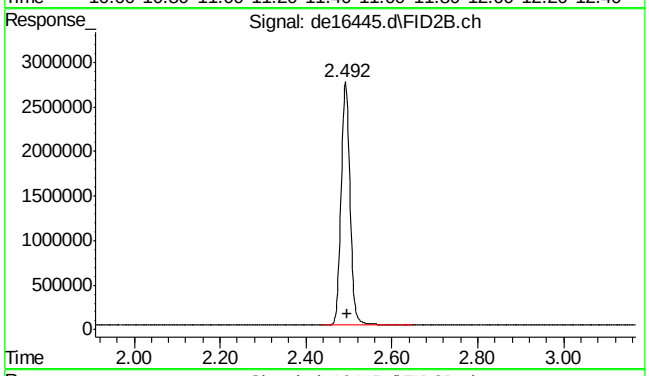
R.T.: 16.275 min
Delta R.T.: 0.000 min
Response: 3896251
Conc: 45.21 µg/ml

SGS ACCUTEST MC48999



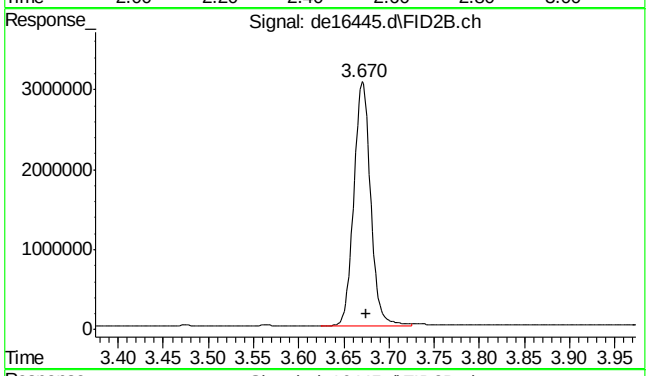
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



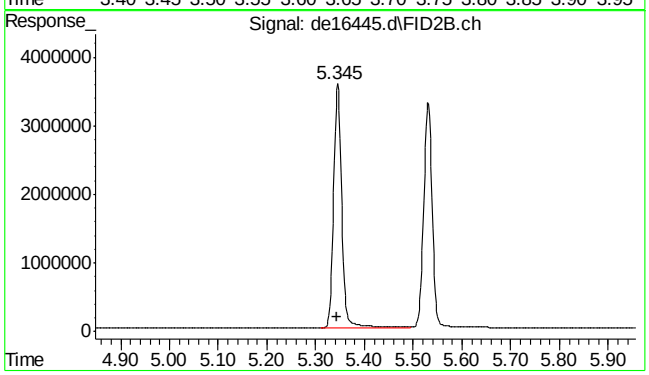
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 3981343
Conc: 51.75 µg/ml m



#26 c-10

R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 3959103
Conc: 51.46 µg/ml



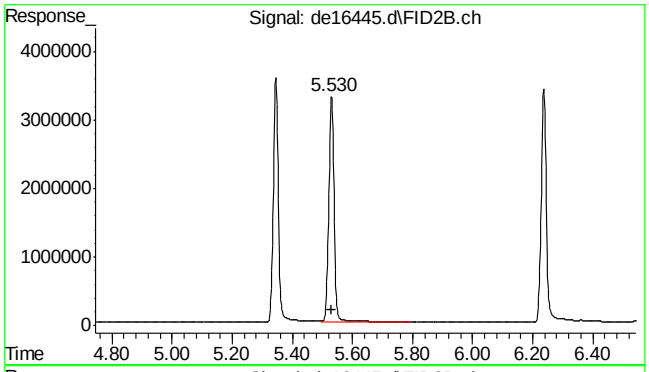
#27 naphthalene #2

R.T.: 5.345 min
Delta R.T.: 0.000 min
Response: 4210644
Conc: 54.35 µg/ml

9.5.15

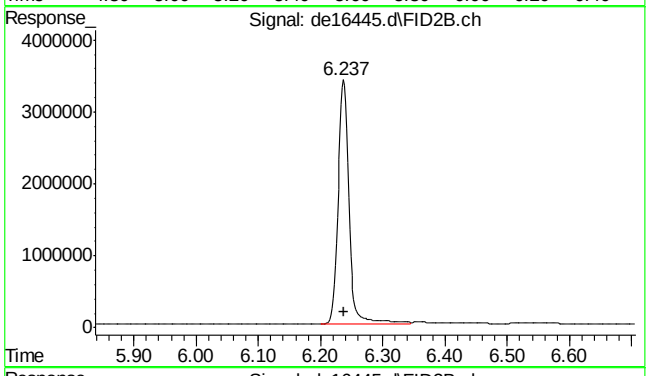
9

SGS ACCUTEST MC48999



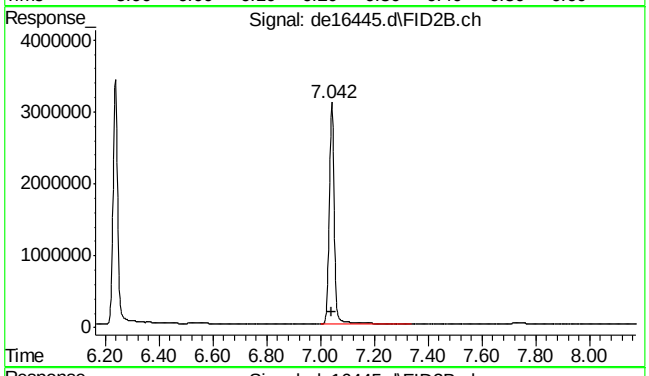
#28 c-12

R.T.: 5.530 min
Delta R.T.: 0.000 min
Response: 4077563
Conc: 53.00 µg/ml



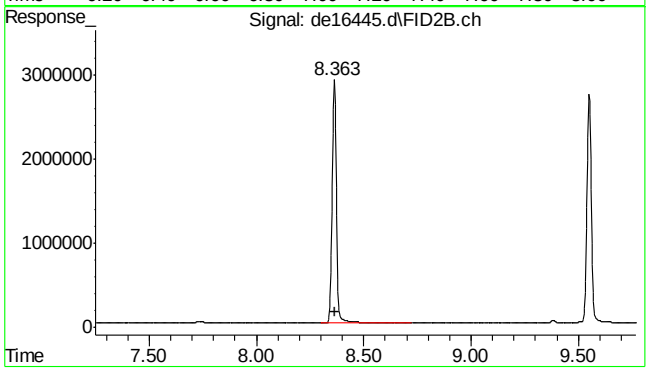
#29 2-methylnaphthalene #2

R.T.: 6.237 min
Delta R.T.: 0.000 min
Response: 4144750
Conc: 54.28 µg/ml



#30 c-14

R.T.: 7.042 min
Delta R.T.: 0.000 min
Response: 3985094
Conc: 51.80 µg/ml



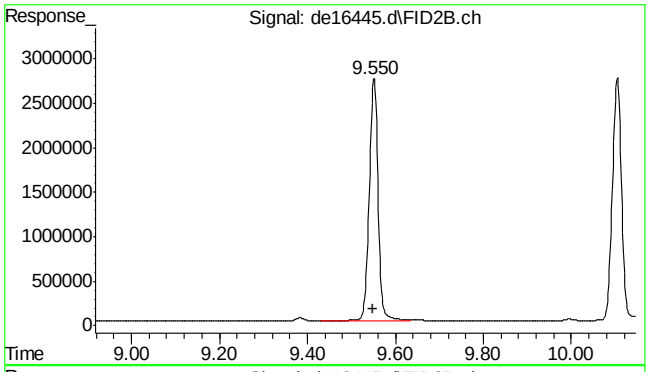
#31 c-16

R.T.: 8.363 min
Delta R.T.: 0.000 min
Response: 4000148
Conc: 51.99 µg/ml

9.5.15

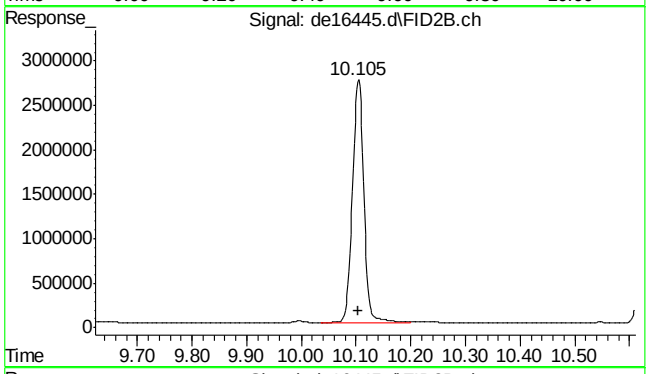
9

SGS ACCUTEST MC48999



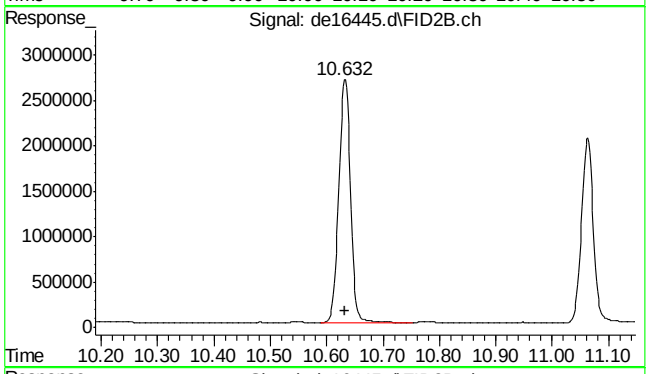
#32 c-18

R.T.: 9.550 min
Delta R.T.: 0.000 min
Response: 3857161
Conc: 50.13 µg/ml



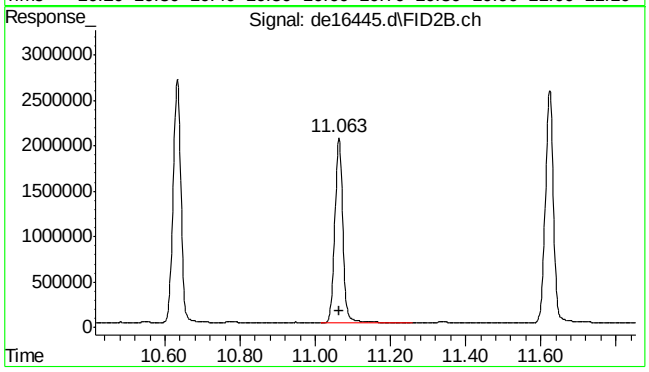
#33 c-19

R.T.: 10.105 min
Delta R.T.: 0.000 min
Response: 3959501
Conc: 58.40 µg/ml



#34 c-20

R.T.: 10.632 min
Delta R.T.: 0.000 min
Response: 3858482
Conc: 56.91 µg/ml



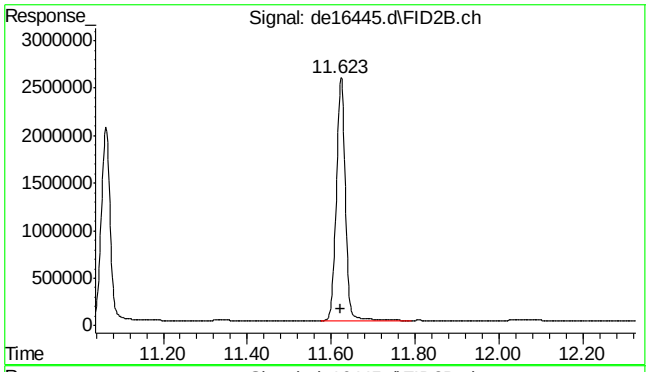
#35 1-chlorooctadecane

R.T.: 11.063 min
Delta R.T.: 0.000 min
Response: 2999713
Conc: 52.73 µg/ml

9.5.15

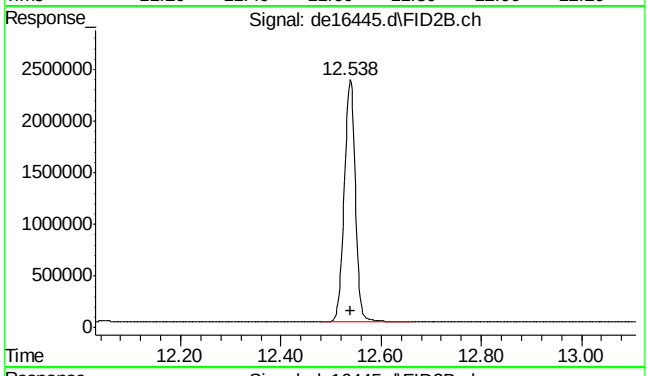
9

SGS ACCUTEST MC48999



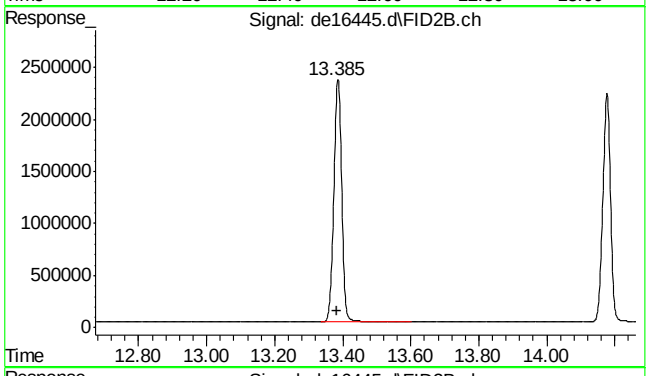
#36 c-22

R.T.: 11.623 min
Delta R.T.: 0.000 min
Response: 3791031
Conc: 55.92 µg/ml



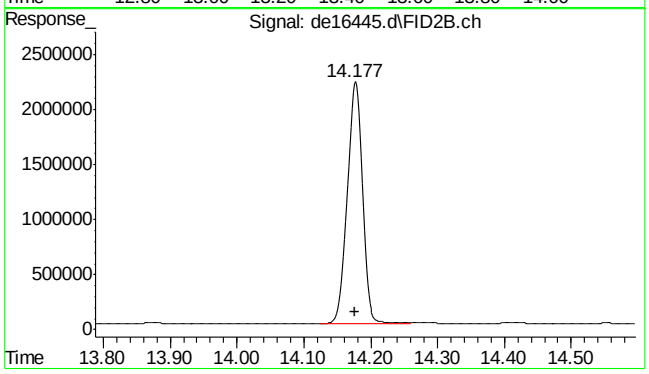
#37 c-24

R.T.: 12.538 min
Delta R.T.: 0.000 min
Response: 3663947
Conc: 54.04 µg/ml



#38 c-26

R.T.: 13.385 min
Delta R.T.: 0.000 min
Response: 3559956
Conc: 52.51 µg/ml



#39 c-28

R.T.: 14.177 min
Delta R.T.: 0.000 min
Response: 3468136
Conc: 51.15 µg/ml

9.5.15

9

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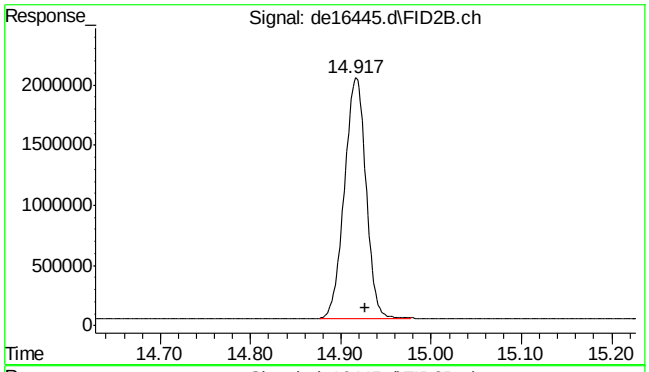
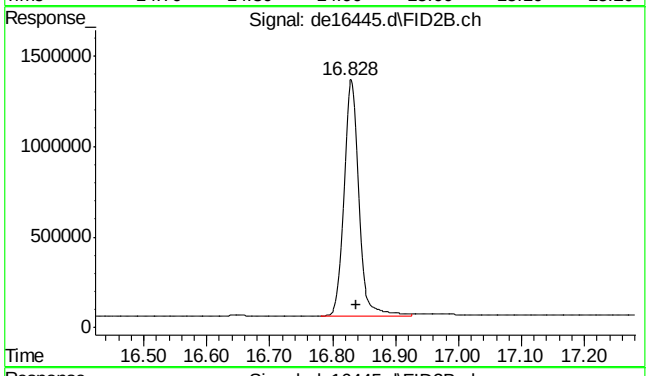


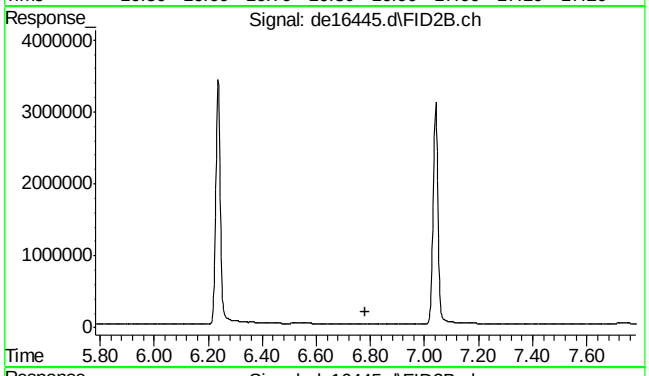
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 3355115
Conc: 49.49 µg/ml



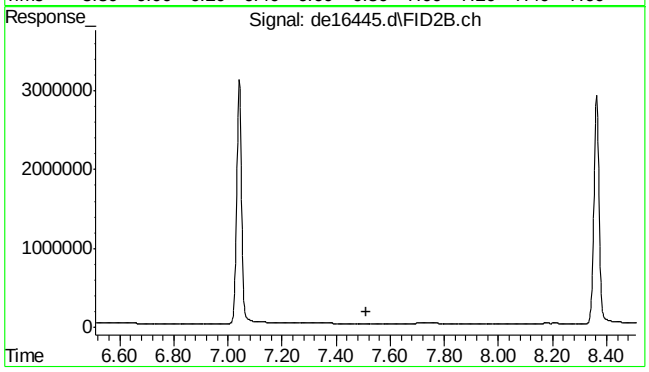
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 2178710
Conc: 32.13 µg/ml m



#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.

9.5.15

9

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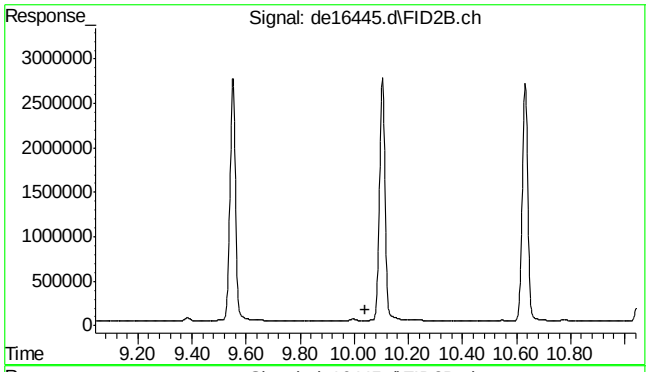
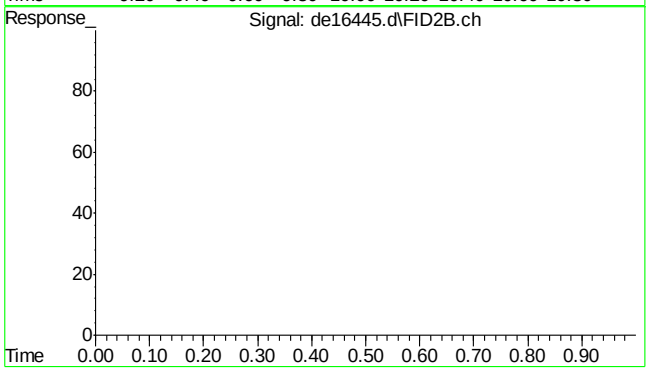


#44 bht

R.T.: 0.000 min
Exp R.T. : 10.042 min
Response: 0
Conc: N.D.



#45 bht

R.T.: 0.000 min
Exp R.T. : 23.000 min
Response: 0
Conc: N.D.

9.5.15

9

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16456.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 11:13 pm
Operator : thomasa
Sample : cc908-50,gde918
Misc : op49287,gde918,1000,,,2,,w
ALS Vial : 142 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:27:45 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) s 2-fluorobiphenyl	7.227	3644258	41.680 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 208.40%#	
6) s 2-bromonaphthalene	7.977	2515178	42.210 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 211.05%#	
11) s o-terphenyl	10.530	4262249	44.913 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 224.57%#	
35) s 1-chlorooctadecane	11.062	3321804	58.389 µg/ml
Spiked Amount 20.000 Range 8 - 28		Recovery = 291.95%#	
Target Compounds			
2) naphthalene	5.785	3916586	40.030 µg/ml
3) 2-methylnaphthalene	6.682	3907193	41.052 µg/ml
5) acenaphthylene	7.810	4048120	42.332 µg/ml
7) acenaphthene	8.055	4102620	42.764 µg/ml
8) fluorene	8.702	4094837	43.677 µg/ml
9) phenanthrene	9.898	4177417	44.756 µg/ml
10) anthracene	9.955	4120600	44.824 µg/ml
12) fluoranthene	11.420	4117510	45.389 µg/ml
13) pyrene	11.683	4154064	45.452 µg/ml
14) benzo(a)anthracene	13.257	4020685	45.915 µg/ml
15) chrysene	13.305	4031172	45.454 µg/ml
16) benzo(B)fluoranthene	14.565	4280531	47.867 µg/ml
17) benzo(k)fluoranthene	14.595	3812408	44.152 µg/ml
18) benzo(a)pyrene	14.905	3945256	44.880 µg/ml
19) indeno(1,2,3-cd)pyrene	16.052	4104276	47.333 µg/ml
20) dibenzo(ah)anthracene	16.095	3888078	46.443 µg/ml
21) benzo(ghi)perylene	16.278	3984085	46.233 µg/ml
25) h c-9	2.495	4552395	59.169 µg/mlm
26) h c-10	3.675	4532183	58.907 µg/ml
27) naphthalene #2	5.343	4802039	61.978 µg/ml
28) c-12	5.528	4636384	60.261 µg/ml
29) 2-methylnaphthalene #2	6.235	4700692	61.564 µg/ml
30) c-14	7.040	4495780	58.433 µg/ml
31) c-16	8.363	4449258	57.829 µg/ml
32) c-18	9.552	4273811	55.548 µg/ml
33) c-19	10.103	4358097	64.280 µg/ml
34) c-20	10.633	4236638	62.488 µg/ml
36) c-22	11.623	4144785	61.134 µg/ml
37) c-24	12.538	4007501	59.109 µg/ml
38) c-26	13.387	3886209	57.320 µg/ml

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16456.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 11:13 pm
Operator : thomasa
Sample : cc908-50,gde918
Misc : op49287,gde918,1000,,,2,,w
ALS Vial : 142 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:27:45 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc	Units
39)	c-28	14.178	3789057	55.887	µg/ml
40) h	c-30	14.927	3674386	54.196	µg/ml
41) h	c-36	16.838	2604558	38.416	µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.16

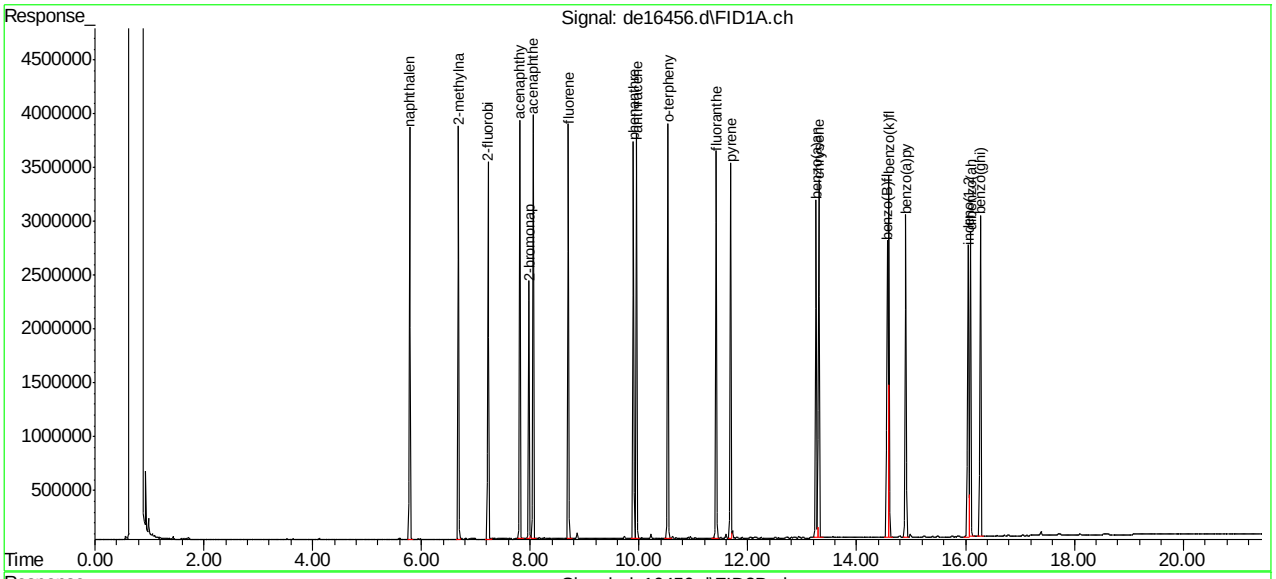
9

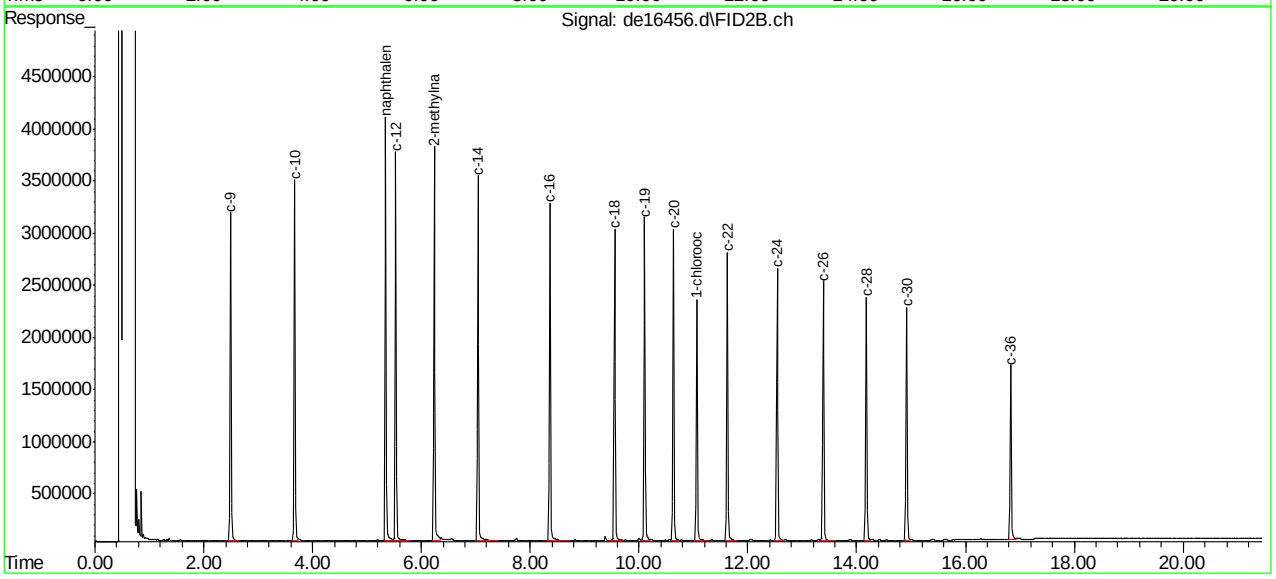
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16456.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 20 Dec 2016 11:13 pm
Operator : thomasa
Sample : cc908-50,gde918
Misc : op49287,gde918,1000,,,2,,w
ALS Vial : 142 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:27:45 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :





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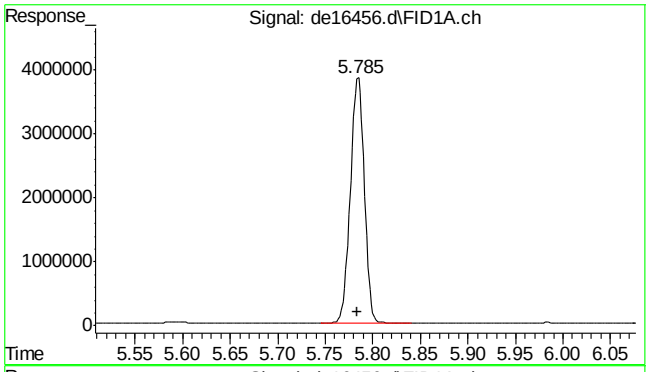
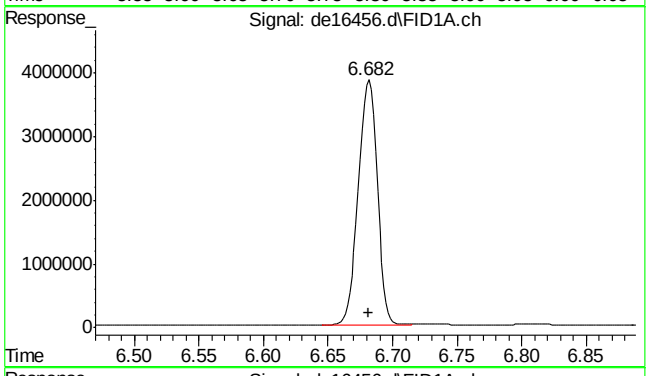


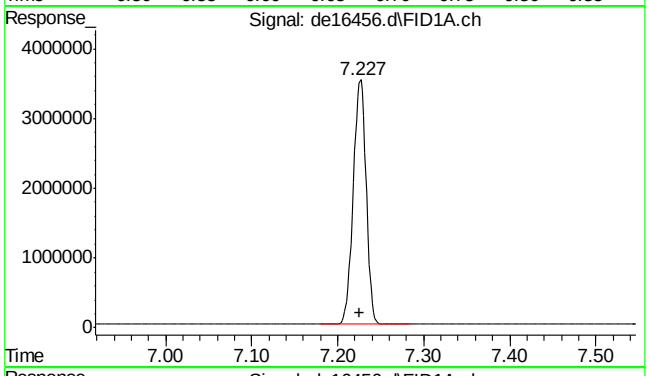
#2 naphthalene

R.T.: 5.785 min
Delta R.T.: 0.002 min
Response: 3916586
Conc: 40.03 µg/ml



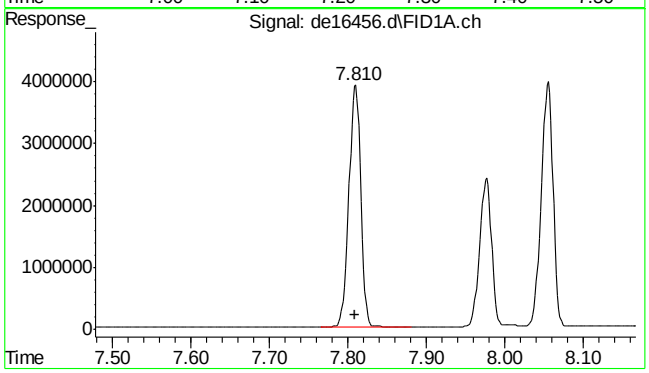
#3 2-methylnaphthalene

R.T.: 6.682 min
Delta R.T.: 0.000 min
Response: 3907193
Conc: 41.05 µg/ml



#4 2-fluorobiphenyl

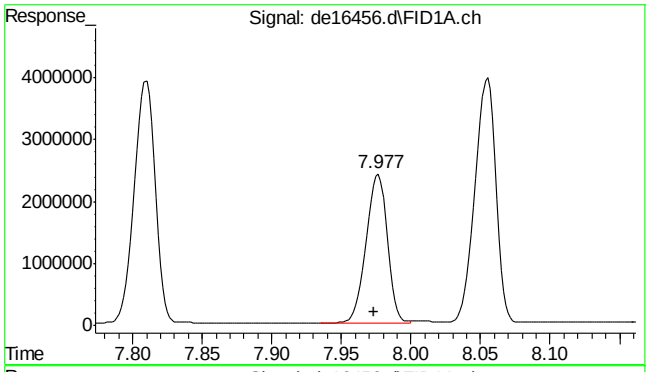
R.T.: 7.227 min
Delta R.T.: 0.002 min
Response: 3644258
Conc: 41.68 µg/ml



#5 acenaphthylene

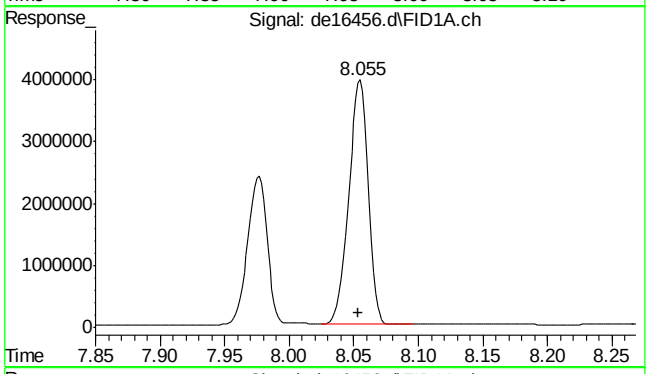
R.T.: 7.810 min
Delta R.T.: 0.002 min
Response: 4048120
Conc: 42.33 µg/ml

SGS ACCUTEST MC48999



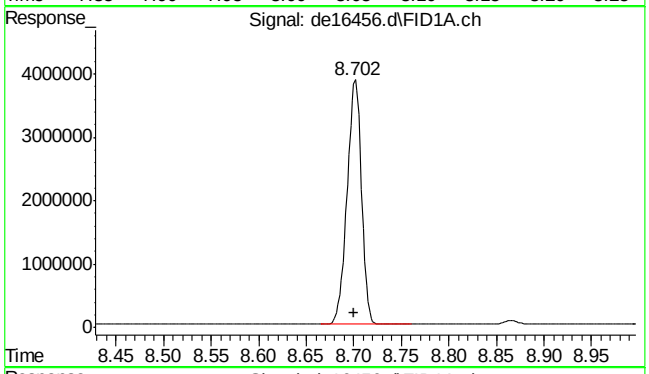
#6 2-bromonaphthalene

R.T.: 7.977 min
Delta R.T.: 0.003 min
Response: 2515178
Conc: 42.21 µg/ml



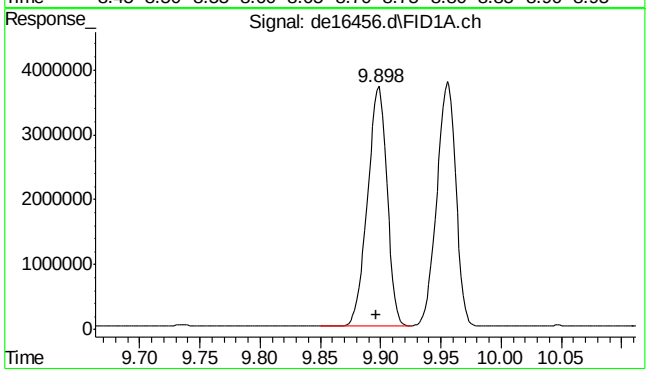
#7 acenaphthene

R.T.: 8.055 min
Delta R.T.: 0.002 min
Response: 4102620
Conc: 42.76 µg/ml



#8 fluorene

R.T.: 8.702 min
Delta R.T.: 0.002 min
Response: 4094837
Conc: 43.68 µg/ml



#9 phenanthrene

R.T.: 9.898 min
Delta R.T.: 0.002 min
Response: 4177417
Conc: 44.76 µg/ml

9.5.16

9

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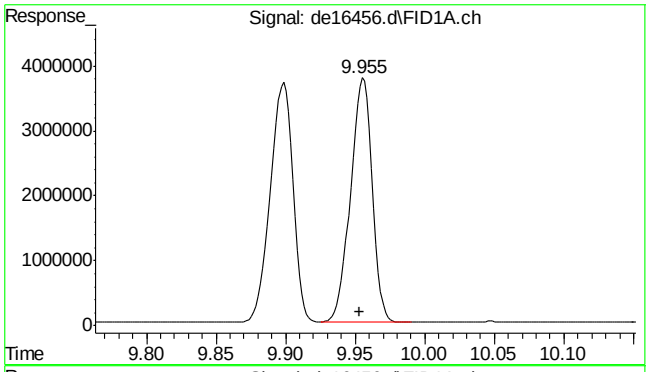
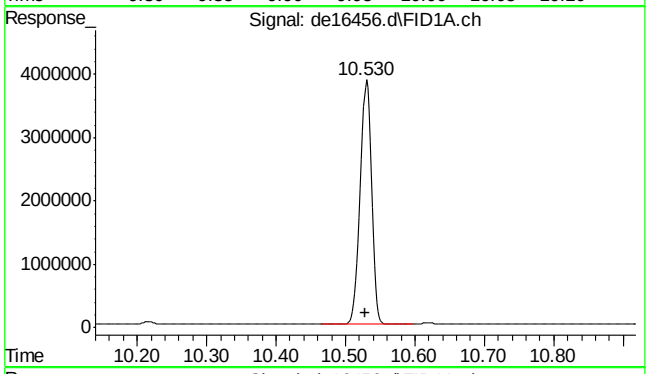


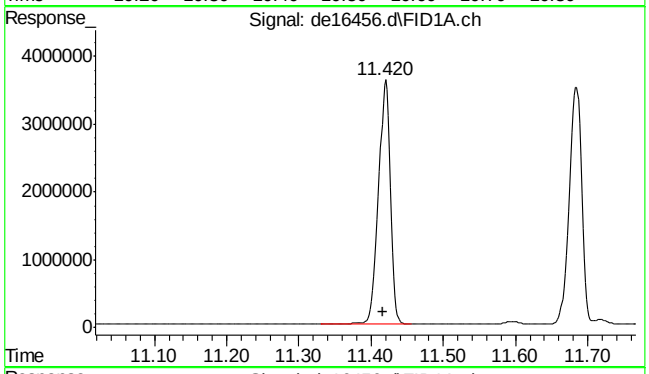
#10 anthracene

R.T.: 9.955 min
Delta R.T.: 0.002 min
Response: 4120600
Conc: 44.82 µg/ml



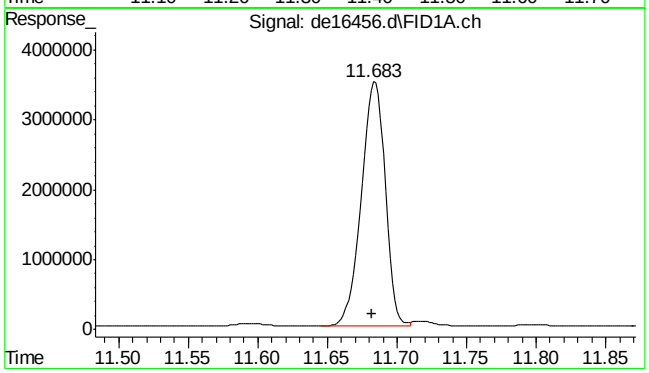
#11 o-terphenyl

R.T.: 10.530 min
Delta R.T.: 0.002 min
Response: 4262249
Conc: 44.91 µg/ml



#12 fluoranthene

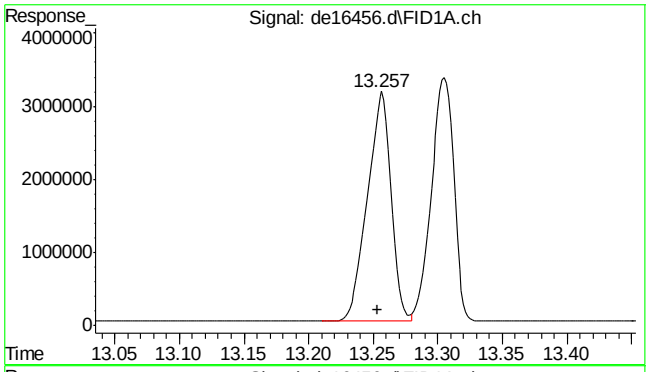
R.T.: 11.420 min
Delta R.T.: 0.003 min
Response: 4117510
Conc: 45.39 µg/ml



#13 pyrene

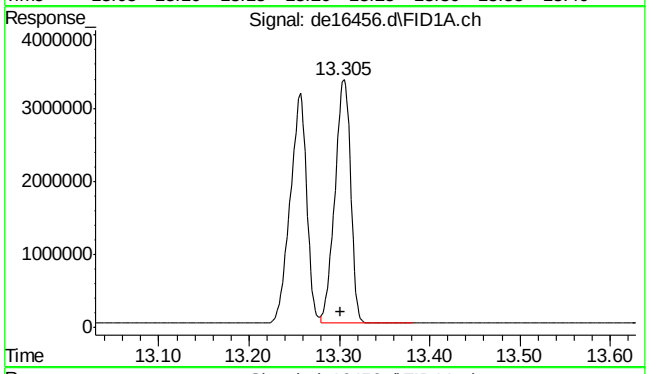
R.T.: 11.683 min
Delta R.T.: 0.002 min
Response: 4154064
Conc: 45.45 µg/ml

SGS ACCUTEST MC48999



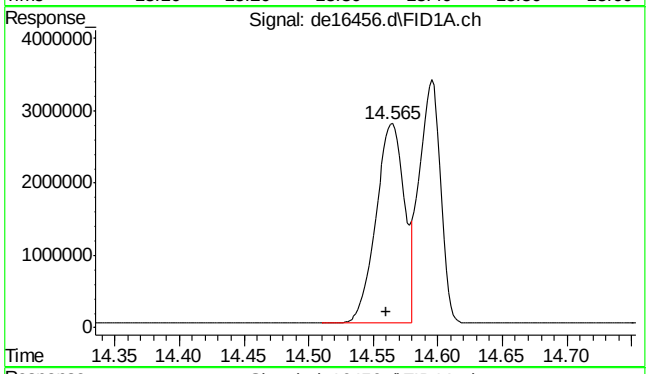
#14 benzo(a)anthracene

R.T.: 13.257 min
Delta R.T.: 0.003 min
Response: 4020685
Conc: 45.92 µg/ml



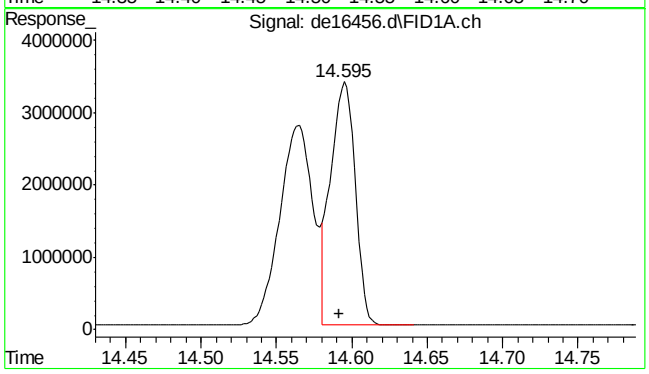
#15 chrysene

R.T.: 13.305 min
Delta R.T.: 0.003 min
Response: 4031172
Conc: 45.45 µg/ml



#16 benzo(B)fluoranthene

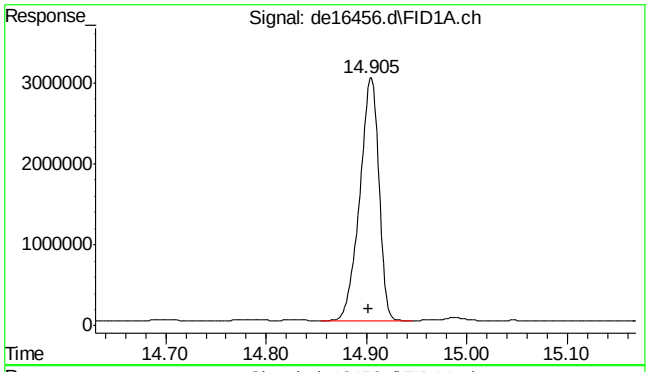
R.T.: 14.565 min
Delta R.T.: 0.005 min
Response: 4280531
Conc: 47.87 µg/ml



#17 benzo(k)fluoranthene

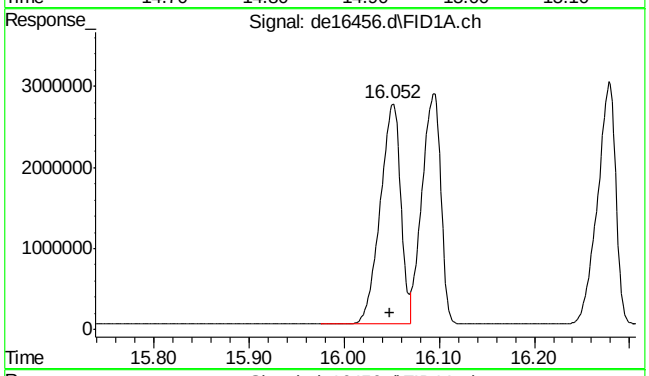
R.T.: 14.595 min
Delta R.T.: 0.003 min
Response: 3812408
Conc: 44.15 µg/ml

SGS ACCUTEST MC48999



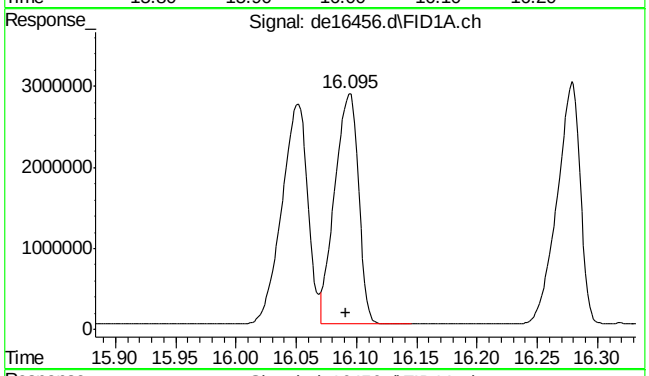
#18 benzo(a)pyrene

R.T.: 14.905 min
Delta R.T.: 0.003 min
Response: 3945256
Conc: 44.88 µg/ml



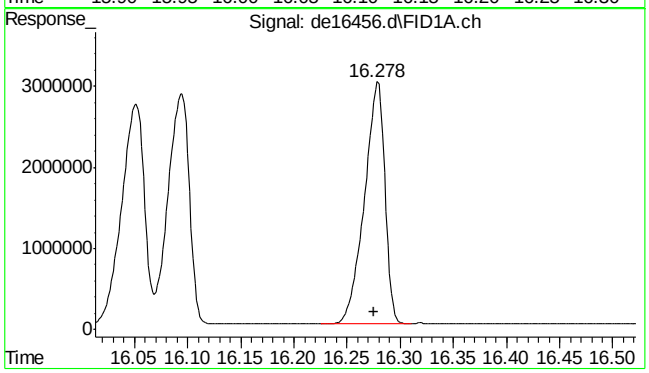
#19 indeno(1,2,3-cd)pyrene

R.T.: 16.052 min
Delta R.T.: 0.003 min
Response: 4104276
Conc: 47.33 µg/ml



#20 dibenzo(ah)anthracene

R.T.: 16.095 min
Delta R.T.: 0.003 min
Response: 3888078
Conc: 46.44 µg/ml



#21 benzo(ghi)perylene

R.T.: 16.278 min
Delta R.T.: 0.003 min
Response: 3984085
Conc: 46.23 µg/ml

9.5.16

9

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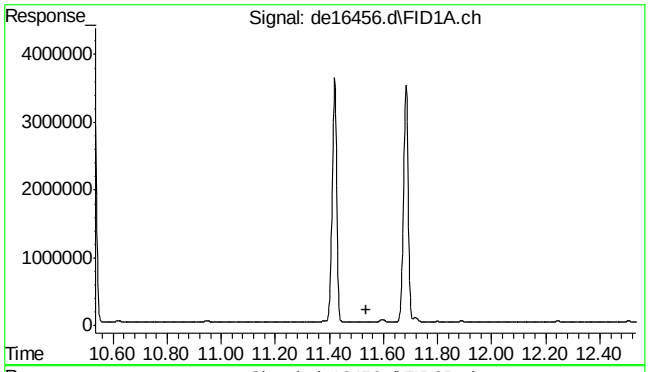
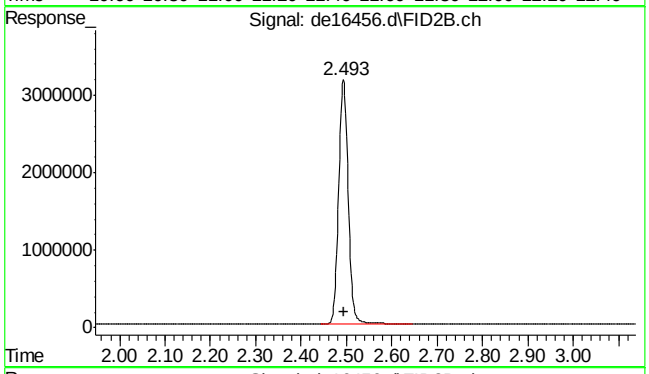


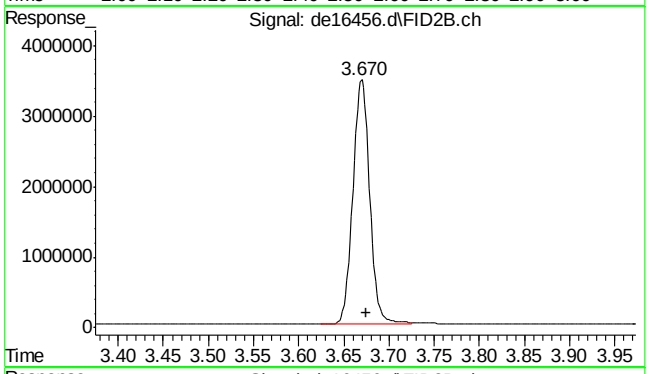
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



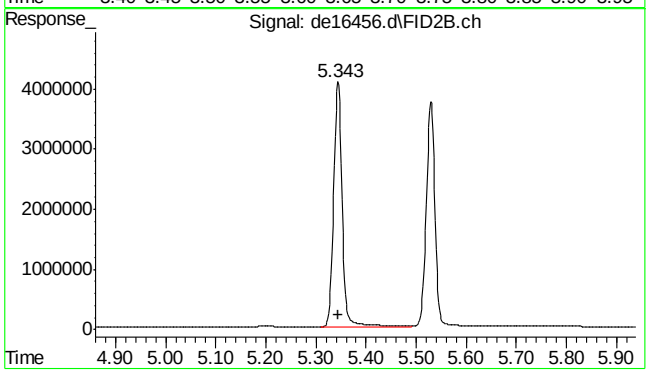
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 4552395
Conc: 59.17 µg/ml m



#26 c-10

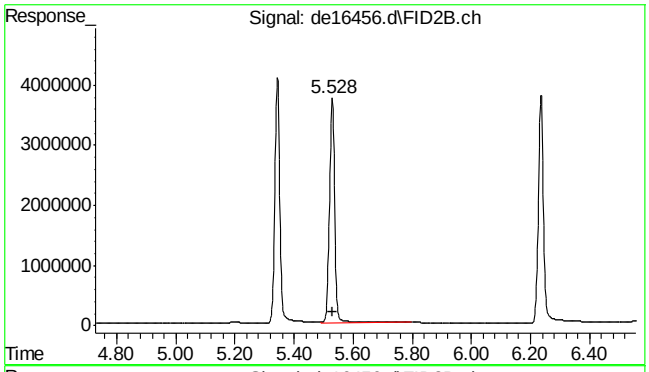
R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 4532183
Conc: 58.91 µg/ml



#27 naphthalene #2

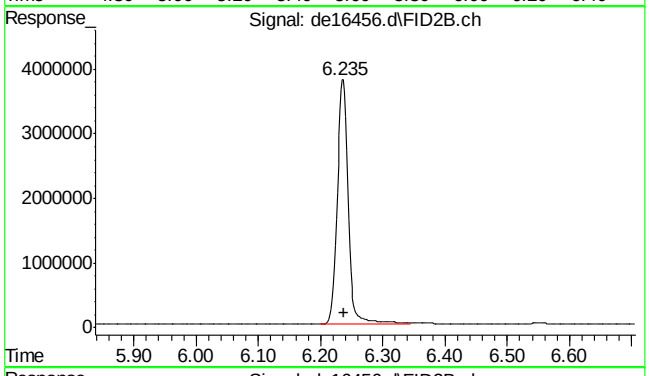
R.T.: 5.343 min
Delta R.T.: -0.002 min
Response: 4802039
Conc: 61.98 µg/ml

SGS ACCUTEST MC48999



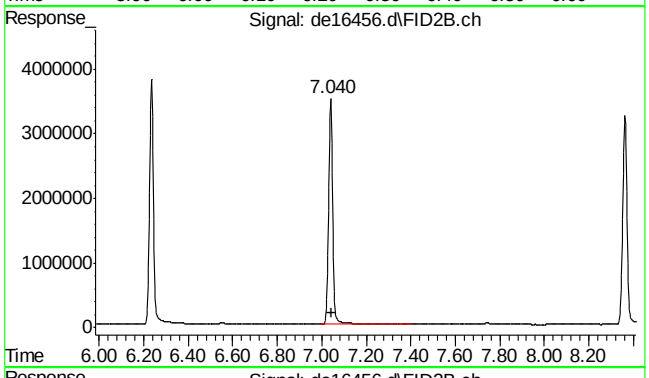
#28 c-12

R.T.: 5.528 min
Delta R.T.: -0.002 min
Response: 4636384
Conc: 60.26 µg/ml



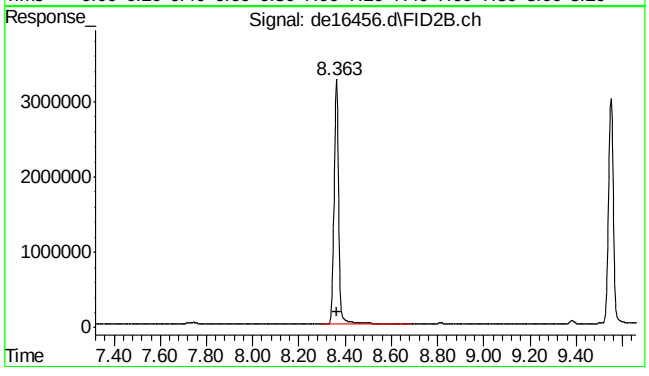
#29 2-methylnaphthalene #2

R.T.: 6.235 min
Delta R.T.: -0.002 min
Response: 4700692
Conc: 61.56 µg/ml



#30 c-14

R.T.: 7.040 min
Delta R.T.: -0.002 min
Response: 4495780
Conc: 58.43 µg/ml



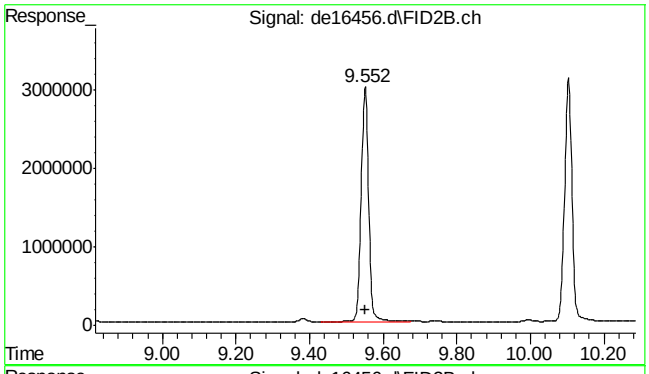
#31 c-16

R.T.: 8.363 min
Delta R.T.: 0.000 min
Response: 4449258
Conc: 57.83 µg/ml

9.5.16

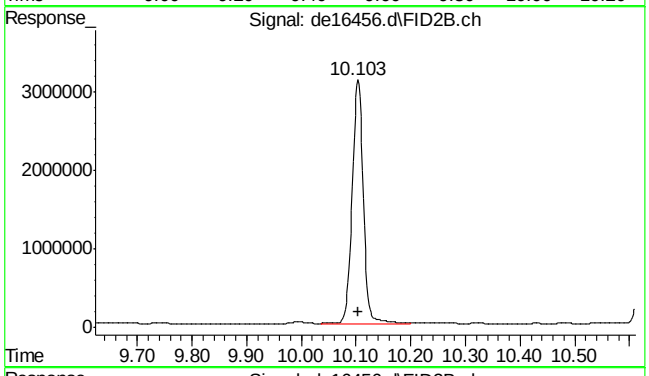
9

SGS ACCUTEST MC48999



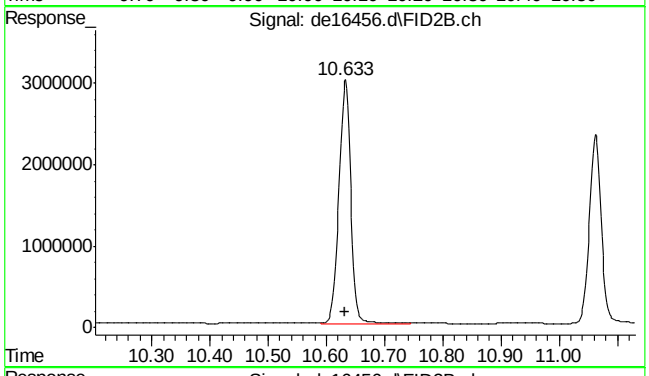
#32 c-18

R.T.: 9.552 min
Delta R.T.: 0.002 min
Response: 4273811
Conc: 55.55 µg/ml



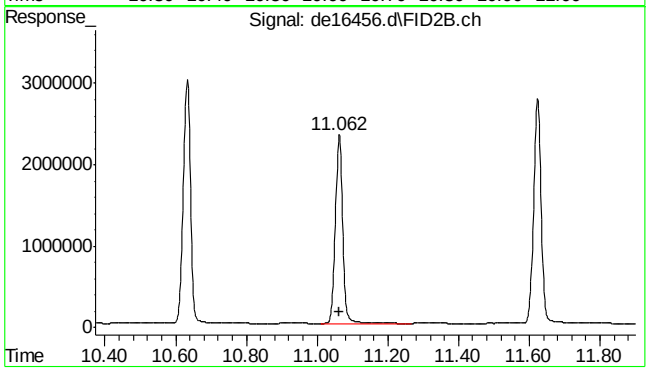
#33 c-19

R.T.: 10.103 min
Delta R.T.: -0.002 min
Response: 4358097
Conc: 64.28 µg/ml



#34 c-20

R.T.: 10.633 min
Delta R.T.: 0.002 min
Response: 4236638
Conc: 62.49 µg/ml



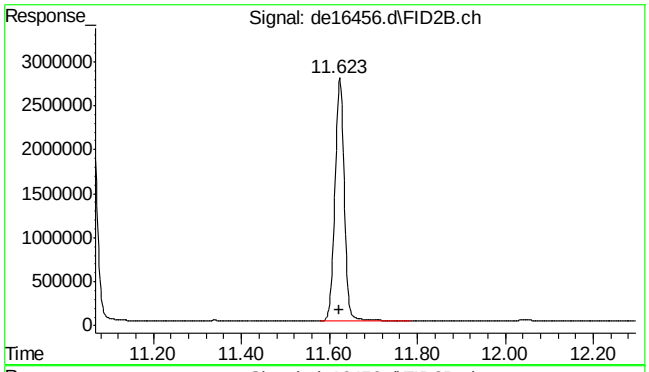
#35 1-chlorooctadecane

R.T.: 11.062 min
Delta R.T.: -0.002 min
Response: 3321804
Conc: 58.39 µg/ml

9.5.16

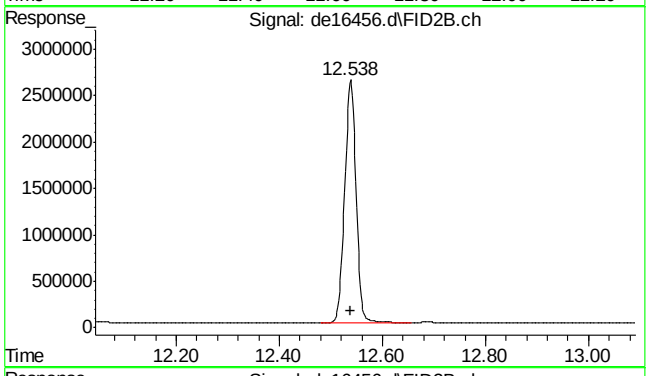
9

SGS ACCUTEST MC48999



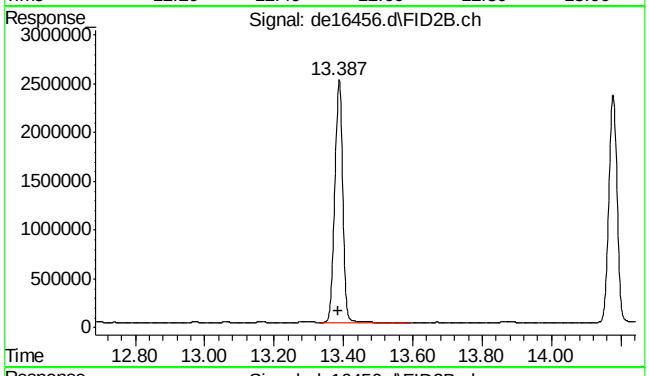
#36 c-22

R.T.: 11.623 min
Delta R.T.: 0.000 min
Response: 4144785
Conc: 61.13 µg/ml



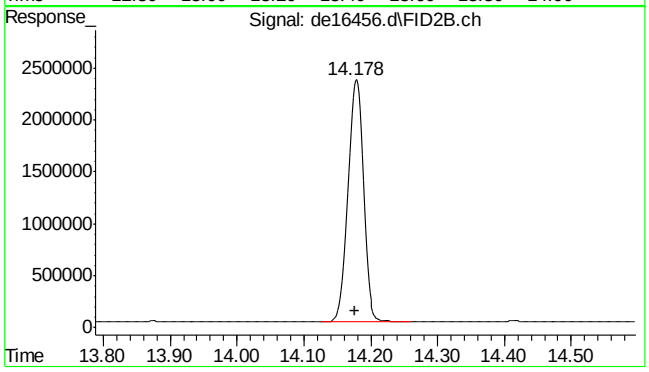
#37 c-24

R.T.: 12.538 min
Delta R.T.: 0.000 min
Response: 4007501
Conc: 59.11 µg/ml



#38 c-26

R.T.: 13.387 min
Delta R.T.: 0.002 min
Response: 3886209
Conc: 57.32 µg/ml



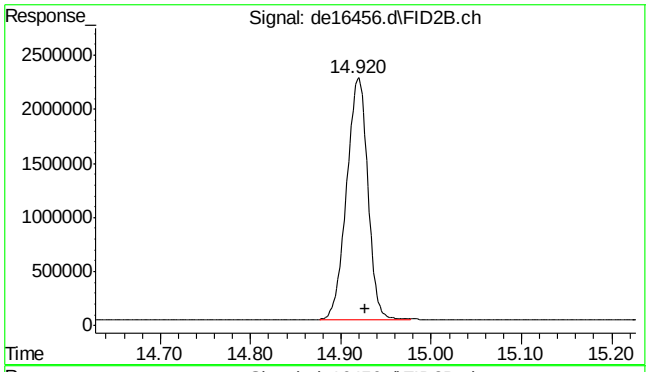
#39 c-28

R.T.: 14.178 min
Delta R.T.: 0.002 min
Response: 3789057
Conc: 55.89 µg/ml

9.5.16

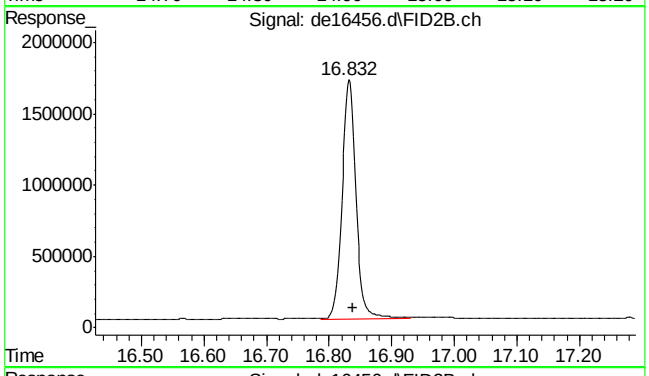
9

SGS ACCUTEST MC48999



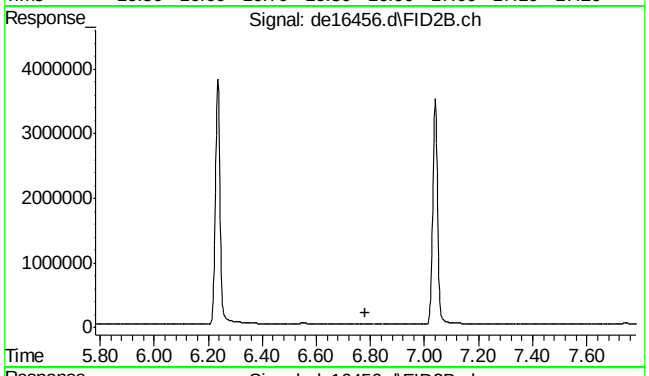
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 3674386
Conc: 54.20 µg/ml



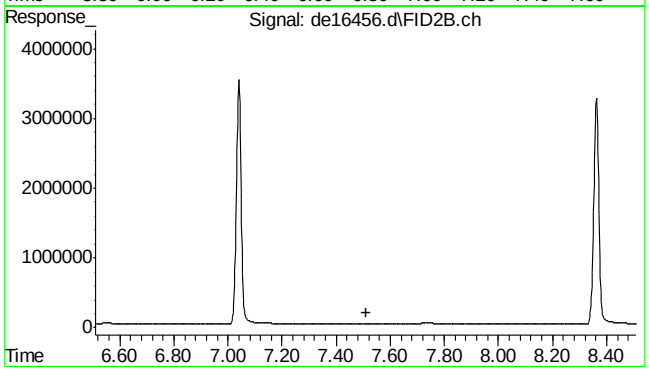
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 2604558
Conc: 38.42 µg/ml m



#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



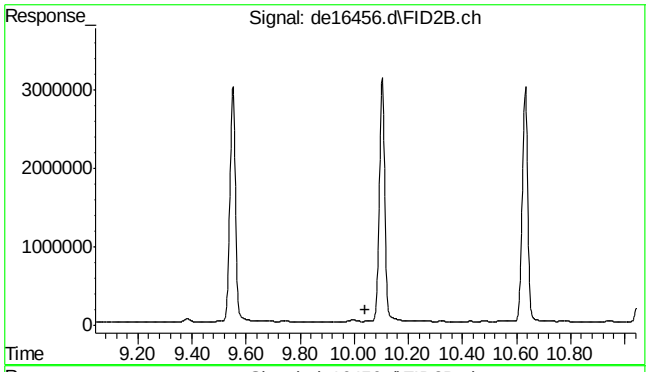
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.

9.5.16

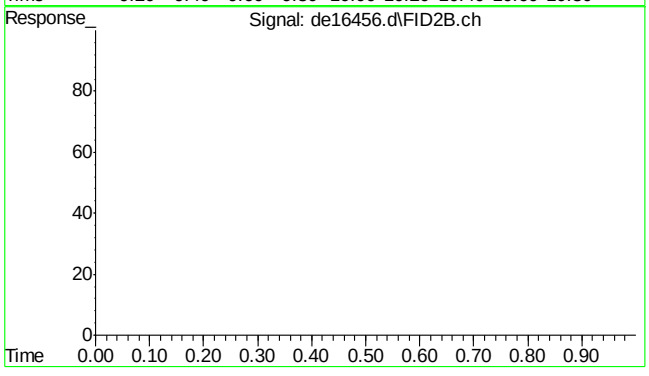
9

SGS ACCUTEST MC48999



#44 bht

```
      R.T.:    0.000 min
Exp R.T.  :   10.042 min
  Response:         0
      Conc:   N.D.
```



#45 bht

```
      R.T.:    0.000 min
Exp R.T.  :   23.000 min
  Response:         0
      Conc:   N.D.
```

9.5.16

9

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16467.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 21 Dec 2016 4:20 am
Operator : thomasa
Sample : cc908-50,gde918
Misc : op49287,gde918,1000,,,2,,w
ALS Vial : 144 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:26:36 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
4) s	2-fluorobiphenyl	7.225	3448053	39.436 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 197.18%#
6) s	2-bromonaphthalene	7.975	2415406	40.536 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 202.68%#
11) s	o-terphenyl	10.530	4058294	42.764 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 213.82%#
35) s	1-chlorooctadecane	11.063	3296987	57.952 µg/ml
Spiked Amount	20.000	Range	8 - 28	Recovery = 289.76%#
	Target Compounds			
2)	naphthalene	5.783	3701574	37.832 µg/ml
3)	2-methylnaphthalene	6.680	3694396	38.816 µg/ml
5)	acenaphthylene	7.810	3837878	40.133 µg/ml
7)	acenaphthene	8.053	3899834	40.651 µg/ml
8)	fluorene	8.700	3892647	41.520 µg/ml
9)	phenanthrene	9.897	3983390	42.677 µg/ml
10)	anthracene	9.955	3922304	42.666 µg/ml
12)	fluoranthene	11.418	3935393	43.381 µg/ml
13)	pyrene	11.683	3972878	43.469 µg/ml
14)	benzo(a)anthracene	13.255	3830115	43.739 µg/ml
15)	chrysene	13.305	3886233	43.819 µg/ml
16)	benzo(B)fluoranthene	14.563	4147323	46.377 µg/ml
17)	benzo(k)fluoranthene	14.595	3641454	42.172 µg/ml
18)	benzo(a)pyrene	14.905	3803027	43.262 µg/ml
19)	indeno(1,2,3-cd)pyrene	16.052	3963009	45.704 µg/ml
20)	dibenzo(ah)anthracene	16.093	3760660	44.921 µg/ml
21)	benzo(ghi)perylene	16.278	3864567	44.846 µg/ml
25) h	c-9	2.495	4382787	56.965 µg/mlm
26) h	c-10	3.675	4358280	56.646 µg/ml
27)	naphthalene #2	5.343	4632497	59.790 µg/ml
28)	c-12	5.530	4465358	58.038 µg/ml
29)	2-methylnaphthalene #2	6.235	4542695	59.495 µg/ml
30)	c-14	7.040	4348393	56.518 µg/ml
31)	c-16	8.363	4344838	56.472 µg/ml
32)	c-18	9.552	4211116	54.733 µg/ml
33)	c-19	10.105	4294822	63.347 µg/ml
34)	c-20	10.633	4191354	61.821 µg/ml
36)	c-22	11.623	4125560	60.850 µg/ml
37)	c-24	12.538	4017340	59.254 µg/ml
38)	c-26	13.387	3907136	57.628 µg/ml

SGS ACCUTEST MC48999

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16467.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 21 Dec 2016 4:20 am
Operator : thomasa
Sample : cc908-50,gde918
Misc : op49287,gde918,1000,,,2,,w
ALS Vial : 144 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:26:36 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

	Compound	R.T.	Response	Conc Units
39)	c-28	14.178	3831265	56.509 µg/ml
40) h	c-30	14.927	3698434	54.550 µg/ml
41) h	c-36	16.838	2649028	39.072 µg/mlm

(f)=RT Delta > 1/2 Window (m)=manual int.

9.5.17

9

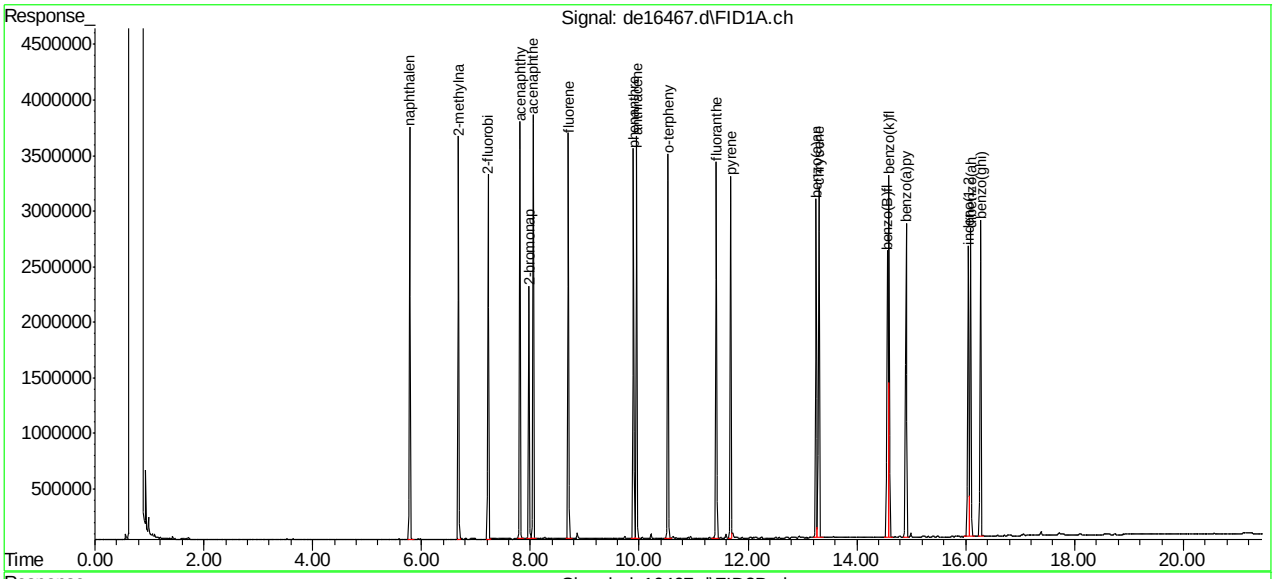
SGS ACCUTEST MC48999

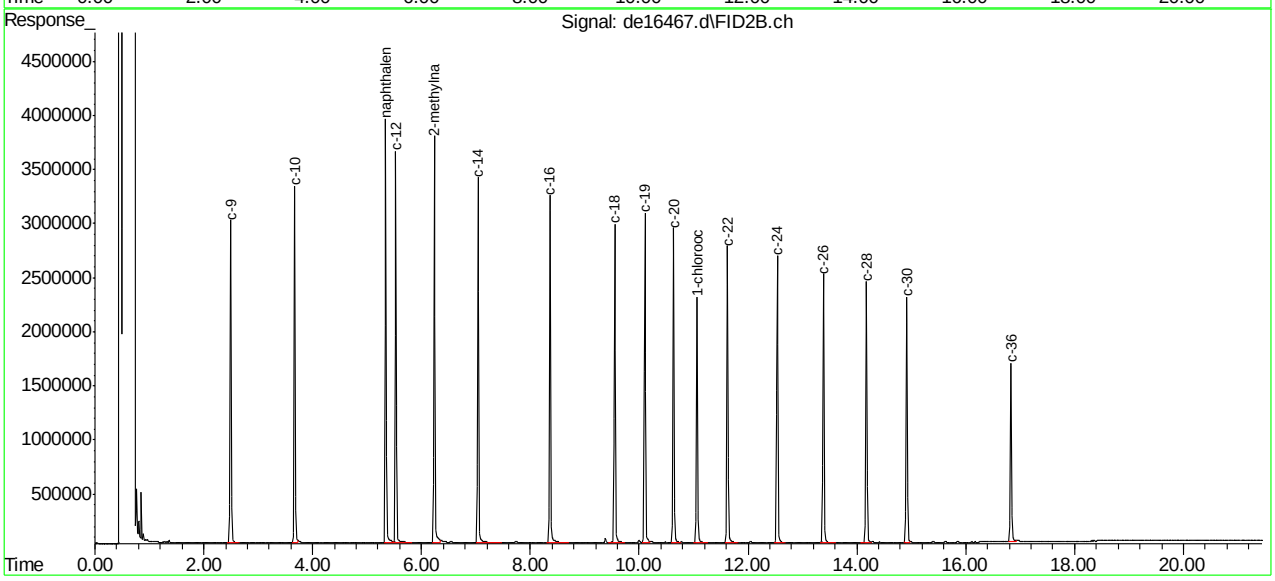
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\DE161220aEPH\
Data File : de16467.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 21 Dec 2016 4:20 am
Operator : thomasa
Sample : cc908-50,gde918
Misc : op49287,gde918,1000,,,2,,w
ALS Vial : 144 Sample Multiplier: 1

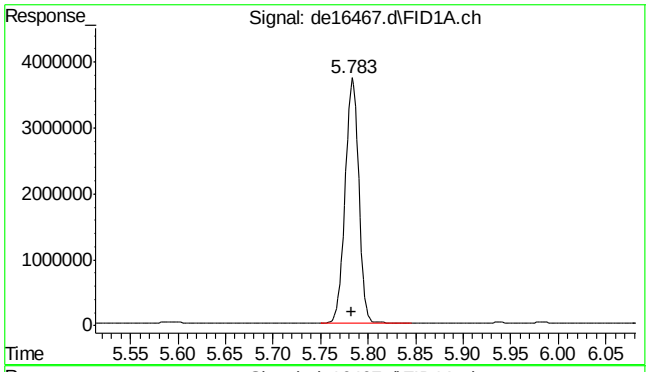
Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 21 11:26:36 2016
Quant Method : C:\msdchem\1\METHODS\EPH161220aW.M
Quant Title : BMAEPH-working method
QLast Update : Tue Dec 20 18:21:32 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :



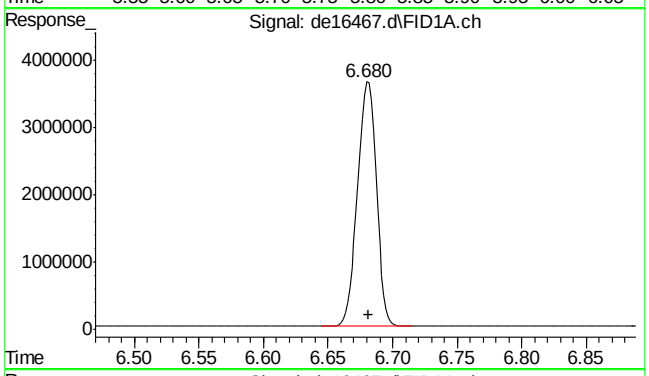


SGS ACCUTEST MC48999



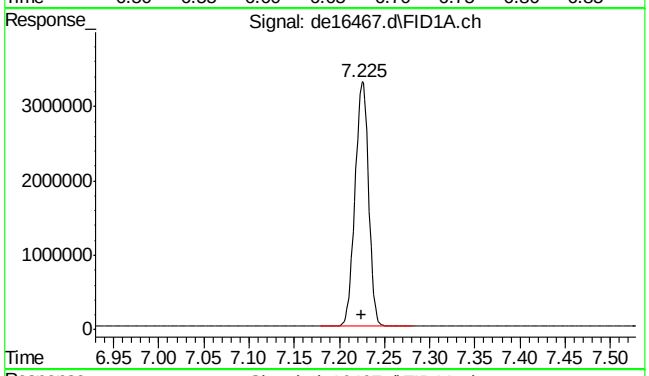
#2 naphthalene

R.T.: 5.783 min
Delta R.T.: 0.000 min
Response: 3701574
Conc: 37.83 µg/ml



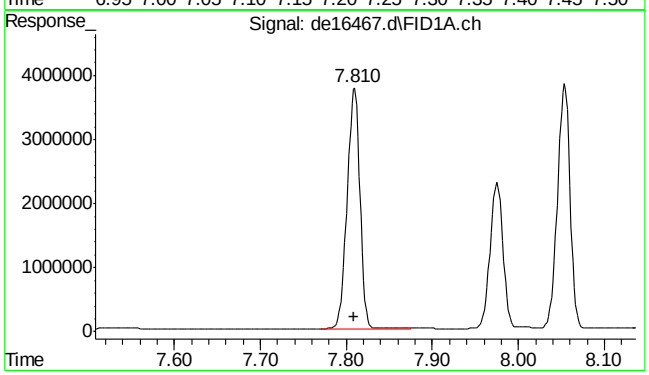
#3 2-methylnaphthalene

R.T.: 6.680 min
Delta R.T.: -0.002 min
Response: 3694396
Conc: 38.82 µg/ml



#4 2-fluorobiphenyl

R.T.: 7.225 min
Delta R.T.: 0.000 min
Response: 3448053
Conc: 39.44 µg/ml



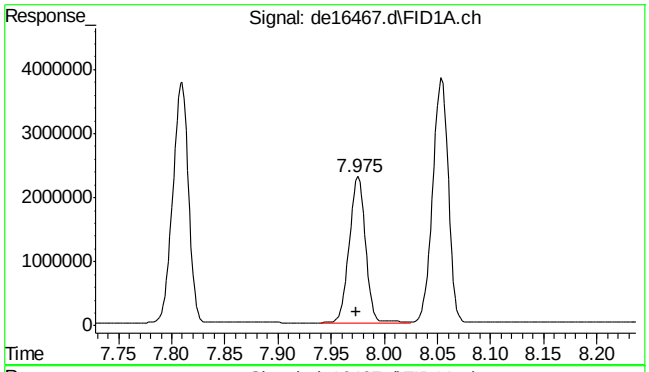
#5 acenaphthylene

R.T.: 7.810 min
Delta R.T.: 0.002 min
Response: 3837878
Conc: 40.13 µg/ml

9.5.17

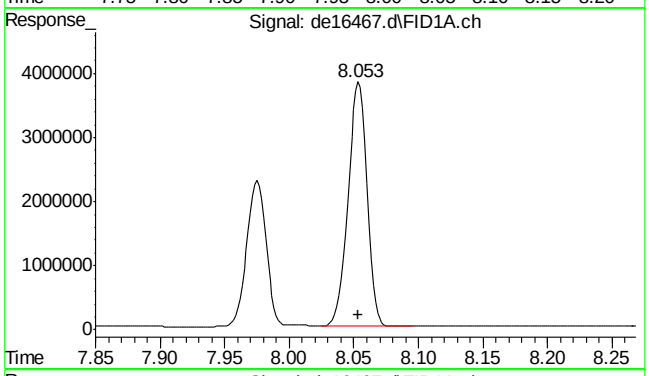
9

SGS ACCUTEST MC48999



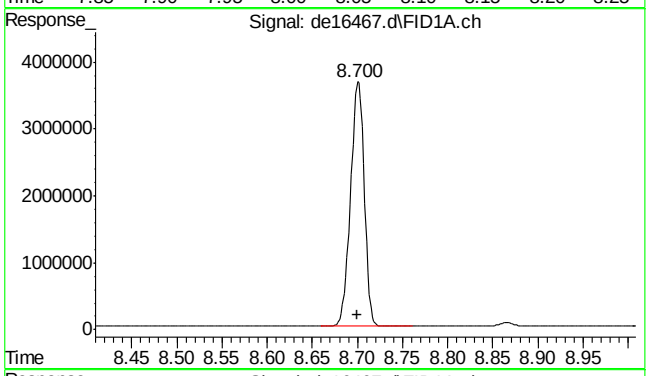
#6 2-bromonaphthalene

R.T.: 7.975 min
Delta R.T.: 0.002 min
Response: 2415406
Conc: 40.54 µg/ml



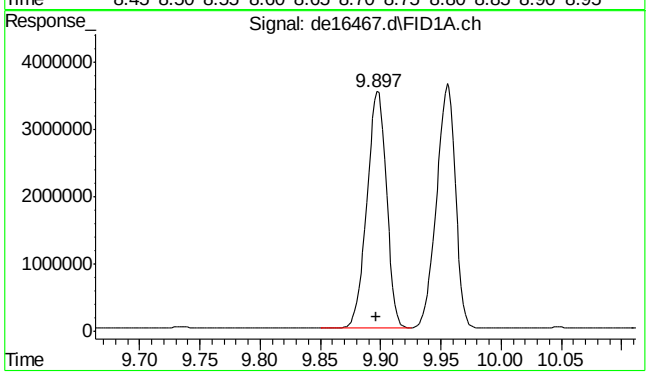
#7 acenaphthene

R.T.: 8.053 min
Delta R.T.: 0.000 min
Response: 3899834
Conc: 40.65 µg/ml



#8 fluorene

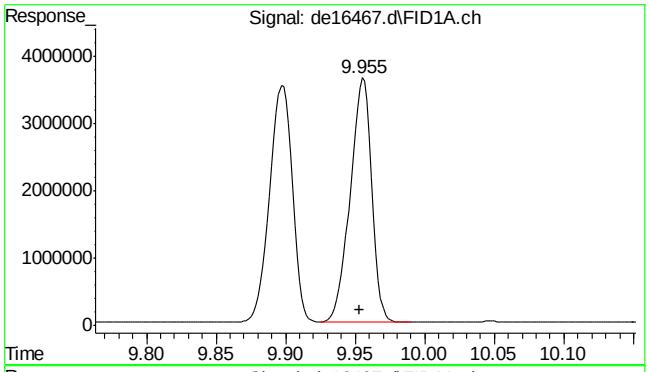
R.T.: 8.700 min
Delta R.T.: 0.000 min
Response: 3892647
Conc: 41.52 µg/ml



#9 phenanthrene

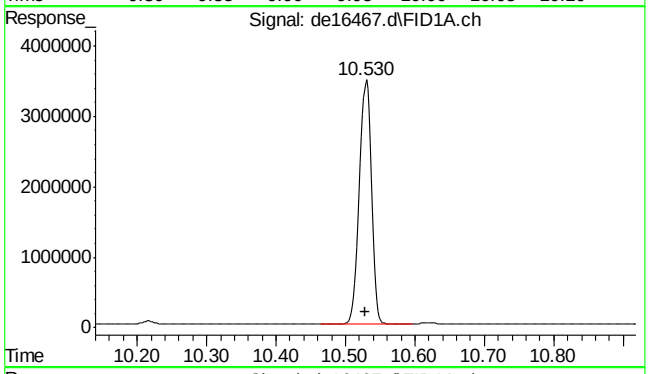
R.T.: 9.897 min
Delta R.T.: 0.000 min
Response: 3983390
Conc: 42.68 µg/ml

SGS ACCUTEST MC48999



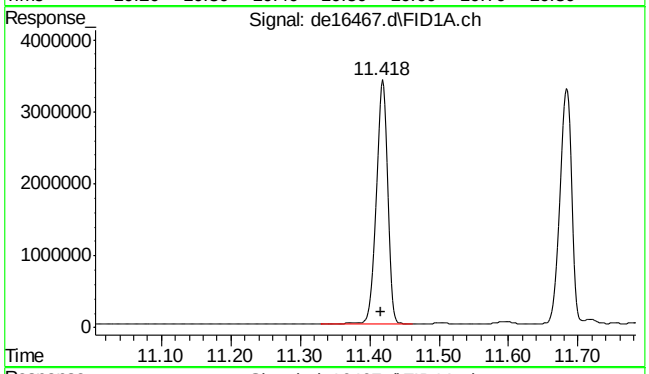
#10 anthracene

R.T.: 9.955 min
Delta R.T.: 0.002 min
Response: 3922304
Conc: 42.67 µg/ml



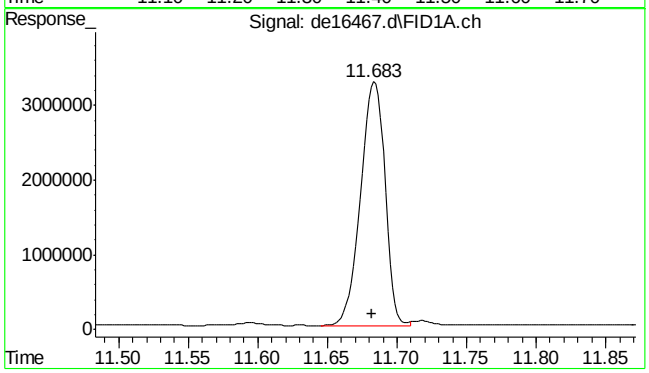
#11 o-terphenyl

R.T.: 10.530 min
Delta R.T.: 0.002 min
Response: 4058294
Conc: 42.76 µg/ml



#12 fluoranthene

R.T.: 11.418 min
Delta R.T.: 0.002 min
Response: 3935393
Conc: 43.38 µg/ml



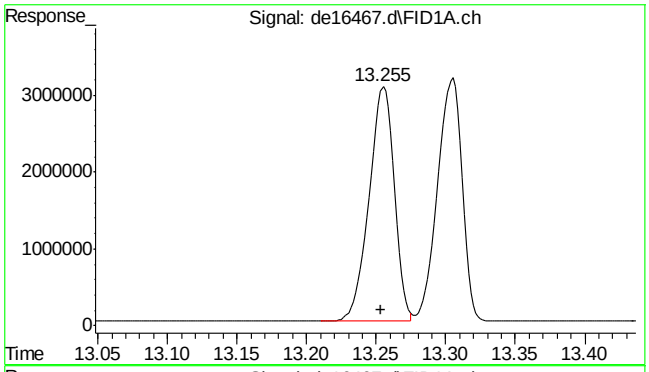
#13 pyrene

R.T.: 11.683 min
Delta R.T.: 0.002 min
Response: 3972878
Conc: 43.47 µg/ml

9.5.17

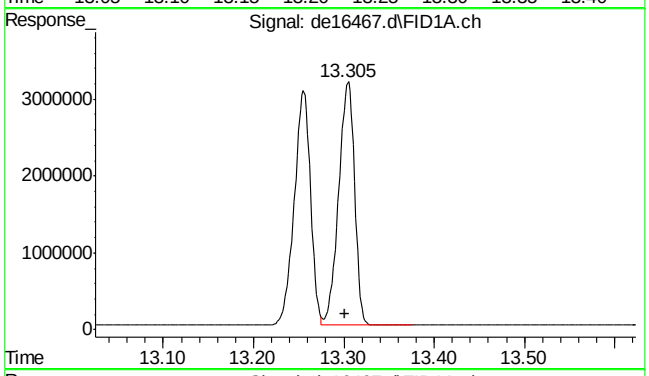
9

SGS ACCUTEST MC48999



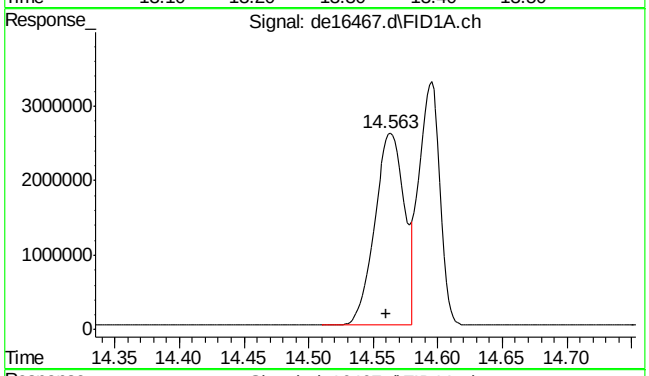
#14 benzo(a)anthracene

R.T.: 13.255 min
Delta R.T.: 0.002 min
Response: 3830115
Conc: 43.74 µg/ml



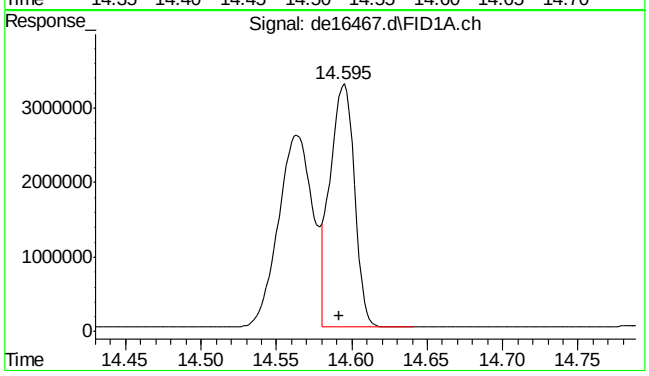
#15 chrysene

R.T.: 13.305 min
Delta R.T.: 0.003 min
Response: 3886233
Conc: 43.82 µg/ml



#16 benzo(B)fluoranthene

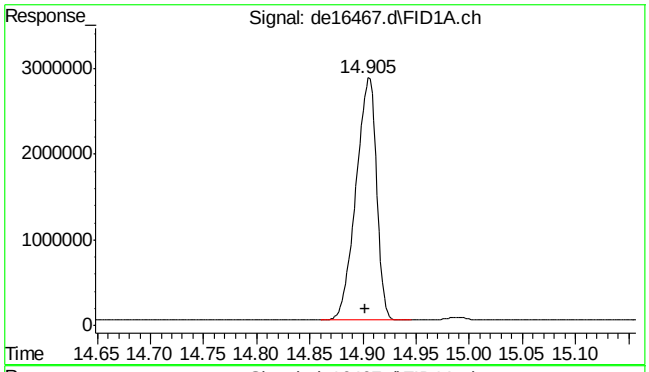
R.T.: 14.563 min
Delta R.T.: 0.003 min
Response: 4147323
Conc: 46.38 µg/ml



#17 benzo(k)fluoranthene

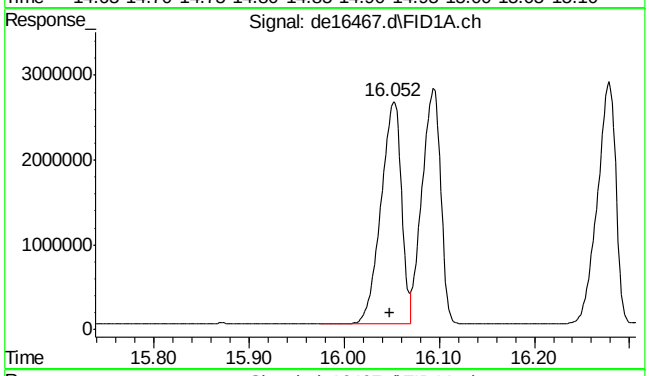
R.T.: 14.595 min
Delta R.T.: 0.003 min
Response: 3641454
Conc: 42.17 µg/ml

SGS ACCUTEST MC48999



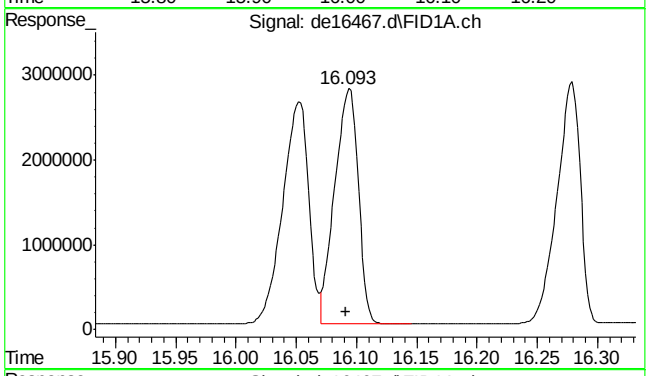
#18 benzo(a)pyrene

R.T.: 14.905 min
Delta R.T.: 0.003 min
Response: 3803027
Conc: 43.26 µg/ml



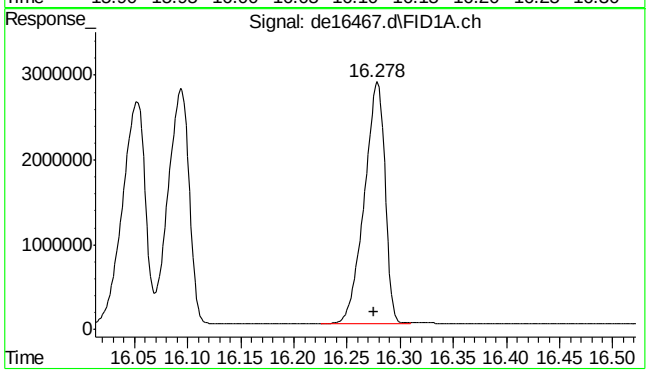
#19 indeno(1,2,3-cd)pyrene

R.T.: 16.052 min
Delta R.T.: 0.003 min
Response: 3963009
Conc: 45.70 µg/ml



#20 dibenzo(ah)anthracene

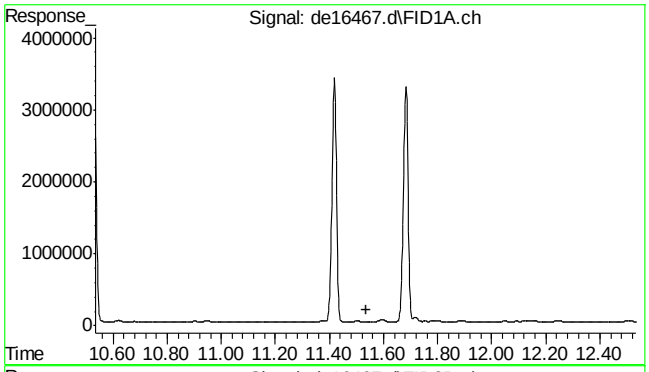
R.T.: 16.093 min
Delta R.T.: 0.002 min
Response: 3760660
Conc: 44.92 µg/ml



#21 benzo(ghi)perylene

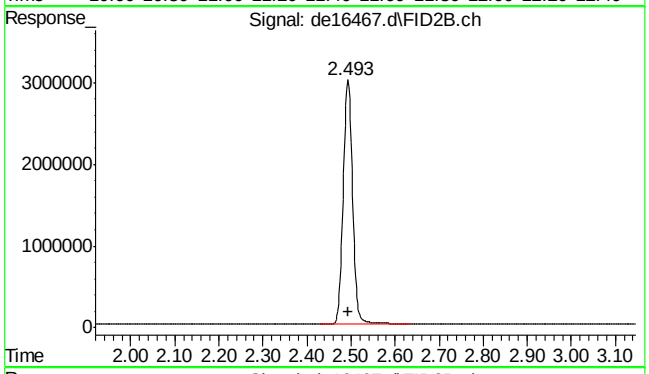
R.T.: 16.278 min
Delta R.T.: 0.003 min
Response: 3864567
Conc: 44.85 µg/ml

SGS ACCUTEST MC48999



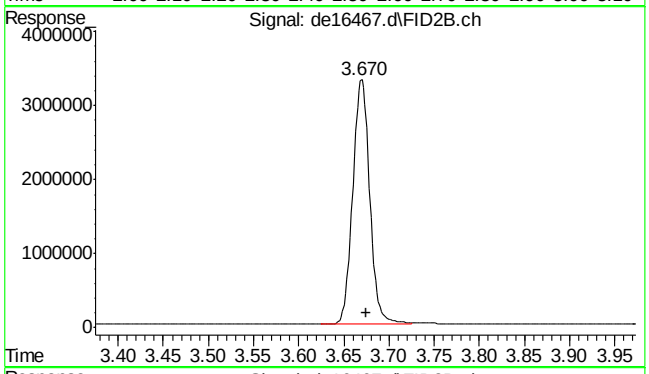
#22 bht

R.T.: 0.000 min
Exp R.T. : 11.535 min
Response: 0
Conc: N.D.



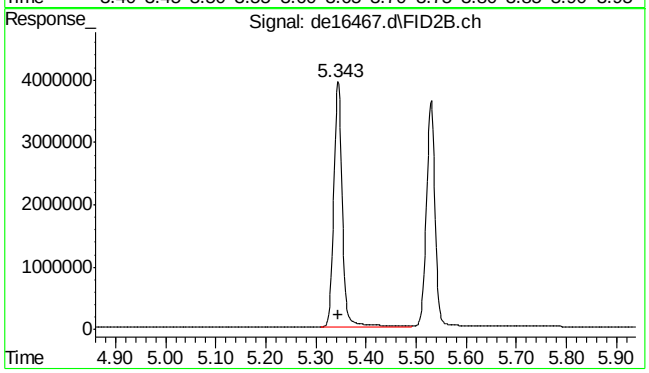
#25 c-9

R.T.: 2.495 min
Delta R.T.: 0.000 min
Response: 4382787
Conc: 56.96 µg/ml m



#26 c-10

R.T.: 3.675 min
Delta R.T.: 0.000 min
Response: 4358280
Conc: 56.65 µg/ml



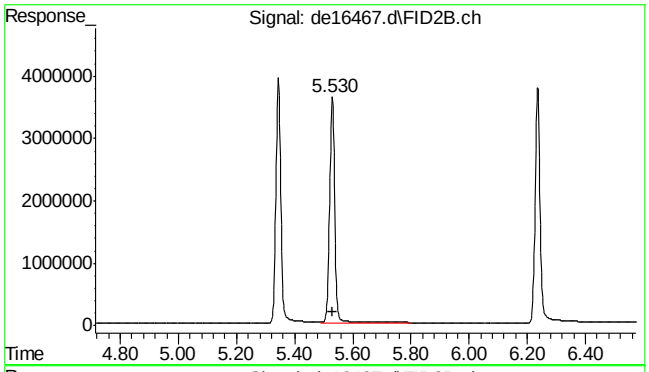
#27 naphthalene #2

R.T.: 5.343 min
Delta R.T.: -0.002 min
Response: 4632497
Conc: 59.79 µg/ml

9.5.17

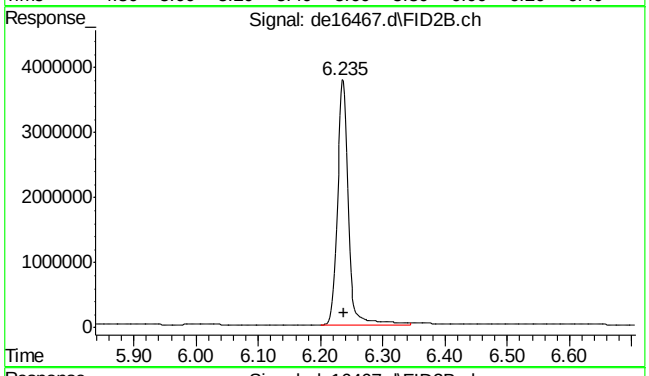
9

SGS ACCUTEST MC48999



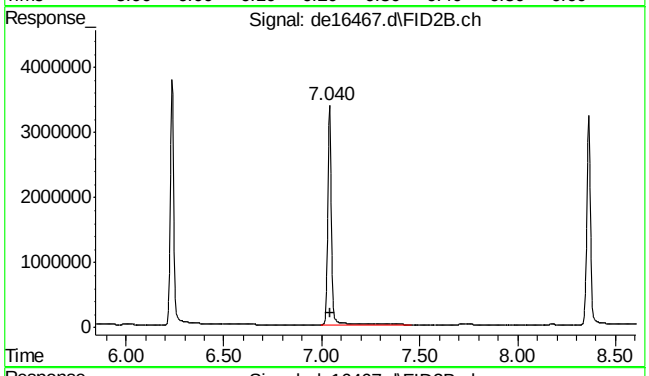
#28 c-12

R.T.: 5.530 min
Delta R.T.: 0.000 min
Response: 4465358
Conc: 58.04 µg/ml



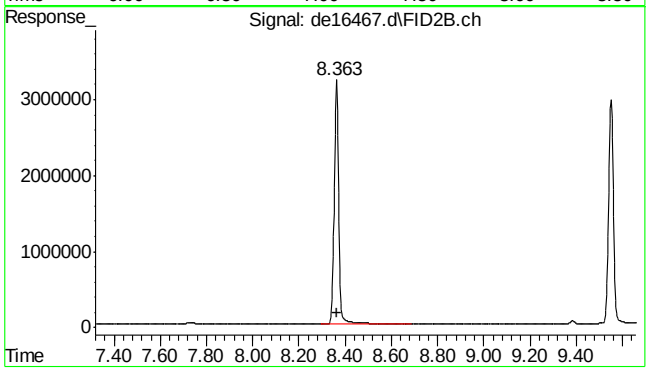
#29 2-methylnaphthalene #2

R.T.: 6.235 min
Delta R.T.: -0.002 min
Response: 4542695
Conc: 59.49 µg/ml



#30 c-14

R.T.: 7.040 min
Delta R.T.: -0.002 min
Response: 4348393
Conc: 56.52 µg/ml



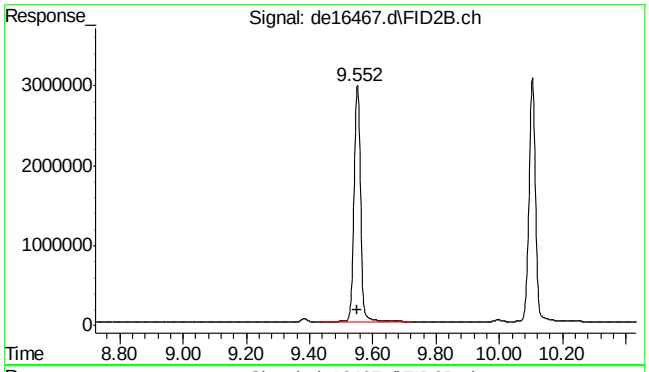
#31 c-16

R.T.: 8.363 min
Delta R.T.: 0.000 min
Response: 4344838
Conc: 56.47 µg/ml

9.5.17

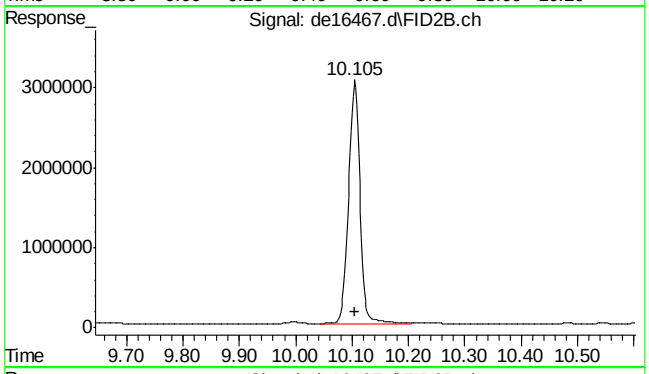
9

SGS ACCUTEST MC48999



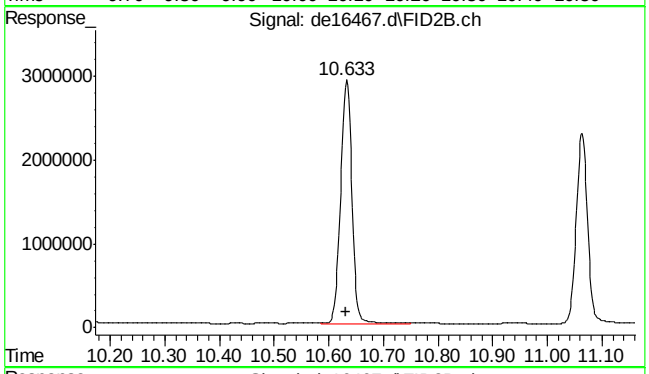
#32 c-18

R.T.: 9.552 min
Delta R.T.: 0.002 min
Response: 4211116
Conc: 54.73 µg/ml



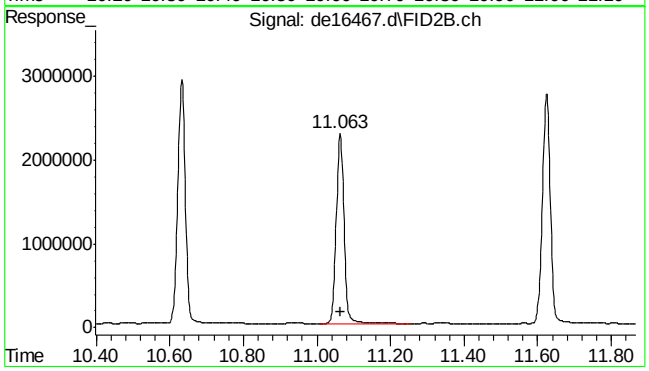
#33 c-19

R.T.: 10.105 min
Delta R.T.: 0.000 min
Response: 4294822
Conc: 63.35 µg/ml



#34 c-20

R.T.: 10.633 min
Delta R.T.: 0.002 min
Response: 4191354
Conc: 61.82 µg/ml



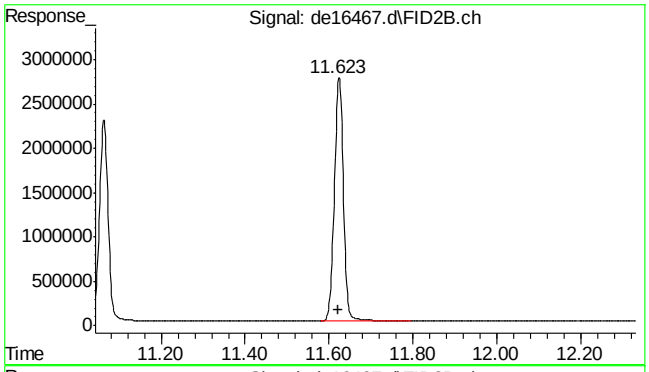
#35 1-chlorooctadecane

R.T.: 11.063 min
Delta R.T.: 0.000 min
Response: 3296987
Conc: 57.95 µg/ml

9.5.17

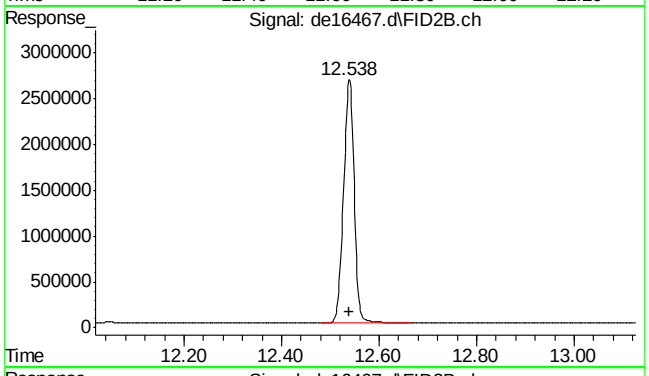
9

SGS ACCUTEST MC48999



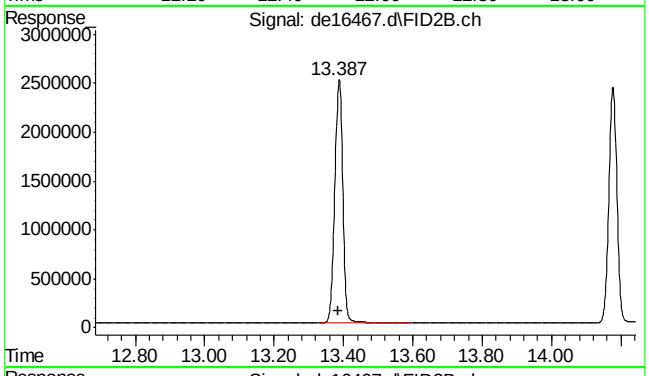
#36 c-22

R.T.: 11.623 min
Delta R.T.: 0.000 min
Response: 4125560
Conc: 60.85 µg/ml



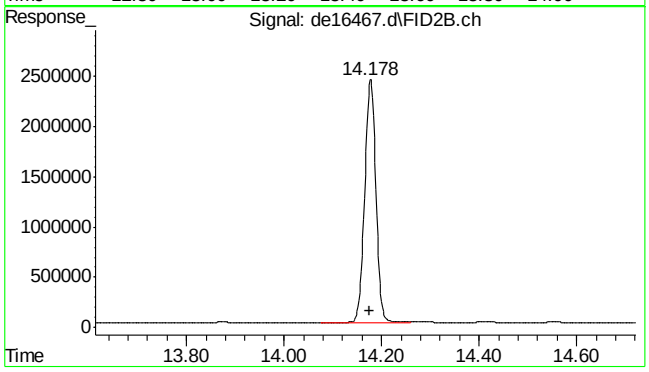
#37 c-24

R.T.: 12.538 min
Delta R.T.: 0.000 min
Response: 4017340
Conc: 59.25 µg/ml



#38 c-26

R.T.: 13.387 min
Delta R.T.: 0.002 min
Response: 3907136
Conc: 57.63 µg/ml



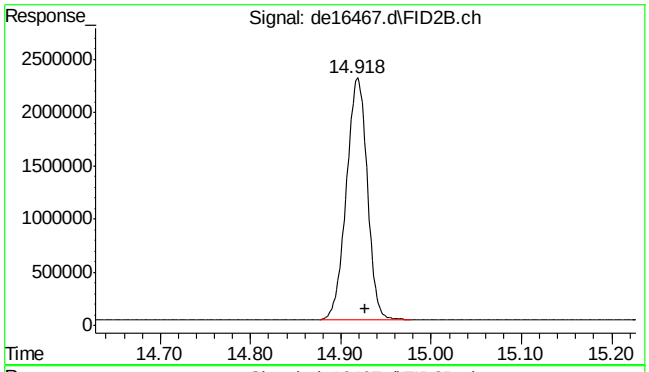
#39 c-28

R.T.: 14.178 min
Delta R.T.: 0.002 min
Response: 3831265
Conc: 56.51 µg/ml

9.5.17

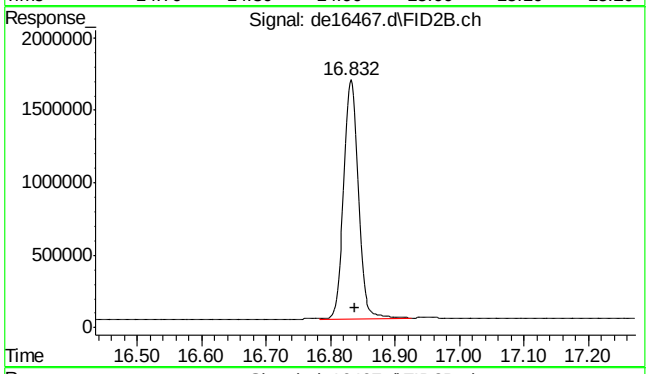
9

SGS ACCUTEST MC48999



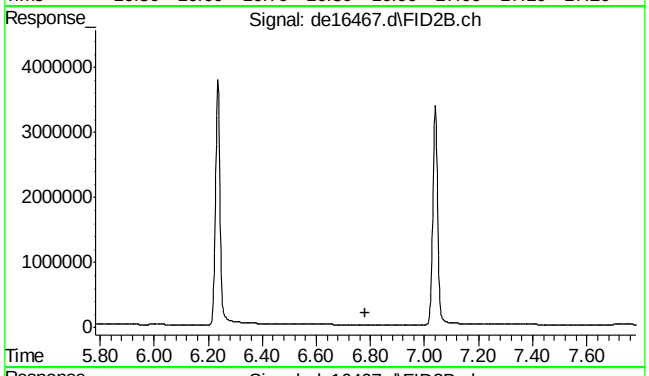
#40 c-30

R.T.: 14.927 min
Delta R.T.: 0.000 min
Response: 3698434
Conc: 54.55 µg/ml



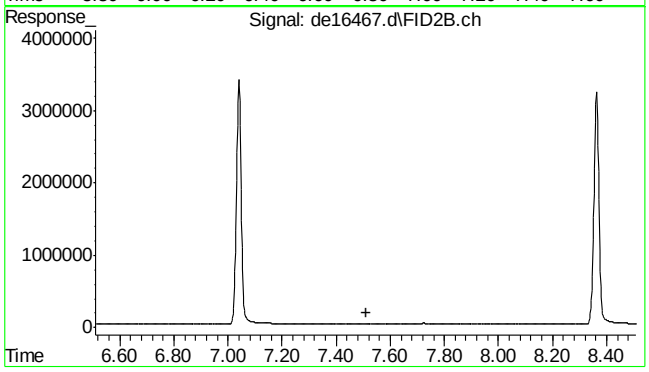
#41 c-36

R.T.: 16.838 min
Delta R.T.: 0.000 min
Response: 2649028
Conc: 39.07 µg/ml m



#42 bht

R.T.: 0.000 min
Exp R.T. : 6.782 min
Response: 0
Conc: N.D.



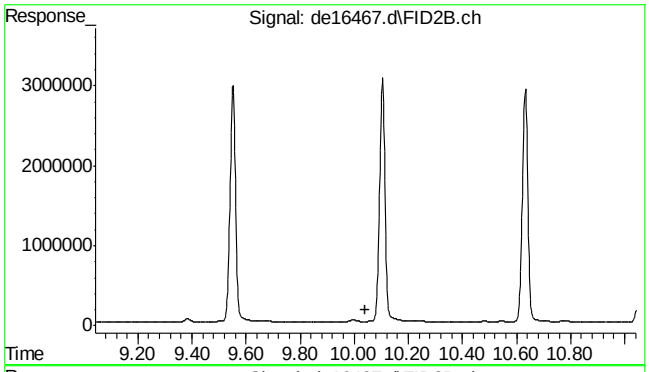
#43 bht

R.T.: 0.000 min
Exp R.T. : 7.510 min
Response: 0
Conc: N.D.

9.5.17

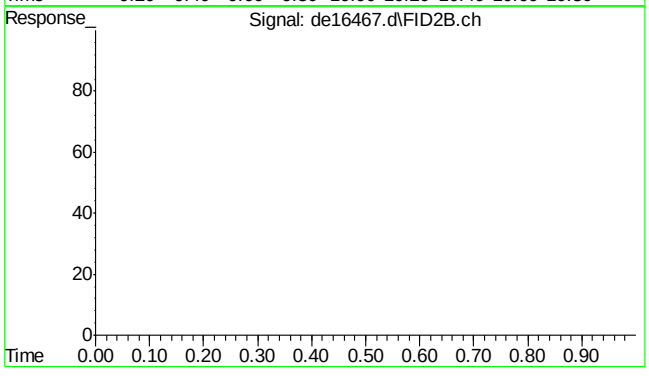
9

SGS ACCUTEST MC48999



#44 bht

```
      R.T.:    0.000 min
Exp R.T.  :   10.042 min
  Response:         0
      Conc:   N.D.
```



#45 bht

```
      R.T.:    0.000 min
Exp R.T.  :   23.000 min
  Response:         0
      Conc:   N.D.
```

9.5.17

9

SGS ACCUTEST MC48999

Page 1 of 2

SGS Accutest, Inc.

Instrument: GC 32 (DE)

GC Analysis Log - Extractables

Run Date: 12-6-16 (A)

Analyst Signature:

Standard Data

Lot #	Description	Conc
6518259	Air CCV	50ng/ml
6 381	Aro CCV	

Column Information: Front: Pest RTX-5 Alternate:
Rear : Pest2 RTX-5 Alternate:
Sequence File: 161206 A
Quantitation Methods: EPH161206
Instrument Run Batches: GDE 908
Data Acquisition Methods: EPH DUAL IW Inj. Vol: 1 ul
Inj. Vol:

Date of ICAL: 12-6-16 ICAL Verified ✓ Sample positions verified against sequence: ✓

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
1/2	DE16233	Prime	N/A	MA EPH	N/A	N/A	
1/2	34	IC908-1					Ali = 6518263 Aro = 6518385
3/4	35	-2					62 84
5/6	36	-5					61 83
7/8	37	-20					60 82
9/10	38	-50					59 81
11/12	39	-100					58 80
13/14	40	-200					57 79
15/16	41	ICV908-100					6518264 6518272
15/16	42	Test					
9/10	43	CC908-50	0P49234		S		
1/2	44	0P49234-BS					
3/4	45	-BSD					
5/6	46	-MB					
11/12	47	mc48936-1					
13/14	48	-2					
15/16	49	-3					
17/18	50	-4					
7/8	51	0P49234-MS					
141/142	52	CC908-750					
21/22	53	0P49249-BS	0P49249		W		
23/24	54	-BSD					
25/26	55	-MB					
71/72	56	mc48936-1	0P49234		S		(NF)
27/28	57	mc48905-2	0P49249		W		
141/142	58	CC908-50					
31/32	59	mc48953-1					RF rerun

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil. Dilution Solvent: N/A Lot#: N/A

GC014-01
Date: 9/15/10

Review:

1

SGS ACCUTEST MC48999

SGS Accutest, Inc.

Instrument: GC 32 (DE)

GC Analysis Log - Extractables

Run Date: 12.6.16

Analyst Signature: [signature]

Standard Data

Lot #	Description	Conc
	see pg. 1	

Column Information: Front: Pest RTX-5 Alternate:
Rear : Pest2 RTX-5 Alternate:
Sequence File:
Quantitation Methods:
Instrument Run Batches: see pg. 1
Data Acquisition Methods: Inj. Vol:
Inj. Vol:

Date of ICAL: ICAL Verified Sample positions verified against sequence:

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
33/34	DE 16260	mc48953-2	op44249	MOEIII	W	N/A	RR NF
35/36	61	-3					
37/38	62	-4					
39/40	63	mc48955-1					
41/42	64	mc48965-1					
43/44	65	-2					
45/46	66	-3					
47/48	67	-4					
49/50	68	-5					
143/144	69	cc908-50					
51/52	70	mc48965-6					RR NF
53/54	71	-7					
55/56	72	op49249-ms					
57/58	73	-msd					
59/60	74	op49239-msd	op49231		S		
29/30	75	mc48965-2	op49249		W	1:5	Not needed
143/144	76	cc908-50	N/A			N/A	

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil. Dilution Solvent: Hex Lot#: 160316

GC014-01
Date: 9/15/10

Review:

BMAEPH - Aliphatic Calibration

Instrument Nai	GCDE
Operator	thomasa

	de16229.d	de16239.d	de16238.d	de16237.d	de16236.d	de16235.d	de16234.d
	200	100	50	20	5	2	1
c-9	15121229	8007943	4021325	1645908	390540	158775	75397
c-10	15121229	8017340	4008758	1632475	379965	151766	70862
c-12	15121229	8116772	4103296	1695907	403681	151410	68870
c-14	15121229	7887954	3954001	1636053	380532	144462	63569
c-16	15121229	7835792	3946358	1656495	381463	153372	72095
c-18	15121229	7554463	3795397	1614453	367843	145918	68483
Total Mass	1200	600	300	120	30	12	6
Total Area	90727374	47420264	23829135	9881291	2304024	905703	419276
RF	75606	79034	79430	82344	76801	75475	69879
Average RF	76939						
% RSD	5	**<25%**					
C9 -C18	15387710	**Inserted into 200 ppm level**					
c-19	13396884	7714200	3887430	1662454	389618	152232	68418
c-20	13396884	7532354	3796717	1611811	362094	141176	63925
c-22	13396884	7438139	3755132	1602243	351902	138100	62737
c-24	13396884	7279989	3694379	1563852	347811	137936	64314
c-26	13396884	7210658	3653437	1529290	338092	135145	64790
c-28	13396884	7182926	3621428	1486261	327628	128544	59080
c-30	13396884	7103069	3549374	1435089	324012	131689	67655
c-36	13396884	6745065	3182785	1133375	183492	45803	13595
Total Mass	1600	800	400	160	40	16	8
Total Area	107175072	58206400	29140682	12024375	2624649	1010625	464514
RF	66984	72758	72852	75152	65616	63164	58064
Aerage RF	67799						
% RSD	8.38	**<25%**					
C19-C36	13559743	**Inserted into 200 ppm level**					

Operator thomasa
Instrument Nam GCDE

BMAEPH - Aromatic Calibration

	de16229.d	de16239.d	de16238.d	de16237.d	de16236.d	de16235.d	de16234.d
	200	100	50	20	5	2	1
naphthalene	29781350	8989592	4792678	2253134	524983	193957	100723
2-methylnaphthalene	26860217	8683657	4609303	2188633	512218	188617	99929
acenaphthylene	28923927	8649048	4554254	2186921	517814	192803	101294
acenaphthene	29620294	8710565	4577099	2197189	520145	192623	100638
fluorene	29389483	8498243	4432143	2139500	508203	189053	99222
phenanthrene	29042372	8443527	4371574	2113013	504077	189398	100105
anthracene	29519522	8332463	4314786	2085040	497094	186199	98019
fluoranthene	28919635	8176796	4228031	2040272	489011	184634	98320
pyrene	29419329	8379390	4332232	2056905	489060	183520	96611
benzo(a)anthracene	28892626	7947158	4124974	1982398	471659	175990	92524
chrysene	28697293	8060554	4178638	2013689	477107	177758	94106
benzo(B)fluoranthene	29691224	8216871	4260315	2022145	480846	176363	94486
benzo(k)fluoranthene	28050488	7829325	4094826	1987094	472466	170005	87548
benzo(a)pyrene	28036213	7804599	4070543	1954488	473529	178793	97758
indeno(1,2,3-cd)pyrene	35295287	7952680	4091520	1953968	465945	170738	89944
dibenzo(ah)anthracene	20812392	7568051	4004679	1915337	454764	166927	86273
benzo(ghi)perylene	27222748	7739512	4048508	1934290	465136	173995	91660
Total Mass (Targets)	3400	1700	850	340	85	34	17
Total Area (Targets)	488174400	139982031	73086103	35024016	8324057	3091373	1629160
RF	143581	82342	85984	103012	97930	90923	95833
Average RF	99943						
% RSD	**18.99**	**<25%**					
C11-C22 Aromatics	**19988694**	**Insert into 200ppm level**					

BMAEPH - Aliphatic Continuing Calibration Report

Data File Path \1\DATA\DE161206aEPH\
Operator thomasa
Instrument Name GCDE

Name	Amount	Response		Continuing Avg. RF	Initial Avg. RF	%Diff	
c-9	53.07	4082886					
c-10	53.08	4083656					
c-12	54.40	4185077	**C9-C18**	81265	76939	**5.47**	**In Criteria**
c-14	52.50	4038966					
c-16	52.67	4052149					
c-18	51.17	3936745					
c-19	58.48	3964937	**C19-C36**	74572	67799	**9.51**	**In Criteria**
c-20	58.44	3961876					
c-22	58.14	3941655					
c-24	56.91	3858253		c28/c20 Percentage:		93.46	
c-26	55.79	3782580					
c-28	54.62	3702955					
c-30	52.96	3590538					
c-36	44.63	3025953					

1-chlorooctadecane	54.18	3082255
naphthalene #2	55.61	4308478
2-methylnaphthalene	55.65	4249348

9.6.1

9

SGS ACCUTEST MC48999

BMAEPH - Aliphatic Continuing Calibration Report

Data File Path f\1\DATA\DE161206AEPH\
Operator thomasa
Instrument Name GCDE

Name	Amount	Response		Continuing Avg. RF	Initial Avg. RF	%Diff	
c-9	49.51	3809160					
c-10	49.58	3814961					
c-12	50.54	3888187	**C9-C18**	75595	76939	**1.76**	**In Criteria**
c-14	49.04	3773061					
c-16	49.10	3777353					
c-18	47.00	3615775					
c-19	55.59	3769227	**C19-C36**	71204	67799	**4.90**	**In Criteria**
c-20	53.89	3653741					
c-22	53.91	3655043					
c-24	53.10	3600132		c28/c20 Percentage:		96.86	
c-26	52.48	3557976					
c-28	52.20	3538882					
c-30	51.09	3464098					
c-36	47.82	3242444					
1-chlorooctadecane	50.85	2892998					
naphthalene #2	52.12	4038418					
2-methylnaphthalene	52.14	3981168					

BMAEPH - Aliphatic Continuing Calibration Report

Data File Path /\1\DATA\DE161206AEPH\
Operator thomasa
Instrument Name GCDE

Name	Amount	Response		Continuing Avg. RF	Initial Avg. RF	%Diff	
c-9	49.78	3830149					
c-10	49.68	3821935					
c-12	50.62	3894392	**C9-C18**	75567	76939	**1.80**	**In Criteria**
c-14	49.10	3777498					
c-16	48.90	3761975					
c-18	46.59	3584227					
c-19	54.74	3711610	**C19-C36**	70397	67799	**3.76**	**In Criteria**
c-20	53.27	3611906					
c-22	52.89	3585680					
c-24	52.12	3533812		c28/c20 Percentage:		96.61	
c-26	51.68	3503621					
c-28	51.47	3489303					
c-30	50.59	3430073					
c-36	48.57	3292820					
1-chlorooctadecane	50.28	2860373					
naphthalene #2	52.08	4035489					
2-methylnaphthalene	52.02	3971680					

BMAEPH - Aliphatic Continuing Calibration Report

Data File Path f\1\DATA\DE161206AEPH\
Operator thomasa
Instrument Name GCDE

Name	Amount	Response		Continuing Avg. RF	Initial Avg. RF	%Diff	
c-9	50.40	3877830					
c-10	50.25	3866045					
c-12	51.24	3942225	**C9-C18**	76550	76939	**0.51**	**In Criteria**
c-14	49.70	3823519					
c-16	49.47	3806185					
c-18	47.43	3649243					
c-19	55.57	3767738	**C19-C36**	70850	67799	**4.40**	**In Criteria**
c-20	53.82	3648668					
c-22	53.31	3614366					
c-24	52.45	3555740		c28/c20 Percentage:		95.74	
c-26	51.84	3514940					
c-28	51.52	3493215					
c-30	50.62	3431692					
c-36	48.87	3313568					

1-chlorooctadecane	50.72	2885697
naphthalene #2	52.81	4091871
2-methylnaphthalene	52.63	4018234

9.6.1

9

SGS ACCUTEST MC48999

BMAEPH - Aliphatic Continuing Calibration Report

Data File Path I\1\DATA\DE161206AEPH\
Operator thomasa
Instrument Name GCDE

Name	Amount	Response		Continuing Avg. RF	Initial Avg. RF	%Diff	
c-9	51.79	3984676					
c-10	51.74	3981156					
c-12	52.64	4049812	**C9-C18**	78675	76939	**2.23**	**In Criteria**
c-14	50.56	3890370					
c-16	50.95	3919915					
c-18	49.09	3776625					
c-19	58.21	3946526	**C19-C36**	74407	67799	**9.29**	**In Criteria**
c-20	56.41	3824815					
c-22	55.56	3766850					
c-24	55.13	3737486		c28/c20 Percentage:		95.64	
c-26	54.51	3695562					
c-28	53.96	3658140					
c-30	53.64	3636419					
c-36	51.58	3496951					

1-chlorooctadecane	53.52	3044751
naphthalene #2	54.07	4188984
2-methylnaphthalene	54.36	4150346

9.6.1

9

SGS ACCUTEST MC48999

BMAEPH - BS/BSD Report

Operator thomasa
Instrument Name GCDE
Sample Name op49239-bs

Aromatic Recovery

Name		Amount	Spiked	Recovery	Outside Limits?
naphthalene		15.96	50	63.84	
2-methylnaphthalene		17.55	50	70.18	
2-fluorobiphenyl	s	22.76	40	113.82	
acenaphthylene		18.90	50	75.61	
2-bromonaphthalene	s	22.94	40	114.71	
acenaphthene		20.36	50	81.45	
fluorene		21.42	50	85.69	
phenanthrene		23.24	50	92.95	
anthracene		23.38	50	93.54	
o-terphenyl	s	21.75	40	108.76	
fluoranthene		25.20	50	100.79	
pyrene		24.68	50	98.71	
benzo(a)anthracene		25.83	50	103.33	
chrysene		25.61	50	102.43	
benzo(B)fluoranthene		26.60	50	106.38	
benzo(k)fluoranthene		24.14	50	96.56	
benzo(a)pyrene		25.17	50	100.66	
indeno(1,2,3-cd)pyrene		25.73	50	102.91	
dibenzo(ah)anthracene		25.80	50	103.21	
benzo(ghi)perylene		25.78	50	103.13	

Aliphatic Recovery Name		Amount	Spiked	Recovery	Outside Limits?
c-9		6.20	50	24.78	add footnote
c-10		8.41	50	33.63	
c-12		10.44	50	41.77	
c-14		12.56	50	50.25	
c-16		14.25	50	56.99	
c-18		15.05	50	60.18	
c-19		17.24	50	68.97	
c-20		16.92	50	67.69	
1-chlorooctadecane	s	9.45	40	47.26	
c-22		16.71	50	66.85	
c-24		16.07	50	64.29	
c-26		15.25	50	61.00	
c-28		14.45	50	57.80	
c-30		12.91	50	51.63	
c-36		3.01	50	12.02	add footnote

Recovery C9-C18
44.60

Recovery C19-C36
56.28

naphthalene #2	0.00	**Naphthalene Breakthrough**	**2-Methylnaphthalene Breakthrough**
2-methylnaphthalene #2	0.01	0.00	0.04

BMAEPH - BS/BSD Report

Operator thomasa
Instrument Name GCDE
Sample Name op49239-bsd

Aromatic Recovery

Name		Amount	Spiked	Recovery	Outside Limits?
naphthalene		15.56	50	62.24	
2-methylnaphthalene		16.65	50	66.60	
2-fluorobiphenyl	s	18.23	40	91.14	
acenaphthylene		17.06	50	68.22	
2-bromonaphthalene	s	18.39	40	91.93	
acenaphthene		18.09	50	72.37	
fluorene		18.62	50	74.46	
phenanthrene		19.90	50	79.59	
anthracene		20.12	50	80.47	
o-terphenyl	s	17.61	40	88.07	
fluoranthene		21.44	50	85.76	
pyrene		21.07	50	84.27	
benzo(a)anthracene		22.15	50	88.60	
chrysene		21.96	50	87.84	
benzo(B)fluoranthene		22.35	50	89.41	
benzo(k)fluoranthene		21.62	50	86.47	
benzo(a)pyrene		21.76	50	87.05	
indeno(1,2,3-cd)pyrene		22.15	50	88.61	
dibenzo(ah)anthracene		22.70	50	90.81	
benzo(ghi)perylene		22.28	50	89.10	

Aliphatic Recovery Name		Amount	Spiked	Recovery	Outside Limits?
c-9		9.35	50	37.40	
c-10		12.75	50	51.01	
c-12		15.31	50	61.23	
c-14		17.09	50	68.36	
c-16		18.62	50	74.48	
c-18		19.64	50	78.56	
c-19		22.19	50	88.77	
c-20		21.90	50	87.60	
1-chlorooctadecane	s	13.49	40	67.44	
c-22		21.64	50	86.55	
c-24		21.01	50	84.03	
c-26		20.16	50	80.64	
c-28		19.53	50	78.13	
c-30		18.49	50	73.94	
c-36		8.95	50	35.78	

Recovery C9-C18
61.84

Recovery C19-C36
76.93

naphthalene #2	0.00	**Naphthalene Breakthrough**	**2-Methylnaphthalene Breakthrough**
2-methylnaphthalene #2	0.00	0.00	0.00

BMAEPH - BS/BSD Report

Operator thomasa
Instrument Name GCDE
Sample Name op49249-bs

Aromatic Recovery

Name		Amount	Spiked	Recovery	Outside Limits?
naphthalene		13.86	50	55.43	
2-methylnaphthalene		14.94	50	59.75	
2-fluorobiphenyl	s	17.47	40	87.36	
acenaphthylene		15.20	50	60.80	
2-bromonaphthalene	s	17.70	40	88.50	
acenaphthene		16.27	50	65.08	
fluorene		16.76	50	67.05	
phenanthrene		18.04	50	72.15	
anthracene		18.20	50	72.79	
o-terphenyl	s	17.05	40	85.26	
fluoranthene		19.47	50	77.88	
pyrene		19.08	50	76.31	
benzo(a)anthracene		20.01	50	80.02	
chrysene		19.95	50	79.78	
benzo(B)fluoranthene		19.91	50	79.64	
benzo(k)fluoranthene		19.77	50	79.09	
benzo(a)pyrene		19.55	50	78.22	
indeno(1,2,3-cd)pyrene		19.73	50	78.90	
dibenzo(ah)anthracene		20.46	50	81.84	
benzo(ghi)perylene		20.05	50	80.19	

Aliphatic Recovery Name		Amount	Spiked	Recovery	Outside Limits?
c-9		7.84	50	31.35	
c-10		10.12	50	40.49	
c-12		12.56	50	50.26	
c-14		13.88	50	55.52	
c-16		15.35	50	61.40	
c-18		16.17	50	64.69	
c-19		18.50	50	73.99	
c-20		18.24	50	72.97	
1-chlorooctadecane	s	10.98	40	54.92	
c-22		18.37	50	73.50	
c-24		17.98	50	71.90	
c-26		17.55	50	70.18	
c-28		17.07	50	68.29	
c-30		16.39	50	65.56	
c-36		10.97	50	43.90	

Recovery C9-C18
50.62

Recovery C19-C36
67.54

naphthalene #2	0.05	**Naphthalene Breakthrough**	**2-Methylnaphthalene Breakthrough**
2-methylnaphthalene #2	0.04	0.33	0.26

SGS ACCUTEST MC48999

BMAEPH - BS/BSD Report

Operator thomasa
Instrument Name GCDE
Sample Name op49249-bsd

Aromatic Recovery Name		Amount	Spiked	Recovery	Outside Limits?
naphthalene		14.92	50	59.70	
2-methylnaphthalene		16.20	50	64.80	
2-fluorobiphenyl	s	17.09	40	85.46	
acenaphthylene		16.53	50	66.13	
2-bromonaphthalene	s	17.33	40	86.65	
acenaphthene		17.70	50	70.81	
fluorene		18.11	50	72.45	
phenanthrene		19.06	50	76.25	
anthracene		19.07	50	76.27	
o-terphenyl	s	17.29	40	86.46	
fluoranthene		20.35	50	81.39	
pyrene		19.80	50	79.21	
benzo(a)anthracene		20.82	50	83.28	
chrysene		20.77	50	83.08	
benzo(B)fluoranthene		20.75	50	82.98	
benzo(k)fluoranthene		20.68	50	82.74	
benzo(a)pyrene		20.45	50	81.81	
indeno(1,2,3-cd)pyrene		20.73	50	82.90	
dibenzo(ah)anthracene		21.54	50	86.15	
benzo(ghi)perylene		21.11	50	84.44	

Aliphatic Recovery Name		Amount	Spiked	Recovery	Outside Limits?
c-9		9.20	50	36.80	
c-10		12.00	50	47.99	
c-12		14.83	50	59.32	
c-14		16.22	50	64.88	
c-16		17.66	50	70.63	
c-18		18.34	50	73.38	
c-19		21.11	50	84.46	
c-20		20.80	50	83.22	
1-chlorooctadecane	s	12.42	40	62.11	
c-22		20.94	50	83.75	
c-24		20.46	50	81.83	
c-26		19.81	50	79.22	
c-28		19.07	50	76.30	
c-30		18.10	50	72.38	
c-36		11.37	50	45.48	

Recovery C9-C18
58.83

Recovery C19-C36
75.83

naphthalene #2	0.05	**Naphthalene Breakthrough**	**2-Methylnaphthalene Breakthrough**
2-methylnaphthalene #2	0.04	0.33	0.25

SGS Accutest, Inc.

Pg 1 of 2

Instrument: GC 32 (DE)

GC Analysis Log - Extractables

Run Date: 12.19.16

Analyst Signature:

Standard Data

Lot #	Description	Conc
6518259	Al CCV	50 ug/ml
L 381	Aro CCV	50 ug/ml

Column Information: Front: Pest RTX-5 Alternate:
Rear : Pest2 RTX-5 Alternate:
Sequence File: 161219
Quantitation Methods: EPA 161219
Instrument Run Batches: GDE 916
Data Acquisition Methods: EPA PUAL W Inj. Vol: 1 ul
Inj. Vol:

Date of ICAL: 12-6-16 ICAL Verified ✓ Sample positions verified against sequence: ✓

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
1/1/1/12	DE 16402	CC 908-50	OP49276	MA EPA	W	N/A	
1/2	03	mc49061-1					
3/4	04	-2					
5/6	05	-4					
7/8	06	-5					
9/10	07	-6					
11/12	08	-7					
13/14	09	-9					
15/16	10	-11					
1411/42	11	CC908-50					Aro=50 Al=20
21/22	12	OP49287-MB	OP49287		W		
23/24	13	-BS					RR
25/26	14	-BSD (MS)					↓
27/28	15	-MS (MSD)					
29/30	16	~~(mc48999-1)~~ ★					★ OP49287-MSD
31/32	17	~~-2~~					mc48999-1 (RF needed)
33/34	18	~~-3~~					-2
35/36	19	~~-4~~					-3 (RF needed
37/38	20	~~-5~~					-4
39/40	21	mc48999-5					RF needed
41/42	22	CC908-50					ok
41/42	23	mc48999-6					
43/44	24	-7					
45/46	25	-8					
47/48	26	-9					
49/50	27	mc49053-2					
51/52	28	-6					RF needed

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil. Dilution Solvent: N/A Lot#: N/A

GC014-01
Date: 9/15/10

Review:

SGS ACCUTEST MC48999

SGS Accutest, Inc.

Pg 2 of 2

Instrument: GC 32 (DE)

GC Analysis Log - Extractables

Run Date: 12.19.16

Analyst Signature: [illegible]

Standard Data

Lot #	Description	Conc
	see pg 1	

Column Information: Front: Pest RTX-5 Alternate:
Rear : Pest2 RTX-5 Alternate:
Sequence File:
Quantitation Methods:
Instrument Run Batches: see pg 1
Data Acquisition Methods: Inj. Vol:
Inj. Vol:

Date of ICAL: ICAL Verified Sample positions verified against sequence:

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
53/54	DE 16429	MC49053-7	CP49287	MA EPH	W	N/A	
55/56	30	-8					
57/58	31	-11					
59/60	32	-15					
143/144	33	LCC 908-50					ok
23/24	34	CP49287-85					ok
27/28	35	-ms					CF
143/144	36	ccc 908-50					ok

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil. Dilution Solvent: N/A Lot#: N/A

GC014-01
Date: 9/15/10

Review:

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BMAEPH - Aliphatic Continuing Calibration Report

Data File Path :\1\DATA\DE161219EPH\
Operator thomasa
Instrument Name GCDE

Name	Amount	Response		Continuing Avg. RF	Initial Avg. RF	%Diff	
c-9	53.25	4097062					
c-10	52.86	4067254					
c-12	54.18	4168888	**C9-C18**	80912	76939	**5.03**	**In Criteria**
c-14	52.44	4034897					
c-16	52.17	4014246					
c-18	50.58	3891194					
c-19	58.10	3939042	**C19-C36**	69168	67799	**2.00**	**In Criteria**
c-20	56.44	3826580					
c-22	55.51	3763328					
c-24	53.72	3642247		c28/c20 Percentage:		89.48	
c-26	52.05	3529249					
c-28	50.50	3424098					
c-30	48.44	3283923					
c-36	33.32	2258729					

1-chlorooctadecane	50.97	2899913
naphthalene #2	55.59	4307325
2-methylnaphthalene	55.36	4227023

BMAEPH - Aliphatic Continuing Calibration Report

Data File Path :\1\DATA\DE161219EPH\
Operator thomasa
Instrument Name GCDE

Name	Amount	Response		Continuing Avg. RF	Initial Avg. RF	%Diff	
c-9	19.57	1505770					
c-10	19.24	1480024					
c-12	19.92	1532978	**C9-C18**	30010	30775	**2.52**	**In Criteria**
c-14	19.37	1490088					
c-16	19.43	1495213					
c-18	19.48	1498781					
c-19	22.88	1550919	**C19-C36**	29261	27119	**7.60**	**In Criteria**
c-20	22.30	1511683					
c-22	22.37	1516797					
c-24	22.06	1495735		c28/c20 Percentage:		97.56	
c-26	21.94	1487492					
c-28	21.75	1474787					
c-30	21.37	1449021					
c-36	17.96	1217836					

1-chlorooctadecane	21.01	1195137
naphthalene #2	19.82	1535542
2-methylnaphthalene	19.73	1506501

ok

9.6.2

9

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\DE161219EPH\
Data File : de16411.d
Signal(s) : Signal #1: FID1A.ch Signal #2: FID2B.ch
Acq On : 19 Dec 2016 5:47 pm
Operator : thomasa
Sample : cc908-50,gde916,(aro 50 ali 20) (Sig #1); cc908-50,gde916 (Sig #2)
Misc : op49276,gde916,1000,,,2,,w
ALS Vial : 142 Sample Multiplier: 1

Integration File signal 1: rteint.p
Integration File signal 2: rteint2.p
Quant Time: Dec 20 07:44:51 2016
Quant Method : C:\msdchem\1\METHODS\EPH161219W.M
Quant Title : BMAEPH-working method
QLast Update : Wed Dec 14 10:38:42 2016
Response via : Initial Calibration
Integrator: RTE

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

Min. RRF : 0.000 Min. Rel. Area : 75% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 125%

	Compound	AvgRF	CCRF		%Dev	Area%	Dev(Min)
2	naphthalene	97.842	202.108	E3	-106.6#	179#	0.00
3	2-methylnaphthalene	95.177	199.530	E3	-109.6#	182#	0.00
4 s	2-fluorobiphenyl	87.433	184.831	E3	-111.4#	184#	0.00
5	acenaphthylene	95.628	204.310	E3	-113.7#	187#	0.00
6 s	2-bromonaphthalene	59.587	127.856	E3	-114.6#	188#	0.00
7	acenaphthene	95.936	206.577	E3	-115.3#	188#	0.00
8	fluorene	93.753	204.040	E3	-117.6#	191#	0.00
9	phenanthrene	93.338	205.038	E3	-119.7#	194#	0.00
10	anthracene	91.929	202.226	E3	-120.0#	194#	0.00
11 s	o-terphenyl	94.899	207.187	E3	-118.3#	193#	0.00
12	fluoranthene	90.716	199.142	E3	-119.5#	195#	0.00
13	pyrene	91.395	200.946	E3	-119.9#	195#	0.00
14	benzo(a)anthracene	87.568	191.871	E3	-119.1#	194#	0.00
15	chrysene	88.688	194.045	E3	-118.8#	193#	0.00
16	benzo(B)fluoranthene	89.426	188.336	E3	-110.6#	186#	0.00
17	benzo(k)fluoranthene	86.347	197.921	E3	-129.2#	199#	0.00
18	benzo(a)pyrene	87.906	187.854	E3	-113.7#	192#	0.00
19	indeno(1,2,3-cd)pyrene	86.711	195.193	E3	-125.1#	200#	0.00
20	dibenzo(ah)anthracene	83.716	185.258	E3	-121.3#	193#	0.00
21	benzo(ghi)perylene	86.174	190.056	E3	-120.5#	197#	0.00

Aroso

Signal #2

25 h	c-9	76.939	75.288	E3	2.1	0#	0.00
26 h	c-10	76.939	74.001	E3	3.8	0#	0.00
27	naphthalene #2	77.479	76.777	E3	0.9	90	0.00
28	c-12	76.939	76.649	E3	0.4	0#	0.00
29	2-methylnaphthalene #2	76.354	75.325	E3	1.3	89	0.00
30	c-14	76.939	74.504	E3	3.2	0#	0.00
31	c-16	76.939	74.761	E3	2.8	0#	0.00
32	c-18	76.939	74.939	E3	2.6	0#	0.00
33	c-19	67.799	77.546	E3	-14.4	0#	0.00
34	c-20	67.799	75.584	E3	-11.5	0#	0.00
35 s	1-chlorooctadecane	56.891	59.757	E3	-5.0	96	0.00
36	c-22	67.799	75.840	E3	-11.9	0#	0.00
37	c-24	67.799	74.787	E3	-10.3	0#	0.00
38	c-26	67.799	74.375	E3	-9.7	0#	0.00
39	c-28	67.799	73.739	E3	-8.8	0#	0.00
40 h	c-30	67.799	72.451	E3	-6.9	0#	0.00
41 h	c-36	67.799	60.892	E3	10.2	0#	0.00

Ali 20

ok

Evaluate Continuing Calibration Report - Not Founds

1 h	c11-c22 Aromatics (Unadj.)	99.943	0.000	E3	100.0#	0#	-5.82#

BMAEPH - Aliphatic Continuing Calibration Report

Data File Path :\1\DATA\DE161219EPH\
Operator thomasa
Instrument Name GCDE

Name	Amount	Response		Continuing Avg. RF	Initial Avg. RF	%Diff	
c-9	52.08	4007331					
c-10	52.01	4001609					
c-12	53.40	4108267	**C9-C18**	80070	76939	**3.99**	**In Criteria**
c-14	52.12	4010165					
c-16	52.20	4016271					
c-18	50.40	3877419					
c-19	59.07	4004907	**C19-C36**	72553	67799	**6.77**	**In Criteria**
c-20	57.73	3913691					
c-22	57.15	3874648					
c-24	55.83	3785173		c28/c20 Percentage:		93.31	
c-26	54.79	3714911					
c-28	53.86	3651722					
c-30	52.20	3539240					
c-36	37.42	2536792					

1-chlorooctadecane	54.26	3086849
naphthalene #2	54.96	4258181
2-methylnaphthalene	54.81	4185117

BMAEPH - Aliphatic Continuing Calibration Report

Data File Path \\1\DATA\DE161219EPH\
Operator thomasa
Instrument Name GCDE

Name	Amount	Response		Continuing Avg. RF	Initial Avg. RF	%Diff	
c-9	56.06	4313250					
c-10	55.85	4297074					
c-12	57.59	4430634	**C9-C18**	85733	76939	**10.81**	**In Criteria**
c-14	55.63	4279777					
c-16	55.62	4279410					
c-18	53.55	4119814					
c-19	62.52	4239004	**C19-C36**	75894	67799	**11.27**	**In Criteria**
c-20	61.05	4138813					
c-22	59.99	4067401					
c-24	58.39	3958778		c28/c20 Percentage:		91.48	
c-26	56.92	3859165					
c-28	55.84	3786177					
c-30	54.06	3665456					
c-36	38.98	2642624					

1-chlorooctadecane	57.34	3262355
naphthalene #2	59.00	4571044
2-methylnaphthalene	58.85	4493661

9.6.2

9

BMAEPH - Aliphatic Continuing Calibration Report

Data File Path :\1\DATA\DE161219EPH\
Operator thomasa
Instrument Name GCDE

Name	Amount	Response		Continuing Avg. RF	Initial Avg. RF	%Diff	
c-9	56.38	4337442					
c-10	56.76	4366666					
c-12	58.18	4476536	**C9-C18**	87834	76939	**13.23**	**In Criteria**
c-14	57.36	4413361					
c-16	57.76	4444150					
c-18	56.05	4312115					
c-19	65.53	4442734	**C19-C36**	78777	67799	**14.98**	**In Criteria**
c-20	63.85	4328614					
c-22	62.79	4257320					
c-24	60.88	4127422		c28/c20 Percentage:		90.27	
c-26	59.13	4008875					
c-28	57.63	3907511					
c-30	55.87	3787810					
c-36	39.10	2650641					

1-chlorooctadecane	59.63	3392575
naphthalene #2	60.12	4658189
2-methylnaphthalene	60.22	4598236

BMAEPH - BS/BSD Report

Operator thomasa
Instrument Name GCDE
Sample Name op49287-bs,rr

Aromatic Recovery Name		Amount	Spiked	Recovery	Outside Limits?
naphthalene		10.43	50	41.74	
2-methylnaphthalene		11.90	50	47.59	
2-fluorobiphenyl	s	20.70	40	103.49	
acenaphthylene		13.77	50	55.08	
2-bromonaphthalene	s	21.50	40	107.52	
acenaphthene		15.01	50	60.03	
fluorene		16.12	50	64.50	
phenanthrene		17.75	50	71.00	
anthracene		17.68	50	70.71	
o-terphenyl	s	16.45	40	82.27	
fluoranthene		19.56	50	78.23	
pyrene		19.24	50	76.97	
benzo(a)anthracene		20.82	50	83.29	
chrysene		20.79	50	83.17	
benzo(B)fluoranthene		21.70	50	86.82	
benzo(k)fluoranthene		20.81	50	83.23	
benzo(a)pyrene		20.95	50	83.79	
indeno(1,2,3-cd)pyrene		21.91	50	87.64	
dibenzo(ah)anthracene		22.58	50	90.33	
benzo(ghi)perylene		22.22	50	88.90	

Aliphatic Recovery Name		Amount	Spiked	Recovery	Outside Limits?
c-9		4.90	50	19.59	add footnote
c-10		6.63	50	26.51	add footnote
c-12		10.19	50	40.76	
c-14		16.38	50	65.51	
c-16		18.99	50	75.95	
c-18		20.24	50	80.95	
c-19		23.18	50	92.72	
c-20		22.98	50	91.91	
1-chlorooctadecane	s	11.18	40	55.90	
c-22		23.14	50	92.57	
c-24		22.37	50	89.47	
c-26		21.36	50	85.42	
c-28		20.60	50	82.38	
c-30		19.76	50	79.03	
c-36		13.03	50	52.12	

Recovery C9-C18
51.54

Recovery C19-C36
83.20

naphthalene #2	0.00	**Naphthalene Breakthrough**	**2-Methylnaphthalene Breakthrough**
2-methylnaphthalene #2	0.03	0.00	0.23

BMAEPH - BS/BSD Report

Operator thomasa
Instrument Name GCDE
Sample Name op49287-bsd

Aromatic Recovery

Name		Amount	Spiked	Recovery	Outside Limits?
naphthalene		13.16	50	52.65	
2-methylnaphthalene		15.81	50	63.23	
2-fluorobiphenyl	s	17.74	40	88.72	
acenaphthylene		18.77	50	75.09	
2-bromonaphthalene	s	18.37	40	91.86	
acenaphthene		20.65	50	82.60	
fluorene		22.49	50	89.97	
phenanthrene		24.86	50	99.42	
anthracene		25.07	50	100.30	
o-terphenyl	s	21.35	40	106.76	
fluoranthene		27.51	50	110.05	
pyrene		27.17	50	108.67	
benzo(a)anthracene		29.78	50	119.12	
chrysene		29.64	50	118.57	
benzo(B)fluoranthene		30.85	50	123.38	
benzo(k)fluoranthene		29.56	50	118.24	
benzo(a)pyrene		29.73	50	118.90	
indeno(1,2,3-cd)pyrene		31.01	50	124.05	
dibenzo(ah)anthracene		31.82	50	127.29	
benzo(ghi)perylene		31.17	50	124.69	

Aliphatic Recovery Name		Amount	Spiked	Recovery	Outside Limits?
c-9		3.36	50	13.43	add footnote
c-10		4.77	50	19.07	add footnote
c-12		8.23	50	32.94	
c-14		13.53	50	54.14	
c-16		16.13	50	64.53	
c-18		17.16	50	68.66	
c-19		19.65	50	78.60	
c-20		19.35	50	77.41	
1-chlorooctadecane	s	8.68	40	43.42	
c-22		19.57	50	78.27	
c-24		19.07	50	76.30	
c-26		18.39	50	73.56	
c-28		17.89	50	71.56	
c-30		17.24	50	68.97	
c-36		12.87	50	51.48	

Recovery C9-C18
42.13

Recovery C19-C36
72.02

naphthalene #2	0.00	**Naphthalene Breakthrough**	**2-Methylnaphthalene Breakthrough**
2-methylnaphthalene #2	0.02	0.00	0.10

SGS Accutest, Inc. Instrument: GC 32 (DE)

GC Analysis Log - Extractables

Run Date: 12.20.16 **Analyst Signature:** [signature]

Standard Data

Lot #	Description	Conc
GS18259	Ali	50ng/ml
↓ 381	AND	↓

Column Information: Front: Pest RTX-5 Alternate:
Rear : Pest2 RTX-5 Alternate:
Sequence File: 161220
Quantitation Methods: GPH161220
Instrument Run Batches: GDE 917
Data Acquisition Methods: GPH DUAL W Inj. Vol: 1ml
Inj. Vol:

Date of ICAL: 12.6.16 ICAL Verified ✓ Sample positions verified against sequence: ✓

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
1411142	2E16437	CC908-50	GP49287	MIA GPU	W	N.A	
1/2	38	mc49053-6					
3/4	39	↓ -7					
5/6	40	mc48999-1					
7/8	41	-3					
9/10	42	↓ -5	↓		↓		
11/12	43	mc49061-3	GP49276		W		
1411142	↓ 44	CC908-50	↓	↓	↓	↓	

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil. Dilution Solvent:_____ Lot#:_____

GC014-01
Date: 9/15/10

Review:_____

BMAEPH - Aliphatic Continuing Calibration Report

Data File Path \\\1\DATA\DE161220EPH\
Operator thomasa
Instrument Name GCDE

Name	Amount	Response		Continuing Avg. RF	Initial Avg. RF	%Diff	
c-9	54.09	4161588					
c-10	53.65	4127679					
c-12	54.95	4228004	**C9-C18**	82094	76939	**6.48**	**In Criteria**
c-14	53.14	4088887					
c-16	53.05	4081254					
c-18	51.22	3940655					
c-19	59.58	4039659	**C19-C36**	71188	67799	**4.88**	**In Criteria**
c-20	58.14	3941935					
c-22	57.11	3871731					
c-24	55.47	3760558		c28/c20 Percentage:		90.46	
c-26	53.87	3652181					
c-28	52.60	3566009					
c-30	50.83	3446292					
c-36	32.40	2196793					
1-chlorooctadecane	53.80	3060824					
naphthalene #2	56.51	4378255					
2-methylnaphthalene	56.25	4295154					

9.6.3

9

BMAEPH - Aliphatic Continuing Calibration Report

Data File Path \\1\DATA\DE161220EPH\
Operator thomasa
Instrument Name GCDE

Name	Amount	Response		Continuing Avg. RF	Initial Avg. RF	%Diff	
c-9	55.65	4281528					
c-10	55.37	4260304					
c-12	57.09	4392555	**C9-C18**	85150	76939	**10.13**	**In Criteria**
c-14	55.36	4259123					
c-16	55.36	4259131					
c-18	53.19	4092322					
c-19	62.05	4207068	**C19-C36**	74751	67799	**9.75**	**In Criteria**
c-20	60.45	4098689					
c-22	59.40	4026969					
c-24	57.63	3907171		c28/c20 Percentage:		90.64	
c-26	56.05	3800143					
c-28	54.80	3715121					
c-30	53.24	3609328					
c-36	37.41	2536100					

1-chlorooctadecane	56.48	3213334
naphthalene #2	58.43	4527300
2-methylnaphthalene	58.33	4453745

SGS Accutest, Inc. Instrument: GC 32 (DE)

GC Analysis Log - Extractables

Run Date: 12 20.16 (A) **Analyst Signature:**

Standard Data

Lot #	Description	Conc
651825A	A:	50ug/ml
L 381	A:	↓

Column Information: Front: Pest RTX-5 Alternate:
Rear : Pest2 RTX-5 Alternate:
Sequence File: 161220A
Quantitation Methods: EPH161220
Instrument Run Batches: GDE 918
Data Acquisition Methods: EPH DUAL W Inj. Vol: 1ml
Inj. Vol:

Date of ICAL: 12-6-16 ICAL Verified ✓ Sample positions verified against sequence: ✓

Vial #	Data File ID	Sample ID	Ext.Batch	Analysis	Matrix	Dilution	Comments
1/1/142	DE 16445	CC 908-50	OP49293	MA EPH	W	N/A	
1/2	46	OP49293-MS					
3/4	47	-BS					
5/6	48	-BSD					
7/8	49	-MS					
9/10	50	-MSD					
11/12	51	MC49853-3					RF needed
13/14	52	-4					
15/16	53	-5					RF needed
17/18	54	-9(6)					
19/20	55	-10					
141/142	56	CC 908-50					
21/22	57	MC49853-12					
23/24	58	-13					
25/26	59	-14					
27/28	60	-16					
29/30	61	MC49029-1					RF needed
31/32	62	MC48999-10					
33/34	63	MC49050-1					RF needed
35/36	64	-2					
37/38	65	MC49081-1					
39/40	66	-2					RF needed
143/144	67	CC 908-50					
41/42	68	MC49081-3					
143/144	69	CC 908-50					

MTX = Matrix: Designate **W** for water, **S** for soil, **O** for oil. Dilution Solvent: N/A Lot#: N/A

GC014-01
Date: 9/15/10

Review:

SGS ACCUTEST MC48999

BMAEPH - BS/BSD Report

Operator thomasa
Instrument Name GCDE
Sample Name op49293-bs

Aromatic Recovery

Name		Amount	Spiked	Recovery	Outside Limits?
naphthalene		10.58	50	42.30	
2-methylnaphthalene		12.22	50	48.86	
2-fluorobiphenyl	s	14.33	40	71.64	
acenaphthylene		13.32	50	53.28	
2-bromonaphthalene	s	14.88	40	74.42	
acenaphthene		14.38	50	57.51	
fluorene		15.18	50	60.72	
phenanthrene		16.98	50	67.91	
anthracene		17.02	50	68.09	
o-terphenyl	s	15.65	40	78.24	
fluoranthene		18.86	50	75.43	
pyrene		18.55	50	74.19	
benzo(a)anthracene		20.12	50	80.47	
chrysene		20.12	50	80.48	
benzo(B)fluoranthene		20.33	50	81.33	
benzo(k)fluoranthene		20.64	50	82.56	
benzo(a)pyrene		20.17	50	80.69	
indeno(1,2,3-cd)pyrene		20.77	50	83.09	
dibenzo(ah)anthracene		21.78	50	87.11	
benzo(ghi)perylene		21.15	50	84.61	

Aliphatic Recovery Name		Amount	Spiked	Recovery	Outside Limits?
c-9		6.83	50	27.34	add footnote
c-10		8.80	50	35.20	
c-12		13.31	50	53.25	
c-14		16.73	50	66.90	
c-16		18.48	50	73.93	
c-18		19.98	50	79.90	
c-19		22.85	50	91.38	
c-20		22.35	50	89.42	
1-chlorooctadecane	s	12.08	40	60.41	
c-22		22.29	50	89.16	
c-24		21.40	50	85.58	
c-26		20.32	50	81.29	
c-28		19.59	50	78.37	
c-30		18.84	50	75.35	
c-36		13.10	50	52.40	

Recovery C9-C18
56.09

Recovery C19-C36
80.37

naphthalene #2	0.00	**Naphthalene Breakthrough**	**2-Methylnaphthalene Breakthrough**
2-methylnaphthalene #2	0.02	0.00	0.18

BMAEPH - BS/BSD Report

Operator thomasa
Instrument Name GCDE
Sample Name op49293-bsd

Aromatic Recovery Name		Amount	Spiked	Recovery	Outside Limits?
naphthalene		10.68	50	42.72	
2-methylnaphthalene		12.54	50	50.15	
2-fluorobiphenyl	s	14.02	40	70.09	
acenaphthylene		13.85	50	55.40	
2-bromonaphthalene	s	14.61	40	73.07	
acenaphthene		15.00	50	60.00	
fluorene		15.99	50	63.98	
phenanthrene		18.18	50	72.72	
anthracene		18.30	50	73.19	
o-terphenyl	s	16.31	40	81.53	
fluoranthene		20.80	50	83.20	
pyrene		20.48	50	81.93	
benzo(a)anthracene		22.30	50	89.22	
chrysene		22.16	50	88.65	
benzo(B)fluoranthene		21.80	50	87.19	
benzo(k)fluoranthene		23.50	50	94.01	
benzo(a)pyrene		22.22	50	88.89	
indeno(1,2,3-cd)pyrene		23.37	50	93.47	
dibenzo(ah)anthracene		23.66	50	94.64	
benzo(ghi)perylene		23.50	50	93.99	

Aliphatic Recovery Name		Amount	Spiked	Recovery	Outside Limits?
c-9		6.28	50	25.12	add footnote
c-10		8.36	50	33.45	
c-12		12.24	50	48.94	
c-14		16.14	50	64.57	
c-16		17.72	50	70.88	
c-18		19.65	50	78.61	
c-19		22.65	50	90.59	
c-20		22.16	50	88.63	
1-chlorooctadecane	s	10.59	40	52.96	
c-22		22.32	50	89.27	
c-24		21.34	50	85.34	
c-26		20.38	50	81.50	
c-28		19.63	50	78.53	
c-30		18.99	50	75.95	
c-36		12.75	50	51.02	

Recovery C9-C18
53.60

Recovery C19-C36
80.10

naphthalene #2	0.00	**Naphthalene Breakthrough**	**2-Methylnaphthalene Breakthrough**
2-methylnaphthalene #2	0.02	0.00	0.19

BMAEPH - Aliphatic Continuing Calibration Report

Data File Path \1\DATA\DE161220aEPH\
Operator thomasa
Instrument Name GCDE

Name	Amount	Response		Continuing Avg. RF	Initial Avg. RF	%Diff	
c-9	51.75	3981343					
c-10	51.46	3959103					
c-12	53.00	4077563	**C9-C18**	79535	76939	**3.32**	**In Criteria**
c-14	51.80	3985094					
c-16	51.99	4000148					
c-18	50.13	3857161					
c-19	58.40	3959501	**C19-C36**	69587	67799	**2.60**	**In Criteria**
c-20	56.91	3858482					
c-22	55.92	3791031					
c-24	54.04	3663947		c28/c20 Percentage:		89.88	
c-26	52.51	3559956					
c-28	51.15	3468136					
c-30	49.49	3355115					
c-36	32.13	2178710					

1-chlorooctadecane	52.73	2999713
naphthalene #2	54.35	4210644
2-methylnaphthalene	54.28	4144750

9.6.4

9

BMAEPH - Aliphatic Continuing Calibration Report

Data File Path f\1\DATA\DE161220AEPH\
Operator thomasa
Instrument Name GCDE

Name	Amount	Response		Continuing Avg. RF	Initial Avg. RF	%Diff	
c-9	59.17	4552395					
c-10	58.91	4532183					
c-12	60.26	4636384	**C9-C18**	89799	76939	**15.43**	**In Criteria**
c-14	58.43	4495780					
c-16	57.83	4449258					
c-18	55.55	4273811					
c-19	64.28	4358097	**C19-C36**	76753	67799	**12.39**	**In Criteria**
c-20	62.49	4236638					
c-22	61.13	4144785					
c-24	59.11	4007501		c28/c20 Percentage:		89.44	
c-26	57.32	3886209					
c-28	55.89	3789057					
c-30	54.20	3674386					
c-36	38.42	2604558					

1-chlorooctadecane	58.39	3321804
naphthalene #2	61.98	4802039
2-methylnaphthalene	61.56	4700692

BMAEPH - Aliphatic Continuing Calibration Report

Data File Path I\1\DATA\DE161220AEPH\
Operator thomasa
Instrument Name GCDE

Name	Amount	Response		Continuing Avg. RF	Initial Avg. RF	%Diff	
c-9	56.96	4382787					
c-10	56.65	4358280					
c-12	58.04	4465358	**C9-C18**	87036	76939	**12.32**	**In Criteria**
c-14	56.52	4348393					
c-16	56.47	4344838					
c-18	54.73	4211116					
c-19	63.35	4294822	**C19-C36**	76787	67799	**12.43**	**In Criteria**
c-20	61.82	4191354					
c-22	60.85	4125560					
c-24	59.25	4017340		c28/c20 Percentage:		91.41	
c-26	57.63	3907136					
c-28	56.51	3831265					
c-30	54.55	3698434					
c-36	39.07	2649028					

1-chlorooctadecane	57.95	3296987
naphthalene #2	59.79	4632497
2-methylnaphthalene	59.49	4542695

9.6.4

9

BMAEPH - Aliphatic Continuing Calibration Report

Data File Path I\1\DATA\DE161220AEPH\
Operator thomasa
Instrument Name GCDE

Name	Amount	Response		Continuing Avg. RF	Initial Avg. RF	%Diff	
c-9	56.14	4319146					
c-10	55.83	4295316					
c-12	57.62	4432893	**C9-C18**	86261	76939	**11.42**	**In Criteria**
c-14	56.15	4319963					
c-16	56.33	4333622					
c-18	54.29	4177286					
c-19	63.37	4296205	**C19-C36**	76411	67799	**11.94**	**In Criteria**
c-20	61.83	4191915					
c-22	60.70	4115402					
c-24	58.78	3985460		c28/c20 Percentage:		90.30	
c-26	57.12	3872706					
c-28	55.83	3785204					
c-30	53.94	3657043					
c-36	39.24	2660325					

1-chlorooctadecane	57.96	3297159
naphthalene #2	59.28	4593092
2-methylnaphthalene	59.14	4515766

9.6.4

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SGS ACCUTEST MC48999

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Extraction Log - Aqueous

Extraction Method:	Analysis method and test code: BMAEPH
Sep Funnel SW3510C Waste Dilution SW3580A MSE EPA3511	EPA 608 EPA 504 SW846 8315/8330/8011 EPA 625

Spike ID	Lot #	Conc. (ug/ml)	Vol. (ul)
EPH	7818	200	250

Surrogate	Lot #	Conc. (ug/ml)	Vol. (ul)
EPH	7483	2000	20
EPH Fr.	7894	40	1ml

	Sample #	Sample Bottle#	Acid pH	Base pH	Sample Initial Volume (mL)	Final Extract Final Volume (mL)	Comments
	OP49287 - MB	N/A	2	N/A	1000	20	
	BS						
	BSD						
	MC49053-11 MS	6			980		
	MSD	4			1000		
1	MC48999-1	1	2	N/A	980	20	
2	-2	1			970		
3	-3	1			960		
4	-4	2			920		
5	-5	1			930		
6	-6	2			960		
7	-7	1			960		
8	-8	2			950		
9	-9	1			980		
10	MC49053-2	1			1000		
11	-6	1			1000		
12	-7	1			1000		
13	-8	1			1000		
14	-11	2			1000		
15	-15	2			1000		
16							
17							
18							
19							
20							

Comments:

Supervisor Approval:

Clean up Methods: Check
Copper: 3660B
Silica: 3630
Florisil: 3620
Acid: 3665

BATCH # OP49287	INITIALS	DATE	TIME
Extracted by:	IC	12/15/2016	17:30
Spike Witness:	AJ	12/19/16	17:30
Concentrated by:	AJ	12/19/16	18:00
Fractionated by:	AJ	Volume (ml): 12.5 ml	
Received by:	AW	12/20/16	8:00

Tray # W.12

Equipment/ Range	ID	Initial Temp (°C)	Corrected Temp(°C)	Press/Flow
Buchi (55-71 °C)	14	55/60	55/60	—
Waterbath Temp °C	—	—	—	—
NEVAP (32-38 °C)	017	38	38	—
Chiller	—	—	—	—
Balance	—	N/A	N/A	N/A

SOLVENT	LOT #	BRAND
HEXANE Only	161730	Fisher
ETHER	—	Fisher
ACETONITRILE	—	Fisher
ACETONE	—	Fisher
DCM	166575	Fisher

REAGENT	LOT #	BRAND
SPE MFG	3831306	Restek
SILICA GEL	—	—
SODIUM SULFATE	D-038	FISHER
CITRATE BUFFER	—	—
COPPER	—	—
FLORISIL	—	—
SULFURIC ACID	—	—
NaOH	—	—
DNPH	—	—
FILTER PAPER	9719594	FISHER
POREPAK RDX CARTRIDGES	—	—
pH PAPER	216314	HYDRION

Filtered by: Init./Date: IC / 12/15/2016

SGS ACCUTEST - MARLBOROUGH
Form: OP018-04
Rev Date: 9/29/16

ACCUTEST

Extraction Log - Aqueous

Extraction Method:		Analysis method and test code: BMAEPH BMAEPHR	
Sep Funnel SW3510C Waste Dilution SW3580A	MSE EPA3511	EPA 608 EPA 504	SW846 8315/8330/8011 EPA 625

Spike ID	Lot #	Conc. (ug/ml)	Vol. (ul)
EPH	7818	200	250

Surrogate	Lot #	Conc. (ug/ml)	Vol. (ul)
EPH	7483	2000	20
EPH Fn	7894	40	1ml

Supervisor Approval:

Clean up Methods: Check
Copper: 3660B
Silica: 3630
Florisil: 3620
Acid: 3665

Sample #	Sample Bottle#	Acid pH	Base pH	Sample Initial Volume (mL)	Final Extract Final Volume (mL)	Comments
OP49293 - MB	N/A	2	N/A	1000	2.0	
BS	↓	↓	↓	↓	↓	
BSD	↓	↓	↓	↓	↓	
MC49029-1 MS	4			940	↓	
MSD	5			900	↓	
MC49053 - 3	1			1000	2.0	
2 -4	2			1000	↓	
3 -5	1			980	↓	
4 -9	1			1000	↓	
5 -10	1			980	↓	
6 -12	2			1000	↓	
7 -13	2			1000	↓	
8 -14	2			980	↓	
9 -16	1			980	↓	
10 MC49029-1	2			970	↓	
11 MC48999-10	2			960	↓	double ext sy.
12 MC49050-1	2			940	↓	
13 -2	2			960	↓	
14 MC49081-1	2			990	↓	
15 -2	1			970	↓	
16 -3	2			990	↓	
17						
18						
19				AJ	12/20/16	
20						

Comments:

BATCH #	INITIALS	DATE	TIME
OP49293			
Extracted by:	IC	12/19/2016	11:30
Spike Witness:	AJ	12/19/16	11:30
Concentrated by:	AJ	12/20/16	17:45
Fractionated by:	AJ	Volume (ml):	12.5 ml
Received by:		12/20/16	17:25

Tray # GC-53

Equipment/ Range	ID	Initial Temp (°C)	Corrected Temp(°C)	Press/Flow
Buchi (55-71 °C)	1+4	55/60	55/60	—
Waterbath Temp °C	—	—	—	—
NEVAP (32-38 °C)	017	38	38	—
Chiller	—	—	—	—
Balance	—	N/A	N/A	N/A

SOLVENT	LOT #	BRAND
HEXANE Only	161730	Fisher
ETHER	—	Fisher
ACETONITRILE	—	Fisher
ACETONE	—	Fisher
DCM	166575	Fisher

REAGENT	LOT #	BRAND
SPE MFG	3831306	Restek
SILICA GEL	—	—
SODIUM SULFATE	D-038	Fisher
CITRATE BUFFER	—	—
COPPER	—	—
FLORISIL	—	—
SULFURIC ACID	—	—
NaOH	—	—
DNPH	—	—
FILTER PAPER	9719594	Fisher
POREPAK RDX CARTRIDGES	—	—
pH PAPER	916314	Hydrion

Filtered by: Init./Date: IC / 12/15/2016

SGS ACCUTEST - MARLBOROUGH
Form: OP018-04
Rev Date: 9/29/16

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SGS
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